

Quantum Cryptography

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Abstract

A short introduction in the concepts cryptography and quantum key distribution (QKD) is given. Then the technical challenges for a high-speed QKD are discussed, followed by a presentation of the state-of-the-art in terms of key rates and transmission distance, as well as future developments in order to push these limits further. The lecture ends with an outlook on the implementation of QKD in photonic integrated circuits and its integration in telecom networks.