

## Accepted Manuscript

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- potentials for the coupled problems of Darcy-Biot-type bulk response of poro-hydro-elasticity coupled to a phase-field approach for fracture
- a phase field modeling approach of brittle fracture in fluid-saturated porous media based on an evolution equation for a regularized crack surface
- new minimization principle for the coupled problem of poro-hydro-elasticity at fracture
- the minimization formulation naturally leads to a new innovative finite element implementation of the coupled problem that is numerically stable and not restricted to a LBB condition
- a formulation that accounts for the extra fluid flow in developing cracks based on a deformation-dependent permeability, scaled by a characteristic reference length
- a representative set of examples of hydraulic driven fracture in porous media

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