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A Summary Of Yangton And Yington Theory

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Abstract
Yangton and Yington Theory is a hypothetical theory based on a pair of superfine Yangton and Yington antimatter particles with built-in inter-attractive Force of Creation circulating against each other on an orbit. These pairs of Yangton and Yington circulating particles are named "Wu's Pairs" which is considered as the building blocks of the universe. Yangton and Yington Theory can successfully explain that subatomic particles with string structures are built upon Wu's Pairs and String Force in compliance with String Theory, and also that String Force and Four Basic Forces are induced from Force of Creation in accordance to Unified Field Theory. In addition, Yangton and Yington Theory can very well bridge Quantum Theory with Relativity, also interpret and correlate between space, time, energy and matter in the universe. Therefore, it is believed that Yangton and Yington Theory is a theory of everything. Since 2015, a total of 71 papers including 8 equations and 63 theories, as well as a book "My Universe – A Theory of Yangton and Yington Pairs" were published by Edward T. H. Wu regarding Yangton and Yington Theory. In this paper, a summary of Yangton and Yington Theory with a road map of the systematic derivations of Yangton and Yington Theory and its correlations to major physical phenomena are presented and reviewed.

Keywords
Yangton and Yington, Wu's Pairs, Subatomic Particles, String Theory, Quantum Field Theory, Unified Field Theory, Graviton Flux, Equation of Relative Velocity, Equation of Light Speed, Equation of Doppler Shifts, Quantum Entanglement, Spacetime, Relativity, Field Theory, Principle of Parallelism, Wu's Spacetime Equation, Wu's Spacetime Shrinkage Theory, Wu's Spacetime Field Equation. Wu's Spacetime Transformation. Universe Expansion.

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I. Summary Of Yangton And Yington Theory

Most of the theories that scientists have proposed to explain the phenomena in the universe are developed from a logical thinking and common sense which is often based on a physical or mathematical model. Although not all theories can be proved by physical experiments, the bottom line of a sound theory is dependent on how close it is to the real world and how much sense it is in explanation of the phenomena.

Yangton and Yington Theory [1] is a hypothetical theory based on a pair of superfine Yangton and Yington antimatter particles with built-in inter-attractive Force of Creation [1][2] circulating against each other on an orbit. These pairs of Yangton and Yington circulating particles are named "Wu's Pairs" [1][2] which is considered as the building blocks of the universe.

Yangton and Yington Theory can successfully explain that subatomic particles with string structures [2] are built upon Wu's Pairs and String Force [2] in compliance with String Theory, also String force and Four Basic Forces are induced from Force of Creation [2] in accordance to Unified Field Theory. Furthermore, Yangton and Yington Theory can very well bridge Quantum Theory with Relativity, also interprets and correlates space, time, energy and matter in the universe. Therefore, it is believed that Yangton and Yington Theory is a theory of everything.

Although Yangton and Yington Theory is only a theory, the whole concept is developed based on a logical thought "Five Principles of The Universe" [3][4] as follows:

1. There was Nothing in the universe in the beginning.
2. Nothing to Something must be a reversible process.
3. The Something must be a pair of Antimatter particles with an inter-attractive force such that they can attract and destroy each other.
4. From Something to permanent matter, there must be an external energy to cause a constant circulation motion between the two Antimatter particles so as to avoid them from recombination and destruction.
5. Eventually the whole universe will end and go back to Nothing.

It is believed that in Big Bang Explosion, Space and Energy of Formation were first generated together with Yangton and Yington Bubbles [5] containing built-in inter-attractive Force of Creation from None through Singularity. Then, based on the Five Principles of The Universe, additional Space and Energy of Circulation are

produced together with the permanent Wu's Pairs [5], a superfine Yangton and Yington Antimatter particle pair with built-in inter-attractive Force of Creation, circulating against each other on an orbit.

As proposed that Wu's Pairs is the building blocks of the universe, when two Wu's Pairs come together with the same circulation direction (both spin up or spin down), they stack up on each other with String Force induced from Force of Creation between two adjacent Wu's Pairs to form a String Structure [2][6]. By repeating the stacking processes, strings, rings and other related String Structures can be formed which is in compliance with "String Theory". As a result, all elementary subatomic particles in Standard Model including quarks, leptons, Gauge Bosons, gluons, photon, Higgs Boson and Graviton having String Structures are composed of Wu's Pairs with String Force [6][7][8]. For examples, electron and positron have a ball structure, up and down quarks have a three strings structure, eight gluons have a dual connection structure, and graviton has a single string structure, etc. Composite subatomic particles are made of elementary subatomic particles [6][7][8], which are glued together by four basic forces including electromagnetic force, weak force, strong force and gravitational force that are induced from Force of Creation subject to the subatomic structures and their interactions, which is in accordance to Unified Field Theory. Higgs Bosons are string force carriers which can be considered as Wu's Pairs [9]. Also, Higgs Field can be interpreted as the distribution of the string force [9]. These concurs with that Wu's Pairs are the building blocks of all matters and mass is the multiplication of the amount of Wu's Pairs and Wu Unit Mass [6].

Gravitational force is induced from Force of Creation through the contact interaction between two gravitons with string structures [2][6][10][11]. Electromagnetic force is created between electrons and positrons with spherical string structures. Both proton and neutron have ring structures. Weak force is formed between a pair of positron and neutron. In addition, strong force is produced between two neutrons and also between a pair of neutron and proton [2][6][12].

Quantum Field Theory is used to correlate the structures and properties of subatomic particles to the bonding forces (four basic forces) between subatomic particles by a mathematical model of non-abelian symmetry based on Yang Mills Theory. Quantum fields are the quantized fields (distribution) of four basic forces [13] including electromagnetic force, weak force, strong force and gravitational force which concurs with the bonding forces between the string structures composed of Wu's Pairs [12]. However, gravitational field is the field (distribution) of static remote gravitational force (Universal Gravitation) applied on a unit mass instead of the gravitational force between two adjacent gravitons in the same object. Static remote gravitational force is the summation of remote gravitational forces generated by the contact interaction between two groups of gravitons, one group from target object and the other group through static graviton flux from parent object [14].

Universal Gravitation as the remote gravitational force, instead of being produced by propagation of gravitational force which is hard to imagine, it is in fact generated by graviton radiation and contact interaction [14]. Graviton flux generated as part of the graviton radiation emitted from parent object toward target object can serve as the mechanism causing the remote gravitational force and be used to derive Newton's Law of Universal Gravitation [14]. Also, it is believed that Aether Inflow is the Static Graviton Flux [15][16] generated by the emitted gravitons from parent object to stationary target object, and Aether Wind is the Dynamic Graviton Flux [15][16] generated by the emitted gravitons from parent object to moving target object. In addition, Gravitational Wave [14] is generated by the fluctuation of the graviton radiation from a pair of circulating massive stars or black holes. Furthermore, because Wu's Pairs can be influenced by graviton bombardment [17] caused by graviton flux, also the properties of an object or event are mainly dependent on its structure and building blocks Wu's Pairs, therefore, gravitational field as an indicator of the strength of graviton bombardment and graviton flux, can influence the properties of an object or event [18] [19] and to produce some important cosmological phenomena [11] such as gravitational redshift, gravitational time dilation, light deflection and Perihelion Precession of Mercury, etc.

Photon is a free Wu's Pair [2] emitted from a parent object (light source) through a two stage separation and ejection process [20][21]. Also, photon is a spinning polarized particle having Wave Particle Duality property [47] that can generate electromagnetic wave along its traveling path. When a photon emitted from light source, it undergoes Photon Inertia Transformation where photon travels with two speeds, the Absolute Speed $3x10^8$ m/s (the speed of photon observed at the light source, m/s is dependent on the gravitational field at the light source) and the Inertia Light Speed (the speed of light source observed at the reference point) [21][22]. Vision of Light [21] is developed and used for light speed calculation. Based on Equation of Relative Velocity [23], Equation of Light Speed [24] is developed as a vector summation of Absolute Light Speed and Inertia Light Speed which opposes Einstein's Special Relativity and Velocity Time Dilation that are based on constant light speed [22][25][26]. According to Equation of Light Speed, both light speed and wavelength can be affected by the direction and speed of light source (Inertia Light Speed). Even more, with Equations of Doppler Shifts [27] including Equation of Light Speed, Equation of Position, Vision of Light and Vision of Object (Light Source), the wavelength, frequency and light speed of Acceleration Shift, Axial Shift and Transverse Shift [28] can be calculated. Event Horizon [29] on the other hand is caused by the

competition between outward Absolute Light Speed and inward Inertia Light Speed. Expansion of the universe and Hubble's Law can be derived and interpreted by Acceleration Doppler Effect [30][31][32][33][34][35], except that where the Dark Energy coming from remains a mystery. In fact, Expansion of the universe based on Cosmological Redshift and Hubble's Law can also be derived and better explained by Aging Affected Wu's Spacetime Shrinkage Theory and Principle of Parallelism without Dark Energy [36]. Furthermore, Length Contraction is caused by human visual memory [37][38] which has nothing to do with light speed and Special Relativity.

Although mass and energy conversion can be commonly found in nuclear reaction, instead of mass and energy conversion, Einstein's $E = MC^2$ is actually the energy transformation from matter's structure energy generated from String Force and Four Basic Forces to photon's kinetic energy [39].

Electron has a spherical structure. It is composed of a number of Wu's Pairs, where Yangtons are loosely confined in the center due to the compression of the centrifugal force generated by the circulation of Yingtons . Positron has a totally opposite structure to electron by switching between Yangtons and Yingtons [2]. In addition, electron is a spinning polarized particle having Wave Particle Duality property [48] that both wave and particle properties can coexist at all times. However, under detection, the phase angles of the particle waves are influenced by the detector such that Double Slit Interference [41] pattern can be interrupted and become disappeared. It very well explains Complementarity [42] which on the other hand has been mistaken as a mystery by quantum physicists for decades.

Furthermore, quantum energy states can serve as the "Hidden Variables" in photons and electrons [43][44][45]. In polarization process, the Hidden Variables (predetermined quantum energy states) can be affected either by adding energy to the quantum energy states of electron or reducing energy from the quantum energy states of photon such that the new quantum energy states (Field Dependent Hidden Variables) can be obtained [46]. Also, Normalized Field Dependent Hidden Variables can be attained in further polarization processes based on Principle of Normalization [46].

In optical multiple polarization experiments [47], because elements are taken from mixed sample space which violates the same sample space principle of Set Theory that Bell's Inequality based on, therefore those samples cannot be used as the Hidden Variables to prove Bell's Inequality [43]. On the other hand, in electron entanglement experiments [48], although the elements are taken from the same sample space, wrong data without probability of polarization transformation are used for analyses, therefore the conclusions are also incorrect. In fact, with correct data, experimental results should always match with the statistic calculation and Bell's Inequality could always be obeyed [44][45].

The existence of Hidden Variables as quantum energy states in Photon Polarization and Quantum Entanglement[47] [48] are indirectly proved by the agreement between probability of polarization transformation and experimental results. Field Dependent Hidden Variables suggests that the quantum superposition is not true and Field Dependent Corresponding Entanglement indicates that quantum entanglement is predetermined and free-will quantum entanglement doesn't exist [44][45].

Since Wu's Pairs are the building blocks of all matters, it is obvious that a fundamental measuring system can be established based on Wu Unit Mass – the mass of Wu's Pair (a pair of Yangton and Yington Circulating Particles), Wu Unit Time – the period of the circulation of Wu's Pair, and Wu Unit Length – the diameter of the circulation orbit of Wu's Pair, of a reference subatomic particle at a reference point and time [6]. In contrast, Planck Units (Planck Length, Time and Mass) are defined by physical constants such as gravitational constant, Planck constant and absolute light speed. Based on Graviton Radiation and Contact Interaction Theory, Planck Units are calculated and compared to Wu's Units (Wu Unit Length, Time and Mass) [49][50]. As a result, Plank Units are correlated to Wu Units and the quantities of the critical size cluster of gravitons. But by no means, that they are the fundamental unit quantities of God's Particle (such as Wu's Pair) as that some scientists have suggested. This also explains why Planck Mass is much bigger than the mass of subatomic particles [50].

Wu's Spacetime $[x, y, z, t](l_{yy}, t_{yy})$ [51] is a special four dimensional system based on a three dimensional Cartesian System that is defined by the Wu Unit Length l_{yy} (the diameter of Wu's Pairs) and Wu Unit Time t_{yy} (the period of Wu's Pairs) of a reference subatomic particle dependent on the gravitational field and aging of the universe at a reference point and time [51]. Wu's Spacetime Equation ($t_{yy} = \gamma l_{yy}^{3/2}$) [10][52] is derived which gives the correlation between Wu Unit Length and Wu Unit Time. Also, Wu Constant and Wu's Spacetime Constant are studied and analizied [52]. In addition, the differences between universal physical constant (Gravitational Constant where both real number and unit quantities are dependent on the unit quantities of the measurement), gravity dependent physical constant (Planck Constant, Coulomb Constant and Wu Constant where real number is fixed but unit quantities are dependent on the local gravitational field) and absolute physical constant (Wu's Spacetime Constant where both real number and mass and charge unit quantities are fixed) are studied and explained [53][54][55]. (Note: Planck constant is independent to mass, my previous publication [40] is incorrect).

The properties of an object or event, including Dimension and Duration, are dependent on two equilibriums [56]: (1) Thermal equilibrium, in which the object or event reaches a fixed atomic and subatomic structures at a constant temperature and pressure through the interactions between atoms and subatomic particles, and (2) Subatomic Equilibrium, in which Wu's Pairs in subatomic particles reach a fixed Wu Unit Length and Wu Unit Time at a constant gravitational field and aging of the universe through the interactions of gravitons and built-in attractive Force of Creation in Wu's Pairs.

The biggest mystery of modern physics is that "Dimension" and "Duration" of an object or event can change with gravitational field and aging of the universe but not in any way the "Space" and "Time" which are absolute quantities [51]. At a constant gravitational field and aging of the universe, because of the completion between the expansion of Wu's Pairs caused by the bombardment of gravitons based on Graviton Radiation and Contact Interaction, and the attraction of Wu's Pairs caused by the nature enforcement of Force of Creation in Wu's Pairs, Dimension and Duration of the object or event can both be stabilized at a fixed quantities.

Under both thermal and subatomic equilibriums, every object or event is a corresponding identical object or event to itself at different gravitational field and aging of the universe, such that all the properties of the object or event, except mass and charge, should obey Three Principles – Principle of Equilibrium, Principle of Correspondence and Principle of Parallelism [51][57][58][59].

- Principle of Equilibrium – As an object or event in thermal equilibrium at a constant temperature and pressure, also in subatomic equilibrium at a constant gravitational field and aging of the universe at a location and time, all the properties of the object or event should attain their own fixed quantities.
- Principle of Parallelism – For two corresponding identical objects or events at the same gravitational field and aging of the universe (or at the same location and time), the ratio between the quantities of the same property of the two objects or events remains constant, no matter gravitational field and aging of the universe.
- Principle of Correspondence – As the property of a corresponding identical object or event measured by the unit quantity of the same property of a reference corresponding identical object or event at the same gravitational field and aging of the universe (or at the same location and time), the amount of the unit quantity remains constant, no matter gravitational field and aging of the universe.

Under both thermal and subatomic equilibriums, based on Principle of Equilibrium, Principle of Parallelism and Principle of Correspondence, as well as Wu's Spacetime Equation, all properties of an object or event can be transformed to Wu Unit Length of a reference subatomic particle such as $L \propto l_{yy}$, $T \propto l_{yy}^{3/2}$, $V \propto l_{yy}^{-1/2}$ and $A \propto l_{yy}^{-2}$. This is named Wu's Spacetime Transformation [60]. Furthermore, an object or event at large gravitational field or in early stage aging of the universe should have large Wu Unit Length and large Wu Unit Time. This is named "Wu's Spacetime Shrinkage Theory" [10].

Together with Wu's Spacetime Shrinkage Theory, Wu's Spacetime Transformation can be used to interpret the changes of the properties of an object or event affected by gravitational field and aging of the universe, such as Cosmological Redshift, Gravitational Redshift, Time Dilation, Light Deflection, Perihelion Precession of Mercury, expansion of the universe, etc. In addition, Wu's Spacetime Transformation can be used to derive Wu's Spacetime Field Equation [61] which correlates acceleration and gravity in comparison to Einstein's Field Equation which correlates Energy and acceleration [62][63][64].

When an object or event passes by a massive star, according to Wu's Spacetime Transformation and Gravity Affected Wu's Spacetime Shrinkage Theory, the speed of the object or event decreases while Wu Unit Length increase ($V \propto l_{yy}^{-1/2}$), which can cause Deflection of Light and Perihelion Precession of Mercury [65].

In addition, when a photon emitted from a far distance star or a massive star quenches onto earth, according to Wu's Spacetime Shrinkage Theory and Principle of Parallelism, it remains larger Wu Unit Length and larger Wu Unit Time compared to that of the corresponding identical photon emitted from the corresponding identical light source on earth ($\lambda \propto l_{yy}$). This is the reason to cause Gravitational Redshift [11] and Cosmological Redshift [10]. Furthermore, despite Acceleration Doppler Effect, the expansion of the universe and Hubble's Law can be derived from Aging Affected Wu's Spacetime Shrinkage Theory, Cosmological Redshift and Principle of Parallelism ($L \propto \lambda \propto l_{yy}$) without Dark Energy [36][66]. In other words, the dimension and duration of an object or event on earth is actually shrinking rather than that the universe is expanding [36][66].

According to Gravity Affected Wu's Spacetime Shrinkage Theory and Principle of Parallelism, a corresponding identical object or event on a massive star (or black hole) has large dimension (length $L \propto l_{yy}$) and duration (time $T \propto l_{yy}^{3/2}$), but small velocity ($V \propto l_{yy}^{-1/2}$) and acceleration ($A \propto l_{yy}^{-2}$) because of the large gravitational field. As the same object or event is observed on earth, because of the smaller Wu Unit Length caused by the small gravitational field, the amounts of unit length ($l \propto l_{yy}^{-1}$) and unit time ($t \propto l_{yy}^{-3/2}$) are larger, also the amounts of unit velocity ($v \propto l_{yy}^{1/2}$) and unit acceleration ($a \propto l_{yy}^{2}$) are smaller than that of the corresponding identical object or event on earth. These results agree very well with Einstein's General Relativity [11][67].

Because space (dimension) and time (duration) as well as spacetime (potential energy) in Einstein's General Relativity can be considered as properties of a corresponding identical object or event, therefore in compliance with Principle of Parallelism, their quantities have fixed correlations to Wu Unit Length and Wu Unit Time of the reference subatomic particles at the same local gravitational field and aging of the universe [11]. Furthermore, according to Wu's Spacetime Shrinkage Theory, both Wu Unit Length and Wu Unit Time of the reference subatomic particles are dependent on the local gravitational field and aging of the universe, as is the Einstein's Spacetime of the object or event, therefore Einstein's spacetime of the object or event is nothing but an image of the local gravitational field and aging of the universe [11].

Einstein's Field Equation is derived upon the correlation between the derivative of space-time continuum (potential energy) and the acceleration in a nonlinear geometry system (geodesics), and then transformed to a Normal Spacetime System on earth [11]. However, Wu's Spacetime Field Equation is derived upon the correlation between the Amount of Normal Acceleration and gravitational field in Wu's Spacetime System on earth [11]. Furthermore, Wu's Spacetime Field Equation is derived with Wu's Spacetime Transformation based on Wu's Spacetime Equation ($t_{yy} = \gamma l_{yy}^{3/2}$) and Principles of Equilibrium, Correspondence and Parallelism [60]. In Wu's Spacetime Field Equation, the amount of normal unit acceleration a is proportional to C^{-4} ($a \propto l_{yy}^2 \propto C^{-4}$) which is a function of Wu Unit Length l_{yy} of a reference subatomic particle dependent on the gravitational field and aging of the universe at a reference point and time. Because GC^{-4} appears on the matter and energy side (right hand side) of both equations, Einstein's Field Equations is equivalent to Wu's Spacetime Field Equations observed on earth ($C_0 = 3x10^8$ m/s on earth) [11][63].

Einstein derived his theories including Special Relativity, General Relativity, Spacetime, Field Equations and Mass and Energy Conservation based on two wrong assumptions: (1) Light speed is always constant no matter the light sources and observers (reference points), and (2) Acceleration is the principle factor of the universe [68]. In contrast, based on Yangton and Yington Theory, it is believed that (a) Light speed is not constant, instead, it is a vector summation of Absolute Light Speed and Inertia Light Speed [22][24][25], and (b) Gravitational field and aging of the universe are the principle factors of Wu's Spacetime instead of acceleration [11]. As a consequence, the dimension and duration of a corresponding identical object or event are a function of Wu Unit Length (l_{yy}) and Wu Unit Time (t_{yy}) depending on the local gravitational field and aging of the universe no matter of the acceleration. Also, the correlations between quantities, arithmetic operations, equations of physical laws, physical constants are studied [53][54]. They are all dependent on gravitational field and aging of the universe [54][55][69].

Furthermore, an unprecedented idea based on Space and Energy Correlated Five Principles of the Universe was brought up recently. In contrast to Wu's Pairs, the building blocks of Matter, it is suggested that Yangton and Yington Bubbles, a temporary Yangton and Yington particle pairs with built-in inter-attractive Force of Creation as the precursor of Wu's Pairs, are the building blocks of Space and Dark Matter [4]. In addition, Energy is cogenerated with Space to reflect the interaction between Force of Creation and the corresponding Space produced by Yangton and Yington Bubbles and Wu's Pairs [5]. Also, Time is generated to record the changes of distribution of Energy and motion of Matter [6]. Finally, Multibang Theory based on Yangton and Yington Theory is proposed to explain the mature galaxies existing 13.5B years ago found by JWST [70].

In result, as indicated in Wu's 71 papers, Wu's Pairs and Yangton and Yington Theory can be applied successfully in explanation and derivation of the following major physical phenomena and theories:

1. Five Principles of the Universe [3].
2. Wu's Pairs (Yangton and Yington Pairs) and Force of Creation [1][2].
3. Photon as a free Wu's Pair [1][2].
4. Elementary Subatomic Particles composed of Wu's Pairs with String Force and String Structures (String Theory) [2].
5. Up and Down Quarks composed of a three strings structure [12]
6. Eight Gluons with a dual connection structure [12].
7. Composite Subatomic Particles based on Elementary Subatomic Particles and Four Basic Forces [2].
8. Four Basic Forces and Unified Field Theory based on Force of Creation [2] [8].
9. Quantum Field Theory based on Yangton and Yington Theory [13].
10. Antimatter and Baryogenesis based on Wu's Pairs [2].
11. Graviton and Gravitational Force based on Wu's Pairs and Force of Creation [2].
12. Graviton Radiation and Graviton Flux [14].
13. Graviton Speed and Concentration [15].
14. Static Graviton Flux and Aether Inflow [15][16][17].
15. Dynamic Graviton Flux and Aether Wind [15][16][17].
16. Graviton Radiation and Contact Interaction [14].
17. Newton's Law of Universal Gravitation and Remote Gravitational Force [15][17].

18. Gravitational Field and Static Graviton Flux [14].
19. Effects of Target Speed and Shape on Vertical Dynamic Remote Gravitational Force [15][18].
20. Anisotropy of Light Speed due to Dynamic Graviton Flux [19]
21. Gravitational Waves and Graviton Radiation [14].
22. Higgs Bosons as Wu's Pairs and Higgs Field as the distribution of String Force and Wu's Pairs [9].
23. Planck Length, Time and Mass versus Wu Unit Length, Time and Mass [49].
24. Planck Units Calculation Based on Graviton Cluster Model [50].
25. $E = MC^2$ as the energy transformation between Wu's Pairs and Photons [39].
26. De Broglie Wave, Wave Particle Duality and Spinning Polarized Particle [47][48].
27. Two Stage Photon Emission [20].
28. Photon Inertia Transformation [20].
29. Absolute Light Speed and Inertia Light Speed [20].
30. Black Body Radiation and Wu's Pairs [20].
31. Vision of Object, Vision of Light and Theory of Vision [21].
32. Equation of Relative Velocity [23]
33. Equation of Light Speed [21][24].
34. Michelson – Morley Experiment interpreted by Equation of Light Speed [24].
35. Equation of Light Speed versus Special Relativity and Velocity Time Dilation [25] [26].
36. Mistakes of General Relativity and Gravitational Time Dilation [68].
37. Acceleration Doppler Effect and Acceleration Doppler Redshift [30].
38. Hubble's Law and Acceleration Doppler Effect [30].
39. Axial Doppler Redshift and Transverse Doppler Redshift [28].
40. Equations of Doppler Shifts [27].
41. Event Horizon, Black Hole and Equation of Light Speed [29].
42. Length Contraction and Human Visual Memory [38].
43. Destruction of Wu's Pairs by aging of the universe [10].
44. Destruction of Wu's Pairs in Black Hole by gravitational force [10].
45. Wu's Spacetime System [10].
46. Wu's Spacetime Equation [10].
47. Wu Constant and Wu's Spacetime Constant [52].
48. Gravitational Constant and Planck Constant [55][69].
49. Subatomic Equilibrium [56].
50. Corresponding Identical Object or Event [56].
51. Principle of Correspondence [58].
52. Principle of Parallelism [57].
53. Principle of Equilibrium [59].
54. Wu Units – Wu Unit Mass, Time and Length [58].
55. Planck Units Interpreted by Graviton Radiation and Contact Interaction Theory [50].
56. Wu's Spacetime Constant – An Absolute Physical Constant [55].
57. Wu's Spacetime Transformation. [51][60].
58. Wu's Spacetime Shrinkage Theory [10].
59. Wu's Spacetime Transformation and Wu's Spacetime Shrinkage Theory [59]
60. Space (Dimension) and Time (Duration) based on Wu's Spacetime [10].
61. Photon and Wu's Spacetime [10].
62. Cosmological Redshift and Aging Affected Wu's Spacetime Shrinkage Theory [10].
63. Gravitational Redshift and Gravity Affected Wu's Spacetime Shrinkage Theory [10].
64. Hubble's Law Derived by Wu's Spacetime Shrinkage Theory and Principle of Parallelism [32][33][34][36].
65. Deflection of Light Interpreted by Gravity Affected Wu's Spacetime Shrinkage Theory [65].
66. Perihelion Precession of Mercury Interpreted by Gravity Affected Wu's Spacetime Shrinkage Theory [65].
67. Corresponding Identical Objects and Events in large Gravitational Field observed on earth [67].
68. The hollow structure of Black Hole interpreted by Gravity Affected Wu's Spacetime Shrinkage Theory [63].
69. Complementarity in Single Slit Diffraction and Double Slit Interference resulted from phase angle changes caused by detectors [41].
70. Photon Polarization and Entanglement based on Yangton and Yington Theory [43][47].
71. Electron Polarization and Entanglement based on Yangton and Yington Theory [43][48].
72. Quantum Polarization explained by Field Dependent Hidden Variables instead of Quantum Superposition [43][46][48].
73. Quantum Entanglement interpreted by Field Dependent Corresponding Entanglement instead of Free Will Quantum Entanglement [45].

74. Prove of Hidden Variables as quantum energy states by probability of polarization transformation [44][45][46].
75. Wu's Spacetime versus Einstein's Spacetime [63].
76. Wu's Spacetime Transformation and Wu's Spacetime Field Equations [60] [61].
77. Wu's Spacetime Field Equations versus Einstein's Field Equations [63][64].
78. Einstein's Spacetime interpreted by Principles of Correspondence [62] and Parallelism [11].
79. Einstein's Spacetime Field Equation and Wu's Spacetime Transformation [60].
80. Einstein's seven mistakes due to constant light speed and acceleration principle [68].
81. Space made of Yangton and Yington Bubbles [4].
82. Dark Matter made of Yangton and Yington Bubbles [4].
83. The correlations between quantities, arithmetic operations, equations of physical laws, physical constants [52][53][54].
84. Wu's 8 Equations and 63 Theories [72].
85. Cogeneration of Corresponding Space and Corresponding Energy with Yangton and Yington Bubbles and Wu's Pairs [5].
86. Early Universe Interpreted by Multibang Theory [70].
87. Universal Physical Constant, Gravity Dependent Physical constant and Absolute Physical Constant [55].
88. The road map of the systematic derivations of Yangton and Yington Theory and its correlations to some major physical phenomena (Fig. 1 revised from [7]).

In addition, among the 71 papers, 6 reviews with detailed discussions of some important subjects were published on the following titles:

1. What if light speed is not constant? [22].
2. What if Complementarity and Superposition are only imaginations and Einstein's Hidden Variables are nothing but truth? [42].
3. What if earth is shrinking instead of the universe is expanding? [66].
4. What If God's Particles does exist and how do they build the universe? [6].
5. What are the truths of Time and Space? [51].
6. What are the truths of Gravity and General Relativity? [11].

Furthermore, a road map of the systematic derivations of Yangton and Yington Theory and its correlations to major physical phenomena is exhibited in Fig. 1 (revised from [7]). Although my book "Edward T. H. Wu (2017), My Universe – A Theory of Yangton and Yington Pairs, Amazon.com. ISBN 9798486986178" [71] was first published in March 2017, the final version with all updates and self sustained Yangton and Yington Theory including a total of 65 papers, 6 reviews and 1 summary was not released until August 8, 2024.

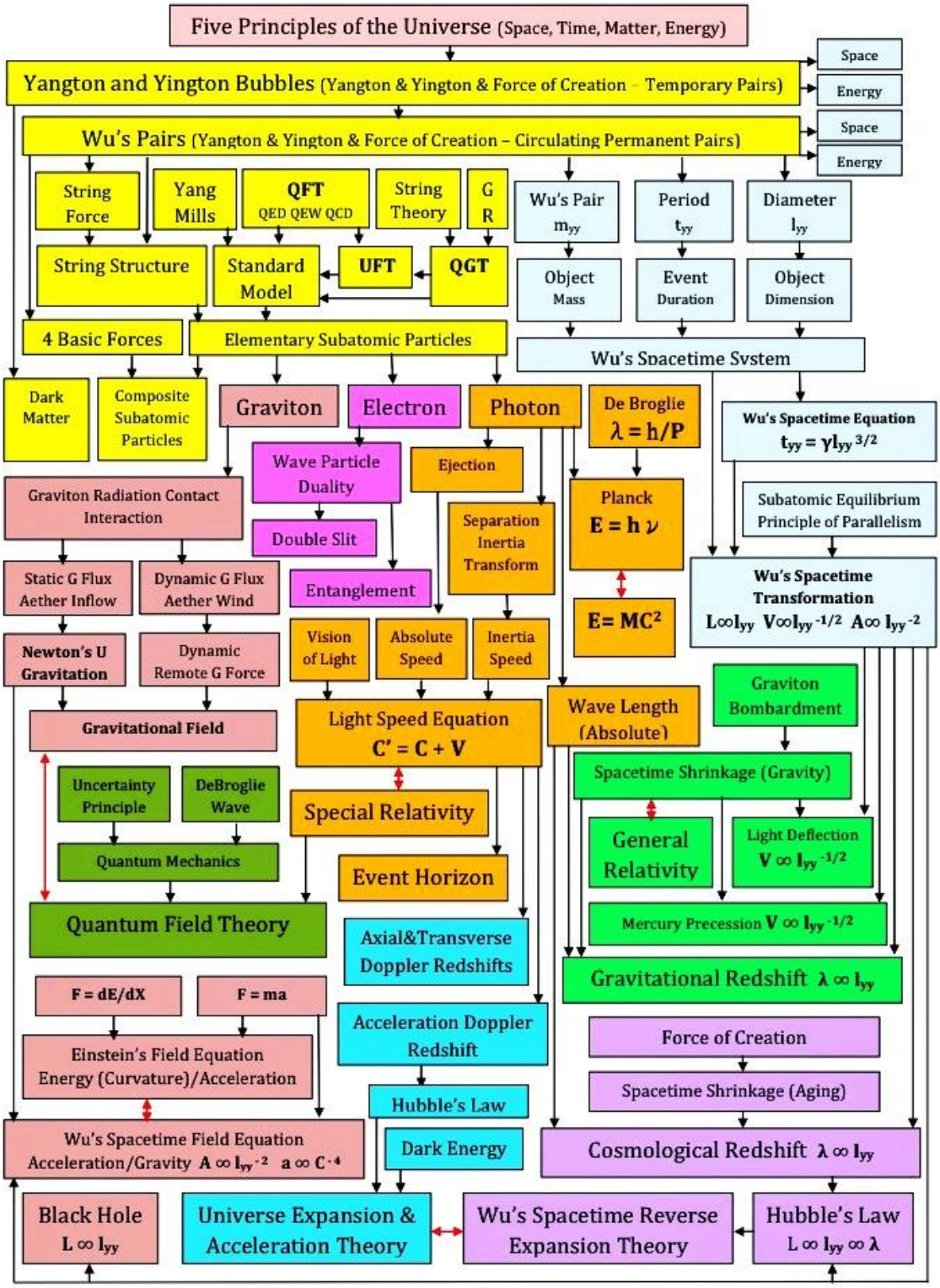

Fig. 1 A Road Map Of Systematic Derivations Of Yangton And Yington Theory And Its Correlations To Some Major Physical Phenomena.

II. Wu's Equations And Theories

In addition, a total of 8 Wu's Equations and 63 Wu's Theories related to Yangton and Yington Theory are summarized as follows:

Wu's Equations
Equation of Relative Velocity [23]

$$\mathbf{{}_{O}V_{P} = {}_{O}V_{S} + {}_{S}V_{P}}$$

Where $\mathbf{{}_{O}V_{P}}$ is the velocity of object P observed at reference object O, $\mathbf{{}_{O}V_{S}}$ is the velocity of object S observed at reference object O, and $\mathbf{{}_{S}V_{P}}$ is the velocity of object P observed at object S.

Equation of Relative Velocity holds at any instant time. In case $\mathbf{{}_{O}V_{S}}$ and $\mathbf{{}_{O}V_{P}}$ (or $\mathbf{{}_{S}V_{P}}$) are constant velocities, then $\mathbf{{}_{S}V_{P}}$ (or $\mathbf{{}_{O}V_{P}}$) is also a constant velocity and the above equation is true at all times.

Equation of Light Speed [24]

$$\mathbf{C' = C + V}$$

Where **C'** is the Normal Light Speed observed at the reference point, **C** is the Absolute Light Speed observed at the light source ($3x10^8$ m/s dependent on the local gravitational field and aging of the universe) and **V** is the Inertia Light Speed, the moving speed of the light source observed at the reference point.

Equation of Light Speed is always true at the instance of photon emission. It is also true at all times if the light speed observed at light source is constant (equal to Absolute Light Speed $\mathbf{C} = 3x10^8$ m/s where m/s is dependent on the local gravitational field and aging of the universe) and the speed of light source observed at the reference point **V** is constant. Furthermore, because light speed observed at light origin is always constant, therefore, if the speed of light source observed at the light origin is constant, then light speed observed at light source is also constant (equal to Absolute Light Speed $\mathbf{C} = 3x10^8$ m/s where m/s is dependent on the local gravitational field and aging of the universe). In other words, Equation of Light Speed is true at all times, if the speed of light source observed at both the light origin and the reference point **V** are constants.

Equations of Doppler Shifts [27]
Doppler Shifts can be calculated from the following four equations:
Equation of Light Speed

$$\mathbf{C' = V + C}$$

Equation of position

$$\mathbf{P = S + D}$$

Vision of photon

$$\mathbf{P = C't = Vt + Ct}$$

Vision of light source

$$\mathbf{S = Vt + \tfrac{1}{2} at^2}$$

Where t is the traveling time of photon from light origin to earth, V is the speed and a is the acceleration of light source (star), **D** is the distance between light source and earth (photon position at time t), **S** is the distance between light origin and light source and **P** is the distance between light origin and earth (photon position at time t). **C** is the Absolute Light Speed observed on light source and **C'** is the light speed observed on the reference point (light origin and earth).
As a result, the Doppler Shifts observed on earth can be calculated as follows:
Wavelength

$$\lambda_1 = D/\nu t$$

Light Speed

$$C_1 = P/t$$

Frequency

$$\nu_1 = C_1/\lambda_1$$

Where λ_1, C_1 and ν_1 are the wavelength, light speed and frequency of the photon generated at the light source (star) and observed on earth. Also λ, C and ν are the wavelength, light speed and frequency of the photon generated and observed at the light source (star), which are assumed the same as that generated and observed on earth.

Wu's Spacetime Equation [10]

$$t_{yy} = \gamma l_{yy}^{3/2}$$

Where t_{yy} is the circulation period of Wu's Pairs, named Wu Unit Time, l_{yy} is the size of the circulation orbit of Wu's Pairs, named Wu Unit Length, and γ is Wu's Spacetime Constant.

Principle of Parallelism [59]

For two corresponding identical objects or events at the same gravitational field and aging of the universe, the ratio between the quantities of the same property of the two objects or events remains constant, no matter gravitational field and aging of the universe.

$P = nP'$

Where P and P' are quantities of the same property of two corresponding identical objects or events, n is a real number constant.

Wu's Spacetime Transformation Equations [60]

The physical properties of a corresponding identical object or event can be represented by the following Wu's Spacetime Transformation Equations:

$L = l\, m\, l_{yy}$

$T = t\, n\, \gamma\, l_{yy}^{3/2}$

$V = v\, m\, n^{-1}\, \gamma^{-1}\, l_{yy}^{-1/2}$

$A = a\, m\, n^{-2}\, \gamma^{-2}\, l_{yy}^{-2}$

$C = c\, m\, n^{-1}\, \gamma^{-1}\, l_{yy}^{-1/2}$

Where L is the length, T is the time, V is the velocity, A is the acceleration and C is the light Speed of a corresponding identical object or event. m is the reference-dependent constant of normal unit length, n is the reference-dependent constant of normal unit time, γ is Wu's Spacetime Constant and l_{yy} is Wu Unit Length of the reference corresponding identical subatomic particle at a location and time. Also l, t, v, a and c are amounts of normal unit length, time, velocity, acceleration and light speed respectively and they are constants (such as $c = 3x10^8$) for corresponding identical objects or events no matter gravitational field and aging of the universe.

Wu's Spacetime Field Equations [61]

Wu's Spacetime Field Equations of a target object at a distance from a parent object (star) observed on the target object can be represented as follows:

$a = \sigma\, \gamma^2\, l_{yy}^2\, (GM/R^2)$

$a = \delta\, \gamma^{-2}\, C^{-4}\, (GM/R^2)$

Where a is the amount of normal unit acceleration of target object measured on target object, σ and δ are reference-dependent real number constants associated with the reference subatomic particle, γ is Wu's Spacetime Constant, l_{yy} is Wu Unit Length of the reference subatomic particle and C is the Absolute Light Speed on target object ($C = 3x10^8$ m/s where $3\ x10^8$ is a constant number and m/s is target units). M is the mass of the star (measured by target units), G is Newton's gravitational constant (constant quantity, $G = n\ x\ m^3kg^{-1}s^{-2}$ where n is the amount measured on target and $m^3kg^{-1}s^{-2}$ is target units) and R is the distance between target object and the star (measured by target units).

Wu's Spacetime Field Equations of a target object at a distance from a parent object (star) observed on earth can be represented as follows:

$a_0 = \sigma\, \gamma^2\, l_{yy0}^2\, (GM/R^2)$

$a_0 = \delta\, \gamma^{-2}\, C_0^{-4}\, (GM/R^2)$

Where a_0 is the amount of normal unit acceleration of target object measured on earth, σ and δ are reference-dependent real number constants associated with the reference subatomic particle, γ is Wu's Spacetime Constant, l_{yy0} is Wu Unit Length of the reference subatomic particle and C_0 is the Absolute Light Speed on earth ($C_0 = 3x10^8$ m/s where $3\ x10^8$ is a constant number and m/s is earth units), M is the mass of the star (measured by earth units), G is gravitational constant (constant quantity, $G = 6.674x10^{-11}\ m^3kg^{-1}s^{-2}$ where $6.674x10^{-11}$ is the amount measured on earth and $m^3kg^{-1}s^{-2}$ is earth units) and R is the distance between the target object and the star (measured by earth units).

Graviton Flux and Dynamic Remote Gravitational Force [19]

Graviton flux is proportional to graviton speed and concentration of graviton.

$i = kV_g\, (m_1/r^2)$

Where i is graviton flux, k is graviton flux constant, V_g is graviton speed, m_1 is the mass of parent object and r is the distance from parent object.

Dynamic Remote graviton force is generated by dynamic graviton flux cause by the relative motion between target object and parent object.

$\mathbf{F_d} = -\, (G/C)[(C - V\, Cos\Theta)\, \mathbf{S_1} + V\, Sin\Theta\, \mathbf{S_2}]\, (m_1m_2/r^2)$

$F_d = (G/C)[(C - V\, Cos\Theta)^2 + (V\, Sin\Theta)^2]^{1/2}\, (m_1m_2/r^2)$

Where $\mathbf{F_d}$ is the vector of dynamic remote gravitational force and F_d is dynamic remote gravitational force, G is gravitational constant, C is the light speed, m_1 is the mass of parent object, m_2 is the mass of target object, r is the distance between m_1 and m_2, V is the speed of target object observed at parent object, Θ is the angle between static graviton flux and target object moving direction, $\mathbf{S_1}$ is the unit vector along static graviton flux and $\mathbf{S_2}$ is the unit vector perpendicular to static graviton flux away from target object.

Wu's Theories

1. Five Principles of the Universe [3].
2. Space and Energy Correlated Five Principles of the Universe [4].
3. Yangton and Yington Theory [1].
4. Yangton and Yington Bubbles – Building Blocks of Space [4].
5. Wu's Pairs (A pair of Yangton and Yington particles with built-in Force of Creation) – Building Blocks of Matters [1][2].
6. Corresponding Space and Energy created together with Yangton and Yington Bubbles and Wu's Pairs [5].
7. Dark Matter Made of Yangton and Yington Bubbles [4].
8. Photon – A Free Wu's Pair [1][2].
9. Elementary Subatomic Particles composed of Wu's Pairs with String Force and String Structures (String Theory) [2].
10. Quantum Fields Based on Short Range Four Basic Forces [13].
11. Unified Field Theory Combining Four Basic Forces Based on String Force Generated from Force of Creation [2][13].
12. Electron and Positron Composed of Ball Shape String Structures [2].
13. Up and Down Quarks Composed of Three Strings Structures [12].
14. Eight Gluons Composed of Dual Connection Structures [12].
15. Higgs Bosons and Higgs Field Based on Wu's Pairs and String Force [9].
16. Graviton and Gravitational Force Composed of String Structures and String Force [2].
17. Static Remote Gravitational Force as Universal Gravitation Interpreted by Graviton Radiation and Contact Interaction [14][15].
18. Graviton Flux Dependent on Graviton Speed and Graviton Concentration [15][19].
19. Static Graviton Flux (Aether Inflow) [16].
20. Dynamic Graviton Flux (Aether Wind) [16].
21. Graviton Bombardment [17].
22. Subatomic Equilibrium [56].
23. Corresponding Identical Object or Event [56].
24. Principle of Equilibrium [59].
25. Principle of Parallelism [59].
26. Principle of Correspondence [59].
27. Wu's Spacetime Equation [10].
28. Wu's Spacetime Transformations [60].
29. Wu's Spacetime Field Equation [60].
30. Gravity Affected Wu's Spacetime Shrinkage Theory [10].
31. Gravitational Redshift Caused by Gravity Affected Wu's Spacetime Shrinkage Theory [10].
32. Aging Affected Wu's Spacetime Shrinkage Theory [10].
33. Cosmological Redshift Caused by Aging Affected Wu's Spacetime Shrinkage Theory [10].
34. Earth Shrinkage Theory – Wu's Spacetime Reverse Expansion Theory [36].
35. Light Deflection and Perihelion Precession of Mercury Based on Gravity Affected Wu's Spacetime Shrinkage Theory [65].
36. Principle of Vision and Theory of Vision [21].
37. Photon Inertia Transformation [20].
38. Equation of Relative Velocity 23].
39. Equation of Light Speed [24]
40. Equations of Doppler Shifts [27].
41. Axial Redshift Caused by Doppler Shift [28].
42. Acceleration Redshift Caused by Doppler Shift [28].
43. Transverse Redshift Caused by Doppler Shift [27][28].
44. Visual Memory Length Contraction [38].
45. Wave Particle Duality – Spinning Polarized Particle Theory [47]]48].
46. Photon Attractive and Repulsive Interference Model [41].
47. Electron Attractive and Repulsive Interference Model [41].
48. Complementarity in Single Slit Diffraction and Double Slit Interference resulted from phase angle changes caused by detectors [41].
49. Photon Spin Model [47].
50. Electron Spin Model [48].
51. Probability of Photon Polarization Transformation [47].
52. Probability of Electron Polarization Transformation [48].

53. Field Dependent Hidden Variable [46].
54. Principle of Normalization [46].
55. Photon Polarization Transformation Diagram [44][47].
56. Electron Polarization Transformation Diagram [44][48].
57. Field Dependent Corresponding Entanglement [44][48].
58. Multibang Theory [70].
59. Arithmetic Operations of Physical Quantities [53].
60. Equations of Physical Laws [54].
61. Universal Physical Constant, Gravity Dependent Physical and Absolute Physical Constants [55].
62. Planck Units Interpreted by Graviton Radiation and Contact Interaction Theory [49].
63. Planck Units Calculation Based on Graviton Cluster Model [50].

Indirect Proofs of Wu's Pairs and Yangton and Yington Theory

Although "Yangton and Yington Theory" is a hypothetical theory in which "Wu's Pairs" – a superfine Yangton and Yington circulating Antimatter particle pairs with an inter-attractive Force of Creation is proposed as the building blocks of the universe, it can be proved by the following indirect evidences [72]:

1. Wu's Pairs, a superfine Yangton and Yington circulating Antimatter particle pairs with an inter-attractive Force of Creation, as the building blocks of the universe [1] can fulfill "Five Principles of the Universe" [3].
2. Yangton and Yington Bubbles can interpret the creation of Space and Energy [4] and Wu's Pairs can explain the formation of Matter [1].
3. Photon as a free Wu's Pair [2] can be generated and emitted from an object with electromagnetic field and polarization [20].
4. String structures made of Wu's Pairs by String Forces induced from Force of Creation can interpret subatomic particle structures and String Theory [2].
5. Higgs Bosons can be considered as the String Force Carriers generated by Wu's Pairs and Higgs Field can be interpreted as the distribution of the String Force [9], which complies with that mass is the multiplication of the amount of Wu's Pairs and Wu Unit Mass [6].
6. Gravitational Force is generated by the string force between two string structures [2] and Remote Gravitational Force (Universal Gravitation) is caused by Graviton Flux based on Graviton Radiation and Contact Interaction Theory [14].
7. Newton's Law of Universal Gravitation as Remote Gravitational Force can be derived from Static Gravitational Flux [11].
8. Aether Inflow is generated by Static Graviton Flux and Aether Wind is generated by Dynamic Graviton Flux [16]. Time dilation and anisotropy of light speed are generated by dynamic graviton flux affected by the shape and moving velocity of target object [18][19].
9. Wave Particle Duality of photon and electron can be interpreted as the spinning polarized particles based on Wu's Pairs and Yangton and Yington Theory [47][48].
10. Two Stage Photon Emission and Photon Inertia Transformation [21] can be used to derive Equation of Light Speed [24] which opposes Einstein's Special Relativity.
11. Equations of Doppler Shifts including Equation of Light Speed, Equation of Position, Vision of Photon and Vision of Light Source can be used successfully to explain and calculate Axial Doppler Redshift, Transverse Redshift, Acceleration Doppler Redshift [28] and Event Horizon [29].
12. Cosmological Redshift can be explained by Aging Affected Wu's Spacetime Shrinkage Theory and Gravitational Redshift can be explained by Gravity Affected Wu's Spacetime Shrinkage Theory [10][11].
13. Hubble's Law can be derived by Aging Affected Wu's Spacetime Shrinkage Theory and Principle of Parallelism without dark energy. Also, Universe Expansion and Acceleration can be interpreted by Wu's Spacetime Reverse Expansion Theory based on Aging Affected Spacetime Shrinkage Theory [36].
14. All the properties of an object or event, except mass and charge, are dependent on gravitational field and aging of the universe based on Principle of Equilibrium, Principle of Parallelism, Wu's Spacetime Equation, Wu's Spacetime Transformation and Wu's Spacetime Shrinkage Theory [11].
15. Einstein's Spacetime, Gravitational Time Dilation, General Relativity and Einstein's Field Equation are based on gravity affected acceleration which is in compliance with Principle of Equilibrium, Principle of Parallelism, Wu's Spacetime Equation, Wu's Spacetime Transformation, Wu's Spacetime Shrinkage Theory and Wu's Spacetime Field Equation [11][63].
16. Deflection of Light and Perihelion Precession of Mercury can be interpreted by Principle of Equilibrium, Principle of Parallelism, Wu's Spacetime Equation, Wu's Spacetime Transformation and Gravity Affected Wu's Spacetime Shrinkage Theory [11][65].
17. Wave particle duality of photon and electron as spinning polarized particles composed of Wu's Pairs having attraction and repulsion instead of construction and destruction interferences can be used to explain

Complementarity in Single Slit Diffraction and Double Slit Interference experiments based on phase angle changes caused by detectors [41][42].

18. In opposition to Superposition and Free Will Entanglement, Field Dependent Hidden Variables and Field Dependent Corresponding Entanglement based on the Hidden Variables made of Quantum Energy States of photon and electron as spinning polarized particles composed of Wu's Pairs can be used to explain polarization and entanglement experiments in compliance with Bell's Inequality [42][48].
19. Quantum Field Theory is based on a short range field of electromagnetic, weak and strong forces generated by a particle of point structure [13].
20. Quantum Gravity Theory is based on a short range field of gravitational force generated by a particle of string structure such as graviton and quarks except photon and gluons [13].
21. Unified Field Theory is based on a short range field of four basic forces induced from Force of Creation generated by various subatomic particles of string structures [13].

As a result, Wu's Pairs is an excellent model in study of the universe. Even without direct proves of the existence by physical experiments, Wu's Pairs and Yangton and Yington Theory can be considered as the foundations of a binary universe. Just like the binary system to the decimal system in mathematics, many theories and principles developed in the binary universe can be used effectively in the real universe.

III. Conclusion

Yangton and Yington Theory is a hypothetical theory based on a pair of superfine Yangton and Yington antimatter particles with built-in inter-attractive Force of Creation circulating against each other on an orbit. These pairs of Yangton and Yington circulating particles are named "Wu's Pairs" which is considered as the building blocks of the universe. Yangton and Yington Theory can successfully explain that subatomic particles with string structures are built upon Wu's Pairs and String Force in compliance with String Theory, and also that String Force and Four Basic Forces are induced from Force of Creation in accordance to Unified Field Theory. In addition, Yangton and Yington Theory can very well bridge Quantum Theory with Relativity, also interpret and correlate between space, time, energy and matter in the universe. Therefore, it is believed that Yangton and Yington Theory is a theory of everything. Since 2015, a total of 71 papers including 8 equations and 63 theories, as well as a book "My Universe – A Theory of Yangton and Yington Pairs" were published by Edward T. H. Wu regarding Yangton and Yington Theory. In this paper, a summary of Yangton and Yington Theory with a road map of the systematic derivations of Yangton and Yington Theory and its correlations to major physical phenomena are presented and reviewed.