



Numerical modelling of two-phase flows in discrete fracture-matrix models

Andrianov, Nikolai; Nick, Hamid

Publication date:
2017

Document Version
Publisher's PDF, also known as Version of record

[Link back to DTU Orbit](#)

Citation (APA):

Andrianov, N., & Nick, H. M. (2017). Numerical modelling of two-phase flows in discrete fracture-matrix models. Abstract from Danish Hydrocarbon Research and Technology Centre Technology Conference 2017, Lyngby, Denmark.

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Danish Hydrocarbon Research and Technology Centre Technology Conference 2017

Numerical modelling of two-phase flows in discrete fracture-matrix models

Nikolai Andrianov, Hamid M. Nick
Centre for Oil and Gas – DTU

The state-of-art numerical models for detailed resolution of fracture-matrix flows are the discrete fracture-matrix models (DFM). The DFM models explicitly represent the fracture network as lower-dimensional objects embedded in the matrix grid, and the flow is considered to occur both in the fracture network and in the surrounding rock matrix. Numerical simulation of DFM models is typically faster than a detailed flow simulation, where the fracture is discretized in transversal direction. One of the challenges with DFM models is how to properly account for fracture-matrix interaction.