

Katherine Pachal – Colloquium Seminar – September 22, 2022  
TRIUMF

Title: Accelerators as windows to the dark sector: the DarkLight experiment and the hunt for a new boson

Abstract: The nature of dark matter and its relationship to the Standard Model is one of the highest priority open questions in particle physics today. Accelerator-based experiments are a powerful tool in the search for dark matter and the new bosons that may mediate its interactions with the known particles. The DarkLight experiment will search for such a new boson with suppressed couplings to protons in an important uncovered low-mass range. DarkLight will be based at the TRIUMF electron linear accelerator and will pave the way for this unique machine to drive other future experiments.