

Serban Lepadatu

List of Publications by Year in descending order

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567281

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57
docs citations

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times ranked

1019
citing authors

#	ARTICLE	IF	CITATIONS
1	Speeding Up Explicit Numerical Evaluation Methods for Micromagnetic Simulations Using Demagnetizing Field Polynomial Extrapolation. IEEE Transactions on Magnetics, 2022, 58, 1-6.	2.1	4
2	Collective skyrmion motion under the influence of an additional interfacial spin-transfer torque. Scientific Reports, 2022, 12, .	3.3	8
3	Second law of information dynamics. AIP Advances, 2022, 12, .	1.3	9
4	Computation of magnetization, exchange stiffness, anisotropy, and susceptibilities in large-scale systems using GPU-accelerated atomistic parallel Monte Carlo algorithms. Journal of Magnetism and Magnetic Materials, 2021, 540, 168460.	2.3	3
5	Micromagnetic Monte Carlo method with variable magnetization length based on the Landauâ€Lifshitzâ€Bloch equation for computation of large-scale thermodynamic equilibrium states. Journal of Applied Physics, 2021, 130, .	2.5	5
6	Emergence of transient domain wall skyrmions after ultrafast demagnetization. Physical Review B, 2020, 102, .	3.2	17
7	Role of an additional interfacial spin-transfer torque for current-driven skyrmion dynamics in chiral magnetic layers. Physical Review B, 2020, 102, .	3.2	15
8	Diamagnetic coupling for magnetic tuning in nano-thin films. Applied Physics Letters, 2020, 116, .	3.3	2
9	Boris computational spintronicsâ€™High performance multi-mesh magnetic and spin transport modeling software. Journal of Applied Physics, 2020, 128, .	2.5	25
10	Effect of inter-layer spin diffusion on skyrmion motion in magnetic multilayers. Scientific Reports, 2019, 9, 9592.	3.3	17
11	Efficient computation of demagnetizing fields for magnetic multilayers using multilayered convolution. Journal of Applied Physics, 2019, 126, .	2.5	10
12	Study of roughness effect in Fe and Co thin films prepared by plasma magnetron sputtering. Physica B: Condensed Matter, 2019, 574, 411666.	2.7	6
13	Evidence of substrate roughness surface induced magnetic anisotropy in Ni80Fe20 flexible thin films. Journal of Magnetism and Magnetic Materials, 2019, 478, 77-83.	2.3	19
14	Unified treatment of spin torques using a coupled magnetisation dynamics and three-dimensional spin current solver. Scientific Reports, 2017, 7, 12937.	3.3	34
15	Development of flexible Ni 80 Fe 20 magnetic nano-thin films. Physica B: Condensed Matter, 2017, 525, 12-15.	2.7	7
16	Synthetic ferrimagnet nanowires with very low critical current density for coupled domain wall motion. Scientific Reports, 2017, 7, 1640.	3.3	28
17	Heat-Assisted Multiferroic Solid-State Memory. Materials, 2017, 10, 991.	2.9	4
18	Interaction of magnetization and heat dynamics for pulsed domain wall movement with Joule heating. Journal of Applied Physics, 2016, 120, .	2.5	11

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19	Low field depoling phenomena in soft lead zirconate titanate ferroelectrics. Journal of Electroceramics, 2016, 37, 163-169.	2.0	2
20	Dielectric constants of bulk ferroelectric PZT measured by terahertz time-domain spectroscopy. Advances in Applied Ceramics, 2016, 115, 260-263.	1.1	7
21	Effective field model of roughness in magnetic nano-structures. Journal of Applied Physics, 2015, 118, .	2.5	16
22	Electrode size and boundary condition independent measurement of the effective piezoelectric coefficient of thin films. APL Materials, 2015, 3, .	5.1	15
23	Simultaneous dynamic electrical and structural measurements of functional materials. Review of Scientific Instruments, 2015, 86, 103901.	1.3	7
24	Dielectric constants of ferroelectric PZT at THz frequencies. , 2015, , .		0
25	Ferroelectricity in Dionâ€“Jacobson ABiNb ₂ O ₇ (A = Rb, Cs) compounds. Journal of Materials Chemistry C, 2015, 3, 19-22.	5.5	50
26	Piezoelectric properties of template-free electrochemically grown ZnO nanorod arrays. Applied Surface Science, 2015, 356, 1214-1220.	6.1	54
27	Solving the electrical control of magnetic coercive field paradox. Applied Physics Letters, 2014, 105, 122901.	3.3	6
28	Quantification of electromechanical coupling measured with piezoresponse force microscopy. Journal of Applied Physics, 2014, 116, 066806.	2.5	14
29	Engineered spatial inversion symmetry breaking in an oxide heterostructure built from isosymmetric room-temperature magnetically ordered components. Chemical Science, 2014, 5, 1599-1610.	7.4	30
30	Piezoresponse Force Microscopy. Springer Series in Measurement Science and Technology, 2014, , 191-219.	0.8	1
31	Current-driven domain wall motion in artificial magnetic domain structures. Journal of the Korean Physical Society, 2013, 62, 1534-1538.	0.7	0
32	The increase of the spin-transfer torque threshold current density in coupled vortex domain walls. Journal of Physics Condensed Matter, 2012, 24, 024210.	1.8	2
33	Magnetoresistance of Domain Walls in Superconductor/Ferromagnet Hybrid Systems. Journal of Superconductivity and Novel Magnetism, 2011, 24, 911-914.	1.8	2
34	Optimization of Co/Pt multilayers for applications of current-driven domain wall propagation. Journal of Applied Physics, 2011, 110, 083913.	2.5	16
35	Reduction of Threshold Current for Domain Wall Depinning Using Gd Doping of Permalloy. Applied Physics Express, 2010, 3, 083002.	2.4	13
36	Determination of Domain Wall Depinning and Driving Currents in Doped Permalloy Structures. IEEE Transactions on Magnetics, 2010, 46, 1759-1761.	2.1	5

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37	Spin-Transfer-Torque-Assisted Domain-Wall Creep in a Co/Pt Multilayer Wire. <i>Physical Review Letters</i> , 2010, 104, 137205.	7.8	75
38	Domain-wall pinning, nonadiabatic spin-transfer torque, and spin-current polarization in permalloy wires doped with vanadium. <i>Physical Review B</i> , 2010, 81, .	3.2	36
39	Domain-wall spin-torque resonators for frequency-selective operation. <i>Physical Review B</i> , 2010, 81, .	3.2	27
40	Spin-transfer torque efficiency measured using a Permalloy nanobridge. <i>Applied Physics Letters</i> , 2010, 97, 202505.	3.3	15
41	Tuning of current-induced domain wall resonance frequency using Gd doping. <i>Applied Physics Letters</i> , 2010, 97, 072507.	3.3	10
42	Experimental determination of spin-transfer torque nonadiabaticity parameter and spin polarization in permalloy. <i>Physical Review B</i> , 2009, 79, .	3.2	38
43	Dependence of Domain-Wall Depinning Threshold Current on Pinning Profile. <i>Physical Review Letters</i> , 2009, 102, 127203.	7.8	60
44	Ultrafast optically induced spin dynamics in patterned single crystal Fe dot arrays. <i>Journal of Applied Physics</i> , 2007, 101, 09C111.	2.5	8
45	Current-induced magnetization switching in asymmetric necked wires. <i>Applied Physics Letters</i> , 2007, 91, 062512.	3.3	4
46	Magnetic Domain Wall Formation in Ferromagnetic Wires With a Nanoconstriction. <i>IEEE Transactions on Magnetics</i> , 2007, 43, 2830-2832.	2.1	10
47	Modulation of magneto-resistance with measurement current in patterned Ni ₈₀ Fe ₂₀ wires. <i>Journal of Applied Physics</i> , 2005, 97, 10J708.	2.5	1
48	Current induced magnetic switching in Ni ₈₀ Fe ₂₀ , Ni, Fe, and Co wires. <i>Journal of Applied Physics</i> , 2005, 97, 10C711.	2.5	12
49	Current induced magnetisation switching in asymmetric necked wires. , 2005, , .		0
50	Discontinuous Resistance Change and Domain Wall Scattering in Patterned NiFe Wires With a Nanoconstriction. <i>IEEE Transactions on Magnetics</i> , 2004, 40, 2688-2690.	2.1	6
51	Direct Observation of Domain Wall Scattering in Patterned Ni ₈₀ Fe ₂₀ and Ni Nanowires by Current-Voltage Measurements. <i>Physical Review Letters</i> , 2004, 92, 127201.	7.8	74