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Time is a Superluminal Phenomenon

P. Georgiev
peter_g_bg@yahoo.com

Abstract

The abstract contents the hypothesis that Time travels with a speed bigger then the velocity of light. Some effects connected with the light traveling such as the relativity of simultaneity are considered in it. Two arguments are presented in the maintenance of the hypothesis that Time is a superluminal phenomenon.

Introduction

Time is one of the biggest mysteries of Physics. In the classical Physics, Time is considered scalar i.e. described by number. It is known that Time has also direction, i.e. it can not be described entirely by a number. In classical mechanics, Time is homogenous. It is known that Time was created after the Big Bang. I accept that Time travels in the Space.

Smarandache (1998) proposed that as a consequence of the Einstein-Podolsky-Rosen paradox, there is no speed limit in the universe (i.e., the speed of light is not a maximum at which information can be transmitted) and that arbitrary speeds of information or mass transfer can occur.

Time as a Superluminal Phenomenon

Observing distant galaxies we see the Universe in an earlier Time because light travels with a constant speed in our frame of reference. But Time continues for both the galaxies and observer which means Time travels with superluminal speed. This is an additional argument that there are speeds greater than the velocity of light. Therefore Time is a superluminal phenomenon. Equally, as we consider that a light ray travels from point A to point B then Time travels for both points so that it is greater than the velocity of light. Les us suppose a very long train travels with constant speed V in the direction of fig. 1.

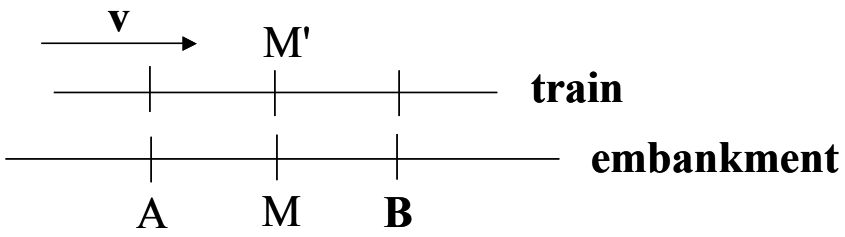

Fig. 1.

People who travel in this train will take it as a starting point. They consider all events regarding the train. In that case every event on the railway will take place in a fixed spot of the train. The definition of simultaneity of the train could be given in the same way as regarding a railway embankment. Let two bolts of lightning, A and B appear. When we say lightning A and B are simultaneous according to the railway embankment we consider the following: light rays from point A and point B of lightning fall meet in the middle point M of the embankment AB segment. But the events A and B correspond to the fixed points A and B of the train. Consider M' as the middle point of the AB segment on the traveling train. In the exact moment of the lightning strike, (regarding the railway embankment) point M' coincides with M. [1] But it moves to the right as per fig. 1 at the speed of the train. If an observer sitting at point M' in the train was not in motion, the lightning rays A and B would reach him simultaneously. But in fact he travels towards the light ray from point A (relative to the railway embankment). Therefore the observer on the train will see the light ray from point B point later than the light ray from A. That is why the observers taking the train as a starting point have to conclude that the lightning at point B arrives later then the lightning from A. Therefore, events that are simultaneous regarding the railway embankment are not simultaneous regarding the train and vice versa. This is the well-known argument called the relativity of simultaneity. This is further evidence that Time travels with superluminal speed. While light travels with constant speed, Time travels for both events in the both co-ordinates. Light reaches the two lightning in different time but Time passes for both.

Reference:

A. Einstein, Relativity The Special and the General Theory, Methuen &Co. Ltd. London.