

## Contribution submission to the conference Heidelberg 2022

**Search for additional MSSM/2HDM  $H \rightarrow b\bar{b}$  with Run 2 CMS data** — ●DAINA LEYVA PERNIA — DESY, Hamburg, Germany

Some Beyond Standard Model (BSM) theories, like the Minimal Supersymmetric extension of the Standard Model (MSSM) or the Two-Higgs Doublet Model (2HDM), predict the existence of additional Higgs bosons with an enhanced coupling to bottom quarks. This talk focuses on the search for new neutral Higgs bosons decaying into b-quarks and produced in association with at least one b-quark. The analyzed data were collected by the CMS experiment at a centre-of-mass energy of 13 TeV, with the latest data reprocessing. First limits on the MSSM  $H \rightarrow b\bar{b}$  process using these data are shown.

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