Comments regarding three papers by Ronald C Ward

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First paper: *Michelson-Morley Experiment Analysis Error Changes Time Dilation and Length Contraction*

Available at https://www.academia.edu/39783360/Michelson-Morley_Experiment_Analysis_Error_Changes_Time_Dilation_and_Length_Contraction

In the article Fig 1 describes exactly what this author has explained to NPA and CNPS for many years. This interpretation of MMX has also been accepted by Prof Hartwig Thim in Linz. Light behavior is completely unchanged in the transverse arm and therefore no effect of ether wind there. However, there is a small and unimportant change in one of the arms, in the fact that light hits a point on the detector changed some micrometers. This is much smaller than normal fringe size and therefore irrelevant, since equipment in sensitive only to time of arrival. This is not demonstrated in the diagram, but not important either.

It can be of interest to compare this to what I did write to NPA in 2009:

https://www.naturalphilosophy.org//pdf//abstracts/abstracts_1319.pdf

https://www.naturalphilosophy.org//pdf//abstracts/abstracts_1559.pdf

Fig 2 is also in agreement to my own ideas. It is of great importance to remember that in coherent systems, with plane wave fronts, we must use wave front normal – and not vector sum of wave vector plus ether wind – when we describe light. This follows from the fact that only wave motion, and not ether wind, has relevance in relation to mirrors. So, aligning MMX mean that, due to the distant mirror, wave front orientation is fixed in the equipment during rotation. Therefore, the real motion of light can deviate about 1 µrad from the optical axis, due to transverse ether wind caused by planetary rotation. This small effect is theoretically important when we regard MMX. We can conclude no wave front bending in MMX, and not in stellar aberration either. In stellar aberration, instead own motion produces an *illusion* of bending. Atoms in a crystal must use ether to control separation. So, positional information is moving between atoms with the speed $c+v$. Therefore, contraction of matter (not space) is $1-v^2/c^2$. So, 2 times the Lorentz contraction, as I have written to CNPS for decades. I have also asked for feedback on my blog from CNPS directors without result. You can see my blog at link below.

http://www.naturalphilosophy.org/site/johnerikpersson/

MMX, as well as stellar aberration are both useless in relation to the ether wind.

So, the only difference here between this author and Ron is the belief in a different cause of gravity. I regard the most probable model to be an ether wind blowing in negative radial direction in relation to Earth. I first stated this idea in *Galilean Electrodynamics* in July/August 1999. This ether wind can be united with the high precision in the GPS system.

Second article: *Transverse Light Propagation*

Available at: https://www.academia.edu/40572071/Transverse_Light_Propagation

In this article Ron argues that the traditional model of light from a point source is wrong. Instead he suggests a model containing a compressed spheroid in front of the source, and an extended spheroid behind the source. This at first seems to follow from the results in the first paper. However, in that paper we used *plane* wave fronts – not spherical. So, this new model is an *illusion*, and the problem is not that the traditional model is wrong, but rather *irrelevant*, since in most optical experiments we use coherent technology with *plane* wave fronts. Therefore, in coherent systems we should describe light as $c(1+v_L/c)$, with v_L as longitudinal light component. With this model we see that we have an illusion, since we cannot see that there is a motion inside the wave front. The traditional model can be used for the Coulomb force field.

In Fig 2c Ron uses β to describe the effect of transverse ether wind that he will detect in this experiment. β is assumed to be in the order of 10^{-6} radians and very difficult to detect. Normally we can detect the normal to the wave fronts **c** with extreme precision, but not the direction of the vector sum **c+v**. The reason is just that we have no points sources. In the experiment a laser is used, and this means *plane* wave fronts. This fact seems to explain why the results appears to be an order of magnitude lower than expected.

In the conclusion there is a reference to Huygens's principle, and this principle is valid in the frame of the ether. Therefore, light total motion can deviate 1 µrad from the normal, since the ether wind can be blowing inside the wave front, and motion (beam) can deviate 10^{-6} from wave front normal (ray). This normally ignored fact is important in MMX.

So, the fact that a laser is used means that the evidences for $\beta=0$ are uncertain, due to not perfect point source.

Discussion

According to this author gravity can be explained by a negative and radial ether wind equal to the escape velocity. This radial ether wind, together with tangential ether wind due to motion, can explain clock effect in GPS with **one** model instead of SRT **plus** GRT. Clock frequency is found proportional to $1-v^2/2c^2$. Since this ether wind is much larger than effect of Earth rotation it could perhaps be of interest to use Ron's method with one arm rotating in a vertical plane to find an ether wind in radial direction.

If this idea would not work it would also be very interesting to use the method suggested by Dr C C Su, and described by this author below; from 2009. This method can be used in a vertical plane if an advanced platform is available.

https://www.naturalphilosophy.org//pdf//abstracts/abstracts_1319.pdf

Third article: *Light Propagation Revisited As A Result Of Experiment*

Available at:
https://www.academia.edu/39895992/Light_Propagation_Theory_Revised_As_A_Result_Of_Experiment?fs=rwc

I later found this one: This article contains a diagram with test results.