

Hosted by the Department of Chemistry and Physics

Latest Results from the Muon $g-2$ experiment

A colloquium sponsored by the Society of Physics Students and the American Chemical Society



Dr. Brendan Casey

Mu2e Program Coordinator and
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I will present the latest results from the Muon $g-2$ experiment. The goal of the Muon $g-2$ experiment is to make the most precise measurement of the magnetic properties of muons, represented by the muon's 'g-factor.' This fundamental constant contains information on every particle that has ever existed in the history of the universe from electrons and photons to quarks and gluons to the Higgs boson and neutrinos. A comparison of high precision predictions and measurements of the g -factor provides one of the best ways to test the completeness of our understanding of the laws of physics experienced by fundamental particles. I will discuss the state-of-the-art in the measurement and the prediction and explain why members of the international high energy physics community are all scratching their heads trying to figure out how to interpret the current results.

Friday, April 25th, 2025

4:00 PM EST in Jepson 225

Please contact SPS president Carly Healy at chealy2@mail.umw.edu any questions!

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Open to all who wish to attend

