

# On the experiment of Michelson-Morley

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In this article questions concerning measurements and verifications are discussed. Scientific progress depends on both origination of new theories and scientific experiments. There is possibility of false theories as well as false experiments (not provide exactness of corresponding measurements, false interpretation of results). A series of experiments have played decisive role on either scientific progress or inhibition. From this point of view Michelson-Morley's experiment has had a fatal significance as on the basis of "results" of this experiment A. Einstein originated its theory of relativity. It was declared with great enthusiasm, that this experiment gave a shattering blow the idea of ether. But in reality it hampered science development connected with the idea of ether.

Michelson and Morley wanted to detect earth movement in ether, so called "ether wind" in the experiment put in 1881. On the basis of their experiment the speed at which earth goes round the sun (30km/s) was considered as movement speed in ether. This was the fault of the experiment and naturally false conclusion which were so decisive.

We will bring here the proof of Michelson-Morley's experiment incorrectness.

The Earth moves in ether at a speed the value and direction of which is practically impossible to determine. In fact, the earth goes not only round the sun at 30km/s speed, but also it goes round the galaxy centre with sun at 300km/s speed, the Galaxy in its turn moves at 30km/s speed round a centre, and the latter also moves in space at a speed and so on. It means the speed of earth's movement in ether will be the vectorial sum of these speeds, which is practically impossible to determine. Therefore, Michelson-Morley's experiment is put incorrectly, as it takes into account only one speed, (that of the earth round the Sun) and the most insignificant one. Thus, it is groundless as an experiment. Disregard of this fact is a serious stroke for science progress. Ether and dark substance is the same thing.

Now we will show the incorrectness of  $\sqrt{1 - \frac{v^2}{c^2}}$  reduction formula deduction put on the basis of the theory of relativity (Figure 1).

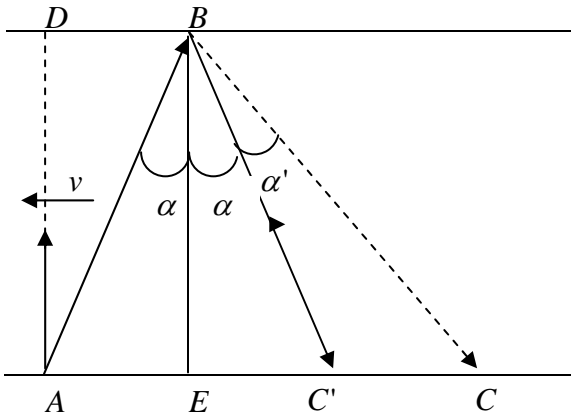


Figure 1

The results of Michelson-Morley's experiments are being tried to be founded with the reduction formula. Light ray sent from point A to D mirror is diverged from the vertical line in  $\alpha$  angle and falls on the mirror in point B. The ray will come from point B at  $\alpha$  angle according to the law of reflection and will be directed not to BE direction, but BC' direction at  $\alpha$  angle. Therefore its future movement will not be in BC' straight line, but BC. Here is the incorrectness, which is either a forethought or through misunderstanding, as  $BC \neq BC'$  and  $AB = BC'$ , hence  $AC \neq AB$ . Thus  $\triangle ABE \neq \triangle BEC$

and deduction of  $\sqrt{1 - \frac{v^2}{c^2}}$  reduction formula disappears completely. Henceforth  $\frac{t_0}{\sqrt{1 - \frac{v^2}{c^2}}}$ ,

$l_0 \sqrt{1 - \frac{v^2}{c^2}}$  reduction formulas of time and space become senseless, where  $c$  is light speed, and  $t_0, l_0$  - time and longitude in a motionless system.

Besides of the experiment, the deduction made on errors of the reduction formula, it has had fatal significance on originating a false theory, it is obligatory to look at facts and decline the false theory.

Now making use of Einstein's method, let's do the following mental experiments, which will prove the other errors which are on the basis of the theory of relativity.

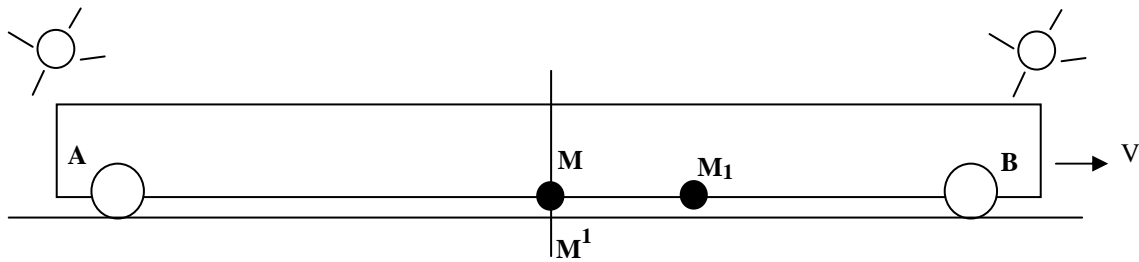


Figure 2.

The M observer is on the moving train. In the train on A and B points A and B torches are installed, which are equidistant from the observer. The  $M^1$  observer is in unmoved system connected with the earth. The train goes from left to right at V velocity. When M reaches  $M^1$ ; with M's knowledge A and B torches will be turned on simultaneously. Now let's follow to the further movement of light rays. As the point  $M_1$  is unmoved and is situated in the very middle of A and B points, therefore basing only on our rationality, we can say that they reach  $M_1$  point at the same moment. It means, that in difference to Einstein, we can say that two incidents which are simultaneous in one coordinate system, they are also simultaneous in another one.

And if we follow to Einstein's judgment, then light rays from A and B points should come to M point at the same moment, but as the train is moving hence the point M after the torches being turned on should be transferred and should hold another  $M_1$  position. It means in order to confirm Einstein we have to deny his own postulates. So either we ought to admit that light extends momentarily or light, for example, is carried by the system like voice. But, as we know the speed of light is limited and light does not move with the system. It comes out that from point A light reaches point  $M_1$  (M) later than from point B. The observer M according to the difference between these times immediately can calculate the speed of his system. As the M observer himself switches on A and B torches simultaneously, therefore following when they will reach M and  $M^1$  points, he can find out which system is moving. Therefore we can do the next important conclusion: the absolute straight-line and uniform motion can be detected by experiment.

Here is another mental experiment. Let's direct the axis of a round coin to the movement direction in a spaceship moving at a speed approximate to that of light. According to the theory of relativity coin profile will be circle round. Then let's turn the coin so that its axes become vertical to the movement direction and be in the same plane with it. What profile will the coin have in this case? In case of any form (round or elliptic) Einstein's theory of relativity will be wrong.

What is verification? It is measurement of corresponding exactness of the ascertaining quantity in adequate conditions for the phenomena in question. And to provide corresponding exactness depends on sensitivity of the measuring tool. It means, measurement exactness is of key importance for an experiment. From this point of view we should mention that "ether wind" could be detected if  $10^{-14}$  exactness is provided.