

Re: Time Dilation reduces the Speed of moving Objects

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On Sep 19, 4:14 am, Peter Riedt <rie...@xxxxxxxxxxxx> wrote:

On Sep 19, 3:31 am, Darwin123 <drosen0...@xxxxxxxxxx> wrote:

Isn't this an internal contradiction? You assumed that the object was going at 200000 km/s. That was the number you plugged into the time dilation formula. If the speed changes to 14907 km/s, then you have to place that new speed into the time dilation formula. Then you get a new speed, and you have to plug the speed in again. This results in an infinite series.

The result is the spaceship goes at 0 km/s. It can never go at any other velocity. Every time it starts to move, you have to shrink the speed repeatedly until it is zero.

Funny! The way physicists use the Lorentz transformation is they plug the speed of the object into the time dilation formula only once. One justification is that recalculating the rate of ticks in a clock doesn't change the original speed of the space ship. that the measuring instrument in the spaceship are in one and only one reference frame.

If that is too abstract for you, go back to the approach used by H.A. Lorentz.

Assume that the spaceship contains a clock made entirely of electrically charged particles, that is somehow held together only by electromagnetic forces. Say the clock is made of protons and electrons, with no neutrons. The spaceship is moving at 200000 km/s. All the particles in the clock are moving at 200000 km/s, with a slight variation due to the mechanism of the clock. Moving electric charges generate an extra magnetic field as well as an altered electric field. The magnetic fie