

# Andrea Benigni

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3581016/publications.pdf>

Version: 2024-02-01

48  
papers

738  
citations

567281

15  
h-index

552781

26  
g-index

48  
all docs

48  
docs citations

48  
times ranked

712  
citing authors

#	ARTICLE	IF	CITATIONS
1	On Modeling Depths of Power Electronic Circuits for Real-Time Simulation – A Comparative Analysis for Power Systems. IEEE Open Access Journal of Power and Energy, 2022, 9, 76-87.	3.4	16
2	GasNetSim: An Open-Source Package for Gas Network Simulation with Complex Gas Mixture Compositions. , 2022, , .		1
3	A Model of MMCs for Power Electronic System High-Performance Real-Time Simulation. , 2022, , .		2
4	Incorporating AC Power Flow into the Multi-Energy System Optimization Framework COMANDO. , 2022, , .		0
5	Modelica-based parallel computing framework for power system adaptive special protection schemes. , 2022, , .		0
6	Protection Scheme for Fast Detection and Interruption of High-Impedance Faults on Rate-Limited DC Distribution Networks. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2021, 9, 2540-2549.	5.4	3
7	A Hardware-in-the-Loop Platform for DC Protection. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2021, 9, 2605-2619.	5.4	10
8	ORTiS solver codegen: C++ code generation tools for high performance, FPGA-based, real-time simulation of power electronic systems. SoftwareX, 2021, 13, 100660.	2.6	6
9	System Level Real-Time Simulation and Hardware-in-the-Loop Testing of MMCs. Energies, 2021, 14, 3046.	3.1	3
10	An Open-Source Many-Scenario Approach for Power System Dynamic Simulation on HPC Clusters. Electronics (Switzerland), 2021, 10, 1330.	3.1	2
11	A Low Latency Parallel Bus Interface for High-Speed multi-FPGA RT-Simulations. , 2021, , .		0
12	Time-Series Analysis and Forecasting of Power Consumption using Gaussian Process Regression. , 2021, , .		1
13	Neural-Network-based State Estimation: the effect of Pseudo- measurements. , 2021, , .		2
14	Factorisation Path Based Refactorisation for High-Performance LU Decomposition in Real-Time Power System Simulation. Energies, 2021, 14, 7989.	3.1	3
15	Simulation of Coupled Power and Gas Systems with Hydrogen-Enriched Natural Gas. Energies, 2021, 14, 7680.	3.1	8
16	Low Frequency Injection as a Method of Low-Level DC Microgrid Communication. Energies, 2020, 13, 2452.	3.1	0
17	Real-Time Simulation-Based Testing of Modern Energy Systems: A Review and Discussion. IEEE Industrial Electronics Magazine, 2020, 14, 28-39.	2.6	42
18	Controller-Embeddable Probabilistic Real-Time Digital Twins for Power Electronic Converter Diagnostics. IEEE Transactions on Power Electronics, 2020, 35, 9850-9864.	7.9	103

#	ARTICLE	IF	CITATIONS
19	Software and Synthesis Development Libraries for Power Electronic System Real-Time Simulation. , 2019, , .		5
20	Decentralized Model Predictive Control of a Power Electronic Power Distribution System. , 2019, , .		1
21	Measurement Selection for Data-Driven Monitoring of Distribution Systems. IEEE Systems Journal, 2019, 13, 4260-4268.	4.6	6
22	Real-Time Multi-FPGA Simulation of Energy Conversion Systems. IEEE Transactions on Energy Conversion, 2019, 34, 2198-2208.	5.2	30
23	Power Electronic System Real-Time Simulation on National Instruments FPGA Platforms. , 2019, , .		7
24	Real Time Simulation of Transient Overvoltage and Common-Mode during Line-to-Ground Fault in DC Ungrounded Systems. , 2019, , .		4
25	Decentralized Load Estimation for Distribution Systems Using Artificial Neural Networks. IEEE Transactions on Instrumentation and Measurement, 2019, 68, 1333-1342.	4.7	7
26	Latency Insertion Method Based Real-Time Simulation of Power Electronic Systems. IEEE Transactions on Power Electronics, 2018, 33, 7166-7177.	7.9	32
27	Model Order Reduction for PMU-Based State Estimation in Distribution Grids. IEEE Systems Journal, 2018, 12, 2711-2720.	4.6	24
28	A Hardware-in-the-Loop Platform for Testing Networked Controllers for Microgrids. , 2018, , .		4
29	A Global Real-Time Superlab: Enabling High Penetration of Power Electronics in the Electric Grid. IEEE Power Electronics Magazine, 2018, 5, 35-44.	0.7	54
30	Data-Driven Modeling of a Commercial Photovoltaic Microinverter. Modelling and Simulation in Engineering, 2018, 2018, 1-11.	0.7	7
31	Decentralized state estimation for distribution systems using artificial neural network. , 2018, , .		6
32	A Multi-Institutional Approach to Delivering Shared Curricula for Developing a Next-Generation Energy Workforce. IEEE Access, 2017, 5, 1416-1427.	4.2	1
33	System-Level, FPGA-Based, Real-Time Simulation of Ship Power Systems. IEEE Transactions on Energy Conversion, 2017, 32, 737-747.	5.2	32
34	Hardware-in-the-loop testing of high switching frequency power electronics converters. , 2017, , .		17
35	Evaluation framework for power and energy management shipboard distribution controls. , 2017, , .		9
36	FPGA-based real-time LIM simulation of switching power converters. , 2016, , .		2

#	ARTICLE	IF	CITATIONS
37	Development of a simulator-to-simulator interface for geographically distributed simulation of power systems in real time. , 2015, , .		21
38	A Scalable Data-Driven Monitoring Approach for Distribution Systems. IEEE Transactions on Instrumentation and Measurement, 2015, 64, 1292-1305.	4.7	28
39	A Parallel Approach to Real-Time Simulation of Power Electronics Systems. IEEE Transactions on Power Electronics, 2015, 30, 5192-5206.	7.9	50
40	Latency-Based Approach to the Simulation of Large Power Electronics Systems. IEEE Transactions on Power Electronics, 2014, 29, 3201-3213.	7.9	34
41	Multiphysics Test Bed for Renewable Energy Systems in Smart Homes. IEEE Transactions on Industrial Electronics, 2013, 60, 1235-1248.	7.9	51
42	Toward an Uncertainty-Based Model Level Selection for the Simulation of Complex Power Systems. IEEE Systems Journal, 2012, 6, 564-574.	4.6	3
43	A Software-Only PTP Synchronization for Power System State Estimation With PMUs. IEEE Transactions on Instrumentation and Measurement, 2012, 61, 1476-1485.	4.7	42
44	Decoupling Power System State Estimation by Means of Stochastic Collocation. IEEE Transactions on Instrumentation and Measurement, 2011, 60, 1623-1632.	4.7	7
45	State Estimation and Branch Current Learning Using Independent Local Kalman Filter With Virtual Disturbance Model. IEEE Transactions on Instrumentation and Measurement, 2011, 60, 3026-3034.	4.7	27
46	A Decentralized Observer for Ship Power System Applications: Implementation and Experimental Validation. IEEE Transactions on Instrumentation and Measurement, 2010, 59, 440-449.	4.7	15
47	Towards an Uncertainty-Based Model Level Selection for the Simulation of Complex Power Systems. , 2010, , .		4
48	State estimation and learning of unknown branch current flows using decentralized Kalman filter with virtual disturbance model. , 2010, , .		6