Mark O'Malley

List of Publications by Year
in descending order

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76 papers	5,275 citations	172457 29 h-index	214800 47 g-index
77 all docs	77 docs citations	77 times ranked	3701 citing authors

#	Article	IF	Citations
1	Unit Commitment for Systems With Significant Wind Penetration. IEEE Transactions on Power Systems, 2009, 24, 592-601.	6.5	587
2	Evaluation of Power System Flexibility. IEEE Transactions on Power Systems, 2012, 27, 922-931.	6.5	455
3	Impacts of large amounts of wind power on design and operation of power systems, results of IEA collaboration. Wind Energy, 2011, 14, 179-192.	4.2	342
4	Capacity Value of Wind Power. IEEE Transactions on Power Systems, 2011, 26, 564-572.	6.5	292
5	Stochastic Optimization Model to Study the Operational Impacts of High Wind Penetrations in Ireland. IEEE Transactions on Power Systems, 2011, 26, 1367-1379.	6.5	280
6	Demand Response for Ancillary Services. IEEE Transactions on Smart Grid, 2013, 4, 1988-1995.	9.0	264
7	Studying the Maximum Instantaneous Non-Synchronous Generation in an Island Systemâ€"Frequency Stability Challenges in Ireland. IEEE Transactions on Power Systems, 2014, 29, 2943-2951.	6.5	231
8	A Steady-State Voltage Stability Analysis of Power Systems With High Penetrations of Wind. IEEE Transactions on Power Systems, 2010, 25, 433-442.	6.5	212
9	Base-Load Cycling on a System With Significant Wind Penetration. IEEE Transactions on Power Systems, 2010, 25, 1088-1097.	6.5	210
10	Studying the Variability and Uncertainty Impacts of Variable Generation at Multiple Timescales. IEEE Transactions on Power Systems, 2012, 27, 1324-1333.	6.5	198
11	Controllers of Ziegler-Nichols type for unstable process with time delay. International Journal of Control, 1989, 49, 1273-1284.	1.9	167
12	Transmission, Variable Generation, and Power System Flexibility. IEEE Transactions on Power Systems, 2015, 30, 57-66.	6.5	146
13	Quantifying the Total Net Benefits of Grid Integrated Wind. IEEE Transactions on Power Systems, 2007, 22, 605-615.	6.5	98
14	Impact of Wind Forecast Error Statistics Upon Unit Commitment. IEEE Transactions on Sustainable Energy, 2012, 3, 760-768.	8.8	98
15	Capacity Value of Wind Power, Calculation, and Data Requirements: the Irish Power System Case. IEEE Transactions on Power Systems, 2011, 26, 420-430.	6.5	93
16	Wind power myths debunked. IEEE Power and Energy Magazine, 2009, 7, 89-99.	1.6	87
17	Optimal Utilization of Distribution Networks for Energy Harvesting. IEEE Transactions on Power Systems, 2007, 22, 467-475.	6.5	86
18	Accommodating Variability in Generation Planning. IEEE Transactions on Power Systems, 2013, 28, 158-169.	6.5	83

#	Article	IF	Citations
19	Impact of pumped storage on power systems with increasing wind penetration. , 2009, , .		75
20	The role of power system flexibility in generation planning. , 2011, , .		73
21	Wind Turbine Modelling for Power System Stability Analysisâ€"A System Operator Perspective. IEEE Transactions on Power Systems, 2007, 22, 929-936.	6.5	72
22	Electricity, gas, heat integration via residential hybrid heating technologies â€“ An investment model assessment. Energy, 2016, 109, 906-919.	8.8	69
23	Spatial variability in winter NAOâ€"wind speed relationships in western Europe linked to concomitant states of the East Atlantic and Scandinavian patterns. Quarterly Journal of the Royal Meteorological Society, 2017, 143, 552-562.	2.7	58
24	Unit Commitment With Dynamic Cycling Costs. IEEE Transactions on Power Systems, 2012, 27, 2196-2205.	6.5	56
25	Short-Term Energy Balancing With Increasing Levels of Wind Energy. IEEE Transactions on Sustainable Energy, 2012, 3, 769-776.	8.8	55
26	Identification and Correction of Outliers in Wind Farm Time Series Power Data. IEEE Transactions on Power Systems, 2016, 31, 4197-4205.	6.5	53
27	Modeling the Impact of a Wind Power Producer as a Price-Maker. IEEE Transactions on Power Systems, 2014, 29, 2723-2732.	6.5	51
28	Rolling Unit Commitment for Systems with Significant Installed Wind Capacity. , 2007, , .		50
29	Alternatives No More: Wind and Solar Power Are Mainstays of a Clean, Reliable, Affordable Grid. IEEE Power and Energy Magazine, 2015, 13, 78-87.	1.6	50
30	Electrification of residential space heating considering coincidental weather events and building thermal inertia: A system-wide planning analysis. Energy, 2017, 127, 136-154.	8.8	43
31	System Impact Studies for Near 100% Renewable Energy Systems Dominated by Inverter Based Variable Generation. IEEE Transactions on Power Systems, 2022, 37, 3249-3258.	6.5	43
32	Integration of Renewable Energy into Present and Future Energy Systems. , 2011, , 609-706.		39
33	Assessment of power system flexibility: A high-level approach. , 2012, , .		32
34	Planning and operating non-firm distributed generation. IET Renewable Power Generation, 2009, 3, 455.	3.1	31
35	Integration of variable generation: Capacity value and evaluation of flexibility. , 2010, , .		29
36	A flexible power system operations simulation model for assessing wind integration. , 2011, , .		29

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37	Assessing the system and investor value of utility-scale solar PV. Renewable and Sustainable Energy Reviews, 2016, 64, 506-517.	16.4	29
38	The efficiency of Ireland's Renewable Energy Feed-In Tariff (REFIT) for wind generation. Energy Policy, 2011, 39, 4911-4919.	8.8	25
39	A 34-year simulation of wind generation potential for Ireland and the impact of large-scale atmospheric pressure patterns. Renewable Energy, 2017, 106, 165-176.	8.9	25
40	Flexibility From Energy Systems Integration: Supporting Synergies Among Sectors. IEEE Power and Energy Magazine, 2019, 17, 67-78.	1.6	25
41	Impact of wind power on the unit commitment, operating reserves, and market design. , 2011, , .		23
42	Heat Electrification: The Latest Research in Europe. IEEE Power and Energy Magazine, 2018, 16, 69-78.	1.6	22
43	Reserves in Stochastic Unit Commitment: An Irish System Case Study. IEEE Transactions on Sustainable Energy, 2015, 6, 1029-1038.	8.8	20
44	Power system flexibility assessment — State of the art. , 2012, , .		19
45	Capacity value of solar power. , 2012, , .		18
46	Potential of data centers for fast frequency response services in synchronously isolated power systems. Renewable and Sustainable Energy Reviews, 2021, 151, 111547.	16.4	16
47	Quantifying the Impact of Connection Policy on Distributed Generation. IEEE Transactions on Energy Conversion, 2007, 22, 189-196.	5.2	14
48	A methodology for estimating the capacity value of demand response. , 2014, , .		13
49	Comment on â€œAir Emissions Due to Wind and Solar Powerâ€• Environmental Science & Technology, 2009, 43, 6106-6107.	10.0	12
50	Enabling Power System Transformation Globally: A System Operator Research Agenda for Bulk Power System Issues. IEEE Power and Energy Magazine, 2021, 19, 45-55.	1.6	11
51	Wind Penetration Studies on the Island of Ireland. Wind Engineering, 2004, 28, 27-41.	1.9	10
52	New tool for integration of wind power forecasting into power system operation. , 2009, , .		10
53	Regulating power from supermarket refrigeration. , 2014, , .		10
54	The importance of sub-hourly modeling with a high penetration of wind generation. , 2012, , .		9

#	Article	IF	Citations
55	Strategic Participation of Residential Thermal Demand Response in Energy and Capacity Markets. IEEE Transactions on Smart Grid, 2021, 12, 3070-3085.	9.0	9
56	Impact of variable generation in generation resource planning models. , 2010, , .		8
57	Variable Generation, Reserves, Flexibility and Policy Interactions. , 2014, , .		8
58	Quantifying the long-term power system benefits of electric vehicles. , 2012, , .		7
59	Optimizing wind farm locations to reduce variability and increase generation. , 2014, , .		7
60	An integrated Building-to-Grid model for evaluation of energy arbitrage value of Thermal Storage. , 2016, , .		7
61	Challenges of Increased Wind Energy Penetration in Ireland. Wind Engineering, 2004, 28, 43-55.	1.9	6
62	Effect of Short-Term Risk-Aversive Dispatch on a Complex System Model for Power Systems. IEEE Transactions on Power Systems, 2011, 26, 460-469.	6.5	6
63	A Blast of Activity. IEEE Power and Energy Magazine, 2011, 9, 26-35.	1.6	5
64	The drivers of power system emissions: an econometric analysis of load, wind and forecast errors. Energy Systems, 2018, 9, 853-872.	3.0	5
65	Foreword for the Special Section on Wind and Solar Energy: Uncovering and Accommodating Their Impacts on Electricity Markets. IEEE Transactions on Power Systems, 2015, 30, 1557-1559.	6.5	4
66	Editorial: Towards 100% Renewable Energy System. IEEE Transactions on Power Systems, 2022, 37, 3187-3189.	6.5	4
67	Managing wind uncertainty and variability in the Irish power system. , 2009, , .		3
68	Multi-mode operation of Combined Cycle Gas Turbines with increasing wind penetration. , 2010, , .		3
69	Recommended Practices for wind integration studies. , 2014, , .		3
70	Data sensitivities for variable renewable energy curtailment estimation. , 2014, , .		2
71	Market designs for the primary frequency response ancillary service. , 2014, , .		1
72	Evaluation of flexibility impacts of thermal electric storage using an integrated building-to-grid model. , 2017, , .		1

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73	Assessment of the Wind Integration Potential of Residential Thermal Storage. , 2018, , .		1
74	Quantifying the Impact of Connection Policy on Distributed Generation. IEEE Power Engineering Society General Meeting, 2007, , .	0.0	0
75	Improved system operations with high penetration of wind power: A dialog between academia and industry - Ireland. , 2010, , .		0
76	R&D Requirements for Integration of Wind Generation. , 2012, , .		0