

Abstract Submitted
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Beam tracking for the MUon Scattering Experiment (MUSE) at PSI¹ TANVI PATEL, Hampton Univ, MICHAEL KOHL, ANUSHA LIYANAGE, Hampton University, MUSE COLLABORATION — The proton is not an elementary particle but has a substructure governed by the interaction of quarks and gluons. The size of the proton is manifest in the spatial distributions of the electric charge and magnetization, which determine the response to electromagnetic interaction. The proton radius puzzle is known as the large discrepancy between measurements using electrons and muons, respectively. The MUon Scattering Experiment (MUSE) in preparation at the Paul-Scherrer Institute (PSI) has the potential to resolve the puzzle by measuring the proton charge radius with electron and muon scattering simultaneously and with high precision, including any possible difference between the two, and with both beam charges. In the presentation the status of the installation and performance of the beam tracking detectors based on Gas Electron Multipliers will be reported.

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