Erratum

Entanglement distribution with minimal memory requirements using time-bin photonic qudits (PRX Quantum (2022) 3 (040319) DOI: 10.1103/PRXQuantum.3.040319)

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Erratum: Entanglement distribution with minimal memory requirements using time-bin photonic qudits [PRX Quantum 3, 040319 (2022)]

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Recently we became aware of an important reference that was published during the preparations of our manuscript, which we failed to cite in the original paper. In Ref. [1], the authors propose a similar scheme for the generation of multiple entangled pairs between qubit registers using a high-dimensional photonic qudit and cavity-mediated spin-photon gates. Contrary to Ref. [1], we show that such photonic qudit-mediated entanglement generation schemes have similar distribution rates as standard (parallel) qubit approaches but the memory requirements are significantly relaxed for the qudit schemes.

[1] Z. Xie, Y. Liu, X. Mo, T. Li, and Z. Li, Quantum entanglement creation for distant quantum memories via time-bin multiplexing, Phys. Rev. A **104**, 062409 (2021).