Rodrigo Arias

List of Publications by Year
in descending order

46 papers	1,575 citations	361296 20 h-index	289141 40 g-index
46 all docs	46 docs citations	46 times ranked	1616 citing authors

#	Article	IF	Citations
1	Extrinsic contributions to the ferromagnetic resonance response of ultrathin films. Physical Review B, 1999, 60, 7395-7409.	1.1	528
2	Theory of spin excitations and the microwave response of cylindrical ferromagnetic nanowires. Physical Review B, 2001, 63, .	1.1	133
3	Two magnon scattering in ultrathin ferromagnets: The case where the magnetization is out of plane. Physical Review B, 2008, 77, .	1.1	123
4	Theory of dynamic crack branching in brittle materials. International Journal of Fracture, 2007, 143, 245-271.	1.1	60
5	Extrinsic contributions to the ferromagnetic resonance response of ultrathin films. Journal of Applied Physics, 2000, 87, 5455-5456.	1.1	59
6	Theory of roughness-induced anisotropy in ferromagnetic films: The dipolar mechanism. Physical Review B, 1999, 59, 11871-11881.	1.1	50
7	Theory of collective spin waves and microwave response of ferromagnetic nanowire arrays. Physical Review B, 2003, 67, .	1.1	47
8	Roughness induced in plane uniaxial anisotropy in ultrathin Fe films. Journal of Magnetism and Magnetic Materials, 2001, 232, 36-45.	1.0	44
9	Dipole exchange spin waves and microwave response of ferromagnetic spheres. Physical Review B, 2005, 71, .	1.1	42
10	Generalized Griffith criterion for dynamic fracture and the stability of crack motion at high velocities. Physical Review E, 1999, 60, 2366-2376.	0.8	40
11	Exchange/dipole collective spin-wave modes of ferromagnetic nanosphere arrays. Physical Review B, 2006, 73, .	1.1	36
12	Magnetostatic modes in ferromagnetic nanowires. Physical Review B, 2004, 70, .	1.1	33
13	Giant nonlinear damping in nanoscale ferromagnets. Science Advances, 2019, 5, eaav6943.	4.7	31
14	The damping of spin motions in ultrathin films: Is the Landauâ€“Lifschitzâ€“Gilbert phenomenology applicable?. Physica B: Condensed Matter, 2006, 384, 147-151.	1.3	29
15	Magnetostatic modes in ferromagnetic nanowires. II. A method for cross sections with very large aspect ratio. Physical Review B, 2005, 72, .	1.1	28
16	Dynamic Instability of Brittle Fracture. Physical Review Letters, 1999, 82, 2314-2317.	2.9	27
17	Field-dependent perpendicular magnetic anisotropy in CoFeB thin films. Applied Physics Letters, 2014, 105, .	1.5	26
18	Magnetization correlations and noise in thinâ€film recording media. Journal of Applied Physics, 1992, 71, 3439-3454.	1.1	23

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19	Theory of collective spin-wave modes of interacting ferromagnetic spheres. Physical Review B, 2004, 70, .	1.1	23
20	Spin-wave modes of ferromagnetic films. Physical Review B, 2016, 94, .	1.1	20
21	Collective modes of interacting dielectric spheres. Physical Review B, 2003, 68, .	1.1	17
22	Spin wave eigenmodes in transversely magnetized thin film ferromagnetic wires. Physical Review B, 2015, 92, .	1.1	17
23	Dynamic Stability of Crack Fronts: Out-Of-Plane Corrugations. Physical Review Letters, 2013, 110, 014302.	2.9	16
24	Brittle fracture dynamics with arbitrary paths I. Kinking of a dynamic crack in general antiplane loading. Journal of the Mechanics and Physics of Solids, 2003, 51, 1287-1304.	2.3	15
25	Dipole-exchange spin waves in perpendicularly magnetized discs: Role of the Oersted field. Physical Review B, 2007, 75, .	1.1	11
26	Scattering of a surface plasmon polariton by a localized dielectric surface defect. Optics Express, 2013, 21, 9734.	1.7	11
27	Parameter-free determination of the exchange constant in thin films using magnonic patterning. Applied Physics Letters, 2016, 108, .	1.5	11
28	Supershear Frictional Ruptures Along Bimaterial Interfaces. Journal of Geophysical Research: Solid Earth, 2020, 125, e2020JB019829.	1.4	11
29	Fast thermal reversal of magnetic particles. Journal of Magnetism and Magnetic Materials, 1997, 171, 209-217.	1.0	8
30	Plasmons and the electromagnetic response of nanowires. Physical Review B, 2010, 81, .	1.1	6
31	Instabilities of spin torque driven auto-oscillations of a ferromagnetic disk magnetized in plane. Physical Review B, 2016, 93, .	1.1	6
32	Theory of ferromagnetic resonance in perpendicularly magnetized nanodisks: Excitation by the Oersted field. Physical Review B, 2009, 79, .	1.1	5
33	Singular Elasto-Static Field Near a Fault Kink. Pure and Applied Geophysics, 2011, 168, 2167-2179.	0.8	5
34	Spin wave modes of two magnetostatic coupled spin transfer torque nano-oscillators. Journal of Applied Physics, 2018, 124, 162102.	1.1	5
35	Unstable cracks trigger asymptotic rupture modes in bimaterial friction. Journal of the Mechanics and Physics of Solids, 2021, 149, 104330.	2.3	5
36	Influence of roughness on the magnetostatic modes of ferromagnetic nano-wires. Physica B: Condensed Matter, 2006, 384, 25-27.	1.3	4

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37	Spin-wave modes in ferromagnetic nanodisks, their excitation via alternating currents and fields, and auto-oscillations. Physical Review B, 2017, 95, .	1.1	4
38	Magnetostatic Modes in Samples With Inhomogeneous Internal Fields. IEEE Magnetics Letters, 2015, 6, 1-4.	0.6	3
39	Spin wave modes of multilayered ferromagnetic films. Physical Review B, 2019, 99, .	1.1	3
40	Magnetic susceptibility of a real ferromagnet near the coexistence condition. Physical Review B, 1995, 51, 979-989.	1.1	2
41	Elastic fields of stationary and moving dislocations in three-dimensional finite samples. Journal of the Mechanics and Physics of Solids, 1999, 47, 817-841.	2.3	2
42	Magnonic and plasmonic band gaps in films with periodically modified surfaces. Physical Review B, 2012, 85, .	1.1	2
43	Synchronization of two spin-transfer-driven nano-oscillators coupled via magnetostatic fields. Physical Review E, 2019, 99, 032210.	0.8	2
44	Elastic fields of stationary and moving dislocations in finite samples. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1998, 78, 109-113.	0.6	1
45	Tuning the frequencies of the normal modes of a nanopillar oscillator through the magnetostatic interaction. Physical Review B, 2017, 96, .	1.1	1
46	Excitation of normal modes of a thin elastic plate by moving dislocations. Wave Motion, 1999, 29, 35-46.	1.0	0