

# Re: THE PHYSICAL TRANSFORMATION EQUATIONS

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*Source:* <http://sci.tech-archive.net/Archive/sci.physics.relativity/2007-06/msg01372.html>

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- *From:* Eric Gisse <jowr.pi@xxxxxxxxxx>
  - *Date:* Sun, 10 Jun 2007 22:05:27 -0000
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On Jun 10, 5:51 am, Alen <a...@xxxxxxxxxxxxxxxxxx> wrote:

On Jun 10, 7:16 pm, Eric Gisse <jowr...@xxxxxxxxxx> wrote:

On Jun 9, 8:06 pm, Alen <a...@xxxxxxxxxxxxxxxxxx> wrote:

\*sigh\*

Rotate a rod at an angle. It appears smaller.

Same thing

That's OK if you are talking about ordinary space. Light travels to the observer from both ends of the rod. Does this also happen in spacetime? In this case, light is travelling along the time axis of the moving frame. Is this the case?

Who knows? It isn't worth the effort of thinking about.

## Re: THE PHYSICAL TRANSFORMATION EQUATIONS

Principle of relativity gives you 3 viable group structures. Maxwell's equations picks out  $SO(3,1)$  – relativity. Using Maxwell to determine the magnitude of the invariant speed is all the thinking of light that is required,

If light does travel in this way, the result still qualifies as a projection of the moving length from the rotated moving frame onto the stationary frame. This means that length contraction will be observed, whatever method is used to measure a moving length. On my webpage I have shown that this is impossible.

Congratulations, nobody cares.

All this babble about light simply clouds the issue. Relativity is geometry. Stop thinking in terms of Einstein's 1905 paper and start thinking in terms of geometry.

I am sorry. I know that the maths and geometry has beauty, neatness, completeness, and computational success, and I can understand why a person might not want to spoil it with difficulties based on a physical perspective, and might distrust such an approach.

Who says a physical perspective is being ignored?

Three possible geometries are given by the principle of relativity and Maxwell's equations chooses one of them. Doing it via light the way you are trying, and failing, to do simply adds confusion.

But all that is of no use if the reality doesn't agree.

It does.

<http://math.ucr.edu/home/baez/physics/Relativity/SR/experiments.html>

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