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	Defect Nanostructure and its Impact on Magnetism of Î±â€Cr₂O₃ Thin Films. Small, 2022, 18, e2201228.	10.0	13
2	A diamond-confined open microcavity featuring a high quality-factor and a small mode-volume. Journal of Applied Physics, 2022, 131, .	2.5	10
3	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
4	Low-Temperature Photophysics of Single Nitrogen-Vacancy Centers in Diamond. Physical Review Letters, 2022, 128, 177401.	7.8	11
5	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
6	Nanoscale mechanics of antiferromagnetic domain walls. Nature Physics, 2021, 17, 574-577.	16.7	49
7	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
8	Technology leaps in quantum sensing. PhotonicsViews, 2021, 18, 36-39.	0.1	0
9	Long decay length of magnon-polarons in BiFeO3/La0.67Sr0.33MnO3 heterostructures. Nature Communications, 2021, 12, 7258.	12.8	15
10	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
11	Improved Current Density and Magnetization Reconstruction Through Vector Magnetic Field Measurements. Physical Review Applied, 2020, 14, .	3.8	32
12	Statistically modeling optical linewidths of nitrogen vacancy centers in microstructures. Physical Review B, 2020, 102, .	3.2	13
13	Parabolic Diamond Scanning Probes for Single-Spin Magnetic Field Imaging. Physical Review Applied, 2020, 14, .	3.8	27
14	Cavity-Enhanced Raman Scattering for In Situ Alignment and Characterization of Solid-State Microcavities. Physical Review Applied, 2020, 13, .	3.8	17
15	Optimal architecture for diamond-based wide-field thermal imaging. AIP Advances, 2020, 10, .	1.3	5
16	Diamond nanopillar arrays for quantum microscopy of neuronal signals. Neurophotonics, 2020, 7, 1.	3.3	5
17	Single crystal diamond pyramids for applications in nanoscale quantum sensing. Optical Materials Express, 2020, 10, 492.	3.0	16
18	(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

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19	Nanomagnetism of Magnetoelectric Granular Thin-Film Antiferromagnets. Nano Letters, 2019, 19, 1682-1687.	9.1	45
20	Spin-stress and spin-strain coupling in diamond-based hybrid spin oscillator systems. Physical Review B, 2019, 99, .	3.2	28
21	Probing magnetism in 2D materials at the nanoscale with single-spin microscopy. Science, 2019, 364, 973-976.	12.6	347
22	Initialization of Single Spin Dressed States using Shortcuts to Adiabaticity. Physical Review Letters, 2019, 122, 090502.	7.8	42
23	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
24	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
25	Color Centers in Diamond as Novel Probes of Superconductivity. Journal of Superconductivity and Novel Magnetism, 2019, 32, 85-95.	1.8	18
26	Nanomagnetism of Cr2O3 investigated using parabolic diamond pillars. , 2019, , .		0
27	Toward Novel Coherence Protection and Sensing Techniques: Closed Counter Interaction Using a Single Spin. , 2019, , .		0
28	A tunable Fabry-PÃ©rot cavity for diamond-based photonics. , 2019, , .		0
29	Waveguides, cavities and optical antennas for diamond quantum sensing. , 2019, , .		0
30	Nanoscale Magnetometry with Single Spins in Diamond at Low Temperature. , 2019, , .		0
31	Spin-lattice relaxation of individual solid-state spins. Physical Review B, 2018, 97, .	3.2	31
32	N Anoscale Magnetometry Using Single Spin Quantum Sensors. , 2018, , .		0
33	Real-Space Probing of the Local Magnetic Response of Thin-Film Superconductors Using Single Spin Magnetometry. Sensors, 2018, 18, 3790.	3.8	11
34	Microwave Device Characterization Using a Widefield Diamond Microscope. Physical Review Applied, 2018, 10, .	3.8	64
35	Wide-Field Imaging of Superconductor Vortices with Electron Spins in Diamond. Physical Review Applied, 2018, 10, .	3.8	36
36	Phase-controlled coherent dynamics of a single spin under closed-contour interaction. Nature Physics, 2018, 14, 1087-1091.	16.7	28

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37	Advanced Fabrication of Single-Crystal Diamond Membranes for Quantum Technologies. Micromachines, 2018, 9, 148.	2.9	25
38	Skyrmion morphology in ultrathin magnetic films. Physical Review Materials, 2018, 2, .	2.4	52
39	Purely antiferromagnetic magnetoelectric random access memory. Nature Communications, 2017, 8, 13985.	12.8	217
40	Deterministic Enhancement of Coherent Photon Generation from a Nitrogen-Vacancy Center in Ultrapure Diamond. Physical Review X, 2017, 7, .	8.9	108
41	Real-space imaging of non-collinear antiferromagnetic order with a single-spin magnetometer. Nature, 2017, 549, 252-256.	27.8	203
42	Hybrid continuous dynamical decoupling: a photon-phonon doubly dressed spin. Journal of Optics (United Kingdom), 2017, 19, 044003.	2.2	13
43	Widefield microwave imaging using NV centres. , 2017, , .		0
44	Site selective growth of heteroepitaxial diamond nanoislands containing single SiV centers. Applied Physics Letters, 2016, 108, .	3.3	18
45	Quantitative nanoscale vortex imaging using a cryogenic quantum magnetometer. Nature Nanotechnology, 2016, 11, 677-681.	31.5	138
46	Fabrication of all diamond scanning probes for nanoscale magnetometry. Review of Scientific Instruments, 2016, 87, 063703.	1.3	113
47	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
48	Nanoscale microwave imaging with a single electron spin in diamond. New Journal of Physics, 2015, 17, 112001.	2.9	62
49	Decoherence imaging of spin ensembles using a scanning single-electron spin in diamond. Scientific Reports, 2015, 5, 8119.	3.3	36
50	Strong mechanical driving of a single electron spin. Nature Physics, 2015, 11, 820-824.	16.7	148
51	High-efficiency resonant amplification of weak magnetic fields for single spin magnetometry at room temperature. Nature Nanotechnology, 2015, 10, 541-546.	31.5	18
52	Stokesâ€“anti-Stokes correlations in diamond. Optics Letters, 2015, 40, 2393.	3.3	36
53	Diamond magnetic sensors. , 2014, , 240-263.		0
54	Subnanometre resolution in three-dimensional magnetic resonance imaging of individual dark spins. Nature Nanotechnology, 2014, 9, 279-284.	31.5	224

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55	Strain Coupling of a Nitrogen-Vacancy Center Spin to a Diamond Mechanical Oscillator. Physical Review Letters, 2014, 113, 020503.	7.8	251
56	Optical-Phonon Resonances with Saddle-Point Excitons in Twisted-Bilayer Graphene. Nano Letters, 2014, 14, 5687-5692.	9.1	45
57	Coherent Optical Transitions in Implanted Nitrogen Vacancy Centers. Nano Letters, 2014, 14, 1982-1986.	9.1	169
58	Magnetometry with nitrogen-vacancy defects in diamond. Reports on Progress in Physics, 2014, 77, 056503.	20.1	882
59	Photonic nano-structures on (111)-oriented diamond. Applied Physics Letters, 2014, 104, .	3.3	74
60	Low-Loss Broadband Antenna for Efficient Photon Collection from a Coherent Spin in Diamond. Physical Review Applied, 2014, 2, .	3.8	51
61	Nuclear spin physics in quantum dots: An optical investigation. Reviews of Modern Physics, 2013, 85, 79-133.	45.6	298
62	Nanoscale magnetic imaging of a single electron spin under ambient conditions. Nature Physics, 2013, 9, 215-219.	16.7	330
63	Scanning probe magnetometry and nanoscale magnetic resonance imaging using nitrogen-vacancy spins in diamond. , 2012, , .		0
64	Integrated Diamond Networks for Quantum Nanophotonics. Nano Letters, 2012, 12, 1578-1582.	9.1	183
65	Coherent, Mechanical Control of a Single Electronic Spin. Nano Letters, 2012, 12, 3920-3924.	9.1	81
66	A robust scanning diamond sensor for nanoscale imaging with single nitrogen-vacancy centres. Nature Nanotechnology, 2012, 7, 320-324.	31.5	525
67	Enhanced single-photon emission from a diamondâ€“silver aperture. Nature Photonics, 2011, 5, 738-743.	31.4	171
68	Quantum control of proximal spins using nanoscale magnetic resonance imaging. Nature Physics, 2011, 7, 687-692.	16.7	120
69	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
70	On-Chip Single Crystal Diamond Resonators. , 2011, , .		2
71	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
72	Breakdown of the nuclear-spin-temperature approach in quantum-dot demagnetization experiments. Nature Physics, 2009, 5, 407-411.	16.7	69

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73	Confluence of resonant laser excitation and bidirectional quantum-dot nuclear-spin polarization. Nature Physics, 2009, 5, 758-763.	16.7	160
74	Nonlinear dynamics of quantum dot nuclear spins. Physical Review B, 2007, 75, .	3.2	89
75	Dynamics of Quantum Dot Nuclear Spin Polarization Controlled by a Single Electron. Physical Review Letters, 2007, 99, 056804.	7.8	114
76	Nonlinear dynamics of quantum dot nuclear spins. , 2007, , .		0
77	Knight-Field-Enabled Nuclear Spin Polarization in Single Quantum Dots. Physical Review Letters, 2006, 96, 167403.	7.8	176
78	Dynamic nuclear polarization in the absence of external magnetic fields. , 2006, , .		0
79	Mode-locked Nd:YVO/sub 4/ laser with 157 GHz repetition rate. , 0, , .		0