



The British Society
of Rheology



Mid-Winter Meeting 18th – 20th December 2023

Isaac Newton Building, University of Lincoln, UK

Modelling & Measurement of Complex Materials: what works, what doesn't, and what's needed?

Monday 18 th December		
11.30am-1pm	Registration and Lunch (INB Atrium)	
1.00-1.10pm	Opening remarks Andrei Zvelindovsky (University of Lincoln)	
1.10-1.55pm	Invited Talk Hugh Barlow (Unilever)	Interfacial rheology of lung surfactant: experiments and modelling to explore disruption of breathing by aerosolised compounds
1.55-2.20pm	Stephen Flores (University of Manchester)	Structure-property and thermodynamic characterization of wormlike micelles from ionic polydisperse surfactant solutions
2.20-2.45pm	Vinay Kopnar (University of Durham)	How do inter-network crosslinks affect the failure mechanism of double-network hydrogel?
2.45-3.15pm	Coffee Break (INB Atrium)	
3.15-3.40pm	Dan Curtis (Swansea University)	The effect of instrument inertia on the initiation of oscillatory flows in stress-controlled frequency sweep and chirp based rheometry
3.40-4.05pm	Tom Eaves (University of Dundee)	Compressional rheology of a fibrous porous medium
4.15-5.30pm	Tour of the Bridge (Meet in INB Atrium)	
4.30-6.30pm	BSR Council Meeting (Council Members Only) INB3305	

* All talks to talk place in the Isaac Newton Building Lecture Theatre INB0114

Tuesday 19th December		
9.00-9.45am	Invited Talk Partick Ilg (University of Reading)	Fluids with internal rotations: hybrid simulations of ferrofluid flow
9.45-10.10am	Theofilos Boulafentis (UCL)	Spatio-temporal characteristics of polymeric turbulent Taylor-Couette flows
10.10-10.35am	Emily Cook (UCL)	Tensorial viscosity models for non-Newtonian fluids
10.35-11.10am	Coffee Break (INB Atrium)	
11.10-11.35am	Marco Pinna (University of Lincoln)	Mechanisms of alignment of lamellar-forming block copolymer under shear flow
11.35-12noon	Galina Pavlovskaya (University of Nottingham)	A molecular-mechanical link in shear-induced self-assembly of a functionalized biopolymeric fluid
12noon-12.25pm	Mahdi Davoodi (SLB)	Particle Redistribution in Complex Flow of Complex Fluids
12.30-1.40pm	Lunch + Posters (INB Atrium)	
1.40-2.05pm	Esther Garcia-Tunon Blanca (University of Liverpool)	Linking Rheology and Printability in Direct Ink Writing (DIW): advances and opportunities
2.05-2.30pm	Ian Frigaard (UBC Mechanical Engineering)	Bubbles in yield stress fluids
2.30-2.55pm	James Richards (University of Edinburg)	Optimising non-Newtonian fluids for impact protection of laminates
2.55-3.30pm	Coffee Break (INB Atrium)	
3.30-4.15pm	Vernon Harrison Award Lecture Libby Marshall (University of Glasgow)	Preparation of multicomponent systems as a means of controlling the properties of peptide-based low molecular weight hydrogels
4.15-5pm	Annual Award Lecture Alexander Morozov (University of Edinburgh)	Elastic turbulence in parallel shear flows: Recent progress
7pm	Conference Dinner (Assembly Rooms, 76 Bailgate, Lincoln, LN1 3AR)	

* All talks to talk place in the Isaac Newton Building Lecture Theatre INB0114

Wednesday 20th December		
9.00-9.40am	RepTate Demonstration Jorge Ramirez (UPM, Spain)	
9.40-10.20am	iRheo Demonstration Manlio Tassieri (University of Glasgow)	
10.20-10.40am	Coffee Break (INB Atrium)	
10.40-11.25am	Invited Talk Helen Wilson (UCL)	Building constitutive models for complex suspensions
11.25-11.50am	Tom John (University of Manchester)	Machine learning for viscoelastic constitutive model identification and parameterisation
11.50-12.15pm	John Hinch (University of Cambridge)	Fast flow of an Oldroyd-B fluid through a slowly varying contraction, expansion or constriction in a channel

* All talks to talk place in the Isaac Newton Building Lecture Theatre INB0114