Hypothesis

Does Our Universe Rotate and Float - Like Galaxies -Along with Other Universes Inside a Shared Space?: A Prediction

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Does Our Universe Rotate and Float-Like Galaxies-Along with Other Universes Inside a Shared Space?: A Prediction

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Highlights

- The observers predicted several universes theories.
- Is there only one universe or several universes?
- A new prediction about our Universe that rotates and floats inside a shared space, which we called Henry's Universe.

Abstract: We can define the Universe as all that exists or all we can ever see. Each of the definitions will open doors for different theories. For example, is our Universe unique to our solar system? Are there other universes? Does our Universe parallel to another universe or inside another Universe? We can ask many questions related to our Universe. Observers have predicted theories about the Universe, such as Bubble, Oscillating, Holographic, Electric, Parallel Universe (Multiverse), Inflationary multiverse, Quantum multiverse, and Brane multiverse. Some of the Universe types are briefly explained and compared in this article. This article aims to predict a new Universe theory in the literature. The observers' data shows that Earth rotates around the Sun while the solar system rotates inside the Milky Way Galaxy. We also know that galaxies rotate around themselves and float inside the Universe. Our article predicted that our Universe is rotating and floating inside a shared space, which we called Henry's Universe.

Keywords: universe; multiverse; brane universe; parallel universe; henry's universe

Introduction

We are living on a small planet inside space. When we look at the sky, we can see a thousand stars every night. How are the stars' lights reaching us? How many of them are there? How our solar system and the Milky Way galaxy are floating inside the Universe? Are there more universes? If there are other universes, how can we define them? We are asking many more questions related to the Universe. Furthermore, observers are trying to find the answers to these questions, such as Bubble (Hawking 1982; Auci 2021), Oscillating (Markov 1984; Gorkavyi 2021), Holographic (McFadden 2010; Jalazadeh 2021), Electric (Thornhill 2007), Parallel Universe (Multiverse) (Tegmark, M., 2003), Inflationary multiverse (Garriga, J. et al. 2006), Quantum multiverse (Nomura, Y., 2012), and Brane multiverse (Araujo, E.S.) (Vukotic, B., 2021; Ghaffarnejad, H., 2022).

Although the word "universe" literally means all that exists, the longer we have studied the world, the larger it appears to have become (Kydd, A. H. 2022). Therefore, we have changed the term usage from geocentric to Cosmo centric view (Robinson, J. 2022).

Nowadays, most cosmologists accept the Big bang theory, in which the Universe started in a state of significant compression some 14 billion years ago (Krechet, V. G., 2022). Here, one can never see further than the distance light has traveled since the Big Bang, the horizon of the observable Universe (Anninos, D., 2022). However, it would be perverse to claim that nothing exists beyond this

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distance. Observers would expect other unobservable expanding domains that are still part of our Big Bang (Rafelski, J., 2022). Big Bang theory is also another research topic by itself. However, we would like to mention that Big Bang was at the end of one Universe, such as dying stars and reborn. Were there other colonies in the previous universe destroyed before Big Bang?

Recent developments in cosmology and particle physics have proposed radical theories related to different Big Bang predictions that might be entirely disengaged from ours (Gaztanaga E. et al., 2022). On the other hand, there are many motivations for invoking the multiverse. For example, our Universe generated the inevitable outcome of the physical process (Martins 2020); our Universe appears to be fine-tuned for life and consciousness (Linde 2017); everything that can happen in physics happens. Therefore, the multiverse arises in many contexts, and one needs to distinguish between these in assessing the idea.

Current Multiverse Theories

The creation of the Universe has many theories. Some observers claim that the Universe already exists (Manning et al. 2015; Lebowitz 1984; Lagos et al. 2014; Wheeler 1982; Sataloff, Johns, and Kost 1954), and some claim that the Universe was created with the big bang (NASA 2020; Porter Molly, Watzke Megan 2020; Zbiral 2016). We live in a vast –still unknown space of either universe theories. The Universe is vast, so we cannot further see our latest telescope and technologies (Domínguez and Gaite 2001; Wikipedia contributors 2020; Asor Rosa 1997; Suntola 2018). The Universe could be finite (Peebles 1981) or infinite (Nolan 1999), and still, we are not sure yet. We are located inside the colossal Universe and can see only in the observable area. For example, an ant on Earth may imagine that Earth is vast and infinite (Figure 1). Giordano Bruno speculated that the Universe might be infinite with an infinite number of inhabited worlds in the 16th century (Karolides, J Nicholas. Bald, Margaret. Sova 2013). Our Universe contains many solar systems is becoming a common idea in the 18th century (Sataloff, Johns, and Kost 1954). Edmund Fournier D'Albe, an Irish Physicist, suggested that there might be infinite universes at different scales by the early 20th century(O 1933).

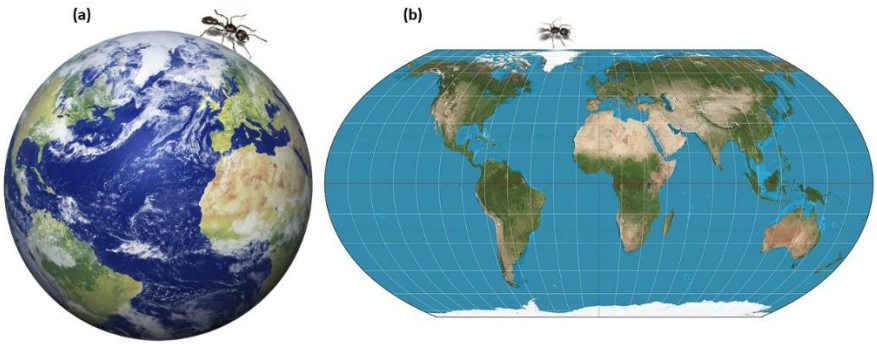

Figure 1. An illustration of the size of the Universe by the ant's view of Earth-(a) earth has a closed shape (3-D) and (b) open shape (map -2D). "An ant located somewhere on the Earth can see the planet as infinite from its point of view; on the contrary, Earth has a limited size. Is our observable Universe as same as the ant's view, so we imagine our Universe is infinite?".

Cosmologists and Physicists created many models related to the universe size, such as closed, open, or flat (Can be seen in Figure 2) (Linder 2003; Bahcall 2015; Barrow, Galloway, and Tipler 1986; Ratra 2017; Bucher, Goldhaber, and Turok 1995).

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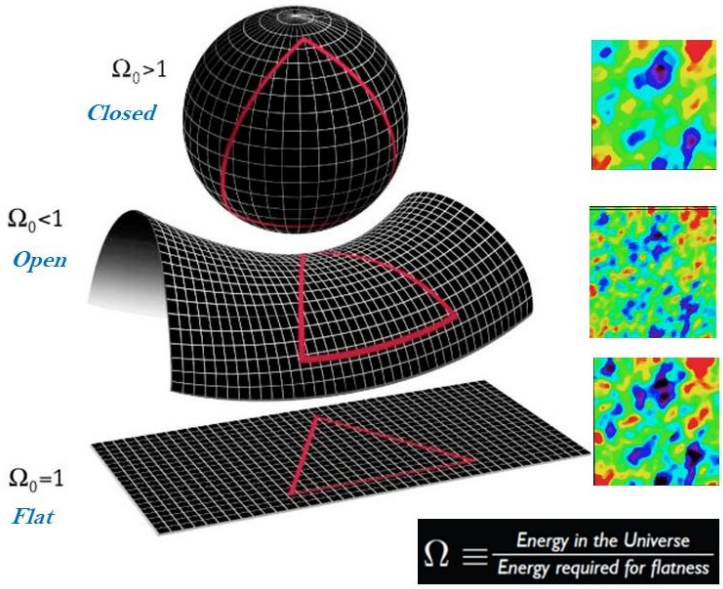

Figure 2. The Universe's shape: closed, open, and flat (Credit to NASA & GSFC 2013).

Observers started new ideas about the expansion of the Universe after Einstein's general relativity theory (Einstein and Straus 1946; Böhmer 2016; NASA 2020). In 1929, Edwin Hubble proved that the Universe was expanding rapidly (Hubble 1929; Pappas 2020). However, his calculation was ten times higher than our recent calculations, but his expansion was right (Kirshner 2004). Thus, the Universe is expanding; the Universe's shape is either closed or open, as shown in Figure 3 (Riess 2020). A fundamental assumption is that their dimensional space is closed for a holistic view of space as an energy system. For example, a three-dimensional" surface" of a four-dimensional sphere requires the fourth dimension with the three-dimensional space (Suntola 2018). Either way, the Universe can expand in closed or open Universe models.

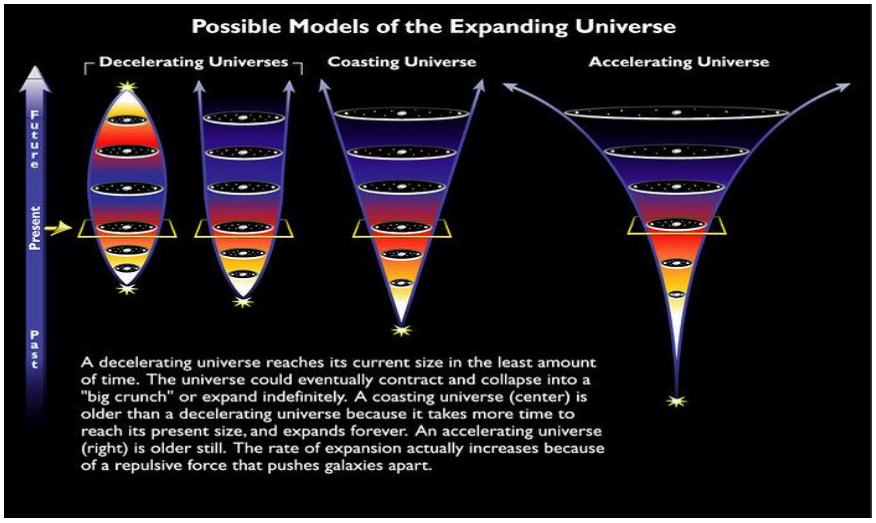

Figure 3. The expansion of the Universe in the open or closed (Credit to NASA & ESA, 1999).

A new theory is necessary when existing theories grow in complexity, fail to predict matching observations or produce a coherent picture of reality. Physicist Alan Guth speculated that the eternal chaotic inflation theory builds from cosmic inflation theory that generates multiple universes. He formulated cosmic inflation to solve several deep problems in the cosmology of our Universe — for example, why was the early Universe too homogeneous (Guth 1981; Guth and Weinberg 1983)

As we know, our Earth is rotating around the Sun (Song et al. 2005; Jarosz and Szczygielska, n.d.; Sataloff, Johns, and Kost 1954). The solar system that includes our Earth and Sun rotates inside

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the Milky Way galaxy (Jarosz and Szczygielska, n.d.). The galaxies, along with stars, are floating inside the Universe. The Universe depends on the open or closed version; the galaxies will float inside the indefinite or definite size of the Universe. Instead of one universe theory, many universe theory ideas are becoming respectable among scientists-physicists- who tend to push ideas to the limits of what is conceivable. There are almost too many other potential universes. Physicists have proposed several candidate forms of "multiverse," each made possible by different physics laws (Martins 2020). Parallel/alternative universes (Figure 4) are among the many universe ideas that doppelgangers live much like, perhaps almost identical to ours. This idea tickles our ego and awakens our fantasies, which is double why the multiverse theories, however far-out they seem, enjoy so much popularity. For example, some books and movies are related to parallel universes, such as The Man in the High Castle, Sliding Doors, and Fringe.

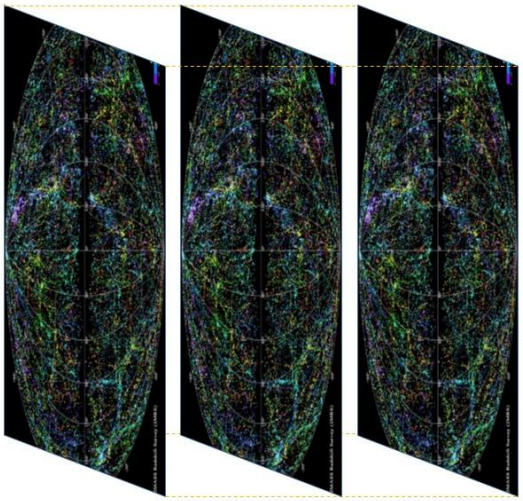

Figure 4. An illustration of the alternative (parallel) Universe model.

Another model of the Universe is the inflationary "balloon" theory. In this scenario, our observable domain is a tiny part of a single bubble that underwent an extra-fast accelerated expansion phase at some early time because of a scalar field (Guth 1981). Inflation implies that the observable domain is a tiny patch of a much larger universe-some versions and predicts that there could be many other bubbles corresponding to other universes with different properties spread out in space. A variant of this idea is "eternal" inflation, in which the Universe is continually self-reproducing so that there is an infinite number of bubbles extending in both space and time (Figure 5) (Linde 2017; Vilenkin 1983).

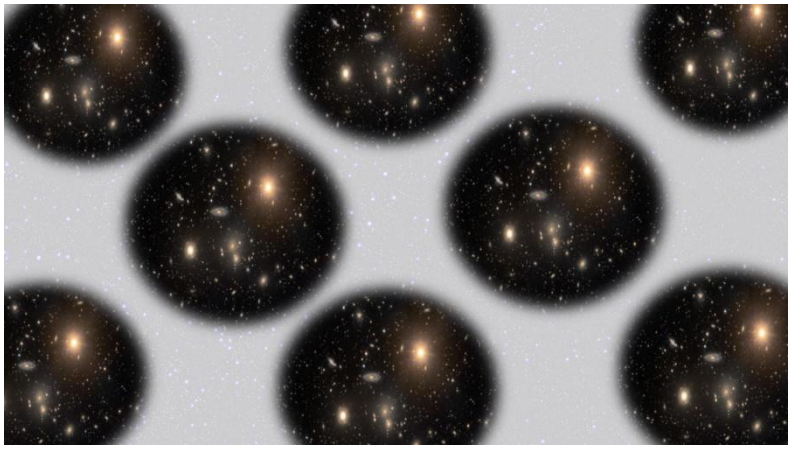

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Figure 5. An illustration of the inflation (balloon) Universe model.

Finally, yet importantly, in one version of multiverse theory, as can be seen in Figure 6, our Universe could correspond to a four-dimensional" brane" embedded in a higher dimensional "bulk" (Gauntlett 2001; Randall and Sundrum 1999b; 1999a). In this case, there might be many other branes, and collisions between the branes might even generate a Big Bang of the kind that initiated the expansion of our Universe. Thus, this method might repeatedly give the cyclic model a form (Paul J . Steinhardt and Neil Turok 2006).

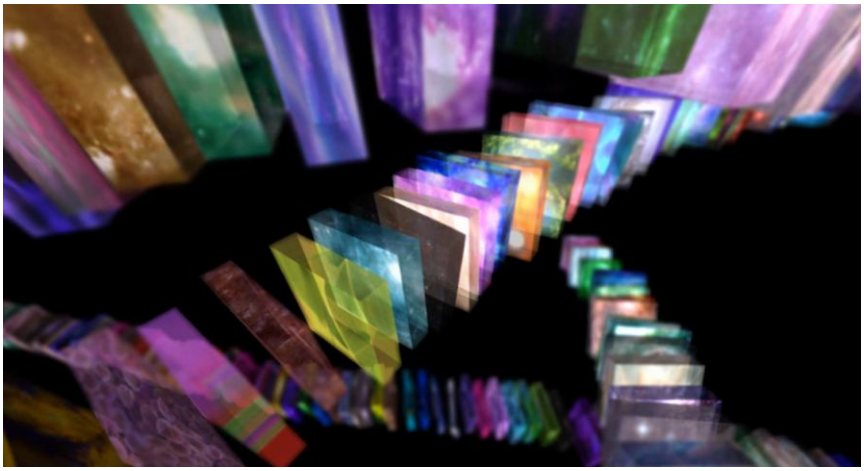

Figure 6. An illustration of the Brane Universe model (Credit to NASA) https://svs.gsfc.nasa.gov/10137.

Besides these theories, the Oscillatory Universe (Durrer and Laukenmann 1996; Markov 1984; Kragh 2009), Holographic Universe (Afshordi et al. 2017), Quantum Cosmology Universe (Gorobey and Lukyanenko 2015; Yurov and Yurov 2019), Electric Universe (Peratt 2012), Patchwork Universe (Bojowald 2007), and Cosmic Natural Selection Universe (Ellis 1999) are some of the other universe theories in the literature.

Our Multiverse Prediction Theory-

With the fractal theory, everything is similar, from large to small. For example, the Earth rotates around the Sun inside the solar system, inside the Milky Way Galaxy. Thus, galaxies float inside our Universe. We applied this rule and predicted that our Universe is rotating and floating like galaxies inside space with other universes.

An inflationary, Brane, or flat Universes separated from each other with different dimensions to the best of our knowledge. In our model, our Universe is rotating and floating inside space like galaxies, as shown in Figure 7.

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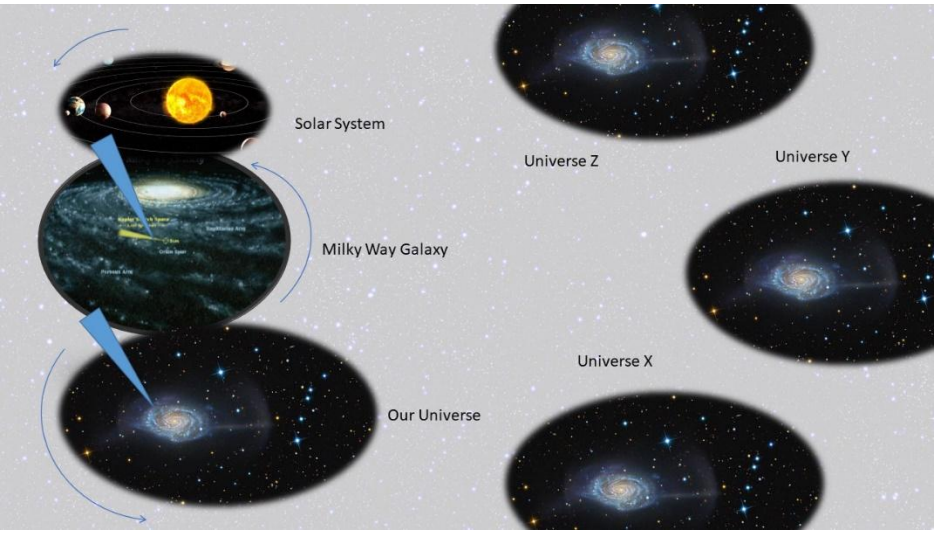

Figure 7. An illustration for the rotating and floating Universes in a different dimension-space, a Henry's Universe model.

With this proposal, many universes are floating inside one space. As an example of stars born in our Universe, our Universe could be born in that space dimension with a possible big bang theory. There could be twins planet that looks like Earth in other universes or some wormhole between universes.

Conclusions

The suggestion, entirely different from our view of the Big Bang, is much more challenging. This multiverse proposal usually arises from attempts to understand how our Universe originated. However, cosmologists have begun to address this question with remarkable success in the last few decades. Therefore, if one has a model for generating our big bang, it is not surprising to produce other big bangs. The problem is that physicists have widely different views on how the different universes might arise, so there are competing models for the multiverse.

From this point of view, here, we showed a different view of the multiverse proposal. In our model, universes have been created with the big bang theory in one shared space. However, instead of the other multiverse theories, such as parallel or brane universes, universes rotate around themselves and float inside space. Universes are the limited size but expanding and flat shape of such galaxies. Of course, readers will need to draw their conclusions, but we hope to convey the nature of the controversy.

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