

# QUANTUM NETWORKS

from building blocks to applications



## 662. WE-Heraeus-Seminar

Quantum networks define the art of communication based on non-classical systems. They promise unique opportunities across a range of intellectual and technical frontiers. For example, quantum cryptography networks can be used for maximally secure communication and quantum networks may aid the realization of large-scale quantum computers and quantum simulators.

A variety of implementations was proposed and realized in the past years and commercial manifestations are expected in the next few years. This seminar will bring together experts and early career researchers from different communities in order to discuss the prospects and challenges of merging their fields within a joint research effort on quantum networks.

### Invited Speakers:

- Oliver Benson
- Aymeric Deltail
- Jens Eisert
- Fedor Jelezko
- Jeff Kimble
- Michael Köhl
- Christoph Marquardt
- Tracy Northup
- Josh Nunn
- Andreas Reiserer
- Hugues de Riedmatten
- Nicolas Sangouard
- Christine Silberhorn
- Glenn Solomon
- Robert Thew
- Constaza Toninelli
- Rinaldo Trotta
- Harald Weinfurter
- Valerie Zwiller



February, 5<sup>th</sup>-7<sup>th</sup> 2018

Physikzentrum Bad Honnef, Germany

<https://www.quanet.org>

Organized by:

Christoph Becher, Ilya Gerhardt, Janik Wolters

