

Quantum Condensates, Cambridge

July 6th-7th 2005

Wednesday, 6th July

09.15 Registration

10.00 Opening

Chair: G.G. Lonzarich

10.15 G.E. Volovik, Helsinki University of Technology and
L.D. Landau Institute for Theoretical Physics
Quantum Phase Transitions Regulated by Momentum-Space Topology

10.45 J. L. Smith, Los Alamos National Laboratory
UGe₂ and collective modes in alpha-U

11.15 Tea

11.30 M. Gunn, University of Birmingham
No Normal Fluid in Rapidly Rotating Condensates

12.00 N. Skipper, University College London
Bose-Einstein Condensation in Metal-Ammonia Solutions?

12.30 T.E. Weller, University College London
Superconductivity in Graphite Intercalates C₆Yb and C₆Ca: Seeking Explanation

12.45 Lunch/Posters

14.00 LTG AGM – Chair: M. Lea

Chair: B.D. Simons

15.00 C.J. Foot, University of Oxford
Quasi-2D Confinement of a BEC in a Combined Optical and Magnetic Potential

15.30 N. Berloff, University of Cambridge
Coherent Structures in Miscible Condensates

16.00 Tea/Posters

- 17.00 A.G. Green, University of St. Andrews
Non-Linear Quantum Critical Transport and the Schwinger Mechanism
- 17.30 R.P. Smith, University of Cambridge
Evidence for a Quantum Tri-Critical Point in Ni₃Al and Ni₃Ga
- 17.45 Z. Hadzibabic, Ecole Normale Supérieure, Paris
Layered 2D Bose-Einstein Condensates
- 18.15 R.G. Scott, University of Nottingham
Anomalous Quantum Reflection of Bose-Einstein Condensates from a Silicon Surface: the Role of Dynamical Excitations
- 19.00 Pre-Dinner Drinks
- 19.30 Conference Dinner at Clare College

Thursday, 7th July

Chair: P.B. Littlewood

- 09.30 G. Baskaran, Institute of Mathematical Sciences, Chennai
A New Theory of Supersolid ⁴He
- 10.00 G.R. Pickett, Lancaster University
The Phase Transitions of Superfluid ³He (in Time and Space)
- 10.30 J. Saunders, Royal Holloway
Quantum Phase Transitions in Two Dimensional ³He

11.00 Tea

- 11.15 C. Barnes, University of Cambridge
In Search of a Controllable Many-Particle System
- 11.45 A. Golov, University of Manchester
Domain Walls in ³He-A: Which Type to Expect?
- 12.00 R.P. Haley, Lancaster University
Manipulating the AB Interface in Superfluid ³He at Ultralow Temperatures
- 12.15 V. Tsepelin, Lancaster University
Measurements of Quantum Turbulence Generated by a Vibrating Grid Resonator in the B-phase of Superfluid ³He at Very Low Temperatures

12.30 Lunch

13.45 J. Ruostekoski, University of Hertfordshire
Preparation and Stability of Topological Excitations in Atomic Bose-Einstein
Condensates

14.00 K.A Benedict, University of Nottingham
Instabilities in Moving Condensates in Optical Lattices

14.15 M.S. Laad, Loughborough University
Quantum Orbital Liquid in Cubic Ruthenium Oxides

14.30 Closing: M. Lea