

# INSTITUTE FOR CONDENSED MATTER THEORY

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

## **Gordon and Betty Moore Postdoctoral Scholar Positions at ICMT**

We proudly announce the new **Gordon and Betty Moore Postdoctoral Scholar** positions in Quantum Materials at the **Institute for Condensed Matter Theory** of the University of Illinois at Urbana-Champaign. We invite applications for these positions. These postdoctoral positions are part of the Moore Foundation's *Emergent Phenomena in Quantum Systems (EPiQS)* initiative. Successful applicants will be independent researchers appointed as Research Associates at the postdoctoral level, starting on *August 17, 2015*, with appointments of up to three years. Strong, creative individuals are encouraged to apply for these positions. Moore Postdoctoral Scholars will have a wide latitude in their choice of research activities, and will be encouraged to be broadly engaged with research in quantum materials activities at Illinois.

The Department of Physics of the University of Illinois at Urbana-Champaign is one of the preeminent Physics Departments in the world. For the past twenty years we have been ranked among the top ten Physics departments in the US and we are ranked number one in Condensed Matter Physics, according to US News and World Reports. Condensed Matter Physics, both in experiment and theory, has a long tradition of excellence at Illinois, going back to the 1950s with the work of John Bardeen, Leon Cooper, and J. Robert Schrieffer who developed the first microscopic theory of superconductivity in 1957. Since that time we have had on our faculty some of the leading condensed matter theorists in the US and worldwide. The Institute was established in 2007 with a seed grant from the University of Illinois.

ICMT faculty members work on very broad areas of research in Condensed Matter Physics. Quantum Materials is one of our main strengths and we are working in several key areas including Topological Insulators and Superconductors, Quantum Hall fluids, High Temperature Superconductors, Ultra-Cold Gases, Simulations of Quantum Fluids and Quantum Materials (Quantum Monte Carlo, Tensor Networks and DMRG), Non-Equilibrium Physics, Quantum Entanglement in Condensed Matter, Quantum Criticality, and applications of the AdS/CFT correspondence to Condensed Matter. Current ICMT faculty working in this area include Eduardo Fradkin (current ICMT Director), Anthony J. Leggett (ICMT Chief Scientist and 2003 Nobel Prize winner), Gordon Baym, David Ceperley, Bryan Clark, Karin Dahmen, Tom Faulkner, Matthew Gilbert, Nigel Goldenfeld, Taylor L. Hughes, Robert G. Leigh, Philip Phillips, Shinsei Ryu, Michael Stone, and Smitha Vishveshwara. We also have a strong interaction with the top-ranked Experimental Condensed Matter Physics group of the Department of Physics and of the Materials Research Laboratory of the University of Illinois.

**Applications for postdoctoral positions should be made electronically via the ICMT website, <http://icmt.illinois.edu/Opps-postdocs.asp>.** Inquiries regarding scientific and/or programmatic issues may be addressed to Prof. Eduardo Fradkin ([efradkin@illinois.edu](mailto:efradkin@illinois.edu)). The deadline for applications and all materials is November 2, 2014. Later applications will be considered only as long as openings exist.

## About the Gordon and Betty Moore Foundation and EPiQS Initiative

The Moore Foundation believes in bold ideas that create enduring impact in the areas of science, environmental conservation and patient care. Visit [Moore.org](http://moore.org) or follow @MooreScientific. The foundation's \$90-million EPiQS initiative promotes discovery-driven research in the field of quantum materials (<http://www.moore.org/programs/science/emergent-phenomena-in-quantum-systems>). Through a variety of funding approaches, EPiQS aims to enable a community of outstanding experimentalists, materials synthesis experts and theorists to maximize their potential to explore, discover and understand emergent behavior of complex quantum matter. EPiQS supports theoretical research by focusing on postdoctoral and visiting scholars at several leading institutions in the field. The Moore Postdoctoral Scholars in Theory of Quantum Materials program supports some of the most promising theoretical physicists at an early stage of their careers. The Moore Postdoctoral Scholars are provided with a significant independence in selection of their research directions within their departments and can acquire a breadth of expertise by working with multiple faculty members.

*The University of Illinois is an equal opportunity/affirmative action employer and welcomes applications from minority and women candidates.*

Eduardo Fradkin  
ICMT Director  
[efradkin@illinois.edu](mailto:efradkin@illinois.edu)

Tony Leggett  
ICMT Chief Scientist  
[aleggett@illinois.edu](mailto:aleggett@illinois.edu)