Quantum key distribution (QKD) is one of the best-known examples of an application of quantum mechanics to cryptography. This article serves as a resource letter, a brief description to the introduction of QKD is provided before surveying the most prominent QKD protocols present in the literature from theoretical initialization by Wiesner to the attempts at practical implementations. We have also given an overview of the different security proofs proposed, for the variations in protocols and highlighted their significance.

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Index Terms

Computer Science  Security

Keywords

Quantum Key Distribution  BB84  Quantum Cryptography  Security  Implementation