Special Issue

Quantum Communications Networks: Trends and Challenges

Message from the Guest Editors

Considering the recent advances in the field, this Special Issue aims to assemble new ideas and cluster promising techniques concerning the analysis and modeling of quantum communications networks. Moreover, it aspires to be a forum for the presentation of new and improved methods that address the current challenges faced by such networks. In particular, the analysis of real-world, engineered QKD systems, including light sources and transmitters; quantum (bosonic) channel analysis; as well as light detection and receivers, with the help of quantum information tools, all fall within the scope of this Special Issue. The design and implementation of future quantum repeater infrastructure, and the components therein, are another interest for this Special Issue.

The Special Issue of interest includes, but are not limited to:

- quantum internet
- migration from classical networks to quantum networks
- quantum cryptography
- quantum key distribution
- quantum information
- multi-partite quantum correlations
- entanglement generation, scheduling, and distribution
- quantum random number generators
- quantum communications devices

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Deadline for manuscript submissions

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The concept of entropy is traditionally a quantity in physics that has to do with temperature. However, it is now clear that entropy is deeply related to information theory and the process of inference. As such, entropic techniques have found broad application in the sciences.

Entropy is an online open access journal providing an advanced forum for the development and/or application of entropic and information-theoretic studies in a wide variety of applications. *Entropy* is inviting innovative and insightful contributions. Please consider *Entropy* as an exceptional home for your manuscript.

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