

INVITED SPEAKERS

Data Science

Prof. Dr. Matthias Holschneider
Institute of Mathematics
University of Potsdam

Changing Systems

Prof. Dr. Hans Joachim Schellnhuber CBE
Potsdam Institute for Climate Impact Research

Cascade and Multi-Hazard

Prof. Jakob Rhyner
Institute for Environment and Human Security
United Nations University (Bonn)

Linking Hazard and Vulnerability

Prof. Dr. Jeroen Aerts
Institute for Environmental Studies
VU Amsterdam

YOUNG PROFESSIONALS AWARD „Preparedness 2030“

The German Committee for Disaster Reduction (DKKV) will award the Young Professionals Award „Preparedness 2030“ at the conference. DKKV wants to highlight and promote outstanding theses in any field consistent with disaster reduction.

The call for contributions and further information can be found at www.dkkv.org.

The application deadline is 1st of August 2018.

ABSTRACTS & REGISTRATION

Registration is now open. Please submit your abstract of 300-500 words, including title, author's name, and affiliation until 15th May 2018 via the link:

<http://www.j-work.de/up/nathazardsrisk/>

Letter of acceptance/rejection will be sent to the corresponding author before 15th June 2018.

For organizational reasons, attendance is limited in number and will be assigned on a first come first served basis.

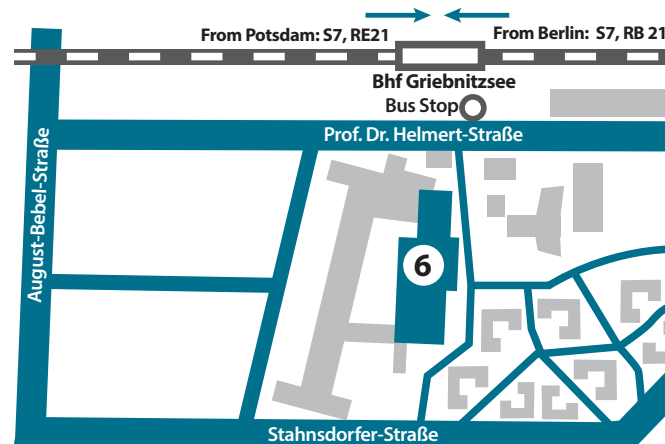
The conference fee is EUR 140. It includes all the conference documentation, coffee breaks, lunches and a conference dinner on 4th October.

Please register until 4th September 2018 via the link:

<http://www.j-work.de/up/nathazardsrisk/>

VENUE

The conference will take place on 4th–5th October 2018 at the University of Potsdam, Campus Griebnitzsee, Building 6.



Natural Hazards and Risks in a Changing World

Call for contributions

International Conference on
Natural Hazards and Risks in a Changing World
4–5 October 2018
University of Potsdam

Organizers

Prof. Dr. Axel Bronstert
Prof. Dr. Fabrice Cotton
Dr. Theresia Petrow
Prof. Dr. Frank Scherbaum
Prof. Dr. Annegret Thieken
Dr. Kristin Vogel
PD Dr. Gert Zöller



DESCRIPTION

Natural hazards such as floods, earthquakes, landslides, and multi-hazard events heavily affect human societies and call for better management strategies. Due to the severity of such events, it is highly important to understand if and how they change in response to evolving hydro-climatological, geo-physical and socio-economic conditions. These conditions jointly determine the magnitude, frequency, and impact of disasters, and are changing in response to climate change and human behavior. Therefore methods are needed for hazard and risk quantification accounting for the transient nature of hazards and risks in response to changing natural and anthropogenic altered systems.

The purpose of this conference is to bring together researchers from natural sciences (e.g. hydrology, meteorology, geomorphology, hydraulic engineering, environmental science, seismology, geography), risk research, nonlinear systems dynamics, and applied mathematics to discuss new insights and developments about data science, changing systems, multi-hazard events and the linkage between hazard and vulnerabilities under unstable environmental conditions. Knowledge transfer, communication and networking will be key issues of the conference. The conference will be organized by means of invited talks given by outstanding experts, oral presentations, poster sessions and discussions.

DATA SCIENCE

Over the last decades an enormous increase in data (e.g. from seismic recordings, satellites, remote sensing and newer sources like social networking sites) has generated a massive amount of information sources available for the analysis of natural hazards and risks. Yet, despite the parallel improvement of computer technology, extracting relevant information from big data is anything but trivial. Consequently, exploiting the potential of data driven learning by the application and adaptation of data science and machine learning techniques becomes more and more relevant for an improved understanding of complex natural processes and their impacts on society and economy. We invite contributions on innovative methods or new applications.

CHANGING SYSTEM

Although non-stationary or transient system conditions are not new in general, the recent past (ranging from decades to approx. several centuries) has witnessed particularly strong evidence for changing systems. A prominent concern is the discussion about the increasing risks of extreme events under the recent warming of the climate system. But also a shift in the hydrologic response of landscapes or in river hydraulics, or changing seismic conditions related to natural and anthropogenic impacts may express the effects of system changes. In addition, vulnerability has changed as well, as it manifests in improved early warning systems or technical achievements, or, on the negative side, in growing population and asset values at risk as well as interconnected infrastructures and lifelines. We invite studies that are dedicated to the identification, quantification or prediction of changing (sub-)systems in the natural hazard domain.

CASCADE AND MULTI-HAZARD

Recent assessments of natural hazards have increasingly embraced the idea that potentially adverse processes such as earthquakes, volcanic eruptions, tsunamis, landslides, and floods are dynamically coupled. Such chains of events challenge conventional assessments that are dedicated to identifying the locations, magnitudes, frequencies, and consequences of a single natural hazard. New interdisciplinary methodologies and statistical approaches are required to quantify the characteristics of natural hazard cascades. Moreover, multi-hazards often go beyond what governments plan for and place high demands on risk management policies. Contributions that address conjoint, compound or cascading damage events are highly welcome.

LINKING HAZARD AND VULNERABILITY

As risk is defined as the combination of hazard and vulnerability, risk assessments have to include aspects of vulnerability. Although vulnerability research has gained more attention recently, simple models and rough assumptions are still dominant and hazard and vulnerability research tend to be siloed. A better understanding of vulnerabilities of individuals, societies and systems and their linkage to hazard profiles enables decision-makers to tailor management strategies to local conditions and create co-benefits to other policy fields. We invite contributions that deal with innovative and integrative approaches of vulnerability and risk assessments on different time and spatial scales. Participatory approaches and approaches that integrate disaster management with climate change adaptation or sustainability science are highly welcome.