

Goals and targets of the EFT WG

Coordinate **benchmark studies** for SMEFT analyses: theory calculations, datasets, treatment of exp and th errors, comparison of fit results from different groups.

comparison of fit results only meaningful when consistent assumptions are used e.g. for operator definitions, SM inputs, ... Currently results of EFT fits seldom compared among them!

Provide **recommendations** for the presentation of LHC results towards optimising their usefulness and impact in EFT fits

can we quantify which observables / distributions are more constraining for EFT fits? can we develop / apply methods to quantify impact of data without actually carrying out a full fit? Make sure all info on correlations is available? How to best exploit detector-level info?

Define theory and methodological **standards** for global SMEFT fits

what should be part of the uncertainties? Treatment of theory errors? How we estimate impact of methodological choices? Standard format to deliver results eg likelihood in EFT space?

Maximise usefulness of EFT results for the **general HEP community**

suggest/implement well-motivated model scenarios, provide tools for the matching with UV-complete theories, compare with bounds from direct BSM searches,

benchmarking is hard and painful, but really essential if we believe that SMEFT global analyses should be integral part of the LHC precision physics program

Operation mode of the EFT WG

Define working groups focusing in different aspects of EFT analyses (together exp+th)

theory calculations, tools, fitting, interpretation, ...

Regular meetings with specific assignments and exercises e.g. benchmark comparisons)

talks should be focused on specific tasks, rather than people just selling their own work

Communication channels that minimise email traffic (eg Slack, Teams, Mattermost)

much better to discuss and iterate on fine details in a way that everyone can follow it

need to define a prioritised list of goals for this new WG: what is its ultimate aim? What do experimentalists expect from theorist and vice versa? What are the timescales involved? EFT efforts will be a crucial part of the LHC program for the next two decades, so we have time to carry out a proper job!