

# Marc Assmann

## List of Publications by Year in descending order

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Version: 2024-02-01

75  
papers

1,915  
citations

304368

22  
h-index

253896

43  
g-index

75  
all docs

75  
docs citations

75  
times ranked

1743  
citing authors

#	ARTICLE	IF	CITATIONS
1	Direct observation of correlations between individual photon emission events of a microcavity laser. Nature, 2009, 460, 245-249.	13.7	194
2	Exciton and trion dynamics in atomically thin $\text{MoSe}_2$ . Effect of localization. Physical Review B, 2016, 94, .		
3	Giant photon bunching, superradiant pulse emission and excitation trapping in quantum-dot nanolasers. Nature Communications, 2016, 7, 11540.	5.8	120
4	Higher-Order Photon Bunching in a Semiconductor Microcavity. Science, 2009, 325, 297-300.	6.0	106
5	Compressive adaptive computational ghost imaging. Scientific Reports, 2013, 3, 1545.	1.6	104
6	Enhanced light-matter interaction in an atomically thin semiconductor coupled with dielectric nano-antennas. Nature Communications, 2019, 10, 5119.	5.8	87
7	Quantum chaos and breaking of all anti-unitary symmetries in Rydberg excitons. Nature Materials, 2016, 15, 741-745.	13.3	84
8	Observation of High Angular Momentum Excitons in Cuprous Oxide. Physical Review Letters, 2015, 115, 027402.	2.9	79
9	From polariton condensates to highly photonic quantum degenerate states of bosonic matter. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 1804-1809.	3.3	68
10	Deviations of the exciton level spectrum in $\text{Cu}_2\text{O}$ from the hydrogen series. Physical Review B, 2016, 93, .	1.1	68
11	Characterization of two-threshold behavior of the emission from a GaAs microcavity. Physical Review B, 2012, 85, .	1.1	56
12	Scaling laws of Rydberg excitons. Physical Review B, 2017, 96, .	1.1	56
13	Realization of all-optical vortex switching in exciton-polariton condensates. Nature Communications, 2020, 11, 897.	5.8	49
14	All-optical flow control of a polariton condensate using nonresonant excitation. Physical Review B, 2015, 91, .	1.1	48
15	High-resolution study of the yellow excitons in $\text{Cu}_2\text{O}$ subject to an electric field. Physical Review B, 2017, 95, .	1.1	48
16	Signatures of Quantum Coherences in Rydberg Excitons. Physical Review Letters, 2016, 117, 133003.	2.9	42
17	Magnetoexcitons in cuprous oxide. Physical Review B, 2017, 95, .	1.1	41
18	Ultrafast tracking of second-order photon correlations in the emission of quantum-dot microresonator lasers. Physical Review B, 2010, 81, .	1.1	38

#	ARTICLE	IF	CITATIONS
19	Measuring the dynamics of second-order photon correlation functions inside a pulse with picosecond time resolution. <i>Optics Express</i> , 2010, 18, 20229.	1.7	38
20	Rydberg Excitons in the Presence of an Ultralow-Density Electron-Hole Plasma. <i>Physical Review Letters</i> , 2018, 121, 097401.	2.9	37
21	Semiconductor Rydberg Physics. <i>Advanced Quantum Technologies</i> , 2020, 3, 1900134.	1.8	31
22	All-optical control of quantized momenta on a polariton staircase. <i>Physical Review B</i> , 2012, 85, .	1.1	27
23	Influence of interactions with noncondensed particles on the coherence of a one-dimensional polariton condensate. <i>Physical Review B</i> , 2014, 89, .	1.1	21
24	Coupled valence band dispersions and the quantum defect of excitons in Cu <sub>2</sub> O. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2016, 49, 134003.	0.6	19
25	Spectroscopy of fractional orbital angular momentum states. <i>Optics Express</i> , 2018, 26, 32248.	1.7	19
26	Photon-Statistics Excitation Spectroscopy of a Quantum-Dot Micropillar Laser. <i>Physical Review Letters</i> , 2015, 115, 027401.	2.9	18
27	Quantum-Memory Effects in the Emission of Quantum-Dot Microcavities. <i>Physical Review Letters</i> , 2014, 113, 093902.	2.9	17
28	Nonlinear spectroscopy of exciton-polaritons in a GaAs-based microcavity. <i>Physical Review B</i> , 2014, 90, .	1.1	17
29	Asymmetric Rydberg blockade of giant excitons in Cuprous Oxide. <i>Nature Communications</i> , 2021, 12, 3556.	5.8	17
30	Experimental realization of a polariton beam amplifier. <i>Physical Review B</i> , 2016, 93, .	1.1	16
31	Formation dynamics of exciton-polariton vortices created by nonresonant annular pumping. <i>Physical Review B</i> , 2020, 101, .	1.1	15
32	Dissociation of excitons in Cu <sub>2</sub> O by an electric field. <i>Physical Review B</i> , 2018, 98, .	1.1	14
33	Nonlinearity sensing via photon-statistics excitation spectroscopy. <i>Physical Review A</i> , 2011, 84, .	1.0	13
34	Temperature dependence of pulsed polariton lasing in a GaAs microcavity. <i>New Journal of Physics</i> , 2012, 14, 083014.	1.2	13
35	Eavesdropping attack on a trusted continuous-variable quantum random-number generator. <i>Physical Review A</i> , 2019, 100, .	1.0	13
36	Tracking Dark Excitons with Exciton Polaritons in Semiconductor Microcavities. <i>Physical Review Letters</i> , 2019, 122, 047403.	2.9	13

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37	Magneto-Stark effect of yellow excitons in cuprous oxide. Physical Review B, 2018, 98, .	1.1	12
38	Experimental limitation in extending the exciton series in $\text{Cu}_2\text{O}$ towards higher principal quantum numbers. Physical Review B, 2020, 101, .	1.1	12
39	Real time $g^{(2)}$ monitoring with 100 kHz sampling rate. Optics Express, 2018, 26, 24854.	1.7	11
40	Extrapolation of the intensity autocorrelation function of a quantum-dot micropillar laser into the thermal emission regime. Journal of the Optical Society of America B: Optical Physics, 2011, 28, 1404.	0.9	10
41	Determination of operating parameters for a GaAs-based polariton laser. Applied Physics Letters, 2013, 102, .	1.5	9
42	Quantifying Quantum Coherence in Polariton Condensates. PRX Quantum, 2021, 2, .	3.5	9
43	Spatial dynamics of stepwise homogeneously pumped polariton condensates. Physical Review B, 2012, 86, .	1.1	8
44	Spin noise of a polariton laser. Physical Review B, 2016, 93, .	1.1	8
45	Role of phonons in the quantum chaos of Rydberg excitons. Physical Review B, 2017, 95, .	1.1	8
46	Coherence time measurements using a single detector with variable time resolution. Optics Letters, 2012, 37, 2811.	1.7	6
47	Dynamics of the optical spin Hall effect. Physical Review B, 2017, 96, .	1.1	6
48	Streak camera imaging of single photons at telecom wavelength. Applied Physics Letters, 2018, 112, 031110.	1.5	6
49	Quantum-Optically Enhanced STORM (QUEST) for Multi-Emitter Localization. Scientific Reports, 2018, 8, 7829.	1.6	6
50	Influence of Magnetic Confinement on the Yellow Excitons in Cuprous Oxide Subject to an Electric Field. Physics of the Solid State, 2018, 60, 1595-1599.	0.2	6
51	Conditional spectroscopy via nonstationary optical homodyne quantum state tomography. Physical Review A, 2020, 101, .	1.0	5
52	Coherent transfer matrix analysis of the transmission spectra of Rydberg excitons in cuprous oxide. Physical Review B, 2021, 104, .	1.1	5
53	Scrutinizing the Debye plasma model: Rydberg excitons unravel the properties of low-density plasmas in semiconductors. Physical Review B, 2022, 105, .	1.1	4
54	Degree of entanglement of photon pairs generated from V&Ctype system in microcavity. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, 395-398.	0.8	3

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55	Optical control of a dark exciton reservoir. Physical Review B, 2021, 104, .	1.1	3
56	Stochastic pumping of a polariton fluid. Physical Review A, 2015, 91, .	1.0	2
57	Critical Dependence of the Excitonic Absorption in Cuprous Oxide on Experimental Parameters. Physics of the Solid State, 2018, 60, 1618-1624.	0.2	2
58	Landau-Level Quantization of the Yellow Excitons in Cuprous Oxide. Physics of the Solid State, 2018, 60, 1625-1628.	0.2	2
59	Analysis of the Fine Structure of the D $\delta$ -Exciton Shell in Cuprous Oxide. Physica Status Solidi - Rapid Research Letters, 0, , 2100335.	1.2	2
60	Magnetic field effects of Rydberg Excitons in Cu <sub>2</sub> O. Proceedings of SPIE, 2016, , .	0.8	1
61	Influence of the Wavefunction Distribution on Exciton Dissociation in Electric Field. Physics of the Solid State, 2018, 60, 1506-1509.	0.2	1
62	Distinguishing intrinsic photon correlations from external noise with frequency-resolved homodyne detection. Scientific Reports, 2020, 10, 22411.	1.6	1
63	Ultrafast intensity correlation measurements of quantum dot microcavity lasers. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, 399-402.	0.8	0
64	Relaxation dynamics of optically imprinted polariton wires. , 2012, , .		0
65	Photon correlations in semiconductor nanostructures. , 2012, , 154-185.		0
66	Observing the Conditional Decoherence of a Mixed State of Light. , 2014, , .		0
67	Influence of interactions with non-condensed particles on the coherence of a 1D polariton condensate. , 2014, , .		0
68	Exciton-Phonon Interactions in an InAs Quantum Dot Ensemble Studied with 2D Coherent Spectroscopy. , 2014, , .		0
69	Rydberg States in Semiconductors. , 2018, , 40-51.		0
70	Oscillations of the Degree of Circular Polarization in the Optical Spin Hall Effect. Physics of the Solid State, 2018, 60, 1606-1610.	0.2	0
71	Quantum optics with quantum dot ensembles. Semiconductors and Semimetals, 2020, 105, 235-267.	0.4	0
72	Photon Number Distributions From a Diode Laser. , 2013, , .		0

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73	Quantum-dot microcavity lasers with superradiant coupling and non-classical light emission. , 2014, , .		0
74	Rydberg physics in semiconductors. SPIE Newsroom, 0, , .	0.1	0
75	Giant Photon Bunching and Quantum Correlations in Superradiant Quantum-Dot Microcavity Lasers. , 2017, , .		0