



SOUTH DAKOTA MINES

An engineering, science and technology university

Department of Geology and Geological Engineering GGE Research Highlights...

<https://webpages.sdsmt.edu/~lli/li.html>

Please visit Dr. Li's research page to learn more about his research!



SDSM&T Geology & Geological Engineering

17 mins · 🌐

GGE Research Highlights...

Dr. Liangping Li's research interests mainly focus on subsurface flow and solute transport modeling, geostatistics, data assimilation/parameter estimation, inverse methods, uncertainty assessment, machine learning, and regional groundwater flow modeling. Potential applications include water resource management, contaminant remediation, carbon sequestration, waste disposal, geothermal energy, and enhanced oil recovery.

One of his projects was funded by the National Science Foundation by focusing on enhanced geothermal recovery. Geothermal energy is a renewable resource that potentially can be used to generate electricity. The extraction of geothermal energy from deep rock requires a man-made geothermal reservoir created by injecting liquid into the rock at high pressure to cause fractures, a process known as hydraulic fracturing. However, our knowledge of fracture development is limited by internal processes within the rocks that have proven challenging to characterize.

The objective of the project is to establish a long-term collaboration between the PI and researchers at Idaho National Laboratory to develop tools that will more effectively estimate rock properties, using hydraulic fracturing experiments conducted at the Sanford Underground Research Facilities.

https://www.nsf.gov/awardsearch/showAward?AWD_ID=1833069

To learn more about Dr. Li's research, please click on the following link:
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