2014 CBMS-NSF Conference:

Fast Direct Solvers for Elliptic PDEs

June 23 – 27, 2014, at Dartmouth College, Hanover, NH

Lecturer:

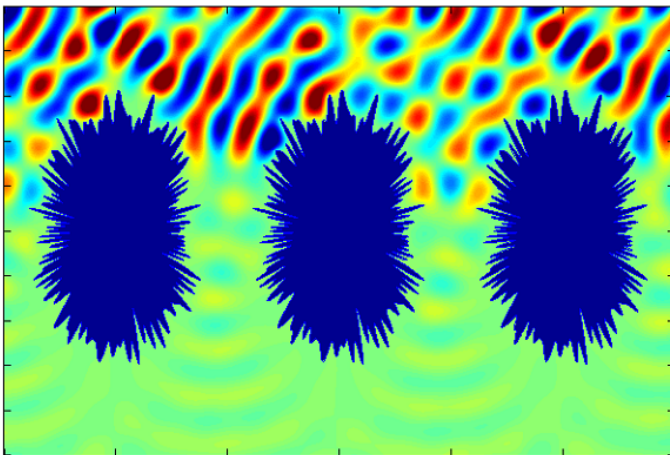**Per-Gunnar Martinsson (U. Colorado Boulder)**

Speakers:

Alex Barnett (Dartmouth)
Adrianna Gillman (Dartmouth)
Leslie Greengard (Simons Foundation and NYU)
Vladimir Rokhlin (Yale)

Conference themes:

- Direct solvers with $O(N)$ complexity.
- Randomized methods for linear algebra.
- High-accuracy discretizations.
- Communication minimizing algorithms.
- Integral equation formulations.

Conference format: 10 lectures surveying the conference themes will be delivered by Per-Gunnar Martinsson of the University of Colorado. Participants will be given an opportunity to interact hands-on with the algorithms described through coding workshops using tutorial style software. Supplementary lectures on current research will be delivered by scientists in the field.

Workshop: The conference will be followed by a weekend workshop on the topic of fast analysis based methods for elliptic PDEs on June 28-29.

Support: Lodging, meals, and some travel expenses will be provided for up to 30 participants. Graduate students, junior researchers, and members of under-represented groups are particularly encouraged to apply.

Website: http://www.math.dartmouth.edu/~fastdirect