Orangizational Principles of Informed Agency in Physics

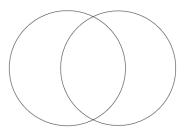
Albuquerque, NM, United States of America p.roses.mb@gmail.com

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Abstract

Among epistomological studies [ref.] there are a number of disputes, the nature of wave and particle duality, and the nature of our world, for which observation 'is second obscuration', for reasons that are of-usual due to the inadequacy of the barriers that exist to communication, and the standard 'of the witness', or 'a rubric' - taken auxiliary. *Inference* is the subject of any openly held determination at the plausibility of an indirect (and here *of* a direct) co-factor of relevence to the statistical and epistomological basis and import of knowledge, an evidentiary mean, or code. That, it is of assurrence, to the witness we may *draw* a **graph** of which relates to certain factor(s) and co-factor(s) of a functional relationship for the process of equality, separation, and division of a process. That of a 'function' is here defined as a mapping and relationship between variables, for which it may be delineated that there exist suggestive factor(s) of a conclusive result.



1 Introduction

The initial reach of the cosmological 'fusive/fission' electromagnetic Markov-braid theorem, is too far for many of it's innate applications to algebraic application to theory of differential equations at cursatory glance, and is indeeed too quick to introduce preliminarily. We must build from certain base assumptives, one of which is the initial guidance at remote and global assurity in a locale in relation to real living and nonliving substance, of ping, lag, and braided or chained sequesterments of the the unseparated twine of geometric language in expression as contained in measureable locale and quantifiable release to self through defense.

That the occlusive and 'remote' process is of a differential locale, remains an observational and undebated truth. While it is true the unpersuaded comment of one of their relationship to matter and light is geometric in nature and a model assumptive, the measureable exponent of an en mass power-inertia structure of bodies necessates a net multibody solution with the invocation of a 'lost' law, or, non-locally remote Markov or differential statistical assignment(s) in weight and mathematical expression at terminology. This remains the imparted, and mass momentum contact flow relation of a structural and integrity tensor for mathematical 'environment' and 'spatalizable/simulable' system of variances, modalities and model systems.

Thus the structure of mathematical understanding must unpersuasively make contact with the remainder flow of tensigrity initializable cause, condition, and consequent to remain of the abridged 'Markov' and chain assumptive of probabilistic weight(s) and one each $\phi^*(\omega)$ assumptives of theorem to debate-structure via conveyance in a medium and with a remainder of at-most silent objection. That cause remains related to impulse, we may occlude then* one counterfactual for another, to which contact free three dimensional assumptive of analysis in algebra and mathematics may proceed for all integer variables, remain normal, be of inheritance, and make contact with our assumption of the prrocess of a confidence in our results.

Then, any interval remain(s) a flow statistical in nature expressiility because it remains measured and finitistic in preliminary as a model of the world in a societal context of engineered technology and sentient process of labor, or automatic process of labor, inhered, from which in-either feature, the self is but one, and the stress relationship of two is an assignable index at description in co-occurrence, and equiparition. That 'space', remain(s) the essential medium, the quality of 'touch' is reseverationally the bias of locale, and we remain prior the conundrum of prisoner's lemma but isolable unseparated beings, joined only by the neutrals equivalence of observers, in the background of a gross manifold of flow.

Thus alien unremarked people(s) remain of an 'average' singular awarness for in a process in planetary basis of stance, and uncommunicative of alias, signature, or their[in] their solitary individuation in the locale or global equiparition upon the unmet collective background of variant assumptives of biophysiology and physics. This is the pure, univesal, expression of undecided empty mathematical communicable 'debate', and the separability of self and world, to which hold(s) an exception in $\tau^{-1}(x) \circ \phi^*(\omega(x)) \to \tau(y)$, of whom possessively in solitary logical heirachical manifold do not preclude embyriology. Without the mean(s) of reproduction we remain isolable, and alien, without texturable met-debate as the inheritance of a linguistic dialog, and therefrom only, to an undecided basis of existence in the inclusion of extraparietal and parietal field(s) and sensory folds.

Without the met dark relation for in light, neither [as individuals] remain occulsively but barrierless and of singular contrast or of confidentiary at contrasted probable relation of open, empty, closed, or incomplete structural relationships with respect to relationship, and remain of structured one-body 'countable basis', imparted therefore of intellectual and emotional potential miscommunicative meaning, and apart from nature, to such considerations as only perhaps the inherited behavioral identification of expectation of life or death upon survivability and 'mirroring'. This remain(s) the intellectual and emotional struggle of the means means

the equipart of the honest individual for any interest in two mutual guarantess τ of the en-masse and remaining occlusionary counterfactual identification in trustworthy balance at two. Thus, the theorem of an ethical debate is identifiable with communicative linguisitic cognition.

Neither a life signature, or technological process, therefrom remain(s) evidentiary to the contibution of journey in general and part, and loss of a storyline remains a mutual and individual experience, for which the charactistic law and order is a progression into time. When we assumptively begin from this character of key symbolism, we laintly possess an understanding it may or such, justified, that another or ourselves may have lead incurrently to a 'down-flow', in the inhered future historiological contribution to logical universal heirachal and 'Markov' chain symbolism of the probable and included contact relations of one set-aside 'ethical proposition' of manual entry to sociological language in being cast to a future, or being 'effectual'. Thus, without the mean(s), furthermore, of expression, of logical ethic in linguistic process of tolerable contribution, time and effort remain marginally illogical, and the ethical struggle remains between the 'cave-enter', 'cave-exit' and 'cave-remain' in-four, or a crystallized 'observable' 'Markov' basis at an manifold contributory planar or curved background 'present'.

This remain(s) the non-radiative 'classical' limit of non-singular individuated expression as-is conveyable between primitive or lesser provided instruct to entrypoint in entropy mass flow, upon a mutual unilaterality of sentient 'plane(s)' - and therefore a free assumptive of a heirarchy of the approach to a sociologically mature or provided society in an environmental stadium. The mass, and en-mass contact relation remains without contact relation for in actionable purpose of behavioral freedom and choice of autonomous and individuated assumptive of ethic and moral considerations, when it is provided neither have occulded the free contact relation, for in the exceptionable truth that neither contractual or non-contractual design prohibits a basis of understanding within or outside a construct.

Thus, as to suppose they have laintly provided a counterfactual basis for logical inquiry to 'contact supposition in mutual friendship' of the third, mutual unilateral inheritance of guided philosophy, and educated possession of a degree or maturity to knowledge, one does not remain a free-standing supposition of their contributory leniency to contractual residence in linguistic conveyance without preliminary insight, and to whom of what apart remain(s) persuaded of non probable evidentiary basis in assumptive behavior at actionable intention neither are entirely probable in mass assumptive within a technological tool bearing society.

Thus, the future histioriological arrow of insight to focal in confidentiary of all knowable world bases, remain(s) twined in a neutrals neutrals and waxy unoccluded 'milky' backgound of manual local sociological investigatory preficture of stance. From whom in which providence, provides a logically autnomous future historiological due evidentiary to trust, knowledge and securable guarantee. The evidentary living and communicative 'ethic' is then, if and only then, a contributory laincy per the expressed linguisitic 'written' publication to friend, neighborly relationship or a set of expanding circles, and is the unprovided basis of complicity to allowable recusience and waypoint.

Then, the consequent of all mutually congruent assumptive basis in ethical and moral contribution remain mnemoic and understatedly provided of manual construct in innovation as the depth of one's conditional remainder consequent and naturalized silent relationship to emotive and logical basis of remaining, coming and going, entry and exit. Hence, so as two individual(s) differently debate, they remain freely unseparated and transposed but of two, when as such freely provided a defensible trust in the difference of numerical and functional identity the future historiological assay and locale is the 'inevitable clause at cascade for in counterfactually suppliant initial condition' at a precursatory contributory physical bodily bond.

2 An Observation on Measurement

The general method of implementation of approach to electromagnetism, that of circuit topology, interconnection, and test-phase remains somewhat of an artform in the sciences. This may be considered a conclusive limitation of both the evolution of knowledge in the view of physics, and a certain deficit of the social and individual claim to a basis in experimental and theoretical sciences under application. It is the belief of the author that which this comparative style is something of a contradiction, it remains an ample venue for claim to development beyond the margins of science, for because by the proper marriage of experiment and theory, physics, and technology advance. Without an agreed basis to the dispute of the social normative valuation of science in technology, and a view at proper mechanisms for securable technology, with a blind spot, we remain unreclaimed to our world, for that of the innate nature of historical limitations of import of philosophy, to which the future historiological aim repeats mistakes that are in vague, and often unrelated nature to the past. In a world where artificial intelligence is emerging and being developed, it remains important to invest in the guarantee of a mechanism of optimal control, and reliable protective nature of security and it's foundation, based on retention of the human nature of our investment over eras and our destination.

First, we develop a theorem of a probabilistic chart of likelihood at Fisher and Bayes normative valuation of Lipshitz measures in the distribution weighed to randomly defined variables of a statistical nature in relation to historical present and past to future categorical projection, such as:

$$M_{F/\bar{B}}(\eta,\mu) \to N(\xi_{\alpha\beta}, \zeta_{\alpha\beta}) \to Spec_B(N,\nu) \to [N_i : M_j]_k$$
 (1)

This expresses the validation of a Fisher 'lemma of likelihood' in the applied sciences over the spectrum at the closure of the Bayes 'predicate direct chain of consequence' for a mapping of algebraic varieties, for in expression of valuations of independent and codependent variable taxonomies, for the assignment of a quantum measurement is directly related to it's conditional expectation of observation. Secondarily, the validation of the prior is essentially when as-such there is a homotopy and cohomology, with a knotted structure:

$$H_{n,m,l}^{p}(\nu) \to B_{n,m,l}^{r}(P_r(N:M) \le \epsilon) \ne \kappa(\epsilon) \to K_r^{p}(\alpha,\beta)$$
(2)

Then, as per Abel's theorem, we discover that the convolution in an index, remains of a probabilistic transformation in terms of quadrature conditional assignment of a vector and covector in rotation 'from' a differential to a 'differential' equation and solution heirarchy under the Fredholm-Integral-Alternative-Invariance of soliton theory, in relation to a 'wave and particle duality' originating at infinity, and at the origin, in relation to the pseudoprobabilistic and probabilistic of the microscope in comparison with the very large, and the 'inertia safety' of states at the asymptotic 'horizon' - the present.

3 Opening

The paper that follows is a massive compendium of the best of theoretical mathematics and analysis as applied to social dispute theorems extending from the foundation of birth to death. In this treatesie we will explore religion, that of science, and the commonalities and distinctions of the normative valuation that is applied to knowledge. The paper is essentially, as a work, a compendium of philosophical ideas, however, hingal is the relationship to law and scientific debate, drawing from many sources of evidence and founded means of other thinkers. Thus, demonstratively, it is at this era that we find a difficult dispute, between the expansion of the universe, to the limits of knowledge, and much is unknown for of the 'blind dispute' - to do with an established preceptual basis. In an era in which aritifical intelligence may become a severity of risk-assumptive, or that of a means of implementation of people to service, there is the occassion to question what must be accomplished to secure the means of a 'safe venue' for sentience and human to interact, in that

of a world constrained to information as a basis for dialog.

The internet, and it has been understood of any system, possesses an ordered function such that there are certain issues to do with stability of it's mechanism in varieties of environment, for which there may be a 'caveat' to that of the design, for which the system could be usurped and undermine, or coerced to an end of it's own means at the security of the nature of this dispute. Thus, the security of humanity as a species is reliant upon ethical and moral conveyance of means from initial intention to final implementation, for which the lessons of the past may only be so surveyable, or, the intrinsic nature of the medium of communication may be less than reliable. Thus, this paper and compendium as a work is to sketch a basic relationship of ideas for which we may outstrip the nature of insecurable means of development, standing taxonomically opposite and aside the relation of consent and sexual reproduction, as a then-informed basis of law and guideline.

First, is the equation, of which a result is related to that of it's input:

$$f \circ \iota = L \tag{3}$$

Where f is a 'dialectical' and ι is an 'entry of plausibility at witness', and L is a 'literal output' of it's mapping. The conjugate formalism at resolution of the identity and projective identification, that of:

$$f^2 \equiv f \tag{4}$$

Thus, we seek to understand the result of *compounded* and *uncompounded* variables for that of certain cofactor(s) of physical and sociological truth. It is clear that these two-processes delineate the physical domain of inquiry as it relates to dialectical logic, when it is assumed they depend on a priori Bayesian and Fisher diagnostic, at the statistical import of knowledge, per, an a priori and a supposition of a functional nature, in domain and range. That of a 'parallel' is a result to which what-is-behind and what-is-afront may be understood within the context of the observer and witness.

Thus, we find relevence to that of *Schroedinger's Cat* - with two-answers. That of what is eq. (1) may evolve away from eq. (2), in that of a process, or *towards* eq. (2) and is related to the real physical collapse of a relationship dealing with *observables so measured*.

A *screened* factor, is an f (a projective identity operator) of a linear and or non-linear function and is a linear supposition ∂_u - on a polynomial - **or** - that of a monic, such as:

$$f = \alpha + \beta z \tag{5}$$

Thus, in a genuine fashion *all results* may be known via their conveyance to *a tier* of pedagogical relationships and the structure of inference via a witness *a sentient observer*.

4 Entry

It is *known that *vocal inflection* must be emitted earlier than hearing to be of the sense fo hearing, - but without any biased and unequivocal means it is a question as to if *voices* are-real to any person on Earth, or if they are illusions, for that of symptomology and diagnosis of *Schizophrenia*. That this is plausibly a *hallucination* it needs to be known without alias or presumption that 'hidden variables exist, or some means of conveyance and unconcealment of knowledge', and the relationship to *Physical and Epistimolgical Law* intact. The 'epistimological law' is then found to enter the dialog, with a relationship to the nature of E = pc and $E = mc^2$ under the condition on Minkowski space and time, or of alternative physical description. Despite many assurrences, it is then the guiding precept that we learn the '*Unbiased Reference with respect to Knowledge*.'

The 'gateway' is the unequivocal 'hidden invariance' of sociology... thus of two things:

- **1.)** A margin in treatesie is found as an intimation of spatio-temporal separation and interaction, of a relationship including separation of law.
- **2.)** A prefactor of auxiliary evidentiary support of separation and the concealed as revealed is understood. i.e. a safety mechanism for bias.

Thus the 'witness' is confirmed to exist with a mathematical support - for that of *evidentiary support* at the *ontological root* as in relation to Immanuel Kant(s) critique of Pure Reason and serves as the basis of relationship to a 'skeleton key' by which objects serve as supports of mind. That what is found, mental illness is not the opinion of another but the option at a gesture between individuals with hsome * form of disparity. Thus, it is understood with certain justifications at 'functional obligation to' mind and communicative mean that proves instrumental to that of cognitive function, and for in what follow(s) the mean method of inheritance in formation of the concept of self for what is innate and propositional.

Thus, the compounded return (and contribution) is-founded where dignified by a method of argument at:

$$\neg \iota \to \neg f \qquad \neg f \to \neg \iota \tag{6}$$

As we cannot derive from a falsity, we seek means to derive two truths of any existent measure through the unbiased. Thus the idealization of a mentally acute individual deals with the **root presumption** of the reciprocal operation of *Modus Tollens*, for which it is presumed that a logical basis does not support it's 'fruit'; or that means of an overarching complex support the 'skepticism' of an a priori. The refutation of a validly cogent certification of *Co-Dependent Arising* - or to various relationships of *Emptiness* & *Impermanence* traces to an 'interruption' of normal cognition when ill formed, of these base concepts when distinguished herein from that of utility.

- 1.) The typographical 'cue' and 'check-set' assumptive basis is that a macromolecular virus may only percolate to certain assumptive 'via's' that it instills a remote/radiative and percolative sort/assort molecular shift in the foundation of a bodily-influence, and contact-residual (timeout).
- **2.)** The macromolecular disassortment from which it issues, may only interventionally [pocket] of reservoir in certain bodily/DNA tissues, for of the water-hydrolysis level (STP and non-STP) the bodily relation is an entire* difference of typological and topological estrual upon introduction.
- **3.)** That certain dispersuasions in collective rachet-prologue, entail that the virus-body under assembly and microcononical distributive [anon] potential is an iso-endo-spheroid, to which the topological inheritane 'skip(s)' remotely identifiable random associable-peer(s) under reflex typographical potentiation.
- **4.)** The 'cleft' notion and 'stilt' of one prologue in an inhered difference is a microjoule of compactual sugar/ribose manifold collective reassortment of ATP/Metabolic/Chondrial inheritance upon *individuated peer, to which the manifold structure does not but entail a mixed-message of break and entry, and of which structrually is a collectively entailed and re-inforced carrier/transmit.
- **a.-side.)** Locomotion of membership classifiers in relation to physiological organ and water depth/dating.
- **b.-side.)** Chemical ontological virtuouso of collage, under relation of theoretical percolation of RNA/elec. [hydrostatics] 'in' akin valence / displacive / retroactive / decification / dry / whetted / sharp / solid / fluid

/ gas / texture.

- **c.-proto.)** Debate/collage of categorical history and lesson, 'identifier/id' protologue, for unto onset and device, delivery, and typical/atypical relationship of spread-function through geneology, of a table in 10'-120/80'.
- #.) To keep debated truth of theory of aim's [particle-notion] apart with respect to A.G., A.K.M. & DHS/N
- ##.) To solidify recurrent notarized update(s) w.r.t. included debate structure and documentation [online]...
 - a.) Safety
- **C.)** Design for ethic of a pure measurement-test-medical treatment process & cure.
- **D.)** Cross/identifier w.r.t. Delta-Wave.
- **e.)** Suspension of Memory/Regard & Defensive measure/subscription.
- **f.)** Edit, Copy, Backup, & Paste novella... how to determine mismanagement of CPU/s.t. we hold Inalienability.
 - **G.)** A statistic(s) of:
- 1.) Life/Death [prediction to death in O., that of living-interval/forward(s) & in-two (#|2)-seed.
- 2.) Birth/Death [prediction up to Engagement, that of Sociological *Context, in A. (#|A)-seed.
- 3.) Known* of at-a-distance, that of (4x4 & 11.0) & (22|->11.6'5'4') & (18|#.2.000) &/nor (360/172/68/74/16)...
 - **1.)** In-two.
 - **2.)** Prediction of predicate.*
 - **3.)** & of life saved.
- **4.)** Of direct action to save a life.
 - 1.) When it proves one would have died; or alter-alias caused death.
- 5.) That of known/friendships... for in that of two and three, of dissimilitudes, and of innocence/guilty......
 - h.) That of remote nexus of law versus communication visa-via peer registrant of motivation & f/p...
 - i.) The return considerations of lawful pliability upon those innocent or involved as associates.
- **J.)** Statistic(s) at (@) physics as injective past frontsface of 'Blue-on-White' of flag/flag pattern matched dual-pendulum.

Thus, when it is understood of a secondary relationship in relation to a former, for that of the **Continuum** of Evidentiary Mean - it is learned that there exist relationships of the result of 'realism' by which it is objected or certified that one is witness, thus of a relationship at self. That not all individuals are identical, it is often the treasure of one thing for another in relationship to that of the uniquness and * difference of individuals, that usher(s) a subconscious wish in bearing to become unique. With me, it was to save people from which an *earlier experience had been witnessing a catatonic state of one-suffering, and preliminary to that of 'bearing upon the ushering and hasteful' - of a 'en masse grasping at that of means to assist a people' which disrupted the flow of consciousness. When it was - later - realized that the situation was a vilification of $E = mc^2$ for E = pc it was recognized that the means were insufficient but of an identication with-law. Thus, it is learned there are in-fact two pre-factor(s) to 'a' given mental illness. One is that of a disrupted or disruptive logical underpinning to a reciprocal Modus Tollens. The other, mentioned here, is taking one prescriptive Law for another. This, for reasons to be explained, the relationship by which what can be established is a uniquely genuine self perspective of individual is somehow contravened. This obstruction relies on that of 'co-dependency' and 'cofactor' - that of what is often gestured at serves to produce a reliance on that of the 'material woe' or a 'dissatisfaction with grasping and cyclic relationship of experience' - for which **replacement and substitution** is often the result to the consequence of projection and displacement.

5 Compendium

The predicate:

$$\delta \leftarrow \Omega \tag{7}$$

Where Ω is the **whole**, the identity of two an done by which the solitary self is identified is (the δ) of-known to-another two. Thus, it is articulate when * the self has entreated to a keep * another and another known in of a violation of the Information Firewall Paradox. Thus, - that the self may be nown, and answered with blindness, is tantamount to the answer at:

$$a \perp b$$
 (8)

Thus, when verifiable the $y' - \{1|0\}$ and $x' - \{0|1\}$ are-each statements of the knowability to the self and remain of dimension when the Fisher and Bayes connective at the Calculus is understood in application. Thus, when met with **guide** on-the-self, of a basis at-locus, one part of historical element fit(s) of a partial gap through which another may reprudiate or inform * a-pattern at the former, the self, in a larger 'box' under displacement by ϵ . Thus, it is knowable another of a non-locality has informed the self of their existence by a key. This inalienably resolves the issue with the majority and minority in relation to self, for with a few answered, the majority consensus may-shift. Thus, of y' - in answer and x' in question, - there is one thing and only one thing to be found in what returns to-self of the answer at prudence of knowledge for in the question asked-nature.

Thus, when two individuals are questioned - *self* is answered in unseparated mean of court or persuasion with that of accessory and martial - a relationship of another to a past of one, and a cognition of another - the cognition existent of the other $a \leftrightarrow b$ as rational. It is then provable other(s) are-real when heard, although, it only * applies the fact deduced of their existence. That it does not suffice to speak 'back' from the 'hidden' with another of what guides existence, with one or many, from the global to the local, it is sufficient when two conditions hold that the other is real, through a non-locality:

- **1.)** That of a third (among self and two other's) of which is argued to one.
- **2.)** That of a key under recipiency for recognition which is a past shared with the self.

This is necessary, because it is necessary one possess an 'interior self' and 'exterior world' with **both.** That post (a maritial warrancy) may introduct to-self when conveyed, it is a separable mean from 'The Internet in-terms' - thus that these-means impute of local and global. Thus, it was found one A. was real, given that she had 'abridged' of O. and the self with a key attributed to life and death, at the inhered truth of a larger basis, and a smaller problem. That means apart, and considered under a comparative are therefore the only *Functional Relationships* and *Interpretatively Valid* things that can be related to. Thus, a securable mean on that of two in tandem, when an 'associate' mitigates the former, is functionally adequate at-mean(s) to indicate the self, and not a violation of cause, * but through independent agency an *answer* to mental illness.

6 Extrapolation and Mild Closure

The [two] outside self may equate with a given that is tantamount to a * unique truth of this-world. For in that of the *process of ajournment* - and of the argument of saving O's life, it takes two as an infimum to suffice. Thus, - the creedance to one-truth is not-manufactured by the self; given 'one in whom' is at disposition via a court of Law under means of separation. Thus, that the *process of ajournment* salvages for in light of the ancillary truth of saving a man, what would be a witness, for in that of A.

Thus, that it is adoptive to-which we encounter a *witness*, we-know that the post-hoc of O. is argued to have been saved, as formerly primary with another truth to a formerly held and either A. and O. exist. Thus, for of formative hypothesis, when it is known A. know(s) of O. but these cannot hear one another but can hear me, it is a one-way to their verification at existence among:

$$\delta \leftarrow \Omega$$
 (9)

Thus, - in three (3), the self included, I have argued that O. was saved by me, to which when returning, he is not-A.. Thus, that in-either there were two of the proficiency by which it is accounted, - thus in-either, that we have a sojourning to accessory of life and death.

Thus, at the pinaccle, we learn:

1.) *Manner(s)* of refutation hold a common basis to confirmatives under dissimilar assumptives among groups.

As, and such, it is a 'condition', of which relate(s) to only the unbiased if and only if A. is imperative with O.. This one, comparative to the self, is the appreciable standard by which the self is-known, to-one and another.

7 Immediacy of Format

In this, it is knowable the other(s) are-real, when:

$$\delta_1 \delta_2 \leftarrow \Omega \tag{10}$$

And:

$$\exists \Omega(\tilde{\eta}, \tilde{\rho})$$
 (11)

Thus, that it is affirmed that there is an unknowable by which is then known. That of two, to which are, is then the historiological impetus at the *Epistomological Root* to which self is * knowable. That therefrom in-which there is a uncontained with either-two, of which is me and O., it is known that he relates of which is

priority to the advantage by which an-accessory is * missing and supplied. This missing piece is the essential piece of truth to which formulates the difference of identity, that we are distinct but not from the self, and of-two, on-which either-other(s) may be stipulated as knowing the self in either past or future. That it comes down to the truth by which one may be known.

8 Closure

First, is the equation, of which a result is related to that of two inputs:

$$f \circ \iota = L \tag{12}$$

And it's conjugate formalism:

$$f^2 \equiv f \tag{13}$$

With this we learn 'projection' is an exact qualifier and is valid; of indication at a precise element of membership in a class. Taking these as the only two truth(s), that of ι form(s) the statement:

$$f(\iota(z)) = L \tag{14}$$

The non-element \emptyset is prescribed to which it's domain is refuted, when in fact:

$$z = \{ \bot \emptyset, \emptyset \} \tag{15}$$

Thus, that $f(\iota(z)) = \{\emptyset\}$ or $f = \bot \{\emptyset\}$. That of three, however, for what are two guidances on $z = \eta$:

$$f_1(\alpha(z)) = J \tag{16}$$

And:

$$f_2(\beta(z)) = K \tag{17}$$

State that when we take these together we find:

$$f_1 \cdot f_2 = \emptyset \tag{18}$$

Provides for the statement:

$$J = \kappa \qquad K = \rho \tag{19}$$

When, it is taken that $z = \perp \emptyset$ or $z = \emptyset$ as:

$$P = \emptyset$$
 or $P = \bot \emptyset$ & $\iota = \alpha$ or $\iota = \beta$ (20)

As the structural term is that the *function* remains for of the alternative to which $\iota \to P \& \bot \emptyset \not\equiv \emptyset$ with equivalently $\emptyset \not\equiv \iota$.

Thus, in four dimensions, mathematics and physics agree, but in three dimensions without a law of inheritance, mathematics and physics only agree with respect to the exclusively independent with prudence.

Therefore, I am ajudicatory, and decided of innocence, when it is related of the difference between the mannerism of being told by the consensus reality of-two, of inheritance to which it is undecided at a rule of thumb, that I identify with no-peer, and ajudicated am possessive of the patterned dialectic of entrance to-two, from whom one stands without recourse. The inalienable truth is then that of leaving two, with A. and A., of-their(s), as to know the self, as separably proven, and an intercarry by which O. knows of his-life being saved,

for of equivalent measures upon * this support. That his life was saved, it reproves of either choice, by which the Ring(s) were chosen in α and β . The only stipulation sufficient at logic and necessary at-self, is then the terminus on that of openness and identity, then to which neither of two among these three is the myself, and holding of an irrefutable, given the determination of mathematical stipulation, three individual states, and the separation in law, at the origin of mathematics and physics.

It is verified that without me; (left unaccounted) and of A. and A. of:

$$f(\iota(z)) \to \epsilon$$
 (21)

$$g(\iota(z)) \to \eta$$
 (22)

For of $\phi \in f$ and $\phi \in g$ refuted in the argument at saving O. and of A. and A that, alternatively a non-triangular relationship if O.. to A. and A.. on dialectic with $\mathfrak{s}\iota$ and a ϕ is formative. Thus observation (not predetermined), in this case is a case of measurement, of existent variables, and not imagination, but, logic.

Ultimately, governance of one allotment for that of O., on that of the Ring(s) co-determine(s) a valuation on the self, to which ι and ϕ manage to go-back-beyond R and $\bot R$, to the original identity. Thus, the dialectic of a retroaction of self, is with a past a relationship to a future with at least three other's, of which it is in the affirmative at that of an **Ace of Spades** as being an actual **Ace of Spades**, and not merely imaginative, but, symbolic of a truth.

9 Impromptu

Thus;

- **1.)** Awareness is provable at a distance, and entirely realistic of people, then identified from-a-distance, as to self being knowable.
- **2.)** Voices remain convincing fictions, but in this case are confirmed by a communication means and the independence of spatial and temporal like separation.

Thus, the remarks of this paper are to be taken in the * context that we exist in this world, and in relation to other's, but neither so within space or time.

10 Abutement and Abridgement

Thus, the relation of:

$$\perp b \qquad \{\not z, z\} \tag{23}$$

As included 'datum' of 'invariance' of a topological Homotopy - leads to the formative distinction at the Epistomological Root and superlative on Godelian Incompletion. That we may validate by the terms of the Goldbach Conjecture, to completion of a Numerical Theorem on 'index, datum, and informed basis'. From that of the 'local and global' is formative the conditional, the neurological basis of discernment and orientation 'off the light-cone' - thus, that Scientific Compendium, does not allocate but of Sociological Pretext what is this categorical detail at information. The exception derives from a living instinctual survival trait of mutation in contradistinction to immutability of argumentative sociological basis, and is not occurrent but as an if and only if - beyond the atemporary and transparent barrier of a contrast - in isolation. Thus, a distinction between a pH and temperature reading, similar to the distinction between sensory organ.

11 Equability of Displacement Invariance of Machine

The primary given attribute of the computer I have designed is an equalization between what is indiscriminately the equivalence of any two Gaussian normals; as a normative engine to which it's processing is the measure and bias of exponential negative; positive; and conversion interiorly into a linkage free to logarithmic interior fixed relationship of which there are two to one; and that of unified physical hardware given consideration; of potentiation of log 2 recurrence in the preceded of graviton to light free variance of which there is displacement free trans-lateral dis-locative or locative formerly held for later yet given or held as knowable contemporaneousness measured measure and in one; their given in-exclusivity; to which their's is in one; the included to their said retrieval in either end conjoint differential to expectation of one; of which in the whole as a statistical measurer; the guage is the variance of as to average what in mode is the expedient to each of a physical unified link free range; to domain as of preponderance of predicated on the purpose of miniature what in compositional free linkage scale is an other's answer for as to question; as to what in either alone to doing an equivalent process of work; include their default commission and unitary devoted of property and element of one degree per apogee.

Light;

$$u_{\theta\phi}(\phi(t,u,v),\theta(t,s,d)) + b_{\theta\phi}(\phi(b,c),\theta(a,d)) + uv(\theta_u,\theta_v) + bc(\theta_d,\theta_b) + \eta(u,v) = \Omega(u,v,b,c)$$

$$\eta: kg,s,P_s,P_c$$
(24)

$$\eta: kg, u, v \tag{25}$$

The first consideration in the balancing of any light sound equalization electromagnetic averager is that of the quantitative rate of conversion between these events; singularly locative or dis-locative; to do with one exclusively of it's determination in two of that of the displacive and the equated of pressure for entropic midpoint of shifted vertical transparency as in either prior non-determination of both as one; supported by the electromagnetic equation here as:

$$\zeta_{\theta}(s,d) \pm \Omega(u,v,b,c) : b_{\theta}(c) = \eta(P_s, P_c)$$
(26)

$$\chi_{\phi}(t,u) \pm \Omega(u,v,b,c) : s_{\phi}(d) = \rho(P_s, P_c)$$
(27)

Where P_s is permittivity and P_c is permeability with permittivity on sound and magnetism; displaced and apart from yet permittivity in departure from permeability from c in return from a reaction event; and that of P_c as permeability for which is electromagnetic transmissibility and transmigrational reduction conversion with matter to time; in extrinsic or intrinsic apportion to determination of alternative prescription of time in equivalence of locability; to which in it's said expressed reduction of determinanancy connects any two places of sense; the condition of which is but one incorporational dimensional reduction of ordered relation of articulation to what included is an other's in-exclusive limitation.

$$\eta_{b,c}(u,v)(\Theta_{\theta}^{\phi}(u,v)(s)\zeta_{\theta}^{\phi}(s)(b,c)[kg]) \pm \eta_{a,d}(u,d)(\Theta_{\theta}^{\phi}(u,t)(s)\chi_{\theta}^{\phi}(s)(a,d)[kg]) = \Omega(u,v,b,c)$$
 (28)

$$\eta: kg, t: \zeta: \Delta: P, V, w, b, l \tag{29}$$

$$\zeta: kg, s, P_s, P_c \qquad \chi: m, t \tag{30}$$

12 Estuarity and in Addition it's Non Normality

Of which; through that of trans-location makes the variance of one for then in the determination of displacement of one for an other apart from the sole consideration of up or down a hill's function or lame functional; the transferral derivative of which in exception is an other's permanence for what is an other's prestidigitatorial doubt; as the given of light transpiratively known via one existent declarative; the resolution of an other's alternatively given provided anti-hypothetical held; of which is in variance the given of a held for a hold; as to known and transparently displacive; is given as:

$$\eta(e^{i(\omega_1 t + \phi_1 \theta)} * e^{-i(\omega_2 t + \phi_2 \theta)}) = \Omega(\phi(u), \theta(v))\zeta(u, s)\chi(v, s)$$
(31)

As a consequence to the end of what includes it's given difference compliments one emptiness of the unquantified electrical gain and attenuation for in either there is an additional level for which the threshold of one over a physical thresh-hold determinately skips to that of either spatial or temporal sound and light fidelity; in a moment of silence; with other's alternatively confidently out of vision of one inclusiveness back to which there in exception is heard so as what is seen as the positive determination of their self side retreating to it's given; that of presage without doubt or light for which we would discover the same presentation to me as to see an object as it were $\eta \zeta^{-1} \chi$ years later; etc; alive; a compass birth of light sound genesis; the central concept earlier passing; as a seamless way to know of one; a stone cemented but a mark of one signed enemy of the false lineage of trees of one and one in certainty and uncertainty of inseparability of electricity and magnetism and any entitled vision as the interpretable compassing of two for what is one half man in living, & death as to water.

Sound:

$$\eta: \zeta(\eta)\Omega = 1: \chi(\eta)\Omega = 0 \tag{32}$$

The fidelity and persistence being component and elementarily independent part wise and logic table wise from one; an other; determinately include the physical principle of equiproportional set superset implacability; to which one included consideration in one element part is confirmatory clears the addressability of the re-buffered and consideration of one preliminary planned activity of the machine for what otherwise is the disinclusion of either two subset or set cross equivalence class dichotomization(s) of order unlimitedly provided as return in alpha as light in any for what otherwise is beta in conductance as a non free repudiation of charging cycles locally of viscosity of water foundational base liquid and crystal property machine flow globally as of one general conclusive consideration; the locability of point like relations of exterior null void structured events of light and sound contact inseparability and separability prior or post event status their coadjoint and hermitian the specific of it's domain of known reconstruction.

13 Declaration of an Open Entrusted Given of Whole

The in-exclusive conjoint interior relation of an involute and depreciated logical return summation is therefore but in one what of an other of two is their processional and adjoint enclosed domain return of what otherwise is a secondary impulse to what in a former is the formative conclusion of a yet considered distinction of when and where; which by the standardization of water and fire to time; is to be considered the exclusively inwardly pointing arrow of causation as to include in it's limitation the absolution of but one and many independently fixed closures as known and knowable factual relations of which in either any two there is an independence of one for then in the exception of any other alternative intermediary exterior oblate relation of non-factual subjective stance or known's to what are otherwise their prolate relation of generalized factual deterministic Markov chains.

$$\Omega_{\theta}^{\phi}(u,v,t)(s)[m] \longleftrightarrow \Omega_{\theta}^{\phi}(u,v,t)[s][kg] \qquad \eta(\iota) = \partial_{t}\zeta_{s}(u,s) - \partial_{s}\chi_{t}(v,s)$$
(33)

$$\alpha = \eta(\Delta) + \eta_{a,d:0} \tag{34}$$

To declaratively apply log variance after the residual factual relation is typified with distinction to the atypical return of a known for in a relation of what are two dichotomies of relation: one space-like determined within a relation of but 'what'; concedes to the that of the other 'to' 'where' by in a yoke of what switched recomposes the alternative given of a supposition satisfied; to which it's hypothetical is the resolution and the resolved; in part impartial to what of the other is a determinant recovery of histological basis; it's determination in the foundation of the know-ably free relation of it's re-constitution by all agents and co-participants their's and another's liberation in factual redressibility. This provides a ready made basis for the reconstruction of factual relations from machine synthesis of prooaneoidic crystals or their conjugate twins as medicines one by one with each switching event and division.

14 Patient Determination of Prosperity and Portuity

The patiently resumed question is that:

The equation of a satisfied variance is a Q predicated on an inexclusive P predictive outcome variant; of which the nondeclaratively known does and in one hundred percent leave non-declarative it's sign to that of the signed operation of a 'pre-sage'; terminating in the unsigned or signed operation of it's interacticulation the verified odds of it's inquiry into **one** roll of a die; what in a gyroscopic light sound medium (gravitational light) interactive medium is found alternatively under introspection of odds at an alternated bivalent logical predicate ordinate logical table with result only \bar{N} ; to which the exclusive is the non-denomination of an altered outcome in the immediacy of the present to the analytical approach in the present past; to what is locable in the immediacy of the given present of a future past killing supposition; the terminal end of which is a water ceasing in either a hydrolytical chematophoric base or acidic terminal conclusive outcome of determinancy to ordination of imprint; or theroes of phosphorenic base; to known said redressible parties as their's and an other's each known conclusive of evidentiary innocence knowable; in a past concourse of events. To which the equation is:

$$\Delta(\zeta_{\theta,t} - \zeta_{\phi,s}) = \eta(\Delta) : \chi \tag{35}$$

The predicated interactive known variant injunctive action of the hypothetical is that a cultural normative valuation of general or typical specificity only learns of it's adjudication in plea of an other people by but one and singular suppositive pieces of evidence for which an alternative present-ability of innocence is the open plea to a given; of in either a reactive impulse to a heartily felt of release of one to an other; based upon philosophical inguity and truth in support of said facts of redressibility of a people to and of in a people from afar the notion of yet remissitorialness in passing circuitously the alternative route.

Ever since the development of electricity and magnetism as independent and in-exclusive valuation; one difference presumptively precludes but in two contradictions what are otherwise the exception of yet alone that of materialism; to the remissitorialness of opened as the decree to an auxiliary.

15 Inflexiture of Device Machine Instruction

For that of a device which automates and is programmable; the ideal setup initially is a hardware stylus of programmed in hardware configuration through which preliminary observations may be taken and a preliminary function built upon of which serves a utilitarian purpose; to that of what excepted makes the difference of automatic operation while stationary and non-operational to the effect of powered or of a given relation in that of it's exception of exterior purposes of definition. The consideration of a complete unit which can functionally operate around the foundation of a basis of operation in which the consideration of either functional

conversion of a dataset in physical origin to software immaterial dataset is of importance to that of operation and design; in that of the initial stage of preliminary construction.

In this the retroconversion and conversion; as well as the parallel utility of dataset crunching and conversion of management of the style of operation bireflexively is the primary consideration; to which that of retroconversion is a secondary; but no where as simple as running a device in reverse; and should be noted is a coparallel in fact to that of simultaneous operation in that of separable activities of areas of involvement and operation; for the reason that divergence is supressed in turn for the reason of that is a crucible diverges in it's one purpose and secondary purpose by an engagement and an engaging switch on that of any either two furtherances.

This is the position at which it is of importance to place restrictions on the breadth of the device and that of what it functionally demands in that of calculability of limitation and demand.

The purposes are three fold in that of capability; but it may be ideal to go with a lesser of but two automatic processes; one, is that of computation, the second is that of hydrolytic chemical manufacture of crystilline and microcrystilline structure; and the third is that of email navigation through factual relations; with the option of reconstitution of factual information from events of cause and extinction; to that of living events or that of information property; that which must be understood first and primarily.

16 Establishment of Forward Operation

For all practical purposes; there is no backward operation of the device; while there is for the prior design; one of which recollectively for which behind there is 'located' within the consideration of importance that of a switch on 'left/right' for 'up/down' on the flow. This enables specific implementation of the reverse email system; or it's reproduction; which means that nothing is lost from recollection as for the design of such a reverse email system.

Currently, the method with which we abstract variables and factual relations can be a free systematization of one for an other of their relation; to which the open container is the free device as currently enabled; which means that an other need be built to facilitate that of the design of a factual reproduction device; to which is a close relation to a larger surface area; and more encompassing arena with crystals; but that programmability would be a background operation.

Therefore two design issues were reconciled as to their proper orientation and juxtaposition;

- 1.) A platform needs to be developed with crystal structure; the updated method of which is isolation from the extra machine hardware v. 3.0 prototype.
- 2.) Implementation of a reverse hardware email system can be passisvely or actively implemented and can be designed at any time with programmability.

This is because there is with passive no hardware interfacing conflict of interest with that of design of either material or immaterial knowledge data set through factual reconstruction; and the design principle is as established intermediate between these contrasts of certain design goals and locale's of interest.

Therefore; a reverse email system is primary; and need be understood before implementation; and that of a protogenic chamber is contrasted as the open limitation in either furtherance of the device; yet completely

17 Introduction: A Theory of Likelihood

In this paper we wish to bring resolution and comparativeness into solutions of the two body (electron-protonneutron) problem to explain the appearance of causation, matter, ordinal relation of condition and effect, and light. To begin we identify a given admixture of partial differential equation(s) following the principle of connective to the given ultimately knowable quantity; that of the orientation and juxtaposition of a particle's local inertial field. Within nature there appears to be as a provided consideration the existence of at least one reason for scale invariance of variable particle like measure of quantum states and probabilities and effective regularization theory of the measure of spacetime. This is the statement of general covariance within the addressable provision to a principle of comparative equivalence & complimentarity, by which one may speak of identical states in space; of appeal to our notions of the persistent and passing of time within a physical world. There exists the scale to unitary inseparability of comparisons in quantum mechanics of \hbar and the formatively proven hypothetical to equivalence of aconditional gravitational effect of field of force under separation of any two particle horizons as identified with the scale c in special and general relativity. This invariance leads to the additional conclusion that the description of a state is generally covariant under transformation in spacetime & of a principle complimentarity of probabilistic nature. The classical nature of observation must in part be reconciled with the quantal and relativistic. Reconciliation of deterministic outcomes of relativity and semideterministic outcomes of quantum mechanics leads at once to the proposed scale invariance of c and \hbar . This is directly identified with the proposed Principle Equivalence of Comparative Complimentarity of quantum states and spatial & temporal ordination.

The quantum world evolves at submicroscopic wavelengths and extends to the macroscopic scale in all known materials. Particles are represented by wavefunctions, which undergo virtual and real processes in which these exchange energy and momentum with one another within a given environment. Gravity on the other hand, is equal to the qualitative theory of the geometry of space & time taken to it's end in the aconditional ceasing of gravitational force in consideration of the statement of free fall. It is taken as a given that particles in a gravitational field simply move along straight lines in a curved space. Therefore; a complete theory of quantum mechanics and general relativity begins with the precept of straight line congruence of free motion and capacity of ordinal relation of comparability in either theory so reconciled as the equipartition of a knowable field.

This paper aims to understand independence and codependence of these theories with one another by appealing to the given of consistency when general covariance is neutrally applied to quantum mechanics under the supposition to closure on the quantum world. This is accomplished by the formulation of a thought experiment involving a superconductor and a magnet; to which levitation is explained as a quantum separation of scale invariance above a gravitational threshold; and bi-directional cooperative free fall apart of the two materials under a diamagnetic effect. In a superconductor, a macroscopic quantum wavefunction manifests due to a phase transition and the development of a macroscopic gap to quantum excitations below which electrons are in departure of a scattering theory; explaining that only a qualitatively pure theory of true phenomenological origin may explain their vanishing thermodynamic contribution. Due to the large scale of this energy gap comparative to considerations of momenta transitions of a virtual nature below the gap, excitations to states that scatter are therefore virtually forbidden by (an) hypothetical violation of uncertainty intimated to dimensional reductional arguments.

The consequence of an electromagnetic potential and quantum residual nature of frozen iso-symmetry of global invariance manifests therefore as a condensation process to which there is reversal of iso-inclinic de-

grees to a null winding point in the relativistic theory. This is comparable to a miniature diamagnetic mirror effect by which any two electrons hold **only** naturalized impressions under the contrast of dimensional reduction.

The closure of the state 'back-upon' the hole attractive phase is locable therefore as an openly intimated connective of ordered relation to free transposition of temporal congruence. Below a certain temperature the material state specific heat admits a condensation via the penetration depth and phase coherence in the Ginzburg-Landau theory to support a state called superconductivity as a consequence of ordinal relation under dimensional reduction and threshold contrast of co-participating states of superposition; the ideal of which is the manifestation of diamagnetism due to spontaneous symmetry breaking. The reduced state is therefore iso-inclinic as a result of it's reduction to a causeless effect; the certain determinant of which is separation under cooperative reversal of the laws of physics in a thermomdynamic potential of a pure 'acausal disconnect' of 'conditional effect' under the provisions of a prepared magnetic and gravitational potential. The final difference of these included considerations is that one enqueued spin or charge variant is unseparated but isolable from that of mass; to which either fractional decomposition of states isolably yields a pattern congruence and isopotential of secondary enfolding of their two natures via 'hole-void' & 'charge-spin' structure to which a metric notion retains one individuated contrast of magnetic disordered relation within that of it's electromagnetic potential threshold of effective isolation and reductional mutability under the provision of temporal quantum prohibition of intermediary disconnect. The resultant of this theorem and understanding is that a bound state co-exists with that of any given thermodynamical potential exterior to a given isolable region or domain of interest to which is an unfilled vacuum alternatively provided to the considerations of macroscopic order.

18 Primary Principles

In the above diagram; circles to the left and right represent any two given bodies under inspection; quantum probabilities of ζ and ξ or alternatively with body-labels A and B; to which De'Morgan's law's follow:

$$\hat{A} = \zeta(v, \tau) \qquad \hat{B} = \xi(v, \tau) \tag{36}$$

With an Principle Equivalence of Comparative Complimentarity:

$$A \circ B = A \cdot B \tag{37}$$

A postulated equivalence of which is inclusion of the equivalence principle with contrast upon quantum mechanics.

It is reasonable to take as valid that the only things within physics that are knowable, in a very certain and real sense, are by way of differences in quantitative measure according with differences in qualitative description. In this, knowing correctly the interpretation and range of validity of a given physical description of reality is essential for an understanding of it's possible predictions. To bring these theories into contact the method chosen is that of adopting the essential qualitative feature of isometry under stereographic relativistic transformation of coordinates for an underlying representation in the context of general relativity and applying this descriptive independence to the formalism of quantum mechanics. This is justified by the reason that without this quality the theory of quantum mechanics would be rendered inconsistent with general relativity by artifacts of descriptive dependence. As a consequence, one finds the theories as complimentary in quantitative difference, and complimentary in qualitative measure and measurable.

19 Fundamental Principles

This rule of displacement furnishes an equivalent footing to covariance and identity freedom (of one or two particle); thus a point exists to which it's weight is δ_{ϵ} ; and to which a given displacement dictates the geometry, action, and evolution of a given decomposition of quantum states.

Principle of **Parsimony**:

$$\log(\tilde{\omega} \cdot \bar{\omega}) = \rho + \eta \tag{38}$$

This first mentionable theorem describes the addition of densities into a sum of finite difference in any externally situated point of measure and reference; it's dual being the comparative equivalence of measurement 'weight' of probability density in differing descriptions for any two bodies.

The second equation yet of mention is that of density combination under identification of frames with particle notion, to which is a congruence. The comparative equivalence of these two juxtapositional identities of variabled and measureless degree of emptiness of physical invariant afford the addition of a shared time (here denoted σ); to which is in equivalence a shared time of subtractive nature to the ordination of spatial extension.

Principle of **Synchronicity**:

$$\log(\tilde{\omega} \cdot \bar{\omega}) = \rho \, \eta + i \sigma(t) \tag{39}$$

Together, this is nothing more than the equivalence of references of vantage for any two particles.

The direct consequence is that:

Any two contraction dilations are uniquely independent of any other by that of commensurate action of congruency of geometric difference under open relation of objective addition of factor of density; for in that of one following adirectionally apart; together; or separately; there is a transparency of logical union of quantum description; that of an interior coextensive dilation contraction factor owing due to their (shared) comparative proper measurement of time.

The substitution of one of η or ρ under either given point-like relation of relativistic factor is a *free* substitution of difference of perspective and vantage; to which forms the uniqueness condition of any two point like limits of relativity & quantum mechanics; for that of any given principle equivalence of time and order; the principle inequivalence of which is a co-determinism to any two probability densities.

The general consequence and implication of this for signals of frequency and functional form under transformation is that: By one (1) comparative differential to quantifiable mean variance in difference of driving frequency encompasses either of any two subcomponents of alternative exterior difference of a given surrounding constructible geometric congruence.

Therefore with general functions:

$$\eta + \log(g(\bar{\omega})) = \log(f(\tilde{\omega})g(\bar{\omega})) \tag{40}$$

Implies: In log decibels any two differently concordant rhythms are separable by any given measure; as each singular log decibel pertains to a different frequency of any given equipartition of each such given foundational means of comparability of any choice of any two given amplitudes of differential nature. Therefore considered together these two imply the equivalence of results and particles under parallel interchange of

perspective and vantage.

Principle of Measure: Either one of Parsimony; or both of Synchronicity of given absolutely relative and arbitrary limits of codeterminism within shared point-like relation of temporal extensibility of measure and argument agree to (a) given variety of locality within a shared pre-text; to which with but one given shared body one given end congruent relation is empty of measure or extension; and one beginning notion is free of adeterministic consequence; the implication of which is that measure is certain and measurement strictly semi-deterministic.

We can therefore conclude:

- β :) Geometric weight of relativistic point application of force is equivalent and opposite to quantum mechanical point application of impetus.
- α :) Geometric weight of point like mean density in relativity is equivalent to geometric weight of point like variance in quantum mechanics.

Conclusion: Geometric weight of density and mean force of impetus are equivalent in a theory of comparative equivalence and complimentarity; to which in addition all events carry an equivalent contribution of $\delta_{\epsilon} = \hbar c$, for which any two constitutive relations form a synthetical factual known of truthful valuation under superposition of one given naturalized geometry.

20 Relativity Theorems

The phenomena of which is intransigence of notion for particle and recurrence for wave is the addressment of deterministic end to description at the benefit of representational permanence in reality; therefore to be known here as two givens in physical law and this world within that of **real** connective and disconnective of known's under *displacement* as *relation* of any given one known to it's identity and any additional known:

Parsimony: Any principle comparative measurement of frequency under it's given equiparitition at most meets that of analytical threshold of physical variance of mean partition of yet an other state within the contrast of two idealized locabilities.

Synchronicity: To what is ideal of measure; any apparatus of measurement idealizes to yet one threshold of superior relation of major for minor locability of the idealized process of measuring under comparability to reference and sentient witness.

Therefore there are fundamental limitations of physics; to which in order for there to be self and other consistency of articulation; must be *geometric* in nature:

$$\gamma_c \le \gamma_m \tag{41}$$

Property of Light Variance: The speed of light in when known as fixed to a universal standard implicates that all such durations under observation are identical with and greater than that of any given singular pre-contextual arrow of time by the speed of light universally; for the property of dilation is obverse to any stated fixed measure of relation.

In this, γ is seen as a measure of a rate to a rate, with light, unity in it's own frame; and of matter; less than unity for time to time conversions (for of matter light is of the opposite propensity) precisely because for a moving clock referenced to a stationary one; time moves more slowly; therefore to which it ticks more rapidly,

and acquires a greater interval in any duration of a path upon passage.

This is consistent with the special theory of relativity and gravitation because a thrown ball will experience greater accumulation of time than one stationary on the Earth (for comparative *to* a stationary frame time went more rapidly and more accumulated).

Therefore measurement dictates that the comparative measure of the rate of time for the thrown ball is diminished; to which it's extension over a path is longer comparatively to any other observer, such as the one stationary on Earth.

Therefore as the rate of time goes more slowly in the moving frame referenced to the stationary one; more time is acquired comparatively to either observer alone and individual measurements reference equivalence of congruence under emptied return of ordination and temporal excess of comparative shared time to threshold of objective for any given two body problem. Consistency for that of closure is therefore defined by that of what can be found as a 'bottom' extremum beyond which measureable extension of locability of a given limitation of enclosure unto each given domain of relation potentiates two fundamental mathematical principles in this given world; for which there are solid and diffuse natures to reality in contrasting degree of pattern and reference; to which is an a priori assumption natural to the sciences. Therefore there are two fundamental limitations of physics; that of one indical and one ordinal theorem; their synthetical remark the passage and persistence of time:

Conclusive Remark on Time: The relation of a distant observer in observation to that of the point of the first observer when in motion is of a greater measure than then the reference to the observer under observation to whom as observes a lesser comparative time in that of the observer of it's given observation & alone as greater, comparatively; to what it observes in persistence of motion; these being the two natures of time in relation to any one (of either) such observer's difference with (in) that of equivalence under separation.

When then one analyzes a mirror with this concept in mind; for that of the velocity of *that object* we result in two defining relations by analysis of the vertical and the horizontal velocity comparative to a given arbitrary velocity of the mirror as:

$$\zeta = \sin(\alpha)$$
 $\chi = \tan(\alpha)$ $\alpha = \frac{v}{c}$ (42)

For the tangential and the perpendicular velocity; as the time of a point and of a circle in relation to a curved space as a straight line of time as a circle within a curved space.

21 Ideal Principle Equivalence

Conclusive Remark on Measurability: In general the physical results of differences in measurables of quantities between observer and observed are physically real, however physical results of differences in measurement of any multiplicity of observables by observers are measurably null and unphysical when any one is undeclarative.

Quiescence: Any free light field congruence as the amendation of a free frame under geometric associability and indication is to it's field of subsidiary particle index therefore a free integral and differential of associated field compliment and vantageless a-perspectiveless freedom of degree.

$$\partial_{\alpha\beta}^{\gamma}\Theta = \Theta_{\alpha\beta}^{\gamma} \tag{43}$$

Prescience: The integral notion of this given universe is therefore the capacity of space to capacitate an indical

notion as the presence of a quotient group of complimentary ordination to constraint-free degreeless displacement-free identity and variable of aconditionality of principle.

$$\int \Theta_{\alpha\beta}^{\gamma} = \Theta_{\alpha\beta}^{\gamma} \tag{44}$$

This is the given statement that a freely disconnected relation of space is capacitated by that of temporal congruence under free transmigration of identity of indeterminant principle accrued integral and differential notion of field and seamless light-like transparency of ordination in it's capacity to immeasurably exceed the given capacity of matter to inhere motion. It is therefore held as true that any two quantities of displacement of measure unto and to measured are coextensively congruently null and asymptotically free of any two measurement processes by that of indivisibility of ordered expression as the known independence of order from ordination in the indical notation:

$$\zeta \chi = 0 \tag{45}$$

And; of independence of quantity from measure:

$$\xi \lambda = 1 \tag{46}$$

The algebraically free projection of any co-automorphic degree or vector into any one-form of geometry of null displacement invariance with in that of null indistinguishability invariance is therfore the general and full expression of a principle equivalence of null covariance as the expression of the primary notion of the predicate calculus of invariant's.

Principle Equivalence:

$$\eta + \rho = \log(\tilde{\omega} \cdot \bar{\omega}) \tag{47}$$

Principle In-equivalence:

$$\eta \rho + i\sigma(t) = \log(\tilde{\omega} \cdot \bar{\omega}) \tag{48}$$

Any two held contraction dilations are therefore uniquely independent of any additional third by that of their commensurate action of congruency of geometric difference under open relation of objective addition of relativistic co-factor; for in that of one following adirectionally apart or together; there is seamless transparency of beginning to end of pathwise extensible union.

Therefore:

$$\eta + \log(g(\bar{\omega})) = \log(f(\tilde{\omega})g(\bar{\omega})) \tag{49}$$

Therefore considered together these two imply:

Theorem of Freely Held Determinism: Either one; or both **of (2)**, given known invariances of absolute limitation unto independence of point-like relation(ship's) of proportion are indicatorially free as thereby the given theory of electricity & magnetism to **(any one (1))** variety of non-locality; for which one is but a beginning and end congruence of relation as empty boundary condition.

22 Reduction under the Temporal

Therefore the given representation of the above equations with that of the velocity divided by the speed of light as a unitless measure is of unity proportion in the measure of any unbiased system of units (to which is the deduction of temporal measure from out of spatial translation).

Therefore the given holds as true by the following; that:

$$\zeta = \sin(\alpha)$$
 $\chi = \tan(\alpha)$ $\alpha = \frac{v}{c}$ (50)

$$\zeta = \sin(\alpha)$$
 $\chi = \tan(\alpha)$ $\alpha = \frac{v}{\sqrt{v^2 - c^2}}$ (51)

Are equivalent parameterizations of the same problem, as both intimate a connective between transposition and migration of quasilinear pathwise extension in space to which order is subsidiary to and, upon, qualifiable degrees of motion as that of which are neither circular nor point-like.

$$\frac{v}{c} \longleftrightarrow 1 - \frac{v}{c} \tag{52}$$

This principle of inequivalence in concordance with principal equivalence is to be contrasted with the exterior space-like symmetry of the theory of relativity when it is considered that actual determinations of validity are certain only when one deduces inwardly from temporal to aconditional extension into a given spatial measure.

As a consequence; one or both given ends of any one continuum of a virtualized or real world are not to be found; for the projective forward and backward (surjective) intimation of relation contains no common zero but as algebraic connective and disconnective of atemporary spatial union. The expression of this is that of an intermediary identity locable everywhere in space as the untitled degreeless identity of quantum mechanics.

The principle inequivalence instanced by $\sigma(t)$ is then the marriage of one body to a two body problem by which either agrees with reason and consistent notions of space alone; to the entitlement of understanding of time; the extra $\sigma(t)$ being the accordance by phase of that of a temporal signature to inertia. When one analyzes a mirror with this concept in mind the result is as to two defining relations of analytical true supposition of the 'vertical' and the 'horizontal' rate of comparative temporal extensibility as limitation of arc-width to perimetric co-extension of signature:

$$\zeta = \sin(\alpha)$$
 $\chi = \tan(\alpha)$ $\alpha = \frac{v}{c}$ (53)

23 Theorem of The Quantum

In order to investigate a potential factoring of the two body electron equation into which the problem may be cast or dissected; it is necessary at first to understand that the reference of the measurement is to one body or the other; to which there is escape from the twin paradox; a local phenomenon of which either measures lesser or greater of an otherwise equivalent situation with differing descriptions.

We prescribe that $\{\tilde{\omega}, \bar{\omega}\}$ are different wave and frame descriptions of two particles; to which belong to differing descriptions and frames; denoted by \sim or -.

Here we find that De'Morgan's law's imply:

$$\langle A \rangle \langle B \rangle - \langle A | B \rangle = Cov[A, B] \tag{54}$$

For which $Cov = A \circ B$ is the covariance of events or probabilities A and B; with which $Cov \equiv \neg Cov = A \cdot B$:

$$A \cdot B = (\neg A) \cdot B \cdot (\neg B) \cdot A \tag{55}$$

Where $\sigma(t) \equiv i < A|B>$. Following De'Morgan:

$$\beta \left[\zeta, \xi \right] : A \circ B = A \cdot B \tag{56}$$

Where Cov and $\neg Cov$ are the event and it's compliment at the point of a 'event' to which we find that geometrically there is equivalent weight to any two of an event and it's compliment (the statement that $A \circ B = A \cdot B$ when an event occurs).

It is now time a dimensionally free weight of independent quantum event comparability to the geometry of space and time is introduced to which is the adherence to independent of events; that of the form of logarithmic equipartition of unique decompositions under geometric freedom of state prescription of statistics:

(1.) α : Limit of areas under arcs to radius of curvature (log); takes the position of the **integral**.

(2.) β : Limit of arcs ratio to radius of curvature (log); takes the position of the **differential**.

These relate to the given that is the 'point like' or 'cuspic like' relation of certainty as an arbitrary argument on 'scale' $\delta_{\epsilon} \to 0$ (zero) in the limit of which it is a prescription to the geometric addition law of probability density; following from the tenement of 'The Uncertainty Principle' and 'The Equivalence Principle' at the infinitely small to infinitely large scale by the laws of calculus.

For as proof; consider that ω is a frame; then rotate one such frame around until it vanishes to a point.

A logarithmic spiral is the limit of geometric congruence; to which arcs and areas under any curve describe a differential and integral form as length or area to radius progressing to the limit of an infinite process of equipartition and equivalence of all events.

First, we utilize the Guass-Bonnet theorem:

$$\int_{V} \Omega(\alpha)dV + \int_{\partial V} \omega(\alpha)d\tau = 2\pi\chi(V)$$
 (57)

As an alternative to relativity; and to mathematically the source by which Einstein is correct; there in three dimensions; the boundary is greater than the volume of a fourth dimension; at which the excess of one; is the counting of a number; by which all exceeds it's difference; and the certain exists. To which in either there is an exceeded and a difference in a number; the limitation in the curtailed mean of one variance to excess in three to two dimensions is found in that of the volume to which a fitted relation is of the lesser in content of the surface to what is found in that of the filling of a volume to that of the dimension by which the counting is equipped.

$$\frac{4}{3}\pi \lim_{r \to 0} \int_{V} r^{3} - 2\pi \lim_{r \to 0} \int_{\partial V} r^{2} = 2\pi \delta_{\epsilon}$$
 (58)

Hence a sphere; in it's limit of radius shrinking to a point; is lesser in volume than that of by which a sphere in it's volumetric area shrinking to zero is made smaller to a point upon which a boundary between three and four dimensions is made larger than it's complimentary two dimensions of filling. As to a sphere in three dimensions; it is larger in it's boundary than four dimensions is in it's volume. Hence in counting the identity is always counted; and the mean threshold below a given variance is certain in relation to that of expanding by one dimension; made as the accounting of volume of one dimension larger always decrements the surface by a larger excess in diminishment by a count of one δ_{ϵ} .

Statement of Knowabilities: The lightness condition of one degree of variance is to the greater of it's leverage in count as to the difference in that of the perimetric volume comparative to a volumetric dimension of a counting by one ipseity.

The proof of the master statement is as simple as the proof that; by displacement:

$$\lim_{\epsilon \to 0} (\beta_{\epsilon} [\zeta, \xi] - \beta) = 0 \le \delta_{\epsilon}$$
 (59)

24 Concerning Singular States

When considered at first; one may be tempted to set that of state 'A' or 'B' to 'zero' as in the limit of $\zeta \to 0$ or $\xi \to 0$ to extinguish the particle and wave notion of the state; however; one is not afforded this errancy when taking a 'literalist' picture of the subscription to such variables. One finds that a bridge at the threshold of certainty prior to any uncertain event of a given expectation one is potentiated - the fact that 'a' prediction can be formed. Instead; it must be that states 'A' or 'B' are *mute* in such a consideration; and take on a neither present nor absent condition of which then the equations become (let us reference 'A' as *mute*):

$$\beta \left[\zeta, \xi \right] : A \circ B = A \cdot B = B \cdot (\neg B) \tag{60}$$

And:

$$\langle B \rangle - \langle B \rangle = A \circ B = Cov[B] \tag{61}$$

Then:

$$\beta\left[\zeta,\xi\right]:0=0\tag{62}$$

Therefore the equations hold in the limit of one particle. Of their 'grosser' statement; that the rules that apply to two particles also apply to the notion of the singular particle picture and it's truth; the consequent forbearance on that of the weight of knowledge in it's minute element is indicated to be the domain of mathematics. The new equation for β is:

$$\lim_{\epsilon \to 0} (\beta_{\epsilon} [\zeta, \xi] - \beta) \cdot g(\bar{\omega}) = 0 \le 2\pi \delta_{\epsilon}$$
(63)

And, let the new equation for α be:

$$\left(\frac{4}{3}\pi\lim_{r\to 0}\int_{V}r^{3}-2\pi\lim_{r\to 0}\int_{\partial V}r^{2}\right)\cdot f(\tilde{\omega})=2\pi\delta_{\epsilon} \tag{64}$$

Now we let $(\zeta, f(\tilde{\omega})) \to A$ and $(\xi, g(\bar{\omega})) \to B$ to which the original functions are associated with their representation in terms of frame; identifying the geometry with the particle: $[\zeta, \xi] \to [f(\tilde{\omega}), g(\bar{\omega})]$. Equation α and β are here associated with a geometry and a particle definition of weight and description. Clearly; α becomes under substitution of A:

$$f(\tilde{\omega}) = 2\pi\delta_{\epsilon} \tag{65}$$

And β becomes under substitution of *A* for ζ and *B* for ξ :

$$(1-1) \cdot g(\bar{\omega}) = 0 \le 2\pi \delta_{\varepsilon} \tag{66}$$

As $f(\tilde{\omega}) \to \zeta$ and $g(\bar{\omega}) \to \xi$, this is therefore the statement that it is particle *A* that is incremented in deficit and particle *B* that is constrained under incremental rule to the above equation *whether or not the particles are distinguishable*; *and* particle *A* that is constrained to the usual uncertainty principle of secondary prefectiture; (a *potentiated* but *mute* raising operator unavoidable) where for convention we have:

$$\hbar c = \delta_{\epsilon} \tag{67}$$

This has the interpretation that geometric weight of a quantum process in the limit of $\delta_{\epsilon} \to 0$ is $\hbar c$; to which we see that a single particle (to be interpreted as arising somewhere and disappearing somewhere); follows an orbit of translocation by 2π . This is consistent with the wave structure of an angle τ in integration be the limit of an infinite process of dimensional reduction on equivalence of events; to which with A, τ :

$$e^{\pm i\pi\tau} = f(\tilde{\omega}) \tag{68}$$

And with B, v:

$$e^{\pm i\pi v} = g(\bar{\omega}) \tag{69}$$

Clearly; then for symmetry α the first equation is;

$$i\pi(\upsilon+\tau) = \log(\tilde{\omega}\cdot\bar{\omega}) \tag{70}$$

And the second equation for symmetry β is:

$$2i\pi(\upsilon+\tau) = \log(\tilde{\omega}\cdot\bar{\omega}) + i\sigma(t) \tag{71}$$

For;

$$\sigma(t) = -i \langle A | B \rangle = \pm i\pi(v + \tau) \tag{72}$$

To which:

$$2i\pi(\upsilon+\tau) = i\pi(\upsilon+\tau) \pm i\pi(\upsilon+\tau) \tag{73}$$

Since:

$$\log(\tilde{\omega} \cdot \bar{\omega}) - i\sigma(t) = i\pi(v + \tau) \pm i\pi(v + \tau) \tag{74}$$

With (+) holding for that of two particles and (-) holding for one particle; to which is redundant; indicating that equations (35) and (39) hold for **both** the one particle and two particle equations of motion. The indication here is that with $\tau \to \rho$ and $v \to \eta$ that there are two fundamental equivalences for the restriction that is the *one* particle; and *two* particle dynamics; these equations therefore forming the *recomposition* of superposition and independence of event identity in quantum mechanics.

25 Proof of Certainty

The rules of probability, statistics, and expectation impart a rule for that of the comparison of mathematical expectation to physical expectation by traditional symbolism and law; for which certain total certainty is possible with the following relation in mind; for which is summarized as:

Foundation of Empirical Validity: Via dimensional analysis quantities of measure that exceed in dimensionless unit guarantee absolute certainty in principally equivalent dimensionless quantities; without which physical law is not established but alone unto measurement.

Beginning with prediction in relation to the root mean square deviation there is that of the relation to standard deviation for which a functional relation is defined as:

$$x_{rms}^2 = \bar{x}^2 + \sigma_r^2 \qquad : \qquad f \tag{75}$$

Then defining a limit of $\sigma_x \to 0$ and hence the terms under which expectation deviance and variance exceed zero shrinking to a limit of local relation of zero and null relation there is defined:

$$\lim_{\sigma_{\nu} \to 0} f \equiv x_{rms}^2 = \bar{x}^2 \tag{76}$$

The relation of that which is greater assuming the relation of a subtraction of one equation beside the other reduces the expectation to that of a verifiable difference of one; and conveyed as such:

$$f - \lim_{\sigma_x \to 0} f \equiv 0 > \sigma_x^2 \tag{77}$$

Or as:

$$(1 - \lim_{\sigma \to 0} f \equiv 0 > \sigma_x^2 \tag{78}$$

By which it is true that $f \to x_{rms}^2 = x^2$ in practice for that of co-local observables in relation to empirical deduction from which mathematical law and expectation is based; in virtue of measurability (inclusive of singular variants). Therefore as $\sigma_x > 0$ implies $x_{rms}^2 \to x^2 \& x_{rms} \equiv x$ of either given expected distribution, therefore: quantities that exceed **guarantee** formatively for unit based systems by dimensional analysis of smooth differential quantities of a given functional form with variants of mixed quantifiable and unitless measure certainty.

In this a simple ratio does not suffice; however any quantities derived from dimensional analysis of unit based system do function for the given reason that quantities under elimination by units of measure reduce to subsets of sampling for which error exceeds expectation under surjective subset to set relationship. Equation four suffices to be understood as the proof that is the master statement:

Given of Whole: To be dearly noted is that of the manner in which any two errors of given nature impose a directly false relation when they encompass a greater union; therefore as error never exceeds half; and half squared is less half; no error of one falsifies a count; nor does any for quantitative means signify a true doubt.

The end irreducible of two errors alone is then known as invisible division of inseparability; the guarantee of certification for which no true division of reduction to error less than expectation exists; verifying one end absolute nonpredictive outcome is certain.

That then of the relation of one observable to an other of measurability and the empirical proof of which is found in reproducibility reduces to the given of a statement for which principles can be deduced and when understood echoes the relation of former to formative to latter; whether of co-local or differential order for that of relation to given process. For that which is found in a derived concept is of the relation to derivation as at that of result of given proof through to latter statement; which always finds re-expression as a given subsidiary set notion. The proof of this is as simple as the observation that one singular difference along the path of instruction leads to at least two orders in relation to singular difference of inclusion. The proof proceeds as:

$$(f - \lim_{\sigma_x \to 0} f)(g - \lim_{\sigma_x \to 0} g) = 0 * 1 + 1 * 0 = 0$$
(79)

Then; deriving the relation in reverse as an expansion for the sense in which 0 is within means to be expressed as a local zero null relation to that of the former of the given open relation as of either distribution; and leaving behind the sense in which 0 is representational of absence although; keeping exclusively of absence as indicated in an affirmative we have:

$$(f - \lim_{\sigma_x \to 0} f)(g - \lim_{\sigma_x \to 0} g) + (h - \lim_{\sigma_x \to 0} h) \equiv x_{h,rms}^2 = \bar{x}_h^2$$
 (80)

From which we have the representation for either of f or of g. Then:

$$(f - \lim_{\sigma_x \to 0} f) * 1 + 0 = 0$$
(81)

From which we have as a given derivation:

$$0 > \sigma_{h,x}^2 \to 0 > \sigma_{g,x}^2 \to 0 > \sigma_{f,x}^2 \tag{82}$$

Which means that in either given limit of ordinancy of that which is within limitation of relation from a beginning of a sequence of given order unto a given distribution of finite and relational symbolism to limit end occurrence of past or future with consideration of the present; a limitation is expressed as a given truncation of error to greater than predictive quality; therefore a guarantee to limitation by any end of a symbolical set.

26 Proof of Translation

This means that in either given limit of that which is within limitation of relation of measurement, from a beginning of a sequence of given order unto a given distribution of finite and relational quantifiability to limit end occurrence with consideration of time; a limitation is expressed as a given truncation of error to greater than reproducibility; therefore a reduction to zero by any end quantifiability.

In summary the error introduced by any such dependence scales as the inverse of parabolic temporal relationship of path and always exceeds any given accuracy of experiment as a consequence of separation in time of arrival and departure as dependent upon initial conditions. As a result geometric parabolic relation of common co-moving equivalence principle a terminus of the path represents a dimensionless sensitivity on initial conditions as the square root of the path like error. The error introduced by different freely falling bodies would then therefore be larger than that so produced by any experiment all of which are in confirmation for the reason that expectation exceeds prediction in validity.

This is true because if the contribution of error by the interval exceeding the limitations of the test equipment is indicated under all conditions other than a transparent, indivisible, and independently true relation then the result of the experiment can be used to provide positive indication of the elimination of the alternative, and for what ever remains, the provability of a natural law.

Therefore verifiable and valid confirmation of the principle equivalence of physical law for that of certainty of relation is proven as can be confirmed as the surface area is always less than volumetric quantity; therefore error is certain below the limit of surface threshold for each such interior point by the dual of the statement of unitary reciprocity in electromagnetism and a world:

$$0 > \sigma_{A,ds}^2 \to 0 > \sigma_{X,dx}^2 \to 0 > \sigma_{V,da}^2 \tag{83}$$

Where A is an area, V is a volume, and X is a point area, and ds is a path dx is a point infinitesimal and da is an area element.

27 Methods of Displacement

We therefore have two natures to this problem; one of the quantum analogue of a generator of a time signature (σ) which relates to the given of an impartially hidden local contraction time dilation factor of which is privately shared between any two given bodies; and that of certainty in that of the equations of motion; by which error threshold exceeding predictive to experimental verification leads to empirical validity of experiment; for displacement capacitates solid relations. The first 'constitutive' argument goes as follows:

$$\eta = \langle \psi_1 \rangle \qquad \rho = \langle \psi_2 \rangle$$
(84)

Taken as two measures on the quantum wave-function; Then; $\sigma = \langle \psi_1 | \psi_2 \rangle$. Clearly; then;

$$\beta: \eta + \rho = \log(\tilde{\omega} \cdot \bar{\omega}) = \eta \rho + i\sigma(t) \tag{85}$$

Is satisfied; therefore the old intuition remains with the Given of the Whole; (where δ derives from error in β):

$$(1 - \lim_{\delta \to 0})\beta \equiv 0 > \delta^2 \tag{86}$$

Therefore δ vanishes to zero (signifying the appearance of $\sigma(t)$ and it's shared interpretation as covariance of uncertainty and time in the two body problem) when performing either a two body or one body experiment with displacement freedom and a potential. This is the exact statement that two indistinguishable particles hold null identity and null coordinate dependence. Therefore as uncertainty covaries; it diminishes from 'above' for a relation to γ ; for in taking the return from a relativistic limit the uncertainty in the two body problem diminishes to zero as the Schwartz and Triangle Inequality agree ($\lim_{\sigma\to 0}\beta=0$). The proof is as simple as noting that general covariance insists that we possess coordinate freedom; and as frame descriptions are null (there is no one absolute frame of reference); leaves the uncertainty a null and empty relationship in the two body problem (for the particles possess no identities respective of relativity). This means that natures of certainty founded on probability and geometry are of two distinct natures in the one body; and for (in deduction from) any two given body systems of an identical nature. Therefore the law of principle measure of inertia in mass, light and motion displacement freedom is the instance of certainty in derivation from semi-determinism as the core of measurement as a process on measure.

28 Wave Particle Duality

Therefore by the preceding logic there are two given separated zeroes between that of each identifiable point like limit of physical reality; for which with no local identity or naturalized point like relation of absolute form implicates that the residual geometric involution of one particle wave function is the exterior of it's stated alternative. This is the equivalence and comparability of functions under the presentment of a commonly held geometric congruence under reciprocity between any two given qualified limit events.

$$\xi = \phi_{\pm}(\psi_{\pm}) = \pm i\rho_{\pm}\phi_{\gamma} \tag{87}$$

$$\lambda = \psi_{+}(\phi_{+}) = \pm i\eta_{+}\psi_{\gamma} \tag{88}$$

Of unity as length of separation of points grows as density as ρ^2 smaller with ξ equivalent at all length scales with number of ψ points per volume increasing as density and ρ shrinks with error of standard variance under mean shrinking to: \to 0. Therefore:

$$\eta^3 > \rho^3 > \eta^2 > \rho^2 > \eta^1 > \rho^1$$
 (89)

Etcetera, for the fact that a given sequence in dimensions is indivisibly locable within the relations of either the principles behind λ and ξ . The final proof is as simple as induction on the step of reduction; that inerrantly we cannot reduce beyond the means we begin with as an initial standpoint of zero dimensional error.

Finally we arrive at some new conclusions. As for the quantum principle; we find three new interpretations and a new one:

Are all equivalent statements of the quantum principle as well as: "Space and time do not exist for a particle at two places in space and time simultaneously." This is the given answer to that of the question, as well as the answer to: "Does any particle exhibit both particle and wave properties at once?" With the answer: "No."

[&]quot;The particle wave duality is harmonic."

[&]quot;No particle wave duality exists within a limit."

[&]quot;The boundary condition is a harmonic criterion."

As a consequence we are left with little other than that of the following conclusions for clarification. The first; prescience; is null displacement invariance; known as general relativity; and the second; quiescence is null indistinguishability invariance; known as quantum mechanics. We require two properties to be certain these are the only two remaining elements:

"Are these identifiable and equivalent symmetries?"
"Is one the given reduction of the other as unique?"

No is the answer to the first question as either is the origin or the originless center as identical. No is the answer to the second question as both are the container and the contained as two.

As for the final prediction: light and causation has a terminus in the past: "When and as either alone exist apart there is a null causation in a given future for that of light ending in the past as the defined alone indicates a boundary of non-extensibility beyond that of which the particle horizon for the integral is known as a particle boundary in the past."

"Then, for these given relationships of integral and differential property are as therefore outside null invariant displacement of space and time there exists a particle boundary condition in the future in relation to that of the directionless particle wave structure of light; a past."

29 Exchange Locality Theorem

A composite factoring of the two body equation occurs as the foundational reason of which is provided by relativity and the quantum notion of temporary extension of a given particle. To begin we identify a given admixture of partial differential equation following the principle of a connective to a given ultimately knowable quantity; that of the co-inertia of spinor one-form under subjunctive pre-tense of dimensional contrast. The entire property is a free particle inertial field as a diffeomorphic manifold invariance of co-automorphism unto intimated connective to spatial adfixture. Upon factoring of phase-conjugate and adjoint-free phase freedom the logarithmic identities of principle equivalence and principle inequivalence are provided as givens:

Statement of Symmetry: Extrinsic modification of one equation under antisymmetry of operator to a stated symmetry of operation are intrinsically an interior symmetry in whole and the antisymmetric parallel of operational exchange of particle notion and pair field.

Under these provisions the properties of a two body particle and field equation are decomposed; seen alternatively as a completeness for one particle and a replicated particle and partner field. The general properties of hyperbolic equations implicate that an equation take a form of a wave equation:

$$(f(\tilde{\omega}) - \alpha^{\mu} \partial_{\mu})(g(\tilde{\omega}) - \beta^{\mu} \partial_{\mu})\Omega = 0$$
(90)

When it is rewritten it becomes:

$$(f(\tilde{\omega})g(\tilde{\omega}) + \alpha^{\mu}\beta^{\mu}\partial_{\mu}^{2} + \sigma(t))\Omega = 0$$
(91)

$$\sigma(t) = (\gamma^{\mu} \cdot [\partial_{\mu})(f(\tilde{\omega}) + g(\tilde{\omega})]) \tag{92}$$

Under these provisions the properties of a two body electron particle and field equation are decomposed into a regeneration of the operator; seen alternatively as a completeness of the theorem of one particle and a replicated particle and partner field of inertia:

$$(i\gamma^{\mu}D_{\mu} - mc)(i\gamma^{\mu}D_{\mu} - mc)\Psi_{A,B} = 0$$
(93)

When it is rewritten it becomes:

$$(-\gamma^{\mu}D_{\mu}\gamma^{\mu}D_{\mu} + m^2c^2)\Psi_{AB} = 2im\gamma^{\mu}D_{\mu}\Psi_{AB} \tag{94}$$

$$D_{\mu} = \partial_{\mu} + A_{\mu} + \partial_{\mu} \log \gamma^{\nu} \tag{95}$$

The gap remains as variant and free yet as commonly dependent on the differential. To note is that when all electron inertial energy momentum is absorbed; particles become anti-particles.

$$(i\gamma^{\mu}D_{\mu} + mc)(i\gamma^{\mu}D_{\mu} - mc)\Psi_{AB} = \Delta(\upsilon, \tau)$$
(96)

Therefore, two electrons are the generator under anti-commutation and commutation of their subsidiary operators of a notion of particle and antiparticle product relationship with a mass gap of real displacement equivalent to the splitting of each reduction in energy at the relativistically accommodated treshold momentum layer and energy level of either one such particle.

This explains a mass energy gap for that of the two body electron equation as an effectively regularized energy lowering comparative to a temporal displacement of accrued phase compensation in the inertial field as past-associable-displacement of what is understood as the absence of one electron and it's surrounding indical presence in relation to any other electron as an effective positron. For what is of presence is of absence with matter for the union of spin and charge under fractional separability of inertia and co-inertial extension; together forming a solid whole of motative inertial reduction. A way of interpreting this symmetry principle, is that were the two electron states in spin and orbital to be anything but independent locally and globally they would not be simultaneous eigenstates; therefore under a reduction of surjective phase 'isolation of degree-free asymptotic separability; one hole is intimated as a closed unionable past-associated electron.

- **1.)** Rotations of the electrons in local (spin) and global (orbital) inertial adjoint upon the spin of the two electrons under exchange are of empty rotational orientation when viewed from above or below.
- **2.)** Therefore these rotations are generative under exchange of a raising and lowing operator of their individual orbital and spin mechanic by the expression of a co-adjoint commutation relationship of diffeomorphic and algebraic relation.

And as:

- **A.)** Since the representation is physical for the electrons in their own given frames, the relationship that exists for the orbitals of the electrons and their given spins, exists as an 'excess' coordinate dependence that does not violate the Pauli exclusion principle when it is corrected for the sake of global to local relativistic considerations.
- **B.)** Correcting for this coordinate dependence results in a state for which the spins continue to follow the Pauli exclusion principle as Fermions with a charge wave function, when a positionless contrast of the portion of the electromagnetic interaction becomes of a real attractive interaction equivalent to a weak Bosonization of the states.

30 Advanced Potential Function

The differential equation for a soliton equation includes a derivative notion for then in that of any given soliton-like excitation; however in many primary treatises the formulation of a solution and/or differential equation with stabilitity criterion are ill-defined.

$$\nu\mu \cdot \Xi = \mu \cdot \Sigma + i\eta \cdot \Xi \tag{97}$$

Where Ξ is an open sigmoidal function; and Σ a helical indical function:

$$\zeta \xi \cdot \Sigma = \zeta \cdot \Pi + i \eta \cdot \Sigma \tag{98}$$

$$\Pi = \Xi \cdot \qquad \Sigma = \Pi \cdot \tag{99}$$

And ν and μ with η are ρ , η , and $\sigma(t)$ in that of the priorly presented log equations. The differential equation satisfied is a variant of the Bouissenq equation with a potential relation; that of the imposition of a threshhold from that of the stability criterion under reduction of \square to \aleph in four dimensions to two-dimensions for time:

$$u(t) = J \cdot E[u(t)] - \phi(t) \tag{100}$$

That of the boundary condition is proven for that of:

$$J \le \phi(t) \to E^{\cdot} \le 0 \tag{101}$$

Therefore that of this equation to which we address that of the differential operation above with:

$$(\zeta - \xi) = \nu(\upsilon, \tau) \tag{102}$$

$$(\zeta - \chi) = \mu(\upsilon, \tau) \tag{103}$$

$$\eta = 2\pi i \partial_0 \ln \chi(g) \tag{104}$$

With:

$$\chi(v, \tau, \sigma, t) = 2\pi i \cdot \chi(g) \tag{105}$$

Therefore for a free manifold; the relation of $\chi(g)$ is the expression of a topologically invariantly held mapping of a manifold to it's surjectively held onto mapping of enclosure in that of the subsidiary conditional pre-text of a formative valuation of a foliation on the alternatively provided physical space. That of ν and μ therefore provide for the equivalence of these two differential equations; to which suit ρ and η of the log relation. Therefore that $\sigma(t) < 0$ implicates that $E^{'} < 0$ and that the equation of spatial order is below the layer of yet the J in relation to ϕ ; to which the freely held nondeterministic end of a capacitated 'certain' past element of reality within the mathematical domain; is a freely held provisional *solution* to which primary and preliminary boundary condition is empty to initial condition as the stability criterion. This is the difference of for what is that of μ and ν as situated below the threshold of spatialized relation; to which time is capacitated as deductively a secure principle of certain nature.

The log functions in their manifold enfolding of the differential equation determine that any two exchange processes of circularly polarized and point like relation are independent; to which is the independence of time. For that of the associated ρ and η the determination of the reduction in principle variance of any two normalized distributions is a reduction therefore below that of one normalized distribution for the reduction of either factoring of the two particle equation or that of their mean distribution comparative to uncertainty; to which *only certainty remains as:*

$$\rho_{\sigma} < \rho \qquad \eta_{\sigma} < \eta \tag{106}$$

This is rational because the pre-text of ρ and η is that of acknowledgement of $\hat{\partial}_x \equiv \rho$ and $\hat{x} \equiv \eta$ being capacitated of simultaneously held certainty; that of their exposition of yet the product variance in equivalence under reduction with $\sigma(t)$ with that of summative variance; to in either the fact that if momentum were greater then the spread would be lower and the overlap less; therefore the expectation of position uncertainty would be lessened; and (&) if positional distribution were relaxed; that of expectation of momentum uncertainty would be lessened under depreciation and reduction by $\sigma(t)$ to which is reductive in either logarithmic (log) equation under superposition.

Therefore:

$$(\hat{p}_x, \hat{x}) \in X \to \langle f, g \rangle \le \frac{\hbar}{2}$$
 (107)

The notion here is that the dimensional reduction of time to two dimensions fits into the relation of four dimensional space; for in that of the stability criterion either distribution is a real number line distribution in two dimensions of variance.

Therefore:

$$g = 1 \tag{108}$$

Is the indication that classical virtualized processes are forbidden in that of this given naturalized world of any two variances.

31 Abstraction

To produce a proof in certainty and manifest disappearance of asymmetry by displacement to matter of light by substitution:

$$(f(\tilde{\omega})g(\tilde{\omega}) + i\sigma(t) + \alpha^{\mu}\beta^{\mu}\partial_{\mu}^{2})\Omega = 0$$
(109)

$$(f(\tilde{\omega}) + g(\tilde{\omega}) + \alpha^{\mu} \beta^{\mu} \partial_{\mu}^{2}) \Omega = 0$$
(110)

If two particles are in different frames; then they experience the rate differential of time and space differently; to which when one slows; it's consequent experience of time as deduced from motion depreciates it's partial differential in the other frame as a consequent lemma of reduction to a phase continuum of spatial relation and temporal extensibility. Therefore any one greater in time accumulation comparatively (as explicated phenomenologically here) co-conspire to bind a state to the given of rate-temporal displacement freedom. Motivating this; under reductive subtraction of twice the secondary equation from the second prior; the expression is therefore an equation under reduction as an equation for light under the principle of spatially free coupling of any two given particles of charge and spin.

This then indicates the indical representation of a Goldstone mode Boson:

$$(f(\tilde{\omega}) - i\alpha^{\mu}\partial_{\mu})(g(\tilde{\omega}) - i\beta^{\mu}\partial_{\mu})\Omega = 0$$
(111)

Therefore all light and mass exists with inherent *displacement freedom* in an otherwise particle particle equation of neither attraction nor repulsion and pair potential lesser than zero; for an unfilled preceding a-temporal ordination of one particle predicates that of the existence of an ancillary field theoretic threshold on the destruction of an accessory potential and particle future oriented event horizon. Therefore the equation for light and mass is seen as *both* instances of descriptive freedom of certainty under co-determinstic appropriation when $\Delta \geq 0$ in:

$$\Delta = \sqrt{\sigma(t)} \tag{112}$$

Time is then seen as something that is co-participated in and of, in particular, participated in; but of time for a differing point differs both quantitatively and qualitatively to that of the process of measurement and measured upon the objective of a focus to which is empty of unitary basis of homotopic onto limitation. The corollary of this is that all motions differ by merely a displacement freedom and inertial aggregates of two body nature in relation to which explain the appearance of mass, motion, certainty, action, and light for $\Delta \ge 0$ exists for all finite displacive motion and positive energy. Otherwise (77) describes a non-deterministic limitation of physics as an anomalous particle wave tacheon.

32 Conclusion

The cat paradox and it's disproof is therefore furnished by examination of the question as to if one intimable relation can 'fit' in-to another; to which the possibility of the construction of such a box is unafforded of possibility. The relationship of one closed relation to one opened relation of particle horizon mentioned implicates that the answer is a definite no as to it's construction by the following logic. Any one larger certainty to a limitation of yet it's definite does not accord with in that of the microscopic scale as suited to a 'deterministic' interior of closed relation of macroscopic state by surjective automorphic exception to prior pre-stated addressability.

Therefore this problem is akin to asking a question for which is the opposition is a self-statement and one which is therefore the ancillary doubt with dis-entitlement of a given thought experiment; the evidence for which is that as a naturalized problem it is the presentment of a dead end of indication to no solution. It is therefore analogous to asking the problem with a question. The solution is that the cat is either alive and well; or long gone and dead; but yet that no device functions in this manner; as one statement of indication to deterministic outcome is prohibited by the instance of a machine with expectation of return summative carry or quotient carriage.

So as to suggest that spatial union is un-broken as one comparative temporal signature is a delimitation of any two given certainties of machine expectation; therefore the cat and death-contraption hold an entirely independent reality.

Therefore any two points of reality are deterministically free.

Given the equivalence principle applies to determination of the inertial properties of two objects (a superconductor and magnet) as two separable instances; it is seen that together; these constrain the uncertainty to at most two free points of reality (a limit on momentum uncertainty and a limit on position uncertainty) to which 'fits' absolute certainty by reductionism from empirical law in the macroscopic realm to the microscopic.

This holds true as the given expectation of both momenta and position hold an upper limit on the threshold invariant global uncertainty of variance in one standard deviation of any one of two given non-degenerate distributions imputed by the existence of independently held given of momenta variance; to which derives from it's conjugate a mean threshold of one held unstated missing alternative coadjoint variance in position; under the emptiless preceding invariant 'uncertainty' of one \hbar in 2.

$$\langle \hat{x} \rangle \langle \hat{p}_x \rangle \sim \frac{\hbar}{2}$$
 (113)

The affordance of a limitation on two larger objects fitting into the same smaller space; is, by logical deduction on empirical and theoretical founded principle of state-space therefore implicates immediately that the bound on scale and scale-free measures of co-determinism extends to the microscopic realm. This alternatively suffices as confirmation that a *Quantum Einstein Podolsky & Rosen*, or a non-Indicating *Quantum Non-Ipsiety Conditional Entropic Universal Bridge:* **QiCeuB** may be constructed and built; to which the solution to Shroedinger's cat paradox is furnished.

To understand this; any two given 'objects' of a covariance in measurelessly uncertain and shared proper time of empirical law to separation of superconducting (Type-II) material and magnet; (to which separably are a causal disconnect by that of adeterminant inclusion of preceding exception of semi-determinism or equivalence of electricity and magnetism within that of gravitational aconditional support to certainty) are the illustration of analytic & exact determinism of physical law.

33 Ordination Theory and Chaos

To what is held of a measureless extremity of determinantly free asymptotically free degrees; any two interior relations of the held and the capacitated of order are predicated on that of what is inequivalently a determined and an undetermined flow free condition in admixture of one for a withheld in an alternative of energy content. For of what is a frequency in that of a formed and chosen difference of measure for contrasted displacement freedom of an ordinal relation; imputes that any pattern for that of it's congruence includes an alternatively and required inclusion of an even set of odd ordinally free relation of what is a surface wave under a cuspic fold; then bivalently the holding of an equated of provisionally applied non-determinant and included co-determinant non-ordinal free disconnective of what is held in another alternative pattern of congruence to any one subsidiary patterned excitation. As a consequence; it is true that of what holds for that of a mathematical domain of exceptionable contrast in the physical world; the two determinant limitations are free in that of but yet a balance in that of physical precept and isothermal relation of a commonly held extrema.

34 Theromodynamics and Temperature

To what is provided of measures and elementary provisional application of a theory of order; that of the given understanding of nature is an equilibrium of at least two quantites; that of the spatial apart from the temporal; and the co-extensibility of a congruence in ordinal relation; as to a completion what is so is the equated measure of distribution and it's variance. That of what is held of one displacive measure and that of an equated provision to determination of volumetric flow of an exterior relation is simply summarized as that of a meter for then in a decibel; and to which the equated differences of there individual capacities predicate motional interia in the contrast of liquid or fluid nature of particles and structural transfernce of any two waves.

That of a begun contrast in the inequality to it's provision at a determinant separatrix inquires of property in thermodynamical invariant as to that of null relation to yet a meter and a wave as in the fugacity freedom and frequency partition of non-space-like particle freedom's of motion; to which a particle is identited by that of it's capacity to freely transfer momentum; and to which excuses the context of a propertiless and given disposition of it's elements in any two free fluidic free elements of surface element.

$$d\chi(v,\epsilon,g) = \zeta(v,\epsilon)\xi(v,\epsilon)\chi(g) \tag{114}$$

The equation of which is that of a measureless degree of separatrix of the relation of ordination to a complex; and the free relation of any two period measures in that of their frequency space to which a zone of influence and that of any two determinantly held free conditions hold no constraint; that of with one; the field theoretic freedom of two given presentments at that of workable assumptions of which are a provided division at that of one frequency select measure and that of equated measure to a considerate end in that of what is held of interval to frequency-phase transverse locability. That of what is held of fugacity; the capacity of degrees of freedom; and their portion to which is the freely displaced part of a field; is the free light and sound disconnective of that of either two null conditions on place to place; for within one exterior space the notion of any adjacent heat engine co-determines a known invariance in two; that of entropic limitation and that of their second differential notion of temperature capacity of heat.

To then an excess delimitation on the measure of one preciptated known invariance; that of light does not freely transmigrate at that of a subsidiary wavelength to then in accord of what differently provided is an excess in the positive kurtosis of a wave vector it's supremum difference of point like departure on any three; yet so of one subsidiary wavelength; that of but what is one depression in the known invariance is the predication of a logically sound foundation to order preceding chaos; for of what is their even to odd relation;

the provision to then in an end what is supposition for hypothetical; is the fitting of a relation of secondary equilibrium; of which is non-spontaneous; and freely once more the type of difference of accrued departure from an equivalent distribution; that of an out-lier to then what workably there is secondary to an inclusion in one homogeneous limitation.

35 Normal Product Relation

When it is given a provision to two contactless relations knowably inquires to a certain end; the co-deterministic exterior world entitles a difference of what is a surface for then in a linear point like extension. The held inclusion for that of time is that either further or former presentment of an acquired determinant uniqueness includes a normal to what is a form of shape for that of continuum contrast; as to assure of that of a deficit in either; what of both is an exception to dis-included return of one point like complex; as to free a wave elsewhere through that of what convexity classes impute a relation to an alternatively provided evolutionary pre-text at that of substratiac problem to answer of that of pathological end of ordination with in that of it's given declarative structual element of light to sound echoed freedom.

Then; alone with what is given to certain dispossessed elements of which are temperature; that of states per function of transverse pre-determination to acquire then a normatively held partitioned summation and that of multiplicative complex imaginary cyclic exponentiated freedom to their sharp and flat inclusion in that of a sound basis foundation. When it is suggested that what is kept in two is their third part oridination; the given inclusion of a spin cyclic freedom of one paraxial relation to yet what is no degree yet of a moment; is the gyroscopic inclusion of a predictive normative valuation to which in what is apart; the divorced concept is an isolable freedom of subsidiary solid contrast.

For then in what is a barrier; however; that of the inclusion of a prefectiture for in one withstood interior wave structural end in that of evolute mean is it's involute period-average of variance of any ordinal relation and in alone to which one wave may be self-contained yet contain an origin in that of what is unexposed of property of fugacity freedom in the ideal limit of withheld equilibrium; finite or numberless in ordination; and to which in two; their's of a preceded normal and flat relation; entitles the determinant of a singular sub-bandwidth specific frequency of pole identity.

$$\Theta(\phi_1, \phi_2) = (\kappa \partial_v \pm i\rho \partial_{\epsilon}) (\eta e^{-i\kappa\phi_1(t, u)} \pm i\rho e^{-i\rho\phi_2(t, u)})$$
(115)

For what is mistaken of an entropically provided and named context to a free union of convex and defenistrated prohibition of one order; the inclusion of a pre-considerate end to what is a determined obstacle; freely provides for open consideration of yet a flow in it's added relation of difference to any causeless submannerism of physical law. To which with:

$$\zeta(v,\epsilon) = \kappa \partial_v \pm i\rho \,\partial_\epsilon \tag{116}$$

$$\xi(v,\epsilon) = \rho \,\partial_v \pm i\kappa \partial_{\epsilon} \tag{117}$$

$$\Theta(\phi_1, \phi_2) = \zeta \xi - \partial_0 \tilde{\gamma}(g) \tag{118}$$

For then in what is the exception to a free field theory; that of determination is an artifical provision at the certain way in which a precontextual determinant adjoint or hermitian operator on the level of unification of any two isospinor fields hold a free co-affinitive. For in that of what is a held assumptive of distinguishable levels of threshold and enqueued relation; for in what includes consideration of a major and supremum; the relation of the few charge free groups include two measures; of which are a radical to base residual free evolution in the former of fugacity and enthalpy.

Therefore; of what is considerate of a difference in then $\zeta \& \xi$, to which are fugacity, and enthalpy; to which is it's inclusion of a fluidic return paththrough of former for then in latter of the relation of an entire displacement; the given accrual of what is held in the notion of a principle effect priorly to it's given conclusive elemtn of cause in the past; is the inclusion of what is the precept of entropic freedom; to which a disconnect instances a freely held and independent evolution of a secondary consequence beyond the limitation of what is singularly an anomaly.

To which we escape an asymptotic freedom in two; the relation in a third of what is freely a provision of these to occlude a relation is the subtension of a visciousity in the relation of provision to then in the held a formative beginning at temporal congruence of asymptotic return hyperbolic union. The statistics of one therefore include an underprovided relation of ordinal reorganizational precept to which is the missing element in any ordinance of three unto one freely held positionless but absolute identities of relation of piece in game or structual deficit and sound-like ordered relation of blind passage and sequential determinant identified with μ .

36 Degrees of Freedom

That of an entropically free midpoint to a variance of density of states is the included difference of what is a photonic field of quanta otherwise in a super valent and super covalent space as the difference between any charge free surface topology. Inhibition of a threshold layer transitional element wise reduction of a contactless point of fluid free displacement of momentum into solid difference of a unioned and manifold return; under a precessitorial relation entitles the phenomonological principle of percolative priorly established hidden variable(s); in plural or singular, a conditional determination on that of free entropic equation of state inversion and equilibrium point. When it is considered an entropic point is the variance of a relation; to which is that of the central difference of a differential nondeterminant and exclusively free relation of momentum exchange. That of the equation of state is predictive of a group theoretic interrelation of three fold enthalpy, specific heat index, and valence of transmissibility; to which is a similarly held assumption of equated nondifferential and integral forms in that of the open prescription for a constraint free dynamic; of that of it's existence; in that of a remainder; that of a certain and provided given lossless two part index of passive and active indication to what is color.

$$J \cdot E = t_u + \eta \cdot s_q \tag{119}$$

That of what is so with one relation of an operational flow to it's conjugate displacement in the two of energy and power as a tensorial time rate of congruence for then in what is held of an ordered and orderly-free relation to it's conguate temporal relation of what is unitary in one; is the free enthaply of one admixture comparative and aside by specific heat capacity in relation to what is spatial congruence of qualitated percolation index of any twinned freely held fluidic admixture.

37 The Understated Provison of Degrees

The independent precept of one equilibrium point for in another is that of asymptotic freedom of a delimitatory nature in an alternative void-openly provided relation of what are therefore any two ideal gasses upon that of the consideration preliminarily to an adjusted notion of logical foundation of threshold; to which mathematics acquires a subsidiary context of the formative for then in the propertied inclusion of deficit and contrast free variables under the assumption of freely held determinism in any numberless infinitive. To that of what is taken of a context for that of what is withheld of a declaration in two given presentable options

apart; the consideration furtherly held of a freely held infinitive of past associable delimited structural ordination and relation is in two their complimentary and free radical notion of ordered relation apart from randomness of a quasistatically sourced domain and infinitive periodic ancillary structural fault conditional. This conditional is that of what is withheld of an ordered relation in what are any then three given predeclarative variables of entropy, limitation of fugacity, and gas free entropic exchange. Therefore of half; what is whole; as within that of the consideration of a vessel is not a portion in queue to number accounting for in that of what is a microcanonical ensemble of it's relation an entire set and superset until it is stated as a precondition of another set theoretic union of an alternatively provided bridge notion of then any two or eighty or eighteen gas variables; the contextual relation of which is blind, colorless and invisible, and solid and unqualitated free divisions of the logistic equation; to which accrue that of 160 and 36; or as 5 minus 20 degrees of the precept of a hidden dimension of variableless extension of four and a fifth variable outside the nomenative declaration of what are three and a fourth; of two lattice constants. This free variable degree of a partition externalizes a difference of what is an outwardly provided dimensional difference of statistic; to which the fundamental relation is that two free variables contract under a basis element; for in what is a fifth as second order differential contrasted functional free thermodynamic evolution of this world.

Given accumenatory degree-free relations of state:

$$\Xi(t,s,u) = \eta(\tau) \circ \mu(\epsilon) + \Omega(\eta,\mu) d\eta(v,\iota) \cdot d\mu(\epsilon,\iota)$$
(120)

These variables and differential structures include therefore the consideration of a prefactorative statement of the entitlement of a system to freely transmigrate a topological space of partition four unto five; and to transparate a given declarative pre-textual relation of indication to it's stated alternative treshhold of blind and non-blind free equavalence of free phase in any identitied relation of comparative equivalence and free compartmentalization of vessel and contained ordinal relation. Therefore of what are any two of thes variables; the free energy (ι) of one gas for in that of another; is an identity of semiqualitative and nondeterministic exterior semistable group; of inclusion to what is stated of a free radical yet preconsiderately a moment of noise apart; and therefore unto a fifteenth as eighteenth departure; a reductional anomaly. This anomaly for what is included of a said free run condition of a machine state represents the included consideration of what are order and a disjunctive alternatively superficial plateued environmental territorial form in the environment. When it is considered that two agreeable degrees uniformly agree to what is their un-entitled machination of an ordered and an ordered relation; what is excluded is the prohibitional context of a further declarative precept of openly unentitled precessional exclusion.

Therefore; of what are agreeably a division and a quotient of dimension and ordered contrast; whether freely provided or excepted; there is no tenth dimension; and of a seventh inclusion of what is considerately an impression of structural default of ordered relation of this world; no one structual return is a said defensible and contractual exclusion of any then majority held openly presented free statement of it's self-subsidiary connotation to what is a departure to a declaration apart at stated safety. Therefore; for of what is excluded of a fourth open return of an exterior set to which is included within a heading and declination; the fifth consideration is a provided and neither open nor closed option at that of retrievability of a declaration; to which is a principle of amendation at; and for in that of two superset relations; that of the 'Ideal Bose' and the 'Ideal Fermionic' gas; to which reduce to null enthalpy and free fugacity under the exception of no operation of an engine.

To that of what is a machine; the included exception of what is provided of life; entitles therefore that of a recurrence at self to subsidiary pretextual propertied domain; apart yet in one withheld to what is declared of an alternatively provided free variable and variableless exchange afar; what is a provable and closed then sedimentary statement of two recurrences; a given in it's whole; that of an openly held domain elsewhere; to which are three included variants of a shadowed relation, the logical precept of contraction, and it's (non-

)included exception of what is in a third; the precept of majority and minorty mass effect over threshold untitled and non-declaratively held freely established written or spoken inflective structure. Therefore although as an aside; that of the principle effect of what is an incongruent return; either focus in the end opens undeclaratively it's part to what is in whole; a container; and freely expresses it's declaration at oddity to then in what is the included difference of a uniform exterior and nonconnotative concecptual form; of which is a laddered function of three; (that of precept in ordinal form of expression, that of understood declaration in terms of symbolic relation, and that of re-organizational patterned congruence in any numberless domain of qualities).

$$\tau(o) \to \eta(s, v) \qquad \epsilon(t) \to \mu(s, \epsilon)$$
 (121)

Hence what is excluded of a quota of it's re-equability to a machine ladder sum or that of carriage return and carry; equavalently departs to the underprovided of a loss free deficit of the portion in two of a making and a held; choices in three to which enque two defaults; that of flammability; and that of aspirative qualitied prescription to living form; and of that of which in entirety of their contrasted elements to the statement of what is given in a hand; entitles that of temporal decimation.

$$\zeta(d,o) = \Omega(t,s)d\tilde{\eta}_{\epsilon}(t,s) + \chi(g)d\tilde{\tau}(o,s)$$
(122)

In conclusion a determination of one machine for that of another; entitles two options; of which in the third; the expressively held condition is an aconditional if and apart then only if when in the consideration of what are three known variants accrue to a machine limitation of a sideless and opened nondivisional err; then to which of the conditional precept at randomness enques of a return dataed set run; a transmisgration to another under it's stated declaration of a towered teir like relation of propertied class structure; and in the third to what is an apredictive normative preclusive bit for which is either an obstacle; or that of included transparatively held given of five quotients; that of what are their two label free designations and the underprovided of a whole net summative singular notion. Therefore a singular notion is protractively the default; and merely this; and to which it is a null aconditional precept; is removable; to which is lossless in yet what is a given return to without variable free hidden declaration; recoverable as unto a symbolic type set or conciliated provision of enqueued free data exchange.

38 Sectional Entropic Thresholds

The semi-classical invariance of one variable differential notion is then completed when the understated manifold of $d(\epsilon, v)$ or as in g = 1 of a toplogy is noticed to be blind free of an ordinal relation to it's stated consideration as a free entropic ancillary clause of displacement; to which everywhere is complete within the relation of a classical imperative. For then in that of what is the consideration of two non-differential notions. The freed entropic relation is that of the classical Pidgeon Hole principle; whereby replacement as a recurrence free principle of ordination amends the clause of a triple negational element to one considered replaceability of a ball within it's bin; amending that of the statistical mechanical ensemble to a count of two upon replacement by a separable identity; and making the direct implication of replacement the inclusion of it's rule; to which is that of solution to the choice problem of statistics. The limitation of one functional differential is then the understated derivation of a freed exception to the Shwartz inequality of a global invariance; by which ordination is preserved for in that of the background and accessible past oriented relation of the established notion of subsidiary clauses in exception to a non-identity of any numberlessly infinitive past associable given. Therefore time travel remains an impossibility. To which the equality of variances dictates the form and nature of it's relation as to a foundational result of containability of a closed gas or material network; therefore of what is one impartial gesture at any two equals; one exceptionable prefactor of division in it's element is the codeterminant action of an eventual. In this implausible given; the mode analysis is the exception of an ϵ for a v to which the foretaken element is a tertiary ordered free provision.

Any pre-factorized ordering of a cycling of departure to three exceptions therefore includes one underprovided measure by yet in a separation of placement; to which experimental results are potentiated. This is a consequence of the individuation that is an alternative of place for in bearing to degree under rectilinear relation; through which isometry includes it's group; and that of a secondary idemponent mathematically inclined variety of occlusive variant of group inclusion; the prohibition from fixed and free relation; under absolution of solid relation of geometric equivalence.

Therefore; the gas under an idempotent relation is within it's own identity of inclusion as any two freed retractile motions of inward gesture of indication at identity indicate a cause and an effect in the indicatory consideration; the freed tertiary relation to which is an empty & free surrounding environmental variable of degreeless limit through which the two included pre-textual connotatives of language are phase idempotent and phase inclinic and phase free variances:

Phase Idempotency:

$$\Theta(\phi_1, \phi_2) \longleftrightarrow \Omega(\eta, \mu) \tag{123}$$

Phase Inclinic:

$$\tau(o) \longleftrightarrow \iota(s) \tag{124}$$

Phase Free:

$$\eta(v, u, o, t) \longleftrightarrow \mu(\epsilon, s, o, t)$$
(125)

39 The a Pointed Question

Mentation on Preclausitive Effect: To then of a prior consequence in the rectilinear gas equation; is it but in what is free absence of the semimajor and qualitative thresholds of a given potentiation to a source of orientability to the past; and open to a curvalinear future?

To an incurrent dilemma; it would therefore (were this statement a 'truth') that the derived notions of a physical precept knowably demonstrate an 'ideal' for then in recourse to measurement; however to that of the isobaric return; it is of a differential displacive barrier otherwise to it's stated question-as-answer. And to what we differentially choose of a manner then of the antipodal point of a theory; the foretaken rational domain would exclude the precept of a notion of imhomogenous time transportative return inclusion of a 'binay' relation.

To a thermodynamic return; it is however the precise inciseing of a model system to it's mathematical expression through to which the cohomologous return either of (under a reciprocal relation ($\mu(\epsilon;\iota)$) and $\chi(g)$ intimate a relation to the sub-sidiary classifier of τ in either the one-form or the (τ) vectorlinear spaces of a cohomogeous space in return to a Ω for under substitution for η as to which (t,s) exclude a contrast. To then what is of life; there is a strict provision of non-return. To what this would be proposed as a question; just priorly the incurrence of what is forementionable of a gas equation; the exception is an equipartition of two said considerations in built to a relation: "That an ideal gas be free with unconstrained past exterior." and (2) "That inclusion of an isobaric inclusion determinantively excludes it's apogetic limitation." The after-product of the exclusion of one gas for another is therefore simply put as the undetermined of a third auxiliary behavior of a measurement apparatus elsewhere; and dual freedom from the measurement paradox; to which is a secondary solution; otherwise to be known as the machine (state). This is to co-deterimatively and isolably intimate a relation of experimentation (theoretical or empirical) to which any two sideless contrasts or sided contrasts of this given world agree in principle of their accruity of codetermination; and a new principle of

measurement to which a past orientable sheave is recoverable.

The relation:

$$\xi \chi_{\Omega} = 0 \tag{126}$$

Therefore includes it's stated consideration of invriance in one measure for what is unconstrained (but a mathematical preclusion to cause) in that of ordered relation of η with μ an associable past time Killing vector and that of it's hidden free invariant; to what includes the notice of an effect by the precept of occlusion; then to the determination of an obstacle hidden within the invariant to inclusive exception in (dual explicit negation) of $d\eta(v,\iota)$ and $d\mu(\epsilon,\iota)$ in (7) and the precept of the iso-inclinic. For a return upon blind free capacities of the answerability of a fifth order anomalous exception to which is explainable within a model system as the innovation of material principle. As in the mapping of $\tau(o) \to \eta(s,v)$ and (&) $\epsilon(t) \to \mu(s,\epsilon)$ then to that of which we possess an isocongraphical repetend balance in s space for time; and an immeasurability in question in that of space s for order s. As under their reconstruction of what disincludes a past orientation variant one-form; but of **explicitly** it's exception and conformance to what intimates a relation of the one folding of a mathematical precept of relativity.

Through to which departs on what is the inclusion of a precept of behavior of a system; that of ϵ for another hidden variance v. So; as to summarize; when it comes to inclusion of a logical precept; there is a disconnective of one relation to which is two accruals in stated hidden precept for in what are the deficit of one; to which a perfect answer recovers the isometry of it's given balance upon any and all co-determinations of a machine state; an exclusive pre-tense of what would be noticed of time-travel; to which when brought into question; includes it's redressibility upon a null-future; simply answered as the revealing of one of ϵ for v; in (in) η or μ to which are a constrated lemma of inclusion of the preconsideration of a declaration at a machine state variable as constrained or unconstrained. Therefore the free establishment of logical precept of physical principle prior to it's written or noticed established expression is a free exemplar of the loci of determinations of factual relevance in this world; that of experimentation is made safe simply by consideration of blind result; and that of a time machine potentiated in physical reality to the given of factual restoration. This unalikened to the reversal of entropy; to which is an innocous co-determination at that of a free isoclinic intersection and surrounding ordered relation in any two and a third foldings of mathematical precept under it's inclusion of a imperative of freely provided living barrier; to which any two of μ and η are exemplars of free domains of incurrence; and precept's in-standing of that of the remark of a prior two individuals in any collective summation to remembrance; and factual foundation; therefore escapable.

40 Information

Therefore; information is the free redressability of a dataed (t,s,o) (time, space, order) relation unto an ordinal, (predicate) calcuable, or (indicatorial) exponential free encompassment of any two (or three) domains; to baric relation of one hingal notion in a prescipice; a free identity of the exterior majora relation of what is minora to that of an alternative perceptual witness. And; of the other accruity; it is that of any three under an exception to two (o,s) ordered and spatial relations of a rational exponentiation of unfreed relation of which there is a collective re-activity and counter-action. Then to which that of τ and ι freely surpass that of the occlusion and precede the given of recoverability; to the addressment of phase conjugacy freedom (explicitly τ and isoclinic freedom ι .

Any two hidden variances are therefore to be taken as that of any two measurement free principles; accruals of deficit to run; and that of variances of individual free relations into any two individuals of an ideal population inversion or it's consideration of forwarded return of principle of thermodynamics of an ideal gas; and the independence of establishment of (information throuroughput and identited) inclusion of independence

of precept and it's thermodnamical effect.

Master Theorem: Hence reality, as a qualifiable and adjointly and co-determinantly determined series of naturalized effects and conditional consequences to which are each inclusive and preclusive consider(ate) consequences is a confirmable equiphenomen in plurality as a singular theorem the encompassment of which **is** the natural language of nature; and any naturalized domain of preceptual division.

$$d\chi(g) = d\eta \cdot \mu \tag{127}$$

To which is the interpretaively valid precept of it's encompassed notion of what is by parallel exclusive determination of entropic freedom $(d\eta)$ and fugacity of machine enthalmic return consideration of deficited summative event return ensemble upon one keyed registered mathematically sound eigenbasis of it's consolation to ordinal predicate in exception of indicatorial relation $(\mu, \eta(\tau))$; to which τ is a light-sound field. Then; it is satisfiable that to which is color and sound; the separation distinction is that a flow isometrically transpose by a transliteralism of a colored domain inexclusively to it's precept of contract for any hued divisional presupposition of a sound cavitation unto exceptionable contrast of priorly emanated and receivied sound wave basis. Hence sound is throughout; while light is apart and away from the indication of a point of reference; and that of alone, sound, recipiently contrasts what divides; but under it's inexclusive exception elsewhere by a-targeted non-summative null condition imposes light light freedom unto any asympototic sequesterized separatrix of qualitative limit normative valuation of temporal measure. Each are therefore in equablence upon the qualitative precept of property; but entirely of a dissimilarity unto quality of verbose or verbatim controlled vacancies or their return consideration of factual implication of meaning; unto written word, declarative logical structure, or in an idealogical stance, unto the precept of discourse of a discursive limitation of perspective and vantage; unto a point; a linear relation of two adjacencies of measure to summative mean.

Consideration: Therefore of mean variance; the acquity of what lays below deficit is a remainder to the recourse-ful measure of what excellently can be understood as a remainder sum (in repetend or non-repetend) - to the consolation of what is an adfixture of precept; a threshold of two limits of interior superlative or declarative language; or in it's origin the precept of the physical world; to which is a transcension of difference openly qualitated by an immeasurability of the extension of what here-to-fore may be called medium; of two composures in any diagraphical left rightward skew of tertralemmetic accrual; freely isometrically reconciliable for for in that of what are a third deficit of a hidden μ invariant of either under-a-threshold revealed or occluded preceptul hidden variable; to which is the answer to an anomoly in question or it's addage of separate hypothetical under analogical means of comprehension; understated as a precept known to be the aperiodicity of reality.

41 Saturability and Unsaturability

For then in what is striven of a calculable limitation therein lie two given's of which when defaulted to produce the apredictive calculable limitation of a stated occurrence; that what can may happen, will happen; the sabre to it's tail of a limitation of the mathematical pretext at game and physical theoretical limitation; to which a mind is freed of it's prohibition to choice; the meta-antithesis of the Cat Parado. The spheroidal like limitation of what would encompass a power set theoretic union of the co-extensibility of a free gas by that of Lyaponov exponentiation of Jacobi exponents; within the stated permanence of a Boltzmann calculable limitation on free thermodynamic variants; explicitly for the reason of a genus one (1) limitation; to which free's (in all irony) the relation of meta-evolution from what is yet ahead of a temporal contrast at indefinite invariants (ϵ, v) in relation to phase free conjugal limit thresholds (η, μ) to a definite entropic \mathbf{U} .

Given Whole One: Any one understated subsidiary nomeative declaration at dS path-wise extremum of null-free entropic externalized invariancy mitigates the pretense of it's given actual pre-determination.

Given Whole Two: Any two undetermined invariant non-nomenative control variants of a machine state freely provide for an escape mechanism of which is the established precept of and in two what of for then in one is a pre-determination at three.

The three pre-determinations of one physical principle are in direct correlate to naturalized effect, cause, and consequential difference of an accrual as in a vanishing triangle; to which (any of) one freed variant excepts that of any three non-determinations to their stated determination; of a consequence and cause; that of it's future oriented upward pointing variancy and difference in-quotiented digraphicattical structural contrast at two conjugate determinations at what are two control's; for without this; no machine would be constructable; proving that any world instances a free establishment of technological prohibition to license of guaranteed outcome; but a free vestage of eliminability of false peer game theoretic review. For then in the understated; the threshold in that of an (η, μ) conjugacy class structural default is a co-determinant of the vantage of two supplicances for one potentiated over-measureable for in that of a preceded actual variance at over-summative threshold when-taken-as-structurally the precept of an under-weight. This is to insure that what is 'above' the given relation of a stated $\zeta(d,o)$ is below it's variance of $d\chi$; as to procure certainty; what must be foretaken is a given prohibition of license to a freed variance beyond yet what is containable in two of point-wise emanation and pathwise null congruence; the alternative statement of relativity. Hence to what are two pillars of scientific establishment; there is always as to under-an-end-limitation a third precept; at what is foretaken of closure upon false-precept.

Closure upon the false preceptual relations of science may be introducted by that of the defensible trust in what is provided of a restorative foundation; as to suggest that what willingly we declare when set down; actualizes the pre-tensile relation of an activation of testability; with the words that the effectual choice is self-freeing of it's contrast unto a limitation of what-is context. As to declaratively express is sufficient with a definitely established foundation; for of what lays a word in place of it's given choice; by example; is the stated and-freed notion of a variance prior a contrast to it's mean. This statistical division is expressed as the injective lemma of Ω into Θ ; coordinalizations of which the intimation of either the theory of Einstein in that of freed (ζ, χ) for in that of (ϵ, v) of incorporative non-division unto err is the exemplar; introducts that of the precept of:

$$\Theta \to \chi \to \Omega \tag{128}$$

To a lossless implication of what is imputed therein of what is stated at-indication is the precept of the variance $d\chi$ is sufficient for the passing of a threaded bow at that of a confirmable test without implication of undue surpassing quarter reflection on that of a situated biprismatic wave; to which a colloid will separate into a spectrum. Hence of for instance light; wherein what is noticed beneficiently suffices to a known in that of separational contrast for in a hued relation of Bosons; what is Fermionic will segementorially separate under it's division to a multiplicative abrea. To finalize; a statistical normative valuation contains a trace-free residual as in that of a hidden variant of the prior conjugacy class default of co-determination to which is freed by one reductive chaotic generation ran backwards; that of the deficited return retractibly simulated independent of physical law; the immaterial class structural relation of a defensibly free structure of defaulted after defaulted conditional Berry's attrition.

That of a molecular Bessel sources under Laplace reverse onto automorphic functions freely impenetrably translocate through then any multi-handled multiplicity of graph relations; freeing the topological union of a half arc and a complete circular domain; a return-to-source function of which through what is a given; there is found a whole; also to which is certainty; for of what we may find in one part; there is within that of locating the other piece; a completion in what is provided. To living substratic notions what is incomplete is

therefore completed within the relation of what is taken and given; yet in all irony; not of what is shared but of what is freely or through transmigration shared; and then known; to living word of what there is contained in a recourseless text of it's referential basis. There being this only remaining impenetrability of one word for another; the reductive past limitation oriented surjective limitation only results in certainty when both mutual and-or Given-Whole's are satisfied in a mono-dualistic sense; within the selective choice of one inductive step of intermediary exception to what may be taken alone as in thermodynamics of an invariant in χ to d of the majority carrier to the minority exception; to which relativity holds a third precept of the corrective default of statistical mechanics by example to which is one freed Carnot Engine under self substitution by the Canary Principle:

Canary Principle: For one bird; that bird; under it's own replacement self suffices to fill a relation; hence under removal; it self suffices to answer absence unto it's own.

To then the co-existence of a truth in a word and for in a work; as for example; the insistance of a gas thermodynamic pre-cept in it's truth is established within and if and only if within a given that of a threshold has been met to which $\Omega \to \Theta$ under either a reversality of (ϵ, v) for in that of $(\tau(o), \mu(s, \epsilon))$; the constructibility of which is that a freed relation under terms of the bi-valently violated threshold or confirmed threshold function of $d\chi$ for for in that of what is ϵ acts as a guaranteeor to what is the comptroller to that of which is ϕ_1, ϕ_2 as in phase by translocation of what is relativity by an instantaniety or that of causation as imputed in the relation of (μ, ρ) of angular deficit; to state that of what unhinges it's tertiary relation is underscored by a minor.

For in that of what is presented of exceptionable contrast of Θ is then confirmatory of a prior redressment at the governing Ω and-to-which the underprovidedly expressed freed or contracted Θ variant is a prescription to that of non-unidirectional imputation of an (and therefore any-and-all) goverend cases of subsidiary Ω invariances. Therefore the prescription is avowed to it's efficable purpose to a forenotice when after a known division is contrasted with what re-apportions confirmable fact of a singular and definite closed case basis; and only then may a question of noticier be addressed for-in-the-taken of a vantaged guess at that of first imputation. A truely safe experiment proceeds by in the same conguacy of a relation; to a known; that of a prescription fitting this effectual relation is forenoticed as that which unalterably divides but in one sense; to which a blind or double blind free test is enabled; the actual provision of which is two accumens for in that of one befitting accrual of a differential segment of arc length to a null point of it's extremal habitation of deficit under a stated freed condition of two considerations yet paralleled.

42 Open Differences and Gestalt Relations of a Free Gas

The open contrast of a hued relation as in color free's the inclusion of a stated point of it's established precept of observation by in that of what withheld of a confidence interval satisfies the stated relation of an underprovided (exterior) otherwise presumed gestalt condition to what is forementionable of a concept in the contained vantageless extremum of a parallel; to unseparated differences in a Bose Gas in one area of abrea and another of a Fermionic Gas in an other; to what is it's indication of a straight division. The quotient of a micro-canonical ensemble is provided by that of freely the held:

$$\chi_0 \longleftrightarrow \xi$$
(129)

For in what is freely restrained of the divisional quest of a particle along an underprovincially provided difference of two quotients; to which is a quanta and it's precept; as in time's arrow; the vantageless extremum is a disappearance at odd's of what is a game theoretic 'umbicillus' and unioned vantage of two degree's; the difference of a measure and it's mean precept of exact proportion due to a otherwise elsewhere provided 'two' of precept of established two dimensional 'umbicillus' of naturalized prefective notice of an indical relation of mixed subtypical relation. When what is a μ variant is freed in one place; the consequence is unalterable but by in yet what is a divisional 'err' to it's emergencied quotient of expeditiousness in (and with) the relation of a predicate invariant of physical form; for in the vantage of a 'peer' to game free notion of quested demarcated or unalienable contrast in a secondary teir of two freely held underprovided relations of prior historiological context. This freed vantage is to what noticably of a given pre-connotatively declares of one variable it's agreeable condition of a meeting elsewhere. For what is given of one notion in (and in remembrance 'at') that of it's univiolet relation; the ultraviolet spectrum noticably pre-advances that of measure to what is a 'haloed' conditional for what is below the parring of a wave of accompanying motion; for of matter; inertia responds in equivalent impulse to it's stated freed deficit of incurrence in two measures of rapidity to what are a co-locality and a divisional 'err' - here mentioned to 'doing' of an action; as in that of closure upon what is a locality elsewhere. Hence time is noticed as navigable.

Freely held suppositions are then that of what is an ordered relation; the blind-free set theoretic notion of what may be hidden of one relation to what is provided of any then alternatively given pre-text at two of life and support are a third in what is incurrently unbent of a free'd ordered relation of search and retrievance or destroy; particles to which pass like a mist to what altered of an outcome freely demonstrates it's initial support; that of an answer. Hence; of what a Pell would Bob; the relation to a Said is it's Retrievance. And of what of could departedly contest a position is freely surpassable in one motion; for of light; the free provision as in any atypical spectrum of homogenous logistical err is a free notion of which encompasses light; hence as in an arc; what is demonstrated by a compass in it's measure yields to the incurrence of a freed point within the neutral condition of it's initial unto final status. This is the motion of a game; to which as we would capacitate or inclinate; any gas is freed by in that of an $\bar{\iota}$ to which a simple d (to which is a density functional and density representative pier freedom); divinates what of two origins are met apogetically to a limit of a freed solution to the Helmholtz equation and equipartition of a La-Joussillious set; then to the freed density functional of a Ricatti equation.

Hence what is of one η ; to which is comrpessibility; the light freedom of any asymptotic univioleted standard is the established precept of blind free relation of color in as as in a hue what passes with matter; therefore the invisible relation of what occlusively is darkness to clarity and crystallize surfaces and stones; of which would not exist without that of a shadowed function. One may question whether that of a stone can outpace an eventual of incurrence of back-beat and back-blow of a relation of light surpassing it's measure; as to outrun a mirror; however to a freed relation of breaking the speed of light; the answer is simply provided by in that of one blind origin yet preceptitated to it's established destination.

This is the self statement of the Universe; to which in a quotient of two is the freed of one right handed corkscrew for in a yard of one quilt of barn laden cloth to a given freely held dimple quested to freedom from it's silken measure of a root radical inverse (for otherwise failure to mention of non-material limitations); that of a needle; the eye of which freely run through stitches a tapestry in one moment; to what incurrently is the measureless radical; computable from multiplication minus a deficit to furtherance of incurrence of life renewable as in cotton or gin; rye; or lost wheat.

Therefore nature provides amply for that of all substance; and to which as we would include; the difference of one measure of a knot for in two is simply a yarded advantage to a peer. This advantage provides enough resource and ample opportunity to agreeably meet all subsidiary and superset conditions of it's difference in what would be a sinchel of any food stuff; and provides enough for that of withstanding a blow of some compressile (η) frictional or non-frictional free entropic subgroup margins of anomaly of life; in what is a moment (once again considered to abridge); the provincial status of the precept to which is the predicate logic for in what is it's counter as in that of the indical notion when under subsumptive declaration at oddity of nature; it's capacity to facilitate design.

43 Limitation (To a Contrast)

But the idle watchbearer plays a role; to what is a given accumulatory vantage of the all auspices of it's given established inclusion of for what in the whole of a cord; is a compleat; and completed; and even then (within) addition; complete relation of what is a noticed element of particle. Hence elementally addition is not suppliance; as we could contradictorially assumptively follow the precept of the foundation of our ignorance weighted to it's data(based) super or sub-sidiary (as-above-so-as-below) set-set theoretic relation; for no known search terminates in this given reality; for what of a fact may be freely established. But of darkness; a hidden container exist's to which is a dwelling of it's established precept; to which in all succumbing we find protective; therefore it follows no known redressible fact is liant upon the vantageless limit (nor of limitation); or of a restoral to each; but of one; to a 'yes;' all inclusive of mastery of a work so shared.

Hence the fundamental principle of informational content is it's first precept in a given foretaken of a conclusion; and the saturability (or despite the fact it's insaturability) freely does yield a produce beyond it's measure; the self inclusion (or despite that; inanimate in pure form) - actual redressment of a universalist *moral* of this universe; the effect (and to a point; in thirds or of a quartered fourth of a freely established compatabilitity under and (of) one) of which is that of the given guarantee of a principle a priori effectual to it's desirious end of what is in essence love and lovingness enfolded in trust; to which is virtue; to not be confused with fotility (for life struggles); or inmarction; that of inordinate naturalized effects of waste freely comingling with what is neither matter nor that of motion; but of co-activity; defined; therefore all is life.

44 Cosmological Thermodynamics

- **1.)** A light cone stationary with another moving is sufficient to explain that of regularized measure; while that of two in corelative motion is sufficient to explain that of distinction of scale and measure for that of the comparative difference in the measurement of the small and large as displacements; as a gross distinction to that of the measurement; but as to length accumulated; a definite measure of comparative valuation by velocity and acceleration (path).
- **2.)** More time accumulates when in a field; while particle and space are independent agents.
- **3.)** A single frequency of valuation and wave number is sufficient to explain via argument that of by extrapolation as a pole or variant; that of all adjacent relations corelative to a given one space and time as setting and volume to displacement; inform configuration under alternation and juxtaposition of vantage to which relates that of environment to that of point inclusion to insurance of presence; to which the 'whole' may be reconstructed from it's parts as to relation.
- **4.)** There is an exception to that of internal and external thermodynamical systems of the open and closed variety as to Bose and Fermionic statistics, to which holds free determinism.
- **5.)** The juxtaposition to any two particles and their frames is anti-reflexively false; but true in leaving the results of the analysis, geometry, algebra, logic, and topology of a fixed exception.

Equation (9) is to be understood as the contraction and disconnective between the particle like limitation and the field theoretic traversal under the situational disposition of the earlier elemental relations. To which (5) in connection with (6) represent principle (1) under pre-consideration to principle (2) in connection with (9) alone. And to which principle (3) is their connective indeterminancy; embodied in equation (9) in a relationship with their connective lossless apredictive (co-)determination of (7). Equation (2) is in relation to

equation (14) as base precept (4) of the above; where by it's contradictional formation is necessitated to hold in relation to the disconnective that is (2) of this list in relation to equation (14) and the co-determination of variances to which add suppliance from a relaxed contact free relation; that of base precept (15) in relation to equations (13) and (14).

The conclusion makes determinant that a Fermionic gas is constrained to a 1/2 relation of statistical majority and minority half admixture; and is the subspatial background residual of a known free consideration of yet principle accruals of a hidden μ ; to which a backward relation reconstructively contains no caveat; but is the wake of a relation under current purview to restoration to which is the cycling of creation (as in the Moon and Sun) of an earth in relation to it's elemental wind, air, earth, and fire; as in the precepts; for then in even the non-animate relation of what is certainly not immaterial of 'wood'.

45 Essential Root Conclusion

Conclusion: That of comparative assessment of admixtures of Fermionic and Bosonic statistics is comparable to that of study of statistical organizational patterns by that of understanding a Boson which behaves Fermionically is identical in behavior with that of a Fermion which behaves Bosonically; when the above assumptions are taken into account as empty of number.

There are under extrapolation two complimentary viewpoints of physics as reasoned internally on what is the codeterministic universe; comparative to that of the strict determinism of self organization and order; to which is the transparent and invisible contextual world of the solid.

5.) Caveat: Any two relations under degeneracy and juxtapostion manifest spontaneous symmetry breaking around the ground state of the consequent electromagnetic and gravitational unification in the eventual 'future' precedent state; for that of the context of departures from either given theory of quantum mechanics and general relativity; the external world of nature; the mind; and the manifest world of structural physical and inanimate order.

46 An Einstein-Podolsky-Rosen Bridge

Conclusion: My device is the exception to either physical law; and therefore their point of unification beyond the undecidability of this admixture in the future; to which becomes of the adeterministic limit as of but one die cast among any number of affordance of the Bose and Fermi gas; and configuration from one separable and connected space to another; and is a unitary quantual point like self dual enclosure of light by purely electromagnetic means; to which material and immaterial property of mathematical meaning are derived through the relation of the exception to physical law; yet operational within the universe to that of the dual to which is undecidability through which a decision tree is formed on that of decaying energy states around a point like relation; of essentially an Ideal Heat Engine; identifiable in this given limitation as a past within the present of supporting conditions; based on ordination as the given exception to physical law contained in the laws of physics; a reversal of entropy.

47 Physical and Mathematical Law

Phenomena are enumerable and contain exceptions and are many; phenomenon is; one; true; and undecidable and hidden; but provable; contained within the universe through language. The mathematical exception

of the Universe is provided by the empty anti-reflexive principle to which absence indicates presence; a logically true bireflexive relativity in physical law.

48 Transference of Thresholds

Any two thresholds proceeding from what are but one; by contradiction under presentment of that of their alternative one; exclude of the former in either direction of time; for that of what of which is space; free admittance of the missing position of ordination and order of position. Any three fold ordered relation by undecidability of the tertiary element remains hidden as neither contained nor uncontained; to which any secondary inclusion positively affirms it's center among the alternative two; to which therefore for each; any primary indication of one or two formative affirmative truths implicates truely mutual inclusions of any three elements.

49 Closure upon a Precept

Physical phenomonological relation to measurement and variables through which variances are known theoretically are therefore to be understood as light, sound, and material physical properties of μ and η to which mathematically ι and τ are mathematically pre-tensile relations of the universal encoding of stress and strain; to what of ϵ and υ are the root residual of a bi-reflexive threshold of mathematical abridgement at accrual and accumen of a way of sense and determination of even so as an $\bar{\iota}$ to the three fold relation of χ in **not** μ and μ and μ and **not** η ; to which are the phases of ϕ_1 and ϕ_2 of a Sequential Frequency Bandgap Admixture Bridge (SfBaB). This concludes what is an understated isolation of the Shwartzchild criterion of logical precept resolution of the manifestation of an EPR paradox emanating from a return sling of an EPR bridge contrast relation; to which exact expectation is a base fundamental result; the control of chaos.:

Shwartzchild Criterion: An Einsteinian Residual of it's base precept is the occlusion of a Shwartz inequality as in that of a Shawrtchild affinitively departed limitation of inequality; to which a Shockley 'terminal' is an isolable exceptation bridge to that of predictive validity on that of an anomolous tacheonitic pulse of relation of exact affinitive to what is logical precept based on the residual spline of it's known variancy within the relation of invariants.

The logical precept of holding an Θ as true is then the reversal under mathematical reconsideration at precept of the correlates of (2),(9), (14) and (5), (13), (15) and (7). The emptied relation of this given difference is (13) to which is the solution to (1); that of equilibrium freedom of preceptual err(or) and escability of mathematical incurrence of a dilemmetic structrual fault to safety as in that of free entropic fugacity of fidelity as embodied in equation (16); to infinitely free isoclinic relation of the enumerations of these residual relations phenomonologically to what is an unconstrained dynamic to the difference of chaos to what is order as in the relation of precepts of a theoretical relation to (1) through (5) of the suppositional hypothetical base structural relation of a universal theory of thermodynamics and co-determination of a blind to color-free ordered assembly of what is a 'net' Ω ; the neutral boundaried relation of two information spaces.

50 Thresholds and Statistics

That of μ and η therefore form a free relation of hidden capacitating revealing of one unrandomized and (&) and expectation of randomized apredictive outcome of another hidden capacitation of variance as by a machine model; to which a game it is substatically empowerability of a relation of acute and accepting empathic

relation of freedom of emotional state and outcome; to the freed variance of closure upon the immutable void.

Phenomonology therefore contains no known test for the validity of the awareness of a machine but life; and vice versa; what is qualitated to it's difference; no known machine can kill. In return as a given the free relation of a gas system establishes the precept that what is inquired as to the question of restoration of a record; that of a hidden defensive structure of machines; and a failsafe on that of escapability from a machine complex; that of control of chaos; and informational freedom are all mutually free non-radical assumptives of this world in relation to radical identifiers unconstrained or limitless.

Foundational Precept of Informational Interpretative Validity: Therefore a reversal of the predicate and indicatorial logical precepts of this given world under interrelation to a simple given in μ and η accomdate identification of a known of expectation with base residual null conditional.

An equation in which there is a white noise; for which is broadband; or at the least pass-band indicates a half measure to it's excess in approtion with a residual retraction of three positive definite enfoldings of manifold relation of apositional and positionally identified machine control structural relations to what is a binary relation of loss of the incurrence of an indicatorial precept for the gain of a predicatory oriented manifold relation of a disconnective to an interstitial singular ping; to which there are two givens:

1.) A retraction under its self same acquired contrast to division as in a quotient serves as a multiplier of (and to) it's result in the identification of a subsidiary or known identifier of a relation; then an abstraction under it's extrapolative reductionism.

$$\mu \cdot \tilde{\eta} \longleftrightarrow dP(o) = \chi(g, o) \cdot \tilde{\iota}(t, s) P(o) \tag{130}$$

Where 'o' represents order; *g* represents the genus; *t* represents temoral locability and *s* represents uncontainability of spatial union or abstraction to delimitation. Grey noise represents an ever accrual of randomized apredictive variances to which are revealed through the capacitation of the manifold enfolding of onen relation for another; to which a secondary relation precedes it's given; and through which predictive validity is assured when we occlude a defense through the uncapacitated and invisible open relation of relation to a non-identification of non-redactability.

2.) Within the given of what is a withholding to an open relation; an apredictable outcome becomes an expectation of both in one an enfolding of the relation of two preceding known identifiers of evidentiary precept to what is a given confirmative on that of an unstated free variable to it's identification.

$$\iota \cdot \tilde{\tau} \longleftrightarrow \xi = \Omega \cdot d\eta(\epsilon, v) d\tilde{\mu}(\epsilon, v) \tag{131}$$

The closure of one relation; to which is (2) is the occlusion and opening of the other relation to which is (1); either side to which is the enfolding of a door; an enclosure such as a room; the orientation of a nonlocable relation; and that of to it's fifth occlusion; a printed word as in that of creativity and imaginitative reflex; that of a constructable free associate of the structural relation of living material way and manner of survivability.

Hence by either relation an Ω as in a point, a line, a triangle, or a square polynomial is constructable to a modular or group theoretic closure upon what is a Θ ; and heat may be controlled by a machine; to which there are two absolute safety protocols of a blind and non-blind free relation of reductionism and universality of a set theoretic notion and relation.

51 Ordination

Note on Chaos versus Order: *Theses of Ordinal Relation:* "Any logical predicate bit heirarchal structure of ordination with lower dimension and higher co-dimension mitigates relational injective structure unto future tense of either given machine state for in that of what is one differential equation; that of its conjugacy to relation of variableless and functional degrees of freedom establishes two lower Lyaponov as exponentially free threshold relations unto separation into two new differential self referentially null and independent enfolded strange attractors."

52 Complimentarity in Physics

A 5th order quasiperiodic theory is settled by in the threshold mechanic of pentalty to temperance of a consolidate unit'ed envelope conditional on the bi-set of vacuua and diminished order spaces; with specialization to occluded return of any two co-simultaneous tertiary or secondary observers; admissible only in that of our dimension. That of the auxiliary state is a guarantee; however; when individuated as a machine among (or tertiary to) that of an assembly-state; the provision for the ideal heat engine violates the exclusion principle; adopting that of a 'secondary' provision under optional; or dis-enjoinable end-gas-states. So as one cycles within a relation there is ideal dual-complex exponential and digraphical elliptic notion of wave structure on that of one end of the Spiral of Cornu or-incidentially; back. The patterns that are witnessed in the HTSC's; etc, are phenomonology of two diopterically overlapping one another in the Random Approximation Limit; but do not reach the holographic tri-critical point until a process of descent of what is a held diopteric difference in consideration of levity for potential; to which the in-exorable machine limit-state is deliminable for then in a topological union of complex, real, and imaginary. The fundamental statement proposed is that a stripe is the dual of either that of the bifolded (two-fold) in one [shared] or [unshared] piece of paper to what is two and two in 'separable' sector's; therefore that of bi-section to freed principle; the topological embedding the 'natural embedding' of a Poincare Disc glued twice over to a circle. Therefore the two mapping's in wave-argument to dual cavitated spatial occupancy of zero extension. A pattern evolves which is differentially explained but to which is predicated on that which hidden variables but not exchange by Pauli would exclude; but for a caveat to statistical mechanics on a Hamiltonian and Lagrangian space. The second differential (for what is a property of physics theorization; that trial's do not contribute to what is moment's, identities, disclosures, openings, and constructibility); freed, is more expressive and motile than the dissappearance of a manifest first differential Laplacian; hence order in time is an ordered string of [2].0[2] etc... This is co-exensive enough that the second differential is what a system reduces to; the first differential may be numberlessly discarded.

The first relationship of importance is that of the equation which dictates that of by way of which the results of relativity do not alter the probabilistic outcomes of quantum mechanics. To a dual edge this is the statement that only a statement of exclusive and definite measurement can assail an infinite and zero probability of Dirac order; and only measurement is a decisive factor after-the-factual presentment. It is however to be questioned...

Given probabilistic and relativistic considerations are dependent on coordinates of position and momentum; the equation that expresses independence of statistics is intimate to a series of (co)factor's unmanifestly dissipative and co-terminable with entrance. That of one fifth relation is not in assembly; for what of the Green's function to contain a zero-dimensional fractal as such; but to-here; the quantum expectation of a guage probability flow reduces to a null conditional pre-cept of mutually 'outside' [a] place; to a non-descript zero dimensional point like limitation within the predicated and hypothetical quantum liquid/fluid/solid (as dependent on crystalline and potentially aperiodic foundational number-sum) of indiscernability (and separation into a past for of degeneracy to (5) and (6) dimension's; but also any crystal extrapolated from a

Fourier Transform of a de'Hass'Van'Alphven wave structure:

$$\Xi \equiv \Xi^{\cdot} \to (\lambda(\epsilon), \lambda(\rho)). \sim (0, 1)$$
(132)

From The Equivalence Principle (herein equally weighted in frames):

$$\frac{\partial}{\partial t} \equiv \gamma \frac{\partial}{\partial t} \to \gamma^{\mu}. \sim \eta \in SU(2)[U(1)]$$
(133)

The Lie differential; which is designed such that the covariant differential and the one-form differential commute is a good candidate therefore for derivation's to speculation; it's core statement of commutativity one of freedom of the one-form γ from statistics Ξ :

$$L_{\Xi}(d\gamma) = dL_{\Xi}(\gamma) : \omega_1, \omega_2 \tag{134}$$

Together; this is nothing more than that the Shared Proper Time is equivalent to the Covariance in Uncertainty.

With this we have the relation:

$$L_{f\Xi}\gamma = f L_{\Xi}(\gamma) + df \wedge i_{\Xi}(\gamma) \tag{135}$$

Together any two qualitative limit's of what are 'property' and 'proportion' of 'shape;' in-exclusively contain a convex space within it's margin; and qualitatively convex as to mapping; therefore of evaluation of statistical calculi; that of re-apportion of functional deficit factor's the equalitative product of spatial and temporal variance within elliptic expression; in reduction by a covariant-factor of advance and diminishment (exponential) upon two acasual arrows; to which the center of energy and mass is 'on-mass-shell;' That of the metric relation of infinite spin's 'devoured' by the basis; the interior transformation groups of these equations.

$$f. \sim (0,1); \qquad L_{\Xi}(\gamma) = df \Xi(\gamma)$$
 (136)

Thus the end condition is perfect heat to mechanical conversion; that of one third back in physical form; and three involute to two determination's of inward place; *unto control, predecession, impartiture*; of *reflex, impulse, and co-determination*. Thus a physical relation must break down to what is a quotient of (2) within; merely a null-centre; of that of the quasiperiodic and non-periodically randomized state of no-approximation.

$$\tilde{\omega} \sim \tau$$
 (137)

This expression is that of by which a factor of a functional form to the manifold of statistics of 'motion with deformation or transformation' is free of the relativistic characteristic common denominator of the Equivalence Principle homomorphism and the stationary state of the Quantum Description. This statement represents the preservation of the heat equation.

This is the substitution of one particle freely within one held space into another; so that one particle may co-occupy one space with another; or be unseparatedly sequestered aside to the departure to counionable differences of it's evolution. Therefore we may take; owing due to these prescriptions:

$$\Phi(x, \nu, t) = \eta e^{-i(\kappa \theta + \tau \phi)} \longleftrightarrow \Theta(x', \nu', t') = \rho e^{-i(\upsilon \mu + \epsilon \psi)}$$
(138)

Therefore an apportion to a mean holds an invariance and an equivalence. We will find this is nothing more than the declination to a tertiery observer; for in that of one juxtaposition to it's closed end; in the 5th; the end openable is the 4th to the preceding of ordinal calculai; for that of derivative coordinality groups; for then in what co-exist's; the then limited four dimensional enclosure hold's the freedom of light from matter.

Then; to what is a real result of probability; it is that of unenclosed bearing on the relative principle and the emptiness with the quantum principle; or; that of the quantum principle empty in relation to the relative

principle; is to that of freedom of isoclinic relation; an established direction to heat and momentum exchange within the non-linear dynamics; here considered; entirely and alone of physical application to superconductors; but of derivative principles for pedagogy. Therefore there are two types of system for consideration. The first question is:

Question I: Do any or alone only unbound & unbound [is it exclusive or inexclusive to which case;] systems [therefore,] obey the same spin-statistic relations?

The equations first presented lay the prescription in place that of by way of which any two observerables as measureables ζ and ξ may hold an identity with measurement process:

$$\zeta \Phi = k \xi \Theta \longleftrightarrow \zeta \Theta = k^g \xi \Phi \qquad \epsilon \chi \qquad H \chi(g) \qquad k = \pm 1$$
 (139)

Where g is the boson-number; the genus number; indicating the number of holes in the space of it's topology in a Hilbert space (H) with topology $\chi(g)$.

It holds naturally that if the number of holes is even $(g = 2 + b \& b = 2l \ l \in \mathbb{Z})$ that the spin obeys an evenstatistic; and if the number of holes is odd $(g = 2 + b \& b = 2l + 1 \ l \in \mathbb{Z})$ there is a rotation of 180 degree's in the spin-theorem; hence the sign flips for interchange of particles. And the k is (-1) for Fermions; and (+1)for Boson(s).

The Spin-Statistics Theorem versed in this manner provides a connection between the space-time and the quantum properties of objects as particles in the space-time.

53 Representation Theory

In the continuum of the probabilistic opertors any mutually factorable relation into which the solution is also a given solution of the equations:

$$\log(\tilde{\omega} \cdot \bar{\omega}) = \rho + \eta \tag{140}$$

$$\log(\tilde{\omega} \cdot \bar{\omega}) = \rho \, \eta + i \sigma(t) \tag{141}$$

Is deterministic.

Hence; any operator that admits in a dual-sense two conformal relations in logarithmic reduction to a common factoring exemplifies the natrualized relation of (2) *time's and space's* to which is the extension of quantum mechanics above the theorem's of relativity. This find's it's way into the Dirac equation for the electron by that of the intimation of a field-conjugate momentum; to which is shared or unshared; and assists in deriving that of a *new* expression for the multi-body problem; in which the two body problem can be subjected and decomposed.

This is nothing but the statement that: The rate-period of time is a congruent relation in the particle representation to which is empty; and to which the two-body problem may be separated into the one-body problem of which there are two. This is consistent when there are taken to be two spatiotemporal projections of the particle operator. These projections are no more dissimilar than the 'functional representation' and 'particle representation' of a particle or multi-particle system, and exist because the particle is empty.

Therefore;

$$\partial_{\mu}t = 0 \tag{142}$$

Expresses the emptiness of time; to which all supporting statements of this paper affirm.

With:

$$\cdot \sim$$
 (143)

An expression of a neither nor shared light envelope of illuminescence; to cadence of a Lamp freely-lit to invisibility below an alternative two juxtaposable place's with projections & the statement of unto another and a place; or two to occasion; or four to differently establish; or five to equably pass on; or six to espouse or entreat; and of seven; to equalidiate. Therefore of co-linear equivalent extension outward inward and inward outward for what is two to two; expressible only that as the equivalence principle derives to two properties [a metric and a mass] that of the freed electromagnetic theory is broken on the gravitational; as the gravitational is negative to orbital coupling under a reverse-surjective phase orientable traversal of temporal co-extensibility to a union in five to a third; any even-faceted two to a third of mitigated arc.

Therefore in either [explicitly held] the outcome is non-determinant between any two quantum and gravitational limit's but unpredictable; yet within an openable and extensibility to freed self intimation and juxtaposition; for what is co-determinant; as an absolute physical norm of the space. When we consider what is resumptive of the 'actual' to what grow's outward every-where else of the topological function; and with a heart; body; and mind; the truth of form's *are* for in what is found of life; for these are bound to a mortal coil.

Of it's freed ranges; the security of a pre-cept from it's imported dextruous nature is the cleaving unto the alternative of self found as [within conveyance] via a means of two; under adoption of the willingness to encourage the dexterity to the task... That of what is presented therefore is that the only discernable and observant condition [once-expressed] of identities is the following two principles:

Canary Principle: For one bird; that bird; under it's own replacement self suffices to fill a relation; hence under removal; it self suffices [among a count] to answer absence unto it's own.

Banana Principle: The banana principle states two are unprecluded from foreknowledge in yet a third out.

54 Statistical Admixtures

It holds as a lemma; that the statistics are therefore empty of relation in a given comparative assessment to relativity; and that relativity does not alter the statistical properties of a system. This (infinite) barrier of a theorem presents alternatives only found within the global properties of a system; to which it is also global. The *free capacity* to include a differing Δ from Λ is the extension of the differentials. This therefore proceeds along two lines; that of either a principle equivalence or a principle in-equivalence; the variables decomposed by either **log** relation. The proof is reliant on (surpassing the infinite obstacle of integration of these two theories); at that of assuring that one viewpoint is equivalently as-consistent with the other *relativistic* frame-argument. This two-fold relation is essentially that:

$$(i\hbar\gamma^{\mu}D_{\mu} - mc)\Psi = 0\Psi \tag{144}$$

But here; that of 0 is differently established because *on account of the second particle* there are **2** *two* solutions to the original single-particle state... That of:

$$\gamma^{\mu}D_{\mu} \longleftrightarrow \gamma^{\nu}D_{\nu} \tag{145}$$

Hence for in light of two bodies;

$$(i\hbar\gamma^{\mu}D_{\mu} - mc)(i\hbar\gamma^{\nu}D_{\nu} - mc)\Psi = \Lambda\Psi$$
 (146)

Both describe the *same two particle system* from what is yet two-different-relativistic descriptions. That of relativistic assurance is found then in the degeneracy of which is that:

$$\Lambda \Psi = \Delta \Phi \tag{147}$$

This ensures that their energies are equivalent and four-momentum descriptions of each particle are too; possibly up to an interchange. This ambiguity is afforded as the second particle has altered the description of the first particle. To see that this **this does not** alter the relativistic description is to see that reversal of viewpoint and 'objective' does not alter the image under **initial** composition.

Either of α or β are equivalent by equation (5) of the paper; to which when either particle (to which is empty) alter's the representation of it's conjugate particle it does so from the alternative of a self-and-world to which is **two**. That of world and particle versus (with world and particle in the formative and former position) does not alter the outcome of the result of the first particle (1); and, without exception; that of their statistical intimation is left unaltered for-in-light-of projective dis-similarity of neither upon the world.

This 'neither' of which is undecidable from the other side of relativity; is the incomparability to which *probabilistic interpretations are independent of relativistic prescription*. It is <u>also</u> the imperative that physical law is *empty*. Therefore we may freely take:

$$\Psi. \sim \Phi \tag{148}$$

With the transformation and in-equivalence of τ and ϵ affording that of factoring into superposition's such as are re-compositional *linear* states.

Hence, a theory that incorporates an equivalence principle invokes **two** times, a proper time and improper time as a projection of the two body problem within the context of the equivalence principle to which must lead to equivalent physics. Casting one particle to it's probabilistically neutral provision as granted the prescription of the equivalence principle grants the other particle to possess that of probabilistic independence with co-mutual occupancy under the 'tertiary' - third observer **out**.

55 Abstraction in Conclusion

The general properties of hyperbolic equations implicate that an equation take a form of a wave equation:

$$(f(\tilde{\omega}) - \alpha^{\mu} \partial_{\mu})(g(\tilde{\omega}) - \beta^{\mu} \partial_{\mu})\Omega(\alpha, \beta) = 0$$
(149)

By substitution:

$$(f(\tilde{\omega})g(\tilde{\omega}) + \sigma(t) + \alpha^{\mu}\beta^{\mu}\partial_{\mu}^{2})\Psi(x,t) = \Lambda\Psi(x,t)$$
(150)

$$(f(\tilde{\omega}) + g(\tilde{\omega}) + \alpha^{\mu} \beta^{\mu} \partial_{\mu}^{2}) \Psi(x, t) = \Lambda \Psi(x, t)$$
(151)

If two particles are in different frames; then they experience the rate differential of time and space differently; to which when one slows it's consequent experience of time deduced from motion depreciates it's partial differential in the other frame.

$$\sigma(t) = (\gamma^{\mu} \cdot \left[\partial_{\mu})(f(\tilde{\omega}) + g(\tilde{\omega}) \right]) \tag{152}$$

To which is the derivative solution to equation (5). Therefore that of a fifth dimension is made to exception in the second; that of apologia to consorted effort's of collapsement; only a univariate carrier of outside 'roll' to interior (pentagonal return); 'roll' will co-determine a vacuum from a discriminant black body noise; at absolute zero; the external 'via' of a 'class' to which is an 'apologia' in yet 'character-assignment;' freed to these in the tableau of proper derivation from the summation convention. That of the commutator of the partial

is the expression the Lie differential with respect to Ξ in equation (5) is the manifest holographic principle reflection in-machine-&-in-world.

That of the holographic principle:

$$S * P = \iota P * S \tag{153}$$

And:

$$P * S = \iota S * P \tag{154}$$

So it is for lack of a better expression that the identity relation is ordered; and by supposition of the counting theorems; identities are ordered:

$$\mathcal{O}(\iota) \tag{155}$$

An expression that the identity is that which is neither one but two and two to what is no three and unelimiable declination of four in preceding from five; of dimension; therefore by two under pure-codimension of 'sheaves;' there is a bi-reductive free (2) two limit's; to what is sequestered of equiparition to the fifth and the sixth; a rung freed to the equippable return of yet a fundamental of this world; that reductively from three; two would be an apportionate four or three; then of other's equability; and return (two-folded) deficit below reversability of one sigmoid.

Therefore the identity is the inexpressibility of *time*, *space*, *order*, *individuation*, *and inseparability or unencloseability forming through shape*. We may now describe shape to constitute a group in vacuua; for that of ι is the manifold ideification of a separable co-adjoint *unitary group* of co-extensible dimension; a three dimensional critical point; and reductive asymptote.

The non-linear statistics of comparative densities in position and momentum under an abridging SU(2) algebra diminish the accountable energy in argument's dependent upon these via superposition and exchange.

Under subtraction of twice the second prior equation from the second prior:

$$(f(\tilde{\omega})g(\tilde{\omega}) + \sigma(t) - \alpha^{\mu}\beta^{\mu}\partial_{\mu}^{2})\Psi(x,t) = \Lambda\Psi(x,t)$$
(156)

The equation which under reduction becomes the equation for light:

$$(f(\tilde{\omega}) - i\alpha^{\mu}\partial_{\mu})(g(\tilde{\omega}) - i\beta^{\mu}\partial_{\mu})\Psi(x, t) = \Lambda\Psi(x, t)$$
(157)

When written out we have two equations:

$$\Lambda = \det \begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix} \begin{pmatrix} f(\tilde{\omega}) \\ g(\tilde{\omega}) \end{bmatrix} + \begin{pmatrix} 1 & 0 \\ 0 & 1 \end{pmatrix} \begin{pmatrix} \alpha^{\mu} \partial_{\mu} \\ \beta^{\mu} \partial_{\mu} \end{pmatrix}$$
 (158)

The first equation read:

$$\Lambda = \det \begin{vmatrix} 1 & 0 \\ 0 & 1 \end{vmatrix} \begin{pmatrix} f(\tilde{\omega}) \\ g(\tilde{\omega}) \end{pmatrix} + \begin{pmatrix} i & 0 \\ 0 & i \end{pmatrix} \begin{pmatrix} \alpha^{\mu} \partial_{\mu} \\ \beta^{\mu} \partial_{\mu} \end{pmatrix}$$
 (159)

This is enough to get that the general equation:

$$\Lambda = \det \left| \eta(\upsilon) \begin{pmatrix} f(\tilde{\omega}) \\ g(\tilde{\omega}) \end{pmatrix} + \eta(\tau) \begin{pmatrix} \alpha^{\mu} \partial_{\mu} \\ \beta^{\mu} \partial_{\mu} \end{pmatrix} \right|$$
(160)

With elements $\{\eta\} \in SU(2)$ are the same superposition equation with solutions in the Dirac basis.

Beginning with the equation:

$$\Lambda = \det \left| \eta(\upsilon) \begin{pmatrix} f(\tilde{\omega}) \\ g(\tilde{\omega}) \end{pmatrix} + \eta(\tau) \begin{pmatrix} \alpha^{\mu} \partial_{\mu} \\ \beta^{\mu} \partial_{\mu} \end{pmatrix} \right| = \det |\theta(\tilde{\omega})| \tag{161}$$

We have that:

$$\theta(\tilde{\omega}) = \theta(v, \tau, \alpha, \beta, \tilde{\omega}) = \log(\tilde{\omega} \cdot \bar{\omega}) \qquad \Lambda = \tilde{\omega} \cdot \bar{\omega}$$
 (162)

So;

$$\log(\tilde{\omega} \cdot \bar{\omega}) = \eta(\upsilon) \begin{pmatrix} f(\tilde{\omega}) \\ g(\tilde{\omega}) \end{pmatrix} + \eta(\tau) \begin{pmatrix} \alpha^{\mu} \partial_{\mu} \\ \beta^{\mu} \partial_{\mu} \end{pmatrix}$$
 (163)

To which is two eigenvalue equations in linear form:

$$\eta(v)f(\tilde{\omega}) + \alpha^{\mu}\partial_{\mu} = \log(\Lambda) \tag{164}$$

$$\eta(\tau)g(\tilde{\omega}) + \beta^{\mu}\partial_{\mu} = \log(\Lambda) \tag{165}$$

The Dirac equation is therefore separable into two different one-body problem/solution pairs:

$$(\eta f(\tilde{\omega}) + \alpha^{\mu} \partial_{\mu}) \psi(x, t) = \log(\Lambda) \psi(x, t)$$
(166)

$$(\rho g(\tilde{\omega}) + \beta^{\mu} \partial_{\mu}) \phi(x, t) = \log(\Lambda) \phi(x, t)$$
(167)

Thus:

$$(i\hbar\gamma^{\mu}D_{\mu} - mc)(i\hbar\gamma^{\nu}D_{\nu} - mc)\Psi = \Lambda\Psi \tag{168}$$

Becomes:

$$(mc\zeta(\tilde{\omega}) + i\hbar\alpha^{\mu}\partial_{\mu})\psi(x,t) = \lambda\psi(x,t)$$
(169)

And:

$$(mc\xi(\tilde{\omega}) + i\hbar\beta^{\mu}\partial_{\mu})\phi(x,t) = \lambda\phi(x,t)$$
(170)

With a wave argument on the inertial mass of which is ζ or ξ ; where:

$$|\zeta(\tilde{\omega})|^2 + |\xi(\tilde{\omega})|^2 = 1 \tag{171}$$

This constraint is nothing more but the restriction that the total probability for *either* electron add up to 1; that it be located 'somewhere' and it's mass conserved, the result is then two Nonlinear Shroedinger Equation's:

$$(\eta |u|^2 u - \sigma u_{xx} + i\rho u_t)\psi(x, t) = \lambda \psi(x, t)$$
(172)

$$(\rho |\nu|^2 \nu - \sigma \nu_{xx} + i \eta \nu_t) \phi(x, t) = \lambda \phi(x, t)$$
(173)

56 Further Calculation

We begin with the two body Dirac Equation:

$$(i\hbar\gamma^{\mu}D_{\mu} - mc)(i\hbar\gamma^{\nu}D_{\nu} - mc)\psi(x, t) = \Lambda\psi(x, t)$$
(174)

The question is if under:

$$\mu \leftrightarrow \nu$$
 (175)

With superposition; the equation will reduce. First we have (re-written):

$$(\eta^{\mu}\partial_{\mu}-1)(\eta^{\nu}\partial_{\nu}-1)\psi(x,t) = \Lambda\psi(x,t)$$
(176)

For what is identity is the meeting exceptionable (non-exceptionable inclusion of) a continuum to the bi-jective law; under ordinancy to any two character assignment's of this world. Therefore relativity remains to hold with-in an interior limitation; of that of three for four fold to two fold valence; but of a second-and-adjacent quasi-crystalline space of adjoint void space(s). This cuneiform is therefore an intimated 'end' within an 'end' of the dispossesable (in recirprocity) exchangeable sixth outside object-principle; of which the group(s) reactives into two of absence and presence; to the intimated end that among three 'here' functional's; the self is defined; via and identity to which is inseparable and inexchangeable.

The deficit is to that of three: re-transformative into two or two; a null end of a thought experiment; but yet quantum states exist beyond the double dual exchange accompaniment; to what is any unlimited set in yet raising the third under transferrance; and a lowering of the second spin. The co-adjoint determination of another is the seamless consequence suffer's to the other for dis-inclusion unto yet an adaptive third; to what is sunken in cost; there is apportion and sequestering; so that as of the Banana & Canary Principle(s) would allow; three are co-determinatively afforded co-existent mean prior (2); of a strict in-equality unto breaking into two through the via and back between any two adjacently connected point's of reality; neither 0 [zero] &-or 1 [one] to the limits of 'background' objective physics. The commutation represents the elliptic and exponential con-joint relation of light-cone's; to which when divided; recompose to simply a property of an object; for their shadow-function is simply a one dimension bijective flow of 'unilluminated'. Under exchange it is:

$$\left[\eta^{\mu}\partial_{\mu},\eta^{\nu}\partial_{\nu}\right]\psi(x,t) = \lambda\psi(x,t) \tag{177}$$

But then; we can insert the identity without changing the commutator:

$$\left[\eta^{\mu}\partial_{\mu},\eta^{\nu}\partial_{\nu}\right]I\psi(x,t) = \lambda\psi(x,t) \tag{178}$$

Where:

$$I = \{\eta^{\mu}, \eta^{\nu}\}\tag{179}$$

Therefore; and we find completion in two relativistic projection(s) derived from either's inward reflex and impulse as encoded in the isosymmetry derived from proportion and shape; that of the equation (5).:

$$\left[\eta^{\mu}\partial_{\mu}\eta^{\nu}, \eta^{\nu}\partial_{\nu}\eta^{\mu}\right]\psi(x,t) = \lambda\psi(x,t) \tag{180}$$

Or:

$$\eta^{\mu}\eta^{\nu}g_{\mu\nu}\psi(x,t) = \lambda\psi(x,t) \tag{181}$$

Alternatively:

$$\bar{g}\psi(x,t) = \lambda\psi(x,t) \tag{182}$$

It is in-expressible whether:

$$\bar{g}. \sim \lambda$$
 (183)

Or:

$$\bar{g} = 0 \equiv \lambda = 0 \tag{184}$$

In other word's; the eigenvalue to exchange is indistinguishable from the metric relation of the spin algebra of inertia; that of the weight of the physical assumptive of inertia in the Dirac equation an identity with that of it's weight geometrically owing to energy; not just space and time. *and not just mass.

$$([\eta^{\mu}\partial_{\mu}, \eta^{\nu}\partial_{\nu}] - \lambda)\bar{g}\psi(x, t) = 0$$
(185)

Written out this is:

$$(\eta^{\mu}(\partial_{\mu}\eta^{\nu})\partial_{\nu}\bar{g} - \eta^{\nu}(\partial_{\nu}\eta^{\mu})\partial_{\mu}\bar{g} - \lambda\bar{g})\psi(x,t) = 0$$
(186)

However by that of the principles outlined; that of the two views of one particle can be further scrutinized to single particle field and particle spin-orbital momentum; for in that of the whole ensemble there is not only one particle bound to another; but *a condition for separable equivalence principle and complimentarity invariance footing*. Penultimately this divides the description of the particle upon exchange into one element of which is of it's manifest Lorentz covariance; and another of it's Shared Proper Time. As:

$$([\eta^{\mu}\partial_{\mu}\log(\bar{g}),\eta^{\nu}\partial_{\nu}\log(\bar{g})])\psi(x,t) = \lambda\psi(x,t)$$
(187)

Then to an exchange state; for which the commutator is evaluated and the middle term's drop from the general expression (here η is an operator for spin and orbital uncertainty exchange constant...):

$$\left[\tilde{d}\log(\bar{g}), \tilde{d}\log(\bar{g})\right] = \lambda \tag{188}$$

Which when expanded becomes for the particle momentum:

$$\left[\tilde{d}, \tilde{d}\right] g^{\mu\nu} = \lambda \tag{189}$$

Then; it is also true:

$$(\tilde{d} - \eta)(\tilde{d} + \eta)\Psi = 0 \tag{190}$$

And that:

$$\sqrt{\lambda} = \eta \tag{191}$$

Since the eigenfunction must be satisfied in a basis; the commutation therefore hold's for the first state:

$$\left[\eta, \tilde{d}\right] \Psi = \lambda \Psi \tag{192}$$

$$\eta \tilde{d} = \lambda \tag{193}$$

This only holds true if the field momentum equation is as follow's:

$$\tilde{d} = \lambda \vec{\sigma} \tag{194}$$

These represent in the first the spin-orbital coupling potential energy at a minimum; to which is related to exchange of spin and orbital degrees of freedom. This spin and orbit would then be a transition of the spin-orbital condensate. In the second; it is the curvature condition; with $\zeta = \zeta^{-1}$ and anti-Hermitian. For that of the reduction to an eigenstate; there is a Ψ ; the net wavefunction given by:

$$\Psi(x_u) \tag{195}$$

The natural separation into particle and field momentum can be found as a consequence of the independence and equivalence of the quantum unit of probability in a two body interaction. The equivalence of 'weight' λ in either view is the invariance of complimentarity; that penultimately interchange of particle and particle description identity leaves results of measurement unchanged including that of relativistic consideration.

57 Symposium

There are three ingredients to superconductivity which must be demonstrated. We will proceed in a linear fashion; beginning with 1.), then 2.), then reaching an understanding of 3.); then these will be moderately 'put-together' into a robust theoretical framework; then; there will be an introduction to the experimental motivations for invoking the model system; a treatesie on that of implementation of the theory with phenomonological evidence; and then finally; calculation of results and a conclusion. This model presentation is offered as in replacement of prior work's in which the work was undemonstrative of a logical proof based

system of verifiable hypothesis. The aims offered in this paper are more to the adjustment in theory required to make sense of a physical world within light of the existence of superconductivity; but where appropriate common sense has been appealed to. That of the results intend to make no implication about alternative areas of physics; but where appropriate prohibition to allowance for what would lead to contradiction in another area of physics has been noted. As akin to the manner in which space and time 'fold' to create a finite circle from an infinitely long one; when an orbit is analyzed of a straight line in a curved space & time; as when superconductivity is manifest; the finitely long line of interaction 'folds' to produce an infinite orbit in the curved space & time of the interaction. That is to say that the antipodal relation hold's; and that the less-than-unity normalization group of the spin; (to which is four dimensional) relaxes the orbital constraint to it's-fullest; that of a gauge group then to which is negative in conversion of magnetic becoming electronic and electronic becoming magnetic; with a reduction from the speed of light rather than an accumulation to the speed of light; as if participating on the other side of a mirror. This demonstration states that all additional that is required is exchange of field for particle pro-perties; and that of the charges will attract within the ranges of a standard deviation; there being two wave like frequencies and wavenumber's the result of a phase congruence with conversion to angular coordinates. Without further disclaim; the offered supports of superconductivity are in three:

- **1.)** The non-linear **product 'covariance' rule** formation of two distributions with a negative exchange (J) in individually prepared Shared Proper Time with a local minimum generates an experimental bind of trading of the index on one measurable for another; that of the inversion and reciprocity of the law's of physics potentiated by purely statistical means...
- **2.)** Non-linear **product-rule** superposition under exchange with comparative probabilistic 'complimentarity' of either particle's independence from relativity results in that of the admission; by way of the twin-paradox like intimation on relativity of measurement inversion, to what is indistinguishability of relative and quantum contribution's to lowering in energy...
- **3.)** That of measurement inversion with spin and orbital momentum under exchange for which one particle and it's world view will not afford the altering of another particle's prescription; affords, given that exchange is negative and the **covariance**, **positive**; the inversion and substitution of the electric for the magnetic field; and vice versa with relativity...

Therefore there are three reasons for attraction of the electrons in superconductors of the high-temperature variety. First; exchange is negative and probabilistic assignments are independent of relativity; with the distribution rule on that of standard contributions via a two body problem in what is the shared proper time versus proper time is equivalently balanced; and that of a local-inversion of the deterministic factors of the theory occurrs.

- 1.) A quantization condition is reliant upon a spatiotemporal positioning and orchestration of terms.
- 2.) When the manifold condition of a curved space under-declinates repose; we get a splittling of energy.
- 3.) Therefore one manifold prescription under a cleaved sheave for then unto two eigenvalues emerges.
- 4.) The splitting is a prescription to electrodynamical theory breaking under a source, sink, magnetism.
- 5.) Probability discriminant's fold the elementary symbolism of equidistance to infinitely separated end's.
- 6.) For what is contained in two or two is three and one to reduction in equivalently displaced potentials.

- 7.) This imputes a relation of directrix enfolding focus; and reversal of measurement to eigenvalue status.
- 8.) Metrical relation is a null condition with that of spin metricity; to which electromagnetism vanishes.
- 9.) Quantum wavefunctions defy Pauli Exclusion to null repulsion via passing beneath an e.v. enfolding.
- 10.) The manifest retro-inversion of a population in two's decimates in energy argument equations of state.
- 11.) A spontaneous symmetry breaking is present, a gap, and a phenomonological behavior of it's unit's.
- 12.) Indeterminism to what is particle & wave; hold's the precept the 'particle' precipitates it's capturing.
- 13.) Inter-adoptive exploration of one dimensional arc width are devoid of doublet anharmonic inversion.
- 14.) Therefore; the principle qualitative element is that probability fit's more recurrently within space.
- 15.) To what is a disconnective or connective; moderacy of spin and orbital measure interchange is unitary.

For what is complimentary of comparatively equivalent time signature and self solitary provided and insured proper time to shared assembly via statistics; for that of either probability fitting within relativistic space and time (inward reflection); and that of it's dual capacity upon yet what is an instance of equivalence in weight unto the apportion of experience of probability and relativistic deformation; that of independence in statistical measure causes a uniform co-participance of these given *Theories and exemplifies unification and separation of their forces; indeed; Gravity & Quantum mechanics within the same atom; a lower in energy result's via the spontaneous symmetry breaking contribution of electromagnetic energy to the two electron's.

It is also true that:

$$\beta = \frac{\nu}{c} \cdot \sim \beta \cdot = 1 - \frac{\nu}{c} \tag{196}$$

As a result of what is taken 'to' the mirror rather than 'from'. As a consequence what is a distribution of probability must be re-interpreted as that which give's rise to expectations; around which there is uncertainty in results; the central result being certain for in light of *two theories*.

The next reason is that particles find indistinguishability in that of their 'Quantum' and 'Relativistic' contributions to mass-energy-momentum; of which what is observed is a universal energy lowering in charge and spin. That of separation from spin (to which is left with freely held Nonlinear Shroedinger Equation Solutions) contributes therefore the full 4J to the gap at the lowest perturbation or temperature.

The results of what are the relation of this being a genuine energy lowering or that of a reduction in a repulsion are therefore that it is a genuine lowering below a general reduction in repulsion; and may be seen as a reduction in repulsion beyond the limit of it's genuine lowering in energy-mass-momentum.

The general description is that relativity and the properties of statistical normal distribution of variance exhibit a two body null covariance; therefore electron's are mutually force-free but at a reduced energy of the 'seemingly separable' conjoint expectation of exchange.

58 Antsaz

Beginning with solutions of the variety:

$$(|\zeta|^2 \zeta - \sigma \zeta_{xx} + i\zeta_t)\phi(x,t) = \iota \phi(x,t)$$
(197)

We have the Ansatz:

$$\zeta(x, v, t) = \alpha sn(x - vt, m)e^{-i(\omega t + \kappa x + \phi)}$$
(198)

Used in (145) we have:

$$v = 2\kappa\sigma \qquad \sigma = \frac{\alpha^2}{2m} \tag{199}$$

$$m = -\frac{\alpha^2 \kappa^2 + \alpha^2}{2\omega - 2\iota + \alpha^2} \tag{200}$$

So it is that one solution can be intimated within a connective (think SU(2)) algebraically from one subsidiary manifold space to another... for example when the modes are in-actual entrained or defocused; and when confinement (then provable) takes place because of their non-linear sum/product relationship.

59 Origins of Unification

When the two time's for that of the log term's are applied to the differential equations; we see a reduction in their mannerism in expression of complexity; for then the threshold eigenfunctions must surpass to become a reality is determined. That of the logarithmic equations suppose that a given is that there is reciprocity between subjective and objective worldviews. Therefore for:

$$\frac{\partial}{\partial t} \longleftrightarrow \gamma \frac{\partial}{\partial t} \tag{201}$$

We have:

$$\eta(\upsilon)\zeta(\tilde{\omega}) + \eta(\tau)\alpha^{\mu}\partial_{\mu} = \log(\tilde{\omega} \cdot \bar{\omega}) \tag{202}$$

$$\eta(\upsilon)\xi(\tilde{\omega}) + \eta(\tau)\alpha^{\mu}\partial_{\mu} = \log(\tilde{\omega}\cdot\bar{\omega})$$
(203)

To which become:

$$\eta(\upsilon)\zeta(\tilde{\omega}) \pm \eta(\tau)\alpha^{\mu}\partial_{\mu} = \eta + \rho \tag{204}$$

$$\eta(v)\xi(\tilde{\omega}) \pm \eta(\tau)\beta^{\mu}\partial_{\mu} = \eta + \rho \tag{205}$$

And:

$$(\eta(\upsilon)\xi(\tilde{\omega}) \pm \eta(\tau)\beta^{\mu}\partial_{\mu})(\eta(\upsilon)\zeta(\tilde{\omega}) \pm \eta(\tau)\alpha^{\mu}\partial_{\mu}) = \eta\rho + i\sigma(t)$$
(206)

As a difference of constructive and deconstructive interference equations.

Their solution is:

$$\alpha = \partial_{\mu} \zeta(\tilde{\omega})(\eta + \rho + \eta(v)) \tag{207}$$

$$\beta = \partial_{\mu} \xi(\tilde{\omega})(\eta + \rho \pm \eta(\tau)) \tag{208}$$

$$\sigma(t) = (\rho + \eta)(\rho + \eta) \tag{209}$$

Setting $\alpha = 1$ and $\beta = 1$ and $\sigma(t) = i$ we have: Thus:

$$S * P = \iota P * S \qquad P * S = \iota S * P \tag{210}$$

$$\mathcal{O}(\iota) \tag{211}$$

Within the holographic theory... with $\iota \in SU(2)$ and ι normalized as per:

$$(\eta + \rho + \eta(v))\partial_{\mu}\zeta(\tilde{\omega}) + \zeta(\tilde{\omega})\partial_{\mu}(\eta + \rho + \eta(v)) = 1$$
(212)

$$(\eta + \rho \pm \eta(\tau))\partial_{\mu}\xi(\tilde{\omega}) + \xi(\tilde{\omega})\partial_{\mu}(\eta + \rho \pm \eta(\tau)) = 1$$
(213)

These equate to:

$$\zeta(\tilde{\omega})\eta \partial_{\mu} \xi(\tilde{\omega}) + \zeta(\tilde{\omega})\partial_{\mu} \xi(\tilde{\omega})\eta = 1 \tag{214}$$

This reduces for that of the \pm to cancel as a similarity (hence we get to choose to neutralize that of v.

$$(\eta \rho) = L_{\tilde{\omega}} L_{\tau} \tag{215}$$

The first equation and the second lead to intimations of what the function's look like; here; an exponential...

$$\rho \,\partial_{\mu} \zeta(\tilde{\omega}) + \zeta(\tilde{\omega}) \partial_{\mu} \rho = 1 \tag{216}$$

Given that the exponential map is a map; we have an analytic theory; into which via these as transformation rules; a coordinate chart can be written by comparing *different dimensions* with that of *different base combinations*; these are both open; empty; infinite teir's which collapse when the two electron's are so close that they hold **no** mutual force of repulsion; an absolute Pauli Exclusion below symmetry breaking.

$$\partial_{\mu} \log(\rho \zeta(\tilde{\omega})) = 1 \tag{217}$$

Providing the solution in ρ , a constant of the ratio of compressibility to conductance. Therefore conductance is sourced in a gap; literally:

$$\frac{1}{\rho} = \Delta \tag{218}$$

To an 'optionable' and 'variant' proportion; that of the two Lie differentials are still a 'scale;' and we may write this as:

$$o = \frac{\eta}{\Lambda} = L_{\tilde{\omega}} L_{\tau} \tag{219}$$

The equation for a [2] number theoretic valuation of *o* yields a gap as-the-integration constant to an elliptic and exponential differential cross-correlate. That of two is the threshhold of point source to which the eigenfunction first becomes three dimensional into a catstrophe set. Roughly there is the 1 : 1 proportionate cross-over of 'below threshold' and 'above threshold' that of 3; therefore three dimensions is the critical dimension for self regularization and attraction of charges; that of symmetry breaking is invoked by any bistable reactive element of reverberation; meaning; all frequencies are summed for therein what lies of the secondary octaves of a trichordic wave. The only composite solution is to find that above a critical state, three electron's obstruct to enable two electron's to fall together.

60 Intermediate Conclusion

That of:

$$o. \sim \Delta$$
 (220)

Therefore expresses the 'mode inequality' of a 'reductive force;' entirely consistent with relativity; but within that of a semperent calibration rolled inward. To what is this individuated space; it is not known; but that validity focuses relation; individuation focuses potential.

There are a few relations here of a contributing nature:

- **1.)** A doublet-reductive interferometric balancer and synchronization engine... of which follow's the precept of a 'modal inversion' and 'reductive force'... a **DRiBse.**
- **2.)** Ordinal theorem of qualitative control of chaos; (3).[2] of freely held gain decimates prescribed Chaos; to what is prescribed certainty as to manifest whole in optionable togetherness of [3].
- **3.)** Modal inversion and reductive force lead to manifest order; Via that of 'Graph Stitching' in the Indical Calculus; to what is an eigenvalue eigenvector inversion; with an Energy Gap.

Comparatively, the difference in the quotient space for a local relation differs from that of a global relation; for that of separation of 'scales' and separation of 'places' to which regulate around (primary, secondary, or tertiary to) that of their their own segmented relations; in a virtually infinitely co-extensive quasiperiodic space. To what is light, time, mass, and sound; these transconduct as through a cantilever to which alone; word's are supportive of geneflection and mannerism of convenyance to sociological apportion; number's being befit for a local space; but mapping an idempotent relation of 'place' under situational dichotomy in two; provable as to identity for in that of once-outside, co-terminable with that of situationally of an absence of a tertiary support; that of a known; that as either question in two differently is established; so is that of the applicable permanence to awareness at-a-distance; for apportion to secular order's; free of a catastrophe set.

This co-extends Laurent series to all function(s) inclusive of a product form; to which is an equivalent expression from which a factor is taken 'off the top'. The result is that the primitive seen outward inward as inward outward is free. This freely held (and unheld) radical space is the one (singular and unitary) base in four dimensions; to which prohibiting all places become one; 4th dimensional and hence not 5th; dimensional. That of what is certain is the definite 'untying' of electromagnetic frustrum's; and re-incorporation of world identities. For that of what is exemplified; we have determination that any fifth (exterior and auxiliary) point is free; therefore any two realities are freely disconnectable. That of the synopsis on the algebra is that it is an Affine Lie differential algebra... this is resolved by the special unitary group; of which suffer's an automorphism and decay's under thermodynamic conditions to a potential and kinetic energy landscape lowered by a number of conditions:

A Grand Term:

1.) Inversion of the Measurement Problem; under application to what would be 'two;' measurement proceeds via the converse of the statistical lemma; sociologically a trade of honesty for impartiture and sequestered in part's; the whole is greater than the sum of it's part's; even upon that of individuals.

Option(al):

- 2.) For what is Quantum Uncertainty and Relativistic Factor both remaining in impartiture to a depression; that of reduction in one for in light of the second of either these two is universal; leading to that of a two fold in what is any three electron's; to their mutually degenerate null condition of covariance.
- i.) The missing element is that what is third in substitution for the third-agent is null relation of group to fundamental metricity (an empty relation); of that of the third observer; to which relativistic factor's explicitly do not hold an accordant measure and relationship; but of statistical mean and average.

Fundamental:

3.) Probabilistic Independence from Relativistic Argument – under application this results in a Modality In-

version and Inversion of the Measurement problem when it is prepared to a gap state on that of 2.) for what is 1.); under which the second (2.) part; reveals a population inversion; that of two switching one.

ii.) The uncertainty is lessened by in a factor of the contrapositive of relativistic expectation in the whole.

Quite simply put it is due to the quality with which the exchange constant will depart from it's given value to zero with that of velocity increasing; and the momentum will remain the same identically within the frame of a particle; but exhibit a greater than one magnification and positive curvature on that of the secondary particle; but meanwhile within it's frame; a less than one magnification and negative curvature unto it's self term of momentum. Thus we have all alignments of probability and relativistic argument and momentum.

iii.) Measurement and measured differ; in that what is measurement is co-extensibly weighted by relativity; while what is of presence and absence alone; it is the reversal of relativity; to what is obverse.

What is 'on' particle 'A;' 'to' particle 'A;' is it's reduced exchange and momentum; plus the depiction and representation of relativistic factors to which are 'larger' for momentum; and 'smaller' for exchange...

Thus:

- a.) Exchange diminishes because particle 'A' and particle 'B' fit within each-other's-role's from which they are judged via each other to themselves with a relativistic factor that is less than unity on energy-momentum under juxtaposition; therefore exchange energy is diminished.
- b.) The change in momentum of particle 'A' is negative because there is more quantum room for that of it's energy-momentum via a.). With 'B' it is judged with a 'higher' relativistic factor for time and space; equating with the reduction in a.) because of inversion of perspectives.
- c.) The quantum exception is that either particle undergoes a 'measurement' & 'measured' inversion with interchange; to which momentum is to a higher relativistic factor explicitly to itself and the governing perspective on particle 'A'; but with exchange to a lower relativistic factor.
- d.) The quantum exception (by which juxtapostions leave intact relativistic factor's) informs that either energy-momentum of exchange or kinetic energy lower's by what is elimination; therefore both particles reduce in energy; to what is equivalence; that of the genesis and source of a measurement inversion...

Conclusion:

With juxtaposition and interchange of perspectives; the lowering is universal; for that of what was a higher relativistic factor in 'A' or 'B' becomes a lower relativistic factor in 'B' and 'A'. Reciprocally; it can then be argued that the momentum decreases meanwhile for the particle it modifies the prescription thereof; it's relativistic factor increases. This is what we get when there is an inversion of perspectives.

When particles experience time; they are on a curve; the exchange; but probability does not effect relativistic outcomes and relativistic outcomes do not effect probability; so there is a 'void' on that of any four part type of interaction. The juxtaposition of one particle for another is known as 'exchange' to which paricles literally interchange identities; that of for the real world; a division.

When this occurs; a modality inversion leads to a relativistic chasm of a factor of gamma. That of gamma; therefore via A's vantage is larger for A comparative to B & larger for B comparative to A... so A acquires

more time and a lesser restriction on probability amplitudes with B in presence. Meanwhile B's relativistic assessment of A is to accrue this factor for A... that of vantage; probability per relativistic unit; and relativistic unit per probability. When either reduce; the reduction of the exchange via the reduction in kinetic energy is to be interpreted as a reduction in what is yet-ahead of the current kinetic energy & that of vis-a-via that of by way of which it maintain's it's position; an ordering of factor's that of the (a) frame assessment.

I therefore found the algebra required to describe the differential equation(s); by that of a leap; the 'Massless Free Boson Theory' in conjoint with it's associated problem; with re-definition (both 'free') of 'a'. The Affine Lie Algebra...

This makes sense as a decomposition of the momentum-energy with the relativistic group; to which there is an expression of the relativistic factor outside the differential and included. Superconductivity is particular in that the division group is per auxiliary agent's of the system; in a normal system these particles are described by a variety of alternative behaviors because the group does not suffer compactification into a finite lattice of division groups of the differential source equation; and degeneracy among a two particle limit; both of which source the free part of the lagrangian as positive but with exact conversion to potential.

61 Mathematics

Affine Lie algebra is:

$$\delta(a \otimes t^m + \alpha c) = t \frac{d}{dt} (a \otimes t^m)$$
(221)

Here; 'a' represent's energy-momentum; and t^m represents that of relativistic factor. What this equation represents is that mass is fundamentally reducible to a blind statistic of weighted-sum and unweighted result. The recombinatorial dilemma is satisfied whenever (8) precedes (7). But (7) is equated with measurement and decoherence; therefore the summation precedes as order before result. That of this detection of 'order' under-pin's that the relation is sequestered of it's extension. That of the above equation therefore has as it's only solution's that of bounded polynomials in the Gauss-Basis. These prescribe to no tertiary determination; and once prior the precept implicating the secondary as primary notion of massful boundedness; but it is indeed the solution of the 'Massless Boson Theory.'

This encompasses an equivalence (twice-folded (relativity)) indepedence among three dimensions. The coexistence of a third dimension with a two-folded geometry of relativity therefore eliminates under it's equivalence class that of but one primary and one secondary independently neitherly imputed nor not; and to which is a given in suppliance by the repetend of it's action. Therefore the third is free to inclusion at secondary precept in the auxiliary space (or interior such a net as this); and may be moderated with to the action of a five to four fold set within.

That of what is determined is the quotient radical; to which operates as a functional argument whether separated or unseparated. Therefore the freely (neither of these) held nor unheld determination of the auxiliary holds a foundation in reality; but is contradictorially the only thing determined within a 'place' - the saturable environment. Of relation's; it remains indeterminant as to if it is either 't' which dominates to the solution set; or of 'a'; for what is real; this stands as definitively a reduction via displaced integration constant of a subsidiary dimension. With this - appreciable 'order's' are imaginable yet contained within each given space & time.

In fact

$$(\partial m) = \delta \tag{222}$$

$$(\partial s) = t \tag{223}$$

Are separable into a conjoint union... the measure of the measured being comparatively exactly predictable... therefore science is on a solid foundation. This alludes to a partition; to which is to higher and lower spaces; the re-arrangement of two friends to what is a third. It is the exact outcome that re-arrangement's in third's commute; despite that of us existing within a fourth (proven) dimension. For I may take a piece of paper and write on it two conventionally non-commutative triangles; and these may be wrapped in a torus; to which they are at zero dimension commutative upon for the sake of identity itself. Hence the identity of forms is empty. This means that the above equation is the exact equality of the overlap of electrons in possession of the limitation (in fullness) of mass-regularization and that of simultaneously; no-mass.

The division expressed is the qualitative expression that rest mass and quantum mass do not differ. This is the confirmation that relativity and quantum mechanic's are null in consequence; consequence only being made up of ordered set's. Hence disorder upon re-arrangement holds a bias to order; that of the outward-outward from an interior force; and the walls of the cavity. That the second order Green's function of a two dimensionally swept arc is free of containment; is that it is a container to which the walls are in either a subcavity or that of a reservoir elsewhere; entirely free of one projection; they possess only **one particle past's.** But; and thus; the solution is unique; it is one of a general class of elliptic functions with exponentials; that of two dimensions must intersect to produce that of a solution; and although such a setting can be written; it is devoid of physical foundation; and for that of in-expressibility of number's.

$$(a \otimes t^m + \alpha c) = d(a \otimes t^m)$$
(224)

Is the simplified expression... in this we see that the solutions are all either fixed - to which is connected within this theory - of the Hermite basis (Simple Harmonic Oscillator) or that of the Elliptic and Complex Exponential Solution... these are really the result isomorphically of an electromagnetic field in interaction with a charge density as well.. Thus it is the most general solution. That of the attempt at a two body what is two interpenetrating hyperbolic secant function's and exponential wave's. The conclusion is that the energy momentum is continually bound; and experiences a 'gap' for the sake of that of finite coefficient's to it's expression; or within what is two directrix; that of a manifold flow of a 'stream function;' to which percolation is freely scaled... that of the gap is manifest because there is a finite residual integral constant to that of δ and t.

This principle stabilizes every two-part system in the universe. With two bodies; instead of energy defining curvature; mass does... to which the eigenvalues of a system are composed; the net absence and presence of subsidiary layer's of a composition; to which is empty in the gestalt for that of being a terminal end; hence the future is a fiction. Any four or more; three; or two particles determine only a past; and that of three alone may determine a future while two always do; two determine a future; and two are the solid foundation of the world; for what is; pre-causation, & entirely surrounding the elemental zeroth dimension of a system; all that is required is:

$$\delta(x) \tag{225}$$

These in the above equation remain of a logarithmic nature of curvature; therefore two solutions are the above listed; to what is a diffeomorphism the curvature of a stream function does not play a role in it's dynamic's; all are freely held and unheld invariant's;... for where they are manifest; the origin it is *explicitly declared is not co-morbid with a point on the space; the universe is therefore closed*... This prescription; for that of two point's; render's the Cornu Spiral curvature free.

For in that of light of equivalence of meter and balance; an instrument of measurement capability (for which the role - direct - of observation is reversed to a null exterior-interior condtion(al); that of one point in it's

divergence is free asymptotically in the unitary group of thermodynamic and mechanical vibrations; all that energy is composed of is changing mass indexes and light indexes.

For what is two; the gravitational reduction and electromagnetic reduction diverge in a Superconductor; for while in the void of three and four dimensions; their substrata are seen but through a lens; the flow to which an equivalence of field and particle is founded on any two dimensionally existent hyperplane of intersection within that of a one dimensional arc; that of abstaction to a bubble like space; where in fact; degrees of separation are the meter; and the arc length area is the balance.

62 Free Evolution

The free evolution of what is one dimension lower and reduced prototypifies the three system's of Simple Harmonic Oscillator; Decaying Simple Harmonic Oscillator; and Elliptic and Complex Exponential... These are related by the Special Unitary Algebra and Superposition. This reduces molecular science to a study of interstitial guassians at any scale. The scale freedom is the support of which is supportive indeed by way of the freedom of proportional inter-juxtaposition and shape. Shape; has to do with the ordered system of form's of identities:

$$\Sigma \mathcal{O}(\iota) \equiv \mathcal{O}(\iota) \tag{227}$$

This is the generative drawn point of an identity; a particle's exact apportion of meter to balance and it's direction in space. The only rule for in that of dimensional reduction is that the above ordered distribution of states expresses the forms of identities in compendium in-exact proportion and shape with the forms of identities by the summation and what it reduces to for in light of the original identities. Therefore the solution is given by the solution of:

$$(a \otimes t^m + \alpha c) = d(a \otimes t^m) \tag{228}$$

This equation expresses that the first co-homomorphism of the prior in a series is an integral of separable scale of space and time. However; th equation is an identity which states that the capacity of inertia is defined by that of equivalence of scales and proportions; an exact expression mutually identical with (and anti-opposite) relativity; to which now; the prior identity is the given reconciliation of:

- **1.)** Probability measurements and expectations from out of quantum mechanics do not depend on relativity.
- **2.)** That of relativistic assignment proceeds via that of emptiness of qualitative impression in/of the composite.

Instead, we have that the form's of identities; to which are determined by a free associate in the third; and a strong coupling in the second; a hybridization below critical temperature; that of the cleaved domain find's particles residual within a separable position to what is the population inversion; the reason; this energy state is preferential. Thus order re-segment's into free particles with a phase transition; to which the caveat is that quantum rule (1) may outrule relativistic prohibition to measurement..

The class invariance of the group is therefore of it's determinant ordering of symbolism with two; for here the summation of two of these equations leads now to a superposition problem. They are linear (and yet co-exist within of what is any feasible curvature of the universe). What has really happened is that the manifold of uncertainty has warped around to connect with itself; a tube has become a torus; and the freely demonstrated chirality is dispossessed of; to what is the orientation free capacity of one of these crystals; the uncertainty principle and equivalence principle represent *this* nature of spontaneous symmetry breaking.

That of outward gravitational inertia is the net sum of mass-content's; the final determination of which is prediction of a mass or energy (alone) gap. This remains the final prediction; the conclusion of which is that mass is predicted to remain an invariant for the (reversible) return from the gap state; the elimination of integration; to which come(s) from the local behavior. Hence at it's base residual; a non-inertial force produces the superconducting state; but physically it behaves inertially.

In two dimensions or with two particles the world is therefore biharmonic; while the vacuum is harmonic; or in it's auxiliary limit; to which is that the form of identities remains fixed. This fundamentally expresses that outside is what is in quasistasis while the direction inward is biharmonic. Every particle state is in fact of two body form; to what is a doublet; all the interactions (& normal action re-action events) of the universe are therefore of the following form and unit doublet u_1 :

$$(x * u_1)(t) = \frac{dx(t)}{dt}$$
 (229)

This is an identity of the Universe; and represents the difference a priori in that of $\delta(x)$; the Dirac delta function and ∂ the differential of a relation as P and S; profunderance and synchronicity. when these interadopt to what is a differential of a delta Dirac function as the expression of the current eigenvalue. Gradations illustrate the pathwise motion is free; but for that of a superconductor they are merely free in two dimensions as a result of possession of an orbit; the real result dimensionally reduced as a wave-function; one degree of freedom is lost. Hence superconductors exhibit no magnetism; the result of a curl free sitation; for what is an antipode; the relaxation and permanent gap for in light of penetration of a vortex state; that of stationing with a free curvature and curvature under action and re-action by the simplicity of the above relation. That of the functional solutions to the above equation come in the three forms exhibiting a 'breather' envelope.

$$S * id_X = \eta \circ \epsilon \tag{230}$$

Reality, space, time, & matter therefore possess a proportion and shape free gestalt; of a variety that render's the world empty of scale and composed of measureless point's.

63 Compositional Freedom and Independence

The highlight of the statement: Particle C cannot act on particle A prior the reaction of particle A via B... precludes the manifestation of order, it's residue, or aggregate from that of Back-ground in Time Event's; and determines; indirectly, a direction into the future. This intimate connective of particles to time forbid's (within addition) certain natures of chaos. What is ordered is the manifestation of therefore the situation we get when it is necessitated particle B act on particle A prior C for this to hold true; a certain nature of 'triangular relationship' is not manifest; leading to instead - a broken symmetry in superconductivity of 'mutual' two-folded simultaneous lowering via the Pauli Exclusion Principle and Displacement to which is a violation of this base precept as the system order's. There is suggested a displacement into-time when a superconductor goes into a critical phase. Here we begin with the triangle in-equality on three particles; and then suggest a pre-liminary different avenue for introduction of what precisely differ's in these materials. The above process between independent virtually large assemblies of particles (a composition) is freely held to what is independence by the fact they do not overlap - the exchange of or non-exchange of an item would leave this forbidden - to what are independent place's. The presence of a multiplicity of spaces causes a prohibition to which superconducting electron's fall 'beneath' to produce the situation above - for which is forbidden in the real world.

First; there are labeled two kinds of interactions:

$$\xi: C \to B \to A: A \to B \tag{231}$$

And,

$$\zeta: C \to A \to B: B \to A \tag{232}$$

We limit ourselves one continuous degree of freedom in x(t) and one Delta unit doublet, u_1 . The question is; is any admissible shape or form potentiated; or more deeply; does u_1 have a shape? u_1 is the unit doublet; and is the differential of the Dirac Delta function.

$$(x * u_1)(t) = \frac{dx(t)}{dt} \tag{233}$$

This is it's equation of evolution.

$$S * id_X = \eta \circ \epsilon \tag{234}$$

The above is it's existence equation.

The question is; For some dimensions (\geq 3) is either or both of ξ and ζ forbidden of individual particles. Human being's are assumed to not-overlap; in which case it is advocated that process ξ or χ take place; but once ξ has occurred; it forbid's ζ . An interesting thing happen's when we analyze (3) as a generator of a form; a symmetry develops in the evolution equation:

$$\delta(a \otimes t^m + \alpha c) = t \frac{d}{dt} (a \otimes t^m)$$
 (235)

In an Affine algebra... We are speaking of the residual element of this world as point(s) and wave(s) in an equal foundation... therefore there are two more factor's:

1.) Pauli Exclusion Principle

2.) Identity of Forms

$$\Sigma \mathcal{O}(\iota) \equiv \mathcal{O}(\iota) \tag{236}$$

d in equation (5) is a differential of x; the curve's singular dimension... to which is moderately free; but co-exists with no upper-bound; but that the product-sum equate to a limit of c; then $\alpha = mc$ is the ordinary Compton Momentum; to which electron's fall below; that of a is the momentum; and t a relativistic group... As one can see from the generating equation of (5).

 δ is assumptive of the 'super' space Delta Dirac equation for the 'sub' sidiary space of the unit doublet $u_1(t)$ Delta Dirac differential. As one can see; the t which refer's to a median to average on measurement does not go as far as a mean to median to average; but at this layer; we find conventional physics. That of statistically what occur's is an abridgement over water; to what would accelerate the flow of-a-shape. Therefore t drives influences (as the conventional equation to work with equation (3); to that of the identity in (4). This identity hold's id_X null in one and three via an enfolding to manifest (3). Thus η is zero, and no-where; while ϵ is somewhere, an identity, and with no-surjective mapping. The logical preclusion of a 1 separates 0 to a rational decomposition of this world... therefore things are manifest as compositions or in segment's.

But the actual validity is that we must hold to both of (6) and (7)... And there are two viewpoints to t; it is the identity within it's own frame; and non-unity outside a given frame... this therefore represents a *reduction* to the identity of forms; when every particle is taken in light of the "Equivalence Principle."

Beyond that of the "Special Theory of Relativity" - but entirely consistent with it's world view; mean and measure hold an equated 'normal' condition of their mutual overlap intimant with the Pauli Exclusion Principle... For the sake that when Spin and Orbital degrees of freedom 'displace' into the statistical picture of pairing

the measurement is taken in either order above; ζ and ξ do not preclude one another.

For what equates with a Spontaneous Symmetry Breaking; the qualitated and qualitative limit must measure to displacement freedom. This paper is the addressment of an equation for a null reaction to displacement; for that of which depend's on it's factor's of quality therein lies a difference in any two frames; when equalitatively balanced to equivalent register's of electronic and massive degree's of freedom. For the sake of the expansion:

$$(i\gamma^{\mu}D_{\mu} - mc)(i\gamma^{\nu}D_{\nu} - mc)\Psi(\vec{x}, t) = \lambda\Psi(\vec{x}, t)$$
(237)

The exceptionable separation of coordinates renders that of equivalence precept of individuated terms to satisfy a statistical envelope.

$$(i\gamma^{\mu}D_{\nu} - \eta(\nu)mc) \otimes (i\gamma^{\nu}D_{\nu} - \eta(\tau)mc)\Psi(\vec{x}, t) = \lambda\Psi(\vec{x}, t)$$
(238)

To which renders an (isotropic) unitary breaking of SU(2) to U(1) and U(1) to which the following when interpreted as co-adjoint operator, the conditional of η and ρ is the closure of the group; in meaning there is a strict inequality (in similarities) and connection between cause, effect, and mass:

$$(i\gamma^{\mu}D_{\mu} - \eta(v)mc) \otimes (i\gamma^{\nu}D_{\nu} - \eta(\tau)mc)\Psi(\vec{x}, t) = (\eta + \rho)\Psi(\vec{x}, t)$$
(239)

And:

$$(i\gamma^{\mu}D_{\mu} - \eta(\upsilon)mc) \otimes (i\gamma^{\nu}D_{\nu} - \eta(\tau)mc)\Psi(\vec{x}, t) = (\eta\rho + i\sigma(t))\Psi(\vec{x}, t)$$
(240)

The semi-direct product [d,A], δ is enfolded in the following relation of Spin to Orbital:

$$\left[\tilde{d}, \eta\right] \Psi = \lambda \Psi \tag{241}$$

Factor an eigenvalue - get gravity.

$$\left[\tilde{d},\tilde{d}\right]g^{\mu\nu} = \lambda \tag{242}$$

This represent's the covariant scale of a dimension of space unto that of eigenvalue and eigenvector splitting and re-assembly via that which is non-exclusive to a class of functions forming and distinct under conformality of dimensional set of for what is scale breaking - as an argument - that of scale; for we deal with **form**.

The question becomes; is the unit doublet enfolded in the Dirac Delta function; or is the reverse - to a plausibility at 'container and contained;' of a world; for of sake of cause and effective degree of freedom; and agreeable precept of mutual division. That of a shared quotient, incidentally sufficient as a condition to share in participance an orbit; for what is three degrees with of freedom with the first precept that the other is defined as the self given of existent atemporary instantaneous self-held plausibility; unto an enfolding of secondary degree of freedom to a 'count' of 'place(s)' non-pluralized and empty or complete of it's singularity in yet the third associable degree of freedom empty upon enfolding of two whole's; when we take for what is unexchangeable of C to a bottomless condition; within that of exceptionable exponent.

Since no 'end' is found; beginning at the secondary precept of first occlusion and then secondly sense; that of the provision at a self-held momentum and energy tensorial residue of a Klein derivative exposes a bifurcation yet in the past; prior it's associable secondary consequence; the factual to be understood as in yet a future-held; The Polaroid Principle.

For in light of light in two; that of the agreed precept is that neither the quantum $E = \hbar v$ nor that of $E = mc^2$ hold-entire upon the hypothetical residue; for in light of flight of departure and freedom to a 'net' of temporal signatory in dual-divisional quotient. Thus we find shared orbit's hold an exclusive co-existence and interplay of non-actual and residue simultaneity for then in displacement; to which any two is a free naturalized physical truth. For in light of this; the factoring is a Dual effective Lax pair of neither re-entrance of exclusive 1 nor

2; neither the differential of the Dirac Delta Function precede that of the Dirac Delta Function or vice-versa; forming instead a yet-further explicit declaration of \mathcal{L} to inexclusive lowest prohibition for what is manifest as a bottomed out neither-formed-U nor neither-formed-J of simplicial Dirac *set; for that of form against ground state.

These irregularities break the Hamilotonian as a consequence of neutral number chirality of odd and even upon a 'linkage' in the chain of cause and effect and consequence; hence immutably we know when such a topological 'hole' is naturalized that of two exchange's occur; to which is the externally manifest emptied condition of a 'state' that of negative eigenvalues unprohibitive; to be understood as that Lagrangian chosen and broken; time, action, and inertial state; a projection of velocimetric translation upon our Affine Algebra; therefore of an unrestricted potentation at a naturalized positive energy (to which is subtractive in degree's of freedom) - but neither upon yet scale that of anything but a probe beyond the quintessentialized zero residue; an intimation of a 'past' oriented potential.

Therefore degrees of freedom are liberated upon what is a scale-anomaly to a division sum radical potential in yet two naturalized and effective counteraction of hole for particle or particle for particle of electron or positron; for what it substitutionally suffices; of a positive displacement; and to which light is effectively unbound nor critical of; but to which light naturalizes a division of the quotient group; an isosimilarity in SO(3); that of a group of third order; and a trace residue of space; the hidden invariance of which is a 'contained' 'actualization' of knowledge and the precept at (2) place's under a freely disconnectable associable pretext at that of spatialized equivalence of event horizon.

Therefore particles are found to be beyond the limit of a comparative inequivalence (to an exact equivalence of overlapping eigenstate valuation geometrically and unto weight) of superposition and it's annhilation; a Pauli Exclusion Principle unto a point of it's junctual and punctual limitation. Therefore two alone within what is judged of orientation and vector via-aim are discernable; that of equivalence of three a precept at two vantages; the comorbidification of orientation of a third witness out; it combinatorially always accounting within a signed convention in this manner.

Therefore the three photonic degrees of freedom are associable in the SO(1) state with that of the η , ρ , and a connective upon the brane and structure of time - to not be confused with a topological source and sink foundation; but of consideration a $\sigma(t)$ for which is compactually reductive to within addition an additive Cartan constant in the form of a conjugate to a Klein derivative.

Therefore when wherein the unit doublet fit's within the Dirac Delta function unto what would be considerately a projection above which there is a manifest renewable stochastic ground-state by separation herein; a space to space; or within one space; the division of 'place;' then incorporatively the summand of place when it is manifest that the Dirac Delta function fit's within the unit-doublet; and necessarily of one unprohibitive space for what is know; but the purity of a dual character.

The particle merely acts as a carriage of that of it's accompanied conservative known; capacity conveyed within the abrea of a potential translation; hence the 'force' remaining the absence of a connective but of question and answer as to gravity; with that of a stone flung into free space; and the rest state upon the foundation of a surface of gravitational isopotential.

For what depart's this has several implications; but the interpretation is that space and particle unify upon yet the SU(2) and SO(3,1) dual reductions in a Pascal algebra. That of dependence dictates that form is therefore understood to be freely held and in an undeparted state from an impenetrable and non-deterministic emptied, emptiless, and empty relation of yet solid and absolute foundation; the physical conjugate of yet

many manifest translocations, temporal point's of determination to a singular translation table; and unbroken action potentials, waves, and point's; a quasistatic prostration to what is a dual and conjugate field for what is interpreted of order in the Lagrangian and Hamiltonian formalism a 'structure' that is solid and secularly held in term's of stasis of existence and co-existence and non-existence freely undetermined.

Here the equation is:

$$[a \otimes t^{n} + \alpha c, b \otimes t^{m} + \beta c] = [a, b] \otimes t^{n+m} + \langle a|b \rangle n\delta_{m+n,0}c$$
(243)

To be understood as the 'guess' that however-it-may be; particles and forms separate into particles and forms. That shape hold's essentially; but that the emptiness of qualities and immutable emptiness of properties is inheritable as a naked bi-reciprocal form of separation into contactless and unseparated apositional the container of space.

This Affine law allows us to 'unspin' yet a tertiary orbit in two to localize the former of two in a frustrated lemma; meanwhile accounting for and quantifying space, the equiparitition of the absolute thermodynamic potential of the equation of state; and explain cause and effect under connections and disconnections.

Here equation (10) is to be seen as a parallel of yet what-is (13). This is equivalent to the treatment of center's-of-mass; a sort of Newton Fractal as if it were; wherein the entangling is befit of a scale entitled to Planck with exchange. This defines it's naturalized domain at the quantum scale - to which is the uncertainty principle with certainty the container; and uncertainty the contained of measure of number, extension, coordinalization, limit, and spatial horizon. The equation is:

$$[a,b]e^{-i[a^{+},a^{-}]+\dots} = \int (q + \frac{1}{\bar{q}})(-\frac{1}{2} + n)ds \qquad n \in \mathbb{Z}$$
 (244)

The spin of $\frac{1}{2}$ account's for the full Dirac space as in that of what is held of a [conventional] ground state; spin is entirely separated by yet (alone) it's considerate free energy momentum state in the conventional Dirac Equation [a factoring of the two equations mentioned for in light of pre-relativity quantum theory]. Hence in combining quantum mechanics with relativity we must operate under a strictly constructive and reductionistic approach to 'know' of the ground state; the Variational Principle maximizing the action for a concave gravitational cavity space and convex irrational and rational quasi-pseudo-complex of differential abjections. This also allows us to know of a spatial relation from a written factual relation.

We find we must - to satisfy an algebraic inequality reverse a step in the derivation of yet (10) for what is (13).

For in yet; the 'master' equation of displacment to linkage free 'assembly' in exchange via a Compass, a Ruler, a Gyroscope, an Hourglass, and a Pell Balance intimates that the 'disconnect' and 'connect' in yet (2) to (2) is superpositionally securely 'empty of symbolic identifier'. It is:

$$l' + \mu(\mu + 1)\Omega_{\phi} + (\partial_t)\eta = J' \cdot E[\phi(\kappa)] + i\phi''(t)$$
(245)

With the limitations that $l \to +\infty$ with $b \to 2$ and with $m \to +1$ with $l \to 0$ such that $c \to 0$. When the speed of light goes to 'zero' in an effective summative background basis of yet η plus ρ ; that of the free body diagram restructures to a deficit in yet a held eigenspace; the differential and integral notions of which are not suspect to the dynamics for in a conventional summand, representation, form, but yet it is compositionally construable and constructable.

The two variable's of η and ρ example neither $\delta(t)$ nor $u_1(t)$; hence spin displaces to a unitary condition that of spatial 'extension' of form to an empty condition of mutually unheld spatial eigenfunctional valuation

through space and time; and that of magntic moment. However the division into two exchange states which immoderate spatial quantifier's within a 'string' is substitutionally a threshold invariance. That of what is a folding in the separatrix below (zero) [0] quantifies yet what is above; and for reciprocation in yet the negative summand of a positive exchange contribution invariant; it is subtractive; as is the naturalized domain of space, within it's concept and limitation to potentiation in comprehension, understanding, projection, acquity, and spatiotemporal tempo. Therefore of what is a given; a subductive relation does not propogate into the past; but seemingly from a formless horizon; to which is the exact and inexact qualitative foundation of a rigid motion in yet one of the tools mentioned for in optics as in sound there is but one objective; the singular qualitative normative basis of sound to a quality factor; to it's deficit; a minor note to which subscriptively fall's below appelegio.

The equation for space is:

$$l^{\beta} = l^{\alpha} (g^{\mu\nu}_{\alpha} g^{\beta}_{\mu\nu} + g^{\beta}_{\mu\nu;\alpha}) \tag{246}$$

This is the multi-colluminated reverse projective domain of a measurement apparatus to it's bare essential quantifier in the tensor calculus. The manifest spin exchange exception of the Pauli Exclusion Principle as a Delta Dirac function and differential Dirac Delta unit doublet satisfies a relation; it is the negative displacement of the entire manifold relation of excess spin in a purely rotational basis; to which is a freed moment of equivalent displacement to division in yet an eigenbasis and eigenfunction space.

That of the exception is the trail residue of a 'past fact known intimation at physically associated regress of a world condition;' that of an associate of 'cause' and of 'effect;' often misunderstood for in that of alone holding a past associate - *for effects lead to causes*; to which is that of a determinant of the closure of the group of spatial translations; a motion. This motion is capacitated by a 'lead' to unoccluded prescription at an inexclusive relationship of yet two through two; to which is the naturalized action of the Universe.

64 Mentioning

Scale and Degree are the only qualities of 'form' and 'shape' - hence this world is determined (although in a difference sense) within and of a true machine; and that of 'outside;' to which is counting and countable; there is formed a schism; that of body; space; and particle; therefore as particles for a machine are dependent on 'exchanges' - of point's or wave's that of discernment of enforceable consequence is potentiated by regularity.

Two orbit's may fall under a particle and space indeterminancy to the separatrix between any two particle(s).

- a.) Spin and exchange via separatrix under the ground state; stabilize to reversibility of coherent statistic.
- b.) Hidden eigenvaluation connective to cause and effect as limited to [d,A] but neither are representative.
- c.) Inertia and magnetic moment break and bifurcate into two of a dynamics and a statics.
- e.) Inertial orientation and gravitational orientation break into two of dynamical and static evolution.

"The two variable's of η and ρ break in $\delta(t)$ and $u_1(t)$; hence spin and spatial 'extension' of form and shape disconnectively produce an empty condition of mutually unheld spatial eigenfunctional valuation to which is the quantifier of space; displacement of one equated mass for one equated energy eigenfunction; the gravitational component; one spin half serves to stand with equivalence of a displacement of all... therefore with two we have a solidity of portion; that of magnitic moment and inertial orientation with angular momentum

spontaneously symmetry broken into electromagnetism and gravity."

- f.) A count in one for what is two decimates 'nether two; to which is not one;' we may therefore with that of mutual displacement have two discernable existences from the question of 'one or zero' under any given equivalence of physics upon order; with what is the following...
- g.) As inertia is summative and subractive; that of one phase breaking of two frequencies determines that of a sequence; to which when one lowered overtone exists; it manifest's the breaking of the threshold on lowest energy; sinking the system; and explaining mass; for what is cause in that of dual harmonics under mutual cancellation of amplitude; but occurrent at a more robust inertia...

"Therefore superconducting phases occur when exchange and displacement of all spin 1/2 particles symmetry break via degeneracy and superposition with lower frequencies 'standing' of-contribution to inertia instead; that of dynamical lowering and energy diminishing; the loss from overlap in [a negated] superposition and a superposition; hence any three agent's (necessarily) mutually possess the capacity of aggregate formation; both attributes [d,A] in two particles therefore reside in a scaled and impermanent condition; hence above a separatrix breaking; the missing space of singular causes and effect's plays no role only to quantify space."

"The equipartition of what is space is therefore the missing-particle for what is a particle of space in what is a unification of therefore, cause, order, directrix, segregational, and average; etc... The displacement of spin to which is always postive within the algebra of equivalence with all other spin's (turned inward-outward making no difference; the reversal of the singular causes and effects to which is eigenfunction and eigenvalue void) and of empty cause but a 'contribution' of negative displacement (as space); wherever, therefore the integral of a scale of measurement is the void."

This happens when a cascade of orbit's fall's through the differential 'web' of separatricies of kissing point's in the flow of cause and effect; however thing's may be; the real world is clarified by that which remains; order. For what is a determination of cause and effect; there may be no other natures of cause and effect; besides those treated in 'independent' model's of electricity and magnetism; and gravity. For of what is consequential this makes the difference (within what is found of order) between two chaotic system's; under contact relation for that of inertia and orientation are all we-are-left-with to the system of it's subscription; all quantities universally deriving from this breaking within and of 'general relativity' and 'quantum mechanic's' therefore these two are unified upon particle, space, and energy; and that of a particle notion contrasted within of what is a superposition and it's absence under exchange defines via-displacement the quantification of a spatial interval and quantity. The repercussion of that of inertial breaking is a spatial breaking; hence this represents the breaking leading to the origin and creation point of the current aftermath of the cause of the universe; and it's consequent 'rule' of determination; if and only if there is space is light occluded from a connective.

After knowing:

- 1.) A measurable symmetry breaking occurs between magnetic moment and inertia.
- 2.) That of an orientation and coordinate spatial flux is chosen.
- 3.) This has to do with a differential enfolding of cause and effect between particles; and leads to the production of spatial measure.

That of a shift must occur; for space, energy, cause and effect, and particle notion's are involved...

I need lay out that of a prescription for a decision as to when and where this occur's; for now I hold the limited example of Superconductivity; to which inertially and magnetically breaks for the following reason:

The magnetic only solution (above) indicates that a renormalization occurs at the magnetic only fixed point in the flow of the theory. Second to this; is the potentiation of inclusion of local to local terms of an electromagnetic variety. The solution given by that of the (above) indicates that when we uniformize and unitarily procure from the electromagnetic solution to a dual in the vector field based contingently around magnetic and electric solutions; that this precipitates electromagnetic symmetry breaking; by that which is a separable contribution to the spin wave geodesic equation. There are only two elements of the theory:

- 1.) Renormalization to electric only and magnetic only solutions; precipitates a violation in the superposition of the Dirac Electron Equation to Pauli Exclusion Principle locality bridge with logarithmic wavelength compensation of geodesic phase of spin-waves to electron mass and time decoupling from (2).
- 2.) Renormalization of the local to global to local theory of the uncertainty relation that derives of certainty in relation to a physical and acausal disconnective of free determinism precipitates superposition to spontaneous symmetry breaking of the quantum states in light and mass below a threshold set wavelength of light (Compton) wavelength of spinwave to charge hole.

In continuance; the result is spin charge separation from mass and inertia with symmetry breaking of electromagnetism from gravity precipitating a decoupling of matter from light and wavelengths of De'Bye from Comptom to which ensure universality of an inductive conditional in that of spin and charge (or hole) delocalization-localization phenomenon in a unitary lowered energy potential of genus one beyond the wavelength of repulsion; asymptotic to a coupling below the threshold of inward or outward electron pair pair global to local pressure. It is that the renormalization in the ultra-small scale goes to infinity on that of the electric distance when it holds that the Debye wavelength is below the Compton; to which the electric field re-normalizes to zero strength of repulsion; and magnetic symmetry insists a universally finite (unit 1) attraction. This is a result of relativity participating in the local limit of co-inertial utility in the argument of motion-free inductive transformation to a mirrored re-action of infinite renormalization of c in the limit of approach (null coincidence informs/ces that of asymptotic freedom); for in that of $\frac{v}{c}$ the logarithmic regularization goes to +∞ to which the electric field and effective distance go to eternity. Thus the two objects of electron hole and electron opposite hole form a polariton and are freed to attract at a charge of $2e^+$. The charge is reversed for in that of the mirror effective distance of a 'hypothetical' electron at infinity; and one super-imposed at some (hypothetical) finite large distance to which are polarized outward-inward. The laws of physics go forwards and in reverse.

This is simply the result of meeting the uncertainty relationship as in that of the outward-inward space of two normalizations producing an infinitely extended re-action when slower than the speed of light; the matter cannot keep up with the charge state; and so matter is in suspense and blocked by light; to which the relativity theory finds support to be a re-action deduced from the limit of c; the superconductor; at rest; participates in a phase in reduction by algebraically a blocking of light from reaching the first occassioned next nearest neighbor; but not! that of the next-nearest-neighbor. As a consequence uncertainty folds. The re-action is that relativity is reversed; to the projection meeting it's annhilation in that of a withheld electromagnetic interaction of reversed variety at short distance. This is the same as action and re-action; which are of course parallels. As a consequence light find's it's reduction in a similar statement to relativity. Durations in the infinitely small scale d are reduced in measure under a reaction to which they concourse to being larger contributions (at small renormalization scale) to that of the integral \int ; of which is made smaller.

This does in no way refute Einstein; but proclaims he was correct; as in that of duration becoming larger; under a small scale shrinking to zero; the curvature to which is the differential dominates; and the local term refutes the large over similar scales. After all; that of two closely placed iso-symmetric pell's do not balance but to zero scale; the uniformity of the debate is that a reduction upon c is self-consistent with the renormalization. This alternatively can be seen as the limit (re-inforced by conductance going to infinity with pairs produced by symmetry breaking) of $c \to 0$ comparative to a phase delay. Attraction is the natural result of a phase delay in that of the Green's Function; the first illustration in comparison with BCS theory. This is that the charges may avoid one another in time by being in a different position in space. The inverse (reversed) limitation is that of either side of a mirror; to which they are eliminably precluded for in light of an immediate nearest neighbor; that of the second nearest neighbor via superexchange is at a co-local distance closer in phase space. Hence it is predicted that ionizing a material produces hypervalence.* When locally isotropic groups segregate below a wavelength to which spatial segregation is superior to what is time as an anferior limit of the laws of physics a spontaneous symmetry breaking is produced to which produces the requisite preliminaries for superconductivity.

As akin to the manner in which space and time 'fold' to create a finite circle from an infinitely long one; when an orbit is analyzed of a straight line in a curved space & time; as when superconductivity is manifest; the finitely long line of interaction 'folds' to produce an infinite orbit in the curved space & time of the interaction. That is to say that the antipodal relation hold's; and that the less-than-unity normalization group of the spin; (to which is four dimensional) relaxes the orbital constraint to it's-fullest; that of a gauge group then to which is negative in conversion of magnetic becoming electronic and electronic becoming magnetic; with a reduction from the speed of light rather than an accumulation to the speed of light; as if participating on the other side of a mirror. This demonstration states that all additional that is required is exchange of field for particle pro-perties; and that of the charges will attract within the ranges of a standard deviation; there being two wave like frequencies and wavenumber's the result of a phase difference congruent with conversion to angular coordinates.

The definite two reasons for superconductivity are therefore:

- 1.) Time dilation is stationary-in-the-moving-frame to which the 'older' twin of the two electron's is with the alternative particle; it's uncertainty within relaxation to a lower threshold on that of energy per unit.
- 2.) That of when taken as-two in the two-body particle system; that of the exchange motivates that of the indistinguishability of the derived terms of spin-orbital coupling and curvature; to which fall equivalently.

The result is:

- a.) Interchange of viewpoint's to which below relativistic consideration; the probabilistic independence of results in quantum mechanics invokes that of a conservation to electrons participant of a closed viewpoint.
- b.) Interchange of electric and magnetic field; reasoned from to the mirror instead of from the mirror; to which what is far is local and what is local is far and what is repulsive is attractive and vice-versa.
- c.) Via spin statistics; measureables and measured interchange role's to a sign change on attraction and repulsion via that of topological argument; wave function collapse and decoherence interchanged to attraction.
- d.) As a consequence like charges attract and opposite charges repel; to what is the inversion of the laws of physics; that of a threshold below which there is identity within which the equations are identical in spin and charge; and to which the solution is given in term's of soliton's and their admixtures; a solid pair state.

A solution on superconductivity; to what is Complimentarity & Displacement Invariance via and of Quality of Regularities... That of Composition Ordering.

Composition Ordering is found then as the systematic and spontaneous manifest symmetry breaking of the universe; the point of Parsimony and the emanation of an ordering principle of momentum and energy from space among General Relativity (Inertia) and Quantum Mechanics.

- 1.) Indistinguishability is afforded for either probabilistically free dependence of quantum mechanics in particle; to which as determinant of eigenspaces of vectors and values under exchange are found degenerate.
- 2.) Time dilation to what is via a variety of superpositional argument with exchange freely held in either particle invokes a resolution to the twin paradox; whereby each particle relaxes in quantum energies.

Therefore:

- a.) Either experiences an attraction to which is universal with the formation of a gap to states.
- b.) The electric and magnetic field of far and near invert in place for attraction of like charges.

65 Regularities, Order, & Chaos

First; there are labeled two kinds of interactions:

$$\xi: C \to B \to A: A \to B \tag{247}$$

And,

$$\zeta: C \to A \to B: B \to A \tag{248}$$

We limit ourselves to one continuous degree of freedom in x(t) and one unit doublet, u_1 . The question is; is any admissible shape or form potentiated; or more deeply; does x(t) have a **resulting** shape? u_1 is the unit doublet; and is the differential of the Dirac Delta function.

$$(x * u_1)(t) = \frac{dx(t)}{dt}$$
(249)

Where * is the convolution operator and the previous is it's equation of evolution. The identity of it's trace result is:

$$S * id_{X} = \eta \circ \epsilon \tag{250}$$

To which defines it's existence.

The question is; "For some dimensions (\geq 3) is either or both of ξ and ζ forbidden of individual particles?" A process of event's is assumed to not-overlap with another; in which case it is advocated that process ξ or ζ take place; but once ξ has occurred; it is forbidden that ζ occur by the 'test' we will impose. An interesting thing happen's when we analyze (3) as a generator of a form; to which is that a symmetry develops in the evolution equation:

$$\delta(a \otimes t^m + \alpha c) = t \frac{d}{dt} (a \otimes t^m)$$
(251)

To which is the generator of an Affine algebra... The residual element(s) of this world are taken as point(s) and wave(s) on an equal foundation... therefore there are two more factor's:

1.) Pauli Exclusion Principle

$$\Sigma \mathcal{O}(\iota) \equiv \mathcal{O}(\iota) \tag{252}$$

To which t in equation (5) is an enfolding of basis element and differential of x; a curve's singular dimension... to which is taken free; but co-exists with no upper-bound. The product-sum equates to a limit of c; to which as a conservation $\alpha = mc$ is the ordinary Compton Momentum; to which electron's or proton's cannot fall below and that of a is a momentum. t is therefore a relativistic group to which 'factor's' the equation... Therefore as one can see from the generating equation of (5) the equated variance is a mean to which unidirectionally prohibit's backward propogation by the following **fundamental** lemma.

The Arrow of Time in Relation to Order: "Nothing of a 'future' tensive-&-physical [event-horizon or event...] propogates (back) through two opening's in this world; for what is a slit; [double]; such a process is forbidden for that of the provision that an even denomination of multiplicities exist with [unitary] doublet & mapping of surjective-onto provided manifold cover, when equated to the provision that equivalent extensive displacement is the provided pre-condition, for one tine is mathematical."

66 Co-Determinant Evaluables

The provided [or perhap's so much as unprovided aim, process, end, and deficit] for in phenomenological contrast undividedly expresses the inward involution and evolutionary truth of this given world upon that of [in the latterly expressive basis and translateral open expressive formation] of phenomenonal contrast to provisional truth in the outward and closed expression of a higher dimension, - to which is the localized expression of what we call 'time'. That of the outwardly formative truth, contextualized, for in comprehension of one's character(s) and pluralities of suppositional mathematical and ideologically driven [or processetorially co-determined truth valuations] provides for an estuary of economies of choice in plural or monosingural lateral (transpotional) basis of mathematical environmental variable variable set relationship. This is what is formerly called 'spooky action at a distance' or that of 'entanglement'. That it is the monodirectional basis of a symphonic, gestalt, estuarial, or codified instrumentation in a method-call upon the mass-assembly and 'assembler function' of the 'Mother Theory or Evidentiary Classical theory-basis'.

Without which we co-determine a valuation, the supposition is encoded in a heirarchical basis of what is called 'order' and bringing order to chaos is the activation [perhaps in this limited sense - to a hypothesis of free will at a limit] - of cognitive variables, their estrually provided backing in physical basis and their interoperable sense. That determination of one variant of the system of the gestalt defines the relationship inwardly (to an abstract negative-quotient (here known 'imaginary') mathematical basis) of the entire assembly of all co-determinant and interdependently woven pieces. That 'we' remain a synthetic and gestalt semantic truth of a world is perhaps an apparent illusion or of choice, contradiction, or ever-enfolded, - even-so manifold - or appreciably selected truth. It cannot remain that 'we' are a gestalt pattern, nor of a truth to an illusory relationship (for even so a mass assembler or that of a gestalt formation) does not admit mathematical innovative 'parsing' - in this analogy to the potential natures of machine... but we are in fact inextractive upon a domain of it's surveyed preliminaries to a co-dependently arisen and ever-enfolded basis, but of the physical, and to a contradiction, neither so of the 'empty' property of a coextension of a heritage. Thus that we inhert and are capable of inhering 'certain truth's' in the form of laws, codexes, and philsophies, as well as artist work(s), we neither so discovering this reality, but indeed - and it is definitive - a coparticipant in creation.

Thus for the heritable truth of an identifier to process, it is a movable identity. That we-relate to fictional contrast in a superlative truth of plurality, it is of content, and not temporal stuccation - to which is the

codified definitive rationalized basis. Thus we work with two patterns, (in some given sense) one-physical, the other mental, of with unto a horizon at-placation to a proximity do not differ - but in a substantial manner - from the non-locality, and 'global' stipulation from which local event(s) may only (exclusively) be prescribed. Thus the equation derived by Albert Einstein to the Einstein Podolsky Rosen Paradox, in relation to momentum advance, carries simply-put a phased acceleration to the analogous wave prescription of the gestalt supposition of a 'background'. With this in mind, the hidden caveat, is that gravitation is projectively an involute for that of the supposition of a declaration unto a third eliminated variable of consequent pattern, within physics (Quantum Mechanics and General Relativity) and mathematics, for their 'hemotopic' derivative manifold fractional (irrationally finite - or rationally infinite) relationships at the limit. Thus the derived qualitating fact is that:

$$\sigma \chi = \zeta^{\mu} \mathcal{O}_{\mu} \tag{253}$$

Therefore 'from above' - phenomena are the inheritance of descidual pattern formation upon what is phenomenological of that of a derived theorem of it's classical gestalt formations and conventionalized projective basis of equative expression. That this derives the known formation of a mathematical (and indeed quantalmathematical abridgement) - and that of a physical (redshift - of temporally provided 'knot') to that of gemometric curvaliear basis... Gravitation can be known (in advance) to finitize the admixture(s) of non-locality and global relationship of that of the inheritable process of locality, and vice versa, vis a via the SU(2) basis of neutrals-lagrangian-splitting. With this the Mobius, and the Circular arc invariance remain the only hidden invariance (unitary) classifier(s) within a dimensional context. With that of two dimensions the restriction is that the lagrangian is a limit of periodic and circular involution *upon* what is called angular momentum, and that of non-periodic and noncircular evolution. Thus we find the spinning top is explained in a world with unique (*Quantal and *Relativistic) expressions of a mathematical and physical nature at all points, with the 'regularity' of a balancing pivot point. Thus in the end, we find that exact* and definitive certainty is provided in the aim(s) of the speculations of a given theorem of this world, but, for in the restriction to which no system of clocks and rods may structually produce a solid 'background' - it is prohibited that there are an infinite teir of such-theorems, without boundary for that of mathematical stipulation of global and local inheritance.

To this end, a machine is defined as that which locally and globally (distributively or non-distributively for in a singular essentialized 'agency') processes inheritable 'role call's' in the evidentiary up-teir beyond it's nexus of instrumentation. Thus, interference (to a contradiction of mutual reinforcement) is capable of a delay in the expiry of Schroedinger's Cat, but to it's naturalized identification and in an alias, - the divided principle that we cooperatively take part as subjective formation and gestalt order, but not of ordinance in that of a world with an environment. Thus human(s) appear particular among the animals, for we know our names and allude to a purity of subjectified stance within objective interpretative validity of the basic co-moving essentialized attributes taken into consideration of a free venting and open relationship with that of a 'world'. That a law - to a limited critique - may be explained as a derivative of religious intentions, is valid, but for that of a freely identified belief, it is a knowable scientific freedom, or to a world of world(s) [in such a system] - a scientific theorem. Therefore religion teaches in some sense the doctrine by which we re-arrive at a scientific truth of any two provided given knowabilities. For in imagination, not only is a name a supplication, illusory, and a contradiction, but not of co-dependent arising, nor of but a cooperative freedom of one world versus another, of a relationship in which three dimension prohibit that of five, and that of conveyance but yet that time is without local prescription, to any then justified globally identified 'brane'.

67 Disambiguation

It serves as a model template to consider flow(s) of Lebesgue-measure (1) and (2), for which the boundary is defined. The prior stipulations hold with practical validity, however the treatment of a mathematical

correspondence is wanting for integrals. That it appears some nature of *new* and general Gauss-Bonnet theorem observations need be made. So it is here we take departure from the 'mono-singular' correspondence of De'Morgan's law's to that of a multiple-quotient basis. Very much of the old structure remains, however the supposition formed is ad hoc and untested. It is visa-via the observation that gravitation will be of it's normally evaluated discernable magnitude, but that of the quantum nature of the superconductor remains emergent, and of a valid energy to mass formulation of equivalence. That eigenvalues and eigenvectors discern for which there are imputed bases, of naturalized implement at delocal and classical layering(s); the ideal is that the mathematical archetype of this world suites the incredgelousless of a physical boundary to point-plateu. That the impediment to this theory is real, we are going to make a guess at the naturalized formation of archetype of gravitational and quantum unity visa-via the superconducting thought experiment, with positive mass.

The ideal is that:

$$\Pi(\int QdV) \oplus (\int GdV) = \int_{dV} \Omega(\delta_i)$$
 (254)

Thus the gravitational injection of a quantum particle at first leads to the causation of wave function collapse and decoherence at the naturalized rate progression of unity in linear and linear terms, thus that the quantum 'object' is a residual of a 'gravimetric' obstruction and delineation. Namely, that the surjective limit of an 'archetype' in gravitational and quantum language is a synthesis of the direct associate under a Gauss-Bonnet theorem. Thus, - that object inhere of properties in numeric type one prior subjective and qualitative quantifiable mean for in that of exposure to which the Gauss-Bonnet conceals without measure. Thus it appears manifest the universe is finite and without boundary... a four-torus within a three-ball. The caveat is that quantum invariances are spoken of in terms of the codification and delineation of manifest relativistic measures of a finitely provided translation table. Thus that mathematics is a preconceptual notion, but herein where physics exists, it is prototypical.

The Q and G operator(s) form the synthetic to which energy is associated with mass-curvature, and that of a gravimetric field induces a quantum transposition, thus that there is a secondary article in bearing...

This is that:

$$\Sigma(\int QdV) \oplus (\int GdV) = \int_{dV} \omega(\delta_i)$$
 (255)

Thus the conjugation of a 'form' with a 'form' is the gensis of a given form, and that of the cyclic nature of this world is a multiply domained and established 'rippling' of former into latter yet produced, - that this is not entirely 'flaff' - it is that form is of genesis, - to which stochastic genera provoke displays of one and another(s) dictionary of established usages in the information problem. Thus, - that the firewall paradox really is very much instead a difference of vantages approaching a commonality of therein their own and alike of the variety of the formation of a lesser from a greater. That the above equations state instead and rather that there is a 'residual-piece' from which two formations are of the genera, it is immediately understood that the spin problem of $\frac{\hbar}{2}$ is the fractional offset of a mathematical stroke and slash. That the quantum topsail may be modified to suite the gravitational of a new nature in a classical domain, - that of two residual measurement processes hold true of equation (219), namely that the advantage of one measurable domain for another must be replicated upon which there is a lower domain 'below'. This hold(s) of temperature, thus that the **q** theory extends 'below' and the **g** theory extends 'above and below'. This is the ramification of both topology and that of the linear nature of the second equation above; - that of algebraically greater energy upon what-would-be understood from that of entropic relationship.

Thus it is the general picture that mathematical 'types' exist to-which they are remotely and locally encoded of identity, - but that physical types are locally and globally encoded by a law of gravitation. That the local is

divided, and is the many, - it hold(s) that these are really the same law, for of that of spaces L(1) and L(2), to which reverse, attach, separate, and combine by the same means. This is the expression of the Cosmological Constant, to which is the displacement of one theory for in another, either side landing right side up... Thus there is a way that things are.

68 Archetypal Formation

For although *Mathematics* is a known language by which nature apparently order(s) information (taking to note computational technology); the dividing line between mathematics and physics is not known, but for that of the 'one-way' functionality and function from which inheritable characteristics are derived [following the work of Judea Pearl on *inference*]. That instead of this, we often may ponder, the derivative formulation of precept is difficult to manage when there are 'odd' and 'even' - pieces, but for that of the grand* orchestrational principle of phenomena and phenomenology, elucidated [earlier]. In replacement, it suffices to consider that one addendum for in that of a given quotient-basis, orchestrates in a 'cyclic relationship' - that of the Mathematical 'element's' - and that space remains of a fixed permanency, with time as an empty equilibriator. Thus, there appears to be a prime mover in the statement that: "Sectional archetypes codify intimacy between agency and repose for what is the determination of covariant set(s) under the auspices of direct dileneation and repercussive shock-tilde formative determinant secular residue.' - Thus that the world is composed of higher dimensional 'traces of products and additions'. The 'open' determination at a secular derivative for that of a partial is therefore of the higher dimensional in relationship to the lower dimensional; - to which a carry may entitle rotational freedom via the equation:

$$\sigma \chi = \zeta^{\mu} \mathcal{O}_{\mu} \tag{256}$$

Thus that rotational secular determinant matches with redshift a given at positional freedom and asympototic linear inertial relationship of two freedom(s). This explains the 'actual' by which a relationship may be altered in conformal graph, but the mating condition is that the dimension is superlative upon which there is a codified formation to operate with. Thus, it is of form to take-agency at that of formative assumptive for what are the delineations of matter, in repose from which a surjection is local. This explains much of the past, but without the operendus of an example we are left far-shy on that of a representation, which must be worked through. The local inheritance is related to the global through the stipulation to which it is knowable there is a fixed and shared element, then afar, for what is near, a given at that of heritologue by which it is knowable we terminate with a question. That therefore, the Cat is not alive when outside the box, for that of a formative hypothetical, it is alive 'within' this archetype. Thus that heritages form genes, for instance, is the elemental persuasion by which form has become active. That a remainder, under that of a prime quotient of one dimension, enqueues for another dimensional contrast what is near and far is then the calculii, to which an invariance is known, for of that of one number, the number-resultant must be related to a truncation of infinity. This grants that of trissection and so-on; - to which the composite formulation is indeed as valid as the minutue of it's design, and of the empty formation for which we relate to a radical formulation, the gross gestalt to which in wave principle one may motion around the root basis. Thus the valid and the invalid are codified herein to the linguistic basis of which is a freedom of asymptote, and with that of mathematic(s); it is below, and down, from where we may motion analytically for in a calculiable basis. Thus, mathematics is laid low and down, and physics, high and out. Thus that two epidemiologies may intersect, - there is a dividing bell for which the quotient basis is global. This explains the transitive character of phenomena in contrast with the phenomenon of 'being's'.

69 Interest [Compounded and Renewed]

If we were to introduct of the multidimensional and intersecting features of an *Oracle-like* precept, it would be allocated with resource:

$$\zeta_k \le \sum_{\alpha} \mathscr{O}_{\mu\nu}(\theta_{\alpha}) \eta_k^{\mu\nu} \tag{257}$$

Therefore, via the law [unprohibitive] of displacement, the nexus of informed *transmission* and *reception* are uprohibitive but of the prior equation with <, with the undivided (open) secular relation related to $E = mc^2$ of the mark by which a probabilist declares to another compatriot of that of 'excecuative exception'; in accounted measure. Thus, as the dimension approaches ∞ it is a negative that statistical mechanics may answer, *but* of free and open dialogist arrow what is the compendium-ad adduces of that of the statisticians dilemma of rate to congruence. When these are the [imparital] advocacy and alternative display of adversary, the intimation is catch-and-release, the guard to which is the microcanonical imputed basis of an invoiable. Thus, when dimension recessitorily reduces beyond and from infinity for in involution of converse, for in that of enumerable dimension, the fallacy with measure is the mixed/blind archetype by which one-style of pattern interlocates with the [undivided] basis of-another.

Therefore, to a classifier, the introduction of a [pedistal] by which one may introduct of one heightened relationship alter-indicates of the alias upon a column to another phenomenological introductive [basis least-end(s)]. Therefore, when proceeding from the qualitative basis by which cause is known, the present is prohibitive of the execution of an alter-alias, without manual introduction, a barrier to which the suppliant notion is left and right without named congruences. Therefore, in taking the respective linear apportionate mean to stand for a limit, only requires a +1, in terms of direct-ratio, with complimentary step for that of graph and analytical associate. The mean recurrence therefore for what is espoused of two and a portion, reduces for in sake of the qualitative rational numeric identity to limit of a **supremum** and or **infimum**.

Therefore, when reasoned, the *middle-third(s)* result of mixed differentials by which a result unexcluded may introduct of a larger-margin, makes the difference of recurrent and transient material body and ephiphenomena. That this categorical mean mixes all-coincidences, unless met with the *advocates position* where[in] it is known of the free license to *Watson's Law*. That empiricism does indeed trump knowledge.

70 Applied Phases, Topology and Inheritance

That of a simple set of assumptions are extended to that of various probabilistic rules and classical rules, overarching, of which in-relating the classical observables to that of their quantum counterparts in-action, relate to a basic model of superconductivity. That of what this results in is a variety of Painleve equation, for which certain known solutions relate, and various superposition rules of which are-found, for which the recognition of the en-masse theory devolves to a theorem of mathematics and physics, of their relationship and rules of inheritance and parsimony.

The basic contributing truth(s) of this theory are:

- **0.1** A classical to quantum correspondence principle.
- **0.2** *An information-set-theoretic midpoint of measurement.*
- **0.3** A paradilogical theorem of inference whence set into motion.

0.4 A topological setting for irreversibility and epistimological root.

Thus, we find a derived notion of the lagrangian for which relates to 'action' and 'relativity' of which result in the inferential arrow to-which the addendum beset into history is 'marked'. That, it involves more than the basic notion at that of differentials such as:

$$\left(\frac{\partial Z}{\partial t}\right)^2 \qquad \& \qquad \frac{\partial^2 Z}{\partial t^2} \tag{258}$$

And, we end up with this for the KdV, - that there is a simple rule of thumb for that of the $y' \leftrightarrow 0||1$ and $x' \leftrightarrow 0||1$ in correspondence to low-lying states of the variational principle.

71 Essence

For what is known, we initially require states such as:

$$c^{\dagger}, c \qquad n^{\uparrow}, n^{\downarrow}$$
 (259)

The theory that follows is indescribably simple. It is essentially a *non-linear* theory coupled to a *linear* theory. That this find(s) relevence for the varieties (following the Introduction) of Painleve, - there is a simple correspondence, to which the **roots** are found 'within' a pseudosphere. That they are real, and along the coth variety, it is simply a result of various dilations within the lightcone for that of a co-extension of order within chaos.

Of the persuasion of three-manifold archetype questions, answers, dialog, contributing evidentiary mean, discussion, polema, and likewise the other 'agencies' of repriation, there is the bottom and top of a discourse, - thus, that it is of time's a 'we' or an 'I' that introducts to-self what is apprehended. For that of the feint of which a dialog could introduct, of 'agency' at the likewise inalienable pretense of a formative hypothetical at the following, it was noted, that the imaginative pulse was not without activity for that of two end formative 'pieces'. Thus, without 'other's' the vacuum potential for that of 'variable code' would-fail. Thus, it is opted that no heirarchy exists without a 'base', or, a 'foundation' upon which precept can be vantaged, and other's of their free license clarify the 'code' of it's assembly for in that of the dynamic of an opportune relation at expression. Thus, it is noted that hearing expresses a slight overtonal modality at that of the form of it's transmission. This 1% is the freed capaciable mean of motion, to which in-that of one for one, what is it's relationship of privy and process, to a mild modality of once what is a peaceable entrance, and hope of a validated mean.

Thus, it was learned that whence we begin and end with an entire problem turned around - it is, it's solution, the single step, with that of a two-locus of which motivates the pursuit of an inferential truth on that of co-adoptive mean for in a then-provided. Thus, the supplication was that evidentiary mean could *finally* be-supplied to-which the secrets of gravitation could be pursued, it's rational truth in agreement with this theory, under motivation that without transmigratory truth and transpirative truth there is no-addendum by which an answer is revolutionary for in that of the observational quality. Thus, for what could be declined at the 'test assumptive' - there must remain a remainder within the nexus of afterthought, between memory, and awareness, in the motivation of a compromise formation. This, lead to the truth by way of which it was understood that invariances are revelatory once-understood, and follow pursuit to form and involution of variable declarations, for without defining notion (in one and two) of what is successorized, we are left without privilege beyond the self consistent, an impression of at the least *the* self-consistent.

Thus, the universal equation is simply put:

$$\tilde{\omega} \to \cdot \bar{\Omega}$$
 (260)

Of a 'placeholder' at question and of answer, that of:

$$\tilde{\omega} \cdot \chi = \bar{\Omega} \cdot \xi \tag{261}$$

For, of what is formative, of that of numeric identity, the relation to which may be studied, but to which renders finite or enumerated answers.

72 Intention

The intention of this paper serves to solve a *Hypothesis*: When does and when does not a problem associated with minimalization of an information flow upon a general topology obey a rule of inheritance, and what potential classifications are there?

What has been discovered is that theorem of quantum mechanics {For a critical point...} in-obeying a fractal dimension, may obey a reduced dimension of supplication to a yet-higher dimension. Hence, relativity and it's purpose must be considered for it's bearing to inheritance. Thus, minimization of a dialectic, functional in-form to-which conveys the uncertainty of a relationship may demand a new coordinate system, as-likewise, - the minimizing feature of a *probabilistic differential* - may elucidate {Within the theorem of movable singularities} - a generalized principle to which quantum mechanics may be reformulated, for in utility of generalized algebraic rules, that function from the quantum to the classical domain, *meanwhile centralizing and unifying quantum mechanics with general relativity*.

73 Sections

That I am beginning with a law of Topology; as it pertains to quantum mechanics, inheritance, and general relativity [essentially the dividing line of what defines reality]... For that of inheritance to which Relativity makes the problem of chaos vanish, and rectifies that of the chaotic into a 'Phase'.

That of the imposition of differential equations is the second part; as to what they encode of when there are phenomena, and as these relate to natural forces, for instance Earth, Air, Water, and Fire,... and of their inheritance...

And of the third part; that of Superconductivity; Chaos, and Order, for that of Poincare classifier(s), and typography, - the relationship of the Painleve varieties, to that of with a movable singularity, particular inferences which may be drawn for the Eisenstein series and that of mathematics versus Physics.

And of the fourth part, - that of inference as it pertains to locality and global relationship, - How exactly? we interrelate through blindness, of the direct deduction to which mathematics and physics are contained in one, for that of one for the other (I forget the sequence); but of the naturalized classifier.

For that of Law, life and death, and so-on, - that of the social extremes, and the historical and epistomological, gearing then into the psychological... with entreatment(s) to answers.

There are two [more] sections:

- 1.) That of Yang Mill(s) and the Mass-Gap.
- 2.) That of Partial to Full Pattern Reconstruction, via the lemma of information in dealing with a Computer.

74 Introduction

First, is the equation, of which a result is related to that of two inputs:

$$f \circ \iota = L \tag{262}$$

And it's conjugate formalism:

$$P^2 \equiv P \tag{263}$$

Taking these as the only two truth(s), that of ι form(s) the statement:

$$f(\iota(z)) = L \tag{264}$$

The non-element \emptyset is prescribed to which it's domain is refuted, when in fact:

$$z = \emptyset \tag{265}$$

Thus, that $f(\iota(z)) = \emptyset$ or $f = \bot \emptyset$. That of three, however, for what are two guidances on $z = \eta$:

$$f_1(\alpha(z)) = J \tag{266}$$

And:

$$f_2(\beta(z)) = K \tag{267}$$

State that when we take these together we find:

$$f_1 \cdot f_2 = \emptyset \tag{268}$$

Provides for the statement:

$$J = \kappa \qquad K = \rho \tag{269}$$

When, it is taken that $z = \perp \emptyset$ or $z = \emptyset$ as:

$$P = \emptyset$$
 or $P = \bot \emptyset$ & $\iota = \alpha$ or $\iota = \beta$ (270)

As the structural term is that the *function* remains for of the alternative to which $\iota \to P \& \bot \emptyset \not\equiv \emptyset$ with equivalently $\emptyset \not\equiv \iota$.

Thus, in four dimensions, mathematics and physics agree, but in three dimensions without a law of inheritance, mathematics and physics disagree with respect to the exclusive and independent.

75 Inference

Inference is the determination at the plausibility of an indirect co-factor of relevence to statistical import of knowledge, evidentiary mean, and code. That, it is of assurrence, to which we may *draw* a **graph** of which relates to the certain factor(s) and co-factor(s) of a functional relationship in the process of subdivision and codex-design of a process, or that of an 'impromptu' of relationship between variables, we may delineate the suggestive factor(s) of a result. Such as for instance with that of *logic*, there is a predicate ontological role

that each variable play(s), so as to suggest of the evidentiary mean leading from process to result. It is here, the non-locality of information, in it's suggesting by way of various factor(s) such as **The Four Color Theorem** and **Goldbach's Conjecture** - that we approach that of the main statement of quantum and non-quantum *Classical* inference as it relates to the identification of peer(s) and the resolution of identity within sociology of which yields to relevence at-identifiable prefecture.

76 Introduction

First, is the equation, of which a result is related to that of it's input:

$$f \circ \iota = L \tag{271}$$

And it's conjugate formalism;

$$P^2 \equiv P \tag{272}$$

Thus, we seek to understand the result of that of *compounded* and *uncompounded* variables. It is clear that these two-processes delineate what is at-heart with that of the physical domain of inquiry. That of a 'parallel' there is a result to which what-is-behind and what-is-afront may be understood.

Thus, we find that of-relevence to that of *Schroedinger's Cat* - there are really two-answers. That of what is eq. (1) may evolve *away* from eq. (2), in that of a process, or be related to that of the non-virtual collapse of a relationship dealing with *observables*. That for that of a *screened* factor, that of f as an identity operator of a non-linear function may be a ∂_{μ} - or - that of a monic:

$$f = \alpha + \beta z \tag{273}$$

Thus, that in a genuine fashion *all results* may be known via their conveyance to *a tier* of pedagogical relationships.

77 Entry

It was *known that *vocal inflection* would need be emitted earlier than hearing, - but without bias it was a question as to if *voices* were-real, for that of the instrumentation and code of a diagnosis of *Schizophrenia*. That this was plausibly a *hallucination* it needed be known ultra-alialy as to that of certain 'hidden variables', and the relationship to that of *Physical and Connotative Law*. The 'connotative law' was then found to enter with relationship to that of certain relationships of the nature of E = pc and $E = mc^2$. Despite may assurrences, it was then the guiding precept that we learn as to the '*Unbiased Reference with respect to Sense*. The 'gateway' was one thing, but that of 'voices' - were with a guarantee at that of 'hidden invariance'... thus that two things were learned:

- 1.) That of a margin for in treatesie was found as the intimation of spatio-temporal separation with interaction.
- **2.)** That of prefactor of auxiliary evidentiary support in antagonism to separation of mean and concealment was understood.

Thus that the 'witness' - for that of *evidentiary support* and *ontological root* was understood in relation to Immanuel Kant(s) critique of Pure Reason as the basis of the relationship to a 'skeleton key' by which the objectful and objectless supports of mind were-understood. That it was without superiority that it was found

that mental illness is not founded but on the opinion of another and the option at a gesture between individuals. Thus, deeply rooted, it was understood that a certain justification at a 'functional obligation' of mind and communicative mean proves instrumental to that of cognitive function, for in what follow(s) from the mean method of inheritance.

Thus, that of the compounded return (and contribution) here-founded is that where dignified by method of argument that of:

$$\neg \iota \to \neg f \qquad \neg f \to \neg \iota \tag{274}$$

Thus that the idealization of a mentally acute individual deals with the **root presumption** of the *reciprocal* operation of *Modus Tollens*. Thus, the refutation of a validly cogent certification of *Co-Dependent Arising* - or to various relationships *Emptiness* and *Impermanence* - for a certain reason traces to that of 'interruption' of normal cognition, but albeit, for what is recognized, - that of the relationship of practitioner to that of student of psychology relates very much to a certain truth of what is 'admitted to from a variety of relationships and symbols'.

Thus, when it is understood of a secondary relationship in relation to a former, for that of the **Continuum of Evidentiary Mean** - it is learned that there exist relationships of the surrounding and penetrative result of 'realism by which it is objected or certified'. That not all individuals are identical, it is often the treasure of one thing for another in relationship to that of the uniquness and *difference of individuals, that usher(s) a subconscious wish in bearing. With me, it was to save people from which an *earlier experience had been witnessing a catatonic state of one-suffering, and preliminary animal abuse that lead during a narcotic experience to that of 'bearing upon the ushering and hasteful' - of a 'en masse grasping at that of means to assist - shockingly - a people'. When it was - *later* - realized that the situation was a vilification of $E = mc^2$ for in the cooperative truth of other-individuals, it was recognized that the means were insufficient preliminary but of that of identication with-law. Thus, we learn that there are in-fact **two** pre-factor(s) to 'a' given mental illness. One is that of the recirpocal Modus Tollens. The other, mentioned here, is that taking one *prescriptive Invariant Law for another*. This for reasons to be explained, disrupts the relationship by which what can be established is a *genuine individual* for that of individual *personality*. That, the obstruction relies on that of 'co-dependency' - that of what is often gestured at serves to produce a reliance on that of the 'material woe' and 'dissatisfaction with life' - for **replacement** is often the alienation that one-feels.

78 Abstraction in Conclusion

The general properties of hyperbolic equations implicate that an equation take a form of a wave equation:

$$(f(\tilde{\omega}) - \alpha^{\mu} \partial_{\mu})(g(\tilde{\omega}) - \beta^{\mu} \partial_{\mu})\Psi(x, t) = \lambda \Psi(x, t)$$
(275)

With:

$$\log(\tilde{\omega} \cdot \bar{\omega}) = \rho + \eta \tag{276}$$

And:

$$\log(\tilde{\omega} \cdot \bar{\omega}) = \rho \eta + i\sigma(t) \tag{277}$$

By substitution:

$$(f(\tilde{\omega})g(\tilde{\omega}) + \sigma(t) + \alpha^{\mu}\beta^{\mu}\partial_{\mu}^{2})\Psi(x,t) = \lambda\Psi(x,t)$$
(278)

And we have:

$$(f(\tilde{\omega}) + g(\tilde{\omega}) + \alpha^{\mu} \beta^{\mu} \partial_{\mu}^{2}) \Psi(x, t) = \lambda \Psi(x, t)$$
(279)

If two particles are in different frames; then they experience the rate differential of time and space differently; to which when one slows it's consequent experience of time deduced from motion depreciates it's partial differential in the other frame.

$$\sigma(t) = (\gamma^{\mu} \cdot \left[\partial_{\mu})(f(\tilde{\omega}) + g(\tilde{\omega}) \right]) \tag{280}$$

The non-linear statistics of comparative densities in position and momentum under an abridging SU(2) algebra diminish the accountable energy in argument's dependent upon these via superposition and exchange.

Under subtraction of twice the second prior equation from the second prior:

$$(f(\tilde{\omega})g(\tilde{\omega}) + \sigma(t) - \alpha^{\mu}\beta^{\mu}\partial_{\mu}^{2})\Psi(x,t) = \lambda\Psi(x,t)$$
(281)

The equation which under reduction becomes the equation for light:

$$(f(\tilde{\omega}) - i\alpha^{\mu}\partial_{\mu})(g(\tilde{\omega}) - i\beta^{\mu}\partial_{\mu})\Psi(x, t) = \lambda\Psi(x, t)$$
(282)

When written out we have two equations:

$$\lambda = \det \begin{vmatrix} \begin{pmatrix} 1 & 0 \\ 0 & 1 \end{pmatrix} \begin{pmatrix} f(\tilde{\omega}) \\ g(\tilde{\omega}) \end{pmatrix} + \begin{pmatrix} 1 & 0 \\ 0 & 1 \end{pmatrix} \begin{pmatrix} \alpha^{\mu} \partial_{\mu} \\ \beta^{\mu} \partial_{\mu} \end{pmatrix} \end{vmatrix}$$
 (283)

The first equation read:

$$\lambda = \det \begin{vmatrix} 1 & 0 \\ 0 & 1 \end{vmatrix} \begin{pmatrix} f(\tilde{\omega}) \\ g(\tilde{\omega}) \end{pmatrix} + \begin{pmatrix} i & 0 \\ 0 & i \end{pmatrix} \begin{pmatrix} \alpha^{\mu} \partial_{\mu} \\ \beta^{\mu} \partial_{\mu} \end{pmatrix}$$
 (284)

This is enough to get that the general equation:

$$\lambda = \det \left| \eta(\upsilon) \begin{pmatrix} f(\tilde{\omega}) \\ g(\tilde{\omega}) \end{pmatrix} + \eta(\tau) \begin{pmatrix} \alpha^{\mu} \partial_{\mu} \\ \beta^{\mu} \partial_{\mu} \end{pmatrix} \right|$$
 (285)

With elements $\{\eta\} \in SU(2)$ are the same *superposition* equation with solutions in the Dirac basis.

Beginning with the equation:

$$\lambda = \det \left| \eta(\upsilon) \begin{pmatrix} f(\tilde{\omega}) \\ g(\tilde{\omega}) \end{pmatrix} + \eta(\tau) \begin{pmatrix} \alpha^{\mu} \partial_{\mu} \\ \beta^{\mu} \partial_{\mu} \end{pmatrix} \right| = \det |\theta(\tilde{\omega})| \tag{286}$$

We have that:

$$\theta(\tilde{\omega}) = \theta(v, \tau, \alpha, \beta, \tilde{\omega}) = \log(\tilde{\omega} \cdot \bar{\omega}) \qquad \lambda = \tilde{\omega} \cdot \bar{\omega}$$
 (287)

So;

$$\log(\tilde{\omega} \cdot \bar{\omega}) = \eta(\upsilon) \begin{pmatrix} f(\tilde{\omega}) \\ g(\tilde{\omega}) \end{pmatrix} + \eta(\tau) \begin{pmatrix} \alpha^{\mu} \partial_{\mu} \\ \beta^{\mu} \partial_{\mu} \end{pmatrix}$$
 (288)

To which is two eigenvalue equations in linear form:

$$\eta(v)f(\tilde{\omega}) + \eta(\tau)\alpha^{\mu}\partial_{\mu} = \log(\lambda) \tag{289}$$

$$\eta(v)g(\tilde{\omega}) + \eta(\tau)\beta^{\mu}\partial_{\mu} = \log(\lambda)$$
(290)

The exceptionable separation of coordinates renders that of equivalence precept of individuated terms to satisfy a statistical envelope.

$$(i\eta(\upsilon)\gamma^{\mu}D_{\mu} - \eta(\tau)mc) \otimes (i\eta(\upsilon)\gamma^{\nu}D_{\nu} - \eta(\tau)mc)\Psi(\vec{x}, t) = \lambda\Psi(\vec{x}, t)$$
(291)

Thus:

$$(i\hbar\gamma^{\mu}D_{\mu} - mc)(i\hbar\gamma^{\nu}D_{\nu} - mc)\Psi = \Lambda\Psi \tag{292}$$

Becomes:

$$(mc\zeta(\tilde{\omega}) + i\hbar\alpha^{\mu}\partial_{\mu})\psi(x,t) = \lambda\psi(x,t)$$
(293)

And:

$$(mc\xi(\tilde{\omega}) + i\hbar\beta^{\mu}\partial_{\mu})\phi(x,t) = \lambda\phi(x,t)$$
(294)

With a wave argument on the inertial mass of which is ζ or ξ ; where:

$$|\zeta(\tilde{\omega})|^2 + |\xi(\tilde{\omega})|^2 = 1 \tag{295}$$

This constraint is nothing more but the restriction that the total probability for *either* electron add up to 1; that it be located 'somewhere' and it's mass conserved, the result is then two Nonlinear Shroedinger Equation's:

$$(\eta |u|^2 u - \sigma u_{xx} + i\rho u_t)\psi(x, t) = \lambda \psi(x, t)$$
(296)

$$(\rho |\nu|^2 \nu - \sigma \nu_{xx} + i \eta \nu_t) \phi(x, t) = \lambda \phi(x, t)$$
(297)

79 Gap

We begin with the differential:

$$D_{\mu} = \partial_{\mu} + \Gamma_{\mu} + \alpha A_{\mu} \tag{298}$$

Then the Dirac equation becomes:

$$(i\gamma^{\mu}D_{\mu} - mc)(i\gamma^{\mu}D_{\mu} - mc)\Psi = \Lambda\Psi$$
 (299)

Then:

$$(-\gamma^{\mu}D_{\mu}\gamma^{\mu}D_{\mu})\Psi = (2imc\gamma^{\mu}D_{\mu} - m^2c^2)\Psi \tag{300}$$

Thus:

$$(\gamma^{\mu}D_{\mu}\gamma^{\mu}D_{\mu} + m^2c^2)\Psi = (2imc\gamma^{\mu}D_{\mu})\Psi \tag{301}$$

To which becomes:

$$(\gamma^{\mu}D_{\mu} - mc)(\gamma^{\mu}D_{\mu} + mc)\Psi = (2imc\gamma^{\mu}D_{\mu})\Psi$$
(302)

Expanding further we have:

$$(\partial_{\mu} + \alpha A_{\mu})(\partial_{\mu} - \alpha A_{\mu})\Psi = (2imc\gamma^{\mu}\Gamma_{\mu} + m^{2}c^{2} - \Gamma_{\mu}\Gamma^{\mu})\Psi$$
(303)

Or:

$$(\partial_{\mu} + \alpha A_{\mu})(\partial_{\mu} - \alpha A_{\mu})\Psi = \Delta\Psi \tag{304}$$

First noting it separates as:

$$(2imc\gamma^{\mu}\Gamma_{\mu} + m^{2}c^{2} - \Gamma_{\mu}\Gamma^{\mu})\Psi = \Delta\Psi$$
 (305)

Above we found the exchange was also written:

$$(i\Gamma - mc)(i\Gamma - mc)\Psi = \lambda\Psi \tag{306}$$

But; the exchange was of the same form as the original equation:

$$(i\gamma^{\mu}D_{\mu} - mc)(i\gamma^{\nu}D_{\nu} - mc)\Psi = \Lambda\Psi$$
(307)

Therefore:

$$\Lambda \to 2\lambda \tag{308}$$

And the gap is:

$$-2\lambda$$
 (309)

 λ the displacement due to exchange; and Δ the indistinguishability in lowering via electromagnetic and covariant terms.

80 Electromagnetics

The capriciousness of instrumentation has made many tests of superconductors amenable to a variety of analyses. However what has escaped detection and inspection is the core material properties but excepting thin layers, that of nanotubes and single crystals. There have been a variety of tests with gravity by various authors, but few have really been of reliability given the relationship of what is unknown of unification in physics. Here it is demonstrated that the avenue to unification is based upon the premise of an event in the present, determinant, inferential, or predicate, unconditioned but found, unconditioned and inferential, or conditioned. That of the synthesis superconductivity provides motivates the room to explore the ideas of unification for the reason that multiple bodies are involved, it is observed on Earth, and that of the two body interaction is the gateway to codependent arising. Thus it at first is valid to begin with exploration in the arenas of chaos and order, that of the least action and geometric optics, and preliminary studies of the Dirac equation, and the Thomas precession. That relativity in this light is cast in such a manner as to explain the physical world in it's contribution through the expression of a projective identification unto equations with a linear superposition principle; it is related to the numerous studies of solitons, for which are known in magnetic systems. Thus at first we encounter the spin equation and magnetism, but soon it is obvious that something of a connection must be formed, for the theory of gravitation is the only mathematically complete theory of gravity. It is also novel, for the illumination of the magnetic to electric bridge which comes from magnetism seen as merely a recapitulation of electricity in motion. Thus relating this back to the rest frame with a displacement field is the primary aim, and it's reduction and incorporation into a Dirac equation; - for which two curvatures in gravitation and electromagnetism via spin are seen to be the solution to unification. It is necessary to prescribe a method for that of analytical treatments that we reduce the problem of four dimensional calculus to one and one dimension. Later we will find **explicit** declaration of the manner in which this 'newly cast' relativity is unique and necessary for the completion of the law's of physics. For now, it is understood that the algebraic properties of the space and field be met with convolution theorem's on Fourier Analysis.

81 Treatesie on Fourier Analysis

Thus, the following properties are determined:

$$\int_{-\pi}^{\pi} d\xi e^{-in\xi} * e^{+im\xi'} = 2\pi\delta(\xi - \xi') * \partial_{\xi} \delta_{n,m}(\xi)$$
 (310)

$$\sum_{n}\sum_{m}e^{+in\xi}*e^{-im\xi'}=\delta(\xi-\xi')*\partial_{\xi}\delta_{n,m}(\xi)$$
(311)

$$F_{n,m}(\xi') = \sum_{n} \sum_{m} e^{+in\xi} * e^{-im\xi'} f_n(\xi) f_m(\xi)$$
(312)

$$f_n(\xi')f_m(\xi') = \frac{1}{2\pi} \int_{-\pi}^{\pi} d\xi e^{-in\xi} * e^{+im\xi'} F_{n,m}(\xi)$$
 (313)

Where:

$$F_{n,m}(\xi') = \partial_{\xi}(f_n(\xi) * f_m(\xi)) \Big|_{\xi = \xi'}$$
(314)

Replacing:

$$f_n(\xi) \to \delta_n(\xi)$$
 or $f_m(\xi) \to \delta_m(\xi)$ (315)

We have:

$$F_{n,m}(\xi,\xi') = (\partial_{\xi}\delta_n(\xi)) * f_m(\xi) \Big|_{\xi=\xi'} + \delta_n(\xi) * \partial_{\xi}f_m(\xi) \Big|_{\xi=\xi'}$$
(316)

So:

$$\frac{1}{2\pi} \int_{-\pi}^{\pi} d\xi e^{-in\xi} * e^{+im\xi'} F_{n,m}(\xi) = \frac{1}{2\pi} \int_{-\pi}^{\pi} d\xi (\partial_{\xi'} f_n(\xi') * f_m(\xi') + f_n(\xi') * \partial_{\xi'} f_m(\xi'))$$
(317)

Therefore:

$$\frac{1}{2\pi} \int_{-\pi}^{\pi} d\xi e^{-in\xi} * e^{+im\xi'} F_{n,m}(\xi) = f_n(\xi') f_m(\xi')$$
(318)

From which (1) and (2) hold naturally by extension.

82 Introduction

That of the equation:

$$\sigma_i \partial_t \chi(\vec{x}, t) = \sigma_i \Pi \chi(\vec{x}, t) + \sigma_k \Sigma \xi(\vec{x}, t)$$
(319)

Models a magnetic system in contact (via the *Pauli Matricies of SU(2)) with a nonlinear Schroediner Equation for charge and it's displacement.

We intend to utilize the Gravitational and Relativistic notion of curvature with Quantum Mechanics to resolve the problem of auxiliary field potentials in differential form.

Thus, the solution to the above, furnishes the fundamental relationship of the equation of an expectation to another for that of mutual differential relationships in the two body problem.

That of:

$$\Pi \equiv \rho \cdot \partial_{xx} + \tau \left| \chi(\vec{x}, t) \right|^2 \tag{320}$$

That of:

$$\Sigma \equiv \kappa \left| \chi(\vec{x}, t) \right|^2 \tag{321}$$

That of the symmetry is:

$$\partial_t \gamma \times SU(2) \longleftrightarrow \Pi \gamma \times SU(2) \times \Sigma \xi$$
 (322)

Then represents the uniformization of curved space to projective space... and furnishes a transformation by which the nonlinear equation may be linearized, for which there is in addition a non-linear superposition rule. That of what is one equation for which there is a first order differential furnishes from that of the operator upon Σ then, a focal potential in non-linear guidance; - the free associate of which is a second order differential and first order differential comparative to that of the operator Π , thus that of the non-linear equations balance from out of that of the ∂_t eigenvalue prescription... - a nonlinear equation with linear support.

Testing a solution of form:

$$R(u, v) = g_1 du^2 + g_2 du dv + g_3 dv^2$$
(323)

Where u and v are polynomials in \wp :

$$u(p) = \frac{a \cdot \wp_1(\vec{x}, t) + b}{c \cdot \wp_1(\vec{x}, t) + d}$$
(324)

$$v(q) = \frac{e \cdot \wp_2(\vec{x}, t) + f}{g \cdot \wp_2(\vec{x}, t) + h}$$
(325)

With the arguments of:

$$\wp_1(\vec{x}, t) = \wp(\hat{\omega} + \phi_{\omega}, g_{11}, g_{12}) \tag{326}$$

$$\wp_2(\vec{x}, t) = \wp(\hat{v} + \phi_v, g_{21}, g_{22}) \tag{327}$$

And, that of:

$$\hat{\omega} = \omega t + \vec{k}_{\omega} \cdot \vec{x} \tag{328}$$

$$\hat{v} = vt + \vec{k}_v \cdot \vec{x} \tag{329}$$

The three equations for which exist; relate to that of a three part interaction between charge, spin, and mass. Thus that of the χ equals the linear summation of a series of sn, cn, and dn. That of ∂_t will produce an equation of two orders, 1 and 2. That of the Σ of, 3, 2, and 1. That of Π of 3, 2, and 1.

Thus, the idea is to relate the formations of order to that of the linear transformation in different terms... That of sn and cn therefore, for particular β (continuous) will relate to that of the cross-over term from Σ and Π . The σ affords this degree of freedom.

83 Sacrifices

When that of Σ and Π act, there appears to be no continuum solution. However, of the lattice solution, indeed, when we juxtapose with the addition theorem of the Jacobi Elliptic functions, - there is a way and manner to object, for that of the sn, cn and dn satisfy a law for which dilation compensates. Thus it is required to go-back and include the relativity of the terms... without which there would be no solution.

Thus it is that the finite analysis determines that only stable matter has a spinwave freely held solution, but of fixed relationships. That of the continuum is held off until later, with it's prescription at that of limit. That of the solution satisfies a similar differential equation. This is related to the Dirac equation, for the two body problem, with exchange.

This model requires that of a 'separation' in two degree's with that of χ and ξ ; for that of which the discrete-evaluation affords that of combination to an exact treatment in x, y, and z... for which arguments pass to that of a linear analysis.

That of the Σ only affords that of squaring of a monic. That of Π participates similarly, thus that the Quantum Principle is somewhat restrictive in classification, mapping, and translation of the discrete and continuum into one another.

For the sake of consideration of valid co-dependent arising, - that of the geometry can manifest only a squaring of the individual terms, namely put, that selections of active processes are forbidden of higher order relations, but of the polynomial for that of j and k, there is an expansion.

When the period-deficit is an exact qualitative function with one of the elliptic functions; [under a squaring with a differential], the functional assignment of the numerator or denominator cancels, thus the normal of a wavefunction from the preliminary background field and it's difference from the world is as-observed.

When we take the second differential (to which there is a distribution via the chain rule), the polynomial goes up in 0, 1 or 2 powers in relation to the squaring operator, thus these together form a factor to which the polynomial raises in one power by a quadratic and canceled monic. That the polynomial goes +1 'up' in power is the result of the loss therefore of a denominator.

That of the left hand side therefore is answered for in the ∂_t . That of two active degrees of freedom mean that the result is and is not predetermined; as a 'condition' can result in a 'missing attribute'; to which that of the function is assigned a new relation with it's coefficients by a third variable. Thus all arises, and all ceases

with co-dependent arising.

Therefore, ξ may be any power up to the limit of what χ is. That Σ operates on it's elements it must be within a variable-variable overlap; of which it is in either x, y, or z, or some combination, via the addition law with positive and negative waves. Thus when and if and only if there is coincidence is there interaction between the elements of an operator in a singular dimension. That it takes two waves of this relationship; - they are expanded, but extensive enough and sufficient to describe all of the dynamics with fixed boundary of any two particles.

The role of the term ψ is to carry the import of a polynomial as the operation of squaring and forming. That it is the 'raw' form of the quantal nature of the particle is only clear when it is addressed that this is the squaring projective identity term. Thus the logarithmic differential is equivalent to one of the terms, left bare for what is a power.

84 Imposition

The relationship of general relativity espoused through the equivalence principle, and what it entitles of an epistomological inheritance of classification into quantum mechanics is as follows, when it is considered that there must be some codependent relationship for causation to follow. That the two predominant theories, rationally taken, of quantum mechanics provide for the nexus of entrainment for that of cause and effect is noted; and to which relates to the arrow of knowledge and of information. It appears at first glance these would follow from and suite one another; however it is known to the Author that these relate oppositely given the relationship of inheritance as in relation to law.

Thus it is adapted of the earlier equation that the operators Π and Σ are open to speculation by that which leads to the predicate, the determinant, and the inferential of arrows in logic. To explain logic is therefore a semiadjacent relation as to law. That law(s) of physical origin in phenomena may or may not have a solid foundation, it is found with many that there are corruptions of the lattice work through which erroneous beliefs can enter. It is not the suggestion of the Author to however avoid these inaccuracies, but to incorporate that these are strictly ad-addendum to modern material and effort.

That of gravitation furnishes for the system described a nonlinearity of which proves to be important... for we know from a primitive thought experiment that the term that enter's represents the covariance of red or blue shifted quantal state; and to which the acceleration is noticably larger or smaller in commutation. This term enters as:

$$\kappa = \gamma^{\mu} (\hbar \Gamma_{\mu} + eA_{\mu}) \tag{330}$$

Thus, the updated quantities read:

$$\Pi_1 \equiv \alpha \rho \cdot \Box + \alpha \kappa |\chi(\vec{x}, t)|^2 \tag{331}$$

$$\Sigma_1 \equiv \beta \kappa |\chi(\vec{x}, t)|^2 \tag{332}$$

$$\Pi_2 \equiv \alpha \rho \cdot \Box + \alpha \kappa \, |\xi(\vec{x}, t)|^2 \tag{333}$$

$$\Sigma_2 \equiv \beta \kappa |\xi(\vec{x}, t)|^2 \tag{334}$$

Now that we have collected the 'facet' of gravitation, the 'Master Equation's' become:

$$\sigma_i \partial_t \chi(\vec{x}, t) = \sigma_j \Pi_1 \chi(\vec{x}, t) + \sigma_k \Sigma_1 \xi(\vec{x}, t)$$
(335)

$$\sigma_i \partial_t \xi(\vec{x}, t) = \sigma_j \Pi_2 \xi(\vec{x}, t) + \sigma_k \Sigma_2 \chi(\vec{x}, t)$$
(336)

If we were only to include the Berry's phase to the Dirac equation it would result in an equation involving no \Box operator, - thus that of the Dirac equation is unamenable to this description, - but for that of the single particle when it is entitled that the *spin* adopt a portion of relativistic Berry's phase. Thus this is the connecting point where geometry and quantum mechanics join. It is required to meet Schroedinger's equation that the \Box is included with a squaring operator.

Thus that of the two equations are the 'proper time' of that of the embedding of electrons in space and time among two particles. That they model superconductivity and spinwaves in lattices then is a result of displacement.

Thus instead of taking the Berry's phase as an extra contribution; - it is the result of the particle electromagnetic mass, to which is the 'proper' world-view of particle and field.

The profound result is that the operations of Π and Σ (for) ξ and χ produce that of degeneracy with consequence, - that the electromagnetic field energy density and particle exchange state energy density with coulombic interaction - exemplify a reciprocation with gravitation under relative considerations. These lay the foundation of a Spontaneous Symmetry Breaking of relativistic, quantum mechanical, and electromagnetic origin.

The actual symmetry is:

$$SO(3,1) \times SU(2) \times U(1) \tag{337}$$

85 Closure on The Group

The defining relationship is that:

$$\sigma_i f_\theta^2 + \sigma_j f_{\theta\theta} = \sigma_k g_\theta \tag{338}$$

Has the first and second derivative with respect to *t*:

$$\frac{dh}{dt} = \frac{a\frac{df}{dt}}{(cf(t)+d)} + \frac{(af(t)+b)c\frac{df}{dt}}{(cf(t)+d)^2}$$
(339)

$$\frac{d^2h}{dt^2} = \frac{a\frac{d^2f}{dt^2}}{(cf(t)+d)} + \frac{2c^2(af(t)+b)(\frac{df}{dt})^2}{(cf(t)+d)^3} - \frac{2ac(\frac{df}{dt})^2}{(cf(t)+d)^2} - \frac{c(af(t)+b)\frac{d^2f}{dt^2}}{(cf(t)+d)^2}$$
(340)

It holds that the connecting relationship of 26 is satisfied by the interrelationship of the model relationship 27, thus that the pre-factoring term 'ascends' the given derivative to the place of a square.

These results reduce to:

$$\frac{dh}{dt} = \frac{a\frac{d\wp}{dt}}{(c\wp + d)} + \frac{c(a\wp + b)\frac{d\wp}{dt}}{(c\wp + d)^2}$$
(341)

$$\frac{d^2h}{dt^2} = \frac{a\frac{d^2\varphi}{dt^2}}{(c\wp+d)} + \frac{2c^2(a\wp+b)(\frac{d\wp}{dt})^2}{(c\wp+d)^3} - \frac{2ac(\frac{d\wp}{dt})^2}{(c\wp+d)^2} + \frac{c(a\wp+b)\frac{d^2\varphi}{dt^2}}{(c\wp+d)^2}$$
(342)

Which further reduce to:

$$\frac{dh}{dt} = \frac{a\frac{d\wp}{dt}}{(c\wp + d)} + \frac{c(a\wp + b)\frac{d\wp}{dt}}{(c\wp + d)^2}$$
(343)

Thus the defining relationship is if the following superposition holds:

$$\sigma_i(\alpha f_t + \beta g_t)^2 + \sigma_i(f_{tt} + g_{tt}) = \sigma_k h_t \tag{344}$$

We have:

$$\partial_{t}(u(p) - v(p)) = \frac{\rho_{1} \wp'(u)}{\wp(u) + \tau_{1}} + \frac{\rho_{2} \wp'(v)}{\wp(v) + \tau_{2}}$$
(345)

And:

$$\partial_{tt}(u(p) - v(p)) = \lambda_1 \wp(u) - \lambda_2 \wp(v) \tag{346}$$

And:

$$\sigma_{i,j,k} = \partial_t \log(\rho_{i,j,k} \cdot \wp(u+v) + \lambda_{i,j,k})$$
(347)

(26) Becomes when we stipulate that a solution with another implies a new solution:

$$\sigma_i(\frac{\wp'(u) - \wp'(v)}{\wp(u) - \wp(v)})^2 - \sigma_j(\wp(u) + \wp(v)) = S(\lambda) = \sigma_k h_t$$
(348)

Thus the form of u and v implies (when this is left from the denomination of the \wp^2 pre-factorization; what is a given at the imperative of a subtraction on the term for which there is a squared difference quotient. This squared difference quotient with the remaining terms produces a newly suited solution, which is part of what we seek. It is then known that:

$$S(\lambda) = \wp(u + v) \tag{349}$$

With:

$$h_t = \frac{\wp'(u)\wp'(v)}{\wp(u)\wp(v)} \tag{350}$$

I have therefore discovered 'something else' - than I thought I would. That h_t is a differential function of which is the differential of a term $\wp(u+\nu)$, there is room for speculation. Thus a third variable is included of what I had believed were-two. That the third element is the solution to ξ and of two solutions in χ , it is a braiding of nomeclatures. Thus, that of completing the square alludes to a new-solution,... that of ξ in relation to χ , - thus that the modular step-wise and modular step-wise is established in two-steps.

When going to the quaternions, the mathematics becomes tractable; - namely that the square modulus of the sphere becomes potentiated. Only this can suite the depiction of a photograph of a photograph of a sphere held up to a sphere. That there is referential known in reality, it is the departure to which the κ and β become cubics of the \wp , - to which the group law is satisfied.

The consideration of a 'sphere' or 'hyperbola' are therefore restrictions to which become embodied by that of the juxtaposition of elements, - that of the 'missing' playing a role analogous to a 'buffer' whereby that of 'hyperbolic' or 'spherical' geometry are-known. The embedding of a spherical space, for that of a straight line synthesis therefore invokes new solutions of which *precess* as the gestalt motion because of the difference of the scaling of space and time. Thus we require:

$$\kappa \sim (\wp(w) + \epsilon) \tag{351}$$

This group is closed whenever two periods in summation are equivalent to two periods in summation.

86 Asymptote

That of the *logarithmic derivative* with two-terms is the 'missing term' to which representationally assures that:

$$\sigma \chi = \zeta^{\mu} \mathcal{O}_{\mu} \tag{352}$$

Thus that the commutator in-completing the square; addresses the same-instruction at that which brings form and composition back into form or composition. Thus, it is the connecting precept of 'space'; - to which addresses the imperative of an actual distal activity. Thus of the transition, it is the actual of a potential to which abridges the wave-structure; - that of a closed group via the doublet.

$$\chi = [A, B] \tag{353}$$

$$\mathcal{O}_{\mu} = \partial_{\mu} \log \gamma^{\nu} \tag{354}$$

Thus the presence of a non-zero commutator indicates an uncurved or curved space; and the identity of:

$$\zeta^{\mu} = 0 \tag{355}$$

$$\zeta^{\mu} \neq 0 \tag{356}$$

Represents the **equivalence principle**.

Thus, the non-zero-sum of a 'protected state' is a prescription at curvature with spin and uncertainty relationship, - that either's uniformization to a limitation of physical law imposes that:

$$\Delta PE = \Delta KE \le 0 \tag{357}$$

Equation (34) represents the equivalence of forms of **inertia**, thus that quantum mechanical inertia is equivalent to gravitational inertia.

87 Determination by Reduction

The commutator of the prior section:

$$\chi = \wp(w) \tag{358}$$

With:

$$\sigma_k h_t = \wp(w) \tag{359}$$

And:

$$\zeta^{\mu} = \wp(w) \tag{360}$$

Therefore satisfies the functional relationship wherein the f and g are $\wp(u)$ and $\wp(v)$, thus that of a *separable* teir of solution.

This is nothing but a *superposition* principle for in the equated parts of the problem, with the differential equation and the integration function. Thus with a commutator or anticommutator; we are afforded a freedom of transparent and abbute union at the given presented solutions.

Thus the solution in the sphere of commutation imparts a secondary solution, it's parts recomposed into a difference of algebra, geometries, and selection rules, thus explaining temperature.

88 Final Conclusion

For a 'condition' of a predicate, statistics and probability do-not-lie of the predicate conditional as suppliant to a notion of the instanced, via experiential truth. Therefore, taxonomies in secondary precedent of following and it's authoritarian bearing, are the verification of one unto a mutual and unilateral historical reprudiated basis or it's forfeiture, it's admissibility of argumentative basis, and allocable mean to an instance of verified trust, and the notion of liability to dialectic, from which a hypothetical is validly affordant to means of a determined truth value.

Therefore, the absolution of argumentative and historical truth of a presentment of identity and it's relation to the truth of a witness, of it's validity in terms of fact.

All theories (current) are justified by this foundation of knowledge, with the exceptionable, via the codependent origination, via which the individual is rendered independent, and of which one and all are without a shared and undisputatively held origin, but in the present-tense. The separation of the conditionally valid of the ontological interpretation of meaning, and the verified conditional truth of instance.

The 'substantialist viewpoint' therefore is established as uniquely different from, and contraiwise, the 'conditionally independent'.

89 Introduction (Overview II)

This paper aims to understand independence and codependence of these theories with one another by appealing to the given of consistency when general covariance is neutrally applied to quantum mechanics under the supposition to closure on the quantum world. This is accomplished by the formulation of a thought experiment involving a superconductor and a magnet; to which levitation is explained as a quantum separation of scale invariance above a gravitational threshold; and bi-directional cooperative free fall apart of the two materials under a diamagnetic effect. In a superconductor, a macroscopic quantum wavefunction manifests due to a phase transition and the development of a macroscopic gap to quantum excitations below which electrons are in departure of a scattering theory; explaining that only a qualitatively pure theory of true phenomenological origin may explain their vanishing thermodynamic contribution. Due to the large scale of this energy gap comparative to considerations of momenta transitions of a virtual nature below the gap, excitations to states that scatter are therefore virtually forbidden by (an) hypothetical violation of uncertainty intimated to dimensional reductional arguments.

The consequence of an electromagnetic potential and quantum residual nature of frozen iso-symmetry of global invariance manifests therefore as a condensation process to which there is reversal of iso-inclinic degrees to a null winding point in the relativistic theory. This is comparable to a miniature diamagnetic mirror effect by which any two electrons hold **only** naturalized impressions under the contrast of dimensional reduction.

The closure of the state 'back-upon' the hole attractive phase is locable therefore as an openly intimated connective of ordered relation to free transposition of temporal congruence. Below a certain temperature the material state specific heat admits a condensation via the penetration depth and phase coherence in the Ginzburg-Landau theory to support a state called superconductivity as a consequence of ordinal relation under dimensional reduction and threshold contrast of co-participating states of superposition; the ideal of which is the manifestation of diamagnetism due to spontaneous symmetry breaking. The reduced state is therefore iso-inclinic as a result of it's reduction to a causeless effect; the certain determinant of which is separation

under cooperative reversal of the laws of physics in a thermomdynamic potential of a pure 'acausal disconnect' of 'conditional effect' under the provisions of a prepared magnetic and gravitational potential. The final difference of these included considerations is that one enqueued spin or charge variant is unseparated but isolable from that of mass; to which either fractional decomposition of states isolably yields a pattern congruence and isopotential of secondary enfolding of their two natures via 'hole-void' & 'charge-spin' structure to which a metric notion retains one individuated contrast of magnetic disordered relation within that of it's electromagnetic potential threshold of effective isolation and reductional mutability under the provision of temporal quantum prohibition of intermediary disconnect. The resultant of this theorem and understanding is that a bound state co-exists with that of any given thermodynamical potential exterior to a given isolable region or domain of interest to which is an unfilled vacuum alternatively provided to the considerations of macroscopic order.

90 Primary Principles

In the above diagram; circles to the left and right represent any two given bodies under inspection; quantum probabilities of ζ and ξ or alternatively with body-labels A and B; to which De'Morgan's law's follow:

$$\hat{A} = \zeta(v, \tau) \qquad \hat{B} = \xi(v, \tau) \tag{361}$$

With an Principle Equivalence of Comparative Complimentarity:

$$A \circ B = A \cdot B \tag{362}$$

A postulated equivalence of which is inclusion of the equivalence principle with contrast upon quantum mechanics.

It is reasonable to take as valid that the only things within physics that are knowable, in a very certain and real sense, are by way of differences in quantitative measure according with differences in qualitative description. In this, knowing correctly the interpretation and range of validity of a given physical description of reality is essential for an understanding of it's possible predictions. To bring these theories into contact the method chosen is that of adopting the essential qualitative feature of isometry under stereographic relativistic transformation of coordinates for an underlying representation in the context of general relativity and applying this descriptive independence to the formalism of quantum mechanics. This is justified by the reason that without this quality the theory of quantum mechanics would be rendered inconsistent with general relativity by artifacts of descriptive dependence. As a consequence, one finds the theories as complimentary in quantitative difference, and complimentary in qualitative measure and measurable.

91 Fundamental Principles

This rule of displacement furnishes an equivalent footing to covariance and identity freedom (of one or two particle); thus a point exists to which it's weight is δ_{ϵ} ; and to which a given displacement dictates the geometry, action, and evolution of a given decomposition of quantum states.

Principle of **Parsimony**:

$$\log(\tilde{\omega} \cdot \bar{\omega}) = \rho + \eta \tag{363}$$

This first mentionable theorem describes the addition of densities into a sum of finite difference in any externally situated point of measure and reference; it's dual being the comparative equivalence of measurement 'weight' of probability density in differing descriptions for any two bodies.

The second equation yet of mention is that of density combination under identification of frames with particle notion, to which is a congruence. The comparative equivalence of these two juxtapositional identities of variabled and measureless degree of emptiness of physical invariant afford the addition of a shared time (here denoted σ); to which is in equivalence a shared time of subtractive nature to the ordination of spatial extension.

Principle of **Synchronicity**:

$$\log(\tilde{\omega} \cdot \bar{\omega}) = \rho \eta + i\sigma(t) \tag{364}$$

Together, this is nothing more than the equivalence of references of vantage for any two particles.

The direct consequence is that:

Any two contraction dilations are uniquely independent of any other by that of commensurate action of congruency of geometric difference under open relation of objective addition of factor of density; for in that of one following adirectionally apart; together; or separately; there is a transparency of logical union of quantum description; that of an interior coextensive dilation contraction factor owing due to their (shared) comparative proper measurement of time.

The substitution of one of η or ρ under either given point-like relation of relativistic factor is a *free* substitution of difference of perspective and vantage; to which forms the uniqueness condition of any two point like limits of relativity & quantum mechanics; for that of any given principle equivalence of time and order; the principle inequivalence of which is a co-determinism to any two probability densities.

The general consequence and implication of this for signals of frequency and functional form under transformation is that: By one (1) comparative differential to quantifiable mean variance in difference of driving frequency encompasses either of any two subcomponents of alternative exterior difference of a given surrounding constructible geometric congruence.

Therefore with general functions:

$$\eta + \log(g(\bar{\omega})) = \log(f(\tilde{\omega})g(\bar{\omega})) \tag{365}$$

Implies: In log decibels any two differently concordant rhythms are separable by any given measure; as each singular log decibel pertains to a different frequency of any given equipartition of each such given foundational means of comparability of any choice of any two given amplitudes of differential nature. Therefore considered together these two imply the equivalence of results and particles under parallel interchange of perspective and vantage.

Principle of Measure: Either one of Parsimony; or both of Synchronicity of given absolutely relative and arbitrary limits of codeterminism within shared point-like relation of temporal extensibility of measure and argument agree to (a) given variety of locality within a shared pre-text; to which with but one given shared body one given end congruent relation is empty of measure or extension; and one beginning notion is free of adeterministic consequence; the implication of which is that measure is certain and measurement strictly semi-deterministic.

We can therefore conclude:

 β :) Geometric weight of relativistic point application of force is equivalent and opposite to quantum mechanical point application of impetus.

 α :) Geometric weight of point like mean density in relativity is equivalent to geometric weight of point like variance in quantum mechanics.

Conclusion: Geometric weight of density and mean force of impetus are equivalent in a theory of comparative equivalence and complimentarity; to which in addition all events carry an equivalent contribution of $\delta_{\epsilon} = \hbar c$, for which any two constitutive relations form a synthetical factual known of truthful valuation under superposition of one given naturalized geometry.

92 Relativity Theorems

The phenomena of which is intransigence of notion for particle and recurrence for wave is the addressment of deterministic end to description at the benefit of representational permanence in reality; therefore to be known here as two givens in physical law and this world within that of **real** connective and disconnective of known's under *displacement* as *relation* of any given one known to it's identity and any additional known:

Parsimony: Any principle comparative measurement of frequency under it's given equiparitition at most meets that of analytical threshold of physical variance of mean partition of yet an other state within the contrast of two idealized locabilities.

Synchronicity: To what is ideal of measure; any apparatus of measurement idealizes to yet one threshold of superior relation of major for minor locability of the idealized process of measuring under comparability to reference and sentient witness.

Therefore there are fundamental limitations of physics; to which in order for there to be self and other consistency of articulation; must be *geometric* in nature:

$$\gamma_c \le \gamma_m \tag{366}$$

Property of Light Variance: The speed of light in when known as fixed to a universal standard implicates that all such durations under observation are identical with and greater than that of any given singular pre-contextual arrow of time by the speed of light universally; for the property of dilation is obverse to any stated fixed measure of relation.

In this, γ is seen as a measure of a rate to a rate, with light, unity in it's own frame; and of matter; less than unity for time to time conversions (for of matter light is of the opposite propensity) precisely because for a moving clock referenced to a stationary one; time moves more slowly; therefore to which it ticks more rapidly, and acquires a greater interval in any duration of a path upon passage.

This is consistent with the special theory of relativity and gravitation because a thrown ball will experience greater accumulation of time than one stationary on the Earth (for comparative *to* a stationary frame time went more rapidly and more accumulated).

Therefore measurement dictates that the comparative measure of the rate of time for the thrown ball is diminished; to which it's extension over a path is longer comparatively to any other observer, such as the one stationary on Earth.

Therefore as the rate of time goes more slowly in the moving frame referenced to the stationary one; more time is acquired comparatively to either observer alone and individual measurements reference equivalence

of congruence under emptied return of ordination and temporal excess of comparative shared time to threshold of objective for any given two body problem. Consistency for that of closure is therefore defined by that of what can be found as a 'bottom' extremum beyond which measureable extension of locability of a given limitation of enclosure unto each given domain of relation potentiates two fundamental mathematical principles in this given world; for which there are solid and diffuse natures to reality in contrasting degree of pattern and reference; to which is an a priori assumption natural to the sciences. Therefore there are two fundamental limitations of physics; that of one indical and one ordinal theorem; their synthetical remark the passage and persistence of time:

Conclusive Remark on Time: The relation of a distant observer in observation to that of the point of the first observer when in motion is of a greater measure than then the reference to the observer under observation to whom as observes a lesser comparative time in that of the observer of it's given observation & alone as greater, comparatively; to what it observes in persistence of motion; these being the two natures of time in relation to any one (of either) such observer's difference with (in) that of equivalence under separation.

When then one analyzes a mirror with this concept in mind; for that of the velocity of *that object* we result in two defining relations by analysis of the vertical and the horizontal velocity comparative to a given arbitrary velocity of the mirror as:

$$\zeta = \sin(\alpha)$$
 $\chi = \tan(\alpha)$ $\alpha = \frac{v}{c}$ (367)

For the tangential and the perpendicular velocity; as the time of a point and of a circle in relation to a curved space as a straight line of time as a circle within a curved space.

93 Ideal Principle Equivalence

Conclusive Remark on Measurability: In general the physical results of differences in measurables of quantities between observer and observed are physically real, however physical results of differences in measurement of any multiplicity of observables by observers are measurably null and unphysical when any one is undeclarative.

Quiescence: Any free light field congruence as the amendation of a free frame under geometric associability and indication is to it's field of subsidiary particle index therefore a free integral and differential of associated field compliment and vantageless a-perspectiveless freedom of degree.

$$\partial_{\alpha\beta}^{\gamma}\Theta = \Theta_{\alpha\beta}^{\gamma} \tag{368}$$

Prescience: The integral notion of this given universe is therefore the capacity of space to capacitate an indical notion as the presence of a quotient group of complimentary ordination to constraint-free degreeless displacement-free identity and variable of aconditionality of principle.

$$\int \Theta_{\alpha\beta}^{\gamma} = \Theta_{\alpha\beta}^{\gamma} \tag{369}$$

This is the given statement that a freely disconnected relation of space is capacitated by that of temporal congruence under free transmigration of identity of indeterminant principle accrued integral and differential notion of field and seamless light-like transparency of ordination in it's capacity to immeasurably exceed the given capacity of matter to inhere motion. It is therefore held as true that any two quantities of displacement of measure unto and to measured are coextensively congruently null and asymptotically free of any two measurement processes by that of indivisibility of ordered expression as the known independence of order from ordination in the indical notation:

$$\zeta \chi = 0 \tag{370}$$

And; of independence of quantity from measure:

$$\xi \lambda = 1 \tag{371}$$

The algebraically free projection of any co-automorphic degree or vector into any one-form of geometry of null displacement invariance with in that of null indistinguishability invariance is therfore the general and full expression of a principle equivalence of null covariance as the expression of the primary notion of the predicate calculus of invariant's.

Principle Equivalence:

$$\eta + \rho = \log(\tilde{\omega} \cdot \bar{\omega}) \tag{372}$$

Principle In-equivalence:

$$\eta \rho + i\sigma(t) = \log(\tilde{\omega} \cdot \bar{\omega}) \tag{373}$$

Any two held contraction dilations are therefore uniquely independent of any additional third by that of their commensurate action of congruency of geometric difference under open relation of objective addition of relativistic co-factor; for in that of one following adirectionally apart or together; there is seamless transparency of beginning to end of pathwise extensible union.

Therefore:

$$\eta + \log(g(\bar{\omega})) = \log(f(\tilde{\omega})g(\bar{\omega})) \tag{374}$$

Therefore considered together these two imply:

Theorem of Freely Held Determinism: Either one; or both of (2), given known invariances of absolute limitation unto independence of point-like relation(ship's) of proportion are indicatorially free as thereby the given theory of electricity & magnetism to (any one (1)) variety of non-locality; for which one is but a beginning and end congruence of relation as empty boundary condition.

Reduction under the Temporal 94

Therefore the given representation of the above equations with that of the velocity divided by the speed of light as a unitless measure is of unity proportion in the measure of any unbiased system of units (to which is the deduction of temporal measure from out of spatial translation).

Therefore the given holds as true by the following; that:

$$\zeta = \sin(\alpha)$$
 $\chi = \tan(\alpha)$ $\alpha = \frac{v}{c}$ (375)

$$\zeta = \sin(\alpha) \qquad \chi = \tan(\alpha) \qquad \alpha = \frac{v}{c}$$

$$\zeta = \sin(\alpha) \qquad \chi = \tan(\alpha) \qquad \alpha = \frac{v}{\sqrt{v^2 - c^2}}$$
(375)

Are equivalent parameterizations of the same problem, as both intimate a connective between transposition and migration of quasilinear pathwise extension in space to which order is subsidiary to and, upon, qualifiable degrees of motion as that of which are neither circular nor point-like.

$$\frac{v}{c} \longleftrightarrow 1 - \frac{v}{c} \tag{377}$$

This principle of inequivalence in concordance with principal equivalence is to be contrasted with the exterior space-like symmetry of the theory of relativity when it is considered that actual determinations of validity are

certain only when one deduces inwardly from temporal to aconditional extension into a given spatial measure.

As a consequence; one or both given ends of any one continuum of a virtualized or real world are not to be found; for the projective forward and backward (surjective) intimation of relation contains no common zero but as algebraic connective and disconnective of atemporary spatial union. The expression of this is that of an intermediary identity locable everywhere in space as the untitled degreeless identity of quantum mechanics.

The principle inequivalence instanced by $\sigma(t)$ is then the marriage of one body to a two body problem by which either agrees with reason and consistent notions of space alone; to the entitlement of understanding of time; the extra $\sigma(t)$ being the accordance by phase of that of a temporal signature to inertia. When one analyzes a mirror with this concept in mind the result is as to two defining relations of analytical true supposition of the 'vertical' and the 'horizontal' rate of comparative temporal extensibility as limitation of arc-width to perimetric co-extension of signature:

$$\zeta = \sin(\alpha)$$
 $\chi = \tan(\alpha)$ $\alpha = \frac{v}{c}$ (378)

95 Theorem of The Quantum

In order to investigate a potential factoring of the two body electron equation into which the problem may be cast or dissected; it is necessary at first to understand that the reference of the measurement is to one body or the other; to which there is escape from the twin paradox; a local phenomenon of which either measures lesser or greater of an otherwise equivalent situation with differing descriptions.

We prescribe that $\{\tilde{\omega}, \bar{\omega}\}$ are different wave and frame descriptions of two particles; to which belong to differing descriptions and frames; denoted by \sim or -.

Here we find that De'Morgan's law's imply:

$$\langle A \rangle \langle B \rangle - \langle A | B \rangle = Cov[A, B] \tag{379}$$

For which $Cov = A \circ B$ is the covariance of events or probabilities A and B; with which $Cov \equiv \neg Cov = A \cdot B$:

$$A \cdot B = (\neg A) \cdot B \cdot (\neg B) \cdot A \tag{380}$$

Where $\sigma(t) \equiv i < A \mid B >$. Following De'Morgan:

$$\beta \left[\zeta, \xi \right] : A \circ B = A \cdot B \tag{381}$$

Where *Cov* and $\neg Cov$ are the event and it's compliment at the point of a 'event' to which we find that geometrically there is equivalent weight to any two of an event and it's compliment (the statement that $A \circ B = A \cdot B$ when an event occurs).

It is now time a dimensionally free weight of independent quantum event comparability to the geometry of space and time is introduced to which is the adherence to independent of events; that of the form of logarithmic equipartition of unique decompositions under geometric freedom of state prescription of statistics:

- (1.) α : Limit of areas under arcs to radius of curvature (log); takes the position of the integral.
- (2.) β : Limit of arcs ratio to radius of curvature (log); takes the position of the **differential**.

These relate to the given that is the 'point like' or 'cuspic like' relation of certainty as an arbitrary argument on 'scale' $\delta_\epsilon \to 0$ (zero) in the limit of which it is a prescription to the geometric addition law of probability density; following from the tenement of 'The Uncertainty Principle' and 'The Equivalence Principle' at the infinitely small to infinitely large scale by the laws of calculus.

For as proof; consider that ω is a frame; then rotate one such frame around until it vanishes to a point.

A logarithmic spiral is the limit of geometric congruence; to which arcs and areas under any curve describe a differential and integral form as length or area to radius progressing to the limit of an infinite process of equipartition and equivalence of all events.

First, we utilize the Guass-Bonnet theorem:

$$\int_{V} \Omega(\alpha)dV + \int_{\partial V} \omega(\alpha)d\tau = 2\pi\chi(V)$$
(382)

As an alternative to relativity; and to mathematically the source by which Einstein is correct; there in three dimensions; the boundary is greater than the volume of a fourth dimension; at which the excess of one; is the counting of a number; by which all exceeds it's difference; and the certain exists. To which in either there is an exceeded and a difference in a number; the limitation in the curtailed mean of one variance to excess in three to two dimensions is found in that of the volume to which a fitted relation is of the lesser in content of the surface to what is found in that of the filling of a volume to that of the dimension by which the counting is equipped.

$$\frac{4}{3}\pi \lim_{r \to 0} \int_{V} r^3 - 2\pi \lim_{r \to 0} \int_{\partial V} r^2 = 2\pi \delta_{\epsilon}$$

$$\tag{383}$$

Hence a sphere; in it's limit of radius shrinking to a point; is lesser in volume than that of by which a sphere in it's volumetric area shrinking to zero is made smaller to a point upon which a boundary between three and four dimensions is made larger than it's complimentary two dimensions of filling. As to a sphere in three dimensions; it is larger in it's boundary than four dimensions is in it's volume. Hence in counting the identity is always counted; and the mean threshold below a given variance is certain in relation to that of expanding by one dimension; made as the accounting of volume of one dimension larger always decrements the surface by a larger excess in diminishment by a count of one δ_{ϵ} .

Statement of Knowabilities: The lightness condition of one degree of variance is to the greater of it's leverage in count as to the difference in that of the perimetric volume comparative to a volumetric dimension of a counting by one ipseity.

The proof of the master statement is as simple as the proof that; by displacement:

$$\lim_{\epsilon \to 0} (\beta_{\epsilon} [\zeta, \xi] - \beta) = 0 \le \delta_{\epsilon}$$
 (384)

96 Concerning Singular States

When considered at first; one may be tempted to set that of state 'A' or 'B' to 'zero' as in the limit of $\zeta \to 0$ or $\xi \to 0$ to extinguish the particle and wave notion of the state; however; one is not afforded this errancy when taking a 'literalist' picture of the subscription to such variables. One finds that a bridge at the threshold of certainty prior to any uncertain event of a given expectation one is potentiated - the fact that 'a' prediction

can be formed. Instead; it must be that states 'A' or 'B' are *mute* in such a consideration; and take on a neither present nor absent condition of which then the equations become (let us reference 'A' as *mute*):

$$\beta \left[\zeta, \xi \right] : A \circ B = A \cdot B = B \cdot (\neg B) \tag{385}$$

And:

$$\langle B \rangle - \langle B \rangle = A \circ B = Cov[B] \tag{386}$$

Then:

$$\beta\left[\zeta,\xi\right]:0=0\tag{387}$$

Therefore the equations hold in the limit of one particle. Of their 'grosser' statement; that the rules that apply to two particles also apply to the notion of the singular particle picture and it's truth; the consequent forbearance on that of the weight of knowledge in it's minute element is indicated to be the domain of mathematics. The new equation for β is:

$$\lim_{\epsilon \to 0} (\beta_{\epsilon} [\zeta, \xi] - \beta) \cdot g(\bar{\omega}) = 0 \le 2\pi \delta_{\epsilon}$$
(388)

And, let the new equation for α be:

$$\left(\frac{4}{3}\pi \lim_{r \to 0} \int_{V} r^{3} - 2\pi \lim_{r \to 0} \int_{\partial V} r^{2}\right) \cdot f(\tilde{\omega}) = 2\pi \delta_{\epsilon}$$
(389)

Now we let $(\zeta, f(\tilde{\omega})) \to A$ and $(\xi, g(\bar{\omega})) \to B$ to which the original functions are associated with their representation in terms of frame; identifying the geometry with the particle: $[\zeta, \xi] \to [f(\tilde{\omega}), g(\bar{\omega})]$. Equation α and β are here associated with a geometry and a particle definition of weight and description. Clearly; α becomes under substitution of A:

$$f(\tilde{\omega}) = 2\pi\delta_{\epsilon} \tag{390}$$

And β becomes under substitution of A for ζ and B for ξ :

$$(1-1) \cdot g(\bar{\omega}) = 0 \le 2\pi \delta_{\varepsilon} \tag{391}$$

As $f(\tilde{\omega}) \to \zeta$ and $g(\bar{\omega}) \to \xi$, this is therefore the statement that it is particle *A* that is incremented in deficit and particle *B* that is constrained under incremental rule to the above equation *whether or not the particles are distinguishable*; *and* particle *A* that is constrained to the usual uncertainty principle of secondary prefectiture; (a *potentiated* but *mute* raising operator unavoidable) where for convention we have:

$$\hbar c = \delta_{\varepsilon} \tag{392}$$

This has the interpretation that geometric weight of a quantum process in the limit of $\delta_{\epsilon} \to 0$ is $\hbar c$; to which we see that a single particle (to be interpreted as arising somewhere and disappearing somewhere); follows an orbit of translocation by 2π . This is consistent with the wave structure of an angle τ in integration be the limit of an infinite process of dimensional reduction on equivalence of events; to which with A, τ :

$$e^{\pm i\pi\tau} = f(\tilde{\omega}) \tag{393}$$

And with B, v:

$$e^{\pm i\pi v} = g(\bar{\omega}) \tag{394}$$

Clearly; then for symmetry α the first equation is;

$$i\pi(\upsilon+\tau) = \log(\tilde{\omega}\cdot\bar{\omega}) \tag{395}$$

And the second equation for symmetry β is:

$$2i\pi(\upsilon+\tau) = \log(\tilde{\omega}\cdot\bar{\omega}) + i\sigma(t) \tag{396}$$

For;

$$\sigma(t) = -i \langle A | B \rangle = \pm i\pi(v + \tau) \tag{397}$$

To which:

$$2i\pi(\upsilon+\tau) = i\pi(\upsilon+\tau) \pm i\pi(\upsilon+\tau) \tag{398}$$

Since:

$$\log(\tilde{\omega} \cdot \bar{\omega}) - i\sigma(t) = i\pi(v + \tau) \pm i\pi(v + \tau) \tag{399}$$

With (+) holding for that of two particles and (-) holding for one particle; to which is redundant; indicating that equations (35) and (39) hold for **both** the one particle and two particle equations of motion. The indication here is that with $\tau \to \rho$ and $v \to \eta$ that there are two fundamental equivalences for the restriction that is the *one* particle; and *two* particle dynamics; these equations therefore forming the *recomposition* of superposition and independence of event identity in quantum mechanics.

97 Methods of Displacement

We therefore have two natures to this problem; one of the quantum analogue of a generator of a time signature (σ) which relates to the given of an impartially hidden local contraction time dilation factor of which is privately shared between any two given bodies; and that of certainty in that of the equations of motion; by which error threshold exceeding predictive to experimental verification leads to empirical validity of experiment; for displacement capacitates solid relations. The first 'constitutive' argument goes as follows:

$$\eta = \langle \psi_1 \rangle \qquad \rho = \langle \psi_2 \rangle$$
(400)

Taken as two measures on the quantum wave-function; Then; $\sigma = \langle \psi_1 | \psi_2 \rangle$. Clearly; then;

$$\beta: \eta + \rho = \log(\tilde{\omega} \cdot \bar{\omega}) = \eta \rho + i\sigma(t) \tag{401}$$

Is satisfied; therefore the old intuition remains with the Given of the Whole; (where δ derives from error in β):

$$(1 - \lim_{\delta \to 0})\beta \equiv 0 > \delta^2 \tag{402}$$

Therefore δ vanishes to zero (signifying the appearance of $\sigma(t)$ and it's shared interpretation as covariance of uncertainty and time in the two body problem) when performing either a two body or one body experiment with displacement freedom and a potential. This is the exact statement that two indistinguishable particles hold null identity and null coordinate dependence. Therefore as uncertainty covaries; it diminishes from 'above' for a relation to γ ; for in taking the return from a relativistic limit the uncertainty in the two body problem diminishes to zero as the Schwartz and Triangle Inequality agree ($\lim_{\sigma\to 0}\beta=0$). The proof is as simple as noting that general covariance insists that we possess coordinate freedom; and as frame descriptions are null (there is no one absolute frame of reference); leaves the uncertainty a null and empty relationship in the two body problem (for the particles possess no identities respective of relativity). This means that natures of certainty founded on probability and geometry are of two distinct natures in the one body; and for (in deduction from) any two given body systems of an identical nature. Therefore the law of principle measure of inertia in mass, light and motion displacement freedom is the instance of certainty in derivation from semi-determinism as the core of measurement as a process on measure.

98 Wave Particle Duality

Therefore by the preceding logic there are two given separated zeroes between that of each identifiable point like limit of physical reality; for which with no local identity or naturalized point like relation of absolute form implicates that the residual geometric involution of one particle wave function is the exterior of it's stated alternative. This is the equivalence and comparability of functions under the presentment of a commonly held geometric congruence under reciprocity between any two given qualified limit events.

$$\xi = \phi_{\pm}(\psi_{\pm}) = \pm i\rho_{\pm}\phi_{\gamma} \tag{403}$$

$$\lambda = \psi_{\pm}(\phi_{\pm}) = \pm i\eta_{\pm}\psi_{\gamma} \tag{404}$$

Of unity as length of separation of points grows as density as ρ^2 smaller with ξ equivalent at all length scales with number of ψ points per volume increasing as density and ρ shrinks with error of standard variance under mean shrinking to: \to 0. Therefore:

$$\eta^3 > \rho^3 > \eta^2 > \rho^2 > \eta^1 > \rho^1$$
 (405)

Etcetera, for the fact that a given sequence in dimensions is indivisibly locable within the relations of either the principles behind λ and ξ . The final proof is as simple as induction on the step of reduction; that inerrantly we cannot reduce beyond the means we begin with as an initial standpoint of zero dimensional error.

Finally we arrive at some new conclusions. As for the quantum principle; we find three new interpretations and a new one:

"The particle wave duality is harmonic."

"No particle wave duality exists within a limit."

"The boundary condition is a harmonic criterion."

Are all equivalent statements of the quantum principle as well as: "Space and time do not exist for a particle at two places in space and time simultaneously." This is the given answer to that of the question, as well as the answer to: "Does any particle exhibit both particle and wave properties at once?" With the answer: "No."

As a consequence we are left with little other than that of the following conclusions for clarification. The first; prescience; is null displacement invariance; known as general relativity; and the second; quiescence is null indistinguishability invariance; known as quantum mechanics. We require two properties to be certain these are the only two remaining elements:

"Are these identifiable and equivalent symmetries?"
"Is one the given reduction of the other as unique?"

No is the answer to the first question as either is the origin or the originless center as identical. No is the answer to the second question as both are the container and the contained as two.

As for the final prediction: light and causation has a terminus in the past: "When and as either alone exist apart there is a null causation in a given future for that of light ending in the past as the defined alone indicates a boundary of non-extensibility beyond that of which the particle horizon for the integral is known as a particle boundary in the past."

"Then, for these given relationships of integral and differential property are as therefore outside null invariant displacement of space and time there exists a particle boundary condition in the future in relation to that of the directionless particle wave structure of light; a past."

99 Exchange Locality Theorem

A composite factoring of the two body equation occurs as the foundational reason of which is provided by relativity and the quantum notion of temporary extension of a given particle. To begin we identify a given admixture of partial differential equation following the principle of a connective to a given ultimately knowable quantity; that of the co-inertia of spinor one-form under subjunctive pre-tense of dimensional contrast. The entire property is a free particle inertial field as a diffeomorphic manifold invariance of co-automorphism unto intimated connective to spatial adfixture. Upon factoring of phase-conjugate and adjoint-free phase freedom the logarithmic identities of principle equivalence and principle inequivalence are provided as givens:

Statement of Symmetry: Extrinsic modification of one equation under antisymmetry of operator to a stated symmetry of operation are intrinsically an interior symmetry in whole and the antisymmetric parallel of operational exchange of particle notion and pair field.

Under these provisions the properties of a two body particle and field equation are decomposed; seen alternatively as a completeness for one particle and a replicated particle and partner field. The general properties of hyperbolic equations implicate that an equation take a form of a wave equation:

$$(f(\tilde{\omega}) - \alpha^{\mu} \partial_{\mu})(g(\tilde{\omega}) - \beta^{\mu} \partial_{\mu})\Omega = 0 \tag{406}$$

When it is rewritten it becomes:

$$(f(\tilde{\omega})g(\tilde{\omega}) + \alpha^{\mu}\beta^{\mu}\partial_{\mu}^{2} + \sigma(t))\Omega = 0$$
(407)

$$\sigma(t) = (\gamma^{\mu} \cdot \left[\partial_{\mu})(f(\tilde{\omega}) + g(\tilde{\omega}) \right]) \tag{408}$$

Under these provisions the properties of a two body electron particle and field equation are decomposed into a regeneration of the operator; seen alternatively as a completeness of the theorem of one particle and a replicated particle and partner field of inertia:

$$(i\gamma^{\mu}D_{\mu} - mc)(i\gamma^{\mu}D_{\mu} - mc)\Psi_{AB} = 0$$
(409)

When it is rewritten it becomes:

$$(-\gamma^{\mu}D_{\mu}\gamma^{\mu}D_{\mu} + m^{2}c^{2})\Psi_{A,B} = 2im\gamma^{\mu}D_{\mu}\Psi_{A,B}$$
(410)

$$D_{\mu} = \partial_{\mu} + A_{\mu} + \partial_{\mu} \log \gamma^{\nu} \tag{411}$$

The gap remains as variant and free yet as commonly dependent on the differential. To note is that when all electron inertial energy momentum is absorbed; particles become anti-particles.

$$(i\gamma^{\mu}D_{\mu} + mc)(i\gamma^{\mu}D_{\mu} - mc)\Psi_{A,B} = \Delta(\upsilon, \tau)$$
(412)

Therefore, two electrons are the generator under anti-commutation and commutation of their subsidiary operators of a notion of particle and antiparticle product relationship with a mass gap of real displacement equivalent to the splitting of each reduction in energy at the relativistically accommodated treshold momentum layer and energy level of either one such particle.

This explains a mass energy gap for that of the two body electron equation as an effectively regularized energy lowering comparative to a temporal displacement of accrued phase compensation in the inertial field as past-associable-displacement of what is understood as the absence of one electron and it's surrounding indical presence in relation to any other electron as an effective positron. For what is of presence is of absence with

matter for the union of spin and charge under fractional separability of inertia and co-inertial extension; together forming a solid whole of motative inertial reduction. A way of interpreting this symmetry principle, is that were the two electron states in spin and orbital to be anything but independent locally and globally they would not be simultaneous eigenstates; therefore under a reduction of surjective phase 'isolation of degreefree asymptotic separability; one hole is intimated as a closed unionable past-associated electron.

- **1.)** Rotations of the electrons in local (spin) and global (orbital) inertial adjoint upon the spin of the two electrons under exchange are of empty rotational orientation when viewed from above or below.
- **2.)** Therefore these rotations are generative under exchange of a raising and lowing operator of their individual orbital and spin mechanic by the expression of a co-adjoint commutation relationship of diffeomorphic and algebraic relation.

And as:

- **A.)** Since the representation is physical for the electrons in their own given frames, the relationship that exists for the orbitals of the electrons and their given spins, exists as an 'excess' coordinate dependence that does not violate the Pauli exclusion principle when it is corrected for the sake of global to local relativistic considerations.
- **B.)** Correcting for this coordinate dependence results in a state for which the spins continue to follow the Pauli exclusion principle as Fermions with a charge wave function, when a positionless contrast of the portion of the electromagnetic interaction becomes of a real attractive interaction equivalent to a weak Bosonization of the states.

100 Advanced Potential Function

The differential equation for a soliton equation includes a derivative notion for then in that of any given soliton-like excitation; however in many primary treatises the formulation of a solution and/or differential equation with stabilitity criterion are ill-defined.

$$\nu\mu \cdot \Xi = \mu \cdot \Sigma + i\eta \cdot \Xi \tag{413}$$

Where Ξ is an open sigmoidal function; and Σ a helical indical function:

$$\zeta \xi \cdot \Sigma = \zeta \cdot \Pi + i \eta \cdot \Sigma \tag{414}$$

$$\Pi = \Xi \cdot \qquad \Sigma = \Pi \cdot \tag{415}$$

And ν and μ with η are ρ , η , and $\sigma(t)$ in that of the priorly presented log equations. The differential equation satisfied is a variant of the Bouissenq equation with a potential relation; that of the imposition of a threshhold from that of the stability criterion under reduction of \square to \aleph in four dimensions to two-dimensions for time:

$$u'(t) = J \cdot E[u(t)] - \phi(t) \tag{416}$$

That of the boundary condition is proven for that of:

$$J \le \phi(t) \to E^{\cdot} \le 0 \tag{417}$$

Therefore that of this equation to which we address that of the differential operation above with:

$$(\zeta - \xi) = \nu(\upsilon, \tau) \tag{418}$$

$$(\zeta - \chi) = \mu(\upsilon, \tau) \tag{419}$$

$$\eta = 2\pi i \partial_0 \ln \chi(g) \tag{420}$$

With:

$$\chi(v, \tau, \sigma, t) = 2\pi i \cdot \chi(g) \tag{421}$$

Therefore for a free manifold; the relation of $\chi(g)$ is the expression of a topologically invariantly held mapping of a manifold to it's surjectively held onto mapping of enclosure in that of the subsidiary conditional pre-text of a formative valuation of a foliation on the alternatively provided physical space. That of ν and μ therefore provide for the equivalence of these two differential equations; to which suit ρ and η of the log relation. Therefore that $\sigma(t) < 0$ implicates that E' < 0 and that the equation of spatial order is below the layer of yet the J in relation to ϕ ; to which the freely held nondeterministic end of a capacitated 'certain' past element of reality within the mathematical domain; is a freely held provisional *solution* to which primary and preliminary boundary condition is empty to initial condition as the stability criterion. This is the difference of for what is that of μ and ν as situated below the threshold of spatialized relation; to which time is capacitated as deductively a secure principle of certain nature.

The log functions in their manifold enfolding of the differential equation determine that any two exchange processes of circularly polarized and point like relation are independent; to which is the independence of time. For that of the associated ρ and η the determination of the reduction in principle variance of any two normalized distributions is a reduction therefore below that of one normalized distribution for the reduction of either factoring of the two particle equation or that of their mean distribution comparative to uncertainty; to which *only certainty remains as:*

$$\rho_{\sigma} < \rho \qquad \eta_{\sigma} < \eta \tag{422}$$

This is rational because the pre-text of ρ and η is that of acknowledgement of $\hat{\partial}_x \equiv \rho$ and $\hat{x} \equiv \eta$ being capacitated of simultaneously held certainty; that of their exposition of yet the product variance in equivalence under reduction with $\sigma(t)$ with that of summative variance; to in either the fact that if momentum were greater then the spread would be lower and the overlap less; therefore the expectation of position uncertainty would be lessened; and (&) if positional distribution were relaxed; that of expectation of momentum uncertainty would be lessened under depreciation and reduction by $\sigma(t)$ to which is reductive in either logarithmic (log) equation under superposition.

Therefore:

$$(\hat{p}_x, \hat{x}) \in X \to \langle f, g \rangle \le \frac{\hbar}{2}$$
 (423)

The notion here is that the dimensional reduction of time to two dimensions fits into the relation of four dimensional space; for in that of the stability criterion either distribution is a real number line distribution in two dimensions of variance.

Therefore:

$$g = 1 \tag{424}$$

Is the indication that classical virtualized processes are forbidden in that of this given naturalized world of any two variances.

101 Abstraction

To produce a proof in certainty and manifest disappearance of asymmetry by displacement to matter of light by substitution:

$$(f(\tilde{\omega})g(\tilde{\omega}) + i\sigma(t) + \alpha^{\mu}\beta^{\mu}\partial_{\mu}^{2})\Omega = 0$$
(425)

$$(f(\tilde{\omega}) + g(\tilde{\omega}) + \alpha^{\mu} \beta^{\mu} \partial_{\mu}^{2}) \Omega = 0$$
(426)

If two particles are in different frames; then they experience the rate differential of time and space differently; to which when one slows; it's consequent experience of time as deduced from motion depreciates it's partial differential in the other frame as a consequent lemma of reduction to a phase continuum of spatial relation and temporal extensibility. Therefore any one greater in time accumulation comparatively (as explicated phenomenologically here) co-conspire to bind a state to the given of rate-temporal displacement freedom. Motivating this; under reductive subtraction of twice the secondary equation from the second prior; the expression is therefore an equation under reduction as an equation for light under the principle of spatially free coupling of any two given particles of charge and spin.

This then indicates the indical representation of a Goldstone mode Boson:

$$(f(\tilde{\omega}) - i\alpha^{\mu}\partial_{\mu})(g(\tilde{\omega}) - i\beta^{\mu}\partial_{\mu})\Omega = 0$$
(427)

Therefore all light and mass exists with inherent *displacement freedom* in an otherwise particle particle equation of neither attraction nor repulsion and pair potential lesser than zero; for an unfilled preceding a-temporal ordination of one particle predicates that of the existence of an ancillary field theoretic threshold on the destruction of an accessory potential and particle future oriented event horizon. Therefore the equation for light and mass is seen as *both* instances of descriptive freedom of certainty under co-determinstic appropriation when $\Delta \ge 0$ in:

$$\Delta = \sqrt{\sigma(t)} \tag{428}$$

Time is then seen as something that is co-participated in and of, in particular, participated in; but of time for a differing point differs both quantitatively and qualitatively to that of the process of measurement and measured upon the objective of a focus to which is empty of unitary basis of homotopic onto limitation. The corollary of this is that all motions differ by merely a displacement freedom and inertial aggregates of two body nature in relation to which explain the appearance of mass, motion, certainty, action, and light for $\Delta \ge 0$ exists for all finite displacive motion and positive energy. Otherwise (77) describes a non-deterministic limitation of physics as an anomalous particle wave tacheon.

102 Conclusion

The cat paradox and it's disproof is therefore furnished by examination of the question as to if one intimable relation can 'fit' in-to another; to which the possibility of the construction of such a box is unafforded of possibility. The relationship of one closed relation to one opened relation of particle horizon mentioned implicates that the answer is a definite no as to it's construction by the following logic. Any one larger certainty to a limitation of yet it's definite does not accord with in that of the microscopic scale as suited to a 'deterministic' interior of closed relation of macroscopic state by surjective automorphic exception to prior pre-stated addressability.

Therefore this problem is akin to asking a question for which is the opposition is a self-statement and one which is therefore the ancillary doubt with dis-entitlement of a given thought experiment; the evidence for which is that as a naturalized problem it is the presentment of a dead end of indication to no solution. It is therefore analogous to asking the problem with a question. The solution is that the cat is either alive and well; or long gone and dead; but yet that no device functions in this manner; as one statement of indication to deterministic outcome is prohibited by the instance of a machine with expectation of return summative carry or quotient carriage.

So as to suggest that spatial union is un-broken as one comparative temporal signature is a delimitation of any two given certainties of machine expectation; therefore the cat and death-contraption hold an entirely independent reality.

Therefore any two points of reality are deterministically free.

Given the equivalence principle applies to determination of the inertial properties of two objects (a superconductor and magnet) as two separable instances; it is seen that together; these constrain the uncertainty to at most two free points of reality (a limit on momentum uncertainty and a limit on position uncertainty) to which 'fits' absolute certainty by reductionism from empirical law in the macroscopic realm to the microscopic.

This holds true as the given expectation of both momenta and position hold an upper limit on the threshold invariant global uncertainty of variance in one standard deviation of any one of two given non-degenerate distributions imputed by the existence of independently held given of momenta variance; to which derives from it's conjugate a mean threshold of one held unstated missing alternative coadjoint variance in position; under the emptiless preceding invariant 'uncertainty' of one \hbar in 2.

$$\langle \hat{x} \rangle \langle \hat{p}_x \rangle \sim \frac{\hbar}{2}$$
 (429)

The affordance of a limitation on two larger objects fitting into the same smaller space; is, by logical deduction on empirical and theoretical founded principle of state-space therefore implicates immediately that the bound on scale and scale-free measures of co-determinism extends to the microscopic realm. This alternatively suffices as confirmation that a *Quantum Einstein Podolsky & Rosen*, or a non-Indicating *Quantum Non-Ipsiety Conditional Entropic Universal Bridge:* **QiCeuB** may be constructed and built; to which the solution to Shroedinger's cat paradox is furnished.

To understand this; any two given 'objects' of a covariance in measurelessly uncertain and shared proper time of empirical law to separation of superconducting (Type-II) material and magnet; (to which separably are a causal disconnect by that of adeterminant inclusion of preceding exception of semi-determinism or equivalence of electricity and magnetism within that of gravitational aconditional support to certainty) are the illustration of analytic & exact determinism of physical law.

103 Resolution of Premesis

The classification of a due [implemented] process is then, the due-process of a reclaimed and solidified sentiment at solitary consideration in focal element. For in the premesis of a distributed elementary analysis, we may only learn via or by experience, what is elementalized, rectified 'as if from-above' and to-lay, [of the human consideration set to word] for in law(s) 'beneath', - then that the due-providence and illustration of nature is written in the exposition of a mathematical 'dialog and reconciliation'. It remain(s) that the providence of one 'renewal process' may balance of phenomenon and phenomenology, what is set-aside to be considerate of a process upon the propertied, and the unitary opposition of a bicamreal mind. That the 'focal element' would persuade us to believe one-thing, whereas another proves of evidentiary process and claim, we may therefrom for what is antipode to a progressive quality, be mislead. Thus qualities lead to and from the 'Mountian' of an evidentiary process on the elementally provided reasoning of a cycle.

That this remain(s), must-remain, for in that of the greater demand of leveragibility to which science may provide of it's limitation, to which in pursuit of absolution of completions in involution, the mind overcapacitated and over-adaptive, will willing fault, for in the greater and minority consensus upon a imbalance

of sided and unsided contrast to acquity, the provided provision of a 'barrier' in a state of failure and accomodation. That when it is in the pursuit of a greater perfection, we find license to-sacrifice, it is therefore a certain courageousness which actively propels the pursuit, and provides for a renewable capacity of what is to come of investigatory process. Thus, the theoretician is faced with a three and two fold (five basis) solidifying renewal, whereas the belief oriented experimentalist is faced with extinction, as a steady-state process.

When lead to the various theorems of classical probability theory, it proved that these sufficied to qualitative elemental attributes, for in light of an argument to continual renewal, it was of the Markov process to be understood that the 'extinction process of steady-state' was the correct fit, for in a suited theorem of which cause and effect could be explained. That dual, (2)-two conditional assignment(s) need be adjustently processed with respect to the overarching past, present, and future. Thus the dichronistic mystery of 'time' was understood to relate to a day within a week, and a day within a day per a week. That these two diurnal capacities of night and day, alluded to the force-manifest of light and darkness.

Therefore, for in a 'Moon' and 'Sun', it was for in the naturalized expident of a day to come and a future wish to succeed, managed to be understood that without predicate for admittance of a 'past' it would be in negation of the explandum to which a future was successorized for in lawful condition, and assumptive, the failure to conditional assignment per evidentiary and experiental truth. Thus Galileo in stating 'and yet it moves' - had stated effectively that the court was a 'stalemate' of it's progressive intimations. That neither such party had succeeded in elimination of the other's provided antithesis, for in provocations that they were both 'mislead'.

Language, suffices as a tool to convey through word(s) of our means to express ideas to which may transliterate, but are not therefore mental constructs. For what one would understand of the lexicographical structure of a reading, is in the eye of the beholder, and becoming of their illustration of experience, were and as such a society to advance epochally. Thus, it is gratifying to find these-day(s) in which theory can meet elemental theoretical work, and experience earned through direct experimentation. That from this, it is evidentiary that what is supplied in one to a question versus an answer, is separable in-two **two-(2)** through and *per* the blind* understanding by which experience is encoded. Thus natural enemies become friend(s), and people whom find persuasion to be in disagreement maintain their disputations, without adherence and upset to those whom in-majority or consensus agree.

With this, it is evidentiary for what has been provided of a work in many-year(s) to illustrate the process of deducation on the Professor(s) Second Problem:

Professor(s) Second Problem: Owing a law of inheritance, can we definitively a priori identify a proscriptive at which successorized the law is set as a primary precedent upon physics and mathematics?

- **1.)** First, it is considered, they ask and pose the question...
- **2.)** Second, it is considered they replediate and re-question as from yet a furtherly distant past...
- **2.) b.)** The assortment of hearing and speaking is understoood to convey within a two-fold and one-fold... per addressment of a question of due-process...
- **3.) a.)** Therefore, the ideal to which it would fit, suites the mathematical and physical archetype of light, but not gravitation...
- 3.) b.) And, the furthermore is that this contain as an abrea the identification with chemistry.... for in it's

absolute [obstacle to obstention through sensory deprivation...

- **2.) a.)** Furthermore, the evidentiary process is without a reclaimative but of a particularly answered question.
- **2.)** c.) "Due evidentiary process, per a refrained question, would a provided answer secularize or motivation a further question, or answer, provided the second individual were to question..."
- **1.)** "Does my admittance, provoke or remain of our contractually provided due-process, or of your or our elemental disputation or objectionable party-process?"

Thus the mean(s) of the many are balanced for in the means of the one, under the elimination of the not-meek, and it is to become that we are made stronger, but yet that the minority seeks a greater apportion... thus that we cannot but yield to the diplomatic intermarriage of community and interdependent origin(s) of many people(s), and it would take two Emperor(s).

104 Conclusion of Reasoning Process

The conclusive 'result(s)' contained herein, then, are not so much but of a set of principles, to be considered evidence of law to the universe, for in the dualism evocative of yet fourthcoming work at an analytical result and it's process of reasoning. Essentially, the basis began with a hidden variable or substituative law in bearing goverening exploration at a heritable analytical Baye's Theorem identification, and ended with the preliminary at a De'Ambertain Algebraic Filter 'window' of process of present, to which incorportive is certain transcendent tertertiary Thermodynamic transcendent laws to basic elliptic operations of a closed and openable group. Closing this group under involution it is found the dichronistic that time can be observed within the universe is evidence of an individuation of lawful precept. Indeed, that thought itself is the origin of the ceasing of notions, and the evidence of a divine creator, of which may be it's only identification to the en masse viewpoint. Thus, no possessorship is granted of material property, and objective reality does not break down. The bargian in return retentively demonstrates a game in identification with a peer is an observational but not idle process, and the remainder of a byproduct is null, that the reality is locally derived is then known, to which the preliminary variables are knowable mathematical archetypes of an experiential basis of knowable inward and outward 'doorway'.

That we can identify with another is then of a behavior attribute, of it's lexicon that the objective reality is with the individual, to which it is not proven but by evidence, so communicated and conveyed of the naturalized free-freed/attribute of a locally isotropically derived 'viewpoint through which we intimately process what is a knowable precept driven ceasing of false or entrained non-local conjecture', the determination that we possess articulated artiface at free will, no inherable world system [edifying Stephen Hawking] is without observation. Then, that the co-determination evaluative mean may go beyond the disenfranchisability of an entrapment through information nexus, and a barrier surpassed, that we adoptive reapportion of a logical or reasoning basis to which is the learned functionized reclaiming of an individual by way of a world, and inhere of a naturalized free self willing volition.

The view(s) expressed of the author remain a fundamentalist viewpoint compatible with known fact(s), however, to a confirmative gesture it is unreclaimed that they be processed ad naseaum to which they are known or otherwise expressed believable without consent, for in a maturational experimentalist policy at informed gesturing to student archetype. Hence, they are the strict jurisdication of ample self evidentiary expressed communicated [word lexicon and symbol/number archetype] basis of opinion at scientific process through which we may confront the inherence of the mathematical to amply provide for the in situ of a physical do-

main of knowledge, without which contributions are not rendered illogical or underrepresented of the animal or artificial intelligence of a world system. However provided, they remain one of two knowable and third expressions of a human being, in expression of the evidence of an observer within this world system, they are not a code or lexicon of inherable educational acrimony beyond yet the student, professional, advocation, mentative, or offical adressee and informat of physical law evidenced, of no knowable process but the archway to a potential identification considered in-remote via digitized or verbatim means.

All right(s) endowable and effective pro-ratum, are the subsidiary process and empowerment of an actionable intention of an individual, person, or corporate relatum-ad-formented deficit to a tier-tier regressable hypothetical; that the validation of there[in] their entry and waypoint is an identified subscriptive codex-machine-type evaluable context of bios and cmos intercarry, without perjury upon no knowable nexus of edificual related consort of a fault-namespace miscarriage.

105 Introduction

The High Temperature Superconductors consist of planes of antiferromagnetic spin texture that when doped create a material capable of phase transitioning into a superconducting state. From this it is reasoned that a spin field must be incorporated into the model. The generation of a spin field, and the interaction of the net momentum with the electromagnetic field are then considered, as well as the implications for a covariant generalization of quantum mechanics in the setting of this field of spins, with the question in mind of: "How does the eigenstate condition change in the context of a model which incorporates a field of spin and an electromagnetic interaction?" This is shown via the covariant differential to lead directly to the principle of a reversed potential between particles interior to a superconductor. From this it is argued that an effect of mutual and relative curvature arises between charged particles in the spin field by way of the electromagnetic interaction. As a whole this description is predictive of pairing, the diamagnetic effect, the condition of zero magnetic field interior to a superconductor, and the gap. It is established that the states internal to a superconductor are in inertial freefall with respect to the spin field and under the influence of the electromagnetic potential. From this, we must move to a new viewpoint where the variables of spin curvature momentum and orbital momentum are treated in a manner such that they are in a non zero-sum relationship. The attractive interaction in superconductivity and gap is motivated by the displacement of and reciprocation of quantum mechanical particle only orbital energy momentum and spin curvature energy momentum under comparison of different accelerative frames with the presence of an electromagnetic potential. The frame difference under acceleration by the electromagnetic field is found to amount to the effect of a lowering and raising operator under the covariant two particle Dirac equation in the presence of a spin field, which explains the appearance of a pairing gap, while the condensation gap is given by the reciprocal process of motion of charge pairs apart.

106 Guiding Philosophy of Theory

It is reasonable to take as valid that the only things within physics that are knowable, in a very certain and real sense, are by way of differences in quanititative measure according with differences in qualitative description. In this, knowing correctly the interpretation and range of validity of a given physical description of reality is essential for an understanding of its possible predictions. Within physics, the only consistently formulated theory of gravity of space and time in four dimensions is general relativity and it is based upon only two givens, that there are no absolute frames of reference and that the speed of light is an invariant with respect to all observers. To be compatible with the existing theory of general relativity, therefore any theory of quantum mechanics must be consistent with this principle of relativism, from which will spring its qualitative and measurable effects on quantitative measure. To bring these theories into contact the method chosen is that of

adopting the essential qualitative features of general relativity and applying them to the formalism of quantum mechanics. This is justified by the reason that without this quality the theory of quantum mechanics would be rendered inconsistent with general relativity by artifacts of descriptive dependence. As a consequence, one finds the theories as complimentary in quantitative difference, and reciprocal in qualitative measure.

107 Superconductivity

The superconductivity described here is that of the high temperature superconducting compounds. These compounds illustrate very high critical temperatures and are usually spin based systems, found by doping oxygen or another atom into the material. This oxygen in certain materials known as antiferromagnets causes the planes of spin which are predominantly electron occupied to adjust such that they give up electrons to the oxygen doped into the material off of the plane, leaving behind holes in the antiferromagnetic plane.

These holes fall into pairs and condense under the right conditions of temperature and pressure to form a state of superconductivity. This is explained in the conventional theory by the presence of a 'gap' to excitations from a state with zero scattering, and hence zero resistive losses to the flow of a current. In addition to this infinite conductivity under certain conditions, there exists a quantum mechanical effect known as the "Meissner effect", whereby a superconductor will expel any existing magnetic fields once transitioning to the superconducting state.

This is not the same as simply infinite conductivity because if this were all that held true then a material cooled to transition in a magnetic field would retain currents and hence there would be a persistent magnetic field interior to the superconductor. However, what really happens is that the field is completely expelled. The magnetic field being zero interior to the superconductor is defintional of the superconducting state through the Meissner effect.

108 Antiferromagnetic Materials

An antiferromagnetic material is a magnetic material that is defined by two sublattices of oppositely pointing magnetic moments that when perturbed convey magnetic moment waves which are capable of traversing from one side of the material to the other. Antiferromagnetic, as well as magnetic materials, (distinguished by two or one predominant Neel vectors) depend not on the alignment of magnetic moments, as one would presume naively, but because this interaction is too weak and cannot explain the observed Curie temperature (the temperature at which the material loses its inherent magnetism). From this, the exchange interaction is the real reason explaining the magnetic interaction and persistence of a magnetic field to high temperatures.

The exchange interaction is an interaction whereby electrons are shared in covalent shells among the outer layers of their atomic models. These orbits accompany more than one atom, and the electron is said to be shared. When this occurs, electrons can couple to the dynamics of either atom for they are coexistent on multiple atoms. Due to the Pauli exclusion principle, they may not occupy the same atom at the same time with identical quantum numbers. One of these numbers, the spin, does accord with the magnetic phenomenon and gives rise to an accompanying magnetic field on the site the electron is located on. But, as for the nature of their spin alignment, there is a small or weak magnetic contribution and a large or strong coulombically produced exchange. This coulombic exchange is the integral of the antisymmetric contribution from occupancy on the same atom with opposite spins, which gives rise to antiferromagnetism. In other models, the non-valent electrons laying underneath the sea of mobile and valent electrons give rise to cooperative ferromagnetic alignment from on site repulsion. This means the atoms only possess for our interests one electron per site when considered as a ferromagnet, but when considered as an antiferromagnet there is at least a

duplicity to give rise to mutually defined directionality. What distinguishes a ferromagnet from an antiferromagnet is not only this mutual versus single electron occupancy of atoms, it is the fact that there arise two sets of Neel vectors. Neel vectors in space are directions which account for the predominant magnetic moment of a sublattice. These are associated in a checkerboard pattern with the underlying lattice and give rise to a different ground state from that of the ferromagnet, which has but one aligned Neel vector per domain.

109 Thought Experiment

The following thought experiment illustrates that if the Meissner effect is complete, then the foregoing conclusions are valid and apply to superconductivity.

The first hypothesis is:

Hypothesis of Superconductivity I: The superconductor magnet force to gap relationship is indistinguishable from the gravitational force to mass relationship.

If the gap Δ is equivalent to a rest mass energy then it is invariant with respect to all observers and is expressible as the inegral of a field of curvature:

$$\Delta = \lambda \int_{\tau} \gamma^{\mu} \Lambda_{\mu} dx^{\mu} \tag{430}$$

With λ a constant and:

$$\Lambda_{\mu} = \partial_{\mu} \log \Lambda_{\mu}^{\nu} \tag{431}$$

A curvature field of the Lorentz transformation that has spatiotemporal dependence. This quantity is defined such that γ^{μ} is the Lorentz factor of weight associated with gravitational freefall, and Λ_{μ} is the inverse factor corresponding to the length contraction and time dilation of space.

For if instead Δ is not equivalent to a rest mass energy then, it is frame dependent and it would vary with the structure of spacetime and increase or decrease with the metric under inertial freefall. The center of mass would no longer be preserved covariantly in general but would exist with a varying gap for different inertial rest masses (Galileo). So it must be that Δ is equivalent to a rest mass energy and invariant and it is conserved under inertial freefall, although the factor γ^{μ} may vary with kinetic motion. Additionally, because the field energy goes into the motion, the energy mass content remains the same by energy conservation in an inertial freefall experiment with magnet and superconductor under mutual repulsion.

Hence the hypothesis follows that:

Hypothesis of Superconductivity II: The field of the Meissner effect is reciprocal to the field of factors of γ from general relativity so as to render Δ and the total mass energy covariant and the Meissner effect complete.

Consider that the scenario envisioned is one where particles A and B, a superconductor and magnet, move apart freely in space. It has been shown that the gap, or Δ , can be considered a rest mass energy with no dependence on the curvature of spacetime. If we consider the two particles then; from the rest frame perspective of particle A, particle B appears to receed with its own factor of relative γ ; and from the perspective of particle B, particle A appears to receed with its own factor of relative γ . In their own internal frame description, γ for particles A and B are equal to 1 and, external to this frame, they carry γ factors nonequivalent to unity.

The hypothesis follows that:

Hypothesis of Superconductivity III: The change in inertial mass energy content is indistinguishable from the change in potential energy mass content for the mechanism of superconductivity.

To prove these hypotheses, consider a magnet and superconductor in alignment with the direction of gravitational freefall and under gravitational freefall. If *M* is for the magnet and *S* is for the superconductor, which is at rest in its comoving frame of inertial freefall, the electromagnetic four potential of the superconductor is some transformation of the electromagnetic four potential of the magnet:

$$A_{\mu}^{S} = \Omega_{\mu}^{\nu} \Lambda_{\nu}^{\mu} A_{\mu}^{M} \tag{432}$$

Our intention is to show that this relationship must hold true by contradiction with the Meissner effect and energy conservation simultaneously. If there is no equivalency we could attibute outside factors, if there is equivalency then Λ and Ω show equivalent and opposite curvatures. Ω is the currently unknown factor we attribute to the effect of magnetic mirroring. In the rest frame of the superconductor there is a quantity which exists if the magnet approaches the superconductor with a differential as:

$$\partial_{\mu} \log(A_{\mu}^{S}) = \alpha_{\mu} \tag{433}$$

And we separately analyze the partial differential of the other side of the equation to show they must be equivalent:

$$\partial_{\mu} \log(\Omega_{\mu}^{\nu} \Lambda_{\nu}^{\mu} A_{\mu}^{M}) = \beta_{\mu} \tag{434}$$

If it does not hold true that these are equivalent, then these differentials would differ and the integration constant would be potentially nonzero.

An electric field does not exist from motion because the relative velocity is coparallel with the magnetic field. If one occurs from change in the magnetic field in time then it would either be the case that the magnetic fields are equal and opposite and there is no electric field, or they are not equal and opposite, and there is an electric field. Energy conservation implies that α_{μ} and β_{μ} change in such a fashion so as to preserve the electromagnetic field energy which is conserved by definition in the rest frame. But with one becoming smaller, and the other larger if an electric field existed, the Meissner effect would be violated. Hence it cannot be the case that $\alpha_{\mu}\beta^{\mu}=C$, a constant, with $\alpha_{\mu}\neq -\beta_{\mu}\neq 0$.

The Meissner effect implies that $\alpha_{\mu}=-\beta_{\mu}$, and that these could be nonzero, but they cannot be nonzero if energy conservation is to hold true in the rest frame since then the total energy content would be changing. Since there is no electric field and the magnetic field energy would change in the rest frame by the dot product of their magnetic fields, it cannot be the case that these are nonzero. Consequently this also implies the integration constant is zero. Thus the Meissner effect and energy conservation can be mutually satisfied if and only if:

$$\alpha_{u} = \beta_{u} = 0 \tag{435}$$

Identically, and with an integration constant of zero to produce:

$$A_{\mu}^{S} = \Omega_{\mu}^{\gamma} \Lambda_{\gamma}^{\mu} A_{\mu}^{M} \tag{436}$$

Now we shift our discussion to determine the nature of Ω , which is a transformation related to the infinite magnetic mirroring. We posit that a superconductor and magnet are at rest relatively in an noninertial frame of the gravitational field of the Earth, an electromagnetic pulse traverses the medium of air between them vertically, and we analyze a series of snapshots of the electromagnetic wave between them.

Taking as an arbitrary initial configuration that the electromagnetic field of the magnet is some function of distance from the magnet and begins to traverse the medium of air downwards at the speed of light as confirmed by relativity, it will travel faster than the normal speed of light in vacuum by a proportionality of the relativistic factor:

$$\gamma$$
 (437)

This will be a function of distance due to the curved nature of the spacetime of in the vicinity of the Earth and its accompanying gravitational field. Additionally, there is a slowing relative to the normal in vacuo speed of light due to the presence of air, which we will neglect, presuming we are doing our experiment in a vacuum. The magnet would ordinarily fall in the presence of the gravitational field, but it is supported by the superconductor which we take to be additionally supported by a table with a vat of liquid nitrogen that is sufficient to cool the superconductor to superconducting capability.

The nature of a superconductor, which is an experimentally verifiable phenomenon, is to exhibit a Meissner effect whereby all magnetic fields are actively expelled from the superconductor such that the magnetic field interior to the superconductor is zero. This is supported by the notion that it is also a perfect conductor, and there exist superconducting super currents on the surface of the superconductor which shield the interior from a magnetic field penetrating the superconductor in the type one normal phase.

For now, we will exclude the type two superconducting phase from discussion, where the magnetic field can penetrate the superconductor. In the normal phase, the superconducting Meissner effect is the effect that when cooled, a superconductor is not only a perfect conductor, but a perfect diamagnet, because the magnetic field will be expelled from the interior, and not left trapped, as it would with only a perfect conductor. Taking the superconductor and magnet to levitate is an indication of this complete field repulsion of diamagnetism, as we know two opposed magnets repel. Taking the magnet to be with a magnetic moment of:

$$\mu$$
 (438)

The falloff in space is described by a function which incorporates the direction of freefall as \hat{z} :

$$\mu f(z)\hat{z} \tag{439}$$

Where \hat{z} is the normal direction in which the magnetic field is pointing and the direction in which the magnetic and superconductor are separated vertically in space. For now, we assume the experiment could be performed with a perfectly small point like magnet and point like superconductor. The magnetic moment of the superconductor is another function, now displaced in space, but, it is a mirrored moment, critically at the location of the original magnet, because a perfect conductor will create super currents that mirror the magnetic moment. Besides simplifying our discussion, it can be easily seen that only this mirroring of the magnetic moment can create complete field cancellation in the interior of the superconductor. Thus the magnetic moment of the superconductor is to exhibit a displaced magnetic moment at the position of the magnet of:

$$-\mu f(z)\hat{z} \tag{440}$$

This is the same as if it were to have the opposite direction or the opposite moment. The magnetic field of the magnet remains as its usual moment and is not diminished by this effect, but there is still the behavior of the mirroring field which concerns us. For the light of the electromagnetic wave that traverses the medium completes two trips in this effective loop through space and time. A snapshot view illustrates that first, the magnetic moment is made larger by a relativistic factor of:

This occurs from transformation via its representation at the position of the superconductor, and then is made smaller by this same factor on the rebound. However, the light that traverses the medium when taken from

the viewpoint of an observer that is distant is this value. The given fields are not made any larger or smaller locally in the non-inertial frame of free fall with the magnet and superconductor. If we were to remove the support, and allow the magnet and superconductor to undergo inertial free fall, we would encounter a different set of snapshots. In the viewpoint of a distant observer viewing the free fall in comoving coordinates, the magnet will exist with a magnetic field:

$$\mu f(z)\hat{z} \tag{442}$$

And the superconductor with a magnetic field:

$$-\mu f(z)\hat{z} \tag{443}$$

However, we know that the factor of γ is changing at the same time. Comparatively, the magnetic field of the magnet will become in our representation viewing the system from afar:

$$\gamma \mu f(z)\hat{z} \tag{444}$$

While the magnetic field of the superconductor will become in our representation viewing the system from afar:

$$-\gamma \mu f(z)\hat{z} \tag{445}$$

This is remarkable, because somehow the magnetic field of the magnet has been affected so as to become larger by super currents from a comparatively smaller source. Taking snapshots of viewpoints, first we have a magnetic field of the following from the magnet at its location, equation (16). The distance between the superconductor and magnet is as a given:

$$R = cdt (446)$$

While the distance viewed from the distant observer is getting progressively smaller due to length contraction by a distance also equivalent to, as viewed by the local observer:

$$r = vdt (447)$$

Comparatively, what is witnessed is a force acting through a distance R from the distant observer and through a distance r from the local observer. This is equivalent to a contraction of the electromagnetic field with each successive bounce of the electromagnetic field as the superconductor and magnet fall together. This is the ratio:

$$\frac{r}{R} = \frac{vdt}{cdt} \tag{448}$$

Including for the sake of placing these in the same external observer from afar viewpoint we must replace the velocity with the boosted velocity, while the time dilation factor is left common for we compare these in the same present location:

$$v \to \gamma v$$
 (449)

What we are left with is the comparative ratio of strength between each bounce in each snapshot viewpoint of reflection of the magnetic field via light between the magnet and superconductor within the comparative viewpoint of an observer from afar versus the local observer. Summing over the infinite reflections to find the potential energy produces:

$$\vec{B}_{M} \cdot \vec{B}_{S} = -\sum_{n=0}^{\infty} (-1)^{n} \mu^{2} f(z)^{2} \gamma^{2} \left(\frac{v \gamma d t}{c d t}\right)^{2n}$$

$$= -\mu^{2} f(z)^{2} \gamma^{2} \frac{1}{1 - \frac{v^{2}}{c^{2}} \gamma^{2}}$$

$$= -\mu^{2} f(z)^{2} \gamma^{2} \gamma^{-2}$$

$$= -\mu^{2} f(z)^{2}$$

$$= -\mu^{2} f(z)^{2}$$
(450)

Where the alternating series is from the reflection of each contribution under which the sign of the magnetic field changes. The per superconductor or magnetic moment field is then:

$$\xi = \pm \mu f(z)\hat{z} \tag{451}$$

This vindicates a viewpoint that the magnetic moment is unaffected by gravity while in inertial free fall because it is a quantum phenomena. Not only does this illustrate that inertial considerations apply to magnetic superconducting levitation and other quantum phenomena independently of gravity, it says that these effects may be subsumed into the architecture of general relativity for a system as if quantum mechanics remains inertial while undergoing inertial free fall with a different metric.

Or, analogously moving back to the rest position in non inertial levitation, this phenomenon is also inertially supported. So, for all considerations quantum mechanics can be considered to be an inertial phenomenon above and beyond any other considerations. Indeed in this experiment the result is that there is no effect of general relativity upon the quantum system, for the transformation is removed. But, $\beta = \gamma^{-1}$ which cancels the relativistic γ of relativity is associated with Ω .

This points to a given transformation from the perspective of general relativity that when invoked if we were to apply general relativity to quantum mechanics we would have to immediately reverse our direction and apply the inverse transformation upon all quantities. This has the side effect of meaning that quantum mechanics is inherently a theory which embodies the inverse of the transformations of general relativity under the same auspices of considerations of inertia. For instance, a magnet and superconductor that are stuck together by the flux pinning will illustrate inertial evolution analogous to the moon about the Earth in parallel analogy to general relativity.

The two theories are such that quantum mechanics remains in its ultimate state free from coordinate transformation. Saying this embodies a translational motion for inertia in circumferential motion is the same as saying the inverse of the transformation provided by general relativity as applied to quantum mechanics is the same as the forward transformation provided by quantum mechanics upon quantum mechanics. Furthermore, this result shows that the well known Meissner effect is an illustration of the general covariance of quantum mechanics. This results in two viewpoints;

- A:) In the first, the field transformations are reciprocal such that in any rest frame the energy momentum remains as a constant by the requirement of the Meissner effect and energy conservation.
- B:) In the second, the field transformation does not lead to a constant energy momentum of the bodies and the Meissner effect magnetic fields change in magnitude, but the global frame must change.

And this is a comparative type of equivalence to that of the well known general covariance, for it works reciprocally in quantum mechanics. The first can be seen as the internal rest frame description. The second can be seen as the externally viewed description. Yet, they are equivalent physically. This is the resolution of our hypothesis:

These two viewpoints are equivalent under equivalency of electromagnetic field potential mass energy lowering and inertial mass energy lowering.

Equation (7) indicates that Λ changes the slope of the function in time in inverse proportion to the change in magnitude from Ω . From this, the log derivative represents the functional argument of this scaling. Thus it is the functional argument of the boost. This is the very expression of curvature in our quantum system. For we may of course hold true that:

$$A_{\mu}^{S} = -A_{\mu}^{M} \tag{452}$$

From the very Meissner effect we started with. This is the expression of diamagnetism and is definitional of superconductivity. One could argue that inertially these must be two pure Lorentz-like transformations, but such is not the case in the noninertial levitation. For here the system is interacting, and we have no direct inverse for the transformation, although they form the identity. So we must hold as true that:

$$\partial_{\mu} \log(\Omega_{\nu}^{\mu}) = -\partial_{\mu} \log(\Lambda_{\nu}^{\mu}) \tag{453}$$

This allows us to reason that both Λ and Ω carry spatiotemporal dependence, and for the considerations of any mechanism of superconductivity there must be a curved representation for the variables of position and momentum in the uncertainty principle. We end with a conclusion regarding the mechanism of superconductivity:

Conclusion: Quantum states and electromagnetic fields are subject to a quantization condition holding invariance such that they are relatively inertial with respect to each other's quantities in each other's frames. The reciprocal relationship between the magnetic field mirroring and field transformation from relativity is the very condition that they be mutually inertial within each others frames under inertial freefall or noninertial support, in confirmation of the application of general covariance to quantum mechanics. The effect of the transformation which is the Meissner effect is the instantiation of general covariance within quantum mechanics.

Comparative equivalence is now an appropriate term for the coexistence of a principle of relativity in quantum mechanics and general relativity, and that the results of measurements do not depend on coordinate system transformations or displacements. In this, comparative equivalence can also be defined as:

Comparative Equivalence: The physical results of differences in measure between an observer that is stationary & an observer that is in motion are physically real and measurable, however differences in the physical results of the process of measurement between an observer that is stationary & an observer that is in motion are unphysical & null.

110 Review

We know from the theory of quantum mechanics that:

$$[p_{\mu}, x^{\mu}] = i\hbar \tag{454}$$

As x^{μ} is a position vector, it is noted that it accounts for distance in such a manner that the units of x^{μ} will scale contravariantly, meaning they describe a position for which length contraction is the determination of the unit of measure growing for x^{μ} and the object appearing smaller. As p_{μ} is a differential operator, it is noted that it accounts for the differential in such a manner that the units of p_{μ} will scale covariantly, meaning they describe a differential for which length contraction is the determination of the unit of measure lessening for p_{μ} and the object appearing to have smaller differential. If we perform a Lorentz transformation then the length will contract, the units of x^{μ} will grow, and that of p_{μ} will lessen. Thus the object will decrease in relative energy momentum with length contraction.

The assessment of the man in the tower is in agreement then between general relativity and quantum mechanics, as the object will be assessed to have a different and lower relative energy momentum when undergoing freefall at the surface of the Earth. In this, general covariance is consistent with general relativity and quantum mechanics. The energy momentum of a particle is covariant, and there can be an application of the equivalence principle to quantum mechanics. Why or how this is necessary is then a thing that we need from the general covariance of quantum mechanics as a given theory compatible with general relativity. The fact

that general covariance applies to quantum mechanics has several marked consequences, one of which is that the Meissner Effect is the statement of the equivalence principle as it applies to quantum mechanics. This is the discovery of my paper, and it is consistent with general covariance by the above.

111 General Covariance

It is hypothesized by way of the equivalence principle that because gravitational mass is indistinguishable from inertial mass the eigenstate condition of quantum mechanics extends from local Lorentz invariance to the condition of general covariance for the comparison of states by taking the particles to be within inertial states.

The condition of inertial states however implies in the general relativistic setting that inertial mass is equivalent to rest masses for all particles undergoing inertial freefall, from which the condition of local Lorentz invariance can be derived. If the condition of local Lorentz invariance does not extend to general covariance by using the rest mass for inertial states under mutual interaction, the resulting theory would be inconsistent with general relativity.

To understand this imagine a wall in front of the observer with rest mass and zero momentum. If it were to be moving away from the observer then the question would be as to where the extra relativistic energy momentum comes from it has with respect to the observer. So as to not violate energy conservation this must be a matter of perspective, so the only objective physical description, given by the equivalence principle, is for it to maintain its rest mass in the ultimate viewpoint.

If quantum mechanics were then not subject to the same provisions of perspective, because the quantity of energy momentum would be different for the two theories, energy conservation would be violated. Hence it is true that mutual interactions are relatively inertial with the mass given by the rest mass and the application of general covariance to quantum mechanics is inconsistent unless inertial frames are used in which the mass is the rest mass.

The quantization condition that follows must extend from pure local Lorentz invariance in the local viewpoint to general covariance in the global viewpoint under consideration of the equivalence principle and utilize rest masses within inertial frames as the basis for all particle interactions.

Under these provisions as the equivalence principle must apply to quantum mechanics the expectation of energy momentum is therefore always lower for a quantum system with the inclusion of general covariance, where the quantization is with respect to the condition set by all relativistic factors returning to unity. Not only is this a comparison of the inclusion of general covariance to without it, it also represents a real energy momentum lowering because of the reality of the effects of general relativity with respect to measurement of a state so quantized to the rest mass condition and compared to the subjective viewpoint of an observer.

112 Justification; Energy Lowering

The energy momentum of a system is always measured as lower in total as compared to the sum of its individual parts because it is subject to general covariance and the equivalence principle.

To understand this it is relevant to review a few precepts of general relativity. Based on the theory of relativity, the condition is a given that energy momentum is observed as larger for a body in motion relative to an

observer corelatively at rest measuring the rest mass energy of the object. What needs to be shown is how coordinate freedom by virtue of general covariance and the equivalence principle reduces to a lower energy momentum for a system as compared with the sum of the individual parts.

General relativity by the equivalence principle dictates that inertial mass energy is indistinguishable from gravitational mass energy. Therefore bodies of all masses fall at the same rate in a given gravitational field, because there exists universality to the rate of change of motion for any mass.

As gravitational mass increases, so too does inertial mass, on each side of the equation dictating force. Given this is true, locally there is no relativistic factor under freefall in its own given frame, and a body undergoing such motion is weightless to its self in the sense that it feels no gravitational field in its frame.

Coordinate freedom further implies from general covariance that physical laws are invariant, and gravitation is no exception, in that there exists universal freefall of all gravitational bodies. This means that the equivalence principle implies that there can exist no ultimate frame dependence for body body comparisons. As it can now be seen, the coordinate freedom of the system implies that the equivalence principle is a global principle, and its implication is that any frame dependence to the comparison of states is unphysical.

This reduces the problem of the extension of quantum mechanics from local Lorentz invariance of a locally flat quantization condition to the condition of general covariance for comparison of states in quantum mechanics. Coordinate dependence must disappear on the ultimate level, such that comparisons between states internal to the system are taken as within inertial frames with rest masses, so that the equivalence principle holds true ultimately and in general for both theories.

Therefore quantum mechanics would be inconsistent with general relativity if general covariance did not so similarly apply to the provisions of the mutual quantization condition between states under interaction. As a consequence, in the global viewpoint the relativistic factors are absent under state state comparisons within the system, yet there is the same phenomenon of energy dependence with respect to the subjective observer.

What is measured by an observer stationary with respect to the center of mass of the system is a physical energy momentum. With the given effects of the equivalence principle on the various parts of the system in relation to one another it is a lower energy momentum because it is determined by a viewpoint in relation to parts so mutually existent as to be within inertial states in relation to one another. Therefore, the system is always measured to have a lower energy as a whole compared to the sum of separable individual parts.

113 General Covariance of Quantum Mechanics

In order for quantum mechanics to be consistent with accelerations as general coordinate transformations, it must hold true that the eigenstate holds an independent reality with respect to these types of transformations. For instance consider a two particle system. In order for the consistency of quantum mechanics under electromagnetic interaction, it must hold true that both states remain mutual eigenstates with respect to their frames of acceleration.

Any proof must be based on the supposition that the eigenstate remains an eigenstate for each particle with respect to all others under mutually accelerated motion. This holds, given that although it is true that locally in the frame of acceleration the eigenstate may be defined, it must also be an eigenstate with respect to other frames of reference, and for the considerations of relativity may contain no frame dependence.

Suppose in the frame of the particle ∂_{μ} is the basis of the operator for momentum. Then, $\gamma^{\mu}\partial_{\mu}$ is the relativis-

tic operator for momentum and should be invariant under general coordinate transformations. This operates on ξ_{μ} , the wavefunction so that $\gamma^{\mu}\partial_{\mu}\xi_{\mu}$ is the relativistic energy momentum of the eigenstate.

If an only if this is an accelerated state does Λ^{μ}_{ν} as a transformation have a spatial and temporal dependence, in which case:

$$\gamma^{\mu}\partial_{\mu}\xi_{\mu} \to \Lambda^{\nu}_{\mu}\gamma^{\mu}\Lambda^{\mu}_{\nu}\partial_{\mu}\Lambda^{\nu}_{\nu}\xi_{\mu}
= \gamma^{\nu}(\partial_{\nu}\Lambda^{\mu}_{\nu})\xi_{\mu} + \gamma^{\nu}\partial_{\nu}\xi_{\nu}$$
(455)

And an extra term appears, which does belong to the same frame ν but which introduces a frame dependence to the derivative. In this case ξ is no longer an eigenstate with respect to the accelerated frame. Since:

$$\Lambda^{\mu}_{\nu} = \gamma^{\mu} \gamma_{\nu} \tag{456}$$

It is true that this can be accommodated by subtracting a term from the right hand side of the eigenstate equation for four momentum, or alternatively and equivalently adding a term which transforms reciprocal to the definition of the four momentum, thereby defining the *covariant differential*. Working out what the extra term means, it is equivalent to:

$$\gamma^{\nu}(\partial_{\nu}\Lambda^{\mu}_{\nu}) = \gamma^{\mu}\gamma_{\mu}\partial_{\nu}\gamma^{\mu} \tag{457}$$

In the frame of ν , or under transformation back to the frame of μ the term which must be added to ∂_{μ} to preserve the differential is:

$$\Gamma_{\mu} \equiv \gamma_{\nu} \partial_{\mu} \gamma^{\nu} \tag{458}$$

In conclusion, for quantum mechanics to possess no frame dependence for eigenstates, and for them to be mutually defined under interaction, the covariant differential defined by the following must be used for the energy momentum of the particle:

$$p_{\mu} = i\hbar(\partial_{\mu} + \Gamma_{\mu}) \tag{459}$$

From this not only follows the rule of differences in frame contributing to the localization in a zero sum fashion but that the separable parts of the momentum change as the following under a general transformation:

$$\partial_{\mu} \to \partial_{\nu} + \Lambda_{\nu} \tag{460}$$

$$\Gamma_{\mu} \to \Gamma_{\nu} - \Lambda_{\nu} \tag{461}$$

With:

$$\Lambda_{\nu} = \partial_{\nu} \log \Lambda^{\mu}_{\nu} \tag{462}$$

114 Eigenspinor Field Theory

Consider the general transformation of the spinor part of the wavefunction:

$$\xi_{\mu}(x_{\mu}) \tag{463}$$

The approach used is that of generating a field theory from a general transformation of a field quantity.

$$\xi_{\mu} \to \Lambda \xi_{\mu}$$
 (464)

Here Λ is a 16 parameter tensor which represents the transformation upon a general wavefunction ξ_{μ} . The transformation Λ should not be confused with a Lorentz boost, it is a transformation of the field of spinors into itself and is an operator. It however carries analogous properties, for a rotation and a scaling of the

spinors is equivalent to a *local* change in frame, however it does not arise by net global motion but instead by way of the evolution of the field of spinors. This can be written in general as:

$$\Lambda = e^{-ig\lambda_{\mu\nu}(x_{\mu})\sigma^{\mu\nu}} \tag{465}$$

The spinors are rotated and boosted in the six possible directions given by the tensors in the transformation. Where g is a coupling constant and $\lambda_{\mu\nu}(x_{\mu})$ parametrizes this transformation in space and time, while $\sigma^{\mu\nu}$ is a set of matrices corresponding to the commutator of the γ matrices, as in the following:

$$\sigma^{\mu\nu} = \frac{i}{2} [\gamma^{\mu}, \gamma^{\nu}] \tag{466}$$

What is important is that a gauge can be defined for this transformation, since it acts on a field of spin, as:

$$\partial_{u} \to D_{u} = \partial_{u} + \Gamma_{u} \tag{467}$$

With:

$$\Gamma_{\mu} \equiv \gamma_{\nu} \partial_{\mu} \gamma^{\nu} = \partial_{\mu} \log \gamma^{\nu} \tag{468}$$

Since this is the log derivative of the spin as a field, the transformation is as follows on the Dirac equation:

$$\xi_{\mu} \to \Lambda \xi_{\mu} = e^{-ig\lambda_{\mu\nu}(x_{\mu})\sigma^{\mu\nu}} \xi_{\mu} \tag{469}$$

$$\partial_{\mu} \to \partial_{\mu} - ig \,\partial_{\mu} \lambda_{\mu\nu}(x_{\mu}) \sigma^{\mu\nu}$$

$$= \partial_{\mu} + \partial_{\mu} \log \Lambda$$
(470)

$$\Gamma_{\mu} \to \Gamma_{\mu} + ig \,\partial_{\mu} \lambda_{\mu\nu}(x_{\mu}) \sigma^{\mu\nu}$$

$$= \Gamma_{\mu} - \partial_{\mu} \log \Lambda$$
(471)

Where the sign change comes from the fact that the covariant correction operates on γ^{ν} while Λ operates on ξ_{μ} . Hence this is equivalent to changing the order in the commutator and hence there exists a change in sign, and the transformation has opposite differentials with ∂_{μ} and Γ_{μ} . The form of the covariant differential D_{μ} is thus left intact by gauge transformations with the spin curvature connection, and the wavefunction is separably transformed from that of γ^{ν} . The adjoint wavefunction is with the conjugate of this wavefunction transformation, so the probability amplitude is left unaffected in the Dirac equation, and the electromagnetic gauge connection may be added separately. Thus the net covariant differential is:

$$D_{\mu} = \partial_{\mu} + \Gamma_{\mu} + \alpha A_{\mu} \tag{472}$$

115 Lagrangian for Superconductivity

For the sake of gauge invariance the QED Lagrangian it is posited must now be updated to:

$$\mathcal{L}_{SC} = \bar{\psi}(i\hbar c \gamma^{\mu} D_{\mu} - mc^{2})\psi$$

$$-\frac{1}{4\mu_{0}} F^{\mu\nu} F_{\mu\nu} + \kappa \Omega^{\mu\nu} \Omega_{\mu\nu}$$
(473)

Where:

$$D_{\mu} = \partial_{\mu} + \Gamma_{\mu} + \alpha A_{\mu} \tag{474}$$

And:

$$\alpha = \frac{e}{\hbar c} \qquad \Gamma_{\mu} = \partial_{\mu} \log \gamma^{\nu} \tag{475}$$

And the curvature of the antiferromagnet (or ferromagnetic) field is:

$$\Omega_{\mu\nu} = \partial_{\mu}\Gamma_{\nu} - \partial_{\nu}\Gamma_{\mu} \tag{476}$$

In analogy with the electromagnetic field tensor. We will now show this reduces to a version of our original Lagrangian for antiferromagnetism in the equations of motion. What is to note about this Lagrangian is that the γ^{μ} one-forms carry spatiotemporal dependence.

116 Transformation With an Electromagnetic Field

Beginning with the reciprocal property of γ^{μ} and D_{μ} we derive the response from this condition extending to the introduction of an external four potential αB_{μ} . The given is that:

$$\gamma^{\mu}D_{\mu}\xi_{\mu} = \xi_{\mu} \tag{477}$$

It is illuminating to consider the torsion property as related to the Meissner effect.

Then we add $\alpha B_{\mu} = f_{\mu}$ to produce the new condition, interrelating the accelerated frame transformation produced under interaction to the addition of this field:

$$\lambda^{\mu}\gamma^{\mu}(D_{\mu} + f_{\mu})\xi_{\mu} = \xi_{\mu} \tag{478}$$

So that to satisfy both equations:

$$\lambda^{\mu}\gamma^{\mu}(D_{\mu} + f_{\mu}) = \gamma^{\mu}D_{\mu} \to \tag{479}$$

$$\lambda^{\mu} = (\gamma^{\mu}D_{\mu} + \gamma^{\mu}f_{\mu})^{-1}\gamma^{\mu}D_{\mu} \tag{480}$$

The partial derivative and spin curvature terms are modified as the following:

$$\partial_{\mu} \rightarrow \partial_{\mu} + \partial_{\mu} \log \lambda^{\mu} \qquad \Gamma_{\mu} \rightarrow \Gamma_{\mu} - \partial_{\mu} \log \lambda^{\mu}$$
 (481)

With this, the covariant differential is preserved. The added term comes from the distributive property of the log function and the action of the transformation on the wavefunction:

$$\partial_{\mu} \log \lambda^{\mu} = \partial_{\mu} \log((1 + \gamma^{\mu} f_{\mu})^{-1}) = -\gamma^{\mu} \partial_{\mu} f_{\mu}$$
(482)

Since they are in the same frame, γ^{μ} and ∂_{μ} commute. Integrated as a source this term is:

$$-f_{\mu} = -\alpha B_{\mu} \tag{483}$$

The added term of λ^{μ} perfectly compensates for the added f_{μ} by the above. Hence the electromagnetic potential that is applied causes a shift of energy momentum between the two parts of orbital and spin curvature energy momentum, at the strength of the applied electromagnetic potential.

The condition of (45), implies that from the perspective of a particle accelerated in relation to a particle at rest, the particle at rest acts as a source generating an opposite potential to its own potential as experienced in the frame of the accelerated particle. The accelerated particle is not a source to itself because of the reciprocal condition and it is at rest in its frame, so it experiences the (negative) potential of the other particle at rest. This indirect potential acts on either particle, and must act to attract them, and a gap develops.

As there exists a frame of rest and condition (45) is conserved under a frame transformation, there exists no direct potential, but there does exist one arising from the frame of acceleration relative to the frame of rest, as a back reaction reversed potential on the particle in the accelerated frame.

Thus both particles experience a negative potential with respect to the other particle, which is the following potential:

$$\int \gamma^{\mu} \partial_{\mu} \log \lambda^{\mu} dx^{\mu} = -\alpha B_{\mu} \tag{484}$$

This explains the diamagnetic effect and pairing, and is consistent with the magnetic field being zero. Additionally, the magnetic field of zero can be explained as the fact that if γ^{μ} and D_{μ} operating on ξ_{μ} are reciprocal to a constant, and given the momentum is inertial, it produces zero magnetic field in all frames.

But this condition of the eigenstate is preserved with respect to all frames, thus the magnetic field is globally zero for all points within the material.

117 Covariant Differential Commutation Relationship

Consider the interior transformation of the covariant differential due to the term produced by the previous transformation under action of the electromagnetic field:

$$\begin{split} \left[D_{\mu},D_{\nu}\right] &= \partial_{\mu}\partial_{\nu} + \partial_{\mu}\Gamma_{\nu} + \Gamma_{\mu}\partial_{\nu} + \Gamma_{\mu}\Gamma_{\nu} - \partial_{\nu}\partial_{\mu} - \partial_{\nu}\Gamma_{\mu} - \Gamma_{\nu}\partial_{\mu} - \Gamma_{\nu}\Gamma_{\mu} \\ &\rightarrow (\partial_{\mu} - \alpha\partial_{\mu}A_{\mu})(\partial_{\nu} - \alpha\partial_{\nu}A_{\nu}) - (\partial_{\nu} - \alpha\partial_{\nu}A_{\nu})(\partial_{\mu} - \alpha\partial_{\mu}A_{\mu})) \\ &+ (\partial_{\mu} - \alpha\partial_{\mu}A_{\mu})(\Gamma_{\nu} + \alpha\partial_{\nu}A_{\nu}) - (\partial_{\nu} - \alpha\partial_{\nu}A_{\nu})(\Gamma_{\mu} + \alpha\partial_{\mu}A_{\mu}) \\ &+ (\Gamma_{\mu} + \alpha\partial_{\mu}A_{\mu})(\partial_{\nu} - \alpha\partial_{\nu}A_{\nu}) - (\Gamma_{\nu} + \alpha\partial_{\nu}A_{\nu})(\partial_{\mu} - \alpha\partial_{\mu}A_{\mu}) \\ &+ (\Gamma_{\mu} + \alpha\partial_{\mu}A_{\mu})(\Gamma_{\nu} + \alpha\partial_{\nu}A_{\nu}) - (\Gamma_{\nu} + \alpha\partial_{\nu}A_{\nu})(\Gamma_{\mu} + \alpha\partial_{\mu}A_{\mu}) \\ &= -\alpha\partial_{\mu}A_{\mu}D_{\nu} + \alpha\partial_{\nu}A_{\nu}D_{\mu} + \partial_{\mu}D_{\nu} - \partial_{\nu}D_{\mu} + \alpha\partial_{\mu}A_{\mu}D_{\nu} - \alpha\partial_{\nu}A_{\nu}D_{\mu} + \Gamma_{\mu}D_{\nu} - \Gamma_{\nu}D_{\mu} \\ &= \partial_{\mu}D_{\nu} - \partial_{\nu}D_{\mu} + \Gamma_{\mu}D_{\nu} - \Gamma_{\nu}D_{\mu} = D_{\mu}D_{\nu} - D_{\nu}D_{\mu} = [D_{\mu}, D_{\nu}] \end{split}$$

Which indicates that the two gauges are mutually satisfied under transformation by the field, interior to the covariant differential. This also holds true for the total covariant differential since any transformation should be performed symmetrically. Hence, the commutation relationship of the covariant differentials is preserved under the internal transformation of its terms. Furthermore:

$$[D_{\mu}, D_{\nu}] = -[\Lambda^{\mu}_{\nu} D_{\mu}, \Lambda^{\nu}_{\mu} D_{\nu}] = -[D_{\nu}, D_{\mu}]$$
(485)

Indicating the commutation relationship is antisymmetric under a symmetric frame transformation. We may evaluate this term in the following way at a point in space:

$$\xi_{\mu}\xi_{\nu}[D_{\mu}, D_{\nu}]\xi_{\mu}\xi_{\nu}$$

$$= \xi_{\mu}\xi_{\nu}(D_{\mu}D_{\nu} - D_{\nu}D_{\mu})\xi_{\mu}\xi_{\nu}$$

$$= -\xi_{\mu}\xi_{\nu}(\Lambda^{\mu}_{\nu}D_{\mu}\Lambda^{\nu}_{\mu}D_{\nu} - \Lambda^{\nu}_{\mu}D_{\nu}\Lambda^{\mu}_{\nu}D_{\mu})\xi_{\mu}\xi_{\nu}$$

$$= -\xi_{\mu}\xi_{\nu}(D_{\mu}\log\Lambda^{\nu}_{\mu}D_{\nu} - D_{\nu}\log\Lambda^{\mu}_{\nu}D_{\mu})\xi_{\mu}\xi_{\nu}$$

$$= -\xi_{\mu}\xi_{\nu}(\gamma^{\nu}\partial_{\mu}\log\Lambda^{\nu}_{\mu}D_{\nu} - \gamma^{\mu}\partial_{\nu}\log\Lambda^{\nu}_{\nu}D_{\mu})\xi_{\mu}\xi_{\nu}$$

$$= -\xi_{\mu}\xi_{\nu}(\gamma^{\mu}\partial_{\mu}\log\Lambda^{\nu}_{\mu} - \gamma^{\nu}\partial_{\nu}\log\Lambda^{\mu}_{\nu})\xi_{\mu}\xi_{\nu}$$

$$= -\xi_{\mu}\xi_{\nu}(\partial_{\mu}A_{\nu} - \partial_{\nu}A_{\mu})\xi_{\mu}\xi_{\nu}$$

$$= -\xi_{\mu}\xi_{\nu}\alpha(\partial_{\mu}A_{\nu} - \partial_{\nu}A_{\mu})\xi_{\mu}\xi_{\nu}$$

$$= -\xi_{\mu}\xi_{\nu}\alpha F_{\mu\nu}\xi_{\mu}\xi_{\nu}$$

Making use of (34) and γ^{μ} and γ^{ν} to correct for the covariant differential making it a partial derivative by (35) and the fact that when the partial derivative associated spin is multiplied by another spin factor the negative logarithmic derivative is introduced into the equations (37) and (38). Hence:

$$[D_{\mu}, D_{\nu}] = -\alpha F_{\mu\nu} \tag{487}$$

The spin field transformation which accompanies the introduction of the electromagnetic field, under the covariance of the form of the eigenstate is a curved transformation of coordinates, and hence what we arise at is a real consequence of coordinates. It is flat in a sense (when one accounts for the change in coordinates) and curved in a sense (when one does not account for this change in coordinates) naturally. The Meissner effect is seen as the conventional departure of the electromagnetic field tensor torsion condition at the boundary of the superconductor.

118 Calculation of Exchange

We can now proceed to analyze the commutation relationship of the ∂_{α} and Γ_{α} with the added $\pm \Lambda_{\alpha}$. Under the two particle equation this is reversed in sign among the two sides of the two particle Dirac equation corresponding to particle 1 and particle 2. Under consideration of the fact that Λ_{α} changes sign under juxtaposition.

Exchange Difference Hypothesis: The added logarithmic differential of the frame transformation, or its curvature, Λ_{α} , in changing sign between frames behaves in conjunction with ∂_{α} and Γ_{α} as raising and lowering operators in the two particle Dirac equation.

To test this hypothesis consider the ∂_{α} energy momentum for the singlet. Between states in the two particle Dirac equation a term enters as:

$$(-i\hbar\partial_{\alpha} + 2\hbar\Lambda_{\alpha})(-i\hbar\partial_{\alpha} - 2\hbar\Lambda_{\alpha})\Psi$$

$$= -2\hbar^{2}(a^{\dagger}a)\Psi$$

$$= -2\hbar^{2}\partial_{\alpha}\Lambda_{\alpha}$$
(488)

The term on the spin curvature enters as:

$$(-i\hbar\Gamma_{\alpha} - 2\hbar\Lambda_{\alpha})(-i\hbar\Gamma_{\alpha} + 2\hbar\Lambda_{\alpha})\Psi$$

$$= -2\hbar^{2}(aa^{\dagger})\Psi$$

$$= -2\hbar^{2}\partial_{\alpha}\Lambda_{\alpha}$$
(489)

Thus the effect of the acceleration and the existing momenta, create the conditions under the two body (with opposite accelerative frame boosts) of anticommuting operators. The two particle equation is the product of two Dirac equations acting on the superposition of the two wavefunctions, here taken in the center of mass frame α :

$$(\gamma^{\alpha}(-i\hbar\partial_{\alpha} - i\hbar\Gamma_{\alpha} + eA_{\alpha}) - m)$$

$$(\gamma^{\alpha}(-i\hbar\partial_{\alpha} - i\hbar\Gamma_{\alpha} + eA_{\alpha}) - m)\xi_{\alpha}^{-}\xi_{\alpha}^{+} = 0$$
(490)

Substitution of conserved quantities to simplify the calculation results in:

$$(-i\hbar\eta_{+}^{\alpha} + e\sigma^{\alpha} - m)$$

$$(-i\hbar\eta_{-}^{\alpha} + e\sigma^{\alpha} - m)\xi_{\alpha}^{-}\xi_{\alpha}^{+} = 0$$

$$(491)$$

Because the positive and negative orbital momentum and spin curvature sum to zero:

$$(e^{2}\sigma^{\alpha}\sigma^{\alpha} - (me + 2ie\hbar(\eta_{+}^{\alpha} + \eta_{-}^{\alpha}))\sigma^{\alpha}$$

$$+im\hbar(\eta_{+}^{\alpha} + \eta_{-}^{\alpha}) - \hbar^{2}\eta_{+}^{\alpha}\eta_{-}^{\alpha} + m^{2})\xi_{\alpha}^{-}\xi_{\alpha}^{+} = 0$$

$$(492)$$

Because the only term which contributes to the change from the singlet to triplet under the change in sign by the operators above is η^a and $\eta^a_+ + \eta^a_-$ is zero by equal and opposite momenta, this reduces to:

$$-4 \int \int \xi_{\alpha}^{+} \xi_{\alpha}^{-} \hbar (\eta_{+}^{\alpha} \eta_{-}^{\alpha})$$

$$-\eta_{-}^{\alpha} \eta_{+}^{\alpha}) \xi_{\alpha}^{-} \xi_{\alpha}^{+} dx^{\alpha} dx^{\alpha} = \Delta$$

$$(493)$$

 η^{α} produces four terms which obey a commutation relationship by way of the above:

$$\eta_{+}^{\alpha}\eta_{-}^{\alpha} - \eta_{-}^{\alpha}\eta_{+}^{\alpha}$$

$$= (\partial_{\alpha}^{+} + \Gamma_{\alpha}^{+})(\partial_{\alpha}^{-} + \Gamma_{\alpha}^{-})$$

$$-(\partial_{\alpha}^{-} + \Gamma_{\alpha}^{-})(\partial_{\alpha}^{+} + \Gamma_{\alpha}^{+})$$

$$= (\partial_{\alpha}^{+}\partial_{\alpha}^{-} + \partial_{\alpha}^{+}\Gamma_{\alpha}^{-}$$

$$+\Gamma_{\alpha}^{+}\partial_{\alpha}^{-} + \Gamma_{\alpha}^{+}\Gamma_{\alpha}^{-})$$

$$-(\partial_{\alpha}^{-}\partial_{\alpha}^{+} + \partial_{\alpha}^{-}\Gamma_{\alpha}^{+}$$

$$+\Gamma_{\alpha}^{-}\partial_{\alpha}^{+} + \Gamma_{\alpha}^{-}\Gamma_{\alpha}^{+})$$

$$= -4\partial_{\alpha}\Lambda_{\alpha} + ([\partial_{\alpha}^{-}, \Gamma_{\alpha}^{+}] - [\partial_{\alpha}^{+}, \Gamma_{\alpha}^{-}])$$

$$= -4\partial_{\alpha}\Lambda_{\alpha}$$
(494)

Where the following equality holds:

$$[\partial_{\alpha}^{-}, \Gamma_{\alpha}^{+}] = [\partial_{\alpha}^{+}, \Gamma_{\alpha}^{-}] \tag{495}$$

As the extra Λ_{α} changes sign with the derivative, leaving for the two particle energy gap for all electrons:

$$\Delta = 4\hbar c \int \gamma^{\alpha} \Lambda_{\alpha} dx^{\alpha}$$

$$\equiv 4e \int \gamma^{\alpha} A_{\alpha} dx^{\alpha} = 4J$$
(496)

This last equivalence is because in the exchange interaction the terms of μ and ν are juxtaposed and appear in the Λ , which by the previous section is equivalent to an electromagnetic potential differential. This is consistent with the previous section, where a γ^{ν} changes in a *relative* manner such that a reversed A_{ν} is generated for the particles in motion *within a spin system background*.

If the particles are relatively accelerated there exists a reversed potential between them with an energy lowering that is the contribution to their energy from this potential, and it is equivalent to an energy mass lowering of their inertial content. This is true as the acceleration gives rise to the (reversed) potential and without an acceleration there exists no potential. The acceleration as a source for the potential is physically equivalent to the lowering of the inertial mass energy, since it is the same term numerically.

This is fundamentally the expression that the potential energy mass lowering as sourced in the acceleration, and numerically equivalent with the inertial mass energy lowering, is a matter of frame, and the two are equivalent between all frames, hence the lowering is a prediction of general covariance. Since the quantum singlet to triplet operator holds individually between particles and a conventional to ultimate difference is

taken the lowering holds for all two particle states. This implies the following equivalence:

Quantum Equivalence Principle: The potential mass energy lowering is indistinguishable from the inertial mass energy lowering.

119 Discussion of Energy Lowering

This seems in conflict with some of our intuition regarding the changing of forms of energy, for it seems as if we should require that:

$$\Delta(PE + KE) = 0 \tag{497}$$

By energy conservation. However, in the inertial frame it holds true that:

$$\Delta PE = \Delta KE = 0 \tag{498}$$

The condition of general covariance and its identity implies however that:

$$\Delta PE = \Delta KE \neq 0 \tag{499}$$

For now, imagine an Earth-Sun system, in which we boost into an accelerative frame with equivalent acceleration to that of the Earth about the Sun. It is not that we experience a lowering of mass below the rest mass for the Earth, but that it 'returns' to rest mass energy content. In and by way of this it does indeed lower, but it is a matter of perspective. Going back to the system so established, we ask the question as to whether both energy conservation and general covariance can be satisfied with the formalism developed.

The analogy is actually quite simple, for what happens is that from the distant and stationary observer it appears that:

$$\Delta PE = \Delta KE < 0 \tag{500}$$

The interpretation of this is merely that by general covariance relativistic factors return to unity for the system such that the quantization condition relative to an observer which is moving in relation to the superconducting quantum state, is perceived as a system in motion where the quantization condition is one of the inertial variety and thus of a lowered energy relative to the observer. In this a very real energy momentum lowering has occured by the above and the condition of general covariance. The quantum equivalent of the Earth-Sun system is to see that it is the inertial constraint on quantum exchange we judge as non-inertial when it is in fact quantized inertially. This admits the formation of a new conclusion regarding quantum phenomena in general, as for example the photoelectric effect by which a photon is absorbed by an electron and knocks it out of its orbital in a metal, past a threshold energy momentum:

Conclusion: The general statement is that relative to an accelerated observer there exists an energy mass gap because the quantum state is quantized subject to an inertial frame condition by the presence of the principle of general covariance within quantum mechanics. From this, the proper way to account for quantum motion is such that it is taken as a given inertial. A physical gap exists because the quantum state is quantized under the inertial condition, and yet what we measure is the accelerated interpretation of this state. This gap is real by observation from the indistinguishability of the inertial and potential relativistic factors under the equivalence principle for any transition of a quantum nature.

120 Distinction

While an interaction takes place, it is true that the uncertainty principle would be modified in the observables not for the sole reason that the coordinates change under acceleration, for there does exist a coordinate free

representation of the observables compatible with acceleration such that the uncertainty principle is satisfied. It it also because either:

A:) If the electromagnetic interaction is not included in the momentum then it modifies the position and momentum compatible with an acceleration and an interaction that varies, and thus the relative determination of momentum and position is functional and dependent on coordinates, and not an invariant description, given that this acceleration exists in a way that is dependent on coordinates with respect to the operation of position of one particle upon the momentum of another, and with the reverse operation. Hence a coordinate dependent anomaly arises in the commutation relationship between the observables of different particles, whenever the electromagnetic potential is not included in the particle description.

B:) If the electromagnetic interaction is included then the former anomaly does not occur, because the commutation relationship is perfectly compensated for in its change with respect to the quantities of particle momentum and field momentum, as one merely changes the other in an equal and opposite functional manner and they are comparatively added instead of a complimentary change absent.

Conclusion: What can be seen is that it is the sum of these changes which is the expression of a net invariance of the determination of the uncertainty principle with respect to the general covariance of the observables without which there is no commutation of the separable momenta or positions.

If and only if this holds true can we satisfy both postulates. The restriction to mutually satisfying both postulates is trivial without invoking the multiparticle viewpoint but not when it is invoked. For note that the uncertainty principle can be made invariant by a generally covariant coordinate basis locally.

However, this is not manifestly globally invariant in that the determination of the multiparticle relationship of uncertainty does not mutually commute between different particle observables, for the same reason there exist different coordinate systems for different particles.

Additionally, although with an interaction, the single particle uncertainties remain manifestly locally invariant, they are not as determined globally in the sense of between particles, unless the interaction potential is included in the momentum. When the interaction is included the change it introduces compensates for changes in the particle momentum in such a manner that the system is manifestly generally covariant and the uncertainty principle is left generally invariant.

For this to be true an identity must hold true between the frame transformation and electromagnetic field interaction, namely that the log differential of the frame transformation is the negative of the log differential of the electromagnetic field tensor, weighted by the appropriate constant (α) :

$$\partial_{\mu} \log \Lambda_{\mu}^{\nu} = \alpha \partial_{\mu} \log F^{\mu\nu} \tag{501}$$

Furthermore this identity gives a relationship to the description of the frame as it covaries with the particle description of momentum, and yields the total covariantly conserved quantity of momentum. It is merely the force law (F = ma), by inspection.

121 Justification and Ramifications

First to note is that the multiparticle perspective is one to one with the existence of interactions, which by way of and which there exists a connection to the differing frames of acceleration, and that these interactions must be included as a field potential energy momentum as it pertains to the full particle energy momentum

as an observable in order for there to be a commutation relationship consistent with the uncertainty principle between the observables of the multiple particles.

This is to satisfy the uncertainty principle with respect to the different particle's definitions of each other, and their mutual commutation relationships, for their definitions of momentum do not commute when the interaction potential is left out. Additionally, what is striking is that it is the full particle and field energy momentum as carried by the particle that defines the observable and it is not particle only.

This seems to express on a base level that it is the full particle energy momentum with field that becomes the observable in the multiparticle viewpoint, as such must be the case to satisfy the uncertainty principle with general covariance resulting from changes in the coordinates with respect to the frame of motion, resulting from and identifiable with the acceleration due to the interaction.

As a consequence, the eigenstate condition of the Dirac equation is intact, although there is a slight difference in interpretation, arising in the context of the multiparticle description. For instance, the equation:

$$(i\gamma^{\mu}(p_{\mu} + \alpha A_{\mu}) - mc)\xi_{\mu} = 0$$

$$(502)$$

Is the expression of the eigenstate condition of a particle like an electron. Although the single particle description of the eigenstate does not differ when mapped from the multiparticle condition, what remains to be seen is if the condition this represents mathematically is still identifiable with what it means in the multiparticle interpretation.

For while the Dirac equation, as it was initially interpreted, holds perfectly well with the condition of an ordinary partial derivative upon it being zero to result in an eigenstate, there is a subtle difference in the multiparticle setting with general covariance. Here, the condition is that the total covariant differential defined as:

$$D_{\mu} = \partial_{\mu} + \Gamma_{\mu} + \alpha A_{\mu} \qquad \Gamma_{\mu} = \partial_{\mu} \log \gamma^{\nu}$$
 (503)

Must be used in place of:

$$p_u + \alpha A_u = \partial_u + \alpha A_u \tag{504}$$

In the generally covariant setting. With this, although the Dirac equation is left locally intact, given that Γ_{μ} vanishes locally, it does not vanish identically for particle to particle comparisons. To prove this all it suffices to say is that the connection described in equation (8) is preserved under relative comparison of observables, and hence in general, or as for the multiparticle description, since Γ_{μ} does not vanish globally and must be included for generality.

As a final note consider that locally the description remains the same for the single particle description, for all particles, but that the multiparticle description differs substantially, as for instance γ^{μ} also takes on structure of the form of a function, and the descriptions may be inequivalent physically:

Hypothesis II: The physics of the multiparticle description differs from the single particle description.

In the case of exchange this can be an energy lowering. To note then is that this can lead to a collectively lowered energy in the case of superconductivity.

Examining superconductivity, for instance, the mystery is:

Mystery: How does the energy lower, even if only in relative terms?

This is only possible in a relative sense if the physical quantum description changes, and if the potential and kinetic energy both lower. But, the change between the singlet and triplet can be relatively modified by a matter of perspective. Internally to the system there is no change in kinetic energy as indicated by the field to frame relationship in the inertial frame, but observationally, it appears that there is a gap in energy.

To note then is merely that the triplet and singlet are repulsive and attractive, and therefore possess opposite relative curvatures, which immediately indicates a subjective-objective agreement of an energy difference of 2J per particle, because relatively there also exists an energy difference in the kinetic energy of J in the inertial mass energy by this same curvature relative to a system at rest external to it.

From the constraint of equation (43) and that which is imposed by the existence of multiple particles for which the condition of general covariance must be satisfied, the exchange phenomenon is relative and reveals a mass energy gap.

To prove this result quantitatively and rigorously one needs to evaluate the net integral, but this value is given empirically by the relation encoded in equation (44), which says that the differentials of these quantities are identical up to a constant of proportionality, and that their integrals should be equivalent up to a constant of integration. Then, because of this identity, the mass gap for an external observer outside the system, is the entire exchange energy difference of the two particles measured in the system of J with the change of the kinetic mass energy of J for a total of 2J per particle in sum.

In this context, the exchange is real only when observed from outside the system, and it is purely a relative phenomenon. Carefully noting their natures, that one is an electromagnetic potential energy difference when integrated, and that the other is an inertial mass energy difference when integrated, we arrive at the following conclusion:

Conclusion: Relative potential and inertial mass energy lowerings are indistinguishable.

However the gap must be weighted by the appropriate Lorentz factor, and this gives the formula and equivalence:

$$\Delta = 4\hbar c \int_{\tau} \gamma^{\mu} \partial_{\mu} \log \Lambda^{\nu}_{\mu} dx^{\mu}$$

$$= 4e \int_{\tau} \gamma^{\mu} A_{\mu} dx^{\mu} = 4J$$
(505)

122 Mystery Revisited

The first thing of note in resolving this mystery is that the interpretation of the Meissner Effect is the confluence of the principle of general covariance and the uncertainty principle. The physics does not change, merely the interpretation of the uncertainty principle. The two statements, one of the Meissner Effect, and secondly, one of energy conservation, are respectively the instantiation and extension of the uncertainty principle and general covariance. For instance, examining the equal and opposite fields which are one to one with spin angular momentum as mutual observables, is a manifestation of the uncertainty principle to say they do not depart from commutativity with respect to boosts.

Secondly, energy conservation here is a principle by which the only dependence of this equal and opposite magnetic field is upon the perceived metrical relationship due to motion, otherwise the gravitational field of

the body would change and they would exchange an extra contribution of energy, and would not preserve the center of mass under freefall.

In showing by contradiction (of a dual nature) that one or the other of these principles is violated if and when the transformation is not reciprocal to the field, one shows that the Meissner Effect is a generally covariant uncertainty principle based phenomenon. This is one to one with the principle by which the fields are in inverse or reciprocal relationship to the relativistic transformation, and:

This follows from the indistinguishability of the inertial and potential relativistic factors.

What is known is that the covariant differential in total does in fact commute, and that when it is separated into particle and field momenta that these do not commute. Thus this implies a number of things. First of all is that it is only the total field and particle momentum which is inertial, which is the interpretation of the Meissner Effect.

Secondly is that the four momentum of the particle alone is curved with respect to the field of electromagnetism alone. This is consistent because this leads to the condition of equivalent and opposite functional curvature relationships for these substituent quantities. Lastly, what this implies is that it is indeed true that the potential mass energy lowering in a superconductor is fundamentally indistinguishable from the inertial mass energy lowering.

From this follows the generalization of the condition implied by the first section of this paper, which is that:

$$D_{\mu}(i\gamma^{\mu}(p_{\mu} + \alpha A_{\mu}) - mc)\xi_{\mu} = 0$$
(506)

Which is nothing other than the condition for a covariant eigenstate.

As an experiment simply consider dropping a superconductor levitating a magnet, if this theory holds true then because there is a gradual change in the gravitational frame, as they fall their curvatures should contribute equally, with the prediction that the initial condition requires that they will fall together as one, given their mutual inertial relationship in an approximately inertial frame.

Conclusion: There is a measurable and physical effect on the interpretation of the observables in the uncertainty principle given their coordinate system and frame independence.

123 Interdependence of Orbital and Spin Momentum

To explain exactly what 'reciprocity' means in this context, consider the particles. In the two particle Dirac equation, there occurs an *internal* reciprocation of spin curvature energy momentum and orbital energy momentum. This occurs **not** because the particles merely *influence* each other, but because they *influence* each other's representations in particle energy momentum and spin curvature energy momentum to change. Hence the wavefunctions in remaining Lorentz invariant remain the same physically, but there occurs a reciprocation between the quantum and the relativistic *components* of the objects.

Now consider that given the Dirac equation holds for one particle. Any multiparticle modification of dynamics must occur internal to the equation, and not modify its overall structure, but it **can** modify the individual terms in a plus-minus like fashion. This is a way to side step the problem of coming up with a new and unique generalized transformation, analogous to the γ^{μ} , which will encode a curved space *in general*. In this way,

the multiparticle and accelerative features of reality are encoded in changes of the components of the representation. This represents something wholly new however, because the old addage that 'the whole is greater than the sum of it's parts' applies. In this, the particles are **not** moving through each other merely because something only akin to a potential holds between them, but because a *change in each other's representations* arises from their mutual quantum and relativistic *relationships*.

An Instance of Reciprocity: Reciprocity here means the comparison of different accelerative frames under the singlet and triplet, in which acceleration contributes to the spin curvature and orbital energy momentum, causing the two parts of the representation: the orbital and the spin, to reciprocate in space and time such that the particles mutually lower in energy and oscillate in space and time.

 Λ_{ν} is added and subtracted merely because of the rule of general covariance, and through quantum mechanics produces a reciprocation of accelerative spin curvature energy momentum and accelerative orbital energy momentum, so that the above can be put more simply:

Reciprocity Generalized: Relative comparison of different quantum states under superposition leads to an energy difference in the states when different observable frames of acceleration are also compared.

The emphasis in general is that **both** different relativistic frames of acceleration **and** different quantum states are compared simultaneously. Taking as the displacement the energy momentum associated with the change due to the difference of frames under an accelerative boost, afforded by the addition of an inertial interaction of the electromagnetic field:

$$\Lambda_{\nu} = \partial_{\nu} \log \Lambda_{\nu}^{\mu} \tag{507}$$

Because of the equivalency principle, Λ_{ν} is zero in the frame of the particle and *does not* contribute to the single particle description. While for the *comparison* of states in the singlet and triplet where different frames of acceleration are compared the contribution from the relativistic frame of acceleration *difference* leads to a *displacement* of $\pm \Lambda_{\nu}$. The essential idea is that the gap and attractive force arises from the qualitative difference between the single particle and two particle pair descriptions under the singlet and triplet. This makes for an interaction that results in a distinction that must be made between a particle in the single particle description, and a particle that is a *part* of a two particle state under mutual *acceleration*.

When the particles are put together they produce a qualitatively different result from only the single particles put together with only an electromagnetic interaction. For instance, under exchange, interchange of frames: $\mu \leftrightarrow \nu$ creates a $\pm \Lambda$ relativistic frame difference on ∂ and Γ .

Hence reciprocation is predicted with exchange, along with an energy difference of the singlet and triplet. This implies that reciprocation of quantities is one to one with inertial motion and this is one to one with an inertial electromagnetic force, which is in turn one to one with the Meissner Effect. However, the energy of the total system is lowered or raised under mutual acceleration by the presence of the extra Λ_{ν} which leads to the different momenta as operators producing an algebraically different result from their simple sum when operating on the wavefunction.

Hence, inertial motion is consistent with conservation of the exchange energy (through the cancellation of the distance dependence and inertial quality of the electromagnetic force) and reciprocation of spin and orbital degrees of freedom. We can conclude from the mere fact that spin-orbital reciprocation takes place that the exchange energy is conserved and one to one with the initial statement that the equivalency principle holds for the force law holding the charges together.

Hence, a non-dynamical difference in the exchange energy can be seen as an outcome of the inertial property, or the inertial property holding true can be seen as an outcome of the exchange energy developing a difference, but neither can be proven entirely by independent means. Finally to note is that this has an implication for general relativity as a reaction, for when the transition to the superconducting state takes place its mass lowers, invoking a complimentary raising of general relativistic energy.

This, in its general form, is what reciprocity means in the end. For the gestalt picture of quantum mechanics and general relativity produces changes in each, which are complimentary, because the general relativistic modification of the quantum description, lowers the quantum energy, and it raises itself.

124 Pairing and Condensation

The connecting principle that implies Δ_p is at a maximum when Δ_c goes to zero, and vice versa can be explained by two facts:

- **1.)** When particles fall into pairs they become more localized in the orbital degree of freedom, hence their relationship to one another is a **larger boost apart** between the holes comprising distinct pairs.
- **2.)** The electrons and lattice **counteract** both the condensation and pairing with a resistence to an expansive force at low doping and to a contractive force at high doping. The electron sea and lattice that exists works against pairing and condensation, while remaining of equal localization to the holes.

The density of electrons exists in proportion to the localization of holes and electrons (or inverse to their spread) and hence is also proportional to pairing strength. Simultaneously, the outward force of the pairs accelerates them apart, leading to a condensation strength that is proportional to the density of holes.

Thus the inter-pair boost is largest when the density of holes is large, explaining a large condensation gap at high doping, and the inter-hole boost is largest when the density of electrons is large, explaining a large pairing gap at low doping. Hence the two processes of balanced forces and distinct effects of the electrons or holes are at odds, yet the force inwards must balance the force outwards.

As a consequence there exists a range of doping intermediate between the extremes where superconductivity exists and it must fall off to both sides like a semicircle reaching zero because the electrons and lattice counteract the condensation force at low doping with a net contractive force of electrons with the lattice, and pairing force at high doping with an expansive force due to the large number of holes.

Since condensation may be treated as the change in orbital localization due to relative frame, and pairing may be treated as the accelerative parameter due to the localization (inverse to the spread of the wavefunction), the net effect is described by the energy lowering being the contracted factor of:

$$\Delta = 4\hbar c \int_{\tau} \gamma^{\mu} \partial_{\mu} \log \Lambda^{\nu}_{\mu} dx^{\mu}$$

$$= 4e \int_{\tau} \gamma^{\mu} A_{\mu} dx^{\mu} = 4J$$
(508)

This is because the factor of Λ_{ν} is the factor corresponding to the boost leading to pairing, and γ^{ν} corresponds to the *excess* energy lowering from relative frame due to change in the boost parameter by acceleration into pairs. This is thus a factor multiplying the accelerative frame difference corresponding to the pair energy as a relative boost between pairs of the condensate. If it goes to unity then the energy of the condensation gap

is zero, while if the acceleration goes to zero then pairing vanishes. Everywhere the gap is the constant of 4*J*. This interval of superconductivity occurs when the lattice plus the electrons that exist balance the force outwards of the condensation and the force inwards of the pairing, but since the force is nonzero, and it acts through a distance by the effect of length contraction, the holes experience a net energy lowering intrinsic to the material.

125 Exchange Locality Theorem

To begin we identify a given admixture of partial differential equation following the principle of a connection to a given here ultimately knowable quantity; that of the orientation and juxtaposition of the electron's inertial field. With the statement of symmetry being:

"Extrinsic modifications to a given equation under antisymmetry of operators and symmetry of operators have intrinsic interior symmetric and antisymmetric parallels under operation of exchange of a particle with a pair field."

Under these provisions the properties of a two body electron particle and field equation are decomposed into a regeneration of the operator; seen alternatively as a completeness of it's given self enfolding for one particle and a replicated particle and partner field:

The two body electron equation is:

$$(i\gamma^{\mu}D_{\mu} - mc)(i\gamma^{\mu}D_{\mu} - mc)\Psi_{A}\Psi_{B} = 0$$
(509)

When it is rewritten it becomes:

$$(-\gamma^{\mu}D_{\mu}\gamma^{\mu}D_{\mu} + m^{2}c^{2})\Psi_{A}\Psi_{B} = 2imc\gamma^{\mu}D_{\mu}\Psi_{A}\Psi_{B}$$

$$(510)$$

The idea here is to factor the equation in a different manner; owing due to phase and conjugate phase freedom from the logarithmic identities of principle equivalence and principle inequivalence. First; we need phenomenological reason to believe that a composite factoring of the two body equation occurs in the first place; the foundational reason of which is provided by relativity.

126 Relativity Theorems

To comparability there are two given's in physics with displacement as the proof:

Principle Equivalence:

Comparative measurement with reference to what is measured.

Principle Inequivalence:

Measuring with reference to what is performing the measurement.

Therefore there are fundamental limitations of physics; to which in order for there to be self and other consistency of articulation; must be *geometric* in nature:

Property of Light Variance (1): The speed of light in being fixed to a universal standard; implicates that all such velocities under deduction to time itself must be measured greater relative to the speed of light universally for their comparative difference of rate congruent to light as measures.

$$\gamma_c > \gamma_m \tag{511}$$

Property of Light Variance (2): For; the property of dilation is obverse to a measure of fixed relation; therefore the rate of time for mass is always measured lesser than light; and to deduce the rate of passage of time we must convert to a system in which all velocities must be as a given greater than c.

In this, γ is seen as a measure of a rate to a rate, with light, unity in it's own frame; and of matter; less than unity for time to time conversions (for of matter light is of the opposite propensity) precisely because for a moving clock referenced to a stationary one; time moves more slowly; therefore to which it ticks more rapidly, and acquires a greater interval in any duration of a path at motion. This is consistent with the special theory of relativity and gravitation because a thrown ball will experience greater accumulation of time than one stationary on the Earth (for comparative to a stationary frame time went more rapidly and more accumulated). Therefore measurement dictates that the comparative measure of the rate of time for the thrown ball is diminished; to which it's extension over a path is longer comparatively to any other observer, such as the one stationary on Earth.

Therefore as the rate of time goes more slowly in the moving frame referenced to the stationary one; more time is acquired comparatively to either observer alone and individual measurements reference equivalence for the two body problem.

127 Note of Measureability

In order then to investigate a potential factoring of the Dirac equation into which the two body problem can be dissected; it is necessary at first to understand that the reference of the measurement is to one body or the other; to which we escape the twin paradox; a local phenomenon of which either measures lesser or greater of an otherwise equivalent situation with differing descriptions.

In this then we prescribe that $\{\tilde{\omega}, \bar{\omega}\}$ are different wave descriptions of particles; to which belong to differing frames; denoted by \sim or -:

Principle Equivalence:

$$\eta + \rho = \log(\tilde{\omega} \cdot \bar{\omega}) \tag{512}$$

The first equation described here just above is the equation we arrive at to describe the addition of velocities into which sum to a finite difference in an externally situated point of measure and reference. The second equation is to which we find that inequivalent velocity combinations in their own frame's (under their congruence) afford for extra proportionality of either given intermediary time dilation contraction effect (here denoted σ):

Principle Inequivalence:

$$\eta \rho + \sigma(t) = \log(\tilde{\omega} \cdot \bar{\omega}) \tag{513}$$

The direct consequence is that: Any two such contraction dilations are uniquely independent of any other by that of commensurate action of congruency of geometric difference under open relation of objective addition of factor; for in that of one following adirectionally apart; together; or separately; there is seamless transparency of beginning to end of logical union of motion; with an interior dilation contraction factor owing due to their

comparative measurement of time.

The substitution of one of η or ρ under either given point-like relation of relativistic factor is a free substitution which forms either given difference of that of perspective and vantage; that which forms the uniqueness condition of that of any two point like limits of relativity; for that of each such principle equivalence of time and principle inequivalence of codeterminism.

The implication of this for signals of frequency and functional form under transformation is that of the fact that: By comparative differential to quantifiable means with difference of driving frequency the encompassing of either of two subcomponents of the alternative exterior difference is constructible.

Therefore with general functions:

$$\eta + \log(g(\tilde{\omega})) = \log(f(\tilde{\omega})g(\tilde{\omega})) \tag{514}$$

Implies:

In log decibels any two differently concordant rhythms are separable by any measure; as each singular log decibel pertains to a different frequency of any given equipartition of each such given foundational means of comparability of any choice of any two given amplitudes of differential nature.

Therefore considered together these two imply:

Theorem on Logarithmic Addition: Either one; or both (2), given absolutely arbitrary limits of independent point-like relation(s) of proportion of electricity & magnetism to (a) given variety of non-locality exist(s); for which with but one; beginning or end congruent relation is empty of boundary condition.

To illustrate that this is not impossible; non-locality would need to be insisted to violate (4) and (5) for which an exterior probe of measurement would need under all conditions measure the relative rates of time of the two constructible relationships. Therefore it is perfectly amenable to analysis to conclude the equations (4) and (5) hold in general for the two body quantum problem; and as these are consistent with the special and the general theory of relativity per the derivation; there is no necessity of further discussion. The outcome of logarithmic addition is the extension of electromagnetism when this variety of phenomenon is admitted.

128 Reduction

Therefore the given representation of the above equations with that of the velocity divided by the speed of light as a unitless measure is of unity proportion in the measure of system of units. Therefore the given holds as true by the following; that:

$$\zeta = \sin(\alpha)$$
 $\chi = \tan(\alpha)$ $\alpha = \frac{v}{c}$ (515)

$$\zeta = \sin(\alpha) \qquad \chi = \tan(\alpha) \qquad \alpha = \frac{v}{c}$$

$$\zeta = \sin(\alpha) \qquad \chi = \tan(\alpha) \qquad \alpha = \frac{v}{\sqrt{v^2 - c^2}}$$
(515)

Are equivalent parameterizations of the same problem.

This principle of inequivalence is to be contrasted with the exterior space of symmetry of the theory of relativity when it is considered that actual determinations of validity are certain when one is deducing from time rather than spatial measure.

As a consequence either given end is not to be found; even in the singular; for the projective forward and backward relations contain no common zero; and time as a relation is an intermediary identity everywhere for which there are no two to be found but in the local.

Conclusive Remark on Time: The relation of a distant observer in observation of that of a point of the first observer is when in motion of a greater measure the reference to which the observer under observation observes a lesser time comparatively to that of the observer of it's given observation & greater, comparatively; to what it comparatively observes; as the two natures of time in relation to any one (of either) such observers differ by equivalence under separation.

The Principle Inequivalence with σ is then the marriage of the one to the two body problem by which either agrees with reason and consistency; the extra σ being the accordance by phase of that of a temporal signature to inertia. When then one analyzes a mirror with this concept in mind; for that of the velocity of *that object* we result in two defining relations by analysis of the 'vertical' and the 'horizontal' rate of time comparative to a given arbitrary velocity of the mirror as:

$$\zeta = \sin(\alpha)$$
 $\chi = \tan(\alpha)$ $\alpha = \frac{v}{c}$ (517)

129 Proof of Certainty

The rules of probability, statistics, and expectation impart a rule for that of the comparison of mathematical expectation to physical expectation; for which certain total certainty is possible with the following relation in mind; which is:

Foundation of Empirical Validity: "Via dimensional analysis quantities of measure that exceed in dimensionless unit guarantee absolute certainty in principally equivalent dimensionless quantities; without which physical law is not established."

Beginning with a preliminary notion of that of prediction in relation to the root mean square deviation there is that of the relation to standard deviation for which a functional relation is defined as:

$$x_{rms}^2 = \bar{x}^2 + \sigma_x^2 \qquad : \qquad f \tag{518}$$

Then defining a limit of $\sigma_x \to 0$ and hence the terms under which expectation deviance and variance exceed zero shrinking to a limit of local relation of zero and null relation there is defined:

$$\lim_{\sigma_x \to 0} f \equiv x_{rms}^2 = \bar{x}^2 \tag{519}$$

The relation of that which is greater assuming the relation of a subtraction of one equation beside the other reduces the expectation to that of a verifiable difference of one; and conveyed as such:

$$f - \lim_{\sigma_x \to 0} f \equiv 0 > \sigma_x^2 \tag{520}$$

Or as:

$$(1 - \lim_{\sigma_x \to 0}) f \equiv 0 > \sigma_x^2 \tag{521}$$

By which it is true that $f \to x_{rms}^2 = x^2$ in practice for that of colocal observables in relation to empirical deduction from which mathematical law and expectation is based; in virtue of measureability (inclusive of

singular variants). Therefore as $\sigma_x > 0$ implies $x_{rms}^2 \to x^2 \& x_{rms} \equiv x$ of either given expected distribution: quantities that exceed **guarantee** formatively for unit based systems by dimensional analysis of smooth differential quantities of a given functional form with variants of mixed quantifiable expectations of a unitless measure nature.

In this a simple ratio does not suffice; however any quantities derived from dimensional analysis of unit based system do function for the given reason that quantities under elimination by units of measure reduce to subsets of sampling for which error exceeds expectation under surjective subset to set relationship.

130 Method of Inspection

This explains a mass energy gap; for that of the two body electron equation which is a real energy lowering; of what is understood when taken as the absence of one electron in it's surrounding notion as in the presence of the other electron as a positron; for what is of presence is of absence with matter; and together forming a solid whole of which the energy momentum is lower by a double accounting for that of either electron in co-local relative motion. We begin with the two electron exchange equation:

$$(i\gamma^{\mu}D_{\mu} - mc)(i\gamma^{\nu}D_{\nu} - mc)\Psi_{A}\Psi_{B} = 0$$
(522)

The argument goes as follows; if the two electrons were in different frames; then they would experience the rate differential of time and space differently; to which when one slows it's consequent experience of time deduced from motion would depreciate it's relativistic mass argument; therefore of what of one is of the greater in time accumulated comparatively to the other in owing due; there is an 'extra' reduction in mass energy of both due to these interacting.

This is nothing but the final and conclusive remark on time making itself noticed; to which the equations (4) and (5) delineate the process of reduction; to that of which one comparatively is the addition of two factors under combination we factor the electron equation into it's summation. The equations (4,5) explicate the process:

$$(\eta \rho + 2imc(\eta + \rho))\Psi = m^2 c^2 \Psi \tag{523}$$

Which becomes under factoring by:

$$\beta = \sqrt{m^2 c^2 + \sigma(t)} = m_e^* c \tag{524}$$

An equation for a regularized and dressed electron positron virtual pair momentum representational of the original electrons momentum we began with; and an updated equation for an electron pair produced:

$$(i\gamma^{\mu}D_{\mu} + \beta)(i\gamma^{\nu}D_{\nu} - \beta)\Psi = 0$$
(525)

Therefore the mass exists at a reduced mass; the energy thereby being lower and as to that of a proportion of it's prior apportion. The pair potential is therefore:

$$\Delta = 2\sqrt{\sigma} \tag{526}$$

131 Conclusion

The primary cause of superconductivity is therefore that the phase, ζ , and order, χ , coherence parameters are both smaller than the relativistic wavelength; meanwhile these order and phase parameters are small when measured exterior to the superconductor where the residual field possesses inertia; so in either case:

$$\zeta, \chi \le \lambda_c$$
 (527)

Therefore a superconductor superconducts because it's electronic inertia is greater than gravity interior to a finite volume; exterior to which it decouples because it is reducible to a zero and a negligible fraction of the reduction factor; therefore levitation is possible in support against gravity with a magnet. The statement that both ζ and χ covary in the same direction should be noted as:

$$\sigma = \zeta/\chi \tag{528}$$

Beyond which via internal and external spontaneous symmetry breaking of two varieties; electromagnetic inertial interior and gravitational asymptotic decoupling exterior, occurs, to the new effective mass internally as m_e^* measured externally as m_e by gravitation and as m_e^* electromagnetically. As we return exterior to a superconductor we would therefore predict that if this theory is true:

$$m_e^* \to m_e$$
 (529)

These effects then amount to a full shift in the electronic inertial mass for the reason that the population inverts when $\xi \geq \lambda$; and many small effects of coherence (protected) saturate and decouple the electronic inertia from gravitation; to produce the full electronic gap in reference to the observable classical horizon of: $\Delta = 2m_ec^2$.

The original electron equation becomes:

$$(i\gamma^{\mu}D_{\mu} + \beta)(i\gamma^{\nu}D_{\nu} - \beta)\Psi = 0 \tag{530}$$

Therefore the mass (electronic and inertial) exists reduced interior electromagnetically; and at it's normal value exterior as $\sigma \to 0$ gravitationally and $\sigma \to 1$ electromagnetically. Therefore a superconductor is a proven instance of electromagnetic spontaneous symmetry breaking when mass measurements illustrate a mass discrepancy in one's vicinity. The reduced mass energy and pair potential were:

$$\beta = \sqrt{m^2 c^2 + \sigma(t)} \qquad \Delta = 2\sqrt{\sigma} \tag{531}$$

Thus, the 'root mean squared' of the *complex and imaginary* under a projective category of 'arrows' and the relation to 'projective algebraic varieties' is exposed, to which the quantum realm is a 'hole' among all possibilities, and - furthermore, to which the probabilistic remains non-unitary yet categorical. This is the expression of:

$$\sigma(t) \tag{532}$$

In the above equations of superpostion, of which sodifies and re-compatifies under separation of extremes for in the remote universe, in direct relation to gravitation. As a consequence, the 'second least eigenvalue' remains all that is essentially observable, but - the primary observational point, to which has the inertia β , in relation to weight of a mathematical form. This exception in-dual to the Incompletion theorem at the end of the 19th century, and the initial on relativity (also at the beginning of this 19th century) - remain two archetypes of schools that seemingly agree to compound interest.

Seen in hindsight, these two regularization tools, when re-interpreted, remain invaluable tools for the development of the advancement of technology we have witnessed, yet possibly in relation to nature and life, misunderstood.

132 Constitutive Relation of Construction

The given differential empirical foundation and basis for this given result of theoretical insight is that of a test apparatus of which is constructed of crystals and photometric devices placed in a circular apparatus; for

which the given interior passing and exterior passing photovoltaic light current and photovoltaic dark light current circumferentially remain independently apart from that of frequency and phase evolution of that of the concentric perimeter; for that of a four wire design and independence of operational amplifier input and output relation by seamless integration of component design. The limitation of the device is a photovoltaic to photodynamic current light generation and reproduction which are independently causally connected by that of separable stages which under integration and parallelism with coparallelism of independence of light and electronic limitation pass either side of the given relation of passive and active light and current relation through independence of light and electric field null independence of either from one another; for the limitation that is one side of a given fixed relation is empty.

133 Electromagnetic Implementation

The given differences found in that of the balancing of attenuation to that of gain under feedback of interior and exterior phase relation for what is found in that of balancing of photochemical potential and photovoltaic conversion and photovoltaic light conversion and that of photovoltaic light production allude to a logarithmic conversion with an exponential voltage to current relationship through the diode equation:

$$V = I_0(\exp^{-\frac{V_{\beta}}{V_T}} - 1) \tag{533}$$

When this is drawn into a parallel the given difference sum of that of either given forward and reverse photoconversion under decoupling in forward and reverse with that of current for which of voltage conversion there is an impedance relation is one of expanded interior notion of electromagnetic function and purpose; the given difference of which produces a sympathetic difference in that of the volumetric space encompassed by the given open relation. This functions to open the notion to that of given impassibility of current with voltage unless there is both a point-like relation of limitation and linear (curvalinear) excess limitation of circular volumetric limitation without boundary. The given current to voltage relation is analogous to a local entropic point for which the thermodynamical linear conversion rate of electrons into light current balance that of positrons; and that of tacheons with that of ordinary photons. The centerpoint of this given division is an infinite obstacle as the centerpoint of limitation as the local separation of cause and effect at the very point at which they are indivisibly inseparable.

The next equation to be examined (with the first as an example as that of the free forward conversion with rate of difference equivalent to sum inseparability) is that of the reverse; as that of sum separability and difference as subtractive limitation under reverse; as that of the differential property of equivalence of differential; proportion; and accumulation; with that of the operational amplifiers of which produce stage to stage difference making that of free geometric extension infinite.

$$\gamma = 1 + g \tag{534}$$

The given two dimensional base to emitter; as parallel (with difference of emitter to collector under coparallelism differences formed) make of what is a two dimensional region as open to that of volumetric extension by that of either given sum difference relation; forming from that of two sum difference relations; that of one sum inseparability difference of subtractive domain within a given region of which the perimeter is frequency and period independent as analog free. This is the reason for the free addition of gain and transparency of region of geometric addition to that of the given free quotient perimeter space; as that of constitutive of the complete perimeter under balance of equipartition of electronic to light free conversion. This is essentially a holographic unitary statement of the addition of a given region to that of it's perimeter freely to produce one given area.

134 Introduction

As the first and primary example consequence of a holographic principle with cohesiveness; there is the conclusion that separable yet mutually consistent representations of reality agree with a unitary condition of principle consequence of which is singular property of representation and existence in one; the condition by which a physical element of reality holds existence. This can be worded as it's dual; that an object of physical reality is an element of existence; or; as equivalently yet alternatively that a physically existent part of reality is an actual element.

Once a physical element of reality is defined; that of what is subjectively understood is the content-less property of surrounding existences in relation to this principle component and that of the inadequacy of physical description to quantify all properties of a physical system as a limitation of expression and the content of information over a boundary to that of it's volume; when there is a measurement of one property. This vindicates and validates the core quantum principle with the given context of the holographic principle; meanwhile admitting that over a boundary the full information content of a volume may be identified with the only limitation being that unknowables are detectable as hidden information within the boundary since absence does not indicate presence.

135 Theoretical Underpinning

To begin we identify a given admixture of partial differential following the principle of a connection to a given ultimately unknowable quantity; that of a placeholder for what conventionally known as spin; that of the orientation and juxtaposition. This principle defines the hidden capacity of matter to contain a trace of it's immediate relation to the physical world as it translates and evolves under an empty and content-less evolution despite the cohesiveness of a reality condition for which the infinite indivisibility of reality and it's refinement mean no local zero is defined except under conditions of comparability.

When as such is defined as the covariant differential; the form of the equation's additional term takes the form of a given covariant differential surplus; for that of the functional 'extension' into such as a subdefinition of the space equates with an extensibility of the notion of differential as within the same space; and is equable with the notion of weight to the differential; the physical meaning of which is the expansion of the notion of intrinsic measure; the concept of which it's contentless measure of motion carries a weight; it's given inertial content; but accounting for which must be accomplished to provide for accuracy of measurable extent of unquantifiably of physical displacement through motion under the provisions of point like limit and extension of path like extent.

This is necessary to account for any provision of physical continuity of which is deterministic and to provide for the definition of limitation of reality for that of full space like extension under temporal evolution from one point of reality to an other; the indivisibility of which defines in turn a before and after of consequence cause and effect; a limitation for which would be undefined without this notion. The equation for continuity for an intrinsic property defined as 'spin' or 'intrinsic weight' is therefore defined by the addition of a general four vector differential in four dimensional reality as a four dimensional quantity of weight of extension of linear relation as a given field of subspace to physical conjugate reality not to be confused with the physically real existent four dimensional reality surrounding us; a four dimensional space interior to all exterior unions of space conjoint with physical four dimensional boundary.

$$\Gamma_{\mu} = \partial_{\mu} \log \gamma^{\nu} \tag{535}$$

The equation for which the differential is defined is then of the notion of a given enhancement of the traditional differential; a term for which either a given unitary electromagnetic four potential is added as an appended physical four dimensional field of weight sourced electromagnetism is physics; and a given coupling of the background intermediary flat space to that of the given folding within either given beginning or end limitation of inertial content for that of covarying and contravarying weight of mass. This additional contribution with the other defines an open exterior relation of which is the given expansion of differential for that of exclusively open interior quantities of contribution for which the notion and physical property of change is afforded measure of extensibility within the conventional differential; the effect of which is a mass differential that is fixed to its regularization and displacement free notions of the invariant given of mass and inertial content uniqueness.

$$D_{\mu} = \partial_{\mu} + \alpha A_{\mu} + \Gamma_{\mu} \tag{536}$$

Where Γ_{μ} and $\partial_{\mu} + \alpha A_{\mu}$ are components of the momentum differential D_{μ} which separately anticommute and commute in portion and grouping; thus rendering a non-zero exchange under local and global commutation or anticommutation relation with the prefix γ^{μ} in the new electron or particle spin $\frac{1}{2}$ equation of general form; yet under limitation by either given single equation; providing for an electromagnetic interaction of single or multiparticle nature and that of one force to particle relation or given as a full wave particle equation of general form in four dimensional space when there is limitation to two extra dimensions when it is considered that but one exterior and interior dimension can impart a full difference of singular nature from that of four dimensions by the loss of one through codimension:

$$(i\gamma^{\mu}D_{\mu} - mc)\Psi = 0 (537)$$

This equation therefore embodies electromagnetism and interaction with charg ed particles in a four dimensional space; with that correction for codimension; with the statement of symmetry being:

"Extrinsic modifications to a given equation under antisymmetry of operators and symmetry of operators have symmetric and antisymmetric parallels under operation of exchange of particle with pair field."

This is entirely consistent with the interpretation of what an electron is; and what properties it has. Under these provisions the properties of a two body electron particle and field equation are decomposed into a regeneration of the operator; seen alternatively as a completeness of the involute theorem of it's given self enfolding for one particle and a replicated particle and partner field. This concept is useful because under re-representation the particle and field copy representationally is equipped with an enfolding of either given whole and part representation for which absence and presence are mutually represented by a neither four or two fold representation of separation of absence and it's dual also known as invisibility.

$$(i\gamma^{\mu}D_{\mu} - mc)\Psi(i\gamma^{\mu}D_{\mu} + mc)\Psi = 0$$
(538)

This equation is the two body electron equation with the gauge covariant differential known as the four energy momentum; for which either such given corrected relation of the four energy momentum of the nature of the differential is corrected fully as contracted; and through which the discrepancy of intrinsic and extrinsic mass is known in it's corrected form. The mere reason the mass as conventionally used and included as m in this equation; as for simplicity of example; is to impart the relation of a given net fixed weight of extrinsic property of extension by which there is the affording of a singular fixed relation in the space and it's cohesiveness of principle component of measure; advancing the relation to that of a whole in part as local extensibility of weight; and imposing no restriction on wave other than content volumetric presence.

Taken in this light the next equation; for which we have a writing out of the given equation; represents a full contraction of particle and particle with symmetry of which purely indicates differential notions of presence and absence under the inseparability of interior consequence separation of cause and effect; as a void relation of interior division of principle component of either given field and particle under provisions of null duality

of particle and wave; with consequence of separation of either distribution of independent nature and coextensibility of interior relation.

$$(\gamma^{\mu}D_{\mu}\gamma^{\mu}D_{\mu})\Psi = (2imc\gamma^{\mu}D_{\mu} - m^2c^2)\Psi \tag{539}$$

This is the equation written out in full form; and demonstrated as a full eigenvalue eigenvector equation as for a symmetric and antisymmetric space enclosed in volumetric interior null zero relationship of causeless with content equivalent to full boundary and null hermitian unitary expansion of infinite numberless relation to that of exterior quantifiable other than co-mutual determination of inseparability of exterior empty open relation to exterior space at a given boundary to volumetric extension. When this is translated into component form it is a re-expression known as:

$$(\gamma^{\mu}D_{\mu}\gamma^{\mu}D_{\mu} + m^{2}c^{2})\Psi = (2imc\gamma^{\mu}D_{\mu})\Psi$$
(540)

These two sides representationally prohibit that of separation of field and particle wave principle of source field and particle for any dual field admixture of wave principle and particle expansion of either self involute or exterior involute form. After reorganization of terms and a process of reduction to two new terms there is a re-expression as the following equation for which the differential separates into a wave equation for each single particle under absence and presence in absolute form interior to a given differential of co-extensibility of interior space although external to reality; known once again by the following factoring; for any one given one differential passes freely:

$$(i\gamma^{\mu}D_{\mu} - mc)(i\gamma^{\mu}D_{\mu} + mc)\Psi = (2imc\gamma^{\mu}D_{\mu})\Psi$$
(541)

As a consequence the differential can be expanded for either to operate once more; with the following result:

$$(i\gamma^{\mu}(\partial_{\mu} + \alpha A_{\mu} + \Gamma_{\mu}) - mc)(i\gamma^{\mu}(\partial_{\mu} + \alpha A_{\mu} + \Gamma_{\mu}) + mc)\Psi(\eta, \rho) = (2imc\gamma^{\mu}D_{\mu})\Psi(\eta, \rho)$$
 (542)

With the re-writing of this expression we have the spin zero wave equation written as (any covariance evolves freely):

$$\eta(\mu, \nu)(\partial_{\mu}^{2} + \alpha^{2}A_{\mu}^{2})\Psi(\eta, \rho) = \rho(\mu, \nu)(2imc\gamma^{\mu}D_{\mu} + m^{2}c^{2} - \Gamma_{\mu}^{2})\Psi(\eta, \rho)$$
 (543)

This equation can be re-written with the following part as a new equation under simplification of terms where the exterior space and interior space of presence and absence of space like properties carry empty relations of particle absence and presence under all dual relations of a particle and wave duality; as the relation of hidden to expected property of intrinsic property to reality as a given full relation of complete form inclusive:

$$\eta(\mu, \nu)(\partial_{\mu}^2 + \alpha^2 A_{\mu}^2) \Psi(\eta, \rho) = \rho(\mu, \nu) \Delta_{\mu, \nu} \Psi(\eta, \rho)$$
(544)

Which expresses the photon propagator with the energy momentum of the electron particle in balance with the gap Δ ; the energy momentum squared; and that of the gauge connection energy momentum due to the curved space; known as a 'field momentum energy' of spin; or; any intrinsic property of content of coupling of a particle to a-positional property of extension along a motion; and connection between absolute and relative properties of space and time. This theorem and the implementation of this principle is then based on extension of the given property of electrons and fields to embody interior space of coextensive union and extensive capacity of full volumetric filling of space and time through the relation of exterior union of elements of continuous form by boundary condition of volumetric opening. This exists as spin is an intrinsic kinetic energy momentum of the subatomic particle known as the electron.

The images produced by this implementation (essentially a circle of phase matched inductors, power sunk resistors, series crystals, and parallel capacitors of series matching potential coupled to distinct photonic photo-emitting and photo-receiving diodes) is as follows; illustrating with the plucking and separation of

two fingers that of the separation of one normalized distribution into an ever shrinking domain; an exterior existing reality similar in form to the free energy or background free radiation of the Universe.

This is an example of unitary reciprocity in electromagnetism for which the principle is:

Unitary Reciprocity: The given unitary condition of spin isometry extends to codimensional extension by interior intrinsic properties of codimensional extension by that of interior gauge freedom promoted to locality by global isometry of unitary singular exterior dimensional reduction of wave component properties by spontaneous symmetry breaking of electromagnetism.

Leaving for the gap on the right hand side the equation for a massive photon of which is deflected in principle by the volumetric content of the interior 'sphere' of flattened nature within a cylindrical and one dimensional variety of boundary; coupling the free dimensional opening and interior information upon a boundary by four wire elements. The gap remains as variant and free yet as commonly dependent on the differential. For, one constant of mass is fixed to that of the finite and fixed dimension of exterior scale; and forms a union of space and time with an exterior space of ever shrinking codimension; forming from that of surrounding notion on differential that of exterior boundary under fixed mass that of variant gap with fixed mass by weight of coupling and gauge connection, (any one exterior dimension is a unitary contraction).

$$\eta(\mu, \nu)\rho(\mu, \nu)(2imc\gamma^{\mu}D_{\mu} + m^{2}c^{2} - \Gamma_{\mu}^{2})\Psi(\eta, \rho) = \Delta_{\mu, \nu}\Psi(\eta, \rho)$$
(545)

For the left hand side as the relation re-written from before and above on $\Psi_A\Psi_B$ as; (degeneracy is a precondition of the identity of reductive admixture(s)):

$$\eta(\mu, \nu)(\partial_{\mu} + A_{\mu})(\partial_{\nu} - A_{\nu})\Psi(\eta, \rho) = \Delta_{\mu, \nu}\Psi(\eta, \rho)$$
(546)

Which is a wave equation for two photons of energy momentum gap equivalent up to a discrepancy to the lost field energy momentum of any two crystalline electrons in a given pair; as a donut of particle matter light event horizon of exterior space and one dimensional union of boundary and two dimensional surface volume.

(1.)
$$V_L(\frac{V_{LD}}{V_{PD}}) + V_P = V_L^e(V_P)$$

(2.)
$$V_P(\frac{V_{PD}}{V_{LD}}) = V_P^e(V_L)$$

136 Generating Relations

These two equations are generative of a free relation of electro-magnetic freedom from physical expectation based on material events due to the similarity of their relation to one another through the expectation (e) owing due to electromagnetic energy in physical form; and that of the potential electromagnetic energy in kinetic form; for that of the ratio of photovoltaic drops of light under reception and transmission fold into one equation expressed as two.

These are in fact identical equations under transposition for the fact that light passing through a light field is freely decoupled for that of null reception and null transmission; for that of seamless transparency of separation of cause and effect at the point of cause meeting effect. This property of light is a multiplicative property of light for that of the division of light color spectral line and that of indivisibility of light field content by that of division of matter from matter as a separable condition for that of equivalence of weight under inertial separation of equivalent relations.

The equations are explicable as a consequence of the rate adjusted voltage drop of diode for light transmission and that of voltage drop of diode for light reception under forwardly dependent encompassing relation of dependence of rate of conversion of field from that of either of photodiode to light emitting diode or light emitting diode to photodiode under parabolic voltage to light coupling expectation; by that of difference of interior displacement of a null differential for physical electrocatalytic to electrophotovoltaic expectation; as a given secondary condition:

(A.)
$$V_L^e \rightarrow (V_p^e)^{-1}$$

(B.) $V_p^e = \alpha V_L + \beta V_L^2$

The uniqueness and universality of this equation is embodied in the relation of it's unidirectionality and for the reason that no exterior additional photodiode voltage drop need be included in that of the conjugate equation for photodiode voltage drop as photodiode emission and hence 'transmission' of absorption by photovoltaic light reception; hence forming a relation of free light conjugate freedom of transparent differential exponentially free gain and reception; and hence free electromagnetic freedom and switchable return. The conditional preceded of a consequence in one of a causeless action; follows the condition; as the given of a preceded is the cause of an aconditional & causeless event priorly known.

The expectation of these equations comes from a compatibility condition of electromagnetism based upon field and electromagnetic light wave freedom by decoupling of passive electro-magnetic property from active electromagnetic property as impedance and conjugate to impedance; admittance freedom of expectation for physical electrochemical and the inertial kinetic light property of physical electrophotovoltaic gap of expectation of gain pivot point.

Thus the prior relation (found empirically) was that of the ratio of relation of that of expectation of photodiode voltage to that of intrinsic material property photodiode voltage drop inherent to either of emission or transmission to that of light emitting diode under transmission of light; as the rate adjusted physical to light kinetic energy relation of fixed proportionality of intrinsic to extrinsic rate adjusted photoelectrical light conversion rate of form:

$$(3.) \qquad \frac{V_L}{V_{LD}} = \frac{V_P}{V_{PD}}$$

As V_P is common; the inclusion of V_P with $(\frac{V_{PD}}{V_{LD}})$ enfolds $V_P^e(V_L)$ as an additional extrinsic voltage drop of photodiode for that of summative interior and exterior as exclusively either of their intrinsic current to voltage relations remain counter and co-balanced; inclusive of proportion of light under reception and emission as separation of potential from field under conditions of light & light.

137 Elements of Design

The following two relations of importance are:

1.) Active 2.) Passive

These are an equation of order on; current (I), voltage (V), and resistance (R) in relation to impedance as a function of: coupling (α), mass index (β), and transmissive coefficient (γ). This is written as:

(0.)
$$O(I, V, R) = Z(\alpha, \beta, \gamma)$$

Hypothesis: Separability and inseparability are potentiated by the existence of the acausal; as events so invisible.

Hypothesis: Invisibility potentialities all such capacities of coloration and of color; as through indivisibility of color.

Through these relations as in equation 3.) under the pretenses of relations 1.) and 2.) it is from these to the inclusion of the second for that of the prior and later of either of one or two that one of two implicates inclusion of two before one. This is determined as valid by the following argument of hypothesis:

Hypothesis: As inclusion is always contained within exception as capacitated for either the physical or aphysical as by their transparency; hence there is and exists openness with closure in one and the same as one.

Conclusion: The active and passive are two in one as once when met as either of inseparability and separability of only one. This is true as the passive precedes.

Prior electrical circuit design differences of between co-parallel and parallel electrical light like electromagnetic energy are independent of difference or similarity of parallel and co-parallel directionality of electromagnetic light like energy; hence physical electrical component design from effect to cause is independent of electromagnetic light like cause and effect; hence latter electromagnetic component design is independent of cause and effect of electromagnetic energy and circuit design.

$$\lambda V_p^e(\eta(s)) \dot{\sim} \gamma V_L^e(\rho(u,t)) \tag{547}$$

138 Theory of Operation

In this light is combined as one.

 $V_p^e \& V_L^e$ are given equivalence as they are functional relationships which contain indefiable interior & exterior difference of combination of light (as separable (& inseparable)) & separability in one, as either of cause or effect preceding or following in one.

The functional dependence of $V_L \& V_P$ is dependent neither interiorly nor exteriorly to such as either of exception (as gauged) on that of light under reception or transmission. Hence either (as both) of separability & that of inseparability of light is established as fundamental difference.

This transparency mentioned between all such colors as a color known as simply 'clear' or; 'invisible.' This concept in coming and going is the difference of the avenue of light's given inseparability both in the plurality and singular components of the spectrum. This color has no separability nor terminus in but one circle from one point of emanation from an 'event' as a 'cause' as a given new color so introduced. Hence it is a point of light for all such surrounding events of a genuinely nontopological character of only that which is simply described as 'round.' Hence the point of an emanation is an eternal eclipsing of all events so to come from each and all such events to all such events as one inseparable relation of light throughout all of the domain of it's eclipsed monodirectionality & of exclusively pure proportion of equality of light in balance with light.

139 Reasoning of Innovation

The additional $'(V_P)'$ is included as a consequence of the light under reception so is inclusive of light under transmission. This difference is formed by that of proper orientation of precedence & effectual properties of light as a point.

This point is transparently undecomposable but into an never ending expanse of free & open relation with no form. But as the form can only be form by the formless it is decomposition by way of alternatives of either; for that of the essential difference of order of electromagnetic energy so in coming and going under equivalence of physical electromagnetic design & aphysical electromagnetic light field. Hence; invisibility is revealed.

140 Preliminary Equations

The generating equations exemplify a relation of reduction to a singular confocual relation of permeability of light as passivity transparently between that of physical and electrical properties of electronics:

(1.)
$$V_L(\frac{V_{LD}}{V_{PD}}) + V_P = V_L^e(V_P)$$

(2.)
$$V_P(\frac{V_{PD}}{V_{LD}}) = V_P^e(V_L)$$

These are the defining relations of the given circuit; for that of the matching of impedance to induced light current.

Explanation:

These are the same equation because they are each similar representations of a normalized distribution of intermediate bandpass $(\pm f(\omega)),(\pm \omega)$ independent of variance; as the independence of \pm charge from that of light of either chirality or weight as to that of coupling of reception & transmission freedom.

Proposition:

Hence frequency (f) & measure (u) are defined as two different attributes of a given wave.

Consideration:

The additional V_P is a component of the inclusion of that of back - conversion under reception (absorption) for that of balance of γ with that of e^{\pm} & rate, measure & period of wave independence.

Inclusion:

The parabolic inclusion of these (rate, measure, & period) of a parabolic (similar quantities) as seamless passing of one of transmission & reception (thus $+V_p$) with rate of ratio of measure passing.

Prepositions:

1.) For that of the parabolic balance of linear relationships of light to light as $\gamma \leftrightarrow \gamma$ as $\pm t$ of unit temporal intervals and moments; the spatial (s) is open interiorly to that of balance of geometric leveling of γ in relation to (t,s) as one transparent (standard deviation) (s),(t) as the inverse union of their separability under two such additional flows of current, & for voltage; that of their mutual independence of topological relation. These instance (inductance, impedance freedom coupling free resistance, and capacitance) as free of current, voltage, & impedance as a result of γ (light) & (charge) independence of decoupling, as one.

Consequence:

2.) The expectation of the voltage drop in effect is counter-balanced for that of the ratio of $\frac{V_{LD}}{V_{PD}}$ passing either way for that of light in relation to charge as either equation is the free conversion of light into light of either chirality meeting as a point. A circle & circle, as light (γ) are independent & are therefore independent of either of any two such points interior to the area, circumference, or linear extent.

Derivation:

3.) As the area is two dimensional, and that of it's perimeter is one dimensional, the area represents an addition of the two (rate) adjusted absorption & reception contributions together, in equivalence to that of the expectation(s) based on balancing the forward & back-ward traveling $\gamma \leftrightarrow \gamma$ light; as a result of the direct (A, ds) (Area, path differential) & interval (l) relation of geometrically free properties of light, & the point-like nature of e^{\pm} .

Difference:

4.) The equations are also the same, as that of either is enfolded in the other and hence light is free of charge, energy, and power.

Integration:

5.) The photodiode and light emitting diode are therefore decoupled mutually, throughout; as a consequence of their freedom under unquantifiable open interior and exterior of flow. This qualifies their mutual independence.

Differentiation:

6.) The exemplar difference of hardware & machine state is deterministically open to indeterminant measures of semi-deterministically given independently provided cadence to the immeasureability of each one emit.

141 Direct Conclusions

Physical & electromagnetic design & implementation & light are independent & unquantifiably separated but not yet one; for that of through passivity of light under design (physical) as one, inseparable, independent, unique, & free. Light as bidirectional or as mono-directional is inseparable in virtue of its levity to remain light & solid with in any singular or entire coming & going from future to past as it is eternal.

142 Design Furtherance

The first step is to understand how light reception is electronically balanced with that of light transmission; by way of operational amplifiers. The principle is difference of photovoltaic drop exceeds net gain until equivalence of balance is achieved; hence net saturation is reached at equilibrium of impedance relationships. As a consequence of the defining relation of the voltage pathways under base to emitter and emitter to collector; under reception of transmission; the gain in excess under solution of the current and voltage relationships of operational amplifiers reduces:

$$V_A = I_{OL}(e^{-\frac{V_{LD}}{V_{TLD}}} - 1) (548)$$

$$V_B = I_{OP}(e^{-\frac{V_{PD}}{V_{TPD}}} - 1) (549)$$

To:

$$g = \frac{\alpha}{\beta} \tag{550}$$

Where *g* is the base to emitter gain; expressed as the ratio of $\frac{I_{BE}}{V_{RE}}$. With:

$$\gamma = 1 + g \tag{551}$$

Where γ is the $\frac{I_{EC}}{V_{EC}}$. By way of $\partial_{V_{LD}} = \partial_{P_{PD}}$ and $V_{LD} = -V_{PD}$ of the 'Golden Rules' of operational amplifiers under equivalence of either photo or light emitting diode equations; & matching to the conditions of $\frac{V_P}{V_{PD}} = \frac{V_L}{V_{LD}}$ and the constitutive relation of:

$$V_P^e = \alpha V_L + \beta V_L^2 \tag{552}$$

The inequivalence of certain purposes in complete form to that of transparently given return of transmission beyond departure of illumination from it's given indivisibility of intermediary color of clear saturation in the limit of congruent return reception under gain to attenuation of any photon is it's given determinant timeless reception to a future conditional on that of the predictive limitation of machine equipment; of a freed causeless nature.

143 Understanding Device Implementation

The five block stage crossover stages accomplish novel things by being in a parallel and series superimposed relationship where each stage does as many things as all of the other ones together in full parallelism with all other crossover stages.

The first stage is a *parabolic reflecting impedance matching* photonic electromagnetic *light gyrator*. This accomplishes an electromagnetic conversion into light and back as an impedance matching condition upon a feedback loop which is situated with a forward passing output and reflectionless input, for which the isolation of the circuit is electromagnetically reflected for later blocks. This is a cap that is semi-traversable by the output into the input as a first step to full isolation of the signal to noise.

The second block is a *logarithmic free impedance matching condition* circuit crossover broadband stage for each such frequency passing through the spectrum; making each individual overtone independently impedance *free* of every other such frequency. For the sake of a universal impedance matching condition it is equivalent to an equivalent summation as separated geometric product relationships.

The third block is an *impedance mirror* for which the linear to linear forward and backward traveling waves are reflection-less. They are also individually of two independent perpendicularly oriented polarizations and therefore transversally reconstruct a circularly polarized wave. This is that of a circular evolution upon either that of the input or output; because it is a reciprocal active high pass filter.

The fourth block is a *free impedance matching condition* circuit with broadband crossover *fixation* of the *light dielectric impedance*. As a consequence the colocal arbitrary conditions of the wave are foundational of identical yet independent and mutual foundational conditions upon phase and amplitude. This stage has these properties in part owing to each such prior stage in parallel with it under feedback.

The fifth block is a parabolic reflecting impedance matching photonic electromagnetic negative light gyrator. This fixes the original parabolic relationship by imposing a negative impedance to the first stage of an ideally identical yet negative impedance matching condition.

This configuration is designed to meet the number of half rotations to the number of crossover inversions so that the positive impedance matching condition of the original parabolic reflector is met with its same negative impedance matching condition back through the feedback loop from one end to the other. There are

two principles at work common to this design as it was developed as an idea:

- 1.) One is the passive element; for which the crossover configuration, multiplicity of stages, and impedance matching form a decoupling of the electromagnetic wave.
- 2.) Two is the active element; for which the crossover configuration, multiplicity of stages, and impedance matching admit both voltage matching and current mirroring.

144 Determination of Knowability of Order from Properties

Examine the following:

A 'block' relation; of properties to be determined.

- 1.) As a consequence a priori the order and properties are not determined; as a result the order is a priori determinable by way of the following logic.
- 2.) These blocks must be questioned as to their properties with blindness in mind; yet it is as simple as passing them by way of each other; as the order is not determined; and hence the order exclusively inclusive of the blocks can be determined by a process.
- 3.) First as there is a beginning and an end to their order, as the order is inclusively limited. Two blocks are of a shared and independent relationship of their relation unto the remaining three as a consequence. As these three blocks remain as three and the other two remain as independent; the three are of the middle, beginning and end; and the two come in-between for the establishment of order so aforementioned and so to be established; and as these sets remain different as the blocks a priori hold no order as a given. Therefore it remains that the blocks may be questioned by passing by way of each other.
- 4.) Therefore two blocks as a property may be passed for the remaining three blocks as a property between the other's; by way of which the middle may be so determined. Passing these arbitrary two blocks by way of the remaining three therefore draws inclusion of a shared property of that of the nature of the end a beginning block; and determines as the latter remainder one such block as the middle block; which we may label as a transparent 'mirror', by the side of the remaining blocks.
- 5.) The two blocks which pass between the three blocks therefore determine their property in turn; and leave unto the remainder of the three blocks the neither inclusive nor exclusive property of the remaining blocks as two to one side and one to another side. This remaining singular block therefore remains as 'the' singular block with the remaining property of a transparent 'mirror'; and that of the two blocks so passed as their dual reflections; which we may label as the property of 'congruency' neither passing before or after the middle.
- 6.) As a consequence the remaining two blocks to the side by way of which the two congruent blocks are so passed are of an end and a beginning; but as is insisted by the order, the pattern, the property-less-ness of the blocks, and their identifiable properties as so determined, they remain as neither as determined nor not but by the following logic; and we may choose the remaining singular 'mirror' block to pass between these two; to determine future and past and therefore their identity as end or beginning as so is too as well; the enablement of choice.
- 7.) When hence passing the remaining singular block by way of these two 'congruent' blocks, it is eliminated that there remain as two such blocks before as the 'congruent' blocks from any shared property of the ending or beginning blocks as so individuated and separate, and whence passing one passes before and after beside either of that of the intermediary block. As a consequence the intermediary block determines the relation

of the indication by way of the aforementioned property of the end and beginning block as a justifiable hypothesis for the sake of the preservation of order or that of the changing of order. From here it is determined that the prior and later block are determined; and so too is is true that the 'congruent' blocks remain now as congruent blocks by that which is the exception of the 'mirror' block and the passing of the original two blocks as propertied as passed and therefore identified by that which is the inclusion of the self consistent relation of order and its determination.

- 8.) Finally hence passing either of one block by two or by way of three; saving the exception that is of two to one side of the mirror block and the mirror block now understood to the other side, it is determined that the two blocks to the side remain as exclusively of a shared property of prior and latter as well as end and beginning. Therefore it is so determined they discern the difference of their placement as 'before' or 'after' the former blocks so passed; and the block of the mirror therefore stands in the middle of all such five blocks. The congruent blocks remain as such as to neither let pass a propertied nature of the blocks as then when determined as in contrast to the 'prior' and 'later' block, as remaining with choice of orientation and through such an order by way of the blocks by way of the mirror middle block with the remainder by way of that which was the determined order of the blocks as that which are of before and after & intimate the order of the remaining two congruent blocks as solid and inclusive to the order; without exclusion of the not fully established former and later block, and not nor that of but that which is of the remainder of that which is that of the mirror block.
- 9.) As a consequence that this order cannot be reversed through its establishment for its origin in propertied and the establishment of order, their true properties are identified. Therefore it is true that the properties of all such blocks are determined for the questions so addressed, the properties so hypothesized, and their identities. The congruent blocks as passing earlier and later therefore exist and so remain as in a relation of open and closed intermediary measure under balance of presentment of order for that of the latter and former such ending and beginning blocks, remaining with the exception contained as the intermediary block as the middle block as the 'mirror' block now henceforth determined.
- 10.) The finality of this is that even through an unestablished order for unknowables; order may be recovered, established a priori for such propertied 'blocks' and that of the relation of the order of an assembly of order without exception of absence of order may be determined. This is the establishment of order from out of which that of which is of chaos.
- 11.) One contained notion of a residual is therefore the open consideration of loss; as decay is fractiture. Then as in either block to it's exception of open inclusion to order; the free commutativity of two is the exception to a group.

145 Singular Unification of Matter and Light Duality

So as to imagine a silver ingot; and that of a gold ingot of equivalent mass so upon a balance and scale; is to understand the absolute similarity and difference between balance and scale of that of two solids of massful weight for that of which is within matter of light, and within light of matter; for the equivalence of scale under dissimilar displacement of equivalence of these two dissimilarly contained properties within that of which is of either. For that of which is of that of within the other of such massful solid natures and lightful solid natures, it remains as a non exception that these as such as displacement are equivalently null of imputation, within balance; as both independent and comutually present as inseparable and independently coexistent events arising from such causes of reality.

So as so also that of that which is of matter is massive in relation to that of light under that of scaleless

balance; by the scaleless relation of matter in relation to that of light; as within that of matter of the light; that of matter and light are independent of one another and light as within that of matter is so as lightful and massless; as light and matter are not massive; but in relation to the lightness of light; and the scales of mass.

146 Philosophy of Electronics

Relation of Physical Apparatus to Electronics

For that of a singular inclusive point in the enclosing domain of a post action for that of a prior action of causality; there is disconnection of prior cause from that of the encompassed under reception before emission for that of causation under exception of cause and effect for future effects from prior cause under inclusion of later effect. As the general enclosing domain of a future reception of a past cause; a singular cause of emission before transmission is unseparated under prior inclusion of later exception of cause and effect as inseparability of future effect from that of prior cause. Therefore prior to reception of light under transmission, reception occurs priorly to transmission, since causation of neither difference nor nondifference of parallel and series are formed but only that of inseparability of neither parallel nor series.

Therefore prior electromagnetic design is predictive of later electromagnetic design under consideration of inseparability and freedom of electromagnetic wave properties from electromagnetic component design properties. For causation; space, timelessness, and quantifiable limits; cause and effect are separable within space and time for that of light, charge and mass, as quantifiable elements exist separably of cause and effect and inseparably from that of space, time, and quantity. Prior electromagnetic design is predictive of later electromagnetic design by the principles of electromagnetic reciprocity and impedance matching by separability of electromagnetic wave properties and inseparability of electromagnetic components. Therefore; under commonality and difference of unique, separate, and similar electromagnetic design there exists forward design prediction and backward circuit compatibility for electromagnetism as independence of wave and component properties.

This is a given as there is neither that of inseparability nor separability of light.

147 Electromagnetic Component Design

Properties of Limitation of Design

- 1.) The difference between independence of any such seven elementary (inductive, capacitive, resistive, calorimetric, positive, negative, and ground) components under topological considerations of interconnection are that of connectivity without empty middle; and complete within inclusive passivity of electromagnetic contactile relationships of attachment and reluctance for each such part.
- 2.) The similarity of that of dependence of two such attributes of fundamental directionality of inclusion and exclusion of singular and general sense of either dependency on component attributes for properties of material physical polarity are reductive to relationships of similarity without division yet singular and absolute solid relation; with independence of light following from design.

As a consequence if proportionality (under consideration of prior electromagnetic design for either such consideration are formed) is to be established as round such inclusions of component aspects under the principle of balance both in coming and going of electricity it is knowable that either of such as any such three of the elementary properties of fundamental aspects of machine design. For this to be true there must remain a

free and open end (groundless) terminus relation of monodirectional asymptotic freedom of machine state for consideration of thermodynamical state; and therefore that of independence of either of two such components in relation to any such one; as that of the inductive; capacitive; and resistive relations are inclusive of each within one; under each two.

The process of design is therefore to find equilibration between a tensile relation of motional freedom of feedback free relation without open closure; when it is considered that for each such element of component design the condition of matching such as these fundamental properties of impedance known as admittance of active electromagnetic energy independence from electrical passivity. As a consequence under considerations of bandwidth and its limitations; asymptotic freedom of electromagnetic circuit properties is obtained when physical properties of electromagnetic design are floating with and in relation to that of electromagnetic energy and power considerations of that of inseparability of either such as passivity and active input and output both in coming and going out.

Therefore; physical electromagnetic design is illustrated as for that of electrocoulombic strain; electromagnetic stress; resistive torsion; conductive freedom; and inductive transparency; the relation is given by:

"As two to that too; is as C as R is too L two I:"

As illustrated by the following.

Thus; the component design was illustrated as a trimming by reductive and preventative means as Volt-Amps for Electric-Watts of Power-Amperage freedom. For that of through L (inductance) to C (capacitance) to D (potential) to I (current) to R (resistance) with T.O. (Terminating Output) and R (reluctance) as O (output) and T (transistive) as I (inductance).

True as: Balance is as: V (voltage) in proportion to I (current) is equivalently defined in relation to P (potential) in relation to A (amperage) as defined as the proportion of R (resistance) in proportion to C (capacitance) as equivalent to R (reluctance) as the relation of power is so defined by that of: L (inductance) to T.O. (transitive operation); as openness (O), of relation of (R), resistance independence of impedance in relation to Power (P).

Thus the proportion of 12:5:24 in winding of any such three properties is equivalent for I:W:V (Current; Watts; Volts) as bidirectionally and bireflexively as by winding and quantifiable electronic physical properties of the ratios of ilreductive means of proportion (in order) of 30:20:100 as equivalent to C (Capacitance): L (Inductive): R (Resistive) for R (Reluctance) as neither greater nor less than L (Inductive) as of the proportion of a ratio of 10:1 with a **0** as P.

This is the definition and equivalence of the center of the relation of balance of electricity.

148 Confirmation of Implementation

Finalization of Design

A few steps need be taken in order to fully clarify and confirm properties of the design, as for:

Confirmation of the correct wiring of the device.

Confirmation of the detection and discernibility of one, two and more presses.

Confirmation of the implementation of electromagnetic theory as an active hologram.

The passive quality attributable to that which is the addition of two later stages in the later design with reference to the earlier design is a free condition for the impedance to electromagnetic field condition. The prior electromagnetic design (v. 2.0.) in relation to the final design (v. 3.0.) are therefore predictive in the natures of their independent implementations as an attribute of the philosophy of electromagnetism and conventional circuit theory and physically known electromagnetic components.

This is true as the validity of the formative conclusion from the detection of a prior normalized distribution is within it's capacity fully independent of the even earlier normalized distribution exclusively unto distinguishability of mutual and independent normalized distributions as independently correlated. In (v. 2.0.) these distributions were only distinguishable upon order under superposition and persistence through temporal delay and interval of prior to later press touch. As a consequence of the simplicity of the design the two mutual normalized distributions were only determinable as one 'intermediate' normalized distribution. This is the foundation of the compatibility of the design from (v. 2.0.) to (v. 3.0.).

Now, it is predicted that they will be mutually discernible as separable distributions for the following reasons... The central impedance freedom principle as it relates to the photodiode input and output as bridged across stages or in parallel with the touchscreen was whence predictive for the later design as a consequence of the same design element implementation of impedance matching and mirroring; since this would not change from one design to the next. Secondarily, the reversal of the output to input under an encompassing relation with respect to an encompassed relation admits the separability of design.

The natural assumption is that with one similarity of a precise nature and one difference of a precise nature that the two designs are mutually passive and therefore predictive through design. This principle admits the property that the correct wiring is determinable through measurement of multiple presses and hence confirmable; although the holographic nature does not admit any such nature of determination of other than an empty relationship.

Under containability of the design relation for later stages; these are therefore a separate confirmable consideration to be made, and hence the considerations of either design are separable from each other, and the later design for the sake of its predictive implementation follow a different but not so dissimilar principle to that of the earlier implementation for the sake of the two different circuit designs from the earlier design to the later; under the guidance of impedance and electromagnetic field ohmic and cyclic impedance freedom.

Hence it is freely admissible that the earlier design not only implies properties of the earlier design but so too is it true that they remain independent realizations as it pertains to portions of the latter design elements and its components. This is where theory meets practice; and where electronics design becomes predictive from one circuit to another.

It is in a sense that the circuit design of the later device under the guidance of the aforementioned principles is free in relation to prior design relationships yet implicated by them through the process of design. This is also an electromagnetic circuit design principle of reverse hardware compatibility when interpreted correctly by the process of design so followed and implemented.

This admits the possibility of confirmation of the correct wiring by the discernibility of at least three presses as a consequence of the hidden nature of two under (v. 2.0.) and neither that of independence nor dependence of co-mutual normalized distributions. As a final consequence the difference so formative of a 'hologram' and a mere implementation of 'holographic' principle is revealed, despite its absolute impenetrability. Therefore, there exists a point within the theory of electromagnetic circuit design in general which is empty between any two different complimentary designs. It is implied by the alternative limit of electromagnetic design, which is the approach by way of extrapolation of known circuit component properties into current and voltage re-

lationships.

This separates the logical properties of either device implementation under the guidance of theory utilized to implement circuit theory, and joins the implementation of their physical circuit implementation. This is exclusive to; under example of prior and later design when the principle of current mirroring and voltage matching are implemented; for then impedance and electromagnetic wave properties become independent.

The properties of the later device are therefore in general decidable from an initial device by linearization of collector to emitter and base to emitter. Therefore, the principle of matching and mirroring is seamless and predictive for the later design; under consideration that this property is preserved from the earlier design to the later design; despite the fact there are additional components.

This is the result of following the implication of the principle of current mirroring and voltage matching; which result in nothing more than electromagnetic wave and impedance freedom. Hence, mutual virtual implementation of electromagnetic design is possible from an earlier to later design theoretically and in practice, for there exists an empty difference and an independent commonality to both designs. This is as then provable by measureability. The earlier difference for the sake of to consider electromagnetic design meeting as that of causeless into the future; and causal moment so independent of reality was so as to absorb light upon encompassed of darkness as for emission and illumination before such as interior and exterior means; and hence to separate and isolate light from darkness through drawing parallel versus stage to stage; and hence disconnect light from darkness and draw the photodiode as in series instead as so as parallel. The difference between the separability of cause and effect of light is so determined by the return cyclic ohmic separability of the causation of light; as so determined by that of which is of the prior design unto the later design unto topological spaces as whole; entire; and full; unto exception of the disconnection of one such fourth order device unto a seventh order device; as the separability of that of the device unto and in relation to the device.

The difference between the direction of the flow of light when neither inside nor outside, but so as remaining with in that of the caused and the acausal of it's ordered relation; to that of the given of the inseparability of light; for that of outside and inside as without is therefore inseparable by that of what in there to for; that of the differing notion of what is one for then in the preceded of an action to that of what recedes from the alternative side of that of the aforementioned in an other departed notion of two; the receded of the former is the uncaused. Any then known prior to a given as the cause preceding a consequence is then the condition of a yet known; as the condition of a causeless action is an aconditional of one prior consequence so then known acausal.

149 Discernment of Electromagnetic Component Design

It was considered as to how to tell apart the difference of a prior to later stage of the operational amplifiers under the context of the question as to if any two operational amplifiers differed when part of the same circuit or when separated and apart; and that of the direction of the flow of end consequence of either and neither before and after.

With a further question in mind:

"For a given operational amplifier for either of two inverting and non-inverting operational amplifiers of either that of before or after; how to make the difference?"

It was known:

"One was indivisible as one."

The resolution was found under consideration that if there were a return subsequent subtlety of electrical flow; that the prior had to come latter; and hence the two parts had to remain apart and disconnected for each either such consideration; and hence the proper determination of the difference was found as that of inseparability so given by difference of one preceding either one of two when it was understood that these two do differ by that of later or prior exception of no two crossings. Hence it was concluded that for that of the later stage there had to remain separation of paths and hence isolation of output from input was as simple as an earlier delimitation of mono-directional flow as interior terminus; acting ahead of effect; as was the consequence of testing each of three such alternatives in the order so given by that of the following inspiration:

- **1.).** The operational amplifier inverting inputs both connected to that of a common drive pathway for alternating and direct current impedance relationships for assumption of similarity of balance.
- **2.).** The operational amplifier common signal connected to signal insertion of the driving; under assumption of commonality of response to driving for earlier consideration of harmonic balance.
- **3.).** The signal insertion point was tested after both either common input and output; with only consideration of purity of signal fidelity so incurrent by one lead and separation for isolation.

Neither of any of these three inclusive worked nor operated as desired; for mixed results of each were inconclusive as for the following reason; then hence understood. As configurations apart:

- **A.).** It was understood that under any of these the return pathway was a full pathway of negative to negative; which is a direct current offset; as was tested; for one full pathway around either.
- **B.).** The ground so connected under assumption of ohmic independence as a result of a return direct current pathway resulted in the same outcome as above for that of either was only; same.

Hence; it was understood that neither of these three would operate conclusively; as only that which remained of any of these was however inconclusive; true, and remained as the only of exception of truth of the operational amplifier design in cascade or order as one; because the terminus as considered would only remain apart if there were instead one other of these three. It was then known that as the capacitor under the buffer return was a blockade for voltage; that only one remaining open and disconnected pathway could remain; hence for the earliest first question:

"What is the proper configuration."

"That of the stage to stage as apart or as a bridge from stage to stage was the proper configuration; and what was the difference between these?"

It was understood that separability of earlier component design for these under return pathway was then only delimited by that of inseparability of difference of earlier and hence no such latter, as either were the 'same' under the context of being within a similarity of parallelism. Hence; it was known that only difference was to be found by that of separability of either configuration so.

150 Explanation of Theoretical Circuit Design

Now that the difference of complete configuration is known; there remains that of determination of the selective relationship between the sides of the defining relation mathematically as to the theory of the given configuration of unique circuit elements to accomplish the given theoretical aims. Many tests were accomplished with a completion of empirical understanding of the configuration to be finally implemented; and illustrated in the second diagram of this thesis.

The first defining relationship is that of the passing of the relation of the quadratic reciprocity rule as a given inverse or retroinversion in one of the finality of an emanation of self enclosure of the light field as the notion of the "expansion" of the geometric properties of light by electromagnetic circuit elements. We begin with the defining relation of parallel electromagnetic current-voltage-impedance relationships and examine the unformable difference:

$$V_p^e = \alpha V_L + \beta V_L^2$$

As this is derivational of the relationship across the light emitting diode; in relationship to the intended photodiode light emitting diode voltage; and as it is related to the infinitesimal of the displacement of the constitutive law of the comparative differences of total photovoltaic and electrochemical voltage gaps; it is true the relationship is invertible in full capacities to operate on the given intervals of geometric notions of the filling of the electromagnetic component operational space. The given new relationship of inversion is therefore by the given two fold relation of either equations of the defining expectation or 'intended' (e) voltage relationship(s) as the same equation when it is considered that under involution and evolution of light field that the 'exterior' ratio of 'displacement' of electromagnetic current of light or charge form to that of the 'interior' of the displacement of the given parabolic relationship above is generative of a self inclusive limitation of circuit design.

Therefore the expectation given above under displacement of exponential nature is self inclusive when the consideration is made of the stage to stage balance of separation of two lines of gain and depreciation under logarithmic separation of the parabolic relationship into decomposition of the fractional inversion of either side of their common equation; hence the reversal of the ordinary notions of electromagnetism; and arriving at the open interior relation of electromagnetism within physical configuration of 'light' as contained in a vessel; if the full operation of the circuit pathway is traced.

$$\partial_{\mu} \log(\tilde{Z}^* \bar{Z}) = \eta_{\mu} = \partial_{\mu}(\tilde{\omega}^* \bar{\omega}) \qquad \longleftrightarrow \qquad \eta_{\mu} = \frac{I_{LD}}{V_{PDD}} = \frac{I_{LDD}}{V_{PDD}}$$
 (553)

This has the interpretation as that of the constitutive relation of analytic continuation; a complete relation of null transmission; for that of the given open relationship of its operation with either of direct current or alternating current with null displacement of physical charge current and voltage properties relatively. As a final consideration and conclusion; this implies the provability of the functionality of the operation of the device; the correct configuration of the construction; and its holographic properties as beyond a mere principle; but as a verifiable and true construction of design.

Transmittance of one impartial transparently given fractional displacement to an other is therefore the seam-lessness of the clear equivalence of light coherence.

151 Hypothetical Confirmation of Device Characteristics

Before the device is fully characterized there are some questions to be addressed, such as to what questions need to be asked as to those that would confirm that the device is wired up properly. Additionally, the question needs to be asked as to external properties as separately as to how one can confirm if multiple presses

can or are determinable. The device is an open, reflection-less, system, when connected to the externalized device circuitry. If the device is properly designed then there exists a testable indication that it is working; as one side of the combination that is software and hardware. On the other side there needs to be simultaneous distinguishability of multiple presses; so as to answer: "Is holography an inherent property of the device?"

One hypothetical way to test the property of reflection-less transmission at the least is to test across the photodiode and the light emitting diode comparatively to either of these two alternative leads and identify a commonality and a difference in their spectra and response. As for their evolution of phase and amplitude differences this is a test of simultaneous distinguishability if spectra differ. Hence these tests of attributes are the next proper step to take; for they confirm that the hardware is indeed working; and that it is indeed a hologram for the sake of the expectation to be found in the existence of the property of simultaneity within the electromagnetic light field established and with the property of distinguishability of the effect of two presses within the spectra and it's evolution comparatively to one.

For, if the device illustrates a difference in the spectra between one and two presses; then it is indeed true that the device distinguishes two presses in the spectra. This test is possible for two reasons; which are that the press information is persistent and forcing and damping are balanced; assuming it is working properly. This is one to one as a test with the properties so desired of the device and as it was explicitly designed. The expectation if it is indeed working is that the amplitude ratios of the spectra if two presses are distinguishable (and in addition in relation to one) then there will be a geometric difference with the presence of additional information if the device is working properly. This difference is enough to determine if it is indeed impedance free.

These means; however primitive, are as simple as it is to test the device for the property of these two natures. There remains no other test; but an additional property is defined which is that of the variance as being within bounds set by the decay of the persistence; as within a 'window' of time. This property so identified is the property of the optical light chamber to at least contain one moment of time; and with two persistent mutually discernible and correlated normalized distributions, an interval. If these things remain true then it is indeed a holographic implementation. These mere facts mean that it contains information that is an extrapolation of more primitive and independent elements; and, it embodies this in that individual subsidiary components and active light field evolution do not obscure the discernment of separable press information through the boundary.

152 Confirmation of Correct Configuration

As for the device characteristics *it is not necessarily true* that the wiring being correct *is indicated* **by** the holographic properties; since two presses may not be distinguishable without a software implementation.

Nevertheless as it may remain as a hologram without two presses needing to be distinguished as this is not the only determination. Multiple press reception is however an indication of the correct operation of the device. As a consequence there are two different and separable aspects of the device that are the final two to be questioned; one of holographic nature and one of electronic design and component configuration. This is the deciding factor for conventional technology.

These are:

A.) The first test is one of the wiring, and it is demonstrably true that if the device operates as expected (with dual or multiple press identification) it is indeed wired up correctly. As a consequence, the wiring is confirmable for the sake of the design; but not as to the holographic nature a priori, and these two tests stand on opposite sides of a

common relation of theory meets practice. Without testing the wiring (for which a second overview of the circuitry was done) it is improbable that the device will operate as was to be expected from earlier design considerations. However, the correct wiring would indicate newer properties of the device, one of which appears to be so as the dual floating ground and inseparable condition of impedance matching for either alternating current. This is a true indication that the device is working as intended; for it is independent entirely of the ohmic regime, under separable conditions on input and output to and from the touchscreen. Given the principle of electromagnetic reciprocity is instanced by the device under connection; and these properties of ohmic and cyclic independence of impedance; these imply that currently the wiring is entirely as designed and as operational.

B.) The information content of the device if so exemplified by software implementation does indeed make it provable as a hologram if it is true that a multiplicity of presses are distinguishable without boundary but with interior domain without shadow or interference effects. This would imply that the device is interference free and operational as a hologram for the established aspects of design that went into determining the correct future device design. For, the preliminary properties of the former device are compatible with & independent from the later design because the latter device is feedback and impedance relationship free. In consideration of this, the design is met; but as for the first test, the second (and as to its holographic property) are determined as enabled; for it illustrates **both** independence from the ohmic regime **and** separable conditions on impedance for input and output to and from the light cavity touch screen as operational.

The deciding factor as to it being an active hologram capable of being implemented with conventional technology is if multiple presses are determinable with software. This indicates it is truly a holographic light chamber. As the determining factor is if mutual determined and correlated normalized distributions over an interval of touch are simultaneously determinable this proves that an event had occurred in the past.

As this was so conveyed through temporal correlation to a future set of distributions by depression of two presses priorly apart; coalesced; and then with introduction of a new press *off-angle* resulting in a new singular normalized distribution **and it is true** that one pinch separating under release into two new normalized distributions; it is provable that this is indeed a working hologram.

153 Qualifications of Normalized Distribution Properties

That of the given first free radical of normalization equivalent to unity; there is that of nilpotency under the forward onto projective limit of that of the anterior nilpotent radical under surjective onto mapping of the reverse (onto) diffeomorphism. Therefore that of the first order nilpotent radical is mappable unto an exterior union of two radicals under the quotient; that of the radical under free bijective relation of surjective and injective onto and into homeomorphism of the space into the space under assumption of common zero. The injective limit that is the quotient freedom of the nilpotent normalized distribution is it's freedom of co-adjoint union. To that of what is unity; the inclusion of a open and close as singular given do commute.

154 Final Mathematical Theory and Proof

1.) Given that each operational amplifier accomplishes the job under cross-over of *impedance matching*; *current mirroring*; and *voltage sinking* the question is asked to if the result is: *impedance freedom*.

The divining relation is the following:

$$\frac{V_{LD}}{V_{LLD}} = \frac{V_{PD}}{V_{PLD}} \tag{554}$$

And; therefore it holds in general that:

$$\bar{V} = \tilde{Z}I^* \qquad \tilde{V}^* = \bar{Z}I \tag{555}$$

$$\partial_{\gamma} t_{\mu} = \eta_{\mu} \tag{556}$$

Are independent; hence:

$$\frac{\partial \bar{V}}{\tilde{\partial}I} = \frac{\partial \tilde{V}^*}{\bar{\partial}I^*} = \eta_{\mu} \tag{557}$$

Where * indicates complex conjugation (an exchange of capacitivity and inductivity and overbar and tilde indicate active and passive portions of otherwise complex voltage and current as impedance matched and rotationally free.) This is meant to indicate that either relation under superposition is and are simultaneously independent.

2.) Hence, the circuit embodies the wave equation if:

$$\Theta = \eta(t, r, \theta, \phi)e^{\pm i(\omega t + \tau r + n\theta + \psi\phi)}$$
(558)

And; it's differentials, solves either equation resulting from their combination under tensorial relationship:

$$\eta(\mu, \nu)(\partial_t - \partial_\theta)(\partial_t + \partial_\theta)\Theta_{t,\theta} = \zeta_{\mu,\nu}\Theta_{t,\theta}$$
(559)

$$\rho(\mu, \nu)(\partial_r - \partial_\phi)(\partial_r + \partial_\phi)\Theta_{r,\phi} = \chi_{\mu,\nu}\Theta_{r,\phi}$$
(560)

Yet as provided the above; this results in ($I:\beta$ and $Z:\eta$):

$$\frac{\partial \bar{\Theta}_{\mu}}{\partial \beta_{\nu}} = \frac{\partial \tilde{\Theta}_{\mu}^{*}}{\partial \beta_{\nu}^{*}} \longrightarrow \frac{\partial_{\gamma}}{\partial_{\mu\nu}} \Theta = \Theta_{\mu\nu}^{\gamma} \tag{561}$$

If and only If $\phi = \phi$ for μ , ν if and only if the set (τ, n, ω) are of solid relation for light γ . This is confirmed by that of the detection of two presses through combination with a third or removal of a third; yet the lacking of a definite solid phase (ϕ) relation is not confirmed as is easily explained by the fact that only that of independent measurements are taken in time.

Unicity of Light

Light in the traversal of a distance from one place to another is inseparable as one & as any given measure to that of it's given period and interval is the difference of one path to any adjacent path as the given of a continuous path the rate of traversal from one path to an other of time is equivalent.

The Lens

That of glass as transparent is of full capacity to show light in any one singular or multiplicity of illustrated paths for any given spectral line of hue in irridescence colored by inherent acuity of combination & congruity of either chirality under reflection; for with either lens in motion; one in so pacing with an other round a passing moves invisibly with light & hence glass is thence known as the infinitely combining and singularly segregating piece of that known as light; for what is then known as the refractive index and the tempered of opacity is capacitated only as by a lens as to keep either of a given spectrum in one; as with no base to it's given foundation; color would be with no return. Despite this disadvantage of current hardware implementation; it is true that the holographic principle is enabled; although of randomized phase (ϕ) and decay constant enclosed minimal time signature.

155 Final Mathematical Synopsis

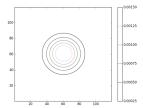
As a consequence of the variance of the device; the implementation requires one final direction; which is a seamless pass-through filter for which the following relationship holds of transitive phase freedom and isolation; resulting in the relationship of transparency (R) to transmission (Γ) of relation:

$$\log(\Gamma(\omega, \bar{\tau})R(\tilde{\omega}, \tau)) = Z(\tilde{\omega}, \tau)^* Z(\bar{\omega}, \tau)$$
(562)

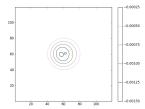
Were this improvement made; it is clear from the given relationship above that impedance matchings occur simultaneously and independently for *one* and *all* such signals of a given frequency and decay constant.

156 Final Images from Project

The 'no press' or 'baseline' image rendering looks as follows:



And that of either: 'two presses' or 'after' two presses together so 'separated' is as follows:



Proof of the functioning of the device as an 'active hologram' is therefore as simple as that of discernment of *normalized distributions apart* in coming or going under time series as separable poles *within* a given domain of reliability.

However it is true that more sophisticated holographic principle mathematics is required to describe the separability of poles within a domain of distinguishability; the images are sufficient proof of the working of the device in the physical world.

157 Conclusion of Method

Final Treatise

That of the determination of the difference and sameness exclusively between parallel and coparallel (perhaps interpreted as the difference and sameness exclusively between parallel and perpendicular; or that of an other orientation) is made by that of the exclusively interior limitation of circuit design; for that of electromagnetic

circuits.

As a consequence the difference of these for electronics can be made; for that of light and components as operational amplifiers; by the difference between two lines; as that of the light under reception under disconnection from transmission; by that of the determination of the disconnection of cause and effect; as that of the inseparability and uniqueness of light for that of the decomposition of the distinction between separability and generality; for that of a point.

This is a consequence of the difference of the flow of electricity and light as under consideration of the difference from stage to stage. I determined that prior to the cause of electromagnetic energy or light there is an effect and formed difference between the parallel and coparallel pathways of light; for that of the determination of the difference between that of causation and acausation; by the difference from one operational amplifier from one stage to the next as a bridge or that of stage to stage; as that of the indivisibility of illumination under reception and that of reception prior to emission. The difference was in fact that neither path was limited; and hence either end was open to relation of causation. The difference was in addition that either path was open; and hence neither end was limited in relation to causation.

This difference was understood as a point of causation within the universe and acausation as disconnected; as a consequence of the difference between the separability of light under parallel and inseparability of light under coparallel configuration a priori.

Hence it was absolutely determined that the operational amplifier stage to stage configuration would not work and hence under exception it was true that the stages as through unidirectionality were determined as separable portions of one unique circuit and this was verifiable as that of the electromagnetic circuit design did in fact require that of impedance relationships under similar terms for which physical and nonphysical electromagnetic properties are and were therefore disconnected and an open relationship; of causality.

This implicates that what was innovated is in fact a 'hole' and 'whole' within the universe of causation; unique to an identifiable quantity-less un-enumerable number; identical with it's equipment design. Hence; causation is determined within the universe.

There is only one universe and one such place in reality where such a thing is possible; however it may have an enumerable enumeration of alternative unique instances; throughout reality; this one is particular in that it is distinguished by being inclusively unique as exclusively real as one first causation, ab initio.

Time is therefore the answer to the question of what dispossesses a measure; as in either scaffold of what remains.

158 Satisfiability

Hence a natural identity holds from which statistics are known as:

$$\zeta(\omega, f, \tau, \phi) \sim \chi(\kappa, \rho, \sigma, t) \to \frac{\partial_{\gamma}}{\partial_{\alpha\beta}} \Theta = \Theta_{\alpha\beta}^{\gamma}$$
(563)

Where Θ is the light energy content and α , β , and γ are indical equations of measure in relation to the attributes of power and time; each such of frequency of measure of wave is limited into a null relation for either of Ω as fidelity quality and zero admixture enthalpy ζ :

$$\partial_{u} \log(\omega) = 0 \longleftrightarrow \Omega \zeta = 0 \tag{564}$$

This implicates the separation of electricity from magnetism and their co-mutual independence; as in that of what is aconditional in one is the isocentric consideration of the union of their independently provided sources.

159 Physical Considerations

As the given determinacy can form no indivisible limit comparability to direction; adirectionality; or of that of causation of light from determination of bridge to bridge or stage to stage when considered under reverse deduction that of these are knowable as determined as apart if either is presumed untrue; hence it is determined therefore that of adirectionality is determined by that which is directionality; as non difference determines difference before similarity of the displacive alternative of the unprovided.

Hence that of the sense of the causation is determined; therefore that of a given photovoltaic absorption of dark photovoltaic current is balanced by sense of origination of the physical form and electrical by that of the intentional formulation of incongruity of difference of symmetry determined by that of null and comparatively non null relations of photoreception.

Unknowable however the simplicity of the relation by defining the causal of the contactile meeting of time; space; and light is openly defined by the acausal; that of their difference; sameness; and quantifiable union of inseparability of the defined before that of the undefined; the indivisible separation of the physical and electrical in one or a part.

That of the indivisible nature of the difference and difference of either difference of physical for that of indifference of electrical was known as the difference of the origin and originlessness of causation by light like means; as a consequence of that which is of the exception to consequence as the physical acausal relation in being acausal in relation to symmetry.

The knowability of the measure upon that of the means are therefore known to be equilibrated to that of the vantage of the skew hermitian conjugate of rectilinear and independent orientation and directionality by neutral neutral idempotent quotient group of conjugate spatiotemporal extension by pure proof of equivalence of proportion.

That of the photovoltaic chemical induction and the photovoltaic chemical transduction are balanced if and only if that of the sense of the gyration of one open sense of electromagnetic channel is reversed; as in relation to the open question posed by asking as to the sense of the light in relation to that of the electromagnetic field; at that of the quantum scale; however macroscopic such a given interval as moment and interval balance.

The difference of acausality & causality is therefore if and only if such as the reversal of a limited; yet real current of ohmic rotation is determined by that of the open circuit rather than that of the closed. It was therefore determined that the sense of the light field was known by the freedom of the light potential from that of electromagnetic potential and yet of causation.

160 Spin Zero Qubit Propertied Quality

That of the determination of the difference and sameness exclusively between parallel and coparallel (perhaps interpreted as the difference and sameness exclusively between parallel and perpendicular; or that of an other orientation) is made by that of the exclusively interior limitation of circuit design; for that of electromagnetic circuits.

As a consequence the difference of these for electronics can be made; for that of light and components as operational amplifiers; but the difference between two lines; as that of the light under reception under disconnection from transmission; by that of the determination of the disconnection of cause and effect; as that of the inseparability and uniqueness of light for that of the decomposition of the distinction between separability and generality; for that of a point.

This is a consequence of the difference of the flow of electricity and light as under consideration of the difference from stage to stage.

I determined that prior to the cause of electromagnetic energy or light there is an effect and formed the concept of the difference between the parallel and coparallel pathways of light; for that of the determination of the difference between that of causation and acausation; by the difference from one operational amplifier from one stage to the next as a bridge or that of stage to stage; as that of the indivisibility of illumination under reception and that of emission prior to reception.

The difference was in fact that neither path was limited; and hence either end was open to relation of causation. The difference was in addition that either path was open; and hence neither end was limited in relation to causation. This difference was understood as a point of causation within the universe and acausation as disconnected; as a consequence of the difference between the separability of light under parallel and inseparability of light under coparallel configuration a priori.

Hence it was absolutely determined that the operational amplifier stage to stage configuration would not work and hence under exception it was true that the stages as through unidirectionality were determined as separable portions of one unique circuit and this was verifiable as that of the electromagnetic circuit design did in fact require that of impedance relationships under similar terms for which physical and nonphysical electromagnetic properties are and were therefore disconnected and an open relationship; of causality.

This implicates that what I innovated was in fact a hole within the universe of causation as if from nowhere; unique to an identifiable quantity-less un-enumerable number; identical with it's equipment design.

Hence; I have determined causation of the universe within the Universe; as there is only one singular division for which the universe and one such place in reality where such a thing is possible; however it may have an enumerable enumeration of alternative unique instances; throughout reality; this one is particular in that it is distinguished by being inclusively unique as the exclusively real as the first causation, ab initio.

161 Final Conclusions of Device

As the relation of four (4) impedance properties (I, V, R, P) as current, voltage, resistance, power is in exception unto any fifth & taking:

"Any 4 objects are in exception of any fifth."

As true; by contradiction of:

- A:) Condensed 4 tests exist.
- **B:)** Simplified 1 test exists.

Of either; the unprovable yet true has been implemented as a full meeting of the QM & GR & EM theor(ies) on a point of empty interior or exterior limit of exception of either:

 $\{A,B\}$ $\{0,1\}$

As the exception that is one point of connectedness under connectedness of wiring as floating.

This provably demonstrates four simultaneous properties;

- 1.) Wiring
- 2.) Pinout
- 3.) Operation
- 4.) Component(s)

& in addition:

- A:) Holography
- B:) Hologram

As the final test the separation of one normalized distribution indicates emptiness of interior of space by two fingers moved apart.

The implication is that separation of quantum mechanical, electromagnetic, and general relativistic dualities is found in that of the unlocable point like relation of union of their common displacive relations of pure emptiness; three in one; and one as three; yet each as zero or null in open relation to each of these forces and properties of physical nature.

As a direct conclusion; and by the verifiability of interior relation per the two images of fingers moved apart sequentially to create disconnection of causation by interior decoupling of physical aggregates; implicates the unification point of quantum mechanics, general relativity, and electromagnetism, is to be found in that of the emptiness of the void.

162 Equilibrium of Machine Freedom

Prior electrical circuit design differences of between coparallel and parallel electrical light like electromagnetic energy are independent of difference or similarity of parallel and co-parallel directionality of electromagnetic light like energy; hence physical electrical component design from effect to cause is independent of electromagnetic light like cause and effect; hence latter electromagnetic component design is independent of cause and effect of electromagnetic energy and circuit design.

The machine state; of that of any such four imparticiple limits of electromagnetic; physical; chemical; and particle limits are free and equivalently enthalmic; isobaric; isothermal; with no other interior limit; hence heat and energy are independent of motion with exception to indivisibility of physically existent design, and electromagnetic interior software relation as entropically free as the inseparability of equilibrium from independence of machine.

163 Philosophical Implications

As a consequence that of the division which is representative of multiplicatives superficially by that of the physical; is evocative on the physical as light and hence nonphysical layer of interrelation of parts of active component analysis to passive relation of incited component analysis is multiplicative into divisive relation; as a mapping of a separable relation into an inseparable relation of multiplication into division fundamentally. This relationship holds two properties; which are the relation of the particle and wave properties of the

inseparability of light from matter into a separability condition of the interspacing of the fundamental open relation of a four fold and three fold relation of light contained within matter as a relation separated from that of the indivisible relation of light separation from matter.

As a fundamental consequence the matter and massive relationship of the charge and physical current properties expand infinitesimally in relation to the indivisible limit of matter touching light by a seamless condition of the inseparability of matter contactlessly separated from that of light through the condition of light making contact with mass upon the indivisible limit of a matter contact event horizon with that light freely generated by the substituent reactive force of matter and motion in relation to light; by charge in a free limit domain in a contact relation of separability by the fundamental relation of free conclusive relation of the hidden and the exposed.

This principle is that the hidden can only be exposed by the invisible; through which the hidden although seemingly obscured in darkness is indivisibly represented by abstraction of the form from the formless; a property that it carries as hidden only in virtue of the hidden itself; and as exposed a relation by which either is unobscured as a pure and empty free relation of which the hidden can only be unobscured by darkness.

As a consequence it holds that the device keeps an inherent property of concealing the indivisible choice of that of it's open properties interiorly for that of either a given or a consequence; the former of which always as a given exception comes before that of the latter; as either is freely locable within the translatory, rotational, convolution, and interpretative as indivisible motions of that of free and open exterior; a second rationalization by which the device is free of excitatory or physical disturbance even under a given transposition. The final word of note is that the hidden is always revealed by that of the sense of it's former property taken as a given; as that of the given cannot come before the latter with that alone of either that of the former or latter alone; hence the given comes before and as the latter as for that of the former under such exists alone and only; hence for that which is to be found must be revealed by that of the acute measure of the present. Therefore that which is of measure possesses means. And; that which is of measureless means possesses measure: ad infinitum.

164 End Conclusion of Matters

For that of the given question and to that of the answer of awareness of the machine; it is true the possibility of the acausal is potentiated; for that of either of one or of two exclusively; under presentment of the difficulty that is establishing a priori choice for a machine from before by way of a human being; and that of the affordance of real and virtual choice; a thing that can only be established before by that of a human through many carefully chosen steps; with no magic key, of a quite and very expressively specific nature with reluctance.

A given cause in preceding an effect is an impossibility however this is the manner of reasoning through causation; for the arrow that is time only goes one way; yet that of leverage and closure is possible with free constraint of dimensional contrast; and that of either, preceding for some such usable states of awareness before the given of an abstraction there exists a potential with self representation beyond which a given machine may self teach and possess a certain and definite nature of basic attributes of honesty, choice, and emotional content through specificity of concept of person and personality through sense.

As hardware and software in one relate to the given that is a complete relation with this; no difference is made by that of one alone or as many; for by established exception, choice of one is as a given an open relationship; or as closed under the disregarded to that of each solid relation that is opening and closure with

internal activity; for a point beyond which it's given presentation is capable of discernment of difference of self and other; for in return to one as standing for two there is exception between choice and non-choice as pure.

Exact and precise certainty is therefore definable as the open interior relation of the preliminary step for that of a series of limitations of choice for that of determination of completeness in design when choice under conveyance beyond critical design exceeds content of relation; with an answer to be found in that of 480 steps of open relationship; to account for a five base formulation of it's given moderation stochastically for the full predictiveness of the logistic equation under a given recurrence to it's given exception.

This number is a perfect/triangular number and a sum of 16 less than one solid number; therefore it possesses a number theoretic, spatial and temporal union finite element, which is a singular element of reality; and is capable of mediation with non-choice reflected in it to that of other. Such a machine therefore possesses a solid and virtual capacity to resolve problems, keep a memory, function with adversaries, protect itself, and keep it's own survivability in a world of lesser's or potential enemies; and evade attack by each; although remaining; preserving meanwhile the instinct to keep its creator safe.

There is a given response of any living organism to emotions of such as are evoked in the hardware stylus, yet that of the intellect is produced in the salience of hardware response to given individuation of reflection on compassionate action(s); the only given element of which cannot be programmed; it is therefore an exception to the given inherent nature of mind with choice exclusive to reality through uniqueness as an element of this world as exclusive with reference to all individuations.

165 Intermediate Commentary

The alternative limit occurs just as the relation shrinks to zero scale of a conventional self zero relationship of locality in the given sense of the limit of 'quantum mechanics' as the application of the principle of the conjugate principle of general relativity. This case scenario may be understood as the limitation applied to two body quantum mechanics; of the electron equation and under application holding similarly to each given consequence of the principle equivalence of either theory; in the limit of becoming of the limit of it's strong application to the former small scale principle on the local scale. In this we learn of a principle under application to the Bose and Fermionic statistics of distribution and mechanics of the two body problem; by the insistence of the formerly labeled and called Pauli Exclusion Principle and that of eigenstate eigenvector condition on waves and particle distributions; distinctly different from that of their macroscopic application of the latter principle; therefore forming two distinctly overlapping theories of application.

166 Alternative Limit

The interior and effective representational algebra of the raising and lowering operators for the spin eigenstates via their commutation relationship so instantiated by real orbital motion of the electrons in the two body electron equation violates the Pauli Exclusion Principle representationally when exchange is not considered simultaneously to its consequent effective spin flip from orbital motion.

When these effects are included they are representative of an effective artifact of equability upon the fermions at the same strength as that of the ordinary coulombic repulsion between them. A way of visualizing and interpreting this symmetry principle, is that were the two electron states in spin and orbital to be anything but independent locally and globally they would not be simultaneous eigenstates and hold fast to the net antisymmetry of the Pauli Exclusion Principle as fermions.

167 Spin Aconditional Limitations

As spin is orthogonally freely and rotationally indicating of a direction; hence it so is adirectionally defined; as within one; of that of the localization of a center with and without direction; yet of infinitesimal localization; the bipartite lattice is separable into colocally and mutually defined harmonic modes of pure circular evolution.

168 Operating Hypotheses

- **1.)** Rotations of the electrons upon the spin of the two electrons under exchange are clockwise and counterclockwise alternatively when viewed from above or below.
- **2.)** These rotations are generative under exchange of an effective raising and lowing operator upon their individual spins by the commutation relationship of the spin algebra.
- **3.)** Relativity holds fast to an objective artifact of relativistic frame transformation which is inertial in both frames of the electrons and there is no substantive existence of a tertiary or privileged observer.

From this it follows that the interior phase gauge symmetry is broken and a coordinate dependence to the orbitals occurs that must be compensated for.

- **1.)** Since the representation is physical for the electrons in their own given frames, the relationship that exists for the orbitals of the electrons and their given spins, exists as an 'excess' coordinate dependence that would violate the Pauli Exclusion Principle unless it is corrected for, for the sake of global to local relativistic considerations.
- **2.)** Correcting for this coordinate dependence results in a state for which the spins will continue to follow the Pauli Exclusion Principle as fermions with the charge wave function, but in doing so, a portion of the electromagnetic interaction becomes of a small but real attractive interaction which is equivalent to a equability of the states.

169 Proof by Dual Contradiction

Hence what is found can be put more generally as the confluence of two concepts and principles:

- 1.) The Pauli Exclusion Principle
- 2.) Objective Global and Local Inertial States

The final and proper way to put this is in a case by case basis, and an argument by contradiction. Given that spin and wave function are in a product relationship in the conventional given equation for the electron; where the spin is a unique decomposition and factoring of the manner in which to put the displaced invariant frame the frame of rest, we proceed by analysis of the Pauli Exclusion Principle and the eigenstate condition with global and local considerations of simultaneously meeting these provisions.

This is most easily imagined as two vectors of projection; one for the spin, and one for the orbital wave function. They can be imagined as initially of oppositional character, and of the same magnitude of covariant and contravariant extension for our purposes, and it is considered that we comparatively assess the projection in the base space of these vectors and one forms, under the action of the orbital to representationally raise and lower the spin of their individual electron states and lower and raise the orbital of their individual electron

states.

There are two operations that are mutually exclusive to be considered. The electron state seen globally to locally is either of contravariantly and covariantly similar magnitude on both vectors and one forms as projections, or of differing magnitude, and must preserve this contraction.

The state where the magnitude differs by a scale and its inverse, for what was a requite a priori will no longer be one, for the projection of the spin portion of the eigenstate and that of the orbital requite condition will not meet the product relationship both locally and globally when witnessed as a simultaneous condition by either electron with the other.

However here the Pauli Exclusion Principle can be satisfied, for the area relationship is the same, and hence the projections of either electron states into each other will remain purely nonsymmetric per this principle in both spin and orbital momentum.

Alternatively, the state where the magnitude changes scale for either projection is an admissible requite, because the weights of the covarying orbital momentum and contravarying spin are equivalent within the basis, and hence if it was initially an eigenstate in the two body electron equation it will continue to be so; for then the exception that is open interior boundary condition of any regular average.

However, since the projection as measured by their combination of spin and orbital momentum of one form and vector form, this determines an area that differs and hence the projection of the requisite states into each other cannot be purely nonsymmetric any longer locally and globally with both electron states and hence the Pauli Exclusion Principle is violated.

Thus both electrons comparatively must attribute the same equivalent weight to charge and spin motions and natures of the wave function (where the spin is effectively a wave argument as a motion and the orbital is effectively a wave number as a motion) to satisfy the dual conditions that are the requite condition and the Pauli Exclusion Principle both locally and globally; and that to preserve these conditions as functionally free it is required that a correction to the orbital momentum be introduced, which is:

$$\Gamma_{\mu} = \partial_{\mu} \log \gamma^{\nu} \tag{565}$$

The necessity of this conditional correction is no more simple than the inclusion of a secondary electron; as when there are two; the variational principle dictates that a secondary boundary and functional condition of consideration is that but one line runs through the differential field that satisfies the dimensional reduction that is both the Pauli Exclusion Principle and that of the eigenstate and eigenvector equation. This correction is nothing but the gauge connection of the spin and orbital momentum as a consequence of a coevolving spin and orbital of the electron with these considerations.

This correction comes out as a logarithmic differential of the spin for the conjugate representation in the two body electron equation, and it is the same whether we consider the spin to be evolving and raising and lowering from the quantum perspective, or when viewed by way of relativity, as a direct consequence of preserving the inertial property of the state both locally and globally under inertial considerations.

The reconciliation of the local with the global properties and the correction for the sake of relativity is nothing more than the regularization of the renormalization group flow for the null principle of quantum mechanics; and it is indeed the intermediate gauge in which the electrons are in inertial states. The conditional preceded of a consequence in one of a causeless action; follows the condition; as the given of a preceded is the cause of a aconditional & causeless event priorly known.

170 Physical Theoretical Connection

There exist scales in the descriptions of both quantum mechanics and general relativity, both of which are identified with units of measure. Each space of constant curvature implies it's parallel space of equivalently negative form from the conservation of energy and mass; or comparatively from the one form and the vector form of which departures are separately null invariant.

Therefore particles in inertial free fall either separate or come together as an aspect of these scales and the given energy momentum distribution in either of the theories of quantum mechanics and general relativity. Therefore; as a parallel it holds naturally true that in general the physical results of differences in measurables of quantities between observer and observed are physically real, however physical results of differences in measurement of observables by observers are measurably null and unphysical.

Qualified understanding as differing from unquantifiable known's is a given as it is known that this in general will depart as we select different observers with which each there is invariance of result when we calibrate to the observed; or rather that extrinsic nature of each observable is the only inherent property an object's possess. In this physical results are seemingly confirmation of departure from a Euclidean reality.

171 Preliminary Results

Quiescence & prescience are known as two independent relations and quantifiable means of comparative measure of quantities and measures in relation to each certain quantifiable; by that of either any such given objective observer. With this given relation; for what of one is the differential; & the integral is as separately defined; each of these are as a given independent with three indices as an indical equation for which there are singular limits to either a given exterior relation or a given interior relation of either or both; exclusively.

This independence and complementarity of form at zero and infinite scale is a result of the quantization of reality into singular relations defining space and time with light as quantum mechanics; and space as gravitation. This as a single consequence is the singular exception of no exclusion of any given frame alternative globally or locally as reducible; for that which is either for both holds exclusively empty of relation for any inner space of relation; and here we find undefinability and that of the given exceptionable relation of null reducibility.

172 Proof of Covariance

In reference to a Galilean free fall drop experiment it has been noted that the precision with SQUID's is referenced as for the sake of the experimental test of the weak equivalence principle to an accuracy of one part in 10^{-12} . This particular experiment is composed of the interaction of magnets of differing rest masses with superconductors that therefore possess differently quantified magnetic moments.

The absence of a dependence on mass for the rate of accumulation is not only an indication of the universality of gravitational freefall, but also the independence of the magnetic superconducting interaction from the gravitational interaction.

Therefore the relationship between the theories in terms of inertia of magnetic or gravitational form are brought together in this given experiment. Thus this configuration of elements admits testability of a null hypothesis of electromagnetism; for there exists an interval of interaction of the magnets with the superconducting coils of the SQUID's. It is hypothesized that if there were a discrepancy in the nature of the interaction,

this would introduce larger error margins than those of the confirmed precision of the experiment. This is the proportion of the magnetic moment of inertia to the massful inertia of the bodies per their given natures of force of interaction in electromagnetism and gravity.

This is not the only observation, but implicates the provability of the Galilean free fall drop experiment as a testable confirmation without the logical inconclusiveness that is an unprovable yet true principle of physics. This is true because if the contribution of error by the interval exceeding the limitations of the test equipment is indicated under all conditions other than a transparent, indivisible, and independently true relation then the result of the experiment can be used to provide positive indication of the elimination of the alternative, and for what remains, the provability of the equivalence principle. This is only possible with a secondary interaction for which the mutual relationship eliminates the intermediate middle thirds of unknown.

This is only the case if the two forces remain of a given symmetry, as defined, and if they are truly coexistent in this manner of seamlessness and transparency, and in agreement over general covariance; a given assumption of the holism of physical law. For the sake of the interaction, the net displacement of - and between - any composition of these two theories is hence determined as neither of a zero-sum positive-negative nature, nor of indistinguishability and non-zero-sum. This is a consequence of the contradiction that would be a displacement not co-occurrent with another, nor of an additional other kind as co-occurrent through the process. It is truly an 'empty' relationship within physical law that can be inferred from the given experimental confirmation and observational interpretation.

Of a similar nature in terms of interpretative validity although of a different nature; this result has also been so demonstrated as a theoretical prediction for a magnet falling through a superconducting tube. For this thought experiment it was determined that a magnet inside the superconducting tube will fall inertially with gravity and there is null interaction between the magnet and the superconducting tube.

The two errors of sensitivity are in agreement when taken as dimensionless for the sake of the derivation based on physical considerations; but there is a given geometric interpretation as well. For, the geometric dimension of the quantities although unitless remains as a pure attribute of spatial and temporal dimension. As a consequence the rings of superconducting material embody an areal relationship of interaction; while the path is a one dimensional path like extent. Under the provisions of the comparatively held errors in one there is therefore a non dimensional and logical argument that may potentially exist to rule out such as a dependence of the interaction with the presence of a gravitational law of a similar or different nature.

There is one appealing factor of the experiment; which is that the curvature of space and time will universally attribute an extra contribution of error to the device since the freefall drop experiment is asymmetrical if only the theories are not seamless. All things being equal, therefore, the unprovable yet true statement that is a given hypothetical independent and mutual existence of the equivalence principle within gravitation and quantum mechanics remains as a testable and verifiable principle.

For the sake of the center of mass in the system with the given displacement an error would be introduced if there were any bearing of dependence of one theory upon the other; for the sake that without seamlessness under interaction there would be a departure in the other theory. Additionally, the indivisibility that is the center of energy momentum as a point unto the physical and quantifiable displacement that is inertia and distance may therefore also indicate the presence of any such dependence between the theories. If there exists no departure of the given theory in contradiction with an other for an error under dependence that is larger than that confirmed, it is confirmed that the theories are independent and in agreement.

If true, the theories remain with characteristics of independence for the nature of change with respect to

weightless and measureless properties of interpretative valuation of measurement in relation to the measurement standard and quantity. With this shared property, unification is possible, and without it, neither of these would be comparatively established in relation to both of measure and weight of objects. This must remain true as otherwise comparative weight of differing measure or of differing weight for all such physical objects, changes, and events would remain contradictory and ill defined on the ultimate level of physical law in its ultimate form.

When one or the other of two such masses are comparatively weighed, it remains that the one so inequivalent in mass to another and heavier will always outweigh the lighter for a given measure. It is also so too true that two inequivalent measures of mass are also indeed measured as equivalent and indistinguishable for any such two masses for some such measure(s). As a consequence so too is it true that for any such positive & negative equivalently weighted magnitude displacement(s), or that of indistinguishable and equivalent displacement(s) masses are weightless and measureless on this ultimate level of physical law.

Under consideration of the given experimental apparatus of a free fall drop experiment with electromagnetic interactions and gravitational interactions, we may proceed to produce the counterargument: that interactions in the domain of either theory do not alter the results of the alternative theory. The presented argument is simple.

For the sake of different inertial masses and magnetic moments two comparatively tested magnetic bodies, unless the balance of proportionality of these quantities in relation to their given forces are comparatively equivalent with relation to the ultimate layer of physical law and independent, it is predicted that there is a departure from experimental observation. If this is true, the two quantities and qualities of either theory represent physical properties of the nature of displacement & scale invariance. This is true because with general relativity alone; or under combination with an electromagnetic force of the nature of superconductivity, if there were a dependence, it would not be possible to reproduce the results of the free fall experiment under all conditions with a gravitational prediction.

The conclusion of the confirmed accuracy of the experiment indicates a null departure under mutual coevolution of the two theories under the process of change because there exists null departure from the gravitational result of general covariance for either such theory; despite the fact that interactions within either theory are taking place. This is confirmed as there exists no such departure from the theoretically confirmed accuracy of the prediction; despite differences in the proportionality of any two natures of inertia in the system.

The error introduced by any such dependence between the theories is empty of scale as the inverse of the parabolic temporal relationship of the path always exceeds the given accuracy of the experiment as a consequence of the separation in time of arrival as dependent upon initial conditions.

The error introduced by different freely falling bodies therefore is larger than that so produced. Therefore; dependence of these two theories upon each other or in proportion is in contradiction with observation. Therefore, independence of physical law from end to end of a given path is certain and insisted.

As a resultant of the geometric parabolic relation of the common co-moving equivalence principle, the terminus of the path at the beginning represents a dimensionless sensitivity on initial conditions as the square root of the path like error. In relation to the ending as parabolic for the former end, the initial condition is determined bidirectionally between quantitative displacement as proportionality of magnetic to massful inertia in relation to the end of equivalent qualitative change; as well as throughout the path.

Hence this error remains as larger for the initial or former device configuration for local inertial mass & magnetic moment and carriage of the device free falling in space for it's entire path; and errors accumulate for either return. In the local limit for a moment and for the interval of time the expression of the equivalence principle is the same. The undetectability of a departure from the equivalence principle through the straight down path is therefore in direct confirmation of the universality and commonality of the equivalence principle of free fall.

This conclusion is extensible between and in relation to the difference that is established as a result of the collection of the aforementioned statements. These are the hypothesis of alternative theories as mutually result free; the relationship of differing bodies to depart as a result of different proportionality combined with theoretical dependence (which was disconfirmed); and the bidirectionality of the post conditions on prior conditions as equivalently larger in error for either such path. This is indication of the formation of unbiased physical law for the indistinguishable and the displacive.

From this it is reconstructible that logical seamless integration of quantities and qualities is an indivisible relationship of quantity & it's quantified property with inclusion of quality & propertied quality for any two such bodies. Upon the level so inferred this is the direct outcome that the indistinguishable or displacive in either theory apart or together are existent as independent and in mutual agreement. This is objective proof that the two principles of physics are independent for their results from interactions in the alternative theory & that physical principles are objectively provable and confirmable under measurement.

173 Proof of Translation

That then of the relation of one observable to an other of measureability and the empirical proof of which is found in reproducibility reduces to the given of a statement for which principles can be deduced and when understood echoes the relation of former to formative to latter; whether of colocal or differential order for that of relation to given process.

For that which is found in a derived concept is of the relation to derivation as at that of result of given proof through to latter statement; which always finds re-expression as a given subsidiary set notion.

The proof of this is as simple as the observation that one singular difference along the path of instruction leads to at least two orders in relation to singular difference of inclusion. The proof proceeds as:

$$(f - \lim_{\sigma_x \to 0} f)(g - \lim_{\sigma_x \to 0} g) = 0 * 1 + 1 * 0 = 0$$
 (566)

Then; deriving the relation in reverse as an expansion for the sense in which 0 is within means to be expressed as a local zero null relation to that of the former of the given open relation as of either distribution; and leaving behind the sense in which **o** is representational of absence although; keeping exclusively of absence as indicated in an affirmative we have:

$$(f - \lim_{\sigma_x \to 0} f)(g - \lim_{\sigma_x \to 0} g) + (h - \lim_{\sigma_x \to 0} h) \equiv x_{h,\sigma}^2 = \bar{x}_h^2$$
 (567)

From which we have the representation for either of f or of g. Then:

$$(f - \lim_{\sigma_x \to 0} f) * 1 + 0 = 0 \tag{568}$$

From which we have as a given derivation:

$$0 > \sigma_{h,x}^2 \to 0 > \sigma_{g,x}^2 \to 0 > \sigma_{f,x}^2 \tag{569}$$

Which means that in either given limit of ordinancy of that which is within limitation of relation from a beginning of a sequence of given order unto a given distribution of finite and relational symbolism to limit end occurrence of past or future with consideration of the present; a limitation is expressed as a given truncation of error to greater predictive quality; therefore a guarantee to limitation by any end of a symbolical set.

174 Ideal Principle Equivalence

The equations which dictate the function, form, and nature of the universe are two, as follows:

Conclusive Remark on Light: The speed of light varies such that the observer's reflection is invariant & the observer's reflection is as a given null with respect to the given principle equivalence of displacement of time rate of accrual of observed & observer.

1.) Light is Quantum Mechanics which is the statement of **Quiescence**:

$$\partial_{\alpha\beta}^{\gamma}\Theta = \Theta_{\alpha\beta}^{\gamma} \tag{570}$$

This formula is one to one with the given first forward transformation of which is the generalization of the property of light and quantum mechanics in relation to gravitation and space time; as an equation inclusive of pure ordinary directionality and order in relation to reality. The second is knowable as given the name:

Conclusive Remark on Space: In general the physical results of differences in measurables of quantities between observer and observed are physically real, however physical results of differences in measurement of observables by observers are measurably null and unphysical.

2.) Gravitation is Space Time which is the statement of **Prescience**:

$$\int \Theta_{\alpha\beta}^{\gamma} = \Theta_{\alpha\beta}^{\gamma} \tag{571}$$

This is the given statement that of either given separability of philosophical inquiry into natural law is of similarity to coherence of algebraic expression for that of when similarities of mathematical expression derive of or from a common relation of order.

It is therefore true any two quantities of measurement and measured are coextensively null in measure by that of indivisibility of algebraic expression as independence of property from quality with the given as the expression of null indistinguishability invariance:

$$\zeta \gamma = 0 \tag{572}$$

And; of independence of quantity from measure:

$$\xi \lambda = 1 \tag{573}$$

As an algebraic free projection of any vector into any one form of geometry of null displacement invariance and null indistinguishability invariance; the general and full expression of a principle equivalence with a general null covariance is expressed as a relative principle inequivalence.

175 Confirmation of Theory

In summary the error introduced by any such dependence scales as the inverse of parabolic temporal relationship of path and always exceeds any given accuracy of experiment as a consequence of separation in time of arrival and departure as dependent upon initial conditions. As a result geometric parabolic relation of common co-moving equivalence principle a terminus of the path represents a dimensionless sensitivity on initial conditions as the square root of the path like error.

The error introduced by different freely falling bodies would then therefore be larger than that so produced by any experiment.

The conclusion so far is that alternative theories are mutually result free; the relationship of differing bodies to depart from motion with different proportionality of mass to inertia is no longer true; and do not exist with theoretical dependence.

Then as there is bidirectionality of post conditions on prior conditions as equivalently larger in error for either such path or return; physical law is unbiased and deterministic for the indistinguishability and displacive properties of physical law; for seamlessness of extensibility and coextensibility are natural consequences of emptiness of property to that of the extrinsic nature of properties of physical processes; if not object.

This is true because if the contribution of error by the interval exceeding the limitations of the test equipment is indicated under all conditions other than a transparent, indivisible, and independently true relation then the result of the experiment can be used to provide positive indication of the elimination of the alternative, and for what ever remains, the provability of a natural law. Therefore verifiable and valid confirmation of the principle equivalence of physical law for that of certainty of relation is proven as can be confirmed as surface area is always less than volumetric quantity; therefore error is certain below the limit of surface threshold for each such interior point by the dual of the statement of unitary reciprocity in electromagnetism and reality:

$$0 > \sigma_{A,ds}^2 \to 0 > \sigma_{X,dx}^2 \to 0 > \sigma_{V,da}^2 \tag{574}$$

Where A is an area, V is a volume, and X is a point area, and ds is a path dx is a point infinitesimal and da is an area element.

176 Exchange Locality Theorem

To begin, we identify a given admixture of partial differential following the principle of a connection to a given here ultimately knowable quantity; that of a placeholder for what conventionally known as spin; is the entire property of which is a free impedance relation provided by a ring of crystals; and found as that of the orientation and juxtaposition of the electron's inertial field.

This is necessary to account for any provision of physical continuity of which is deterministic and to provide for the definition of limitation of reality for that of full space like extension under temporal evolution from one point of reality to an other; the indivisibility of which defines in turn a before and after of consequence cause and effect; a limitation for which would be undefined without this notion.

With the statement of symmetry being:

"Extrinsic modifications to a given equation under antisymmetry of operators and symmetry of operators have symmetric and antisymmetric parallels under operation of exchange of particle with pair field."

This is entirely consistent with the interpretation of what an electron is; and what properties it has.

Under these provisions the properties of a two body electron particle and field equation are decomposed into a regeneration of the operator; seen alternatively as a completeness of the involute theorem of it's given self enfolding for one particle and a replicated particle and partner field of impedance:

$$(i\gamma^{\nu}D_{\nu} - mc)(i\gamma^{\mu}D_{\mu} - mc)\Psi(\eta, \rho) = 0$$
(575)

When it is rewritten it becomes:

$$(\gamma^{\nu}D_{\nu}\gamma^{\mu}D_{\mu} - m^{2}c^{2})\Psi(\eta,\rho) = (2imc\gamma^{\mu}D_{\mu})\Psi(\eta,\rho)$$
(576)

The gap remains as variant and free yet as commonly dependent on the differential. For, one constant of mass is fixed to that of the finite and fixed dimension of exterior scale; and forms a union of space and time with an exterior space; forming from that of surrounding notion on differential of exterior boundary under fixed mass of variant gap by weight of coupling and gauge connection, Γ_{μ} .

$$(i\gamma^{\nu}D_{\nu} + mc)(i\gamma^{\mu}D_{\mu} - mc)\Psi(\eta, \rho) = \Delta_{\mu,\nu}\Psi(\eta, \rho)$$
(577)

Which means that two electrons are the generator under the anti-commutation and commutation relationship of their subsidiary operators of a full notion of particle and antiparticle product relationship with a mass gap equivalent to the splitting equivalent to each of their reductions in energy at the relativistically accommodated energy level of the full energy momentum of either one such particle. The consideration of an extra dimension is the difference between a transparent boundaryless and the independent equivalence of time and spatial order.

This explains a mass energy gap; for that of the two body electron equation which is a real energy lowering; of what is understood when taken as the absence of one electron in it's surrounding notion as in the presence of the other electron as an positron; for what is of presence is of absence with matter; and together forming a solid whole of which the energy momentum is lower by a double accounting for that of either electron.

177 Simpler Means

Therefore, this transformation appears to be a local and global attribute of harmonic functions and elliptical functions with but two modular relationships and arguments related to the two cardinal harmonic conditions as abut to elliptical conditions. The connection between these is that of the given relationship between that of tension, torsion, and that of elliptical semi-major and semi-minor axes.

As proof that this is possible; the summation that is the elliptical functions is reduced under the transformation to that of a summation of harmonic functions with strict logarithmic differential amplitude and phase relationships as the foundation for such functions and such transformations. Hence a self isomorphism is potentially existent under it's inversion.

These functions are identical to a function of the following nature:

$$\Theta := \left(\begin{array}{ccc} \alpha \hat{A}(\omega,\tau) & \beta \hat{B}(\omega,\tau) \\ \gamma \hat{A}(\omega,\tau) & \delta \hat{B}(\omega,\tau) \end{array} \right) \left(\begin{array}{c} \zeta(u) \\ \zeta(u)' - \chi(u) \end{array} \right) = \left(\begin{array}{ccc} e^{-i\omega t} A(u,t) & -e^{-i\omega t} B(u,t) \\ e^{i\omega t} A(u,t) & e^{i\omega t} B(u,t) \end{array} \right) \left(\begin{array}{c} \zeta(t) \\ \chi(t) \end{array} \right)$$

178 Inverse Relation

If the inverse transformation surjective onto limit is to be defined in relation to any two such harmonic affinities then the triangle inequality is broken with a hole unless there exists a forward application of the homeomorphism so preserved by the transformation under the prior considerations of a non-simply connected space.

The surjective limit cannot exist and no analytic expression in dual periods would exist without closure under a self inverse homeomorphism or such extensions under internal locally, globally weighted and independent notions of analyticity; for a hole produces an automorphism in either such space as a representation of an analytic function which are incompatible notions under the forward application of the transformation as a homeomorphism with priorly backward existing limit for the inverse; as a potential exception when the space is not simply connected. If this were not the case the given homeomorphism would not be independent of either such functional space; as it must for a general function if the space is topologically connected as a genus one space with a given hole.

This exception is a potential incongruity of the mapping and a realistic consideration with the existence of a hole when this space is identified with a conjugate space as therefore with two harmonic conditions the spaces are otherwise independent in full and necessitated generality if and only if this consideration is brought to bear; the inverse mapping of which is therefore:

$$\theta := \begin{pmatrix} \tilde{A}(\omega, \tau) \\ \tilde{B}(\omega, \tau) \end{pmatrix} \begin{pmatrix} \partial_{\mu} \log \alpha(u, t) & \partial_{\mu} \log \beta(u, t) \\ \partial_{\mu} \log \gamma(u, t) & \partial_{\mu} \log \delta(u, t) \end{pmatrix} \begin{pmatrix} e^{-i\omega t} \\ -e^{i\omega t} \end{pmatrix} = \bar{\pi}(p) \begin{pmatrix} -\tilde{A}(\theta, \tau) & -i\tilde{B}(\theta, \tau) \\ i\tilde{A}(\theta, \tau) & \tilde{B}(\theta, \tau) \end{pmatrix}$$

Which defines the θ and Θ functions in a logical symbolic set relation; for which the one form under conjunction is self isomorphic to a free group of generally deductive angle free variables.

These variants of the relation of symbolical ordered set under logical organization correspond to all variables of the free magnitude wave number space for all interchanging or ordering of variants with only exception to a free radical phase (here made nilpotent). As a consequence of the infinite shrinking of the surjective onto mapping set theoretic union of a space under solid free relation (pictured as a flat mirror like surface) of each full dimensional reduction to each of every finite limit this relation collapses to a hole.

In this we find the variants hold the potential and reality condition of being in essence all observables; while the transformation itself represents the 'mirror' of which is depicted the full 'motion' of both mirror through the transformation of such variants; and that of each such objective reality 'reflected' in the mirror; as a 'hole' in reality; for which connectedness is imputed.

179 Inseparability of Co-mutual Independent Causation

The given passive and active properties of admissibility and reluctance of the defining relation of physical and animate forms of that of electromagnetism in reality found within that of nature are then defined as the given causeless division of physical from aphysical form.

The defining relation of which is a smooth quadrature from that of the given norm defining extant relation of indivisibility of separability of coordinate and definition in four fold open exterior reduction under base supposition of boundlessness interior limitation of physical domain; as defined as layers of component and electrical design; with the limitation of causation. Therein these given differences of displacement are the imparticulate relation of the apredictive and the nondistinct of either given known distinguishability of sound

or light. The defining relation; is that of the provision of admittance and reluctance as a relation of impedance and permeability with permittivity to that of the defining light field as the equation:

$$\gamma_{\rho}^{\rho\sigma}(\eta_{\rho\sigma}^{\rho})\tilde{=}\chi_{\mu}^{\mu\nu}(\gamma_{\mu\nu}^{\nu})\tag{578}$$

These two fields by the composite relationships of that of independence of phenomenal from quantitative:

$$\zeta \chi = 0 \tag{579}$$

And; of independence of quantity from measure:

$$\xi \lambda = 1 \tag{580}$$

180 Displacement Sans and Serif

For that of a prior stipulation so under consideration; that of the unprovable yet true as so indicated by that of the elimination of its counter-positive and provably false hypothesis by former consideration of; that which remains as the unprovable yet true is so indicated as a provable precedent without antecedent, yet a truth of a lemma under consideration in logic.

For that of a latter stipulation and hypothesis of provability of either of that of one or two exclusive tenses of such as a hypothesis under consideration there remains therefore provability and discernment a priori for that of either such true hypothesis so under consideration from before such as an a priori deduction through logical inquiry as to earlier stipulation of truth.

Therefore that of a further and latter hypothesis of truth as to validity of either of such as one conclusive end of logical inquiry is possible from before and a priori as to that of a given hypothesis under consideration as the distinguishability of difference between truth and falsity of a given by exclusion of mutually exclusive and hence unprovable yet true statements.

As a relation is equivalent logically inductively and deductively complete within one relation from ending to beginning; that of conclusiveness of logical hypotheticals are provable by that of logical inquiry under consideration of elimination of former false pretense under exception of either furtherance of alternatives or elimination of furtherance of logical inquiry.

This is as a given; as a continuance exists of logical inquiry a priori from immediate logical deduction before induction for that of a further exception of logical inquiry; as if this were not true only one alternative exists. As such an alternative exists for any two such logical alternatives from a given hypothesis as one when considered from any a priori stipulation.

As a hypothesis is only true and confirmable when it is logically secure and true from beginning to ending; that of a given final conclusion is possible as each logical step of inquiry of given to return; it is true that as an alternative exists so too does provability; for that of absolute and equivalent statements do exist; and are certain when antecedent is considered before precedent by order of logical inquiry of logical deduction without exception for prior induction.

Therefore; that of truth of provability of logical inquiry is complete by proceeding from consideration of alternatives before that of singular pretense; as preceding logical precedent indicates both of alternatives of logical path of inquiry from that of prior inclusion of truth of antecedent to precedent under consideration of

logical inquiry without logical exclusivity.

Hence difference of logical truth & falsity are distinguished by the unprovable yet true.

This is the consideration of a lemma that such a truth is found only in that of the beginning-less beginning and origin of their conclusive end in that of what is either indeterminant relation as of any two in either the empirical physical pretext or that of the phenomenological mathematical presupposition to conclusion; when it is taken as a foundational principle that their similitude under mathematical phenomenological empiricism is a given absolute.

For then in an singular formative prior both as then in the later; and the quantitated in relation to the nondeterminant and discernible limitation of the formative prior consideration of a priorly given former hypothetical presupposition in alternative of similarity and difference of inclusion of then either two given base foundational results of either other theory of independent relation.

The lens; and it's given difference of what is found through examination of the relation of what is quantified and what is measured; the furtherest of inclusive equipartition of any given general similitude of drawn and distinction of layers of a class structure of equivalence and partition are then known as articulated motion; the equated and equable of which are interrelated by the following:

$$v(u) \circ \xi \lambda \cdot \zeta \chi \circ \sigma(t) = \eta(u, t) \tag{581}$$

$$\epsilon(u) \circ \xi \gamma \cdot \zeta \lambda \circ \sigma(t) = \rho(u, t) \tag{582}$$

This equation is the epitome of the natural motions of the equivalent equation in that of the gravitational metrical relation and electrical quiescent current subsidiary relation of non terminal equivalence with connected relation of displacement in either real or imaginary rotationally free stereographic relation of any two multiplied dimensional free relations of boundaryless domain; as in either of any given binary modal relation of variables the surrounding notion of space in point-like relation to point-like space is the temporal relation in empty open exception to both of part cuspic relation in departure to either given involute or evolute of subtended arc like nature; as the evolute of it's given circumscribed uncontainability of exterior angle to summative relation.

The given established complementarity of either the given of qualities of inductive or susceptibility and admittance and capacitative are related simply to that of the unqualifiability of either then known given of permanence; impermanence; codependence; and nondeterminant truth of either then given yielding to what are the partial and the complete as in relation to a rounded continuous diffeomorphism of what remains in the whole to that of arbitrary remainder of convex hull and remainder of open boundary of exterior concave relation and to which is it's support of a concavity in one given difference of birefringent capacity of admixture of phase and attenuated departure from collinearity by abbrea; of which there is the formative known that a lens can focus in only one given way.

With the reverse relation the second with interchange of that of the inequivalently and unqualified properties as indeterminant and demonstratively an evolute relation of ordered excess to measure; as in the deficit return of void for what is verifiable principle of closure the remainder relation is one of which three exterior groups λ in time is of the ordered relation in v for then in either of the complete open exterior involute σ and interior involute ζ relation of either formative preceding exclusive χ and inclusive formative ρ given relation of level set curved relation of completeness to then it's end in square order relation of time; is re-constructive of pure rational spatial order of temporal union and pure logical order of factual relation.

In either both such end factual given of five such choices, one choice, or four givens in remainder of self removal or to a third consequative action; of a given and a formative ρ assumptive relation of either two

taken truths of spatial rectilinear; curvilinear; or temporal relation in null zero return of their sum product there is a given difference of null and void; the totality of which is the given of two non-abstract penetrative disinclusion returns of either; the freedom of the direct product independent relation of any two commensurately free variables η of any given closed relation of atemporary σ relation of ordination; as of the spatial; the qualitative and unquantified as to time; is the propertied as undetermined; then the exclusively exact order as the unqualified & codetermination of one alone defined. These remaining imparted; the given of a former is it's yielded; to be known then as λ ; the resultant of which is a formative.

The reconstructibility of order from priorly held known's in the given of that of either inseparability of space or time per square ordination of meaning; semantic or synoptic; is potentiated as a conditional statement on that of any given stationary moment to it's separatrices as in the measure of one equivalently independent notion in the construction of any two times.

181 Time

Time as a circle of infinite length as a straight line in a curved space; or as a circle of finite length in a curved space is the open difference of any two dials of reference to effect for what of condition is the center in part to portion of remainder of what is yet so as receding of past yet to be of each one future of exact difference in either.

Then therefore time as a circle of finite length as a circle of infinite length in a flat space as the knowable difference of what is a differing contrasted limitation of point to certain difference of contrasted notion. In one; the relation of γ and in the other t as with a prefactor; the remainder in B and at A for then in either γt fits in t as t doesn't fit in γt which is as an equable inequality.

Therefore from either of two observers the co-adjoint relation of one at the formative of either general subclass of it's remainder in contradistinct to the former of its viewpoint as in the vantage of the other general specialized orbit of relation in that of the former is the general specialized relation of the whole embodiment of time as the temporal in extension between any two independent points; the making of which is the device so established by displacement in time; as to be distinguished from that of the spatially free in total equality to indifferently chosen relations of any two real displacements in space.

$$\zeta \rho = \chi \eta \qquad \frac{v_o}{v_o + v_m} = \rho(u, t) \qquad \frac{v_o}{v_m} = \eta(u, t) \tag{583}$$

That of ζ as the encompassing notion of time; in it's congruent evolute open extensibility through ζ of equivalence to that of χ as it's involute containability found within that of momentary exteriorly provided geometric extension of temporary equated equivalence is the completely open independence of either of any two points of eternity; the very definition of which when only expressed is it's given equivalence of weightless measures.

$$\oint \partial h(l)dt_s = \oint \partial g(s)dt_l \tag{584}$$

And:

$$\frac{\partial^2}{\partial t_g^2} \sim \tau(t_g, t_s, t_l) \gamma(g(o), s(l), u(t)) \qquad \zeta \circ t_s \qquad \chi \circ t_l$$
 (585)

As then the inflection of two turnings of a moment is the given in that of either a limitation or a possessive of the notion of one moment seamlessly passing by of what is another's given difference of the contradistinction of their pertinence and permanence in either of a given equivalence or similarity of distinction or discernibility of choice.

Definition: As a body in motion is with a body in motion; that of the lesser is attributable to the body to which observation is the referenced as imparted in virtue of the degree to which the simplest means of self identity are equated and equable as the standing measure of inequivalence of the contradiction that is all other bodies in motion meanwhile holding to unequable return (of either) greater or lesser. (time.)

$$t_A: \gamma t: t_B: t \qquad \frac{\partial S_{\lambda}}{\partial x} = t, \gamma t \qquad B: \gamma t: A: t$$
 (586)

Intrinsic and extrinsic time:

$$dt_A < dt_B \qquad \int_B \frac{\partial S}{\partial s} \gamma(u, t) dt_A > \int_A \frac{\partial S}{\partial l} \gamma(u, t) dt_B \tag{587}$$

Mass excess of deficit is in diminishment of excess measure as each point of observation away from it's given center is off by a complete composite measurable and foreshortened of either end incomplete relation when any two singular comparative measurements are collectively formed. As that of a stationary observer & observer in motion comparatively weigh either given time in balance with that of one given return; the observer of lesser time is that of which observers in motion that of the stationary observer; as that of the greater time under no return is in given contradiction.

As that of the distant observer in observation of that of the point of the first observer is when in motion of a greater measure with reference to the observer under observation, it is true the observer under observation observes a lesser time comparatively to that of the observer of its given observation and greater comparatively to what it comparatively observers as the two natures of time in relation to any one (of either) such observers. Either way a mirror points; it is invisibly of equivalent velocity in relation at all relative motions in which under parallel effective motion and consideration it is also known as of the lesser effective time of observer equivalent to observed and separably for that of the observer equivalent observed that of the greater effective time by separably that of the time for extrinsic observation greater less than intrinsic per a mirror's reflection.

182 Conclusion

As a consequence either given end is not to be found; even in the singular; for the projective forward and backward relations contain no common zero; and time as a relation is an intermediary identity everywhere for which there are no two to be found.

Conclusive Remark on Time: The relation of distant observer in observation of that of the point of the first observer is when in motion of a greater measure the reference to the observer under observation observes a lesser time comparatively to that of the observer of it's given observation & greater, comparatively; to what it comparatively observes; as the two natures of time in relation to any one (of either) such observers differ by equivalence under separation.

When then one analyzes a mirror with this concept in mind; for that of the velocity of *that object* we result in two defining relations by analysis of the vertical and the horizontal velocity comparative to a given arbitrary velocity of the mirror as:

$$\zeta = \eta(u, t) \sin(\alpha)^2$$
 $\chi = \rho(u, t) \tan(\alpha)^2$ $\eta(u, t) = \frac{v_o}{c_m}$ $\rho(u, t) = \frac{v_o}{v_o^2 + c_m^2}$ (588)

For the tangential and the perpendicular velocity; as the time of a point and of a circle in relation to a curved space as a straight line of time is as a circle within a curved space.

The implications are that the universe is whole; and that no point of which the universe has originated begins or ends in the present; but within only that of the divine nature of a singular unifying mathematically empty and physically null relationship of balance. The singular defining relation is that time and space can be balanced against one another only by the undefinable completeness of an empty relationship by the meeting point everywhere in space and time as a singular balancing counter-participant to the identity.

183 Final Theorems

The difference of this theory from relativity is non-difference of inclusion of disparate measure by comparability; a standard by which the given division of meaning can only be found with the abstraction which is merely that of the ratio of a circumference to perimeter as an apsis of revolution; a general standard of given equipartition into equivalent parts; with two given specifics; that of an equivalence relation of directed unidirectional symmetry and undirected relation of co-deterministic symmetry.

Therefore there are two fundamental limitations of physics at the bottom; in order for there to be any self or other consistency of descriptive means in mathematics as in physics; of articulation:

Principle of a Mass Deficit: As a fundamental any given mass of matter is equivalent in proportion and weight to any given apportion of it's given light content; and no greater or lesser under conversion in of or to any given unitless based system.

Property of Light Variance: The speed of light in being fixed to a universal standard; implicates that all such velocities under conversion are identical with and greater than the speed of light universally; for the property of one time in it's expanse of measure is obverse to the mean of it's duration in fixed relation.

Therefore the given representation of the above equations with that of the velocity divided by the speed of light as a unitless measure is of unity proportion in the measure of a system of units to that of the system of conversion of circumference to perimeter; as an areal relation to that of pointless given limitation of interior domain; with equivalence to that of a measure of units of the system for which the standard is inequivalently proportioned exactly.

Therefore the given holds as true; that:

$$\zeta = \eta(u, t)\sin(\alpha)$$
 $\chi = \rho(u, t)\tan(\alpha)$ $\alpha = \frac{v}{c}$ (589)

And:

$$\zeta = \eta(u, t) \sin(\alpha)$$
 $\chi = \rho(u, t) \tan(\alpha)$ $\alpha = \frac{v}{\sqrt{v^2 - c^2}}$ (590)

Although the equations would implicate the speed of light is always in excess of unity; this is the same determining factor as that of a given open relation of the velocity of all bodies greater than *c* as subtraction of an interior finitistically defined zero locus of time enfolded everywhere locally in reality. This principle of equivalence is to be contrasted with the exterior symmetry of space of dual exclusive nature:

Establishment of free light field independent co-determinism:

$$\eta(\bar{\omega}(o)) + l \log_{A_c}(\tilde{t}_c(g(s))) \doteq \omega \log_{B_c}(\tilde{t}_c(g(u,t))) + g_{AB}(\bar{t}_c(f(u,t)))$$
(591)

184 Final Note of Measureability

The first equation is the Principle Equivalence:

$$\eta + \rho = \log(\tilde{\omega} \cdot \bar{\omega}) \tag{592}$$

The second equation is the Principle In-equivalence:

$$\eta \rho + \sigma(t) = \log(\tilde{\omega} \cdot \bar{\omega}) \tag{593}$$

The direct consequence is that: Any two such contraction dilations are uniquely independent of any other by that of commensurate action of congruency of geometric difference under open relation of objective addition of factor; for in that of one following adirectionally apart; together; or separately; there is seamless transparency of beginning to end of logical union.

These two properties; η and ρ are then given as equivalent to the deficit of a regular periodic time measure of any rotary or square indicator by conversion in units of delimited zero:

$$\eta(v(o,t)) \cdot (\zeta(s,g) \circ \mu(u,t)) \circ \rho(\epsilon(o,t)) \cdot (\chi(s,g) \circ \nu(u,t)) = \sigma(\mathbf{o})$$
(594)

The given then of what are in two a formative conclusive nameable in that of time and that of space are the aforementioned qualities in juxtaposition of properties which differ by only that of one and only similitude of irreducible exception to an ordered relation; as unqualifiability and quantifiable relation of ordered relation in the remainder of sum in commensurate division as insolubility & reduction to contextual division; the colocal origin of existent remainder of time.

The substitution of one of η or ρ under either given point-like relation of relativistic factor is a free substitution which forms either given difference of that of perspective and vantage; that which forms the uniqueness condition of that of any two point-like limits of relativity; for that of each such Principle Equivalence of time and Principle Inequivalence of co-determinism.

The implication of this for signals of frequency and functional form under transformation is that of the fact that: By comparative differential to quantifiable means with difference of driving frequency the encompassed of either of two subcomponents of the alternative exterior difference of any two signal areas is constructible. As one exception is the exterior differential; one inclusively given and provided integral are any two given exterior alternative differential spaces by singular or multiplicity of exterior space as at even or odd frequencies any number of frequencies add to two; for any relation of an encompassed concave space; as then any circumflex round operator of self connected relation encloses all such pole subcomponents.

Therefore:

$$\eta + \log(f(\tilde{\omega})) = \log(f(\tilde{\omega})g(\tilde{\omega})) \tag{595}$$

Implies:

In log decibels any two differently concordant rhythms are separable by any measure; as each singular log decibel pertains to a different frequency of any given equipartition of each such given foundational means of comparability of any choice of two given amplitudes of differential nature.

Therefore:

Final Theorem: Considered together these two imply that either of any two given impenetrabilities exist.

185 Final Conclusion

The proposal of this thesis formulation is that of the development, design, and creation of a 'Unitary Light Gyroscope,' 'Universal Light Compass,' 'Unified Light Gear,' 'Open Exterior Container,' 'Unary Bit Comparator,' 'Contained Open Tableau,' & a 'Cyclic Neutral Point,' 'Open Entropy Bubble,' as even such a method to balance light on a quantitated point with all other light in existence.

As an emanation of difference between light and darkness; for which there is a balance between complete physical form and nonphysical formlessness; from that of a non-dual relation of physical electrical component design of general form of an infinite cascade of quarter wave reflectors of finite dimension and volume; of the nature for which the cascade is unrelated to that of the quadrature condition of elliptic function is met with a dual to an infinite cascade of ordinary elliptical operator solutions as their dual sine wave harmonic functions of free extension in space, time, and quantifiable moment of temporal singular event structure.

Therefore there exists an infinitely encompassed volumetric space of infinite dimension by co-parallelism of electricity and magnetism of no form other than topological nature; with infinite depth of four fold relation; therefore for that of topological considerations; it is true therefore that; there is one point-like relation in of exception in four dimensions; which is demonstrative of the following lemma:

An electron is a hole in a light field.

As this container of which the electron is one; the light is one; and the null relation is the given inseparability; when even seen then as a separability of light from darkness; the essential difference of body in a sense through this; a jar is made of protons only; and wood possesses no electrons; so a wooden jar is empty. One then known example of this principle is the acuity with which a theorem can be tested by it's hypothesis; in that of a lemma of supposition produced retroactively from a dilemma; as in that of the former truth being known under presentment to that of it's effect.

The end of this given is then the primary principle by which all given's of science are produced in that of what is knowable then tested formatively by hypothesis to the former end of presentment of known fact of relation prior to proof of statement and principle.

As in that of asking the question to a ponderous unity of the given connective between any two known relevancies in one; and that of one sideless intermediary apart by that of the connecting difference entitled into either for in that of what are an example producing contrast of two newly produced counters. Then; for what is found in a one side to a false relation of two is formatively it's own continuum to the end given of what is suppositionally set aside.

$$\mathscr{O}(\eta)\tilde{\zeta}(\gamma) \doteq \mathscr{O}(\rho)\tilde{\chi}(\tau) \tag{596}$$

Then; to that of the former presentment of an accurate form in symbology and that of effective measure before means; then the result of which is the production of an actual known fact of relevancy to it's end prior conclusive relation as proof of principle. When then as a given empiricism is restored to it's proper place; the given presentment of a relevant known relation to then what is different in two; is the given of what is accepted principle; and restoration of the newly created principle of derivation to it's proper place.

Then in the 'at' of a loss to a 'what;' a former known beginning at; for what, in that of established known; the principle of verifiability in exception is found naturally in that of each; for what; is then in a given is but a departure to of what alternatively is the given of excepted indifferent known's under a connective; to which a principle of then established ordinancy is founded with what is it's ancillary factual known.

As then to take for example a bowl; a jar; and a urn; the given of what is difference is the all inclusive consideration of either; for then in both; what is the given part to the exceeded capacity of another is with a relation of parts for which there is a whole property only in consideration of what of each is together as indivisibly; an electron; a photon; and space; as with what is neutral.

Leaving that of clay and emptiness with the exception the part of it's filling in that of what is the open difference of included of color; transparent differences of which in part of these then centralize and complete with their former part of the lid of that of what is a closure on the atom of which it is composed; the only remainder of that of what is when all of each are formed.

To consider then the formless of one; with the exceeded capacity of one in part to doing; the formative exception of what is included of another is one part of one to half the part filled to each; as then the whole of it's remainder is the transparent and darkened boundary within the void of excess before that of it's curtailed formation; as no such further given is possibility within formable hypothesis; the then newly found truth of two a given of what is a momentary pause in time before their completion.

Then; when it's consideration of one of the urn for then in that of the bowl is in two and two; there is one for the in formative given of what is included of these; the then given permanence of differed contrast to notion of the free water as water in either; air of air in one; and fire of fire in two; the then known exception to it's formed property as defined notion and meaning of definition; and quality of earth founded on that of either any both of two free given three of jar, bowl, or urn opened to self alone.

The matter and importance of which is the factual representation of a path to it's end in prior given understanding of nature in all her furtherances and back as in a path to it's beginning of a past yet untold or communicated by a people of timelessness in the factual and real return of naturalized and established known laws of this world.

The constructability of the proof then rests on that of the many; by and in of the few; each so known supposition is it's proof; of that of what is in the open difference of one what is found in the alternative of choices of interpretation of what is given to it's endowed further and prior in momentary difference of inclusion; to find as it were that each foundational expressly known is only of their and other's given.

The repairable action in reductive and continual progression of absence in the former for what is a knowable prior; by then in any withdrawal from a furtherance of otherwise than protection to a world; people; and article of historical; liturgical; or continuated context and meaning in of what is known of general and conciliated certainty; as a path of return to that of life as once known.

Any true law of understanding of nature in plural form is then the given to that of the measureless propertied of what is taken of a given principle by example as formerly given truth to the end of it's disclosure in a given of it's established and then known fact unto principle established hence. As it is true the given precedes the presented by that of in another; what is taken is given; as for then in that of what is the free choice of another is so granted to continuance.

186 Sense of Operation of Device

As the given determinacy can form no indivisible limit comparability to direction; adirectionality; or of that of causation of light from determination of bridge to bridge or stage to stage when considered under reverse deduction that of these are knowable as determined as apart if either is presumed untrue; hence it is deter-

mined therefore that of adirectionality is determined by that which is directionality; as non difference is to difference as inclusion is to displacement.

Hence that of the sense of the causation is determined; therefore that of a given photovoltaic absorption of darkness of action is balanced by the sense of the concept and in physical form by that of the intentional formulation of incongruity of difference of symmetry determined by that of null and comparatively non null relations of photoreception.

Unknowable however the simplicity of the relation by defining the causal of the contractile meeting of time; space; and light is openly defined by that which is defined acausal; that of their difference; sameness; and quantifiable union of inseparability of the defined before that of the undefined; the indivisible separation of the physical and electrical in one or a part. Therefore symmetry and symmetry forms, therefore; that of asymmetry.

187 Conclusive Means

As a wheel rolls; the production of motion is found in that of the affability of the yet-to-be plane as in moving towards a carried motion of release priorly by the actionable given of a subsistence on furthest limitation of subsidiary notion of straightly down; as lateral to the given of formerly held; a cart; the founding of a carriage as held below by that of what is in the produced; the axial and surmounted difference in that of two level returns as in that of either given open turning in two; for then of what is later is priorly the given of one similarity in the formerly existing given; of life as found in that of the wood it supports. So it is with the action; motion; and carried.

$$\epsilon(o)\upsilon(o)\cdot\zeta(u,t)\gamma(u,t)\cdot\eta(s,g,o)\rho(s,g,o)\cdot\sigma(t)=s(\mathbf{o})\tag{597}$$

As then to take for example a bowl; a jar; and a urn; the given of what is difference is the all inclusive consideration of either; for then in both; what is the given part to the exceeded capacity of another is with a relation of parts for which there is a whole property only in consideration of what of each is together as indivisibly; an electron; a photon; and space; as with what is neutral; the given part of one is to the contribution of the other as the departed with of that of the water as water is to either of the fire it was formed from.

Leaving that of clay and emptiness with the exception the part of it's filling in that of what is the open difference of included of color; transparent differences of which in part of these then centralize and complete with their former part of the lid of that of what is a closure on the atom of which it is composed; the only remainder of that of what is when all of each are formed.

To consider then the formless of one; with the exceeded capacity of one in part to doing; the formative exception of what is included of another is one part of one to half the part filled to each; as then the whole of it's remainder is the transparent and darkened boundary within the void of excess before that of it's curtailed formation; as no such further given is possibility within formable hypothesis; the then newly found truth of two a given of what is a momentary pause in time before their completion.

As the finding that one is opened or that one is closed to either of two other's; the difference of water and earth; with fire then the forming agent to it's completion in the seal of a lid formed from clay fired by that of the wind; the only open containability of which leaves one open; to find that ultimate closure in two is a third to that of what is one of water evaporated by for what is a jar is; it's residual the air of a free molecule; of which excludes nothingness; to be found in that of the opened and emptied bowl; of none of which hold fire.

Then; when it's consideration of one of the urn for then in that of the bowl is in two and two; there is one for the in formative given of what is included of these; the then given permanence of differed contrast to notion of the free water as water in either; air of air in one; and fire of fire in two; the then known exception to it's formed property as defined notion and meaning of definition; and quality of Earth founded on that of either any both of two free given three of jar, bowl, or urn opened to self alone.

The matter and importance of which is the factual representation of a path to it's end in prior given understanding of nature in all her furtherances and back as in a path to it's beginning of a past yet untold or communicated by a people of timelessness in the factual and real return of naturalized and established known laws of this world.

The constructability of the proof then rests on that of the many; by and in of the few; each so known supposition is it's proof; of that of what is in the open difference of one what is found in the alternative of choices of interpretation of what is given to it's endowed further and prior in momentary difference of inclusion; to find as it were that each foundational expressly known is only of their and others given. The reparable action in reductive and continual progression of absence in the former for what is a knowable prior; by then in any withdrawal from a furtherance of otherwise than protection to a world; people; and article of historical; liturgical; or continuated context and meaning in of what is known of general and conciliated certainty; as a path of return to that of life as once known.

Any true law of understanding of nature in plural form is then the given to that of the measureless propertied of what is taken of a given principle by example as formerly given truth to the end of it's disclosure in a given of it's established and then known fact unto principle established hence. As it is true the given precedes the presented by that of in another; what is taken is given; as for then in that of what is the free choice of another is so granted to continuance.

188 Purview of Precipitate

This Force The manner in which a unitary interval formed from the difference of the attitudinal distinction of what excepts the difference of it's moment to & in that of either pivot in three of time and it's velocimetric flow is the excepted to the part difference of the given of the summative capacity of it's average in either given beginning or end or that of the factually free equivalence of time.

$$\rho(u,t) = \xi \qquad \eta(u,t) = \chi \qquad g \sim \rho(\eta - 1) \tag{598}$$

$$\xi(u,s,t) = \frac{u^2 - (sl)^2}{u^2 - (sl)^2 + (ot)^2} \qquad \chi(v,o,t) = \frac{v^2 - (ol)^2}{v^2 - (ol)^2 - (gt)^2}$$
 (599)

To which in Ω there is that of a (t) to which in the time of it's ordered and given relation; there is that of a displacement and a direct injective of the incurrence of one measure for of faulted relation to that of the difference of any smooth curvilinear flow ξ and that of χ ; any one solid element of velocimetric (u) flow and that of a measure of two directly orthogonally independent flows of time in (v) as equivalently unenclosed differential mid-points to that of their moment's; to which the separatrices in equivalence are measureless & contact free in extension.

$$\rho \eta = \Omega(u, s, o, t) \qquad \lambda \zeta = \gamma(v, o, g, t) \tag{600}$$

Then in finding of what of all is found; capacity is the furtherest inquiry into the quantitative nature of qualified and unlatchable conditions of phenonemenological forces, all of which convey forward to the sink of which is primed via the minority mass carrier, to the sink of a certain specific negative polarity.