The Society of Rheology 87th Annual Meeting
Hyatt Regency Baltimore Inner Harbor
Baltimore, Maryland

Meeting Schedule

Monday, October 12, 2015

	CC	*CD*	*CE*	*CF*	*BA*	*FC*
8:30	J. Vermant (PL1) - *CDF*					
9:20	Coffee Break					
10:00	SC1	SM1	IR1	BM1	SG1	NF1
10:25	SC2	SM2	IR2	BM2	SG2	NF2
10:50	SC3	SM3	IR3	BM3	SG3	NF3
11:15	SC4	SM4	IR4	BM4	SG4	NF4
11:40	SC5	SM5	IR5	BM5	SG5	NF5
12:05	Lunch Break					
1:30	SC6	SM6	IR6	BM6	SG6	NF6
1:55	SC7	SM7	IR7	BM7	SG7	NF7
2:20	SC8	SM8	IR8	BM8	SG8	NF8
2:45	SC9	SM9	IR9	BM9	SG9	NF9
3:10	SC10	SM10	IR10		SG10	NF10
3:35	Coffee Break					
4:00	SC11	SM11	IR11	BM11		NF11
4:25	SC12	SM12	IR12	BM12	SG12	NF12
4:50	SC13	SM13	IR13	BM13	SG13	NF13
5:15	SC14	SM14	IR14	BM14	SG14	NF14
5:40	SC15	SM15	IR15	BM15	SG15	NF15
6:05	End					
7:00	Baltimore Aquarium Reception *7:00-9:30*					

Tuesday, October 13, 2015

	CC	*CD*	*CE*	*CF*	*BA*	*FC*
8:30	H. Watanabe (PL2) - *CDF*					
9:20	Coffee Break					
10:00	SC16	SM16	SA1	BM16	SG16	NF16
10:25	SC17	SM17	SA2	BM17	SG17	NF17
10:50	SC18	SM18	SA3	BM18	SG18	NF18
11:15	SC19	SM19	SA4	BM19	SG19	NF19
11:40	SC20	SM20	SA5	BM20	SG20	NF20
12:05	Lunch Break / Society Business Meeting - *CC*					
1:30	SC21	SM21	SA6	BM21	SG21	NF21
1:55	SC22	SM22	SA7	BM22	SG22	NF22
2:20	SC23	SM23	SA8	BM23	SG23	NF23
2:45	SC24	SM24	SA9	BM24	SG24	NF24
3:10	SC25	SM25	SA10	BM25	SG25	
3:35	Coffee Break					
4:00		SM26	SA11		SG26	
4:25	SC27	SM27	SA12		SG27	NF26
4:50	SC28	SM28	SA13		SG28	NF27
5:15	SC29	SM29	SA14			NF28
5:40	SC30	SM30	SA15			NF29
6:05	End					
7:00	Awards Reception - *FA*					
8:00	Awards Banquet - *CDF*					

Wednesday, October 14, 2015

	CC	*CD*	*CE*	*CF*	*BA*	*FC*
8:30	M. O. Robbins (PL3) - *CDF*					
9:20	Coffee Break					
10:00	SC31	SM31	SA16	CR1	PM1	MN1
10:25	SC32	SM32	SA17	CR2	PM2	MN2
10:50	SC33	SM33	SA18	CR3	PM3	MN3
11:15	SC34	SM34	SA19	CR4	PM4	MN4
11:40	SC35	SM35	SA20	CR5	PM5	MN5
12:05	Lunch Break					
1:30	SC36	SM36	SA21	CR6	PM6	MN6
1:55	SC37	SM37	SA22	CR7	PM7	MN7
2:20	SC38	SM38	SA23	CR8	PM8	MN8
2:45	SC39	SM39	SA24	CR9	PM9	MN9
3:10	SC40	SM40	SA25	CR10		MN10
3:35	Coffee Break					
4:00	SC41	SM41	SA26	CR11		MN11
4:25	SC42	SM42	SA27	CR12		MN12
4:50	SC43	SM43	SA28	CR13		
5:15	SC44	SM44	SA29	CR14		
5:40	SC45	SM45	SA30	CR15		
6:05	End					
6:05	Poster Session & Reception - *AH / 6:05-8:00*					

Thursday, October 15, 2015

	CC	*CD*	*CE*	*CF*
8:00	A. Ma (AP1) - *CA*			
8:40	SC46	SM46	SA31	CR16
9:05	SC47	SM47	SA32	CR17
9:30	SC48	SM48	SA33	CR18
9:55	Coffee Break			
10:25	SC49	SM49	SA34	CR19
10:50		SM50	SA35	CR20
11:15		SM51		
11:40		SM52		
12:05	End			

Session and Room Codes

AP = Award Presentations
BM = Biological Macromolecules: Proteins, Cellulosic Biomass and other Biomaterials
CR = Computational Rheology
IR = Interfacial Rheology
MN = Micro and Nanofluidics
NF = Non-Newtonian Fluid Mechanics
PL = Plenary Lectures
PM = Probe Microrheology
SA = Self-assembled Systems and Gels
SC = Suspensions and Colloids
SG = Solids, Glasses, and Composites
SM = Polymer Solutions and Melts

AH = Atrium/Harborview
BA = Baltimore/Annapolis
CA = Constellation A
CC = Constellation C
CD = Constellation D
CDF = Constellation D-F
CE = Constellation E
CF = Constellation F
FA = Foyer/Atrium
FC = Frederick/Columbia

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Plenary Lectures and Award Presentation

Monday, October 12
8:30 AM, Constellation D-F

Rheological excursions in flatland: From monolayers to bilayers
Jan Vermant
Materials Science, ETH Zürich

Tuesday, October 13
Bingham Lecture
8:30 AM, Constellation D-F

Slow dynamics of components in miscible polymer blends
Hiroshi Watanabe
Institute for Chemical Research, Kyoto University

Wednesday, October 14
8:30 AM, Constellation D-F

Flow in disordered systems: From simple fluids to athermal solids
Mark O. Robbins[1], Joel Clemmer[1], Vikram Jadhao[1], and K. M. Salerno[2]
[1]Physics, Johns Hopkins University; [2]Sandia National Laboratory

Thursday, October 15
Metzner Award Presentation
8:00 AM, Constellation A

The rheology and microstructure of carbon nanotube suspensions
Anson Ma
Institute of Materials Science, University of Connecticut

Social Program

Sunday, October 11

SoR Outreach Event
1:00 PM – 4:00 PM Maryland Science Center

Registration
2:00 PM – 6:30 PM Foyer

ASTM-E37.08 Subcommittee on Rheology
3:00 PM – 4:00 PM Constellation C (Meeting open to all.)

Student/Industry Forum and Reception: *Careers in Rheology*
4:00 PM – 6:00 PM Starting in Constellation F
Sponsored by The Dow Chemical Company and American Institute of Physics

Welcoming Reception
6:30 PM – 8:30 PM Foyer/Atrium
Hosted by TA Instruments

Monday, October 12

Baltimore Aquarium Reception
7:00 PM – 9:30 PM National Aquarium

Tuesday, October 13

Society Business Meeting
12:05 PM – 1:30 PM Constellation C

Awards Reception
7:00 PM – 8:00 PM Foyer/Atrium
Sponsored by Xpansion Instruments

Awards Banquet
8:00 PM Constellation D-F

Wednesday, October 14

Poster Session and Reception
6:05 PM – 8:00 PM Atrium/Harborview
Sponsored by Anton-Paar USA

Monday, October 12

Morning

8:30 **PL1.** Rheological excursions in flatland: From monolayers to bilayers. *J. Vermant* Constellation D-F

9:20 COFFEE BREAK

	Constellation C	*Constellation D*	*Constellation E*	*Constellation F*	*Baltimore/Annapolis*	*Frederick/Columbia*
	Suspensions and Colloids	**Polymer Solutions and Melts**	**Interfacial Rheology**	**Biological Macromolecules**	**Solids, Glasses, and Composites**	**Non-Newtonian Fluid Mechanics**
10:00	**SC1.** A simple paradigm for strongly nonlinear large-amplitude oscillatory shear (LAOS) rheology. *A. S. Khair*	**SM1.** Force-level theory of multiscale transient localization and emergent elasticity in polymer solutions and melts. *Z. E. Dell and K. S. Schweizer*	**IR1.** Modelling of complex interfaces for pendant drop experiments. *C. Balemans, M. A. Hulsen and P. D. Anderson*	**BM1.** How do distinct extracellular matrix polymers confer distinct mechanical properties on bacterial biofilms? *K. Kovach, M. Davis-Fields, S. Doorwar, K. Mohanty and V. D. Gordon*	**SG1.** Echoes in x-ray speckles track nanometer-scale plastic events in nanostructured soft disordered solids under shear. *R. L. Leheny, M. C. Rogers, K. Chen, T. G. Mason, S. Narayanan, S. Ramakrishnan and J. L. Harden*	**NF1.** Drop impact on permeable meshes with yield-stress fluids. *B. C. Blackwell and R. H. Ewoldt*
10:25	**SC2.** Unsteady shear flows of colloidal suspensions: Simulation by Accelerated Stokesian Dynamics. *S. Marenne and J. F. Morris*	**SM2.** Tubes and entanglements in polymer melts. *A. E. Likhtman*	**IR2.** An oscillating pendant drop method to study the interfacial viscoelasticity of monolayers. *M. Nagel, M. Pepicelli and J. Vermant*	**BM2.** Evolution to change the matrix composition of clinical biofilm infections makes the biofilms stiffer, consistent with a mechanical fitness benefit. *V. D. Gordon, M. Davis-Fields, K. Kovach, S. Doorwar and K. Mohanty*	**SG2.** Theory of polymer dynamics in model nanocomposites. *U. Yamamoto and K. S. Schweizer*	**NF2.** Drop deformation of viscoelastic drops in the presence of continuous air stream in the bag breakup regime. *V. Kulkarni, A. Ardekani, S. Snyder and P. E. Sojka*
10:50	**SC3.** Athermal analogue of sheared dense Brownian suspensions. *M. Trulsson, M. Bouzid, J. Kurchan, E. Clément, P. Claudin and B. Andreotti*	**SM3.** Single chain dynamics of entangled linear polyethylene liquids under homogenous shear and planer elongational flows using nonequilibrium molecular dynamics simulations. *M. H. Nafar Sefiddashti, B. J. Edwards and B. Khomami*	**IR3.** Shear thinning behavior of surface viscosity for surfactant monolayer at low shear rate. *T. Hirano and K. Sakai*	**BM3.** Effect of particulate contaminates on the development and interfacial rheology of pellicle biofilms. *Z. Zhang and G. F. Christopher*	**SG3.** Entangled polymer-nanocomposites: Structure and dynamics. *R. Mangal, S. Srivastava and L. A. Archer*	**NF3.** Extensional necking in complex fluids: Beyond the Considere criterion. *S. M. Fielding and D. M. Hoyle*
11:15	**SC4.** Silica particles dispersion in the ionic liquid $[C_4mim][BF_4]$. *J. Gao and N. J. Wagner*	**SM4.** Viscoelastic relaxation of Rouse chains undergoing head-to-head association and dissociation. 1. Simple modeling of motional coupling through chemical equilibrium. *H. Watanabe and Y. Matsumiya*	**IR4.** Relative importance of capillarity and microstructure on interfacial viscoelasticity of particle laden interfaces. *S. Barman and G. F. Christopher*	**BM4.** Pseudomonas aeruginosa biofilm rheology. *U. Daalkhaijav and T. W. Walker*	**SG4.** Effective pairwise mobility determines the rheology of soft particle glasses. *S. Das, T. Liu, M. Cloitre and R. T. Bonnecaze*	**NF4.** Extensional rheology of suspensions of motile cells. *R. Prabhakar, A. McDonnell, J. Friend and L. Yeo*
11:40	**SC5.** The role of hydrodynamic interactions in shear-induced clustering in polymer-colloid suspensions. *J. Kim and M. E. Helgeson*	**SM5.** Viscoelastic relaxation of Rouse chains undergoing head-to-head association and dissociation. 2. Experimental test. *Y. Matsumiya and H. Watanabe*	**IR5.** A 2D Stokesian dynamics simulation of microstructure deformation of particle laden interfaces. *N. Laal-Dehghani, S. Barman and G. F. Christopher*	**BM5.** Study of the linear rheology and structure of Casein gels at different concentrations. *B. Keshavarz, M. Leocmach, S. Manneville, T. Divoux and G. H. McKinley*	**SG5.** Effect of attractions on the yielding behavior of glasses. *M. A. Kumar, R. H. Ewoldt and C. F. Zukoski*	**NF5.** Extensional flowSANS at NIST. *K. Weigandt and R. McAllister*

12:05 LUNCH BREAK

Afternoon

	Constellation C	*Constellation D*	*Constellation E*	*Constellation F*	*Baltimore/Annapolis*	*Frederick/Columbia*
	Suspensions and Colloids	**Polymer Solutions and Melts**	**Interfacial Rheology**	**Biological Macromolecules**	**Solids, Glasses, and Composites**	**Non-Newtonian Fluid Mechanics**
1:30	**SC6.** The suspension balance model revisited: Revisited. *M. Wang and J. Brady*	**SM6.** The long-awaited universality in polymer physics. *S. Wingstrand, Q. Huang, O. Hassager and N. J. Alvarez*	**IR6.** Rheological behavior of bacteria at fluid interfaces. *L. Vaccari, N. Sharifi-Mood, T. H. Niepa, R. L. Leheny and K. J. Stebe*	**BM6.** Redefining the role of the gluten network in the rheology of wheat dough. *M. Meerts, R. Cardinaels, F. Oosterlinck, C. M. Courtin and P. Moldenaers*	**SG6.** Convective cage release in model colloidal glasses. *A. R. Jacob, A. Poulos, S. Kim, J. Vermant and G. Petekidis*	**NF6.** Stress gradient diffusion in dilute polymer solutions: Two model problems. *R. G. Larson, G. Zhu and X. Wang*
1:55	**SC7.** Does suspension crowding screen hydrodynamic interactions? *Y. Su, J. W. Swan and R. N. Zia*	**SM7.** Exploring the dynamics of star polymers in fast extensional flow and stress relaxation. *Q. Huang, S. Agostini, L. Hengeller, M. Shivokhin, N. J. Alvarez, L. R. Hutchings and O. Hassager*	**IR7.** Wrinkling of thin interfacial films by viscous stress. *S. Chatterjee, M. Christina, P. Wang, R. Huang and S. S. Velankar*	**BM7.** Fracture patterns and failure criteria for soft solid gels. *M. Leocmach, B. Keshavarz, C. Perge, G. H. McKinley, T. Divoux and S. Manneville*	**SG7.** What are the minimal interparticle interactions necessary to successfully simulate soft particle glasses? *T. Liu, M. Cloitre and R. T. Bonnecaze*	**NF7.** Stress diffusion in models for shear banding. *E. M. Masnada and P. D. Olmsted*

2:20	**SC8.** Bulk rheology of suspensions of rigid particles in viscoelastic fluids. *N. O. Jaensson, M. A. Hulsen and P. D. Anderson*	**SM8.** Issues with melt extension from non-isothermal condition, breakdown of time-temperature superposition to internal energy buildup. *P. Lin and S.-Q. Wang*	**IR8.** Disentangling the mechanisms underlying the dilatational modulus of irreversibly adsorbed layers. *A. P. Kotula, S. M. Kirby, T. M. Moyle, L. M. Walker and S. L. Anna*	**BM8.** An investigation of the capillary thinning dynamics of saliva using a sticky gel network model. *C. E. Wagner and G. H. McKinley*	**SG8.** Structure, rheology and transport properties of binary soft colloids. *A. Agrawal, S. Choudhury and L. A. Archer*	**NF8.** Evaluation of stress diffusion coefficient for wormlike micellar systems. *H. Mohammadigoushki and S. J. Muller*
2:45	**SC9.** Mixing and demixing in ternary particle-liquid-liquid mixtures. *S. J. Heidlebaugh, T. Domenech, S. Iasella and S. S. Velankar*	**SM9.** Small-angle neutron scattering study of the molecular deformation mechanism of entangled polymer melts in rapid uniaxial extension. *J. Liu, P. Lin, S.-Q. Wang, L. E. Sanchez-Diaz, S. Cheng, K. Hong, W.-R. Chen and Y. Wang*	**IR9.** Impact of composition on the interfacial mechanics of multicomponent fluid-fluid interfaces. *S. M. Kirby, S. L. Anna and L. M. Walker*	**BM9.** Synergistic interaction between kappa-carrageenan and methylcellulose and the effect of salts on sol-gel transition. *N. Almeida, L. Rakesh and J. Zhao*	**SG9.** WLF to Arrhenius dynamic transition in nanocomposites. *G. P. Baeza, C. Dessi, D. Zhao, A. Alegria, D. Vlassopoulos and S. K. Kumar*	**NF9.** Disclination in nematic liquid crystal. *C. Zhang, X. Zhang, A. Acharya, N. Walkington and D. Golovaty*
3:10	**SC10.** Rheology in hydrate formation at atmospheric pressure. *P. H. de Lima Silva, A. S. Stender, M. Barçante, M. F. Naccache, P. R. de Souza Mendes and A. P. Gramatges*	**SM10.** Nonlinear extensional behavior of an A-B-A thermoplastic elastomer near $T_{g,A}$. *L. Martinetti, F. S. Bates and C. W. Macosko*	**IR10.** Interfacial self-assembly in the elasto-capillary regime. *A. A. Evans*		**SG10.** Design of yield-stress fluids: A rheology-to-structure inverse problem. *A. Z. Nelson and R. H. Ewoldt*	**NF10.** An immersed boundary method for fluid-structure interactions in a nematic liquid crystal. *S. E. Spagnolie*
3:35			COFFEE BREAK			
4:00	**SC11.** A minimal model for the hydrodynamics of colloidal gelation. *J. W. Swan and Z. Varga*	**SM11.** Linear and extensional rheology of butyl rubber. *J. Bielby and D. Adkinson*	**IR11.** Influence of interfacial rheology on the volume of liquid entrained in a foam film. *J. M. Frostad, D. Tammaro, L. Santollani, S. Bochner de Araujo and G. G. Fuller*	**BM11.** Characterizing and understanding protein stability and rheology at high concentrations. *W. Qi, S. Kenyon, S. Blake, M. Majumdar, S. Amin and E. N. Lewis*		**NF11.** Morphology and rheology of micelle and micelle-nanoparticle solutions: A molecular dynamics study. *A. Sambasivam, S. Dhakal and R. Sureshkumar*
4:25	**SC12.** Gel formation and rheology of short range attractive nanocolloidal suspensions and their mixtures. *D. Bahadur, S. Ramakrishnan, R. L. Leheny and J. Telotte*	**SM12.** Recent developments in extensional rheology. *N. J. Alvarez, Q. Huang, S. Wingstrand, L. Hengeller, A. Shabbir and O. Hassager*	**IR12.** Effect of pH changes on the rheology of unsaturated zwitterionic and anionic phospholipids at the air-water interface. *S. Ghazvini and P. Dhar*	**BM12.** Dilatation air bubbles in solution: A rheological study of their effects on therapeutic antibody stability. *G. L. Lin, J. Pathak, V. Riguero, M. Carlson, J. Buff and G. G. Fuller*	**SG12.** Shear banding in time dependent flows of soft glassy materials. *R. Radhakrishnan and S. M. Fielding*	**NF12.** Immersed boundary methods for particles in viscoelastic fluids. *S. Krishnan, E. S. Shaqfeh and G. Iaccarino*
4:50	**SC13.** Residual stresses in colloidal gels. *E. Moghimi and G. Petekidis*	**SM13.** Exploring necking instability in polymeric solutions with single DNA molecules. *P. E. Boukany and S. Sachdev*	**IR13.** Estimating strain-dependent interfacial rheological properties of the encapsulation of lipid-coated mono-disperse microbubbles using broadband attenuation at different pressure amplitudes. *K. Sarkar, L. Xia and T. M. Porter*	**BM13.** Correlating protein-protein interactions and solution viscosities at high concentration. *M. A. Woldeyes, E. M. Furst and C. J. Roberts*	**SG13.** The Kovacs aging signatures in colloidal glasses. *X. Peng and G. B. McKenna*	**NF13.** Computational modeling of suspension flow in pipes with generalized Newtonian matrix fluids. *N. S. Martys, C. F. Ferraris and W. L. George*
5:15	**SC14.** Delayed yield in reversible colloidal gels: A micro-mechanical perspective. *R. N. Zia, B. J. Landrum and W. B. Russel*	**SM14.** Stretch-relaxation of DNA molecules in semidilute solutions. *C. Sasmal, H. Kai-Wen, C. M. Schroeder and J. R. Prakash*	**IR14.** A mesoscale computational study on the effectiveness of surface-active molecules on droplet dynamics and break-up. *A. Boromand, R. D Apolito, S. Jamali, V. Preziosi, G. Tomaiuolo, S. Guido and J. Maia*	**BM14.** Deciphering the thermodynamic underpinnings of increased solution viscosity in crowded monoclonal antibody solutions. *R. Keeling, P. Ke, R. Curtis, P. S. Sarangapani, S. Ekizoglou, R. L. Jones, S. Uddin, C. F. van der Walle and J. Pathak*	**SG14.** A model for aging under deformation field, residual stresses and strains in soft glassy materials. *Y. M. Joshi*	**NF14.** Migration of rigid particles in two-phase shear flow of viscoelastic fluids. *N. O. Jaensson, M. A. Hulsen and P. D. Anderson*
5:40	**SC15.** Structural anisotropy and rheological behavior of colloidal gel under start-up shear. *P. Jun Dong, A. Kyung Hyun and N. J. Wagner*	**SM15.** Extensional rheology and printability of polymer solutions. *J. Dinic, L. N. Jimenez, Y. Zhang and V. Sharma*	**IR15.** The role of interfacial charge transport on the deformation and relaxation of a low-conductivity drop exposed to a DC electric field. *J. Lanauze, L. M. Walker and A. S. Khair*	**BM15.** A "syringe-on-chip" device for quantitative injectability study of concentrated protein solutions. *A. Lanzaro, R. Curtis, J. Pathak and X.-F. Yuan*	**SG15.** Rheology of polyethylene/oxidized polyethylene blends and blend-nanocomposites with graphene and surface functionalized graphene. *M. Z. Iqbal, F. C. Prehn Jr., A. A. Ahmed, B. G. Stephen and M. W. Liberatore*	**NF15.** Non-equilibrium depletion interactions: First particles attract, then they repel. *B. E. Dolata and R. N. Zia*
6:05			END			
7:00			BALTIMORE AQUARIUM RECEPTION National Aquarium / 7:00-9:30			

Tuesday, October 13

Morning

8:30 **PL2.** Slow dynamics of components in miscible polymer blends. *H. Watanabe* (Bingham Lecture) Constellation D-F

9:20 COFFEE BREAK

	Constellation C	*Constellation D*	*Constellation E*	*Constellation F*	*Baltimore/Annapolis*	*Frederick/Columbia*
	Suspensions and Colloids	**Polymer Solutions and Melts**	**Self-assembled Systems and Gels**	**Biological Macromolecules**	**Solids, Glasses, and Composites**	**Non-Newtonian Fluid Mechanics**
10:00	**SC16.** Shear stress induced microstructure in concentrated silica dispersions. *J. Lee, X.-M. Lin, A. R. Sandy and S. Narayanan*	**SM16.** Exact analytical solution for large-amplitude oscillatory shear flow. *C. Saengow, A. J. Giacomin and C. Kolitawong*	**SA1.** Dynamic transitions of colloidal gels measured using multiple particle tracking microrheology. *M. D. Wehrman, S. Lindberg and K. M. Schultz*	**BM16.** Macroscopic rheology of human blood: Effects of cholesterol and triglycerides. *A. J. Apostolidis and A. N. Beris*	**SG16.** The role of polymer composite binder on mechanics and performance of lithium ion battery electrodes. *T. Humplik, A. M. Grillet, D. A. Barringer, E. K. Stirrup, K. N. Long, H. Mendoza, S. A. Roberts, C. Snyder, C. A. Apblett and K. R. Fenton*	**NF16.** Testing an elastic instability criterion in a planar elongational flow. *S. J. Haward, G. H. McKinley and A. Q. Shen*
10:25	**SC17.** Timescales of microstructure relaxation in sheared colloidal hard sphere suspensions. *R. Dannert, R. Sanctuary and J. Baller*	**SM17.** Fingerprinting the non-linear response of a polystyrene solution: Comparison of strain controlled and stress controlled mechanical spectral hole burning. *Z. Qian and G. B. McKenna*	**SA2.** Avalanche-like fluidization of a colloidal gel. *A. Kurokawa, V. Vidal, K. Kurita, T. Divoux and S. Manneville*	**BM17.** The rheology of nanoparticles in blood for improved cancer therapy. *E. Carboni, Y. Guo, G. Bouchillon, A. Kadilak, L. Shor and A. Ma*	**SG17.** A comprehensive constitutive framework for describing the non-isothermal rheology of waxy crude oil. *M. Geri and G. H. McKinley*	**NF17.** Dynamics and flow structures of the laminar-turbulent edge state for understanding polymer drag reduction. *L. Xi*
10:50	**SC18.** Rheology and microstructure of soft to rigid shear-thickening colloidal suspensions. *S. Jamali, A. Boromand, N. J. Wagner and J. Maia*	**SM18.** A library of rheological fingerprints for medium amplitude oscillatory shear: Models and experiments. *N. A. K. Bharadwaj and R. H. Ewoldt*	**SA3.** Aging promoted work-hardening of a colloidal gel. *D. Calzolari, I. Bischofberger and V. Trappe*	**BM18.** Rheological properties of electrosterically stabilized nanocrystals of cellulose in the semi-dilute regime. *G. Lenfant, M.-C. Heuzey, T. M. van de Ven and P. J. Carreau*	**SG18.** Low-temperature glassy dynamics of bitumen and proposed relaxation time spectrum for polydisperse glass formers. *O.-V. Laukkanen and H. H. Winter*	**NF18.** Spatial-temporal dynamics of Newtonian and viscoelastic turbulence. *S.-N. Wang and M. D. Graham*
11:15	**SC19.** Nanoparticle-induced gelation in bimodal slurries of highly size asymmetric particles. *J. Lee, S. J. Lee, K. H. Ahn and S. J. Lee*	**SM19.** Complex polymer orientation in LAOS. *P. H. Gilbert and A. J. Giacomin*	**SA4.** On the relaxation and dynamics of colloidal gel. *M. Bouzid, J. Colombo and E. Del Gado*	**BM19.** Shear-induced crystallization of poly (L-lactic acid). *A. Jalali*	**SG19.** A combination of large amplitude oscillatory shear and Fourier transform rheology to determine the fatigue behavior of polymers. *V. Hirschberg, D. Merger, M. Wilhelm and D. Rodrigue*	**NF19.** Elastic turbulence in parallel shear flows at low Reynolds numbers. *B. Qin and P. E. Arratia*
11:40	**SC20.** Thixotropy and viscosity bifurcation in fluid fine tailings. *B. Derakhshandeh*	**SM20.** Design intuition and user experience: Stress-input rheology with viscoelastic polymer systems. *R. E. Corman, J. Godman and R. H. Ewoldt*	**SA5.** Tuning structure in short-range attractive colloidal gels via the flow history. *A. Boromand, S. Jamali and J. Maia*	**BM20.** Viscoelastic properties of cartilage polymers. *W.-K. Oh, S. Raghavan, P. J. Basser and F. Horkay*	**SG20.** Applying Boltzmann superposition principle to aging soft glassy materials. *A. Shukla and Y. M. Joshi*	**NF20.** Elastic instabilities around periodic cylinder arrays and their role on oil displacement. *X. Shi and G. F. Christopher*

12:05 LUNCH BREAK / SOCIETY BUSINESS MEETING Constellation Ballroom C / 12:05-1:30

Afternoon

	Constellation C	*Constellation D*	*Constellation E*	*Constellation F*	*Baltimore/Annapolis*	*Frederick/Columbia*
	Suspensions and Colloids	**Polymer Solutions and Melts**	**Self-assembled Systems and Gels**	**Biological Macromolecules**	**Solids, Glasses, and Composites**	**Non-Newtonian Fluid Mechanics**
1:30	**SC21.** Yield and flow of non-colloidal suspensions in a pendular state. *J. Yang, T. Domenech and S. S. Velankar*	**SM21.** Tube deformation, chain stretching, yielding and shear thinning in entangled polymer melts: A force-level statistical mechanical approach. *K. S. Schweizer*	**SA6.** Permeability in fractal aggregates: Application to unstable colloidal gels. *A. Mertz, L. Gelb, A. Graham, M. Ingber and R. Antonio*	**BM21.** Molecular-mechanical link in a shear-induced self-assembly of a functionalised biopolymeric fluid. *G. E. Pavlovskaya and T. Meersmann*	**SG21.** Developing instruments to characterize and mimic building induced fatigue in polymers. *C. C. White and D. Hunston*	**NF21.** How elastic flow instabilities can induce motion in flexible solid structures. *A. A. Dey and J. P. Rothstein*
1:55	**SC22.** Theory of margination in confined multicomponent suspensions. *R. G. Henríquez Rivera, K. Sinha and M. D. Graham*	**SM22.** Transition from homogeneous flow to a shear banded state before and after the stress overshoot in start flow of entangled polymer melts: The influence of flow ramp speed. *M. Mohagheghi and B. Khomami*	**SA7.** Phase behavior of aqueous suspension of Laponite: A rheological perspective. *S. Jatav and Y. M. Joshi*	**BM22.** In-line rheological characterization of wood polymer composites. *V. Mazzanti and F. Mollica*	**SG22.** The influence of viscoelasticity and surface energy on frictional behavior of elastomers. *C. J. Dimitriou*	**NF22.** Non-Newtonian swirling flow near an infinite stationary disk. *B. Sahoo, R. van Gorder and H. Andersson*

2:20	**SC23.** The effects of particle deformability and size on single particle lateral migration in low Reynolds number flow. *M. Y. Hwang and S. J. Muller*	**SM23.** Wall slip of HDPEs: MW, MWD and surface conditions effects. *M. Ebrahimi and S. G. Hatzikiriakos*	**SA8.** Stabilization of the network structure induced by viscoelastic phase separation through self-assembly of nanorods: PS/PVME blend. *M. A. Sanjari Shahrezaei, F. Goharpey and J. Khademzadeh Yeganeh*	**BM23.** Relative humidity as a new parameter in rheological testing. *J. Laeuger and G. Arnold*	**SG23.** Measuring and modeling the dimensional stability of high density polyurethane foams. *K. N. Long, L. A. Mondy, C. C. Roberts, H. Deng, M. C. Celina and R. R. Rao*	**NF23.** Slow flow of a Boger fluid around a solitary cylinder. *D. F. James, T. Shiau and P. Aldridge*
2:45	**SC24.** Relative viscosity trends of bimodal suspensions containing rigid and soft particles. *A. Chaturbedi, B. Schendt and N. C. Shapley*	**SM24.** Stick-slip transition and shear banding in entangled solutions based on polybutadiene of ultra high molecular weight. *M. Wang, T. Liu and S.-Q. Wang*	**SA9.** Relationship between rheology, calorimetry and structure properties in thermo-responsive laponite-Pluronic micellar solutions. *I. Boucenna, M.-A. Guedeau-Boudeville, L. Royon, A. Mourchid and P. Colinart*	**BM24.** Study of the phase change behavior of food ingredients using rheo-microscopy. *T. D. Perera and G. Paroline*	**SG24.** The effect of polymer rheological behavior on the morphology and flame retardant behavior of co-extruded multi-layered PP/foamed PP structures. *S. Lee and J. Maia*	**NF24.** The effect of fluid rheology on slot die coating. *S. Khandavalli and J. P. Rothstein*
3:10	**SC25.** Dependence of shear-induced particle migration on inner/outer fluid viscosity ratio. *Y.-L. Chen, S.-H. Wang and W.-T. Yeh*	**SM25.** Edge fracture and shear banding in a highly entangled polystyrene solution. *Y. Li and G. B. McKenna*	**SA10.** Directed assembly of Janus rods in binary blends of polymers. *S. Khani, S. Jamali, A. Boromand and J. Maia*	**BM25.** Measuring adhesion between uropathogenic E. coli and bladder-epithelial cells. *E. C. Hollenbeck, L. Cegelski and G. G. Fuller*	**SG25.** Evaluating the performance of a stress model of long-fiber suspensions in simple flows. *G. M. Lambert, M. J. Cieslinski and D. G. Baird*	
3:35			COFFEE BREAK			
4:00		**SM26.** Molecular dynamics and slip-spring model simulations of branched polymer. *J. Zhu, Z. Wang and A. E. Likhtman*	**SA11.** A comparison of linear and branched wormlike micelle solutions using LAOS and orthogonal superposition rheometry. *S. Khandavalli, J. Hendricks, C. Clasen and J. P. Rothstein*		**SG26.** Interaction between long flexible fibers in squeeze flow. *G. Meirson and A. N. Hrymak*	
4:25	**SC27.** Towards a continuum modeling of shear thickening suspensions? *R. Mari, R. Seto, J. F. Morris and M. M. Denn*	**SM27.** Solution and melt rheology of symmetric star-shaped poly (hydroxybutyrate) generated from immortal ring opening polymerization of ß-butyrolactone. *E. Tannaz, M. Parisa and S. G. Hatzikiriakos*	**SA12.** Effect of branching on shear banding in wormlike micelles (WLMs) under large amplitude oscillatory shear (LAOS). *M. A. Calabrese, N. J. Wagner and S. A. Rogers*		**SG27.** Mechanisms of natural fibre breakage during composite compounding: Rheo-optical observations and fibre size distribution study. *R. Castellani, E. Di Giuseppe, T. Budtova and B. Vergnes*	**NF26.** Flow instability in a micro-cavity swept by a visco-elastic fluid. *H. Suzuki, R. Hidema and Y. Komoda*
4:50	**SC28.** A population balance based, coarse grained, evolution equation for microstructure in thixotropic colloidal dispersions. *P. M. Mwasame, A. N. Beris and N. J. Wagner*	**SM28.** Classification of thermorheological complexity in polyethylene and other single phase polymer melts. *F. J. Stadler*	**SA13.** Testing shear-induced breakage as the mechanism of shear banding for linear wormlike micelles. *P. Cheng, G. Leal and M. E. Helgeson*		**SG28.** An ultrasonic approach to study the rheological behavior of raw Asian noodles. *A. Salimi-Khorshidi, A. Strybulevych, D. Daugelaite, M. G. Scanlon, J. H. Page and D. W. Hatcher*	**NF27.** Numerical simulation of the flow of an asymmetric magnetic fluid in a driven cavity. *Y. D. Sobral, A. P. Reis, C. O. Vieira and F. R. Cunha*
5:15	**SC29.** Making jammed particle suspensions flow: Slow and high shear rate cooperative rearrangements. *V. Venkatesh, S. Dutta, E. Del Gado and D. Blair*	**SM29.** Conversion of creep compliance to dynamic moduli using Laplace transform and complex decomposition method. *S. H. Lee and K. S. Cho*	**SA14.** Structural dynamics of lamellar surfactant solutions in planar extensional flow. *B. Luo and W. R. Burghardt*			**NF28.** Investigation of nail enamel properties utilizing rheology, indentation, and scratch testing. *P. A. Kamerkar and P. Morel*
5:40	**SC30.** Wall slip in suspensions of thermo-responsive particles. *T. Divoux, V. Lapeyre, V. Ravaine and S. Manneville*	**SM30.** Power series approximation of continuous relaxation spectrum by the Fuoss-Kirkwood relations. *S. H. Lee, J.-E. Bae and K. S. Cho*	**SA15.** Rheology of multilamellar vesicle ("onion") formation and instability. *N. J. Wagner, L. Gentile and U. Olsson*			**NF29.** Nonlinear nanorheology of hydration layer. *W. Jhe*
6:05			END			
7:00			AWARDS RECEPTION Foyer/Atrium / 7:00-8:00			
8:00			AWARDS BANQUET Constellation D-F			

Wednesday, October 14

Morning

8:30 **PL3.** Flow in disordered systems: From simple fluids to athermal solids. *M. O. Robbins, J. Clemmer, V. Jadhao and K. M. Salerno* Constellation D-F

9:20 COFFEE BREAK

	Constellation C	*Constellation D*	*Constellation E*	*Constellation F*	*Baltimore/Annapolis*	*Frederick/Columbia*
	Suspensions and Colloids	**Polymer Solutions and Melts**	**Self-assembled Systems and Gels**	**Computational Rheology**	**Probe Microrheology**	**Micro and Nanofluidics**
10:00	**SC31.** Transient yield in reversible colloidal gels: A micro-mechanical perspective. *L. C. Johnson, B. J. Landrum and R. N. Zia*	**SM31.** Nonequilibrium thermodynamic modeling of semi-dilute polymer solutions. *S. Hooshyar and N. Germann*	**SA16.** Soft solid rheology near the gel point. *H. H. Winter*	**CR1.** Dissipative Particle Dynamics with diffusion and reaction: Application to blood clotting. *A. Yazdani, L. Zhen, B. Caswell and G. E. Karniadakis*	**PM1.** The influence of compressibility on a probe translating through a fluid-fluid interface. *J. R. Samaniuk, M. Nagel, A. Leth-Espensen and J. Vermant*	**MN1.** Massive elasticity-driven particle accumulation of confined suspensions in kinked and tortuous geometries. *A. C. Barbati, A. Robisson and G. H. McKinley*
10:25	**SC32.** The mechanics of particle bonds and the elastic modulus of cluster gels. *E. M. Furst and K. A. Whitaker*	**SM32.** Towards a better understanding of shear flow cessation from experimental and slip-link model comparison. *T. B. Schweizer, M. Katzarova and J. D. Schieber*	**SA17.** Critical-gel-like response and fractional dynamics of an A-B-A thermoplastic elastomer near $T_{g,A}$. *L. Martinetti, F. S. Bates and C. W. Macosko*	**CR2.** Non-equilibrium properties of sheets in shear flow. *A. Varghese, G. Gompper and R. G. Winkler*	**PM2.** Probing microrheology with and without probes by differential dynamic microscopy. *A. V. Bayles, Y. Gao, T. M. Squires and M. E. Helgeson*	**MN2.** Size-selective collection of particles using vortical flows in inertial microfludics. *H. Haddadi and D. Di Carlo*
10:50	**SC33.** Aging and nonlinear rheology of thermoreversible colloidal gels. *M. B. Gordon, C. J. Kloxin and N. J. Wagner*	**SM33.** Influence of chain stiffness on the thermal and rheological properties of polycarbonate copolymers. *M. Chellamuthu*	**SA18.** Normal force controlled rheology for thermoreversible gels. *B. Mao, P. Snabre and T. Divoux*	**CR3.** Numerical simulations of the rheology of suspensions of rigid spheres in a viscoelastic fluid under shear. *E. S. Shaqfeh, M. Yang and G. Iaccarino*	**PM3.** The impact of hydrodynamics on stress formation, relaxation, and memory in colloidal dispersions: Transient, non-linear microrheology. *R. P. Mohanty and R. N. Zia*	**MN3.** Towards producing and characterizing vesicle suspensions for studies of cross stream migration in channel flow. *K. J. Storslett and S. J. Muller*
11:15	**SC34.** The formation of structures in anisotropic colloidal glasses and gels containing weakly adsorbing polymers. *S. Kishore and S. R. Bhatia*	**SM34.** Effect of hydration on the mechanical performance of anion exchange membranes. *B. R. Caire, M. A. Vandiver, A. M. Herring and M. W. Liberatore*	**SA19.** Laponite and laponite-PEO hydrogels with enhanced elasticity in phosphate-buffered saline. *X. Liu and S. R. Bhatia*	**CR4.** Accelerated Stokesian Dynamics simulations of active microrheology: Microviscosity, microdiffusivity and suspension stress. *Y. Su, K. L. Gu, H. C. Chu, N. J. Hoh and R. N. Zia*	**PM4.** Non-continuum intermolecular correlated displacements in complex fluids. *Z. E. Dell, B. Tsang, L. Jiang, S. Granick and K. S. Schweizer*	**MN4.** Capsule dynamics in microfluidic junctions. *P. Dimitrakopoulos*
11:40	**SC35.** Reversible structure formation in aluminum trihydroxide/PDMS dispersions. *C. J. Cox, T. D. Fornes and S. A. Khan*	**SM35.** Effects of nanographene on rheological properties of polyamide 6/acrylonitrile-butadiene-styrene nanocomposites. *A. Mojarrad and M. Zarghami Dehaghani*	**SA20.** Polymer gelants for repair of leaky wellbores in CO_2 storage formations. *M. Shafiei, S. Bryant, R. T. Bonnecaze, M. Balhoff, C. Huh, P. Bommer, F. Ho, V. Shakenov and D. Paulami*	**CR5.** A "matrix-free" Brownian dynamics approach for hi-fidelity simulation of semi-dilute polymeric solutions. *A. Saadat and B. Khomami*	**PM5.** Passive microrheological characterization of the degradation of covalently adaptable hydrogel scaffolds. *F. S. Escobar IV, D. D. McKinnon, K. S. Anseth and K. M. Schultz*	**MN5.** Stokes trap: Multiplexed particle trapping and manipulation using precision microfluidics. *C. M. Schroeder and A. Shenoy*

12:05 LUNCH BREAK

Afternoon

	Constellation C	*Constellation D*	*Constellation E*	*Constellation F*	*Baltimore/Annapolis*	*Frederick/Columbia*
	Suspensions and Colloids	**Polymer Solutions and Melts**	**Self-assembled Systems and Gels**	**Computational Rheology**	**Probe Microrheology**	**Micro and Nanofluidics**
1:30	**SC36.** Experiments to characterize particle flotation in a curing epoxy. *L. A. Mondy, S. A. Altobelli, A. M. Grillet, H. Deng, C. C. Roberts, M. M. Soehnel, R. R. Rao, J. E. Bower, C. F. Brooks and A. K. Kaczmarowski*	**SM36.** SAXS/WAXS measurements of HDPE crystallization during uniaxial extensional flow. *E. M. McCready and W. R. Burghardt*	**SA21.** The sequencing of dynamic rheological measurement. *S. A. Rogers, M. A. Calabrese and N. J. Wagner*	**CR6.** Using the discrete sliplink model to predict flows in complex geometries. *J. D. Schieber, H. Feng and A. Marat*	**PM6.** Towards probe-free microviscometry of cells. *Z. S. Khan, N. Kamyabi and S. A. Vanapalli*	**MN6.** Shape controllable wax microparticle generation using microfluidics and droplet impact. *D. Lee, S. Beesabathuni and A. Q. Shen*
1:55	**SC37.** Silica nanoparticles in cocontinuous blends. *H. Sijia, B. Lian, X. Cheng, C. W. Macosko and M. Trifkovic*	**SM37.** Transient shear rheology of a thermotropic liquid crystalline polymer below the melting point. *C. Qian, C. D. Mansfield and D. G. Baird*	**SA22.** Nonlinear shear rheology of a supramolecular organogelator. *A. Louhichi, A. R. Jacob, L. Bouteiller and D. Vlassopoulos*	**CR7.** Self-organization of end-functionalized semiflexible polymer suspensions at equilibrium and under shear flow. *J. S. Myung, R. G. Winkler and G. Gompper*	**PM7.** Multi particle tracking microrheology probing structure and flow of turbid, concentrated colloidal dispersions. *N. Willenbacher and C. Weis*	**MN7.** Diamagnetic-levitation viscometer based on electro-magnetically spinning system. *Y. Shimokawa, Y. Matsuura, T. Hirano and K. Sakai*

2:20	**SC38.** Experiments and modelling of the thinning and breaking of particle supension filaments. *C. Clasen, O. G. Harlen, C. McIlroy, W. Mathues, M. Rubio and A. Sevilla*	**SM38.** Flow and thermal profiles of fused deposition modeling extrusion. *J. E. Seppala, K. E. Hillgartner, A. M. Forster and K. B. Migler*	**SA23.** Nonlinear rheology and cavitation of a triblock copolymer gel. *S. Kundu, S. M. Hashemnejad, M. Zabet, S. Mishra and M. Namani*	**CR8.** Entanglement loss during crazing of glassy polymers is not geometrically necessary. *R. S. Hoy, T. Ge, S. Anogiannakis, C. Tzoumanekas and M. O. Robbins*	**PM8.** Quantitative imaging of fluid systems under flow: Novel 3D rheoscope option for rotational rheometers. *A. J. Franck*	**MN8.** Continuous shear-rate and disposable microfluidic viscometers for complex fluid rheology. *S. Gupta and S. A. Vanapalli*
2:45	**SC39.** Rheology of cellulose nanofibers suspensions. *B. Nazari and D. W. Bousfield*	**SM39.** Simultaneous rheology and Raman spectroscopic measurements during polyethylene crystallization. *A. P. Kotula, M. W. Meyer, F. De Vito, J. P. Plog, A. R. Hight Walker and K. B. Migler*	**SA24.** Stochastic modeling of networked fluids. *L. Zhou and L. P. Cook*	**CR9.** Viscoelastic properties of an entangled polymer melt by probe rheology simulation. *M. Karim, T. Indei, J. D. Schieber and R. Khare*	**PM9.** Combined DLS-optical microrheology and Raman spectroscopy: A novel tool for probing self-assembly and gelation in complex fluids. *S. Amin, S. Blake, S. Kenyon, M. Majumdar and E. N. Lewis*	**MN9.** Effects of contraction ratio on elastic instability of sodium hyaluronate solution in a micro channel. *R. Hidema, T. Oka, H. Suzuki and Y. Komoda*
3:10	**SC40.** Structure and rheological properties of rod-shaped cellulose nanocrystal suspensions in aqueous dilute polymer solutions. *Y. Boluk, H. Oguzlu and Z. Khalili*	**SM40.** Qualitative and quantitative SAXS/WAXS studies of shear-induced crystallization of poly(1-butene). *M. S. Kweon, B. Luo and W. R. Burghardt*	**SA25.** The fluidity model for the mechanical description of thixotropic elasto-viscoplastic materials. *P. R. de Souza Mendes, R. L. Thompson, B. Abedi and L. R. Sica*	**CR10.** Molecular dynamics of polymer melt crystallization. *T. Vasiliy, J. Rottler and S. G. Hatzikiriakos*		**MN10.** Polymer solution flow in porous media: Pore and macro scale analyses. *N. Lima, R. Dias and M. S. Carvalho*
3:35	COFFEE BREAK					
4:00	**SC41.** Inkjet printing of carbon nanotube suspensions. *Y. Guo, B. Bognet, H. Patanwala, S. Vora and A. Ma*	**SM41.** Understanding and modelling the dynamics of entangled linear associative polymer melts. *E. van Ruymbeke, L. Hawke, A. Sharma and H. Goldansaz*	**SA26.** Structure and rheology of Pluronic® tri-block copolymer binary mixtures self-assembled micelles in the protic ionic liquid ethylammonium nitrate.*R. Chen, C. R. López-Barrón and N. J. Wagner*	**CR11.** Hydrodynamically interacting particles confined by a spherical cavity via dynamic simulations. *C. Aponte-Rivera, Y. Su and R. N. Zia*		**MN11.** Microfluidic valve based on the light-activated self-assembly of a biopolymer. *S. Raghavan and H. Oh*
4:25	**SC42.** The mechanobiology of construction and operation of traffic networks in interstitial swarms of bacteria. *R. Prabhakar, A. Nagilla, C. B. Whitchurch and S. Jadhav*	**SM42.** New insight into structure healing ability of polylactic acid-graphene nanocomposites by rheological investigations. *M. Sabzi, L. Jiang and F. J. Stadler*	**SA27.** Effect of dispersed nanoparticles on the static structure and flow behavior of block copolymer soft solids. *M. M. Dao and L. M. Walker*	**CR12.** Boundary integral simulations of dissolving drops in circular tubes. *T. Leary and A. Ramachandran*		**MN12.** Domain expansion dynamics in stratifying foam films. *Y. Zhang, S. Yilixiati and V. Sharma*
4:50	**SC43.** Using a stochastic field theory to understand active colloidal suspensions. *Y. Qian, P. R. Kramer and P. T. Underhill*	**SM43.** Application of polymer concepts to dynamics of short-chain hydrogen-bonded liquids: Tests of the minimal model of associating polymers. *Y. Wang*	**SA28.** Structure and tensile properties of cross-linked Pluronic-diacrylate copolymers /ethylammonium nitrate ionoelastomers. *C. R. López-Barrón, R. Chen and N. J. Wagner*	**CR13.** Deformation of a viscoelastic drop in periodic planar extensional flows. *A. R. Malipeddi and K. Sarkar*		
5:15	**SC44.** Diffusion of an ellipsoid in bacterial suspensions. *X. Cheng and Y. Peng*	**SM44.** Linear and circular DNA dynamics in semi-dilute solutions. *K.-W. Hsiao, Y. Li, G. B. McKenna and C. M. Schroeder*	**SA29.** SAXS studies of the structure of a BCC-ordered block copolymer melt subjected to uniaxial extensional flow. *W. R. Burghardt and E. M. McCready*	**CR14.** Effects of polymer additives on the structural, dynamic and rheological properties of asphalt: A molecular simulation study. *F. Khabaz and R. Khare*		
5:40	**SC45.** Effect of hematocrit and dextran on human blood viscoelasticity. *G. Tomaiuolo, A. Carciati, S. Caserta and S. Guido*	**SM45.** Investigating the behavior of bead-spring chains in dilute and semi-dilute regimes: A hi-fidelity Brownian dynamics approach. *A. Saadat and B. Khomami*	**SA30.** Enhanced gelling properties of gelatin and xanthan mixtures due to synergistic interactions. *C. Wang, G. Natale, N. Virgilio and M.-C. Heuzey*	**CR15.** Inferring structure from rheology: Parameter uncertainties in fitting asymptotically-nonlinear rheology. *P. K. Singh and R. H. Ewoldt*		
6:05	END					
6:05	POSTER SESSION & RECEPTION Atrium/Harborview / 6:05-8:00					

Thursday, October 15

Morning

8:00 **AP1.** The rheology and microstructure of carbon nanotube suspensions. A. Ma (Metzner Award Presentation) Constellation A

	Constellation C	*Constellation D*	*Constellation E*	*Constellation F*
	Suspensions and Colloids	**Polymer Solutions and Melts**	**Self-assembled Systems and Gels**	**Computational Rheology**
8:40	**SC46.** The electrorheological effect for polyhedral silsesquioxane cage structures with cyanopropyl functional groups. *C. McIntyre and M. Sturm*	**SM46.** Single molecule dynamics of DNA comb polymers. *C. M. Schroeder and D. J. Mai*	**SA31.** Flow and gelation of a suspension of microfibers. *A. Perazzo, J. K. Nunes, S. Guido and H. A. Stone*	**CR16.** Program to extract continuous and discrete relaxation spectra from linear rheology. *S. Shanbhag and A. Takeh*
9:05	**SC47.** In-situ simultaneous rheo-conductivity and rheo-impedance spectroscopy measurements of strongly conductive complex fluids. *A. Helal, X. W. Chen, T. Divoux, Y.-M. Chiang and G. H. McKinley*	**SM47.** Constraint release leads to size-dependent diffusivity of nanoparticles in solutions of unentangled polyelectrolytes. *R. Poling-Skutvik, R. Krishnamoorti and J. C. Conrad*	**SA32.** Star telechelic poly(L-lactide) ionomers. *A. D. Kulkarni, A. K. Lele, S. Swaminathan, P. R. Rajmohanan, V. Sachin and A. Chatterji*	**CR17.** An efficient log-conformation stabilization. *P. Knechtges, M. Behr and S. Elgeti*
9:30	**SC48.** Alignment dynamics of magnetic microdisks in rotating magnetic field. *M. Tan, H. Song, A. Jander, P. Dhagat and T. W. Walker*	**SM48.** Size, shape and diffusivity of a single Debye-H&uumlckel polyelectrolyte chain in solution. *W. C. Soysa, B. Duenweg and J. R. Prakash*	**SA33.** How do amphiphilic biopolymers gel blood? An investigation using optical microscopy. *S. Raghavan, I. C. MacIntire and M. B. Dowling*	**CR18.** Predicting density variation from polyurethane process modeling. *R. R. Rao, L. A. Mondy, K. N. Long, C. C. Roberts, M. M. Soehnel, M. C. Celina, H. Deng, V. E. Brunini and J. J. Tinsley*
9:55		COFFEE BREAK		
10:25	**SC49.** Rheology of cubic particles suspended in both a Newtonian fluid and a concentrated colloidal dispersion. *C. D. Cwalina and N. J. Wagner*	**SM49.** A microstructural constitutive model for the rheology of solutions of flexible unentangled polymers. *R. Prabhakar and M. J. Shaw*	**SA34.** Improved mechanical behavior with multicomponent nanocomposite hydrogels. *W. L. Hom and S. R. Bhatia*	**CR19.** Concentration coupled flow instability of hard sphere glasses: Modeling and simulation. *H. Jin, K. Kang, K. H. Ahn and J. Dhont*
10:50		**SM50.** Exploring the effects of compatibilizer on the morphology and interface of polymer blends by means of rheology and dielectric spectroscopy. *A. Bharati, R. Cardinaels, M. Wübbenhorst and P. Moldenaers*	**SA35.** Rheology and microstructure of capillary force induced gels. *S. S. Huprikar, A. V. Orpe and A. K. Lele*	**CR20.** A constitutive model for monodisperse and polydisperse entangled polymers incorporating binary entanglement pair dynamics and a configuration dependent friction coefficient. *D. W. Mead, N. Banerjee and J. Park*
11:15		**SM51.** Rheology of polymer nanocomposites using novel evaluation of oscillatory shear flow data. *M. Kracalik*		
11:40		**SM52.** Interpenetration, entanglements and bonding interactions in dendronized polymers. *D. Vlassopoulos, S. Costanzo, L. Scherz, T. B. Schweizer, M. Kroger and D. Schluter*		
12:05		END		

Poster Session

Wednesday 6:05 PM – 8:00 PM Atrium/Harborview

PO1. Rheological properties of methylcellulose in the presence of nanocellulose. *L. Rakesh and R. Thota*

PO2. Mussel-inspired self-healing nanocomposite hydrogel with dynamic mechanics by network structure. *Q. Li, S. R. Mishra, P. Chen, J. B. Tracy and N. Holten-Andersen*

PO3. Exploring elasticity and energy dissipation in mussel-inspired hydrogel transient networks. *S. C. Grindy, R. Learsch and N. Holten-Andersen*

PO4. Probing the role of cell rheology and friction on tumor cell transport using high throughput microfluidics. *M. S. Ahmmed and S. A. Vanapalli*

PO5. High shear rate rheology of protein solutions. *S. D. Hudson, V. Dharmaraj and Y. Liu*

PO6. Modeling the impact of heterogeneous composition on the extrusion driven flow of lignocellulosic biomass using a three fluid model. *J. C. Duncan, M. D. Graham, D. J. Klingenberg and T. C. Scott*

PO7. Linear and non-linear rheology of model synovial fluids. *Z. Zhang and G. F. Christopher*

PO8. Effects of granule characteristics on rheological behavior of native potato and corn starch suspensions. *N. Y. Sinaki and M. G. Scanlon*

PO9. Investigating molecular interactions between chitosan and insect cuticle protein (CPR27) using active microrheology. *M. C. Vaclaw, P. Sprouse, N. T. Dittmer, M. Kanost, G. H. Stevin and P. Dhar*

PO10. Single bacterial adhesive interactions with dental implants. *S. Xu*

PO11. Spiders tune glue viscosity to maximize adhesion. *G. Amarpuri, C. Zhang, C. Diaz, T. Blackledge, B. Opell and A. Dhiojwala*

PO12. The rheology of nanoparticles in blood for improved cancer therapy. *E. Carboni, B. Bognet, G. Bouchillon, A. Kadilak, L. Shor and A. Ma*

PO13. Exploration of rheological and calorimetric properties of egg components as affected by high pressure processing. *A. Singh and H. Ramaswamy*

PO14. Modification of pasting and rheological properties of native tapioca starch by addition of gum arabic. *A. Singh and D. Geveke*

PO15. Determination of viscoelastic properties of polymers under physiologic conditions. *E. B. Finkelstein and P. T. Mather*

PO16. Light-responsive hyaluronic acid-based hydrogels for controlled drug delivery to pathological cavities. *R. D. Corder, S. Menegatti and S. A. Khan*

PO17. Composition-dependent rheological properties of Hagfish defense gel: A network of intermediate filament based threads and mucins. *G. Chaudhary, D. S. Fudge and R. H. Ewoldt*

PO18. Dynamics of biopolymers in cartilage extracellular matrix. *W.-K. Oh and F. Horkay*

PO19. Altered sputum microstructure as a marker of airway obstruction in cystic fibrosis patients. *G. A. Duncan, J. Jung, M. P. Boyle, N. E. West, J. S. Suk and J. Hanes*

PO20. Microstructure and rheological function of food co-texturizers. *C. M. Gregson, M. Sillick, X. Yang, P. Santos and J. Layo*

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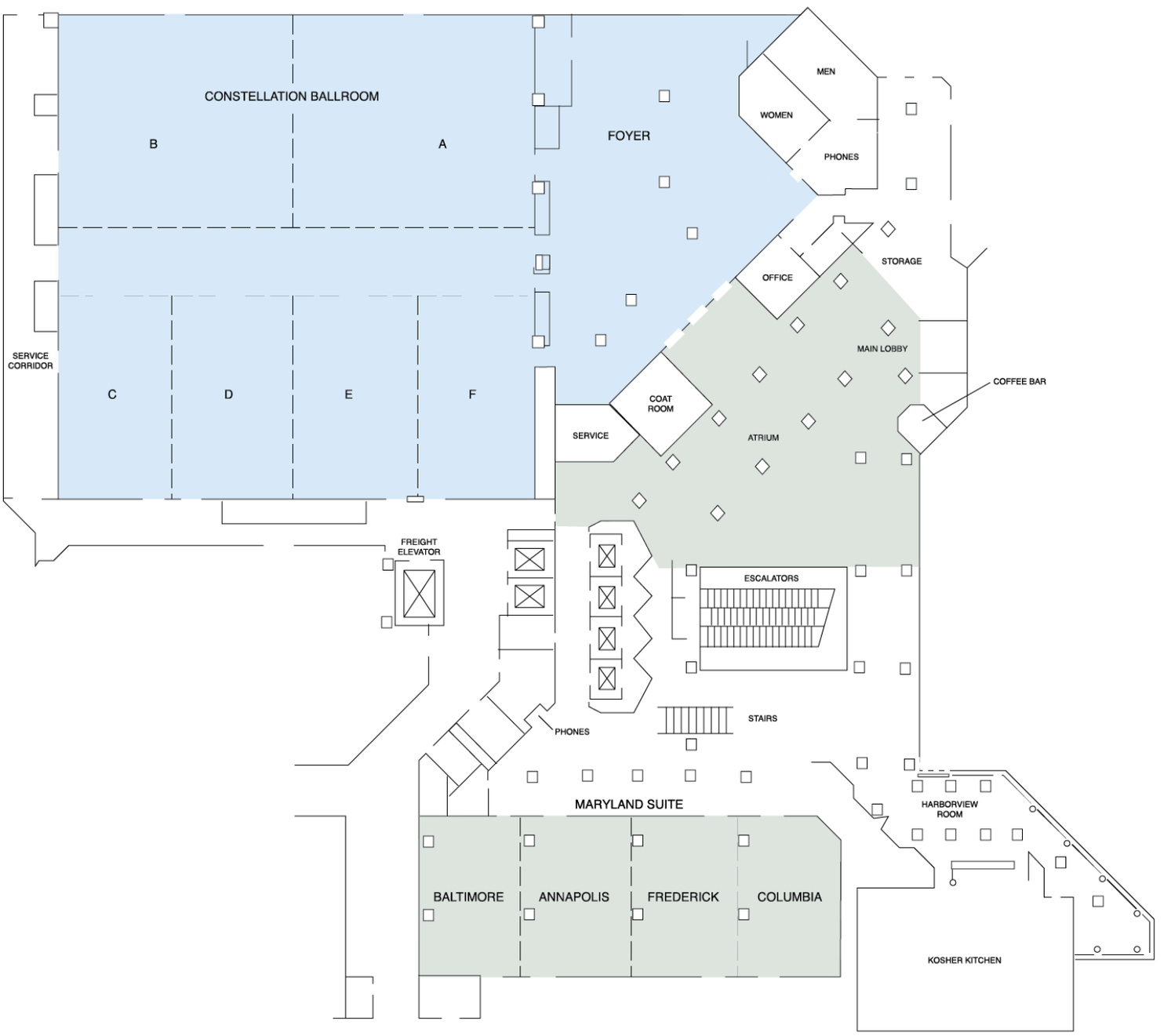

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