

Very Brief Conclusions

- Very fruitful workshop for convergence on the writing of the report.
- A list of Action Items will be made and circulated soon.
- Focussed effort is needed in the coming weeks, make sure to either be available or let us know if you are not!
- Convergence on experimental input should occur soon for all interpretations contributions to be made in a timely fashion.
- Please do not hesitate to raise any point where you think convergence has not been reached now or by mail at your earliest convenience.
- Please keep in mind the timeline (see next slides)
- Discuss a proposal for content on the two 10-pages inputs to the European Strategy.

Timeline to Submission (I)

- **End of October:** Submission to the steering group a proposal for the key results from their WG to be highlighted in the 10-page summaries.

It is understood that only a fraction of your findings can fit here: giving good visibility to few original/unique results is better than posting a long exhaustive list. We will need to provide the figs and tables that might be needed.

- **November 16:** Good first draft of the Chapter due. The chapters need to contain all results (only updates will be possible afterwards). In particular those that will be included in the 10-pages summaries. Prior to this date the drafts have been reviewed for correctness by the working groups. After this date the drafts are open for review by other interested parties, esp. authors and convenors from other working groups.
- **December 3:** circulation to the WG conveners of the 1st draft of the two 10-page Executive Summary documents (about authorship, the proposal is these two papers to be signed by the Steering and the WG conveners).
- **December 10:** Each WG chapter is submitted.

Timeline to Version 2 and Jamboree (II)

Following the first posting, additional results will be approved by the experiments, and comments to the arXiv submissions may come. We are preparing for the possible release of an update on the arXiv. This should not be an opportunity to take an extra month: please limit new contributions to the freshly released exptl results. This update will form the basis for the final printed version of the YR.

Schedule for the update, and the final jamboree:

- **Mid January 2019:** Drafts for versions 2 of the WG chapters are provided for review by the authors and interested parties. This second and last version has fully polished text, reviewed within the WG, and it includes the studies that were not included in version 1.
- **Mid January 2019:** final versions 2 of each WG chapter replace the original arXiv submissions
- **March 1, 2019:** HL/HE-LHC Jamboree at CERN to present in public the results of the Yellow Report. This tentative date would nicely match the LHCC week scheduled in the week of February 25th, with many people around CERN for this event. We'll try to confirm ASAP.

HL-LHC ESP Summary WG2 Inputs

- **Few assumptions:**

- The length of the contribution will be of the order of 2 pages.
- A discussion of the procedure adopted for systematic uncertainties will be factorized for the general experimental systematics.
- The general EFT approach will be discussed including the Higgs results and in particular high energy probes, but in a more general contribution (will it be part or an addition to the 2 pages?)
- The number of Figures and Tables should be minimised.

- **Guidelines**

- Reflect on the targeted audience of the report and how to emphasise the main messages.
- A particular attention should be given to the emphasise the amount of data that will be available and that extensive studies aiming at utilising the complete statistics have not been carried out in full. However it should be noted that the profiling paradigm does take this into account to some extent.
- Specific numbers (e.g. statistics in very high s/b regions can be specified e.g. number of 4-leptons, stats in high pT bins in the diphoton, stats in specific ttH channels).

HL-LHC ESP Summary WG2 Inputs

- **Main themes:**

- Statement and concise discussion about the couplings with the general kappa fit (probably kappas not lambdas). Specific TH signal uncertainties discussion.
- Statement about the measurement of the width, stating all approaches with a concise description of the necessary assumptions.
- Specific discussion of the ttH with more precise numbers possibly for channels.
- Clear statement about HH and the measurement of the trilinear coupling with details about the channels and the limitations. Discuss additional inputs as the constraints from single Higgs production.
- Brief list of rare production and rare decay channels, with a discussion of the reach from indirect approaches and in particular statements about the reach of the light (including charm) Yukawa.
- BSM Higgs a discussion of the channels and a summary Figure of the direct searches and the indirect constraints.
- Specific discussion of reach in invisible Higgs decays and searches for DM (plot not included).

- **Figures:**

- The complete kappas plot with the numbers on the Figure which would avoid producing a table as well.
- The lambda likelihood (including the exclusion probability of the second minima and the number for the precision on the measurement).
- An MSSM (benchmark to be chosen) overview plot of Higgs searches and indirect constraints.
- The EFT plot for the more global discussion of the report.

HE-LHC ESP Summary WG2 Inputs

- **Main themes:**

- Focussing on the HH projections with a consolidated number on the precision on the trilinear coupling. Then a lengthy (and qualitative) discussion on the assumptions, limitations, etc... on these estimates.
- Discuss the couplings (with possibly a Figure if TH uncertainties are further decreased) to show what improvement can be expected. The focus will be in any case on discussions of the TH systematic uncertainties.
- Specific discussion of high pT bins and the reach in them, with a specific highlight on the EFT fit which will be provided.
- Have specific highlights of the ttH and rare decays with a general discussion of the reach including indirect probes through differential cross sections. Specify the reach on light and charm Yukawa couplings.
- Brief review of searches and discuss the relative impact of the higher energy on Higgs searches.

- **Figures:**

- The lambda likelihood (including the exclusion probability of the second minima and the number for the precision on the measurement).
- The complete kappas plot with the numbers on the Figure which would avoid producing a table as well.
- The EFT fit for the more global discussion of the report (with emphasis on high pT bins).