

J-F Roch

List of Publications by Year in descending order

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41
papers

5,061
citations

186265
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37
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41
all docs

41
docs citations

41
times ranked

4643
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	Strong Coupling of a Spin Ensemble to a Superconducting Resonator. Physical Review Letters, 2010, 105, 140502.	7.8	541
3	Experimental Realization of Wheeler's Delayed-Choice Gedanken Experiment. Science, 2007, 315, 966-968.	12.6	422
4	Hybrid Quantum Circuit with a Superconducting Qubit Coupled to a Spin Ensemble. Physical Review Letters, 2011, 107, 220501.	7.8	335
5	Avoiding power broadening in optically detected magnetic resonance of single NV defects for enhanced dc magnetic field sensitivity. Physical Review B, 2011, 84, .	3.2	307
6	Magnetic-field-dependent photodynamics of single NV defects in diamond: an application to qualitative all-optical magnetic imaging. New Journal of Physics, 2012, 14, 103033.	2.9	242
7	Surface-induced charge state conversion of nitrogen-vacancy defects in nanodiamonds. Physical Review B, 2010, 82, .	3.2	233
8	The nature of domain walls in ultrathin ferromagnets revealed by scanning nanomagnetometry. Nature Communications, 2015, 6, 6733.	12.8	183
9	Nanoscale magnetic field mapping with a single spin scanning probe magnetometer. Applied Physics Letters, 2012, 100, .	3.3	177
10	Nanoscale imaging and control of domain-wall hopping with a nitrogen-vacancy center microscope. Science, 2014, 344, 1366-1369.	12.6	158
11	Spin relaxometry of single nitrogen-vacancy defects in diamond nanocrystals for magnetic noise sensing. Physical Review B, 2013, 87, .	3.2	139
12	Stray-field imaging of magnetic vortices with a single diamond spin. Nature Communications, 2013, 4, 2279.	12.8	124
13	Quantum Nondemolition Measurements using Cold Trapped Atoms. Physical Review Letters, 1997, 78, 634-637.	7.8	122
14	Experimental open-air quantum key distribution with a single-photon source. New Journal of Physics, 2004, 6, 92-92.	2.9	99
15	Perfect preferential orientation of nitrogen-vacancy defects in a synthetic diamond sample. Applied Physics Letters, 2014, 104, .	3.3	96
16	High-resolution spectroscopy of single NV defects coupled with nearby ^{13}C nuclear spins in diamond. Physical Review B, 2012, 85, .	3.2	87
17	Room temperature triggered single-photon source in the near infrared. New Journal of Physics, 2007, 9, 434-434.	2.9	86
18	Direct Measurement of the Photon Statistics of a Triggered Single Photon Source. Physical Review Letters, 2002, 89, 093601.	7.8	81

#	ARTICLE	IF	CITATIONS
19	Engineered arrays of nitrogen-vacancy color centers in diamond based on implantation of CN ⁺ molecules through nanoapertures. New Journal of Physics, 2011, 13, 025014.	2.9	75
20	Storage and retrieval of a microwave field in a spin ensemble. Physical Review A, 2012, 85, .	2.5	74
21	Photoluminescence of single colour defects in 50nm diamond nanocrystals. Physica B: Condensed Matter, 2006, 376-377, 926-929.	2.7	69
22	Competition between electric field and magnetic field noise in the decoherence of a single spin in diamond. Physical Review B, 2016, 93, .	3.2	69
23	Direct measurement of interfacial Dzyaloshinskii-Moriya interaction in $X $ with a scanning NV magnetometer		

#	ARTICLE	IF	CITATIONS
37	Intensity noise measurement of strongly attenuated laser diode pulses in the time domain. EPJ Applied Physics, 2006, 35, 117-121.	0.7	1
38	Diamond-Based Single-photon Emission in the Near Infrared. , 2006, , .		1
39	Quantum non-demolition measurements using cold atoms in an optical cavity. Journal of Modern Optics, 1997, 44, 1967-1984.	1.3	0
40	Wheeler's delayed-choice thought experiment: Experimental realization and theoretical analysis. Annales De Physique, 2007, 32, 195-197.	0.2	0
41	Triggered single-photon source based on photoluminescence of single nickel-related colour centres in CVD-grown nanodiamonds. Annales De Physique, 2007, 32, 159-161.	0.2	0