

The Three Great Problems in Physics

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Background

Physics of today is like a tripod – resting on three legs – and these legs are shaky:

- Gravity according to GRT, the theory of general relativity.
- Light behavior according to SRT, the theory of special relativity.
- Small scale events according to QM, quantum mechanics.

These three theories are all usable in practical work. However, they all fail to give simple and consistent descriptions of reality. So, physics of today is in a bad shape.

Gravity

Newton gave us the law of gravity, describing a force that is proportional to the product of the mass values in two bodies. He correctly regarded an existing ether to be needed for describing this force; something that most scientists deny today. He also, in error, regarded this force to be an attraction between the two bodies. We will later see, that instead, the ether is causing these two forces to emerge inside the two bodies. Attraction between two bodies, without an intermediary, is not possible.

To see why two bodies in vacuum cannot attract each other, we must regard the fact that they have no information about each other. Therefore, no one of them can define the product of their masses. So, the cause of gravity must be a concept with information about the values of both bodies. The only concept with this property is the ether. Therefore, the ether must be the cause of gravity. This means, that the ether causes gravity to emerge inside both bodies. The assumption of emergence means that it becomes simple to generalize to more than two bodies.

A theory of this kind was presented by Fatio more than 300 years ago, but his idea was abolished in error, since his idea was said to imply aberration of the kind that is observed in light. This was a devastating mistake, since emergent gravity does not move as light does. Therefore, we see no aberration in gravity, as also is demonstrated in the stability of planetary orbits. Emergent gravity is consistent with an assumption of ether particles being absorbed by matter. In error, the interaction between ether and matter has earlier been described by collisions between ether particles and matter, and this error is the reason, to the idea that gravity was believed to be moving.

Fatio's model is based on very small and very fast particles, moving in all directions. When this particle flow is passing a

material body a very small amount of these particles is absorbed in that body. (Gravity is a weak force.) Therefore, the particle flow leaving the body is slightly reduced, although the flow in opposite direction is unchanged. So, a very small difference causes a net effect of an ether wind in negative radial direction. This radial ether wind is the cause of gravity, since a radial ether wind caused by a body A, and symmetric to A, means an asymmetry inside another body B. So, a net flow in B causes a force in B directed towards A. So, gravity is an effect of the ether. This effect works in both directions between the two bodies.

We have found that Fatio's brilliant idea gave us a very good description of gravity, but his idea was misunderstood due to a wrong assumption, regarding how the ether particles interact with matter. Since we did not see that gravity is an emergent force, we had to do a cover up by using magic in the form of bending of emptiness. Instead of such magic, classic physics is enough for describing gravity and therefore we do not need the theory of general relativity.

Light behavior

Light is a wave motion, that we describe by the wave model in the form of wave fronts, and we must give up all particle-based thinking. (A wave front is a surface containing points that all are in the same phase.) The real direction of light motion is described by a vector sum of ether wind and wave vector. If light is concentrated into a beam, the said vector sum represents the direction of maximum intensity in the light beam (beam direction). However, in most optical experiments we use coherent technology, and this means that we detect light based on phase. We therefore find the normal to the wave fronts, and this means the apparent direction of light motion. This is the ray direction described by the wave vector plus just the component in the ether wind, that is parallel to the wave vector, since comparison by phase cannot give us information about the ether wind falling inside the wave front. So, the apparent light motion follows a straight line, although the real light motion changes due to changes in the transverse ether wind.

We have found that we need two models for describing light: real light motion and apparent light motion. In most optical experiments the apparent light motion is the relevant description, since we normally use coherent technology, where just the apparent light direction is observable. The need for distinction between these two light models seems not to be observed and therefore we have used

the wrong model in most cases. We have not observed that ether wind inside the wave front is not relevant in a coherent system. Perhaps the reason to this mistake is that the ether wind and the wave velocity are very different concepts in many properties, not just in magnitude.

The irrelevance of transverse ether wind in coherent systems has not been observed, and this ignorance caused a devastating error about 140 years ago, when the Lorentz factor (or gamma) was introduced in error. This mistake was based on the idea of a change of light motion due to the transverse ether wind. Yes, the real light direction is changed, but the apparent – and relevant – direction of light motion is not changed in a coherent system. As a cover up for this mistake the concept of time dilation was introduced. So, we got multiple time concepts and physics became a mess. An attempt to solve the problem with the theory of relativity had the effect that space also became corrupted. So, we must give up the theory of special relativity and the Lorentz factor. Instead, we can use the Galilean transform and just one time concept in line with classical physics (instead of spacetime). We do not need the theory of special relativity.

Small scale events

It is observable, in the spectrum of hydrogen radiation, that electrons in circular orbits around a kernel have values of the orbital radius taken from a set of discrete values. The properties of the electron and of the hydrogen kernel appears to cause a discreteness inside the system. However, we have no reason to conclude that this discreteness exists outside the hydrogen system. We can therefore not conclude any properties in the more general concept of energy and the existence of energy quanta cannot be concluded from this observation.

The photoelectric effect is explained today by a light particle moving towards a crystal and thereby collide with an electron in such a way, that the electron is forced to move away from the crystal. This behavior is not possible, but it is possible that a periodic light wave can make interference with an electron in periodic motion and thereby cause the electron to escape. This process is reverse in relation to a known process where an electron is captured in a crystal whereby an X-ray wave packet is generated. So, the wave model is better in relation to the photoelectric effect. The wave model is also much better than the particle model in explaining the Compton effect in two steps: first a wave packet causes an electron to escape, and later when this electron is captured by another atom a second wave packet is generated. So, we have found that the particle model for light has problem with the photoelectric effect and the Compton effect, that easily can be solved by the wave model for light. No light quanta are needed.

We have now seen that we do not need quanta in energy and not in light either. So, we can conclude, that the only quantization we really need is the quantization in the ether, as was described by Fatio.

Conclusions

- The general theory of relativity is not needed.
- The special theory of relativity is not needed.
- Quantization in energy is not needed.
- Quantization in light is not needed.
- The ether concept is needed.
- Quantization in the ether concept is needed.

Summary

Misunderstandings regarding the interaction between ether and matter gave us the general theory of relativity, and not observing that we need two models for describing light behavior gave us the theory of special relativity.

Discussion

The problems ending in the general theory of relativity started more than 300 years ago and the problems resulting in the special theory of relativity started about 140 years ago. How is it possible that these mistakes remain undiscovered for such a long time? An experienced scientist should always be skeptical to all made assumptions, but in reality, most scientists do not listen to this recommendation. They find it more fun to look in only one direction. Can we do a generalization of this idea and conclude that people are more controlled by what is fun than by what is rational?

The problem to understand gravity can also depend on an overestimation of mathematics or a confusion regarding the roles of mathematics and physics. Newton seems to have made a too drastic step, when he was raising a mathematical result, based on Kepler's laws, into the law of gravity. We may also have been fooled by our mathematical trick to regard all mass to be concentrated in one central point. This is a mathematical truth for a perfect sphere. Perhaps we instead should do an integration of density over volume, in order to find a description valid in physics.

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