

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

Name and Affiliation	Title
Michael R. A. Abdelmalik Eindhoven University of Technology, Netherlands	Entropy-based Ansatz for the Boltzmann equation (Video)
Alejandro Alvarez-Laguna Laboratoire de Physique des Plasmas, Ecole Polytechnique, France	A Grad's moment closure for multi-component reacting low- temperature plasmas (Video)
Rodney Fox Iowa State University, USA	Hyperbolic quadrature method of moments for the kinetic equation (Video)
Hossein Gorji Empa - Swiss Federal Laboratories for Materials Science and Technology, Switzerland	Fokker-Planck kinetics, data-driven coupling and beyond (Video)
Clinton Groth University of Toronto, Canada	Maximum-entropy-inspired interpolative-based moment closures for predicting nonequilibrium radiative heat transfer in non-gray participating media (Video)
Xiao-Jun Gu Science and Technology Facilities Council, UK	Modelling non-equilibrium gas flows by coupling kinetic and extended thermodynamic methods (Video)
Vinay Kumar Gupta Indian Institute of Technology Indore, India	Modelling dilute granular gases via Grad's moment method (Video)
Weiming Li Institute of Applied Physics and Computational Mathematics, China	Direct flux gradient approximation to moment closure of kinetic equations (Video)
Duncan Lockerby University of Warwick, UK	Simulation of micro-scale particulate motion in gases (Video)
James McDonald University of Ottawa, Canada	Extended Gaussian moment methods for polydisperse multiphase flow with evaporation and turbulence (Video)
Anirudh Singh Rana Birla Institute of Technology and Science, Pilani, India	Simulation of evaporation and condensation processes in nanodevices using mesh-free methods (Video)

Name and Affiliation	Title
James Rossmannith Iowa State University, USA	Spectral element moment-closures for kinetic models (Video)
Neeraj Sarna Max Planck Institute for Dynamics of Complex Technical Systems Magdeburg, Germany	Convergence and stability properties of Grad's Hermite approximation (Video)
Henning Struchtrup University of Victoria, Canada	26 moment equations for liquid-vapor interfaces (Video)
Yanli Wang Beijing Computational Science Research Center, China	Regularized 13-moment equations for inverse power law models (Video)
Wen-an Yong Tsinghua University, China	Learning Galilean invariant and thermodynamically stable PDES for nonequilibrium flows (Video)