Reports on 120307A:

**

The First Report

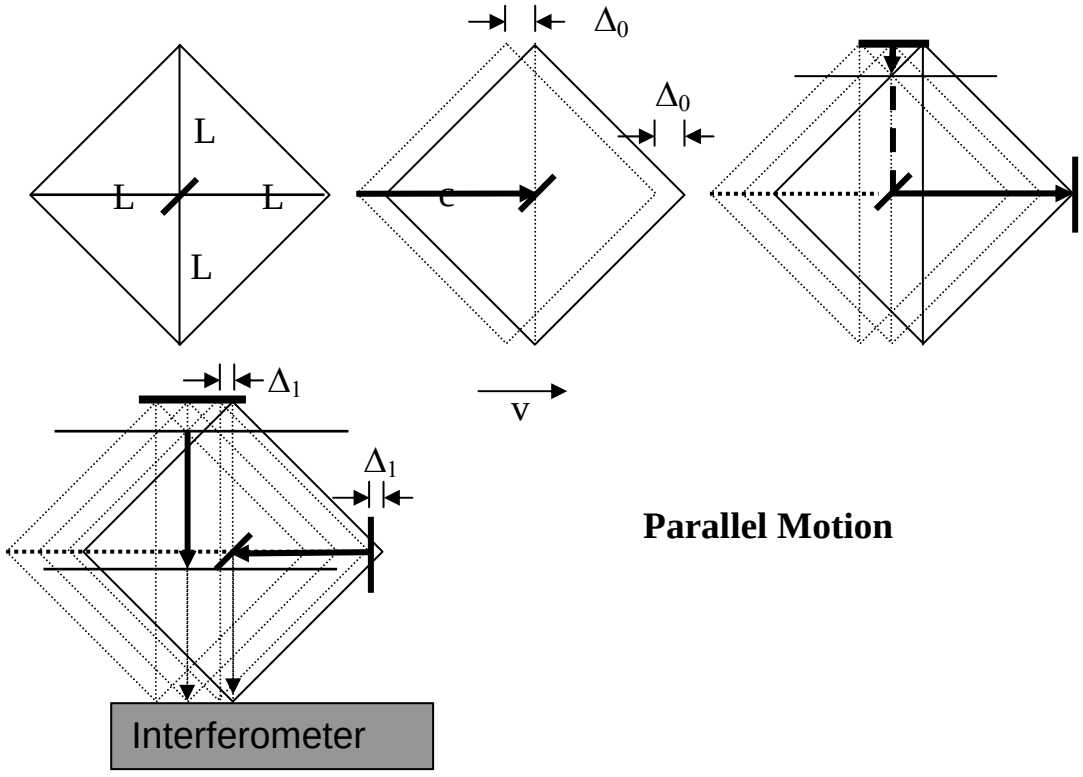
I write you in response for the review of the manuscript referred to as 120307A. The following are my comments to this paper.

1) **First of all M-M is not a principle, it only was an experiment.**

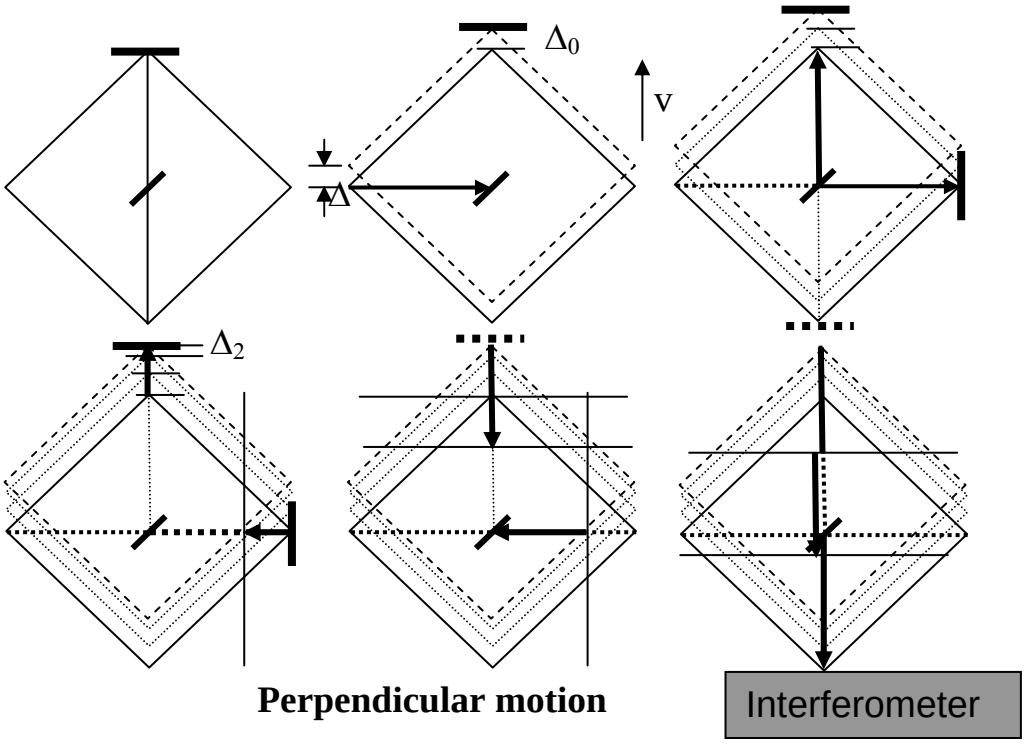
2) **We don't agree that Experiment of M-M is totally wrong, It is possible to criticize some interpretation of its results.**

3) **The Experiment of M-M was done in order to check how Earth moves relative to Ether, with the result that it does not move (!).**

4) **The correctness of your demonstration is not true. Your analysis is not correct either and thus its results. A demonstration is attached.**



Parallel Motion



Parallel movement to the light ray

Let us take Light Ray 1, for time reference. Let us observe:

$$\frac{L+\Delta_0}{c}=\frac{\Delta_0}{v} \Rightarrow \Delta_0.c=v.L+v.\Delta_0 \Rightarrow \Delta_0=\frac{v}{c-v}.L$$

$$\frac{L-\Delta_1}{c}=\frac{\Delta_1}{v} \Rightarrow \Delta_1.c=v.L-v.\Delta_1 \Rightarrow \Delta_1=\frac{v}{c+v}.L$$

Light Ray 1

Distances: $(L+\Delta_0)+(L+\Delta_0)+(L-\Delta_1)+(L)$

Time: $\left(\frac{L}{c-v}\right)+\left(\frac{L}{c-v}\right)+\left(\frac{L}{c+v}\right)+\left(\frac{L}{c}\right)$

Light Ray 2

Distances: $(L+\Delta_0)+(L+\Delta_0)+\left(c.\frac{L}{c+v}\right)+\left(c.\frac{L}{c}\right)=(L+\Delta_0)+(L+\Delta_0)+\left(c.\frac{L}{c+v_1}\right)+(L)$

Same times: $\left(\frac{L}{c-v}\right)+\left(\frac{L}{c-v}\right)+\left(\frac{L}{c+v}\right)+\left(\frac{L}{c}\right)$

Range difference between ray 1 and ray 2 during the same time in the entire route:

$$(L-\Delta_1)-\left(c.\frac{L}{c+v_1}\right)=L-\frac{v}{c+v}L-c.\frac{L}{c+v}=L-\frac{v+c}{c+v}L=0$$

Perpendicular movement to the light ray

Let us take, as before, Light Ray 1 for time reference. Let us observe:

$$\frac{L+\Delta_0}{c}=\frac{\Delta_0}{v}\ \Rightarrow\ \Delta_0.c=v.L+v.\Delta_0\ \Rightarrow\ \Delta_0=\frac{v}{c-v}.L$$

$$\frac{2.\Delta_0+\Delta_2}{c}=\frac{\Delta_2}{v}\ \Rightarrow\ \Delta_2.c=v.2.\Delta_0+v.\Delta_2\ \Rightarrow\ \Delta_2=\frac{v}{c-v}.\Delta_0=\frac{v^2}{(c-v)^2}.L$$

Light Ray 1

Distances: $(L)+(L)+\{(2.\Delta_0+\Delta_2)+[L-(2.\Delta_0+\Delta_2)]\}+(L)=4.L$

Times: $$\left(\frac{L}{c}\right)+\left(\frac{L}{c}\right)+\frac{(2.\Delta_0+\Delta_2)+(2.\Delta_0+\Delta_2)}{c}+\frac{[L-2.(2.\Delta_0+\Delta_2)]}{c}+\left(\frac{L}{c}\right)$$

Light Ray 2

Efective Distances:

$$(L)+(L)-(2.\Delta_0+\Delta_2)+(2.\Delta_0+\Delta_2)+[L-2.(2.\Delta_0+\Delta_2)]+L=(L)+(L)+[L-2.(2.\Delta_0+\Delta_2)]+(L)$$
$$=4L-2.(2.\Delta_0+\Delta_2)$$

Same times: $$\left(\frac{L}{c}\right)+\left(\frac{L}{c}\right)+\frac{(2.\Delta_0+\Delta_2)+(2.\Delta_0+\Delta_2)}{c}+\frac{[L-2.(2.\Delta_0+\Delta_2)]}{c}+\left(\frac{L}{c}\right)$$

Range difference between ray 1 and ray 2 during the same time in the entire route:

$$4.L-[4L-2.(2.\Delta_0+\Delta_2)]=4.\Delta_0+2.\Delta_2=4.\frac{v}{c-v}.L+2.\frac{v^2}{(c-v)^2}.L$$

As it is seen, results showed that, in perpendicular motion, Ray 1 arrives before Ray 2, with a difference that can be checked by the M-M experiment. In parallel motion they arrive at the same time.

The Experiment of MM of 1887 well was conducted and the expected differences (in perpendicular motion) in the fringes were not observed in the interferometer (during many years, in different days in the year and in diverse spatial orientations). It was direct cause of the first explanations and justifications of time dilation (currently observed) and length contraction given by Fitzgerald, Lorentz, Einstein and others until today, with all its consequences in physics.

In sum, I would advise to reject this article.
