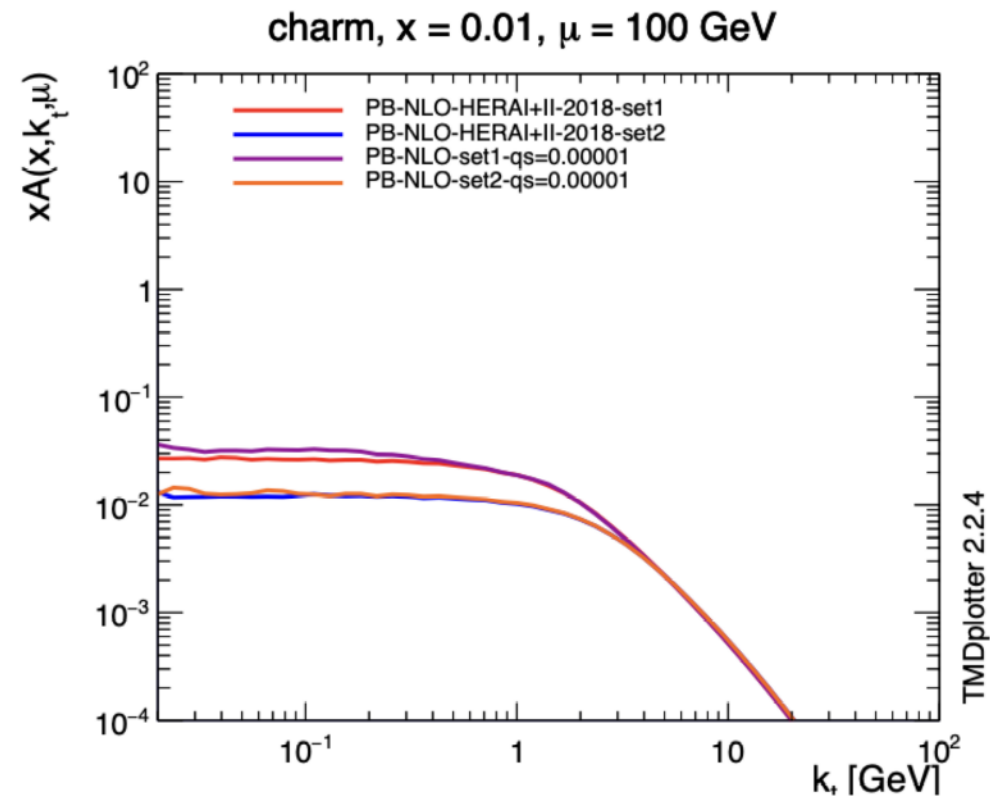
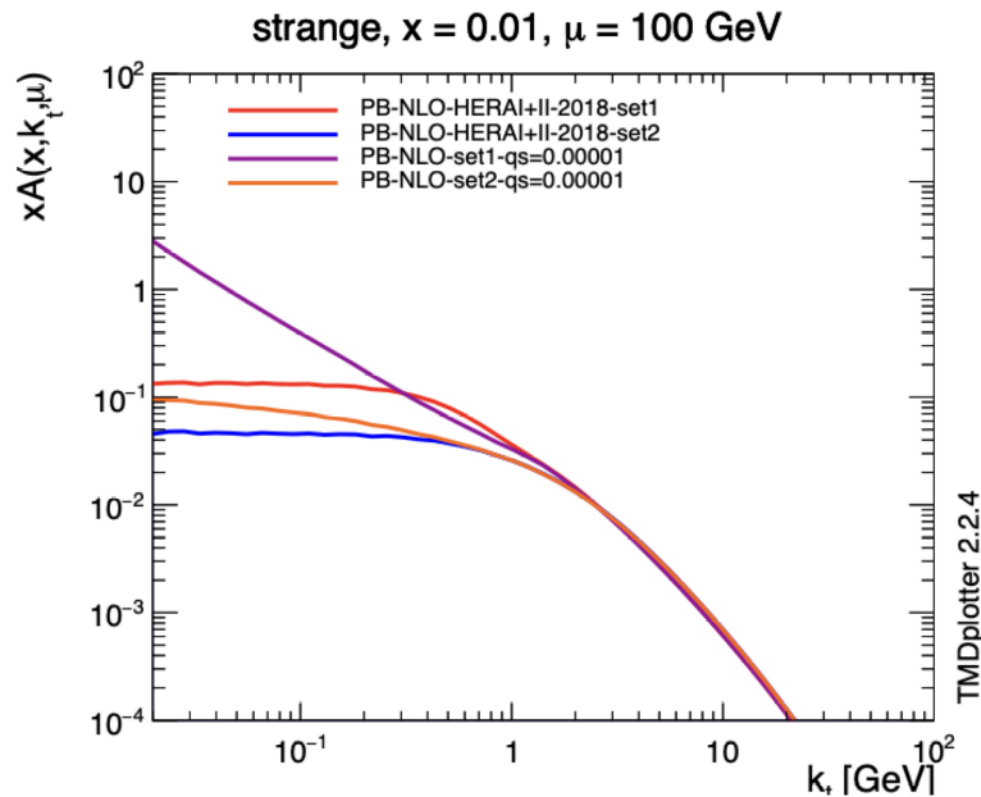
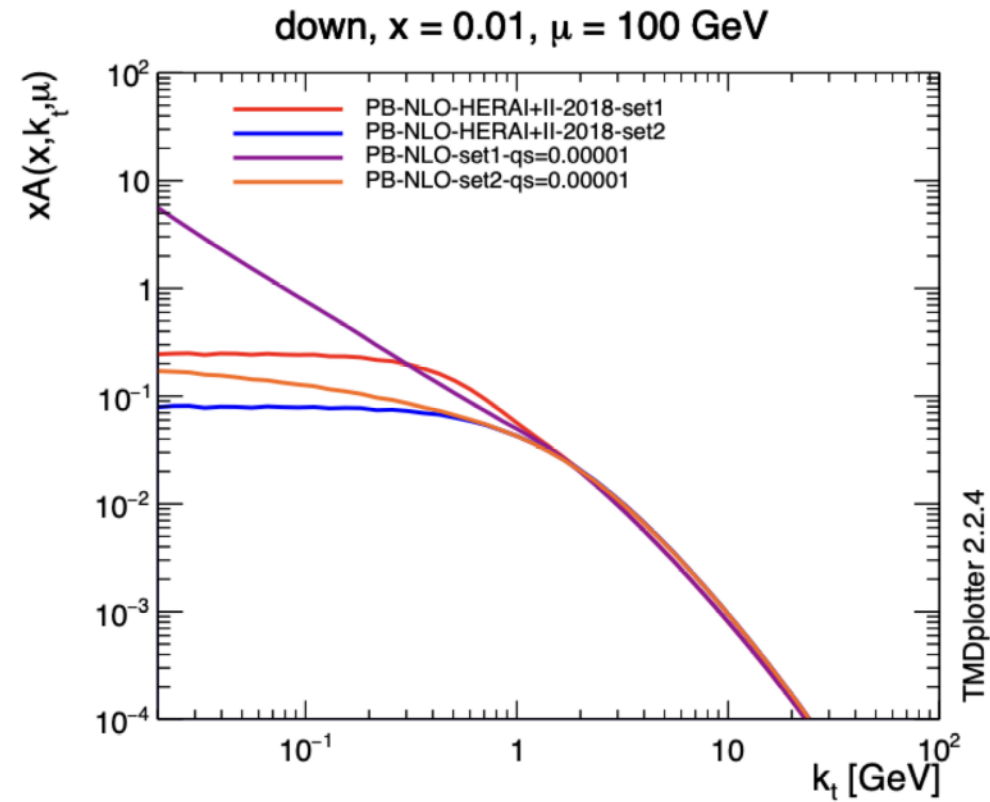
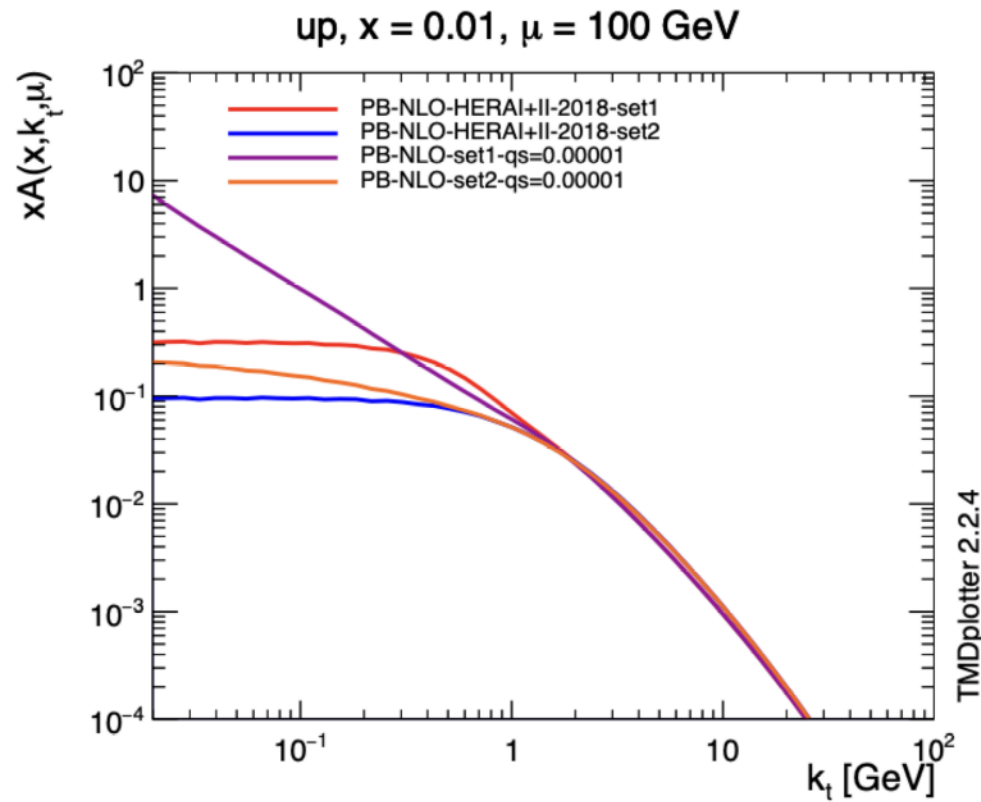


Article: intrinsic k_T with Parton Branching

Itana, Natasa, Sara, Fernando Laurent, Hannes

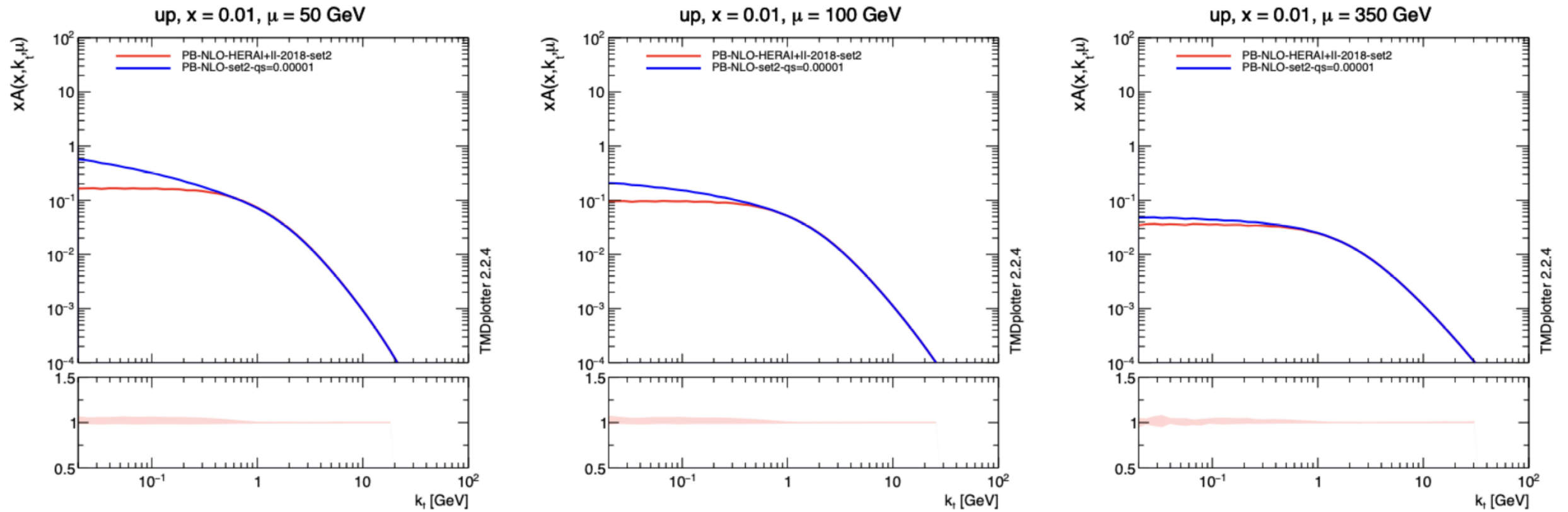
(see [talk](#) by Itana at REF2022)

Effect of intrinsic k_T distribution



- Effect of no-intrinsic k_t
- only at very small k_t
- no effect for heavy flavors

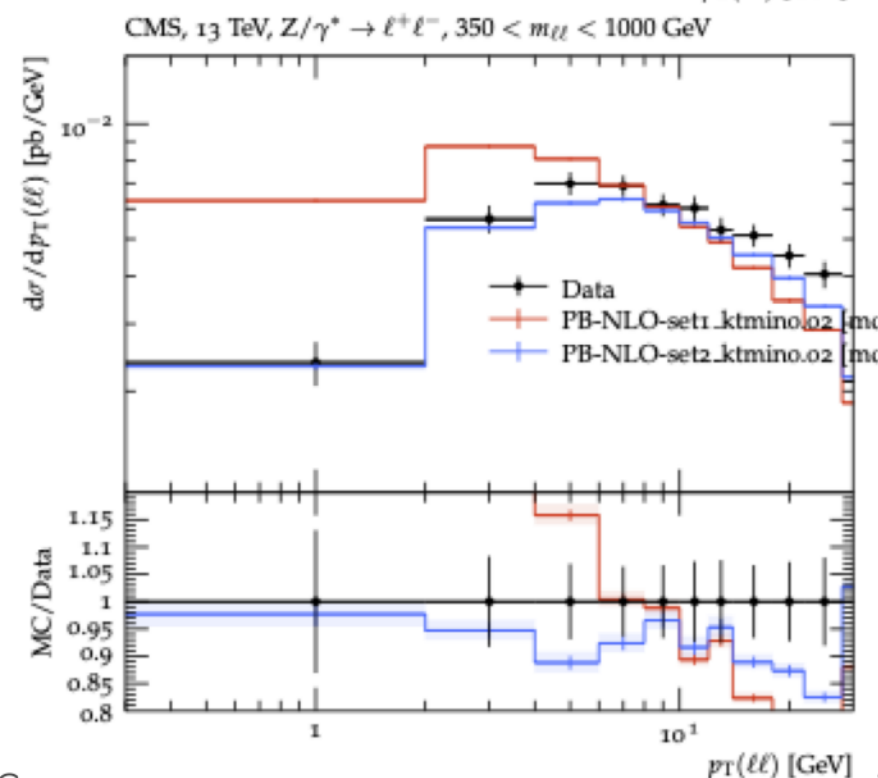
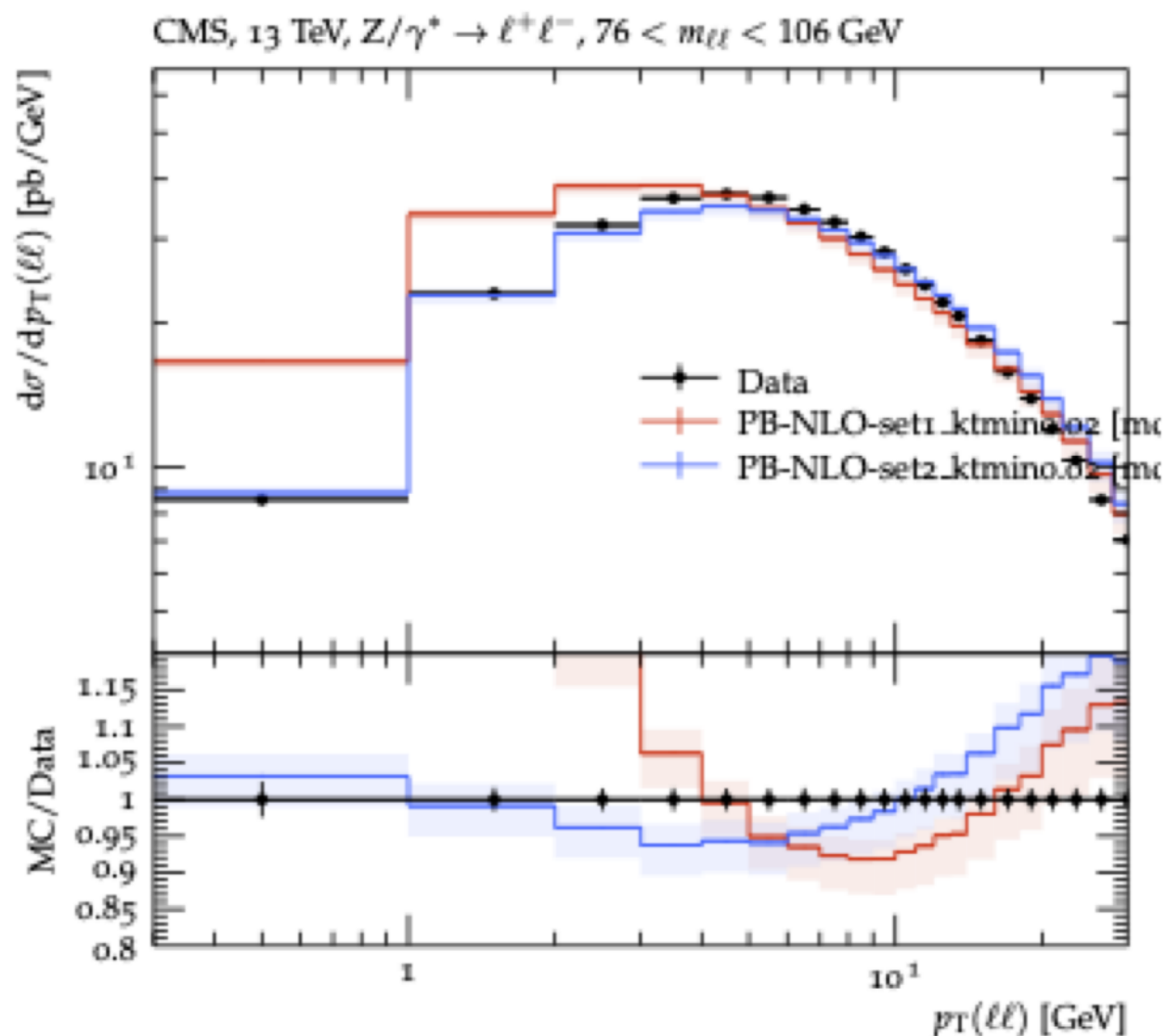
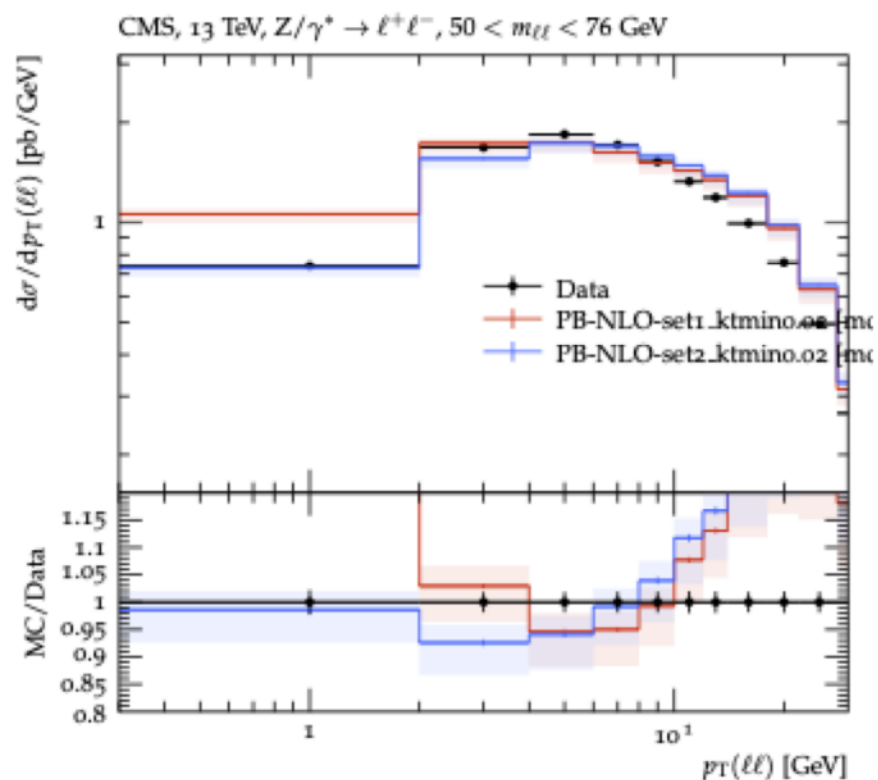
Effect of intrinsic k_t vrs scale



- Effect of intrinsic k_t decreases with increasing scale (or mass of DY)

Are DY measurements sensitive to intrinsic k_T ?

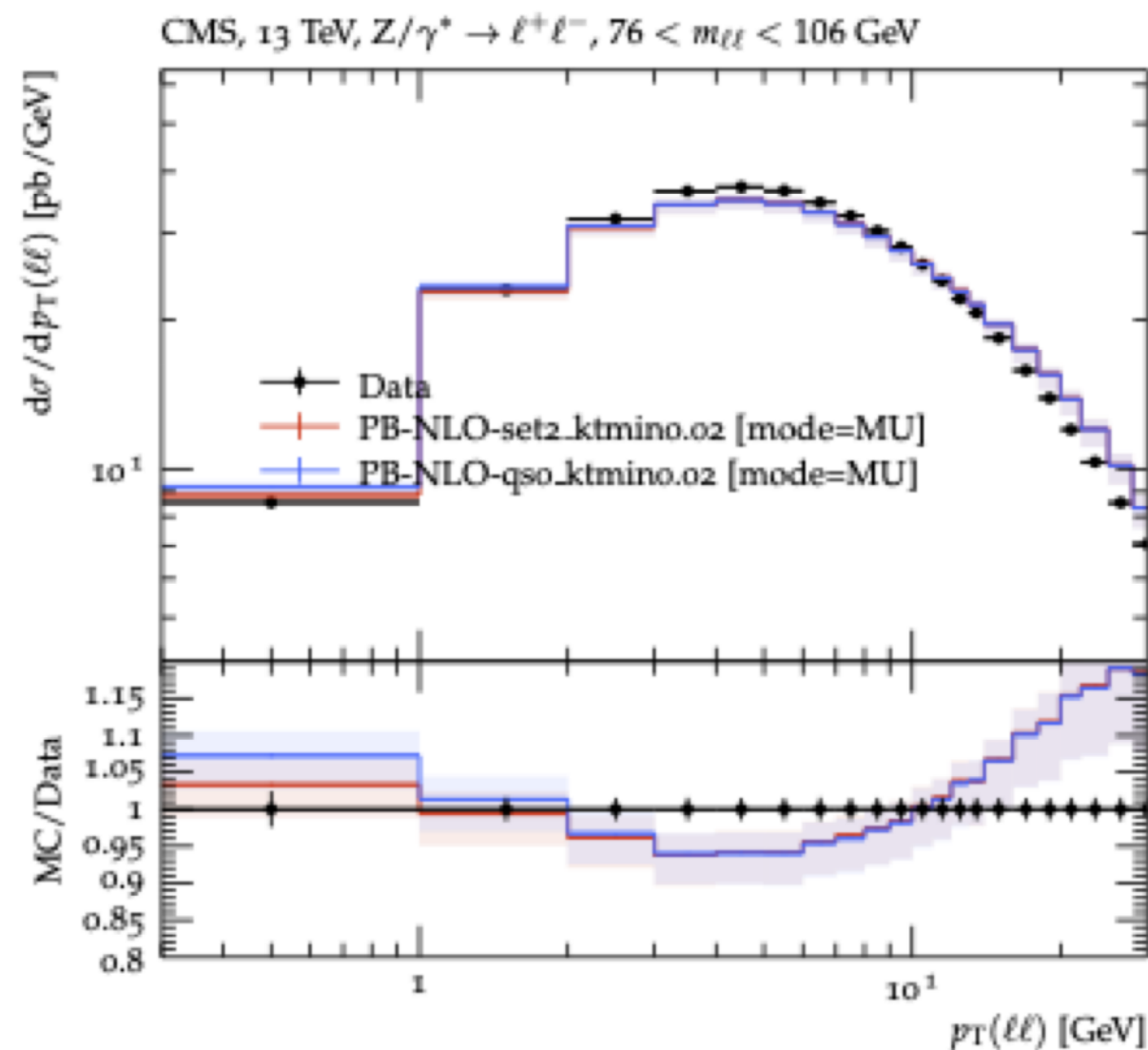
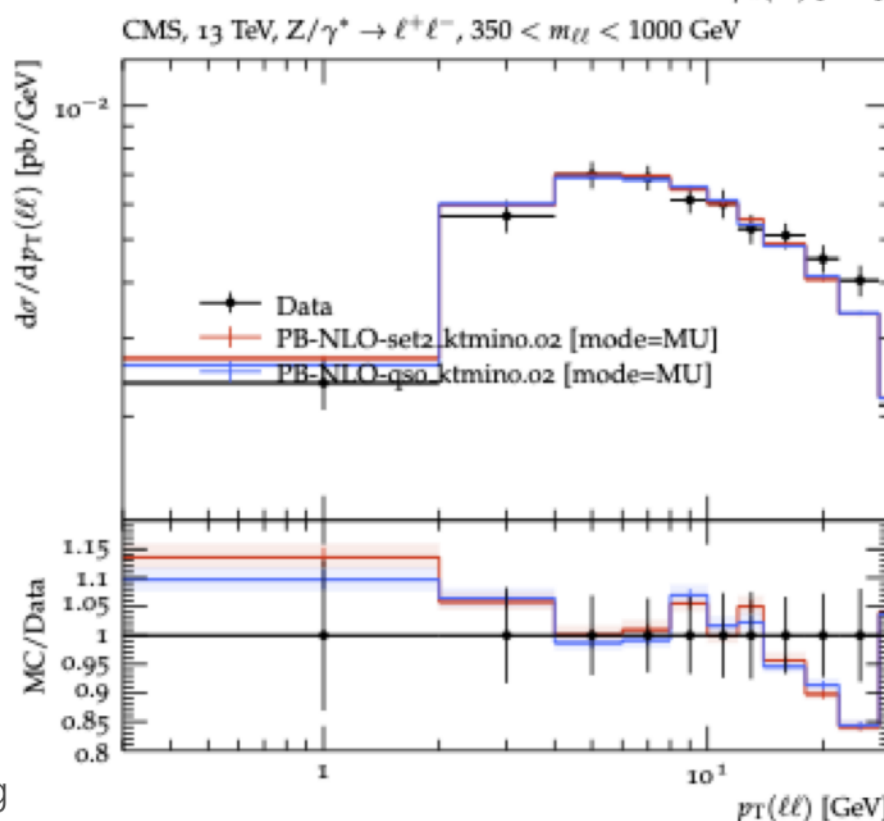
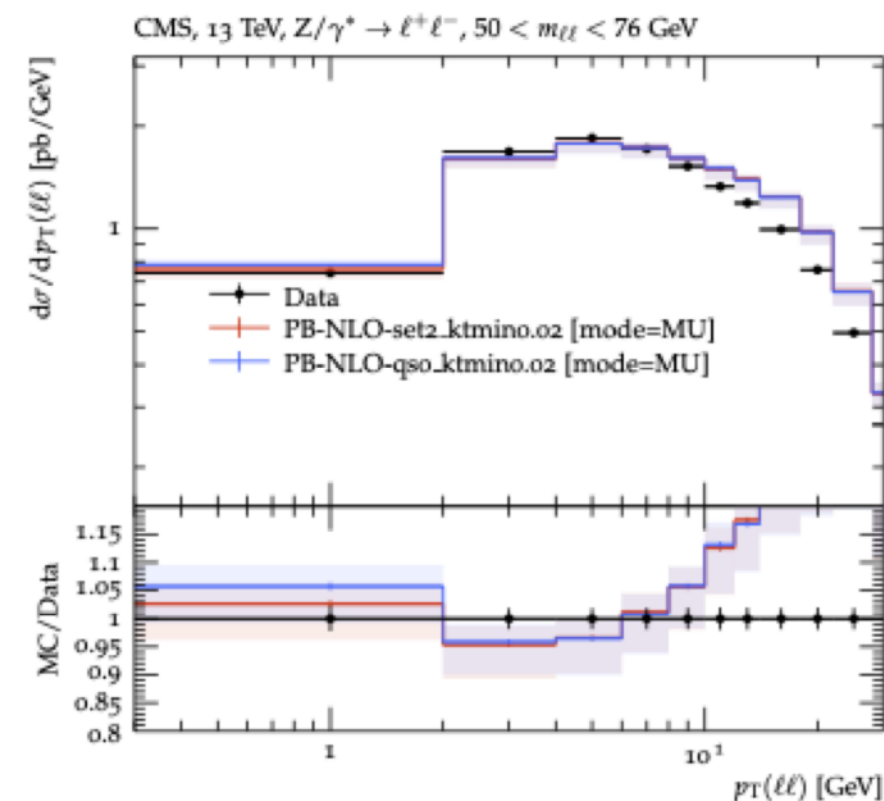
- Investigate differences of PB-set 1 and PB-set 2



- Set 1 produces a very different q_T distribution

Are DY measurements sensitive to intrinsic k_T ?

- Investigate differences PB-set 2 with and w/o intrinsic k_T



- hardly any difference observable, all within uncertainties

Consistency of intrinsic k_t

- Check DY q_t distributions with LHC at different $\sqrt{s}$
- Check DY q_t distributions with different targets: pA
- Conclusion:
 - with $z_M \rightarrow 1$, effect on intrinsic k_t is negligible, predictions are rather stable