#### HOW TO REACH THE UNIVERSITY OF CALABRIA

#### By airplane

The nearest airport to the university of Calabria is the Lamezia Terme airport (60 km south of Cosenza, on the Tyrrhenian Sea), linked to Cosenza by bus services. Organizing committee will provide the transfer from the airport to the University of Calabria (and vice versa) to all the invited lecturers.

#### By train

Coming from the North (Rome), take train in direction of Paola (Calabria), then take a local train towards Cosenza. The organizing committee will provide the transfer from the railway station of Paola to the University of Calabria (and vice versa) to all the invited lecturers.

#### By car

The nearest exit of A3 Motorway to reach the University of Calabria is *Cosenza Nord – Rende* (7 km north of Cosenza). The University is about 1 km on the left of the motorway exit.

#### Venues of the Meeting

The Aula Magna of the University of Calabria is easily reachable, very close to the bus stop.

Palazzo Arnone, which is the place of the National Gallery, is an ancient building (XVI century) located at the historical town of Cosenza (Via G.V. Gravina, 39° 17' 26" N, 16° 15' 43" E).

A participation certificate will be given to professional people attending the two-day meeting, if duly enrolled on the event. For members of the "Ordine dei Geologi della Calabria" and of the "Ordine dei Dottori Agronomi e Forestali di Cosenza", the organizing committee has requested the recognition of credits for professional training. To people enrolled to the meeting will be provided further information by the organizing committee, and logistic support by the organizing agency. More details about online enrollment can be found at: http://www.camilab.unical.it/MED\_Friend/index.html. For any further information, please, contact E. Ferrari, ennio.ferrari@unical.it (+39-0984-496616, cellular 339-3680098) or D.L. De Luca, davide.deluca@unical.it (+39-0984-496593, cellular 333-1355689).

#### Scientific Committee

- H. Aksoy, University of Istanbul (Turkey)
- M. Brilly, University of Lubljana (Slovenia)
- E. Ferrari, University of Calabria (Italy)
- C. Llasat, University of Barcelona (Spain)
- G. Mahè, University of Rabat (Morocco)
- P. Versace, University of Calabria (Italy)

### **Organizing Committee**

- C. Bagini, TD group (Italy)
- G. Capparelli, University of Calabria (Italy)
- M. Capuozzo, Autostrade Tech (Italy)
- F. Cruscomagno, University of Florence (Italy)
- D.L. De Luca, University of Calabria (Italy)
- G. Di Massa, University of Calabria (Italy)
- E. Ferrari, University of Calabria (Italy)
- D. Maletta, University of Florence (Italy)
- G. Mannara, Strago (Italy)
- F. Muto, University of Calabria (Italy)
- R. Salfi, University of Calabria (Italy)

# Organised by

CAMILab, University of Calabria MED-FRIEND (UNESCO IHP-VIII) Autostrade Tech, Strago, TDgroup















### **Partnership**

GII / SII / CINID / "Ordine degli Ingegneri" "Ordine dei Dottori Agronomi e Forestali" City of Cosenza / Municipality of Rende















### In convention with

"Ordine nazionale dei Geologi"











# PON01\_01503 DIFFUSIONE DEI RISULTATI SCIENTIFICI

The CAMILab (University of Calabria) and the MED group of the FRIEND project (UNESCO IHP-VIII, 2014-20) organize the

# Mediterranean Meeting

Monitoring, modelling, early warning of extreme events triggered by heavy rainfall

University of Calabria June 26th-28th, 2014







The meeting is a dissemination event, mainly aiming at the diffusion of the results of the PON project on "Integrated systems for hydrogeological risk monitoring, early warning and mitigation along the main lifelines" (PON01\_01503). The main objective of the project is the development of early warning integrated systems for the national motorways, which often face landslides in Southern Italy.

The meeting is open to scientists of the MED-FRIEND group involved in "Extreme events" topic (UNESCO IHP-VIII, 2014-2021: "Water security: Responses to local, regional and global challenges"), a scientific network working on hydrological extremes by sharing data, knowledge and techniques at regional level.







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## **PROGRAM**

Thursday, June 26th, 2014 AULA MAGNA, UNICAL

- 15:00 Welcome addresses by University Authorities, and introduction to the Meeting.
- G. M. Crisci (University of Calabria, Rector)
- S. Greco (DIMES, Università of Calabria, Dean)
- P. Veltri (DINCI, Università of Calabria, Dean)

#### Session A

The PON project "Integrated systems for hydrogeological risk monitoring, early warning and mitigation along the main lifelines"

- 15:30 **P. Versace** (University of Calabria, Italy). Framework, objectives and perspectives of the PON Lewis project.
- 15:50 **G.** Capparelli (University of Calabria, Italy). Hydrological hillslope models for landslide susceptibility.
- 16:10 **G. Di Massa** (University of Calabria, Italy). Radar systems for landslides monitoring.
- 16:30 **D. Galletta** (Autostrade Tech, Italy). Cooperative management for high impact emergencies on road network.

# Session B

Monitoring, modelling, early warning of extreme events triggered by heavy rainfall

# • B1. Heavy rainfall analysis

- 17:00 **Z. Bargaoui** (University of Tunis, Tunisia). Analysis of short duration precipitation spatial patterns using copula.
- 17:15 D.L. De Luca (University of Calabria, Italy). Analysis of rainfall fields in Southern Italy.
- 17:30 **S. Taibi** (ENSH, Blida, Algeria). Analysis of rainfall extreme events in Northern Algeria.
- 17:45 R. Coscarelli (CNR-IRPI, Rende, Italy). Detection of trends in extreme rainfall.
- 18:00 **S. Kourat** (ENSH, Blida, Algeria). Impact de l'intensite de la pluie sur les inondations: cas de la Mitidja ouest.
- 18:15 A.N. Ghenim (University of Tlemcen, Algeria). Variability of annual daily maximum rainfall in North Algeria.

#### 18:30 Welcome cocktail

# Friday, June 27th, 2014 PALAZZO ARNONE, COSENZA

# ◆ B2. Flood hazard modelling

- 9:00 M. Mikos (University of Lubljana, Slovenia). Applicability of copula functions in analysis of extreme hydrological events.
- 9:20 **A. Atencia** (McGill University, Montreal, Canada). Flash flood detection through the combined use of blended QPF and a probabilistic hydrological model.
- 9:40 M. Brilly (University of Lubljana, Slovenia). Estimation of climate change impact on flood hazard.
- 10:00 **C.** Llasat (University of Barcelona, Spain). The 2 November 2011 flood event in Catalonia: Analysis using the DRIHM infrastructure.
- 10:20 H.I. Burgan (University of Istanbul, Turkey). A conceptual model of Akarcay basin and analysis of flood risks.
- 10:40 **G. Formetta** (University of Calabria, Italy). A GIS-based open-source framework for managing the hydrological budgets at the basin scale.

#### 11:00 Coffee break

- 11:30 **J. Plavsic** (*University of Belgrade, Serbia*). Assessment of methods for outlier detection and treatment in flood frequency analysis.
- 11:50 **D. Pavlovic** (University of Belgrade, Serbia). A stochastic model for series of single and aggregated over threshold flood characteristics values.
- 12:10 H. Aksoy (*University of Istanbul, Turkey*). Current status of flood hazard analysis in Turkey.
- 12:30 **G. Ravazzani** (Polytechnics of Milan, Italy). Nonstructural measures for flood control planning of the Milano area.
- 12:50 M. Deda (Cima Research Foundation, Tirane, Albania). Monitoring and modelling of extreme event of Shkodra flood 2010, Albania

#### B3. Case studies on extremes

- 15:00 **M. Mikos** (University of Lubljana, Slovenia). An outlook on the 4<sup>th</sup> world landslide forum in Lubljana.
- 15:20 **J. Plavsic** (University of Belgrade, Serbia). Floods in the Sava River Basin in May 2014.
- 15:40 E. Eris (University of Istanbul, Turkey). Rainfall triggered landslides in Trabzon Province.
- 16:00 A.G. Awadallah (Fayoum University, AI Fayoum, Egypt). Estimating flooding extent at high return period for ungauged braided systems using remote sensing. A case study of Cuvelai Basin, Angola.
- 16:20 M. Vafeiadis (University of Thessaloniki, Greece). Coast problems and flooding during sea surges and severe storms in the Aegean Sea.
- 16:40 A.F. Draghia (University of Bucharest, Romania). Floods control in a small catchment through reforestation.

#### 17:00 Coffee break

- 17:30 **S.** Arcuri (Centro Funzionale CZ, Italy). Risk information procedures in the regional warning system.
- 17:50 **O. Jaupaj** (Albanian Geological Survey, Tirane, Albania). Landslide susceptibility of Kavaja, Albania.

## Saturday, June 28th, 2014

9:00-20:00 Guided tour to the test sites of the PON project on the A3 Motorway (only for lecturers).