



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 theory with applications in physical sciences

November 9-13, 2015

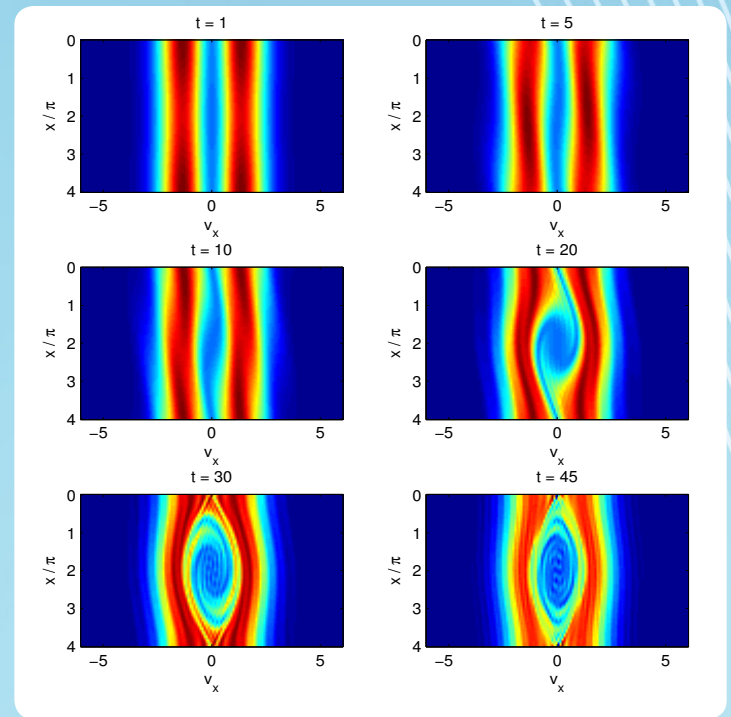
Center for Scientific Computation And Mathematical Modeling
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Organizers

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Confirmed Participants

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Lei Wu	Brown University
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Cheng Yu	The University of Texas at Austin
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Simulation of the Fokker-Planck-Landau equation by Qin Li and Bokai Yan

Scientific Background

Many subtle and important physical processes involve the intricate interaction between macroscopic and microscopic scales. By providing a mesoscopic scale in between, kinetic theory is the mathematical framework for understanding many of these systems, for example, in plasma physics, gas dynamics, and neutron transport. This theory presents numerous difficult, unsolved challenges in a variety of fields, such as scientific computing, mathematical analysis, and modeling.

Goals

The goal of this conference is to bring young, energetic researchers working in kinetic theory and related fields together to exchange ideas and facilitate collaborations. The focus is mainly on the mathematical analysis, modeling, and computation of kinetic theory (and related topics) in physical sciences, such as material science, neutron transport, plasma physics, and fluid mechanics. Other applications of kinetic theory, such as to mathematical biology, may also be discussed.

A limited number of openings are available.
To apply, complete the online application before
September 30, 2015.

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

