



# Annotation

of book



## *“Fully geometrized physics from the standpoint of the Algebra of signatures”* (Stochastic metaphysics)

Mikhail Batanov-Gaukhman,  
Moscow 2018

### **Main results:**

In this book, with a metric-dynamic and stochastic positions proposed:

- principles of construction of fully geometrized physics (more precisely, stochastic metaphysics), based on the axiomatics of the Algebra of signatures (presented on the site [www.alsignat.narod.ru](http://www.alsignat.narod.ru));
- extended Einstein vacuum equations and their hierarchical solutions;
- fundamentals of quantum geometry and derivation of the Schrödinger equation;
- expressions relating the Planck constant to the main characteristics of a stationary random process.
- fundamentals of vacuum dynamics and prospects for the development of vacuum ("zero") technologies.
- metric-dynamic models of almost all particles included in the Standard model: "electron" and "positron", "quarks" and "antiquark" of all colors and generations, "proton" and "antiproton", "neutron" and "neutrino" of different varieties;
- metric-dynamic models of all known types of force interactions: "electromagnetic", "weak", "nuclear" and "gravitational".

### **In addition:**

- the possibility of the existence of the world in the absence of asymmetry between "matter" and "antimatter" is explained. That is, in this work the number of "particles" is fully consistent with the number of "antiparticles", while the world does not annihilate, since the particles and anti-particles are in complex-related States;

- a single, fully geometrized, hierarchical model of the Universe was obtained, which includes both macro-objects (universe, metagalactics, galaxies, stars and planets) and micro-objects (biological cells, elementary "particles", proto-quarks, etc.). the relationship between different objects of this hierarchy was Shown;
- the second, third and other generations of leptons and quarks are explained as excited States of the first generation of leptons and quarks;
- laid the foundations of quantum-stochastic geometry;
- the metric-dynamic nature of gravity is revealed, and the reason for the difference between gravity and other types of force interactions is shown;
- prerequisites for the development of vacuum (zero) technologies, such as: artificial formation of macroscopic "wormholes" for moving in space, infinite sealing of communication channels, repulsion from "vacuum", obtaining energy from "vacuum", freezing and evaporation of "vacuum" and many others have been created;
- the efforts aimed at the total unification of world constants, and, most importantly, the complete eradication of geometrized concepts fully understand the physics of the heuristic concepts of "mass", and all concepts derived from the masses: "power", "energy", "momentum", "temperature" etc. is Chosen, the metric-dynamic analogues of these concepts, for example, the concept "mass" is replaced by the dimensionless concept of "inertia"; the concept of "power" to "actual acceleration"; "energy" and "temperature" are replaced by "intensity" and "intensity", etc. The dimensions of all newly introduced physical quantities do not contain the unit of mass - "kilogram". Without solving this problem, we can not create a fully geometrized physics, because heuristic concept of "mass" in principle can not characterize the metric-dynamic properties of 4-curved space;
- laid the foundations of "Vacuum Biophysics", "Vacuum Ethics" and " Vacuum Safety (Responsibility)";
- identified the analogy between the Algebra of signature (Assignee) and the theory of superstrings.

These results were achieved thanks to the introduction of only two main modifications to Albert Einstein's General theory of relativity (GRT):

1. Instead of considering a single 4-dimensional curved space, for example, with a signature (+ - - -), Assign considers a collection (or superposition) of sixteen 4-dimensional spaces with all kinds of signatures:

$$\begin{array}{cccc}
(++++) & (+++-) & (-++-) & (++-+) \\
(----) & (-+++ & (--++) & (-+-+) \\
(+---) & (++) & (+---) & (+--+ & \\
(--+-) & (+--+ & (-+---) & (----)
\end{array}$$

2. In Einstein's vacuum equation, not one lambda term is added, but an infinite number of lambda terms:

$$R_{ik} - \frac{1}{2}Rg_{ik} + \Lambda_1g_{ik} + \Lambda_2g_{ik} + \Lambda_3g_{ik} + \dots + \Lambda_\infty g_{ik} = 0,$$

or

$$R_{ik} - \frac{1}{2}Rg_{ik} + g_{ik} \sum_{n=1}^{\infty} \Lambda_n = 0,$$

provided that a series consisting of lambda members converges to zero

$$\sum_{n=1}^{\infty} \Lambda_n = 0.$$

Each Chapter and each paragraph of this work is only the beginning, indicating a separate direction for further extensive research on the way to full geometrization (or rather to the realization of the full illusory) of our ideas about the world.

Religious-philosophical foundations provided here stochastic metafiziki presented on the website <http://www.alsignat.narod.ru/>.