

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

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- *From:* xray4abc <lemhenyil@xxxxxxxx>
  - *Date:* Wed, 30 Jul 2008 14:10:53 -0700 (PDT)
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On Jul 30, 1:00 pm, "Dirk Van de moortel" <dirkvandemoor...@ThankS-NO-SperM.hotmail.com> wrote:

xray4abc <lemhen...@xxxxxxxx> wrote in message

752648d3-463a-41cf-87b5-cbb98d291...@xx

On Jul 30, 5:06 am, "Dirk Van de moortel"  
<dirkvandemoor...@ThankS-NO-SperM.hotmail.com> wrote:

xray4abc <lemhen...@xxxxxxxx> wrote in message

cfdeda6f-9219-4338-9a08-13086221f...@xx

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.

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In frame K :  
Measured values are: X1, X2 in moments  
 $T_1=T_2$   
Calculated values, from Lorentz  
transformations are  
 $X_1'$  and  $X_2'$   
which give  $L = L * \text{Gamma}$   
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  $\text{Gamma} > 1$   
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!)

Alas, you are completely wrong here.

If the rod is at rest in K ( $T_1=T_2$ ), then it is not at rest in K',  
so the value  $L = L * \text{Gamma}$  is not the calculated length for  
K since the times of measurement not the same and the  
rod is \*moving\* in K'.

Then, what is it  $L' = L * \text{Gamma}$  by your opinion?  
One uses simultaneous marking of the endpoints of the rod  
no matter in which frame he is in.

When the thing is moving, you must use simultaneous measurements  
to be able to subtract the distances and call it the "measured length".  
When it is not moving, it doesn't matter whether the measurements  
are simultaneous to subtract the distances and call it the "proper length".

When you understand that, we can continue.  
Do you understand that?

Dirk Vdm– Hide quoted text –

– Show quoted text –

Yes, sir!

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Regards, LL

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