

Enric Pardo

List of Publications by Year in descending order

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108
papers

3,399
citations

117453

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161609

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g-index

110
all docs

110
docs citations

110
times ranked

1744
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	3D modeling of a superconducting dynamo-type flux pump. Scientific Reports, 2021, 11, 10296.	1.6	21
3	Magnetization AC losses of iron-based Ba-122 superconducting tapes. Cryogenics, 2021, 116, 103281.	0.9	1
4	Modeling the charging process of a coil by an HTS dynamo-type flux pump. Superconductor Science and Technology, 2021, 34, 084002.	1.8	17
5	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
6	Modeling of airgap influence on DC voltage generation in a dynamo-type flux pump. Superconductor Science and Technology, 2020, 33, 035008.	1.8	20
7	Superconducting motors for aircraft propulsion: the Advanced Superconducting Motor Experimental Demonstrator project. Journal of Physics: Conference Series, 2020, 1590, 012051.	0.3	46
8	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
9	<i>A</i> -Formulation to Model Electrical Machines With HTS Coated Conductor Coils. IEEE Transactions on Applied Superconductivity, 2020, 30, 1-7.	1.1	56
10	Time constant of the transverse-field demagnetization of superconducting stacks of tapes. Superconductor Science and Technology, 2020, 33, 065003.	1.8	10
11	Coupling loss at the end connections of REBCO stacks: 2D modelling and measurement. Superconductor Science and Technology, 2020, 33, 075014.	1.8	15
12	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
13	Resistance Dependence of the Magnetization Loss for the Partially Coupled REBCO Stacks Modeled by MEMEP Method. , 2020, , .		1
14	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
15	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
16	3D modelling of macroscopic force-free effects in superconducting thin films and rectangular prisms. Superconductor Science and Technology, 2019, 32, 054001.	1.8	10
17	Cross-field demagnetization of stacks of tapes: 3D modelling and measurements. Superconductor Science and Technology, 2019, , .	1.8	11
18	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

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19	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
20	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
21	3D Modeling of the Magnetization of Superconducting Rectangular-Based Bulks and Tape Stacks. IEEE Transactions on Applied Superconductivity, 2018, , 1-1.	1.1	6
22	Dynamic magneto-resistance: turning a nuisance into an essential effect. Superconductor Science and Technology, 2017, 30, 060501.	1.8	10
23	3D magnetization currents, magnetization loop, and saturation field in superconducting rectangular prisms. Superconductor Science and Technology, 2017, 30, 064007.	1.8	12
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	Electromagnetic nonlinearities in a Roebel-cable-based accelerator magnet prototype: variational approach. Superconductor Science and Technology, 2017, 30, 024008.	1.8	8
26	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
27	Modeling of screening currents in coated conductor magnets containing up to 40000 turns. Superconductor Science and Technology, 2016, 29, 085004.	1.8	37
28	AC losses in Bi-2223 Single-Pancake Coils From 72 to 1152 Hz Modeling and Measurements. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-7.	1.1	5
29	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
30	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
31	Electromagnetic modelling of superconductors with a smooth current-voltage relation: variational principle and coils from a few turns to large magnets. Superconductor Science and Technology, 2015, 28, 044003.	1.8	59
32	The 4th international workshop on numerical modelling of high temperature superconductors. Superconductor Science and Technology, 2015, 28, 050201.	1.8	0
33	Ripple field losses in direct current biased superconductors: Simulations and comparison with measurements. Journal of Applied Physics, 2014, 115, .	1.1	38
34	Investigation of defects in functional layer of high temperature superconducting tapes. Physica C: Superconductivity and Its Applications, 2014, 497, 24-29.	0.6	6
35	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
36	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

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37	Critical current density and pinning behaviour of mono-core MgB ₂ wires prepared by internal magnesium diffusion and in-situ powder-in-tube method. <i>Physica C: Superconductivity and Its Applications</i> , 2014, 505, 39-43.	0.6	17
38	Roebel cables from REBCO coated conductors: a one-century-old concept for the superconductivity of the future. <i>Superconductor Science and Technology</i> , 2014, 27, 093001.	1.8	228
39	Computation of Losses in HTS Under the Action of Varying Magnetic Fields and Currents. <i>IEEE Transactions on Applied Superconductivity</i> , 2014, 24, 78-110.	1.1	264
40	Split coil made of (RE)BCO pancake coils for $I_{c_C}(B)$ anisotropy measurements of superconductors. <i>Journal of Physics: Conference Series</i> , 2014, 507, 012014.	0.3	0
41	AC Losses of Pancake Coils Made of Roebel Cable. <i>IEEE Transactions on Applied Superconductivity</i> , 2013, 23, 5900205-5900205.	1.1	23
42	AC Loss in Pancake Coil Made From 12 mm Wide REBCO Tape. <i>IEEE Transactions on Applied Superconductivity</i> , 2013, 23, 5900406-5900406.	1.1	39
43	Calculation of AC loss in coated conductor coils with a large number of turns. <i>Superconductor Science and Technology</i> , 2013, 26, 105017.	1.8	36
44	Power Loss in ReBCO Racetrack Coils Under AC Applied Magnetic Field and DC Current. <i>IEEE Transactions on Applied Superconductivity</i> , 2013, 23, 4701305-4701305.	1.1	17
45	Non-uniformity of coated conductor tapes. <i>Superconductor Science and Technology</i> , 2013, 26, 115013.	1.8	30
46	AC loss in ReBCO pancake coils and stacks of them: modelling and measurement. <i>Superconductor Science and Technology</i> , 2012, 25, 035003.	1.8	54
47	Magnetic Field in the Winding of an YBCO Pancake Coil: Experiments and Calculations. <i>IEEE Transactions on Applied Superconductivity</i> , 2012, 22, 6600204-6600204.	1.1	9
48	Numerical simulations of the angular dependence of magnetization AC losses: coated conductors, Roebel cables and double pancake coils. <i>Superconductor Science and Technology</i> , 2012, 25, 014008.	1.8	44
49	Numerical calculations of the driving force on an Abrikosov vortex. <i>Physica C: Superconductivity and Its Applications</i> , 2010, 470, 444-450.	0.6	1
50	Simulation of ac loss in Roebel coated conductor cables. <i>Superconductor Science and Technology</i> , 2010, 23, 115018.	1.8	38
51	Transport and magnetization ac losses of ROEBEL assembled coated conductor cables: measurements and calculations. <i>Superconductor Science and Technology</i> , 2010, 23, 014023.	1.8	82
52	AC Loss and Voltage Signal in a Pancake Coil Made of Coated Conductor With Ferromagnetic Substrate. <i>IEEE Transactions on Applied Superconductivity</i> , 2009, 19, 2223-2227.	1.1	6
53	Magnetic Flux Penetration and Transport AC Loss in Superconductor Coated Conductor on Ferromagnetic Substrate. <i>IEEE Transactions on Applied Superconductivity</i> , 2009, 19, 3102-3105.	1.1	14
54	Magnetic flux penetration and AC loss in a composite superconducting wire with ferromagnetic parts. <i>Superconductor Science and Technology</i> , 2009, 22, 034017.	1.8	81

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55	Theoretical and experimental study of AC loss in high temperature superconductor single pancake coils. Superconductor Science and Technology, 2009, 22, 015006.	1.8	91
56	AC loss measurement and simulation of a coated conductor pancake coil with ferromagnetic parts. Superconductor Science and Technology, 2009, 22, 075007.	1.8	44
57	Modeling of coated conductor pancake coils with a large number of turns. Superconductor Science and Technology, 2008, 21, 065014.	1.8	83
58	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
59	Enhanced stability by field cooling in superconducting levitation with translational symmetry. Applied Physics Letters, 2007, 91, .	1.5	43
60	ac susceptibility of a melt-textured YBa ₂ Cu ₃ O _x ring closed by a strong-coupling contact. Applied Physics Letters, 2007, 91, 012506.	1.5	5
61	Field dependent alternating current susceptibility of metalorganically deposited YBa ₂ Cu ₃ O _{7-δ} films. Journal of Applied Physics, 2007, 101, 073905.	1.1	14
62	Forces acting on a current-driven moving vortex in a long Josephson junction. Applied Physics Letters, 2007, 90, 142512.	1.5	3
63	Magnetic properties of a melt-textured YBa ₂ Cu ₃ O _x ring with a perpendicular crack. Applied Physics Letters, 2007, 90, 072501.	1.5	4
64	Vortex deformation and breaking in superconductors: a microscopic description. Philosophical Magazine, 2007, 87, 4359-4381.	0.7	5
65	Optimizing levitation force and stability in superconducting levitation with translational symmetry. Applied Physics Letters, 2007, 90, 042503.	1.5	69
66	AC susceptibility of half-jointed melt-textured YBCO rings. Physica C: Superconductivity and Its Applications, 2007, 460-462, 770-771.	0.6	1
67	Ac susceptibility of bicrystal-like type-II superconducting films. Physica C: Superconductivity and Its Applications, 2007, 460-462, 787-788.	0.6	3
68	Vortex Cutting in YBa ₂ Cu ₃ O _{7-δ} . Journal of Physics: Conference Series, 2006, 43, 627-630.	0.3	2
69	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
70	Fluxmetric and magnetometric demagnetizing factors for cylinders. Journal of Magnetism and Magnetic Materials, 2006, 306, 135-146.	1.0	116
71	Predicting AC loss in practical superconductors. Superconductor Science and Technology, 2006, 19, S60-S66.	1.8	25
72	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

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73	Magnetic levitation of superconducting bars. Journal of Applied Physics, 2006, 99, 113904.	1.1	40
74	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
75	ac susceptibility and critical-current densities in sintered $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ superconductors. Applied Physics Letters, 2006, 89, 072501.	1.5	23
76	Demagnetizing factors for rectangular prisms. IEEE Transactions on Magnetics, 2005, 41, 2077-2088.	1.2	118
77	The voltage signal on a superconducting wire in AC transport. Superconductor Science and Technology, 2005, 18, 694-700.	1.8	19
78	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
79	Critical-state and eddy-current ac susceptibilities of conducting cylinders. Superconductor Science and Technology, 2005, 18, 1280-1289.	1.8	10
80	Critical state in finite type-II superconducting rings. Physical Review B, 2005, 71, .	1.1	38
81	Theoretical analysis of the transport critical-state ac loss in arrays of superconducting rectangular strips. Physical Review B, 2005, 71, .	1.1	47
82	Flux-flow critical-state susceptibility of superconductors. Applied Physics Letters, 2005, 86, 242503.	1.5	8
83	Magnetization and critical current of finite superconducting $\text{YBa}_2\text{Cu}_3\text{O}_7$ rings. Physical Review B, 2005, 72, .	1.1	13
84	Anomalous ac magnetic susceptibility of high-temperature $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ superconductors. Physical Review B, 2005, 72, .	1.1	15
85	The transverse critical-state susceptibility of rectangular bars. Superconductor Science and Technology, 2004, 17, 537-544.	1.8	38
86	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
87	The identification of grain boundary networks of distinct critical current density in $\text{YBa}_2\text{Cu}_3\text{O}_7$ coated conductors. Superconductor Science and Technology, 2004, 17, 1283-1288.	1.8	12
88	The perpendicular low-frequency susceptibility of Bi-2223/Ag tapes. Superconductor Science and Technology, 2004, 17, 1477-1484.	1.8	6
89	Simultaneous inductive determination of grain and intergrain critical current densities of $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ coated conductors. Applied Physics Letters, 2004, 84, 230-232.	1.5	69
90	Demagnetizing factors for completely shielded rectangular prisms. Journal of Applied Physics, 2004, 96, 5365-5369.	1.1	26

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91	Comparison of ac susceptibility of YBa ₂ Cu ₃ O ₇ coated conductors and single crystals. Applied Physics Letters, 2004, 85, 5646-5648.	1.5	19
92	Alternating current loss in rectangular superconducting bars with a constant critical-current density. Superconductor Science and Technology, 2004, 17, 83-87.	1.8	32
93	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
94	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
95	Demagnetizing Factors for Square Bars. IEEE Transactions on Magnetism, 2004, 40, 1491-1498.	1.2	35
96	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
97	Magnetic granularity analysis of YBCO coated conductors. Physica C: Superconductivity and Its Applications, 2004, 408-410, 866-868.	0.6	3
98	Equilibrium positions due to different cooling processes in superconducting levitation systems. Superconductor Science and Technology, 2004, 17, 828-832.	1.8	25
99	Magnetic properties of arrays of superconducting strips in a perpendicular field. Physical Review B, 2003, 67, .	1.1	71
100	Lateral force in permanent magnet-superconductor levitation systems with high critical current. IEEE Transactions on Applied Superconductivity, 2003, 13, 2185-2188.	1.1	18
101	Theoretical AC susceptibility of superconducting multifilamentary tapes in a perpendicular field. IEEE Transactions on Applied Superconductivity, 2003, 13, 3566-3569.	1.1	3
102	Transverse demagnetizing factors of long rectangular bars. II. Numerical calculations for arbitrary susceptibility. Journal of Applied Physics, 2002, 91, 5260-5267.	1.1	32
103	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
104	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
105	Demagnetizing factors of rectangular prisms and ellipsoids. IEEE Transactions on Magnetism, 2002, 38, 1742-1752.	1.2	162
106	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
107	Radial magnetometric demagnetizing factor of thin disks. IEEE Transactions on Magnetism, 2001, 37, 3877-3880.	1.2	22
108	AC and DC magnetization of finite cylindrical and orthorhombic superconductors. Physica C: Superconductivity and Its Applications, 2000, 341-348, 2055-2056.	0.6	2