THE Second World Landslide Forum

Under the High Patronage of the President of the Italian Republic

Scientific Programme

FAO Headquarters, Rome
3|9 October 2011
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Opening Ceremony

9:30-10:30 Welcome from National and International Authorities

Moderator: Dr. Claudio MARGOTTINI,
Chairperson of the Second World Landslide Forum

Dr. Jaques DIOUF United Nations, Director General FAO
Mr. Gianni LETTA Italy, Under-Secretary of State
Mrs. Stefania PRESTIGIACOMO Italy, Minister for Environment, Land and Sea
Mr. Gianni ALEManno, Italy, Mayor of Rome
Prof. Bernardo DE BERNARDINIS, Italy, President of Italian Institute for Environmental Protection and Research (ISpra)
Mrs. Margareta WAHLSTROM United Nations, Special Representative of the Secretary General for Disaster Risk Reduction
Mr. Badaoui ROUHBAN, UNESCO
Prof. Deliang CHEN, Executive Director of International Council for Science (ICSU)
Prof. Kyoji SASSA, Japan, Executive Director International Consortium on Landslides

10:30 - 11:00 Official Opening of Marketplace

11:00 - 12:30 Lessons from the world - when science and society meet landslides

Moderator: Ms. Ann TUTWILER, FAO, Deputy Director General

Dr. Peter BOBROWSKY, IUGS, Secretary General
Prof. Luciano PICARELLI, ISSMGE/ISRM/IAEG: JTC1 - Joint Technical Committee Natural Slopes and Landslides
Mr Michael Martin, FAO, Director Forest Economics, Policy and Products Division
Prof. Irasema ALCANTARA-AYALA, Mexico, Universidad Nacional Autonoma de Mexico, Vice President of International Geographical Union
Dr. Philippe BALLY, European Space Agency (ESA)
Dr. N.M.S.I. ARAMBEPOLA Thailand, Asian Disaster Preparedness Centre
Pres. Antonio ABrami, IAES, International Academy of Environmental Sciences
Dr. Luca DEMICHEL, EuroGeoSurveys, Secretary General
Prof. Andreas GÖTZ Austria, Chairmen of Alpine Convention
Prof. Dwikorita KARNAWATI Gadjah Mada Univesity, Isram
Prof. Franco GABRIELLI Head Italian Civil Protection Department
Dr Stefano LAPORTA, Italy, ISpra Director General
Mr. Antonio CONCINA, Italy, Mayor of Orvieto
Mr. Rico RENTUZA Mayor of the Municipality of Saint Bernard, Southern Leyte, Philippines

12:30 - 13:00 Ceremony for 2011 Awards to World Centre of Excellence (WCOE) and successful projects from International Programme on Landslides (IPL)

Moderator: Kyoji SASSA (ICL)

Introduction: Prof. Hans van GINKEL Chair of Independent of Panel of Experts for WCOE, Mr. Badaoui ROUHBAN Chair of IPL-Award for Success Award from Dr. Salvano BRICENO Chair of IPL-Global Promotion Committee

13:00 - 13:30 Special Lecture

Dr. Mounir BOUCHENAKI, ICCROM, Director General of International Centre for the Study of the Preservation and Restoration of Cultural Properties (ICCROM)

ICCROM’s approach to Risks and Natural Disasters

18:00 Welcome party
Special Lectures

Monday 3 October
Dr. Mounir Bouchenaki
Director General of International Centre for the Study of the Preservation and Restoration of Cultural Properties (ICCROM)
ICCROM’s approach to Risks and Natural Disasters
Green Room, 13:00-13:30

Tuesday 4 October
Dr. Salvano Briceno
former Director of United Nations International Strategy for Disaster Reduction (ISDR),
Chair of Scientific Committee of Integrated Research on Disaster Risk (IRDR)
Green Room, 12:30-13:00

Thursday 6 October
Prof. Bernardo De Bernardinis
President of Italian National Institute for Environmental Protection and Research (ISPRA)
Policies for land use planning and management in risk areas
Green Room, 12:30-13:00

Friday 7 October
Dr. Yin Yueping
Director, Hydrogeology and Environmental Geology, China Geological Survey
Large infrastructures and environmental policies
Green Room, 12:30-13:00
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<td>Integrated approach to landslide risk mitigation</td>
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### L02 - Landslides, land-use systems and food security

**Conveners:** Thomas Hofer

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<td><strong>Thomas Hofer</strong></td>
<td>Introduction to the session and presentation of the background paper</td>
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<td>14:45-15:00</td>
<td><strong>FAO Interdepartmental Working Group on disaster and risk management</strong></td>
<td>FAO disaster and risk management framework: presentation of FAO vision on the prevention and mitigation of adverse effects of natural hazards to provide timely and reliable hazard forecasts</td>
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<td>15:00-15:15</td>
<td><strong>FAO Interdepartmental Working Group on disaster and risk management</strong></td>
<td>Disaster and Risk Management Cycle put into practice</td>
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<td>15:15-15:30</td>
<td><strong>Thomas Hofer, and Gérard Marquis</strong></td>
<td>Importance of integrated watershed management in the context of rehabilitation plan, recovery and disaster risk reduction initiatives: the Pakistan example</td>
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<td>15:45-16:00</td>
<td><strong>Stephanie Jaquet</strong>, Karen Sudmeier-Rieux, Marc-Henri Derron, and Michel Jaboyedoff</td>
<td>Importance of integrated watershed management in the context of rehabilitation plan, recovery and disaster risk reduction initiatives: the Pakistan example</td>
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<td>16:00-16:30</td>
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<td>Importance of integrated watershed management in the context of rehabilitation plan, recovery and disaster risk reduction initiatives: the Pakistan example</td>
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<td>16:30-16:45</td>
<td><strong>Prakash Chandra Tiwari</strong></td>
<td>Rainfall Variability, Landslides and Food Security in Himalaya</td>
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<td>16:45-17:00</td>
<td><strong>Veerle Vanacker</strong>, and Vincent Balthazar</td>
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<td>17:00-17:15</td>
<td><strong>Inam Ur Rahim Inam</strong></td>
<td>Upland Uses and Lowland Effects – Understanding the role of highland cultivation in Swat in the 2010 flood devastation in Northern Pakistan</td>
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<td>17:15-17:30</td>
<td><strong>Phuntsho Gyeltshen</strong>, and Chencho Norbu</td>
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### L04 - Landslide inventory and susceptibility and hazard zoning

**Conveners:** Javier Hervas, Gabriel Legorreta, Miet Van Den Eeckhaut, Alessandro Trigila

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<td>14:30-14:45</td>
<td><strong>Hannah Evans</strong>, Catherine Pennington, Claire Foster</td>
<td>Mapping a nation’s landslides: a novel multi-stage methodology</td>
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14:45-15:00 **Miet Van Den Eeckhaut**, Norman Kerle, Javier Hervás, Robert Supper  
*Mapping of landslides under dense vegetation cover using object-oriented analysis and LiDAR derivatives*

15:00-15:15 Marius Tremblay, Karin Lundström, Victoria Svahn, **Charlotte Cederbom**,  
Göta Älv Working Group  
*Inventory of landslide risk to limit consequences of climate change*

15:15-15:30 **R.M.S. Bandara**, **K.M. Weerasinghe**  
*Overview of landslide risk reduction studies in Sri Lanka*

15:30-15:45 **Nikolay Petrov**, and Inna Nikonorova  
*Landslides in Chuvashia (Russia): types and regional development factors*

15:45-16:00 **Željko Arbanas**, Sanja Dugonjić, Čedomir Benac  
*Causes of small scale landslides in flysch deposits of Istria, Croatia*

16:00-16:30 **Alessandro Mondini**, Chang Kang-tsung, Hsiao-Yuan Yin, Fausto Guzzetti  
Combining multiple change detection indices for mapping landslides triggered by typhoons

16:30-16:45 **Seyyedmahdi Hosseyni**, Nobuyuki Torii, Edward N. Bromhead  
*Residual strength measurements for some British Clays*

16:45-17:00 **Federico Raspini**, Sandro Moretti, Nicola Casagli  
*Landslide mapping using SqueeSAR data: Giampilieri (Italy) case study*

17:00-17:15 **Paola Capaldo**, Mattia Crespi, Francesca Fratarcangeli, **Andrea Nascetti**  
*Radargrammetric generation of DEMs from high resolution satellite SAR imagery: A new tool for landslide hazard and vulnerability assessment*

*Assessment of landslides activity in Maily-Say Valley, Kyrgyz Tien Shan*

17:30-17:45 **M.Somorjit Singh**, **Kuntala Bhusan**, S. Sudhakar  
*Landslide Hazard Zonation using RS & GIS techniques-A case study from North East India*

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**L11 – Landslides, transportation network and lifelines**

Conveners: Jordi Corominas, Gian Paolo Giani, Tiziana Apuani

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**Iran Room**

14:30-15:00 **Keynote**  
**A. Ferrero**, M. Migliazza  
*Landslide Transportation network and lifelines: rockfall and debris flow*

15:00-15:15 **Andrée Blais Stevens**, Panya Lipovsky, Réjean Couture, MarianKremer and Amaris Page  
*Landslide inventory and susceptibility mapping for a proposed pipeline route, Yukon Alaska Highway Corridor, Canada*

15:15-15:30 **Jordi Corominas**, İňaki Ibarbia, Susana Luzuriaga, José Antonio Navarro, Ioseba Jugo, Carles Jurnet, and Marcel Hürlimann  
*Rockfall and debris flow hazard assessment of the coastal road of Gipuzkoa (Northern Spain)*
15:30-15:45  **S.S. Chandrasekaran**, S. Elayaraja and S. Renugadevi
*Damages to transport facilities by rain fall Induced landslides during November 2009 in Nilgiris, India*

15:45-16:00  Discussion

16:00-16:30  Coffee break

16:30-16:45  **Franco Oboni**, Claudio Angelino, and Bartolomeo Visconti
*The Cassas Landslide and its impacts on an international & Olympic transportation corridor: studies, monitoring, solutions and crisis plans*

16:45-17:00  **Marc Janeras**, Joan Palau , Elisabet Prat, Judit Pons, Jordi Ripoll, Pere Martínez, and Josep Comellas
*Preliminary assessment of rockfall risk mitigation in access infrastructures to Montserrat*

17:00-17:15  **Alessandro Corsini**, Francesco Ronchetti, Francesco Bonacini, Paolo Calicetti, Eleonora Bertacchini, Alessandro Capra, Cristina Castagnetti, Riccardo Rivola, Elena Piantelli, Giuseppe Caputo and Giovanni Truffelli
*Large-scale slope instability affecting S563 near the Cerreto Pass (northern Apennines, Italy)*

17:15-17:30  **Gianluca Bianchi Fasani**, Carlo Esposito, Luca Lenti, Salvatore Martino, Massimo Pecci and Gabriele Scarascia Mugnozza
*Seismic analysis of the Gran Sasso catastrophic rockfall (Central Italy)*

17:30-17:45  Giuseppe Delmonaco, Fabio Garbin, Maria Marsella, Claudio Margottini, Alberico Sonnessa and **Daniele Spizzichino**
*Laser scanning analysis and landslide risk assessment on transportation network: the Lugnano in Teverina (Umbria Region, Italy), landslide case study*

17:45-18:00  Discussion

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**L21 – Landslide education, training and capacity development**
Conveners: Dwikorita Karnawati, Surya Prakash

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**German Room**

14:30-14:50  **Keynote**
**Malcolm G Anderson**
*Landslide risk reduction in developing countries: Perceptions, successes and future risks for capacity building*

14:50-15:00  **Malcolm G Anderson**
*Discussion on keynote lecture*

15:00-15:15  **Dwikorita Karnawati**, Wilopo Wahyu, Agung Setianto and Suharman Suharman
*Student Community Service Program for Landslide Disaster Risk Reduction in Indonesia*

15:15-15:30  **Dwikorita Karnawati**, Teuku Faisal Fathani, Budi Andayani and Suharman Suharman
*Strategic approach for improvement of community resilience in landslide prone area*

15:30-15:45  **Hening Parlan**
*PASTI (Preparedness Assessment Tools for Indonesia): Diagnost Tools Preparedness Disaster for Indonesia*

15:45-16:00  **Alessandro Petrone** and Federico Preti
*Soil bioengineering measures in Latin America: authochtonal cuttings suitability*

16:00-16:30  Coffee break
16:30-16:45  Motoyama Eriko, and Abdullah Che Hassandi
Landslide Public Awareness and Education Programs in Malaysia

16:45-17:00  Baolin Wang, Mario Ruel, Réjean Couture, Doug Vandine, Peter Bobrowsky
and Andrée Blais-stevens
Current status of landslide guidelines around the world

17:00-17:15  Elizabeth Holcombe and Malcolm Anderson
Learning by doing: Community based landslide risk reduction

17:15-17:30  Jog Singh Bhatia
Landslide awareness, preparedness and response management in India

17:30-17:45  Wolfgang Eder
Improving Public Outreach on Landslide Related Risk -
Cooperation with the Planet Earth Institute

17:45-18:00  Discussion

**L22 – Submarine landslides and tsunami**
Conveners: Jacques Locat, Roger Urgeles, Paolo Mazzanti

**Ethiopia Room**

14:30-15:00  Keynote
Maarten Vanneste (Farrokh Nadim)
Submarine landslides and their consequences: What do we know, what can we do?

15:00-15:15  Roger Urgeles, Angelo Camerlenghi and Francesc Palmer
Slope failures in the continental margins of the Western Mediterranean Sea:
Towards understanding of environmental and geologic controls
and tsunamiigenic potential.

15:15-15:30  Krastel Sebastian, Winkelmann Daniel, Hanebuth Till, Strasser Michi,
Wynn Russell B., and Georgiopoulou Aggeliki
Mass wasting along Atlantic passive continental margins: a comparison between
NW-Africa and the de la Plata River region (northern Argentina and Uruguay)

15:30-15:45  Louise Hansen, Jean Sebastien L’Heureux, Oddvar Longva
and Raymond S. Eilertsen
Mapping of subaqueous landforms for near-shore landslide susceptibility
assessment along Norwegian fjords

15:45-16:00  Jean Sebastien Lheureux, Louise Hansen, Oddvar Longva
and Raymond S. Eilersten
Landslides along Norwegian fjords: causes and hazard assessment

16:00-16:30  Coffee break

16:30-16:45  Mercedes Ferrer, Luis I. Gonzalez de Vallejo , and Julia Seisdedos
Güimar and La Orotava mega-landsides (Tenerife) and tsunamis deposits
in Canary Islands

16:45-17:00  Paolo Mazzanti, Fabio Vittorio De Blasio
The dynamics of subaqueous rock avalanches: the role of dynamic fragmentation

17:00-17:15  Fabio De Blasio
Dynamics, velocity and run-out of subaqueous rock avalanches
17:15-17:30  **Salvatore di Gregorio**, Maria Vittoria Avolio, Valeria Lupiano, Paolo Mazzanti, Francesca Bozzano  
*Simulation of submarine landslides by Cellular Automata methodology*

17:30-17:45  **Fawu Wang**, Tomokazu Sonoyama, and Mitsuki Honda  
*Model test on the impacts of submarine landslides to pipelines*

17:45-18:00  **Filippo Zaniboni**, Peter Planinsek, Silvia Ceramicola, Iginio Marson, Filippo Zaniboni, Stefano Tinti, Gianluca Pagnoni, Daniel Praeg, Edy Forlin and Ester Colizza  
*Reconstruction of a submarine landslide and related tsunami from morpho-bathymetry and sub-bottom data on the Ionian Calabrian margin (Mediterranean Sea)*

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**L25 – Seismically induced landslides and seismic landslide hazard analysis**

Conveners: Ed Harp, Hideaki Marui, Luca Guerrieri

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**AUSTRIA ROOM**

14:30-15:00  **Keynote**  
Edwin Harp and Randall Jibson  
*The Effect of Complex Fault Rupture in the Distribution of Landslides Triggered by the 12 January 2010, Haiti Earthquake*

15:00-15:15  **Vincenzo Del Gaudio**, Janusz Wasowski, and Chyi-Tyi Lee  
*Inferring seismic response of landslide-prone slopes from microtremor study*

*Hazard and risk scenarios of landslides triggered by earthquakes*

15:30-15:45  **Surya Parkash Gupta**  
*Earthquake Related Landslides in Indian Himalaya: Experiences from the past and Implications for the future*

15:45-16:00  **Ignacio García Flórez**, Meaza Tsige Aga, Ramón Capote Del Villar and Rosa Mateos  
*Geological and structural control of earthquake-induced landslides in El Salvador*

16:00-16:30  **Coffee break**

16:30-16:45  **Lynn Highland** and Ping Sun  
*Environmental Effects of the Landslides Caused by the 12 May 2008, Wenchuan, China Earthquake*

16:45-17:00  **Xuanmei Fan**, Cees J. Van Westen, Qiang Xu, Tolga Gorum, Runqiu Huang and Fuchu Dai  
*Spatial Distribution of Landslide Dams Triggered by the 2008 Wenchuan Earthquake*

17:00-17:15  **Carolina Sigaran Loria**, Jan D. Nieuwenhuis, and Robert Hack  
*Seismic slope performance: Comparison of FEM results to displacement-based methods*

17:15-17:30  **J. R. Grasso**  
*Early response to earthquake landslide interactions in mountain area: fast identification of earthquake-induced landslide prone area using early aftershocks*

17:30-17:45  **Jianguo Liu**, Philippa Mason, Eric Yu, Meng-Che Wu, Chuan Tang, Runqiu Huang and Hanhu Liu  
*Earthquake damage zone GIS modelling: a modulation between co-seismic deformation and landslide susceptibility*

17:45-18:00  **Discussion**
**Tuesday 4 October**

**L01 - Landslide scenarios accounting for the climatic, geomorphological and geotechnical context**

Conveners: Luciano Picarelli, Vit Vilimek

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**Philippines Room**

09:00-09:15  **Luciano Picarelli and Vit Vilimek**  
Opening

09:15-09:40  **Jacques Locat**  
Panel - Some considerations on the effect of climate change on mass movements and their consequences.

09:40-10:05  **Jan Klimeš**  
Panel - Landslides in the outer Western Carpathians, Central Europe

10:05-10:30  **Sarah Springman**, Yuko Yamamoto, Thomas Buchli, Marian Hertrich, Hansruedi Maurer, Kasper Merz, Isabelle Gärtner-Roer, Linda Seward  
Panel - Rock glacier degradation and instabilities in the European Alps: a characterisation and monitoring experiment in the Turtmanntal, CH

10:30-11:00  **Coffee break**

11:00-11:25  **Pasquale Schiano**  
Panel - Climatic scenarios on the Mediterranean area

11:25-11:50  **Emilia Damiano**, Paola Mercogliano  
Panel - Potential effects of climate change on slope stability in unsaturated pyroclastic soils

11:50-12:15  **S.G. Lee**, Ikuo Towhata, Yueping Yin, and Ken Ho  
Panel - The presumed effects of the expected climatic changes on the stability of slopes in Far East region

12:15-12:30  **Discussion**

13:00-14:30  **Lunch break**

14:30-14:45  **M. Geertsema**  
Quick clay landslides landscape evolution, and climate change? a perspective from British Columbia

14:45-15:00  **Philip Leopold**, Erich Draganits, Gerhard Heiss and Ede Kovacs  
A geotechnical explanation for the transition from creep to slide in the alpine foreland

15:00-15:15  **Rosa María Mateos**, M. Garcia-Moreno, G. Herrera and J. Mulas  
Recent mass movements in the Tramuntana range (Majorca, Spain)

15:15-15:30  **E. Gomez** and M. Villarraga  
Recent landslides with economical and human losses in Medellin city (Colombia)

The impact of climate changes on the behaviour of active landslides in clay

15:45-16:00  **Maurizio Polemio, Teresa Lonigro**  
Climate variability and landslide occurrence in Apulia (southern Italy)

16:00-16:30  **Coffee break**

16:30-16:45  Alessandro Guerricchio, **Angelo Doglioni**, Gerardo Fortunato, Elena Guglielmo, Maurizio Ponte, and Vincenzo Simeone  
Analysis of the rainfall preceding the activation of the large Maierato landslide in 2010
16:45-17:00  **Marko Kohv**, and **Tiit Hang**  
Pore pressure fluctuations within quasi-stable slopes in south-western Estonia and accompanying influence to the slope stability

17:00-17:15  **Giovanni Bertolini**  
Large reactivated earth flows in the Northern Apennines

17:15-18:00  Discussion and short poster presentations

**L04 - Landslide inventory and susceptibility and hazard zoning**  
Conveners: **Javier Hervas**, **Gabriel Legorreta**, **Miet Van Den Eeckhaut**, **Alessandro Trigila**

**Green Room**

09:00-09:15  **Philip Deline**, Naki Akçar, Susan Ivy-ochs, Vasily Alfimov, Irka Hajdas, Peter W. Kubik, Marcus Christl, Christian Schlüchter  
*Advance in the mapping of the 1717 AD Triolet rock avalanche deposit (Mont Blanc massif, Italy) using cosmogenic exposure dating*

09:15-09:30  **Jérôme Lopez Saez**, Christophe Corona, Frédéric Berger  
*Probability maps of landslide reactivation derived from tree-ring records*

09:30-09:45  **Khamarrul Azahari Razak**, Alexander Bucksch, Michiel Damen, Cees van Westen, Menno Straatsma, Steven De Jong  
*Characterizing tree growth anomaly induced by landslides using LiDAR*

09:45-10:00  Miet Van Den Eeckhaut, **Javier Hervás**, Luca Montanarella  
*Landslide databases in Europe: analysis and recommendations for interoperability and harmonisation*

10:00-10:15  **Reginald L Hermanns**, Lars H Blikra, Einar Anda, Aline Saintot, Halgeir Dahle, Thierry Oppikofer, Luzia Fischer, Halvor Bunkholt, Martina Böhme, John Dehls, Tom R Laukens, Thomas Redfield, Per T Osmundsen, Trond Eikens  
*Systematic mapping of large unstable rock slopes in Norway*

10:15-10:30  **Snježana Mihalić**, Hideaki Marui, Osamu Nagai  
*Landslide Inventory in the area of Zagreb City: Effectiveness of Using LiDAR DEM*

10:30-11:00  **Coffee break**

11:00-11:30  **Keynote**  
**Cees van Westen**, Saibal Ghosh, Pankaj Jaiswal, Tapas Ranjan Martha, Sekhar Lukose Kuriakose  
*From landslide inventories to landslide risk assessment; an attempt to support methodological development in India*

11:30-11:45  Alessandro Trigila, Nicola Casagli, Filippo Catani, Giovanni Crosta, Carlo Esposito,  
**Paolo Frattini**, Carla Iadanza, Gabriele Scarascia Mugnozza, Samuele Segoni, Daniele Spizzichino, Veronica Tofani  
*Landslide susceptibility mapping at national scale: the Italian case study*

11:45-12:00  **Daniel Tobler**, Hans Rudolf Keusen  
*Hazard zoning in areas with major deep-seated landslides - Case study from Switzerland*

12:00-12:15  **Carlo Esposito**, Carla Iadanza, Gabriele Scarascia Mugnozza, Alessandro Trigila  
*Susceptibility assessment of shallow landslides in Giampilieri (North-East Sicily, Italy)*

13:00-14:30  **Lunch break**
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<tr>
<th>Time</th>
<th>Speaker(s)</th>
<th>Title</th>
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<tbody>
<tr>
<td>14:30-14:45</td>
<td>Jean-Philippe Malet, Anne Puissant, Alexandre Mathieu, Miet Van Den Eeckhaut, Mathieu Fressard</td>
<td>Integrating spatial multi-criteria evaluation and expert knowledge for country-scale landslide susceptibility analysis: application to France</td>
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<td>14:45-15:00</td>
<td>Andreas Günther, Miet Van Den Eeckhaut, Paola Reichenbach, Javier Hervás, Jean-Philippe Malet, Claire Foster, Fausto Guzzetti</td>
<td>New developments in harmonized landslide susceptibility mapping over Europe in the framework of the European Soil Thematic Strategy</td>
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<td>15:00-15:15</td>
<td>Dalia Kirschbaum, Robert Adler, Christa Peters-Lidard</td>
<td>Using remotely sensed information for near real-time landslide hazard assessment</td>
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<td>15:15-15:30</td>
<td>Robert Tomas</td>
<td>INSPIRE and landslides</td>
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<td>15:30-15:45</td>
<td>Leonardo Cascini, Silvio Di Nocera, Michele Calvello, Sabatino Cuomo, Settimo Ferlisi, Fabio Matano</td>
<td>Hyperconcentrated flow susceptibility analysis and zoning at medium scale: methodological approach and case study</td>
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<td>15:45-16:00</td>
<td>Carlos Eduardo Rodríguez Pineda, Jairo Edmundo Yepes Heredia</td>
<td>Probabilistic landslide hazard for El Salvador</td>
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<td>16:00-16:30</td>
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<td>Coffee break</td>
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<td>16:30-16:45</td>
<td>Angelo Doglioni, Vincenzo Simeone</td>
<td>Quantitative geomorphological analysis based on wavelet transforms</td>
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<td>16:45-17:00</td>
<td>Ivan Marchesini, Michele Santangeolo, Federica Fiorucci, Mauro Cardinali, Mauro Rossi and Fausto Guzzetti</td>
<td>A GIS method for obtaining geologic bedding attitude</td>
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<tr>
<td>17:00-17:15</td>
<td>Gerlinde Posch-Troezmueller, Richard Bäk</td>
<td>Minimal standards for susceptibility and hazard maps of landslides and rock falls</td>
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<td>17:15-17:30</td>
<td>Luca Falconi, Danilo Campolo, Gabriele Leoni, Silvia Lumaca, Claudio Puglisi</td>
<td>Geomorphology hazard assessment of Giampilieri and Briga river basins after the rainfall event on October 1, 2009 (Sicily, Italy)</td>
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<td>17:30-17:45</td>
<td>Milorad Jovanovski, Biljana Abolmasov, Igor Pesevski</td>
<td>Analyses of landslide hazard evaluation factors using polynomial interpolation</td>
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<tr>
<td>17:45-18:00</td>
<td>Bikas Chandra Bhattacharai, Ananta Man Singh Pradhan</td>
<td>A case study on landslide hazard mapping in Changuarayan VDC, Nepal</td>
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**L07 - Landslide instrumentation and monitoring**

Conveners: Rajendra K. Bandari, Leonardo Cascini, Dario Peduto

**Iran Room**

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<tr>
<th>Time</th>
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<tr>
<td>11:00-11:30</td>
<td>Federica Cotecchia, Francesca Santaloia, Piernicola Lollino, Giuseppe Sorbino, Michele Calvello</td>
<td>Instrumentation and monitoring for the interpretation of the landslide mechanism: proposed strategy and examples of application</td>
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<tr>
<td>11:30-11:45</td>
<td>Roberto Passalacqua, and Rossella Bovolenta</td>
<td>Characterization and study of a complex landslide site in Northern Italy</td>
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</table>
11:45-12:00 Roberto Vassallo, Caterina Di Maio, and Margherita Vallario
A possible mechanism of movement of an ancient clayey landslide

12:00-12:15 Shantanu Sarkar, Amitava Ghosh, Debi Prasanna Kanungo, and Zamir Ahmad
Slope stability assessment and monitoring of a vulnerable site on Rishikesh-Uttarkashi highway, India

13:00-14:30 Lunch break

14:30-14:45 Marco Del Fabbro, Roberto Meriggi and Nicola Stefanelli
Gravitational instability analysis of the Prato Carnico village

14:45-15:00 Abdullah Che Hassandi, and Hussin Ghazali
Retrogressive Slope Failures in Natural Slope – a Case Study

15:00-15:15 Adrin Tohari, Khori Sugianti, and Katsumi Hattori
Monitoring and modelling of rainfall-induced landslide in volcanic soil slope: case study of Cadas Pangeran landslide in west Java, Indonesia

15:15-15:30 Dominika Krzeminska, Thom Bogaard, Taha Debieche, Vincent Marc and Jean-philippe Malet
Sprinkling tests to understand hydrological behaviour of mudslide

15:30-15:45 Bugnion Louis, and Wendeler Corinna
Impact pressure measurements in shallow landslides

15:45-16:00 Maja Ostric, Kyoji Sassa, Bin He, Kaoru Takar and Yosuke Yamashiki
Portable Ring Shear Apparatus and its application

16:00-16:30 Coffee break

16:30-16:45 Alberto Clerici, Ezio Giuriani, Danilo Cambiaghi, Antonio Isceri, Giorgio Vassena, Egidio Marchina and Luca Cominoli
Rockfall Full Scale Field Tests

16:45-17:00 Blikra Lars Harald, and Kristensen Lene
Monitoring concepts and requirements for large rockslides in Norway

17:00-17:15 Diego Arosio, Laura Longoni, Fabrizio Mazza, Monica Papini, Luigi Zanzi
Freeze-thaw cycle and rockfall monitoring

17:15-17:30 Supper Robert, Jochum Birgit, Baron Ivo, Lovisolo Mario, Römer Alexander, Ottowitz David, and Cardellini Stefano
Results of Geoelectrical Monitoring of Landslides Collected by the SafeLand/TEMPEL Network

17:30-17:45 Jonathan Chambers, Philip Meldrum, David Gunn, Paul Wilkinson, Andrew Merrit, William Murphy, Jared West, Oliver Kuras, Edward Haslam, Richard Ogilvy, Peter Hobbs, Catherine Pennington and Chris Munro
Geophysical-geotechnical sensor networks for landslide monitoring

17:45-18:00 Discussion

L11 - Landslides, transportation network and lifelines
Conveners: Jordi Corominas, Gian Paolo Giani, Tiziana Apuani

Iran Room

09:00-09:15 Francesca Bozzano, Ivan Cipriani, Salvatore Martino, Paolo Mazzanti and Alberto Prestininzi
Forecasting methods for landslides interacting with infrastructures
09:15-09:30 Gianfranco Marchi, Giorgio Giacchetti, **Gianluca Benedetti** and Alberto Landuzzi
*The Scascoli case study: design and safety measures for a landslide area*

09:30-09:45 G. Scarpelli, **D. Segato**, E. Sakellariadi, A. Vita, P. Ruggeri and V.M.E. Fruzzetti
*Slope instability problems in Jonica highway construction*

09:45-10:00 **Michele Nappi**, Paolo Budetta, Gerardo Lombardi and Enzo Minotta
*Rockfall run-out estimate comparing empirical and trajectographic approaches*

10:00-10:30 Discussion

**L20 - Integrated approach to landslide risk mitigation**
Conveners: José Cepeda, Lino Versace

**ETHIOPIA ROOM**

11:00-11:15 Raffaele Albano, Stefania Pascale, **Francesco Sdao** and Aurelia Sole
*A GIS model for systemic vulnerability assessment in urbanized areas supporting the landslide risk management*

11:15-11:30 Giovan Battista Chirico, Andrea Dani, **Federico Preti** and Massimiliano Schwarz
*Coupling root reinforcement and subsurface flow modeling in shallow landslides triggering assessment*

11:30-11:45 Giovanna Capparelli, Massimiliano Giorgio and **Roberto Greco**
*Shallow landslides risk mitigation by early warning: the Sarno case*

11:45-12:00 **M. Cristina Rulli** and Renzo Rosso
*Modeling of forest roads impact on shallow landslides triggering*

12:00-12:15 Discussion and short poster presentations

13:00-14:30 Lunch break

14:30-14:45 Diego Arosio, **Davide Brambilla**, Laura Longoni
*New investigations to update the model of the Premana (LC) landslide*

14:45-15:00 Sergey Morozov and **Valeriy Tishin**
*Comprehensive program of landslide protection of the Ulianovsk City and its vicinities*

15:00-15:15 **Ahmad Shukri Yahaya**, Fauziah Ahmad and Wan Nur Aishah Meor Hussein
*Environmental Risk Assessment on a Hill Site Development in Penang Malaysia*

15:15-15:30 Daniele Peila, Stefano Lo Russo and **Claudia Mignelli**
*Analysis of risk induced by rockfall on roads*

15:30-15:45 Alessandro Corsini, Francesco Ronchetti, **Jean Pascal Iannacone**, Volkmar Mair, Ludwig Nossing, Martina Stefani, Günther Unterthiner and Giorgio Valentinotti
*Hot spots for simplified risk scenarios of the Trafoi rockslide (South Tyrol)*

15:45-16:00 Discussion and short poster presentations

16:00-16:30 Coffee break

16:30-16:45 **Muhibuddin Usamah** and N.m.s.i Arambepola
*Lessons-learned from the 2006 Flashfloods and Landslide in Uttaradit and Sukhotai Provinces, Thailand: Implication for Effective Landslide Disaster Risk Management in Thailand*
16:45-17:00  Maria Vittoria Avolio, Donato D’Ambrosio, Gino Mirocle Crisci, Federica Lucà, Valeria Lupiano, Gaetano Robustelli, Rocco Rongo and William Spataro
High detailed debris flows hazard maps by a cellular automata approach

17:00-17:15  Pasquale Versace, Giovanna Capparelli
On verification of forecasting capability of the FlaIR regional model in landslide early warning

17:15-17:30  Linda Bye and Mark Pelling
The Cultures of Landslide Risk Management

17:30-18:00  Discussion and short poster presentations

L21 – Landslide education, training and capacity development
Conveners: Dwikorita Karnawati, Surya Prakash

German Room

09:00-09:15  Alexander Strom and Kanatbek Abdrakhmatov
Evidence of Rockslides’ Origin, Motion Mechanisms and Consequences (Five Years of Field Training Course in Kyrgyzstan)

09:15-09:30  Claudio Margottini
The landslide museum of Civita di Bagnoregio and living landscape of bad lands valley

09:30-09:45  Alzbeta Medvedova, Roberta Prokesova and Zora Snopkova
Active landslides – perception and education in Slovakia

09:45-10:00  Surya Parkash
Education, Training and Capacity Development for Mainstreaming Landslide Risk Reduction

10:00-10:15  Gareth Hearn and Tim Hunt
Strengthening Landslide Awareness and Management in the Mountain Road Sector

10:15-10:30  Discussion

L22 - Submarine landslides and tsunami
Conveners: Jacques Locat, Roger Urgeles, Paolo Mazzanti

Ethiopia Room

09:00-09:15  Sylfest Glimsdal, Jean-Sebastien L’Heureux, Carl B. Harbitz, Geir K. Pedersen
Modelling of the 1888 landslide tsunami, Trondheim, Norway

09:15-09:30  Nicholas George, Duncan Wallace, Jody M. Webster, Robin Beaman and Liz Abbey
Surface characterization of a large submarine landslide on the outer shelf and slope of the Great Barrier Reef, advances in the automated classification of submarine deposits

09:30-09:45  Sara Lafuerza, Nabil Sultan, Miquel Canals, Galderic Lastras, Sergio Costa, Antonio Cattaneo and Jaume Frigola
The role of gas in triggering the Ana slide, Eivissa Channel, Western Mediterranean Sea

09:45-10:00  Attilio Sulli, Mauro Agate, Claudio Lo Iacono, Valeria Lo Presti, Valentina Pennino and Sabrina Polizzi
Submarine Slope Failures along the Northern Sicilian Continental Margin (Southern Tyrrenhian Sea) and Possible Implications for Geo-hazard

10:00-10:30  Discussion
L25 - Seismically induced landslides and seismic landslide hazard analysis
Conveners: Ed Harp, Hideaki Marui, Luca Guerrieri

Austria Room

09:00-09:15 Eliana Esposito, Luca Guerrieri, Sabina Porfido, Eutizio Vittori, Anna Maria Blumetti, Valerio Comerchi, Alessandro Maria Michetti and Leonello Serva
Landslides induced by historical and recent earthquakes in Central - Southern Apennines (Italy): a tool for intensity assessment and seismic hazard

09:15-09:30 Valerio Comerchi, Annamaria Blumetti, Elisa Brustia, Pio Di Manna, Luca Guerrieri, Mauro Lucarini and Eutizio Vittori
Landslides induced by the 1908 Southern Calabria - Messina earthquake (Southern Italy)

09:30-09:45 Enrico Miccadei, Tommaso Piacentini, Nicola Sciarra and Rosamaria Di Michele
Seismically induced landslides in Abruzzo (Central Italy): morphostructural control

09:45-10:00 Fei Cai, Keizo Uegai, Akihiko Wakai, Seiichiro Kuroda, Atsuo Onoue and Kunihiro Higuchi
Numerical Analysis of Two Wooden House Damages Induced by Dune Liquefaction during the 2007 Niigata Chuetsu-offshore Earthquake

10:00-10:15 Akihiko Wakai and The Earthquake-induced Landslides Research Project
The interim report: The recent activities in the Earthquake-induced Landslides Research Project in the Japan Landslide Society

10:15-10:30 Stavroula Fotopoulou and Kyriazis Pitilakis
Building vulnerability to the 2008 Ilia- Achaia earthquake induced slides

10:30-11:00 Coffee break

11:00-11:15 George Papathanassiou, Sotiris Valkanitis and Spyros Pavlides
Evaluation of the temporal probability of earthquake-induced landslides in the island of Lefkada

11:15-11:30 Sarada K. Sarma and Georgios Chlimintzas
Seismic displacements of slopes using a multi-block sliding method – review and applications

11:30-11:45 Jean-robert Grasso, L. Tatard, T. Gorum and Cees Van Westen
Are earthquake-induced landslide driven by the permanent deformation of slope?

11:45-12:00 Eiasaku Hamasaki
Possible vapour lock generation near a sliding surface as a mechanism of huge landslides

12:00-12:15 Discussion

13:00-14:30 Lunch break

14:30-14:45 Bouhadad Youcef
Earthquakes-induced damaging landslides in Algeria: losses of human lives and properties

14:45-15:00 Chiara Calligaris, Michele Comi, Shahina Tariq and Hawas Khan
Attabad Landslide on 4 January 2010: a pakistani disaster

15:00-15:15 Sotiris Argyroudis, Stavroula Fotopoulou and Kyriazis Pitilakis
Semi-empirical assessment of road vulnerability to seismically induced slides

15:15-15:30 Isabek Torgoev, Rustam Niyazov and Hans-balder Havenith
Tien-Shan landslides triggered by earthquakes in Pamir-Hindukush zone
15:30-15:45 Rustam Niyazov and Bakhtiar Nurtaev
Modern seismogenic landslides caused by the Pamir - Hindu Kush earthquakes and their consequences in Central Asia

15:45-16:00 Vahid Bagheri, Mohammadreza Mahdavifar and S.M. Fatemi Aghda
Seismic Landslides Hazard Zonation in Iran, Ardebil

16:00-16:30 Coffee break

16:30-16:45 Discussion

**L26 - Landslides in cold regions**

Conveners: Marten Geertsema, Marta Chiarle, Wei Shan

**GERMAN ROOM**

11:00-11:30 Keynote
Stephan Gruber
Landslides in cold regions: making a science that can be put into practice

11:30-11:45 Mauri McSaveney and Chris Massey
Did radiative cooling trigger New Zealand’s 2007 Young River landslide?

11:45-12:00 Christian Huggel, Simon Allen, John J. Clague, Luzia Fischer, Oliver Korup and Demian Schneider
Detecting potential climate signals in large slope failures in cold mountain regions

12:00-12:15 Discussion

13:00-14:30 Lunch break

14:30-14:45 Wei Shan, Hua Jiang, Gaohang Cui, Zhaoguang Hu, Chunjiao Wang and Ying Guo
Landslides Characteristic of Northwest Lesser Khingan Range China

14:45-15:00 Ying Guo, Wei Shan, Chengcheng Zhang, Hua Jiang and Yuying Sun
Landslide and Moisture-temperature for Cutting Slope Soil in Freeze-thaw Cycles

15:00-15:15 Svetlana Evgrafova, Oxana Masyagina, Stanislav Prokushkin and Anatolii Prokushkin
Soil sliding in continuous permafrost terrain of Siberia: the case study of soil respiration and soil microbial activity dynamics during ecosystem re-establishment

15:15-15:30 Demian Schneider, Roland Kaitna, William E. Dietrich, Leslie Hsu, Christian Huggel and Brian Mcardell
Rock-ice avalanche investigations by means of vertically rotating drum experiments

15:30-15:45 M. Cristina Rulli, Federica Gobattoni and Monia Santini
GALLIUS: GeomorphologicAL model for Landslide Initiation under Snowmelting condition

15:45-16:00 Domenico Aringoli, Bernardino Gentili, Marco Materazzi, Gilberto Pambianchi and Nicola Sciarrà
DSGSDs induced by post-glacial decompression in central Apennine (Italy)

16:00-16:30 Coffee break

16:30-16:45 Marco Giardino, Luigi Perotti, Marco Bacenetti and Paolo Zamparutti
Climatic and structural controls to slope instabilities in Val Veny (Italy)

16:45-17:00 Ludovic Ravanel and Philip Deline
Permafrost and destabilization of alpine rockwalls: a very close link in the Mont Blanc massif
17:00-17:15 Philip Deline, Massimo Broccolato, Jeannette Noetzli, Ludovic Ravanel and Andrea Tamburini
*The December 2008 Crammont rock avalanche, Mont Blanc massif area, Italy*

17:15-17:30 Michèle Curtaz, Anna Maria Ferrero, Gianfranco Forlani, Maria Rita Migliazza and Riccardo Roncella
*Test of a procedure to assess the stability of permafrost rock walls: the case of Pellaud basin, Rhêmes Valley (Aosta Valley, Italy)*

17:30-17:45 Vanessa Wirz, Stephan Gruber, Jan Beutel, Benjamin Buchli, Philippe Limpach and Alain Geiger
*Temporal characteristics of different cryosphere-related slope movements in high mountains*

17:45-18:00 Kenneth Hewitt
*Large, topographical-constrained rockslide complexes in the Karakoram Himalaya, Northern Pakistan*
**Wednesday 5 October**

**L04 - Landslide inventory and susceptibility and hazard zoning**
Conveners: Javier Hervas, Gabriel Legorreta, Miet Van Den Eeckhaut, Alessandro Trigila

**Green Room**

09:00-09:15  Almaz Torgoev, **Hans-Balder Havenith**  
*Landslide susceptibility, hazard and risk mapping in Mailuu-Suu, Kyrgyzstan*

09:15-09:30  **Stefano Devoto**, Sara Biolchi, Viola Maria Bruschi, Alberto González Díez, Matteo Mantovani, Alessandro Pasuto, Daniela Piacentini, John A. Schembri, Mauro Soldati  
*Landslides along the north-west coast of the Island of Malta*

09:30-09:45  **Gabriel Legorreta Paulin**, Marcus Bursik, Maria Teresa Ramírez Herrera, José Lugo Hubp, José Juan Zamorano Orozco, Irisema Alcántara Ayala  
*Landslide inventory and susceptibility mapping in a Mexican stratovolcano*

09:45-10:00  **Lieven Claessens**, Mary Kitutu, Jean Poesen, Jozef Deckers  
*Landslide hazard assessment on the Ugandan footslopes of Mount Elgon: the worst is yet to come*

10:00-10:15  **Jose Cepeda**, Unni Eidsvig, Bjorn Vidar Vangelsten, Farrokh Nadim, Bjorn Kalsnes  
*A method for integrating time-uncertainty associated to landslide inventories in threshold assessments*

10:15-10:30  **Teresa Mrozek**, Antoni Wojcik, Ziemowit Zimnal and Dariusz Grabowski  
*Landslide inventory at 1:10000 scale in Poland - benefits and dilemmas of a national project*

**L06 - Landslides and extreme weather**
Conveners: Hiroshi Fukuoka, Gabriele Scarascia Mugnozza

**Ethiopia Room**

11:00-11:15  **Udeni P. Nawagamuwa**  
*Recommending regional rainfall threshold values for early warning of landslides in the Asian Region*

11:15-11:30  **Samuele Segoni**, Alessandro Battistini, Ascanio Rosi, Guglielmo Rossi and Filippo Catani  
*A regional real time landslide warning system based on spatially variable rainfall thresholds*

11:30-11:45  Lorella Montrasio, **Roberto Valentino**, Gianluca Losi, Angela Corina, Lauro Rossi and Roberto Rudari  
*Spatiotemporal hazard assessment of rainfall-induced shallow landslides*

11:45-12:00  **David Johnny Peres** and Antonino Cancelliere  
*Defining rainfall thresholds for early warning of rainfall-triggered landslides: the case of North-East Sicily*

12:00-12:15  **André Avelar**, Ana Luiza Coelho-Netto and Willy Lacerda  
*Mechanism of the recent catastrophic landslides in the mountainous range of Rio de Janeiro, Brazil*
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<tr>
<th>Time</th>
<th>Speaker(s)</th>
<th>Title/Description</th>
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<tbody>
<tr>
<td>12:15-12:30</td>
<td>Giuseppe Tito Aronica, Claudio Puglisi, Gabriele Leoni and Nathalie Morey</td>
<td>Debris volume GIS analysis trigged by rainstorm in North-Eastern Sicily</td>
</tr>
<tr>
<td>12:30-12:45</td>
<td>Atikagna Dok</td>
<td>Tertiary Creep Reproduction by Back-Pressure-Controlled Test in DPRI-7</td>
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<tr>
<td>12:45-13:00</td>
<td>Discussion</td>
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**L07 - Landslide instrumentation and monitoring**
Conveners: Rajenda K. Bandari, Leonardo Cascarini, Dario Peduto

**IRAN Room**

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<tr>
<th>Time</th>
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<tbody>
<tr>
<td>09:00-09:15</td>
<td>Luca Lenti, Salvatore Martino, Antonella Paciello, Alberto Prestininzi, Stefano Rivellino and Carlo Romagnoli</td>
<td>Seismometric monitoring of hypogeous failures due to slope deformations</td>
</tr>
<tr>
<td>09:15-09:30</td>
<td>Sara Amoroso, Ferdinando Totani and Gianfranco Totani</td>
<td>Use of the seismic dilatometer (SDMT) in landslide research and practice</td>
</tr>
<tr>
<td>09:30-09:45</td>
<td>Marco Walter and Manfred Joswig</td>
<td>Resolving landslide-bedrock interaction by Nanoseismic Monitoring</td>
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<tr>
<td>09:45-10:00</td>
<td>Cristina Occhiena, Marina Pirulli and Claudio Scavia</td>
<td>Application of a multiplet-location coupled technique to microseismic data for identification of rock slope active surfaces</td>
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<tr>
<td>10:00-10:15</td>
<td>Deprez Aline, Malet Jean-philippe, Masson Frederic and Ulrich Patrice</td>
<td>Continuous monitoring and near-real time processing of GPS observations for landslide analysis: a methodological framework</td>
</tr>
<tr>
<td>10:15-10:30</td>
<td>Andrea Manconi, Paolo Allasia, Daniele Giordan, Marco Baldo, Giorgio Lollino and Angelo Corazza</td>
<td>landslide 3D surface deformation model obtained via RTS measurements</td>
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<tr>
<td>10:30-11:00</td>
<td>Coffee break</td>
<td></td>
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<tr>
<td>11:00-11:15</td>
<td>Chung-ray Chu, Ching-jer Huang and Tsung-mo Tien</td>
<td>A novel fiber optic sensing system for monitoring debris flows</td>
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<tr>
<td>11:15-11:30</td>
<td>Gerhard Kapeller, Thomas Etzer and Markus Aufleger</td>
<td>Measurements of Hydraulic Subsurface Processes by means of Distributed Fiber Optic Temperature Sensing (DTS)</td>
</tr>
<tr>
<td>11:30-11:45</td>
<td>Gerhard Kapeller, Rafael Rocha, Luiz Lacerda and Markus Aufleger</td>
<td>Evaluation of Temperature Effects on Strain Measurements with DTSS</td>
</tr>
<tr>
<td>11:45-12:00</td>
<td>Andrea Segalini, Corrado Carini and Luigi Cristalli</td>
<td>Underground Landslide Displacement Monitoring: A new MMES based device</td>
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<tr>
<td>12:00-12:15</td>
<td>Guido Ventura, Giuseppe Vilaro, Carlo Terranova and Eliana Bellucci Sessa</td>
<td>4D Monitoring of active landslides by multi-temporal airborne LiDAR data</td>
</tr>
<tr>
<td>12:30-12:45</td>
<td>Keigo Koizumi, Kenji Hirata, Kazuhiro Oda, Yukishige Fujita and Sadayuki Kamide</td>
<td>Slope disaster monitoring system using battery-operated wireless sensor network</td>
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<tr>
<td>12:45-13:00</td>
<td>Discussion</td>
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</tbody>
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L13 - Landslides as sediment sources
Conveners: Giovanni Crosta, Matjaz Mikos, Ziaoddin Shoaei

Ethiopia Room

09:00-09:15 Jose Cepeda, Jenni Barclay and Graziella Devoli
A conceptual framework for sediment-supply dependent rainfall thresholds

09:15-09:30 Emrah Hakki Erdogan, Javier Hervás, Miet Van Den Eeckhaut,
Alessandro Pasuto and Gianluca Marcato
Assessment of Soil Erosion in Areas Affected by Landslides

09:30-09:45 Alessandro Simoni, Vincenzo Picotti, Alessio Ponza and Matteo Berti
Landslide-related sediment yield rate in a large apenninic catchment

09:45-10:00 Francesco Brardinoni, Giovanni Crosta, Stefano Lamonaca, Lidia Peretti,
Davide Elli and Elena Valbuzzi
Landslide mobility and landslide sediment transfer in Val di Sole, eastern Central Alps

10:00-10:15 Marco Giardino, Dan Shugar
Short poster presentation
A quantitative assessment of the sedimentology and geomorphology
of rock avalanche deposits

10:15-10:30 Discussion

L16 - Early warnings and emergency plans
Conveners: Nicola Casagli, Yin Yuepin

Austria Room

09:00-09:15 Sara Maria Ratto, Hervé Stevenin, Evelyne Navillod and Marco Cauduro
Operational procedure for hydrogeological warning system in Aosta Valley

09:15-09:30 Gianluca Martelloni, Samuele Segoni, Riccardo Fanti and Filippo Catani
An operational warning system for the forecasting of landslide occurrence
at regional scale

09:30-09:45 Diana Salciarini, Claudio Tamagnini, Francesco Ponziani and Nicola Berni
Defining physically-based rainfall thresholds for early warning systems

09:45-10:00 Suhaimi Jamaludin, Faisal Hj Ali
Overview of Some Empirical Methods to Correlate Rainfall and Shallow Landslide
and Applications in Malaysia

10:00-10:15 Francesco Ponziani, Nicola Berni, Marco Stelluti, Renato Zauri,
Luca Brocca, Tommaso Moramarco, Diana Salciarini, Claudio Tamagnini
Landwarn: an operative early warning system for landslides forecasting based
on rainfall thresholds and soil moisture

10:15-10:30 Deepak Raj Bhat, Netra Prakash Bhandary, Ryuichi Yatabe
Method of Residual-state creep test to understand the creeping behavior of landslide soils

10:30-11:00 Coffee break

11:00-11:15 Nicola Dell’acqua, Vincenzo Albanese, Angelo Corazza, Paola Pagliara,
Nicola Casagli, Sandro Moretti, Claudio Proietti, Gorgio Lollino, Fausto Guzzetti,
Francesco Guadagno
Integration of technological development and civil protection activities during
a landslide emergency phase
11:15-11:30  **N.M.S.I Arambepola**  
Examples of Cost Effective Practices for Landslide Monitoring for Early Warning in Developing Countries of Asia

11:30-11:45  **Bigarré Pascal**, Klein Emmanuelle, Gueniffey Yves, Verdel Thierry  
Cloud monitoring: an innovative approach for the prevention of landslide risks

11:45-12:00  **Ikuo Towhata**, Taro Uchimura, Ling Wang, Jianping Qiao  
Validation and Interpretation of Monitored Behavior of Slopes Vulnerable to Failure

12:00-12:15  **Deodato Tapete**, Nicola Casagli, Riccardo Fanti  
Radar interferometry for early stage warning on monuments at risk

12:15-12:30  **Giuseppe Basile**, Marinella Panebianco  
Experimental alert model for hydrogeological risk: a case study in Sicily

12:30-12:45  **N.M.S.I Arambepola**  
An Appraisal on Ongoing Practices for Landslide Early Warning Systems in Selected South and East Asian Countries

12:45-13:00  Discussion

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**L24 - Landslides and cultural heritage**

Conveners: Paolo Canuti, Yoshinori Iwasaki, Daniele Spizzichino

**German Room**

09:00-09:30  **Keynote**  
Claudio Margottini  
Cultural Heritage in landslide areas: between adaptation and mitigation

09:30-09:45  **Vladimir Greif** and Tomas Drotar  
Static and pseudo static stability analysis of the medieval castle rock slopes in Slovakia

09:45-10:00  **Gianluca Benedetti**, Matteo Bernardi, Lisa Borgatti, Francesca Continelli, Monica Ghirotti, Cristiano Guerra, Alberto Landuzzi, Claudio Corrado Lucente and Gianfranco Marchi  
San Leo: ten centuries of coexistence with landslides

10:00-10:15  **Alberto Bretschneider**, Gianluca Bianchi Fasani, Emiliano Di Luzio and Marco Tavani  
Relationships between the geomorphological evolution of the Palatine Western slope and the fluvial dynamics of the “Velaber Minus” valley (Rome, Italy) by means of numerical modelling constrained to geological data

10:15-10:30  **Riccardo Fanti**, Giovanni Gigli, Deodato Tapete, Francesco Mugnai and Nicola Casagli  
Monitoring and modelling slope instability in cultural heritage sites

10:30-11:00  Coffee break

11:00-11:15  **Giuseppe Delmonaco**, Claudio Margottini and Daniele Spizzichino  
Rock-fall hazard assessment in the Siq of Petra, Jordan

11:15-11:30  **Deodato Tapete**, Edward Bromhead, Maia Ibsen and Nicola Casagli  
Coastal erosion and landsliding impact on historic sites in SE Britain

11:15-11:45  **Francesca Cigna**, Vincenzo Liguori, Chiara Del Ventisette and Nicola Casagli  
Landslide impacts on Agrigento’s Cathedral imaged with radar interferometry

11:45-12:00  Alessandro Trigila, Carlo Cacace, **Carla Iadanza**, Sara Delconte, Daniele Spizzichino and Stefano Cespa  
Cultural heritage, landslide risk and remote sensing in Italy
12:00-12:15  **Luca Falconi**, Pablo Meza Arestegui, Gabriele Leoni, Claudio Puglisi and Simona Savini  
**Geomorphological processes and cultural heritage of Maca and Lari villages: an opportunity for sustainable tourism development in the Colca Valley (province of Caylloma, Arequipa, South Peru)**

12:15-12:30  **Yoshinori Iwasaki** and Valter M. Santoro  
**Failure of Embankment of Moat of Angkor Wat and its Restoration**

12:30-13:00  Discussion

### **L28 - Risk management in Multi-hazard environment**

**Conveners:** Peter Bobrowsky, Salvano Briceno, Peter Lyttle, Giuseppe Delmonaco

#### **Philippines Room**

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<tr>
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<tr>
<td>09:00-09:15</td>
<td>Giuseppe Delmonaco, Domenico Fiorenza, <strong>Luca Guerrieri</strong>, Carla Iadanza,</td>
<td><strong>Landslide risk assessment and management using IT services and tools: the EU BRISEIDE Project approach</strong></td>
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<td></td>
<td>Daniele Spizzichino, Alessandro Trigila and Eutizio Vittori</td>
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<td>09:15-09:30</td>
<td><strong>Boyko Rangelov</strong></td>
<td><strong>Risk profiles and hazards for the Black Sea area</strong></td>
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<tr>
<td>09:30-09:45</td>
<td><strong>Daniel Tobler</strong>, Rachel Riner and Bernhard Krummenacher</td>
<td><strong>Risk Concept Switzerland - Hazard Analysis, Risk Evaluation and Protection Measures</strong></td>
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<tr>
<td>09:45-10:00</td>
<td><strong>Melanie Kappes</strong> and Thomas Glade</td>
<td><strong>Landslides in a Multi-Hazard context</strong></td>
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<tr>
<td>10:00-10:15</td>
<td>Claudio Campobasso, Giuseppe Delmonaco, <strong>Barbara Dessi</strong>, Pierluigi Gallozzi,</td>
<td><strong>Long term strategies and policies for geological and hydraulic risk mitigation in Italy: the ReNDIS project</strong></td>
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<td>Domenico Ligato, Benedetto Porfidia, Daniele Spizzichino, Francesco Traversa</td>
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<td>and Giorgio Vizzini</td>
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<td>10:15-10:30</td>
<td><strong>Adriana Galderisi</strong>, Costanza Bonadonna, Giuseppe Delmonaco, Floriana Federica Ferrara, Scira Menoni, Andrea Ceudech, Sebastien Biss, Corine Frischknecht and Irene Manzella</td>
<td><strong>Vulnerability assessment and risk mitigation: the case of Vulcano Island, Italy</strong></td>
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<tr>
<td>10:30-11:00</td>
<td><strong>Coffee break</strong></td>
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<tr>
<td>11:00-11:15</td>
<td><strong>Roberto W. Romeo</strong>, Milena Mari and Giulio Pappafico</td>
<td><strong>A performance-based approach to landslide risk analysis and management</strong></td>
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<tr>
<td>11:15-11:30</td>
<td><strong>Candide Lissak Borges</strong>, Olivier Maquaire, Jean Philippe Malet and Anne Puissant</td>
<td><strong>Landslide consequences and post crisis management along the coastal slopes of Normandy, France</strong></td>
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<td>11:30-11:45</td>
<td><strong>Margottini Claudio</strong>, Wehrli André</td>
<td><strong>The 2010 European Environment Agency report on natural hazards: landslides and integrated risk management</strong></td>
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<tr>
<td>11:45-12:00</td>
<td><strong>Discussion</strong></td>
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Thursday 6 October

L04 - Landslide inventory and susceptibility and hazard zoning

Conveners: Javier Hervás, Gabriel Legorreta, Miet Van Den Eeckhaut, Alessandro Trigila

**Green Room**

09:00-09:15 Silvia Bianchini, Francesca Cigna, Nicola Casagli
*Improving landslide inventory with Persistent Scatterers in Calabria, Italy*

09:15-09:30 Claudia Meisina, Davide Notti, Francesco Zucca, Massimo Ceriani,
Alessio Colombo, Flavio Poggi, Anna Roccati, Andrea Zaccone
*The use of PSInSAR and SqueeSAR techniques for updating landslide inventories*

09:30-09:45 Francesca Ardizzone, Federica Fiorucci, Michele Santangelo, Mauro Cardinale,
Alessandro Cesare Mondini, Mauro Rossi, Paola Reichenbach, Fausto Guzzetti
*Very-high resolution stereoscopic satellite images for landslide mapping*

09:45-10:00 Alessio Colombo, Luca Lanteri
*The integration between satellite data and conventional monitoring system in order to update the Arpa Piemonte landslide inventory*

10:00-10:15 Tolga Alkevli, Murat Ercanoğlu
*Usage of ASTER level 3A stereo data in landslide inventory mapping: visual determination versus field work*

10:15-10:30 Marco Giardino, Sara Ratto, Mauro Palomba, Walter Alberto,
Marco Armand, Martina Cignetti
*The debris flows inventory of the Aosta Valley Region: an integrated natural hazards assessment*

10:30-11:00 Coffee break

11:00-11:15 Jan Høst, Marc Henri Derron, Kari Sletten
*Digital rockfall and snow avalanches susceptibility mapping of Norway*

11:15-11:30 Joachim Schweigl, Wolfgang Straka
*Working with landslide inventories and susceptibility maps in Lower Austria*

11:30-11:45 Daniele Spizzichino, Claudio Margottini, Alessandro Trigila, Carla Iadanza
*Landslide impacts in Europe: weaknesses and strengths of databases available at European and national scale*

11:45-12:00 Pavel Liščák, Štefan Káčer
*Developments in landslides inventory and registry in Slovakia*

12:00-12:15 Paola Gattinoni, Laura Scesi
*Mechanism and triggering factors of the Maierato (VV) landslide*

13:00-14:30 Lunch break

14:30-14:45 Claudio Puglisi, Luca Falconi, Azzurra Lentini, Gabriele Leoni, Carlos Ramirez Prada
*Debris flow risk assessment in the Aguas Calientes village (Cusco, Peru)*

14:45-15:00 Rainer Bell, Thomas Glade, Klaus Granica, Gerhard Heiss, Philip Leopold,
Helene Petschko, Gilbert Pomaroli, Herwig Proske, Joachim Schweigl
*Landslide susceptibility maps for spatial planning in Lower Austria*

15:00-15:15 Anna Rampini, Gloria Bordogna, Paola Carrara, Monica Pepe,
Massimo Antoninetti, Alessandro Mondini, Paola Reichebach
*Modeling landslides’ susceptibility by fuzzy emerging patterns*

15:15-15:30 Marie Guns, Veerle Vanacker
*Landslide controlling factors in catchments with high deforestation*
15:30-15:45  **Salvatore Scudero**, Giorgio De Guidi  
*Landslide processes and susceptibility mapping in NE Sicily, Italy*

15:45-16:00  **Milos Marjanovic**  
*Comparing the performance of different landslide susceptibility models in ROC space*

16:00-16:30  **Coffee break**

16:30-16:45  **Maria Ferentinou**, Christos Chalkias  
*Mapping mass movement susceptibility across Greece with GIS, ANN and statistical methods*

16:45-17:00  **Paraskevas Tsangaratos**, Ioanna Ilia, Dimitrios Rozos  
*Case Event System for landslide susceptibility analysis*

17:00-17:15  **K. Kumaraswamy**  
*Geoinformatics for landslide vulnerability zonation mapping in the Nilgiris Mountain, Tamil Nadu, India*

17:15-17:30  **Manita Timilsina**, Netra Prakash Bhandary, Ryuichi Yatabe  
*A simplified approach towards mapping of large-scale landslide potential areas in difficult mountainous terrains of Nepal*

17:30-17:45  **Jusong Shi**  
*Large scale deep-seated loess slide investigation and mechanism study at the edge of loess plateau of Baoji city, Shaanxi province, China*

17:45-18:00  **Session wrap-up**

**L07 - Landslide instrumentation and monitoring**
Conveners: Rajenda K. Bandari, Leonardo Cascini, Dario Peduto

**IRAN Room**

09:00-09:15  **Travelletti Julien**, Delacourt Christophe, Allemand Pascal and **Malet Jean-Philippe**  
*Performance of image correlation techniques for landslide displacement monitoring*

09:15-09:30  **Andre Stumpf**, Uwe Niethammer, Sabrina Rothmund, Alexandre Mathieu, Jean-Philippe Malet, Norman Kerle and Manfred Joswig  
*Advanced image analysis for automated mapping of landslide surface fissures*

09:30-09:45  **Janusz Wasowski**, Caterina Lamanna, Giuseppe Gigante, Domenico Casarano and Pierpaolo Limoni  
*Satellite remote sensing and borehole monitoring of landslides in Daunia*

09:45-10:00  **Misganu Debella - Gilo** and Andreas Kääb  
*Monitoring slow-moving landslides using spatially adaptive least squares image matching*

10:00-10:15  **Gianfranco Fornaro**, Davide O. Nitti, Raffaele Nutricato, Fabio Bovenga, Dario Peduto and Leonardo Cascini  
*Methodological and Technological Advances in the Application of Spaceborne DInSAR for Landslide Monitoring*

10:15-10:30  **Vern Singhroy**, Francois Charbonneau, Kevin Murnaghan and Rejean Couture  
*High resolution InSAR monitoring of Coastal Landslides*

10:30-11:00  **Coffee break**

11:00-11:15  Raffaele Nutricato, **Fabio Bovenga**, Alberto Refice, Guido Pasquariello, Janusz Wasowski, Davide Oscar Nitti and Maria Teresa Chiaradia  
*C/X-band SAR interferometry used to monitor slope instability in Daunia, Italy*
11:15-11:30 **Sandro Moretti**, Francesca Cigna, Federico Raspini, Geraint Cooksley, Marie-josée Banwell and Hugo Raetzo
Use of Persistent Scatterer InSAR within Terrafirma Landslide Services

11:30-11:45 **Francesco Antolini**, Veronica Tofani, Chiara Del Ventisette, Guido Luzi, Nicola Casagli and Sandro Moretti
SAR interferometry for landslide risk assessment at local scale: the case study of Castagnola (Northern Apennines, Italy)

11:45-12:00 **Andrea Tamburini**, Sara Del Conte, Luigi Lopardo, Claudio Malaguti, Gianfranco Larini and Paolo Vescovi
Application of SqueeSARTM to the characterization of deep seated gravitational slope deformations: the Berceto case study (Parma, Italy).

12:00-12:15 Discussion

13:00-14:30 Lunch break

14:30-14:45 **Manuela Bonano**, Fabiana Calò, Michele Manunta and Giovanni Zeni
Long-term Analysis of Landslides via SBAS-DInSAR technique

14:45-15:00 **Richard Norland** and Rune Gundersen
Ground-Based Radar for Permanent Monitoring of Landslides

15:00-15:15 **Andrew Kos**, Tazio Strozzi, Andreas Wiesmann and Charles Werner
Detection and characterization of rock slope instabilities using a portable radar interferometer (GPRI)

15:15-15:30 **Alessandro Corsini**, Giuseppe Ciccarese, Francesco Ronchetti, Eleonora Bertacchini, Matteo Berti, Giovanni Truffelli, Mauro Generali, Marco Pizzioli, Angela Gallucci, Giampiero Gozza, Antonio Monni and Valeria Pancioli
Rapid assessment of landslide activity in Emilia Romagna using GB-InSAR short surveys

15:30-15:45 **Paolo Farina**, Lorenzo Leoni, Francesco Babboni, Francesco Coppi, Lorenzo Mayer and Pier Paolo Ricci
IBIS, an innovative radar for monitoring engineered and natural slopes

15:45-16:00 **Francesca Bozzano**, Ivan Cipriani, Federica Esposito and Paolo Mazzanti
Predicting landslide failure by time series of displacement

16:00-16:30 Coffee break

16:30-16:45 **Michele Crosetto**, Oriol Monserrat, Guido Luzi, María Cueva and Marta Agudo
Landslide deformation monitoring with terrestrial SAR: six years of experience of the Institute of Geomatics

16:45-17:00 **Nguyen Anh Tuan**, Saillard Marianne, Olivier Marc, Darrozes José, Herrera Garcia Gerardo, García López-davalillo Juan Carlos, Gonzalez Nicieza Celestino, Alvarezfrenandez Inmaculada, Monod Bernard, Mulas De La Peña Joaquim, Soula Jean-claude and Courjaul
Spatio-temporal evolution of Ground displacement of the Tena landslide (Spain)

17:00-17:15 **Federico Agliardi**, Giovanni B Crosta, Rosanna Sosio and Gregorio Mannucci
In situ and remote long term real-time monitoring of a large alpine rock slide

17:15-17:30 **Lene Kristensen** and Lars Harald Blikra
Monitoring displacement on the Mannen rockslide in Western Norway

17:30-18:00 Discussion
LO9 - Advances in slope stability modelling
Conveners: Ken Ho, Filippo Catani, Giulio Iovine, Alberto Ledesma

AUSTRIA ROOM

11:00-11:15 Angelo Doglioni, Annalisa Galeandro, Vincenzo Simeone
A simple model for passive failure compression structure at the toe of landslide

11:15-11:30 Marco M. Secondi, Giovanni Crosta, Claudio Di Prisco, Gabriele Frigerio, Paolo Frattini, Federico Agliardi
Landslide motion forecasting by a dynamic visco-plastic model

11:30-11:45 Tobler Daniel, Riner Rachel, Pfeifer Robert
Modeling potential shallow landslides over large areas with SlDisp+

11:45-12:00 Annalisa Galeandro, Vincenzo Simeone
Simulating infiltration processes into fractured and swelling soils as triggering factors of landslides

12:00-12:15 Davide Mancarella, Vincenzo Simeone
Sensitivity analysis of the influence of capillarity barrier on the slope stability of slope covers

13:00-14:30 Lunch break

14:30-14:45 Federico Agliardi, Giovanni B. Crosta, Paolo Frattini, Silvia Imposimato
Challenging calibration in 3D rockfall modelling

14:45-15:15 Keynote
Giovanni Vaciago, Gianfrancesco Rocchi
Geomechanical basis of landslide classification and modelling of triggering

15:15-15:30 Giovanni Gigli, Nicola Casagli
Extraction of rock mass structural data from high resolution laser scanning products

15:30-15:45 J. S. H. Kwan, T. H. H. Hui and K. K. S. Ho
Modelling the Motion of Mobile Debris Flows in Hong Kong

15:45-16:00 German Postoev, Andrey Kazeev
About the defining of critical values of parameters of a landslide prone slope (potentially unstable part of a slope)

16:00-16:30 Coffee break

16:30-16:45 Valentina Svalova
Mechanical-Mathematical Model and Monitoring for Landslides

16:45-17:00 Samuele Segoni, Filippo Catani
Different methods to produce distributed soil thickness maps and their impact on the reliability of shallow landslide modeling at catchment scale

17:00-17:15 Angelo Doglioni, Vincenzo Simeone
Recovery of strength along shear surfaces in clay soils

17:15-17:30 Fabrizio Mazza, Davide Brambilla, Laura Longoni, Paolo Mazzoleni, Monica Papini, Emanuele Zappa
Quantitative evaluation of roughness with a 2D digital instrument

17:30-17:45 Levent Yilmaz
The Gravel-Bed River Reach Properties Estimation in Bank slope Stability Modelling

17:45-18:00 Discussion
L10 - Landslides and socio-economic impact: basic data and loss modelling
Conveners: Lynn Highland, Dalia Kirschbaum, Dave Petley

AUSTRIA ROOM

09:00-09:15 Anne Puissant, Miet Van Den Eeckhaut, Melanie S. Kappes, Maria Papathoma-Köhle, Margreth Keiler, Javier Hervás and Jean-Philippe Malet
An index-oriented methodology for landslide consequence analysis at various spatial scales: an application to a mountain community in the French Alps

09:15-09:30 Kevin Simmons
Damages from Landslides: An Econometric Model for Estimating Potential Losses

09:30-09:45 Rosa María Mateos, Inmaculada García, Gerardo Herrera and Joaquin Mulas
Damage caused by recent mass-movements in Majorca (Spain), a region with high risk due to tourism

09:45-10:00 S.K. Sharma and S. Singh
Landslide monitoring in the Himalayan region, India

10:00-10:15 Dalia Kirschbaum, Robert Adler
Evaluation of landslide inventory information: extreme precipitation and global patterns

10:15-10:30 Discussion

L12 - Landslides and reservoirs
Conveners: Alexander Strom, Fawu Wang

GERMAN ROOM

09:00-09:30 Keynote
Reginald L Hermanns, Halgeir Dahle, Per L Bjerke, Giovanni B Crosta, Einar Anda, Lars H Blikra, Aline Saintot, Oddvar Longva and Trond E Eiken
Rock slide dams in Møre Romsdal county, Norway: Examples for the hazard and potential of rock slide dams

09:30-09:45 Jean F. Schneider and Martin Mergili
Recent cases and geomorphic evidence of landslide-dammed lakes and related hazards in the mountains of Central Asia

09:45-10:00 Hans-Balder Havenith, Kanatbek Abdurakhmatov, Isakbek Torgoev, Anatoli Ischuk and Alexander Strom
Earthquakes, landslides, dams and reservoirs in Kyrgyzstan and Tajikistan – special reference to the Kambarata 2 blast-fill dam

10:00-10:15 Micu Mihai and Balteanu Dan
The impact of deep-seated landslides on reservoirs and rivers in Vrancea seismic region

10:15-10:30 Discussion
10:30-11:00 Coffee break

11:00-11:15 Chris Massey, Mauri Mc Saveney and Tim Davies
Evolution of an overflow channel across the Young River Landslide dam, New Zealand

11:15-11:30 Nicholas Roberts, Robin Mckillop, Martin Lawrence, John Psutka, John Clague, Marc-andré Brideau and Brent Ward
Impacts of the 2007 landslide-generated tsunami in Chehalis Lake, Canada

11:30-11:45 Danila Fedorov
Engineering-geological estimation of unstable massif downstream from the Chirkey hydropower station
11:45-12:00  Nanda Wipula Bandara Balasooriya  
Investigation of Landslides in Environmental Impact Assessment

12:00-12:15  Discussion

13:00-14:30  Lunch break

14:30-14:45  Paolo Paronuzzi and Elia Rigo  
A coupled seepage-stability model to analyze the Vajont reservoir influence

14:45-15:00  Paolo Paronuzzi and Alberto Bolla  
A new interpretation of the geotechnical context of the Vajont rockslide

15:00-15:15  Ferdinando Totani, Gianfranco Totani and Sara Amoroso  
Triggering mechanism and kinematics of Vaiont landslide

15:15-15:30  Michele Calvello, Francesco Silvestri and Dario Andreotti  
Inverse analysis of an active landslide along the banks of a reservoir

15:30-15:45  Augusto Desideri, Enzo Fontanella and Luca Pagano  
Pore water pressure distribution for use in stability analyses of earth dams

15:45-16:00  Fawu Wang, Zhitaqo Huo, Yueping Yin, Gonghui Wang and Kimie Sugiura, Li Xianochun  
Landsliding caused by water level variation in China Three Gorges Reservoir

16:00-16:30  Coffee break

16:30-16:45  Discussion

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**L15 - Landslides and urban risk reduction**

Conveners: Domenico Calcaterra, C.F. Lee

**Philippines Room**

09:00-09:30  Keynote  
Ken Ho  
Managing the uncertainties of natural terrain landslides and extreme rainfall in Hong Kong

January 2011: the extreme landslide disaster in Brazil

09:45-10:00  Andrea M. Deganutti, Pia R. Tecca  
The case study of Cancia (Dolomites, Italy), a mountain village threatened by a debris flow

10:00-10:15  Mutluhan Akin, Tamer Topal, Muge K. Akin  
Evaluation of the Rockfall Potential of Kastamonu Castle Using 3-D Analysis

10:15-10:30  Davide Murgese, Dario Fontan, Marina Pirulli, Claudio Scavia, Paolo Oria  
Debris-flow risk assessment and land management at municipal scale

10:30-11:00  Coffee break

11:00-11:15  Claudio Puglisi, Danilo Campolo, Luca Falconi, Gabriele Leoni, Silvia Lumaca  
Landslide hazard assessment project in the Messina municipality area (Sicily, Italy)

11:15-11:30  Abdul Rahman Pandi, Suhaime Jamaludin  
Minimising losses due to landslides

11:30-11:45  Marco Amanti, Valerio Vitale and Alessandro Troccoli  
Landslides in the Eternal city. Case studies from the past
### L29 - Rapid landslide runout analysis

**Conveners:** Claudio Scavia, Marina Pirulli

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<thead>
<tr>
<th>Time</th>
<th>Speaker(s)</th>
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<tr>
<td>11:45-12:00</td>
<td>Eduardo Soares De Macedo, Kátia Canil, Fabiana Chechinato Silva,</td>
<td>Methodological procedures to landslide risk mapping in Brazilian slums</td>
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<td>Fabrício Araújo Miranda, Marcelo Fischer Gramani, Agostinho Tadashi Ogura</td>
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<td>and Alessandra Cristina Corsi</td>
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<td>12:00-12:15</td>
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<td><strong>Discussion</strong></td>
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<td>13:00-14:30</td>
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<td><strong>Lunch break</strong></td>
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<tr>
<td>14:30-14:45</td>
<td>Olena Dragomyretska, Oleksandr Dragomyrets’kyy, Mikhail Skipa</td>
<td>Assessment of actual morphodynamic activity of landslide slopes in Odessa</td>
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<td>14:45-15:00</td>
<td>Ogbonnaya Igwe, Hiroshi Fukuoka, Anthony Diyokeugwu</td>
<td>Geotechnical properties and stability of a landslide site in South Eastern Nigeria</td>
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<tr>
<td>15:00-15:15</td>
<td>S. G. Lee and M. G. Winter</td>
<td>Landslides in Urban Areas of South Korea and some Issues for Successful Risk Reduction</td>
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<td>15:15-15:30</td>
<td>Peng Cui</td>
<td>Giant Debris Flow in Zhouqu, China: Formation Cause and Mitigation Countermeasures</td>
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<td>15:30-16:00</td>
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<td><strong>Discussion</strong></td>
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### Ethiopia Room

**Conveners:** Claudio Scavia, Marina Pirulli

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<tr>
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<tbody>
<tr>
<td>09:00-09:15</td>
<td></td>
<td>Introduction to the Session</td>
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<tr>
<td>09:15-09:45</td>
<td>Christian Scheidl, Dieter Rickenmann, Brian W. McArdell</td>
<td>Runout prediction of debris flows and similar mass movements</td>
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<tr>
<td>09:45-10:00</td>
<td>Chiara Deangeli, Erika Paltrinieri and Davide Tiranti</td>
<td>Debris flow analysis: from lithological classification of the basin to deposition</td>
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<tr>
<td>10:00-10:15</td>
<td>Maria Marsella, Alberto Sonnessa, Paolo Tommasi and Aurora Salino</td>
<td>Stability conditions and evaluation of the runout of a possible landslide at the Northern flank of La Fossa active volcano, Italy</td>
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<td>10:15-10:30</td>
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<td><strong>Discussion</strong></td>
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<td><strong>Coffee break</strong></td>
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<tr>
<td>11:00-11:15</td>
<td>Giovanni Mortara, Marta Chiarle, Oldrich Hungr, Luzia Fischer, Fabio Villa</td>
<td>Slope instabilities in high-mountain rock walls.</td>
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<td>and Andrea Tamburini</td>
<td>Recent events on the Monte Rosa east face (Macugnaga, NW Italy)</td>
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<td>11:15-11:30</td>
<td>Andrea Filipello, Giuseppe Mandrone</td>
<td>A ready to use GRASS GIS workbench for rockfall analysis</td>
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<td>11:30-11:45</td>
<td>Daniel Tobler, Rachel Riner and Robert Pfeifer</td>
<td>Runout modelling of shallow landslides over large areas with SLIDEPOT</td>
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<td>11:45-12:00</td>
<td>Alexander Preh, Barbara Kuen, Oldrich Hungr and Rainer Poisel</td>
<td>Run-up of landslide runouts against protective barriers – a comparison of the Particle Flow Code (PFC) and DAN</td>
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<td><strong>Lunch break</strong></td>
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</tbody>
</table>
14:30-14:45 **Simonetta Cola**, Nancy Calabrò, Paolo Simonini and Manuel Pastor  
*Effects of grain-size composition examined in laboratory and numerical tests on artificial mud-flows*

14:45-15:00 **Claire Sauthier** and Vincent Labiouse  
*Physical modelling of the propagation and deposition of rock avalanches – Recent developments and results*

15:00-15:15 **Irene Manzella**, Herbert H. Einstein, Giovanni Grasselli  
*DEM and FEM/DEM modelling of granular flows to investigate large debris avalanche propagation*

15:15-15:30 **Guilhem Mollon**, Vincent Richefeu, Pascal Villard and Dominique Daudon  
*Assessment of Discrete Element Modelling parameters for rock mass propagation*

15:30-15:45 **Gabriele Pisani**, Marina Pirulli, Vincent Labiouse and Claudio Scavia  
*Influence of bed curvature on the numerical modelling of unconstrained granular materials*

15:45-16:00 **Discussion**

16:00-16:30 **Coffee break**

16:30-16:45 **Giovanni B. Crosta**, Silvia Imposimato, Dennis Roddeman and Parolo Frattini  
*On controls of flow-like landslide evolution by erodible layer properties and thickness*

16:45-17:00 **Laura Maria Stancanelli**, Giorgio Rosatti, Lorenzo Begnudelli, Aronne Armanini and Enrico Foti  
*Single or two-phase modeling of debris flow? A systematic comparison of the two approaches applied to a real debris flow in Giampilieri Village (Italy)*

17:00-17:15 Byron Quan Luna, **Jose Cepeda**, Cees Van Westen, Alexandre Remaitre, Andre Stump, Jean-philippe Malet and Theo Van Asch  
*Analysis and uncertainty quantification of dynamic run-out model parameters for landslides*

17:15-17:45 **Discussion**
**Friday 7 October**

**L03 - Wildfires and slope instability**
Conveners: Jerome De Graff, Susan Cannon, Pieter Van Lierop, Mario Parise

**Ethiopia Room**

09:00-09:30  **Keynote**  
**Jerome V. DeGraff**, Susan H. Cannon and Mario Parise  
*Characterizing the Immediate and Subsequent Hazards Caused by Wildfire Occurrence*

09:30-09:45  **Jess Clark**, Randy Mckinley  
*Remote Sensing and Geospatial Support to Burned Area Emergency Response (BAER)*  
*Teams in Assessing Wildfire Effects to Hillslopes*

09:45-10:00  **Erik Rorem**, **Corinna Wendeler** and Andrea Roth  
*Flexible Debris Flow Barriers in Fire Burned Areas*

10:00-10:15  **Lucia Majorca**, Cinzia Civardi and **Guido U. Guasti**  
*Rockfall and debris flow hazards after summer wildfires in Cerreto Sannita, Benevento, Italy*

10:15-10:30  **Discussion**

**L07 - Landslide instrumentation and monitoring**
Conveners: Rajenda K. Bandari, Leonardo Cascini, Dario Peduto

**Green Room**

09:00-09:15  **Thuro Kurosch**, **Singer John** and Festl Judith  
*A geosensor network based monitoring and early warning system for landslides*

09:15-09:30  **Christian Arnhardt** and Olaf Neussner  
*Setup of a landslide monitoring system on the Philippine Island of Leyte near the village Malinao (Municipality of St. Bernard)*

09:30-09:45  **Fauziah Ahmad**, Ahmad Shukri Yahaya, Mohd Azam Osman, Wong Poh Lee and Ahmad Badri Ismail  
*Development of WILMS: Well Inform Landslide Monitoring System for USM Healthy Campus*

09:45-10:00  **Stefano Cardellini**  
*The Ancona early warning centre, instrumentation and continuous monitoring of the landslides*

10:00-10:15  **Zbigniew Bednarczyk**  
*New real-time landslide monitoring system in Polish Carpathians*

10:15-10:30  **Discussion**

**L08 - GIS application developments**
Conveners: Serafino Angelini, Esther Jensen, Raffaele De Amicis

**German Room**

09:00-09:15  **Ali Uromeihy** and Mahsa Sharif  
*Evaluation and zonation of landslide hazard in Northern Tehran districts*

09:15-09:30  **Martin Mergili**, Katharina Schratz, Alexander Ostermann and Wolfgang Fellin  
*A GRASS GIS implementation of the Savage-Hutter avalanche model and its application to the 1987 Val Pola event*
09:30-09:45  **Martin Mergili** and Wolfgang Fellin  
*Three-dimensional modelling of rotational slope failures with GRASS GIS*

09:45-10:00  Marco Petitta, Fabrizio Millesimi, **Piero Farabollini**, Serafino Angelini and Riccardo M. Menotti  
*Application of the computerised cartography to the territory management: the geomorphological map of palaeolandslides in the Velino River Valley (Central Apennines, Italy)*

10:00-10:15  Oleksandr Trofymchuk, **Iurii Kaliukh**, Iryna Trofimova and Anna Glebchuk  
*Mathematical and GIS-modeling of landslides in Kharkiv region of Ukraine*

10:15-10:30  **Halvor Bunkholt**, Bobo Nordahl, Reginald L. Hermanns, Thierry Oppikofer, Luzia Fischer, Lars Harald Blikra, Einar Anda, Halgeir Dahle and Stine Sætre  
*Database of unstable rock slopes of Norway*

10:30-11:00  **Paola Salvati**, Ivan Marchesini, Vinicio Balducci, Cinzia Bianchi and Fausto Guzzetti  
*A new digital catalogue of harmful landslides and floods in Italy*

11:00-11:15  Raffaele De Amicis, Federico Prandi, **Giuseppe Conti**, Diego Taglioni, Stefano Piffer, Marco Calderan and Alberto DeBiasi  
*Landslides and Spatio-Temporal Processing of Geographical Information*

11:15-11:30  **Peter T. Bobrowsky** and María José Domínguez-Cuesta  
*Proposed landslide susceptibility map of Canada based on GIS*

11:30-11:45  **Chunxiang Wang**, Hideaki Marui, Gen Furuya and Naoki Watanabe  
*Two integrated models simulating dynamic process of landslide using GIS*

11:45-12:00  **Sebastiano Perriello Zampelli**  
*A GIS-aided method for an assessment of the sliding susceptibility of volcaniclastic soils in Campania (Italy)*

**LO9 - Advances in slope stability modelling**

Conveners: Ken Ho, Filippo Catani, Giulio Iovine, Alberto Ledesma

**Austria Room**

09:00-09:15  **Domenico Gullì**, Maura Pellegrini  
*Experimental approach for stability evaluations of Carrara marble basins*

09:15-09:30  **Alberto Grimod**, Giorgio Giacchetti  
*Protection from high energy impacts using reinforced soil embankments: design and experiences*

09:30-09:45  **Stefano Barontini**, Marco Peli Thom A. Bogaard and Roberto Ranzi  
*Dimensionless numerical approach to perched waters in 2D gradually layered soils*

09:45-10:00  **Jean-françois Parrot**, Veronica Ochoa-Tejeda  
*The 2010 muddy-debris flow of Angangueo (Mexico). Modelling and simulation.*

10:00-10:15  **Bin He**, Kyoji Sassa, Maja Ostric, Kaoru Takara, Yosuke Yamashiki  
*Effects of parameters in landslide simulation model LS-RAPID on the dynamic behaviour of earthquake-induced rapid landslides*

10:15-10:30  Sabrina Bonetto, Cesare Comina, Andrea Giuliani, **Giuseppe Mandrone**  
*Geological and geophysical tests to model a small landslide in the Langhe hills*

10:30-11:00  **Coffee break**
11:00-11:15 **Marcello Brugioni**, Bernardo Mazzanti, Giovanni Montini, Lorenzo Sulli  
*Use of SAR interferometry for landslide analysis in the Arno river basin*

11:15-11:30 **Chunxiang Wang**, Željko Arbanas, Snježana Mihalić, Hideaki Marui  
*Three dimensional stability analysis of the Grohovo landslide in Croatia*

11:30-11:45 **Chia-ming Lo**, Tien-yao Cheng, Lun-wei Wei, Cheng-yang Hsiao,  
Chin-tung Cheng, Ming-lang Lin  
*Kinematic Process of the Xiaolin Landslide*

11:45-12:00 **Yolanda Deubelbeiss**, **Christoph Graf**, Marc Christen  
*Numerical modeling of debris flows with RAMMS – Alpine case studies*

12:00-12:15 *Discussion*

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**L14 - Landslides (and legislation), policies, cost benefit analysis and decision makers**

Conveners: Raoul Carreno, Giuliano Di Baldassarre, Tiziana Guida

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**IRAN Room**

09:00-09:15 **Giuliano Di Baldassarre**  
*Introduction*

09:15-09:30 **Gaia Checcucci**  
*Landslide Risk Management in the Arno River Basin*

09:30-09:45 **Graziella Devoli**, Terje Bargel, Andrea Taurisano, Toril Wiig, Hallvard Berg,  
Eli Øydvin, Reginald L. Hermanss and Louise Hansen  
*Identifying needs and areas for future landslide hazard mapping in Norway*

09:45-10:00 **Margarete Wöhrer Alge**  
*Landslide management in Austria with particular attention to hazard mapping  
and land use planning*

10:00-10:30 **Keynote**  
**Fabio Trezzini**, Gianluigi Giannella and Tiziana Guida  
*Landslide and flood: economic and social impacts in Italy*

10:30-11:00 *Coffee break*

11:00-11:15 **Nando Ferranti**, Giovanni De Caterini, **Quintilio Napoleoni**  
and Gabriele Leoni  
*Landslides and Quarries in Italy: reflections on census and safety*

11:15-11:30 **Nikolai Dobrev**  
*Landslide problems in Bulgaria: factors, distribution and countermeasures*

11:30-11:45 Italo Giulivo, Fiorella Galluccio, **Fabio Matano**, Lucia Monti and Carlo Terranova  
*Landslide risk and mitigation policies in Campania Region (Italy)*

11:45-12:00 **Surya Parkash Gupta**, Om Prakash and J.C. Dhoundiyal  
*Some Case Studies on Catastrophic Landslides in Uttarakhand State, India – Records  
and Implications in Strategy for Landslides Risk Reduction*

12:00-12:15 *Discussion*
**L17 - Advanced technologies for landslide stabilisation**
Conveners: Paul Marinos, Paolo Tommasi

**Philippines Room**

09:00-09:30 **Keynote**
Gianfranco Urcioli, Marianna Pirone
Subsurface drainage for slope stabilization

09:30-09:45 **Tiziana Verrascina**, Claudio Zarotti, Costantino Panzani and Nicola Era
Surface protection of slopes by grass covering techniques

09:45-10:00 **Luis Miguel Laguna Megal**, Jaime Perera Bermúdez, Raúl Chaminade Bautista, Adolfo Hoyos Limón - Gil, Juan Carpio Garoz and Javier Velasco Núñez
High capacity flexible systems for slope stabilization in La Gomera (Spain)

10:00-10:15 **Giorgio Giacchetti** and Alberto Grimod
Soil Nailing with flexible structural facing: design and experiences

10:15-10:30 **Shanker Dhakal**, Netra Prakash Bhandary, Ryuichi Yatabe and Naoki Kinoshita
Finite Element Modelling and Parametric Analyses of a Long-span Pocket-type Rockfall Interceptive Cable-Net Structure

10:30-11:00 Coffee break

11:00-11:15 **Chaido Doulala-Rigby**, Andrew Stone
Landfill slip failure repair with geogrids using waste fill material at Danylan, Wales

11:15-11:30 **Giovanni Vaciago**
The SafeLand compendium of landslide risk mitigation measures

11:30-11:45 **Giuliano Sauli**
Erosion control of mountain rocky streams by means of soil bioengineering techniques in nord – east Italy

11:45-12:00 **Pandolfi Valentino**

12:00-12:15 Discussion

**L23 - Landslides in coastal areas**
Conveners: Vincenzo Liguori, Crescenzo Violante

**Ethiopia Room**

11:00-11:15 **Boyko Berov**
State of the art for landslides along the North Bulgarian Black Sea coast

11:15-11:30 **Thom Bogaard**, Olivier Maquaire, Candide Lissak and Jean-philippe Malet
Identification of hydro-meteorological triggers for Villerville coastal landslide

11:30-11:45 **Olivier Marc**, Sedan Olivier and Monod Bernard
Contribution of physical modelling to landslide hazard mapping: case of the French Basque coast

11:45-12:00 **Fernando Marques**, Rita Matildes and Paula Redweik
Statistically based sea cliff instability susceptibility assessment at regional scale, at the Burgau-Lagos coastal section (Algarve, Portugal)

12:00-12:15 **Crescenzo Violante**
Coupling on-land and marine investigations to assess coastal instability in the Napoli and Salerno bays (Campania, Southern Italy)
Keynote Speaker

Monday, 3 October

14:30-15:00  A. Ferrero
Landslide Transportation network and lifelines: rockfall and debris flow
L11 – Landslides, transportation network and lifelines
Iran Room

14:30-15:00  Malcolm G Anderson
Landslide risk reduction in developing countries:
Perceptions, successes and future risks for capacity building
L21 – Landslide education, training and capacity development
German Room

14:30-15:00  Maarten Vanneste
Submarine landslides and their consequences: What do we know, what can we do?
L22 – Submarine landslides and tsunami
Ethiopia Room

14:30-15:00  Edwin Harp
The Effect of Complex Fault Rupture in the Distribution of Landslides Triggered
by the 12 January 2010, Haiti Earthquake
L25 – Seismically induced landslides and seismic landslide hazard analysis
Austria Room

Tuesday, 4 October

11:00-11:30  Cees van Westen
From landslide inventories to landslide risk assessment;
an attempt to support methodological development in India
L04 – Landslide inventory and susceptibility and hazard zoning
Green Room

11:00-11:30  Federica Cotecchia
Instrumentation and monitoring for the interpretation of the landslide
mechanism: proposed strategy and examples of application
L07 – Landslide instrumentation and monitoring
Iran Room

11:00-11:30  Stephan Gruber
Landslides in cold regions: making a science that can be put into practice
L26 – Landslides in cold regions
German Room

Wednesday 5 October

09:00-09:30  Claudio Margottini
Cultural Heritage in landslide areas: between adaptation and mitigation
L24 – Landslides and cultural heritage
German Room
Thursday 6 October

09:00-09:30  **Reginald L Hermanns**  
*Rock slide dams in Møre Romsdal county, Norway: Examples for the hazard and potential of rock slide dams*  
L12 - Landslides and reservoirs  
German Room

09:00-09:30  **Ken Ho**  
*Managing the uncertainties of natural terrain landslides and extreme rainfall in Hong Kong*  
L15 - Landslides and urban risk reduction  
Philippines Room

09:15-09:45  **Dieter Rickenmann**  
*Runout prediction of debris flows and similar mass movements*  
L29 - Rapid landslide runout analysis  
Ethiopia Room

14:45-15:15  **Giovanni Vaciago**  
*Geomechanical basis of landslide classification and modelling of triggering*  
L09 - Advances in slope stability modelling  
Austria Room

Friday 7 October

09:00-09:30  **Jerome V. DeGraff**  
*Characterizing the Immediate and Subsequent Hazards Caused by Wildfire Occurrence*  
L03 - Wildfires and slope instability  
Ethiopia Room

09:00-09:30  **Gianfranco Urcioli**  
*Subsurface drainage for slope stabilization*  
L17 - Advanced technologies for landslide stabilisation  
Philippines Room

10:00-10:30  **Fabio Trezzini**  
*Landslide and flood: economic and social impacts in Italy*  
L14 - Landslides (and legislation), policies, cost benefit analysis and decision makers  
Iran Room
Panelist

Tuesday, 4 October

09:15-09:40  Jacques Locat
Some considerations on the effect of climate change on mass movements and their consequences
L01 - Landslide scenarios accounting for the climatic, geomorphological and geotechnical context
Philippines Room

09:40-10:05  Jan Klimeš
Landslides in the outer Western Carpathians, Central Europe
L01 - Landslide scenarios accounting for the climatic, geomorphological and geotechnical context
Philippines Room

10:05-10:30  Sarah Springman
Rock glacier degradation and instabilities in the European Alps: a characterisation and monitoring experiment in the Turtmanntal, CH
L01 - Landslide scenarios accounting for the climatic, geomorphological and geotechnical context
Philippines Room

11:00-11:25  Pasquale Schiano
Climatic scenarios on the Mediterranean area
L01 - Landslide scenarios accounting for the climatic, geomorphological and geotechnical context
Philippines Room

11:25-11:50  Emilia Damiano
Potential effects of climate change on slope stability in unsaturated pyroclastic soils
L01 - Landslide scenarios accounting for the climatic, geomorphological and geotechnical context
Philippines Room

11:50-12:15  S.G. Lee
The presumed effects of the expected climatic changes on the stability of slopes in Far East region
L01 - Landslide scenarios accounting for the climatic, geomorphological and geotechnical context
Philippines Room
DAILY POSTER PROGRAMME

TUESDAY 4 OCTOBER

L11 - Landslides, transportation network and lifelines
Conveners: Jordi Corominas, Gian Paolo Giani, Tiziana Apuani

Poster Area
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WLF2-0592 Giacomo D’amato Avanzi, Yuri Galanti, Roberto Giannecchini and Alberto Puccinelli
Fragility of territory and infrastructures resulting from rainstorms in Northern Tuscany (Italy)

WLF2-0158 Svetozar Milovan, Milovan Jotic, Bosko Ubiparip and Petar Mitrovic
Database on landslides in the process of road network maintenance in the Republic of Serbia

WLF2-0312 Carles López, Jordi Amigó, Laura López, Joan Altimir and Joan Torrebadella
CUTTING D15: Stabilization of a large landslide in Marrakesh

WLF2-0313 Jordi Amigó, Joan Altimir and Joan Torrebadella
Methodology for managing and determining rockfall risk in the road network of the Principality of Andorra

WLF2-0217 Carlos Eduardo Rodriguez Pineda, Luis Fernando Urrego and César Eduardo Sánchez
Road risk assessment due to rainfall-induced landslides

WLF2-0142 Saravanan Mariappan, Nik Ramlan Nik Hassan, Steven Chong and Syed Mohd Hikam Syed Mohd Zain
Reconstructing a failed road embankment over a valley with high water table in Malaysia

L20 - Integrated approach to landslide risk mitigation
Conveners: José Cepeda, Lino Versace

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WLF2-0479 Stefania Pascale and Francesco Sdao
Landslide susceptibility in Archaeological and Natural Historic Park of Rupestrian Churches

WLF2-0587 Riccardo Torri, Davide Murgese and Costanza Morino
Sinkhole monitoring to support landslide management

WLF2-0258 Ekaterina Bezuglova and Sergey Matsiy
Engineering and geological grounds of landslide protection reliability of structures
WLF2-0167  Hongjian Liao, Zongyuan Ma, Chunming Ning and Kyoji Sassa
A Case investigation of Landslides in Loess Area

WLF2-0806  A. A. Virajh Dias, Nihal Rupasinghe, Jagath Gunathilaka
Joint Technical Emergency Operation Experiences on Landslide Disaster Mitigation Event 2003, Sri Lanka

**L21 - Landslide education, training and capacity development**

Conveners: Dwikorita Karnawati, Surya Prakash

**Poster Area**

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**Author in Attendance: 11:00-12:15**

WLF2-0139  Surya Parkash
Awareness and Preparedness Strategies for Community Based Disaster Risk Management with particular reference to Landslides

**L22 - Submarine landslides and tsunami**

Conveners: Jacques Locat, Roger Urgeles, Paolo Mazzanti

**Poster Area**

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**Author in Attendance: 11:00-12:15**

WLF2-0434  Giovanni B. Crosta, Silvia Imposimato and Dennis Roddeman
Interaction of landslide mass and water resulting in impulse waves

**L25 - Seismically induced landslides and seismic landslide hazard analysis**

Conveners: Ed Harp, Hideaki Marui, Luca Guerrieri

**Poster Area**

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**Author in Attendance: 16:30-18:00**

WLF2-0371  Bateer Hasi, Kiyoteru Maruyama, Akira Nakamura and Tomoyuki Noro
Statistical analysis of deep-seated landslides induced by recent strong earthquakes in eastern Japan: an approach based on pre-existing landslide topography

WLF2-0372  Akira Nakamura, Kiyoteru Maruyama, Bateer Hasi and Tomoyuki Noro
Susceptibility mapping of deep-seated landslides around active fault system, a case study of western Niigata, Japan

WLF2-0671  Martín J. Rodríguez Peces, José Vicente Pérez Peña, José M. Azañón and A. Jiménez Gutiérrez
Relationships between slope instabilities, active tectonics and drainage systems: the Dúdar landslide case (Granada, Southern Spain)

WLF2-0400  Shiho Asano
Effect of the thickness of geological strata on seismically-induced slope failure in IMN Earthquake, 2008 in Japan
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<td>Earthquake triggered shallow sloping megalandslides</td>
<td>Nguyen Anh Tuan, Darrozes Jose, Soula Jean-claude, Courjault-radé Pierre and Saillard Marianne</td>
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<td>WLF2-0187</td>
<td>Mechanism of Landslide Composed of Strongly Weathered Mudstone Induced by the 2004 Mid-Niigata Earthquake</td>
<td>Keizo Ugai, Akihiko Wakai, Fei Cai and Seiichiro Kuroda</td>
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<td>Hazard zoning of Landslides Triggered by the 2005 Dahoieh, Zarand Earthquake</td>
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<td>Relevances Analyses Between The Earthquake and Slope Deformation Fracture</td>
<td>Xiangning Xu, Lansheng Wang, Shiqiang Zhu and Yongxu Yuan</td>
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<td>WLF2-0546</td>
<td>Detecting the surficial displacements triggered by the 2007 Noto Peninsula Earthquake by the use of InSAR and GIS techniques</td>
<td>Takashi Saito, Yo Fukushima and Koji Matsunami</td>
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<td>Landsliding in seismic areas: analysis of the interrelationship between strong-shaking patterns and slope stability conditions. A study case</td>
<td>Rosamaria Trizzino</td>
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<td>WLF2-0334</td>
<td>Earthquake-induced tilts, up and down motions of a huge landslide mass triggered by the 2008 Iwate-Miyagi Nairiku Earthquake in Japan</td>
<td>Koji Matsunami, Wataru Morii, Takashi Saito and Hiroshi Fukuoka</td>
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**L26 - Landslides in cold regions**

Conveners: Marten Geertsema, Marta Chiarle, Wei Shan

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<td>DSGSDs induced by post-glacial decompression in central Apennine (Italy)</td>
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<td>WLF2-0318</td>
<td>Temporal characteristics of different cryosphere-related slope movements in high mountains</td>
<td>Vanessa Wirz, Stephan Gruber, Jan Beutel, Benjamin Buchli, Philippe Limpach and Alain Geiger</td>
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### Wednesday 5 October

**L01 - Landslide scenarios accounting for the climatic, geomorphological and geotechnical context**

Conveners: Luciano Picarelli, Vit Vilimek

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<td>Geotechnical and mineralogical characterisation of soils from landslide scars and inferred sliding mechanism: case of Limbe, SW Cameroon.</td>
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<td>Muhsin Elie Rahhal</td>
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<td>Maceo-giovanni Angeli, Paolo Gasparetto, Francesco Marabini and Fabrizio Pontoni</td>
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<td>Khalida Khan, Ghulam Rasul and Rabia Faridi</td>
<td>Impact of climate change, threats of landslides hazards to the Murree, foothills of Himalayas, Pakistan</td>
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<td>WLF2-0178</td>
<td>Irina Pavlova, Vincent Jomelli, Daniel Brunstein and Delphine Grancher</td>
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<td>WLF2-0153</td>
<td>Younus Ahmed Khan</td>
<td>Mechanisms of rain-induced landslide events of 2008 in hills of Chittagong City of Bangladesh</td>
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L04 - Landslide inventory and susceptibility and hazard zoning
Conveners: Javier Hervas, Gabriel Legorreta, Miet Van Den Eeckhaut, Alessandro Trigila

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WLF2-0384 Goffredo Manzo, Veronica Tofani, Samuele Segoni, Alessandro Battistini, Filippo Catani
Application of GIS techniques for landslide susceptibility assessment at regional scale

WLF2-0449 José Fernando Aceves Quesada, Victor Manuel Martinez Luna, Gabriel Legorreta Paulin
A multitemporal analysis of gravitational processes in the endorreic basin La Ciénaga, oriental flank of the Nevado de Toluca Volcano, Mexico

WLF2-0624 Helene Petschko, Rainer Bell, Philip Leopold, Gerhard Heiss, Thomas Glade
Landslide inventories for reliable susceptibility maps in Lower Austria

WLF2-0553 Paolo Roberto Federici, Alberto Puccinelli, Giacomo D’Amato Avanzi, Francesco Falaschi, Roberto Giannecchini, Daria Marchetti, Alberto Pochini, Franco Rapetti, Adriano Ribolini
Zoning and mapping landslide hazard in the Castelnuovo di Garfagnana region (Tuscany, Italy)

WLF2-0320 Gabriel Legorreta Paulin, Marcus Bursik, José Lugo Hubp
An overview of a GIS method for mapping and assessing landslide hazards

WLF2-0631 Halvor Bunkholt, Tim Redfield, Per Terje Osmundsen, Thierry Oppikofer, Reginald L. Hermanns, John Dehls
The role of inherited structures in deep seated slope failures in Kåfjorden, Norway

WLF2-0638 Alessandro Chelli, Andrea Ruffini, Paolo Vescovi, Claudio Tellini
Tectonics and large landslides in the Northern Apennines (Italy)

WLF2-0715 Heon-Woo Lee, Hyuck-Jin Park, Ik Woo, Jeong-Gi Um
Analysis of landslide susceptibility using Monte Carlo simulation and GIS

WLF2-0704 Jorge Yepes, Martín Jesús Rodriguez-Peces, Sara Marchesini, Sergio Leyva, José Luis Díaz-Hernández
Amplification of the destructive effects of rock falls by sliding on volcanic soils: examples from the Anaga massif (Tenerife Island, Spain)

WLF2-0429 Claudia Meisina, Davide Zizzioli, Francesco Zucca
Methods for shallow landslides susceptibility mapping: an example in Oltrepo Pavese

WLF2-0266 Giulio Masetti, Giuseppe Ottria, Franco Ghiselli, Aldo Ambrogio, Gianluca Rossi, Lanfranco Zanolini
Multidisciplinary study of the Torrio landslide (Northern Apennines, Italy)

WLF2-0396 Philip Leopold, Gerhard Heiss, Helene Petschko, Rainer Bell, Thomas Glade
Susceptibility maps for landslides using different modelling approaches

WLF2-0643 Pere Oller, Marta González, Jordi Pinyol, Marcel Barberà, Pere Martinez
The geological hazard map of Catalonia 1:25 000. A tool for geohazards mitigation

WLF2-0249 Jošt Sodnik, Tomaz Podobnikar, Urška Petje, Matjaž Mikoš
Topographic data and numerical debris-flow modeling

WLF2-0299 Marco Capitani, Paolo Roberto Federici
MSUE Conditional Method predictive power, Milia Basin, Tuscany, Italy
WLF2-0599 Giacomo D’Amato Avanzi, Yuri Galanti, Roberto Giannecchini, Susanna Duchì, Diego Lo Presti, Daria Marchetti
*DP test in geotechnical characterization of shallow landslides source area: results and perspectives*

WLF2-0227 Namphon Khampilang, Malcolm Whitworth
*Creation of landslide inventory map for the Toktogul region of Kyrgyzstan, Central Asia*

WLF2-0269 Dario Costanzo, Edoardo Rotigliano, Clemente Irigaray, Jorge D. Jiménez-Perálvarez, José Chacón
*Factor selection procedures in a Google EarthTM aided landslide susceptibility model: application to the Beiro river basin (Spain)*

WLF2-0175 Mihaela Constantin, Martin Bednarik, Marta-Cristina Jurchescu, Koji Ishida, Kei Higuchi
*Regional and local approaches on landslide susceptibility assessment in the region located between the Buzau and the Șlănicul Buzăului valleys, Romania*

WLF2-0687 Maurizio Lazzari, Maria Danese
*A multitemporal kernel density estimation approach for landslide susceptibility assessment*

WLF2-0273 Enrico Bima, Sara Elisa Domenica Castagna, Giuseppe Mandrone
*Lithotechnical input for debris flow triggering analysis: examples in Western Alps (Italy)*

WLF2-0541 Angelo Donnarumma, Paola Revellino, Gerardo Grelle, Francesco Maria Guadagno
*Slope angle as indicator parameter of landslide susceptibility in a geologically complex area*

WLF2-0269 Mauro Generali, Marco Pizziolo
*The susceptibility map for shallow landslides initiation in the Emilia*

**L06 - Landslides and extreme weather**
Conveners: Hiroshi Fukuoka, Gabriele Scarascia Mugnozza

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**Author in Attendance: 14:30-16:00**

WLF2-0253 Paolo Maria Guarino, Riccardo Massimiliano Menotti, Guido Motteran and Roberto Serafini
*Flood and slope processes in the Scura Valley (Reatini Mts., Central Apennines, Italy). Meteo-climatic analysis and geomorphological evolution*

WLF2-0392 Gianluca Martelloni, Samuele Segoni, Filippo Catani and Riccardo Fanti
*Snow melt modelling for improving the forecasts of rainfall threshold-based landslide triggering*

WLF2-0660 Jose Cepeda
*The I-A-D threshold function: accounting for Antecedent precipitation in the Intensity-Duration power law form*

WLF2-0680 Nele Kristin Meyer, Anita Verpe Dyrrdal and Regula Frauenfelder
*The impact of extreme precipitation events on debris-flow initiation in Norway*

WLF2-0661 Jose Cepeda, Jean Philippe Malet and Alexandre Remaitre
*Landslide inventories at Barcelonnette (France), Norangselva and Nedre Romerike (Norway) for estimating rainfall thresholds*
**L13 - Landslide as sediment sources**
Conveners: Giovanni Crosta, Matjaz Mikos, Ziaoddin Shoaei

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WLF2-0644 Dan Shugar, John Clague and Marco Giardino
_A quantitative assessment of the sedimentology and geomorphology of rock avalanche deposits_

WLF2-0609 Davide Brambilla, Laura Longoni, Fabrizio Mazza and Monica Papini
_An automated method for solid transport evaluation in mountain basins_

**L16 - Early warnings and emergency plans**
Conveners: Nicola Casagli, Yin Yuepin

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Author in Attendance: 14:30-16:00

WLF2-0579 Shibiao Bai, Jian Wang, Thomas Glade, Rainer Bell and Benni Thiebes
_Rainfall threshold analysis and landslide susceptibility mapping in Wudu county_

WLF2-0678 Maurizio Lazzari, Marco Piccarreta and Domenico Capolongo
_Landslide Triggering and Local Rainfall Thresholds in Bradanic Foredeep, Basilicata Region (southern Italy)_

WLF2-0419 Francesco Ponziani, Nicola Berni, Marco Stelluti, Renato Zauri, Luca Brocca, Tommaso Moramarco, Diana Salciarini and Claudio Tamagnini
_Landwarn: an operative early warning system for landslides forecasting based on rainfall thresholds and soil moisture_

WLF2-0654 Marcelo Fischer Gramani
_Processes and risk scenarios identified during the emergency actions undertaken in the Vale do Itajai (Brazil) in 2008_

WLF2-0383 Byung-gon Chae, Jeong-hae Choi and Yong-seok Seo
_An alternative method of landslide early warning by gradient of volumetric water content_

**L24 - Landslides and cultural heritage**
Conveners: Paolo Canuti, Yoshinori Iwasaki, Daniele Spizzichino

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Author in Attendance: 14:30-16:00

WLF2-0118 Iuliia Blinova and Andrey Bredikhin
_Assessment of geomorphological risks and attractiveness for recreational purposes in areas with high contemporary relief dynamics_

WLF2-0619 Claudio Margottini
_Large rock slide and fall in the cradle of Christianity: Maaloula (Damascus, Syria)_
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<td>The Park of Monsters of Bomarzo (Central Italy): from rock fall to a resort area.</td>
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<td>Landslide mitigation measures for the conservation of the archaeological site of Orongo (Easter Island-Chile)</td>
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<td>Rockfall susceptibility - hazard and risk assessment of Akrotiri historical site, Nafplio, Greece</td>
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<td>San Leo: ten centuries of coexistence with landslides</td>
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<td>Landslide Mapping and Landslide Hazard Assessment in Geyser Valley (Kamchatka, Russia)</td>
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**L28 - Risk management in Multi-hazard environment**

Conveners: Peter Bobrowsky, Salvano Briceno, Peter Lyttle, Giuseppe Delmonaco

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Improve information provision for disaster management: MONITOR II, EU project

WLF2-0526  Yvonne Schaub, Wilfried Haeberli, Christian Huggel, Matthias Künzler and Michael Bründl
Landslides and new lakes in deglaciating areas: a risk management framework

WLF2-0206  Yukni Arifianti, Sukahar Eka Adi Saputra, Arne Hoffman-rothe and Bianca Pischke
Landslide Risk Assessment in Earthquake Prone Area at Kabupaten Ende, Indonesia

WLF2-0246  Jaime Bonachea, Juan Remondo, Viola Maria Bruschi and Antonio Cendrero
Landslide risk models as a tool for predicting future damage

WLF2-0720  Khalida Khan, C. M. Ashraf and Kamran Asif
Preliminary understanding of a sudden Attaabad-landslide hazard and its corresponding Hunza River Watershed, district Hunza-Nagar, Northern Areas of Pakistan
Thursday 6 October

L08 - GIS application developments

Conveners: Serafino Angelini, Esther Jensen, Raffaele De Amicis

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WLF2-0698 Esther Hlíðar Jensen, Jón Kristinn Helgason, Sigurjón Einarsson, Guðrun Sverrisdóttir, Árman Höskuldsson and Björn Oddsson
Lahar, Floods and Debris flows resulting from the 2010 Eruption of Eyjafjallajökull: Observations, Mapping and Modelling

WLF2-0111 Herwig Proske, Klaus Granica and Christian Bauer
Different Approaches of Rockfall Susceptibility Maps in Lower Austria

WLF2-0280 Iuliana Armas, Florica Stroia and Laura Giurgea
Statistic versus deterministic method for landslide susceptibility mapping

WLF2-0452 Eliene Coelho and Luciana Pascarelli
Using the information system and multi-criteria analysis in the geological risk management in São Paulo

WLF2-0482 Mauro Palombella
Maps of Landslide areas with technical GIS: the use of high resolution DTM

WLF2-0415 Carlo Bisci, Domenico Aringoli, Piero Farabollini, Marco Materazzi and Gilberto Pambianchi
Landslide hazard in the Marche Region (Central Italy): a GIS based statistical analysis.

WLF2-0722 Elisa Arnone, Annalisa Di Piazza, Leonardo V. Noto and Goffredo La Loggia
Landslide susceptibility mapping: A comparison of logistic regression and neural networks methods in a small Sicilian catchment

WLF2-0223 Pietro Domenico De Cosmo, Andrea Suma, F. Javier Gracia and Franco Mantovani
Project KNOWLAND - Open Source Software serving real-time landslide mapping and hazard assessment

L09 - Advances in slope modelling

Conveners: Ken Ho, Filippo Catani, Giulio Iovine, Alberto Ledesma

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WLF2-0421 Gianluca Martelloni, Emanuele Massaro and Franco Bagnoli
A theoretical model based on molecular dynamics for triggering and propagation of shallow landslides induced by rainfall

WLF2-0461 Pantaleone De Vita and Michele Nappi
Regional distribution of ash-fall pyroclastic soils for landslide susceptibility assessment

WLF2-0656 Massimo Amodio, Giancarlo Bovina, Massimo Buscema, Luigi Catzola, Alessandro Corsini, Marco Fabrizi, Christian Iasio, Mario Gentili, Volkmar Mair, Claudio Margottini and Markus Sperling
Twisting Theory and RCR MST: A new highly non linear modeling applied to Corvara landslides
WLF2-0324 Veronica Ochoa-tejeda, Jean-françois Parrot and Monique Fort
Mass movement classification using morphometric parameters (Puebla, Mexico)

WLF2-0487 Martín J. Rodríguez Peces, Jorge Yepes Temiño and Esther Martín Nicolau
Geotechnical features of the volcanic rocks related to the Arteara rock avalanche in Gran Canaria (Canary Islands, Spain)

WLF2-0361 Giulio G.r. Iovine, Stefano L. Gariano, Pasquale Iaquinta and Oreste G. Terranova
CMSAKe: a hydrological model to forecasting landslide activations

WLF2-0352 George Papathanassiou, Vasilis Marinos, Dimitris Vogiatzis and Sotiris Valkaniotis
A rock fall analysis study in Parnassos area, Central Greece

WLF2-0363 Oreste G. Terranova, Stefano L. Gariano, Roberto Greco, Pasquale Iaquinta, Annamaria D. Pellegrino and Giulio G.r. Iovine
Shallow-landslide susceptibility in the Costa Viola mountain ridge (Italia)

WLF2-0113 Xu Xiangning, Wang Lansheng and Chen Yuliang
Study of Shock Landslide-type Geomechanical Model Test for Consequent Rock Slope

WLF2-0148 Aline Freitas Da Silva and Lázaro Valentin Zuquette
Landslide hazard assessment based on FS3D combined with an infiltration model

WLF2-0745 Jang, Kyoung-jun Male
The Behavior of Engineered Slope Under Variable Seepage Conditions in Sandy Soils

WLF2-0450 Byung-gon Chae, Kyu-bo Park and Hyuck-jin Park
Analysis of safety factor of an infinite slope considering rainfall and saturation depth ratio of soil

WLF2-0454 Byung-don Ro, O-il Kwon, Hyung-min Kim, Choung-sik Jo and Yong Baek
Development of cut-slope protection/reinforcement method decision-making process system for field engineer

WLF2-0459 Pantaleone De Vita, Durante Aquino and Pietro Bruno Celico
Small-scale factors of landslide susceptibility in pyroclastic soil mantled slopes of Campania (southern Italy): the debris avalanche of 4 March 2005 in Nocera inferiore (SA)

WLF2-0581 Luciana Giuzio, Stefania Pascale and Francesco Sdao
Geomorphological evolution and hazard simulation by an Cellular Automata model of a large and complex landslide near Avigliano urban area (South Italy)

WLF2-0109 Yang Hong, Zonghu Liao, Dalia Kirschbaum and Robert Adler
Regional Landslide Hazard Assessment: Susceptibility Mapping, Predictive Modeling and Early Warning

L10 - Landslides and Socio-economic Impact: Basic Data and Loss Modeling
Conveners: Lynn Highland, Dalia Kirschbaum, Dave Petley

Poster Area
Display Time 08:00–18:00
Author in Attendance: 11:00-12:15

WLF2-0544 Liesbet Vranken, Pieter Van Turnhout, Miet Van Den Eeckhaut, Liesbeth Vandekerckhove and Jean Poesen
Economic Valuation of Landslide Damage in hilly regions: a case study from the Flemish Ardennes, Belgium
WLF2-0301  Sandu Boengiu and Marcel Török
Deep Seated Landslides of Seciurile (Getic Piedmont, Romania) and its Implication for the Settlement

WLF2-0410  Olga Petrucci and Maria Carme Llasat
Impact of disasters in Mediterranean regions: an overview in the framework of the HYMEX project

WLF2-0473  Olga Petrucci and A. Aurora Pasqua
Rainfall-Related Phenomena along a road sector in Calabria (Southern Italy)

WLF2-0198  Narayan Gurung
Impact of Rainfall Induced Landslides in Nepal

WLF2-0585  Surya Parkash Gupta, J.c. Dhondiyal and Om Prakash
Incidence and impacts of some socio-economically significant landslide events in India

**L12 - Landslides and reservoirs**
Conveners: Alexander Strom, Fawu Wang

**Poster Area**
Display Time 08:00–18:00

**Author in Attendance: 16:30-18:00**

WLF2-0442  Pompeo Coico, Domenico Calcaterra, Tommaso De Pippo, Diego Di Martire and Domenico Guida
A preliminary perspective on landslide dams of Campania region, Italy

WLF2-0455  Vladimir Besstrashnov, Anatoliy Zhirkrevich and Alexander Strom
Influence of landslide and glacial blockages on the Rogun HPP safety

WLF2-0550  Laura Superchi, Luca Zorzi, Fabio Ferri, Rinaldo Genevois and Maria Iafelice
A geomechanical evaluation of the rock mass involved in the 1963 Vajont landslide (NE Italy)

WLF2-0194  Vladimir Prokopovich and Tatyana Sozinova
Displacement Calculations of the Waterside Slope after a Seismic Impact

WLF2-0726  Ella Nesynova, Igor Parabuchev and Alexander Yudkevitch
Sliding Phenomena at Zagorsk PSP

WLF2-0478  Jan Klimeš, Vít Vilímek, Miroslava Benešová, Petr Bouška, Cesar Portocarrero and Alejo Cochachin Rapre
Glacial lake outburst flood in the Chuchún watershed, Cordillera Blanca, Peru

WLF2-0182  Isakbek Torgoev, Yuriy Alioshin, Hans-balder Havenith and Alexander Strom
Impact of 3000-t blast on unstable slopes near the Kambarata-2 HPP site, Kyrgyzstan

WLF2-0145  Nikolay Ischuk
The Origin of the Mountain River Closures in Tajikistan

WLF2-0177  Erast Gaziyev
Rock Slope Stability Assessment in the Fernando Hiriart Arch Dam Reservoir

WLF2-0343  Yong Yuan, Qiang Xu and Minggao Tang
Extremely large rock avalanche induced by the “5.12” Wenchuan earthquake, Chaoyang Village, China, 2008

WLF2-0517  Zerkal Oleg, Ischuk Nikolai and Ischuk Anatoly
Baypaza landslide: structure, mechanism of displacement and present conditional
WLF2-0133  Tang Yanchun  
*Analysis and Prediction on Stability of Mu-zhu-ping Slope Based on Coupled Fluid-Solid Theory of ABAQUS*

WLF2-0538  Takashi Saito and Koji Matsunami  
*The initiation processes of huge landslide masses triggered by the Iwate-Miyagi Nairiku Earthquake in the Aratosawa reservoir*

WLF2-0706  Derek Rust, Andrey Korjenkov and Alessandro Tibaldi  
*Reservoirs and landslide-dammed lakes along the Talas-Fergana fault, central Tien-Shan mountains, Kyrgyzstan: assessing hazard potential*

WLF2-0112  Shuai Zhang  
*Risk Assessment of geological disasters happened in Hydropower Project using GIS*

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**L14 - Landslides (and legislation), policies, cost benefit analysis and decision makers**

Conveners: Raoul Carreno, Giuliano Di Baldassarre, Tiziana Guida

**Poster Area**

Display Time 08:00–18:00

Author in Attendance: 16:30-18:00

WLF2-0244  Boualem El Kechebour  
*Setback distance between natural slope and building along the RN8 in Algeria*

WLF2-0456  Raluca Maftei, Elena Tudor, George Vina and Constantina Porumbescu  
*The policy issue of landslides in Romania*

WLF2-0570  Jan Klimeš, Stanislav Štábl, Josef Stemberk and Dušan Dufka  
*NEMETON - decision support system for rockfall and rock slide hazard mitigation*

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**L15 - Landslides and urban risk reduction**

Conveners: Domenico Calcaterra, C.F. Lee

**Poster Area**

Display Time 08:00–18:00

Author in Attendance: 16:30-18:00

WLF2-0239  Yuriy Aleshin and Isakbek Torgoev  
*Algorithmization of landslide prediction based on neural network modelling*

WLF2-0430  José Daniel Brea, Pablo Spalletti and Gabriel Amores  
*The 2006 and 2009 landslide and flood events in the Tartagal river basin (Argentina)*

WLF2-0611  Martin Krkač, Pavle Ferić, Laszlo Podolszki and Aleksandar Toševski  
*Japanese - Croatian Project: Preliminary Investigations of the Kostanjek Landslide*

WLF2-0252  Ylber Muceku and Mentor Lamaj  
*Mass movement and risk assessment in Kruja town, Albania*

WLF2-0451  Luciana Pascarelli, Rafaela Lançone, Rodrigo Costa, Luiz Pires, Eduardo Macedo, Fabricio Miranda, Fabiana Chechchinato and Katia Canil  
*Mapping of geological at-risk areas in the city of São Paulo: issues and results from the largest survey of risk in Brazil*

WLF2-0510  Giandomenico Fubelli, Francesco Dramis, Domenico Guida and Antonello Cestari  
*Landslide Hazard and Risk in the Dessie Town Area (Ethiopia)*
WLF2-0605   Fabio Cafiso  
New technologies employed in studying, monitoring and stabilization of San Fratello landslide

WLF2-0285   Joan Torrebadella, Joan Altimir and Ivan Villaró  
El Forn landslide (Andorra), an example of geological risk management in large sliding inhabited areas

**L17 - Advanced technologies for landslide stabilisation**  
Conveners: Paul Marinos, Paolo Tommasi

**Poster Area**  
Display Time 08:00–18:00  
Author in Attendance: 16:30-18:00

WLF2-0480   Martín J. Rodríguez Peces, José M. Azañón, Julián García Mayordomo, Emilia Troncoso and Meaza Tsige  
Effectiveness of deep drainage wells as a slope stabilization measure: the reactivation of the Diezma landslide (Southern Spain)

WLF2-0332   Xinli Hu, Huiming Tang and Chunguang Zhang  
Effectiveness of Anti-sliding Piles for Wulidui landslide under Rainfall Condition

WLF2-0130   Yangqing Xu  
Research on the Mechanism and Mitigation for an old Landslide Reactivated by Underground Coal Ming

WLF2-0453   Valeriy Tishin  
Methods of the Ulianovsk City landslide-prone slopes stabilization

WLF2-0776   M. Balducci, L. Faralli, C. Olivanti and L. D. Venanti  
The large Acqualoreto landslide (Umbria, Italy): stabilization projects through integrated use of innovative and consolidates techniques

WLF2-0344   Catherine Tatarniuk and Elisabeth Bowman  
Case Study of a Road Embankment Failure Mitigated Using Deep Soil Mixing

WLF2-0719   Claudio Oggeri and Chiara Ronco  
Design criteria of reinforced embankmens for rockfall protection on the base of Eurocodes and national technical law

WLF2-0613   Claudio Margottini  
Low environmental impact consolidation works in the rock cliff of Civita di Bagnoregio (Central Italy)
Friday 7 October

**L03 - Wildfires and slope instability**
Conveners: Jerome De Graff, Susan Cannon, Pieter Van Lierop, Mario Parise

**Poster Area**
Display Time 08:00–18:00
Author in Attendance: 11:00-12:15

- **WLF2-0504** Constantina Tsagari, Nikolaos Proutsos and George Karetos
  *Quantified weather effect on wildfires in Greece*

- **WLF2-0594** Kerry Riley and Jennifer Pierce
  *A 10,000 year record of fire activity and fire-related sedimentation in the Middle Fork Salmon River, Idaho, USA*

**L07 - Landslide instrumentation and monitoring**
Conveners: Rajendra K. Bandari, Leonardo Cascini, Dario Peduto

**Poster Area**
Display Time 08:00–18:00
Author in Attendance: 11:00-12:15

- **WLF2-0469** Roberta Prokešová, Alžbeta Medveďová and Zora Snopková
  *Landslides and hydro-climatic conditions in the Hutná catchment area (Central Slovakia)*

- **WLF2-0505** Mateja Jemec, Magda Carman and Marko Komac
  *Assessing of spatio-temporal factors influencing landslides using PSInSAR*

- **WLF2-0307** Gen Furuya, Tatsuo Katayama, Akira Suemine, Takayuki Kozato, Takahiro Watanabe and Hideaki Marui
  *Application of the Frequency Domain Electromagnetic Method survey in a landslide area*

- **WLF2-0708** Biljana Abolmasov and Aleksandar Ristić
  *Applying GPR and 2D ERT for characterization shallow landslides-a case study*

- **WLF2-0264** Hamza Reci, Ylber Muceku and Idriz Jata
  *The Use of ERT for Investigation of Berzhiba Landslide, Tirana Area, Albania*

- **WLF2-0387** Elisa Damiano, Daniele Giordan, Paolo Allasia, Marco Baldo, Nicola Sciarra and Giorgio Lollino
  *Multitemporal study of the San Martino Sulla Marrucina landslide (Central Italy)*

- **WLF2-0470** Biljana Abolmasov and Svetozar Milenkovic
  *Landslide Umka – The First Automated Monitoring Project in Serbia*

- **WLF2-0160** Domenico Denora, Lia Romano and Giulia Cecaro
  *Terrestrial laser scanning for the Montaguto landslide (Southern Italy)*

- **WLF2-0242** Ahmed Bennia, S.K. Srivastav and R.S Chatterjee
  *Groundwater investigations using optical and microwave remote sensing data in Solani watershed, India*

- **WLF2-0759** Gianluca Marcato, Martina Stefani, Matteo Mantovani, Alessandro Pasuto, Volkmar Mair and Ludwig Noessin
  *The Ganderberg Landslide (South Tyrol, Italy): mitigation of residual risk by real-time monitoring*
WLF2-0213 Mirco Motta, Fabio Gabrieli, Alessandro Corsini, Vinicio Manzi and Francesco Ronchetti
Landslide displacement monitoring from multi-temporal terrestrial digital images. Case of the Valoria landslide site

WLF2-0164 Francesco Castelli and Valentina Lentini
Landsliding events triggered by rainfalls in the Enna area (South Italy)

WLF2-0234 Ksenia Fedotova, German Postoev and Andrey Kazeev
An experimental landslide monitoring on a project of Olympic building “Sochi-2014”

WLF2-0677 Gianfranco Marchi, Gianluca Benedetti, Michela Marchi and Guido Gottardi
Long-term monitoring and analysis of slow slope movements in the Northern Apennines

WLF2-0746 Jang, Kyung-jun Male
The Behavior of Engineered Slope Under Variable Seepage Conditions in Sandy Soils

WLF2-0215 Nicholas Sabatakakis, Spyridon Lainas and Natalia Spanou
Inclinometer monitoring of extensive landslide zones affecting infrastructures. Case studies from Western Greece.

WLF2-0435 Željko Arbanas, Vedrana Vratanja, Petra Domljić and Martina Vivoda
Remedial works on the Smrečje Landslide, Croatia

WLF2-0481 Diego Di Martire, Massimo Ramondini and Domenico Calcaterra
Landslide-related PS data interpretation by means of different techniques

WLF2-0376 Stefano Devoto, Emanuele Forte, Matteo Mantovani, Arianna Mocnik, Alessandro Pasuto, Daniela Piacentini and Mauro Soldati
Integrated monitoring of lateral spreading phenomena along the north-west coast of the Island of Malta

WLF2-0404 Caterina Di Maio, Roberto Vassallo, Margherita Vallario, Stefano Calcaterra and Piera Gambino
Surface and deep displacements evaluated by GPS and inclinometers in a clayey slope

WLF2-0276 Loredana Antronico, Luigi Borrelli, Dario Peduto, Gianfranco Fornaro, Giovanni Gullà, Luca Paglia and Giovanni Zeni
Conventional and innovative techniques for the monitoring of displacements in landslide affected areas

WLF2-0753 Jose A. Palenzuela, Clemente Irigaray, Jorge D. Jiménez-perálvarez and José Chacón
Application of Terrestrial Laser Scanner to the assessment of the evolution of diachronic landslides

WLF2-0140 Vladimir Greif and Jan Vlcko
Application of the PS-InSAR technique for the post-failure landslide deformation monitoring at Lubietova site in Central Slovakia

WLF2-0380 Juan Carlos García López-davalillo, Gerardo Herrera García, Davide Notti, Mario Hernández Ruiz, Jose Antonio Fernández Merodo, Inmaculada Álvarez Fernández and Celestino González Nicieza
InSAR data for mapping and monitoring of landslides in Tena Valley

WLF2-0767 Enzo Novello, Corrado Faletto and Paolo Tible
The case history of the Bagnaschino landslide, from Early Warning to site specific rainfall threshold

WLF2-0157 Svetozar Milenkovic, Branko Jelisavac and Vladeta Vujanic
Monitoring of the “Razanj” Landslide in Serbia
WLF2-0800  Hong Zhao
Landslide forecasting and early warning system

L23 - Landslides in coastal areas
Conveners: Vincenzo Liguori, Crescenzo Violante

Poster Area
Display Time 08:00–18:00
Author in Attendance: 09:00-10:30

WLF2-0569  Domenico Aringoli, Marcello Buccolini, Bernardino Gentili, Materazzi Marco, Gilberto Pambianchi and Nicola Sciarra
Large landslides in sea-cliff areas of the central Adriatic coast (Italy)

WLF2-0418  Sabina Porfido, Eliana Esposito, Flavia Molisso, Marco Sacchi and Crescenzo Violante
Flood historical data for flood risk estimation in coastal areas, Eastern Tyrrhenian Sea, Italy

WLF2-0529  Micla Pennetta and Elio Lo Russo
Landslides in sea cliffs along the Capri island coasts (Gulf of Naples, Italy)

L29 - Rapid landslide runout analysis
Conveners: Claudio Scavia, Marina Pirulli

Poster Area
Display Time 08:00–18:00
Author in Attendance: 11:00-12:15

WLF2-0547  Rosanna Sosio, Giovanni B. Crosta, Joanna H. Chen and Oldrich Hungr
Runout prediction of rock avalanches in volcanic and glacial terrains

WLF2-0773  Renato Eugenia De Lima
New approach to rapid risk evaluation in recent disasters related to landslides in Brazil

WLF2-0181  Aly Ahmed, Keizo Ugai, Fei Cai, Qingqing Yang and Masao Yamada
Model Experiments to Investigate the Mechanism of Rock Avalanches Induced by Earthquake

WLF2-0798  Tuba Zahra, Cees van Westen and Oguchi Takashi
Application of Numerical Modelling in Landslide Runout: A Review

WLF2-0684  Jose Cepeda, Manuel Diaz and Dolores Ferres
Post-triggering influence of intense precipitation on highly mobile landslides
# Internal Meetings

**Monday, 3 October 2011**

**German Room**

08:00-09:30 6th Session of IPL-GPC

**Tuesday, 4 October 2011**

**Nigeria Room**

09:30-12:00 IAEG - Italian Section - Meeting of Management Committee

**Wednesday, 5 October 2011**

**India Room**

09:00-12:30 ICL Secretarial meeting

**Nigeria Room**

08:30-13:30 PLANALP - 13th meeting

**German Room**

13:30-18:00 10th ICL-BOR

**Nigeria Room**

14:30-17:30 JTC1: Natural Slopes and Landslides

**Ethiopia Room**

14:30-18:00 C.E.R.G. - General Assembly

# Side Events

**Monday, 3 October 2011**

**Iran Room**

12:00-14:00 FAO-Food for the Cities multi-disciplinary initiative, “World Habitat Day 2011: Cities and Climate change”

**Wednesday, 5 October 2011**

**Malaysia Room**

09:00-12:30 EuroGeoSurveys The Geological Surveys of Europe

14:00-18:00 PanGeo Product Compilation Training Day

**Friday, 7 October 2011**

**India Room**

09:00-12:30 Safeland Project
Short Courses

Tuesday, 4 October 2011

India Room

09:30-13:30  Studio Prof. MARCHETTI s.r.l.  
The Seismic Dilatometer (SDMT) for detecting Slip Surfaces of landslides

India Room

14:30-16:00  NHAZCA  
Cellular Automata modelling of landslides

Wednesday, 5 October 2011

India Room

14:30-18:00  ITT Visual Information Solution  
Paola Filippi e Stefano Gagliano - Adding Image Analysis to Your Workflows

Iran Room

14:30-18:00  LEICA Geosystem  
Prof. G. Crosta - Landslide characterisation, risk assessment and mitigation countermeasures  
L. H Blikra - The observational method: instrumental choices and objectives  
M. Di Mauro - Project of a surface EW monitoring system  
T. Rosset - Project of a geotechnical EW in place monitoring system  
G. Mannucci, L. Dei Cas - Management, maintenance and contractual aspects  
L. Blikra, S. Cardellini, A. Tamburini - Early Warning systems: the case histories of Aknes (Norway), Ancona (Italy) and “La Saxe” (Italy)  
R. Supper, G. Moser, W. Gasperl, A. Corsini - From landslide characterisation to the classification of the site for Early Warning: the case histories of Gsölfgraben (Austria) and the case of Emilia Romagna region (Italy)

Austria Room

14:30-18:00  Prati Armati S.r.l. - Contro la desertificazione e l’erosione dei suoli  
Soil protection by natural long-lasting techniques: preventing erosion and contributing to maintenance of stabilized landslide

Philippines Room

15:00-16:00  CODEVINTEC  
Latest - integrated - high precision technologies for Landslide monitoring

Thursday, 6 October 2011

India Room

11:00-13:00  NHAZCA  
Landslide monitoring by Terrestrial SAR Interferometry: theory and practice
Closing Ceremony

14:30 – 16:00 Round table discussion: major achievements in WLF2
Moderator: Dr. Wolfgan EDER, Technical advisor of ICL
Discussion leader: Prof. Luciano PICARELLI, Joint Technical Committee on Landslides and Engineered slopes - JTC1
oppure Editorial Board of the journal Landslides

Panelists

Prof. Filippo CATANI, University of Florence
Prof. Jordi COROMINAS, Universitat Politècnica de Catalunya, Barcelona
Dr. Javier HERVAS, Joint Research Centre - European Commission
Dr. Ed HARP, USGS, USA
Dr. Lynn HIGHLAND, USGS, USA
Prof. Yoshinori IWASAKY, Geo-Research Institute, Osaka
Prof. Ken HO, Hong Kong Geotechnical Engineering Office
Dr. Thomas HOFER, Forestry Department, FAO
Dr. Dalia KIRSCHBAUM, NASA
Dr. Claudio MARGOTTINI, Chairperson of the Second World Landslide Forum
Prof. Paul MARINOS, National Technical University of Athens
Prof. Dave PETLEY, Durham University
Prof. Kyoji SASSA, Japan, Executive Director International Consortium on Landslides
Prof. Gabriele SCARASCIA MUGNOZZA, University La Sapienza, Rome
Prof. Alexander STROM, Institute of Geospheres Dynamics, Russian Academy of Sciences, Moscow
Prof. Jan VLCKO, Comenius University, Slovak Republic

16:00 - 16:30 Coffee Break
16:30 - 18:00 Closing ceremony

Moderators:
Prof. Paolo CANUTI, President of International Consortium on Landslides
Prof. Kyoji SASSA, Japan, Executive Director International Consortium on Landslides

Review of the first decade of ICL and IPL 2002-2012
and Toward the second decade of ICL and IPL 2012-2022
Supports to ICL and IPL from supporting organizations and governments
Introduction and certificates to five new ICL members
Introduction of officers of ICL in the next term
Best exhibition award
Invitation to Next Forum in Beijing 2014
Dr. Yueping YIN, China Geological Survey, Chair of WLF3
Organisers
The Second World Landslide Forum is organized by the Global Promotion Committee of the International Programme on Landslides (IPL).
IPL is a thematic platform on Landslides with UNISDR, promoting landslide research and capacity building for the benefit of society and the environment and including ICL, UNESCO, FAO, UNISDR, WMO, UNU, ICSU, WFEO, IUGS and many research and land management institutions.

Involved Institutions

Organisers
IPL Global Promotion Committee including:
- International Consortium on Landslides (ICL)
- United Nations Educational, Scientific and Cultural Organization (UNESCO)
- World Meteorological Organization (WMO)
- Food and Agriculture Organization of the United Nations (FAO)
- United Nations International Strategy for Disaster Risk Reduction (UNISDR)
- United Nations University (UNU)
- International Council for Science (ICSU)
- World Federation of Engineering Organizations (WFEO)
- Italian Institute for Environmental Protection and Research (ISPRA)
- Earth Sciences Department, University of Florence (ICL-Europe)

Co-sponsors
- International Union of Geological Sciences (IUGS)

Under the auspices of
- International Association for Engineering Geology and the Environment, Italian Section (IAEG)
- Italian Association of Engineering Geologist (AIGA)
- Italian Association of Geotechnique (AGI)
- Italian Association for Mining Engineers, Environment and Territory (ANIM)
- Italian Georesources and Environment Association (GEAM)

International Organising Board
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- Catherine BRECHIGNAC (ICSU President)
- Jacques DIOUF (FAO Director-General) invited
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- Maria P. LAFFARGUE (WFEO President)
- Konrad OSTERWALDER (UNU Rector)
- Bernardo DE BERNARDINIS (ISPRA President)
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Howard MOORE (Senior Advisor, International Council for Science - ICSU)
Pedro SECO E PINTO (Past President of International Society for Soil Mechanics and Geotechnical Engineering - ISSMGE)
Luciano PICARELLI (Chairperson of the Joint Technical Committee on Landslides and Engineered slopes - JTC1 of ISSMGE, ISRM, IAEG)
Abstract Book of the Second World Landslide Forum 3-9 October 2011, Rome XI
Kaoru TAKARA (Vice chairperson of the Intergovernmental Council of the International Hydrological Programme of UNESCO - IHP)
Kuniyoshi TAKEUCHI (President of GeoRisk Commission of International Union of Geodesy and Geophysics - IUGG)
Landslide experts

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R.K. BHANDARI (Consultant, India)
Christophe BONNARD (Swiss Federal Institute of Technology, Lausanne, Switzerland)
Nicola CASAGLI (University of Florence, Italy)
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Jordi COROMINAS (Technical University of Catalonia, Barcelona, Spain)
Dave CRUDEN (University of Alberta, Edmonton, Alberta, Canada)
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Alexander STROM (Institute of Geospheres Dinamics, RAS, Moscow, Russia)
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Secretariat
ISPRa, Italian Institute for Environmental Protection and Research
Contact: secretariat@wlf2.org - Website: www.wlf2.org

Press Office
Press Office: +39.0650072394
e-mail: stampa@isprambiente.it

Cristina Pacciani: +39.3290054756 (Press Officer in Chief)
Alessandra Lasco: +39.3476007309 (Italian Press)
Filippo Pala: +39.3469719807 (International Press)
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