

Operator algebras and mathematical physics

Monday 29 September – Friday 3 October 2025

The programme is subject to change. All times are British Summer Time (BST).

MONDAY 29 SEPTEMBER	
09.00-09.45	Registration and refreshments
09.45-10.00	Welcome and housekeeping
10.00-10.45	Kasia Rejzner , University of York <i>Quantum reference frames and local algebras</i>
10.45-11.00	Break
11.00-11.45	Jun Yang , Harvard University / Nankai University <i>The Atiyah-Schmid formula and automorphic representations</i>
11.45-12.00	Break
12.00-12.45	Maria Stella Adamo , Friedrich-Alexander-Universität Erlangen-Nürnberg <i>Osterwalder-Schrader reconstruction for unitary full vertex operator algebras</i>
12.45-14.15	Lunch
14.15-15.00	Nivedita Nivedita , University of Oxford <i>Functorial 2d Chiral CFTs from Conformal Nets</i>
15.00-15.15	Break
15.15-16.00	Arnaud Brothier , University of Trieste / University of New South Wales <i>Moduli spaces and a tensor product for representations of the Cuntz algebra</i>
16.00-16.15	Break
16.15-17.00	Gandalf Lechner , FAU Erlangen <i>Quantum-mechanical localization observables and modular theory</i>
17.00-18.00	Welcome reception

TUESDAY 30 SEPTEMBER	
09.30-10.15	Feng Xu , UCR <i>On singular limits of relative entropies</i>
10.15-10.30	Break
10.30-11.15	Chris Fewster , University of York <i>Measurement and preparation protocols for QFT on curved spacetimes</i>
11.15-11.30	Break
11.30-12.15	Daniela Cadamuro , University of Leipzig <i>L_4 bound for the energy density in thermal field theory</i>
12.15-14.00	Lunch
14.00-14.45	Zhengwei Liu , Tsinghua University / BIMSA <i>Quantum Advantages and Classical Simulations</i>
14.45-15.00	Break
15.00-15.45	Yosuke Kubota , Kyoto University <i>Stable homotopy theory of invertible gapped quantum spin systems</i>
15.45-16.00	Break
16.00-17.00	Yoshiko Ogata , Kyoto University RIMS <i>Clay Lecture: Haag duality for 2D quantum spin systems</i>

WEDNESDAY 1 OCTOBER	
09.30-10.15	Stefan Hollands , Leipzig University <i>A new proof of the QNEC</i>
10.15-10.30	Break
10.30-11.15	Matthew Buican , Queen Mary University of London <i>Generalising G-equivariantization</i>
11.15-11.30	Break
11.30-12.15	Corey Jones , North Carolina State University <i>DHR bimodules and Kramers-Wannier type dualities on the lattice</i>
12.15	Lunch and free afternoon

THURSDAY 2 OCTOBER	
09.30-10.15	Masaki Izumi , Kyoto University <i>A generalized winding number formula for the Witten index of a Toeplitz operator</i>
10.15-10.30	Break
10.30-11.15	Mayuko Yamashita , Perimeter Institute for Theoretical Physics <i>Extending equivariant Topological Modular Forms to the cusp using vertex algebras</i>
11.15-11.30	Break
11.30-12.15	Javier Magan , Instituto Balseiro <i>A generalization of the DHR theorem to higher form symmetries</i>
12.15-14.15	Lunch
14.15-15.00	Ulrich Pennig , Cardiff University <i>Higher twisted K-theory of Lie Groups</i>
15.00-15.15	Break
15.15-16.00	Rainer Verch , University of Leipzig <i>Probing non-equilibrium states of dynamical systems</i>
16.00-16.15	Break
16.15-17.00	Pieter Naaijken , Cardiff University <i>Superselection theory for stacked systems</i>

FRIDAY 3 OCTOBER	
09.30-10.15	Terry Gannon , University of Alberta <i>Finite fields and the search for exotic subfactors and tensor categories</i>
10.15-10.30	Break
10.30-11.15	Nicola Pinamonti , University of Genova <i>Regularized interacting quantum field theories</i>
11.15-11.30	Break
11.30-12.15	Sebastiano Carpi , University of Rome Tor Vergata <i>Vertex operator algebras, higher genus partition functions and Teichmüller modular forms</i>
12.15	Lunch and end of workshop