

Abstract Submitted
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Status of the MUSE Experiment at PSI¹ WAN LIN, Rutgers University, New Brunswick, MUSE COLLABORATION² — 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 of either charge from a liquid hydrogen target to extract the charge radius of the proton. By comparing the four 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, and whether there are any sizable two-photon exchange effects. During 2019 the experiment commissioned detectors, studied beam properties, and performed a first scattering measurement with the full experimental system, recording about 500 M events. Initial results for these measurements will be presented.

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²The MUon proton Scattering Experiment

Wan Lin
Rutgers University, New Brunswick

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