

13.04.2016

Integrative Research Institute

Pre-proposal for the Institute of Venture Sciences

Gravitomagnetism

Solomon I. Khmelnik, PhD

solik@netvision.net.il

mobile: ++972-54-3990898

tel.: ++972-8-8691348

Gravitomagnetism

What hypothesis do you propose and why do you propose it?

Gravitomagnetism suggests that gravitation is described by equations similar to Maxwell equations for electrodynamics, i.e. that in gravitational field there exists a "quasielectrical" component and "quasimagnetic" component. This assumption was made by Heaviside, and later it was proved that exactly the same equations follow (in Earth conditions) from Einstein's GRT. Till now it was assumed that "quasimagnetic" component (gravitomagnetism) is very small and has practically no influence at all. Recently Samokhvalov conceived and performed a series of unexpected and amazing experiments. The author of the present proposal has explained these experiments mathematically by very strong influence of gravitomagnetism.

Then the author proved that the source of gravitational forces performs work in closed trajectories of the plural bodies motion if these bodies are rigidly bound and between them there act forces depending on the velocity of these bodies.

Finally the author proved that there exists a solution of Maxwell equations which suggests that any wave is motion along a spiral (see another proposal of the author "A consistent solution of Maxwell equations").

Why is your proposal of earth-shaking significance?

The above indicated facts permit explain in the framework of gravitomagnetism numerous natural phenomena and experiments. As far as the author is aware, for many of these there is no strict mathematical model, and consequently, there are no quantitative estimates.

Among these we must mark the following:

- sandy whirlwind,
- ocean currents,
- funnel and jet from a pipe,
- water soliton,
- water and sand tsunami,
- turbulent currents,
- additional (non-Newtonian) forces,
- celestial bodies interactions.

Among mentioned experiments:

- Samokhvalov's experiments,
- unusual fountain,
- Aldo Costa wheel,
- Tolchin's inertoid,
- Rank's effect,
- Taylor vortex.

Qualitative and Quantitative explanations of all this will permit us to predict destructive natural phenomena, use their energy, construct devices for using the energy of gravitational field.

Briefly, how will you test your hypothesis?

Along the theory the author developed an algorithm of simulation for all the enumerated phenomena and performed experimental programming. For a stricter testing and implementation it's desirable to perform the programming for a wider range of problems, and, most important, to develop experimental devices demonstrating the predicted effects: appearance of additional energy and additional impulse.

Which field of science or group of scientists does your proposal challenge?

Gravitation theory is treated in hundreds of textbooks of general physics and hydrodynamics. It is always emphasized that besides the gravitational attraction there are no other additional forces and energy sources. The presented theory, mathematical and programming simulation are contradicting these provisions and thus certainly will serve as a challenge for the authors of these works.

Besides, this theory, mathematical and programming simulation are contradicting the existing speculating models of natural phenomena. Furthermore, they refute a lot of restrictive expert assessments of papers and inventions, which (assessments) are made based on the existing gravitational theory. So, certainly the proposed theory is a challenge for the authors of these expertizes.

Solomon I. Khmelnik, PhD

About author



Solomon I. Khmelnik, PhD

I have lived and have been working in Moscow.

I have a Ph.D. in computer hardware design.

In Russia I worked for several years developing computers for missile systems. Next, I worked at the state's scientific research institute for electric power engineering.

In Israel I worked for several companies, including the Israel Electric Corporation. Next, I started my own company which developed a special purpose processor. All the while I was engaged in independent research.

My focus was the mathematical aspects of electrical, electrodynamics and electromechanical systems.

During this time I have published over 300 hundred articles, patents and books.

I am over 10 years publishes international periodic multiple-discipline scientific and technical printing magazine in English and Russian "The Papers of Independent Authors", ISSN 2225-6717, in Russian and English.

To date published 35 volumes , where the 443 articles published by 144 authors from 13 countries. Among the authors of 54 professors, doctors and candidates of sciences.

This is the first printed UNrefereed magazine. Lack of refereed (and justification for this on the first page of the magazine) is often considered a drawback of the magazine. Institute for Venture Science is a bright and convincing proof of this.