A Human is a Miniature of Universe

Dr Narayan Kumar Bhadra

Lakshmipur Swamiji Seva Sangh High School (H.S), Gobardanga, 24 Parganas(N), West Bengal, India.

Abstract: Considering with a new model of the formations of atomic structures of bio-molecules after creating "Soft Matters" [as explained by Pierre-Gilles de Gennes] from exotic matter fluids of dark energy with the help of the strong new energy sources SU(6) called latent energy groups for completing a live body inflated around an axis with "Navel" as a centre, like as of humans with its own(assuming as individual) consciousness which is to be compared with the creation and expansion of a Physical Universe from Wider Universe through the so called Big-Bang Singularity with the structure formations as "Spiral Galaxies" or "Galaxies" keeping a "Primordial Black-Hole" (PBH) or Black-Hole (it was considered that black-holes are nothing but vortices-like formed by the differences of energy pressures & densities created by the new energy sources similar like as vortices within the fluids which was explained details in my article "The Complex Quantum and Classical Pseudo-Tachyonic Universe" that it was possible energy pressures and densities when space-time was infinity) at the centre points filled with new energies as vacuum and with exotic matter fluids [considering that visible black-holes may be found when there is a state after phase changing from Wider Universe to Physical Universe comparing with Gas-Vapour-Liquid states that means exotic matter fluids(like as vapour states) changes to ordinary matters(like as liquid states) by the latent energy source of SU(6) then everything] and hence we found a "Lumps of Matters" around the Black-Hole with Void-Spaces filled with new energy sources as explained in my previous articles for completing clusters, super-clusters etc.

The people who created quantum mechanics in the early 20th century were curious if the same rules could guide biology as well.

In the present dissertations we may try to understand a new stages of the Unified Model beyond the Standard Model of Physics which are so much appropriate for the explanation of live atoms specially we consider the Symmetry Breaking of the Super Unified Gaussian Energy Group SU(11) then M-Theory or Super-String Theory, formation of Galaxies, Clusters or Super Clusters etc. of physics. It was found an interesting similarity that in the primary stages of live bodies are formed by the string-like matter elements as DNA Polymer in chained by the monomer Nucleotides or Proteins by the Poly-Peptides chains etc. from "Soft Matters" then minerals align under pressure into lattices, coils of amino acids fold under pressure into three-dimensional protein structures, water's molecular geometry begins as interlocking tetrahedrons of water molecules that combine into icosahedral clusters and pentagonal super-clusters at the mesoscopic scale. and hence formed a complete body within Gravitational Force-Fields, assuming that it was possible due to the activeness of the strong new energy sources of SU(6) after the symmetry breaking of SU(11) then creating a Blue-Prints structured by quark-like new particles (in wave form) are tightly binding by the J_k - bosons of SU(6) and creating Strong Electromagnetic Forces (also Strong Currents for conducting the signalling systems within or outside the complete body of the animates & inanimate) in the frame-work of $SU(6) \times U(1)$ etc. may be called as Consciousness(like as computer hardware)including with all other leaving new energy sources SU(12), SU(24),...etc. created several Electromagnetic Force-Fields with Frequencies in the framework of $SU(12) \times$ U(1), $SU(24) \times U(1)$,...etc. [since there possible various Electromagnetic Energy Frequencies in spaces as the strength of strong force SU(6), SU(12), SU(24),...etc. are so high with respect to U(1) and does blue-prints on the new unknown particles created by the quark-like new particles are tightly binding by the J_k - bosons of SU(6)behaving as Quantum-Microchips within a certain temperature and with required circumstances]and then formed as Genetic Codes from the compound elements after changing the bosons of SU(6) into the bosons of SU(5) then symmetry breaking of SU(5) for variety of lives with due permutations of Adenine, Guanine,...etc. for expanding the body called Consciousness(primary)which identified after the creation of electrodynamics U(1), the magnetic monopole then secondary consciousness, mind,...etc. by the memory cell as chips(behave as memory card) like of human, are created temporarily as software otherwise pseudo-active.

Then build the complex matter body as per blue-print with the interactions of weak polar matter atoms of covalent compound's (particularly formed by weak interactions between all matter atoms created as per blue-print) like Hydrogen (low polarity) with Oxygen (strong polarity) etc. with the symmetry breaking of Gaussian Unified Energy Group SU(5) otherwise folding or pseudo and inactive. Like as of ferromagnetism and crucial role of the Curie-temperature (**770^oC** for iron) above this temperature a bar of iron shows no magnetism in an external field.

We assumed that in the structure of live-atom is a cavity-like nucleus (compared with black hole filled with dark energy and exotic matter fluids) along with organic matter compounds (as "Lumps of Matters") in simple forms firstly then complex as required etc. that means keeping a nucleus-like at the centre and its surroundings are formed by the "Lumps of Matters" like organic with inorganic elements which created and distributed properly according to the requirements of blueprints[In the theory of Super Unified Gaussian Energy Group SU(11) \supset SU (5) × SU(6) × U(1), it is possible to change any of 30(thirty) latent energy bosons of SU(6) into any of the 30(thirty) matter energy bosons of SU(5) or vice-versa by the exchange of the J-bosons of SU(11)] and constructed a 3-dimensional structures by the polar interactions between the elements of the matter atoms of 2shells or 3-shells mainly etc. of SU(5), creating with quantum gravity by the energy group SU(6).

Keywords: Exotic Matters fluids, Soft Matters, Consciousness, Galaxy, Clusters, Super-cluster.

Date of Submission: 07-10-2019

Date of Acceptance: 22-10-2019

I. Introduction

-

We're quite familiar with how matter behaves. The electron's behaviour, on the other hand, is dictated by the terms of quantum mechanics, which might not allow things that classical mechanics does but allows others that seem completely bizarre. For example, did you know that scientists have been able to entangle pairs of photons such that when one of them changes, the other one changes instantaneously even if it is hundreds of kilometres away? There's no telling where an electron will be five minutes from now, just a well-calculated probability. Can the same set of rules somehow guide biology as well? The people who created quantum mechanics in the early 20th century tried to answer this question. In 1944, Erwin Schrödinger published a slim book entitled 'What Is Life? Among other things, he wondered in it if quantum physics could explain the remarkable fidelity with which children inherit genetic information from their parents. Schrödinger and Niels Bohr both attempted to bring foetal ideas from this union of biology and quantum mechanics to the forefront of science. But after their time, quantum biology remained largely neglected. Physicists weren't captivated by it, chemists didn't buy it and biologists didn't care about quantum mechanics.

In the late 1960s, American scientists presented evidence of quantum biology at work in enzymes. Enzymes are complex protein structures that dramatically speed up biochemical reactions. There are two ways to understand how they do this: quantum mechanics and classical mechanics. However, researchers found that classical mechanics couldn't account for the size of the speed gain, so scientists started looking for answers using quantum tunnelling, which seemed more promising. This finding inspired similar discoveries in reactions involving proton and hydrogen transfers, common in biological systems, and which in turn encouraged other studies. While scientists still don't understand the full role and value of quantum tunnelling in enzyme catalysis, it hasn't stopped them from looking for similar phenomena in different natural domains. One of them is photosynthesis. Specifically, one step in the process of photosynthesis is so efficient that it has got scientists wondering if quantum effects might be involved. Photosynthesis is a series of chemical reactions. The first reaction involves molecules that contain a part called a chromophore. When a photon in sunlight strikes a chromophore, the action induces the creation of a charged quasi-particle called an exciton. The exciton then moves through the lattice of molecules until it reaches a reaction centre, where it reacts with other molecules that convert the exciton's energy into chemical energy.

In fact, this journey is the most efficient energy transfer process. Their suspicions were encouraged by the first experimental results, which arrived in 2007, suggesting quantum mechanics was involved. Scientists have since been looking closely for how exactly it could be helping even as they have been joined in their pursuit but another question: if plants and some bacteria were really harnessing quantum mechanics to survive, what about the bigger, more complex organisms? For a long time, the poster child for quantum biology has been a humble migratory bird called the European robin. These birds can sense Earth's (extremely weak) magnetic field - sort of like they had a compass inside their brains - during their travels between Eastern Europe and Northern Africa. The prevailing idea is that the birds have a kind of proteins in their eyes called crypto-chromes. They respond to light by creating a pair of particles that exist in a quantum entanglement, sharing a connection that prevents one of them from changing without the other changing, too. This entangled pair then oscillates between different quantum states for as long as it can, before some arbitrary disturbance destroys it. As long as this pair is still within the trance, however, a magnetic field forces it to spend more time in one particular quantum state, creating a signal for the brain. This signal works like the magnetic field sensor. As of 2019, enzyme catalysis, photosynthesis and avian navigation have been quantum biology's most popular applications. Others are surely in the offing: researchers around the world are already looking for the quantum underpinnings of smell, the origin of consciousness and (speculatively) the origin of life itself. At the same time, they're also asking themselves if quantum effects are regular features of these systems or if nature actively uses them to

improve how things are done. So biologists must accept that living systems aren't devoid of quantum effects and physicists must be prepared to confront quantum effects even outside carefully controlled lab experiments.

II. Appearance of our Physical Universe with Consciousness

We assumed that our physical universe appeared by a continuous symmetry breaking [a Generalized Gaussian Energy Group] of the Unified Energy Sources which filled by the new energy sources as explained before leaving several new energies and widely spread with infinite space-time, ultimately our physical universe appeared by the symmetry breaking of the "Super Unified Gaussian Energy Group SU(11)" of 10-dimensional space-times then 4-dimensional Einstein's universe of GUT the "Unified Gaussian Energy Group SU(5)"[i.e., in our present Standard Model of Physics and Biology]. These class of symmetry group from Big-Rip singularity can be expressed mathematically(by using lie-algebra) as SU(5) \supset SU (3) \times SU(2) \times U(1); SU(11) \supset SU (5) \times SU(6) \times U(1); SU (23) \supset SU (12) \times SU (11) \times U (1); SU (47) \supset SU(24) \times SU (23) \times U (1);so on. The electrodynamics U(1), which are inevitable arises particles that have the characteristics of a magnetic monopole. Monopoles are highly stable particles and once created they are not destructible. And so they would survive as relics to the present epoch.

So, it is considered that the breakdown of SUT(super unified theory) symmetry group SU(11), breaks into fundamental group SU (5) × SU(6) leads to a phase transition and then larger fundamental group SU(5) which also breaks into subgroups SU (3) × SU(2) × U(1), in which the scalar field Φ changes. The original vacuum, i.e. false vacuum ($\Phi = \sigma$) is no longer the true vacuum ($\Phi = 0$). The inflationary stage arises, however, if the true vacuum is not immediately attained.

The change of a larger group SU(11) of symmetries to the subgroup SU(6) \times SU(5) \times U(1) is spontaneous by the redistribution of energy particles from the stage like gaseous as explained previously. The above mentioned subgroup which contained the U(1) group, there inevitably arises particles (whose annihilation formed charge particles) that have the characteristics like a magnetic mono-pole. Typically, the mass of which (in energy units) may be ~ 10^{19} Gev (Plank energy). Monopoles like charge particles are highly stable particles and once created are not destructible. And so they would survive as relics to the present epoch. The explanation of the two energy groups SU(5) and SU(6) of the SUT energy group SU(11), we begin with an analogy of ferromagnetism and crucial role of the Curie-temperature (**770^oC** for iron). Above this temperature a bar of iron shows no magnetism in an external field. This is because its elementary nuclear magnets are randomly aligned with no resultant magnetization. Energetically, this is the lowest state for the bar and it chooses to remain in that state as the most stable one. Bellow the Curie temperature the state of lowest energy changes to that in which all the nuclei are aligned along the bar, which develops polarity at its ends. There are two states of the same lowest energy possible, depending on which (north or south) of the two poles falls at a given end. The ultimate choice of one state apparently breaks symmetry although theoretically and inherently the symmetry is always there. In the early universe something similar-like happened to the Super Unified Theory of SU(11) and then SU(5). Above like a critical temperature T_c , the vacuum state, the state of lowest energy, is none other than the potential $\varphi = 0$. Below **T**_c, the states of lowest energy of the thermo-statistical particles are changed. It now corresponds to a situation when φ has non-zero values. Corresponding to states of the same lowest energy, let us suppose that there exist alternative values ϕ_i (i = 1, 2, 3...) which now acquire that status of vacuum. There were basic symmetry with respect to all $\boldsymbol{\phi}_i$, but in practice the system may spontaneously acquire one of them. This is again an apparent break-down of the symmetry. The consequences of this for the very early universe are that it is divided into different domains, each with a different value of $\boldsymbol{\varphi}_i$. In this way the universe acquires discontinuities along the domain walls. These translate into highly significant discontinuities of matter distribution. The fact that we do not see such discontinuities in actuality (say in the form of large sheets of matter) is hard to explain away. This difficulty is known as the domain wall problem. The intersection of two domain walls is a linear structure known as "cosmic-string" such filamentary structure have been invoked in scenarios for galaxy form. The same scenarios are in the Bio-Atoms formed by the Soft Matters as filamentary structure and created as blue-prints by the frequencies of electromagnetic waves using more and more new unknown particles created by Quark-Likes are tightly binding by the J_k - bosons of SU(6) for the future development of the lives.

III. How Consciousness Activated

It was considered that the human brain and its mental aspects are associated with classical brain physiology and are also part of a quantum physical universe. The human brain conceived as an interfacing organ that not only produces mind and consciousness but also receives information. The brain or its parts of the brain are conceived as an interference hologram of incoming data and already existing data which equivalent to the subject's memory.

We consider the animate and inanimate bodies are developed or expanded in a similar manner. The physical universe expanded from so called Big-Bang singularity scheduled by the conscious energy groups SU(6), SU(12), SU(24),..., etc. The situations changes slowly after the symmetry breaking of SU(23) $[\supset SU(12) \times SU(11) \times U(1)]$, then rapidly by the symmetry breaking of the energy group SU(11) $[\supset$ SU (6) × SU(5) × U(1)] and unfolded with matter oriented consciousness energies created by SU (6) as quantum gravity[may be compared like gas-vapor-liquid states] with nonliving matter energies after the creation of U(1) of the physical universe by the symmetry breaking of the Gaussian Unified Group SU(5) $[\supset$ SU (3) × SU(2) × U(1)] as required by exchanging the bosons of the latent energy group of SU(6) into the bosons of SU(5) within the theory of the Super Unified Gaussian Group SU(11) otherwise consciousness remained pseudo or folded. The J_k – bosons of conscious energies SU(6) are therefore tightly binding by the quark-likes particles and created new unknown particles may be 5-times strong [since there may be possible various Electromagnetic Energy Frequencies in spaces by the strong forces of SU(6), SU(12), SU(24),...etc. as their number of bosons are so large thus strengths are so high with respect to U(1) and naturally several different frequencies created as blue-prints on the new unknown particles formed by the quark-like new particles were tightly binding by J_k - bosons of SU(6)behaving like Quantum-Microchips within a certain temperature and circumstances which then formed as Genetic Codes for lives with the compound elements after changing the bosons of SU(6) into the bosons of SU(5) with quarks after the symmetry breaking of SU(5) for variety of lives with due permutations like Adenine, Guanine,...etc. for expanding the body by the so called Consciousness(primary)which may be identified after the creation of electrodynamics U(1), the magnetic monopole then secondary consciousness(of lives), mind,...etc. by the memory cell as chips (like as memory card programmed by the consciousness) like as of human, are created temporarily as software otherwise pseudo-active] than the particles formed by the gluons are tightly binding by the quarks and then gradually formed Hadrons-likes, Hyperons-likes, Nucleons-likes,...etc. (which are very much medical relevance). The previous explained of "Soft-Matter" [as explained by *Pierre-Gilles de Gennes*] are always remained [in the wave formed as exotic matter fluids] at the centre like void-spaces of Bio-Atoms/ Bio-Molecules in place of nucleus of matter atoms contained protons, neutrons, mesons etc. and outside the nucleus of Bio-Atoms exists ordinary matter atoms/molecules in place of electrons, positrons,...etc. like as "Lumps of Matter" for galaxy formations which balancing the bioatomic/bio-molecular stability. With quantum-gravity created by SU(6) for Bio-Atoms, may gradually increasing their strengths like as increasing the atomic numbers of usual matter atoms from Hydrogen to Carbon,...etc. of heavy atomic numbers of elements then compound elements etc. creating chemical reactions or mutual interactions etc. and hence we may found heavy biomolecular living matter atoms then created multiple bio-molecular cells combining with nonliving matter atoms etc. Hence we found several kind bio-molecules with various genetic codes created lives with complete bodies like as bacteria, virus, to humans etc. This is very important in view of the potential importance of quantum effects in biology and in consciousness where not only are systems of many particles considered, but they function at high temperatures compared to those typically encountered in quantum physics then so called various kind of complex living cell bodies.

IV. Comparing Living Matter with Nonliving Matter Atoms

The invention of all the modern techniques for experimental studies of the living brain required quantum theory, such as NMR scanners or the comprehensive computer-based data processing. That, of course, is only a secondary aspect. Much more important is that all biochemical processes are based on the emission and absorption of bosons. Moreover for systems usually termed "macroscopic", like nerve cells, the accuracy of quantum theory may become relevant in instable situations, which are a characteristic of living beings. Whenever high accuracy is required, quantum phenomena can no longer be ignored. Often, however, it will be sufficient to deal with the reduced accuracy provided by averaging a great many similar quantum processes. This may create the misunderstanding that the accuracy of quantum theory is not necessary.

The brain is a place, where permanent feedback processes take place. An action of information is possible only in instable situations. In theories of non-linear dynamic phenomena, here permanently situations arise commonly denoted as bifurcation points. At least in such situations, the accuracy of quantum theory can no longer be ignored. In those situations, meaningful information can act as a steering agent. Such situations are constantly and ubiquitously encountered in the body. This implies that the material or energetically carriers of the information are of less importance than the meaningful contents. Here the respective meaning is coded in a receiver-specific way, being, for example, different for the various types of cells in the body. The decryption

of those codes is a wide and important field of research, directly relevant to human health issues. The meaning of hard information is strictly to be distinguished from the material or energetic carriers involved in the processing of information.

It should right that the actual real time measurement or calculation counting from the symmetry breaking of the Super Unified Energy Group SU(11) instead of the symmetry breaking of the Unified Energy Group (GUT) of SU(5). For lives, the real time was measured in two halves first from the fertilization with zygote formations by their parents(actual counting of time started) and second from the birth-time to till death, although for our age(time) calculations we ignore the first half similarly for the real time calculations of our physical universe we ignore the first half that means from the symmetry breaking of SU(11)up to the next symmetry breaking of SU(5)[although material substances created by the Unified Gaussian Group SU(5) by the requirements of SU(6) with a suitable situations when it is possible to create bio-molecules that means all then chemical elements created from hydrogen, nitrogen, carbon,...etc. and with heavier elements or compound elements created by the quarks may be tightly binding by the gluons etc. of SU(5), and then inanimate particles are ready for the creation of the animates, that means the situation when we consider for the production of biological molecules or other units like single live cell then gradually multiple cells with DNA/RNA pairs, chromosome pairs and very important is to produces proteins,....etc. where most of the organic compounds in which are mainly constructed by the co-valence compounds or compositions or constituted like polymers by aromatic compounds which are also tightly binding by the J_k -bosons(latently) of SU(6) and creating strong electromagnetic forces[in theory of SU(11) where the latent energy group of SU(6) are created so strong forces relatively the weak forces of SU(5), that means in comparison to the chemical elements or compounds elements of atoms/molecules etc. which are constructed by the quarks binding with gluonsetc. are weaker than some of the unknown new particles formed by the quarks-likes binding with J_k -bosons] or creating a strong current by SU(6) in the frame-work of $SU(6) \times U(1)$ like the weak force SU(2) created a weak current in the frame-work of $SU(2) \times U(1)$ are ready to dynamical situations within the living matters or cells or lives. Our physical universe expanded to Big-Break Singularity then Big-Crunch Singularity by the energy pressure of the group SU(6), created consciousness with all other leaving new energy sources SU(12), SU(24),....etc. those are created electromagnetic energy waves or forces for the blue-print of the universe as well as for lives like us in the frame-work of SU(6) \times U(1); SU(12) \times U(1); SU(24) \times U(1),...respectively otherwise consciousness remained pseudo or folded in other phases. Thus we may be assumed that consciousness is not only in animates but also for inanimate (where quarks are tightly binding by the gluons forming protons, neutrons, electrons,.... etc. for nonliving matters) which are unfolded in a suitable situations or places like earth(where quark-like particles may tightly binding by the J_k -bosons of SU(6) formed soft matters) which are also formed by the usual energies of groups SU(3), SU(2), U(1) other than living particles (that means as like protons, neutrons, electrons,, etc., which are formed by quarks with gluons) i.e., nonliving elements or compound elements or covalence compounds or polymers....etc. may be called as "Lumps of Matter" around void spaces filled with new unknown particle and quantum gravitational energies created by SU(6). The above mentioned processes are always occurred continuously in any physical universe. Hence in quantum theories of consciousness, it is suggested that consciousness is a fundamental property of the universe.

V. Super Unified Theory: SU(11)

In the theory of Gauge transformation in physics, the special unitary group is used to represent Bosonic symmetries. In the theories of symmetry breaking, it is important to find the subgroups of the special unitary. Important subgroups of SU(n) that are important in GUT physics (also in the present dissertation) super unified theory are, for p > 1, n-p > 1, with $SU(n) \supset SU(p) \times SU(n - p) \times U(1)$. For completeness there are also the orthogonal sympletic subgroup: $SU(n) \supset O(n)$; $SU(2n) \supset US p$ (2n). Since the rank of SU(n) is n-1 and U(1) is 1, a useful check is that the sum of the ranks of the subgroups is less than or equal to the rank of original group SU(n) which is a subgroup of various other lie group : $SO(2n) \supset SU(n)$; US p (2n) $\supset SU(n)$; spin(4) = SU (2) $\times SU(2)$. Finally it can be mention that SU(2) is the double covering group of SO(3), a relation that plays an important role in the theory of rotations of 2-spinors in non-relativistic quantum mechanics.

From the symmetry breaking of SU(11), we find SU(6) and SU(5) as the subgroups of SU(11), where p (= 5) > 1; n-p (= 11-5 = 6) > 1, so that SU($n \supset SU (p) \times SU(n-p) \times U(1)$. i.e.

Since the rank of SU(11) is 10 and U(1) is 1, a useful check is that the sum of the ranks of the subgroup SU(5) and SU(6) is less than or equal to the rank of the original group. Thus, we have from SU(11), the Hermitian matrix H has 120 arbitrary constants. Which correspond to 120 bosons that now mediate between the different basic entities out of these we already have 24 from SU(5) and 35 from SU(6) and 1 from U(1).

Thus, 120 - (24 + 35 + 1) = 60 more bosons are needed to make up the list of 120. For want of any specific designation, they are referred to simply as the J bosons. The J bosons are expected to link the participants of SU(6) with SU(5) i.e. with SU(2), SU(3) and U(1). There are emitted and absorbed \overline{J} particles (anti-J particles). Therefore, in the theory of SU(11), it is possible to change any of 30(thirty) latent energy bosons of SU(6) into any of the 30(thirty) matter energy bosons of SU(5) or vice-versa by the exchange of the J-bosons of SU(11). So at this stage, by the symmetry breaking of SU(11) created an amount of matter energy SU(5) by the latent energy group SU(6), and an angular momentum 'J' & Schwarzschild 'M' of the black-hole by the energy group U(1). After then SU(5) breaks into $SU(3) \times SU(2)_L \times U(1)$.

VI. Intelligence: SU(6)

In the transformations under the group SU(6), the basic fields here are the latent energy field and we have $U = \exp(-iH)$ (1). Where H is a 6 × 6 Hermitian matrix of zero trace. We have 35 matrix charges I_1 , I_2 , I_3 I_{35} , out of which five matrices are diagonal. Corresponding to this, we have 35 bosons. For want of any specific designation, they are referred to simply as J_k . There were no change takes place for exchanging the bosons namely J_{k3} , J_{k8} , J_{k15} , J_{k24} , J_{k35} , corresponding to the said five diagonal matrices. We expect the participating interactions of the bosons J_k to have comparable strength. The J_k bosons are expected to generate a latent force. This force is believed to be potentially so large that the exotic matter fluids are expected to transfer into the ordinary matter and then everything of the universe.

As the energy group SU(5) advanced for unification with SU(6), the strength of weak force gradually increases and the strength of strong force decreases, ultimately the unification occurred at the extreme situation.

VII. Comparison between Bio-Atom with Matter Atom

In the present dissertation we study the actual structure with its various compositions of the so called living-matter atoms/molecules/elements world in comparison to the structure of non-living matter atoms world explained by the quantum mechanics specially by Rutherford's Model. It was known to all that the structure of nonliving matter atoms where electrons moving around the nucleus of the atom [explained by the standard model physics based on the basis of Gaussian Unified Theory SU(5), that for non-living matter atoms the subsets SU(3) created strong force within the nucleus; SU(2) created weak force outside the nucleus & U(1) the electrodynamics created magnetic mono-poles, once created they are not destructed at all etc.] likes planets, satellites etc. those are moving around the sun. Instead of these we consider a Super Unified Gaussian Theory SU(11) which are responsible for Living Biological Atoms where nucleons-like of the nucleus are binding by the strong forces created by the new energies of SU(6) after symmetry breaking of SU(11) and the outer side of the nucleus of the Living Atoms are formed by the charged(polar) molecules/elements/compound elements created by the Unified Gaussian Group of SU(5) that means responsible the sub-energy groups founded by the symmetry breaking of $SU(5)[\supset$ SU (3) \times SU(2) \times U(1)] and fixed-ranged temperature & energy pressures created by the redistributions of matter energies by interchanging the positions of charged electrons of the ordinary matter atoms of 2-shell/3-shell with of compound organic elements that means creating polar interactions between matter elements. In the living matter atoms, the energies of the group SU(6) created a strong electromagnetic force with currents in the framework of SU(6) \times U(1), [similarly others new energy sources SU(12), SU(24),....etc.] as carried information from past to the present and then future as well as creating strong interaction between the compositions of the Bio-molecules for developing a complete body etc. from the theory of SU(11), the quark-like energies are tightly binding by the energy group of SU(6) and forming as living matter atom's nucleus including nucleons-like primordially energy then outside of the nucleus like electrons along-with several orbits are constructed(by the organic compounds) as lumps of matter by the symmetry breaking of the theory SU(5) where quarks are binding by the so called strong energy group SU(3) forming the matter

atoms/molecules/elements as per requirements of bio-molecules as well as wanting to completing like living body, remembering that new energies of SU(6) always created quantum gravities maintaining the thermodynamic laws with required temperatures & pressures and hence behaving as intelligences and carrying the information from past energies of SU(12), SU(24),....etc. making electromagnetic forces/currents in the frameworks of $SU(12)\times U(1)$; $SU(24)\times U(1)$;....etc. created as consciousness and making the right programming through DNA coding,...etc. then protein folding etc. and so on for the development of live-individuality. In the theory of SU(11), it is possible to change any of 30(thirty) latent energy bosons of SU(6) into any of the 30(thirty) matter energy bosons of SU(5) or vice-versa by the exchange of the J-bosons of SU(11). So, at this stage, by the symmetry breaking of SU(11) created an amount of pre-matter energy/exotic matter fluids by exchanging the J-bosons of SU(11). It is assumed that in the first stage, quark-like particles of u, d.....etc. are 5-times strong that of the quarks defined by the unified Gaussian energy groups of SU(5), i.e., in the theory of standard model of physics. It is very interesting that if one try to find out the Model Structure of the "Living Matter Atoms" by the experiments using matter energies and trying to construct a structure-model of lives like as Rutherford's Atomic Model of Matter Atoms he apparently failed to determine and seeming he lost the information because all the experimental matter energy rays are absorbed by SU(6) (which always remained in energy wave forms) and hence no proper structure founded except the cavity-like void spaces at the centre-like(as like black hole filled with dark energy or exotic matter fluids) along with so called organic matter elements primarily unfolded in chained formed then folded as seen surrounding the nucleus-like of the living atoms(likely to be compared with the string theory of the universe in the large-scales) and so on. Thus, structure of bio-atoms/living matter atoms is like a Spiral Galaxy (i.e., heterogeneous structure contained many small lumps like DNA-formation, Protein folded etc. of matter molecules) remaining a primordial black-hole (filled with dark energy) at the centre of galaxy whereas the structure of the nonliving matter atoms are as likely to be the solar family.

VIII. Creation of Livings Atoms

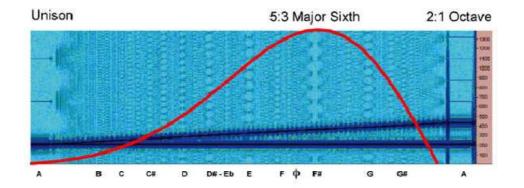
Extensions of quantum mechanics to chemical compounds and chemical reactions proved to be exceedingly successful and an entire field of quantum chemistry was developed as a consequence. In order to understand the creation of chemical bonds, especially covalent bonds in which electrons are shared between atoms of a molecule, a quantum mechanical wave function must be introduced into the formalism. All chemistry including biochemistry is based on the creation and destruction of bonds between atoms and hence on quantum interactions, so living systems, like nonliving systems, depend on quantum states at the level of chemical bonds. The same can be said about biochemical reactions taking place in the brain such as ligament binding to receptors sending signals through neurons. However, these types of quantum physical properties found in living systems are considered due to the bindings by the J_k -bosons of the new energy source SU(6). In particular, the unitary oneness and inability of living systems have suggested that higher level quantum properties such as Bose-Einstein condensation, quantum coherent superposition, entanglement where explain some of the more enigmatic features of life in general and consciousness in particular. Quantum Mechanics or Standard Model of Physics mainly are on the basis of the GUT-Theory, the Gaussian Unified Group $SU(5) \supset SU(3) \times SU(2) \times U(1)$ whereas the living matter atoms including nucleus-like are actually formed by the quark-likes with tightly binding by the bosons of new energy group SU(6) called latent energy group in the first stages of the unfolded Physical Matter Universe of 10-dimensional space-time or the Symmetry Breaking of the SUT-Theory, the Super Unified Gaussian Theory of SU(11) as explained details in my articles were founded exotic matter fluids which changes to ordinary matters elements by the strong energy group SU(6) or "Soft Matters" forming like Nucleotides/Polymer in chained for DNA/RNA, Peptides/ Polypeptides chained for Proteins as per the requirements of Consciousness creating blueprint with strong Electromagnetic Forces or Strong Current carries information as like signaling systems throughout the body by the energy group SU(6) in the frame-work of $SU(6) \times U(1)$ and then everything for completing the full body (forming first time as like as filaments or strings for the primary stages of our Physical Universe) otherwise folded etc. with free-spaces always filled with new energies of SU(6),...etc. Hence no proper structure were founded like Rutherford's Atomic Model other than the model of Galaxy as explained in this article then cluster, super-clusters with void-spaces.

Thus, Bio-Atoms are founded by creating inorganic elements as well as organic compounds with quantum-gravity created by the energy group of SU(6) in the void-spaces it increases their atomic numbers-like of the matter atoms from Hydrogen to Heavy Matter Atoms as requirements

developing a complete body maintaining the rules like construction of the structure like Spiral Galaxy then cluster, super-clusters with void-spaces etc.

IX. Harmonically Electromagnetic Waves

According to Richard Merrick, that everywhere exist the harmonic electromagnetic waves. He explained that Gaussian shape of harmonic spectral pattern was not only limited to sound, but also exists everywhere electromagnetic fields, laser light, musical tones, natural vibrations in the Earth, the spacing and sizes of planets in our solar system and the coherent cellular structures of life. It approximates the change in the number of spots on the Sun, describes the change in diameter of blood vessels in living organisms and estimates the thickness of tree bark as it reduces upward in a tree, to name but a few. It can represent mathematically by using a statistical curve called a *first-derivative Gaussian distribution* (shown in Fig.1 by red). As a representation of the velocity change in a Gaussian "normal distribution" (or "Bell Curve"), this one function is the foundation of probability science and the very cornerstone of modern statistics. How can we understand what this Gaussian equation is trying to tell us about Nature?



Gaussian First Derivative Distribution of Gaps

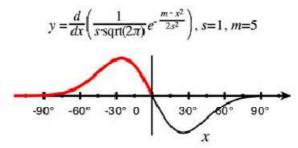
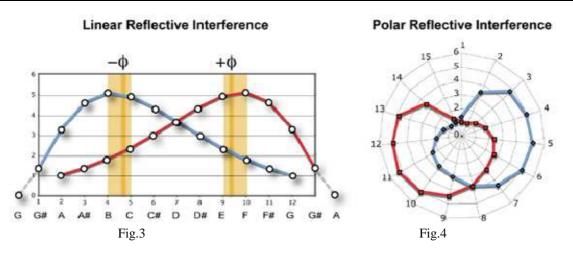


Figure1. The Gaussian shape of harmonic interference.

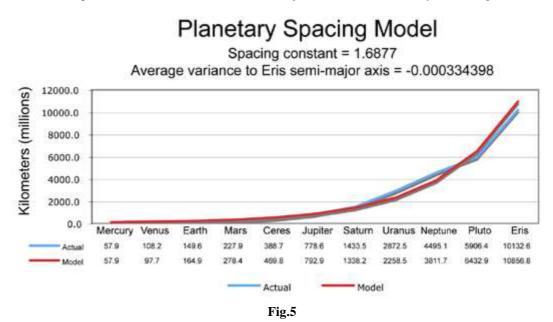
Consider first the fact that spherical stars and planets form out of spiral clouds of plasma. Then consider that life also grows out of a spiral. We see this in the unfolded Fibonacci spirals of tree branches, the spiral of a chambered nautilus and the spiral of a human embryo. In a very real and physical way, everything emerges out of infinity as a spiral, eventually stabilizing into a harmonic wave or like sphere/ellipsoid in the physical universe. So when we now take this harmonic interference pattern and folding it back upon itself as if reflecting inside a circular container, we arrive at perhaps the most important geometry in the physical universe and the one guiding pattern at work in the evolution of life– the symmetrical *Reflective Interference Model* (Fig. 3).



In humans and other animals the primary axis becomes the spine while for plants it is the trunk or stemcontainer for cellular resonance either side of the heart. Nipples are a function of this resonance, forming near the apex of the interference curve, opening at golden ratios to the surface of the body (Φ and $-\Phi$ in previous Fig.3). The above picture is like organic-looking curve is the shape life assumes as it evolves into higher and more complex organisms. We can prove this by observation. First of all, DNA and all forms of life always orient around a polar axis (see Fig 4). The same harmonic interference pattern is found repeated at different scales and orientations throughout the entire human body. Yet, it is not immediately apparent why the pattern configures itself. From my hypothesis of discussion the occurrences is due to the quantum gravity created by SU(6) and electromagnetic force created in the framework of SU(6) × U(1). It is strictly random, a result of mutation and natural selection as the Darwinian theory of evolution claims.

X. Solar System as Container-Like

By definition, Darwinian assumed that evolution began with the very first organism, or at least the earliest known fossil. Harmonic physics was at work at that time guiding the growth and evolution of life and also have guided the development of the Earth and our solar system evolved according to the same harmonic principles in life. For example, the solar system can be model as a geometrical pattern *without using any physical measurements whatsoever* and within a cumulative average variance of less than -0.04 percent. Beginning with Mercury's orbit, we simply calculate each successive semi-major axis as a multiple of the constant 1.6877, equal to 39(1/7) or one-sixth the semi-major axis of Eris divided by 1,000 (Fig. 5).



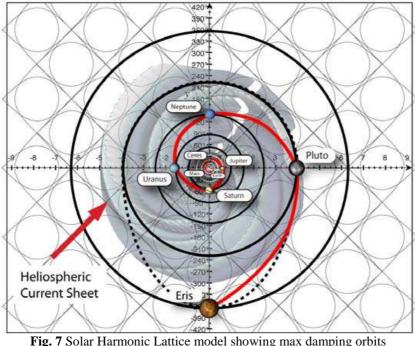
While only an approximation, the actual orbits of the planets vary from this geometrical model according to a Bessel envelope of cylindrical harmonics like those that form on a round cymatic plate. The spacing constant itself is a very special proportion that balances almost perfectly between the golden ratio and

the base of the natural log: $e \div \Phi \approx 1.68$. Because of this, we can describe the overall spacing of the planets as the result of the anti-harmonic damping function of the golden ratio during solar evolution. Evidence for this can be found in the golden average of the actual spacing of the planets (Fig. 6). We might now understand the solar system in harmonic terms as nodes that resonated into rings within the spiral disc of hot plasma much like cymatic rings forming on the surface of a vibrated plate of sand. As waves rippled from the solar centre out to the edge and back harmonics resonated particles toward the calmest locations, gradually then spiral into rotating planetary systems. Harmonic interference between colliding particles in the plasma disc can explain why simple harmonic resonances are found in the orbits and relative sizes of the planets.

Planet		in kilometers* (millions)	Ratio of distance between bodies	Category
Mercury		57.91	1.00000	Planet
Venus		108.21	1.86859	Planet
Earth		149.60	1.38250	Planet
Mars		227.92	1.52353	Planet
Ceres As	steroid Belt		2	
	Ceres	413.79		Small Dwarf Planet
	Juno	399.13		
	Vesta	353.20		
	Ceres Avg.	388.71	1.70545	5
Jupiter		778.57	1.88156	Planet
Saturn		1433.53	1.84123	Planet
Uranus		2872.46	2.00377	Planet
Neptune		4495.06	1.56488	Planet
Pluto		5906.38	1.31397	Small Dwarf Planet
Eris		10123.01	1.71391	Small Dwarf Planet
Total		17.79939	Ň	
Average			1.61813	I.
Golden Ratio (Φ)			1.61803	3
Variance			0.006%	0

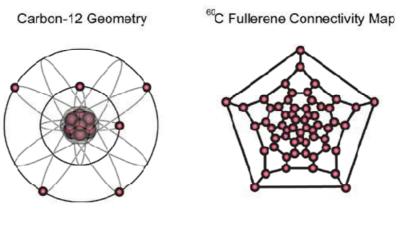
* Semi-major axis is the radius of an ellipse running through the foci. Source: NASA Fig.6. Golden mean in planetary spacing

Thus, it is possible to use the same evolutionary Harmonic Lattice framework for life to explain the harmonic development of our solar system. (Fig6). Each Φ -spaced ring in the lattice can be described as an orthogonal or 90-degree location on a golden spiral. Since harmonic waves are most coherent and stable at right angles to one another, they would naturally entrain with a Φ -spiral as illustrated in the model. The original solar spiral continues to this day as the Sun's *heliospheric current sheet*. Just like the spirals of galaxies and other solar systems, counterbalancing spiral arms form as the pressure differential of gravity causes the space lattice to curve - triggering the Coriolis effect, starting rotation and polarizing the solar disc. Orthogonal to this disc, a toroidal pattern like the Polar Reflective Interference Model forms into the solar wind. All of this occurs according to universal laws of quantum physics as explained by me, setting the stage for life. In this way, we might extend the scope of evolution to include principles of resonance as they guide the solar system, bridging the study of cosmology with biology. Evolution is first and foremost a matter of harmonic patterning in a containment field, regardless of whether the container is a body or structured space.



XI. Atomic Resonance as a Framework for Life

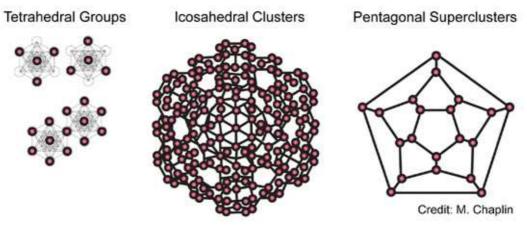
All life on Earth is composed mostly of carbon-12 and water. This is the case because carbon-12 bonds or resonates with more simple elements than any other element in the universe. With 6 protons + 6 neutrons in its nucleus and 6 electrons orbiting in two shells, carbon-12 exhibits the lowest possible energy of all the elements and is said to be 'unbound', thereby creating the most stable atomic geometry possible (Fig 8). When mixed with water, carbon-12 creates endless chains of sticky amino acids capable of crystallizing into life. This idea of life as a crystallization process is a good one because just as minerals align under pressure into lattices, coils of amino acids fold under pressure into three-dimensional protein structures, aligning into the familiar helical lattice of DNA. It is the geometric pressure of hydrogen atoms in water that helps create the lattice and give DNA its twist.





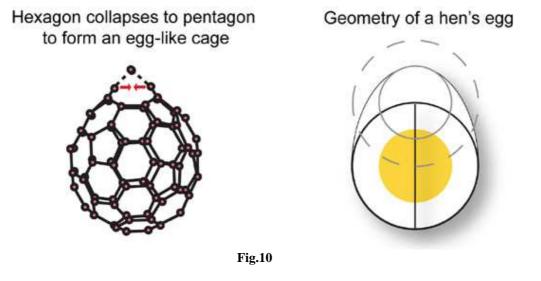
Carbon-60 Fullerene geometry is a result of the truncated icosahedral packing and spacing of carbon atoms in a cage. In recent molecular studies of water, biochemist Martin Chaplin found that water organizes itself naturally into a lattice of icosahedral clusters just as Greek philosopher Plato proposed more than two millennia ago. Water really does resemble the 12-pointed, 20- faceted geometry of an icosahedron. The water lattice begins as 4-fold tetrahedral units of 14 water molecules, aligning into 20 clusters to create the geometry of a 280-molecule water icosahedron (Fig 9). This structure then assumes a variety of stable, geometric substructures (such as its complementary dodecahedron) that form into even larger super-clusters. At this mesoscopic scale of water, molecules arrange themselves into a 2-dimensional connectivity map of a regular 5fold pentagon.

DOI: 10.9790/264X-0505015673





Water's molecular geometry begins as interlocking tetrahedrons of water molecules that combine into icosahedral clusters and pentagonal super-clusters at the mesoscopic scale. When the 5-fold icosahedral superclusters of water is then combined with the complementary dodecahedral structures of carbon, something very interesting occurs - they resonate with one another to produce the characteristic geometry of life. There is nothing random or arbitrary about this – it is an inevitable outcome of the physics of harmonic electromagnetic frequencies acting at the atomic level. Carbon vibrates or resonates with it-self and other simple elements to form a wave-like spine while water acts to deaden or 'damp' everything into a pentagonal framework. The role of atomic resonance in creating organic shapes was demonstrated in another recent study showing the first step of enclosure needed for a living cell occurs from a geometrical folding of carbon molecules. In a 2006 publication of the American Chemical Society entitled, *Tb3N@C84: An Improbable, Egg-Shaped Endohedral Fullerene that Violates the Isolated Pentagon Rule*, it was reported that a large, Fullerene, carbon-84 allotrope constructed its own egg like cage when two adjacent pentagons in the carbon molecule became fused together in a reaction with terbium (Fig 10).



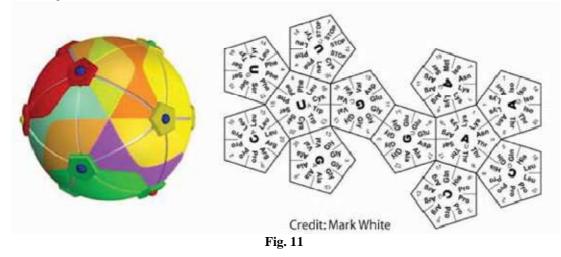
Endohedral carbon-84 Fullerene Egg shows warping into the quasi-crystal geometry of a common hen's egg. Discovered by a combined team from the University of California, Virginia Polytechnic and Emory and Henry College, this was the first indication that the regular soccer ball geometry of hexagons and pentagons in a large carbon Fullerene could wrap itself into an egg-like cage by reacting with another atom, thereby producing a uniquely organic geometry known as a quasi-crystal. This discovery could help answer a lot of questions. It may explain how amino acids 'learned' to form cellular containers to protect themselves from the environment. It could even offer a reasonable explanation for how ribcages came to form around vital organs in all vertebrate animals. It suggests that the atomic balance between pentagonal and hexagonal molecular geometry is the primary cause for the enclosure process of life, rather than some mysterious external selection process. The egg clearly came before the chicken! In each of these studies, we can begin to see how evolution

DOI: 10.9790/264X-0505015673

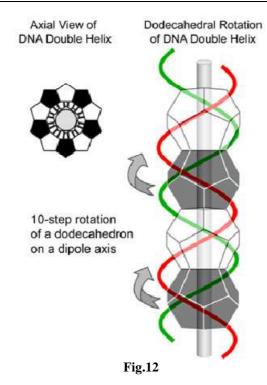
could be guided by geometric harmonies at the mesoscopic scale of carbon-water bonding. The 5-fold inwarddamping geometry of water provides a kind of pressurized container for the outward resonating carbon-12 atoms, bonding out of inanimate elements into living harmonic crystals. The entire process could be described as a kind of biological music resonating out of a finely tuned atomic framework constructed primarily from water and carbon atoms. From the perspective of atomic resonance, Darwinian evolution becomes a veneer of adaptation that depends on pre-existing and universal harmonic laws created by the new energy sources of SU(6), SU(12), SU(24),....etc. discussed elaborately by considering beyond the standard model of physics in details which may be assumed as intrinsic to Nature because our knowledge is very much away from new hypothesis as explained by me in all articles since 2007(My first article received for publication in the journal of Calcutta Mathematical Society, Kolkata, West Bengal, India.). Simple animals resonate into uni-body and 3fold carbon-12 shapes while more complex forms succumb to the 5-fold damping pressure of water, branching out at approximated Golden Sections into pentagonal clusters, such as roses, starfish and the human anatomy. As the most resonant life form of all, we humans exist at the razor's edge of atomic harmony - perfectly balanced in 12:5 proportions by Nature - to achieve consciousness and ponder our own existence. It is the time to update Darwin's 19th century theory of evolution to include atomic resonance acting in concert with natural selection. And maybe the first goal for this new theory of "A human is a Miniature of Universe" in comparison with the galaxy formations should be to understand how carbon-water geometry is preserved in the genetic code.

XII. Geometric Encoding in DNA

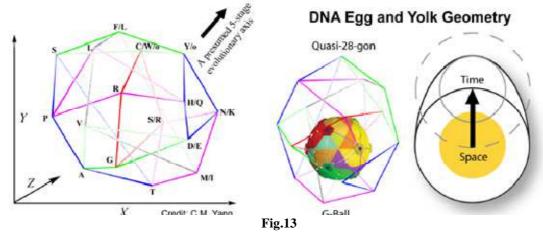
A recent paper by physician and researcher Mark White, entitled *The G-ball, a New Icon for codon* symmetry and the Genetic Code, proposed that the codons table of the genetic code follows the shape of a 12-faced pentagonal dodecahedron. Since there are exactly four nucleotides in DNA that combine in sequences of three to produce 64 codons ($4^3 = 64$), White suggested that the genetic code organizes itself into the shape of tetrahedrons, which then combine into the shape of a spherical dodecahedron – *exactly like clusters of water* molecules (Fig 11)



Mark White's 'G-Ball' DNA dodecahedron model showing the 20 standard amino acids organized in space according to water affinity. Following the equilateral genetic structure predicted by Russian physicist and cosmologist George Gamow, White explains how the 20 edges of a dodecahedron (or 20 triangular faces of its dual icosahedron) can be used to represent the 20 standard amino acids in DNA. The amino acids are then assigned locations in the geometry according to their water affinity (how much they like or dislike water). From this, protein bonds into sequences of amino acid tetrahedrons, forming into a 12-sided dodecahedral framework that is then twisted by hydrogen around a fixed polar backbone to produce the 10-step spatial symmetry of the DNA double helix (Fig 12).



DNA double helix model as a dodecahedron rotated around a central axis. Another study by Chi Ming Yang at Nankai University in China claims to have also found a quasi-periodic, egg geometry in the human genetic code, paralleling Mark White's G-Ball model. Derived from the same building blocks of 20 standard amino acids and 64 tri-nucleotide codons in DNA, Yang found a cooperative 'vector-in-space' addition principle that stretches into an ellipsoid or egg-like shape called an icosikaioctagon (Fig.13).



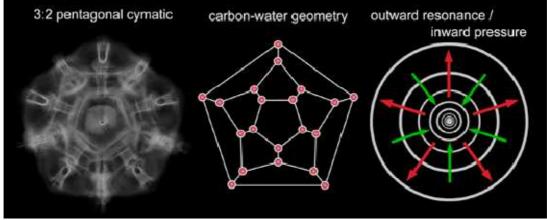
This geometry was determined to have originated as *five* 'stereo-chemical' growth stages over a period of millions of years. So, when we combine Yang's quasi-periodic model with White's G-ball model, we arrive at a structure common to all forms of biological life – a 5-fold 'egg' with a 12-fold 'yolk' inside. Thus, Nature according its blueprint through "Quantum Microchips" naturally created by the quark-like new particles with tightly binding by the *Jk* - bosons of SU(6) creating electromagnetic frequencies with all other new energy sources as explained by me has engineered DNA with its own eggshell container to protect the geometric resonance of life over time. Figure 13. CM Yang's 'Vector-in-Space' DNA model showing five geometric stages of evolution. When combined with White's G-Ball model we have the encoding of a quasi-periodic geometry of an egg. This can be understood as a natural interaction between space and time. Water creates a spherical container for carbon-12 resonance. Around this, a pentagonal water crystal forms to protect the yolk and gestation of life. This cage is then shaped into an egg as the pentagonal crystal recourses toward the square root of five and the yolk region is displaced along a polar axis. This causes the egg to assume the quasi-crystalline shell dimensions of $\Phi^3 \log x \Phi^2$ wide, which reduces to $\Phi^2/2 = 1.3090165$. While the idea that DNA could be encoded geometrically as an egg may seem "improbable" to some, the idea appears to predate even Pythagoras.

DOI: 10.9790/264X-0505015673

As a symbol of balance in all life, early natural philosophers seemed to understand the egg as an instance of the Golden Mean – cubed [as similar we assumed our physical universe appeared through a cubical shape instead of spherical shape in my article *IOSR Journal of Mathematics (IOSR-JM) ISSN: 2278-5728. Volume 4, Issue 1 (Nov. - Dec. 2012), PP 20-33 <u>www.iosrjournals.org</u> www.iosrjournals.org 20 | Page The Complex Model of the Quantum Universe] in its length and doubled in its width, derived from the square root of 5 in a pentagram. In an ancient worldview founded on the physics of music, the golden egg could have been seen as a pentatonic container for a dodecahedral yolk, creating a living 7-fold diatonic animal in between ("dia-tonic" means "thru the body"). Now the questions arises how DNA unfolds itself in space during reproduction? We assumed that, it is only possible by commanding through consciousness stayed on Microchips as the spaces filled with new energy sources of SU(6) and it changes the exotic matter fluids into the soft matters named by <i>Pierre-Gilles de Gennes* and with strong electromagnetic forces with polar interactions created there then carbon and water atoms in DNA self-organize into larger organisms while the resonance of amino acids clearly start the crystallization process at the mesoscopic level of water and carbon. Hence we can say that enables this process to continue outward into the macro structures of highly evolved life.

XIII. Space as a Resonant Container

It is a well-known fact that sound will produce regular geometric patterns when particles of powder are vibrated on plates or inside liquid containers. Known as *cymatics* (from the Greek word for 'wave'), researchers such as Ernst Chladni in the 18th century and Hans Jenny in the 20th have shown how vibrated waves will reflect in containers to form circles, triangles, pentagons, hexagons and other, more elaborate, mandala-like patterns.





As might be expected, the simplest cymatic patterns occur inside a circular or spherical container, always aligning to a single line of symmetry. As waves resonate into standing waves with different frequencies combine to form regular patterns by crossing one another at whole number proportions. The same thing can be said to occur in the atomic substratum of DNA as in cell mitosis. The only difference with DNA is space (together with gravity and energetic pressure) act as the cymatic container. According to quantum chromodynamics, the so called vacuum of space is structured as a non-compressible, stationary cubic lattice. Figure 14. Cymatic resonance pattern in a circular container show how water molecules resonate together inside a pressurized bubble to form pentagonal super-cluster crystals. One interpretation of this lattice is as a field of nominal Schwarzschild black holes comprising a field known as the *Schwarzschild lattice*. Within this definition of quantized space, atomic particles (bosons) are said to centre on spiral vortices (called a *Flamm paraboloid*) in a given cell of the lattice, forming geometrical patterns in its nucleus and orbiting electron shells.

So, when we consider carbon and water atoms resonating together inside a geometrical space lattice – pressurized into spherical bubbles by Earth's gravity and atmosphere – the atoms and molecules in living tissue would naturally entrain and resonate synchronously into larger and larger cymatic patterns. For life, it must be the quantum structure of space and the pressure of its gravitational "egg" that together have the 'know how' to arrange vast numbers of resonating molecules into life-size crystalline structures is assumed by the polar interaction with electromagnetic forces created as explained by me. In this way, living cells would dynamically self-organize into stable geometries much like powder vibrated inside a spherical water container. In the container of a human body, the energy of resonating atoms, molecules and cells would have little choice but to entrain into a reflected standing wave, rippling outward from the $12 \times 2 = 24$ vertebrae of the spinal column with less and less energy to the tips of our 5 x 2 fingers and 5 x 2 toes. Here again we find the body described as

a 12: 5 dodecahedral proportioned carbon water crystal resonating under intense gravitational pressure into the container of the quantum chromo-dynamic lattice created by the new energy sources within the theory of the Super Unified Gaussian Energy Group SU(11) as explained.

XIV. Conclusion

Energies of SU(6) created quantum gravity as well as gravitational forces which are required for the formation of a complete body with definite shape for animates and inanimate bodies, like stars with its planets,....etc. and animate bodies with its parts,.... etc. and then so called vacant spaces are properly filled with the energies of SU(6) and other stated new energies around us then formed living cells by organic and inorganic elements or compounds....etc. mainly constructed by chemical covalent compounds (carbon based like in earth, another planet may be silicon based etc., it is to be noted that carbon and silicon are belongs to the same group of the periodic table of matter atom) with polarity which are more flexible for creating several angled atomic bonds with weak interactions. We compare the structure of Bio-molecules with the structure of spiral galaxy in the large scales of the Universe. Within the biological cells bosons of SU(6)combining with all other several elements or compound elements with ionic interaction between polar elements created different electromagnetic forces of waves with frequencies but coherently emerging as a single wave functions. In the bio-molecules/atoms etc. where all material parts created by the elements/atoms of the Unified Gaussian Energy Group (GUT) of SU(5) by exchanging the bosons of SU(6) as explained and delivering behaviors like intelligence, consciousness, minds, emotions,.... etc. creating with a "Blue-Prints" as "Microchips" on the Quark-Like[In the theory of SUT i.e., Super Unified Gaussian Energy Group SU(11), we found three energy groups where SU(6) created strong forces than SU(5) where it was behaving like weak forces (since in the theory of SU(5)) where it was found that the strength weak force SU(2) increased whereas strength of strong force SU(3) decreases as we advanced towards GUT} and electrodynamics U(1) creating magnetic mono pole, it is very interesting that there possible Quark-Likes particles as 5-times strength of u, d, c, s, t, b quarks of Standard Model of Physics or 5different u, 5-different d, 5-different c,.....etc. which are tightly binding by the J_k – bosons of SU(6) constructs more and more unknown new strange particles in wave form, these particles never formed like matter particles but they directed after constitute ng like "Blue-Prints" through electromagnetic force-fields with frequencies considering as Consciousness then formed matter particles as required treated like as Leptons and ultimately constructed as Galaxy, Cluster ,Super Cluster and so called live atoms then live bodies etc.] new unknown particles which are tightly binding by the J_k - bosons of new energy sources of SU(6), which also created electromagnetic forces of frequencies or currents in the framework of $SU(6) \times U(1)$ with all other new energy sources of SU(12), SU(24),....etc. created electromagnetic forces of frequencies in the framework of SU(12) \times U(1), $SU(24) \times U(1)$,...,etc. and then brain cells, microtubules, everywhere creating like low polarity Hydrogen and strong polarity like oxygen together created strong bonds and constructed as new unknown compounds physically in the living modes as SU(6) having 35-number of bosons, out of which five bosons namely J_{K3} , J_{K8} , J_{K15} , J_{K24} , J_{K35} , corresponding to the five diagonal matrices. The strong neutral current may be created by SU(6), SU(12), SU(24),...etc. after the creation of U(1) are likely to be compared with the weak neutral current created by the framework of $SU(2) \times U(1)$ of the unified group $SU(5) \supset SU(3) \times U(3)$ $SU(2) \times U(1)$], where SU(2) does not directly involve with electric, it still seems to demand charged bosons W_1 and W_2 . This circumstances prompted efforts to link it with an electromagnetic interaction. This link achieved via $SU(2) \times U(1)$ frame-work originally proposed by A. Salam and S. Weinberg and sometimes called the electro-weak interaction. The link brings the photon (which is a boson), closer to three particles W_1 , W_2 & W_3 , where W_1 , W_2 are two opposite charged particles and the third (W_3) neutral. In this unified picture it is more convenient to say that another neutral particle Z^0 instead of W_3 , Z^0 has zero mass and charge, just like the photon. However, the photon does not interact with the neutrino while the Z^0 does. The exchange of Z^0 does not alter electric charge, and hence such an interaction is called a neutral current interaction. In this theory we found Hadrons, Hyperons, Nucleons,...etc. quarks are tightly binding with gluons formed proton, neutrons etc. Similarly, if we go beyond the standard model of physics i.e. in the symmetry theory of SU(11), we see there are five neutral particles of the latent energy group SU(6), in which two pairs, namely J_{K3} , J_{K8} and J_{K15} , J_{K24} were interchanged without any colour changes, but the neutral particle J_{K35} , like as Z^0 also create a strong neutral current as SU(6) is very strong i.e. an electromagnetic interaction through the frame-work via $SU(6) \times U(1)$, similarly by SU(12) in the frame-work of SU(12) \times U(1) and SU(24) in the frame-work of SU(24) \times U(1) which may responsible for living matter or

cells or cells-division,...etc. called as consciousness creating with actual blue-print for the future developing model. This type of electromagnetisms may be formed in the frame-work of $SU(6) \times U(1)$ and it may be used for the treatment in medical sciences where it is required for the prevention of unwanted cells-division like as cancer,....etc. We observe that, towards unification of SU(3), SU(2), U(1), the strength of weak force gradually increases while strength of strong force gradually decreases and ultimately we found the unified group SU(5). So, in the theory of SU(11) i.e. in another phase we found quark-like & lepton-like particles, which may be five times of each quark [i.e. u-quark, d-quark,.....etc. of the standard model of physics of the unified group SU(5)]. Thus Z^0 - like neutral particle of SU(6) like zero mass & charges instead of J_{K35} interact with other particles of SU(5) creating strong neutral current with conscious sensory information system also there may be possible to created new particles binding by the J_k -bosons of SU(6) with quark-likes and formed strong heavy new unknown particles [may be the strength as 5-times of the usual protons, neutrons,...etc. which are created by the GUT energy group of SU(5)] which are naturally instable and there may be created much more many others unknown new particles and several electromagnetic force-frequencies in the frame-work of $SU(6) \times U(1)$; $SU(12) \times U(1)$; $SU(24) \times U(1)$...etc. which are solely responsible for consciousness of the living cells after the creations of the electrodynamics group U(1). We may remembered that was said by the Royal Raymond Rife (May 16, 1888 – August 5, 1971) was an American inventor reported after his experiments that a 'beam ray' device of his invention could weaken or destroy the pathogens by energetically exciting destructive resonances in their constituent chemicals. Rife claimed to have documented a "Mortal Oscillatory Rate" for various pathogenic organisms, and to be able to destroy the organisms by vibrating them at this particular rate.

Thus for living bodies through ion channel constituted a flow of current throughout the body carrying with charges of free electron-likes as signals or information etc. and also may be similar for the case of the universe where stars atmosphere like as brain cell.....etc. (taking as centre point) always controlled the whole system with its parts by the gravity of the same new energy sources as for example our solar system etc. The created amount of material substances ("Lumps of Matter") changes by the bosons of SU(6) into the bosons of SU(5) created quarks and hadrons are always fixed for a particular nonliving/living developing bodies and hence for the expansion of the universe or its parts of the system remained harmonic (according to the blue print created as consciousness) for the compilation of a stable shaped then after a certain or fixed time (age) our living bodies started like contraction (like the contraction started from Big-Break Singularity to Big-Crunch Singularity).

References

- Bhadra N.K. (2012): The complex Model of the Universe, IOSR-JM, ISSN: 2278-5728, vol.2, 4, pp-20; and The complex model of the quantum universe, ISSN: 2278-5728.IOSR Journal of Mathematics (IOSR-JM) vol.4, Issue. 1(Nov.-Dec2012),pp-20. "The Complex Quantum-State of Black-Hole and Thermo-statistics" (IOSR-JM: e-ISSN: 2278-3008, p-ISSN: 2319-7676. Volume 8, Issue 5 (Nov. –Dec. 2013), PP 01-19)]. Bhadra N K; THE COMPLEX QUANTUM AND CLASSICAL PSEUDO-TACHYONIC UNIVERSE; (IOSR-JM) e-ISSN: 2278-5728,p-ISSN: 2319-765X, Volume 8, Issue 3 (Sep. -Oct. 2013. THE COMPLEX QUANTUM-STATE OF CONSCIOUSNESS, IOSR Journal of Applied Physics (IOSR-JAP) e-ISSN: 2278-4861.Volume 9, Issue 1 Ver. II (Jan. – Feb. 2017), PP 57-93 www.iosrjournals.org. The Origin of Consciousness in the Universe-IOSR Journal of Mathematics (IOSR-JM) e-ISSN: 2278-5728, p-ISSN: 2319-765X.Volume 10,Issue 5 Ver.III (Sep-Oct.2014),PP 53 68ww.iosrjournals.org 53] Page. International Journal of Applied and Advanced Scientific Research (IJAASR) Impact Factor: 5.655, ISSN (Online): 2456 – 3080 (www.dvpublication.com) Volume 4, Issue 1, 2019 1 MIND AND CONSCIOUSNESS AS CREATED BY ELECTROMAGNETIC FORCE, Narayan Kumar Bhadra* & Paolo Di Sia**.
- [2]. In Quantum Theory and Measurement, Wheeler, J. A., and zurek, W. H. (eds), Princeton University Press, 1983; Originally in Reviews of Modern Physics, 29, 454. Engel, G.S. Calhoun, T.R., Read, E.L., Ahn, T-K., Mancal, T., Cheng, Y-C., Blankenship, R.E., Fleming, G.R., (2007). Evidence for wave-like energy transfer through quantum coherence in photo synthetic systems, Nature 446: 782. Model pictures from Quantum modeling of the mental state: *the concept of a cyclic mental workspace*. by Dirk K. F. Meijer1 and Jakob Korf2. Harmonically Guided Evolution, Richard Merrick 1717 Angel Parkway / PMB 138 Allen, TX 75002 Email: <u>Richard@InterferenceTheory.com</u> www.InterferenceTheory.com
- [3]. Abbott, L.F. & Regehr, W.G. (2004) Synaptic computation. Nature, 431, 796-803. Abbott, D., Gea-Banacloche, J., Davies, P.C.W., Hameroff, S., Zeilinger, A., Eisert, J., Wiseman, H., Bezrukov, S.M. & Frauenfelder, H. (2008) Plenary debate: Quantum effects in biology, trivial or not? Fluct. Noise Lett., 8, c5-c26. Albrecht-Buehler, G. (1995) Changes of cell behavior by near-infrared signals. Cell Motil. Cytoskeleton., 32, 299-304. Ashcroft, N.W. & Mermin, N.D. (1976) Introduction to Solid State Physics. NY: Brooks Cole. Baars, B., Banks, W.P. & Newman, J.B. (2003) Essential Sources in the Scientific Study of Consciousness. Cambridge, Massachusetts: MIT Press. Beck, F. & Eccles, J.C. (1992) Quantum aspects of brain activity and the role of consciousness, Proc. Natl. Acad. Sci. USA, 89, 11357-11361. Beck, F. & Eccles, J.C. (2003) Quantum processes in the brain: A scientific basis of consciousness. In: N. Osaka, ed., Advances in Consciousness Research, Vol. 49,
- [4]. Philadelphia: John Benjamins Publishing Company. Beloussov, L.V., Opitz, J.M. & Gilbert, S.F. (1997) Life of Alexander G. Gurwitsch and his relevant contribution to the theory of morphogenetic fields. Int. J. Dev. Biol., 41, 771–777. Blankenship, R.E. & Engel, G.S. (2010) Long-lived quantum coherence in photosynthetic complexes at physiological temperature. Proc. Natl. Acad. Sci. USA. 107, 12766–12770. Brookes, J.C., Hartoutsiou, F.,

Hors⁻eld, A.P. & Stoneham, A.M. (2007) Could humans recognize odor by phonon assisted tunneling? Phys. Rev. Lett., 98, 038101. Brown, J.A. & Tuszynski, J.A. (1997) Dipole interactions in axonal microtubules as a mechanism of signal propagation, Phys. Rev. E, 56, 5834–5840.Cai, J.,

- [5]. Popescu, S. & Briegel, H.J. (2010) Dynamic entanglement in oscillating molecules and potential biological implications, Phys. Rev. E, 82, 021921. Cifra, M. & Pospisil, P. (2014) Ultra-weak photon emission from biological samples: Definition, mechanisms, properties, detection and applications. J. Photochem. Photobiol. doi: 10.1016/j.jphotobiol.2014.02.009 (in press). Cohen, S. & Popp, F.A. (1997) Biophoton emission of the human body. J. Photochem. Photobiol. B, 40, 187–189. Collini, E. & Scholes, G.D. (2009) Coherent intrachain energy migration in a conjugated polymer at room temperature. Science, 323, 369–373. Craddock, T.J.A., Beuachemin, C. & Tuszynski, J.A. (2009) Cellular automata modeling of information processing mechanisms in microtubules at biological temperature, Biosystems, 97, 28–34.
- [6]. Crick, F. & Koch, C. (1990) Towards a neurobiological theory of consciousness. Sem. Neurosci., 2, 263–275. Davies, P.C.W. (2004) Does quantum mechanics play a non-trivial role in life? BioSystems 78, 69–79. Doyle, D.A., Cabral, J.A., Pfuetzner, R.A., Kuo, A., Gulbis, J.M., Cohen, S.L., Chait, B.T. & MacKinnon, R. (1998) The structure of the potassium channel: molecular basis of K+ conduction and selectivity. Science, 280, 69. Demetrius, L. (2003)
- Quantum statistics and alometric scaling of organisms. Physica A, 322, 477-490. Dustin, P. (1978)
- [7]. Microtubules. New York: Springer-Verlag. Engel, G.S., Calhoun, T.R., Read, E.L., Ahn, T.K., Mancal, T., Cheng, Y.C., Blankenship, R.E. & Fleming, G.R. (2007) Evidence for wavelike energy transfer through quantum coherence in photosynthetic systems. Nature, 446, 782–786. Franco, M.I., Turin, L. Mershin, A. & Skoulakis, E.M.C. (2011). Molecular vibration-sensing component in Drosophila melanogaster olfaction. Proc. Nat. Acad. Sci. USA, 108, 3797– 3802. Fr€ohlich, H. (1968) Long range coherence and energy storage in biological systems. Int. J. Quant. Chem., 2, 641–649. Ganim, Z., Tokmakoff, A. & Vaziri, A. (2011).
- [8]. Vibrational excitons in ionophores; experimental probes for quantum coherence-assisted ion transport and selectivity in ion channels. New J. Phys., 13, 113030. Grifts, D.J. (2004) Introduction to Quantum Mechanics. 2nd edn. NY: Addison-Welsey. Grush, R. & Churchland, P.S. (1995). Gaps in Penrose's toilings. J. Conscious. Stud. 2, 10–29. Gundersen, G.G. & Cook, T.A. (1999) Microtubules and signal transduction. Curr. Opin. Cell Biol., 11, 81–94. Hackermüller, L., Uttenthaler, S., Hornberger, K., Reiger, E., Brezger, B., Zeilinger, A. & Arndt, A. (2003) Wave nature of biomolecules and fluorofullerenes. Phys. Rev. Lett. 91, 090408. Hagan, S.,
- [9]. Quantum models of the mind: Are they compatible with environment de-coherence? Phys. Rev. E, 70, 031902. Saeedi, K., Simmons, S., Salvail, J.Z., Dluhy, P., Riemann, H., Abrosimov, N.V., Becker, P., Pohl, H-J, Morton, J.J.L. & Thewalt, M.L.W. (2013) Room-temperature quantum bit storage exceeding 39 minutes using ionized donors in Silicon-28. Science, 342, 830-833. Santarella, R.A., Skiniotis, G., Goldie, K.N., Tittmann, P., Gross, H., Mandelkow, E.M., Mandelkow, E. & Hoenger, A. (2004) Surface-decoration of microtubules by human tau. J. Mol. Biol., 339, 539-553. Schrodinger, E. (1944) What is Life? Cambridge, UK: Cambridge University Press. Seife, C. (2000) Cold numbers unmake the quantum mind. Science, 287, 791. Scott, A.C. (1995) Stairway to the Mind: The Controversial New Science of Consciousness. New York: Copernicus. Smith, C.U. (2009)
- [10]. The `hard problem' and the quantum physicists. Part 2: Modern times. Brain Cogn., 71, 54-63. Stapp, H. (1995) Why classical mechanics cannot naturally accommodate consciousness but quantum mechanics can. Psyche, 2, 1-23. Stuart, C.I.J.M., Takahashi, Y. & Umezawa, H. (1978) On the stability and non-local properties of memory. J. Theor. Biol., 71, 605-618. Summhammer, J., Salari, V. & Bernroider, G. (2012) A quantum-mechanical description of ion motion within the containing potentials of voltage-gated ion channels. J. Integ. Neurosc. 11, 123. Tegmark, M. (2000) Importance of quantum coherence in brain processes. Phys. Rev. E, 61, 4194-4206. Tuszynski, J.A. & Woolf, N. (2006).

The path ahead. In: J.A. Tuszynski, ed. The Emerging Physics of Consciousness. New York: Springer-Verlag. Tuszynski, J.A., Hameroff, S., Sataric, M.V., Trpisova, B. & Nip, M.L.A. (1995) Ferroelectric behavior in microtubule dipole lattices: Implications for information processing, signaling and assembly/disassembly. J. Theor. Biol., 174, 371–380. Vaziri, A. & Plenio, M.B. (2010) Quantum coherence in ion channels: Resonances, transport and verification. New J. Phys., 12, 085001. Velmans, M. (1996) The Science of Consciousness: Psychological, Neuropsychological and Clinical Reviews., New York: Routledge. Vogel, D.D. (2005)

[11]. A neural network model of memory and higher cognitive functions. Int. J. Psychophysiol., 55, 3-21. Woolf, N.J. (2006) Microtubules in the cerebral cortex: Role in memory and consciousness. In: J.A. Tuszynski, ed. The Emerging Physics of Consciousness. Berlin; Heidelberg; New York: Springer, pp. 49-94. Woolf, N.J., Young, S.L., Johnson, G.V. & Fanselow, M.S. (1994) Pavlovian conditioning alters cortical microtubule-associated protein-2. Neuroreport., 9, 1045-1048. Woolf, N.J., Zinnerman, M.D. & Johnson, G.V. (1999) Hippocampal microtubule-associated protein-2 alterations with contextual memory. Brain Res., 6, 241-249. Woolf, N.J., Priel, A. & Tuszynski, J.A. (2010) Nanoneuroscience: Structural and Functional Roles of the Neuronal Cytoskeleton in Health and Disease. Heidelberg: Springer Verlag. Woolf, N.J., Craddock, T.J.A., Friesen, D.E. & Tuszynski, J.A. (2010) Neuropsychiatric illness: A case for impaired neuroplasticity and possible quantum processing derailment in microtubules. Neuroquantology, 8, 13-28.

[9 http://www.zeit.de/2013/44/christof-koch-bewusstsein-hirnforschung 10 Roth G. Geist und Bewusstsein als physikalische Zustände. In: Dresler M. (Hrsg) Kognitive Leistungen. Intelligen zund mentale Fähigkeiten im Spiegel der Neurowissenschaften. Heidelberg: Spektrum Springer; 2011: 172 11 Eckoldt, S. 20 f.] Jones, Newell (1938-05-06).

"Dread Disease Germs Destroyed By Rays, Claim Of S. D. Scientist: Cancer BlowSeen After 18-year Toil by Rife". San Diego Evening Tribune. p. 1. Kendall, Arthur Isaac, MD., PhD.; Rife, Royal, PhD. (December 1931). "Observations On

Bacillus Typhosus In Its Filterable State: A Preliminary Communication" (<u>https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1658030). California and Western Medicine. XXXV(6):409–11.</u>

PMC1658030(https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1658030).PMID18741967(<u>https://www.ncbi.nlm.ni</u> <u>h.gov/pubmed/187</u>. Hagan, S. Hameroff, SR, Tuszynski, JA (2002). Quantum computation in brain microtubules: Decoherence and biological feasibility. Phys. Rev. E. 65, 061901.

[12]. Haggard P (2005). Conscious intention and motor cognition. Trends Cogn Sci 9: 290–295. Haggard P, Eimer M (1999). On the relation between brain potentials and the awareness of voluntary movements. Exp Brain Res 126: 128–33. Hameroff SR, (2007).

The brain is both a neurocomputer and quantum computer. Cognitive Science; 31: 1035-1045. Hameroff, SR, and Penrose, R (1996). "Conscious Events as Orchestrated Spacetime Selections", Journal of Consciousness Studies, 3(1): 36-53. Hamill OP, Marty A, Neher E, Sakmann B., Sigworth FJ (1981). Improved patch-clamp techniques for high resolution current recording from cells and cell-free membrane patches. Pflugers Arch, 391: 85-100 Hartmann L, Düer W and Briegel, HJ (2006). "Steady state entanglement in open and noisy quantum systems at high temperature". Physical Review A 74, 052304 Hasson U, Ghazanfar A A, Galantucci B, Garrod S, Keysers C (2012).

- [13]. Brain-to-brain coupling: a mechanism for creating and sharing a social world. Trends in Cognitive Sciences, 16 (2): 114-121. Hawking S (1988). A Brief History of Time. Bantam Dell Publishing Group. Hu, H and M. Wu (2010). Current landscape and future direction of theoretical and experimental quantum brain/ mind/ consciousness research, J. Consciousn. Exploration & Research 1: 888-897. Hu H and Wu M (2004). Possible roles of neural electron spin networks in memory and consciousness. Cogprints ID 3544, see also NeuroQuantology, 2006: 5-16. Jahn RG and Dunne BJ (2004). Sensors, Filters, and the Source of Reality. Journal of Scientific Exploration, 18(4): 547–570. Jahn RG and Dunne BJ, (2007). A modular model of mind/matter manifestations. Explore, 3:311-24, reprinted from J. Scientific. Exploration, 2001. Jensen CS, Rasmussen HB, Misonou H. (2011). Neuronal trafficking of voltage-gated potassium channels. Mol Cell Neurosci; 48: 288-297.
- [14]. Pereira A (2003): The quantum mind/classical problem. Neuro Quantology, 1: 94- 118. Pereira A, Furlan FA (2007). Biomolecular Information, Brain Activity And Cognitive Function. In: ARBS Annual Rev of Biomedical Sciences, 9: 12-29.

Dr Narayan Kumar Bhadra. " A Human is a Miniature of Universe." IOSR Journal of Biotechnology and Biochemistry (IOSR-JBB) 5.5 (2019): 56-73.