

## MULTIVERSE WITH PARALLEL UNIVERSES, OR SPIRAL UNIVERSE WITH PARALLEL REALITIES?

Anup Rej  
Bygdøy Allé 51B, 0265 Oslo, Norway  
[anup.rej@c2i.net](mailto:anup.rej@c2i.net)

Since the Copernican revolution, the news of a new revolution, that may bring similar or greater changes to science than the first, are being propagated by the physicists who believe that the mystery of the universe can be formulated and grasped with the power of the mathematical methods available to mankind. Einstein once dreamt of mathematical theory of everything. Though he failed, his genius in integrating sophisticated mathematical methods with ingenious ideas have succeeded in breaking down all barriers of fantasies and imaginations of the mathematical physicists since then. Particularly this spectacular mathematics based science has come in the forefront after Stephen Hawking has been able to successfully publicize the theories of black-holes to common people. His success in introducing the weird world around black-holes, where everything disappear forever in highly curved space- time, whose properties surpass even the imaginations of the most wild science fiction writers, has brought a new foundation of knowledge about our cosmos to the "common man". In the enlightened world of science, where the spirits and ghosts no more exist, the ideas of the physicists have ushered in the existence of more ghostly realms than the old ghosts of the earlier time, and thus captured the imagination of the public. Now there are demands for ideas even more absurd to common sense than what have been served so far. The world of quantum mechanics has added its share in enlightening humanity about the further weird ways the nature may work. The last steps have been taken by the particle physicists, who have hijacked cosmology as their field of speculations.

The most sophisticated of all particle physicists, the string theorists, have informed the world that the particles are not particles, but are vibrating strings. They are behind the new revolution which has been advertised. Since the early 1970s the particle physicists have come to rescue big-bang theory from seeing its end days. First rescue came with the idea of how to generate an inflationary expansion, in the beginning of the big-bang, by invoking the decay of the vacuum energy. This solved the problem of understanding how the universe can be causally connected. Then they introduced chaotic inflationary model to help to create the fluctuations needed in the early homogeneous universe that may bring forth the formation of the clumpy structures one observes as clusters, galaxies etc. When the mathematical calculations showed that most of the matter was missing from the observed universe, they came with suggestions of particle species that may be able to solve the missing mass problem. However, the problems did not end there when one discovered that the universe was, in fact, accelerating, instead of slowing down. The particle physicists again stepped in. Now the existence of dark energy was postulated, which was causing the acceleration. But the biggest problems still remained unsolved!

The problems were to understand what was before the big-bang, what triggered big-bang and how could one create a universe at the moment when no physical laws could be applied? The answers were sought in the context of string theory, the holy-grail of particle physics since early 1980s. The great excitement of a new Copernican revolution came from a newer version of the theory, known as membrane (or simply, brane) theory.

In such a Brane-theory universe does not consist of a single universe but of infinite number of universes. This infinite set of universe makes a multiverse. It is a sea where universes, which may even possess completely different laws than what we find in the universe we inhabit, float as bubbles in an eleven dimensional space-time (10 space dimensions and one time). It is now theorized that collisions of one bubble with another has caused the big-bang and created our universe. In fact, there are many such collisions, or big-bangs resulting in newer universes in the multiverse.

With these revolutionary ideas, the Brane theory are spreading the news of the existence of physical realms which sound more absurd and ghostly than anything one could ever imagine before. In this multiverse universes exist as

parallel universes. In fact, we may be living in many universes existing side by side. In one universe one may be living, while in the other one may be dead. Our existence is, at every moment, split among many worlds. In every possible universe we have the possibility to realize ourselves. Every willful choice corresponds to individuals realizing the possibility to enter and act in one universe while excluding the possibilities in other universes at that moment. We always take decisions about which universe we observe or choose to enter and exit, and thus create a reality of living, which is a superposition of events taking place in many universes.

Though the particle physicists are publicizing this scenario it may not bear any truth at all. In my view the universe is beyond the grasp of the mathematical methods available to us. However, the basic mechanisms of the way the universe works may be understood by studying the observational data in different cosmic scales. Not by mathematical formulations in the style of the old days!

I have presented such a study in my website <http://cosmology.in/universe/newview.htm>, and given explanations to most of the observations made by astronomers in different wavelengths. It departs from the big-bang cosmology in so radical a manner that, if it turns true, it will bring changes more dramatic and far reaching than what Copernican discovery of heliocentric world has brought to science. The brane theory may explain how gravity may arise as flux from one membrane of one universe to the other, but it may have nothing to do with the creation of structures in the universe.

The theory of “timelessness in time” presented in the website builds on the observation that turbulence and magnetic fields are the major arbiters in forming the cosmic structures – not the gravitational force. This theory leads to the existence of a fractal universe, which embeds self-similar structures in scales within scales. Everything, however small or big, is entangled with each other in a cosmic whole, like an inseparable fractal knot that can never be disentangled. Everything that occurs in micro-scales is intimately related to the evolutions taking place in the macro-world. Large supports the small, the small feeds back and supports the existence of the large. There exists a non-local communications in the entire universe. Contrary to the big-bang, which results from the solutions of the Einstein’s equations of gravity, the dynamics of the universe is primarily driven by turbulence and the magnetic fields that suffuse every corner of the cosmos.

Without assigning the role to gravity to assemble matter into clumps how can one explain the creations of clumpy structures, which we observe in all cosmic scales? If big-bang has never occurred how one could explain the recessions of galaxies and the existence of the cosmic microwave background radiation? Which mechanism in the universe has created the super-clusters, clusters, galaxies, stars and planets? If there is no time in the universe how do the cosmic objects take birth, evolve and die? Are they not following the motions of time? Or what is time? If the universe has been arranged as a timeless fractal design, what causes the appearance of chaos and a constantly fluctuating world? How do we understand the formation of the solar system? How do we know that there exists a universal design in this universe, which self-creates itself from its own decay and death? What is the eternal dynamics which permeates all existence and sustains the universal plan? Who are the creator and the created ones when the existence of the micro-structures depends on the existence of the macro-structures and vice-versa? How do the created ones create the creator in whose womb they take their births?

One will get answers to these and many other questions of fundamental importance. In contrary to the multiverse there exists only one universe, with parallel realities experienced by individual inhabitants of the cosmos. These realities are products of the bio-physical mechanisms, and the limitation which these processes bestow on the observers of the “reality”. True reality is a superposition of all these realities experienced and observed by all different observers – from prokaryotic cells in bacteria to immensely complex biological systems like different animal species on Earth. By transgressing one’s bio-physical limitations and extending the possibilities to gather information from realms which others, with different bio-physical capacities can access, we can share others’ experiences of reality. However, all these realities are parts of the same universe, which is uniquely and intelligently designed—unlike randomly popped up bubbles without any purpose and design. What we call realities are experiences of conscious observers, choosing to observe the phenomena in the world by using a particular

instrumental structure of the brain, which is already constrained in its capacity due to its bio-physical nature of existence. Instead of infinite universes, we are entangled in a reality of a universe where innumerable possibilities to observe and realize the unique universe exist. I call them parallel realities.

The foundation of all these parallel realities lies in the same universe, which is operated by the same dynamics driven by a unique three-armed spiral structure. The universe has risen from this three-armed spiral form sitting at the position where astronomers have observed the existence of local void. The super-super-clusters appear as ejections from this void. The super-super-clusters break into clumps and give rise to super-clusters, which in turn break into clumps and form clusters, which in its turn break into fractal clumps generating galaxies and so on. Instead of bubbles the universe is made of similar spiral clumps filling the cosmos in many different scales. Observed in any scale, the reality is a superposition of many realities experienced by observers, which are dependent on the methods of observations and the instrumental abilities of the observers.

The website <http://cosmology.in/universe/newview.htm>, apart from elucidating the ideas of this new theory, presents observational evidences against big-bang and the existence of black-holes. The material include flash-based lectures directed to different groups - from astronomers and cosmologists to people in different fields. It also includes some articles which vary in their styles of presentation. A few of the articles have style and format suitable for academic professionals. The others are meant for communicating with people in other fields where the jargons of the presentation are kept simpler to understand.

The website has seven navigational links: **Home, birth, evolution, decay, cosmic design, articles** and **author**. Each of the first five links includes a lecture, which is focused to substantiate the claims of the theory with the support of observational data.

The following lectures are included:

- i. A NEW VIEW FROM THE CENTRE OF THE UNIVERSE
- ii. BIRTH OF STRUCTURES IN THE UNIVERSE: Everything are born as consequence of the evolution of the larger structure that surrounds them.
- iii. BLACK-HOLE IS REPLACED BY A MAGIC WAND OF CREATION: Three-armed spiral in the evolution of structures
- iv. BORN AS SPIRAL DIE AS SPIRAL: What is death then?
- v. TIMELESS COSMIC DESIGN: Brain is no match for the complexity of the universe.

The articles include subjects related to the above lectures and provide evidences against big-bang and black-hole. In the article dealing with the motions of stars in the galactic centre it is shown that a completely different mechanism, which involves three-armed spiral structure, works at the centers of galaxies instead of black-holes. Similarly, in the article analyzing the WMAP data of the latest observations of the cosmic microwave background fluctuations, it is shown that the origin of the so-called primordial fluctuations are nothing but results of contaminations from the clouds near our own galaxy. While dismantling the evidences on which modern cosmology is based, new explanations for the observed microwave background radiation and recession of galaxies are given. The activities at the galactic centers are shown to be driven by ejections from the central spiral structures.

In the author section one will find a short academic background of Dr. Anup Rej, who received his Ph.D. in theoretical Nuclear Physics in India before he moved to Norway as a postdoctoral fellow in the University of Oslo in 1971. A story of a journey of the author's life, that led him to discover the new universe is also added in this section ("A cosmic Dream Fulfilled").

Visit: <http://cosmology.in/universe/newview.htm>