TRENT UNIVERSITY

PHYSICS & ASTRONOMY SEMINAR SERIES

Dr. Savino Longo

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Wednesday, November 11, 2026
11:00 a.m. to 11:50 a.m. in ENW 115

Searching for a Hidden Universe with the Belle II Experiment

Abstract:

The Belle II experiment, located at the SuperKEKB electron-positron collider in Japan, is a state-of-the-art upgrade to the previous generation Belle experiment. SuperKEKB is currently operating at the world's highest collision intensity as Belle II approaches a collision dataset that will be 50 times larger than the original Belle dataset. Enhanced by unique dark sector triggers, the accumulating Belle II dataset is rich with immediate and near-term opportunities for exciting dark sector physics through direct searches and precision measurements. Results will be presented from a recent Belle II search for Axion-Like Particles, which are theorized to potentially allow for interactions between the known fundamental particles and a hidden sector. I will also present the status of an ongoing search for dark photons at Belle II and our prospects to confirm the ATOMKI X17 anomaly.

Bio:

Dr. Savino Longo is an Assistant Professor in the Department of Physics and Astronomy at the University of Manitoba. His research focus is on experimental subatomic physics. Dr. Longo earned his PhD from the University of Victoria before completing a postdoctoral fellowship at the Deutsches Elektronen-Synchrotron (DESY). Dr. Longo has collaborated on the international Belle II Experiment since 2014. His research involves searches for new particles using high-energy matter-antimatter collisions and the development of new technologies for subatomic particle detectors. Dr. Longo currently leads the University of Manitoba Belle II group and collaborates on the TUCAN experiment.