Charm hadron spectra in AuAu 200 GeV

Feb 23st, 2019

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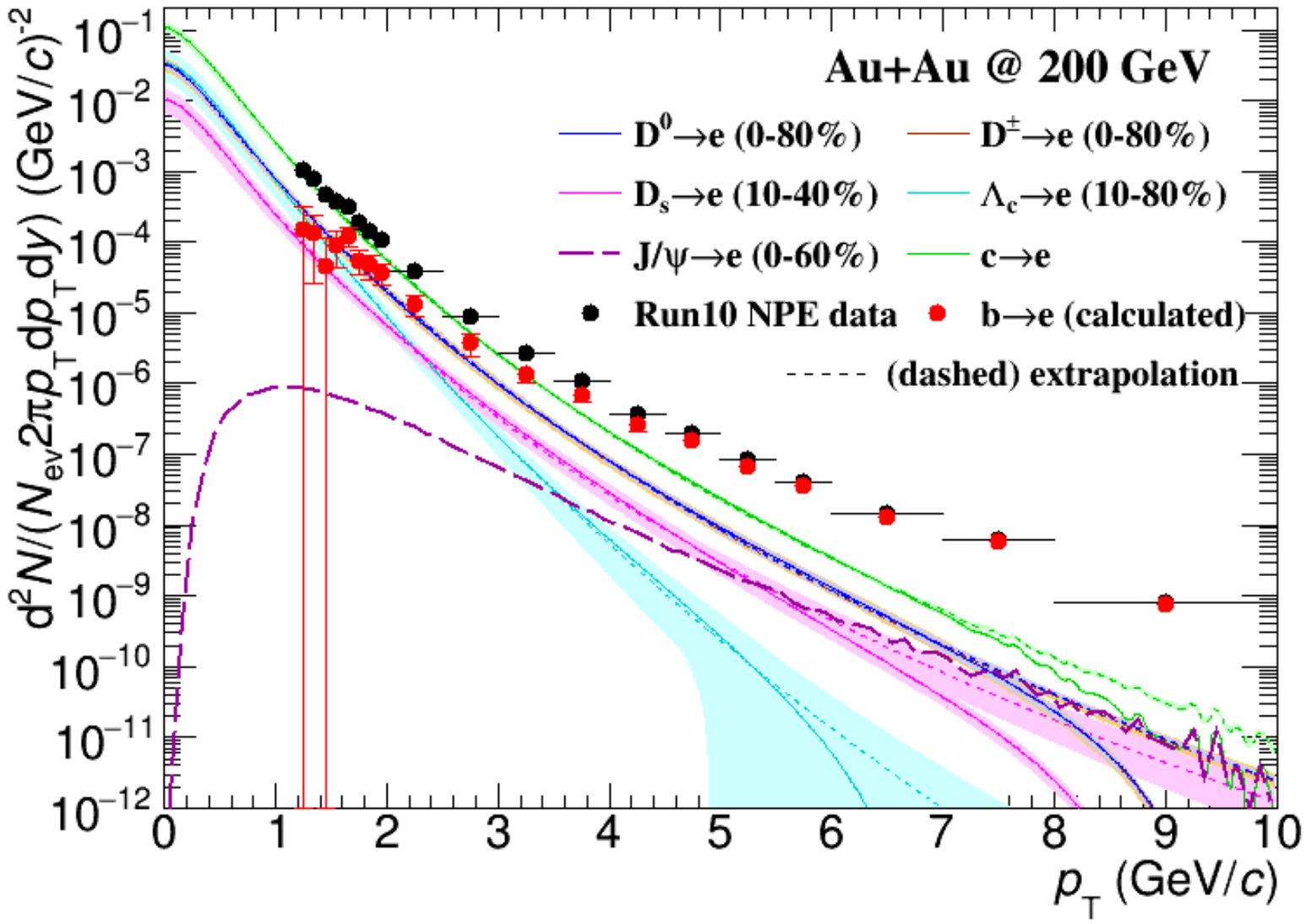
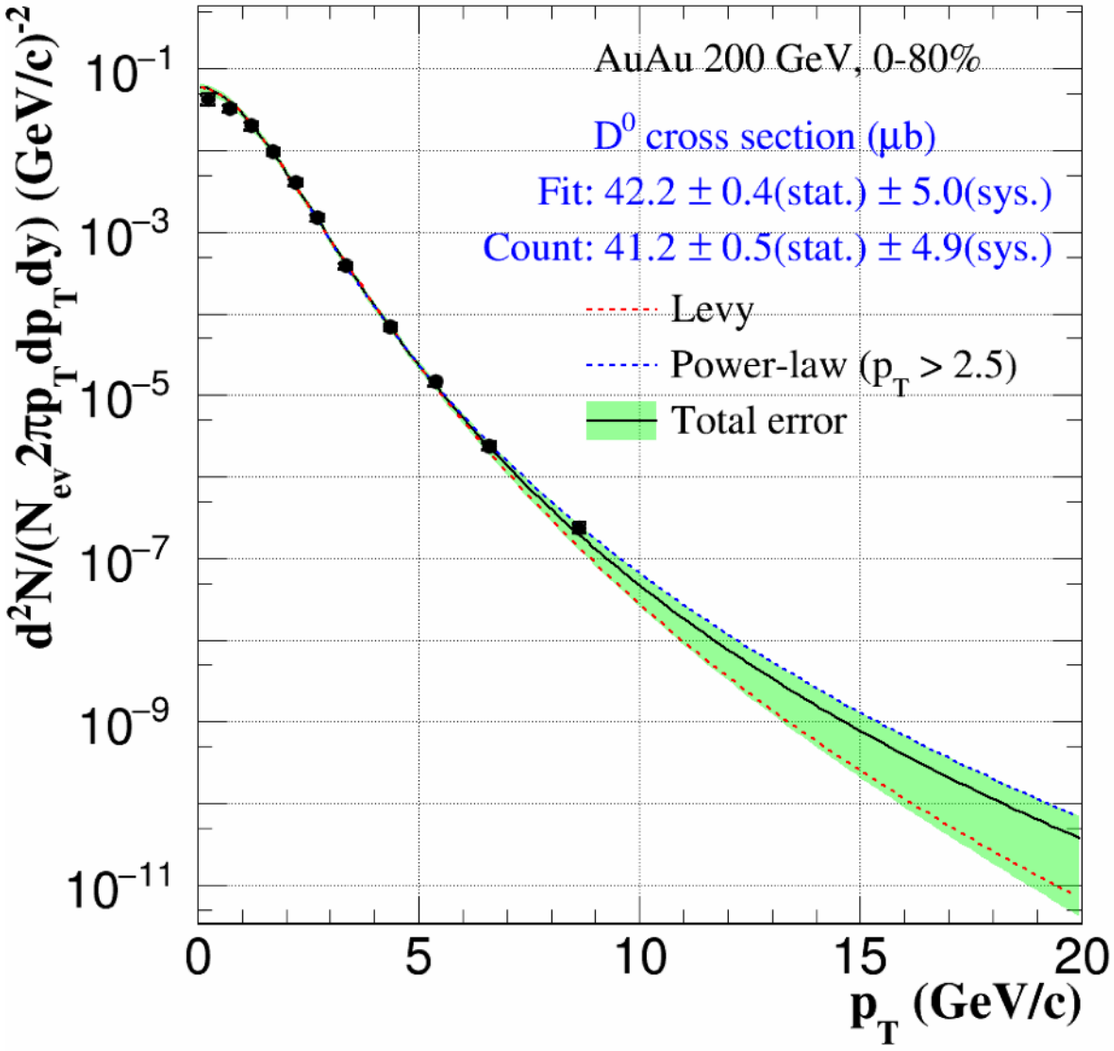
Fraction of b/c hadron -> e



- For open charm hadron -> npe, the main contribution comes from D^0/D^+ -> e at p_T > 3 GeV/c

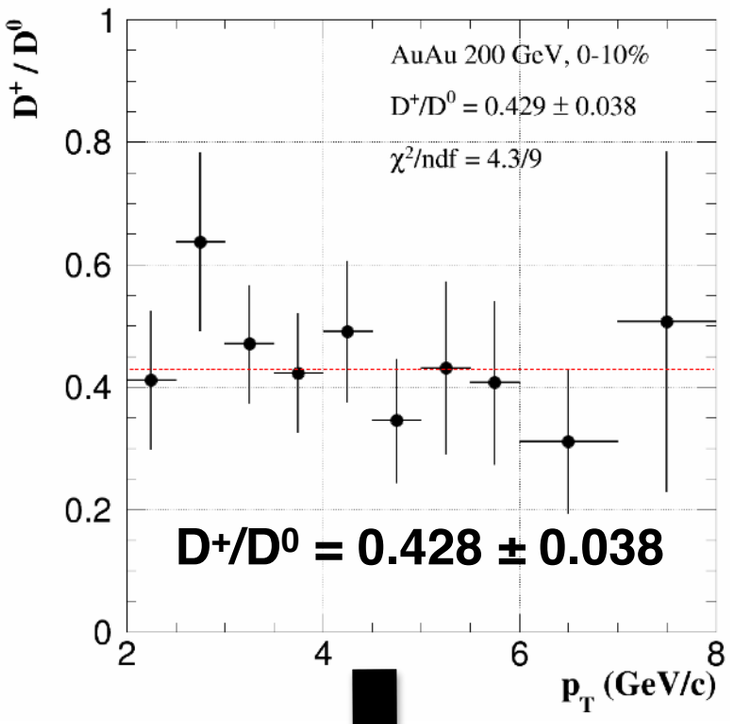
D0 pT extrapolated to 20 GeV



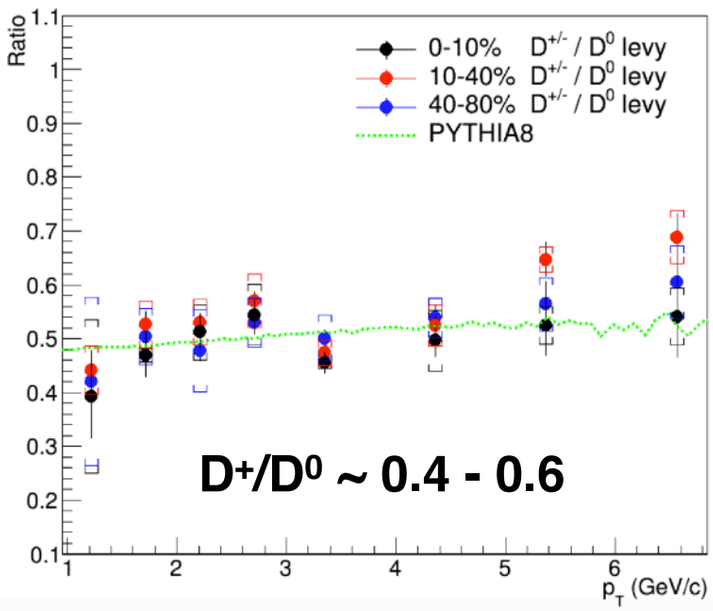
- Error estimation include three parts
  - 1σ error from Levy fit (extrapolated to 20 GeV)
  - sys. error from data points:
    move each data points up to mean + sys
    and fit again
  - error from different fit function

D+

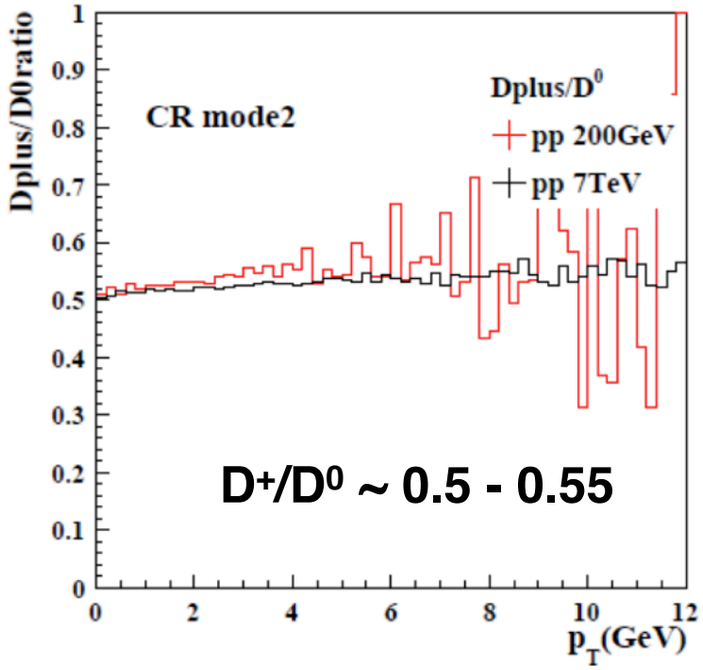
D+ from preliminary results



D+ from Xinyue

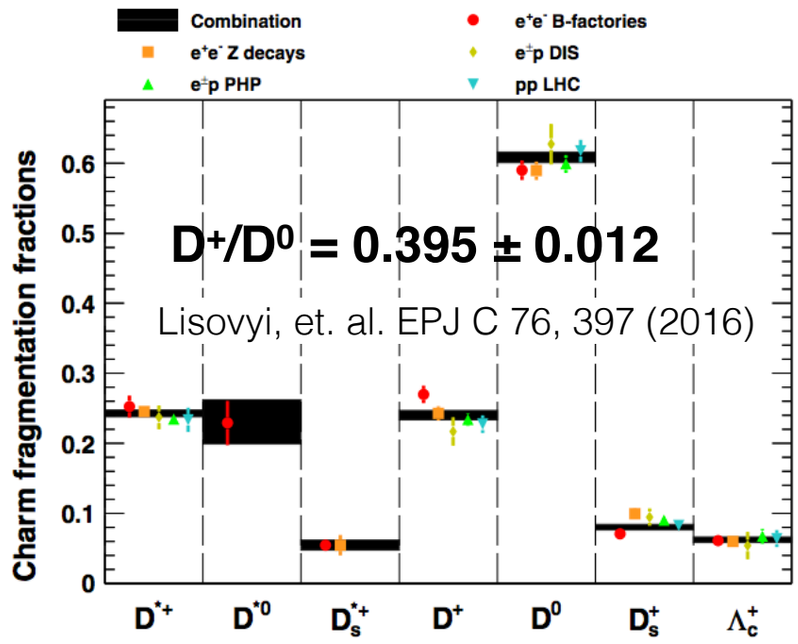


Pythia8 tuned by Yuanjing



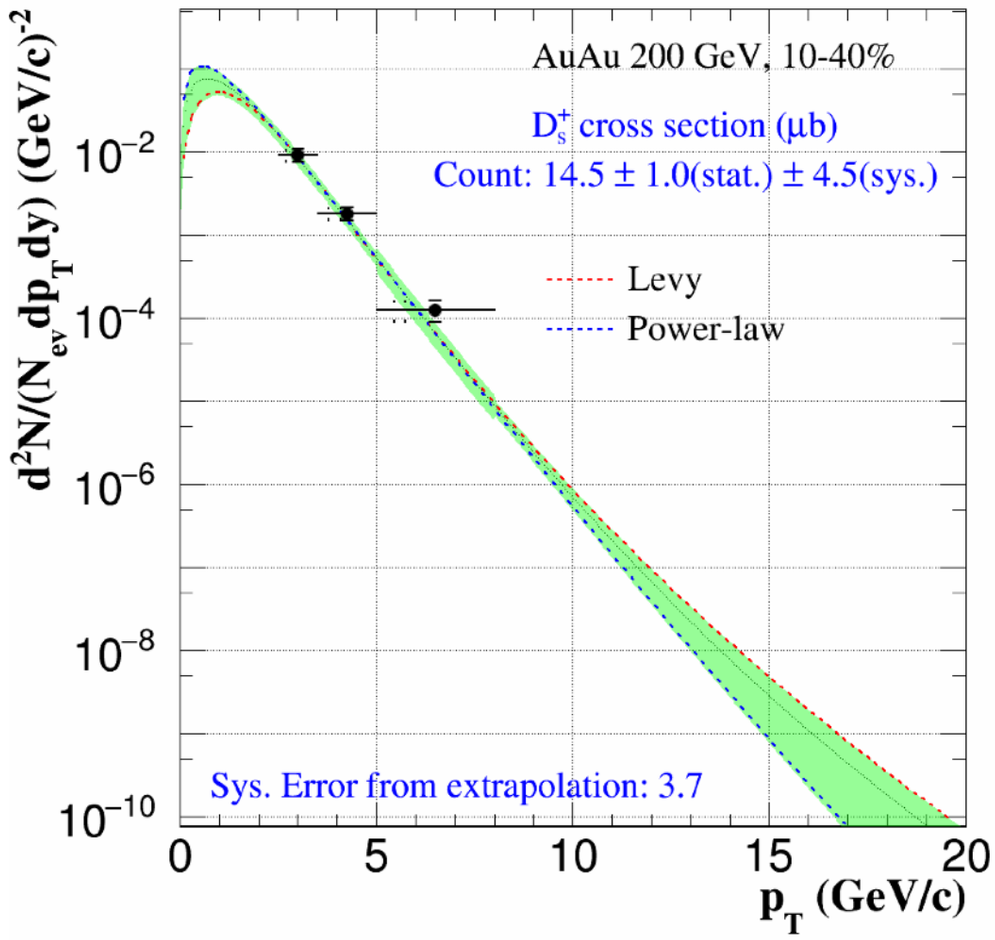
Currently use the STAR preliminary results:
$D^+/D^0 = 0.428 \pm 0.038$

Published



Lisovyi, et. al. EPJ C 76, 397 (2016)

Ds



- Error estimation include three parts
  - stat. error from data points
    not use 1σ error from Levy fit due to ndf = 0
  - sys. error from data points:
    move each data points up to mean + sys
    and fit again
  - error from different fit function