

# Introductory Course on Ultracold Quantum Gases (2013)

organized by the Innsbruck Physics Research Center, Innsbruck Univ., by the SFB “Foundations and Applications of Quantum Science (FoQuS)”, by the Institute for Quantum Optics and Quantum Information (IQOQI), and by the BEC Center of the Univ. of Trento

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## Program

### Mon, 08.07. (IQOQI)

19:30 – 21:00 registration  
20:00 – 22:00 get together

### Tue, 09.07. (seminar room, ICT)

08:45 – 09:00	Rudi Grimm	Welcome
09:00 – 09:45	Rudi Grimm	Laser cooling & trapping basics
10:00 – 10:45	Florian Schreck	Attainment of quantum degeneracy
11:00 – 11:45	Stefano Giorgini	Basic BEC theory I
12:00 – 13:30	<i>lunch break</i>	
13:30 – 14:15	Rudi Grimm	Key experiments with BEC
14:30 – 15:15	Stefano Giorgini	Basic BEC theory II
15:30 – 16:00	<i>break</i>	
16:00 – 19:00	<i>lab tours</i>	

### Wed, 10.07. (seminar room, ICT)

09:00 – 09:45	Alessio Recati	Basic theory of Fermi gases I
10:00 – 10:45	Florian Schreck	Experiments with ultracold Fermi gases
11:00 – 11:45	Alessio Recati	Basic theory of Fermi gases II
12:00 – 13:30	<i>lunch break</i>	
13:30 – 14:15	Hanns-Christoph Nägerl	Ultracold molecules
14:30 – 15:15	Marcello Dalmonte	Many-body theory of quantum gases
15:30 – 16:15	<i>break</i>	
16:15 – 18:00	<i>questions and answers: discussions with the lecturers</i>	

### Thu, 11.07. (seminar room, ICT)

09:00 – 09:45	Michael Keller	BEC with metastable atoms
10:00 – 10:45	Jörg Schmiedmayer	Atom chips
11:00 – 11:45	Jörg Schmiedmayer	Interferometry with BEC
12:00 – 13:30	<i>lunch break</i>	

## SFB colloquium

14:00 – 17:30 tutorial lectures related to SFB topics

## Social event (introductory course and SFB colloquium)

17:30 *bus to Arzler Alm*  
17:45 *bus leaving*  
18:15 – 19:00 *hiking up to Arzler Alm*  
19:00 – 22:00 *dinner at Arzler Alm*  
22:30 – 23:00 *hiking down*  
23:00 *bus transfer*