



Non-hydrostatic equilibrium of the Sun and alternative physics

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The proved fact that the Earth and the Moon don't stay in hydrostatic equilibrium and many other evidences bring us to conclusion that dynamics and physics of all other Solar System bodies including the Sun itself ought to be studied on non-hydrostatic basis. The only reasonable and logical alternative to that is the dynamical approach. We accepted this option and found it as a promising direction. It was found that in order to change hydrostatics by dynamical physics the outer force field of the body must be replaced by its inner volumetric force pressure. This is because the gravitational and electromagnetic forces, being inner mass forces, are volumetric in their nature. The analytical approach of that is shown in our abstract presented to GD10 of GA2009. A novel equation of state for the Sun and other stars following from the dynamical approach was obtained. The common nature of gravitational and electromagnetic energy, generated by interacted (collide and scattered) elementary particles, follows from the dynamics. New ideas related to mechanism of the Solar System creation are aroused from the approach.

See more information in our works: Ferronsky V.I. and S.V. Ferronsky (2007). Dynamics of the Earth, Scientific World, Moscow; Ferronsky V.I. (2008). Non-averaged virial theorem for natural systems: <http://zhurnal.ape.relarn.ru/articles/2008/066e.pdf>; Ferronsky V.I., S.A. Denisik and S.V. Ferronsky (1987). Jacobi Dynamics, Riedel, Dordrecht.