

Francesca Maradei

List of Publications by Year in descending order

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132
papers

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citations

361413

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133
all docs

133
docs citations

133
times ranked

965
citing authors

#	ARTICLE	IF	CITATIONS
1	Near-Field Reduction in a Wireless Power Transfer System Using LCC Compensation. IEEE Transactions on Electromagnetic Compatibility, 2017, 59, 686-694.	2.2	94
2	Field analysis of penetrable conductive shields by the finite-difference time-domain method with impedance network boundary conditions (INBCs). IEEE Transactions on Electromagnetic Compatibility, 1999, 41, 307-319.	2.2	59
3	Magnetic Field during Wireless Charging in an Electric Vehicle According to Standard SAE J2954. Energies, 2019, 12, 1795.	3.1	55
4	Circuit and Numerical Modeling of Electrostatic Discharge Generators. IEEE Transactions on Industry Applications, 2006, 42, 1350-1357.	4.9	52
5	Active Shielding Design for Wireless Power Transfer Systems. IEEE Transactions on Electromagnetic Compatibility, 2019, 61, 1953-1960.	2.2	52
6	Magnetic field levels in drones equipped with Wireless Power Transfer technology. , 2016, , .		48
7	SPICE-Like Models for the Analysis of the Conducted and Radiated Immunity of Shielded Cables. IEEE Transactions on Electromagnetic Compatibility, 2004, 46, 606-616.	2.2	45
8	High efficiency and lightweight wireless charging system for drone batteries. , 2017, , .		44
9	Axial-Flux Permanent-Magnet Generator for Induction Heating Gensets. IEEE Transactions on Industrial Electronics, 2010, 57, 128-137.	7.9	41
10	Modeling of electromagnetic fields and electrical circuits with lumped and distributed elements by the WETD method. IEEE Transactions on Magnetics, 1999, 35, 1666-1669.	2.1	39
11	Fast computation of quasi-static magnetic fields around nonperfectly conductive shields. IEEE Transactions on Magnetics, 1998, 34, 2795-2798.	2.1	38
12	Edge element analysis of complex configurations in presence of shields. IEEE Transactions on Magnetics, 1997, 33, 1548-1551.	2.1	37
13	Near Field Wireless Powering of Deep Medical Implants. Energies, 2019, 12, 2720.	3.1	34
14	Circuit-oriented FEM: solution of circuit-field coupled problems by circuit equations. IEEE Transactions on Magnetics, 2002, 38, 965-968.	2.1	31
15	Numerical Prediction and Measurement of ESD Radiated Fields by Free-Space Field Sensors. IEEE Transactions on Electromagnetic Compatibility, 2007, 49, 494-503.	2.2	31
16	Hybrid finite element solutions of time dependent Maxwell's curl equations. IEEE Transactions on Magnetics, 1995, 31, 1330-1335.	2.1	29
17	Safety Assessment of UWB Radio Systems for Body Area Network by the $\{m FD\}^{\{2\}}\{m TD\}$ Method. IEEE Transactions on Magnetics, 2010, 46, 3245-3248.	2.1	29
18	Robust LCC compensation in wireless power transfer with variable coupling factor due to coil misalignment. , 2015, , .		29

#	ARTICLE	IF	CITATIONS
19	Magnetic Field Mitigation by Multicoil Active Shielding in Electric Vehicles Equipped With Wireless Power Charging System. IEEE Transactions on Electromagnetic Compatibility, 2020, 62, 1398-1405.	2.2	29
20	Full-wave analysis of shielded cable configurations by the FDTD method. IEEE Transactions on Magnetics, 2002, 38, 761-764.	2.1	28
21	Magnetic field computation in a physically large domain with thin metallic shields. IEEE Transactions on Magnetics, 2005, 41, 1708-1711.	2.1	27
22	EMC and EMF safety issues in wireless charging system for an electric vehicle (EV). , 2017, , .		26
23	Time-Domain Measurement and Spectral Analysis of Nonstationary Low-Frequency Magnetic-Field Emissions on Board of Rolling Stock. IEEE Transactions on Electromagnetic Compatibility, 2004, 46, 12-23.	2.2	22
24	Numerical simulation of Wireless Power Transfer system to recharge the battery of an implanted cardiac pacemaker. , 2014, , .		21
25	Innovative Design of Drone Landing Gear Used as a Receiving Coil in Wireless Charging Application. Energies, 2019, 12, 3483.	3.1	21
26	Time-domain FEM analysis of quasi-static magnetic fields around nonperfectly conductive shields. IEEE Transactions on Magnetics, 1999, 35, 1187-1190.	2.1	20
27	A frequency-dependent WETD formulation for dispersive materials. IEEE Transactions on Magnetics, 2001, 37, 3303-3306.	2.1	20
28	Wireless Charging System Integrated in a Small Unmanned Aerial Vehicle (UAV) with High Tolerance to Planar Coil Misalignment. , 2019, , .		20
29	Numerical characterization of the magnetic field in electric vehicles equipped with a WPT system. Wireless Power Transfer, 2017, 4, 78-87.	1.1	19
30	Active Coil System for Magnetic Field Reduction in an Automotive Wireless Power Transfer System. , 2019, , .		19
31	EMI in a Cardiac Implantable Electronic Device (CIED) by the Wireless Powering of a Left Ventricular Assist Device (LVAD). IEEE Transactions on Electromagnetic Compatibility, 2021, 63, 988-995.	2.2	18
32	Mixed finite-difference/Whitney-elements time domain (FD/WE-TD) method. IEEE Transactions on Magnetics, 1998, 34, 3222-3227.	2.1	17
33	Circuit-Oriented FEM Modeling of Finite Extension Graphene Sheet by Impedance Network Boundary Conditions (INBCs). IEEE Transactions on Terahertz Science and Technology, 2014, 4, 734-740.	3.1	17
34	Optimum coil configuration of wireless power transfer system in presence of shields. , 2015, , .		17
35	Induced Effects in a Pacemaker Equipped With a Wireless Power Transfer Charging System. IEEE Transactions on Magnetics, 2017, 53, 1-4.	2.1	17
36	Equivalent circuit models for the analysis of coaxial cables immunity. , 0, , .		16

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37	Centralized High Power Supply System for Implanted Medical Devices Using Wireless Power Transfer Technology. IEEE Transactions on Medical Robotics and Bionics, 2021, 3, 992-1001.	3.2	16
38	Artificial Material Single Layer to Model the Field Penetration Through Thin Shields in Finite-Elements Analysis. IEEE Transactions on Microwave Theory and Techniques, 2018, 66, 56-63.	4.6	15
39	Cole-Cole vs Debye models for the assessment of electromagnetic fields inside biological tissues produced by wideband EMF sources. , 2012, , .		14
40	Wireless power transfer (WPT) system for an electric vehicle (EV): how to shield the car from the magnetic field generated by two planar coils. Wireless Power Transfer, 2018, 5, 1-8.	1.1	14
41	Wireless Powering of Next-Generation Left Ventricular Assist Devices (LVADs) Without Percutaneous Cable Driveline. IEEE Transactions on Microwave Theory and Techniques, 2020, 68, 3969-3977.	4.6	14
42	FEM solution of time-harmonic electromagnetic fields by an equivalent electrical network. IEEE Transactions on Magnetics, 2000, 36, 938-941.	2.1	13
43	Time domain analysis of lossy shielded cables by CAD circuit simulators. , 0, , .		13
44	Active Shielding Applied to an Electrified Road in a Dynamic Wireless Power Transfer (WPT) System. Energies, 2020, 13, 2522.	3.1	13
45	Active Shielding Design and Optimization of a Wireless Power Transfer (WPT) System for Automotive. Energies, 2020, 13, 5575.	3.1	12
46	An explicit-implicit solution scheme to analyze fast transients by finite elements. IEEE Transactions on Magnetics, 1997, 33, 1452-1455.	2.1	11
47	Finite-difference time-domain modeling of thin shields. IEEE Transactions on Magnetics, 2000, 36, 848-851.	2.1	11
48	Full-Wave Model of Frequency-Dispersive Media With Debye Dispersion Relation by Circuit-Oriented FEM. IEEE Transactions on Electromagnetic Compatibility, 2009, 51, 312-319.	2.2	11
49	Circuitual and numerical modeling of electrostatic discharge generators. , 0, , .		10
50	Wireless Charging in Electric Vehicles: EMI/EMC Risk Mitigation in Pacemakers by Active Coils. , 2019, , .		10
51	Using the LU Recombination Method to Extend the Application of Circuit-Oriented Finite Element Methods to Arbitrarily Low Frequencies. IEEE Transactions on Microwave Theory and Techniques, 2010, 58, 1189-1195.	4.6	9
52	Assessment of magnetic field levels generated by a wireless power transfer (WPT) system at 20 kHz. , 2013, , .		9
53	Conductive Layer Modeling by Improved Second-Order Artificial Material Single-Layer Method. IEEE Transactions on Antennas and Propagation, 2018, 66, 5646-5650.	5.1	9
54	Pacemaker Lead Coupling With an Automotive Wireless Power Transfer System. IEEE Transactions on Electromagnetic Compatibility, 2019, 61, 1935-1943.	2.2	9

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55	Finite-Element Modeling of Conductive Multilayer Shields by Artificial Material Single-Layer Method. IEEE Transactions on Magnetics, 2020, 56, 1-4.	2.1	9
56	EMI prediction inside conductive enclosures with attached cables. , 0, , .		8
57	Multi-port impedance matching technique for power line communications. , 2011, , .		8
58	Antenna design of a UHF RFID tag for human tracking avoiding spurious emission. , 2012, , .		8
59	Feasibility Study of a Wireless Power Transfer System Applied to a Left Ventricular Assist Device. , 2019, , .		8
60	Innovative Wireless Charging System for Implantable Capsule Robots. IEEE Transactions on Electromagnetic Compatibility, 2021, 63, 1726-1734.	2.2	8
61	Capacitance matrix calculation of a wire conductor line: a new FEM approach. IEEE Transactions on Electromagnetic Compatibility, 1998, 40, 262-270.	2.2	7
62	Prediction of voltage and current propagation in twisted wire pairs (TWPs) by a circuit model. , 0, , .		7
63	Full-wave investigation of EFT injection clamp calibration setup. , 2010, , .		7
64	Prediction of shielding effectiveness in graphene enclosures by FEM-INBC method. , 2015, , .		7
65	Conducted emission of wireless power transfer charging system in electric vehicle. , 2017, , .		7
66	Artificial Material Single-Layer Method Applied to Model the Electromagnetic Field Propagation Through Anisotropic Shields. IEEE Transactions on Microwave Theory and Techniques, 2018, 66, 3756-3763.	4.6	7
67	Coil Design of a Wireless Power-Transfer Receiver Integrated into a Left Ventricular Assist Device. Electronics (Switzerland), 2021, 10, 874.	3.1	7
68	Two-Coil Receiver for Electrical Vehicles in Dynamic Wireless Power Transfer. Energies, 2021, 14, 7790.	3.1	7
69	Efficient Wireless Drone Charging Pad for Any Landing Position and Orientation. Energies, 2021, 14, 8188.	3.1	7
70	Field-to-wire coupling using the finite element-time domain (FE-TD) method. IEEE Transactions on Magnetics, 1995, 31, 1586-1589.	2.1	6
71	Analysis of upsets and failures due to ESD by the FDTD-INBCs method. IEEE Transactions on Industry Applications, 2002, 38, 1009-1017.	4.9	6
72	Passive equivalent circuits of complex discontinuities: an improved extraction technique. , 0, , .		6

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73	Magnetic field generated by a 22 kW-85 kHz wireless power transfer system for an EV. , 2017, , .		6
74	A FEM approach to calculate the impedances of shielded multiconductor cables. , 0, , .		5
75	3-D Numerical Modeling and Circuit Extraction Techniques for the Analysis of Unshielded Twisted Pairs. IEEE Transactions on Magnetics, 2007, 43, 1357-1360.	2.1	5
76	Two-wire shielded cable modeling for the analysis of conducted transient immunity. , 2012, , .		5
77	Feasibility Study of a Wireless Power Transfer System Applied to a Leadless Pacemaker. , 2018, , .		5
78	Lumped circuits coupled with electromagnetic Whitney element models. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2000, 13, 139-146.	1.9	4
79	Crosstalk prediction in twisted bundles by a neural approach. , 0, , .		3
80	A Hybrid Numerical Technique to Predict the Electromagnetic Field in Penetrable Conductive Boxes. Electromagnetics, 2002, 22, 405-417.	0.7	3
81	Analysis of several methods for the response evaluation of HF field excited finite lines. IEEE Transactions on Magnetics, 2003, 39, 1606-1609.	2.1	3
82	Single phase permanent-magnet generator with low armature reaction for induction heating gen sets. , 2008, , .		3
83	Finite-Element Analysis of Temperature Increase in Vascularized Biological Tissues Exposed to RF Sources. IEEE Transactions on Magnetics, 2009, 45, 1682-1685.	2.1	3
84	Fast calculation of dielectric substrate losses in microwave applications by the FD. , 2010, , .		3
85	Magnetic field behavior in a carbon-fiber electrical vehicle charged by a wireless power transfer system. , 2017, , .		3
86	Numerical Analysis Applying the AMSL Method to Predict the Magnetic Field in an EV with a WPT System. , 2018, , .		3
87	Numerical Calculation of the Near Field Shielding for Carbon Fiber Reinforced Polymer (CFRP) Panels at Wireless Power Transfer Automotive Frequencies. , 2018, , .		3
88	Wireless Charging of Electric Vehicles: Planar Secondary Coil Position vs. Magnetic Field. , 2019, , .		3
89	Wireless Power Supply System for Left Ventricular Assist Device and Implanted Cardiac Defibrillator. , 2021, , .		3
90	Analysis of Compensation Networks for a Transcutaneous WPT System to Achieve Compliance with ICNIRP Basic Restrictions. , 2021, , .		3

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91	Layout optimization in nonuniform transmission line configurations to reduce radiated emission and crosstalk. , 0, , .		2
92	Neural characterization of wire bundles multiconductor transmission lines. IEEE Transactions on Magnetism, 2002, 38, 785-788.	2.1	2
93	Time-domain prediction of the radiated susceptibility in a shielded cable inside a penetrable shielded box. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2002, 15, 549-561.	1.9	2
94	Edge-elements modeling of transmission lines in field domain by impedance network boundary conditions. IEEE Transactions on Magnetism, 2003, 39, 1207-1210.	2.1	2
95	Hybrid finite element/finite difference (FE/FD) model to analyze thermal transients in biological vascularized tissues. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2008, 27, 1307-1318.	0.9	2
96	Investigation on the ground loop coupling by simulation tools based on the partial inductance concept. , 2008, , .		2
97	Computer-aided design of coupling units for naval-network power line communications. , 2010, , .		2
98	Induced effects in a pacemaker equipped with wireless power transfer charging system. , 2016, , .		2
99	Comparative Study of Lossy Transmission Line Simulation Models for Eye-Diagram Estimation. IEEE Transactions on Electromagnetic Compatibility, 2016, 58, 1176-1183.	2.2	2
100	Uninterruptable Transcutaneous Wireless Power Supply for an LVAD: Experimental Validation and EMF Safety Analysis. IEEE Transactions on Electromagnetic Compatibility, 2021, 63, 1717-1725.	2.2	2
101	Wireless Power Transfer for Wearable and Implantable Devices: a Review Focusing on the WPT4WID Research Project of National Relevance. , 2021, , .		2
102	Analysis of upsets and failures due to ESD by the FDTD-INBCs method. , 0, , .		2
103	Computer application of the EMC course at the University of Rome "La Sapienza". , 0, , .		1
104	Simplified model of the discharge path in electrical devices by an iterative FEM procedure. IEEE Transactions on Magnetism, 1998, 34, 2513-2516.	2.1	1
105	Validation of analytical and numerical techniques to predict the magnetic shielding effectiveness of finite extension shields. , 0, , .		1
106	Effects of the Dispersive Behavior of Dielectric Substrates on the SPI. , 2002, , .		1
107	New extraction procedure of shielded cable SPICE macro-model for the prediction of signal integrity and conducted immunity. , 2006, , .		1
108	Interference in unshielded twisted pair cables due to ESD. , 2006, , .		1

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109	Interference in Shielded Foil Twisted Pair (SFTP) Cables Due to ESD. , 2007, , .		1
110	Numerical investigation of techniques for reducing radiated emission of PCBs with attached cables in complex systems. , 2008, , .		1
111	Full-Wave Analysis of Power Distribution Networks in Printed Circuit Boards. IEICE Transactions on Communications, 2010, E93.B, 1670-1677.	0.7	1
112	Full-wave electromagnetic modelling from DC to GHz using FEM-SPICE. , 2010, , .		1
113	Numerical simulation of blood vascularization influence in microwave ablation. , 2011, , .		1
114	Investigation of EFT test setup for rack mounted equipment by numerical simulations. , 2012, , .		1
115	Circuit-Oriented Solution of Drude Dispersion Relations by the $\{m FD\}^{\{2\}}\{m TD\}$ Method. IEEE Transactions on Magnetics, 2014, 50, 425-428.	2.1	1
116	Application of the artificial material single layer (AMSL) method to assess the magnetic field generated by a WPT system with shield. , 2018, , .		1
117	Active Shielding Design for a Dynamic Wireless Power Transfer System. , 2020, , .		1
118	Thermal Analysis of a Transcutaneous Energy Transfer System for a Left Ventricular Assist Device. IEEE Journal of Electromagnetics, RF and Microwaves in Medicine and Biology, 2022, 6, 253-259.	3.4	1
119	Filter and Grounding Solutions for Limiting Radiated Emission of a PCB with an Attached UTP Cable. IEEE Electromagnetic Compatibility Magazine, 2021, 10, 33-40.	0.1	1
120	Dynamic Wireless Power Transfer in Urban Area: EMI on Traffic Signal Cables. , 2021, , .		1
121	On the use of irregular grids in the zeroth-order vector finite element-time domain (VFE-TD) method. , 0, , .		0
122	A nodal finite element approach to calculate wire emission in 2-D configurations. , 0, , .		0
123	SPICE model extraction for signal integrity analysis of unshielded twisted pairs from full wave simulation. , 2006, , .		0
124	Recognition of Buried Objects by Their EM Scattering. , 0, , .		0
125	3D Numerical Modeling and Circuit Extraction Techniques for the Analysis of Unshielded Twisted Pairs. , 0, , .		0
126	A wavelet approach for the discrimination of buried objects. , 0, , .		0

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127	Analytical and numerical simulation models for calculating EMI into circuits due to ESD radiated fields. , 2011, , .		0
128	Progress in the Application of the Transmission Line Theory to Near-Field Shielding. , 2018, , .		0
129	EM Field Computations and Measurements. , 2003, , 342-474.		0
130	Percutaneous Wireless Powering System for a Left Ventricular Assist Device (LVAD) with an Internal Backup Battery. , 2020, , .		0
131	Electromagnetic Interference in a Buried Multiconductor Cable Due to a Dynamic Wireless Power Transfer System. Energies, 2022, 15, 1645.	3.1	0
132	Announcing Special Sessions in Spokane!. IEEE Electromagnetic Compatibility Magazine, 2022, 11, 94-94.	0.1	0