

Andrey B. Savel'ev

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Birthdate: November, 8 1963.

(a) Professional Preparation

M.V. Lomonosov Moscow State University, Moscow, Russia Physics B.S., 1984
M.V. Lomonosov Moscow State University, Moscow, Russia Physics M.S., 1986
M.V. Lomonosov Moscow State University, Moscow, Russia Physics PhD., 1989
M.V. Lomonosov Moscow State University, Moscow, Russia Physics DrSc., 2004

(b) Appointments

05/10-present Professor, Faculty of Physics, M.V. Lomonosov Moscow State University
Head of the Laboratory of Relativistic Laser Plasma
10/98-02/99 – Guest Senior Researcher at Max-Born Institute, Berlin, Germany
04/96-05/10 Associate Professor, Faculty of Physics, M.V. Lomonosov Moscow State University
11/92-04/96 Assistant Professor, Faculty of Physics, M.V. Lomonosov Moscow State University
05/89-11/92 Research Scientist, Faculty of Physics, M.V. Lomonosov Moscow State University

(c) Products

ResearcherID: [D-7680-2012](#)

- Co-authored more than 180 research papers in refereed scientific journals
- Plenary lectures in 2016:

34th European Conference on Laser interaction with Matter,

XLIV ZVENIGOROD INTERNATIONAL CONFERENCE ON PLASMA PHYSICS AND CONTROLLED FUSION

- 5 invited presentation in the year of 2016
- Scientific advisor of 8 PhD thesis (2004-2016)

(d) Synergistic Activities

1. Honors and Awards:

2004, MSU First Award as a Young Distinguished Scientist;

2016 MSU First Award as a Distinguished Lecturer for the Introduction to Quantum Physics course

2. Education Initiatives: 2007-Present, OSA student chapter advisor at ILC MSU,

Lectures on Introduction to Quantum Physics, Introduction to Laser Physics, Physics of Lasers, Hot dense plasma, Extreme light intensities: generation and applications

3. Professional Memberships: 1998 -present – OSA member

4. Editorships: 2012-Present, Editorial board member of Laser Physics Letters & Laser Physics Journals, 2016 – Present, Editorial board member of Quantum Electronics Journal

5. Program Committee Member: Laser Physics Workshop (2012-present), International conference on non-linear optics (2013, 2016), European Conference on Laser interaction with Matter (2016), and other workshops and seminars

Selected recent publications

1. K. A. Ivanov, I. N. Tsymbalov, S. A. Shulyapov, D. A. Krestovskikh, A. V. Brantov, V. Yu Bychenkov, R. V. Volkov, and A. B. Savel'ev. Prepulse controlled electron acceleration from solids by a femtosecond laser pulse in the slightly relativistic regime. *Physics of Plasmas*, 24(6):063109, 2017.
2. O. V. Chefonov, A. V. Ovchinnikov, S. A. Romashevskiy, X. Chai, T. Ozaki, A. B. Savel'ev, M. B. Agranat, and V. E. Fortov. Giant self-induced transparency of intense few-cycle terahertz pulses in n-doped silicon. *Optics Letters*, 42(23):4889–4892, 2017.
3. I. N. Tsymbalov, K. A. Ivanov, R. V. Volkov, A. B. Savel'ev, L. S. Novikov, L. I. Galanina, N. P. Chirskaya, V. Yu Bychenkov, and A. I. Chumakov. Laser-plasma sources of ionizing radiation for simulation of radiation effects in microelectronic materials and components. *Inorganic Materials: Applied Research*, 8(3):359–363, 2017.
4. K. A. Ivanov, D. A. Gozhev, S. P. Rodichkina, S. V. Makarov, S. S. Makarov, M. A. Dubatkov, S. A. Pikuz, D. E. Presnov, A. A. Paskhalov, N. V. Eremin, A. V. Brantov, V. Yu Bychenkov, R. V. Volkov, V. Yu Timoshenko, S. I. Kudryashov, and A. B. Savel'ev. Nanostructured plasmas for enhanced gamma emission at relativistic laser interaction with solids. *Applied Physics B: Lasers and Optics*, 123(10):252, 2017.

5. A Savel'ev et al Direct detection of delayed high energy electrons from the ^{181}Ta target irradiated by a moderate intensity femtosecond laser pulse 2017 Plasma Phys. Control. Fusion 59 035004
6. V. Balakin, M. S. Dzhidzhoev, V. M. Gordienko, M. N. Esaulkov, I. A. Kotelnikov, N. A. Kuzechkin, I. A. Ozheredov, A. B. Savel'ev, P. M. Solyankin, A. P. Shkurinov, I. A. Zhvaniya, " Interaction of High-Intensity Femtosecond Radiation With Gas Cluster Beam: Effect of Pulse Duration on Joint Terahertz and X-Ray Emission IEEE Transactions on Terahertz Science and Technology (Volume: 7, Issue: 1, 70 - 79Jan. 2017)
7. Tsymbalov, I.N., Volkov, R.V., Eremin, N.V. et al. Investigation of the reaction $\text{D}(\gamma, \text{n})\text{H}$ near the threshold by means of powerful femtosecond laser radiation Phys. Atom. Nuclei (2017) 80: 397.
8. K. A. Ivanov et al, Prepulse controlled electron acceleration from solids by a femtosecond laser pulse in the slightly relativistic regime Physics of Plasmas 24, 063109 (2017) Physics of Plasmas 24, 063109 (2017)
9. A I Chumakov et al Ionisation response in semiconductor structures exposed to the X-ray radiation of a femtosecond laser-plasma source 2017 Quantum Electron. 47 528
10. D E Shipilo et al Near-infrared conical emission from 800 nm filament in air 2017 Laser Phys. Lett. 14 035401
11. Roman V. Volkov and Andrey B. Savel'ev Spatial coherence of a Raman wake excited inside a uniform filament Phys. Rev. A 92, 033820 2015
12. D.A. Krestovskikh et al Postionisation of a spatially nonuniform plasma plume under high-intensity femtosecond laser irradiation 2017 Quantum Electron. 47 42
13. K A Ivanov et al Enhanced relativistic laser-plasma coupling utilizing laser-induced micromodified target 2015 Laser Phys. Lett. 12 046005
14. S A Shulyapov et al Parametric waves excitation in relativistic laser-plasma interactions for electron acceleration 2015 J. Phys.: Conf. Ser. 653 012007
15. Lar'kin et al Microjet formation and hard x-ray production from a liquid metal target irradiated by intense femtosecond laser pulses Physics of Plasmas 21, 093103 (2014)
16. K.A. Ivanov et al, X-Ray Diagnostics of Ultrashort Laser-Driven Plasma: Experiment and Simulations Contribution to Plasma Physics 53, Issue 2 116–121 2013
17. S. G. Bochkarev et al, Effect of a short weak prepulse on laser-triggered front-surface heavy-ion acceleration Physics of Plasmas 19, 103101 (2012)
18. Uryupina, D., Panov, N., Kurilova, M. et al. 3D Raman bullet formed under filamentation of femtosecond laser pulses in air and nitrogen Appl. Phys. B (2013) 110: 123.
19. D. S. Uryupina et al, Femtosecond laser-plasma interaction with prepulse-generated liquid metal microjets Physics of Plasmas 19, 013104 (2012)

My motivations to join the BPIF board

My research topics are closely linked to the BPIF activity. Being involved in different scientific collaborations inside Russia and abroad, and having wide contacts with plasma physics related institutes in Russia and abroad, I really see the need for much more extensive and deep collaboration between Russian scientific community and Europe. This is even more important now in the course of the current political tensions and problems, that certainly impacts on the scientific collaboration. Especially we felt this for France and Great Britain. I hope that the EPS (and the BPIF section) could be one of the instruments improving the situation. I've also realized that Russian physics community is not a part of the EPS in the form of member society and this should be changed. As a university professor I have numerous contacts with students and young researchers and I think it is worth to launch special BPIF school with participation of young researchers from different countries with lectures by leading scientists from our community.