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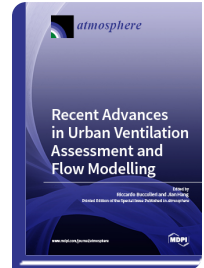
*Special Issue Reprint*

## Recent Advances in Urban Ventilation Assessment and Flow Modelling

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This book contains twenty-one original papers and one review paper published by internationally recognized experts in the Atmosphere Special Issue "Recent Advances in Urban Ventilation Assessment and Flow Modelling", years 2017–2019. The Special Issue includes contributions on recent experimental and modelling works, techniques, and developments mainly tailored to the assessment of urban ventilation on flow and pollutant dispersion in cities.

The study of ventilation is of critical importance, as it addresses the capacity with which a built urban structure is capable of replacing the polluted air with ambient fresh air. Here, ventilation is recognized as a transport process that improves local microclimate and air quality and closely relates to the term "breathability". The efficiency with which street canyon ventilation occurs depends on the complex interaction between the atmospheric boundary layer flow and the local urban morphology.

The individual contributions to this Issue are summarized and categorized into four broad topics: (1) outdoor ventilation efficiency and application/development of ventilation indices, (2) relationship between indoor and outdoor ventilation, (3) effects of urban morphology and obstacles to ventilation, and (4) ventilation modelling in realistic urban districts. The results and approaches presented and proposed will be of great interest to experimentalists and modelers, and may constitute a starting point for the improvement of numerical simulations of flow and pollutant dispersion in the urban environment, for the development of simulation tools, and for the implementation of mitigation strategies.

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