Mohammad Vahab

List of Publications by Year in descending order

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| # | Article | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | A mesh-independent finite element formulation for modeling crack growth in saturated porous media based on an enriched-FEM technique. International Journal of Fracture, 2014, 188, 79-108. | 1.1 | 84 |
| 2 | An enriched–FEM technique for numerical simulation of interacting discontinuities in naturally fractured porous media. Computer Methods in Applied Mechanics and Engineering, 2018, 331, 197-231. | 3.4 | 81 |
| 3 | An enriched FEM technique for modeling hydraulically driven cohesive fracture propagation in impermeable media with frictional natural faults: Numerical and experimental investigations. International Journal for Numerical Methods in Engineering, 2015, 104, 439-468. | 1.5 | 78 |
| 4 | Modeling the interaction between fluid-driven fracture and natural fault using an enriched-FEM technique. International Journal of Fracture, 2016, 197, 1-24. | 1.1 | 66 |
| 5 | An augmented Lagrangian contact formulation for frictional discontinuities with the extended finite element method. Finite Elements in Analysis and Design, 2015, 107, 28-43. | 1.7 | 65 |
| 6 | An X-FEM investigation of hydro-fracture evolution in naturally-layered domains. Engineering Fracture Mechanics, 2018, 191, 187-204. | 2.0 | 35 |
| 7 | An X-FEM technique in modeling hydro-fracture interaction with naturally-cemented faults. Engineering Fracture Mechanics, 2019, 212, 269-290. | 2.0 | 33 |
| 8 | Numerical investigation of the flow regimes through hydraulic fractures using the X-FEM technique. Engineering Fracture Mechanics, 2017, 169, 146-162. | 2.0 | 32 |
| 9 | X-FEM Modeling of Multizone Hydraulic Fracturing Treatments Within Saturated Porous Media. Rock Mechanics and Rock Engineering, 2018, 51, 3219-3239. | 2.6 | 30 |
| 10 | An eXtended Finite Element Method implementation in COMSOL Multiphysics: Solid Mechanics. Finite Elements in Analysis and Design, 2022, 202, 103707. | 1.7 | 29 |
| 11 | Robust simulation of dynamic fluid-driven fracture in naturally fractured impermeable media. Computer Methods in Applied Mechanics and Engineering, 2019, 357, 112574. | 3.4 | 24 |
| 12 | A Physics-Informed Neural Network Approach to Solution and Identification of Biharmonic Equations of Elasticity. Journal of Engineering Mechanics - ASCE, 2022, 148, . | 1.6 | 23 |
| 13 | A numerical contact algorithm in saturated porous media with the extended finite element method. Computational Mechanics, 2014, 54, 1089-1110. | 2.2 | 22 |
| 14 | Fully coupled XFEM formulation for hydraulic fracturing simulation based on a generalized fluid leak-off model. Computer Methods in Applied Mechanics and Engineering, 2021, 373, 113447. | 3.4 | 18 |
| 15 | X-FEM modeling of large plasticity deformation; a convergence study on various blending strategies for weak discontinuities. European Journal of Computational Mechanics, 2015, 24, 79-106. | 0.6 | 14 |
| 16 | An X-FEM Formulation for the Optimized Graded Proppant Injection into Hydro-fractures Within Saturated Porous Media. Transport in Porous Media, 2018, 121, 289-314. | 1.2 | 12 |
| 17 | Computational Algorithm for the Anticipation of the Fluid-Lag Zone in Hydraulic Fracturing Treatments. International Journal of Geomechanics, 2018, 18, . | 1.3 | 11 |
| 18 | Fracture characterization from noisy displacement data using artificial neural networks. Engineering Fracture Mechanics, 2022, 271, 108649. | 2.0 | 9 |

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|----|--|-----|-----------|
| 19 | Numerical analysis of multiple hydro-fracture growth in layered media based on a non-differentiable energy minimization approach. Engineering Fracture Mechanics, 2021, 241, 107361. | 2.0 | 8 |
| 20 | Empirical and Conceptual Challenges in Hydraulic Fracturing with Special Reference to the Inflow. International Journal of Geomechanics, 2020, 20, . | 1.3 | 6 |
| 21 | A super-convergent staggered algorithm for the simulation of hydraulic fracturing treatments. International Journal of Fracture, 2019, 217, 49-64. | 1.1 | 4 |
| 22 | Energy minimization versus criteria-based methods in discrete cohesive fracture simulations. Computational Mechanics, 2021, 68, 845-860. | 2.2 | 4 |
| 23 | An X-FEM Algorithm for Modeling of Multi-zone Hydraulic Fracturing in Saturated Porous Media. Springer Series in Geomechanics and Geoengineering, 2017, , 277-290. | 0.0 | 0 |
| 24 | An X-FEM Implementation of Hydro-Fracture Growth in Naturally Fractured Saturated Porous Media. , 2017, , . | | 0 |
| 25 | A Robust Implementation of Dynamic Evolution of Fluid-Driven Fractures. Lecture Notes in Civil Engineering, 2021, , 656-662. | 0.3 | 0 |
| 26 | A NUMERICAL INVESTIGATION OF PULSE HYDRAULIC FRACTURING TREATMENTS USING THE X-FEM TECHNIQUE. Journal of Porous Media, 2019, 22, 923-938. | 1.0 | 0 |