

# Extreme events

*Tuesday 5 March 2024 14:15 (2 hours)*

Extreme events threaten settlements, ecosystem services and human wellbeing. Under ongoing and projected climate and environmental change, improving our understanding and prediction of extreme events and their impacts is essential to increase preparedness and system resilience. This session brings together researchers who work on the broad topic of extreme events (including different types of extreme events, compound events, impact assessments) related to rural and urban landscapes. The session will provide a platform to obtain an overview of the research that is done in the different centers, explore cross-cutting topics, and start new collaborations.

### Droughts

1. Emanuele Bevacqua (UFZ) - Direct and lagged climate change effects intensified the widespread 2022 European drought.
2. Peter Greve (Hereon) - Low flow sensitivity to water withdrawals in Central and Southwestern Europe under 2 K global warming.

### Precipitation extremes

3. Laurens Bouwer (Hereon) - Extreme rainfall and flash flood events in Sicily: current and projected future risks from the CASCO project
4. Tobias Braun (GFZ) - A novel catalogue of global atmospheric rivers for the study of hydrological extremes

### Floods

5. Elena Macdonald (GFZ) - When extreme floods are not as rare as they seem: processes and controls of heavy-tailed flood peak distributions
6. Viet Dung Nguyen (GFZ) - A Non-Stationary Gridded WeatherGenerator for Central Europe for assessment of changes in precipitation and future flooding

### Soil heat extremes

7. Almudena Garcia-Garcia (UFZ) - Soil heat extremes can outpace air temperature extremes

### Society

8. Christian Kuhlicke & Mariana Madruga de Brito (UFZ) - Examining extreme event impacts and adaptation mechanisms across scales: from micro to macro perspectives
9. Anna Salomaa (UFZ) - Worsening socio-environmental crises ahead: three modes of building resilience

### Discussion and wrap-up

**Presenters:** ZSCHEISCHLER, Jakob (UFZ); BOUWER, Laurens (Hereon); VOROGUSHYN, Sergiy (GFZ)

**Session Classification:** Breakout Sessions