



Young Researchers Workshop: Ki-Net 2012–2019

October 21–25, 2019

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KI-Net^{*}: Kinetic description of emerging challenges in multiple problems of natural sciences

An NSF Research Network in Mathematical Sciences



Conference Announcement

Young Researchers Workshop: Stochastic and deterministic models in kinetic theory

November 28 - December 2, 2016

Department of Mathematics
Duke University

Organizers

John Bebernes
North Carolina State University

Shaoqing Lu
Duke University

Shaojun Xu
Duke University

Confirmed Participants

Amir Arora
Zhejiang Univ

Liuliu Chen
UC Santa Barbara

Howard A. Daghhighi
University of Cambridge

Heide Dietrich
University of Maryland

John D. Gould
Imperial College London

Shing He
Portland University

Yong-Jin Kim
Imperial College London

Huon-Jin Kim
University of Texas at Austin

Ken Kang
University of Texas at Austin

Yoon-Ho Lee
North Carolina State University

Seyma M. Rostami
North Carolina State University

Li Chen
New York University

Yoon-Ho Lee
North Carolina State University

Changfeng Lu
Rice University

Keungho Park
University of Texas at Austin

Qiya Tang
UC Los Angeles

Yoon-Ho Lee
North Carolina State University

Xiuxi Wang
University of Wisconsin

Yoon-Ho Lee
North Carolina State University

Alexander Witten
Columbia University

Michael Whittell
North Carolina State University

Yoon-Ho Lee
North Carolina State University

Kangmin Xu
University of Wisconsin-Madison

Yoon-Ho Lee
UC Los Angeles

Yao Yu
Georgia Tech

Yong Zhang
Tsinghua Institute



Scientific Background

The workshop will focus on the fascinating interplay between physics of simple kinetic theory, phenomena in stochastic modeling, mathematical analysis and methods, and applications in applied, biological and social sciences. In particular, there will be discussion on developments from modeling of gas molecules, interacting particles, and fluids, to stochastic models of interacting particles, and stochastic models, from direct simulation Monte Carlo methods to recent developments in deterministic methods for kinetic theory and stochastic systems.

Goals

The goal of the conference is to bring together leading experts in the field to discuss and exchange ideas and facilitate collaborations. The focus will be on stochastic models of interacting particles, stochastic modeling, quantum dynamics, uncertainty quantification and applications in stochastic systems and methods.

A limited number of operating are available.

Abstract submission and on-site application opens on
March 10, 2016.

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





KI-Net: Kieristic description of emerging challenges
in multiple problems of natural sciences

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Conference Announcement

Young Researchers Workshop:

Current trends in kinetic theory

October 9–13, 2017

Cambridge University, Cambridge

Cambridge Mathematical Analysis and Mathematical Modeling

University of Maryland

Organizer

Artur Tashiro University of Maryland



Confirmed Participants

<p>Hector Andres RIM Paris-Saclay</p> <p>Artur De Rosa York University</p> <p>Yongfeng Chen Princeton University</p> <p>Thomas D. Drivas University of Wisconsin-Madison</p> <p>David F. Forster Rice University</p> <p>Di Fang University of Wisconsin-Madison</p> <p>Yonggang Gao Tsinghua University</p> <p>Sining He University of Maryland</p> <p>Paula Hoffmann California Institute of Technology</p> <p>Rachael T. Isler Rice University</p> <p>David L. Jones Imperial College London</p> <p>Shih-Hong Lye UC Irvine</p> <p>Sara Marini Achilli Johns Hopkins University</p> <p>Subashini Muthu Arizona State University</p> <p>Chenglong Tan Rice University</p> <p>Yongxin Tang University of Texas at Austin</p> <p>Chao Tian Tsinghua University</p> <p>Alexander Tzavaras University of Kansas</p> <p>Yuhua Zhu University of Wisconsin-Madison</p>	<p><small>River: "River network of a river network" (top) by David A. Haxel, M. J. Heule, and M. J. Heule, <i>Journal of Geophysical Research</i>, 2016.</small></p> <p>Scientific Background</p> <p>The workshop will focus on current trends in mathematical theories of kinetic descriptions of the energy balance, 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 master equations to stochastic differential equations, and stochastic models for a collective dynamics of active matter, to networks, QED, and nonlinear analysis, and the interactions between mathematical and biological sciences.</p> <p>Goal</p> <p>The goal of this conference is to bring together young researchers from different disciplines to discuss the latest theories of kinetic description—modeling, analysis and computation in physical, biological and social sciences, biological and social sciences. The work will be the state of the art of kinetic description—modeling (EMM) hosted by KI-Net.</p>
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A limited number of positions are available.

For more information or application visit:

August 31, 2017

For more information and to apply

www.ki-net.usd.edu









KI-Net





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KI-Net

A NSF Research Network in Mathematical Sciences

Kinetic description of emerging challenges
in multiscopic problems of natural sciences



A NSF Research Network in Mathematical Sciences

Conference Announcement

Young Researchers Workshop:

Kinetic descriptions in theory and applications


October 22-26, 2018

Center for Complex, Adaptive and Mathematical Modeling
University of Maryland

Organizers

Javier Morales *University of Maryland*

Elie Tadmor *University of Maryland*



Confirmed Participants

<p>Paula Chatterjee University of California, San Barbara</p> <p>Kelly Craig New York University</p> <p>Michael Doi University of Wisconsin-Madison</p> <p>Nicola Garcia Trillera University of Wisconsin-Madison</p> <p>Siming He Duke University</p> <p>Changfeng Hu California Institute of Technology</p> <p>Yi Huang Simon Fraser University</p> <p>Yaling Lu Duke University</p> <p>Sebastian Mischke University of Tennessee-Knox</p> <p>Jan Paszek University of Maryland</p> <p>Yi Pan University of Maryland</p> <p>Ruihua Shi University of Maryland</p> <p>Yi Song University of South Carolina</p> <p>Changfeng Tan University of Cambridge</p> <p>Chris Tisdale Princeton University</p> <p>Michael Wolke University of Pennsylvania</p> <p>Zhaowang Wang New York University</p> <p>Yanan Yang Johns Hopkins University</p>	<p>Scientific Background</p> <p>The meeting will focus on the progress from particle, kinetic and fluid models to the phase space level, and systems connected through kinetic descriptions with applications to hydrodynamics, diffusions, reaction, and self-organization. The synergy between modeling, analysis, and computation of all scales can be used to understand the emergence of ordered structures and of nonequilibrium phenomena. The scales to physics, social, and biological phenomena are discussed in connection to machine learning and AI.</p> <p>Goals</p> <p>To bring together young researchers working in kinetic theory and related fields, to exchange ideas, and to facilitate collaborations.</p>
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A limited number of requests are possible.
To arrange, consider the active applications before
September 14, 2018

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

Local Organizers

John Glimm *University of Maryland*

David Keyes *University of Maryland*

David Keyes *University of Maryland*

David Keyes *University of Maryland*



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UNIVERSITY OF
MARYLAND