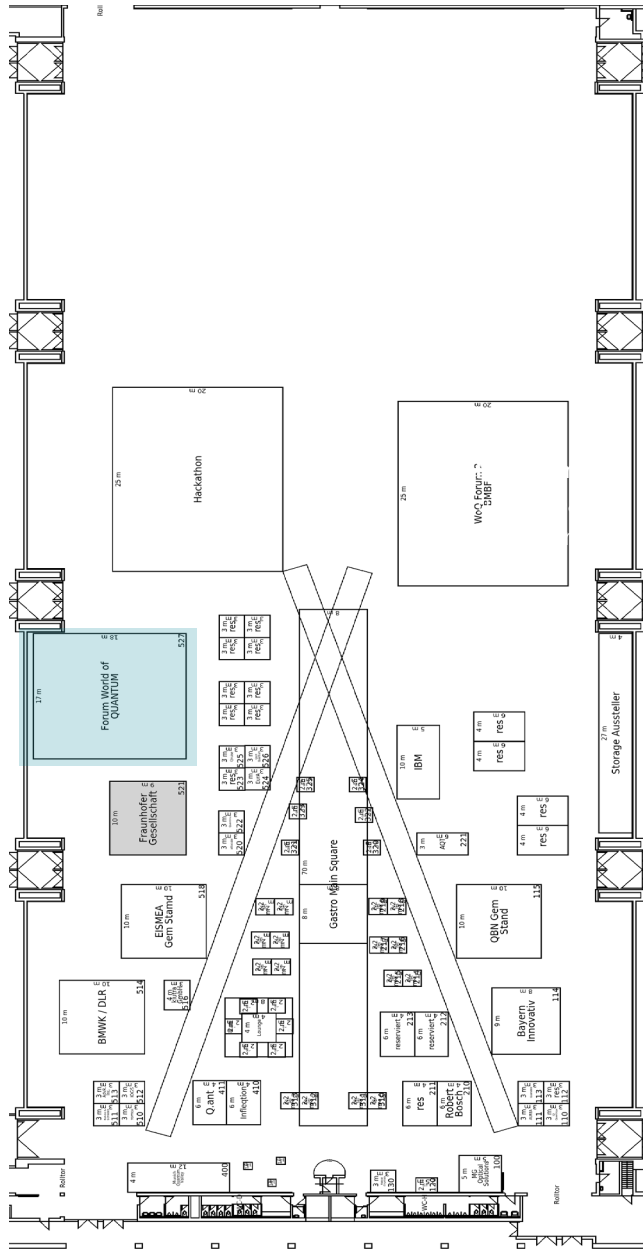


LASER World of Photonics, Hall A1



Location

LASER World of Photonics
Munich Trade Fair Center
Forum Hall A1

Admission

Attending the application panels is free of charge. You must purchase an admission ticket to LASER World of PHOTONICS 2023 to gain admission to the halls. The fair is the perfect opportunity to combine expanding your knowledge with making business contacts.

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Application Panel

Quantum Communication

JUNE 29, 2023, MESSE MÜNCHEN, Forum Hall A1



LASER PHOTONICS

Application Panel

Quantum Communication

Quantum computers will be able to break established asymmetric cryptographic algorithms in the near future. This means that secure key exchange for protected symmetric communication is no longer guaranteed. Quantum cryptography or quantum key distribution (QKD) offers an alternative solution and, together with established cryptographic methods and/or post-quantum cryptography, allows for »quantum-safe« information transmission.

QKD is a promising and well-established application of quantum communications. (Fiber-based) QKD systems have been on the market since decades and pan-European and international programs aim to further increase technological maturity and to enable integration into existing infrastructures. Commercial, public, and governmental users have recognized the need to move to quantum-safe techniques, e.g. through development and deployment of a European Quantum Communication Infrastructure (EuroQCI) by the European Commission and ESA, in space, and through the interconnection of parallel evolving national QKD infrastructures.

Industrial implementation requires the coordination of players from areas such as classical cryptography, system security and integration, component manufacturing, and network operation. In Germany, the "Deutscher Industrieverbund für Quantensicherheit (DIVQSec)" was founded for this purpose, promoting a national value chain.

Dr. Bettina Heim
OHB Systems AG

Prof. Dr. Andreas Tünnermann
Fraunhofer IOF

Dr. Felix Wissel
Deutsche Telekom GmbH

Program application panel

Quantum Communication

Forum Hall A1

Thursday, June 29, 2023

1:00 p.m. **Prof. Dr. Andreas Tünnermann, Fraunhofer IOF**
Dr. Bettina Heim, OHB Systems AG
Dr. Felix Wissel, Deutsche Telekom GmbH
Introduction into quantum communication

1:30 p.m. **Dr. René Steiner, EC, DG CNECT.C4**
How EuroQCI supports the uptake of QC in the EU

1:45 p.m. **Niklas Lindman, ESA**
1st Generation - preparing for EuroQCI

2:00 p.m. **Dr. Edeltraud Leibrock, Connected Innovations**
How safe is safe? Developments and requirements from a Financial Services perspective

2:15 p.m. **Dr. Marcell Gall, OHB System AG**
QKD in Space

2:30 pm **Dr. Manfred Lochter, BSI**
QKD and PQC from a security perspective

2:45 p.m. **Break**

3:00 p.m. **Dr. Jasper Rödiger, R&S Cybersecurity**
Imran Khan, KEEQuant
The SEQRET project within DEP

3:15 p.m. **Dr. Helmut Griesser, ADVA Network Security**
QKD for the optical transport network

3:30 p.m. **Marc Vanterberghe, DT GBS Belgium**
QKD@DT: DT's Journey to Quantum Safeness

3:45 p.m. **Dr. Alberto Comin, Airbus**
Airbus Group Satellite QKD Programs

4:00 p.m. **Dr. Kevin Füchsel, Quantum Optics Jena**
QKD with Entangled Photons

4:15 p.m. **Dr. Emmanuel Fretel, Aurea Technology**
Quantum safe, from Ground to Space!