

QMC Illinois

2012 Summer School on Computational Materials Science Quantum Monte Carlo: Theory and Fundamentals

July 23-27, 2012 • University of Illinois at Urbana-Champaign

This school brings together scientists from geophysics, physics, materials science, chemistry and high-performance computing to learn fundamentals of Quantum Monte Carlo theory and its applications.

The school format includes morning lectures and afternoon interactive laboratories. Participants from previous schools have included advanced undergraduates, graduate students, post-doctoral researchers, faculty, and research scientists.

TOPICS

Introduction to Monte Carlo Methods • Pseudopotential generation
Variational Quantum Monte Carlo • Diffusion Quantum Monte Carlo
Wavefunction optimization methods • Path integral Monte Carlo
QMC applications in geophysics

LOGISTICS

Application deadline: April 1, 2012 for international applicants
needing visas; June 11, 2012 for all others.
Housing provided for non-local participants; \$150 registration fee.

CONTACT

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ORGANIZERS

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SPONSORS

University of Illinois at Urbana-Champaign:
Materials Computation Center
Frederick Seitz Materials Research Laboratory
Beckman Institute for Advanced Science and Technology
Network for Computational Nanotechnology

National Science Foundation:
Supporting awards DMS 10-24936, DMS-10-25370, DMS-10-25327
DMS-10-25392, DMR-03-25939

Oak Ridge National Laboratory

