



Time Travel And The Cosmos

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Abstract:

From the recent years time travel has been considered as a very well known ingredient of a science fiction novel or movie. The famous science fiction writer H.G. Wells first introduced the concept of time travel. From then until now many scientist and theoretical physicists have been trying to achieve this target and since then they are coming closer and closer to achieve the goal. In this paper we are trying to combine the theories of relativity and cosmology and formulate a combine theory. As, it is always said to know the future, one has to know what has happened in the past. In this case also we shall learn about the birth of the universe, the concept of dark energy, dimensions and we will try to go beyond the fourth dimension. Einstein once said “If u can’t explain it simply you have not understood it well.” Therefore our main focus is that all the concepts are easy to understand from the perspective of beginners as well as the masters of this field.

1.Introduction

Some of the best known theories offered by the theoretical physicists are given just to brush up the knowledge:

- In 1905, the Einstein's research paper on general theory of relativity which shook the world suggests that our universe is a fabric of space and time and it bends where a particle of heavy mass is placed. Black hole is the biggest and renowned object in the space to have the ability to bend the space time fabric to such extent. The drawback in this theory is that the nearest black hole from our universe is still not in our reach and the black hole produces a huge magnetic field that it can disintegrate a body into very small atoms.
- A British renowned physicist Stephen Hawking took a step forward to the Einstein special theory of relativity which said that the speed of light remains constant i.e. 3×10^8 m/s and nobody can go faster than the speed of light; he introduced the concept of time dilation. The basic anomaly in this is that it is a one way travel and it takes a huge amount of fuel to travel so fast close to the speed of light.
- The latest and the most popular theory till now is the String theory proposed by another physicist Dr. Michio Kaku. In this theory he proposed that the electrons, protons and quarks are one dimensional particle and in the table below these sub-atomic particles are the zero dimensional particles known as strings which vibrate continuously to form a closed loop. From some calculations he reallocated that our universe can have at least eleven stable dimensions in forward to the fourth dimension of time as we know. In this discussion we will try to step forward to this theory.

Now let's know about some of the important characteristics that have been used in the field of time travel.

2.Dimension

First of all we should be well aware of the basic concept i.e. Dimension. Many people have different thoughts regarding dimension. In physical terms dimension can be defined as the number of physical quantities which can be altered i.e. increase or decrease. It is the basic misconception that the dimension in which we are living does not contain the physical quantities or components of the higher dimensions. If string theory is right that there are eleven dimensions in our multi-verse then there are all components present in

our universe whether length, width, height, time and the higher ones. The thing that make us the 3D is that we can alter up to the third component of the multi-verse i.e. height and there are many such universes that can alter one of the component of the multi-verse. The 2D world has the factor of height as well as the time but they can't alter it such that if one of the 3D objects goes to the 2D world, the 2D objects cannot see our height but as soon as we touch the surface of the 2D world they feels that something that looks just like a line has just appeared from nowhere. Similarly when a 4D object travels through the time axis and touched the surface of our 3D world we feel that something appears from nowhere but he just travels along the time axis as we travels along the height axis to reach. But until now we haven't seen anyone appearing from the future, so does that mean that in future travelling in past would be impossible? The answer is no. To understand this we have to find what time is and how it is made and for which we have to go back in past, early to the time when a really energetic phenomenon occurs, what we called it is Big Bang.

3.Time

Since the creation to the evolution of the universe and until now, we are the slaves of time. We are doing all our daily works according to time so that we are not getting late to our work. So what is that time which has the ability of enslaving a huge universe till the decades? Is it an output of the continuously running world clock or is it due to the revolution of the earth around the sun and passing of days? In actual time is resulted from something that has its own origin not having a specific mass or volume unlike the matter but it is something that is the opposite of matter, the antimatter or dark matter. We could see the dark matter nowhere in some lab or a big machine but in darkness, the tiny shivering particles or the rotating strings mentioned in the string theory. So where this dark matter does comes from? Well its answer also lays within the biggest phenomenon of the universe i.e. Big Bang.

Almost all the scientists today believe that before the big bang it was all dark and suddenly a big explosion occurs which went on to create the home for us and all the creatures. But it was all opposite. Earlier it was all light that was present in the universe. The twist is that with that light there are infinite particles of dark matter i.e. having identical properties of matter but with an opposite sign. Every particle of matter has its own second perspective of antimatter which when collides with the matter of its

own type creates a huge amount of energy equivalent of the big bang. The process can be understood with a well known formula of the greatest scientist Albert Einstein,

$$E=\pm mc^2$$

When the object of mass m collides with an object of mass $-m$ and containing all the properties of that matter, it produces energy which is really huge. That's why the energy in our universe is conserved despite of the above mentioned formula.

So, at the time of big bang the matter or the photons collides with the antimatter of its own type releasing a huge amount of energy along with some particles known as higgs boson. This energy produced released a very strong force in the form of electromagnetic radiation. This electromagnetic force pushes the bosonic particles creating space and the dark. Further as we all know space creates time and the time must create its higher dimension and this continues on.

The symmetry of these lines produces dimensions with all the dimensions rotating along the centre. Now this is in contrary with the Einstein thinking that the time is due to the formation of light cones, on the contrary, the darkness produces space and space creates time. Whenever a space is created its time starts ticking. So, on the whole in our multi-verse there could be eleven such stable dimensions with each one of them having the ability to alter its component and the component of the lower dimensions.

3.Is The Universe Expanding And What Is The Speed Of Time?

We know that the speed of the light is constant i.e. $3*10^8$ m/s which means to travel 1m light takes about 3ns. We see objects as the light reflects through it and forms an image on our retina. So if there are two points A and B separated by a distance of 1m, we are seeing the time of pt. A as 3ns in past as it really is at this time, and this continues on. When the distance separation is in terms of light-years or about $9.468*10^{14}$ km the time lapse would be around $3.12*10^7$ s which is nearby a year. But if the distance is around 100 million light years the time difference would be 100million years. So what we are seeing today is actually what has happened a hundred million years ago? The expansion of universe or the inflation theory could just be the glimpse of the past and its rate is decreasing day by day today.

Is time has its own speed or our movement in space decides the time? Could the speed of time be infinite? What is infinity? If we talk only about the physics, speed is the ratio of distance and time just simple as that. So if the speed of an object is to be infinity that means it has to travel a certain amount of distance x in time equal to zero. But how can

an object travel a distance in zero time, the answer is simply that if the object is present at the initial point and the final point. In this line, the time taken by the whole line to travel the distance from A to B or B to C is zero and hence the speed of this object to travel a distance of A to B or B to C is infinity.

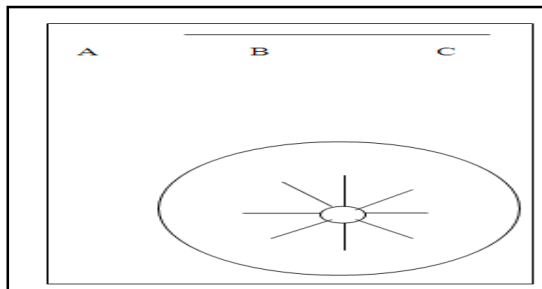


Figure 1

For an object to acquire the infinite speed globally it has to be everywhere in whole of the multi-verse. The speed of light is finite because it is not present everywhere as we know not in the black holes. So if the time is present everywhere it's speed could be infinite.

But what if the object is moving, it could acquire a definite speed of its own and not infinity. The answer to this is we don't even move!!! The thing which makes us feel that we are moving is a phenomenon of light reflection. At every second the light projects an image of an object in our eyes and the combination of such images appears to be moving. But why the state of objects changes continuously? Because we are not moving but the time domain is moving. The time is due to the space fabric of higgs boson particles and they are not at all stable. On the contrary they vanish and regenerate thus changing the state continuously but we don't have the ability to move faster or slower than the time domain. But the nature has given us something very special and full of energy to solve this puzzle. It is commonly known as Brain.

4.The Ultimate Question: How Can We Travel In Time?

We often heard of the fact that we use only a mere of 2% of our brain and the prize goes to Albert Einstein who uses his brain to an extent of 11%. Ever imagine the daily chores of our life we are performing by using only 2% our brain, so what could we become if we use it to its maximum of 100%!!! Our brain is mainly divided into two parts namely conscious mind and subconscious mind. While awake we are using our conscious mind but the real power is in the subconscious mind. While we are sleeping our conscious mind becomes unconscious and the brain signals have direct access to our subconscious

mind. But as we don't have a perfect grip on our subconscious mind therefore all the pictures that we have captured while awoken seems to appear in our dreams but blurred and got mixed up. Our subconscious mind have the power to see the objects that cannot be seen even by telescope, know what others are thinking and even know the future. But now the big question arises how can we made our mind such that it can perform the above fictional works?

5.The Infinite Power Of Brain

So far we have discussed that the dark matter produces space and the dark matter is present everywhere in our universe. As the matter produces energy when collided or rubbed, the dark matter or antimatter also produces a certain amount of energy known as dark energy or cosmic energy. (Einstein said once in his childhood that darkness is nothing but the absence of light. But he was not true there. The darkness has its own origin. Even we are looking at the dark we observe some minute particles around us. That means they reflect light). This cosmic energy enables our subconscious brain to perform those impossible looking tasks easily. As we all know our bodies has thousands of cosmic points, and out of those, seven are there which has the ability to absorb the cosmic energy present in our whole universe. The cosmic points in our body are the specific points which provide sufficient condition to create an electromagnetic field which absorbs the cosmic energy from the space. It is well known that our universe is made up of 30% matter and 70% antimatter or dark matter. The energy we obtain through proteins, vitamins is the energy through matter which is not enough to do a lot of work that's why we often feel tired when we do a lot of work.

Konstantin Korotkov designed a GDV camera in which he visualized human energy field in the form of a huge circle around the human body known as aura. He postulated that when a human is fit he has a high magnitude of energy field and when he is tired after a trip his energy field is rough and less.

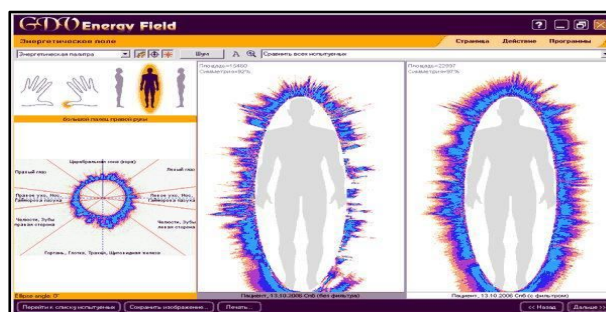


Figure 2

As we have discussed that a human body comprises of seven cosmic points that have the ability to absorb the most powerful thing on this universe i.e. cosmic energy. Our body works through the electrical signals sent through the brain via neurons. However while sleeping those electrical signals do not travel through the whole body but restricted only to some areas which is our heart and our throat. Rest all of the parts becomes unconscious. Those electrical signals strike at only one point again and again creating an attractive higgs field which absorbs the cosmic energy from the space. This cosmic energy surrounds our aura and starts to cure the weaknesses or disease in the human body from foot to head. This was experimented by Kirlian in Kirlian photography in which he accidentally notices that when a high voltage supply is connected to the photographic plate we could see a bluish image of a leaf on the plate.

However while sleeping since our thoughts or the electrical signals in our body are separated into two cosmic points the energy is not sufficient to perform the various fictional tasks mentioned above. Therefore we need to replicate the phenomenon into something that is capable of utilizing the full power of our brain as well as the cosmic energy. This could be done by concentrating the electrical signals through the electrodes that catches the signals and collides them with each other at a specific point. Some calculations have proved that a pyramid similar to the pyramid of Egypt captures maximum of cosmic energy at one-third of its height due to its specific structure pointing upwards. This could be the reason why all the holy structures like temple, church etc. have a pyramid like structure on the top. That continuous striking of the electrical signals creates a higgs field which in turn absorbs the cosmic energy and forms a link between that point and the space. It is thereby experimented that two human beings far from each other have been subjected to same magnetic field in their brain resulting in the fact the operations applied on the first can be felt by the other one. When the cosmic energy acquires sufficient intensity the electrical signals should pass through the cosmic tunnel whose variations with the passing could be recorded by a camera which records waves of frequency within cosmic range. If all the calculations were correct the human body could itself control the movement of those electrical signals and feel the space or anything where he wants to go. Those electrical signals could pass through cosmic strings present in the universe making a very long journey cover in a short interval of time rather than a complete human body travelling with a rather bigger ship containing a huge amount of fuel responding towards gravity and other aspects would be more difficult. And

if those electrical signals could pass through the border of the dimensions we could travel in fourth dimension where travelling in time is mere travelling some distance through time axis. We could see how the fourth dimensional beings look like.

6.Beyond The Fourth Dimension

So far we have learnt about the fourth dimension which is time. But what is beyond that fourth dimension. According to string theory there are eleven dimensions in our multi-verse that are stable. We know that we the 3-Dimensional beings see objects as 2-Dimensional so the 4-Dimensional beings will see objects as 3-Dimensional i.e. the front and back view could be seen at the same time and this continues on. As we know we see the image of the 3D objects in our eyes but we cannot have the image of our 2D shadow, the shadow cannot reflect light it is the wall that reflects the black image onto our eyes however the shadow is still there from the object to the screen or the wall but we only see it on the wall. Thus there is a possibility that we cannot see the shadow or image of the higher dimensional objects. They must have all the powers that we often see and fantasize about in fictional novels and movies. But now the million dollar question arises as what is the end of these long roads of dimensions, it is the ultimate dense light which was the origin and which was discussed earlier. If our multi-verse was a long string of dimensions after dimensions it could have no end. It must have an end and thus making our model of universe true.

7.Conclusion

Time travel is not at all a fictional story more. It has stepped up into the world of real. The only requirement is that we should think about the time travel in a different way and proceed towards it in a new approach not physically but mentally which is easier to perform. Some people thought it to be a philosophical concept which is not believed in the field of science. It is true that science today doesn't have a proof of all this but today's fiction can be tomorrow's reality. Nothing is impossible until we approach towards it with a positive approach and I personally have a feeling that we would be able to attain the powers that we once dreamed of and we could make this miracle happen which is known as TIME TRAVEL.

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