

Johanna L Mathieu

List of Publications by Year in Descending Order

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Version: 2024-04-28

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

95
papers

1,944
citations

23
h-index

41
g-index

114
ext. papers

2,482
ext. citations

5.3
avg, IF

5.51
L-index

#	Paper	IF	Citations
95	Mitigating Voltage Unbalance Using Distributed Solar Photovoltaic Inverters. <i>IEEE Transactions on Power Systems</i> , 2021 , 36, 2642-2651	7	7
94	Strategies for Network-Safe Load Control With a Third-Party Aggregator and a Distribution Operator. <i>IEEE Transactions on Power Systems</i> , 2021 , 36, 3329-3339	7	3
93	Impact of Market Timing on the Profit of a Risk-Averse Load Aggregator. <i>IEEE Transactions on Power Systems</i> , 2020 , 35, 3970-3980	7	2
92	Separating Feeder Demand Into Components Using Substation, Feeder, and Smart Meter Measurements. <i>IEEE Transactions on Smart Grid</i> , 2020 , 11, 3280-3290	10.7	10
91	A Method for Ensuring a Load Aggregator's Power Deviations Are Safe for Distribution Networks. <i>Electric Power Systems Research</i> , 2020 , 189, 106781	3.5	3
90	Baseline estimation of commercial building HVAC fan power using tensor completion. <i>Electric Power Systems Research</i> , 2020 , 189, 106624	3.5	0
89	. <i>Proceedings of the IEEE</i> , 2020 , 108, 1640-1655	14.3	6
88	Overcoming the practical challenges of applying Steinmetz circuit design to mitigate voltage unbalance using distributed solar PV. <i>Electric Power Systems Research</i> , 2020 , 188, 106563	3.5	2
87	Water distribution networks as flexible loads: A chance-constrained programming approach. <i>Electric Power Systems Research</i> , 2020 , 188, 106570	3.5	5
86	Do commercial buildings become less efficient when they provide grid ancillary services?. <i>Energy Efficiency</i> , 2020 , 13, 487-501	3	7
85	. <i>IEEE Transactions on Control of Network Systems</i> , 2019 , 6, 1223-1234	4	16
84	An Optimal Power-Flow Approach to Improve Power System Voltage Stability Using Demand Response. <i>IEEE Transactions on Control of Network Systems</i> , 2019 , 6, 1015-1025	4	13
83	Chance-constrained water pumping managing power distribution network constraints 2019 ,		2
82	Coordination between an Aggregator and Distribution Operator to Achieve Network-Aware Load Control 2019 ,		4
81	2019 ,		1
80	Applying Steinmetz Circuit Design to Mitigate Voltage Unbalance Using Distributed Solar PV 2019 ,		2
79	. <i>IEEE Transactions on Power Systems</i> , 2019 , 34, 1569-1578	7	10

78	Chance Constrained Reserve Scheduling Using Uncertain Controllable Loads Part I: Formulation and Scenario-Based Analysis. <i>IEEE Transactions on Smart Grid</i> , 2019 , 10, 1608-1617	10.7	37
77	. <i>IEEE Transactions on Smart Grid</i> , 2019 , 10, 1618-1625	10.7	15
76	Ambiguous risk constraints with moment and unimodality information. <i>Mathematical Programming</i> , 2019 , 173, 151-192	2.1	26
75	Managing Communication Delays and Model Error in Demand Response for Frequency Regulation. <i>IEEE Transactions on Power Systems</i> , 2018 , 33, 1299-1308	7	12
74	Real-Time Energy Disaggregation of a Distribution Feeder's Demand Using Online Learning. <i>IEEE Transactions on Power Systems</i> , 2018 , 33, 4730-4740	7	16
73	Use-Phase Drives Lithium-Ion Battery Life Cycle Environmental Impacts When Used for Frequency Regulation. <i>Environmental Science & Technology</i> , 2018 , 52, 10163-10174	10.3	16
72	Disaggregating Load by Type from Distribution System Measurements in Real Time. <i>The IMA Volumes in Mathematics and Its Applications</i> , 2018 , 413-437	0.5	1
71	The Flexibility of Thermostatically Controlled Loads as a Function of Price Notice Time 2018 ,		2
70	2018 ,		2
69	Improving Power System Voltage Stability by Using Demand Response to Maximize the Distance to the Closest Saddle-Node Bifurcation 2018 ,		3
68	Distributionally Robust Chance Constrained Optimal Power Flow Assuming Log-Concave Distributions 2018 ,		6
67	Price and capacity competition in balancing markets with energy storage. <i>Energy Systems</i> , 2017 , 8, 169-197	10	10
66	Ancillary Services Through Demand Scheduling and Control of Commercial Buildings. <i>IEEE Transactions on Power Systems</i> , 2017 , 32, 186-197	7	31
65	Hybrid Stochastic-Deterministic Multiperiod DC Optimal Power Flow. <i>IEEE Transactions on Power Systems</i> , 2017 , 32, 3934-3945	7	4
64	Modeling and Optimal Operation of Distributed Battery Storage in Low Voltage Grids. <i>IEEE Transactions on Power Systems</i> , 2017 , 32, 4340-4350	7	47
63	A linear approach to manage input delays while supplying frequency regulation using residential loads 2017 ,		1
62	Using demand response to improve power system voltage stability margins 2017 ,		4
61	Effects of load control for real-time energy balancing on distribution network constraints 2017 ,		1

60	Two-stage distributionally robust optimal power flow with flexible loads 2017 ,		4
59	Policy and market barriers to energy storage providing multiple services. <i>Electricity Journal</i> , 2017 , 30, 50-56	2.6	23
58	The impact of load models in an algorithm for improving voltage stability via demand response 2017 ,		3
57	Performance Limits of Thermostatically Controlled Loads under Probabilistic Switching. <i>IFAC-PapersOnLine</i> , 2017 , 50, 8873-8880	0.7	1
56	An experimental study of energy consumption in buildings providing ancillary services 2017 ,		1
55	Explaining inefficiencies in commercial buildings providing power system ancillary services. <i>Energy and Buildings</i> , 2017 , 152, 216-226	7	17
54	Comparing Centralized and Decentralized Contract Design Enabling Direct Load Control for Reserves. <i>IEEE Transactions on Power Systems</i> , 2016 , 31, 2044-2054	7	27
53	Adaptive state estimation and control of thermostatic loads for real-time energy balancing 2016 ,		8
52	Reducing the computational effort of stochastic multi-period DC optimal power flow with storage 2016 ,		4
51	. <i>IEEE Transactions on Power Systems</i> , 2016 , 1-1	7	74
50	Emissions impacts of using energy storage for power system reserves. <i>Applied Energy</i> , 2016 , 168, 444-456	0.7	45
49	A Comparison of Robust and Probabilistic Reliability for Systems with Renewables and Responsive Demand 2016 ,		6
48	Impact of uncertainty from load-based reserves and renewables on dispatch costs and emissions 2016 ,		1
47	Distributionally robust risk-constrained optimal power flow using moment and unimodality information 2016 ,		13
46	2016 ,		1
45	Scheduling distributed energy storage units to provide multiple services under forecast error. <i>International Journal of Electrical Power and Energy Systems</i> , 2015 , 72, 48-57	5.1	55
44	Uncertainty in Demand Response Identification, Estimation, and Learning 2015 , 56-70		5
43	2015 ,		2

42	. <i>IEEE Transactions on Power Systems</i> , 2015 , 30, 763-772	7	130
41	Inferring the behavior of distributed energy resources with online learning 2015 ,		5
40	Enabling renewable resource integration: The balance between robustness and flexibility 2015 ,		4
39	Stochastic Dual Dynamic Programming to schedule energy storage units providing multiple services 2015 ,		6
38	2015 ,		16
37	How Baseline Model Implementation Choices Affect Demand Response Assessments. <i>Journal of Solar Energy Engineering, Transactions of the ASME</i> , 2015 , 137,	2.3	8
36	Data-driven optimization approaches for optimal power flow with uncertain reserves from load control 2015 ,		7
35	Applying Networked Estimation and Control Algorithms to Address Communication Bandwidth Limitations and Latencies in Demand Response 2015 ,		10
34	2015 ,		10
33	Ancillary services to the grid from commercial buildings through demand scheduling and control 2015 ,		8
32	Resource and revenue potential of California residential load participation in ancillary services. <i>Energy Policy</i> , 2015 , 80, 76-87	7.2	37
31	Stochastic Optimal Power Flow with Uncertain Reserves from Demand Response 2014 ,		29
30	. <i>IEEE Transactions on Power Systems</i> , 2014 , 29, 1287-1295	7	29
29	Adaptive demand response: Online learning of restless and controlled bandits 2014 ,		11
28	Demand response with moving horizon estimation of individual thermostatic load states from aggregate power measurements 2014 ,		9
27	Modeling, identification, and optimal control of batteries for power system applications 2014 ,		24
26	Scheduling distributed energy storage units to provide multiple services 2014 ,		19
25	Control of thermostatic loads using moving horizon estimation of individual load states 2014 ,		13

24	2014,	7
23	Uncertainty in the flexibility of aggregations of demand response resources 2013,	39
22	Decentralized contract design for demand response 2013,	9
21	Modeling options for demand side participation of thermostatically controlled loads 2013,	49
20	Maximizing the potential of energy storage to provide fast frequency control 2013,	27
19	Residential Demand Response program design: Engineering and economic perspectives 2013,	6
18	Planning and control of Electric Vehicles using dynamic energy capacity models 2013,	2
17	. <i>IEEE Transactions on Power Systems</i> , 2013 , 28, 430-440	7 339
16	2013,	31
15	A unified analysis of security-constrained OPF formulations considering uncertainty, risk, and controllability in single and multi-area systems 2013,	7
14	2013,	2
13	Understanding the Effect of Baseline Modeling Implementation Choices on Analysis of Demand Response Performance 2013,	2
12	Energy arbitrage with thermostatically controlled loads 2013,	23
11	State Estimation and Control of Heterogeneous Thermostatically Controlled Loads for Load Following 2012,	68
10	Understanding the Effect of Baseline Modeling Implementation Choices on Analysis of Demand Response Performance 2012,	5
9	2012,	4
8	2011,	41
7	Quantifying Changes in Building Electricity Use, With Application to Demand Response. <i>IEEE Transactions on Smart Grid</i> , 2011 , 2, 507-518	10.7 184

6	Variability in automated responses of commercial buildings and industrial facilities to dynamic electricity prices. <i>Energy and Buildings</i> , 2011 , 43, 3322-3330	7	50
5	Transformation of a Mismatched Nonlinear Dynamic System into Strict Feedback Form. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2011 , 133,	1.6	4
4	Arsenic remediation of drinking water using iron-oxide coated coal bottom ash. <i>Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering</i> , 2010 , 45, 1446-60	2.3	13
3	Characterizing the Response of Commercial and Industrial Facilities to Dynamic Pricing Signals From the Utility 2010 ,		11
2	Modeling, Analysis, and Control of Demand Response Resources		23
1	Age and perceived benefits are associated with willingness to participate in an electric load control program		2