Jan-Willem van Wingerden

List of Publications by Year
in descending order

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83	2,349	279487	223531
papers	citations	23 h-index	46 g-index

101	101	101	1156
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Evaluating techniques for redirecting turbine wakes using SOWFA. Renewable Energy, 2014, 70, 211-218.	4.3	308
2	Subspace identification of Bilinear and LPV systems for open- and closed-loop data. Automatica, 2009, 45, 372-381.	3.0	206
3	Simulation comparison of wake mitigation control strategies for a two-turbine case. Wind Energy, 2015, 18, 2135-2143.	1.9	206
4	Subspace identification of MIMO LPV systems using a periodic scheduling sequence. Automatica, 2007, 43, 1684-1697.	3.0	139
5	Closedâ€loop subspace identification methods: an overview. IET Control Theory and Applications, 2013, 7, 1339-1358.	1.2	105
6	Wind farm multi-objective wake redirection for optimizing power production and loads. Energy, 2017, 121, 561-569.	4.5	84
7	A control-oriented dynamic wind farm model: WFSim. Wind Energy Science, 2018, 3, 75-95.	1.2	79
8	Two-Degree-of-Freedom Active Vibration Control of a Prototyped â€œSmartâ€•Rotor. IEEE Transactions on Control Systems Technology, 2011, 19, 284-296.	3.2	66
9	Closed-loop model-based wind farm control using FLORIS under time-varying inflow conditions. Renewable Energy, 2020, 156, 719-730.	4.3	65
10	Recursive Predictor-Based Subspace Identification With Application to the Real-Time Closed-Loop Tracking of Flutter. IEEE Transactions on Control Systems Technology, 2012, 20, 934-949.	3.2	61
11	The helix approach: Using dynamic individual pitch control to enhance wake mixing in wind farms. Wind Energy, 2020, 23, 1739-1751.	1.9	55
12	Periodic dynamic induction control of wind farms: proving the potential in simulations and wind tunnel experiments. Wind Energy Science, 2020, 5, 245-257.	1.2	55
13	Rejection of Periodic Wind Disturbances on a Smart Rotor Test Section Using Lifted Repetitive Control. IEEE Transactions on Control Systems Technology, 2013, 21, 347-359.	3.2	50
14	Global Identification of Wind Turbines Using a Hammerstein Identification Method. IEEE Transactions on Control Systems Technology, 2013, 21, 1471-1478.	3.2	46
15	Robust active wake control in consideration of wind direction variability and uncertainty. Wind Energy Science, 2018, 3, 869-882.	1.2	45
16	Adjoint-based model predictive control for optimal energy extraction in waked wind farms. Control Engineering Practice, 2019, 84, 48-62.	3.2	43
17	Wind Tunnel Testing of Subspace Predictive Repetitive Control for Variable Pitch Wind Turbines. IEEE Transactions on Control Systems Technology, 2015, 23, 2101-2116.	3.2	42
18	Field experiment for open-loop yaw-based wake steering at a commercial onshore wind farm in Italy. Wind Energy Science, 2021, 6, 159-176.	1.2	42

#	Article	IF	Citations
19	Power Control of Waked Wind Farms * *J.W. van Wingerden would like to acknowledge the CL-Windcon project. This project has received funding from the European Union Horizon 2020 research and innovation programme under grant agreement No 727477. L. Pao gratefully acknowledges funding provided by the Hanse-Wissenschaftskolleg Institute for Advanced Study, Delmenhorst, Germany. J. Aho has been supported in part by the Renewable and Sustainable Energy Institute and a University of Colorado Boulder Graduat. IFAC-PapersOnLine, 2017, 50, 4484-4491.	0.5	40
20	Data-Driven Incipient Fault Detection via Canonical Variate Dissimilarity and Mixed Kernel Principal Component Analysis. IEEE Transactions on Industrial Informatics, 2021, 17, 5380-5390.	7.2	33
21	Analysis and optimal individual pitch control decoupling by inclusion of an azimuth offset in the multiblade coordinate transformation. Wind Energy, 2019, 22, 341-359.	1.9	32
22	Linear Parameter Varying Identification of Freeway Traffic Models. IEEE Transactions on Control Systems Technology, 2011, 19, 31-45.	3.2	28
23	Validation of a lookup-table approach to modeling turbine fatigue loads in wind farms under active wake control. Wind Energy Science, 2019, 4, 549-561.	1.2	24
24	Data-driven repetitive control: Wind tunnel experiments under turbulent conditions. Control Engineering Practice, 2018, 80, 105-115.	3.2	22
25	Online model calibration for a simplified LES model in pursuit of real-time closed-loop wind farm control. Wind Energy Science, 2018, 3, 749-765.	1.2	21
26	LPV Identification of Wind Turbine Rotor Vibrational Dynamics Using Periodic Disturbance Basis Functions. IEEE Transactions on Control Systems Technology, 2013, 21, 1183-1190.	3.2	20
27	Adjoint-based model predictive control of wind farms: Beyond the quasi steady-state power maximization * *This work has been funded by the Ministry for Sciences and Culture of the Federal State of Lower Saxony, Germany as part of the PhD Programme on System Integration of Renewable Energies (SEE) and by the German Ministry of Economic Affairs and Energy (BMWi) in the scope of the WiMS-Cluster project (FKZ 0324005). IFAC-PapersOnLine, 2017, 50, 4510-4515.	0.5	19
28	Preventing wind turbine tower natural frequency excitation with a quasiâ€LPV model predictive control scheme. Wind Energy, 2020, 23, 627-644.	1.9	19
29	Refinements and Tests of an Advanced Controller to Mitigate Fatigue Loads in the Controls Advanced Research Turbine. , 2011, , .		18
30	Predictor-Based Tensor Regression (PBTR) for LPV subspace identification. Automatica, 2017, 79, 235-243.	3.0	18
31	Yaw-Misalignment and its Impact on Wind Turbine Loads and Wind Farm Power Output. Journal of Physics: Conference Series, 2016, 753, 062013.	0.3	17
32	Quasi Linear Parameter Varying modeling for wind farm control using the 2D Navier-Stokes equations. , 2016, , .		16
33	On the Potential of Reduced Order Models for Wind Farm Control: A Koopman Dynamic Mode Decomposition Approach. Energies, 2020, 13, 6513.	1.6	16
34	The Immersion and Invariance Wind Speed Estimator Revisited and New Results. , 2022, 6, 361-366.		16
35	Subspace identification of MIMO LPV systems using a piecewise constant scheduling sequence with hard/soft switching. , 2007, , .		12
36	Subspace IDentification of MIMO LPV systems: The PBSID approach. , 2008, , .		12

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37	Subspace identification of multivariable LPV systems: a novel approach. , 2008, , .		12
38	On the load impact of dynamic wind farm wake mixing strategies. Renewable Energy, 2022, 194, 582-595.	4.3	11
39	Revealing Time-Varying Joint Impedance With Kernel-Based Regression and Nonparametric Decomposition. IEEE Transactions on Control Systems Technology, 2020, 28, 224-237.	3.2	10
40	Faultâ€tolerant individual pitch control of floating offshore wind turbines via subspace predictive repetitive control. Wind Energy, 2021, 24, 1045-1065.	1.9	10
41	Model-based design of a wave-feedforward control strategy in floating wind turbines. Wind Energy Science, 2021, 6, 885-901.	1.2	10
42	Damping identification of offshore wind turbines using operational modal analysis: a review. Wind Energy Science, 2022, 7, 161-184.	1.2	10
43	Experimental analysis of the effect of dynamic induction control on a wind turbine wake. Wind Energy Science, 2022, 7, 1305-1320.	1.2	10
44	LPV Subspace Identification of a DC motor with unbalanced disc. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 856-861.	0.4	9
45	Feedback-feedforward individual pitch control design for wind turbines with uncertain measurements. , 2019, , .		9
46	Observability of the ambient conditions in modelâ€based estimation for wind farm control: A focus on static models. Wind Energy, 2020, 23, 1777-1791.	1.9	9
47	Experimental wind tunnel testing of linear individual pitch control for two-bladed wind turbines. Journal of Physics: Conference Series, 2014, 524, 012056.	0.3	8
48	Hierarchical subspace identification of directed acyclic graphs. International Journal of Control, 2015, 88, 123-137.	1.2	8
49	Control design, implementation, and evaluation for an in-field 500â€‰kW wind turbine with a fixed-displacement hydraulic drivetrain. Wind Energy Science, 2018, 3, 615-638.	1.2	8
50	VARMAX-based closed-loop subspace model identification. , 2009, , .		7
51	â„‹âˆž controller design for closed-loop wake redirection. , 2017, , .		7
52	Tensor networks for MIMO LPV system identification. International Journal of Control, 2020, 93, 797-811.	1.2	7
53	LPV identification of an aeroelastic flutter model. , 2010, , .		6
54	Model Predictive Control for Wake Redirection in Wind Farms: a Koopman Dynamic Mode Decomposition Approach. , 2021, , .		6

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55	Subspace identification of bilinear systems using a dedicated input sequence. , 2007, , .		5
56	Robust lidar-based closed-loop wake redirection for wind farm control. IFAC-PapersOnLine, 2017, 50, 4498-4503.	0.5	5
57	Tensor Nuclear Norm LPV Subspace Identification. IEEE Transactions on Automatic Control, 2018, 63, 3897-3903.	3.6	5
58	A comprehensive model for transient behavior of tapping mode atomic force microscope. Nonlinear Dynamics, 2019, 97, 1601-1617.	2.7	5
59	Model-based closed-loop wind farm control for power maximization using Bayesian optimization: a large eddy simulation study. , 2019, , .		5
60	Fault Detection of the Mooring system in Floating Offshore Wind Turbines based on the Wave-excited Linear Model. Journal of Physics: Conference Series, 2020, 1618, 022049.	0.3	5
61	LPV subspace identification of the edgewise vibrational dynamics of a wind turbine rotor. , 2011, , .		4
62	Rejection of periodic wind disturbances on an experimental “smart” rotor section using lifted repetitive control. , 2011, , .		4
63	On wind farm wake mixing strategies using dynamic individual pitch control. Journal of Physics: Conference Series, 2020, 1618, 022050.	0.3	4
64	Predicting the benefit of wake steering on the annual energy production of a wind farm using large eddy simulations and Gaussian process regression. Journal of Physics: Conference Series, 2020, 1618, 022024.	0.3	4
65	Dynamic Flow Modelling for Model-Predictive Wind Farm Control. Journal of Physics: Conference Series, 2020, 1618, 022023.	0.3	4
66	Floating offshore wind turbine fault diagnosis via regularized dynamic canonical correlation and fisher discriminant analysis. IET Renewable Power Generation, 2021, 15, 4006.	1.7	4
67	Blade Effective Wind Speed Estimation: A Subspace Predictive Repetitive Estimator Approach. , 2021, , .		4
68	Input torque measurements for wind turbine gearboxes using fiber-optic strain sensors. Wind Energy Science, 2022, 7, 505-521.	1.2	4
69	On the Importance of the Azimuth Offset in a Combined 1P and 2P SISO IPC Implementation for Wind Turbine Fatigue Load Reductions. , 2019, , .		3
70	Wind tunnel tests with combined pitch and free-floating flap control: data-driven iterative feedforward controller tuning. Wind Energy Science, 2016, 1, 205-220.	1.2	3
71	Iterative feedback tuning of wind turbine controllers. Wind Energy Science, 2017, 2, 153-173.	1.2	3
72	The Proportional Integral Notch and Coleman Blade Effective Wind Speed Estimators and Their Similarities. , 2022, 6, 2198-2203.		3

#	Article	IF	Citations
73	Estimation of the Ambient Wind Field From Wind Turbine Measurements Using Gaussian Process Regression. , 2021, , .		2
74	Subspace Identification of Hammersteinâ€“Wiener Systems Operating in Closed-loop. Lecture Notes in Control and Information Sciences, 2010, , 229-239.	0.6	2
75	Load reduction for wind turbines: an output-constrained, subspace predictive repetitive control approach. Wind Energy Science, 2022, 7, 523-537.	1.2	2
76	Parameter estimation for spatially interconnected descriptor systems using Sequentially Semi-Separable matrices. , 2013, , .		1
77	Tensor regression for LPV subspace identification**This work is funded and supported by the Design for Reliable Power Performance (D4REL) program, project code P91202. IFAC-PapersOnLine, 2015, 48, 421-426.	0.5	1
78	Tensor regression for LTI subspace identification. , 2015, , .		1
79	On the Averaging in the Multi-Blade Coordinate Transformations for Wind Turbines: An H<inf>â^ž</inf>Model Matching Approach. , 2018, , .		1
80	Validating subspace predictive repetitive control under turbulent wind conditions with wind tunnel experiment. Journal of Physics: Conference Series, 2018, 1037, 032008.	0.3	1
81	Data-Driven Modeling & Analysis of Dynamic Wake for Wind Farm Control: A Comparison Study. , 2020, , .		1
82	Using The Helix Mixing Approach On Floating Offshore Wind Turbines. Journal of Physics: Conference Series, 2022, 2265, 042011.	0.3	1
83	Tensor regression for LTI subspace identification: free parametrizations**This work is funded and supported by the Design for Reliable Power Performance (D4REL) program, project code P91202.. IFAC-PapersOnLine, 2015, 48, 909-914.	0.5	0