

Romain Lebrun

List of Publications by Year in descending order

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56
all docs

56
docs citations

56
times ranked

1893
citing authors

#	ARTICLE	IF	CITATIONS
1	Tunable long-distance spin transport in a crystalline antiferromagnetic iron oxide. <i>Nature</i> , 2018, 561, 222-225.	13.7	364
2	Advances in Magnetism Roadmap on Spin-Wave Computing. <i>IEEE Transactions on Magnetism</i> , 2022, 58, 1-72.	1.2	179
3	Mechanism of Néel Order Switching in Antiferromagnetic Thin Films Revealed by Magnetotransport and Direct Imaging. <i>Physical Review Letters</i> , 2019, 123, 177201.	2.9	119
4	Efficient Synchronization of Dipolarly Coupled Vortex-Based Spin Transfer Nano-Oscillators. <i>Scientific Reports</i> , 2015, 5, 17039.	1.6	97
5	Mutual synchronization of spin torque nano-oscillators through a long-range and tunable electrical coupling scheme. <i>Nature Communications</i> , 2017, 8, 15825.	5.8	85
6	Spin-torque resonant expulsion of the vortex core for an efficient radiofrequency detection scheme. <i>Nature Nanotechnology</i> , 2016, 11, 360-364.	15.6	75
7	Interfacial Dzyaloshinskii-Moriya interaction and chiral magnetic textures in a ferrimagnetic insulator. <i>Physical Review B</i> , 2019, 100, .	1.1	73
8	Long-distance spin-transport across the Morin phase transition up to room temperature in ultra-low damping single crystals of the antiferromagnet $\text{Ir-Fe}_2\text{O}_3$. <i>Nature Communications</i> , 2020, 11, 6332.	5.8	65
9	High emission power and Q factor in spin torque vortex oscillator consisting of FeB free layer. <i>Applied Physics Express</i> , 2014, 7, 063009.	1.1	58
10	Ultrafast spin-currents and charge conversion at 3d-5d interfaces probed by time-domain terahertz spectroscopy. <i>Applied Physics Reviews</i> , 2020, 7, .	5.5	57
11	Anisotropies and magnetic phase transitions in insulating antiferromagnets determined by a Spin-Hall magnetoresistance probe. <i>Communications Physics</i> , 2019, 2, .	2.0	54
12	Understanding of Phase Noise Squeezing Under Fractional Synchronization of a Nonlinear Spin Transfer Vortex Oscillator. <i>Physical Review Letters</i> , 2015, 115, 017201.	2.9	50
13	Scaling up electrically synchronized spin torque oscillator networks. <i>Scientific Reports</i> , 2018, 8, 13475.	1.6	49
14	Propagation Length of Antiferromagnetic Magnons Governed by Domain Configurations. <i>Nano Letters</i> , 2020, 20, 306-313.	4.5	48
15	Control of the coupling strength and linewidth of a cavity magnon-polariton. <i>Physical Review Research</i> , 2020, 2, .	1.3	43
16	Self-Injection Locking of a Vortex Spin Torque Oscillator by Delayed Feedback. <i>Scientific Reports</i> , 2016, 6, 26849.	1.6	40
17	Efficient Spin Torques in Antiferromagnetic CoO Quantified by Comparing Field- and Current-Induced Switching. <i>Physical Review Letters</i> , 2020, 125, 077201.	2.9	40
18	Room-Temperature Antiferromagnetic Resonance and Inverse Spin-Hall Voltage in Canted Antiferromagnets. <i>Physical Review Letters</i> , 2021, 126, 187201.	2.9	39

#	ARTICLE	IF	CITATIONS
19	Perfect and robust phase-locking of a spin transfer vortex nano-oscillator to an external microwave source. Applied Physics Letters, 2014, 104, .	1.5	36
20	Origin of Spectral Purity and Tuning Sensitivity in a Spin Transfer Vortex Nano-Oscillator. Physical Review Letters, 2014, 112, 257201.	2.9	35
21	Controlling the phase locking of stochastic magnetic bits for ultra-low power computation. Scientific Reports, 2016, 6, 30535.	1.6	32
22	Controlling the chirality and polarity of vortices in magnetic tunnel junctions. Applied Physics Letters, 2014, 105, .	1.5	28
23	Nonlinear Behavior and Mode Coupling in Spin-Transfer Nano-Oscillators. Physical Review Applied, 2014, 2, .	1.5	28
24	Concurrent magneto-optical imaging and magneto-transport readout of electrical switching of insulating antiferromagnetic thin films. Applied Physics Letters, 2020, 117, .	1.5	26
25	Optimizing magnetodipolar interactions for synchronizing vortex based spin-torque nano-oscillators. Physical Review B, 2015, 92, .	1.1	25
26	Evidence for spin current driven Bose-Einstein condensation of magnons. Nature Communications, 2021, 12, 6541.	5.8	21
27	Vortex spin-torque oscillator stabilized by phase locked loop using integrated circuits. AIP Advances, 2017, 7, 056653.	0.6	19
28	Orientation-dependent direct and inverse spin Hall effects in Co ₆₀ Fe ₂₀ B ₂₀ . Physical Review B, 2019, 99, .	1.1	19
29	Structural sensitivity of the spin Hall magnetoresistance in antiferromagnetic thin films. Physical Review B, 2020, 102, .	1.1	19
30	Voltage-Controlled Reconfigurable Magnonic Crystal at the Sub-micrometer Scale. ACS Nano, 2021, 15, 9775-9781.	7.3	15
31	Exceptional sign changes of the nonlocal spin Seebeck effect in antiferromagnetic hematite. Physical Review B, 2021, 103, .	1.1	14
32	Spin structure and spin Hall magnetoresistance of epitaxial thin films of the insulating non-collinear antiferromagnet SmFeO ₃ . Journal of Physics Condensed Matter, 2019, 31, 445804.	0.7	13
33	Ultrafast Spin-Charge Conversion at SnBi ₂ Te ₄ /Co Topological Insulator Interfaces Probed by Terahertz Emission Spectroscopy. Advanced Optical Materials, 2022, 10, .	3.6	13
34	An insulating doped antiferromagnet with low magnetic symmetry as a room temperature spin conduit. Applied Physics Letters, 2020, 117, .	1.5	12
35	Improved Spectral Stability in Spin-Transfer Nano-Oscillators: Single Vortex Versus Coupled Vortices Dynamics. IEEE Transactions on Magnetics, 2015, 51, 1-6.	1.2	11
36	Gilbert damping of CoFe-alloys. Journal Physics D: Applied Physics, 2019, 52, 325001.	1.3	10

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37	Spintronic THz emitters based on transition metals and semi-metals/Pt multilayers. Applied Physics Letters, 2022, 120, .	1.5	10
38	Spintronic nano-oscillators: Towards nanoscale and tunable frequency devices. , 2014, , .		9
39	Enhancing the injection locking range of spin torque oscillators through mutual coupling. Applied Physics Letters, 2016, 109, .	1.5	8
40	Giant nonlinear self-phase modulation of large-amplitude spin waves in microscopic YIG waveguides. Scientific Reports, 2022, 12, 7246.	1.6	8
41	Hybrid PLL system for spin torque oscillators utilizing custom ICs in 0.18 μm BiCMOS. , 2017, , .		6
42	Spin-torque dynamics for noise reduction in vortex-based sensors. Applied Physics Letters, 2021, 118, .	1.5	6
43	Effective strain manipulation of the antiferromagnetic state of polycrystalline NiO. Applied Physics Letters, 2021, 118, .	1.5	6
44	Dispersionless Propagation of Ultrashort Spin-Wave Pulses in Ultrathin Yttrium Iron Garnet Waveguides. Physical Review Applied, 2021, 16, .	1.5	6
45	https://www.w3.org/1998/Math/MathML display="inline" overflow="scroll">< mml:msub < mml:mrow> < mml:mi>Cr</mml:mi> < mml:mi>PS</mml:mi> </mml:mrow> < mml:mn>4</mml:mn> </mml:msub> < mml:mo> < mml:mi>Pt</mml:mi> < mml:mo>, </mml:mo> < mml:mi>Pd</mml:mi> < mml:mo> Tj ETQq1 1 0.784314 rgB		6
46	https://www.w3.org/1998/Math/MathML display="inline" overflow="scroll">< mml:msub < mml:mrow> < mml:mi>Cr</mml:mi> < mml:mi>PS</mml:mi> </mml:mrow> < mml:mn>4</mml:mn> </mml:msub> < mml:mo> < mml:mi>Pt</mml:mi> < mml:mo>, </mml:mo> < mml:mi>Pd</mml:mi> < mml:mo> Tj ETQq1 1 0.784314 rgB Room-Temperature Anomalous Hall Effect. Physical Review Applied, 2022, 17, . Electrical detection of the spin reorientation transition in antiferromagnetic TmFeO ₃ thin films by spin Hall magnetoresistance. Physical Review B, 2021, 103, .	1.1	5
47	Beyond the gyrotropic motion: Dynamic C-state in vortex spin torque oscillators. Applied Physics Letters, 2021, 118, .	1.5	5
48	Impact of electromagnetic fields and heat on spin transport signals in $\text{Y}_3\text{Fe}_5\text{O}_{12}$ thin films. Physical Review B, 2019, 100, .		5
49	Driven energy transfer between coupled modes in spin-torque oscillators. Physical Review B, 2017, 95, .	1.1	3
50	Spintronic based RF components. , 2017, , .		3
51	Size-dependent enhancement of passive microwave rectification in magnetic tunnel junctions with perpendicular magnetic anisotropy. Applied Physics Letters, 2022, 120, 012406.	1.5	3
52	Flicker and random telegraph noise between gyrotropic and dynamic C-state of a vortex based spin torque nano oscillator. AIP Advances, 2021, 11, 035042.	0.6	1
53	Magnon transport in the presence of antisymmetric exchange in a weak antiferromagnet. Journal of Magnetism and Magnetic Materials, 2022, 543, 168631.	1.0	1
54	Stabilization of phase noise in vortex spin torque nano-oscillators by a Phase Locked Loop. , 2017, , .		0

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55	Efficiency of THz spintronic emitters: from spin-Hall effect in 3d/5d transition metals to surface states of topological insulators. , 2021, , .		0
56	Ultrafast Spin-Charge Conversion in Rashba states probed by Terahertz time-domain emission spectroscopy. , 2020, , .		0