Robert Jâ€c Spreeuw

List of Publications by Year
in descending order

49 papers	10,425 citations	279798 23 h-index	206112 48 g-index
49 all docs	49 docs citations	49 times ranked	6563 citing authors

#	Article	IF	Citations
1	Orbital angular momentum of light and the transformation of Laguerre-Gaussian laser modes. Physical Review A, 1992, 45, 8185-8189.	2.5	7,800
2	Observation of quantized motion of Rb atoms in an optical field. Physical Review Letters, 1992, 69, 49-52.	7.8	294
3	A Classical Analogy of Entanglement. Foundations of Physics, 1998, 28, 361-374.	1.3	269
4	Adiabatic Cooling of Cesium to 700 nK in an Optical Lattice. Physical Review Letters, 1995, 74, 1542-1545.	7.8	224
5	Two-dimensional magneto-optical trap as a source of slow atoms. Physical Review A, 1998, 58, 3891-3895.	2.5	212
6	Photonic band gaps in optical lattices. Physical Review A, 1995, 52, 1394-1410.	2.5	168
7	Momentum transfer in laser-cooled cesium by adiabatic passage in a light field. Physical Review Letters, 1994, 72, 997-1000.	7.8	152
8	Implementation of Quantum Search Algorithm using Classical Fourier Optics. Physical Review Letters, 2002, 88, 137901.	7.8	144
9	Classical wave-optics analogy of quantum-information processing. Physical Review A, 2001, 63, .	2.5	134
10	Laser-like Scheme for Atomic-Matter Waves. Europhysics Letters, 1995, 32, 469-474.	2.0	124
11	Classical realization of a strongly driven two-level system. Physical Review Letters, 1990, 65, 2642-2645.	7.8	84
12	Mode coupling in a He-Ne ring laser with backscattering. Physical Review A, 1990, 42, 4315-4324.	2.5	81
13	Detection of small atom numbers through image processing. Physical Review A, 2010, 82, .	2.5	72
14	Demonstration of neutral atom trapping with microwaves. Physical Review Letters, 1994, 72, 3162-3165.	7.8	65
15	Observation of surface light-induced drift. Physical Review Letters, 1987, 59, 447-449.	7.8	58
16	Atoms in the Lowest Motional Band of a Three-Dimensional Optical Lattice. Physical Review Letters, 1997, 78, 1038-1041.	7.8	56
17	Photon Band Structure in a Sagnac Fiber-Optic Ring Resonator. Physical Review Letters, 1988, 61, 318-321.	7.8	43
18	Dynamics of a ring-laser gyroscope with backscattering. Physical Review A, 1992, 46, 525-536.	2.5	35

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19	Microtrap arrays on magnetic film atom chips for quantum information science. Quantum Information Processing, 2011, 10, 955-974.	2.2	35
20	Multiphoton resonances and Bloch-Siegert shifts observed in a classical two-level system. Physical Review A, 1992, 45, 1810-1815.	2.5	33
21	Sub-Poissonian Atom-Number Fluctuations by Three-Body Loss in Mesoscopic Ensembles. Physical Review Letters, 2010, 104, 120402.	7.8	30
22	Measurement of87Rb Rydberg-state hyperfine splitting in a room-temperature vapor cell. Physical Review A, 2013, 87, .	2.5	28
23	Optimized magnetic lattices for ultracold atomic ensembles. New Journal of Physics, 2010, 12, 103029.	2.9	24
24	Characterization of a high-power tapered semiconductor amplifier system. Applied Physics B: Lasers and Optics, 2001, 72, 279-284.	2.2	21
25	Quantum Zeno effect and V-scheme lasing without inversion. Physical Review A, 1997, 55, 3918-3922.	2.5	20
26	Solving correlation clustering with QAOA and a Rydberg qudit system: a full-stack approach. Quantum - the Open Journal for Quantum Science, 0, 6, 687.	0.0	20
27	Optical ring cavities as tailored four-level systems: An application of the group U(2,2). Physical Review A, 1992, 45, 1213-1229.	2.5	19
28	Synchronously pumped laser without inversion in cadmium. Physical Review A, 1998, 57, 4869-4876.	2.5	18
29	Entanglement generation between spinor Bose-Einstein condensates using Rydberg excitations. Physical Review A, 2016, 93, .	2.5	18
30	Coherent transfer of photon momentum by adiabatic following in a dark state. Journal of the European Optical Society Part B: Quantum Optics, 1994, 6, 387-389.	1.2	15
31	Fabrication of magnetic atom chips based on FePt. Journal of Magnetism and Magnetic Materials, 2007, 313, 192-197.	2.3	15
32	Guiding of cold atoms by a red-detuned laser beam of moderate power. New Journal of Physics, 2002, 4, 69-69.	2.9	13
33	Observation of modified radiative properties of cold atoms in vacuum near a dielectric surface. Journal of Optics B: Quantum and Semiclassical Optics, 2004, 6, 454-459.	1.4	13
34	Band gap reflections in the photon band structure. Optics Communications, 1990, 75, 141-144.	2.1	11
35	Neoclassical radiation theory as an integral part of the Monte Carlo wave-function method. Physical Review A, 1994, 49, 4170-4175.	2.5	10
36	Collective suppression of optical hyperfine pumping in dense clouds of atoms in microtraps. Physical Review A, 2019, 100, .	2.5	10

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37	Electromagnetically induced transparency with Rydberg atoms across the Breit-Rabi regime. SciPost Physics, 2017, 2, .	4.9	10
38	The driven optical ring resonator as a model system for quantum optics. Physica B: Condensed Matter, 1991, 175, 96-110.	2.7	8
39	Robust quantum searching with spontaneously decaying qubits. Physical Review A, 2007, 76, .	2.5	8
40	Achromatic lenses for atoms using velocity-dependent light-induced potentials. Optics Communications, 1996, 125, 77-81.	2.1	6
41	Off-Axis Dipole Forces in Optical Tweezers by an Optical Analog of the Magnus Effect. Physical Review Letters, 2020, 125, 233201.	7.8	5
42	Spiraling light: from donut modes to a Magnus effect analogy. Nanophotonics, 2022, 11, 633-644.	6.0	5
43	Narrow-line imaging of single strontium atoms in shallow optical tweezers. Physical Review Research, 2022, 4, .	3.6	5
44	Limitations to the realization of the Jaynes-Cummings model with electric-dipole coupling. Physical Review A, 1991, 44, 4765-4766.	2.5	2
45	Towards a laser-like source of atoms. Progress in Crystal Growth and Characterization of Materials, 1996, 33, 385-393.	4.0	2
46	QED-modified radiative properties and dynamics of cold atoms moving through an evanescent wave. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2005, 99, 459-465.	0.6	2
47	Sensitive absorption imaging of single atoms in front of a mirror. Optics Express, 2013, 21, 10188.	3.4	2
48	Coherence-driven gain and its possible measurement in pumpâ€“probe experiments. Optics Communications, 2000, 179, 505-516.	2.1	1
49	Power-efficient frequency switching of a locked laser. Applied Physics B: Lasers and Optics, 2004, 78, 19-23.	2.2	1