

How did The Michelson-Morley experiment prove a stationary earth?



Michael Brenner

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The MM experiment was flawed from the beginning, and Sheydvasser's answer to a related question shows us exactly why:

"Is the Michelson-Morley experiment flawed, as the light is emitted in a moving frame (surface of Earth), not a stationary frame? Hence it is incapable by design to detect the aether?"

here he says: ".....Let's take a mental trip back to the 19th century. Huygens' wave theory of light won out against Newton's old idea of light as a collection of particles, although not without some issues. One of those was that waves, as understood at that time, required a medium to travel **through**. If light was a wave, and **light clearly travels through space** (since, you know, stars exist and we can see them at night), that would seem to imply that space must be **filled with some kind of substance through which light travels**. This substance came to be known as the luminiferous aether."

NOOO, it doesn't, light doesn't travel through space, as little as your fever curve. Light travels through time, that's why C.P. Steinmetz tried to educate us by using "lightsecond" or "lightyear" where emphasis lies on time, not on space. If a light signal takes a year to reach you, you don't know how far it has travelled, as that depends on the processing rate of the medium. And the processing rate of the medium is totally independent of what the light source does.

That is true for all waves, light holds no special position in that regard: when an earthquake in Chile sends out a tsunami towards Japan, the wave doesn't arrive earlier would Chile somehow move towards Japan, neither does the water surrounding Chile inundate Japan, but the waters surrounding Japan inundate Japan, that means no-thing travels through space, it just takes a certain amount of time until the waters surrounding Japan get excited enough to cause the inundation.

Here is all the misunderstanding about light and the ether in one animation: light is thought of as a projection through space where the x-axis is treated as spatial, whereas in reality it is temporal:



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.... therefore Einstein completely blew it when he imagined a wave frozen in space produced by at light source receding a light speed:



....that's NOT how light works though and therefore all experiments and interpretations based on these concepts must necessarily end up useless and meaningless.

The MM experiment was bound to have a null result, but the interpretations have not been that there is no ether, but that earth is stationary:

A. Michelson 1881: "This conclusion directly contradicts the explanation... which presupposes that the Earth moves."

Hendrik Lorentz 1886: "Briefly, everything occurs as if the Earth were at rest..."

H. Poincaré 1901: "A great deal of research has been carried out concerning the influence of the Earth's movement. The results were always negative ..."

L. Barnett 1957: "No physical experiment ever proved that the Earth actually is in motion."

B.Jaffe 1960: "The data were almost unbelievable... There was only one other possible conclusion to draw — that the Earth was at rest..."

Stephen Hawking 2007: "...to the question whether or not the motion of the Earth in space can be made perceptible in terrestrial experiments. We have already remarked... that all attempts of this nature led to a negative result..."

The "no ether" idea didn't survive 1920 anyways, when Einstein in his attempt to bring Special Relativity to the real world - as SR is a fantasy construct unrelated to the real world - realised he needed the ether:

"According to the general theory of relativity space without ether is unthinkable, for in such space there would not only be no propagation of light but also no possibility of existence for standards of space and time measuring-rods and clocks nor therefore any space-time intervals in the physical sense." (Ether and the Theory of Relativity, Leiden, 5.5.1920)

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David LeReveren · Sep 27

The important thing you missed, is that light doesn't need a 'medium' to travel through a vacuum, the way (for example) sound needs air or water. Instead, light is made of particles (with a 'wave nature') called Photons which can travel throu (more)

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Reply



Michael Brenner · Sep 28

You are mistaken: the so called vacuum has measurable non zero values μ and ϵ and therefore is "something" and not "nothing" as "nothing" cannot have a positive value of anything. Nobel Prize is politics, not truth, and Einstein - (more)

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Reply



Nicholas Cianfanelli But there's obviously no documentation at all for this "Einstein's..."



Tim Good · Sep 27

Michael Brenner is so good at taking things out of context that one can only conclude he is doing it on purpose.

There. Now go quote me. That will make it true.

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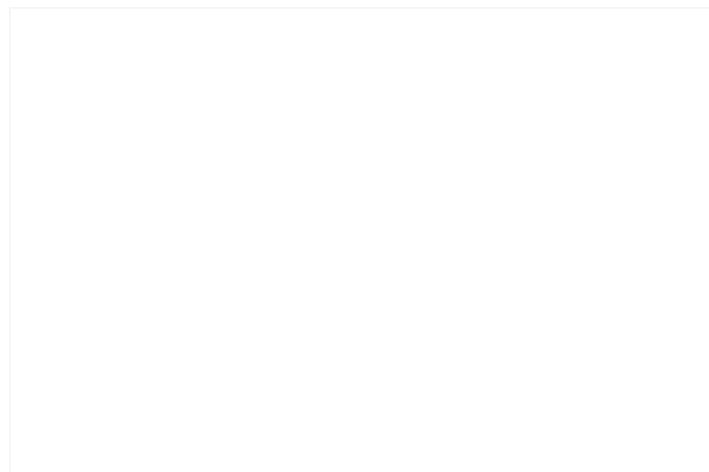


Reply



Nicholas Cianfanelli · Sep 27

Indeed 😏 And what a three-Michelin-star-worthy word salad it is too. To pick but the most obvious one, the speed of light in a vacuum so much "depends on the processing rate of the medium" that it's actually a universal constant. (more)





Michael Brenner It's not universal, diamond processes light at less than half the rate of wat...

Michael Brenner · Sep 28

Always the same undigested pseudo-argument: show us the context wich turns the sentence : *"According to the general theory of relativity space without ether is unthinkable,..."* into an abolishment of the ether.... take your time and do your research!

1 Reply

Tim Good I assume it has something to do with the "..." at the end of your quote. Of course,...

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