

# **Boris Khots and Dmitriy Khots**

# ELECTRODYNAMICS AND THERMODYNAMICS FROM OBSERVER'S MATHEMATICS POINT OF VIEW

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# Electrodynamics and Thermodynamics from Observer's Mathematics point of view

OOO "KURS Publishing House"
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Tel.: +7 495 203 57 83
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In this book we continue to consider Observer's Mathematics applications to different areas of contemporary physics. Now we develop Observer's Mathematics applications to electromagnetism and thermodynamics.

First we give short introduction to arithmetic operations in Observer's Mathematic and then go to the Maxwell equations in electrodynamics and thermodynamics. A it is usually happened with Observer's Mathematics applications we immediatel get the probabilistic process, without any apriori assumptions. And from Observer Mathematics point of view Maxwell equations become equations with random var ables. We research various characteristics of these equations, including their invarance (for electrodynamics) under Lorentz transformation. Sure, and Lorentz transformation we consider also from Observer's Mathematics point of view. We prove that Maxwell electrodynamic equations in Observer's Mathematics are invarian under Observer's Mathematics Lorentz transformation in sense that they have the same expression in different inertial system of coordinates, but difference is only i random summands having different distribution functions.

## ОГЛАВЛЕНИЕ

| 1. INTRODUCTION |   |     |
|-----------------|---|-----|
| 2. AR           | ITHMETIC OPERATIONS IN OBSERVER'S MATHEMATICS   | 7   |
| 3. TEI          | NSORS IN OBSERVER'S MATHEMATICS   | 27  |
| 3.1.            | Space $E_m W_n$   | 27  |
| 3.2.            | Scalar product in $E_m W_n$   |     |
| 3.3.            | Vector product in $E_3W_n$  | 37  |
| 3.4.            | Derivatives in $\mathbf{E}_{m}\mathbf{W}_{n}$   |     |
| 3.5.            | Formal vector $\nabla$ in $E_3W_n$  | 43  |
|                 | AXWELL ELECTRODYNAMIC EQUATIONS — OBSERVER'S HEMATICS POINT OF VIEW   | 62  |
| 4.1.            | Tensors in electromagnetic fields theory  |     |
| 4.2.            | Non-tensors in electromagnetic fields theory  |     |
| 6. OE           | RACTERISTICS FROM OBSERVER'S MATHEMATICS POINT OF VIEW  BSERVER'S MATHEMATICS MAXWELL ELECTRODYNAMIC  ATIONS CHARACTERISTICS      |     |
| 6.1.            | Simplified Observer's Mathematics Lorentz transformation  | 96  |
| 6.2.            | Simplified Observer's Mathematics Lorentz transformation of electromagnetic fields  |     |
| 6.3.            | Observer's Mathematics Maxwell electrodynamic equations invariance under Simplified Observer's Mathematics Lorentz transformation | 127 |
|                 | HERMODYNAMICS FROM OBSERVER'S MATHEMATICS   | 138 |
| 7.1.            | Thermodynamical equations from Observer's Mathematics point of view   | 138 |
| 7.2.            | Maxwell relations in Thermodynamics from Observer's Mathematics point of view   | 140 |
| DEE             | EDENCES   | 143 |