Giambattista Gruosso

List of Publications by Year
in descending order

119 papers	1,233 citations	394286 19 h-index

501076   28 g-index

| 120 all docs | 120 docs citations | 120 times ranked | 940 citing authors |

#	Article	IF	Citations
1	Multidomain modeling of nonlinear electromagnetic circuits using wave digital filters. International Journal of Circuit Theory and Applications, 2022, 50, 539-561.	1.3	7
2	Towards a comprehensive framework for V2G optimal operation in presence of uncertainty. Sustainable Energy, Grids and Networks, 2022, 31, 100740.	2.3	7
3	Analysis and Design of a Smart Controller for Managing Penetration of Renewable Energy Including Cybersecurity Issues. Electronics (Switzerland), 2022, 11, 1861.	1.8	6
4	Piece-Wise Linear (PWL) Probabilistic Analysis of Power Grid with High Penetration PV Integration. Energies, 2022, 15, 4752.	1.6	0
5	A time-of-use pricing strategy for managing electric vehicle clusters. Sustainable Energy, Grids and Networks, 2021, 25, 100411.	2.3	32
6	Gaussian Copula Methodology to Model Photovoltaic Generation Uncertainty Correlation in Power Distribution Networks. Energies, 2021, 14, 2349.	1.6	12
7	A Novel Energy-Efficiency Optimization Approach Based on Driving Patterns Styles and Experimental Tests for Electric Vehicles. Electronics (Switzerland), 2021, 10, 1199.	1.8	15
8	Multiphysics Modeling of Audio Circuits With Nonlinear Transformers. AES: Journal of the Audio Engineering Society, 2021, 69, 374-388.	0.8	11
9	Control Algorithm Extension for Series Power Electronic Converter. , 2021, , .		2
10	Fault Current Limiting Implementation in a Series Power Electronic Converter. , 2021, , .		2
11	Electric Vehicle Fleets as Balancing Instrument in Micro-Grids. Energies, 2021, 14, 7616.	1.6	6
12	Interoperability analysis of IEC61850 protocol using an emulated IED in a HIL microgrid testbed. , 2021, , .		5
13	Study on the Torque-Speed Allocation on PMSM to Improve Energy Efficiency in Electric Vehicles Using Metaheuristic Optimization. , 2021, , .		1
14	Microcontroller architectures for battery state of charge prediction with tiny neural networks. , 2021, , .		5
15	Joined Probabilistic Load Flow and Sensitivity Analysis of Distribution Networks Based on Polynomial Chaos Method. IEEE Transactions on Power Systems, 2020, 35, 618-627.	4.6	30
16	Hardware In the Loop Simulation of a Microgrid: Framework for integration of Different Real Time devices. , 2020, , .		2
17	A novel ramp-rate control of grid-tied PV-Battery systems to reduce required battery capacity. Energy, 2020, 210, 118433.	4.5	14
18	Forecasting of electrical vehicle impact on infrastructure: Markov chains model of charging stations occupation. ETransportation, 2020, 6, 100083.	6.8	17

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19	Li-Ion Batteries Parameter Estimation With Tiny Neural Networks Embedded on Intelligent IoT Microcontrollers. IEEE Access, 2020, 8, 122135-122146.	2.6	47
20	Li-Ion Batteries Releasable Capacity Estimation with Neural Networks on Intelligent IoT Microcontrollers. , 2020, , .		2
21	Modeling Photovoltaic Generation Uncertainties for Monte Carlo Method based Probabilistic Load Flow Analysis of Distribution Network. , 2020, , .		7
22	Complex-Array-Operation Newton Solver for Power Grids Simulations. IEEE Access, 2020, 8, 47984-47992.	2.6	6
23	A reliable and efficient black box model of SF6 medium voltage circuit breakers. International Journal of Electrical Power and Energy Systems, 2020, 119, 105863.	3.3	11
24	Reactive Power Injection to Mitigate Frequency Transients Using Grid Connected PV Systems. Energies, 2020, 13, 1998.	1.6	4
25	Data-driven uncertainty analysis of distribution networks including photovoltaic generation. International Journal of Electrical Power and Energy Systems, 2020, 121, 106043.	3.3	19
26	Hardware in the Loop Implementation of the Oscillator-based Heart Model: A Framework for Testing Medical Devices. Electronics (Switzerland), 2020, 9, 571.	1.8	2
27	A Virtual Sensor for Electric Vehicles' State of Charge Estimation. Electronics (Switzerland), 2020, 9, 278.	1.8	17
28	Modelling of Photovoltaic Systems for Real-Time Hardware Simulation. Lecture Notes in Electrical Engineering, 2020, , 3-15.	0.3	1
29	Energy price forecasting for optimal managing of electric vehicle fleet. IET Electrical Systems in Transportation, 2020, 10, 401-408.	1.5	4
30	Hardware in the loop Framework for analysis of Impact of Electrical Vehicle Charging Devices on Distribution network. , 2020, , .		5
31	Smart Grid Simulation Including Communication Network: A Hardware in the Loop Approach. IEEE Access, 2019, 7, 90171-90179.	2.6	20
32	Ancillary Service with Grid Connected PV: A Real-Time Hardware-in-the-Loop Approach for Evaluation of Performances. Electronics (Switzerland), 2019, 8, 809.	1.8	8
33	Proposal for Modeling Electric Vehicle Battery Using Experimental Data and Considering Temperature Effects. , 2019, , .		2
34	Uncertainty-Aware Computational Tools for Power Distribution Networks Including Electrical Vehicle Charging and Load Profiles. IEEE Access, 2019, 7, 9357-9367.	2.6	35
35	Hardware-in-the-Loop Framework for Validation of Ancillary Service in Microgrids: Feasibility, Problems and Improvement. IEEE Access, 2019, 7, 58104-58112.	2.6	24
36	Data-driven approach to model electrical vehicle charging profile for simulation of grid integration scenarios. IET Electrical Systems in Transportation, 2019, 9, 168-175.	1.5	15

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37	State of Charge Estimation of LiFePO4 Battery Used in Electric Vehicles Using Support Vector Regression, PCA and DP Battery Model. , 2019, , .		3
38	Price Based Optimization for Electrical Vehicle Charging Scheduling. , 2019, , .		1
39	Modelling of magnetic components for power electronics: a circuit equivalent approach. , 2019, , .		1
40	A Model of Electric Vehicle Recharge Stations based on Cyclic Markov Chains. , 2019, , .		2
41	Probabilistic load flow methodology for distribution networks including loads uncertainty. International Journal of Electrical Power and Energy Systems, 2019, 106, 392-400.	3.3	31
42	Design of Tubular Permanent Magnet Generators for Vehicle Energy Harvesting by Means of Social Network Optimization. IEEE Transactions on Industrial Electronics, 2018, 65, 1884-1892.	5.2	30
43	A Model to Estimate the Impact of Electrical Vehicles Displacement on Medium Voltage Network. , 2018, , .		3
44	A model based approach for the analysis and simulation of a hybrid bus in an urban context. International Journal of Vehicle Performance, 2018, 4, 222.	0.2	1
45	A Data Driven Approach to Model Electrical Vehicle Charging Behaviour for Grid Integration Analysis. , 2018, , .		5
46	Implementation of an IoT Node for Biomedical Applications. , 2018, , .		2
47	Information Integration Issues for Monitoring Performance Metrics of a Microgrid. , 2018, , .		1
48	Analysis of Electrical Vehicle behavior from real world data: a V2I Architecture. , 2018, , .		7
49	Definition and Analysis of an Innovative Ancillary Service for Microgrid Stability Improvement. , 2018, , .		2
50	Limiting gaming opportunities on incentive-based demand response programs. Applied Energy, 2018, 225, 668-681.	5.1	48
51	A contract for demand response based on probability of call. , 2018, , .		0
52	A model based approach for the analysis and simulation of a hybrid bus in an urban context. International Journal of Vehicle Performance, 2018, 4, 222.	0.2	1
53	Wave energy farm design in real wave climates: the Italian offshore. Energy, 2017, 122, 378-389.	4.5	55
54	Power hardware in the loop simulator of photovoltaic plant for smart grid interation analysis. , 2017, , .		14

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55	Optimized linear generator for vehicle energy harvesting by social network optimization algorithm. , 2017, , .		0
56	Electrical Unmanned Vehicle Architecture for Precision Farming Applications. , 2017, , .		1
57	ROBIâ€™: A Prototype Mobile Manipulator for Agricultural Applications. Electronics (Switzerland), 2017, 6, 39.	1.8	7
58	Analysis of impact of electrical vehicle charging on low voltage power grid. , 2016, , .		14
59	Spatial interactions among oscillating wave energy converters: Electricity production and power quality issues. , 2016, , .		2
60	A time-of-use-based residential electricity demand model for smart grid applications. , 2016, , .		15
61	Object based modelling of hybrid electrical vehicle and power management control. , 2015, , .		7
62	Model based design of power management for hybrid electric vehicle. , 2015, , .		6
63	Sea wave generation: Generator arrays combined with VOC converter for efficient energy conversion in Italian Seas. , 2015, , .		4
64	Comparison among passive and active rectifier for seawave energy production. , 2015, , .		3
65	Real-time power management strategy in power-split hybrid electric vehicle. , 2014, , .		6
66	Dynamic model, parameter extraction, and analysis of two topologies of a tubular linear generator for seawave energy production. , 2014, , .		11
67	Modeling and estimating yield and efficiency of photovoltaic solar parks. , 2013, , .		7
68	Wave energy production in Italian offshore: Preliminary design of a point absorber with tubular linear generator. , 2013, , .		10
69	Model of Photovoltaic Power Plants for Performance Analysis and Production Forecast. IEEE Transactions on Sustainable Energy, 2013, 4, 278-285.	5.9	94
70	Probe Based Shooting Method to Find Stable and Unstable Limit Cycles of Strongly Nonlinear High-Q Oscillators. IEEE Transactions on Circuits and Systems I: Regular Papers, 2013, 60, 1870-1880.	3.5	5
71	Time domain probe insertion to find steady state of strongly nonlinear high-Q oscillators. , 2013, , .		2
72	Steady State Simulation of Mixed Analog/Digital Circuits. , 2013, , 243-270.		3

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73	Design and simulation of a power management unit in a solar based electric propulsion system. , 2012, , .		5
74	An innovative device for traffic energy harvesting. , 2012, , .		1
75	Towards a nearly optimal synthesis of power bridge commands in the driving of AC motors. , 2012, , .		5
76	Power transfer optimization of wireless energy harvesting system. , 2012, , .		1
77	ADDA: Almost direct drive architecture for solar high power electrical propulsion in new generation spacecrafts. , 2012, , .		5
78	Micro-inverter for solar power generation. , 2012, , .		16
79	MTFS: Mixed Time–Frequency Method for the Steady-State Analysis of Almost-Periodic Nonlinear Circuits. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2012, 31, 1346-1355.	1.9	1
80	A Probe-Based Harmonic Balance Method to Simulate Coupled Oscillators. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2011, 30, 960-971.	1.9	2
81	Mechatronic Design of the Sun Tracking System of a Linear Fresnel Reflector Solar Plant. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 248-254.	0.4	4
82	Periodic noise analysis of electric circuits: Artifacts, singularities and a numerical method. International Journal of Circuit Theory and Applications, 2010, 38, 689-708.	1.3	21
83	Mechatronic model of oscillations in hybrid stepper motors. , 2010, , .		3
84	Automated TPM-LiG modeling for WSN subsystems in marine environment. , 2010, , .		1
85	An optimized three phase TPM-LiG for marine applications. , 2010, , .		7
86	Improved Small-Signal Analysis for Circuits Working in Periodic Steady State. IEEE Transactions on Circuits and Systems I: Regular Papers, 2010, 57, 427-437.	3.5	29
87	Bio-inspired optimization techniques for wireless energy transfer. , 2010, , .		5
88	FSSA: Fast Steady-State Algorithm for the Analysis of Mixed Analog/Digital Circuits. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2010, 29, 528-537.	1.9	13
89	Robust Harmonic-Probe Method for the Simulation of Oscillators. IEEE Transactions on Circuits and Systems I: Regular Papers, 2010, 57, 2531-2541.	3.5	12
90	Optimization of a linear generator for sea-wave energy conversion by means of a hybrid evolutionary algorithm. , 2010, , .		19

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91	Multi-probe harmonic balance method to simulate coupled oscillators. , 2009, , .		1
92	Two Levels Modeling for the Optimization of Electromagnetic Actuators. IEEE Transactions on Magnetics, 2009, 45, 1724-1727.	1.2	12
93	Novel modeling design of three phase tubular permanent magnet linear generator for marine applications. , 2009, , .		18
94	Determination of Floquet Exponents for Small-Signal Analysis of Nonlinear Periodic Circuits. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2009, 28, 447-451.	1.9	16
95	Magnetic core model for circuit simulations including losses and hysteresis. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2008, 21, 309-334.	1.2	13
96	Magnetostatic solution by hybrid technique and fast multipole method. Physica B: Condensed Matter, 2008, 403, 368-371.	1.3	2
97	A Boundary Integral Formulation for Eddy Current Problems Based on the Cell Method. IEEE Transactions on Magnetics, 2008, 44, 770-773.	1.2	14
98	Force Computation by Hybrid Cell Method. IEEE Transactions on Magnetics, 2008, 44, 1198-1201.	1.2	2
99	QR factorisation in the shooting method. , 2008, , .		0
100	Threeâ€dimensional eddy current analysis in unbounded domains by a DEMâ€BEM formulation. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2008, 27, 460-466.	0.5	2
101	Coupling of finite formulation with integral techniques. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2008, 27, 37-46.	0.5	0
102	Evaluation of Voltage Exposures Due to AC/DC Stray Currents. Conference Record - IAS Annual Meeting (IEEE Industry Applications Society), 2007, , .	0.0	1
103	Evaluation of Voltage Exposures Due to AC/DC Stray Currents. Conference Record - IAS Annual Meeting (IEEE Industry Applications Society), 2007, , .	0.0	0
104	Adaptive manifoldâ€mapping using multiquadric interpolation applied to linear actuator design. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2007, 26, 225-235.	0.5	4
105	Investigation of lowâ€frequency behaviour of two surface integral fullâ€Maxwell formulations. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2007, 26, 842-858.	0.5	1
106	3D source simulation method for static fields in inhomogeneous media. International Journal for Numerical Methods in Engineering, 2007, 70, 1096-1111.	1.5	8
107	Unstructured PEEC formulation by dual discretization. IEEE Microwave and Wireless Components Letters, 2006, 16, 531-533.	2.0	9
108	Finite formulation of nonlinear magnetostatics with Integral boundary conditions. IEEE Transactions on Magnetics, 2006, 42, 1503-1511.	1.2	19

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109	Implementation of a network model of hysteresis. Physica B: Condensed Matter, 2006, 372, 53-56.	1.3	0
110	Insulated Joint for Corrosion Protection of Buried Subway Gallery Structure: Consideration on Cable Ground Connection. IEEE Transactions on Power Delivery, 2006, 21, 966-970.	2.9	7
111	Identification and simulation of a circuitâ€based model of magnetic hysteresis. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2005, 24, 534-545.	0.5	0
112	Genetic optimisation of radial eddy current couplings. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2005, 24, 767-783.	0.5	20
113	Magnetization sources in 3D magnetostatic finite formulation. Revue Internationale De GÃ©nie Ã©lectrique, 2005, 8, 23-33.	0.0	0
114	Identification Method for a Circuit Model of Scalar Static Hysteresis. IEEE Transactions on Magnetics, 2004, 40, 3467-3473.	1.2	8
115	Field and Circuit Approaches for Diffusion Phenomena in Magnetic Cores. IEEE Transactions on Magnetics, 2004, 40, 1322-1325.	1.2	30
116	Optimal shielding of low frequency fields. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2004, 23, 173-186.	0.5	5
117	Magnetic design optimization and objective function approximation. IEEE Transactions on Magnetics, 2003, 39, 2154-2162.	1.2	27
118	Integral methods for analysis and design of low-frequency conductive shields. IEEE Transactions on Magnetics, 2003, 39, 2009-2017.	1.2	37
119	Synthesis of linear actuators. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2001, 20, 713-723.	0.5	7