

# Juha Javanainen

## List of Publications by Year in descending order

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62  
papers

3,195  
citations

147801

31  
h-index

144013

57  
g-index

62  
all docs

62  
docs citations

62  
times ranked

1196  
citing authors

#	ARTICLE	IF	CITATIONS
1	Quantum Phase of a Bose-Einstein Condensate with an Arbitrary Number of Atoms. Physical Review Letters, 1996, 76, 161-164.	7.8	428
2	Oscillatory exchange of atoms between traps containing Bose condensates. Physical Review Letters, 1986, 57, 3164-3166.	7.8	209
3	Phase and Phase Diffusion of a Split Bose-Einstein Condensate. Physical Review Letters, 1997, 78, 4675-4678.	7.8	177
4	Coherent photoassociation of a Bose-Einstein condensate. Physical Review A, 1999, 59, R3186-R3189.	2.5	153
5	Splitting a trap containing a Bose-Einstein condensate: Atom number fluctuations. Physical Review A, 1999, 60, 2351-2359.	2.5	151
6	Bose-Stimulated Raman Adiabatic Passage in Photoassociation. Physical Review Letters, 2000, 84, 3803-3806.	7.8	149
7	Quantum field theory of cooperative atom response: Low light intensity. Physical Review A, 1997, 55, 513-526.	2.5	116
8	Optical signatures of a tightly confined Bose condensate. Physical Review Letters, 1994, 72, 2375-2378.	7.8	115
9	Particle Number Fractionalization of an Atomic Fermi-Dirac Gas in an Optical Lattice. Physical Review Letters, 2002, 88, 180401.	7.8	112
10	Off-resonance light scattering from low-temperature Bose and Fermi gases. Physical Review A, 1995, 52, 3033-3046.	2.5	109
11	Shifts of a Resonance Line in a Dense Atomic Sample. Physical Review Letters, 2014, 112, 113603.	7.8	106
12	Phonon approach to an array of traps containing Bose-Einstein condensates. Physical Review A, 1999, 60, 4902-4909.	2.5	82
13	One-dimensional modeling of light propagation in dense and degenerate samples. Physical Review A, 1999, 59, 649-666.	2.5	77
14	Theory of coherent photoassociation of a Bose-Einstein condensate. Physical Review A, 2000, 62, .	2.5	75
15	Spectrum of Light Scattered from a Degenerate Bose Gas. Physical Review Letters, 1995, 75, 1927-1930.	7.8	65
16	Mean-Field Theory of Feshbach-Resonant Interactions in $^{85}\text{Rb}$ Condensates. Physical Review Letters, 2002, 89, 180403.	7.8	65
17	Probability of photoassociation from a quasicontinuum approach. Physical Review A, 1998, 58, R789-R792.	2.5	62
18	Light propagation beyond the mean-field theory of standard optics. Optics Express, 2016, 24, 993.	3.4	59

#	ARTICLE	IF	CITATIONS
19	Temperature of a laser-cooled trapped three-level ion. Journal of the Optical Society of America B: Optical Physics, 1986, 3, 1008.	2.1	58
20	Quasicontinuum modeling of photoassociation. Physical Review A, 1999, 60, 3174-3187.	2.5	49
21	Rate Limit for Photoassociation of a Bose-Einstein Condensate. Physical Review Letters, 2002, 88, 090403.	7.8	49
22	Optical Detection of Fractional Particle Number in an Atomic Fermi-Dirac Gas. Physical Review Letters, 2003, 91, 150404.	7.8	49
23	Optical Linewidth of a Low Density Fermi-Dirac Gas. Physical Review Letters, 1999, 82, 4741-4744.	7.8	46
24	Optical detection of the relative phase between two Bose-Einstein condensates. Physical Review A, 1996, 54, R4629-R4632.	2.5	44
25	Lorentz-Lorenz shift in a Bose-Einstein condensate. Physical Review A, 1997, 56, 2056-2059.	2.5	44
26	Emergence of correlated optics in one-dimensional waveguides for classical and quantum atomic gases. Physical Review Letters, 2016, 117, 143602.	7.8	43
27	Collective Molecule Formation in a Degenerate Fermi Gas via a Feshbach Resonance. Physical Review Letters, 2004, 92, 200402.	7.8	38
28	Arrays of strongly coupled atoms in a one-dimensional waveguide. Physical Review A, 2017, 96, .	2.5	35
29	Landau-Zener problem for trilinear systems. Physical Review A, 2004, 69, .	2.5	33
30	Persistent currents in a toroidal trap. Physical Review A, 1998, 58, 580-583.	2.5	32
31	Improved efficiency of stimulated Raman adiabatic passage in photoassociation of a Bose-Einstein condensate. Physical Review A, 2004, 70, .	2.5	32
32	Exact electrodynamics versus standard optics for a slab of cold dense gas. Physical Review A, 2017, 96, .	2.5	32
33	Noncondensate atoms in a trapped Bose gas. Physical Review A, 1996, 54, R3722-R3725.	2.5	27
34	Javanainen and Wilkens Reply:. Physical Review Letters, 1998, 81, 1345-1345.	7.8	24
35	Comment on "Stimulated Raman adiabatic passage from an atomic to a molecular Bose-Einstein condensate". Physical Review A, 2005, 71, .	2.5	24
36	Emergent classicality in continuous quantum measurements. New Journal of Physics, 2013, 15, 013005.	2.9	24

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37	Quantum motion of two trapped ions in one dimension. <i>Physical Review A</i> , 1995, 51, 3959-3966.	2.5	22
38	Spontaneous symmetry breaking derived from a stochastic interpretation of quantum mechanics. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1991, 161, 207-211.	2.1	21
39	Light propagation in systems involving two-dimensional atomic lattices. <i>Physical Review A</i> , 2019, 100, .	2.5	21
40	Simple Mean-Field Theory for a Zero-Temperature Fermionic Gas at a Feshbach Resonance. <i>Physical Review Letters</i> , 2005, 95, 110408.	7.8	19
41	A basic two-state model for bosonic field theories with a cubic nonlinearity. <i>Journal of Physics A</i> , 2005, 38, 3505-3516.	1.6	17
42	Nonlinear Phenomenology from Quantum Mechanics: Soliton in a Lattice. <i>Physical Review Letters</i> , 2008, 101, 170405.	7.8	17
43	Reply to "Comment on "Quasicontinuum modeling of photoassociation"™" <i>Physical Review A</i> , 2002, 65, 2.5		12
44	Interference of two Bose-Einstein condensates. <i>Journal of Modern Optics</i> , 1997, 44, 1763-1774.	1.3	11
45	Nonlinearity from quantum mechanics: Dynamically unstable Bose-Einstein condensate in a double-well trap. <i>Physical Review A</i> , 2010, 81, .	2.5	8
46	Measurement theory for spinor condensates. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2000, 33, 5493-5501.	1.5	7
47	Raman photoassociation of Bose-Fermi mixtures and the subsequent prospects for atom-molecule Cooper pairing. <i>Physical Review A</i> , 2004, 69, .	2.5	7
48	Quantum dynamics of instability-induced pulsations of a Bose-Einstein condensate in an optical lattice. <i>Physical Review A</i> , 2009, 79, .	2.5	6
49	Cooperation includes all atoms. <i>Nature</i> , 2001, 412, 689-690.	27.8	5
50	Ground state of the double-well condensate for quantum metrology. <i>Physical Review A</i> , 2014, 89, .	2.5	5
51	Role of Bose enhancement in photoassociation. <i>Journal of Modern Optics</i> , 2000, 47, 2645-2652.	1.3	4
52	Density-optimized efficiency for magneto-optical production of a stable molecular Bose-Einstein condensate. <i>New Journal of Physics</i> , 2003, 5, 110-110.	2.9	4
53	PHYSICS: Bose-Einstein Condensates Interfere and Survive. <i>Science</i> , 2005, 307, 1883-1885.	12.6	4
54	Atom-molecule conversion at a Feshbach resonance in the nondegenerate limit. <i>Physical Review A</i> , 2006, 73, .	2.5	3

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55	Bayesian inference to characterize Josephson oscillations in a double-well trap. Physical Review A, 2015, 92, .	2.5	3
56	Low-temperature physics with laser cooling. , 1987, , 211-221.		3
57	Stability of an atom-molecule Bose-Einstein condensate against collapse. Physical Review A, 2002, 65, .	2.5	1
58	Gauge-Invariant Relativistic Wigner Functions in External Electromagnetic Fields. European Physical Journal A, 2004, 20, 15-23.	0.2	1
59	Mean-field stationary state of a Bose gas at a Feshbach resonance. Physical Review A, 2008, 77, .	2.5	1
60	C. Cold Molecules. , 2005, , 445-474.		0
61	B. Bose-Einstein Condensation and Fermi Degeneracy. , 2005, , 407-443.		0
62	Quantum Degenerate Gases. , 2006, , 1107-1124.		0