



HSR 2011

**HELLENIC SOCIETY
OF RHEOLOGY**



Athens, Greece

June 28-29, 2011

Programme

HSR 2011 Program Summary

Tuesday, June 28, 2011

08:30-09:00	<i>Registration</i>
09:00-09:05	<i>Welcome remarks</i>
09:05-09:50	Plenary presentation by Prof. D. Vlassopoulos
09:50-10:30	2 presentations
10:30-11:00	<i>Coffee break</i>
11:00-12:20	4 presentations
13:00-15:00	<i>free for lunch</i>
15:00-16:20	4 presentations
16:20-16:40	<i>Coffee break</i>
16:40-18:00	2 presentations + HSR Business Meeting
18:00-20:30	<i>Break</i>
20:00-23:00	<i>Banquet</i>

Wednesday, June 29, 2011

08:45-09:30	Plenary presentation by Prof. Y. Dimakopoulos
09:30-10:30	3 presentations
10:30-11:00	<i>Coffee break</i>
11:00-13:00	5 presentations
13:00-15:00	<i>free for lunch</i>
15:00-16:40	5 presentations
16:40-17:00	<i>Coffee break</i>
17:00-18:00	3 presentations
18:00	<i>End of Conference</i>

Total:

- 1 Plenary presentation by Prof. D. Vlassopoulos (45 min)
- 1 Plenary presentation by Prof. Y. Dimakopoulos (45 min)
- 28 oral presentations (20 minutes each)
- Posters

Tuesday, June 28, 2011

08:30 Registration

09:00 Welcome Remarks

Morning session I: Rheology and Rheometry

Chair: G.C. Georgiou

Plenary Talk

- 09:05-9:50 **D. Vlassopoulos**
Structure and viscoelasticity of fluorocarbons at the air/water interface
- 09:50-10:10 **A.D. Gotsis, E. Fragkoulis**
Bubble growth in a polymeric fluid undergoing a cross-linking reaction
- 10:10-10:30 H. Anvari Ardakani, S.G. Hatzikiriakos, Th. Zisis, **E. Mitsoulis**
Rheology and processing of toothpaste

10:30-11:00 *Coffee break*

Morning session II: Rheology and Rheometry

Chair: Ch. Tsenoglou

- 11:00-11:20 **S. Coppola, D. Visani, F. Bacchelli**
The viscoelastic catenary: fall and rise of polymer filaments
- 11:20-11:40 **H. Lentzakis, D. Vlassopoulos**
Extensional rheology of model branched polymers
- 11:40-12:00 **E. Mitsoulis, S.G. Hatzikiriakos**
The effect of slip in the flow of a HDPE melt: experiments and simulations
- 12:00-12:20 D. Truzzolillo, **D. Vlassopoulos, M. Gauthier**
Star-linear polymer mixtures: a subtle balance between depletion and osmotic shrinkage

13:00-15:00 *Free for lunch*

Afternoon session I: Structure and Dynamics of Polymers

Chair: A. Gotsis

- 15:00-15:20 C. Grigoriadis, **G. Floudas, N. Haase, K. Muellen**
Self-assembly, dynamics and kinetics of structure formation in discotic liquid crystals of nano-graphenes
- 15:20-15:40 **Ch. Tsenoglou, P. Kiliaris, C.D. Papaspyrides**
Assessing the variable molecular size and architecture of poly(ethylene terephthalate) under reactive modification by melt and dilute solution rheology
- 15:40-16:00 **A. Anastasiou, C. Baig, V.G. Mavrantzas**
Non-equilibrium molecular dynamics simulation of the stretching behavior of adhesive polymers

16:00-16:20 **E. Voyatzis**, D.N. Theodorou
Viscosity computation of a polystyrene-fullerene nanocomposite system through hierarchical modeling

16:20-16:40 Coffee break

Afternoon session II: Colloids and Suspensions

Chair: D. Vlassopoulos

16:40-17:00 A.S. Poulos, J. Stellbrink, **G. Petekidis**
Nonlinear viscoelasticity and yielding of soft colloidal glasses probed by large amplitude oscillatory shear

17:00-17:20 N. Koumakis, **G. Petekidis**, J. Brady
Yielding of colloidal glasses and gels

17:20-18:00 **HSR Business Meeting**

18:00 *End*

20:00-23:00 *Banquet*

Wednesday, June 29, 2011

Morning Session I: Numerical Simulations

Chair: J. Tsamopoulos

Plenary Talk

- 08:45-9:30 **Y. Dimakopoulos**
Hemodynamics of the aortic valve: numerical simulation and open issues
- 09:30-09:50 **A.N. Beris**, G. Samanta, K.D. Housiadas, A.J. Young
Analysis of single and joint velocity PDFs and its implication to higher order statistics in polymer-modified channel flow turbulence
- 09:50-10:10 K. Tsiglifis, K. Efthimiou, **N. Pelekasis**
Boundary element simulations of insonated contrast agents – effect of the viscoelastic properties of the coating
- 10:10-10:30 **E. Mitsoulis**, N.A. Malamataris
The free boundary condition in viscoelastic flow simulations
- 10:30-11:00 **Coffee break**

Morning Session II: Numerical Simulations

Chair: E. Mitsoulis

- 11:00-11:20 D.A. Johnson, U.P. Naik, **A.N. Beris**
Wall elasticity effects to the outlet flow conditions in blood flow simulations through asymmetric arterial bifurcations
- 11:20-11:40 **M. Pavlidis**, Y. Dimakopoulos, J. Tsamopoulos
Topography-induced thickness variation of viscoelastic films
- 11:40-12:00 **S. Poyiadji**, G.C. Georgiou
Perturbation solutions of weakly compressible, Newtonian Poiseuille flows with slip along the walls
- 12:00-12:20 **A.N. Alexandrou**, G.C. Florides, G.C. Georgiou
Squeezing of a finite amount of viscoplastic material exhibiting thixotropy
- 12:20-12:40 **J. Papaioannou**, A. Yiannousakis, Y. Dimakopoulos, J. Tsamopoulos
Deformation of a bubble in a viscoelastic liquid subjected to axisymmetric extensional flow
- 13:00-15:00 **Free for lunch**

Afternoon Session I: Molecular Modeling

Chair: V. Mavrantzas

- 15:00-15:20 A.N. Rissanou, E. Manias, **I.A. Bitsanis**
Collapse transitions in alternating blocky copolymers: a Monte Carlo study
- 15:20-15:40 **V. Harmandaris**, C. Baig
Structure and dynamics of non-equilibrium polymer melts through hierarchical multi-scale dynamic simulations

15:40-16:00	S.D. Anogiannakis , C. Tzoumanekas, B. Rousseau, D.N. Theodorou <i>Primitive path dynamics and contour length fluctuations in entangled polymer melts: a molecular simulation study</i>
16:00-16:20	A. Morozinis , C. Tzoumanekas, D.N. Theodorou <i>Molecular modeling of cavitation in polymer melts and rubbers</i>
16:20-16:40	A.N. Rissanou , V.A. Harmandaris, D. Vlassopoulos, C.N. Likos <i>Effective interaction between diblock-arm star copolymers: a molecular dynamics study</i>

16:40-17:00 **Coffee break**

Afternoon Session II: Molecular Modeling

Chair: G. Petekidis

17:00-17:20	M. Yiannourakou, I.G. Economou, I.A. Bitsanis <i>Micro-structure and particle dynamics in suspensions of size-dispersed colloids</i>
17:20-17:40	P.S. Stephanou , G. Tsolou, N. Stratikis, C. Baig, V.G. Mavrantzas <i>Rouse theory for polymer rings and comparison with atomistic molecular dynamics simulations</i>
17:40-18:00	P.S. Stephanou , C. Baig, G. Tsolou, M. Kröger, V.G. Mavrantzas <i>Quantifying chain reptation in entangled polymer melts: topological and dynamical mapping of atomistic simulation results onto the tube model</i>
18:00	End

Poster Session: