

Smulsky J.J. New Understanding in Physics and Astronomy. India, UK: B P International. 2023, 209 p. ISBN 978-81-967401-5-3 (Print), ISBN 978-81-967401-6-0 (eBook), DOI: 10.9734/bpi/mono/978-81-967401-5-3.

### **What new does this book provide?**

Light is the electromagnetic action of a source on a receiver. If the source moves relative to the receiver, then the characteristics of light change are in accordance with the experimental laws of electromagnetism.

Is the Solar system stable, will it fall apart over time? Is it possible to predict the movement of asteroids after their approach to the Earth? Accurate and thorough solutions to the problems of Newtonian interaction of celestial bodies, including those for 100 million years, provide unambiguous answers to these questions.

The excess rotation of Mercury's perihelion is due to the oblateness of the Sun. This was established as a result of solving the problem of interaction of the Solar System bodies by Newton's law of gravity. General relativity (GR) is not needed.

The problem of the evolution of the Earth's axis over 20 million years has been solved. This is one of the most difficult problems of modern science. Many interesting properties of the evolution of the Earth's rotational motion have been established that were previously unknown.

Are there gravitational waves and neutrinos? General Relativity and gravitational waves were needed to explain the excessive rotation of Mercury's perihelion. Since it is due to the oblateness of the Sun, General Relativity and gravitational waves are not needed. According to the hypothesis of the Theory of Relativity, the mass of a particle depends on the velocity of its movement. In order for the hypothesis not to contradict the experiments, neutrino particles were introduced. In reality, from the experimental laws of electromagnetism it follows that force of interaction of a charged particle depends on its velocity relative to the second particle, and its mass is constant. Therefore, particles neutrinos are also not needed.

A video demonstration of the book can be viewed here:  
<https://www.youtube.com/watch?v=4t7iMn0MArQ>.

A fragment from the book can be viewed here:  
<http://www.ikz.ru/~smulski/Papers/NUPhA2JSh.pdf>.

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