



Quantum Communication and Applications

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Deadline for manuscript
submissions:

16 October 2024

Message from the Guest Editors

Dear Colleagues,

Since introducing the BB84 quantum key distribution protocol, which surpasses the security challenges of classical key agreement protocols, quantum communication has become a focal point in this field. Quantum communication is a leading emerging technology, with new applications continually appearing, including the imminent reality of the quantum internet. To capitalize on this new reality, new quantum communication applications are being increasingly developed, with security and privacy being crucial requirements in many different applications.

While secure communication is the primary focus of quantum cryptography, other unresolved problems are gaining attention, such as secure multiparty computations, authentication, blind computation, secret sharing, and even secure quantum machine learning and quantum secure software development. The range of novel applications is vast and diverse, making any attempt at a comprehensive list at risk of needing to be completed.

This Special Issue welcomes theoretical, computational, and experimental studies and papers on new developments and applications of quantum communications and quantum software development.





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Editor-in-Chief

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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