

Aksenov Alexey

Position: Senior scientific staff member
Dep. of Comp. Methods and Turbulence
Institute for Computer-Aided Design, RAS
and Dep. of Comp. Mathematics Scientific
Research Institute of System Development RAS,
Moscow
Period covered: 2008-present



Scientific Work

Collapse of stars cores, neutrino transport, 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, etc.

II Conferences and educational activities

2010: Interaction of Intense Energy Fluxes, March, Elblus, Russia; The second Galileo - Xu Guangqi meeting, July, Nice and Ventimiglia

2009: Interaction of Intense Energy Fluxes, March, Elblus, Russia; Zeldovich Meeting, Minsk, Belorussia; Marsell Grossmann General Relativity, July, Paris, France; Russian-Japan seminar Turbulence and instabilities, October, Moscow, Russia; Russian-Indian seminar for high performance calculations, November, Moscow, Russia

III Service activities

Within ICRANet

2009-2010 Visitor at Icranet 1-2 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

2010 List of Publications

The physical model of the gravitational collapse of the iron-oxygen stellar core, the neutrino luminosity, and Supernova. Aksenov A.G., Chechetkin p. 17 in Collection Phys. of Extreme States of Matter ed. by Fortov V.E. et al, Institute of Problems of Chem. Phys. RAS, Chernogolovka.

MDMT hydrodinamical code and the laser ablation simulations. Aksenov A.G., Troshkin O.V. p. 141 in Collection Phys. of Extreme States of Matter ed. by Fortov V.E. et al, Institute of Prob-blems of Chem. Phys. RAS, Chernogolovka.

Pair plasma relaxation time scales. Aksenov A.G., Ruffini R., Vereshchagin, G. V. Phys. Rev. E, 81, 046401

Kinetics of the mildly relativistic plasma and GRBs. Aksenov A.G., Ruffini R., Vereshchagin G.V. AIP Conf. Proc., 1205, p 11

To the countercurrent theory in rotating viscous heatconducting gas. Belosterkovskiy O.M., Betelin V.B., Borishevich V.D., Oparin A.M., Konyukhov A.V., Troshkin O.V., Aksenov A.G., Denisenko V.V., Kozlov S.A., Eriklintsev I.V. accepted in Comp. Mathematics and Math. Physics.