Contribution ID: **1** Type: **not specified**

Luc Darme - Light dark sector EFT and long-lived states

Tuesday, 10 December 2019 11:00 (45 minutes)

Dark matter-motivated light dark sectors often feature long-lived hidden sector states, whose presence typically offers bright detection prospects at fixed target experiments and colliders and may lead to strong astrophysical bounds. We will explore the case in which one can apply an effective theory approach to the couplings between light dark sectors and the Standard Model, broadly corresponding to setups where the mediator field cannot be produced on-shell. In particular, we will investigate in detail the production and the semi-visible three-body decays of dark sector states and show that it is a key element of the accelerator phenomenology.

Session Classification: Dark Session