

Re: SR theory is simplistic

Source: <http://sci.tech--archive.net/Archive/sci.physics.relativity/2007-03/msg00708.html>

- *From:* bz <bz+spr@xxxxxxxxxxxxxxxxxxxxxxxx>
 - *Date:* Thu, 8 Mar 2007 09:18:05 +0000 (UTC)
-

"Sue..." <suzysewnshow@xxxxxxxxxxxx> wrote in
news:1173336083.056714.36630@xx:

On Mar 7, 5:01 pm, bz <bz+...@xxxxxxxxxxxxxxxxxxxxxxxx> wrote:

"Sue..." <suzysewns...@xxxxxxxxxxxx> wrote
innews:1173298866.557631.101120@xx:

On Mar 7, 1:17 pm, bz <bz+...@xxxxxxxxxxxxxxxxxxxxxxxx>
wrote:
[...]

I can be sure that the only remaining
characteristics of 'an aether'
are 'it allows the propagation of EM waves
at a velocity of c with
respect to any equipment that is used to
measure the propagation of
those waves'.

I can be sure that nothing that I can conceive
of that is 'physical'
has the necessary properties.

Cast you eyes across the room, take a deep breath and
try to conceive of a gaseous dielectric that is harmless
if you inhale it.

But if air is necessary for the propagation of light, there is a
problem getting the light here from distant stars. There are some

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'rather bar' spots' in between thar' and har'.

<http://www-ssg.sr.unh.edu/ism/what1.html>

There is a hydrogen atom every 10 cm. See if you can charge a comb and move a pith ball at 10 cm or just see how close to an old unshielded CRT you can feel the screen tickle the hair on the back of your hand. Better than 10 cm.

Let us imagine that due to the random motion of the atoms in space, at some particular moment, there are NO particles within a particular cubic km (except for neutrino's, of course).

What happens to the X-rays scheduled to travel through this region? Do they have to wait until some atoms wander in, so they can hitch a ride through this desert?

This may seem like an unlikely scene, but it has been estimated that if I hold out a book for a long enough period of time, at some point in time all the air molecules will be hitting the bottom and none the top, purely by chance, and the book will rise. This will – it has been estimated – happen less than once in a googol of years and more than once in a googolplex of years. (from 'The Lore of Large Numbers')

I doubt that whatever you were thinking of when you wrote that paragraph is anything like the aether that Maxwell, Lorentz, or any of the 'modern' "there has just gotta be an ether 'cause I can't imagine how light can get around without it" people conceive of either aether or ether.

Perhaps if you can clarify your idea a bit, it will help.

It is Einstein's ether which in-word, if not by rigorous maths establishes a farfield FoR for light but establishes no reference for gravity or inertia.

Hm... in-word ... an interesting concept, in-deed!

Propagation in a dielectric medium

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A vacuum does seem to qualify as a dielectric. At least I can measure capacitance between two plates in 'a vacuum', but I can't quite get to 1 molecule every 10 cm.

<http://farside.ph.utexas.edu/teaching/em/lectures/node98.html>

http://en.wikipedia.org/wiki/Wave_impedance

http://en.wikipedia.org/wiki/Free_space

Why not claim the discovery of ISM instead of flaunting absurd maths? :-)

Why not?

<<A Lorentz transformation or any other coordinate transformation will convert electric or magnetic fields into mixtures of electric and magnetic fields, but no transformation mixes them with the gravitational field. >>

<http://www.aip.org/pt/vol-58/iss-11/p31.html>

http://en.wikipedia.org/wiki/Gauge_fixing

<http://arxiv.org/abs/physics/0204034>

Thanks for the memories.

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bz

please pardon my infinite ignorance, the set-of-things-I-do-not-know is an infinite set.

bz+spr@xxxxxxxxxxxxxxxxxxxxx remove ch100-5 to avoid spam trap

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