

TIME & Dark Matter, the presence of Dark Energy in expanding universe

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Abstract— The existence of the universe lies in its constant expansion and the presence of Dark Energy emitted from the Dark Matter. The universe is expanding in constant speed, so are the planets moving constantly around in their elliptical orbits. Stars move in their spiral circular shaped galaxies and galaxies revolves around the vortex of black holes or the massive giant group of stars. If the universe stops its expansion, the whole universe gets contracted and starts shrinking. This will be known as the great crunch of the universe. The stuff around the galaxies will merges into one giant heap of debris, rubbles & lifeless matter. The planets will reshape their orbit path. The elliptical orbit will be converted into round and spiral inside towards the epicenter, and of every round in this spiral circle the planets get closer to their corresponding stars. The earth and moon together joins the sun after making few rounds in the spiral path. The sun will stop following the path in the galaxy of millkeyway. Hence, everything comes to stand still when the expansion halt of the universe arrive into being. Everything in the universe is moving relative to each other. The relative motion of everything comes to an end with the expansion halt of the universe.

Key wards:- TIME, Dark Matter, Dark Energy, Circular orbit, Elliptical Orbit, Inertial frame, Singularity, Elasticity.

Introduction

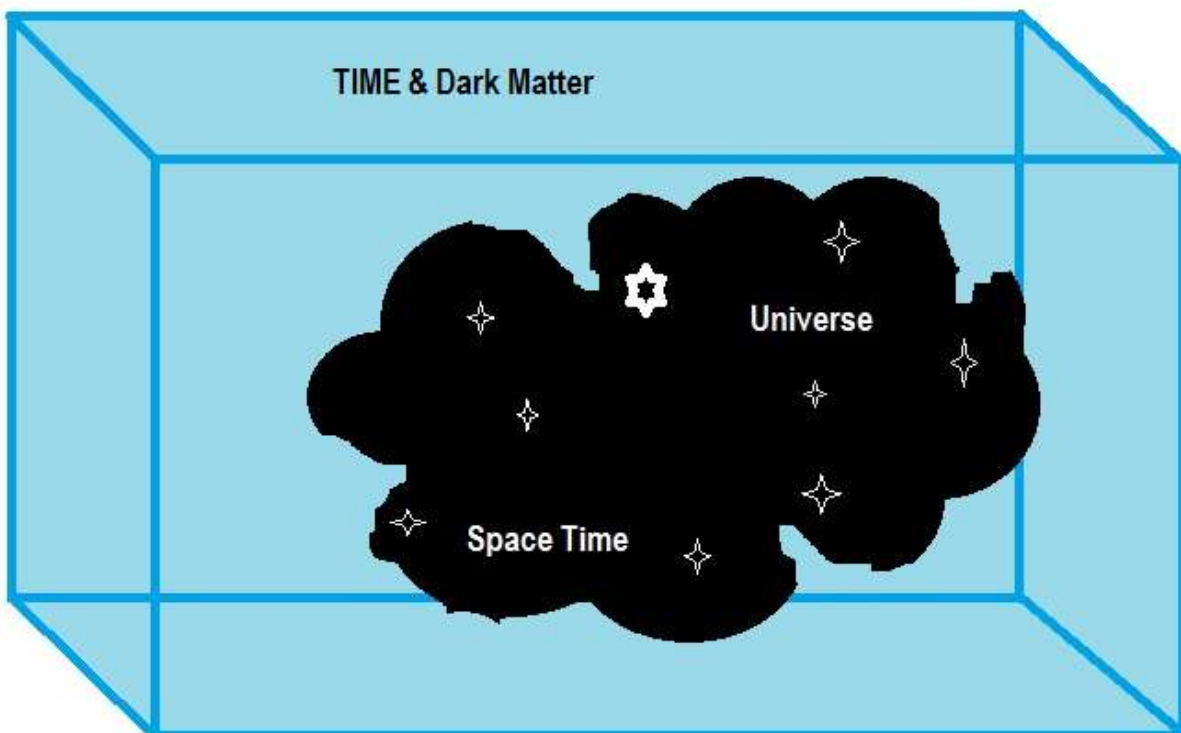
The constant expansion of the universe and the elliptical orbit of the heavenly bodies have deep relation with each other. The expansion of the universe keeps moving all the planets, stars and galaxies in their constant speed. These moving planets around the stars have their elliptical orbit rather than circular orbit around which they revolve. If the universe would not have been expanding, the path of these heavenly bodies would have been circular rather than elliptical. Since the universe is expanding in a constant speed. The path of every planet around the star is elliptical, because each star in its constant speed is following the path in its respective galaxy. The constant speed of expansion of the universe is represented by the elliptical angle of the planet like earth in the solar system. If the angle of the elliptical orbit is sharp so is the speed of expansion of the universe. If the orbit of the planet earth would have been circular, then we can infer that our universe is not expanding. The angle or sharpness of elliptical orbit of the earth around the sun can depict us the speed of expansion of the universe. A slight change in the expansion of the universe accelerating or decelerating can be easily detected from the change in the elliptical orbit of the earth around the sun.

TIME & Dark Matter:

Dark Matter is not the stuff of our universe. The presence of Dark Matter was before big bang 13.7 billion years ago. Dark Matter will be there after the end of the universe. The TIME before the big bang and the presence of Dark Matter is related to each other. Let us not miss understood TIME before big bang with the time of universe. It is the TIME which was there before the universe came into being. This is the TIME, which doesn't have its arrow. The TIME which is frozen does not have past, present or future. The TIME is still there it has not changed nor even the Dark Matter with the changing entropy of the universe, because the TIME & Dark Matter is not the entity of the universe. It is the matter which is of outside of the universe or multiverse. The TIME & Dark Matter is one and the same thing. I have included TIME with the Dark Matter only because Dark Matter has the features of singularity it does not follow the entropy or arrow of time so is the TIME having absolute singularity. Dark Matter is absolute and has permanent singularity, which no matter in the universe has. Usually it does not have any shape to depict, but it has its existence before the big bang. Had there not been the presence of Dark Matter outside the universe, the big bang would not have happened. The universe would not have been come into existence. There was something before the big bang which makes it possible to cause the big bang and our universe came into being. That is Dark Matter or we can call it TIME. The presence of TIME & Dark Matter is everywhere outside the universe. It will be there till the universe will end and so forth. The TIME & Dark Matter keeps myriad universes or multiverse within. There is certainly a possibility of existence of multiverse within TIME & Dark Matter, but due to invisible wall of TIME and Dark Matter, we are not been able to see these universes or multiverse. Because the TIME & Dark matter is so dense that it could not pass through anything from this universe to other universe. The Dark Matter is invisible high density matter even dark energy or light could not pass through it. The TIME & Dark Matter is stable it does not move like the other matters in the universe, which are in motion relative to each other. Let us try to represent and understand TIME & Dark Matter in the three dimensional figure below.



Let us understand TIME & Dark Matter same as space & time of the universe. While as space & time is the parlance within universe. The TIME & Dark Matter is the parlance of outside universe or multiverse, because the presence of TIME & Dark Matter is beyond our observable universe. TIME & Dark Matter keeps myriad universes or multiverse within. TIME & Dark Matter is static but it has elasticity like that of the space & time. While as space & time is like a fabric. TIME & Dark matter is like a thick piece of transparent invisible rubber having enormous elasticity which keeps our universe and other universes / multiverse within. TIME & Dark Matter does not allow anything to pass through. It has elasticity that it allows our universe & multiverse to expand within.

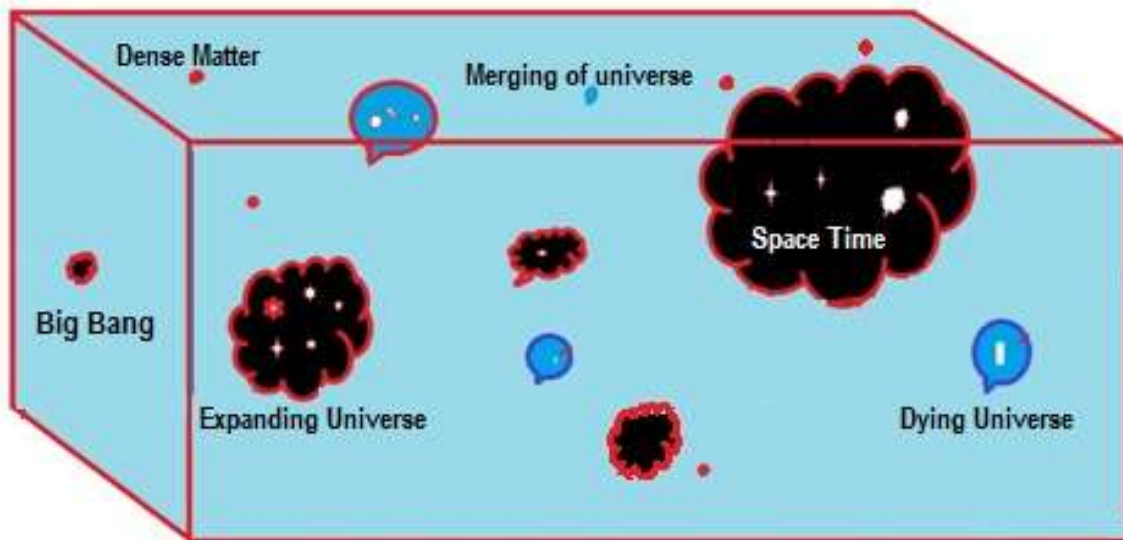


Our universe is not smooth within. It has bumpy and uneven surface within TIME & Dark Matter. While looking inside the universe we see so much of distorted space & time, because of the density of galaxies, stars and planets inside. In the universe the TIME & Dark Matter is bulged and somewhere it has deep troughs caused by the density of stars, galaxies and black holes. This uneven internal as well as external surface of our universe hinders us to observe the whole universe in once. It is certainly depends upon the position of our galaxy in the universe that we could be able to see only the part which is free from TIME & dark Matter inside the universe. Because the TIME & Dark Matter obstruct us to see the whole universe in once. This distortion of TIME & Dark Matter inside the universe has caused by the massive galaxies and black holes within the universe. Scientists have calculated that 24% of Dark Matter is inside in our universe. This is absolutely true but this could not be the part of our universe, since this is bulged inside in various parts of the universe due to curvature or distortion & deformation of TIME & Dark Matter.

The bulged Dark Matter inside does not allow us to observe the whole universe, because the Dark Matter does interact with any matter of the universe and also does not allow to pass through the light within but its gravity bends the light, despite of being invisible & transparent matter. Same way we are not been able to see the other neighbouring universes through the invisible wall of the TIME & Dark Matter.



The TIME & Dark Matter could be resembled to a portion of Swiss cheese trapped inside various bubbles. These bubbles represent the universes including ours. This would be the true representation of multiverse. The TIME outside the universe is bizarre, hard to understand, which has no arrow. The TIME, which was there when the universe was not existed before 14 billion years ago. This is the TIME which remains after the end of the universe with the Dark Matter.



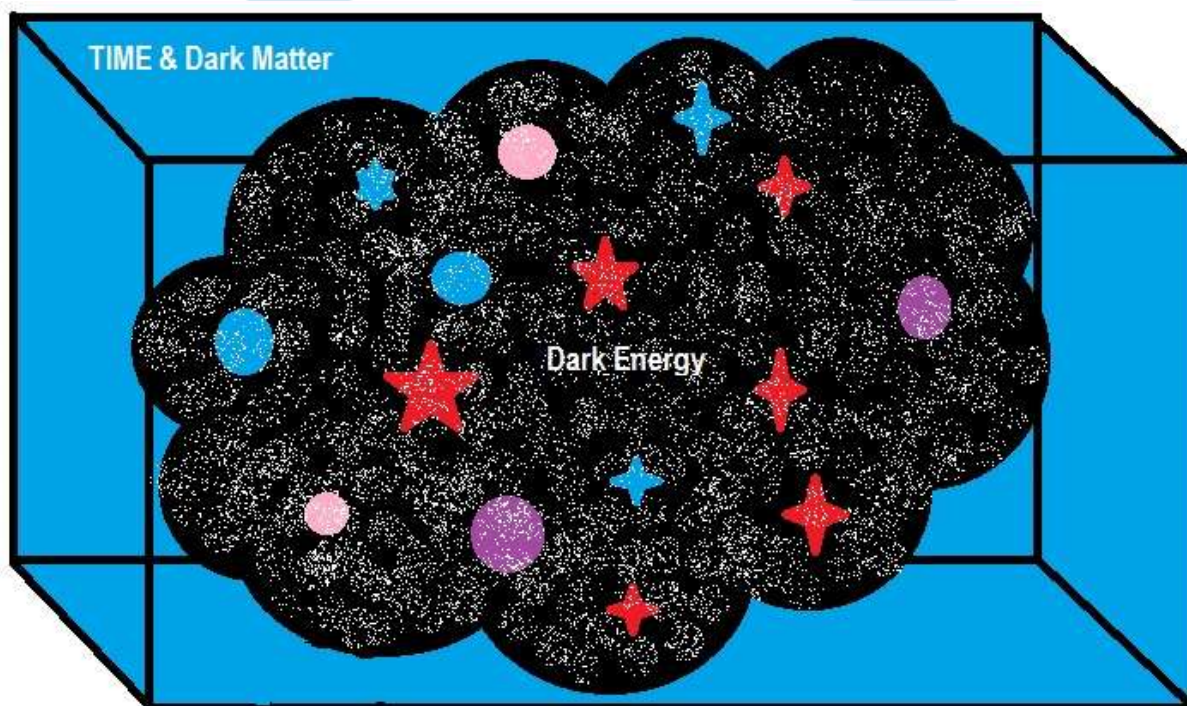
This is the imaginary representation of TIME & Dark Matter and the multiverse within. In the concept of multiverse, the universes inside the TIME & Dark Matter are in different stages. Some are in big bang stage, some in expansion stage like ours some might be in dying stages. The concept of space & time or arrow of time is within the bubble of universe not in the TIME & Dark Matter which is holding multiverse within. The particle of TIME & Dark Matter is not in our elementary. It is invisible, it does interact with the matter in the universe, but invisible and hard to detect. TIME & Dark Matter is not the matter of our universe. It is a matter of outside universe. TIME & Dark Matter is in stationary position bulged inside the universe, whereas the other matter inside the universe is in motion. The matter in the motion is moving along with arrow of time. We cannot separate arrow of time from the motion of planets stars and the galaxies. These two are inseparable part of the universe. But the TIME in Dark Matter is different, since the Dark Matter is stationery so is the TIME. The TIME and Dark Matter are inseparable parts outside the universe. The TIME, which is not running, the TIME, which has no Present, past or future. The TIME, which does not have arrow. It is just. TIME & Dark Matter is the mother of all the universes and multiverse, because inside this the universes or multiverse flourish and deteriorates.

Dark Energy

Dark Energy is the emission of TIME & Dark Matter inside the universe. Wherever, there is hollow space inside the TIME & Dark Matter, that space is filled with dark energy. Same way our universe is filled & full of dark energy like a balloon filled with an air inside. This dark energy is also static and permanent in nature like the dark matter. Dark Energy is not displaced or distorted by any matter in the universe. Dark Energy freely moves from any matter in the universe. The planets stars galaxies etc. Nothing can stop Dark Energy in the universe. Dark Energy cannot be harnessed. Dark Energy moves through our body, vehicles, houses buildings our earth without any hurdle or hindrance. It moves freely like it moves in the air. Dark energy moves alike in air and in any matter of the universe. As I have told you dark energy is static in the universe but then how it flows in our body and all the matter inside the universe. The matters besides TIME & Dark Matter and Dark Energy inside the universe are in constant motion relative to each other. The earth rotates with a constant speed of approx 1000 miles per hour. It follows the elliptical orbit path around the sun, with a constant speed of 16 miles per second. Same way the sun also moves along with whole solar system in the milkeyway galaxy with enormous speed. And also galaxy moves in the universe with high constant speed. Hence, this

enormous constant speed of ours in the universe exposes us constantly with the dark energy. Because the dark energy is fixed in one place and we are in constant motion. The whole universe is moving in constant motion relative to Dark Energy. Dark energy cannot be harnessed, because it does not interact with any matter in the universe except Dark Matter which is not to be considered the part of our universe. It does not work in any inertial frame of reference in the earth or in any part of the universe. No matter of the universe displaces or distorts Dark Energy. It is the medium which is not interacted with anything in the universe except light. Dark Energy is non interactive and static not moving energy in the universe. This feature of non-interacting energy makes it a stable energy in the universe relative to all matter in the universe. When it is not interacting in any matter, it does not distort or displaced by anything in the universe. For instance the air is displaced or distorted by any object or matter within. Same way the water is displaced with any matter inside it. Besides these radio waves, microwaves, infra red waves, ultraviolet rays, X rays gamma rays etc can be distorted or displaced by the matter inside the universe. Light too can be distorted or displaced by the gravity in the universe.

The TIME & Dark matter separates us from other universes or multiverse. While as dark energy emitted from the dark matter is the element of our universe. The energy which is not to be interacted with anything in the universe cannot be harnessed or even identified. The energy in the universe which can be distorted or displaced with any matter can be harnessed within universe. Dark Energy is interacted only with the TIME & Dark Matter. Dark Energy passes through any matter in the universe, but it cannot penetrate through TIME & Dark Matter. It is enveloped like air inside the balloon by the TIME & Dark Matter. Dark Energy is trapped inside the universe because the surroundings or the external boundaries of the universe are enveloped by the TIME and Dark Matter.



Dark Energy is un-interacted energy. Its presence is same everywhere in the universe. It is isotropic and homogenous energy found everywhere in the universe inside in any regular matter and in an empty space. Dark Energy interacts only with the TIME & Dark Matter. The rest of the regular matter of the universe including planets stars and other interactive gases does not interact with the Dark Energy. Dark Energy is alike in everywhere in the universe, be it empty space or any regular matter of the universe. If we calculate the % age of Dark Energy in the universe, it would be 100% because it is ever where in the universe. Dark Energy is emitted & interacted to the dark Matter only. If the Dark Matter is 24% bulged inside the universe the other 76% is Dark Energy in the universe, because it is everywhere be it empty space, planets, stars, galaxies, cosmic gases, humans, plants etc. Wherever our universe is expanded the presence of Dark Energy is same and isotropic. If we consider TIME & Dark Matter not the matter of our universe then the Dark Energy is 100% in the universe. The concept of percentage and mathematic calculation does not work while interacting with the dark energy. Dark Energy does not even interact with the mathematical calculations. Dark Energy is not quantifiable. For example: if we have a half filled water of a glass. We can say half of it is filled with water and other half is filled with air. Now let us include a little bit of sand into it. We can have water sand and the air inside the glass. The amount or the %age of air has lessened as we added sand into it, so one can say everything in the universe has mass and weight. And it is because of this mass and weight that substance became interactive with the matters of the universe. Dark Energy is weight and mass less it does not interact or cannot be calculated mathematically. A glass which is having water, sand and air with total %age of 100 inside the glass, but it has also Dark Energy inside the glass which is not quantifiable because no matter affects its presence inside the glass. Same way its presence in the universe is neither increased nor decreased with the interaction or presence of any normal matter.

Expansion of the universe.

The expansion of the universe is in constant motion. It is not accelerating or de-accelerating. The galaxies are in continuous movement in spiral bindings. As we know the massive objects in the universe distorts or creates curvature in the space & time fabric. The distortion and curvature is ultimately caused on the TIME & Dark Matter. The TIME & Dark Matter exposed inside

the universe is called space & time by the Elbert Einstein, because on one side (inside our universe) there is movement and motion of planets, stars and galaxies, arrow of time, entropy, expansion of space and universe etc. The other side of it is the TIME & Dark Matter, which is all together different bizarre, unbelievable and hard to understand with the pre conception of known physics and science of the universe. The other side of the TIME & Dark Matter is frozen with no concept of time. Arrow of time does not exist there. One Millie second of TIME & Dark Matter might be equal to Billion and trillion years of the universe. The TIME & Dark Matter has absolute singularity, where time does not exist. Arrow of time is for universe or multiverse like us not for the TIME & Dark Matter.

The expansion of the universe is caused by the enormous pressure exerts upon the TIME & Dark Matter from the giant and massive galaxies. The massive and enormous pressure caused distortion in the space & time and drifts the TIME & Dark Matter backward and allows more and more hallow space inside the universe which is filled with the dark energy emitted from the dark matter due to drifting or pushing pressure upon it. This Dark Energy emission maintains the constant expansion position inside the universe. Dark Energy is released or emitted from the TIME & Dark Matter with the constant speed of expansion of the universe. The Dark Energy maintains the empty space created by expansion process of the universe. There is otherwise a backward pressure mounted always on the space & time fabric by the TIME & Dark Matter. Because anything which is having elasticity and is contracted is having a potential energy of reverse push. If the dark energy would not have been there the expansion of the universe would not have been possible. Dark energy is indispensable part of the universe expansion, which helps the universe to maintain its constant expansion process. This constant expansion of the universe makes universe alive. The motion of planets stars and galaxies in the universe is possible only because of existence of dark energy. Dark energy is the medium in which all the matter of the universe swims or flow with the arrow of time without its distortion or displacement. There is no empty space available in the universe. All the universe is filled with the Dark Energy. The amount of Dark Energy is same everywhere in the universe inside the matter and outside the matter. It is same because it is not being interacted, distorted or displaced by anything in the universe.

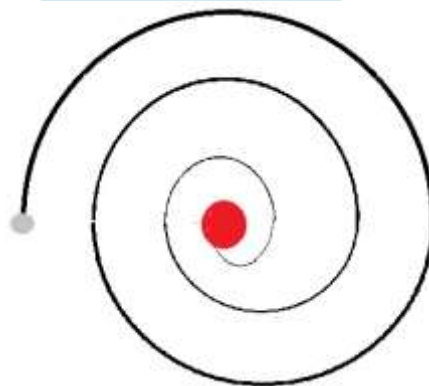
The expansion of the universe is constant so are the elliptical orbits of the planets. If the expansion of the universe is accelerating the elliptical orbit of the earth around the sun would have been changing. The increasing pace or accelerating expansion of the universe is equal to the change in elliptical orbit of the earth around the sun. For example if the Δ represents the change. U represents the expansion of the universe and O represents the elliptical orbit of the earth. The equation would be:

$$\Delta U = \Delta O$$

Any degree of change in the expansion of the universe can be detected or seen in the change of elliptical orbit of the earth around the sun. If the expansion of the universe is accelerating the elliptical orbit would be narrow and stretched. The year on earth would have been stretched from 365 day + depends upon the degree of change. Or if the universe is in de-accelerating pace, the year on earth would have been contracted to 365 days – depend upon the degree of change. The expansion acceleration of the universe is not possible because the inertial frame of reference of the earth would not have been remaining the same. It would have been changed all the time and due to that the destruction of the earth would have been possible including our solar system. The constant velocity of the earth would not have been there. It would have been accelerating velocity on earth rather that constant.

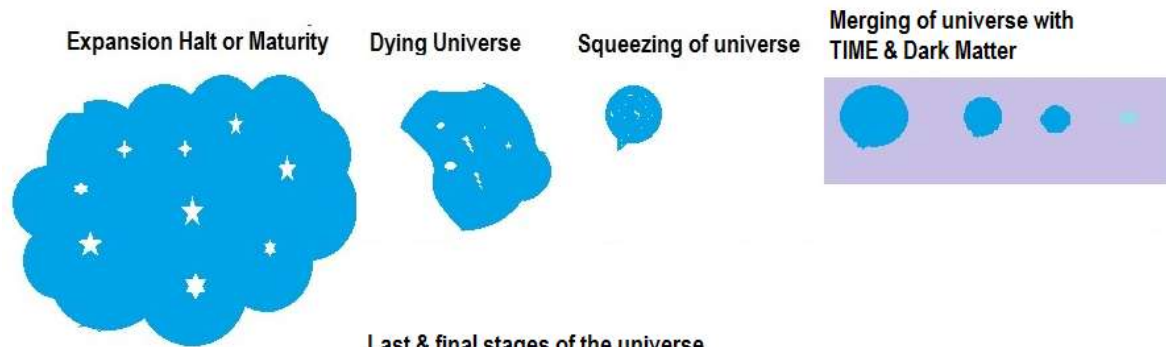
Shrinking of universe and merging of same with the TIME & Dark Matter

The universe when stops its expansion or when the expansion halt will take place. The elliptical orbit of the planets and the spiral path of the stars around the galaxies get changed. The elliptical orbit of the earth will converts into circular and comes near to the sun in every round of orbit. This is because the constant speed of sun in the galaxy will be reduces. The reduction rate in the speed will be reflected in the elliptical orbit path of earth around the sun. The elliptical orbit change into circular depends upon the degree of reduction in motion of the sun in the path of galaxy. The earth comes near to the sun after completing every circular motion around the sun.



The satellites will join the planets and planets will join the stars and the whole stuff of planet jointly joins the vortex of the galaxy. It will become a rubble or mixture of planets stars and other cosmic matter lifeless without life. Everything will be in stationery position. The TIME & Dark Matter will not emit further Dark Energy into the universe, because the expansion process of the universe has halted. The universe will remain in halt position till all the rubble will join each other. Now there will no more red shifts in the universe. It is the time of blue shift in the universe. By now everything will be coming near to each other. The galaxies earlier moving away to each other will come near to each other. One can compare the universe with the balloon which is

five of ten days old. A balloon shrunk because of reduced pressure of air inside. Same way when the dark energy is not being emitted further inside the universe the shrinking of universe takes place. This shrinking of universe allows the TIME & Dark Matter release its pressure backward. The reverse pressure upon the universe will squeeze all the rubble of heavenly bodies nearer and nearer till it joins the galaxies with each other. This would be the era of blue shift in the universe, because the universe will be in squeezing & contracting mode.



Last & final stages of the universe

The TIME & Dark Matter will be enveloped all the matter inside the universe. The universe will be squeezed till it reaches and joins together all the stars planets and galaxies. There will be no space between these massive heavenly bodies. Then the time will come when the TIME & Dark Matter enveloped it completely until it merges with it.

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