

Computational Mathematics, Science and Engineering
Colleges of Engineering and Natural Science

Colloquium by Jingfang Huang

Department of Mathematics
University of North Carolina at Chapel Hill

March 14, 2016, 4:00 PM; A116 Wells Hall

“Low-rank Properties, Tree Structure, and Recursive Algorithms with Applications”

In this talk, I will discuss my recent work on a numerical framework for extracting the local low-rank or low-dimensional properties and linking them on the hierarchical tree structure via FMM type recursive algorithms to identify any global features. Applications include the rigid body Brownian dynamics simulations and layered media Green's functions.

Professor Jingfang Huang is a full professor in the Department of Mathematics at the University of North Carolina at Chapel Hill. He works on the fast algorithms, integral equations, potential theory and their applications in electro-magnetics, solid and fluid dynamics, molecular mechanics and quantum chemistry. He obtained his doctoral degree in 1997 from the Courant Institute of Mathematical Sciences at New York University. For more information, check his website at: <http://huang.web.unc.edu/>.