# Catherine Gorle

List of Publications by Year
in descending order

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

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| # | ARTICLE | IF | CITATIONS |
|---|---------|----|-----------|
| 1 | Improved kâ€"ε 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 |
| 2 | 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 |
| 3 | 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 |
| 4 | 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 |
| 5 | 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 |
| 6 | 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 |
| 7 | Computational urban flow predictions with Bayesian inference: Validation with field data. Building and Environment, 2019, 154, 13-22. | 6.9 | 35 |
| 8 | Improving urban flow predictions through data assimilation. Building and Environment, 2018, 132, 282-290. | 6.9 | 27 |
| 9 | The ICECool Fundamentals Effort on Evaporative Cooling of Microelectronics. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2021, 11, 1546-1564. | 2.5 | 25 |
| 10 | 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 |
| 11 | 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 |
| 12 | 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 |
| 13 | High heat flux two-phase cooling of electronics with integrated diamond/porous copper heat sinks and microfluidic coolant supply. , 2016, , . | | 14 |
| 14 | 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 |
| 15 | Validation Study for VOF Simulations of Boiling in a Microchannel. , 2015, , . | | 13 |
| 16 | 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 |
| 17 | Thermal Design of a Hierarchical Radially Expanding Cavity for Two-Phase Cooling of Integrated Circuits. , 2015, , . | | 10 |
| 18 | Uncertainty quantification for modeling night-time ventilation in Stanfordâ€™s Y2E2 building. Energy and Buildings, 2018, 168, 319-330. | 6.7 | 9 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | 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 |
| 20 | Improving thermal model predictions for naturally ventilated buildings using large-eddy simulations. Building and Environment, 2022, , 109241. | 6.9 | 9 |
| 21 | 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 |
| 22 | 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 |
| 23 | 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 |
| 24 | Full Scale Simulation of an Integrated Monolithic Heat Sink for Thermal Management of a High Power Density GaN-SiC Chip. , 2015, , . | | 5 |
| 25 | 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 |
| 26 | Quantifying turbulence model uncertainty in Reynolds-averaged Navier–Stokes simulations of a pin-fin array. Part 1: Flow field. Computers and Fluids, 2020, 209, 104641. | 2.5 | 4 |
| 27 | Conceptual model to quantify uncertainty in steady-RANS dissipation closure for turbulence behind bluff bodies. Physical Review Fluids, 2022, 7, . | 2.5 | 4 |
| 28 | Computational Modeling of Extreme Heat Flux Microcooler for GaN-Based HEMT. , 2015, , . | | 3 |
| 29 | Quantifying turbulence model uncertainty in Reynolds-averaged Navier–Stokes simulations of a pin-fin array. Part 2: Scalar transport. Computers and Fluids, 2020, 209, 104642. | 2.5 | 3 |
| 30 | Pressure scrambling effects and the quantification of turbulent scalar flux model uncertainties. Physical Review Fluids, 2020, 5, . | 2.5 | 3 |
| 31 | Improving Predictions of the Urban Wind Environment Using Data. Technology Architecture and Design, 2019, 3, 137-141. | 0.2 | 2 |
| 32 | 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 |
| 33 | Large-Eddy Simulations of Wind-Driven Cross Ventilation, Part1: Validation and Sensitivity Study. Frontiers in Built Environment, 0, 8, . | 2.3 | 2 |
| 34 | Numerical Simulation of Advanced Monolithic Microcooler Designs for High Heat Flux Microelectronics. , 2015, , . | | 1 |
| 35 | Numerical Optimization of Advanced Monolithic Microcoolers for High Heat Flux Microelectronics. , 2015, , . | | 0 |
| 36 | Improving the predictive capability of building simulations using uncertainty quantification. Science and Technology for the Built Environment, 2022, 28, 575-576. | 1.7 | 0 |