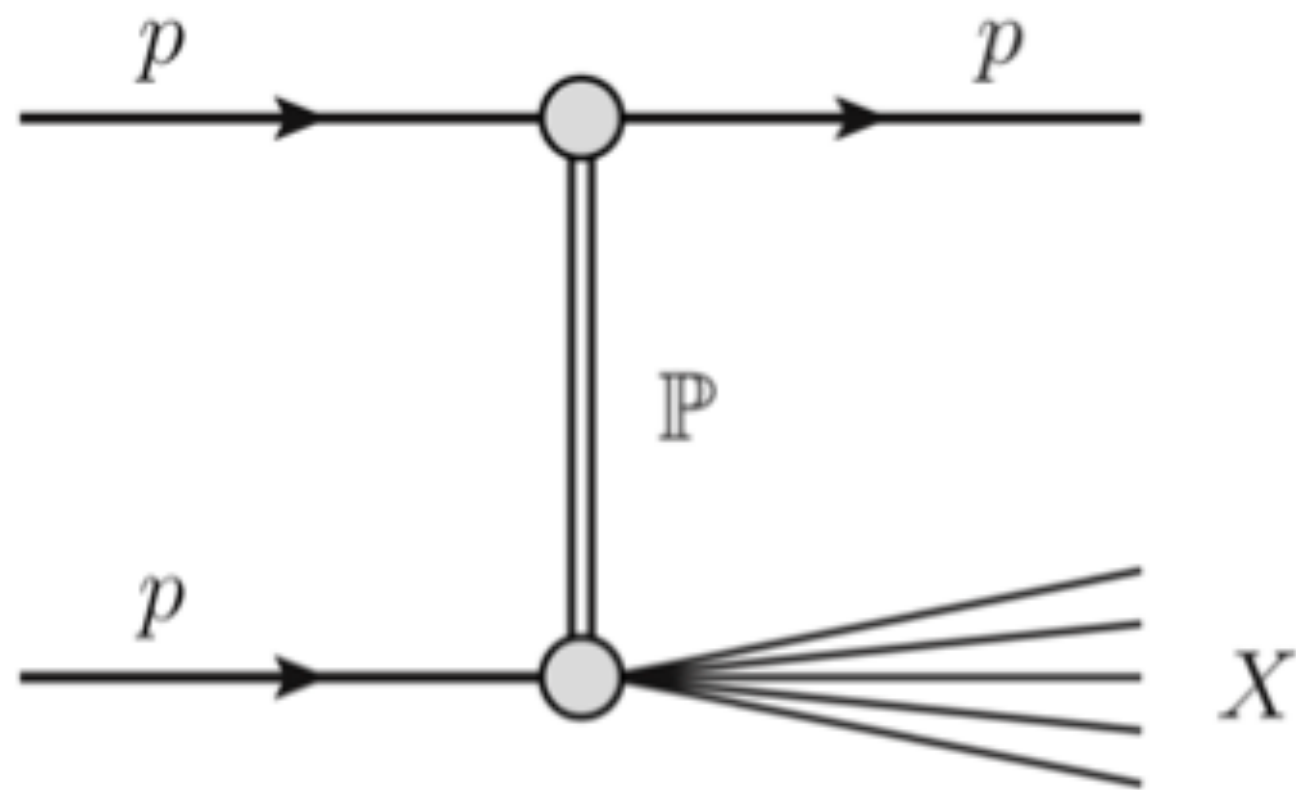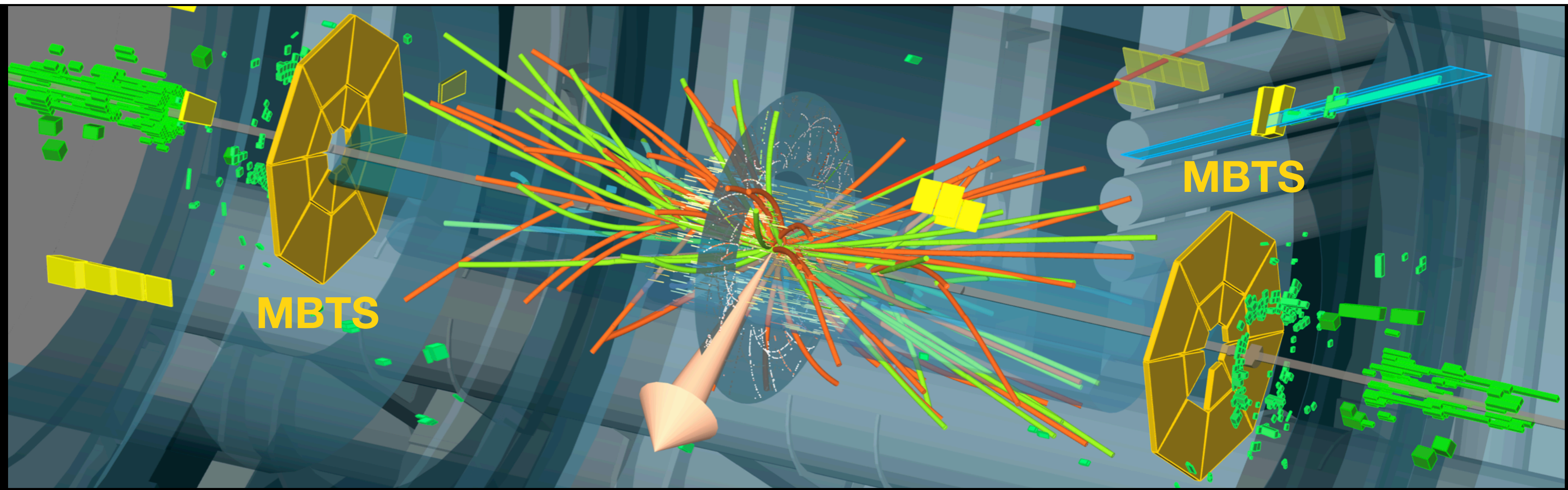# Run 3 Minbias

Use low pile-up run, trigger on MBTS, measure track distributions
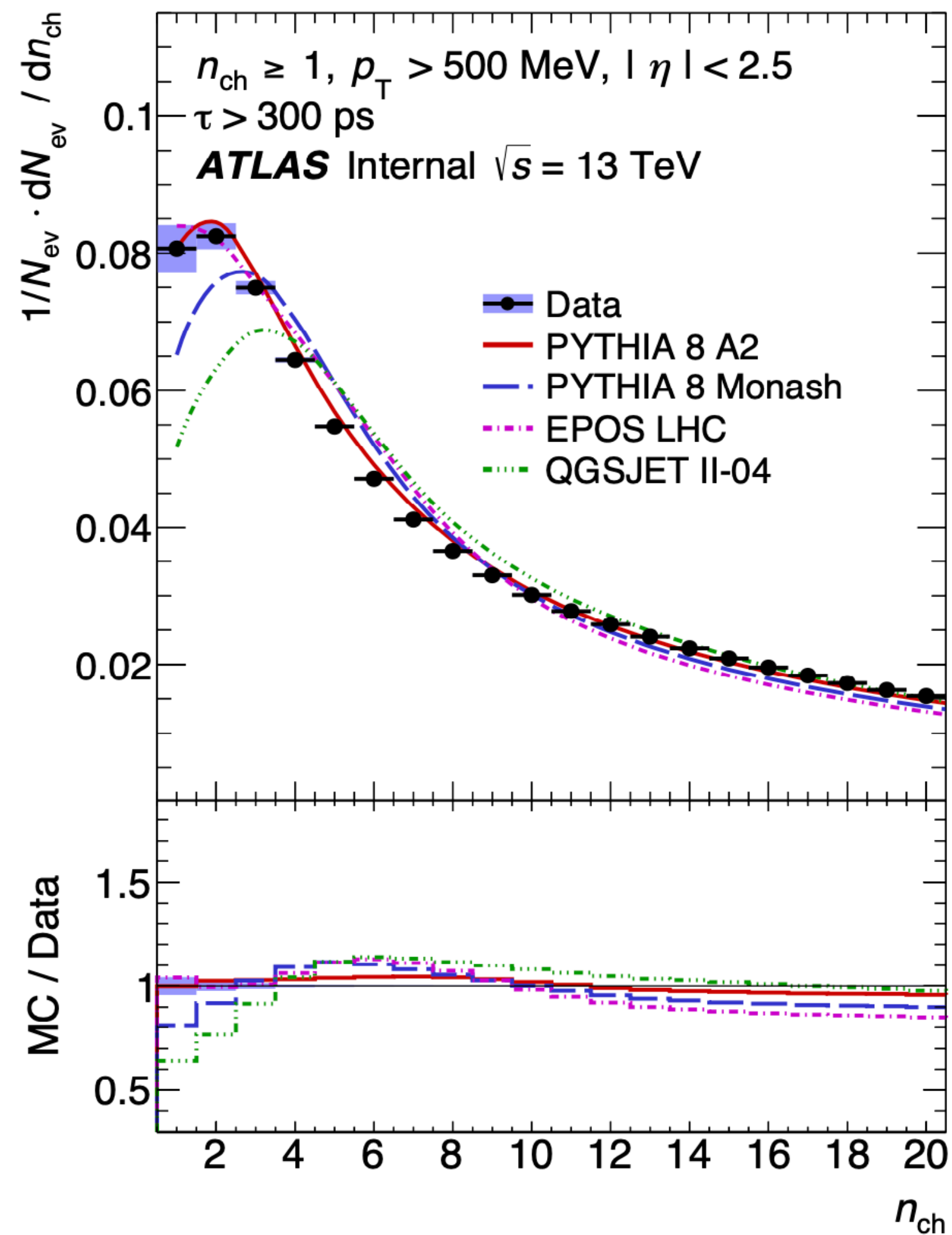
Example of minimum bias process: Single diffraction
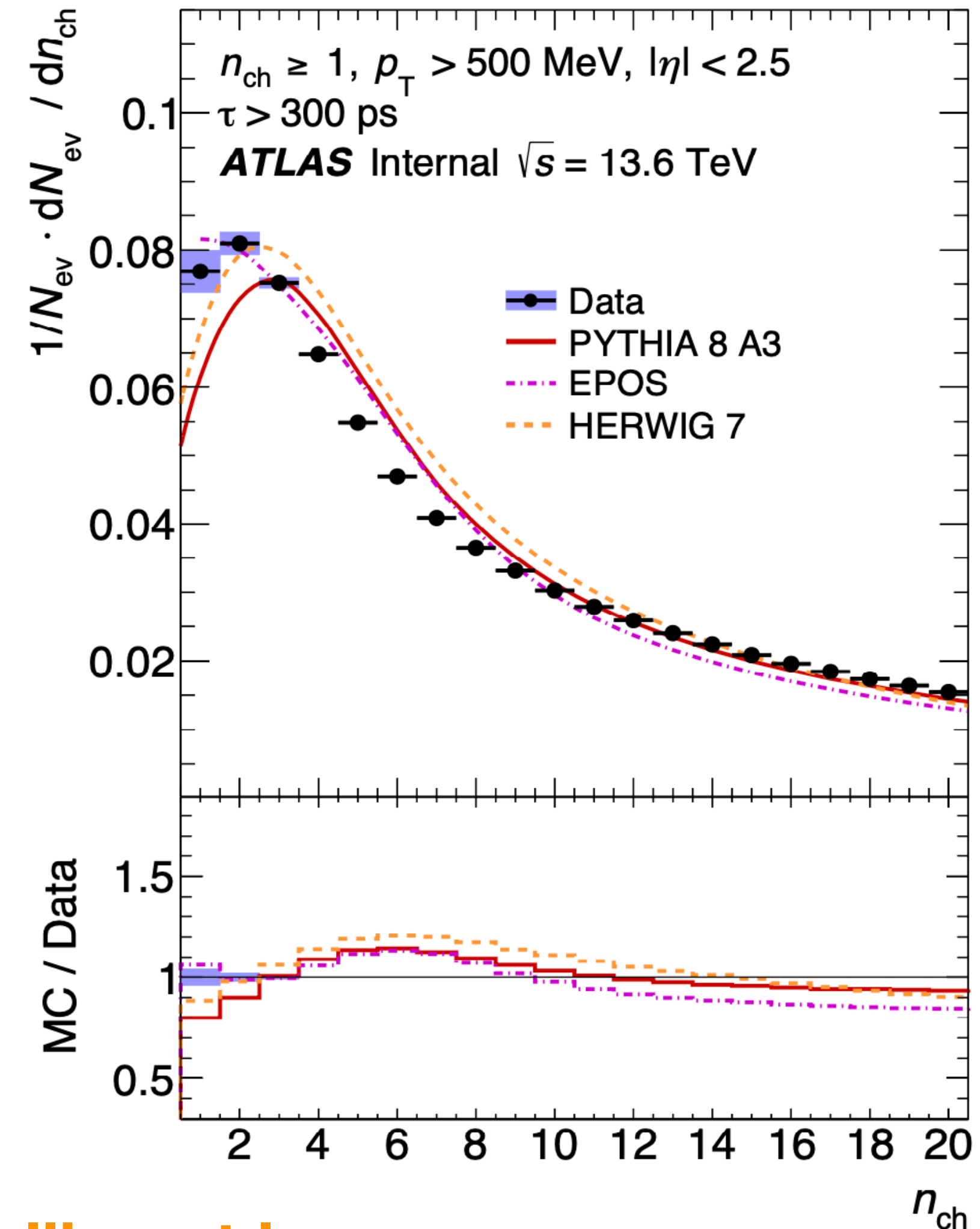
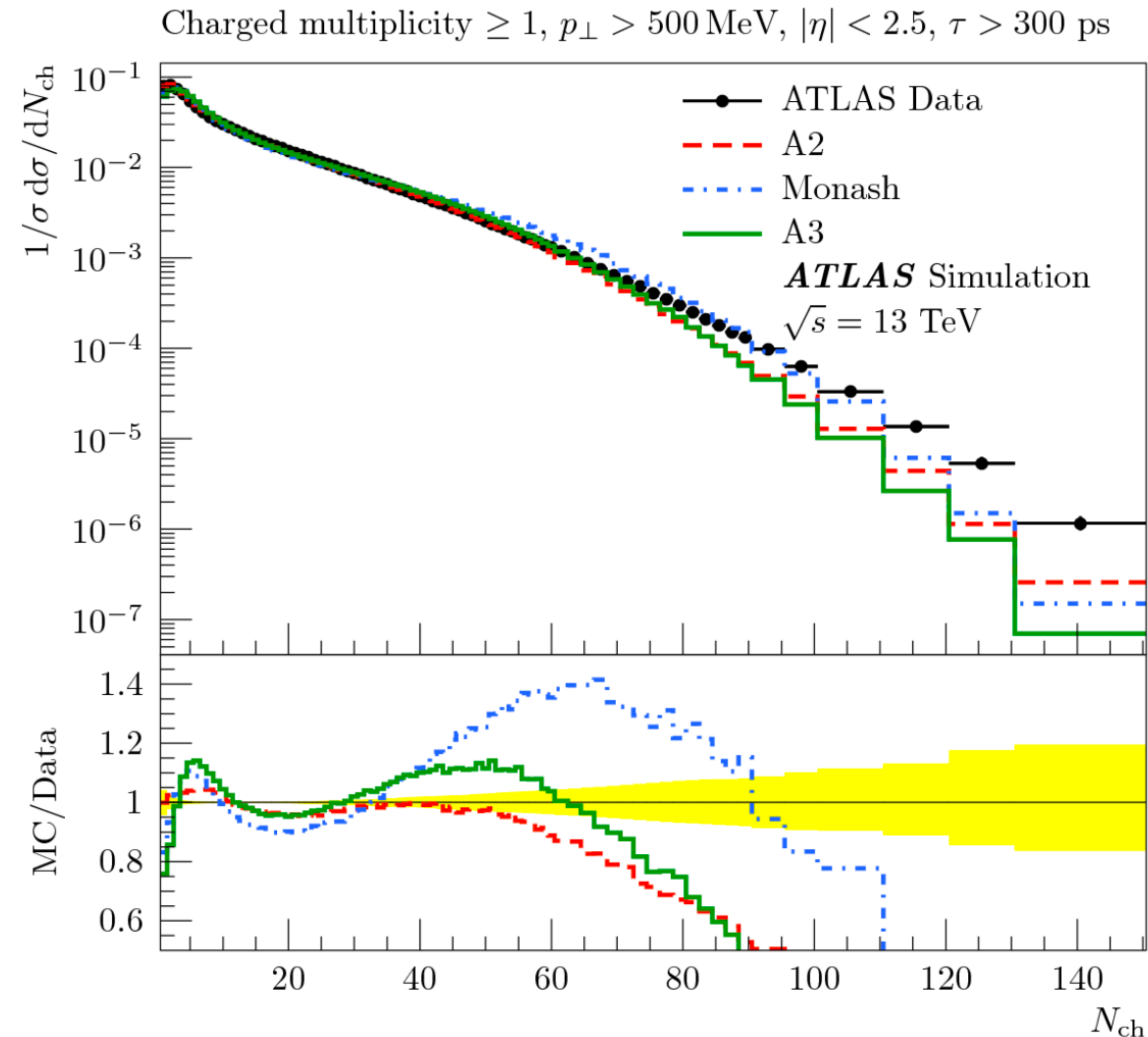# Number of charged particles

Run 2

Run 3

Pythia 8 A3 mis-modelling at low n_{ch}

→ Follow up if low n_{ch} was included in Pythia 8 A3 tuning or not?

Number of charged particles

From https://cds.cern.ch/record/2206965 Pythia 8 A3 undershooting data at low nch

Charged multiplicity ≥ 1, $p_\perp > 500\,\mathrm{MeV}$, $|\eta| < 2.5$, $\tau > 300\,\mathrm{ps}$

Indeed, A3 should have a different cross-section, as we tuned it using the ATLAS inelastic cross-section measurement to better model pileup!