AERC 2010, Final Program

100401

Friday April 9

Lecture Hall	Runan	Palmstedtsalen	Scaniasalen	Catella	Valdemar	GD	VH
Symposium	**Polymer melts and solutions**	**Complex fluids**	**Rheometry**	**Interfacial**	**Rheology of solids**	**Modelling/Simulation and Computational**	**Dispersion rheology**
9:00–9:20	**Natalie Germann** Rheological and microstructural properties of an extended White-Metzner fluid in eccentric annular flow	**F.I. Roschzttardtz** Complex rheo-thermal behaviour and universality of multiblocks copolymers	Keynote Lecture **Helmut Münstedt**	**Inbal Preker** PEO-PDMS block copolymers at isooctane/water interface – interfacial activity and dilatational rheology	**Ulrich A. Handge** Thermal and viscoelastic properties of polyamide 6/halloysite nanocomposites	**João Maia** Direct simulation of micro- and nano-fibre composites in shear and extensional flows	**PFG Banfill** Rheology of carbon fibre-reinforced cement pastes
9:20–9:40	**Chen-Yang Liu** Prob rheology: a simple method to test chain dynamics	**Katarzyna Niedzwiedz** Determination of yield stress from capillary breakup elongation rheometry (CaBER)	Creep-recovery experiments as a powerful tool to investigate molecular processes in polymer melts	**Lazhar Benayhia** A dancing droplet: experiments and a model of a Newtonian droplet undergoing large amplitude oscillatory shear flow in another immiscible Newtonian matrix	**Didier R. Long** Unique plastic and recovery behaviour of nano-filled elastomers and thermoplastic Eelastomers (payne and mullins effects)	**Tommi Borg** Practical linear viscoelastic models by control theory	**Florian J. Stadler** Gelation of dilute suspensions of spherical and rod-like zinc oxide nanoparticles by dye absorption – a novel route to gelation
9:40–10:00	**Salvatore Coppola** Viscoelasticity of elastomers from uncured to cured state: effects of polymer structure	**Joerg Laeuger** Differences between stress and strain control in the non-linear behaviour of complex fluids	**Anne Ladegaard Skov** Reversible planar elongation of soft polymeric networks	**Reza Foudazi** Rheology of highly concentrated water-in-oil explosive emulsions	**P. Martinoty** Mechanical properties of uniaxial magnetic gels	**Ian Frigaard** Stable multilayer flows with yield stress fluids: entry effects and stability	**Jung Gun Nam** Strain stiffening of non-colloidal hard sphere suspensions dispersed in Newtonian fluid near liquid-crystal coexistence region
		Microrheology					
10:10–10:30	**Bernadette Duscher** The time-concentration superposition of carbon dioxide plasticized polymer melts	Keynote Lecture **Luca Cipelletti**	**Christian Wagner** Is there a relationship between the elongational viscosity and the first normal stress difference in polymer solutions?	**N Huang** Rheological studies on the bulk and at the interface of a pickering oil/water emulsion	**L. Grassia** On the viscoelastic poisson's ratio in amorphous polymers	**Christian Bailly** A proposal to solve the time-modulus discrepancy of tube models for linear entangled polymers	**Alain Ponton** Structural and rheophysical investigation of magneto-sensitive biopolymeric materials
10:30–10:50	**João Maia** An experimental study on the criteria for failure of polymer melts in uniaxial extension: the test case of a polyisobutylene melt in different deformation regimes	Anomalous dynamics in jammed soft matter and its implication for microrheology	**Kaijia Yu** Extension of cylindrical samples in the Sentmanat extensional rheometer (SER)	**Philipp Erni** Length time and force scales in emulsions for flavor and fragrance delivery systems	**Markus Hütter** Thermodynamics perspective on dislocation dynamics	**Gaetano D'Avino** Experimental and numerical study of migration of a sphere in Couette flow induced by viscoelastic stresses	**Pierre J. Carreau** Rheology, morp-hology and microstructure development of PC/MWCNT suspensions
10:50 – 11:20	**Coffee Break**						
Symposium	**Polymer melts and solution + Complex Flows**						
11:20–11:40	**Wilhelm Manfred** Establishing a new nonlinear mechanical parameter Q from FT-Rheology: first investigation on entangled linear and comb polymer model systems	**Claude Oelschlaeger** Effect of counterion binding efficiency on structure and dynamics of wormlike micelles	**Teodor I. Burghelea** The role of homogeneity in measurements of the transient elongational viscosity of polymer melts: stressing versus creep	Keynote Lecture **Nikolai Denkov**	**Toshio Tada** Non-linear stress relaxation behavior of carbon black filled rubber vulcanizates under various types of deformation	**Chien-Cheng Huang** Semidilute polymer solutions under shear flow	**Mark Haw** Jamming, unjamming, lubrication and dilation in concentrated colloidal dispersions
11:40–12:00	**Henrik K. Rasmussen** Does the interchain pressure effect exist in flow of polymer melts?	**Andreas Schneider** Direct measurement of shear-induced cross correlation of Brownian motion	**Zden Starý** On the "viscosity overshoot" during the uniaxial extension of a low density polyethylene	Viscous friction in sheared foams and emulsions	**Noëlle Billon** Thermomechanical constitutive modelling for semi crystalline polymers at a meso scale.	**C.Tzoumanekas** Tube segment survival probability from computer generated trajectories: onset of tube confinement	**Jean Charles Majeste** Concentration dependence of the non linear viscoelastic properties of polymer-grafted particles in polymer melt
12:00–12:20	**Vitor C. Barroso** Non-linear rheological properties of long-chain branched polyethylenes	**Catalin Mihai Balan** influence of elasticity on the vortical structures formed in micro-channels geometries	**Martin Rides** Measurement of the extensional flow behaviour of fluids using a modified rotational rheometer	**Gerald Fuller** Particle removal: turning liquids into soft adhesives	**Cornelia Grabsch** New approach for the application of rheological models for the interpretation of viscoelastic substances	**T N Phillips** Mathematical and computational models for compressible viscoelastic flows	**Pasquino Rossana** Shear induced ordering of spheres in a wormlike micellar solution
12:20–12:40	**Stella Poyiadji** Incompressible poiseuille flows of newtonian liquids with a pressure-dependent viscosity	**Manlio Tassieri** Measuring storage and loss moduli using optical tweezers: broadband microrheology	**Suraj Deshmukh** High throughput rheology	**Gerald Fuller** Interfacial rheology of the Tear film	**H. Pleiner** Director dynamics in nematic single-crystal elastomers	**Olivier Botella** Recent progress on the LS-STAG immersed boundary method for the computation of viscoelastic and pseudoplastic liquids	**Kostas D. Housiadas** A differential model for the rheological properties of concentrated suspensions with weakly viscoelastic matrices
12:40–13:40	**Lunch**						
13:40–14:00	**Jerome Claracq** Melt processability of self-assembly materials	**Nahn Ju Kim** Dynamics of aqueous polymer solutions under combined electric and flow field in microchannel	**Robert Vogt** Experimental approach to determine high frequency rheological properties of polyethylene	**Angelo Pommella** Deformation of surfactant vesicles in shear flow	**A. Blaise** Characterization of the micro-mesostructure of HDPE under uniaxial tensile test by X-ray microtomography, incoherent polarized steady-light transport and small-angle X-ray scattering	**R J Poole** Purely-elastic instabilities in lid-driven cavities	**Innocent Boudimbou** In-situ characterisation of elementary dispersion mechanisms of silica granules in a polymer matrix under the action of shear
14:00–14:20	**Jaroslav Strnadel** Drag coefficient of solid spheres falling through viscoelastic shear thinning fluids	**Pier Luca Maffetone** Simulation of particle migration in tube flow in a viscoelastic fluid	**Seung Jae Baik** Normal stresses of complex fluids in thin film rheology	**Mitropoulos Varvara** Tailoring protein covered interfaces	**D. Rogez** Shear mechanical anisotropy of uniaxial nematic side-chain liquid-crystalline elastomers with planar and homeotropic alignments	**A.M. Afonso** Numerical studies of electro-osmotic flows of viscoelastic fluids	**Guillaume Ovarlez** Three-dimensional flows of yield stress fluids
14:20–14:40	**Fatemeh Goharpey** Rheology and morphology of dynamically asymmetric LCST blends: polystyrene/poly (Vinyl methyl ether)	**Oliveira Mónica** Elastic-driven instabilities in microfluidic flow-focusing devices	**Thomas Schweizer** How reliable is N2 of a polymer melt determined with a cone-partitioned plate rheometer?	**Pierre Carreau** Relationships between rheology and morphology in thermoplastic olefin (TPO) blends	**Richard Holm** Efficient pumping in waste streams	**Hossein Nazockdast** Viscoelastic based modeling of extrudate swell of acrylonitrile- butadiene-styrene/clay nanocomposite	**Patrick Ilg** Chaining versus gelation in dipolar colloids and their influence on structure and dynamics
14:45 – 15:00	**Closing of the conference in lecture hall Runan**						

Chair: Johanna Ahu (9:00–9:20, 9:20–9:40, 9:40–10:00)
Chair: Christopher Pipe (9:00–9:20, 9:20–9:40, 9:40–10:00)
Chair: Helmut Münstedt (9:00–9:20, 9:20–9:40, 9:40–10:00)
Chair: Peter Fischer (9:00–9:20, 9:20–9:40, 9:40–10:00)
Chair: Dietmar Drummer (9:00–9:20, 9:20–9:40, 9:40–10:00)
Chair: Tim Phillips (9:00–9:20, 9:20–9:40, 9:40–10:00)
Chair: Phillip Banfill (9:00–9:20, 9:20–9:40, 9:40–10:00)
Chair: Johanna Aho (10:10–10:30, 10:30–10:50)
Chair: Moshe Gottlieb (10:10–10:30, 10:30–10:50)
Chair: Helmut Münstedt (10:10–10:30, 10:30–10:50)
Chair: Peter Fischer (10:10–10:30, 10:30–10:50)
Chair: Dietmar Drummer (10:10–10:30, 10:30–10:50)
Chair: Tim Phillips (10:10–10:30, 10:30–10:50)
Chair: Phillip Banfill (10:10–10:30, 10:30–10:50)
Chair: Mikael Rigdahl (11:20–11:40, 11:40–12:00, 12:00–12:20, 12:20–12:40)
Chair: Pier Luca Mattetane (11:20–11:40, 11:40–12:00, 12:00–12:20, 12:20–12:40)
Chair: Christian Clasen (11:20–11:40, 11:40–12:00, 12:00–12:20, 12:20–12:40)
Chair: Jan Vermant (11:20–11:40, 11:40–12:00, 12:00–12:20, 12:20–12:40)
Chair: Igor Emri (11:20–11:40, 11:40–12:00, 12:00–12:20, 12:20–12:40)
Chair: Michael Webster (11:20–11:40, 11:40–12:00, 12:00–12:20, 12:20–12:40)
Chair: Rodney Rychwalski (11:20–11:40, 11:40–12:00, 12:00–12:20, 12:20–12:40)
Chair: Mikael Rigdahl (13:40–14:00, 14:00–14:20, 14:20–14:40)
Chair: Christopher Pipe (13:40–14:00, 14:00–14:20, 14:20–14:40)
Chair: Christian Clasen (13:40–14:00, 14:00–14:20, 14:20–14:40)
Chair: Gerald Fuller (13:40–14:00, 14:00–14:20, 14:20–14:40)
Chair: Igor Emri (13:40–14:00, 14:00–14:20, 14:20–14:40)
Chair: Marlen Hulsen (13:40–14:00, 14:00–14:20, 14:20–14:40)
Chair: Michel Cleitre (13:40–14:00, 14:00–14:20, 14:20–14:40)