## To Those in Search of the Truth To Generations of Civilization

# UNIVERSAL AND UNIFIED FIELD THEORY Philosophical and Analytical Overview



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#### **AGENDA**

- 1. Generations of Physics
- 2. Universal Topology
- 3. Topological Framework
- 4. Quantum Fields
- 5. Photon, Light and Electromagnetism
- 6. Law of Conservation of Light
- 7. Graviton and Gravitational Fields
- 8. Law of Conservation of Gravitation
- 9. General symmetric Dynamics
- 10. Our Challenges
- 11. Our Glorious Mission

#### 1. First Generation: Classical Physics

- From Euclidean space to Newtonian mechanics in 1687: Motion and Force,
   Space and time are individual parameters without interwoven relationship
- Basic concept for Real Existence of space and Virtual Existence of time without expression of virtual reality
- Unification Maxwell's Equations of Analytical Physics in 1861

#### 2. Second Generation: Modern Physics

- Limited to physical existence only, Quantum and Relativity are **pioneered** since 1838 without using the interwoven continuum of quantum state fields
- Coupled virtual existence of time with real existence of space into an interwoven continuum: spacetime Manifold introduced in 1905.
- Unification Virtual and Physical Entanglements of Topological Duality

#### 3. Third Generation: New Era of Physics

- Virtual Formation of elementary particles (e.g. quarks, leptons, bosons) in 1961
- Virtual Massage Compositions, introduced as Universal Massaon in 2013

#### **GENERATIONS OF PHYSICS**

#### **MISSION OVERVIEW**

- Unified Fields superseding and imposing an integrity of all empirical models of relativity, quantum, light, electromagnetism, graviton, gravitation, thermodynamics, cosmology, and others.
- 2. Universal Theory evolving and prevailing an generality of all ubiquitous laws of topology, event, duality, horizon, conservation, continuity, symmetry, asymmetry, entanglement, and beyond.

### Virtual and Physical Worlds

- A world is an environment composed of events or constituted by hierarchical structures of massless objects, massive matters, or both.
- These hierarchical structures can be respectively defined as virtual world, physical world, and together: the universe.
- Because of this duality nature, a universe manifold always has a mirrored pair in the imaginary part, a conjugate pair of complex manifolds, or reciprocal Manifolds of Yin and Yang

#### **UNIVERSAL TOPOLOGY**

#### **TOPOLOGICAL FRAMEWORK**

| Category                  | Classical and Contemporary Physics      |   | Universal and Unified Field Theory |  |                           |
|---------------------------|---|---|------------------------------------|--|---------------------------|
| Contents                  | Description                             | Formulations  | Elevations                         | Formulations   | References                |
| Manifold Topology         | Minkowski<br>Spacetime                  | $\{\mathbf{r} - \mathbf{k}\}$ $\mathbf{k} = \begin{cases} x_0 = -ct \\ x_0 = ct \end{cases}$  | Virtual and Physical<br>Manifolds  | $\{\mathbf{r} \mp i\mathbf{k}\} \qquad i\mathbf{k} = ict = x_0 = -x^0$   | Eq. (1.1)<br>Eq. (1.2)    |
| Scalar Fields             | A Pair of<br>Scalar Fields              | $\phi,\phi^*$   | Two Pairs of<br>Scalar Fields      | $\phi^{+}(\hat{x},\lambda),\varphi^{-}(\check{x},\lambda)  \phi^{-}(\check{x},\lambda),\varphi^{+}(\hat{x},\lambda)$   | Eq. (2.1)<br>Eq. (2.2)    |
| Operations                | Math Operators                          | $\partial_m \in \left\{\partial_\kappa = \partial/\partial x_0, \partial_r = \nabla\right\}$  | Event Processes                    | $\dot{\partial} \in \{\dot{x}^{\mu}\partial^{\mu}, \dot{x}_{m}\partial_{m}\}$  | Eq. (3.1)<br>Eq. (3.16)   |
| Vector Potentials         | Math Operations                         | $\partial_m \psi$   | Event Operations                   | $\begin{split} \hat{\partial}_{\lambda} \psi &= \dot{x}_a \left( J_{\mu a}^+ + K_{\mu a}^+ \right) \partial^{\mu} \psi \\ \check{\partial}^{\lambda} \psi &= \dot{x}^a \left( J_{m a}^- + K_{m a}^- \right) \partial_m \psi \end{split}$                       | Eq. (3.6)<br>Eq. (3.18)   |
| Entangle<br>Generators    | N/A                                     |   | Boost and Torque<br>Tensors        | $J^{\pm}_{\mu a} = \partial x^{\mu}/\partial x_{a} \qquad K^{\pm}_{\mu a} = \Gamma^{\pm\sigma}_{\mu a} x_{\sigma}$   | Eq. (3.5)<br>Eq. (3.17)   |
| Symmetric<br>Commutation  | Commutator,<br>Anti-commutator          | $[A_1, A_2]$ $\langle A_1, A_2 \rangle$   | Commutator and<br>Density Fluxion  | ⟨⟩ <sup>∓</sup> [] <sup>∓</sup>  | Eq. (4.1)<br>Eq. (4.3)    |
| Asymmetric<br>Commutation | N/A                                     |   | Asymmetry &<br>Anti-asymmetry      | $\left\langle \hat{\lambda} \right\rangle^+ = \varphi_n^- \hat{\lambda} \phi_n^+ \qquad \left\langle \check{\lambda} \right\rangle^- = \varphi_n^+ \hat{\lambda} \phi_n^-$   | Eq. (4.3)<br>Eq. (4.4)    |
| Potential                 | The 4-potential                         | $\partial_{\nu}D_{\mu}-\partial_{\mu}D_{\nu}$   | Boost<br>Entanglements             | $\langle F \rangle_{m\alpha}^{\mp} = \left\langle \dot{x}^{\alpha} J_{m\alpha}^{\mp} \partial_{m}, \dot{x}_{\alpha} J_{m\alpha}^{\pm} \partial^{m} \right\rangle^{\mp}$  | Eq. (9.3)<br>Eq. (9.17)   |
| Entanglements             | N/A                                     |   | Torque<br>Entanglements            | $\langle T \rangle_{\mu\alpha}^{\mp} = \left\langle \dot{x}^{\alpha} K_{\mu\alpha}^{\mp} \partial_{\mu}, \dot{x}_{\alpha} K_{\mu\alpha}^{\pm} \partial^{\mu} \right\rangle^{\mp}$  | Eq. (10.3)<br>Eq. (10.17) |
| Lorenze Generator         | Between Frames                          | $L_s^{\pm} = A_s \mp iB_s$  | Between Manifolds                  | Derived the Same Forms   | Eq. (5.1)<br>Eq. (5.3)    |
| General Relativity        | Einstein's Equation (Statically Frozen) | $G_{n\nu} = R_{n\nu} - \frac{1}{2} R g_{n\nu}$  | Neither Static nor<br>Frozen       | $\left\langle \hat{\partial}^{\lambda} \hat{\partial}^{\lambda}, \check{\partial}_{\lambda} \check{\partial}_{\lambda} \right\rangle_{\nu}^{-} = \dot{x}_{n} \dot{x}_{\nu} \left( \frac{R}{2} g_{n\nu} - R_{n\nu\sigma}^{\mu} + G_{n\nu\mu}^{+\sigma} \right)$ | Eq. (5.25)                |
| Motion Operation          | Euler-Lagrange<br>Equation              | $\frac{\partial \mathcal{L}}{\partial f_i} - \frac{\mathrm{d}}{\mathrm{d}x} \left( \frac{\partial \mathcal{L}}{\partial f_i^r} \right) = 0_i$ | Dual Motion<br>Entanglements       | $\check{\partial}^-(\frac{\partial W}{\partial (\hat{\partial}^+\phi)}) - \frac{\partial W}{\partial \phi} = 0  \hat{\partial}^+(\frac{\partial W}{\partial (\check{\partial}^-\phi)}) - \frac{\partial W}{\partial \phi} = 0$                                 | Eq. (6.3)<br>Eq. (6.4)    |
| Geodesic Equation         | Single World-line                       | $\ddot{x}_m + \Gamma^m_{ab} \dot{x}_a \dot{x}_b = 0$  | Dual World-lines                   | $\ddot{x}^{\mu} + \Gamma^{+\mu}_{\alpha\beta}\dot{x}^{\alpha}\dot{x}^{\beta} = 0  \ddot{x}_m + \Gamma^{-m}_{ab}\dot{x}_a\dot{x}_b = 0$   | Eq. (6.5)                 |
| Lagrangian Density        | Empirical Variations                    | e.g. Gauge Theory   | Generic World<br>Equations         | $W = k_w \int d\Gamma \sum_n h_n \left[ W_n^{\pm} + \kappa_1 \dot{\partial}_{\lambda_1} + \kappa_2 \dot{\partial}_{\lambda_2} \dot{\partial}_{\lambda_1} \cdots \right] \phi_n^{+} \phi_n^{-}$   | Eq. (7.7)                 |

## **QUANTUM MECHANICS**

| Category                        | Classical and Contemporary Physics |  | Universal and Unified Field Theory   |  |                        |
|---------------------------------|------------------------------------|--|--|--|------------------------|
| Contents                        | Description                        | Formulations   | Elevations   | Formulations   | References             |
| General Quantum<br>Equations    | Operators                          | $\hat{\mathbf{p}} = -i\hbar  \nabla  \hat{E} = i\hbar \partial/\partial t$   | $\kappa_1 \left( \check{\delta}^{\lambda_2} - \hat{\partial}_{\lambda_2} \right) \phi_n^+ + \kappa_2$      | $\left(\check{\partial}_{\lambda_3}\check{\partial}^{\lambda_2} + \hat{\partial}_{\lambda_3}\hat{\partial}_{\lambda_2} - \check{\partial}_{\lambda_3}\hat{\partial}_{\lambda_2}\right)\phi_n^+ = W_n^+\phi_n^+$          | Eq. (8.7)              |
|                                 | N/A                                |  | $\kappa_1 \left( \check{\partial}_{\lambda_1} - \hat{\partial}^{\lambda_1} \right) \varphi_n^+ + \kappa_2$ | $\left(\check{\partial}^{\lambda_2}\check{\partial}_{\lambda_1} + \hat{\partial}^{\lambda_2}\hat{\partial}^{\lambda_1} - \check{\partial}^{\lambda_2}\hat{\partial}^{\lambda_1}\right)\varphi_n^+ = W_n^+\varphi_n^+$    | Eq. (8.9)              |
| (First Universal                | N/A                                |  | $\kappa_1 \left( \hat{\partial}^{\lambda_1} - \check{\delta}_{\lambda_1} \right) \phi_n^- + \kappa_2$      | $ \left( \hat{\partial}^{\lambda_2} \hat{\partial}^{\lambda_1} + \check{\partial}_{\lambda_2} \check{\partial}_{\lambda_1} - \hat{\partial}^{\lambda_2} \check{\partial}_{\lambda_1} \right) \phi_n^- = W_n^- \phi_n^- $ | Eq. (8.12)             |
| Field Equations)                | N/A                                |  | $\kappa_1 \left( \hat{\partial}_{\lambda_2} - \check{\partial}^{\lambda_2} \right) \varphi_n^- + \kappa_2$ | $\left(\hat{\partial}_{\lambda_3}\hat{\partial}_{\lambda_2} + \check{\partial}^{\lambda_3}\check{\partial}^{\lambda_2} - \hat{\partial}_{\lambda_3}\check{\partial}^{\lambda_2}\right)\varphi_n^- = W_n^-\varphi_n^-$    | Eq. (8.13)             |
| Spinor                          | Pauli Matrix                       | $\sigma_n = \left\{ \begin{pmatrix} -1 & 0 \\ 0 & 1 \end{pmatrix}_0, \begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix}_1, \begin{pmatrix} 0 & i \\ -i & 0 \end{pmatrix}_2, \begin{pmatrix} 1 & 0 \\ 0 & 1 \end{pmatrix}_3 \right\}$ | Lorenze Boost<br>Generator   | Derived the Same Form  | Eq. (5.5)<br>Eq. (5.6) |
| Parity<br>Conservation          | Empirical Data                     | Dirac Equation   | Intuitive to Dual<br>Manifolds   | Derived the Same Form  | Section 5<br>(page 3)  |
| Energy-Momentum<br>Conservation | Klein-Gordon                       | $\frac{1}{c^2} \frac{\partial^2 \varphi_n^+}{\partial t^2} - \nabla^2 \varphi_n^+ + \left(\frac{m  c}{\hbar}\right)^2 \varphi_n^+ = 0$   | Derived with<br>Correction   | $\frac{1}{c^2} \frac{\partial^2 \varphi_n^+}{\partial t^2} + \nabla^2 \varphi_n^+ - \left(\frac{m  c}{\hbar}\right)^2 \varphi_n^+ = 0$   | Eq. (9.2)              |
|                                 | Energy-Momentum<br>Equation        | $E^2 = \mathbf{P}^2 + m^2 c^4$   | Derived in<br>Complex Forms  | $\mathbf{P} \pm i\tilde{E}^{\pm} = m_c c^2$  | Eq. (9.5)              |
| Wave-Practical<br>Equation      | Schrödinger<br>Equation            | $i\hbar \frac{\partial \phi_n^-}{\partial t} = \hat{H}\phi_n^-  \hat{H} \equiv -\frac{\hbar^2}{2m}\nabla^2 + \hat{V}(\mathbf{r})$  | Yin<br>Quantum Fields  | Derived the Same Form  | Eq. (9.9)              |
| Relativistic<br>Wave Equation   | Dirac Equation                     | $\left(i\hbar\gamma^{\nu}\partial_{\nu}\mp mc^{2}\right)\psi=0$  | Yang<br>Quantum Fields   | Derived the Same Form  | Eq. (9.14)             |
| Spinor Fields                   | Weyl Spinor                        | $I_2 \frac{1}{c} \frac{\partial \psi}{\partial t} + \sigma_x \frac{\partial \psi}{\partial x} + \sigma_y \frac{\partial \psi}{\partial y} + \sigma_z \frac{\partial \psi}{\partial z} = 0$                                     | Spin Generators  | Derived the Same Form  | Eq. (5.4)<br>Eq. (5.5) |

## PHOTON, LIGHT AND ELECTROMAGNETISM

| Category                     | Classical and Contemporary Physics |   | Universal and Unified Field Theory |   |   |  |
|------------------------------|------------------------------------|---|------------------------------------|---|---|--|
| Contents                     | Description                        | Formulations  | Elevations                         | Formulations  | References                                |  |
| General Horizon<br>Equations | N/A                                |   | Eleta Elemente                     | $\left \dot{\hat{\sigma}}_{\lambda}\mathbf{f}_{s}^{+}=\mathbf{g}^{+}/\kappa_{g}=\left[W_{0}\right]^{+}-\left\langle \left(\kappa_{1}+\kappa_{2}\check{\sigma}_{\lambda}\right)\left(\check{\sigma}^{\lambda}-\hat{\sigma}_{\lambda}\right)\right angle ^{+}$  | Eq. (10.3)                                |  |
|                              | N/A                                |   |                                    | $\dot{\partial}_{\lambda} \mathbf{f}_{s}^{-} = \mathbf{g}^{-}/\kappa_{g} = [W_{0}]^{-} - \left\langle \left(\kappa_{1} + \kappa_{2}\check{\delta}^{\lambda}\right) \left(\hat{\partial}^{\lambda} - \check{\delta}_{\lambda}\right) \right\rangle^{-}$  | Eq. (10.8)                                |  |
|                              | Magnetic Flux                      | $\nabla \cdot \mathbf{B}_c^- = 0^+$   | Conservation of<br>Yin Fluxion     | $(\mathbf{u}\nabla)\cdot\mathbf{B}_c^-=0$   | Eq. (11.6)                                |  |
|                              | Farads's Law                       | $\frac{\partial \mathbf{B}_{c}^{-}}{\partial t} + \nabla \times \mathbf{E}_{c}^{-} = 0^{+}$           |                                    | $\frac{\partial \mathbf{B}_{c}^{-}}{\partial t} + \left(\frac{\mathbf{u}}{c}\nabla\right) \times \mathbf{E}_{c}^{-} = 0$  | Eq. (11.7)                                |  |
|                              | Electric Flux                      | $\nabla \cdot \mathbf{D}_c^+ = \rho_q$  | Conservation of<br>Yang Fluxion    | $\nabla \cdot \mathbf{D}_c^+ = \rho_q$  | Eq. (11.17)                               |  |
| Electromagnetic<br>Fields    | Ampère's<br>Circuital Law          | $\frac{\partial \mathbf{D}_{c}^{+}}{\partial t} - \nabla \times \mathbf{H}_{c}^{+} = -\mathbf{J}_{q}$ |                                    | $\frac{\mathbf{u} \cdot \mathbf{u}}{c^2} \nabla \times \mathbf{H}_c^+ - \frac{\partial \mathbf{D}_c^+}{\partial t} = \mathbf{J}_q + \mathbf{H}_c^+ \cdot \left(\frac{\mathbf{u}}{c} \nabla\right) \times \frac{\mathbf{u}}{c}$  | Eq. (11.18)                               |  |
|                              | Lorentz Force                      | $\mathbf{F}_q^+ = Q\Big(\mathbf{E}_c^- + \mathbf{u} \times \mathbf{B}_c^-\Big)$                       | Yin Fluxion Force                  | $\begin{aligned} \mathbf{F}_q^+ &= \kappa_q^+ \mathbf{g}_{\times}^+ = Q  \mu_e \left( c^2 \mathbf{D}_c^+ + \mathbf{u} \times \mathbf{H}_c^+ \right) \\ \mathbf{F}_q^+ &= Q \Big( \mathbf{E}_c^- + \mathbf{u} \times \mathbf{B}_c^- \Big) \\ \mathbf{D}_c^+ &= \varepsilon_e \mathbf{E}_c^- \qquad \qquad \mathbf{B}_c^- = \mu_e \mathbf{H}_c^+ \end{aligned}$ | Eq. (11.11)<br>Eq. (11.12)<br>Eq. (11.13) |  |
| Photon                       | Planck and Einstein<br>Relations   | $E=mc^2\rightleftharpoons\hbar\omega$   | Dual Complex<br>Equations          | $\tilde{E}_c^{\mp} = \hbar\omega \pm imc^2 \qquad \mathbf{P} \pm i\tilde{E}^{\pm} = m_cc^2$   | Eq. (12.6)<br>Eq. (12.7-8)                |  |
| Conservation of Light        | N/A                                | Constant speed at c   | Conservation of<br>Wave-Particle   | $\frac{1}{c^2} \frac{\partial^2 \Phi_c^-}{\partial t^2} + \nabla^2 \Phi_c^ \left(\frac{E_c}{\hbar c}\right)^2 = 0^+$  | Eq. (12.4)                                |  |
| Continuity of Light          | N/A                                |   | Equation of Fluxion Continuity     | $\frac{\partial \rho_c^+}{\partial t} + \nabla \cdot \mathbf{j}_c^+ = i  c^2 E_c^-$   | Eq. (12.5)                                |  |
| Law of<br>Conservation       | N/A                                |   | YinYang Boost<br>Entanglements     | Eight Principles  | Section 7.<br>Table at p3                 |  |

#### LAW OF CONSERVATION OF LIGHT

- 1. Light remains constant and conserves over time during its transportation
- 2. Light is consisted of virtual energy duality as its irreducible unit: photon
- 3. Light has at least two photons for entanglement at zero net momentum
- 4. Light transports and performs a duality of virtual waves and real objects
- 5. A light energy of potential density neither can be created nor destroyed
- 6. Light transforms from one form to another carrying potential messages
- 7. Without an energy supply, no light can be delivered to its surroundings
- 8. The net flow across a region is sunk to or drawn from physical resources

#### **GRAVITON AND GRAVITATIONAL FIELDS**

| Category                       | Classical and Contemporary Physics |   | Universal and Unified Field Theory |   |                                       |  |
|--------------------------------|------------------------------------|---|------------------------------------|---|---------------------------------------|--|
| Contents                       | Description                        | Formulations  | Elevations                         | Formulations  | References                            |  |
| Weak Fields                    |                                    | $\nabla \cdot \mathbf{\Omega} = 0$  | Conservation of                    | $(\mathbf{u}\nabla)\cdot\mathbf{B}_g^-=0$   | Eq. (14.6)                            |  |
|                                | Lorentz's Theory                   | $\frac{\partial \mathbf{\Omega}}{\partial t} + \nabla \times \mathbf{\Gamma} = 0$   | Yin Fluxion                        | $\frac{\partial \mathbf{B}_{g}^{-}}{\partial t} + \left(\frac{\mathbf{u}}{c_{g}} \nabla\right) \times \mathbf{E}_{g}^{-} = 0$   | Eq. (14.7)                            |  |
|                                | (LITG)                             | $\nabla \cdot \mathbf{\Gamma} = -4\pi G \rho$   | Conservation of                    | $\nabla \cdot \mathbf{D}_{g}^{+} = 4\pi G \rho_{g} c^{2} / c_{g}^{2}$   | Eq. (14.17)                           |  |
|                                |                                    | $\nabla \times \mathbf{\Omega} = \frac{1}{c_g^2} \left( -4\pi G \mathbf{J} + \frac{\partial \mathbf{\Gamma}}{\partial t} \right)$ |                                    | $\frac{\mathbf{u} \cdot \mathbf{u}}{c_g^2} \nabla \times \mathbf{H}_g^+ - \frac{\partial \mathbf{D}_g^+}{\partial t} = 4\pi G \frac{c^2}{c_g^2} \mathbf{J}_g + \mathbf{H}_g^+ \cdot \left(\frac{\mathbf{u}}{c_g} \cdot \nabla\right) \times \frac{\mathbf{u}}{c_g}$ | Eq. (14.18)                           |  |
| Gravitational<br>Force         | Lorentz's Theory<br>(LITG)         | $\mathbf{F}_{m}=m\left(\mathbf{\Gamma}+\mathbf{v}_{m}\times\mathbf{\Omega}\right)$  | Yin Fluxion Force                  | $\mathbf{F}_{g}^{+} = \kappa_{m} \mathbf{f}_{\times}^{+} = M \mu_{g} \left( c_{g}^{2} \mathbf{D}_{g}^{+} + \mathbf{u} \times \mathbf{H}_{g}^{+} \right)$  | Eq. (14.11)<br>Eq. (14.13)            |  |
| Graviton                       | N/A                                |   | Dual Complex<br>Equations          | $\tilde{E}_g^{\pm} = \frac{4\pi G}{V_g} \left(\frac{\hbar}{c_g}\right)^2 \mp i m_g c_g^2  m_g c_g^2 \rightleftharpoons 2\hbar \sqrt{\pi G \rho_g}$  | Eq. (15.7)<br>Eq. (15.8)<br>Eq. 15.9) |  |
| Conservation of<br>Gravitation | N/A                                |   | Equation of<br>Conservation        | $\frac{1}{c_g^2} \frac{\partial^2 \Phi_g^-}{\partial t^2} + \nabla^2 \Phi_g^- = \left(\frac{E_g}{\hbar c_g}\right)^2$   | Eq (15.4)                             |  |
| Continuity of<br>Gravitation   | N/A                                |   | Equation of Fluxion Continuity     | $\frac{\partial \rho_g^+}{\partial t} + \nabla \cdot \mathbf{j}_g^+ = i  c^2 E_g^-$   | Eq (15.5)                             |  |
| Law of<br>Conservation         | N/A                                |   | YinYang Spiral<br>Entanglements    | Nine Principles   | Section 15.<br>Table. p3              |  |
| Force of Gravity               | Newton's Law of Gravity            | $\mathbf{F}^- = -m \nabla \Phi_g = -m G \rho_g \frac{\mathbf{r}}{r^2}$  | Restricted Law of<br>Conservation  | $\mathbf{F}^{-} = - m c_g^2 \nabla \Phi_g^{-} = - m G \rho_g \frac{\mathbf{r}}{r^2}$  | Eq. (15.5)<br>Eq. (15.6)              |  |

#### LAW OF CONSERVATION OF GRAVITATION

- 1. Gravitation remains constant and conserves over time during its transportation
- 2. Gravitation transports in wave formation virtually and acts on objects physically
- 3. A gravitation energy of potential density neither can be created nor destroyed
- 4. Gravitation is consisted of virtual energy duality as an irreducible unit: graviton
- 5. Gravitation has at least two gravitons for entanglement at zero net momentum
- 6. Gravitation transports from one form to another carrying potential messages
- 7. Without an energy supply, no gravitation can be delivered to its surroundings
- 8. The net flow across a region is sunk to or drawn from the physical resources
- 9. External to objects, gravity is inversely proportional to the square of the distance

### **GENERAL SYMMETRIC DYNAMICS**

| Category                       | Classical and Contemporary Physics |  | Universal and Unified Field Theory         |   |                         |  |
|--------------------------------|------------------------------------|--|--|---|-------------------------|--|
| General Horizon<br>Equations   | N/A                                |  | Occord Oniversal                           | $\dot{\partial}_{\lambda} \mathbf{f}_{s}^{+} = \mathbf{g}^{+} / \kappa_{g} = [W_{0}]^{+} - \left\langle \left(\kappa_{1} + \kappa_{2} \check{\partial}_{\lambda}\right) \left(\check{\partial}^{\lambda} - \hat{\partial}_{\lambda}\right) \right\rangle^{+}$ | Eq. (10.3)              |  |
|                                | N/A                                |  |  | $\dot{\partial}_{\lambda} \mathbf{f}_{s}^{-} = \mathbf{g}^{-} / \kappa_{g} = [W_{0}]^{-} - \left\langle \left(\kappa_{1} + \kappa_{2} \check{\delta}^{\lambda}\right) \left(\hat{\sigma}^{\lambda} - \check{\delta}_{\lambda}\right) \right\rangle^{-}$       | Eq. (10.8)              |  |
|                                | N/A                                |  | Boost Transform<br>and<br>Spiral Transport | $\nabla \cdot \mathbf{B}^- = 0^+  \mathbf{B}^- = \mathbf{B}_c^- + \mathbf{B}_g^-  \mathbf{E}^- = \mathbf{E}_c^- + \mathbf{E}_g^-$   | Eq. (16.1)              |  |
|                                | N/A                                |  |  | $\nabla \cdot \mathbf{D}^{+} = \rho_q + 4\pi G \rho_g c^2 / c_g^2 \qquad \mathbf{D}^{+} = \mathbf{D}_c^{+} + \mathbf{D}_g^{+}$  | Eq. (16.2)              |  |
| General                        | N/A                                |  |  | $\nabla \times \mathbf{E}^{-} + \frac{\partial \mathbf{B}^{-}}{\partial t} = 0$ $\mathbf{H}^{+} = \mathbf{H}_{c}^{+} + \mathbf{H}_{g}^{+}$  | Eq. (16.3)              |  |
| Symmetric<br>Dynamics          | N/A                                |  |  | $\nabla \times \mathbf{H}^{+} - \frac{\partial \mathbf{D}^{+}}{\partial t} = \mathbf{J}_{q} + 4\pi G \frac{c^{2}}{c_{g}^{2}} \mathbf{J}_{g}$  | Eq. (16.4)              |  |
|                                | Lorentz Force                      | $\mathbf{F}_q^+ = Q\left(\mathbf{E}_c^- + \mathbf{u} \times \mathbf{B}_c^-\right)$                   | Motion and Toqure<br>Entanglements         | Derived the Same Form   | Eq. (16.5)              |  |
|                                | Lorentz's<br>Theory (LITG)         | $\mathbf{F}_{m}=m\left(\boldsymbol{\Gamma}+\mathbf{v}_{m}\times\boldsymbol{\Omega}\right)$           |  | $\mathbf{F}_g^+ = M \Big( \mathbf{E}_g^- + \mathbf{u} \times \mathbf{B}_g^- \Big)$  | Eq. (16.6)              |  |
|                                | General<br>Equation                | $dS = \frac{1}{T} \left( dE + PdV - \sum_{n} \mu_{n} dN_{n}^{\pm} \right)$                           | General Equation                           | Derived the Same Form   | Eq. (A.12)              |  |
| Thermodynamics                 | Boltzmann<br>Distribution          | $p_n^{\pm} = \frac{h_n^{\pm}}{\sum h_m} = \frac{e^{i\beta E_n}}{Z}$ $Z \equiv \sum_m e^{i\beta E_m}$ | Horizon Factor                             | Derived the Same Forms  | Eq. (8.8)<br>Eq. (8.10) |  |
| Thermodynamic<br>Entanglements | N/A                                |  | Density of<br>Yin Supremacy                | $d\rho_E^- = T d\rho_s^- + \sum\nolimits_i \mu_i d\rho_{n_i}^-$   | Eq. (A.14)              |  |
|                                | N/A                                |  | Density of<br>Yang Supremacy               | $P + \rho_E^+ = T\rho_s^+ + \sum_i \mu_i \rho_{n_i}^+$  | Eq. (A.15)              |  |

Everything turned out to be simple and concise, yet extremely challenge — desensitized by its puzzling complexity of current traditional concepts

- Our challenge is, in fact, to leave behind the ambiguous philosophy that we were born with.
- Our challenge is to open up our minds to the facts hidden in the fabric of daily life.
- Our challenge is to soften our metaphysical prejudices, for the assumption that there is no metaphysical reality is also a metaphysics itself
- Dur challenge is all the ignominious desensitized by the clamor of the excessive hype.



#### **OUR CHALLENGE IS EVEN GREATER**

#### **OUR GLORIOUS MISSION**

No mater

Where you come from, where you are, and where you go, Human society is at the dawn of a series of revolutions for a new era.

- 1. Advancing scientific philosophies to the next generation
- 2. Standardizing topological frameworks for modern physics
- 3. Developing information technologies through virtual reality
- 4. Theorizing biology and biophysics in innovative life sciences
- 5. Reformulating metaphysics on the basis of scientific naturalism
- It is time to reevaluate and give Rise of the Ancient Philosophy
- ▶ It is time to teamwork together to Back to the Scientific Future...





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## A branch of sciences in dialectics of virtual and physical existences

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