Re: Is there length contraction in SRT, uncle Ben?

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- *From*: Uncle Ben <ben@xxxxxxxxxxx>
- *Date*: Thu, 31 Jul 2008 07:24:48 −0700 (PDT)

On Jul 29, 10:20 pm, xray4abc <lemhen...@xxxxxxxx> wrote:

> What SRT does say about length contraction?
> Consider a rod along OX axis be resting in IRF K and
> moving in frame K .
> Consider 2 observers in the 2 frames, measuring the
> length of the rod, setting up measurements at their will,
> where they localize the endpoints in a simultaneous
> manner, each in his frame.
>
> In frame K :
> Measured values are: X1, X2 in moments T1=T2
> Calculated values, from Lorentz transformations are
> XÉ and XÊ
> which give L =L* Gamma
> where L is the calculated length for K
> and L is the measured (and at the same time the proper) length
> of the object in frame K.
> As Gamma>1
> We get L >L that is : the length attributed to be valid
> for frame K (the moving frame) IS BIGGER than the measured length
> (that is the proper length)
> (So far nothing new!)
>
> In frame K :
> Measured values are : XÉ, XÊ in moments TÉ=TÊ
> Calculated values, from Lorentz transformations are
> X1 and X2
> which give L=L * Gamma
> where L is the calculated length for K (supposed to be the proper
> length)
> and L is the measured length in K .
> As Gamma>1
> we get L>L , that is : the length attributed to be valid
> for frame K IS BIGGER than the measured length in K !!!!!!!!!!!!!!!
>
> Comments:
> 1. We find from the Lorentz transforms that,
> NO MATTER what state of motion an object has relative to

an IRF where the ACTUAL MEASUREMENTS are performed,
the measured value is ALWAYS smaller than the value CALCULATED
(NOT measured!) as applicable for the OTHER frame !
2. Obviously the 2 relations ,L>L and L >L, can not be true at the
same time, can they?
The only way out from this dilemma seems to me the strange (?)
idea of duality or multiplicity of reality.
This would mean for example, that both relations hold true , but&..
the pair of L and L values ARE DIFFERENT IN EACH IRF
where the measurements are done.....
3. Now, what can I say, this is what results from the LT which are
the very basics of special relativity theory, aren t they?
Or not?

Best regards.LL

Gee, I go out of town for a few days and look what happens: SRT is overthrown"

But maybe not. Thanks to Dirk and the other Ben, SRT is saved by the relativity of simultaneity. That is frequently the answer to the supposed contradictions in SRT.
And its something that is hard to believe. You have to post it opn the wall to remind yourself.

But thanks, LL, for the cheers.

Right back at you,

Uncle Ben

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