

Time does not belong to the physical Universe

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Abstract

This report presents the problem of time in physics and shows that time does not exist physically. Time is a transcendental concept of the mind.

Résumé

Ce rapport présente le problème du temps en physique et montre que le temps n'existe pas physiquement. Le temps est un concept transcendantal de l'esprit.

1 Introduction

The theory of Relativity is based on Lorentz's formulas. According to these formulas, time would be slowed down for moving bodies. Of course, the effect would only be measurable for very high speeds. In the same way, time could change depending on the distance to the stars. Time would act on the bodies at the same time as the modification of the distances to accelerate them. This is how the theory of General Relativity claims to explain gravitation.

2 The nature of time

Time is not perceptible. None of our senses allow us to perceive time. Our watches give the position of the hands or numbers. We see them, but it is not time itself.

On the other hand, time is composed of the past, the present and the future. However, the past no longer exists and the future does not yet exist. Only the moment remains and the moment has no duration otherwise it would itself be composed of past and future which cannot exist. The moment is therefore infinitely short. Only the moment exists. Time has no physical existence.

How could time that does not exist be modified by physical bodies in motion and act on them?

Relativists certainly think that we must consider the succession of moments. This succession could be more or less rapid depending on the speed of the bodies or the mass and the distance of the stars. Obviously the past moment no longer exists and the future moment does not yet exist, but the present moment exists and would leave room for another present moment.

3 Time as a succession of instants

The idea that instants would follow one another implies a “place” in which the succession would occur. All present instants would have to exist at the same time somewhere in order to be positioned in relation to each other.

We could first think that instants are positioned in space. Each place would correspond to an instant. How then could an immobile body pass from instant to instant? Time does not flow in space at all. Instants cannot follow one another in space.

We could then think that the succession of instants would occur in time. There would be a time behind time with a past, a present and a future. And in this time behind time, again only the instant can exist. There would only be an instant behind the instant. There would have to be another time behind this time carrying successive instants, and so on, indefinitely.

Finally, a body in motion would pass from moment to moment in this infinite succession of present moments. But since moments have no duration and their succession is necessarily instantaneous, how could this succession be more or less slow?

4 Quantified time

A response is obvious: instants would have an infinitely short duration, but in Newton's sense. Newton's differential analysis is based on the theory of sequences. However, sequences are made of distinct elements. Newton's differential is extremely small, but it is not infinitely small, unlike Leibniz's differential analysis. Newton's position is very realistic since physically the infinitely small has no meaning.

Instants are in a way quanta. That's what Einstein thought. It was so obvious in his mind that he didn't think it necessary to write it down. His quantified vision of light proves it. His theory of General Relativity is expressed by mathematical relations. The continuity of these equations results from Leibniz's vision. But these equations are in reality quantified in Newton's approach, that of Einstein.

Here are instants, quanta of time, which follow one another. The quanta of time are strictly adjacent, without any interval between them. Indeed, the bodies should disappear in such an interval before finding themselves in their new position in the following instant.

A serious problem arises. The bodies change position by passing from one instant to another. They should pass from one position to another

instantaneously. It is a question of passing from one position in space at one instant to another position in space at the immediately following instant: an infinite speed is required.

The relativists thought to definitively eliminate the philosophers' vision of time by materializing it, in a way. It appears that the philosophers were right.

Time does not exist in Nature, in the physical Universe. Time exists only in the mind of man.

Time and space are transcendental concepts which allow the mind to apprehend movement.

6. References

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