VerÃ²nica Ahufinger

List of Publications by Year
in descending order

67 papers	3,578 citations	361413 20 h-index	168389 53 g-index
68 all docs	68 docs citations	68 times ranked	2804 citing authors

#	Article	IF	Citations
1	Spatially strongly confined atomic excitation viatwo dimensional stimulated Raman adiabaticpassage. Optics Express, 2022, 30, 13915-13930.	3.4	7
2	High-efficiency topological pumping with discrete supersymmetry transformations. Optics Express, 2022, 30, 23531.	3.4	5
3	Supersymmetry-enhanced stark-chirped rapid-adiabatic-passage in multimode optical waveguides. Optics Express, 2021, 29, 39200.	3.4	7
4	Artificial gauge field switching using orbital angular momentum modes in optical waveguides. Light: Science and Applications, 2020, 9, 150.	16.6	30
5	Orbital angular momentum dynamics of Bose-Einstein condensates trapped in two stacked rings. Physical Review A, 2020, 102, .	2.5	9
6	Topological state engineering via supersymmetric transformations. Communications Physics, 2020, 3, .	5.3	21
7	Effective triangular ladders with staggered flux from spin-orbit coupling in 1D optical lattices. European Physical Journal D, 2020, 74, 1.	1.3	5
8	Interaction-induced topological properties of two bosons in flat-band systems. Physical Review Research, 2020, 2, .	3.6	26
9	Quantum magnetism with ultracold bosons carrying orbital angular momentum. Physical Review A, 2019, 100, .	2.5	6
10	Second-order topological corner states with ultracold atoms carrying orbital angular momentum in optical lattices. Physical Review B, 2019, 100, .	3.2	31
11	Topological edge states with ultracold atoms carrying orbital angular momentum in a diamond chain. Physical Review A, 2019, 99, .	2.5	36
12	Topological edge states and Aharanov-Bohm caging with ultracold atoms carrying orbital angular momentum. Physical Review A, 2019, 99, .	2.5	25
13	Coherent spin mixing via spin-orbit coupling in Bose gases. Physical Review A, 2019, 100, .	2.5	3
14	Atomic-frequency-comb quantum memory via piecewise adiabatic passage. Physical Review A, 2018, 98, .	2.5	4
15	Quantum sensing using imbalanced counter-rotating Boseâ€“Einstein condensate modes. New Journal of Physics, 2018, 20, 103001.	2.9	18
16	Damping of Josephson Oscillations in Strongly Correlated One-Dimensional Atomic Gases. Physical Review Letters, 2018, 121, 090404.	7.8	30
17	Integrated photonic devices based on adiabatic transitions between supersymmetric structures. Optics Express, 2018, 26, 33797.	3.4	12
18	Single-atom edgelike states via quantum interference. Physical Review A, 2017, 95, .	2.5	8

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19	Engineering of orbital angular momentum supermodes in coupled optical waveguides. Scientific Reports, 2017, 7, 44057.	3.3	13
20	Quantum optics and frontiers of physics: the third quantum revolution. Physica Scripta, 2017, 92, 013003.	2.5	13
21	Mode-division (de)multiplexing using adiabatic passage and supersymmetric waveguides. Optics Express, 2017, 25, 27396.	3.4	13
22	Optimal conditions for spatial adiabatic passage of a Bose-Einstein condensate. Physical Review A, 2016, 94, .	2.5	2
23	Spatial adiabatic passage: a review of recent progress. Reports on Progress in Physics, 2016, 79, 074401.	20.1	68
24	Transport of ultracold atoms between concentric traps via spatial adiabatic passage. New Journal of Physics, 2016, 18, 015010.	2.9	14
25	Analysis beyond the Thomas-Fermi approximation of the density profiles of a miscible two-component Bose-Einstein condensate. Physical Review A, 2015, 91, .	2.5	20
26	Blue-detuned optical ring trap for Bose-Einstein condensates based on conical refraction. Optics Express, 2015, 23, 1638.	3.4	54
27	Single-atom interferometer based on two-dimensional spatial adiabatic passage. Physical Review A, 2014, 89, .	2.5	11
28	Tunneling-induced angular momentum for single cold atoms. Physical Review A, 2014, 89, .	2.5	10
29	Spatial adiabatic passage processes in sonic crystals with linear defects. Physical Review B, 2014, 89, .	3.2	13
30	Coherent injecting, extracting, and velocity filtering of neutral atoms in a ring trap via spatial adiabatic passage. European Physical Journal D, 2014, 68, 1.	1.3	8
31	Nanoscale resolution for fluorescence microscopy via adiabatic passage. Optics Express, 2013, 21, 22139.	3.4	5
32	Soliton-based matter-wave interferometer. Physical Review A, 2013, 88, .	2.5	53
33	Light spectral filtering based on spatial adiabatic passage. Light: Science and Applications, 2013, 2, e90-e90.	16.6	42
34	Adiabatic Passage of Light in CMOS-Compatible Silicon Oxide Integrated Rib Waveguides. IEEE Photonics Technology Letters, 2012, 24, 536-538.	2.5	28
35	Two-color quantum memory in double-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Λ</mml:mi></mml:math>media. Physical Review A, 2012, 86, .	2.5	13
36	Single-site addressing of ultracold atoms beyond the diffraction limit via position-dependent adiabatic passage. Physical Review A, 2012, 86, .	2.5	9

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37	Optical quantum memory for polarization qubits withV-type three-level atoms. Journal of Physics B: Atomic, Molecular and Optical Physics, 2011, 44, 195504.	1.5	6
38	Spin Effects in Bose-Glass Phases. Journal of Low Temperature Physics, 2011, 165, 227-238.	1.4	6
39	Quantum-state storage and processing for polarization qubits in an inhomogeneously broadenedÎ›-type three-level medium. Physical Review A, 2011, 84, .	2.5	5
40	Filtering of matter-wave vibrational states via spatial adiabatic passage. Physical Review A, 2011, 83, .	2.5	12
41	Disordered spinor Bose-Hubbard model. Physical Review A, 2011, 83, .	2.5	26
42	Adiabatic splitting, transport, and self-trapping of a Bose-Einstein condensate in a double-well potential. Physical Review A, 2010, 81, .	2.5	34
43	Dipole spectrum structure of nonresonant nonpertubative driven two-level atoms. Physical Review A, 2010, 81, .	2.5	11
44	Doppler-free adiabatic self-induced transparency. Physical Review A, 2009, 79, .	2.5	8
45	Coherent patterning of matter waves with subwavelength localization. Physical Review A, 2009, 79, .	2.5	50
46	Double-barrier potentials for matter-wave gap solitons. Physical Review A, 2008, 78, .	2.5	5
47	Quantum switches and quantum memories for matter-wave lattice solitons. New Journal of Physics, 2007, 9, 4-4.	2.9	16
48	Ultrashort pulse control of space-dependent excitations in a three-level system. Physical Review A, 2007, 75, .	2.5	10
49	Trapped Ion Chain as a Neural Network: Error Resistant Quantum Computation. Physical Review Letters, 2007, 98, 023003.	7.8	42
50	Ultracold atomic gases in optical lattices: mimicking condensed matter physics and beyond. Advances in Physics, 2007, 56, 243-379.	14.4	1,712
51	Trapped Ion Chain as a Neural Network: Error Resistant Quantum Computation. , 2007, , .		0
52	Quantum-information processing in disordered and complex quantum systems. Physical Review A, 2006, 74, .	2.5	9
53	Strongly correlated Fermiâ€“Bose mixtures in disordered optical lattices. Journal of Physics B: Atomic, Molecular and Optical Physics, 2006, 39, S121-S134.	1.5	8
54	Frequency up-conversion He-Ne laser without inversion. Applied Physics B: Lasers and Optics, 2005, 80, 67-72.	2.2	10

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55	Lattice Solitons in Quasicondensates. Physical Review Letters, 2005, 94, 130403.	7.8	16
56	Disordered ultracold atomic gases in optical lattices: A case study of Fermi-Bose mixtures. Physical Review A, 2005, 72, .	2.5	56
57	DISORDERED COMPLEX SYSTEMS USING COLD GASES AND TRAPPED IONS. , 2005, , .		0
58	Creation and mobility of discrete solitons in Bose-Einstein condensates. Physical Review A, 2004, 69, .	2.5	54
59	Cavity Solitons in Two-Level Lasers with Dense Amplifying Medium. Physical Review Letters, 2003, 91, 083901.	7.8	9
60	Enlargement of the inversionless lasing domain by using broad-area cavities. Journal of Optics B: Quantum and Semiclassical Optics, 2003, 5, 201-207.	1.4	4
61	Gain without inversion at two symmetrical sidebands of resonance in cold free87Rb atoms: an experimental proposal. Journal of Optics B: Quantum and Semiclassical Optics, 2003, 5, 268-271.	1.4	5
62	Electromagnetically induced transparency in a Boseâ€“Einstein condensate. Optics Communications, 2002, 211, 159-165.	2.1	20
63	Electromagnetically induced transparency with a standing-wave drive in the frequency up-conversion regime. Physical Review A, 2001, 64, .	2.5	20
64	Lasing without inversion in three-level systems without external coherent driving. Physical Review A, 2000, 61, .	2.5	16
65	Electromagnetically induced transparency in Doppler-broadened three-level systems with resonant standing-wave drive. Europhysics Letters, 2000, 51, 286-292.	2.0	20
66	Propagation effects on lasing without population inversion. Journal of Optics B: Quantum and Semiclassical Optics, 2000, 2, 359-363.	1.4	18
67	Lasing without inversion with frequency up-conversion in a Doppler-broadened V-type three-level system. Physical Review A, 1999, 60, 614-620.	2.5	20