SEMINAR NOTICE

Department of Physics and Engineering Physics
University of Saskatchewan

SPEAKER: Siyuan Li, PhD candidate,
Physics and Engineering Physics

TOPIC*:* *Bounding Muon g-2 Using Quantum Chromodynamics.*

DATE: Tuesday September 10th, 2024

TIME: 3:30-4:30 p.m.

PLACE: ***Physics 103***

Abstract:

Muon g-2, also known as the muon anomalous magnetic moment, describes the difference between the theoretical prediction and measurement of muon magnetic moment. This discrepancy serves as a key indicator for potential new physics. Our study establishes lower and upper bounds on the leading-order (LO) hadronic vacuum polarization (HVP) contribution to the muon g-2 by using Finite-Energy QCD sum rules and Hölder's and related inequalities. Our results also help bridge the gap between other theoretical approaches, offering a path toward resolving the current tension in future investigations.