



CSCAMM



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

An NSF Research Network in Mathematical Sciences



Conference Announcement

Selected topics in transport phenomena: deterministic and probabilistic aspects

April 18 - 21, 2017

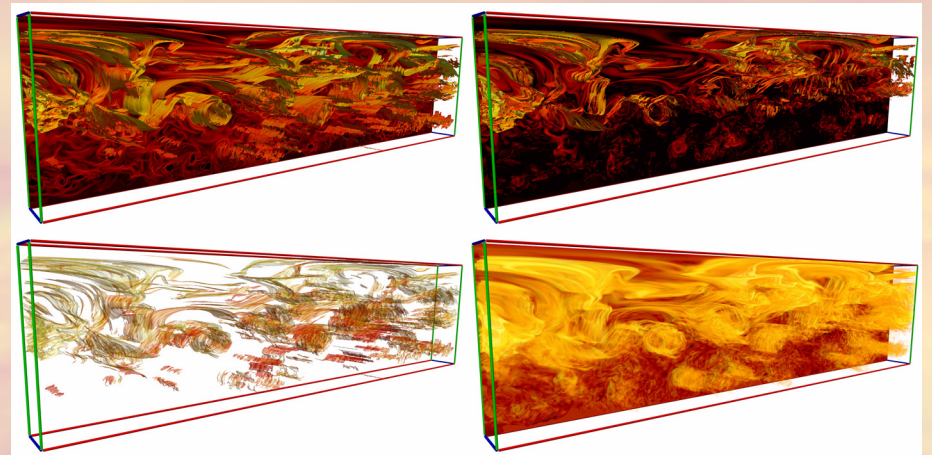
**Center for Scientific Computation And Mathematical Modeling
University of Maryland**

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Parameter sensitivity and topological structure of Rossby flow ensembles, computed by O. Klein, F. Sadlo (Heidelberg) and G. Craig, T. Selz (Munich)

Scientific Background

The interplay between deterministic and stochastic modeling of transport phenomena is a broad subject with an increasing interest fueled by applications which arise in physical, biological and social systems. Among recent analytical developments we mention development of new tools from micro-local to non-local in deterministic transport and their interplay in UQ, random media and averaging phenomena in stochastic transport. These analytical developments, complemented by numerical simulations of transport processes are found in modern applications, from kinetic theory and collective dynamics to financial math, "games" and fluid mechanics. These will be the focus of this workshop.

Goals

This workshop will bring together researchers with diverse expertise on deterministic and stochastic methods for transport processes. Our goal is to stimulate interdisciplinary discussion between mathematicians and statistical and biological physicists. We will particularly focus on similarities and differences arising in different fields using stochastic and deterministic modeling. The aim is to identify common theoretical and computational challenges and discuss suitable techniques that can be successfully applied in different application fields.

A limited number of openings are available.

To apply, complete the online application before

March 31, 2016.

For more information and to apply:

www.ki-net.umd.edu



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