

Theme Lecture 13

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Theme Lecture Title

Replicating Brittle and Hard Rocks Using
3D Printing with Applications to Rock
Dynamics and Crack Propagation

Dr. Jianbo ZHU is an Assistant Professor of Rock Mechanics and In-Charge of Rock Mechanics Laboratory at the Hong Kong Polytechnic University. He got his PhD degree from Swiss Federal Institute of Technology (EPFL) in 2011. Before coming to Hong Kong, he was a Postdoctoral Scholar at California Institute of Technology (Caltech). His research interests include rock dynamics, rock caverns and injection induced earthquakes. He has authored over 50 papers including over 20 in international journals. In 2011, he was awarded the Fellowship for Prospective Researchers from Swiss National Science Foundation. He is a member and Editorial Board and Guest Editor of Rock Mechanics and Rock Engineering journal (Springer). He also served as member of Rock Dynamics Commission of International Society for Rock Mechanics, Rock Dynamics committee, Protective Engineering Committee and Underground Engineering Committee of Chinese Society of Rock Mechanics and Engineering, and Council of the Institute of Materials, Minerals and Mining (Hong Kong Branch).

Education

- Sichuan University, China
Master, Geotechnical Engineering, 2008 (Heping Xie)
Bachelor, Hydraulic and Hydro-Power Engineering, 2005
- Swiss Federal Institute of Technology (EPFL), Switzerland
Ph.D., Mechanics, 2011 (Jian Zhao)
- California Institute of Technology, US
Postdoctoral Scholar, 2012-2013 (Ares Rosakis, Nadia Lapusta)

Research interests:

- Rock dynamics
- Rock cavern
- Injection induced earthquakes