THE FIRST JOINT CoQuS AND IMPRS-QST

SUMMER SCHOOL

TU WIEN, ATOMINSTITUT, VIENNA

18TH - 22ND SEPTEMBER 2017

	Monday	Tuesday	Wednesday	Thursday	Friday
0915-0930	Welcome				
0930-1100	**Seth Lloyd** Quantum machine learning	**Audrey Cottet** Microscopic derivation of electron-photon coupling in Mesoscopic Quantum Electrodynamics (QED)	**Darrick Chang** Introduction to atom-nanophotonics interfaces	**Nathan Goldman** Instabilities in driven atomic gases	**Antoine Browaeys** Many body-physics using Rydberg atoms
1100-1130	Coffee Break	Coffee Break	Coffee Break	Coffee Break	Coffee Break
1130-1300	**Antoine Browaeys** Basics on Rydberg atoms and their interaction	**Seth Lloyd** Applications of programmable nanophotonics to quantum information processing	**Audrey Cottet** Cavity read-out in Mesoscopic QED: compressibility measurements and strong coupling regime	**Darrick Chang** A quantum "spin model" of atom-light interactions	**Nathan Goldman** Heating atoms as a probe for topological order
1300-1430	Lunch Break	Lunch Break	Lunch Break	Lunch Break	Lunch Break
1430-1600	**Seth Lloyd** Quantum machine learning - implementations using programmable optics	**Nathan Goldman** Topological matter by shaking (atomic gases)	**Antoine Browaeys** Manipulation of individual Rydberg atoms: blockade and entanglement	**Audrey Cottet** Review of recent experiments and perspectives for the detection of Majorana modes	**Darrick Chang** Complex quantum matter built from atoms and photons
1600-1630	**Poster Session 1**	**Poster Session 2**	Coffee Break	Coffee Break	Coffee Break
1630-1830			Toptica Talk: 1630-1700 **Student Talks**	**Student Talks**	**Farewell** **[Lab tours]**
1930-Open		**Social Activity**	**Conference Dinner**		