

Introductory Course on Quantum Information – 10-12 July 2018

In combination with the [42nd SFB FoQuS Meeting](#) at the University of Innsbruck, 12-13 July 2018

Time	Monday 9.7.	Tuesday 10.7.	Wednesday 11.7.	Thursday 12.7.	Friday 13.7.	Time
8:45 – 9:00		Welcome				8:45 – 9:00
9:00 – 9:45		Introduction to Quantum Information (Katja Ried)	Introduction to Tensor Networks (Gemma De Las Cuevas)	Quantum Information & Condensed Matter (Thomas Lang)		9:00 – 9:30
					Interacting Rydberg Ions	9:30 – 9:55
9:45 – 10:30		Introduction to Quantum Computing (Sabine Wölk)	Quantum Networks (Benoit Vermersch)	Quantum Error Correction (Barbara Kraus)	Experimental resource-efficient entanglement detection	9:55 – 10:20
					Relaxation (...) in a Josephson Junction	10:20 – 10:45
10:30 – 11:00		Break	Break	Break		
11:00 – 11:45		Introduction to Quantum Simulation (Wolfgang Lechner)	Quantum Information Processing with Superconducting Circuits (Gerhard Kirchmair)	Optomechanics Cooling the motion of massive objects with light (Nikolai Kiesel)	Coffee and Posters	10:45 – 11:30
					Correlation Length Scaling (...)	11:30 – 11:55
					Quantum algorithms for linear systems of equations (...)	11:55 – 12:20
11:45 – 13:30		Lunch Break	Lunch Break	Lunch Break	Counterfactual communication	12:20 – 12:45
					Quantum correlations (...)	12:45 – 13:10
13:30 – 14:15		Entanglement Theory (Markus Huber)	Quantum Estimation and Metrology (Pavel Sekatski)	Hybrid Quantum-Classical Simulations for lattice models and (...)	End of SFB Meeting	13:30 – 14:00
14:15 – 15:00		Quantum Science with Trapped Ions (Ben Lanyon)	Photonic Systems Single photons for quantum communication and quantum simulation (Robert Keil)	Degenerate Fermi-Fermi mixture (...)		14:00 – 14:25
				Programmable Superpositions of (...)		14:25 – 14:50
				Poster flash talks		14:50 – 15:05
15:00 – 16:00		Break	Break	Coffee and Posters		15:00 – 16:00
16:00 – 17:00		Lab Tours	Quantum simulation with ultracold atoms (Lauriane Chomaz)	Foliated Quantum Codes (Tom Stace)		16:00 – 16:55
17:00 – 18:00		Lab Tours	Panel Discussion			
18:00 – 21:00	Registration & Get-together			Bus to Hungerburg for Dinner at Arzler Alm		17:30

Introductory Lecture

Theory Lecture

Experimental Lecture

SFB FoQuS Meeting