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(POS-2) Benchmarking a Commercial Quantum Memory

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The quantum internet is an emerging quantum technology that will enable the networking of quantum computers and secure communications via quantum key distribution. A key element of this network is the quantum repeater which promises to mitigate loss intrinsic to fiber-based communication. Quantum repeaters require a quantum memory capable of high-fidelity storage and retrieval of quantum optical states. Recently, such quantum memories have become commercially available, but are awaiting “field-testing”. In this poster, we describe our work that seeks to test and verify the storage and retrieval of a Relative Intensity Squeezed state based on such a commercial quantum memory.

Keyword-1

Quantum Memory

Keyword-2

Squeezed light

Keyword-3

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