

Smulsky J.J. The Upcoming tasks of Fundamental Science. M.: Sputnik+ Publishing House, 2019. - 134 p. ISBN 978-5-9973-5228-8. (In Russian).

http://sputnikplus.ru/Iosif_Smulskiy_Predstoyashchie_zadachi_fundamentalnoy_nauki.

<https://www.elibrary.ru/item.asp?id=41535305>.



Figure 1. Book's cover.

In the book, **Comments** of scientists about it precede the Contents

The book is impressive and leaves no one indifferent to it. The chapter "Main provisions of mechanics" gives very important definitions. As a graduate of the Moscow Institute of Physics and Technology, I am struck by the uncompromising approach of the author in the chapters on gravitational and electromagnetic interactions. In the chapter "Ways of development of society" everything is written correctly and very emotionally. I fully support the author. In general, I think that the book will be very useful to the reader. The author clearly deserves high praise as a versatile and deep scholar, a true scientist and interested citizen.

Vladislav G. Polnikov, Dr. Sc. in Physics and Mathematics,
Leading Research Scientist, Institute of Atmospheric Physics
of the Russian Academy of Sciences, Moscow, Russia.

Professor Smulsky advocates the removal of hypotheses from contemporary science and a return to the certainty of mechanics and electrodynamics, viewing this as an essential step if there is to be progress beyond metaphysical speculation. Concrete examples are given on how this can be accomplished and the benefits that would be derived from this approach.

Walter Babin, Independent Researcher
Founder: General Science Journal

The cultural and material development of mankind is based on ideas that arise in the thinking of individuals and penetrate the consciousness of societies. In this historical process, and especially in contemporary circumstances, it is important to hear those who disagree (dissidents), who are able to see the weaknesses of nowadays and propose new ways. The author of this work points to the need to revise the foundations of the academic science of the world, since he connects with science the understanding of the tasks of mankind and the search for new ways of its development. The author's monologue, addressed to the contemporary reader, contains important fundamental provisions concerning the foundations of mechanics, electrodynamics, and gravitodynamics. At the same time, he is filled with anxiety, and shares his thoughts on our common future, on the role of science and education, on the moral principles of mankind, which is undoubtedly the attractive side of the book.

Vladislav V. Cheshev, Professor of the National
Research Tomsk State University, Russia.

Given the spectrum of the issues addressed and the method of their coverage, the book by the outstanding scientist Joseph Smulsky "The Upcoming Tasks of Fundamental Science" is a unique work. The author begins with a deeply thought-out presentation of the basic principles of mechanics and a non-hypothetical way of acquiring knowledge about the world. The following chapters show the real nature and form of gravitational and electromagnetic interactions and convincingly prove the inconsistency of a number of provisions of contemporary physical theories, in particular the Theory of relativity. At the same time, unresolved problems that need further research are highlighted. The next chapter is devoted to a new vision of climate oscillations which, according to the author, are based on interactions in the Solar system and the resulting changes in solar heat on the Earth. The book ends with chapters on the rational structure and management of society and on the ways of the development of science, containing original and very valuable ideas and theses. I strongly recommend that anyone who wants to find out how the physical world is really organized and how humanity and science should develop get acquainted with this exceptional book.

Borislav Vankov,
Sofia, Bulgaria.

CONTENTS

INTRODUCTION

CHAPTER 1

MAIN PROVISIONS OF MECHANICS

- 1.1. Outworld, its variability and size
- 1.2. Movements and interactions in the outworld
- 1.3. Some characteristics of the interaction

CHAPTER 2

GRAVITATIONAL INTERACTIONS IN THE OUTWORLD

- 2.1. The Newton's law and the problem of the movement of N -bodies
- 2.2. The problem of two bodies
- 2.3. Axisymmetric N -body interaction
- 2.4. The interaction of N -bodies in rotating structures
- 2.5. The interaction of N -bodies in spatial structures
- 2.6. The interaction of N -bodies in the center-radial motion
- 2.7. Galactica system for the numerical solution of the N -bodies problem
 - 2.7.1. Main characteristics of the system Galactica
 - 2.7.2. Main applications of the Galactica system
- 2.8. Further study of gravitational interactions
- 2.9. Rotational movement of the bodies

CHAPTER 3

ELECTROMAGNETIC INTERACTIONS IN MICROWORLD

- 3.1. Force of interaction of moving charges
- 3.2. Influence of a magnet on moving charged particle
- 3.3. Dependence of force on distance and velocity
- 3.4. New fundamental trajectories
 - 3.4.1. Differential equations
 - 3.4.2. Types of trajectories under variation of parameters α_l and β_p
 - 3.4.3. Trajectories with light speed in the pericentry
 - 3.4.4. Closed stable orbits
 - 3.4.5. Trajectories at $\alpha_l < -1$ for strong interactions
- 3.5. The falsity of the relationship between energy and mass
- 3.6. Alternative studies in the microworld
- 3.7. New force and interaction of N -particles is a further way of knowledge of the microcosm
- 3.8. The problem of N -particles in the Coulomb interaction
 - 3.8.1. Exact and numerical solutions of the Coulomb N -particles problem
 - 3.8.2. Galactica module for Coulomb interaction
 - 3.8.3. Coulomb axisymmetric interaction of N -particles
 - 3.8.4. Coulomb multilayer flat structures
- 3.9. Electromagnetic interaction of N -particles

CHAPTER 4

LONG-PERIODIC CLIMATE OSCILATIONS

- 4.1. The main findings of the Astronomical theory of climate change
- 4.2. Change insolation on the Earth's latitude in different epochs
- 4.3. Changes of the Earth obliquity and insolation for 1 million years ago
- 4.4. Periods and gradations of the Earth climate change
- 4.5. Insolation periods and paleoclimate for 50 ka
- 4.6. Changes in Earth's climates for 20 Ma
- 4.7. Further development of the Astronomical theory of climate change

CHAPTER 5

WAYS OF DEVELOPMENT OF SOCIETY

- 5.1. The two main principles of the development of society
 - 5.1.1. Labor for the benefit of society is the sacred duty of man and his inalienable right
 - 5.1.2. Improving the outworld
- 5.2. Rational consumption
 - 5.2.1. Life in a state of unlimited consumption
 - 5.2.2. Rational nutrition
 - 5.2.3. Minimum waste principle
 - 5.2.4. Use of wastes
- 5.3. Development of unoccupied spaces
- 5.4. Human settling in space
- 5.5. The purity of the moral principles of society
- 5.6. Education of society
- 5.7. State administration of society

CHAPTER 6

WAYS OF DEVELOPMENT OF SCIENCE

- 6.1. Elimination of presumptions from science
- 6.2. The quality of scientific work is not determined by its place of publication and the number of references to it.
- 6.3. The problem of replenishment of scientific personnel
- 6.4. Improving the scientific press

CONCLUSION

REFERENCES

A fragment from the book, voiced by the outstanding Bulgarian thinker Borislav Vankov, can be heard here: <http://www.ikz.ru/~smulski/smull/SmulskiEn.MP3> – in English; <http://www.ikz.ru/~smulski/smull/SmulskiD.MP3> – in German; <http://www.ikz.ru/~smulski/smull/SmulskiBG.MP3> – in Bulgarian; <http://www.ikz.ru/~smulski/smull/SmulskiKniga.MP3> – in Russian.

INTRODUCTION

Contemporary fundamental science is defective and false. Why is it defective and false? Because it has created an unrealistic picture of the micro- and macroworld, it does not pave the way for the further development of society and does not impede negative trends in it. Such a science is not needed by society. Society is aware of this. People refer to the discoveries of sciences as circus tricks, and in searching for a solution to the problems facing it society directs its eyes to journalists and politicians.

Over 50 years of research, I have identified a number of erroneous provisions of fundamental science and found ways to solve them [1] - [12]. Based on them, I will try to present the future tasks of the science.

The basis of fundamental science is mechanics. Mechanics is the science of the movements and interactions of bodies. Until all the bodies involved in it are identified in the phenomenon under consideration, their movements are determined and all their interactions between themselves are revealed, this phenomenon remains incomprehensible to man. Once these conditions are met, the phenomenon becomes fully mastered by man. He can create it in various ways, combine it with other phenomena, and also on its basis create new phenomena that the world has never had.

In contemporary fundamental science, the basic principles of mechanics are distorted. These distortions are one of the reasons for the falsity of fundamental science. On the distorted foundations of mechanics, one cannot understand the shortcomings of contemporary fundamental science. Therefore, in chapter 1, the undistorted foundations of mechanics are considered [3]. In the first section, attention is focused on the surrounding world and its characteristics: the variability and magnitude of objects. The second and third sections discuss the characteristics of motion and interaction.

The structure and functioning of the macrocosm is due to gravitational interactions. Chapter 2 is devoted to them. The main law of these interactions is Newton's law of gravity, and the main task is the problem of the interaction of two bodies. The first and second sections are devoted to these questions.

The 2-body problem was solved analytically exactly and in full, i.e. for all possible cases. In the same way, two more problems were solved for N bodies. In the first problem, around the central body along the circumference N_3 bodies are axisymmetrically located, and in the second one, such circles can be N_2 . In the first task, bodies can simultaneously perform the same movements, for example, along ellipses or hyperbolas. In the second task, the entire structure of bodies rotates as a whole. The third and fourth sections of Chapter 2, respectively, are devoted to these tasks.

In the fifth section of Chapter 2, we consider analytical solutions to the problem of the interaction of bodies located in space, for example, on a sphere. And in the sixth one, the solution to a problem in which all gravitating bodies are pulled together into a central body. The velocities of the bodies, the time of their fusion and the thermal energy of the formed body are determined.

Other problems of the gravitational interaction of N bodies can be solved by numerical methods. To solve them with high accuracy, the Galactica system was developed. The main features of this system and some of the results obtained are presented in section 7, and in the 8th what secrets of the Universe can be discovered with its help.

Above we talked about the translational movement of bodies. In the ninth section, rotational motion is considered. The Earth rotation problem has been solved in millions of years. Her solution made it possible to understand why ice ages have repeatedly occurred in the history of the Earth.

The structure and functioning of the microworld is due to the interaction of charged particles. Chapter 3 is devoted to them. The main law of interaction of two such particles, when they are motionless relative to each other, Coulomb's law, is considered in the first section. Here, a new law is justified and presented for the force of interaction of particles when one of them moves relative to the other. In the second section, the force of action of a magnet on a moving charged particle is given.

These forces depend both on the distance between the interacting particles and on their speed relative to each other. In mechanics, not all rules are applicable to such forces: this is discussed in the third section of Chapter 3. Therefore, many representations of contemporary physics, including the dependence of mass on velocity, turn out to be incorrect.

The new law of forces leads to other particle movements. In the 4th section, the new fundamental trajectories of the interaction of two particles are considered. The five sections of this Chapter present differential equations, an overview of the spectrum of trajectories, trajectories at light speed at the pericenter, closed orbits, trajectories in strong interactions.

The fifth section of Chapter 3 is devoted to explaining the fallacy of the relativistic position on the relationship of mass and energy. In the 6th section, alternative studies in the microworld are reported, and in the 7th section the necessity of switching to a new force and taking into account the effects of N particles is shown.

The eighth section of Chapter 3 is devoted to the Coulomb interaction of N particles. Exact analytical solutions as well as numerical ones are considered. For numerical solutions, a Galactica system module with Coulomb interaction was created.

Section 9 gives the differential equations of motion for the N particle problem with a new equation for force. The prospects of solving these problems are shown. A number of sections of chapter 3 also discuss upcoming problems in the physics of the microworld.

The fourth chapter is devoted to long-period climate oscillations. They are caused by fluctuations in the parameters of the orbital and rotational motion of the Earth. These oscillations occur due to the interaction of the bodies of the Solar system. This is reported in the first section. And in the second one, the change in solar heat along the latitude of the Earth, both in the contemporary epoch and in the coldest and warmest epochs, is considered. For example, in high latitudes, the amount of heat from the cold epoch to the warm epoch changes twice.

The third section of Chapter 4 shows what fluctuations in solar heat, i.e. Earth insolation occur over a million years. The fourth deals with insolation periods of climate change and their gradation, for example, moderately cold, cold and extremely cold. In the 4th section, the insolation periods and paleoclimate are compared for 50 thousand years, and it is shown that these periods completely coincide with the change in paleoclimate. Thus, it has been established that interactions in the Solar system determine the long-period oscillations of the climate on Earth.

The fifth section of Chapter 4 discusses changes in insolation over 20 million years. Its oscillations are not periodic in nature, and such oscillations are usually called random and chaotic. But they are strictly determined, and their aperiodicity is due to the influence of many factors. These results are an example of how phenomena, which we perceive as chaotic, can be uniquely determined at any moment, when knowing them.

The fifth chapter discusses the development of society. The first section shows that the development of society should be determined by the labour of all people to improve the world. Preservation of the surrounding world and its further development is impossible without rational consumption. This is devoted to the second section with a number of sub-sections. The third and fourth sections discuss the development of empty territories on the Earth and the resettlement of man in space. Conscious and reasonable development of mankind is impossible with defective morality, so the fifth section is devoted to the purity of moral principles.

The development of society is due to the activities of each person. And for this, a man must possess all the knowledge that is available in society. Therefore, free education is not a gift of society for an individual; it is a guarantee of the successful development of society. The sixth section discusses the main problems and tasks of education. And in the seventh one, the issues of

social management are discussed. There is an opinion that elite must be formed to manage society. It is shown here that such elite is inevitably opposed to society, which leads to a crisis in it. The persons should come to the management of society, after that they have shown them to be consistent in moving at all levels of their activity. The people will treat them with respect: these persons are in power not by kinship, nepotism and blat, but because of their ability to solve various problems throughout their activities.

In each of these sections the tasks of science are formulated. In society, there are many problems that are unknown how to solve. They should be studied by science, investigated various options for their solutions and selected the best.

However, society cannot be entrusted with the solution of these problems to contemporary defective and false science. For science to become the guiding light of society, a substantial renewal is required. The sixth chapter discusses the development of science. First of all, it is necessary to eliminate presumptions from science, i.e. to eliminate hypothesis. This is stated in the first section. In the second section, attention is focused on determining the quality of science: which science is good and which is bad. The contemporary measure of quality in the number of publications in Mainstream journals is absurd. The third section discusses the replenishment of scientific personnel. With the growth of the education of the people, an inexhaustible source of researchers is those of its representatives who, on the basis of their internal motives, began to do research themselves. The fourth section is devoted to improving the scientific press. In its current state, it conserves the errors of Mainstream science and impedes the development of science. Only a transparent and open review of scientific works is a direct way to honestly review them and achieve the reliability of scientific results.

This book is the result of my 30 years of work at the Institute of Earth's Cryosphere, Tyum. SC of SB RAS, Federal Research Center, which in recent years has been carried out under the project IX.135.2.4. The numerical solution of the problems was carried out on supercomputers of the Siberian Supercomputing Centre at the Institute of Computational Mathematics and Mathematical Geophysics, Siberian Branch, Russian Academy of Sciences (Novosibirsk, Russia).

My sons Leonid J. Smulsky and Yaroslav J. Smulsky help me in my work.

Please send all comments and suggestions to the address: 625026, Tyumen, Malygina str., 86, Institute of the Earth Cryosphere.

http://sputnikplus.ru/Iosif_Smulskiy_Predstoyashchie_zadachi_fundamentalnoy_nauki.

REFERENCES

1. **Смульский И.И.** Электромагнитное и гравитационное воздействия (нерелятивистские трактаты). - Новосибирск: Наука. - 1994. - 225с. <http://www.ikz.ru/~smulski/ElGrVz2.pdf>.
2. **Смульский И.И.** Траектории при взаимодействии двух тел, зависящем от относительного расстояния и скорости//Математическое моделирование. - 1995. - Т.7. - N7. - С.117-126. <http://www.ikz.ru/~smulski/smull/Russian1/FounPhysics/TrV2tl.pdf>.
3. **Смульский И.И.** Теория взаимодействия. – Новосибирск: Из-во Новосиб. ун-та, НИЦ ОИГГМ СО РАН, 1999 г. – 294 с. http://www.ikz.ru/~smulski/TVfulA5_2.pdf.
4. **Smulsky J.J.** The new Fundamental Trajectories: part 1 - Hyperbolic/ Elliptic trajectories// Galilcan Electrodynamics. Vol. 13, № 2, 2002, pp. 23-28.
5. **Smulsky J.J.** The new Fundamental Trajectories: part 2 - Parabolic/ Elliptic trajectories// Galilcan Electrodynamics. Vol. 13, № 3, 2002, pp. 47-51. <http://www.ikz.ru/~smulski/smull/English1/FounPhysics/NFT.pdf>.
6. **Smulsky J.J.** Conceptual Error in Contemporary Science // Proceedings of the Natural Philosophy Alliance. 13th Annual Conference 3-7 April 2006 at the University of Tulsa, OK, USA. Vol.3, No. 2. Published Space Time Analyses, Ltd. Arlington, MA, USA.- 2007. - Pp. 277-281. <http://www.ikz.ru/~smulski/Papers/CnErCSrs2.pdf>.

7. **Smulsky J.J.** New Components of the Mercury's Perihelion Precession // Natural Science. - 2011, Vol. 3, No.4, 268-274. doi:10.4236/ns.2011.34034. <https://www.scirp.org/JOURNAL/PaperInformation.aspx?PaperID=4679>.
8. **Смульский И.И.** Электродинамика движущихся тел. Определение сил и расчет движений. Saarbrucken, Germany: "Palmarium Academic Publishing", 2014. 324 с. ISBN 978-3-659-98421-1. <http://www.ikz.ru/~smulski/Papers/InfElMvB.pdf>.
9. **Smulsky J.J.** Exact Equations for the Light Doppler Effect // Journal of Modern Physics, 2014, Vol. 5, No. 16, p. 1602-1607. DOI: 10.4236/jmp.2014.516161, <https://www.scirp.org/journal/PaperInformation.aspx?PaperID=50607>.
10. **Smulsky J.J.** The Basic Problems of Contemporary Scientific View of the World // Open Access Library Journal, 2014, Vol. 1, e772, p. 1 - 8. <http://dx.doi.org/10.4236/oalib.1100772>.
11. **Смульский И.И.** Новое понимание в академической науке // Путь науки. Международный научный журнал. 2018. - № 1 (47). - С. 8-21. <http://www.ikz.ru/~smulski/Papers/NovRaAkNk3.pdf>.
12. Smulsky J.J. New Understanding in Academic Science // Natural Science, 2019, Vol. 11, No. 3, pp: 74-94. <https://doi.org/10.4236/ns.2019.113009>.
13. **Сухоруков Г.И., Сухоруков В.И. и Сухоруков Р.Г.** Реальный физический мир без парадоксов.– Иркутск: Иркут. Гос. Ун-т.– 1993.– 168 с.
14. **Справочное руководство** по небесной механике и астродинамике / Под ред. Г. Н. Дубошина. Изд. 2-е, доп. и перераб. М., Наука, 1976, 862 с.
15. **Смульский И.И.** Осесимметричная задача гравитационного взаимодействия N тел// Математическое моделирование, 2003, т. 15, № 5, с. 27-36. <http://www.smull1.newmail.ru/Russian1/IntSunSyst/Osvnb4.doc>.
16. **Смульский И.И.** Осесимметричные многослойные вращающиеся структуры / Институт криосферы Земли СО РАН. - Тюмень, 2013. - 27 с. - Илл.: 7.- Библиогр.: 16 назв. - Рус. Деп . в ВИНТИ 28.10.2013, № 303-B2013. <http://www.ikz.ru/~smulski/Papers/OsMVStr.pdf>.
17. **Smulsky J.J.** Exact solution to the problem of N bodies forming a multi-layer rotating structure // SpringerPlus. 2015, 4:361, pp. 1-16, DOI: 10.1186/s40064-015-1141-1, URL: <http://www.springerplus.com/content/4/1/361>.
18. **Смульский И.И.** Актуальные математические задачи и тернистые пути науки // Путь науки. Международный научный журнал, № 10 (20), 2015. – С. 10–38. <http://scienceway.ru/arhiv>- журнал «Путь науки».
19. **Смульский И.И.** Сферически распределенные структуры / Институт криосферы Земли СО РАН. - Тюмень, 2016. - 43 с. - Илл.: 14- Библиогр.: 16 назв. - Рус. Деп . в ВИНТИ 22.08.2016, № 112-B2016. <http://www.ikz.ru/~smulski/Papers/SphDsSt2.pdf>.
20. **Smulsky J.J.** Advances in Mechanics and Outlook for Future Mankind Progress / International Journal of Modern Education and Computer Science (IJMECS), 2017, Vol. 9, No. 1, pp.15-25. На русском языке. <http://www.mecs-press.org/ijmecs/ijmecs-v9-n1/IJMECS-V9-N1-2.pdf>.
21. **Smulsky J.J.** Future Space Problems and Their Solutions. Nova Science Publishers, New York, 2018, 269 p. ISBN: 978-1-53613-739-2. <http://www.ikz.ru/~smulski/Papers/InfFSPSRu.pdf>.
22. **Колосовский Н.А.** Химическая термодинамика.– Л.: Госхимтехиздат. Ленингр. отд-ние,– 1932.– 446 с.
23. **Смульский И.И.** Аэродинамика и процессы в вихревых камерах. - Новосибирск: ВО "Наука". - 1992. - 301 с. <http://www.ikz.ru/~smulski/smull1/Russian1/VortChamb/AerPrSod.pdf>.
24. **Smulsky J.J.** Galactica Software for Solving Gravitational Interaction Problems // Applied Physics Research, 2012a, Vol. 4, No. 2. P. 110-123. <http://dx.doi.org/10.5539/apr.v4n2p110>.
25. **Smulsky J.J.** The System of Free Access Galactica to Compute Interactions of N Bodies // I. J. Modern Education and Computer Science, 2012b, 11, 1-20. <http://dx.doi.org/10.5815/ijmecs.2012.11.01>
26. **Смульский И.И., Кротов О.И.** Изменение кинетического момента в динамике Солнечной системы // Космические исследования, 2015, том 53, № 3, с. 253-262. DOI: 10.7868/S0023420615020090. http://www.ikz.ru/~smulski/Papers/IzmMom5_1J.pdf.

27. **Смульский И.И.** Оптимизация пассивной орбиты с помощью гравиманевра // Космические Исследования, 2008, том 46, № 5, с. 484–492. <http://www.ikz.ru/~smulski/Papers/KOS0484.pdf>.
28. **Мельников В.П., Смульский И.И.** Астрономическая теория ледниковых периодов: Новые приближения. Решенные и нерешенные проблемы. - Новосибирск: Академическое изд-во "Гео", 2009. - 98 с. Книга на двух языках. С обратной стороны: **Melnikov V.P., Smulsky J.J.** Astronomical theory of ice ages: New approximations. Solutions and challenges. - Novosibirsk: Academic Publishing House "GEO", 2009. - 84 p. <http://www.ikz.ru/~smulski/Papers/AsThAnR.pdf>.
29. **Smulsky J.J., Smulsky Ya.J.** Dynamic Problems of the Planets and Asteroids, and Their Discussion // International Journal of Astronomy and Astrophysics, Vol. 2, No. 3, 2012, pp. 129-155. doi:10.4236/ijaa.2012.23018. <http://www.ikz.ru/~smulski/Papers/AsAp1950E13cJ.pdf>.
30. **Мельников В.П., Смульский И.И., Смульский Я.И.** Составная модель вращения Земли и возможный механизм взаимодействия континентов // Геология и Геофизика, 2008, №11, с. 1129-1138. <http://www.ikz.ru/~smulski/Papers/RGGRu190.pdf>.
31. **Smulsky J.J.** Gravitation, Field and Rotation of Mercury Perihelion// Proceedings of the Natural Philosophy Alliance. 15th Annual Conference 7-11 April 2008 at the University of New Mexico, Albuquerque, USA. Vol. 5, No. 2. Published by Space Time Analyses, Ltd. Arlington, MA, USA.– 2009. – Pp. 254-260. www.ikz.ru/~smulski/Papers/08Smulsky2c.pdf.
32. **Смульский И.И.** Сферически распределенные структуры / Институт криосферы Земли СО РАН. - Тюмень, 2016. - 43 с. - Илл.: 14- Библиогр.: 16 назв. - Рус. Деп. в ВИНТИ 22.08.2016, № 112-B2016. <http://www.ikz.ru/~smulski/Papers/SphDsSt2.pdf>.
33. **Smulsky J.J.** The " Black Hole ": Superstition of the 20-th Century, Apeiron, 1996. Vol.3, No.1 pp.22-23. <http://www.ikz.ru/~smulski/smul1/English1/FounPhisics/BHAP2.doc>.
34. **Smulsky J.J.** Real Forces and Unreal Hypotheses // Proceedings of the Natural Philosophy Alliance. 14th Annual Conference 21-25 May 2007 at the University of Connecticut at Storrs, USA. Vol. 4, No. 2. Published by Space Time Analyses, Ltd. Arlington, MA, USA.- 2008. - Pp. 240-241. <http://www.ikz.ru/~smulski/Papers/RealFUHr.pdf>.
35. **Smulsky J.J.** Removal of Hypotheses from Physics // Foundations of Science. - 2010, Vol. 13, No. 1, pp. 2-3. <http://www.ikz.ru/~smulski/Papers/RemHyp3.pdf>.
36. **Смульский И.И.** Стоковая теория смерча //ИФЖ.-1997, т.70, N.6.- С.979-989. <http://www.ikz.ru/~smulski/smul1/Russian1/AtmVortex/StTSM.pdf>.
37. **Мельников В.П., Смульский И.И.** Вихревые явления в атмосфере // ИКЗ СО РАН.- Тюмень,-1997.-45 с. -Деп. в ВИНТИ 24.04.97 г. N.1304-B97. <http://www.ikz.ru/~smulski/smul1/Russian1/AtmVortex/VINIAVL3.pdf>.
38. **Смульский И.И., Сеченов К.Е.** Уравнения вращательного движения Земли и их решения при воздействии Солнца и планет / Институт криосферы Земли СО РАН. - Тюмень, 2007. - 35 с. - ил. : 7. Библиогр.: 19 назв. - Рус. - Деп. в ВИНТИ 02.05.07 г. № 492-B2007. <http://www.ikz.ru/~smulski/Papers/UVrVzSPc.pdf>.
39. **Smulsky J.J.** The Influence of the Planets, Sun and Moon on the Evolution of the Earth's Axis // International Journal of Astronomy and Astrophysics, 2011, 1, 117-134. doi:10.4236/ijaa.2011.13017. https://file.scirp.org/pdf/IJAA20110300002_48578805.pdf.
40. **Смульский И.И.** Эволюция оси Земли и палеоклимата за 200 тысяч лет. Saarbrücken, Germany: "LAP Lambert Academic Publishing", 2016a. 228 с. ISBN 978-3-659-95633-1. <http://www.ikz.ru/~smulski/Papers/InfEvEAPC02M.pdf>.
41. **Смульский И.И.** Новые результаты по инсоляции Земли и их корреляция с палеоклиматом Западной Сибири в позднем плейстоцене // Геология и Геофизика, 2016б, т. 57, № 7, с. 1393-1407. <http://dx.doi.org/10.15372/GiG20160709>.
42. **Смульский И.И.** Новая Астрономическая теория ледниковых периодов. "LAP LAMBERT Academic Publishing, Riga, Latvia, 2018. 132 с. ISBN 978-613-9-86853-7. <http://www.ikz.ru/~smulski/Papers/InfNwATLP.pdf>.

43. **Смульский И.И.** Основные положения и новые результаты астрономической теории изменения климата / Институт криосферы Земли СО РАН. – Тюмень, 2014. – 30 с.: ил: 16.- Библиогр.: 44 назв. - Рус. Деп . в ВИНТИ РАН 30.09.2014, № 258-B2014. <http://www.ikz.ru/~smulski/Papers/OsPoATLP3.pdf>.
44. **Smulsky J.J.** Fundamental Principles and Results of a New Astronomic Theory of Climate Change // *Advances in Astrophysics*, 2016, Vol. 1, No. 1, 1-21. <http://www.isaacpub.org>, <http://www.isaacpub.org/Journal/AdAp>.
45. **Смульский И.И., Кротов О.И.** Новый алгоритм расчета инсоляции Земли / Институт криосферы Земли СО РАН. - Тюмень, 2013. - 38 с. - Илл.: 7.- Библиогр.: 23 назв. - Рус. Деп. в ВИНТИ 08.04.2013, № 103-B2013.
46. **Smulsky J.J., Krotov O.I.** New Computing Algorithm of the Earth's Insolation // *Applied Physics Research*, Vol. 6, No. 4; 2014, p. 56-82. ISSN 1916-9639, E-ISSN 1916-9647. <http://dx.doi.org/10.5539/apr.v6n4p56>.
47. **Смульский И.И.** Феномены Солнца в исторической перспективе / Институт криосферы Земли СО РАН. - Тюмень, 2016. - 66 с. - Илл.: 23.- Библиогр.: 24 назв. - Рус. Деп . в ВИНТИ РАН 11.01.2016, № 9-B2016. <http://www.ikz.ru/~smulski/Papers/SunPhnmen.pdf>.
48. **Smulsky J.J.** The Sun's Movement in the Sky Now and in the Past. *Open Access Library Journal*, 2018, 5, e4250, p. 1-62. doi: <http://dx.doi.org/10.4236/oalib.1104250>.
49. **Planetary Influence** on the Sun and the Earth, and a Modern Book-Burning / Nils- Axel Mörner, editor. Nova Publishers, New York, 2016, 196 p.
50. **Смульский И.И.** Космические воздействия на Землю и их влияние на Арктику // *Сложные системы*. 2017. № 4 (25), с. 27-42. <http://www.ikz.ru/~smulski/Papers/CsmAcEIA.pdf>.
51. **Смульский И.И.** Главные ошибки современной науки// *Пространство, Время, Тяготение*. Материалы VIII международной научной конференции: 16-20 августа 2004 г., Санкт-Петербург: “Тесса” -2005. - С. 285 - 294. <http://www.ikz.ru/~smulski/smull/Russian1/FounPhisics/GIOshSN3.html>.
52. **Carezani R.** Nuclear-Nuclear Collisions. 2011 http://www.worldsci.org/pdf/abstracts/abstracts_6242.pdf
53. **Carezani, R.** Neutrinos at Fermi Lab. 2011. http://www.worldsci.org/pdf/abstracts/abstracts_6241.pdf.
54. **Hilster D.** The Neutrino: Doomed from Inception. *Proceedings of the NPA*, 2011, **8**, 148-151. http://www.worldsci.org/pdf/abstracts/abstracts_6157.pdf
55. **Ellis C.D., Wooster W.A.** The Average Energy of Disintegration of Radium E. *Proceedings of the Royal Society A*, London, 1927, **117**, 109-123.
56. **Smulsky J.J.** The Basic Problems of Contemporary Scientific View of the World // *Open Access Library Journal*, 2014, Vol. 1, e772, p. 1 - 8. <http://dx.doi.org/10.4236/oalib.1100772>.
57. **Смульский И.И.** Эксперимент Бухерера и новый подход к рассмотрению взаимодействия быстро движущихся тел/ИПОС СОАН СССР.-Тюмень,1990.-25с.-Деп. в ВИНТИ 01.08.1990 г. N 4411-B90.
58. **Hajra S.** Some Experiments that Shook the World // *Galilean Electrodynamics*, 2010, January/February, 13-20.
59. **Власов А.Д.** Классическое направление в квантовой механике. – М.: Московский радиотехнический институт РАН, 1993. -229 с.
60. **Kanarev Ph.M.** The Spectrum of the Universe // *Galilean Electrodynamics*, 2009, Vol. 20, Special Issues 1, pp. 13-17.
61. **Канарёв Ф.М.** Монография Микромра. Новые знания по фундаментальным наукам. Palmarium Academic Publishing. – 2013. – 588 с.
62. **Gryziński M.** Classical Theory of Electronic and Ionic Inelastic Collisions // *Physical Review*, 1959, Vol. 115, No. 2, pp. 374-383.
63. **Gryziński M.** SpiN Dynamical Theory of the Wave-Corpuscular Duality // *International Journal of Theoretical Physics*, 1987, Vol. 26, No. 10, pp. 967-980.

64. **Gryziński M.** Classical Theory of Atomic Collisions. I. Theory of Inelastic Collisions // *Physical Review A*, 1965, Vol. 138, No. 2A, pp. 336-358.
65. **Gryziński M.** Collisions between systems of Coulomb particles. I. Small-angle scattering for time-dependent fields // *J. Chem. Phys.* 62, 2610 (1975); <https://doi.org/10.1063/1.430845> [Michal/Gryziński](#)
66. **Burges A., Percival I.C.** *Advances in Atomic and Molecular Physics*, 1968, 4, 109-141.
67. **Vriens L.** In *Case Studies in Atomic Collision Physics*, E. W. McDaniel and M. R. C. McDowell, eds., North-Holland, Amsterdam. 1970.
68. **Bates D.R.** *Physics Reports*, 1978, 35, 307-372.
69. **Grujić P., Tomić, A., Vučić, S.** *Journal of Chemical Physics*, 1983, 79, 1776-1782.
70. **Gryziński M., Kunc J.** *Journal of Physics B*, 1986, 19, 2479-2504.
71. **Gryziński M.** Ramsauer Effect as a Result of the Dynamic Structure of the Atomic Shell // *Physical Review Letters*, 1970, Vol. 24, No. 2, pp. 45-47.
72. **Gryziński M.** Stopping Power of a Medium for Heavy, Charged Particles // *Physical Review A*, 1957, Vol. 107, No. 6, pp. 1471-1475.
73. **Gryzinski M.** *Sprawa atomu.* - Warshava: Homo-sapiens, 2002, 204 p.
74. **Лаврентьев М.М.** Физические теории (математические модели), адекватные реальности - необходимое условие прогресса естествознания XXI века // Поиск математических закономерностей Мироздания: физические идеи, подходы, концепции: Материалы Третьей Сибир. конф. ФПВ-2000. Новосибирск: ИМ СО РАН, 2001. С.5-28. http://www.math.nsc.ru/conference/wwwegan/ml_rus.pdf.
75. **Еганова И.А., Каллис В.О.** моделировании нейтрона в классической физике: методический обзор // *Письма в ЭЧАЯ*. 2016. Т. 13, No. 2(200), с. 403-417.
76. **Сухоруков В.И., Сухоруков Г.И. и Сухоруков Р.Г.** Спектры водородо- и гелиеподобных атомов.- Братск: Брат. индустр. ин-т, 1990.- Деп. в ВИНТИ, 1990, N 5744-B90.
77. **Smulsky J.J.** Force Cannot Depend on Acceleration // *Apeiron*, 1994, No.20, p.43-44. <http://redshift.vif.com/JournalFiles/Pre2001/V02no1PDF/V02N1ISS.PDF>.
78. **Смульский И.И.** Осесимметричное кулоновское взаимодействие и неустойчивость орбит / Институт криосферы Земли СО РАН. - Тюмень, 2013. - 30 с. - Илл.: 12.- Библиогр.: 22 назв. - Рус. Деп. в ВИНТИ 28.10.2013, № 304-B2013. <http://www.ikz.ru/~smulski/Papers/KulInt2.pdf>.
79. **Smulsky J.J.** Module of System Galactica with Coulomb's Interaction // *I.J. Modern Education and Computer Science*, 2014, Vol. 6, No. 12, p. 1-13. <http://dx.doi.org/10.5815/ijmecs.2014.12.01>.
80. **Смульский И.И.** Плоские многослойные кулоновские структуры / Институт криосферы Земли СО РАН. – Тюмень, 2015. – 54 с. – Илл.: 35.- Библиогр.: 24 назв. - Рус. Деп. в ВИНТИ 27.02.2015, № 38-B2015. <http://www.ikz.ru/~smulski/Papers/PMKStr.pdf>.
81. **Smulsky J.J.** Multilayer Coulomb Structures: Mathematical Principia of Microcosm Mechanics // *Open Access Library Journal*, 2015, 2: e1661, 46 p. <http://dx.doi.org/10.4236/oalib.1101661>.
82. **Milankovitch M.** *Theorie Mathematique Des Phenomenes Thermiques Produits Par La Radiation Solaire.* - Paris: Gauthier-Villars, XVI, 338 S, 1920.
83. **Миланкович М.** Математическая климатология и астрономическая теория колебаний климата. – М.-Л.: ГОНТИ, 1939. – 207 с.
84. **Brouwer D., Van Woerkom A.J.J.** The secular variation of the orbital elements of the principal planets // *Astr. Pap.* - 1950. – 13, 81-107.
85. **Шараф Ш.Г. и Будникова Н.А.** Вековые изменения элементов орбиты Земли и астрономическая теория колебаний климата // *Тр. Инст. теоретич. астрономии.* - Вып. XIV. - Л.: Наука. - 1969 г. - с. 48 - 109.
86. **Berger A. and Loutre M.F.** Insolation values for the climate of the last 10 million years // *Quaternary Science Reviews*. 1991. № 10. P. 297-317.

87. **Edvardsson S., Karlsson K.G. and Engholm M.** Accurate Spin Axes and Solar System Dynamics: Climatic Variations for the Earth and Mars // *Astronomy & Astrophysics*, 2002, Vol. 384, No. 2, 689-701. <http://dx.doi.org/10.1051/0004-6361:20020029>.
88. **Laskar J., Robutel P., Joutel F., Gastineau M., Correia A.C.M., and Levrard B.** A Long-term numerical solution for the Earth // *Icarus* 170, 2004a, Iss. 2, 343-364.
89. **Смульский И.И.** Астрономическая теория изменения климата и ее результаты // *Климат и природа*, 3 (28), 2018, с. 33-50. 8. <http://www.ikz.ru/~smulski/Papers/AsTIKIRzs4J.pdf>.
90. **Гросвальд М.Г.** Оледенение Русского Севера и Северо-Востока в эпоху последнего великого похолодания // *Материалы гляциологических исследований*. Вып. 106. М.: «Наука», 2009. 152 с.
91. **Svendsen J.I., Astakhov V.I., Bolshiyakov D.Yu., Demidov I., Dowdeswell J.A., Gataflin V., Hjort C., Hubberten H.W., Larsen E., Mangerud J., Melles M., Moller P., Saarnisto M., Siegert M.J.** Maximum extent of the Eurasian ice sheets in the Barents and Kara Sea region during the Weichselian // *Boreas*, v. 28, № 1, 1999, p. 234-242.
92. **Волков И.А., Архипов С.А.** Четвертичные отложения района Новосибирска: оперативно-информационный материал. Новосибирск, «Наука», 1978, 90 с.
93. **Волков И.А., Волкова В.С., Задкова И.И.** Покровные лессовидные отложения и палеогеография юго-запада Западной Сибири в плиоцен-четвертичное время. Новосибирск, «Наука», 1969, 332 с.
94. **Архипов С.А., Астахов В.И., Волков И.В., Волкова В.С., Паньчев В.А.** Палеогеография Западно-Сибирской равнины в максимум позднезырянского оледенения. – Новосибирск : Наука, 1980, 109 с.
95. **Архипов С.А.** Главные геологические события позднего плейстоцена (Западная Сибирь). – *Геология и геофизика*, т. 41, № 6, 2000, с. 792-799.
96. **Архипов С.А.** Хронология геологических событий позднего плейстоцена Западной Сибири. *Геология и геофизика*, 1997, т. 38, № 12. – С. 1863-1884.
97. **Пятосина Н.** Мансийское озеро - море оказалось древнее, чем думали // *Наука и жизнь*. - 2005. - N 2. - с. 138-139
98. **Арсланов Х.А., Лавров А.С., Потапенко Л.М.** Новые данные о позднеплейстоценовом оледенении севера Западной Сибири. – *Оледенения и палеоклиматы Сибири в плейстоцене*. Новосибирск, «Наука», 1983, с. 27-35.
99. **Бутвиловский В.В.** Палеогеография последнего оледенения и голоцена Алтая. Событийно-катастрофическая модель. Томск, Изд-во Томск, ун-та, 1993, 218 с.
100. **Паньчев В.А.** Радиоуглеродная хронология аллювиальных отложений Предальтайской равнины. Новосибирск, Наука, 1979; 132 с.
101. **Илларионов А.Г.** Тургайский спиллвей. К истории становления и развития речной сети Арало-Иртышского региона. Ижевск, 2013. 103 с.
102. **Лаухин С.А., Арсланов Х.А., Шилова Г.Н., Величкевич Ф.Ю., Максимов Ф.Е., Кузнецов В.Ю., Чернов С.Б., Тертычная Т.В.** Палеоклиматы и хронология средневюрмского мегаинтерстадиала на Западно-Сибирской равнине // *Доклады РАН*. 2006. Т. 411. № 4. С. 540-544.
103. **Васильчук Ю.К.** Закономерности развития инженерно-геологических условий севера Западной Сибири в голоцене. Автореф. канд. геол.-мин. наук. – М., МГУ, 1982. 27 с.
104. **Ершов Э.Д.** Геокриология СССР. Западная Сибирь – М.: Недра, 1989. – 454 с.
105. **Ломанченков В.С.** Об основных этапах геологического развития Лено-Колымской Приморской низменности в позднечетвертичную и современную эпохи. – *Четвертичный период Сибири*. Материалы докладов Всесоюзного совещания по изучению четвертичного периода, т. II. М., «Наука», 1966, с. 283-288.
106. **Сакс В.Н.** Четвертичный период в Советской Арктике. М.; Л., Морское и речное изд-во, 1953, 627 с.
107. **Баулин В.В.** История развития многолетнемерзлых пород в районе Нижней Оби в четвертичный период: Автореф. дис. канд. геол.-мин. наук. – М., МГУ, 1959. – 19 с.

108. Некрасов И.А., Коновальчик Н.Г., Семенова Г.В., Скорбилин Н.А. История геокриологического исследования Западной Сибири. – Новосибирск: Наука. Сиб. отд-ние, 1990. – 270 с.
109. Шполянская Н.А., Евсеев В.П. Выпуклобугристые торфяники северной тайги Западной Сибири // Тезисы докладов Всесоюзного совещания по мерзлотоведению. – М.: Изд-во МГУ, 1970. – С. 125-126.
110. Смульский И.И. Фундаментальные научные результаты и формирование среды обитания человечества в будущем / В сб. Научная и производственная деятельность - средство формирования среды обитания человечества: Материалы Всероссийской молодежной научно-практической конференции (с международным участием) 26-27 апреля / Отв. редактор Д. С. Дроздов, М. Р. Садуртдинов. - Тюмень, ТИУ, 2016, с. 10-18. <http://www.ikz.ru/~smulski/Papers/FundScnRz11.pdf>.
111. Смульский И.И. Совершенствование способностей человечества для дальнейшего его развития / в сб. Научная и производственная деятельность - средство формирования среды обитания человечества: Материалы Всероссийской научно-практической конференции с международным участием. Тюмень: ТИУ, 2017, с. 29-36. <http://www.ikz.ru/~smulski/Papers/SSMDR02.htm>.
112. Смульский И.И. Осмотрись и Осмысли. "Кузнецкий рабочий".- 4 августа 1989 г. <http://www.ikz.ru/~smulski/smull/Article/paper/Ecology.htm>.
113. Смульский И.И. За рациональное потребление // Энергия. Экономика. Техника. Экология.- 1989 г.- N 12.- С.66-67.
114. Исрапилов М.И. Наскальные рисунки Дагестана и колебания полюсов и наклона оси Земли в голоцене. Махачкала: Издательство "Юпитер". – 2003, 432 с.
115. Смульский И.И. Сверхсветовой реактивный двигатель для межзвездных полетов // Журнал «Колонизация космоса», том 14, 2014, стр. 1-8. <http://www.ikz.ru/~smulski/Papers/StrtegInvst2.pdf>
116. Smulsky J.J. Superluminal jet engine for interstellar flights // Space Colonization Journal, 2014, Vol. 14, p. 1-7. <http://www.ikz.ru/~smulski/Papers/StrtegInvst2E.pdf>.
117. Смульский И.И. Главное направление. Тюмень, 1993 г. http://samlib.ru/s/smulxskij_i_i/decdirdoc.shtml.
118. Smulsky J.J. The New Approach and Superlight Particle Production // Physics Essays.- 1994.- Vol.7.-No2.-P.153-166. <http://www.smull.newmail.ru/English1/FounPhisics/NApSup.pdf>.
119. Smulsky J.J. Producing Superluminal Particles// Apeiron. –1997. - Vol. 4. - No. 2-3. - Pp. 92 - 93. <http://redshift.vif.com/JournalFiles/Pre2001/V04NO2PDF/V04N2ISS.PDF>.
120. Смульский И.И. Шесть вопросов о межзвездных полетах. Тюмень, 2008 г. http://samlib.ru/s/smulxskij_i_i/adamo02rdoc.shtml.
121. Смульский И.И. О вере и святынях народа. Новосибирск, 2004 г. http://samlib.ru/s/smulxskij_i_i/versvnrhtm.shtml.
122. Геродот. История. – М.: «Акт Москва», 2009, 672 с.
123. Смульский И.И. Автоматизированная система оценки загрязнения атмосферы города (ОЦЕЗАГР). Институт криосферы Земли СО РАН, г. Тюмень. - 2012 г. 2 с. <http://www.ikz.ru/~smulski/Papers/ASOZag.pdf>.
124. Смульский И.И. Беспредел в академической науке. Институт криосферы Земли СО РАН, г. Тюмень. - 2011 г. 2 с. http://samlib.ru/s/smulxskij_i_i/infnote2adoc.shtml.
125. Смульский И.И. О показателе результативности научной деятельности ученого // Путь науки. Международный научный журнал, No. 10 (32), 2016. - С. 8-16. <http://www.ikz.ru/~smulski/Papers/PokRezNauchD4.htm>.
126. Полников В.Г. О квалификационном ранжировании научных сотрудников // The Way of Science. International scientific journal. – 2015. – № 10 (20). – С. 144–148. <http://scienceway.ru/arhiv>.
127. Свердлов Е.Д. Берегись! Высокий импакт-фактор // Вестник РАН, 2018, т. 88, № 6, с. 531-538.

128. **Поль В.** Государство и наука. М.: Новое время, 2017 г., 164с.
129. **Смульский И.И.** Предположения и истина. Ответ на обращение. http://samlib.ru/s/smulxskij_i_i/letterlia.shtml. Институт криосферы Земли СО РАН, г. Тюмень. - 2018 г. 3 с.
130. **Смульский И.И., Иванова А.А.** Опыт реконструкции палеоклимата по изменению инсоляции на примере Западной Сибири в позднем плейстоцене // Климат и природа, 1 (26), 2018, с. 3-21. <http://www.ikz.ru/~smulski/Papers/OpRcnPClmt6.htm>.
131. **Смульский И.И.** Траектории при взаимодействии двух тел, зависящем от относительного расстояния и скорости//Математическое моделирование. - 1995. - Т.7. - N7. - С.117-126. <http://www.ikz.ru/~smulski/smul1/Russian1/FounPhisics/TrV2tl.pdf>.
132. **Смульский И.И.** О Совершенствовании Научной Печати. Институт криосферы Земли СО РАН, г. Тюмень. - 2007 г. 10 с. http://samlib.ru/s/smulxskij_i_i/itogihthtm.shtml.
133. **Поль В.** Духовность и общество. Понятия и размышления. Самиздат, 2015 г., 74 с.
134. **de Climont, Jean.** The Worldwide List of Alternative Theories and Critics. Editions d'Assailly, 2018, 2421 p. ISBN: 9782902425174.
135. **Смульский И.И.** Безгипотезный подход к электродинамике и теории тяготения (In Russian and English). Препринт "В порядке дискуссии" 92-1. Новосибирск - 1992.-32с.
136. **Коптюг В.А.** Наука спасет человечество. Новосибирск: НИЦ ОИГТМ СО РАН, 1997 г., 343 с. ISBN 5-7692-0021-9.

The book in pdf-format can be downloaded here:
http://wgalactica.ru/smul1/smulski/Papers/PrZadFuNa02_2.pdf.