

Bert Blocken

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

219
papers

13,803
citations

66
h-index

110
g-index

233
ext. papers

16,327
ext. citations

5.1
avg, IF

7.52
L-index

#	Paper	IF	Citations
219	Impact of building façade geometrical details on pollutant dispersion in street canyons. <i>Building and Environment</i> , 2022 , 108746	6.5	2
218	PIV measurements of opposing-jet ventilation flow in a reduced-scale simplified empty airplane cabin. <i>European Journal of Mechanics, B/Fluids</i> , 2022 , 94, 212-227	2.4	0
217	COVID-19 and Wind Engineering: the contribution by Eindhoven University of Technology and KU Leuven. <i>Wind Engineers JAWE</i> , 2021 , 46, 275-277	0	
216	Aerodynamic analysis of uphill drafting in cycling. <i>Sports Engineering</i> , 2021 , 24, 1	1.4	2
215	Large-eddy simulation of pollutant dispersion in generic urban street canyons: Guidelines for domain size. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2021 , 211, 104527	3.7	7
214	Ventilation and air cleaning to limit aerosol particle concentrations in a gym during the COVID-19 pandemic. <i>Building and Environment</i> , 2021 , 193, 107659	6.5	42
213	Impact of a motorcycle on cyclist aerodynamic drag in parallel and staggered arrangements. <i>Sports Engineering</i> , 2021 , 24, 1	1.4	1
212	Impact of a wall downstream of an air curtain nozzle on air curtain separation efficiency. <i>Building and Environment</i> , 2021 , 197, 107873	6.5	1
211	Cyclist aerodynamics through time: Better, faster, stronger. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2021 , 214, 104673	3.7	2
210	Optimization of thin-walled beam structures: Monolithic versus staggered solution schemes. <i>Thin-Walled Structures</i> , 2021 , 159, 107182	4.7	3
209	Air curtain performance: Introducing the adapted separation efficiency. <i>Building and Environment</i> , 2021 , 188, 107468	6.5	1
208	Sequentially coupled shape and topology optimization for 2.5D and 3D beam models. <i>Acta Mechanica</i> , 2021 , 232, 1683-1708	2.1	1
207	Impact of wheel rotation on the aerodynamic drag of a time trial cyclist. <i>Sports Engineering</i> , 2021 , 24, 1	1.4	2
206	CFD analysis of the impact of geometrical characteristics of building balconies on near-façade wind flow and surface pressure. <i>Building and Environment</i> , 2021 , 200, 107904	6.5	10
205	Aerodynamic design optimization of ducted openings through high-rise buildings for wind energy harvesting. <i>Building and Environment</i> , 2021 , 202, 108028	6.5	2
204	Impact of morphological parameters on urban ventilation in compact cities: The case of the Tuscolano-Don Bosco district in Rome. <i>Science of the Total Environment</i> , 2021 , 807, 150490	10.2	11
203	Adjoint shape optimization coupled with LES-adapted RANS of a U-bend duct for pressure loss reduction. <i>Computers and Fluids</i> , 2021 , 228, 105057	2.8	0

202	Efficient and high-resolution simulation of pollutant dispersion in complex urban environments by island-based recurrence CFD. <i>Environmental Modelling and Software</i> , 2021 , 145, 105172	5.2	1
201	CFD simulations of two opposing plane wall jets in a generic empty airplane cabin: Comparison of RANS and LES. <i>Building and Environment</i> , 2021 , 205, 108174	6.5	2
200	On the reliability of the 3D steady RANS approach in predicting microscale wind conditions in seaport areas: The case of the IJmuiden sea lock. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2020 , 207, 104437	3.7	7
199	Minimum momentum flux ratio required to prevent air curtain breakthrough in case of cross-curtain pressure gradients: CFD versus analytical equation. <i>Building Simulation</i> , 2020 , 13, 943-960	3.9	1
198	Can indoor sports centers be allowed to re-open during the COVID-19 pandemic based on a certificate of equivalence?. <i>Building and Environment</i> , 2020 , 180, 107022	6.5	37
197	Bicycle aerodynamics: History, state-of-the-art and future perspectives. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2020 , 200, 104134	3.7	11
196	CFD simulations of an isolated cycling spoked wheel: Impact of the ground and wheel/ground contact modeling. <i>European Journal of Mechanics, B/Fluids</i> , 2020 , 82, 21-38	2.4	8
195	CFD simulations of wind flow and mean surface pressure for buildings with balconies: Comparison of RANS and LES. <i>Building and Environment</i> , 2020 , 173, 106747	6.5	47
194	A framework for preliminary large-scale urban wind energy potential assessment: Roof-mounted wind turbines. <i>Energy Conversion and Management</i> , 2020 , 214, 112770	10.6	41
193	Coupled aerostructural shape and topology optimization of horizontal-axis wind turbine rotor blades. <i>Energy Conversion and Management</i> , 2020 , 212, 112621	10.6	8
192	Scale-Adaptive Simulation (SAS) of Dynamic Stall on a Wind Turbine. <i>Notes on Numerical Fluid Mechanics and Multidisciplinary Design</i> , 2020 , 323-333	0.3	1
191	A novel approach to simulate pollutant dispersion in the built environment: Transport-based recurrence CFD. <i>Building and Environment</i> , 2020 , 170, 106604	6.5	31
190	Impact of turbulence models and roughness height in 3D steady RANS simulations of wind flow in an urban environment. <i>Building and Environment</i> , 2020 , 171, 106617	6.5	28
189	Mixing ventilation driven by two oppositely located supply jets with a time-periodic supply velocity: A numerical analysis using computational fluid dynamics. <i>Indoor and Built Environment</i> , 2020 , 29, 603-620	1.8	16
188	CFD simulations of an isolated cycling spoked wheel: The impact of wheel/ground contact modeling in crosswind conditions. <i>European Journal of Mechanics, B/Fluids</i> , 2020 , 84, 487-495	2.4	3
187	CFD Investigation of Separation Control on a Vertical Axis Wind Turbine: Steady and Unsteady Suction. <i>Journal of Physics: Conference Series</i> , 2020 , 1618, 052019	0.3	
186	Aerodynamic benefits for a cyclist by drafting behind a motorcycle. <i>Sports Engineering</i> , 2020 , 23, 1	1.4	5
185	Sequentially coupled gradient-based topology and domain shape optimization. <i>Optimization and Engineering</i> , 2020 , 1	2.1	4

184	CFD simulation of wind forces on ships in ports: Case study for the Rotterdam Cruise Terminal. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2020 , 205, 104315	3.7	7
183	CFD simulations of spoked wheel aerodynamics in cycling: Impact of computational parameters. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2019 , 194, 103988	3.7	8
182	Active flow control for power enhancement of vertical axis wind turbines: Leading-edge slot suction. <i>Energy</i> , 2019 , 189, 116131	7.9	30
181	CFD simulation of urban microclimate: Validation using high-resolution field measurements. <i>Science of the Total Environment</i> , 2019 , 695, 133743	10.2	64
180	On the accuracy of turbulence models for CFD simulations of vertical axis wind turbines. <i>Energy</i> , 2019 , 180, 838-857	7.9	116
179	Reduction of particulate matter concentrations by local removal in a building courtyard: Case study for the Delhi American Embassy School. <i>Science of the Total Environment</i> , 2019 , 686, 657-680	10.2	13
178	CFD simulation of the near-neutral atmospheric boundary layer: New temperature inlet profile consistent with wall functions. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2019 , 191, 91-102	3.7	10
177	Cross-ventilation in a generic isolated building equipped with louvers: Wind-tunnel experiments and CFD simulations. <i>Building and Environment</i> , 2019 , 154, 263-280	6.5	36
176	Impact of pilot and stoker torso angles in tandem para-cycling aerodynamics. <i>Sports Engineering</i> , 2019 , 22, 1	1.4	2
175	The impact of arm-crank position on the drag of a paralympic hand-cyclist. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2019 , 22, 386-395	2.1	8
174	Simulation of urban boundary and canopy layer flows in port areas induced by different marine boundary layer inflow conditions. <i>Science of the Total Environment</i> , 2019 , 670, 876-892	10.2	12
173	Impact of exterior convective heat transfer coefficient models on the energy demand prediction of buildings with different geometry. <i>Building Simulation</i> , 2019 , 12, 797-816	3.9	12
172	Aerodynamics analysis of wheel configurations in Paralympic hand-cycling: A computational study. <i>European Journal of Mechanics, B/Fluids</i> , 2019 , 76, 50-65	2.4	3
171	Natural ventilation of an isolated generic building with a windward window and different windexchangers: CFD validation, sensitivity study and performance analysis. <i>Building Simulation</i> , 2019 , 12, 475-488	3.9	12
170	CFD analysis of an exceptional cyclist sprint position. <i>Sports Engineering</i> , 2019 , 22, 1	1.4	8
169	CFD analysis of dynamic stall on vertical axis wind turbines using Scale-Adaptive Simulation (SAS): Comparison against URANS and hybrid RANS/LES. <i>Energy Conversion and Management</i> , 2019 , 196, 1282-1298	10.6	34
168	CFD evaluation of building geometry modifications to reduce pedestrian-level wind speed. <i>Building and Environment</i> , 2019 , 163, 106293	6.5	47
167	Computational fluid dynamics analysis of hand-cycle aerodynamics with static wheels: Sensitivity analyses and impact of wheel selection. <i>Proceedings of the Institution of Mechanical Engineers, Part P: Journal of Sports Engineering and Technology</i> , 2019 , 175433711985348	0.7	

166	Experimental and Computational Analysis of Microscale Wind Conditions in the Port of Amsterdam. <i>Lecture Notes in Civil Engineering</i> , 2019 , 587-598	0.3	
165	On the effects of crosswinds in tandem aerodynamics: An experimental and computational study. <i>European Journal of Mechanics, B/Fluids</i> , 2019 , 74, 68-80	2.4	9
164	Validation of steady RANS modelling of isothermal plane turbulent impinging jets at moderate Reynolds numbers. <i>European Journal of Mechanics, B/Fluids</i> , 2019 , 75, 228-243	2.4	9
163	The effect of an urban park on the microclimate in its vicinity: a case study for Antwerp, Belgium. <i>International Journal of Climatology</i> , 2018 , 38, e303-e322	3.5	32
162	Large eddy simulation of the neutral atmospheric boundary layer: performance evaluation of three inflow methods for terrains with different roughness. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2018 , 173, 241-261	3.7	32
161	CFD simulation of non-isothermal mixing ventilation in a generic enclosure: Impact of computational and physical parameters. <i>International Journal of Thermal Sciences</i> , 2018 , 129, 343-357	4.1	12
160	Aerodynamic drag in cycling pelotons: New insights by CFD simulation and wind tunnel testing. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2018 , 179, 319-337	3.7	66
159	Towards LES as a design tool: Wind loads assessment on a high-rise building. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2018 , 180, 1-18	3.7	19
158	Impact of urban microclimate on summertime building cooling demand: A parametric analysis for Antwerp, Belgium. <i>Applied Energy</i> , 2018 , 228, 852-872	10.7	47
157	LES over RANS in building simulation for outdoor and indoor applications: A foregone conclusion?. <i>Building Simulation</i> , 2018 , 11, 821-870	3.9	168
156	Aerodynamic analysis of different cyclist hill descent positions. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2018 , 181, 27-45	3.7	27
155	Large-scale forcing effects on wind flows in the urban canopy: Impact of inflow conditions. <i>Sustainable Cities and Society</i> , 2018 , 42, 593-610	10.1	11
154	Analysis of crosswind aerodynamics for competitive hand-cycling. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2018 , 180, 182-190	3.7	20
153	Urban wind energy: Some views on potential and challenges. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2018 , 179, 146-157	3.7	75
152	Towards accurate CFD simulations of vertical axis wind turbines at different tip speed ratios and solidities: Guidelines for azimuthal increment, domain size and convergence. <i>Energy Conversion and Management</i> , 2018 , 156, 301-316	10.6	100
151	Improving CFD prediction of drag on Paralympic tandem athletes: influence of grid resolution and turbulence model. <i>Sports Engineering</i> , 2018 , 21, 123-135	1.4	21
150	Sensitivity analysis of airfoil aerodynamics during pitching motion at a Reynolds number of 1.35×10^5 . <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2018 , 183, 315-332	3.7	29
149	Aerodynamic drag in cycling team time trials. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2018 , 182, 128-145	3.7	23

148	Towards optimal aerodynamic design of vertical axis wind turbines: Impact of solidity and number of blades. <i>Energy</i> , 2018 , 165, 1129-1148	7.9	76
147	Impact of passive climate adaptation measures and building orientation on the energy demand of a detached lightweight semi-portable building. <i>Building Simulation</i> , 2018 , 11, 1163-1177	3.9	11
146	The wind effect on sound propagation over urban areas: Predictions for generic urban sections. <i>Building and Environment</i> , 2018 , 144, 519-531	6.5	6
145	CFD simulation of snow transport over flat, uniformly rough, open terrain: Impact of physical and computational parameters. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2018 , 177, 213-226	3.7	21
144	Extension of generalized forced convective heat transfer coefficient expressions for isolated buildings taking into account oblique wind directions. <i>Building and Environment</i> , 2018 , 140, 194-208	6.5	27
143	Characterization of aerodynamic performance of vertical axis wind turbines: Impact of operational parameters. <i>Energy Conversion and Management</i> , 2018 , 169, 45-77	10.6	88
142	Aerodynamic drag in competitive tandem para-cycling: Road race versus time-trial positions. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2018 , 179, 92-101	3.7	15
141	Ten questions concerning modeling of wind-driven rain in the built environment. <i>Building and Environment</i> , 2017 , 114, 495-506	6.5	8
140	CFD simulation of a vertical axis wind turbine operating at a moderate tip speed ratio: Guidelines for minimum domain size and azimuthal increment. <i>Renewable Energy</i> , 2017 , 107, 373-385	8.1	132
139	New generalized expressions for forced convective heat transfer coefficients at building facades and roofs. <i>Building and Environment</i> , 2017 , 119, 153-168	6.5	46
138	On the use of non-conformal grids for economic LES of wind flow and convective heat transfer for a wall-mounted cube. <i>Building and Environment</i> , 2017 , 119, 44-61	6.5	33
137	PIV measurements of isothermal plane turbulent impinging jets at moderate Reynolds numbers. <i>Experiments in Fluids</i> , 2017 , 58, 1	2.5	12
136	CFD simulations of wind loads on a container ship: Validation and impact of geometrical simplifications. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2017 , 166, 106-116	3.7	25
135	A review on the CFD analysis of urban microclimate. <i>Renewable and Sustainable Energy Reviews</i> , 2017 , 80, 1613-1640	16.2	243
134	Effect of pitch angle on power performance and aerodynamics of a vertical axis wind turbine. <i>Applied Energy</i> , 2017 , 197, 132-150	10.7	173
133	Low-Reynolds number mixing ventilation flows: Impact of physical and numerical diffusion on flow and dispersion. <i>Building Simulation</i> , 2017 , 10, 589-606	3.9	4
132	Simulating the cooling effects of water spray systems in urban landscapes: A computational fluid dynamics study in Rotterdam, The Netherlands. <i>Landscape and Urban Planning</i> , 2017 , 159, 85-100	7.7	54
131	On the accuracy of CFD simulations of cross-ventilation flows for a generic isolated building: Comparison of RANS, LES and experiments. <i>Building and Environment</i> , 2017 , 114, 148-165	6.5	150

130	Local-scale forcing effects on wind flows in an urban environment: Impact of geometrical simplifications. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2017 , 170, 238-255	3.7	32
129	CFD and wind-tunnel analysis of outdoor ventilation in a real compact heterogeneous urban area: Evaluation using air delay. <i>Building and Environment</i> , 2017 , 126, 355-372	6.5	78
128	CFD Methodology Development for Singapore Green Mark Building Application. <i>Procedia Engineering</i> , 2017 , 180, 1596-1602		6
127	Effect of the shaft on the aerodynamic performance of urban vertical axis wind turbines. <i>Energy Conversion and Management</i> , 2017 , 149, 616-630	10.6	60
126	CFD simulation of stratified indoor environment in displacement ventilation: Validation and sensitivity analysis. <i>Building and Environment</i> , 2016 , 95, 299-313	6.5	100
125	Wind tunnel analysis of flow and dispersion in cross-ventilated isolated buildings: Impact of opening positions. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2016 , 155, 74-88	3.7	53
124	Pedestrian-level wind conditions around buildings: Review of wind-tunnel and CFD techniques and their accuracy for wind comfort assessment. <i>Building and Environment</i> , 2016 , 100, 50-81	6.5	177
123	Analysis of the predicted effect of passive climate adaptation measures on energy demand for cooling and heating in a residential building. <i>Energy</i> , 2016 , 94, 811-820	7.9	74
122	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. <i>Building and Environment</i> , 2016 , 96, 142-156	6.5	28
121	Advanced Materials and Technologies for Structural Performance Improvement. <i>Advances in Materials Science and Engineering</i> , 2016 , 2016, 1-3	1.5	
120	Reduction of outdoor particulate matter concentrations by local removal in semi-enclosed parking garages: A preliminary case study for Eindhoven city center. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2016 , 159, 80-98	3.7	42
119	Pedestrian Wind Environment Around Tall Buildings 2016 , 101-127		4
118	Aerodynamic benefit for a cyclist by a following motorcycle. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2016 , 155, 1-10	3.7	42
117	Near-field pollutant dispersion in an actual urban area: Analysis of the mass transport mechanism by high-resolution Large Eddy Simulations. <i>Computers and Fluids</i> , 2015 , 114, 151-162	2.8	39
116	Wind tunnel experiments on cross-ventilation flow of a generic building with contaminant dispersion in unsheltered and sheltered conditions. <i>Building and Environment</i> , 2015 , 92, 452-461	6.5	74
115	A following car influences cyclist drag: CFD simulations and wind tunnel measurements. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2015 , 145, 178-186	3.7	50
114	Impact of eaves on cross-ventilation of a generic isolated leeward sawtooth roof building: Windward eaves, leeward eaves and eaves inclination. <i>Building and Environment</i> , 2015 , 92, 578-590	6.5	31
113	CFD simulation of outdoor ventilation of generic urban configurations with different urban densities and equal and unequal street widths. <i>Building and Environment</i> , 2015 , 92, 152-166	6.5	185

112	Computational Fluid Dynamics for urban physics: Importance, scales, possibilities, limitations and ten tips and tricks towards accurate and reliable simulations. <i>Building and Environment</i> , 2015 , 91, 219-245	6.5	460
111	CFD analysis of forced convective heat transfer coefficients at windward building facades: Influence of building geometry. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2015 , 146, 102-116	3.7	46
110	Impact of roof geometry of an isolated leeward sawtooth roof building on cross-ventilation: Straight, concave, hybrid or convex?. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2015 , 145, 102-114	3.7	25
109	CFD simulation of wind flow over natural complex terrain: Case study with validation by field measurements for Ria de Ferrol, Galicia, Spain. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2015 , 147, 43-57	3.7	79
108	CFD analysis of cross-ventilation of a generic isolated building with asymmetric opening positions: Impact of roof angle and opening location. <i>Building and Environment</i> , 2015 , 85, 263-276	6.5	105
107	Impact, runoff and drying of wind-driven rain on a window glass surface: Numerical modelling based on experimental validation. <i>Building and Environment</i> , 2015 , 84, 170-180	6.5	14
106	Evaporative cooling by water spray systems: CFD simulation, experimental validation and sensitivity analysis. <i>Building and Environment</i> , 2015 , 83, 129-141	6.5	105
105	CFD analysis of transpirational cooling by vegetation: Case study for specific meteorological conditions during a heat wave in Arnhem, Netherlands. <i>Building and Environment</i> , 2015 , 83, 11-26	6.5	118
104	Reprint of: On the predicted effectiveness of climate adaptation measures for residential buildings. <i>Building and Environment</i> , 2015 , 83, 142-158	6.5	37
103	Influence of avenue-trees on air quality at the urban neighborhood scale. Part II: traffic pollutant concentrations at pedestrian level. <i>Environmental Pollution</i> , 2015 , 196, 176-84	9.3	82
102	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. <i>Environmental Pollution</i> , 2015 , 196, 214-23	9.3	88
101	Overview of challenges and achievements in the climate adaptation of cities and in the Climate Proof Cities program. <i>Building and Environment</i> , 2015 , 83, 1-10	6.5	39
100	CFD analysis of the impact of physical parameters on evaporative cooling by a mist spray system. <i>Applied Thermal Engineering</i> , 2015 , 75, 608-622	5.8	76
99	CFD simulation and validation of urban microclimate: A case study for Bergpolder Zuid, Rotterdam. <i>Building and Environment</i> , 2015 , 83, 79-90	6.5	165
98	Numerical modeling of turbulent dispersion for wind-driven rain on building facades. <i>Environmental Fluid Mechanics</i> , 2015 , 15, 109-133	2.2	26
97	Real Life Lab BIPV field testing in the Netherlands 2015 ,		3
96	Wind-driven rain on two parallel wide buildings: Field measurements and CFD simulations. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2015 , 146, 11-28	3.7	29
95	CFD simulation of train aerodynamics: Train-induced wind conditions at an underground railroad passenger platform. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2015 , 139, 100-110	3.7	71

94	On the predicted effectiveness of climate adaptation measures for residential buildings. <i>Building and Environment</i> , 2014 , 82, 300-316	6.5	38
93	Numerical simulations of wind-driven rain on an array of low-rise cubic buildings and validation by field measurements. <i>Building and Environment</i> , 2014 , 81, 283-295	6.5	50
92	50 years of Computational Wind Engineering: Past, present and future. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2014 , 129, 69-102	3.7	410
91	Counter-gradient diffusion in a slot-ventilated enclosure assessed by LES and RANS. <i>Computers and Fluids</i> , 2014 , 96, 63-75	2.8	17
90	Cyclist drag in team pursuit: influence of cyclist sequence, stature, and arm spacing. <i>Journal of Biomechanical Engineering</i> , 2014 , 136, 011005	2.1	34
89	High-resolution field measurements of wind-driven rain on an array of low-rise cubic buildings. <i>Building and Environment</i> , 2014 , 78, 1-13	6.5	40
88	Energy saving potential of night ventilation: Sensitivity to pressure coefficients for different European climates. <i>Applied Energy</i> , 2014 , 123, 185-195	10.7	64
87	Quality assessment of Large-Eddy Simulation of wind flow around a high-rise building: Validation and solution verification. <i>Computers and Fluids</i> , 2013 , 79, 120-133	2.8	112
86	CFD simulations of the aerodynamic drag of two drafting cyclists. <i>Computers and Fluids</i> , 2013 , 71, 435-445	4.8	83
85	On the suitability of steady RANS CFD for forced mixing ventilation at transitional slot Reynolds numbers. <i>Indoor Air</i> , 2013 , 23, 236-49	5.4	35
84	CFD evaluation of new second-skin facade concept for wind comfort on building balconies: Case study for the Park Tower in Antwerp. <i>Building and Environment</i> , 2013 , 68, 179-192	6.5	56
83	Influence of uncertainty in heat/moisture transport properties on convective drying of porous materials by numerical modelling. <i>Chemical Engineering Research and Design</i> , 2013 , 91, 36-42	5.5	34
82	CFD simulation and validation of wind-driven rain on a building facade with an Eulerian multiphase model. <i>Building and Environment</i> , 2013 , 61, 69-81	6.5	74
81	Rain water runoff from porous building facades: Implementation and application of a first-order runoff model coupled to a HAM model. <i>Building and Environment</i> , 2013 , 64, 177-186	6.5	19
80	CFD evaluation of natural ventilation of indoor environments by the concentration decay method: CO2 gas dispersion from a semi-enclosed stadium. <i>Building and Environment</i> , 2013 , 61, 1-17	6.5	97
79	CFD simulation of wind-induced pressure coefficients on buildings with and without balconies: Validation and sensitivity analysis. <i>Building and Environment</i> , 2013 , 60, 137-149	6.5	169
78	Review of external convective heat transfer coefficient models in building energy simulation programs: Implementation and uncertainty. <i>Applied Thermal Engineering</i> , 2013 , 56, 134-151	5.8	181
77	Rainwater runoff from building facades: A review. <i>Building and Environment</i> , 2013 , 60, 339-361	6.5	96

76	Pedestrian wind comfort around buildings: Comparison of wind comfort criteria based on whole-flow field data for a complex case study. <i>Building and Environment</i> , 2013 , 59, 547-562	6.5	119
75	Large-Eddy Simulation of pollutant dispersion around a cubical building: analysis of the turbulent mass transport mechanism by unsteady concentration and velocity statistics. <i>Environmental Pollution</i> , 2012 , 167, 47-57	9.3	47
74	CFD simulation for pedestrian wind comfort and wind safety in urban areas: General decision framework and case study for the Eindhoven University campus. <i>Environmental Modelling and Software</i> , 2012 , 30, 15-34	5.2	240
73	Ten iterative steps for model development and evaluation applied to Computational Fluid Dynamics for Environmental Fluid Mechanics. <i>Environmental Modelling and Software</i> , 2012 , 33, 1-22	5.2	161
72	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. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2012 , 104-106, 439-446	3.7	23
71	CFD simulation of cross-ventilation flow for different isolated building configurations: Validation with wind tunnel measurements and analysis of physical and numerical diffusion effects. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2012 , 104-106, 408-418	3.7	87
70	Full-scale measurements of indoor environmental conditions and natural ventilation in a large semi-enclosed stadium: Possibilities and limitations for CFD validation. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2012 , 104-106, 330-341	3.7	52
69	Numerical analysis of the performance of a venturi-shaped roof for natural ventilation: Influence of building width. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2012 , 104-106, 419-427	3.7	21
68	Urban Physics: Effect of the micro-climate on comfort, health and energy demand. <i>Frontiers of Architectural Research</i> , 2012 , 1, 197-228	2.3	205
67	PIV measurements of a plane wall jet in a confined space at transitional slot Reynolds numbers. <i>Experiments in Fluids</i> , 2012 , 53, 499-517	2.5	20
66	CFD simulation of cross-ventilation for a generic isolated building: Impact of computational parameters. <i>Building and Environment</i> , 2012 , 53, 34-48	6.5	315
65	A simplified numerical model for rainwater runoff on building facades: Possibilities and limitations. <i>Building and Environment</i> , 2012 , 53, 59-73	6.5	34
64	PIV measurements and analysis of transitional flow in a reduced-scale model: Ventilation by a free plane jet with Coanda effect. <i>Building and Environment</i> , 2012 , 56, 301-313	6.5	43
63	Convective heat and mass transfer modelling at air-porous material interfaces: Overview of existing methods and relevance. <i>Chemical Engineering Science</i> , 2012 , 74, 49-58	4.4	46
62	Application of computational fluid dynamics in building performance simulation for the outdoor environment: an overview. <i>Journal of Building Performance Simulation</i> , 2011 , 4, 157-184	2.8	199
61	CFD simulation of pollutant dispersion around isolated buildings: on the role of convective and turbulent mass fluxes in the prediction accuracy. <i>Journal of Hazardous Materials</i> , 2011 , 194, 422-34	12.8	102
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