

## **Aksenov Alexey**

Position: Senior scientific staff member

Laboratory for Astrophysics and Plasma Physics

Inst. for Theoretical and Experimental Ph. Moscow

Period covered: 2000-present



### **Scientific Work**

Stellar rotation, collapse of stars cores, neutrino transport, neutrino luminosity curves, gravitational radiation, Z-pinches, heavy ion fusion, multidimensional multi-temperature hydrodynamic simulations, simulations of the countercurrent in a gas centrifuge, one dimensional radiative transfer codes, a numerical modeling of electron-positron pairs and photons transfer from the surface of a compact star, etc.

### **II Conferences and educational activities**

2009: Interaction of Intense Energy Fluxes, Elblus, Russia; Zeldovich Meeting, Minsk, Belorussia; Marsell Grossmann General Relativity, Paris, France; Russian-Japan seminar Turbulence and instabilities, Moscow, Russia

2008: Stueckelberg Workshop on Relativistic Field Theories, Pescara, Italy; Seminar on parallel computations, Pushino, Russia

### **III Service activities**

#### *Within ICRANet*

2008-2009 Visitor at Icranet 1-3 months per year

#### *Outside ICRANet*

1989—1992 engineer, Laboratory for Astrophysics and Plasma Physics of the Institute for Theoretical and Experimental Physics (ITEP); 1992—1999 Junior sci. staff member, ITEP; 1999—2008 scientific staff member, ITEP; 2008—now Senior scientific staff member, department for mathematical modeling and turbulence, Institute for Computer-Aid design, Russian academy of Sciences.

1993, 1997 2—3 months Visitor at Max-Planck Institute for Astrophysics, Garching, FRG; 2000/11—2001/10 Postdoc Fellow, Cond. Matt. Dept., Weizmann Institute of Science, Rehovot,

Israel; 2002—2008 Visitor at Weizmann Institute of Science, Rehovot, Israel 1—3 months per a year

## **2009 List of Publications**

Heavy ion targets for the inertial thermonuclear fusion and for experiments with high energy density in matter. Aksenov A.G., Fortova S.V., Troshkin O.V. Collection Phys. of Extreme States of Matter ed. by Fortov V.E. et al, Institute of Problems of Chem. Phys. RAS, Chernogolovka.

Thermalization of the mildly relativistic plasma. Aksenov A.G., Ruç ni R., Vereshchagin G.V. Phys. Rev. D, 79, d3008.

The canonical Gamma-Ray Bursts: long, .fake-.disguised. and .genuine. short bursts. Ruç ni R. et al, AIP Conf. Proc., 1111, 325.

Thermalization of pair plasma with proton loading. Aksenov A.G., Ruç ni R., Vereshchagin G.V., AIP Conf. Proc., 1111, 344.

The Blackholic energy and the canonical Gamma-Ray Burst IV: the .long,..genuine short. and .fake-disguised short.GRBs. Ruç ni R. et al, AIP Conf. Proc., 1132, 199.