
ERRATA

Erratum to: “Equations of Relativistic and Quantum Mechanics and Exact Solutions of Some Problems”
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In page 7, the text:

This is a property of invariance of the representation of the four-dimensional momentum \mathbf{P} through the velocity of the reference system $\boldsymbol{\beta}' = \mathbf{V}/c$.

Should be read as follows:

This is a property of invariance of the representation of the four-dimensional momentum \mathbf{P} in terms of the velocity of the particle $\boldsymbol{\beta} = \mathbf{v}/c$.

If to consider the representation of the four-dimensional momentum of an immobile particle with a mass m by transition into the reference frame moving with the velocity $\boldsymbol{\beta}' = \mathbf{V}/c$, for the four-dimensional particle momentum \mathbf{P} we have m

$$\mathbf{P} = (\varepsilon, \mathbf{p}) = \left(\frac{mc}{\sqrt{1-\beta'^2}}, \frac{mc}{\sqrt{1-\beta'^2}} \boldsymbol{\beta}' \right), \quad \mathbf{P}^2 = \varepsilon^2 - \mathbf{p}^2 = (mc)^2. \quad (22)$$

This is a property of invariance of the representation of the four-dimensional momentum \mathbf{P} through the velocity of the reference system $\boldsymbol{\beta}' = \mathbf{V}/c$.