

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

Source: <http://sci.tech-archive.net/Archive/sci.physics.relativity/2006-06/msg02111.html>

- *From:* "Rudolf Drabek" <newsrudy@xxxxxx>
 - *Date:* 28 Jun 2006 15:36:15 -0700
-

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.

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

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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 ratio 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?

Rudi

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

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Rudi