



Postdoctoral Researcher opening at MIT - Geomechanics and Multiphase Flow Modeler

We have an opening for a postdoctoral researcher to perform original research on geomechanics and multiphase flow for subsurface engineering applications, with a particular emphasis on the poromechanics of geologic faults. The successful candidate will develop numerical methods to model coupled processes on high-performance computing platforms. This position is in the **Juanes Research Group** (<http://juanesgroup.mit.edu/>) in the Department of Civil and Environmental Engineering / Department of Earth, Atmospheric and Planetary Sciences **at MIT**. This is a one-year postdoctoral appointment with the possibility of extension to a maximum of three years.

Duties

- Conduct original research on geomechanics and multiphase flow in porous and fractured media.
- Develop numerical algorithms to efficiently model these processes on high-performance computing platforms.
- Analyze and interpret data from geophysical monitoring and laboratory experiments, and integrate this data with modeling studies.
- Publish programmatic reports and peer-review publications summarizing research findings.
- Present results at program meetings and scientific conferences.
- Perform other duties as assigned.

Qualifications

- Recent PhD in Civil and Environmental Engineering, Mechanical Engineering, Petroleum Engineering, Computational Science and Engineering, or related field.
- Knowledge of geomechanics and/or multiphase flow.
- Knowledge of numerical methods, including discretization schemes and solution techniques.
- Experience with software development.
- Experience producing reports, publications, and proposals.
- Research creativity, with exceptional ability and knowledge in the applicant's area of specialization.
- Proficient written and verbal communication skills necessary to collaborate effectively in a multidisciplinary team environment and present and explain technical information.

Applications

Please send an email expressing your interest, together with a CV, two relevant publications, and the names of three references, to Prof. Ruben Juanes (juanes@mit.edu). Reviews of applications will start on **April 15, 2019** and continue until the position is filled.