

## **Introductory course on quantum information, July 7<sup>th</sup> – 10<sup>th</sup> 2014**

Organized by University of Innsbruck, the SFB project "Foundations and applications of quantum science" (FoQus), and the Institute for Quantum Optics and Quantum Information (IQOQ). Organisers: Marti Cuquet, Ben Lanyon, Adi Makmal

### **Program**

#### **Mon, 07.07. (IQOQI, 3<sup>rd</sup> Floor, see map)**

20:00 – 21:00 Registration

20:00 – 22:00 Evening get-together

#### **Tue, 08.07 (Seminar room, Hörsaal C, see map)**

09:00 – 09:15	Ben Lanyon	Welcome
09:15 – 09:45	Adi Makmal	Introduction to quantum information (QI)
10:00 – 10:45	Charles Rogers	Basic concepts of quantum computing (QC)
11:00 – 11:45	Marcello Dalmonte	Introduction to quantum simulation (QS)
11:45 – 13:30	<i>Lunch Break</i>	
13:30 – 14:15	Gilad Gour	QI theory & quantum correlations
14:30 – 15:15	Michael Skotiniotis	Quantum communication and metrology
15:30 – 16:30	<i>Break with refreshments</i>	
16:30 – 19:00	Lab tours at university	

#### **Wed, 09.07 (Seminar room, Hörsaal C, see map)**

09:00 – 09:45	Ben Lanyon	QI with trapped ions
10:00 – 10:45	Michael Trupke	Hybrid and scalable quantum systems
11:00 – 11:45	Roe Ozeri	Introduction to quantum error correction
11:45 – 13:30	<i>Lunch break</i>	
13:30 – 14:15	Florian Schreck	QS with cold atoms
14:30 – 15:15	Gregor Weihs	Entangled photons
15:30 – 16:00	<i>Break with refreshments</i>	
16:00 – 17:00	Open panel discussion	

#### **Thur, 10.07 (Seminar room, Hörsaal C, see map)**

09:00 – 09:45	Thomas Monz	Characterising QI experiments
10:00 – 10:45	Gerhard Kirchmair	Superconducting qubits
11:00 – 11:45	Rupert Ursin	Experimental quantum communication
11:45 – 13:30	<i>Lunch break</i>	

*continued on the next page.....*

*\*to be confirmed*

**Thur, 10.07 (Various locations)**

SFB Colloquium (Seminar room, Hörsaal C, see map)

14:00 – 14:45 *Tracy Northup* *Title to be decided*

14:45 – 15:15 *Break with refreshments*

15:15 – 16:00 *Andreas Läuchli* *Title to be decided*

IQOQI open day (IQOQI building)

16:00 – 17:00 *IQOQI lab tours and open day*

IQOQI 10-year celebration and public talk (Location to be announced)

19:00 – onwards *Public talk by Nobel laureate Bill Phillips followed by BBQ*

**Fri, 11.07**

SFB Colloquium (Seminar room, Hörsaal A\*, see map)

9:00 – 12:30 Program to be announced

*\*to be confirmed*