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Pion spectra from Al+Au collisions at $\sqrt{s_{NN}}$ = 4.9 GeV TODD KINGHORN, Univ of California - Davis — The STAR experiment at RHIC has demonstrated to have good event reconstruction and particle identification capabilities for fixed-target (FXT) configurations. The goal of the FXT program is to extend the Beam Energy Scan II (BES-II) to energies below 7 GeV as well as baryon chemical potential μ_B up to 720 MeV and, based on the results from BES-I, improve our understanding of a transition between a QGP and a hadronic gas. Using the time projection chamber (TPC) and time of flight (TOF) detectors along with particle identification (PID) techniques, pion spectra are measured from the events in the Al+Au FXT runs taken in 2015. Understanding the yields of the pions and the shape of the spectra are useful for a variety of analyses. These spectra are presented across different centralities ranging from central to peripheral types of collisions at various rapidities.

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