## Phenomenology 2016 Symposium



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## **Radiative Lepton Masses with Dark Matter**

Monday 9 May 2016 14:30 (15 minutes)

Leptons couple to the Higgs doublet of the standard model to acquire mass. This coupling is at tree level in the standard model, but in this talk we look at a specific model where the tree level coupling is forbidden by imposing  $A_4$  symmetry. Therefore leptons couple to Higgs through a loop. As we will see in this talk, with radiative mass we can have loop contributions without the  $16\pi^2$  loop suppression factor.

We analyze the important consequences of this scenario, including Higgs decay, muon anomalous magnetic moment,  $\mu \to e \gamma, \mu \to e e e$ , and the proposed dark sector.

## Summary

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