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Paper Title

***ON MOTION. ITS RELATIVITY AND THE EQUIVALENCE PRINCIPLE***

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In this paper, the author tried to analyze the physical phenomenon of a rigid body subjected to multiple, non-coaxial rotations and deduce its laws of behaviour as well as the mathematical expression.

The Equivalence Principle put forward by Albert Einstein is currently undergoing comprehensive revision to determine its degree of accuracy. Notwithstanding, this principle refers to a very specific circumstance, as is free-fall, thus in opinion of the author, it cannot be generalised to any other movement in space.

This paper refers to the dynamic hypotheses of moving rigid bodies and a particular, structured theory that would establish how such bodies behave when subject to different actions that oblige them to make successive, non-coaxial spins. With respect to bodies subject to acceleration by rotation, we understand that there are indications to identify the prior dynamic state of the moving object and that examples of a violation of the aforementioned Equivalence Principle can be deduced thereof.

Based on the findings of this paper and the Theory of Dynamic Interactions put forward herein, the author suggests that an observer can identify the prior situation of absolute rest or absolute non-rotation of a body, thus leading to the conclusion that movement does not necessarily have to be a relative concept. The foregoing leads us to propose that the Equivalence Principle is fully valid for the situation put forward by Albert Einstein, but cannot be generalised to any dynamic situation.

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