

Re: The true crackpots

Source: <http://sci.tech--archive.net/Archive/sci.physics.relativity/2005-10/msg00274.html>

- *From:* "PD" <TheDraperFamily@xxxxxxxx>
 - *Date:* 5 Oct 2005 13:14:05 -0700
-

mluttgens@xxxxxxxx wrote:

> PD wrote:

>> mluttgens@xxxxxxxx wrote:

>>> PD wrote:

>>>> mluttgens@xxxxxxxx wrote:

>>>>> PD wrote:

>>>>>> kenseto wrote:

>>>>>>> "PD" <TheDraperFamily@xxxxxxxx> wrote in message

>>>>>>>> news:1128178941.275246.204110@xx

>>>>>>>>>

>>>>>>>>> mluttgens@xxxxxxxx wrote:

>>>>>>>>>> PD wrote:

>>>>>>>>>>>

>>>>>>>>>>>> "... it is clear why the length of an object is **not** an

>>>>>>>>>>>>> inherent property of an object and it is much more easily grasped why

>>>>>>>>>>>>>> this quantity is **of course** observer-dependent and, finally, why two

>>>>>>>>>>>>>>> observers can view each other's (identical) objects and each see them

>>>>>>>>>>>>>>>> as shorter and that's not a problem. That is, it no longer is a

>>>>>>>>>>>>>>>>> "logical aberration".

>>>>>>>>>>>>>>>>>>

>>>>>>>>>>>>>>>>>>>> Yes, it is a logical aberration, because those observers apply SR,

>>>>>>>>>>>>>>>>>>>>>

>>>>>>>>>>>>>>>>>>>>>> No. Their measurements are their measurements, their observations are

>>>>>>>>>>>>>>>>>>>>>>> their observations. They are not applying SR in any way to make those

>>>>>>>>>>>>>>>>>>>>>>>> measurements.

>>>>>>>>>>>>>>>>>>>>>>>>>

>>>>>>>>>>>>>>>>>>>>>>>>>>>>> which only takes into consideration the relative motion between them,

>>>>>>>>>>>>>>>>>>>>>>>>>>>>>> and ignores the possibility that they could move at different

>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>> velocities wrt a same rest frame (like the track wrt which two trains

>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>> are moving). Then, one of them could view the other as longer.

>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>

>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>> Not on your life. Not without making a **correction** that **you** are

>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>> imposing to their measurements. What SR predicts is what the observers

>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>> will measure **without** any correction or manipulation. That is the part

>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>> you fail to understand.

>>

>> What is the justification that an SR observer will measure all rod moving

>> wrt him are contracted.

Re: The true crackpots

>>>>>>
>>>>>> In brief, the justification is that the *definition* of length relies
>>>>>> on simultaneity: the locations of the two ends of a moving rod must be
>>>>>> measured at the same time for the measurement to mean anything. The
>>>>>> problem is that there is no way to define absolute simultaneity. Two
>>>>>> events that are simultaneous to observer A will not be simultaneous to
>>>>>> observer B, and vice versa. Since simultaneity is a
>>>>>> reference-frame-dependent property, so is length. There is no deeper
>>>>>> physical meaning to the length of a rod. Now, if you'd like for me to
>>>>>> expand on this in detail, we can do that.
>>>>>>
>>>>>>> Also how do you know what the observer measure is
>>>>>>> what SR predicts??
>>>>>>
>>>>>>> Uh, measurement, Ken. In an experiment.
>>>>>>
>>>>>>> Could you propose a design for such experiment? I am looking forward to
>>>>>>> it.
>>>>>>
>>>>>>> I don't have to propose it. It's already been measured numerous times.
>>>>>>> See other post.
>>>>>>
>>>>>>> When and where? By which experiment?
>>>>>>> Like most SRists, when in a corner, you try to escape responding.
>>>>>>> The truth is that length contraction has never been experimentally
>>>>>>> observed.
>>>>>>
>>>>>>> I described rapidity and experimental design in another post. And the
>>>>>>> published papers about those experiments, some of which have been done
>>>>>>> at Fermilab and Brookhaven National Lab, are widely available, as I
>>>>>>> also pointed.
>>>>>>
>>>>>>
>>>>>>> Sorry, I didn't find an experimental confirmation of length
>>>>>>> contraction. Why don't you give a clear reference of a paper giving an
>>>>>>> unequivocal proof?

Your inability to conduct library research or your quitting in that endeavor after a few minutes' search is not my problem, Marcel.

PD

>
> Marcel Luttgens

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• *Follow-Ups:*
◆ *Re: The true crackpots*

Re: The true crackpots

◇ *From:* mluttgens

• *References:*

- ◆ ***Re: The true crackpots***
◇ *From:* mluttgens
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◇ *From:* mluttgens
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