

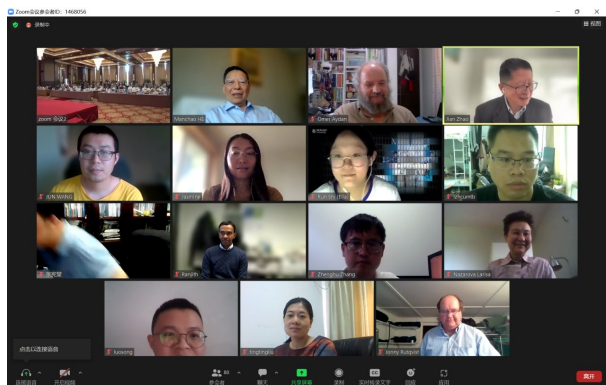
RocDyn-4

Xuzhou, China



The Fourth International Conference on Rock Dynamics and Applications (RocDyn-4), a specialized symposium of the International Society for Rock Mechanics and Rock Engineering (ISRM), was held on 17-19 August 2022 in Xuzhou China. The conference was organized by China University of Mining and Technology in Xuzhou and Southeast University in Nanjing, in association with ISRM Commission on Rock Dynamics. It was supported by Nanyang Technological University, Chinese Society for Rock Mechanics and Engineering (CSRME), State Key Laboratory for Geomechanics and Deep Underground Engineering, Yunlong Lake Laboratory of Deep Underground Science and Engineering, and an International Advisory Committee overseeing the RocDyn conference series.

The main theme of RocDyn-4 is “Rock Dynamics: Progress and Prospect” , with the aim to take stock of the significant progress that rock dynamics has made since the formation of the ISRM Commission on Rock Dynamics in 2008, examine new research areas and applications, and look to the future of rock dynamics. The conference received over 200 abstracts and finally accepted 152 papers from more than 20 countries. The topics covered range from theories, testing and modelling to engineering, reflecting the progress and the prospect of rock dynamics as suggested by the title of the conference.



RocDyn-4 international conference (left is a photo of the on-site venue and right photo is a capturing of more than 100 online delegates via Zoom)

RocDyn-4 attracted more than 300 participants, with a hybrid on-site and on-line attendance format. The program included 9 keynote lectures, 7 Young Scholars Plenary Presentations, and 66 presentations in four parallel sessions, namely, (i) experimental testing and techniques, (ii) analysis and theoretical development, (iii) numerical modelling and methods, and (iv) rock engineering applications. The 9 keynote speakers were: Prof. Ömer Aydan on Earthquakes, Prof. Manchao He on Rockburst support, Dr. Jonny Rutqvist on fault activation

and seismicity, Prof. Yulong Li on electromagnetic Hopkinson bar, Dr. Alexander Spathis on blasting, Prof. Larisa Nazarova on mining-induced seismicity, Prof. Gaofeng Zhao on rock dynamic modelling, Prof. Petr Konicek on destress blasting, and Prof. Zhanguo Ma on longwall mining support. For the first time, RocDyn-4 featured a Young Scholars Plenary Session (YSPS), with the speakers selected based on submitted papers and recommendations by the Scientific Committee. Significantly, most of the 66 oral presentations were made by students and young researchers and engineers. At the end of the conference, a short visit to the mountain in-situ experiment base of Yunlong Lake Laboratory was scheduled for all the on-site delegates.



A short visit to the mountain in-situ experiment base of Yunlong Lake Laboratory in Xuzhou (left), and the awards for the 7 YSPS winners in the closing ceremony by Prof. Jianchun Li and Dr. Yingxin Zhou (right).