

# Interactions and Chaos in Mesoscopic Systems

May 12-14, 2000

<b><u>Friday, May 12</u></b>	Humphrey Room, Radisson Hotel Metrodome
8:15 - 9:00 a.m.	Registration
9:00 - 9:05 a.m.	Welcome
9:05 - 9:40 a.m.	Bertrand Halperin, Harvard University "Ground-State Spin Configurations in Nanoparticles and Nanotubes"
9:40 - 10:15 a.m.	David Goldhaber-Gordon, Harvard University "Spin Configuration of Quantum Dot Ground States"
10:15 - 11:00 a.m.	Coffee Break
11:00 - 11:35 a.m.	Piet Brouwer, Cornell University "Fluctuating Spin g-tensor in Small Metal Grains"
11:35 - 12:10 p.m.	Dan C. Ralph, Cornell University "Interacting-Electron States inside Ferromagnetic and Superconducting Particles"
12:10 - 2:00 p.m.	Lunch, Nolte and Northrop Rooms, Radisson Hotel Metrodome
<b><u>Afternoon session</u></b>	Humphrey Room, Radisson Hotel Metrodome
2:00 - 2:35 p.m.	Marc Kastner, Massachusetts Institute of Technology "Kondo and Fano Line Shapes in the Conductance of Single Electron Transistors"
2:35 - 3:10 p.m.	Leo Kouwenhoven, Technical University Delft "New Results on the Kondo Effect in Quantum Dots and Rings"
3:10 - 3:40 p.m.	Coffee Break
3:40 - 4:15 p.m.	Philippe Jacquod (for Doug Stone), Yale University "Suppression of Ground-State Magnetization Due to Interaction Fluctuations"
4:15 - 4:50 p.m.	Charlie Marcus, Stanford University "Mesoscopics with Spin"
4:50 - 5:25	Albert Chang, Purdue University "Transport Investigations of Small GaAs/Al <sub>x</sub> Ga <sub>[1-x]</sub> As Quantum Dots"
<b><u>Saturday, May 13</u></b>	Humphrey Room, Radisson Hotel Metrodome

- 9:00 - 9:35 a.m. Mike Tinkham, Harvard University  
"Quantum Suppression of Superconductivity in Ultrathin Nanowires"
- 9:35 - 10:10 a.m. John Clarke, Lawrence Berkeley National Laboratory  
"The Effects of Dissipation on Quantum Fluctuations in Small Junctions"
- 10:10 - 10:40 a.m. Coffee Break
- 10:40 - 11:15 a.m. Anton Andreev, University of Colorado  
"Coulomb Blockade Oscillations in the Thermopower of Open Dots"
- 11:15 - 11:50 a.m. Igor Aleiner, SUNY, Stony Brook  
"Mesoscopic Fluctuations of Coulomb Drag"
- 11:50 - 2:00 p.m. Lunch, Nolte and Northrop Rooms, Radisson Hotel Metrodome
- Afternoon Session** Humphrey Room, Radisson Hotel Metrodome
- 2:00 - 2:35 p.m. Charlie Kane, University of Pennsylvania  
"Electronic Transport in Carbon Nanotubes"
- 2:35 - 3:10 p.m. Paul L. McEuen, UC Berkeley  
"Carbon Nanotubes - a (Nearly) Ideal 1D Conductor"
- 3:10 - 3:45 p.m. Leon Balents, UC Santa Barbara  
"Spin and Charge Transport in Carbon Nanotubes"
- 3:45 - 4:15 p.m. Coffee Break
- 4:15 - 4:50 p.m. Uri Sivan, Technion, Israel  
"1D Crystallization of Positively Charged Colloids on DNA - Low Temperature Physics at Room Temperature"
- 4:50 - 5:25 p.m. Alexander van Oudenaarden, Massachusetts Institute of Technology  
"Brownian Ratchets and Stochastic Phenomena in Biology"
- Sunday, May 14** Humphrey Room, Radisson Hotel Metrodome
- 9:00 - 9:35 a.m. Boris Shklovskii University of Minnesota  
"Screening of a Macroion by Multivalent Ions: Correlation Induced Charge Inversion"
- 9:35 - 10:10 a.m. Yoram Alhassid, Yale University  
"Interaction Effects on the Conductance Peak Fluctuations in Quantum Dots"
- 10:10 - 10:40 a.m. Coffee Break
- 10:40 - 11:15 a.m. Yuval Gefen, Institute for Advanced Study, Princeton

“Scrambling of Electrons in Quantum Dots and the Anderson Orthogonality Catastrophe”

11:15 - 11:50 a.m.

Harold Baranger, Duke University

“Kinks in Coulomb-Blockade Peak Positions: Theory and Experiment”