

## PRELIMINARY PROGRAM

### Monday 13 May

8.30-9.50 Registration

9.50-10.00 Welcome address

10.00-10.40 Zhang: *Experimental realization of spin-orbit coupled degenerate Fermi gas*

10.40-11.20 Greif: *Exploring artificial quantum-many body systems with ultracold fermions in a tunable-geometry optical lattice*

11.20-11.50 Coffee break

11.50-12.30 Goldman: *Imaging Topological States in Ultracold Atomic Gases*

12.30-13.10 Calabrese: *Quantum quenches in one dimensional systems*

-----  
15.00-15.40 Hasan: *Topological Insulators and Superconductors*

15.40-16.20 Martin-Delgado: *Topological Insulators under Quantum Dissipative Dynamics*

16.20-16.50 Coffee break

16.50-17.30 Babaev: *Paired phases in  $U(1)\times U(1)$  gauge theories*

### Tuesday 14 May

9.00-9.40 Savona: *Quantum correlations in driven-dissipative arrays of weakly nonlinear optical cavities*

9.40-10.20 Taylor: *Quantum Hall physics with light*

10.20-11.00 Carusotto: *Quantum fluids of light under synthetic gauge fields*

11.00-11.30 Coffee break

11.30-12.10 Pitaevskii: *First and second sound in Fermi gas at unitarity*

12.10-12.50 Zhai: *Exotic Superfluid in Ultracold Atomic Gases from Synthetic Gauge Fields*

-----  
15.20-16.00 Berges: *Gauge fields far from equilibrium*

16.00-16.40 Mannarelli: *Ultracold color superconductors*

16.40-17.10 Coffee break

17.10-17.50 Rangamani: *The holographic master field*

17.50-18.30 Hubeny: *Holographic Entanglement Entropy & Causal Holographic Information*

18.30-20.00 POSTER SESSION

Wednesday 15 May

9.00-9.40 Yefsah: *Spin-Orbit Coupling and Heavy Solitons in Fermi Gases*

9.40-10.20 Paramekanti: *Accessing strongly correlated atomic states and probing atom currents in synthetic gauge fields*

10.20-11.00 Salasnich: *BCS-BEC crossover with Rashba and Dresselhaus couplings*

11.00-11.30 Coffee break

11.30-11.55 Singh: *Effect of synthetic spin-orbit coupling on statistical interactions in atomic quantum gases*

11.55-12.20 Li: *Superstripes and the excitation spectrum of a spin-orbit-coupled BEC*

-----  
FREE AFTERNOON  
-----

19.30 SOCIAL DINNER

Thursday 16 May

9.00-9.40 Lewenstein: *Quantum Simulators of Lattice Gauge Theories*

9.40-10.20 Ohberg: *Simulating an interacting gauge theory with ultracold Bose gases*

10.20-11.00 Stuhl: *Making Gauge Fields Real*

11.00-11.30 Coffee break

11.30-12.10 Rico Ortega: *Atomic Quantum Simulation of  $U(N)$  and  $SU(N)$  Non-Abelian Lattice Gauge Theories*

-----  
15.00-15.40 Reznik: *Simulation of dynamic abelian and non-abelian gauge theories with ultracold atoms*

15.40-16.05 Kolovski: *Landau-Stark states for cold atoms in a parabolic lattice*

16.05-16.30 Kraus: *An AMO toolbox for Majorana Fermions in Optical Lattices*

16.30-17.00 Coffee break

Friday 17 May

9.00-9.40 Fallani: *Quantum simulation with two-electron Fermi gases in optical lattices*

9.40-10.20 Le Hur: *Topological Insulators, Mott physics and Artificial Gauge Fields*

10.20-10.50 Coffee break

10.50-11.30 Schoutens: *Symmetries of spin-orbit coupled particles*

11.30-12.10 Burrello: *Two-dimensional arrays of Parafermionic zero modes*

12.10-12.30 Closing remarks