Alexander I Nesterov

List of Publications by Year
in descending order

60	393	840776 11	888059 17
papers	citations	h-index	g-index

63	63	63	224
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Geometric phases and quantum phase transitions in open systems. Physical Review E, 2008, 78, 015202.	2.1	36
2	Riemann normal coordinates, Fermi reference system and the geodesic deviation equation. Classical and Quantum Gravity, 1999, 16, 465-477.	4.0	33
3	Complex magnetic monopoles, geometric phases and quantum evolution in the vicinity of diabolic and exceptional points. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 485304.	2.1	25
4	Spin crossover: the quantum phase transition induced by high pressure. JETP Letters, 2009, 90, 530-534.	1.4	18
5	Three-cocycles, nonassociative gauge transformations and Dirac's monopole. Physics Letters, Section A: General, Atomic and Solid State Physics, 2004, 328, 110-115.	2.1	17
6	The Gauge Theory of Point Defects. Physica Status Solidi (B): Basic Research, 1989, 156, 403-410.	1.5	15
7	Dynamics of a chlorophyll dimer in collective and local thermal environments. Journal of Mathematical Chemistry, 2016, 54, 866-917.	1.5	15
8	Nonassociative geometry: Towards discrete structure of spacetime. Physical Review D, 2000, 62, .	4.7	13
9	Magnetic monopoles with generalized quantization condition. Physics Letters, Section A: General, Atomic and Solid State Physics, 2002, 302, 253-260.	2.1	13
10	Principal Loop Bundles: Toward Nonassociative Gauge Theories. International Journal of Theoretical Physics, 2001, 40, 339-350.	1.2	12
11	Role of protein fluctuation correlations in electron transfer in photosynthetic complexes. Physical Review E, 2015, 91, 042702.	2.1	12
12	Cooperative phenomena in spin crossover systems. Physical Review B, 2017, 96, .	3.2	12
13	Superradiance Transition and Nonphotochemical Quenching in Photosynthetic Complexes. Journal of Physical Chemistry C, 2015, 119, 22289-22296.	3.1	11
14	Nonâ€Hermitian approach for modeling of noiseâ€assisted quantum electron transfer in photosynthetic complexes. Fortschritte Der Physik, 2013, 61, 95-110.	4.4	10
15	Noise-assisted quantum electron transfer in photosynthetic complexes. Journal of Mathematical Chemistry, 2013, 51, 2514-2541.	1.5	10
16	Quantum search using non-Hermitian adiabatic evolution. Physical Review A, 2012, 86, .	2.5	9
17	Non-Hermitian quantum annealing in the ferromagnetic Ising model. Physical Review A, 2013, 87, .	2.5	9
18	NONASSOCIATIVE GEOMETRY: FRIEDMANNâ€“ROBERTSONâ€“WALKER SPACETIME. International Journal of Geometric Methods in Modern Physics, 2006, 03, 1481-1491.	2.0	8

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19	Modeling of low- and high-frequency noise by slow and fast fluctuators. Physical Review A, 2012, 85, .	2.5	8
20	Non-Hermitian quantum annealing in the antiferromagnetic Ising chain. Quantum Information Processing, 2014, 13, 371-389.	2.2	8
21	An optimum Hamiltonian for non-Hermitian quantum evolution and the complex Bloch sphere. Physics Letters, Section A: General, Atomic and Solid State Physics, 2009, 373, 3629-3636.	2.1	7
22	Smooth loops, generalized coherent states, and geometric phases. International Journal of Theoretical Physics, 1997, 36, 1981-1989.	1.2	6
23	Magnetic and structural phase transitions in systems with spin crossover under pressure. JETP Letters, 2017, 105, 771-774.	1.4	6
24	Decoherence as a detector of the Unruh effect. Physical Review Research, 2020, 2, .	3.6	6
25	Non-Hermitian Quantum Systems and Time-Optimal Quantum Evolution. Symmetry, Integrability and Geometry: Methods and Applications (SIGMA), 2009, , .	0.5	6
26	Possible gravitational radiation detection using the geometric phase of a light beam. General Relativity and Gravitation, 1995, 27, 361-366.	2.0	5
27	Quasigroups, asymptotic symmetries, and conservation laws in general relativity. Physical Review D, 1997, 56, R7498-R7502.	4.7	5
28	On representations of the rotation group and magnetic monopoles. Physics Letters, Section A: General, Atomic and Solid State Physics, 2004, 324, 9-13.	2.1	5
29	Deep Learning for Gravitational-Wave Data Analysis: A Resampling White-Box Approach. Sensors, 2021, 21, 3174.	3.8	5
30	On angular momentum of gravitational radiation. Physics Letters, Section A: General, Atomic and Solid State Physics, 1998, 250, 55-61.	2.1	4
31	NONASSOCIATIVITY, DIRAC MONOPOLE AND AHARONOVâ€“BOHM EFFECT. International Journal of Geometric Methods in Modern Physics, 2007, 04, 717-726.	2.0	4
32	SMOOTH LOOPS AND FIBER BUNDLES: THEORY OF PRINCIPAL Q-BUNDLES. International Journal of Geometric Methods in Modern Physics, 2009, 06, 77-97.	2.0	4
33	Multi-scale exciton and electron transfer in multi-level donorâ€“acceptor systems. Journal of Physics A: Mathematical and Theoretical, 2017, 50, 365601.	2.1	4
34	How Nonassociative Geometry Describes a Discrete Spacetime. Frontiers in Physics, 2019, 7, .	2.1	4
35	Infinite-dimensional representations of the rotation group and Dirac monopole problem. Journal of Mathematical Physics, 2008, 49, .	1.1	3
36	NON-HERMITIAN DESCRIPTION OF A SUPERCONDUCTING PHASE QUBIT MEASUREMENT. International Journal of Quantum Information, 2010, 08, 895-904.	1.1	3

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37	Production of Entanglement Entropy by Decoherence. Open Systems and Information Dynamics, 2018, 25, 1850001.	1.2	3
38	NON-HERMITIAN ADIABATIC QUANTUM OPTIMIZATION. International Journal of Quantum Information, 2009, 07, 1469-1478.	1.1	2
39	Superradiance transition in graphene. Physics Letters, Section A: General, Atomic and Solid State Physics, 2015, 379, 2951-2955.	2.1	2
40	On improving the performance of nonphotochemical quenching in CP29 light-harvesting antenna complex. Physics Letters, Section A: General, Atomic and Solid State Physics, 2016, 380, 1279-1283.	2.1	2
41	Nonlinear dynamics of dipoles in microtubules: Pseudospin model. Physical Review E, 2016, 93, 062412.	2.1	2
42	Complex networks in the framework of nonassociative geometry. Physical Review E, 2020, 101, 032302.	2.1	2
43	An invariant criterion of proximity to the horizon of a black hole. Classical and Quantum Gravity, 1991, 8, L45-L47.	4.0	1
44	Geometric phase shift for detection of gravitational radiation. International Journal of Theoretical Physics, 1996, 35, 2645-2659.	1.2	1
45	ON OBSERVABILITY OF DIRAC'S STRING. Modern Physics Letters A, 2008, 23, 623-635.	1.2	1
46	Decoherence and spin echo in biological systems. Physical Review E, 2015, 91, 052702.	2.1	1
47	Possible role of interference, protein noise, and sink effects in nonphotochemical quenching in photosynthetic complexes. Journal of Mathematical Biology, 2017, 74, 43-76.	1.9	1
48	Effect of the Interatomic Exchange Interaction on the Magnetic Phase Transitions in Spin Crossover Systems under High-Pressure. Physics of the Solid State, 2018, 60, 1177-1179.	0.6	1
49	Modeling of noise-assisted quantum transfer between donor and acceptor with finite bandwidths. Journal of Physics A: Mathematical and Theoretical, 2019, 52, 435601.	2.1	1
50	Quench dynamics and defects formation in the Ising chain in a transverse magnetic field. European Physical Journal B, 2022, 95, 1.	1.5	1
51	Energetic correspondence principle in gravitation theory. Soviet Physics Journal (English Translation) Tj ETQq1 1 0.784314 rgBT /Over	0.0	0
52	Canonical formulation of the theory of gravitation and a general-covariant separation of space and time. Soviet Physics Journal (English Translation of Izvestiia Vysshykh Uchebnykh Zavedenii, Fizika), 1977, 20, 289-293.	0.0	0
53	Geometric approach to dislocation and disclination theory. Soviet Physics Journal (English) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf	0.0	0
54	Gauge theory of amorphous magnets. Theoretical and Mathematical Physics(Russian Federation), 1988, 76, 704-709.	0.9	0

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55	Two-dimensional self-dual solutions in the gauge theory of metal glasses. Soviet Physics Journal (English Translation of Izvestiia Vysshykh Uchebnykh Zavedenii, Fizika), 1989, 32, 964-968.	0.0	0
56	Topology Change in (2+1)-Dimensional Gravity with Non-Abelian Higgs Field. General Relativity and Gravitation, 1997, 29, 1115-1122.	2.0	0
57	Quench dynamics in spin crossover induced by high pressure. Open Physics, 2013, 11, .	1.7	0
58	Dark matter spinâ€“spin interaction through the pseudo-scalar vacuum field. Modern Physics Letters A, 2020, 35, 2050117.	1.2	0
59	Hidden symmetries, spin and charge of artificial magnetic monopoles. Quantum Studies: Mathematics and Foundations, 0, , 1.	0.9	0
60	Non-Hermitian Quantum AnnealingNon-Hermitian quantum annealing and SuperradianceSuperradiance. Springer Proceedings in Physics, 2016, , 329-344.	0.2	0