

# Alberto Borghetti

## List of Publications by Year in descending order

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146  
papers

3,912  
citations

172207

29  
h-index

143772

57  
g-index

150  
all docs

150  
docs citations

150  
times ranked

2767  
citing authors

#	ARTICLE	IF	CITATIONS
1	An MILP Approach for Short-Term Hydro Scheduling and Unit Commitment With Head-Dependent Reservoir. IEEE Transactions on Power Systems, 2008, 23, 1115-1124.	4.6	271
2	Continuous-Wavelet Transform for Fault Location in Distribution Power Networks: Definition of Mother Wavelets Inferred From Fault Originated Transients. IEEE Transactions on Power Systems, 2008, 23, 380-388.	4.6	248
3	Short-Term Scheduling and Control of Active Distribution Systems With High Penetration of Renewable Resources. IEEE Systems Journal, 2010, 4, 313-322.	2.9	209
4	Synchronized Phasors Monitoring During the Islanding Maneuver of an Active Distribution Network. IEEE Transactions on Smart Grid, 2011, 2, 82-91.	6.2	204
5	Integrated Use of Time-Frequency Wavelet Decompositions for Fault Location in Distribution Networks: Theory and Experimental Validation. IEEE Transactions on Power Delivery, 2010, 25, 3139-3146.	2.9	187
6	An Improved Procedure for the Assessment of Overhead Line Indirect Lightning Performance and Its Comparison with the IEEE Std. 1410 Method. IEEE Transactions on Power Delivery, 2007, 22, 684-692.	2.9	156
7	A Microcontroller-Based Power Management System for Standalone Microgrids With Hybrid Power Supply. IEEE Transactions on Sustainable Energy, 2012, 3, 422-431.	5.9	132
8	Lagrangian heuristics based on disaggregated bundle methods for hydrothermal unit commitment. IEEE Transactions on Power Systems, 2003, 18, 313-323.	4.6	119
9	On the use of continuous-wavelet transform for fault location in distribution power systems. International Journal of Electrical Power and Energy Systems, 2006, 28, 608-617.	3.3	108
10	Lightning Electromagnetic Field Coupling to Overhead Lines: Theory, Numerical Simulations, and Experimental Validation. IEEE Transactions on Electromagnetic Compatibility, 2009, 51, 532-547.	1.4	99
11	Lightning-Induced Overvoltages Transferred Through Distribution Power Transformers. IEEE Transactions on Power Delivery, 2009, 24, 360-372.	2.9	93
12	Lightning-induced voltages on complex distribution systems: models, advanced software tools and experimental validation. Journal of Electrostatics, 2004, 60, 163-174.	1.0	92
13	A Scale Model for the Study of the LEMP Response of Complex Power Distribution Networks. IEEE Transactions on Power Delivery, 2007, 22, 710-720.	2.9	92
14	A Mixed-Integer Linear Programming Approach for the Computation of the Minimum-Losses Radial Configuration of Electrical Distribution Networks. IEEE Transactions on Power Systems, 2012, 27, 1264-1273.	4.6	89
15	Day-Ahead Scheduling of a Local Energy Community: An Alternating Direction Method of Multipliers Approach. IEEE Transactions on Power Systems, 2020, 35, 1132-1142.	4.6	87
16	Evaluation of Lightning Electromagnetic Fields and Their Induced Voltages on Overhead Lines Considering the Frequency Dependence of Soil Electrical Parameters. IEEE Transactions on Electromagnetic Compatibility, 2013, 55, 1210-1219.	1.4	86
17	Using mixed integer programming for the volt/var optimization in distribution feeders. Electric Power Systems Research, 2013, 98, 39-50.	2.1	81
18	On dynamic load models for voltage stability studies. IEEE Transactions on Power Systems, 1997, 12, 293-303.	4.6	75

#	ARTICLE	IF	CITATIONS
19	State estimation of Active Distribution Networks: Comparison between WLS and iterated kalman-filter algorithm integrating PMUs. , 2012, , .		60
20	A model for process equipment damage probability assessment due to lightning. Reliability Engineering and System Safety, 2013, 115, 91-99.	5.1	58
21	Experimental analysis of a PEM fuel cell performance at variable load with anodic exhaust management optimization. International Journal of Hydrogen Energy, 2013, 38, 385-393.	3.8	46
22	Indirect-Lightning Performance of Overhead Distribution Networks With Complex Topology. IEEE Transactions on Power Delivery, 2009, 24, 2206-2213.	2.9	45
23	Influence of the Return Stroke Current Waveform on the Lightning Performance of Distribution Lines. IEEE Transactions on Power Delivery, 2017, 32, 1800-1808.	2.9	44
24	The Need of Multidisciplinary Approaches and Engineering Tools for the Development and Implementation of the Smart City Paradigm. Proceedings of the IEEE, 2018, 106, 738-760.	16.4	42
25	Estimation of the Statistical Distributions of Lightning Current Parameters at Ground Level From the Data Recorded by Instrumented Towers. IEEE Transactions on Power Delivery, 2004, 19, 1400-1409.	2.9	41
26	Models of Wind-Turbine Main-Shaft Bearings for the Development of Specific Lightning Protection Systems. IEEE Transactions on Electromagnetic Compatibility, 2011, 53, 99-107.	1.4	38
27	Use of the full-wave Finite Element Method for the numerical electromagnetic analysis of LEMP and its coupling to overhead lines. Electric Power Systems Research, 2013, 94, 24-29.	2.1	36
28	Simulation of the Volt/Var Control in Distribution Feeders by Means of a Networked Multiagent System. IEEE Transactions on Industrial Informatics, 2014, 10, 2340-2353.	7.2	33
29	Synchrophasors-Based Distributed Secondary Voltage/VAR Control via Cellular Network. IEEE Transactions on Smart Grid, 2017, 8, 262-274.	6.2	33
30	CIGRE technical brochure on lightning parameters for engineering applications. , 2013, , .		30
31	Assessment of lightning impact frequency for process equipment. Reliability Engineering and System Safety, 2014, 130, 95-105.	5.1	29
32	Lightning Performance Assessment of Power Distribution Lines by Means of Stratified Sampling Monte Carlo Method. IEEE Transactions on Power Delivery, 2018, 33, 2571-2577.	2.9	29
33	Lightning Performance of Overhead Power Distribution Lines in Urban Areas. IEEE Transactions on Power Delivery, 2018, 33, 581-588.	2.9	28
34	Lagrangian relaxation and Tabu Search approaches for the unit commitment problem. , 0, , .		27
35	Volt/var optimization of unbalanced distribution feeders via mixed integer linear programming. International Journal of Electrical Power and Energy Systems, 2015, 72, 40-47.	3.3	27
36	Direct Lightning Performance of Distribution Lines With Shield Wire Considering LEMP Effect. IEEE Transactions on Power Delivery, 2022, 37, 76-84.	2.9	24

#	ARTICLE	IF	CITATIONS
37	SITL and HLA co-simulation platforms: Tools for analysis of the integrated ICT and electric power system. , 2013, , .		23
38	Response of distribution networks to direct and indirect lightning: Influence of surge arresters location, flashover occurrence and environmental shielding. Electric Power Systems Research, 2017, 153, 73-81.	2.1	23
39	Power distribution practices in USA and Europe: impact on power quality. , 0, , .		22
40	Impact of Interdisciplinary Research on Planning, Running, and Managing Electromobility as a Smart Grid Extension. IEEE Access, 2015, 3, 2281-2305.	2.6	22
41	Tests on self-healing metallized polypropylene capacitors for power applications. IEEE Transactions on Power Delivery, 1995, 10, 556-561.	2.9	20
42	Effects of nearby buildings on lightning induced voltages on overhead power distribution lines. Electric Power Systems Research, 2013, 94, 38-45.	2.1	20
43	Voltage transient measurements in a distribution network correlated with data from lightning location system and from sequence of events recorders. Electric Power Systems Research, 2011, 81, 237-253.	2.1	19
44	Vacuum circuit breaker modelling for the assessment of transient recovery voltages: Application to various network configurations. Electric Power Systems Research, 2018, 156, 35-43.	2.1	19
45	An Energy Resource Scheduler Implemented in the Automatic Management System of a Microgrid Test Facility. , 2007, , .		18
46	Influence of load dynamic response on the stability of microgrids during islanding transition. Electric Power Systems Research, 2021, 190, 106607.	2.1	18
47	Models of Wind-Turbine Main Shaft Bearings for the Development of Specific Lightning Protection Systems. , 2007, , .		17
48	Assessment of the Lightning Performance of Compact Overhead Distribution Lines. IEEE Transactions on Power and Energy, 2013, 133, 987-993.	0.1	17
49	ICT-power co-simulation platform for the analysis of communication-based volt/var optimization in distribution feeders. , 2014, , .		16
50	Generic dynamic load models in long-term voltage stability studies. International Journal of Electrical Power and Energy Systems, 2000, 22, 291-301.	3.3	15
51	Lightning performances of distribution lines: sensitivity to computational methods and to data. , 0, , .		15
52	Short-term scheduling of active distribution systems. , 2009, , .		15
53	A Two-Stage Scheduler of Distributed Energy Resources. , 2007, , .		14
54	A distribution network planning model considering neighborhood energy trading. Electric Power Systems Research, 2021, 191, 106894.	2.1	14

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55	Black-start-up simulation of a repowered thermoelectric unit. <i>Control Engineering Practice</i> , 2001, 9, 791-803.	3.2	13
56	A microcontroller-based automatic scheduling system for residential microgrids. , 2009, , .		13
57	Protection against lightning overvoltages in resonant grounded power distribution networks. <i>Electric Power Systems Research</i> , 2014, 113, 121-128.	2.1	13
58	Estimation of the influence of direct strokes on the lightning performance of overhead distribution lines. , 2015, , .		13
59	A Statistical Approach for Estimating the Correlation between Lightning and Faults in Power Distribution Systems. , 2006, , .		12
60	Influence of feasibility constrains on the bidding strategy selection in a day-ahead electricity market session. <i>Electric Power Systems Research</i> , 2009, 79, 1727-1737.	2.1	12
61	Intra-day scheduling of a local energy community coordinated with day-ahead multistage decisions. <i>Sustainable Energy, Grids and Networks</i> , 2022, 29, 100573.	2.3	12
62	Auctions with Explicit Demand-Side Bidding in Competitive Electricity Markets. , 2002, , 53-74.		11
63	Monte Carlo based lightning risk assessment in oil plant tank farms. , 2010, , .		11
64	Dispersed generators interfaced with distribution systems: Dynamic response to faults and perturbations. , 0, , .		10
65	A Feasibility Study of an Auxiliary Power Unit Based on a PEM Fuel Cell for On-Board Applications. <i>Journal of Fuel Cell Science and Technology</i> , 2006, 3, 445-451.	0.8	10
66	Synchronized phasors monitoring during the islanding maneuver of an active distribution network. , 2010, , .		10
67	Lightning performance of a real distribution network with focus on transformer protection. <i>Electric Power Systems Research</i> , 2016, 139, 60-67.	2.1	10
68	Inverse Laplace Transform of the Ground Impedance Matrix of Overhead Lines. <i>IEEE Transactions on Electromagnetic Compatibility</i> , 2018, 60, 2033-2036.	1.4	10
69	Influence of the presence of grounded wires on the lightning performance of a medium-voltage line. <i>Electric Power Systems Research</i> , 2021, 196, 107206.	2.1	10
70	Lightning-induced overvoltages transferred from medium-voltage to low-voltage networks. , 2005, , .		9
71	Development of an RTU for synchrophasors estimation in active distribution networks. , 2009, , .		9
72	An automatic system to locate phase-to-ground faults in medium voltage cable networks based on the wavelet analysis of high-frequency signals. , 2011, , .		9

#	ARTICLE	IF	CITATIONS
73	A procedure to evaluate the risk of failure of distribution transformers insulation due to lightning induced voltages. , 2013, , .		9
74	A New Transient-Based Earth Fault Protection System for Unearthed Meshed Distribution Networks. IEEE Transactions on Power Delivery, 2021, 36, 2585-2594.	2.9	9
75	Using of a cost-based unit commitment algorithm to assist bidding strategy decisions. , 0, , .		8
76	Numerical solution of the Leader Progression Model by means of the Finite Element Method. , 2010, , .		8
77	Use of the full-wave finite element method for the numerical electromagnetic analysis of LEMP and its coupling with overhead lines. , 2011, , .		8
78	Indirect lightning performance of a real distribution network with focus on transformer protection. , 2014, , .		8
79	Estimation of the expected annual number of flashovers in power distribution lines due to negative and positive lightning. Electric Power Systems Research, 2019, 176, 105956.	2.1	8
80	An ADMM Approach for Day-Ahead Scheduling of a Local Energy Community. , 2019, , .		8
81	Lightning protection of a multi-circuit HV-MV overhead line. Electric Power Systems Research, 2020, 180, 106119.	2.1	8
82	Effect of tall instrumented towers on the statistical distributions of lightning current parameters and its influence on the power system lightning performance assessment. European Transactions on Electrical Power, 2003, 13, 365-372.	1.0	7
83	Interaction between grounding systems and nearby lightning for the calculation of overvoltages in overhead distribution lines. , 2011, , .		7
84	Protection systems against lightning-originated overvoltages in resonant grounded power distribution systems. , 2012, , .		7
85	Volt/var optimization of unbalanced distribution feeders via Mixed Integer Linear Programming. , 2014, , .		7
86	Advancements in insulation coordination for improving lightning performance of distribution lines. , 2015, , .		7
87	Integration of traffic and grid simulator for the analysis of e-mobility impact on power distribution networks. , 2015, , .		7
88	Robust Optimization for Virtual Power Plants. Lecture Notes in Computer Science, 2017, , 17-30.	1.0	7
89	Comparison Between Multistage Stochastic Optimization Programming and Monte Carlo Simulations for the Operation of Local Energy Systems. , 2018, , .		7
90	Assessment of the Effects of the Electromagnetic Pulse on the Response of Overhead Distribution Lines to Direct Lightning Strikes. IEEE Open Access Journal of Power and Energy, 2021, 8, 522-531.	2.5	7

#	ARTICLE	IF	CITATIONS
91	DSP-Controlled Test Set-up for the Performance Assessment of an Autonomous Power Unit Equipped with a PEM Fuel Cell. , 2007, , .		6
92	Integration of distributed energy resources in distribution power systems. , 2016, , 15-50.		6
93	Optimal operation of vehicle-to-grid and grid-to-vehicle systems integrated with renewables. , 2016, , .		6
94	Simulation of the Load Following Capability of a Repowered Plant During the First Phase of the System Restoration. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1999, 32, 7231-7240.	0.4	5
95	Steam unit and gas turbine power station reliable control for network black-start-up. , 0, , .		5
96	Lightning-Correlated Faults in Power Distribution Networks. , 2007, , .		5
97	A procedure for the automatic scheduling of distributed energy resources in medium voltage networks. , 2009, , .		5
98	A full-wave analysis of lightning-induced voltages on distribution lines considering the conductive coupling between the lightning channel and the grounding system. , 2012, , .		5
99	Multistage day-ahead scheduling of the distributed energy sources in a local energy community. , 2020, , .		5
100	Procurement Cost Minimization of an Energy Community with Biogas, Photovoltaic and Storage Units. , 2021, , .		5
101	Two-stage Scheduling of Electrical Vehicle Charging Station Clusters in a Community of DC Microgrids. , 2021, , .		5
102	Analysis of black-startup and islanding capabilities of a combined cycle power plant. , 2008, , .		4
103	Calculation of lightning-induced voltages on an overhead line taking into account the presence of nearby buildings. , 2011, , .		4
104	Selection of MV/LV transformers to be protected by surge arresters against indirect lightning overvoltages. , 2014, , .		4
105	Lightning induced overvoltages on overhead lines shielded by nearby buildings. , 2016, , .		4
106	A co-simulation platform for the analysis of the impact of electromobility scenarios on the urban distribution network. , 2016, , .		4
107	New Integral Formulas for the Elements of the Transient Ground Resistance Matrix of Multiconductor Lines. IEEE Transactions on Electromagnetic Compatibility, 2017, 59, 193-198.	1.4	4
108	Scenario tree generation for the optimization model of a parking lot for electric vehicles. , 2017, , .		4

#	ARTICLE	IF	CITATIONS
109	Lightning Protection of a Compact MV Power Line Sharing the same Poles of a HV Line. , 2018, , .		4
110	Influence of the Radial Electric Field Appraisal on Lightning-Induced Overvoltages Statistical Assessment. IEEE Transactions on Electromagnetic Compatibility, 2019, 61, 637-643.	1.4	4
111	Power Loss Reduction in the Energy Resource Scheduling of a Local Energy Community. , 2020, , .		4
112	Lagrangian heuristics based on disaggregated Bundle for hydrothermal unit commitment. , 0, , .		3
113	Optimal Operating Point Calculation for Medium Voltage Distribution Systems. , 2007, , .		3
114	Power system islands, autonomous microgrids and relevant instrumentation. , 2012, , .		3
115	Lightning performance of distribution lines due to positive and negative indirect lightning flashes. , 2017, , .		3
116	Mixed integer programming model for the operation of an experimental low-voltage network. , 2017, , .		3
117	A New Calculation Method of the Lightning Electromagnetic Field Considering Variable Return Stroke Velocity. IEEE Transactions on Electromagnetic Compatibility, 2021, 63, 152-159.	1.4	3
118	Performance analysis of a transient-based earth fault protection system for unearthed and compensated radial distribution networks. Electric Power Systems Research, 2021, 197, 107306.	2.1	3
119	Voltage transient measurements in a distribution network and sequence of relay events associated to lightning strokes detected by LLS. , 2010, , .		2
120	Reactive power control of photovoltaic units over wireless cellular networks. , 2015, , .		2
121	Calculation of lightning-induced overvoltages on urban overhead lines above a lossy ground plane "appraisal of the shielding effect of nearby buildings. , 2017, , .		2
122	Characterization of Congestion in Distribution Network Considering High Penetration of PV Generation and EVs. , 2019, , .		2
123	Impact of neighborhood energy trading and renewable energy communities on the operation and planning of distribution networks. , 2021, , 125-174.		2
124	9 Application system design: Complex systems management and automation. , 2017, , 281-316.		2
125	Three-Phase State Estimation of a Low-Voltage Distribution Network with Kalman Filter. Energies, 2021, 14, 7421.	1.6	2
126	Correction to "Lagrangian heuristics based on disaggregated bundle methods for hydrothermal unit commitment". IEEE Transactions on Power Systems, 2003, 18, 974-974.	4.6	1



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127	Effects of line grounding electrodes modeling on the evaluation of lightning-induced overvoltages in overhead power distribution lines. , 0, , .		1
128	Power system dynamics during large power imbalance phenomena: role of the thermoelectric units. , 2004, , .		1
129	Bidding strategy selection in a day-ahead electricity auction system. , 2005, , .		1
130	Design, Implementation and Testing of an Automatic Power Management System for Residential Stand-alone Microgrids with Hybrid Power Supply. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 13666-13672.	0.4	1
131	Performance Analysis of a Communication-Supported Earth Fault Protection System of Medium Voltage Loop and Meshed Networks. , 2018, , .		1
132	Statistical Characterization of Lightning Induced Overvoltage Waveforms in Overhead Lines. , 2019, , .		1
133	Day-ahead Multistage Stochastic Optimization of a Group of Electric Vehicle Charging Stations. , 2021, , .		1
134	Optimal Scheduling of a Multiunit Hydro Power Station in a Short-Term Planning Horizon. Profiles in Operations Research, 2015, , 167-181.	0.3	1
135	Influence of the Electromagnetic Pulse on the Overvoltages Due to Direct Lightning to Lines over Soils with Different Ground Conductivity. , 2021, , .		1
136	Lego modelling of the power station electrical auxiliaries for a real-time training simulator. , 0, , .		0
137	Black-Startup Simulation of a Repowered Thermoelectric Unit. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2000, 33, 73-80.	0.4	0
138	Indirect-Lightning Performance of Distribution Lines: Influence of Protection Devices. , 0, , .		0
139	An optimization problem in the electricity market. 4or, 2007, 5, 247-259.	1.0	0
140	On the FEM and TL approaches for the calculation of lightning - induced voltages on overhead lines. , 2012, , .		0
141	Two-stage network processor for an independent HVDC grid supervisory control. , 2016, , .		0
142	Plenary speaker. , 2017, , .		0
143	Statistical Assessment of Lightning-Induced Overvoltages in Low Voltage Lines. , 2018, , .		0
144	Inverse Laplace Transform of Sundeâ€™s Formula for the Ground Impedance of Buried Cables. , 2019, , .		0

#	ARTICLE	IF	CITATIONS
145	Basics of Power Systems Analysis. Springer Handbooks, 2021, , 273-366.	0.3	0
146	Comparison between two Calculation Tools for the Appraisal of Lightning Induced Voltages. , 2022, , .		0