

AtaÃ§ Ä°mamoÄlu

List of Publications by Year in descending order

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172
papers

31,521
citations

10650

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176
all docs

176
docs citations

176
times ranked

18089
citing authors

#	ARTICLE	IF	CITATIONS
19	Strongly correlated electrons and hybrid excitons in a moiré heterostructure. Nature, 2020, 580, 472-477.	13.7	250
20	Interacting Polaron-Polaritons. Physical Review X, 2020, 10, .	2.8	63
21	Nonlinear optics in the fractional quantum Hall regime. Nature, 2019, 572, 91-94.	13.7	30
22	Transport of Neutral Optical Excitations Using Electric Fields. Physical Review X, 2019, 9, .	2.8	23
23	Interaction-Induced Shubnikov-de Haas Oscillations in Optical Conductivity of Monolayer MoSe_2 . Physical Review Letters, 2019, 123, 097403.	2.9	48
24	Towards polariton blockade of confined exciton-polaritons. Nature Materials, 2019, 18, 219-222.	13.3	146
25	Second-order photon correlation measurement with picosecond resolution using frequency upconversion. Optics Letters, 2019, 44, 3877.	1.7	3
26	Polaron Polaritons in the Integer and Fractional Quantum Hall Regimes. Physical Review Letters, 2018, 120, 057401.	2.9	35
27	Realization of an Electrically Tunable Narrow-Bandwidth Atomically Thin Mirror Using Monolayer MoSe_2 . Physical Review Letters, 2018, 120, 037401.	2.9	111
28	Signatures of a dissipative phase transition in photon correlation measurements. Nature Physics, 2018, 14, 365-369.	6.5	120
29	Enhanced Interactions between Dipolar Polaritons. Physical Review Letters, 2018, 121, 227402.	2.9	51
30	Interaction-induced photon blockade using an atomically thin mirror embedded in a microcavity. Physical Review A, 2018, 98, .	1.0	12
31	Optical spin pumping induced pseudomagnetic field in two-dimensional heterostructures. Physical Review B, 2018, 98, .	1.1	10
32	Interactions and Magnetotransport through Spin-Valley Coupled Landau Levels in Monolayer MoS_2 . Physical Review Letters, 2018, 121, 247701.	2.9	80
33	Carrier-mediated optomechanical forces in semiconductor nanomembranes with coupled quantum wells. Physical Review B, 2018, 98, .	1.1	6
34	Very large tunneling magnetoresistance in layered magnetic semiconductor CrI_3 . Nature Communications, 2018, 9, 2516.	5.8	472
35	Electrically tunable artificial gauge potential for polaritons. Nature Communications, 2017, 8, 14540.	5.8	46
36	Atomically thin semiconductors as nonlinear mirrors. Physical Review A, 2017, 96, .	1.0	27

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37	High-order multipole radiation from quantum Hall states in Dirac materials. Physical Review B, 2017, 95, .	1.1	7
38	Engineering Matter Interactions Using Squeezed Vacuum. Physical Review X, 2017, 7, .	2.8	24
39	Realization of a Cascaded Quantum System: Heralded Absorption of a Single Photon Qubit by a Single-Electron Charged Quantum Dot. Physical Review Letters, 2017, 118, 177401.	2.9	36
40	Giant Paramagnetism-Induced Valley Polarization of Electrons in Charge-Tunable Monolayer MoSe_2 . Physical Review Letters, 2017, 118, 237404.	2.9	82
41	Fermi polaron-polaritons in charge-tunable atomically thin semiconductors. Nature Physics, 2017, 13, 255-261.	6.5	379
42	Deterministic entanglement between a propagating photon and a singlet-triplet qubit in an optically active quantum dot molecule. Physical Review B, 2017, 96, .	1.1	14
43	Optical probing of a two-dimensional electron system in a microcavity: Quantum Hall Polaritons. , 2017, , .		0
44	Superconductivity and other collective phenomena in a hybrid Bose-Fermi mixture formed by a polariton condensate and an electron system in two dimensions. Physical Review B, 2016, 93, .	1.1	95
45	Real-time monitoring of L^{∞} flights in a single quantum system. Physical Review B, 2016, 93, .	1.1	2
46	Measurement of spin coherence using Raman scattering. Physical Review B, 2016, 93, .	1.1	16
47	Generation of heralded entanglement between distant hole spins. Nature Physics, 2016, 12, 218-223.	6.5	226
48	Signatures of Bloch-Band Geometry on Excitons: Nonhydrogenic Spectra in Transition-Metal Dichalcogenides. Physical Review Letters, 2015, 115, 166802.	2.9	122
49	Coherent manipulation, measurement and entanglement of individual solid-state spins using optical fields. Nature Photonics, 2015, 9, 363-373.	15.6	208
50	Valley Zeeman effect in elementary optical excitations of monolayer WSe_2 . Nature Physics, 2015, 11, 141-147.	6.5	648
51	Photoactivated biological processes as quantum measurements. Physical Review E, 2015, 91, 022714.	0.8	7
52	Polariton Boxes in a Tunable Fiber Cavity. Physical Review Applied, 2015, 3, .	1.5	39
53	Optically active quantum dots in monolayer WSe_2 . Nature Nanotechnology, 2015, 10, 491-496.	15.6	648
54	Observation of Quantum Jumps of a Single Quantum Dot Spin Using Submicrosecond Single-Shot Optical Readout. Physical Review Letters, 2014, 112, 116802.	2.9	61

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55	Cavity quantum electrodynamics with many-body states of a two-dimensional electron gas. <i>Science</i> , 2014, 346, 332-335.	6.0	83
56	Nonequilibrium dynamics in an optical transition from a neutral quantum dot to a correlated many-body state. <i>Physical Review B</i> , 2013, 88, .	1.1	10
57	Cavity quantum electrodynamics with charge-controlled quantum dots coupled to a fiber Fabry-Pérot cavity. <i>New Journal of Physics</i> , 2013, 15, 045002.	1.2	58
58	Nuclear spin physics in quantum dots: An optical investigation. <i>Reviews of Modern Physics</i> , 2013, 85, 79-133.	16.4	298
59	Proposed Rabi-Kondo Correlated State in a Laser-Driven Semiconductor Quantum Dot. <i>Physical Review Letters</i> , 2013, 111, 157402.	2.9	13
60	Exciton-assisted optomechanics with suspended carbon nanotubes. <i>New Journal of Physics</i> , 2012, 14, 115003.	1.2	26
61	Dynamic Nuclear Spin Polarization in the Resonant Laser Excitation of an InGaAs Quantum Dot. <i>Physical Review Letters</i> , 2012, 108, 197403.	2.9	63
62	Majorana Modes in Driven-Dissipative Atomic Superfluids with a Zero Chern Number. <i>Physical Review Letters</i> , 2012, 109, 130402.	2.9	65
63	Dissipative phase transition in a central spin system. <i>Physical Review A</i> , 2012, 86, .	1.0	234
64	Majorana-like Modes of Light in a One-Dimensional Array of Nonlinear Cavities. <i>Physical Review Letters</i> , 2012, 109, 253606.	2.9	74
65	Ultrafast all-optical switching by single photons. <i>Nature Photonics</i> , 2012, 6, 605-609.	15.6	349
66	Observation of entanglement between a quantum dot spin and a single photon. <i>Nature</i> , 2012, 491, 426-430.	13.7	380
67	Coherent Two-Electron Spin Qubits in an Optically Active Pair of Coupled InGaAs Quantum Dots. <i>Physical Review Letters</i> , 2012, 109, 107401.	2.9	89
68	Strongly correlated photons on a chip. <i>Nature Photonics</i> , 2012, 6, 93-96.	15.6	293
69	Laser cooling and real-time measurement of the nuclear spin environment of a solid-state qubit. <i>Nature</i> , 2011, 478, 497-501.	13.7	90
70	Quantum quench of Kondo correlations in optical absorption. <i>Nature</i> , 2011, 474, 627-630.	13.7	92
71	Many-Body Dynamics of Exciton Creation in a Quantum Dot by Optical Absorption: A Quantum Quench towards Kondo Correlations. <i>Physical Review Letters</i> , 2011, 106, 107402.	2.9	58
72	Origin of strong photon antibunching in weakly nonlinear photonic molecules. <i>Physical Review A</i> , 2011, 83, .	1.0	299

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73	Resonant Spectroscopy on Charge Tunable Quantum Dots in Photonic Crystal Structures. IEEE Journal of Quantum Electronics, 2011, 47, 1371-1374.	1.0	22
74	A coupled quantum dot laser amplifier using raman transitions between spin singlet and triplet states. , 2011, , .		1
75	Strongly interacting photons in quantum dot cavity-QED. , 2011, , .		0
76	Hyperfine Interaction-Dominated Dynamics of Nuclear Spins in Self-Assembled InGaAs Quantum Dots. Physical Review Letters, 2011, 107, 167401.	2.9	46
77	Quantum Entanglement Between an Optical Photon and a Solid-State Spin Qubit. , 2011, , .		3
78	Signatures of the superfluid-insulator phase transition in laser-driven dissipative nonlinear cavity arrays. Physical Review A, 2010, 81, .	1.0	111
79	Solid-State Spin-Photon Quantum Interface without Spin-Orbit Coupling. Physical Review Letters, 2010, 104, 177403.	2.9	3
80	Nuclear Spin Cooling Using Overhauser-Field Selective Coherent Population Trapping. Physical Review Letters, 2010, 105, 267202.	2.9	45
81	Feshbach blockade: Single-photon nonlinear optics using resonantly enhanced cavity polariton scattering from biexciton states. Europhysics Letters, 2010, 90, 37001.	0.7	44
82	Measurement of a Heavy-Hole Hyperfine Interaction in InGaAs Quantum Dots Using Resonance Fluorescence. Physical Review Letters, 2010, 105, 257402.	2.9	101
83	Cavity QED Based on Collective Magnetic Dipole Coupling: Spin Ensembles as Hybrid Two-Level Systems. Physical Review Letters, 2009, 102, 083602.	2.9	259
84	Explanation of Photon Correlations in the Far-Off-Resonance Optical Emission from a Quantum-Dot-Cavity System. Physical Review Letters, 2009, 103, 207403.	2.9	182
85	The quantum-optical Josephson interferometer. Nature Physics, 2009, 5, 281-284.	6.5	171
86	Breakdown of the nuclear-spin-temperature approach in quantum-dot demagnetization experiments. Nature Physics, 2009, 5, 407-411.	6.5	69
87	Confluence of resonant laser excitation and bidirectional quantum-dot nuclear-spin polarization. Nature Physics, 2009, 5, 758-763.	6.5	160
88	Fermionized Photons in an Array of Driven Dissipative Nonlinear Cavities. Physical Review Letters, 2009, 103, 033601.	2.9	216
89	Quantum Dot Spectroscopy Using Cavity Quantum Electrodynamics. Physical Review Letters, 2008, 101, 226808.	2.9	57
90	Photon Antibunching in the Photoluminescence Spectra of a Single Carbon Nanotube. Physical Review Letters, 2008, 100, 217401.	2.9	232

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91	Observation of Dressed Excitonic States in a Single Quantum Dot. Physical Review Letters, 2008, 100, 177401.	2.9	75
92	Strong Electron-Hole Exchange in Coherently Coupled Quantum Dots. Physical Review Letters, 2008, 100, 106401.	2.9	26
93	Conditional Dynamics of Interacting Quantum Dots. Science, 2008, 320, 772-775.	6.0	137
94	All-Optical Manipulation of Electron Spins in Carbon-Nanotube Quantum Dots. Physical Review Letters, 2008, 101, 157404.	2.9	53
95	Observation of Faraday rotation from a single quantum-dot spin. , 2007, , .		0
96	Narrow bandwidth electromagnetically induced transparency in optically trapped atoms. Journal of Physics B: Atomic, Molecular and Optical Physics, 2007, 40, 1907-1915.	0.6	7
97	Dynamics of Quantum Dot Nuclear Spin Polarization Controlled by a Single Electron. Physical Review Letters, 2007, 99, 056804.	2.9	114
98	Coherent optical manipulation of triplet-singlet states in coupled quantum dots. Physical Review B, 2007, 75, .	1.1	16
99	Strong Extinction of a Far-Field Laser Beam by a Single Quantum Dot. Nano Letters, 2007, 7, 2892-2896.	4.5	98
100	Observation of Faraday rotation from a single confined spin. Nature Physics, 2007, 3, 101-106.	6.5	216
101	Quantum nature of a strongly coupled single quantum dot-cavity system. Nature, 2007, 445, 896-899.	13.7	1,553
102	Quantum-Dot Spin-State Preparation with Near-Unity Fidelity. Science, 2006, 312, 551-553.	6.0	480
103	Knight-Field-Enabled Nuclear Spin Polarization in Single Quantum Dots. Physical Review Letters, 2006, 96, 167403.	2.9	176
104	Ultra-long-distance interaction between spin qubits. Physical Review B, 2006, 74, .	1.1	126
105	Coherent population trapping in a single-hole-charged quantum dot. Physica Status Solidi (B): Basic Research, 2006, 243, 3725-3729.	0.7	10
106	Quantum measurement of a mesoscopic spin ensemble. Physical Review A, 2006, 74, .	1.0	71
107	Enhancement of Electron Spin Coherence by Optical Preparation of Nuclear Spins. Physical Review Letters, 2006, 96, 136401.	2.9	128
108	Quantum Computation Using Quantum Dot Spins and Microcavities. , 2005, , 217-227.		0

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109	Electromagnetically induced transparency: Optics in coherent media. <i>Reviews of Modern Physics</i> , 2005, 77, 633-673.	16.4	4,235
110	Voltage-Controlled Electron-Hole Interaction in a Single Quantum Dot. <i>Journal of Superconductivity and Novel Magnetism</i> , 2005, 18, 245-249.	0.5	3
111	Spin-selective optical absorption of singly charged excitons in a quantum dot. <i>Applied Physics Letters</i> , 2005, 86, 221905.	1.5	49
112	Deterministic Coupling of Single Quantum Dots to Single Nanocavity Modes. <i>Science</i> , 2005, 308, 1158-1161.	6.0	600
113	Optically Bright Quantum Dots in Single Nanowires. <i>Nano Letters</i> , 2005, 5, 1439-1443.	4.5	266
114	Optical properties of single InAs quantum dots in close proximity to surfaces. <i>Applied Physics Letters</i> , 2004, 85, 3423-3425.	1.5	87
115	Are quantum dots useful for quantum computation?. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2003, 16, 47-50.	1.3	26
116	Controlling a Mesoscopic Spin Environment by Quantum Bit Manipulation. <i>Physical Review Letters</i> , 2003, 91, 246802.	2.9	99
117	Square-lattice photonic crystal microcavities for coupling to single InAs quantum dots. <i>Applied Physics Letters</i> , 2003, 83, 3650-3652.	1.5	51
118	Cavity-quantum electrodynamics with quantum dots. <i>Journal of Optics B: Quantum and Semiclassical Optics</i> , 2003, 5, 129-137.	1.4	40
119	Fabrication of high Q square-lattice photonic crystal microcavities. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 2003, 21, 2918.	1.6	19
120	High Efficiency Photon Counting Using Stored Light. <i>Physical Review Letters</i> , 2002, 89, 163602.	2.9	89
121	Photon correlation spectroscopy of a single quantum dot. <i>Physical Review B</i> , 2002, 65, .	1.1	116
122	Nonclassical Radiation from a Single Quantum Dot. <i>Physica Status Solidi (B): Basic Research</i> , 2002, 229, 399-405.	0.7	18
123	A quantum dot single-photon source. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2002, 13, 412-417.	1.3	16
124	Stimulated Scattering of Indirect Excitons in Coupled Quantum Wells: Signature of a Degenerate Bose-Gas of Excitons. <i>Physical Review Letters</i> , 2001, 86, 5608-5611.	2.9	184
125	Nonclassical radiation from a single self-assembled InAs quantum dot. <i>Physical Review B</i> , 2001, 63, .	1.1	114
126	Epitaxially Self-Assembled Quantum Dots. <i>Physics Today</i> , 2001, 54, 46-52.	0.3	323

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127	Quantum Dot Lasers Using High-Q Microdisk Cavities. <i>Physica Status Solidi (B): Basic Research</i> , 2001, 224, 797-801.	0.7	13
128	Coulomb effects in spatially separated electron and hole layers in coupled quantum wells. <i>Journal of Experimental and Theoretical Physics</i> , 2001, 92, 260-266.	0.2	18
129	Controlling photons using electromagnetically induced transparency. <i>Nature</i> , 2001, 413, 273-276.	13.7	691
130	High-Q photonic crystal microcavities fabricated in a thin GaAs membrane. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 2001, 19, 2749.	1.6	41
131	Cavity-quantum electrodynamics using a single InAs quantum dot in a microdisk structure. <i>Applied Physics Letters</i> , 2001, 78, 3932-3934.	1.5	192
132	Photonic crystal microcavities with self-assembled InAs quantum dots as active emitters. <i>Applied Physics Letters</i> , 2001, 78, 2279-2281.	1.5	54
133	Nonlinear Photoluminescence Kinetics of Indirect Excitons in Coupled Quantum Wells. <i>Physica Status Solidi A</i> , 2000, 178, 83-87.	1.7	2
134	Electromagnetically induced transparency with two dimensional electron spins. <i>Optics Communications</i> , 2000, 179, 179-182.	1.0	22
135	Magneto optics of the spatially separated electron and hole layers in GaAs/AlGaAs coupled quantum wells. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2000, 6, 655-659.	1.3	1
136	Quantum correlation among photons from a single quantum dot at room temperature. <i>Nature</i> , 2000, 406, 968-970.	13.7	857
137	Nonlinear Optics and Quantum Entanglement of Ultraslow Single Photons. <i>Physical Review Letters</i> , 2000, 84, 1419-1422.	2.9	566
138	A Quantum Dot Single-Photon Turnstile Device. <i>Science</i> , 2000, 290, 2282-2285.	6.0	2,170
139	Laser emission from quantum dots in microdisk structures. <i>Applied Physics Letters</i> , 2000, 77, 184-186.	1.5	139
140	Large interband second-order susceptibilities in $\text{In}_x\text{Ga}_{1-x}\text{N}/\text{GaN}$ quantum wells. <i>Applied Physics Letters</i> , 1999, 75, 3611-3613.	1.5	32
141	Quantum interference of intersubband transitions in coupled quantum wells. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 1999, 5, 16-26.	1.3	5
142	Characterization of excitons in wurtzite GaN quantum wells under valence band mixing, strain, and piezoelectric field. <i>IEEE Journal of Quantum Electronics</i> , 1999, 35, 590-602.	1.0	13
143	Photoluminescence kinetics of indirect excitons in $\text{GaAs}/\text{Al}_x\text{Ga}_{1-x}$ coupled quantum wells. <i>Physical Review B</i> , 1999, 59, 1625-1628.	1.1	81
144	Quantum computation with quantum dots and terahertz cavity quantum electrodynamics. <i>Physical Review A</i> , 1999, 60, 3508-3514.	1.0	131

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145	Fano interference of collective excitations in semiconductor quantum wells and lasing without inversion. <i>Physical Review B</i> , 1999, 59, 12212-12215.	1.1	145
146	Spatially antibunched semiconductor laser beam for sub-shot-noise-limited apertured transmission. <i>IEEE Journal of Quantum Electronics</i> , 1998, 34, 2188-2195.	1.0	6
147	Phase-space filling and stimulated scattering of composite bosons. <i>Physical Review B</i> , 1998, 57, R4195-R4197.	1.1	15
148	Many-body theory of quantum interference effects in semiconductor quantum well lasers. , 1998, , .		0
149	High-speed properties of a phase-modulation scheme based on electromagnetically induced transparency. <i>Optics Letters</i> , 1998, 23, 1007.	1.7	51
150	Inversionless amplification in the three-level atoms with and without a hidden inversion in reservoir. <i>Physical Review A</i> , 1998, 58, 649-654.	1.0	24
151	Inhibition of Coherence in Trapped Bose-Einstein Condensates. <i>Physical Review Letters</i> , 1997, 78, 2511-2514.	2.9	122
152	Kinetics of condensation in trapped exciton gases. <i>Physical Review B</i> , 1997, 56, 5306-5315.	1.1	17
153	Collective Intersubband Excitations in Quantum Wells: Coulomb Interaction versus Subband Dispersion. <i>Physical Review Letters</i> , 1997, 79, 4633-4636.	2.9	147
154	Strongly Interacting Photons in a Nonlinear Cavity. <i>Physical Review Letters</i> , 1997, 79, 1467-1470.	2.9	866
155	Tunneling induced transparency: Fano interference in intersubband transitions. <i>Applied Physics Letters</i> , 1997, 70, 3455-3457.	1.5	251
156	Condensation of Excitons in a Two-Dimensional Harmonic Trap. <i>Physica Status Solidi A</i> , 1997, 164, 365-370.	1.7	5
157	Stimulated Scattering of Composite Bosons: Gain in an Exciton Boser. <i>Physica Status Solidi A</i> , 1997, 164, 371-375.	1.7	3
158	Giant Kerr nonlinearities obtained by electromagnetically induced transparency. <i>Optics Letters</i> , 1996, 21, 1936.	1.7	1,053
159	Vacuum field induced mixing of light and heavyâ€hole excitons in a semiconductor microcavity. <i>Applied Physics Letters</i> , 1996, 69, 3465-3467.	1.5	5
160	Observation of a laserlike transition in a microcavity exciton polariton system. <i>Physical Review A</i> , 1996, 54, R1789-R1792.	1.0	84
161	Quantum dynamics of exciton lasers. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1996, 214, 193-198.	0.9	127
162	Nonlinear optical devices based on a transparency in semiconductor intersubband transitions. <i>Optics Communications</i> , 1996, 131, 333-338.	1.0	109

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163	Interface roughness and alloy disorder scattering contributions to intersubband transition linewidths. Applied Physics Letters, 1996, 69, 2554-2556.	1.5	114
164	Quantum Monte Carlo wave-function approach to dissipative processes in mesoscopic semiconductors. Physics Letters, Section A: General, Atomic and Solid State Physics, 1994, 191, 425-430.	0.9	14
165	Semiconductor lasers without population inversion. Optics Letters, 1994, 19, 1744.	1.7	178
166	Observation of electromagnetically induced transparency. Physical Review Letters, 1991, 66, 2593-2596.	2.9	2,610
167	Nonlinear optical processes using electromagnetically induced transparency. Physical Review Letters, 1990, 64, 1107-1110.	2.9	1,700
168	Lasers without inversion: interference of dressed lifetime-broadened states. Optics Letters, 1989, 14, 1344.	1.7	331
169	Theory of an exciton matter laser. , 0, , .		0
170	Cavity-QED using a single InAs quantum dot and a high-Q whispering gallery mode. , 0, , .		4
171	Emission from quantum dots in a photonic crystal microcavity. , 0, , .		0
172	Cross-correlation spectroscopy in a single quantum dot. , 0, , .		0