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Recent Test Results and Experiment Status at MUSE¹ WAN LIN, Rutgers University, New Brunswick, MUON PROTON SCATTERING EXPERIMENT (MUSE) COLLABORATION — The Muon proton Scattering Experiment (MUSE) at the PiM1 beam line of the Paul Scherrer Institute is aiming to simultaneously measure elastic scattering of electrons and muons from a liquid hydrogen target to extract the charge radius of the proton. By comparing the two scattering cross sections, the experiment will provide more data for the proton radius puzzle and determine if the radius is the same when using different particle types in obtaining the proton radius. This presentation will show test run results from the summer 2019 beam time, which is measuring detector performance and beam properties, and performing initial cross section tests.

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