Enric Pardo

List of Publications by Year
in descending order

108 papers	3,399 citations	117453 34 h-index	161609 54 g-index
110 all docs	110 docs citations	110 times ranked	1744 citing authors

#	Article	IF	Citations
1	Computation of Losses in HTS Under the Action of Varying Magnetic Fields and Currents. IEEE Transactions on Applied Superconductivity, 2014, 24, 78-110.	1.1	264
2	Roebel cables from REBCO coated conductors: a one-century-old concept for the superconductivity of the future. Superconductor Science and Technology, 2014, 27, 093001.	1.8	228
3	Demagnetizing factors of rectangular prisms and ellipsoids. IEEE Transactions on Magnetics, 2002, 38, 1742-1752.	1.2	162
4	Demagnetizing factors for rectangular prisms. IEEE Transactions on Magnetics, 2005, 41, 2077-2088.	1.2	118
5	Fluxmetric and magnetometric demagnetizing factors for cylinders. Journal of Magnetism and Magnetic Materials, 2006, 306, 135-146.	1.0	116
6	Theoretical and experimental study of AC loss in high temperature superconductor single pancake coils. Superconductor Science and Technology, 2009, 22, 015006.	1.8	91
7	Modeling of coated conductor pancake coils with a large number of turns. Superconductor Science and Technology, 2008, 21, 065014.	1.8	83
8	Transport and magnetization ac losses of ROEBEL assembled coated conductor cables: measurements and calculations. Superconductor Science and Technology, 2010, 23, 014023.	1.8	82
9	Magnetic flux penetration and AC loss in a composite superconducting wire with ferromagnetic parts. Superconductor Science and Technology, 2009, 22, 034017.	1.8	81
10	Current distribution and ac loss for a superconducting rectangular strip with in-phase alternating current and applied field. Superconductor Science and Technology, 2007, 20, 351-364.	1.8	75
11	Magnetic properties of arrays of superconducting strips in a perpendicular field. Physical Review B, 2003, 67, .	1.1	71
12	Simultaneous inductive determination of grain and intergrain critical current densities of YBa2Cu3O7â˜x coated conductors. Applied Physics Letters, 2004, 84, 230-232.	1.5	69
13	Optimizing levitation force and stability in superconducting levitation with translational symmetry. Applied Physics Letters, 2007, 90, 042503.	1.5	69
14	Electromagnetic modelling of superconductors with a smooth currentâ€“voltage relation: variational principle and coils from a few turns to large magnets. Superconductor Science and Technology, 2015, 28, 044003.	1.8	59
15	Tâ€“A-Formulation to Model Electrical Machines With HTS Coated Conductor Coils. IEEE Transactions on Applied Superconductivity, 2020, 30, 1-7.	1.1	56
16	AC loss in ReBCO pancake coils and stacks of them: modelling and measurement. Superconductor Science and Technology, 2012, 25, 035003.	1.8	54
17	A new benchmark problem for electromagnetic modelling of superconductors: the high-T _c superconducting dynamo. Superconductor Science and Technology, 2020, 33, 105009.	1.8	54
18	Theoretical analysis of the transport critical-state ac loss in arrays of superconducting rectangular strips. Physical Review B, 2005, 71, .	1.1	47

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19	Superconducting motors for aircraft propulsion: the Advanced Superconducting Motor Experimental Demonstrator project. Journal of Physics: Conference Series, 2020, 1590, 012051.	0.3	46
20	Self-Field Effects and AC Losses in Pancake Coils Assembled From Coated Conductor Roebel Cables. IEEE Transactions on Applied Superconductivity, 2014, 24, 1-5.	1.1	45
21	Ac loss modelling and measurement of superconducting transformers with coated-conductor Roebel-cable in low-voltage winding. Superconductor Science and Technology, 2015, 28, 114008.	1.8	45
22	AC loss measurement and simulation of a coated conductor pancake coil with ferromagnetic parts. Superconductor Science and Technology, 2009, 22, 075007.	1.8	44
23	Numerical simulations of the angular dependence of magnetization AC losses: coated conductors, Roebel cables and double pancake coils. Superconductor Science and Technology, 2012, 25, 014008.	1.8	44
24	3D computation of non-linear eddy currents: Variational method and superconducting cubic bulk. Journal of Computational Physics, 2017, 344, 339-363.	1.9	44
25	Enhanced stability by field cooling in superconducting levitation with translational symmetry. Applied Physics Letters, 2007, 91, .	1.5	43
26	Magnetic levitation of superconducting bars. Journal of Applied Physics, 2006, 99, 113904.	1.1	40
27	Transverse demagnetizing factors of long rectangular bars: I. Analytical expressions for extreme values of susceptibility. Journal of Applied Physics, 2002, 91, 5254-5259.	1.1	39
28	AC Loss in Pancake Coil Made From 12 mm Wide REBCO Tape. IEEE Transactions on Applied Superconductivity, 2013, 23, 5900406-5900406.	1.1	39
29	The transverse critical-state susceptibility of rectangular bars. Superconductor Science and Technology, 2004, 17, 537-544.	1.8	38
30	Critical state in finite type-II superconducting rings. Physical Review B, 2005, 71, .	1.1	38
31	Simulation of ac loss in Roebel coated conductor cables. Superconductor Science and Technology, 2010, 23, 115018.	1.8	38
32	Ripple field losses in direct current biased superconductors: Simulations and comparison with measurements. Journal of Applied Physics, 2014, 115, .	1.1	38
33	Modeling of screening currents in coated conductor magnets containing up to 40000 turns. Superconductor Science and Technology, 2016, 29, 085004.	1.8	37
34	Calculation of AC loss in coated conductor coils with a large number of turns. Superconductor Science and Technology, 2013, 26, 105017.	1.8	36
35	Demagnetizing Factors for Square Bars. IEEE Transactions on Magnetics, 2004, 40, 1491-1498.	1.2	35
36	Current profiles and ac losses of a superconducting strip with an elliptic cross-section in a perpendicular magnetic field. Superconductor Science and Technology, 2002, 15, 1311-1315.	1.8	34

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37	AC Loss Modeling in Superconducting Coils and Motors With Parallel Tapes as Conductor. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-5.	1.1	34
38	Transverse demagnetizing factors of long rectangular bars. II. Numerical calculations for arbitrary susceptibility. Journal of Applied Physics, 2002, 91, 5260-5267.	1.1	32
39	Alternating current loss in rectangular superconducting bars with a constant critical-current density. Superconductor Science and Technology, 2004, 17, 83-87.	1.8	32
40	Test Results and Conclusions From a 1 MVA Superconducting Transformer Featuring 2G HTS Roebel Cable. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-5.	1.1	31
41	Non-uniformity of coated conductor tapes. Superconductor Science and Technology, 2013, 26, 115013.	1.8	30
42	Demagnetizing factors for completely shielded rectangular prisms. Journal of Applied Physics, 2004, 96, 5365-5369.	1.1	26
43	Equilibrium positions due to different cooling processes in superconducting levitation systems. Superconductor Science and Technology, 2004, 17, 828-832.	1.8	25
44	Predicting AC loss in practical superconductors. Superconductor Science and Technology, 2006, 19, S60-S66.	1.8	25
45	Study of ac loss in Bi-2223/Ag tape under the simultaneous action of ac transport current and ac magnetic field shifted in phase. Superconductor Science and Technology, 2006, 19, 397-404.	1.8	24
46	ac susceptibility and critical-current densities in sintered YBa2Cu3O7â˜Î´ superconductors. Applied Physics Letters, 2006, 89, 072501.	1.5	23
47	AC Losses of Pancake Coils Made of Roebel Cable. IEEE Transactions on Applied Superconductivity, 2013, 23, 5900205-5900205.	1.1	23
48	Radial magnetometric demagnetizing factor of thin disks. IEEE Transactions on Magnetics, 2001, 37, 3877-3880.	1.2	22
49	Power-law E(J) characteristic converted from field-amplitude and frequency dependent ac susceptibility in superconductors. Applied Physics Letters, 2006, 88, 222505.	1.5	22
50	Three-Dimensional Modeling and Measurement of Coupling AC Loss in Soldered Tapes and Striated Coated Conductors. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-7.	1.1	21
51	3D modeling of a superconducting dynamo-type flux pump. Scientific Reports, 2021, 11, 10296.	1.6	21
52	Demagnetization of Cubic Gd-Ba-Cu-O Bulk Superconductor by Crossed-Fields: Measurements and Three-Dimensional Modeling. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-5.	1.1	20
53	Modeling of airgap influence on DC voltage generation in a dynamo-type flux pump. Superconductor Science and Technology, 2020, 33, 035008.	1.8	20
54	Comparison of ac susceptibility of YBa2Cu3O7 coated conductors and single crystals. Applied Physics Letters, 2004, 85, 5646-5648.	1.5	19

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55	The voltage signal on a superconducting wire in AC transport. Superconductor Science and Technology, 2005, 18, 694-700.	1.8	19
56	Lateral force in permanent magnet-superconductor levitation systems with high critical current. IEEE Transactions on Applied Superconductivity, 2003, 13, 2185-2188.	1.1	18
57	Power Loss in ReBCO Racetrack Coils Under AC Applied Magnetic Field and DC Current. IEEE Transactions on Applied Superconductivity, 2013, 23, 4701305-4701305.	1.1	17
58	Critical current density and pinning behaviour of mono-core MgB2 wires prepared by internal magnesium diffusion and in-situ powder-in-tube method. Physica C: Superconductivity and Its Applications, 2014, 505, 39-43.	0.6	17
59	Demagnetizing correction in fluxmetric measurements of magnetization curves and hysteresis loops of ferromagnetic cylinders. Journal of Magnetism and Magnetic Materials, 2018, 449, 447-454.	1.0	17
60	Electromagnetic Modeling of Superconductors With Commercial Software: Possibilities With Two Vector Potential-Based Formulations. IEEE Transactions on Applied Superconductivity, 2021, 31, 1-9.	1.1	17
61	Modeling the charging process of a coil by an HTS dynamo-type flux pump. Superconductor Science and Technology, 2021, 34, 084002.	1.8	17
62	Anomalous ac magnetic susceptibility of high-temperatureYBa2Cu3O7â˜Î´superconductors. Physical Review B, 2005, 72, .	1.1	15
63	Coupling loss at the end connections of REBCO stacks: 2D modelling and measurement. Superconductor Science and Technology, 2020, 33, 075014.	1.8	15
64	Field dependent alternating current susceptibility of metalorganically deposited YBa2Cu3O7â˜Î´ films. Journal of Applied Physics, 2007, 101, 073905.	1.1	14
65	Magnetic Flux Penetration and Transport AC Loss in Superconductor Coated Conductor on Ferromagnetic Substrate. IEEE Transactions on Applied Superconductivity, 2009, 19, 3102-3105.	1.1	14
66	Transport ac loss of a superconducting cylinder with field and radius dependent critical-current density. Superconductor Science and Technology, 2004, 17, 256-262.	1.8	13
67	Magnetization and critical current of finite superconductingYBa2Cu3O7rings. Physical Review B, 2005, 72, .	1.1	13
68	The identification of grain boundary networks of distinct critical current density in YBa2Cu3O7Âxcoated conductors. Superconductor Science and Technology, 2004, 17, 1283-1288.	1.8	12
69	Modeling of AC Loss in Coils Made of Thin Tapes Under DC Bias Current. IEEE Transactions on Applied Superconductivity, 2014, 24, 1-5.	1.1	12
70	3D magnetization currents, magnetization loop, and saturation field in superconducting rectangular prisms. Superconductor Science and Technology, 2017, 30, 064007.	1.8	12
71	Cross-field demagnetization of stacks of tapes: 3D modelling and measurements. Superconductor Science and Technology, 2019, , .	1.8	11
72	Critical-state and eddy-current ac susceptibilities of conducting cylinders. Superconductor Science and Technology, 2005, 18, 1280-1289.	1.8	10

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73	Dynamic magneto-resistance: turning a nuisance into an essential effect. Superconductor Science and Technology, 2017, 30, 060501.	1.8	10
74	3D modelling of macroscopic force-free effects in superconducting thin films and rectangular prisms. Superconductor Science and Technology, 2019, 32, 054001.	1.8	10
75	Time constant of the transverse-field demagnetization of superconducting stacks of tapes. Superconductor Science and Technology, 2020, 33, 065003.	1.8	10
76	The influence of filament arrangement on current distribution and AC loss in Bi-2223/Ag tapes. Superconductor Science and Technology, 2004, 17, S150-S154.	1.8	9
77	Magnetic Field in the Winding of an YBCO Pancake Coil: Experiments and Calculations. IEEE Transactions on Applied Superconductivity, 2012, 22, 6600204-6600204.	1.1	9
78	Magnetic shielding of various geometries of bulk semi-closed superconducting cylinders subjected to axial and transverse fields. Superconductor Science and Technology, 2019, 32, 074007.	1.8	9
79	Flux-flow critical-state susceptibility of superconductors. Applied Physics Letters, 2005, 86, 242503.	1.5	8
80	Electromagnetic nonlinearities in a Roebel-cable-based accelerator magnet prototype: variational approach. Superconductor Science and Technology, 2017, 30, 024008.	1.8	8
81	Critical current and ac susceptibility in superconducting tapes with elliptical cross-section. Physica C: Superconductivity and Its Applications, 2002, 372-376, 1788-1791.	0.6	7
82	Transverse ac susceptibility of superconducting bars with elliptical cross-section and constant critical-current density. Superconductor Science and Technology, 2005, 18, 997-1002.	1.8	7
83	Losses in Bi-2223/Ag tape at simultaneous action of AC transport and AC magnetic field shifted in phase. Journal of Physics: Conference Series, 2006, 43, 63-66.	0.3	7
84	Calibration of a permeameter for measuring soft magnetic materials using long cylindrical samples characterized by demagnetizing-corrected solenoid method. Journal of Magnetism and Magnetic Materials, 2018, 458, 137-146.	1.0	7
85	Modeling cross-field demagnetization of superconducting stacks and bulks for up to 100 tapes and 2 million cycles. Scientific Reports, 2020, 10, 19265.	1.6	7
86	The perpendicular low-frequency susceptibility of Bi-2223/Ag tapes. Superconductor Science and Technology, 2004, 17, 1477-1484.	1.8	6
87	AC Loss and Voltage Signal in a Pancake Coil Made of Coated Conductor With Ferromagnetic Substrate. IEEE Transactions on Applied Superconductivity, 2009, 19, 2223-2227.	1.1	6
88	Investigation of defects in functional layer of high temperature superconducting tapes. Physica C: Superconductivity and Its Applications, 2014, 497, 24-29.	0.6	6
89	3D Modeling of the Magnetization of Superconducting Rectangular-Based Bulks and Tape Stacks. IEEE Transactions on Applied Superconductivity, 2018, , 1-1.	1.1	6
90	Transport ac loss in a long cylinder with a hard superconducting core and normal conducting shell. Superconductor Science and Technology, 2004, 17, 16-22.	1.8	5

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91	ac susceptibility of a melt-textured YBa2Cu3Ox ring closed by a strong-coupling contact. Applied Physics Letters, 2007, 91, 012506.	1.5	5
92	Vortex deformation and breaking in superconductors: a microscopic description. Philosophical Magazine, 2007, 87, 4359-4381.	0.7	5
93	AC losses in Bi-2223 Single-Pancake Coils From 72 to 1152 Hzâ€"Modeling and Measurements. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-7.	1.1	5
94	Magnetic properties of a melt-textured YBa2Cu3Ox ring with a perpendicular crack. Applied Physics Letters, 2007, 90, 072501.	1.5	4
95	Theoretical AC susceptibility of superconducting multifilamentary tapes in a perpendicular field. IEEE Transactions on Applied Superconductivity, 2003, 13, 3566-3569.	1.1	3
96	Magnetic granularity analysis of YBCO coated conductors. Physica C: Superconductivity and Its Applications, 2004, 408-410, 866-868.	0.6	3
97	Forces acting on a current-driven moving vortex in a long Josephson junction. Applied Physics Letters, 2007, 90, 142512.	1.5	3
98	Ac susceptibility of bicrystal-like type-II superconducting films. Physica C: Superconductivity and Its Applications, 2007, 460-462, 787-788.	0.6	3
99	AC and DC magnetization of finite cylindrical and orthorhombic superconductors. Physica C: Superconductivity and Its Applications, 2000, 341-348, 2055-2056.	0.6	2
100	Vortex Cutting in YBa2Cu3O7-Î´. Journal of Physics: Conference Series, 2006, 43, 627-630.	0.3	2
101	Dependence of Resistance and Number of Tapes on the Coupling AC Loss of Soldered REBCO Stacks. IEEE Transactions on Applied Superconductivity, 2021, 31, 1-5.	1.1	2
102	AC susceptibility of halfâ€"half jointed melt-textured YBCO rings. Physica C: Superconductivity and Its Applications, 2007, 460-462, 770-771.	0.6	1
103	Numerical calculations of the driving force on an Abrikosov vortex. Physica C: Superconductivity and Its Applications, 2010, 470, 444-450.	0.6	1
104	Magnetization AC losses of iron-based Ba-122 superconducting tapes. Cryogenics, 2021, 116, 103281.	0.9	1
105	Resistance Dependence of the Magnetization Loss for the Partially Coupled REBCO Stacks Modeled by MEMEP Method. , 2020, , .		1
106	A Comparison of Numerical Methods for Superconducting Tapes in the Critical State with Transverse Applied Field. European Physical Journal D, 2004, 54, 513-516.	0.4	0
107	Split coil made of (RE)BCO pancake coils for I_C(B) anisotropy measurements of superconductors. Journal of Physics: Conference Series, 2014, 507, 012014.	0.3	0
108	The 4th international workshop on numerical modelling of high temperature superconductors. Superconductor Science and Technology, 2015, 28, 050201.	1.8	0