



FINAL PROGRAMME

Day 1 - Wednesday 21st of November 2018

- 8:45 – 9:30 Welcome / Registration
- 9:30 – 9:50 **Opening speech** by Ineris, GeoRessources & Andra
- 9:50 – 10:30 **Opening Keynote Presentation** on the Technical challenges of *in situ* stress measurements - O. Stephansson (Germany)

Session 1: Stress measurement Tools - Chairman: Prof. M. Ask

- 10:30 – 11:00 **Invited talk** - LVDT cell method – quality control of *in situ* stress measurements - M. Hakala (SMCOY, Finland)
- 11:00 – 11:20 Experience of using the ANZI strain cell for overcore measurements and stress change monitoring – K. Mills & J. Puller (SCT Operations, Australia)
- 11:20 – 11:40 Towards a 3D shrinkage measurement in concrete using an embedded strain sensor – Y. Lecieux, C. Lupi, D. Leduc, M François, E. Roziere (U. Nantes, France)
- 11:40 – 12:15 Briefing, questions and free exchanges

LUNCH between 12:15 and 13:30

Session 2: Case Studies - Chairman: Dr Y. Gunzburger

- 13:30 – 14:00 **Invited talk** - An overview of 15 years of stress measurements performed at the Meuse /Haute-Marne Underground research laboratory – G. Armand & E. Huret (Andra, France)
- 14:00 – 14:20 Integration of induced seismicity, stress relief and hydraulic methods for stress measurements in crystalline rocks – H. Krietsch, V. Gischtig, K. Evans, J. Doetsch, B. Valley, A. Florian (ETH Zurich, Switzerland)



- 14:20 – 14:40 Stress measurement and monitoring in a deep mine for rockburst prevention – A. Tonnellier & V. Renaud (Ineris, France)
- 14:40 – 15:00 Influence of thermal stress on borehole breakout formation and its impact on stress magnitude estimation - B. Valley (CHYN, Switzerland)
- 15:00 – 15:30 Debriefing, questions and free exchanges

Coffee Break between 15:30 and 16:00

Session 3: Stress measurement Tools Continued - Chairman: Pr. O. Stephansson

- 16:00 – 16:30 **Invited talk** - The LTU stress trailer – a new infrastructure for deep rock stress measurements - D. Ask (FracSinus/LTU, Sweden) & M. Ask (LTU, Sweden)
- 16:30 – 16:50 Reliability of the HFSM reopening equations with focus on anisotropic rocks – S. Guido (Sial.tec, Italy)
- 16:50 – 17:10 Long-term experience with stress state determination using gauge probe CCBO(M) in various type of rock mass – P. Waclawik, L. Stas, K. Soucek, M. Vavro (The Czech Academy of Sciences, Czech Republic)
- 17:10 – 17:40 Debriefing, questions and free exchanges

End of Day 1 around 17:40

Social Dinner downtown at 19:00, at *Le Grand Café Foy*



Day 2 - Thursday 22nd of November 2018

8:45 – 9:00 Welcome Coffee

Session 4: Case Studies Continued - Chairman: K. Mills

- 9:00 – 9:30 **Invited talk** - Stress measurement for evaluating nickel ore liquefaction during sea carriage - P. Bigarré (Ineris, France)
- 9:30 – 10:00 The role of stress monitoring into dams behaviour analysis- E. Grimal, R. Tajetti (EDF, France) & C. Nadim (Antea, France)
- 10:00 – 10:20 Toward deep stress measurements near active seismic fault – M. Conin (GéoRessources, U. Lorraine, France)
- 10:20 - 10:40 Debriefing, questions and free exchanges

Coffee Break between 10:40 and 11:00

11:00 – 12:00 Closing Round Table, with O. Stephansson, D. Ask, M. Ask, M. Hakala, P. Bigarré, K. Mills - MC Dr Y. Gunzburger & C. Balland

Final Comments & Closing at 12:00

Group 1 – Departure for site visit (lunch bag provided), back to Nancy at 19:00

Group 2 – Lunch followed by laboratory visit, end of day around 16:00