

Leptogenesis and Baryogenesis for Infinite Universes in Infinite Arena of Spacetime with All Possibilities

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June 6, 2020

Abstract

This paper discusses leptogenesis and baryogenesis for infinite Universes in infinite arena of spacetime with all possibilities.

Modern physics is recovering from many tensions due to wrong interpretations of relativity theory and wrong Copenhagen interpretations. Our universe one among infinite in the megauniverse that we have no option but to accept our goldy lock existence in this vast chaos of infinite possibilities. Megauniverse is constantly boiling with many failed universes as well as many universes with the right tuning of laws and constants where higgs field is just optimum. The universal fluid containing higgs field as well as many others is undergoing a phase change with temperature and the higgs field is manipulating its presence accordingly to give mass to elementary particle to form matter.

Many failed universes are also undergoing a transformation and the chance of optimum higgs field always exist. So the basic building blocks of matter and forces are just energy blobs with various patterns as symmetric or antisymmetric in de Broglie waves described by Schrodinger equation. Then the variables in three dimensions of the spherical orbitals give us quantum numbers but the spin up or down further specifies a fourth state to give two classes namely Fermions and Bosons from the reduced Planck constant in specifying spin in full integers or half integers. Scientists now having some visualization tool started thought experiments. Pauli exclusion principle is a land mark for electrons around orbitals in atomic structure .

Why Bosons can form a condensate at very low temperature in forming even one blob atom is amazing prediction confirmed. Schrodinger equation is basically $F = m \cdot a$ of classical world representation in subatomic quantum realm. But Schrodinger equation basically with real and imaginary parts is so elusive pattern

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without a real meaning unless Born cleverly prescribes a probability density of finding the electron with an adhoc assumption of multiplying the complex conjugates of Schrodinger equation . SO the Schrodinger equation is just an amplitude function of the blob of energy appearing and disappearing in a Schrodinger equation with the variables associated. We are even going with Copenhagen interpretation of superposition ideas and collapse of wave function. What is actually happening is mysterious by wave particle duality but calculations from Copenhagen interpretations works well in experiments.

The gravitoetheron superfluid on which all these dramas are taking place is ignored unless I said in many papers that this bed rocking of the gravitoetheron superfluid on electron is not only guiding the electron as a pilot wave but also exchange of energy with the electron blob with the environment is actually causing the amplitude function of appearing and disappearing and giving a look of probability density which Born never understood. The simple explanation of spin up or spin down for any electron is not half --half possibility due to this pilot wave factor of orthogonality hidden in real and imaginary components of Schrodinger equation.

Therefore Schrodinger equation in polar coordinate with pilot wave ideas from gravitoetheron superfluid can rescue us from 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. 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 re think 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 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 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 gravitoetherons 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 gravitoetherons . 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. Here the membrane topology of existence and communication by two electrons in instantaneous tandem opposite dance and catching one describing both at same time is the magic of entanglement. The gloves theory of Einstein is not exactly right.

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 throws the massive fermion gravitons away from the center of the galaxy, giving greater concentration at the outer periphery, so that outer stars rotate defying Newton. So we have to write the equation as $F = P \cdot G \cdot M / R \cdot R$ where P is the space graviton factor index. Now we know that fermion gravitons are flowing like raindrops on earth or we may say flowing like arrows towards the center of earth. Earth's 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 the 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 the 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 the diameter of any molecule and M is mass. We have seen air bubbles change diameter as they come out from the 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 a 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 dictate 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. Again the gravitoetheron pilot wave is always present with electron like its own shadow and with this ideas double slit experiment is very easily understood. Then observational measurements changes the pattern on gravitoetheron superfluid giving the interference or dots of single line which we confuse as measurement problem in quantum physics.

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.