

# Re: The physical motions of photons in free space!

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*Source:* <http://sci.tech--archive.net/Archive/sci.physics.relativity/2005-11/msg00912.html>

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- *From:* "Gerald L. O'Barr" <[globarr@xxxxxxxxx](mailto:globarr@xxxxxxxxx)>
  - *Date:* 15 Nov 2005 16:03:45 -0800
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In <1132075765.278398.304340@xx>

<surrealistic-dr...@xxxxxxxxxxxx> wrote:

> Gerald L. O'Barr <[globarr...@xxxxxxxxx](mailto:globarr...@xxxxxxxxx)> wrote:

>> ...

>

> <surrealistic-dr...@xxxxxxxxxxxx> wrote: . . .

>>> ... these questions are fundamental to anyone who

>>>thinks that LET is THE theory that answers all

>>>important questions regarding the nature of E&M.

>>>Your attempt to vilify these questions only proves

>>>that you are hiding behind an ineffective smoke

>>>screen, rather than try to honestly deal with

>>>them.

>

O'Barr wrote:

>> Maybe I need to repent. It was wrong if I

>> indicated that LET answers all of our questions.

>>It certainly doesn't even answer all the questions

>>about E&M. To me, LET is only a kinematics theory,

>>and does not even address E&M beyond the kinematics

>>of light free-space velocity. This is not very

>>much indeed! But LET is fully compatible with E&M.

>>It fully supports E&M.

O'Barr wrote:

>>>> As was said in the

>>>> previous post, nature did not choose anything.

>>>> Nature just is. And all we have to do is to

>>>> understand what nature is, not why it did this

>>>> or did that, etc. You are making things to be

>>>> things

>>>> that are silly and have no reason to consider!

<surrealistic-dr...@xxxxxxxxxxxx> wrote:

>>>Fine! If nature didn't choose the rest frame of

>>>the ether, who or what did? Or was it just an

>>>accident. The ether --- a grand accident?

O'Barr wrote:

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>> What is is what is. I take things no further.  
>> And neither should you.

<surrealistic-dr...@xxxxxxxxxxxx> wrote:  
>According to you: the etherists get to maintain that  
>the choice that "The rest frame of the ether is what  
>it is, and thus one should not pursue it further!"  
>Yet, you deny the relativist the equal right to  
>claim: "The Light Principle is just what it is and  
>one should not pursue it further."  
....

Gerald L. O'Barr <globarr...@xxxxxxxxxxxx> comments:  
This is not what is being said. All theories have  
a base built upon assumptions, and it is important  
that the base of a theory is exactly understood.  
The base to SR is a math base, built upon one math  
constant,  $c$ , and one math principle, that the form of  
the math for all frames has the same form. These  
math assumptions are adequate for development of the  
correct math transforms.  
LET of course also has a base, and its base  
consists of physical assumptions, that there is an  
absolute frame, a simple 3-D frame, in which all  
normal rules of geometry apply (such as simple  
addition of velocities, etc.), but the physical rates  
of clocks follow the same rates as light clocks, and  
the physical lengths of rulers follow the same  
changes as seen with the diameters of an equal  
potential charged sphere.  
The important question is not whether or not one  
theory or the other can really explain its own base,  
but which base is the deeper, more supportive base.  
Since LET is a physical base, and since it ends up  
being able to explain the math base as is used in SR,  
then LET is superior. There is nothing hard about  
any of this, and there is absolutely nothing to  
argue. LET has more to offer than SR, being able to  
explain SR, and SR has no way of explaining LET. All  
that SR can do is to prove that LET is correct, just  
as LET can prove that SR is correct, but only LET can  
tell us why SR is correct.

<deletes by O'Barr>

O'Barr wrote:  
>> LET includes a physical base that  
>> does not appear in SR. (My previous answer was  
>> only talking about the math.)

<surrealistic-dr...@xxxxxxxxxxxx> wrote:

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>Then stop saying that the two theories are the same.

O'Barr comments:

But they are the same! They make the identical predictions! They have the identical math! In every critical way they are the same. LET has more than what SR has, but what ever SR has, so does LET. I do not know why you have a problem with this. Joe might have a picture of my house, and Nick might have a picture of my house. Joe might have a picture that shows the back of my house, and Nick might show the back and one side of my house. I have every right to say that both of these people have a picture of the same house, a picture of my house!

<deletes by O'Barr>

<surrealistic-dr...@xxxxxxxxxxxx> wrote: . . .

> One time-honored one is that of occam's razor,  
>the injunction against the over invention of  
>independent things or interactions (hypotheses).  
>The intension was to minimize the system one  
>invents. Now, I also cannot prove that there isn't  
>an infinite number of ethers, one for each inertial  
>system. But such a hypothesis requires more  
>justification, in my mind, than the hypothesis that  
>there is only one. Ironically, the invention of an  
>infinite number of ethers removes the embarrassing  
>question of why nature chose but one frame out of an  
>infinite number of frames as its choice for the rest  
>frame of Lorentz's ether.

O'Barr comments:

What I find embarrassing is to have evidently a grown man who wants to talk about an infinite number of ethers. MAYBE that is why your English got mixed up a little. But surely you must feel something wrong as you speak in such silly ways!

<deletes by O'Barr>

<surrealistic-dr...@xxxxxxxxxxxx> wrote: . . .

> The point that relativists make is that SR is more  
>economical than LET, while being just as predictive  
>as LET. In fact, more so, because, since 1905, SR  
>had been generalized from E&M to include all the  
>forces (except gravity) locally.

O'Barr comments:

And why is not said in the FAQ? I see no where on this net where it is said that LET is just as

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predictive as SR. I do not see this being taught at any University. Very few people will say what you just said. Why is that?

It is true that present day scientists only use SR math, but anything that SR math can do, so can LET, since LET results in the same math. Why do I get the feeling that you are all talk?

<surrealistic-dr...@xxxxxxxxxxxx> wrote: . . .  
>The biggest weakness of LET, or any luminiferous  
>ether theory I've seen, is that its proponents claim  
>the existence of a medium which is supposed to  
>"explain" light propagation in mechanical terms, yet  
>there is no mechanical theory of a luminiferous  
>ether which is both simple and working. In short,  
>ether theories have failed to fulfill the very  
>reason for the existence of ether theories of their  
>adamant adherence to them. We are told that the  
>Light Principle is "explained" by the existence of a  
>luminiferous ether, yet etherists never tell us  
>exactly how this ether works to propagate light yet  
>allow matter to "flow" through it freely. I mean  
>specifically, how light is modeled as a wave  
>disturbance in this mechanical medium. An even  
>bigger problem for etherists is the problem of  
>atomic radiation and absorption. Is light absorption  
>the collapse of a spherical ether wave onto an  
>electron? How improbable an event!

O'Barr comments:

My, what a set of questions! Have you ever seen the toy consisting of five steel balls hanging in a line, and they are each touching the one next to it? If you pick up the last one, and let it swing to hit the one next to it, they all stay stationary except for the one on the opposite end, and it moves away as fast as the first one hit on the other end. This little toy is a good demonstration of how the ether works. Any mass moving through the ether, that interacts with the ether by producing a spall equal to the ether particle being hit, will see no loss of its momentum while all these things are occurring. (See the at theory.)

<surrealistic-dr...@xxxxxxxxxxxx> wrote: . . .  
>Is this ether stationary? Does it resist the motion  
>of ordinary matter through it? Is it a kind of  
>matter we are already familiar with or a kind of  
>matter all its own (bad for logical economy)?

O'Barr comments:

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It is the identical matter out of which all particles are created. (Even matter and anti-matter consist of the same mass.) It is a free gas consisting of particles that have a certain dispersion in size or mass. (A free gas means that the particles that make up the ether have no resistance at all to their motions, unless and until they collide with another particle.) What ever 'resistance' is seen by any large body's motion in the ether is determined by the type of spalls produced by that specific particle (and the type of spalls can themselves be affected by the dispersion that is already present in the ether.)

It does not have waves in it like we know waves, so photons are not waves that are part of the ether. But the speed of photons, just like the spin of other large particles, occur due to, and are limited by, their interactions with the ether particles at the location they exist.

What is most interesting, is that certain dispersions, and certain reactions to these dispersions, can result in both translation effects and/or drag, or attraction and repulsions. It really is nice, because these are also equal effects.

<deletes by O'Barr>

O'Barr wrote:

> . . . Within SR, there are a multitude of  
> hidden assumptions, many dealing with what must be  
> done to make a proper measurement, as you  
> mentioned, . . .

<surrealistic-dr...@xxxxxxxxxxxx> wrote: . . .  
>Which are which, in your opinion?

O'Barr comments:

In SR, one correct way to make measurements is to set up a ruler grid, place clocks at every point where a measurement is going to be made, and then sync each clock with the others. The math of SR, such as  $c$  being a constant in free space, has no meaning unless the measurement system is set up along the lines mentioned.

O'Barr wrote:

> and many others that you did not mention.

<surrealistic-dr...@xxxxxxxxxxxx> wrote: . . .  
Such as?

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O'Barr comments:

The standard transforms are for going from one inertial reference frame to another. Thus, accelerating frames are not directly handled. This does not mean you cannot handle accelerations in SR, only that you must consider more than just the standard transforms to do it. In LET, in the rest frame of the ether, everything is perfect on a kinematics level, where a fixed acceleration will produce a final velocity using standard relationships.

O'Barr wrote: . . .

>> But what  
>> has to be understood is that not one of these  
>> assumptions physically explains to us the constant  
>> value of the speed of light. We are not given the  
>> physical cause or explanation for this simple fact!  
>> It just is not there! It is there in LET, but not  
>> in SR! Therefore, SR is only a math theory!

<surrealistic-dr...@xxxxxxxxxxxx> wrote: . . .

>By your own definition, LET is only a math theory  
>because it is an explanation in name only: it  
>explains nothing in mechanical terms. LET has no  
>physical base. It's a distinction from SR without a  
>difference in reality in terms of mechanical  
>explanations.

O'Barr comments:

Say anything you want. This is free America, and anyone can be a fool anytime they want to be. One proof that SR is only math, is that in any problem that is worked in SR, ie, the twin paradox, you have no way of saying or knowing exactly what physically occurs so that you get the answer you get. All you have is the math, the math answer that there will be such and such difference, but physically, you know nothing as to what physically occurred so that you would have the answer you have. Don't you know this? SR is a weak and a silly science in that it cannot tell us anything as to what exactly happens physically in order for us to get the answer it provides.

In LET, we have the ability to explain exactly what might have happened, physically, to produce the exact answer that is obtained. Does this make LET perfect? No! But it sure is better than SR, where no physical answer at all is possible.

<deletes by O'Barr>

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<surrealistic-dr...@xxxxxxxxxxx> wrote: . . .

>It is irrelevant how fanciful the theory is so long  
>as it makes testable predictions for  
>experimentalists.  
>  
>LET has no physical base — by your silly  
>definition, that is. But in truth, every theory that  
>makes physical predictions (i.e., predicts how  
>experimental devices will behave) is a physical  
>theory with a physical base. There is nothing more  
>basic than how experimental equipment will behave in  
>an experiment. Thermometers, rods, and clocks, etc  
>are physical entities.

O'Barr comments:

Well again, you are wrong. Any physics equation, that is only establishing a math correlation for some event, is only a math theory. Newton's law of gravity was only a math theory. It certainly predicts what physical objects are going to do, what effects they might have, what response might be measured. But it was and is only math. To have a physical theory of the law of gravity would require something like what LeSage tried to do, where physical particles were assumed to be moving through space, and by the actions of these physical particles, one would be able to derived the law of gravity. If you cannot understand such simple things, how are we going to have any kind of meaningful communications? Please reconsider your position. I cannot take much more of your silliness!

Let us end here.

Surely anyone must know the differences between a physics equation that is just a math relationship, just made up to conform with observations, from an equation based upon physical and/or mechanical acts that are exactly stipulated and correctly applied to solve a known problem. Until you can tell me that you know that Newton's law of gravity is just a math equation, and that  $PV = nRT$  is more than just a math equation, being derived from a deeper physical reality, for at least two famous examples of these two kinds of equations, then I am afraid we will not get very far.

Thanks for reading.

Gerald L. O'Barr <globarr...@xxxxxxxxxxx>

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