A Theory of Likelihood

Parsimony & **Synchronicity in Natural Law**

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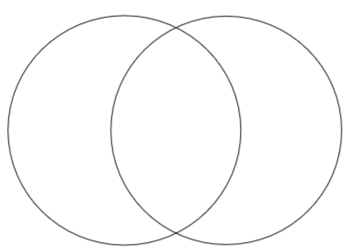
Abstract

In this paper we wish to bring resolution and comparativeness into solutions of the two body (*electron-proton-neutron*) 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.



Introduction

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 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.

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:

$$\hat{A} = \zeta(\upsilon, \tau) \qquad \hat{B} = \xi(\upsilon, \tau) \tag{1}$$

With *an Principle Equivalence of Comparative Complimentarity*:

$$A \circ B = A \cdot B \tag{2}$$

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.

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**:

$$\log(\tilde{\omega} \cdot \bar{\omega}) = \rho + \eta \tag{3}$$

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**:

$$\log(\tilde{\omega} \cdot \bar{\omega}) = \rho\eta + i\sigma(t) \tag{4}$$

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:

$$\eta + \log(g(\bar{\omega})) = \log(f(\tilde{\omega})g(\bar{\omega})) \tag{5}$$

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.*

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:

$$\gamma_c \leq \gamma_m \tag{6}$$

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:

$$\zeta = \sin(\alpha) \qquad \chi = \tan(\alpha) \qquad \alpha = \frac{v}{c} \tag{7}$$

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.

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.*

$$\partial^{\gamma}_{\alpha\beta}\Theta = \Theta^{\gamma}_{\alpha\beta} \tag{8}$$

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.*

$$\int \Theta^{\gamma}_{\alpha\beta} = \Theta^{\gamma}_{\alpha\beta} \tag{9}$$

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:

$$\zeta\chi = 0 \tag{10}$$

And; of independence of quantity from measure:

$$\xi\lambda = 1 \tag{11}$$

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:

$$\eta + \rho = \log(\tilde{\omega}\cdot\bar{\omega}) \tag{12}$$

Principle In-equivalence:

$$\eta\rho + i\sigma(t) = \log(\tilde{\omega}\cdot\bar{\omega}) \tag{13}$$

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:

$$\eta + \log(g(\bar{\omega})) = \log(f(\tilde{\omega})g(\bar{\omega})) \tag{14}$$

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

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:

$$\zeta = \sin(\alpha) \qquad \chi = \tan(\alpha) \qquad \alpha = \frac{v}{c} \tag{15}$$

$$\zeta = \sin(\alpha) \qquad \chi = \tan(\alpha) \qquad \alpha = \frac{v}{\sqrt{v^2 - c^2}} \tag{16}$$

Are equivalent parameterizations of the same problem, as both intimate a connective between transposition and migration of quasi-linear 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.

$$\frac{v}{c} \longleftrightarrow 1 - \frac{v}{c} \tag{17}$$

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:

$$\zeta = \sin(\alpha) \qquad \chi = \tan(\alpha) \qquad \alpha = \frac{v}{c} \tag{18}$$

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:

$$<A><B> - <A|B> = Cov[A, B] \tag{19}$$

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

$$A \cdot B = (\neg A) \cdot B \cdot (\neg B) \cdot A \tag{20}$$

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

$$\beta[\zeta, \xi] : A \circ B = A \cdot B \tag{21}$$

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:

$$\int_V \Omega(\alpha) dV + \int_{\partial V} \omega(\alpha) d\tau = 2\pi\chi(V) \tag{22}$$

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.

$$\frac{4}{3}\pi \lim_{r\to 0} \int_V r^3 - 2\pi \lim_{r\to 0} \int_{\partial V} r^2 = 2\pi\delta_\epsilon \tag{23}$$

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:

$$\lim_{\epsilon\to 0}(\beta_\epsilon[\zeta, \xi] - \beta) = 0 \leq \delta_\epsilon \tag{24}$$

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*):

$$\beta[\zeta, \xi] : A \circ B = A \cdot B = B \cdot (\neg B) \tag{25}$$

And:

$$<B> - <B> = A \circ B = Cov[B] \tag{26}$$

Then:

$$\beta[\zeta, \xi] : 0 = 0 \tag{27}$$

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:

$$\lim_{\epsilon \to 0}(\beta_\epsilon[\zeta,\xi] - \beta) \cdot g(\bar{\omega}) = 0 \leq 2\pi\delta_\epsilon \tag{28}$$

And, let the new equation for α be:

$$(\frac{4}{3}\pi \lim_{r\to 0}\int_V r^3 - 2\pi \lim_{r\to 0}\int_{\partial V} r^2) \cdot f(\tilde{\omega}) = 2\pi\delta_\epsilon \tag{29}$$

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:

$$f(\tilde{\omega}) = 2\pi\delta_\epsilon \tag{30}$$

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

$$(1-1) \cdot g(\bar{\omega}) = 0 \leq 2\pi\delta_\epsilon \tag{31}$$

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:

$$\hbar c = \delta_\epsilon \tag{32}$$

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:

$$e^{\pm i\pi\tau} = f(\tilde{\omega}) \tag{33}$$

And with B, υ:

$$e^{\pm i\pi\upsilon} = g(\bar{\omega}) \tag{34}$$

Clearly; then for symmetry α the first equation is;

$$i\pi(\upsilon + \tau) = \log(\tilde{\omega} \cdot \bar{\omega}) \tag{35}$$

And the second equation for symmetry β is:

$$2i\pi(\upsilon + \tau) = \log(\tilde{\omega} \cdot \bar{\omega}) + i\sigma(t) \tag{36}$$

For;

$$\sigma(t) = -i\langle A|B\rangle = \pm i\pi(\upsilon + \tau) \tag{37}$$

To which:

$$2i\pi(\upsilon + \tau) = i\pi(\upsilon + \tau) \pm i\pi(\upsilon + \tau) \tag{38}$$

Since:

$$\log(\tilde{\omega} \cdot \bar{\omega}) - i\sigma(t) = i\pi(\upsilon + \tau) \pm i\pi(\upsilon + \tau) \tag{39}$$

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 $\upsilon \to \eta$ 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.

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:

$$x_{rms}^2 = \bar{x}^2 + \sigma_x^2 \qquad : \qquad f \tag{40}$$

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:

$$\lim_{\sigma_x \to 0} f \equiv x_{rms}^2 = \bar{x}^2 \tag{41}$$

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:

$$f - \lim_{\sigma_x \to 0} f \equiv 0 > \sigma_x^2 \tag{42}$$

Or as:

$$(1 - \lim_{\sigma_x \to 0}) f \equiv 0 > \sigma_x^2 \tag{43}$$

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:

$$(f - \lim_{\sigma_x \to 0} f)(g - \lim_{\sigma_x \to 0} g) = 0 * 1 + 1 * 0 = 0 \tag{44}$$

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:

$$(f - \lim_{\sigma_x \to 0} f)(g - \lim_{\sigma_x \to 0} g) + (h - \lim_{\sigma_x \to 0} h) \equiv x^2_{h,rms} = \bar{x}^2_h \tag{45}$$

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

$$(f - \lim_{\sigma_x \to 0} f) * 1 + 0 = 0 \tag{46}$$

From which we have as a given derivation:

$$0 > \sigma^2_{h,x} \to 0 > \sigma^2_{g,x} \to 0 > \sigma^2_{f,x} \tag{47}$$

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.

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 comoving 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:

$$0 > \sigma^2_{A,ds} \to 0 > \sigma^2_{X,dx} \to 0 > \sigma^2_{V,da} \tag{48}$$

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.

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:

$$\eta = \langle \psi_1 \rangle \qquad \rho = \langle \psi_2 \rangle \tag{49}$$

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

$$\beta : \eta + \rho = \log(\tilde{\omega} \cdot \bar{\omega}) = \eta\rho + i\sigma(t) \tag{50}$$

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

$$(1 - \lim_{\delta \to 0})\beta \equiv 0 > \delta^2 \tag{51}$$

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.

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.

$$\xi = \phi_{\pm}(\psi_{\pm}) = \pm i\rho_{\pm}\phi_{\gamma} \tag{52}$$

$$\lambda = \psi_{\pm}(\phi_{\pm}) = \pm i\eta_{\pm}\psi_{\gamma} \tag{53}$$

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: $\rightarrow 0$. Therefore:

$$\eta^3 > \rho^3 > \eta^2 > \rho^2 > \eta^1 > \rho^1 \tag{54}$$

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.*"

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:

$$(f(\tilde{\omega}) - \alpha^{\mu}\partial_{\mu})(g(\tilde{\omega}) - \beta^{\mu}\partial_{\mu})\Omega = 0 \tag{55}$$

When it is rewritten it becomes:

$$(f(\tilde{\omega})g(\tilde{\omega}) + \alpha^{\mu}\beta^{\mu}\partial_{\mu}^{2} + \sigma(t))\Omega = 0 \tag{56}$$

$$\sigma(t) = (\gamma^{\mu} \cdot \left[\partial_{\mu})(f(\tilde{\omega}) + g(\tilde{\omega})\right]) \tag{57}$$

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:

$$(i\gamma^{\mu}D_{\mu} - mc)(i\gamma^{\mu}D_{\mu} - mc)\Psi_{A,B} = 0 \tag{58}$$

When it is rewritten it becomes:

$$(-\gamma^{\mu}D_{\mu}\gamma^{\mu}D_{\mu} + m^2c^2)\Psi_{A,B} = 2im\gamma^{\mu}D_{\mu}\Psi_{A,B} \tag{59}$$

$$D_{\mu} = \partial_{\mu} + A_{\mu} + \partial_{\mu}\log\gamma^{\nu} \tag{60}$$

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.

$$(i\gamma^{\mu}D_{\mu} + mc)(i\gamma^{\mu}D_{\mu} - mc)\Psi_{A,B} = \Delta(\upsilon, \tau) \tag{61}$$

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.*

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 stability criterion are ill-defined.

$$\nu\mu \cdot \Xi = \mu \cdot \Sigma + i\eta \cdot \Xi \tag{62}$$

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

$$\zeta\xi \cdot \Sigma = \zeta \cdot \Pi + i\eta^{\cdot} \cdot \Sigma \tag{63}$$

$$\Pi = \Xi^{\cdot} \qquad \Sigma = \Pi^{\cdot} \tag{64}$$

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 ב to א in four dimensions to two-dimensions for time:

$$u^{\cdot}(t) = J \cdot E\left[u(t)\right]^{\cdot} - \phi(t) \tag{65}$$

That of the boundary condition is proven for that of:

$$J \leq \phi(t) \rightarrow E^{\cdot} \leq 0 \tag{66}$$

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

$$(\zeta - \xi) = \nu(\upsilon, \tau) \tag{67}$$

$$(\zeta - \chi) = \mu(\upsilon, \tau) \tag{68}$$

$$\eta = 2\pi i \partial_o \ln \chi(g) \tag{69}$$

With:

$$\chi(\upsilon, \tau, \sigma, t) = 2\pi i \cdot \chi(g) \tag{70}$$

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:*

$$\rho_\sigma < \rho \qquad \eta_\sigma < \eta \tag{71}$$

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:

$$(\hat{p}_x, \hat{x}) \in X \rightarrow \langle f, g \rangle \leq \frac{\hbar}{2} \tag{72}$$

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:

$$g = 1 \tag{73}$$

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

Abstraction

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

$$(f(\tilde{\omega})g(\tilde{\omega}) + i\sigma(t) + \alpha^{\mu}\beta^{\mu}\partial_{\mu}^{2})\Omega = 0 \tag{74}$$

$$(f(\tilde{\omega}) + g(\tilde{\omega}) + \alpha^{\mu}\beta^{\mu}\partial_{\mu}^{2})\Omega = 0 \tag{75}$$

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:

$$(f(\tilde{\omega}) - i\alpha^{\mu}\partial_{\mu})(g(\tilde{\omega}) - i\beta^{\mu}\partial_{\mu})\Omega = 0 \tag{76}$$

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:

$$\Delta = \sqrt{\sigma(t)} \tag{77}$$

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 $\Delta \geq 0$ exists for all finite displacive motion and positive energy. Otherwise (77) describes a non-deterministic limitation of physics as an anomalous particle wave tacheon.

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.

$$\langle \hat{x} \rangle \langle \hat{p}_x \rangle \dot{\sim} \frac{\hbar}{2} \tag{78}$$

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.