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. Double slit experiment with membrane front theory on absolute time and our interpretations in quantum physics where double slit experiment generates a measurement problem.

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..Author: DURGADAS DATTA.

- durgadas.ddatta@gmail.com ....mobile no. 9830819878.

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**Institute Home Research on Gravitoethertons**  
**Author is Founder Director of Home Research on Gravitoethertons .**

**Abstract**

THE MAIN IDEA IS TO EXPLAIN DOUBLE SLIT EXPERIMENT WITH MEMBRANE WAVE FRONT TOPOLOGY THEORY AND..... Reconstruction of quantum physics from the confusing concepts of relativity and Copenhagen interpretations .  
What we have to do now is very clear if we adopt relativity theory selectively and Copenhagen interpretations for a developmental purpose in electronic gadgets only. The reality is far more complex and dynamic due to hidden variables but luckily the chaotic determinism in probabilistic interpretations of Born works fine

in the domain of mathematical framework. The concept of field for electron or any other subatomic elementary particle is giving us the visual description of the say electron appearing and disappearing due to quantum effect of perturbation on the field line following a wave as described by Schrodinger equation.

Let us think of dropping a pebble in a pond. The volume of water will be taking the shape of a wave molecules in corrugated form representing the wave.

Therefore the sudden drop of pebble causing whole water body to dance in a membrane topology all around.

Similarly when an electron is fired from the source, we may think of similar waves in the space fluid in membrane form when electron is appearing and disappearing in cloud form on the membrane topology.

In double slit experiment we see when the electron membrane front face two slits, it gets two independent wave fronts proceeding towards the screen. We see interference of two waves for a interference pattern.

If one slit is shut then naturally, one wave front proceeds and we see one point bump instead of interference.

But if we try to observe keeping both slits open, then by adopting which way in knowing the electron path, we disturb the wave front by locating the electron so that the membrane front becomes flat due to photonic intervention and the screen is just a point bump instead of interference as there are no more two wave fronts to cause interference.

This is wrongly described as collapse of wave function.

Also we say superposition of electron causing entry in both slits but actually the membrane of electron front entering both slits to again cause two independent waves from two slits.

The same thing is happening even if we place the observer after the slit but before screen. The membrane front is common compelling the entire front to be flat immediately on photonic intervention due to observation and again the interference is lost due to observation photonic intervention input.

But scientists are clever and when they perform delayed choice experiment by splitting a photon or electron and performing the experiment with crystal and silver mirror giving different length path for twin electrons, they observe the same interference or no interference even if different length paths concluding that electrons or information travel backwards in time violating all classical concepts of past and present. This is very strange to us but we are forgetting that two entangled twin photon or electron are bound by the same membrane wave front where absolute time much much faster of Einsteinian dilated time shown by clocks are in the process of action and there is no past or present for this phenomena in different classical

concept of time. We are unnecessarily complicating the reality by our great confusion in time or real time due to Einstein measurement dilated concepts from clock reading.

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THE DIFFERENT THEORIES ON HUMAN CONSCIOUSNESS SHAPING REALITY IS VERY MUCH DEBATEABLE IF ANYBODY TAKES SERIOUSLY MY PAPERS BUT I AM STILL NOT TRYING TO TOTALLY ACCEPT THE QUANTUM WEIREDNESS.  
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This is somewhat like tracing the wave path of Schrodinger by electron by appearing and disappearing as particle or wave giving the illusion of wave particle duality. Therefore we must use the term wavicle for such behaviour and mathematically though Born called it a probability wave but it is actually the matter wave described by De Broglie . This is the pilot wave mentioned by Bohm which is nothing but bed rocking effect of the gravitoetheron superfluid due to uncertainty principles of Heisenberg . The measurement never collapses the wave function but rather locates the position of the electron on the wave path . This idea should be very very clear in our mind .

Reality of pilot wave effect on subatomic elementary particle is very much and as such we use Schrodinger equation for the calculation by suitable operators for many variables associated with the say electron and Paul Dirac has done the magical calculations by his notation and derivation of vector tensor flow of the matrices . Also Feynman by developing infinite path method of quantum processes in QED and QFD unknowingly used absolute time of quantum entanglement as practically instanttaneous. This is a very big step where space becomes everywhere local destroying the notion of non locality .

We must be very clear here that that statitical entropy concept of large systems as prescribed by Boltzman for time or even dilated time concept of Einstein prescribed in relativity theory is meaningless in quantum processes destroying non locality of Einstein with variable time as fourth dimension.

Copenhagen lobby never given thought to all these aspects and portraied quantum physics as not understable , forcing Feynman to say NO BODY UNDERSTANDS QUANTUM PHYSICS in the year he got Nobel prize. The Born interpretation of probability wave is nothing but an effort to calculate and check the hidden variables appearing and disappearing

at every point of space due to chaotic dyanamism but luckily in narrow range , so that CHAOTIC DETERMINISM in statistical method given by Born in squaring and getting probability density may also be noted a great step in calculation on basic Schrodinger equation. Born may not have understood this and never explained the squaring effect . So Copenhagen lobby must now come forward to accept the explanations given by me to reconstruct quantum physics for our boys in schools and colleges.

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Another big mistake is our cosmic observation of accelerating universe when our place in the universe is quite disturbing due to dark pull and flow from a parallel universe. Assumption of dark energy so huge may not be true as the acceleration if any is not entirely due to dark energy. Read my balloon inside balloon theory of matter and antimatter universes on opposite entropy path and reverse arrow of time in mirror configuration.

With all those observations mentioned above in the title page , we have no other option but to rethink the way many things have been taken granted as appeared from two pillars of modern physics.

Our world is dancing as bed rocking on gravitoetheron superfluid due to Heisenberg uncertainty principles following Schrodinger Equation on chaotic determinism shown by Born in probabilistic interpretations of mathematical frame where the elementary particles look as wavicles and we wrongly call this wave particle duality as superposition and also call collapse when observed at a location on the wave path. .

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 has been discussed now.

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 gravitoetheron 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 rebound 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 universe, we can not measure it by any experiment.

This confusion in time is the main reason 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 gravitoetheron 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 guiding 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 probability 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. The propagation of information is instantaneous and the tandem dance of two particles are just opposite to each other as they are twin . Now this is the magic of absolute time . There is no violation of speed limit of Einstein in case of catching the twins in absolute time. Einstein is perfectly describing this in his saying that God does not play dice.

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 gravitoetheron 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  $F = P \cdot G \cdot Mm / R \cdot R$  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  $1 / R \cdot R$  , so the force of gravity will also depend on the proximity of gravitons changing by a factor  $1 / R \cdot R$  as the concentration increases towards center. It is obvious that for falling equally, we have to say that  $M / D \cdot D$  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 gravitoetheron 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 gravitoetheron 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 space-time 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 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 .

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 big Hilbert space creating all such effects of entanglement keeping cause and effects, where we may someday derive a better theory for quantum reality and 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.

The uncertainty principle may restrict the position and momentum due to observational restrictions imposed by nature but the quantum world is not intrinsically non deterministic in core and we think that qWave-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.