

Programme	
Sunday 12th March	
17:00-	Registration
Monday 13th March	
08:00-08:50	Registration
08:50-09:00	Opening Remarks
09:00-09:30	Roberta Zambrini Entropy production and thermodynamic power of the squeezed thermal reservoir
09:30-09:55	Marti Perarnau-Llobet Work, entropy production, and heat engines beyond the weak coupling regime
09:55-10:20	Elisa Bäumer Work Extraction in Ion Traps
10:20-10:45	Eric Brown The dynamics of a harmonic Otto engine
10:45-11:15	Coffee break
11:15-11:40	Géraldine Haack The energetic cost of entanglement genesis based on a quantum trajectory approach
11:40-12:05	Philippe Faist Fundamental work cost in implementations of quantum processes
12:05-12:30	Lucas Céleri Measurement of work distribution in structured light
12:30-12:55	Irene d'Amico Theoretical and experimental DFT-inspired method for the work distribution of a quantum many-body system
12:55-14:30	LUNCH
14:30-15:30	Bar-Gill NV centers in diamond - a potential platform for quantum thermodynamics
15:30-17:00	Breakout discussion — Working group meeting
17:00-17:30	Shuoming An Quantum thermodynamics with the trapped ion system
17:30-17:45	Senaida Hernandez Decay of correlations in long-range interacting systems at non-zero temperature
17:45-18:00	Nicolai Friis Passivity and practical work extraction using Gaussian operations
18:00-18:25	Samu Suomela Quantum thermodynamics in the presence of a finite-size environment
Tuesday 14th March	
09:00-09:30	Renato Renner Thermodynamics as a multi-agent theory
09:30-09:55	Jose Alonso-Castaneda Thermodynamics of weakly measured quantum systems
09:55-10:20	Michele Campisi Two-point measurement of quantum information scrambling
10:20-10:45	Alexia Auffeves The role of quantum measurement in quantum thermodynamics
10:45-11:10	Coffee break
11:10-11:40	Mihai Vidrighin Realisation of a Photonic Maxwell's Demon
11:40-12:05	Katarzyna Macieszczak Metastability in open quantum dynamics
12:05-12:30	Juan Pablo Paz Fundamental limit for cooling in driven quantum systems
12:30-12:55	Wolfgang Niedenzu Universal thermodynamic limit of quantum engine efficiency
12:55-14:30	LUNCH
14:30-15:30	Johan Aberg Fully quantum fluctuation theorems
15:30-17:00	Breakout discussion — Working group meeting
17:00-17:30	Kavan Modi Enhancing the charging power of quantum batteries
17:30-17:55	Ahsan Nazir Performance of a quantum heat engine at strong reservoir coupling
17:55-18:20	Roberto Serra Experimental rectification of entropy production by a Maxwell's Demon in a quantum system
18:30	Poster Session
Wednesday 15th March	
09:00-09:30	Anna Sanpera Generalized fluctuation-dissipation relation for quantum Markovian systems
09:30-09:55	Jordi Mur Petit Quantum fluctuation relations for generalized Gibbs ensembles
09:55-10:20	Giacomo De Palma Universal locality of quantum thermal susceptibility
10:20-10:45	Gabriele de Chiara Out-of-equilibrium thermodynamics in ultracold atoms
10:45-11:15	Coffee break
11:15-11:40	Robert Whitney Non-Markovian quantum thermodynamics: second law and fluctuation theorems
11:40-12:05	Marco Pezzutto Implications of non-Markovian quantum dynamics for the Landauer bound
12:05-12:30	Hiroyasu Tajima Large Deviation implies First and Second Laws of Thermodynamics
12:30-12:45	Philipp Kammerlander An operational formulation of thermodynamics makes the zeroth law obsolete
12:45-13:00	Henrik Wilming The third law for finite non-equilibrium resources
13:00-14:30	LUNCH
14:30	MC meeting / Oxford city tour
Thursday 16th March	
09:00-09:30	Nicole Yunger Halpern Quantum chaos: A Jarzynski-like equality
09:30-09:55	Mischa Woods Autonomous quantum machines and finite sized clocks
09:55-10:20	Andrea Mari Finite-time dynamics and thermodynamics of open quantum systems
10:20-10:45	Hugo Terças Quantum thermal machines driven by vacuum force
10:45-11:10	Coffee break
11:10-11:40	Bernhard Rauer Recurrence of an isolated quantum many-body system
11:40-12:10	Takahiro Sagawa Fluctuation theorem for pure quantum states
12:10-12:35	Adolfo del Campo Quantum supremacy of many-particle thermal machines
12:35-13:00	Kosuke Ito Optimal performance of generalized heat engines with finite-size baths of arbitrary multiple conserved quantities based on non-i.i.d. scaling
13:00-14:30	LUNCH
14:30-15:30	Christian Gogolin Pure state quantum statistical mechanics
15:30-15:40	<i>Rebecca Schmidt</i> - On the role of non-Markovianity in the thermodynamics of driven open quantum systems
15:40-15:50	<i>Matteo Lostaglio</i> - Optimal coherence preservation in the presence of a dissipative environment
15:50-16:00	<i>Quantum</i> presentation
16:00-17:00	Breakout discussion — Working group meeting
<i>Industry session</i>	17:00 Bruno Leone (ESA)
	17:25 Denise Powell (IQE)
	17:45 Mark Farries (Gooch & Housego)
	18:05 Ulrik Imberg (Huawei)
18:25	<i>Discussion & Questions</i>
19:15	Conference dinner
Friday 17th March	
09:00-09:25	Alhun Aydin A torque induced by matter waves as a new macroscopic quantum phenomenon
09:25-09:50	Nayeli A. Rodríguez-Briones Heat bath algorithmic cooling with correlated qubit-environment interactions
09:50-10:15	Alexandre Roulet Quantum Absorption Refrigerator in the Single-Shot Regime
10:15-10:40	Patrick P. Hofer Quantum thermal machines based on microwave resonators coupled to a Josephson junction
10:40-11:10	Coffee break
11:10-11:40	Fred Jendrzejewski Observation of the phononic Lamb shift with a synthetic vacuum
11:40-12:10	Joan Vaccaro Sharing quantum coherence (and other asymmetries)
12:10-12:20	<i>Rui Sampaio</i> - Quantum Thermodynamics with Bohmian Mechanics
12:20-12:30	<i>Juan Miguel Arrazola</i> - Autonomous rotor heat engine
12:30-12:40	<i>Behnam Tonekaboni</i> - Autonomous Quantum Heat Engine Using an Electron Shuttle
12:40-13:00	Closing remarks
13:10	LUNCH