ICTON 2024

Workshop on

Quantum key distribution applications and integration for future optical networks: the final results of the QUANCOM project.

In conjunction with ICTON
24th International Conference on Transparent Optical Networks,
Bari, Italy, July 14-18, 2024
Technical co-sponsorship by the IEEE Photonics Society
https://www.gov.pl/web/instytut-lacznosci/icton-2024

Scope of workshop:

In the last decades, quantum key distribution (QKD) has attracted the attention of the scientific community, owing to its potential of sharing information-theoretic secure (ITS) symmetric keys, thanks to the fundamental principles of quantum physics. Unlike digital bits, quantum states cannot be perfectly copied due to the Heisenberg uncertainty principle, leading to an unconditionally secure information exchange totally immune to any classical and quantum cryptoanalysis. QKD is now considered a mature technology, even though its employment in real networks is still not at hand. In particular, the introduction of novel applications to fully exploit the capabilities of QKD in realistic scenarios and the integration of terrestrial, free-space and satellite quantum networks is still to be addressed, in order to guarantee the desired pervasiveness of QKD in the very next future.

The workshop aims to present the final results achieved in the QUANCOM project, focusing on the novel application scenarios of QKD and on their peculiarities in terms of involved technology and strategic vision for future implementation. Different architectures will be discussed in view of a widespread adoption of QKD in the already-deployed communication networks and to open a vibrant debate on new challenges and evolutions for the next years.

Organizers:

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Paper submission:

If interested to contribute, please contact Workshop's organisers.