

**Books:**

G.V. Vereshchagin and A.G. Aksenov, “Relativistic Kinetic Theory With Applications in Astrophysics and Cosmology”, Nauka, Moscow, 2018, 470 pages. ISBN 978-5-02-040144-0.

G.V. Vereshchagin and A.G. Aksenov, “Relativistic Kinetic Theory With Applications in Astrophysics and Cosmology”, Cambridge University Press, 2017, 334 pages. ISBN: 9781107048225.

G.V. Vereshchagin, "Relativistic Kinetic Theory with some Applications", in: *Cosmology and Gravitation: XVth Brazilian School of Cosmology and Gravitation*, eds. Mario Novello and Santiago E. Perez Bergliaffa, Cambridge Scientific Publishers, ISBN 978-1-908106-39-1 2014, pp 1-40.

G.V. Vereshchagin, “Gauge Theories of Gravity with the Scalar Field in Cosmology”, in “Frontiers in Field Theory”, edited by O. Kovras, Nova Science Publishers, New York, ISBN: 1-59454-127-2, 2005, pp. 213-255.

**Refereed journals:**

1. Mikalai Prakapenia and Gregory Vereshchagin, “Pair creation from radial electromagnetic perturbation of a compact astrophysical object”, *Phys. Rev. D* 111 (2025) 043023.
2. S. O. Komarov and G. V. Vereshchagin, ”Electromagnetic Field and Radiation of Charged Particles in the Vicinity of Schwarzschild Black Hole”, *Particles* 2025, 8, 1.
3. Mikalai Prakapenia and Gregory Vereshchagin, “Pair creation in hot electrosphere of compact astrophysical objects”, *Astrophysical Journal*, Volume 963, Issue 2 (2024), id.1492024.
4. S. O. Komarov, A. K. Gorbatsievich, G. V. Vereshchagin and A. S. Garkun “Electromagnetic Field of a Charged Particle, Asymptotically Approaching Schwarzschild Black Hole”, *Astronomy Reports*, 2023, Vol. 67, Suppl. 2, S175–S178.
5. M. A. Prakapenia and G. V. Vereshchagin “On the Influence of Pauli Blocking on Pair Creation in Strong Electric Field”, *Astronomy Reports*, 2023, Vol. 67, Suppl. 2, S170–S174.
6. S. O. Komarov, A. K. Gorbatsievich and G. V. Vereshchagin, "Electromagnetic field of a charge asymptotically approaching a spherically symmetric black hole" *Phys. Rev. D* 108 (2023) 104056.
7. Mikalai Prakapenia and Gregory Vereshchagin, “Pauli blocking effects on pair creation in strong electric field”, *Phys. Rev. D* 108 (2023) 013002
8. S. O. Komarov, A. K. Gorbatsievich, A. S. Garkun and G. V. Vereshchagin, “Electromagnetic radiation and electromagnetic self-force of a point charge in the vicinity of Schwarzschild black hole”, *Nonlinear Phenomena in Complex Systems*, 26 (2023) 77 - 82.
9. M. A. Prakapenia and G. V. Vereshchagin, “Kinetics of Degenerate Electron–Positron Plasmas”, *Universe*, vol. 8 (2022) p. 473.
10. Gregory Vereshchagin, Liang Li and Damien Bégue, “Is magnetically dominated outflow required to explain GRBs?” *MNRAS* 512 (2022), pp. 4846- 4851.
11. M. A. Prakapenia and G. V. Vereshchagin, “Reaction Rates of Three-Particle Interactions in Relativistic Plasma”, *Astronomy Reports* 65 (2021) 1011.
12. M. A. Prakapenia, I. A. Siutsou and G. V. Vereshchagin, “Numerical scheme for evaluating the collision integrals for triple interactions in relativistic plasma”, *Phys. Plasmas* 27,

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13. M. A. Prakapenia and G. V. Vereshchagin, “Pauli blocking effects in thermalization of relativistic plasma”, *Phys. Lett. A*, Vol. 384 (2020) 126679.
  14. G. V. Vereshchagin and I. A. Siutsou, “Diffusive photospheres in gamma-ray bursts”, *MNRAS* 494 (2020), pp. 1463-1469.
  15. M. A. Prakapenia and G. V. Vereshchagin, “Bose-Einstein condensation in relativistic plasma”, *EPL* 128 (2019) 50002.
  16. Suzana Bedic and G. V. Vereshchagin, “Probability of inflation in Loop Quantum Cosmology”, *Phys. Rev. D* 99 (2019) 043512.
  17. R. Ruffini, J.D. Melon Fuksman and G.V. Vereshchagin, “On the role of a cavity in the hypernova ejecta of GRB 190114C”, *ApJ* 883 (2019) 191.
  18. M. A. Prakapenia, I. A. Siutsou and G. V. Vereshchagin, “Thermalization of electron-positron plasma with quantum degeneracy”, *Physics Letters A* 383 (2019) pp. 306-310.
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  30. I.A. Siutsou, R. Ruffini and G.V. Vereshchagin, “Spreading of ultrarelativistically expanding shell: an application to GRBs”, *New Astronomy*, Vol. 27 (2014), pp. 30-33.
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49. G.V. Vereshchagin, “Physical constants and the Gurzadyan-Xue formula for the dark energy”, *Modern Physics Letters A*, Vol. 21, (2006) No. 9, pp. 729-733.
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57. G. V. Vereshchagin, “On diffusive photospheres in Gamma-Ray Bursts”, in proceedings of the Sixteenth Marcel Grossmann Meeting, World Scientific, 2023, pp. 2989-3001.
58. G. V. Vereshchagin and D. Bégué, “Summary of the parallel session GB3”, in proceedings of the Sixteenth Marcel Grossmann Meeting, World Scientific, 2023, pp. 3002-3008.
59. I.A. Siutsou, A. G. Aksenov and G. V. Vereshchagin, “On thermalization of electron-positron-photon plasma”, in the Proceedings of “The Second ICRANet César Lattes Meeting: Supernovae, Neutron Stars and Black Holes” meeting, *AIP Conference Proceedings* 1693 (2015) 070007.
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79. Иван Сивцов, Григорий Верещагин, "Гамма-всплески – голос Вселенной ", Навука, 22 (2017), стр. 8.