

Francisco C Alcaraz

List of Publications by Year in descending order

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137
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138
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138
docs citations

138
times ranked

1197
citing authors

#	ARTICLE	IF	CITATIONS
1	Surface exponents of the quantum XXZ, Ashkin-Teller and Potts models. Journal of Physics A, 1987, 20, 6397-6409.	1.6	391
2	Reaction-Diffusion Processes, Critical Dynamics, and Quantum Chains. Annals of Physics, 1994, 230, 250-302.	1.0	308
3	Conformal invariance, the XXZ chain and the operator content of two-dimensional critical systems. Annals of Physics, 1988, 182, 280-343.	1.0	236
4	Correlation functions of the antiferromagnetic Heisenberg model using a modified Lanczos method. Physical Review B, 1986, 34, 1677-1682.	1.1	202
5	Entanglement of Low-Energy Excitations in Conformal Field Theory. Physical Review Letters, 2011, 106, 201601.	2.9	156
6	Conformal invariance and the spectrum of the XXZ chain. Physical Review Letters, 1987, 58, 771-774.	2.9	140
7	Critical behavior of the spin-3/2 Blume-Capel model in two dimensions. Physical Review B, 1998, 57, 11575-11581.	1.1	114
8	Equipartition of the entanglement entropy. Physical Review B, 2018, 98, .	1.1	98
9	The Heisenberg XXZ Hamiltonian with Dzyaloshinsky-Moriya interactions. Journal of Statistical Physics, 1990, 58, 45-56.	0.5	74
10	Duality and the phases of $Z(N)$ spin systems. Journal of Physics A, 1980, 13, L153-L160.	1.6	65
11	Anisotropic Ferromagnetic Quantum Domains. Physical Review Letters, 1995, 75, 930-933.	2.9	63
12	Reaction-diffusion processes as physical realizations of Hecke algebras. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1993, 314, 377-380.	1.5	61
13	Entanglement of excited states in critical spin chains. Journal of Statistical Mechanics: Theory and Experiment, 2012, 2012, P01016.	0.9	61
14	Critical and off-critical properties of the XXZ chain in external homogeneous and staggered magnetic fields. Journal of Physics A, 1995, 28, 1521-1534.	1.6	60
15	Critical behaviour of mixed Heisenberg chains. Journal of Physics A, 1997, 30, 767-778.	1.6	58
16	The XXZ Heisenberg chain, conformal invariance and the operator content of $c < 1$ systems. Nuclear Physics B, 1989, 316, 735-768.	0.9	51
17	Conformal invariance and the operator content of the XXZ model with arbitrary spin. Journal of Physics A, 1989, 22, 1829-1858.	1.6	48
18	Operator content of the XXZ chain. Journal of Physics A, 1988, 21, L117-L120.	1.6	47

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19	Universal Behavior of the Shannon Mutual Information of Critical Quantum Chains. Physical Review Letters, 2013, 111, 017201.	2.9	46
20	The phases of two-dimensional spin and four-dimensional gauge systems with $Z(N)$ symmetry. Journal of Physics A, 1981, 14, 1169-1192.	1.6	45
21	Exact solution of the asymmetric exclusion model with particles of arbitrary size. Physical Review E, 1999, 60, 79-88.	0.8	45
22	Critical behavior of anisotropic spin-SHeisenberg chains. Physical Review B, 1992, 46, 2896-2907.	1.1	44
23	N-species stochastic models with boundaries and quadratic algebras. Journal of Physics A, 1998, 31, 845-878.	1.6	44
24	Hamiltonian studies of the Blume-Emery-Griffiths model. Physical Review B, 1985, 32, 7469-7475.	1.1	43
25	Conformal invariance and critical exponents of the Takhtajan-Babujian models. Journal of Physics A, 1988, 21, 4397-4413.	1.6	42
26	Exact solutions of exactly integrable quantum chains by a matrix product ansatz. Journal of Physics A, 2004, 37, 4149-4182.	1.6	38
27	Entanglement and quantum phases in the anisotropic ferromagnetic Heisenberg chain in the presence of domain walls. Physical Review A, 2004, 70, .	1.0	37
28	The Bethe ansatz as a matrix product ansatz. Journal of Physics A, 2004, 37, L1-L7.	1.6	37
29	Entanglement entropies in conformal systems with boundaries. Physical Review B, 2013, 88, .	1.1	36
30	The critical behaviour of self-dual $Z(N)$ spin systems: finite-size scaling and conformal invariance. Journal of Physics A, 1987, 20, 2511-2526.	1.6	35
31	Conformal anomaly and critical exponents of the spin-1 Takhtajan-Babujian model. Journal of Physics A, 1988, 21, L381-L387.	1.6	33
32	Finite-size corrections of the entanglement entropy of critical quantum chains. Physical Review B, 2012, 85, .	1.1	33
33	Critical Spin Models with Continuously Varying Exponents. Physical Review Letters, 1988, 61, 1529-1532.	2.9	32
34	Conservation laws for $Z(N)$ symmetric quantum spin models and their exact ground state energies. Nuclear Physics B, 1986, 275, 436-458.	0.9	31
35	Rényi entropy and parity oscillations of anisotropic spin-sHeisenberg chains in a magnetic field. Physical Review B, 2011, 83, .	1.1	31
36	String correlation functions in the anisotropic spin-1 Heisenberg chain. Physical Review B, 1992, 46, 13914-13918.	1.1	30

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37	Entanglement properties of correlated random spin chains and similarities with conformally invariant systems. <i>Physical Review B</i> , 2016, 93, .	1.1	30
38	Universal behavior of the Shannon and Rényi mutual information of quantum critical chains. <i>Physical Review B</i> , 2014, 90, .	1.1	29
39	The modified XXZ Heisenberg chain, conformal invariance and the surface exponents of $c < 1$ systems. <i>Journal of Physics A</i> , 1989, 22, L5-L11.	1.6	28
40	Exact solution of asymmetric diffusion with N classes of particles of arbitrary size and hierarchical order. <i>Brazilian Journal of Physics</i> , 2000, 30, 655-666.	0.7	25
41	Critical and off-critical studies of the Baxter-Wu model with general toroidal boundary conditions. <i>Journal of Physics A</i> , 1999, 32, 2041-2060.	1.6	23
42	Pure and dilute $Z(N)$ spin and generalised gauge lattice systems: duality and criticality. <i>Journal of Physics A</i> , 1982, 15, 587-598.	1.6	22
43	Conformal invariance and the critical behaviour of a quantum spin Hamiltonian with three-spin coupling. <i>Journal of Physics A</i> , 1987, 20, 179-188.	1.6	22
44	Conformal invariance studies of the Baxter - Wu model and a related site-colouring problem. <i>Journal of Physics A</i> , 1997, 30, L203-L209.	1.6	22
45	Interpolation between Hubbard and supersymmetric J -models: two-parameter integrable models of correlated electrons. <i>Journal of Physics A</i> , 1999, 32, L483-L488.	1.6	22
46	Precise determination of quantum critical points by the violation of the entropic area law. <i>Physical Review B</i> , 2011, 84, .	1.1	22
47	The spin-S XXZ quantum chain with general toroidal boundary conditions. <i>Journal of Physics A</i> , 1990, 23, 1439-1451.	1.6	21
48	Generalization of the matrix product ansatz for integrable chains. <i>Journal of Physics A</i> , 2006, 39, 11335-11337.	1.6	21
49	Exact solution of asymmetric diffusion with second-class particles of arbitrary size. <i>Brazilian Journal of Physics</i> , 2000, 30, 13-26.	0.7	21
50	Finite size studies of the Ashkin-Teller model. <i>Journal of Physics A</i> , 1984, 17, L651-L655.	1.6	20
51	Order of phase transition for systems with multispin interactions: Monte Carlo simulations. <i>Physical Review B</i> , 1986, 34, 4885-4888.	1.1	20
52	Conformal invariance and the Heisenberg model with arbitrary spin. <i>Physical Review Letters</i> , 1989, 63, 708-711.	2.9	20
53	The exact solution of the asymmetric exclusion problem with particles of arbitrary size: matrix product ansatz. <i>Brazilian Journal of Physics</i> , 2003, 33, 533-550.	0.7	20
54	Generalized mutual information of quantum critical chains. <i>Physical Review B</i> , 2015, 91, .	1.1	19

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55	Free fermionic and parafermionic quantum spin chains with multispin interactions. Physical Review B, 2020, 102, .	1.1	18
56	Phase diagram of a coupled tetrahedral Heisenberg model. Physical Review B, 2003, 67, .	1.1	17
57	Parafermions and surface exponents of self-dual $Z(N)$ spin models from conformal invariance. Journal of Physics A, 1987, 20, L623-L628.	1.6	16
58	Finite-size corrections to entanglement in quantum critical systems. Physical Review A, 2008, 78, .	1.0	16
59	Conformal anomaly for the exactly integrable $SU(N)$ magnets. Journal of Physics A, 1989, 22, L865-L870.	1.6	15
60	Hidden parafermions in $Z(N)$ theories. Physical Review D, 1981, 24, 1562-1568.	1.6	13
61	Frontier between separability and quantum entanglement in a many spin system. Physics Letters, Section A: General, Atomic and Solid State Physics, 2002, 301, 105-111.	0.9	13
62	Density profiles in the raise and peel model with and without a wall; physics and combinatorics. Journal of Statistical Mechanics: Theory and Experiment, 2008, 2008, P01006.	0.9	13
63	Integrable quantum spin chains with free fermionic and parafermionic spectrum. Physical Review B, 2020, 102, .	1.1	13
64	EXACT STEADY STATES OF ASYMMETRIC DIFFUSION AND TWO-SPECIES ANNIHILATION WITH BACK REACTION FROM THE GROUND STATE OF QUANTUM SPIN MODELS. International Journal of Modern Physics B, 1994, 08, 3449-3461.	1.0	12
65	FINITE CHAINS WITH QUANTUM AFFINE SYMMETRIES. International Journal of Modern Physics A, 1994, 09, 3473-3496.	0.5	12
66	Anomalous tag diffusion in the asymmetric exclusion model with particles of arbitrary sizes. Physical Review E, 2002, 65, 052102.	0.8	12
67	Phase structure of the FCC quartet Ising model. Physics Letters, Section A: General, Atomic and Solid State Physics, 1982, 89, 49-51.	0.9	11
68	Shared information in stationary states of stochastic processes. Physical Review E, 2009, 80, 030102.	0.8	10
69	Numerical difficulties in obtaining 3D critical exponents from Platonic solids. Journal of Physics A, 1987, 20, 5735-5736.	1.6	9
70	Integrable models of strongly correlated particles with correlated hopping. Physical Review B, 1999, 59, 3373-3376.	1.1	9
71	Density functional formulations for quantum chains. Physical Review B, 2007, 76, .	1.1	9
72	Nonlocal asymmetric exclusion process on a ring and conformal invariance. Journal of Statistical Mechanics: Theory and Experiment, 2013, 2013, P09010.	0.9	9

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73	Energy spectrum and critical exponents of the free parafermion Z_N spin chain. Journal of Physics A: Mathematical and Theoretical, 2017, 50, 16LT03.	0.7	9
74	$Z(N)$ generalisation of the Baxter-Wu model. Journal of Physics A, 1982, 15, L357-L361.	1.6	8
75	On the critical behavior of the Ising model with mixed two- and three-spin interactions. Journal of Statistical Physics, 1987, 46, 435-453.	0.5	8
76	On the critical behaviour of the anisotropic biquadratic spin-1 chain. Journal of Physics A, 1992, 25, 4535-4546.	1.6	8
77	ALL EXACTLY SOLVABLE $U(1)$ -INVARIANT QUANTUM SPIN 1 CHAINS FROM HECKE ALGEBRA. International Journal of Modern Physics A, 1992, 07, 7615-7628.	0.5	8
78	New exact integrable spin-1 quantum chains. Journal of Physics A, 2001, 34, L467-L471.	1.6	8
79	Different facets of the raise and peel model. Journal of Statistical Mechanics: Theory and Experiment, 2007, 2007, P07009-P07009.	0.9	8
80	Shared information in stationary states at criticality. Journal of Statistical Mechanics: Theory and Experiment, 2010, 2010, P03024.	0.9	8
81	The Phase Diagram of the Anisotropic Spin-1 Heisenberg Chain. Journal of the Physical Society of Japan, 1995, 64, 4485-4486.	0.7	8
82	Three-spin models in two dimensions: generalisations of the Baxter-Wu model. Journal of Physics A, 1983, 16, 159-173.	1.6	7
83	Conformal invariance and its breaking in a stochastic model of a fluctuating interface. Journal of Statistical Mechanics: Theory and Experiment, 2006, 2006, P08003-P08003.	0.9	7
84	Exactly solvable interacting vertex models. Journal of Statistical Mechanics: Theory and Experiment, 2007, 2007, P08008-P08008.	0.9	7
85	Directed Abelian algebras and their application to stochastic models. Physical Review E, 2008, 78, 041126.	0.8	7
86	Nonlocal growth processes and conformal invariance. Journal of Statistical Mechanics: Theory and Experiment, 2012, 2012, P05022.	0.9	7
87	Correlation functions in conformal invariant stochastic processes. Journal of Statistical Mechanics: Theory and Experiment, 2015, 2015, P11012.	0.9	7
88	Universal behavior of the Shannon mutual information in nonintegrable self-dual quantum chains. Physical Review B, 2016, 94, .	1.1	7
89	Powerful method to evaluate the mass gaps of free-particle quantum critical systems. Physical Review B, 2021, 104, .	1.1	7
90	General self-dual spin models in two dimensions. Journal of Physics A, 1982, 15, L495-L500.	1.6	6

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91	Uniform magnetic susceptibility of the t - J model on the $4\tilde{A}-4$ lattice. <i>Physical Review B</i> , 1993, 47, 8298-8300.	1.1	6
92	Phase diagram and superconducting properties of an exactly solvable model with correlated hopping. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1998, 240, 247-252.	0.9	6
93	The finite-size $SU(3)$ Perk-Schultz model with deformation parameter $q = \exp(2i\pi/3)$. <i>Journal of Physics A</i> , 2002, 35, 3805-3819.	1.6	6
94	Phase diagram and spectral properties of a new exactly integrable spin-1 quantum chain. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2010, 43, 155002.	0.7	6
95	Anomalous bulk behavior in the free parafermion $Z(N)$ spin chain. <i>Physical Review E</i> , 2018, 97, 062118.	0.8	6
96	Massless phases and confinement in extended $Z(4)$ gauge theories. <i>Physical Review D</i> , 1983, 27, 938-942.	1.6	5
97	Analysis of the Bethe-ansatz equations for the anisotropic $SU(2)$ chain. <i>Journal of Physics A</i> , 1989, 22, L99-L104.	1.6	5
98	New integrable generalization of the one-dimensional model. <i>Journal of Physics A</i> , 1998, 31, L233-L239.	1.6	5
99	The wavefunctions for the free-fermion part of the spectrum of the $SU_q(N)$ quantum spin models. <i>Journal of Physics A</i> , 2003, 36, 2381-2397.	1.6	5
100	Pair annihilation reaction $D + D \rightarrow 0$ in disordered media and conformal invariance. <i>Physical Review E</i> , 2007, 75, 051110.	0.8	5
101	Two-component Abelian sandpile models. <i>Physical Review E</i> , 2009, 79, 042102.	0.8	5
102	Effects of electron interaction on the change in sound velocity under de Haas-van Alphen conditions. <i>Journal of Physics and Chemistry of Solids</i> , 1979, 40, 293-295.	1.9	4
103	Triplet $Z(N)$ model in a triangular lattice. <i>Nuclear Physics B</i> , 1982, 210, 246-262.	0.9	4
104	Stochastic models with boundaries and quadratic algebras. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1998, 257, 1-9.	1.2	4
105	Free-parafermionic Z and free-fermionic X and Y quantum chains. <i>Physical Review E</i> , 2021, 104, 054121.	0.8	4
106	Massless phases for the Z model on the Union Jack lattice. <i>Journal of Physics A</i> , 1982, 15, 3815-3828.	1.6	3
107	Absence of Long-Range Order above Two Dimensions. <i>Physical Review Letters</i> , 1983, 51, 435-438.	2.9	3
108	Three-dimensional spin systems without long-range order. <i>Nuclear Physics B</i> , 1986, 265, 161-186.	0.9	3

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109	Correspondence between the XXZ model in roots of unity and the one-dimensional quantum Ising chain with different boundary conditions. <i>Journal of Physics A</i> , 2001, 34, 211-226.	1.6	3
110	Free-fermion branches in some quantum spin models. <i>Journal of Physics A</i> , 2002, 35, 6767-6787.	1.6	3
111	Exactly solvable interacting spin-ice vertex model. <i>Physical Review E</i> , 2006, 74, 011115.	0.8	3
112	Unusual phase properties of the ZN-symmetric quartet FCC model. <i>Journal of Physics A</i> , 1983, 16, 175-193.	1.6	2
113	Phase separation on regular and fractal lattices in two dimensions. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1986, 118, 200-202.	0.9	2
114	Exact solution of the biquadratic spin-1 $t\hat{t}^J$ model in one dimension. <i>Physical Review B</i> , 1997, 56, 7796-7799.	1.1	2
115	Exact solution of a vertex model with unlimited number of states per bond. <i>Journal of Physics A</i> , 1999, 32, L25-L31.	1.6	2
116	Exact integrable spin chains and transfer matrices related to models with stochastic dynamics. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2002, 306, 51-58.	1.2	2
117	Supersymmetry on Jacobstahl lattices. <i>Journal of Physics A</i> , 2005, 38, L809-L813.	1.6	2
118	A conformal invariant growth model. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2010, 2010, P12032.	0.9	2
119	Noncontractible loops in the dense $O(n)$ loop model on the cylinder. <i>Physical Review E</i> , 2014, 90, 052138.	0.8	2
120	Four-Dimensional Ashkin-Teller Gauge Theory. <i>Physical Review Letters</i> , 1983, 51, 530-533.	2.9	1
121	Classification scheme for statistical theories with unusual symmetries. <i>Nuclear Physics B</i> , 1985, 257, 340-350.	0.9	1
122	Conformal invariance and the XXZ chain with arbitrary spin. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1990, 163, 183-190.	1.2	1
123	New integrable version of the degenerate supersymmetric t - J model. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1999, 261, 365-370.	0.9	1
124	Integrable model of interacting XX and Fateev-Zamolodchikov chains. <i>Journal of Physics A</i> , 1999, 32, L387-L392.	1.6	1
125	Valence bond ground states in quantum antiferromagnets and quadratic algebras. <i>Journal of Physics A</i> , 2000, 33, 7469-7487.	1.6	1
126	From conformal invariance to quasistationary states. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2011, 2011, P09030.	0.9	1

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127	Stochastic processes with Z_N symmetry and complex Virasoro representations. The partition functions. Journal of Physics A: Mathematical and Theoretical, 2014, 47, 462001.	0.7	1
128	Reaction-Diffusion Processes and Quantum Chains. NATO ASI Series Series B: Physics, 1993, , 187-216.	0.2	1
129	Conformal invariance and the critical behavior of the triplet XY quantum chain. Journal of Statistical Physics, 1990, 60, 639-657.	0.5	0
130	The critical behaviour of Potts models with symmetry- breaking fields. Journal of Physics A, 1996, 29, 3329-3339.	1.6	0
131	Reply to 'critical properties of the XXZ chain in an external staggered magnetic field'. Journal of Physics A, 1996, 29, 2283-2284.	1.6	0
132	Conformal invariance and the phase diagram of the anisotropic Heisenberg spin- ladder. Journal of Physics Condensed Matter, 1997, 9, 3055-3063.	0.7	0
133	FREE-FERMION ENERGIES IN THE $SU(N)$ PERK-SCHULTZ MODEL. International Journal of Modern Physics A, 2004, 19, 1-15.	0.5	0
134	New conjecture for the $SU_q(N)$ Perk-Schultz models. Journal of Physics A, 2004, 37, 11725-11727.	1.6	0
135	Cyclic representations of the periodic Temperley-Lieb algebra, complex Virasoro representations and stochastic processes. Journal of Physics A: Mathematical and Theoretical, 2014, 47, 212003.	0.7	0
136	The spectral gap and the dynamical critical exponent of an exact solvable probabilistic cellular automaton. Physica A: Statistical Mechanics and Its Applications, 2015, 438, 56-65.	1.2	0
137	A Matrix Product Ansatz Solution of an Exactly Solvable Interacting Vertex Model. , 2006, , .		0