Edson Sardella

List of Publications by Year
in descending order

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60	618	567247	677123
papers	citations	15	22
		h-index	g-index

60	60	60	195
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Superconducting boundary conditions for mesoscopic circular samples. Superconductor Science and Technology, 2011, 24, 015001.	3.5	58
2	Temperature-dependent vortex motion in a square mesoscopic superconducting cylinder: Ginzburg-Landau calculations. Physical Review B, 2006, 74, .	3.2	35
3	Superconducting properties of a parallelepiped mesoscopic superconductor: A comparative study between the 2D and 3D Ginzburgâ€“Landau models. Physics Letters, Section A: General, Atomic and Solid State Physics, 2015, 379, 732-737.	2.1	32
4	Elastic energy of the Abrikosov flux-line lattice for anisotropic superconductors: Low inductions. Physical Review B, 1992, 45, 3141-3144.	3.2	31
5	Vortical versus skyrmionic states in mesoscopic<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>p</mml:mi></mml:math>-wave superconductors. Physical Review B, 2016, 93, .	3.2	29
6	Vortices in a mesoscopic superconducting circular sector. Physical Review B, 2008, 77, .	3.2	28
7	Vortices in a mesoscopic superconducting disk of variable thickness. Superconductor Science and Technology, 2010, 23, 025015.	3.5	27
8	Superconducting State of a Disk with a Pentagonal/Hexagonal Trench/Barrier. Journal of Low Temperature Physics, 2014, 174, 96-103.	1.4	23
9	Matching fields of a long superconducting film. Physical Review B, 1999, 60, 13158-13163.	3.2	21
10	Vortex-antivortex annihilation dynamics in a square mesoscopic superconducting cylinder. Physical Review B, 2009, 80, .	3.2	21
11	Vortex state in a mesoscopic flat disk with rough surface. Physica C: Superconductivity and Its Applications, 2012, 479, 49-52.	1.2	21
12	Influence of the deGennes extrapolation parameter on the resistive state of a superconducting strip. Physics Letters, Section A: General, Atomic and Solid State Physics, 2018, 382, 215-219.	2.1	20
13	Tilt-wave instability of the flux-line lattice in anisotropic superconductors. Physical Review B, 1993, 48, 9664-9668.	3.2	19
14	Vortex lattice and matching fields for a long superconducting wire. Physical Review B, 1998, 58, 5789-5794.	3.2	18
15	Maximum number of flux lines inside columnar defects. Physica C: Superconductivity and Its Applications, 2000, 341-348, 1199-1200.	1.2	18
16	Non-conventional vortex configurations in a mesoscopic flat disk. Physica C: Superconductivity and Its Applications, 2013, 487, 47-55.	1.2	16
17	Superconducting properties of a mesoscopic parallelepiped with anisotropic surface conditions. Physics Letters, Section A: General, Atomic and Solid State Physics, 2015, 379, 3130-3135.	2.1	12
18	Dynamics and heat diffusion of Abrikosovâ€™s vortex-antivortex pairs during an annihilation process. Journal of Physics Condensed Matter, 2017, 29, 405605.	1.8	12

#	Article	IF	Citations
19	Crossover between macroscopic and mesoscopic regimes of vortex interactions in type-II superconductors. Physical Review B, 2012, 85, .	3.2	10
20	Magnetic field profile of a mesoscopic SQUID-shaped superconducting film. Superconductor Science and Technology, 2013, 26, 075005.	3.5	10
21	NUCLEATION OF SUPERCONDUCTIVITY IN A THIN DISK WITH A RING-LIKE DEFECT. Modern Physics Letters B, 2013, 27, 1350025.	1.9	10
22	Multi-vortex State Induced by Proximity Effects in a Small Superconducting Square. Journal of Low Temperature Physics, 2014, 177, 193-201.	1.4	10
23	Triangular arrangement of defects in a mesoscopic superconductor. Physica C: Superconductivity and Its Applications, 2013, 485, 107-114.	1.2	9
24	Length dependence of the number of phase slip lines in a superconducting strip. Solid State Communications, 2020, 306, 113799.	1.9	9
25	Temperature-dependent vortex matter in a superconducting mesoscopic circular sector. Physica C: Superconductivity and Its Applications, 2010, 470, 1964-1967.	1.2	7
26	Numerical solution of the time dependent Ginzburg-Landau equations for mixed (d +) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 462 T	1.1	7
27	Resistive state of a thin superconducting strip with an engineered central defect. European Physical Journal B, 2019, 92, 1.	1.5	7
28	Ultra-fast kinematic vortices in mesoscopic superconductors: the effect of the self-field. Scientific Reports, 2020, 10, 18662.	3.3	7
29	Theory of elasticity of the Abrikosov flux-line lattice for uniaxial superconductors: Parallel flux lines. Physical Review B, 1991, 44, 5209-5215.	3.2	6
30	Vortexâ€“antivortex annihilation in mesoscopic superconductors with a central pinning center. Physica C: Superconductivity and Its Applications, 2014, 503, 94-97.	1.2	6
31	Minimum size for the occurrence of vortex matter in a square mesoscopic superconductor. Physica B: Condensed Matter, 2008, 403, 1494-1496.	2.7	5
32	Vortex dynamics in mesoscopic superconducting square of variable surface. Physica C: Superconductivity and Its Applications, 2010, 470, 206-211.	1.2	5
33	Superconducting state in a mesoscopic segment ring. Physica C: Superconductivity and Its Applications, 2012, 480, 118-122.	1.2	5
34	Study of the threshold line between macroscopic and bulk behaviors for homogeneous type II superconductors. Physica C: Superconductivity and Its Applications, 2013, 492, 75-79.	1.2	5
35	Self-assembled vortex crystals induced by inhomogeneous magnetic textures. Journal of Physics Condensed Matter, 2019, 31, 175402.	1.8	5
36	Intermediate type-I superconductors in the mesoscopic scale. Physical Review B, 2021, 103, .	3.2	5

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37	Continued-fraction formalism applied to the spin-1/2XYZmodel. Physical Review B, 1991, 43, 13653-13655.	3.2	4
38	Vortices in superconductors with a columnar defect: Finite size effects. Physica C: Superconductivity and Its Applications, 2005, 421, 41-48.	1.2	4
39	Vortexâ€“Antivortex Dynamics in a Mesoscopic Superconducting Prism with a Centered Antidot. Journal of Superconductivity and Novel Magnetism, 2011, 24, 97-100.	1.8	4
40	Influence of thermal gradient in vortex states of mesoscopic superconductors. Journal of Physics: Conference Series, 2014, 568, 022011.	0.4	4
41	Dynamical regimes of kinematic vortices in the resistive state of a mesoscopic superconducting bridge. Journal of Physics Condensed Matter, 2020, 32, 435702.	1.8	4
42	Interaction potential between vortex lines for uniaxial superconductors in the London approximation. Physical Review B, 1996, 53, 14506-14512.	3.2	3
43	Coexistence of different types of vortex lines in anisotropic superconductors. Physica C: Superconductivity and Its Applications, 1997, 275, 231-237.	1.2	3
44	Linear arrangement of metallic and superconducting defects in a thin superconducting sample. Physica C: Superconductivity and Its Applications, 2013, 492, 1-5.	1.2	3
45	Profile and Crowding of Currents in Mesoscopic Superconductors With an Array of Antidots. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-4.	1.7	3
46	Superconducting 3D-sample with general boundary conditions in a tilted magnetic field. Physica C: Superconductivity and Its Applications, 2019, 558, 1-6.	1.2	3
47	Use of thermal gradients for control of vortex matter in mesoscopic superconductors. Journal of Physics Condensed Matter, 2019, 31, 405901.	1.8	3
48	Crossover from type I to type II regime of mesoscopic superconductors of the first group. Journal of Physics Condensed Matter, 2020, 32, 095304.	1.8	3
49	Change of the vortex lattice symmetry in the vicinity of the macro-to-mesoscopic threshold. Physica C: Superconductivity and Its Applications, 2012, 479, 154-156.	1.2	2
50	The spike state in type-I mesoscopic superconductor. Physics Letters, Section A: General, Atomic and Solid State Physics, 2021, 406, 127457.	2.1	2
51	Clusters of vortices induced by thermal gradient in mesoscopic superconductors. Physics Letters, Section A: General, Atomic and Solid State Physics, 2021, 406, 127449.	2.1	2
52	Tower as magnetic antipinning core in a small superconducting sample. Physica C: Superconductivity and Its Applications, 2014, 506, 146-150.	1.2	1
53	Kinematic vortices induced by defects in gapless superconductors. Physics Letters, Section A: General, Atomic and Solid State Physics, 2021, 419, 127742.	2.1	1
54	Phenomenological application of the projection-operator method and its connection with critical dynamics. Physical Review B, 1991, 43, 3613-3616.	3.2	0

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55	Magnetic field of an in-plane vortex inside and outside a layered superconducting film. Physical Review B, 2000, 62, 9757-9761.	3.2	0
56	Depairing critical current density of a mesoscopic square superconductor. Brazilian Journal of Physics, 2004, 34, 1265-1269.	1.4	0
57	2D barrier in a superconducting niobium square. , 2014, , .		0
58	Magnetic flux quantum in a Superconducting concave/convex disk. Journal of Physics: Conference Series, 2014, 490, 012218.	0.4	0
59	Mesoscopic superconductivty in application. Journal of Physics: Conference Series, 2018, 1126, 012003.	0.4	0
60	Vortex lattice of a long superconducting wire with a columnar defect. Brazilian Journal of Physics, 2002, 32, 695-698.	1.4	0