

1ST ISRM EUROPEAN ROCK MECHANICS DEBATE (Eurock Debate 1)

Title:

Using Hydraulic Fracturing to measure in situ stresses

Time: 2021, October 27th, 3:00 PM (CET) -1:00 PM (GMT)

Platform link: Zoom and YouTube channel (to be announced)

Moderator: Philippe Vaskou (France)

Speaker 1: Gerd Klee (Germany)

**Subject: Hydraulic-Fracturing Stress Measurements -
Theory and Practice from Engineering Projects**

Bio: Gerd Klee did his diploma in Geophysics with Prof. Fritz Rummel at The Ruhr-University Bochum / Germany in 1991. He then immediately joined MeSy GmbH, the predecessor company of today's Solexperts GmbH. He carried out hydraulic fracturing stress measurements for hundreds of large-scale engineering projects all over the world. A special highlight was his participation in the ultra-deep stress measurements in the 9 km deep borehole of the German Continental Drilling Project.

Speaker 2: Arne Marius Raaen (Norway)

Subject: Minimum stress measurement in deep off-shore wells

Bio: Arne Marius Raaen holds a PhD in solid state physics, specializing in nuclear magnetic resonance. He worked at SINTEF from 1984, mainly with rock acoustics and rock mechanics. From 1991 to 2016 he held positions at various offices in Statoil, where his main activity was in rock mechanics and related fields, including water injection, sand prediction, and stress measurements. He is presently with SINTEF, in Trondheim, Norway.

ISRM EUROPEAN ROCK MECHANICS DEBATE SERIES (Eurock Debates)

The series of debates aim at stimulating communications among academics and practitioners of rock mechanics and rock engineering in Europe. It is hoped that the European network of rock mechanics and rock engineering is strengthened through such communications. The debates are held virtually and each one will have two speakers, with different perspectives on a hot rock engineering topic or on a specific technical aspect of rock mechanics. One of the main aims is also to collect opinions and suggestions from the rock mechanics community.

The debating topics are selected by an ad hoc Organising Committee, initially on the basis of three debates per year.

Organising Committee: Charlie C. Li (charlie.c.li@ntnu.no), Philippe Vaskou (philippe.vaskou@outlook.fr) & Leandro R. Alejano (alejano@uvigo.es)

EUROCK DEBATE RULES

Debates, in one form or another, are commonly used in democratic societies to explore and resolve issues and problems and in scientific societies to foster research and development. The following guidelines will be follow:

- A topic is selected by the organizers. Suggestions from rock mechanics academics and practitioners are welcome. Two speakers will be invited to briefly introduce the topic from different point of views (theory/practice, lab/in situ, academic/practical, empirical/observational approach...) with the aim of fostering debate.
- The chairman/moderator welcomes the audience and then introduces the topic for the seminar and will also present both speakers for a short time.
- Both speakers present the basics of the topics from their point of view and comment on possible open issues or aspects needing more research, based on a prepared presentation. Every speaker will have 15 minutes time to do that.
- Both speakers have 5 minutes to comment, deepen, illustrate or rebut the presentation of the other speaker. The idea is investigating what can add the perspective of the other speaker to the work develop by the speaking one.
- A free round of questions preferably to both speakers is open and moderated by the chairman. Short questions and answers are preferred. This can extend for a time between 15 and 30 minutes.
- 1 minute will be given to every speaker to wrap-up his/her comments and points of view. The chairman closes the meeting.