

Alexey N Rubtsov

List of Publications by Year in descending order

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70
papers

3,558
citations

279798

23
h-index

133252

59
g-index

70
all docs

70
docs citations

70
times ranked

2190
citing authors

#	ARTICLE	IF	CITATIONS
1	Fluctuating local field approach to free energy of one-dimensional molecules with strong collective electronic fluctuations. <i>Physical Review B</i> , 2022, 105, .	3.2	5
2	Proton fraction in neutron star matter: dynamical mean-field approach. <i>New Journal of Physics</i> , 2021, 23, 033015.	2.9	0
3	Restricted Boltzmann machine based on a Fermi sea. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2021, 54, 485302.	2.1	1
4	Dual fermion method as a prototype of generic reference-system approach for correlated fermions. <i>Annals of Physics</i> , 2020, 422, 168310.	2.8	9
5	Dual parquet scheme for the two-dimensional Hubbard model: Modeling low-energy physics of high- T_c cuprates with high momentum resolution. <i>Physical Review B</i> , 2020, 101, .	3.2	31
6	Collective magnetic fluctuations in Hubbard plaquettes captured by fluctuating local field method. <i>Physical Review B</i> , 2020, 102, .	3.2	10
7	Spin transfer torque induced paramagnetic resonance. <i>Physical Review B</i> , 2019, 99, .	3.2	13
8	Exact real-time dynamics of single-impurity Anderson model from a single-spin hybridization-expansion. <i>SciPost Physics</i> , 2019, 7, .	4.9	5
9	Quantum spin fluctuations and evolution of electronic structure in cuprates. <i>Npj Quantum Materials</i> , 2018, 3, .	5.2	14
10	Fluctuating local field method probed for a description of small classical correlated lattices. <i>Physical Review E</i> , 2018, 97, 052120.	2.1	7
11	Critical behavior at dynamical phase transition in the generalized Bose-Anderson model. <i>Physical Review B</i> , 2017, 95, .	3.2	4
12	Relaxation and decoherence of qubits encoded in collective states of engineered magnetic structures. <i>Physical Review B</i> , 2017, 96, .	3.2	7
13	Role of coherence in transport through engineered atomic spin devices. <i>Physical Review B</i> , 2016, 94, .	3.2	11
14	Transient phases and dynamical transitions in the post-quench evolution of the generalized Bose-Anderson model. <i>Physical Review B</i> , 2016, 94, .	3.2	6
15	Polaronic mass renormalization of impurities in Bose-Einstein condensates: Correlated Gaussian-wave-function approach. <i>Physical Review A</i> , 2016, 93, .	2.5	45
16	Nonequilibrium breakdown of a correlated insulator through pattern formation. <i>Physical Review B</i> , 2016, 93, .	3.2	9
17	Quantum statistical ensemble for emissive correlated systems. <i>Physical Review E</i> , 2016, 93, 062122.	2.1	0
18	Synchronization of qubit ensembles under optimized π -pulse driving. <i>Physical Review A</i> , 2015, 92, .	2.5	5

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19	Dispersive Response of a Disordered Superconducting Quantum Metamaterial. Photonics, 2015, 2, 449-458.	2.0	21
20	Modeling the metastable dynamics of correlated structures. Scientific Reports, 2015, 5, 8005.	3.3	5
21	Magnetostriction and ferroelectric state in AgCrS_2 . Journal of Physics Condensed Matter, 2015, 27, 165601.	1.8	11
22	Plasmons in Strongly Correlated Systems: Spectral Weight Transfer and Renormalized Dispersion. Physical Review Letters, 2014, 113, 246407.	7.8	49
23	Competing phases of the Hubbard model on a triangular lattice: Insights from the entropy. Physical Review B, 2014, 89, .	3.2	31
24	Multiscale simulation of the electronic structure of silicon nanoclusters. Bulletin of the Lebedev Physics Institute, 2013, 40, 132-135.	0.6	0
25	Role of rotational symmetry in the magnetism of a multiorbital model. Physical Review B, 2012, 86, .	3.2	20
26	Dynamical screening effects in correlated materials: Plasmon satellites and spectral weight transfers from a Green's function ansatz to extended dynamical mean field theory. Physical Review B, 2012, 85, .	3.2	75
27	Analysis of the nature of the peak structure of Hubbard subbands using the quantum Monte Carlo method. JETP Letters, 2012, 94, 768-773.	1.4	3
28	Dual boson approach to collective excitations in correlated fermionic systems. Annals of Physics, 2012, 327, 1320-1335.	2.8	115
29	Dual fermion approach to non-equilibrium strongly correlated problems. Annalen Der Physik, 2012, 524, 49-61.	2.4	29
30	Continuous-time Monte Carlo methods for quantum impurity models. Reviews of Modern Physics, 2011, 83, 349-404.	45.6	1,185
31	Electron energy spectrum of the spin-liquid state in a frustrated Hubbard model. Physical Review B, 2011, 83, .	3.2	19
32	Analytical approximation for single-impurity Anderson model. JETP Letters, 2010, 91, 319-325.	1.4	9
33	Importance of full Coulomb interactions for understanding the electronic structure of U^{2+} . Physical Review B, 2010, 82, .	3.2	21
34	Relevance of the complete Coulomb interaction matrix for the Kondo problem: Co impurities in Cu hosts. Physical Review B, 2009, 80, .	3.2	31
35	Accessing thermodynamics from dynamical cluster-embedding approaches. Physical Review B, 2009, 80, .	3.2	11
36	Superperturbation solver for quantum impurity models. Europhysics Letters, 2009, 85, 27007.	2.0	46

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37	Understanding the electronic structure and magnetism of correlated nanosystems. Journal of Physics Condensed Matter, 2009, 21, 064248.	1.8	4
38	Dual Fermion Approach to High-Temperature Superconductivity. Journal of Superconductivity and Novel Magnetism, 2009, 22, 45-49.	1.8	5
39	Dual fermion approach to the two-dimensional Hubbard model: Antiferromagnetic fluctuations and Fermi arcs. Physical Review B, 2009, 79, .	3.2	110
40	Efficient Perturbation Theory for Quantum Lattice Models. Physical Review Letters, 2009, 102, 206401.	7.8	105
41	Cluster dual fermion approach to nonlocal correlations. JETP Letters, 2008, 86, 677-682.	1.4	35
42	Energy diffusion in strongly driven quantum chaotic systems: the role of correlations of the matrix elements. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 055103.	2.1	2
43	Dual fermion approach to susceptibility of correlated lattice fermions. Physical Review B, 2008, 77, .	3.2	55
44	Dual fermion approach to nonlocal correlations in the Hubbard model. Physical Review B, 2008, 77, .	3.2	290
45	Enhanced crystal field splitting and orbital-selective coherence induced by strong correlations $\langle V \rangle \langle O \rangle$ Physical Review B, 2007, 76, .	3.2	129
46	Optical echo in photonic crystals. JETP Letters, 2007, 85, 156-159.	1.4	2
47	Topological defects, pattern evolution, and hysteresis in thin magnetic films. Europhysics Letters, 2006, 73, 104-109.	2.0	9
48	Correlated Adatom Trimer on a Metal Surface: A Continuous-Time Quantum Monte Carlo Study. Physical Review Letters, 2005, 94, 026402.	7.8	31
49	Continuous-time quantum Monte Carlo method for fermions. Physical Review B, 2005, 72, .	3.2	524
50	Continuous-time quantum Monte Carlo method for fermions: Beyond auxiliary field framework. JETP Letters, 2004, 80, 61-65.	1.4	77
51	Numerical Study of the Classical 2D Discrete Frustrated $\ddagger 4$ Model. Ferroelectrics, 2004, 301, 71-77.	0.6	1
52	Monte Carlo simulations of the classical two-dimensional discrete frustrated model. European Physical Journal B, 2003, 31, 525-531.	1.5	1
53	Quantum discrete $\ddagger 4$ model at finite temperatures. Physical Review B, 2002, 65, .	3.2	8
54	The crossover between quantum and classical phase transitions in monolayers: a discrete $\ddagger 4$ model study. Surface Science, 2002, 507-510, 707-712.	1.9	0

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55	Quality of the mean-field approximation: A low-order generalization yielding realistic critical indices for three-dimensional Ising-class systems. <i>Physical Review B</i> , 2002, 66, .	3.2	4
56	Phasons, sliding modes and friction. <i>European Physical Journal B</i> , 2002, 29, 85-95.	1.5	31
57	Quantum phase transitions in the discrete \mathbb{Z}_4 model: The crossover between two types of transition. <i>Physical Review B</i> , 2001, 63, .	3.2	10
58	Numerical study of the paraelectric-incommensurate- ferroelectric transition in the DIFFOUR model. <i>Europhysics Letters</i> , 2001, 53, 216-220.	2.0	0
59	Two-dimensional and layered structures in the discrete \mathbb{Z}_4 model. <i>Journal of Experimental and Theoretical Physics</i> , 2000, 91, 1204-1212.	0.9	3
60	Crossover between a displacive and an order-disorder phase transition. <i>Physical Review E</i> , 2000, 61, 126-131.	2.1	23
61	On a lattice model for type II incommensurate crystals. <i>Ferroelectrics</i> , 2000, 240, 1429-1433.	0.6	2
62	dc-electric-field-induced and low-frequency electromodulation second-harmonic generation spectroscopy of $\text{Si}(001)\text{-SiO}_2$ interfaces. <i>Physical Review B</i> , 1999, 60, 8924-8938.	3.2	73
63	Oscillatory bias dependence of DC-electric field induced second harmonic generation from $\text{Si}\text{-SiO}_2$ multiple quantum wells. <i>Thin Solid Films</i> , 1998, 336, 350-353.	1.8	3
64	Macroscopic Size Effects in Second Harmonic Generation from $\text{Si}(111)$ Coated by Thin Oxide Films: The Role of Optical Casimir Nonlocality. <i>Physical Review Letters</i> , 1997, 78, 46-49.	7.8	16
65	Probing the silicon-silicon oxide interface of $\text{Si}(111)\text{-SiO}_2\text{-Cr}$ MOS structures by DC-electric-field-induced second harmonic generation. <i>Surface Science</i> , 1996, 352-354, 1033-1037.	1.9	3
66	dc-electric-field-induced second-harmonic generation in $\text{Si}(111)\text{-SiO}_2\text{-Cr}$ metal-oxide-semiconductor structures. <i>Physical Review B</i> , 1996, 54, 1825-1832.	3.2	73
67	Second-harmonic generation in metal and semiconductor low-dimensional structures. <i>Surface Science</i> , 1995, 325, 343-355.	1.9	50
68	DC-electric-field-induced optical second harmonic generation at the smooth metal-electrolyte interface. <i>Surface Science</i> , 1995, 336, 225-231.	1.9	13
69	Reciprocity sum rule for metal surfaces and its application to the problem of surface plasmon dispersion. <i>Solid State Communications</i> , 1994, 90, 799-802.	1.9	1
70	Fluctuating local field approach to the description of lattice models in the strong coupling regime. <i>Journal of Superconductivity and Novel Magnetism</i> , 0, , .	1.8	2