

Massive flavours in Sherpa

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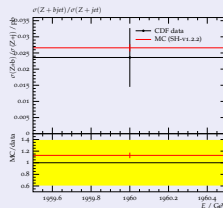
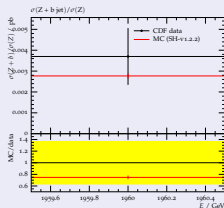
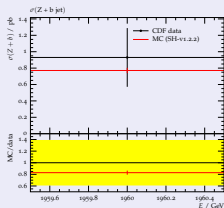
Sherpa's setup

- Sherpa with multijet merging: typically, b 's treated as massless partons in both ME and PS (but gain a mass in the transition to hadrons).
- Following V +jets at CERN in March, Steffen Schumann started to study b -sensitive observables.
- Upshot: Massless b 's not very good.
- Out of the box: Treat b 's as massive in ME and PS (including massive b 's in the initial state - leads to "mismatch" w.r.t. PDF-treatment).
- Results below for $Q_{\text{cut}} = 30$ GeV.
- Can think of more elaborate constructions.

Results

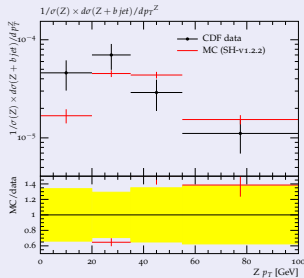
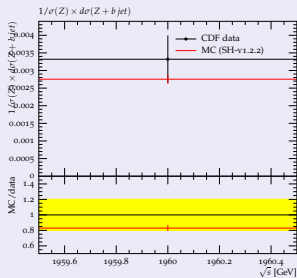
Cross section ratios

Data from CDF, 2006

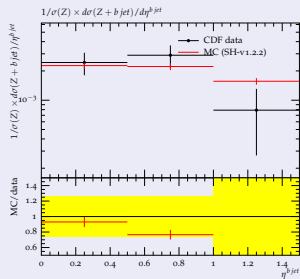
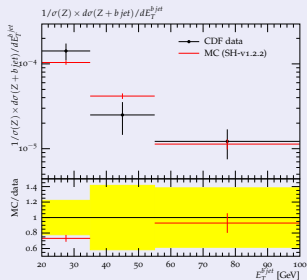


Cross section and p_{\perp}^Z

Data from CDF, 2008



E_T^b and η^b



Jet multiplicities

