



Contribution ID: 44

Type: **Talk**

Exotic Prompt and Non-Prompt Leptonic Decays as a Window to the Dark Sector with ATLAS

Tuesday 5 July 2016 16:30 (20 minutes)

Results of searches for both prompt and non-prompt leptonic decays of new dark sector particles in proton-proton collisions with the ATLAS detector are presented. Searches that encompass a wide range of new particle masses, lifetimes and degrees of collimation of leptonic decay products are discussed. The results are interpreted in the context of models containing new gauge bosons (dark photons or dark Z bosons) that give rise to lepton-jets or to more general displaced leptonic signatures that could be a viable dark matter candidate.

Author: DIAMOND, Miriam Deborah Joy (University of Toronto (CA))

Presenter: DIAMOND, Miriam Deborah Joy (University of Toronto (CA))

Session Classification: Dark Matter and Particle Astrophysics

Track Classification: Dark Matter and Particle Astrophysics