Luca Di Rienzo

List of Publications by Year
in descending order

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82 papers	708 citations	567281 15 h-index	642732 23 g-index
82 all docs	82 docs citations	82 times ranked	512 citing authors

#	Article	IF	Citations
1	Efficient BEM Computation of the Impedance of Axisymmetric Air-Core Inductors. IEEE Transactions on Electromagnetic Compatibility, 2022, 64, 585-589.	2.2	1
2	Fully Coupled Computation of Losses in Metallic Sheaths and Armor of AC Submarine Cables. IEEE Transactions on Power Delivery, 2022, 37, 3803-3812.	4.3	8
3	Multilevel Monte Carlo FDTD Method for Uncertainty Quantification. IEEE Antennas and Wireless Propagation Letters, 2022, 21, 2030-2034.	4.0	3
4	Computation of Armor Losses in AC Submarine Cables. IEEE Transactions on Power Delivery, 2021, 36, 3014-3021.	4.3	8
5	Charging and Discharging Current Measurements and Impact of Polarization Dynamics on Electric Field Modeling in HVDC Paper-Insulated Cables. IEEE Access, 2021, 9, 45155-45162.	4.2	6
6	BEM Computation of the Internal Impedance of Air-Core Inductors Enforcing High-Order Surface Impedance Boundary Conditions. IEEE Transactions on Magnetics, 2021, 57, 1-4.	2.1	2
7	Losses Computation in Thin Conductive Sheaths of Power Cables via an Integral Approach. IEEE Transactions on Magnetics, 2021, 57, 1-4.	2.1	6
8	Boundary Element Formulation Enforcing High-Order Surface Impedance Boundary Conditions for Axisymmetric Eddy Current Problems. IEEE Transactions on Magnetics, 2021, 57, 1-9.	2.1	1
9	Complete analytic integrations for the 2D BEM representation of the Laplace equation with linear shape functions. Engineering Analysis With Boundary Elements, 2021, 132, 481-488.	3.7	0
10	A Node-to-Node Admittance Functions Implementation of an Improved Frequency Dependent Multiconductor Transmission Line Model. IEEE Access, 2021, 9, 129560-129570.	4.2	3
11	Simulation and Modelling of Transient Electric Fields in HVDC Insulation Systems Based on Polarization Current Measurements. Energies, 2021, 14, 8323.	3.1	3
12	FDTD Formulation Based on High-Order Surface Impedance Boundary Conditions for Lossy Two-Conductor Transmission Lines. IEEE Transactions on Electromagnetic Compatibility, 2020, 62, 194-203.	2.2	2
13	Low-Voltage Electric Arc Reconstruction From Magnetic Field Measurements. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 3750-3760.	4.7	3
14	Uncertainty Quantification for SAE J2954 Compliant Static Wireless Charge Components. IEEE Access, 2020, 8, 171489-171501.	4.2	21
15	FEM and BEM Implementations of a High Order Surface Impedance Boundary Condition for Three-Dimensional Eddy Current Problems. IEEE Access, 2020, 8, 186496-186504.	4.2	2
16	FDTD Formulation Based on High-Order Surface Impedance Boundary Conditions for Frequency-Dependent Lossy Multi-Conductor Transmission Lines. IEEE Transactions on Magnetics, 2020, 56, 1-4.	2.1	5
17	2D BEM Computation of Power Losses in Multiple Thin Conductive Shields. , 2020, , .		0
18	Fast Uncertainty Quantification in Low Frequency Electromagnetic Problems by an Integral Equation Method Based on Hierarchical Matrix Compression. IEEE Access, 2019, 7, 163919-163932.	4.2	4

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19	Integral Formulation for Magnetic and Conductive Wire Loops in an External Time-Harmonic Magnetoquasi-Static Field. IEEE Transactions on Magnetics, 2019, 55, 1-4.	2.1	1
20	Application of Whitney elements for the reconstruction of electric arc current density in low-voltage circuit breakers. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2019, 38, 1036-1047.	0.9	2
21	Stochastic PEEC Method Based on Polynomial Chaos Expansion. IEEE Transactions on Magnetics, 2019, 55, 1-4.	2.1	4
22	MoM Computation of Losses of an Array of Parallel Magnetic and Conductive Wires in a Transverse Magneto-quasi-static Field. , 2019, , .		0
23	Boundary element method reconstruction of twoâ€dimensional magneticâ€field maps from measured boundary data in accelerator magnets. IET Science, Measurement and Technology, 2019, 13, 60-66.	1.6	1
24	Frequency-Dependent Multi-Conductor Transmission Line Model for Shielded Power Cables Considering Geometrical Dissymmetry. IEEE Transactions on Magnetics, 2018, 54, 1-4.	2.1	12
25	Nonlinear impedance boundary condition for 2D BEM. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2018, 37, 772-783.	0.9	2
26	An Integral Formulation for an Array of Wires in a 3-D Magneto-Quasi-Static Field. IEEE Transactions on Magnetics, 2018, 54, 1-8.	2.1	9
27	Post-Processing Magnetic Measurement Data of Accelerator Magnets by the Boundary Element Method. IEEE Transactions on Magnetics, 2017, 53, 1-4.	2.1	3
28	Uncertainty quantification in transcranial magnetic stimulation with correlation between tissue conductivities. , 2017, , .		2
29	Model order reduction approach to uncertainty quantification in eddy current problems. , 2017, , .		0
30	Radiated EMI Modeling and Performance Analysis of a PWM PMSM Drive System Based on Field-Circuit Coupled FEM. IEEE Transactions on Magnetics, 2017, 53, 1-4.	2.1	9
31	MOR-Based Approach to Uncertainty Quantification in Electrokinetics With Correlated Random Material Parameters. IEEE Transactions on Magnetics, 2017, 53, 1-4.	2.1	5
32	Macro-modeling and passivity enforcement for PMSM winding. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2017, 36, 1729-1738.	0.9	0
33	Uncertainty quantification in linear magnetostatic problems with correlated random reluctivities. International Journal of Applied Electromagnetics and Mechanics, 2017, 55, 177-183.	0.6	1
34	2D BEM for processing magnetic field maps of accelerator magnets. , 2017, , .		0
35	MOR-Based Uncertainty Quantification in Transcranial Magnetic Stimulation. Modeling, Simulation and Applications, 2017, , 421-437.	1.3	1
36	Nonlinear impedance boundary condition for time-domain E-B BEM formulation. , 2016, , .		0

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37	Fast MOR-Based Approach to Uncertainty Quantification in Transcranial Magnetic Stimulation. IEEE Transactions on Magnetics, 2016, 52, 1-4.	2.1	9
38	Conducted EMI simulation for a high power Ultra-precision PMSM driven by PWM converter. , 2016, , .		3
39	MOR-based approach to uncertainty quantification in electrokinetics with correlated random material parameters. , 2016, , .		0
40	Post-processing magnetic measurement data of accelerator magnets by the boundary element method. , 2016, , .		1
41	Uncertainty Analysis in Transcranial Magnetic Stimulation Using Nonintrusive Polynomial Chaos Expansion. IEEE Transactions on Magnetics, 2015, 51, 1-8.	2.1	21
42	Stochastic Finite Integration Technique for Eddy-Current Problems. IEEE Transactions on Magnetics, 2015, 51, 1-4.	2.1	7
43	Generalized spectral decomposition approach to a stochastic finite integration technique electrokinetic formulation. , 2014, , .		2
44	Isogeometric FEM Implementation of High-Order Surface Impedance Boundary Conditions. IEEE Transactions on Magnetics, 2014, 50, 1-8.	2.1	6
45	Isogeometric Finite Elements With Surface Impedance Boundary Conditions. IEEE Transactions on Magnetics, 2014, 50, 429-432.	2.1	3
46	Stochastic Finite Integration Technique Formulation for Electrokinetics. IEEE Transactions on Magnetics, 2014, 50, 573-576.	2.1	16
47	Compact thermal models for stochastic thermal analysis. Microelectronics Journal, 2014, 45, 1770-1776.	2.0	14
48	Stochastic thermal modeling by polynomial chaos expansion. , 2013, , .		14
49	Array of rectilinear solenoids for rail current measurement. , 2012, , .		1
50	Current measurement in the time domain based on the inversion of magnetic field data. Inverse Problems in Science and Engineering, 2012, 20, 3-14.	1.2	3
51	NURBS-Based BEM Implementation of High-Order Surface Impedance Boundary Conditions. IEEE Transactions on Magnetics, 2012, 48, 4757-4766.	2.1	22
52	Optimizing a magnetic sensor vest for cardiac source imaging. Biomedizinische Technik, 2012, 57, .	0.8	0
53	Current Density Reconstruction in Vacuum Arcs by Inverting Magnetic Field Data. IEEE Transactions on Magnetics, 2012, 48, 2324-2333.	2.1	17
54	Computer-Aided Design in Electromagnetics - the Case for Surface Impedance Boundary Conditions. Advances in Electrical and Computer Engineering, 2012, 12, 3-12.	0.9	4

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55	Current identification in vacuum circuit breakers by inverting magnetic field data. , 2011, , .		2
56	Robustness analysis of magnetic sensor arrays for current sensing. , 2011, , .		2
57	Modeling arrays of rectilinear solenoids for current sensing. , 2011, , .		1
58	Biomedical Signal and Image Processing. IEEE Pulse, 2011, 2, 41-54.	0.3	8
59	Boundary element computation of line parameters of on-chip interconnects on lossy silicon substrate. , 2011, , .		1
60	Spatial Harmonic Expansion for Use With Magnetic Sensor Arrays. IEEE Transactions on Magnetics, 2010, 46, 53-58.	2.1	33
61	Surface Impedance Boundary Conditions in Terms of Various Formalisms. IEEE Transactions on Magnetics, 2010, 46, 3617-3628.	2.1	22
62	Boundary-Element Computation of Per-Unit-Length Series Parameters of Railway Lines. IEEE Transactions on Electromagnetic Compatibility, 2009, 51, 825-832.	2.2	5
63	Optimization of magnetic sensor arrays for current measurement based on swarm intelligence and Dâ€optimality. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2009, 28, 1179-1190.	0.9	12
64	Localisation of buried ferromagnetic objects based on minimumâ€normâ€estimations. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2009, 28, 1327-1337.	0.9	5
65	Computation of the Impedance Matrix of Multiconductor Transmission Lines Using High-Order Surface Impedance Boundary Conditions. IEEE Transactions on Electromagnetic Compatibility, 2008, 50, 974-984.	2.2	26
66	Tabu Search Optimization of Magnetic Sensor Systems for Magnetocardiography. IEEE Transactions on Magnetics, 2008, 44, 1442-1445.	2.1	29
67	Calculation of Energy-Related Quantities of Conductors Using Surface Impedance Concept. IEEE Transactions on Magnetics, 2008, 44, 1322-1325.	2.1	5
68	Numerical comparison of sensor arrays for magnetostatic linear inverse problems based on a projection method. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2007, 26, 356-367.	0.9	5
69	Numerical Modeling and Experimental Measurements of the Electric Potential Generated by Cochlear Implants in Physiological Tissues. IEEE Transactions on Instrumentation and Measurement, 2007, 56, 187-193.	4.7	13
70	Surface impedance boundary conditions for the finite integration technique. IEEE Transactions on Magnetics, 2006, 42, 823-826.	2.1	3
71	Theoretical Lower Error Bound for Comparative Evaluation of Sensor Arrays in Magnetostatic Linear Inverse Problems. IEEE Transactions on Magnetics, 2006, 42, 3669-3673.	2.1	8
72	Time domain surface impedance concept for low frequency electromagnetic problemsâ€”Part II: Application to transient skin and proximity effect problems in cylindrical conductors. IET Science, Measurement and Technology, 2005, 152, 207-216.	0.7	15

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73	Three component magnetic field data. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2005, 24, 869-881.	0.9	16
74	Reconstruction of transient currents from magnetic data. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2005, 24, 1200-1212.	0.9	1
75	Information Content in Single-Component Versus Three-Component Cardiomagnetic Fields. IEEE Transactions on Magnetics, 2004, 40, 631-634.	2.1	20
76	Application of surface impedance concept to inverse problems of reconstructing transient currents. IEEE Transactions on Magnetics, 2003, 39, 1626-1629.	2.1	7
77	Circular arrays of magnetic sensors for current measurement. IEEE Transactions on Instrumentation and Measurement, 2001, 50, 1093-1096.	4.7	85
78	Processing magnetic sensor array data for AC current measurement in multiconductor systems. IEEE Transactions on Instrumentation and Measurement, 2001, 50, 1289-1295.	4.7	50
79	Modelling of Magnetic Current Sensors for Measuring High AC and DC Currents. Measurement and Control, 2001, 34, 272-275.	1.8	3
80	Interference rejection algorithm for current measurement using magnetic sensor arrays. Sensors and Actuators A: Physical, 2000, 85, 38-41.	4.1	47
81	Improved definition of the effective number of bits in ADC testing. Computer Standards and Interfaces, 1998, 19, 231-236.	5.4	10
82	Advanced signal processing technique for current sensing based on the boundary element method. , 0, , .		1