

Abstract Submitted  
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**Status of the MUSE Measurement of the Proton Radius at PSI<sup>1</sup>**

RONALD GILMAN, Rutgers University, MUSE COLLABORATION — It is a puzzle that the proton radius appears to be different when measured with muons vs. with electrons. The MUon Scattering Experiment (MUSE) at the Paul Scherrer Institut (PSI)  $\pi$ M1 beam line utilizes a mixed  $e/\mu/\pi$  beam to measure  $\mu^\pm p$  and  $e^\pm p$  elastic scattering. The experiment will study the proton electromagnetic form factors at low  $Q^2$ , in the region most sensitive to the proton radius. The goal is to determine whether the charge radius is indeed the same for muons and electrons, with measurements at the same time in a single experiment. I will describe test measurements done for the MUSE experiment and discuss the status of the project.

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