

NRC 2022 Conference Program

Monday August 8

13:30–
16:30

Rheology short course

Hall 5

16:30–
18:00

Welcome reception

Foyer of Háskólabíó

NRC 2022 Conference Program

Tuesday August 9

	Registration	
From 8:00		
8:15- 8:30	Opening of the conference	
8:30-9:15	Plenary lecture by Dave Adams Self-assembly of pH-responsive low molecular weight gelators Lecture Hall 3	
Lecture Hall	Lecture Hall 3	Lecture Hall 4
Symposium	General rheology	Flow instabilities
9:20-9:40	Mohamed Omran Role of Zeta Potential on Viscosity of Geopolymer Slurries – Influence of Superplasticizers <small>Chair: A. H. Rabenjaifimanantsoa</small>	Sajjad Pashazadeh Extrusion instabilities in highly-filled wood fiber biocomposites <small>Chair: Roland Kádár</small>
9:40-10:00	Yousefi Oderji Sajjad The Impacts of Superplasticizers on Rheology and Strength of Norite-based Geopolymer Binders <small>Chair: A. H. Rabenjaifimanantsoa</small>	Reza Ghanbari Taylor-Couette stability modes of cellulose nanocrystals suspensions directly from birefringence patterns <small>Chair: Roland Kádár</small>
10:00-10:40	Coffee Break	
Symposium	General rheology / Gels	Colloids, suspensions & solutions
10:40-11:00	Andreas Lutz Performance based characterization of bitumen and mastic using the DSR <small>Chair: A. H. Rabenjaifimanantsoa</small>	Victor Nogueira Lima Viscosity and friction pressure measurements of a non-Newtonian fiber suspension <small>Chair: Roland Kádár</small>
11:00-11:20	Olli-Ville Laukkanen Interfacial rheology of ultra-low crosslinked and regularly crosslinked pNIPAM microgels <small>Chair: A. H. Rabenjaifimanantsoa</small>	Seyed Ehsan Hadi Viscoelastic properties and shear-induced orientation and relaxation of cellulose nanocrystal and montmorillonite nanoplatelet dispersions <small>Chair: Roland Kádár</small>
11:20-11:40	Gustaf Mårtensson Rheological Modification of Liquid Metal Alloys (LMA) for Non-Contact Dispensing <small>Chair: A. H. Rabenjaifimanantsoa</small>	Sylvia Wojno Effect of sulfate content and counterion on rheological properties of cellulose nanocrystal suspensions <small>Chair: Roland Kádár</small>
11:40-12:00	Thorri Gunnlaugsson Supramolecular self-assembly structures: The importance of rheology and morphology in understanding their properties and function <small>Chair: A. H. Rabenjaifimanantsoa</small>	Anish Gulati Effect of NaCl on the rheological behaviour of Sodium polystyrene sulfonate (NaPSS) in aqueous solutions <small>Chair: Roland Kádár</small>
12:00-13:00	Lunch	

2022 NRS Annual Meeting

Lecture Hall 3

13:00–14:00			
		Gels	Rheometry
14:00–14:20	Chair: Mats Stading	<p>Hengzhi Ruan Development and rheological characterization of a new hydrogel inspired by mussels</p>	<p>Lucas Volpi Effects of non-Newtonian viscosity and suspended particles on torque measurements in rotational viscometry</p>
14:20–14:40		<p>Krishna Kumar Damodaran Tuning the Gel Strength in Multi-component Supramolecular Gels Based on Enantiomers</p>	<p>Neda Olsen In-line characterization of cement slurry - towards automated cementing operation</p>
14:40–15:00		<p>Jahanzaib Mazhar Analysis of Gelling properties of Drilling Fluid and Improved Modelling of Gelling Behavior</p>	<p>Roland Kádár Are birefringence patterns in optically active dispersions and shear stress nonlinearities related?</p>
15:00 – 15:30		Coffee Break	
		Modelling and simulations	Multiphase and other complex fluid flows
15:30–15:50	Chair: Mats Stading	<p>Zakiyeh Yousefian Orientational arrest in dense suspensions of elliptical particles under oscillatory shear flows</p>	<p>Kasra Amini Experimental Investigation on Particle-Laden Flows of Viscoelastic Fluids in Micro-Channels Using Optical Coherence Tomography</p>
15:50–16:10		<p>Jon Elvar Wallevik Utilizing Large Industrial Mixer As A Rheometer - Computational Analysis Using Openfoam</p>	<p>Andrianifaliana Herimonja Rabenjafimanantsoa The Rising of Taylor Bubble at the Inception to an Annulus</p>
16:10–16:30		<p>Ases Mishra Thixotropic Modelling of Yield Stress Fluids</p>	<p>Yao Zhang Visualization and Experimental Investigation of Miscible Non-Newtonian Fluid Displacement in a Vertical Channel</p>
16:30–17:30		Poster session: Foyer of Háskólabíó	
19:00-		Conference dinner (Hotel Natura)	

Chair: Olli-Ville Laukkanen

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NRC 2022 Conference Program

Wednesday August 10

	Registration	
From 8:00		
8:20–9:15	Carl Klason Rheology Award lecture by Sami Hietala Rheology of stimuli-responsive polymers Lecture Hall 3	
Lecture Hall	Lecture Hall 3	Lecture Hall 4
Symposium	Food and bio-rheology	Polymers & composites
9:20–9:40	Chair: Johanna Andersson Nathaniel Hendrik Tempering in a rheometer: thermal and shear histories effects on the flow behaviour of dark chocolate	Chair: Krishna K. Damodaran Tomas Plachy Influence of filler and processing conditions on structure and rheological properties of polypropylene composites
9:40–10:00	Chair: Johanna Andersson Even Gausemel Improving sampling of dry Whey Protein Concentrate using a sample splitter	Chair: Krishna K. Damodaran Alexandra Aulova Orientation of Graphene Nanoplatelets in a Capillary Flow of Polyethylene: Effect of Polymer Topology and Molecular Weight
10:00–10:40	Coffee Break	
Symposium	Food and bio-rheology	Polymers & composites / General rheology
10:40–11:00	Chair: Johanna Andersson Milan Kracalik Rheology of cerebrospinal fluid using novel analysis approach	Chair: Krishna K. Damodaran Angelica Avella Effect of crosslinking on rheological behaviour of reactively melt processed cellulose/polyesters biocomposites
11:00–11:20	Chair: Johanna Andersson Gerald Fuller Viscoelastic Response of Mucus Above Living Bronchial Epithelial Cells	Chair: Krishna K. Damodaran Martin Tress Transient polymer networks: connection of bond lifetime, stress relaxation & phase separation
11:20–11:40	Chair: Johanna Andersson Mats Stading Nano-rheometry for non-invasive monitoring of texture during food oral processing	Chair: Krishna K. Damodaran Viney Ghai Role of Rheology on the Magnetic Field Orientation of Graphene Nanosheets in Polymers
11:40–12:00	Chair: Johanna Andersson Astrid Ahlinder Increasing the visual appeal of food for dysphagia patents using 3D printing and rheology, in addition to improving the timbal formulation using dietary fibres whilst retaining an appropriate texture	Chair: Krishna K. Damodaran Ian Frigaard Plug cementing: a puzzle for rheology and flow
12:00–12:15	Closing of the conference	
	Lecture Hall 3	
12:15 –	Lunch	