



#### 4TH ISRM EUROPEAN ROCK MECHANICS DEBATE

Two different tunnelling approaches: the New Austrian Tunnelling Method (NATM) and the Norwegian Method of Tunnelling (NMT)

Time: 2023, June 19th, 14:30 (CET) - 12:30 (GMT)

Links: Zoom (https://bit.ly/isrmdebatejune23) & YouTube channel

(https://www.youtube.com/@IntSocRockMechanics/streams).

Copy the link and paste it in your browser to register and attend the zoom meeting or to follow the debate the YouTube channel.

Moderator: Philippe Vaskou (France)

### Speaker 1: Wulf Schubert (Austria) Subject: The New Austrian Tunnelling Method (NATM)



Bio: Emeritus Professor Wulf Schubert received his Dipl.-Ing. degree from the Graz University of Technology, and the PhD degree from the Mining University in Leoben. He joined Geoconsult in 1980, were he worked on tunnelling and rock engineering projects around the world In 1992 he became full Professor for Rock Mechanics and Tunnelling at the Graz University of Technology, a position he held until his retirement in 2018. His research focused on rock mass characterization, all aspects of tunnelling in poor and faulted ground, as well as monitoring data evaluation and interpretation.

# Speaker 2: Krishna Kanta Panthi (Norway) <u>Subject</u>: Norwegian Tunneling Principles for tunneling in hard rocks



Bio: Dr. Krishna Kanta Panthi is ia professor at the Department of Geoscience and Petroleum at NTNU since 2008. His area of expertise is rock and tunnel engineering. Before joining NTNU, Prof. Panthi worked for the tunnelling and hydropower industry for 16 years. During this period, he was responsible in the planning, design and construction management of projects in to road and hydropower tunnels and slopes. He was also involved in research associated to rock mass quality and stability assessment for tunnels and rock slopes.





## 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 (<a href="mailto:charlie.c.li@ntnu.no">charlie.c.li@ntnu.no</a>), Philippe Vaskou (<a href="mailto:philippe.vaskou@outlook.fr">philippe.vaskou@outlook.fr</a>) & Leandro R. Alejano (<a href="mailto:alejano@uvigo.gal">alejano@uvigo.gal</a>)

### **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.