

# Randy Dumas

## List of Publications by Year in descending order

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86  
papers

3,810  
citations

117619

34  
h-index

128286

60  
g-index

88  
all docs

88  
docs citations

88  
times ranked

4269  
citing authors

#	ARTICLE	IF	CITATIONS
1	Spin-Torque and Spin-Hall Nano-Oscillators. Proceedings of the IEEE, 2016, 104, 1919-1945.	21.3	276
2	Spin Torque-Generated Magnetic Droplet Solitons. Science, 2013, 339, 1295-1298.	12.6	237
3	Long-range mutual synchronization of spin Hall nano-oscillators. Nature Physics, 2017, 13, 292-299.	16.7	221
4	Dynamically stabilized magnetic skyrmions. Nature Communications, 2015, 6, 8193.	12.8	173
5	Memory Effect in Magnetic Nanowire Arrays. Advanced Materials, 2011, 23, 1393-1397.	21.0	126
6	Magnetic fingerprints of sub-100nmFe dots. Physical Review B, 2007, 75, .	3.2	125
7	Quantitative Decoding of Interactions in Tunable Nanomagnet Arrays Using First Order Reversal Curves. Scientific Reports, 2014, 4, 4204.	3.3	125
8	Spin-wave-beam driven synchronization of nanocontact spin-torque oscillators. Nature Nanotechnology, 2016, 11, 280-286.	31.5	119
9	Controllable positive exchange bias via redox-driven oxygen migration. Nature Communications, 2016, 7, 11050.	12.8	101
10	Spin-Wave-Mode Coexistence on the Nanoscale: A Consequence of the Oersted-Field-Induced Asymmetric Energy Landscape. Physical Review Letters, 2013, 110, 257202.	7.8	98
11	Magnetic/luminescent core/shell particles synthesized by spray pyrolysis and their application in immunoassays with internal standard. Nanotechnology, 2007, 18, 055102.	2.6	97
12	Magnetoplasmonic Design Rules for Active Magneto-Optics. Nano Letters, 2014, 14, 7207-7214.	9.1	94
13	[Co/Pd]-NiFe exchange springs with tunable magnetization tilt angle. Applied Physics Letters, 2011, 98, 172502.	3.3	82
14	Tuning carrier type and density in Bi <sub>2</sub> Se <sub>3</sub> by Ca-doping. Applied Physics Letters, 2010, 97, 042112.	3.3	81
15	Strongly exchange coupled inverse ferrimagnetic soft/hard, M <sub>x</sub> Fe <sub>3</sub> xO <sub>4</sub> /F <sub>x</sub> Mn <sub>3</sub> xO <sub>4</sub> , core/shell heterostructured nanoparticles. Nanoscale, 2012, 4, 5138.	5.6	76
16	Identifying reversible and irreversible magnetization changes in prototype patterned media using first- and second-order reversal curves. Journal of Applied Physics, 2008, 103, .	2.5	73
17	CoFeB-Based Spin Hall Nano-Oscillators. IEEE Magnetics Letters, 2014, 5, 1-4.	1.1	71
18	Temperature induced single domain-vortex state transition in sub-100nm Fe nanodots. Applied Physics Letters, 2007, 91, .	3.3	67

#	ARTICLE	IF	CITATIONS
19	Methods for the surface functionalization of $\text{Fe}^{3+}$ - $\text{Fe}_2\text{O}_3$ nanoparticles with initiators for atom transfer radical polymerization and the formation of core-shell inorganic-polymer structures. <i>Journal of Polymer Science Part A</i> , 2005, 43, 3675-3688.	2.3	63
20	Tunable permalloy-based films for magnonic devices. <i>Physical Review B</i> , 2015, 92, .	3.2	61
21	Controlling magnetization reversal in Co/Pt nanostructures with perpendicular anisotropy. <i>Applied Physics Letters</i> , 2009, 94, 042507.	3.3	56
22	A 20 nm spin Hall nano-oscillator. <i>Nanoscale</i> , 2017, 9, 1285-1291.	5.6	55
23	Continuously graded anisotropy in single $(\text{Fe}_{53}\text{Pt}_{47})_{100-x}\text{Cu}_x$ films. <i>Applied Physics Letters</i> , 2010, 97, .	3.3	53
24	Confined Dissipative Droplet Solitons in Spin-Valve Nanowires with Perpendicular Magnetic Anisotropy. <i>Physical Review Letters</i> , 2014, 112, 047201.	7.8	53
25	Synthesis and characterization of multifunctional silica core-shell nanocomposites with magnetic and fluorescent functionalities. <i>Journal of Magnetism and Magnetic Materials</i> , 2009, 321, 1368-1371.	2.3	49
26	Tunable damping, saturation magnetization, and exchange stiffness of half-Heusler NiMnSb thin films. <i>Physical Review B</i> , 2015, 92, .	3.2	49
27	Active Magnetoplasmonic Ruler. <i>Nano Letters</i> , 2015, 15, 3204-3211.	9.1	48
28	Spin transfer torque generated magnetic droplet solitons (invited). <i>Journal of Applied Physics</i> , 2014, 115, .	2.5	47
29	Thickness- and temperature-dependent magnetodynamic properties of yttrium iron garnet thin films. <i>Journal of Applied Physics</i> , 2015, 117, .	2.5	46
30	Magnetic droplet nucleation boundary in orthogonal spin-torque nano-oscillators. <i>Nature Communications</i> , 2016, 7, 11209.	12.8	46
31	Angular dependence of vortex-annihilation fields in asymmetric cobalt dots. <i>Physical Review B</i> , 2009, 80, .	3.2	45
32	Spin transfer torque driven higher-order propagating spin waves in nano-contact magnetic tunnel junctions. <i>Nature Communications</i> , 2018, 9, 4374.	12.8	43
33	Nanostructured MnGa films on Si/SiO <sub>2</sub> with 20.5 kOe room temperature coercivity. <i>Journal of Applied Physics</i> , 2011, 110, .	2.5	40
34	Magnetic droplet solitons in orthogonal nano-contact spin torque oscillators. <i>Physica B: Condensed Matter</i> , 2014, 435, 84-87.	2.7	35
35	Probing magnetic configurations in Co/Cu multilayered nanowires. <i>Applied Physics Letters</i> , 2009, 94, .	3.3	33
36	Chirality control via double vortices in asymmetric Co dots. <i>Physical Review B</i> , 2011, 83, .	3.2	33

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37	First-order reversal curve analysis of graded anisotropy FePtCu films. Applied Physics Letters, 2010, 97, 202501.	3.3	32
38	Propagating spin waves excited by spin-transfer torque: A combined electrical and optical study. Physical Review B, 2015, 92, .	3.2	32
39	Tunable spin configuration in [Co/Ni]-NiFe spring magnets. Journal Physics D: Applied Physics, 2013, 46, 125004.	2.8	31
40	Three-dimensionally intercrossing Mn <sub>3</sub> O <sub>4</sub> nanowires. Acta Materialia, 2008, 56, 3516-3522.	7.9	29
41	Fe <sub>3</sub> O <sub>4</sub> -LiMo <sub>3</sub> Se <sub>3</sub> Nanoparticle Clusters as Superparamagnetic Nanocompasses. Langmuir, 2005, 21, 9709-9713.	3.5	28
42	Probing vertically graded anisotropy in FePtCu films. Physical Review B, 2011, 84, .	3.2	28
43	Synthesis and Real-Time Magnetic Manipulation of a Biaxial Superparamagnetic Colloid. Journal of Physical Chemistry B, 2005, 109, 11151-11157.	2.6	27
44	Spin wave excitations in exchange-coupled [Co/Pd]-NiFe films with tunable tilting of the magnetization. Physical Review B, 2013, 87, .	3.2	25
45	[Co/Pd]4â€“Coâ€“Pdâ€“NiFe spring magnets with highly tunable and uniform magnetization tilt angles. Journal of Magnetism and Magnetic Materials, 2012, 324, 3929-3932.	2.3	23
46	Exponentially decaying magnetic coupling in sputtered thin film FeNi/Cu/FeCo trilayers. Applied Physics Letters, 2015, 106, .	3.3	22
47	Magnetoresistance of mechanically stable Co nanoconstrictions. Physical Review B, 2004, 70, .	3.2	21
48	Reversal mode instability and magnetoresistance in perpendicular (Co/Pd)/Cu/(Co/Ni) pseudo-spin-valves. Applied Physics Letters, 2013, 103, .	3.3	21
49	Recent Advances in Nanocontact Spin-Torque Oscillators. IEEE Transactions on Magnetism, 2014, 50, 1-7.	2.1	21
50	Magnetic droplet solitons in orthogonal spin valves. Low Temperature Physics, 2015, 41, 833-837.	0.6	21
51	Mode-coupling mechanisms in nanocontact spin-torque oscillators. Physical Review B, 2015, 91, .	3.2	21
52	Temperature-dependent interlayer coupling in Ni/Co perpendicular pseudo-spin-valve structures. Physical Review B, 2011, 84, .	3.2	20
53	Channelling spin waves. Nature Nanotechnology, 2014, 9, 503-504.	31.5	19
54	Modulation Rate Study in a Spin-Torque Oscillator-Based Wireless Communication System. IEEE Transactions on Magnetism, 2015, 51, 1-4.	2.1	18

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55	Ferromagnetic and Spin-Wave Resonance on Heavy-Metal-Doped Permalloy Films: Temperature Effects. IEEE Magnetics Letters, 2017, 8, 1-4.	1.1	18
56	[Co/Pd]-CoFeB exchange spring magnets with tunable gap of spin wave excitations. Journal Physics D: Applied Physics, 2014, 47, 495004.	2.8	17
57	Simultaneous enhancement of anisotropy and grain isolation in $\langle \text{CoPtCr-SiO}_2 \rangle$ recording media by a MnRu intermediate layer. Physical Review B, 2010, 82, .	3.2	16
58	Accessing different spin-disordered states using first-order reversal curves. Physical Review B, 2014, 90, .	3.2	16
59	Reconstructing phase-resolved hysteresis loops from first-order reversal curves. Scientific Reports, 2021, 11, 4018.	3.3	16
60	Rocking ratchet induced by pure magnetic potentials with broken reflection symmetry. Physical Review B, 2009, 80, .	3.2	15
61	Deconvoluting reversal modes in exchange-biased nanodots. Physical Review B, 2012, 86, .	3.2	15
62	Pseudo Spin Valves Using a $(1\text{Å}1\text{Å}2)\text{-Textured DO}_{22}\text{Mn}_{2.3-2.4}\text{Ga}$ Fixed Layer. IEEE Magnetics Letters, 2010, 1, 2500104-2500104.	1.1	14
63	Reversal of patterned Co/Pd multilayers with graded magnetic anisotropy. Journal of Applied Physics, 2011, 109, .	2.5	14
64	Controlling Gilbert damping in a YIG film using nonlocal spin currents. Physical Review B, 2016, 94, .	3.2	13
65	A Nonvolatile Spintronic Memory Element with a Continuum of Resistance States. Advanced Functional Materials, 2013, 23, 1919-1922.	14.9	12
66	Measuring acoustic mode resonance alone as a sensitive technique to extract antiferromagnetic coupling strength. Physical Review B, 2015, 92, .	3.2	10
67	Homodyne-detected ferromagnetic resonance of in-plane magnetized nanocontacts: Composite spin-wave resonances and their excitation mechanism. Physical Review B, 2016, 93, .	3.2	10
68	Measuring the effects of low energy ion milling on the magnetization of Co/Pd multilayers using scanning electron microscopy with polarization analysis. Journal of Applied Physics, 2010, 107, 09D305.	2.5	9
69	An In Situ Anneal Study of Graded Anisotropy FePtCu Films. IEEE Magnetics Letters, 2011, 2, 5500104-5500104.	1.1	9
70	Magnetic coupling in asymmetric FeCoV/Ru/FeNi trilayers. Journal of Applied Physics, 2014, 115, .	2.5	9
71	Graded Anisotropy FePtCu Films. IEEE Transactions on Magnetics, 2011, 47, 1580-1586.	2.1	8
72	Systematic errors in the determination of the spectroscopic g-factor in broadband ferromagnetic resonance spectroscopy: A proposed solution. Journal of Applied Physics, 2018, 123, .	2.5	8

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73	Depth-resolved magnetization reversal in nanoporous perpendicular anisotropy multilayers. Journal of Applied Physics, 2013, 113, .	2.5	6
74	Exchange coupling in hybrid anisotropy magnetic multilayers quantified by vector magnetometry. Journal of Applied Physics, 2015, 117, 17B526.	2.5	6
75	Spin pumping and the inverse spin-hall effect via magnetostatic surface spin-wave modes in Yttrium-Iron garnet/platinum bilayers. IEEE Magnetics Letters, 2015, 6, 1-4.	1.1	6
76	Magnetic pinning of flux lattice in superconducting-nanomagnet hybrids. Applied Physics Letters, 2011, 99, 182509.	3.3	5
77	Effect of Excitation Fatigue on the Synchronization of Multiple Nanocontact Spin-Torque Oscillators. IEEE Magnetics Letters, 2014, 5, 1-4.	1.1	5
78	Arrays of elliptical Fe(001) nanoparticles: Magnetization reversal, dipolar interactions, and effects of finite array sizes. Physical Review B, 2015, 92, .	3.2	5
79	Spin reorientation via antiferromagnetic coupling. Journal of Applied Physics, 2014, 115, 17C103.	2.5	4
80	Investigation of the Tunability of the Spin Configuration Inside Exchange Coupled Springs of Hard/Soft Magnets. IEEE Transactions on Magnetics, 2014, 50, 1-6.	2.1	4
81	Spin diffusion length associated with out-of-plane conductivity of Pt in spin pumping experiments. Physical Review B, 2021, 103, .	3.2	3
82	Spray pyrolysis synthesis of particles possessing magnetic and luminescent properties: application of magnetic/luminescent particles in immunoassays. , 2005, 6036, 209.		0
83	First-Order Reversal Curve Studies of Magnetization Reversal in Prototype Recording Media. , 2006, , .		0
84	Effect of Anisotropy and Exchange Bias on Reversal of Sub-100 nm Magnetic Dots. , 2006, , .		0
85	Single domain to vortex state transition in multilayered cobalt/copper nanowires. Proceedings of SPIE, 2008, , .	0.8	0
86	Modulation rate study in spin torque oscillator based wireless communication system. , 2015, , .		0