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# Frequency Scanning Interferometry for CLIC component fiducialisation

We present a strategy for fiducialisation of CLIC's Main Beam Quadrupole (MBQ) using Frequency Scanning Interferometry (FSI). We are developing a device to complement a commercial FSI system to enable multi-lateration for coordinate determination of fiducials. Using spherical high index glass targets with a wide acceptance angle, we optimise the geometry of the measurement stations with respect to the fiducials –thus improving the precision of coordinates. We demonstrate through simulations that the 10 micrometre uncertainty required in the vertical and lateral axes for the fiducialisation of the MBQ can be attained using FSI multilateration.

## Summary

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