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Research Article

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MODIFICATION OF FIELD CONCEPT INTO GRAVITATION

***Lie Chun Pong**

Hong Kong University of Science and Technology.

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ABSTRACT

Many scientists have examined Newton's law of gravity [1][2], Newton's law always provides a successful result in calculating the distance and the force that govern gravitation, but how does the mechanism behind seems to be a mystery that needs to be further explored. In this research, our aim is to explore the mechanism of gravity and its connection to the field of quantum theory. We hope to uncover the hints that will link the field of quantum theory to the mechanism behind gravity. Our goal is to understand the work of gravity and how the field of quantum theory may serve as a bridge to connect with gravity's mechanism. Additionally, we seek to determine the likelihood of bridging the gap between Newton's theory and Albert Einstein's theory of relativity.Our research explores the correlation between gravity and quantum theory. We aim to uncover clues that could connect quantum theory to the underlying mechanism of gravity and understand how quantum theory might unify Newton's gravity with Einstein's relativity.

Keywords: Field Concept into Gravitation, Unify Newton's gravity, Einstein's relativity, Vector force fields.

INTRODUCTION

In physics, a field theory is often mathsup with concepts articulated using Lagrangians, which are functions that yield the field balances with the theory's conservation law when subjected to an action principle. The action is a Lorentz scalar, from which the field computations and symmetries can be readily derived.A classical field philosophy is a physical theory that prophesies how fields interact with matter. Electromagnetism and gravitation are examples of classical field theories. A physical field assigns a physical quantity at each point of space and time. As time passes, the directions in which the vectors point change so as the field changes.Before the theory of relativity was developed, classical physics focused on the first field theories, Newtonian gravitation and Maxwell's equations of electromagnetic fields. These theories had to be revised to be consistent with the theory of relativity afterward. As a result, classical field theories are typically classified as non-relativistic. Modern field theories are often expressed using tensor calculus, while alternative math's formalism describes classical fields as sections of objects such as fiber bundles.

Some of the most straightforward physical fields are vector force fields, which include the electric and gravitational fields. Newton's theory of gravitation was the first field theory of gravity, describing the mutual interaction between two masses. This theory was highly influential in predicting planetary motion around the star. The gravitational field of a massive body M at a point r in space is determined by the force F that M exerts on a small mass m located at r, and then dividing by m.

$g(r) = F(r)/m$

If we modify it, and apply the new concept of the weight of the planet's mass to put into the gravitation, the new model will be expressed by the Mass of the weight, which is divided into the space tensor, which may link up with the theory of relativity.

Innovative Modify Equation:

G(r) = Planet m(r)/F space tensor

According to Newton's law of universal attraction, the gravitational force F(r) between two objects is given by F(r) = -GMm/r^2, where G is Newton's gravitational constant, M & m are masses of the objects, and r is the gap between their centers. This force leads to the definition of the gravitational field as g = F(r)/m = -GM/r^2, which represents the force per unit mass experienced at a given point. The equivalence principle identifies the gravitational field strength as equal likely to the acceleration experienced by a particle.If introducing the concept of quantum fluctuations, gravitation can be applied to the force of association; then the force can be applied to the same concept of an idea in the acceleration of the constant-energy-momentum state structure. By the same experience.

If,

$g = F/M$

Then,

Force~ = A[$\hbar$/2]p

In this research paper, we propose to add an extra concept of consecutive p in a discrete collection of masses, denoted as M_i, located at points r_i. The gravitational field at a point r caused by these masses can be found using the modify approach. If we have a continuous mass perturbation with oscillation distribution as ρ, then the g will be achieved by an integral. It is important to note that the direction of the field pts from the position r to the position of the masses at r_i, and this will ensured by the (-) sign, opposition with the other side, indicating that all masses attract. This phenomenon is a consequence of the gravitational force F being conservative. So, this research paper has put the effort into laying the basis that links up with relativity.

Due to the **quantum fluctuation** foundation, the wave of disturbance can be converted into a force of energy. That means waves can be induced by momentum and converted into energy force by acceleration.

When,

$$\Delta E = \int ma\, dx$$

Then,

$$\Delta E = \hbar\, \Delta\omega$$

So,

$$\Delta E = \int F\, dx$$

Innovative suggestion:

Based on the quantum fluctuation framework, localized vacuum fluctuations can give rise to disturbance waves that can be mathematically transformed into energy-momentum forces. This implies that wave phenomena, such as those associated with particle momentum, can be induced by quantum fluctuations and subsequently converted into energetic forces through acceleration. If we conceptualize this transformation as a field interaction where energy density is equivalent to a force field, then integrating these gravitational wave disturbances should theoretically yield an energy equivalent to the initial quantum disturbance. Applying this field perspective, the process of converting energy into force involves interpreting gravitational waves and quantum fluctuations within a unified field framework. Consequently, this approach suggests that the energy contained within quantum disturbances can be systematically converted into force fields via gravitational wave interactions, governed by the principles of quantum field theory and general relativity.

Field of Force~ =A[/2] * Disurbance-wave*p

The formula Field of Force = A[/2] * Disturbance wave * p indicates that the force field is produced by multiplying a factor A (possibly amplitude or a related measure), a disturbance wave (representing a wave causing displacement or oscillation), and a parameter p (probably associated with pressure, momentum, or polarization). This equation demonstrates how a disturbance, when influenced by specific factors, can generate a force field, analogous to how waves transmit energy or impact a medium.

Our formula conceptually explains how a force field is generated by combining an amplitude factor, which represents the disturbance causing fluctuations or waves, with a parameter that describes the medium or the force's characteristics. It mathematically illustrates how dynamic wave disturbances result in force effects within a field.

If we extend the concept to space net, then the disturbance of wave will extend to become a likewise wave-particle link of space net, that is, movement along exponentially, with acceleration with constant speed. So, we will use a small ‘a” to denote an expression. Also, to represent the way of constant performance of particle wave-like, we will use ‘h’ to refer to a constant of energy, combined with the concept of the universe is Acceleration expanding (A). It means in the short run, we allow relaxation, but in the long run, it needs to be balanced in the energy conservation concept. So, the transformation of negative will imply the siriparticle string of balance.

Let: a, v, p, e likely represent physical quantities such as acceleration, velocity, pressure, and charge.

Then,
Space net of Force~ = $\sum_i^n Lieplace - \zeta$A’[$\hbar$/2]*Dw*a*v*p*e

So,
Sp f~ = $\sum_i^n Lieplace - \zeta$A[$\hbar$/2]*Dw*a*v*p*e

The minus sign in the formula Space net of Force~ = L.i.e.place - A’[/2]Dwave*p*e signifies subtracting the wave-disturbance component from the baseline "L.i.e.place" (probably a Laplace operator or a spatial reference), indicating a balance or opposition between the spatial structure and dynamic perturbations.

In physics, negative signs indicate direction, opposition to change, or inverse relationships—such as a force pulling opposite to a field direction, or Lenz's law, where induced effects oppose the cause. Here, it models how the net force field arises from the spatial field (L.i.e.place) minus disruptive wave contributions (A’/2 * Dw * a * v * p * e), ensuring stability or equilibrium in the "space net." This subtraction quantifies how disturbances reduce or redirect the primary field, creating a resultant net force that propagates influences across space.

That means in our new innovative modified gravitation mechanism approach, gravity can be expressed by the Mass of the weight divided into the space tensor, which makes up a reverse link of Newton's gravity field theory, this **switch** of matter and force is acceptable by introducing the **quantum fluctuation** concept. Which can bridge the gap in-between the understanding of the Newton gravity approach as well as the relativity theory with this new assumption of modification.

G(r)=Planet m(r)/ζ F space tensor (sea Wind wave like particle) (wave~particle **quantum fluctuation**)

For a discrete collection of M_i (masses) located at points r_i, the gravitational-field at a point r due to the masses is given by an equation. When dealing with a continuous mass distribution ρ, the sum is replaced by an integral of the transformant zeta. It's crucial to note that the field points from position r to the masses' position r_i, indicated by the minus sign, showing that all masses attract each other. In the integral form, Gauss's law for gravity is introduced by an equation, and in the differential form, it's indicated. Thus, the gravitational field g can be expressed in terms of the gradient gravitational potential φ(r), arising from the conservative nature of the gravitational force F, which can be converted and transformed. In this research paper, we introduce an innovative concept of the informant L.i.e.transform approach, which can convert potential energy into force and wave into particle. This breakthrough is supported by the quantum fluctuation theory.

The gravitational field g can be expressed as the gradient of a gravitational potential -ζφ(r) due to the attraction:

g(r) = -∇ζφ(r) that with this Gauss's law for gravity formular concept assumption, will support our above model field assumption concept of the field wall.

This relationship is significant due to the conservative nature of the gravitational force.

We all know that Newtonian gravitation is non-consistent with special relativity; this research paper tries to re-develop a model theory that can link up with general relativity, which can describe gravitation as long as a geometric phenomenon caused by masses. Actually, this may happen if the pole of the energy system is normalized, as divided. In our research paper, we consider gravitation as a result of the curved tensor of space-time caused by waves; with the Einstein field equations, we can explain how this curvature is generated. In the absence of matter and radiation, the vacuum field equations can be obtained through the variation of the Einstein–Hilbert action with respect to the metric. So, we can link up with the Newton of gravitational assumption when we are applying to the situation that has been converted into a matter of force tensor. In a wave and particle wavelike matter, during the transit condition, we proposed that there will be suitable for good fit our interval likelihood, which in there we can combine the concept of newton force as well as relativity, using wave-particle net as a bridge that can link up this two-idea concept. In an alternative interpretation (Arthur Eddington) suggests that Gμv is fundamental, and Tμv is just one aspect of Gμv, forced by choice of units. So, we utilized the Additional concept, combined with Lorentz-covariant classical field theories with the use of Dirac's transformation and the extension, which includes the concept similar to Klein-Gordon's theory to create our space net.

Our new concept of field wall assumption in unifying the relativity approach with Electrostatics as well as Magneto statics, this idea which is generously support by the assumption of quantum fluctuation, as we understood the way of associate in attractiveness of power, these opposing forces may perhaps be a link in the twists effect of operation twists in particle and wave-like behavior, as we believed, this mechanism of the structure may interact further expansion of the space net, that may in-turn into an extra outer power force, that the mass will eventually link up with the weight of gravativatiy.

In this paper, we utilize a Dirc's transformation to donate as the interval approach in the matric sum up style,as an Electrostatics assumption of mechanism, when a charged particle with charge q involvements a force F based merely on its charge, the electric field E generated by the source charge Q can be described as F = qE. Coulomb's law concept is used to express the electric field due to a single charged-particle, and the electric field is presumed to be conservative, giving the gradient of a scalar potential V(r). Gauss's law for electricity is assumed in both integral and differential forms. So does, in the Magneto statics assumption of mechanism, as a steady state of current I flowing along a path exerts a force on nearby charged particles, and the force wielded by I on a adjacent charge q with velocity v can be computed using the magnetic field B(r), which is determined from I by the Biot–Savart law. It may happen that the magnetic field is not conservative when energy potential acts in the short run in terms of a scalar potential, but it can be expressed in terms of a potential direction A(r). Gauss's law for magnetism is given in both integral and differential forms.So, in the above assumption, we combine both, with the derivatives of the transformation of the integral as a matrix likelihood interval, to express our idea of assumption. We may discover the connection between Electrostatics and Magneto statics as a scaler "attraction link" behind, which may provide hints to the understanding of the universe and the mechanism of gravitation. The interpretation is that locomotive magnetic monopoles may exist.

CONCLUSION

Our research explores the intricate relationship between gravitational phenomena and quantum field theory. We aim to identify theoretical concept that could establish a fundamental connection between quantum principles and the underlying mechanisms of gravity, thereby offering insights into how quantum effects might serve as a unifying framework bridging classical Newtonian gravity and the geometric formulation of gravity in Einstein's general theory of relativity. Hope this research paper can contribute to the world and humanity.

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