

Giambattista Gruosso

List of Publications by Year in descending order

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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 | Model of Photovoltaic Power Plants for Performance Analysis and Production Forecast. IEEE Transactions on Sustainable Energy, 2013, 4, 278-285. | 5.9 | 94 |
| 2 | Wave energy farm design in real wave climates: the Italian offshore. Energy, 2017, 122, 378-389. | 4.5 | 55 |
| 3 | Limiting gaming opportunities on incentive-based demand response programs. Applied Energy, 2018, 225, 668-681. | 5.1 | 48 |
| 4 | Li-Ion Batteries Parameter Estimation With Tiny Neural Networks Embedded on Intelligent IoT Microcontrollers. IEEE Access, 2020, 8, 122135-122146. | 2.6 | 47 |
| 5 | Integral methods for analysis and design of low-frequency conductive shields. IEEE Transactions on Magnetics, 2003, 39, 2009-2017. | 1.2 | 37 |
| 6 | Uncertainty-Aware Computational Tools for Power Distribution Networks Including Electrical Vehicle Charging and Load Profiles. IEEE Access, 2019, 7, 9357-9367. | 2.6 | 35 |
| 7 | A time-of-use pricing strategy for managing electric vehicle clusters. Sustainable Energy, Grids and Networks, 2021, 25, 100411. | 2.3 | 32 |
| 8 | 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 |
| 9 | Field and Circuit Approaches for Diffusion Phenomena in Magnetic Cores. IEEE Transactions on Magnetics, 2004, 40, 1322-1325. | 1.2 | 30 |
| 10 | 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 |
| 11 | 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 |
| 12 | 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 |
| 13 | Magnetic design optimization and objective function approximation. IEEE Transactions on Magnetics, 2003, 39, 2154-2162. | 1.2 | 27 |
| 14 | 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 |
| 15 | 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 |
| 16 | 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 |
| 17 | Smart Grid Simulation Including Communication Network: A Hardware in the Loop Approach. IEEE Access, 2019, 7, 90171-90179. | 2.6 | 20 |
| 18 | Finite formulation of nonlinear magnetostatics with Integral boundary conditions. IEEE Transactions on Magnetics, 2006, 42, 1503-1511. | 1.2 | 19 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 19 | Optimization of a linear generator for sea-wave energy conversion by means of a hybrid evolutionary algorithm. , 2010, , . | | 19 |
| 20 | Data-driven uncertainty analysis of distribution networks including photovoltaic generation. International Journal of Electrical Power and Energy Systems, 2020, 121, 106043. | 3.3 | 19 |
| 21 | Novel modeling design of three phase tubular permanent magnet linear generator for marine applications. , 2009, , . | | 18 |
| 22 | Forecasting of electrical vehicle impact on infrastructure: Markov chains model of charging stations occupation. ETransportation, 2020, 6, 100083. | 6.8 | 17 |
| 23 | A Virtual Sensor for Electric Vehiclesâ€™ State of Charge Estimation. Electronics (Switzerland), 2020, 9, 278. | 1.8 | 17 |
| 24 | 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 |
| 25 | Micro-inverter for solar power generation. , 2012, , . | | 16 |
| 26 | A time-of-use-based residential electricity demand model for smart grid applications. , 2016, , . | | 15 |
| 27 | 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 |
| 28 | 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 |
| 29 | A Boundary Integral Formulation for Eddy Current Problems Based on the Cell Method. IEEE Transactions on Magnetics, 2008, 44, 770-773. | 1.2 | 14 |
| 30 | Analysis of impact of electrical vehicle charging on low voltage power grid. , 2016, , . | | 14 |
| 31 | Power hardware in the loop simulator of photovoltaic plant for smart grid interaction analysis. , 2017, , . | | 14 |
| 32 | A novel ramp-rate control of grid-tied PV-Battery systems to reduce required battery capacity. Energy, 2020, 210, 118433. | 4.5 | 14 |
| 33 | 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 |
| 34 | 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 |
| 35 | Two Levels Modeling for the Optimization of Electromagnetic Actuators. IEEE Transactions on Magnetics, 2009, 45, 1724-1727. | 1.2 | 12 |
| 36 | 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 |

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|----|--|-----|-----------|
| 37 | Gaussian Copula Methodology to Model Photovoltaic Generation Uncertainty Correlation in Power Distribution Networks. <i>Energies</i> , 2021, 14, 2349. | 1.6 | 12 |
| 38 | Dynamic model, parameter extraction, and analysis of two topologies of a tubular linear generator for seawave energy production. , 2014, , . | | 11 |
| 39 | A reliable and efficient black box model of SF6 medium voltage circuit breakers. <i>International Journal of Electrical Power and Energy Systems</i> , 2020, 119, 105863. | 3.3 | 11 |
| 40 | Multiphysics Modeling of Audio Circuits With Nonlinear Transformers. <i>AES: Journal of the Audio Engineering Society</i> , 2021, 69, 374-388. | 0.8 | 11 |
| 41 | Wave energy production in Italian offshore: Preliminary design of a point absorber with tubular linear generator. , 2013, , . | | 10 |
| 42 | Unstructured PEEC formulation by dual discretization. <i>IEEE Microwave and Wireless Components Letters</i> , 2006, 16, 531-533. | 2.0 | 9 |
| 43 | Identification Method for a Circuit Model of Scalar Static Hysteresis. <i>IEEE Transactions on Magnetics</i> , 2004, 40, 3467-3473. | 1.2 | 8 |
| 44 | 3D source simulation method for static fields in inhomogeneous media. <i>International Journal for Numerical Methods in Engineering</i> , 2007, 70, 1096-1111. | 1.5 | 8 |
| 45 | Ancillary Service with Grid Connected PV: A Real-Time Hardware-in-the-Loop Approach for Evaluation of Performances. <i>Electronics (Switzerland)</i> , 2019, 8, 809. | 1.8 | 8 |
| 46 | Synthesis of linear actuators. <i>COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering</i> , 2001, 20, 713-723. | 0.5 | 7 |
| 47 | Insulated Joint for Corrosion Protection of Buried Subway Gallery Structure: Consideration on Cable Ground Connection. <i>IEEE Transactions on Power Delivery</i> , 2006, 21, 966-970. | 2.9 | 7 |
| 48 | An optimized three phase TPM-LiG for marine applications. , 2010, , . | | 7 |
| 49 | Modeling and estimating yield and efficiency of photovoltaic solar parks. , 2013, , . | | 7 |
| 50 | Object based modelling of hybrid electrical vehicle and power management control. , 2015, , . | | 7 |
| 51 | ROBIâ€™™: A Prototype Mobile Manipulator for Agricultural Applications. <i>Electronics (Switzerland)</i> , 2017, 6, 39. | 1.8 | 7 |
| 52 | Analysis of Electrical Vehicle behavior from real world data: a V2I Architecture. , 2018, , . | | 7 |
| 53 | Modeling Photovoltaic Generation Uncertainties for Monte Carlo Method based Probabilistic Load Flow Analysis of Distribution Network. , 2020, , . | | 7 |
| 54 | Multidomain modeling of nonlinear electromagnetic circuits using wave digital filters. <i>International Journal of Circuit Theory and Applications</i> , 2022, 50, 539-561. | 1.3 | 7 |

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|----|---|-----|-----------|
| 55 | Towards a comprehensive framework for V2G optimal operation in presence of uncertainty. Sustainable Energy, Grids and Networks, 2022, 31, 100740. | 2.3 | 7 |
| 56 | Real-time power management strategy in power-split hybrid electric vehicle. , 2014, , . | | 6 |
| 57 | Model based design of power management for hybrid electric vehicle. , 2015, , . | | 6 |
| 58 | Complex-Array-Operation Newton Solver for Power Grids Simulations. IEEE Access, 2020, 8, 47984-47992. | 2.6 | 6 |
| 59 | Electric Vehicle Fleets as Balancing Instrument in Micro-Grids. Energies, 2021, 14, 7616. | 1.6 | 6 |
| 60 | Analysis and Design of a Smart Controller for Managing Penetration of Renewable Energy Including Cybersecurity Issues. Electronics (Switzerland), 2022, 11, 1861. | 1.8 | 6 |
| 61 | 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 |
| 62 | Bio-inspired optimization techniques for wireless energy transfer. , 2010, , . | | 5 |
| 63 | Design and simulation of a power management unit in a solar based electric propulsion system. , 2012, , . | | 5 |
| 64 | Towards a nearly optimal synthesis of power bridge commands in the driving of AC motors. , 2012, , . | | 5 |
| 65 | ADDA: Almost direct drive architecture for solar high power electrical propulsion in new generation spacecrafts. , 2012, , . | | 5 |
| 66 | 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 |
| 67 | A Data Driven Approach to Model Electrical Vehicle Charging Behaviour for Grid Integration Analysis. , 2018, , . | | 5 |
| 68 | Hardware in the loop Framework for analysis of Impact of Electrical Vehicle Charging Devices on Distribution network. , 2020, , . | | 5 |
| 69 | Interoperability analysis of IEC61850 protocol using an emulated IED in a HIL microgrid testbed. , 2021, , . | | 5 |
| 70 | Microcontroller architectures for battery state of charge prediction with tiny neural networks. , 2021, , . | | 5 |
| 71 | Adaptive manifold 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 |
| 72 | 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 |

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| 73 | Sea wave generation: Generator arrays combined with VOC converter for efficient energy conversion in Italian Seas. , 2015, , . | | 4 |
| 74 | Reactive Power Injection to Mitigate Frequency Transients Using Grid Connected PV Systems. Energies, 2020, 13, 1998. | 1.6 | 4 |
| 75 | Energy price forecasting for optimal managing of electric vehicle fleet. IET Electrical Systems in Transportation, 2020, 10, 401-408. | 1.5 | 4 |
| 76 | Mechatronic model of oscillations in hybrid stepper motors. , 2010, , . | | 3 |
| 77 | Comparison among passive and active rectifier for seawave energy production. , 2015, , . | | 3 |
| 78 | A Model to Estimate the Impact of Electrical Vehicles Displacement on Medium Voltage Network. , 2018, , . | | 3 |
| 79 | State of Charge Estimation of LiFePO4 Battery Used in Electric Vehicles Using Support Vector Regression, PCA and DP Battery Model. , 2019, , . | | 3 |
| 80 | Steady State Simulation of Mixed Analog/Digital Circuits. , 2013, , 243-270. | | 3 |
| 81 | Magnetostatic solution by hybrid technique and fast multipole method. Physica B: Condensed Matter, 2008, 403, 368-371. | 1.3 | 2 |
| 82 | Force Computation by Hybrid Cell Method. IEEE Transactions on Magnetics, 2008, 44, 1198-1201. | 1.2 | 2 |
| 83 | Three-dimensional eddy current analysis in unbounded domains by a DEM-BEM formulation. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2008, 27, 460-466. | 0.5 | 2 |
| 84 | 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 |
| 85 | Time domain probe insertion to find steady state of strongly nonlinear high-Q oscillators. , 2013, , . | | 2 |
| 86 | Spatial interactions among oscillating wave energy converters: Electricity production and power quality issues. , 2016, , . | | 2 |
| 87 | Implementation of an IoT Node for Biomedical Applications. , 2018, , . | | 2 |
| 88 | Definition and Analysis of an Innovative Ancillary Service for Microgrid Stability Improvement. , 2018, , . | | 2 |
| 89 | Proposal for Modeling Electric Vehicle Battery Using Experimental Data and Considering Temperature Effects. , 2019, , . | | 2 |
| 90 | A Model of Electric Vehicle Recharge Stations based on Cyclic Markov Chains. , 2019, , . | | 2 |

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| 91 | Hardware In the Loop Simulation of a Microgrid: Framework for integration of Different Real Time devices. , 2020, , . | | 2 |
| 92 | Li-Ion Batteries Releasable Capacity Estimation with Neural Networks on Intelligent IoT Microcontrollers. , 2020, , . | | 2 |
| 93 | 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 |
| 94 | Control Algorithm Extension for Series Power Electronic Converter. , 2021, , . | | 2 |
| 95 | Fault Current Limiting Implementation in a Series Power Electronic Converter. , 2021, , . | | 2 |
| 96 | Evaluation of Voltage Exposures Due to AC/DC Stray Currents. Conference Record - IAS Annual Meeting (IEEE Industry Applications Society), 2007, , . | 0.0 | 1 |
| 97 | 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 |
| 98 | Multi-probe harmonic balance method to simulate coupled oscillators. , 2009, , . | | 1 |
| 99 | Automated TPM-LiG modeling for WSN subsystems in marine environment. , 2010, , . | | 1 |
| 100 | An innovative device for traffic energy harvesting. , 2012, , . | | 1 |
| 101 | Power transfer optimization of wireless energy harvesting system. , 2012, , . | | 1 |
| 102 | MTFS: Mixed Timeâ€‘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 |
| 103 | Electrical Unmanned Vehicle Architecture for Precision Farming Applications. , 2017, , . | | 1 |
| 104 | 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 |
| 105 | Information Integration Issues for Monitoring Performance Metrics of a Microgrid. , 2018, , . | | 1 |
| 106 | Price Based Optimization for Electrical Vehicle Charging Scheduling. , 2019, , . | | 1 |
| 107 | Modelling of magnetic components for power electronics: a circuit equivalent approach. , 2019, , . | | 1 |
| 108 | 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 |

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| 109 | Modelling of Photovoltaic Systems for Real-Time Hardware Simulation. Lecture Notes in Electrical Engineering, 2020, , 3-15. | 0.3 | 1 |
| 110 | Study on the Torque-Speed Allocation on PMSM to Improve Energy Efficiency in Electric Vehicles Using Metaheuristic Optimization. , 2021, , . | | 1 |
| 111 | Identification and simulation of a circuit-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 | Implementation of a network model of hysteresis. Physica B: Condensed Matter, 2006, 372, 53-56. | 1.3 | 0 |
| 113 | Evaluation of Voltage Exposures Due to AC/DC Stray Currents. Conference Record - IAS Annual Meeting (IEEE Industry Applications Society), 2007, , . | 0.0 | 0 |
| 114 | QR factorisation in the shooting method. , 2008, , . | | 0 |
| 115 | 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 |
| 116 | Optimized linear generator for vehicle energy harvesting by social network optimization algorithm. , 2017, , . | | 0 |
| 117 | A contract for demand response based on probability of call. , 2018, , . | | 0 |
| 118 | Magnetization sources in 3D magnetostatic finite formulation. Revue Internationale De Génie Électrique, 2005, 8, 23-33. | 0.0 | 0 |
| 119 | Piece-Wise Linear (PWL) Probabilistic Analysis of Power Grid with High Penetration PV Integration. Energies, 2022, 15, 4752. | 1.6 | 0 |