Igor N Karnaukhov

List of Publications by Year
in descending order

54 papers	197 citations	1478505 6 h-index	1125743 13 g-index
54 all docs	54 docs citations	54 times ranked	62 citing authors

#	Article	IF	Citations
1	Model of Fermions with Correlated Hopping (Integrable Cases). Physical Review Letters, 1994, 73, 1130-1133.	7.8	51
2	One-dimensional strongly interacting Luttinger liquid of lattice spinless fermions. Europhysics Letters, 2002, 57, 540-545.	2.0	14
3	Spontaneous breaking of time-reversal symmetry in topological superconductors. Scientific Reports, 2017, 7, 7008.	3.3	13
4	Spontaneous breaking of time-reversal symmetry in topological insulators. Physics Letters, Section A: General, Atomic and Solid State Physics, 2017, 381, 1967-1970.	2.1	11
5	Exactly solvable model of a one-dimensional Kondo lattice. Physical Review B, 1997, 56, R4313-R4316.	3.2	10
6	Critical exponents for a one-dimensional model of fermions with correlated hopping. Physical Review B, 1995, 51, 7858-7861.	3.2	8
7	Exactly solvable model of topological insulator realized on spin- $\frac{1}{2}$ lattice. European Physical Journal B, 2014, 87, 1.	1.5	6
8	Exactly solvable 2D topological Kondo lattice model. Europhysics Letters, 2015, 109, 57005.	2.0	6
9	Topological states in the Hofstadter model on a honeycomb lattice. Physics Letters, Section A: General, Atomic and Solid State Physics, 2019, 383, 2114-2119.	2.1	6
10	Mott transition in two-band fermion model with on-site Coulomb repulsion. Annals of Physics, 2020, 422, 168308.	2.8	6
11	Exact solution of the single-impurity model with two-particle s-d interaction. Physics Letters, Section A: General, Atomic and Solid State Physics, 1991, 160, 90-96.	2.1	5
12	Karnaukhov Replies:. Physical Review Letters, 1995, 74, 5285-5285.	7.8	5
13	Edge modes in the Hofstadter model of interacting electrons. Europhysics Letters, 2018, 124, 37002.	2.0	5
14	AN EXACTLY SOLVABLE ONE-DIMENSIONAL MODEL OF FERMIONS WITH CORRELATED HOPPING. International Journal of Modern Physics B, 1996, 10, 3673-3683.	2.0	4
15	Integrable model of a one-dimensional anisotropic Kondo-like lattice. Physical Review B, 1998, 57, 3863-3866.	3.2	4
16	Strongly interacting Luttinger liquid - exact solution of a generalized t-J model in one dimension. Journal of Physics Condensed Matter, 2001, 13, L891-L897.	1.8	4
17	Strongly interacting Luttinger liquid and superconductivity in an exactly solvable model. Physical Review B, 2002, 66, .	3.2	4
18	Electron liquid state in the symmetric Anderson lattice. Scientific Reports, 2021, 11, 5842.	3.3	4

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19	Integrable model describing the behavior of magnetic impurities in metals. Physical Review B, 1993, 48, 11561-11566.	3.2	3
20	Quantum phase transitions in the Kitaev model on decorated lattices. Europhysics Letters, 2013, 102, 57007.	2.0	3
21	Orientational Phase Transitions in Uniaxial Ferromagnets. Physica Status Solidi (B): Basic Research, 1974, 65, K137.	1.5	2
22	Thermodynamics of the single-impurity model with two-particle s-d interaction. Physics Letters, Section A: General, Atomic and Solid State Physics, 1991, 160, 97-102.	2.1	2
23	Exact solution of a two-chain model of fermions. Physical Review B, 1996, 54, 29-32.	3.2	2
24	Strongly interacting Luttinger-liquid state in the integrable model of spinless fermions. Physical Review B, 2001, 63, .	3.2	2
25	Exact solution of the Hubbard model with boundary hoppings and fields. Europhysics Letters, 2005, 70, 218-224.	2.0	2
26	Phase transition between topological states in a spin-$\frac{1}{2}$ quantum chain. Physical Review B, 2012, 86, .	3.2	2
27	Phase transition in the $\mathcal{PT}$-symmetric spin-1/2 quantum chain. Journal of Physics A: Mathematical and Theoretical, 2012, 45, 444018.	2.1	2
28	An exactly solvable realistic model of electrons with magnetic impurity. Physica C: Superconductivity and Its Applications, 1991, 185-189, 1425-1426.	1.2	1
29	An exactly solvable impurity model. European Physical Journal B, 1993, 92, 369-375.	1.5	1
30	Exact solution of the model of degenerate electrons interacting with an impurity. Physical Review B, 1995, 51, 6388-6393.	3.2	1
31	Integrable fermion model with hopping integrals for many-particle configurations. Physical Review B, 1999, 60, 15496-15499.	3.2	1
32	Integrable two-parameter $t\hat{-}J$ model in one dimension. Physical Review B, 2000, 62, 3033-3036.	3.2	1
33	Incommensurate and superconducting phases in an exactly solvable model. Physical Review B, 2002, 66, .	3.2	1
34	Hybridized mechanism of pairing of fermions in single-walled carbon nanotubes. Physical Review B, 2006, 74, .	3.2	1
35	Strongly interacting Luttinger liquid states as those inherent in carbon nanotubes. Physical Review B, 2007, 75, .	3.2	1
36	Persistent current in 2D topological superconductors. Scientific Reports, 2017, 7, 7124.	3.3	1

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37	Topological Mott transition in a two band model of spinless fermions with on-site Coulomb repulsion. Annals of Physics, 2021, 434, 168637.	2.8	1
38	Electron liquid state in the spin-$\frac{1}{2}$ anisotropic Kondo lattice. Scientific Reports, 2022, 12, 7420.	3.3	1
39	Magnetic State of Crystals with Dislocations. Physica Status Solidi (B): Basic Research, 1984, 126, 207-212.	1.5	0
40	Solution of the two-dimensional Kondo problem for the Landau-leveled electrons. Journal of Magnetism and Magnetic Materials, 1991, 98, 250-256.	2.3	0
41	Spin-electron pairing in a magnetic field in the one-dimensional Kondo lattice: exact results. Journal of Physics Condensed Matter, 1991, 3, 2331-2336.	1.8	0
42	Integrable multiparametric impurity model. Physical Review B, 1994, 50, 15385-15388.	3.2	0
43	INTEGRABLE TWO-PARAMETER MODEL OF THE FERMI GAS. Modern Physics Letters B, 1996, 10, 287-292.	1.9	0
44	New Exactly Solvable One-Parameter Model of Strongly Correlated Electrons. International Journal of Modern Physics B, 1997, 11, 3543-3550.	2.0	0
45	Hybridized mechanism of pairing and the heavy fermion state: Exactly solvable two-band model with strong hybridized interactions. Physical Review B, 2005, 72, .	3.2	0
46	Exactly solvable supersymmetricât'Jmodel with boundary hoppings and fields. Physical Review B, 2006, 74, .	3.2	0
47	Exact solvable model of coupled supersymmetric t-J chains. Europhysics Letters, 2008, 84, 17007.	2.0	0
48	Metal-insulator phase transition in an exactly solvable model of nondegenerate interacting fermion chains. Physical Review B, 2010, 81, .	3.2	0
49	Particleâ€"hole asymmetry as a source of phase separation at the metalâ€"insulator transition. Journal of Physics A: Mathematical and Theoretical, 2011, 44, 395002.	2.1	0
50	Giant magnetoresistance of edge current between fermion and spin topological systems. European Physical Journal B, 2015, 88, 1.	1.5	0
51	Colossal magnetoresistance in topological Kondo insulator. Journal of Statistical Mechanics: Theory and Experiment, 2016, 2016, 043104.	2.3	0
52	The quantum Hall effect at a weak magnetic field. Annals of Physics, 2019, 411, 167962.	2.8	0
53	Exactly solvable chain of interacting electrons with correlated hopping and pairing. Physics Letters, Section A: General, Atomic and Solid State Physics, 2019, 383, 125951.	2.1	0
54	Electron pairing in the Hubbard model as a result of on-site repulsion fluctuations. IOP SciNotes, 2021, 2, 015204.	0.8	0