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Collana	Foundations in Signal Processing, Communications and Networking, , 1863-8546 ; ; 23
Disciplina	621.382
Soggetti	Telecommunication Cryptography Data encryption (Computer science) Quantum computers Quantum computing Communications Engineering, Networks Cryptology Quantum Computing Quantum Information
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Introduction -- Fundamental Background -- Quantum Computing and Programming -- Quantum Information Theory -- Quantum Error Correction -- Quantum Communication Networks- Quantum Communication Networks: Design and Simulation -- Quantum Communication Networks: Final Considerations and Use Cases.
Sommario/riassunto	This book provides a tutorial on quantum communication networks. The authors discuss current paradigm shifts in communication networks that are needed to add computing and storage to the simple transport ideas of prevailing networks. They show how these ‘softwarized’ solutions break new grounds to reduce latency and increase resilience. The authors discuss how even though these solutions have inherent problems due to introduced computing latency

and energy consumption, the problems can be solved by hybrid classical-quantum communication networks. The book brings together quantum networking, quantum information theory, quantum computing, and quantum simulation. Provides a complete tutorial in quantum communication networks, Links together quantum networking, quantum information theory, quantum computing, and quantum simulation, Shows how the problems of computing latency and energy consumption can be addressed by hybrid classical-quantum communication networks.