



## NOVEL TRENDS IN RHEOLOGY V PROGRAMME

July 30, 2013

Time	Event	Presentation Title
7:00-8:20	Registration	
8:20-8:30	Welcome	
(Chairman: A. Jeffrey Giacomin)		SLIP OF POLYMER MELTS
8:30-9:10 Plenary lecture	Savvas Hatzikiriakos <i>The University of British Columbia, Canada</i>	Wall Slip of Linear Polymers (HDPEs)
9:10-9:40	Paula M. Wood-Adams <i>Concordia University Montreal, Canada</i>	Microfluidics Study of the Effect of Polydispersity on Interfacial Slip of Polymer Melts
9:40-10:10	Coffee break & Exhibition	
(Chairman: Manfred H. Wagner)		ELONGATIONAL RHEOLOGY OF POLYMER MELTS I
10:10-10:50 Plenary lecture	Helmut Münstedt <i>Friedrich-Alexander University Erlangen-Nürnberg, Germany</i>	Elongational Experiments on Polymer Melts and Their Assessment
10:50-11:20	Zdeněk Starý <i>Friedrich-Alexander University Erlangen-Nürnberg, Germany</i>	On the Viscosity Maximum during Uniaxial Extension: Material Property or Measuring Artifact?
11:20-11:50	Joao M. Maia <i>Case Western Reserve University, USA</i>	True Ultra-high Strain Constant Rate and Stress Uniaxial Extensional Rheometry
11:50-12:20	Martin Zatloukal <i>Tomas Bata University in Zlin, Czech Republic</i>	Evaluation of Temperature-strain rate Dependent Uniaxial and Planar Elongational Viscosities for Branched LDPE Polymer Melt
12:20-13:50	Lunch & Exhibition	
(Chairman: Frederik Desplentere)		EXTRUSION FLOW MODELING
13:50-14:20	Olga S. Carneiro <i>University of Minho, Portugal</i>	Effect of Polymer Melt Wall Slip on the Flow Balance of Profile Extrusion Dies
14:20-14:50	João M. Nóbrega <i>University of Minho, Portugal</i>	On the Performance of a 2D Unstructured Computational Rheology Code on a GPU
14:50-15:20	Coffee break & Exhibition	
(Chairman: Zdeněk Starý)		NANOCOMPOSITES AND POLYMER BLENDS
15:20-15:50	Ana Vera Machado <i>University of Minho, Portugal</i>	Rheology as a Tool to Follow Hybrid Nanocomposites Preparation
15:50-16:20	Ivan Fortelný <i>Institute of Macromolecular Chemistry ASCR, Czech Republic</i>	Description of the Flow Induced Coalescence in Immiscible Polymer Blends – Advances and Persisting Problems
18:30	Conference dinner	

## Partners



**July 31, 2013**

(Chairman: Helmut Münstedt)		ELONGATIONAL RHEOLOGY OF POLYMER MELTS II
8:00-8:40 Plenary lecture	Manfred H. Wagner <i>Berlin Institute of Technology (TU Berlin), Germany</i>	Elongational Flow of Polymer Melts at Constant Strain Rate, Constant Stress and Constant Force
8:40-9:10	Víctor H. Rolón-Garrido <i>Berlin Institute of Technology (TU Berlin), Germany</i>	Photo-oxidation of LDPE: Effects on Elongational Viscosity
9:10-9:40	Petr Filip <i>Institute of Hydrodynamics ASCR, Czech Republic</i>	On the (Ir)Reproducibility of Measurements of Elongational Viscosity Using an SER Universal Testing Platform
9:40-10:40	Coffee break & Poster section & Exhibition	
	Matthias Kruse <i>Berlin Institute of Technology (TU Berlin), Germany</i>	Rheological Characterization of Degradation and Polycondensation of Poly(ethylene terephthalate) Melt in Air and in Nitrogen
	Ales Obr <i>SILON s.r.o, Czech Republic</i>	Investigation of Crosslinking Behaviour of Silane Grafted Polyethylene through Rheology
	Zdeněk Starý <i>Friedrich-Alexander University Erlangen-Nürnberg, Germany</i>	Shear Induced Electrical Behaviour of Conductive Polymer Composites
	Jiri Drabek <i>Tomas Bata University in Zlin, Czech Republic</i>	Rheological Evaluation of Melt Blown Polymer Melt
	Takeshi Kitano <i>Tomas Bata University in Zlin, Czech Republic</i>	Effect of Strain on Viscoelastic Behavior of Fresh, Swelled and Mineralized PVP-CMC Hydrogel
	Jan Musil <i>Tomas Bata University in Zlin, Czech Republic</i>	Characterization of Die Drool Sample Produced by HDPE Melt Extrusion
	Kamil Kyas <i>Tomas Bata University in Zlin, Czech Republic</i>	Effect of Rheological Parameters on Curing Rate during NBR Injection Molding
	Roman Kolarik <i>Tomas Bata University in Zlin, Czech Republic</i>	Evaluation of Variational Principle Based Model for LDPE Large Scale Film Blowing Process
	Petr Slobodian <i>Tomas Bata University in Zlin, Czech Republic</i>	Deformation Theory of an Electro-conductive Composite Composed of Entangled Network of Carbon Nanotubes Embedded in Elastic Polyurethane
	Rushita Shah <i>Tomas Bata University in Zlin, Czech Republic</i>	Morphology, Absorptivity and Viscoelastic Properties of Mineralized PVP-CMC Hydrogel
	Petra Peer <i>Institute of Hydrodynamics ASCR, Czech Republic</i>	Quality of Nanofibrous Web in Dependence on the Preparation of Polymer Solutions
	Dusan Kimmer <i>SPUR a.s., Czech Republic</i>	The Effect of Nanofiber Based Filter Morphology on Bacteria Deactivation during Water Filtration
(Chairman: Joao M. Maia)		INTRODUCTION OF NOVEL RHEOLOGICAL TOOLS
10:40-11:10	Michael Ringhofer <i>Anton Paar GmbH, Austria</i>	The possibilities of a rheometer with two EC motors: MCR 702 TwinDrive™
11:10-11:40	Bernd Jakob <i>ThermoFisher Scientific, Germany</i>	Relevant Process Parameters for Twin Screw Compounding
11:40-13:10	Lunch & Exhibition	
(Chairman: Savvas Hatzikiriakos)		EXTRUSION INSTABILITIES IN PLASTICS INDUSTRY
13:10-13:50 Plenary lecture	A. Jeffrey Giacomin <i>University of Wisconsin-Madison, USA</i>	Die Drool and Die Drool Theory
13:50-14:20	Jan Musil <i>Tomas Bata University in Zlin, Czech Republic</i>	Historical Review of Die Drool Phenomenon during Plastics Extrusion
14:20-14:50	Jiri Svabik <i>Compuplast International, Inc., Czech Republic</i>	Numerical Simulation of Extrusion: A Good Tool for Troubleshooting Extrusion Problems
14:50-15:20	Coffee break & Exhibition	
(Chairman: Olga S. Carneiro)		MODELING AND SIMULATION
15:20-15:50	Frederik Desplentere <i>KHBO (Association KU Leuven), Belgium</i>	Influence of the Power Law Index on the Fiber Breakage during Injection Molding by Numerical Simulations
15:50-16:20	Roman Kolarik <i>Tomas Bata University in Zlin, Czech Republic</i>	Investigation of Heat Transfer in 9-Layer Film Blowing Process by using Variational Principles
16:20-16:50	Wannes Sambaer <i>Tomas Bata University in Zlin, Czech Republic</i>	Effect of Particle-Fiber Friction Coefficient on Ultrafine Aerosol Particles Clogging in Nanofiber Based Filter
16:50	End of the conference	

#### Partners

