

François Bouffard

List of Publications by Year in descending order

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68
papers

3,964
citations

218592

26
h-index

302012

39
g-index

68
all docs

68
docs citations

68
times ranked

2832
citing authors

#	ARTICLE	IF	CITATIONS
1	Stochastic Security for Operations Planning With Significant Wind Power Generation. IEEE Transactions on Power Systems, 2008, 23, 306-316.	4.6	577
2	Decentralized Demand-Side Contribution to Primary Frequency Control. IEEE Transactions on Power Systems, 2011, 26, 411-419.	4.6	408
3	Market-Clearing With Stochastic Security Part I: Formulation. IEEE Transactions on Power Systems, 2005, 20, 1818-1826.	4.6	347
4	Scheduling and Pricing of Coupled Energy and Primary, Secondary, and Tertiary Reserves. Proceedings of the IEEE, 2005, 93, 1970-1983.	16.4	248
5	An Electricity Market With a Probabilistic Spinning Reserve Criterion. IEEE Transactions on Power Systems, 2004, 19, 300-307.	4.6	214
6	Electric Vehicle Aggregator/System Operator Coordination for Charging Scheduling and Services Procurement. IEEE Transactions on Power Systems, 2013, 28, 1806-1815.	4.6	201
7	Flexibility Envelopes for Power System Operational Planning. IEEE Transactions on Sustainable Energy, 2015, 6, 800-809.	5.9	172
8	Market-Clearing With Stochastic Security Part II: Case Studies. IEEE Transactions on Power Systems, 2005, 20, 1827-1835.	4.6	156
9	Centralised and distributed electricity systems. Energy Policy, 2008, 36, 4504-4508.	4.2	129
10	Towards Full Integration of Demand-Side Resources in Joint Forward Energy/Reserve Electricity Markets. IEEE Transactions on Power Systems, 2012, 27, 280-289.	4.6	120
11	Identification of Umbrella Constraints in DC-Based Security-Constrained Optimal Power Flow. IEEE Transactions on Power Systems, 2013, 28, 3924-3934.	4.6	110
12	Multiobjective Optimization Dispatch for Microgrids With a High Penetration of Renewable Generation. IEEE Transactions on Sustainable Energy, 2015, 6, 1306-1314.	5.9	105
13	Optimal planning of microgrid power and operating reserve capacity. Applied Energy, 2018, 210, 1229-1236.	5.1	98
14	Stochastic security for operations planning with significant wind power generation. , 2008, , .		86
15	Keeping the lights on and the information flowing. IEEE Power and Energy Magazine, 2009, 7, 50-60.	1.6	70
16	Reconstructing Operating Reserve: Flexibility for Sustainable Power Systems. IEEE Transactions on Sustainable Energy, 2015, 6, 1624-1637.	5.9	63
17	Reconciling social welfare, agent profits, and consumer payments in electricity pools. IEEE Transactions on Power Systems, 2003, 18, 452-459.	4.6	58
18	A Two-Stage Framework for Power Transformer Asset Maintenance Management Part I: Models and Formulations. IEEE Transactions on Power Systems, 2013, 28, 1395-1403.	4.6	51

#	ARTICLE	IF	CITATIONS
19	Energy-Centric Flexibility Management in Power Systems. IEEE Transactions on Power Systems, 2016, 31, 5071-5081.	4.6	51
20	Microgrid Economic Dispatch With Energy Storage Systems. IEEE Transactions on Smart Grid, 2018, 9, 3039-3047.	6.2	51
21	The value of operational flexibility in power systems with significant wind power generation. , 2011, , .		46
22	Design and Real-Time Implementation of a Centralized Microgrid Control System With Rule-Based Dispatch and Seamless Transition Function. IEEE Transactions on Industry Applications, 2020, 56, 3168-3177.	3.3	44
23	Acceleration of Umbrella Constraint Discovery in Generation Scheduling Problems. IEEE Transactions on Power Systems, 2015, 30, 2100-2109.	4.6	39
24	Economic Dispatch Under Uncertainty: The Probabilistic Envelopes Approach. IEEE Transactions on Power Systems, 2017, 32, 1701-1710.	4.6	33
25	Adaptive Coordination for Power and SoC Limiting Control of Energy Storage in an Islanded AC Microgrid With Impact Load. IEEE Transactions on Power Delivery, 2020, 35, 580-591.	2.9	30
26	Building Energy Management With Reinforcement Learning and Model Predictive Control: A Survey. IEEE Access, 2022, 10, 27853-27862.	2.6	30
27	Business cases for isolated and grid connected microgrids: Methodology and applications. Applied Energy, 2017, 205, 105-115.	5.1	28
28	Contingency-Type Reserve Leveraged Through Aggregated Thermostatically-Controlled Loads Part I: Characterization and Control. IEEE Transactions on Power Systems, 2016, 31, 1972-1980.	4.6	27
29	On the Loadability Sets of Power Systems Part I: Characterization. IEEE Transactions on Power Systems, 2017, 32, 137-145.	4.6	27
30	On bilevel planning of advanced microgrids. International Journal of Electrical Power and Energy Systems, 2018, 96, 422-431.	3.3	25
31	A Two-Stage Framework for Power Transformer Asset Maintenance Management Part II: Validation Results. IEEE Transactions on Power Systems, 2013, 28, 1404-1414.	4.6	21
32	On the Loadability Sets of Power Systems Part II: Minimal Representations. IEEE Transactions on Power Systems, 2017, 32, 146-156.	4.6	21
33	Decision tree-based optimization for flexibility management for sustainable energy microgrids. Applied Energy, 2021, 290, 116772.	5.1	21
34	Spatio-Temporal Flexibility Management in Low-Carbon Power Systems. IEEE Transactions on Sustainable Energy, 2020, 11, 2593-2605.	5.9	20
35	Design of Hybrid-Storage-Based Virtual Synchronous Machine With Energy Recovery Control Considering Energy Consumed in Inertial and Damping Support. IEEE Transactions on Power Electronics, 2022, 37, 2648-2666.	5.4	18
36	Generation Dispatch Techniques for Remote Communities With Flexible Demand. IEEE Transactions on Sustainable Energy, 2015, 6, 720-728.	5.9	15

#	ARTICLE	IF	CITATIONS
37	Implementation and CHIL Testing of a Microgrid Control System. , 2018, , .		15
38	Generalized Uplifts in Pool-Based Electricity Markets. , 2005, , 193-214.		14
39	Intra-hour wind power characteristics for flexible operations. , 2012, , .		14
40	A Fast Flexibility-Driven Generation Portfolio Planning Method for Sustainable Power Systems. IEEE Transactions on Sustainable Energy, 2021, 12, 368-377.	5.9	13
41	The ADDRESS Project: An architecture and markets to enable active demand. , 2009, , .		12
42	Identification of low-frequency oscillation mode and improved damping design for virtual synchronous machines in microgrid. IET Generation, Transmission and Distribution, 2019, 13, 2993-3001.	1.4	12
43	Contingency-Type Reserve Leveraged Through Aggregated Thermostatically-Controlled Loads”Part II: Case Studies. IEEE Transactions on Power Systems, 2016, 31, 1981-1989.	4.6	11
44	Building load management clusters using reinforcement learning. , 2017, , .		10
45	A Data-Driven Uncertainty Quantification Method for Stochastic Economic Dispatch. IEEE Transactions on Power Systems, 2022, 37, 812-815.	4.6	10
46	The challenge with building a business case for smart grids. , 2010, , .		9
47	Prediction of Umbrella Constraints. , 2018, , .		9
48	An energy management approach for electric vehicle fast charging station. , 2017, , .		8
49	Improved VSG Control for Type-IV Wind Turbine Generator Considering Operation Limitations. , 2019, , .		7
50	Integrating learning and explicit model predictive control for unit commitment in microgrids. Applied Energy, 2022, 306, 118026.	5.1	7
51	Virtual Synchronous Machine Control for Low-Inertia Power System Considering Energy Storage Limitation. , 2019, , .		6
52	A methodology to study the impact of an increasingly nonconventional load mix on primary frequency control. , 2009, , .		5
53	Integrating Demand Response into agent-based models of electricity markets. , 2012, , .		5
54	Electric vehicle aggregator/system operator coordination for charging scheduling and services procurement. , 2013, , .		5

#	ARTICLE	IF	CITATIONS
55	An online framework for integration of demand response in residential load management. , 2017, , .		5
56	Control of microgrids with distributed energy storage operating in Islanded mode. , 2017, , .		4
57	A Modular Generic Microgrid Controller Adaptive to Different Compositions. , 2020, , .		4
58	Identification of umbrella constraints in DC-based security-constrained optimal power flow. , 2014, , .		3
59	Acceleration of umbrella constraint discovery in generation scheduling problems. , 2015, , .		3
60	On the loadability sets of power systems " Part I: Characterization. , 2017, , .		3
61	Power System Security and Short-Term Electricity Market Equilibrium. , 2006, , .		2
62	Fundamental results on the marginal valuation of coordinated preventive and corrective security. , 2009, , .		2
63	Characterizing statistical bounds on aggregated demand-based primary frequency control. , 2013, , .		2
64	Towards an integrated approach to the valuation of secured real and reactive power deliveries. , 2008, , .		1
65	The ADDRESS European Project: a large-scale R&D initiative for the development of active demand. , 2011, , 423-444.		1
66	Flexibility Envelopes for Distribution Networks. , 2018, , .		1
67	A Generalized Multi-filter-based Oscillation Damping Approach for Droop-controlled Inverters in Microgrid. , 2018, , .		1
68	Discussion of "New Models for Integrated Short-Term Forward Electricity Markets" IEEE Transactions on Power Systems, 2004, 19, 2120-2121.	4.6	0