

Michelle Kuchera – Colloquium seminar 3/16/2023
Davidson College

Machine Learning in Nuclear and Particle Physics

Machine learning has become ubiquitous in data-rich applications. Fundamental physics research provides an exciting realm for machine learning research with applications ranging from experimental data acquisition through making theoretical predictions. This talk will introduce machine learning theory, highlighting applications from my group in nuclear and particle physics research. Specifically, I will focus on experimental applications for detector systems at the Facility for Rare Isotope Beams and CERN. I will highlight innovative approaches in machine learning that show promise in these physics applications and discuss how our research can assist in machine learning research.