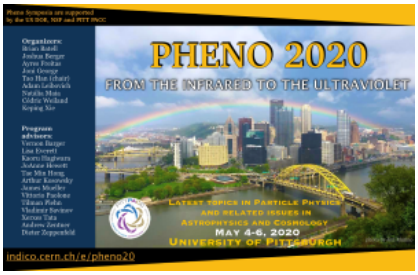

Contribution ID: **990** Type: **Parallel Talk**

The Higgs and Leptophobic Force at the LHC

Tuesday 5 May 2020 14:45 (15 minutes)

The Higgs boson could provide the key to discover new physics at the Large Hadron Collider. We investigate novel decays of the Standard Model (SM) Higgs boson into leptophobic gauge bosons which can be light in agreement with all experimental constraints. We study the associated production of the SM Higgs and the leptophobic gauge boson that could be crucial to test the existence of a leptophobic force. Our results demonstrate that it is possible to have a simple gauge extension of the SM at the low scale, without assuming very small couplings and in agreement with all the experimental bounds that can be probed at the LHC (ArXiv: 2003.09426).

Summary

Authors: FILEVIEZ PEREZ, Pavel (Case Western Reserve University); MURGUI GALVEZ, Clara; PLASCENCIA, Alexis (Case Western Reserve University); GOLIAS, Elliot (Case Western Reserve University)

Presenter: GOLIAS, Elliot (Case Western Reserve University)

Session Classification: Higgs II

Track Classification: Higgs