QCS 2019 Programme

	Wed 10th July	Thu 11th July	Fri 12th July	Sa 13th July	Sun 14th July
09:30 - 11:00	**Tutorial** **Rob Spekkens** (Perimeter Institute)	**Tutorial** **Paolo Perinotti** (University of Pavia)	**Tutorial** **Bob Coecke & Stefano Gogioso** (University of Oxford)	**Tutorial** **Fabio Costa** (University of Queensland)	**Time for discussions**
11:00 - 11:30	Coffee break	Coffee break	Coffee break	Coffee break	
11:30 - 12:15	**Elie Wolfe** *Quantum Inflation Technique*	***Ognyan Oreshkov*** *(invited)* *Cyclic quantum causal models*	**Aleks Kissinger** (invited) *Teaching a new dog old tricks: causal inference by string diagram surgery*	***Christina Giarmatzi*** *Witnessing quantum memory in non-Markovian processes*	
12:15 - 13:00	**Jonathan Barrett** *Quantum causal models*	**Alessandro Bisio** *Theoretical framework for Higher-Order Quantum Theory*	**Matty Hoban** (invited) *Bipartite Post-Quantum Steering and the Instrumental Scenario*	**Jacques Pienaar** *Is the arrow of causality reversible?*	
13:00 - 15:00	Lunch break	Lunch break	Lunch break	Lunch break	
15:00 - 15:45	***Andrew Garner*** *Device-independent information processing with spatiotemporal degrees of freedom*	***Robin Lorenz*** *The dot-formalism – causally faithful graphical representations of unitaries*	**Denis Rosset** *Constructive representation theory and applications to causal structures*	***Ding Jia*** *Diagrams, Processes, QFTs, and Quantum Gravity*	
15:45 - 16:00	Coffee break	Coffee break	Coffee break	Coffee break	
16:00 - 16:30	**Ravi Kunjwal** *Bell Quantified: The Resource Theory of Nonclassicality of Common-Cause Boxes*	**Christodoulou Marios** *Superposition of geometries in the lab and the possibility to probe Planck time*	***Nitica Sakharwade*** *Toy model for quantum causality using colouring rules*	**Hler Kristjansson** *Quantum Shannon theory with superpositions of trajectories*	
16:30 - 17:00	**David Schmid** *Causal-Inferential Theories I*	**Alessandro Tosini** *Information and disturbance in a physical theory*	**Nicola Pinzani** *Categorical Semantics for Time Travel*	**Julian Wechs** *Existence of noncausal processes on time-delocalized systems*	
17:00 - 17:30	**John Selby** *Causal-Inferential Theories II*	**Marco Erba** *Classical theories with entanglement*	**Some Sankar Bhattacharya** *Indefinite causal order enables perfect quantum communication with zero capacity channel*		