

Re: The speed of light is c or c+v or c-v depending on the motion of the target

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Source: <http://sci.tech-archive.net/Archive/sci.physics.relativity/2008-08/msg00436.html>

- *From:* "Spaceman" <spaceman@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx>
 - *Date:* Thu, 7 Aug 2008 13:37:16 -0400
-

Sue... wrote:

On Aug 7, 1:09 pm, "Spaceman" <space...@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx>
wrote:

Sue... wrote:

On Aug 7, 11:15 am, "Spaceman"
<space...@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx>
wrote:

Sue... wrote:

On Aug 7, 10:34 am,
"Spaceman"
<space...@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx>
wrote:

Peter Riedt
wrote:

On
Aug
7,
12:42
pm,
"Spaceman"
<space...@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx>
wrote:

Peter
Riedt
wrote:

$$(c+v+c-v)/2=c$$

Re: The speed of light is c or $c+v$ or $c-v$ depending on the motion of the target

The speed of light c is considered to be a constant since at least Maxwell. However, Michelson and Morley, in the mathematics underlying their interferometer experiment (MMX) to find evidence of the ether, used expressions like $c+v$ and $c-v$. Their idea was that the formula $(c+v + c-v)/2 = c$ applied overall and that

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the
components
of
this
formula
should
be
applied
separately
to
the
upwind
and
downwind
paths.

The
expressions
 $c-v$
and
 $c+v$
are
not
well
received
or
understood
in
this
NG.
This
is
because
it
could
lead
to
the
idea
that
the
speed
of
light
is
subject
to
the
speed

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of
the
source
and
this
is
anathema
to
relativity
supporters.
However,
the
two
expressions
have
a
real
validity.
They
are
mathematical
devices
to
account
for
the
target
moving
away
or
towards
the
source.
While
the
speed
of
light
is
always
 c ,
the
distance
between
source
and
target
will
vary
with
the

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motion
of
objects
through
space.
To
compensate
for
these
variations,
 $c-v$
and
 $c+v$
are
used.
MMX
is
a
good
example
to
explain
it.
The
interferometer
used
in
MMX
is
attached
to
the
earth.
The
earth
moves
through
space.
A
light
beam
is
sent
from
a
source
through
the
beam
splitter
of

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the
interferometer
to
the
mirror
at
the
other
end
of
the
parallel
arm
of
the
equipment.
The
distance
between
beam
splitter
and
mirror
is
11m
as
measured
in
the
lab
but
the
earth
does
not
stand
still.
It
and
the
mirror
move
away
from
the
location
where
the
beam
splitter
was

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at
the
time
the
light
beam
passed
through
it.
By
the
time
the
light
has
caught
up
with
the
mirror,
it
has
moved
on
to
a
new
location,
widening
the
lab
distance
of
11m
to
a
distance
through
space
of
11m+.
To
allow
for
this
extra
distance,
the
speed
of
light

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has
to
be
adjusted
to
 $c-v$
or
 $300000\text{km/sec}-30\text{km/sec}$
giving
an
effective
 299970km/sec .
Likewise,
on
the
return
trip,
the
speed
of
light
has
to
be
adjusted
to
 $c+v$
or
 $300000\text{km/sec}+30\text{km/sec}$
giving
an
effective
 300030km/sec
to
account
for
the
fact
that
the
beam
splitter
is
moving
towards
the
light
beam
reflected
from
the

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mirror.
In
short,
the
EFFECTIVE
speed
of
light
is
subject
to
the
motion
of
the
target
(30km/sec
around
the
sun)
but
the
ACTUAL
speed
of
light
up
and
down
the
parallel
arm
of
the
interferometer
is
always
 $(c+v+c-v)/2$
=
c.
If
you
understand
this
there
is
no
need
to
worry
that

Re: The speed of light is c or $c+v$ or $c-v$ depending on the motion of the target

the
speed
of
light
is
not
 c .

Very
good
summary
Peter,
But
the
truth
at
the
end
is
light
is
observer
dependant
in
speed.
It
is
constant
from
source,
but
not
for
the
observer.
There
is
no
way
any
speed
(no
matter
if
it
is
constant
from
the

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source)
can
be
the
same
speed
to
all
observers.
This
is
a
big
part
of
relativity
that
many
relativists
refuse
to
admit
and
simply
must
ignore
since
they
can
not
handle
a
non
constant
speed
of
light.
But,
it
is
constant
from
the
source
even
if
the
source
is
moving,
but

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is
not
constant
to
the
reflection
point
if
moving
because
waves
do
not
do
such
and
that
is
why
we
get
doppler
shifts
in
light
and
sound
and
water
waves.
The
observers
speed
measurement
of
the
waves
is
relative
to
the
lightwaves.
Simple
as
that.
:)

--
James

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M
Driscoll
Jr
Creator
of
the
Clock
Malfunction
Theory
Spaceman-
Hide
quoted
text
-

-
Show
quoted
text
-

Spaceman,
I
agree
but
I
am
stuck
trying
to
explain
the
origin
of
 $c+v$
and
 $c-v$.
Androcles
thinks
there
is
something
odd
about
 $c+v$
and
 $c-v$.

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He
is
collecting
opinions
about
it
which
does
reveal
the
depth
of
ignorance
and
parrotlike
adherence
to
dogma
of
some
posters.

Peter,
The
distance
traveled
differences
is what they
are
ignoring.
The
distance
traveled
from
"outside the
box" is
what most
relativists
will not
accept so
they can't
understand
that the
forward trip
will be a
longer trip
than the
return if
both

Re: The speed of light is c or $c+v$ or $c-v$ depending on the motion of the target

objects are
moving at
rest with
each other
but at a
speed wrt
an
outside
observer.
The outside
observer is
trying to
measure the
"actual"
distance
traveled.
instead of
the "at
rest"(inertial
frame)
distance
that
never
changes.

No... most so called
"relativists" think they need
a
particle model of light
moving under the influence
of
inertia to dispel notions of
Newton's ether

Your stated views are the
same so you subscribe to
the same absurdities.

No,
actually I can also use a sound wave or water
wave
as my point of view.

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You can't present a sound wave point of view until
you can stop a moving car by switching on the
headlamps.

That only takes a bit of wiring.
But you would not think of that approach.
And sadly that has nothing to do with wave
speed measurements by the observer.

I see you don't get that the simple "particle"
method only
makes things easier to follow by laymen like
me.

I know the feeling. I too am a simple layperson
with no formal training in finance or accounting.
I can't get my bank to follow my simple bookkeeping
techniques when my figures disagree with theirs. :o)

So
You admit you can't do basic math then?
:)

If you wish I can present a sound wave
point of view
also where no actual particle is traveling the
entire distance.

Please do, but use two overlaid waves.
One wave only moves protons(+). The other wave
only moves electrons(-).

So you wish me to use apples and oranges

If I meant apples and oranges I would not
have specified electrons and protons.

Do you understand how electrons and protons differ ?

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Do you understand that it is irrelevant to the actual topic
We are not discussing "what" the waves are moving.
We are discussing the speeds of them.
Sheesh Sue.
Get a clue.