International Symposium
Rock Slope Stability 2016

Program

From 15 to 17 November 2016
FRTP Rhône-Alpes
23 avenue Condorcet – 69616 Villeurbanne (France)
Partners of the Symposium:

Symposium organized with the support from:

Photos credits: CEREMA, Géolithe, GTS, IMSRN, IRSTEA

From 15 to 17 November, 2016 (FRTP Rhône-Alpes)
General overview

Tuesday 15 November 2016

08:30am Welcome of the participants
09:00am Opening
09:30am  
Keynote "An integrated remote sensing-numerical modelling approach to rock slope stability" (Auditorium - Main Floor)
10:10am Coffee-break (Main Floor)
10:30am  
Session 1 - Protective structure design n°1 (Auditorium - Main Floor)
12:30pm Lunch (Main Floor)
02:00pm  
Keynote "An overview of EDF recent protective works against rockfalls with a focus on the risk evaluation" (Auditorium - Main Floor)
02:40pm  
Session 2A - Protective structure design n°2 (Auditorium - Main Floor)
Session 2B - Case study n°1 (Room Carnot - 4th Floor)
04:20pm Coffee-break (Main Floor)
04:40pm  
Session 3A - Protective structure design n°3 (Auditorium - Main Floor)
Session 3B - Case study n°2 (Room Carnot - 4th Floor)
06:20pm End of the day

Wednesday 16 November 2016

08:30am Keynote "The Chambon landslide" (Auditorium - Main Floor)
09:10am  
Session 4A - Rockfall analysis n°1 (Auditorium - Main Floor)
Session 4B - Risk analysis (Room Carnot - 4th Floor)
10:30am Coffee-break (Main Floor)
10:50am  
Session 5A - Rockfall analysis n°2 (Auditorium - Main Floor)
Session 5B - Trajectography analysis n°1 (Room Carnot - 4th Floor)
12:50pm Lunch (5th Floor)
02:00pm Technical Session (Auditorium - Main Floor / 4th Floor)
05:00pm End of the day
08:00pm Symposium banquet
11:00pm End of the Symposium banquet

Thursday 17 November 2016

09:00am Keynote "Geotechnical risk management for highways of Morocco" (Auditorium - Main Floor)
09:40am  
Session 6A - Rockfall analysis n°3 (Auditorium - Main Floor)
Session 6B - In-situ instrumentation and survey n°1 (Room Carnot - 4th Floor)
10:40am Coffee-break (Main Floor)
11:00am  
Session 7A - In-situ instrumentation and survey n°2 (Auditorium - Main Floor)
Session 7B - Miscellaneous topics (Room Carnot - 4th Floor)
12:40pm Lunch (Main Floor)
02:00pm Session 8 - Trajectography analysis n°2 (Auditorium - Main Floor)
04:00pm Closing
04:30pm End of the Symposium
Tuesday 15 November 2016

08:30am Welcome of the participants

09:00am Opening

09:30am Keynote “An integrated remote sensing-numerical modelling approach to rock slope stability” - Doug Stead, S. Fraser University - Canada (Auditorium - Main Floor) Chairman: Félix Darve (L3SR)

10:10am Coffee-break (Main Floor)

10:30am Session 1 - Protective structure design n°1 (Auditorium - Main Floor) Chairman: Nicolas Villard (GTS)
   10:30am Combined rockfall and snow avalanche protection measures on Klein Matterhorn (Switzerland): innovative concept and challenging setting-up at 4000 m a.s.l. - Pierre Dalban Canassy, Geotest AG (Swiss)
   10:50am Real-scale tests on reinforced Earth retaining bund impacted by a spherical projectile at energies up to 800kJ - Patrick Joffrin, IFSTTAR (France)
   11:10am Investigating the behaviour of existing rockfall protection barriers - Laura Govoni, University of Bologna (Italy)
   11:30am Instrumentation and analysis of full-scale tests in failing rock protection barriers - Laura Castaño-Jano, GITECO (Spain)
   11:50am Efficiency of flexible structures against small landslides - Stéphane Lambert, IRSTEA (France)
   12:10pm The influence of bloc rotation on the design of rockfall protection embankments - Bernd Kister, Lucerne University of Applied Sciences and Arts (Swiss)

12:30pm Lunch (Main Floor)

02:00pm Keynote “An overview of EDF recent protective works against rockfalls with a focus on the risk evaluation” - Patrick Divoux, EDF CH (France) (Auditorium - Main Floor) Chairman: François Nicot (IRSTEA)

02:40pm Session 2A - Protective structure design n°2 (Auditorium - Main Floor) Chairman: Stéphane Lambert (IRSTEA)
   02:40pm From local properties to global behaviour of rockfall barriers - Cyril Doutche, IFSTTAR (France)
   03:00pm Generic modelling of rockfall catch fences under impacts - Jibril Coulibaly, Cerema (France)
   03:20pm Dynamic non-destructive evaluation of rock anchorage - François Wilquin, Rinent ND Applications (France)
   03:40pm Tree-anchored rockfall fences: experimental and numerical studies - Ignacio Olmedo, GTS (France)
   04:00pm ELITE® facing system: a new approach for superficial rock slope stabilization - Philippe Robit, GTS (France)

02:40pm Session 2B - Case study n°1 (Room Carnot - 4th Floor) Chairman: Philippe Robit (GTS)
   02:40pm Methodology for numerical simulation of Tolosa rock avalanche in Argentina - Dominique Doudon, L3SR (France)
   03:00pm Microseismic and meteorological monitoring of Séchélinene (French Alps) rock slope destabilization - Stella Coccia, INERIS (France)
   03:20pm The Chambon (Isère, France) landslide (2015) and its consequences - Alexandre Mathy, SAGE (France)
   03:40pm Optimization of a rockfall protection embankment above the A43 highway - Comité Hautvaux, Géolithe (France)
   04:00pm Securing the cliff of Bon Voyage - NICE - A case study of 3D Laser scan contribution in an urban blasting - Tristan Bousin, Géolithe (France)

04:20pm Coffee-break sponsored by ECORISQ (Main Floor)

04:40pm Session 3A - Protective structure design n°3 (Auditorium - Main Floor)
   Chairman: Julien Baroth (Université Grenoble Alpes)
   04:40pm Rock debris flow mitigation using flexible structures - Nicolas Villard, GTS (France)
   05:00pm Rockfall impact load dissipation within a cushion made of a granular material - Mathieu Feregofto, Cerema (France)
   05:20pm Investigating the effectiveness of semi-rigid protection fences - Laura Govoni, University of Bologna (Italy)
   05:40pm Flexible slope stabilization systems: the experience in the use of high performance membranes reinforced with horizontal cables - Juan Antonio Torres, 3S GEOTECNIA Y TECNOLOGIA (Spain)
   06:00pm Rapid Response to Past Fire Debris Flow Event - Laura Coliffe, KaneGeotech (USA)

04:40pm Session 3B - Case study n°2 (Room Carnot - 4th Floor) Chairman: Jean-Pierre Rajot (IFSTTAR)
   04:40pm Monitoring of a rockslide until failure (Gorges de l’Arly, Savoie, France) - Lionel Lorier (France)
   05:00pm Works for securing an underground fort - La Roque Gageac (France) - Marc Veli, CAN (France)
   05:20pm Mont Saint-Michel : Unusual rock slope assessment & mitigation option using CE rockfall barrier - Nicolas Villard, GTS (France)
   05:40pm Reinforcement of the face cutting of the tunnel of Djebel El-Kantour (highway east-west, Algeria) - Salah Messast, University of Skikda (Algeria)
   06:00pm Palonn bank reinforcement - Nice - A case study of extensive investigations and observational method application - André Squilacci, Géolithe (France)

06:20pm End of the day
Wednesday 16 November 2016

08:30am  Keynote “The Chambon landslide” - Laurent Dubois, Cerema - France (Auditorium - Main Floor)
Chairman : François Nicot (IRSTEA)

09:10am  Session 4A - Rockfall analysis n°1 (Auditorium - Main Floor) Chairman: Muriel Gasc (CEREMA)
09:10am  Predicted of the behaviour of landslide in schist area - Florent Prunier, INSA Lyon (Algeria)
09:30am  Influence of meteorological factors on rock fall frequency - Didier Hantz, IsTerre (France)
10:10am  Root architecture and growth of candidate plants to stabilize marly embankments of the Fez-Taza motorway (Morocco) - Aicha Mouisat, Hassan II Institute of Agronomy and Veterinary Medicine (Maroc)

09:10am  Session 4B - Risk analysis (Room Carnot - 4th Floor) Chairman: Magali Huteau (SNCF Réseau)
09:10am  Building a road in a cliff: the case study of the Chambon road - Jean-Michel Paulik, Hydrokarst (France)
09:30am  Indirect Vulnerability Assessment for transport infrastructures: assessment of constraints on roads exposed to rockfalls - Jean-Marc Tacnet, IRSTEA (France)

10:30am  Coffee-break sponsored by IMSRN (Main Floor)

10:50am  Session 5A - Rockfall analysis n°2 (Auditorium - Main Floor)
Chairman: Denis Jongmans (Université Grenoble Alpes)
10:50am  Discrete modelling of rock impact on trees to improve forest integration into trajectory analysis tools - Franck Bourrier, IRSTEA (France)
11:10am  Contribution in the management of risk undermined rock slope - Marwan Al Heib, INERIS (France)
11:30am  Monitoring unstable rock cliffs using seismic base noise level – Pierre Serbource, Myots (France)
12:10pm  Multidisciplinary approach for rock slope analysis - Magali Frayssines, EGIS (France)
12:30pm  Coupling of geophysical methods for weathered rock masses characterization in railway field (Morlaix railway cutting case study) - Ludivine Sadeski, ADRGT (France)

10:50am  Session 5B - Trajectography analysis n°1 (Room Carnot - 4th Floor)
Chairman: Marie-Aurélie Chanut (Cerema)
10:50am  Discrete modelling of rock impact on trees to improve forest integration into trajectory analysis tools - Franck Bourrier, IRSTEA (France)
11:10am  Using trajectory analysis tools for embankments design - Rémy Martin, ONF-RTM (France)
11:30am  Significance of digital elevation model resolution for numerical rockfall simulations - Yves Bühler, WSL Institute for Snow and Avalanche Research SLF (Swiss)
11:50am  The RAMMS: Rockfall Model - Marc Christen, WSL Institute for Snow and Avalanche Research SLF (Swiss)
12:10pm  Analysis of rock block fragmentation by means of real-scale tests - Roger Ruiz-Carulla, University of Catalunya (Spain)
12:50pm  Lunch (5th Floor)

02:00pm  Technical Session (Auditorium - Main Floor / 4th Floor)
Technical Exhibition (4th Floor):
- Autoroutes du Maroc, Avaroc, CAN, Cerema, GEOBRUGG, Géolithe, GEOPRAEVENT, GTS, Istrea, Maccaferti, Sisgeo, Terre Armée
Free talks (Auditorium – Main Floor)
- IMSRN (02:30pm)
- Autoroutes du Maroc (03:00pm)
- French National Project C2ROP (03:30pm)
Poster session (Room Carnot – 4th Floor)

05:00pm  End of the day

08:00pm  Symposium banquet (see map attached with the program)

11:00pm  End of the Symposium banquet

From 15 to 17 November, 2016 [FRTP Rhône-Alpes]
Thursday 17 November 2016

09:00am  Keynote “Geotechnical risk management for highways of Morocco” - Abdelkrim Derradji, Autoroutes du Maroc (Auditorium - Main Floor) Chairman: Denis Fabre (CNAM)

09:40am  Session 6A - Rockfall analysis n°3 (Auditorium - Main Floor) Chairman: Stiven Cuervo (IMSRN)
  09:40am  Topographic surveillance of a rockfall with a 3D Terrestrial Laser Scanner - Jean-Philippe Janin, Géolithe (France)
  10:00am  Rockfall frequency in different geomorphological conditions - Didier Hantz, IsTerre (France)
  10:20am  The small rock avalanche of January 9, 2016 from the calcareous NW pillar of the iconic Mont Granier (1933 m a.s.l., French Alps) - Ludovic Ravanel, University of Savoie Mont-Blanc (France)

09:40pm  Session 6B - In-situ instrumentation and survey n°1 (Room Carnot - 4th Floor) Chairman: Véronique Merrien (CNAM)
  09:40am  UAV systems for linear outcrop inspection - Pierre Assali, SNCF Réseau (France)
  10:00am  The use of seismic noise for assessing the rock-fall hazard on cliffs - Denis Jongsman, IsTerre (France)

10:40pm  Coffee-break sponsored by ECORISQ (Main Floor)

11:00am  Session 7A - In-situ instrumentation and survey n°2 (Auditorium - Main Floor) Chairman: Thomas Berger (Géolithe)
  11:00am  A new technology for monitoring the geometry of critical structures and areas: to a rock slope application - Alexandre Paléologue, CEA (France)
  11:20am  Survey optimization to size reinforcement in Rock-cutting - Magali Huteau, SNCF Réseau (France)
  11:40am  Development of a wireless network for rock mass deformation monitoring in Montserrat massif - Marc Janeras, ICGR (Spain)
  12:00am  Comparison of lasergrammetry and photogrammetry for rock walls diagnosis and monitoring - Quentin Barbier, Géolithe (France)
  12:20am  A cost-efficient approach to monitor rockfall activity over large areas using non-permanent single-camera system - Julien Traveletti, Bureau d'Études Géologiques (Swiss)

11:00am  Session 7B - Miscellaneous topics (Room Carnot - 4th Floor) Chairman: Denis Fabre (CNAM)
  11:00am  A quick method to evaluate the optimum mesh type for remediation of unstable rock and soil slopes - Alberto Grimod, MACCAFERRI (France)
  11:20am  A method of rockfall protection in municipal monument reserve – a case study from medieval town Tabor, South Bohemia - Petr Olisar, Arcadis (Czech Republic)
  11:40am  Rock fall hazard Benchmark based on a slope cutting in Ax-les-Thermes – Véronique Mentien-Soukatchoff, Cerema (France)
  12:00am  Assessment of the slope stability of the deep road cuts excavated during the construction of Anamur – Kaledran state road assessment of the slope stability of the deep road cuts excavated during the construction of Anamur – Kaledran state road – Tokgözoğlu Kırışat, Yuksel Proje International CO (Turkey)
  12:20am  Ground pressure calculation over flexible membranes for slope stabilization systems through rational geotechnical models - Juan Antonio Torres, 3S GEOTECNIA Y TECNOLOGIA (Spain)

12:40pm  Lunch (Main Floor)

02:00pm  Session 8 - Trajectography analysis n°2 (Auditorium - Main Floor) Chairman: Franck Bourrier (IRSTEA)
  02:00pm  A comparison between DEM and MPM for the modelling of unsteady flow - Fabio Gracia, IMSRN (France)
  02:20pm  Restitution Coefficients and Roughness Parameters for Non-Smooth Rigid Body Rockfall Modelling - Perry Bartelt, WSL Institute for Snow and Avalanche Research SLF (Swiss)
  02:40pm  Non-smooth contact mechanics exposed: Detailed insights of rock-ground interactions - Andrin Caviezel, WSL Institute for Snow and Avalanche Research SLF (Swiss)
  03:00pm  Assessment of rockfall hazard in open-pit coal mines: practical application - Federica Ferrari, University of Newcastle (Australia)
  03:20pm  Measuring rockfall motion - Axel Wolkwein, Swiss Federal Research Institute WSL (Swiss)
  03:40pm  The effect of forests on rockfall occurrence frequency - Christine Moos, University of Applied Science (Swiss)

04:00pm  Closing

04:30pm  End of the Symposium

From 15 to 17 November, 2016 (FRTP Rhône-Alpes)
Banquet venue

Departure and return level with 16 quai Claude Bernard – LYON 7e.
Left bank of the Rhône, next to the Pont de l’Université bridge
LyonCityBoat - Hermès

Access via public transport:
Number 35 bus: Stop « Rue de l’Université »
T1 Tram: Stop « Quai Claude Bernard »

Car parks:
Lyon Parc Auto Antonin Poncet
Lyon Parc Auto Berthelot
Lyon Parc Auto Fosse aux ours

Please arrive at 8pm. The boat will leave at 8.30pm and it will not be possible to wait for latecomers. The boat will return at 11pm.

Due to a seating limit, please note that the banquet is only for professionals, academics and students who made a registration with banquet included!