InterPore2021



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Two-grid coupled multiphase flow and geomechanics: A computational framework to monitor surface deformation along with fault slip due to pore pressure perturbations

Wednesday, 2 June 2021 18:50 (15 minutes)

We develop a computational framework that leverages the features of sophisticated software tools and numerics to tackle some of the pressing issues in the realm of earth sciences. The algorithms to handle the physics of multiphase flow, concomitant geomechanics and the complex geometries of field cases with surfaces of discontinuity are stacked on top of each other in a modular fashion which allows for easy use to the end user. The current focus of the framework is to provide the user with tools for assessing seismic risks associated with energy technologies and for estimating properties in the subsurface as they evolve real-time.

Time Block Preference

Time Block C (18:00-21:00 CET)

References

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Student Poster Award

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Track Classification: (MS12) Advances in modeling and simulation of poromechanics