



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: Current trends in kinetic theory

October 9–13, 2017

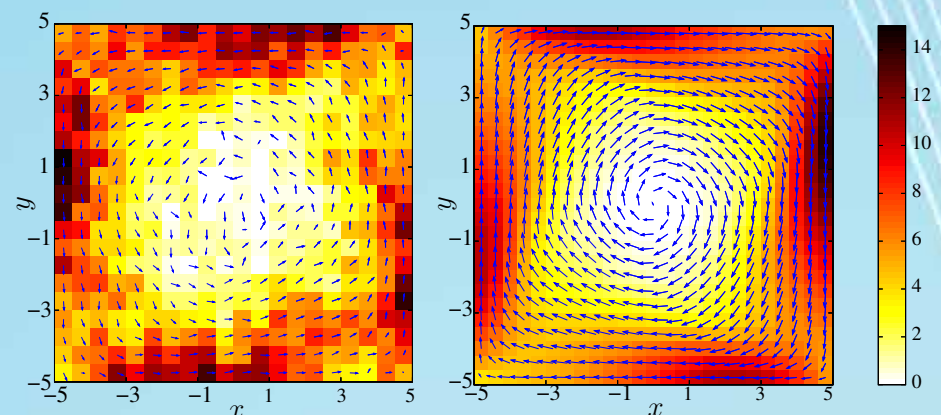
Center for Scientific Computation And Mathematical Modeling
University of Maryland

Organizer

Eitan Tadmor University of Maryland

Confirmed Participants

Maxime Breden	ENS Paris-Saclay
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Tomasz Debiec	University of Warsaw
Theodore D. Drivas	Princeton University
Tarek Elgindi	University of San Diego
Di Fang	University of Wisconsin-Madison
Simon Garnier	NJIT and Rutgers University
Siming He	University of Maryland
Franca Hoffmann	California Institute of Technology
Rachael T. Keller	Columbia University
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Sara Merino Aceituno	Imperial College London
Javier Morales	University of Maryland
Sebastien Motsch	Arizona State University
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Alexander Watson	Duke University
Yuhua Zhu	University of Wisconsin-Madison



From “Spectral method for a kinetic swarming model” by Irene M. Gamba, Jeffrey R. Haack, and Sebastien Motsch; *Journal of Computational Physics* (2015).

Scientific Background

This workshop will focus on current trends in mathematical theories of kinetic descriptions—the interplay between modeling, analysis and computation, with various applications in physical, biological and social sciences. Starting with classical theories for collisional transport, topics to be covered in this workshop range from deterministic and stochastic mean-field descriptions of plasma, material, gasdynamics, ... and emerging behavior in collective dynamics of active matter, to numerics, UQ and multiscale analysis of the interactions between macro- and microscopic scales.

Goals

The goal of this conference is to bring together young researchers working on current trends in mathematical theories of kinetic descriptions—modeling, analysis and computation—with various applications in physical, biological and social sciences. This will be the sixth in the series of Young Researcher Workshops (YRWs) hosted by Ki-Net.

A limited number of openings are available.

To apply, complete the online application before
August 31, 2017.

For more information and to apply:

www.ki-net.umd.edu



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