

# The Multiverse Paradox

Far and beyond in space, multiple universes like ours exist. Interestingly, the calculated fact of the probability of their existence is ‘Zero’. Read on to explore the existence of paradoxes beyond logic

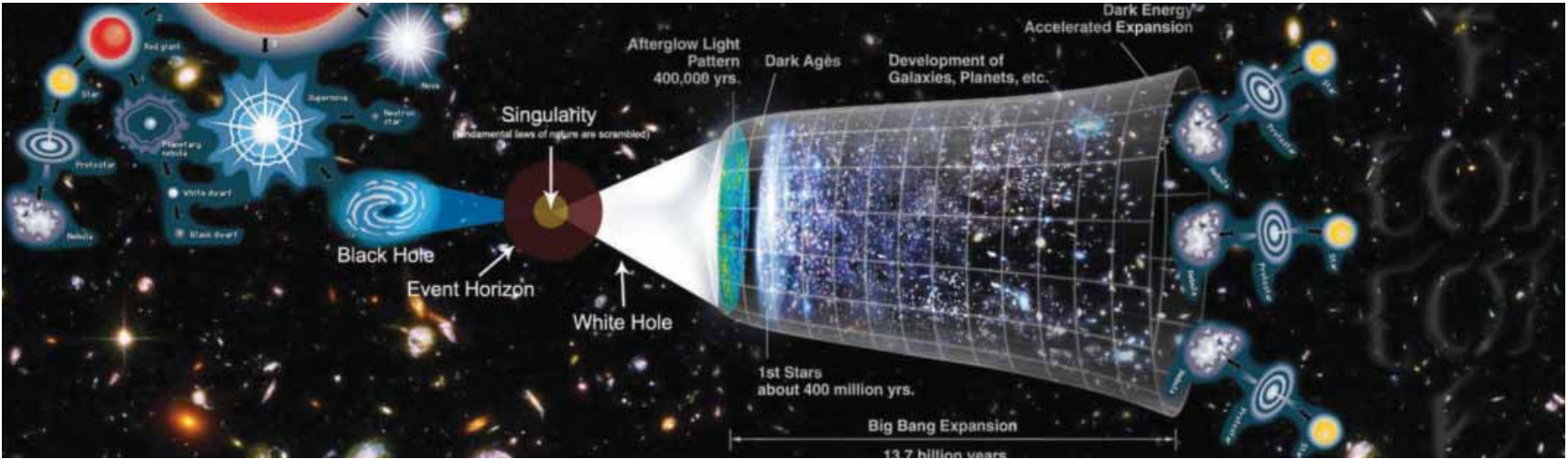
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“I’ll tell you one thing about the universe, though. The universe is a big place. It’s bigger than anything anyone has ever dreamt of before. So, if it’s just us... seems like an awful waste of space, right?”- Ellie Arroway, Contact, 1997.

The Multiverse is a hypothetical set of possible universes, including the universe in which we live. Together, these universes comprise every recorded thing that we know of: time, matter, flowing energy, the entirety of space, and all the physical and mathematical laws that govern them. Multiverse theory states that there are alternative realities that function in parallel and simultaneously along with our own.

This means, that in an alternative universe, there might be another reader just like you, who is currently reading a GT article and is also beginning to understand that there might be another reader like him; comprehending the same thing, but in an alternate universe. If this were to be true, then this could go on for infinite number of times.

There are many instances where people have felt the effects and consequences of shifting realities. Confused? Here are few real life, overwhelmingly surprising instances of apparent alternate universes which exist.



### The Mandela Effect

This is a phenomenon where a large group of people unanimously agree on a certain fact; only to realize that the ‘fact’ in question is not true and perhaps, never existed. The name-sake of this phenomenon arises from a common misconception regarding Nelson Mandela’s death. Many people have said they are ‘certain’ that Nelson Mandela died while he was still in prison in the 1980s. Some even claim to have seen footage of his funeral on national television. Here’s the catch: Nelson Mandela died on December 5, 2013 in Johannesburg, aged 95.

How can so many people believe in a certain misconception? Are they living in a parallel universe? Did time trav-

ellers travel back in time and affect the present? We’ll let you decide as you read some more instances.

### Pikachu: Do I see you?

We’ve all grown up watching Pokémon, and obviously Ash wears a red hat and Pikachu is yellow and with a black mark on the end of his tail, right? Wrong. Pikachu’s tail is all yellow. There is no black, there never was.

### Kit-Kat: Give me a Break.

Kit-Kat, it comes in red packaging and it is delicious. Here’s the question though: Does the word ‘Kit Kat’ has a dash in between? If you believe there is, you might be living in an alternate real-

ity. Because there is no dash between ‘Kit-Kat’. It’s just ‘Kit Kat’.

### Look out, Luke.

Calling all Star Wars fans out there: If you also believe that famous dialogue spoken by Darth Vader was, “Luke, I am your father” you might be living in alternate reality. Because the original dialogue is “No, I am your father.” It is surprising to understand how can so many people almost hear the same dialogue playing out in their heads? Is this just a misremembered dialogue, or is there more to this than meets the eye?

### What did Mama Say?

In the movie Forrest Gump, when For-

rest is talking to a stranger while waiting at a bus stand, most people remember him saying that his Mama always said, “Life is like a box of chocolates”. You guessed it right. This never happened. The real dialogue is “Life was like a box of chocolates”; In absolute disregard of what you may feel and happen to know.

The list is endless. However, if this can go on for an infinite number of times, what’s interesting to know is that the product of an infinite number of values less than one is, eventually, zero. Therefore, a Multiverse reality should have ‘Zero’ probability of existing, and that, is the wonderful, and innate ‘Paradox of the Multiverse concept’.

# Tsunami Tectonics

As global warming continues the world has recently witnessed an upsurge in the number of natural disasters like cyclones and tsunamis. Shivang Gupta, AIS PV, X brings us a visual explanation of ‘Tsunamigenesis’.

### 4: Approach

When Tsunami waves with high wave periods reach coastline they are slowed down dramatically due to the friction arising out of their collision with the rising sea bed. However, as the velocity decreases, the wavelengths become shorter but the amplitude of the waves increases. This increases the height of waves.

### 5: Impact

Eventually, the giant waves with height often reaching 5-10 meters because of compressed wavelength, collide with the shore causing huge damage. Since these giant waves form and crash in quick succession, water overflows the coast line causing massive floods, uprooting of trees and destruction of people and property.

### 1: Tectonic

Tectonic plate movement causes an upthrust in the form of earthquakes and ocean floor volcanoes . It causes huge quantities of water to be displaced within a very short span of time, generating massive amount of energy.

### 2: Build

The energy generated from the oceanic quake propagates an array of simple, progressive oscillatory waves over the ocean surface in ever widening circles at a speed of 500 mph.

### 3: Travel

As the wave periods grow so do the wavelengths of Tsunami. Wave periods are the length of time for which successive crests and troughs pass from a single point and these can vary from 5 mins to more than an hour.

## TSUNAMINOMICS

- The first recorded tsunami occurred off the coast of Syria over 4000 years ago.
- In 1883, when the island volcano of Krakatoa, Indonesia erupted, tsunamis swept as far away as the English Channel.