Bert Blocken

List of Publications by Year
in descending order

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		8749	13365
224	19,271	75	130
papers	citations	h-index	g-index

233	233	233	7023
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	CFD simulation of the atmospheric boundary layer: wall function problems. Atmospheric Environment, 2007, 41, 238-252.	1.9	1,032
2	Computational Fluid Dynamics for urban physics: Importance, scales, possibilities, limitations and ten tips and tricks towards accurate and reliable simulations. Building and Environment, 2015, 91, 219-245.	3.0	661
3	50 years of Computational Wind Engineering: Past, present and future. Journal of Wind Engineering and Industrial Aerodynamics, 2014, 129, 69-102.	1.7	547
4	CFD simulation of cross-ventilation for a generic isolated building: Impact of computational parameters. Building and Environment, 2012, 53, 34-48.	3.0	414
5	A review on the CFD analysis of urban microclimate. Renewable and Sustainable Energy Reviews, 2017, 80, 1613-1640.	8.2	398
6	CFD evaluation of wind speed conditions in passages between parallel buildingsâ€"effect of wall-function roughness modifications for the atmospheric boundary layer flow. Journal of Wind Engineering and Industrial Aerodynamics, 2007, 95, 941-962.	1.7	357
7	A review of wind-driven rain research in building science. Journal of Wind Engineering and Industrial Aerodynamics, 2004, 92, 1079-1130.	1.7	346
8	CFD simulation for pedestrian wind comfort and wind safety in urban areas: General decision framework and case study for the Eindhoven University campus. Environmental Modelling and Software, 2012, 30, 15-34.	1.9	339
9	Coupled urban wind flow and indoor natural ventilation modelling on a high-resolution grid: A case study for the Amsterdam ArenA stadium. Environmental Modelling and Software, 2010, 25, 51-65.	1.9	315
10	LES over RANS in building simulation for outdoor and indoor applications: A foregone conclusion?. Building Simulation, 2018, 11, 821-870.	3.0	297
11	Pedestrian-level wind conditions around buildings: Review of wind-tunnel and CFD techniques and their accuracy for wind comfort assessment. Building and Environment, 2016, 100, 50-81.	3.0	279
12	CFD simulation of near-field pollutant dispersion on a high-resolution grid: A case study by LES and RANS for a building group in downtown Montreal. Atmospheric Environment, 2011, 45, 428-438.	1.9	276
13	Urban Physics: Effect of the micro-climate on comfort, health and energy demand. Frontiers of Architectural Research, 2012, 1, 197-228.	1.3	265
14	Effect of pitch angle on power performance and aerodynamics of a vertical axis wind turbine. Applied Energy, 2017, 197, 132-150.	5.1	265
15	CFD simulation of outdoor ventilation of generic urban configurations with different urban densities and equal and unequal street widths. Building and Environment, 2015, 92, 152-166.	3.0	257
16	Application of computational fluid dynamics in building performance simulation for the outdoor environment: an overview. Journal of Building Performance Simulation, 2011, 4, 157-184.	1.0	253
17	On the accuracy of CFD simulations of cross-ventilation flows for a generic isolated building: Comparison of RANS, LES and experiments. Building and Environment, 2017, 114, 148-165.	3.0	242
18	Review of external convective heat transfer coefficient models in building energy simulation programs: Implementation and uncertainty. Applied Thermal Engineering, 2013, 56, 134-151.	3.0	240

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19	CFD simulation of wind-induced pressure coefficients on buildings with and without balconies: Validation and sensitivity analysis. Building and Environment, 2013, 60, 137-149.	3.0	235
20	CFD simulation and validation of urban microclimate: A case study for Bergpolder Zuid, Rotterdam. Building and Environment, 2015, 83, 79-90.	3.0	220
21	Ten iterative steps for model development and evaluation applied to Computational Fluid Dynamics for Environmental Fluid Mechanics. Environmental Modelling and Software, 2012, 33, 1-22.	1.9	209
22	CFD simulation of a vertical axis wind turbine operating at a moderate tip speed ratio: Guidelines for minimum domain size and azimuthal increment. Renewable Energy, 2017, 107, 373-385.	4.3	208
23	On the accuracy of turbulence models for CFD simulations of vertical axis wind turbines. Energy, 2019, 180, 838-857.	4.5	207
24	Conservative modelling of the moisture and heat transfer in building components under atmospheric excitation. International Journal of Heat and Mass Transfer, 2007, 50, 1128-1140.	2.5	204
25	Convective heat transfer coefficients for exterior building surfaces: Existing correlations and CFD modelling. Energy Conversion and Management, 2011, 52, 512-522.	4.4	201
26	Pedestrian Wind Environment around Buildings: Literature Review and Practical Examples. Journal of Thermal Envelope and Building Science, 2004, 28, 107-159.	0.5	181
27	Numerical evaluation of pollutant dispersion in the built environment: Comparisons between models and experiments. Journal of Wind Engineering and Industrial Aerodynamics, 2008, 96, 1817-1831.	1.7	178
28	Pedestrian wind comfort around buildings: Comparison of wind comfort criteria based on whole-flow field data for a complex case study. Building and Environment, 2013, 59, 547-562.	3.0	160
29	Overview of pressure coefficient data in building energy simulation and airflow network programs. Building and Environment, 2009, 44, 2027-2036.	3.0	159
30	CFD analysis of transpirational cooling by vegetation: Case study for specific meteorological conditions during a heat wave in Arnhem, Netherlands. Building and Environment, 2015, 83, 11-26.	3.0	157
31	High-resolution CFD simulations for forced convective heat transfer coefficients at the facade of a low-rise building. Building and Environment, 2009, 44, 2396-2412.	3.0	155
32	On the effect of wind direction and urban surroundings on natural ventilation of a large semi-enclosed stadium. Computers and Fluids, 2010, 39, 1146-1155.	1.3	154
33	CFD analysis of convective heat transfer at the surfaces of a cube immersed in a turbulent boundary layer. International Journal of Heat and Mass Transfer, 2010, 53, 297-308.	2.5	148
34	Quality assessment of Large-Eddy Simulation of wind flow around a high-rise building: Validation and solution verification. Computers and Fluids, 2013, 79, 120-133.	1.3	148
35	CFD simulation of stratified indoor environment in displacement ventilation: Validation and sensitivity analysis. Building and Environment, 2016, 95, 299-313.	3.0	144
36	Pedestrian wind comfort around a large football stadium in an urban environment: CFD simulation, validation and application of the new Dutch wind nuisance standard. Journal of Wind Engineering and Industrial Aerodynamics, 2009, 97, 255-270.	1.7	141

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37	Urban wind energy: Some views on potential and challenges. Journal of Wind Engineering and Industrial Aerodynamics, 2018, 179, 146-157.	1.7	140
38	Towards accurate CFD simulations of vertical axis wind turbines at different tip speed ratios and solidities: Guidelines for azimuthal increment, domain size and convergence. Energy Conversion and Management, 2018, 156, 301-316.	4.4	139
39	CFD analysis of cross-ventilation of a generic isolated building with asymmetric opening positions: Impact of roof angle and opening location. Building and Environment, 2015, 85, 263-276.	3.0	137
40	Characterization of aerodynamic performance of vertical axis wind turbines: Impact of operational parameters. Energy Conversion and Management, 2018, 169, 45-77.	4.4	137
41	Evaporative cooling by water spray systems: CFD simulation, experimental validation and sensitivity analysis. Building and Environment, 2015, 83, 129-141.	3.0	133
42	Rainwater runoff from building facades: A review. Building and Environment, 2013, 60, 339-361.	3.0	129
43	Aerodynamic study of different cyclist positions: CFD analysis and full-scale wind-tunnel tests. Journal of Biomechanics, 2010, 43, 1262-1268.	0.9	128
44	The influence of the wind-blocking effect by a building on its wind-driven rain exposure. Journal of Wind Engineering and Industrial Aerodynamics, 2006, 94, 101-127.	1.7	125
45	CFD simulation of pollutant dispersion around isolated buildings: On the role of convective and turbulent mass fluxes in the prediction accuracy. Journal of Hazardous Materials, 2011, 194, 422-434.	6.5	125
46	CFD simulation of cross-ventilation flow for different isolated building configurations: Validation with wind tunnel measurements and analysis of physical and numerical diffusion effects. Journal of Wind Engineering and Industrial Aerodynamics, 2012, 104-106, 408-418.	1.7	125
47	Spatial and temporal distribution of driving rain on a low-rise building. Wind and Structures, an International Journal, 2002, 5, 441-462.	0.8	124
48	CFD and wind-tunnel analysis of outdoor ventilation in a real compact heterogeneous urban area: Evaluation using â€œair delayâ€• Building and Environment, 2017, 126, 355-372.	3.0	123
49	Towards optimal aerodynamic design of vertical axis wind turbines: Impact of solidity and number of blades. Energy, 2018, 165, 1129-1148.	4.5	123
50	CFD evaluation of natural ventilation of indoor environments by theÂconcentration decay method: CO2 gas dispersion from a semi-enclosed stadium. Building and Environment, 2013, 61, 1-17.	3.0	121
51	Influence of avenue-trees on air quality at the urban neighborhood scale. Part I: Quality assurance studies and turbulent Schmidt number analysis for RANS CFD simulations. Environmental Pollution, 2015, 196, 214-223.	3.7	117
52	CFD simulations of the aerodynamic drag of two drafting cyclists. Computers and Fluids, 2013, 71, 435-445.	1.3	115
53	Ventilation and air cleaning to limit aerosol particle concentrations in a gym during the COVID-19 pandemic. Building and Environment, 2021, 193, 107659.	3.0	113
54	CFD simulation of wind flow over natural complex terrain: Case study with validation by field measurements for Ria de Ferrol, Galicia, Spain. Journal of Wind Engineering and Industrial Aerodynamics, 2015, 147, 43-57.	1.7	112

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55	Aerodynamic drag in cycling pelotons: New insights by CFD simulation and wind tunnel testing. Journal of Wind Engineering and Industrial Aerodynamics, 2018, 179, 319-337.	1.7	112
56	CFD simulation of urban microclimate: Validation using high-resolution field measurements. Science of the Total Environment, 2019, 695, 133743.	3.9	112
57	Overview of three state-of-the-art wind-driven rain assessment models and comparison based on model theory. Building and Environment, 2010, 45, 691-703.	3.0	111
58	Influence of avenue-trees on air quality at the urban neighborhood scale. Part II: Traffic pollutant concentrations at pedestrian level. Environmental Pollution, 2015, 196, 176-184.	3.7	111
59	Wind tunnel experiments on cross-ventilation flow of a generic building with contaminant dispersion in unsheltered and sheltered conditions. Building and Environment, 2015, 92, 452-461.	3.0	110
60	CFD simulations of wind flow and mean surface pressure for buildings with balconies: Comparison of RANS and LES. Building and Environment, 2020, 173, 106747.	3.0	103
61	A venturi-shaped roof for wind-induced natural ventilation of buildings: Wind tunnel and CFD evaluation of different design configurations. Building and Environment, 2011, 46, 1797-1807.	3.0	102
62	CFD analysis of the impact of physical parameters on evaporative cooling by a mist spray system. Applied Thermal Engineering, 2015, 75, 608-622.	3.0	102
63	Validation of CFD simulations of wind-driven rain on a low-rise building facade. Building and Environment, 2007, 42, 2530-2548.	3.0	101
64	Numerical Study on the Existence of the Venturi Effect in Passages between Perpendicular Buildings. Journal of Engineering Mechanics - ASCE, 2008, 134, 1021-1028.	1.6	100
65	CFD simulation of train aerodynamics: Train-induced wind conditions at an underground railroad passenger platform. Journal of Wind Engineering and Industrial Aerodynamics, 2015, 139, 100-110.	1.7	99
66	Analysis of the predicted effect of passive climate adaptation measures on energy demand for cooling and heating in a residential building. Energy, 2016, 94, 811-820.	4.5	97
67	Wind Environmental Conditions in Passages between Two Long Narrow Perpendicular Buildings. Journal of Aerospace Engineering, 2008, 21, 280-287.	0.8	96
68	CFD simulation and validation of wind-driven rain on a building facade with an Eulerian multiphase model. Building and Environment, 2013, 61, 69-81.	3.0	95
69	On natural ventilation and thermal comfort in compact urban environments â€“ the Old Havana case. Building and Environment, 2009, 44, 1943-1958.	3.0	93
70	CFD evaluation of building geometry modifications to reduce pedestrian-level wind speed. Building and Environment, 2019, 163, 106293.	3.0	86
71	Wind tunnel analysis of flow and dispersion in cross-ventilated isolated buildings: Impact of opening positions. Journal of Wind Engineering and Industrial Aerodynamics, 2016, 155, 74-88.	1.7	85
72	Effect of the shaft on the aerodynamic performance of urban vertical axis wind turbines. Energy Conversion and Management, 2017, 149, 616-630.	4.4	85

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73	High-resolution wind-driven rain measurements on a low-rise buildingâ€"experimental data for model development and model validation. Journal of Wind Engineering and Industrial Aerodynamics, 2005, 93, 905-928.	1.7	84
74	A framework for preliminary large-scale urban wind energy potential assessment: Roof-mounted wind turbines. Energy Conversion and Management, 2020, 214, 112770.	4.4	81
75	Analysis of convective heat and mass transfer coefficients for convective drying of a porous flat plate by conjugate modelling. International Journal of Heat and Mass Transfer, 2012, 55, 112-124.	2.5	79
76	Cross-ventilation in a generic isolated building equipped with louvers: Wind-tunnel experiments and CFD simulations. Building and Environment, 2019, 154, 263-280.	3.0	78
77	3D CFD simulations of wind flow and wind-driven rain shelter in sports stadia: Influence of stadium geometry. Building and Environment, 2011, 46, 22-37.	3.0	77
78	Wind-driven rain on the facade of a monumental tower: Numerical simulation, full-scale validation and sensitivity analysis. Building and Environment, 2009, 44, 1675-1690.	3.0	75
79	Impact of urban microclimate on summertime building cooling demand: A parametric analysis for Antwerp, Belgium. Applied Energy, 2018, 228, 852-872.	5.1	75
80	Computational fluid dynamics analysis of cyclist aerodynamics: Performance of different turbulence-modelling and boundary-layer modelling approaches. Journal of Biomechanics, 2010, 43, 2281-2287.	0.9	74
81	Energy saving potential of night ventilation: Sensitivity to pressure coefficients for different European climates. Applied Energy, 2014, 123, 185-195.	5.1	73
82	CFD evaluation of new second-skin facade concept for wind comfort on building balconies: Case study for the Park Tower in Antwerp. Building and Environment, 2013, 68, 179-192.	3.0	72
83	Simulating the cooling effects of water spray systems in urban landscapes: A computational fluid dynamics study in Rotterdam, The Netherlands. Landscape and Urban Planning, 2017, 159, 85-100.	3.4	72
84	Impact of turbulence models and roughness height in 3D steady RANS simulations of wind flow in an urban environment. Building and Environment, 2020, 171, 106617.	3.0	70
85	New generalized expressions for forced convective heat transfer coefficients at building facades and roofs. Building and Environment, 2017, 119, 153-168.	3.0	69
86	CFD analysis of dynamic stall on vertical axis wind turbines using Scale-Adaptive Simulation (SAS): Comparison against URANS and hybrid RANS/LES. Energy Conversion and Management, 2019, 196, 1282-1298.	4.4	68
87	Pedestrian wind conditions at outdoor platforms in a high-rise apartment building: generic sub-configuration validation, wind comfort assessment and uncertainty issues. Wind and Structures, an International Journal, 2008, 11, 51-70.	0.8	68
88	CFD analysis of forced convective heat transfer coefficients at windward building facades: Influence of building geometry. Journal of Wind Engineering and Industrial Aerodynamics, 2015, 146, 102-116.	1.7	66
89	Can indoor sports centers be allowed to re-open during the COVID-19 pandemic based on a certificate of equivalence?. Building and Environment, 2020, 180, 107022.	3.0	66
90	Modification of pedestrian wind comfort in the Silvertop Tower passages by an automatic control system. Journal of Wind Engineering and Industrial Aerodynamics, 2004, 92, 849-873.	1.7	64

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91	On the accuracy of wind-driven rain measurements on buildings. Building and Environment, 2006, 41, 1798-1810.	3.0	63
92	Reduction of outdoor particulate matter concentrations by local removal in semi-enclosed parking garages: A preliminary case study for Eindhoven city center. Journal of Wind Engineering and Industrial Aerodynamics, 2016, 159, 80-98.	1.7	63
93	Numerical simulations of wind-driven rain on an array of low-rise cubic buildings and validation by field measurements. Building and Environment, 2014, 81, 283-295.	3.0	62
94	Full-scale measurements of indoor environmental conditions and natural ventilation in a large semi-enclosed stadium: Possibilities and limitations for CFD validation. Journal of Wind Engineering and Industrial Aerodynamics, 2012, 104-106, 330-341.	1.7	61
95	Active flow control for power enhancement of vertical axis wind turbines: Leading-edge slot suction. Energy, 2019, 189, 116131.	4.5	61
96	A following car influences cyclist drag: CFD simulations and wind tunnel measurements. Journal of Wind Engineering and Industrial Aerodynamics, 2015, 145, 178-186.	1.7	60
97	Computational analysis of the performance of a venturi-shaped roof for natural ventilation: Venturi-effect versus wind-blocking effect. Computers and Fluids, 2011, 48, 202-213.	1.3	59
98	On the validity of numerical wind-driven rain simulation on a rectangular low-rise building under various oblique winds. Building and Environment, 2009, 44, 621-632.	3.0	58
99	Uncertainty in airflow rate calculations due to the use of surface-averaged pressure coefficients. Energy and Buildings, 2010, 42, 881-888.	3.1	58
100	Convective heat and mass transfer modelling at airâ€“porous material interfaces: Overview of existing methods and relevance. Chemical Engineering Science, 2012, 74, 49-58.	1.9	57
101	PIV measurements and analysis of transitional flow in a reduced-scale model: Ventilation by a free plane jet with Coanda effect. Building and Environment, 2012, 56, 301-313.	3.0	56
102	On the predicted effectiveness of climate adaptation measures for residential buildings. Building and Environment, 2014, 82, 300-316.	3.0	56
103	Large eddy simulation of the neutral atmospheric boundary layer: performance evaluation of three inflow methods for terrains with different roughness. Journal of Wind Engineering and Industrial Aerodynamics, 2018, 173, 241-261.	1.7	56
104	A combined CFDâ€“HAM approach for wind-driven rain on building facades. Journal of Wind Engineering and Industrial Aerodynamics, 2007, 95, 585-607.	1.7	55
105	Overview of challenges and achievements in the climate adaptation of cities and in the Climate Proof Cities program. Building and Environment, 2015, 83, 1-10.	3.0	55
106	Large-Eddy Simulation of pollutant dispersion around a cubical building: Analysis of the turbulent mass transport mechanism by unsteady concentration and velocity statistics. Environmental Pollution, 2012, 167, 47-57.	3.7	54
107	A novel approach to simulate pollutant dispersion in the built environment: Transport-based recurrence CFD. Building and Environment, 2020, 170, 106604.	3.0	53
108	A dataset of wind-driven rain measurements on a low-rise test building in Norway. Building and Environment, 2007, 42, 2150-2165.	3.0	52

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109	Near-field pollutant dispersion in an actual urban area: Analysis of the mass transport mechanism by high-resolution Large Eddy Simulations. Computers and Fluids, 2015, 114, 151-162.	1.3	52
110	Comparison of calculation models for wind-driven rain deposition on building facades. Atmospheric Environment, 2010, 44, 1714-1725.	1.9	51
111	Computational fluid dynamics analysis of drag and convective heat transfer of individual body segments for different cyclist positions. Journal of Biomechanics, 2011, 44, 1695-1701.	0.9	51
112	High-resolution field measurements of wind-driven rain on an array of low-rise cubic buildings. Building and Environment, 2014, 78, 1-13.	3.0	50
113	Aerodynamic benefit for a cyclist by a following motorcycle. Journal of Wind Engineering and Industrial Aerodynamics, 2016, 155, 1-10.	1.7	50
114	On the errors associated with the use of hourly data in wind-driven rain calculations on building facades. Atmospheric Environment, 2007, 41, 2335-2343.	1.9	49
115	Sensitivity analysis of airfoil aerodynamics during pitching motion at a Reynolds number of 1.35Ã—105. Journal of Wind Engineering and Industrial Aerodynamics, 2018, 183, 315-332.	1.7	49
116	Wind-driven rain on two parallel wide buildings: Field measurements and CFD simulations. Journal of Wind Engineering and Industrial Aerodynamics, 2015, 146, 11-28.	1.7	48
117	The effect of an urban park on the microclimate in its vicinity: a case study for Antwerp, Belgium. International Journal of Climatology, 2018, 38, e303.	1.5	48
118	Impact of morphological parameters on urban ventilation in compact cities: The case of the Tuscolano-Don Bosco district in Rome. Science of the Total Environment, 2022, 807, 150490.	3.9	48
119	Impact of wind on the spatial distribution of rain over micro-scale topography: numerical modelling and experimental verification. Hydrological Processes, 2006, 20, 345-368.	1.1	47
120	On the suitability of steady RANS CFD for forced mixing ventilation at transitional slot Reynolds numbers. Indoor Air, 2013, 23, 236-249.	2.0	47
121	Local-scale forcing effects on wind flows in an urban environment: Impact of geometrical simplifications. Journal of Wind Engineering and Industrial Aerodynamics, 2017, 170, 238-255.	1.7	47
122	On the validity of the cosine projection in wind-driven rain calculations on buildings. Building and Environment, 2006, 41, 1182-1189.	3.0	46
123	Influence of uncertainty in heatâ€“moisture transport properties on convective drying of porous materials by numerical modelling. Chemical Engineering Research and Design, 2013, 91, 36-42.	2.7	46
124	CFD simulation of wind-driven upward cross ventilation and its enhancement in long buildings: Impact of single-span versus double-span leeward sawtooth roof and opening ratio. Building and Environment, 2016, 96, 142-156.	3.0	46
125	A simplified numerical model for rainwater runoff on building facades: Possibilities and limitations. Building and Environment, 2012, 53, 59-73.	3.0	45
126	Impact of eaves on cross-ventilation of a generic isolated leeward sawtooth roof building: Windward eaves, leeward eaves and eaves inclination. Building and Environment, 2015, 92, 578-590.	3.0	45

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127	Reprint of: On the predicted effectiveness of climate adaptation measures for residential buildings. Building and Environment, 2015, 83, 142-158.	3.0	45
128	CFD simulations of wind loads on a container ship: Validation and impact of geometrical simplifications. Journal of Wind Engineering and Industrial Aerodynamics, 2017, 166, 106-116.	1.7	45
129	Aerodynamic drag in cycling team time trials. Journal of Wind Engineering and Industrial Aerodynamics, 2018, 182, 128-145.	1.7	45
130	Numerical modeling of the flow conditions in a closed-circuit low-speed wind tunnel. Journal of Wind Engineering and Industrial Aerodynamics, 2006, 94, 699-723.	1.7	44
131	Aerodynamic analysis of different cyclist hill descent positions. Journal of Wind Engineering and Industrial Aerodynamics, 2018, 181, 27-45.	1.7	44
132	CFD analysis of the impact of geometrical characteristics of building balconies on near-faÃ§ade wind flow and surface pressure. Building and Environment, 2021, 200, 107904.	3.0	44
133	Wind-driven rain as a boundary condition for HAM simulations: Analysis of simplified modelling approaches. Building and Environment, 2007, 42, 1555-1567.	3.0	42
134	On CFD simulation of wind-induced airflow in narrow ventilated facade cavities: Coupled and decoupled simulations and modelling limitations. Building and Environment, 2010, 45, 1834-1846.	3.0	42
135	Impact of roof geometry of an isolated leeward sawtooth roof building on cross-ventilation: Straight, concave, hybrid or convex?. Journal of Wind Engineering and Industrial Aerodynamics, 2015, 145, 102-114.	1.7	42
136	On the use of non-conformal grids for economic LES of wind flow and convective heat transfer for a wall-mounted cube. Building and Environment, 2017, 119, 44-61.	3.0	42
137	Extension of generalized forced convective heat transfer coefficient expressions for isolated buildings taking into account oblique wind directions. Building and Environment, 2018, 140, 194-208.	3.0	42
138	Towards LES as a design tool: Wind loads assessment on a high-rise building. Journal of Wind Engineering and Industrial Aerodynamics, 2018, 180, 1-18.	1.7	42
139	CFD simulation of snow transport over flat, uniformly rough, open terrain: Impact of physical and computational parameters. Journal of Wind Engineering and Industrial Aerodynamics, 2018, 177, 213-226.	1.7	41
140	Numerical simulation of the wind-driven rainfall distribution over small-scale topography in space and time. Journal of Hydrology, 2005, 315, 252-273.	2.3	39
141	Intercomparison of wind-driven rain deposition models based on two case studies with full-scale measurements. Journal of Wind Engineering and Industrial Aerodynamics, 2011, 99, 448-459.	1.7	38
142	Cyclist Drag in Team Pursuit: Influence of Cyclist Sequence, Stature, and Arm Spacing. Journal of Biomechanical Engineering, 2014, 136, 011005.	0.6	38
143	Moisture response of building facades to wind-driven rain: Field measurements compared with numerical simulations. Journal of Wind Engineering and Industrial Aerodynamics, 2009, 97, 197-207.	1.7	37
144	Guidelines for the required time resolution of meteorological input data for wind-driven rain calculations on buildings. Journal of Wind Engineering and Industrial Aerodynamics, 2008, 96, 621-639.	1.7	36

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145	The mutual influence of two buildings on their wind-driven rain exposure and comments on the obstruction factor. Journal of Wind Engineering and Industrial Aerodynamics, 2009, 97, 180-196.	1.7	36
146	An adjusted temperature wall function for turbulent forced convective heat transfer for bluff bodies in the atmospheric boundary layer. Building and Environment, 2011, 46, 2130-2141.	3.0	34
147	Numerical modeling of turbulent dispersion for wind-driven rain on building facades. Environmental Fluid Mechanics, 2015, 15, 109-133.	0.7	34
148	CFD simulation of heat transfer at surfaces of bluff bodies in turbulent boundary layers: Evaluation of a forced-convective temperature wall function for mixed convection. Journal of Wind Engineering and Industrial Aerodynamics, 2012, 104-106, 439-446.	1.7	33
149	Bicycle aerodynamics: History, state-of-the-art and future perspectives. Journal of Wind Engineering and Industrial Aerodynamics, 2020, 200, 104134.	1.7	32
150	Validation of steady RANS modelling of isothermal plane turbulent impinging jets at moderate Reynolds numbers. European Journal of Mechanics, B/Fluids, 2019, 75, 228-243.	1.2	30
151	Indicators for the evaluation of wind tunnel test section flow quality and application to a numerical closed-circuit wind tunnel. Journal of Wind Engineering and Industrial Aerodynamics, 2007, 95, 1289-1314.	1.7	29
152	Improving CFD prediction of drag on Paralympic tandem athletes: influence of grid resolution and turbulence model. Sports Engineering, 2018, 21, 123-135.	0.5	29
153	Mixing ventilation driven by two oppositely located supply jets with a time-periodic supply velocity: A numerical analysis using computational fluid dynamics. Indoor and Built Environment, 2020, 29, 603-620.	1.5	28
154	PIV measurements of a plane wall jet in a confined space at transitional slot Reynolds numbers. Experiments in Fluids, 2012, 53, 499-517.	1.1	27
155	PIV measurements of isothermal plane turbulent impinging jets at moderate Reynolds numbers. Experiments in Fluids, 2017, 58, 1.	1.1	27
156	Large-eddy simulation of pollutant dispersion in generic urban street canyons: Guidelines for domain size. Journal of Wind Engineering and Industrial Aerodynamics, 2021, 211, 104527.	1.7	27
157	Numerical analysis of the performance of a venturi-shaped roof for natural ventilation: Influence of building width. Journal of Wind Engineering and Industrial Aerodynamics, 2012, 104-106, 419-427.	1.7	25
158	Impact of building faÃ§ade geometrical details on pollutant dispersion in street canyons. Building and Environment, 2022, 212, 108746.	3.0	25
159	Analysis of crosswind aerodynamics for competitive hand-cycling. Journal of Wind Engineering and Industrial Aerodynamics, 2018, 180, 182-190.	1.7	24
160	Rain water runoff from porous building facades: Implementation and application of a first-order runoff model coupled to a HAM model. Building and Environment, 2013, 64, 177-186.	3.0	23
161	CFD simulation of non-isothermal mixing ventilation in a generic enclosure: Impact of computational and physical parameters. International Journal of Thermal Sciences, 2018, 129, 343-357.	2.6	23
162	Counter-gradient diffusion in a slot-ventilated enclosure assessed by LES and RANS. Computers and Fluids, 2014, 96, 63-75.	1.3	22

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163	Reduction of particulate matter concentrations by local removal in a building courtyard: Case study for the Delhi American Embassy School. Science of the Total Environment, 2019, 686, 657-680.	3.9	22
164	Stack gas dispersion measurements with Large Scale-PIV, Aspiration Probes and Light Scattering Techniques and comparison with CFD. Atmospheric Environment, 2009, 43, 3396-3406.	1.9	21
165	Aerodynamic drag in competitive tandem para-cycling: Road race versus time-trial positions. Journal of Wind Engineering and Industrial Aerodynamics, 2018, 179, 92-101.	1.7	21
166	Simulation of urban boundary and canopy layer flows in port areas induced by different marine boundary layer inflow conditions. Science of the Total Environment, 2019, 670, 876-892.	3.9	21
167	Impact of exterior convective heat transfer coefficient models on the energy demand prediction of buildings with different geometry. Building Simulation, 2019, 12, 797-816.	3.0	21
168	Driving Rain on Building Envelopes I. Numerical Estimation and Full-Scale Experimental Verification. Journal of Thermal Envelope and Building Science, 2000, 24, 61-85.	0.5	20
169	On the impact of roof geometry on rain shelter in football stadia. Journal of Wind Engineering and Industrial Aerodynamics, 2008, 96, 1274-1293.	1.7	19
170	Impact, runoff and drying of wind-driven rain on a window glass surface: Numerical modelling based on experimental validation. Building and Environment, 2015, 84, 170-180.	3.0	19
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