Organising Chairs: Runyao Duan (QCIS, UTS), Masahito Hayashi (Nagoya University & CQT, NUS)

October 22, Wednesday Morning, Session Chair: Masahito Hayashi

Mingsheng Ying (UTS)
Quantum recursion and second quantisation

Keisuke Fujii (Kyoto University)
Measurement-based quantum computation using thermal states of many-body Hamiltonian

Andrew Darmawan (The University of Sydney)
Graph states as ground states of two-body frustration-free Hamiltonians

October 22, Wednesday Afternoon, Session Chair: Runyao Duan

Joe Fitzsimons (Singapore University of Technology and Design & CQT, NUS)
Blind and verifiable quantum computation

Tomoyuki Morimae (Gunma University)
Developments of blind quantum computing

Takeshi Koshiba (Saitama University)
Private information retrieval via blind quantum computation
October 23, Thursday Morning, Session Chair: Mingsheng Ying

Masahito Hayashi (Nagoya University & CQT, NUS)
Generalized entropies and quantum security
Marco Tomamichel (The University of Sydney)
Strong converse bounds for quantum communication
Tomohiro Ogawa (The University of Electro-communications)
Quantum relative Renyi relative entropies and strong converse theorems

October 23, Thursday Afternoon, Session Chair: Joe Fitzsimons

Harumichi Nishimura (Nagoya University)
Generalized quantum Arthur-Merlin games
Dominic Berry (Macquarie University)
Exponential improvement in precision for simulating sparse Hamiltonians
Michael Bremner (UTS)
Towards a proof of the classical intractability of quantum simulation

October 24, Friday Morning, Session Chair: Michael Bremner

Gavin Brennen (Macquarie University)
Quantum algorithms for complex and real temperature partition functions
Ryutaroh Matsumoto (Tokyo Institute of Technology)
Recent progress in quantum ramp secret sharing
Min-Hsiu Hsieh (UTS)
The learnability of quantum measurements

October 24, Friday Afternoon, Session Chair: Tomohiro Ogawa

Simon Burton (The University of Sydney)
Error correction in a Fibonacci anyon code
Runyao Duan (UTS)
Quantum unambiguous capacity
Arne Laucht (University of New South Wales)
Single donor qubits in $^{28}$Si: New benchmarks for solid state qubits

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