

# NRC 2020, Tentative Program

200524

## Tuesday August 25

14:00–15:00	Reception and logging in			
Lecture Hall		A		B
Symposium		Non-Newtonian fluid mechanics and simulations		Polymer solutions, melts and composites
15:00–15:20	Chair: xx	Simon Ingelsten A backwards-tracking Lagrangian-Eulerian method for viscoelastic free surface flow	Chair: xx	Olli-Ville Laukkanen Photorheology of UV-crosslinkable polymer solutions
15:20–15:40		Sajjad Pashazadeh Simulation of FENE-P fluid flows at high Weissenberg number using conformation transformation		Ram Rohit Vannarth Frequency Sweep Response of a Simarouba Based Green Magneto-Rheological Fluid
15:40–16:00		Christos K. Georgantopoulos Rheological investigation of extrusion flow for styrene-butadiene rubber: highly sensitive detection slit die in comparison with capillary die		Marko Bek The effect of filler materials and particle loading onto rheology of highly filled polymers
16:00–16:20	Chair: xx	Gustaf Mårtensson Numerical simulation of droplet impact of solder paste on a flat surface	Chair: xx	Georgia Manika Viscoelastic and dielectric response in a melt-mixed low percolation high density polyethylene/graphene system
15:20–16:40		Adrian Rodriguez-Palomo Lyotropic liquid crystals in flow. Nanostructure, alignment and flow behaviour studied by SAXS and microfluidics		Alexandra Aulova Modelling creep compliance at different temperatures using multilayer perceptron: Effect of training data

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Wednesday August 26			
From 8:00	Logging in to the Virtual Conference Centre		
8:30–9:00	<p>Perspectives of 3D viscoelastic simulations in process design and optimization - dough kneading as a example of an industrial food process</p> <p>Plenary lecture by Nathalie Germann in the Virtual Auditorium</p>		
Lecture Hall	A	B	
Symposium	Bio-rheology		Rheology of cellulose systems
9:10–9:30	Chair: xx	<b>Catherine Taylor Nordgård</b> Rheology of skin mucus from yolk-sac salmon fry	<b>Roland Kádár</b> Controlling the dynamic self-organization of cellulose nanocrystal dispersions through surface topological tuning with asymmetric dialkylchains
9:30–9:50		<b>Mercedes Jiménez-Rosado</b> Evaluation of the gelation process of collagen-based hydrogels via rheological and microstructural analyses	<b>Maria Alonso-González</b> The importance of rheology in the fabrication of nanofibrous materials with potential application in active packaging
9:50–10:10		<b>Estefanía Álvarez-Castillo</b> Improving mechanical properties of a plasma based superabsorbent material through the addition of a crosslinker	<b>Sylwia Wojno</b> Topological mapping of cellulose nanocrystals (CNC) surface modifications via nonlinear oscillatory shear
10:10–10:40	Coffee Break		
10:40–11:00	Chair: xx	<b>Ioanna N. Besiria</b> <i>In-situ</i> real-time rheological characterization of alginate-Ca <sup>2+</sup> gelation using custom-made setup	<b>Mina Fazilati</b> Time-dependency and structural alignment of cellulose nanocrystal suspensions in shear-rheometry coupled with polarized light visualizations
11:00–11:20		<b>Marwa Tallawi</b> Rheological studies of self-crosslinked gelatin hydrogel filled oxidized alginate microspheres	<b>Juha Koivisto</b> Flow of nanocellulose laden flow through a narrow constriction
11:20–11:40		<b>Carlos G. López</b> Large amplitude oscillatory shear rheology of polysaccharide solutions	<b>Mohor Mihelčić</b> The effect of different molar weight of HEC addition on rheological properties of micro-fibrillated cellulose
11:40–12:00		<b>Heidi Liva Pedersen</b> Novel NUTRAVATM Citrus Fiber and it's ability to Stabilize Emulsions	<b>Pauliina Ahokas</b> Rheological properties of aqueous alkali cellulose solutions
12:00–13:00	Lunch break and networking in the Exhibitor Area		
13:00–13:30	<p>Rheology and flow induced crystallisation of polydisperse linear polymers</p> <p>Plenary lecture by Daniel Read in the Virtual Auditorium</p>		
Symposium	Food rheology		Rheology of drilling fluids
13:40–14:00	Chair: xx	<b>Mats Stading</b> Food oral processing – Rheology of the bolus	<b>Titus Ntow Ofei</b> Effect of barite on the rheological properties of an oil-based drilling fluid
14:00–14:20		<b>Pietro Rando</b> Food 3D Printing: Effect of Heat Transfer on Print Stability	<b>Ali Ettehadi</b> A comparative study on thixotropic behaviour of clay based drilling fluids
14:20–15:30	Coffee break and poster session in the Exhibitor Area		
15:30–15:50	Chair: xx	<b>Johanna Andersson</b> Rheology of suspensions of root vegetables as function of processing conditions	<b>Janaki Umashanker</b> The shear and extensional rheology of xanthan gum and oil-field fluids
15:50–16:10		<b>Adrian J Hill</b> A practical overview of the methods of yield stress determination using a rotational rheometer	<b>Panu Noppari</b> Sol-gel transition of colloidal silica suspension investigated by time-resolved rheometry
16:10–16:30			<b>Martin Trulsson</b> Enhanced flowability of dense suspensions due to oscillatory shear
16:40–17:00	Closing remarks and presentation of NRC&NPD 2021 in the Virtual Auditorium		

## NRC 2020, Posters

**Ram Rohit Vannarth** Amplitude Sweep Response of a Mahua Based Green Magneto-Rheological Fluid

**Herman Camilo Pedrosa** Cellulose nanofibers facilitate heavy particle suspension in drilling fluids

**Elling-Olav Rukke** Influence of freeze storage on rheological properties in Quark

**Blandine Feneuil** Particle sedimentation during shearing of a transparent emulsions in a Couette cell

**Marie Skov Pedersen** Rheological methods for characterization of industrially produced jam

**A.V. Mityukov** The rheology of highly concentrated suspensions for powder injection molding

**María Luisa López-Castejón** Interfacial rheology and stability of food foams containing inulin

**Athanasios Theodoridis** Electrical and rheological percolation in high density polyethylene/graphenecomposites