# Q 27 Poster Informationsspeicherung und -verarbeitung

Zeit: Montag 11:00–12:30 Raum: Poster HU

Q 27.1 Mo 11:00 Poster HU

**A tunable Fourier-limited single-photon source for quantum memory experiments** — •Christian Hettich, Jonas S. Neergaard-Nielsen, and Eugene S. Polzik — QUANTOP, Niels Bohr Institute, Blegdamsvej 17, DK-2100 Copenhagen, Denmark

We present a design for a source of frequency-tunable Fourier-limited single photons which are adapted to their usage in quantum memory experiments. Many single-photon sources have been realized in the last years but none of them fulfill all the requirements needed for storage experiments in spin polarized atomic gases. For those experiments the single photons have to be detuned from an atomic resonance and their spectral width has to be relatively small. These properties can be met by using nondegenerate intracavity cw down-conversion. We will give detailed design plans, first results and an estimation for the quality of the storage experiments.