

Fig. 20: D^0 -jet raw signal extraction in pp collisions at $\sqrt{s} = 7$ TeV for $p_{T,D} > 3$ GeV/c with the side band method. Efficiency correction is applied.

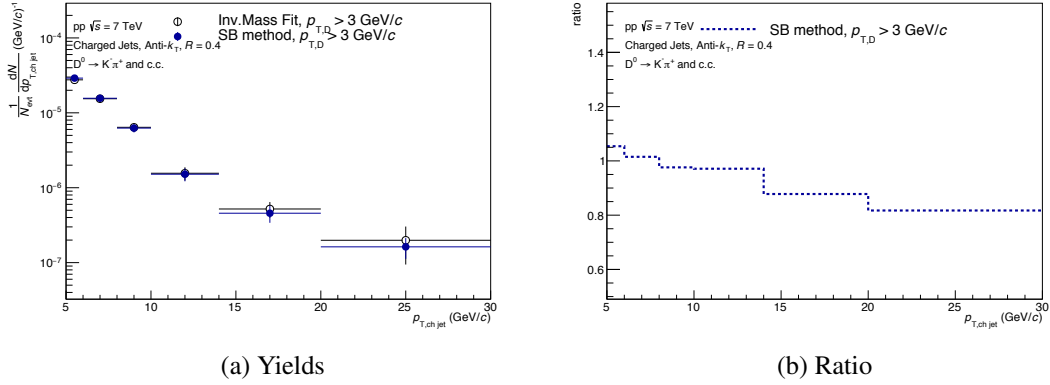


Fig. 21: Comparison of the yields obtained using the invariant mass fit method and the side band method for D^0 -jets ($p_{T,D} > 3$ GeV/c) in pp collisions at $\sqrt{s} = 7$ TeV. Reconstruction efficiency correction is applied in both cases.

11 Systematic Uncertainties

The main sources of systematic uncertainties are:

- Raw yield extraction
- B feed-down
- Unfolding
- D-meson selection cuts

11.1 Raw Yield Extraction

The assessment of the raw yield extraction uncertainties is almost complete for the $D^{*\pm}$ -jet analysis in p-Pb collisions. Plots will be added soon.

For the pp analysis it will be completed in about 1 week.

11.2 B Feed-Down Correction

We are currently running several independent simulation with different choices for the quark mass m_b , the factorization scale factor μ_F , the renormalization scale factor μ_S and the Parton Distribution Functions