

Re: Cahill on the speed of light (& Einstein)

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- *From:* "Mike" <eleatis@xxxxxxxx>
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Tom Roberts wrote:

Mike wrote:

Tom Roberts wrote:

the "signal" in just about all of these experiments is proportional to their resolution or errorbars. So the older ones have bigger "signals". He simply does not understand that a statistically insignificant "signal" is useless and a figment of his imagination.

If that is the case, the older ones have lower signals.

Not true. Older experiments with resolutions about 7 km/s are ascribed a "signal" about 7 km/s; later experiments with better resolutions are ascribed smaller signals. And he dismisses modern experiments with resolutions well under 1 m/s. Modern repetitions of the MMX show no significant variation with orientation at the few parts in 10^{17} level.

Can you give a reference to "modern repetitions" of the MMX? The LIGO dipole detected a definite absolute motion speed of about 365 Km/s. This is not modern?

Once the importance of errorbars is recognized and their value computed, ALL of these experiments are seen to be consistent with the null result predicted by SR.

Tell me something. let's say a car is moving at 30 Km/hr. You try to measure the speed by marking two lines on the road pavement 8.3333 m

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apart and you have a clock that counts only seconds, not less. Your resolution is $8.333 \text{ m/s} = 30 \text{ Km/hr}$.

Does that mean the car is not moving if you measure it's speed to be 30 Km/s?

No, it means that it may be going slower or faster. Not that it is not moving.

Drawing the conclusion that something does not move just because it's speed falls within the range of the resolution of the measuring device is the biggest blunder one can make.

Then, in this example, the measuring device was calibrated in advance. What is the calibration factor of these experiments. that is, what does 1m/s resolution correspond in terms of absolute motion speed. The amplification effect is very high and it gets bigger as the resolution gets lower.

What remains is to see a paper from you with the error bar analysis of the results by Miller. Everything else is just hand waving

Mike

For example, if you are using a high resolution encoder to measure position and then calculate velocity, the signal is bigger (sum of counts) and your accuracy better provided your counter's clock can keep up. The lower the resolution the lower the signal and the higher the noise.

This is not at all what these experiments do.

But a signal of 300 Km/s can be hardly associated with noise.

None of them claim a signal anywhere near that large.

As I say: amateurs look for patterns, professionals look at errorbars.

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Cahill is an amateur.

This gum you chew constantly about errorbars is a childish red herring.

No, it is a valid comment on the ability of all too many amateurs to understand science. <shrug>

The signal is WAY to BIG to be affected by resolution significantly.

Not true. In all of these experiments the "signal" is comparable to the resolution, and is not statistically significant.

Tom Roberts