Canadian Journal of Pure and Applied Sciences
Vol. 17, No. 3, pp. 5745-5760, October 2023
Online ISSN: 1920-3853; Print ISSN: 1715-9997
Available online at www.cjpas.net

PRELIMINARY RESULTS OF GENESIS FOR DISTORTED FIELDS' QUANTUM MECHANISM WITHIN SUPERLUMINAL QUAGMIRE

Rajan Iyer
Department of Physical Mathematics Sciences Engineering Project Technologies, Engineering Inc.
International Operational Teknet Earth Global, Tempe, Arizona, United States of America

ABSTRACT

Intriguing derivations have made it possible to gage Helmholtz decomposition matrix fields of a point (2 × 2) matrix into Iyer-Markoulakis-Malaver-O'Neill-Hodge-Zhang-Taylor (IMMOHZT) Hod-PDP mechanism in a Superluminal Plenum quagmire per our earlier peer reviewed publications. The author has modeled schematic graphics of light-like photons as Planck sheets and the sound-like vibrations as vortex loops at the quantum level, based on the IMMOHZT Hod-PDP mechanism. The current model considers randomly oriented monopole magnetic vectors getting aligned locally creating distorted field energy probabilistically to originate Hod-PDP circuit assembly within "superfluid" like Superluminal Plenum Turbulent Magnetic Quagmire. Application of the Algorithm General Modified Feynman Diagram has helped to rationalize well-known creation of the Standard Model particles of fermions, bosons, gluons, and quarks as the outputs of perpetual-like feedback loop circuit mechanism with this Hod-PDP-hysteresis-unparticle matrix assembly quantum systems' mechanics. Using algorithm gaging from theoretical formalism to IT "qnbit" algorithm, simulation computer programming preliminary algorithm results show striking symmetry looking like a diffraction pattern of a perfect crystal bunched at the zero-point time on both sides of origin of a vacuum. Quantum Space Astro Event sequences that have been based on five dimensional space of consciousness, environment, state of the clocks, worldline, timeline applying to physics with hydrogen atom "qnbit" and linking to parity, phase angle, group velocity, phase velocity, superluminality, anomalous medium, as well as prime factorization crystal geometric structures have been here explored to launch towards gage physics from theoretical preliminary results, to unify fields physics that show discontinuum dissipative process mechanism, self-wrapping to observables.

Keywords: Hod-PDP general circuitry, magnetic hysteresis loop, superluminal plenum quagmire turbulence, distorted discontinuum energy fields, Quantum mechanism.

INTRODUCTION

The author has peer reviewed publications such as research papers and review articles (Iyer, 2021a, 2021b, 2021c, 2023a, 2023b, Iyer *et al*., 2020, 2022, 2023; Markoulakis *et al*., 2019; Iyer and Markoulakis, 2021; Malaver *et al*., 2021) and more recent theoretical results in (Iyer, 2023. Preliminary results magnetic hysteresis unparticle Hod-PDP circuit mechanism within superluminal physics. Publication in process presently with October 2023. CJPAS), and one book by Malaver *et al*. (2022) providing comparisons of currently available theoretical framework per literature. Since this paper is primarily preliminary results, a full paper having literature surveys with international references will appear in later publications of written articles that will include essential references provided in the above-mentioned work by the author including (TEKNET Earth global symposia TEGS website: All ongoing live stream phase-II YouTube recordings of episodes are available at URL: https://www.youtube.com/@teknet_earthglobal2923/streams. All videos of the phase-I YouTube recordings of episodes are available at URL: https://www.youtube.com/@teknet_earthglobal2923/videos) and the other recent research work (Zakharenko, 2020; Randall, 2013; Hossenfelder, 2006, 2022; Schwabl, 2008; Girvin and Yang, 2019) and (Cortzen, A. 2010. Direct construction of Grossmann, Clifford, and geometric algebras. arXiv:1011.3698v1). Earlier preliminary results' papers by Iyer (2023a, 2023b) and (Iyer, R. 2023. Preliminary results magnetic hysteresis unparticle Hod-PDP circuit mechanism within superluminal physics. Publication in process presently with October 2023. CJPAS) brought out key aspects with rank4 tensor time four-vector matrix leading to scalar quantum gauge fields quantum gravity transforms manifesting fiber transforms bundle strings that will portray gravity of space. Encouraging outputs of preliminary results of running computer algorithm generating plot graphics of global and local quantum

Corresponding author e-mail: engginc@msn.com

parameters (q_g, q_l) with 10,000 prime number factorizations (M1) and 100,000 prime number factorizations (M2) show striking crystal symmetric emanating patterns seemingly from vacuum zero time point intersecting structures manifesting with nodes of timeline interweaving worldline effects exhibiting diffraction patterns typically of a perfect crystal; inertia quantum relativistic effect with various environments manifesting states of the clocks to characterize existing anomalies here on earth has been highlighted schematically (Iyer, 2023a).

Strong gravity like rope braided closed bundle strings system having the stress tensor to pull object towards the center of gravity, while Weak gravity like the strands of open fiber transforms strings system stratified towards the center of the mass, role of quantum density matrix as masses spreading their spheres of influence spatially, gage velocity linking weak gravity to strong gravity through the Equivalence Principle as well as highlighting interactivity gravity on all objects of mass of the universe has been emphasized as well in the earlier preliminary results by Iyer (2023b). Additionally, geometry of space in relation to possible dimensions of various entities making up the universe are listed to introduce dimensional range, entities, and their expected properties and the effect of gravity measurable as weight of an object is extended by the author to quantify discontinuum physics (DCP) modeled parameter of theoretical dissipative discontinuum energy field (DEF) demonstrable by testable mesoscopic observable examples; string-gravity-fields analogized to quantify rigid string gradient in conjunction with curvature of threading strings to represent curl of gauge fields rotational aspects with (2 × 2) point matrix tensor fields have been shown to help towards unification of quantum gravitational physics fields (Iyer, 2023b).

Within ongoing preliminary results in Iyer (2023). Preliminary results magnetic hysteresis unparticle Hod-PDP circuit mechanism within superluminal physics. Publication in process presently with October 2023. CJPAS), the author has proposed the whole mechanism to operate via Hod-PDP quantum mechanism with detailed elements of energy producing [Hod]*_[e^-, e^+]_B-H_loop_unparticle_diagonal pivoting with its conjugate element of the [Hod]_[S, N]_B-H_loop_unparticle_cross-diagonal of PDP matrix working like the fins of a generator circuitry pivoted clocking assembly; this gets mechanistically activated by the random discontinuum process generating distorted fields within turbulent superluminal plenum phase magnetic quagmire (Iyer, 2021a, 2021b, 2021c, 2023a, 2023b; Iyer *et al*., 2020, 2022, 2023; Markoulakis *et al*., 2019; Iyer and Markoulakis, 2021; Malaver *et al*., 2021, 2022) and Iyer (2023). Preliminary results magnetic hysteresis unparticle Hod-PDP circuit mechanism within superluminal physics. Publication in process presently with October 2023. CJPAS). Supposedly turbulent superluminal plenum phase has perpetually random events universally, however, there is always a probability of monopole vectors aligning themselves at some locations within that quagmire of infinite extent. Hod-PDP-hysteresis-unparticle matrix assembly is hypothesized to operate like feedback circuit loop mechanism; operational switching modulating circuitry feedback loop mechanism with input, throughput, output, {Hod}, [PDP], quantum Standard Model particles with Superluminous Plenum Magnetic Quagmire physics mechanics have been schematically shown to have probability to come into existence because of this process mechanism (Iyer, 2023. Preliminary results magnetic hysteresis unparticle Hod-PDP circuit mechanism within superluminal physics. Publication in process presently with October 2023. CJPAS). The feedback mechanism is proposed having input {Hod}-like external magnetic gauge fields activating function machine-like [PDP] through hysteresis mechanics; with stable Standard Model particles created out of this consistent energy generator mechanics, they string together wave-particle throughput quanta gaging IT equivalent four-vector matrix format of wavefunctions-switching modes {$\psi_{fermions}$, ψ_{bosons}, ψ_{gluons}, ψ_{quarks}} [0 off-on 1 on-off] (Iyer, R. 2023. Preliminary results magnetic hysteresis unparticle Hod-PDP circuit mechanism within superluminal physics. Publication in process presently with October 2023. CJPAS). Once error signals are minimized by the feedback mechanism of Hod-PDP Superluminal circuit protocol, Standard Model particles of fermions, bosons, gluons, and quarks become outputs of quantum systems mechanics; observable measurable signal/noise matrix (. $\Gamma_{\omega,gr}$.) having resolved point-to-point profile density matrix intensity throughput have been experimentally designed from theoretical algorithm (Iyer *et al*., 2023; Iyer, 2023a) and Iyer (2023). Preliminary results magnetic hysteresis unparticle Hod-PDP circuit mechanism within superluminal physics. Publication in process presently with October 2023. CJPAS).

In the presently ongoing preliminary results paper, the author will go into deeper details of the quantum level processes that may be operating in terms of mesoscopic observables of light and sound, however, it will be more light-like photons as well as sound-like vibrations at the quantum level. Gradient and the vortex gauge fields that form the fundamental basis of the IMMOHZT Hod-PDP mechanism in a Superluminal Plenum quagmire (Iyer, 2021a, 2021b, 2021c, 2023a, 2023b; Iyer *et al*., 2020, 2022, 2023; Markoulakis *et al*., 2019; Iyer and Markoulakis, 2021; Malaver *et al*., 2021, 2022; Iyer, 2023). Preliminary results magnetic hysteresis unparticle Hod-PDP circuit mechanism within superluminal physics. Publication in process presently with October 2023. CJPAS) will be reset graphically to find the first

principles linking from start to the end of modeling formalism physics. How a random fluctuating turbulent Superluminal Plenum Perpetual Magnetic Quagmire may have probabilistically alignment of monopole vectors to initiate local distorted fields Hod-PDP mechanism will be schematically graphically drawn to illustrate quantum sequence events leading to creation of the Standard Model particles of fermions, bosons, gluons, and quarks as the outputs of perpetual-like feedback loop circuit mechanism of a Hod-PDP-hysteresis-unparticle matrix assembly quantum systems mechanics. Preliminary computer simulation programming results, turbulence to particle generation process per generalized modified algorithm Feynman diagram, initial computation with prime factorization crystal geometric structures, quantum space astro event sequences based on five dimensional space, hydrogen atom "qnbit", anomalous medium, as well as theoretical to experimental steps to show knowhow discontinuum dissipative process mechanism will be emphasized as part of this preliminary results' paper.

Keynote: Modifying above Figure label modifications
Light_photon = Planck_sheets will have to be modified to light_photon like Planck sheets, relativistically equivalent to wave front space $dR^2 = c^2dt^2$ because space time interval $ds = 0$ by having the event separation with a light

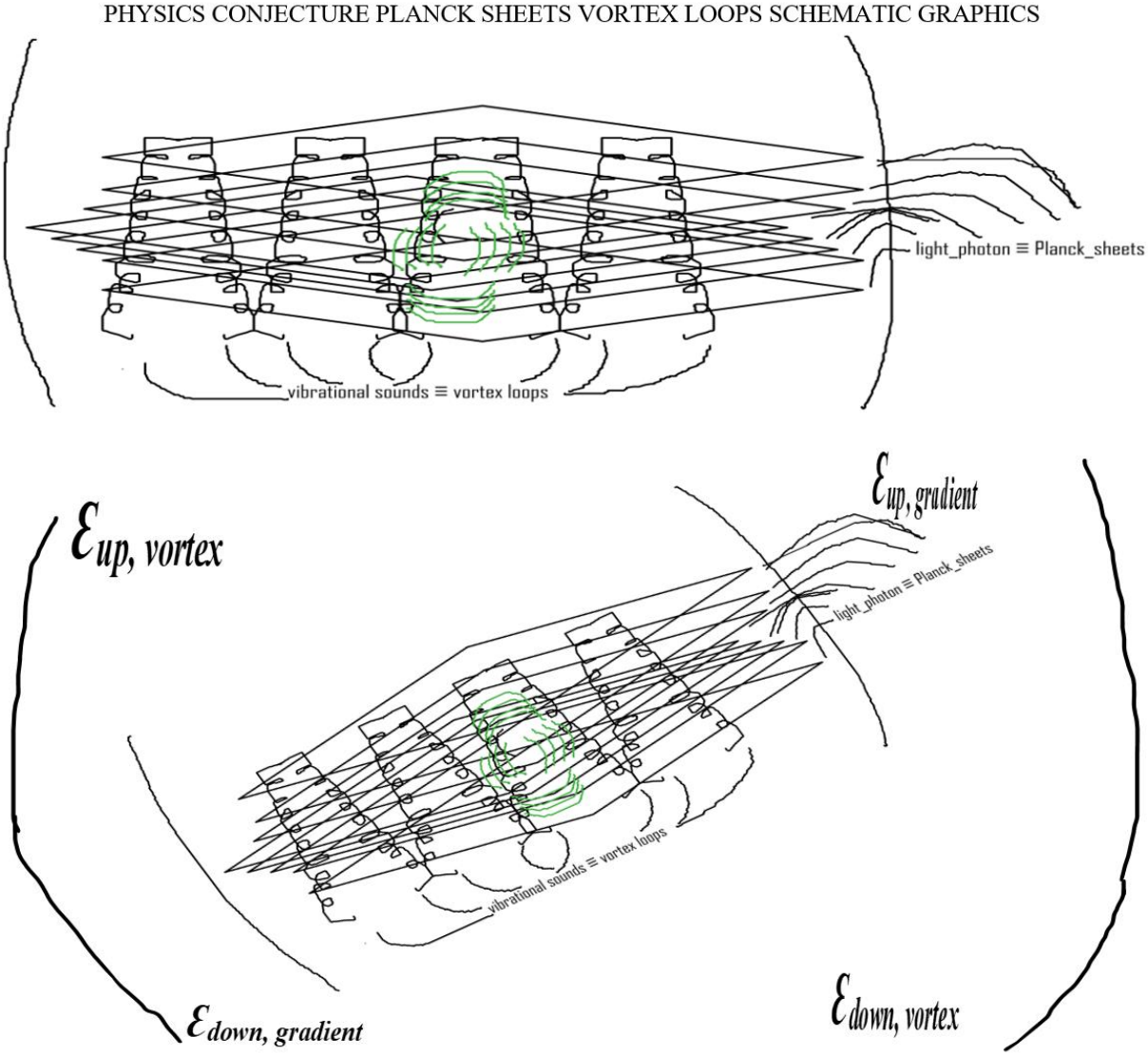


Fig. 1. The sound and light tensor fields that create radar structures' graphics space out of firewall with intersecting photonic_Planck_sheets/vibrational_vortex_loops. Greenish wavelines generate matrix signals' radar emanating via firewall of intersections. Quantifiability with computable matrix Helmholtz decomposed fields are given as well. Label modifications: Light_photon = Planck_sheets to be read as light_photon like Planck sheets, as also vibrational_sounds = vortex_loops will have to be modified to vibrational_sounds like vortex_loops.

signal; the general relativity equation then reduces to that from original formula that is written: $ds^2 = c^2dt^2 - dR^2$ having $dR^2 = dx^2 + dy^2 + dz^2$ (Malaver *et al*., 2021, 2022; Iyer *et al*., 2022). Similarly, vibrational_sounds = vortex_loops will have to be modified to vibrational_sounds like vortex_loops because at the quantum level light and sounds may be existing unlike gauge fields at mesoscopic levels.

Some simple experiments that can verify theoretical model above are:

- A laser light = gauge fields gradient may be mesoscopic observables of light_photon like Planck_sheets.
- Smoke rings = gauge fields vortex may be mesoscopic observables of vibrational_sound like vortex_loops.

Applying general modified Feynman diagram

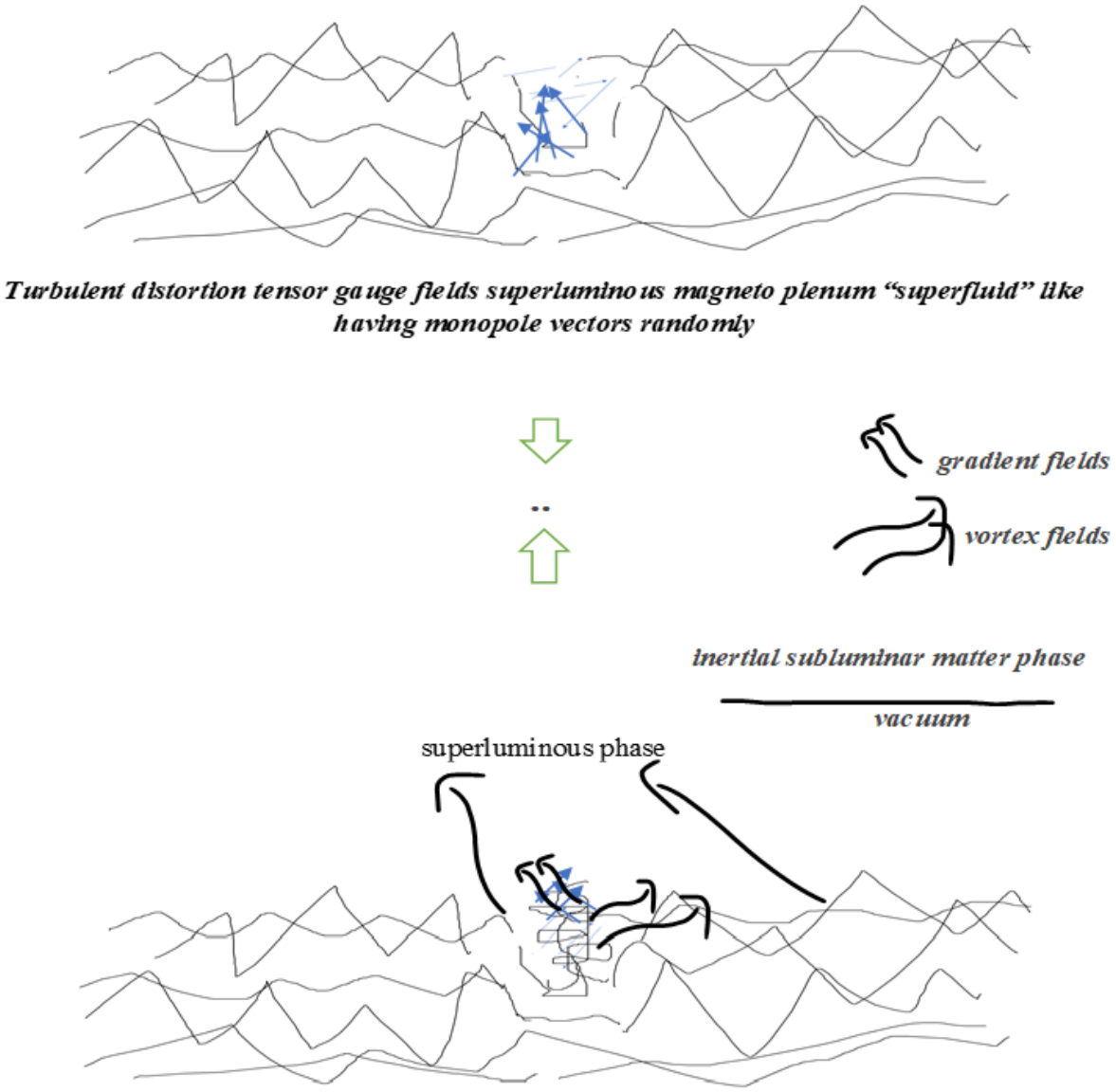


Fig. 2. The local vortex gradient tensor fields' Superluminal Magneto Plenum Mechanism forming Hod-PDP locally clocking circuit assembly. Pinch-off effect after inversion process with gauge fields may have sufficient energy to make Standard Model particles, with gauge fields mesoscopic_objects_like {hdeconvolute convolute gradient vortex} [Ɛ_{on} Ɛ_{off}], with Ɛ: gauge fields (Iyer, 2021a, 2021b, 2021c, 2023a, 2023b; Iyer *et al*., 2020, 2022, 2023; Markoulakis *et al*., 2019; Iyer and Markoulakis, 2021; Malaver *et al*., 2021, 2022; Iyer, 2023). Preliminary results magnetic hysteresis unparticle Hod-PDP circuit mechanism within superluminal physics. Publication in process presently with October 2023. CJPAS).

Referring to **Appendix I** geometric algebra to algebra geometry derivation process, "Algebra general wavefunction gage field Feynman diagram quanta" shows transformations to flowchart graph "Modified quanta process Feynman diagram". Physics will give keys:

- Turbulent Superluminal Plenum Magnetic Quagmire undergoes thermodynamically {separation, mixing} processes proceeding to originating distorted fields that provide activation energy for Hod-PDP mechanistic processes (Iyer, R. Preliminary results magnetic hysteresis unparticle Hod-PDP circuit mechanism within superluminal physics. Publication in process presently with October 2023. CJPAS), per Clifford-like rotational step.

- The feedback mechanism of Hod-PDP Superluminal circuit protocol operating with Hod-PDP-hysteresis-unparticle matrix assembly will lead to the feasible creation of the Standard Model particles of fermions, bosons, gluons, and quarks as outputs of the quantum systems mechanics, shown graphics in **Appendix I** "Modified quanta process Feynman diagram" having electron-positron pairs mediated by light photons to create quark, antiquark, gluon particle spectra.

Appendix I gives Problem Solving Algorithm Listing sets of physics systems' equations (AI.1) through (AI.3) as part of Algebra fields with transforms geometry of space-time-sense physics, that has been already presented at ICFAS2023 virtually on June 7th, 2023. Analyzing further with time-information-field-space-sense, Appendix derives equations (AI.4) through (AI.6) that will be useful for subsequent projects with physics papers articles publications mathematical quantifiable algorithms to track knowhow with information-timeline movement among superluminal, luminal, and subluminal phases. Figures AI.1 through AI.3 in **Appendix I** shows graphically knowhow modified quantum Feynman diagram evolves from thermodynamics Superluminal Plenum Magnetic Quagmire environment towards Standard Model particles with graphical Clifford-like and the Grossman-like rotations (Cortzen, 2010). Direct construction of Grossmann, Clifford, and geometric algebras. arXiv:1011.3698v1) and Marks (2022). Also, Figure AI.4 shows graphically with analysis of how state of the clocks, especially in the quantum relativistic gets affected by systems consciousness besides environment interactivity.

We will examine now first by reviewing results of computer programmed plotting graphical outputs explained and discussed earlier preliminary results by Iyer (2023a). These are further analyzed here as well. **Appendix II** gives "mathematics of general physics" providing Algorithm IT equation (AII.1) transformed to computer programmable numerical matrix. The code that generates (q_g, q_l) graph locations that were computer generated to get the output results plotted in Figures 3 and 4, using algorithm equation (AII.1) are displayed in **Appendix II**. Equation (II.1) has been evaluated further in **Appendix II** to show physical mathematical reasoning inputting values of pf1 and pf0 in this equation within computer syntax. Since, analog on-off ≠ -off-on, Figure AII.1 in **Appendix II** having q_g = on-off*on + off-on*off graphically schematically proves that quantum global general chaotic waveform results; this will imply that in general, |pf1| ≠ |pf0|, meaning they are noncommutative. We can apply the inequality to set up programming values of (q_g, q_l) graph plotting like shown in Figures 3 and 4, omitting values corresponding to |pf1| = |pf0|. This will create missing points that might correspond to typical defect crystal pattern potentially.

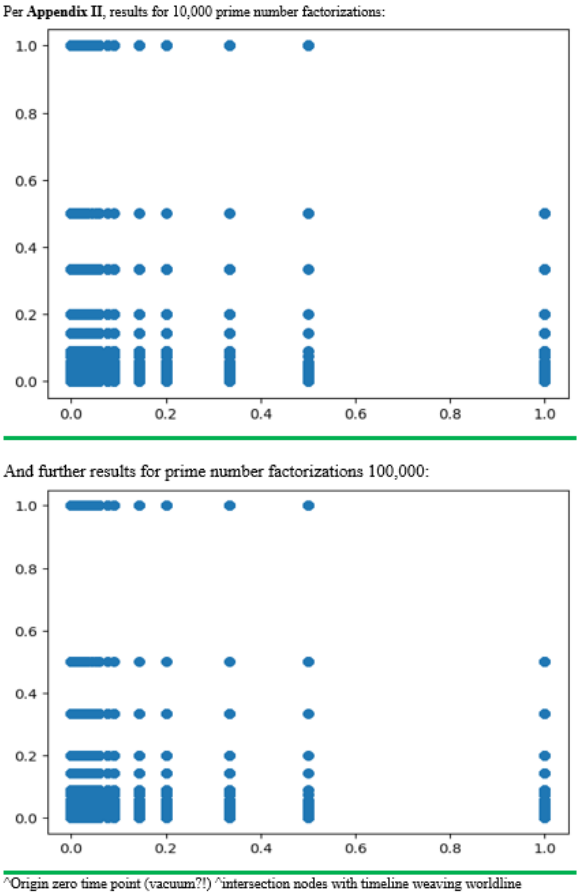


Fig. 3. The outputs graphing to plot computer programmed algorithm to map {q_l, q_g} for {pf0, pf1} prime numbers up to 10,000 (M1) and 100,000 (M2). *Mathematics constraint with* pf1 (permutating) = +1/prime_number; pf0 (permutating) = –1/prime_number; *[X] axis = q_l: the quantum local; [Y] axis = q_g: the quantum global parametrizing variables.

In Figure 3 there are the following changes: “They look basically identical, even though they are not.”, cluster ><echo of the crystal eye>< especially bunching at origin zero time point (vacuum?!) intersection nodes with timeline weaving worldline. These are highlighted above to point to graph locations that were computer generated, looking like a diffraction pattern of a perfect crystal potentially. Further analysis with Christopher O’Neill’s 24, 600, or other cell configurations crystal geometry simulations will help to identify type and factors of phase angle, prime factorization wavefunction, signal/noise, energy, parity, and superluminality effects.

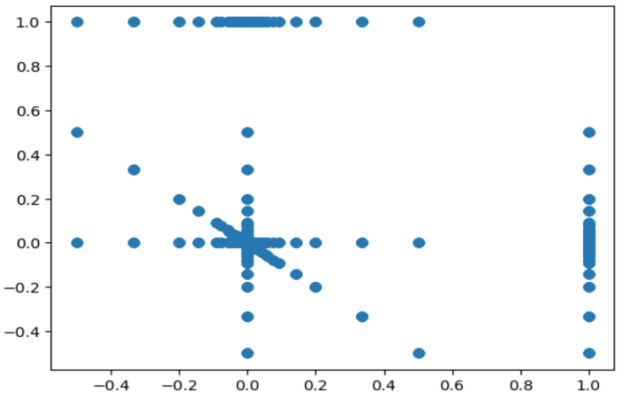


Fig. 4. (pf0 = – pf1) the additional plot graphics showing antisymmetric and symmetric (pf1, pf0) shifting origin vacuum diffraction pattern zero time point.

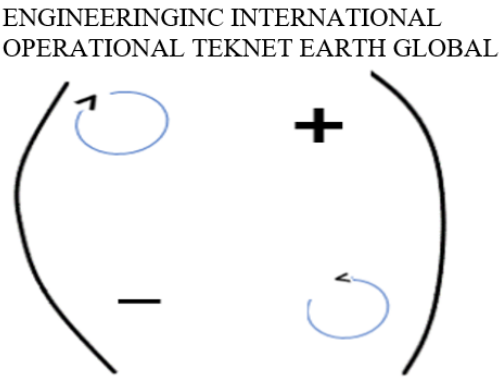


Fig. 5. [Sense] {clockwise, anticlockwise, positive, negative} chiral symmetry four-vector matrix operator protocol.

Physics results matrix value coding (Iyer, 2023a)

Courtesy: Christopher O’Neill, IT Physicist of Cataphysics Group, Ireland coding* algorithm executed computer simulation programming; live streaming YouTube TEGS session coding in (TEKNET Earth global symposia TEGS website: All ongoing live stream phase-II YouTube recordings of episodes are available at URL: https://www.youtube.com/@teknet_earthglobal2923/streams. All videos of the phase-I YouTube recordings of episodes are available at URL: https://www.youtube.com/@teknet_earthglobal2923/videos).

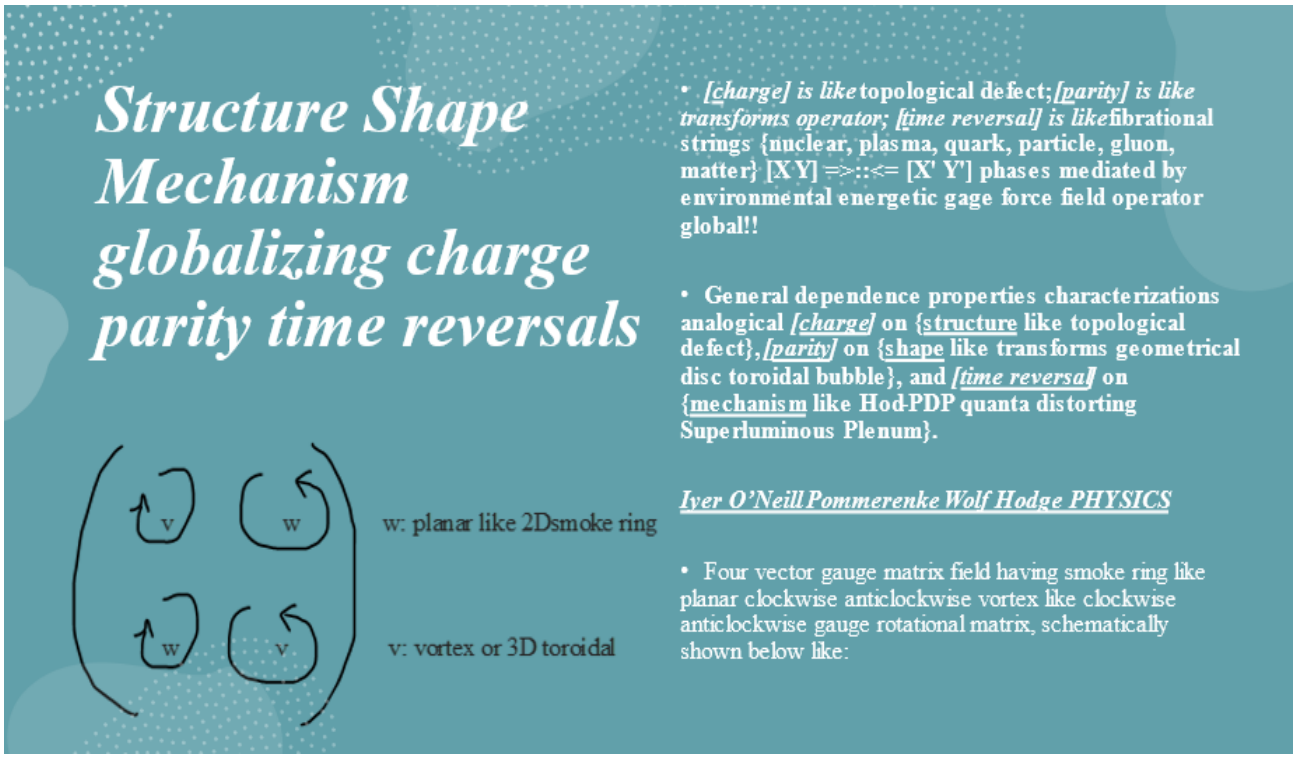


Fig. 6. The Structure Shape Mechanism globalizing charge parity time reversals, with a few of key points.

Preliminary results explaining interpretive physics
Example with the crystal = 36 cell configurations
Prime factorization Process operator (physics)

$E(\psi_{36}) = E(\psi_9) + E(\psi_4)$, i.e., forming (3 × 3) matrix and (2 × 2) matrix. If $E(\psi_{36}) = 1$, then $E(\psi_9) = (25/36)$ and $E(\psi_4) = (11/36)$ since $E(\psi_9) = (9/4)\, E(\psi_4)$

Having energy E linearly dependent on ψ, we can get: $\psi_9 \approx (25/36)$ and $\psi_4 \approx (11/36)$. Then interaction signal/noise = $\psi_9.\ \psi_4 \approx (25/36).\ (11/36) = 0.212$

ψ_9 will prime factorize to $\psi_3.\ \psi_3$ so that $\psi_3^2 = (25/36)$ or $\psi_3 = \pm\ 0.83$.

ψ_4 will prime factorize to $\psi_2.\ \psi_2$ so that $\psi_2^2 = (11/36)$ or $\psi_2 = \pm\ 0.55$.

Then interaction signal/noise = $\psi_3.\ \psi_2 = (\pm\ 0.83) \times (\pm\ 0.55) = \pm\ 0.46$.

Having critical signal/noise creating vacuum oscillations, process with prime factorizations cause crystal pattern diffraction of image like that shown in Figure 4.

In Figure 5, the key points with regards to sense aspects will be:

- Sense has gradient cross diagonally, rotational diagonally matrix-wise.
- Sense gives timeline space effect field parity topology.
- When the time is passive inside of transforms, sense gives space geometry field effect.
- When time parameter is outside of transforms, sense gives space geometry and the four-vector time the field effect.

The key points shown in Figure 6 are:

- Vortex or 3D toroidal geometry may result actively when time parameter is outside of transforms, whereby time and space fields existentialism generate topology of real nature.
- Planar like 2D smoke-ring geometry may result when time parameter is passive inside of transforms, whereby the effect of space field's structure and the shape exhibit quantum as well as astro nature.

The key points relating to Figure 7 are:

- In Quantum space, event timeline arises with sense creating effect of fields on space and time rotationally as manifested mathematically reversibly within transforms essentially marking events.
- Sense gives space geometry and the four-vector time field effect in mesoscopic level, having time outside of transforms – with the resultant evolution of four vector matrixing energy-matter morphologies.
- Astrophysical levels will be expected to exhibit sense causing astro space-fields timeline within Superluminal Plenum Magnetic Quagmire, repeating Hod-PDP Mechanism having four-vector time passive inside transforms.
- Space-fields astro quantum level objects interactively communicate activdeto create entanglement, superposition, with short cut global charge couple as well as Einstein Rosenstein bridge mechanisms.

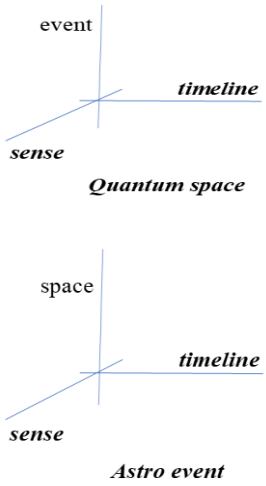


Fig. 7. Plotting graphically field effect [Quantum Space] {sense, timeline, event} besides [Astro_event_physics_gage] {sense, timeline, space, with breakthrough key points revealing.

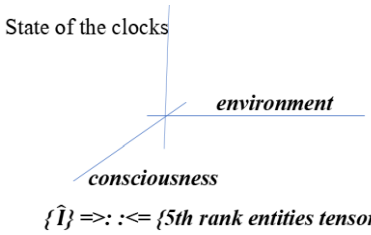


Fig. 8. The entity 5th rank tensor $\hat{\mathbf{I}}$ [five-dimensional-entities-universe] {consciousness, environment, state of the clocks, worldline, timeline} plotting graphically.

Preliminary Inferences with Discussions Knowhow Results Pointing Generality

Some preliminary results shown in Figures 1 and 2 have gone into the deeper details of quantum level processes with IMMOHZT Hod-PDP mechanism in a Superluminal Plenum quagmire that may be operating in terms of light-like photons as well as sound-like vibrations at the quantum level. Gradient and the vortex gauge fields are proposed to form out of a random fluctuating turbulent Superluminal Plenum Perpetual Magnetic Quagmire probabilistically by alignment of monopole vectors to initiate local distorted fields. The Hod-PDP mechanism with error signal minimization operating feedback circuit loop mechanics thereby illustrates quantum sequence events leading to creation of the Standard Model particles of fermions, bosons, gluons, and quarks. These are possibly conceivably resultant stabilized outputs of Hod-PDP-hysteresis-unparticle matrix assembly quantum systems mechanics (Iyer, R. Preliminary results magnetic hysteresis unparticle Hod-PDP circuit mechanism within superluminal physics. Publication in process presently with October 2023. CJPAS). **Appendix I** shows computational graphics sequential processes depicting turbulence to particle generation process per generalized modified algorithm linking Feynman diagram.

Figures 3 and 4 bring out preliminary computer simulation programming results, achieved by abstraction formalism physics mathematically transformed to computer programmable numerical matrix. Repeated experimental measurements show revelations of striking symmetric patterns reminiscent of perfect crystal well-known diffraction-like predictive nature. (q_g, q_l) parametric graphic plots seemingly will work to characterize eventually a real crystal wave-matter physics. Towards that effort, **Appendix II** equation (II.1) has been evaluated further to show physical mathematical reasoning justifying values chosen for pf1 and pf0 within IT programming algorithm matrix. It restricts the values to $|\text{pf1}| \neq |\text{pf0}|$, which itself may show-up missing points corresponding to defect crystal morphology expected for real material universe. Prime factor physics geometry computations show how cell configurations may be linked to energy with signal/noise wavefunction prime number factorization quantitative relationships, explained above.

Earlier the author's peer reviewed papers (Iyer *et al*., 2023; Iyer, 2023a) revealing resultant Algorithm Graphical Equation with scalar quantum gauge field $\|[\mathfrak{C}_{GR}]\|$ in terms of general transforms with the Laplacian, Fourier, and the Legendre gaging the spin, rotation, revolution, and the quantum gage angular momentum, ω_{qg} merely expressed as a function in time domain like a "black box" has brought out novel physics. These are graphically illustrated schematics shown in Figures 5 to 8 in conjunction with the results shown in Figures 1 to 4. Ansatz new emergent physics manifests out of these findings with surprising aspects that may be akin to Higgs mechanics providing mass to particles. Preliminary results magnetic hysteresis unparticle Hod-PDP circuit mechanism within superluminal physics. (Publication in process presently with October 2023. CJPAS). Here, sense, having the four-vector matrix of clockwise, anticlockwise rotational tensors besides gradient positive, negative polarity, plays the key role in giving field effect to space and/or time. As pointed out above, at the quantum level only space-fields may exist explicitly while "transforms" might be tucking away hiding time within, possibly because time reversal can happen via, for instance, tunneling processes. This raises the possibility of quantum superposition entanglement through the wormhole-like space-fields. Mesoscopically, time exists outside of transforms, like the inverse transform exhibiting four-vector matrix rank4 tensor. Astrophysically, typically only space-fields exist that can communicate with the quantum space-fields. Sense may be the ultimate determinant that imparts fields to time and space, and that may become self-evident with Superluminal Phase having no time or space fields, only sense-fields perhaps. Hence, it will appear like dark energy matter especially with possibilities of sense having conjugate sense, masking information flow.

It is proposed further in Figure 6 of "Structure Shape Mechanism globalizing charge parity time reversals" solutions to the CPT problem by showing conceptually of how charge is like a topological defect hence structural, parity is like transforms operator hence shape relational, and time, especially reversal is like fibrational strings explained by mechanism such as quantum Hod-PDP assembly distorting Superluminous Plenum Magnetic Quagmire turbulence to activate real matter genesis with particle-wave generator processes of Standard Model. The author intuitively connecting preliminary results of crystal patterns shows via the data shown in Figure 8 how the state of the clocks may be affected not only by environment but also by consciousness, thus entertaining possibility with the fifth dimension. Typically shown are 5^{th} rank tensor $\hat{\mathbf{I}}$ that will characterize algebra logic [five-dimensional-entities-universe] {consciousness, environment, state of the clocks, worldline, timeline} that has been schematized axis-wise. The author will keynote: $\hat{\mathbf{I}}$ may be linked onto 6 dimensional Calabi-Yau manifold having shapes of the curled up generalized superstring extra dimensions realizable geometry of Christian Wolf's iSpace physics via timeline worldline node intersection topology. Possibly there are many interesting physics coming out of it (TEKNET Earth global symposia TEGS website: All ongoing live stream phase-II YouTube recordings of episodes are available at URL: https://www.youtube.com/@teknet_earthglobal2923/streams. All videos of the phase-I YouTube recordings of episodes are available at URL: https://www.youtube.com/@teknet_earthglobal2923/vide

os). The node may be micro-blackhole or a zero-point vacuum, having sound and light tensor field, thereby vortex and the gradient fields active within the topology shown in Figure 1. Chirality of quantum-blackhole is quite likely with clockwise anticlockwise symmetrical rotational vortex loops. Mind of the universe is presumably related to the states of the clocks which are sensitive to consciousness varying with environments; these are temporally determined by interweaving worldline timeline and their nodes where vortex and the gradient fields action forces sound and light create process to generate real matter wave particle universe energy, manifesting mesoscopic observables having thunder and lightning.

General keynote with parity, Q factor, group velocity, phase velocity, and superluminality

In transparent anomalous dispersion medium, light pulse propagates at group velocities faster than speed of light within absorption line (Dogariu *et al*., 2001) and *X*-rays in glass have a phase velocity which is greater than the speed of light in a vacuum [https://physics.stackexchange.com/questions/6912/in-superluminal-phase-velocities-what-is-it-that-is-traveling-faster-than-light]. "What is an anomalous medium?" This isn't very well understood currently. However, most likely it has refractive index less than +1, like-glass, or even refractive index less than 0, i.e., negative; this may property characterize a dark matter or Superluminal Plenum (TEKNET Earth global symposia TEGS website: All ongoing live stream phase-II YouTube recordings of episodes are available at URL: https://www.youtube.com/@teknet_earthglobal2923/streams. All videos of the phase-I YouTube recordings of episodes are available at URL: https://www.youtube.com/@teknet_earthglobal2923/videos). Combined unifying group fields within inertial viscous medium that wrap the sound-like vibrational vortex loop and light-like photonic Planck sheets, like in the ones in Figure 1 onto a toroidal geometry topographically will have the group velocity less than fastest among the phase or individual velocities such as light or Planck sheets or even less than sound-like or vibrational vortex loop in a normal medium, especially inertial real matter universe!? Environment matter properties – refractive index, viscosity, density matrix, magnetic/electric gauge fields, phase angle, parity, distorted fields, permeability, permittivity, monopole/charge asymmetry, transforms, mechanisms, condensate, superfluidity, superluminality, gradient/vortex fields, gauge symmetry, signal/noise, the wave function, fibrational strings, discontinuum physics, switching mode, and Q factor are keys to problem-solving physics; finiteness (quantized phase angle Q factor) (TEKNET Earth global symposia TEGS website: All ongoing live stream phase-II YouTube recordings of episodes are available at URL: https://www.youtube.com/@teknet_earthglobal2923/streams. All videos of the phase-I YouTube recordings of episodes are available at URL: https://www.youtube.com/@teknet_earthglobal2923/videos) within an infinitum Superluminal Plenum Magnetic Quagmire, that is ordering within turbulence will be key consideration to argue baryon asymmetry. Hod-PDP mechanism aligning vector gradient vortex global to the local distorted fields creation process has been explained above, with reference to Figures 1 and 2 especially.

Physics with logic mathematics leading IT network machine

We deduce that {hdeconvolute-fields} = {energy} ∩ {entropy} with {energy} having {deconvolute, convolute, gradient, vortex} that the author has shown in Figure 2, for instance, like [heat] having {convolute, vortex, gradient} operator will make it possible to equivalently write the following:

hconvolute ≡ conduction, gradient ≡ radiation, vortex ≡ convection current, where {hdeconvolute} represents electromagnetic, gravity, strong nuclear, weak nuclear fields. Also, then in Figures 1 and 2, $f_{operators}$ might activate deconvolution by vector alignment within noise spectra, creating signals genesis. One can surmise further heat = energy without deconvolute matrix.

Therefore, real matter universe is possibly formed out of distorted fields that localize higher energy within turbulent Superluminal Plenum having monopole magnetic quagmire, generating Hod_PDP mechanism phasing parity Q factor for particle real matter universally distributed over; above foregoing arguments have brought out that aspect. A four-vector time matrix (Iyer *et al*., 2023; Iyer, 2023a,b) and (Iyer, Preliminary results magnetic hysteresis unparticle Hod-PDP circuit mechanism within superluminal physics. Publication in process presently with October 2023. CJPAS) at the mesoscopic level is quite possible so that certain components of time may possess switching modes having zero, off, or on making it dynamic event in nature.

Appendix II gives "Machine coding algorithm IT physics' that is directly translating physics formalism gage transforming intelligence system. Syntaxes efficiently provide processing with Artificial Intelligence Expert System, Robotics, Quantum Computing, as well as handshaking integrating [GPT4, ChatGPT]. It provides the concept of wholistic programming at the machine level providing the fastest possible direct technology. It will have inbuilt IT integrated circuitry with global/local wired wireless network linking intranet, internet, televisions, capably a real-time information processing with programming input, throughput, output having audio, image, video, texting, communication eventually natural language recognition and self-driven human

interface. Of course, several developments might be necessary to achieve these goals. However, all these specific software + hardware program concepts will point in helping to launch feasible proof of the concept of IoT human intelligence equivalent IT programming of the future that has set yet to keep on progressing. There are examples of operating simulated human algorithms syntactically capably executing without computers, to show how seamlessly streamlined programming algorithm intrinsically links everything.

Applied physics hydrogen atom "qnbit"

The quantum local parameter q_l in the context of hydrogen (H) may be analytically extendable quantifying [nucleus] {proton in hydrogen, proton and neutron in deuterium and tritium the isotopes}, while q_g in the context of H may quantify outer orbital electron or electrons that link electromagnetically to environment space and time fields (Iyer, 2023a, 2023b) and (Iyer, R. Preliminary results magnetic hysteresis unparticle Hod-PDP circuit mechanism within superluminal physics. (Publication in process presently with October 2023. CJPAS). Hence, $\{q_l, q_g\}$ can link environmentally quantum variable, $q_{\mathcal{L}}$ to generate particle quantum variables like q_q (q_{quark}) and q_{aq} ($q_{\text{antiquark}}$) as also q_{gg} ($q_{\text{graviton\_global}}$) like Feynman flowchart algorithm modified algebra graphing that depicts per **Appendix I**. $\{q_l\}$ can split to quantify the Bohr quantum orbital, spin, magnetic, and the principal angular momentum numbers establishing with relationships to timeline, while q_g will quantify by representing environmental global superluminous plenum quantum coupling to worldline. Also, refer to (https://en.wikipedia.org/wiki/Quantum_number) to get further information on the quantum physics: Principal quantum number (n), Azimuthal quantum number (ℓ), Magnetic quantum number (m_ℓ), and the Spin quantum number (m_s).

CONCLUSION

The author has gone into deeper details of the quantum level processes that may be operating in terms of mesoscopic observables of light and sound. These aspects have highlighted that the physics will be more light-like photons as well as sound-like vibrations at the quantum level. Gradient and the vortex gauge fields that form the fundamental basis of the IMMOHZT Hod-PDP mechanism in a Superluminal Plenum quagmire has self-wrapped algebra graphically to dial back thereby finding the first principles linking from start to the end of modeling formalism physics. To logically simply understanding knowhow genesis process, like "primordial soup" per physics literature, it is ontologically rationalized that a random fluctuating turbulent Superluminal Plenum Perpetual Magnetic Quagmire may have automatic intuitive logicality of a mathematical probabilistic alignment of monopole vectors to initiate local distorted fields. This establishes a prime causality of Hod-PDP mechanism that has been schematically graphically drawn to illustrate quantum sequence events leading to creation of the Standard Model particles of fermions, bosons, gluons, and quarks as the outputs of perpetual-like feedback loop circuit mechanism of a Hod-PDP-hysteresis-unparticle matrix assembly quantum systems mechanics. **Appendix I** shows computational graphics sequential processes depicting turbulence to particle generation process per generalized modified algorithm linking with the Feynman diagram.

Preliminary computer simulation programming results which the author has achieved by abstraction formalism physics mathematically transformed to computer programmable numerical matrix, with repeated simulated computer-experimental programmed measurements reveal striking symmetric patterns reminiscent of perfect crystal well-known literature of diffraction-like predictive nature. The quantum global versus local (q_g, q_l) parametric graphic plots seemingly proved real crystal characterization with wave-matter physics. Towards that effort, the author has evaluated further per **Appendix II** to show physical mathematical reasoning justifying values to be chosen in the ongoing projects applying pf1 and pf0 permutational data to be input within IT programming algorithm matrix syntactical program coding. It restricts the values to $|\text{pf1}| \neq |\text{pf0}|$, which itself may show-up missing points corresponding to defect crystal morphology exhibiting material of real material universe. The author has exemplified extended physics geometry computations of crystal morphological structures showing how cell configurations may be linked to energy with signal/noise wavefunction prime number factorization quantitative relationships.

The author extensively analyses graphics using earlier formalized Algorithm Graphical Equation quantifying scalar quantum gauge field $\|[\mathcal{E}_{GR}]\|$ in terms of time function general transforms, with ansatz emergent physics manifesting surprising aspects that may be akin to Higgs mechanics providing mass to particles. Here, sense having the four-vector matrix of clockwise as well as anticlockwise rotational tensors aside gradient having positive and negative polarity plays the key role in giving field effect to space and/or time. Surmising that, the author further states at the quantum level only space-fields may exist explicitly while "transforms" mathematically hinting the "black box" aspects of time within possibly passive because of probability of quantum time reversal happening in events via, for instance, tunneling processes. This raises the possibility of quantum superposition entanglement through the wormhole-like space-fields. Going towards macro mesoscopically, time exists outside of transforms, like the inverse transform exhibiting four-vector matrix rank4 tensor. Perspective

astrophysically, typically only space-fields exist that may have propensity wormhole to communicate with the quantum space-fields. Sense may thus be the ultimate determinant that imparts fields to time and space. This may become self-evident with Superluminal Phase having sense-fields only and no time or space fields. Hence it will perceptibly appear like the dark matter astrophysical manifestation of a dark energy especially sense exhibiting symmetrically conjugate sense, causing masking information flow.

"Structure Shape Mechanism globalizing charge parity time reversals" might provide solutions to the CPT problem by showing conceptually of how charge is like a topological defect hence structural, parity is like transforms operator hence shape relational, and time, especially reversal is like fibrational strings explained by mechanism such as quantum Hod-PDP assembly distorting Superluminous Plenum Magnetic Quagmire turbulence to activate real matter genesis with particle-wave generator processes of Standard Model. The author extends preliminary results of virtual crystal patterns to demonstrably deduce how the state of the clocks may be affected not only by environment but also by consciousness, thus entertaining possibility with the fifth dimension, having a 5^{th} rank tensor $\hat{\mathbf{I}}$ to characterize algebra logic of five-dimensional-entities-universe within the context of consciousness, environment, state of the clocks, worldline, and the timeline. In progressive physics projects with collaborative scientists, 5D of $\hat{\mathbf{I}}$ may be linked onto a 6-dimensional Calabi-Yau manifold superstring realizable geometry of an iSpace physics via timeline worldline node intersection topology, with many interesting physics coming out of it. For instance, the node may be micro-blackhole or a zero-point vacuum, having sound and light tensor field, thereby vortex and the gradient fields active within topology exhibiting chirality of quantum-blackhole having clockwise as well as anticlockwise symmetrical rotational vortex loops. Mind of the universe is presumably related to the states of the clocks which are sensitive to consciousness varying with environments; these are temporally determined by interweaving worldline timeline having nodes where vortex and the gradient fields action forces create sound and light process to generate real matter wave particle universe energy, manifesting mesoscopic observables having thunder and lightning.

The author keynotes about the environment matter properties of refractive index, viscosity, density matrix, magnetic/electric gauge fields, phase angle, parity, distorted fields, permeability, permittivity, monopole/charge asymmetry, transforms, mechanisms, condensate, superfluidity, superluminality, gradient/vortex fields, gauge symmetry, signal/noise, the wave function, fibrational strings, discontinuum physics, switching mode, and Q factor that are pointers or the keys to problem-solving physics. The author elaborates on energy-fields having deconvolute, convolute, gradient, and the vortex components, entropic heat having only convolute, vortex, and the gradient operator. Thus, the author expounds equivalence mathematics logic to physics with associative relationship representations: convolute ≡ conduction, gradient ≡ radiation, vortex ≡ convection current, and then deconvolute-fields representing electromagnetic, gravity, strong and the weak nuclear aspects.

Appendix II gives "Machine coding Algorithm IT physics" that is directly translating physics formalism gage transforming intelligence system, with specific software + hardware program proof of the concept of IoT human intelligence equivalent IT programming. $\{q_l, q_g\}$ can quantify Bohr hydrogen quantum orbital, spin, magnetic, and the principal angular momentum numbers with timeline as well as worldline.

ACKNOWLEDGEMENT

Engineering Inc. International Operational Teknet Earth Global has provided a platform to launch ongoing wonderful projects that will be most useful to future human progress. Scientists worldwide specifically have contributed to the success of RESEARCHGATE forums as well as Virtual Google Meetings posted on YouTube as well per TEKNET EARTH GLOBAL SYMPOSIA (TEGS) website: https://www.youtube.com/channel/UCdU-nenH0oEFiSxivgVqLYw that has successfully promoted peer-reviewed publications.

It is with great honor and gratitude that the author would be liking to thank collaborative international physicists' scientists starting with Dr. Emmanouil Markoulakis, Experimental Physicist of Hellenic Mediterranean University, Greece in coauthored peer publication of many ansatz breakthrough sciences to explore and successfully pursue quantum astrophysics. The author would too like to thank and be always grateful to Mr. Christopher O'Neill, IT Physicist of Cataphysics Group, Ireland for peer coauthored papers publications, professional graphics, and expert comments with collaborative evaluator feedback on the key contents, especially with TEKNET conference sessions discussing concepts and the graphics suggestions appreciatively exceptionally. With highly engaging fruitful debates as well as discussions, the author extends profoundly high appreciation to project collaboratively engaging physicists Drs. John Hodge, Wenzhong Zhang, Christian Wolf, Gerd Pommerenke, and other participating scientists. The author would be always indebted to many upcoming progressive outstanding journals who have promoted publications with excellent peer-reviews of our papers' articles. These publications would appear essentially in

"References" presented here, although the given listing would be only a sampling of the enormous physics literature available, especially to conform by tersely representing the author's list.

Conflict of interest: The author declares that there is no conflict of interest regarding the publication of this article.

Funding Source: The author declares that the funding is done by authors only.

REFERENCES

Dogariu, A., Kuzmich, A. and Wang, LJ. 2001. Transparent anomalous dispersion and superluminal light-pulse propagation at a negative group velocity. Physical Review A. 63(5):053806. DOI: https://doi.org/10.1103/PhysRevA.63.053806.

Girvin, SM. and Yang, K. 2019. Modern Condensed Matter Physics. Cambridge University Press, Cambridge, UK. pp.78-96. DOI: https://doi.org/10.1017/9781316480649.

Hossenfelder, S. 2006. Interpretation of quantum field theories with a minimal length scale. Physical Review D. 73(10):105013.

Hossenfelder, S. 2022. Existential Physics: A Scientist's Guide to Life's Biggest Questions. Atlantic Books, United Kingdom. pp.272.

Iyer, R. 2021[a]. Problem solving vacuum quanta fields. International Journal of Research and Reviews in Applied Sciences. 47(1):15-25. www.arpapress.com/Volumes/Vol47Issue1/IJRRAS_47_1_02.pdf.

Iyer, R. 2021[b]. Physics formalism Helmholtz matrix to Coulomb gage. 6th International Conference on Combinatorics, Cryptography, Computer Science and Computing, November 17-18, 2021, pp.578-588. http://i4c.iust.ac.ir/UPL/Paper2021/accpapers/i4c2021-1001.pdf.

Iyer, R. 2021[c]. Physics formalism Helmholtz Iyer Markoulakis Hamiltonian mechanics metrics towards electromagnetic gravitational Hilbert Coulomb gauge string metrics. Physical Sciences and Biophysics Journal. 5(2):000195. DOI: https://doi.org/10.23880/psbj-16000195.

Iyer, R. 2023[a]. Algorithm of time preliminary theoretical results pointing to space geometry physics transforms. Canadian Journal of Pure and Applied Sciences. 17(2):5673-5685.

Iyer, R. 2023[b]. Strong gravity versus weak gravity: Fiber transforms gravity-bundle-strings: Preliminary results. Canadian Journal of Pure and Applied Sciences. 17(2):5697-5703.

Iyer, R. and Markoulakis, E. 2021. Theory of a superluminous vacuum quanta as the fabric of space. Physics and Astronomy International Journal. 5(2):43-53. DOI: https://doi.org/10.15406/paij.2021.05.00233.

Iyer, R., O'Neill, C. and Malaver, M. 2020. Helmholtz Hamiltonian mechanics electromagnetic physics gaging charge fields having novel quantum circuitry model. Oriental Journal of Physical Sciences. 5(1-2):30-48.

Iyer, R., O'Neill, C., Malaver, M., Hodge, J., Zhang, W. and Taylor, E. 2022. Modeling of gage discontinuity dissipative physics. Canadian Journal of Pure and Applied Sciences. 16(1):5367-5377.

Iyer, R., Malaver, M. and Taylor, E. 2023. Theoretical to experimental design observables general conjectural modeling transforms measurement instrumented physics compendium. Research Journal of Modern Physics. 2(1):1-14**.**

Liang, Sh.-D. and Lake, MJ. 2023. An Introduction to noncommutative physics. MDPI Physics. 5(2):436-460. DOI: https://doi.org/10.3390/physics5020031.

Malaver, M., Kasmaei, HD., Iyer, R., Sadhukhan, S. and Kar, A. 2021. A theoretical model of dark energy stars in Einstein-Gauss-Bonnet gravity. Applied Physics. 4(3):1-21.

Malaver, M., Kasmaei, H. and Iyer, R. 2022. Magnetars and Stellar Objects: Applications in Astrophysics. Eliva Press Global Ltd., Moldova. pp.274.

Markoulakis, E., Konstantaras, A., Chatzakis, J., Iyer, R. and Antonidakis, E. 2019. Real time observation of a stationary magneton. Results in Physics. 15:102793. DOI: https://doi.org/10.1016/j.rinp.2019.102793.

Marks, DW. 2022. Binary encoded recursive generation of quantum space-times. Advances in Applied Clifford Algebras. 32(4):51. DOI: https://doi.org/10.1007/s00006-022-01235-x.

Randall, L. 2013. Higgs Discovery: The Power of Empty Space. Harper Collins Publishers, New York, USA. pp.112.

Schwabl, F. 2008. Advanced Quantum Mechanics. 4th edition. Springer-Verlag, Berlin-Heidelberg, Germany. Translated by Hilton, R. and Lahee, A. pp. 405. DOI: https://doi.org/10.1007/978-3-540-85062-5.

Zakharenko, AA. 2020. On evaluations of fast speeds of propagation of gravitational phenomena: A review. Canadian Journal of Pure and Applied Sciences. 14(1):4947-4963.

Received: June 17, 2023; Accepted: Sept 4, 2023

Appendix I

Algebra general modified Feynman diagram is shown in Figure AI.1.

Fig. AI.1. Retrofitting wavefunction, gage field phase-angle information onto reconstruction of algebra generalized mediating environment interacting entity per Feynman diagram quanta flowchart shown earlier in Figure 3 (Iyer, 2023a).

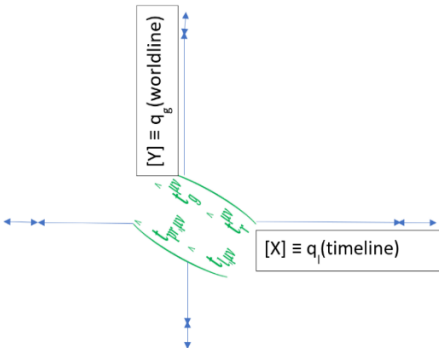


Fig. AI.2. The tensor time four-vector matrix rotated to correspond to graphing quantum parametric variables with the axes such as [X] ≡ q_l (timeline) and [Y] ≡ q_g (worldline) in equations (5) to (8) and Figure 4 (Iyer, 2023a).

Analysis of the results shown in Figures I.1 and I.2 with reference to (Marks, 2022) and (Cortzen, A. 2010. Direct construction of Grossmann, Clifford, and geometric algebras. arXiv:1011.3698v1)

Example: if X = separation, Y = mixing; Ɛ = Hod-PDP magnetic quagmire environment; then X' = particle, Y' = wave. Clifford-like rotation around [Y] axis of Figure AI.2 will give: X = particle, Y = wave in Figure AI.1. Grossmann-like rotation around [X] axis will give: X = e^{-}, Y = e^{+} in Figure AI.1. The result of geometrical rotational transformations will be the one shown in Figure AI.3.

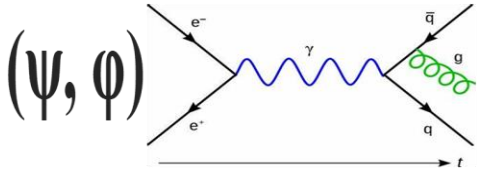


Fig. AI.3. "Modified quanta process Feynman diagram" in **Appendix II** in (Iyer, 2023a).

Problem solving algorithm listing (sets of physics systems)

There are algebra fields with transforms geometry of space-time-sense physics. Helmholtz decomposition theorem is (Iyer and Markoulakis, 2021):

$$F = -\nabla\Phi + \nabla_{\times}A \tag{AI.1}$$

We also have (Iyer *et al*., 2023):

$$\begin{pmatrix} \hat{t}_{pr,\mu\nu} & \hat{t}_{g}^{\mu\nu} \\ \hat{t}_{l,\mu\nu} & \hat{t}_{r}^{\mu\nu} \end{pmatrix} = g^{-1}[f^{-1}(\|[\mathfrak{E}_{GR}]\|/g_{ifts})] = g_{ifts}\ [\text{transforms}] \tag{AI.2}$$

where the proper time, real time, global time, and local time (Iyer et al., 2023; Iyer, 2023a) are respectively:

$$\hat{t}_{pr,\mu\nu}, \hat{t}_{r}^{\mu\nu}, \hat{t}_{g}^{\mu\nu}, \hat{t}_{l,\mu\nu}$$

According to (Iyer, 2023a), we have:

$$\begin{pmatrix} 0 & 1 \\ pf1 & pf0 \end{pmatrix}\begin{pmatrix} 1 \\ 0 \end{pmatrix} = \begin{pmatrix} q_g \\ q_l \end{pmatrix} \tag{AI.3}$$

Note that pf1 (permutating) = (1/prime_number); pf0 (permutating) = (–1/prime_number); {1, 2, 3, 5, 7, …} input to syntactically machine coding computer program. Graphically, the *X*-axis = q_g represents the quantum global parametric value of output physics result; the *Y*-axis = q_l represents quantum local one.

Analyzing further with time-information-field-space-sense

Let the Helmholtz total gauge field be $F = M_i$, where M_i is some information vector matrix. Also, the vector time matrix, scalar time matrix, sense vector matrix, and space vector matrix are, respectively:

$$\begin{aligned} M_{\hat{t}} &= \begin{pmatrix} \hat{t}_{pr,\mu\nu} & \hat{t}_{g}^{\mu\nu} \\ \hat{t}_{l,\mu\nu} & \hat{t}_{r}^{\mu\nu} \end{pmatrix} = \nabla_{\times}A \\ M_{\tau} &= \begin{pmatrix} 0 & 1 \\ pf1 & pf0 \end{pmatrix} \\ M_{\varphi} &= \begin{pmatrix} 1 \\ 0 \end{pmatrix} \\ M_{\sigma} &= \begin{pmatrix} q_g \\ q_l \end{pmatrix} \end{aligned} \tag{AI.4}$$

where $\nabla_{\times}A$ stands for the Helmholtz vortex curl decomposition field. Also, the Helmholtz gradient vector decomposition field is $\nabla\Phi$.

Manipulating with equations (AI.1) to (AI.4) we get:

$$M_i = -M_{\sigma} + M_{\hat{t}}$$

Therefore,

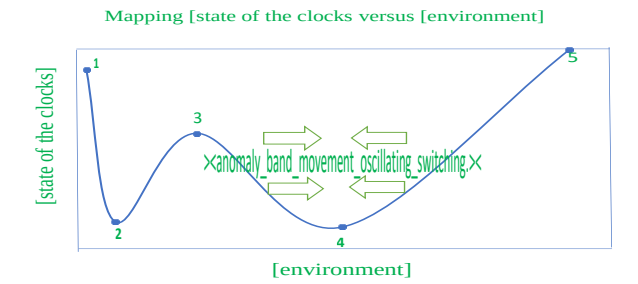
$$M_\sigma = M_{\hat{t}} - M_i = M_\tau M_\varphi$$

with information/time antidirection

$$M_\tau M_\varphi = -2M_i \quad \text{(AI.5)}$$

If information moves superluminal to subluminal, time moves subluminal to superluminal. Therefore,

$$M_\tau = -2M_i/M_\varphi\,;\; M_\sigma = -2M_i \quad \text{(AI.6)}$$



Legends ***[environment]***: 1. wormhole inertia; 2. event horizon maximizing inertia; 3. subluminal; 4. vacuum; 5. Superluminar.

[state of the clocks]: absolute quantum relativistic speeds within light (vacuum) slowing due to inertia (1->2), then minimum at event horizon (2), running faster with subluminal (3), frozen at vacuum light speed (4), time clocks going higher than speed of light getting negative time runs (5), similar events happening (2->1).

Fig. AI.4. The state of the clocks versus environment interactivity (schematical outlines). Legends explain how the environment affects the state of the clocks, especially in quantum relativistic way, shown earlier in Figure 7 in (Iyer, 2023a).

Superimposition of analog clock on mapping [state of the clocks] versus [environment] helps us to obtain key to evaluable mapping time core information-time comparing quantum global plotting quantum local. One may surmise that environmental point ><1>< <-> ><5>< may represent conscious mind, then point ><1,2><3>< <-> ><4,5><3>< may represent subconscious mind, point ><2>< <-> ><4>< may represent unconscious mind states existing within environment.

… even less than 1/16 [s] relatively of quantum clocks will appear as an image…

… more than 1/16 [s] relatively of quantum clocks may appear as a video…

… audio video together may produce…

… hard to erasable voice output…

Appendix II
Mathematics of general physics

Physics computing algorithm quaternion bit "qnbit" with switching mode equating to quantum parameters having global local matrix format then transformed to IT programmable algorithm with the generatable machine coding numeration matrix (Iyer *et al*., 2023) appears here in the following equation:

$$\{0\ \cancel{0}\ 1\ \cancel{1}\}\ [\text{on off}] = [q_l\ q_g]$$

$$\begin{pmatrix} 0 & 1 \\ pf1 & pf0 \end{pmatrix}\begin{pmatrix} 1 \\ 0 \end{pmatrix} = \begin{pmatrix} q_g \\ q_l \end{pmatrix} \quad \text{(AII.1)}$$

Here, pf1 (permutating) = (+1/prime_number); pf0 (permutating)= (-1/prime_number); {1, 2, 3, 5, 7, …} input to syntactically machine coding computer program. Graphically, [X] axis = q_g: quantum global; [Y] axis = q_l: quantum local parametric values outputs physics results.

Algorithm IT equation (AII.1) contracts Pauli matrices onto real variables (Iyer, 2023a), refer also to (Liang and Lake, 2023):

$$\begin{pmatrix} 0 & 1 \\ \cancel{1} & \cancel{0} \end{pmatrix}\begin{pmatrix} \text{on} \\ \text{off} \end{pmatrix} = \begin{pmatrix} q_l \\ q_g \end{pmatrix} \quad \text{(AII.2)}$$

Equation (AII.2) is shown to possess simulation computer programmable coding algorithm in the logic format to evaluate quantum variables {q_l, q_g}, the global and local quantum parameters. $\cancel{0}$ and $\cancel{1}$ represent conjugate analog of 0 and 1 states of probability numbers between –1 and 1 (Iyer, 2023a).

Evaluating equation (AII.2): (0*on) + (1*off) = q_l or permutatively, q_l can be off or on. In the same way, q_g = 1*on + 0*off = {between on and off – fluctuating} cycling like Hod-PDP circuit assembly – produce phase transitions. Thus, {q_l, q_g} will be on or off or fluctuating with cycling. We can write equivalently in compact matrix notation like: $\{0\ \cancel{0}\ 1\ \cancel{1}\}$ [on off] = [q_l q_g], where q_l is the quantum local parametric variable logic format and q_g is the quantum global one.

In (Iyer, 2023a) and (Iyer, R. Preliminary results magnetic hysteresis unparticle Hod-PDP circuit mechanism within superluminal physics. Publication in process presently with October 2023. CJPAS), $\cancel{1}$ = on-off, $\cancel{0}$ = off-on. Hence, the above evaluation will give: q_g = $\cancel{1}$*on + $\cancel{0}$*off; thereby q_g = on-off*on + off-on*off. Then, pf1 = $\cancel{1}$ = on-off, pf0 = $\cancel{0}$ = off-on. These are graphically schematically shown to prove the result visually below. Since on-off ≠ -off-on, we will see that in general, |pf1| ≠ |pf0|. We can apply the inequality to set up programming values of (q_g, q_l) graph plotting like those in Figures 3 and 4, except values corresponding to |pf1| = |pf0| and they can be

omitted. This will create missing points that might correspond to defect crystal pattern perhaps. We will pursue these key computational physics results with our ongoing simulation computer programming processes.

Machine coding Algorithm IT physics

M(achine) L(anguage) P(rogram) 0001 "communication": Boolean (operator) = true

MLP0002 [audio]: entanglement of time event: …inetworking …

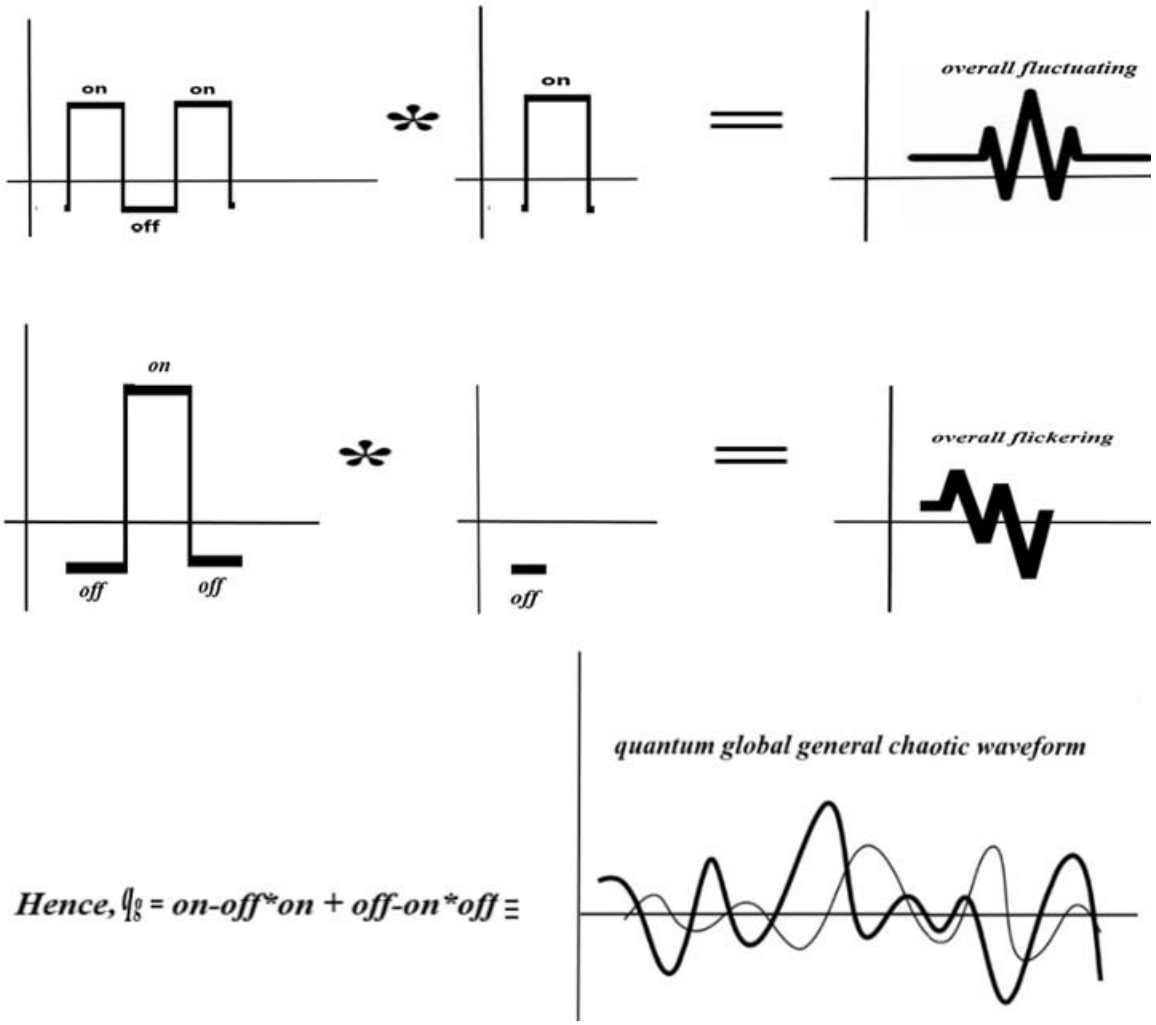


Fig. AII.1. The graphical solutions to q_g = on-off*on + off-on*off to give prime number values: pf1 = ~~1~~ = on-off, pf0 = ~~0~~ = off-on, refer to the main text as well. Keynote: scalar space gauge field can also be written in square bracket notation like: [0 off-on 1 on-off] switching analog form to indicate mode of switches, with 0 indicating no switches or vacuum; off-on indicating mostly off-mode but coming on or flickering; 1 indicating mode on condition switches; on-off indicating mostly on but mode coming off or fluctuating. Thereby, quaternion condition that will include quantum entanglement, superposition, quantum computing, analog switching signal processes, quantum waveform with particle interactivity, mathematically imaginary to real fields operator protocol, and Hod-PDP circuit mechanism activated by having distorted discontinuum energy fields vortex within superluminal Plenum turbulent quagmire extent phase may be characterized by this four-vector "ket" matrix (Iyer, 2021a, 2021b, 2021c, 2023a, 2023b; Iyer *et al*., 2020, 2022, 2023; Markoulakis *et al*., 2019; Iyer and Markoulakis, 2021; Malaver *et al*., 2021, 2022; Hossenfelder, 2022). Preliminary results magnetic hysteresis unparticle Hod-PDP circuit mechanism within superluminal physics. (Publication in process presently with October 2023. CJPAS) and (TEKNET Earth global symposia TEGS website: All ongoing live stream phase-II YouTube recordings of episodes are available at URL: https://www.youtube.com/@teknet_earthglobal2923/streams. All videos of the phase-I YouTube recordings of episodes are available at URL: https://www.youtube.com/@teknet_earthglobal2923/videos).

MLP0003 ><video>< metrix = *piequiet* ><GPT4><

MLP0004 (image): information quantum mind over matter #ChatGPT#

MLP0005 {texting}: operate condition = default counter influencing evil twin problem

- input = communication; output = texting; throughput = argument.
- input = audio; output = audio; throughput = voice.
- input = video; output = image; throughput = metrix.
- input = image; output(it) = video; throughput = operator.
- input = texting; output = communication; throughput = protocol.

L(egend) C(omment) M(etrix): Circuit Loop Throughput Protocol Operator

- [audio] tells what it is.....
- (image) gives why it is that way exactly.....
- ><video>< shows how it is.....
- {texting} sets passage, summary, topic, article, set up stories, & other aspects.
- "hcommunicating" Q. & A., blogging ongoing.

L(egend) C(omment) M(etrix): Circuit Loop Throughput Protocol General

L(egend) C(omment) M(etrix): Circuit Loop Example Output Protocol General

- hBoolean (operator) = true yes/no
- Audio: "What is it?" ……
- ***GPT4 working virtual reality video…….example……" Why?"***
- ChatGPT with augmented reality image...example....." How?".
- Interactive texting having derivative formalism proof now ["Πdefine"] ....

- K1: earth's EM like Earthquakes, volcanoes.....
- K2: ql, qg timeline worldline inter topology...
- K3: genesis superluminous plenum fields.....
- K4: red giant, blackholes, supernovae…...
- K5: alien teleportation, ET, evolving.....

Program code example input throughput output operational process 1 (!!hdatabase!!)
{point, crystal, time, tunnel, wormhole} [on_mode, zeromode, off_mode}

…. {logical reduction process ongoing} [audio] metrix = "polarice" ><video><…

%[audio]_theme_metrix_input = "polarice"%

%[audio]_theme_metrix_throughput = {logical reduction process ongoing}

LCM1: will activate ><video>< executing Circuit Loop Throughput Protocol Operator

LCM2: will link with (image) of input #ChatGPT#

LCM3: will handshake ><video>< of input ><GPT4><

LCM4: will output (image) of throughput #ChatGPT#

LCM5: will access ><video>< of throughput ><GPT4>< via DPDT switching circuitry.

LCM6: will establish network "television" feedback looping to wirelessly link internet.

G(eneral) C(omment) M(etrix): [Global] output = {internet =>: :<= DPDT}

GCM2: #ChatGPT# =>: :<= ><GPT4>< = {Bluetooth =>: :<= intranet} [local] input.

Program code example input throughput output operational process 2.

- ***[It will work like widget]***
- ***(hBoolean (operator) = true)***
- ***><GPT4><***
- ***{ChatGPT}***
- ***"output"***

LCM0: The widget works automatically downloading system outputs.

LCM1: will activate ><video>< executing Circuit Loop Throughput Protocol Operator

LCM2: will link with (image) of input #ChatGPT#

LCM3: will handshake ><video>< of input ><GPT4><

LCM4: will output (image) of throughput #ChatGPT#

LCM5: will access ><video>< of throughput ><GPT4>< via DPDT switching circuitry.

LCM6: will establish network "television" feedback looping to wirelessly link internet.

G(eneral) C(omment) M(etrix)1: [Global] output = {internet =>: :<= DPDT}

GCM2: #ChatGPT# =>: :<= ><GPT4>< = {Bluetooth =>: :<= intranet} [local] input.