

Programme

Saturday, 17 September 2011

17:00 *Registration at the International Science Forum*

17:30 *Welcome reception*

Sunday, 18 September 2011

09:00 *Opening*

Chair: N. Berloff

09:10 W. Zurek (Los Alamos) Winding up superfluid in a torus via Bose-Einstein condensation

10:00 M. Fleischhauer (Kaiserslautern) Quench dynamics of strongly interacting 1D Bose gases

10:40 *Tea/Coffee*

Chair: S. Gardiner

11:20 J. Ruostekoski (Southampton) Continuous quantum measurement process in stochastic phase-methods of quantum dynamics: Classicality from quantum measurement

11:40 A. M. Rey (Boulder) Simulating the Kondo Lattice Model with ultra cold atoms: From Kondo Insulators to Heavy Fermions

12:20 J. Schmiedmayer (Wien) Relaxation Dynamics and Pre-thermalization in a Quantum System

13:00 *Lunch*

Chair: W. Zurek

14:30 A. Bulgac (Seattle) Real-Time Dynamics of Superfluid Unitary Fermi Gases

15:10 T. Schaefer (Raleigh) Conformal second order fluid dynamics for the dilute Fermi gas at unitarity

15:50 *Tea/Coffee*

Chair: E. Zaremba

16:30 P. Deuar (Warszawa) Bogoliubov quantum dynamics at $T \geq 0$ without a condensate

16:50 S. Gardiner (Durham) Number conservation and self-consistency in BEC dynamics

Chair: A. Bulgac

- 09:00 C. Ewerz (EMMI) The ExtreMe Matter Institute
09:10 G. Baym (Illinois) The superfluid mass density
10:00 M. Davis (Queensland) Non-equilibrium flows and superfluidity in finite temperature dilute gas Bose-Einstein condensates

10:40 *Tea/Coffee*

Chair: M. Davis

- 11:20 A. Bradley (Otago) Two-dimensional quantum turbulence: Signatures of an inverse energy cascade
11:40 G. Krstulovic (Nice) Dispersive Bottleneck Delaying Thermalization of Turbulent Bose-Einstein Condensates
12:00 B. Nowak (Heidelberg) Scaling laws of superfluid turbulence
12:20 N. Berloff (Cambridge) Spontaneous pattern formation in exciton-polariton condensates.

13:00 *Lunch*

Chair: C. Gardiner

- 14:30 C. Gardiner (Otago)
14:45 E. Zaremba (Queen's University) A Critical Look at ZNG Theory: A Tribute to Allan Griffin
15:50 *Tea/Coffee*

Chair: A. M. Rey

- 16:30 L. Gilz (Kaiserslautern) Quantum Kinetic Theory of Superfluid Internal Convection in the Collisionless Regime
16:50 U. Bissbort (Frankfurt/Main) Detecting the Amplitude Mode of Strongly Interacting Lattice Bosons by Bragg Scattering
17:10 R. Scott (Trento) The dynamics of dark solitons in a trapped superfluid Fermi gas
18:00 *Snacks and Posters*

Tuesday, 20 September 2011

Chair: J. Anglin

- 09:00 S. Demokritov (Münster) BEC of magnons at room temperature and spatio-temporal properties of magnon condensate
09:50 D. Poletti (Genève) Dynamics of driven ultra-cold bosons
10:30 *Tea/Coffee*

Chair: R. Walser

- 11:20 A. Pelster (Bielefeld) Nonequilibrium Dynamics of Bosons in Optical Lattices from Schwinger-Keldysh Calculation
11:40 R. Schuetzhold (Duisburg) Quantum correlations in the Bose-Hubbard model
12:20 A. Daley (Pittsburgh) Non-equilibrium dissipative dynamics of cold atoms in optical lattices
13:00 *Lunch*

Chair: W. Hofstetter

- 14:20 L. Santos (Hannover) Ultra-cold polar gases in optical lattices
15:00 C. Henkel (Potsdam) Cross-over to quasi-condensation - a non-gaussian challenge to mean-field theories
15:30 A. Filinov (Kiel) Thermodynamics, quasiparticle and collective excitations of 2D dipolar gases
16:10 *Discussion Time*
16:40 *Tea/Coffee/Sightseeing*
19:00 *Conference Dinner Buffet*

Wednesday, 21 September 2011

Chair: J. Ruostekoski

- 09:00 C. Gardiner (Otago) C-Field Methods for Molecules and Atoms, with applications to Bragg Scattering
09:50 L. D'Alessio (Boston) Universal energy fluctuations in thermally isolated driven systems
10:30 *Tea/Coffee*

Chair: A. Daley

- 11:20 S. Mandt (Köln) Ultracold fermionic atoms in optical lattices out of equilibrium: Hydrodynamics and beyond
11:40 M. Snoek (Amsterdam) Rigorous mean-field dynamics of lattice bosons: Quenches from the Mott insulator
12:00 B. Fine (Heidelberg) Emergence of non-thermal statistics in isolated many-particle quantum systems after multiple perturbations
12:30 *Closing*
13:00 *Lunch*