Accepted Manuscript

A hybrid numerical model for multiphase fluid flow in a deformable porous medium

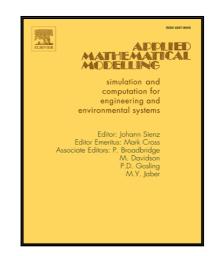
S. A. Ghoreishian Amiri, S.A. Sadrnejad, H. Ghasemzadeh

PII: \$0307-904X(17)30048-3 DOI: 10.1016/j.apm.2017.01.042

Reference: APM 11540

To appear in: Applied Mathematical Modelling

Received date: 7 August 2015 Revised date: 7 December 2016 Accepted date: 13 January 2017



Please cite this article as: S. A. Ghoreishian Amiri, S.A. Sadrnejad, H. Ghasemzadeh, A hybrid numerical model for multiphase fluid flow in a deformable porous medium, *Applied Mathematical Modelling* (2017), doi: 10.1016/j.apm.2017.01.042

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

ACCEPTED MANUSCRIPT

Highlights

- A fully coupled solution for multiphase flow-deformation problems is presented
- A hybrid solution with combining FEM and FVM is presented.
- The method preserves local conservation of mass.
- The method is able to deal with complex geometries.
- It combines the mesh flexibility of FEM with the local conservative characteristic of FVM.

Download English Version:

https://daneshyari.com/en/article/5471229

Download Persian Version:

https://daneshyari.com/article/5471229

<u>Daneshyari.com</u>