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## **[556] Investigating noise sources with a triple quantum dot charge qubit**

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We implement a single electron charge qubit in a gate defined linear triple dot array on a GaAs/AlGaAs heterostructure [1,2]. The qubit is strongly dipole-coupled to photons in a high impedance frequency tunable superconducting resonator. We operate the qubit at a higher order sweet spot along one of the detuning axes. Measuring the qubit coherence for different qubit configurations we acquire information about the dominant noise source in our system.

[1] A. J. Landig et al., arXiv: 1903.04022 (2019)

[2] J. V. Koski et al, Manuscript in preparation

**Primary author:** Mr KRATOCHWIL, Benedikt (ETH Zürich)

**Co-authors:** Dr KOSKI, Jonne (ETH Zürich); Mr LANDIG, Andreas (ETH Zürich); Dr SCARLINO, Pasquale (ETH Zürich); Mr ABADILLO-URIEL, José (University of Wisconsin-Madison); Dr REICHL, Christian (ETH Zürich); Prof. WEGSCHEIDER, Werner (ETH Zürich); Prof. COPPERSMITH, Susan (University of New South Wales); Dr FRIESEN, Mark (University of Wisconsin-Madison); Prof. WALLRAFF, Andreas (ETH Zürich); Prof. ENSSLIN, Klaus (ETH Zürich); Prof. IHN, Thomas (ETH Zürich)

**Presenter:** Mr KRATOCHWIL, Benedikt (ETH Zürich)

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