

NRC 2019

Final program

Please check nordicrheologysociety.org for possible changes during the NRC

Wednesday August 21

Rheology Course

Lecture Hall	VDL, Chalmers Tvärgata 4C	
8:30–9:30	Introduction to rheology and linear viscoelasticity by Gareth McKinley	
9:30–9:50	Coffee Break	
9:50–10:50	Nanocellulose: rheology and applications by Alain Dufresne	
10:50–11:50	Polymer rheology by Paula Moldenaers	
Conference Chalmers Conference Centre, Chalmersplatsen 1		
From 11	Registration open	
12:00–13:00	Lunch	
13:00–13:15	Welcome ceremony in Runan	
13:15–13:55	Optimal Fourier Transform Rheology for Probing the Linear Viscoelasticity of Gels and Time-Evolving Soft Materials Plenary lecture by Gareth McKinley in Runan	
	Food and bio-rheology	General rheology
Lecture Hall	Runan	Scaniasalen
14:00–14:20	Ice cream rheology Fredrik Innings	Rheology and electrical properties of graphene polypropylene composites Karolina Gaska
14:20–14:40	Rheology of the bolus during pharyngeal transport Waqas Qazi	Validation of viscoelastic, non-isothermal fluid flow simulations Stefanie Meburger
14:40–15:00	Nano-rheometry for food oral processing Mats Stading	Viscosity control of dense suspension by ultrasound Gustaf Mårtensson
15:00–15:30	Coffee Break	
15:30–15:50	Young's Modulus of tumour tissue from an in vivo breast cancer model- effect of treatment with guluronate oligosaccharides Catherine Taylor Nordgård	Industry workshop Fredrik Innings and Gustaf Mårtensson
15:50–16:10	The role of EPS matrix for complex physical properties of biofilms Santosh Pandit	Industry workshop continued
16:10–16:30	Bio-inspired micro-robotic locomotion in the pH dependent mediums Azadeh Jafari	Industry workshop continued
16:30	Reception in the foyer	

Thursday August 22

From 8:00	Registration open	
8:30-9:15	<p>Cellulose nanomaterials and polymer nanocomposites Plenary lecture by Alain Dufresne in Runan Chair: Agne Swerin</p>	
Lecture Hall	Runan	Scaniaalen
Symposium	Cellulose systems	General rheology
9:20-9:40	Chair: Agne Swerin Dispersion and percolation of nanocrystalline cellulose in polymers: percolation threshold Christian Carrot	Chair: Rainer Haldenwang Viscosity of oil based drilling fluids Arild Saasen
9:40-10:00	Spatial-temporal dynamics of cellulose nanocrystal suspensions in shear via rheology coupled with polarized light visualizations Mina Fazilati	A new approach to dynamic barite sag analysis on typical field oil-based drilling fluid Titus Ntow Ofei
10:00 - 10:30	Coffee Break	
10:30-10:50	Chair: Patricia López Sánchez Impact of nanocelluloses on the rheology and microstructure of pectin hydrogels Patricia Lopez-Sanchez	Chair: Anna Ström The influence of hemihydrate on the rheological properties of cement paste Rainer Haldenwang
10:50-11:10	Alignment of crystalline cellulose particles in shear and films Tiina Nypelö	Nonlinear oscillatory shear tests of Pressure Sensitive Adhesives designed for Transdermal Therapeutic Systems Michael Meurer
11:10-11:30	Adsorption and Rheology of Cellulose Nanocrystals at fluid interfaces Pascal Bertsch	Estimating mechanical rubber properties from moving die rheometer vulcanization curves under consideration of the rubber composition Johannes Steinhaus
11:30-11:50	Influence of cellulose nanocrystals on the rheological behavior of Portland cement and pure limestone suspensions Fábio A. Cardoso	Percolation from nonlinear 'oddities' in nano-filled polymers Roland Kádár
11:50-13:00	Lunch and NRS Annual Business Meeting (Scaniaalen)	
13:00-13:05	Presentation of the NRC 2020 in Runan Chair: Mikael Rigdahl	
13:05-13:45	Plenary lecture by Daniel Söderberg in Runan Chair: Mikael Rigdahl	
Symposium	Cellulose systems	Rheometry
13:50-14:10	Chair: Pierre Carmona Rheological measurements on surface treated nanocrystalline cellulose: an indispensable tool box for solving the quest of structure-property relationships Gunnar Westman	Chair: Johanna Andersson Using a dual motor rheometer for advanced rheological testing Jörg Läger
14:10-14:30	Pipe rheology of microfibrillated cellulose suspensions Antti Koponen	Recent developments in extensional rheology Ole Hassager and Qian Huang
14:30 - 15:00	Coffee Break	
	Cellulose systems	Fluid mechanics
15:00-15:20	Microfibrillated cellulose: A novel and renewable rheology modifier for water and/or polar solvent-based systems Katerina Liapis	Chair: Johanna Andersson Mayonnaise rheology Dragana Arlov
15:20-15:40	Coherent fiber flocs in aqueous fiber suspensions and the effect on viscoelastic properties Agne Swerin	Rheological properties of cellulose ethers and their application in cementitious tile adhesives formulation Fabio Curto and Matteo Monaco
15:40-16:00	Rheological properties of aqueous dispersions of bacterial cellulose Igor Makarov	
16:00-17:00	Poster session	
18:30 - 23:00	Conference dinner at Chalmerska Huset Drinks are served from 18.30, dinner starts at 19.	

Friday August 23

8:30–9:15	Tuning the phase-separated morphology and resulting electrical conductivity of carbon nanotube filled blends with a random or block copolymer Plenary lecture by Paula Moldenaers in Runan Chair: Mats Stading	
Lecture Hall	Runan	Scaniasalen
Symposium	Rheometry	Non-Newtonian fluid mechanics and flow simulations
9:20–9:40	Chair: Olli-Ville Laukkanen Analysis of rheological time series data Sara Mohamed Gaber	Chair: Mina Fazilati Evaporation driven Rayleigh-Taylor instability in aqueous polymer solutions Endre Joachim Mossige
9:40–10:00	Novel application of time-resolved rheometry to study physical aging: a case study on bituminous binders Olli-Ville Laukkanen	Rayleigh - Benard convection of an elastoviscoplastic fluid Moctar Gueye
10:00 – 10:20	Coffee Break	
10:20–10:40	Chair: Peter Szabo Concentric cylinder viscometer flows of Herschel-Bulkley fluids Hans Joakim Skadsem	Chair: Thomas Gkourmpis Description of a Flexible Fibre Model in Viscous Fluid Flow Naser Hamedi
10:40–11:00	The effect of CO₂ loading on the flow behavior of amine water mixtures Lars Erik Øi	Yield stress effects on fluid displacement in an eccentric annulus Steinar Kragset
11:00–11:20	Real-time rheology and density monitoring of drilling fluids at offshore installations Jan Ove Brevik	A numerical framework for simulation of swirled adhesive application Simon Ingelsten
11:25–11:40	Closing of the NRC 2019 in Runan	
11:45–12:30	Lunch	