

Friday, October 20th**4:10 – 5:00 PM****Barnard Hall Room 103****Energetic Particle Observations: Advancements with Modern Techniques****Rachael Filwett, Ph.D.****Montana State University Physics Department**

Abstract: Energetic particles in the inner heliosphere are an exciting topic of space physics research, with a large impact on Space Weather. In this talk, I'll discuss the sources, solar cycle trends, and various background conditions that initiate energetic particles. I'll discuss the interplanetary and magnetospheric transport of solar energetic particles. The sources of energetic particles in the heliosphere have many different sources, which do not contribute equally over time, or by phenomena, making predicting these results even more difficult. The more complicated and nuanced understanding of energetic particles we are gaining is partly due to the expanding Heliophysics fleet of missions. I'll show new results using multi-spacecraft measurements, and new analysis giving insight into the different acceleration and transport physics that has made this area of investigation so multi-faceted.

Host: John Neumeier

**** Refreshments served in the Barnard Hall second floor atrium at 3:45 PM ****