

Topic 1: Best practices for management of and access to a quantum computing testbed

In this breakout session, we will discuss how existing facility models and practices could be adapted for use by a quantum computing testbed. The session will begin with thoughts from a panel with familiarity of the operation of a number of facilities and then flow into a free discussion of the following questions:

1. How can lessons learned from other facilities and testbeds inform implementation of a quantum computing testbed? Does the management and access model depend on the testbed implementation?
2. What are the advantages and disadvantages of various approaches to implementing a quantum testbed and providing user access?
3. How does the answer to the questions above depend on the technical readiness level of quantum computing technology? Given that quantum computers are not yet off-the-shelf systems, what is the proper balance between efforts in hardware, software, architecture, and systems engineering?
4. If the quantum testbed were to grow beyond its initial implementation, what would be important factors to consider in evaluating and prioritizing future technologies, scaling paths, and possible upgrades?
5. What are the advantages and disadvantages to different processes, including peer-reviewed proposals, to give users access to the testbed?