Corey D Markfort

List of Publications by Year
in descending order

76 papers	6,703 citations	109321 35 h-index	79698 73 g-index
81 all docs	81 docs citations	81 times ranked	2478 citing authors

#	Article	IF	Citations
1	A new analytical model for wind-turbine wakes. Renewable Energy, 2014, 70, 116-123.	8.9	618
2	Wind-Turbine and Wind-Farm Flows: A Review. Boundary-Layer Meteorology, 2020, 174, 1-59.	2.3	458
3	Large-Eddy Simulation of Wind-Turbine Wakes: Evaluation of Turbine Parametrisations. Boundary-Layer Meteorology, 2011, 138, 345-366.	2.3	448
4	A Wind-Tunnel Investigation of Wind-Turbine Wakes: Boundary-Layer Turbulence Effects. Boundary-Layer Meteorology, 2009, 132, 129-149.	2.3	393
5	Large-eddy simulation of atmospheric boundary layer flow through wind turbines and wind farms. Journal of Wind Engineering and Industrial Aerodynamics, 2011, 99, 154-168.	3.9	389
6	Experimental and theoretical study of windÂturbine wakes in yawed conditions. Journal of Fluid Mechanics, 2016, 806, 506-541.	3.4	385
7	Influence of atmospheric stability on wind-turbine wakes: A large-eddy simulation study. Physics of Fluids, 2015, 27, .	4.0	268
8	Atmospheric Turbulence Effects on Wind-Turbine Wakes: An LES Study. Energies, 2012, 5, 5340-5362.	3.1	248
9	Large-eddy simulation of a very large wind farm in a stable atmospheric boundary layer. Physics of Fluids, 2011, 23, .	4.0	241
10	A Numerical Study of the Effects of Wind Direction on Turbine Wakes and Power Losses in a Large Wind Farm. Energies, 2013, 6, 5297-5313.	3.1	227
11	Effects of Thermal Stability and Incoming Boundary-Layer Flow Characteristics on Wind-Turbine Wakes: A Wind-Tunnel Study. Boundary-Layer Meteorology, 2010, 136, 515-533.	2.3	223
12	Analytical Modeling of Wind Farms: A New Approach for Power Prediction. Energies, 2016, 9, 741.	3.1	178
13	Simulation of Turbulent Flow Inside and Above Wind Farms: Model Validation and Layout Effects. Boundary-Layer Meteorology, 2013, 146, 181-205.	2.3	168
14	Near-wake flow structure downwind of a wind turbine in a turbulent boundary layer. Experiments in Fluids, 2012, 52, 1219-1235.	2.4	165
15	Turbulent Flow Inside and Above a Wind Farm: A Wind-Tunnel Study. Energies, 2011, 4, 1916-1936.	3.1	142
16	Field Measurements of Wind Turbine Wakes with Lidars. Journal of Atmospheric and Oceanic Technology, 2013, 30, 274-287.	1.3	133
17	Wind-Turbine Wakes in a Convective Boundary Layer: A Wind-Tunnel Study. Boundary-Layer Meteorology, 2013, 146, 161-179.	2.3	108
18	Simulating 2368 temperate lakes reveals weak coherence in stratification phenology. Ecological Modelling, 2014, 291, 142-150.	2.5	101

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19	The Effect of Free-Atmosphere Stratification on Boundary-Layer Flow and Power Output from Very Large Wind Farms. Energies, 2013, 6, 2338-2361.	3.1	97
20	Wind sheltering of a lake by a tree canopy or bluff topography. Water Resources Research, 2010, 46, .	4.2	95
21	Volumetric Lidar Scanning of Wind Turbine Wakes under Convective and Neutral Atmospheric Stability Regimes. Journal of Atmospheric and Oceanic Technology, 2014, 31, 2035-2048.	1.3	94
22	Wind farm power optimization via yaw angle control: A wind tunnel study. Journal of Renewable and Sustainable Energy, 2019, 11, .	2.0	91
23	Wake flow in a wind farm during a diurnal cycle. Journal of Turbulence, 2016, 17, 420-441.	1.4	84
24	Analysis of control-oriented wake modeling tools using lidar field results. Wind Energy Science, 2018, 3, 819-831.	3.3	76
25	Wind Turbine Wake Characterization with Nacelle-Mounted Wind Lidars for Analytical Wake Model Validation. Remote Sensing, 2018, 10, 668.	4.0	75
26	A new analytical model for wind farm power prediction. Journal of Physics: Conference Series, 2015, 625, 012039.	0.4	66
27	A new wake model and comparison of eight algorithms for layout optimization of wind farms in complex terrain. Applied Energy, 2020, 259, 114189.	10.1	65
28	A momentum-conserving wake superposition method for wind farm power prediction. Journal of Fluid Mechanics, 2020, 889, .	3.4	65
29	Flow Adjustment Inside and Around Large Finite-Size Wind Farms. Energies, 2017, 10, 2164.	3.1	63
30	A New Miniature Wind Turbine for Wind Tunnel Experiments. Part I: Design and Performance. Energies, 2017, 10, 908.	3.1	57
31	An Analytical Model for the Effect of Vertical Wind Veer on Wind Turbine Wakes. Energies, 2018, 11, 1838.	3.1	55
32	Realistic Wind Farm Layout Optimization through Genetic Algorithms Using a Gaussian Wake Model. Energies, 2018, 11, 3268.	3.1	52
33	Turbulent flow and scalar transport through and over aligned and staggered wind farms. Journal of Turbulence, 2012, 13, N33.	1.4	48
34	Velocity and Surface Shear Stress Distributions Behind a Rough-to-Smooth Surface Transition: A Simple New Model. Boundary-Layer Meteorology, 2009, 130, 29-41.	2.3	43
35	Experimental investigation and analytical modelling of active yaw control for wind farm power optimization. Renewable Energy, 2021, 170, 1228-1244.	8.9	38
36	Influence of the Coriolis force on the structure and evolution of wind turbine wakes. Physical Review Fluids, 2016, 1, .	2.5	37

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37	Evening methane emission pulses from a boreal wetland correspond to convective mixing in hollows. Journal of Geophysical Research G: Biogeosciences, 2013, 118, 994-1005.	3.0	35
38	A New Miniature Wind Turbine for Wind Tunnel Experiments. Part II: Wake Structure and Flow Dynamics. Energies, 2017, 10, 923.	3.1	34
39	A wind-tunnel investigation of wind-turbine wakes in yawed conditions. Journal of Physics: Conference Series, 2015, 625, 012014.	0.4	33
40	On the Impact of Wind Farms on a Convective Atmospheric Boundary Layer. Boundary-Layer Meteorology, 2015, 157, 81-96.	2.3	32
41	Large-Eddy Simulation of Yawed Wind-Turbine Wakes: Comparisons with Wind Tunnel Measurements and Analytical Wake Models. Energies, 2019, 12, 4574.	3.1	31
42	Effects of flow depth variations on the wake recovery behind a horizontal-axis hydrokinetic in-stream turbine. Renewable Energy, 2018, 125, 620-629.	8.9	30
43	Experimental study of the impact of large-scale wind farms on landâ€“atmosphere exchanges. Environmental Research Letters, 2013, 8, 015002.	5.2	28
44	A model for the effect of pressure gradient on turbulent axisymmetric wakes. Journal of Fluid Mechanics, 2018, 837, .	3.4	27
45	Dissolved Oxygen Measurements in Aquatic Environments: The Effects of Changing Temperature and Pressure on Three Sensor Technologies. Journal of Environmental Quality, 2009, 38, 1766-1774.	2.0	26
46	A point vortex transportation model for yawed wind turbine wakes. Journal of Fluid Mechanics, 2020, 890, .	3.4	26
47	Subfilter-scale Fluxes over a Surface Roughness Transition. Part I: Measured Fluxes and Energy Transfer Rates. Boundary-Layer Meteorology, 2007, 126, 157-179.	2.3	24
48	A Simple Physically-Based Model for Wind-Turbine Wake Growth in a Turbulent Boundary Layer. Boundary-Layer Meteorology, 2018, 169, 1-10.	2.3	24
49	The effect of atmospheric stability on wind-turbine wakes: A large-eddy simulation study. Journal of Physics: Conference Series, 2014, 524, 012138.	0.4	23
50	Canopy-wake dynamics and wind sheltering effects on Earth surface fluxes. Environmental Fluid Mechanics, 2014, 14, 663-697.	1.6	21
51	Modified Power Curves for Prediction of Power Output of Wind Farms. Energies, 2019, 12, 1805.	3.1	18
52	Characterization of Wind Turbine Wakes with Nacelle-Mounted Doppler LiDARs and Model Validation in the Presence of Wind Veer. Remote Sensing, 2019, 11, 2247.	4.0	18
53	Lidar measurements of yawed-wind-turbine wakes: characterization and validation of analytical models. Wind Energy Science, 2020, 5, 1253-1272.	3.3	17
54	Wind turbine wakes on escarpments: A wind-tunnel study. Renewable Energy, 2022, 181, 1258-1275.	8.9	16

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55	Using a Virtual Lidar Approach to Assess the Accuracy of the Volumetric Reconstruction of a Wind Turbine Wake. Remote Sensing, 2018, 10, 721.	4.0	12
56	Volumetric scans of wind turbine wakes performed with three simultaneous wind LiDARs under different atmospheric stability regimes. Journal of Physics: Conference Series, 2014, 524, 012164.	0.4	11
57	Large-eddy simulation of the diurnal variation of wake flows in a finite-size wind farm. Journal of Physics: Conference Series, 2015, 625, 012031.	0.4	11
58	Turbulent planar wakes under pressure gradient conditions. Journal of Fluid Mechanics, 2017, 830, .	3.4	11
59	A Calibration Procedure for an Analytical Wake Model Using Wind Farm Operational Data. Energies, 2020, 13, 3537.	3.1	11
60	Field measurements of wake meandering at a utility-scale wind turbine with nacelle-mounted Doppler lidars. Wind Energy Science, 2022, 7, 185-199.	3.3	11
61	A physics-based model for wind turbine wake expansion in the atmospheric boundary layer. Journal of Fluid Mechanics, 2022, 943, .	3.4	11
62	Variability of wind turbine noise over a diurnal cycle. Renewable Energy, 2018, 126, 791-800.	8.9	10
63	Wind Farm Area Shape Optimization Using Newly Developed Multi-Objective Evolutionary Algorithms. Energies, 2021, 14, 4185.	3.1	10
64	Analytical Model for Mean Flow and Fluxes of Momentum and Energy in Very Large Wind Farms. Boundary-Layer Meteorology, 2018, 166, 31-49.	2.3	8
65	Improving the spatial and temporal monitoring of cyanotoxins in Iowa lakes using a multiscale and multi-modal monitoring approach. Science of the Total Environment, 2021, 760, 143327.	8.0	8
66	Examining the utility of satellite-based wind sheltering estimates for lake hydrodynamic modeling. Remote Sensing of Environment, 2015, 156, 551-560.	11.0	6
67	Instability of wind turbine wakes immersed in the atmospheric boundary layer. Journal of Physics: Conference Series, 2015, 625, 012034.	0.4	5
68	An Induction Curve Model for Prediction of Power Output of Wind Turbines in Complex Conditions. Energies, 2020, 13, 891.	3.1	5
69	Experimental investigation of aerodynamic characteristics of bat carcasses after collision with a wind turbine. Wind Energy Science, 2020, 5, 745-758.	3.3	5
70	Multi-rotor Wind Farm Layout Optimization. Journal of Physics: Conference Series, 2020, 1618, 032014.	0.4	4
71	Identification of damage parameters during flood events applicable to multi-span bridges. Journal of Civil Structural Health Monitoring, 2020, 10, 973-985.	3.9	3
72	Three-dimensional wind-turbine wake characterization via tomographic particle-image velocimetry. Journal of Physics: Conference Series, 2020, 1618, 062045.	0.4	2

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73	Development and testing of a threeâ€dimensional ballistics model for bat strikes on wind turbines. Wind Energy, 0, , .	4.2	1
74	Wind Turbine Wakes in Directionally Varying Wind Shears. Springer Proceedings in Physics, 2019, , 311-316.	0.2	1
75	Turbulent Flow and Heat Transport over a Two-dimensional Steep Hill: Wind-tunnel Experiments. , 2015, , .		0
76	A Monte-Carlo based 3-D ballistics model for guiding bat carcass surveys using environmental and turbine operational data. Ecological Modelling, 2022, 470, 110029.	2.5	0