

DISCUSSION

- 1) Organization and communication issues, suggestions for improvements.
- 2) How do you rate the level and quality of the interactions among the WGi's? Suggestions?
- 3) What are the new ideas, physics as well as workwise, explored in your group?
- 4) The experimental wish list for 2015-2016 data analysis; what is needed and by when.
- 5) The phenomenology wish list for the 2015-2016 data analysis: which analysis would you like to be done?

BSM Higgs Wish-list for 2015-2016 data analysis

Combination for ATLAS/CMS wishlists

- Highest priority items:

- MSSM cross section and BR calculations at 13 TeV for both charged and neutral Higgses; this includes an extended mass range, up to ~ 2.0 TeV;
- low $\tan\beta$ scenarios and hMSSM numbers at both 8 and 13 TeV, with the 8 TeV in short timescale.
- Intermediate mass range for H^\pm : MC and cross section recipe
- Higgs p_T spectrum modeling: officially written recipe for the resummation scale and the uncertainty definition.

- Other items:

- Interference issues and BSM Higgs for $H \rightarrow ZZ/WW$ and $A/H \rightarrow tt$
- Make sure that various MC topics are followed up (e.g. the 4FS-5FS differences in charged Higgs)
- 2HDM numbers and benchmarking: formalize within the HXSWG what is the best way to present 2HDM results to the theory community
- NMSSM/Exotics/Triplets:
 - identify exotic decays of h_{125} , motivate them and if it makes sense provide some benchmarks
 - identify exotic signatures of other Higgses, e.g. in the context of the NMSSM, in the Higgs triplets models, etc and provide public tools for calculations and if it makes sense some benchmarks
 - 13 TeV cross sections for NMSSM and Higgs Triplets

YR4 - timeline

- July meeting: final or almost final results
structure of each chapter
- First draft by 1 october
- Submission to arxiv in dic 2015