Modelling and Numerical Simulation of Non-Equilibrium Processes Part 1 (27 Sep 2021–01 Oct 2021)

*Registration is required for this program.

Venue

Virtual: The details and link will be sent to you before the program commences after registration has been processed.

ORGANIZING COMMITTEE

Zhenning Cai
National University of Singapore, Singapore

Ruo Li
Peking University, China

Manuel Torrilhon
RWTH Aachen University, Germany

For more information: Click here

Workshop on Modelling and Numerical Simulation of Non-Equilibrium Processes Part One

(27 September–1 October 2021)

Time (GMT+0)	Canada USA (GMT-4)	UK (GMT+1)	France Germany Netherlands Switzerland (GMT+2)	India (GMT+5:30)	China Singapore (GMT+8)
1200	0800	1300	1400	1730	2000
0700	0300	0800	0900	1230	1500

All times are indicated in GMT+0.
For time zones conversion: Click Here

Monday, 27 September 2021		
Time (GMT +0)	**Title**	**Speaker**
1200	Session Chair: Hossein Gorji (Swiss Federal Laboratories for Materials Science and Technology, Switzerland)	
1200–1300	Modelling non-equilibrium gas flows by coupling kinetic and extended thermodynamic methods	Xiao-Jun Gu Science and Technology Facilities Council, UK
1300–1400	Convergence and stability properties of Grad's Hermite approximation	Neeraj Sarna Max Planck Institute for Dynamics of Complex Technical Systems Magdeburg, Germany
1400–1500	A Grad's moment closure for multi-component reacting low-temperature plasmas	Alejandro Alvarez-Laguna Laboratoire de Physique des Plasmas, Ecole Polytechnique, France

Tuesday, 28 September 2021		
Time (GMT +0)	**Title**	**Speaker**
0700	Session Chair: Ruo Li (Peking University, China)	
0700–0800	Learning Galilean invariant and thermodynamically stable PDES for nonequilibrium flows	Wen-an Yong Tsinghua University, China
0800–0900	Entropy-based Ansatz for the Boltzmann equation	Michael R. A. Abdelmalik Eindhoven University of Technology, Netherlands

Tuesday, 28 September 2021		
Time (GMT +0)	**Title**	**Speaker**
0900–1000	Regularized 13-moment equations for inverse power law models	Yanli Wang Beijing Computational Science Research Center, China

Wednesday, 29 September 2021		
Time (GMT +0)	**Title**	**Speaker**
1200	Session Chair: Zhenning Cai (National University of Singapore, Singapore)	
1200–1300	Direct flux gradient approximation to moment closure of kinetic equations	Weiming Li Institute of Applied Physics and Computational Mathematics, China
1300–1400	Modelling dilute granular gases via Grad's moment method	Vinay Kumar Gupta Indian Institute of Technology Indore, India
1400	*Group Photo (Cameras on and SMILE!)*	ZOOM
1400–1500	Simulation of micro-scale particulate motion in gases	Duncan Lockerby University of Warwick, UK
1500–1600	26 moment equations for liquid-vapor interfaces	Henning Struchtrup University of Victoria, Canada

Thursday, 30 September 2021		
Time (GMT +0)	**Title**	**Speaker**
1200	Session Chair: Manuel Torrilhon (RWTH Aachen University, Germany)	
1200–1300	Extended Gaussian moment methods for polydisperse multiphase flow with evaporation and turbulence	James McDonald University of Ottawa, Canada
1300	*Group Photo (Cameras on and SMILE!)*	ZOOM
1300–1400	Spectral element moment-closures for kinetic models	James Rossmanith Iowa State University, USA
1400–1500	Hyperbolic quadrature method of moments for the kinetic equation	Rodney Fox Iowa State University, USA

Friday, 01 October 2021		
Time (GMT +0)	**Title**	**Speaker**
1200	Session Chair: Zhenning Cai (National University of Singapore)	

Friday, 01 October 2021		
Time (GMT +0)	**Title**	**Speaker**
1200–1300	Simulation of evaporation and condensation processes in nanodevices using mesh-free methods	Anirudh Singh Rana Birla Institute of Technology and Science, Pilani, India
1300–1400	Fokker-Planck kinetics, data-driven coupling and beyond	Hossein Gorji Empa - Swiss Federal Laboratories for Materials Science and Technology, Switzerland
1400–1500	Maximum-entropy-inspired interpolative-based moment closures for predicting nonequilibrium radiative heat transfer in non-gray participating media	Clinton Groth University of Toronto, Canada

For abstracts: Click here