Overview of the n3He Experiment and Target Chamber

MARK MCCREA, University of Manitoba, N3HE COLLABORATION — The n3He Experiment aims to measure the parity-violating asymmetry in the direction of proton emission relative to the initial neutron polarization direction in the reaction $\vec{n} + {^3He} \rightarrow T + p + 765\text{keV}$ to a high precision. The size of the asymmetry is estimated to be in the range $-9.5 - 2.5 \times 10^{-8}$, and our goal statistical accuracy is $2 \times 10^{-8}$. The experiment ran at the Spallation Neutron Source with data taking completing at the end of 2015. The experiment used a Helium-3 ionization chamber as the combined target and detector. Data analysis is underway and is currently in an advanced stage.