

Errors in physics

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Background

Modern physics contains many paradoxes. So, we should be critical to physics at basic level. The important roles for Michelson-Morley's tests and stellar aberration in relation to the theory of relativity should be questioned.

Michelson-Morley's tests

These tests assume an ether wind, \mathbf{v} , to have relevance for light propagation, in such a way that light motion becomes $c+\mathbf{v}$ and $c-\mathbf{v}$, in two opposite directions. This results in a 2-way speed of light proportional to $1-v^2/c^2$.

It seems logical to assume \mathbf{v} to have relevance for the ether's transmission of transverse forces in light in the way here described. However, an important mistake seems to have been done here. **If the ether has this effect on transverse forces the same behavior should also be assumed in longitudinal forces between atoms.** Such forces are namely used for positioning atoms in a crystal. If we assume this as a fact, we find that the separations between atoms in a crystal also are proportional to $1-v^2/c^2$. So, we find that the effect searched by Michelson and Morley is compensated by a contraction of matter that is **2 times the FitzGerald contraction**. This contraction is not easily seen, since the contraction exists also in the present optical definition of the unit of length – and also in the older mechanical definition of length. So, Michelson-Morley's test is a useless method that we have used in vain since 1880. The searched effect is real but **not observable** by Michelson and Morley's method (MMX).

The transverse arm in MMX is used as a reference, and no effect was assumed in this arm until 1882, when an effect (equal to half the effect in the longitudinal arm) was introduced by a mistake. The error was an assumption that the vector sum $c+\mathbf{v}$ was forced to be transverse to the distant mirror. However, the mirror has relevance for c – but not for \mathbf{v} . Mirrors introduce boundary conditions for waves, but are transparent to the ether wind. So, the wave model is **not** followed in a strict way, and an infection with a particle-based idea caused light to look like particles. Thereby, the wave/particle paradox was created as the most fundamental paradox in physics was a fact. According to the wave model we can see that the vector, \mathbf{c} , is hold fixed in the equipment frame. Therefore, we can conclude that **no effect exists in the transverse arm of MMX.**

This mistake in the transverse arm was also devastating to physics in the sense that the transition from particle model to wave model for light was delayed – and is still not completed. A cover up for this error was found in the absurd concept of time dilation – together with a too small contraction of matter.

Stellar aberration

A translational ether wind can translate (move) a wave front, but cannot rotate a wave front. So, ether wind, \mathbf{v} , cannot cause stellar aberration. However, observer motion, \mathbf{u} , can cause an illusion of bending. This follows from the fact that an unchanged wave front must have a changed representation when observer motion is changed, and we must do a transformation of coordinates to another frame.

MMX – a scandal

Stellar aberration and MMX (in both arms) cannot detect an ether wind. However, the method is not only useless, but has contributed to delay the transition from light particles to light waves by an error in the interpretation in the transverse arm that was in conflict with the wave model. This was the cause of the most fundamental paradox in physics – the wave/particle paradox and the photon illusion. The twin paradox is also a manifestation of this mistake. So, the theory of relativity is based on very serious mistakes.

The photon illusion

The mistake with a particle behavior in the transverse arm in MMX started the illusion of light as particles. This idea was followed up by explaining phenomena as photoelectric effect and Compton effect by means of the particle model. However, it does not seem to be realistic to assume a particle moving towards a surface to cause another particle to move away from the same surface, as is done in the particle-based explanation to the photoelectric effect. Instead, an interference effect between periodic motion in light, and a periodic electron motion can change **potential** energy in the electron, if the electron has a **suitable** kinetic energy in advance. In about the same way an X-ray wave packet can excite an electron and when this electron is captured by another atom a secondary X-ray packet is generated. So, very simple explanations exist for Compton effect and for photoelectric effect by the wave model without light particles, or photons.

Continuous waves from a laser can (by a beam splitter) illuminate two photodetectors to produce equal amounts of photo electrons. Of course, the outputs are not correlated since electrons are not correlated. So, we have seen that the wave model is all we need to explain light.

Destructive superposition

Destructive superposition in light is in conflict with the law of energy conservation. This problem can be solved by assuming light to be without energy and instead containing information needed to gain energy from the ether. This means that the forces in light must be considered as **potential** forces, that are realized if they hit an electron.

Thermal radiation

Thermal radiation is produced by moving charged bodies. Contributions from many particles are needed in order to produce a detectable effect on an electron, used as detector. The forces must be assumed to move with the speed c , and a finite time must exist between generation of and creation of the force. We cannot accept action at a distance without time consumption. Therefore, forces in light must be regarded as potential. This means that we can conclude that energy is drawn from the ether and **not from the generating charges**. Therefore, bound electrons can generate **without** losing energy.

Radiation from hydrogen

The radiation from a hydrogen gas contains radiation from the difference frequencies between the ground states, but not from the ground states themselves. We can explain this phenomenon by the fact that all atoms in a specific ground state are in a wireless communication at the same wavelength. This fact means that it is possible that they all contribute to zero radiation by means of destructive superposition. It is not likely that destructive superposition can work for the difference frequencies. So, we can explain the hydrogen behavior without using the **damned** quantum jumping.

Summary

We have demonstrated errors in physics as early as in 1882. Correction to these errors means that we can use the Galilean transform without dilation of time, together with a contraction of matter, that is two times the FitzGerald contraction, since this contraction exists also in the unit of length. Without time dilation we need another explanation to the behavior of atomic clocks, observed in the global positioning system (GPS). Since bound electrons move forth and back in relation to the ether wind in one dimension of two, we find it reasonable that the ether wind can reduce the clock frequency. So, it seems reasonable to assume a clock frequency proportional to $1-v^2/2c^2$.

The deviation from the wave model in 1882 was devastating for physics, and caused the illusion of particles in light, and the most fundamental wave/particle paradox, that had relevance for the quantum theory also. We have seen that light can be described by just the wave model. However, the particle model is also needed, but not for light, but to describe the ether. The 300-year-old ether model described by Fatio can do that based on particles, and includes Newton's gravity as special case. So, we have an ether that explains light propagation together with gravity, where gravity is caused by a radial ether wind. Such a spherical ether wind can be united with the spherically symmetric global positioning system.

We have also demonstrated a possible error in the common opinion, that electrons must be jumping, in order to be able to generate electromagnetic radiation, and at the same time we have seen that the conflict between destructive superposition and the law of energy conservation can be solved. We have also seen an explanation to the lack of radiation from ground states in the radiation from Hydrogen.