

# Philip C Michael

## List of Publications by Year in descending order

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73  
papers

1,214  
citations

489802

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466096

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all docs

73  
docs citations

73  
times ranked

800  
citing authors

#	ARTICLE	IF	CITATIONS
1	Simultaneous transverse loading and axial strain for REBCO cable tests in the SULTAN facility. Superconductor Science and Technology, 2022, 35, 075007.	1.8	8
2	Fiber optic quench detection for large-scale HTS magnets demonstrated on VIPER cable during high-fidelity testing at the SULTAN facility. Superconductor Science and Technology, 2021, 34, 035027.	1.8	43
3	VIPER: an industrially scalable high-current high-temperature superconductor cable. Superconductor Science and Technology, 2020, 33, 11LT01.	1.8	114
4	Re-Makeable Joint With Insulation for REBCO Superconductor Cables. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-5.	1.1	3
5	Quench Analyses of the MIT 1.3-GHz LTS/HTS NMR Magnet. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-5.	1.1	25
6	Assembly and Test of a 3-Nested-Coil 800-MHz REBCO Insert (H800) for the MIT 1.3 GHz LTS/HTS NMR Magnet. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-6.	1.1	58
7	Experimental and Numerical Studies on a Method to Mitigate Screening Current-Induced Field for No-Insulation REBCO Coils. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-5.	1.1	5
8	Magnetization and screening current in an 800 MHz (18.8 T) REBCO nuclear magnetic resonance insert magnet: experimental results and numerical analysis. Superconductor Science and Technology, 2019, 32, 105007.	1.8	55
9	MIT 1.3-GHz LTS/HTS NMR Magnet: Post Quench Analysis and New 800-MHz Insert Design. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-4.	1.1	31
10	A Tabletop Persistent-Mode, Liquid Helium-Free 1.5-T MgB <sub>2</sub> $\delta$ -Finger MRI Magnet: Construction and Operation of a Prototype Magnet. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-5.	1.1	13
11	Construction and Test Results of Coils 2 and 3 of a 3-Nested-Coil 800-MHz REBCO Insert for the MIT 1.3-GHz LTS/HTS NMR Magnet. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-5.	1.1	23
12	A Tabletop Persistent-Mode, Liquid-Helium-Free, 1.5-T/90-mm MgB <sub>2</sub> $\delta$ -Finger MRI Magnet for Osteoporosis Screening: Two Design Options. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-5.	1.1	7
13	HTS Shim Coils Energized by a Flux Pump for the MIT 1.3-GHz LTS/HTS NMR Magnet: Design, Construction, and Results of a Proof-of-Concept Prototype. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-5.	1.1	10
14	A Field-Shaking System to Reduce the Screening-Current-Induced Field in the 800-MHz HTS Insert of the MIT 1.3-GHz LTS/HTS NMR Magnet: A Small-Model Study. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-5.	1.1	9
15	A REBCO Persistent-Current Switch, Immersed in Solid Nitrogen, Operating at Temperatures Near 10 K. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-5.	1.1	5
16	Superconducting Cyclotrons for Hadron Radiotherapy. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-6.	1.1	2
17	Development of MgB <sub>2</sub> -Cabled Conductors for Fully Superconducting Rotating Electric Machines. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-5.	1.1	7
18	Construction and Test Results of Coil 2 of a Three-Coil 800-MHz REBCO Insert for the 1.3-GHz High-Resolution NMR Magnet. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-4.	1.1	17

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19	Test of an 8.66-T REBCO Insert Coil With Overbanding Radial Build for a 1.3-GHz LTS/HTS NMR Magnet. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-5.	1.1	38
20	A REBCO Persistent-Current Switch (PCS): Test Results and Switch Heater Performance. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-5.	1.1	12
21	Development of REBCO-Based Magnets for Plasma Physics Research. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-5.	1.1	5
22	Persistent-current switch for pancake coils of rare earth-barium-copper-oxide high-temperature superconductor: Design and test results of a double-pancake coil operated in liquid nitrogen (77 K). IEEE Transactions on Applied Superconductivity, 2016, 26, 1-5.	1.1	10
23	Noncontact High-Torque Magnetic Coupler for Superconducting Rotating Machines. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-5.	1.1	4
24	Constant Field Toroidal SMES Magnet. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-4.	1.1	1
25	Design and Test of a Prototype 20 kA HTS DC Power Transmission Cable. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-5.	1.1	15
26	Cryogenic Current Lead Optimization Using Peltier Elements and Configurable Cooling. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-5.	1.1	9
27	Design of the C-Mod Advanced Outer Divertor. IEEE Transactions on Plasma Science, 2014, 42, 1796-1801.	0.6	1
28	Superconducting Magnets for Ultra Light and Magnetically Shielded, Compact Cyclotrons for Medical, Scientific, and Security Applications. IEEE Transactions on Applied Superconductivity, 2014, 24, 1-5.	1.1	10
29	Test of a Conduction-Cooled, Prototype, Superconducting Magnet for a Compact Cyclotron. IEEE Transactions on Applied Superconductivity, 2013, 23, 4100304-4100304.	1.1	3
30	Evaluation of turbo-Brayton cycle for cooling current leads: Integrated current lead/heat exchanger. IEEE Transactions on Applied Superconductivity, 2012, 22, 1-5.	0.3	1
31	Current distribution and re-distribution in HTS cables made from 2nd generation tapes. AIP Conference Proceedings, 2012, 1479, 1-5.	0.3	2
32	Millimeter-Wave Heating, Radiometry, and Calorimetry of Granite Rock to Vaporization. Journal of Infrared, Millimeter, and Terahertz Waves, 2012, 33, 82-95.	1.2	13
33	28 GHz Gyrotron ECRH on LDX. Journal of Fusion Energy, 2010, 29, 588-591.	0.5	0
34	Stationary density profiles in the Levitated Dipole Experiment: toward fusion without tritium fuel. Plasma Physics and Controlled Fusion, 2010, 52, 124036.	0.9	7
35	Preliminary results from the Alcator C-Mod polarimeter. Review of Scientific Instruments, 2010, 81, 10D507.	0.6	8
36	Quench Detection for the Levitated Dipole Experiment (LDX) Charging Coil. IEEE Transactions on Applied Superconductivity, 2007, 17, 2482-2485.	1.1	0

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37	Experimental Studies of Transverse Stress Effects on the Critical Current of a Sub-Sized $\text{Nb}_3\text{Sn}$ Superconducting Cable. IEEE Transactions on Applied Superconductivity, 2007, 17, 1386-1389.	1.1	6
38	Pre-Compression Requirements for the ITER Central Solenoid. IEEE Transactions on Applied Superconductivity, 2006, 16, 791-794.	1.1	13
39	Design and initial operation of the LDX facility. Fusion Engineering and Design, 2006, 81, 2371-2380.	1.0	26
40	Superconducting magnet and conductor research activities in the US fusion program. Fusion Engineering and Design, 2006, 81, 2381-2388.	1.0	1
41	The ITER toroidal field model coil project. Fusion Engineering and Design, 2005, 73, 189-327.	1.0	114
42	The ITER Central Solenoid. , 2005, , .		9
43	Analysis of the ITER Central Solenoid (CS) by the US Participant Team (PT). , 2005, , .		1
44	Acoustic emission and disturbances in central solenoid model coil for International Thermonuclear Experimental Reactor. Cryogenics, 2004, 44, 15-27.	0.9	4
45	Fabrication and test of the LDX levitation coil. IEEE Transactions on Applied Superconductivity, 2003, 13, 1620-1623.	1.1	2
46	Status of the floating coil of the Levitated Dipole Experiment. IEEE Transactions on Applied Superconductivity, 2002, 12, 666-669.	1.1	4
47	Test of the ITER central solenoid model coil and CS insert. IEEE Transactions on Applied Superconductivity, 2002, 12, 600-605.	1.1	75
48	Acoustic emission during DC operations of the ITER Central Solenoid model coil. IEEE Transactions on Applied Superconductivity, 2002, 12, 504-507.	1.1	6
49	Mechanical preloading of the Central Solenoid Model Coil. IEEE Transactions on Applied Superconductivity, 2001, 11, 1877-1880.	1.1	8
50	Progress of the ITER central solenoid model coil programme. Nuclear Fusion, 2001, 41, 645-651.	1.6	63
51	Instrumentation of the Central Solenoid Model Coil and the CS insert. IEEE Transactions on Applied Superconductivity, 2001, 11, 1881-1884.	1.1	5
52	Design, fabrication and test of the react and wind, $\text{Nb}_3\text{Sn}$ , LDX floating coil. IEEE Transactions on Applied Superconductivity, 2001, 11, 2010-2013.	1.1	10
53	ITER CS model coil and CS insert test results. IEEE Transactions on Applied Superconductivity, 2001, 11, 2030-2033.	1.1	43
54	TESTS AND SIMULATION OF THERMAL-HYDRAULIC TRANSIENTS IN THE US PROTOTYPE JOINT SAMPLE. International Journal of Modern Physics B, 2000, 14, 3183-3188.	1.0	5

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55	Qualification of joints for the inner module of the ITER CS model coil. IEEE Transactions on Applied Superconductivity, 1999, 9, 201-204.	1.1	9
56	Voltage spikes in superconducting Cable-In-Conduit Conductor under ramped magnetic fields. Part 2: Analysis of loop inductances and current variations associated with the spikes. Cryogenics, 1998, 38, 387-395.	0.9	14
57	Current distribution in a 12 strand Nb/sub 3/Sn CICC and its influence on ramp rate limitation. IEEE Transactions on Applied Superconductivity, 1997, 7, 774-777.	1.1	13
58	Voltage spike observation in superconducting cable-in-conduit conductor under ramped magnetic fields: 1. Experiment. Cryogenics, 1997, 37, 299-304.	0.9	17
59	Measurements of current distribution in a 12-strand Nb3Sn cable-in-conduit conductor. Cryogenics, 1997, 37, 431-439.	0.9	10
60	Ramp-rate limitation experiments using a hybrid superconducting cable. Cryogenics, 1996, 36, 623-629.	0.9	21
61	Transient heat transfer characteristics of supercritical helium and stability analysis of CCICS. Cryogenics, 1996, 36, 183-188.	0.9	3
62	Thermal activation in boundary lubricated friction. Wear, 1996, 193, 218-225.	1.5	7
63	Quench currents of AC superconductor in supercritical helium. IEEE Transactions on Applied Superconductivity, 1995, 5, 373-376.	1.1	2
64	Stabilization Of Dry-Wound High-Field Superconducting Magnet By Controlling Frictional Spring Force.. IEEJ Transactions on Industry Applications, 1995, 115, 634-641.	0.1	2
65	Influence of copper-to-superconductor ratio on the stability of high current density superconductor. IEEE Transactions on Magnetics, 1994, 30, 2439-2442.	1.2	9
66	Stability of cable-in-conduit internally cooled superconductors subject to local disturbance. IEEE Transactions on Magnetics, 1994, 30, 2312-2315.	1.2	8
67	Stability of cable-in-conduit internally-cooled superconductor subject to local disturbance-stabilityanalysis based on measured transient heat transfer of SHE in narrow channel. Cryogenics, 1994, 34, 603-606.	0.9	8
68	Reassessment of cryotribology theory. Wear, 1994, 174, 163-168.	1.5	9
69	Stabilization of dry-wound high-field NbTi solenoids. IEEE Transactions on Applied Superconductivity, 1993, 3, 316-319.	1.1	8
70	Friction and wear of polymeric materials at 293, 77 and 4.2 K. Cryogenics, 1991, 31, 695-704.	0.9	40
71	Mechanical properties and static friction behaviour of epoxy mixes at room temperature and at 77 K. Cryogenics, 1990, 30, 775-786.	0.9	18
72	Burnishing and adhesive wear of an electrically conductive polyester-carbon film. Wear, 1989, 132, 265-285.	1.5	19

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73	Friction and wear of an electrically conductive polyester-carbon film. <i>Wear</i> , 1988, 127, 15-29.	1.5	3