

Re: So... Lerentz Contractions are *physical* not observed?

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Source: <http://sci.tech--archive.net/Archive/sci.physics.relativity/2007-07/msg00237.html>

- *From:* Jem <xxx@xxxxxxx>
 - *Date:* Wed, 04 Jul 2007 09:35:51 -0400
-

kenseto wrote:

"jem" <xxx@xxxxxxx> wrote in message
[news:iEMii.8412\\$Zt6.3916@xxxxxxxxxxxxxxxxxxxx](news:iEMii.8412$Zt6.3916@xxxxxxxxxxxxxxxxxxxx)

kenseto wrote:

"jem" <xxx@xxxxxxx> wrote in message

[news:O2sii.3834\\$Zt6.53@xxxxxxxxxxxxxxxxxxxx](news:O2sii.3834$Zt6.53@xxxxxxxxxxxxxxxxxxxx)

kenseto wrote:

"Tom Roberts"
<tjroberts137@xxxxxxxxxxxxxxxx>
wrote in message
[news:1Sjii.16683\\$2v1.8259@xx](news:1Sjii.16683$2v1.8259@xx)

mgconsolidated@xxxxxxxxxxxxxxxx
wrote:

Can
anyone
provide

Re: So... Lorentz Contractions are *physical* not observed?

/
point
to
a
definitive
answer
on
whether
Lorentz
contractions
are
physical
or
an
observed
effect.

This
depends on
what you
mean by
those
words.

Here's an
analogy: a
ladder will
fit through a
doorway if
it is

oriented

correctly,
and won't
fit if it is
oriented
differently
-- is this
difference
"physical"?
-- after all
neither the
length of
the ladder

nor

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the width of
the doorway
change in
any way.
This is an
example of
GEOMETRICAL
PROJECTION
— if the
projection
of the
ladder's
length

onto

the
doorway's
width is
small then it
fits, and if
that
projection is
large then it
won't; this
depends on
their
relative
orientation.

Instead of the ladder we
have a circular metal plate
with a diameter of

D_p

and the door in the barn is
also circular with a diameter
of D_b . D_p is

larger

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than Db. Now Dp is
accelerated to a relativistic
speed will it fit

through

the smaller Db door???

Does IRT have an answer, Seto?

Yes IRT has an answer as follows:
Dp will not fit through the smaller Db door.
Why?
In IRT the physical length of an object remains the same in
all frames

of

reference.... even as viewed by different observers. In IRT
the light

path

length of an object is different in different frames. The higher
is the
state of absolute motion of an object the longer is its light
path

length.

An IRT observer does not know if the rod moving wrt him is
in a higher

or

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lower state of absolute motion. That's why IRT has two sets of equations

for

the light path length of a moving rod. When the moving rod is in a

higher

state of absolute motion than the IRT observer then its light path

length is

longer than the light path length of the IRT observer's rod by a factor

of

(γ). When the moving rod is in a lower state of absolute motion than

the

IRT observer then its light path length is shorter than the light path length of the IRT observer's rod by a factor of $(1/\gamma)$BTW this

is

the formula for the SR length contraction.

Same for SR, Seto. Except for the "Why?" part, of course. :)

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No its not the same for SR. SR says that a rod is able to fit through the door way because of rotation of the rod. With my example how is SR able to explain that the circular plate is able to fit through the door way

Duh! Didn't I just tell you that SR says it /isn't/ able to fit through? Are you working on your Space Cadet certification, or what?

when

rotation will not do the trick? IRT definitely says that the larger circular plate will not be able to fit through the smaller door way no matter what speed it is moving..

.