Catherine Gorle

List of Publications by Year
in descending order

36 papers	678 citations	687363 13 h-index	580821 25 g-index
36 all docs	36 docs citations	36 times ranked	527 citing authors

#	Article	IF	Citations
1	Optimal temperature sensor placement in buildings with buoyancy-driven natural ventilation using computational fluid dynamics and uncertainty quantification. Building and Environment, 2022, 207, 108496.	6.9	7
2	Conceptual model to quantify uncertainty in steady-RANS dissipation closure for turbulence behind bluff bodies. Physical Review Fluids, 2022, 7, .	2.5	4
3	Wind tunnel pressure data analysis for peak cladding load estimation on a high-rise building. Journal of Wind Engineering and Industrial Aerodynamics, 2022, 220, 104855.	3.9	8
4	Improving thermal model predictions for naturally ventilated buildings using large-eddy simulations. Building and Environment, 2022, , 109241.	6.9	9
5	Improving the predictive capability of building simulations using uncertainty quantification. Science and Technology for the Built Environment, 2022, 28, 575-576.	1.7	0
6	A multi-fidelity machine learning framework to predict wind loads on buildings. Journal of Wind Engineering and Industrial Aerodynamics, 2021, 214, 104647.	3.9	18
7	The ICECool Fundamentals Effort on Evaporative Cooling of Microelectronics. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2021, 11, 1546-1564.	2.5	25
8	Sensitivity of LES predictions of wind loading on a high-rise building to the inflow boundary condition. Journal of Wind Engineering and Industrial Aerodynamics, 2020, 206, 104370.	3.9	19
9	Quantifying turbulence model uncertainty in Reynolds-averaged Navierâ€“Stokes simulations of a pin-fin array. Part 2: Scalar transport. Computers and Fluids, 2020, 209, 104642.	2.5	3
10	Quantifying turbulence model uncertainty in Reynolds-averaged Navierâ€“Stokes simulations of a pin-fin array. Part 1: Flow field. Computers and Fluids, 2020, 209, 104641.	2.5	4
11	Comparison of high resolution pressure measurements on a high-rise building in a closed and open-section wind tunnel. Journal of Wind Engineering and Industrial Aerodynamics, 2020, 204, 104247.	3.9	12
12	Pressure scrambling effects and the quantification of turbulent scalar flux model uncertainties. Physical Review Fluids, 2020, 5, .	2.5	3
13	Improving Predictions of the Urban Wind Environment Using Data. Technology Architecture and Design, 2019, 3, 137-141.	0.2	2
14	Computational urban flow predictions with Bayesian inference: Validation with field data. Building and Environment, 2019, 154, 13-22.	6.9	35
15	Large eddy simulations of forced heat convection in a pin-fin array with a priori examination of an eddy-viscosity turbulence model. International Journal of Heat and Fluid Flow, 2019, 77, 73-83.	2.4	9
16	Uncertainty quantification for microscale CFD simulations based on input from mesoscale codes. Journal of Wind Engineering and Industrial Aerodynamics, 2018, 176, 87-97.	3.9	14
17	Uncertainty quantification for modeling night-time ventilation in Stanfordâ€™s Y2E2 building. Energy and Buildings, 2018, 168, 319-330.	6.7	9
18	Improving urban flow predictions through data assimilation. Building and Environment, 2018, 132, 282-290.	6.9	27

#	Article	IF	Citations
19	Optimizing turbulent inflow conditions for large-eddy simulations of the atmospheric boundary layer. Journal of Wind Engineering and Industrial Aerodynamics, 2018, 177, 32-44.	3.9	37
20	RAMS sensitivity to grid spacing and grid aspect ratio in Large-Eddy Simulations of the dry neutral Atmospheric Boundary Layer. Computers and Fluids, 2017, 146, 59-73.	2.5	8
21	High heat flux two-phase cooling of electronics with integrated diamond/porous copper heat sinks and microfluidic coolant supply. , 2016, , .		14
22	Thermal Modeling of Extreme Heat Flux Microchannel Coolers for GaN-on-SiC Semiconductor Devices. Journal of Electronic Packaging, Transactions of the ASME, 2016, 138, .	1.8	60
23	Numerical Simulation of Advanced Monolithic Microcooler Designs for High Heat Flux Microelectronics. , 2015, , .		1
24	Numerical Optimization of Advanced Monolithic Microcoolers for High Heat Flux Microelectronics. , 2015, , .		0
25	Computational Modeling of Extreme Heat Flux Microcooler for GaN-Based HEMT. , 2015, , .		3
26	Thermal Design of a Hierarchical Radially Expanding Cavity for Two-Phase Cooling of Integrated Circuits. , 2015, , .		10
27	Full Scale Simulation of an Integrated Monolithic Heat Sink for Thermal Management of a High Power Density GaN-SiC Chip. , 2015, , .		5
28	Validation Study for VOF Simulations of Boiling in a Microchannel. , 2015, , .		13
29	RAMS and WRF sensitivity to grid spacing in large-eddy simulations of the dry convective boundary layer. Computers and Fluids, 2015, 123, 54-71.	2.5	5
30	Quantifying inflow and RANS turbulence model form uncertainties for wind engineering flows. Journal of Wind Engineering and Industrial Aerodynamics, 2015, 144, 202-212.	3.9	45
31	A Comprehensive Modelling Approach for the Neutral Atmospheric Boundary Layer: Consistent Inflow Conditions, Wall Function and Turbulence Model. Boundary-Layer Meteorology, 2011, 140, 411-428.	2.3	71
32	Improved kâ€“Îµ model and wall function formulation for the RANS simulation of ABL flows. Journal of Wind Engineering and Industrial Aerodynamics, 2011, 99, 267-278.	3.9	134
33	Dispersion in the Wake of a Rectangular Building: Validation of Two Reynolds-Averaged Navierâ€“Stokes Modelling Approaches. Boundary-Layer Meteorology, 2010, 137, 115-133.	2.3	39
34	Stack gas dispersion measurements with Large Scale-PIV, Aspiration Probes and Light Scattering Techniques and comparison with CFD. Atmospheric Environment, 2009, 43, 3396-3406.	4.1	21
35	Large-Eddy Simulations of Wind-Driven Cross Ventilation, Part 2: Comparison of Ventilation Performance Under Different Ventilation Configurations. Frontiers in Built Environment, 0, 8, .	2.3	2
36	Large-Eddy Simulations of Wind-Driven Cross Ventilation, Part1: Validation and Sensitivity Study. Frontiers in Built Environment, 0, 8, .	2.3	2