

**Time Dilation - Inertia controls and governs relativity of space-time**

Copyright © Nillo Gallindo nillo.gallindo@bol.com.br

**Abstract: Inertia governs and controls the relativity of space-time**

When a particle is almost at the speed of light, that is, almost 300,000km / s, if it exists only for two micro seconds, it will travel only a distance of 600 meters. But how is it possible that this particle in its two micro seconds of life flying at almost 300,000km / s travel the distance of 9,000 meters?

Yes, it is true, it flies 9,000 meters but due its time of existence it could only fly 600 meters! For this to be possible it takes one of these two phenomena to happen:

- 1) the space of 9000 meters needs to contract to 600 meters or
- 2) the time of two microseconds needs to dilate to become long.

Here I am talking about the relativity of space time and the particle is the muon. The muon particle is created by the collisions of the cosmic rays in the atoms of the atmosphere and arrive until the ground, traveling 9000 meters. But they could only exist for 600 meters, never 9000 meters!

The truth is: time dilates for muon.

Einstein said, physicists say, everyone says there is dilation, but no one explains why it happens. What is the cause of time dilation?

Einstein taught that energy has inertia in the way that matter has inertia.

The great speed of the muon gives rise to great kinetic energy in the particle. If energy has inertia as Einstein taught, then there exists in the muon particle a great INERTIA.

Newton's Law of Inertia teaches that inertia opposes the motion of a body. Imagination is more important than knowledge as Einstein said, so imagine a clock in the muon. At great speed, the great kinetic energy in the watch produces great inertia, and the great inertia holds, it brakes the movement of the clock and the time delays. Thus, time dilates and the two microseconds that would allow the muon to fly only 600 meters, becomes two microseconds dilated allow the muon to fly 9000 meters. And what governs the relativity of space time? It is the inertia.



For me this is the muon watch and the man is called INERTIA

Illustration of the Unicamp University - São Paulo - Brasil