

Re: c = constant is still under discussion in this group

Source: <http://sci.tech-archive.net/Archive/sci.physics.relativity/2006-06/msg02214.html>

- *From:* "Rudolf Drabek" <newsrudy@xxxxxx>
 - *Date:* 29 Jun 2006 14:11:17 -0700
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Sorcerer schrieb:

"Rudolf Drabek" <newsrudy@xxxxxx> wrote in message
news:1151589031.035060.178890@xx

Sorcerer schrieb:

"Rudolf Drabek" <newsrudy@xxxxxx> wrote in message
news:1151534175.310971.311350@xx

Sorcerer schrieb:

"Rudolf Drabek" <newsrudy@xxxxxx> wrote in message
news:1151516048.818174.99200@xx

This matter is not solved in this group.

It may be that it is solved, but I don't know the source.

One link I've found but can't recover, was optical with interference.

The various techs to measure c are, except of Römer, TWLS.

Oh, do come off it, Rudi. All it takes is an oscilloscope and a couple

of phototransistors, I've measured the speed of light myself.

c is a different matter.

I do not want to measure c (I have also the needed equipment as you).

Also I do not want to synchronize clocks.

What I want is to measure is, if light (em-waves) can come in with c +- v or not.

|> That's easy enough. Use doppler.

Doppler says in my view not all. You can have Doppler shift of frequency but still c can be constant.

Therefore I designed this experiment to have an end of the discussion

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in this group.

Thank you in any case if this was your final answer.

rgds Rudi

<http://www.androcles01.pwp.blueyonder.co.uk/Sagnac/Sagnac.htm>

I looked to that Sagnac exp. What I can follow is, that if you turn the device, during that time you see changing interference pictures.

Speed = distance/time.

The blue ray goes further than the red ray in the same time, therefore the speed of the blue ray is greater than the speed of the red.

That's what you wanted, proof of c+v, c-v.

Doppler's equation is

$$f' = f \frac{c+v}{c+u}$$

but there is no u in this case and the frequencies are

$$f' = f \frac{c+v}{c}$$

and

$$f' = f \frac{c-v}{c}$$

|> I can explain it to you, I can't understand it for you.

The formulas are clear.

Curious, rotation seems to have an aspect of absolute motion.

First I need some time to think about.

rgds Rudi

Sagnac is not an "experiment", ring laser gyroscopes are commonly used daily in aircraft.

Androcles.

If I have only a source, moving or not rel. to the receiver and one

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receiver I never can measure the speed of the incoming signal if I don't know the distance. And I would need synchronized clocks. All this I can avoid simply by introducing a 2nd receiver at some distance to the 1st one.
Do you agree with that?]

<http://www.androcles01.pwp.blueyonder.co.uk/DominoEffect.GIF>

We are now in a position to measure this exactly with radio signals from manmade spacecrafts, that have an increasing distance to Earth. This condition is necessary otherwise one could argument against the method.
So there is some "c + v" given.

On Earth simply two antennas are placed at some distance, say around 10 km with 1cm accuracy to have resolution of $10e-6$. Measurements are done when the antennas are "one behind the other" in direction to the spacecraft.

A clock at the same distance to both antennas supplies time marks to the x-axis of oscilloscopes at both antennas where the received signals are viewed. So here the time between a significant "mark" in the signal can be measured e.g. a phase jump in the modulation. With a cw signal this measurement is not possible. So I think, that carrying out this with light will have some problems to find a "mark" in the incoming light, but I'm no expert for this.

So we have $s =$ distance between antennas
 $t_e = s/c$ which also can easily measured with a signal originating from a source on earth.
This time is used to "calibrate" the distance between the antennas.

If signals from the spacecraft are coming in with $c + v$ then we would measure
 $t_n = s/(c + v)$ If v would be 3 km/sec then we have a a ratio

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of

$c/c+v$ according

(but also at certain times in the year you have ± 30 km/sec additionally. don't forget).

t_n can also be written for $v \ll c$ as $t_n = t_e(1 \pm v/c)$

So you see the experiment is quite robust to deviations of the distance

s.

Now we compare t_e and t_n . If there is a difference Einstein is wrong and the Non Sirians can jubilee.

Indeed if $t_n = t_e$ this is not to explain with logic. But if light or em-waves behave so, we must accept it, as Einstein did as a physical secret unsolved to date. May be the Non Sirians can't accept this. We will see.

I hope the setup is clear. May be this was already carried out, but I found no reference.

It is carried out right now, here's a reference : NASA-JPL.

<http://www.androcles01.pwp.blueyonder.co.uk/Synchronize/Synchronize.htm>

Einstein is wrong.

Androcles.

This is a little bit too quick for me. Can we agree 1st that the setup proposed is good enough to make evidence of $c \pm v$ possibility or not?

Roemer's "clock" was the Jovian moons. He knew with some precision exactly when light would be emitted from a moon as it appeared from behind Jupiter. What he did not know was the distance to Jupiter, but he was close. That is OWLS.

Embedded in the page I gave you is a reference to

<http://saturn.jpl.nasa.gov/operations/saturn-time.cfm>

and so Roemer's method is repeated every time we receive a time-stamped image from Cassini, which is set to UTC.

Ask Cassini the time, and you have TWLS. JPL engineers are not going to repeat Einstein's stupidity and figure out the time the request arrives at Saturn, they rely on Cassini's clock, not Cassini's mirror.

As it turns out, for six months of the year the time for a signal to reach Cassini is greater than the time it takes to get an answer, and for the other six months it is less than the time it takes to get an

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answer.

So Einstein's claim "we establish by definition that the "time" required by light to travel from A to B equals the "time" it requires to travel from B to A" is nonsense.

Your "experiment" will never be performed (unless you do it yourself) because it is unnecessary.

"the velocity of light in our theory plays the part, physically, of an infinitely great velocity." – Einstein.

Einstein's disciples play the part, physically, of Munchkins singing "Follow the yellow brick road", seeking Einstein, the Wizard of Oz. One should not confuse mathematical games with physics.

Androcles.

Rudi

If something is overseen from me, I see it in yr comments,
friendly I
hope!
Rudi