

Integrating quantum computing with Artificial Intelligence and Machine Learning (AI/ML), including emerging quantum-driven AI, and quantum communication offers a powerful pathway to ...

The extreme demands of passing communication between ever-growing clusters of AI GPUs is fueling a move towards using light for ...

This paper offers a comprehensive survey of AI applications in quantum communication, with a focus on machine learning (ML) models such as neural networks and reinforcement learning, ...

In this work, we present an operational quantum-safe network achieving 100 Gbps QKD-secured IPsec VPN tunnels over 46 km of deployed telecom fiber with over 45 days of continuous ...

The authors systematically review state-of-the-art ML applications to advance theoretical and experimental central quantum communication protocols, specifically quantum key distribution, ...

The end goal of quantum communication is what many refer to as the quantum internet through which we will seamlessly distribute quantum information across many individual quantum ...

Quantum communication and information networks offer unprecedented processing efficiency and security for data transfers. Technologies like quantum key distribution (QKD), quantum ...

The LongReach system can extend InfiniBand connections to 10 or 40 kilometers, enabling high data throughput, native Remote direct memory access (RDMA) communication, advanced routing, and ...

The extreme demands of passing communication between ever-growing clusters of AI GPUs is fueling a move towards using light for communication across the networking layers. Earlier ...

NVIDIA Quantum-X and Spectrum-X Photonics switches signal a shift to networks purpose-built for the relentless demands of AI at scale. By eliminating ...

Nvidia announces plans to implement light-based communication between AI GPUs by 2026, introducing Quantum-X InfiniBand and Spectrum-X Ethernet platforms with co-packaged optics ...

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central quantum communication protocols, ...

NVIDIA Quantum-X and Spectrum-X Photonics switches signal a shift to networks purpose-built for the relentless demands of AI at scale. By eliminating bottlenecks of traditional ...

Here we report a proof-of-principle demonstration of an integrated-photonics TF-QKD network with exceptional scalability and reliability. This network includes 20 independent client-side ...

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