RUBTSOV Grigory Igorevich

Curriculum vitae

(August 2025)

Date and place of birth:	July 31, 1981, Dolgoprudny, USSR
Citizenship:	Russia
Employment:	November 2014 – present: Deputy Director for Research of the Institute for Nuclear Research of the Russian Academy of Sciences (Moscow) December 2018 – present: Head of the Laboratory for big data analysis in particle physics and astrophysics INR RAS March 2022 – present: Head of the Department of High Energy Leptons and Neutrino Astrophysics INR RAS April 2007 – November 2014: Scientific researcher Dept. of Theoretical Physics INR RAS May 2012 – December 2014: Visiting researcher, Laboratory for cosmology and elementary particles, Novosibirsk State University January – May 2010: Invited associate professor, Institute for Cosmic Ray Research of the University of Tokyo
Education and academic degree:	2025: Corresponding Member of the Russian Academy of Sciences 2018: Professor of the Russian Academy of Sciences 2016: Doctor of Science in physics and mathematics; thesis: Diffuse astrophysical radiation from 10^{-4} eV to 10^{+20} eV and constraints on new models of elementary particle physics 2007: PhD in physics and mathematics; thesis: Statistical methods of extensive air shower analysis, advisors: Prof. V.A. Rubakov and Prof. S.V. Troitsky 2004: Specialist in Physics, M.V. Lomonosov Moscow State University, Faculy of Physics; thesis: Narrowing the window for millicharged particles by CMB anisotropy, advisor: Prof. V.A. Rubakov
Research interests:	Ultra-high-energy cosmic rays, multi-messenger astrophysics, big data analysis
Grants and awards:	Grant of the Russian Science Foundation “The problem of muon excess and the chemical composition of the ultra-high-energy cosmic rays”, PI (2025 - 2027) Grant of the Inter-University Research Program of the Institute for Cosmic Ray Research of the University of Tokyo, PI (2019 – 2026)

Medal for the 300th Anniversary of the Russian Academy of Sciences (2024)

Moscow Government Prize for Young Scientists (2015)

Russian Academy of Sciences Medal for Young Scientists (2012)

Prize of the President of the Russian Federation to the winner of XXIX International Physics Olympiad (1998)

Teaching: PhD thesis supervision: M.Yu. Kuznetsov (2017), Ya.V. Zhezher (2019), A.A. Korochkin (2022), K.A. Dolgikh (expected in 2025), N.A. Pozdnukhov (expected in 2027).

Special courses "Numerical Methods in Particle Physics and Astrophysics" and "Machine learning methods for data processing" at the Faculty of Physics of the M.V. Lomonosov Moscow State University

Membership: Russian Academy of Sciences Council on Cosmic Rays, 2023 – present

Physics-Uspekhi (Advances in Physical Sciences) journal, Editorial board, 2015 – present

Executive Board of the international collaboration Telescope Array, 2017 – present

Dissertation council based at the INR RAS, deputy chair 2023 – present

The Physical Society of Japan, 2010 – present

Publications: 246 scientific papers (H-index: 37), including 5 copyright certificates.

Selected publications:

1. K. Dolgikh, A. Korochkin, G. Rubtsov, D. Semikoz, I. Tkachev, Images of the ultra-high energy cosmic rays from point sources, Adv.Space Res. 74, 5295-5301 (2024).

2. I. Kharuk, G. Rubtsov, G. Safronov, Rejecting noise in Baikal-GVD data with neural networks, JINST 18, 09, P09026 (2023)

3. R. U. Abbasi et al. (Telescope Array collaboration), An extremely energetic cosmic ray observed by a surface detector array, Science 382, 903-907 (2023).

4. G. Rubtsov, P. Satunin, S. Sibiryakov, Constraints on violation of Lorentz invariance from atmospheric showers initiated by multi-TeV photons, JCAP 05, 049

(2017).

5. S. Ramazanov and G. Rubtsov, Constraining anisotropic models of the early Universe with WMAP9 data, Phys. Rev. D 89, 4, 043517 (2014).

6. A.D. Dolgov, S.L. Dubovsky, G.I. Rubtsov, I.I. Tkachev, Constraints on millicharged particles from Planck data, Phys.Rev.D 88, 11, 117701 (2013).

7. G.I. Rubtsov et al., Upper limit on the ultrahigh-energy photon flux from AGASA and Yakutsk data, Phys.Rev.D 73, 063009 (2006).