

Theoretical Physics Institute
New Developments in Quantum Hall Effect

Radisson Hotel Metrodome, Minneapolis

May 3-5, 1996

Friday May 3

Humphrey Room, Radisson Hotel Metrodome

- 9:00 a.m. Robert Willett - Lucent Technologies
Large Wavevector Probes of the 2D Electron System
- 9:30 a.m. Jainendra Jain - SUNY, Stony Brook
Excitations of Composite Fermions
- 10:00-11:00 a.m. Coffee Break
- 11:00 a.m. Vladimir Goldman - SUNY, Stony Brook
"Resonant Tunneling in Quantum Hall Effect"
- 11:30 a.m. Bertrand Halperin - Harvard University
Response Functions and Fermi Liquid Theory for the Half-Filled Landau Level
- 12:00 p.m. Nicholas Read - Yale University
Edge Excitations of Paired Fractional Quantum Hall States
- 12:45-2:30 p.m. Lunch, Radisson Hotel Metrodome
- 2:30 p.m. Rui-Rui Du - University of Utah
Spin States Around the Even-Denominator Fillings
- 3:00 p.m. F. Duncan Haldane - Princeton University
Microscopic Lowest Landau Level Approach to Composite Fermion States
- 3:30 p.m. Nicholas Bonesteel - Florida State University
Pairing and Gauge Fields in Composite Fermion Metals
- 4:00-4:30 p.m. Coffee Break
- 4:30 p.m. Mansour Shayegan - Princeton University
QHE in Multilayer Electron Systems

- 5:00 p.m. John Chalker - Oxford University
The Quantum Hall Effect and Surface States in Three-Dimensional Systems
- 5:30 p.m. Matthew Fisher - UC Santa Barbara
Chiral Metals and the Three-Dimensional Quantum Hall Effect
- 7:00 p.m. Dinner, Campus Club, Coffman Memorial Union

Saturday, May 4

Humphrey Room, Radisson Hotel Metrodome

- 9:00 a.m. Allan MacDonald - Indiana University
Skyrme Crystal States
- 9:30 a.m. Sean Barrett - Yale University
"Optically Pumped Nuclear Magnetic Resonance
- 10:00 a.m. Herbert Fertig - University of Kentucky
Hartree-Fock Studies of Quantum Hall Effect Skyrmions
- 10:30-11:00 a.m. Coffee Break
- 11:00 a.m. Daniel Arovas - UC San Diego
Skyrmions in Spin and Valley Degenerate Landau Levels
- 11:30 a.m. H. P. Wei - Indiana University
Current Dependent Magneto-transport in 2DEG
- 12:00 p.m. Steven Girvin - Indiana University
"Non-Linear I-V Response as a Probe of Critical Dynamics in a 2D Electron Gas"
- 12:45- 2:30 pm. Lunch, Radisson Hotel Metrodome
- 2:30 p.m. David Thouless - University of Washington
Current Density in the Integer Quantum Hall Effect
- 3:00 p.m. Eduardo Fradkin - University of Illinois-Urbana
Duality and the Transition Between Quantum Hall States"

- 3:30 p.m. R. C. Ashoori – MIT
"Resonances at the Edge of the Two-Dimensional Electron Gas"
- 4:00-4:30 p.m. Coffee Break
- 4:30 p.m. Mikhail Fogler - TPI, Minnesota
"The Ground State of a 2D Electron Liquid in a Weak Magnetic Field"
- 5:00 p.m. Andrew Tikofsky - UC Santa Barbara
Paired States in the Even Integer Quantum Hall Effect

Sunday, May 5

Humphrey Room, Radisson Hotel Metrodome

- 9:00 a.m. Alexei Efros - University of Utah
Localization of 2D Lattice Electron Gas with a Strong Coulomb Interaction
- 9:30 a.m. Hongwen Jiang - UC Los Angeles
"Levitation of Delocalized States in the Integer and Fractional Quantum Hall Effect"
- 10:00 a.m. Danny Shahar - Princeton University
"The Quantum Hall Liquid to Insulator Transition"
- 10:30 a.m. Shivaji Sondhi - Princeton University
Duality Near Quantum Hall Transitions
- 11:00-11:30 a.m. Coffee Break
- 11:30 a.m. Ravindra Bhatt - Princeton University
Floating of Extended States and Localization Transition in Low Magnetic Field
- 12:00 p.m. Mikhail Raikh - University of Utah
Weak Levitation of the 2D Delocalized States in a Magnetic Field
- 12:30 p.m. Arnold Dahm - Case Western RU
Localization Scaling Relation In Two-Dimensions: Comparison With Experiment