



Contribution ID: 1326

Type: **Poster**

## **J-PARC T98: Antiproton Reactions in LArTPC for the GRAMS Experiment**

In the search and measurement for cosmic antiparticles, as one of the benchmarks for the GRAMS experiment, understanding of antiproton reactions in a liquid argon TPC with high-statistics is a vital research milestone. The identification of particles and antiparticles relies on the annihilation of antiprotons, which stop in liquid argon and interact with argon nuclei, producing multiple hadrons. However, experimental validation of this process remains insufficient. To address this, in February 2025, a 30 cm<sup>3</sup> liquid argon TPC detector was installed at the J-PARC K1.8BR beamline (J-PARC T98), and large-statistics datasets were successfully collected, including antiprotons with a momentum of 700 MeV/c, as well as protons and deuterons. This presentation provides a comprehensive overview of the T98 experiment and its preliminary results.

### **Collaboration(s)**

T98/GRAMS Collaborations

**Author:** YORITA, Kohei (Waseda University (JP))

**Presenter:** YORITA, Kohei (Waseda University (JP))

**Session Classification:** PO-1

**Track Classification:** Cosmic-Ray Direct & Acceleration