

M³Rheo Workshop 2024

Hangzhou, Aug. 30 – Sep. 1

Workshop Program

Date	Time	Agenda	Address	
Aug. 30	10:00 — 22:00	Registration	Wahaha Resort Hotel	
	18:00 — 20:00	Opening Reception		
Date	Time	Agenda	Chair	Address
Aug. 31	08:45 — 09:00	Opening Ceremony	TBD	Wahaha Resort Hotel
	09:00 — 09:30	Plenary Talk: <u>Gerald G. Fuller</u> , Stanford University Active microrheometry to test mucoactive drugs		
	09:30 — 10:00	Plenary Talk: <u>Nhan Phan-Thien</u> , Natl. University Singapore & Zhejiang University Lopsided rigid dumbbell rheology from Langevin equation		
	10:00 — 10:30	Coffee/Tea Break		
	10:30 — 10:50	Invited Talk: <u>Wei Yu</u> , Shanghai Jiao Tong University Contact stress and dynamic shear thickening in noncolloidal suspensions	TBD	
	10:50 — 11:10	Invited Talk: <u>Haihu Liu</u> , Xian Jiao Tong University Deformation and breakup of a Newtonian droplet subject to oscillatory shear flow in a viscoelastic matrix		
	11:10 — 11:30	Invited Talk: <u>Ting Ye</u> , Jilin University Intelligent dissipative particle dynamics: Bridging mesoscopic models from microscopic simulations via deep neural networks	TBD	
	11:30 — 11:50	Invited Talk: <u>Yihu Song</u> , Zhejiang University Strain softening of rubber nanocomposites		
	12:00 — 14:00	Lunch & Break		

Session I: Rheology

Date	Time	Agenda	Chair	Address
Aug. 31	14:00 — 14:20	Invited Talk: <u>Biao Zuo</u> Zhejiang Sci-Tech University How do the chain molecules at surface of glassy polymers relax?	TBD	Wahaha Resort Hotel
	14:20 — 14:40	Invited Talk: <u>Ryohei Seto</u> Wenzhou Institute, University of Chinese Academy of Sciences TBD		
	14:40 — 15:00	Invited Talk: <u>Guang Chen</u> Peking University Electrostatics, conformation and dynamics of semidilute polyelectrolyte solutions		
	15:00 — 15:15	<u>Wei Wang</u> Hangzhou City University Effect of surfactants on the antibubble dynamics	TBD	
	15:15 — 15:30	<u>Shuxin Huang</u> Shanghai Jiao Tong University Characterization on the viscoelastic property of an electrorheological fluid of oxidized niobium carbide Mxene		
	15:30 — 15:45	<u>Chenlin Zhu</u> China Jiliang University The effects of microstructure on the rheology of bidisperse non-colloidal suspensions		
	15:45 — 16:00	Coffee/Tea Break		

Session II: non-Newtonian Fluid Mechanics

Date	Time	Agenda	Chair	Address
Aug. 31	16:00 — 16:20	Invited Talk: <u>Kaixin Hu</u> Ningbo University Experimental study on evaporation and boiling of nanofluids	TBD	Wahaha Resort Hotel
	16:20 — 16:40	Invited Talk: <u>Chiyu Xie</u> Beihang University Preferential flow control based on viscoelastic instability		
	16:40 — 17:00	Invited Talk: <u>Yongliang Xiong</u> Huazhong University of Science and Technology Computational analysis of heat transfer and flow resistance of twisted oval tube of viscoelastic fluid		
	17:00 — 17:15	<u>Dongdong He</u> Chinese University of Hongkong (Shenzhen) Stability analysis for viscoelastic liquid threads: the effect of external fluid and surfactant	TBD	
	17:15 — 17:30	<u>Chundong Xue</u> Dalian University of Technology Vortex instability of polymer solution flow through microcavities		
	17:30 — 17:45	<u>Xiao Hu</u> Zhejiang Sci-Tech University Elasto-inertial focusing and rotating characteristics of ellipsoidal particles in a square channel flow of Oldroyd-B viscoelastic fluids		
	17:45 — 18:00	<u>Hongna Zhang/Wenhua Zhang</u> Tianjin University TBD		
	18:00 — 20:00	Banquet of the Workshop		

Session III: Multiscale Modeling

Date	Time	Agenda	Chair	Address
Sep. 1	08:30 — 08:50	Invited Talk: <u>Xuqu Hu</u> Dalian University of Technology Interaction damage of microcapsule in doublet motions	TBD	Wahaha Resort Hotel
	08:50 — 09:10	Invited Talk: <u>Jijia Zhou</u> South China University of Technology Dynamics of viscoelastic filament based on Onsager principle		
	09:10 — 09:30	Invited Talk: <u>Xinhui Si</u> University of Science and Technology Beijing Natural convection of linear entangled polymer in a differentially heated cavity		
	09:30 — 09:45	<u>Chensen Lin</u> Fudan University Bridging scales in multiscale bubble growth dynamics with correlated fluctuations using neural operator learning	TBD	
	09:45 — 10:00	<u>Zhenyu Ouyang</u> Ningbo University Interface-resolved simulations of particles in active nematics		
	10:00 — 10:15	<u>Wenjun Yuan</u> Xian Jiao Tong University Formation and regulation of polymeric droplets with complex rheology in capillary microchannels		
	10:15 — 10:30	Coffee/Tea Break		

Session IV: Medley

Date	Time	Agenda	Chair	Address
Sep. 1	10:30 — 10:50	Invited Talk: <u>Gengxin Liu</u> Donghua University The extreme of disentanglement: 100-fold viscosity reduction in model single-chain nanoparticles	TBD	Wahaha Resort Hotel
	10:50 — 11:10	Invited Talk: <u>Sergio A. G. Torres</u> Westlake University Shear viscosity scaling of granular suspensions across semi-dilute to dense regimes		
	11:10 — 11:30	Invited Talk: <u>Xuezheng Cao</u> Xiamen University TBD		
	11:30 — 11:45	<u>Lin Liu</u> University of Science and Technology Beijing Construction of the absorbing boundary condition for the flow of Oldroyd-B fluid over a semi-infinite plate with magnetic effect	TBD	
	11:45 — 12:00	<u>Hong Chen</u> Harbin Engineering University Numerical simulation of initial flow of cylinder water entry		
	12:00 — 14:00	Coffee/Tea Break		

Session V: Young Scientist Talks

Date	Time	Agenda	Chair	Address
Sep. 1	14:00 — 14:15	<u>Jiayi Zhao</u> University of Shanghai for Science and Technology The asymmetric post-impact dynamics of the droplet impingement on moving surfaces	TBD	Wahaha Resort Hotel
	14:15 — 14:30	<u>Yansong Li</u> Tsinghua University Spheroid rotation and migration in elasto-inertial flows		
	14:30 — 14:45	<u>Jingyu Cui</u> Zhejiang Sci-Tech University Flow-induced snap-through phenomenon and its applications in flow control and energy harvesting		
	14:45 — 15:00	<u>Zhuan Ge</u> Chengdu University of Technology/Westlake University The crucial role of effective stress in sheared dense suspensions: towards a unified rheology		
	15:00 — 15:15	<u>Zihang Zhang</u> China University of Petroleum, Beijing A systematic probability estimation framework for gel point of mixed crude oil based on graph neural networks	TBD	
	15:15 — 15:30	<u>Ruifan Meng</u> Guangzhou University Study on the Fractional Rheology-Informed Neural Network for Polyacrylamide Solutions		
	15:30 — 15:45	<u>Xiaoping Wang</u> Shandong University Parameter Estimation on Complex Polymer Materials with Intelligent Optimization Algorithms		
	15:45 — 16:00	<u>Jiafeng Xie</u> Zhejiang University Enhancement of drag reduction in particle-laden turbulent flows under spanwise wall oscillation		
	16:00 — 16:10	Coffee/Tea Break		

Closing Session

Date	Time	Agenda	Chair	Address
Sep. 1	16:10 — 16:30	Invited Talk: <u>Yuan Lin</u> Zhejiang University Study on the non-Newtonian behavior of meso-scaled suspensions	TBD	Wahaha Resort Hotel
	16:30 — 16:50	Invited Talk: <u>Shaowei Wang</u> Shandong University Electroosmotic flow of Maxwell fluid in curve tube		
	16:50 — 17:00	Closing of the Workshop		
	17:30 — 20:00	Dinner		