Abstract Submitted
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Quantum Interference of Electromagnetic Fields from Remote Quantum Memories R. ZHAO, T. CHANELIERE, D.N. MATSUKEVICH, S.D. JENKINS, S.-Y. LAN, T.A.B. KENNEDY, A. KUZMICH, Georgia Institute of Technology — We observe quantum, Hong-Ou-Mandel, interference of fields produced by two remote atomic memories. High-visibility interference is obtained by utilizing the finite atomic memory time in four-photon delayed coincidence measurements. Interference of fields from remote atomic memories is a crucial element in protocols for scalable generation of multi-node remote qubit entanglement.

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