WICHITA STATE UNIVERSITY

Physics Seminar Presents Our Speaker:

Dr. Gabriel Perdue

Fermi National Accelerator Laboratory, IL

"Quantum AI and Optimization in High Energy Physics"

Abstract: In December of 2018 the National Quantum Initiative Act was signed into law, pledging more than $1 billion over the next five years to establish a coordinated framework for quantum information science (QIS). To inform research directions in the NQIA, the DOE funded the QuantISED program in mid-2018. I will discuss the QuantISED pilot project - "High Energy Physics (HEP) Machine Learning and Optimization Goes Quantum." For the project we will investigate machine learning and constrained optimization problems in a HEP context, and develop computing workflows to help deploy quantum technology. In this seminar I will largely focus on progress in this program using quantum annealers. I will also discuss Fermilab's Quantum Science Program more broadly.

Day & time:

Wednesday, April 24, 2019
2:00 p.m., 128 Jabara Hall
Refreshments & Discussion Afterwards