



University  
of Victoria

# PHYSICS AND ASTRONOMY COLLOQUIUM (Online)

**Dr. David Hertzog**  
University of Washington

**“First Results – and afterthoughts – from the Fermilab Muon  
g-2 Experiment”**

## Abstract

“The 2004 Brookhaven measurement of the muon’s anomalous magnetic anomaly was more than 3 standard deviations greater than the recently updated Standard Model theory. Is this a sign of new physics? To answer this, we built an even more sensitive experiment at Fermilab and have completed four data-taking campaigns. I will describe this unique experiment and its challenging data analysis. We published our first results from the Run-1 analysis and learned that the BNL measurement was not a fluke. Now what does it all mean and is the Standard Model prediction stable? I will try to convince you that our experimental results are to be trusted, but I will be speculating a bit on the new physics implications and the status of the Standard Model prediction. The talk will be aimed at a general audience.”

Wednesday, April 6, 2022

3:30 p.m. PDT

via Zoom: Zoom link will be shared on Tuesday