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Manuscript submission to nature photonics, following Presubmission Enquiry NPHOT-2015-04-00395

Dear Editor,

please find enclosed our manuscript entitled "Hong-Ou-Mandel interference" between triggered and heralded single photons from separate atomic systems" — we believe this reports on an important experimental demonstration how to connect to different physical systems for quantum information purposes on the way towards more complicated quantum networks.

The manuscript covers mostly experimental work, where we could demonstrate that the two photons emitted by two different physical systems can be made indistinguishable enough to allow for an interference between them. While (to our knowledge very few) comparable experiments have been performed before, we do want to stress that in our case, no spectral filtering did take place, which makes the process much more efficient, and could potentially lead to a more scalable network of different quantum nodes.

We do believe this work could be of a wider interest to the photonics community, and perhaps inspire researchers working on other photonic systems to explore similar ideas. We therefore would like to submit this manuscript for your kind consideration for publication with nature photonics.

Looking forward for your reply, and with Best Regards on behalf of all authors,

Christian Kurtsiefer