Roberto Bonifetto

List of Publications by Citations

76 papers	**616** citations
14 h-index	**20** g-index
77 ext. papers	**686** ext. citations
1.9 avg, IF	**3.68** L-index

#	Paper	IF	Citations
76	Progress in the design of the superconducting magnets for the EU DEMO. *Fusion Engineering and Design*, **2018**, 136, 1597-1604	1.7	54
75	Validation of the 4C Thermal-Hydraulic Code Against 25 kA Safety Discharge in the ITER Toroidal Field Model Coil (TFMC). *IEEE Transactions on Applied Superconductivity*, **2011**, 21, 1948-1952	1.8	30
74	4C code analysis of thermal-hydraulic transients in the KSTAR PF1 superconducting coil. *Cryogenics*, **2013**, 53, 37-44	1.8	24
73	Modeling of W7-X superconducting coil cool-down using the 4C code. *Fusion Engineering and Design*, **2011**, 86, 1549-1552	1.7	24
72	ITER Central Solenoid Insert Test Results. *IEEE Transactions on Applied Superconductivity*, **2016**, 1-1	1.8	22
71	Advance in the conceptual design of the European DEMO magnet system. *Superconductor Science and Technology*, **2020**, 33, 044013	3.1	22
70	Parametric Analysis of the ITER TF Fast Discharge Using the 4C Code. *IEEE Transactions on Applied Superconductivity*, **2012**, 22, 4704104-4704104	1.8	21
69	. *IEEE Transactions on Applied Superconductivity*, **2016**, 26, 1-6	1.8	19
68	A full-core coupled neutronic/thermal-hydraulic code for the modeling of lead-cooled nuclear fast reactors. *Nuclear Engineering and Design*, **2013**, 261, 85-94	1.8	18
67	Computation of JT-60SA TF coil temperature margin using the 4C code. *Fusion Engineering and Design*, **2011**, 86, 1493-1496	1.7	17
66	Verification of the predictive capabilities of the 4C code cryogenic circuit model **2014**,		16
65	Validation of the 4C code against data from the HELIOS loop at CEA Grenoble. *Cryogenics*, **2013**, 53, 25-30	1.8	16
64	Analysis of AC Losses in the ITER Central Solenoid Insert Coil. *IEEE Transactions on Applied Superconductivity*, **2017**, 27, 1-5	1.8	14
63	Performance analysis of a graded winding pack design for the EU DEMO TF coil in normal and off-normal conditions. *Fusion Engineering and Design*, **2017**, 124, 45-48	1.7	14
62	Artificial Neural Network (ANN) modeling of the pulsed heat load during ITER CS magnet operation. *Cryogenics*, **2014**, 63, 231-240	1.8	13
61	Mitigation of the Temperature Margin Reduction due to the Nuclear Radiation on the ITER TF Coils. *IEEE Transactions on Applied Superconductivity*, **2013**, 23, 4201305-4201305	1.8	13
60	DTT device: Conceptual design of the superconducting magnet system. *Fusion Engineering and Design*, **2017**, 122, 299-312	1.7	12

59	Prediction, experimental results and analysis of the ITER TF insert coil quench propagation tests, using the 4C code. *Superconductor Science and Technology*, **2018**, 31, 035004	3.1	11
58	Characterization of the ITER CS conductor and projection to the ITER CS performance. *Fusion Engineering and Design*, **2017**, 124, 1-5	1.7	11
57	4C Code Simulation and Benchmark of ITER TF Magnet Cool-Down From 300 K to 80 K. *IEEE Transactions on Applied Superconductivity*, **2012**, 22, 4902604-4902604	1.8	11
56	4C modeling of pulsed-load smoothing in the HELIOS facility using a controlled bypass valve. *Cryogenics*, **2013**, 57, 31-44	1.8	11
55	Modeling Quench Propagation in the ENEA HTS Cable-In-Conduit Conductor. *IEEE Transactions on Applied Superconductivity*, **2020**, 30, 1-7	1.8	11
54	Analysis of the cooldown of the ITER central solenoid model coil and insert coil. *Superconductor Science and Technology*, **2017**, 30, 015015	3.1	10
53	Thermal-Hydraulic Simulation of 80 kA Safety Discharge in the ITER Toroidal Field Model Coil (TFMC) Using the 4C Code. *IEEE Transactions on Plasma Science*, **2012**, 40, 782-787	1.3	10
52	Modeling of pulsed heat load in a cryogenic SHe loop using Artificial Neural Networks. *Cryogenics*, **2013**, 57, 173-180	1.8	9
51	CFD analysis of a regular sector of the ITER vacuum vessel. Part I: Flow distribution and pressure drop. *Fusion Engineering and Design*, **2013**, 88, 3272-3279	1.7	9
50	Analysis of Quench Propagation in the ITER Poloidal Field Conductor Insert (PFCI). *IEEE Transactions on Applied Superconductivity*, **2010**, 20, 491-494	1.8	9
49	Thermal-Hydraulic Modeling of a Novel HTS CICC for Nuclear Fusion Applications. *IEEE Transactions on Applied Superconductivity*, **2016**, 26, 1-7	1.8	8
48	Thermal-Hydraulic Test and Analysis of the ENEA TF Conductor Sample for the EU DEMO Fusion Reactor. *IEEE Transactions on Applied Superconductivity*, **2018**, 28, 1-9	1.8	8
47	Analysis of the Effects of the Nuclear Heat Load on the ITER TF Magnets Temperature Margin. *IEEE Transactions on Applied Superconductivity*, **2014**, 24, 1-4	1.8	8
46	First ITER CS module test results. *Fusion Engineering and Design*, **2021**, 164, 112169	1.7	8
45	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	1.8	7
44	Thermal-Hydraulic Analysis of the DTT Toroidal Field Magnets in DC Operation. *IEEE Transactions on Applied Superconductivity*, **2020**, 30, 1-5	1.8	6
43	. *IEEE Transactions on Applied Superconductivity*, **2019**, 29, 1-5	1.8	6
42	Application of the 4C code to the thermal-hydraulic analysis of the CS superconducting magnets in EAST. *Cryogenics*, **2014**, 63, 255-262	1.8	6

41	Design and optimization of Artificial Neural Networks for the modelling of superconducting magnets operation in tokamak fusion reactors. *Journal of Computational Physics*, **2016**, 321, 476-491	4.1	6
40	Analyses of Low- and High-Margin Quench Propagation in the European DEMO TF Coil Winding Pack. *IEEE Transactions on Plasma Science*, **2016**, 44, 1564-1570	1.3	6
39	Incorporating Artificial Neural Networks in the dynamic thermal‑hydraulic model of a controlled cryogenic circuit. *Cryogenics*, **2015**, 70, 9-20	1.8	5
38	Integrated deterministic and probabilistic safety assessment of a superconducting magnet cryogenic cooling circuit for nuclear fusion applications. *Reliability Engineering and System Safety*, **2020**, 201, 106945	6.3	5
37	Artificial Neural Network Model for the Thermal-Hydraulic Response of a TF Superconducting Magnet in ITER. *Fusion Science and Technology*, **2015**, 68, 336-340	1.1	5
36	Integrated design strategy for EU-DEMO first wall protection from plasma transients. *Fusion Engineering and Design*, **2022**, 177, 113067	1.7	5
35	Analysis of Quench Propagation in the ITER Central Solenoid Insert (CSI) Coil. *IEEE Transactions on Applied Superconductivity*, **2017**, 27, 1-8	1.8	4
34	Analysis of a Protected Loss of Flow Accident (LOFA) in the ITER TF Coil Cooling Circuit. *IEEE Transactions on Applied Superconductivity*, **2018**, 28, 1-9	1.8	4
33	Performance Analysis of the NbTi PF Coils for the EU DEMO Fusion Reactor. *IEEE Transactions on Applied Superconductivity*, **2018**, 28, 1-5	1.8	4
32	Full-core coupled neutronic/thermal-hydraulic modelling of the EBR-II SHRT-45R transient. *International Journal of Energy Research*, **2018**, 42, 134-150	4.5	4
31	. *IEEE Transactions on Applied Superconductivity*, **2019**, 29, 1-7	1.8	4
30	Quench Propagation in a TF Coil of the EU DEMO. *Fusion Science and Technology*, **2017**, 1-10	1.1	4
29	AC losses in the second module of the ITER Central Solenoid. *IEEE Transactions on Applied Superconductivity*, **2022**, 1-1	1.8	4
28	Analysis of the DC performance of the ITER CSI coil using the 4C code. *Fusion Engineering and Design*, **2017**, 124, 159-162	1.7	3
27	Identification of the Postulated Initiating Events of Accidents Occurring in a Toroidal Field Magnet of the EU DEMO. *Fusion Science and Technology*, **2019**, 75, 412-421	1.1	3
26	Effects of RANS-type Turbulence Models on the Convective Heat Loss Computed by CFD in the Solar Two Power Tower. *Energy Procedia*, **2014**, 49, 569-578	2.3	3
25	CFD analysis of the ITER first wall 06 panel. Part II: Thermal-hydraulics. *Fusion Engineering and Design*, **2014**, 89, 431-441	1.7	3
24	Evaluation of the neutron activation of JET in-vessel components following DT irradiation. *Fusion Engineering and Design*, **2014**, 89, 2071-2075	1.7	3

23	4C code analysis of high-margin quench propagation in a DEMO TF coil **2015**,		3
22	Development of the H4C Model of Quench Propagation in the ENEA HTS Cable-In-Conduit Conductor. *IEEE Transactions on Applied Superconductivity*, **2021**, 31, 1-5	1.8	3
21	DTT: A Challenging Framework for a Sound Superconducting Magnets Design. *IEEE Transactions on Applied Superconductivity*, **2022**, 32, 1-5	1.8	3
20	Analysis of the thermal-hydraulic effects of a plasma disruption on the DTT TF magnets. *IEEE Transactions on Applied Superconductivity*, **2022**, 1-1	1.8	3
19	Analysis of the ITER central solenoid insert (CSI) coil stability tests. *Cryogenics*, **2017**, 85, 8-14	1.8	2
18	3D thermal-hydraulic analysis of two irregular field joints for the ITER vacuum vessel. *Fusion Engineering and Design*, **2015**, 98-99, 1605-1609	1.7	2
17	Mechanical Analysis of the ENEA TF Coil Proposal for the EU DEMO Fusion Reactor. *IEEE Transactions on Applied Superconductivity*, **2018**, 28, 1-5	1.8	2
16	Analysis of AC Losses in the EAST Superconducting Magnets Using the 4C Code. *IEEE Transactions on Applied Superconductivity*, **2016**, 26, 1-5	1.8	2
15	4C modeling of the supercritical helium loop HELIOS in isobaric configuration. *Cryogenics*, **2014**, 64, 51-62.	1.8	2
14	3D thermal-hydraulic analysis of an ITER vacuum vessel regular Field Joint. *Fusion Engineering and Design*, **2014**, 89, 1848-1853	1.7	2
13	Identification of LOFA precursors in ITER superconducting magnet cryogenic cooling circuit. *Reliability Engineering and System Safety*, **2021**, 209, 107426	6.3	2
12	Improved Conceptual Design of the Beamline for the DTT Neutral Beam Injector. *IEEE Transactions on Plasma Science*, **2022**, 1-6	1.3	2
11	Thermal-hydraulic simulation of 80 kA safety discharge in the ITER Toroidal Field Model Coil (TFMC) using the 4C code **2011**,		1
10	Progress in Multi-Physics Modeling of Innovative Lead-Cooled Fast Reactors. *Fusion Science and Technology*, **2012**, 61, 293-297	1.1	1
9	Thermal Hydraulic Behavior of the First ITER CS Module. *IEEE Transactions on Applied Superconductivity*, **2021**, 31, 1-5	1.8	1
8	Thermal-hydraulic analysis of the DTT CS and PF pulsed coil performance during AC operation. *Fusion Engineering and Design*, **2021**, 173, 112836	1.7	1
7	Effect of local defects on HTS fusion magnets performance. *IEEE Transactions on Applied Superconductivity*, **2022**, 1-1	1.8	1
6	Conceptual design of a PAV-based tritium extractor for the WCLL breeding blanket of the EU DEMO: Effects of surface-limited vs. diffusion-limited modeling. *Fusion Engineering and Design*, **2021**, 167, 112363	1.7	0

5 | Metamodeling and On-Line Clustering for Loss-of-Flow Accident Precursors Identification in a Superconducting Magnet Cryogenic Cooling Circuit. *Energies*, **2021**, 14, 5552 | 3.1 | 0

4 | Thermal-hydraulic analysis of transients in the HELIOS loop including a CICC section representative of the JT-60SA Central Solenoid. *IOP Conference Series: Materials Science and Engineering*, **2015**, 101, 012147 | 0.4

3 | Artificial Neural Networks: a viable tool to design heat load smoothing strategies for the ITER Toroidal Field coils. *IOP Conference Series: Materials Science and Engineering*, **2015**, 101, 012149 | 0.4

2 | Multiscale Hydraulic Modeling of the ITER TF He Inlets During Nominal and Off-Normal Operation. *IEEE Transactions on Applied Superconductivity*, **2015**, 25, 1-5 | 1.8

1 | CFD analysis of the ITER first wall 06 panel. Part I: Model set-up and flow distribution. *Fusion Engineering and Design*, **2014**, 89, 442-455 | 1.7