

# Eugene Chudnovsky

## List of Publications by Year in descending order

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71  
papers

1,939  
citations

279701

23  
h-index

254106

43  
g-index

74  
all docs

74  
docs citations

74  
times ranked

1593  
citing authors

#	ARTICLE	IF	CITATIONS
1	Nonlinear and thermal effects in the absorption of microwaves by random magnets. Physical Review B, 2022, 105, .	1.1	3
2	Random anisotropy magnet at finite temperature. Journal of Physics Condensed Matter, 2022, 34, 285801.	0.7	4
3	Dynamics of the collapse of a ferromagnetic skyrmion in a centrosymmetric lattice. Physical Review B, 2022, 105, .	1.1	1
4	Conservation of angular momentum in an elastic medium with spins. Physical Review B, 2021, 103, .	1.1	3
5	Skyrmions near defects. Journal of Physics Condensed Matter, 2021, 33, 195802.	0.7	3
6	Absorption of microwaves by random-anisotropy magnets. Physical Review B, 2021, 103, .	1.1	6
7	Quantum states of a skyrmion in a two-dimensional antiferromagnet. Physical Review B, 2021, 103, .	1.1	6
8	Skyrmions in an oblique field. Journal of Magnetism and Magnetic Materials, 2021, 537, 168215.	1.0	1
9	Thermal creation of skyrmions in ferromagnetic films with perpendicular anisotropy and Dzyaloshinskii-Moriya interaction. Journal of Magnetism and Magnetic Materials, 2020, 493, 165724.	1.0	10
10	Skyrmion mass from spin-phonon interaction. Physical Review B, 2020, 102, .	1.1	4
11	Breathing mode of a skyrmion on a lattice. Physical Review B, 2020, 101, .	1.1	8
12	Skyrmion-skyrmion interaction in a magnetic film. Journal of Physics Condensed Matter, 2020, 32, 415803.	0.7	33
13	Enhancement of critical current density in a superconducting NbSe <sub>2</sub> step junction. Nanoscale, 2020, 12, 12076-12082.	2.8	4
14	Stability of biskyrmions in centrosymmetric magnetic films. Physical Review B, 2019, 100, .	1.1	22
15	Thermal collapse of a skyrmion. Journal of Applied Physics, 2019, 126, .	1.1	12
16	Biskyrmion lattices in centrosymmetric magnetic films. Physical Review Research, 2019, 1, .	1.3	16
17	Skyrmion glass in a 2D Heisenberg ferromagnet with quenched disorder. New Journal of Physics, 2018, 20, 033006.	1.2	16
18	Direct writing of room temperature and zero field skyrmion lattices by a scanning local magnetic field. Applied Physics Letters, 2018, 112, .	1.5	68

#	ARTICLE	IF	CITATIONS
19	Creation of a thermally assisted skyrmion lattice in Pt/Co/Ta multilayer films. Applied Physics Letters, 2018, 113, .	1.5	38
20	Writing skyrmions with a magnetic dipole. Journal of Applied Physics, 2018, 124, .	1.1	20
21	Topological Order Generated by a Random Field in a 2D Exchange Model. Physical Review Letters, 2018, 121, 017201.	2.9	14
22	Quantum collapse of a magnetic skyrmion. Physical Review B, 2018, 98, .	1.1	35
23	Determination of chirality and density control of Néel-type skyrmions with in-plane magnetic field. Communications Physics, 2018, 1, .	2.0	48
24	Switching of magnetic moments of nanoparticles by surface acoustic waves. Europhysics Letters, 2017, 118, 37005.	0.7	17
25	Skyrmion clusters from Bloch lines in ferromagnetic films. Europhysics Letters, 2017, 120, 17005.	0.7	13
26	Narrowing the Zero-Field Tunneling Resonance by Decreasing the Crystal Symmetry of Mn <sub>12</sub> Acetate. Journal of the American Chemical Society, 2016, 138, 9065-9068.	6.6	5
27	Enhanced Spin Tunneling in a Molecular Magnet Mixed with a Superconductor. Journal of Superconductivity and Novel Magnetism, 2016, 29, 1133-1137.	0.8	2
28	Manipulating the Magnetization of a Nanomagnet with Surface Acoustic Waves: Spin-Rotation Mechanism. Physical Review Applied, 2016, 5, .	1.5	22
29	Stability of suspended graphene under Casimir force. Physical Review B, 2016, 94, .	1.1	4
30	Acoustic Waves Generated by the Spin Precession. Journal of Superconductivity and Novel Magnetism, 2015, 28, 3411-3418.	0.8	2
31	Angular momentum in spin-phonon processes. Physical Review B, 2015, 92, .	1.1	84
32	Josephson Junction with a Magnetic Vortex. Journal of Superconductivity and Novel Magnetism, 2015, 28, 1959-1965.	0.8	0
33	Ordered vs. disordered states of the random-field model in three dimensions. European Physical Journal B, 2015, 88, 1.	0.6	7
34	Electromechanical magnetization switching. Journal of Applied Physics, 2015, 117, 103910.	1.1	5
35	Magneto-mechanical investigation of spin dynamics in magnetic multilayers. Europhysics Letters, 2014, 105, 37009.	0.7	11
36	Damping of a nanocantilever by paramagnetic spins. Physical Review B, 2014, 89, .	1.1	7

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37	Mechanically Assisted Current-Induced Switching of the Magnetic Moment in a Torsional Oscillator. <i>Physical Review Applied</i> , 2014, 1, .	1.5	8
38	Random Fields, Topology, and the Imry-Ma Argument. <i>Physical Review Letters</i> , 2014, 112, 097201.	2.9	29
39	Spin Tunneling in Magnetic Molecules That Have Full or Partial Mechanical Freedom. <i>Nanoscience and Technology</i> , 2014, , 61-75.	1.5	6
40	Reversal of magnetization of a single-domain magnetic particle by the ac field of time-dependent frequency. <i>Physical Review B</i> , 2013, 87, .	1.1	33
41	Random field $\langle \mathbf{m} \rangle$ in three dimensions. <i>Physical Review B</i> , 2013, 88, .	2.9	29
42	Excitation modes of vortices in submicron magnetic disks. <i>Physical Review B</i> , 2013, 87, .	1.1	9
43	Quantum dynamics of vortices in mesoscopic magnetic disks. <i>Physical Review B</i> , 2013, 87, .	1.1	7
44	Collapse of skyrmions in two-dimensional ferromagnets and antiferromagnets. <i>Physical Review B</i> , 2012, 86, .	1.1	27
45	Conservation of Angular Momentum in a Flux Qubit. <i>Journal of Superconductivity and Novel Magnetism</i> , 2012, 25, 1007-1016.	0.8	3
46	Quantum Entanglement of a Tunneling Spin with Mechanical Modes of a Torsional Resonator. <i>Physical Review X</i> , 2011, 1, .	2.8	24
47	Quantum tunneling of the interfaces between normal-metal and superconducting regions of a type-I Pb superconductor. <i>Physical Review B</i> , 2011, 83, .	1.1	8
48	Macroscopic quantum effects generated by acoustic waves in a molecular magnet. <i>Physical Review B</i> , 2009, 79, .	1.1	12
49	Instanton Glass Generated by Noise in a Josephson-Junction Array. <i>Physical Review Letters</i> , 2009, 103, 137001.	2.9	7
50	Magnetic Molecule on a Microcantilever: Quantum Magnetomechanical Oscillations. <i>Physical Review Letters</i> , 2009, 102, 227202.	2.9	20
51	Dynamics of the Einstein-de Haas effect: Application to a magnetic cantilever. <i>Physical Review B</i> , 2009, 79, .	1.1	46
52	Voltage from mechanical stress in type-II superconductors: Depinning of the magnetic flux by moving dislocations. <i>Applied Physics Letters</i> , 2008, 93, .	1.5	2
53	Pumping spin states of molecular magnets by strong rotating magnetic field. <i>Applied Physics Letters</i> , 2007, 91, 202502.	1.5	3
54	Theory of Spin Hall Effect: Extension of the Drude Model. <i>Physical Review Letters</i> , 2007, 99, 206601.	2.9	64

#	ARTICLE	IF	CITATIONS
55	Quantum dynamics of a nanomagnet in a rotating field. Physical Review B, 2005, 72, .	1.1	23
56	Universal mechanism of spin relaxation in solids. Physical Review B, 2005, 72, .	1.1	90
57	Phonon Superradiance and Phonon Laser Effect in Nanomagnets. Physical Review Letters, 2004, 93, 257205.	2.9	72
58	Universal Decoherence in Solids. Physical Review Letters, 2004, 92, 120405.	2.9	38
59	Inertial Mass of the Abrikosov Vortex. Physical Review Letters, 2003, 91, 067004.	2.9	30
60	Decoherence of a superposition of macroscopic current states in a SQUID. Physical Review B, 2003, 67, .	1.1	11
61	Superradiance from Crystals of Molecular Nanomagnets. Physical Review Letters, 2002, 89, 157201.	2.9	75
62	Reply to "Comment on "Ferromagnetic film on a superconducting substrate"™ " Physical Review B, 2002, 66, .	1.1	16
63	Macroscopic Quantum Coherence in a Magnetic Nanoparticle Above the Surface of a Superconductor. Physical Review Letters, 2000, 85, 5206-5209.	2.9	12
64	Ferromagnetic film on a superconducting substrate. Physical Review B, 2000, 63, .	1.1	43
65	Experimental evidence of macroscopic resonant tunneling of magnetization in antiferromagnetic ferritin. Journal of Applied Physics, 1998, 83, 6934-6936.	1.1	4
66	RANDOM ANISOTROPY IN AMORPHOUS ALLOYS. , 1995, , 143-174.		5
67	Macroscopic quantum tunneling of the magnetic moment (invited). Journal of Applied Physics, 1993, 73, 6697-6702.	1.1	60
68	XYchain with random anisotropy: Magnetization law, susceptibility, and correlation functions at T=0. Physical Review B, 1991, 44, 4397-4405.	1.1	24
69	Hexatic vortex glass in disordered superconductors. Physical Review B, 1989, 40, 11355-11357.	1.1	60
70	Ordering in ferromagnets with random anisotropy. Physical Review B, 1986, 33, 251-261.	1.1	434
71	A theory of two-dimensional amorphous ferromagnet. Journal of Magnetism and Magnetic Materials, 1983, 40, 21-26.	1.0	51