

## CURRICULUM VITAE

### A. Personal data and contacts

Family Name: Popruzhenko  
First Name: Sergei  
Patronic Name: Vasil'evich  
Date of birth: March 17, 1974  
Place of birth: Prokhladny, Soviet Union  
Citizenship: Russian Federation  
Languages: Russian (native), English (fluent), German (B1)  
Profession: Theoretical physics  
Current position: Professor at the Theoretical Physics Department,  
Moscow Engineering Physics Institute – National  
Research Nuclear University (NRNU MEPhI);  
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### B. Education and Employment History

**1981 – 1991** – primary and middle school, graduated with the gold medal  
**1991 – 1997** – student at the Moscow Engineering Physics Institute (MEPhI),  
specialization “Theoretical nuclear physics”, diploma with distinction  
**1997 – 2000** – PhD student at the Moscow Engineering Physics Institute, department  
for the Theoretical Physics Department, supervised by Prof., Dr.Sc. S.P. Goreslavsky  
**2000** – PhD thesis “Tunneling limit in the theory of above-threshold ionization and  
rescattering”  
**2000 – 2002** – researcher at the Theoretical Physics Department, Moscow  
Engineering Physics Institute  
**2002 – 2012** – associated professor at the Theoretical Physics Department, Moscow  
Engineering Physics Institute – National Research Nuclear University  
**2007 – 2008** – sabbatical at the Max Planck Institute for Nuclear Physics (Heidelberg,  
Germany), Theory Division, the group of Dr. Dieter Bauer  
**2011** – Dr.Sc. (habilitation) in theoretical physics, thesis “Nonperturbative methods  
in the theory of nonlinear ionization and generation of high harmonics in intense  
laser fields”  
**2012 – present** – professor at the Theoretical Physics Department, Moscow  
Engineering Physics Institute – National Research Nuclear University

## **C. Community services**

**2009 – present** – Vice-head of the Theoretical Physics Department, Moscow Engineering Physics Institute – National Research Nuclear University

**2010 – present** – Scientific Council Member of the Faculty for Experimental and Theoretical Physics at the Moscow Engineering Physics Institute – National Research Nuclear University

**2012 – present** – Member of the Dissertation Council on theoretical and solid state physics at the Moscow Engineering Physics Institute – National Research Nuclear University

**2005 – present** – reviewer for scientific journals including Physical Review (Letters and A), Journal of Physics B, Physics Letters A, Laser Physics, Journal of Experimental and Theoretical Physics, Optics Express

**2002 – present** – Program committee member and scientific secretary of the International MEPhI Summer School on Theoretical Physics

**2008** – Program committee member of the International Conference on Multiphoton processes (Heidelberg, 18-23 September 2008)

**2013 – 2015** – General committee member of the International Conference on Photon, Electron and Ion Collisions (ICPEAC)

## **D. Teaching experience (2002 - present)**

Lecture courses:

- Interaction of intense radiation with matter
- Classical electrodynamics
- Statistical Physics
- Fluid dynamics
- Magnetohydrodynamics
- Kinetic theory of gases and plasmas

Seminars and exercises

- Classical mechanics
- Classical electrodynamics
- Statistical physics
- Introduction to theoretical physics
- English for physicists

## **E. Research Field**

Interaction of intense laser fields with matter including

- Nonlinear ionization of atoms in intense laser fields
- Generation of high harmonics
- Attosecond optics
- Interaction of intense laser fields with nanoparticles and plasmas

## F. Publications and citations

Over 60 publications (including three topical reviews) in Physical Review (Letters and A), Journal of Experimental and Theoretical Physics, Journal of Physics B, Physics Letters, Science and other physical journals.

CI about 1200, H=21 (according to the Web of Science database, April 2016).

## G. Top 10 publications (most important, not necessarily most cited)

1. S.V. Popruzhenko, S.P. Goreslavskii, Photoelectron momentum distributions for double ionization in strong laser fields, *J. Phys. B: At. Mol. Opt. Phys.* **34**, L239 (2001).
2. S.V. Popruzhenko, P.A. Korneev, S.P. Goreslavski, W.Becker, Laser-induced Recollision Phenomena: Interference Resonances at Channel Closings, *Phys. Rev. Lett.* **89**, 023001 (2002).
3. S.V. Fomichev, S.V. Popruzhenko, D.F. Zaretsky and W. Becker, Laser-induced nonlinear excitation of collective electron motion in a cluster, *J. Phys. B: At. Mol. Opt. Phys.* **36**, 3817 (2003).
4. S.P. Goreslavski, G.G. Paulus, S.V. Popruzhenko and N.I. Shvetsov-Shilovski, Coulomb Asymmetry in Above-Threshold Ionization, *Phys. Rev. Lett.* **93**, 233002 (2004).
5. S.V. Popruzhenko, D. Bauer, Strong field approximation for systems with Coulomb interaction, *Journal of Modern Optics* **55**, 2573 (2008).
6. S.V. Popruzhenko, V.D. Mur, V.S. Popov and D. Bauer, Strong field Ionization Rate for Arbitrary Laser Frequencies, *Phys. Rev. Lett.* **101**, 193003 (2008).
7. M. Ruggenthaller, S.V. Popruzhenko and D. Bauer, Recollision-induced plasmon excitation in strong laser fields, *Phys. Rev. A* **78**, 033413 (2008).
8. Tian-Min Yan, S.V. Popruzhenko, M.J.J. Vrakking, and D. Bauer, Low-Energy Structures in Strong Field Ionization Revealed by Quantum Orbits, *Phys. Rev. Lett.* **105**, 253002 (2010).
9. S.V. Popruzhenko, Keldysh theory of strong-field ionization: history, applications, difficulties and perspectives, *J. Phys. B: At. Mol. Opt. Phys.* **47**, 204001 (2014).
10. S.V. Popruzhenko, V.A. Tulsy, Control of terahertz photoelectron currents generated by intense two-color laser radiation interacting with atoms, *Phys. Rev. A* **92**, 033414 (2015).