

# Program

## Wednesday 31 August

<b>17:30 - 18:30</b>	Registration
<b>18:30 - 20:30</b>	Welcome party at Residence Hall

## Thursday 1 September

<b>09:00 - 09:10</b>	Opening
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### Non-equilibrium and dynamics

<b>09:10 - 10:00</b>	<i>Corinna Kollath</i> - Dynamics in ultracold gases
<b>10:00 - 10:50</b>	<i>Laura Corman</i> - Rings potentials for ultracold atoms
	<i>Pranjal Bordia</i> - Probing many-body localization with ultracold fermions
<b>10:50 - 11:10</b>	<i>Coffee-break</i>
<b>11:10 - 12:25</b>	<i>Chiara D'Errico</i> - Quantum Phase slips in 1D superfluids
	<i>Dominik Husmann</i> - Manipulating the flow of ultracold atoms through a quantum wire
	<i>Laura Foini</i> - Non-equilibrium dynamics of coupled Luttinger liquids
<b>13:00 - 14:00</b>	<i>Lunch</i>

### Long-range interactions

<b>15:00 - 15:50</b>	<i>Francesca Ferlaino</i> - Dipolar quantum gases of strongly magnetic Erbium atoms
<b>15:50 - 16:40</b>	<i>Igor Ferrier-Bartut</i> - Liquid-like quantum droplets of strongly dipolar Bose-Einstein condensates
	<i>Davide Vodola</i> - Long-range Kitaev model: phases, correlations and edge modes
<b>16:40 - 17:00</b>	<i>Coffee-break</i>
<b>17:00 - 17:50</b>	<i>Sebastian Will</i> - Coherent Quantum Control of Ultracold $^{23}\text{Na}^{40}\text{K}$ Molecules

	<i>Giuseppe Carleo</i> - "Light-cone" effect in short- and long-range interacting quantum systems
<b>18:30 - 19:30</b>	<b>Dinner</b>
<b>20:00 - 20:50</b>	<i>Special event</i> Colloquium: Polaritons meet cold atoms (I. Carusotto)

## Friday 2 September

### Gauge fields, topology and spin-orbit

<b>09:10 - 10:00</b>	<i>Fabrice Gerbier</i> - Engineering gauge fields for atomic quantum gases
<b>10:00 - 10:50</b>	<i>Alessio Celi</i> - From synthetic dimensions to synthetic geometries in ultracold atoms
	<i>Gunnar Möller</i> - Exploring artificial flatlands: collective states in trivial and higher Chern number bands
<b>10:50 - 11:10</b>	<i>Coffee-break</i>
<b>11:10 - 12:25</b>	<i>Hannah Price</i> - Four-dimensional Quantum Hall Effect with Ultracold Atoms
	<i>Michael Lohse</i> - A Thouless Quantum Pump with Ultracold Bosonic Atoms in an Optical Superlattice
	<i>Juliette Simonet</i> - Floquet engineering in periodically driven optical lattices and beyond
<b>13:00 - 14:00</b>	<i>Lunch</i>

### Quantum information methods and cold atoms

<b>14:30 - 15:20</b>	<i>Antoine Browaeys</i> - Implementation of spin hamiltonians in arrays of individual Rydberg atoms
<b>15:20 - 16:10</b>	<i>Luca Pezze</i> - Witnessing Entanglement without Entanglement Witness Operators
	<i>Rajibul Islam</i> - Measuring entanglement entropy

<b>16:10 - 16:30</b>	<i>Coffee-break</i>
<b>16:30 - 17:20</b>	<i>Helmut Strobel</i> - Entangled non-Gaussian spin states: Fisher information and time reversal for quantum-enhanced sensing
	<i>Erez Zohar</i> - Quantum Simulation of Lattice Gauge Theories with Ultracold Atoms in Optical Lattices
<b>17:30 - 19:00</b>	<i>Poster session</i>
<b>19:00</b>	Departure at Social Dinner & Seminar-Concert

## Saturday 3 September

### Strongly correlated systems and quantum simulators

<b>09:10 - 10:00</b>	<i>Giovanna Morigi</i> - Strong-long-range forces in cavity quantum electrodynamics
<b>10:00 - 10:50</b>	<i>Davide Rossini</i> - Localized Majorana-like modes in a number conserving setting
	<i>Florian Meinert</i> - Out-of-equilibrium dynamics in strongly correlated 1D Bose gases
<b>10:50 - 11:10</b>	<i>Coffee-break</i>
<b>11:10 - 12:25</b>	<i>Renate Landig</i> - Quantum phases from competing short- and long-range interactions in an optical lattice
	<i>Philipp Preiss</i> - Full Control over Ultracold Few-Fermion Systems
	<i>Marco Di Liberto</i> - Topological Varma superfluid in optical lattices
<b>12:25 - 12:45</b>	Closing
<b>13:00 - 14:00</b>	<i>Lunch</i>
<b>14:15</b>	Departure