Heavy Higgs things

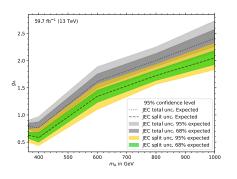
Jonas Rübenach EXO Meeting October 16, 2020

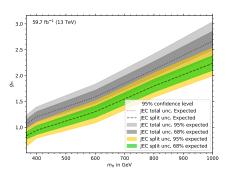




Limits from different JEC splittings

• Uncertainty from JEC either in one as total or in subsources

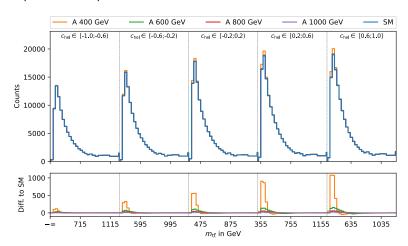




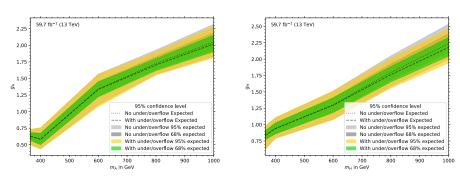
Somehow large improvements due to JEC splitting?

Overflow bins

- · Ignored overflow bins so far
- Now produced templates with overflow bins

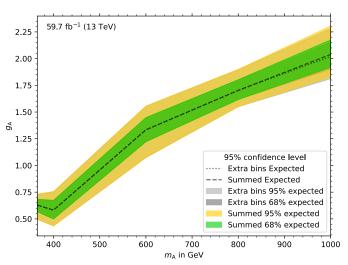


Limits with overflow bins



Small but visible improvement from including overflow bins

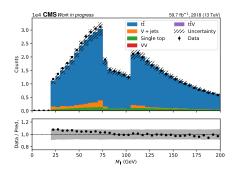
Limits with overflow bins summed to outer bins



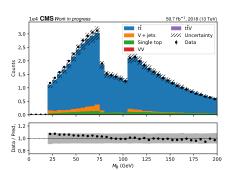
Using (N)NLO cross sections

- Already using (N)NLO cross section for most processes
- Updated from LO: WW, ZZ, WZ, TTZ

Before

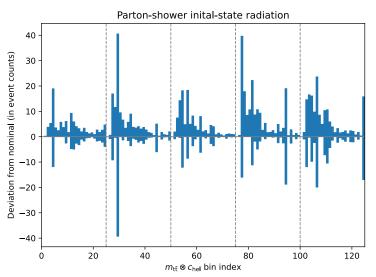


New cross section values



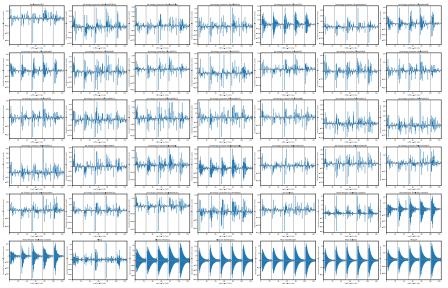
· Almost no difference visible, as expected

Does ISR need smoothing?

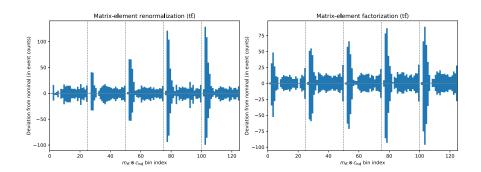


Maybe.

All the uncertainty shapes (1/2)



All the uncertainty shapes (2/2)



Thank you