

## Re: Is Lorentz contraction objectively real?

**Source:** <http://sci.tech-archive.net/Archive/sci.physics/2004-09/5778.html>

---

**From:** Bilge (*dubious\_at\_radioactivex.lebesque-al.net*)

**Date:** 09/13/04

Date: Mon, 13 Sep 2004 19:18:45 -0000

Gregory L. Hansen:

>In article <Pine.LNX.4.44.0409131117310.31124-100000@erodium.hep.wisc.edu>,

>Creighton Hogg <wchogg@hep.wisc.edu> wrote:

>>

>>

>>On Mon, 13 Sep 2004, Gregory L. Hansen wrote:

>>

>>> In article <4144ebfb@sys13.hou.wt.net>,

>>> Eugene Shubert <<http://www.everythingimportant.org>> wrote:

>>>

>>> >Lorentz contraction is coordinate dependent. It is subjective,

>>> >misleading and not objectively real.

>>>

>>> Frame dependent, not coordinate dependent.

>>>

>>> And it's just like velocity in Newtonian mechanics, which is also frame

>>> dependent. That means velocity is subjective, misleading, and not

>>> objectively real.

>>>

>>> Whatever shall we do?

>>

>>Get stinking drunk and try running into walls? If velocity is misleading

>>and not objectively real, then neither is kinetic energy.

>

>Except that the distance to an object like a wall is also frame dependent,

>which means it's also not objectively real! So it would be impossible to

>run into walls because you cannot traverse something that doesn't exist.

>

>Except I still have a scar on my forehead from running into the edge of a

>half-opened door. Eugene and I must be making a mistake somewhere in

>our reasoning.

Physics is not observer dependent, but measurements are always made in a particular frame – the one in which the observer holds the measuring tape. Let's take a familiar example. When you measure a cross-section, do you measure the cross section in manifestly covariant form, or do you have to consider the fact that your detectors are sitting

sci.physics: Re: Is Lorentz contraction objectively real?

in the lab frame and figure out the beam energy and a host of other  
mundane tasks?