Abstract Submitted
for the APR14 Meeting of
The American Physical Society

Test of Relativistic Kinetic Energy Equation BHARAT CHAUDHARY, No Company Provided — Kinetic energy of a body equals the work done on it by a force, constant or variable. Force is the time rate of change of momentum. Momentum is mass times velocity. According to special relativity mass and velocity both are variables. Therefore, the differentiation of their product (momentum) has two terms, both are variables. One term is the product of mass and acceleration. The other is of velocity and the rate of change of mass. They together equal the applied force. Since the force equals the sum of two variable terms, it also becomes a variable even if it was a constant earlier. Therefore it is a flaw. There are two more flaws in the force equation. They are found by putting the force equal to zero. When this is done, the acceleration doesn't become zero. This is physically incompatible and is therefore a flaw. The other flaw in the equation is found by integrating the right side terms and evaluating the constant of integration from the initial conditions. Then we get a term containing logarithm of zero that is undefined, therefore the expression so obtained is meaningless. Since it comes from the relativistic definition of force, therefore we conclude that this definition is wrong. Thus we find that there are three flaws in the relativistic definition of force. They all make the relativistic equation of force wrong.

Bharat Chaudhary
No Company Provided

Date submitted: 12 Jan 2014 Electronic form version 1.4