

Valeri P Frolov

List of Publications by Year in descending order

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papers

4,085
citations

136950

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docs citations

93
times ranked

1776
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 1 | Spherically symmetric black holes in the limiting curvature theory of gravity. Physical Review D, 2022, 105, . | 4.7 | 6 |
| 2 | Ultrarelativistic charged and magnetized objects in nonlocal ghost-free electrodynamics. Physical Review D, 2021, 103, . | 4.7 | 2 |
| 3 | Resonant particle creation by a time-dependent potential in a nonlocal theory. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2021, 816, 136252. | 4.1 | 0 |
| 4 | Two-dimensional black holes in the limiting curvature theory of gravity. Journal of High Energy Physics, 2021, 2021, 1. | 4.7 | 8 |
| 5 | Nonlocal scalar field in an external potential: The WKB approximation. Physical Review D, 2021, 103, . | 4.7 | 0 |
| 6 | Bouncing cosmology in the limiting curvature theory of gravity. Physical Review D, 2021, 104, . | 4.7 | 5 |
| 7 | Maxwell equations in a curved spacetime: Spin optics approximation. Physical Review D, 2020, 102, . | 4.7 | 17 |
| 8 | Ultrarelativistic spinning objects in nonlocal ghost-free gravity. Physical Review D, 2020, 101, . | 4.7 | 19 |
| 9 | Duality and $\hat{1}/4$ separability of Maxwell equations in Kerr-NUT-(A)dS spacetimes. Physical Review D, 2019, 99, . | 4.7 | 8 |
| 10 | On thermal field fluctuations in ghost-free theories. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2019, 793, 290-296. | 4.1 | 11 |
| 11 | Ghost-free modification of the Polyakov action and Hawking radiation. Physical Review D, 2019, 100, . | 4.7 | 13 |
| 12 | Probing the vacuum fluctuations in scalar ghost-free theories. Physical Review D, 2019, 99, . | 4.7 | 14 |
| 13 | Remarks on Black Hole Entropy. , 2019, , 35-52. | | 0 |
| 14 | On the Liouville 2D dilaton gravity models with sinh-Gordon matter. Journal of High Energy Physics, 2018, 2018, 1. | 4.7 | 2 |
| 15 | Gravitational field of static $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline">p \rangle$ -branes in linearized ghost-free gravity. Physical Review D, 2018, 97, . | 4.7 | 54 |
| 16 | Principal Killing strings in higher-dimensional Kerr-NUT-(A)dS spacetimes. Physical Review D, 2018, 97, . | 4.7 | 2 |
| 17 | Stationary black holes with stringy hair. Physical Review D, 2018, 97, . | 4.7 | 5 |
| 18 | Superradiance in a ghost-free scalar theory. Physical Review D, 2018, 98, . | 4.7 | 7 |

| # | ARTICLE | IF | CITATIONS |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 19 | Separation of Maxwell equations in Kerr-NUT(A)dS spacetimes. Nuclear Physics B, 2018, 934, 7-38. | 2.5 | 36 |
| 20 | Quantum scattering on a delta potential in ghost-free theory. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2018, 782, 688-693. | 4.1 | 20 |
| 21 | Separation of variables in Maxwell equations in Plebański-Demiański spacetime. Physical Review D, 2018, 97, . | 4.7 | 24 |
| 22 | New metrics admitting the principal Killing-Yano tensor. Physical Review D, 2018, 97, . | 4.7 | 4 |
| 23 | Massive Vector Fields in Rotating Black-Hole Spacetimes: Separability and Quasinormal Modes. Physical Review Letters, 2018, 120, 231103. | 7.8 | 72 |
| 24 | Quantum radiation from a sandwich black hole. Physical Review D, 2017, 95, . | 4.7 | 10 |
| 25 | Quantum radiation from an evaporating nonsingular black hole. Physical Review D, 2017, 95, . | 4.7 | 46 |
| 26 | Weakly charged generalized Kerr-NUT(A)dS spacetimes. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2017, 771, 254-256. | 4.1 | 7 |
| 27 | Black holes, hidden symmetries, and complete integrability. Living Reviews in Relativity, 2017, 20, 6. | 26.7 | 147 |
| 28 | Deformed and twisted black holes with NUTs. Classical and Quantum Gravity, 2016, 33, 115016. | 4.0 | 7 |
| 29 | Notes on nonsingular models of black holes. Physical Review D, 2016, 94, . | 4.7 | 182 |
| 30 | Head-on collision of ultrarelativistic particles in ghost-free theories of gravity. Physical Review D, 2016, 93, . | 4.7 | 78 |
| 31 | Radiation from an emitter in the ghost free scalar theory. Physical Review D, 2016, 93, . | 4.7 | 26 |
| 32 | Mass Gap for Black-Hole Formation in Higher-Derivative and Ghost-Free Gravity. Physical Review Letters, 2015, 115, 051102. | 7.8 | 115 |
| 33 | Biconformal symmetry and static Maxwell fields near higher-dimensional black holes. Physical Review D, 2015, 92, . | 4.7 | 2 |
| 34 | Hybrid black holes. Physical Review D, 2015, 91, . | 4.7 | 0 |
| 35 | Spherical collapse of small masses in the ghost-free gravity. Journal of High Energy Physics, 2015, 2015, 1. | 4.7 | 90 |
| 36 | Biconformal symmetry and static Green functions in the higher-dimensional Reissner-Nordström spacetimes. Physical Review D, 2015, 91, . | 4.7 | 4 |

| # | ARTICLE | IF | CITATIONS |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 37 | Bi-conformal symmetry and static Green functions in the Schwarzschild-Tangherlini spacetimes. Journal of High Energy Physics, 2015, 2015, 1. | 4.7 | 7 |
| 38 | Rigidly rotating zero-angular-momentum observer surfaces in the Kerr spacetime. Physical Review D, 2014, 90, . | 4.7 | 14 |
| 39 | Spectral line broadening in magnetized black holes. Journal of Cosmology and Astroparticle Physics, 2014, 2014, 059-059. | 5.4 | 10 |
| 40 | Radiation from an emitter revolving around a magnetized nonrotating black hole. Physical Review D, 2014, 90, . | 4.7 | 4 |
| 41 | Charged particles in higher dimensional homogeneous gravitational field: self-energy and self-force. Journal of High Energy Physics, 2014, 2014, 1. | 4.7 | 9 |
| 42 | Information loss problem and a "black hole" model with a closed apparent horizon. Journal of High Energy Physics, 2014, 2014, 1. | 4.7 | 99 |
| 43 | Black Holes, Hidden Symmetry and Complete Integrability: Brief Review. , 2014, , 261-273. | | 1 |
| 44 | Generalized Fermat's principle and action for light rays in a curved spacetime. Physical Review D, 2013, 88, . | 4.7 | 9 |
| 45 | Electron in higher-dimensional weakly charged rotating black hole spacetimes. Physical Review D, 2013, 87, . | 4.7 | 6 |
| 46 | Self-energy anomaly of an electric pointlike dipole in three-dimensional static spacetimes. Physical Review D, 2013, 88, . | 4.7 | 6 |
| 47 | Critical escape velocity for a charged particle moving around a weakly magnetized Schwarzschild black hole. Physical Review D, 2013, 87, . | 4.7 | 71 |
| 48 | Geometry of Lax pairs: Particle motion and Killing-Yano tensors. Physical Review D, 2013, 87, . | 4.7 | 12 |
| 49 | Scattering of circularly polarized light by a rotating black hole. Physical Review D, 2012, 86, . | 4.7 | 25 |
| 50 | Anomaly and the self-energy of electric charges. Physical Review D, 2012, 86, . | 4.7 | 9 |
| 51 | Self-energy of a scalar charge near higher-dimensional black holes. Physical Review D, 2012, 85, . | 4.7 | 10 |
| 52 | Scalar and electromagnetic fields of static sources in higher dimensional Majumdar-Papapetrou spacetimes. Physical Review D, 2012, 85, . | 4.7 | 19 |
| 53 | Weakly magnetized black holes as particle accelerators. Physical Review D, 2012, 85, . | 4.7 | 119 |
| 54 | Classical self-energy and anomaly. Physical Review D, 2012, 86, . | 4.7 | 9 |

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|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 55 | Spinoptics in a stationary spacetime. <i>Physical Review D</i> , 2011, 84, . | 4.7 | 27 |
| 56 | Charged particle in higher dimensional weakly charged rotating black hole spacetime. <i>Physical Review D</i> , 2011, 83, . | 4.7 | 43 |
| 57 | PARTICLE DYNAMICS IN WEAKLY CHARGED EXTREME KERR THROAT. <i>International Journal of Modern Physics D</i> , 2011, 20, 649-660. | 2.1 | 14 |
| 58 | Motion of charged particles near a weakly magnetized Schwarzschild black hole. <i>Physical Review D</i> , 2010, 82, . | 4.7 | 126 |
| 59 | Black holes in higher dimensional gravity theory with corrections quadratic in curvature. <i>Physical Review D</i> , 2009, 80, . | 4.7 | 24 |
| 60 | Parallel-propagated frame along null geodesics in higher-dimensional black hole spacetimes. <i>Physical Review D</i> , 2009, 79, . | 4.7 | 14 |
| 61 | Hidden symmetries of higher-dimensional black holes and uniqueness of the Kerr-NUT-(A)dS spacetime. <i>Physical Review D</i> , 2008, 78, . | 4.7 | 77 |
| 62 | Solving parallel transport equations in the higher-dimensional Kerr-NUT-(A)dS spacetimes. <i>Physical Review D</i> , 2008, 78, . | 4.7 | 16 |
| 63 | Higher-dimensional black holes: hidden symmetries and separation of variables. <i>Classical and Quantum Gravity</i> , 2008, 25, 154005. | 4.0 | 100 |
| 64 | Hidden Symmetries of Higher-Dimensional Black Hole Spacetimes. <i>Progress of Theoretical Physics Supplement</i> , 2008, 172, 210-219. | 0.1 | 19 |
| 65 | Stationary strings and branes in the higher-dimensional Kerr-NUT-(A)dS spacetimes. <i>Journal of High Energy Physics</i> , 2008, 2008, 007-007. | 4.7 | 31 |
| 66 | Killing-Yano tensors, rank-2 Killing tensors, and conserved quantities in higher dimensions. <i>Journal of High Energy Physics</i> , 2007, 2007, 004-004. | 4.7 | 88 |
| 67 | The hidden symmetry of higher dimensional Kerr-NUT-AdS spacetimes. <i>Classical and Quantum Gravity</i> , 2007, 24, F1-F6. | 4.0 | 93 |
| 68 | Hidden Symmetries of Higher-Dimensional Rotating Black Holes. <i>Physical Review Letters</i> , 2007, 98, 011101. | 7.8 | 82 |
| 69 | Separability of Hamilton-Jacobi and Klein-Gordon equations in general Kerr-NUT-AdS spacetimes. <i>Journal of High Energy Physics</i> , 2007, 2007, 005-005. | 4.7 | 110 |
| 70 | Apparent horizon formation in the head-on collision of gyratons. <i>Physical Review D</i> , 2007, 75, . | 4.7 | 18 |
| 71 | Spectral broadening of radiation from relativistic collapsing objects. <i>Physical Review D</i> , 2007, 75, . | 4.7 | 7 |
| 72 | Gravitational Field of Gyratons. <i>International Journal of Theoretical Physics</i> , 2007, 46, 2181-2191. | 1.2 | 1 |

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|----|-------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 73 | String gyratons in supergravity. <i>Physical Review D</i> , 2006, 73, . | 4.7 | 16 |
| 74 | Merger transitions in braneâ€“black-hole systems: Criticality, scaling, and self-similarity. <i>Physical Review D</i> , 2006, 74, . | 4.7 | 40 |
| 75 | Gravitational field of charged gyratons. <i>Classical and Quantum Gravity</i> , 2006, 23, 2119-2128. | 4.0 | 26 |
| 76 | Gyraton Solutions in Einstein-Maxwell Theory and Supergravity. , 2006, , . | | 0 |
| 77 | Relativistic gyratons in asymptotically AdS spacetime. <i>Physical Review D</i> , 2005, 72, . | 4.7 | 33 |
| 78 | Gravitational field of relativistic gyratons. <i>Physical Review D</i> , 2005, 72, . | 4.7 | 51 |
| 79 | Gravitational field of a spinning radiation beam pulse in higher dimensions. <i>Physical Review D</i> , 2005, 71, . | 4.7 | 56 |
| 80 | Observable form of pulses emitted from relativistic collapsing objects. <i>Physical Review D</i> , 2005, 71, . | 4.7 | 6 |
| 81 | Interaction of higher-dimensional rotating black holes with branes. <i>Classical and Quantum Gravity</i> , 2004, 21, 3483-3498. | 4.0 | 32 |
| 82 | Rotating black holes in brane worlds. <i>Journal of High Energy Physics</i> , 2004, 2004, 057-057. | 4.7 | 30 |
| 83 | Stationary strings near a higher-dimensional rotating black hole. <i>Physical Review D</i> , 2004, 70, . | 4.7 | 16 |
| 84 | Five-dimensional rotating black hole in a uniform magnetic field: The gyromagnetic ratio. <i>Physical Review D</i> , 2004, 69, . | 4.7 | 73 |
| 85 | Interaction of a brane with a moving bulk black hole. <i>Physical Review D</i> , 2003, 68, . | 4.7 | 56 |
| 86 | Quantum radiation from a 5-dimensional rotating black hole. <i>Physical Review D</i> , 2003, 67, . | 4.7 | 159 |
| 87 | Particle and light motion in a space-time of a five-dimensional rotating black hole. <i>Physical Review D</i> , 2003, 68, . | 4.7 | 153 |
| 88 | Black Hole as a Point Radiator and Recoil Effect on the Brane World. <i>Physical Review Letters</i> , 2002, 89, 151302. | 7.8 | 100 |
| 89 | COSMIC STRINGS AND ENERGY MINING FROM BLACK HOLES. <i>International Journal of Modern Physics A</i> , 2002, 17, 2673-2676. | 1.5 | 15 |
| 90 | Black Hole Physics. <i>Fundamental Theories of Physics</i> , 1998, , . | 0.3 | 586 |

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|----|-------------------------------------------------------------------------------------------------------|-----|-----------|
| 91 | How many new worlds are inside a black hole?. Physical Review D, 1996, 53, 3215-3223. | 4.7 | 87 |
| 92 | QUANTUM GRAVITY AND BLACK HOLE ENTROPY. International Journal of Modern Physics D, 1996, 05, 649-664. | 2.1 | 2 |