

Abstract Submitted
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A Simple Pythagorean Interpretation of $E^2 = p^2c^2 + (mc^2)^2$ J.A. TOBAR, E.L. VARGAS, V.M. ANDRIANARIJAONA, Department of Physics, Pacific Union College, Angwin, CA 94508 — We are considering the relationship between the relativistic energy, the momentum, and the rest energy, $E^2 = p^2c^2 + (mc^2)^2$, and using geometrical means to analyze each individual portion in a spatial setting. The aforementioned equation suggests that pc and mc^2 could be thought of as the two axis of a plane. According to de Broglie's hypothesis $\lambda = h/p$ therefore suggesting that the pc -axis is connected to the wave properties of a moving object, and subsequently, the mc^2 -axis is connected to the particle properties. Consequently, these two axis could represent the particle and wave properties of the moving object. An overview of possible models and meaningful interpretations will be presented.

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