

# Edmond Orignac

## List of Publications by Year in descending order

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papers

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citations

186209

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96  
docs citations

96  
times ranked

2279  
citing authors

#	ARTICLE	IF	CITATIONS
1	Formation and fragmentation of quantum droplets in a quasi-one-dimensional dipolar Bose gas. Physical Review B, 2022, 106, .	1.1	6
2	Ground-state properties of the one-dimensional Hubbard model with pairing potential. Physica B: Condensed Matter, 2021, 604, 412665.	1.3	4
3	Polarization angle dependence of the breathing mode in confined one-dimensional dipolar bosons. Physical Review B, 2021, 103, .	1.1	6
4	Roadmap on Atomtronics: State of the art and perspective. AVS Quantum Science, 2021, 3, .	1.8	87
5	Direct determination of the Tomonaga-Luttinger parameter K in quasi-one-dimensional spin systems. Physical Review B, 2020, 101, .	1.1	5
6	Variational Bethe ansatz approach for dipolar one-dimensional bosons. Physical Review B, 2020, 101, .	1.1	10
7	Spectral Function of a Boson Ladder in an Artificial Gauge Field. Condensed Matter, 2020, 5, 15.	0.8	3
8	Lattice modulation spectroscopy of one-dimensional quantum gases: Universal scaling of the absorbed energy. Physical Review Research, 2020, 2, .	1.3	7
9	Properties of graphene-metal contacts probed by Raman spectroscopy. Carbon, 2018, 127, 491-497.	5.4	70
10	Dynamical response and dimensional crossover for spatially anisotropic antiferromagnets. Physical Review B, 2018, 98, .	1.1	12
11	Accessing finite-momentum excitations of the one-dimensional Bose-Hubbard model using superlattice-modulation spectroscopy. Physical Review A, 2018, 98, .	1.0	3
12	Quantum phase transitions of a two-leg bosonic ladder in an artificial gauge field. Physical Review B, 2018, 97, .	1.1	19
13	Vortex lattice melting in a boson ladder in an artificial gauge field. Physical Review B, 2017, 96, .	1.1	26
14	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
15	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
16	Incommensurate phases of a bosonic two-leg ladder under a flux. New Journal of Physics, 2016, 18, 055017.	1.2	36
17	Diffusion of Dirac fermions across a topological merging transition in two dimensions. Physical Review B, 2016, 93, .	1.1	35
18	Giant magnetic field dependence of the coupling between spin chains in $\text{BaCo}_2\text{V}_8\text{O}_{28}$ . Physical Review B, 2015, 92, .	1.1	27

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19	Persisting Meissner state and incommensurate phases of hard-core boson ladders in a flux. Physical Review B, 2015, 92, .	1.1	42
20	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
21	Correlation Dynamics During a Slow Interaction Quench in a One-Dimensional Bose Gas. Physical Review Letters, 2014, 112, 065301.	2.9	29
22	Bosonization and entanglement spectrum for one-dimensional polar bosons on disordered lattices. New Journal of Physics, 2013, 15, 045023.	1.2	15
23	Novel quantum phases and mesoscopic physics in quantum gases. European Physical Journal: Special Topics, 2013, 217, 1-2.	1.2	0
24	Kondo screening by the surface modes of a strong topological insulator. Physical Review B, 2013, 88, .	1.1	11
25	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
26	Polar bosons in one-dimensional disordered optical lattices. Physical Review B, 2013, 87, .	1.1	14
27	Light scattering in inhomogeneous Tomonaga-Luttinger liquids. Physical Review A, 2012, 85, .	1.0	4
28	Diffusion at the surface of topological insulators. New Journal of Physics, 2012, 14, 103027.	1.2	32
29	Response functions in multicomponent Luttinger liquids. Journal of Statistical Mechanics: Theory and Experiment, 2012, 2012, P12020.	0.9	4
30	Spectral functions in a two-velocities Tomonaga-Luttinger Liquid. Journal of Physics: Conference Series, 2012, 391, 012163.	0.3	0
31	Two-dimensional Dirac fermions in the presence of long-range correlated disorder. Physical Review B, 2012, 85, .	1.1	19
32	Statics and dynamics of weakly coupled antiferromagnetic spin- $\frac{1}{2}$ in a magnetic field. Physical Review B, 2011, 83, .	1.1	107
33	One dimensional bosons: From condensed matter systems to ultracold gases. Reviews of Modern Physics, 2011, 83, 1405-1466.	16.4	816
34	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
35	Spectral functions of two-band spinless fermion and single-band spin- $\frac{1}{2}$ fermion models. Physical Review B, 2011, 84, .	1.1	12
36	Disorder in low dimensions: localisation effects in spin glass wires and cold atoms. International Journal of Nanotechnology, 2010, 7, 420.	0.1	1

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37	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
38	Probing the helical edge states of a topological insulator by Cooper-pair injection. Physical Review B, 2010, 82, .	1.1	60
39	Competition of superfluidity and density waves in one-dimensional Bose-Fermi mixtures. Physical Review A, 2010, 81, .	1.0	18
40	Field-controlled magnetic order in the quantum spin-ladder system $\langle \text{H} \rangle$ . Physical Review B, 2009, 79, .	1.1	80
41	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
42	Probing 1D super-strongly correlated dipolar quantum gases. Laser Physics, 2009, 19, 554-557.	0.6	0
43	Luttinger hydrodynamics of confined one-dimensional Bose gases with dipolar interactions. New Journal of Physics, 2008, 10, 045011.	1.2	37
44	Controlling Luttinger Liquid Physics in Spin Ladders under a Magnetic Field. Physical Review Letters, 2008, 101, 137207.	2.9	171
45	Phase diagram and momentum distribution of an interacting Bose gas in a bichromatic lattice. Physical Review A, 2008, 78, .	1.0	60
46	Collective excitations of trapped one-dimensional dipolar quantum gases. Physical Review A, 2008, 77, .	1.0	37
47	Low-energy excitation spectrum of one-dimensional dipolar quantum gases. Physical Review B, 2008, 77, .	1.1	19
48	Measuring Overlaps in Mesoscopic Spin Glasses via Conductance Fluctuations. Physical Review Letters, 2008, 100, 057207.	2.9	10
49	Evidence of Luttinger-liquid behavior in one-dimensional dipolar quantum gases. Physical Review A, 2007, 75, .	1.0	75
50	Diamagnetism of doped two-leg ladders and probing the nature of their commensurate phases. Physical Review B, 2007, 76, .	1.1	47
51	Breathers and Raman scattering in a two-leg ladder with staggered Dzyaloshinskii-Moriya interaction. Physical Review B, 2007, 76, .	1.1	11
52	Critical properties and Bose-Einstein condensation in dimer spin systems. Physical Review B, 2007, 75, .	1.1	33
53	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
54	The boson-fermion resonance model in one dimension. Journal of Physics B: Atomic, Molecular and Optical Physics, 2006, 39, S13-S23.	0.6	0

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55	Coulomb disorder in periodic systems: Effect of unscreened charged impurities. <i>Physical Review B</i> , 2006, 73, .	1.1	2
56	Superconducting instability in three-band metallic nanotubes. <i>Physical Review B</i> , 2006, 74, .	1.1	15
57	Phase transitions in the boson-fermion resonance model in one dimension. <i>Physical Review A</i> , 2006, 73, .	1.0	8
58	Coulombian disorder in Charge Density Waves. <i>European Physical Journal Special Topics</i> , 2005, 131, 179-182.	0.2	0
59	Magnetostriction in an array of spin chains under a magnetic field. <i>Physical Review B</i> , 2005, 71, .	1.1	4
60	Adiabatic-antiadiabatic crossover in a spin-Peierls chain. <i>Physical Review B</i> , 2005, 72, .	1.1	27
61	Atom-Molecule Coherence in a One-Dimensional System. <i>Physical Review Letters</i> , 2005, 95, 130402.	2.9	10
62	Resonant magnetic mode in superconducting two-leg ladders. <i>Physical Review B</i> , 2004, 69, .	1.1	20
63	Z3 quantum criticality in a spin-1/2 chain model. <i>Physical Review B</i> , 2004, 69, .	1.1	15
64	Mean-field theory of the spin-Peierls transition. <i>Physical Review B</i> , 2004, 70, .	1.1	29
65	Disordered Quantum Solids. , 2004, , 187-233.		0
66	Quantitative expression of the spin gap via bosonization for a dimerized spin-1/2 chain. <i>European Physical Journal B</i> , 2004, 39, 335-339.	0.6	16
67	Phase diagram of a quarter filled ladder. <i>Journal of Magnetism and Magnetic Materials</i> , 2004, 272-276, E663-E664.	1.0	1
68	Quantum phase transitions in a quarter-filled Hubbard ladder. <i>Physica C: Superconductivity and Its Applications</i> , 2004, 408-410, 290-291.	0.6	0
69	Charge density waves and bond order waves in a quarter filled extended Hubbard ladder. <i>European Physical Journal B</i> , 2003, 33, 419-438.	0.6	20
70	Magnetization and dimerization profiles of open spin ladders. <i>Physica B: Condensed Matter</i> , 2003, 329-333, 971-972.	1.3	2
71	Effects of disorder in two-coupled chains. <i>Synthetic Metals</i> , 2003, 133-134, 47-48.	2.1	0
72	Superconducting fluctuations in the Luther-Emery liquid. <i>Physical Review B</i> , 2003, 68, .	1.1	13

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73	Thermal transport in one-dimensional spin gap systems. <i>Physical Review B</i> , 2003, 67, .	1.1	68
74	Disordered quantum smectics. <i>Europhysics Letters</i> , 2003, 63, 440-445.	0.7	4
75	Magnetization and dimerization profiles of the cut two-leg spin ladder. <i>Physical Review B</i> , 2002, 65, .	1.1	39
76	Effects of anisotropic spin-exchange interactions in spin ladders. <i>Physical Review B</i> , 2002, 65, .	1.1	10
77	Heat conduction and Wiedemann-Franz law in disordered Luttinger liquids. <i>Europhysics Letters</i> , 2002, 60, 432-438.	0.7	34
78	Ising transition in a one-dimensional quarter-filled electron system with dimerization. <i>Journal of Physics and Chemistry of Solids</i> , 2002, 63, 1459-1463.	1.9	22
79	Disordered quantum smectics. <i>European Physical Journal Special Topics</i> , 2002, 12, 261-262.	0.2	0
80	Meissner effect in a bosonic ladder. <i>Physical Review B</i> , 2001, 64, .	1.1	139
81	Competition of disorder and interchain hopping in a two-chain Hubbard model. <i>European Physical Journal B</i> , 2001, 23, 57-67.	0.6	5
82	Competition of random and periodic potentials in interacting fermionic systems and classical equivalents:â€fThe Mott glass. <i>Physical Review B</i> , 2001, 64, .	1.1	52
83	Disordered Quantum Solids. , 2001, , 205-255.		1
84	Role of Interchain Hopping in Two Disordered Chains of Spinless Fermions. <i>Journal of the Physical Society of Japan</i> , 2000, 69, 3642-3649.	0.7	1
85	Effective theory of magnetization plateaus in a three-leg ladder with periodic boundary conditions. <i>Journal of Physics Condensed Matter</i> , 2000, 12, 3041-3075.	0.7	17
86	Raman scattering cross section of spin ladders. <i>Physical Review B</i> , 2000, 62, 8622-8625.	1.1	4
87	Magnetism and superconductivity in underscreened Kondo chains. <i>Physical Review B</i> , 2000, 62, R763-R766.	1.1	4
88	Low-energy dynamics of the one-dimensional multichannel Kondo-Heisenberg lattice. <i>Physical Review B</i> , 2000, 62, R3596-R3599.	1.1	10
89	Low-energy behavior of the spin-tube and spin-orbital models. <i>Physical Review B</i> , 2000, 61, 11533-11551.	1.1	27
90	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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91	Anderson localization in Hubbard ladders. <i>Physica B: Condensed Matter</i> , 1999, 259-261, 1058-1059.	1.3	2
92	Weakly disordered spin ladders. <i>Physical Review B</i> , 1998, 57, 5812-5829.	1.1	47
93	Vortices in coupled planes with columnar disorder and bosonic ladders. <i>Physical Review B</i> , 1998, 57, 11713-11729.	1.1	34
94	Effects of disorder on two strongly correlated coupled chains. <i>Physical Review B</i> , 1997, 56, 7167-7188.	1.1	87
95	Effects of weak disorder on two coupled Hubbard chains. <i>Physical Review B</i> , 1996, 53, R10453-R10456.	1.1	23