

The contraction of the universe with the speed of light theory

Abstract

The Universe constricts at the speed of light c . This theory is based on some assumptions of the "The Expanding Spacetime Theory" [1], but instead of using measurements of distance, speed, mass and time as fourth dimension in an attempt to prove that the universe expands in space and time, I support that the universe has only one absolute and constant value which is the speed of constriction.

Any measurement of distance and mass in the Universe is relative, having a different value every given moment.

The change of scale measurement by the constriction of the Universe is the way in which the Universe exist, phenomenon that can not be observed due to the fact that our sense organs and our instruments of measurement and observation are parts of the same universe and everything constricts at the same speed

The constricting Universe is infinite and the time is the measure of movements taking place in the Universe, according to Infinite Universe Theory [2].

Postulates:

1. The Universe constricts at the speed of light c .
2. The laws of physics, are the same in all inertial frames.
3. The constricting Universe is infinite in space and in time.
4. The every observer measures the same value c named the speed of contraction, in all inertial frames.
5. The radiations and the force fields are oscillations of all components of the universe, that are felt as waves and forces, due to the contraction of the universe, with the speed of light c .
6. Gravity is the effect of the contraction of the universe.

Preliminaries

In Newtonian mechanics, the invariance of the physics equations to Galileo's transformations is based on the notions of universal time and absolute space: time flows the same way at any point in space, and the properties of space are time independent. The invariance of physics equations corresponds to the idea that the result of an experience is the same in any inertial reference system. By the end of the nineteenth century, these premises were in perfect agreement with the experience, with difficulties emerging with the discovery of electromagnetic waves (including the very nature of light) and the writing of Maxwell equations for the electromagnetic field. The notion of elastic wave, as is known in mechanics, implies an elastic medium in which interaction between neighboring points of space leads to the propagation of a disturbance, the velocity of propagation of the wave being measured against this medium.

It was considered that light is an electromagnetic wave. By the end of the 19th century, by analogy with mechanical waves, it was assumed the existence of an environment that fills the whole space, called ether, to ensure the propagation of electromagnetic waves. It has been accepted from the outset by a series of contradictions, already from the way it was defined, because the ether should have been a perfect fluid to not disturb the movement of the bodies, and on the other hand it would should be a solid body because electromagnetic waves are transverse waves and, as is known from mechanics, transverse waves can not propagate through fluids but only through solid media.

However, the element that led to the abandonment of the ether-based model and, at the same time, led to the fundamental modification of mechanics and implicitly of physics as a whole, by essentially changing the way of thinking and defining time and space, represented it the Michelson-Morley experience.

This result has not only led to the abandonment of the ether model but also to the radical change of the laws of mechanics and implicitly of physics.

To be able to explain this behavior, Einstein, in order to be able to deduce the laws and equations generating these phenomena, maintained the postulate that the results of the experiences must be the same in any inertial reference system but changed the postulate of universal time with the postulate of the constant of the light velocity in vacuum, c to any reference system, this becoming a universal constant. Like Einstein I go from the hypothesis that I define as postulated as the speed c is

constant but not as the velocity of electromagnetic waves in the void but as the speed of contraction of the universe.

To conclude :

- a) Modern physics and cosmology must be changed.
- b) The unresolved problems of quantum physics not exist.
- d) The dark matter can be made up of the components of the universe, all of which are physically below the limits of the human devices. Dark energy is the energy of dark matter in contraction with the speed of light.
- e) The results of the theory of relativity can be partially explained using the laws of classic mechanics but are also modified, considering that the universe is contracting with a constant speed, the speed of light.
- f) -conventionally accepted fundamental interactions can be interpreted from the point of view of classical mechanics.

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References

- [1] Masreliez C.J., The Expanding Spacetime Theory, *Astroph. & Space Science*, 266, Issue 3, pp. 399-447 (1999)
- [2] Glenn Borhardt, Infinite Universe Theory, 2007, Proceedings of the Natural Philosophy Alliance