

Francisco C Alcaraz

List of Publications by Year in descending order

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137
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docs citations

138
times ranked

1197
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | Powerful method to evaluate the mass gaps of free-particle quantum critical systems. Physical Review B, 2021, 104, . | 1.1 | 7 |
| 2 | Free-parafermionic and free-fermionic quantum chains. Physical Review E, 2021, 104, 054121. | 0.8 | 4 |
| 3 | Free fermionic and parafermionic quantum spin chains with multispin interactions. Physical Review B, 2020, 102, . | 1.1 | 18 |
| 4 | Integrable quantum spin chains with free fermionic and parafermionic spectrum. Physical Review B, 2020, 102, . | 1.1 | 13 |
| 5 | Anomalous bulk behavior in the free parafermion $Z(N)$ spin chain. Physical Review E, 2018, 97, 062118. | 0.8 | 6 |
| 6 | Equipartition of the entanglement entropy. Physical Review B, 2018, 98, . | 1.1 | 98 |
| 7 | Energy spectrum and critical exponents of the free parafermion ZN spin chain. Journal of Physics A: Mathematical and Theoretical, 2017, 50, 16LT03. | 0.7 | 9 |
| 8 | Entanglement properties of correlated random spin chains and similarities with conformally invariant systems. Physical Review B, 2016, 93, . | 1.1 | 30 |
| 9 | Universal behavior of the Shannon mutual information in nonintegrable self-dual quantum chains. Physical Review B, 2016, 94, . | 1.1 | 7 |
| 10 | Generalized mutual information of quantum critical chains. Physical Review B, 2015, 91, . | 1.1 | 19 |
| 11 | Correlation functions in conformal invariant stochastic processes. Journal of Statistical Mechanics: Theory and Experiment, 2015, 2015, P11012. | 0.9 | 7 |
| 12 | 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 |
| 13 | Noncontractible loops in the dense $O(n)$ loop model on the cylinder. Physical Review E, 2014, 90, 052138. | 0.8 | 2 |
| 14 | 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 |
| 15 | Stochastic processes with ZN symmetry and complex Virasoro representations. The partition functions. Journal of Physics A: Mathematical and Theoretical, 2014, 47, 462001. | 0.7 | 1 |
| 16 | Universal behavior of the Shannon and Rényi mutual information of quantum critical chains. Physical Review B, 2014, 90, . | 1.1 | 29 |
| 17 | Universal Behavior of the Shannon Mutual Information of Critical Quantum Chains. Physical Review Letters, 2013, 111, 017201. | 2.9 | 46 |
| 18 | Entanglement entropies in conformal systems with boundaries. Physical Review B, 2013, 88, . | 1.1 | 36 |

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|----|---|-----|-----------|
| 19 | Nonlocal asymmetric exclusion process on a ring and conformal invariance. Journal of Statistical Mechanics: Theory and Experiment, 2013, 2013, P09010. | 0.9 | 9 |
| 20 | Entanglement of excited states in critical spin chains. Journal of Statistical Mechanics: Theory and Experiment, 2012, 2012, P01016. | 0.9 | 61 |
| 21 | Nonlocal growth processes and conformal invariance. Journal of Statistical Mechanics: Theory and Experiment, 2012, 2012, P05022. | 0.9 | 7 |
| 22 | Finite-size corrections of the entanglement entropy of critical quantum chains. Physical Review B, 2012, 85, . | 1.1 | 33 |
| 23 | Entanglement of Low-Energy Excitations in Conformal Field Theory. Physical Review Letters, 2011, 106, 201601. | 2.9 | 156 |
| 24 | From conformal invariance to quasistationary states. Journal of Statistical Mechanics: Theory and Experiment, 2011, 2011, P09030. | 0.9 | 1 |
| 25 | Precise determination of quantum critical points by the violation of the entropic area law. Physical Review B, 2011, 84, . | 1.1 | 22 |
| 26 | Renyi entropy and parity oscillations of anisotropic spin-1 Heisenberg chains in a magnetic field. Physical Review B, 2011, 83, . | 1.1 | 31 |
| 27 | Phase diagram and spectral properties of a new exactly integrable spin-1 quantum chain. Journal of Physics A: Mathematical and Theoretical, 2010, 43, 155002. | 0.7 | 6 |
| 28 | Shared information in stationary states at criticality. Journal of Statistical Mechanics: Theory and Experiment, 2010, 2010, P03024. | 0.9 | 8 |
| 29 | A conformal invariant growth model. Journal of Statistical Mechanics: Theory and Experiment, 2010, 2010, P12032. | 0.9 | 2 |
| 30 | Shared information in stationary states of stochastic processes. Physical Review E, 2009, 80, 030102. | 0.8 | 10 |
| 31 | Two-component Abelian sandpile models. Physical Review E, 2009, 79, 042102. | 0.8 | 5 |
| 32 | 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 |
| 33 | Directed Abelian algebras and their application to stochastic models. Physical Review E, 2008, 78, 041126. | 0.8 | 7 |
| 34 | Finite-size corrections to entanglement in quantum critical systems. Physical Review A, 2008, 78, . | 1.0 | 16 |
| 35 | Exactly solvable interacting vertex models. Journal of Statistical Mechanics: Theory and Experiment, 2007, 2007, P08008-P08008. | 0.9 | 7 |
| 36 | Density functional formulations for quantum chains. Physical Review B, 2007, 76, . | 1.1 | 9 |

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| 37 | Pair annihilation reaction $D+D \rightarrow 0$ in disordered media and conformal invariance. <i>Physical Review E</i> , 2007, 75, 051110. | 0.8 | 5 |
| 38 | Different facets of the raise and peel model. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2007, 2007, P07009-P07009. | 0.9 | 8 |
| 39 | Generalization of the matrix product ansatz for integrable chains. <i>Journal of Physics A</i> , 2006, 39, 11335-11337. | 1.6 | 21 |
| 40 | Conformal invariance and its breaking in a stochastic model of a fluctuating interface. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2006, 2006, P08003-P08003. | 0.9 | 7 |
| 41 | Exactly solvable interacting spin-ice vertex model. <i>Physical Review E</i> , 2006, 74, 011115. | 0.8 | 3 |
| 42 | A Matrix Product Ansatz Solution of an Exactly Solvable Interacting Vertex Model. , 2006, , . | | 0 |
| 43 | Supersymmetry on Jacobstahl lattices. <i>Journal of Physics A</i> , 2005, 38, L809-L813. | 1.6 | 2 |
| 44 | Entanglement and quantum phases in the anisotropic ferromagnetic Heisenberg chain in the presence of domain walls. <i>Physical Review A</i> , 2004, 70, . | 1.0 | 37 |
| 45 | FREE-FERMION ENERGIES IN THE $SU(N)$ PERK-SCHULTZ MODEL. <i>International Journal of Modern Physics A</i> , 2004, 19, 1-15. | 0.5 | 0 |
| 46 | The Bethe ansatz as a matrix product ansatz. <i>Journal of Physics A</i> , 2004, 37, L1-L7. | 1.6 | 37 |
| 47 | Exact solutions of exactly integrable quantum chains by a matrix product ansatz. <i>Journal of Physics A</i> , 2004, 37, 4149-4182. | 1.6 | 38 |
| 48 | New conjecture for the $SU_q(N)$ Perk-Schultz models. <i>Journal of Physics A</i> , 2004, 37, 11725-11727. | 1.6 | 0 |
| 49 | Phase diagram of a coupled tetrahedral Heisenberg model. <i>Physical Review B</i> , 2003, 67, . | 1.1 | 17 |
| 50 | 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 |
| 51 | 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 |
| 52 | Anomalous tag diffusion in the asymmetric exclusion model with particles of arbitrary sizes. <i>Physical Review E</i> , 2002, 65, 052102. | 0.8 | 12 |
| 53 | Free-fermion branches in some quantum spin models. <i>Journal of Physics A</i> , 2002, 35, 6767-6787. | 1.6 | 3 |
| 54 | 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 |

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| 55 | 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 |
| 56 | Exact integrable spin chains and transfer matrices related to models with stochastic dynamics. Physica A: Statistical Mechanics and Its Applications, 2002, 306, 51-58. | 1.2 | 2 |
| 57 | Correspondence between the XXZ model in roots of unity and the one-dimensional quantum Ising chain with different boundary conditions. Journal of Physics A, 2001, 34, 211-226. | 1.6 | 3 |
| 58 | New exact integrable spin-1 quantum chains. Journal of Physics A, 2001, 34, L467-L471. | 1.6 | 8 |
| 59 | Valence bond ground states in quantum antiferromagnets and quadratic algebras. Journal of Physics A, 2000, 33, 7469-7487. | 1.6 | 1 |
| 60 | Exact solution of asymmetric diffusion with second-class particles of arbitrary size. Brazilian Journal of Physics, 2000, 30, 13-26. | 0.7 | 21 |
| 61 | Exact solution of asymmetric diffusion with N classes of particles of arbitrary size and hierarchical order. Brazilian Journal of Physics, 2000, 30, 655-666. | 0.7 | 25 |
| 62 | Exact solution of a vertex model with unlimited number of states per bond. Journal of Physics A, 1999, 32, L25-L31. | 1.6 | 2 |
| 63 | Critical and off-critical studies of the Baxter-Wu model with general toroidal boundary conditions. Journal of Physics A, 1999, 32, 2041-2060. | 1.6 | 23 |
| 64 | Exact solution of the asymmetric exclusion model with particles of arbitrary size. Physical Review E, 1999, 60, 79-88. | 0.8 | 45 |
| 65 | Integrable models of strongly correlated particles with correlated hopping. Physical Review B, 1999, 59, 3373-3376. | 1.1 | 9 |
| 66 | New integrable version of the degenerate supersymmetric t-J model. Physics Letters, Section A: General, Atomic and Solid State Physics, 1999, 261, 365-370. | 0.9 | 1 |
| 67 | Integrable model of interacting XX and Fateev-Zamolodchikov chains. Journal of Physics A, 1999, 32, L387-L392. | 1.6 | 1 |
| 68 | Interpolation between Hubbard and supersymmetric t-J models: two-parameter integrable models of correlated electrons. Journal of Physics A, 1999, 32, L483-L488. | 1.6 | 22 |
| 69 | Phase diagram and superconducting properties of an exactly solvable model with correlated hopping. Physics Letters, Section A: General, Atomic and Solid State Physics, 1998, 240, 247-252. | 0.9 | 6 |
| 70 | Stochastic models with boundaries and quadratic algebras. Physica A: Statistical Mechanics and Its Applications, 1998, 257, 1-9. | 1.2 | 4 |
| 71 | Critical behavior of the spin-3/2 Blume-Capel model in two dimensions. Physical Review B, 1998, 57, 11575-11581. | 1.1 | 114 |
| 72 | N-species stochastic models with boundaries and quadratic algebras. Journal of Physics A, 1998, 31, 845-878. | 1.6 | 44 |

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| 73 | New integrable generalization of the one-dimensional model. Journal of Physics A, 1998, 31, L233-L239. | 1.6 | 5 |
| 74 | Conformal invariance and the phase diagram of the anisotropic Heisenberg spin-ladder. Journal of Physics Condensed Matter, 1997, 9, 3055-3063. | 0.7 | 0 |
| 75 | Critical behaviour of mixed Heisenberg chains. Journal of Physics A, 1997, 30, 767-778. | 1.6 | 58 |
| 76 | Conformal invariance studies of the Baxter - Wu model and a related site-colouring problem. Journal of Physics A, 1997, 30, L203-L209. | 1.6 | 22 |
| 77 | Exact solution of the biquadratic spin-1 \hat{t}^{\sim} Jmodel in one dimension. Physical Review B, 1997, 56, 7796-7799. | 1.1 | 2 |
| 78 | The critical behaviour of Potts models with symmetry-breaking fields. Journal of Physics A, 1996, 29, 3329-3339. | 1.6 | 0 |
| 79 | Reply to 'critical properties of theXXZchain in an external staggered magnetic field'. Journal of Physics A, 1996, 29, 2283-2284. | 1.6 | 0 |
| 80 | Anisotropic Ferromagnetic Quantum Domains. Physical Review Letters, 1995, 75, 930-933. | 2.9 | 63 |
| 81 | 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 |
| 82 | The Phase Diagram of the Anisotropic Spin-1 Heisenberg Chain. Journal of the Physical Society of Japan, 1995, 64, 4485-4486. | 0.7 | 8 |
| 83 | 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 |
| 84 | FINITE CHAINS WITH QUANTUM AFFINE SYMMETRIES. International Journal of Modern Physics A, 1994, 09, 3473-3496. | 0.5 | 12 |
| 85 | Reaction-Diffusion Processes, Critical Dynamics, and Quantum Chains. Annals of Physics, 1994, 230, 250-302. | 1.0 | 308 |
| 86 | 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 |
| 87 | Uniform magnetic susceptibility of thet-Jmodel on the 4 \tilde{A} -4 lattice. Physical Review B, 1993, 47, 8298-8300. | 1.1 | 6 |
| 88 | Reaction-Diffusion Processes and Quantum Chains. NATO ASI Series Series B: Physics, 1993, , 187-216. | 0.2 | 1 |
| 89 | On the critical behaviour of the anisotropic biquadratic spin-1 chain. Journal of Physics A, 1992, 25, 4535-4546. | 1.6 | 8 |
| 90 | Critical behavior of anisotropic spin-SHeisenberg chains. Physical Review B, 1992, 46, 2896-2907. | 1.1 | 44 |

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|-----|---|-----|-----------|
| 91 | String correlation functions in the anisotropic spin-1 Heisenberg chain. Physical Review B, 1992, 46, 13914-13918. | 1.1 | 30 |
| 92 | 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 |
| 93 | Conformal invariance and the XXZ chain with arbitrary spin. Physica A: Statistical Mechanics and Its Applications, 1990, 163, 183-190. | 1.2 | 1 |
| 94 | The HeisenbergXXZ Hamiltonian with Dzyaloshinsky-Moriya interactions. Journal of Statistical Physics, 1990, 58, 45-56. | 0.5 | 74 |
| 95 | Conformal invariance and the critical behavior of the tripletXY quantum chain. Journal of Statistical Physics, 1990, 60, 639-657. | 0.5 | 0 |
| 96 | The spin-S XXZ quantum chain with general toroidal boundary conditions. Journal of Physics A, 1990, 23, 1439-1451. | 1.6 | 21 |
| 97 | Conformal invariance and the Heisenberg model with arbitrary spin. Physical Review Letters, 1989, 63, 708-711. | 2.9 | 20 |
| 98 | Conformal anomaly for the exactly integrable SU(N) magnets. Journal of Physics A, 1989, 22, L865-L870. | 1.6 | 15 |
| 99 | Analysis of the Bethe-ansatz equations for the anisotropic SU(2) chain. Journal of Physics A, 1989, 22, L99-L104. | 1.6 | 5 |
| 100 | The modified XXZ Heisenberg chain, conformal invariance and the surface exponents of $c < 1$ systems. Journal of Physics A, 1989, 22, L5-L11. | 1.6 | 28 |
| 101 | Conformal invariance and the operator content of the XXZ model with arbitrary spin. Journal of Physics A, 1989, 22, 1829-1858. | 1.6 | 48 |
| 102 | The XXZ Heisenberg chain, conformal invariance and the operator content of $c < 1$ systems. Nuclear Physics B, 1989, 316, 735-768. | 0.9 | 51 |
| 103 | Conformal invariance, the XXZ chain and the operator content of two-dimensional critical systems. Annals of Physics, 1988, 182, 280-343. | 1.0 | 236 |
| 104 | Critical Spin Models with Continuously Varying Exponents. Physical Review Letters, 1988, 61, 1529-1532. | 2.9 | 32 |
| 105 | Conformal invariance and critical exponents of the Takhtajan-Babujian models. Journal of Physics A, 1988, 21, 4397-4413. | 1.6 | 42 |
| 106 | Operator content of the XXZ chain. Journal of Physics A, 1988, 21, L117-L120. | 1.6 | 47 |
| 107 | Conformal anomaly and critical exponents of the spin-1 Takhtajan-Babujian model. Journal of Physics A, 1988, 21, L381-L387. | 1.6 | 33 |
| 108 | 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 |

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| 109 | 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 |
| 110 | Numerical difficulties in obtaining 3D critical exponents from Platonic solids. Journal of Physics A, 1987, 20, 5735-5736. | 1.6 | 9 |
| 111 | Conformal invariance and the critical behaviour of a quantum spin Hamiltonian with three-spin coupling. Journal of Physics A, 1987, 20, 179-188. | 1.6 | 22 |
| 112 | Conformal invariance and the spectrum of the XXZ chain. Physical Review Letters, 1987, 58, 771-774. | 2.9 | 140 |
| 113 | Surface exponents of the quantum XXZ, Ashkin-Teller and Potts models. Journal of Physics A, 1987, 20, 6397-6409. | 1.6 | 391 |
| 114 | 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 |
| 115 | Three-dimensional spin systems without long-range order. Nuclear Physics B, 1986, 265, 161-186. | 0.9 | 3 |
| 116 | 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 |
| 117 | Correlation functions of the antiferromagnetic Heisenberg model using a modified Lanczos method. Physical Review B, 1986, 34, 1677-1682. | 1.1 | 202 |
| 118 | Phase separation on regular and fractal lattices in two dimensions. Physics Letters, Section A: General, Atomic and Solid State Physics, 1986, 118, 200-202. | 0.9 | 2 |
| 119 | Order of phase transition for systems with multispin interactions: Monte Carlo simulations. Physical Review B, 1986, 34, 4885-4888. | 1.1 | 20 |
| 120 | Hamiltonian studies of the Blume-Emery-Griffiths model. Physical Review B, 1985, 32, 7469-7475. | 1.1 | 43 |
| 121 | Classification scheme for statistical theories with unusual symmetries. Nuclear Physics B, 1985, 257, 340-350. | 0.9 | 1 |
| 122 | Finite size studies of the Ashkin-Teller model. Journal of Physics A, 1984, 17, L651-L655. | 1.6 | 20 |
| 123 | Three-spin models in two dimensions: generalisations of the Baxter-Wu model. Journal of Physics A, 1983, 16, 159-173. | 1.6 | 7 |
| 124 | Unusual phase properties of the ZN -symmetric quartet FCC model. Journal of Physics A, 1983, 16, 175-193. | 1.6 | 2 |
| 125 | Absence of Long-Range Order above Two Dimensions. Physical Review Letters, 1983, 51, 435-438. | 2.9 | 3 |
| 126 | Four-Dimensional Ashkin-Teller Gauge Theory. Physical Review Letters, 1983, 51, 530-533. | 2.9 | 1 |

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| 127 | Massless phases and confinement in extended $Z(4)$ gauge theories. <i>Physical Review D</i> , 1983, 27, 938-942. | 1.6 | 5 |
| 128 | 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 |
| 129 | $Z(N)$ generalisation of the Baxter-Wu model. <i>Journal of Physics A</i> , 1982, 15, L357-L361. | 1.6 | 8 |
| 130 | General self-dual spin models in two dimensions. <i>Journal of Physics A</i> , 1982, 15, L495-L500. | 1.6 | 6 |
| 131 | Massless phases for the Z_p model on the Union Jack lattice. <i>Journal of Physics A</i> , 1982, 15, 3815-3828. | 1.6 | 3 |
| 132 | Triplet $Z(N)$ model in a triangular lattice. <i>Nuclear Physics B</i> , 1982, 210, 246-262. | 0.9 | 4 |
| 133 | Phase structure of the FCC quartet Ising model. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1982, 89, 49-51. | 0.9 | 11 |
| 134 | The phases of two-dimensional spin and four-dimensional gauge systems with $Z(N)$ symmetry. <i>Journal of Physics A</i> , 1981, 14, 1169-1192. | 1.6 | 45 |
| 135 | Hidden parafermions in $Z(N)$ theories. <i>Physical Review D</i> , 1981, 24, 1562-1568. | 1.6 | 13 |
| 136 | Duality and the phases of $Z(N)$ spin systems. <i>Journal of Physics A</i> , 1980, 13, L153-L160. | 1.6 | 65 |
| 137 | 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 |