



Contribution ID: 286

Type: **Poster presentation**

A search for long-lived dark photons produced from the decay of a Higgs boson or a heavy scalar boson in ATLAS

Thursday, 7 October 2021 19:00 (5 minutes)

This poster presents a search for long-lived dark photons produced from the decay of a Higgs boson or a heavy scalar boson and decaying into displaced collimated Standard Model fermions. The search uses data corresponding to an integrated luminosity of 36.1 fb^{-1} collected in proton–proton collisions at $\sqrt{s} = 13 \text{ TeV}$ recorded in 2015–2016 with the ATLAS detector at the Large Hadron Collider. The observed number of events is consistent with the expected background, and limits on the production cross section times branching fraction as a function of the proper decay length of the dark photon are reported. A cross section times branching fraction above 4 pb is excluded for a Higgs boson decaying into two dark photons for dark-photon decay lengths between 1.5 mm and 307 mm .

Is this abstract from experiment?

Yes

Name of experiment and experimental site

ATLAS

Is the speaker for that presentation defined?

Yes

Details

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Internet talk

Maybe

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Session Classification: Poster Session