

**BORIS KHOTS
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**SPECIAL AND GENERAL
RELATIVITY THEORY
AND GRAVITATION
FROM OBSERVER'S
MATHEMATICS
POINT OF VIEW**



Boris Khots and Dmitriy Khots

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Special and general relativity theory and gravitation from Observer's Mathematics point of view

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This book considers Special and General Relativity Theory and tensor's approach to Gravitation theory in a setting of arithmetic, algebra, topology provided by Observer's Mathematics. Certain results and communications pertaining to solution of these problems are provided. First we give here short review of Observer's Mathematics, then consider Observer's Mathematic application to Special and General theory of relativity and Gravitation. The mathematics of general relativity refers to various mathematical structures and techniques that are used in studying and formulating Albert Einstein's theory of general relativity. The main tools used in this geometrical theory of gravitation are tensor fields. The principle of general covariance states that the laws of physics should take the same mathematical form in all reference frames and was one of the central principles in the development of general relativity. When we go to Observer's Mathematics point of view, we note immediately that "tensor idea" becomes incorrect. I.e. the idea of equality of all coordinate systems (local basis) becomes incorrect. We proved that tensors are only tensors with some probability less than 1.

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