

# Vincent Jacques

## List of Publications by Year in descending order

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40  
papers

6,489  
citations

186265

28  
h-index

289244

40  
g-index

42  
all docs

42  
docs citations

42  
times ranked

5948  
citing authors

#	ARTICLE	IF	CITATIONS
1	Imaging Topological Defects in a Noncollinear Antiferromagnet. Physical Review Letters, 2022, 128, 187201.	7.8	9
2	Imaging non-collinear antiferromagnetic textures via single spin relaxometry. Nature Communications, 2021, 12, 767.	12.8	49
3	Characterization of room-temperature in-plane magnetization in thin flakes of $\text{CrTe}_2$ with a single-spin magnetometer. Physical Review Materials, 2021, 5, .		
4	Quantitative study of the response of a single NV defect in diamond to magnetic noise. Physical Review B, 2021, 103, .	3.2	12
5	Electric and antiferromagnetic chiral textures at multiferroic domain walls. Nature Materials, 2020, 19, 386-390.	27.5	64
6	Single artificial atoms in silicon emitting at telecom wavelengths. Nature Electronics, 2020, 3, 738-743.	26.0	72
7	Room-Temperature Skyrmions at Zero Field in Exchange-Biased Ultrathin Films. Physical Review Applied, 2020, 13, .	3.8	29
8	Antiferromagnetic textures in BiFeO <sub>3</sub> controlled by strain and electric field. Nature Communications, 2020, 11, 1704.	12.8	61
9	Current-Induced Nucleation and Dynamics of Skyrmions in a $\text{Co}_2\text{MnSi}$ -based Heusler Alloy. Physical Review Applied, 2019, 11, .	3.8	26
10	Shallow and deep levels in carbon-doped hexagonal boron nitride crystals. Physical Review Materials, 2019, 3, .	2.4	35
11	Coherent population trapping with a controlled dissipation: applications in optical metrology. New Journal of Physics, 2018, 20, 033007.	2.9	8
12	Skyrmion morphology in ultrathin magnetic films. Physical Review Materials, 2018, 2, .	2.4	52
13	Current-induced skyrmion generation and dynamics in symmetric bilayers. Nature Communications, 2017, 8, 15765.	12.8	248
14	Real-space imaging of non-collinear antiferromagnetic order with a single-spin magnetometer. Nature, 2017, 549, 252-256.	27.8	203
15	Stimulated Raman adiabatic control of a nuclear spin in diamond. Physical Review B, 2017, 96, .	3.2	12
16	Efficient single photon emission from a high-purity hexagonal boron nitride crystal. Physical Review B, 2016, 94, .	3.2	135
17	Production of bulk NV centre arrays by shallow implantation and diamond CVD overgrowth. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 2594-2600.	1.8	21
18	Direct measurement of interfacial Dzyaloshinskii-Moriya interaction in $\text{X}_2\text{M}_2\text{S}_4$ with a scanning NV magnetometer		

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19	Competition between electric field and magnetic field noise in the decoherence of a single spin in diamond. <i>Physical Review B</i> , 2016, 93, .	3.2	69
20	Coherent Population Trapping of a Single Nuclear Spin Under Ambient Conditions. <i>Physical Review Letters</i> , 2016, 116, 043603.	7.8	29
21	Measuring the Magnetic Moment Density in Patterned Ultrathin Ferromagnets with Submicrometer Resolution. <i>Physical Review Applied</i> , 2015, 4, .	3.8	29
22	The nature of domain walls in ultrathin ferromagnets revealed by scanning nanomagnetometry. <i>Nature Communications</i> , 2015, 6, 6733.	12.8	183
23	Nitrogen-vacancy-center imaging of bubble domains in a 6-Å... film of cobalt with perpendicular magnetization. <i>Journal of Applied Physics</i> , 2014, 115, .	2.5	10
24	Probing the Dynamics of a Nuclear Spin Bath in Diamond through Time-Resolved Central Spin Magnetometry. <i>Physical Review Letters</i> , 2014, 113, 137601.	7.8	14
25	Magnetometry with nitrogen-vacancy defects in diamond. <i>Reports on Progress in Physics</i> , 2014, 77, 056503.	20.1	882
26	Nanoscale imaging and control of domain-wall hopping with a nitrogen-vacancy center microscope. <i>Science</i> , 2014, 344, 1366-1369.	12.6	158
27	Stray-field imaging of magnetic vortices with a single diamond spin. <i>Nature Communications</i> , 2013, 4, 2279.	12.8	124
28	Spin relaxometry of single nitrogen-vacancy defects in diamond nanocrystals for magnetic noise sensing. <i>Physical Review B</i> , 2013, 87, .	3.2	139
29	Magnetic-field-dependent photodynamics of single NV defects in diamond: an application to qualitative all-optical magnetic imaging. <i>New Journal of Physics</i> , 2012, 14, 103033.	2.9	242
30	High-resolution spectroscopy of single NV defects coupled with nearby $^{13}\text{C}$ nuclear spins in diamond. <i>Physical Review B</i> , 2012, 85, .	3.2	87
31	Free induction decay of single spins in diamond. <i>New Journal of Physics</i> , 2012, 14, 103041.	2.9	34
32	Nanoscale magnetic field mapping with a single spin scanning probe magnetometer. <i>Applied Physics Letters</i> , 2012, 100, .	3.3	177
33	A single nitrogen-vacancy defect coupled to a nanomechanical oscillator. <i>Nature Physics</i> , 2011, 7, 879-883.	16.7	303
34	Avoiding power broadening in optically detected magnetic resonance of single NV defects for enhanced dc magnetic field sensitivity. <i>Physical Review B</i> , 2011, 84, .	3.2	307
35	Hybrid Quantum Circuit with a Superconducting Qubit Coupled to a Spin Ensemble. <i>Physical Review Letters</i> , 2011, 107, 220501.	7.8	335
36	Surface-induced charge state conversion of nitrogen-vacancy defects in nanodiamonds. <i>Physical Review B</i> , 2010, 82, .	3.2	233

#	ARTICLE	IF	CITATIONS
37	Coherence of single spins coupled to a nuclear spin bath of varying density. Physical Review B, 2009, 80, .	3.2	175
38	Ultralong spin coherence time in isotopically engineered diamond. Nature Materials, 2009, 8, 383-387.	27.5	1,596
39	Excited-state spectroscopy of single NV defects in diamond using optically detected magnetic resonance. New Journal of Physics, 2009, 11, 013017.	2.9	170
40	Narrow-band single-photon emission in the near infrared for quantum key distribution. Optics Express, 2006, 14, 1296.	3.4	68