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The 6th International Workshop on Rock Mechanics in Nuclear Waste Disposal

As our Commission has successfully held a series of workshops on radioactive disposal during the ISRM Congress in Lisbon in 2007, in Beijing in 2011, in Montreal in 2015, and in Iguassu in 2019, we plan to organize the 6th International Workshop on Rock Mechanics in Nuclear Waste Disposal in Salzburg, Austria on **10** October 2023, just before the 15th ISRM Congress.

Organizer: ISRM Commission on Radioactive Waste Disposal

Organizing committee:

Chairman:

Dr. Ju Wang (China)

Secretary

Dr. Xingguang Zhao (China)

Members:

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Pengzhi Pan (China)

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Risto Kiuru (Finland)

Tai-Tien Wang (Taiwan, China)

Hideaki Yasuhara (Japan)

Gilles Armand (France)

Xiangling Li (Belgium)

Kaiwen Xia (Canada)

Antonio Gens (Spain)

Workshop description:

Safe disposal of high-level radioactive waste (HLW) is a challenging rock engineering task for the sustainable development of nuclear energy and environmental protection. Geological disposal is a feasible and safe option for the long-term management of HLW worldwide, and many countries have considered building deep geological repositories (DGRs) in which to dispose of spent fuel or vitrified HLW. This workshop aims at introducing key rock mechanics topics for the development of DGRs. Meanwhile, the planning and the latest progress of nuclear waste disposal programs in different countries will be shared. Experience and lessons gained from nuclear waste disposal programs will also be summarized. Attendees from rock mechanics, geology, and hydrogeology or other related fields would benefit from this workshop.

Workshop contact: Dr. Xingguang Zhao xingguang100@126.com, or zhaoxingguang@briug.cn

The 6th International Workshop on Rock Mechanics in Nuclear Waste Disposal

8:30-13:00, October 10, 2023

Salzburg Congress, Salzburg, Austria

Room: Workshop M

Time	Presentation	Chairman
8:30-8:40	Opening Speech Dr. Ju Wang <i>President of ISRM Commission on Radioactive Waste Disposal</i>	Dr. Ju Wang & Dr. James Lawrence
8:40-9:10	Latest progress of Beishan URL for geological disposal of high-level radioactive waste in China Dr. Ju Wang <i>Beijing Research Institute of Uranium Geology, China</i>	
9:10-9:30	Thermal fracturing of an argillaceous rock Prof. Antonio Gens <i>Universitat Politècnica de Catalunya (UPC), Spain</i>	
9:30-9:50	40 years of research in the Belgian URL HADES for the geological disposal of nuclear waste Dr. Xiangling Li <i>European Underground Research Infrastructure for Disposal of nuclear waste in Clay Environment (EURIDICE), Belgium</i>	
9:50-10:10	Demonstration program at the Meuse/Haute-Marne URL: What 's new? Dr. Gilles Armand <i>French National Radioactive Waste Management Agency (ANDAR), France</i>	
10:10-10:30	Numerical Modelling of Nuclear Waste Disposals in Germany – Current Work and Future Research Dr. Steffen Beese <i>Federal Institute for Geosciences and Natural Resources (BGR), Germany</i>	
10:30-10:40	Coffee Break & Photo Taking	
10:40-11:00	Nuclear waste disposal in Finland – recent advances and next steps Mr. Risto Kiuru <i>Oy Rock Physics Finland Ltd, Finland</i>	Prof. Antonio Gens & Dr. Xiangling Li
11:00-11:20	Advances in remote sensing techniques supporting nuclear waste disposal Dr. James Lawrence <i>Imperial College London, UK</i>	
11:20-11:40	Status of research on high-level radioactive waste disposal in Korea Dr. Changsoo Lee <i>Korea Atomic Energy Research Institute, Korea</i>	
11:40-12:00	Ground water flow during shaft excavation revealed by EPM-DFN simulation Prof. Tai-Tien Wang <i>National Taiwan University, China</i>	
12:00-12:20	Development of CASRock and its applications in coupled THM processes in geological media Dr. Pengzhi Pan <i>Institute of Rock and Soil Mechanics, Chinese Academy of Sciences, China</i>	
12:20-12:40	Micromechanical modeling of anisotropic damage and friction-induced plasticity in Beishan granite Prof. Qizhi Zhu <i>Hohai University, China</i>	
12:40-13:00	Groundwater flow and solute transport in crystalline rock: flow-log data evaluation and predictive modeling Dr. Liangchao Zou <i>KTH Royal Institute of Technology, Sweden</i>	
13:00	Lunch	