



Workshop on Large Block Hydraulic Fracturing in the Laboratory

8 am – 3 pm, June 8th, 2025

Where: ARMA 59th US Rock Mechanics/Geomechanics Symposium

Cost: \$200 (continental breakfast, lunch, and coffee breaks are included)

Objective: Review previous accomplishments and evaluate the value of large block testing. Inform theoretical developments and address industry's compelling problems. Reference and calibrate hydraulic fracture models. The discussion includes unconventional reservoirs and also emerging and renewable plays in geothermal fields.

Program schedule:

7:30 – 8:00 am Continental breakfast

8:00 – 8:10 am Opening remarks and welcome (Egor Dontsov)

Session 1: Scaling (Egor Dontsov)

8:10 – 8:50 am Laboratory hydraulic fracturing experiments in rocks - recent developments in scaling & monitoring (Brice Lecampion)

8:50 – 9:30 am Using scaling laws and hydraulic fracturing simulations to design and interpret block test experiments for future field extrapolation (Romain Prioul)

9:30 – 10:00 am Coffee break

Session 2: Monitoring (Brice Lecampion)

10:00 – 10:40 am Role of anisotropy during hydraulic fracturing true triaxial experiments in shales (Aly Abdelaziz)

10:40 – 11:20 am Events monitoring in lab-scale hydraulic fracture experiments using fiber-optic distributed acoustic sensors and acoustic transducer sensors (Thomas Finkbeiner)

11:20 – 12:00 am What I learned from large block testing (mine and others) (Roberto Suarez-Rivera)

12:00 - 1:00 pm Lunch

Session 3: Characterization (Thomas Finkbeiner)

1:00 - 1:40 pm Experimental investigation on multi-cluster temporary plugging fracturing in a horizontal well based on acoustic emission and distributed optical monitoring (Haiyan Zhu)

1:40 - 2:45 pm Discussion on a way forward (everyone)

2:45 - 3:00 pm Wrap up (Thomas Finkbeiner)