

Heavy Higgs status update

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EXO Meeting
August 14, 2020

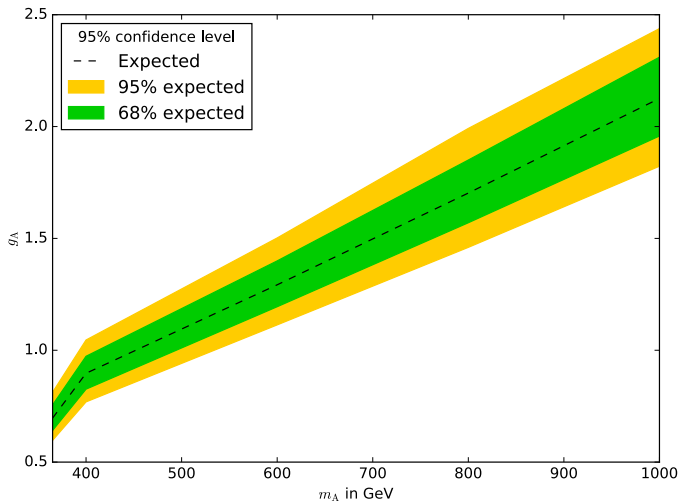


Status for heavy Higgs

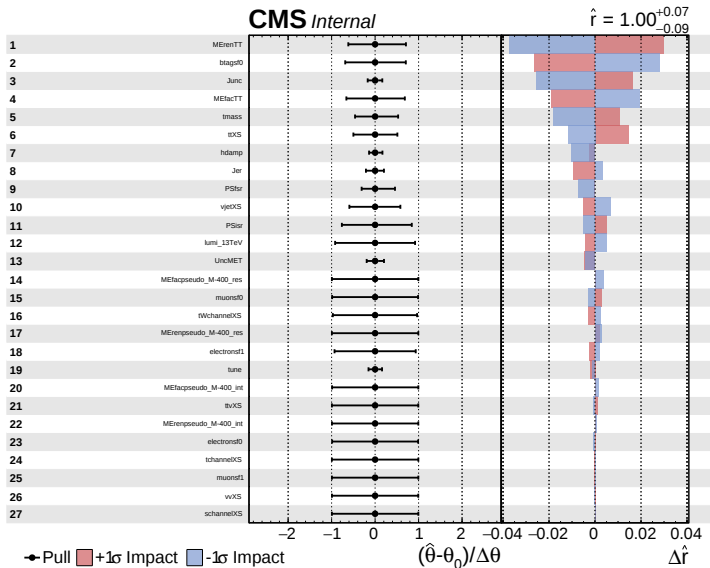
- 2017 private Monte Carlo done in the next few days
- PDF uncertainties: NanoAOD has PDF4LHC15_nnlo_30_pdfas, we probably want Hessians
- Have to decide on: Top p_T -reweighting, Pileup reweighting
- How do we handle trigger efficiencies?
- Afik noticed an inconsistency in heavy Higgs NanoAODs

First look at expected limits in 2018

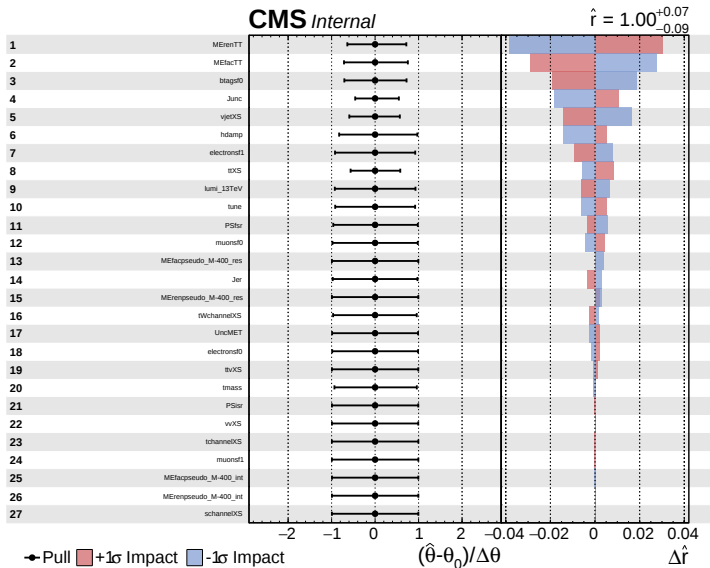
Natural width, smoothed templates



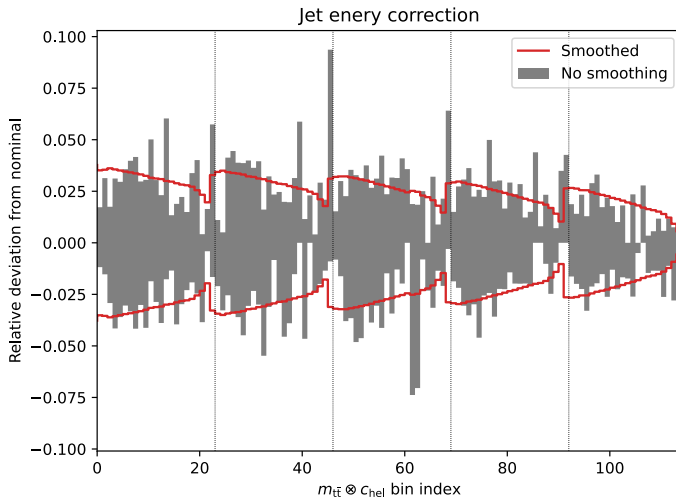
Impact plot without smoothing



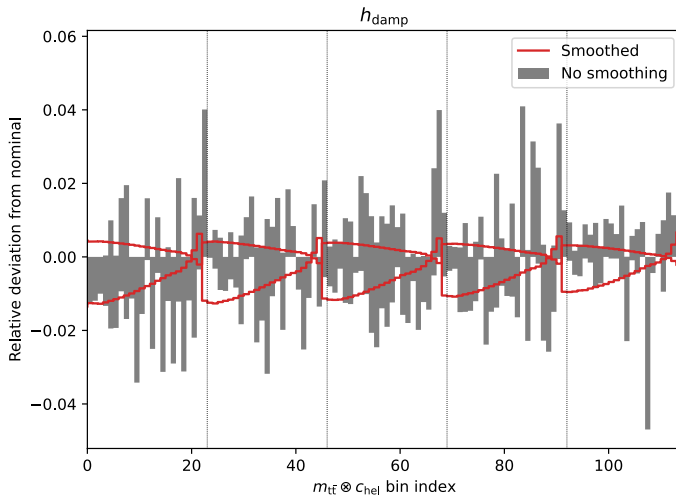
Impact plot with smoothing



Template smoothing



Template smoothing



Results of smoothing will (hopefully) improve when optimal bandwidths are found

Thank you