Re: More Trouble for Relativity

Source: http://sci.tech−archive.net/Archive/sci.physics.relativity/2004−09/4615.html

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From: Henri Wilson (*H_at_..(Henri*)
Date: 09/17/04

Date: Fri, 17 Sep 2004 00:49:53 GMT

On 15 Sep 2004 16:29:02 −0700, valls@icmf.inf.cu (Rafael Valls Hidalgo−Gato)
wrote:

>H@..(Henri Wilson) wrote in message news:<p94vj0tco167te2mjgovs4bgm0m771pths@4ax.com>...
>> On 8 Sep 2004 14:34:27 −0700, valls@icmf.inf.cu (Rafael Valls Hidalgo−Gato)
>> wrote:
>>
>> >H@..(Henri Wilson) wrote in message news:<gnqhj0pcik1j2g2q3qf5hlo36glnlgmhfk@4ax.com>...
>> >> This problem deserves its own thread.
>> >>
>> >> Consider a very large, remote and perfectly spherical planet that has no
>> >> atmosphere.
>> >> An observer on its surface synchronizes two clocks then sends one into circular
>> >> orbit 1 mm above the ground.
>> >>
>> >> Each time the OC passes the GC, the two exchange readings.
>> >>
>> >> Thus, any change in the OC's reading or rate, wrt the original frame, is
>> >> detected and measured.
>> >>
>> >> I say a perfect clock will not change one iota when in orbit. If the OCs
>> >> reading does not match that of the GC, then it has physically changed in some
>> >> way.
>> >> Relativists say it WILL change, for the usual obscure reasons.
>> >>
>> >> Note, both clocks experience the same gravitational potential. Also there is
>> >> only ONE FRAME INVOLVED.
>> >>
>> >> Fair enough?
>> >>
>> >> To resolve the issue, another pre−synched clock is now placed in the same orbit
>> >> but, this time, in exactly the opposite direction to the first.
>> >>
>> >> It is clear that both OCs should will read the same as they pass the GO,
>> >> whether relativity is right or wrong.
>> >>
>> >> The question is, since relativity says each clock will run slow wrt the GC, the
>> >> same reasoning says that each should also run slow wrt the other.

>> >>
>> >> So we have another version of the twins paradox, only this time it is a little
>> >> clearer.
>> >>
>> >> Let's see how the DHRs can wriggle out of this one.
>> >>
>> >>
>> >>
>> >> Henri Wilson.
>> >> www.users.bigpond.com/hewn/index.htm
>> >>
>> >> See proof that light speed is source dependent.
>> >> www.users.bigpond.com/hewn/variablestars.exe
>> >
>> >Hi Henri, maybe you remember me (I was out for some time).
>> >Your post is for me a very interesting one and surely it will put in
>> >trouble more than one SRian here. I consider myself a SRian, but not
>> >an orthodox one (I do not accept SR symmetry, I speak about a
>> >hierarchy of inertial systems, each one with their own associated body
>> >set with its center of mass at rest). Let us try to address your 3
>> >clocks ideal experiment with my approach.
>> >The planet and the 3 clocks are for me the associated body set of a
>> >HIS (Hierarchical Inertial System). This correspond to your unique
>> >inertial frame. In this HIS the planet and the GC are at rest, and the
>> >two OC are moving with a constant and equal speed (they have also an
>> >almost constant velocity as you put the planet very big in order to
>> >apply SR).
>> >Applying SR, the two OC have an increase of mass as compared with the
>> >GC one. Both clocks run then slower than the GC one applying the gamma
>> >factor. When the 3 clocks meet, the two OC show a constant delay per
>> >orbit respect the GC one. Whithout any daubt, this delay is an
>> >invariant that can be confirmed by any observer in any other inertial
>> >frame. It is not a relative one, it is an absolute one, because it is
>> >an event that occur at the same place in any frame.
>> >I challenge any orthodox SRian to put in daubt this fact. The relative
>> >motion between the two OC DO NOT provoke a relative delay. Within the
>> >HIS, the unique ABSOLUTE delay exists between the moving clocks and
>> >the rest one.
>>
>> Andersen now eckons that clock A runs both slow and fast in B's frame at
>> different parts of the orbit, so that on average it runs the same.
>>
>> He is becoming really desperate.
>>
>(I prefer to continue using your original denotations).
>According to SR, the cause of the time delay for a moving clock is its
>speed (an scalar) and not its velocity (a vector). In your ideal
>experiment the two OC are clearly with a constant speed in their
>orbits. For me have no sense at all to speak about a not constant time
>rate for those clocks, respect the GC or respect one to the other.
>With all respect, I think Andersen is wrong in this point. In the

>frame the GC is at rest the two OC are moving with constant speed.
>With this constant speed compute de constant time delay using the
>gamma factor and that's all. And this time delay can be measured and
>verified every time the three clocks meet. Your ideal experiment
>proves that does not exist a relative time delay but an absolute one
>(I know that your intention was another). The two OC have a relative
>velocity and not delay at all between them! They both show always the
>same reading. You interpret this saying that SR is false, but my
>conclusion is less drastic. I only claim that symmetric SR is flawed.
>The two OC are the moving ones and the GC is at rest. I vindicate
>Galileo! In the context of the Solar system modeled as a HIS, the
>Earth is moving and not the Sun! (considering Sun's mass infinite, of
>course). Each OC is NOT a valid inertial frame to refer the other OC
>velocity! But even considering one OC at rest (as the Earth was
>considered at rest long time ago), the other OC is moving respect the
>"rest" OC at a CONSTANT speed (the double of the value respect the
>GC).

That is not correct.

If the reference OC is not rotating, the other OC moves up and down sinusoidally in a straight line, wrt it.

If it is in 'tidal lock' with the ground (ie the same face always points towards the orbit centre) the other OC moves in figure of eight path.

Try plotting it.

>Andersen has no chance at all to justify a variable speed for one
>OC respect the other.

Of course he hasn't. It doesn't happen.
He is so desperate he even claims that on clock appears to run faster in certain parts of its orbit.

>Any reference to General Relativity can not change the clock readings
>when they meet. The delay of a moving clock had beed verified many
>times in total agreement with SR computation and is used every day in
>the GPS. Your smart experiment that mantains a constant potential
>condition puts totally out any valid reference to GR.
>(By the way, who said that in 1905 we cannot use SR to gravitation? No
>part of Physics was out of Relativity in 1905!)
>
>> >Instead of a single clock we can consider an orbiting spaceship with
>> >the clock inside. Every spaceship can be considered the associated
>> >body set of a lower hierarchy HIS. The two lower hierarchy HIS are
>> >part of the higher hierarchy one and can be used only to describe
>> >events inside the ships. To consider one ship moving respect the other
>> >one is a violation of my hierarchy rules. Every ship have its own
>> >center of mass at rest, and outside exist nothing, in a similar way
>> >that I consider that nothing exist outside the original planet and its

>> >3 clocks (or as Bohr consider a Universe with a single proton and
>> >electron in his 1913 H atom model).
>>
>> I don't like this idea much. It is a bit like Len's 'local EM frame of
>> reference', which is a lot more plausible.
>>
>> >Let us see what have you to say (and the orthodox SRians)about this
>> >approach that limits the application of SR, but does not reject it.
>> >Every HIS has its own rest. I rejected a unique aether or any aether
>> >at all. Every HIS can describe only the bodies of its associated set.
>> >Every HIS models a different part of the Universe.
>>
>> I don't see how it actually differs from Einsteinian relativity.
>>
>Well, I think you have not yet sufficient information about my HIS
>concept. For the moment, you had seen how I can support a null delay
>between the two moving OC and a not symmetric delay of them respect
>the GC. Both facts are totally out of today orthodox symmetric SR.
>Today orthodox SR support complete and symmetric equivalence among all
>inertial frames. I am rejecting that concept substituting it by a
>HIERARCHY of inertial frames (HIS). How can you say that you don't see
>any difference from Einsteinian relativity?
>Put attention to the fact that in my HIS a UNIQUE inertial system is
>considered valid to describe the movements inside a specified body
>set, the center of mass one.
>Let us see if Andersen can mantain his position about the variable
>speed for one OC respect the other at "rest". We are in the same side
>in this specific point.
>
>> >
>> >RVHG
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>>
>> HW.
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>
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