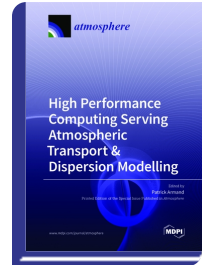*Special Issue Reprint*

# High Performance Computing Serving Atmospheric Transport & Dispersion Modelling

www.mdpi.com/books/reprint/6737

Edited by
Patrick Armand

This reprint brings together fifteen articles published in the Special Issue of the journal *Atmosphere*, entitled "High-Performance Computing Serving Atmospheric Transport & Dispersion Modelling". These articles cover a wide variety of topics related to air quality in urban areas and nature-based solutions to improve it in the context of climate change; impact studies on human health and the environment of facilities and infrastructure projects as well as risk studies; the assessment of emerging threats; and preparations for and responses to emergencies involving toxic, flammable, or explosive atmospheric releases. As the fifteen articles presented here remarkably illustrate, what these contemporary topics have in common is the implementation of multi-scale simulations of atmospheric transport and dispersion by means of physical models of computational fluid dynamics (CFDs), whose potential is enhanced by high-performance computing (HPC). This reprint thus addresses the answers provided by modelling and the most advanced simulations to some societal matters of major interest.

MDPI

Order Your Print Copy
You can order print copies at
www.mdpi.com/books/reprint/6737

# MDPI\\Books
## Publishing Open Access Books & Series

MDPI Books offers quality open access book publishing to promote the exchange of ideas and knowledge in a globalized world. MDPI Books encompasses all the benefits of open access – high availability and visibility, as well as wide and rapid dissemination. With MDPI Books, you can complement the digital version of your work with a high quality printed counterpart.

### Open Access
Your scholarly work is accessible worldwide without any restrictions. All authors retain the copyright for their work distributed under the terms of the Creative Commons Attribution License.

### Author Focus
Authors and editors profit from MDPI's over two decades of experience in open access publishing, our customized personal support throughout the entire publication process, and competitive processing charges as well as unique contributor discounts on book purchases.

### High Quality & Rapid Publication
MDPI ensures a thorough review for all published items and provides a fast publication procedure. State-of-the-art research and time-sensitive topics are released with a minimum amount of delay.

### High Visibility
Due to our global network and well-known channel partners, we ensure maximum visibility and broad dissemination. Title information of books is sent to international indexing databases and archives, such as the Directory of Open Access Books (DOAB), and the Verzeichnis Lieferbarer Bücher (VLB).

### Print on Demand and Multiple Formats
MDPI Books are available for purchase and to read online at any time. Our print-on-demand service offers a sustainable, cost-effective and fast way to publish MDPI Books printed versions.

Learn more ▶ mdpi.com/books