LABORATORY FOR ELEMENTARY-PARTICLE PHYSICS (LEPP)

Journal Club

Brian Shuve



Uncovering Signals of a Low-Mass Hidden Sector

Hidden sectors are motivated by a range of phenomena unexplained by the Standard Model, such as dark matter, neutrino masses, and the baryon asymmetry. Hidden sector particles below the weak scale can be copiously produced at high-energy and intensity-frontier experiments, but may have evaded detection with current searches. I will discuss recent and ongoing searches with the BaBar collaboration that are probing unexplored, well-motivated territory for hidden sectors. I will also show how signatures such as displaced vertices and rare meson decays motivate new searches at low- and high-energy colliders.



