

Intriguing Universe

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The universe is more mysterious and stranger than it seems. And somehow it always managed to throw shades of intrigue toward us. Like all other sci fi fanatics the idea of parallel universe always intrigued me. I would often imagine what would it feel like if there were other universes besides ours, where all the things I have done in this life played out in alternate realities? This concept is a facet of the astronomical theory of the multiverse. This idea is pervasive in popular culture. I often browse the internet to explore such stuff. Besides DC and Marvel always acted as fuel to this.

I found that there actually is a bit of evidence out there for a parallel universe. Around 13.7 billion years ago every element in the cosmos was an infinitesimal singularity. According to the big bang theory, some unknown trigger caused it to expand and inflate in three dimensional space. Here's a question rise are we the only universe out there?

According to a 2012 space.com article there are at least five theories why a multiverse is possible. On the subject of parallel universes it said- "going back to the idea that space time is flat, the number of possible particle configuration in multiple universes would be limited to $10^{10^{122}}$ possibilities. So with an infinite number of cosmic patches, the particle arrangements within them must repeat infinitely many times over. This means there are infinitely many parallel universes: cosmic patches exactly the same as ours, as well as patches that differ by two particle positions and so on down to patches that are totally different from ours.

Stephen Hawking's last paper before his death also deals with the multiverse. About the theory he told Cambridge University in an interview, "we are not down to a single unique universe, but our findings imply a significant reduction of the multiverse to a much smaller range of possible universes."

Now there's also plenty scope of argument against a parallel universe. A 2015 article on Medium but astrophysicist Ethan Siegal agreed that space time could go on forever in theory, but said that there are some limitation with that idea. In his article he mentioned that the expansion at the beginning of the universe took place exponentially because there was so much "energy inherent to space itself". But over time that inflation obviously slowed those particles of matter created at the big bang are not continuing to expand, he pointed out among his conclusions: that means that multiverses would have

different rates of inflation and different times for inflation. This decreases the possibilities of universes similar to our own.

Reading all these things I have mixed opinions on the subject, which makes it much more interesting. There's a lot more to learn and explore. As Eden Phillpotts said," The universe is full of magical things patiently waiting for our wits to grow sharper".