Moritz Cygorek

List of Publications by Year
in descending order

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46	546	623734	713466
papers	citations	14 h-index	21 g-index

51	51	51	327
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Simulation of open quantum systems by automated compression of arbitrary environments. Nature Physics, 2022, 18, 662-668.	16.7	35
2	Nonlinear cavity feeding and unconventional photon statistics in solid-state cavity QED revealed by many-level real-time path-integral calculations. Physical Review B, 2017, 96, .	3.2	32
3	Emission-Frequency Separated High Quality Single-Photon Sources Enabled by Phonons. Physical Review Letters, 2019, 123, 017403.	7.8	31
4	Path-integral approach for nonequilibrium multitime correlation functions of open quantum systems coupled to Markovian and non-Markovian environments. Physical Review B, 2018, 98, .	3.2	26
5	Atomistic theory of electronic and optical properties of InAsP/InP nanowire quantum dots. Physical Review B, 2020, 101, .	3.2	26
6	Coherent Dynamics in Quantum Emitters under Dichromatic Excitation. Physical Review Letters, 2021, 126, 047403.	7.8	25
7	Phonon-Induced Enhancement of Photon Entanglement in Quantum Dot-Cavity Systems. Physical Review Letters, 2019, 123, 137401.	7.8	24
8	Bright trion emission from semiconductor nanoplatelets. Physical Review Materials, 2020, 4, .	2.4	24
9	Swing-Up of Quantum Emitter Population Using Detuned Pulses. PRX Quantum, 2021, 2, .	9.2	24
10	Comparison of different concurrences characterizing photon pairs generated in the biexciton cascade in quantum dots coupled to microcavities. Physical Review B, 2018, 98, .	3.2	22
11	Uniaxial transition dipole moments in semiconductor quantum rings caused by broken rotational symmetry. Nature Communications, 2019, 10, 3253.	12.8	19
12	Non-Markovian spin transfer dynamics in magnetic semiconductors despite short memory times. Physical Review B, 2013, 87, .	3.2	18
13	From strong to weak temperature dependence of the two-photon entanglement resulting from the biexciton cascade inside a cavity. Physical Review B, 2019, 99, .	3.2	17
14	Influence of nonmagnetic impurity scattering on spin dynamics in diluted magnetic semiconductors. Physical Review B, 2017, 95, .	3.2	15
15	Accuracy of the Quantum Regression Theorem for Photon Emission from a Quantum Dot. Physical Review Letters, 2021, 127, 100402.	7.8	15
16	Comparison between a quantum kinetic theory of spin transfer dynamics in Mn-doped bulk semiconductors and its Markov limit for nonzero Mn magnetization. Physical Review B, 2014, 90, .	3.2	14
17	Ultrafast spin dynamics in II-VI diluted magnetic semiconductors with spin-orbit interaction. Physical Review B, 2015, 91, .	3.2	14
18	On-demand generation of higher-order Fock states in quantum-dotâ€“cavity systems. Physical Review Research, 2020, 2, .	3.6	14

#	Article	IF	Citations
19	Coherence in cooperative photon emission from indistinguishable quantum emitters. Science Advances, 2022, 8, eabm8171.	10.3	13
20	Quantum kinetic equations for the ultrafast spin dynamics of excitons in diluted magnetic semiconductor quantum wells after optical excitation. Physical Review B, 2017, 95, .	3.2	11
21	Coherent spin-transfer dynamics in diluted magnetic semiconductor quantum wells even after optical excitation with zero net angular momentum. Physical Review B, 2013, 88, .	3.2	10
22	Non-Markovian Effects in the Spin Transfer Dynamics in Diluted Magnetic Semiconductors due to Excitation in Proximity to the Band Edge. Journal of Physics: Conference Series, 2015, 647, 012042.	0.4	9
23	Carrier-impurity spin transfer dynamics in paramagnetic II-VI diluted magnetic semiconductors in the presence of a wave-vector-dependent magnetic field. Physical Review B, 2016, 93, .	3.2	9
24	Trend reversal in the magnetic-field dependence of exciton spin-transfer rates in diluted magnetic semiconductors due to non-Markovian dynamics. Physical Review B, 2018, 97, .	3.2	9
25	Systematic study of the emission spectra of nanowire quantum dots. Applied Physics Letters, 2021, 118, .	3.3	9
26	Effective equations for the precession dynamics of electron spins and electronâ€“impurity correlations in diluted magnetic semiconductors. Semiconductor Science and Technology, 2015, 30, 085011.	2.0	8
27	Valley- and spin-polarized broken-symmetry states of interacting electrons in gated MoS2 quantum dots. Physical Review B, 2020, 102, .	3.2	8
28	Insensitivity of spin dynamics to the orbital angular momentum transferred from twisted light to extended semiconductors. Physical Review B, 2015, 92, .	3.2	7
29	Nonperturbative correlation effects in diluted magnetic semiconductors. Physical Review B, 2016, 93, .	3.2	7
30	Many-body correlations brought to light in absorption spectra of diluted magnetic semiconductors. Physical Review B, 2018, 98, .	3.2	6
31	Different Types of Photon Entanglement from a Constantly Driven Quantum Emitter Inside a Cavity. Advanced Quantum Technologies, 2021, 4, 2000108.	3.9	6
32	SchrÃ¶dinger cat states in quantum-dot-cavity systems. Physical Review Research, 2021, 3, .	3.6	5
33	Nonexponential spin decay in a quantum kinetic description of the D'yakonov-Perel' mechanism mediated by impurity scattering. Physical Review B, 2017, 95, .	3.2	4
34	Phonon-induced quantum ratchet in the exciton spin dynamics in diluted magnetic semiconductors in a magnetic field. Physical Review B, 2019, 99, .	3.2	4
35	Quantum simulator of extended bipartite Hubbard model with broken sublattice symmetry: Magnetism, correlations, and phase transitions. Physical Review B, 2022, 105, .	3.2	4
36	Phonon impact on the dynamics of resonantly excited and hot excitons in diluted magnetic semiconductors. Physical Review B, 2019, 99, .	3.2	3

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37	Accurate and efficient description of interacting carriers in quantum nanostructures by selected configuration interaction and perturbation theory. Physical Review B, 2020, 101, .	3.2	3
38	Time-dependent switching of the photon entanglement type using a driven quantum emitterâ€“cavity system. Applied Physics Letters, 2021, 118, 164001.	3.3	3
39	Dependence of quantum kinetic effects in the spin dynamics of diluted magnetic semiconductors on the excitation conditions. Proceedings of SPIE, 2016, , .	0.8	3
40	Relaxation and coherent oscillations in the spin dynamics of II-VI diluted magnetic quantum wells. Journal of Physics: Conference Series, 2015, 647, 012010.	0.4	2
41	Electronic and magnetic properties of many-electron complexes in charged <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>In</mml:mi><mml:msub><mml:mi>As</mml:mi><mml:mi mathvariant="normal">P</mml:mi><mml:mrow><mml:mn>1</mml:mn><mml:mo>â^’</mml:mo><mml:mi>x</mml:mi></mml:mrow> quantum dots in InP nanowires. Physical Review B, 2021, 104, .	3.2	2
42	Role of excited states in the dynamics of excitons and their spins in diluted magnetic semiconductors. Physical Review B, 2019, 99, .	3.2	1
43	Transiently changing shape of the photon number distribution in a quantum-dotâ€“cavity system driven by chirped laser pulses. Physical Review B, 2020, 101, .	3.2	1
44	Deterministic Photon Storage and Readout in a Semimagnetic QuantumÂDotâ€“CavityÂSystem Doped with a Single Mn Ion. Advanced Quantum Technologies, 2022, 5, .	3.9	1
45	Dynamics of the angular momentum in narrow quantum rings with Rashba and Dresselhaus spin-orbit interactions. Physical Review B, 2022, 105, .	3.2	1
46	Origins of overshoots in the exciton spin dynamics in semiconductors. Physical Review B, 2019, 99, .	3.2	0