Transport and localization in random media: theory and applications

May 1 - 3, 2018

Department of Applied Physics and Applied Mathematics
and Department of Mathematics
Columbia University

Organizers
Ivan Corwin, Columbia University
Alexis Drouot, Columbia University
Hao Shen, Columbia University
Michael I. Weinstein, Columbia University

Confirmed Speakers
Scott Armstrong, New York University
Guillaume Bal, University of Chicago
Liliana Borcea, University of Michigan
Maury Bramson, University of Minnesota
Josselin Garnier, École Polytechnique
Svetlana Jitomirskaya, University of California, Irvine
Jianfeng Lu, Duke University
Jonathan Mattingly, Duke University
James Nolen, Duke University
George Papanicolaou, Stanford University
Lenya Ryzhik, Stanford University
Sylvia Serfaty, New York University
Sasha Sodin, Queen Mary University of London
Thomas Spencer, Institute for Advanced Study
Simone Warzel, Technical University of Munich

Scientific Background
Mathematical models of random media are central to our understanding of many physical systems, with applications to atmospheric science, wireless communications in urban environments, physiological imaging and electronic transport in nano-structures. A central question is how disordered environments affect energy transport.

Goals
This workshop will present recent developments on wave propagation, scattering and diffusion in random media at the interface of probability theory, mathematical physics and PDEs. Accessible lectures by leading mathematicians will catalyze interactions among both junior and senior researchers in fundamental and applied fields.

A limited amount of funding for travel and lodging is available for young researchers from Ki-Net nodes. To apply, complete the online application before March 31, 2018.

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

Wave scattering in disordered media
LP2N, Bordeaux, France

Quantum Photonics Group, Niels Bohr Institute, Copenhagen, Denmark