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

Source: http://sci.tech−archive.net/Archive/sci.physics.relativity/2008−07/msg02971.html

- *From*: "Dirk Van de moortel" <dirkvandemoortel@xxxxxxxxxxxxxxxxxxxxxxxxxxx>
- *Date*: Wed, 30 Jul 2008 23:14:22 +0200

xray4abc <lemhenyil@xxxxxxxx> wrote in message
598941e5−830f−4dbe−bd43−b1956d920e3f@xxxxxxxxxxxxxxxxxxxxxxxxxxx

> 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...@xxxxxxxxxxxxxxxxxxxxxxxxxxx
>
> > > 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...@xxxxxxxxxxxxxxxxxxxxxxxxxxx
> >
> > > > 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!)

Alas, you are completely wrong here.

If the rod is at rest in K (T1=T2), then it is
not at rest in K',
so the value L =L* 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*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 substract the distances and call it the "measured length".
When it is not moving, it doesn't matter whether the measurements
are simultaneous to substract 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!
> Regards, LL

Okay, so I guess you understand that for an object at rest
in K (with proper length L), the quantity L' = L * Gamma
is as good as useless? It is the difference between the
distances of the *moving* object's end points marked at
different times :−)

Dirk Vdm

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