

Re: "Relativity and Reasonableness Tests"

Re: "Relativity and Reasonableness Tests"

Source: <http://sci.tech-archive.net/Archive/sci.physics.relativity/2007-07/msg00822.html>

- *From:* "Jeckyl" <noone@xxxxxxxxxxxx>
 - *Date:* Mon, 9 Jul 2007 14:21:33 +1000
-

<bsr3997@xxxxxxxxxxxx> wrote in message
<news:1183953824.655178.204840@xx>

On Jul 8, 2:55 am, "Jeckyl" <n...@xxxxxxxxxxxx> wrote:

<bsr3...@xxxxxxxxxxxx> wrote in message
<news:1183876830.161006.148590@xx>

On Jul 8, 1:05 am, "Jeckyl" <n...@xxxxxxxxxxxx> wrote:

<bsr3...@xxxxxxxxxxxx> wrote in message
<news:1183866054.318286.192510@xx>

On Jul 7, 10:18 pm,
"Jeckyl"
<n...@xxxxxxxxxxxx>
wrote:

<bsr3...@xxxxxxxxxxxx>
wrote in
message
<news:1183706495.639639.19690@xx>

On
Jul
5,
10:36
pm,
"Jeckyl"
<n...@xxxxxxxxxxxx>
wrote:

<bsr3...@xxxxxxxxxxxx>
wrote
in
message
<news:1183688564.076453.117240@xx>

On

Re: "Relativity and Reasonableness Tests"

Jul
5,
9:18
pm,
"Jeckyl"
<n...@xxxxxxxxxxxxx>
wrote:

It
isn't
about
the
nature
of
light
..
it
is
independant
of
the
nature
of
light.
One
less
complication
for
SR

other
than
to
say
it
travels
at
C
in
all
frames.

Yes
From
Einstein's
1905
paper,
"light
is
always
propagated

Re: "Relativity and Reasonableness Tests"

in
empty
space

with
a
definite
velocity
C
which
is
independent
of
the
state
of
motion
of
the
emitting
body."
Here
he
has
postulated
a
magical
property
for
light,
unlike
anything
else,
and
no
attempt
is
made
to
explain
how
light
does
this.

Its
an
experimental
observation
..
SR

Re: "Relativity and Reasonableness Tests"

doesn't
have
to
explain
why.

Bullshit!

Not at all

In
1905
they
didn't
even
know
exactly
what
the
speed
of
light
was.

That doesn't
matter

It refutes your statement. If
they couldn't measure the
exact speed
they didn't know if it was
the same.

No .. it doesn't .. it was postulated and
shown to be true
experimentally

It was not shown experimentally if the experiment did not
have the
precision to distinguish if the speed was always the same.

Which experiment are you talking about?

You don't know? You are the one that claimed there was experimental
proof of the postulate.

MMX for instance showed the speed of light in two different directions was
the same .. but it didn't need to know what that speed was

Re: "Relativity and Reasonableness Tests"

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The
fact
that
the
speed
of
light,
"is
independent
of
the
state
of
motion
of
the
emitting
body."
implies
that
it
is
a
wave
as
opposed
to
ballistic.

No .. it
might do to
some,
though.

For a bullet shot from a car
you add the velocities. For
sound
emitted from the car the
velocity of the car doesn't
matter.

That does not mean light has to be particles
.. only that it
propagates
as
fast as it is possible to do.

I didn't say it was particles. I was saying if the velocity of the
emitter didn't matter it implied it was a wave.

Re: "Relativity and Reasonableness Tests"

Sorry typo .. then that does not mean light has to be waves .. only that it propogates as fast as it is possible to do.

Prior to SR it was assumed that there was no limit to how fast a particle could go given enough energy. The fact that light always traveled about the same speed implied that it was a wave. That was the prevailing thought of the day and SR said nothing to contradict that idea. SR doesn't care about the mechanics behind the transmission of light.

Exactly what I was saying

It
can
be
postulated
to
be
C
in
all
frames
because
no
way
has
been
found
to
determine
which
frame
is
the
frame
of
the
medium.

And so far
that
postulate
has been
expermentally
observed to
be

Re: "Relativity and Reasonableness Tests"

correct

Never said it wasn't. But
Lorentz showed how it can
work that way
as
opposed to just saying it was
so.

But it is so.

Do you have a reading comprehension problem?

No

I never said it wasn't so.

Good .. so there is no problem

I said isn't it better to show why something is so rather than
to
just declare it is so.

It isn't just declaring .. its not some sort of royal decree .. it IS so.

If you have no proof than you *are* just declaring.

No more than you are .. if you aren't familiar with the experiments .. go
and research.

You
can
read
Lorentz's
reason
for
why
that
is,
or
accept
it
on
faith.

There is no
faith
required .. it
is

Re: "Relativity and Reasonableness Tests"

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experimentally
observed

Again, bullshit.

So .. you say it is NOT experimentally
observed?

Correct, the experiments lack the precision of the
mathematical proof.

So the experiment show light is NOT c ?

You are the one that made the claim that it was experimentally proven,

I did not "make up" any claims.

so it is up to you to name the experiment that *you* think proved it.
My claim was that any experiment that *you* choose would lack the
precision needed to be considered proof.

There is plenty of evidence to support constant speed of light .. nothing the
refutes it. You know that as well as I do.

Also, I would read your
previous statements to mean that it was experimentally proven prior to
the writing of SR in 1905,

I said nothing of the sort .. your comprehension problem are not my concern.

so please limit yourself to experiments
prior to that date.

No

Or that you should not accept experimental
evidence because it
requires
some
sort of faith?

LET
starts

Re: "Relativity and Reasonableness Tests"

Re: "Relativity and Reasonableness Tests"

with
light
traveling
at
a
constant
speed
only
in
the
aether
frame

Why
does
it
go
at
a
constant
speed
in
the
ether

Same
reason
sound
propagates
at
a
more
or
less
constant
speed
in
air.
It
is
a
property
of
waves
in
a
medium.

..
why
is

Re: "Relativity and Reasonableness Tests"

that
speed
what
it
is

Probably
the
size
and
velocity
of
the
particles
making
up
the
aether.

And what is
the ether
made up of?
What can't
we detect
it?

..
why
can't
we
detect
the
ether

You
can
but
refuse
to
accept
the
evidence.

What
evidence?

What do electromagnetic
waves wave in? What
carries the force
between
magnets pushing apart?

Re: "Relativity and Reasonableness Tests"

A very good question. Something SR doesn't need to address.

I said nothing about SR. You asked about evidence of the aether.

You gave me none .. you asked a question

Fine, if you want to play that game, electromagnetic waves and forces between magnets are evidence of an aether.

Really .. and how do they show an ether exists?

You seem to have a problem keeping track of the discussion.

Not at all .. so .. what evidence is there that ether exists?

What do you think would constitute evidence?

Some experiment showing it would be a nice start.

You're the one so big on experimental evidence. PROVE that this ether exists

..
what
is
the
ether
made
from

Aether
particles
of
course
;-)

And what
are they ?
What are
their
properties?
Their mass?
Their
charge?
Their spin?

Re: "Relativity and Reasonableness Tests"

Their
size?...

Considering that the
scientific community not
only stopped trying to
investigate these things but
made it the kiss of death for
the
prospects of anyone that did,
it's not surprising we don't
know.

Indeed .. of course, not being able to detect
it, not knowing anything
about
any theoretical properties of it doesn't help

But we can detect it.

How?

Magnets

Really? So for the last century all we had to do was get a couple of
magnets and we could detect the ether. You must be a genius. When are you
going to publish this amazing discovery?

And we have a far better chance of studying it than we do of
dark
matter.

Not when it has never been detected.

My point exactly, dark matter has never been detected ;)

There you go then.

OTOH effects
that may be caused by aether are observed all the time.

How do you know they are caused by ether?

At least we know there is something there to be studied.

Re: "Relativity and Reasonableness Tests"

No .. we don't

Some
also
attribute
gravity
to
it.
Look
up
LeSage
gravity.
BTW
there
is
an
aether
equivalent
to
GR.
Look
up
GET.

...
how
and
why
does
it
make
objects
contract
and
clocks
slow
down

If
an
objects
shape
is
determined
by
electromagnetic
forces
maintaining
the

Re: "Relativity and Reasonableness Tests"

spacing
between
its
particles
it
will
wnd
up
contracted
when
in
motion.

Why? How
does the
ether do
that?

I explained that.

Where

Below. Are you dense?

No .. but the matter of my body is

Or just a bit slow?

Compared to the speed of light, yes

Do I need to break it down into little bits so you can
understand it?

That would be nice .. off you go then

Not going to waste my time. It has been done before. Google is your
friend.

Then use it

For
a
two
way
trip
over
the
fixed
distance

Re: "Relativity and Reasonableness Tests"

the
wave
traveling
at
 $c-v$
takes
longer
to
cover
the
distance
than
the
wave
traveling
at
 $c+v$,
so
the
average
speed
ends
up
less
than
 c ,
which
is
what
it
would
be
if
it
weren't
moving.
For
the
clock
slowing
down
the
light
clock
doing
a
zig
zag
vs
straight
up

Re: "Relativity and Reasonableness Tests"

and
down
works
just
as
well
for
LET
as
it
does
for
SR.

That is not
an
explanation
as to why
the ether
slows down
all
clocks
and
processes

It works for SR, so why not
for LET?

But you said LET explains things .. that's
why its better. But it
odesn't
explain things .. and so it suffers from the
same "problem" as the
simpler
SR

What part of the zig zag vs perpendicular path did you not
understand?

What zig-zag path? We've got a little clock ticking away .. and ether
slows
it down .. and slows down all clocks, no matter how they work, by the
same
aount.

Your not being bright enough to understand the explanation
is not
LET's
fault.

You've not provided any explanation

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I can explain it in greater detail if that will help.

Fine .. go ahead and explain how this undetectable mystical ether makes slows slow down, go out of sync, and shrinks matter and the spaces between matter.

Again I am not going to waste my time.

Didn't think you could

Look it up in "Spacetime Physics". The same explanation that works for SR works for LET.

No .. its completely different

They use the same math and I don't think they would lie about it working for SR.

Same math .. different underlying reality .. So .. how does LET explain the physical shrinking of all matter by the same amount, and the physical slowing down of all clocks and processes by the same amount, and that amount being precisely what is required for Lorentz transforms? In LET this is a physical process .. so there needs to be a physical explanation for it. Surely.

..
lots
of
unanswered
questions
in
LET.

That
must
be
one
of
them
retorical
questions
:-)

Re: "Relativity and Reasonableness Tests"

No .. its just
one of the
many
questions
that Let
raises and
for
which
there
is no
answer.

LET doesn't pretend to have
all the answers. You
defended SR
against
the same attack by saying it
doesn't matter, so there is
your
answer.

And there goes your argument for LET
being better .. its not. That's
why
SR
is the preferred theory
Thanks for playing

In that particular instance it is not better, but it is not worse
either. In other instances LET is better than SR. So there is
no
reason to prefer SR.

I see no cases where LET is superior .. other than, perhaps, being
something
initially one can more readily visualise

So there's one place. And for some LET will always be easier to
visualize.

Bully for them .. some people just have problems visualising.

and
shows
how
it
ends
up
being

Re: "Relativity and Reasonableness Tests"

measured
to
travel
at
C
in
all
frames.

Whereas
in
SR
light
is
postulated
as
travelling
at
c
..
SR
doesn't
need
to
explain
WHY
it
does
that.
Just
like
we
don't
need
to
explain
why
inertia
makes
objects
keep
moving.

Anyone
can
see,
literally,
that
a
body
in

Re: "Relativity and Reasonableness Tests"

motion
tends
to
stay
in
motion.

And anyone
(with the
right
equipment)
can see that
light travels
at
c

That is not seeing, literally,
and it certainly doesn't make
the
measurement in two frames
at the same instant.

We can measure the speed of light as c. Its
always the same

Show me the experiment that measured the same beam of
light to have
the same velocity in two different frames to within one meter
per
second. Put up or shut up!

Why 1m/s?

The published speed of light is 299,792,458 m/s. Sure looks to me
like they claim a 1m/s accuracy. How big a margin of error do you
need?

Well . .there you go .. obviously the speed of light has bene measured
accurately enough .. you happy now?

Do you think that light is NOT the same in all frames of reference? can
you
site experiments that show it is not?
Put up or shut up!

You are the one that made the initial claim. The ball is in your
court.

Re: "Relativity and Reasonableness Tests"

I'm not playing your little game

Really .. this discussion is all quite pointless .. SR and LET have the same math and the same predictions of measured lengths and times. If the speed of light is constant in one, it is constant in the other. If you REALLY think there is no experimental evidence that supports a constant speed of light in all frames, then I suggest you do some research .. however, I do not think you are being serious here, and rather just being deliberately argumentative, as the same prediction come from your pet little LET theory.

The difference between LET is its physical implementation .. it has a special frame of reference in which length contraction and time dilation are actually physical shrinking and slowing of clocks and processes, and has a mystical undetectable ether that somehow magically causes this shrinking and slowing by exactly the right amount. Why should we accept the idea of an ether when we cannot detect it, nor explain the processes involved? Surely you must have a reason for thinking it is correct?