

Conference program

Day 1 – Monday, 14 July

09:00 – 10:00 REGISTRATION

10:00 – 10:20 OPENING

Session 1

10:20 – 11:20 **Keynote Lecture by Charles Fairhurst:** *The Action is at the Interfaces.*

11:20 – 11:50 COFFEE BREAK

11:50 – 12:10 **Mark Kachanov, Behrouz Abedian:** *On the effective viscosity of suspensions containing particles of diverse shapes and orientation distributions.*

12:10 – 12:30 **Włodzimierz Bielski, Ryszard Wojnar:** *Flows through nonhomogeneous porous media in gravitational field.*

12:30 – 12:50 **Vitaly Kuzkin, Anton Krivtsov, Aleksandr Linkov:** *Comparative study of rheological properties of suspensions by computer simulation of Poiseuille and Couette flows.*

12:50 – 13:10 **Anna Trykozko, Małgorzata Peszyńska, Marek Dohnalik:** *Modeling non-Darcy flows in realistic pore scale proppant geometries.*

13:10 – 14:10 LUNCH

Session 2

14:10 – 15:10 **Keynote Lecture by Branko Damjanac:** *Application of Distinct Element Methods to Simulation of Hydraulic Fracturing in Naturally Fractured Reservoirs*

15:10 – 15:30 **Aleksandr Linkov:** *Asymptotic umbrella and its application to modeling hydraulic fractures and evaluation of the lag.*

- 15:30 – 15:50 **Gennady Mishuris**, Michał Wróbel: *Numerical simulation of hydraulic fracturing: universal algorithm based on the particle velocity.*
- 15:50 – 16:10 **Nikolai Weber**, Philipp Siebert, Karen Willbrand, Martin Feinendegen, Christoph Clauser and Thomas Fries: *Modeling hydraulic fracture propagation in 3D with the XFEM.*
- 16:10 – 16:40 COFFEE BREAK
- 16:40 – 17:00 **John Napier**: *Simulation of flow path propagation and branching in crack networks.*
- 17:00 – 17:20 **Arash Dahi Taleghani**: *Overview of models for interactions between hydraulic fractures and natural fractures: challenges and limitations.*
- 17:20 – 17:40 Andreas Bauer, Idar Larsen, **Alexandre Lavrov**: *Coupling a fracturing code to a transient reservoir simulator: some practical aspects and experiences.*

Day 2 – Tuesday, 15 July

– 14:00 EXCURSION + DINNER

Session 3 PhD presentations

14:50 – 15:10 **Dawid Jaworski:** *On increasing accuracy of simulations stresses near propagating hydrofracture.*

15:10 – 15:30 **Ivan Karpenko:** *It's time for the next level of shale gas industry in Poland and Ukraine.*

15:30 – 15:50 **Piotr Kuśmierczyk:** *New multifracuring model build on improved PKN formulation.*

15:50 – 16:10 **Daniel Peck:** *Multiple particles in the Hele-Shaw flow.*

16:10 – 16:40 COFFEE BREAK

16:40 – 17:00 **Monika Perkowska:** *Universal hydrofracturing algorithm for shear-thinning fluids.*

17:00 – 17:20 **Ewa Rejwer:** *Influence of closely located nearly parallel cracks on numerical modeling of hydraulic fractures in shales.*

17:20 – 17:40 **Ferdinand Stoeckhert,** Sebastian Brenne, Michael Molenda, Michael Alber: *Fracture mechanical modeling of hydraulic fracturing laboratory experiments under isostatic and triaxial loading.*

19:00 – CONFERENCE DINNER

Day 3 – Wednesday, 16 July

Session 4

- 9:00 – 10:00** **Keynote Lecture by Mirko van der Baan**, Drew Chorney, Vincent Roche: *Geomechanical Modeling of Induced Seismicity*
- 10:00 – 10:20 Aleksandr Linkov, **Liliana Rybarska-Rusinek**: *On numerical simulation of seismicity induced by hydraulic fracturing.*
- 10:20 – 10:40 **Boris Tarasov**: *Fan-structure shear rupture mechanism as a source of off-fault tensile cracking in brittle materials.*
- 10:40 – 11:00 **Justin Pogacnik**, Derek Elsworth, Mike O’Sullivan, John O’Sullivan: *A damage mechanics approach to the simulation of hydroshearing around an injection well.*
- 11:00 – 11:30 COFFEE BREAK
- 11:30 – 11:50 **Simon Cox**, David Ferguson: *The effects of pore geometry on foam flow in porous media.*
- 11:50 – 12:10 **Sergei Rogosin**: *Moving stone in the Hele-Shaw flow.*
- 12:10 – 12:30 Oleksii Karpenko, Volodymir Mykhailov, **Ivan Karpenko**: *Determination of input parameters for modeling and successful hydraulic fracturing.*
- 12:30 – 12:50 **Janusz Makówka**: *Directed hydraulic fracturing from underground workings – past and future of application.*
- 13:00 – 14:00 LUNCH
- 14:00 – 15:00 CLOSING CEREMONY
- 16:00 – 17:00 COFFEE BREAK