Special Issue

Advances in Rainfall-Induced Hazard Research (2nd Edition)

Message from the Guest Editors

The current state of research on rainfall-induced hazards is rapidly evolving, with significant advancements in knowledge and mitigation strategies. Remote sensing and geospatial technologies have revolutionized our ability to monitor and predict rainfall patterns, while numerical modeling techniques are increasingly becoming sophisticated in assessing the potential impact of excessive rainfall on hillslopes, watersheds, and urban areas. Moreover, the integration of traditional atmospheric and natural hazard knowledge with modern data science and machine learning has led to more accurate predictions, enabling authorities to take timely measures. This Special Issue brings together leading experts to share their insights and research findings, covering topics from rainfall modeling and forecasting to risk assessment and management. It will serve as a valuable resource for researchers, policymakers, and practitioners, fostering cross-disciplinary collaboration and further advancements in this crucial field. We hope that this Special Issue will inspire more research into mitigating the impact of these natural hazards, safeguarding lives and property worldwide.

Guest Editors

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Deadline for manuscript submissions

closed (30 November 2025)

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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