

Modeling and benchmarking of fractured porous media: flow, transport and deformation - 2017

University of Bergen

June 8-9, 2017

Program

Thursday		
8.30-8.40	Coffee&fruit	
8.40-9.00	Welcome and description of the workshop	<i>Chair: Inga Berre</i>
9.00-9.30	Bernd Flemisch presents the collaborative study	
9.30-10.20	Session 1	
10.20-10.50	Coffee&food at the posters	
10.50-12.10	Session 2	<i>Chair: Alexandru Tatomir</i>
12.10-13.10	Lunch brake	
13.10-14.30	Session 3	<i>Chair: Alessio Fumagalli</i>
14.30-15.30	Poster session with coffee&food	
15.30-16.50	Session 4	<i>Chair: Anna Scotti</i>
18.00-18.30	Boat for the restaurant	
18.30-22.30	Social dinner	
22.30-23.00	Boat from the restaurant	
Friday		
8.50-9.00	Coffee&fruit	
9.00-10.20	Session 5	<i>Chair: Bernd Flemisch</i>
10.20-10.50	Coffee&food at the posters	
10.50-12.10	Session 6	<i>Chair: Alexandru Tatomir</i>
12.10-12.50	Discussion with panel	<i>Moderators: Wietse Boon, Ivar Stefansson</i>
13.00-14.00	Lunch brake	

Note: the presentations are 20+5 minutes. Each speaker should provide her/his own laptop.

Sessions

Session 1

1. Florian Doster, “Improved Dual Porosity Modelling of Multiphase Flow Phenomena”
2. Pål Næverlid Sævik, “Using topology to predict fracture permeability”

Session 2

1. Markus Koeppel, “A discrete, conductive fracture model in porous media using non-conforming grids”
2. Julian Hennicker, “A comparison of hybrid- and equi-dimensional two phase flow models through fractured porous media”
3. Konstantin Brenner, “Immiscible two-phase Darcy flow model accounting for vanishing and discontinuous capillary pressures: application to the flow in fractured porous media.”

Session 3

1. Adriana Paluszny, “Modelling the mechanical interaction between fractures and its effect on effective permeability”
2. Holger Steeb, “Effective mechanical properties of fluid-filled fractures”
3. Katja K. Hanowski, “Coupling Deformation and Flow in Fractured Poroelastic Media”

Session 4

1. Stephan Matthai, TBA
2. Thomas Nagel, “Exploring the role of evolving discontinuities in host rocks for deep geological repositories”
3. Dennis Gläser, “An mpfa-dfm model for multi-phasic, non-isothermal problems”

Session 5

1. Hadi Hajibeygi, “Multiscale Projection-based EDFM Method”
2. Xavier Raynaud, “Discrete and virtual element method for fracture modeling”
3. Stefano Berrone, “New approaches for the simulation of flows in complex poro-fractured domains with non conforming meshes”

Session 6

1. Eren Uçar, “Understanding the stimulation of deep geothermal reservoirs through modeling and simulation”
2. Martin Beck, “Coupling Porous Media Flow and Geomechanics”
3. Nina Khvoenkova, “Reduced mesh for fluid flow in Fracture Network (application to the conductivity Upscaling)”

Posters

- Daniel Wong, TBA
- Ivar Stefansson, TBA
- Mats K. Brun, “Upscaling of coupled geomechanics/flow/geochemistry”
- Ana Budisa, “BDDC Preconditioner for Robust Discretization of Flow in Fractured Porous Media”
- Rafael March Castaneda Neto, “CO2 Storage Potential in Naturally Fractured Reservoirs”
- Alessio Fumagalli, TBA
- Eirik Keilegavlen, TBA
- Runar Berge, “Fracture deformation models in geothermal reservoirs”
- Wietse Boon, “Mixed-Dimensional Approach to Flow in Fractured Media”
- Michael Sargado, TBA
- Klaus Mosthaf, “Modeling of flow and transport processes in a fractured limestone aquifer”
- Insa Neuweiler, “Double continuum modeling and memory functions for two-phase flow in fractured media”