



The era of hydro-meteorological extremes and the impact on engineering design

INTRODUCTION

Natural and anthropogenic pressures modify the hydrology at all scales, including the watershed. These changes can be related to the **occurrence of extreme events** like flash floods, hurricanes, landslides, prolonged droughts and heat waves. **Changes in hydrogeological risk** have serious implications on engineering design.

This workshop will explore some of the apparent **changes in hydrologic extremes** and approaches to adapt engineering design to the new reality. The workshop will bring together expertise from academy, government agencies and the private sector to study changes, increase understanding and explore new approaches to resilient design.

The workshop is organized by the DPIA Department of the University of Udine, with the partnership of **CISM, SII, Ordine degli Ingegneri di Udine**. Researchers, practitioners, students, and the public are invited.

PLEASE REGISTER HERE:

Limited capacity



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ORGANIZING AND SCIENTIFIC COMMITTEE

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PROGRAM

- 8:30 - 9:00 Registration
9:00 - 9:30 Opening and welcome remarks
- 9:30 - 10:10 **Keynote by Regents Prof. Rafael L. Bras**, *Georgia Institute of Technology, former Provost and Executive Vice President for Academic Affairs*
CLIMATE CHANGE AND HYDROLOGIC EXTREMES: HURRICANES, LANDSLIDES AND ECOLOGICAL DAMAGE IN PUERTO RICO
- 10:10 - 10:30 **Prof. Fernando Nardi**, *Università degli Studi di Roma Tor Vergata*
FLOOD RISK MODELLING RESEARCH AND PRACTICE: OPPORTUNITIES AND LIMITATIONS OF GEOMORPHIC FLOODPLAIN ZONING VERSUS STANDARD HYDRODYNAMIC APPROACH
- 10:30 - 10:50 **Prof.ssa Maria Cristina Rulli**, *Politecnico di Milano*
FOREST FIRE IMPACT ON HYDROLOGICAL RESPONSE AND HILLSLOPE SEDIMENTS MOTION
- 10:50 - 11:20 Coffee Break
- 11:20 - 11:40 **Ph.D Dott.ssa Valentina Gallina**, *Agenzia Regionale per la Protezione dell'Ambiente, ARPA-FVG*
PORTAL OF CLIMATE CHANGE PROJECTIONS FOR NORTH-EASTERN ITALY: A NOVEL TOOL FOR ASSESSING CLIMATE-RELATED IMPACTS
- 11:40 - 12:00 **Prof. Leonardo V. Noto**, *Università degli Studi di Palermo*
CLIMATE CHANGES AND RAINFALL EXTREMES: NEED FOR AN UPDATE OF DEPTH-DURATION-FREQUENCY CURVES
- 12:00 - 12:20 **Ph.D Ing. Valentina Baù**, *Idrostudii s.r.l.*
RAINFALL'S SILENT COUNTERPART: UNRAVELING THE COMPLEXITIES AND ASSESSING STRATEGIES FOR REGIONAL DROUGHT MANAGEMENT
- 12:20 - 12:40 **Prof. Matteo Nicolini**, *Università degli Studi di Udine*
INTEGRATED URBAN WATER PLANNING AND MANAGEMENT: A CASE STUDY
- 12:40 - 13:15 Open discussion
13:15 - 13:30 Concluding remarks