Patrick Maletinsky

List of Publications by Year
in descending order

79 papers	6,299 citations	109321 35 h-index	98798 67 g-index
83 all docs	83 docs citations	83 times ranked	5981 citing authors

#	Article	IF	Citations
1	Magnetometry with nitrogen-vacancy defects in diamond. Reports on Progress in Physics, 2014, 77, 056503.	20.1	882
2	A robust scanning diamond sensor for nanoscale imaging with single nitrogen-vacancy centres. Nature Nanotechnology, 2012, 7, 320-324.	31.5	525
3	Probing magnetism in 2D materials at the nanoscale with single-spin microscopy. Science, 2019, 364, 973-976.	12.6	347
4	Nanoscale magnetic imaging of a single electron spin under ambient conditions. Nature Physics, 2013, 9, 215-219.	16.7	330
5	Nuclear spin physics in quantum dots: An optical investigation. Reviews of Modern Physics, 2013, 85, 79-133.	45.6	298
6	Strain Coupling of a Nitrogen-Vacancy Center Spin to a Diamond Mechanical Oscillator. Physical Review Letters, 2014, 113, 020503.	7.8	251
7	Subnanometre resolution in three-dimensional magnetic resonance imaging of individual dark spins. Nature Nanotechnology, 2014, 9, 279-284.	31.5	224
8	Purely antiferromagnetic magnetoelectric random access memory. Nature Communications, 2017, 8, 13985.	12.8	217
9	Real-space imaging of non-collinear antiferromagnetic order with a single-spin magnetometer. Nature, 2017, 549, 252-256.	27.8	203
10	Integrated Diamond Networks for Quantum Nanophotonics. Nano Letters, 2012, 12, 1578-1582.	9.1	183
11	Knight-Field-Enabled Nuclear Spin Polarization in Single Quantum Dots. Physical Review Letters, 2006, 96, 167403.	7.8	176
12	Enhanced single-photon emission from a diamondâ€“silver aperture. Nature Photonics, 2011, 5, 738-743.	31.4	171
13	Coherent Optical Transitions in Implanted Nitrogen Vacancy Centers. Nano Letters, 2014, 14, 1982-1986.	9.1	169
14	Confluence of resonant laser excitation and bidirectional quantum-dot nuclear-spin polarization. Nature Physics, 2009, 5, 758-763.	16.7	160
15	Strong mechanical driving of a single electron spin. Nature Physics, 2015, 11, 820-824.	16.7	148
16	Quantitative nanoscale vortex imaging using a cryogenic quantum magnetometer. Nature Nanotechnology, 2016, 11, 677-681.	31.5	138
17	Quantum control of proximal spins using nanoscale magnetic resonance imaging. Nature Physics, 2011, 7, 687-692.	16.7	120
18	Dynamics of Quantum Dot Nuclear Spin Polarization Controlled by a Single Electron. Physical Review Letters, 2007, 99, 056804.	7.8	114

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19	Fabrication of all diamond scanning probes for nanoscale magnetometry. Review of Scientific Instruments, 2016, 87, 063703.	1.3	113
20	Deterministic Enhancement of Coherent Photon Generation from a Nitrogen-Vacancy Center in Ultrapure Diamond. Physical Review X, 2017, 7, .	8.9	108
21	Nonlinear dynamics of quantum dot nuclear spins. Physical Review B, 2007, 75, .	3.2	89
22	Coherent, Mechanical Control of a Single Electronic Spin. Nano Letters, 2012, 12, 3920-3924.	9.1	81
23	High-resolution spectroscopy on trapped molecular ions in rotating electric fields: A new approach for measuring the electron electric dipole moment. Journal of Molecular Spectroscopy, 2011, 270, 1-25.	1.2	79
24	Photonic nano-structures on (111)-oriented diamond. Applied Physics Letters, 2014, 104, .	3.3	74
25	Breakdown of the nuclear-spin-temperature approach in quantum-dot demagnetization experiments. Nature Physics, 2009, 5, 407-411.	16.7	69
26	Microwave Device Characterization Using a Widefield Diamond Microscope. Physical Review Applied, 2018, 10, .	3.8	64
27	Nanoscale microwave imaging with a single electron spin in diamond. New Journal of Physics, 2015, 17, 112001.	2.9	62
28	Skyrmion morphology in ultrathin magnetic films. Physical Review Materials, 2018, 2, .	2.4	52
29	Low-Loss Broadband Antenna for Efficient Photon Collection from a Coherent Spin in Diamond. Physical Review Applied, 2014, 2, .	3.8	51
30	Nanoscale mechanics of antiferromagnetic domain walls. Nature Physics, 2021, 17, 574-577.	16.7	49
31	Optical-Phonon Resonances with Saddle-Point Excitons in Twisted-Bilayer Graphene. Nano Letters, 2014, 14, 5687-5692.	9.1	45
32	Nanomagnetism of Magnetoelectric Granular Thin-Film Antiferromagnets. Nano Letters, 2019, 19, 1682-1687.	9.1	45
33	Anomalous Hanle Effect due to Optically Created Transverse Overhauser Field in Single<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>InAs</mml:mi><mml:mo>/</mml:mo><mml:mi>GaAs</mml:mi></mml:math>Quantum Dots. Physical Review Letters, 2010, 104, 056603.	7.8	42
34	Initialization of Single Spin Dressed States using Shortcuts to Adiabaticity. Physical Review Letters, 2019, 122, 090502.	7.8	42
35	Decoherence imaging of spin ensembles using a scanning single-electron spin in diamond. Scientific Reports, 2015, 5, 8119.	3.3	36
36	Stokesâ€“anti-Stokes correlations in diamond. Optics Letters, 2015, 40, 2393.	3.3	36

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37	Wide-Field Imaging of Superconductor Vortices with Electron Spins in Diamond. Physical Review Applied, 2018, 10, .	3.8	36
38	Improved Current Density and Magnetization Reconstruction Through Vector Magnetic Field Measurements. Physical Review Applied, 2020, 14, .	3.8	32
39	Spin-lattice relaxation of individual solid-state spins. Physical Review B, 2018, 97, .	3.2	31
40	Phase-controlled coherent dynamics of a single spin under closed-contour interaction. Nature Physics, 2018, 14, 1087-1091.	16.7	28
41	Spin-stress and spin-strain coupling in diamond-based hybrid spin oscillator systems. Physical Review B, 2019, 99, .	3.2	28
42	Low-Charge-Noise Nitrogen-Vacancy Centers in Diamond Created Using Laser Writing with a Solid-Immersion Lens. ACS Photonics, 2021, 8, 1726-1734.	6.6	28
43	Parabolic Diamond Scanning Probes for Single-Spin Magnetic Field Imaging. Physical Review Applied, 2020, 14, .	3.8	27
44	Current-Induced Nucleation and Dynamics of Skyrmions in a <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:mi>Co</mml:mi></mml:math> -based HeuslerÂAlloy. Physical Review Applied, 2019, 11, .	3.8	26
45	Advanced Fabrication of Single-Crystal Diamond Membranes for Quantum Technologies. Micromachines, 2018, 9, 148.	2.9	25
46	High-efficiency resonant amplification of weak magnetic fields for single spin magnetometry at room temperature. Nature Nanotechnology, 2015, 10, 541-546.	31.5	18
47	Site selective growth of heteroepitaxial diamond nanoislands containing single SiV centers. Applied Physics Letters, 2016, 108, .	3.3	18
48	Color Centers in Diamond as Novel Probes of Superconductivity. Journal of Superconductivity and Novel Magnetism, 2019, 32, 85-95.	1.8	18
49	Stokes and anti-Stokes Raman spectra of the high-energy C-C stretching modes in graphene and diamond. Physica Status Solidi (B): Basic Research, 2015, 252, 2380-2384.	1.5	17
50	Cavity-Enhanced Raman Scattering for In Situ Alignment and Characterization of Solid-State Microcavities. Physical Review Applied, 2020, 13, .	3.8	17
51	Single crystal diamond pyramids for applications in nanoscale quantum sensing. Optical Materials Express, 2020, 10, 492.	3.0	16
52	Long decay length of magnon-polarons in BiFeO3/La0.67Sr0.33MnO3 heterostructures. Nature Communications, 2021, 12, 7258.	12.8	15
53	(111)-oriented, single crystal diamond tips for nanoscale scanning probe imaging of out-of-plane magnetic fields. Applied Physics Letters, 2019, 115, 192401.	3.3	14
54	Hybrid continuous dynamical decoupling: a photon-phonon doubly dressed spin. Journal of Optics (United Kingdom), 2017, 19, 044003.	2.2	13

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55	Statistically modeling optical linewidths of nitrogen vacancy centers in microstructures. Physical Review B, 2020, 102, .	3.2	13
56	Defect Nanostructure and its Impact on Magnetism of Î±â€Cr₂O₃ Thin Films. Small, 2022, 18, e2201228.	10.0	13
57	Real-Space Probing of the Local Magnetic Response of Thin-Film Superconductors Using Single Spin Magnetometry. Sensors, 2018, 18, 3790.	3.8	11
58	Low-Temperature Photophysics of Single Nitrogen-Vacancy Centers in Diamond. Physical Review Letters, 2022, 128, 177401.	7.8	11
59	A diamond-confined open microcavity featuring a high quality-factor and a small mode-volume. Journal of Applied Physics, 2022, 131, .	2.5	10
60	Determination of intrinsic effective fields and microwave polarizations by high-resolution spectroscopy of single nitrogen-vacancy center spins. New Journal of Physics, 2019, 21, 113039.	2.9	7
61	Probing Magnetic Defects in Ultra-Scaled Nanowires with Optically Detected Spin Resonance in Nitrogen-Vacancy Center in Diamond. Nano Letters, 2021, 21, 10409-10415.	9.1	6
62	Optimal architecture for diamond-based wide-field thermal imaging. AIP Advances, 2020, 10, .	1.3	5
63	Diamond nanopillar arrays for quantum microscopy of neuronal signals. Neurophotonics, 2020, 7, 1.	3.3	5
64	Magnetism and Magnetoelectricity of Textured Polycrystalline Bulk Cr₂O₃ Sintered in Conditions Far out of Equilibrium. ACS Applied Electronic Materials, 2022, 4, 2943-2952.	4.3	5
65	Quantitative Imaging of Exotic Antiferromagnetic Spin Cycloids in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:msub><mml:mrow><mml:mi>Bi</mml:mi><mml:mi>Fe</mml:mi><mml:mi mathvariant="normal">O</mml:mi></mml:mrow><mml:mn>3</mml:mn></mml:msub></mml:math> Thin Films. Physical Review Applied, 2022, 17, .	3.8	3
66	On-Chip Single Crystal Diamond Resonators. , 2011, , .		2
67	Mode-locked Nd:YVO/sub 4/ laser with 157 GHz repetition rate. , 0, , .		0
68	Dynamic nuclear polarization in the absence of external magnetic fields. , 2006, , .		0
69	Nonlinear dynamics of quantum dot nuclear spins. , 2007, , .		0
70	Scanning probe magnetometry and nanoscale magnetic resonance imaging using nitrogen-vacancy spins in diamond. , 2012, , .		0
71	Diamond magnetic sensors. , 2014, , 240-263.		0
72	Widefield microwave imaging using NV centres. , 2017, , .		0

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73	N Anoscale Magnetometry Using Single Spin Quantum Sensors. , 2018, , .		0
74	Technology leaps in quantum sensing. PhotonicsViews, 2021, 18, 36-39.	0.1	0
75	Nanomagnetism of Cr2O3 investigated using parabolic diamond pillars. , 2019, , .		0
76	Toward Novel Coherence Protection and Sensing Techniques: Closed Counter Interaction Using a Single Spin. , 2019, , .		0
77	A tunable Fabry-PÃ©rot cavity for diamond-based photonics. , 2019, , .		0
78	Waveguides, cavities and optical antennas for diamond quantum sensing. , 2019, , .		0
79	Nanoscale Magnetometry with Single Spins in Diamond at Low Temperature. , 2019, , .		0