

Re: evidence for the existence of the ether

Source: <http://sci.tech-archive.net/Archive/sci.physics.relativity/2004-12/3633.html>

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Date: 12/08/04

Date: Wed, 8 Dec 2004 21:36:10 +0000 (UTC)

"greywolf42" <mingstb@marssim-ss.com> wrote in message

> *Thomas Clarke <tclarke@ist.ucf.edu> wrote in message*

.....

> > *Since the fluid has zero viscosity there is*
> > *no resistance to any convective flow caused by thermal differences*
> > *hence thermal differences must be zero, therefore the conductivity*
> > *is infinite.*

> *A reasonable chain of logic. However, you are laboring under a*
> *misconception. And this is what I was pointing out, when you raised the*
> *issue of truly infinite physical terms. There is no such thing in the real*
> *universe as a truly infinite term. And the corrolary is that thermal*
> *differences (the inverse of your assumed physical infinity) will not be*
> *truly zero. They will merely be very small -- but not fundamentally zero.*

OK, so since your ether would then be non-ideal, it would have
for instance non-zero viscosity, what observable effects do
you predict?

> *In discussions of*
> *aether theories, this is often called "Feynman drag". And it has been*
> *observed as Pioneer drag (within a factor of 2 of the standard Feynman drag*
> *predictions).*

There are alternative explanations for these two data points.
Any other supporting data.

> *In addition to impact resistance, conductivity is limited by the particle*
> *exchange time. In normal, everyday materials, the speed of motion of the*
> *component particles is not the limiting effect on thermal conductivity.*

Actually it is. Thermal conductivity in non-metals is due to
propagation
of phonons and phonons travel fastest in diamond which has the highest
thermal conductivity.

.....

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- > *My current favorite theory has the speed of gravity at $\sqrt{3} c$. But the*
- > *speed of light is adequate for demonstrating the principle -- and is*
- > *consistent with GR's speed of gravity (c).*

Do you have a reason for why your favor $\sqrt{3} c$?

.....

- > > *Rather a difficult thing to do, introducing a mass the size of*
- > > *Jupiter instantly.*

- > *True, but no more difficult than creating any size mass or charge in any*
- > *other teaching example on speed-of-propagation.*

I don't recall such teaching examples. Ones I have seen involve motion of bodies.

- > *You can dispense with the*
- > *instantaneous introduction, if you wish. Its only purpose was to allow me*
- > *to set up a perfectly uniform temperature, without matter.*

.....

- > > *What effect does Jupiter have on the temperature of the ether?*

- > *Sorry, I was unclear by skipping a step. All matter (mass) absorbs energy*
- > *and momentum from the aether fluid. This is the source of gravitation.*

You differ from Rado in this.

- > *I*
- > *am also assuming that the aether for Maxwell's equations (EM) is the same*
- > *one as the aether for Le Sagian gravitation. (Some people like to assume*
- > *two interpenetrating aethers.)*

Two ethers?

Why not four or ten?

(10 is facetious, slight string theory allusion, but it seems that three of four

would be good for dealing with generations of elementary particles or with types of force.)

- > > *Actually you are sounding like a relativist, arguing that conductivity*
- > > *must be finite because the speed of propagation is finite.*

- > *Though most Relativists retch at the thought, there is a lot of shared*
- > *mathematics between GR and Le Sagian aether theory.*

Of course, the Lorentz transform is needed if a theory is to have any hope of matching observation.

- > > > *Let's look at this another way: This lump of matter is *not* pure*
- > > > *aether, and interacts with the moving aether particles (causing*
- > > > *gravity and "anomalous" heating of the added planet).*

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> > *You are assuming lots of stuff here that I don't know about since*
> > *I don't subscribe to your theory.*

> *Fair enough. However, we are discussing whether the particulate, superfluid*
> *aether *theory* is perfectly isothermal, or not. Hence, we must discuss the*
> *properties of the particulate, superfluid aether.*

So discuss away, but don't forget you are addressing someone ignorant of your theory.

It occurs to me that what you have is a body of superfluid large enough for light propagation delay to be significant. I doubt if anyone has calculated in conventional theory how such a body would behave --- hmm maybe in neutron stars. I think I have read that neutron stars are superfluid and they are several miles across.

So you are in an unknown realm with such large size blobs of superfluid.

> > > *So, energy is being removed from*
> > > *the aether medium that surrounds the planet. When you remove energy*
> > > *from the medium, you are lowering it's temperature in the immediate*
> > > *vicinity of the planet.*

> > *If you say so. But I could imagine the planet causing compression*
> > *and heating the ether.*

> *I'm not sure how such an assumption could have a physical cause.*

The planet displaces the ether where the planet used to be compressing the ether surrounding it.

> *If you*
> *were correct, however, light would be observed to bend *away* from a*
> *gravitating mass. Which is not observed. So, I think we can table your*
> *idea for the moment.*

I don't think you need an ether at all for that effect.

.....

> *My apologies if I was not clear. The planet will radiate a blackbody*
> *(thermal) spectrum of light waves. (Or some variant on blackbody, due to*
> *it's component chemistry). These organized waves will travel through the*
> *aether.*

[There's another possible think that might heat the ether!]

> *The energy for these organized waves originally comes from the*
> *random (unorganized) motions of the superfluid corpuscles.*

In your theory everything is ether corpuscles?

> > *But it does still seem to me that within not too many years*
> > *whatever disturbance was caused by instantly putting Jupiter in*

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> > *place will have died out.*

> *The Jovian planet will continue to absorb momentum and energy from the
> medium. It will be a constant local energy sink. No matter how much the
> universe *tries* to equalize the temperature, it cannot do it completely.*

Why not?

> *Similarly, if one "suddenly" puts a wind turbine on a hillside, the local
> windspeed will always be less than that of the surrounding area. The wind
> will always be less, because the wind turbine is a constant sink in the
> otherwise uniform flow.*

The energy of the wind comes from the sun which comes from the fusion of hydrogen left over from the big bang. It is not just wind energy that somehow just does not die out.

> > > *The *random* motions
> > > of the aether particles will remain just slightly less (cooler) than the
> > > surrounding medium. And we all know that a cooler gas will have a slower
> > > wave speed.*

> > *Oh, you are trying to explain light bending due to gravity.*

> *Yes. That *was* the initial point that I provided. The issue of a perfect
> isothermal aether was raised by David Evans because he thought this would
> disprove the bending of light by the changes in local values of the medium
> (temperature in this case).*

It sounds to me like he has a case.

Do you have a numerical model with conductivities and energy sources etc etc to show that the temperature gradient is maintained?

> > > *Let me also anticipate the objection that this will cause the universe
> > > (aether) to "run down." This is not so, because light waves aren't the
> > > perfect entities that QED mathematicians postulate. Because the aether is
> > > not perfect, there is a very slow return of organized wave energy to the
> > > random energy of the medium. It's called "tired light," and is an
> > > unavoidable consequence of the finite speed of the aether corpuscles.
> > > Over the extent of the universe (a few billion parsecs), the energy
> > > remains in balance.*

> > *Do you have equations that give quantitative predictions for these
> > effects rather than just words?*

> *Yes. For example, see the book "Pushing Gravity", "Deriving
> Newton's Gravitational Law from a Le Sage Mechanism".*

Alas, our library does not have the anthology in which those appear. Are they webbed?

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> *Now, is my demonstration clear? The difference between reality and pure
> conceptualizations (i.e. infinities).*

Slightly plausible, but not convincing.

Tom Clarke

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