

Natural and anthropic systems have voices and languages. Nowadays it is not difficult to intercept voices thanks to the development of analytical methods and sensor technology; the decoding of language, the communication of these voices, is more difficult. In particular, the problem is attributable to the language decoding in order to define if it contains messages of physiological normality or if it contains signals, often of small intensity, which must lead to the passage to the subsequent phases of risk management, attention and alert. This is further complicated by the risk perception and analysis by stakeholders and decision-making centre and by political and/or administrative management. Daily examples are: components of endemic environmental matrices, but unknown as such; physiological noise in rock masses, in whom are hidden those due to the propagation or beginning of new cracks; underground Cultural Heritages open to the public without adequate hazard analysis. Some of the most quoted international experts have accepted the invitation to participate and share their experiences and the latest news in the field of their research. The attempt is to facilitate the transfer of best knowledge and technology into a safer systems management.

#### Scientific committee :

**Prof David Amitrano**, ISTerre, Université Grenoble Alpes, Grenoble.

**Prof Nicola Casagli**, Università degli Studi di Firenze.

**Prof Giovanni B. Crosta**, Università di Milano Bicocca, IAEG GNI President.

**Prof Daniela Ducci**, Università degli Studi di Napoli, IAH It. Chap. President.

**Prof Mauro Fiorentino**, DICEM, Università degli Studi della Basilicata.

**Prof Antonella Guida**, DICEM, Università degli Studi della Basilicata.

**Dr Vincenzo Lapenna**, CNR IMAA.

**Prof Ignazio Marcello Mancini**, SI, Università degli Studi della Basilicata.

**Prof Mauro Maldonato**, Università degli Studi della Basilicata.

**Dr Luciano Masciocco**, DST, Università degli Studi di Torino - SIGEA

**Dr Guido Pasquariello**, CNR ISSIA.

**Prof Eugenio Scandale**, Accademia Pugliese delle Scienze.

**Prof Nicola Sciarra**, Università di Chieti e Pescara.

**Prof Francesco Sdao**, SI, Università degli Studi della Basilicata.

**Prof Vincenzo Simeone**, Politecnico di Bari.

**Prof Aurelia Sole**, Università degli Studi della Basilicata Rector.

**Prof Giuseppe Spilotro**, DICEM, Università degli Studi della Basilicata.

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Fondazione Matera-Basilicata 2019



Ordine degli Ingegneri della Provincia di Bari

#### Requested support:



Regione Basilicata

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Ordine Regionale dei Geologi della Basilicata

Ordine Regionale dei Geologi della Puglia

Ordine dei Chimici della Provincia di Matera

#### Organizing committee:

**Dr Filomena Canora**, Scuola di Ingegneria, UniBas, Potenza..

**Dr Roberta Pellicani**, DICEM, UniBas, Matera.

**Dr Lucia Losasso**, Scuola di Ingegneria, UniBas, Potenza.

**Dr Ilaria Argentiero**, DICEM, UniBas, Matera.

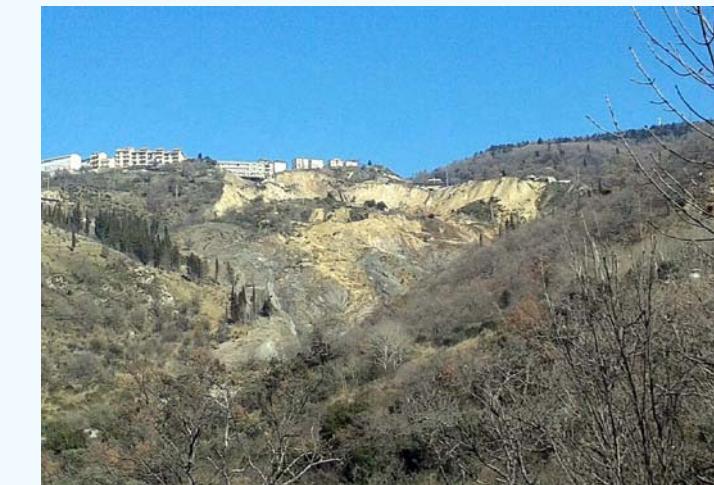
**Dr Alessandro Parisi**, DICATECh, Politecnico di Bari, Bari.

## III International Workshop

### METHODS AND TECHNOLOGIES FOR

### ENVIRONMENTAL MONITORING AND MODELLING:

### EMERGING SIGNALS, RISK PERCEPTION AND MANAGEMENT



SEPTEMBER 14th, 15th and 16th, 2017

**MATERA**

**Chiesa del Cristo Flagellato**

#### organized by:



Dipartimento delle  
Culture Europee e  
del Mediterraneo



Università degli Studi  
della Basilicata



Scuola di Ingegneria

*SEPTEMBER 14th, 2017*

9:00 - 9:30	<i>Registration</i>
9:30 - 10:15	<i>Inaugural session</i>
	<i>Prof Ferdinando Mirizzi</i> , Head of DICEM
	<i>Prof Ignazio Marcello Mancini</i> , Head of School of Engineering
	<i>Prof Giovanni B. Crosta</i> , IAEG GNI President
	<i>Prof Daniela Ducci</i> , IAH Italian Chapter President
	<i>Prof Francesco Guadagno</i> , AIGA President
	<i>Dr Antonello Fiore</i> , SIGEA President
	<i>Avv Raffaello De Ruggieri</i> , Mayor of Matera
	<i>Dr Marcello Pittella</i> , President of Basilicata region
	<i>Prof Aurelia Sole</i> , Università degli Studi della Basilicata Rector
10:15 - 10:30	<i>Keynote speech</i>
	<i>Prof Giuseppe Spilotro</i> , DICEM
10:30 - 10:45	<i>Coffee break</i>
10:45 - 13:00	<i>Session 1</i>
	<i>Soil, Environment and Groundwater Interactions: WHEN TROUBLES BEGIN</i>
	<i>CHAIRMAN:</i> <i>Prof Daniela Ducci</i>
10:45 - 11:15	<i>Prof Benedetto De Vivo</i> L'atlante geochemico d'Italia: la Basilicata
11:15 - 13:00	<i>Oral presentations</i>
13:15 - 14:45	<i>Lunch break</i>
15:00 - 18:00	<i>Session 2</i>
	<i>PERCEPTION, ANALYSIS AND MANAGEMENT OF MULTIPLE SIGNALS TO AVOID DISASTERS</i>
	<i>CHAIRMAN:</i> <i>Prof Nicola Casagli</i>
15:00 - 15:30	<i>Prof David Alexander &amp; Dr Gianluca Pescaroli</i> New theory to help understand, monitor and manage cascading disasters
15:30 - 16:00	<i>Prof Nicola Sciarra</i> La gestione dell'emergenza frane in Abruzzo dopo la recente crisi sismica e idrologica del gennaio 2017
16:00 - 16:20	<i>Coffee break</i>
16:20 - 17:45	<i>Oral presentations</i>

17:45 - 19:30 *Guided tour: RUPESTRIAN CHURCHES OF MATERA*

17:30 - 18:30 *Round-table discussion*

*COMMUNICATION BETWEEN THE KNOWLEDGES IN THE MANAGEMENT OF LAND HAZARD*  
*MODERATOR:*

*Invited:*  
Presidents of Professional Associations  
Regional and River Basin Authorities  
Civil protection Authorities

*SEPTEMBER 15th, 2017*

09:00 - 11:00	<i>Session 3</i>
	<i>In memory of Prof MARCO MUCCIARELLI</i>
	<i>CATCHING SMALL SIGNALS: INTEGRATED MONITORING AND MODELS FOR HAZARD AND RISK EVALUATION</i>
	<i>CHAIRMAN:</i> <i>Prof Giuseppe Spilotro</i>
09:00 - 09:15	<i>Marco's memory and teaching</i>
09:15 - 09:45	<i>Prof Giovanni Battista Crosta</i> Issue on monitoring, modelling and early warning
09:45 - 11:00	<i>Oral presentations</i>
11:00 - 13:00	<i>Session 4</i>
	<i>MULTIPLE RISK IN CULTURAL HERITAGES</i>
	<i>CHAIRMAN:</i> <i>Prof Francesco Sdao</i>
11:00 - 11:30	<i>Prof Nicola Casagli</i> Beni culturali e frane: casi di studio nel Mondo
11:30 - 12:00	<i>Dr Daniele Spizzichino &amp; Dr Claudio Margottini</i> Città rupestri e rischi naturali
12:30 - 13:00	<i>Prof Paolo Frattini</i> Multicriteria approach for risk analysis on Cultural Heritage UNESCO sites in Europe
13:00 - 13:30	<i>Prof Vincenzo Simeone</i> Condizionamenti geologico ambientali nello sviluppo e salvaguardia del centro storico di Matera
13:30 - 14:45	<i>Lunch break and visit to: PALOMBARO LUNGO</i>
14:45 - 17:30	<i>Session 5</i>
	<i>LANGUAGES OF THE NATURAL SYSTEMS AND THEIR PERCEPTION</i>
	<i>CHAIRMAN:</i> <i>Prof Giovanni Battista Crosta</i>
14:45 - 15:15	<i>Prof David Amitrano</i> The language of rock masses
15:15 - 15:45	<i>Prof Mauro Maldonato</i> Uncertainty, Risk perception and Communication
15:45 - 17:30	<i>Oral presentations</i>

08:30 - 15:00

*Field trip: MONTESCAGLIOSO AND STIGLIANO LANDSLIDES, CRIPTA DEL PECCATO ORIGINALE*

**INFORMATION**

**IMPORTANT DATES**

<b>30TH JUNE 2017</b>	<b>ABSTRACT SUBMISSION*</b>
<b>30TH JULY 2017</b>	<b>ACCEPTANCE OF ABSTRACT AND SCHEDULE</b>
<b>30TH AUGUST 2017</b>	<b>REGISTRATION</b>

\*Abstracts should be submitted to the official workshop e-mail:

[www.3intriskworkshop.unibas.it](http://www.3intriskworkshop.unibas.it)

A special issue is being arranged for this conference.

All participants are kindly invited to prepare their manuscript and submit it before the beginning of workshop.

**NOTE:**

The registration and participation to sessions are free, while the participation to tours are subjected to a charge.

**FOR MORE INFORMATION:**

[www.3intriskworkshop.unibas.it](http://www.3intriskworkshop.unibas.it)

3intriskworkshop@gmail.com