Sergey L Yakovlev

List of Publications by Year
in descending order

71 papers	636 citations	13 h-index (687363)	23 g-index (642732)
76 all docs	76 docs citations	76 times ranked	182 citing authors

#	Article	IF	Citations
1	Investigation of 4He3 trimer on the base of Faddeev equations in configuration space. Chemical Physics Letters, 2000, 328, 97-106.	2.6	67
2	Radiative decay rate of excitons in square quantum wells: Microscopic modeling and experiment. Journal of Applied Physics, 2016, 119, .	2.5	50
3	Four-body Yakubovsky differential equations for identical particles. Nuclear Physics A, 1984, 431, 125-138.	1.5	47
4	Three-potential formalism for the three-body scattering problem with attractive Coulomb interactions. Physical Review A, 2001, 63, .	2.5	46
5	Resonant-state solution of the Faddeev-Merkuriev integral equations for three-body systems with Coulomb potentials. Physical Review A, 2002, 65, .	2.5	28
6	Solving the Coulomb scattering problem using the complex-scaling method. Europhysics Letters, 2009, 85, 30001.	2.0	26
7	Bound-State Calculations for Three Atoms Without Explicit Partial Wave Decomposition. Few-Body Systems, 2005, 37, 179-196.	1.5	23
8	Quantum N-body scattering theory in configuration space. Theoretical and Mathematical Physics(Russian Federation), 1983, 56, 673-682.	0.9	21
9	Potential splitting approach to multichannel Coulomb scattering: The driven SchrÃ¶dinger equation formulation. Physical Review A, 2011, 83, .	2.5	20
10	The impact of sharp screening on the Coulomb scattering problem in three dimensions. Journal of Physics A: Mathematical and Theoretical, 2010, 43, 245302.	2.1	17
11	Coulomb Fourier transformation: A novel approach to three-body scattering with charged particles. Physical Review C, 2004, 69, .	2.9	15
12	Multichannel formalism for positronâ€"hydrogen scattering and annihilation. Journal of Physics B: Atomic, Molecular and Optical Physics, 2007, 40, 1675-1693.	1.5	14
13	Spectral properties of Faddeev's equations. Theoretical and Mathematical Physics(Russian Federation), 1995, 102, 235-244.	0.9	13
14	Faddeevâ€"Merkuriev equations for resonances in three-body Coulombic systems. Physics Letters, Section A: General, Atomic and Solid State Physics, 2002, 304, 36-42.	2.1	13
15	Quantum Scattering with the Driven SchrÃ¶dinger Approach and Complex Scaling. Few-Body Systems, 2009, 45, 197-201.	1.5	13
16	Faddeev differential equations as a spectral problem for a nonsymmetric operator. Theoretical and Mathematical Physics(Russian Federation), 1996, 107, 835-847.	0.9	12
17	The4He tetramer ground state in the Faddeev-Yakubovsky differential equations formalism. Journal of Physics B: Atomic, Molecular and Optical Physics, 2002, 35, 501-508.	1.5	12
18	Potential-splitting approach applied to the Temkinâ€"Poet model for electron scattering off the hydrogen atom and the helium ion. Journal of Physics B: Atomic, Molecular and Optical Physics, 2015, 48, 115002.	1.5	12

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19	Few-body problem in the boundary condition model and quasipotentials. Theoretical and Mathematical Physics(Russian Federation), 1993, 94, 306-314.	0.9	10
20	Potential splitting approach to the three-body Coulomb scattering problem. Europhysics Letters, 2015, 110, 30006.	2.0	10
21	Coordinate asymptotics of the wave function for a system of four particles free in the initial state. Theoretical and Mathematical Physics(Russian Federation), 1990, 82, 157-169.	0.9	9
22	Potential Splitting Approach to Positron Scattering Off the Hydrogen Atom and the Positive Helium Ion. Few-Body Systems, 2017, 58, 1.	1.5	9
23	Asymptotic method for determining the amplitude for three-particle breakup: Neutron-deuteron scattering. Physics of Atomic Nuclei, 2013, 76, 126-138.	0.4	8
24	Quantum N-body problem: Matrix structures and equations. Theoretical and Mathematical Physics(Russian Federation), 2014, 181, 1317-1338.	0.9	8
25	Investigation of low-energy scattering in the nnpp system on the basis of differential equations for Yakubovsky components in configuration space. Physics of Atomic Nuclei, 2000, 63, 55-68.	0.4	7
26	Calculation of the binding energy and of the parameters of low-energy scattering in the Î›np system. Physics of Atomic Nuclei, 2000, 63, 223-228.	0.4	7
27	High resolution calculations of low energy scattering in e^{â^’}e⁺pÂ¯ and e⁺e^{â^’}He⁺⁺ systems via Faddeevâ€"Merkuriev equations. Journal of Physics B: Atomic, Molecular and Optical Physics, 2019, 52, 055202.	1.5	7
28	Improved tensor-trick algorithm: application to helium trimer. Computer Physics Communications, 2000, 126, 162-164.	7.5	6
29	Microscopic calculation of low-energy deuteron-deuteron scattering on the basis of the cluster-reduction method. Physics of Atomic Nuclei, 2000, 63, 216-222.	0.4	6
30	Three charged particles in the continuum: astrophysical examples. Journal of Physics B: Atomic, Molecular and Optical Physics, 2004, 37, 1369-1380.	1.5	6
31	Î›Î› 6 He and Î› 9 Be systems in the three-body cluster model treated on the basis of differential Faddeev equations. Physics of Atomic Nuclei, 2000, 63, 336-342.	0.4	5
32	Integral Equations for Three-Body Coulomb Resonances. Few-Body Systems, 2001, 30, 31-37.	1.5	5
33	Zero-range potential for particles interacting via Coulomb potential. Journal of Physics A: Mathematical and Theoretical, 2013, 46, 035307.	2.1	5
34	Binary scattering and breakup in the three-nucleon system. Physics of Atomic Nuclei, 2014, 77, 344-350.	0.4	5
35	Adiabatic versus diabatic approach to multichannel Coulomb scattering for mutual neutralisation reaction <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si9.gif" overflow="scroll"><mml:mrow><mml:msup><mml:mrow><mml:mtext>H</mml:mtext></mml:mrow><mml:mrow><mml:mo>+</mml:m Chemical Physics, 2015, 462, 57-64.	1.9	5
36	Theoretical modeling of exciton-light coupling in quantum wells. Journal of Physics: Conference Series, 2016, 690, 012018.	0.4	5

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37	The arrowhead decomposition method for a block-tridiagonal system of linear equations. Journal of Physics: Conference Series, 2017, 929, 012035.	0.4	5
38	Solving the differential Yakubovsky equations for p 3He scattering by the cluster-reduction method. Physics of Atomic Nuclei, 2000, 63, 69-75.	0.4	4
39	16O nucleus in the 4Î± cluster model. Physics of Atomic Nuclei, 2000, 63, 343-352.	0.4	4
40	On the Scattering of the Electron off the Hydrogen Atom and the Helium Ion Below and Above the Ionization Threshold: Temkinâ€“Poet Model. Few-Body Systems, 2014, 55, 1057-1058.	1.5	4
41	Asymptotic behavior of the wave function of three particles in a continuum. Theoretical and Mathematical Physics(Russian Federation), 2016, 186, 126-135.	0.9	4
42	Potential splitting approach to eâ€“H and eâ€“He⁺scattering. Journal of Physics B: Atomic, Molecular and Optical Physics, 2017, 50, 055001.	1.5	4
43	Theoretical Study of Reactions in the $${{e}^{ - }}{{e}^{ + }}ar {p}$$ Three Body System and Antihydrogen Formation Cross Sections. JETP Letters, 2021, 114, 11-17.	1.4	4
44	Closed form representation for a projection onto infinitely-dimensional subspace spanned by Coulomb bound states. Journal of Physics B: Atomic, Molecular and Optical Physics, 2006, 39, 4767-4773.	1.5	3
45	Merkuriev Cut-off in e+ âˆ' H Multichannel Scattering Calculations. Atoms, 2016, 4, 9.	1.6	3
46	Asymptotics of the binary amplitude for a model Faddeev equation. Bulletin of the Russian Academy of Sciences: Physics, 2016, 80, 237-241.	0.6	3
47	Spectral Properties of Faddeev Equations in Differential Form. Few-Body Systems, 1999, , 85-92.	0.2	3
48	Positron annihilation above the positronium formation threshold in e+â€“H scattering. Nuclear Instruments & Methods in Physics Research B, 2006, 247, 25-30.	1.4	2
49	Multichannel scattering and annihilation in the positron hydrogen system. Few-Body Systems, 2008, 44, 237-239.	1.5	2
50	Applying Faddeev equations to the n-d scattering problem. Bulletin of the Russian Academy of Sciences: Physics, 2012, 76, 913-917.	0.6	2
51	The neutron-deuteron scattering problem in the framework of the Faddeev formalism. Physics of Particles and Nuclei, 2017, 48, 882-884.	0.7	2
52	Asymptotic Solution of A Multichannel Scattering Problem with A Nonadiabatic Coupling. Theoretical and Mathematical Physics(Russian Federation), 2018, 195, 874-885.	0.9	2
53	Asymptotic solution of a Coulomb multichannel scattering problem with a nonadiabatic channel coupling. Theoretical and Mathematical Physics(Russian Federation), 2020, 203, 664-672.	0.9	2
54	Weak asymptotics of the wave function for an $$N$$-particle system and asymptotic filtration. Theoretical and Mathematical Physics(Russian Federation), 2021, 206, 68-83.	0.9	2

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55	Coulomb Fourier Transformation: Application to a Three-Body Hamiltonian with One Attractive Coulomb Interaction. Few-Body Systems, 2003, , 221-222.	0.2	2
56	On account of Coulomb excitations of a target for the three-body break-up. Few-Body Systems, 2008, 44, 249-251.	1.5	1
57	Investigation of scattering processes in quantum few-body systems involving long-range interaction by the complex-rotation method. Physics of Atomic Nuclei, 2013, 76, 188-195.	0.4	1
58	On Recent Analytical Results for Solution of the Scattering Problem for the Sharply Screened Coulomb Potential. Few-Body Systems, 2014, 55, 805-808.	1.5	1
59	The Three-Body Coordinate Asymptotics with Explicitly Orthogonalized Channels. Few-Body Systems, 2017, 58, 1.	1.5	1
60	Low-energy scattering in four nucleon systems. Method of Cluster Reduction. Few-Body Systems, 1999, , 37-40.	0.2	1
61	In memory of Stanislav Petrovich Merkuriev (04.28.1945 â€“ 05.18.1993). Theoretical and Mathematical Physics(Russian Federation), 1996, 107, 707-709.	0.9	0
62	Ground state of the 4Î± + Î› nucleus within the 4Î±+Î› cluster model. Physics of Atomic Nuclei, 2001, 64, 1594-1599.	0.4	0
63	Coulomb-Fourier representation approach to three-body scattering with charged particles. Nuclear Physics A, 2004, 737, 283-286.	1.5	0
64	The continuum spectrum wave function of the system of two heavy and one light charged particles. AIP Conference Proceedings, 2005, , .	0.4	0
65	SchrÃ¶dinger operator with a superposition of short-range and point potentials. Theoretical and Mathematical Physics(Russian Federation), 2015, 183, 527-539.	0.9	0
66	Potential splitting approach to the three-body coulomb scattering problem. Bulletin of the Russian Academy of Sciences: Physics, 2016, 80, 942-946.	0.6	0
67	Perturbation theory in the scattering problem for a three-particle system. Theoretical and Mathematical Physics(Russian Federation), 2017, 191, 524-536.	0.9	0
68	On Formal Scattering Theory for Differential Faddeev Equations. Few-Body Systems, 2019, 60, 1.	1.5	0
69	In Memory of Sergei Yuryevich Slavyanov. Theoretical and Mathematical Physics(Russian Federation), 2019, 201, 1543-1544.	0.9	0
70	Resonant-State Solution of the Faddeev-Merkuriev Integral Equations for Three-Body Systems with Coulomb-like Potentials. Few-Body Systems, 2001, , 152-161.	0.2	0
71	Potential Splitting Approach for Atomic and Molecular Systems. Springer Proceedings in Physics, 2020, , 61-65.	0.2	0