



Cryoconference : Grenoble 2010

Programme

Sunday, August 1st

17:00 – 21:00 *Check-in, poster installation in Salon Mont-Blanc
Reception (Grenoble World Trade Center – Atrium)*

Monday, August 2nd

8:00 – 9:00 *Check-in*

9:00 – 9:10 *Welcome/announcements
Henri Godfrin, Cryocourse Coordinator*

9:10 – 9:20 *Announcements: Journal of Low Temperature Physics
Horst Meyer*

9:20 – 9:40 *Superfluidity yesterday, today and tomorrow
Philippe Nozières, membre de l'Académie des Sciences*

9:40 – 10:00 *Review talk on hydrogen atoms at low temperatures
David Lee, Cornell University*

10:00 – 10:40 *Cryoconference Session: meeting with the other participants*

10:40 – 11:10 *Coffee break*

11:10 – 11:50 *Review talk on quantum fluids and solids as seen by Path Integrals
David Ceperley, University of Illinois*

11:50 – 12:10 *Cryoconference Poster Session*

12:10 – 13:00 *Lunch*

13:00 – 14:00 *Discussion meeting in the Cryocourse room (Salon Mont Blanc)*

14:00 – 15:20	Cryoconference Poster Session
15:20 – 15:40	Review talk on quantum and classical turbulence in superfluids <i>Victor L'vov, Weizmann Institute of Science</i>
15:40 – 16:40	Cryoconference Poster Session
16:40 – 17:10	<i>Coffee break</i>
17:10 – 19:00	Cryoconference Poster Session

Tuesday, August 3rd

9:00 – 9:40	Review talk electrons on the helium surface <i>Mark Dykman, Michigan State University</i>
9:40 – 10:40	Cryoconference Poster Session
10:40 – 11:00	<i>Coffee break</i>
11:00 – 12:40	Cryoconference Poster Session
12:40 – 13:00	<i>Lunch</i>
13:00 – 14:00	Discussion meeting in the Cryocourse room (Salon Mont Blanc)
14:00 – 16:40	GENERAL POSTER SESSION I (Atrium and Mont Blanc)
16:40 – 17:10	<i>Coffee break</i>
17:10 – 19:00	Cryoconference Poster Session

Wednesday, August 4th

9:00 – 9:40	Review talk on multiple-spin exchange in correlated-fermion systems <i>Michel Roger, CEA IRAMIS SPEC Saclay</i>
9:40 – 10:40	Cryoconference Poster Session
10:40 – 11:00	<i>Coffee break</i>
11:00 – 11:40	Review talk on vortex dynamics in superfluid $^3\text{He-B}$ at low temperatures <i>Vladimir Eltsov, LTL, Aalto University, Helsinki</i>
11:40 – 12:40	Cryoconference Poster Session

12:40 – 13:00	<i>Lunch</i>
13:00 – 14:00	Discussion meeting in the Cryocourse room (Salon Mont Blanc)
14:00 – 18:00	Excursions (meeting point depends on the excursion, see instructions)

Thursday, August 5th

9:00 – 9:40	Review of experimental results on supersolidity <i>Moses Chan, Penn State University</i>
9:40– 10:40	Cryoconference Poster Session
10:40 – 11:00	<i>Coffee break</i>
11:00 – 11:40	Review talk on BEC of non-equilibrium quasiparticles in ³ He and beyond <i>Grigori Volovik, LTL, Aalto University, Helsinki</i>
11:40– 12:40	Cryoconference Poster Session
12:40 – 13:00	<i>Lunch</i>
13:00 – 14:00	Discussion meeting in the Cryocourse room (Salon Mont Blanc)
14:00 – 16:40	GENERAL POSTER SESSION II (<i>Atrium and Mont Blanc</i>)
16:40 – 17:10	<i>Coffee break</i>
17:10 – 18:30	Cryoconference Poster Session
19:30 – 23:30	Conference Banquet.

Friday, August 6th

9:00 – 9:20	Review talk on glasses at ultra-low temperatures <i>Christian Enss, Heidelberg University</i>
9:20 – 10:40	Cryoconference Poster Session
10:40 – 11:00	<i>Coffee break</i>
11:00 – 11:40	Review talk on MEMs and NEMs: Putting the mechanics into quantum mechanics <i>Andrew Cleland, University of California, Santa Barbara</i>
11:40 – 12:40	Cryoconference Poster Session

<i>12:40 – 13:00</i>	<i>Lunch</i>
<i>13:00 – 14:00</i>	Discussion meeting in the Cryocourse room (Salon Mont Blanc)
<i>14:00 – 14:40</i>	Towards quantum magnetism with ultracold atoms <i>Wolfgang Ketterle, MIT</i>
<i>14:40 – 16:20</i>	Cryoconference Poster Session

Conference closing Session

<i>16:20 - 16:40</i>	Announcements and Closing ceremony
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Saturday, August 7th

Workshops open to Cryoconference participants

- *Workshop “Cold Gases meet Many-BodyTheory” (ILL, Grenoble)*
- *Workshop “Quantum Fluids and Solids : Neutrons and X-rays studies” (ILL, Grenoble)*
- *Workshop “Quantum Turbulence” (CNRS – Grenoble)*

Cryoconference 2010



Programme of Presentations by participants

Abdurakhimov	Leonid	Distortion of the Capillary Turbulence Spectrum on Superfluid 4He in Restricted Geometry
Bonnet	Fabien	Condensation of 4He in Vycor: new hints for the origin of hysteresis
Clovecko	Marcel	High Quality Tuning Forks in Superfluid 3He-B below 200 microkelvins
Collett	Charles	Ultrasonic acoustics in pure and dirty 3He
Eggel	Thomas	4D XY Quantum Critical Phenomena in 4He in Nanoporous Gelsil Glass
Eyal	Anna	The influence of 3He on the high T mobility in solid 4He
Fear	Matthew	Transition to Turbulence for a Quartz Tuning Fork in Superfluid 4He
Ferrini	Giulia	Effect of phase noise on useful entangled states in Bose Josephson junctions
Fonda	Enrico	Visualization of quantized vortex dynamics using ice nanoparticles
Grockoviak	Audrey	Superconductivity of heavily doped silicon
Helm	John	Slow Vortex Rings
Hosio	Jaakko	Andreev reflection from rectilinear vortices in rotating 3He-B
Hufnagl	Diana	Stability of a layer of dipolar bosons
Hunger	Pierre	Superfluid 3He immersed in radially squeezed aerogel : BEC of magnons and superfluid phase transition
Jackson	Martin	Search for a Link Between Pair-Breaking and Turbulence in Superfluid 3He-B
Jarvinen	Jarno	Atomic hydrogen in thick H ₂ films at temperatures 0.05-2 K
Lawson	Christopher	New Technique for controlled flow experiments in superfluids at very low temperatures
Leung	Kent	3He cryostat to produce ultra-pure superfluid helium used as a Ultracold neutron source at the ILL
Maksymenko	Mykola	Exact ground states of quantum Heisenberg antiferromagnet and Hubbard model on one-dimensional lattices containing equilateral triangles
Martin	Nicolas	Larmor diffraction measurement of the temperature dependence of lattice constants in CuGeO ₃

Matvyeyev	Oleh	Total Raman scattering response function in the charge-density-wave phase
Michal	Vincent	Effects of paramagnetism in the vortex lattice of strongly type II superconductors and paramagnetic limit of ferromagnetic superconductors
Nasyedkin	Kostyantyn	A Possible Crystal –Glass Transition in a 2D Surface Electron System
Nichols	George	Torsional oscillator studies on solid helium
Panarin	Justin	Competition and/or coexistence of antiferromagnetism and superconductivity in CeRhIn5 and CeCoIn5
Panochko	Galyna	Density matrix of the system "Bose-liquids + impurities"
Pollanen	Johannes	Unconventional textural properties of superfluid 3He-B in isotropic aerogel
Poltavsky	Igor	Thermodynamics of molecular adsorbates on carbon nanotubes
Potts	David	Thermal Detection of Quantum Turbulent Decay in Superfluid 3He-B at Ultralow Temperatures
Rogova	Svetlana	Second sound mode and dissipative mode in superfluid mixtures
Salmela	Anssi	Acoustic resonances in helium fluids excited by quartz tuning forks
Salort	Julien	Turbulent convection : does the ultimate regime really follow Kraichnan prediction?
Schenke	Christoph	One-dimensional Bose fluid stirred on a ring trap
Sciacca	Michele	Hydrodynamical models of superfluid turbulence
Smorodin	Oleksandr	Mobility and autolocalization of Q1D surface electrons over liquid helium in dense gas
Stipanovic	Petar	Stability limits of small mixed helium and spin-polarized tritium clusters
Takeuchi	Hiromitsu	Vortex formations from domain wall annihilations in two-component Bose-Einstein condensates
Vekhov	Yegor	Vacancy Destabilization of hcp Solid Helium
Williams	Paul	A Novel Approach to Measure Force-Velocity Behaviour of Flow in Superfluid 4He

