



Kompetenzzentrum für ökonomische, ökologische und soziale Nachhaltigkeit  
Centro di Competenza per la Sostenibilità economica, ambientale e sociale  
Competence Centre for Economic, Ecological and Social Sustainability

Organizer:  
Prof. Camilla Wellstein

## Conference

# Meteorological Extreme Events – Forecasting, Impact, Case studies

16-17 December 2024

unibz, Aula Magna (room D0.01)

Universitätsplatz 1 – Piazza Università 1, 39100 Bozen-Bolzano

Conference in presence

**Conference Website and Registration:** <https://www.unibz.it/en/events/meteorological-extreme-events-forecasting-impact-case-studies>

### 16 December 2024

#### 14:00-14:20 Conference Opening and Welcome

Alex Weissensteiner (Rector of the Free University of Bozen-Bolzano)

Klaus Unterweger (Director of the Civil Protection Agency, Province of Bozen-Bolzano)

Elisabeth Gsottbauer (Director of the Competence Centre for Sustainability, unibz)

Camilla Wellstein (Head of the Research Area Environmental Sustainability, Competence Centre for Sustainability, unibz)

**14:20-16:00 Impact of Meteorological extreme events** (Moderation: Giacomo Bertoldi, EURAC)

1. **KEYNOTE** 40 min. Nadine Salzmann (Head of the Research Unit Alpine Environment and Natural Hazards, WSL- Institute for Snow and Avalanche Research SLF): Combined extreme events: examples and case studies from the Swiss Alps and approaches to reduce related risks in the future
2. Maurizio Righetti (unibz): Hydrological extreme events in the region of South Tyrol - Trentino
3. Alice Crespi (EURAC): Extreme events and risk analysis part 1
4. Massimiliano Pittore (EURAC): Extreme events and risk analysis part 2

**16:00 – 16:30 Coffee break**

**16:30-18:30 Impact of Meteorological extreme events** (Moderation: Roberto Tognetti, unibz)

5. Giacomo Bertoldi & Michele Bozzoli (EURAC): Long-term snowfall trends and variability in the Alps
6. Michele Larcher (unibz): New approaches for the assessment of hydraulic hazard in small mountain basins
7. Emilio Dorigatti & Ruth Sonnenschein (EURAC): Forest damages from extreme events in South Tyrol: mapping and impacts on protection forests
8. Michele Torresani (unibz): The Vaia case study
9. Andrea Andreoli (unibz): The MONIVA experiment

**17. Dezember 2024**

**9:00 – 11:00 Meteorological forecasting and case studies** (Moderation: Camilla Wellstein, unibz)

1. **KEYNOTE** Harald Kunstmann (Univ. Augsburg): Drought and heat: the power of seasonal forecasts
2. **KEYNOTE** Lorenzo Giovannini (Univ. Trento): Forecasting of extreme meteorological events
3. Günther Geier (Office for Meteorology, Province of Bozen-Bolzano): Meteorological measurement techniques – the new precipitation radar of Gantkofel- Monte Macaion and its relevance for the analysis of extreme events
4. Eleonora Dallan (Univ. Padova): Extreme weather events in the Eastern Italian Alps from a meteorological, climatic and statistical point of view

**11:00 – 11:30 Coffee break**

**11:30 – 12:10 session continued**

5. Georg Mayr (Univ. Innsbruck): Thunderstorms and lightning
6. Georg Pistotnik (Geosphere, Austria): Extreme thunderstorm events and forecasting

**12:10 – 12:45 Impact management** (Moderation: Nadine Salzmann, WSL, Switzerland)

7. Pierpaolo Macconi (Warning Center of the Province of Bozen-Bolzano): New perspectives in hydrogeological risk management in the Province of Bolzano
8. Camilla Wellstein, Mario Broll, Günther Unterthiner, Marco Pietrogiovanna: Climate extremes and repercussions on ecosystems and their management in the South-Eastern Alps

**12:45 – 13:20 Discussion – round table** (Moderation: Mario Broll, Former Director of the Forestry Department, Province of Bozen-Bolzano)

- Willigis Gallmetzer (Director of the Warning Center of the Province of Bozen-Bolzano)
- Marco Pietrogiovanna (Director Forest Management Office, Forestry Department, Province of Bozen-Bolzano)
- Volkmar Mair (Director of the Geology and Building Materials Testing Office, Province of Bozen-Bolzano)
- Nadine Salzmann (Head of the Research Unit Alpine Environment and Natural Hazards, WSL- Institute for Snow and Avalanche Research SLF)
- Mauro Gaddo (Director Office of Forecasting and Planning of the Autonomous Province of Trento)
- Dino Zardi (Prof. of Atmospheric Physics, Univ. Trento)

**13:20 – 13:30 Final conclusions of the conference** (Camilla Wellstein, unibz)