

The Mirror Dimension Theory

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Abstract—Most of the physicists and cosmologists believe in the concept of multiverse, In recent times, many physicists started searching for the proof of existence of multiverse and many new theories such as string theory and quantum physics shows a significant signs of existence of multiverse. There are different kinds of multiverse and one of them is mirror universe, there are remarkably very less researches conducted on mirror universe. The mirror dimension or universe is one of the type of multiverse which represents the opposite nature of our universe. In this paper, I will be discussing in-detail about the mirror dimension and also about the experiment named 'The Mirror Experiment' which i conducted for this study to find the answers for the questions including how the laws of physics works in the mirror dimension, the appearance of life in the mirror universe and finally the mirror dimension or universe is completely opposite to our universe or not.

I. INTRODUCTION

Multiverse is a breath-taking concept in the field of cosmology, many cosmologists and physicists are fascinated to discover many new things about the parallel universes. Mirror universe is one of the kind of multiverse which is the most popular parallel universe among many cosmologists. According to T. Max [1] there are four levels of parallel universes, the first level of multiverse suggests that there are infinite universes and every universe has a replica of earth and people on it, meaning that there are infinite copy of our universe in the vast infinite space. The Level 2 multiverse suggest that there are infinite universe and every universe is in a shape of post-inflation bubbles. This idea came from a theory called chaotic eternal inflation. In Level 3 multiverse T. Max [2] propose that each and every decision we make creates a new branch of universe, if there is slight variation in our decision, there will be new version of universe representing that decision is created and it continues in creation of new branches of universes, this idea is came from the theory of quantum mechanics. The Idea of level 4 multiverse comes from the mathematics and laws of physics, we use mathematics to describe the laws of physics and we all know that there are different forms of mathematics, if one form of mathematics describe one kind of physics, then for different forms of mathematics there should be different laws of physics, this idea urge that there can be multiple universes with different kind of laws of physics. From my standpoint, mirror dimensions are not much different from our universe. The Mirror dimension looks similar to our universe, we can find sun, earth, moon, mars, and all other remaining planets of our solar system, we can also find similar planets and galaxies of our universe

in mirror universe too. Many physicists and cosmologists believe that the mirror dimension is completely opposite to our universe, there are many theories suggesting that time runs backwards in mirror universe and the people live in the mirror universe will have a opposite behavior to the people live in our universe. I don't agree with any of these statements. The Mirror universe is not completely opposite to our universe, there is only one thing that is opposite in mirror dimension and it is the direction. For Instance, in our universe our planet(earth) rotates on its axis in counterclockwise direction, which is from west to east, but in mirror universe the direction will be opposite. The Earth in the mirror universe rotates on its axis in clockwise direction which is from East to West. To support my statement and prove that i am correct, i conducted an experiment which helps to identify the nature and laws of physics of mirror dimension or universe. I named the experiment as "Tejesh's Mirror Experiment".

By conducting this experiment, I am planning to achieve answers for below questions.

- **Q1:** Does mirror universe is completely opposite to our universe.
- **Q2:** How does humans look in mirror universe.
- **Q3:** Does the time move forwards or backwards in mirror universe.
- **Q4:** What is the difference between our universe and mirror universe.

Discovering answers for these questions helps in clearing many confusions and misconceptions on the concept of mirror universe. To gather more information and gain some crucial knowledge, i have conducted a literature review where i went through many research papers and books on parallel universe, which helped me in better understanding the concepts of multiverse. I have given a in-detail description about the experiment in methodology section and explained the results of the experiment in results section and finally i discussed about my findings in conclusion section.

II. LITERATURE REVIEW

The Concept of multiverse is not modern, it has been referred many times in the past. It was first cited in Srimad Bhagavad-Gita an ancient hindu scripture, in which lord krishna shows the multiverse and explains the whole theory of multiple universes to lord brahma. There has been lots of evidences in the past that ancient people were aware about the concept of multiverse.

Maharishi Veda Vyasa [3] written in his book Srimad

Bhagavad-Gita, where lord sri krishna elucidate the concept of multiverse to lord brahma. In bhagavad-gita, sri krishna intimated that there are infinite number of universes and explained how multiple universes are created and every universe has a different laws of physics and different possibilities.

Andrei Linde [4] explained briefly about the theory of multiverse and about the first models of inflationary multiverse. He also went through on different theory's of multiple universes. He also cited few hard to find papers which describes the first models of inflationary multiverse.

C. Bernard et. al [5] have presented their different views on theory of multiverse. We know, many theory of multiverse has been proposed after the new discoveries in particle physics and cosmology. Both the authors briefly explained few theories of multiverse and debated their opinions.

D. David [6] discussed about the flow of information, he believes that we can understand the structure of multiverse by analyzing the flow of information in any region where the latter occurs, he found that in any region the multiverse have extra formation.

George F. R. Ellis [7] went through many theories of multiverse and he discussed about the experiment results of string theory and recent discoveries which proves the existence of multiverse, he strongly believes the existence of multiverse and mentioned that multiverse have different initial state of matter with same laws of physics.

K. Michio et. al [8] discussed about the different concepts of parallel universes, they believe that there can be infinite number of parallel universes and some universes can have exact same replica of ourselves in different universes. They mentioned that there may be four different types of parallel universes, one type can be in the same space we are in, but we can't see it or reach it. In another type infinite number of parallel universes each may exist in a shape of a bubble in the giant cosmic ocean. In other scenario, parallel universe may have the exact same space and time of our universe, but they are in different dimensions makes it impossible to visualize and another scenario is that each and every parallel universe has different laws of physics, which makes them completely different to ours, but they are so far that their light can't reach us which makes impossible for us to see them. They believe that the new satellite data can be able to prove the existence of multiverse and string theories helps us to learn more about the different dimensions and the quantum physics is also revealing the facts that there could be parallel universes. To understand the concept of multiverse and make it simple, physicists divided the multiverse into four levels and the first level comes from an idea of infinite space and there can be infinite replicas of our earth and same kind of people in every replica of earth. F. Alex and T. Max [8] believe that the concept of infinite space is supported by the cosmic inflation theory. The Level 2 multiverse is nothing but every universe is in a shape of bubble, T. Max [8] explains that it is a tree like structure in the expanding space and every branch has the bubbles. Level 3 parallel universes are the consequences of many worlds, each and every decision

we make creates a new branch of universe, if there is slight variation in our decision, there will be new version of universe representing that decision and continues in creation of new branches of universes. so the concept of infinite universes comes from a idea that their may be possibility of infinite different decisions made. In Level 4 parallel universe, T. Max [2] apprise that we use mathematics to explain the laws of physics in our universe, so our universe follows a particular mathematical possibility. We all know that there can be different mathematical possibilities, if this is the case then there should be different worlds with different laws of physics, meaning each universe representing a different mathematical possibility.

Brain Greene [9] proposed nine different levels of multiverse, each and every level represents a different combinations and possibility of parallel universes. We all know that the space is infinite and it is very hard to distinguish the multiverse into a finite number of levels. I believe that in this vast infinite space, there will be infinite possibilities of multiverse. A multiverse can only be differentiated into infinite levels, so each and every level represents a possibility of parallel universes.

III. METHODOLOGY

I conducted an Experiment to find answers for few of my questions on mirror universe, i believe that this experiment will help me in perceive the answers that i expect. To conduct this experiment we just need a mirror and a object in-front of it. The object can be anything, for instance, it can be a car, human, buildings etc... In this experiment i am considering myself as the object, the results of this experiment will give us a clear understanding on the nature of the mirror universe.

A. *The Mirror Experiment*

Everyone is fascinated by the concept of multiverse and there are many theories like string theory and quantum physics [8] which provides sign's of existence of parallel universes. To conduct this experiment we need a mirror and a object. Many cosmologists and physicists [10] believe that the mirror universe is nothing but the mirror image of our universe, meaning that its a reflection of our universe. So the reflections of all the objects present in our universe represents the objects of the mirror universe. By this, we can say that the appearance of the objects in mirror universe will be same as the objects in our universe, this represents the level 1 universe of T. Max [2]. I have conducted this experiment twice to gather more results and information of mirror universe.

Experiment 1:

In Experiment 1, i myself was an object and i lifted my right hand, but my reflection in the mirror shows that i lifted as left, so there is a quite dissimilarity between our universe and mirror universe.

Experiment 2:

In Experiment 2, i myself was an object holding a deodorant in my left hand, but my reflection in the mirror shows that i am holding the deodorant in my right hand, so again there is a dissimilarity in the direction, between our universe and

mirror universe.

If mirror universe is just the reflection of our current universe [10], then the reflection of myself in both the experiments in the mirror is nothing but my replica in mirror universe, doing similar things, but opposite in direction. By conducting these experiments i am able to find answers for all of my questions and i have explained the experiments results very distinctly in the Results section.

IV. RESULTS

In this section, i am going to explain the results of my experiment. I have conducted a experiment twice which i named it as "Tejesh's Mirror Experiment". I have analyzed the results of both the experiments and i found many new things about the mirror universe.

Experiment 1: In Experiment 1, I myself considered as an object and i had a mirror in-front of me. I lifted my right hand and when i see my reflection in the mirror it's showing that i have lifted my left hand. We all know that mirror universe is nothing but the reflection of our universe [10]. We can clearly observe that there is a opposite nature in the direction between our universe and the mirror universe.



Figure 1: Our Universe



Figure 2: Mirror Universe

If we observe both the pictures, the Fig 1 represents the Tejesh from our universe who lifted his right hand and the Fig 2 represents the Tejesh from the mirror universe who lifted his left hand. By Observing both Fig1 and Fig 2 we can find that there is a opposite nature in the direction of the body movement. Let's elaborate this, let us consider Tejesh from our universe as T1 and Tejesh from mirror universe as T2. Both T1 and T2 are doing the same experiment in their respective universes. According to T1 he lifted his right hand, and he can see in mirror that his reflection shows that he lifted his left hand, but actually T1 lifted his right hand, why its showing that he lifted his left hand instead of right ?. The answer for this question is very simple, the mirror is not showing T1, instead its showing T2 who lifted his left hand in the mirror universe. As I said before, both T1 and T2 are doing this experiment. T1 brain told T1 to lift his right hand and T2 brain told T2 to raise his left hand. They both done what ever their brain asked them to do, there intentions are not different, they both intended to do the same task in both the universes, but their nature to complete that task is opposite. Let me explain it clearly, Tejesh(T1) in our universe is doing a task, the same task is also done by the Tejesh(T2) in the mirror universe too. T1 and T2 are not different, they are same, T2 is a replica of T1 living in the mirror universe. As mentioned in the T. Max [2] Level 1 multiverse, there are parallel universes which has replica's of all the planets, earth and the people living on it, meaning that every person has his own replica living in a parallel universe.

Experiment 2: In Experiment 2, I was an object holding a deodorant in my left hand and the reflection in the mirror shows that i am holding the deodorant in my right hand. So again, there is a difference in the direction of the action performed. Everytime i do this experiment i find that things are in the opposite direction of the object and the remaining everything is same between our universe and the mirror universe.



Figure 3: Our Universe



Figure 4: Mirror Universe

When i done the experiment for the second time, i observed the same kind of phenomena seen at the first time. This time i was holding an object in my hand. As we considered at the first experiment, let T1 be the Tejesh from our universe and T2 be the Tejesh from mirror dimension. we can see that, when T1 is holding the object in left hand, the reflection of T1 in the mirror shows that T2 is holding the object in right hand, so again there was a difference in the direction. In this experiment, T1 thought to hold object in left hand and T2 thought to hold object in right hand. There is no any difference in their thoughts, they are doing the same task in both the universes, but their direction of completing the task was different.

By Observing the results of both the experiments, I can say that the mirror universe is not completely opposite to our universe, the laws of physics in the mirror universe is different from our universe, but not fully opposite to us and mirror universe is just a replica of our universe, where it contains the replicas of all the galaxies, stars, planets, earth and people living on it. Also In both the experiments, we can see that the direction of the actions are opposite in nature, This can happen because of a small change in the laws of physics will alter the direction of all the objects present in that universe. When we compared our universe and mirror universe, we can see that in our universe the sun rises in the East and sets in the west, but in mirror universe the sun rises in the west and sets in the east, here the direction of sun rise and set are different. In our universe from north pole the earth rotates on its axis counter-clockwise direction and in south pole it rotates clockwise direction, but in mirror universe from north pole the earth rotates on its axis in clockwise direction and in south pole it rotates counter-clockwise direction. So again there is a difference in the direction of the action, but there is no difference in the action, the same action takes place in both the universe, but the direction of action taken place is opposite.

By Conducting this experiment, i am able to find answers for all of my questions but mirror dimensions and these answers will help in future to understand and do more

research on mirror dimension.

Q1: Does mirror universe is completely opposite to our universe ?

Answer: No, The mirror universe is not completely opposite to our universe, some people believe that its completely opposite and they think that people living in the mirror universe have a opposite behavior to the people living in our universe. For instance, if a person has a good behavior in our universe, then they will bad in the mirror universe, so this is completely false and its proven by the tejesh's mirror experiment that people's behavior and actions in both the universes are same and the only difference is their law of physics which leads a action to be performed in an opposite direction in the mirror universe when compared to our universe.

Q2: How does humans look in mirror universe ?

Answer: By Analyzing the results of the above experiment, we can say that people in mirror universe looks exactly same as the normal universe, the mirror universe is a replica of our universe and it contains the replicas of all the galaxies, planets, solar system, earth and people living on the earth. According to T. Max [2] Level 1 Multiverse, there are parallel universe which is a replica of our universe and i believe that mirror universe is one of those parallel universe.

Q3: Does the time move forwards or backwards in mirror universe ?

Answer: The time in the mirror universe runs counter clockwise, but that doesn't mean that time move backwards in mirror universe. The laws of physics of mirror universe is different from our universe and by the results of the above experiment, we found that the objects in the mirror universe are opposite in direction when compared to our universe, so the structure of the whole mirror universe is opposite in direction to our universe. So, even though the time runs in counter-clockwise direction, the time is actually moving forward in the mirror universe.

Q4: What is the difference between our universe and mirror universe ?

Answer: By Observing the results of the Tejesh's mirror experiment, i can say that the only thing that is different between our universe and mirror universe is the direction, The direction of the objects in our universe is completely opposite to the direction of the same objects present in the mirror universe.

Tejesh's mirror experiment is very simple, but quite powerful. Many physicists and cosmologists [10] believe that the mirror universe is nothing but the reflection of our universe and Tejesh's mirror experiment provides results based on the reflection of the mirror. By conducting this experiment we are able to find what actually a mirror universe is and how different it is from our universe. The only difference between our universe and the mirror universe is the direction choose to perform a action. By full analyzing the results of Tejesh's mirror experiment i found an extraordinary theory, which actually represents the

'Tejesh's Mirror Dimension Theory'.

If T2 is the mirror universe of T1, then T1 is the mirror universe of T2. Let me explain briefly, if T1 raised his right hand in our universe, then T2 would have raised his left hand, because of the opposite direction while performing the action. In T1's perspective he would have seen in mirror that T2 has raised his left hand in the mirror dimension, actually it's true, T2 raised his left hand in the mirror dimension. Now, Let's see in the T2's perspective, T2 raised his left hand but T2 sees T1 in mirror that T1 raised his right hand, its opposite direction for T2, but T1 raised his right hand in the normal universe.

T1 = Tejesh from Our Universe.

T2 = Tejesh from Mirror Universe.

If $T2 = MU(T1)$,

Then $T1 = MU(T2)$, $MU = \text{Mirror Universe}$

From the above mathematical equation, I conclude that if T2 is mirror universe of T1, then T1 is the mirror universe of T2. In a normal human language, our universe is the mirror universe of our mirror universe. So far, there is no any physical evidence of existence of mirror universe or any other parallel universes, but I hope in future, the satellites and new powerful telescopes definitely prove the existence of parallel universe. But, for now, I can conclude that if our universe is a mirror universe of another universe, we know that our universe exists and if our universe exists then our mirror universe also exists.

V. CONCLUSIONS

Multiverse is an Extraordinary concept in the field of cosmology and I was quite surprised when I was working on my literature review that very limited number of physicists and cosmologists worked on the concept of multiverse. When I started working on this research I had many questions that I am searching answers for and I went through many researches done in the field of cosmology and started understanding the behavior of the universe and its nature. I had more interest on the concepts of multiverse and I wanted to dig deeper and gain more knowledge on it and that's when I got an interest to work on the mirror universe. Mirror universe is quite popular concept in the multiverse theories, but very less people worked on it. I wanted to know more about the mirror universe, so I started working on it and this research paper is the result of it. In this paper, I shared all my knowledge and experience of my work on mirror universe and the discoveries I made. I discovered a new way of identifying how things work in the mirror universe, I named the experiment of 'Tejesh's Mirror Experiment', which helped to discover many new things about the multiverse and parallel universes. I also conducted a literature review where I found many things about the multiverse and mirror universe. T. Max [1] divided multiverse into 4 levels, each level represents a different theory of multiverse and I also studied few theories on mirror universe [10] and I proved some of them are wrong using 'Tejesh's Mirror Experiment'. I conducted 'Tejesh's mirror experiment' twice and analyzed the results of the experiment and I found answers for all of my questions and

also many new things about mirror universe. I found that mirror universe is not completely opposite to our universe, the difference is only in the direction, because the structure of the mirror universe is opposite in direction to our universe and that makes the mirror universe direction-ally opposite to our universe. There is a theory on mirror universe, that time runs backward in mirror universe, but I proved that the theory is wrong and I found that time doesn't run backwards in the mirror universe, but actually runs forward in counter-clockwise direction. My results propose that mirror universe is nothing but replica of our universe and it also contains the replica of all the galaxies, stars, planets, solar system, earth and people on the earth. So same kind of people live in mirror universe, their appearance and actions are same as our universe, but the direction of the action performed is different. For Instance, house faces south direction in our universe but if you see my house in mirror dimension it will be facing north direction. If I come out of my house, I will face south direction in our universe but in the mirror universe I will be facing north direction. There is no difference in the structure of my house or color, it looks same in both the universes, but the only difference is in the directions. All the activities that we do in our daily life are also performed in the mirror universe too. Another example is, consider a girl walking in north direction and suddenly a car coming in the same direction hit her from the back, this Scenario will also occur in mirror dimension, but the direction will be opposite, the girl and car will be in the south direction. The activities and disasters which are occurring in our universe will also take place in mirror universe, the only difference is, it happens in opposite direction. Finally I want to conclude that If T2 is the mirror universe of T1, then T1 is the mirror universe of T2.

T1 = Tejesh from Our Universe and T2 = Tejesh from Mirror Universe.

If $T2 = MU(T1)$, Then $T1 = MU(T2)$.

From the above mathematical expression, I conclude that our universe is the mirror universe of our mirror universe.

VI. FUTURE GOALS

I am Passionate about cosmology, in future I will be working in the different parts of cosmology and I am also fascinated about the concept of multiverse, I will be working on different kinds of parallel universes and study about the possibility of different laws of physics. The study on parallel universes will be more popular and very common in the future, many physicists and cosmologists started working on the concepts of parallel universes and there are many theories like string theory and quantum physics, which supports the existence of parallel universes. I am waiting for the upcoming findings of James Webb telescope and I believe that the new intriguing things that James Webb going to find will help the researchers and cosmologists in better understanding the nature of our universe. My study on the mirror universe, will help many physicists and cosmologists in the future and it can be used to find many new interesting facts about the multiverse.

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