Markus Hennrich

List of Publications by Year
in descending order

61 papers	6,020 citations	172457 29 h-index	161849 54 g-index
63 all docs	63 docs citations	63 times ranked	4780 citing authors

#	Article	IF	Citations
1	14-Qubit Entanglement: Creation and Coherence. Physical Review Letters, 2011, 106, 130506.	7.8	853
2	An open-system quantum simulator with trapped ions. Nature, 2011, 470, 486-491.	27.8	823
3	Deterministic Single-Photon Source for Distributed Quantum Networking. Physical Review Letters, 2002, 89, 067901.	7.8	705
4	Universal Digital Quantum Simulation with Trapped Ions. Science, 2011, 334, 57-61.	12.6	483
5	Quantum computations on a topologically encoded qubit. Science, 2014, 345, 302-305.	12.6	289
6	Realization of the Quantum Toffoli Gate with Trapped Ions. Physical Review Letters, 2009, 102, 040501.	7.8	270
7	Experimental Repetitive Quantum Error Correction. Science, 2011, 332, 1059-1061.	12.6	260
8	A quantum information processor with trapped ions. New Journal of Physics, 2013, 15, 123012.	2.9	235
9	Quantum Beat of Two Single Photons. Physical Review Letters, 2004, 93, 070503.	7.8	233
10	Vacuum-Stimulated Raman Scattering Based on Adiabatic Passage in a High-Finesse Optical Cavity. Physical Review Letters, 2000, 85, 4872-4875.	7.8	228
11	Quantum simulation of dynamical maps with trapped ions. Nature Physics, 2013, 9, 361-367.	16.7	175
12	Experimental multiparticle entanglement dynamics induced by decoherence. Nature Physics, 2010, 6, 943-946.	16.7	152
13	Controlled generation of single photons from a strongly coupled atom-cavity system. Applied Physics B: Lasers and Optics, 1999, 69, 373-377.	2.2	144
14	Heralded single-photon absorption by a singleÂatom. Nature Physics, 2011, 7, 17-20.	16.7	89
15	Realization of Universal Ion-Trap Quantum Computation with Decoherence-Free Qubits. Physical Review Letters, 2009, 103, 200503.	7.8	77
16	Transition from Antibunching to Bunching in Cavity QED. Physical Review Letters, 2005, 94, 053604.	7.8	75
17	Atom-Atom Entanglement by Single-Photon Detection. Physical Review Letters, 2013, 110, 083603.	7.8	64
18	Demonstration of genuine multipartite entanglement with device-independent witnesses. Nature Physics, 2013, 9, 559-562.	16.7	60

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19	Deterministic entanglement swapping with an ion-trap quantum computer. Nature Physics, 2008, 4, 839-842.	16.7	59
20	Can different quantum state vectors correspond to the same physical state? An experimental test. New Journal of Physics, 2016, 18, 013007.	2.9	54
21	Quantum interference from remotely trapped ions. New Journal of Physics, 2009, 11, 013032.	2.9	53
22	Single Atom as a Mirror of an Optical Cavity. Physical Review Letters, 2011, 107, 133002.	7.8	52
23	Submicrosecond entangling gate between trapped ions via Rydberg interaction. Nature, 2020, 580, 345-349.	27.8	50
24	Electromagnetically Induced Transparency from a Single Atom in Free Space. Physical Review Letters, 2010, 105, 153604.	7.8	49
25	Pure single photons from a trapped atom source. New Journal of Physics, 2016, 18, 093038.	2.9	46
26	Coherent Control of a Single Trapped Rydberg Ion. Physical Review Letters, 2017, 119, 220501.	7.8	45
27	Photon statistics of a non-stationary periodically driven single-photon source. New Journal of Physics, 2004, 6, 86-86.	2.9	33
28	Photon-mediated interaction between two distant atoms. Physical Review A, 2008, 78, .	2.5	33
29	Single Strontium Rydberg Ion Confined in a Paul Trap. Physical Review X, 2017, 7, .	8.9	32
30	Bandwidth-Tunable Single-Photon Source in an Ion-Trap Quantum Network. Physical Review Letters, 2009, 103, 213601.	7.8	30
31	Long-Range Multibody Interactions and Three-Body Antiblockade in a Trapped Rydberg Ion Chain. Physical Review Letters, 2020, 125, 133602.	7.8	28
32	QED with a spherical mirror. Physical Review A, 2010, 82, .	2.5	26
33	Interferometric thermometry of a single sub-Doppler-cooled atom. Physical Review A, 2012, 85, .	2.5	21
34	Ultrafast Photochromic Reactions of Fulgide Photoswitches. Molecular Crystals and Liquid Crystals, 2005, 430, 15-21.	0.9	20
35	Tracking the Dynamics of an Ideal Quantum Measurement. Physical Review Letters, 2020, 124, 080401.	7.8	18
36	A diode laser stabilization scheme for⁴⁰Ca⁺single-ion spectroscopy. Journal of Physics B: Atomic, Molecular and Optical Physics, 2010, 43, 115401.	1.5	17

#	Article	IF	Citations
37	Resonant interaction of a single atom with single photons from a down-conversion source. Physical Review A, 2010, 81, .	2.5	16
38	Undoing a Quantum Measurement. Physical Review Letters, 2013, 110, 070403.	7.8	16
39	Photoswitching Intramolecular Energy and Charge Transfer. Molecular Crystals and Liquid Crystals, 2000, 344, 145-150.	0.3	13
40	Exploring the Many-Body Dynamics Near a Conical Intersection with Trapped Rydberg Ions. Physical Review Letters, 2021, 126, 233404.	7.8	13
41	Time-resolved and state-selective detection of single freely falling atoms. Optics Communications, 2006, 264, 271-277.	2.1	12
42	Two-color photoionization of calcium using SHG and LED light. Applied Physics B: Lasers and Optics, 2010, 100, 765-771.	2.2	11
43	Entanglement measures in ion-trap quantum simulators without full tomography. Physical Review A, 2014, 90, .	2.5	9
44	Trapped Rydberg ions: A new platform for quantum information processing. Advances in Atomic, Molecular and Optical Physics, 2020, 69, 233-306.	2.3	9
45	Counter-intuitive vacuum-stimulated raman scattering. Journal of Modern Optics, 2003, 50, 935-942.	1.3	8
46	Highly Polarizable Rydberg Ion in a Paul Trap. Physical Review Letters, 2019, 123, 153602.	7.8	8
47	Experimental Characterization of Quantum Dynamics Through Many-Body Interactions. Physical Review Letters, 2013, 110, 060403.	7.8	7
48	Kuhn, Hennrich, and Rempe Reply:. Physical Review Letters, 2003, 90, .	7.8	4
49	Ca+quantum bits for quantum information processing. Physica Scripta, 2009, T137, 014008.	2.5	4
50	Micromotion minimization using Ramsey interferometry. New Journal of Physics, 2021, 23, 123028.	2.9	3
51	Observation of second- and higher-order electric quadrupole interactions with an atomic ion. Physical Review Research, 2021, 3, .	3.6	2
52	Free Space Interference Experiments with Single Photons and Single Ions. Nano-optics and Nanophotonics, 2015, , 99-124.	0.2	2
53	Counter-intuitive vacuum-stimulated Raman scattering. Journal of Modern Optics, 2003, 50, 935-942.	1.3	1
54	A single ion interacting with single spontaneous parametric down-conversion photons. , 2009, , .		0

#	Article	IF	Citations
55	Interaction of a Single Trapped Ion with Heralded Single Photons. , 2010, , .		0
56	Experimental repetitive quantum error correction with trapped ions. , 2011, , .		0
57	Free space coupling to a single ion. , 2011, , .		0
58	Coherent rydberg excitation of a single trapped ion. , 2017, , .		0
59	Interacting Rydberg Ions. , 2019, , .		0
60	Single Photon Source for an Ion Trap Quantum Network. , 2009, , .		0
61	Quantum Information with Trapped Ions. , 2009, , .		0