Flavio Abreu Araujo

List of Publications by Year
in descending order

45 papers	2,958 citations	430442 18 h-index	301761 39 g-index
45 all docs	45 docs citations	45 times ranked	3748 citing authors

#	Article	IF	Citations
1	Neuromorphic computing with nanoscale spintronic oscillators. Nature, 2017, 547, 428-431.	13.7	893
2	Recent developments in the ABINIT software package. Computer Physics Communications, 2016, 205, 106-131.	3.0	662
3	Vowel recognition with four coupled spin-torque nano-oscillators. Nature, 2018, 563, 230-234.	13.7	356
4	Skyrmion Gas Manipulation for Probabilistic Computing. Physical Review Applied, 2018, 9, .	1.5	148
5	Efficient Synchronization of Dipolarly Coupled Vortex-Based Spin Transfer Nano-Oscillators. Scientific Reports, 2015, 5, 17039.	1.6	97
6	Reservoir computing with the frequency, phase, and amplitude of spin-torque nano-oscillators. Applied Physics Letters, 2019, 114, .	1.5	81
7	Phase locking dynamics of dipolarly coupled vortex-based spin transfer oscillators. Physical Review B, 2012, 85, .	1.1	79
8	A Nanotechnology-Ready Computing Scheme based on a Weakly Coupled Oscillator Network. Scientific Reports, 2017, 7, 44772.	1.6	53
9	Role of non-linear data processing on speech recognition task in the framework of reservoir computing. Scientific Reports, 2020, 10, 328.	1.6	48
10	Temporal Pattern Recognition with Delayed-Feedback Spin-Torque Nano-Oscillators. Physical Review Applied, 2019, 12, .	1.5	45
11	Numerical and analytical investigation of the synchronization of dipolarly coupled vortex spin-torque nano-oscillators. Applied Physics Letters, 2013, 103, 122405.	1.5	44
12	Making flexible spin caloritronic devices with interconnected nanowire networks. Science Advances, 2019, 5, eaav2782.	4.7	41
13	Reversal mechanism, switching field distribution, and dipolar frustrations in Co/Pt bit pattern media based on auto-assembled anodic alumina hexagonal nanobump arrays. Physical Review B, 2014, 89, .	1.1	36
14	Nonlinear Behavior and Mode Coupling in Spin-Transfer Nano-Oscillators. Physical Review Applied, 2014, 2, .	1.5	28
15	Periodic arrays of magnetic nanostructures by depositing Co/Pt multilayers on the barrier layer of ordered anodic alumina templates. Applied Physics Letters, 2012, 101, .	1.5	25
16	Optimizing magnetodipolar interactions for synchronizing vortex based spin-torque nano-oscillators. Physical Review B, 2015, 92, .	1.1	25
17	Magnetic Control of Flexible Thermoelectric Devices Based on Macroscopic 3D Interconnected Nanowire Networks. Advanced Electronic Materials, 2019, 5, 1800819.	2.6	22
18	Microwave signal emission in spin-torque vortex oscillators in metallic nanowires: Experimental measurements and micromagnetic numerical study. Physical Review B, 2012, 86, .	1.1	20

#	Article	IF	Citations
19	Single spin-torque vortex oscillator using combined bottom-up approach and e-beam lithography. Applied Physics Letters, 2013, 102, .	1.5	18
20	Two-dimensional quantum transport in highly conductive carbon nanotube fibers. Physical Review B, 2015, 92, .	1.1	17
21	Large Spin-Dependent Thermoelectric Effects in NiFe-based Interconnected Nanowire Networks. Nanoscale Research Letters, 2020, 15, 137.	3.1	17
22	Forecasting the outcome of spintronic experiments with Neural Ordinary Differential Equations. Nature Communications, 2022, 13, 1016.	5.8	17
23	Neuromorphic computing through time-multiplexing with a spin-torque nano-oscillator. , 2017, IEDM 2017, .		16
24	Tunable magnetoresistance and thermopower in interconnected NiCr and CoCr nanowire networks. Applied Physics Letters, 2019, 115, .	1.5	16
25	Spin Caloritronics in 3D Interconnected Nanowire Networks. Nanomaterials, 2020, 10, 2092.	1.9	16
26	Probing Phase Coupling Between Two Spin-Torque Nano-Oscillators with an External Source. Physical Review Letters, 2017, 118, 247202.	2.9	15
27	Bottom-up approach for the fabrication of spin torque nano-oscillators. Journal Physics D: Applied Physics, 2011, 44, 105003.	1.3	13
28	Magneto-Transport in Flexible 3D Networks Made of Interconnected Magnetic Nanowires and Nanotubes. Nanomaterials, 2021, 11, 221.	1.9	13
29	Controlling the synchronization properties of two dipolarly coupled vortex based spin-torque nano-oscillators by the intermediate of a third one. Journal of Applied Physics, 2016, 120, .	1.1	12
30	Giant Magnetoresistance and Magneto-Thermopower in 3D Interconnected NixFe1â^'x/Cu Multilayered Nanowire Networks. Nanomaterials, 2021, 11, 1133.	1.9	12
31	Influence of the packing fraction and host matrix on the magnetoelastic anisotropy in Ni nanowire composite arrays. Journal of Applied Physics, 2013, 114, 123907.	1.1	10
32	Synthesis and magnetic properties of Niâ€“BaTiO3 nanocable arrays within ordered anodic alumina templates. Journal of Materials Chemistry C, 2015, 3, 107-111.	2.7	10
33	Magnetically Activated Flexible Thermoelectric Switches Based on Interconnected Nanowire Networks. Advanced Materials Technologies, 2022, 7, 2101043.	3.0	10
34	Designing Large Arrays of Interacting Spin-Torque Nano-Oscillators for Microwave Information Processing. Physical Review Applied, 2020, 13, .	1.5	9
35	Synthesis of dense arrays of multiferroic CoFe₂O₄â€“PbZr_{0.52}Ti_{0.48}O₃ core/shell nanocables. RSC Advances, 2016, 6, 106716-106722.	1.7	7
36	Spin-Transfer-Torque Driven Vortex Dynamics in Electrodeposited Nanowire Spin-Valves. Spin, 2017, 07, 1740007.	0.6	6

#	Article	IF	Citations
37	Flexible thermoelectric films based on interconnected magnetic nanowire networks. Journal Physics D: Applied Physics, 2022, 55, 223001.	1.3	6
38	Reservoir Computing Leveraging the Transient Non-linear Dynamics of Spin-Torque Nano-Oscillators. Natural Computing Series, 2021, , 307-329.	2.2	4
39	Driven energy transfer between coupled modes in spin-torque oscillators. Physical Review B, 2017, 95, .	1.1	3
40	3D magnetic nanowire networks. , 2020, , 801-831.		3
41	Ampereâ€“Oersted field splitting of the nonlinear spin-torque vortex oscillator dynamics. Scientific Reports, 2022, 12, .	1.6	3
42	Capacitive distance control for measuring particulate magnetic media with magnetic force microscopy. , 2015, , .		1
43	Brain-Inspired Computing with Spintronics Devices. , 2018, , .		1
44	STVOs in multilayered metallic NWs electrodeposited inside nanoporous alumina templates: experimental measurements and micromagnetic study. , 2012, , .		0
45	Microwave Neural Processing and Broadcasting with Spintronic Nano-Oscillators. , 2018, , .		0