Pavel Cejnar

List of Publications by Year
in descending order

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92 papers	2,800 citations	172457 29 h-index	175258 52 g-index
92 all docs	92 docs citations	92 times ranked	784 citing authors

#	Article	IF	Citations
1	Excited-state quantum phase transitions. Journal of Physics A: Mathematical and Theoretical, 2021, 54, 133001.	2.1	58
2	Quasiclassical approach to quantum quench dynamics in the presence of an excited-state quantum phase transition. Physical Review A, 2021, 103, .	2.5	7
3	Continuum analogs of excited-state quantum phase transitions. Physical Review A, 2021, 103, .	2.5	3
4	Stabilization of product states and excited-state quantum phase transitions in a coupled qubit-field system. Physical Review A, 2021, 104, .	2.5	8
5	Complex Density of Continuum States in Resonant Quantum Tunneling. Physical Review Letters, 2020, 125, 020401.	7.8	5
6	Superradiance in finite quantum systems randomly coupled to continuum. Physical Review E, 2019, 100, 042119.	2.1	3
7	Collective performance of a finite-time quantum Otto cycle. Physical Review E, 2019, 100, 042126.	2.1	38
8	Order, chaos and (quasi-) dynamical symmetries across 1st-order quantum phase transitions in nuclei. AIP Conference Proceedings, 2019, , .	0.4	1
9	Excited-state quantum phase transitions in systems with two degrees of freedom. III. Interacting boson systems. Physical Review C, 2019, 99, .	2.9	26
10	Static vs. dynamic phases of quantum many-body systems. AIP Conference Proceedings, 2019, , .	0.4	4
11	Exceptional points near first- and second-order quantum phase transitions. Physical Review E, 2018, 97, 012112.	2.1	13
12	Quantum quench dynamics in Dicke superradiance models. Physical Review A, 2018, 98, .	2.5	42
13	Heat capacity for systems with excited-state quantum phase transitions. Physics Letters, Section A: General, Atomic and Solid State Physics, 2017, 381, 984-990.	2.1	8
14	Quantum phases and entanglement properties of an extended Dicke model. Annals of Physics, 2017, 382, 85-111.	2.8	23
15	Monodromy in Dicke superradiance. Journal of Physics A: Mathematical and Theoretical, 2017, 50, 315205.	2.1	14
16	Excited-state quantum phase transitions and their manifestations in an extended Dicke model. AIP Conference Proceedings, 2017, , .	0.4	2
17	Classification of excited-state quantum phase transitions for arbitrary number of degrees of freedom. Physics Letters, Section A: General, Atomic and Solid State Physics, 2016, 380, 2637-2643.	2.1	40
18	Quantum phase transitions in the collective degrees of freedom: nuclei and other many-body systems. Physica Scripta, 2016, 91, 083006.	2.5	16

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19	Geometric criterion for chaos in collective dynamics of nuclei. Physica Scripta, 2015, 90, 114014.	2.5	0
20	Excited-state quantum phase transitions in finite many-body systems. Physica Scripta, 2015, 90, 114015.	2.5	8
21	Study of a curvature-based criterion for chaos in Hamiltonian systems with two degrees of freedom. Journal of Physics A: Mathematical and Theoretical, 2015, 48, 125102.	2.1	2
22	Excited-state quantum phase transitions in systems with two degrees of freedom: II. Finite-size effects. Annals of Physics, 2015, 356, 57-82.	2.8	58
23	Excited-state quantum phase transitions in systems with two degrees of freedom: Level density, level dynamics, thermal properties. Annals of Physics, 2014, 345, 73-97.	2.8	90
24	Understanding chaos via nuclei. , 2014, , .		5
25	Decoherence and quantum quench: Their relationship with excited state quantum phase transitions. , 2012, , .		0
26	Excited state quantum phase transitions and chaos in the Dicke model. , 2012, , .		0
27	Quantum phase transitions in finite algebraic systems. Journal of Physics: Conference Series, 2011, 322, 012012.	0.4	2
28	Quantum quench influenced by an excited-state phase transition. Physical Review A, 2011, 83, .	2.5	84
29	Excited-state phase transition and onset of chaos in quantum optical models. Physical Review E, 2011, 83, 046208.	2.1	97
30	Regular and Chaotic Collective Modes in Nuclei. Nuclear Physics News, 2011, 21, 22-27.	0.4	3
31	SYMMETRY VS. CHAOS IN COLLECTIVE DYNAMICS. International Journal of Modern Physics E, 2011, 20, 213-218.	1.0	0
32	Manifestation of chaos in collective models of nuclei. , 2011, , .		0
33	Chaotic dynamics in collective models of nuclei. Journal of Physics: Conference Series, 2010, 239, 012002.	0.4	4
34	Regularity-Induced Separation of Intrinsic and Collective Dynamics. Physical Review Letters, 2010, 105, 072503.	7.8	24
35	Occurrence of high-lying rotational bands in the interacting boson model. Physical Review C, 2010, 82, .	2.9	17
36	Quantum phase transitions in the shapes of atomic nuclei. Reviews of Modern Physics, 2010, 82, 2155-2212.	45.6	458

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37	Quantum phase transitions for excited states. , 2009, , .		0
38	PERES LATTICES IN NUCLEAR STRUCTURE. International Journal of Modern Physics E, 2009, 18, 1058-1061.	1.0	3
39	QUANTUM PHASE TRANSITIONS AND NUCLEAR STRUCTURE. International Journal of Modern Physics E, 2009, 18, 965-974.	1.0	2
40	Quantum phase transitions in the interacting boson model. Progress in Particle and Nuclear Physics, 2009, 62, 210-256.	14.4	174
41	Transition fromÎ³-rigid toÎ³-soft dynamics in the interacting boson model: Quasicriticality and quasidynamical symmetry. Physical Review C, 2009, 80, .	2.9	25
42	Quantum chaos in the nuclear collective model: Classical-quantum correspondence. Physical Review E, 2009, 79, 046202.	2.1	29
43	Quantum chaos in the nuclear collective model. II. Peres lattices. Physical Review E, 2009, 79, 066201.	2.1	27
44	Peres lattices in nuclear structure and beyond. , 2009, , .		1
45	Excited state quantum phase transitions in many-body systems. Annals of Physics, 2008, 323, 1106-1135.	2.8	231
46	Impact of quantum phase transitions on excited-level dynamics. Physical Review E, 2008, 78, 031130.	2.1	65
47	Classical and quantum properties of the semiregular arc inside the Casten triangle. Physical Review C, 2007, 75, .	2.9	45
48	Coulomb Analogy for Non-Hermitian Degeneracies near Quantum Phase Transitions. Physical Review Letters, 2007, 99, 100601.	7.8	68
49	Phase structure of interacting boson models in arbitrary dimension. Journal of Physics A: Mathematical and Theoretical, 2007, 40, 581-595.	2.1	65
50	Order and chaos in the geometric collective model. Physics of Atomic Nuclei, 2007, 70, 1572-1576.	0.4	2
51	Order and chaos in the interacting boson model. Physics of Atomic Nuclei, 2007, 70, 1592-1596.	0.4	0
52	Classical chaos in the interacting boson model. AIP Conference Proceedings, 2006, , .	0.4	0
53	Regular and chaotic nuclear vibrations. AIP Conference Proceedings, 2006, , .	0.4	0
54	Monodromy and excited-state quantum phase transitions in integrable systems: collective vibrations of nuclei. Journal of Physics A, 2006, 39, L515-L521.	1.6	107

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55	Prolateâ€“oblate shape-phase transition in the O(6) description of nuclear rotation. Nuclear Physics A, 2006, 765, 97-111.	1.5	25
56	Evolution of spectral properties along the O(6)-U(5) transition in the interacting boson model. I. Level dynamics. Physical Review C, 2006, 73, .	2.9	44
57	Classical chaos in the geometric collective model. Physical Review C, 2006, 74, .	2.9	16
58	Evolution of spectral properties along the O(6)-U(5) transition in the interacting boson model. II. Classical trajectories. Physical Review C, 2006, 73, .	2.9	34
59	Thermodynamic Analogy for Structural Phase Transitions. AIP Conference Proceedings, 2005, , .	0.4	0
60	Thermodynamic analogy for quantum phase transitions at zero temperature. Physical Review C, 2005, 71, .	2.9	40
61	Regular and Chaotic Vibrations of Deformed Nuclei with Increasingî³Rigidity. Physical Review Letters, 2004, 93, 102502.	7.8	16
62	Rotation-driven spherical-to-deformed shape transition in Aâ‰ˆ100 nuclei and the cranked interacting boson model. Physical Review C, 2004, 69, .	2.9	27
63	Experimental Confirmation of the Alhassid-Whelan Arc of Regularity. Physical Review Letters, 2004, 93, 132501.	7.8	30
64	Ground-state shape phase transitions in nuclei: Thermodynamic analogy and finite-Neffects. Physical Review C, 2003, 68, .	2.9	45
65	Eleventh international symposium on capture gamma-ray spectroscopy and related topics. Nuclear Physics News, 2003, 13, 15-16.	0.4	0
66	Dynamical and invariant supersymmetry in the fermion pairing problem. Physical Review C, 2003, 68, .	2.9	2
67	Landau Theory of Shape Phase Transitions in the Cranked Interacting Boson Model. Physical Review Letters, 2003, 90, 112501.	7.8	28
68	MICROSCOPIC FOUNDATIONS OF NUCLEAR SUPERSYMMETRY. , 2003, , .		0
69	LANDAU THEORY OF PHASE TRANSITIONS AND NUCLEAR GROUNDSTATE DEFORMATION. , 2003, , .		2
70	Shape phase transitions in rotating nuclei via cranking the interacting boson model. Physical Review C, 2002, 65, .	2.9	13
71	Triple Point of Nuclear Deformations. Physical Review Letters, 2002, 89, 182502.	7.8	115
72	Microscopic framework for dynamical supersymmetry in nuclei. Physical Review C, 2002, 65, .	2.9	4

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73	Equivalent potentials of the geometric collective model and interacting boson model. Physical Review C, 2001, 64, .	2.9	0
74	Universal anharmonicity and vibrational anomaly in nuclei. Physical Review C, 2001, 63, .	2.9	5
75	Decoherence and thermalization in a simple bosonic system. Physical Review E, 2001, 63, 036127.	2.1	21
76	Parameter symmetries of quantum many-body systems. Physical Review C, 2001, 64, .	2.9	4
77	Quantum phase transitions studied within the interacting boson model. Physical Review E, 2000, 61, 6237-6247.	2.1	50
78	Nuclear shape-phase transitions studied within the interacting boson model-1. AIP Conference Proceedings, 2000, , .	0.4	0
79	Should the Casten triangle be a pentagon?. Journal of Physics G: Nuclear and Particle Physics, 1999, 25, 843-845.	3.6	4
80	Phase coexistence in the interacting boson model and152Sm. Physical Review C, 1999, 60, .	2.9	32
81	Complexity of perturbation functions for E2 + M1 hyperfine interactions. , 1998, 116, 41-51.		0
82	Wave-function entropy and dynamical symmetry breaking in the interacting boson model. Physical Review E, 1998, 58, 387-399.	2.1	41
83	Dynamical-symmetry content of transitional IBM-1 hamiltonians. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1998, 420, 241-247.	4.1	39
84	Calculation of the spin deorientation in (Î±,2nÎ³) reactions. Nuclear Physics A, 1996, 602, 225-243.	1.5	4
85	Facility and method for studying two-step Î³ cascades in thermal neutron capture. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1996, 376, 434-442.	1.6	43
86	Two-step gamma cascades following thermal-neutron capture in 143,145Nd. Physica Scripta, 1995, T56, 253-255.	2.5	5
87	Gamma-ray strength functions at finite temperature. Physical Review C, 1995, 52, 919-925.	2.9	0
88	E1 andM1 strengths studied from two-step Î³ cascades following capture of thermal neutrons inDy162. Physical Review C, 1995, 52, 1278-1294.	2.9	32
89	Monte Carlo analysis of (Î±,xnÎ³)-feeding intensities in Cd nuclei. Nuclear Physics A, 1993, 561, 317-342.	1.5	14
90	On nuclear spin determinations from statistical feeding intensities in (particle, xn) fusion reactions. Nuclear Physics A, 1993, 554, 246-256.	1.5	19

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91	Test of photon strength functions by a method of two-step cascades. Physical Review C, 1992, 46, 1276-1287.	2.9	36
92	Angular distributions of Î³-rays from four resonances of the55Mn(p, Î³)56Fe reaction. European Physical Journal D, 1992, 42, 499-512.	0.4	3