

Alberto Amo

List of Publications by Year in descending order

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122
papers

9,567
citations

71102

41
h-index

36028

97
g-index

125
all docs

125
docs citations

125
times ranked

5431
citing authors

#	ARTICLE	IF	CITATIONS
1	Topological photonics. <i>Reviews of Modern Physics</i> , 2019, 91, .	45.6	2,190
2	Superfluidity of polaritons in semiconductor microcavities. <i>Nature Physics</i> , 2009, 5, 805-810.	16.7	795
3	Lasing in topological edge states of a one-dimensional lattice. <i>Nature Photonics</i> , 2017, 11, 651-656.	31.4	625
4	Collective fluid dynamics of a polariton condensate in a semiconductor microcavity. <i>Nature</i> , 2009, 457, 291-295.	27.8	494
5	Polariton Superfluids Reveal Quantum Hydrodynamic Solitons. <i>Science</i> , 2011, 332, 1167-1170.	12.6	379
6	Direct Observation of Dirac Cones and a Flatband in a Honeycomb Lattice for Polaritons. <i>Physical Review Letters</i> , 2014, 112, 116402.	7.8	352
7	Excitonâ€ polariton spin switches. <i>Nature Photonics</i> , 2010, 4, 361-366.	31.4	337
8	Bosonic Condensation and Disorder-Induced Localization in a Flat Band. <i>Physical Review Letters</i> , 2016, 116, 066402.	7.8	246
9	Macroscopic quantum self-trapping and Josephson oscillations of exciton polaritons. <i>Nature Physics</i> , 2013, 9, 275-279.	16.7	244
10	Active topological photonics. <i>Nanophotonics</i> , 2020, 9, 547-567.	6.0	170
11	Polariton condensation in solitonic gap states in a one-dimensional periodic potential. <i>Nature Communications</i> , 2013, 4, 1749.	12.8	155
12	All-optical control of the quantum flow of a polariton condensate. <i>Nature Photonics</i> , 2011, 5, 610-614.	31.4	143
13	Probing a Dissipative Phase Transition via Dynamical Optical Hysteresis. <i>Physical Review Letters</i> , 2017, 118, 247402.	7.8	142
14	Half-solitons in a polariton quantum fluid behave like magnetic monopoles. <i>Nature Physics</i> , 2012, 8, 724-728.	16.7	131
15	Spin-Orbit Coupling for Photons and Polaritons in Microstructures. <i>Physical Review X</i> , 2015, 5, .	8.9	131
16	Emergence of quantum correlations from interacting fibre-cavity polaritons. <i>Nature Materials</i> , 2019, 18, 213-218.	27.5	128
17	Polariton Condensation in Photonic Molecules. <i>Physical Review Letters</i> , 2012, 108, 126403.	7.8	124
18	All-optical phase modulation in a cavity-polariton Machâ€ Zehnder interferometer. <i>Nature Communications</i> , 2014, 5, 3278.	12.8	123

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19	Realization of a Double-Barrier Resonant Tunneling Diode for Cavity Polaritons. Physical Review Letters, 2013, 110, 236601.	7.8	118
20	Acoustic Black Hole in a Stationary Hydrodynamic Flow of Microcavity Polaritons. Physical Review Letters, 2015, 114, 036402.	7.8	114
21	Optically controlling the emission chirality of microlasers. Nature Photonics, 2019, 13, 283-288.	31.4	109
22	Propagation and Amplification Dynamics of 1D Polariton Condensates. Physical Review Letters, 2012, 109, 216404.	7.8	106
23	Fractal Energy Spectrum of a Polariton Gas in a Fibonacci Quasiperiodic Potential. Physical Review Letters, 2014, 112, 146404.	7.8	104
24	Light engineering of the polariton landscape in semiconductor microcavities. Physical Review B, 2010, 82, .	3.2	92
25	Exciton-polaritons in lattices: A non-linear photonic simulator. Comptes Rendus Physique, 2016, 17, 934-945.	0.9	85
26	Orbital Edge States in a Photonic Honeycomb Lattice. Physical Review Letters, 2017, 118, 107403.	7.8	79
27	Surface-enhanced gallium arsenide photonic resonator with quality factor of 6×10^6 . Optica, 2017, 4, 218.	9.3	78
28	Optical anisotropy and pinning of the linear polarization of light in semiconductor microcavities. Solid State Communications, 2006, 139, 511-515.	1.9	77
29	Interaction-induced hopping phase in driven-dissipative coupled photonic microcavities. Nature Communications, 2016, 7, 11887.	12.8	74
30	Type-III and Tilted Dirac Cones Emerging from Flat Bands in Photonic Orbital Graphene. Physical Review X, 2019, 9, .	8.9	72
31	Polariton-generated intensity squeezing in semiconductor micropillars. Nature Communications, 2014, 5, 3260.	12.8	71
32	Measuring topological invariants from generalized edge states in polaritonic quasicrystals. Physical Review B, 2017, 95, .	3.2	70
33	Realization of an all optical exciton-polariton router. Applied Physics Letters, 2015, 107, .	3.3	66
34	Emergence of criticality through a cascade of delocalization transitions in quasiperiodic chains. Nature Physics, 2020, 16, 832-836.	16.7	64
35	Edge states in polariton honeycomb lattices. 2D Materials, 2015, 2, 034012.	4.4	58
36	Roadmap on topological photonics. JPhys Photonics, 2022, 4, 032501.	4.6	56

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37	Spin Rings in Bistable Planar Semiconductor Microcavities. <i>Physical Review Letters</i> , 2010, 105, 216403.	7.8	54
38	Motion of Spin Polariton Bullets in Semiconductor Microcavities. <i>Physical Review Letters</i> , 2011, 107, 146402.	7.8	51
39	Revealing the dark side of a bright excitonâ€“polariton condensate. <i>Nature Communications</i> , 2014, 5, 4648.	12.8	51
40	Unstable and stable regimes of polariton condensation. <i>Optica</i> , 2018, 5, 1163.	9.3	47
41	Microcavity polaritons for topological photonics [Invited]. <i>Optical Materials Express</i> , 2021, 11, 1119.	3.0	43
42	Interplay of exciton and electron-hole plasma recombination on the photoluminescence dynamics in bulk GaAs. <i>Physical Review B</i> , 2006, 73, .	3.2	40
43	Gap solitons in a one-dimensional driven-dissipative topological lattice. <i>Nature Physics</i> , 2022, 18, 678-684.	16.7	40
44	Phase-Controlled Bistability of a Dark Soliton Train in a Polariton Fluid. <i>Physical Review Letters</i> , 2016, 117, 217401.	7.8	39
45	Nonlinear Polariton Fluids in a Flatband Reveal Discrete Gap Solitons. <i>Physical Review Letters</i> , 2019, 123, 113901.	7.8	39
46	Direct observation of photonic Landau levels and helical edge states in strained honeycomb lattices. <i>Light: Science and Applications</i> , 2020, 9, 144.	16.6	38
47	Polaritonic XY-Ising machine. <i>Nanophotonics</i> , 2020, 9, 4127-4138.	6.0	38
48	Anisotropic optical spin Hall effect in semiconductor microcavities. <i>Physical Review B</i> , 2009, 80, .	3.2	37
49	Exciton-polariton condensation in a natural two-dimensional trap. <i>Physical Review B</i> , 2009, 80, .	3.2	36
50	Dispersion relation of the collective excitations in a resonantly driven polariton fluid. <i>Nature Communications</i> , 2019, 10, 3869.	12.8	36
51	Observation of Long-Lived Polariton States in Semiconductor Microcavities across the Parametric Threshold. <i>Physical Review Letters</i> , 2009, 102, 056402.	7.8	32
52	Nonequilibrium polariton condensate in a magnetic field. <i>Physical Review B</i> , 2015, 91, .	3.2	29
53	Semi-Dirac Transport and Anisotropic Localization in Polariton Honeycomb Lattices. <i>Physical Review Letters</i> , 2020, 125, 186601.	7.8	29
54	Dynamics of the Formation and Decay of Coherence in a Polariton Condensate. <i>Physical Review Letters</i> , 2009, 103, 096404.	7.8	25

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55	Microcavity Polaritons for Quantum Simulation. <i>Advanced Quantum Technologies</i> , 2020, 3, 2000052.	3.9	25
56	Klein tunneling in driven-dissipative photonic graphene. <i>Physical Review A</i> , 2017, 96, .	2.5	21
57	Polariton fluids for analogue gravity physics. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2020, 378, 20190225.	3.4	21
58	Transition from the strong- to the weak-coupling regime in semiconductor microcavities: Polarization dependence. <i>Applied Physics Letters</i> , 2007, 90, 201905.	3.3	20
59	Photoluminescence dynamics in GaAs along an optically induced Mott transition. <i>Journal of Applied Physics</i> , 2007, 101, 081717.	2.5	20
60	Experimental observation of edge states in SSH-Stub photonic lattices. <i>Physical Review Research</i> , 2022, 4, .	3.6	19
61	Backscattering Suppression in Supersonic 1D Polariton Condensates. <i>Physical Review Letters</i> , 2012, 108, 036405.	7.8	18
62	Collective dynamics of excitons and polaritons in semiconductor nanostructures. <i>Semiconductor Science and Technology</i> , 2010, 25, 043001.	2.0	16
63	Quantum confinement of zero-dimensional hybrid organic-inorganic polaritons at room temperature. <i>Applied Physics Letters</i> , 2014, 104, .	3.3	15
64	Parametric instability in coupled nonlinear microcavities. <i>Physical Review A</i> , 2020, 102, .	2.5	15
65	Nonreciprocity and zero reflection in nonlinear cavities with tailored loss. <i>Physical Review A</i> , 2019, 99, .	2.5	14
66	Topological Swing of Bloch Oscillations in Quantum Walks. <i>Physical Review Letters</i> , 2020, 125, 186804.	7.8	14
67	Picosecond optical spectroscopy of a single negatively charged self-assembled InAs quantum dot. <i>Applied Physics Letters</i> , 2010, 97, 113110.	3.3	13
68	Stochastic precession of the polarization in a polariton laser. <i>Physical Review B</i> , 2016, 93, .	3.2	13
69	Multi-orbital tight binding model for cavity-polariton lattices. <i>Journal of Physics Condensed Matter</i> , 2020, 32, 315402.	1.8	13
70	Measuring Topological Invariants in a Polaritonic Analog of Graphene. <i>Physical Review Letters</i> , 2021, 126, 127403.	7.8	13
71	Few-photon all-optical phase rotation in a quantum-well micropillar cavity. <i>Nature Photonics</i> , 2022, 16, 566-569.	31.4	13
72	Polariton and spin dynamics in semiconductor microcavities under non-resonant excitation. <i>Journal of Physics Condensed Matter</i> , 2007, 19, 295204.	1.8	12

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73	Pauli blockade of the electron spin flip in bulk GaAs. <i>Physical Review B</i> , 2007, 75, .	3.2	12
74	Interplay between weak localization of exciton-polaritons and the optical spin Hall effect. <i>Physical Review B</i> , 2009, 79, .	3.2	12
75	Two-photon injection of polaritons in semiconductor microstructures. <i>Optics Letters</i> , 2014, 39, 307.	3.3	10
76	Theoretical study of stimulated and spontaneous Hawking effects from an acoustic black hole in a hydrodynamically flowing fluid of light. <i>Physical Review B</i> , 2016, 94, .	3.2	9
77	Chiral emission induced by optical Zeeman effect in polariton micropillars. <i>Physical Review Research</i> , 2021, 3, .	3.6	9
78	Evaluation of oscillator strength in colloidal CdSe/CdS dotsâ€”rods. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2010, 7, 2688-2691.	0.8	8
79	Comment on â€œLinear Wave Dynamics Explains Observations Attributed to Dark Solitons in a Polariton Quantum Fluidâ€. <i>Physical Review Letters</i> , 2015, 115, 089401.	7.8	8
80	Dynamics of polaritons resonantly created at the upper polariton branch. <i>Superlattices and Microstructures</i> , 2007, 41, 328-332.	3.1	7
81	Observation of the zero-magnetic-field exciton spin splitting in high quality bulk GaAs and AlGaAs. <i>Applied Physics Letters</i> , 2009, 95, 182107.	3.3	7
82	When quantum optics meets topology. <i>Science</i> , 2018, 359, 638-639.	12.6	7
83	Nonlinear Polariton Localization in Strongly Coupled Driven-Dissipative Microcavities. <i>ACS Photonics</i> , 2018, 5, 95-99.	6.6	7
84	Orbital angular momentum bistability in a microlaser. <i>Optics Letters</i> , 2019, 44, 4531.	3.3	7
85	Striking dynamics of II-VI microcavity polaritons after linearly polarized excitation. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2005, 2, 3880-3883.	0.8	6
86	Polariton condensates put in motion. <i>Nanotechnology</i> , 2010, 21, 134025.	2.6	6
87	Lasing in optically induced gap states in photonic graphene. , 2018, 5, .		6
88	Angular switching of the linear polarization of the emission in InGaAs microcavities. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2005, 2, 3868-3871.	0.8	5
89	Influence of trapping on the exciton dynamics of Al _x Ga _{1-x} As films. <i>Applied Physics Letters</i> , 2005, 86, 111906.	3.3	5
90	Single-shot measurement of the photonic band structure in a fiber-based Floquet-Bloch lattice. <i>Communications Physics</i> , 2021, 4, .	5.3	5

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91	Polarization dynamics of microcavity polaritons: Three excitation regimes. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2005, 202, 357-361.	1.8	3
92	Optically induced ultrafast quenching of the semiconductor quantum well luminescence. <i>Applied Physics Letters</i> , 2008, 92, 061912.	3.3	3
93	Reversal of spin polarization direction in excitonic photoluminescence of AlGaAs. <i>Europhysics Letters</i> , 2009, 88, 17001.	2.0	3
94	Photonic Topological Materials: feature introduction. <i>Optical Materials Express</i> , 2021, 11, 1592.	3.0	3
95	Superfluidity in polariton condensates. <i>Journal of Physics: Conference Series</i> , 2010, 210, 012060.	0.4	2
96	Quantum fluid properties of polaritons in semiconductor microcavities. <i>Journal of Modern Optics</i> , 2010, 57, 1900-1907.	1.3	2
97	Dynamics of Polariton Emission in the Linear Regime. <i>Acta Physica Polonica A</i> , 2004, 106, 443-450.	0.5	2
98	Ultrafast tailoring of the exciton distribution in quantum wells. <i>Physica Status Solidi (B): Basic Research</i> , 2008, 245, 1064-1066.	1.5	1
99	Spatial distribution of strong and weak coupled exciton-polaritons in semiconductor microcavities. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2008, 40, 2049-2052.	2.7	1
100	Exciton-formation time obtained from the spin splitting dynamics. <i>Journal of Physics: Conference Series</i> , 2010, 210, 012002.	0.4	1
101	Microcavity design for low threshold polariton condensation with ultrashort optical pulse excitation. <i>Journal of Applied Physics</i> , 2015, 117, 205702.	2.5	1
102	Foreword "Strong light-matter coupling in solid-state systems: A historical perspective. <i>Comptes Rendus Physique</i> , 2016, 17, 805-807.	0.9	1
103	Fluides quantiques de lumière dans les microcavités à semi-conducteurs. , 2016, , 4-9.	0.1	1
104	Polariton relaxation after resonant pumping at the upper polariton branch under doubly-resonant Raman scattering conditions. <i>Physica Status Solidi (B): Basic Research</i> , 2008, 245, 1081-1084.	1.5	0
105	Effects of disorder on the polariton condensates in CdTe microcavities. , 2010, , .		0
106	Observation of a Long-Lived Polariton State in Semiconductor Microcavities. , 2010, , .		0
107	Quantum information with semiconductor nanostructures. , 2011, , .		0
108	Buildup and decay of the coherence in a polariton condensate. , 2011, , .		0

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109	Observation of Oblique Half-Solitons in polariton Superfluids. , 2012, , .		0
110	COHERENT INJECTION OF MICROCAVITIES POLARITON THROUGH TWO PHOTON EXCITATION. , 2012, , .		0
111	Cavity Polaritons: Crossroad Between Non-Linear Optics and Atomic Condensates. , 2014, , 207-239.		0
112	Femtosecond terahertz dynamics of cooperative transitions: from charge density waves to polariton condensates. Proceedings of SPIE, 2016, , .	0.8	0
113	Polariton lasing in the edge states of an orbital SSH chain. , 2017, , .		0
114	Optical circuits cross dimensions. Nature Photonics, 2020, 14, 68-69.	31.4	0
115	Photonic Topological Materials feature issue: publisher's note. Optical Materials Express, 2021, 11, 1410.	3.0	0
116	Semi-Dirac transport and localization in polaritonic graphene. , 2021, , .		0
117	Macroscopic Self-trapping and Non-linear Oscillations in Coupled Polariton Condensates. , 2012, , .		0
118	Superfluidity and Hydrodynamic Topological Excitations of Microcavity Polaritons. Springer Series in Solid-state Sciences, 2012, , 215-232.	0.3	0
119	Quantum coherence in polariton fluids. , 2013, , .		0
120	Time-resolved Terahertz Mapping of a Cold Exciton-Polariton Gas. , 2013, , .		0
121	Polariton Quantum Fluids and Devices. Springer Series in Solid-state Sciences, 2013, , 127-155.	0.3	0
122	Quantum coherence in polariton fluids. , 2013, , .		0