Interconnects (4:00-5:15)

In this breakout session, we will discuss the connections between qubits in a quantum testbed. The session will begin with a few brief presentations that lead into a discussion of the following questions:

- Connections between qubits are as important the qubits themselves, especially as the number of qubits in a device increases. Are the interconnects used in current-generation quantum devices adequate for scaling up? If not, when will new interconnects be required?
- What alternatives exist for connecting components within a quantum processor and for connecting separate processors? What are their advantages and disadvantages? What are the technical challenges to developing them and integrating them into a quantum testbed?

Speakers:

- 1. Saikat Guha, Raytheon BBN
- 2. Quantum Computing Using Photons
- Paul Kwiat, University of Illinois Optical Quantum Interconnects and Photonic Qubits

Session chair: Raphael Pooser