



UNIVERSITÀ  
DEGLI STUDI  
FIRENZE

United Nations  
Educational, Scientific and  
Cultural Organization

• UNESCO Chair on the Prevention and  
• Sustainable Management of Geo-Hydrological Hazards,  
• University of Florence, Italy

# In the framework of the Scientific Bilateral Agreements UNIFI-SEJONG and UNIFI-KIGAM

## 3rd Joint Seminar Korea-Italy

### Modelling and early warning of landslides, new methods and technologies

Arcetri Labs of DST-UNIFI  
Largo E. Fermi, 2  
Florence

**10 April 2017**  
Florence (Italy)

# 3rd Joint Seminar Korea-Italy

## Florence, 10 April 2017

### 10:00-12:30 - Modelling and prediction

**Chairman: Prof. Filippo CATANI - Associate Professor and UNESCO Chair Associate, University of Florence**

- 10:00-10:20 - Dr. Veronica TOFANI (UNIFI)** - Field parametrisation and numerical modelling for the forecasting of landslides in real-time
- 10:20-10:40 - Dr. Jung-Hae CHOI (KIGAM)** - An approach to landslide early warning based on field monitoring in Korea
- 10:40-11:00 - Prof. Hyuck-Jin PARK (SEJONG)**— Application of fuzzy set approach in rainfall-induced shallow landslide susceptibility analysis
- 11:00-11:20 - Dr. Mauro ROSSI (IRPI)** -Modelling of landslide phenomena and erosion processes triggered by meteo-climatic factors
- 11:20-11:40 - Prof. Alessandro SIMONI (UNIBO)** - Runoff-generated debris flows: observation of initiation conditions and role of sediment availability at Cancia (North Eastern Italian Alps)
- 11:40-12:00 - Dr. Young-Suk SONG (KIGAM)** - Estimation of suction stress and evaluation of unsaturated slope stability
- 12:00-12:20 - Dr. Ivan MARCHESINI (IRPI)** - The Early Warning System for rainfall induced landslides: a work in progress

### 12:20-14:00- LIGHT LUNCH

### 14:00-16:30 - Remote Sensing Methods

**Chairman: Dr. Veronica TOFANI - Assistant Professor, University of Florence**

- 14:00-14:20 - Dr. Federico RASPINI (UNIFI)** - Satellite SAR information for landslide detection and monitoring
- 14:20-14:40 - Dr. Min-Jeong JO (SEJONG)** - 3D measurement of geologic deformation and model parameter estimation based on SAR Interferometry
- 14:40-15:00 - Dr. Alessandro MONDINI (IRPI)** - Spatial autocorrelation changes in multitemporal SAR images for landslide event detection
- 15:00-15:20 - Prof. Sang-Wan KIM (SEJONG)** - InSAR-based displacement monitoring of subsidence and landslide
- 15:20-15:40 - Dr. Paolo FARINA (Geoapp, UNIFI)** - Integration of new technologies to characterise and monitor unstable rock slopes in mining operations

15:40-16:30 Open discussion and round table