

EarthFlows Meeting 2018
Complexity in Geophysical Flows
14-15 June 2018, Oslo Science Park

Thursday 14th of June

09.45- 09.50	<i>Luiza Angheluta/Bjørn Jamtveit (EF/NJORD)</i> Welcome
09.50- 10.30	<i>Bjorn Birnir (Univ. of California, USA)</i> <i>Numerical Analysis and Fractal Interpolation of Fluvial Landscapes</i>
10.30- 10.45	Coffe break

Tipping-point phenomena

Chair: Arianne Ragan

10.45- 11.15	<i>Francois Renard (Njord, UiO)</i> The road to faulting in rocks: from damage to failure
11.15- 11.45	<i>Adrien Gilbert (UiO)</i> Stable and unstable glacier flows: role of friction law and feedback mechanisms at the basal interface
11.45- 12.15	<i>Kjetil Thøgersen (EF)</i> Glacier surges as frictional tipping points
12.15- 14.20	<i>Lunch</i>

Reactive flow and transport in complex systems

Chair: Guillaume Dumazer

14.20- 15.00	<i>John Wheeler (Univ of Liverpool, UK)</i> Fluid flow in reactive deformable systems
15.00- 15.30	<i>Tanguy Le Borgne (Univ. of Rennes 1, France)</i> Controlling of fluid mixing on biogeochemical reactions from turbulent to porous media flows
15.30- 16.00	<i>Yves Meheust (Univ. of Rennes 1, France)</i> Pore scale mixing and reactivity in porous media: experimental investigations
16.00- 16.20	<i>Coffee Break</i>

Fracture and reactive flows

Chair: Kristina Dunkel

16.20- 16.50	<i>Bjørn Jamtveit (EF,UiO)</i> Flow induced metamorphism and stress
16.50- 17.20	<i>Xiaojiao Zheng (EF, UiO)</i> Fracturing of peridotite induced by the hydration of periclase

19.00-	<i>Dinner</i>
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Friday 15th of June

Friction in complex materials

Chair: Kristian Olsen

09.40- 10.20	<i>Einat Aharonov (Inst of Earth Sciences, Israel)</i> A physics-based rock-friction constitutive law: steady-state friction
10.20- 10.50	<i>Anders Malthe-Sørenssen (EF, UiO)</i> Molecular scale studies of contact mechanics, friction and healing
10.50- 11.10	<i>Coffee break</i>

Crystal plasticity

Chair: Claire Aupart

11.10- 11.50	<i>Mikko Alava (Univ of Aalto, Finland)</i> Crackling noise and jamming transition in crystal plasticity (TBA)
11.50- 12.20	<i>Audun Skaugen (Njord, UiO)</i> Elasticity and plasticity in the phase field crystal model
12.20- 14.00	<i>Lunch</i>

Turbulence in multiphase flows

Chair: Audun Skaugen

14.00- 14.30	<i>Petter Vollestad (EF, UiO)</i> Microscale breaking of waves
14.30- 15.00	<i>Jason Hearst (NTNU, Norway)</i> Tailoring lab-scale turbulent shear flows to investigate internal interfaces
15.00- 15.30	<i>Joachim Mathiesen (NBI, Denmark)</i> Transition to turbulence in pipe flows (TBA)
18.00-	<i>Summer party</i>