

Abstract Submitted
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Possible origin of inertial mass and of De Broglie wave. ALEXANDER PANIN, Utah Valley State College — Inertial mass naturally originates in the system of standing relativistic waves (i.e., waves moving with the same speed c in any reference frame) - just as a by-product of Lorentz transformations between observer's and standing wave's reference frames. Another mathematical by-products are origination of De Broglie wavelength (of the standing wave packet), of the second Newton law (in correct relativistic form), and of least action principle. So it is possible that everything in our universe (=all "elementary" particles we know) consists of only one object - relativistic wave moving with only one speed - c . Mathematical details are presented in the paper.

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