

Edmond Orignac

List of Publications by Year in descending order

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95
papers

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citations

186209

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docs citations

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times ranked

2279
citing authors

#	ARTICLE	IF	CITATIONS
1	One dimensional bosons: From condensed matter systems to ultracold gases. <i>Reviews of Modern Physics</i> , 2011, 83, 1405-1466.	16.4	816
2	Controlling Luttinger Liquid Physics in Spin Ladders under a Magnetic Field. <i>Physical Review Letters</i> , 2008, 101, 137207.	2.9	171
3	Meissner effect in a bosonic ladder. <i>Physical Review B</i> , 2001, 64, .	1.1	139
4	Statics and dynamics of weakly coupled antiferromagnetic spin- $\frac{1}{2}$ in a magnetic field. <i>Physical Review B</i> , 2011, 83, .	1.1	107
5	Effects of disorder on two strongly correlated coupled chains. <i>Physical Review B</i> , 1997, 56, 7167-7188.	1.1	87
6	Roadmap on Atomtronics: State of the art and perspective. <i>AVS Quantum Science</i> , 2021, 3, .	1.8	87
7	Field-controlled magnetic order in the quantum spin-ladder system. <i>Physical Review B</i> , 2009, 79, .	1.1	80
8	Evidence of Luttinger-liquid behavior in one-dimensional dipolar quantum gases. <i>Physical Review A</i> , 2007, 75, .	1.0	75
9	Properties of graphene-metal contacts probed by Raman spectroscopy. <i>Carbon</i> , 2018, 127, 491-497.	5.4	70
10	Thermal transport in one-dimensional spin gap systems. <i>Physical Review B</i> , 2003, 67, .	1.1	68
11	Phase diagram and momentum distribution of an interacting Bose gas in a bichromatic lattice. <i>Physical Review A</i> , 2008, 78, .	1.0	60
12	Probing the helical edge states of a topological insulator by Cooper-pair injection. <i>Physical Review B</i> , 2010, 82, .	1.1	60
13	Competition of random and periodic potentials in interacting fermionic systems and classical equivalents: The Mott glass. <i>Physical Review B</i> , 2001, 64, .	1.1	52
14	Weakly disordered spin ladders. <i>Physical Review B</i> , 1998, 57, 5812-5829.	1.1	47
15	Diamagnetism of doped two-leg ladders and probing the nature of their commensurate phases. <i>Physical Review B</i> , 2007, 76, .	1.1	47
16	Persisting Meissner state and incommensurate phases of hard-core boson ladders in a flux. <i>Physical Review B</i> , 2015, 92, .	1.1	42
17	Magnetization and dimerization profiles of the cut two-leg spin ladder. <i>Physical Review B</i> , 2002, 65, .	1.1	39
18	Possible New Phase of Commensurate Insulators with Disorder: The Mott Glass. <i>Physical Review Letters</i> , 1999, 83, 2378-2381.	2.9	37

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19	Luttinger hydrodynamics of confined one-dimensional Bose gases with dipolar interactions. New Journal of Physics, 2008, 10, 045011.	1.2	37
20	Collective excitations of trapped one-dimensional dipolar quantum gases. Physical Review A, 2008, 77, .	1.0	37
21	Incommensurate phases of a bosonic two-leg ladder under a flux. New Journal of Physics, 2016, 18, 055017.	1.2	36
22	Diffusion of Dirac fermions across a topological merging transition in two dimensions. Physical Review B, 2016, 93, .	1.1	35
23	Vortices in coupled planes with columnar disorder and bosonic ladders. Physical Review B, 1998, 57, 11713-11729.	1.1	34
24	Heat conduction and Wiedemann-Franz law in disordered Luttinger liquids. Europhysics Letters, 2002, 60, 432-438.	0.7	34
25	Critical properties and Bose-Einstein condensation in dimer spin systems. Physical Review B, 2007, 75, .	1.1	33
26	Diffusion at the surface of topological insulators. New Journal of Physics, 2012, 14, 103027.	1.2	32
27	Mean-field theory of the spin-Peierls transition. Physical Review B, 2004, 70, .	1.1	29
28	Correlation Dynamics During a Slow Interaction Quench in a One-Dimensional Bose Gas. Physical Review Letters, 2014, 112, 065301.	2.9	29
29	Superfluidity and Anderson localisation for a weakly interacting Bose gas in a quasiperiodic potential. European Physical Journal B, 2009, 68, 435-443.	0.6	28
30	Low-energy behavior of the spin-tube and spin-orbital models. Physical Review B, 2000, 61, 11533-11551.	1.1	27
31	Adiabatic-antiadiabatic crossover in a spin-Peierls chain. Physical Review B, 2005, 72, .	1.1	27
32	Giant magnetic field dependence of the coupling between spin chains in $\text{BaCo}_2\text{V}_2\text{O}_8$. Physical Review B, 2015, 92, .	1.1	27
33	Vortex lattice melting in a boson ladder in an artificial gauge field. Physical Review B, 2017, 96, .	1.1	26
34	Probing the Bond Order Wave Phase Transitions of the Ionic Hubbard Model by Superlattice Modulation Spectroscopy. Physical Review Letters, 2017, 119, 230403.	2.9	24
35	Effects of weak disorder on two coupled Hubbard chains. Physical Review B, 1996, 53, R10453-R10456.	1.1	23
36	Ising transition in a one-dimensional quarter-filled electron system with dimerization. Journal of Physics and Chemistry of Solids, 2002, 63, 1459-1463.	1.9	22

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37	Charge density waves and bond order waves in a quarter filled extended Hubbard ladder. European Physical Journal B, 2003, 33, 419-438.	0.6	20
38	Resonant magnetic mode in superconducting two-leg ladders. Physical Review B, 2004, 69, .	1.1	20
39	Low-energy excitation spectrum of one-dimensional dipolar quantum gases. Physical Review B, 2008, 77, .	1.1	19
40	Two-dimensional Dirac fermions in the presence of long-range correlated disorder. Physical Review B, 2012, 85, .	1.1	19
41	Meissner to vortex phase transition in a two-leg ladder in artificial gauge field. European Physical Journal: Special Topics, 2015, 224, 525-531.	1.2	19
42	Quantum phase transitions of a two-leg bosonic ladder in an artificial gauge field. Physical Review B, 2018, 97, .	1.1	19
43	Bosonization and density-matrix renormalization group studies of the Fulde-Ferrell-Larkin-Ovchinnikov phase and irrational magnetization plateaus in coupled chains. Physical Review B, 2007, 75, .	1.1	18
44	Competition of superfluidity and density waves in one-dimensional Bose-Fermi mixtures. Physical Review A, 2010, 81, .	1.0	18
45	Effective theory of magnetization plateaus in a three-leg ladder with periodic boundary conditions. Journal of Physics Condensed Matter, 2000, 12, 3041-3075.	0.7	17
46	Quantitative expression of the spin gap via bosonization for a dimerized spin-1/2 chain. European Physical Journal B, 2004, 39, 335-339.	0.6	16
47	Effect of disorder on 2D topological merging transition from a Dirac semi-metal to a normal insulator. Europhysics Letters, 2013, 102, 67010.	0.7	16
48	Z3 quantum criticality in a spin-12 chain model. Physical Review B, 2004, 69, .	1.1	15
49	Superconducting instability in three-band metallic nanotubes. Physical Review B, 2006, 74, .	1.1	15
50	Bosonization and entanglement spectrum for one-dimensional polar bosons on disordered lattices. New Journal of Physics, 2013, 15, 045023.	1.2	15
51	Polar bosons in one-dimensional disordered optical lattices. Physical Review B, 2013, 87, .	1.1	14
52	Superconducting fluctuations in the Luther-Emery liquid. Physical Review B, 2003, 68, .	1.1	13
53	Spectral functions of two-band spinless fermion and single-band spin- $\frac{1}{2}$ fermion models. Physical Review B, 2011, 84, .	1.1	12
54	Dynamical response and dimensional crossover for spatially anisotropic antiferromagnets. Physical Review B, 2018, 98, .	1.1	12

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55	Breathers and Raman scattering in a two-leg ladder with staggered Dzyaloshinskii-Moriya interaction. Physical Review B, 2007, 76, .	1.1	11
56	Kondo screening by the surface modes of a strong topological insulator. Physical Review B, 2013, 88, .	1.1	11
57	Low-energy dynamics of the one-dimensional multichannel Kondo-Heisenberg lattice. Physical Review B, 2000, 62, R3596-R3599.	1.1	10
58	Effects of anisotropic spin-exchange interactions in spin ladders. Physical Review B, 2002, 65, .	1.1	10
59	Atom-Molecule Coherence in a One-Dimensional System. Physical Review Letters, 2005, 95, 130402.	2.9	10
60	Measuring Overlaps in Mesoscopic Spin Glasses via Conductance Fluctuations. Physical Review Letters, 2008, 100, 057207.	2.9	10
61	Variational Bethe ansatz approach for dipolar one-dimensional bosons. Physical Review B, 2020, 101, .	1.1	10
62	Phase transitions in the boson-fermion resonance model in one dimension. Physical Review A, 2006, 73, .	1.0	8
63	Luttinger liquid physics in the spin ladder material $\text{CuBr}_4(\text{C}_5\text{H}_{12}\text{N})_2$. Physica Status Solidi (B): Basic Research, 2010, 247, 656-658.	0.7	7
64	Lattice modulation spectroscopy of one-dimensional quantum gases: Universal scaling of the absorbed energy. Physical Review Research, 2020, 2, .	1.3	7
65	Revealing topological Dirac fermions at the surface of strained HgTe thin films via quantum Hall transport spectroscopy. Physical Review B, 2017, 96, .	1.1	6
66	Polarization angle dependence of the breathing mode in confined one-dimensional dipolar bosons. Physical Review B, 2021, 103, .	1.1	6
67	Formation and fragmentation of quantum droplets in a quasi-one-dimensional dipolar Bose gas. Physical Review B, 2022, 106, .	1.1	6
68	Competition of disorder and interchain hopping in a two-chain Hubbard model. European Physical Journal B, 2001, 23, 57-67.	0.6	5
69	Quantum dynamics of a binary mixture of BECs in a double-well potential: a Holstein-Primakoff approach. Journal of Physics B: Atomic, Molecular and Optical Physics, 2011, 44, 115306.	0.6	5
70	Direct determination of the Tomonaga-Luttinger parameter K in quasi-one-dimensional spin systems. Physical Review B, 2020, 101, .	1.1	5
71	Raman scattering cross section of spin ladders. Physical Review B, 2000, 62, 8622-8625.	1.1	4
72	Magnetism and superconductivity in underscreened Kondo chains. Physical Review B, 2000, 62, R763-R766.	1.1	4

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73	Disordered quantum smectics. Europhysics Letters, 2003, 63, 440-445.	0.7	4
74	Magnetostriction in an array of spin chains under a magnetic field. Physical Review B, 2005, 71, .	1.1	4
75	Light scattering in inhomogeneous Tomonaga-Luttinger liquids. Physical Review A, 2012, 85, .	1.0	4
76	Response functions in multicomponent Luttinger liquids. Journal of Statistical Mechanics: Theory and Experiment, 2012, 2012, P12020.	0.9	4
77	Ground-state properties of the one-dimensional Hubbard model with pairing potential. Physica B: Condensed Matter, 2021, 604, 412665.	1.3	4
78	Accessing finite-momentum excitations of the one-dimensional Bose-Hubbard model using superlattice-modulation spectroscopy. Physical Review A, 2018, 98, .	1.0	3
79	Spectral Function of a Boson Ladder in an Artificial Gauge Field. Condensed Matter, 2020, 5, 15.	0.8	3
80	Anderson localization in Hubbard ladders. Physica B: Condensed Matter, 1999, 259-261, 1058-1059.	1.3	2
81	Magnetization and dimerization profiles of open spin ladders. Physica B: Condensed Matter, 2003, 329-333, 971-972.	1.3	2
82	Coulomb disorder in periodic systems: Effect of unscreened charged impurities. Physical Review B, 2006, 73, .	1.1	2
83	Role of Interchain Hopping in Two Disordered Chains of Spinless Fermions. Journal of the Physical Society of Japan, 2000, 69, 3642-3649.	0.7	1
84	Phase diagram of a quarter filled ladder. Journal of Magnetism and Magnetic Materials, 2004, 272-276, E663-E664.	1.0	1
85	Disorder in low dimensions: localisation effects in spin glass wires and cold atoms. International Journal of Nanotechnology, 2010, 7, 420.	0.1	1
86	Disordered Quantum Solids. , 2001, , 205-255.		1
87	Effects of disorder in two-coupled chains. Synthetic Metals, 2003, 133-134, 47-48.	2.1	0
88	Disordered Quantum Solids. , 2004, , 187-233.		0
89	Quantum phase transitions in a quarter-filled Hubbard ladder. Physica C: Superconductivity and Its Applications, 2004, 408-410, 290-291.	0.6	0
90	Coulombian disorder in Charge Density Waves. European Physical Journal Special Topics, 2005, 131, 179-182.	0.2	0

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91	The boson-fermion resonance model in one dimension. Journal of Physics B: Atomic, Molecular and Optical Physics, 2006, 39, S13-S23.	0.6	0
92	Probing 1D super-strongly correlated dipolar quantum gases. Laser Physics, 2009, 19, 554-557.	0.6	0
93	Spectral functions in a two-velocities Tomonaga-Luttinger Liquid. Journal of Physics: Conference Series, 2012, 391, 012163.	0.3	0
94	Novel quantum phases and mesoscopic physics in quantum gases. European Physical Journal: Special Topics, 2013, 217, 1-2.	1.2	0
95	Disordered quantum smectics. European Physical Journal Special Topics, 2002, 12, 261-262.	0.2	0