

Re: Imagine

Source: <http://sci.tech--archive.net/Archive/sci.physics.relativity/2005-06/msg00796.html>

- *From:* "*** rD" <paulpsremove@xxxxxxxxxxx>
 - *Date:* Tue, 7 Jun 2005 09:24:11 +0100
-

"PD" <TheDraperFamily@xxxxxxxxxxx> wrote in message
<news:1118100794.896559.122210@xx>

|
|
| *** rD wrote:
|> "PD" <TheDraperFamily@xxxxxxxxxxx> wrote in message
|> <news:1118090209.374803.124730@xx>

|> |
|> |
|> | *** rD wrote:
|> |> "PD" <TheDraperFamily@xxxxxxxxxxx> wrote in message
|> |> <news:1118070172.972448.247650@xx>

|> |>> |
|> |> |> I was just stating the physical facts that the
|> |> |> statement that c is constant in frame implies that, if you
cascade

|> up
|> |> you
|> |> |> arrive at a point were the frame itself exceeds c
|> |> |
|> |> | No, it does NOT! That's the whole point.
|> |> |
|> |> | Ahh! so c is not constant then or contraction\dilation reduce the
|> relative
|> |> frame size so c remains constant ?

|> |
|> | Not at all. I showed you how to do this earlier. If you use the
correct
|> | velocity addition formula, you'll see that c remains constant in any
|> | inertial frame.
|> |
|> | But that was only mathematically are you saying that this is not a
physical
|> fact and its purely a mathematical abstraction.

|
| The mathematics describes reality, it doesn't force interpretation. If
| it were an abstraction that did not apply to reality, then the
| experiments performed to test it would not match the predictions of the

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| mathematics.

Yes I agree with that but the examples and experiments that I have read insofar as your claims in respect of the velocity addition formula goes dont seem to prove this particular point.

|
| Moreover, there have been experimental tests to validate that the speed
| of light is identical regardless of the motion (the inertial frame) of
| the observer --- the most famous, but certainly not the only one, being
| the Michelson–Morley experiment.

Sorry the MM does not prove *your* interpretation and assertion about Albert's paper that c is propagated in nothing as against my interpretation of the papers that its propagated in a dielectric the velocity of which is defined by the velocity of adjacent structures. In fact I'm fairly sure that Albert would agree with my interpretation over yours as yours leaves anybody in a state of confusion as to the value of common sense, logic and the value of mathematics that can in one case requires a reference to define a velocity wrt and in another discards a rather fundamental rule to suit an interpretation. Perhaps you would like to offer another experiment that does *not* support my view.

|
|>
|> |
|> |>
|> |> |
|> |> |> never mind what's
|> |> |> happening in it unless you introduce contraction and inversely
|> |> proportional
|> |> |> dilation as limiting factors
|> |> |>
|> |> |> Some statements\suggestions from Albert's 1905 paper
(abbreviated)
|> |> |> i) no properties corresponding to the idea of absolute rest.
|> |> |> ii) valid for all frames of reference
|> |> |> iii) light is always propagated in empty space at c which is
|> independent
|> |> of
|> |> |> the motion of the body.
|> |> |> iv) The introduction of a "luminiferous ether" will prove to be
|> |> superfluous
|> |> |> inasmuch as the view here to be developed will not require an
|> "absolute
|> |> |> stationary space" provided with special properties, nor assign a
|> |> |> velocity–vector to a point of empty space in which
electromagnetic
|> |> processes
|> |> |> take place.
|> |> |>

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|> |> |> This appears to be the words that have somehow been bent by those
|> who
|> |> |> perhaps should know better.
|> |> |>
|> |> |> iii) Implies if not explicitly states that empty space has a
|> velocity of
|> |> |> zero with respect to c and the motion of bodies can have a
velocity
|> in
|> |> |> relation to the zero of empty space unless you resort to the
|> ballistic
|> |> red
|> |> |> herring..
|> |> |
|> |> | No, it does NOT say that. (iii) says "light is always propagated
IN
|> |> | empty space at c...". It does NOT say "light is always propagated
|> *WITH
|> |> | RESPECT TO* empty space at c..." There is no implication
whatsoever
|> |> | about what the speed of empty space is,
|> |>
|> |> Uh! come on, the speed of something is always related to something
|> otherwise
|> |> it makes no sense.
|> |
|> | Correct, but it isn't with respect to empty space.
|>
|> So you are expecting me to adopt a piece of logical nonsense that you
have
|> invented from, IMHO your misreading of Alberts papers ?
|
|> From A. Einstein, Relativity, pg 59:
| According to this theory there is no such thing as a "specially
| favoured" (unique) co-ordinate system to occasion the introduction of
| the aether-idea, and hence there can be no aether-drift, nor any
| experiment with which to demonstrate it.

My paper only goes up to page 23 and as far as I'm aware it is a translation of Albert's 1905 paper, this is the url <http://www.fourmilab.ch/etexts/einstein/specrel/www/> and also I have no dispute with your quote as it makes no mention of the absence of a dielectric of propagation presumably because its so obvious requirement that he thought it unnecessary and he was only trying to clear the deadwood of the old naive thinking that light was propagated in something like less dense air which was I believe the general definition of a luminiferous ether at the time and the medium that he was postulating that c was propagated in was not this and it was also not stationary so I'm afraid your quote does nothing for you case except demonstrate your ability to misinterpret new ideas.

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| Here the contraction of moving
| bodies follows from the two fundamental principles of the theory,
| without the introduction of particular hypotheses; and as the prime
| factor involved in this contraction we find, not the motion in itself,
| to which we cannot attach any meaning, but the motion with respect to
| the body of reference chosen in the particular case in point.

Thats a rather convulted way of saying that *your* interpretation detaches the contraction of real object from reality and places the contraction in the hands of your personal mathematical inerpretation because and I quote you "we cannot attach any meaning" "to the motion itself" I interpret what you have just written as I dont understand motion and how it can generate contraction so I will just do the sums and believe. If that is your position thats fine as its unasalable by me as it advocates ignorance as a method of education and I might as well debate with the pope.

|
| and from pg 170:
| Since the special theory of relativity revealed the physical
| equivalence of all inertial systems, it proved the untenability of the
| hypothesis of an aether at rest. It was therefore necessary to renounce
| the idea that the electromagnetic field is to be regarded as a state of
| a material carrier.

Who said any thing about a system at rest, not me its you who keep trying to imply that is my position.

The material carrier he was referring to here was an *aether at rest* he made no mention of a dielectric that accommodated itself to the surrounding matter. In fact he probably was aware of the permittivity measurements at the time of writing so to suggest that he ignored the measurement of the dielectric of propagation is a rather disparaging thought and sort of suggests that you think he was as thick as a brick as per myself {:-). He was just trying to get over to those that still thought the world was square and had the naive view that there was some *aether at rest*.

|
|
|>
|> |
|> |> Normally its zero but it can have offsets if explicitly
|> |> stated. So by implication the SOL is referenced to an empty space
with a
|> |> velocity of zero
|> |>
|> |> | nor for that matter whether
|> |> | empty space can even have a speed.
|> |>
|> |> The statement that the SOL has a specific velocity is a statement
that
|> what

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|> |> it is measured *in* has a velocity of zero.
|> |
|> | No, it's not. Period. That's not what relativity says.
|> |
|> | I don't read it as that and your statements are just personnel
assertions
|> | IMHO that you are unwilling to debate the sense of.?.
|
| I just did debate it. You claimed something without supporting it. I
| denied its truth.
|

"No, it's not. Period. That's not what relativity says." is a DEBATE ?
Sheesh

|> |
|> |
|> |> I suppose you could say the SOL
|> |> is measured in nothing the speed of which I'm not prepared to
define. Is
|> |> that what you are saying ?
|> |
|> | I said what I meant. See the next sentence below.
|> |
|> |>
|> |> | What (iii) is implying is that the
|> |> | speed of light *WITH RESPECT TO ANY MATERIAL OBSERVER* will be c,
as
|> |> | long as that light is traveling in empty space. Note what the
|> |> | reference
|> |> | for c is --- it is a material observer, not empty space.
|> |> |
|> |> |
|> |> | Ah! So if I'm moving at the SOL as a material observer I will
measure
|> |> | the
|> |> | SOL at c even if I'm measuring the same light that has just been
|> |> | measured by
|> |> | an observer who is stationary to myself ?
|> |> |
|> |> | You will never move at the SOL as a material observer. If you move at
|> |> | any speed --- ANY speed --- less than c with respect to any reference
|> |> | frame, you will ALWAYS measure the SOL to be c, even if that same
light
|> |> | has been measured to be traveling at c by another observer moving at
|> |> | any speed. *ALL* inertial observers, regardless what relative speed
|> |> | they are moving at, will measure the *SAME* light to be traveling at
c.
|> |> |
|> |> | I know this, too, is counterintuitive, but it is true nonetheless.

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|>

|> Yes suprisingly perhaps to you I know this to be true also but why is the

|> next question?

|> I have an explanation that makes sense but do you ?

|

| Intuition and common sense have no role in physics except as a guide to what *might* be true but must be checked against experiment. Einstein proposed something that seemed counter-intuitive

Maybe by your interpretation of his writing but not by mine, he makes perfect sense to me its *you* that doesn't.

| and against common

| sense, but he also argued convincingly that it follows from assuming two and only two principles that are themselves physically intuitive, even though the result is not. The test, then, is whether experiment shows it to be true. And indeed, experiment shows it to be true.

Experiment may show what he wrote is true but not what you write.

|

|>

|>

|> |

|> |>

|> |>

|> |> |> iv) States "L. ether" is not required and the zero of empty space is

|> not

|> |> |> "absolute stationary space" and the last which imposes a sever limitation on

|> |> |> the use of the frames he is developing in that they can only be referenced

|> |> |> to an object. I have no idea what he or the translator would have

|> meant

|> |> by

|> |> |> "luminiferous ether" a 100 years ago and it seems academic as its

|> |> something

|> |> |> that we don't have and most probably don't want {:-) So he makes a

|> start

|> |> at

|> |> |> defining the properties of empty space in relation to his system of

|> |> |> reference. It appears that some people with the conceptual and

|> |> imaginative

|> |> |> breadth of a stone have perverted an interesting idea into a piece

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|> of
|> |> mental
|> |> |> idiocy to beat others with.
|> |> |
|> |> | It means there is no need to reference light speed with respect to
a
|> |> | dielectric of empty space.
|> |>
|> |> Sorry I read this as empty space does not have a absolute zero
velocity
|> so
|> |> that the SOL can be measured as c in empty space because the
velocity of
|> |> empty space accommodates its velocity to the velocity of the
observer
|> and
|> |> there measuring apperatus.
|> |>
|> |> | Luminiferous ether would be an example of
|> |> | something that exhibits a dielectric quality of empty space.
|> |>
|> |> Thats a convenient interpretation. { :-)
|> |> I will have to check with Albert on that... No he says he meant what
he
|> |> wrote and that luminiferous ether was an empty space that was
absolutely
|> |> stationary, in a cosmic sense he adds. One porky to you I'm afraid
{ :-(
|> |
|> | He also says that this "ether", if one insists on calling it, has no
|> | properties normally associated with a medium (such as a dielectric
|> | constant).
|>
|> Hang on you have shifted places here and put words into Albert's mouth.
|> Albert states that his stuff does not need a luminiferous ether that was
an
|> empty space that was absolutely stationary he made no statements about
an
|> empty space that accommodated itself to the objects contained within it.
In
|> fact it is very strongly implied to me that this was the empty space
that he
|> meant c was propagated in as c must be propagated in something even if
its
|> empty space that moves about to accommodate the velocities of the
objects
|> that surround it. I think that is what Albert meant because what you
|> proposing is nonsense so if your new position is that Albert wrote
nonsense
|> then you better state it.
|

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| Your opinion that it is nonsense is your opinion. Those who have seen
| the results of such "nonsense" in action have come to accept it, having
| seen it with their own eyes.

Perhaps you can point me to the easily available details of these results
that demonstrate the compo of velocity. ?

The faq is just a collection of references with no links that might take
years to trawl through so if you must give me unlinked references could you
please only give those that are specific to the Cov.

|
|>
|> |
|> |>
|> |> | When you
|> |> | are positing that c is with respect to a local dielectric, you are
in
|> |> | fact positing the very same luminiferous ether that Einstein says
is
|> |> | not necessary at all!
|> |> |
|> |> |
|> |> | Untrue see above.
|> |> |
|> |> |>
|> |> |> |
|> |> |> |>> Note that relative velocity is not a quantity that is
|> |> |> |> frame-independent
|> |> |> |>> in the "usual" way. That is, you can't sit in frame A, see
S2
|> and
|> |> S3
|> |> |> |>> both go whizzing by and deduce that their relative velocity
is
|> |> |> |>>(0.93-0.8)c = 0.13 c. Relative velocity between a pair of
|> |> |> |>> objects is
|> |> |> |>> customarily defined in a frame of reference where one of
the
|> |> |> |>> objects is
|> |> |> |>> at rest.
|> |> |>
|> |> |> |>> Yes SR frames have to be referenced to objects and if the origin
is
|> not
|> |> |> at
|> |> |> |>> an object then it must be defined as an offset from an object as
per
|> |> |> |>> SR
|> |> |> |>> definition. ? You seem a bit muddled here, I have a frame and in
it
|> |> |> |>> is

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|> |> the
|> |> |> earth and the origin of the frame is your house for example, a
|> spaceship
|> |> |> shoots off and gets to 0.5 c relative to your house then another
|> |> spaceship
|> |> |> shoots off from the first and gets to 0.5 c relative to the
first
|> ship
|> |> |
|> |> | Stop right there. When you say the second spaceship shoots off
from
|> the
|> |> | first with a relative velocity of 0.5c, that is a statement that
can
|> |> | ONLY be made from a reference frame in which one of those objects,
|> |> | either the first spaceship or the second spaceship is at rest.
|> |> |
|> |> Ok then measured from the first space ship
|> |
|> | which measurement will return 0.5 c
|> |
|> |> and then measured from the Earth
|> |
|> | which measurement will return 0.8 c
|> |
|> Your above assertions make no sense without very substantial
experimental
|> and conceptual backup none of which I have seen to date.
|
| See experimental references below.

That was a bit mean, the faq is no use in the context of a dynamic debate
as it has no web links that are relevent to this CoV debate.

|
|>
|> |
|> |> about the second space ship. I hope I get the same answers about the
|> second
|> |> ship otherwise there Speedo's will have to go back to the dockyard
for
|> |> service as at present they are both measuring 0.5 c as a function of
the
|> |> matter conversion that got them to that velocity so there real
physical
|> |> velocity is 0.5c S1 relative to earth and S2 relative to S1 but this
is
|> only
|> |> a check to see that the engines performed as expected.
|> |>
|> |> | You can

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|> |> | NOT make the same statement viewing it from the Earth, because
neither
|> |> | spaceship is at rest in that frame.
|> |>
|> |> Ok this is your limitation. I have not seen that limitation in SR
yet
|> but it
|> |> may be there so I will see if I can find it and try and work out why
it
|> was
|> |> applied.
|> |>
|> |> | That's a key point. Relative
|> |> | velocity is ONLY defined from a frame of reference where one of
the
|> |> | objects in the pair is at rest. You *can* make this statement from
the
|> |> | frame of reference riding along with the first spaceship for
example,
|> |> | because in that frame the first spaceship is stationary, but you
can
|> |> | NOT make that statement from the Earth.
|> |>
|> |> Lets be clear here *you* cannot make that statement I at present
seem to
|> be
|> |> able to.
|> |> I will happily inform you when I am unable to do so.
|> |
|> | You can make all the statements you want to, but they would not agree
|> | with physical reality.
|>
|> No experimental data just assertions to date.
|
| See experimental references below.

See above comment to that.

|
|>
|> |
|> |>
|> |> |
|> |> |> and
|> |> |> the velocity of the second ship is not c relative to your house
|> ignoring
|> |> |> contraction\dilation adjustments. ?
|> |> |
|> |> | No, it is NOT! You see what you're doing? You're *assuming* that
you
|> |> | simply add $0.5c$ and $0.5c$ to get $1c$ with respect to the Earth.

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But

|> |> | velocities don't add that way!

|> |>

|> |> Examples and references please.

|> |>

|> |>

|> |> | In the frame of reference where the first spaceship is at rest,
the

|> |> | second spaceship is traveling at 0.5 c.

|> |> | But in the frame of reference where the Earth is stationary, the
first

|> |> | spaceship is traveling at 0.5 c, and the second spaceship is
traveling

|> |> | at 0.8 c!

|> |> |

|> |> | I know this seems odd. It seems unnatural. It seems counter to
logic.

|> |> | But it is nevertheless true. You can't just add velocities

|> |> | algebraically.

|> |> |

|> |>

|> |> Examples and references to real physical experiments that support
this

|> view

|> |> please.

|> |>

|> |

|> | Gladly. There is a lovely compendium here:

|> | <http://www2.corepower.com:8080/~relfaq/experiments.html>

|> |

|> | PD

|> |

|>

|> That was a bit of a red herring PD, none of references of any
significance

|> to the above posts had links so unless I'm willing to go out and buy
loads

|> of scientific papers your references are worthless to me. I have read
some

|> AE interpretations in the past and they seem based on the same

|> misinterpretation of Albert and misunderstanding of experiments.

|> So unless

|> you can offer some more readily available and possibly more upto date

|> evidence I must find your case unsound to date.

|> Its rather like me saying there is a green cheese mine on the other side
of

|> the moon and that proves my case and if you eat a piece you will
understand

|> and believe it. Can we move on to more readily available and substantial

|> evidence for me believing what at present appears to be a nonsense

|> interpretation of Albert's work.

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| > --

|

| Your willingness to base your belief only on what you choose to read
| for free on the internet is not my problem. That's a bit like having a
| plumbing problem and demanding to know the opinion of a professional
| plumber, but only if that opinion is available for free. You asked for
| references to real physical experiments, and I gave them to you.

In an antique form yes {:-) perhaps I should start writing in olde english
?

| Physicists publish their results in refereed journals, which are not
| distributed by the publishers for free, despite that being to your
| personal inconvenience. If you want to see real experimental evidence,
| then go to where real experimental evidence is published. I might
| suggest that if there is a town nearby with even a small college, the
| college library there will have, free for your inspection, journal
| collections with at least some of these publications. You get what you
| pay for, bub.

This argument is undeniable and is the only one I can accept from you
without question {:-)

|

| As for your claim that

| > I have read some

| > AE interpretations in the past and they seem based on the same

| > misinterpretation of Albert and misunderstanding of experiments.

| I suggest you think about what you're saying here. You're saying that,
| though you haven't obtained more than limited access to documentation
| about Einstein or experiments, that you somehow have nevertheless
| avoided the misunderstanding that everyone else seems to have?

|

| PD

|

Maybe, but if I was sure I would not be debating on this news group perhaps,
so it appears that to continue this debate I'm going to have to dig out all
the references that the faq gave ? have you anymore or are you going to
bring up some others after I have spent time obtaining and reading that lot
? Which ones do you feel specifically support the relativistic Comp of
Velocity ?

--

D & R *** E-field = Electric field, M-field =Magnetic field, two unbound
field effects

<http://home.freeuk.com/paulps/>

Maybe updates. The spuds, beans and onions are coming up nicely. Ooh
ah. {:-)

• **References:**

- ◆ **Re: Imagine**
 - ◇ *From:* chronos
- ◆ **Re: Imagine**
 - ◇ *From:* PD
- ◆ **Re: Imagine**
 - ◇ *From:* I think a bit more and say he has a point. But with regard to the above even after thinking about it a bit I am not so sure.
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 - ◇ *From:* PD
- ◆ **Re: Imagine**
 - ◇ *From:* destiny
- ◆ **Re: Imagine**
 - ◇ *From:* PD
- ◆ **Re: Imagine**
 - ◇ *From:* *** rD
- ◆ **Re: Imagine**
 - ◇ *From:* PD
- ◆ **Re: Imagine**
 - ◇ *From:* *** rD
- ◆ **Re: Imagine**
 - ◇ *From:* PD
- ◆ **Re: Imagine**
 - ◇ *From:* *** rD
- ◆ **Re: Imagine**
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 - ◇ *From:* *** rD
- ◆ **Re: Imagine**
 - ◇ *From:* PD

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