

Jaewook Ahn

List of Publications by Year in descending order

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64
papers

873
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516710

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477307

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65
all docs

65
docs citations

65
times ranked

952
citing authors

#	ARTICLE	IF	CITATIONS
1	In situ single-atom array synthesis using dynamic holographic optical tweezers. Nature Communications, 2016, 7, 13317.	12.8	163
2	Detailed Balance of Thermalization Dynamics in Rydberg-Atom Quantum Simulators. Physical Review Letters, 2018, 120, 180502.	7.8	80
3	Highly luminescing multi-shell semiconductor nanocrystals InP/ZnSe/ZnS. Applied Physics Letters, 2012, 101, 073107.	3.3	45
4	Three-dimensional rearrangement of single atoms using actively controlled optical microtraps. Optics Express, 2016, 24, 9816.	3.4	44
5	Gerchberg-Saxton algorithm for fast and efficient atom rearrangement in optical tweezer traps. Optics Express, 2019, 27, 2184.	3.4	44
6	Subwavelength silicon through-hole arrays as an all-dielectric broadband terahertz gradient index metamaterial. Applied Physics Letters, 2014, 105, .	3.3	36
7	Rydberg Atom Entanglements in the Weak Coupling Regime. Physical Review Letters, 2020, 124, 033603.	7.8	36
8	Coherent and dissipative dynamics of entangled few-body systems of Rydberg atoms. Physical Review A, 2019, 99, .	2.5	33
9	Review of cold Rydberg atoms and their applications. Journal of the Korean Physical Society, 2013, 63, 867-876.	0.7	31
10	Defect-free atomic array formation using the Hungarian matching algorithm. Physical Review A, 2017, 95, .	2.5	30
11	THz near-field spectral encoding imaging using a rainbow metasurface. Scientific Reports, 2015, 5, 14403.	3.3	21
12	Strong spin-lattice coupling in multiferroic hexagonal manganite YMnO ₃ probed by ultrafast optical spectroscopy. Applied Physics Letters, 2010, 97, 031914.	3.3	20
13	Ultrafast Ramsey interferometry to implement cold atomic qubit gates. Scientific Reports, 2015, 4, 5867.	3.3	19
14	Rydberg quantum wires for maximum independent set problems. Nature Physics, 2022, 18, 755-759.	16.7	19
15	Quantum Ising Hamiltonian Programming in Trio, Quartet, and Sextet Qubit Systems. PRX Quantum, 2020, 1, .	9.2	17
16	Strong-field two-photon transition by phase shaping. Physical Review A, 2010, 82, .	2.5	16
17	Quantum interference control of a four-level diamond-configuration quantum system. Physical Review A, 2013, 88, .	2.5	16
18	Strong-field quantum control of 2 + 1 photon absorption of atomic sodium. Optics Express, 2011, 19, 2266.	3.4	15

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19	Optical repumping of triplet-Pstates enhances magneto-optical trapping of ytterbium atoms. Physical Review A, 2012, 85, .	2.5	15
20	Quantum simulation of Cayley-tree Ising Hamiltonians with three-dimensional Rydberg atoms. Physical Review Research, 2021, 3, .	3.6	15
21	Ultrafast laser-driven Rabi oscillations of a trapped atomic vapor. Optics Letters, 2015, 40, 510.	3.3	13
22	Finding the Maximum Independent Sets of Platonic Graphs Using Rydberg Atoms. PRX Quantum, 2022, 3, .	9.2	12
23	Ultrafast near-infrared spectroscopic study of coherent phonons in the phase-separated manganite $\text{La}_{1-x}\text{Ca}_x\text{MnO}_3$. Physical Review B, 2010, 81, .	3.2	11
24	Ultrafast Rabi flopping in a three-level energy ladder. Optics Letters, 2012, 37, 3378.	3.3	11
25	Coherent transients mimicked by two-photon coherent control of a three-level system. Physical Review A, 2011, 83, .	2.5	10
26	Robust two-level system control by a detuned and chirped laser pulse. Physical Review A, 2017, 96, .	2.5	10
27	Terahertz phase microscopy in the sub-wavelength regime. Applied Physics Letters, 2012, 100, 161110.	3.3	9
28	Quantum control in two-dimensional Fourier-transform spectroscopy. Physical Review A, 2011, 84, .	2.5	7
29	Lattice Vibrations of Natural Seraphinite Gemstone Probed by Terahertz Time-Domain Spectroscopy. IEEE Transactions on Terahertz Science and Technology, 2015, 5, 1021-1027.	3.1	7
30	Coherent control of resonant two-photon transitions by counterpropagating ultrashort pulse pairs. Physical Review A, 2015, 92, .	2.5	6
31	Quantum dynamics of a two-state system induced by a chirped zero-area pulse. Physical Review A, 2016, 93, .	2.5	6
32	Coherent control of multiphoton-ionization passage of excited-state rubidium atoms. Physical Review A, 2012, 86, .	2.5	5
33	Rabi oscillations of Morris-Shore transformed N -state systems by elliptically polarized ultrafast laser pulses. Physical Review A, 2015, 91, .	2.5	5
34	Selective excitation in a three-state system using a hybrid adiabatic-nonadiabatic interaction. Physical Review A, 2016, 94, .	2.5	5
35	Subpicosecond X rotations of atomic clock states. Physical Review A, 2018, 97, .	2.5	5
36	THE CONFLICT BETWEEN BELL'S CHSH INEQUALITY AND BELL'S MERMIN INEQUALITY. Modern Physics Letters A, 2008, 23, 2967-2977.	1.2	4

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37	Terahertz transmission resonances in complementary multilayered metamaterial with deep subwavelength interlayer spacing. Applied Physics Letters, 2016, 108, 201103.	3.3	4
38	Imaging three-dimensional single-atom arrays all at once. Optics Express, 2021, 29, 4082.	3.4	4
39	Single-laser-pulse implementation of arbitrary ZYZ rotations of an atomic qubit. Physical Review A, 2017, 96, .	2.5	3
40	Quantum Computing Systems: A Brief Overview. Journal of the Korean Physical Society, 2018, 73, 841-845.	0.7	3
41	Qubit leakage suppression by ultrafast composite pulses. Optics Express, 2019, 27, 3944.	3.4	3
42	Berry-phase gates for fast and robust control of atomic clock states. Physical Review Research, 2020, 2, .	3.6	3
43	THz near-field spectral encoding imaging using a rainbow metasurface. , 2015, , .		2
44	Direct frequency-comb spectroscopy of $6s2S1/2 \leftrightarrow 8s2S1/2$ transitions of atomic cesium. Journal of Physics B: Atomic, Molecular and Optical Physics, 2018, 51, 035001.	1.5	2
45	Ultrafast spatial coherent control methods for transition pathway resolving spectroscopy of atomic rubidium. Optics Express, 2018, 26, 1324.	3.4	2
46	Machine learning identification of symmetrized base states of Rydberg atoms. Frontiers of Physics, 2022, 17, 1.	5.0	2
47	Effect of nonuniform continuum density of states on a Fano resonance in semiconductor quantum wells. Physical Review B, 2009, 80, .	3.2	1
48	Ultrafast terahertz transmission ellipsometry of YMn2O5 electromagnons. Applied Physics Letters, 2012, 101, 242911.	3.3	1
49	Nonparaxial aberrations in the optical Talbot effect probed by quantum-dot fluorescence tomography. Physical Review A, 2015, 91, .	2.5	1
50	Rydberg Wire Gates for Universal Quantum Computation. Frontiers in Physics, 0, 10, .	2.1	1
51	Optimal Cd Molar Fraction in Zn _{1-x} Cd _x Te Terahertz Emitters. , 2007, , .		0
52	Elaboration of Linear-optical Implementations of Quantum Algorithms with Single and Double-photon Entangled States. , 2007, , .		0
53	Optimal Cd molar fraction in Zn _{1-x} Cd _x Te terahertz emitters. , 2007, , .		0
54	Optimization of photonic crystal interfaces for high efficiency coupling of terahertz waves. , 2008, , .		0

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55	Modulation-limited interference terahertz shapes via one-dimensional multilayer structures. , 2009, , .		0
56	NONLOCALITY IMPROVES DEUTSCH ALGORITHM. International Journal of Quantum Information, 2009, 07, 603-614.	1.1	0
57	Sub-wavelength terahertz microscopy using spectro-temporal phase analysis. , 2011, , .		0
58	Subwavelength silicon honeycomb structure for tailored index in terahertz broadband region. , 2012, , .		0
59	Spectro-spatial coherent control of ultrafast laser interaction with atomic vapor. , 2015, , .		0
60	Strong optical phonon mode of natural seraphinite probed by terahertz time-domain spectroscopy. , 2015, , .		0
61	EIT Cooling of Atoms in Optical Dipole Traps. , 2021, , .		0
62	Interferometric implementation of Rydberg-atom entanglements. , 2019, , .		0
63	Quantum Few-body Dynamics of Rydberg Atom Clusters. , 2019, , .		0
64	Space-variant holographic imaging for 3D Rydberg quantum simulators. , 2020, , .		0