

Abstract Submitted
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The status of the liquid hydrogen target for the Qweak experiment ADESH SUBEDI, Mississippi State University — The Qweak experiment in Hall C at Jefferson lab aims to make the first direct measurement of the weak charge of the proton with about 4% overall uncertainty by measuring the parity violating asymmetry in elastic electron-proton scattering. One of the crucial elements of the experimental setup is the 35 cm long liquid hydrogen target. This cryogenic target was designed using computational fluid dynamics to operate with 2500W of beam power at 180 microamps. Not only is this the highest power cryogenic target ever built but it also has very tight constraints on the target related uncertainties. An update on the commissioning and the measured performance of the Qweak experiment liquid hydrogen target will be presented.

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