

## **Annotation of Fields of Research carried out by Samokhvalov V.N.**

Experimentally ascertained that in nature there is a significant in value contactless interaction of small rotating masses and their force effect on closely located objects (masses), when masses move at relatively low rotary and linear speeds.

This interaction was called mass-dynamic as it is determined by dynamics of rotating mass, which has a variable quadrupole moment. The value of occurring mass-dynamic forces is by 20 degrees more than the value of gravimagnetic forces, which exhibit themselves in this case according to general relativity theory. It was experimentally shown that mass-dynamic forces affect any material objects irrespective of their electrical and magnetic properties.

Mass-dynamic interaction exhibits itself as a matter spin polarization, excitation of object (mass) rotation and their repulsion, i.e. spin-spin interaction.

We presented the results of experimental research of non-electromagnetic contactless interaction in vacuum of rotating dynamically imbalanced discs with each other, and their force effect on moving screens and frames, made of different materials. Carrying out the experiments in vacuum was caused by the necessity of maximal elimination of gas-dynamic effect and medium viscosity on the nature and values of observed processes.