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RELATIVITY THEORY

Discovery of an Important Property of Lorentz's Transformations that Denies Einstein's Theory

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Taking Lorentz's transformations:

$$\begin{cases} x = \dfrac{x_0 + v t_0}{\sqrt{1 - v^2/c^2}} \\ t = \dfrac{t_0 + v x_0/c^2}{\sqrt{1 - v^2/c^2}} \end{cases} \Leftrightarrow \begin{cases} v^2(c^2 t_0{}^2 + x^2) + 2vc^2 t_0 x_0 + c^2(x_0{}^2 - x^2) = 0 \\ v^2(c^2 t^2 + x_0{}^2) + 2vc^2 t_0 x_0 + c^4(t_0{}^2 - t^2) = 0 \end{cases}$$

Equalling the coefficients:

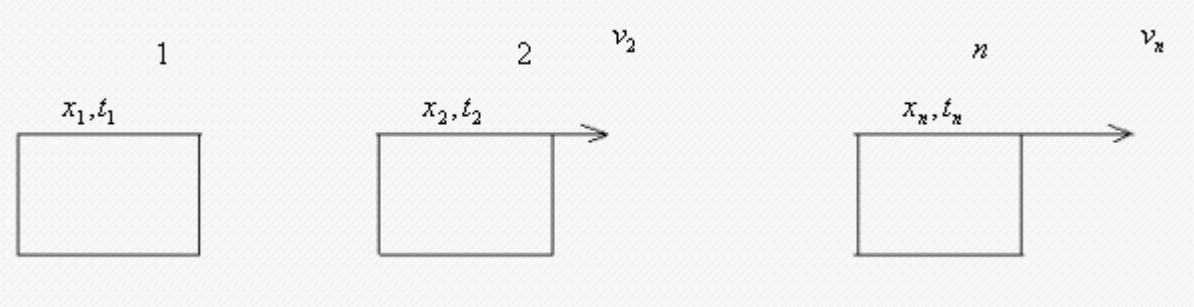
$$\Leftrightarrow c^2 t^2 - x^2 = c^2 t_0{}^2 - x_0{}^2$$

The classic theory says that the value of this equation is variable for any junction of two coordinated systems. But that is wrong because the same Lorentz's transformations prove that this value is equal to a constant.

$c^2 t_n{}^2 - x_n{}^2 = k$ (constant)

Demonstration

For any relative coordinated systems using randomly one of them as reference:



$$\begin{cases} x_2 = \dfrac{x_1 + v_2 t_1}{\sqrt{1 - v_2^{\,2}/c^2}} \\ t_2 = \dfrac{t_1 + v_2 x_1/c^2}{\sqrt{1 - v_2^{\,2}/c^2}} \end{cases} \Leftrightarrow c^2 t_2^{\,2} - x_2^{\,2} = c^2 t_1^{\,2} - x_1^{\,2}$$ for any and all v_2

$$\begin{cases} x_n = \dfrac{x_1 + v_n t_1}{\sqrt{1 - v_n^{\,2}/c^2}} \\ t_n = \dfrac{t_1 + v_n x_1/c^2}{\sqrt{1 - v_n^{\,2}/c^2}} \end{cases} \Leftrightarrow c^2 t_n^{\,2} - x_n^{\,2} = c^2 t_1^{\,2} - x_1^{\,2}$$ for any and all v_n

$$\begin{cases} x_n = \dfrac{x_2 + (v_n - v_2) t_2}{\sqrt{1 - (v_n - v_2)^2/c^2}} \\ t_n = \dfrac{t_2 + (v_n - v_2) x_2/c^2}{\sqrt{1 - (v_n - v_2)^2/c^2}} \end{cases} \Leftrightarrow c^2 t_n^{\,2} - x_n^{\,2} = c^2 t_2^{\,2} - x_2^{\,2}$$ for any and all v_n-v_2

$$\Leftrightarrow c^2 t_1^{\,2} - x_1^{\,2} = c^2 t_2^{\,2} - x_2^{\,2} = \ldots = c^2 t_n^{\,2} - x_n^{\,2}$$

so $c^2 t_n^{\,2} - x_n^{\,2} = k$ (constant)

The physical reality is not made of closed particular systems. When we realize that all *n* possible referentials are related by any one relative condition we verify that the equation value must be a physical constant. So, time is a function of the space and not an independent variable. It means that the time is not a coordinate, so space-time does not exist.

According to that, space and time in Lorentz´s equations, are wavelength and

period, so:

Speed of the electromagnetic waves

$$c^2 t_n^{\,2} - x_n^{\,2} = k \;\wedge\; W_n = \frac{x_n}{t_n} \;\wedge\; f_n = \frac{1}{t_n} \Leftrightarrow W_n = \pm\sqrt{c^2 - k f_n^{\,2}}$$

The calculation of the K value gives $3 \times 10^{-27}\, m^2$ so it is possible to measure the slower speed of the X-Rays in the vacuum with the Earth's gravitational field.

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