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## Polarized target at COMPASS

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In 2018 the COMPASS experiment at CERN applied a transversely solid polarized proton target with a negative pion beam to measure the Sivers asymmetry using Drell-Yan process. The target system consists of a 50 mK dilution refrigerator, a 2.5 T solenoid magnet, two sets of 70 GHz microwave system. Solid  $\text{NH}_3$  beads of the target material was contained in 2-target-cell of 55-55 cm long with a 4 cm diameter. The longitudinal polarization of the target is obtained by the DNP method. After polarizing for 1 day, the spin was oriented perpendicular to the beam direction by using a 0.6 T dipole magnet and the data was taken for 6 days.

I will present the results of the proton polarization, the relaxation time during the data taking and the radiation damage of the target material.

In 2021 the experiment will exchange the  $\text{NH}_3$  target material for  $^6\text{LiD}$  as a polarized deuteron target in order to perform SIDIS program with muon beam.

I will also present the status of the preparation.

### Summary

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**Session Classification:** Solid Polarized Targets

**Track Classification:** Solid Polarized Targets