Tadeusz Kopec

List of Publications by Year
in descending order

134	837	516215 16	610482 24
papers	citations	h-index	g-index

134	134	134	268
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Excitonic condensation and metal-semiconductor transition in AA bilayer graphene in an external magnetic field. Physical Review B, 2022, 105, .	1.1	4
2	Emergence of a superglass phase in the random-hopping Bose-Hubbard model. Physical Review B, 2022, 105, .	1.1	4
3	Antiferromagnetic ordering and excitonic pairing in AA-stacked bilayer graphene. Physical Review B, 2021, 104, .	1.1	9
4	Excitonic effects in twisted bilayer graphene. Physica E: Low-Dimensional Systems and Nanostructures, 2020, 115, 113682.	1.3	2
5	Dimensional Crossover in the Boseâ€“Einstein Condensation Confined to Anisotropic Three-Dimensional Lattices. Journal of Low Temperature Physics, 2020, 201, 340-372.	0.6	2
6	High thermoelectric performance in excitonic bilayer graphene. Physica E: Low-Dimensional Systems and Nanostructures, 2020, 124, 114234.	1.3	5
7	Dynamical correlations and a quantum glass phase in a random hopping Boseâ€“Hubbard model. Journal of Statistical Mechanics: Theory and Experiment, 2020, 2020, 024001.	0.9	4
8	Densityâ€“driven superfluid transition of the constrained bosons on a lattice. Physics Letters, Section A: General, Atomic and Solid State Physics, 2019, 383, 2061-2064.	0.9	0
9	Excitonic Tunneling in the AB-bilayer Graphene Josephson Junctions. Journal of Low Temperature Physics, 2019, 194, 325-359.	0.6	4
10	Quantum Glass of Interacting Bosons with Off-Diagonal Disorder. Physical Review Letters, 2018, 120, 160401.	2.9	5
11	Ultraviolet absorption spectrum of the half-filled bilayer graphene. Superlattices and Microstructures, 2018, 119, 166-180.	1.4	4
12	Spectral properties of excitons in the bilayer graphene. Physica E: Low-Dimensional Systems and Nanostructures, 2018, 95, 108-120.	1.3	9
13	Berezinskiiâ€“Kosterlitzâ€“Thouless transition of ultracold atoms in optical lattice. Journal of Physics B: Atomic, Molecular and Optical Physics, 2017, 50, 085006.	0.6	1
14	Competing bosonic condensates in optical lattice with a mixture of single and pair hoppings. Physica B: Condensed Matter, 2017, 505, 22-32.	1.3	0
15	Coherence and spectral weight transfer in the dynamic structure factor of cold lattice bosons. Physica B: Condensed Matter, 2017, 504, 74-79.	1.3	1
16	Sherringtonâ€“Kirkpatrick glassy-phase of random Josephson coupled Boseâ€“Einstein condensates in wood-pile geometry. Physics Letters, Section A: General, Atomic and Solid State Physics, 2017, 381, 368-372.	0.9	1
17	Temperature Effects on Superfluid Phase Transition in Bose–Hubbard Model with Three-body Interaction. Acta Physica Polonica B, Proceedings Supplement, 2017, 10, 925.	0.0	0
18	Excitonic gap formation and condensation in the bilayer graphene structure. Physica Scripta, 2016, 91, 095801.	1.2	14

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19	Density of states and excitonic condensation in the double layer correlated systems. Physica B: Condensed Matter, 2016, 481, 67-79.	1.3	1
20	Phase Transitions of Bosons in Optical Lattices with a Mixture of Single and Pair Hoppings. Acta Physica Polonica A, 2016, 130, 625-628.	0.2	0
21	Two-Band Model for Coherent Excitonic Condensates. Acta Physica Polonica A, 2016, 130, 621-624.	0.2	0
22	Dynamic Structure Factor of Ultracold Bosons in Optical Lattice. Acta Physica Polonica A, 2016, 130, 564-568.	0.2	0
23	Bose condensation in systems withp-particle tunneling and multi-body interactions. Journal of Physics A: Mathematical and Theoretical, 2015, 48, 345001.	0.7	4
24	Phase coherence and spectral functions in the two-dimensional excitonic systems. Physica B: Condensed Matter, 2015, 473, 75-92.	1.3	3
25	Mott-superfluid transition of q-deformed bosons. Physics Letters, Section A: General, Atomic and Solid State Physics, 2015, 379, 2493-2497.	0.9	2
26	Probing Phase Coherence Via Density of States for Strongly Correlated Excitons. Journal of Low Temperature Physics, 2015, 178, 295-330.	0.6	5
27	Excitonic gap formation in neutral bilayer structures. Physica Scripta, 2015, 90, 085806.	1.2	2
28	Finite temperature superfluid transition of strongly correlated lattice bosons in various geometries. Physica B: Condensed Matter, 2015, 456, 244-249.	1.3	1
29	Superfluid phase transition in two-dimensional excitonic systems. Physics Letters, Section A: General, Atomic and Solid State Physics, 2014, 378, 1185-1190.	0.9	4
30	Phase-locking transition of Josephson coupled Boseâ€“Einstein condensates in wood-pile geometry. Physica A: Statistical Mechanics and Its Applications, 2014, 406, 253-259.	1.2	2
31	Temperature effects on superfluid phase transition in Boseâ€“Hubbard model with three-body interaction. Physics Letters, Section A: General, Atomic and Solid State Physics, 2014, 378, 3402-3405.	0.9	5
32	Excitonic Phase Transition in the Extended Three-Dimensional Falicovâ€“Kimball Model. Journal of Low Temperature Physics, 2014, 176, 27-63.	0.6	11
33	Temperature-dependent excitation spectra of ultra-cold bosons in optical lattices. Physica B: Condensed Matter, 2014, 433, 37-42.	1.3	5
34	Unconventional quantum critical points in systems of strongly interacting bosons. Physica B: Condensed Matter, 2014, 449, 204-208.	1.3	0
35	Berezinskiiâ€“Kosterlitzâ€“Thouless transition in two-dimensional arrays of Josephson coupled Boseâ€“Einstein condensates. Physics Letters, Section A: General, Atomic and Solid State Physics, 2013, 377, 2581-2584.	0.9	1
36	NÃ©el order and the destruction of localized magnetic moments in the crossover from the Mottâ€“Heisenberg to the Slater limit. Physica Status Solidi (B): Basic Research, 2013, 250, 542-546.	0.7	1

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37	Scaling of the density profiles of cold atoms near the quantum critical point in two- and three-dimensional optical lattices. Physical Review A, 2012, 85, .	1.0	2
38	Finite-temperature phase-locking transition in three-dimensional arrays of Josephson coupled Boseâ€“Einstein condensates. Physics Letters, Section A: General, Atomic and Solid State Physics, 2012, 376, 2788-2791.	0.9	1
39	Theoretical Approach to Strongly Correlated Systems Based on the U(1) and SU(2) Symmetry Groups. Acta Physica Polonica A, 2012, 121, 738-743.	0.2	0
40	Ultra-Cold Bosons in Optical Lattice: Time-of-Flight Imaging of Atom-Atom Correlations. Acta Physica Polonica A, 2012, 121, 796-800.	0.2	0
41	Atom-atom correlations in time-of-flight imaging of ultracold bosons in optical lattices. Physical Review A, 2011, 84, .	1.0	21
42	Spectral functions in the two-dimensional Hubbard model within a spin-charge rotating frame approach. European Physical Journal B, 2010, 76, 405-419.	0.6	0
43	Quasi-particle peak due to magnetic order in strongly correlated electron systems. Annalen Der Physik, 2010, 522, 584-593.	0.9	0
44	Magnetically driven superconducting pairing interaction in the twoâ€dimensional Hubbard model within a spinâ€rotationally invariant approach. Physica Status Solidi (B): Basic Research, 2010, 247, 605-607.	0.7	0
45	Zero-temperature phase diagram of Bose-Fermi gaseous mixtures in optical lattices. Physical Review A, 2010, 81, .	1.0	16
46	Effect of next-nearest-neighbour hopping on Boseâ€“Einstein condensation in optical lattices. Journal of Physics B: Atomic, Molecular and Optical Physics, 2010, 43, 085303.	0.6	8
47	Superfluid-to-Mott transition in optical lattices with restricted geometry. Journal of Physics A: Mathematical and Theoretical, 2010, 43, 425303.	0.7	11
48	Magnetically Driven Superconducting Pairing Interaction in the Two-Dimensional Hubbard Model within a Spin-Rotationally Invariant Approach. Acta Physica Polonica A, 2010, 118, 273-278.	0.2	0
49	Electron Spectral Functions in the Presence of the Antiferromagnetic Order in the Two-Dimensional Hubbard Model. Acta Physica Polonica A, 2010, 118, 267-272.	0.2	0
50	Bose-Hubbard Model in the Rotating Frame of Reference. Acta Physica Polonica A, 2010, 118, 279-282.	0.2	0
51	Frustration effects in rapidly rotating square and triangular optical lattices. Physical Review A, 2009, 79, .	1.0	18
52	Finite-temperature effects on the superfluid Boseâ€“Einstein condensation of confined ultracold atoms in three-dimensional optical lattices. Journal of Physics B: Atomic, Molecular and Optical Physics, 2009, 42, 095302.	0.6	23
53	Emergence of Pairing Interaction inÂtheÂHubbard Model inÂtheÂStrong Coupling Limit. Journal of Superconductivity and Novel Magnetism, 2009, 22, 57-61.	0.8	0
54	Quantum rotor description of the bosonic superfluidâ€“Mott insulator transition in optical lattices. Physica Status Solidi (B): Basic Research, 2009, 246, 981-984.	0.7	1

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55	Superfluid to Mott-insulator transition in an anisotropic two-dimensional optical lattice. Annalen Der Physik, 2008, 17, 947-954.	0.9	4
56	Effective pairing interaction in the two-dimensional Hubbard model within a spin rotationally invariant approach. Physical Review B, 2008, 78, .	1.1	2
57	NÃ©el order in the Hubbard model within a spin-charge rotating reference frame approach: Crossover from weak to strong coupling. Physical Review B, 2008, 77, .	1.1	14
58	Pairing Scenarios for the Hubbard Model in the Strong Coupling Limit. Acta Physica Polonica A, 2008, 114, 159-163.	0.2	0
59	Quantum Rotor Approach to the Mott-Insulator Transition in the Bose-Hubbard Model. Acta Physica Polonica A, 2008, 114, 29-34.	0.2	2
60	Antiferromagnetic Order in the Hubbard Model: Spin-Charge Rotating Reference Frame Approach. Acta Physica Polonica A, 2008, 114, 247-251.	0.2	1
61	Quantum rotor description of the Mott-insulator transition in the Bose-Hubbard model. Physical Review B, 2007, 76, .	1.1	45
62	Competition between local and nonlocal dissipation effects in two-dimensional quantum Josephson-junction arrays. Physica C: Superconductivity and Its Applications, 2007, 455, 25-32.	0.6	1
63	Superconductivity emerging near U(1) topological critical point and the strange metal phase in cuprates. Physica C: Superconductivity and Its Applications, 2007, 460-462, 1107-1108.	0.6	0
64	Influence of oxygen ordering and charge imbalance on the existence of the 60-K plateau in the YBa2Cu3O6+y phase diagram. Physica C: Superconductivity and Its Applications, 2007, 460-462, 1024-1025.	0.6	0
65	Spin-charge rotating local reference frames: a unified U(2) = U(1) âŠ— SU(2) approach to the interacting electrons. Physica Status Solidi (B): Basic Research, 2007, 244, 2458-2463.	0.7	1
66	Quantum Criticality Due to the Topological Effects in the Hubbard Model. Acta Physica Polonica A, 2007, 111, 527-536.	0.2	0
67	The Existence of the 60 K Plateau in the YBa₂Cu₃O_{6+y}Phase Diagram: the Role of Oxygen Ordering and Charge Imbalance. Acta Physica Polonica A, 2007, 111, 705-711.	0.2	0
68	Possible origin of60â^'Kplateau in theYBa2Cu3O6+yphase diagram. Physical Review B, 2006, 74, .	1.1	8
69	Short-range Â±Jinteraction Ising spin glass in a transverse field on a Bethe lattice: a quantum-spherical approach. Physica Status Solidi (B): Basic Research, 2006, 243, 502-511.	0.7	6
70	Novel quantum criticality due to emergent topological conservation law in high- cuprates. Physica B: Condensed Matter, 2006, 378-380, 135-136.	1.3	0
71	Generic gauge fields in the Hubbard model: Emergence of pairing interaction. Physical Review B, 2006, 73, .	1.1	8
72	Critical charge instability on the verge of the Mott transition and the origin of quantum protection in high-Tccuprates. Physical Review B, 2006, 73, .	1.1	12

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73	Topological Criticality on Brink of the Mott Transition in High-TcSuperconductors. Acta Physica Polonica A, 2006, 109, 499-506.	0.2	0
74	Composite quasiparticles and the hidden quantum critical point in the topological transition scenario of high-Tccuprates. Physical Review B, 2005, 72, .	1.1	4
75	Local dissipation effects in two-dimensional quantum Josephson junction arrays with a magnetic field. Physical Review B, 2005, 72, .	1.1	4
76	Dependence of the superconducting critical temperature on the number of layers in a homologous series of high-Tccuprates. Physical Review B, 2005, 71, .	1.1	19
77	Nexus between quantum criticality and the chemical potential pinning in high-Tccuprates. Physical Review B, 2005, 72, .	1.1	1
78	Phase coherence in the Josephson-coupled stack of planar spin-charge separated condensates and the interlayer mechanism of high-Tcsuperconductivity. Physical Review B, 2004, 69, .	1.1	5
79	Coulomb repulsion, phase stiffnesses, and doping-induced superconductivity from the Mott insulator in thetâ^'tâ€²â^'Uâ^'Jmodel of high-Tccuprates. Physical Review B, 2004, 70, .	1.1	36
80	Superconducting Critical Temperature of Homologous Series of High-TcCuprates as a Function of Number of Layers. Acta Physica Polonica A, 2004, 106, 561-567.	0.2	1
81	Quantum criticality in the SO(5) theory of antiferromagnetism and superconductivity. Physica C: Superconductivity and Its Applications, 2003, 387, 65-68.	0.6	1
82	Effect of phase fluctuations on the penetration depth in local-pair superconductors. Physica C: Superconductivity and Its Applications, 2003, 387, 89-92.	0.6	0
83	Charging and magnetic field effects in three-dimensional Josephson junction arrays. Physica C: Superconductivity and Its Applications, 2003, 387, 102-104.	0.6	0
84	Zero-temperature phase diagram of charge and magnetically frustrated two-dimensional quantum Josephson junction arrays. Physica C: Superconductivity and Its Applications, 2003, 387, 105-108.	0.6	0
85	SO(5) superconductor in a Zeeman magnetic field. Physica C: Superconductivity and Its Applications, 2003, 387, 93-96.	0.6	0
86	Superconducting-insulating transition in quantum three-dimensional Josephson junction arrays with magnetic and charge frustration. Physical Review B, 2003, 67, .	1.1	2
87	Optical sum rule violation and the kinetic energy change at the phase coherence transition in superconductors with pseudogap. Physical Review B, 2003, 67, .	1.1	7
88	SO(5) superconductor in a Zeeman magnetic field: Phase diagram and thermodynamic properties. Physical Review B, 2002, 66, .	1.1	0
89	Uemura relation in phase-fluctuation-dominated superconductors. Physical Review B, 2002, 66, .	1.1	3
90	Ground-state properties of charge and magnetically frustrated two-dimensional quantum Josephson junction arrays. Physical Review B, 2002, 66, .	1.1	8

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91	Superconducting phase coherence and pairing gap in the three-dimensional attractive Hubbard model. Physical Review B, 2002, 65, .	1.1	10
92	Magnetic correlation functions in SO(5) theory of high-Tc superconductivity. Physical Review B, 2001, 64, .	1.1	3
93	Capacitance-matrix and geometrical effects on the ground-state properties of quantum Josephson-junction arrays. Physical Review B, 2001, 63, .	1.1	6
94	Scaling near the Quantum-Critical Point in the SO(5) Theory of the High-TcSuperconductivity. Physical Review Letters, 2001, 87, 097002.	2.9	7
95	Phase diagram of the quantum SO(5) symmetry model for high-TC superconductivity. Physica C: Superconductivity and Its Applications, 2000, 341-348, 237-238.	0.6	1
96	Phase diagrams in the SO(5) quantum rotor theory of high-Tcsuperconductivity. Physical Review B, 2000, 62, 9059-9076.	1.1	15
97	Superconducting phase transition in quantum three-dimensional Josephson junction arrays:c-axis anisotropy and charge frustration effects. Physical Review B, 2000, 62, 14419-14426.	1.1	5
98	Three-Dimensional Josephson-Junction Arrays in the Quantum Regime. Physical Review Letters, 2000, 84, 749-752.	2.9	22
99	The tricritical point in the quantum IsingS= 1 spin glass with biaxial crystal-field effects. Journal of Physics Condensed Matter, 2000, 12, 5727-5734.	0.7	5
100	The short-range-interaction -random-bond spherical quantum spin glass on the Bethe lattice: dynamic correlations and thermodynamic functions. Journal of Physics Condensed Matter, 1999, 11, 807-820.	0.7	0
101	Quantum critical point and scaling in a layered array of ultrasmall Josephson junctions. Physical Review B, 1999, 60, 7473-7483.	1.1	34
102	Quantum Spin Glass on the Bethe Lattice. Physical Review Letters, 1997, 78, 1988-1991.	2.9	20
103	Nonlinear Response in Quantum Spin Glasses. Physical Review Letters, 1997, 79, 4266-4269.	2.9	8
104	Quantum phase diagrams in periodic and glassy arrays of ultra-small Josephson junctions. Physica B: Condensed Matter, 1996, 222, 353-357.	1.3	1
105	Quantum orientational glasses: Large-Mlimit approach. Physical Review B, 1996, 54, 3367-3379.	1.1	7
106	A solvable multipolar glass. Journal of Physics A, 1996, 29, L49-L54.	1.6	1
107	Discontinuous spin-glass transition in a random quantum Heisenberg magnet. Physical Review B, 1995, 52, 9590-9594.	1.1	10
108	Quantum effects in a superconducting-glass model. Physical Review B, 1995, 52, 16140-16148.	1.1	5

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109	Spin glasses with cubic anisotropy. Journal of Applied Physics, 1994, 75, 5847-5849.	1.1	3
110	Infinite-range-interactionM-component quantum spin glasses: Statics and dynamics in the large-Mlimit. Physical Review B, 1994, 50, 9963-9975.	1.1	13
111	Composite bosons and quantum coherent effects in the negative-U Hubbard model. Physica B: Condensed Matter, 1994, 194-196, 1393-1394.	1.3	0
112	Nonlinear susceptibility in quadrupolar glasses with axial symmetry. Physical Review B, 1993, 48, 16792-16794.	1.1	4
113	Quantump-state Potts spin glass in a transverse field: Dynamical correlations and first-order phase transition. Physical Review B, 1992, 46, 1015-1022.	1.1	0
114	Field-induced crossover behavior in quantum Heisenberg spin glasses with random-anisotropy axes. Physical Review B, 1992, 45, 5703-5706.	1.1	2
115	Quantum HeisenbergS=1 spin glass: Effect of anisotropy and ferromagnetic interaction. European Physical Journal B, 1991, 84, 285-293.	0.6	2
116	Phase diagram of the quantum Ising spin glass in a transverse field. Physical Review B, 1991, 44, 12583-12585.	1.1	21
117	Quantum vector spin glasses with random Dzyaloshinsky-Moriya interactions. Physical Review B, 1991, 43, 10853-10864.	1.1	12
118	Quantump-state Potts spin glass: Transverse-field effects and freezing transition. Physical Review B, 1991, 44, 12058-12061.	1.1	1
119	Random fields and quantum effects in proton glasses. European Physical Journal B, 1990, 78, 493-499.	0.6	25
120	The infinite-range quantum transverse Ising spin glass: new estimate of the critical line via thermo-field method. Physics Letters, Section A: General, Atomic and Solid State Physics, 1990, 150, 70-73.	0.9	7
121	Superconducting glass properties in the random infinite-range interaction Hubbard model: stability analysis and phase diagrams. Journal of Physics Condensed Matter, 1990, 2, 7493-7501.	0.7	1
122	The bipolaronic superconducting glass state in the random infinite-range interaction Hubbard model. Journal of Physics Condensed Matter, 1990, 2, 397-404.	0.7	1
123	Quantum Heisenberg spin glasses: Anisotropy effects and field dependence. Physical Review B, 1990, 41, 9221-9227.	1.1	23
124	Instabilities in the quantum Sherrington-Kirkpatrick Ising spin glass in transverse and longitudinal fields. Physical Review B, 1989, 39, 12418-12421.	1.1	43
125	Charge Density Waves in Systems with Condensed Local Pairs and Superconductivity in La_{2â^'x}M_xCuO₄ Compounds. Physica Status Solidi (B): Basic Research, 1988, 147, K37.	0.7	0
126	Transverse freezing in the quantum Ising spin glass: a thermofield dynamic approach. Journal of Physics C: Solid State Physics, 1988, 21, 297-307.	1.5	48

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127	A dynamic theory of transverse freezing in the Sherrington-Kirkpatrick Ising model. Journal of Physics C: Solid State Physics, 1988, 21, 6053-6065.	1.5	30
128	Real time functional effective action for the quantum dynamics of a transverse Ising model at finite temperature. Journal of Physics A, 1987, 20, L393-L397.	1.6	0
129	Effect of the Temperature and Concentration of Magnetic Atoms on Phase Diagrams and Order Parameters in Ferromagnetic Superconductors. Physica Status Solidi (B): Basic Research, 1986, 137, 73-79.	0.7	5
130	Charging energy renormalisation due to quasi-particle effects in granular superconductors. Journal of Physics C: Solid State Physics, 1986, 19, 1975-1981.	1.5	1
131	Quantum critical behaviour of a disordered granular superconductor with charging effects. Physics Letters, Section A: General, Atomic and Solid State Physics, 1985, 108, 468-472.	0.9	2
132	Fluctuation-induced first-order phase transition in ferromagnetic superconductors. Journal of Physics F: Metal Physics, 1984, 14, 2649-2657.	1.6	1
133	On the zero-temperature critical behaviour of the quantum X-Y model in a transverse magnetic field. Physics Letters, Section A: General, Atomic and Solid State Physics, 1983, 95, 104-106.	0.9	18
134	On the multi-critical behaviour of a ferromagnetic superconductor. Journal of Physics F: Metal Physics, 1983, 13, L137-L141.	1.6	2