

# Jean-SÃ©bastien Caux

## List of Publications by Year in descending order

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57  
papers

4,075  
citations

136950

32  
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144013

57  
g-index

57  
all docs

57  
docs citations

57  
times ranked

1914  
citing authors

#	ARTICLE	IF	CITATIONS
1	Generalized hydrodynamics of the attractive non-linear Schrödinger equation. Journal of Physics A: Mathematical and Theoretical, 2022, 55, 134001.	2.1	10
2	Nonequilibrium phase transition in transport through a driven quantum point contact. Physical Review B, 2021, 103, .	3.2	15
3	Adiabatic formation of bound states in the one-dimensional Bose gas. Physical Review B, 2021, 103, .	3.2	12
4	Fredholm determinants, full counting statistics and Loschmidt echo for domain wall profiles in one-dimensional free fermionic chains. SciPost Physics, 2020, 8, .	4.9	31
5	Out-of-equilibrium phase transitions induced by Floquet resonances in a periodically quenched XY spin chain. SciPost Physics Core, 2020, 3, .	2.8	10
6	Generalized Hydrodynamics with Space-Time Inhomogeneous Interactions. Physical Review Letters, 2019, 123, 130602.	7.8	72
7	Integrability and duality in spin chains. Physical Review B, 2019, 99, .	3.2	5
8	Hydrodynamics of the interacting Bose gas in the Quantum Newton Cradle setup. SciPost Physics, 2019, 6, .	4.9	70
9	Soliton Gases and Generalized Hydrodynamics. Physical Review Letters, 2018, 120, 045301.	7.8	143
10	Spin Polarization through Floquet Resonances in a Driven Central Spin Model. Physical Review Letters, 2018, 121, 080401.	7.8	23
11	Celebrating Haldane's "Luttinger liquid theory". Journal of Physics Condensed Matter, 2017, 29, 151001.1.8		1
12	Variational method for integrability-breaking Richardson-Gaudin models. Physical Review B, 2017, 96, .	3.2	10
13	General finite-size effects for zero-entropy states in one-dimensional quantum integrable models. Journal of Physics A: Mathematical and Theoretical, 2016, 49, 495203.	2.1	12
14	Atomic spin-chain realization of a model for quantum criticality. Nature Physics, 2016, 12, 656-660.	16.7	104
15	Driven impurity in an ultracold one-dimensional Bose gas with intermediate interaction strength. Physical Review A, 2016, 93, .	2.5	9
16	Gold-induced nanowires on the Ge(100) surface yield a 2D and not a 1D electronic structure. Physical Review B, 2016, 93, .	3.2	13
17	Motion of a Distinguishable Impurity in the Bose Gas: Arrested Expansion Without a Lattice and Impurity Snaking. Physical Review Letters, 2016, 116, 145302.	7.8	26
18	Separation of Time Scales in a Quantum Newton's Cradle. Physical Review Letters, 2016, 116, 225302.	7.8	34

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19	The Quench Action. Journal of Statistical Mechanics: Theory and Experiment, 2016, 2016, 064006.	2.3	147
20	Orbital-exchange and fractional quantum number excitations in an f-electron metal, Yb <sub>2</sub> Pt <sub>2</sub> Pb. Science, 2016, 352, 1206-1210.	12.6	68
21	Correlations of zero-entropy critical states in the XXZ model: integrability and Luttinger theory far from the ground state. SciPost Physics, 2016, 1, .	4.9	12
22	Probing the Excitations of a Lieb-Liniger Gas from Weak to Strong Coupling. Physical Review Letters, 2015, 115, 085301.	7.8	95
23	Complete Generalized Gibbs Ensembles in an Interacting Theory. Physical Review Letters, 2015, 115, 157201.	7.8	307
24	Glimmers of a Quantum KAM Theorem: Insights from Quantum Quenches in One-Dimensional Bose Gases. Physical Review X, 2015, 5, .	8.9	79
25	Quasi-soliton scattering in quantum spin chains. Physical Review B, 2015, 92, .	3.2	23
26	Dynamical structure factor of one-dimensional Bose gases: Experimental signatures of beyond-Luttinger-liquid physics. Physical Review A, 2015, 91, .	2.5	83
27	Finite-temperature correlations in the Lieb-Liniger one-dimensional Bose gas. Physical Review A, 2014, 89, .	2.5	67
28	Analytical expression for a post-quench time evolution of the one-body density matrix of one-dimensional hard-core bosons. Journal of Statistical Mechanics: Theory and Experiment, 2014, 2014, P12012.	2.3	58
29	Quenching the Anisotropic Heisenberg Chain: Exact Solution and Generalized Gibbs Ensemble Predictions. Physical Review Letters, 2014, 113, 117202.	7.8	262
30	Split Fermi seas in one-dimensional Bose fluids. Physical Review A, 2014, 89, .	2.5	21
31	Solution for an interaction quench in the Lieb-Liniger Bose gas. Physical Review A, 2014, 89, .	2.5	198
32	Competing interactions in semiconductor quantum dots. Physical Review B, 2014, 90, .	3.2	12
33	Metastable Criticality and the Super Tonks-Girardeau Gas. Physical Review Letters, 2013, 110, 125302.	7.8	27
34	Fractional spinon excitations in the quantum Heisenberg antiferromagnetic chain. Nature Physics, 2013, 9, 435-441.	16.7	224
35	Time Evolution of Local Observables After Quenching to an Integrable Model. Physical Review Letters, 2013, 110, 257203.	7.8	369
36	Interaction quenches in the one-dimensional Bose gas. Physical Review B, 2013, 88, .	3.2	105

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37	Exact prefactors in static and dynamic correlation functions of one-dimensional quantum integrable models: Applications to the Calogero-Sutherland, Lieb-Liniger, and $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" \rangle \langle \text{mml:mrow} \langle \text{mml:mi} \rangle X \langle \text{mml:mi} \rangle X \langle \text{mml:mi} \rangle Z \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle$ models. <i>Physical Review B</i> , 2012, 85, .	3.2	53
38	Constructing the Generalized Gibbs Ensemble after a Quantum Quench. <i>Physical Review Letters</i> , 2012, 109, 175301.	7.8	186
39	Generalized TBA and generalized Gibbs. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2012, 45, 255001.	2.1	82
40	Theory of superfluidity and drag force in the one-dimensional Bose gas. <i>Frontiers of Physics</i> , 2012, 7, 54-71.	5.0	38
41	Dynamics of azurite $\text{Cu} \langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" \rangle \langle \text{mml:mrow} \langle \text{mml:mn} \rangle 3 \langle \text{mml:mn} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle$ (CO $\langle \text{mml:math} \rangle$ Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 587 Td (xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" \rangle \langle \text{mml:mrow} \langle \text{mml:mn} \rangle 3 \langle \text{mml:mn} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle)	3.2	18
42	Nonuniversal prefactors in the correlation functions of one-dimensional quantum liquids. <i>Physical Review B</i> , 2011, 84, .	3.2	53
43	Equilibrium thermodynamic properties of interacting two-component bosons in one dimension. <i>Physical Review A</i> , 2011, 84, .	2.5	16
44	Tracking the Effects of Interactions on Spinons in Gapless Heisenberg Chains. <i>Physical Review Letters</i> , 2011, 106, 217203.	7.8	17
45	Dynamical correlation functions of the mesoscopic pairing model. <i>Physical Review B</i> , 2010, 81, .	3.2	16
46	Polarization suppression and nonmonotonic local two-body correlations in the two-component Bose gas in one dimension. <i>Physical Review A</i> , 2009, 80, .	2.5	18
47	Bethe ansatz approach to quench dynamics in the Richardson model. <i>Journal of Mathematical Physics</i> , 2009, 50, .	1.1	50
48	Decay of superfluid currents in the interacting one-dimensional Bose gas. <i>Physical Review A</i> , 2009, 80, .	2.5	16
49	Correlation functions of integrable models: A description of the $\langle \text{scp} \rangle$ ABACUS $\langle \text{scp} \rangle$ algorithm. <i>Journal of Mathematical Physics</i> , 2009, 50, .	1.1	73
50	Effect of covalent bonding on magnetism and the missing neutron intensity in copper oxide compounds. <i>Nature Physics</i> , 2009, 5, 867-872.	16.7	112
51	Exact mesoscopic correlation functions of the Richardson pairing model. <i>Physical Review B</i> , 2008, 77, .	3.2	43
52	Dynamics of the attractive 1D Bose gas: analytical treatment from integrability. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2007, 2007, P08032-P08032.	2.3	51
53	Correlation Functions of the One-Dimensional Attractive Bose Gas. <i>Physical Review Letters</i> , 2007, 98, 150403.	7.8	88
54	Dynamical Spin Structure Factor for the Anisotropic Spin-1/2 Heisenberg Chain. <i>Physical Review Letters</i> , 2006, 96, 257202.	7.8	138

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55	Computation of dynamical correlation functions of Heisenberg chains: the gapless anisotropic regime. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2005, 2005, P09003-P09003.	2.3	80
56	Transport between edge states in multilayer integer quantum Hall systems: Exact treatment of Coulomb interactions and disorder. <i>Physical Review B</i> , 2005, 72, .	3.2	5
57	Computation of Dynamical Correlation Functions of Heisenberg Chains in a Magnetic Field. <i>Physical Review Letters</i> , 2005, 95, 077201.	7.8	165