



New perspectives for multi-risk assessment and management under climate change

Digital transition, innovative partnerships, future challenges

POSTER SESSIONS

November 27

18:00 – 19:30 **Poster Session and discussion with Welcome Drinks**

Poster Session - Topics:

1. Geophysical, land and marine risks
2. Climate and water related risks
3. Seismic risk, risks related to structures, infrastructures and urban areas
4. Environmental risks, social security, communication and public health

*Posters will be shown in a slide-show mode on four different screens (one screen for each topic)
Presentation is not required*

NOTE FOR AUTHORS:

- Note that posters which will not be orally presented on 28th and 29th (i.e., not present in the list below) will be shown only on November 27th in the slide-show mode.
- Poster sessions on 28th and 29th will be in presence only
- For any doubts, please contact: francesca.ferretti10@unibo.it and mattia.neri5@unibo.it





November 28

12:00 – 13:00 Poster Session

Posters will be presented in four **thematic sessions**, according to the following topics:

1. Geophysical, land and marine risks (Sala Turchese)
2. Climate and water related risks (Sala Cobalto)
3. Seismic risk, risks related to structures, infrastructures and urban areas (Sala Blu)
4. Environmental risks, social security, communication and public health (Sala Ambra)

Schedule

TOPIC 1 - Geophysical, land and marine risks

Sala Turchese – Ground floor

N°	Presenter	Title
1	Coda Silvio	Preliminary results of the tool for spatial analysis of proneness to ground instabilities: the pilot case of Stigliano (MT)
2	Salmona Paola	A statistical Open Data Based tool to assess susceptibility to slope instability in GIS environment
3	Tufano Rita	AI for landslides hazard assessment by using InSAR techniques
4	Colacicco Rosa	Assessing badlands dynamics through LiDAR and Unmanned Aerial Vehicles technology
5	Narcisi Roberta	Groundwater fluctuations effects on slow-moving landslide displacements: case study of the Susa Valley (Piemonte region, NW Italy)
6	Ferrarotti Matteo	Morphological parametrisation of snow cover variability as preparatory factor for landslides: the Campotosto (Central Italy) test site
7	La Porta Giulia	Experimental analysis of the impact of freeze-thaw cycles on soils and rocks for slope stability assessment
8	Alvioli Massimiliano	HySTC: Hydrology and Stability of slopes along Transport Corridors
9	Mzid Nada	Advancing SDG 15.3.1: Implementing an algorithm using Google Earth Engine to assess critical land degradation metrics in Italy
10	Scacchia Elena	Definition of preconditioning, preparatory and triggering factors of submarine landslides at canyon heads
11	Lucchi Federico	New geological mapping 1:5000 scale of La Fossa cone, Vulcano Island, providing insights on the eruptive behaviour and hazard assessment





TOPIC 2 - Climate and water related risks

Sala Cobalto – Ground floor

N°	Presenter	Title
1	Noto Valerio Leonardo	Projecting Depth-Duration-Frequency curves for future climate in Sicily
2	Dallan Eleonora	The future increase of sub-daily extreme precipitation in the Alpine-Mediterranean region
3	Devò Pietro	Estimates of rare rainfall extremes in ungauged areas
4	Lazzarin Tommaso	Dynamic flow resistance in two-dimensional flood modeling of sand-bed rivers: the Lower Po River case study
5	Lompi Marco	Impact of climate change on the Arno flood frequency using a semi-distributed hydrological model and convection-permitting model projections
6	Melillo Massimo	Previsione pRObabilistica dell'occorrenza di Frane indotte dalle piogge in Italia
7	Michetti Melania	Key Findings on Barriers and Enablers for Managing Floods and Droughts
8	Ridolfi Elena	Pluvial flooding Dynamic Mapping under Historical Climatic Conditions in Rome, Italy
9	Bachini Elena	Multiscale simulations of mudflows in mountainous regions
10	Bertoldi Giacomo	Understanding Drought Mechanisms in the Upper Adige Catchment
11	Saidi Amira	Towards Incorporating Genome-Scale Data into the Biogeochemical Model of the Venice Lagoon

TOPIC 3 - Seismic risk, risks related to structures, infrastructures and urban areas

Sala Blu – Ground floor

N°	Presenter	Title
1	Asti Riccardo	Structural architecture of the Mugello Basin (Northern Apennines, Italy): insights from seismic microtremor measurements
2	Colavitti Leonardo	Deployment of a temporary seismic network for the study of fossil and active faults along the Voltri Massif (Genoa, North Western Italy)
3	Locatelli Michele	Analysis of active and fossil seismic faults: a multidisciplinary study for the seismic risk assessment in low-seismicity regions
4	Giaccio Laura	Monitoring seismic hazard with satellite geodesy in Italy: first steps for the integration of GNSS and European Ground Motion Service Data
5	Baldassi Fabio	Estimating earthquakes source corner frequency by phase spectral fitting
6	Raju Khasi	Correlation between electrical and seismic properties in Central Apennines: insight into seismogenic zone
7	Abbozzo Alessia	Transport corridor Bridge Management interpolating Digital Twins and Structural Health monitoring
8	Scocciolini Daniele	Dynamic identification and damage detection in foundation of wind turbines
9	Scocciolini Daniele	Monitoring of direct plinth foundations using distributed fiber-optic sensors based on Brillouin scattering





10	Berardi Davide	Classification of vulnerabilities and monitoring of road and railway infrastructure: a dynamic risk management approach
11	Giovinazzi Sonia	Requirements for natural hazards mapping to enhance critical infrastructures resilience
12	Quaranta Giuseppe	Wind-induced effects in power transmission towers: numerical modeling and dynamic control via hysteretic tuned mass damper
13	Raffaele Lorenzo	Reanalysis-based mesoscale wind maps for the design of structures and infrastructures with an application to Italy
14	Bertolini Ilaria	Assessment of risk mitigation solutions against Backward Erosion Piping

TOPIC 4 - Environmental risks, social security, communication and public health
Sala Ambra – Ground floor

N°	Presenter	Title
1	Martinello Chiara	Interdisciplinary study of a large high-susceptibility landslide area
2	Molinari Antonio	Drivers and Effects: Knowledge Monitoring on Rockfall Process from Sapienza Natural Laboratories
3	Bonaiuto Marino	Task force for a Field Observation at the National Civil Protection exercise «EXE Campi Flegrei 2024»
4	Novellino Rocco	3D geological model: A key tool for risk assessment in urban areas
5	Vendemmia Bruna	Constructing the RETURN ULL methodology. First results from co-exploring the Bagnoli-Coroglio SIN area
6	Morey Nathalie	PIGRECO: A Platform To Support Multi-Risk Management And Decision-Making
7	Romagnoli Federica	Addressing Uncertainties and Evaluation Criteria in Multi-Criteria Analysis for Natural Risk Management: Sharing Workshop Results
8	Amenta Libera	Circular Urban Metabolism in multi-risk Contexts: A Review toward the Concept of Metabolic Risk.
9	Scippo Stefano	Natural Hazard Education with Xr Technologies: a Scoping Review
10	Pisu Daniela	Designing and Testing Risk Communication Strategies: A Research Framework for Enhancing Community Resilience
11	Ugliotti Francesca Maria	New perspectives for interpreting complexity. Digital models and Chatbot.
12	Vigotti Francesca	Strengthening communities' capacity for risk resilience through heritage acknowledgement and co-design actions: Lomellina Proof of Concept.
13	Janda Pavel	Can We Use Bayesian Blind Spots to Manipulate Aggregated Opinions?





November 29

11:30 – 13:00 Poster Session

Posters will be presented in four **thematic sessions**, according to the following topics:

1. Geophysical, land and marine risks (Sala Turchese)
2. Climate and water related risks (Sala Cobalto)
3. Seismic risk, risks related to structures, infrastructures and urban areas (Sala Blu)
4. Environmental risks, social security, communication and public health (Sala Ambra)

Schedule

TOPIC 1 - Geophysical, land and marine risks

Sala Turchese – Ground floor

N°	Presenter	Title
1	Zampieri Carlo	Multi-source data approach to study the dynamics of the invasive blue crab (<i>Callinectes sapidus</i>) and evaluate possible management actions to reduce its impacts on local economy in the northern Adriatic coastal areas
2	Iacobucci Giulia	40-year shoreline changes along the southern coastal sector of Lazio region (Italy): geostatistical analysis and detection of storm events
3	Pareschi Paola	A procedure for coastal vulnerability assessment using XBeach
4	Tuozzo Sara	A meteocean data correction procedure for coastal flooding risk assessment
5	Burini Margherita	Effects of combined stressors on the ecosystem functioning in the Grado lagoon: preliminary experimental results
6	Nicotra Eugenio	EXPERIFLOWS – Large-scale experiments for the study of debris flows in volcanic and sedimentary environments
7	Lo Forte Francesco Maria	From Magma Ascent to Carbon Flux: Understanding Volcanic Risk at Fogo Volcano
8	Natale Jacopo	Stratigraphy of the prehistoric-historical hydrothermal crater field of Nisyros volcano (Greece)
9	Cioni Raffaello	Field survey and morpho-textural study of the ballistic and ash products associated to the 1888-90 eruption at La Fossa di Vulcano (Aeolian Islands): dynamics of Vulcanian eruptions and associated risks.
10	Coppola Lucia	Field monitoring of volcanic soil covers addressed to non-structural mitigation strategies: some observations on Celario slope at Casamicciola (Ischia)
11	Morino Costanza	Dynamics of mountain permafrost in the Eastern Italian Alps: a perspective from the Cavaion rock glacier
12	Marano Simona	Advancements in integrating passive geophysical surveys and satellite interferometry for multi-hazard monitoring
13	Rizzo Angela	Microplastics analysis in marine and coastal sediments





TOPIC 2 - Climate and water related risks

Sala Cobalto – Ground floor

N°	Presenter	Title
1	Piemontese Luigi	A mixed-method approach to site suitability of small agricultural reservoirs and application in Tuscany (Italy)
2	Galli Nikolas	AIDA (Agricultural Irrigation Demand Analyzer): Hi-Res Mapping and Modeling for Water Management in Italy
3	Neri Mattia	Sustainable management of water resources in a changing climate: optimising the withdrawal rules from the Ridracoli reservoir
4	Sarigil Gökhan	Assessment of Snow Water Equivalent Estimates (SWE) from IT-SNOW, Earth System Reanalyses and Hydrological Modeling in Northern Italy
5	Guo Rui	Past and future changes of streamflow in the European Alps
6	Sferratore Antonio	Design proposal for climate mitigation and adaptation
7	Bottacin-Busolin Andrea	Model insights into the role of bed topography on wetland performance
8	Liso Isabella Serena	Anthropogenic forcings in the occurrence and evolution of sinkholes in Apulia
9	De Martino Paolo, De Martino Paolo	Living with water at the time of multi-risk conditions.
10	Delfini Ilaria	Physics-based and machine learning methods for sustainable aquifer management in Emilia-Romagna
11	Abruzzese Micaela	Combined processes in the remediation of trichloroethylene-contaminated groundwater: Biological Reductive Dechlorination coupled with adsorption on waste materials, and supported by polyhydroxyalkanoates.
12	Cutroneo Laura	First anthropic-natural evidence by the lithological and chemical characterization of the Port of Genoa
13	Bajo Marco	CoastClim: climate and scenarios of sea level and waves on the Mediterranean Sea.
14	Meli Matteo	Evolution of the annually averaged shoreline along the Emilia-Romagna coast from 1984 to 2023
15	Porru Maria Chiara	Assessing Saltwater Intrusion in Sardinian Coastal Aquifers: A Multidisciplinary Approach Integrating Airborne Electromagnetic and Magnetic Data
16	Riva Laura	Cellulose-based nanostructured aerogels for leachate decontamination: towards sustainable phosphorus recovery from sewage sludge ash





TOPIC 3 - Seismic risk, risks related to structures, infrastructures and urban areas

Sala Blu – Ground floor

N°	Presenter	Title
1	Marmo Rossella	Assessing the vulnerability of the building's envelope to natural hazards
2	Saitta Fernando	FE Evaluation of the Out-Of-Plane Capacity of Clay-Ceramics Hollow-Bricks Infill Panels
3	Solarino Fabio	Sensor system for mechanical behavior of tie-rods in masonry structures
4	Ferretti Francesca	Seismic vulnerability assessment of masonry and reinforced concrete buildings at the territorial scale
5	Gusella Federico	Seismic risk assessment at territorial scale
6	Passoni Chiara	Adopting sustainability-oriented design criteria for the definition of integrated retrofit solutions in the SAFER-REBUILT Project
7	Cavaleri Liborio	A proposal of Variable Friction Damper (VFD) for seismic (and non) response mitigation of structures and infrastructures
8	Boni Maria Pia	Seismic recovery process: a procedure to analyze different factors' influences, from a single scenario to a global perspective
9	Tosi Valerie	Pondering Risk and Imagining Resilience: A Digital Atlas of Seismic and Volcanic Events in Literature
10	Torregrossa Michele	Vulnerability scenario characterization using a territorial multi hazard approach
11	Molinari Daniela	Towards multi-risk reduction: the abacus of measures
12	Di Domenico Mariano	Towards the implementation of a knowledge and decision support platform to adapt and mitigate urban settlements in multi-risk scenarios
13	De Marco Andrea	Metrics for risk and resilience in determining approaches to restore functionality in the post-event phase
14	Bronzino Giosuè	The Resilience of Urban Districts: an indicator-based approach
15	Carpanese Pietro	Decision tool for vulnerability reduction of industrial sites
16	Arrighi Chiara	A national multi-risk map for cultural heritage
17	Rollo Fabio	A tool for the evaluation of co-seismic landslide displacements at the regional scale: remarks on uncertainty assessment
18	Mazzoglio Paola	Enhancing rainfall monitoring in urban areas by integrating crowdsourced personal weather stations into official networks
19	Evangelista Giulia	A new knowledge resource on Italian Large Dams and their upstream basins
20	Herrmann Marcus	Ontological ensemble modelling to account for different kinds of uncertainties





TOPIC 4 - Environmental risks, social security, communication and public health

Sala Ambra – Ground floor

N°	Presenter	Title
1	Albanese Stefano	Multivariate analysis of geochemical data as a discriminating tool for anthropogenic contamination in soil
2	Caiazza Laura	Chemical and ecotoxicological preliminary results in using passive sampling techniques in seawater at various marine locations throughout Italy
3	Sassetto Geremia	Sequential Reductive/Oxidative Bioelectrochemical Process for Trichloroethylene Removal
4	Castro Rodriguez David Javier	NaTech potential in industrial infrastructures based on dangerous substance criteria
5	Piazza Alessandro	Biological Indicators in the Northern Adriatic Region - WASDI application
6	Alisi Chiara	Contaminated soil bioremediation by indigenous hydrocarbon-degrading bacteria
7	Drago Laura	Stress granules as a post-transcriptional regulation tool of antioxidant defences in <i>Squalius cephalus</i> chronically exposed to PFAS in the rivers of the Veneto region
8	Gorga Eleonora	Definition of the optimal analytical protocol for the rapid and efficient characterization of microplastics by hyperspectral imaging
9	Meneghin Giulia	Selection of circularity indicators for assessing requalification of contaminated sites according to recent standards
10	Pacchini Sara	<i>Squalius cephalus</i> exposed to PFAS downregulates Prdx4 gene expression in kidney
11	Piazzese Daniela	Mussels, models for investigating the effects of bio-based plastic on biodiversity health
12	Quatrini Paola	Sequential biostimulation and bioaugmentation treatments of a diesel-contaminated soil in microcosms
13	Quatrini Paola	Ecofriendly biofilms for aerobic enhanced bioremediation of 1,2-DCA-contaminated groundwater
14	Vianello Chiara	Multi-hazard analysis of Natech events for hydrogen gas-carrying pipelines in a manufacturing district
16	Vianello Chiara	Analysis of one of the largest wildland fires in Italy
15	Mauri Luca	Modeling the interaction between wildfires and windthrows: a pilot case study for Italian Alps
17	Caporale Diana	Assessing Citizens' Adaptation Preferences to Flood and Landslide Risks: A Choice Experiment application
18	Faggi Andrea	Characterisation of an event of heat wave and particulate matter increase in Bologna
19	Oberti Benedetta	Managing Heat Waves in Bolzano: An Interdisciplinary Approach to Risk
20	Ceola Serena	Simulating regional urban expansion as controlled by geomorphic and hydroclimatic drivers
21	Titti Giacomo	Work progress of the Proof Of Concept 1: Tyrrhenian coastal area of Calabria region (southern Italy)
22	Vespo Vincenzo Sergio	Study of infiltration and evaporation processes to predict the performance of evapotranspiration cover system

