

Current status of the planned photon-photon scattering experiment at CALA

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As outlined in the second-phase DFG proposal and our recent publication [1], efforts are ongoing at CALA to implement a photon-photon scattering experiment based on two counter-propagating pulses from the same laser source. The beamline for a single pulse has been fully commissioned, including a central hole in the beam for the collection of scattered signal. This currently allows studies of the background only (by residual gas and static scattering from chamber components). We will report on quantitative estimates for the background contributions expected in the full collision experiment. We will also give an update on the progress towards counter-propagating the second beam and related challenges.

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