



## PHYSIKALISCHES KOLLOQUIUM

*Vortrag:* **Prof. Dr. David W. Hertzog**  
Department of Physics,  
University of Washington,  
USA



*Thema:* **First Results from the Fermilab Muon g-2 Experiment**

*Zeit und Ort:* Dienstag, 1.6.2021, 16:40 Uhr, Online-Meeting: ZOOM  
<https://tu-dresden.zoom.us/j/87847526381?pwd=QVg4VTIPQkkzMUZjVStNdzIDU2xHZz09>  
Meeting-ID: 878 4752 6381 // Kenncode: rw#.U2qb

*Leitung:* Prof. Dr. Dominik Stöckinger

*Kurzfassung:* The 2004 Brookhaven measurement of the muon's anomalous magnetic moment is more than 3 standard deviations greater than recently updated Standard Model theory. Is this a sign of new physics? To answer this, we built an even more precise experiment at Fermilab and have completed three short data-taking campaigns and the 4th is in progress. I will describe this unique experiment and its challenging data analysis. I will present the first results from the Run-1 analysis, which was unblinded and published very recently. The talk will aim at a broad audience, but will also invite you to ask detailed questions.

*Biographie:* David W. Hertzog is the Arthur B. McDonald Professor of Physics at the University of Washington and Director of the Center for Experimental Nuclear Physics and Astrophysics (CENPA). His current research is in the area of precision muon physics, where he co-led a 1 ppm measurement of the muon lifetime and was a principle developer and Co-Spokesperson for 9 years of the new muon g-2 experiment at Fermilab. He was the Analysis Coordinator for its first results. Earlier he worked on several LEAR antiproton physics experiments at CERN, focusing on hyperon-antihyperon production and searches for exotic hadrons.

