

Special Issue

Atmospheric Dispersion Modeling of Hazardous Releases from Accident, Terrorist Attack or Natural Disaster

Message from the Guest Editor

In the case of an emergency due to a hazardous release, decision makers and first responders urgently need fast but reliable information on the extent of the expected damages and health effects. Today's threat scenarios range from natural disasters as volcanic eruptions causing long-range transport of material to accidental or intentional CBRN releases with local but serious consequences. Model developers and users of atmospheric emergency response modeling systems face several challenges. For real-time applications, model results should be provided as fast as possible. This Special Issue offers an opportunity for those involved in modeling hazardous gas releases across a range of scales—from local releases in urban areas or complex terrain to volcanic eruptions or nuclear explosions leading to long-range transport of hazardous material—to present their original scientific work in this dedicated volume. Papers presenting approaches to cope with uncertainty in the context of emergency response and as risk analyses, sensitivity studies, model evaluation, and case studies from real events are highly welcome.

Guest Editor

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Deadline for manuscript submissions

closed (31 December 2020)



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About the Journal

Message from the Editor-in-Chief

Continued developments in instrumentation and modeling have driven atmospheric science to become increasingly more complex with a deeper understanding of concepts, mechanisms, and interactions. This is the field that innovation built and it has led to a better appreciation for the complexity with atmosphere. Human life is intertwined in this complexity as we strive to better understand our atmosphere. Climate change is constantly stretching the limits of our thinking and forcing new ideas and concepts to be played out. Welcome to the Anthropocene!

Editor-in-Chief

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