Clecio C De Souza Silva

List of Publications by Year
in descending order

54	1,012	567247 15	434170 31
papers	citations	h-index	g-index

55	55	55	649
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Mesoscale Phase Separation of Skyrmion-Vortex Matter in Chiral-Magnetâ€“Superconductor Heterostructures. Physical Review Letters, 2022, 128, 057001.	7.8	10
2	Coexisting orbits and chaotic dynamics of a confined self-propelled particle. Physical Review E, 2022, 105, .	2.1	5
3	Fractional Shapiro steps in resistively shunted Josephson junctions as a fingerprint of a skewed current-phase relationship. Physical Review B, 2020, 102, .	3.2	8
4	Spin textures in chiral magnetic monolayers with suppressed nearest-neighbor exchange. Physical Review B, 2020, 101, .	3.2	1
5	Giant fractional Shapiro steps in anisotropic Josephson junction arrays. Communications Physics, 2020, 3, .	5.3	9
6	Formation and stability of conformal spirals in confined 2D crystals. Journal of Physics Condensed Matter, 2020, 32, 505401.	1.8	2
7	Manipulation of magnetic skyrmions by superconducting vortices in ferromagnet-superconductor heterostructures. Physical Review B, 2019, 100, .	3.2	32
8	Deflection of ferromagnetic and antiferromagnetic skyrmions at heterochiral interfaces. Physical Review B, 2019, 99, .	3.2	25
9	Self-assembled vortex crystals induced by inhomogeneous magnetic textures. Journal of Physics Condensed Matter, 2019, 31, 175402.	1.8	5
10	Conformal Vortex Crystals. Scientific Reports, 2017, 7, 12766.	3.3	11
11	Multiband superconductors: Disparity between band length scales. Physical Review B, 2017, 96, .	3.2	3
12	Probing the low-frequency vortex dynamics in a nanostructured superconducting strip. Physical Review B, 2016, 94, .	3.2	4
13	Two-shell vortex and antivortex dynamics in a Corbino superconducting disk. Physical Review B, 2016, 93, .	3.2	4
14	Nucleation of superconductivity in multiply connected superconductorâ€“ferromagnet hybrids. Superconductor Science and Technology, 2014, 27, 055002.	3.5	2
15	Closer look at the low-frequency dynamics of vortex matter using scanning susceptibility microscopy. Physical Review B, 2014, 90, .	3.2	10
16	Optimizing mesoscopic two-band superconductors for observation of fractional vortex states. Physica C: Superconductivity and Its Applications, 2014, 503, 48-51.	1.2	6
17	Local mapping of dissipative vortex motion. Physical Review B, 2012, 86, .	3.2	21
18	Structural phases of colloids interacting via a flat-well potential. Physical Review E, 2012, 86, 051402.	2.1	17

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19	Stability of fractional vortex states in a two-band mesoscopic superconductor. Physical Review B, 2012, 86, .	3.2	42
20	Ac-driven vortexâ€“antivortex dynamics in nanostructured superconductor-ferromagnetic hybrids. Physica C: Superconductivity and Its Applications, 2012, 479, 147-150.	1.2	5
21	Dynamic phases of vortexâ€“antivortex molecules in a Corbino disk with magnetic dipole on top. Physica C: Superconductivity and Its Applications, 2012, 479, 115-118.	1.2	3
22	Current-induced vortex trapping in asymmetric toothed channels. Physical Review B, 2011, 84, .	3.2	3
23	Vortex density waves and negative absolute resistance in patterned superconductors. Physical Review B, 2011, 83, .	3.2	8
24	Vortex properties of mesoscopic superconducting samples. Physica C: Superconductivity and Its Applications, 2010, 470, 786-790.	1.2	15
25	Vortexâ€“antivortex states in nanostructured superconductorâ€“ferromagnet hybrids. Physica C: Superconductivity and Its Applications, 2010, 470, 762-765.	1.2	4
26	High-frequency vortex ratchet effect in a superconducting film with a nanoengineered array of asymmetric pinning sites. Physical Review B, 2010, 81, .	3.2	26
27	Vortex-antivortex annihilation dynamics in a square mesoscopic superconducting cylinder. Physical Review B, 2009, 80, .	3.2	21
28	Dynamics of vortex-antivortex matter in nanostructured ferromagnet-superconductor bilayers. Physical Review B, 2009, 80, .	3.2	23
29	Superconducting slab in contact with thin superconducting layer at higher critical temperature. Physica C: Superconductivity and Its Applications, 2009, 469, 852-856.	1.2	7
30	Flux trapping and paramagnetic effects in superconducting thin films: The role of de Gennes boundary conditions. Physica C: Superconductivity and Its Applications, 2008, 468, 718-721.	1.2	11
31	Reversible transport of interacting Brownian ratchets. Physical Review E, 2008, 78, 061131.	2.1	20
32	Tunable anisotropic nonlinearity in superconductors with asymmetric antidot array. Applied Physics Letters, 2008, 93, 082501.	3.3	5
33	Dipole-Induced Vortex Ratchets in Superconducting Films with Arrays of Micromagnets. Physical Review Letters, 2007, 98, 117005.	7.8	62
34	Diode effects in the surface superconductivity regime. Europhysics Letters, 2007, 80, 17006.	2.0	10
35	Controlled multiple reversals of a ratchet effect. Nature, 2006, 440, 651-654.	27.8	263
36	Vortex lattices in different configurations of periodic pinning line-arrays. Physica C: Superconductivity and Its Applications, 2006, 437-438, 184-186.	1.2	0

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37	Vortex ratchet effects in films with a periodic array of antidots. Physical Review B, 2006, 73, .	3.2	54
38	Effect of anisotropy in flux-lattice melting of superconductors with rectangular periodic pinning. Physica C: Superconductivity and Its Applications, 2005, 419, 41-52.	1.2	1
39	Vortex-Rectification Effects in Films with Periodic Asymmetric Pinning. Physical Review Letters, 2005, 94, 057003.	7.8	157
40	Vortex configurations and metastability in mesoscopic superconductors. Physica C: Superconductivity and Its Applications, 2004, 404, 11-17.	1.2	10
41	Vortex dynamics in mesoscopic strips. Physica C: Superconductivity and Its Applications, 2003, 388-389, 673-674.	1.2	2
42	Transverse pinning and vortex displacement fluctuations of moving vortex lattices interacting with periodic pinning. Physica C: Superconductivity and Its Applications, 2003, 391, 203-210.	1.2	4
43	Linear ac dynamics of vortices in a periodic pinning array. Physical Review B, 2003, 68, .	3.2	10
44	Simple model for dynamical melting of moving vortex lattices interacting with periodic pinning. Physical Review B, 2002, 66, .	3.2	16
45	Geometric barrier inBi2Sr2CaCu2O7+Î´single crystals. Physical Review B, 2002, 65, .	3.2	0
46	Numerical study of the anisotropic properties of vortex motion in superconducting films with a periodic lattice of deffects. Brazilian Journal of Physics, 2002, 32, 780-783.	1.4	1
47	Magnetization curves and geometric barrier in BSCCO-2212. Physica C: Superconductivity and Its Applications, 2002, 369, 196-199.	1.2	3
48	Vortices in superconducting strips: interplay between surface effects and the pinning landscape. Physica C: Superconductivity and Its Applications, 2002, 369, 217-221.	1.2	4
49	Irreversible matching effects in homogeneous and layered superconducting films. Physica C: Superconductivity and Its Applications, 2001, 354, 232-236.	1.2	8
50	Vortex Dynamics in Superconducting Films: Comensurability and Surface Effects. Physica Status Solidi A, 2001, 187, 209-213.	1.7	2
51	Flux penetration, matching effect, and hysteresis in homogeneous superconducting films. Physical Review B, 2001, 63, .	3.2	22
52	Matching effect and vortex instabilities in Nb/Al multilayers. Physica B: Condensed Matter, 2000, 284-288, 634-635.	2.7	4
53	EDX analysis and microstructural properties of the Yba2Cu3O7â˜Î´-Ba2HoSbO6 superconducting composites. Journal of Low Temperature Physics, 1999, 117, 969-973.	1.4	2
54	Structure, microstructure, magnetic properties and chemical stability of HoBa2SbO6 with Yba2Cu3O7â˜Î´ superconductor. Physica C: Superconductivity and Its Applications, 1998, 307, 189-196.	1.2	9