

Wen Zhong Shen

List of Publications by Year in descending order

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96
papers

3,908
citations

147566
31
h-index

128067
60
g-index

99
all docs

99
docs citations

99
times ranked

1994
citing authors

#	ARTICLE	IF	CITATIONS
1	Numerical Modeling of Wind Turbine Wakes. Journal of Fluids Engineering, Transactions of the ASME, 2002, 124, 393-399.	0.8	842
2	Tip loss corrections for wind turbine computations. Wind Energy, 2005, 8, 457-475.	1.9	325
3	Solving the wind farm layout optimization problem using random search algorithm. Renewable Energy, 2015, 78, 182-192.	4.3	166
4	Shape optimization of wind turbine blades. Wind Energy, 2009, 12, 781-803.	1.9	140
5	Development and validation of a new two-dimensional wake model for wind turbine wakes. Journal of Wind Engineering and Industrial Aerodynamics, 2015, 137, 90-99.	1.7	118
6	The Actuator Surface Model: A New Navier-Stokes Based Model for Rotor Computations. Journal of Solar Energy Engineering, Transactions of the ASME, 2009, 131, .	1.1	102
7	Actuator line/Navier-Stokes computations for the MEXICO rotor: comparison with detailed measurements. Wind Energy, 2012, 15, 811-825.	1.9	102
8	Improved Rhie-Chow Interpolation for Unsteady Flow Computations. AIAA Journal, 2001, 39, 2406-2409.	1.5	100
9	Design optimization of offshore wind farms with multiple types of wind turbines. Applied Energy, 2017, 205, 1283-1297.	5.1	86
10	Modeling of Aerodynamically Generated Noise From Wind Turbines. Journal of Solar Energy Engineering, Transactions of the ASME, 2005, 127, 517-528.	1.1	79
11	Aeroacoustic Modelling of Low-Speed Flows. Theoretical and Computational Fluid Dynamics, 1999, 13, 271-289.	0.9	78
12	Tip Loss Correction for Actuator/Navier-Stokes Computations. Journal of Solar Energy Engineering, Transactions of the ASME, 2005, 127, 209-213.	1.1	78
13	Determination of the angle of attack on rotor blades. Wind Energy, 2009, 12, 91-98.	1.9	78
14	A new wake model and comparison of eight algorithms for layout optimization of wind farms in complex terrain. Applied Energy, 2020, 259, 114189.	5.1	65
15	Prediction of the wind turbine performance by using BEM with airfoil data extracted from CFD. Renewable Energy, 2014, 70, 107-115.	4.3	64
16	Evaluation of different methods for determining the angle of attack on wind turbine blades with CFD results under axial inflow conditions. Renewable Energy, 2018, 125, 866-876.	4.3	64
17	Structural optimization study of composite wind turbine blade. Materials & Design, 2013, 46, 247-255.	5.1	62
18	Modelling Wind for Wind Farm Layout Optimization Using Joint Distribution of Wind Speed and Wind Direction. Energies, 2015, 8, 3075-3092.	1.6	56

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19	Atmospheric stability and topography effects on wind turbine performance and wake properties in complex terrain. <i>Renewable Energy</i> , 2018, 126, 640-651.	4.3	54
20	Wind farm power production in the changing wind: Robustness quantification and layout optimization. <i>Energy Conversion and Management</i> , 2017, 148, 905-914.	4.4	49
21	AN IMPROVED SIMPLECTIC METHOD ON COLLOCATED GRIDS FOR STEADY AND UNSTEADY FLOW COMPUTATIONS. <i>Numerical Heat Transfer, Part B: Fundamentals</i> , 2003, 43, 221-239.	0.6	48
22	Consistent modelling of wind turbine noise propagation from source to receiver. <i>Journal of the Acoustical Society of America</i> , 2017, 142, 3297-3310.	0.5	48
23	Prediction of multi-wake problems using an improved Jensen wake model. <i>Renewable Energy</i> , 2017, 102, 457-469.	4.3	46
24	Integrated airfoil and blade design method for large wind turbines. <i>Renewable Energy</i> , 2014, 70, 172-183.	4.3	45
25	Quasi-3D Navier-Stokes Model for a Rotating Airfoil. <i>Journal of Computational Physics</i> , 1999, 150, 518-548.	1.9	38
26	Three-dimensional viscous-inviscid coupling method for wind turbine computations. <i>Wind Energy</i> , 2016, 19, 67-93.	1.9	37
27	Wall Correction Model for Wind Tunnels with Open Test Section. <i>AIAA Journal</i> , 2006, 44, 1890-1894.	1.5	36
28	Fatigue distribution optimization for offshore wind farms using intelligent agent control. <i>Wind Energy</i> , 2012, 15, 927-944.	1.9	35
29	Wind turbine noise generation and propagation modeling at DTU Wind Energy: A review. <i>Renewable and Sustainable Energy Reviews</i> , 2018, 88, 133-150.	8.2	35
30	Modelling the nacelle wake of a horizontal-axis wind turbine under different yaw conditions. <i>Renewable Energy</i> , 2021, 172, 263-275.	4.3	34
31	Aerodynamic wind-turbine rotor design using surrogate modeling and three-dimensional viscous-inviscid interaction technique. <i>Renewable Energy</i> , 2016, 93, 620-635.	4.3	33
32	A strong viscous-inviscid interaction model for rotating airfoils. <i>Wind Energy</i> , 2014, 17, 1957-1984.	1.9	32
33	Effects of wind turbine wake on atmospheric sound propagation. <i>Applied Acoustics</i> , 2017, 122, 51-61.	1.7	32
34	An Optimization Framework for Wind Farm Design in Complex Terrain. <i>Applied Sciences (Switzerland)</i> , 2018, 8, 2053.	1.3	32
35	CFD Simulations of Flows in a Wind Farm in Complex Terrain and Comparisons to Measurements. <i>Applied Sciences (Switzerland)</i> , 2018, 8, 788.	1.3	32
36	Researches on vortex generators applied to wind turbines: A review. <i>Ocean Engineering</i> , 2022, 253, 111266.	1.9	31

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37	Improved blade element momentum theory for wind turbine aerodynamic computations. <i>Renewable Energy</i> , 2016, 96, 824-831.	4.3	30
38	A collocated grid finite volume method for aeroacoustic computations of low-speed flows. <i>Journal of Computational Physics</i> , 2004, 196, 348-366.	1.9	28
39	Design and validation of the high performance and low noise CQU-DTU-LN1 airfoils. <i>Wind Energy</i> , 2014, 17, 1817-1833.	1.9	26
40	A review: Approaches for aerodynamic performance improvement of lift-type vertical axis wind turbine. <i>Sustainable Energy Technologies and Assessments</i> , 2022, 49, 101789.	1.7	26
41	A tip loss correction model for wind turbine aerodynamic performance prediction. <i>Renewable Energy</i> , 2020, 147, 223-238.	4.3	24
42	The influence of imperfections on the flow structure of steady vortex breakdown bubbles. <i>Journal of Fluid Mechanics</i> , 2007, 578, 453-466.	1.4	23
43	Aeroacoustic Computations for Turbulent Airfoil Flows. <i>AIAA Journal</i> , 2009, 47, 1518-1527.	1.5	23
44	Advanced flow and noise simulation method for wind farm assessment in complex terrain. <i>Renewable Energy</i> , 2019, 143, 1812-1825.	4.3	22
45	Variable Pitch Approach for Performance Improving of Straight-Bladed VAWT at Rated Tip Speed Ratio. <i>Applied Sciences (Switzerland)</i> , 2018, 8, 957.	1.3	21
46	Validation of a three-dimensional viscous-inviscid interactive solver for wind turbine rotors. <i>Renewable Energy</i> , 2014, 70, 78-92.	4.3	20
47	Study on variable pitch strategy in H-type wind turbine considering effect of small angle of attack. <i>Journal of Renewable and Sustainable Energy</i> , 2017, 9, .	0.8	18
48	Numerical investigations into the idealized diurnal cycle of atmospheric boundary layer and its impact on wind turbine's power performance. <i>Renewable Energy</i> , 2020, 145, 419-427.	4.3	18
49	Improvement of airfoil trailing edge bluntness noise model. <i>Advances in Mechanical Engineering</i> , 2016, 8, 168781401662934.	0.8	17
50	Hybrid Immersed Boundary Method for Airfoils with a Trailing-Edge Flap. <i>AIAA Journal</i> , 2013, 51, 30-41.	1.5	16
51	Multi-Objective Random Search Algorithm for Simultaneously Optimizing Wind Farm Layout and Number of Turbines. <i>Journal of Physics: Conference Series</i> , 2016, 753, 032011.	0.3	16
52	Effects of turbulence modelling in AD/RANS simulations of single wind & tidal turbine wakes and double wake interactions. <i>Energy</i> , 2020, 208, 118440.	4.5	16
53	High-order numerical simulations of flow-induced noise. <i>International Journal for Numerical Methods in Fluids</i> , 2011, 66, 17-37.	0.9	15
54	Optimizing wind energy conversion efficiency with respect to noise: A study on multi-criteria wind farm layout design. <i>Renewable Energy</i> , 2020, 159, 468-485.	4.3	15

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55	A new three-dimensional analytical model for wind turbine wake turbulence intensity predictions. <i>Renewable Energy</i> , 2022, 189, 762-776.	4.3	14
56	Extraction of airfoil data using PIV and pressure measurements. <i>Wind Energy</i> , 2011, 14, 539-556.	1.9	13
57	LES simulation and experimental validation of the unsteady aerodynamics of blunt wind turbine airfoils. <i>Energy</i> , 2018, 158, 911-923.	4.5	13
58	Modeling of wind turbine vortex generators in considering the inter-effects between arrays. <i>Journal of Renewable and Sustainable Energy</i> , 2017, 9, .	0.8	12
59	Evaluation of the Power-Law Wind-Speed Extrapolation Method with Atmospheric Stability Classification Methods for Flows over Different Terrain Types. <i>Applied Sciences (Switzerland)</i> , 2018, 8, 1429.	1.3	12
60	Assessment of inflow boundary conditions for RANS simulations of neutral ABL and wind turbine wake flow. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2018, 179, 215-228.	1.7	12
61	Design of the OffWindChina 5 MW Wind Turbine Rotor. <i>Energies</i> , 2017, 10, 777.	1.6	11
62	Vorticity-velocity formulation of the 3D Navier-Stokes equations in cylindrical co-ordinates. <i>International Journal for Numerical Methods in Fluids</i> , 2003, 41, 29-45.	0.9	10
63	Variability of wind turbine noise over a diurnal cycle. <i>Renewable Energy</i> , 2018, 126, 791-800.	4.3	10
64	Evaluation of Tip Loss Corrections to AD/NS Simulations of Wind Turbine Aerodynamic Performance. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 4919.	1.3	9
65	Development of a CFD-Based Wind Turbine Rotor Optimization Tool in Considering Wake Effects. <i>Applied Sciences (Switzerland)</i> , 2018, 8, 1056.	1.3	8
66	Ventilation in pumped storage power stations: Influence of dehumidifiers in an underground tunnel. <i>Applied Thermal Engineering</i> , 2020, 172, 115162.	3.0	8
67	Improved fixed point iterative method for blade element momentum computations. <i>Wind Energy</i> , 2017, 20, 1585-1600.	1.9	7
68	A New Method of Determination of the Angle of Attack on Rotating Wind Turbine Blades. <i>Energies</i> , 2019, 12, 4012.	1.6	7
69	Investigation of wake characteristics of the MEXICO wind turbine using lattice Boltzmann method. <i>Wind Energy</i> , 2021, 24, 116-132.	1.9	7
70	Effect of non-uniform mean flow field on acoustic propagation problems in computational aeroacoustics. <i>Aerospace Science and Technology</i> , 2013, 28, 145-153.	2.5	6
71	An Aerodynamic Noise Propagation Model for Wind Turbines. <i>Wind Engineering</i> , 2005, 29, 129-141.	1.1	5
72	Numerical simulation and performance optimization of the centrifugal fan in a vacuum cleaner. <i>Modern Physics Letters B</i> , 2019, 33, 1950440.	1.0	5

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73	AD/RANS Simulations of Wind Turbine Wake Flow Employing the RSM Turbulence Model: Impact of Isotropic and Anisotropic Inflow Conditions. <i>Energies</i> , 2019, 12, 4026.	1.6	5
74	Aerodynamic Analysis of Coning Effects on the DTU 10 MW Wind Turbine Rotor. <i>Energies</i> , 2020, 13, 5753.	1.6	5
75	Verification of a novel innovative blade root design for wind turbines using a hybrid numerical method. <i>Energy</i> , 2017, 141, 1661-1670.	4.5	4
76	Similarity functions and a new $k\epsilon$ closure for predicting stratified atmospheric surface layer flows in complex terrain. <i>Renewable Energy</i> , 2020, 150, 907-917.	4.3	4
77	A new multi-fidelity flow-acoustics simulation framework for wind farm application. <i>Renewable and Sustainable Energy Reviews</i> , 2022, 156, 111939.	8.2	4
78	Multi-Agent Model for Fatigue Control in Large Offshore Wind Farm. , 2008, , .		3
79	Special Issue on Wind Turbine Aerodynamics. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 1725.	1.3	3
80	Development of an Efficient Numerical Method for Wind Turbine Flow, Sound Generation, and Propagation under Multi-Wake Conditions. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 100.	1.3	3
81	Monin-Obukhov Similarity Theory for Modeling of Wind Turbine Wakes under Atmospheric Stable Conditions: Breakdown and Modifications. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 4256.	1.3	3
82	Development of an Advanced Fluid-Structure-Acoustics Framework for Predicting and Controlling the Noise Emission from a Wind Turbine under Wind Shear and Yaw. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 7610.	1.3	3
83	An Improved Power Control Approach for Wind Turbine Fatigue Balancing in an Offshore Wind Farm. <i>Energies</i> , 2020, 13, 1549.	1.6	3
84	Noise Propagation Calculations of a Wind Turbine in Complex Terrain. <i>Journal of Physics: Conference Series</i> , 2020, 1452, 012063.	0.3	3
85	New measurement technique for ground acoustic impedance in wind farm. <i>Renewable Energy</i> , 2021, 164, 791-803.	4.3	3
86	Research on Unsteady Wake Characteristics of the NREL 5MW Wind Turbine Under Yaw Conditions Based on a LBM-LES Method. <i>Frontiers in Energy Research</i> , 2022, 10, .	1.2	3
87	Investigation of load prediction on the Mexico rotor using the technique of determination of the angle of attack. <i>Chinese Journal of Mechanical Engineering (English Edition)</i> , 2012, 25, 506-514.	1.9	2
88	Large Wind Turbine Rotor Design using an Aero-Elastic / Free-Wake Panel Coupling Code. <i>Journal of Physics: Conference Series</i> , 2016, 753, 042017.	0.3	2
89	Validation of noise propagation models against detailed flow and acoustic measurements. <i>Journal of Physics: Conference Series</i> , 2020, 1618, 052023.	0.3	2
90	Editorial: Towards Innovation in Next Generation of Wind Turbine Rotor Design. <i>Frontiers in Energy Research</i> , 2021, 9, .	1.2	2

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91	Aero-structural optimization of wind turbine blades using a reduced set of design load cases including turbulence. Journal of Physics: Conference Series, 2018, 1037, 042018.	0.3	1
92	Numerical Simulations of Novel Conning Designs for Future Super-Large Wind Turbines. Applied Sciences (Switzerland), 2021, 11, 147.	1.3	1
93	Special Issue on Wind Turbine Aerodynamics II. Applied Sciences (Switzerland), 2021, 11, 8728.	1.3	0
94	Denmark Wind Energy Programme. , 2015, , 941-949.		0
95	10.1121/1.5012747.1. , 2017, , .		0
96	Development of a streamline wake model for wind farm performance predictions. Journal of Physics: Conference Series, 2020, 1618, 062027.	0.3	0