

Beam remnant's colour structure and colour reconnections

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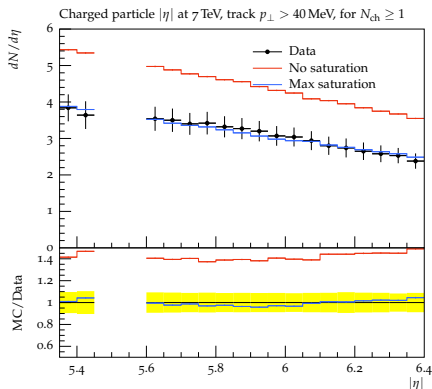
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Colour structure of the beam remnant

Overall theme is to add the minimum beam remnant to fulfill all conservation laws

- Find colour configuration of scattered partons:
 - ▶ uncorrelated MPIs gives $8 \otimes 3 \otimes \bar{3} \otimes \dots$
 - ▶ Saturation needs to be considered
- Add minimum beam remnant to conserve flavour
- Add minimum number of gluons to conserve colour
- Form colour connections randomly
- Add primordial k_{\perp} and longitudinal momentum



Colour reconnection

- Motivation:

- ▶ Problem describing Baryon production at LHC
- ▶ p_{\perp} spectrum of identified hadrons
- ▶ Try to understand colour reconnection effects in top decays

- Model:

- ▶ Minimize string length (λ -measure)
- ▶ Allow junction structure - what is the right λ -measure for these?
- ▶ Colour consideration:
 - ★ $3 \otimes \bar{3} = 8 \oplus 1$
 - ★ $3 \otimes 3 = 6 \oplus \bar{3}$
- ▶ Take spatial/time separation into account in the λ -measure

