## VBF HH Taskforce News

## VBF HH signal samples will be regenerated

- Without VHH contamination
  - Current samples are shown to be extremely error prone
- With increased statistics for SM and around the limits (for channels that need it)
- Parton showering is changed to Pythia8 (Herwig7 was used in the previous JOs)
- Switched to use NLO pdf set
- JOs are ready and the validation is almost complete (more info at the last VBF HH taskforce meeting)

## Discussion ongoing for the possible VBF HH CONF Note for Moriond 2021 (proposal)

- Excluding the  $c_{2V}$ =0 scenario is one of the main goals for the full Run 2 analyses
  - Means that we can make a definitive statement that this coupling exists
- Exclusion limit from 4b alone is now at  $\sim c_{2V}=0$  (Rachel Hyneman's talk)
  - Discussion ongoing for the possible inclusion of bbττ and bbγγ analyses