

Valeri P Frolov

List of Publications by Year in descending order

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92
papers

4,085
citations

136950

32
h-index

118850

62
g-index

93
all docs

93
docs citations

93
times ranked

1776
citing authors

#	ARTICLE	IF	CITATIONS
1	Black Hole Physics. Fundamental Theories of Physics, 1998, , .	0.3	586
2	Notes on nonsingular models of black holes. Physical Review D, 2016, 94, .	4.7	182
3	Quantum radiation from a5-dimensional rotating black hole. Physical Review D, 2003, 67, .	4.7	159
4	Particle and light motion in a space-time of a five-dimensional rotating black hole. Physical Review D, 2003, 68, .	4.7	153
5	Black holes, hidden symmetries, and complete integrability. Living Reviews in Relativity, 2017, 20, 6.	26.7	147
6	Motion of charged particles near a weakly magnetized Schwarzschild black hole. Physical Review D, 2010, 82, .	4.7	126
7	Weakly magnetized black holes as particle accelerators. Physical Review D, 2012, 85, .	4.7	119
8	Mass Gap for Black-Hole Formation in Higher-Derivative and Ghost-Free Gravity. Physical Review Letters, 2015, 115, 051102.	7.8	115
9	Separability of Hamilton-Jacobi and Klein-Gordon equations in general Kerr-NUT-AdS spacetimes. Journal of High Energy Physics, 2007, 2007, 005-005.	4.7	110
10	Black Hole as a Point Radiator and Recoil Effect on the Brane World. Physical Review Letters, 2002, 89, 151302.	7.8	100
11	Higher-dimensional black holes: hidden symmetries and separation of variables. Classical and Quantum Gravity, 2008, 25, 154005.	4.0	100
12	Information loss problem and a "black hole" model with a closed apparent horizon. Journal of High Energy Physics, 2014, 2014, 1.	4.7	99
13	The hidden symmetry of higher dimensional Kerr-NUT-AdS spacetimes. Classical and Quantum Gravity, 2007, 24, F1-F6.	4.0	93
14	Spherical collapse of small masses in the ghost-free gravity. Journal of High Energy Physics, 2015, 2015, 1.	4.7	90
15	Killing-Yano tensors, rank-2 Killing tensors, and conserved quantities in higher dimensions. Journal of High Energy Physics, 2007, 2007, 004-004.	4.7	88
16	How many new worlds are inside a black hole?. Physical Review D, 1996, 53, 3215-3223.	4.7	87
17	Hidden Symmetries of Higher-Dimensional Rotating Black Holes. Physical Review Letters, 2007, 98, 011101.	7.8	82
18	Head-on collision of ultrarelativistic particles in ghost-free theories of gravity. Physical Review D, 2016, 93, .	4.7	78

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19	Hidden symmetries of higher-dimensional black holes and uniqueness of the Kerr-NUT-(A)dS spacetime. Physical Review D, 2008, 78, .	4.7	77
20	Five-dimensional rotating black hole in a uniform magnetic field: The gyromagnetic ratio. Physical Review D, 2004, 69, .	4.7	73
21	Massive Vector Fields in Rotating Black-Hole Spacetimes: Separability and Quasinormal Modes. Physical Review Letters, 2018, 120, 231103.	7.8	72
22	Critical escape velocity for a charged particle moving around a weakly magnetized Schwarzschild black hole. Physical Review D, 2013, 87, .	4.7	71
23	Interaction of a brane with a moving bulk black hole. Physical Review D, 2003, 68, .	4.7	56
24	Gravitational field of a spinning radiation beam pulse in higher dimensions. Physical Review D, 2005, 71, .	4.7	56
25	Gravitational field of static p -branes in linearized ghost-free gravity. Physical Review D, 2018, 97, .	4.7	54
26	Gravitational field of relativistic gyratons. Physical Review D, 2005, 72, .	4.7	51
27	Quantum radiation from an evaporating nonsingular black hole. Physical Review D, 2017, 95, .	4.7	46
28	Charged particle in higher dimensional weakly charged rotating black hole spacetime. Physical Review D, 2011, 83, .	4.7	43
29	Merger transitions in brane-black-hole systems: Criticality, scaling, and self-similarity. Physical Review D, 2006, 74, .	4.7	40
30	Separation of Maxwell equations in Kerr-NUT-(A)dS spacetimes. Nuclear Physics B, 2018, 934, 7-38.	2.5	36
31	Relativistic gyratons in asymptotically AdS spacetime. Physical Review D, 2005, 72, .	4.7	33
32	Interaction of higher-dimensional rotating black holes with branes. Classical and Quantum Gravity, 2004, 21, 3483-3498.	4.0	32
33	Stationary strings and branes in the higher-dimensional Kerr-NUT-(A)dS spacetimes. Journal of High Energy Physics, 2008, 2008, 007-007.	4.7	31
34	Rotating black holes in brane worlds. Journal of High Energy Physics, 2004, 2004, 057-057.	4.7	30
35	Spinoptics in a stationary spacetime. Physical Review D, 2011, 84, .	4.7	27
36	Gravitational field of charged gyratons. Classical and Quantum Gravity, 2006, 23, 2119-2128.	4.0	26

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37	Radiation from an emitter in the ghost free scalar theory. Physical Review D, 2016, 93, .	4.7	26
38	Scattering of circularly polarized light by a rotating black hole. Physical Review D, 2012, 86, .	4.7	25
39	Black holes in higher dimensional gravity theory with corrections quadratic in curvature. Physical Review D, 2009, 80, .	4.7	24
40	Separation of variables in Maxwell equations in Plebański-Demiański spacetime. Physical Review D, 2018, 97, .	4.7	24
41	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
42	Hidden Symmetries of Higher-Dimensional Black Hole Spacetimes. Progress of Theoretical Physics Supplement, 2008, 172, 210-219.	0.1	19
43	Scalar and electromagnetic fields of static sources in higher dimensional Majumdar-Papapetrou spacetimes. Physical Review D, 2012, 85, .	4.7	19
44	Ultrarelativistic spinning objects in nonlocal ghost-free gravity. Physical Review D, 2020, 101, .	4.7	19
45	Apparent horizon formation in the head-on collision of gyratons. Physical Review D, 2007, 75, .	4.7	18
46	Maxwell equations in a curved spacetime: Spin optics approximation. Physical Review D, 2020, 102, .	4.7	17
47	Stationary strings near a higher-dimensional rotating black hole. Physical Review D, 2004, 70, .	4.7	16
48	String gyratons in supergravity. Physical Review D, 2006, 73, .	4.7	16
49	Solving parallel transport equations in the higher-dimensional Kerr-NUT-(A)dS spacetimes. Physical Review D, 2008, 78, .	4.7	16
50	COSMIC STRINGS AND ENERGY MINING FROM BLACK HOLES. International Journal of Modern Physics A, 2002, 17, 2673-2676.	1.5	15
51	Parallel-propagated frame along null geodesics in higher-dimensional black hole spacetimes. Physical Review D, 2009, 79, .	4.7	14
52	PARTICLE DYNAMICS IN WEAKLY CHARGED EXTREME KERR THROAT. International Journal of Modern Physics D, 2011, 20, 649-660.	2.1	14
53	Rigidly rotating zero-angular-momentum observer surfaces in the Kerr spacetime. Physical Review D, 2014, 90, .	4.7	14
54	Probing the vacuum fluctuations in scalar ghost-free theories. Physical Review D, 2019, 99, .	4.7	14

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55	Ghost-free modification of the Polyakov action and Hawking radiation. Physical Review D, 2019, 100, .	4.7	13
56	Geometry of Lax pairs: Particle motion and Killing-Yano tensors. Physical Review D, 2013, 87, .	4.7	12
57	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
58	Self-energy of a scalar charge near higher-dimensional black holes. Physical Review D, 2012, 85, .	4.7	10
59	Spectral line broadening in magnetized black holes. Journal of Cosmology and Astroparticle Physics, 2014, 2014, 059-059.	5.4	10
60	Quantum radiation from a sandwich black hole. Physical Review D, 2017, 95, .	4.7	10
61	Anomaly and the self-energy of electric charges. Physical Review D, 2012, 86, .	4.7	9
62	Classical self-energy and anomaly. Physical Review D, 2012, 86, .	4.7	9
63	Generalized Fermat's principle and action for light rays in a curved spacetime. Physical Review D, 2013, 88, .	4.7	9
64	Charged particles in higher dimensional homogeneous gravitational field: self-energy and self-force. Journal of High Energy Physics, 2014, 2014, 1.	4.7	9
65	Duality and $\hat{1}/4$ separability of Maxwell equations in Kerr-NUT-(A)dS spacetimes. Physical Review D, 2019, 99, .	4.7	8
66	Two-dimensional black holes in the limiting curvature theory of gravity. Journal of High Energy Physics, 2021, 2021, 1.	4.7	8
67	Spectral broadening of radiation from relativistic collapsing objects. Physical Review D, 2007, 75, .	4.7	7
68	Bi-conformal symmetry and static Green functions in the Schwarzschild-Tangherlini spacetimes. Journal of High Energy Physics, 2015, 2015, 1.	4.7	7
69	Deformed and twisted black holes with NUTs. Classical and Quantum Gravity, 2016, 33, 115016.	4.0	7
70	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
71	Superradiance in a ghost-free scalar theory. Physical Review D, 2018, 98, .	4.7	7
72	Observable form of pulses emitted from relativistic collapsing objects. Physical Review D, 2005, 71, .	4.7	6

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73	Electron in higher-dimensional weakly charged rotating black hole spacetimes. Physical Review D, 2013, 87, .	4.7	6
74	Self-energy anomaly of an electric pointlike dipole in three-dimensional static spacetimes. Physical Review D, 2013, 88, .	4.7	6
75	Spherically symmetric black holes in the limiting curvature theory of gravity. Physical Review D, 2022, 105, .	4.7	6
76	Stationary black holes with stringy hair. Physical Review D, 2018, 97, .	4.7	5
77	Bouncing cosmology in the limiting curvature theory of gravity. Physical Review D, 2021, 104, .	4.7	5
78	Radiation from an emitter revolving around a magnetized nonrotating black hole. Physical Review D, 2014, 90, .	4.7	4
79	Biconformal symmetry and static Green functions in the higher-dimensional Reissner-Nordström spacetimes. Physical Review D, 2015, 91, .	4.7	4
80	New metrics admitting the principal Killing-Yano tensor. Physical Review D, 2018, 97, .	4.7	4
81	QUANTUM GRAVITY AND BLACK HOLE ENTROPY. International Journal of Modern Physics D, 1996, 05, 649-664.	2.1	2
82	Biconformal symmetry and static Maxwell fields near higher-dimensional black holes. Physical Review D, 2015, 92, .	4.7	2
83	On the Liouville 2D dilaton gravity models with sinh-Gordon matter. Journal of High Energy Physics, 2018, 2018, 1.	4.7	2
84	Principal Killing strings in higher-dimensional Kerr-NUT-(A)dS spacetimes. Physical Review D, 2018, 97, .	4.7	2
85	Ultrarelativistic charged and magnetized objects in nonlocal ghost-free electrodynamics. Physical Review D, 2021, 103, .	4.7	2
86	Gravitational Field of Gyratons. International Journal of Theoretical Physics, 2007, 46, 2181-2191.	1.2	1
87	Black Holes, Hidden Symmetry and Complete Integrability: Brief Review. , 2014, , 261-273.		1
88	Hybrid black holes. Physical Review D, 2015, 91, .	4.7	0
89	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
90	Nonlocal scalar field in an external potential: The WKB approximation. Physical Review D, 2021, 103, .	4.7	0

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91	Gyraton Solutions in Einstein-Maxwell Theory and Supergravity. , 2006, , .		0
92	Remarks on Black Hole Entropy. , 2019, , 35-52.		0