

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.

#### Supported by:



#### Requested support:

- Regione Basilicata*
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- Ordine degli Ingegneri della Provincia di Foggia, Taranto*
- 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 Ilenia 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

8:30 - 9:00 *Registration*

9:00 - 10:15 *Inaugural session*

*Prof Ferdinando Mirizzi*, Head of DICEM  
*Prof Ignazio Marcello Mancini*, Head of School of Engineering  
*Prof Giovanni B. Crosta*, IAEG GNI President  
*Prof Daniela Ducci*, IAH Italian Chapter President  
*Prof Francesco Guadagno*, AIGA President  
*Dr Antonello Fiore*, SIGEA President  
*Avv Raffaello De Ruggieri*, Mayor of Matera  
*Dr Marcello Pittella*, President of Basilicata region  
*Prof Aurelia Sole*, Università degli Studi della Basilicata Rector  
*Dr Geol. Gerardo Colangelo*, President of Geologist Association  
*Dr Eng. Mario R. Maragno*, President of Engineer Association

10:15 - 10:30 *Keynote speech*  
*Prof Giuseppe Spilotro*, DICEM

10:30 - 10:45 *Coffee break*

10:45 - 13:00 *Session 1*

*SOIL, ENVIRONMENT AND GROUNDWATER INTERACTIONS:  
WHEN TROUBLES BEGIN*

*CHAIRMAN: Prof Daniela Ducci*  
10:45 - 11:15 *Prof Benedetto De Vivo*  
L'atlante geochimico d'Italia: la Basilicata  
11:15 - 13:00 *Oral presentations*

13:15 - 14:45 *Lunch break*

15:00 - 18:00 *Session 2*

*PERCEPTION, ANALYSIS AND MANAGEMENT OF MULTIPLE SIGNALS  
TO AVOID DISASTERS*

*CHAIRMAN: Prof Nicola Casagli*  
15:00 - 15:30 *Prof David Alexander & Dr Gianluca Pescaroli*  
New theory to help understand, monitor and manage  
cascading disasters  
15:30 - 16:00 *Prof Nicola Sciarra*  
La gestione dell'emergenza frane in Abruzzo dopo la  
recente crisi sismica e idrologica del gennaio 2017

16:00 - 16:20 *Coffee break*

16:20 - 17:45 *Oral presentations*

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

SEPTEMBER 15th, 2017

09:00 - 11:00 *Session 3*

*In memory of Prof MARCO MUCCIARELLI*

*CATCHING SMALL SIGNALS: INTEGRATED MONITORING AND  
MODELS FOR HAZARD AND RISK EVALUATION*

*CHAIRMAN: Prof Giuseppe Spilotro*

09:00 - 09:15 *Marco's memory and teaching*

09:15 - 09:45 *Prof Giovanni Battista Crosta*

Issue on monitoring, modelling and early warning

09:45 - 11:00 *Oral presentations*

11:00 - 13:00 *Session 4*

*MULTIPLE RISK IN CULTURAL HERITAGES*

*CHAIRMAN: Prof Francesco Sdao*

11:00 - 11:30 *Prof Nicola Casagli*

Beni culturali e frane: casi di studio nel Mondo

11:30 - 12:00 *Dr Daniele Spizzichino & Dr Claudio Margottini*  
Civiltà rupestri e rischi naturali

12:30 - 13:00 *Prof Paolo Frattini*

Multicriteria approach for risk analysis on Cultural  
Heritage UNESCO sites in Europe

13:00 - 13:30 *Prof Vincenzo Simeone*

Condizionamenti geologico ambientali nello sviluppo e  
salvaguardia del centro storico di Matera

13:30 - 14:45 *Lunch break and visit to: PALOMBARO LUNGO*

14:45 - 17:30 *Session 5*

*LANGUAGES OF THE NATURAL SYSTEMS AND THEIR PERCEPTION*

*CHAIRMAN: Prof Giovanni Battista Crosta*

14:45 - 15:15 *Prof David Amitrano*

The language of rock masses

15:15 - 15:45 *Prof Mauro Maldonato*

Uncertainty, Risk perception and Communication

15:45 - 17:30 *Oral presentations*

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 16th, 2017

08:30 - 15:00

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

*INFORMATION*

*IMPORTANT DATES*

*30TH JULY 2017*

*ABSTRACT SUBMISSION\**

*10TH AUGUST 2017*

*ACCEPTANCE OF ABSTRACT AND SCHEDULE*

*30TH AUGUST 2017*

*REGISTRATION*

*\*Abstracts should be submitted to the official workshop website:*

[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 fee free, while the  
participation to tours are subjected to a charge.*

*APC credits for geologists and CFP credits for engineers requested*

*FOR MORE INFORMATION:*

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

[3intriskworkshop@gmail.com](mailto:3intriskworkshop@gmail.com)