

# Introductory Course on Ultracold Quantum Gases (2012)

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

Francesca Ferlaino and Rudolf Grimm

## Tentative Program

### Mon, 09.07. (IQOQI)

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

### Tue, 10.07. (lecture hall B1)

08:45 – 09:00	Rudi Grimm	Welcome
09:00 – 09:45	Francesca Ferlaino	From laser cooling to BEC
10:00 – 10:45	Rudi Grimm	Key experiments with BEC
11:00 – 11:45	Marcello Dalmonte	Basic BEC theory
12:00 – 13:30	<i>lunch break</i>	
13:30 – 14:15	Francesca Ferlaino	Tunable quantum gases
14:30 – 15:15	Florian Schreck	Ultracold molecules
15:30 – 16:00	<i>break</i>	
16:00 – 19:00	<i>lab tours</i>	

### Wed, 11.07. (lecture hall B1)

09:00 – 09:45	Elmar Haller	Optical lattices
10:00 – 10:45	Marcello Dalmonte	Many-body theory of quantum gases
11:00 – 11:45	Florian Schreck	Ultracold Fermi gases
12:00 – 13:30	<i>lunch break</i>	
13:30 – 14:15	Elmar Haller	Quantum gases in low-D
14:30 – 15:15	Benjamin Pasquiou	Dipolar quantum gases
15:30 – 16:15	<i>break</i>	
16:15 – 18:00	<i>questions and answers: discussions with the lecturers</i>	

### Thu, 12.07. (lecture hall B1)

09:00 – 09:45	Michael Keller	BEC with metastable atoms
10:00 – 10:45	Jörg Schmiedmayer	Atom chips
11:00 – 11:45	Remi Geiger	BEC interferometry
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)

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