

# Testing and verifying quantum computations and simulations

---

**Barbara Kraus**

*Technical University of Munich, Germany*

[Barbara.Kraus@ph.tum.de](mailto:Barbara.Kraus@ph.tum.de)

---

I will discuss here several protocols designed for the verification and the characterization of quantum devices. They range from protocols which were designed to verify the output of a quantum cloud computer using only classical means to practical testing and verification protocols of quantum devices utilized for quantum computation and simulation.