Marco Breschi

List of Publications by Year
in descending order

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103	1,529	448610	406436
papers	citations	19	35
		h-index	g-index

104	104	104	1164
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Experimental Study on the Impact of Double Bending at Room Temperature on the Performance of YBCO Coated Conductors. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-5.	1.1	0
2	Analysis of Electrodynamic Transients in the ITER PF Joints. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-5.	1.1	3
3	A Comprehensive Investigation on the Accuracy of Electrical Measurement of Transport Current AC Losses in HTS Tapes. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-13.	1.1	2
4	AC Losses in the Second Module of the ITER Central Solenoid. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-5.	1.1	9
5	Description of the AC Loss Model for the ITER Central Solenoid During a Plasma Scenario. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-5.	1.1	9
6	Mechanical Analysis of Full-Scale Nb₃Sn CICC Designs for Tokamaks. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-5.	1.1	1
7	Analysis of a No-Insulation HTS Pancake Coil Including Multiple Resistive Joints. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-5.	1.1	4
8	Electro-Thermal Behavior of Layer-Wound BSCCO Coils With and Without Insulation. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-5.	1.1	4
9	On the effect of strand damage on the operating margin of a Nb3Sn Rutherford cable. Cryogenics, 2022, 125, 103458.	0.9	1
10	Analysis of AC Loss Contributions From Different Layers of HTS Tapes Using the Aâ˜V Formulation Model. IEEE Transactions on Applied Superconductivity, 2021, 31, 1-11.	1.1	16
11	First ITER CS module test results. Fusion Engineering and Design, 2021, 164, 112169.	1.0	12
12	Impact of mechanical and thermal cycles at different operating conditions on the ITER toroidal field coil conductor performance. Superconductor Science and Technology, 2021, 34, 085021.	1.8	3
13	Electrical Characteristics of HTS Coils With and Without Insulation in a Layer-Wound Configuration. IEEE Transactions on Applied Superconductivity, 2021, 31, 1-5.	1.1	15
14	Quench in a pancake coil wound with REBCO Roebel cable: model and validation. Superconductor Science and Technology, 2021, 34, 105002.	1.8	14
15	AC Losses in the First ITER CS Module Tests: Experimental Results and Comparison to Analytical Models. IEEE Transactions on Applied Superconductivity, 2021, 31, 1-5.	1.1	11
16	Quench Propagation at Different Conditions in an HTS Pancake Coil Wound With Roebel Cable. IEEE Transactions on Applied Superconductivity, 2021, 31, 1-5.	1.1	1
17	Study of the ITER TF CICC Mechanical Behavior Under Cool-Down and Repetitive EM Loadings. IEEE Transactions on Applied Superconductivity, 2021, 31, 1-5.	1.1	1
18	A numerical method for spatially-distributed transient simulation to replicate nonlinear â€˜defect-irrelevantâ€™ behaviors of no-insulation HTS coil. Superconductor Science and Technology, 2021, 34, 115004.	1.8	16

#	Article	IF	Citations
19	An electromagnetic method for measuring AC losses in HTS tapes without lock-in amplifier. Journal of Physics: Conference Series, 2020, 1559, 012066.	0.3	7
20	An Algorithm for Toroidal Field Harmonics Computation in Arbitrary Magnetic Configurations. IEEE Transactions on Applied Superconductivity, 2020, 30, 1-5.	1.1	4
21	Numerical Investigation on the Thermo-Mechanical Behavior of HTS Tapes and Experimental Testing on Their Critical Current. IEEE Transactions on Applied Superconductivity, 2020, 30, 1-5.	1.1	7
22	Advanced Modeling of Electromagnetic Loading of Cable-in-Conduit Conductors for Fusion Magnets. IEEE Transactions on Applied Superconductivity, 2020, 30, 1-5.	1.1	2
23	The use of Nb₃Sn in fusion: lessons learned from the ITER production including options for management of performance degradation. Superconductor Science and Technology, 2020, 33, 054007.	1.8	32
24	Modeling the ITER CS AC Losses Based on the CS Insert Analysis. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-7.	1.1	5
25	Modeling of Beam Loss Induced Quenches in the LHC Main Dipole Magnets. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-7.	1.1	1
26	Calculation method for pulsed magnetic field energy supplied to Nb3Sn ITER CS conductors during SULTAN stability tests. Fusion Engineering and Design, 2019, 147, 111224.	1.0	1
27	Numerical Investigation on Induced Current Distribution and AC Losses in a Prototype Cable for the European DEMO TF Coils. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-5.	1.1	1
28	Mechanical Modeling and First Case Study on ITER TF CICC Loading Cases With Upgraded Finite Element Code Simulations. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-5.	1.1	4
29	A Numerical Study of Quench in the NHMFL 32 T Magnet. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-5.	1.1	25
30	Stability modeling of the LHC Nb-Ti Rutherford cables subjected to beam losses. Physical Review Accelerators and Beams, 2019, 22, .	0.6	3
31	The DRYSMES4GRID Project: Development of a 500 kJ/200 kW Cryogen-Free Cooled SMES Demonstrator Based on MgB2. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-5.	1.1	16
32	Analysis of losses in superconducting magnets based on the Nb₃Sn Rutherford cable configuration for future gantries. Superconductor Science and Technology, 2018, 31, 015005.	1.8	11
33	Impact of the Resistive Core on Losses in Superconducting Rutherford Cables: Analysis With the Continuum Model. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-5.	1.1	2
34	${oldsymbol T}_{{mathbf{cs}}}$ Measurement Result of ITER Toroidal Field Insert Coil Tested in 2016. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-5.	1.1	5
35	Experimental and Numerical Investigation on Losses in Electrodynamic Transients in a Nb3Sn Prototype Racetrack Coil. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-5.	1.1	1
36	Analysis of AC Losses in a CS Conductor Sample for the ITER Project. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-5.	1.1	6

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37	Calculation of interstrand coupling losses in superconducting Rutherford cables with a continuum model. Cryogenics, 2018, 96, 44-52.	0.9	6
38	Lead-Acid Battery Modeling Over Full State of Charge and Discharge Range. IEEE Transactions on Power Systems, 2018, 33, 6422-6429.	4.6	24
39	International Round Robin Test for Critical Current Measurement of RE-Ba-Cu-O Superconducting Tapes. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-5.	1.1	9
40	Electrothermal Modeling of Quench in REBCO Roebel Cables. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-5.	1.1	11
41	Quench Level of the HL-LHC Nb3Sn IR Quadrupoles. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-5.	1.1	2
42	Analysis of AC Losses in the ITER Central Solenoid Insert Coil. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-5.	1.1	16
43	Performance analysis of the toroidal field ITER production conductors. Superconductor Science and Technology, 2017, 30, 055007.	1.8	25
44	Analysis of the ITER central solenoid insert (CSI) coil stability tests. Cryogenics, 2017, 85, 8-14.	0.9	2
45	Impact of Twisting on Critical Current and n-value of BSCCO and (Re)BCO Tapes for DC Power Cables. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-4.	1.1	3
46	Analysis of ITER NbTi and Nb₃Sn CICCs experimental minimum quench energy with JackPot, MCM and THEA models. Superconductor Science and Technology, 2017, 30, 095003.	1.8	12
47	Characterization of the ITER CS conductor and projection to the ITER CS performance. Fusion Engineering and Design, 2017, 124, 1-5.	1.0	15
48	Modeling of Quench in the Coupled HTS Insert/LTS Outsert Magnet System of the NHMFL. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-13.	1.1	226
49	Analysis of quench in the NHMFL REBCO prototype coils for the 32 T Magnet Project. Superconductor Science and Technology, 2016, 29, 055002.	1.8	29
50	International round robin test of the retained critical current after double bending at room temperature of Ag-sheathed Bi-2223 superconducting wires. Superconductor Science and Technology, 2016, 29, 025010.	1.8	7
51	ITER Central Solenoid Insert Test Results. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-5.	1.1	37
52	Dependence of Critical Current and Quench Energy of BSCCO-2223 Tapes on Bending Diameter. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-5.	1.1	8
53	Performance analysis of the Nbâ^'Ti conductor qualification samples for the ITER project. Superconductor Science and Technology, 2015, 28, 115001.	1.8	11
54	Two-Dimensional Anisotropic Model of YBCO Coated Conductors. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-12.	1.1	39

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55	Electrothermal Analysis of a Twisted Stacked YBCO Cable-in-Conduit Conductor. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-5.	1.1	19
56	Analysis of Beam-Induced Quenches of the LHC Cables With a Multi-Strand Model. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-5.	1.1	4
57	Electromechanical Modeling of <inline-formula> <tex-math notation="TeX">$hbox{Nb}_{3}hbox{Sn} $</tex-math></inline-formula> Superconducting Wires Subjected to Periodic Bending Strain. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-5.	1.1	6
58	Experimental and numerical analysis of interfilament resistances in NbTi strands. Superconductor Science and Technology, 2014, 27, 055021.	1.8	1
59	Experimental and Numerical Analysis of Interfilament Resistances in <formula formulatype="inline"><tex Notation="TeX">$hbox{Nb}_{3}hbox{Sn}$</tex></formula> and NbTi Strands. IEEE Transactions on Applied Superconductivity, 2014, 24, 1-4.	1.1	2
60	Experimental and Theoretical Analysis of Transverse Resistances in a $hbox{Nb}_{3}hbox{Sn}$ LMI-EM Strand. IEEE Transactions on Applied Superconductivity, 2013, 23, 8401105-8401105.	1.1	4
61	Quench Behavior of $hbox{MgB}_{2}$ Pancake Coil for FCL Applications. IEEE Transactions on Applied Superconductivity, 2013, 23, 5600404-5600404.	1.1	6
62	Comparison of Direct Inter-Filament Resistance Measurement on $hbox{Nb}_{3}hbox{Sn}$ Strands Between University of Twente and ENEA. IEEE Transactions on Applied Superconductivity, 2013, 23, 6000204-6000204.	1.1	5
63	Thermo-electric analysis of the interconnection of the LHC main superconducting bus bars. Cryogenics, 2013, 53, 107-118.	0.9	1
64	Modeling of the electro-mechanical behavior of ITER Nb₃Sn cable in conduit conductors. Superconductor Science and Technology, 2012, 25, 054005.	1.8	23
65	Analysis of Defective Interconnections of the 13 kA LHC Superconducting Bus Bars. IEEE Transactions on Applied Superconductivity, 2012, 22, 4000504-4000504.	1.1	1
66	Error Estimation in the T_{cs} Measurement of TF Conductors in the SULTAN Facility. IEEE Transactions on Applied Superconductivity, 2012, 22, 4805205-4805205.	1.1	3
67	Electrical properties of resin monomers used in restorative dentistry. Dental Materials, 2012, 28, 1024-1031.	1.6	12
68	Results of the TF conductor performance qualification samples for the ITER project. Superconductor Science and Technology, 2012, 25, 095004.	1.8	54
69	Evaluation of Effective Strain and n-Value of ITER TF Conductor Samples. IEEE Transactions on Applied Superconductivity, 2011, 21, 1969-1973.	1.1	30
70	Effects of pH, ionic strength, and applied voltage on migration of dental monomers in an organic matrix. Dental Materials, 2011, 27, 1180-1186.	1.6	2
71	Effects of Mass Flow Rate Imbalance Among Petals During ${m T}_{m CS}$ Measurements of ITER TF Short Samples in SULTAN. IEEE Transactions on Applied Superconductivity, 2011, 21, 1978-1981.	1.1	2
72	Analysis of Transverse Resistance Measurements in ${m Nb}_{3}{m Sn}$ Superconducting Wires. IEEE Transactions on Applied Superconductivity, 2011, 21, 2372-2375.	1.1	8

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73	Sensitivity Analysis of T_{cs} Measurement on ITER TF Conductors. IEEE Transactions on Applied Superconductivity, 2010, 20, 1488-1491.	1.1	18
74	Analysis of the ITER ${hbox{Nb}}_{3}{hbox{Sn}}$ SULTAN Sample Test Conditions With Different Joint Technologies. IEEE Transactions on Applied Superconductivity, 2010, 20, 482-486.	1.1	11
75	Effects of the ${m Nb}_{3}{m Sn}$ Wire Cross Section Configuration on the Thermal Stability Performance. IEEE Transactions on Applied Superconductivity, 2009, 19, 2432-2436.	1.1	4
76	Electromagnetic Analysis of the Voltage-Temperature Characteristics of the ITER TF Conductor Samples. IEEE Transactions on Applied Superconductivity, 2009, 19, 1512-1515.	1.1	15
77	Numerical Analysis of the ITER TF Conductor Samples in SULTAN With the THELMA Code. IEEE Transactions on Applied Superconductivity, 2009, 19, 1457-1461.	1.1	5
78	Comparing the thermal stability of NbTi and Nb₃Sn wires. Superconductor Science and Technology, 2009, 22, 025019.	1.8	15
79	Electromagnetic Modeling of the Jacket in Cable-in-Conduit Conductors. IEEE Transactions on Applied Superconductivity, 2008, 18, 18-28.	1.1	37
80	Design, Manufacturing and Preliminary Tests of a Conduction Cooled 200 kJ Nb-Ti $muhbox{SMES}$. IEEE Transactions on Applied Superconductivity, 2008, 18, 697-700.	1.1	12
81	Stability Analysis of the LHC Cables for Transient Heat Depositions. IEEE Transactions on Applied Superconductivity, 2008, 18, 1257-1262.	1.1	15
82	Stability of ${m Nb}_{3}{m Sn}$ Superconducting Wires: The Role of the Normal Matrix. IEEE Transactions on Applied Superconductivity, 2008, 18, 1305-1308.	1.1	6
83	Minimum Quench Energy and Early Quench Development in NbTi Superconducting Strands. IEEE Transactions on Applied Superconductivity, 2007, 17, 2702-2705.	1.1	17
84	Theoretical explanation of the non-equipotential quench behaviour in Yâ€“Baâ€“Cuâ€“O coated conductors. Superconductor Science and Technology, 2007, 20, L9-L11.	1.8	21
85	Design of HTS Axial Flux Motor for Aircraft Propulsion. IEEE Transactions on Applied Superconductivity, 2007, 17, 1533-1536.	1.1	79
86	Experimental and Numerical Analysis of Stray Field From Transformers. IEEE Transactions on Magnetics, 2007, 43, 3984-3990.	1.2	4
87	Quench propagation and stability analysis of Rutherford resistive core cables. Cryogenics, 2006, 46, 606-614.	0.9	9
88	Analytical Model of Thermoelectrical Behavior in Superconducting Resistive Core Cables. IEEE Transactions on Applied Superconductivity, 2006, 16, 1208-1211.	1.1	1
89	Influence of Strand Deviations from Nominal Geometry on AC Losses in Multistrand Superconducting Cables. IEEE Transactions on Applied Superconductivity, 2005, 15, 1587-1590.	1.1	0
90	Analysis of Inductance Coefficients in Multistrand Cables: Analytical, Numerical, and Experimental Results. IEEE Transactions on Applied Superconductivity, 2005, 15, 3797-3807.	1.1	10

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91	Normal Zone Initiation and Propagation in Y-Ba-Cu-O Coated Conductors With Cu Stabilizer. IEEE Transactions on Applied Superconductivity, 2005, 15, 2586-2589.	1.1	93
92	An Application of the Inexact Newton Method to Nonlinear Magnetostatics. IEEE Transactions on Magnetics, 2004, 40, 1076-1079.	1.2	3
93	Analysis of electrical coupling parameters in superconducting cables. Cryogenics, 2003, 43, 233-239.	0.9	13
94	Superconductive cables current distribution analysis. Fusion Engineering and Design, 2003, 66-68, 1159-1163.	1.0	16
95	An analytical benchmark for the calculation of current distribution in superconducting cables. Cryogenics, 2003, 43, 241-248.	0.9	6
96	Material optimization of ferromagnetic shields. IEEE Transactions on Magnetics, 2003, 39, 1317-1320.	1.2	7
97	Combined modeling of cables and joints/terminations for the electromagnetic analysis of superconducting cables. IEEE Transactions on Applied Superconductivity, 2003, 13, 2400-2403.	1.1	3
98	Analytical calculation of current distribution in multistrand superconducting cables. IEEE Transactions on Applied Superconductivity, 2003, 13, 1710-1713.	1.1	5
99	Analytical solution for the current distribution in multistrand superconducting cables. Journal of Applied Physics, 2002, 92, 7571-7580.	1.1	19
100	A continuum model for current distribution in Rutherford cables. IEEE Transactions on Applied Superconductivity, 2001, 11, 2138-2141.	1.1	13
101	Measurements of magnetic field pattern in a short LHC dipole model. IEEE Transactions on Applied Superconductivity, 2001, 11, 1605-1608.	1.1	5
102	A general model for thermal, hydraulic and electric analysis of superconducting cables. Cryogenics, 2000, 40, 617-626.	0.9	124
103	A theoretical investigation on current imbalance in flat two-layer superconducting cables. Cryogenics, 2000, 40, 627-635.	0.9	23