

Preface

Christophe Lienert ^a, Andreas Paul Zischg ^{b,*}, Horst Kremers ^c, Jamie McCaughey ^d, Lara Zinkl ^b, David N. Bresch ^d

^a Secretariat Steering Committee Intervention in Natural Hazards LAINAT, c/o Swiss Federal Office for the Environment FOEN, Switzerland - christophe.lienert@bafu.admin.ch

^b Mobiliar Lab for Natural Risks, Oeschger Centre for Climate Change Research, Institute of Geography, University of Bern, Bern, Switzerland - andreas.zischg@unibe.ch, lara.zinkl@unibe.ch

^c RIMMA CoE, Berlin, Germany - office@horst-kremers.de

^d Department of Environmental Systems Science, ETH Zurich, Zurich, Switzerland – jamie.mccaughey@usys.ethz.ch, dbresch@ethz.ch

* Corresponding author

Keywords: Forecasting, Preparedness, Warning, Response, Visualization, Communication, Information Management

Abstract:

The International Conference on Forecasting, Preparedness, Warning, and Response - Visualization, Communication, and Information Management (RIMMA2025), held in Bern (Switzerland) from January 28 to January 31, 2025, focused on integrated management of natural hazards and risks, where information and warnings play a crucial role. Effective warnings enhance preparedness and complement forecasts and emergency planning. Real-time data and warnings must be accessible, understandable, and tailored to different user groups. Impact-based warnings require collaboration between meteorological services, warning services, and user groups.

Visualization and communication are key to effective forecasting and warning systems. Modern maps are digital, interactive, and real-time, integrating spatiotemporal data, digital twins, and multimedia. The conference addressed open questions about user-centered information management, visualization of uncertainties, and the economic and humanitarian impacts of natural hazards, alongside topics such as system interoperability, process standardization, and early warning distribution channels.

To foster exchange, integration, and collaboration across research and practice, the RIMMA2025 conference (www.rimma2025.org) united a diverse range of disciplines and experts, including meteorological and warning services, disaster and risk managers, humanitarian organizations, emergency responders, and specialists in cartography, visualization, and communication. The conference proceedings contain a selection of short papers and abstracts. All submissions have undergone a review process by two members of the scientific program committee.

The conference was co-organized by the University of Bern, the Swiss Steering Committee on Intervention in Natural Hazards (LAINAT) of the Swiss Government, the RIMMA International Community of Experts, and the ETH Zurich. The conference was supported by the International Cartographic Organization, the Swiss National Science Foundation, the Swiss Cartographic Society, the University of Zurich, the University of Applied Sciences and Arts Northwestern Switzerland, German Committee for Disaster Risk Reduction, the Disaster Competence Network Austria, the Swiss Polar Institute, the private companies Kisters, and Zeix.

Christophe Lienert, Andreas Paul Zischg, Horst Kremers, Jamie McCaughey, Lara Zinkl, David N. Bresch
Bern, Switzerland, January 2025

Acknowledgements

We thank the members of the scientific committee and reviewers:

Franziska Angly, Pia Bereuter, Susanne Bleisch, William Cartwright, Arzu Çöltekin, Pierfranco Costabile, Juliane Cron, Carina Jacqueline Fearnley, Georg Gartner, Valentin Gebhart, Izabela Gołębiowska, Lorenz Hurni, Pyry Kettunen, Milan Konečný, Xintao Liu, Olivia Martius, Jamie McCaughey, Erika R. Meléndez-Landaverde, Scira Menoni, Leonardo Milano, Markus Mosimann, Aikaterini Poustourli, Stefan Rass, Tumasch Reichenbacher, Danièle Rod, Angela Santos, Raimund Schnürer, Jie Shen, Yong Wang