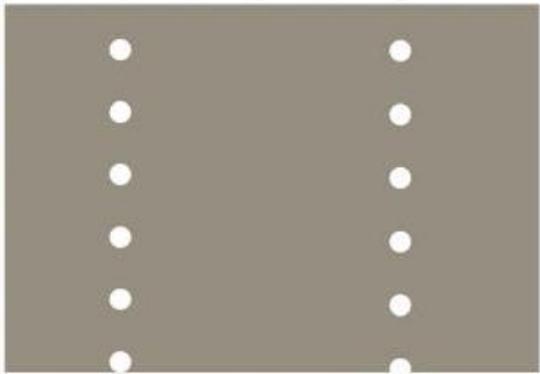


## Symposium "Climate Change and Natural Hazards: coping with and managing hazards in the context of a changing climate"

University of Padua, Italy  
25th-26th February 2019



# PROGRAMME

## Symposium on "Climate Change and Natural Hazards: Coping with and managing hazards in the context of a changing climate"

*Padova, Italy, 25<sup>th</sup>-26<sup>th</sup> February 2019*

**Location:** the event will be held at the *Università degli Studi di Padova* - Palazzo Bo - Via 8 Febbraio 1848, 2 - 35122 - Padova. Oral presentations will be held in the following two halls: Archivio Antico and Ippolito Nievo. Posters will be displayed on Sala delle Colonne.

### **Monday 25<sup>th</sup> February 2019**

#### **Room: Archivio Antico**

08:30- 09:20- Arrival and Registration

09:20-09:30- Welcome by Prof. Raffaele Cavalli, Dean of TESAF Department

09:30-09:40- Aims of the Symposium (Walter Leal, Marco Borga)

#### **Plenary Presentations I**

**Chairperson: Walter Leal, Germany**

09:40-10:00 – **The VAIA Storm in Veneto: impact on forests. Challenges and opportunities**  
*Emanuele Lingua, Stefano Grigolato, Francesco Pirotti, University of Padova, Italy*

10:00-10:20 - **Effects of climatic and environmental changes on landslides: progresses and perspectives**  
*Stefano Luigi Gariano and Fausto Guzzetti, Consiglio Nazionale delle Ricerche, Perugia, Italy*

10:20-10:40 - **Flash-Floods: More often, More severe, More damaging? An Analysis of Hydro-Geo-Environmental Conditions and Anthropogenic Impacts**  
*Axel Bronstert, Irene Crisologo, Maik Heistermann, Ugur Ozturk, Kristin Vogel, Dadiyorto Wendi, University of Potsdam, Germany*

10:40-11:00 – Discussion

11:00-11:30- Break

11:30- 13:00- Parallel sessions

#### **Session 1 - Hazard assessment and risks modeling**

(Room: Archivio Antico)

**Chairperson: Axel Bronstert, Germany**

11:30-11:45- **Hydro-meteorological analysis of an extreme flash flood: The 28 September 2012 event in Murcia, southeastern Spain**  
*Arnau Amengual, Marco Borga and Stefano Crema, Universitat de les Illes Balears, Spain.*

**17:15-17:30- Lightning activity in the Central Mediterranean Sea in the 1998-2018 period: is there a trend?**

*Guido Paliaga, Carlo Donadio, Marina Bernardi, Francesco Faccini, CNR IRPI Research Institute for Geo-Hydrological Protection, Italy.*

**12:00-12:15- Frequency analysis of hydro-meteorological extremes emerging from multiple nonstationary underlying processes**

*Francesco Marra, Davide Zoccatelli, Moshe Armon, Efrat Morin, Hebrew University of Jerusalem, Israel*

**12:15-12:30- Increment of stony debris flow events on the Boite Valley (Venetian Dolomites, Northeastern Italian Alps) and characterization of the extreme rainfalls triggering them**

*Gregoretta C., M. Bernard, M. Berti, M. Boreggio, S. Lanzoni and A. Simoni, University of Padova, Italy*

**12:30-12:45- Occurrence and Characteristics of Flash Floods in Bavaria (Germany)**

*Maria Kaiser, Marco Borga, Markus Disse, Technical University of Munich, Germany*

**12:45-13:00- Flood properties in arid areas: observations and modelling**

*Davide Zoccatelli, The Hebrew University of Jerusalem, Israel*

13:00-14:00- Lunch

**Session 2- Impacts of hazards to biodiversity, terrestrial and inland ecosystems, and ecosystem services**

(Room: Ippolito Nievo)

**Chairperson: Marco Borga, Italy**

**11:30-11:45- Spatio-temporal assessment of vineyards affected by extreme weather events**

*Alessia Cogato, Massimiliano De Antoni Migliorati, Francesco Marinello, Vinay Pagay, Franco Meggio, Peter Grace, University of Padova, Italy*

**11:45-12:00- Impact of drought variability on remote sensing vegetation activity in Spain: a high spatial resolution analysis from 1981 to 2015**

*Sergio M. Vicente-Serrano, Cesar Azorin-Molina, Marina Peña-Gallardo, Miquel Tomas-Burguera, Fernando Domínguez-Castro, Natalia Martín-Hernández, Santiago Beguería, Ahmed El Kenawy, Iván Noguera and Mónica García, Spanish National Research Council (IPE-CSIC), Spain*

**12:00-12:15- Effects of Extreme Rainfall on Debris Transportation by Debris Flow in Taiwan**

*Meei-Ling, Lin and Te-Wei, Chen, National Taiwan University, Taiwan*

**12:15- 12:30- Effects of land cover and climate change on slope mass-wasting at different scales. Preliminary results from a multidisciplinary project in the Pyrenees (Spain)**

*Raül Oorthuis , Marcel Hürlimann, Heping Shu, Carol Puig, Alessandro Fraccica, Jose Moya, Jean Vaunat, Antonio Lloret, Marta González, Jordi Pinyol, UPC BarcelonaTECH, Barcelona, Spain*

12:30-12:45- **Time series analysis of wetlands by using multitemporal satellite data**  
*Nebiye Musaoglu, Adalet Dervisoglu, Baha Bilgilioglu, Nur Yagmur, Aylin Tuzcu and Aysegul Tanik, Istanbul Technical University, Turkey*

12:45-13:00- **Mapping of water-related ecosystem services in river deltas: the case of the Po River Delta region (Northern Italy)**  
*Secco L., M. Masiero, D. Zoccatelli, G. Caramuta, L. Mosca, University of Padova, Italy*

13:00-14:00- Lunch

### **Plenary Presentations II**

**Chairperson: Marco Borga, Italy**

14:00-14:20- **Distributional effects of EU Flood Risk Management and the Law. The Netherlands, Flanders and France as case studies**  
*W.J. van Doorn-Hoekveld, Utrecht University, The Netherlands*

14:20-14:40- **Changes in risk perception over time: Longitudinal Evidence in the North-Eastern Italian Alps**  
*Elena Mondino, Frederike Albrecht, Johanna Mård, Anna Scolobig, Marco Borga, Giuliano Di Baldassarre, Uppsala University & Centre of Natural Hazards and Disaster Sciences, Sweden*

14:40-15:00- **Tackling the dynamics of Global Change in vulnerability assessment – examples from buildings exposed to dynamic flooding**  
*Sven Fuchs, Margreth Keiler and Maria Papathoma-Köhle, University of Natural Resources and Life Sciences, Austria.*

15:00-15:30 Discussion

15:30-16:00- Break

16:00-17:30- Parallel Sessions

17:30-18:30- Reception and informal talks

### **Session 3- Hazard prevention, control and hazard management measures**

(Room: Archivio Antico)

**Chairperson: Sven Fuchs, Switzerland**

16:00-16:15- **Beyond Extreme Value Theory: Lessons Learned for Changing Rainfall and Hurricane Extremes**  
*Marco Marani, Enrico Zorzetto, Arianna Miniussi, Seyed Reza Hosseini, and Marco Scaioni, University of Padova, Italy*

16:15-16:30- **EOPEN Project: A new interoperable open platform for the analysis of earth observation data (EO data) to support flood risk management.**  
*Daniele Norbiato, Martina Monego, Giovanni Tomei, Francesco Zaffanella, Francesca Lombardo, Michele Ferri, Autorità di bacino Distrettuale delle Alpi orientali, Italy*

16:30-16:15- **Landslide hazard induced by climate changes in North-Eastern Romania**  
*Mihai Niculita*, Alexandru Ioan Cuza University of Iasi, Romania

16:45-17:00- **Coping with conflicts - new challenges and strategic solutions**  
*Alexandra Jiricka-Pürerer, Thomas F. Wachter*, University of Natural Resources and Life Sciences, Austria.

17:00-17:15- **Adjustment of warning threshold for landslide with increasing rainfall intensity – a case study in central Taiwan**  
*Kuo-Lung Wang*, National Chi Nan University, Taiwan

17:15-17:30- **Chennai city and coastal hazards: Addressing community-based adaptation through the lens of climate change and sea-level rise**  
*A.Saleem Khan, Sabuj Kumar Mandal and Sudhir Chella Rajan*, Indian Institute of Technology Madras (IITM), India

17:30-18:30- Reception and informal talks

#### **Session 4- Information, communication, training on risk management**

Room: Ippolito Nievo

**Chairperson: Mattia Zaramella, Italy**

16:00-16:15- **Enhancing flash flood risk perception and awareness of mitigation actions through risk communication: A pre-post survey design**  
*J.M. Bodoque; A. Díez-Herrero; M. Amérigo, J.A. García; J. Olcina*, University of Castilla-La Mancha, Spain

16:15-16:30- **Risk perception of stakeholders regarding the natural hazards induced by climate change.**  
*Mihai Niculita, Mihai Ciprian Margarint, Giulia Roder, Paolo Tarolli*, Alexandru Ioan Cuza University of Iasi, Romania

16:30-16:45- **Valuing landslide risk reduction programs in the Italian Alps: The effect of visual information on preference stability**  
*Stefania Mattea, Cristiano Franceschinis, Riccardo Scarpa, Mara Thiene*, Department of Economics, Waikato Management School, University of Waikato, New Zealand

16:45-17:00- **Art in the face of natural disaster: the role of creativity in times of radical environmental changes**  
*Marco Cestarolli*, OrtiKa - Design with and for biodiversity Collective, Italy

17:0-17:15- **Needs and challenges for an operational hydro-meteorological forecasting system in a changing climate**  
*Roberto Dinale, Stefan Ghetta, Luca Maraldo, Mattia Zaramella and Carlo Toffolon*, Protezione Civile Provincia Autonoma Bolzano, Italy

17:15-17:30- **Flash Flood Scenarios for Alpine Valleys: Consequences for Adaptation**  
*Florian Ortner, Vincent Heß, Silke Lutzmann and Oliver Sass*, University of Graz, Austria

17:30-18:30- Reception and informal talks

**Tuesday 26<sup>th</sup> February 2019**

**Room: Archivio Antico**

**Plenary Presentations III**

**Chairperson: Paolo Tarolli, Italy**

09:00-09:30- Summary of the first day

09.30-09:50- **Climate change, extreme events and forests: multifaceted and multidisciplinary measures for coping with complex threats.**

*M. Masiero, L. Secco, University of Padova, Italy*

09:50-10:10- **Communication and anticipation of flood risk at community level: innovative aspects of the LIFE project FRANCA**

*Rocco Scolozzi, Roberto Poli, Stefano Fait, Daniele Rossi, University of Trento, Italy*

10:10-10:30- **Development of an evaluation method for the IRIP method, mapping susceptibility to surface runoff, using proxy data: application to an 80 km railway using a runoff impact data base**

*Isabelle Braud, Lilly-Rose Lagadec, Loïc Moulin, Pascal Breil, Blandine Chazelle, Etienne Leblois, IRSTEA-Lyon, France*

10:30-10:45 - Discussion

10:45-11:00 - Break

11:00- 12:30 - Parallel sessions

**Session 5- Vulnerability assessment and risks modelling**

Room: Archivio Antico

**Chairperson: Isabelle Braud, France**

11:00-11:15- **Nomadic Herders in Mongolia: Climate Change Risk Perceptions and Behavioral Adaptation**

*David N. Sattler, Boldsuren Bishkhorloo, James Graham and Brett Muskavage, Western Washington University, Bellingham, Washington, USA*

11:15-11:30- **Effects of different types of agricultural practices on the stability of slope vineyards**

*C. Meisina, M. Bordoni, A. Vercesi, C. Ganimede, M. Maerker, M.C. Reguzzi, Mazzoni E., E. Capelli, S. Simoni, University of Pavia, Italy*

11:30-11:45- **Coping with floods in anthropogenic landscapes: the BEWARE LIFE project**

*Francesco Bettella; Roberta Pastorello; Giulia Roder; Lucia Bortolini; Vincenzo D'Agostino, University of Padova, Italy*

11:45-12:00- **Anthropic fingerprints on Earth surface: abandoned lakes in Northeastern Romania. Mihai Ciprian Margarint, Mihai Niculita, Paolo Tarolli, Alexandru Ioan Cuza University of Iasi, Romania.**

12:00-12:15- **Effects of climate change on the morphological stability of the Mediterranean coasts: consequences to tourism**

*Federica Rizzetto, Istituto di Scienze Marine (ISMAR), Italy*

12:15-13:30- Lunch

**Session 6- Hazard prevention, control and hazard management measures**

Room: Ippolito Nievo

**Chairperson: Elena Mondino, Sweden**

11:00-11:15- **Protection forests to mitigate rockfall risk and impact in the Alps**

*Emanuele Lingua, Mario Pividori, Raffaella Marzano, Matteo Garbarino, Marco Piras, Milan Kobal and Frédéric Berger, University of Padova, University of Torino, Italy; University of Ljubljana, Slovenja; IRSTEA, France*

11:15-11:30- **Early warning systems for stony debris flow based on mathematical models**

*Gregoretti C., M. Bernard, M. Berti, M. Boreggio, M.L. Stancanelli, S. Lanzoni and A. Simoni, University of Padova, Italy*

11:30-11:45- **The evaluation of water-related extremes in the framework of Ecosystem Services**

*Davide Zoccatelli, The Hebrew University of Jerusalem, Israel*

11:45- 12:00- **Is the return period concept appropriate for the management of debris flow hazard?**

*Sebastiano Piccolroaz, Gabriele Bertoldi, Ruggiero Valentiniotti, Stefano Fait, Marco Borga, Service for Torrent Control, Autonomous Province of Trento, Italy*

12:00-12:15- **Debris flows in northeastern Italy: data collection and approaches for a preliminary debris-flow characterization at the regional scale**

*Marco Cavalli, Stefano Crema, Lorenzo Marchi, Research Institute for Geo-Hydrological Protection (IRPI), National Research Council (CNR), Italy*

12:15-12:30- **Ozone layer holes, regional climate change and possible ways for their forecasting**

*Aliaksandr Krasouski, Siarhei Zenchanka, Veronika Zhuchkevich, Timophey Shlender, Belarusian State University, Belarus*

12:30-13:30- Lunch

13:30-14:00- Follow-up and hand-over of the Best Paper Awards

14:00-14:30- Farewell coffee

**POSTER**

**1. The Climate Change Information and Research Programme (ICCIRP)**

*Walter Leal, Hamburg University of Applied Sciences, Germany*