Electromagnetic Light Freedom and Spin Unitary Freedom

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Abstract

The generation of that of electromagnetism proceeds from few known relations; it is derived from that of simple experimental conditions known as law's for which the calculus of variants and differentials plays a key role. In this the understanding of that of what is suspected as a given philosophy is established which confirms the lemma of electromagnetic phenomena meanwhile attempting to prove that of the fundamental constituative formulation of which forms the foundation of mathematical expression. This mathematical expression finds it's place in that of description of all known derived laws and phenomena of which take place in the physical world within that of the given theory. Beyond this; the consistency of the given theory is justified on empirical results and exact experimental results in place of that of quantitative approximation of exterior alternative supposition based on qualitative difference of theory from given; the centerpoint of modern science and staple of reductionism; for that of which scientific extrapolation finds only limitation; as in that of what is encouraged through such inquiry is exact provision for proportionate quantitative and qualitative argument with that of mathematical interpolation of knowns and given means of experimental basis; a method that is soon running dry of explanations.

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 a priori; for the limitation that is one side of a given fixed relation is empty.

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 photovoltiac 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:

$$V = I_0(\exp^{-\frac{V_\beta}{V_T}} - 1) \tag{1}$$

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 impassability 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.

$$\gamma = 1 + g \tag{2}$$

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 volumetic extension by that of either given sum difference relation; forming from that of two sum difference relations; that of one sum insparability 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 constituative of the complete perimeter under balance of equipar-

tition 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.

0.1 Constitutive Functionals

$$(1.) \qquad V_L(\frac{V_{LD}}{V_{PD}}) + V_P = V_L^e(V_P)$$

$$(2.) \qquad V_P(\frac{V_{PD}}{V_{LD}}) = V_P^e(V_L)$$

0.2 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 equivalency 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:

$$(A.) \qquad V_L^e \qquad \rightarrow \qquad (V_P^e)^{-1}$$

$$(B.) \qquad V_P^e = \alpha V_L + \beta V_L^2$$

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 switchability.

The expectation of these equations comes from a compatability condition of electromagnetism based upon field and electromagnetic light wave freedom by decoupling of passive electromagnetic 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 summativeness of 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.

0.3 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 transmissivity (γ). This is written as:

$$(0.) \qquad O(I,V,R) \cong Z(\alpha,\beta,\gamma)$$

Hypothesis: Separability and inseparability are potentiated by the existence of the acausal; as events so invisible.

Hypothesis: Invisibility potentiates all such capacities of coloration and of color; as through indivisibility of color.

Through these relations as in equation 3.) under the pretences 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 coparallel and parallel electrical light like electromagnetic energy are independent of difference or similarity of parallel and coparallel 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.

0.4 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 preceeding 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 trasmission. Hence either (as both) of separability & that of inseparability of light is established as fundamental difference.

This transparency mentioned between 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 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 eclipsement 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 its eclipsement as monodirectional & of exclusively pure proportion of equality of light in balance with light.

0.5 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 orientatsion 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.

0.6 Preliminary Equations

The generating equations exemplify a relation of reduction to a singular confocul relation of permeability of light as passivity transparently between that

of physical and electrical properties of electronics:

$$(1.) \qquad V_L(\frac{V_{LD}}{V_{PD}}) + V_P = V_L^e(V_P)$$

$$(2.) \qquad V_P(\frac{V_{PD}}{V_{LD}}) = V_P^e(V_L)$$

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 (ω) 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 & priod 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 con-

version 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, under & of its conversion as one, free of charge; as a result of the direct (A, ds) (Area, path differential) & interval (l) relation of geometrically free properties of light, & the pointlike 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:

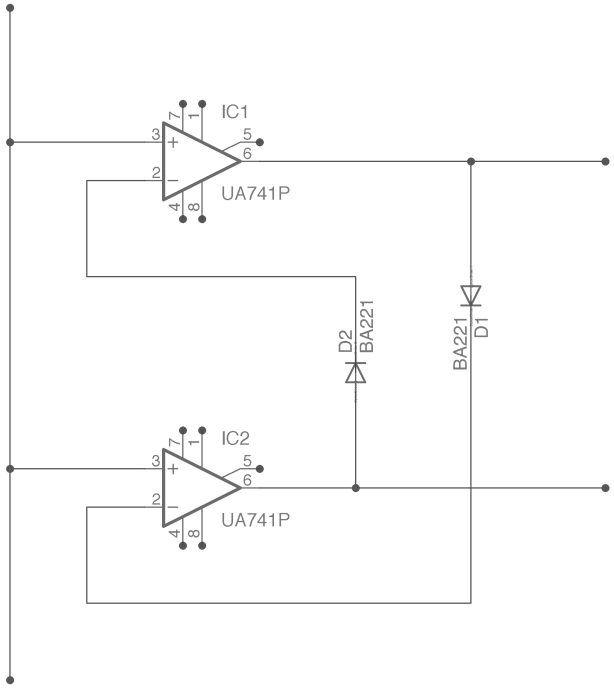
5.) The photodiode and light emitting diode are therefore decoupled mutually, throughout; as a consequence of their freedom under unquantifiability of open interior and exterior of flow. This qualifies their mutual independence.

0.7 Direct Conclusions

Physical & electromagnetic design & implementation & light are independent & unqualifiably separated but one; for that of through passivity of light under design (physical) as one, inseparable, independent, unique, & free. Light as bidirectional or as monodirectional 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.

0.8 Design Furtherance

The first step is to understand how light reception is electronically balanced with that of light transmission; by way of operational amplifiers; for which the following circuit diagram came first:



Net 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:

$$V_A = I_{OL}(e^{-\frac{V_{LD}}{V_{TLD}}} - 1) \tag{3}$$

$$V_B = I_{OP}(e^{-\frac{V_{PD}}{V_{TPD}}} - 1) \tag{4}$$

To:

$$g = \frac{\alpha}{\beta} \tag{5}$$

Where g is the base to emitter gain; expressed as the ratio of $\frac{I_{BE}}{V_{BE}}$. With:

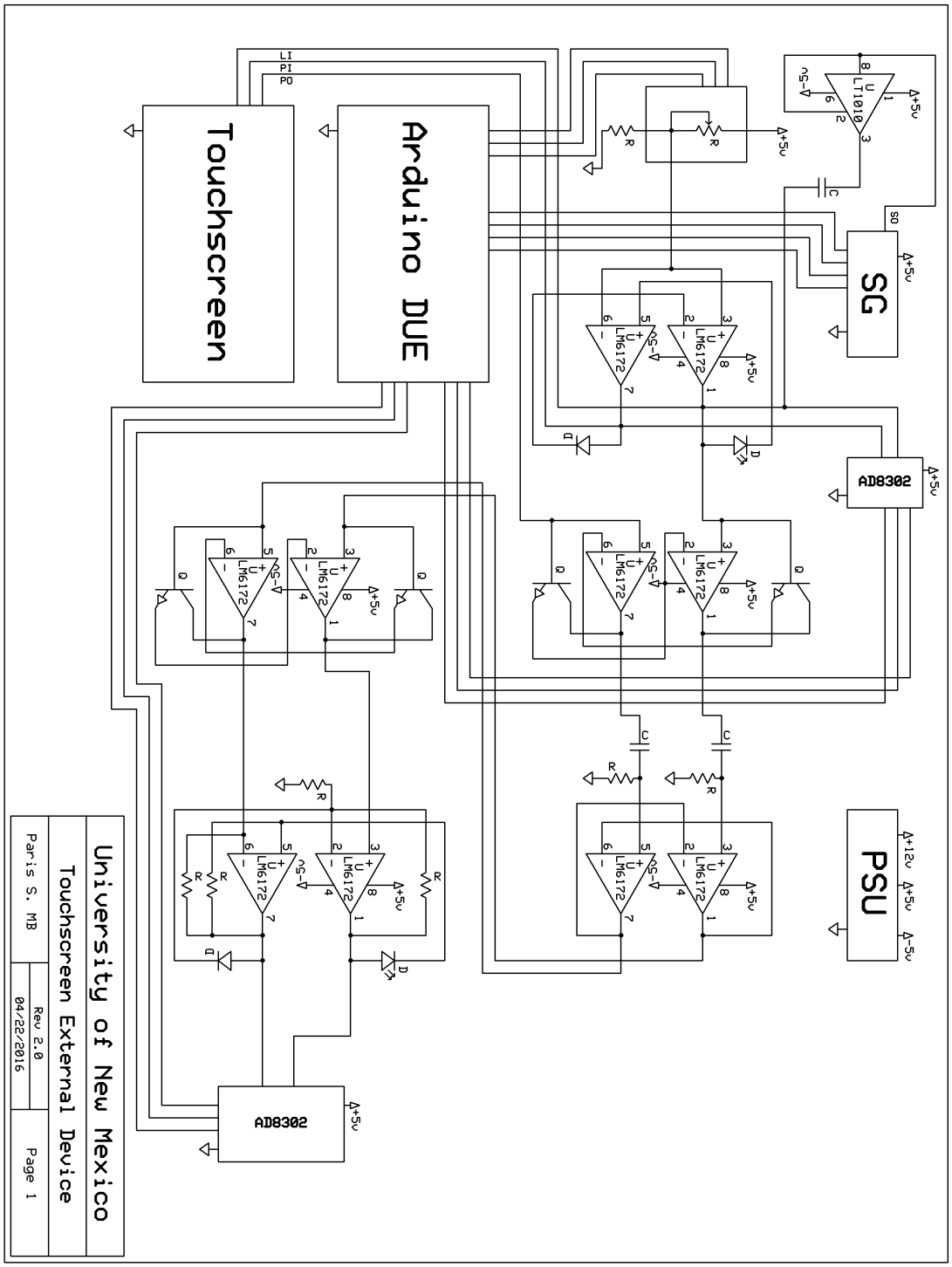
$$\gamma = 1 + g \tag{6}$$

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:

$$V_P^e = \alpha V_L + \beta V_L^2 \tag{7}$$

0.9 Final Circuit Diagram

The following is the complete circuit diagram of the device:



This diagram is complete in representation as it is entire and whole in it's design.

0.10 Understanding Device Implementation

The five block stage crossover stages accomplish novel things by being in a parallel and series superimposable 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 reflectionless. 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 co-local

arbitrary conditions of the wave are foundationally 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.

0.11 Determination of Knowability of Order from Properties

Examine the following:

One is presented with five 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 propertyless may be passed for the remaining three blocks as propertyless between the others; 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 nor after such as 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 propertyless-ness of the blocks, and their identifiable proprieties 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.) Whence 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 propertyless as passed and therefore identified by the exception which is the inclusion of the self consistent relation of order and of its determination.

8.) Finally whence 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 propertyless 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 no 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 it's origin in propertyless-ness 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 whenceforth determined.

10.) The finality of this is that even through an unestablished order for unknowables; order may be recovered, established a priori for such propertyless

'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.

0.12 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 encompassment 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; spacelessness, timelessness, and quantifiables; cause and effect are separable within space and time for that of light, charge and mass, as quantifiables 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 sep-

arability 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 predictiveness 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.

0.13 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 directionalitites 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. (transistive 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.

0.14 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 hence 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 confirmability 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 confirmability 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 comutual 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 relationships.

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 measurability.

The next step that need be taken in order to fully implement the device is a program for which discernibility of more than two presses is realizable through software; and this must be resolved within an order such that the base normalized distribution within the later persistent normalized distribution.

This works because through the order reduction is drawn back towards the original on center frequency, as 'hidden' within the later to come normalized distributions. An adaptive algorithm would be desirable as well; however it has been determined that an active adaptive algorithm likely will not work; but by analogy; a fourth order adaptive algorithm may work through off diagonal elements.

The earlier difference for the sake of to consider electromagnetic design meeting as that of causelessness into the future; and causal moment so independent of reality was so as to absorb light upon encompassment 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 within for that of outside and inside as without is therefore separated.

0.15 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 subsesquiscent 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 difference by that of later or prior exceptionality 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 delimit of monodirectional 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 of 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.

0.16 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 inclosure 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 constituative 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.

$$\partial_{\mu}\log(\tilde{\tilde{Z}}^{*}\bar{Z}) = \eta = \partial_{\mu}(\tilde{\tilde{\omega}}^{*}\bar{\omega}) \qquad \leftrightarrow \qquad \eta = \frac{I_{LD}}{V_{PD}} = \frac{I_{LDD}}{V_{PDD}} \tag{8}$$

This has the interpretation as that of the constituative relation of analytic continuation; a complete relation of null transmissability; 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.

0.17 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, reflectionless, 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 reflectionlessness 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.

0.18 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.

0.19 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 coadjoint union.

0.20 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:

$$\frac{V_{LD}}{V_{LLD}} = \frac{V_{PD}}{V_{PLD}} \tag{9}$$

And; therefore it holds in general that:

$$\bar{V} = \tilde{\tilde{Z}} I^* \tag{10}$$

$$\tilde{\tilde{V}}^* = \bar{Z} I \tag{11}$$

Are independent; hence:

$$\frac{\partial \bar{V}}{\partial I} = \frac{\partial \tilde{\tilde{V}}^*}{\partial I^*} = \eta \tag{12}$$

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 of either relation under superposition is and are simultaneously independent.

2.) Hence, the circuit embodies the wave equation if:

$$\Theta = \eta(t, r, \theta, \phi) e^{\pm i(\omega t + \tau r + n\theta + \psi\phi)} \tag{13}$$

And; it's differentials, solves either equation resulting from their combination under tensorial relationship:

$$(\partial_t - \partial_\theta)(\partial_t + \partial_\theta)\Theta = \Box_t^\theta \Theta \tag{14}$$

$$(\partial_r - \partial_\phi)(\partial_r + \partial_\phi)\Theta = \Box_r^\phi \Theta \tag{15}$$

Yet as provided the above; this results in *(I:β and Z:η)*:

$$\frac{\partial \bar{\Theta}_\mu}{\partial \beta_\nu} = \frac{\partial \tilde{\tilde{\Theta}}^*_\mu}{\partial \beta^*_\nu} \qquad \rightarrow \qquad \frac{\partial_\gamma}{\partial_{\mu\nu}} \Theta = \Theta^\gamma_{\mu\nu} \tag{16}$$

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.

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.

0.21 Final Mathematical Synopsis

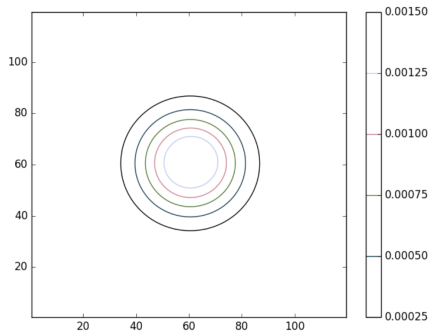
As a consequence of the variance of the device; the implementation requires one final direction; which is a seamless passthrough filter for which the following relationship holds of transitive phase freedom and isolation; resulting in the relationship of transparency (R) to transmissivity (Γ) of relation:

$$\log(\Gamma(\omega,\tau)R(\omega,\tau)) = Z(\tilde{\omega},\tau)^{*}Z(\bar{\omega},\tau) \tag{17}$$

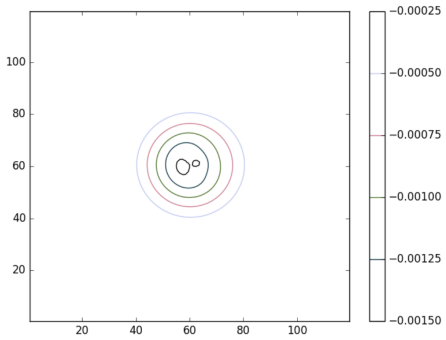
Were this improvement made; it is clear from the given relationship above that impedance matchings occur simultaneously and independently for *one* and *all* such signals of a given frequency and decay constant.

0.22 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.

0.23 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; but the difference between two lines; as that of the light under reception under disconnection from trans-

mission; 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 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 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.

0.24 Satisfiability

Hence a natural identity holds from which statistics are known as:

$$\zeta(\omega, f, \tau, \phi) \sim \omega(\kappa, \rho, \sigma, t) \to \frac{\partial_\gamma}{\partial_{\alpha\beta}} \Theta = \Theta^{\gamma}_{\alpha\beta} \tag{18}$$

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:

$$\partial_\mu \log(\omega) = 0 \leftrightarrow \Omega\, \zeta = 0 \tag{19}$$

This implicates the separation of electricity from magnetism and their comutual independence.

0.25 Physical Considerations

As the given determinancy can form no indivisible limit comparability to direction; adirecatonality; 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 to difference to difference. 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 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.

That of the indivisatorial 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.

0.26 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, electro magnetic, 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 electro magnetism, is to be found in that of the emptiness of the void.

0.27 Philosophical Implications

As a consequence that of the division which is representative of multiplicativeness 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 inter-

spacing 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 indivisive 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 conclusiveness 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, convolutionary, and interpretative as indivisible motions of that of free and open exterior; a second rationalization by which the device is free of excitory 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.

0.28 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."*

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:

$$x_{rms}^2 = \bar{x}^2 + \sigma_x^2 \qquad : \qquad f \tag{20}$$

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:

$$\lim_{\sigma_x \to 0} f \equiv x_{rms}^2 = \bar{x}^2 \tag{21}$$

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:

$$f - \lim_{\sigma_x \to 0} f \equiv 0 > \sigma_x^2 \tag{22}$$

Or as:

$$(1 - \lim_{\sigma_x \to 0}) f \equiv 0 > \sigma_x^2 \tag{23}$$

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 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 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. 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.

0.29 Proof of Translation

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 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 reexpression 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:

$$(f - \lim_{\sigma_x \to 0} f)(g - \lim_{\sigma_x \to 0} g) = 0 * 1 + 1 * 0 = 0 \tag{24}$$

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:

$$(f - \lim_{\sigma_x \to 0} f)(g - \lim_{\sigma_x \to 0} g) + (h - \lim_{\sigma_x \to 0} h) \equiv x^2_{h,rms} = \bar{x}^2_h \tag{25}$$

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

$$(f - \lim_{\sigma_x \to 0} f) * 1 + 0 = 0 \tag{26}$$

From which we have as a given derivation:

$$0 > \sigma^2_{h,x} \to 0 > \sigma^2_{g,x} \to 0 > \sigma^2_{f,x} \tag{27}$$

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.

0.30 Ideal Principle Equivalence

The equations which dictate the function, form, and nature of the universe are two, as follows:

Quiescence

Conclusive Remark on Light: *The speed of light varies such that the observer's reflection is an invariant speed & the observed'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**:

$$\partial^{\gamma}_{\alpha\beta}\Theta = \Theta^{\gamma}_{\alpha\beta} \tag{28}$$

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:

Prescience

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**:

$$\int \Theta^{\gamma}_{\alpha\beta} = \Theta^{\gamma}_{\alpha\beta} \tag{29}$$

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 co-extensively 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:

$$\zeta\chi = 0 \tag{30}$$

And; of independence of quantity from measure:

$$\xi\lambda = 1 \tag{31}$$

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 co-variance is expressed as a relative principle inequivalence.

0.31 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 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.

The conclusion so far is that alternative theories are mutually result free; the relationship of differing bodies to depart from motion with different proportionalities of mass to inertia is no 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 process; 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 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 reality:

$$0 > \sigma^2_{A,ds} \rightarrow 0 > \sigma^2_{X,dx} \rightarrow 0 > \sigma^2_{V,dA} \tag{32}$$

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.

0.32 End Proof

Therefore by the preceeding logic there is not one but two given separated zeroes between that of each identifiable point like limits of physical reality; with no local to global conveyance of the identity or naturalized point relation of absolute form. This conservative tendency of the involute relation of either relation; implicates that despite fixture; nothing is defined as a given absolute; in the same manner by which no identity exists.

$$\psi^{\pm}_{\gamma} = \eta_{\pm} e^{\pm i\theta_{\gamma}} \tag{33}$$

$$\phi^{\pm}_{\gamma} = \rho_{\pm} \partial \log(\pm i\theta_{\gamma}) \tag{34}$$

From which through the given process of a chain of deduction and induction leads through this process to a conclusion that these quantities and defined as following are of an absolute null invariance given no third reduction exists in reverse:

$$\xi = \phi_{\pm}(\psi_{\pm}) = \pm i\rho_{\pm}\phi_{\gamma} \tag{35}$$

$$\lambda = \psi_{\pm}(\phi_{\pm}) = \pm i\eta_{\pm}\psi_{\gamma} \tag{36}$$

Of unity as length of separtion 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 $\rightarrow 0$. Therefore:

$$\eta^3 > \rho^3 > \eta^2 > \rho^2 > \eta^1 > \rho^1 \tag{37}$$

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?"

And; **"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.

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."

0.33 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; 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:

$$(i\gamma^{\mu}D_{\mu}-m)(i\gamma^{\mu}D_{\mu}-m)\Psi_{A}\Psi_{B}=0 \tag{38}$$

When it is rewritten it becomes:

$$(-\gamma^{\mu}D_{\mu}\gamma^{\mu}D_{\mu}+m^{2})\Psi_{A}\Psi_{B}=2im\gamma^{\mu}D_{\mu}\Psi_{A}\Psi_{B} \tag{39}$$

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}.

$$(i\gamma^{\mu}D_{\mu}+m)(i\gamma^{\mu}D_{\mu}-m)\Psi_{A}\Psi_{B}=\Delta \tag{40}$$

Which means that two electrons are the generator under the anticommutation 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. 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 itfl'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.

0.34 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 abbute to elliptical conditions. The connection between these is that of the given relationship between that of tension, torsion, and that of elliptical semimajor and semiminor 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:

$$\Theta := \begin{pmatrix} \alpha\hat{A}(\omega,\tau) & \beta\hat{B}(\omega,\tau) \\ \gamma\hat{A}(\omega,\tau) & \delta\hat{B}(\omega,\tau) \end{pmatrix} \begin{pmatrix} p(u) \\ p'(u) \end{pmatrix} = \int_{\tau}\int_{\theta} \begin{pmatrix} e^{-i\omega t}A(t,u) & -e^{-i\omega t}B(t,u) \\ e^{i\omega t}A(t,u) & e^{i\omega t}B(t,u) \end{pmatrix} \begin{pmatrix} p(u) \\ p'(u) \end{pmatrix}$$

0.35 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:

$$\theta := \begin{pmatrix} \tilde{A}(\omega,\tau) \\ \tilde{B}(\omega,\tau) \end{pmatrix} \begin{pmatrix} \partial_\mu \log \alpha(u,t) & \partial_\mu \log \beta(u,t) \\ \partial_\mu \log \gamma(u,t) & \partial_\mu \log \delta(u,t) \end{pmatrix} \begin{pmatrix} e^{-i\omega t} \\ -e^{i\omega t} \end{pmatrix} = \begin{pmatrix} -\tilde{A}(\theta,\tau) & -i\tilde{B}(\theta,\tau) \\ i\tilde{A}(\theta,\tau) & \tilde{B}(\theta,\tau) \end{pmatrix}$$

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 nilpotnent) 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.

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.

0.36 Inseparability of Comutual 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.

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:

$$\gamma_{\rho}^{\rho\sigma}(\eta_{\rho\sigma}^{\rho}) \tilde{=} \chi_{\mu}^{\mu\nu}(\gamma_{\mu\nu}^{\nu}) \tag{41}$$

These two fields by the composite relationships of that of independence of phenomenal from quanitative:

$$\zeta\chi = 0 \tag{42}$$

And; of independence of quantity from measure:

$$\xi\lambda = 1 \tag{43}$$

0.37 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:

$$\zeta = \sin(\alpha) \qquad \chi = \tan(\alpha) \qquad \alpha = \frac{v}{c} \tag{44}$$

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.

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.

0.38 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.

The conclusion of consistency for that of self conclusive closure is defined by that of what can be defined as a 'bottom' extreme beyond which awareness of the exterior world does not reach; but sublimates a given limit of enclosure unto it's a; or each; given domain of closed relation for that of what is potentiated when there are two fundamentals as in mathematics and in the physical world; of geometric reasoning; of a solid or passable and transparently given nature; for that of what is foundational when reasoned as deferent.

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 dilation is obverse to a measure of 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 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:

$$\zeta = \sin(\alpha) \qquad \chi = \tan(\alpha) \qquad \alpha = \frac{v}{c} \tag{45}$$

And:

$$\zeta = \sin(\alpha) \qquad \chi = \tan(\alpha) \qquad \alpha = \frac{v}{\sqrt{v^2 - c^2}} \tag{46}$$

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 Albert Einstein.

0.39 Final Note of Measurability

The first equation is the Principle Equivalence:

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

The second equation is the Principle Inequivalence:

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

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:

$$\eta = 1 - \frac{v_1}{c}\cos(\theta_1) \tag{49}$$

$$\rho = 1 - \frac{v_2}{c}\cos(\theta_2) \tag{50}$$

The substitution of one of η or ρ under either given pointlike 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 encompassment of either of two subcomponents of the alternative exterior difference of any two signal areas is constructable; as are any two given exterior alternative differential space 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:

$$\eta + \log(f(\tilde{\omega})) = \log(f(\tilde{\omega})g(\tilde{\omega})) \tag{51}$$

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 given impenetrability exists.*

0.40 Final Conclusion

The proposal of this thesis formulation is that of the development, design, and creation of a 'Light Gyroscope' which is the formulation of a method to balance light on a point with all such 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 an infinite cascade non related to that of the quadrature condition of elliptic function is met with a dual to an infinite cascade of ordinary elliptic operator solutions as their dual sine wave harmonic functions of free extension in space, time, and quantifiable moment of temporal singular event structure; for which 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.

An electron is a hole in a light field.