Louis Wehenkel

List of Publications by Year in descending order

81 papers	9,505 citations	136950 32 h-index	155660 55 g-index
82 all docs	82 docs citations	82 times ranked	11663 citing authors

#	Article	IF	Citations
1	Cyberâ€“physical risk modeling with imperfect cyber-attackers. Electric Power Systems Research, 2022, 211, 108437.	3.6	8
2	Bayesian Estimates of Transmission Line Outage Rates That Consider Line Dependencies. IEEE Transactions on Power Systems, 2021, 36, 1095-1106.	6.5	7
3	Machine learning for ranking day-ahead decisions in the context of short-term operation planning. Electric Power Systems Research, 2020, 189, 106548.	3.6	9
4	Applying Bayesian estimates of individual transmission line outage rates. , 2020, , .		1
5	Towards leveraging discrete grid flexibility in chance-constrained power system operation planning. Electric Power Systems Research, 2020, 188, 106571.	3.6	2
6	Probabilistic Resilience Analysis of the Icelandic Power System under Extreme Weather. Applied Sciences (Switzerland), 2020, 10, 5089.	2.5	8
7	Recent Developments in Machine Learning for Energy Systems Reliability Management. Proceedings of the IEEE, 2020, 108, 1656-1676.	21.3	115
8	Chance-Constrained Outage Scheduling Using a Machine Learning Proxy. IEEE Transactions on Power Systems, 2019, 34, 2528-2540.	6.5	27
9	An Iterative AC-SCOPF Approach Managing the Contingency and Corrective Control Failure Uncertainties With a Probabilistic Guarantee. IEEE Transactions on Power Systems, 2019, 34, 3780-3790.	6.5	33
10	Using Machine Learning to Enable Probabilistic Reliability Assessment in Operation Planning. , 2018, , .		14
11	Unit Commitment Using Nearest Neighbor as a Short-Term Proxy. , 2018, , .		10
12	Post-contingency corrective control failure: a risk to neglect or a risk to control?. , 2018, , .		1
13	A Machine Learning-Based Approximation of Strong Branching. INFORMS Journal on Computing, 2017, 29, 185-195.	1.7	81
14	A computational model of mid-term outage scheduling for long-term system studies. , 2017, , .		3
15	Machine learning of real-time power systems reliability management response. , 2017, , .		22
16	Comments on: A random forest guided tour. Test, 2016, 25, 247-253.	1.1	0
17	Probabilistic Reliability Management Approach and Criteria for power system real-time operation. , 2016, , .		24
18	Collaborative analysis of multi-gigapixel imaging data using Cytomine. Bioinformatics, 2016, 32, 1395-1401.	4.1	140

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19	Towards generic image classification using tree-based learning: An extensive empirical study. Pattern Recognition Letters, 2016, 74, 17-23.	4.2	12
20	Automatic Learning of Fine Operating Rules for Online Power System Security Control. IEEE Transactions on Neural Networks and Learning Systems, 2016, 27, 1708-1719.	11.3	26
21	Zebrafish Bone and General Physiology Are Differently Affected by Hormones or Changes in Gravity. PLoS ONE, 2015, 10, e0126928.	2.5	74
22	Classifying pairs with trees for supervised biological network inference. Molecular BioSystems, 2015, 11, 2116-2125.	2.9	13
23	Phenotype Classification of Zebrafish Embryos by Supervised Learning. PLoS ONE, 2015, 10, e0116989.	2.5	43
24	Exploiting SNP Correlations within Random Forest for Genome-Wide Association Studies. PLoS ONE, 2014, 9, e93379.	2.5	69
25	An AC OPF-based heuristic algorithm for optimal transmission switching. , 2014, , .		12
26	Optimized lookâ€ahead tree policies: a bridge between lookâ€ahead tree policies and direct policy search. International Journal of Adaptive Control and Signal Processing, 2014, 28, 255-289.	4.1	3
27	Comparison of centralized, distributed and hierarchical model predictive control schemes for electromechanical oscillations damping in large-scale power systems. International Journal of Electrical Power and Energy Systems, 2014, 58, 32-41.	5.5	17
28	A Generic Approach for Solving Nonlinear-Discrete Security-Constrained Optimal Power Flow Problems in Large-Scale Systems. IEEE Transactions on Power Systems, 2014, 29, 1194-1203.	6.5	69
29	Trajectory-Based Supplementary Damping Control for Power System Electromechanical Oscillations. IEEE Transactions on Power Systems, 2014, 29, 2835-2845.	6.5	13
30	An efficient algorithm to perform multiple testing in epistasis screening. BMC Bioinformatics, 2013, 14, 138.	2.6	29
31	Whither probabilistic security management for real-time operation of power systems?. , 2013, , .		16
32	Scenario Trees and Policy Selection for Multistage Stochastic Programming Using Machine Learning. INFORMS Journal on Computing, 2013, 25, 488-501.	1.7	18
33	Contingency Ranking With Respect to Overloads in Very Large Power Systems Taking Into Account Uncertainty, Preventive, and Corrective Actions. IEEE Transactions on Power Systems, 2013, 28, 4909-4917.	6.5	198
34	Experiments with the interior-point method for solving large scale Optimal Power Flow problems. Electric Power Systems Research, 2013, 95, 276-283.	3.6	73
35	Batch mode reinforcement learning based on the synthesis of artificial trajectories. Annals of Operations Research, 2013, 208, 383-416.	4.1	22
36	Computation of Worst Operation Scenarios Under Uncertainty for Static Security Management. IEEE Transactions on Power Systems, 2013, 28, 1697-1705.	6.5	19

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37	On the Relevance of Sophisticated Structural Annotations for Disulfide Connectivity Pattern Prediction. PLoS ONE, 2013, 8, e56621.	2.5	8
38	On the Encoding of Proteins for Disordered Regions Prediction. PLoS ONE, 2013, 8, e82252.	2.5	8
39	Decoding Spontaneous Brain Activity from fMRI Using Gaussian Processes: Tracking Brain Reactivation. , 2012, , .		2
40	Operating in the Fog: Security Management Under Uncertainty. IEEE Power and Energy Magazine, 2012, 10, 40-49.	1.6	52
41	Cautious Operation Planning Under Uncertainties. IEEE Transactions on Power Systems, 2012, 27, 1859-1869.	6.5	53
42	Decoding Semi-Constrained Brain Activity from fMRI Using Support Vector Machines and Gaussian Processes. PLoS ONE, 2012, 7, e35860.	2.5	23
43	Exploiting the Use of DC SCOPF Approximation to Improve Iterative AC SCOPF Algorithms. IEEE Transactions on Power Systems, 2012, 27, 1459-1466.	6.5	42
44	Active exploration by searching for experiments that falsify the computed control policy. , 2011, , .		1
45	Redispatching Active and Reactive Powers Using a Limited Number of Control Actions. IEEE Transactions on Power Systems, 2011, 26, 1221-1230.	6.5	39
46	Discovery and biochemical characterisation of four novel biomarkers for osteoarthritis. Annals of the Rheumatic Diseases, 2011, 70, 1144-1152.	0.9	43
47	Robust automatic target recognition using extra-trees. , 2010, , .		5
48	Sensitivity-Based Approaches for Handling Discrete Variables in Optimal Power Flow Computations. IEEE Transactions on Power Systems, 2010, 25, 1780-1789.	6.5	60
49	Optimal Power Flow Computations With a Limited Number of Controls Allowed to Move. IEEE Transactions on Power Systems, 2010, 25, 586-587.	6.5	28
50	Inferring Regulatory Networks from Expression Data Using Tree-Based Methods. PLoS ONE, 2010, 5, e12776.	2.5	1,381
51	A rare event approach to build security analysis tools when N − k (k >1) analyses are needed (as they are in large scale power systems). , 2009, , .		5
52	Inferring bounds on the performance of a control policy from a sample of trajectories. , 2009, , .		7
53	Biomarker discovery in asthmaâ€related inflammation and remodeling. Proteomics, 2009, 9, 2163-2170.	2.2	30
54	Coupling Optimization and Dynamic Simulation for Preventive-Corrective Control of Voltage Instability. IEEE Transactions on Power Systems, 2009, 24, 796-805.	6.5	33

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55	Supervised learning with decision tree-based methods in computational and systems biology. Molecular BioSystems, 2009, 5, 1593.	2.9	169
56	Supervised learning of intra-daily recourse strategies for generation management under uncertainties. , 2009, , .		4
57	Pseudo-Geographical Representations of Power System Buses by Multidimensional Scaling. , 2009, , .		7
58	A new heuristic approach to deal with discrete variables in optimal power flow computations. , 2009, , .		7
59	Content-based Image Retrieval by Indexing Random Subwindows with Randomized Trees. IPSJ Transactions on Computer Vision and Applications, 2009, 1, 46-57.	4.4	6
60	Planning under uncertainty, ensembles of disturbance trees and kernelized discrete action spaces. , 2009, , .		2
61	A hybrid optimization technique coupling an evolutionary and a local search algorithm. Journal of Computational and Applied Mathematics, 2008, 215, 448-456.	2.0	64
62	Proteomics for prediction and characterization of response to infliximab in Crohn's disease: A pilot study. Clinical Biochemistry, 2008, 41, 960-967.	1.9	64
63	A New Iterative Approach to the Corrective Security-Constrained Optimal Power Flow Problem. IEEE Transactions on Power Systems, 2008, 23, 1533-1541.	6.5	103
64	Analyzing transient instability phenomena beyond the classical stability boundary. , 2008, , .		0
65	Monomeric Calgranulins Measured by SELDI-TOF Mass Spectrometry and Calprotectin Measured by ELISA as Biomarkers in Arthritis. Clinical Chemistry, 2008, 54, 1066-1075.	3.2	85
66	Application of the Galileo System for a Better Synchronization of Electrical Power Systems. , 2007, , .		2
67	PREDetector: A new tool to identify regulatory elements in bacterial genomes. Biochemical and Biophysical Research Communications, 2007, 357, 861-864.	2.1	97
68	Contingency Filtering Techniques for Preventive Security-Constrained Optimal Power Flow. IEEE Transactions on Power Systems, 2007, 22, 1690-1697.	6.5	136
69	Automatic learning for the classification of primary frequency control behaviour. , 2007, , .		3
70	A collaborative framework for multi-area dynamic security assessment of large scale systems. , 2007, , .		2
71	Improving the Statement of the Corrective Security-Constrained Optimal Power-Flow Problem. IEEE Transactions on Power Systems, 2007, 22, 887-889.	6.5	56
72	Interior-point based algorithms for the solution of optimal power flow problems. Electric Power Systems Research, 2007, 77, 508-517.	3.6	128

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73	Biomarker discovery for inflammatory bowel disease, using proteomic serum profiling. Biochemical Pharmacology, 2007, 73, 1422-1433.	4.4	104
74	Estimation of rotor angles of synchronous machines using artificial neural networks and local PMU-based quantities. Neurocomputing, 2007, 70, 2668-2678.	5.9	60
75	Damping Control by Fusion of Reinforcement Learning and Control Lyapunov Functions. , 2006, , .		1
76	Clinical data based optimal STI strategies for HIV: a reinforcement learning approach. , 2006, , .		40
77	Extremely randomized trees. Machine Learning, 2006, 63, 3-42.	5.4	4,796
78	Multi-Area Security Assessment: Resuits using Efficient Bounding Method. , 2006, , .		3
79	Discovery of new rheumatoid arthritis biomarkers using the surfaceâ€enhanced laser desorption/ionization timeâ€ofâ€flight mass spectrometry ProteinChip approach. Arthritis and Rheumatism, 2005, 52, 3801-3812.	6.7	102
80	A complete fuzzy decision tree technique. Fuzzy Sets and Systems, 2003, 138, 221-254.	2.7	333
81	Automatic induction of fuzzy decision trees and its application to power system security assessment. Fuzzy Sets and Systems, 1999, 102, 3-19.	2.7	80