Ronald Hanson

List of Publications by Year
in descending order

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69 papers	16,999 citations	41344 49 h-index	98798 67 g-index
70 all docs	70 docs citations	70 times ranked	9693 citing authors

#	Article	IF	Citations
1	Spins in few-electron quantum dots. Reviews of Modern Physics, 2007, 79, 1217-1265.	45.6	2,166
2	Loophole-free Bell inequality violation using electron spins separated by 1.3 kilometres. Nature, 2015, 526, 682-686.	27.8	1,762
3	Single-shot read-out of an individual electron spin in a quantum dot. Nature, 2004, 430, 431-435.	27.8	1,395
4	Quantum internet: A vision for the road ahead. Science, 2018, 362, .	12.6	1,098
5	Heralded entanglement between solid-state qubits separated by three metres. Nature, 2013, 497, 86-90.	27.8	859
6	Universal Dynamical Decoupling of a Single Solid-State Spin from a Spin Bath. Science, 2010, 330, 60-63.	12.6	591
7	Quantum technologies with optically interfaced solid-state spins. Nature Photonics, 2018, 12, 516-527.	31.4	581
8	High-fidelity projective read-out of a solid-state spin quantum register. Nature, 2011, 477, 574-578.	27.8	567
9	Control and Detection of Singlet-Triplet Mixing in a Random Nuclear Field. Science, 2005, 309, 1346-1350.	12.6	490
10	Coherent manipulation of single spins in semiconductors. Nature, 2008, 453, 1043-1049.	27.8	422
11	Unconditional quantum teleportation between distant solid-state quantum bits. Science, 2014, 345, 532-535.	12.6	421
12	Coherent Dynamics of a Single Spin Interacting with an Adjustable Spin Bath. Science, 2008, 320, 352-355.	12.6	365
13	Deterministic delivery of remote entanglement on a quantum network. Nature, 2018, 558, 268-273.	27.8	348
14	Decoherence-protected quantum gates for a hybrid solid-state spin register. Nature, 2012, 484, 82-86.	27.8	320
15	Diamond NV centers for quantum computing and quantum networks. MRS Bulletin, 2013, 38, 134-138.	3.5	320
16	Realization of a multinode quantum network of remote solid-state qubits. Science, 2021, 372, 259-264.	12.6	314
17	Universal control and error correction in multi-qubit spin registers in diamond. Nature Nanotechnology, 2014, 9, 171-176.	31.5	309
18	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

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19	Entanglement distillation between solid-state quantum network nodes. Science, 2017, 356, 928-932.	12.6	277
20	Detection and Control of Individual Nuclear Spins Using a Weakly Coupled Electron Spin. Physical Review Letters, 2012, 109, 137602.	7.8	222
21	Two-Photon Quantum Interference from Separate Nitrogen Vacancy Centers in Diamond. Physical Review Letters, 2012, 108, 043604.	7.8	222
22	Polarization and Readout of Coupled Single Spins in Diamond. Physical Review Letters, 2006, 97, 087601.	7.8	210
23	Coherent manipulation, measurement and entanglement of individual solid-state spins using optical fields. Nature Photonics, 2015, 9, 363-373.	31.4	208
24	Quenching Spin Decoherence in Diamond through Spin Bath Polarization. Physical Review Letters, 2008, 101, 047601.	7.8	207
25	Spin dynamics in the optical cycle of single nitrogen-vacancy centres in diamond. New Journal of Physics, 2011, 13, 025013.	2.9	202
26	Repeated quantum error correction on a continuously encoded qubit by real-time feedback. Nature Communications, 2016, 7, 11526.	12.8	174
27	Single-Spin Magnetometry with Multipulse Sensing Sequences. Physical Review Letters, 2011, 106, 080802.	7.8	164
28	Excited-State Spectroscopy Using Single Spin Manipulation in Diamond. Physical Review Letters, 2008, 101, 117601.	7.8	160
29	Demonstration of entanglement-by-measurement of solid-state qubits. Nature Physics, 2013, 9, 29-33.	16.7	127
30	A link layer protocol for quantum networks. , 2019, , .		124
31	Room-temperature manipulation and decoherence of a single spin in diamond. Physical Review B, 2006, 74, .	3.2	122
32	Universal Set of Quantum Gates for Double-Dot Spin Qubits with Fixed Interdot Coupling. Physical Review Letters, 2007, 98, 050502.	7.8	116
33	Controlling the quantum dynamics of a mesoscopic spin bath in diamond. Scientific Reports, 2012, 2, 382.	3.3	107
34	Quantum networks based on color centers in diamond. Journal of Applied Physics, 2021, 130, .	2.5	105
35	Manipulating a qubit through the backaction of sequential partial measurements and real-timeÂfeedback. Nature Physics, 2014, 10, 189-193.	16.7	104
36	Qubit teleportation between non-neighbouring nodes in a quantum network. Nature, 2022, 605, 663-668.	27.8	99

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37	The Diamond Age Diamond Age of Spintronics. Scientific American, 2007, 297, 84-91.	1.0	97
38	Control and Coherence of the Optical Transition of Single Nitrogen Vacancy Centers in Diamond. Physical Review Letters, 2010, 105, 177403.	7.8	92
39	Robust Quantum-Network Memory Using Decoherence-Protected Subspaces of Nuclear Spins. Physical Review X, 2016, 6, .	8.9	92
40	Quantum Frequency Conversion of Single Photons from a Nitrogen-Vacancy Center in Diamond to Telecommunication Wavelengths. Physical Review Applied, 2018, 9, .	3.8	90
41	Near-term quantum-repeater experiments with nitrogen-vacancy centers: Overcoming the limitations of direct transmission. Physical Review A, 2019, 99, .	2.5	88
42	Deterministic nanoassembly of a coupled quantum emitterâ€“photonic crystal cavity system. Applied Physics Letters, 2011, 98, .	3.3	83
43	Nanopositioning of a diamond nanocrystal containing a single nitrogen-vacancy defect center. Applied Physics Letters, 2009, 94, 173104.	3.3	76
44	Comparison of dynamical decoupling protocols for a nitrogen-vacancy center in diamond. Physical Review B, 2012, 85, .	3.2	76
45	Optical coherence of diamond nitrogen-vacancy centers formed by ion implantation and annealing. Physical Review B, 2019, 99, .	3.2	75
46	Decay of Rabi Oscillations by Dipolar-Coupled Dynamical Spin Environments. Physical Review Letters, 2009, 102, 237601.	7.8	73
47	Entanglement between a Diamond Spin Qubit and a Photonic Time-Bin Qubit at Telecom Wavelength. Physical Review Letters, 2019, 123, 063601.	7.8	59
48	Optically Coherent Nitrogen-Vacancy Centers in Micrometer-Thin Etched Diamond Membranes. Nano Letters, 2019, 19, 3987-3992.	9.1	59
49	Decoherence dynamics of a single spin versus spin ensemble. Physical Review B, 2008, 77, .	3.2	55
50	Dephasing mechanisms of diamond-based nuclear-spin memories for quantum networks. Physical Review A, 2018, 97, .	2.5	54
51	Parameter regimes for a single sequential quantum repeater. Quantum Science and Technology, 2018, 3, 034002.	5.8	44
52	Design and low-temperature characterization of a tunable microcavity for diamond-based quantum networks. Applied Physics Letters, 2017, 110, .	3.3	41
53	Resonant Excitation and Purcell Enhancement of Coherent Nitrogen-Vacancy Centers Coupled to a Fabry-Perot Microcavity. Physical Review Applied, 2021, 15, .	3.8	39
54	Towards a realization of device-independent quantum key distribution. Quantum Science and Technology, 2019, 4, 035011.	5.8	34

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55	Experimental creation of quantum Zeno subspaces by repeated multi-spin projections in diamond. Nature Communications, 2016, 7, 13111.	12.8	32
56	Multiplexed entanglement generation over quantum networks using multi-qubit nodes. Quantum Science and Technology, 2017, 2, 034002.	5.8	30
57	Multipartite Entanglement Generation and Contextuality Tests Using Nondestructive Three-Qubit Parity Measurements. Physical Review Letters, 2019, 123, 050401.	7.8	27
58	Towards quantum networks of single spins: analysis of a quantum memory with an optical interface in diamond. Faraday Discussions, 2015, 184, 173-182.	3.2	25
59	Bootstrap Tomography of the Pulses for Quantum Control. Physical Review Letters, 2010, 105, 077601.	7.8	19
60	Robust nano-fabrication of an integrated platform for spin control in a tunable microcavity. APL Photonics, 2017, 2, .	5.7	17
61	Optimal design of diamond-air microcavities for quantum networks using an analytical approach. New Journal of Physics, 2018, 20, 115004.	2.9	17
62	Orbital and Spin Dynamics of Single Neutrally-Charged Nitrogen-Vacancy Centers in Diamond. Physical Review Letters, 2020, 125, 193601.	7.8	16
63	Telecom-Band Quantum Interference of Frequency-Converted Photons from Remote Detuned NV Centers. PRX Quantum, 2022, 3, .	9.2	13
64	Light, the universe and everything â€“ 12 Herculean tasks for quantum cowboys and black diamond skiers. Journal of Modern Optics, 2018, 65, 1261-1308.	1.3	6
65	Witnessing entanglement in experiments with correlated noise. Quantum Science and Technology, 2020, 5, 035007.	5.8	4
66	Mother Nature outgrown. Nature Materials, 2009, 8, 368-369.	27.5	3
67	Diamond defects cooperate via light. Science, 2016, 354, 835-836.	12.6	3
68	From the first loophole-free Bell test to a Quantum Internet. , 2016, , .		0
69	Realization of a Multi-Node Quantum Network of Remote Solid-State Qubits. , 2021, , .		0