FONDATION LATSIS
Internationale

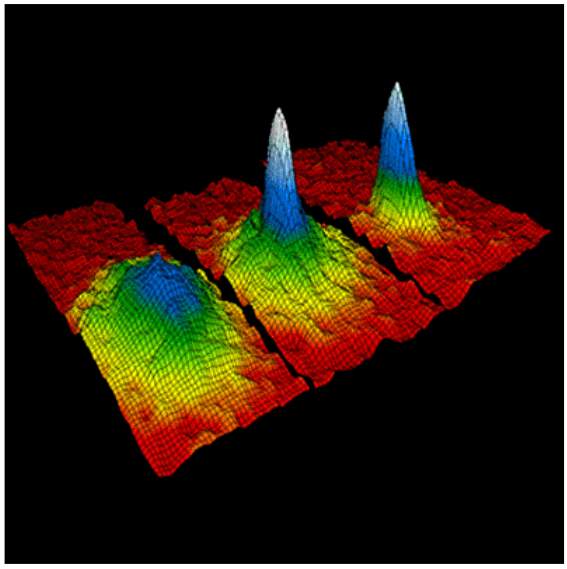
quantum photonics
National Centre of Competence in Research

2008 Latsis Symposium at EPFL

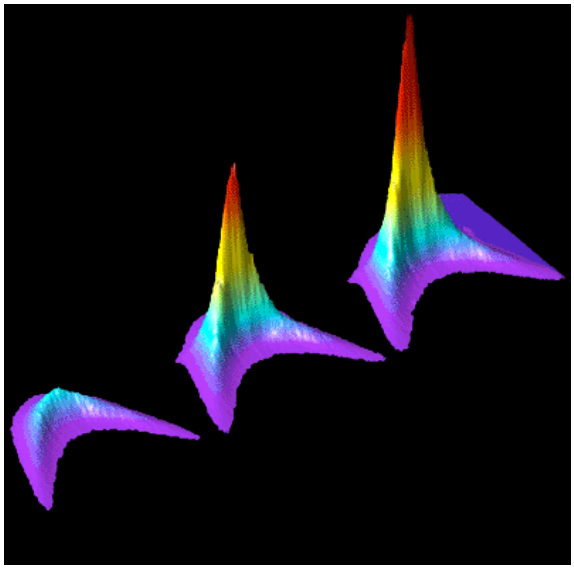
http://latsis2008.epfl.ch

Bose Einstein Condensation
in diluted atomic gases and in condensed matter

January 28-30 2008, EPFL Lausanne



http://www.sciencemag.org/cgi/content/refs/269/5221/198



http://www.nature.com/nature/journal/v443/n7110/index.html

Conference chairmen:
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Preliminary list of Invited Speakers:

Wolgang Ketterle: MIT Cambridge, USA
Strongly interacting bosonic and fermionic gases

Sandro Stringari: University of Trento, Italy
Dynamics and superfluidity of ultacold Fermi gases

Pierre Meystre: Optics Center University of Arizona at Tucson, USA
Quantum optics with atom condensates

André Mysyrowicz: Ecole Polytechnique Paris, France
Bose Einstein condensation in the solid state

Le Si Dang: University of Grenoble, France
Polariton BEC in II-VI semiconductor microcavities

Peter Littlewood: Cambridge University, UK
Polariton condensation

Tilman Esslinger: ETHZ, Switzerland
Spatial coherence of a trapped Bose gas at the phase transition

Makoto Kuwata-Gonokami: University of Tokyo, Japan
Coherent spectroscopy of excitons in Cu2O

Francesca Marchetti: Oxford University, UK
Tunable Fermionic Superfluids

Vincenzo Savona: EPFL, Switzerland
Theory of polariton BEC

Alice Sinatra : LKB, ENS, France
Phase Coherence of a BEC at finite temperature

Albert Furrer: Laboratory for Neutron Scattering, PSI, Switzerland
Bose-Einstein condensation in magnetic materials

Salvatore Savasta: University of Messina, Italy
Quantum optics with polaritons

Anna Minguzzi: CNRS Grenoble, France
One dimensional strongly interacting quantum gases: bosonic and fermionic Tonks-Girardeau gases, and Bose-Fermi mixtures

David Snoke: University of Pittsburgh, USA
Condensation of Microcavity Polaritons in Stress-Generated Traps

Jacqueline Bloch: CNRS, France
Physics of Microcavities

Leonid Butov: University of California San Diego, USA
Phenomena in cold exciton gases

Maxime Richard: CNRS Nanophysique et Semiconducteurs Institut Néel
Polariton traps for polariton condensation

Program

	Monday 28th January 2008	Spokesperson
HORAIRE		
8:00-9:00	**Registration**	
9:00-9:15	Opening session	Giorgio Margaritondo Provost EPFL
Morning	**Thermodynamics of BEC, phase diagram and spectral properties**	
09:15-10:00	Strongly interacting bosonic and fermionic gases	Wolfgang Ketterle
10:00-10:45	Bose-Einstein condensation in magnetic materials	Albert Furrer
10:45-11:15	*Break*	
11:15-12:00	Polariton BEC in II-VI semiconductor microcavities	Le Si Dang
12:00-12:45	Theory of polariton BEC	Davide Sarchi
12:45:14:15	*Lunch*	
Afternoon	**Quantum coherence, superfluidity, and quantum collective behavior**	
14:15-15:00	Phase Coherence of a BEC at finite temperature	Alice Sinatra
15:00-15:45	Quantum optics with atom condensates	Pierre Meystre
15:45-16:15	*Break*	
16:15-17:00	Quantum optics with polaritons	Salvatore Savasta
17:00-17:45	Phenomena in cold exciton gases	Leonid Butov
	Tuesday 29th January 2008	**Spokesperson**
HORAIRE		
Morning	**Non-equilibrium properties and quantum kinetics of BEC**	
09:00-09:45	Spatial coherence of a trapped Bose gas at the phase transition	Tilman Esslinger
09:45-10:30	Trapping Microcavity Polaritons	David Snoke
10:30-11:00	*Break*	
11:00-11:45	The a.c. & d.c. Josephson effect in Bose-Einstein condensate	Jeff Steinhauer
11:45-12:10	Bose-Einstein Condensation of Magnons in Reduced Dimensions	Dr. Christian Rüegg
12:10-12:35	Superfluid behavior of a driven polariton condensate	Daniele Sanvitto
12:35-14:00	*Lunch*	
Afternoon	POSTER SESSION	
Late Afternoon	Public Session for the non specialized public, in French	Pierre Meystre : Vers le zero absolu --- ou quand les atomes deviennent des ondes.
		André Mysyrowicz : Condensation de Bose à l'état solide, Mythe ou réalité?
	Symposium Reception	

	Wednesday 30th January 2008	Spokesperson
HORAIRE		
Morning	**Composite bosons, Fermi gases and other non-bosonic systems**	
09:00-09:45	Dynamics and superfluidity of ultacold Fermi gases	Sandro Stringari
09:45-10:30	Tunable Fermionic Superfluids	Franchesca Marchetti
10:30-11:00	*Break*	
11:00-11:45	Insulating phases of BEC in novel optical lattices	Massimo Inguscio
11:45-12:10	Ultracold Finite Fermi Systems	Selim Jochim
12:10-12:35	Competing superfluid and density-wave ground-states of fermionic mixtures with mass imbalance in optical lattices	TungLamDao
12:35-14:15	*Lunch*	
Afternoon	**BEC in less than three dimensions**	
14:15-15:00	One dimensional strongly interacting quantum gases: bosonic and fermionic Tonks-Girardeau gases, and Bose-Fermi mixtures	Anna Minguzzi
15:00-15:45	Physics of Microcavities	Jacqueline Bloch
15:45-16:15	*Break*	
16:15-17:00	Polariton traps for polariton condensation	Maxime Richard
17:00-17:25	Mott-insulator states of ultracold atoms in optical resonators	Giovanna Morigi
17:25-17:50	All-optical evaporative cooling in a versatile optical-dipole trap at telecom wavelength	Jean-Philippe Brantut
	Wrap-up	Benoît Deveaud-Plédran / Vincenzo Savona