

Popov Vladimir

Position: Leading scientist

Institute of Theoretical and Experimental Physics

Period covered: 1970 - present



I Scientific Work

In recent years Popov's research focus on: the theory of multiphoton ionization of atoms and ions, including the relativistic generalization of Keldysh ionization theory for the case of multicharged ions; the process of electron-positron pair production from vacuum by the field of intense optical and X-ray lasers; development of the "imaginary time" method in theory of tunneling of relativistic particles; application of the Feynman method of disentangling of noncommuting operators to non-stationary problems of quantum mechanics; theory of massive nuclear density cores with account for gravitational interaction.

II Conferences and educational activities

International Conference "The Sun, the Stars, the Universe and General Relativity", Minsk, April 2009.

III Service activities

Journal of Experimental and Theoretical Physics, member of editorial board (1993 -)

2009 List of Publications

S.V.Popruzenko, V.D.Mur, V.S.Popov, D.Bauer. Strong field ionization rate for arbitrary laser frequencies. Phys. Rev. Lett. **101** (2008), 193003-1-4; ZhETF **135** (2009), 1092.

V.S.Popov, M.A.Trusov. Generating functions and sum rules for quantum oscillator. Phys. Lett. **A373** (2009), 1925.

V.S.Popov. From supercharged nuclei to massive nuclear density cores. Proc. Intern. Conf. "The Sun, the Stars, the Universe and General Relativity. Zeldovich Meeting" (Minsk, April 2009).

V.S.Popov. My recollections of Ya.B.Zeldovich, Proc. Intern. Conf. "Zeldovich Meeting"