

## Re: Circular motion in SR

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- *From:* rbwinn <rbwinn3@xxxxxxxx>
  - *Date:* Wed, 26 Mar 2008 19:57:52 -0700 (PDT)
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On Mar 26, 5:30am, PD <TheDraperFam...@xxxxxxxx> wrote:

I don't know where you got that idea.

Why would they say standard temperature and pressure if it did not matter?

For the second, they *\*don't\** say. Where did you get the impression they do?

Well, I remember that from the high school books I had when I was in school. So you are saying that the transitions of a cesium isotope molecule do not change if you increase the temperature?

My comment stands, regardless of which distant standard is used.

Well, my equation stands,  $t'=t$ . There is no distance contraction.

Your equation relies on the redefinition of the second in such a way that it no longer becomes a locally reproducible standard. It also makes the laws of physics different in every reference frame. For a reference frame that is accelerating, it makes the laws of physics *\*continually\** changing.

$n'=t(1-v/c)$  So how is  $n'$  different from  $t$ , other than rate?

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You find this still more satisfying somehow and don't see a problem with it. That's fine, you just go on thinking that and using that approach. I'm sure you'll get through life just fine using it. Don't mind us while we take a different approach.

Well, yeah, but I think you are way too expensive for what you do, which is tell people that a distance contraction exists. All you are really saying about my equations is that you are too lazy to do the math. You would rather pretend that there is a distance contraction.

A clock that is stationary relative to the sun has the same rate. It's just divided in different increments.

By that definition, any clock has the same rate as the sun. It is just divided into different increments.

to do that because  
scientists say it has been determined by  
experiment that light travels  
at a rate of  $c$  relative to a clock in the  
laboratory.

That's correct. But the rate of the clock is different than that  
of  
the rotation of the sun, depending on the velocity of that  
clock  
relative to the sun.

Yes, I calculate that rate to be  $t' = t(1 - v/c)$ , where  $t$  is a clock that  
is not moving relative to the sun.

We just use the equation  $t' = t$  to keep  
distances straight. A distance  
in  $S'$  is the same as a distance in  $S$ .  
We can calculate the time of a clock in the  
laboratory from the  
information in the Galilean transformation  
equations.

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Why calculate it when you have a local clock with which to \*measure\* it? If you \*calculate\* it using the Galilean transforms, you find the rate of the local clock doesn't agree, the rate of oscillations of the transition of cesium isotopes doesn't agree, the rate of radioactive decay doesn't agree, the rate of bacterial growth doesn't agree, the rate of hair going gray doesn't agree. If you use the local clock, these disagreements all disappear. The only thing that is different is that the local clock doesn't agree with the sun's rotations when it has a velocity relative to the sun.

Well, someone at the local clock might want to know how a second of his time compared to a second as measured by  $t'=t$ , a clock not moving relative to the sun. Or someone at the  $t'=t$  clock might want to know how fast the transitions of a cesium isotope molecule are in  $S'$ . Of course, scientists already know, but other people might be interested.

Well, it does to me if I do not have to imagine a distance contraction the way scientists require.

Why is that a problem?

Well, for one thing, no distance contraction exists.

Certainly it does. It's been measured. With rulers. It's not complicated. Measuring the length of something is a pretty straightforward procedure. When you measure something that's moving by that simple procedure, you find you get a different answer. This also has measurable effects in other simple measurements. For example, density is mass divided by three distances and so you'd expect density to change because of length contraction as well. There are simple ways

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to measure density. When you measure the density of something that's moving by those simple procedures, you find that the density is different. There are other similar cases. It's a \*measured\* effect.>

Well, I do not believe what you are saying. How do you measure something that is moving and get a shorter length?

ýIt is like going

into court and asking for trial by jury because the Constitution guarantees the right to trial by jury in all criminal prosecutions, and the judge and all lawyers say, You cannot have a trial by jury in this criminal case.

So what does that mean, my criminal prosecution is not included in all criminal prosecutions? ýThe more people have been to college, the more untruthful they are.

Robert B. Winn

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