

**TUT 1: Tutorial Basics of Quantum Information and Computation**

Time: Sunday 15:00–16:30

Location: ZHG104

**Tutorial**

TUT 1.1 Sun 15:00 ZHG104

**Basics of quantum information and computation** — ●RALF SCHUETZHOLD — Helmholtz-Zentrum Dresden-Rossendorf, Dresden, Germany — TU Dresden, Germany

The goal of this tutorial is to provide a brief introduction into the ba-

sics ideas and concepts of quantum information and computation at the beginners level (assuming no knowledge besides the basic laws of quantum theory). The basic question is: how can we exploit the laws of quantum physics in order to perform task better than with classical physics? Apart from computation, this may also include communication, sensing, simulation and other applications.