

If One Can Occupy a Place at Two Different Times, Why Cannot One Occupy Two Different Places at the Same Time?

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Abstract: Nature is somewhat a mystery for us. It seems never ending mystic nature of nature for us. No matter how much deep we go, it seems something still left to be done. Natural mystery is something we cannot measure with quantitative parameters. It seems qualitative measurement is a better idea over quantitative measurement of nature. It is because we cannot formulate nature as a linear system or a simple system or a direct system etc. Many phenomenon of nature involve nonlinear exponentials, sinusoidal, random quantities etc. The same thing applies to space and time relationship. One cannot be smoothly transformed to the other. If it would be, then we could have applied the same rules to time as what we use for space. The problem is that space and time cannot be linearly transformed to one another. Space and time holds nonlinear relationship very much like mass and energy does in Einstein's equation. If K is a nonlinear parameter, then we can relate space S with time T as $S = KT$ (1), Or, $S - KT = 0$, Or, $S + (-K)T = 0$. The equation tells that the space has its own time. If the total Amount of time of the Universe is transformed into space with the above formulation, we would have zero space. Similarly, if the whole space would be transformed into time, we would have zero time. A zero is divided into space and time with a negative nonlinear relationship parameter K , which also prevents for smooth transformation between space and time as K is negative. Thus there is a negative K which prevents smooth transformation between space and time, and hence, both space and time are highly stable in the Universe.

Keywords: Nature, nonlinear exponentials, Zero Space and Zero Time, Negative nonlinear relationship parameter, Smooth transformation between space and time

1. Introduction

There is asymmetry between space and time [1, 2], although one can be smoothly transformed into the other but in a nonlinear way. One of the evidence of this asymmetry between space and time is that the second law of thermodynamics [3, 4], the entropy of a completely isolated system increases (or at least not decreases) with time [5, 6]. Increase of entropy with time itself is an asymmetry [7, 8]. Another evidence of nonlinear relationship established by Albert Einstein between energy and mass [9, 10] is that one can be smoothly transformed into the other in a nonlinear way. Here is the Einstein's famous equation-

$$E = mC^2 \quad (2)$$

Where E is the energy, m is the mass and C is the speed of light which is a constant (1, 86, 000 miles per second or 3, 00, 000 kilometer per second, the universal speed limit of the Universe) [11, 12]. Thus, the total energy of a mass is given by the mass-energy equivalence equation [13, 14]. It can be extended to the relationship of total mass of the Universe and the total Energy of the Universe. If the total mass of the Universe is M_{total} and total energy of the Universe is E_{total} then with the help of Einstein's equation,

$$E_{total} = M_{total}C^2 \quad (3)$$

$$\text{Or, } E_{total} - M_{total}C^2 = 0$$

$$\text{Or, } M_{total}C^2 - E_{total} = 0$$

$$\text{Or, } M_{total}C^2 + (-E_{total}) = 0 \quad (4)$$

It implies that the energy spent to create mass M_{total} is the positive energy $+E_{total}$ and the same amount of energy present in the energy form in the Universe which is the negative energy of the Universe $-E_{total}$ such as gravity, thus the net total energy of the Universe is zero.

$$E_{net_total} = E_{total} + (-E_{total}) = 0 \quad (5)$$

Where E_{net_total} is the net total energy of the Universe.

But both total energy $-E_{total}$ and total mass M_{total} are in stable form because one cannot smoothly transform into other. The negative sign in the total energy $-E_{total}$ creates repulsion in the smooth transformation between mass and energy. If it would not be, then the Universe would not be highly stable with mass and energy as in the present state.

2. The Conservation of Mass and Energy

The total mass of the Universe is finite and it cannot be created or destroyed which is the conservation of mass [15, 16]. It also implies that total energy (negative) of the universe is also finite and it cannot be created or destroyed which is conservation of energy [17, 18]. It also implies that there is very strong natural resistance (the negative sign in the equation 5) in the smooth transformation between mass and energy [19, 20]. On psychological point of view, we need to break the encoded natural resistance for smooth transformation between mass and energy [21, 22].

3. Why the Universe Exists out of Nothing

The Universe has a positive energy $+E_{total}$ that created mass M_{total} and a negative energy $-E_{total}$ mainly in the form of gravity, the gravity is a negative energy in the sense that one has to do positive work against it to get rid of it. Thus the net total energy E_{net_total} is zero.

$$E_{net_total} = E_{total} + (-E_{total}) = 0$$

If the negative energy $-E_{total}$ were converted to mass $-M_{total}$ the net mass M_{net_total} would be zero.

$$M_{net_total} = M_{total} + (-M_{total}) = 0$$

Thus, we can conclude that we, the human being, the living beings, the world, the Universe exist out of nothing. A dead zero is divided into positive mass M_{total} and negative energy $-E_{total}$ for the existence of the Universe as a system as we see it. Thus, the Universe is the way it is [23, 24].

4. The Conservation of Space and Time

The total space of the Universe is finite and it cannot be created or destroyed which is the conservation of space. It also implies that total time of the universe is also finite and it cannot be created or destroyed which is conservation of time. It also implies that there is very strong natural resistance (the negative sign in the equation 1, $-K$) for the smooth transformation between space and time. For psychological point of view, we need to break the encoded natural resistance $-K$ for smooth transformation between space and time.

5. Why both Space and Time have Directions

$$S_{total} = KT_{total}$$

Or, $S_{total} - KT_{total} = 0$

Or, $S_{total} + (-K)T_{total} = 0$ (6)

The Universe has a total space $+S_{total}$ and total time T_{total} , and then one can be smoothly transformed into the other and vice versa. The negative sign indicates there is strong natural resistance for the smooth transformation between space and time. Because the time has a direction (say, forward direction as positive $+T_{total}$) [25, 26], the space also has direction positive $+S_{total}$. If for some reason, either one reverse, the other one will reverse too. Thus space and time both have directions

6. The Net space and the net time of the Universe is zero

If we can transform the whole amount of time into space the net space will be zero. The Universe has a total space

$+S_{total}$ and total time T_{total} , then the total negative space is $-KT_{total} = -S_{total}$

$$S_{total} + (-S_{total}) = 0$$

Thus the net space of the Universe would be zero. Similarly, if we can transform the whole amount of space into time the net time will be zero. The Universe has a total time $+T_{total}$ and total space $+S_{total}$, then the total negative time

$$\text{is } -T_{total} = \frac{+S_{total}}{-K}$$

$$T_{total} + (-T_{total}) = 0$$

Thus the net time of the Universe would be zero. Thus, the space and time of the Universe exist out of nothing.

7. Conclusion

We, the human beings, the world, the Universe exist out of nothing. There are validities on the conservation of mass and conservation of energy. Similarly, there are validities on conservation of space and conservation of time in a similar way as of mass and energy. The space and time of the Universe exist out of nothing too. There is asymmetric, nonlinear relationship between space and time makes them apparently opposite as negative sign indicates in the equation 6. Because of the asymmetry, nonlinear and apparently opposite stand of space and time in equation 6 (also mass and energy in equation 4), on psychological point of view, one can occupy the same place at two different times but one cannot occupy two different places at the same time (an apparently opposite effect).

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