

1st International Workshop on

Trustworthy Quantum Information

June 28 – July 2, 2015

University of Michigan, Ann Arbor, Michigan, USA

WORKSHOP MISSION

Quantum mechanics promises extraordinary capabilities for computation and cryptography. However, as classical beings, we cannot directly verify quantum states or quantum operations. How can we trust the integrity of quantum hardware? To address this challenging question, an area of Trustworthy Quantum Information has emerged from several recent lines of research.

The objective of this Workshop is to facilitate the formation of a coherent research subject and its research community from the constituent topics, which have been pursued separately by different groups of researchers. In addition, the Workshop aims to bridge the gaps between theory and practice by engaging theorists and experimentalists in the same discussions. We also welcome participants from the classical information security community, as our approach may provide a new solution space for some of the greatest challenges in hardware security.

The topics of the Workshop include, but are not limited to:

- Delegated Quantum Computation
- Device-independent and Semi-device-independent Quantum Cryptography
- Nonlocality, Contextuality, and Self-testing
- Quantum-secure Classical Randomness Extractors

This 4.5-day workshop will consist of short invited talks, posters selected from submissions, and breakout sections for free interactions. An excursion to explore Ann Arbor's summer beauty will take place in the third afternoon. The annual Ann Arbor Summer Festival will be near its finale, offering plenty of opportunities for entertainment.

ORGANIZERS

Roger Colbeck (York)
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More Info: TyQI.org



SPEAKERS

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