# Allegory of the cave story by Plato and our universe on Schrodinger equation with gravitoetherton superfluid.

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Most of our ideas modern physics are derived from confusing postulates of relativistic considerations of Einstein and Copenhagen interpretations.

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### **Institute Home Research on Gravitoethertons**

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#### Abstract:-

The debate over the medium of propagation of light waves and existence of Aether was the bone of contention in physics community for a long time. Newton believed in universal omnipresent Aether is the stage of all dramas of reality in absolute time following some natural laws which Newton himself formulated in the laws of motion in the broad mathematical analysis through calculus. When we understood FORCE= MASS X ACCELERATION, Modern physics was born. He gave the gravitational **description** by a simple formula F=GMm/r.r ...accepting no knowledge of mechanism. But with that equation we calculated the motion of stars was and it was a great triumph in human understanding. Michelson and Morley then conducted an experiment on a lab table for measuring the aether wind which resulted a null result and Einstein jumped into a conclusion of no aether theory to assume the light speed maximum constant and non varying from all reference frames by simple trick of Lorentz transform rejecting comonsense Galilean transform to establish relativity theory . Astronomers then tried to understand the prehellion of mercury and relativity theory was seen true . The bending of light was also verified by astronomers certifying relativity and gravity theory of Einstein. Scientists were busy in discussing the

actual meaning of light speed if it is wave or it is a particle as Newton prescribed in corpascular theory. Then the photoelectric effect was soon very nicely explained by Einstein utilizing quantum effects of light waves with the imaginations of photons. Scientists then came to understand the duality nature of reality in wave -particle duality . But some scientists were baffled by double slit experiment showing light waves but again photoelectric effect showing particle and the exact meaning of collapse of wave function when observed in double slit experiment. What is going on is a big question even today with the delayed choice quantum eraser as well as quantum entanglement phenomenon. The simple result of relativity theory was the space contraction, length contraction, time dilation etc .

Now three dimensions of space along with time dimension converted space-time as a medium in itself rejecting ether in absolute space and time as prescribed by Newton . Scientists were happy as all of the reference frames are relative to each other as there is no absolute reference frame in our universe . Every body was happy to see that is exactly happening in experiments and observations . No need of any absolute concepts . Einstein with more imaginations soon made the space-time a flexible medium replacing aether for a dynamical topology of curvature where matter glides to appear as gravity.

No need of

considering gravity as a force and no need of explaining mechanism.

. This is what was explained by Plato in his ALLEGORY OF THE CAVE.... story . Illusion and a relativity theory of illusion certifying the magic all around and there is no question of asking the reality . Cave dwellers are in a cave seeing the reflections of reality in a virtual world where no absolute exists , no simultanity , time in atomic clocks changes with gravity and speed of reference frames and that is what exactly happening in GPS systems. But what is the real meaning of time as well as speed of light was not clarified in modern physics. Probably M M experiment was the reason for Einstein to go ahead with light speed maximum constantcy in all inertial frames postulate in his relativity theory. Then we know laws of conservation was known to scientists and Einstein further assumed that

laws are same in all reference inertial frames .

But a question remained to be clarified for changing ticking in atomic clocks in reference frames though the laws are conserved. So a natural question comes about the assumption of his second postulate regarding same laws on all reference frames. Therefore we clearly see a theory deviating from reality to explain the illusions as explained by Plato in his cave story. It is true that all cosmic observations were explained by relativity theory and it was a great success. Then even Einstein started saying time is an illusion and space is an illusion.

Under the circumstances, quantum physics was taking shape with Rutherford atomic model and quantum concepts of Planck.

Then again why the electrons stay in orbit without diving in the center was a problem. Broglie suggested matter wave to expain and soon it was proven by experient that electron is also a wave was confirmed by scattering electrons through crystal. It was a great idea to explain Bohr model. Soon SCHRODINGER developed his wave equation for the matter but what is waving and how it is waving was a big question. No body understood the equation when BORN arrived with a probabilistic interpretation to solve problems but wrong realistic understanding. Copenhagen lobby was very happy with the ideas of wave-particle duality and collapse of wave function on observation, superposition and cat dead and alive at the same time etc etc etc. No body understood that my chaotic determism theory was broadly reflected in probabilistic theory of Born through mathematical manipulation without proper understanding. Schrodinger equation also prospered in developing quantum gadgets without understanding the core reality and whole quantum mechanics was a successful framework giving a Copenhagen interpretation and FEYNMAN declared ...no body understand quantum physics. Scientists tried to stop the question ...what and why by announcing ...shut up and calculate. I have been writing papers about gravitoetherton superfluid sinc year 2002 and there was no notice even looking at my balloon inside balloon theory. I calculated and announced that Broglie matter wave giving us wave velocity as half of the matter propagation velocity. So the pilot wave theory must

be persued as bed rocking fluid is guding the particles in a wavicle pattern by imposed manner .

### QUANTUM TIME IN PROCESSES:-

The concept of time is a vert tricky one in modern physics which Einstein elaborated in dilation concept on reference frames. But we are overwhelmed by the operation of time in GPS applications in space satellites and forgetting that all these are observational effects of measured time but not actual time. On the top of it Einstein postulated speed of light maximum possible information flow and constant irrespective of reference frames. described the speed of light which is not exactly speed of light but the smeared presence of electromagnetic waves and not the flow of photons having exit time tag from the source. As such when some one gives a time tag of photon exit from the source and apply Galilean transform for all chasing reference frame observers, he fails to apply what exactly the speed of light for an observer. Einstein here applied the trick of Lorentz Transform to give credibility of speed of light postulates. Michelson -Morley experiment then re evaluated with this idea and null result was explained quite easily. The necessity of Aether was firmly rejected and theory of relativity prospered. But the question of TIME and its actual meaning and the dynamics of time remained unexplained. We also see TIME as an entropical variable in our entropy concepts but Einstein by one sweep merged TIME as fourth dimension to have SPACE-TIME CONCEPT and further he even tried to visualize convoluted space-time as the guiding topology for matter to appear as gravity and the theory is successful. When quantum physics was developed and strange things like entanglement and superposition and cat dead or alive at the same time etc were being discussed, he failed to accept the spooky action at a distance. All these are due our not understanding the application of absolute time in quantum physics. Things and processes in quantum take an absolute time path due to lattice pair interaction and we do our experiments in dilated measured time prescribed by Einstein and get confused of entanglement. Information is flowing in absolute time which is much much faster than measurement dilated time. Einstein is wrong in saying information can

not flow faster than speed of light as he understood the speed of light. SO TIME IS A GREAT CONFUSION IN MODERN PHYSICS.

The concept of waves was the backbone of Quantum Mechanics. After investigeting light waves in double slit experiment and getting puzzled in interference patterns and Copenhagen interpretaions and the effect of observation, it was assumed by de Broglie that all entities including quantum entities are basically associated with matter waves. Soon it was proved by David and Germer in an experiment that electrons do have a wave nature also as seen with photons. But a calculation with propagation of matter waves along with speed of matter clearly showed that matter waves are half of the speed of matter and as such lagging behind. This is though puzzling Born brought the concept of probability waves rejecting but ignored. matter waves concept but again he made a mistake by not recognising that any waves pattern is an imposed phenomena on a medium as we see in water waves. It took a long time to take the concept of again de Broglie to visualize pilot waves which recently I FURTHER CLARIFIED BY BED ROCKING WAVES IN GRAVITOETHERTON SUPERFLUID.

So the the pilot waves as shown by Schrodinger equation generated by uncertainty principles on the gravitoetherton superfluid and guiding each quantum effects point to point in space. This is nicely explained in guiding droplets in oil bath experiment. Now each space point is so dynamically changing by the swirling and whirling of this dark fluid that every quantum outcome point to point in any experiment. The outcome each time is dependent on hidden variables definitely following cause and effects and deterministic but we wrongly adopt copnhagen interpretations. The variations are in narrow range and as such chaotic determinism of large outputs as described by Max Born by probilistic interpretations without understanding the guiding pilot waves have given us a copenhagen interpretaion. EINSTEIN IS RIGHT IN SAYING ...GOD DOES NOT PLAY DICE. There is no escape from cause and effects and superposition of wave particle duality is also a wrong understanding. Particles do have a definite position on the wave as an wavicle and there is no collapse of the wave function. Pilot theory is the right approach to rescue quantum physics

from copenhagen interpretation and I have published many papers revising concept of time without abandoning cause and effects. OUR IGNORENCE IN HIDDEN VARIABLES CAN NOT LAND US IN COPENHAGEN INTERPRETATIONS. The phenomena of quantum entanglement can be explained by my common membrane front topology of twin originated from mother but separated at a great length tandem dancing maintaining a pattern of exact oppositeness at each instant but roataing exactly opposite giving us an illusion of superposition . The common membrane is the surface topology where all over time is absolute and instant so that catching one in UP will give the DOWN look to the twin and this is our amazement of entanglement. Einstein was disturbed about violation of light speed postulate but here nothing like that happens and absolute tandem opposite dance in real absolute time can be seen as an explanation.

A New Theory of Gravity with Modified Interpretation of Dark Matter and Dark Energy and Some Associated Outcomes on Standard Model in Prescribing Fundamental Forces. The greatest puzzle today is dark matter--dark energy and mechanism of gravity. We are living on a planet which is located in a part of our universe of super cluster, which is under dark pull/flow from another universe giving drift velocity from existing universe. This has affected our observations by telescopes in the form of incorrect red shift and calculations. Our universe is expanding and accelerating but at reduced rate from our calculations. Another factor is due to our matter universe inside an antimatter universe on opposite entropy path and reverse arrow of time creating gravitoetherton superfluid at common boundary by annihilation and injected into both the universe as explained in my balloon inside balloon theory. The outer universe will be approaching low entropy when misbalance will give rise to a big bounce creating again mirror universes in recyclic and rebounce theory. Now we should think of space as a swirling, whirling exotic medium containing dark matter and dark energy which is non isotropic in field density in the deepest sense and we with all baryonic entities are immersed in it as fish in water. Time is just measurement of an entropical variable which is influenced by a resultant tensor value created by gravity potential as well as speed of the reference frame. So time is just a variable point to point controlling the

macro processes reflected in relativity theory but micro quantum jumps in quantum physics follow an absolute time which exists only in theory but as there is no absolute frame in this univere, we can not measure it by any experiment.

This confusion in time is the main reson for the conflicts in quantum physics and relativity theory.

The difficulties in Quantum Physics due to copenhagen interpretation is broadly ignoring the pilot waves generated by the gravitoetherton superfluid , we call space. Einstein also ignored the underlying concept of Aether and tried to visualize the time as a dilating variable as a dimension along with space known as convoluting spacetime where curvature is the guding path of matter looking as gravity. But actually the exotic superfluid is swirling, whirling and flowing with massive fermion gravitons having 750 proton mass giving a look of a curvature.

These fermion graviton has a directional push on molecules and we see planets rotate or apples fall. Therefore gravity is emergent and not fundamental force. Again the superposition concept of dead or alive cat or even wave-particle duality and role of observation in collapsing the wave function is not properly understood. The basic underlying structure of space is nothing but a dancing superfluid named gravitoethertons which is never static due to uncertainty principles and Schrodinger developed his wave equation simply by applying simple harmonic vibrating string ..

This is the backbone of quantum mechanics but when de Broglie tried to visualize the same with any matter particle we see certain non consistencies as explained below. We can easily deduce that propagation speed is two times the matter wave speed of de Broglie. This is not the matter waves but another waves created by pilot waves can give us new direction for revisiting copenhagen interpretation.

Pilot waves are realistic waves associated with the entities as explained by Bohmian mechanics due to dancing of the bed rocking on dynamical gravitoethertons . So all entities propagate with a Bohmian pilot wave and small elementary particles are affected so much to give a look

of wave - particle duality or even superposition. Observation just spot the position at a given instant to qualify in a result on a particular point on the wave and we wrongly say collapse of wave function.

Everything is a cause and effect but we must also note that every point in space so dynamically changing every instant that there is no exact outcome which we refer as chaotic determinism in a very narrow range and Max Born understood this in formulation of probabilty waves .

Entanglement in quantum reality is another area of confusion...

We do not measure the two observations of quantum spin of any twin particles separated by a long distance in absolute theoretical time but dilated relativistic time of Einstein. We forget here that information flows through lattice pair interaction of space in absolute time and not relativistic.

A Revised Vision for Gravity: - This big bounce is described by Dr.Guth in his exponential inflation. After around 380000 years, we will see CMB glow and galaxies will be forming around escaped evaporation black holes from previous era as seeds of galaxy formation. That is why we see black holes in every center of galaxy and much older than the life of our universe. CMB glow also shows circles of the bounce and BICEP-2 also carries some foot prints. Therefore this injection of gravitoetherton superfluid is our expanding space swirling, whirling, flowing as curls and divergent vectors more specifically tensor flow in 4 dimensions of space-time which Einstein described as special and general theory of relativity with the assumption of gravity due to curved space-time. This is what we refer as quantum foam in quantum mechanics. There is nothing like empty space in our universe but the distribution is non-isotropic field density point to point in space-time. Many exotic particles/fields constitute the Space Fluid where fermion graviton

with mass and boson gravitons giving strong nuclear force for quarks will be detected soon. Gravity as well as strong nuclear force both are emergent in nature and not fundamental. Boson gravitons are having by nature strong force to glue quarks if the quarks are available. Otherwise it just participates in expanding our universe. That is why we see 120 order mismatch in our vacuum energy calculations. On the other hand, we see that as the galaxy disc is rotating, the centrifugal force throw the massive fermion gravitons away from center of galaxy giving greater concentration at outer periphery, so that outer stars rotate defying Newton. So we have to write the equation as F=P.G.Mm/R.R where P is space graviton factor index. Now we know that fermion gravitons are flowing like raindrops on earth or we may say flowing like arrows towards center of earth. Earth center is becoming very hot with molten iron for creating a magnetic dynamism all molecules on earth are subjected by the push of massive gravitons so that apples fall and as Galileo first noted that all molecules heavy or light fall equally. That means we can say that as area of a sphere varies by 1/R.R, so the force of gravity will also depend on the proximity of gravitons changing by a factor 1/R.R as the concentration increases towards center. It is obvious that for falling equally, we have to say that M/D.D of any molecule is constant at any particular height where D is diameter of any molecule and M is mass. We have seen air bubbles change diameter as it comes out from bottom of a pond to the surface due to gravity potential. Some calculation suggests that fermion gravitons must be having 750 proton mass. I do not think that fermion gravitons have negative mass as it will create mess in quantum calculations of virtual particles at quantum foam in QED and QCD. But more discussions may clarify the matter further from renewed experiments. The concept of time in relativity and quantum mechanics is definitely creating all our conceptions in reality diluted. Our universe is ever dynamic without any absolute rest frame and as such all frames are relatively dynamic and Einstein talks of a time which is measured time varying from frame to frame. Example we can say that if our heart beat count one minute then at sea level it may be 70 but on a hill it will be say 72. As such here one minute is diluted due to less oxygen in air giving 70 or 72 beats. Therefore the concept of time is measurement time and not absolute time. As such absolute time is theoretical concept which newton prescribed. But all quantum processes follow absolute

time but the measurement dilutes it in atomic clocks. Therefore there is no possibility of marrying quantum physics with relativistic calculations. We have already seen how relativistic calculation in quantum physics by Dirac, Heisenberg and others created all conceptual difficulties of uncertainties but Einstein said that god does not play dice. Actually we do not know each and every hidden variable in each point of the universe and as such initial conditions dictating the outcome. Quantum outcome of quantum processes. But propensity of processes follows a pattern if we look at many outcomes in probabilistic theory as we also see in flipping of coins. Though each quantum outcome is different due to changing dynamic hidden variables but we must say it follow a cause and effect in each outcome. The initial conditions are so dynamically changing in a narrow range but probabilistic many outcomes can give a pattern for our understanding. Therefore Einstein is correct in saying God does not play dice. We cannot not say that god is playing dice. Time is great confusion in modern physics. The understanding of reality is our perception in this infinite universe of infinite balloon inside balloon of matter and antimatter on opposite entropy recyclic, re bounce and every epoch gives a set of laws and if the laws are benign then intelligent creatures may live on a earth like planet to ponder about the universe. One most interesting phenomena is that the laws of nature has a propensity for construction which give a chance for formation of structures and creatures and life and may be that is our GOD.

The time and space should be regarded as absolute as prescribed by Newton for developing corrections in Quantum Physics. The space we see is a part of our universe in a multiverse which has no limit. As such space should be considered as container and absolute filled with non-isotropic gravitoetherton superfluid swirling, whirling, flowing etc and all objects and entities are immersed in it. Everything like fish in water. Time is a local variable in this space as prescribed by Einstein when we measure it. Our concept of time is a dilated measured time which is an illusion of absolute time. Plato described this illusion of observation in his allegory of caves story. Einstein only mentioned about this variable time in respect of reference frames and effect of gravity in his time dilation theory. Gps system proves Einstein so we are certifying Einstein. The problem is that our

universe is ever dynamic without any absolute rest frame. We cannot measure absolute time except in theoretical calculations and understanding. But we cannot ignore absolute time in quantum calculations. Einstein postulated about speed of light which he considered about the smeared electromagnetic waves and not photon by photon with a specific time of exit tag from the source. This thinking gives the speed of light same by all inertia frames an observer which contradicts Galilean transform from simple logic. But can we say that in reality the Galilean transform is violated. If we consider light as a flow of photons with different exit time tags for each photon. Here the trick of applying Lorentz Transform and surely the observations of smeared EM waves light by instruments also certify the Relativity theory of Einstein. As such wave particle duality has given our modern physics. An illusion of duality and uncertainty which even Feynman failed to understand. Therefore we have to discuss modern physics in the right perspectives beyond relativity theory. There is even no reason that information cannot flow faster than speed of light. Speed of light is due to Maxwell electromagnetic theories but information is carried/propagated by another kind of waves which is consciousness waves of observers and that is much faster than speed of light. There is nothing magic in quantum entanglement or observers effect in quantum physics. Our ideas must develop further to go beyond Einstein and standard model. The effect of observing in quantum physics should be fully explored by further research on consciousness. How our consciousness take a physical shape in the form of propagation at a speed much higher than speed of light is being investigated. We must admit that relativity theory can enforce limit on the speed of light but information can propagate much faster than speed of light and Einstein must be wrong in saying that nothing propagates faster than speed of light.

Quantum mechanics describe the interactions at the subatomic scale of atoms and molecules set against the background of gravitoetherton superfluid which is supplying the virtual particles which is applied in QCD/QED calculations of Feynman. Obscure wave function of Schrodinger and further extensions to matter waves by De Broglie cannot be a real quantum world interpretation but an way of coding our observations in subjective beliefs for an abstract quantum description

on the wave function .Then do we have to abandon cause effect in all such fantasies in quantum entanglement or probabilistic interpretation of Copenhagen lobby or should we try to explore hidden variables as prescribed by Einstein? The main difficulty here is time taken for Quantum calculations from relativistic approach is creating errors from time dilation and the dynamical system of spacetime is changing point to point in space creating the birth of quantum effects in chaotic determinism of highly sensitive in hidden conditions of variables giving output of an illusion of disobeying cause and effects. We deal with the probabilities as described by Max Born for an interpretation always undergoing a feedback loop patterns for a statistical outcome of all such disorganized cause and effects for a pattern which is verified by quantum experiments. The probabilistic wave which is nothing but a deterministic chaos due to a very inherent law of nature which we may call propensity for reconstruction even under second law of thermodynamics. That is why we see chaotic determinism even in extreme conditions of emerging life from uncertainty .The outcome of natural laws also is due to this propensity of reconstruction in a pocket of the multiverse where Higgs field is just appropriate with a benevolent tuning for evolving natural laws which we normally think that never changing. We are blessed with the benevolent natural laws with fine tuning at this juncture of infinite time and our godly lock position of planet earth and many accidents on earth wiping out very big animals so that a suitable life can form for intelligent beings to ponder about our existence.

## Suggestions to relook on our experiments:

Double slit experiment with electrons one by one can even result into an interference pattern, just by deflecting at the edges from a casimir effect /electronic repulsion from electrons on the metal wall. The electrons passing by touching the edge bound electrons of molecules may deflect the path of the electron. But change of pattern from observation effect may be explained by mere a means of avoiding the edges due to photonic intervention not allowing the deflection of path. Entanglement may be explained by instantaneous interaction of lattice neighboring pairs in tensor flow of information from point to point on absolute theoretical time creating an illusion of entanglement in dilated

observed time. Is it not possible that de Broglie is wrong in assuming matter waves and consequent development of uncertainty principles?

Then if relativistic time cannot be applied for in such delicate quantum tensor network flow of propagation in absolute time of lattice interacting in all degrees of freedom in this damn big Hilbert space creating all such effects of entanglement keeping cause and effects, where we may someday derive a better theory for quantum reality pilot waves are nothing but the bed rocking jittering of the space superfluid causing the entities to dance following Schrodinger equation. There is nothing astonishing about it as uncertainty principles demand that and particles are behaving like wavicles. Wave-particle duality is a misunderstood concept giving rise to superposition. Entanglement is just propagation of information in absolute time and we are measuring in relativistic time. Copenhagen interpretation is to be relooked and further discussed according to my theories.

CONCLUSIONS">

Our concept of space should start from absolute void where nothing exists and as such infinite in all direction and no time. This is the stage and when it is filled with gravitoetherton superfluid, we name that entity as space around us. Just like fish in water where water is space for the fish. This superfluid is having a gravity effect on baryonic substances and otherwise the effect on electromagnetism is nil so that absorption, reflection, emmission etc etc can not be observed.

Another effect is very strategic by providing boson gravitons for bonding the quarks in matter formation as we see in gluons in standard model. Quarks can not exist free as boson gravitons are always around to turn it into protons, neutrons.

Fermion gravitons are just a graviton of standard model but here the gravitons have mass around 750 proton mass which just present in the swirling ,whirling of the superfluid and pushing the baryonic entity by its direction in the fluid so that apples fall or planets rotate.

When two giant blackholes collide, then we see by LIGO that the gravitoetherton superfluid is behaving like a stone fall in water, creating waves and we have detected these waves giving a misleading name as

gravity waves of Einstein.

The most important thing is the basic Higgs field present in the soup which give not only mass to baryonic entities but also zittering with a particular tuning as described by uncertainty principles of Heisenberg.

Then Schrodinger derived the matter waves as suggested by de Broglie but failed to understand that this is the bed rocking waves due to zittering of the superfluid and the matter is dancing on this waves as wavicle.

Again if calculated, we can show that matter waves travel at half the associated matter speed and can not accompany the object.

Therefore PILOT WAVES are guding waves for any entity and electrons have a definite position on the pilot waves and not superposition or any collapse of the wave function when observed. But it is true that due to uncertainty principles, the exact position and momentum is guided by uncertainty principle. The whole magic of Copenhagen interpretation falls apart from this clear understanding.

Also we have seen that Pauli exclusion principle clearly states that no two electrons in a any atomic structure can not exist with all four same quantum numbers. So when any electron is separated from twin and taken apart by a huge distance then if one is observed up spin then other one shows down spin at the same instant and we call it entanglement.

What is happening here is nothing magic. From the time of separation they have the oppositeness in spin due to Pauli exclusion principle and when observed simultaneously the sppoky action appears due to absolute time catching of state of information and a oppositeness due to Pauli exclusion principles. Einstein is not exactly right in giving examples of right and left gloves but in tandem dance of spinning from left to right gloves and catching in an instant one opposite to another. .

We have unnecessarily complicated our quantum reality by misinterpretations and my theories will rescue modern physics from doldrums.