Conference Announcement

Quantum Systems: A Mathematical Journey from Few to Many Particles

May 13-16, 2013

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

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Scientific Background

A considerable effort has been directed in recent years to improve our understanding of the behavior of complex quantum systems. Such systems vary from a few to many particles, which shape interesting macroscopic phenomena. Challenging questions in this context touch upon issues of mathematical and numerical analysis as well as scientific computation.

Goals

To bring together a group of experts in Applied Mathematics and Mathematical Physics to discuss current developments on the analysis and numerical simulation of equations that govern the dynamics of such systems, and applications of quantum dynamics to chemistry. Emphasis will be placed on the highly oscillatory behavior of quantum systems as seen, for example, in the context of semiclassical limits, dispersion relations in periodic systems, and reduction of high-dimensional models to low-dimensional ones.

KI-Net Hubs

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For more information and to apply:
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