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The Ballistic Theory of Ritz  
and Principles of the Universe

The Conception of Matter and Light, Microcosm and Outer Space  
The Alternative to the Relativity Theory and Quantum Physics  
Revolution in Science and Engineering

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Annotation

A century ago, on July 7, 1909, the destiny cut short the life of a young talented scientist Walther Ritz, who contributed greatly to scientific progress. Up to now the Ritz's combinative principle is used in spectroscopy, and the Ritz's variational method – in mathematics and physics. However, there exist some other, probably, more important scientific research results which have been forgotten due to their disagreement with the dogmas of the relativity theory and quantum physics. These results are the ballistic theory and the magnetic atom model developed by Walther Ritz in 1908. His sudden and tragic death in 1909 prevented the scientist from accomplishing his research and proving these fundamental concepts of light and atoms, electromagnetics and gravitation. As the result, the theories and the name of the scientist were nearly forgotten, though it is Ritz's ballistic theory that can quite easily and vividly explain many enigmas of nature. This book was written to put the historical record straight and to remind the mankind how much Walther Ritz had done for science. It is a popularly written book the author of which has set forth and evolved the Ritz's ballistic theory taking into account the present-day state of science.

Preface

In hallowed memory of Walther Ritz, the hero of science

A century ago, in 1908-1909, there appeared a challenging and universal conception which is now known as the ballistic theory of Ritz (BTR). It is based on original ideas of the Swiss physicist, Walther Ritz, about the nature of light and electricity, mass and time, magnetism and gravitation, about the structure of atoms and electrons. These ideas provide an understandable and vivid explanation of such enigmas of outer space as, for instance, the red shift of galaxy spectra, help to understand the structure of atoms, nuclei, elementary particles and the nature of their interaction. But in spite of that, or, no less likely, for this very reason, the advocates of the relativity theory and quantum physics prefer to pay no attention to the strong points of the ballistic theory. Isn't it due to the universal and classical nature of the ballistic theory which can knock the present-day physics and cosmology down like a house of cards?

The goal of the book, the publication of which is timed to coincide with the 100th anniversary of the birth of the ballistic theory and the 100th anniversary of Walther Ritz's death, is to break the century-long conspiracy of silence surrounding the BTR. The scientist died in 1909, at the age of

31, shortly after publication of his revolutionary theory. Let us hope that thanks to the book the anniversary will stick to memory of scientists for a long time. The book will, hopefully, make the real essence of Ritz's theory clear, share with the reader his views on the structure of atoms, electricity and light, narrate about the nature of time and gravitation, the structure of the microcosm and the outer space and about the perpetual youth of the universe; relate the close relationship between the ideas of Walther Ritz and other great scientists and thinkers: Democritus, Galilei, Newton, Lomonosov, Mendeleyev, Tsiolkovsky, Belopolsky, Tesla.

The conspiracy of silence surrounding the ballistic theory is evident, at least, due to the fact that many of those who support the BTR had to come to many ideas reflected in the ballistic theory themselves. The same has happened to me, and later, after a thorough analysis of the related literature I was surprised to find out that similar ideas had been set forth a century before. Going deep into the matters of this theory has inspired me to translate the fundamental work of Walther Ritz and to relate its essence at first on the website [www.Ritz-BTR.narod.ru](http://www.Ritz-BTR.narod.ru), then in a number of articles and reports and now in this book. The book contains a number of new, original, ideas which evolve and strengthen Ritz's theory on the basis of the present-day scientific data. From the point of the BTR we will at once take a look at physics, chemistry, astronomy and cosmology. The reader will be able to get acquainted with the information hidden behind the veil of time and dip into the future.

In contrast to the abstract theory of relativity and quantum physics, which are hard to understand, Ritz's theory the basis of which is made of classical, mechanical concepts, images and models, explains all the phenomena in a clear and vivid way. This is why the book is quite understandable for high schoolers and students. One can read it both as if it's a compelling novel about the drama of ideas and people and as a Guide to the ballistic theory. Those who will get an insight of the book will not only learn a lot about the system called "universe" but will also be able to make their own discoveries, quite easily solving important questions raised in physics and astronomy, the questions which the scientists who do not recognize the ballistic theory haven't solved up to now. The book gives the reader the opportunity to see many phenomena of nature in a new light.

The relativity theory and quantum physics have been criticized by lots of people, but for a long time that criticism has been chaotic as the authors of different theories have confused each other rather than supported. Hopefully, thanks to its universality, the BTR will put the motley of theories and chaos of ideas in order, will help their supporters to join their forces on the basis of general classical principles and to focus their efforts in one direction. Thus, the BTR will act as a kind of electroshock that will defibrillate the heart of science: it will synchronize the uncoordinated cardiac muscle contraction and make the heart of science beat anew. The similar principle of synchronization of oscillation modes can be found in laser physics: moving in a chaotic way harmonics which begin to coincide in phase, generate a strong laser impulse. In the same way the BTR can give a strong synchronizing and harmonizing impulse to science.

The book consists of five parts. Part 1 reveals the basics of Ritz's ballistic theory and the essence of his electrodynamics. Part 2 shows the efficiency of using the ballistic principle and the BTR in the outer space. Part 3 deals with Ritz's ideas concerning the structure of the microcosm, including the structure of atoms and electrons. Part 4 presents Ritz's views on the radiation theory with the application of his ideas to chemistry, thermodynamics and solid-state physics. And, finally, Part 5 shows the prospects and possible ways, directions for the development of the BTR, its practical applications.

The first two parts concern themselves with the criticism of the relativity theory suggesting an alternative conception of Walther Ritz, whereas the second two parts criticize the quantum theory again proposing an alternative, and, namely, Ritz's views on atoms and electrons. Part 5 is a quintessence of the four parts which helps to comprehend the ideas and systematize the information reflected in the book, gives the opportunity to put those ideas and information into practice, introduces the method of scientific inquiry and its specifics. Though in many respects the parts of the book are independent it is worthwhile to read it from the very beginning so that one could better perceive the conceptions developed by Walther Ritz.

The calculations found in the book are used in short and are not beyond the scope of physics and mathematics courses at universities. All the calculations and formulas are given in the SI-system. The thing is that the centimetre-gram-second system (CGS) used in some physics courses is often confusable and disguises the defects of Maxwell's electrodynamics. There, where it is necessary, vector variables are printed in bold type. Raising to the fractional degree is often used instead of the root sign. Thus, instead of the square root there will be " $a^{1/2}$ ", instead of the cube root – " $a^{1/3}$ ". Apart from that, it is useful to keep in mind power series expansion of the function  $(1\pm x)^m = 1 \pm mx + \frac{m(m-1)}{2!}x^2 \pm \frac{m(m-1)(m-2)}{3!}x^3 + \dots$ , where  $2! = 1 \cdot 2$ ;  $3! = 1 \cdot 2 \cdot 3$ ;  $4! = 1 \cdot 2 \cdot 3 \cdot 4$  often used in Ritz's theory.

I would like to express my gratitude to all the supporters of the BTR, first of all to V.I. Sekerin for his book published in 1988 which became the first robin of the BTR-spring; V.V. Cheshev for his support, translations of articles written by Ritz and Freindlich and sent to me copies of collected papers of Ritz; V.P. Maslikov for his infectious enthusiasm and interesting ideas and analogies. Great is also the scientific contribution of R.S. Fritzius who has published the work of Walther Ritz in English (it can be found on the website [www.ebicom.net](http://www.ebicom.net)) and popularized Ritz's ideas in the USA developing and defending them. I also wish to express my appreciation to K.A. Haidarov and A.V. Bjalko and also to the professors of the faculty of radiophysics at the University of Nizhni Novgorod, N.S. Stepanov, M.I. Bakunov, V.B. Gildenburg, for the discussion of the BTR and positive criticism. I'm also very grateful to my relatives, especially to my father, A.G. Semikov, who has suggested a number of ideas and facts useful for the scientific apprehension of symbolism, legacy of our forefathers, old Russian fairy-tales and, above all, Gromovoj hram (Thundersanctuary) – the general sacral entity of the ancient Slavic people, the key to understanding of many aspects of the universe. I would also like to thank my mother, M.V. Semikova, for her constant support and help in organizational issues and my sister Maria for her help in translation of the articles and her investigation in 2009, when she visited Goettingen, the place where lived, worked and died Walther Ritz. I wish particularly to acknowledge my thanks to the scientific journal "Engineer", its staff and, especially, to its editor-in-chief K.M. Emeljanova for her support and prompt publication of my articles on the basis of which this book is written. And, finally, deep gratitude goes to all those who have blocked the BTR and hindered the research work connected with it. Only thanks to them have I realized the entire importance of this subject, understood that it is surrounded by the conspiracy of silence; they have excited my interest and thus made me go forward.

This book is neither a property of a person nor of a publishing house, the book itself and all the ideas found in it belong to the entire mankind. It is the result of intellectual work of lots of people, though these are ideas of Walther Ritz that form the basis. This is why the author of the given book has not reserved copyright which would limit the distribution of information and is ready to assist in a prompt publication of the book by any publishing house in every possible way. The usage of its fragments with the reference to the book are welcomed. One can download the book free of

charge on the website [www.Ritz-BTR.narod.ru](http://www.Ritz-BTR.narod.ru). In this case it is recommended to print the book so that one could read its hard copy because, as many psychologists point out, that provides the better retention of information. Hopefully, the book will become your good friend and your guide for many years. The work on the book required a lot of effort and was published on the money of the author with the help of my family members and close ones the patience, understanding and support of whom I greatly appreciate.

So, we open the BTR. A happy journey!