Principle of the optimal motion (short description)

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Annotation

This article is a practical conclusion of "hypothesis of the atomic (quantum) motion", registered on the site of intellectual protection: <u>http://www.a-</u>

priority.ru/Priority/1estestv/1estestv_catalog.html

registration number: A1B031 (project of the European Academy of Natural Sciences).

The article is devoted to the intended energy saving.

Millions of the people saw as the apple fall, but Newton asked why.

Baruh Bernard

In brief about the hypothesis. Hypothesis of the atomic (quantum) motion refers to the section of physics: "Classical mechanics". This is hypothesis of discreteness of mechanical motion. It represents a new, more profound approach to the second law of Newton.

So,the famous experiment by Isaac Newton: on the cart of the mass \mathbf{m} acts a force \mathbf{F} and the cart moves on the table with acceleration $\mathbf{a}=\mathbf{F}/\mathbf{m}$.

In connection with this experiment, there are a few of the eternal questions:

- Is there continuity in time increases the velocity of the body?

- Why does the body can not move immediately to the new motion state (new velocity) – what is the cause of its inertness?

- What is actually mechanism of the movement of the body \mathbf{m} ?

Answers to these questions gives my Hypothesis:

-Velocity of the body **m** increases is not continuously, but discrete, quantum. Continuous increase of velocity of a body moving under the force would be impossible, because instantaneous transition of the body from the previous motion state in a subsequent, contrary of the inertness of the body itself.

- The cause of inertia of the body is its own gravitational field, because the inertial mass of a body is proportional to the mass gravity. Not yet reacted own gravitational field of a body to the action of the force, body velocity will not change.

The quant of the motion - is the process of reaction of the own gravitational field of a body to the action of the force. This process is periodical and accompanied elementary deformation of a body (reaction gravitational field of a body) and subsequent redeformation of a body in the direction of travel (after reaction of the field).

-Thus, the mechanism of body motion under the action of the force is a collection of very small deformations and redeformations of a body. It reminds motion of the caterpillar.

If force, that acts on the body, grows with velocity of reaction of the own gravity field of a body, then the quantum of the motion of this body will be most **effective.**It is a practical conclusion from the hypothesis, on which built the "Principle of the optimal motion", - the alleged use of the hypothesis: for each mass of the various moving objects (people, vehicles, industrial equipment during switching on, alternating current - as the mass of the electrons, and so on) there its optimal (effective) acceleration – **a opt.**, that allows to increase efficiency of motion.

It should be noted that the optimal acceleration of moving objects are defined using my *Theory of the optimal motion* graphically in program Matlab 7or any other program of construction and calculation of the exponent.

Full version of the hypothesis: <u>http://elibrary.ru/item.asp?id=23326236</u>