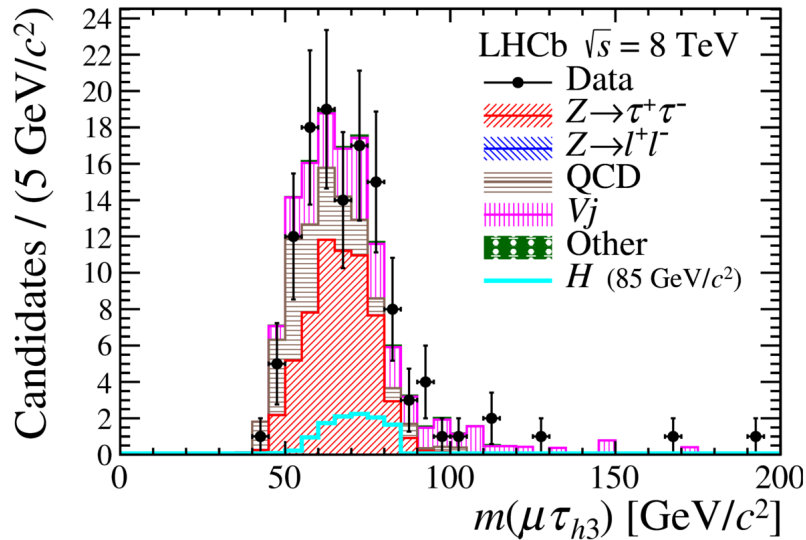
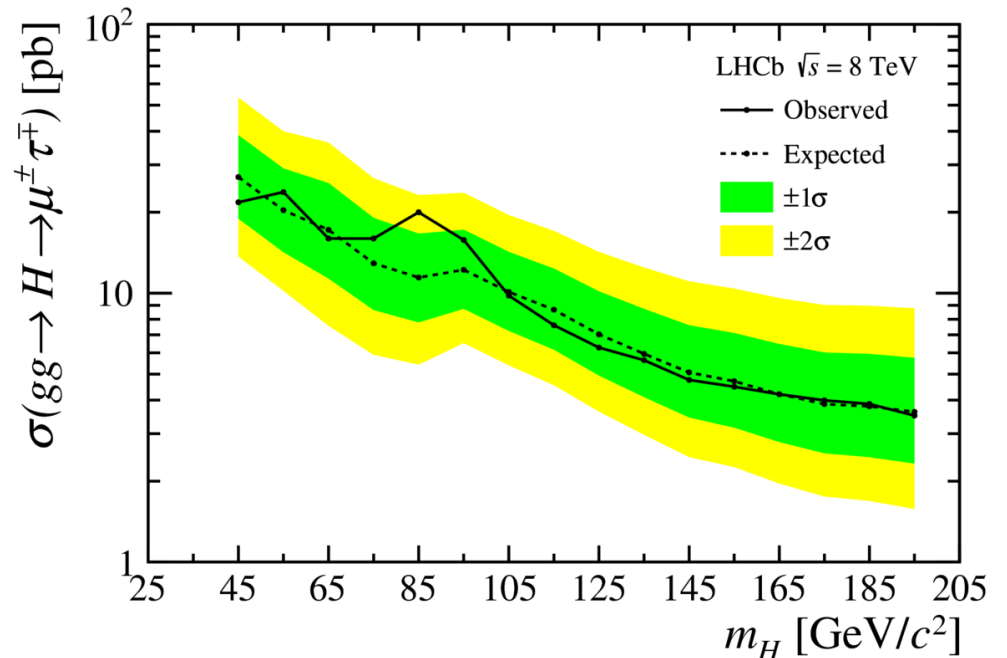


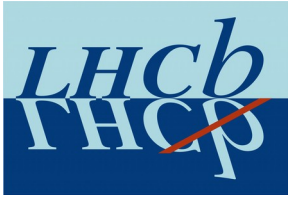
Search for $H \rightarrow \tau\mu$ in the forward region



- Search for lepton flavour violating Higgs decay.
- Taus are reconstructed in 4 different decay channels (muon, electron, hadron, 3-hadrons).
- Main background $Z \rightarrow \tau\tau$

- Complementary wrt ATLAS and CMS: different phase space region.
- At 125 GeV upper limit $\text{BR}(H \rightarrow \tau\mu) < 26\%$
- Accepted for publication on EPJC.





Ongoing analyses

- Updated search for displaced jets
- Prompt di-jet scalar resonances searches (b and c di-jets)
- New trigger lines for Run III (di-jet, di-electrons, di-photons)
- Several studies are ongoing for the HL-LHC yellow report:
 - Prospects on Long Lived Particles searches
 - Prospects on $H \rightarrow cc$