Christian Bak

List of Publications by Year
in descending order

54 papers	1,718 citations	361413 20 h-index	289244 40 g-index
55 all docs	55 docs citations	55 times ranked	936 citing authors

#	Article	IF	Citations
1	A twoâ€dimensional quantitative parametric investigation of simplified surface imperfections on the aerodynamic characteristics of a NACA 63₃â€418 airfoil. Wind Energy, 2021, 24, 310-322.	4.2	7
2	Airfoil Design. , 2021, , 1-29.		0
3	Wind tunnel experiments on a NACA 63₃â€418 airfoil with different types of leading edge roughness. Wind Energy, 2021, 24, 1263-1274.	4.2	7
4	Leading edge erosion of wind turbine blades: Understanding, prevention and protection. Renewable Energy, 2021, 169, 953-969.	8.9	72
5	A method for preliminary rotor design â€“ PartÂ2: Wind turbine Optimization with Radial Independence. Wind Energy Science, 2021, 6, 917-933.	3.3	2
6	A method for preliminary rotor design â€“ PartÂ1: Radially Independent Actuator Disc model. Wind Energy Science, 2021, 6, 903-915.	3.3	1
7	Increase in the annual energy production due to a retrofit of vortex generators on blades. Wind Energy, 2020, 23, 617-626.	4.2	8
8	Improved roughness model for turbulent flow in 2D viscousâ€inviscid panel methods. Wind Energy, 2020, 23, 608-616.	4.2	3
9	The influence of leading edge roughness, rotor control and wind climate on the loss in energy production. Journal of Physics: Conference Series, 2020, 1618, 052050.	0.4	11
10	CFD simulations and evaluation of applicability of a wall roughness model applied on a NACA 63₃â€418 airfoil. Wind Energy, 2020, 23, 2056-2067.	4.2	3
11	Optimal relationship between power and design-driving loads for wind turbine rotors using 1-D models. Wind Energy Science, 2020, 5, 155-170.	3.3	7
12	Transition characteristics measured on a 2MW 80m diameter wind turbine rotor in comparison with transition data from wind tunnel measurements. , 2019, , .		6
13	Wind tunnel tests of an airfoil with 18% relative thickness equipped with vortex generators. Journal of Physics: Conference Series, 2018, 1037, 022044.	0.4	7
14	Extending the life of wind turbine blade leading edges by reducing the tip speed during extreme precipitation events. Wind Energy Science, 2018, 3, 729-748.	3.3	62
15	A semi-empirical airfoil stall noise model based on surface pressure measurements. Journal of Sound and Vibration, 2017, 387, 127-162.	3.9	23
16	What is the critical height of leading edge roughness for aerodynamics?. Journal of Physics: Conference Series, 2016, 753, 022023.	0.4	8
17	Wind turbine fatigue damage evaluation based on a linear model and a spectral method. Wind Energy, 2016, 19, 1289-1306.	4.2	24
18	Full scale wind turbine test of vortex generators mounted on the entire blade. Journal of Physics: Conference Series, 2016, 753, 022001.	0.4	11

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19	Aerodynamic Noise Characterization of a Full-Scale Wind Turbine through High-Frequency Surface Pressure Measurements. International Journal of Aeroacoustics, 2015, 14, 729-766.	1.3	11
20	Aero-Elastic Optimization of a 10 MW Wind Turbine. , 2015, , .		24
21	Airfoil design: Finding the balance between design lift and structural stiffness. Journal of Physics: Conference Series, 2014, 524, 012017.	0.4	7
22	Comprehensive Aerodynamic Analysis of a 10 MW Wind Turbine Rotor Using 3D CFD. , 2014, , .		12
23	Effects of gain-scheduling methods in a classical wind turbine controller on wind turbine aero-servo-elastic modes and loads. , 2014, , .		7
24	Fullâ€scale test of trailing edge flaps on a Vestas V27 wind turbine: active load reduction and system identification. Wind Energy, 2014, 17, 549-564.	4.2	82
25	Prediction of the Effect of Vortex Generators on Airfoil Performance. Journal of Physics: Conference Series, 2014, 524, 012019.	0.4	31
26	The Effect of Mounting Vortex Generators on the DTU 10MW Reference Wind Turbine Blade. Journal of Physics: Conference Series, 2014, 524, 012034.	0.4	21
27	Design of the LRP airfoil series using 2D CFD. Journal of Physics: Conference Series, 2014, 524, 012020.	0.4	11
28	Aerodynamic optimization of wind turbine rotors using a blade element momentum method with corrections for wake rotation and expansion. Wind Energy, 2012, 15, 563-574.	4.2	20
29	Optimization of the Wind Turbine Rotor to Enhance the Performance. , 2011, , .		0
30	Trailing Edge Noise Model Validation and Application to Airfoil Optimization. Journal of Solar Energy Engineering, Transactions of the ASME, 2010, 132, 031010.	1.8	23
31	Validation and modification of the Blade Element Momentum theory based on comparisons with actuator disc simulations. Wind Energy, 2010, 13, 373-389.	4.2	84
32	Wind tunnel test on airfoil RisÃ¸B1â€18 with an Active Trailing Edge Flap. Wind Energy, 2010, 13, 207-219.	4.2	45
33	Deformable trailing edge flaps for modern megawatt wind turbine controllers using strain gauge sensors. Wind Energy, 2010, 13, 193-206.	4.2	81
34	Design of a wind turbine rotor for maximum aerodynamic efficiency. Wind Energy, 2009, 12, 261-273.	4.2	54
35	A dynamic stall model for airfoils with deformable trailing edges. Wind Energy, 2009, 12, 734-751.	4.2	25
36	Implementing a Dynamic Stall Model for Airfoils with Deformable Trailing Edges. , 2008, , .		4

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37	Design and Verification of Airfoils Resistant to Surface Contamination and Turbulence Intensity. , 2008, , .		15
38	Sensitivity of Key Parameters in Aerodynamic Wind Turbine Rotor Design on Power and Energy Performance. Journal of Physics: Conference Series, 2007, 75, 012008.	0.4	8
39	A Dynamic Stall Model for Airfoils with Deformable Trailing Edges. Journal of Physics: Conference Series, 2007, 75, 012028.	0.4	8
40	Wind Tunnel Test on Wind Turbine Airfoil with Adaptive Trailing Edge Geometry. , 2007, , .		41
41	3D Navier-Stokes Simulations of a Rotor Designed for Maximum Aerodynamic Efficiency. , 2007, , .		5
42	A Detailed investigation of the Blade Element Momentum (BEM) model based on analytical and numerical results and proposal for modifications of the BEM model. Journal of Physics: Conference Series, 2007, 75, 012016.	0.4	44
43	Performance of the RisÃ¸-B1 Airfoil Family for Wind Turbines. , 2007, , 231-234.		3
44	Tip loss corrections for wind turbine computations. Wind Energy, 2005, 8, 457-475.	4.2	325
45	Potential Load Reduction Using Airfoils with Variable Trailing Edge Geometry. Journal of Solar Energy Engineering, Transactions of the ASME, 2005, 127, 503-516.	1.8	98
46	Load Reduction Potential Using Airfoils with Variable Trailing Edge Geometry. , 2005, , .		12
47	Design and Verification of the RisÃ¸-B1 Airfoil Family for Wind Turbines. Journal of Solar Energy Engineering, Transactions of the ASME, 2004, 126, 1002-1010.	1.8	64
48	Development of the RisÃ¸ wind turbine airfoils. Wind Energy, 2004, 7, 145-162.	4.2	142
49	A Method for Deriving 3D Airfoil Characteristics for a Wind Turbine. , 2004, , .		4
50	Present Status of Aeroelasticity of Wind Turbines. Wind Energy, 2003, 6, 213-228.	4.2	50
51	Modification of the NACA 632-415 Leading Edge for Better Aerodynamic Performance. Journal of Solar Energy Engineering, Transactions of the ASME, 2002, 124, 327-334.	1.8	9
52	Site-specific Design Optimization of Wind Turbines. Wind Energy, 2002, 5, 261-279.	4.2	63
53	Modification of the NACA 632-415 leading edge for better aerodynamic performance. , 2001, , .		1
54	Observations and hypothesis of double stall. Wind Energy, 1999, 2, 195-210.	4.2	22