

Ronald Hanson

List of Publications by Year in descending order

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69
papers

16,999
citations

41344

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98798

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70
all docs

70
docs citations

70
times ranked

9693
citing authors

#	ARTICLE	IF	CITATIONS
1	Qubit teleportation between non-neighbouring nodes in a quantum network. <i>Nature</i> , 2022, 605, 663-668.	27.8	99
2	Telecom-Band Quantum Interference of Frequency-Converted Photons from Remote Detuned NV Centers. <i>PRX Quantum</i> , 2022, 3, .	9.2	13
3	Resonant Excitation and Purcell Enhancement of Coherent Nitrogen-Vacancy Centers Coupled to a Fabry-Perot Microcavity. <i>Physical Review Applied</i> , 2021, 15, .	3.8	39
4	Realization of a multinode quantum network of remote solid-state qubits. <i>Science</i> , 2021, 372, 259-264.	12.6	314
5	Quantum networks based on color centers in diamond. <i>Journal of Applied Physics</i> , 2021, 130, .	2.5	105
6	Realization of a Multi-Node Quantum Network of Remote Solid-State Qubits. , 2021, , .		0
7	Orbital and Spin Dynamics of Single Neutrally-Charged Nitrogen-Vacancy Centers in Diamond. <i>Physical Review Letters</i> , 2020, 125, 193601.	7.8	16
8	Witnessing entanglement in experiments with correlated noise. <i>Quantum Science and Technology</i> , 2020, 5, 035007.	5.8	4
9	Entanglement between a Diamond Spin Qubit and a Photonic Time-Bin Qubit at Telecom Wavelength. <i>Physical Review Letters</i> , 2019, 123, 063601.	7.8	59
10	Multipartite Entanglement Generation and Contextuality Tests Using Nondestructive Three-Qubit Parity Measurements. <i>Physical Review Letters</i> , 2019, 123, 050401.	7.8	27
11	Towards a realization of device-independent quantum key distribution. <i>Quantum Science and Technology</i> , 2019, 4, 035011.	5.8	34
12	A link layer protocol for quantum networks. , 2019, , .		124
13	Optically Coherent Nitrogen-Vacancy Centers in Micrometer-Thin Etched Diamond Membranes. <i>Nano Letters</i> , 2019, 19, 3987-3992.	9.1	59
14	Near-term quantum-repeater experiments with nitrogen-vacancy centers: Overcoming the limitations of direct transmission. <i>Physical Review A</i> , 2019, 99, .	2.5	88
15	Optical coherence of diamond nitrogen-vacancy centers formed by ion implantation and annealing. <i>Physical Review B</i> , 2019, 99, .	3.2	75
16	Parameter regimes for a single sequential quantum repeater. <i>Quantum Science and Technology</i> , 2018, 3, 034002.	5.8	44
17	Light, the universe and everything – 12 Herculean tasks for quantum cowboys and black diamond skiers. <i>Journal of Modern Optics</i> , 2018, 65, 1261-1308.	1.3	6
18	Optimal design of diamond-air microcavities for quantum networks using an analytical approach. <i>New Journal of Physics</i> , 2018, 20, 115004.	2.9	17

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19	Quantum internet: A vision for the road ahead. <i>Science</i> , 2018, 362, .	12.6	1,098
20	Quantum technologies with optically interfaced solid-state spins. <i>Nature Photonics</i> , 2018, 12, 516-527.	31.4	581
21	Quantum Frequency Conversion of Single Photons from a Nitrogen-Vacancy Center in Diamond to Telecommunication Wavelengths. <i>Physical Review Applied</i> , 2018, 9, .	3.8	90
22	Dephasing mechanisms of diamond-based nuclear-spin memories for quantum networks. <i>Physical Review A</i> , 2018, 97, .	2.5	54
23	Deterministic delivery of remote entanglement on a quantum network. <i>Nature</i> , 2018, 558, 268-273.	27.8	348
24	Entanglement distillation between solid-state quantum network nodes. <i>Science</i> , 2017, 356, 928-932.	12.6	277
25	Multiplexed entanglement generation over quantum networks using multi-qubit nodes. <i>Quantum Science and Technology</i> , 2017, 2, 034002.	5.8	30
26	Robust nano-fabrication of an integrated platform for spin control in a tunable microcavity. <i>APL Photonics</i> , 2017, 2, .	5.7	17
27	Design and low-temperature characterization of a tunable microcavity for diamond-based quantum networks. <i>Applied Physics Letters</i> , 2017, 110, .	3.3	41
28	Repeated quantum error correction on a continuously encoded qubit by real-time feedback. <i>Nature Communications</i> , 2016, 7, 11526.	12.8	174
29	Robust Quantum-Network Memory Using Decoherence-Protected Subspaces of Nuclear Spins. <i>Physical Review X</i> , 2016, 6, .	8.9	92
30	Diamond defects cooperate via light. <i>Science</i> , 2016, 354, 835-836.	12.6	3
31	Experimental creation of quantum Zeno subspaces by repeated multi-spin projections in diamond. <i>Nature Communications</i> , 2016, 7, 13111.	12.8	32
32	From the first loophole-free Bell test to a Quantum Internet. , 2016, , .		0
33	Coherent manipulation, measurement and entanglement of individual solid-state spins using optical fields. <i>Nature Photonics</i> , 2015, 9, 363-373.	31.4	208
34	Loophole-free Bell inequality violation using electron spins separated by 1.3 kilometres. <i>Nature</i> , 2015, 526, 682-686.	27.8	1,762
35	Towards quantum networks of single spins: analysis of a quantum memory with an optical interface in diamond. <i>Faraday Discussions</i> , 2015, 184, 173-182.	3.2	25
36	Manipulating a qubit through the backaction of sequential partial measurements and real-time feedback. <i>Nature Physics</i> , 2014, 10, 189-193.	16.7	104

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37	Unconditional quantum teleportation between distant solid-state quantum bits. <i>Science</i> , 2014, 345, 532-535.	12.6	421
38	Universal control and error correction in multi-qubit spin registers in diamond. <i>Nature Nanotechnology</i> , 2014, 9, 171-176.	31.5	309
39	Diamond NV centers for quantum computing and quantum networks. <i>MRS Bulletin</i> , 2013, 38, 134-138.	3.5	320
40	Heralded entanglement between solid-state qubits separated by three metres. <i>Nature</i> , 2013, 497, 86-90.	27.8	859
41	Demonstration of entanglement-by-measurement of solid-state qubits. <i>Nature Physics</i> , 2013, 9, 29-33.	16.7	127
42	Comparison of dynamical decoupling protocols for a nitrogen-vacancy center in diamond. <i>Physical Review B</i> , 2012, 85, .	3.2	76
43	Controlling the quantum dynamics of a mesoscopic spin bath in diamond. <i>Scientific Reports</i> , 2012, 2, 382.	3.3	107
44	Detection and Control of Individual Nuclear Spins Using a Weakly Coupled Electron Spin. <i>Physical Review Letters</i> , 2012, 109, 137602.	7.8	222
45	Decoherence-protected quantum gates for a hybrid solid-state spin register. <i>Nature</i> , 2012, 484, 82-86.	27.8	320
46	Two-Photon Quantum Interference from Separate Nitrogen Vacancy Centers in Diamond. <i>Physical Review Letters</i> , 2012, 108, 043604.	7.8	222
47	High-fidelity projective read-out of a solid-state spin quantum register. <i>Nature</i> , 2011, 477, 574-578.	27.8	567
48	Deterministic nanoassembly of a coupled quantum emitter–photonic crystal cavity system. <i>Applied Physics Letters</i> , 2011, 98, .	3.3	83
49	Single-Spin Magnetometry with Multipulse Sensing Sequences. <i>Physical Review Letters</i> , 2011, 106, 080802.	7.8	164
50	Spin dynamics in the optical cycle of single nitrogen-vacancy centres in diamond. <i>New Journal of Physics</i> , 2011, 13, 025013.	2.9	202
51	Universal Dynamical Decoupling of a Single Solid-State Spin from a Spin Bath. <i>Science</i> , 2010, 330, 60-63.	12.6	591
52	Bootstrap Tomography of the Pulses for Quantum Control. <i>Physical Review Letters</i> , 2010, 105, 077601.	7.8	19
53	Control and Coherence of the Optical Transition of Single Nitrogen Vacancy Centers in Diamond. <i>Physical Review Letters</i> , 2010, 105, 177403.	7.8	92
54	Decay of Rabi Oscillations by Dipolar-Coupled Dynamical Spin Environments. <i>Physical Review Letters</i> , 2009, 102, 237601.	7.8	73

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55	Mother Nature outgrown. Nature Materials, 2009, 8, 368-369.	27.5	3
56	Nanopositioning of a diamond nanocrystal containing a single nitrogen-vacancy defect center. Applied Physics Letters, 2009, 94, 173104.	3.3	76
57	Coherent manipulation of single spins in semiconductors. Nature, 2008, 453, 1043-1049.	27.8	422
58	Quenching Spin Decoherence in Diamond through Spin Bath Polarization. Physical Review Letters, 2008, 101, 047601.	7.8	207
59	Coherent Dynamics of a Single Spin Interacting with an Adjustable Spin Bath. Science, 2008, 320, 352-355.	12.6	365
60	Decoherence dynamics of a single spin versus spin ensemble. Physical Review B, 2008, 77, .	3.2	55
61	Excited-State Spectroscopy Using Single Spin Manipulation in Diamond. Physical Review Letters, 2008, 101, 117601.	7.8	160
62	Universal Set of Quantum Gates for Double-Dot Spin Qubits with Fixed Interdot Coupling. Physical Review Letters, 2007, 98, 050502.	7.8	116
63	Spins in few-electron quantum dots. Reviews of Modern Physics, 2007, 79, 1217-1265.	45.6	2,166
64	The Diamond Age Diamond Age of Spintronics. Scientific American, 2007, 297, 84-91.	1.0	97
65	Room-temperature manipulation and decoherence of a single spin in diamond. Physical Review B, 2006, 74, .	3.2	122
66	Polarization and Readout of Coupled Single Spins in Diamond. Physical Review Letters, 2006, 97, 087601.	7.8	210
67	Single-Shot Readout of Electron Spin States in a Quantum Dot Using Spin-Dependent Tunnel Rates. Physical Review Letters, 2005, 94, 196802.	7.8	281
68	Control and Detection of Singlet-Triplet Mixing in a Random Nuclear Field. Science, 2005, 309, 1346-1350.	12.6	490
69	Single-shot read-out of an individual electron spin in a quantum dot. Nature, 2004, 430, 431-435.	27.8	1,395