

RaÃ¶l Rossignoli

List of Publications by Year in descending order

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146
papers

1,917
citations

257101

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344852

36
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146
all docs

146
docs citations

146
times ranked

597
citing authors

#	ARTICLE	IF	CITATIONS
1	Quantum discord in finite XY chains. Physical Review A, 2010, 82, .	1.0	99
2	Thermal and Quantal Fluctuations for Fixed Particle Number in Finite Superfluid Systems. Physical Review Letters, 1998, 80, 1853-1856.	2.9	72
3	Generalized Nonadditive Entropies and Quantum Entanglement. Physical Review Letters, 2002, 88, 170401.	2.9	67
4	Projection at Finite Temperature. Annals of Physics, 1994, 235, 350-389.	1.0	53
5	Ground-state wave functions and maximum entropy. Physical Review A, 1989, 40, 519-525.	1.0	52
6	Entanglement of finite cyclic chains at factorizing fields. Physical Review A, 2008, 77, .	1.0	52
7	Generalized entropic criterion for separability. Physical Review A, 2002, 66, .	1.0	51
8	Generalized entropic measures of quantum correlations. Physical Review A, 2010, 82, .	1.0	46
9	Pairing correlations and particle-number projection methods. Physical Review C, 2002, 66, .	1.1	44
10	Global entanglement in XXZ chains. Physical Review A, 2006, 73, .	1.0	38
11	Factorization and entanglement in general XYZ spin arrays in nonuniform transverse fields. Physical Review A, 2009, 80, .	1.0	37
12	Entanglement in fermion systems. Physical Review A, 2015, 92, .	1.0	37
13	Complex modes in unstable quadratic bosonic forms. Physical Review A, 2005, 72, .	1.0	36
14	Finite temperature projected calculations in the static path approximation. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1992, 297, 9-13.	1.5	34
15	Maximum entropy principle for many-body ground states. Nuclear Physics A, 1990, 512, 492-508.	0.6	33
16	Lipkin-Nogami method at finite temperature in the static-path approximation. Physical Review C, 1993, 47, 606-611.	1.1	33
17	Global thermal entanglement in n -qubit systems. Physical Review A, 2005, 72, .	1.0	33
18	Projected statistics and level densities. Physical Review Letters, 1993, 70, 1061-1064.	2.9	32

#	ARTICLE	IF	CITATIONS
19	The RPA correlations in the presence of thermal fluctuations. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1997, 394, 242-246.	1.5	31
20	Violation of majorization relations in entangled states and its detection by means of generalized entropic forms. Physical Review A, 2003, 67, .	1.0	31
21	Thermal effects and the interplay between pairing and shape deformations. Physical Review C, 1985, 32, 1040-1048.	1.1	27
22	Finite temperature canonical treatments in the static path approximation. Nuclear Physics A, 1996, 605, 1-27.	0.6	25
23	Fluctuations and Odd-Even Effects in Small Superfluid Systems. Annals of Physics, 1999, 275, 1-26.	1.0	25
24	Separability conditions and limit temperatures for entanglement detection in two-qubit HeisenbergXYZmodels. Physical Review A, 2004, 69, .	1.0	25
25	System-time entanglement in a discrete-time model. Physical Review A, 2016, 93, .	1.0	24
26	Maximum-entropy approach to critical phenomena in ground states of finite systems. Physical Review A, 1992, 45, 7104-7110.	1.0	22
27	Bipartite entanglement in fermion systems. Physical Review A, 2017, 95, .	1.0	22
28	History state formalism for Dirac's theory. Physical Review D, 2019, 99, .	1.6	22
29	Maximum-entropy-correlated ground state and the description of collective excitations. Nuclear Physics A, 1992, 550, 453-472.	0.6	21
30	Separability and entanglement in finite dimer-type chains in general transverse fields. Physical Review B, 2010, 81, .	1.1	21
31	Non-additive entropies and quantum statistics. Physics Letters, Section A: General, Atomic and Solid State Physics, 1999, 264, 148-153.	0.9	20
32	History state formalism for scalar particles. Physical Review D, 2019, 100, .	1.6	20
33	Measurements, quantum discord, and parity in spin-1 systems. Physical Review A, 2012, 86, .	1.0	18
34	History states of systems and operators. Physical Review A, 2018, 98, .	1.0	17
35	Quantal entropy, fluctuations, and the description of many-body ground states. Physical Review C, 1992, 45, 1162-1170.	1.1	16
36	Fermionic entanglement in the Lipkin model. Physical Review A, 2019, 100, .	1.0	16

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37	Entanglement between distant qubits in cyclicXXchains. Physical Review A, 2007, 75, .	1.0	15
38	Quantum correlations and least disturbing local measurements. Physical Review A, 2011, 84, .	1.0	15
39	Discord and information deficit in theXXchain. Physical Review A, 2013, 88, .	1.0	15
40	Dynamics of entanglement between two harmonic modes in stable and unstable regimes. Physical Review A, 2014, 89, .	1.0	15
41	Finite-temperature mean-field and higher-order approaches in canonical ensembles. Physical Review C, 1991, 43, 1599-1609.	1.1	14
42	Description of thermal entanglement with the static path plus random-phase approximation. Physical Review A, 2007, 76, .	1.0	14
43	Factorization and Criticality in Finite $\langle X \rangle \langle X \rangle \langle Z \rangle$ Systems of Arbitrary Spin. Physical Review Letters, 2017, 119, 220605.	2.9	14
44	Fermionic entanglement in superconducting systems. Physical Review A, 2018, 97, .	1.0	14
45	Ground state of the Hubbard model: a variational approach based on the maximum entropy principle. Physics Letters, Section A: General, Atomic and Solid State Physics, 1993, 176, 353-359.	0.9	13
46	WKB wave functions without matching. Physical Review A, 1993, 47, 3530-3537.	1.0	13
47	Effective mean field approximation in hot finite systems. Physical Review Letters, 1994, 72, 4070-4073.	2.9	13
48	Thermal entanglement in fully connected spin systems and its random-phase-approximation description. Physical Review A, 2008, 78, .	1.0	13
49	Fluctuations and the thermal mean-field approach. Physical Review C, 1988, 37, 314-319.	1.1	12
50	Information theory and energy spectra. Physical Review A, 1991, 43, 1145-1152.	1.0	12
51	Canonical and grand-canonical partition functions and level densities. Physical Review C, 1995, 51, 1772-1776.	1.1	12
52	Effects of repulsive forces on thermal fluctuations. Physical Review C, 1997, 56, 791-799.	1.1	12
53	Parity and finite size effects in the thermodynamics of small superconductors. Physics Letters, Section A: General, Atomic and Solid State Physics, 1999, 258, 188-194.	0.9	12
54	Stability, complex modes, and nonseparability in rotating quadratic potentials. Physical Review A, 2009, 79, .	1.0	12

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55	Temperature-dependent anharmonic oscillator: A Hartree approach. Physical Review D, 1986, 33, 1709-1713.	1.6	11
56	Generalized statistical self-consistent approach. Physical Review C, 1989, 40, 1798-1805.	1.1	11
57	Nuclear level densities and thermal properties for fixed spin in microscopic treatments. Physical Review C, 1994, 50, 2850-2859.	1.1	11
58	Thermal and microcanonical treatments of a pairing Hamiltonian. Physical Review C, 1996, 54, 1230-1239.	1.1	11
59	The RPA strength function in the presence of thermal fluctuations. Nuclear Physics A, 1998, 633, 613-639.	0.6	11
60	Entanglement of two harmonic modes coupled by angular momentum. Physical Review A, 2011, 84, .	1.0	11
61	Effective finite temperature mean field approximations in finite systems. Nuclear Physics A, 1995, 591, 15-40.	0.6	10
62	Paramagnetic breakdown of superconductivity in nanoscale particles at finite temperature. Physical Review B, 2000, 62, 5886-5890.	1.1	10
63	Majorization relations and disorder in generalized statistics. Physica A: Statistical Mechanics and Its Applications, 2006, 371, 126-129.	1.2	10
64	Majorization properties of generalized thermal distributions. Physica A: Statistical Mechanics and Its Applications, 2006, 368, 435-441.	1.2	10
65	Evaluation of ground-state entanglement in spin systems with the random phase approximation. Physical Review A, 2010, 82, .	1.0	10
66	Nontransverse factorizing fields and entanglement in finite spin systems. Physical Review B, 2015, 92, .	1.1	10
67	Peculiarities of the Hartree approach to the temperature-dependent anharmonic oscillator. Journal of Physics A, 1988, 21, 729-738.	1.6	9
68	Extended mean-field treatments and information theory. Physical Review A, 1990, 42, 2065-2075.	1.0	9
69	Correlated finite temperature mean field approximations. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1992, 277, 18-22.	1.5	9
70	Canonical treatment of fluctuations and random phase approximation correlations at finite temperature. Physical Review C, 1999, 59, 185-193.	1.1	9
71	Thermal dependence of pairing correlations in small superconducting particles in a finite magnetic field. Physical Review B, 2001, 63, .	1.1	9
72	Generalized conditional entropy in bipartite quantum systems. Journal of Physics A: Mathematical and Theoretical, 2014, 47, 015302.	0.7	9

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73	Generalized conditional entropy optimization for qudit-qubit states. <i>Physical Review A</i> , 2014, 90, .	1.0	9
74	Factorization in spin systems under general fields and separable ground-state engineering. <i>Physical Review A</i> , 2016, 94, .	1.0	9
75	Spectrum and normal modes of non-Hermitian quadratic boson operators. <i>Physical Review A</i> , 2017, 96, .	1.0	9
76	One-body entanglement as a quantum resource in fermionic systems. <i>Physical Review A</i> , 2020, 102, .	1.0	9
77	Quasispin seniority and the variational description of the nuclear free energy. <i>Physical Review C</i> , 1984, 30, 1360-1362.	1.1	8
78	Limit temperature for entanglement in generalized statistics. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2004, 323, 22-28.	0.9	8
79	Generalized disorder measures and the detection of quantum entanglement. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2004, 344, 637-643.	1.2	8
80	Quantum Discord and Information Deficit in Spin Chains. <i>Entropy</i> , 2015, 17, 1634-1659.	1.1	8
81	One-body information loss in fermion systems. <i>Physical Review A</i> , 2016, 94, .	1.0	8
82	Entanglement and coherence in a spin- XXZ system under non-uniform fields. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2017, 50, 095501.	0.6	8
83	Asymptotic density matrix for many-body ground states. <i>Nuclear Physics A</i> , 1986, 453, 417-428.	0.6	7
84	Finite temperature correlated quasiparticle approach. <i>Nuclear Physics A</i> , 1991, 534, 303-326.	0.6	7
85	Entanglement generation resonances in XY chains. <i>Physical Review A</i> , 2007, 75, .	1.0	7
86	Maximum overlap, critical phenomena and the coherence of generating functions. <i>Nuclear Physics A</i> , 1985, 444, 35-48.	0.6	6
87	Evaluation of pairwise entanglement in translationally invariant systems with the random phase approximation. <i>Physical Review A</i> , 2008, 78, .	1.0	6
88	QUANTUM DISCORD AND RELATED MEASURES OF QUANTUM CORRELATIONS IN FINITE XY CHAINS. <i>International Journal of Modern Physics B</i> , 2013, 27, 1345033.	1.0	6
89	Nonlinear dynamics of a semiquantum Hamiltonian in the vicinity of quantum unstable regimes. <i>Chaos, Solitons and Fractals</i> , 2018, 109, 140-145.	2.5	6
90	Enseñanza del algebra lineal en una facultad de ingeniería: Aspectos metodológicos y didácticos. <i>Revista Educación En Ingeniería</i> , 2017, 12, 49.	0.1	6

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91	Truncation, statistical inference, and single-particle description. <i>Physical Review C</i> , 1987, 36, 1595-1603.	1.1	5
92	Maximum Entropy-Minimum Norm method for the determination of level densities. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1995, 220, 611-617.	1.2	5
93	Spin-projected treatment of hot rotating nuclei in the static path approximation. <i>Nuclear Physics A</i> , 1996, 607, 250-276.	0.6	5
94	Pair transfer spectral function at finite temperature in nanometer-scale superconducting grains. <i>Physical Review B</i> , 2001, 64, .	1.1	5
95	General non-additive entropic forms and the inference of quantum density operators. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2005, 348, 121-130.	1.2	5
96	Generalized mean-field description of entanglement in dimerized spin systems. <i>Physical Review B</i> , 2015, 91, .	1.1	5
97	Complexity of a matter-field Hamiltonian in the vicinity of a quantum instability. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2019, 513, 767-774.	1.2	5
98	Parallel-in-time optical simulation of history states. <i>Physical Review A</i> , 2019, 99, .	1.0	5
99	Spacetime quantum actions. <i>Physical Review D</i> , 2021, 103, .	1.6	5
100	Many-body entanglement in fermion systems. <i>Physical Review A</i> , 2021, 103, .	1.0	5
101	Generalized entropies and quantum entanglement. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2003, 329, 371-376.	1.2	4
102	Even-odd entanglement in boson and spin systems. <i>Physical Review A</i> , 2011, 83, .	1.0	4
103	Exact dynamics and squeezing in two harmonic modes coupled through angular momentum. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2015, 48, 165501.	0.6	4
104	Canonical mean field calculations at finite temperature. <i>Journal of Physics G: Nuclear and Particle Physics</i> , 1991, 17, 1107-1114.	1.4	3
105	Correlated finite-temperature Hartree-Fock approximation and the thermal behavior of finite systems. <i>Physical Review C</i> , 1992, 45, 2260-2266.	1.1	3
106	Stability of intrinsic symmetry-breaking mean field approximations at high temperatures in finite systems. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1994, 337, 1-6.	1.5	3
107	Microscopic description of hot nuclei: the SPA+RPA approach. <i>Nuclear Physics A</i> , 1999, 654, 719c-722c.	0.6	3
108	Magnetic behavior of nanoscopic superconductors. <i>Physica B: Condensed Matter</i> , 2002, 320, 319-321.	1.3	3

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109	Entanglement and area laws in weakly correlated Gaussian states. <i>Physical Review A</i> , 2012, 86, .	1.0	3
110	Pair entanglement in dimerized spin-chains. <i>Physical Review B</i> , 2016, 94, .	1.1	3
111	Inducing critical phenomena in spin chains through sparse alternating fields. <i>Physical Review B</i> , 2019, 99, .	1.1	3
112	Correlated finite temperature BCS approximation in finite systems. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1992, 167, 84-88.	0.9	2
113	Approximate angular momentum projection using the maximum entropy principle. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1992, 284, 6-10.	1.5	2
114	Approximate reconstruction of single particle bound states and potentials from incomplete information. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1994, 185, 133-138.	0.9	2
115	Effects of gap fluctuations on the pair-transfer correlation function in nanometer-scale superconducting grains. <i>Physical Review B</i> , 2003, 67, .	1.1	2
116	THERMAL ENTANGLEMENT IN SPIN SYSTEMS. <i>International Journal of Modern Physics B</i> , 2006, 20, 5117-5121.	1.0	2
117	Separability and parity transitions in XYZ spin systems under nonuniform fields. <i>Physical Review A</i> , 2020, 101, .	1.0	2
118	Nonlinear effects on the dynamics of quantum harmonic modes coupled through angular momentum. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2020, 53, 215402.	0.6	2
119	Systematic procedure for going beyond the time-dependent Hartree-Fock approximation. <i>Physical Review C</i> , 1988, 37, 320-327.	1.1	1
120	Dynamical dependence of thermal phase transformations in finite systems. <i>Physical Review C</i> , 1992, 45, 3027-3029.	1.1	1
121	Correlated finite temperature mean field approximations. <i>Nuclear Physics A</i> , 1994, 570, 217-224.	0.6	1
122	Finite size effects in the specific heat of BCS models. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1995, 200, 314-318.	0.9	1
123	Microcanonical averages and the validity of statistical treatments. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1995, 355, 15-20.	1.5	1
124	Thermal gap fluctuations in d-wave superconductors. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2000, 276, 149-154.	0.9	1
125	Conditional purity and quantum correlation measures in two qubit mixed states. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2016, 49, 215501.	0.6	1
126	Ground States of Finite Systems and Information Theory. , 1992, , 63-68.		1

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127	Information Theory and Quantum Wave Functions. , 1992, , 69-77.		1
128	Quantum Discord and Entropic Measures of Quantum Correlations: Optimization and Behavior in Finite XY Spin Chains. Quantum Science and Technology, 2017, , 455-471.	1.5	1
129	The minimum norm method for the determination of the charge density from elastic electron scattering data. Zeitschrift FÅ¼r Physik A, 1986, 356, 141-144.	0.9	0
130	High temperature superfluidity with abnormal fermionic occupancy. Zeitschrift FÅ¼r Physik A, 1991, 340, 35-39.	0.9	0
131	Information theory based methods for the reconstruction of quantum wave functions. Lecture Notes in Physics, 1994, , 412-418.	0.3	0
132	Microscopic treatment of fluctuations in finite quantum systems. Zeitschrift FÅ¼r Physik B-Condensed Matter, 1996, 103, 319-321.	1.1	0
133	The minimum norm method for the determination of the charge density from elastic electron scattering data. Zeitschrift FÅ¼r Physik A, 1996, 356, 141-144.	0.9	0
134	THERMAL ENTANGLEMENT IN SPIN SYSTEMS. , 2006, , .		0
135	Quantum Entanglement in Quasispin Models. AIP Conference Proceedings, 2007, , .	0.3	0
136	Evaluation of entanglement measures in spin systems with the random phase approximation. Journal of Russian Laser Research, 2011, 32, 322-330.	0.3	0
137	Generalized measures of quantum correlations for mixed states. Journal of Russian Laser Research, 2011, 32, 467-475.	0.3	0
138	Conditional states and entropy in qudit-qubit systems. Physical Review A, 2019, 99, .	1.0	0
139	Temporal Evolution of Fluctuations. , 1990, , 341-344.		0
140	High Temperature Superconductivity in an Exactly Solvable Model. , 1991, , 203-217.		0
141	Finite Temperature Correlated Mean Field Treatments and Information Theory. , 1992, , 87-96.		0
142	Maximum Entropy Descriptions of Quantum Wave Functions. , 1993, , 155-161.		0
143	Maximum Entropy Variational Approach to Collective States. , 1993, , 339-346.		0
144	Information Theory-Based Variational Approach in Correlated Fermion Lattice. , 1993, , 331-337.		0

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145	Information Theory Based Methods for the Reconstruction of Quantum Wave Functions. Lecture Notes in Physics, 1994, , 412-418.	0.3	0
146	Ground-state separability and criticality in interacting many-particle systems. Physical Review A, 2022, 105, .	1.0	0