



PHYSICS AND ASTRONOMY SEMINAR

Christopher Hearty

University of British Columbia, Institute of Particle Physics

“Searches for the Dark Sector at BaBar, Belle II, and Elsewhere”

Abstract

There has recently been considerable theoretical and experimental interest in exploring Dark Sector models as an explanation for dark matter. These models include a low-mass dark photon that mixes at a small rate with the Standard Model photon. Depending on model parameters, dark photons produced in accelerator-based experiments could decay visibly or invisibly. The BaBar experiment has undertaken searches for both visible and invisible decays, as well as for more complicated scenarios. Belle II will continue these searches, and may be able to produce improved results with relatively small data sets. Some proposed dedicated experiments will also be discussed, as will the connection to results from direct detection dark matter experiments.

Wednesday May 10, 2017
2:00 p.m.
Engineering Computer Science
Room 130