Andrey Bernstein

List of Publications by Year
in descending order

61 papers	1,269 citations	516710 16 h-index	526287 27 g-index
61 all docs	61 docs citations	61 times ranked	883 citing authors

#	Article	IF	Citations
1	A composable method for real-time control of active distribution networks with explicit power setpoints. Part I: Framework. Electric Power Systems Research, 2015, 125, 254-264.	3.6	113
2	Load Flow in Multiphase Distribution Networks: Existence, Uniqueness, Non-Singularity and Linear Models. IEEE Transactions on Power Systems, 2018, 33, 5832-5843.	6.5	98
3	Network-Cognizant Voltage Droop Control for Distribution Grids. IEEE Transactions on Power Systems, 2018, 33, 2098-2108.	6.5	94
4	Real-Time Feedback-Based Optimization of Distribution Grids: A Unified Approach. IEEE Transactions on Control of Network Systems, 2019, 6, 1197-1209.	3.7	79
5	Linear power-flow models in multiphase distribution networks. , 2017, , .		77
6	Online Optimization as a Feedback Controller: Stability and Tracking. IEEE Transactions on Control of Network Systems, 2020, 7, 422-432.	3.7	77
7	Explicit Conditions on Existence and Uniqueness of Load-Flow Solutions in Distribution Networks. IEEE Transactions on Smart Grid, 2018, 9, 953-962.	9.0	70
8	Online Primal-Dual Methods With Measurement Feedback for Time-Varying Convex Optimization. IEEE Transactions on Signal Processing, 2019, 67, 1978-1991.	5.3	65
9	Matrix Completion for Low-Observability Voltage Estimation. IEEE Transactions on Smart Grid, 2020, 11, 2520-2530.	9.0	49
10	Joint Chance Constraints in AC Optimal Power Flow: Improving Bounds Through Learning. IEEE Transactions on Smart Grid, 2019, 10, 6376-6385.	9.0	47
11	A composable method for real-time control of active distribution networks with explicit power setpoints. Part II: Implementation and validation. Electric Power Systems Research, 2015, 125, 265-280.	3.6	43
12	Autonomous Energy Grids: Controlling the Future Grid With Large Amounts of Distributed Energy Resources. IEEE Power and Energy Magazine, 2020, 18, 37-46.	1.6	42
13	Existence and Uniqueness of Load-Flow Solutions in Three-Phase Distribution Networks. IEEE Transactions on Power Systems, 2017, 32, 3319-3320.	6.5	29
14	Real-Time Identifiability of Power Distribution Network Topologies With Limited Monitoring. , 2020, 4, 325-330.		27
15	Sensitivity analysis of the power grid vulnerability to large-scale cascading failures. Performance Evaluation Review, 2012, 40, 33-37.	0.6	26
16	Adaptive-resolution reinforcement learning withÂpolynomial exploration in deterministic domains. Machine Learning, 2010, 81, 359-397.	5.4	22
17	Towards robustness guarantees for feedback-based optimization. , 2019, , .		22
18	A Model for Joint Probabilistic Forecast of Solar Photovoltaic Power and Outdoor Temperature. IEEE Transactions on Signal Processing, 2019, 67, 6368-6383.	5.3	22

#	ARTICLE	IF	CITATIONS
19	Optimal Energy Dispatch of Distributed PVs for the Next Generation of Distribution Management Systems. IEEE Open Access Journal of Power and Energy, 2020, 7, 287-295.	3.4	22
20	Robust Matrix Completion State Estimation in Distribution Systems. , 2019, , .		17
21	Online data-enabled predictive control. Automatica, 2022, 138, 109926.	5.0	16
22	Inner Approximation of Minkowski Sums: A Union-Based Approach and Applications to Aggregated Energy Resources. , 2018, , .		15
23	Personalized optimization with user's feedback. Automatica, 2021, 131, 109767.	5.0	15
24	Network-Cognizant Time-Coupled Aggregate Flexibility of Distribution Systems Under Uncertainties. , 2021, 5, 1723-1728.		15
25	Decentralized Low-Rank State Estimation for Power Distribution Systems. IEEE Transactions on Smart Grid, 2021, 12, 3097-3106.	9.0	14
26	Bus Clustering for Distribution Grid Topology Identification. IEEE Transactions on Smart Grid, 2020, 11, 4080-4089.	9.0	13
27	Grid-Forming Frequency Shaping Control for Low-Inertia Power Systems. , 2021, 5, 1988-1993.		11
28	Dynamic Power Network State Estimation with Asynchronous Measurements. , 2019, , .		10
29	Autonomous Energy Grids. , 2018, , .		10
30	Experimental Validation of an Explicit Power-Flow Primary Control in Microgrids. IEEE Transactions on Industrial Informatics, 2018, 14, 4779-4791.	11.3	9
31	Model-Free Primal-Dual Methods for Network Optimization with Application to Real-Time Optimal Power Flow. , 2020, , .		9
32	A Feedback-Based Regularized Primal-Dual Gradient Method for Time-Varying Nonconvex Optimization. , 2018, , .		8
33	Asynchronous and Distributed Tracking of Time-Varying Fixed Points. , 2018, , .		7
34	Economic Dispatch With Distributed Energy Resources: Co-Optimization of Transmission and Distribution Systems. , 2021, 5, 1994-1999.		7
35	JOINT CHANCE CONSTRAINTS REDUCTION THROUGH LEARNING IN ACTIVE DISTRIBUTION NETWORKS. , 2018, , .		6
36	Distributed Conditions for Small-Signal Stability of Power Grids and Local Control Design. IEEE Transactions on Power Systems, 2021, 36, 2058-2067.	6.5	6

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37	Two-Stage Reinforcement Learning Policy Search for Grid-Interactive Building Control. IEEE Transactions on Smart Grid, 2022, 13, 1976-1987.	9.0	6
38	A Generalized LinDistFlow Model for Power Flow Analysis. , 2021, , .		6
39	Grid-Forming Frequency Shaping Control for Low-Inertia Power Systems. , 2021, , .		5
40	Matrix Completion Using Alternating Minimization for Distribution System State Estimation. , 2020, , .		5
41	Feedback-based projected-gradient method for real-time optimization of aggregations of energy resources. , 2017, , .		4
42	Network-cognizant design of decentralized Volt/VAR controllers. , 2017, , .		4
43	Model-Free State Estimation Using Low-Rank Canonical Polyadic Decomposition. , 2021, 5, 605-610.		4
44	Irradiance Field Reconstruction From Partial Observability of Solar Radiation. IEEE Geoscience and Remote Sensing Letters, 2019, 16, 1698-1702.	3.1	3
45	Multiarea Distribution System State Estimation via Distributed Tensor Completion. IEEE Transactions on Smart Grid, 2022, 13, 4887-4898.	9.0	3
46	Joint Probabilistic Forecasts of Temperature and Solar Irradiance. , 2018, , .		2
47	On the Convergence of the Inexact Running Krasnoselâ€™skiÄ€"Mann Method. , 2019, 3, 613-618.		2
48	Network-Cognizant Time-Coupled Aggregate Flexibility of Distribution Systems Under Uncertainties. , 2021, , .		2
49	Accelerating Optimization and Reinforcement Learning with Quasi Stochastic Approximation. , 2021, , .		2
50	Substation-Level Grid Topology Optimization Using Bus Splitting. , 2021, , .		2
51	Emergency Voltage Regulation in Power Systems via Ripple-Type Control. , 2021, , .		2
52	Running Primal-Dual Gradient Method for Time-Varying Nonconvex Problems. SIAM Journal on Control and Optimization, 2022, 60, 1970-1990.	2.1	2
53	Ripple-Type Control for Enhancing Resilience of Networked Physical Systems. , 2021, , .		1
54	Multi-Area Model-Free State Estimation via Distributed Tensor Decomposition. , 2020, , .		1

#	Article	IF	Citations
55	Learning-based demand response in grid-interactive buildings via Gaussian Processes. Electric Power Systems Research, 2022, 211, 108406.	3.6	1
56	Opportunistic Approachability and Generalized No-Regret Problems. Mathematics of Operations Research, 2014, 39, 1057-1083.	1.3	0
57	A Primal-Dual Gradient Method for Time-Varying Optimization with Application to Power Systems. Performance Evaluation Review, 2019, 46, 92-92.	0.6	0
58	Data-Driven Linear Parameter-Varying Modeling and Control of Flexible Loads for Grid Services. , 2020, , .		0
59	Economic Dispatch With Distributed Energy Resources: Co-Optimization of Transmission and Distribution Systems. , 2021, , .		0
60	Residential Demand Side Aggregation of Privacy-Conscious Consumers. , 2021, , .		0
61	Computation-Efficient Algorithm for Distributed Feedback Optimization of Distribution Grids. , 2020, , .		0