

Searches for Higgs to invisible at CMS

Wednesday 9 November 2022 17:25 (15 minutes)

Although the Higgs boson decay to four neutrinos predicted by the SM is inaccessibly small at the LHC, the Higgs boson branching fraction to invisible detector signatures can be significantly enhanced under various BSM scenarios. Searches for Higgs to invisible probe in particular Higgs portal models where the Higgs boson couples directly to dark matter, and the resulting constraints from the LHC explore a complementary dark matter candidate mass region lower than is accessible by the direct detection experiments. A summary of the latest searches for Higgs boson decays to invisible signatures is presented, using the full Run-2 dataset collected by the CMS experiment.

Type of talk

Experimental measurements

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