



Contribution ID: 255

Type: Oral

## Searches for exotic decays of the 125 GeV Higgs boson in the CMS experiment

After the Higgs boson discovery in 2012, the experiments at the LHC are continuing to study this particle and look for physics beyond the standard model. Some of the Higgs boson properties, such as the mass, has been measured with sub-percent level accuracy. Yet the present integrated luminosity is still a limiting factor for measuring the Higgs boson self-coupling or the first generation Yukawa couplings. The current constraints on the Higgs boson couplings would still allow for a sizeable branching fraction into undetected final states, which motivates the direct searches for exotic decay modes. This presentation discusses several new results from these searches utilizing advanced online selection methods or analysis techniques with the entire Run 2 data.

### Field of contribution

Experiment

**Author:** DAS, Pallabi (Princeton University (US))

**Presenter:** DAS, Pallabi (Princeton University (US))

**Track Classification:** Beyond the standard model