

The MMX question

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The wave front and the mirror

Due to the irrelevance of the ether wind in relation to mirrors wave fronts in MMX are conserved in equipment frame, and mirrors are conserving wave fronts, as stated in the MEMO to the NPA conference in 2009. This has been defined in different ways, but, since the important MMX tests are done with resonators, a specific derivation related to this test form can give a new version of this proof.

Since light travels many times between the resonator mirrors, wave fronts that are not really parallel to the mirrors become more and more out of phase after each round trip. This means destructive superposition, and according to Huygen's principle, constructive superposition is real only for wave fronts parallel to the mirrors. Or, fastest are winning. So, beam width inside the resonator is reduced, and remaining wave fronts are therefore defined by mirrors and **independent of illumination**. This means that wave fronts are conserved in equipment frame for modern MMX tests in the same way as in original MMX. In both cases this means that **there is no effect of the ether wind in the transverse arm**.

The ether

The forces linking atoms in crystal must move between atoms with speeds related to the ether just like how forces in light move between mirrors. Therefore, the contraction of matter is equal to the reduction of 2-way speed of light. The effect in the longitudinal arm is therefore **compensated**. This effect is, in both cases, proportional to $(1-v^2/c^2)$, but the effect in atomic clocks, moving forth and back in one dimension of 2, is only half this effect namely proportional to $(1-v^2/2c^2)$. The difference by 2 fooled scientists to assume Lorentz invariance **instead of the correct** Galilean invariance.

Stellar aberration

The ether wind cannot rotate a wave front, since all points on the wave front are changed equally. Transforming a moving wave front from the frame of the Sun to the frame of the Earth changes wave front orientation, and explains stellar aberration independent of the ether wind.

Conclusion

No effect of an ether wind is observable in stellar aberration and in both arms of the MMX equipment. In the transverse arm the **wave model** was infected by a **particle-based** idea that mirrors control **particle** motion instead of **wave front** orientation. This mistake was hidden by time dilation but this produced instead the twin paradox and the wave-particle paradox. Therefore, Planck's constant could be regarded as quanta of light instead of as quanta of electron charge. The quantization, demonstrated by Bohr to be real in the hydrogen atom, was, in error exported to light.