

Movement with Velocity $v > c$ Once More

Zygmunt Morawski

ABSTRACT: The situation in Relativity after a possible discovery of the movement with the velocity $v > c$ has been discussed.

The fact that the neutrinos may move with the velocity $v > c$ isn't a surprise for me and it doesn't abolish no means Special Relativity.

Moreover, if we want to quantize the gravity, Relativity can't forbid the motion with the velocity $v > c$, because the quantum mechanics doesn't forbid it.

The fact, whether the neutrinos have the complex component of mass moving in the dimensions perpendicular to the four-dimensional Einstein space-time, will be the real test for Special Relativity.

So it is necessary to analyze carefully the dependence $v(t)$ for the neutrinos at the angle, if their velocity may be interpreted as the projection on the 4-dimensional space-time.

But there is the necessity to introduce the following corrections to Relativity:

- Relativity must be joined with the conceptions of the more dimensional space-time than 4, at least 8-dimensional, although more dimensions don't disturb.
- it is necessary to introduce the principle that the mass of inertia is equal to the sum of masses arising from all interactions and not only the gravitational mass (it is necessary to consider the interactions not discovered yet). It doesn't disturb the bases of General Relativity, because all interactions are equivalent to gravity and all charges are equivalent to the masses.
- however, the Dirac-Einstein equation and Einstein-Rarita-Schwinger equation pitch up for the present the situation but every theory will be replaced once by the better theory.