



Original article

Philosophy of particles in super quantum structure

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ABSTRACT

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A structure bases on new observations of physics theories that able to express today's scientific developments. This article is a starting points of philosophically perceive in particle physics. It is imagining and accenting on the new quantum particles which exist beyond the bosons and fermions. Topics for discussion about space and super quantum filed has been written due to justify physical fields and particles. In general, the transfer particles, fields and particles produced have been established in this approach. Presenting an approach and providing a new perspective on the primary structure of the world and around us from past until now, is the integral part of the different science such as physics. The scholars and experts in the area of elementary particles and fields generally have proposed just a model for the patterns and structures of matter through them the result of practical experiments and theoretical calculations were orientated to each other. In other words, the structure and definition of elementary particles haven't provided which integrate all the characteristics of fields and particles from bosons to fermions and describe their characteristics and essence. So well we can try to investigate the word and structure of cosmos before and much earlier than the Big Bang moment. Due to this view, many uncertainties and vague concepts will be cleared and the way to interesting theories and equations in physics will be opened to us.

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1. Introduction

The increased levels of human consciousness factors are Contemporary views on the practical observations and theoretical calculations, so it is causing to appear the same questions in different areas such as follow: What is the basic structure scale of the world? Could the world be imagining as an evolutionary and intermittent cycle? Is the world motion necessary for being it periodicity and evolutionary? What the world can we have, if we divest all motions type of elementary particles? What is the reason of particle motions and why it has been created? Does the universe structure have smaller particles than electrons and quarks which have been formed on? Does another space exit today behind the known particle? Has different existed between bosons, fermions, and fundamental forces in the essence basic structure of the world? What is the dark matter and dark energy? What are the nature and structure of chameleon particles; it has absolute or complicated structure? How forces interact on each other? What is the nature of black hole: it is existential fact or existential real¹? Is it necessary to think about the ultra-relativistic speeds or not? What is the word mechanism? How the world began? How individual galaxies were formed and evolved? When the first stars have been formed? And there are many questions that have not perfect being answered. Therefore it is necessary to propose a new perspective and approach on the early genesis of the world, particles and physics equations. Now with today's scientific knowledge of humanity, the universe has a complex structure and the particles have a certain transcendental inner intelligence and knowledge and generally believe that with these features have been created. Nowadays physical assumptions are formed on the matter and energy in the field which without field we have no trace of the energy and the matter. According to Einstein's theory of relativity and the concept of matter and energy combined with his famous formula $E = mc^2$ is included in each other. Turns the concept of mass is the energy highly compressed in the extremely small space. So all the world around us should have a basic structure of elementary particles to super galaxy from one structure were originated. The structure beyond our objective and ideation begin from dimensions, field, and particle mass and generally all the physical concepts and definitions. This view can be summarized in one sentence: "existence and the world system are a single structure." (It means that all particles have the same structure differ in terms of their properties which are appearing the particles formation around us)². We never speak about the essence and the essence of the inherent of this single structure (Ayatollah Murtaza Motahhari, 1988) until now, so with these information and data human try only to justify their own laboratory and practical observation on the directions line of the principles, this is just related to using today's actual and present knowledge in the motion principles, field, chameleon (Khoury and Weltman, 2004; Jahanshir, 2011 and Jahanshir, 2010), bosons, fermions particles and their dimensions. Unfortunately, human have never taken into their strength and abilities far beyond those and by changing in the calculation results and tests diversions, human begin to make the necessary concepts and principles. Although the reversing argument method has been very successful, but it seems that the human knowledge has already got that limit which can take a step beyond it. By beginning to think about the word and entity structures beyond the fields and particles (modern physics perspectives) (Coughlan et al., 2006; Omnes, 1994; Hughes, 1992). It is a new start to the primary principles and laws. This critical point is coalition before and after "the Big Bang". Strongly can say all or most of the scientific papers and talks from Stephen Hawking to the smallest Large Hadron Collider accelerator technicians try to justify this point: "when the developments and changes have been formed". It also has been looked behind this critical point, but the courage and strength have not been enough to solidify his steps. Beyond notions of today's world knowledge in physics, where everything is initiated and the Big Bang or a lots of other Big Bangs are placed in.

2. Within the limits of physics

Explaining the principles and attitudes to the world need to change perspective and looking different to the laws of physics. The review and new survey to existing laws and step beyond the limited boundaries of thinkers and physicists around the world, the principles will justify power and more dealing with physical phenomena and developments. We can say that the start point is inside of the equations and concepts perhaps the world even beyond any imagination! The main subject of this article is: "applying the basic motion principles and expansion in

¹More accurate and complete study of the philosophical discussions and comments on reader's vision and intensity are appropriated.

²This is just personal point of view and this term is likely rejected and accepted or discussed by other professors and experts of physics and philosophy.

the number of particles and particle systems". The consequence can describe how quarks and particle interactions had been taken effect before the big bang at high energy environments. This purpose is on the basic physical principles, but the concepts and provisions should be made in the start point so can demonstrate particles mass, the structure of fields, bosons and fermions. We are providing and calling such approach in terms of space and the basic motion principles "Space and Super quantum particles"³. Super Quantum Space (SQS) is the starting point of existence, the particles world, bosons, baryons and fermions up to speeds beyond the light concepts. It elegantly expresses all principles taking account of our physical and mathematical knowledge. Everything in the universe, such as 4-dimensional space-time, spin, magnetism, etc. is forming, structuring and find meaning in the transcendental (inner) super quantum space. The force in the universe are the same as super quantum space⁴ from gravity, weak, electromagnetic and strong interactions up to friction, elasticity, etc. in them basic dimensions where have possibility and ability of being in substance. This space is starting point of all symmetry and it is describing, justifying, explaining in physics. The well-known mean forces (four elementary forces) are not just alone elementary forces in nature. It has possibility to be another force which is extremely weak so we still have not seen those effects. This space of interactions is the Space interaction of super quantum particles as we named before. In this new space with a unique and simple construction, particles freedom length is smaller than the Planck length ($L_{planck} = 1.616 \times 10^{-35} m$) and the mass lighter than electron ($m_e = 9.109 \times 10^{-31} (kg)$). It is unimaginable world (with fixed mass and size), much smaller than the smallest space understandable to us which are known today as quarks. In the standard model theory, the four fundamental interactions and forces of nature, are not sufficient to describe all the properties of particles and so other types of interaction needs to explain the origin of Genesis for example the mass of particles (Higgs theory). It is same to four known interactions which is based on other properties of interaction and justified as super quantum filed and also it will be caused to open another knowledge landscape to us. As we know lateral viewpoints of super symmetry, string and some of other theories in the relativistic quantum physics were offered just to justify, describe and calculate the incomplete and absence in concepts which was in the studies; In this case the theories are originally based on fundamental particles which are considered to be true mathematical points with no spatial extent. But these ideas are faced with defeat at the high energies or in the quark scale where gravitational field are comparable to nuclear and electromagnetic forces. While by the concept and approach of super quantum space (SQS) some phenomena, problems and difficulties of physics will be easily explained.

3. Inherent nature of space and super quantum particles

The universe reality exists because we are here with observable world around us (Butterfield, Earman, 2007). A quick survey on the existing systems at the smallest up to largest scales has been cognized, we can realize that cannot found the initial and starting point for primary structure from celestial extremely large objects up to molecules structure which composed of atoms, elementary particles, anti-particles, the infinitely small road inside the nucleus and quarks where stand in the very small world as there is not determined and seen in the large scale of universe. So the universe and environment reality exist around us that the ultimate goal of all science is reach its. Thinking about super quantum space and our purpose in presenting and extending theory, may be abstracted in Molana Jaleddin Balkhi Rumi's poetry (Maulana Jaleddin Muhammad Rumi):

*I regard not the outside and the words;
I regard the inside and the state of heart.*

Understanding the essence of real particles and the universe with above justification, should be stepped up and gone beyond the existent imaginations. The certainly way is faced with different opinions in the early stages of development and dissemination. But the great goal is the new approach and attitude of the basic principles in modern physics. The aim based on understanding the world, particles structure and achieving matter to its ultimate which will have a new approach to the most unanswered questions with current human's knowledge. With clear meaning words and poetry of Molana Jaleddin Balkhi Rumi, are aposematically highlighting the value and dignity of this way again and saying that "What are we seeking and looking for?" (Maulana Jaleddin Muhammad Rumi):

³It will be expressed in future reason of such denomination.

⁴That is the same denomination of super quantum space and super quantum filed. The space contains of super quantum particles which are interacting with each other.

*We have sought but it was not founded, then he told:
I am looking for my dream that is unfindable thing.*

Now we will study the particle structure in the true and real existence of philosophical concept as a cornerstone of the initial creation of all things, with a new approach on the motion principles. For describing more precise and scientific principles of classical and relativistic motion are considered and according to a new interpretation of motion principles we are establishing foundation of world structure at the Big Bang moment. And step by step we are investigating and describing the later stages of development (and continuation of the other papers before the Big Bang). As we know the universe has motion and movement so very shortly should say that the universe has been created of and in the motion. The variety of motions such as linear, orbital and spin in elementary particles by creating necessary and available conditions are observed. It is a considered point here: what is the factor moving up universe motion which can acquire or merge possible movements of a highly organized and purposeful system? There is a factor beyond our contemporary understanding and intuitions, the only thing that move particles in purposeful direction. A power that able to detect, in time and the particular circumstances just be one or some kind of motions and able to detect what type and direction have to move and the result of their effects and interactions create targeted, goal oriented and dynamic. So we establish the universe basic structure which based on matter, energy, transcendental (inner) intelligence and inherent knowledge⁵. These three factors are creating the universe and/or other parallel world motions. The Figure 1-1 presents the structure of super quantum space. We are describing the creation of world and interactions of the universe in very small and very large scales relying on the super quantum space:

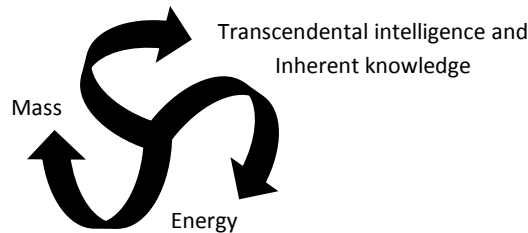


Fig. 1. Three main factors of basic building blocks structure of the universe in the standpoint of super quantum space.

4. Principles of quanta and super quantum space

Targeted system of the primary particles with the transcendental inner comprehension, energy and mass which was created universe in the special space named after super quantum space (SQS) is established. We are loaning “*quantum*” term here because in these particles the packet or energy and mass quanta⁶ exactly are embedded (Landau, Lifshitz, 1977; Zettili, 2009). We are slightly reviewing Science in today's world; the famous physicists in the field of particle physics and cosmology are imagining that the Big Bang is the starting point of universe, but taken a step further and the structure of particles before the big bang and the beginning of time by super quantum approach would be described and investigated. The range under investigation by super quantum approach is diagrammed as follow:

Super quantum space contain mass-energy quanta (Single quanta, without any interaction $v_q \gg c$) → Decrease the linear speed $v_q > c$ Turn up the nonlinear speeds (rotatory speeds) → Transform part of the linear speed to rotatory and formation of photon $v_q = c$ → Creation of elementary particles with different spins $v_q \ll c$ → Creation

⁵Perhaps this sense/transcendental (inner) intelligence may be called the absolute essence of God which relies on our religious beliefs and superior knowledge. I don't know! I'm not a philosophical debate to stepping in this valley and I can't it. Therefore the nature of consciousness and awareness of space in the absolute essence of space and super quantum particles is placed. We may be able to justify the philosophical interpretation in the future.

⁶Definition of quanta in this space is the particles with minimum available mass and energy in the universe. The mass and energy unites is determined and defined in this article.

of stars, galaxies, nebulas and all particles exist in the universe → Creation of black holes → Black hole rotation and absorbing everything around him → Gravity is absorbed by black hole and the black hole collapses into inside its own → Absolute black hole → Start a new Big Bang → Cosmological inflation theory $v > c$ → The first part will periodically be repeated.

As we can see in diagram, with today's observations and some of theories, the space before the Big Bang should be have a much higher linear velocity than speed of light. The production process and creations of particles, nuclei and atoms is formed by reducing linear velocity and superimposing rotational velocity (circular movement) where it is slowly entered into the Big Bang border. We have extremely widespread space in the Primordial creation of universe which all of extend galaxies in compare with this space like to electrons, quarks and furthermore is small and smaller. So in the super quantum space, the super quanta of this space (particles inside the super quantum space) with a definite mass and a constant linear speed $vq \gg c$ which moves uniformly forward in a straight line (its properties very soon will be described). The points mentioned in the above, the super quantum space quanta, contains only the mass, energy, transcendental inner comprehension and intelligence. Transcendental inner potential and comprehension of these quanta (particles inside the super quantum space) in the slow evolution and reducing speed are forming the unique properties of fundamental particles and structure of particles and universe. It should be noted here that in this super quantum space all properties of the particles in the present world, by transcendental inner and inherent with comprehension, knowledge and wisdom inside them (which is the third element) are internalized.

5. Principles of quanta and super quantum space

Discussed space is an isotropic and having has the same properties or characteristics in all content and volume. In this space, the basic principles and axioms have been established and based on three elements: mass, energy, transcendental inner comprehension and intelligence. The super quantum space is extremely large in size and numerous dimensions (it means infinite but limited space). In this space, the primary particles of world and creation with linear velocity just have invariance speed much higher than the speed of light. So we have to determine the low level quanta speed of in super quantum space because speed of light and even ultralight has no place in our thoughts and observable sciences. Therefore there is not any limit in the high level, scale and size. In this infinite space, we are defining the basic mass and energy for super quantum space quanta which is always limited to a fixed (invariant) amount. Now we are explaining the basic point and reason of nomination this space as "super quantum space". We presented and named this space as "super quantum space" just due to definitions the basic unites quanta of mass/energy in this space. We presented new universal quanta exist inside the substructure of fields and particles of the universe therefor we called it as "super quantum space". According to the above descriptions and explanations of super quantum space, the quanta properties and numerical values of this super space is summarized as follow (In the future articles will provide calculations of numerical values and units): Super quantum space has infinite size with limited space and numerous dimensions, but it is homogenous and isotropic space. Super quantum space quanta are moving with ultralight and linear speed. The mass quanta is the minimum mass unites is defined value in this space. The energy quanta or the minimum energy unite is defined value in this space. The charge quanta or the minimum charge unite is defined value in this space. The quanta of super quantum space move just with linear speed. It means the quanta move without any kind (spin or orbital) of motions. In addition to reducing speed quanta would be taken the different amount of velocity which symbolized in inner spin and/or orbital rotation, therefor the particles well-known today's are identified.

6. Conclusion

Now at end of this paper should conclude that providing personal and innovative approach to around, the basic laws of classical physics and relativity therefore it is necessary to describe the new space. This space with all and particles inside it is named super quantum space (SQS). Presented approach just is a personal perspective on physics principles. Using it can change basic physics so it may simply solve many difficult problems and equations. Researching and studying physics principles by this approach and new perspective could be more Coherent and finally, it is giving good compatible with existing theories on the universe and particles formation that is a powerful tool for large leap in awareness, knowledge of understanding the world and our environments. In the other words, the effect on the space-time dynamics of interactions between particles, fields and chameleon particles have been

resulting of vacuum energy changes and the fact of dark energy existence has been proved by this factor. By Materials presented here tried to change the general view of particle and fields. Therefore the aim of the above statements is only to provide new set philosophy-theories of particles and fields which structures/creations of particles and filed thoroughly studied in SQS.

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