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"All-optical O-band Cross-bar Switching"

Utilizing the traditionally empty 1310-nm O-band of today's fiber optic infrastructure to distribute quantum information promises to allow single-photon level quantum data to be multiplexed with the bright, classical data in the 1550-nm C-band. In order to realize this potential, a high-quality source of O-band entangled photon pairs must be developed as well as an efficient switching technology to route these photons through the fiber network. Work that expands on previous switching technology developed in our group will be presented.