

Towards Entangled Photon Sources for Space Quantum Coms

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Recent developments in space quantum communications have highlighted the role robust quantum sources onboard small satellites and CubeSats could play in enabling trustless QKD and helping to implement a global quantum communication network. A major step in this direction would be to perform satellite-to-ground QKD using entanglement-based protocols such as BBM92 where correlations remove the need for additional trusted devices to ensure security. This presentation will focus on the expanding capabilities of QKD satellite applications and the impact a commercially available low SWaP entanglement-based source could have in next-generation quantum communications and beyond.

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