Francesca Maradei

List of Publications by Year
in descending order

132 papers	1,668 citations	361413 20 h-index	414414 32 g-index
133 all docs	133 docs citations	133 times ranked	965 citing authors

#	Article	IF	Citations
1	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
2	Electromagnetic Interference in a Buried Multiconductor Cable Due to a Dynamic Wireless Power Transfer System. Energies, 2022, 15, 1645.	3.1	0
3	Announcing Special Sessions in Spokane!. IEEE Electromagnetic Compatibility Magazine, 2022, 11, 94-94.	0.1	0
4	Innovative Wireless Charging System for Implantable Capsule Robots. IEEE Transactions on Electromagnetic Compatibility, 2021, 63, 1726-1734.	2.2	8
5	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
6	Coil Design of a Wireless Power-Transfer Receiver Integrated into a Left Ventricular Assist Device. Electronics (Switzerland), 2021, 10, 874.	3.1	7
7	Wireless Power Supply System for Left Ventricular Assist Device and Implanted Cardiac Defibrillator. , 2021, , .		3
8	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
9	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
10	Analysis of Compensation Networks for a Transcutaneous WPT System to Achieve Compliance with ICNIRP Basic Restrictions. , 2021, , .		3
11	Wireless Power Transfer for Wearable and Implantable Devices: a Review Focusing on the WPT4WID Research Project of National Relevance. , 2021, , .		2
12	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
13	Dynamic Wireless Power Transfer in Urban Area: EMI on Traffic Signal Cables. , 2021, , .		1
14	Two-Coil Receiver for Electrical Vehicles in Dynamic Wireless Power Transfer. Energies, 2021, 14, 7790.	3.1	7
15	Efficient Wireless Drone Charging Pad for Any Landing Position and Orientation. Energies, 2021, 14, 8188.	3.1	7
16	Active Shielding Design for a Dynamic Wireless Power Transfer System. , 2020, , .		1
17	Active Shielding Design and Optimization of a Wireless Power Transfer (WPT) System for Automotive. Energies, 2020, 13, 5575.	3.1	12
18	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

#	Article	IF	Citations
19	Active Shielding Applied to an Electrified Road in a Dynamic Wireless Power Transfer (WPT) System. Energies, 2020, 13, 2522.	3.1	13
20	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
21	Finite-Element Modeling of Conductive Multilayer Shields by Artificial Material Single-Layer Method. IEEE Transactions on Magnetics, 2020, 56, 1-4.	2.1	9
22	Percutaneous Wireless Powering System for a Left Ventricular Assist Device (LVAD) with an Internal Backup Battery. , 2020, , .		0
23	Near Field Wireless Powering of Deep Medical Implants. Energies, 2019, 12, 2720.	3.1	34
24	Wireless Charging of Electric Vehicles: Planar Secondary Coil Position vs. Magnetic Field. , 2019, , .		3
25	Active Coil System for Magnetic Field Reduction in an Automotive Wireless Power Transfer System. , 2019, , .		19
26	Innovative Design of Drone Landing Gear Used as a Receiving Coil in Wireless Charging Application. Energies, 2019, 12, 3483.	3.1	21
27	Magnetic Field during Wireless Charging in an Electric Vehicle According to Standard SAE J2954. Energies, 2019, 12, 1795.	3.1	55
28	Pacemaker Lead Coupling With an Automotive Wireless Power Transfer System. IEEE Transactions on Electromagnetic Compatibility, 2019, 61, 1935-1943.	2.2	9
29	Wireless Charging in Electric Vehicles: EMI/EMC Risk Mitigation in Pacemakers by Active Coils. , 2019, , .		10
30	Feasibility Study of a Wireless Power Transfer System Applied to a Left Ventricular Assist Device. , 2019, , .		8
31	Active Shielding Design for Wireless Power Transfer Systems. IEEE Transactions on Electromagnetic Compatibility, 2019, 61, 1953-1960.	2.2	52
32	Wireless Charging System Integrated in a Small Unmanned Aerial Vehicle (UAV) with High Tolerance to Planar Coil Misalignment. , 2019, , .		20
33	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
34	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
35	Numerical Analysis Applying the AMSL Method to Predict the Magnetic Field in an EV with a WPT System. , 2018, , .		3
36	Feasibility Study of a Wireless Power Transfer System Applied to a Leadless Pacemaker. , 2018, , .		5

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37	Progress in the Application of the Transmission Line Theory to Near-Field Shielding. , 2018, , .		0
38	Application of the artificial material single layer (AMSL) method to assess the magnetic field generated by a WPT system with shield. , 2018, , .		1
39	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
40	Numerical Calculation of the Near Field Shielding for Carbon Fiber Reinforced Polymer (CFRP) Panels at Wireless Power Transfer Automotive Frequencies. , 2018, , .		3
41	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
42	Near-Field Reduction in a Wireless Power Transfer System Using LCC Compensation. IEEE Transactions on Electromagnetic Compatibility, 2017, 59, 686-694.	2.2	94
43	Induced Effects in a Pacemaker Equipped With a Wireless Power Transfer Charging System. IEEE Transactions on Magnetics, 2017, 53, 1-4.	2.1	17
44	Numerical characterization of the magnetic field in electric vehicles equipped with a WPT system. Wireless Power Transfer, 2017, 4, 78-87.	1.1	19
45	EMC and EMF safety issues in wireless charging system for an electric vehicle (EV). , 2017, , .		26
46	Magnetic field behavior in a carbon-fiber electrical vehicle charged by a wireless power transfer system. , 2017, , .		3
47	High efficiency and lightweight wireless charging system for drone batteries. , 2017, , .		44
48	Conducted emission of wireless power transfer charging system in electric vehicle. , 2017, , .		7
49	Magnetic field generated by a 22 kW-85 kHz wireless power transfer system for an EV. , 2017, , .		6
50	Induced effects in a pacemaker equipped with wireless power transfer charging system. , 2016, , .		2
51	Comparative Study of Lossy Transmission Line Simulation Models for Eye-Diagram Estimation. IEEE Transactions on Electromagnetic Compatibility, 2016, 58, 1176-1183.	2.2	2
52	Magnetic field levels in drones equipped with Wireless Power Transfer technology. , 2016, , .		48
53	Robust LCC compensation in wireless power transfer with variable coupling factor due to coil misalignment. , 2015, , .		29
54	Prediction of shielding effectiveness in graphene enclosures by FEM-INBC method. , 2015, , .		7

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55	Optimum coil configuration of wireless power transfer system in presence of shields. , 2015, , .		17
56	Numerical simulation of Wireless Power Transfer system to recharge the battery of an implanted cardiac pacemaker. , 2014, , .		21
57	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
58	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
59	Assessment of magnetic field levels generated by a wireless power transfer (WPT) system at 20 kHz. , 2013, , .		9
60	Investigation of EFT test setup for rack mounted equipment by numerical simulations. , 2012, , .		1
61	Antenna design of a UHF RFID tag for human tracking avoiding spurious emission. , 2012, , .		8
62	Cole-Cole vs Debye models for the assessment of electromagnetic fields inside biological tissues produced by wideband EMF sources. , 2012, , .		14
63	Two-wire shielded cable modeling for the analysis of conducted transient immunity. , 2012, , .		5
64	Numerical simulation of blood vascularization influence in microwave ablation. , 2011, , .		1
65	Analytical and numerical simulation models for calculating EMI into circuits due to ESD radiated fields. , 2011, , .		0
66	Multi-port impedance matching technique for power line communications. , 2011, , .		8
67	Full-Wave Analysis of Power Distribution Networks in Printed Circuit Boards. IEICE Transactions on Communications, 2010, E93.B, 1670-1677.	0.7	1
68	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
69	Full-wave electromagnetic modelling from DC to GHz using FEM-SPICE. , 2010, , .		1
70	Computer-aided design of coupling units for naval-network power line communications. , 2010, , .		2
71	Full-wave investigation of EFT injection clamp calibration setup. , 2010, , .		7
72	Axial-Flux Permanent-Magnet Generator for Induction Heating Gensets. IEEE Transactions on Industrial Electronics, 2010, 57, 128-137.	7.9	41

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73	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
74	Fast calculation of dielectric substrate losses in microwave applications by the FD. , 2010, , .		3
75	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
76	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
77	Single phase permanent-magnet generator with low armature reaction for induction heating gen sets. , 2008, , .		3
78	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
79	Investigation on the ground loop coupling by simulation tools based on the partial inductance concept. , 2008, , .		2
80	Numerical investigation of techniques for reducing radiated emission of PCBs with attached cables in complex systems. , 2008, , .		1
81	Interference in Shielded Foil Twisted Pair (SFTP) Cables Due to ESD. , 2007, , .		1
82	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
83	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
84	SPICE model extraction for signal integrity analysis of unshielded twisted pairs from full wave simulation. , 2006, , .		0
85	Circuit and Numerical Modeling of Electrostatic Discharge Generators. IEEE Transactions on Industry Applications, 2006, 42, 1350-1357.	4.9	52
86	New extraction procedure of shielded cable SPICE macro-model for the prediction of signal integrity and conducted immunity. , 2006, , .		1
87	Interference in unshielded twisted pair cables due to ESD. , 2006, , .		1
88	Magnetic field computation in a physically large domain with thin metallic shields. IEEE Transactions on Magnetics, 2005, 41, 1708-1711.	2.1	27
89	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
90	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

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91	Edge-elements modeling of transmission lines in field domain by impedance network boundary conditions. IEEE Transactions on Magnetics, 2003, 39, 1207-1210.	2.1	2
92	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
93	EM Field Computations and Measurements. , 2003, , 342-474.		0
94	A Hybrid Numerical Technique to Predict the Electromagnetic Field in Penetrable Conductive Boxes. Electromagnetics, 2002, 22, 405-417.	0.7	3
95	Circuit-oriented FEM: solution of circuit-field coupled problems by circuit equations. IEEE Transactions on Magnetics, 2002, 38, 965-968.	2.1	31
96	Full-wave analysis of shielded cable configurations by the FDTD method. IEEE Transactions on Magnetics, 2002, 38, 761-764.	2.1	28
97	Neural characterization of wire bundles multiconductor transmission lines. IEEE Transactions on Magnetics, 2002, 38, 785-788.	2.1	2
98	Effects of the Dispersive Behavior of Dielectric Substrates on the SPI. , 2002, , .		1
99	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
100	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
101	A frequency-dependent WETD formulation for dispersive materials. IEEE Transactions on Magnetics, 2001, 37, 3303-3306.	2.1	20
102	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
103	FEM solution of time-harmonic electromagnetic fields by an equivalent electrical network. IEEE Transactions on Magnetics, 2000, 36, 938-941.	2.1	13
104	Finite-difference time-domain modeling of thin shields. IEEE Transactions on Magnetics, 2000, 36, 848-851.	2.1	11
105	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
106	Time-domain FEM analysis of quasi-static magnetic fields around nonperfectly conductive shields. IEEE Transactions on Magnetics, 1999, 35, 1187-1190.	2.1	20
107	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
108	Capacitance matrix calculation of a wire conductor line: a new FEM approach. IEEE Transactions on Electromagnetic Compatibility, 1998, 40, 262-270.	2.2	7

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109	Simplified model of the discharge path in electrical devices by an iterative FEM procedure. IEEE Transactions on Magnetics, 1998, 34, 2513-2516.	2.1	1
110	Mixed finite-difference/Whitney-elements time domain (FD/WE-TD) method. IEEE Transactions on Magnetics, 1998, 34, 3222-3227.	2.1	17
111	Fast computation of quasi-static magnetic fields around nonperfectly conductive shields. IEEE Transactions on Magnetics, 1998, 34, 2795-2798.	2.1	38
112	An explicit-implicit solution scheme to analyze fast transients by finite elements. IEEE Transactions on Magnetics, 1997, 33, 1452-1455.	2.1	11
113	Edge element analysis of complex configurations in presence of shields. IEEE Transactions on Magnetics, 1997, 33, 1548-1551.	2.1	37
114	Hybrid finite element solutions of time dependent Maxwell's curl equations. IEEE Transactions on Magnetics, 1995, 31, 1330-1335.	2.1	29
115	Field-to-wire coupling using the finite element-time domain (FE-TD) method. IEEE Transactions on Magnetics, 1995, 31, 1586-1589.	2.1	6
116	Crosstalk prediction in twisted bundles by a neural approach. , 0, , .		3
117	On the use of irregular grids in the zeroth-order vector finite element-time domain (VFE-TD) method. , 0, , .		0
118	Layout optimization in nonuniform transmission line configurations to reduce radiated emission and crosstalk. , 0, , .		2
119	Computer application of the EMC course at the University of Rome "La Sapienza". , 0, , .		1
120	A nodal finite element approach to calculate wire emission in 2-D configurations. , 0, , .		0
121	Validation of analytical and numerical techniques to predict the magnetic shielding effectiveness of finite extension shields. , 0, , .		1
122	EMI prediction inside conductive enclosures with attached cables. , 0, , .		8
123	A FEM approach to calculate the impedances of shielded multiconductor cables. , 0, , .		5
124	Equivalent circuit models for the analysis of coaxial cables immunity. , 0, , .		16
125	Time domain analysis of lossy shielded cables by CAD circuit simulators. , 0, , .		13
126	Circuital and numerical modeling of electrostatic discharge generators. , 0, , .		10

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127	Prediction of voltage and current propagation in twisted wire pairs (TWPs) by a circuit model. , 0, , .		7
128	Passive equivalent circuits of complex discontinuities: an improved extraction technique. , 0, , .		6
129	Recognition of Buried Objects by Their EM Scattering. , 0, , .		0
130	3D Numerical Modeling and Circuit Extraction Techniques for the Analysis of Unshielded Twisted Pairs. , 0, , .		0
131	A wavelet approach for the discrimination of buried objects. , 0, , .		0
132	Analysis of upsets and failures due to ESD by the FDTD-INBCs method. , 0, , .		2