MPI@LHC2014

UE/DPI Discussion Items (Experimental)

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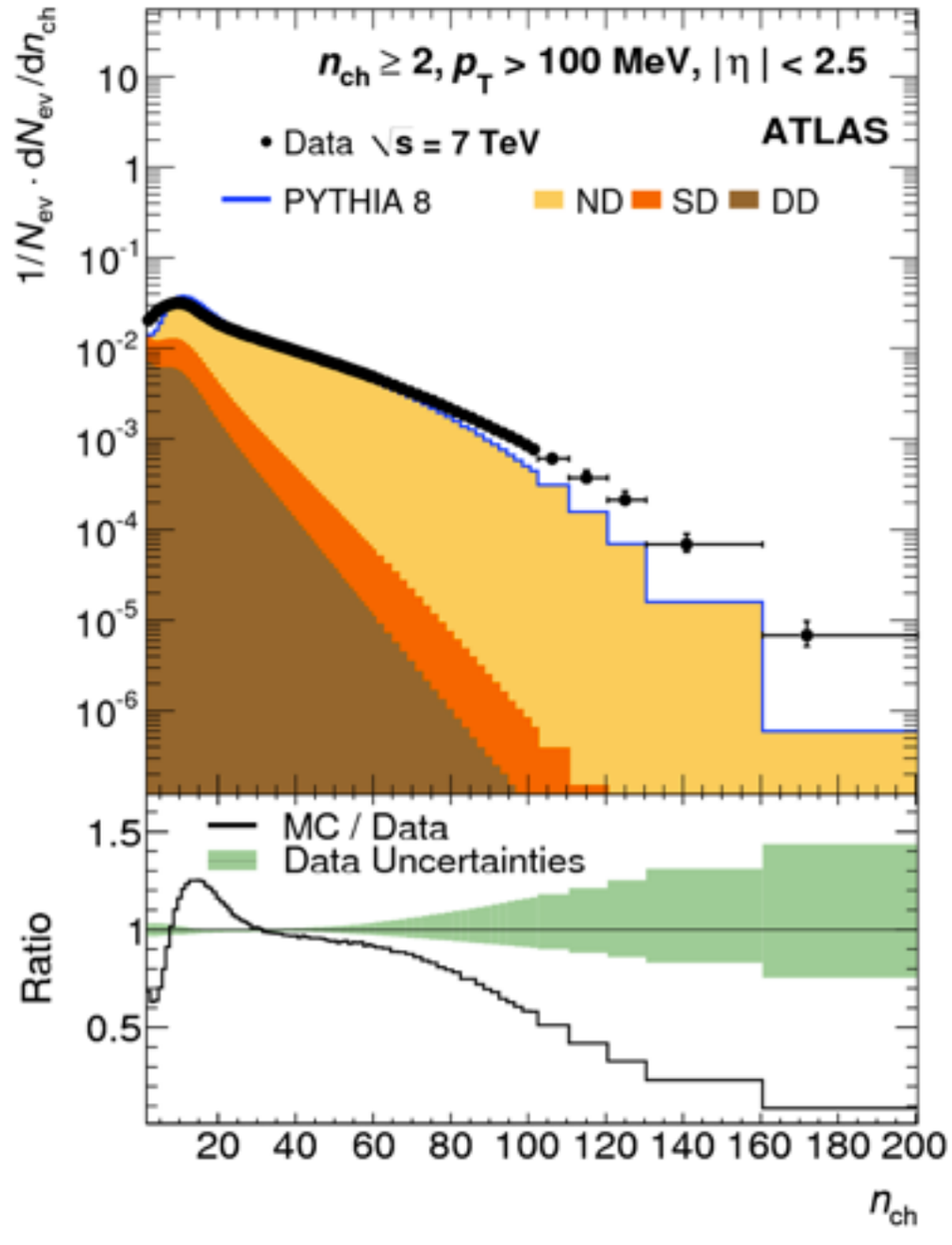
Common Measurement Aspects: UE/MB (Motivated by LPCC MB&UE WG)

- Same phase space for early MB/UE: p_T > 500 GeV, |eta| < 2.5. Is 400 GeV possible/useful?
- Phase space cut to suppress diffraction? (N_{chg}> 5, 10?)
- Compare to one same tune (Monash?) What about CR generators i.e QGSJET-II, EPOS 3.1 etc?
- Definition of energy flow observable (CMS measures E, ATLAS E_T, LHCb lightly different event selection.)
- Unfolded data, with least model dependent correction, no extrapolation to unmeasurable phase space must be available publicly.



Measuring multiplicity with events which have forward gap < 3 to get rid of SD/DD?

Open Issues and New Ideas

- Common UE+DPS tune (Paolo's talk). How? Is that possible?
- Model independent way of measuring DPS? (with less systematic uncertainty), also sync-ing the strategy between the experiments?
- Discriminating MPI by using first moment of of jet m_j distribution and pT distribution for events with low p_T Z (Wouter, Federico)
- Testing rescattering experimentally? (Torbjorn)
- How to find observables sensitive to colour reconnection, specially in ttbar events? (Mark's first talk)
- Advantage of LHCf+ATLAS data to measure double pions requiring low (Antoni)/high (Mark) multiplicity?
- Disentangle between CR and hydro-flow effects (Tangui)?