

**Plenary Talk**

PV XVII Fri 8:30 B Audimax

**Quantum Key Distribution - An Overview** — ●HARALD WEINFURTER — Fakultät für Physik, LMU München, Deutschland — Max Planck Institut für Quantenoptik, Garching, Deutschland

The security of our communication is of utmost importance, yet, on the long run it is threatened by attacks using quantum computers. Quantum key distribution is the only method known already today, which is robust against such attacks. Even better, in strong contrast

to mathematics based methods, it enables to evaluate the maximum information a potential eavesdropper could have gained.

This overview shows the state-of-the-art in QKD technology, ranging from commercial products and large scale trusted node networks to high-rate prototypes without the need of dark fibers. For free-space systems it describes the flexibility enabling a series of application scenarios from short range authentication all the way to global distribution of secure keys using satellites.