

# TIME AND SPACE

5:00AM, 02-06-26

## 1. Beginning

In the early phase of summer days as I sit and ponder upon how far I have come since the inception of my childhood days, it is a trail of ups and deep trenches. The times have changed a lot from the early 2000s. The memories of my childhood, as most of the 90s kids, when waking up early for school and having fun playing with my friends & cousins in the evening was normal. Now, coming in my adulthood, I feel it to be cherished moments. Not being so nostalgic about it, the present holds new wonder and beginning. As I pen my current thoughts, bear with me to introduce the centre of today's write-up which is '*Time and Space*' (reverse order of physics terminology). A immediate question pops up, *why is it in reverse?* So, let's begin it onto the journey into the mystery of the theme.

## 2. Towards the interesting part..

Do you think that time & space are intertwined with each other? Or is it the case that there is an order to it? A person from physics background would want to talk about it in great leaps that s/he may lose the notion of time. But let's be real & deal with the elephant sitting opposite to us on the table, that is space. Now, a spider starts to crawl from the ceiling, spinning & latching onto wooden items, just to land onto the table. Here, we have seen that arduous efforts of spider to cover the distance from ceiling to the table which is tiny for the elephant but not so much for us. It's like chicken & egg problem. Let's move on to the next part, where new are riding a spaceship at a velocity comparable to speed of light. Do you feel the thrust of the boosters shooting for the *\*INTERESTING\*?! An earthling sitting in his/her room would definitely not see us ride, even with the advanced tech from space agencies. But there is a spider which is very eager to sit beside us (on the table). So, what do you think now? Is it the space that cross the line first or time?*

## 3. Kinda boring!?

Well, we have to come up with something empirical. Einstein told us that space & time are relative. And we know that there are natural patterns & order to the wonders of the universe (including earth). For the interest of the scientific community, it's part of the chaos theory to understand the random outcomes for seemingly deterministic world with different initial condition. So, if time is considered first, then it doesn't matter much if we are sitting in a nice & cozy room near a river or traveling in a spaceship. We perceive the spider to crawl at the same speed in both cases. But if relativistic space is considered first, then the speed of the spacecraft matters. Such is the wonder of these 2 words which has boggled us humans.

## 4. Make it cool, maybe..

So, are we in the position to consider that there is a determined order. Which party wins, space or time? Now, recall about my childhood memory of summers, which has happened 15-20 years back. We have just thought about it in such a short duration of time but it is not present in the physical space or maybe, present in our mind. Does that mean that we thought-travelled in the past? Coz it has taken the physical form in our brain, but not at the same scale (hint: quantum). Here, comes the point that time comes first i.e. coin it as *Time & Space*.

## 5. Ending is the new beginning!

*Just a thought experiment about the 2 famous words of modern physics SPACE & TIME, lead to interesting and new things. So, I believe that we are entering in the new era of 21st century, which can lead to new wonders in the space for our future self, considering that we remain on the same planet & not jump onto the multiverse notion.*

*Your host & pen pal, Mandeep signing off, GODSPEED!*