

**NATURAL SCIENCES DEPARTMENT**  
**LaGuardia Society of Physics Students**



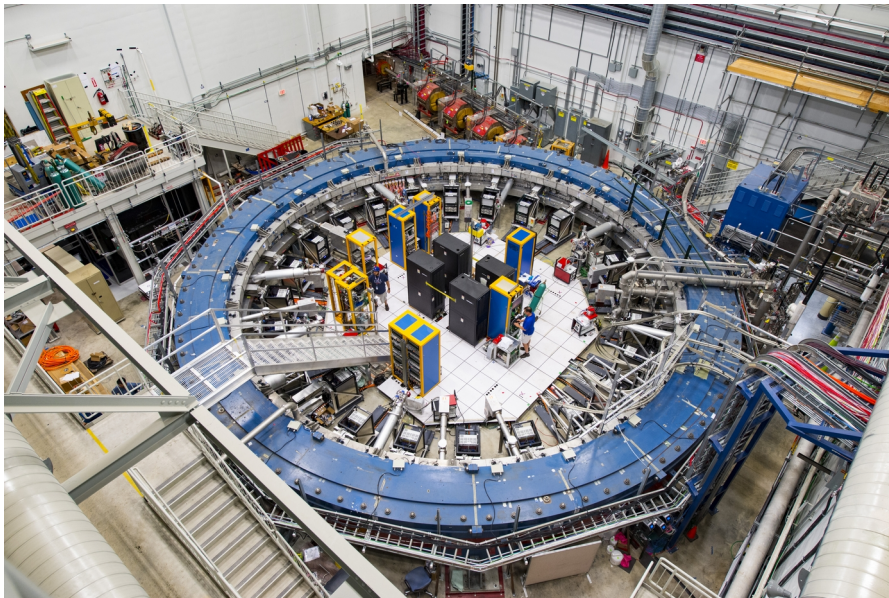
EVENT: INVITED PHYSICS TALK

DATE: Friday May 7<sup>th</sup>, 15:15–16:25

ZOOM: <https://us02web.zoom.us/j/3737478851?pwd=ZC9KOGY1Y3kydWQwaUJZV1dVVEtCQT09>

**An anomaly in an anomaly? First results from the Fermilab Muon g-2 Experiment**

Dr. David Kawall, University of Massachusetts, Amherst



The Fermilab muon g-2 experiment just released its first measurement of the magnetic behavior of the muon. Muons are like electrons, but heavier and short-lived. They behave like little bar magnets whose strength can be predicted with impressive precision. An interesting feature is that an accurate prediction requires the addition of quantum corrections that arise due the interactions of the muon with other fundamental particles of nature such as electrons, photons, quarks, etc. Comparison of measurement results and predictions tests the completeness of our model of nature, and a significant discrepancy would indicate the need for new physics. The concepts behind the Fermilab experiment and the many challenges it faces will be presented, along with a comparison with the theory and future prospects.

**This is a public event, everyone is more than welcome!** All questions should be directed to Dr. Roman Senkov at [rsenkov@lagcc.cuny.edu](mailto:rsenkov@lagcc.cuny.edu)