

Dennice F Gayme

List of Publications by Year in descending order

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66
papers

2,459
citations

304368

22
h-index

223531

46
g-index

66
all docs

66
docs citations

66
times ranked

2305
citing authors

#	ARTICLE	IF	CITATIONS
1	Grid-scale energy storage applications in renewable energy integration: A survey. Energy Conversion and Management, 2014, 87, 885-894.	4.4	455
2	Adaptive VAR Control for Distribution Circuits With Photovoltaic Generators. IEEE Transactions on Power Systems, 2012, 27, 1656-1663.	4.6	356
3	Optimal power flow with large-scale storage integration. IEEE Transactions on Power Systems, 2013, 28, 709-717.	4.6	180
4	Modelling yawed wind turbine wakes: a lifting line approach. Journal of Fluid Mechanics, 2018, 841, .	1.4	122
5	Effects of turbine spacing on the power output of extended wind farms. Wind Energy, 2016, 19, 359-370.	1.9	96
6	Large eddy simulation studies of the effects of alignment and wind farm length. Journal of Renewable and Sustainable Energy, 2014, 6, .	0.8	79
7	The Price of Synchrony: Evaluating the Resistive Losses in Synchronizing Power Networks. IEEE Transactions on Control of Network Systems, 2015, 2, 254-266.	2.4	73
8	Model-based receding horizon control of wind farms for secondary frequency regulation. Wind Energy, 2017, 20, 1261-1275.	1.9	66
9	Coupled wake boundary layer model of wind-farms. Journal of Renewable and Sustainable Energy, 2015, 7, .	0.8	65
10	Quadratically Constrained Quadratic Programs on Acyclic Graphs With Application to Power Flow. IEEE Transactions on Control of Network Systems, 2015, 2, 278-287.	2.4	65
11	A Wake Modeling Paradigm for Wind Farm Design and Control. Energies, 2019, 12, 2956.	1.6	53
12	Risk-mitigated optimal power flow for wind powered grids. , 2012, , .		51
13	Self-sustaining turbulence in a restricted nonlinear model of plane Couette flow. Physics of Fluids, 2014, 26, 105112.	1.6	48
14	A minimal model of self-sustaining turbulence. Physics of Fluids, 2015, 27, .	1.6	44
15	Coordinating Wind Farms and Battery Management Systems for Inter-Area Oscillation Damping: A Frequency-Domain Approach. IEEE Transactions on Power Systems, 2014, 29, 1454-1462.	4.6	40
16	Generalized coupled wake boundary layer model: applications and comparisons with field and LES data for two wind farms. Wind Energy, 2016, 19, 2023-2040.	1.9	38
17	Profit maximizing storage allocation in power grids. , 2013, , .		35
18	Filtered actuator disks: Theory and application to wind turbine models in large eddy simulation. Wind Energy, 2019, 22, 1414-1420.	1.9	32

#	ARTICLE	IF	CITATIONS
19	The price of synchrony: Resistive losses due to phase synchronization in power networks. , 2013, , .		31
20	Geometric decomposition of the conformation tensor in viscoelastic turbulence. Journal of Fluid Mechanics, 2018, 842, 395-427.	1.4	31
21	A streamwise constant model of turbulence in plane Couette flow. Journal of Fluid Mechanics, 2010, 665, 99-119.	1.4	29
22	Standard logarithmic mean velocity distribution in a band-limited restricted nonlinear model of turbulent flow in a half-channel. Physics of Fluids, 2015, 27, .	1.6	29
23	Performance Measures for Linear Oscillator Networks Over Arbitrary Graphs. IEEE Transactions on Control of Network Systems, 2018, 5, 456-468.	2.4	29
24	A statistical state dynamics approach to wall turbulence. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2017, 375, 20160081.	1.6	24
25	Time-Scale Modeling of Wind-Integrated Power Systems. IEEE Transactions on Power Systems, 2016, 31, 4712-4721.	4.6	23
26	Large-eddy simulation of wind turbines immersed in the wake of a cube-shaped building. Renewable Energy, 2021, 163, 1063-1077.	4.3	22
27	A vortex sheet based analytical model of the curled wake behind yawed wind turbines. Journal of Fluid Mechanics, 2022, 933, .	1.4	22
28	Dynamic wake modeling and state estimation for improved model-based receding horizon control of wind farms. , 2017, , .		20
29	Impact of wind farm placement on inter-area oscillations in large power systems. , 2012, , .		18
30	An input-output based analysis of convective velocity in turbulent channels. Journal of Fluid Mechanics, 2020, 888, .	1.4	16
31	Amplification and nonlinear mechanisms in plane Couette flow. Physics of Fluids, 2011, 23, 065108.	1.6	15
32	Performance metrics for droop-controlled microgrids with variable voltage dynamics. , 2015, , .		15
33	Perturbative expansions of the conformation tensor in viscoelastic flows. Journal of Fluid Mechanics, 2019, 858, 377-406.	1.4	15
34	Input-output inspired method for permissible perturbation amplitude of transitional wall-bounded shear flows. Physical Review E, 2020, 102, 063108.	0.8	15
35	Optimal siting and sizing of demand response in a transmission constrained system with high wind penetration. International Journal of Electrical Power and Energy Systems, 2015, 68, 71-80.	3.3	13
36	A framework for input-output analysis of wall-bounded shear flows. Journal of Fluid Mechanics, 2019, 873, 742-785.	1.4	13

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37	Structured input–output analysis of transitional wall-bounded flows. <i>Journal of Fluid Mechanics</i> , 2021, 927, .	1.4	13
38	Turbulence and Control of Wind Farms. <i>Annual Review of Control, Robotics, and Autonomous Systems</i> , 2022, 5, 579-602.	7.5	13
39	Wind farms providing secondary frequency regulation: Evaluating the performance of model-based receding horizon control. <i>Journal of Physics: Conference Series</i> , 2016, 753, 052012.	0.3	12
40	Wind farms providing secondary frequency regulation: evaluating the performance of model-based receding horizon control. <i>Wind Energy Science</i> , 2018, 3, 11-24.	1.2	12
41	System reduction techniques for storage allocation in large power systems. <i>International Journal of Electrical Power and Energy Systems</i> , 2018, 95, 108-117.	3.3	10
42	Adaptive control of inter-area oscillations in wind-integrated power systems using distributed parameter control methods. , 2014, , .		9
43	A Spatio-Temporal Framework for Spectral Analysis and Control of Interarea Oscillations in Wind-Integrated Power Systems. <i>IEEE Transactions on Control Systems Technology</i> , 2014, 22, 1658-1665.	3.2	9
44	The Role of Strategic Load Participants in Two-Stage Settlement Electricity Markets. , 2019, , .		9
45	The area localized coupled model for analytical mean flow prediction in arbitrary wind farm geometries. <i>Journal of Renewable and Sustainable Energy</i> , 2021, 13, .	0.8	9
46	Generation and decay of counter-rotating vortices downstream of yawed wind turbines in the atmospheric boundary layer. <i>Journal of Fluid Mechanics</i> , 2020, 903, .	1.4	8
47	Hierarchical, Grid-Aware, and Economically Optimal Coordination of Distributed Energy Resources in Realistic Distribution Systems. <i>Energies</i> , 2020, 13, 6399.	1.6	8
48	Performance of first and second order linear networked systems over digraphs. , 2017, , .		7
49	A restricted nonlinear large eddy simulation model for high Reynolds number flows. <i>Journal of Turbulence</i> , 2018, 19, 141-166.	0.5	7
50	Shaping power system inter-area oscillations through control loops of grid integrated wind farms. , 2012, , .		6
51	Coherent structure-based approach to modeling wall turbulence. <i>Physical Review Fluids</i> , 2019, 4, .	1.0	6
52	Robustness, Optimization, and Architectures. <i>European Journal of Control</i> , 2011, 17, 472-482.	1.6	5
53	Real-time energy market arbitrage via aerodynamic energy storage in wind farms. , 2020, , .		5
54	Minimizing interactions in mixed oscillator networks. , 2014, , .		4

#	ARTICLE	IF	CITATIONS
55	Disorder in large-scale networks with uni-directional feedback. , 2019, , .		4
56	Storage Degradation Aware Economic Dispatch. , 2021, , .		4
57	Towards smart, flexible and efficient power systems: Vision and research challenges. , 2013, , .		3
58	Evaluating Robustness of Consensus Algorithms Under Measurement Error over Digraphs. , 2018, , .		3
59	The restricted nonlinear large eddy simulation approach to reduced-order wind farm modeling. Journal of Renewable and Sustainable Energy, 2018, 10, 043307.	0.8	3
60	A market mechanism for truthful bidding with energy storage. Electric Power Systems Research, 2022, 211, 108284.	2.1	3
61	Using battery management systems to augment inter-area oscillation control in wind-integrated power systems. , 2013, , .		2
62	Nodal performance measures for oscillator networks with local and global damping. , 2015, , .		2
63	A POD-based analysis of turbulence in the reduced nonlinear dynamics system. Journal of Physics: Conference Series, 2016, 708, 012002.	0.3	2
64	Input-output framework for actuated boundary layers. Physical Review Fluids, 2021, 6, .	1.0	2
65	Collision Potential Analysis in First and Second Order Integrator Networks Over Strongly Connected Digraphs. , 2018, , .		1
66	Augmented Consensus Algorithm for Discrete-time Dynamical Systems. IFAC-PapersOnLine, 2019, 52, 115-120.	0.5	0