Re: time dilation

Source: http://sci.tech−archive.net/Archive/sci.physics.relativity/2008−04/msg02122.html

- *From*: rbwinn <rbwinn3@xxxxxxxx>
- *Date*: Thu, 24 Apr 2008 22:30:44 −0700 (PDT)

On Apr 24, 9:07ýpm, THE_ONE <flopp...@xxxxxxxxxxx> wrote:

> On Apr 10, 7:40ýpm, rbwinn <rbwi...@xxxxxxxx> wrote:
>
> > The work of famous scientist Galileo Galilei provides us with a question about time dilation and Dr. Albert Einstein's statement that the laws of physics must remain the same in all frames of reference. Galileo carried two lead weights of unequal sizes to the top of the leaning tower of Pisa and dropped them at the same time, disproving the idea of scientists of his time that the heavier of the two weights would strike the ground first. ýOf course, it took some time before scientists accepted the results of his experiment. ýThey did not all believe in the principle of equivalence the moment the two lead weights hit the ground.
> > ý ý ý ý This brings us to another question about falling objects which arises from the idea of dropping an object in a moving train car, which writers of textbooks about relativity often use to show how the Lorentz equations work. ýIf a weight is dropped from the top of a train car to the floor, it falls a distance of y'. ýIn any transformation equations this is always expressed as y'=y. ý The object travels the same distance vertically in S' as it does in S.
> > In Galileo's equations, it takes the same amount of time for the object to travel from the roof of the train car to the floor in either frame of reference. ýt'=t.
> > ý ý ýIn the Lorentz equations, a clock in S', the frame of reference of the train car, is slower than a clock in S, the frame of reference of the train tracks.
> > t'=(t−vx/c^)/sqrt(1−v2/c^2). ýAccording to this equation, it takes less time for the object to fall from the roof of the train car to the floor in S' than it does in S. ýSo how are the laws of physics the same in both frames of reference?
> > ý ý ý If a clock in S ticks once while an object is falling in the train car, it will not tick in S' until after the object has hit the floor. ýThis means that the object is falling with a faster velocity

in S' than in S.
ý ý ý I am sure that some of our scientific friends who believe in a
distance contraction will be anxious to explain this phenomenon.
Robert B. Winn

If you accept the fact that all objects are in constant motion within Time−Space, and that the magnitude of this motion is equivalent to the magnitude of motion of the speed of light, then you will eventually come up with all the equations that agree with today's eqations.

See −> ýhttp://www.outersecrets.com/real/forum_againstum2.htm− Hide quoted text −

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Well, you have an interesting idea which agrees somewhat with some results I have taken from the Galilean transformation equations. If w is the velocity of light, then
x=wt
x'=wn'

x'=x−vt
wn'=wt−vt
n'=t(1−v/w)

n' is the time on a moving clock where t is the time on a clock at rest. From S', the frame of reference in motion, velocity is calculated from a clock that is running slower than a cesium clock at rest in frame of reference S, so the velocity of one frame of reference to the other is faster as measured by the slower clock.
Consequently, if velocity is 1/4 c as measured from S, S' sees it as −1/3c. If velocity is 1/3 c as measured from S it is −1/2c from S'.
If velocity is 1/2c from S, it is c from S'.
This provides quite a contrast with the interpretation Einstein gave the Lorentz equations, which by his mathematics show that nothing can ever attain the speed of light, therefore, light does not exist.
Robert B. Winn
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