

Ph.D. and Postdoctoral Opportunities in Subsurface Energy Systems and Geomechanics

McGill University – Start in Fall 2027

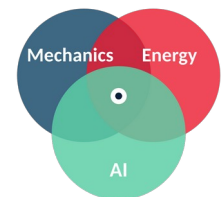
Join a growing, internationally recognized research program led by Prof. Chloé Arson, incoming Eddie Goldenberg Canada Research Chair in Subsurface Energy Systems and Geomechanics at McGill University. We seek outstanding Ph.D. students and postdoctoral researchers interested in advancing subsurface technologies for the energy transition, particularly, enhanced geothermal systems, geologic hydrogen production, compressed air energy storage, carbon capture and underground storage, and subsurface technologies in northern and Arctic regions.

Research Opportunities:

- Advanced homogenization and multiscale modeling of porous media
- Computational geomechanics, poromechanics, fracture mechanics, and Thermo-Hydro-Chemo-Mechanical (THCM) processes
- AI-enabled optimization, digital twins, operator learning, and control of subsurface energy systems
- 4D experimental geomechanics and engineered geomaterials (postdoctoral positions only)

We are particularly interested in candidates with strengths in mathematics, solid mechanics, fracture mechanics, poromechanics, multiscale modeling, numerical methods, scientific computing, machine learning, optimization, or advanced experimental rock mechanics and imaging.

Why join Arson's Lab? You will contribute to high-impact research at the intersection of mechanics, energy, and AI; collaborate internationally; receive strong mentoring; and help develop technologies for sustainable and resilient energy systems. Core values: **Scientific Excellence, Integrity, Curiosity, Creativity, Mentoring, and Societal Impact.**



How to Apply: Send a brief statement of interests and your CV to cfa36@cornell.edu. Please highlight relevant research experience, technical skills, and career goals.

About Prof. Arson: Professor Chloé Arson is a recipient of the [Eddie Goldenberg Canada Research Chair](#) in Subsurface Energy Systems and Geomechanics. She will join the Department of Civil Engineering at McGill University in that capacity in July 2027. She is currently a Professor in the Department of Earth and Atmospheric Sciences at Cornell University. Prof. Arson serves on the Board of Governors of the Engineering Mechanics Institute ([EMI](#)) and the Board of Directors of the American Rock Mechanics Association ([ARMA](#)), and has a strong record of mentoring researchers who have gone on to academic and research careers worldwide. Learn more: <https://arsonlab.engineering.cornell.edu/>