



**Tomas Bata University in Zlín**  
Faculty of Technology



## NOVEL TRENDS IN RHEOLOGY IX PROGRAMME

**July 26, 2023**

Time	Event	Presentation Title	
8:00-8:50	Registration		
8:50-9:00	Welcome		
(Chairman: Helmut Münstedt)		EXTENSIONAL RHEOMETRY	
9:00-9:30	Christopher W. Macosko <i>University of Minnesota Minneapolis, USA</i>	Extensional Rheometry via Flow through an Abrupt Contraction: a Short Review	
9:30-10:00	Martin Zatloukal <i>Tomas Bata University in Zlín Zlín, Czech Republic</i>	Advances in Determination of Extensional Viscosities for Polymer Melts from Entrance Pressure Drop Measurements	
10:00-10:30	Coffee break & Exhibition		
(Chairman: Manfred Wilhelm)		INTRODUCTION OF NOVEL RHEOLOGICAL TOOLS	
10:30-11:00	Onur Özgül <i>NETZSCH-Gerätebau GmbH Selb, Germany</i>	Polymer Rheology: from Material Characterization to Process Simulation with NETZSCH Rheometers	
11:00-11:30	Ansgar Frendel <i>Thermo Fisher Scientific Dreieich, Germany</i>	Continuous Twin-screw Extrusion and Rheological Analysis of Electrode Slurries for Lithium-ion Battery Manufacturing	
11:30-12:00	Loredana Völker-Pop <i>Anton Paar Germany GmbH Ostfildern, Germany</i>	Combined Rheology and Spectroscopy Methods to Characterize the Cure Behavior of Epoxy Resins	
12:00-13:30	Lunch & Exhibition		
(Chairman: Savvas George Hatzikiriakos)		RHEOLOGY OF POLYMERIC MATERIALS I	
13:30-14:00	Helmut Münstedt <i>Friedrich-Alexander University Erlangen-Nürnberg Erlangen, Germany</i>	Strain Hardening of Various Polymer Melts	
14:00-14:30	Paula Marie Wood-Adams <i>Concordia University Montreal, Canada</i>	Shear Flow of Bimodal Polyethylene: Slip and Surface Fractionation	
14:30-15:00	Coffee break & Exhibition		
(Chairman: Roland Kádár)		RHEOLOGY OF POLYMERIC MATERIALS II	
15:00-15:30	Savvas George Hatzikiriakos <i>University of British Columbia Vancouver, Canada</i>	Self-healing Behavior of Aminated Polyolefins with Dynamic Associations	
15:30-16:00	Alan Jeffrey Giacomini <i>University of Nevada Reno, USA</i>	Recent Advances in Polymer Viscoelasticity from General Rigid Bead-rod Theory	
18:30	Conference dinner		

### WIFI internet connection:

name: noveltrends9

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### Conference programme:

<http://noveltrends9.ft.utb.cz/programme.html>



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**July 27, 2023**

Time	Event	Presentation Title	
(Chairman: Alan Jeffrey Giacomin)		RHEOLOGY OF POLYMERIC MATERIALS III	
8:30-9:00	Valerian Hirschberg <i>Karlsruhe Institute of Technology (KIT)</i> <i>Karlsruhe, Germany</i>	Shear and Elongational Rheology of Model Polystyrene Pom-Poms	
9:00-9:30	Manfred Hermann Wagner <i>Berlin Institute of Technology (TU Berlin)</i> <i>Berlin, Germany</i>	Modeling Elongational Flow and Fracture of Long-chain Branched Polymer Melts	
9:30-11:00	Coffee break & Poster section & Exhibition		
	Khunanya Janchai <i>Japan Advanced Institute of Science and Technology</i> <i>Nomi, Japan</i>	Role of Nucleating Agent on Molecular Orientation of Polypropylene Crystallized under Flow Field	
	Jiri Drabek <i>Tomas Bata University in Zlín</i> <i>Zlín, Czech Republic</i>	Effect of Pre-Shear on Flow-Induced Crystallization of Branched Polypropylene	
	Sajjad Pashazadeh <i>Chalmers University of Technology</i> <i>Göteborg, Sweden</i>	Surface Instability Detection in Highly-Filled Biocomposites from Inline Imaging during Extrusion	
	Tomas Barborik <i>Tomas Bata University in Zlín</i> <i>Zlín, Czech Republic</i>	Modeling of Extrusion Film Casting Process for Battery Separator Membranes Production using Variable Heat Transfer Coefficient	
	Vít Průša <i>Charles University in Prague</i> <i>Prague, Czech Republic</i>	Gibbs Free Energy Based Constitutive Relations for Elastic Solids and their Use in Mathematical Modelling of Viscoelastic Fluids	
	Miloslav Pekař <i>Brno University of Technology</i> <i>Brno, Czech Republic</i>	Gustav Jaumann and History of (Not Only) Rheology	
	Ana Vera Machado <i>University of Minho</i> <i>Guimarães, Portugal</i>	Food Packaging – from Multimaterials to Monomaterial	
	Jan Štípek <i>Czech Technical University in Prague</i> <i>Prague, Czech Republic</i>	Determination of Viscoelastic Properties of Collagen Matter Using Various Methods within Extrusion Rheometry	
	Martin Kadlec <i>Brno University of Technology</i> <i>Brno, Czech Republic</i>	Dynamic Mechanical Analysis of Agarose Hydrogels and Its Relationship to Shear Oscillation	
	Nabanita Saha <i>Tomas Bata University in Zlín</i> <i>Zlín, Czech Republic</i>	Rheology of Polysaccharide based Self-Cross-Linked Injectable Hydrogel	
	Michal Sedláček <i>Tomas Bata University in Zlín</i> <i>Zlín, Czech Republic</i>	Magneto-Active Ferrite-Based Paint Pigments	
	Marek Večeř <i>VSB - Technical University of Ostrava</i> <i>Ostrava, Czech Republic</i>	Shear Stability of Base Fluids for Environmentally Acceptable Lubricants for Stern Tube Application	
(Chairman: Christopher W. Macosko)		RHEOLOGY OF POLYMERIC MATERIALS IV	
11:00-11:30	Manfred Wilhelm <i>Karlsruhe Institute of Technology (KIT)</i> <i>Karlsruhe, Germany</i>	Novel Combined Methods in Rheology: Rheo-NMR, Rheo-IR and Rheo-Dielectric to Correlate Length and Time Scales	
11:30-12:00	Masayuki Yamaguchi <i>Japan Advanced Institute of Science and Technology</i> <i>Nomi, Japan</i>	Modification of Rheological Responses under Elongational Flow at Non-Isothermal Condition	
12:00-13:30	Lunch & Exhibition		
(Chairman: Manfred Hermann Wagner)		NON-NEWTONIAN FLUID MECHANICS	
13:30-14:00	João Miguel Nóbrega <i>University of Minho</i> <i>Guimarães, Portugal</i>	Computational Modelling of the Selective Laser Sintering Process	
14:00-14:30	Roland Kádár <i>Chalmers University of Technology</i> <i>Göteborg, Sweden</i>	Challenges in Nano-Structured Fluid Flows for Assembly into Hierarchical Biomaterials	
14:30-15:00	Refreshment & End of the conference		



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