

Abstract Submitted  
for the APR07 Meeting of  
The American Physical Society

**On the Correct Analysis of the Foundations of the Special Theory of Relativity** TEMUR Z. KALANOV, Home of Physical Problems, Pisatelskaya 6a, 700200 Tashkent, Uzbekistan — The correct theoretical analysis of the generally accepted foundations of the special theory of relativity is proposed. The principle of the unity of formal logic and dialectics is a methodological basis of the analysis. The result is as follows: the foundations (i.e., the interpretation of Michelson-Morley's experimental data and calculations, the contraction hypothesis and the Lorentz transformation formulae, concept of space-time, Einstein's formula expressing equivalence of mass and energy) contain logical errors and are not consequence of any postulates. The existence of logical errors is irrefutable proof of incorrectness of the special theory of relativity. The following correct theories and principles are proposed: theory of time; theory of space; the quantum theory of constancy of light speed; the principle of equivalency of mass and energy; the principle of objectivity of human knowledge; the theory of system of reference.

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Date submitted: 12 Jan 2007

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