

Re: SR cannot determine Contraction

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- *From:* "wugi" <bro1@xxxxxxxxxxx>
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"kenseto" :

"wugi" :

BTW, IRT agrees that there is no physical length contraction of a

SR does mean a physical Lorentz length contraction.

No it doesn't....if there is Lorentz contraction then there must be

Lorentz

expansion!!!! So where is the SR equation that shows Lorentz expansion???

Of course it is there.

Suppose an object OA' is moving past your "rest" object OA when both left sides coincide in O :

OxxxxxxxxxxxxA'xxxAxxxxxA"xxxxxxxxA"

Length contraction tells you

$$OA' = OA / \gamma$$

The moving system tells you that a later position A" (and not A') is simultaneous with O, so that

$$OA = OA" / \gamma, \text{ or}$$

$$OA" = OA * \gamma.$$

But he will also tell you that actually your event A to him coincides spatially with an event A''' so that

$$OA" = OA''' / \gamma, \text{ or}$$

$$OA''' = OA * \gamma$$

So, either contraction (in both systems) is paired with an expansion when taking in account the other party's simultaneity.

Re: SR cannot determine Contraction

Minkowsky makes it clear for you:

(<http://home.scarlet.be/~pin12499/MySRT/LorentzObjects.Detail.png>)

As you see, a matter of homothety in triangles ;-)

Besides if Lorentz contraction is real then why is the observer's rod is the

longest rod in the universe?? Does that mean that the observer is at rest in

Each observer's rod is the longest to himself...

a preferred frame? OTOH, if the SR contraction is a geometric projection

.... because each observer experiences a different, relativistic, simultaneity. No preferred frames involved.

effect there is no problem with the above problems. In addition every SR observer can claim that his rod is longer than any projection of a moving rod.....much like I see you to be shorter from a distance and you see me

to

be shorter from a distance.

Right, homothety in vanishing triangles ;-)

Regards,

guido

<http://home.scarlet.be/~pin12499/paratwin.htm>

Same.

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