



KI-Net: Kinetic description of emerging challenges
in multiscale problems of natural sciences

An NSF Research Network in Mathematical Sciences



Conference Announcement

Young Researchers Workshop: Kinetic descriptions in theory and applications

October 22–26, 2018

Center for Scientific Computation And Mathematical Modeling
University of Maryland

Organizers

Javier Morales University of Maryland
Eitan Tadmor University of Maryland

Confirmed Participants

Purba Chatterjee	University of Illinois
Katy Craig	University of California, Santa Barbara
Antonio De Rosa	New York University
Nicolas Garcia Trillos	University of Wisconsin–Madison
Yu Gu	Carnegie Mellon University
Siming He	Duke University
Franca Hoffmann	California Institute of Technology
Hui Huang	Simon Fraser University
Qin Li	University of Wisconsin–Madison
Yulong Lu	Duke University
Sébastien Motsch	Arizona State University
Matt Novack	University of Texas–Austin
Jan Peszek	University of Maryland
Hong-Yan Shih	University of Illinois
Ruiwen Shu	University of Maryland
Telma Silva	University of Cape Verde
Changhui Tan	University of South Carolina
Matthew Thorpe	University of Cambridge
Chris Tokita	Princeton University
Soledad Villar	New York University
Zhenfu Wang	University of Pennsylvania
Franziska Weber	Carnegie Mellon University
Yunan Yang	New York University
Ming Zhong	Johns Hopkins University



Clustering algorithm in abstract graphs using collective dynamics
by A. Griffin and J. Morales

Scientific Background

The meeting will focus on the passage from particle, networks, and agent-based models to macroscopic systems connected through kinetic descriptions with applications to transport phenomena, diffusion, mixing, and self-organization. The interplay between modeling, analysis, and computation of such systems can be used to understand the emergence of ordered structures out of microscopic interactions. The workshop will cover several applications at different scales to physical, social, and biological phenomena as well as connections to machine learning and data processing.

Goals

To bring together young researchers working in kinetic theory and related fields, to exchange ideas, and to facilitate collaborations.

A limited number of openings are available.
To apply, complete the online application before
September 14, 2018.

For more information and to apply:
www.ki-net.umd.edu



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