

Taras Verkholyak

List of Publications by Year in descending order

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48
papers

494
citations

687363

13
h-index

752698

20
g-index

48
all docs

48
docs citations

48
times ranked

249
citing authors

#	ARTICLE	IF	CITATIONS
1	Dynamic probes of quantum spin chains with the Dzyaloshinskii-Moriya interaction. Physical Review B, 2006, 73, .	3.2	43
2	Dynamic properties of the spin- $\frac{1}{2}$ chain with three-site interactions. Physical Review B, 2008, 77, .	3.2	37
3	Magnetization process, bipartite entanglement, and enhanced magnetocaloric effect of the exactly solved spin-1/2 Ising-Heisenberg tetrahedral chain. Physical Review E, 2014, 89, 022143.	2.1	34
4	Dielectric, piezoelectric, and elastic properties of the Rochelle salt $\text{NaKC}_4\text{H}_4\text{O}_6 \cdot 4\text{H}_2\text{O}$: A theory. Physical Review B, 2003, 67, .	3.2	33
5	Spontaneous antiferromagnetic long-range order in the two-dimensional hybrid model of localized Ising spins and itinerant electrons. Physical Review B, 2009, 80, .	3.2	21
6	Magnetism-driven ferroelectricity in spin- $\frac{1}{2}$ chain. Physical Review B, 2015, 92, .	3.2	21
7	Exact solution for a quantum spin- $\frac{1}{2}$ Ising-Heisenberg orthogonal-dimer chain with Heisenberg intradimer and Ising interdimer interactions. Physical Review B, 2013, 88, .	3.2	19
8	Magnetic Signatures of Quantum Critical Points of the Ferrimagnetic Mixed Spin-(1/2, S) Heisenberg Chains at Finite Temperatures. Journal of Low Temperature Physics, 2017, 187, 712-718.	1.4	19
9	Diversity of quantum ground states and quantum phase transitions of a spin- $\frac{1}{2}$ Heisenberg octahedral chain. Physical Review B, 2017, 95, .	3.2	16
10	Quantum phase transitions in the exactly solved spin-1/2 Heisenberg-Ising ladder. Journal of Physics A: Mathematical and Theoretical, 2012, 45, 305001.	2.1	16
11	Realization of a spin- $\frac{1}{2}$ anisotropic square lattice in a quasi-two-dimensional quantum antiferromagnet		

#	ARTICLE	IF	CITATIONS
19	The effects of the symmetric and antisymmetric anisotropies on the dynamics of the spin-XY chain. Physica B: Condensed Matter, 2006, 378-380, 443-444.	2.7	10
20	Deformable spin- $\frac{1}{2}$ Ising-Heisenberg chain with three-site interactions at zero and finite temperatures. Physical Review B, 2009, 79, .	3.2	10
21	Spin-1/2 Ising-Heisenberg chain magnetolectric: Effect of zigzag geometry. Physical Review B, 2018, 98, .	3.2	10
22	Fractional magnetization plateaus of the spin- $\frac{1}{2}$ Ising-Heisenberg orthogonal-dimer chain: Strong-coupling approach developed from the exactly solved Ising-Heisenberg model. Physical Review B, 2016, 94, .	3.2	8
23	Capacitive energy storage in single-file pores: Exactly solvable models and simulations. Journal of Chemical Physics, 2021, 155, 174112.	3.0	8
24	Magnetization plateaus and bipartite entanglement of an exactly solved spin-1/2 Ising-Heisenberg orthogonal-dimer chain. Physica E: Low-Dimensional Systems and Nanostructures, 2021, 125, 114089.	2.7	7
25	Jordan-Wigner approach to the frustrated spin one-half XXZ chain. European Physical Journal B, 2006, 49, 283-287.	1.5	6
26	Dynamic Structure Factors of the Spin-1/2 XXZ Chain with Dzyaloshinskii-Moriya Interaction. Journal of the Physical Society of Japan, 2006, 75, 104711.	1.6	6
27	Enhanced magnetolectric effect near a field-driven zero-temperature quantum phase transition of the spin-1/2 Heisenberg-Ising ladder. Physical Review E, 2020, 101, 012103.	2.1	6
28	Modified strong-coupling treatment of a spin- $\frac{1}{2}$ Heisenberg trimerized chain developed from the exactly solved Ising-Heisenberg diamond chain. Physical Review B, 2021, 103, .	3.2	6
29	Effect of On-Site Coulomb Repulsion on Phase Transitions in Exactly Solved Spin-Electron Model. Acta Physica Polonica A, 2010, 118, 942-943.	0.5	6
30	Ground state of a spin-1/2 Heisenberg-Ising two-leg ladder with XYZ intra-rung coupling. Condensed Matter Physics, 2013, 16, 13601.	0.7	6
31	Square-lattice model and the Jordan-Wigner fermions: the ground-state and thermodynamic properties. Physica A: Statistical Mechanics and Its Applications, 2003, 320, 407-428.	2.6	5
32	Effects of Dzyaloshinskii-Moriya Interaction in the Dynamics of $s = 1/2$ XX Chain. European Physical Journal D, 2004, 54, 531-534.	0.4	5
33	Dynamics of the spin-XY chain with Dzyaloshinskii-Moriya interaction. Physica B: Condensed Matter, 2005, 359-361, 1403-1405.	2.7	5
34	Low-Temperature Thermodynamics of Spin-1/2 Orthogonal-Dimer Chain with Ising and Heisenberg Interactions. Acta Physica Polonica A, 2014, 126, 22-23.	0.5	5
35	Frustrated magnetism of spin- $\frac{1}{2}$ Heisenberg diamond and octahedral chains as a statistical mechanical monomer-dimer problem. Physical Review B, 2022, 105, .	3.2	5
36	One exactly solvable random spin-1/2 XY chain. Low Temperature Physics, 1997, 23, 733-737.	0.6	3

#	ARTICLE	IF	CITATIONS
37	Spin-1/2 XX Chains with Three-Spin Interactions. Acta Physica Polonica A, 2008, 113, 437-440.	0.5	3
38	Fractional magnetization plateaux of a spin-1/2 Heisenberg model on the Shastry-Sutherland lattice: effect of quantum XY interdimer coupling. SciPost Physics, 2022, 12, .	4.9	3
39	Effective Field Method for Ising Model with Arbitrary Ferromagnetic Interaction. Physica Status Solidi (B): Basic Research, 1999, 211, 759-769.	1.5	2
40	2D quantum spin models and Jordan-Wigner fermions. European Physical Journal D, 2002, 52, A41-A44.	0.4	2
41	Spin- $\frac{1}{2}$ XX chain in a transverse field with regularly alternating g factors: Static and dynamic properties. Physical Review B, 2020, 102, .	3.2	2
42	Thermodynamics and spin correlations for an Ising chain in a random transverse field. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1997, 76, 855-858.	0.6	1
43	Thermodynamical and dynamical properties of quenched quantum spin chains. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1997, 226-228, 1049-1052.	5.6	1
44	Two-Dimensional Spin-1/2 $J_1 - J_2$ Heisenberg Model within Jordan-Wigner Transformation. Ukrainian Journal of Physics, 2016, 61, 597-605.	0.2	1
45	One exactly solvable magnetic chain with quenched randomness. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1997, 226-228, 745-748.	5.6	0
46	Spin-1/2 XX chain with three-site interactions: Spin-Peierls instability. Journal of Physics: Conference Series, 2009, 150, 042024.	0.4	0
47	Dynamic Correlations in a Random Spin-1/2 XY Chain. Acta Physica Polonica A, 2008, 113, 441-444.	0.5	0
48	Spin-1/2 XXZ Diamond Chain within the Jordan-Wigner Fermionization Approach. Acta Physica Polonica A, 2010, 118, 978-979.	0.5	0