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	Tip loss corrections for wind turbine computations. Wind Energy, 2005, 8, 457-475.	4.2	325
2	Development of the RisÃ¸ wind turbine airfoils. Wind Energy, 2004, 7, 145-162.	4.2	142
3	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
4	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
5	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
6	Deformable trailing edge flaps for modern megawatt wind turbine controllers using strain gauge sensors. Wind Energy, 2010, 13, 193-206.	4.2	81
7	Leading edge erosion of wind turbine blades: Understanding, prevention and protection. Renewable Energy, 2021, 169, 953-969.	8.9	72
8	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
9	Site-specific Design Optimization of Wind Turbines. Wind Energy, 2002, 5, 261-279.	4.2	63
10	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
11	Design of a wind turbine rotor for maximum aerodynamic efficiency. Wind Energy, 2009, 12, 261-273.	4.2	54
12	Present Status of Aeroelasticity of Wind Turbines. Wind Energy, 2003, 6, 213-228.	4.2	50
13	Wind tunnel test on airfoil RisÃ¸â€B1â€18 with an Active Trailing Edge Flap. Wind Energy, 2010, 13, 207-219.	4.2	45
14	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
15	Wind Tunnel Test on Wind Turbine Airfoil with Adaptive Trailing Edge Geometry. , 2007, , .		41
16	Prediction of the Effect of Vortex Generators on Airfoil Performance. Journal of Physics: Conference Series, 2014, 524, 012019.	0.4	31
17	A dynamic stall model for airfoils with deformable trailing edges. Wind Energy, 2009, 12, 734-751.	4.2	25
18	Aero-Elastic Optimization of a 10 MW Wind Turbine. , 2015, , .		24

#	Article	IF	Citations
19	Wind turbine fatigue damage evaluation based on a linear model and a spectral method. Wind Energy, 2016, 19, 1289-1306.	4.2	24
20	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
21	A semi-empirical airfoil stall noise model based on surface pressure measurements. Journal of Sound and Vibration, 2017, 387, 127-162.	3.9	23
22	Observations and hypothesis of double stall. Wind Energy, 1999, 2, 195-210.	4.2	22
23	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
24	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
25	Design and Verification of Airfoils Resistant to Surface Contamination and Turbulence Intensity. , 2008, , .		15
26	Load Reduction Potential Using Airfoils with Variable Trailing Edge Geometry. , 2005, , .		12
27	Comprehensive Aerodynamic Analysis of a 10 MW Wind Turbine Rotor Using 3D CFD. , 2014, , .		12
28	Design of the LRP airfoil series using 2D CFD. Journal of Physics: Conference Series, 2014, 524, 012020.	0.4	11
29	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
30	Full scale wind turbine test of vortex generators mounted on the entire blade. Journal of Physics: Conference Series, 2016, 753, 022001.	0.4	11
31	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
32	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
33	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
34	A Dynamic Stall Model for Airfoils with Deformable Trailing Edges. Journal of Physics: Conference Series, 2007, 75, 012028.	0.4	8
35	What is the critical height of leading edge roughness for aerodynamics?. Journal of Physics: Conference Series, 2016, 753, 022023.	0.4	8
36	Increase in the annual energy production due to a retrofit of vortex generators on blades. Wind Energy, 2020, 23, 617-626.	4.2	8

#	ARTICLE	IF	CITATIONS
37	Airfoil design: Finding the balance between design lift and structural stiffness. Journal of Physics: Conference Series, 2014, 524, 012017.	0.4	7
38	Effects of gain-scheduling methods in a classical wind turbine controller on wind turbine aero-servo-elastic modes and loads. , 2014, , .		7
39	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
40	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
41	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
42	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
43	Transition characteristics measured on a 2MW 80m diameter wind turbine rotor in comparison with transition data from wind tunnel measurements. , 2019, , .		6
44	3D Navier-Stokes Simulations of a Rotor Designed for Maximum Aerodynamic Efficiency. , 2007, , .		5
45	A Method for Deriving 3D Airfoil Characteristics for a Wind Turbine. , 2004, , .		4
46	Implementing a Dynamic Stall Model for Airfoils with Deformable Trailing Edges. , 2008, , .		4
47	Improved roughness model for turbulent flow in 2D viscousâ€inviscid panel methods. Wind Energy, 2020, 23, 608-616.	4.2	3
48	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
49	Performance of the RisÃ¸-B1 Airfoil Family for Wind Turbines. , 2007, , 231-234.		3
50	A method for preliminary rotor design â€" PartÂ2: Wind turbine Optimization with Radial Independence. Wind Energy Science, 2021, 6, 917-933.	3.3	2
51	Modification of the NACA 632-415 leading edge for better aerodynamic performance. , 2001, , .		1
52	A method for preliminary rotor design â€" PartÂ1: Radially Independent Actuator Disc model. Wind Energy Science, 2021, 6, 903-915.	3.3	1
53	Optimization of the Wind Turbine Rotor to Enhance the Performance. , 2011, , .		0
54	Airfoil Design. , 2021, , 1-29.		0