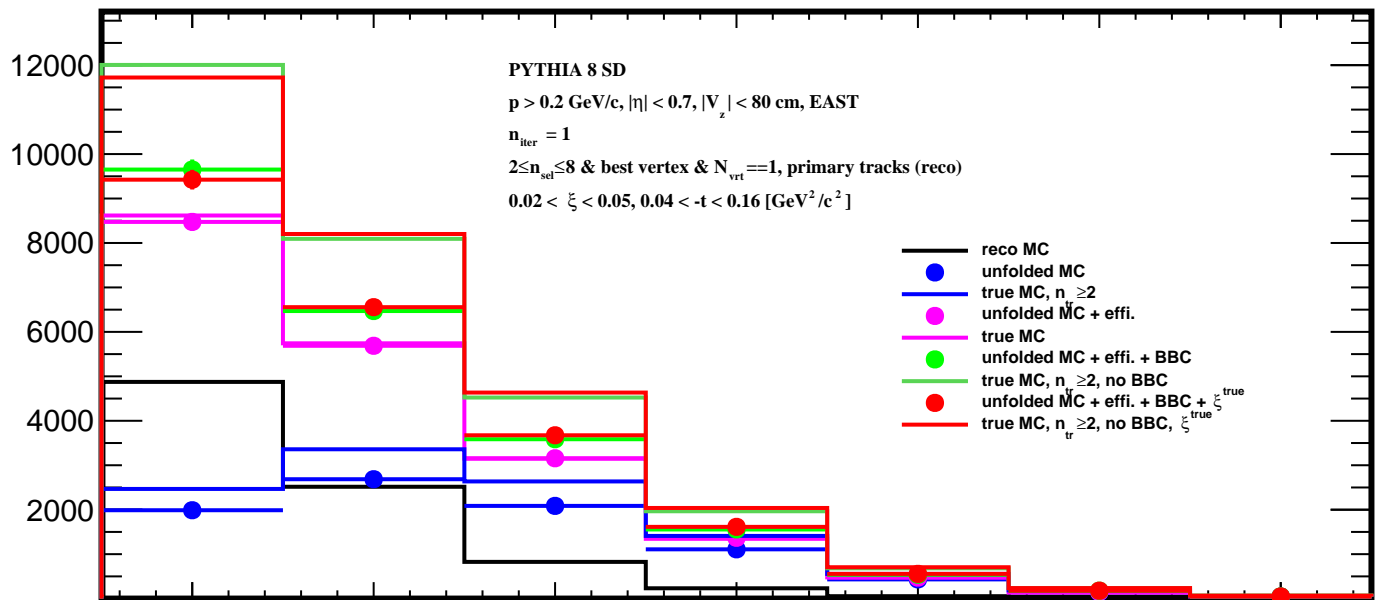
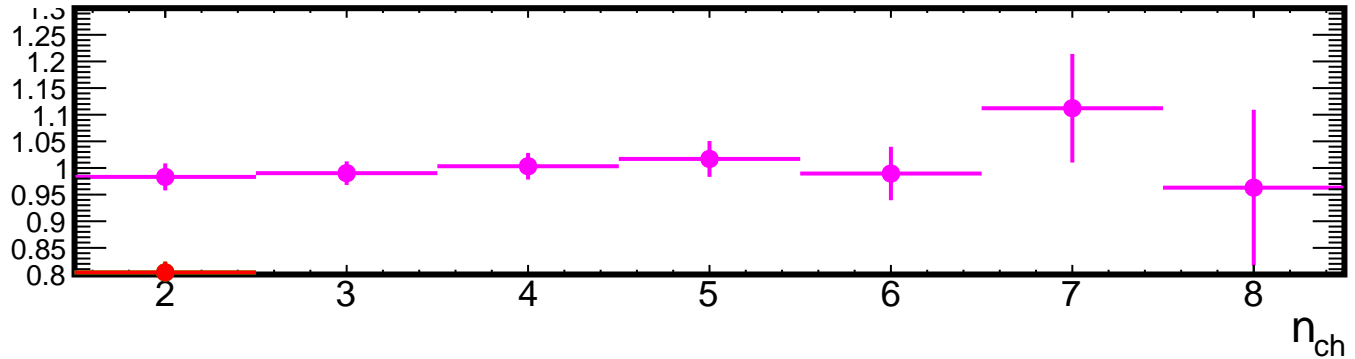
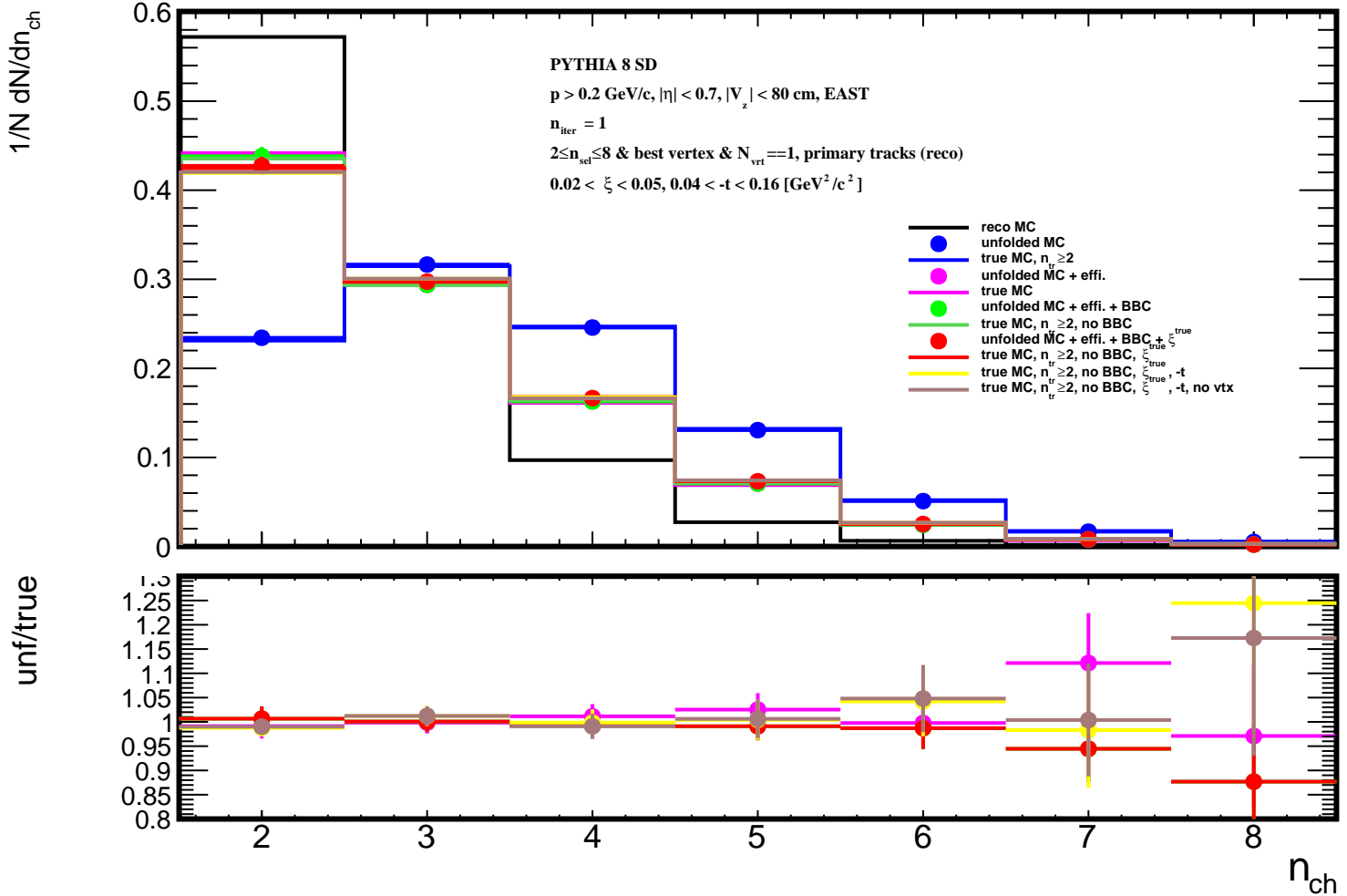
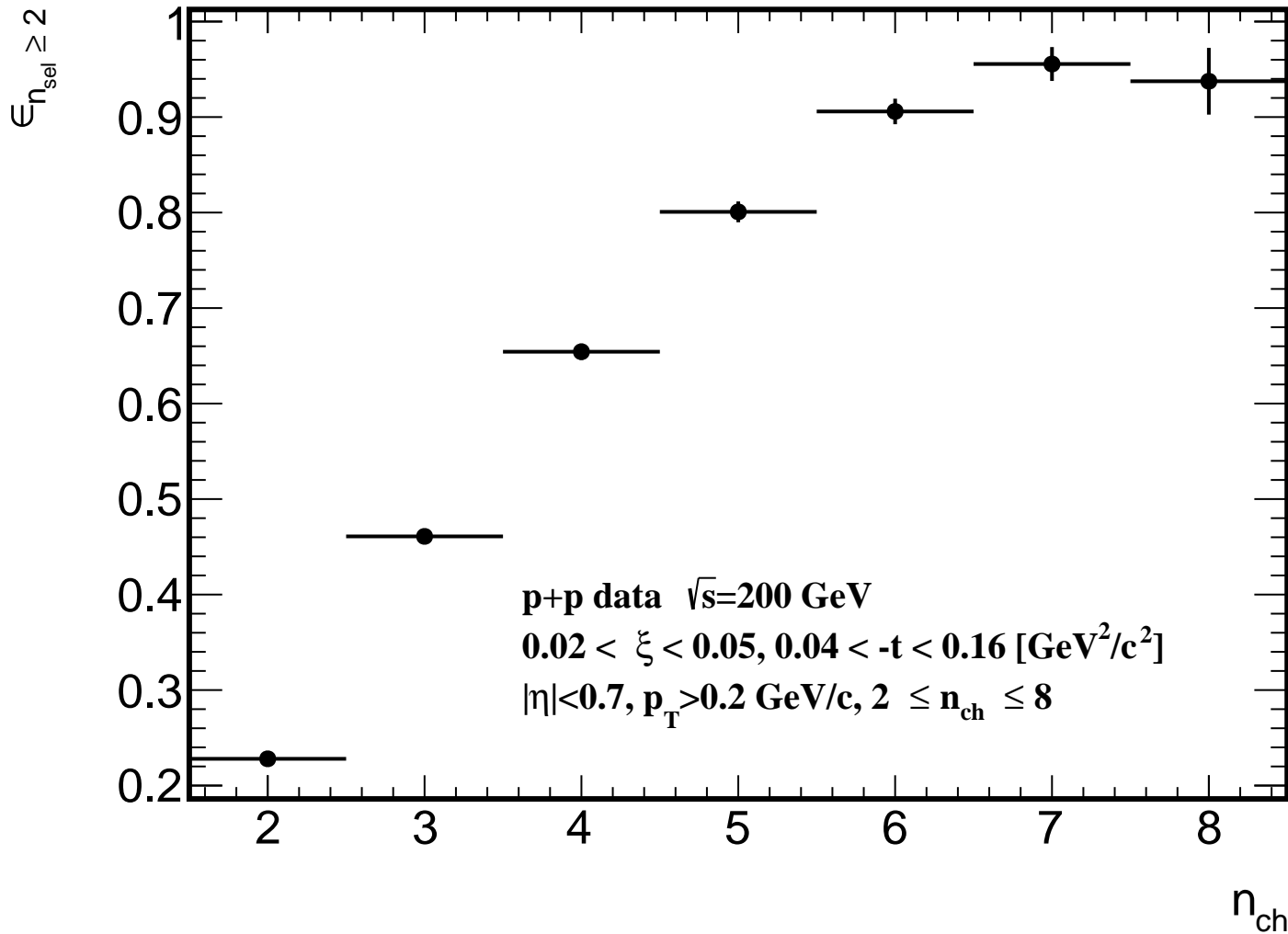
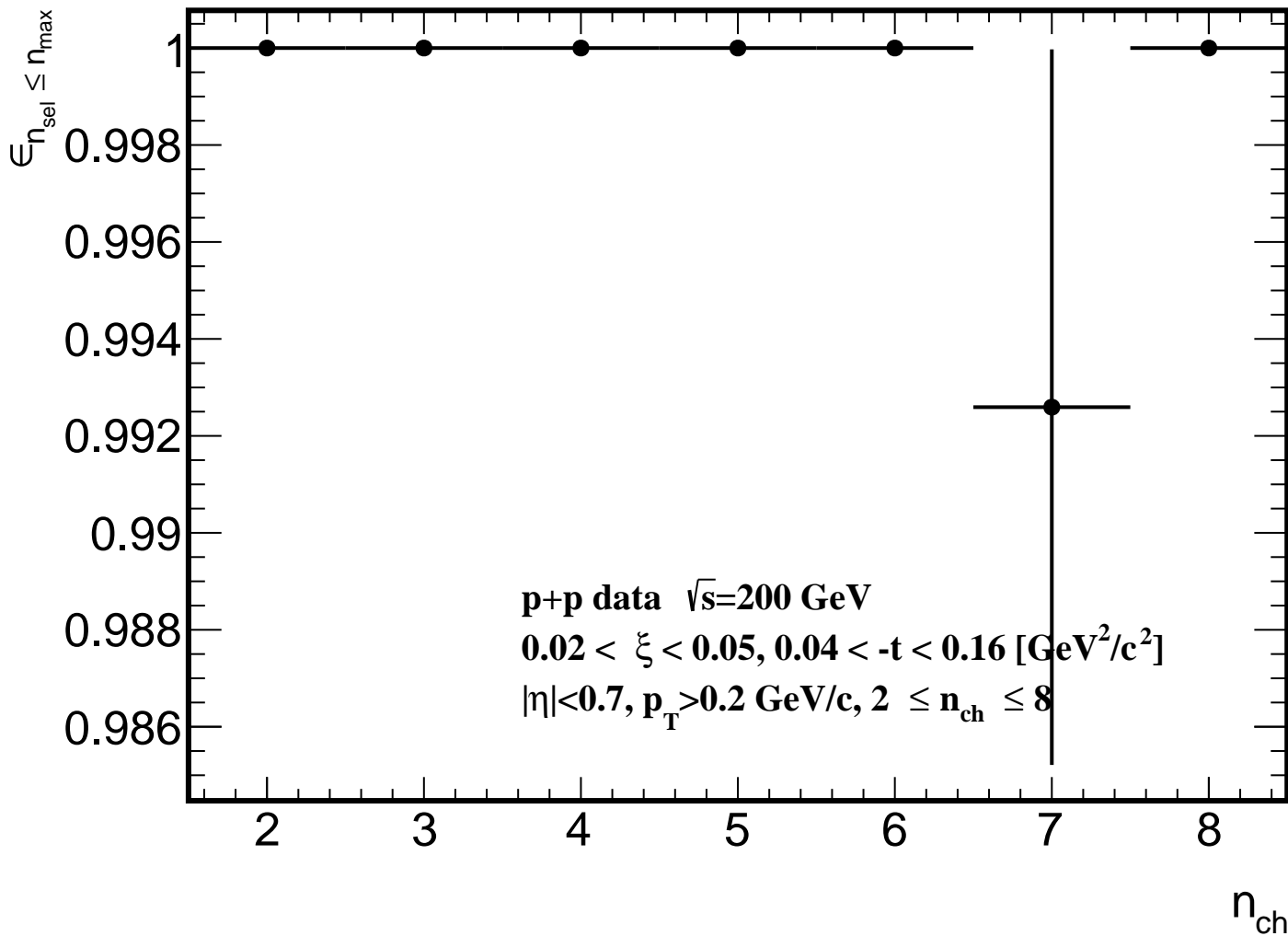
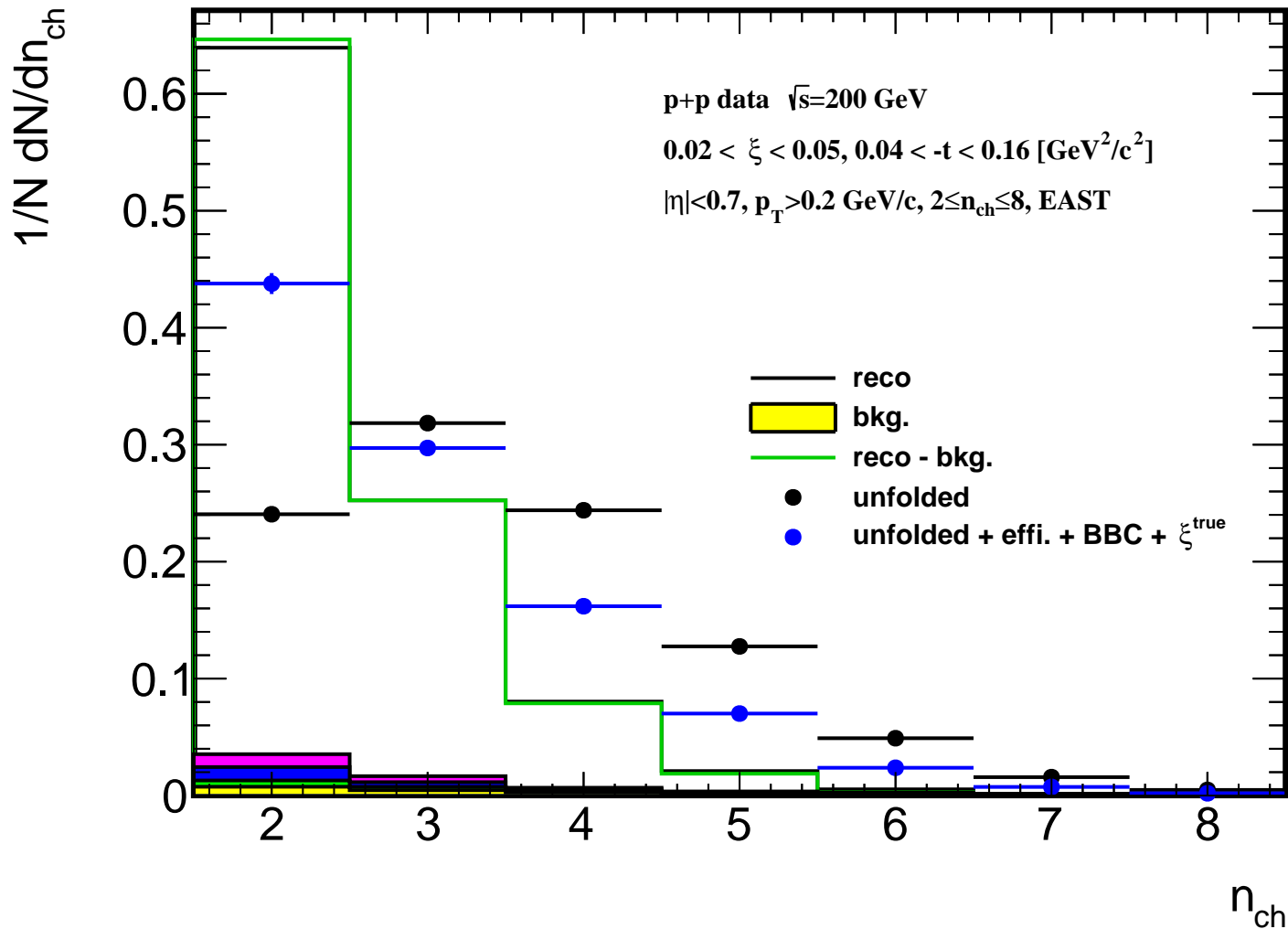


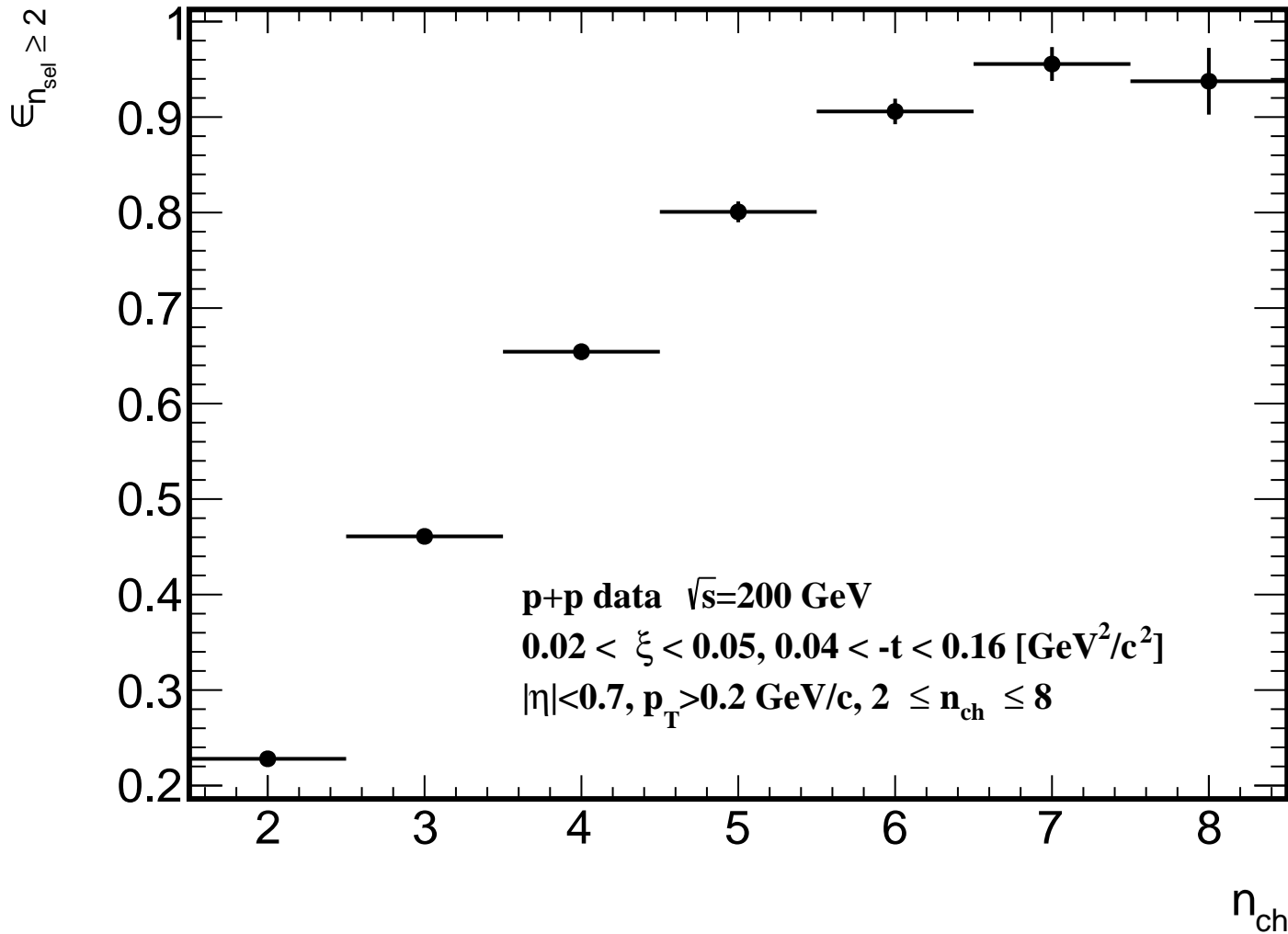
dN/dn_{ch}  $unf/true$ 

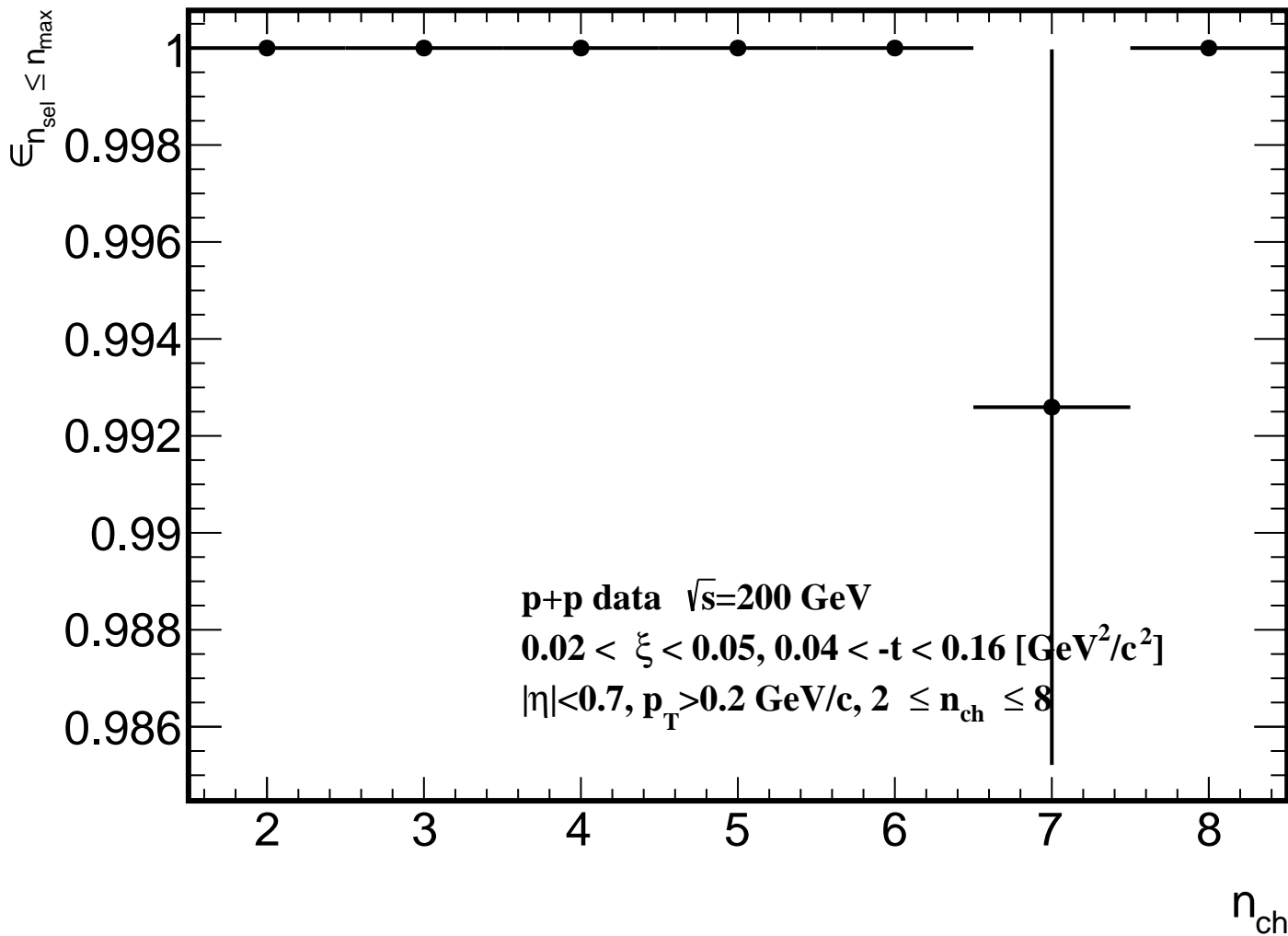


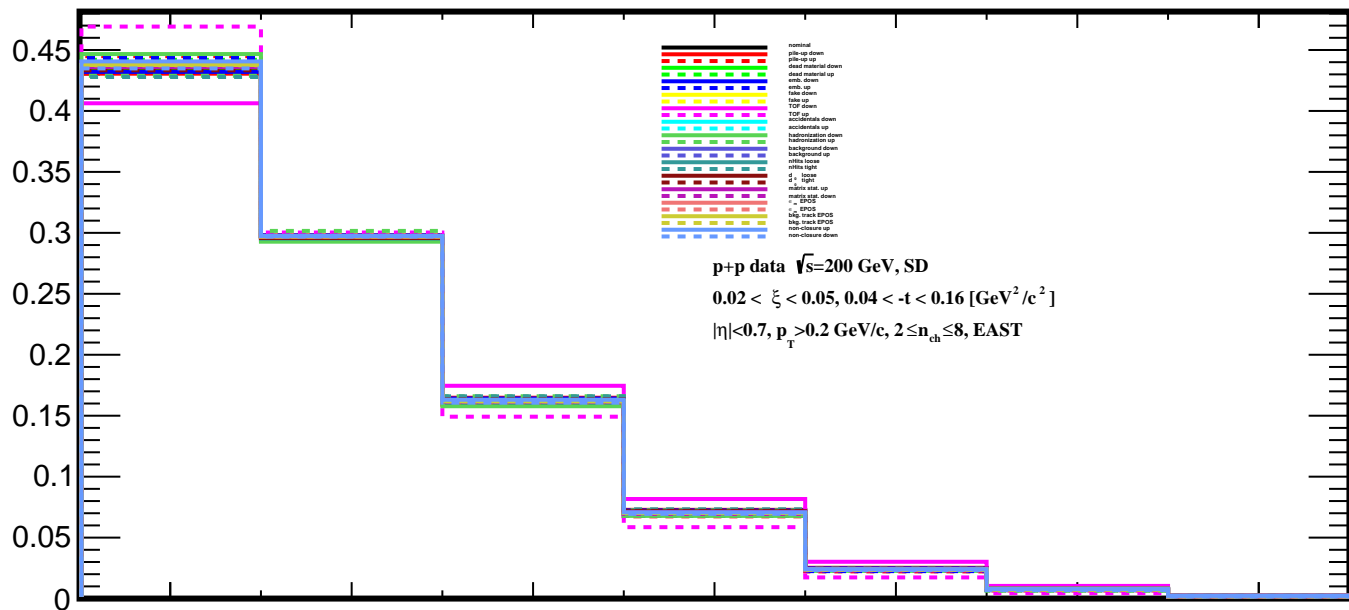




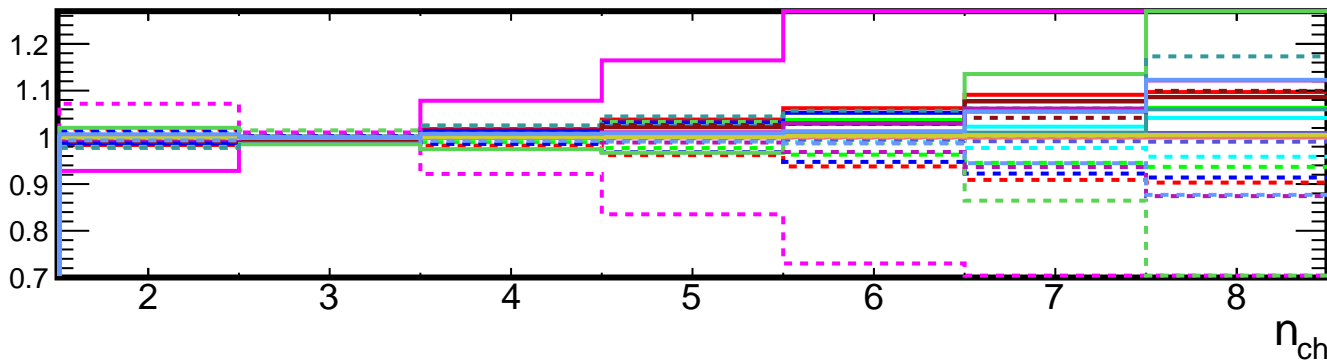


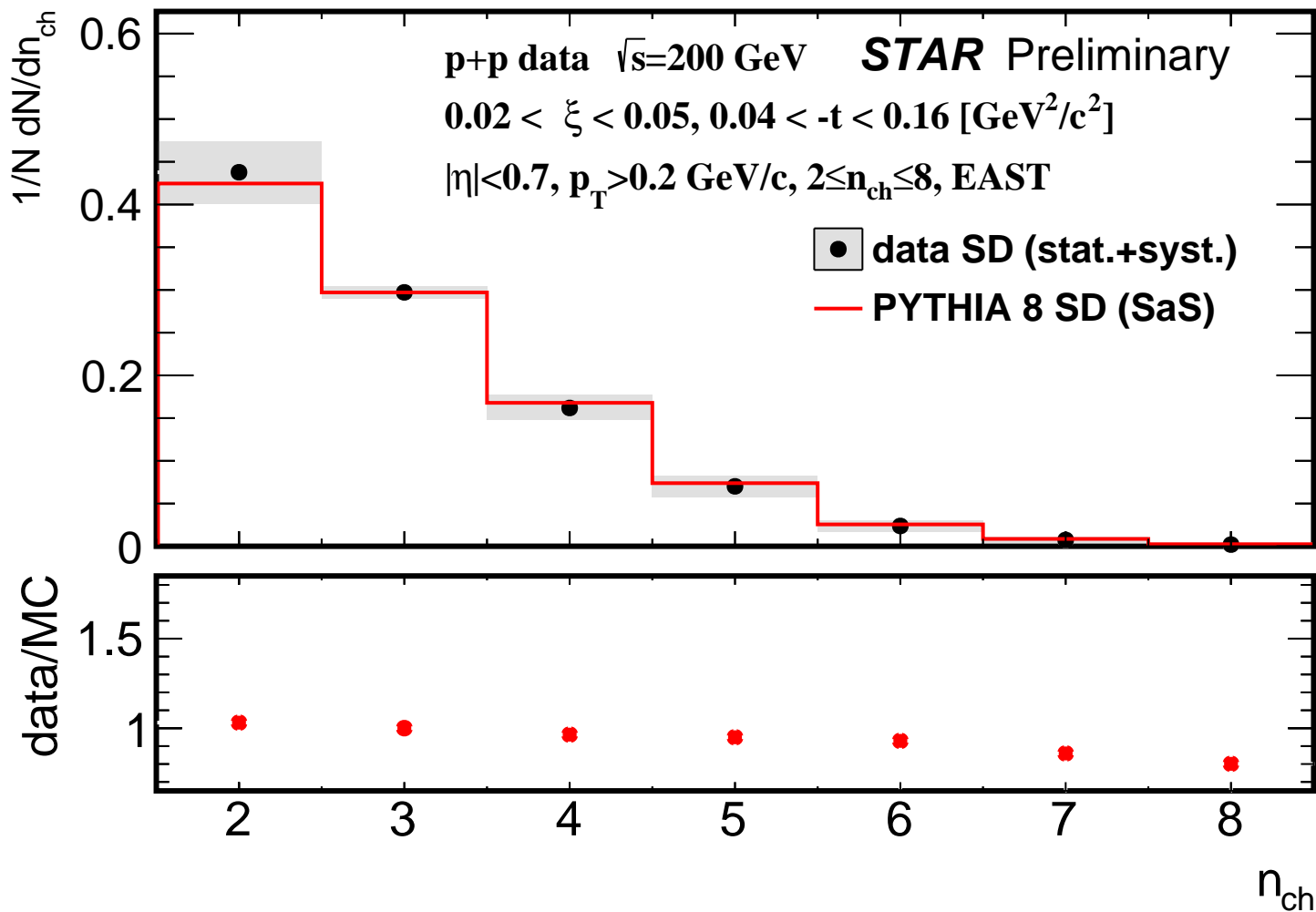


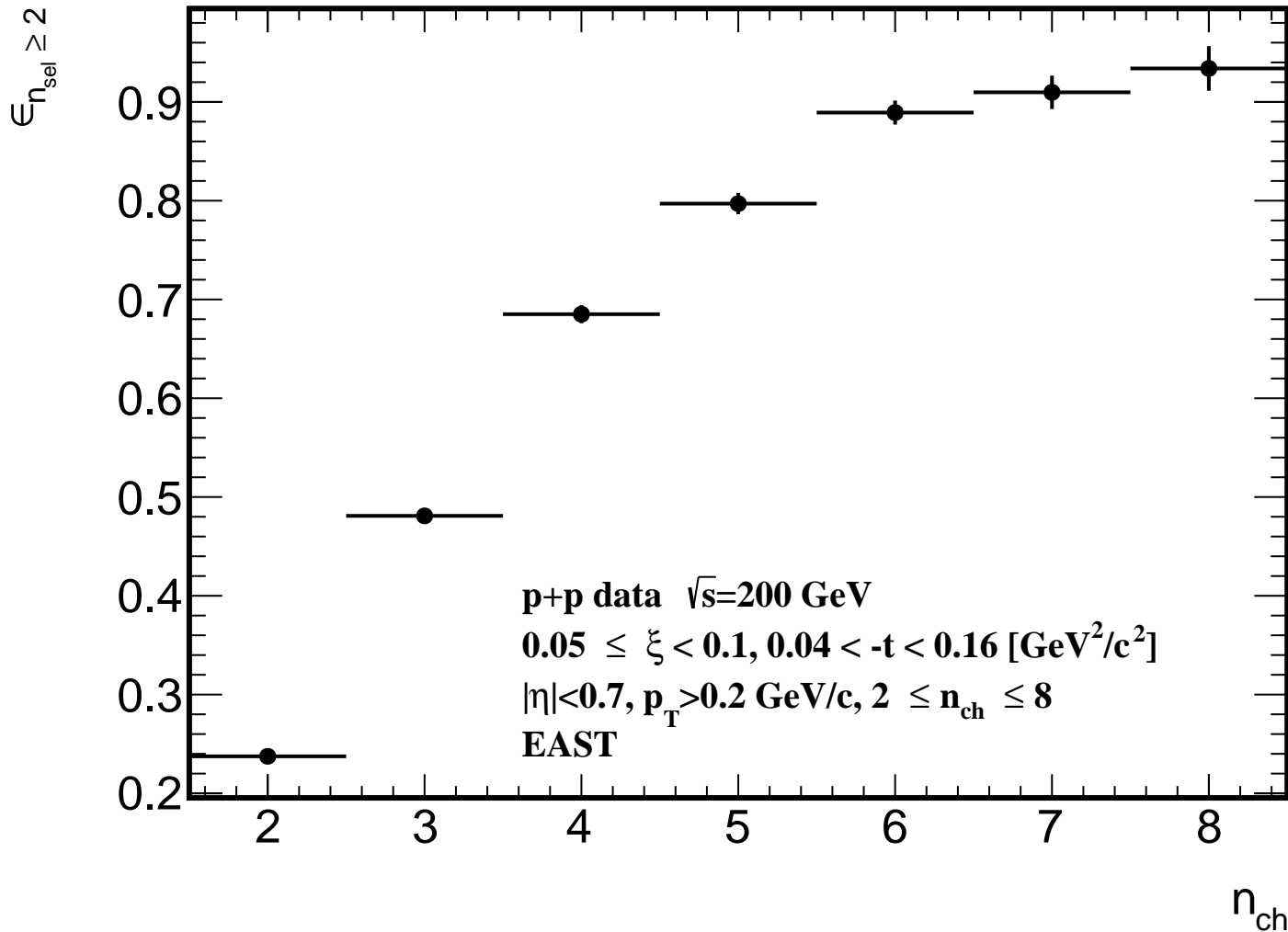


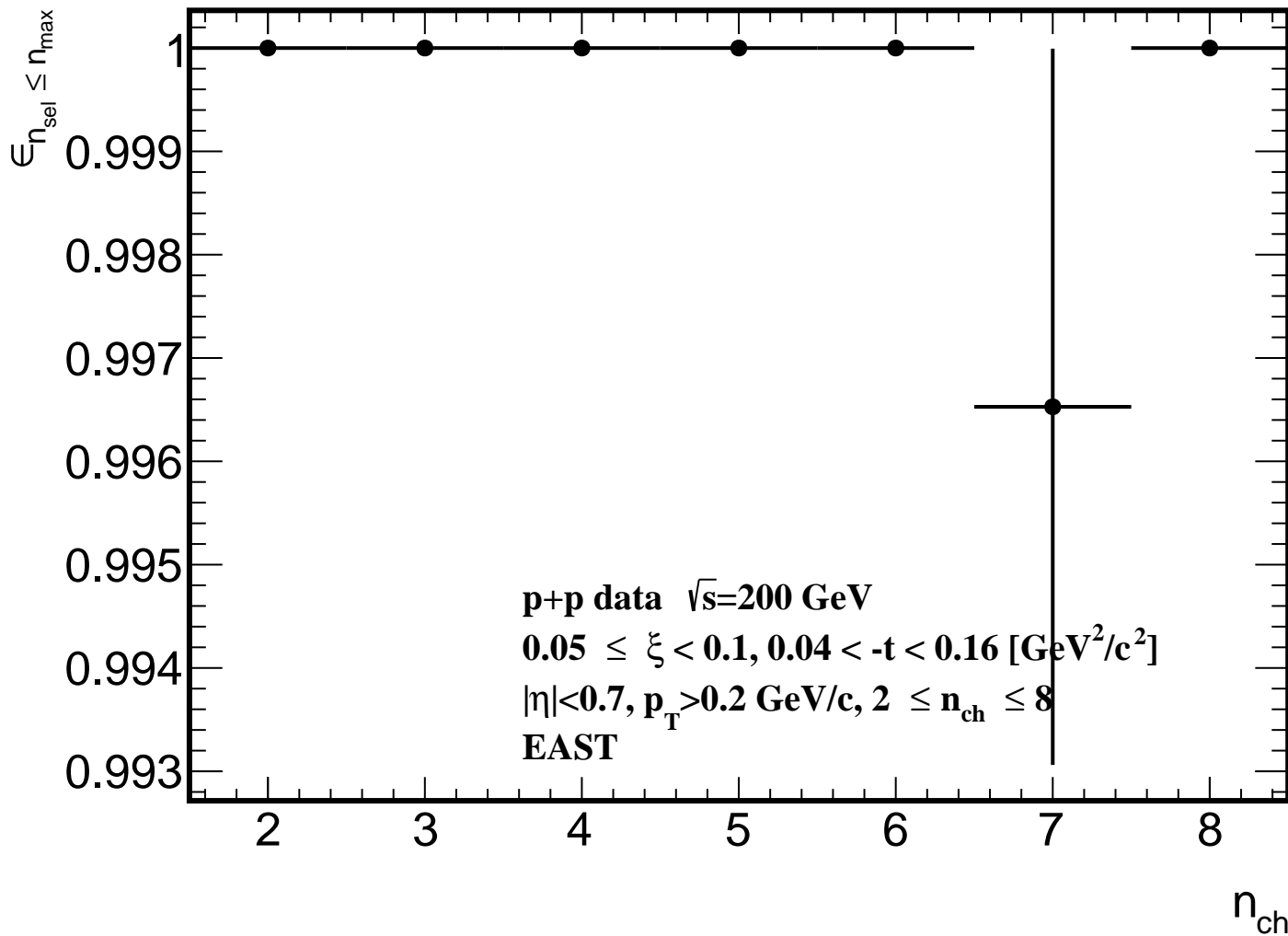
$1/N \, dN/dn_{\text{ch}}$ 

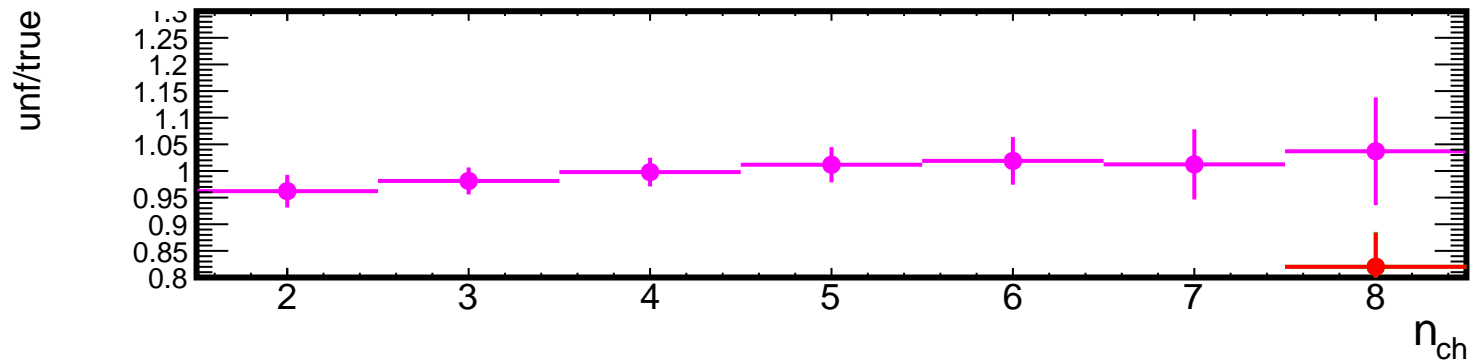
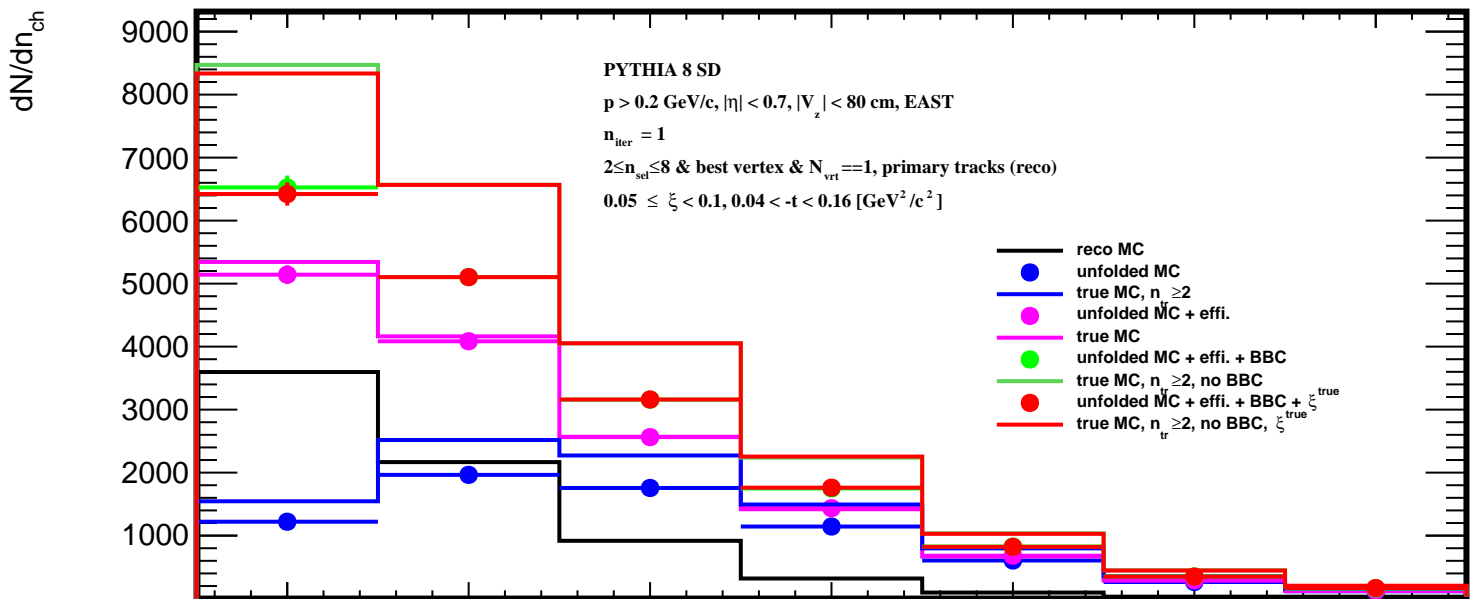
ratio











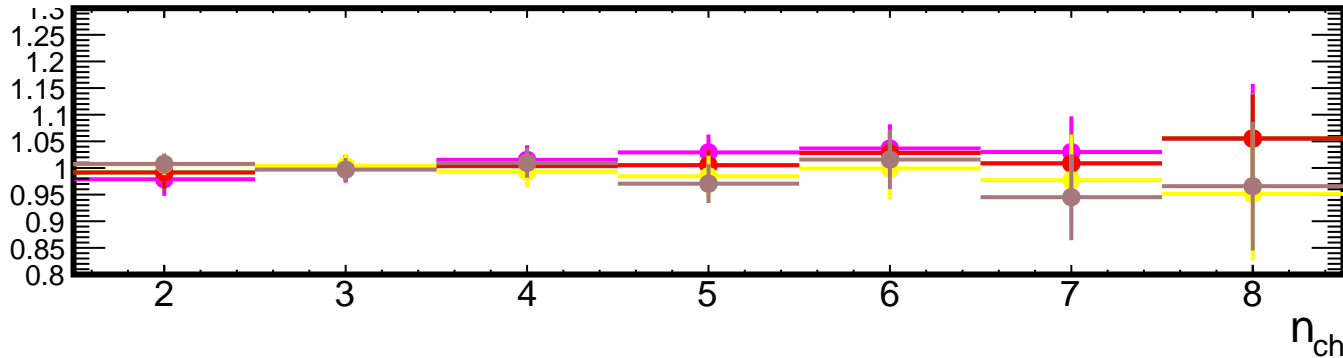
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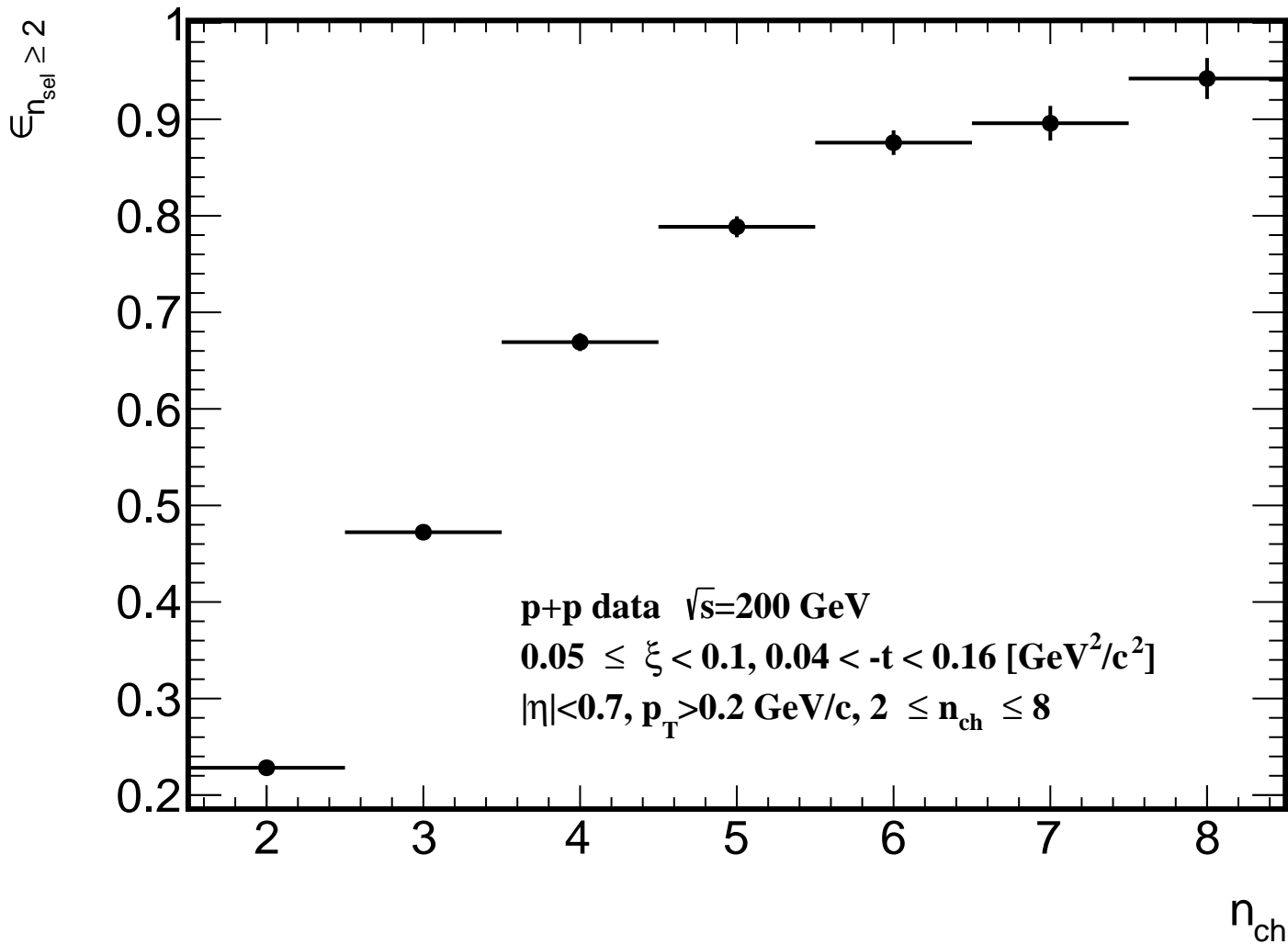
PYTHIA 8 SD

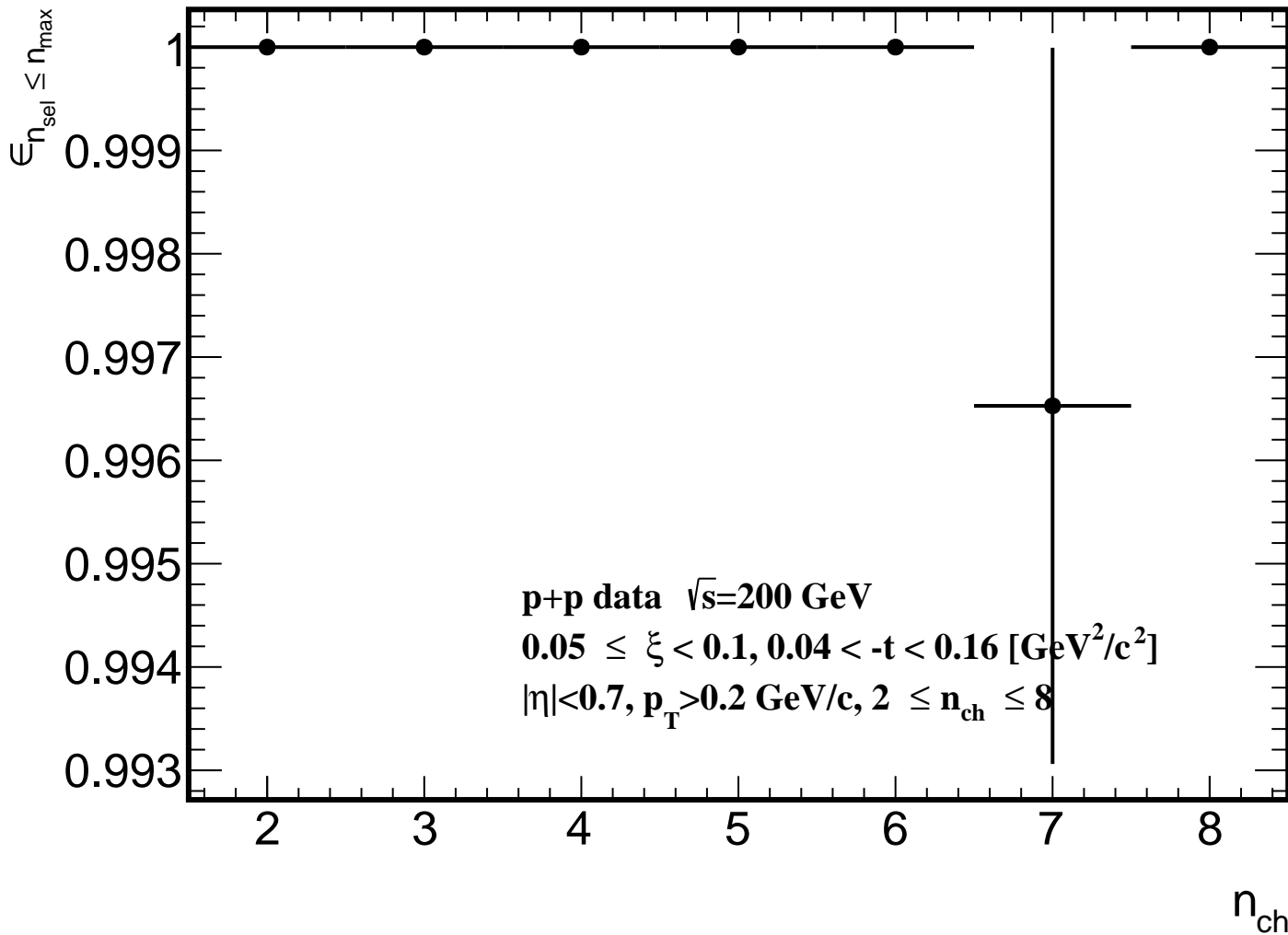
 $p > 0.2 \text{ GeV}/c, |\eta| < 0.7, |V_z| < 80 \text{ cm, EAST}$ $n_{\text{iter}} = 1$ $2 \leq n_{\text{sel}} \leq 8 \text{ \& best vertex \& } N_{\text{vtx}} = 1, \text{ primary tracks (reco)}$ $0.05 \leq \xi < 0.1, 0.04 < -t < 0.16 \text{ [GeV}^2/c^2 \text{]}$

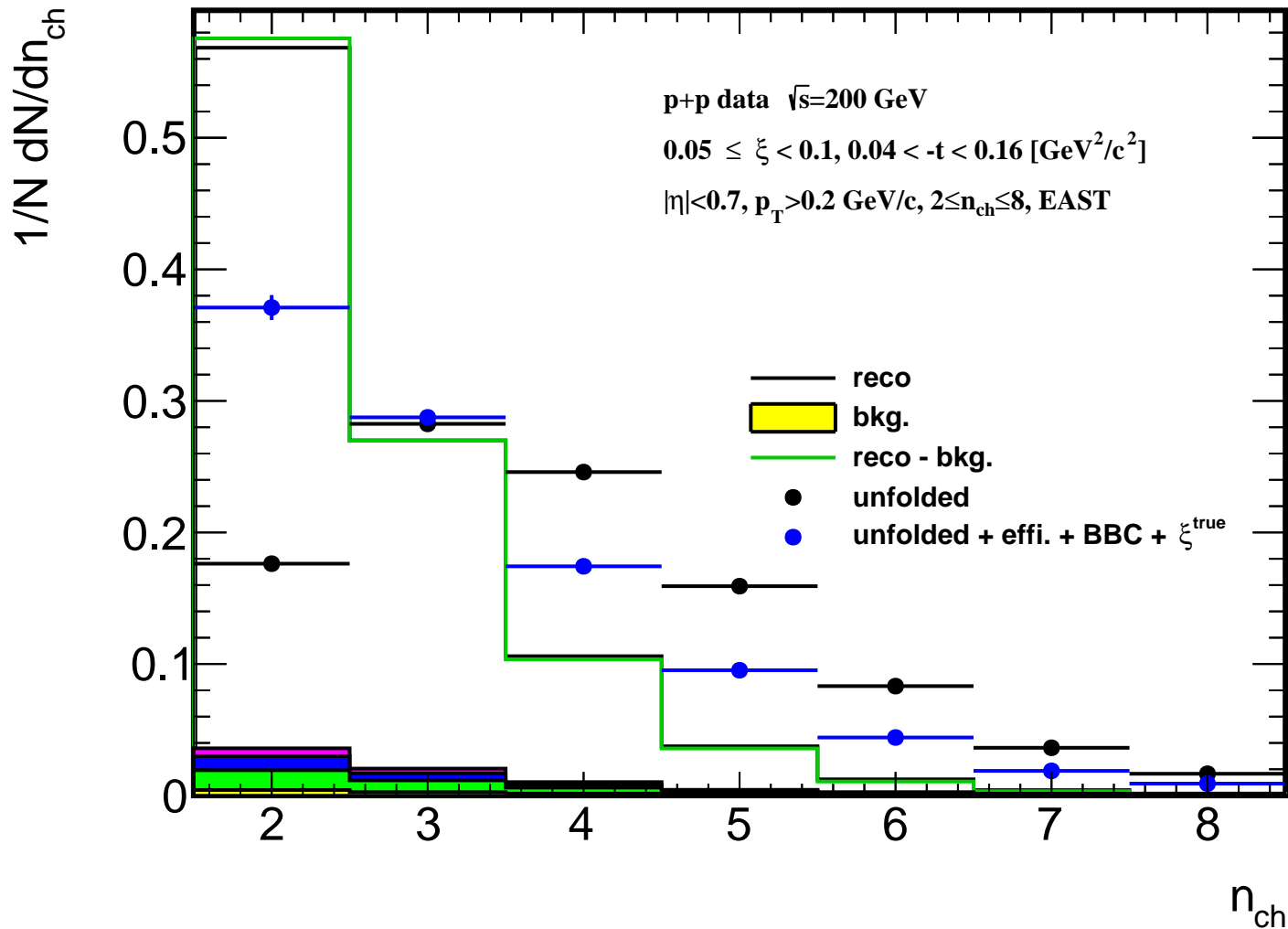
- reco MC
- unfolded MC
- true MC, $n_{\text{tr}} \geq 2$
- unfolded MC + effi.
- true MC
- unfolded MC + effi. + BBC
- true MC, $n_{\text{tr}} \geq 2$, no BBC
- unfolded MC + effi. + BBC + $\xi_{\text{true}}^{\text{true}}$
- true MC, $n_{\text{tr}} \geq 2$, no BBC, $\xi_{\text{true}}^{\text{true}}$
- true MC, $n_{\text{tr}} \geq 2$, no BBC, $\xi_{\text{true}}^{\text{true}}$, $-t$
- true MC, $n_{\text{tr}} \geq 2$, no BBC, $\xi_{\text{true}}^{\text{true}}$, $-t$, no vtx

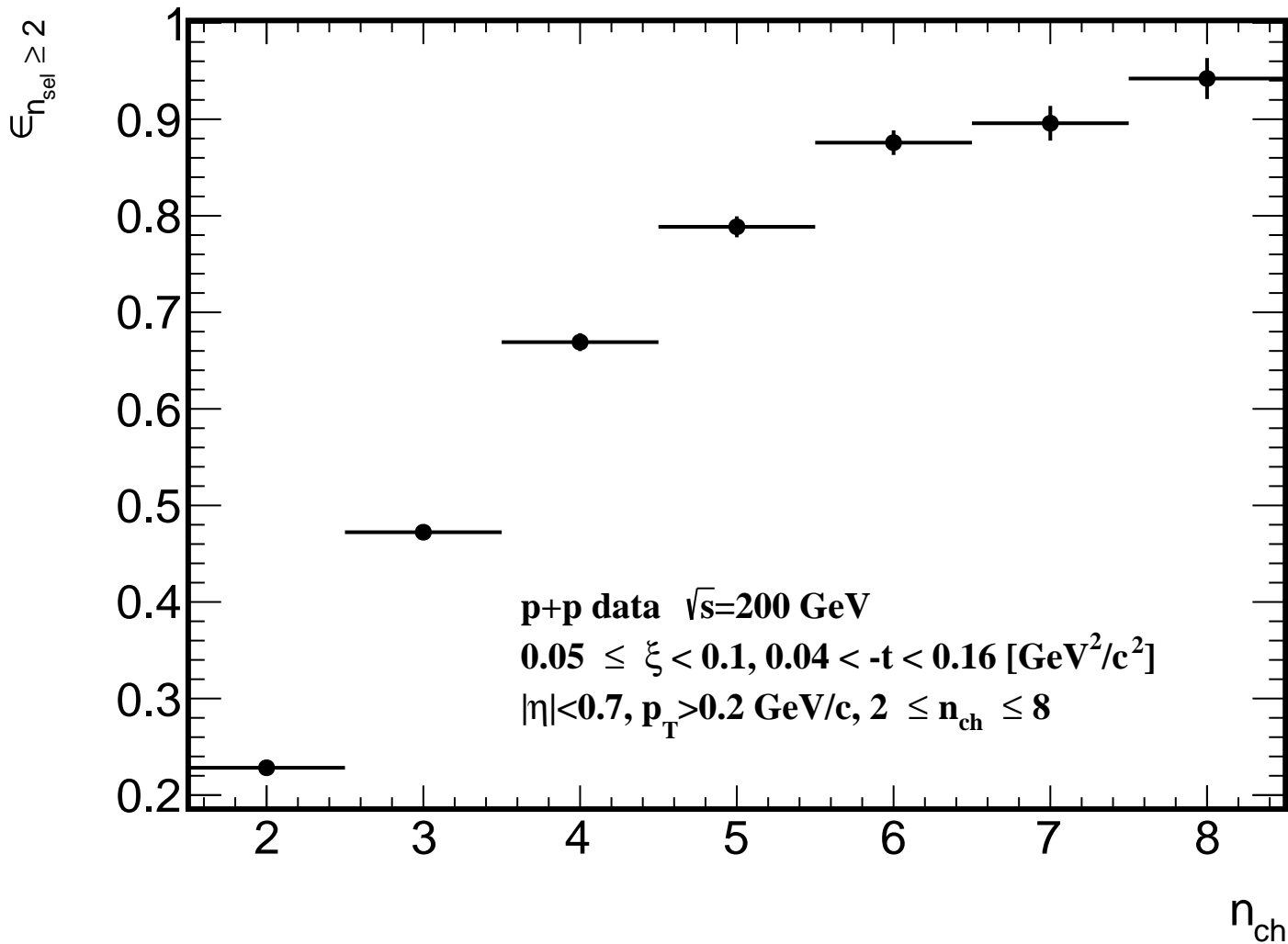
unf/true

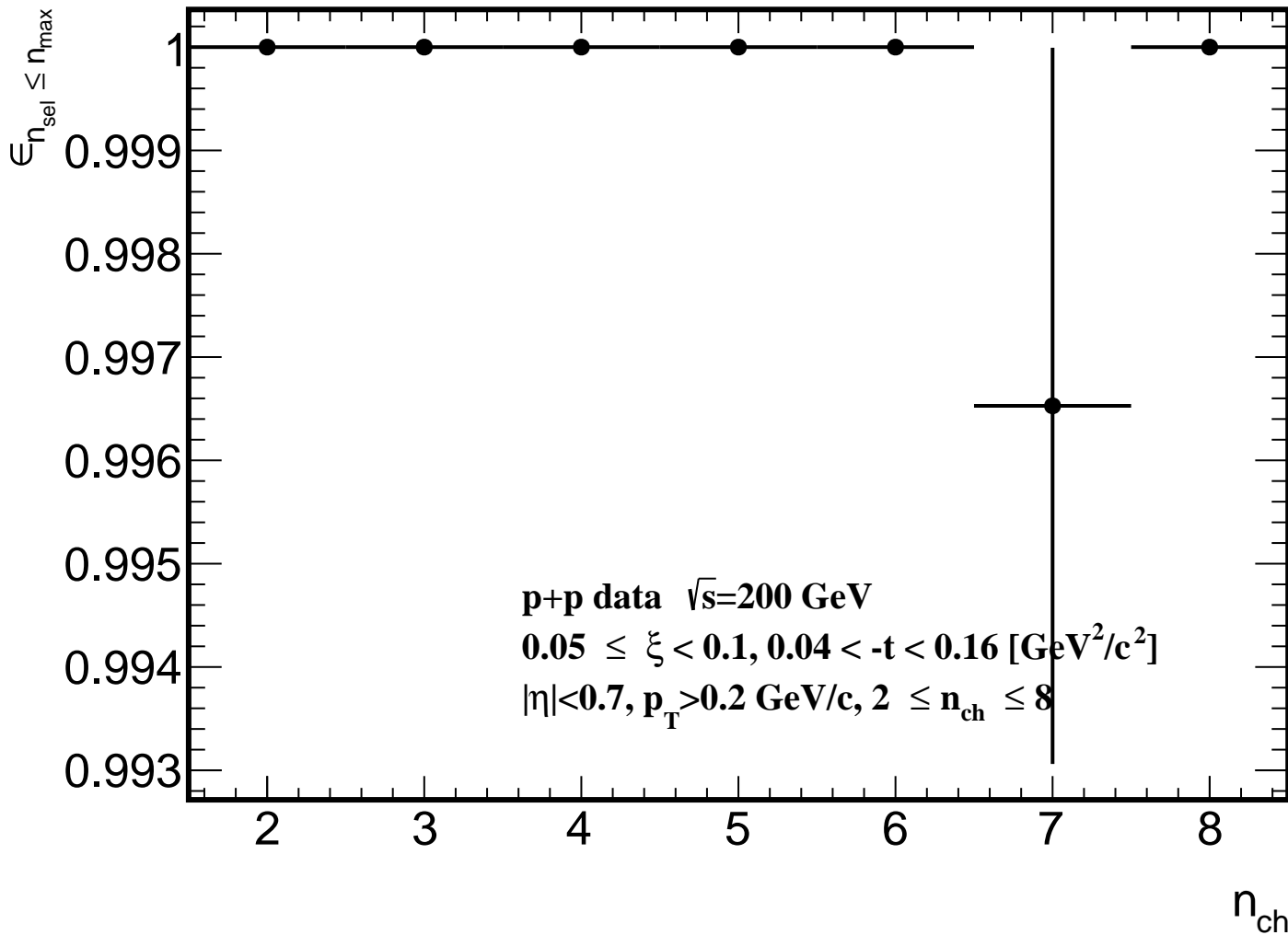


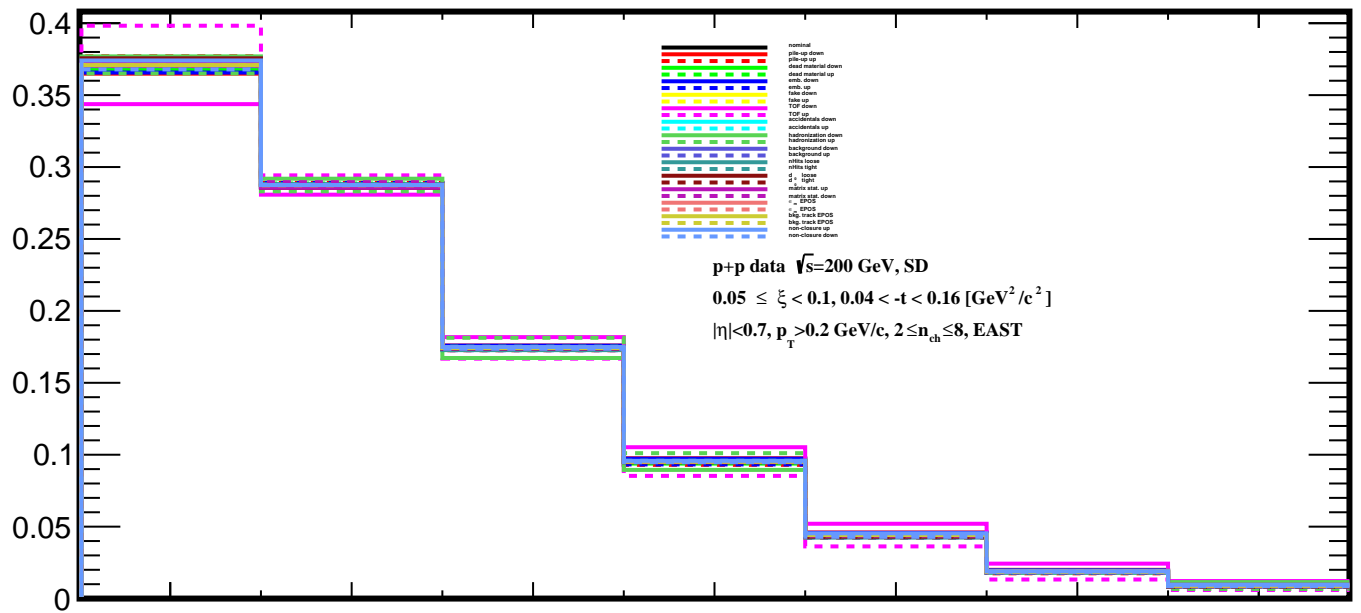




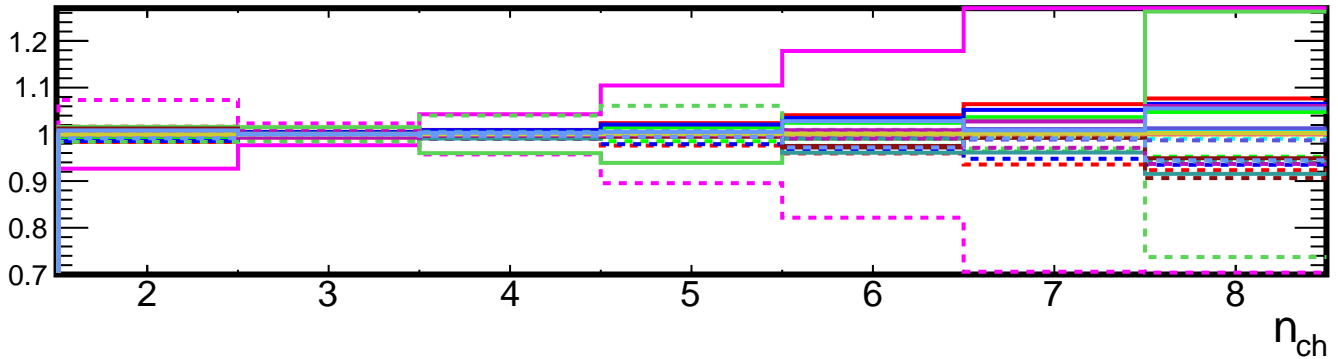


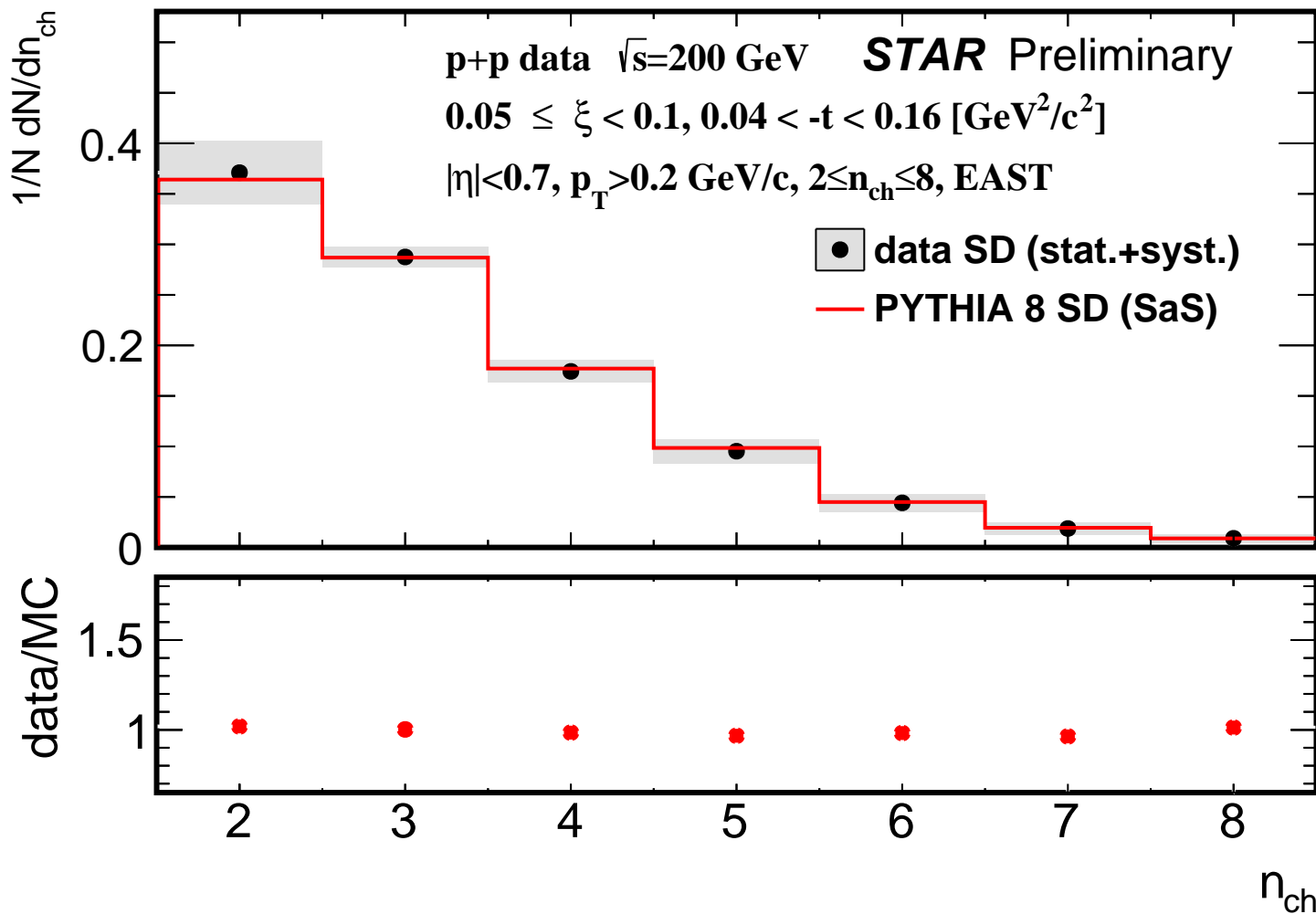


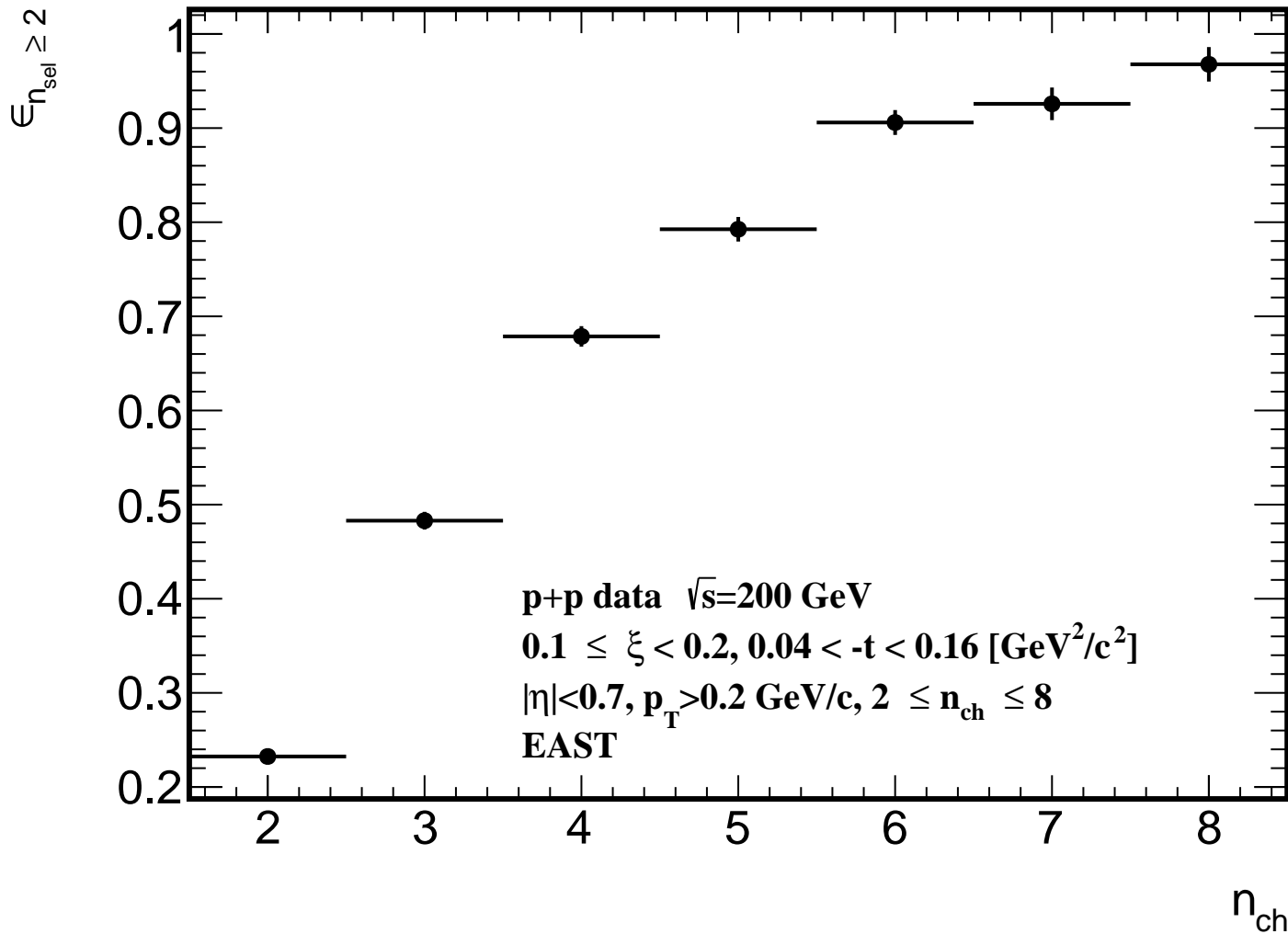


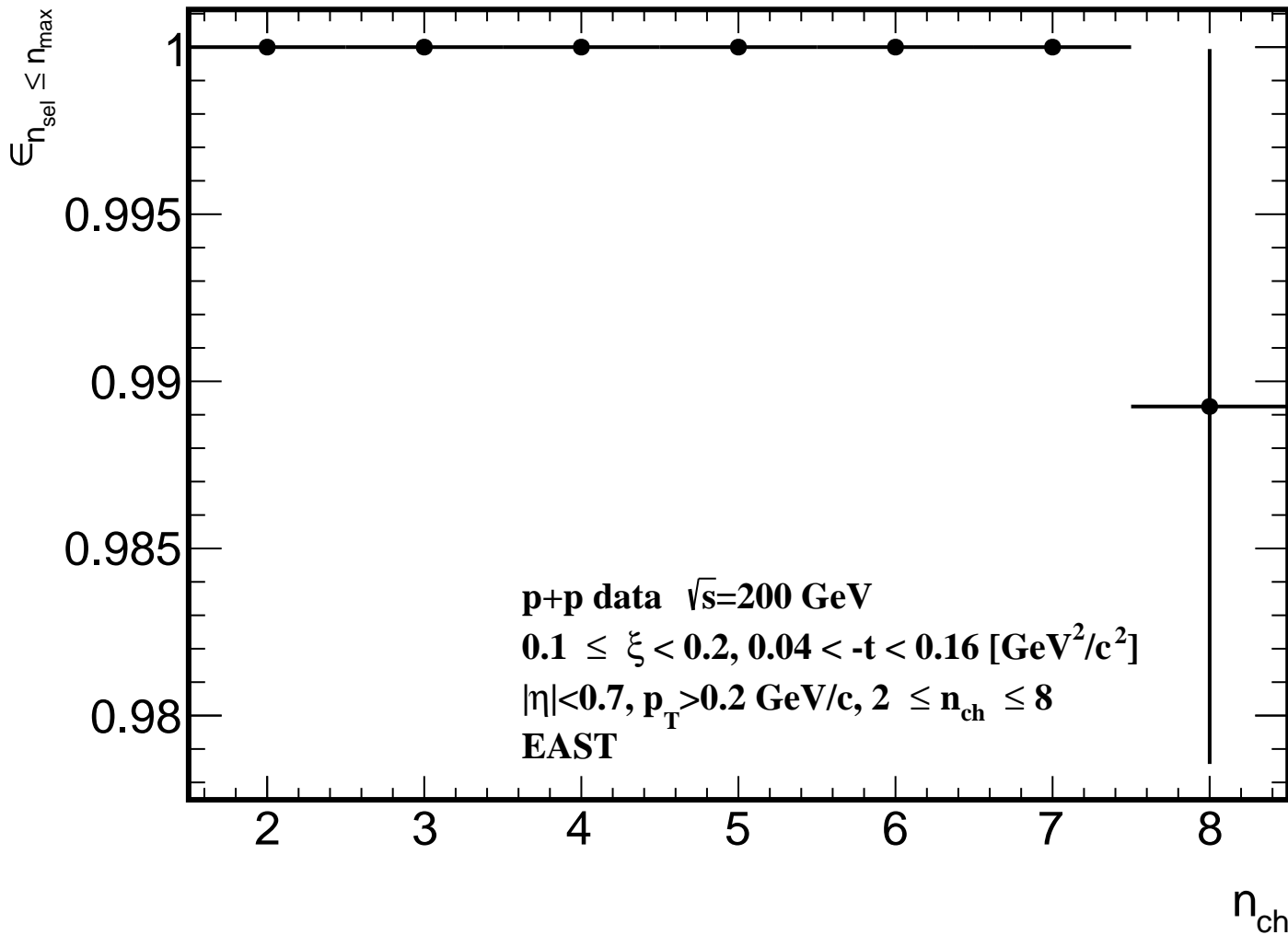
$1/N \, dN/dn_{\text{ch}}$ 

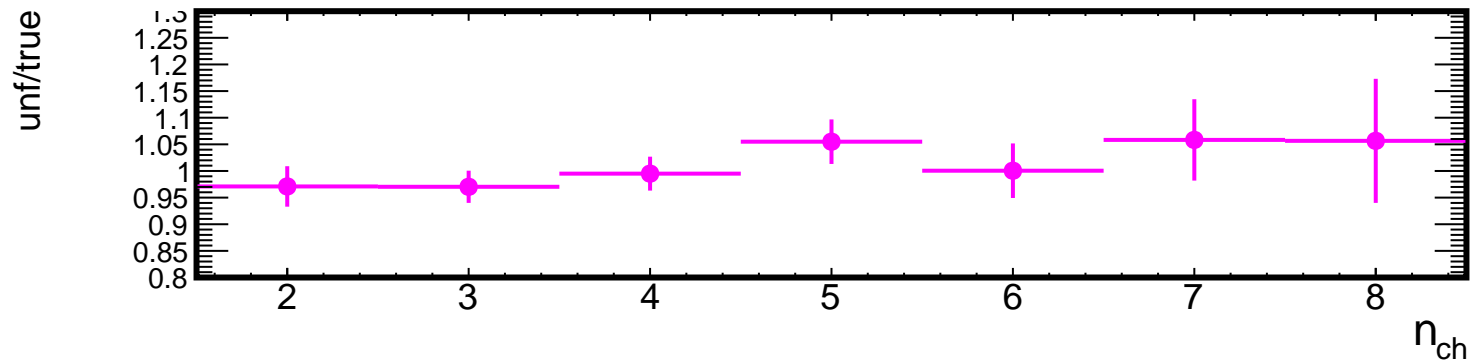
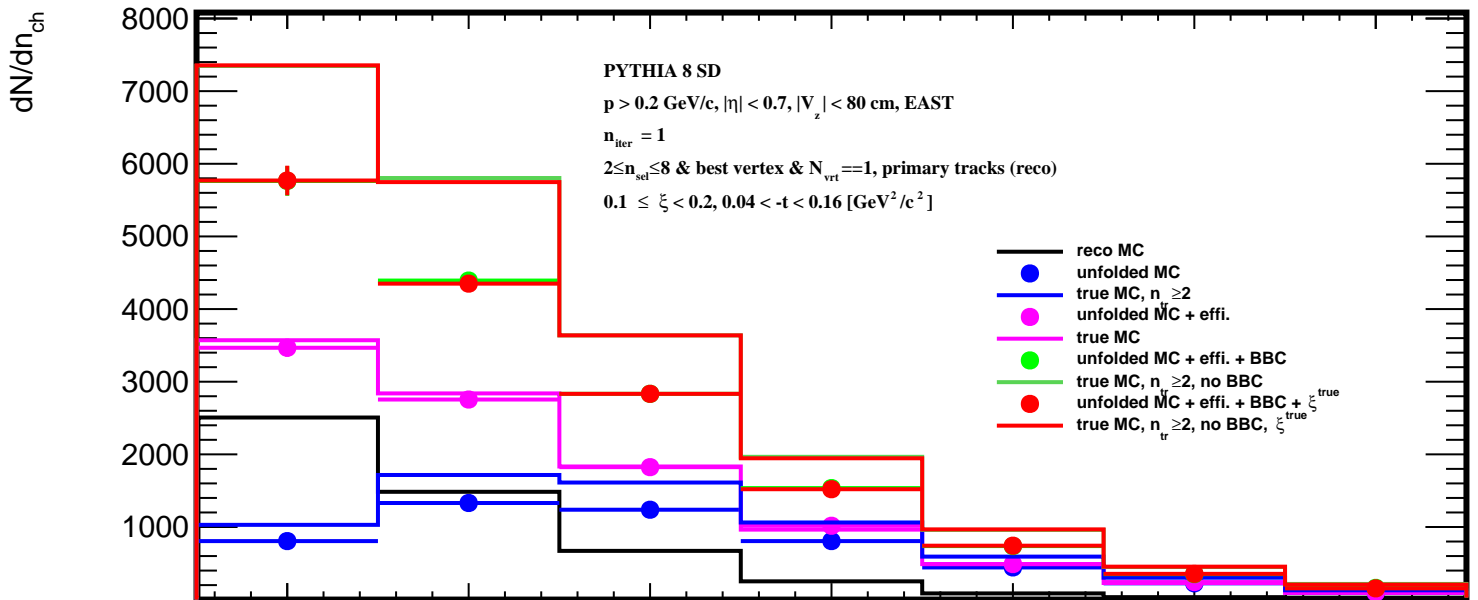
ratio

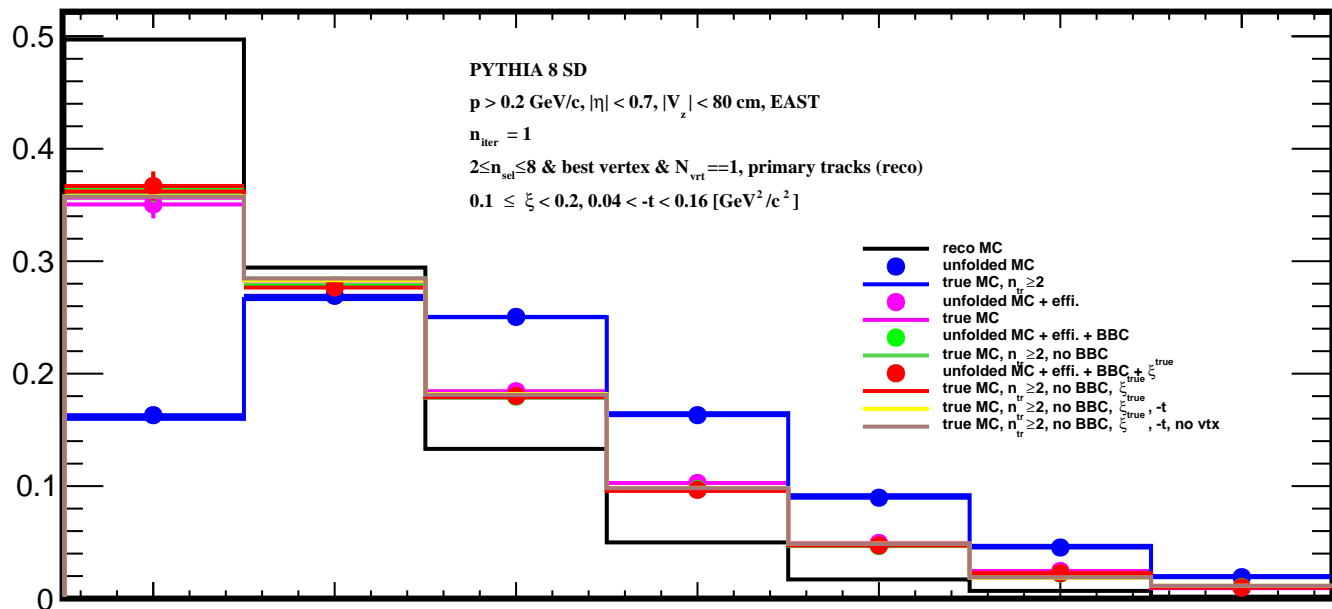
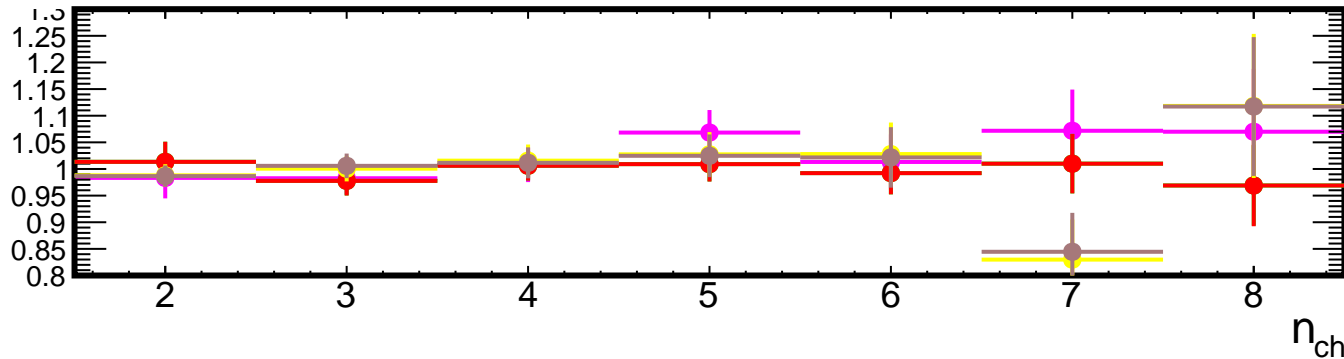


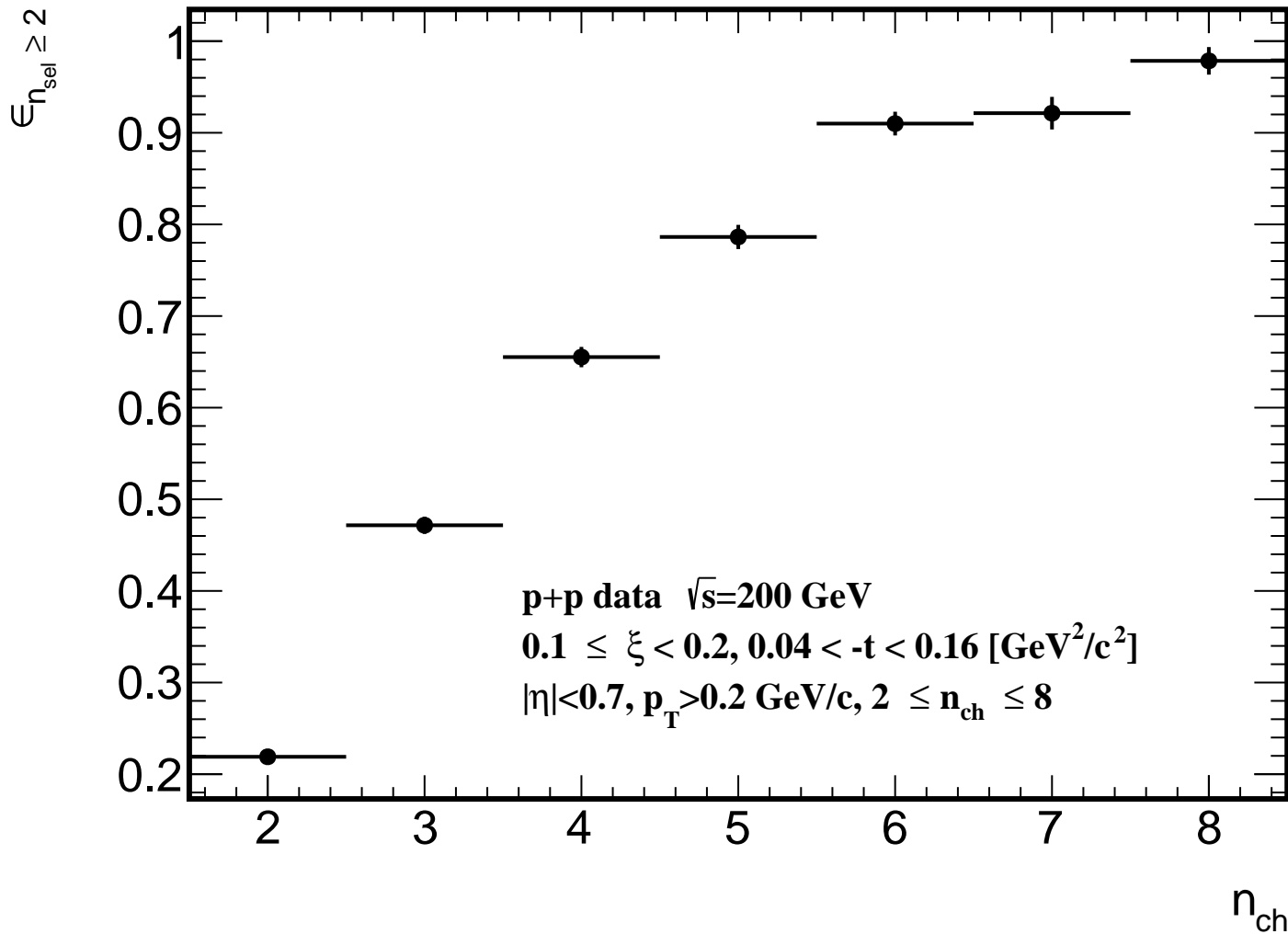


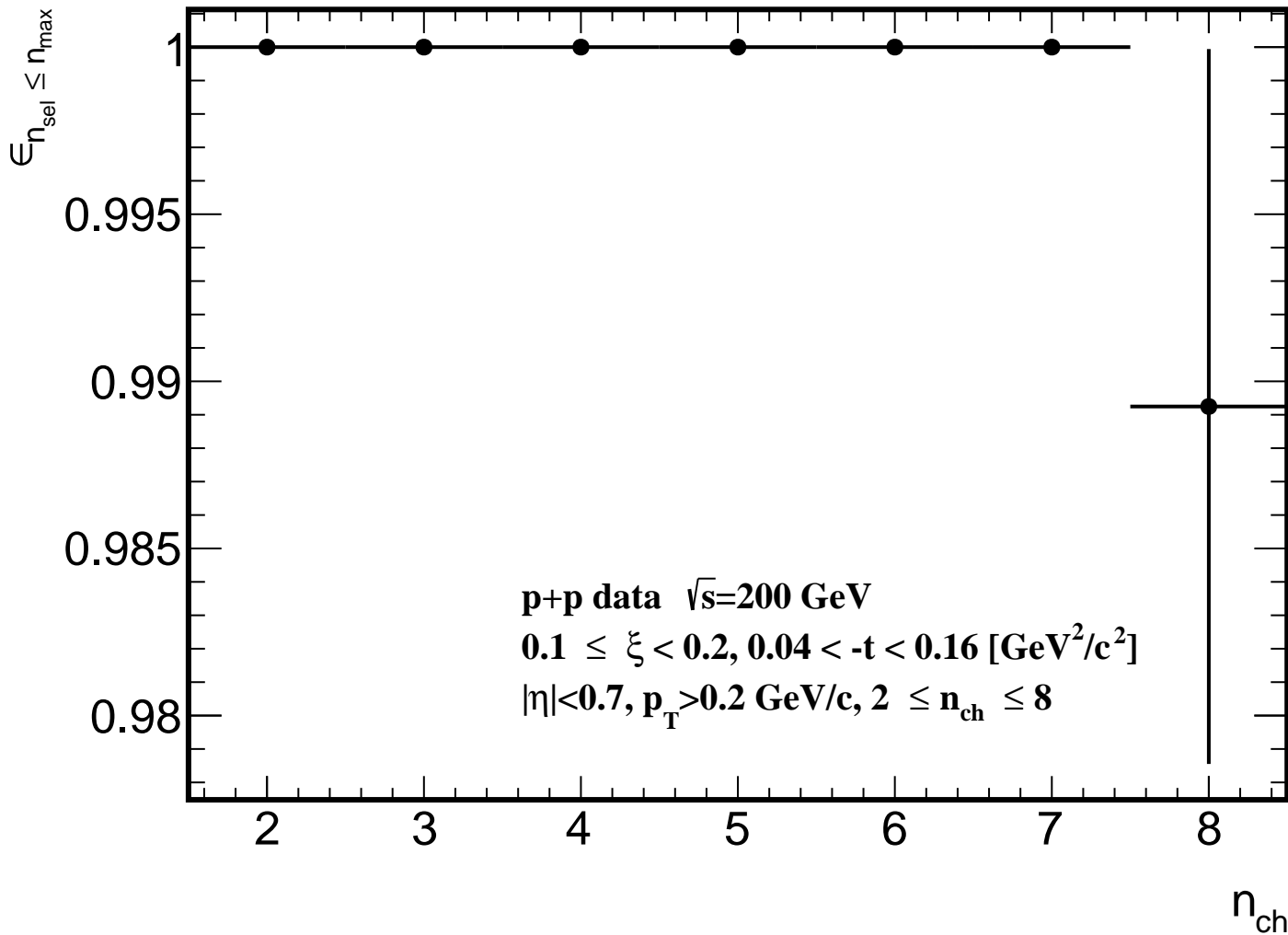


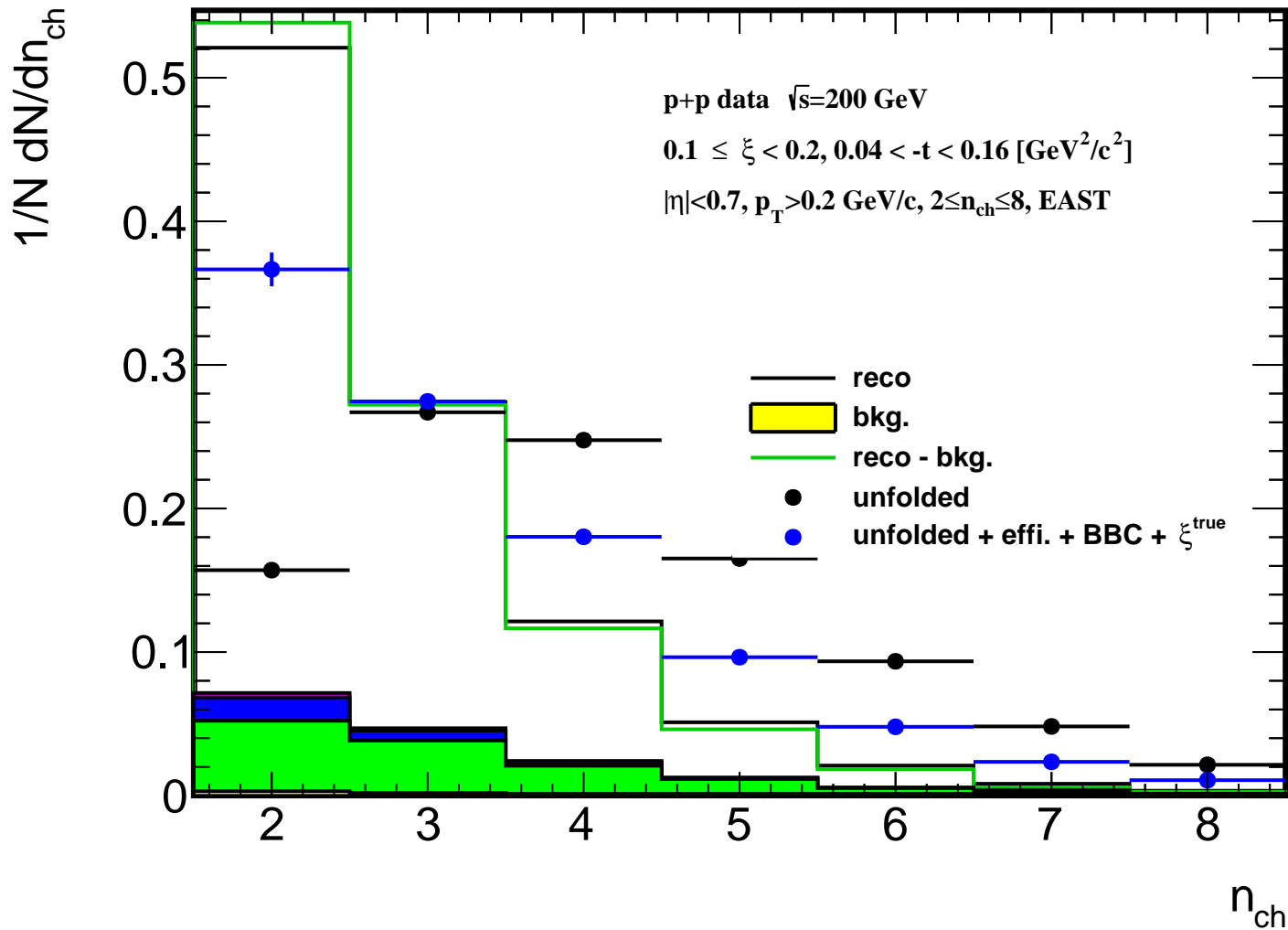


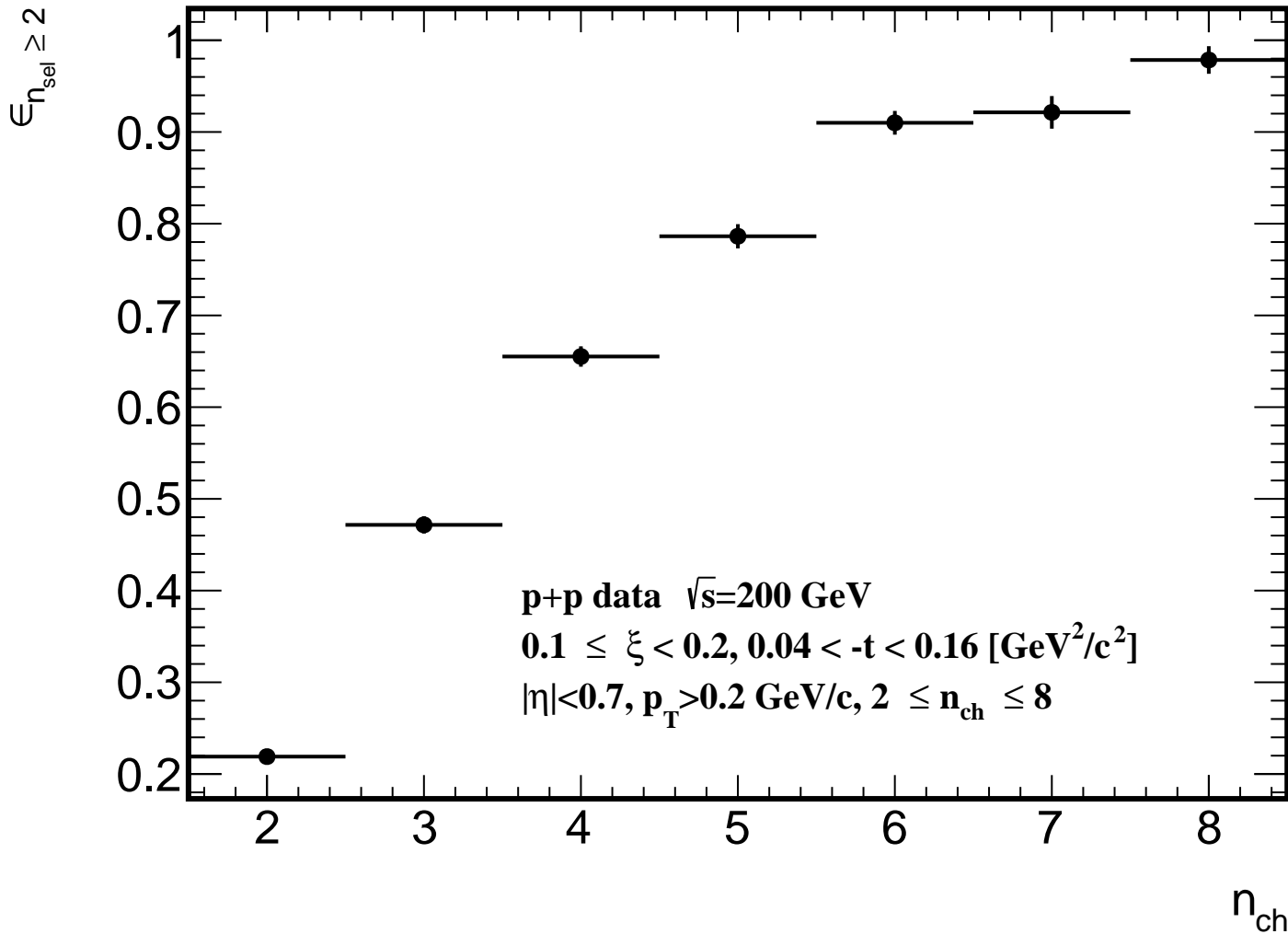


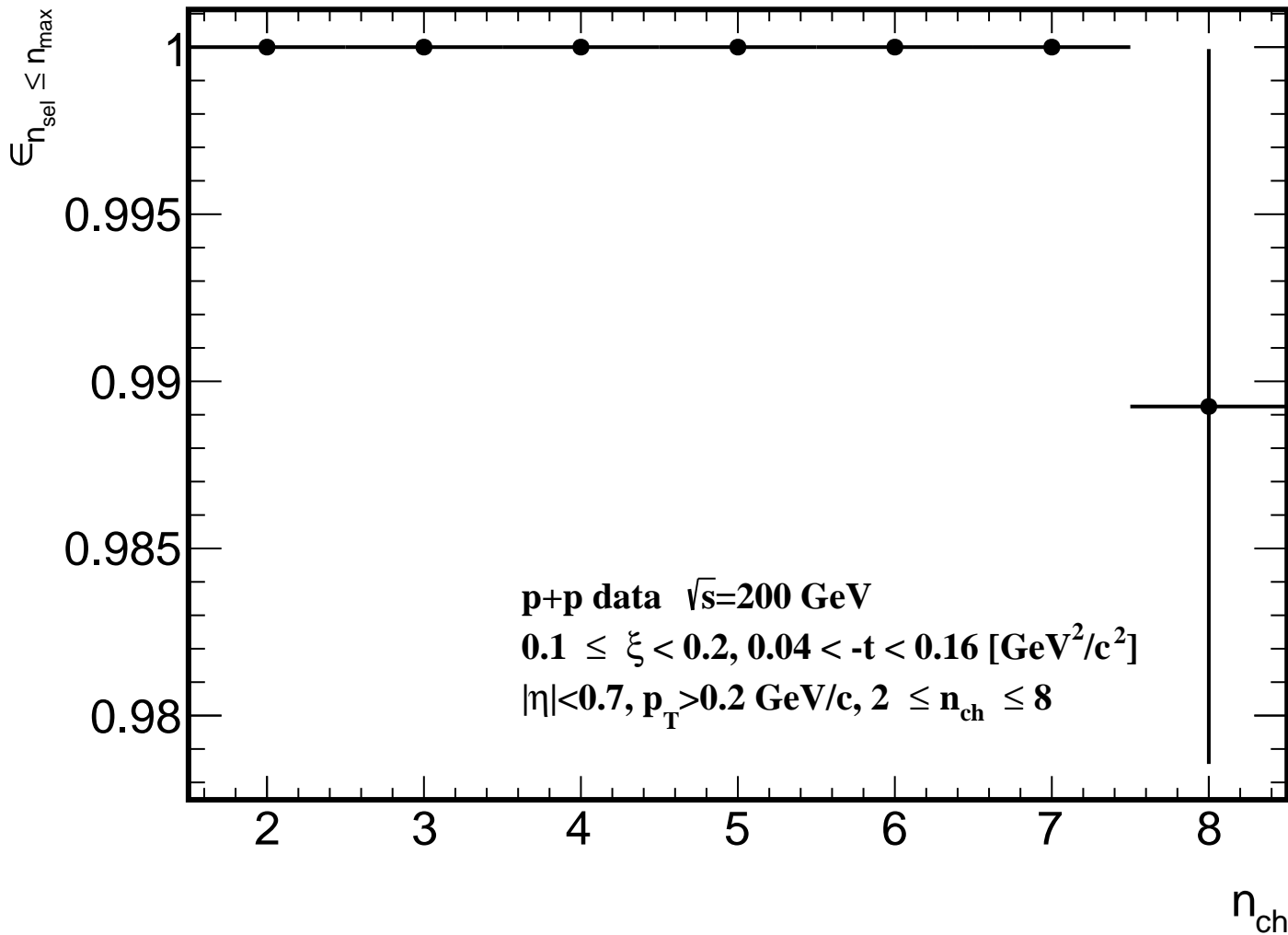
$1/N \, dN/dn_{\text{ch}}$  unf/true 

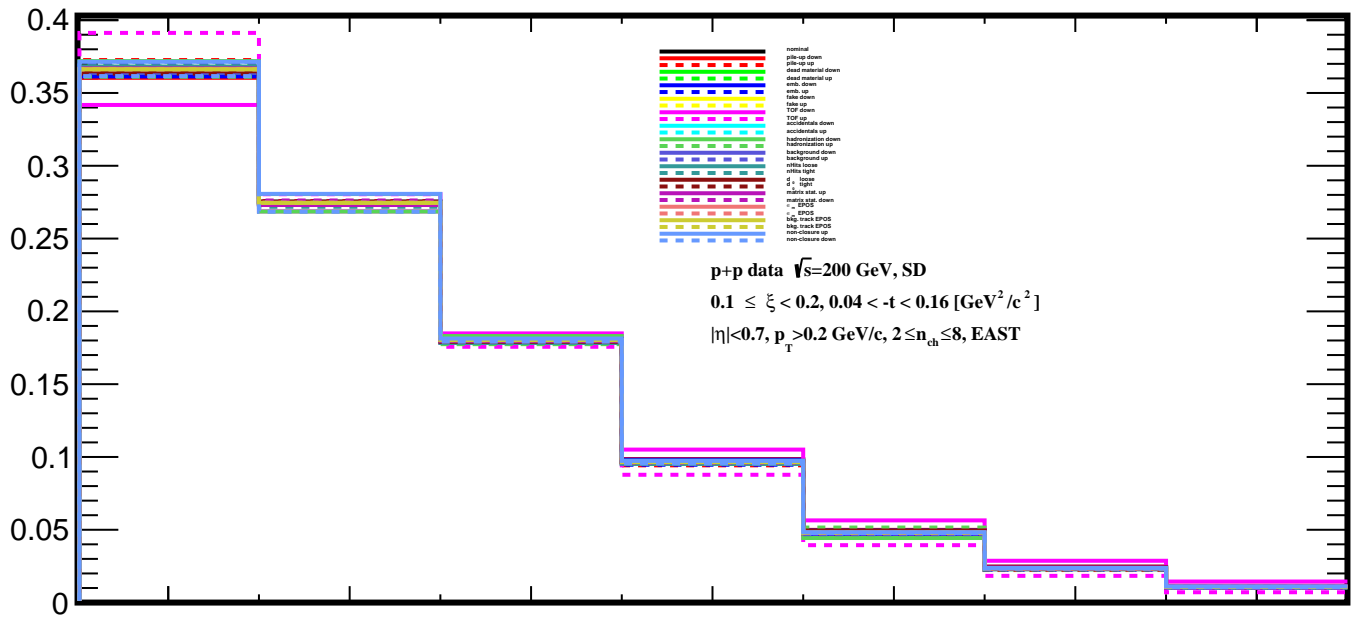




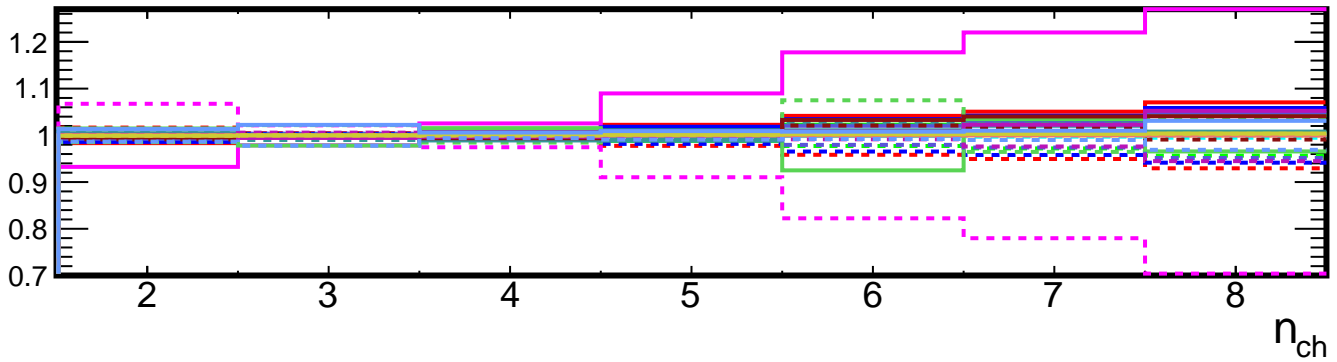


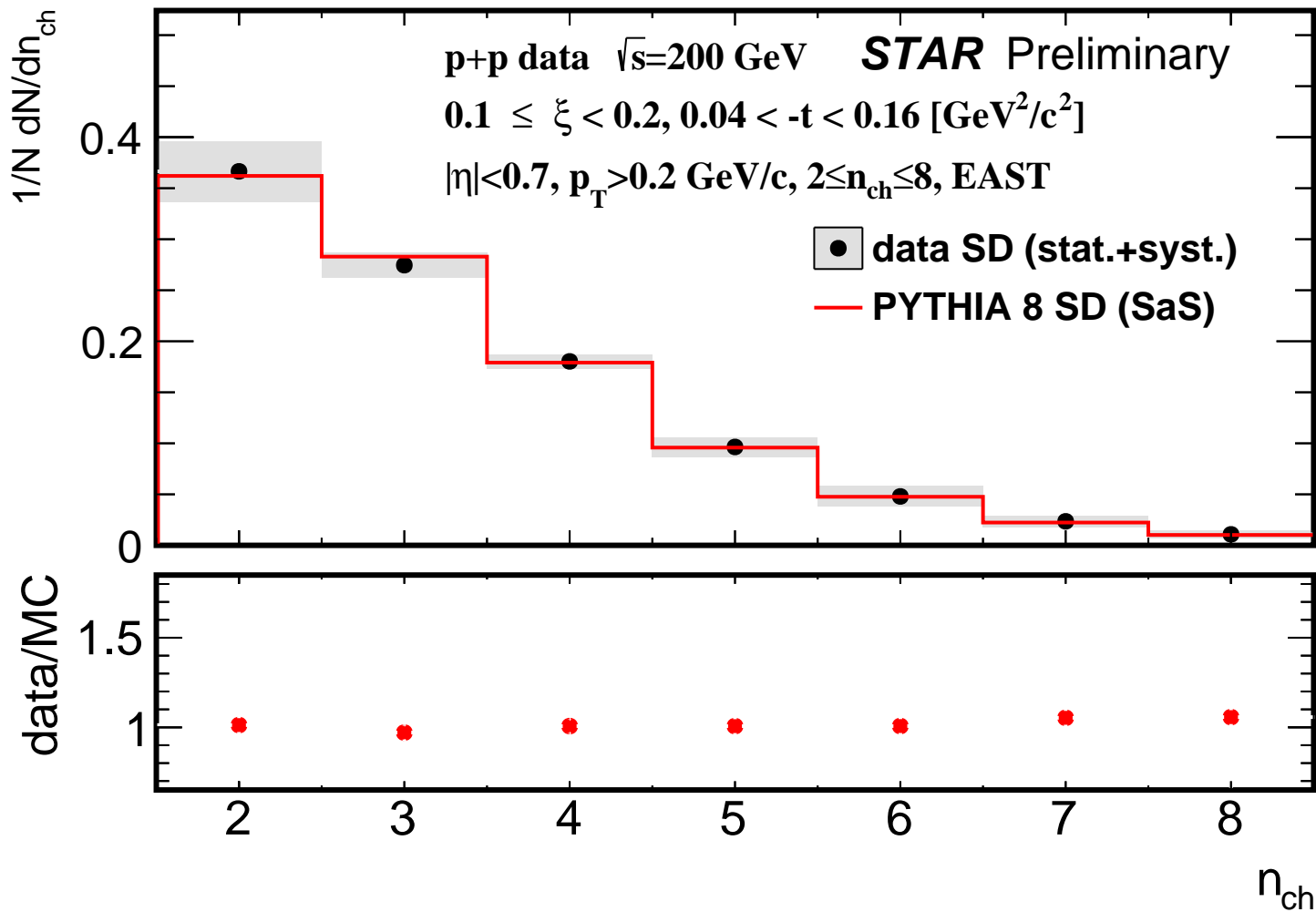


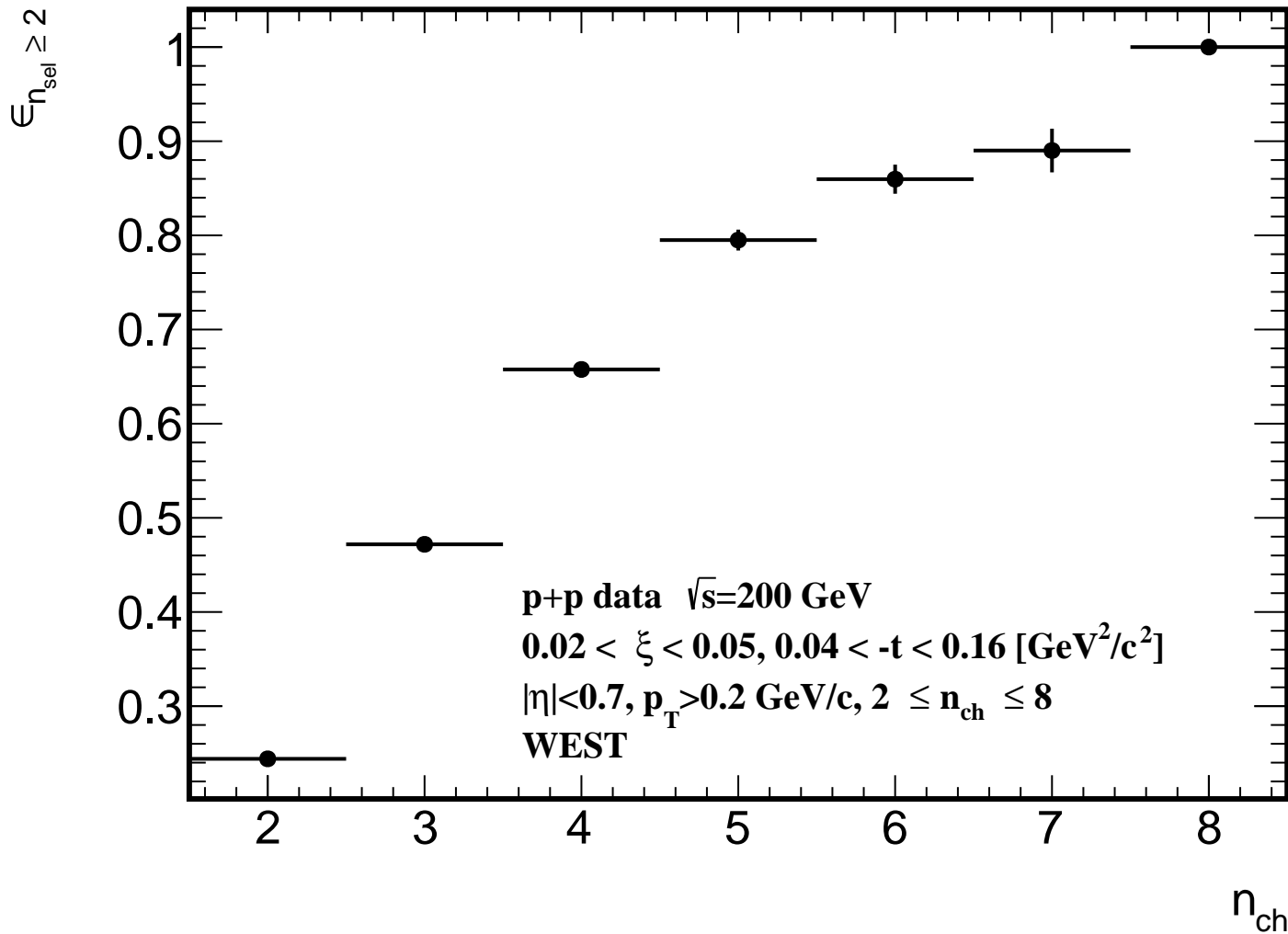


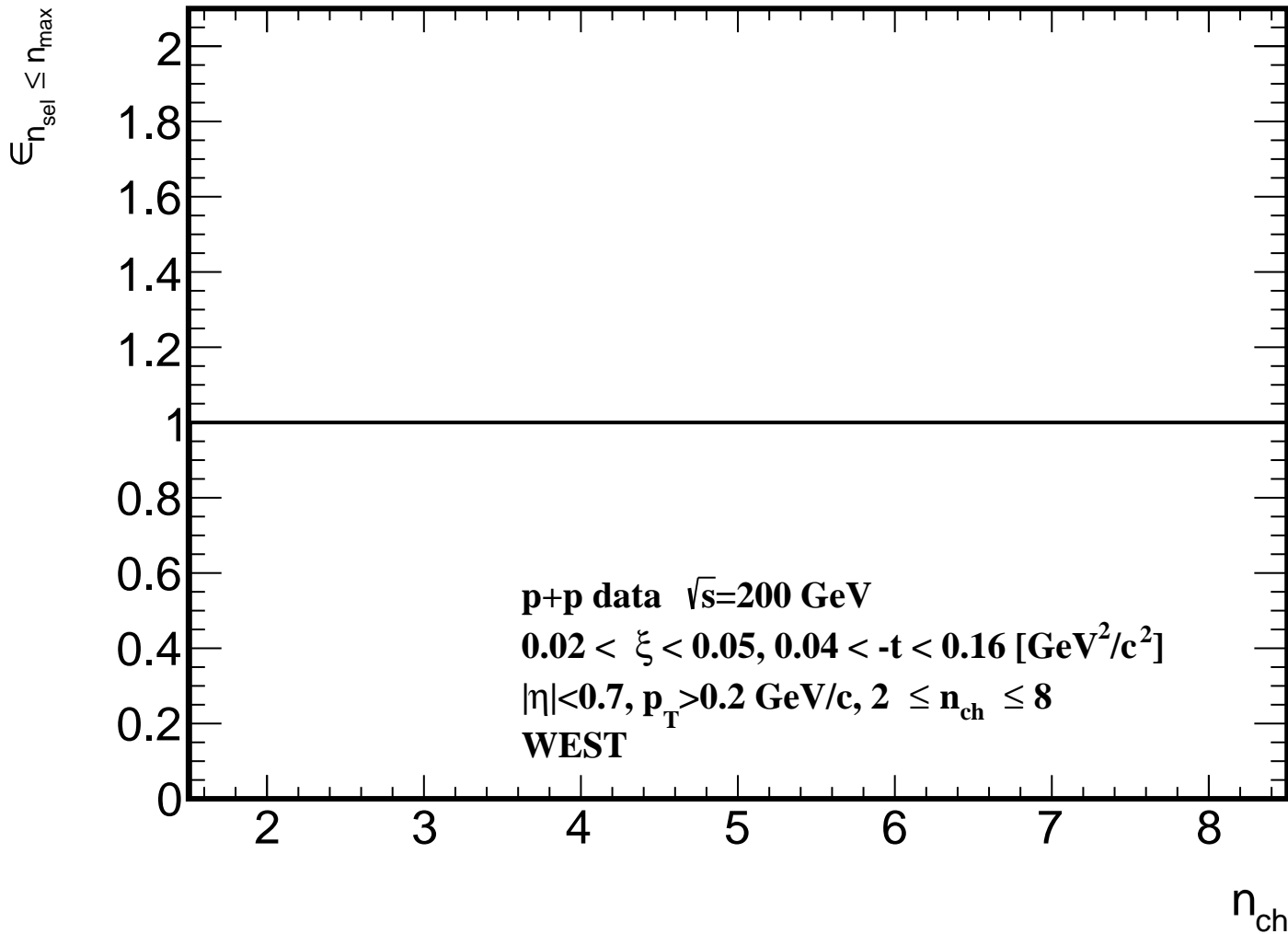
$1/N \, dN/dn_{\text{ch}}$ 

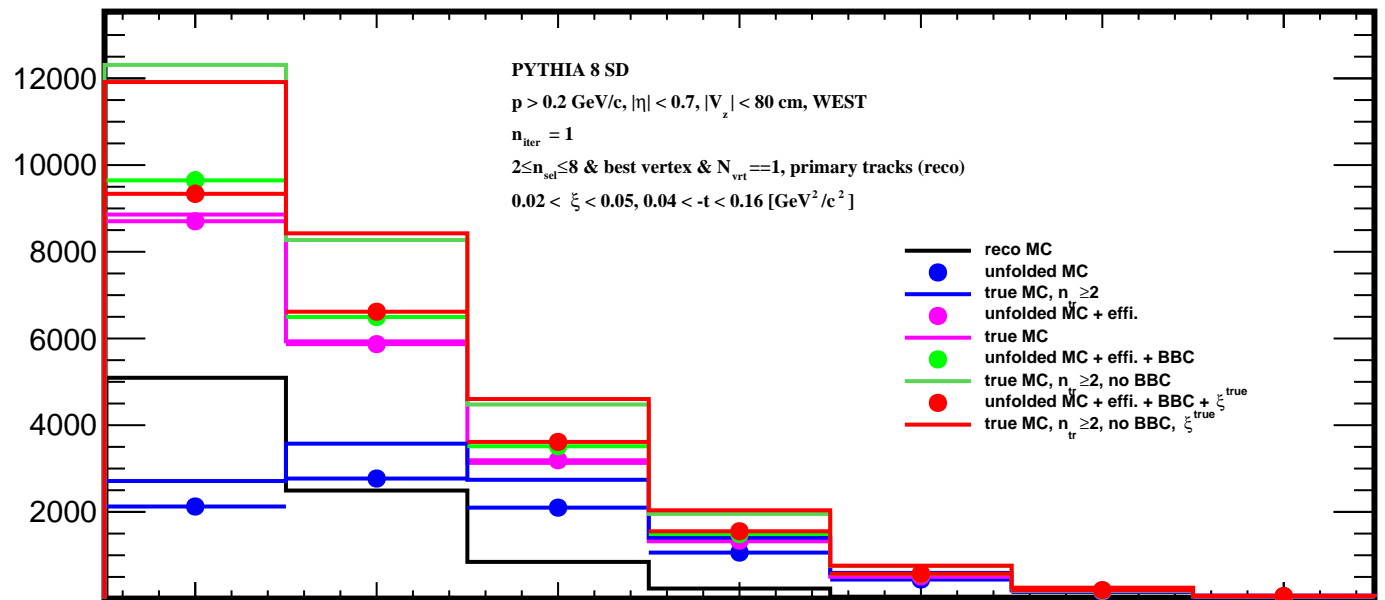
ratio



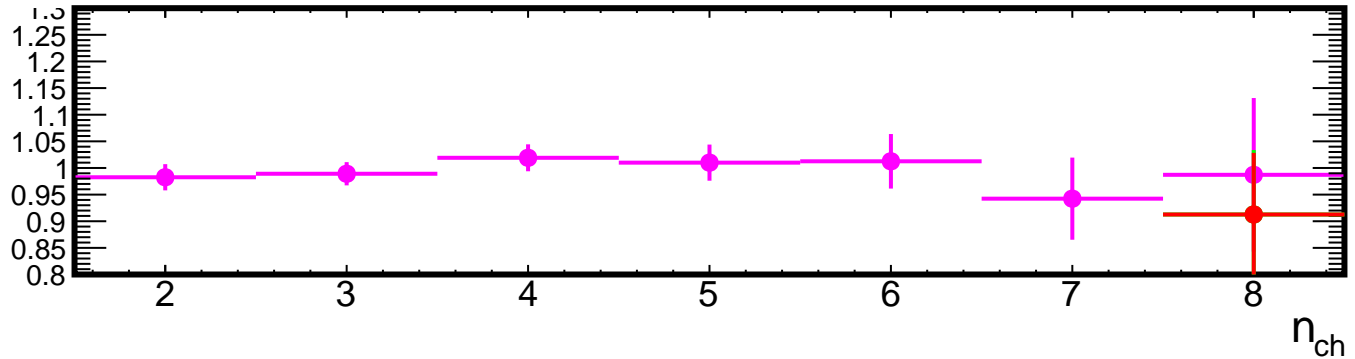






dN/dn_{ch} 

unf/true



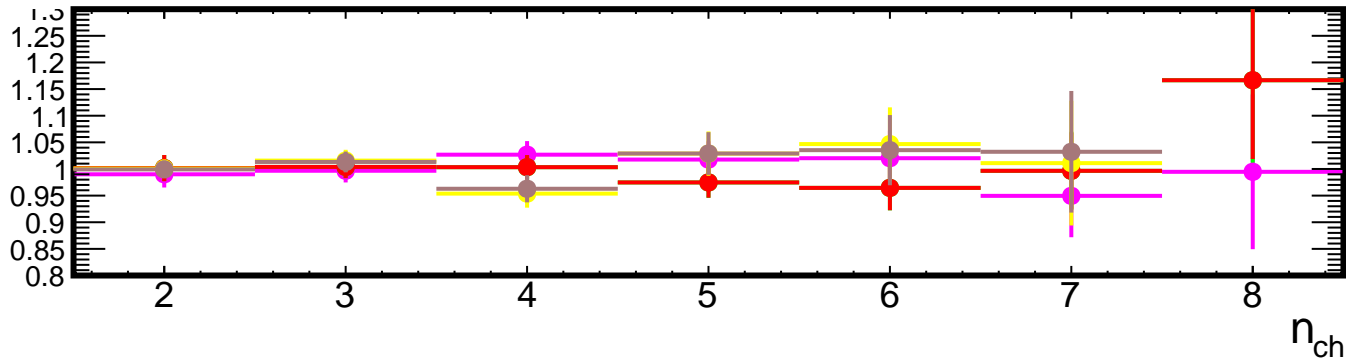
$1/N \, dN/dn_{\text{ch}}$

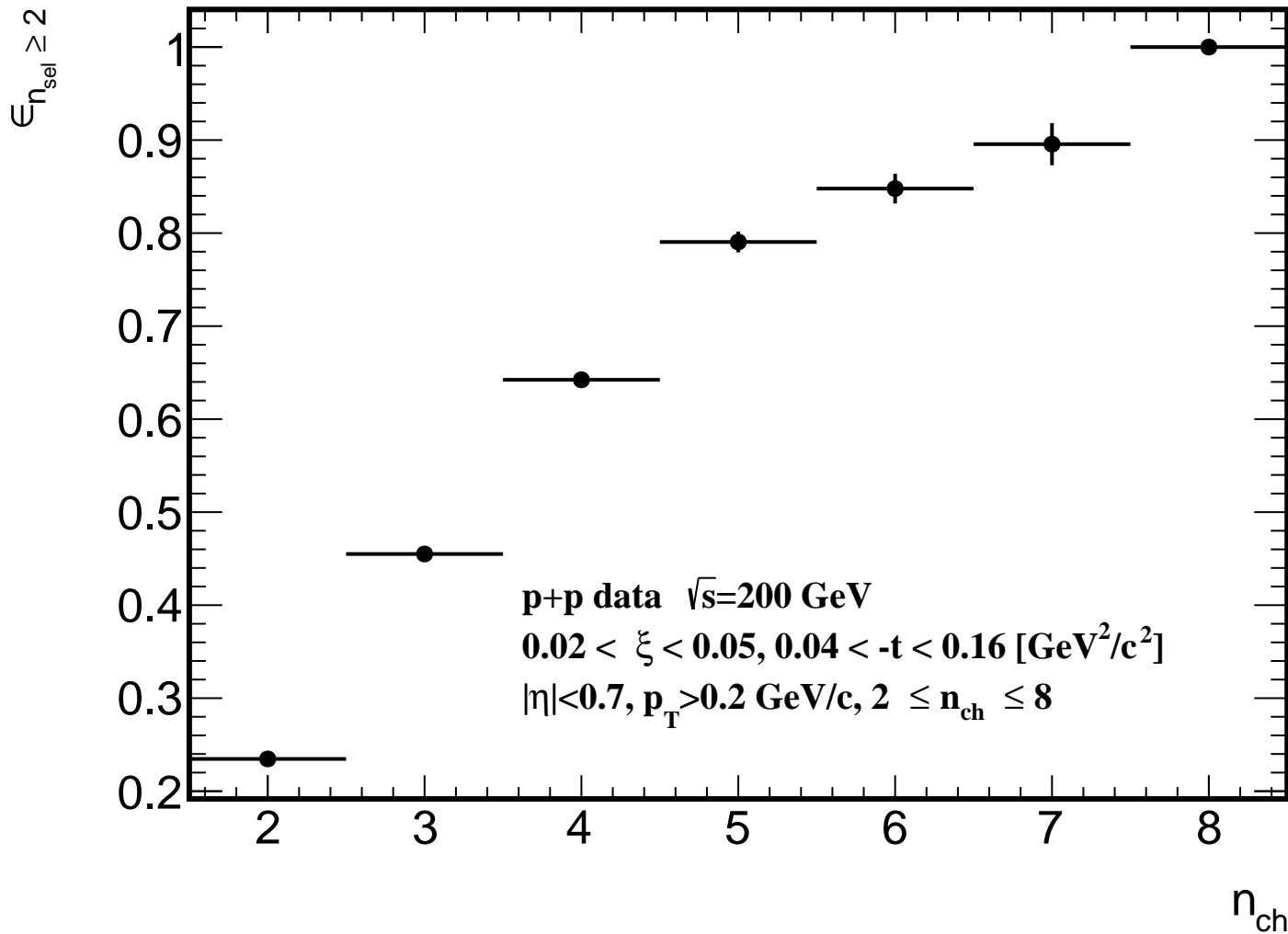
PYTHIA 8 SD

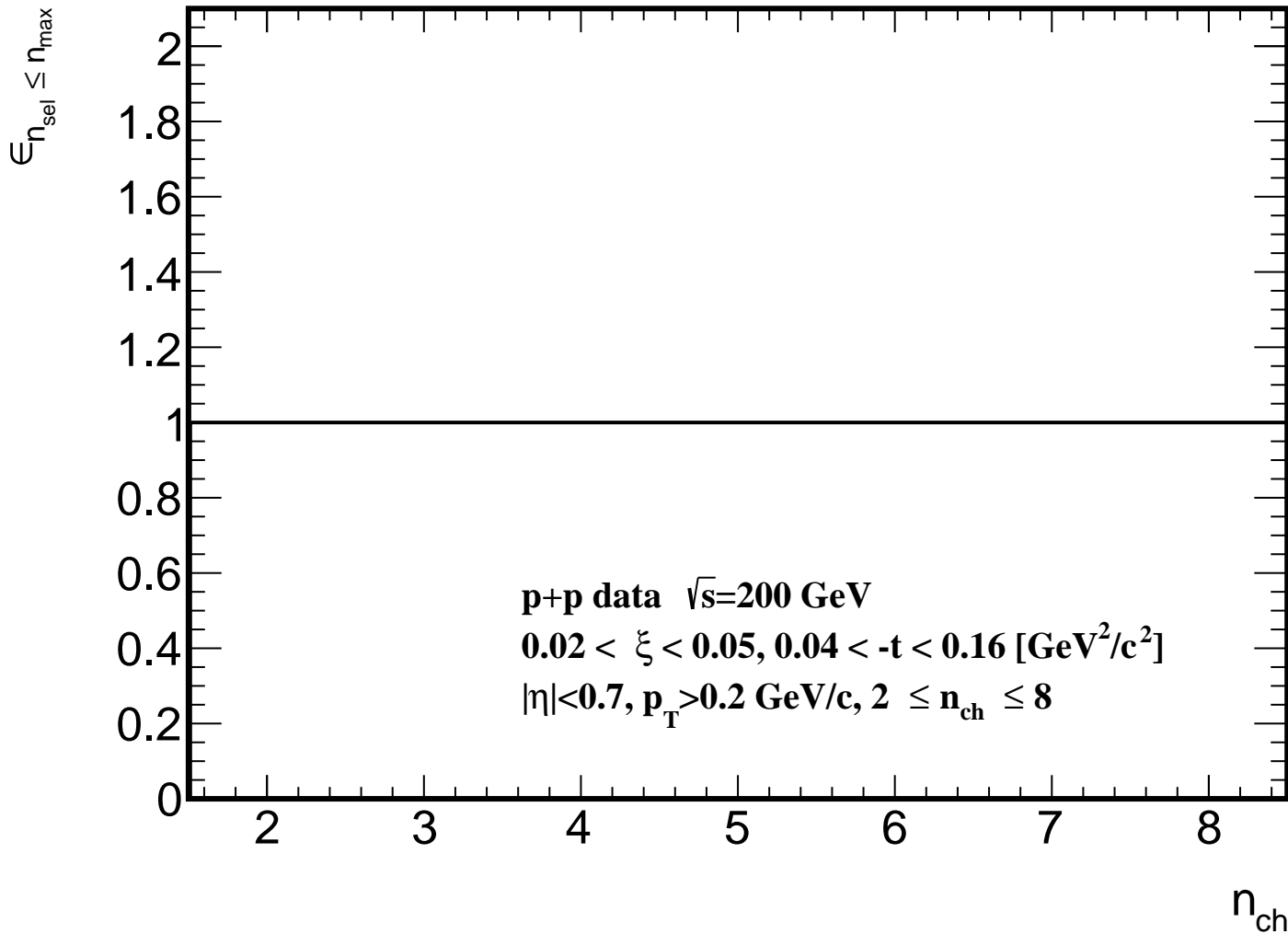
 $p > 0.2 \text{ GeV}/c, |\eta| < 0.7, |V_z| < 80 \text{ cm, WEST}$ $n_{\text{iter}} = 1$ $2 \leq n_{\text{sel}} \leq 8 \text{ \& best vertex \& } N_{\text{vtx}} = 1, \text{ primary tracks (reco)}$ $0.02 < \xi < 0.05, 0.04 < -t < 0.16 \text{ [GeV}^2/c^2 \text{]}$

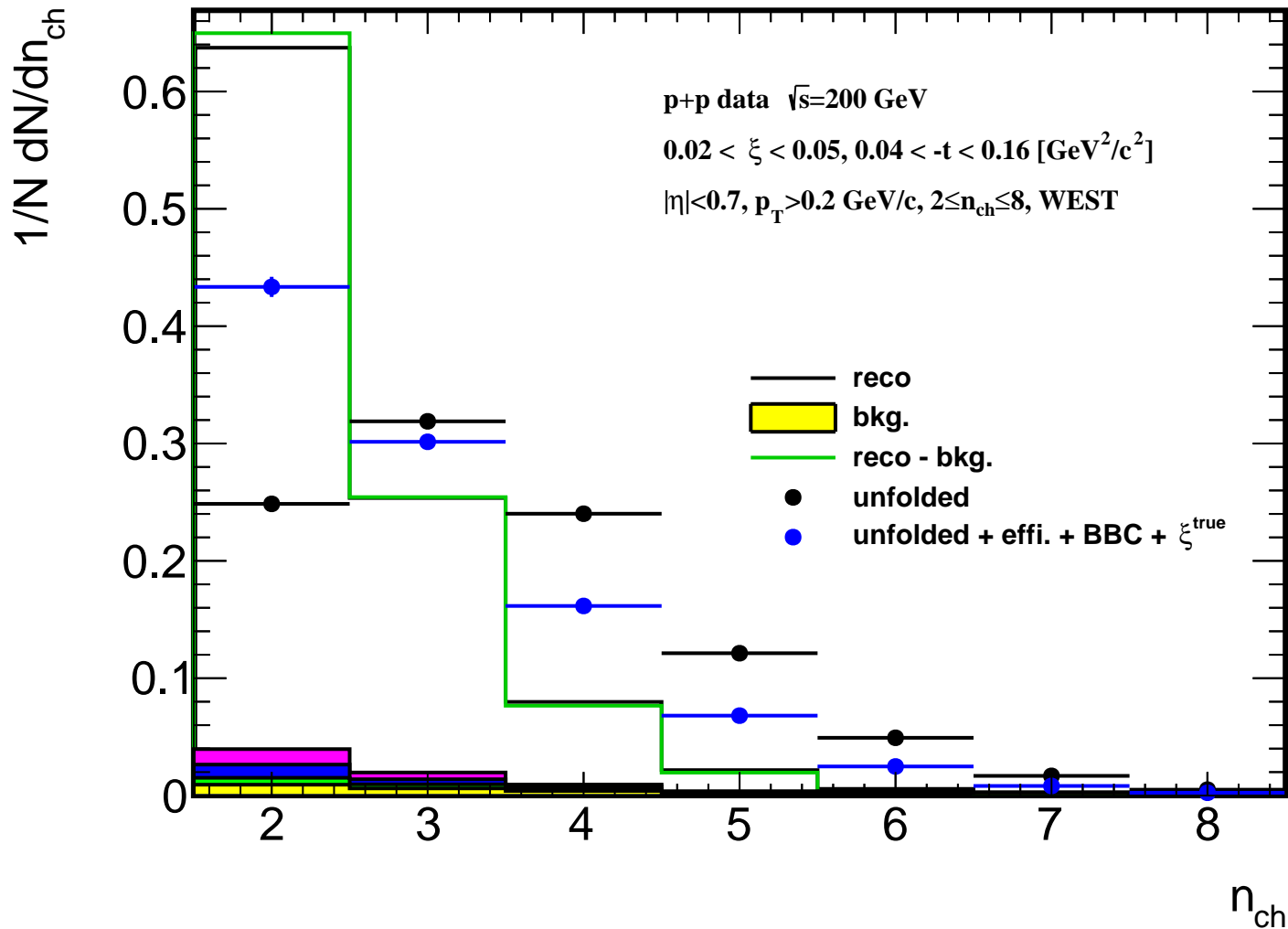
- reco MC
- unfolded MC
- true MC, $n_{\text{tr}} \geq 2$
- unfolded MC + effi.
- true MC
- unfolded MC + effi. + BBC
- true MC, $n_{\text{tr}} \geq 2$, no BBC
- unfolded MC + effi. + BBC, $\xi_{\text{true}}^{\text{true}}$
- true MC, $n_{\text{tr}} \geq 2$, no BBC, $\xi_{\text{true}}^{\text{true}}$
- true MC, $n_{\text{tr}} \geq 2$, no BBC, $\xi_{\text{true}}^{\text{true}}$, $-t$
- true MC, $n_{\text{tr}} \geq 2$, no BBC, $\xi_{\text{true}}^{\text{true}}$, $-t$, no vtx

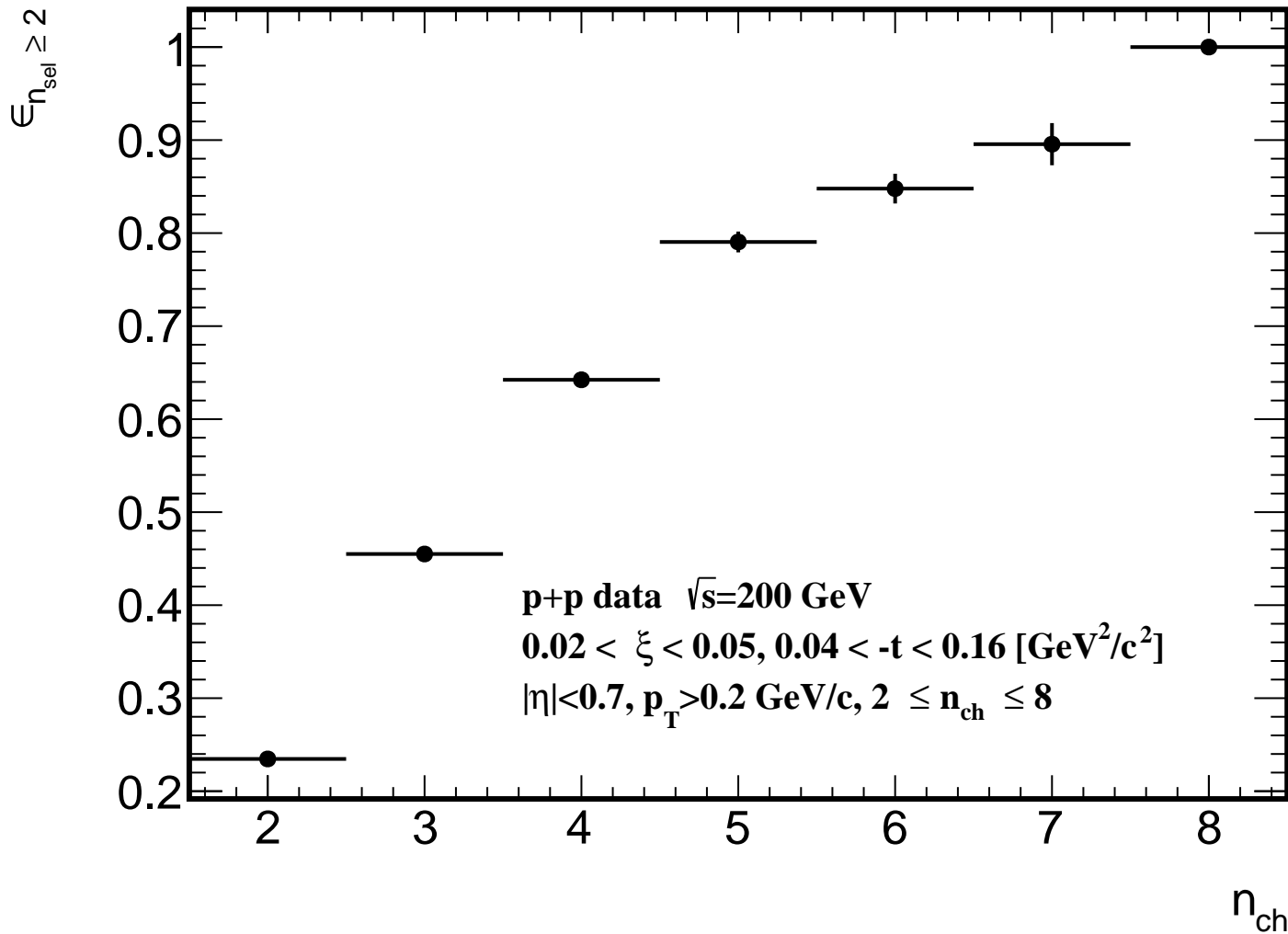
unf/true

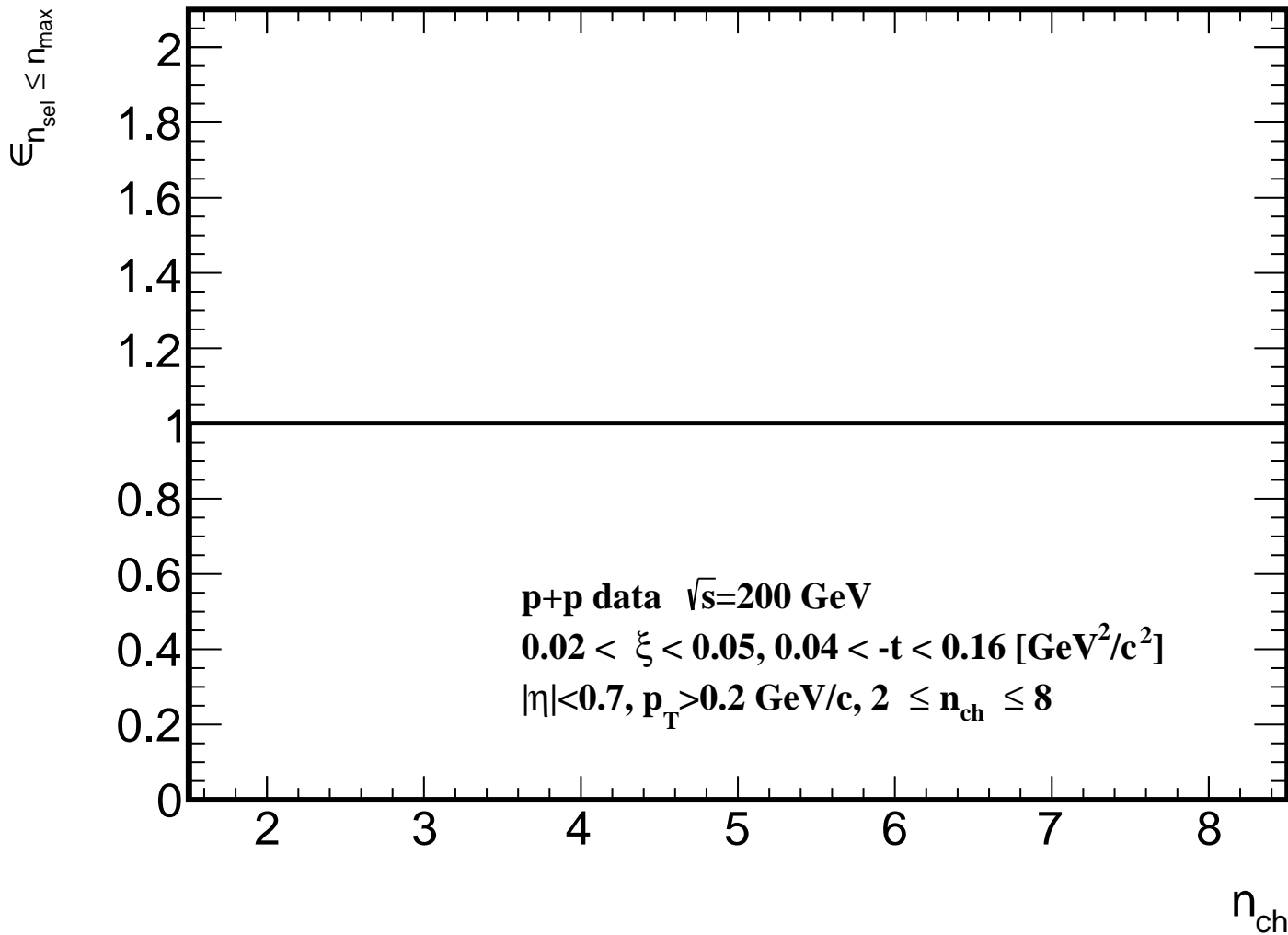


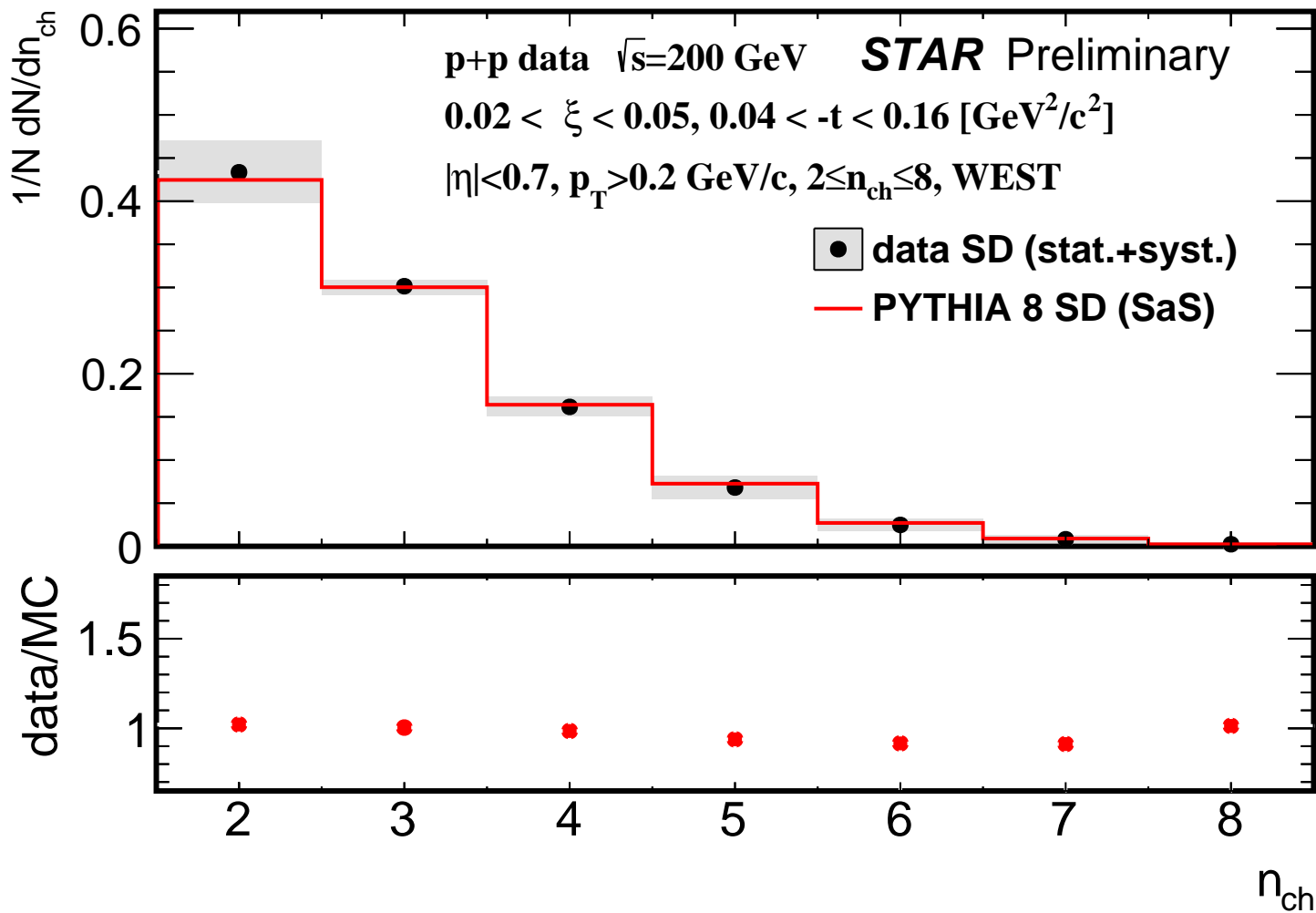


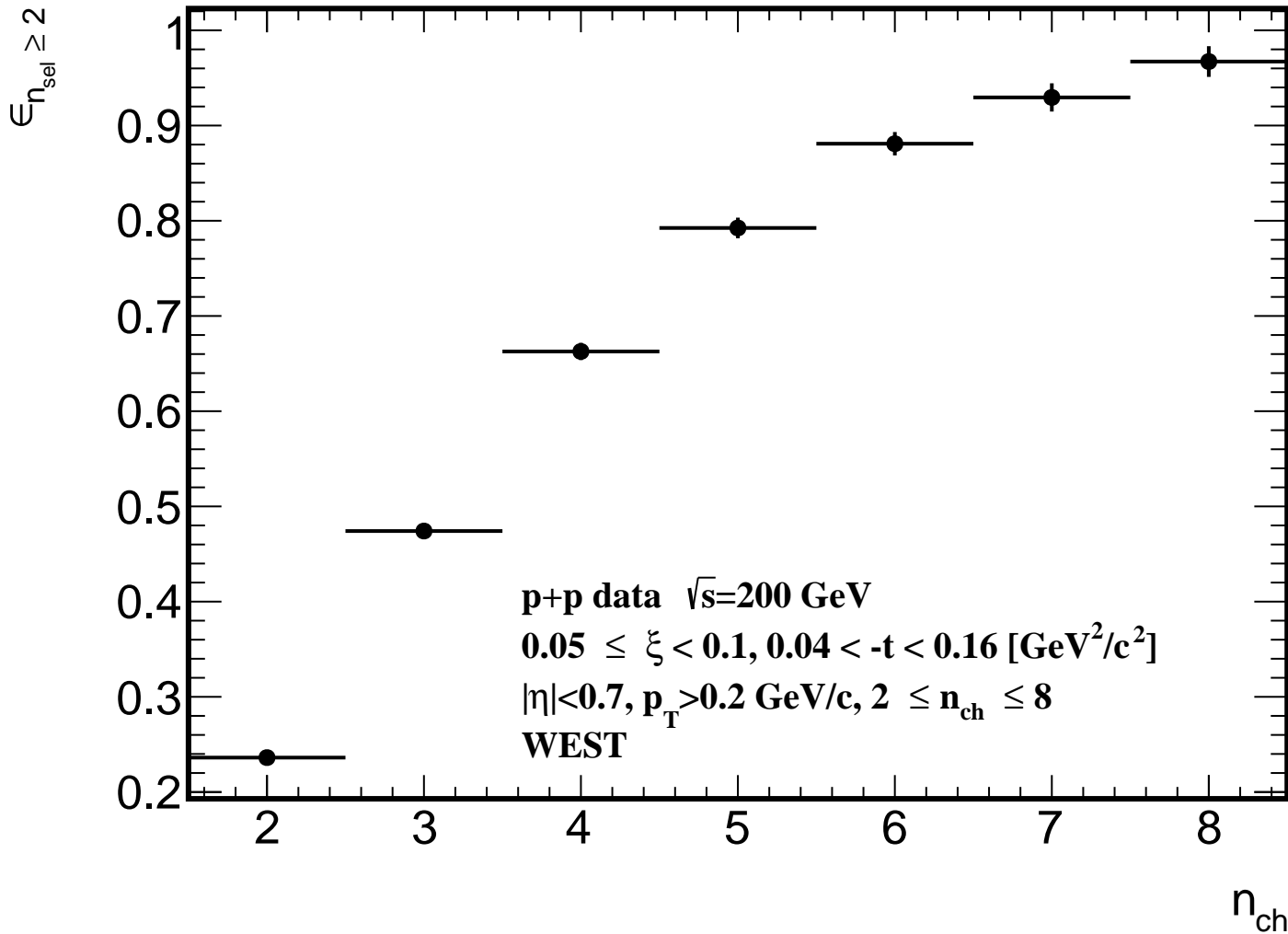


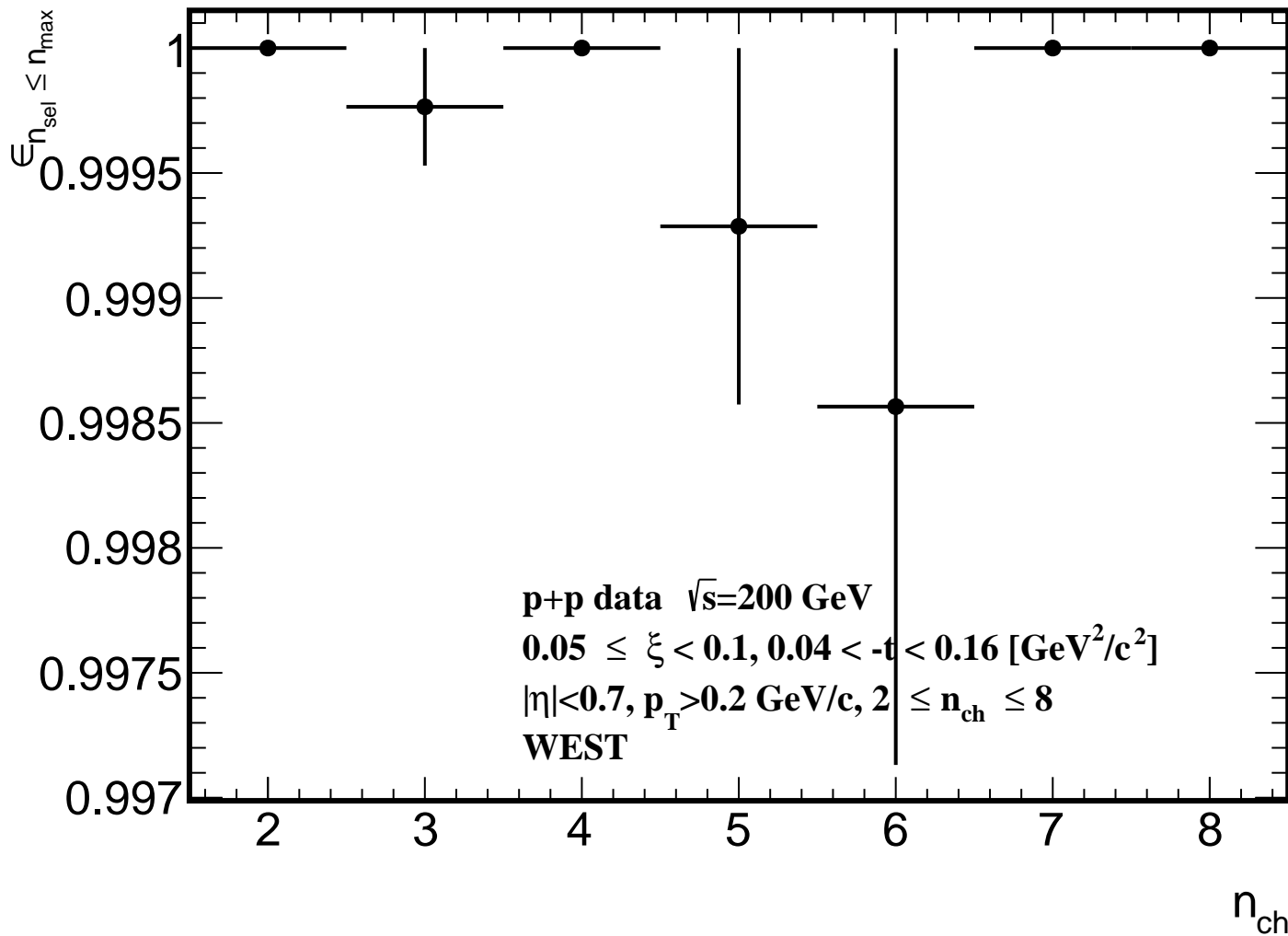


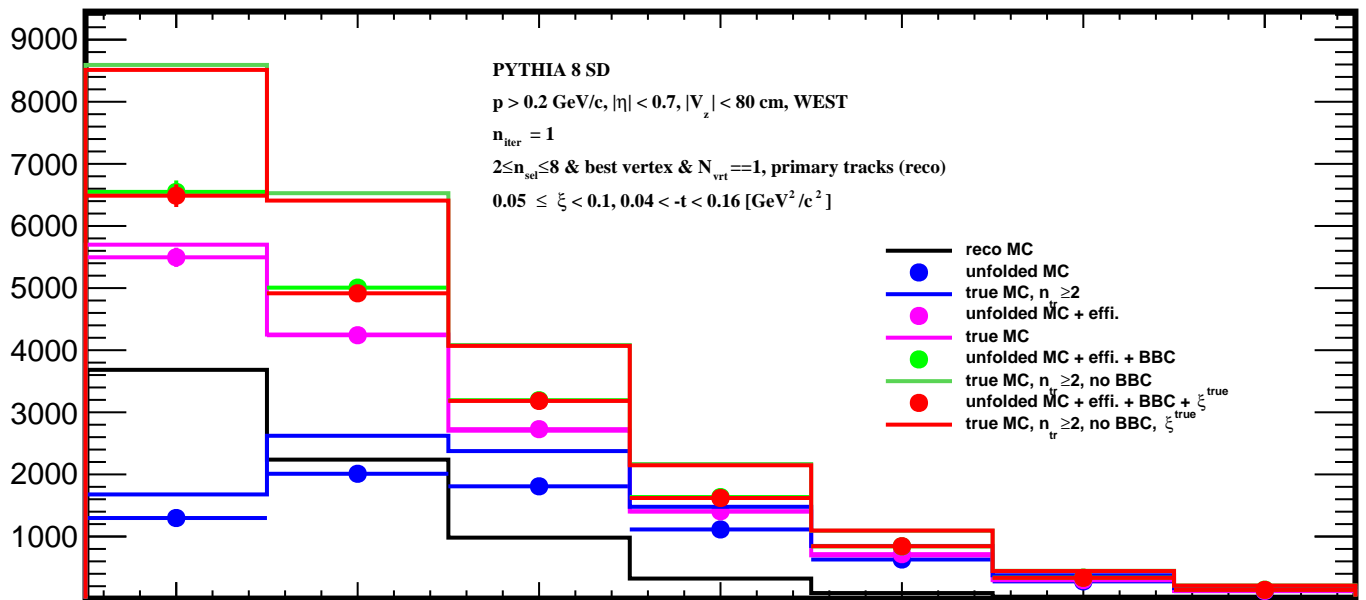
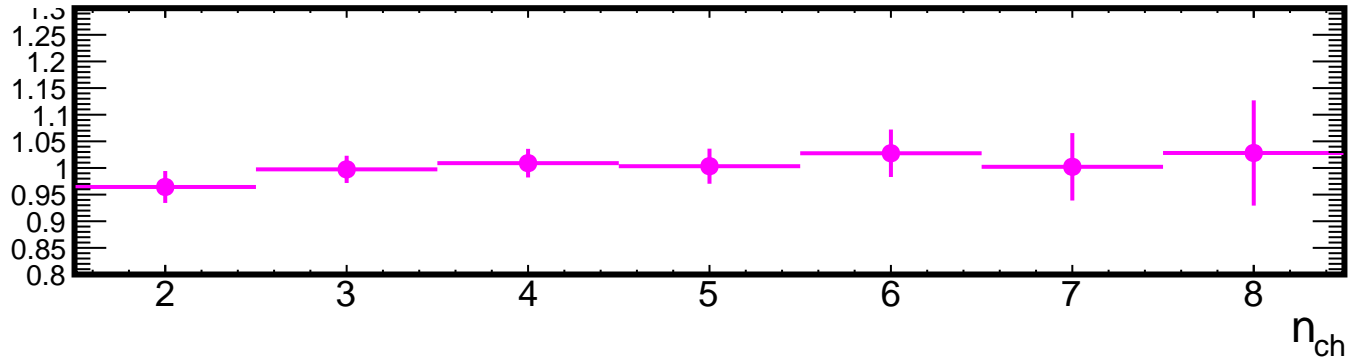










dN/dn_{ch}  unf/true 

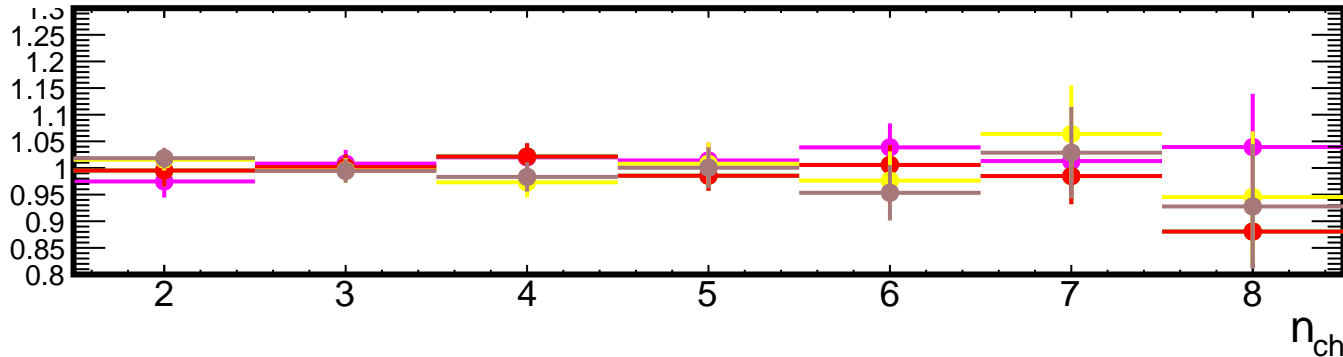
$1/N \, dN/dn_{\text{ch}}$

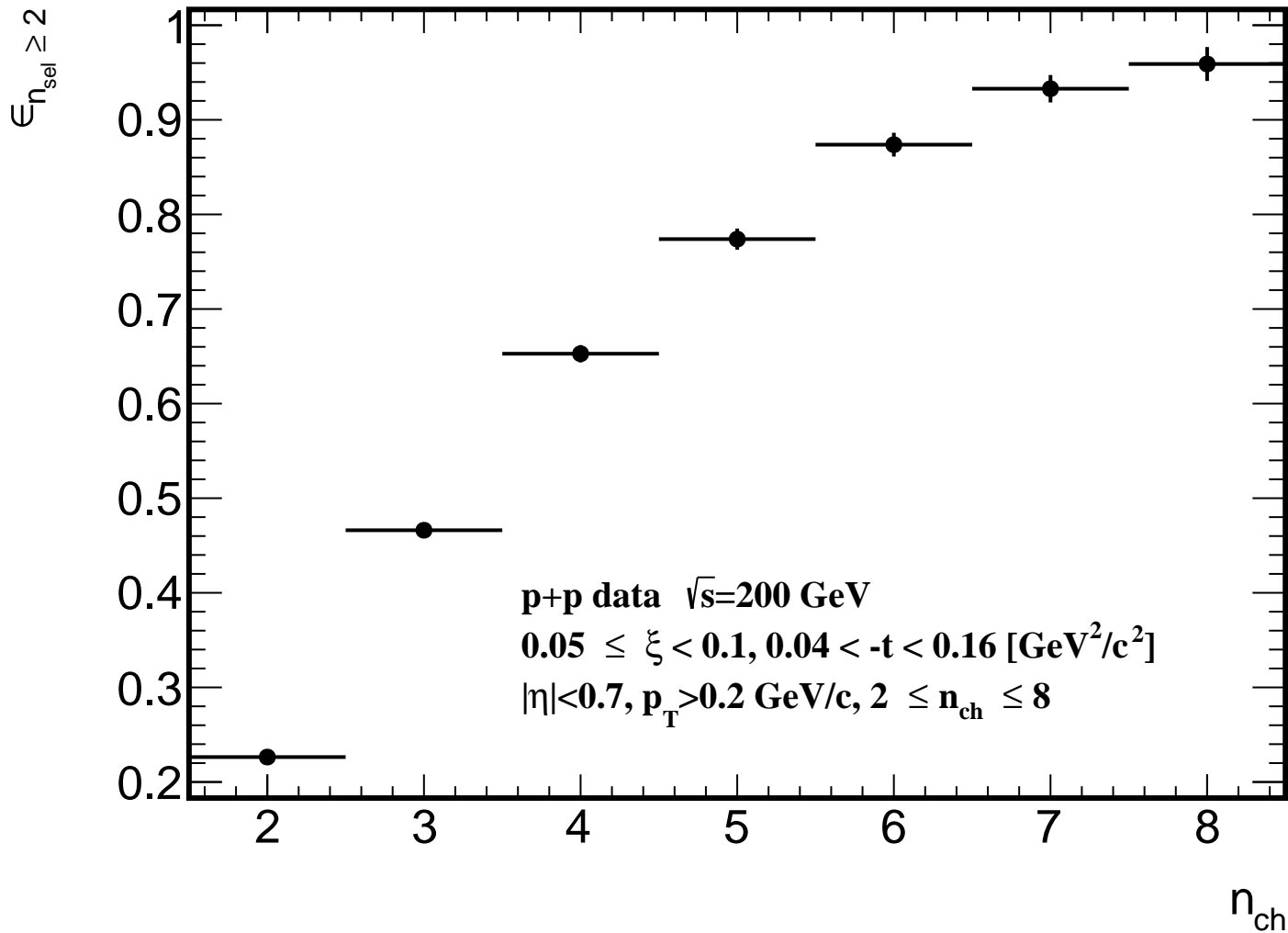
PYTHIA 8 SD

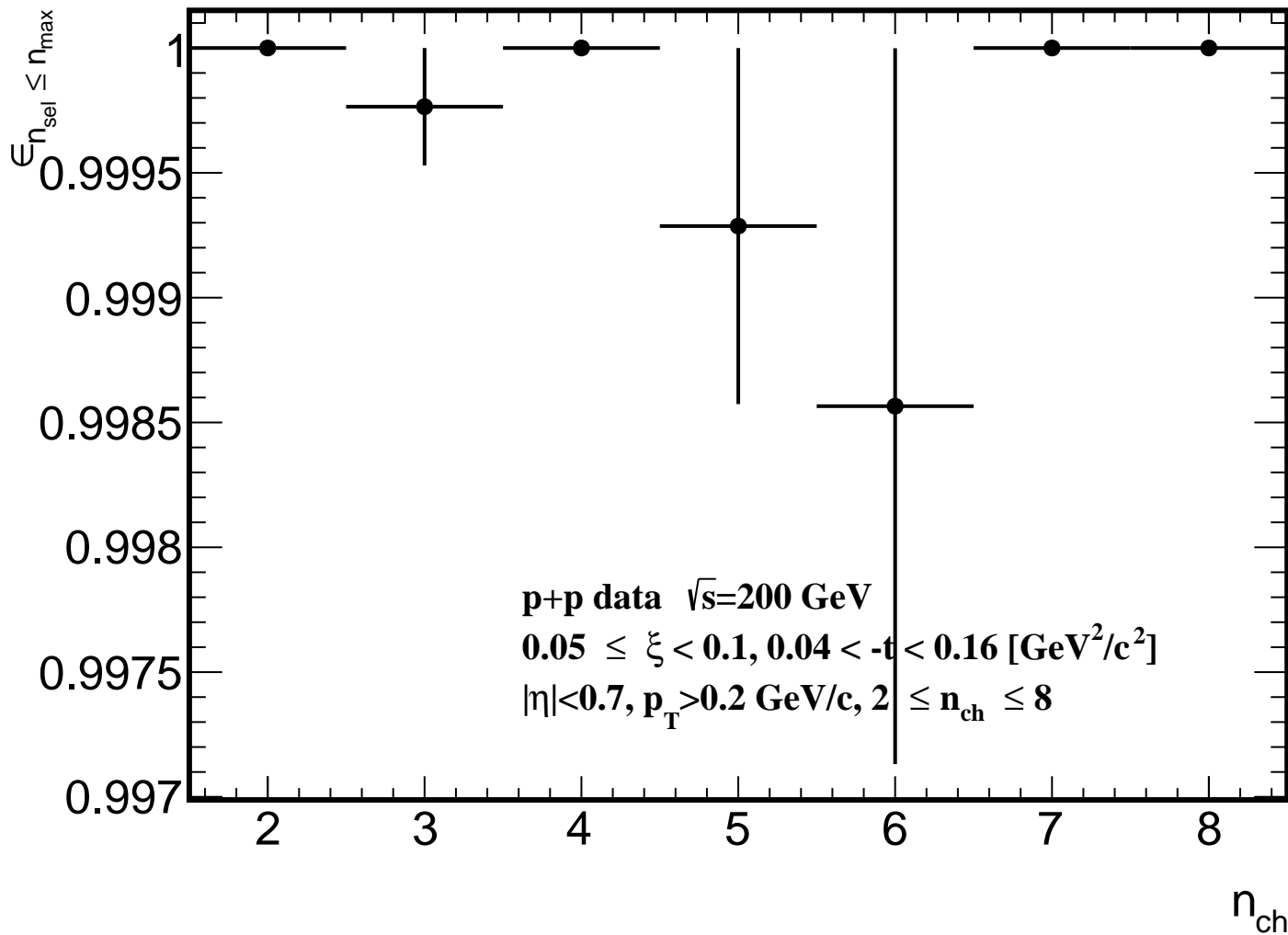
 $p > 0.2 \text{ GeV}/c, |\eta| < 0.7, |V_z| < 80 \text{ cm, WEST}$ $n_{\text{iter}} = 1$ $2 \leq n_{\text{sel}} \leq 8 \text{ \& best vertex \& } N_{\text{vtx}} = 1, \text{ primary tracks (reco)}$ $0.05 \leq \xi < 0.1, 0.04 < -t < 0.16 \text{ [GeV}^2/c^2 \text{]}$

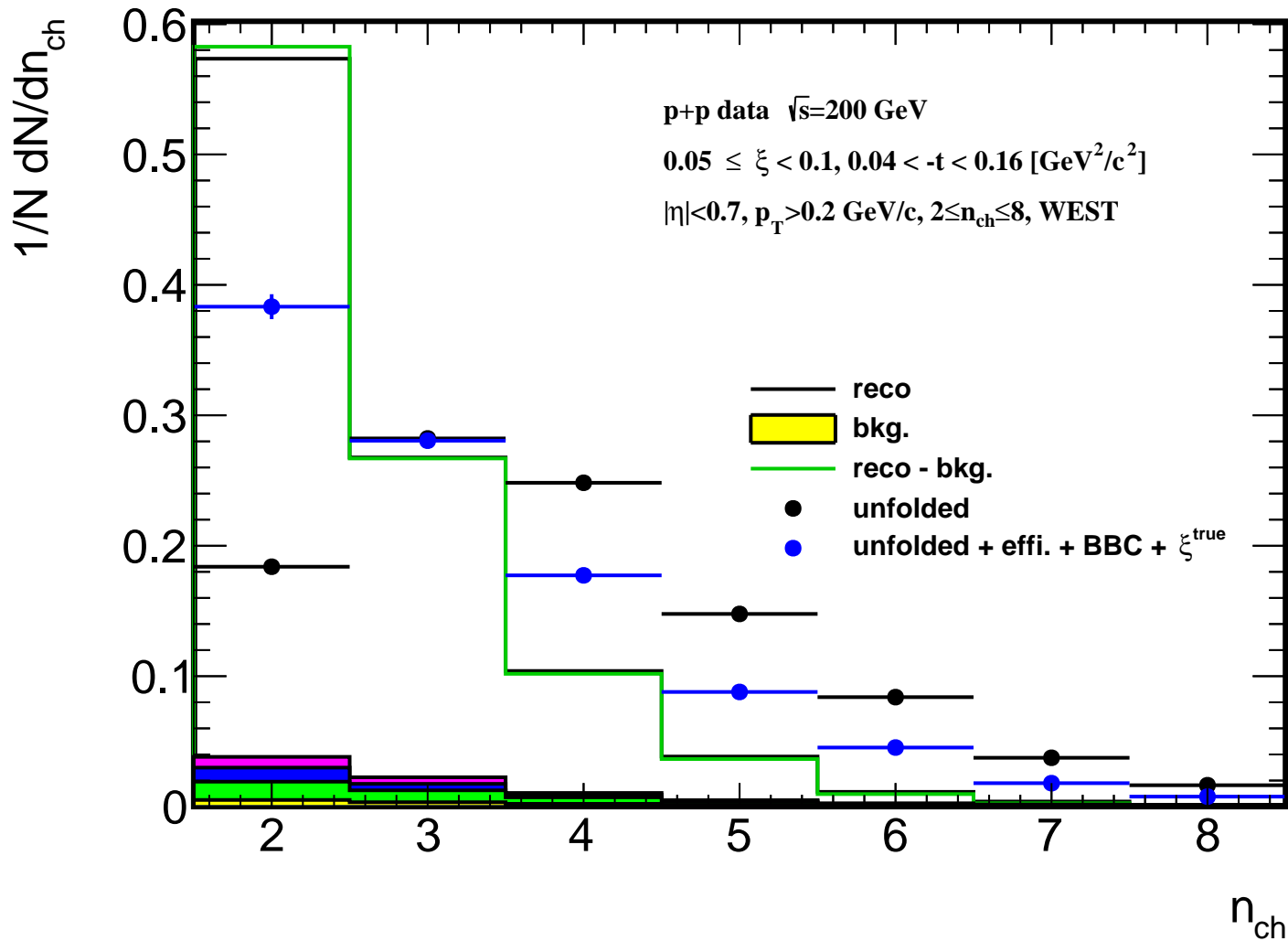
- reco MC
- unfolded MC
- true MC, $n_{\text{tr}} \geq 2$
- unfolded MC + effi.
- true MC
- unfolded MC + effi. + BBC
- true MC, $n_{\text{tr}} \geq 2$, no BBC
- unfolded MC + effi. + BBC + $\xi_{\text{true}}, -t$
- true MC, $n_{\text{tr}} \geq 2$, no BBC, $\xi_{\text{true}}, -t$
- true MC, $n_{\text{tr}} \geq 2$, no BBC, $\xi_{\text{true}}, -t$, no vtx

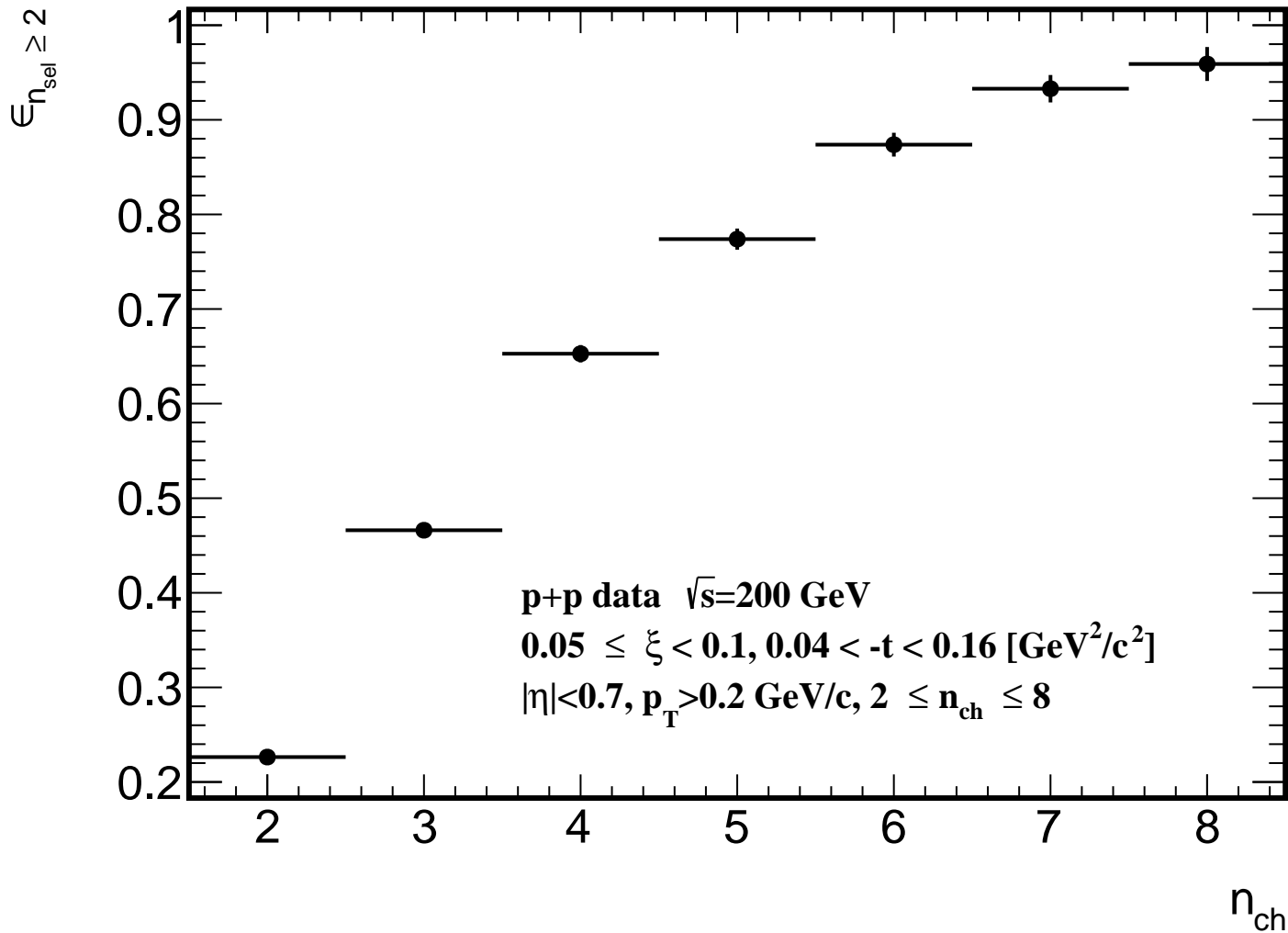
unf/true

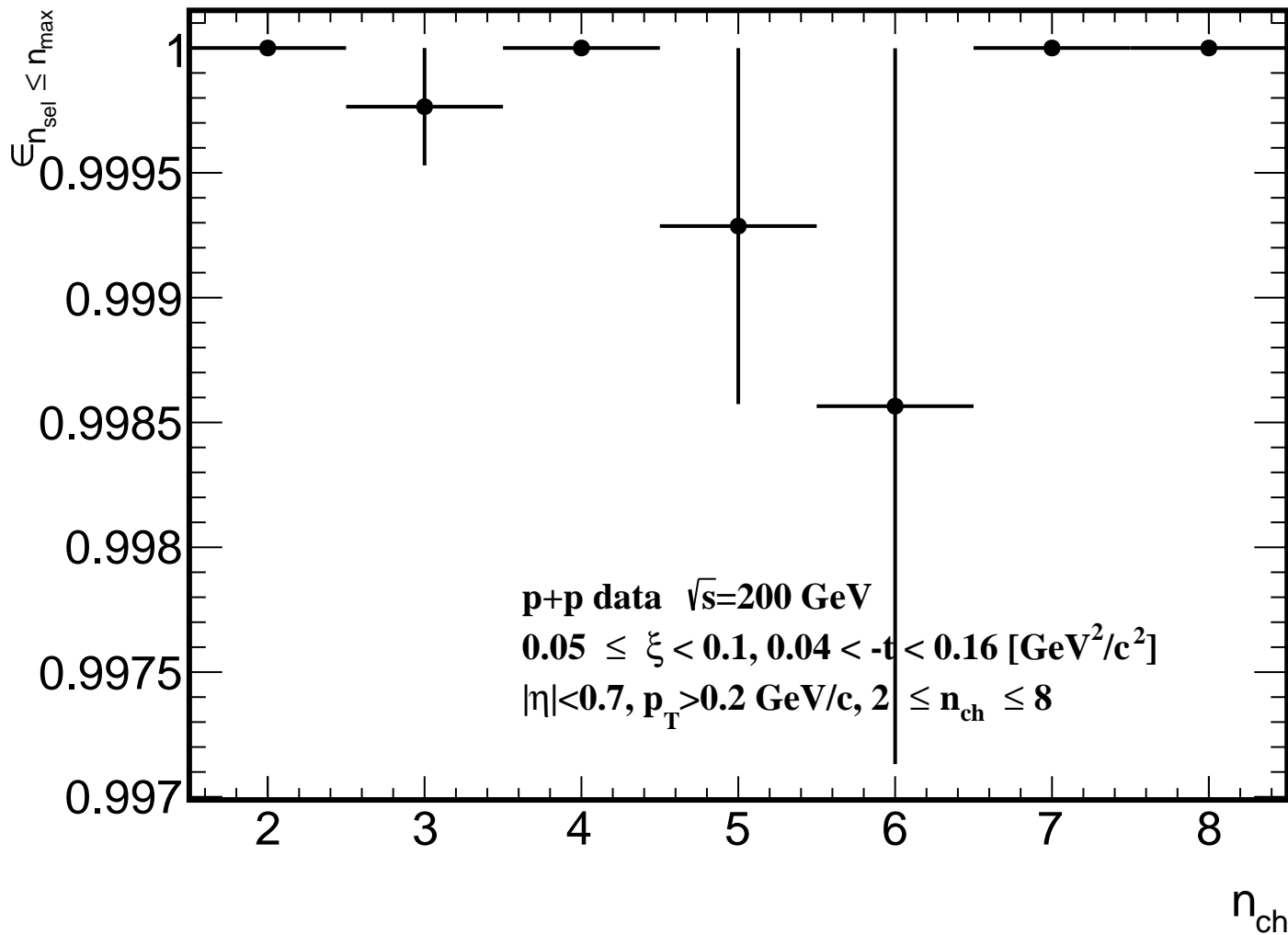


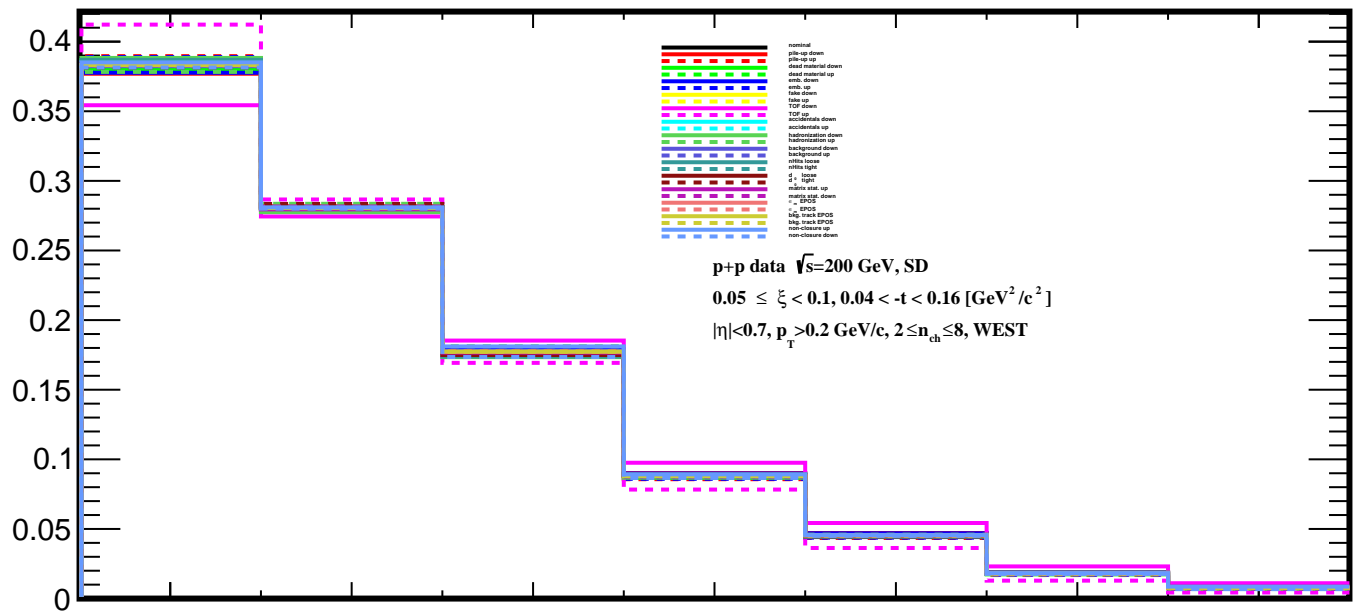




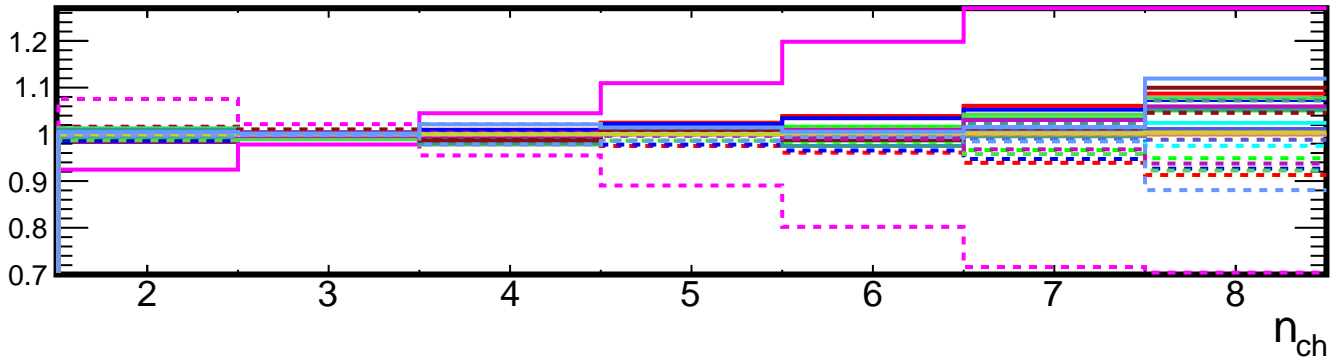


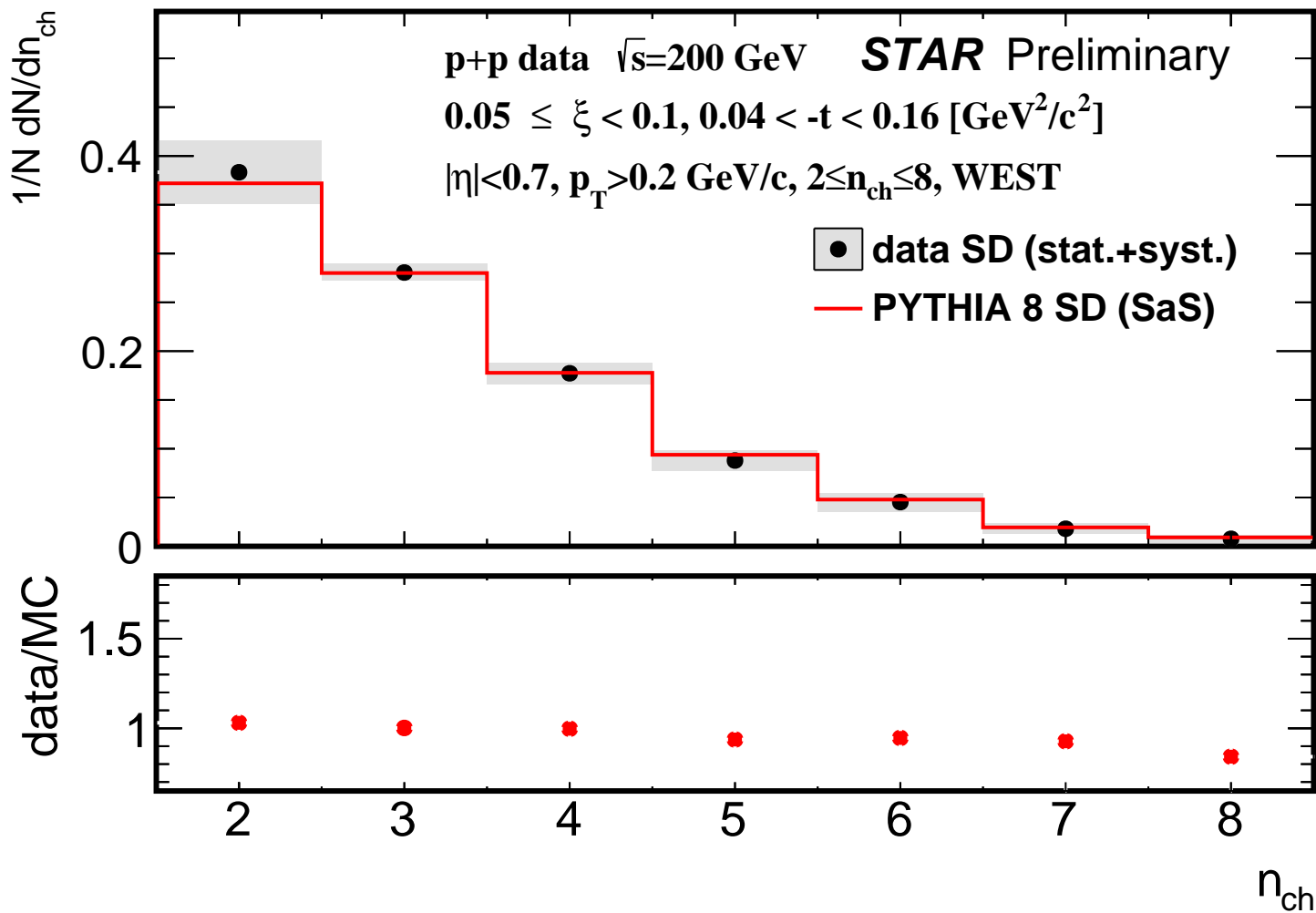


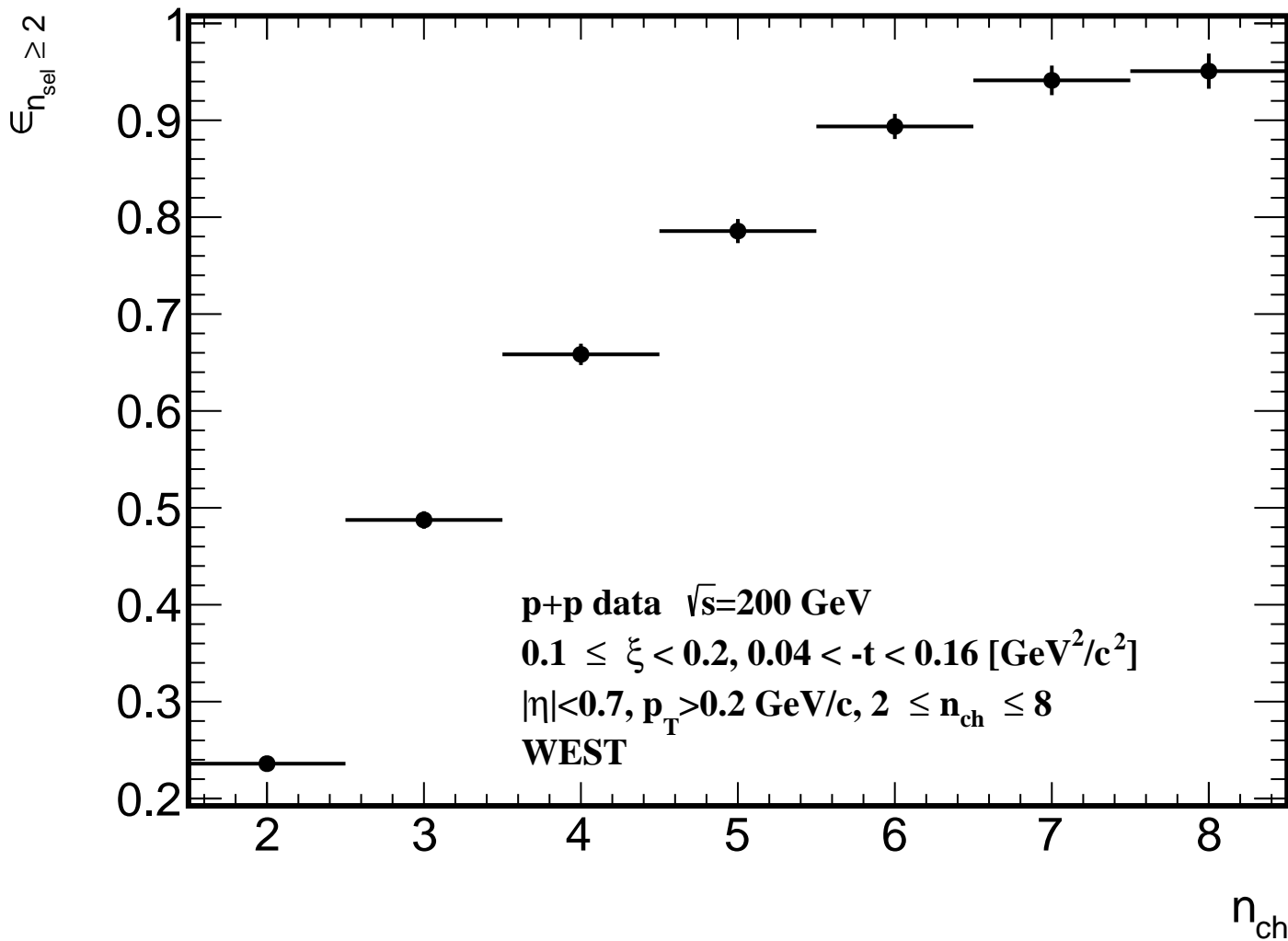


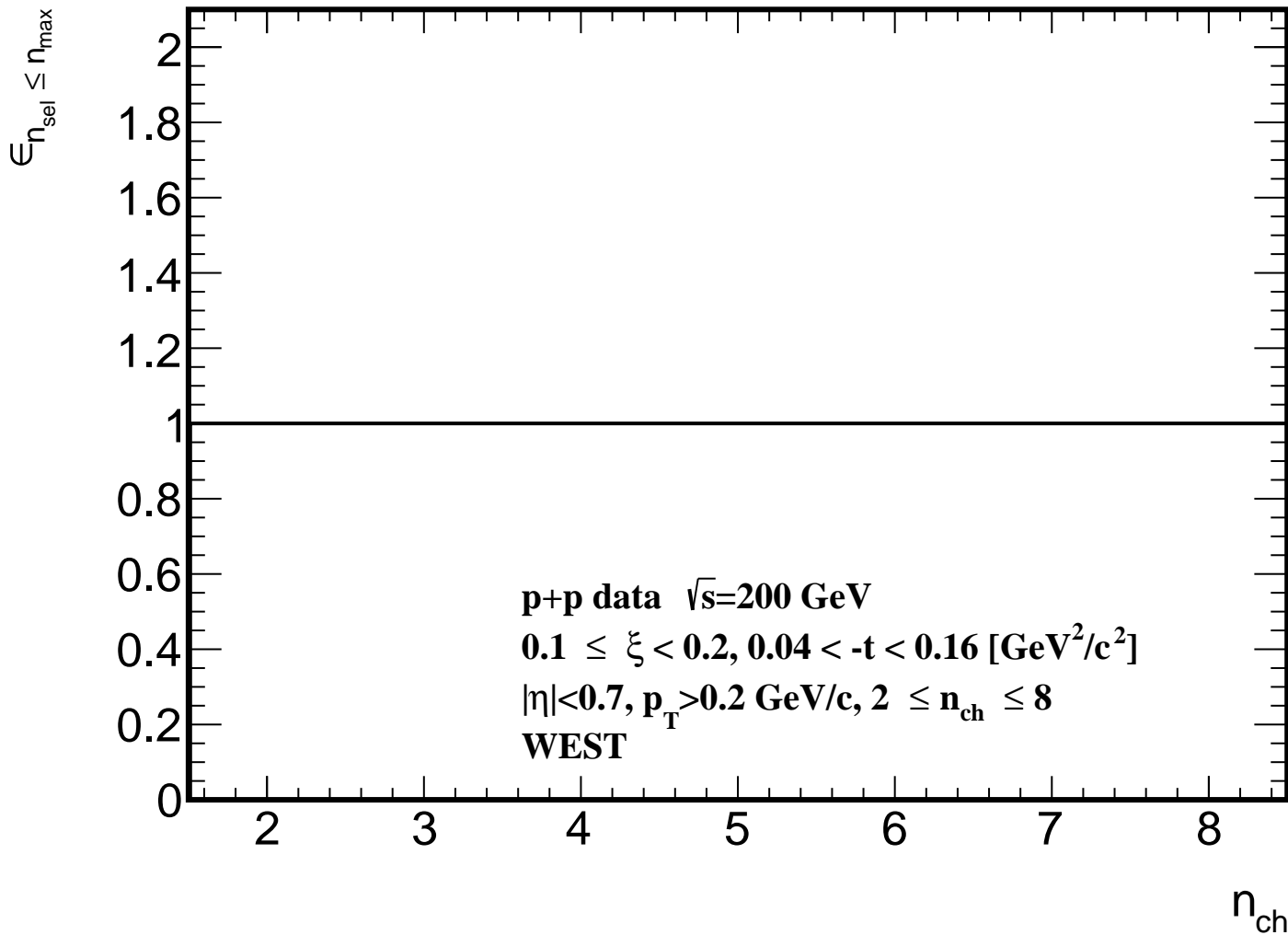
$1/N \, dN/dn_{\text{ch}}$ 

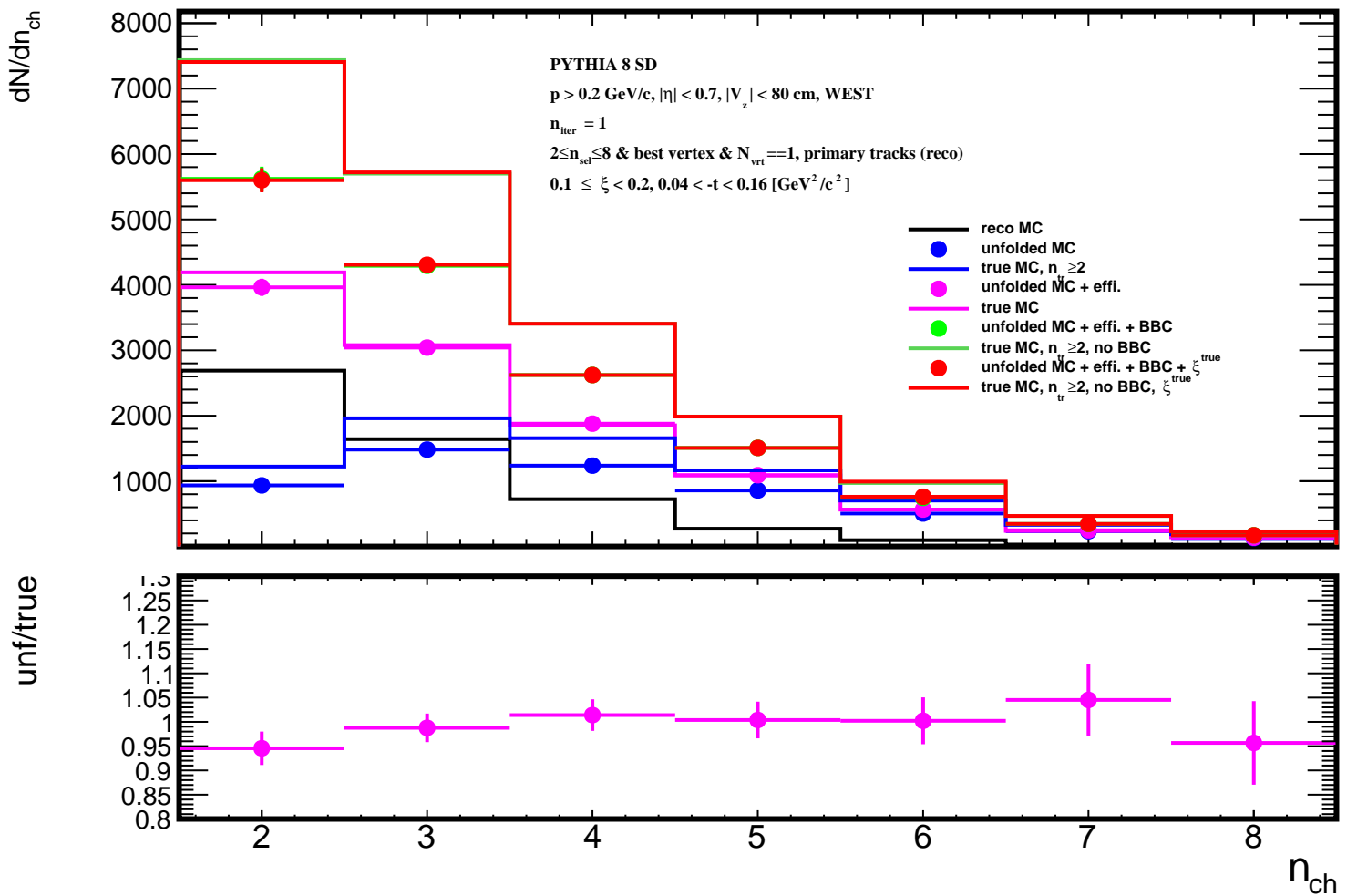
ratio

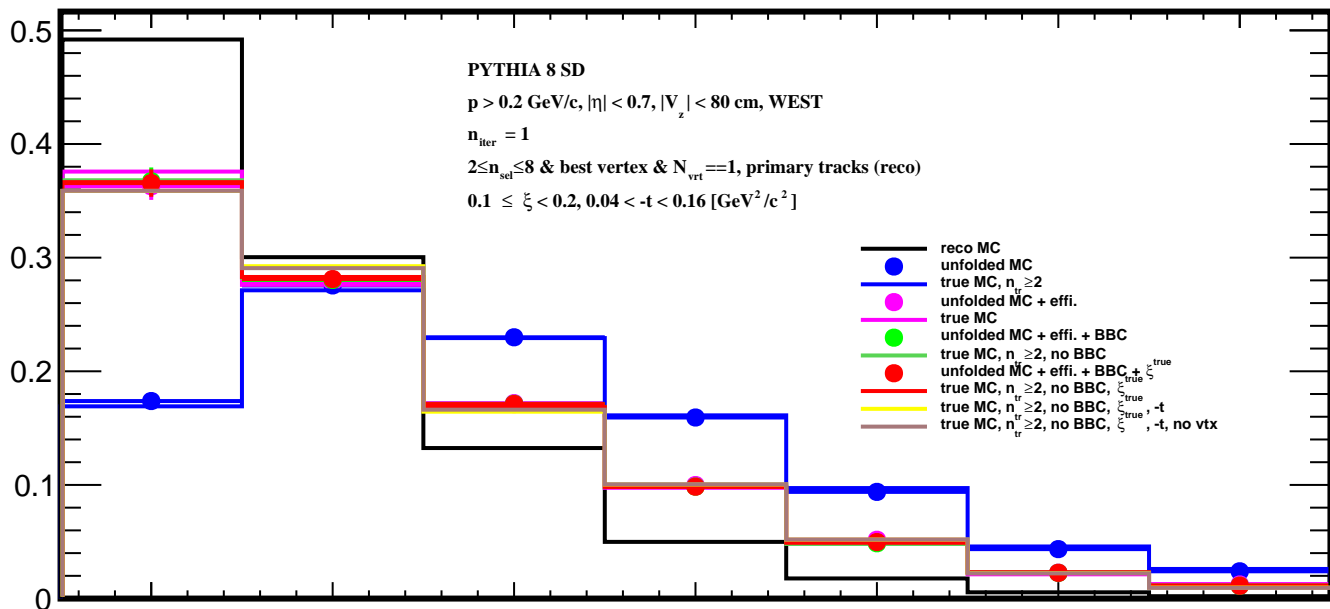
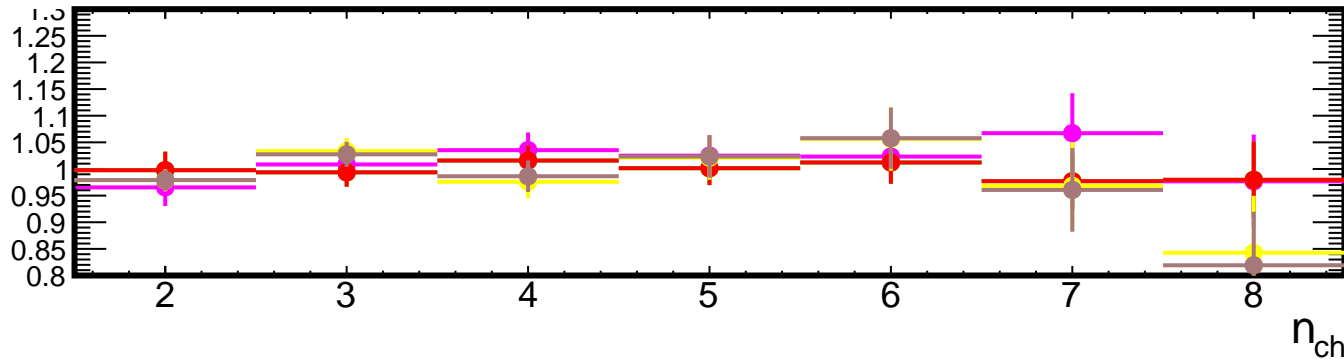


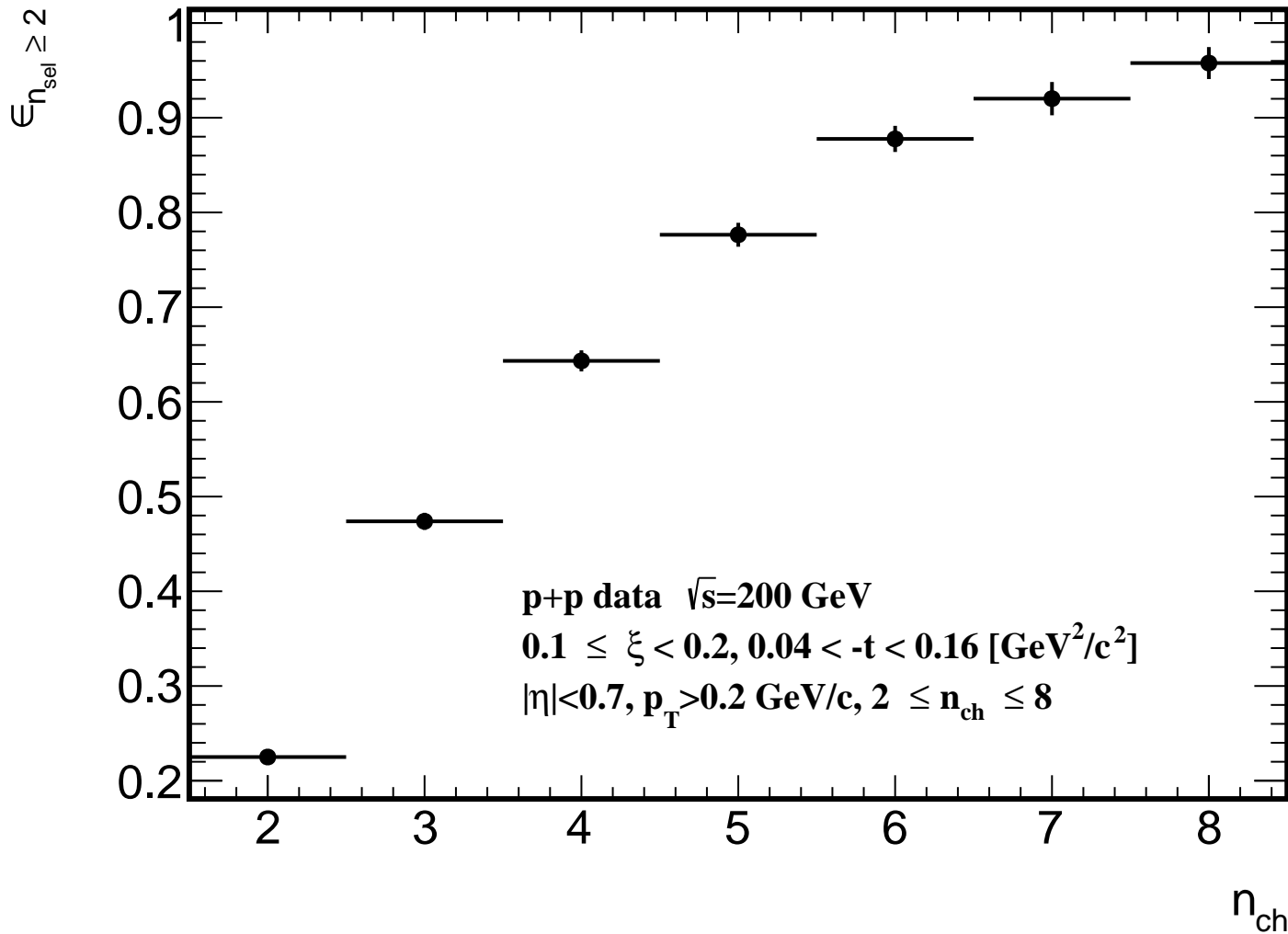


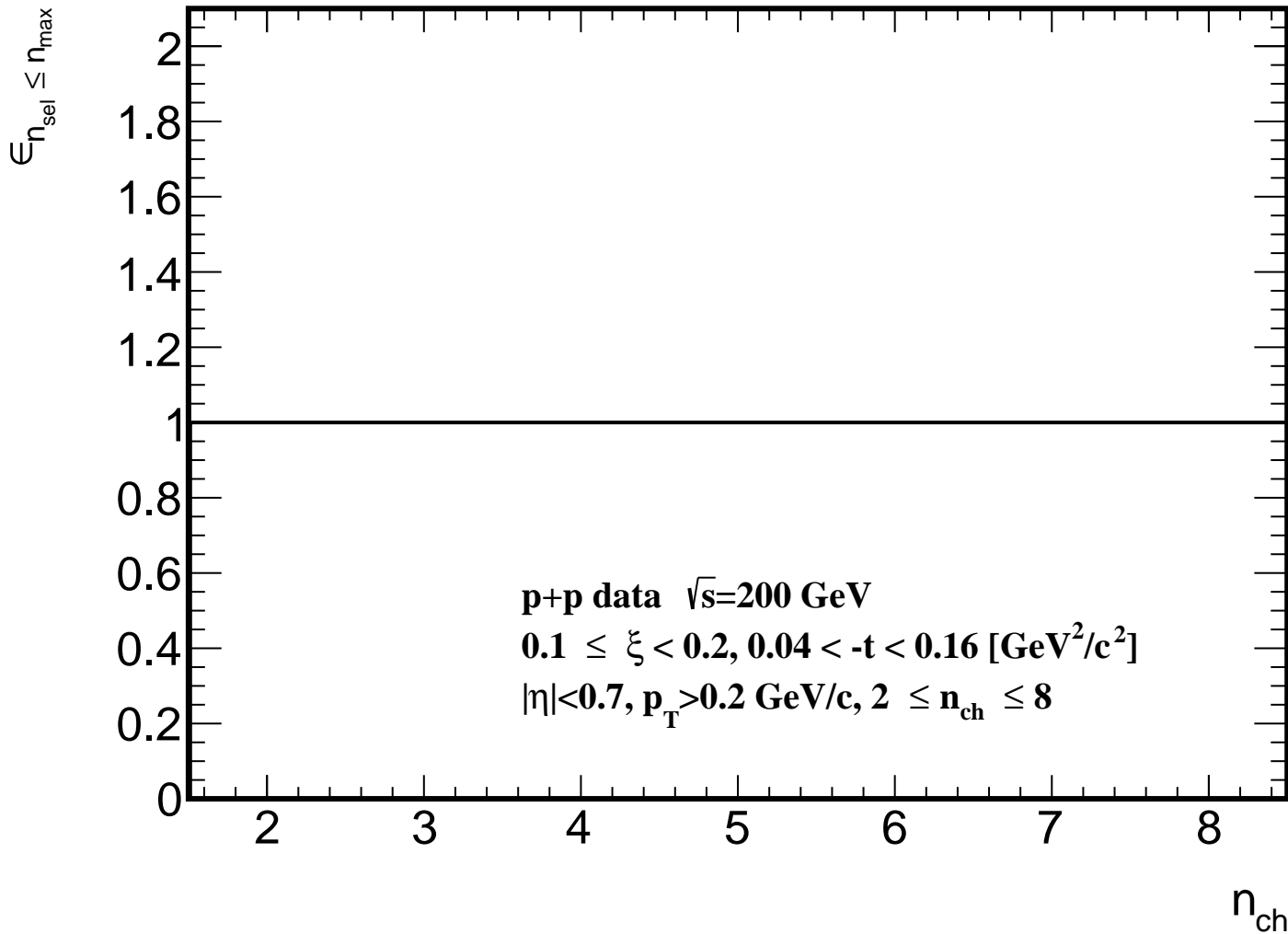


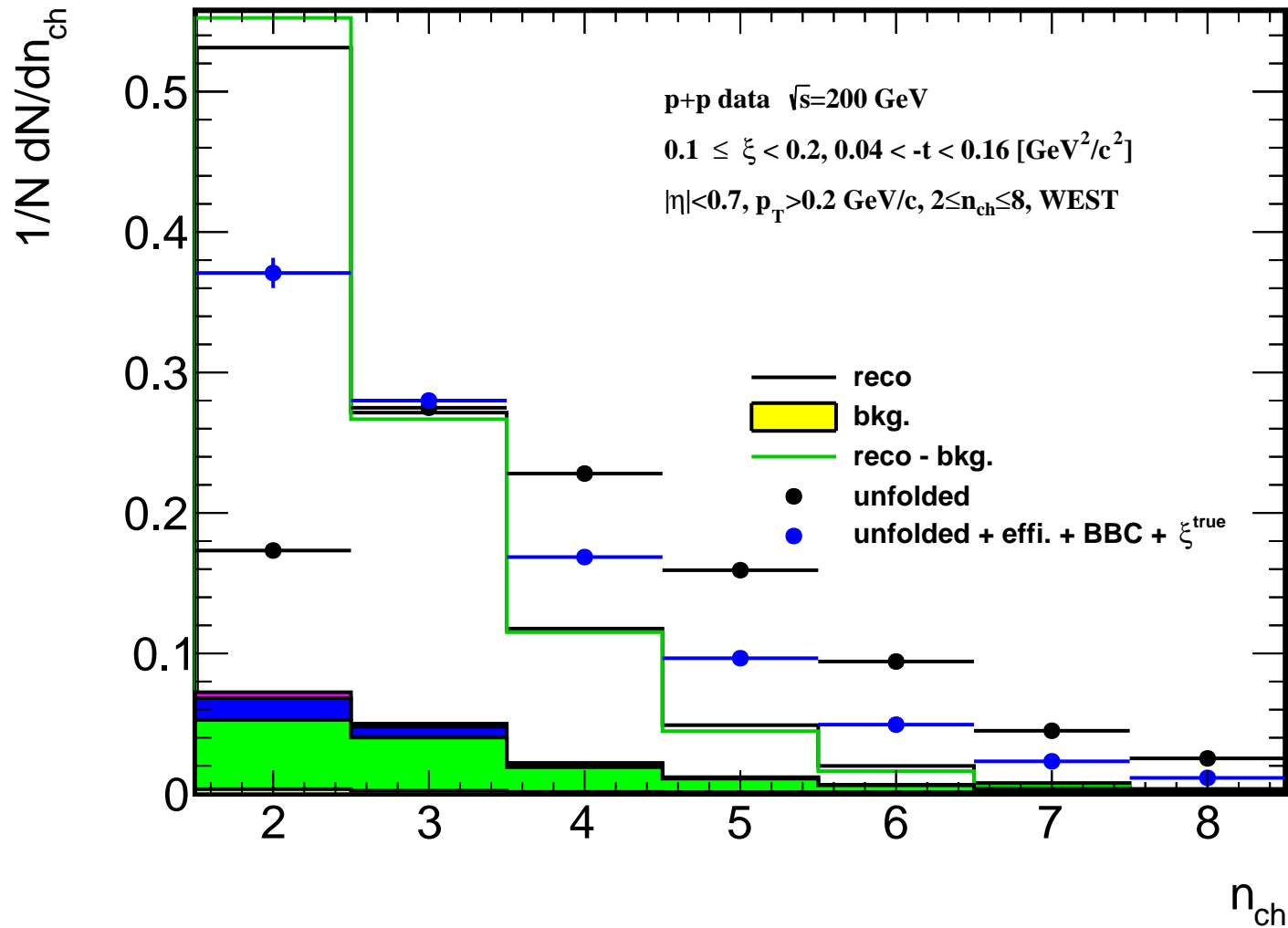


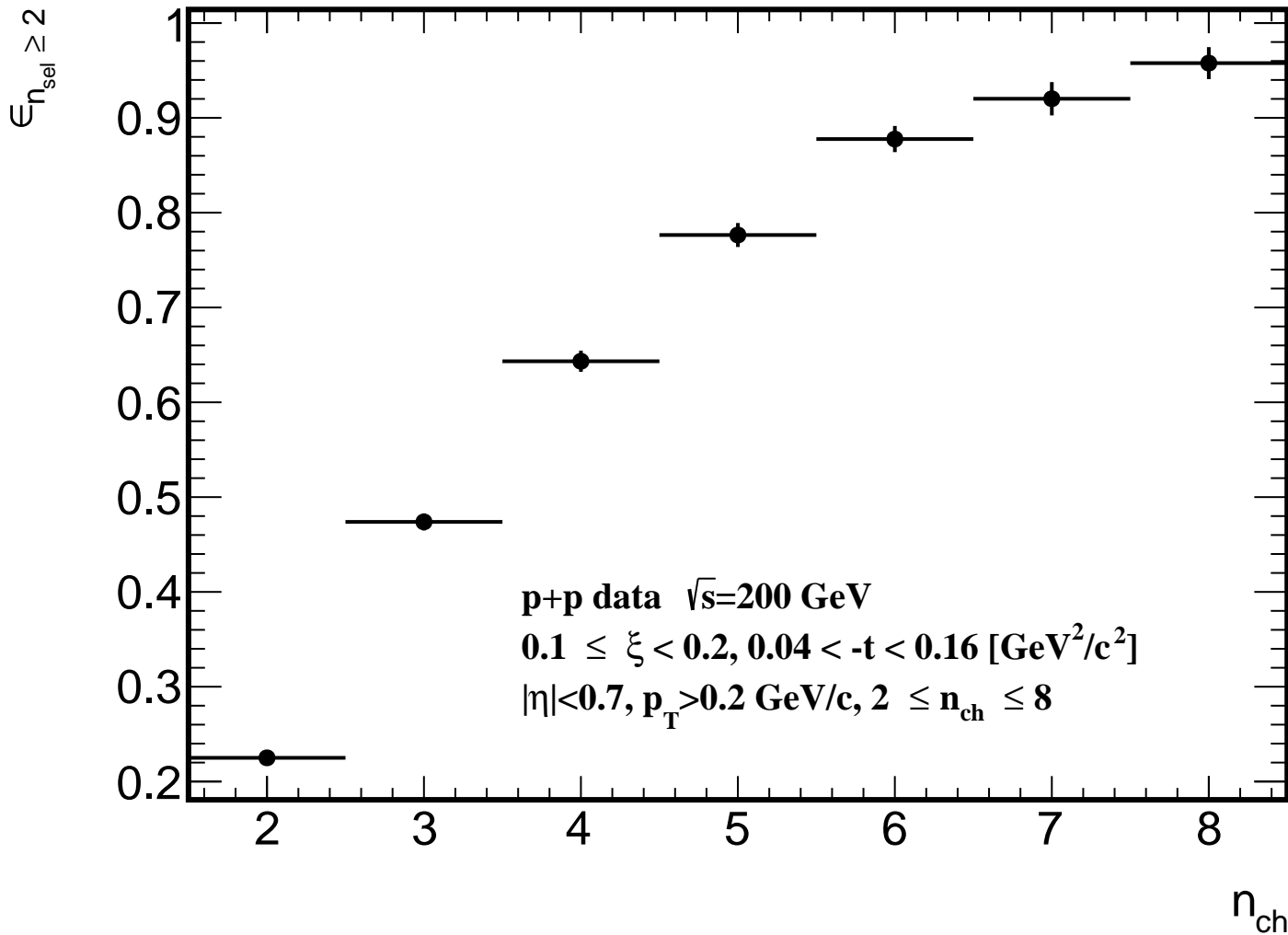


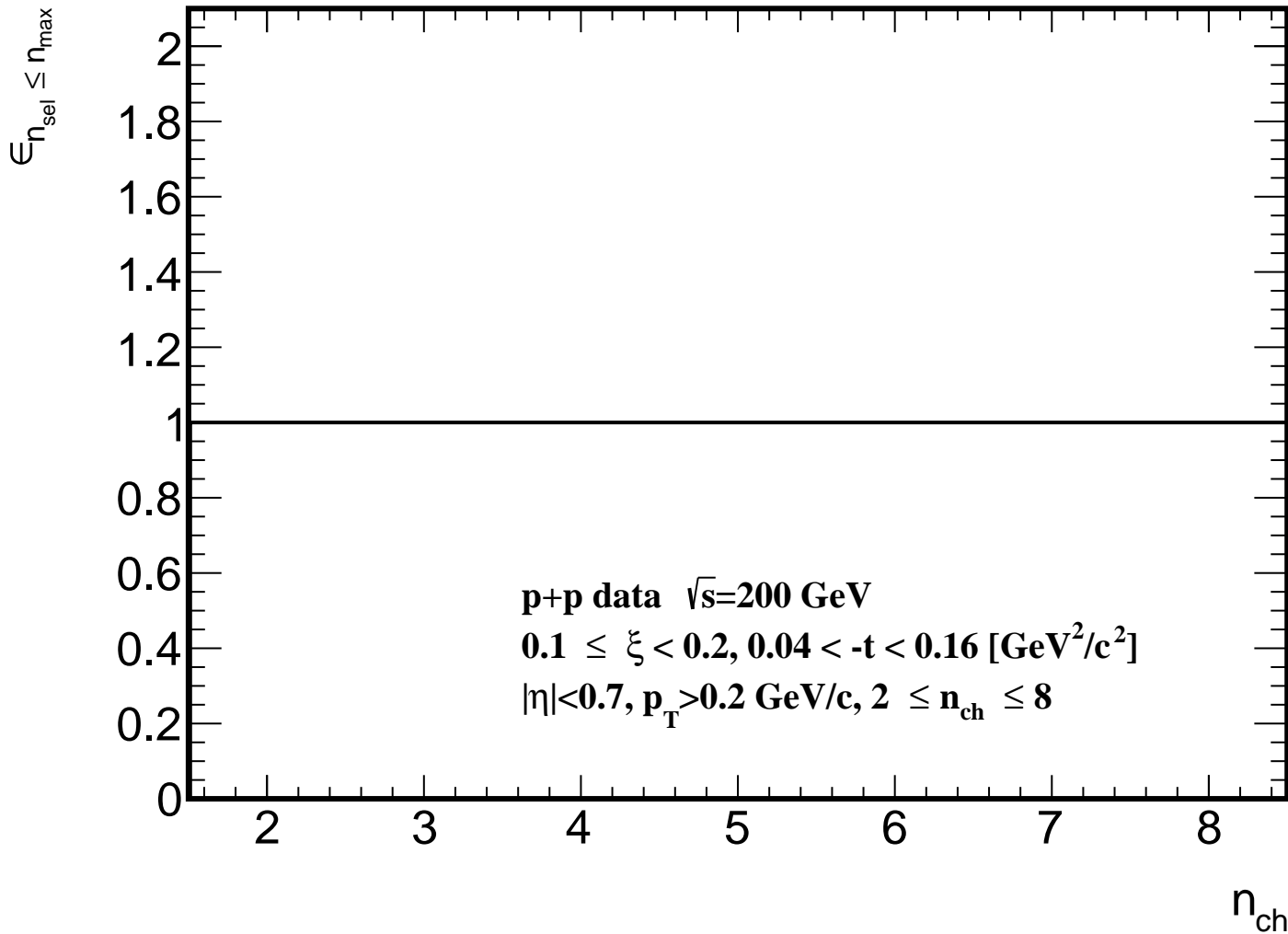
$1/N \, dN/dn_{\text{ch}}$  unf/true 

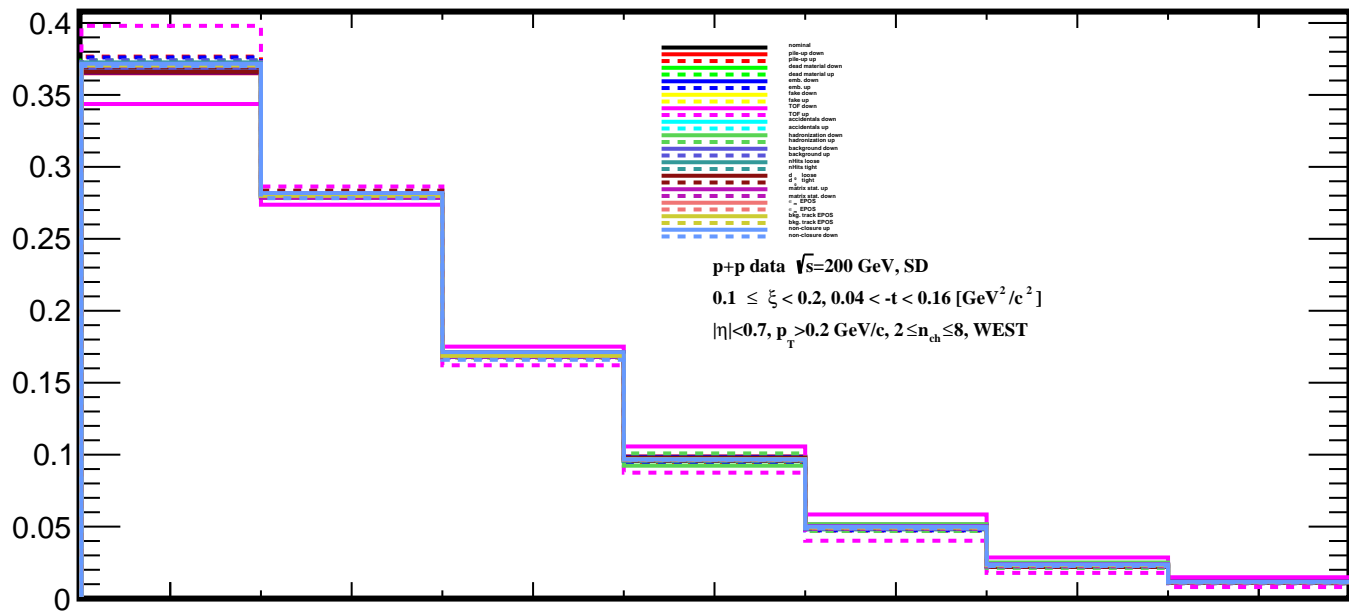




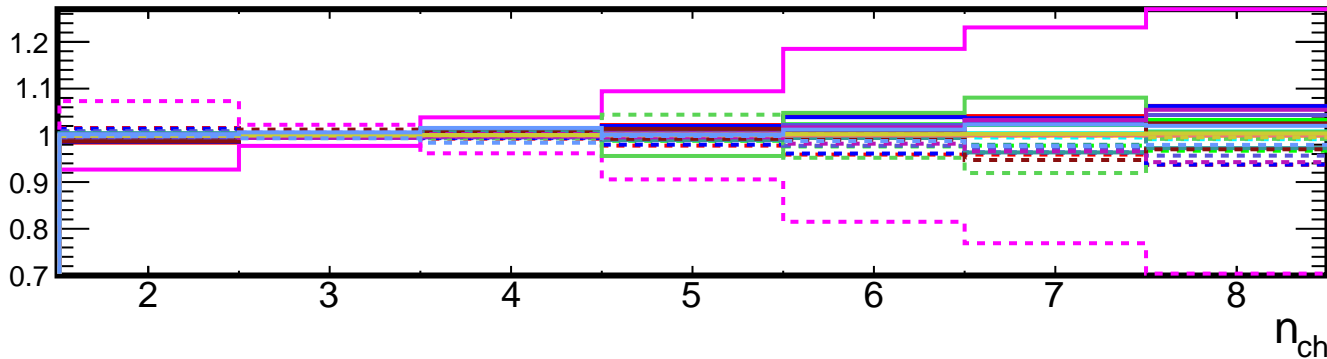


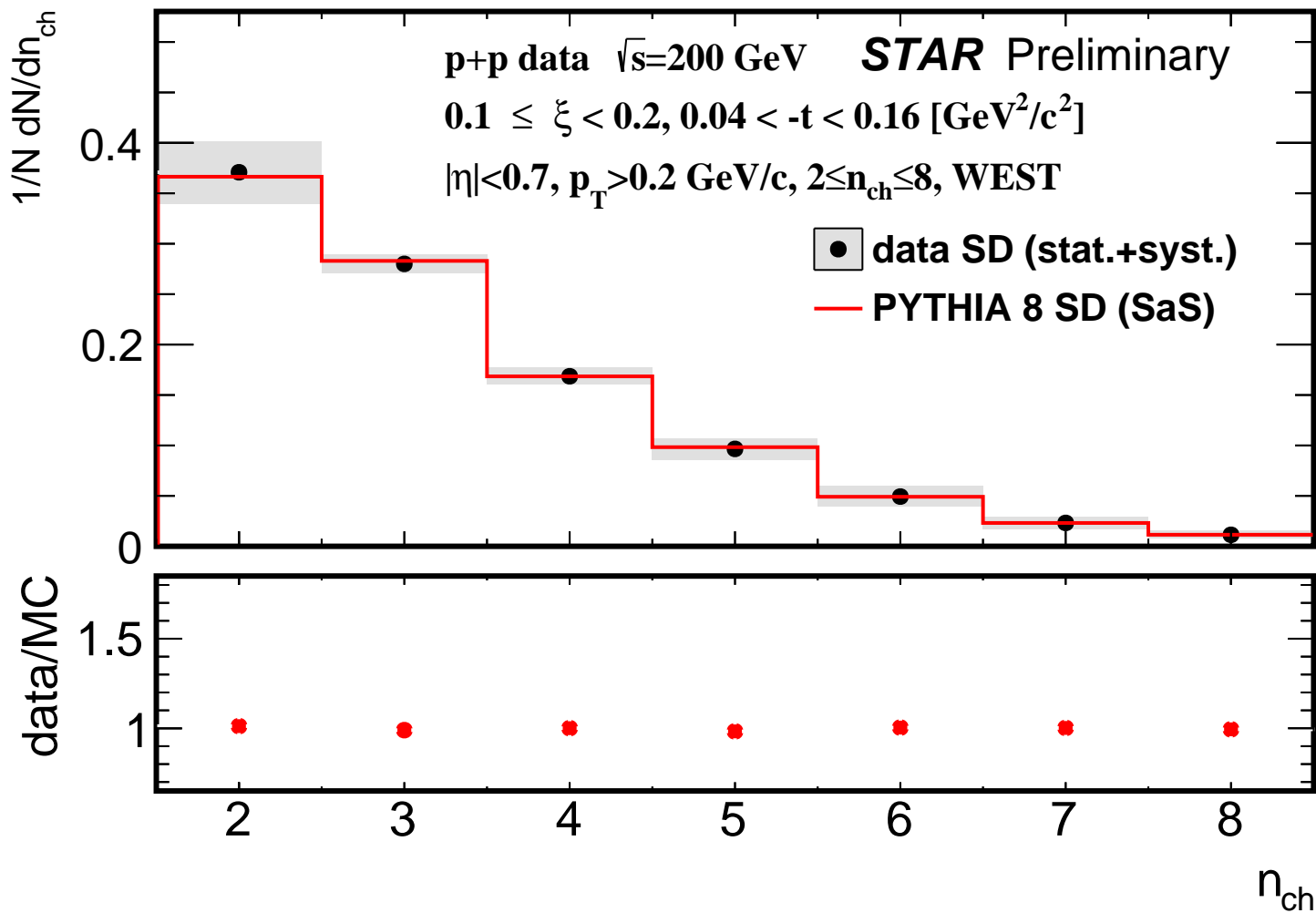


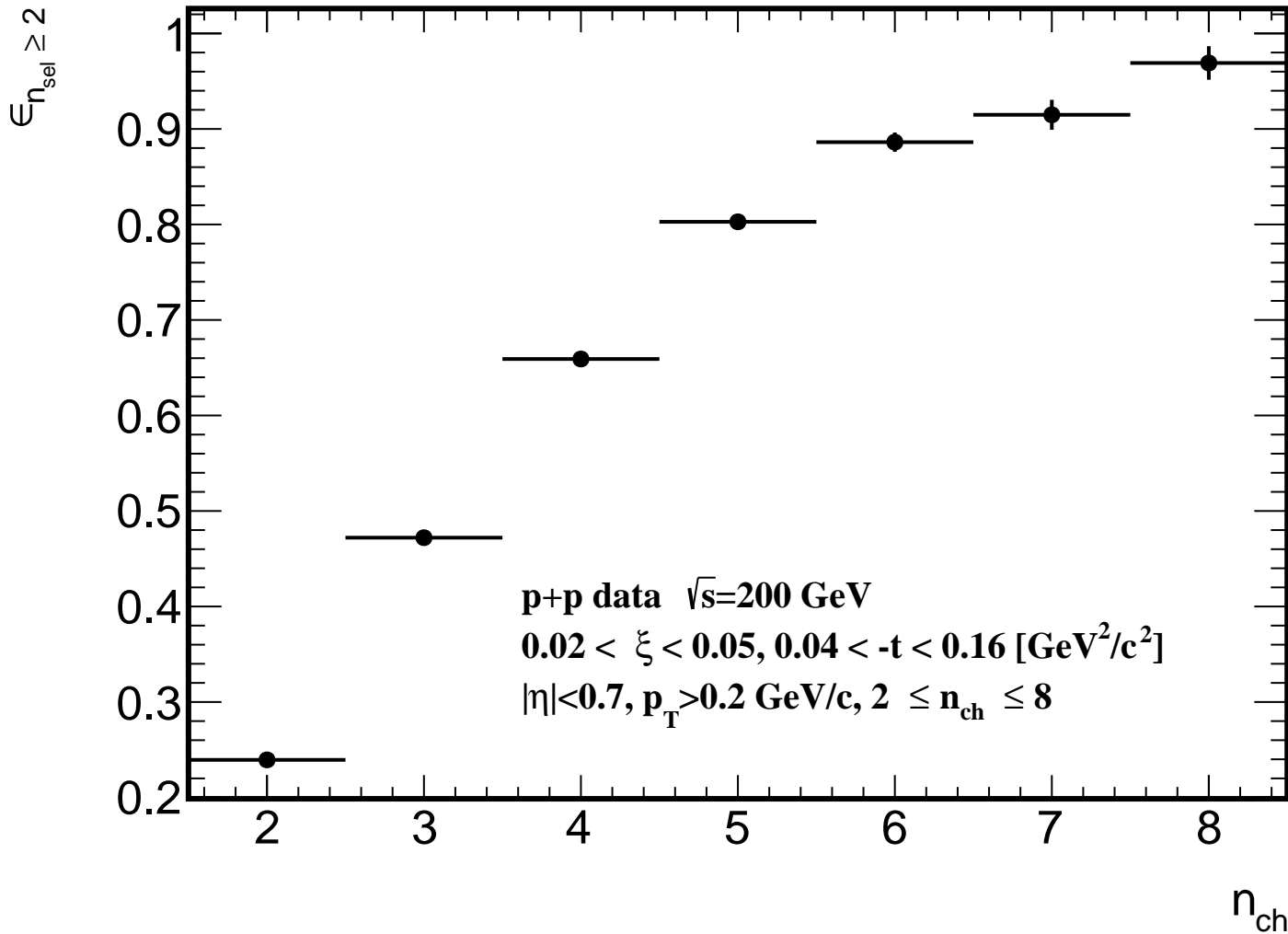


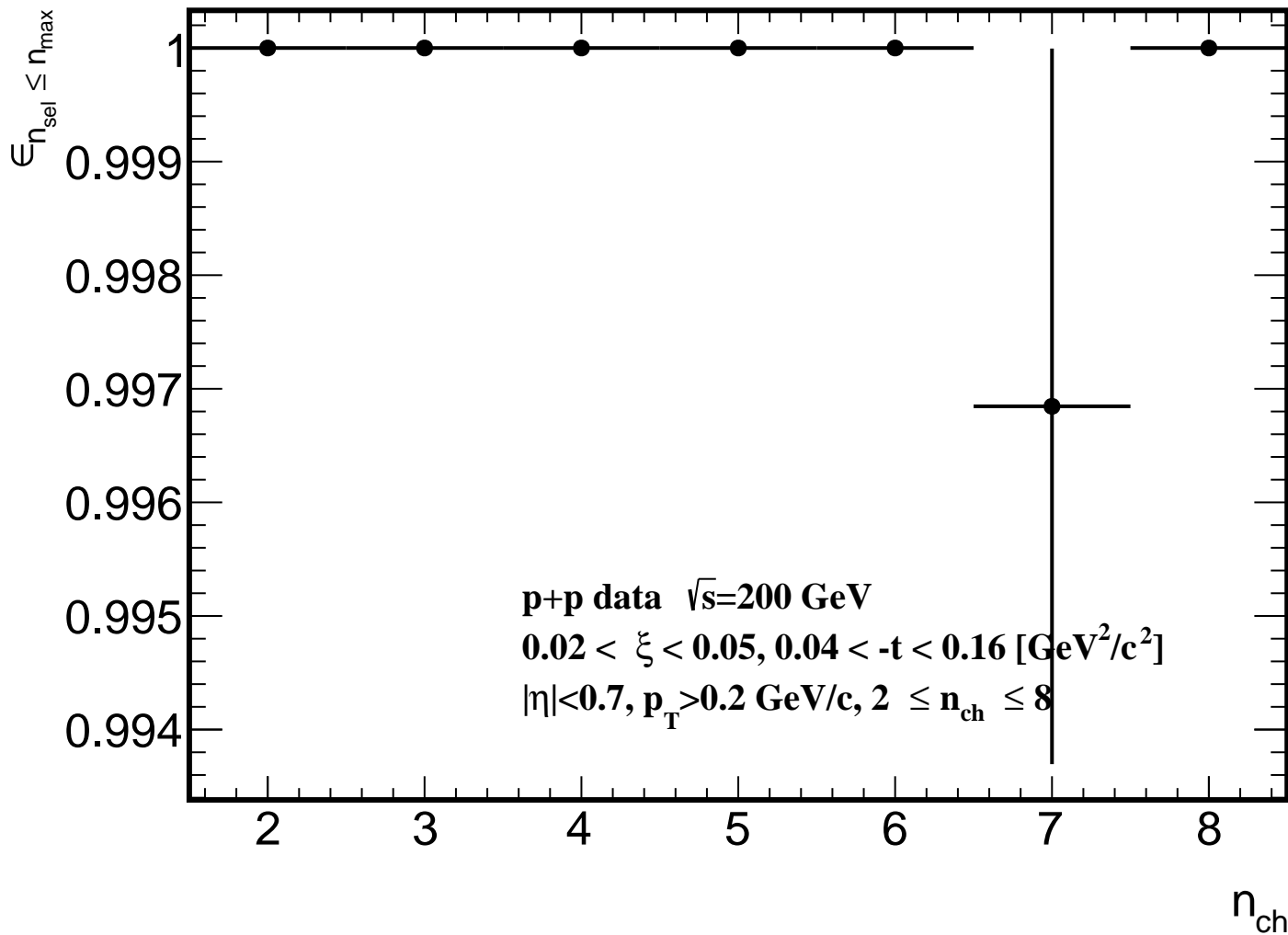
$1/N \, dN/dn_{\text{ch}}$ 

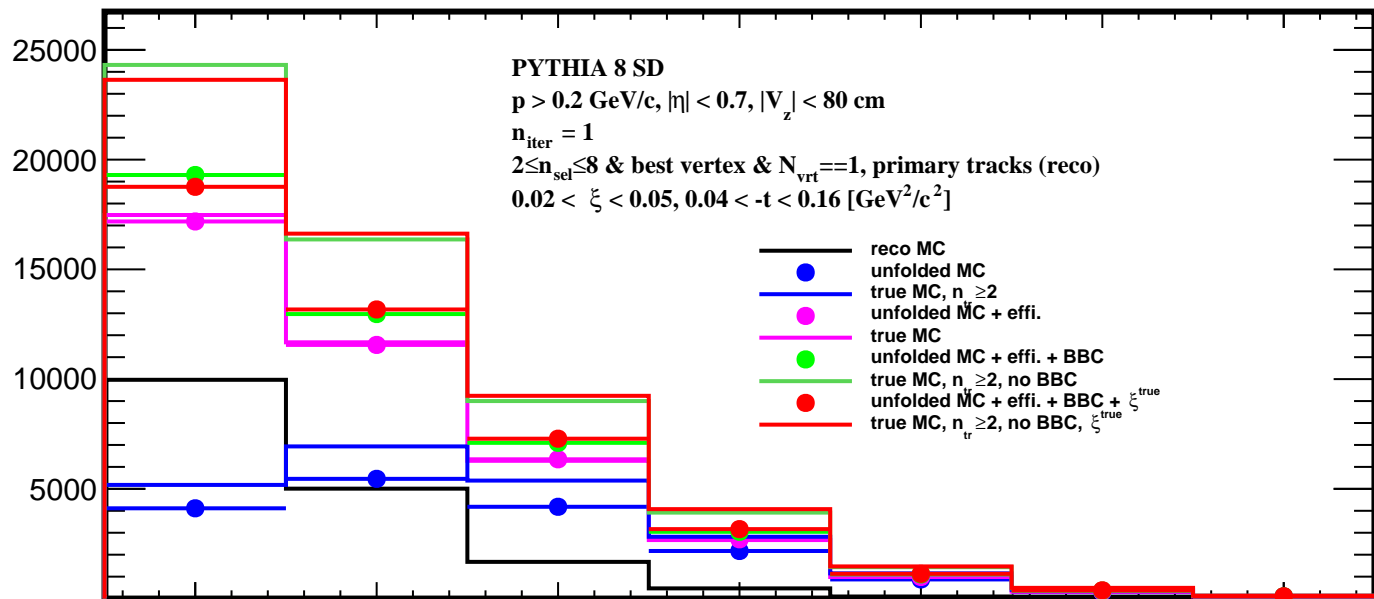
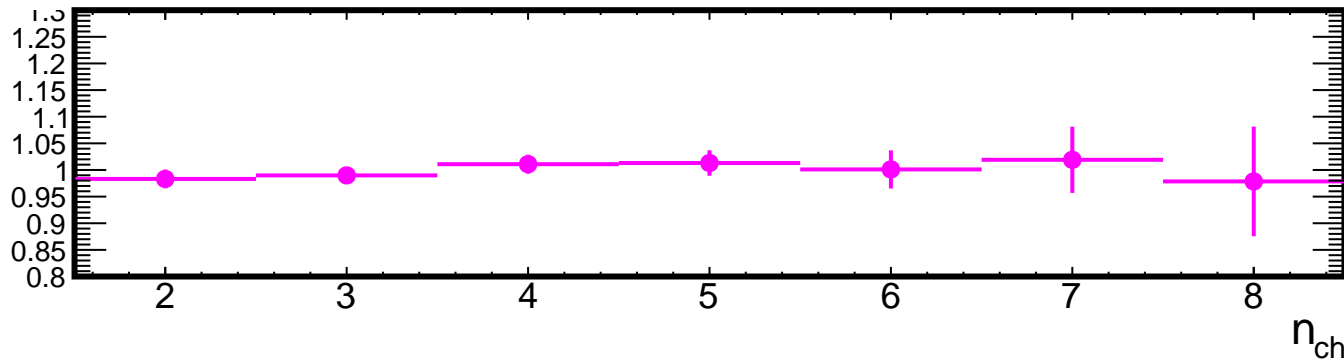
ratio

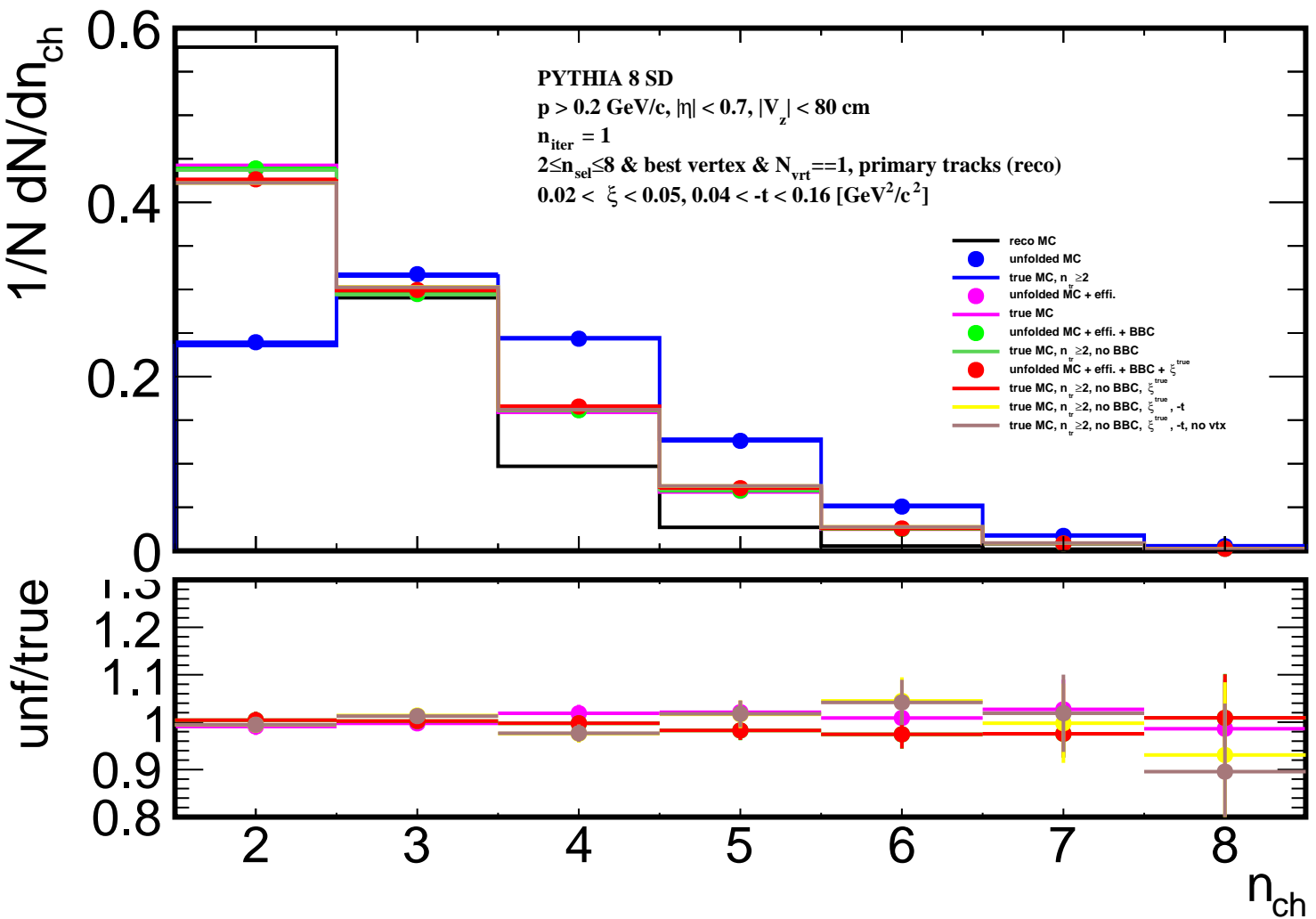


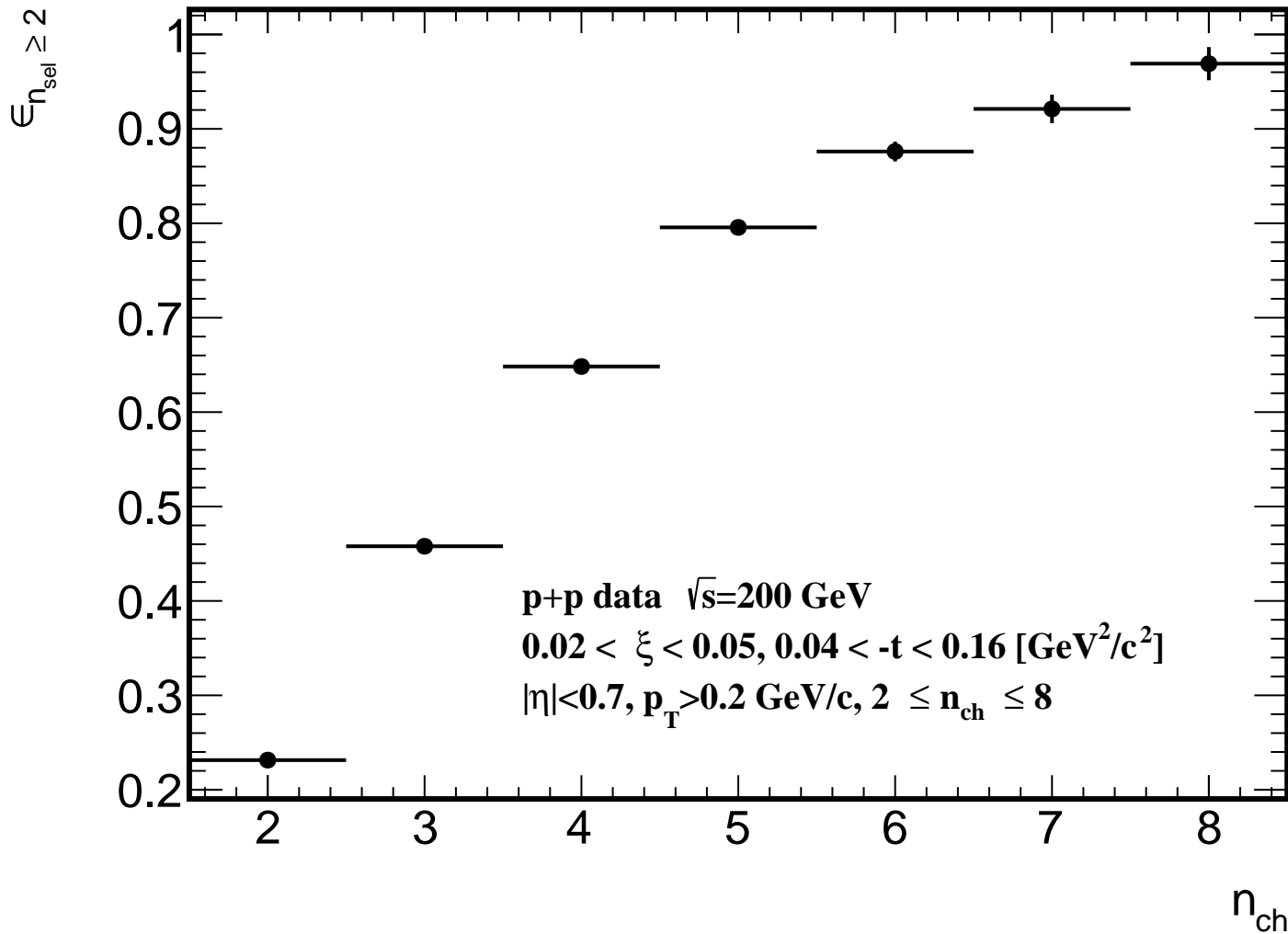


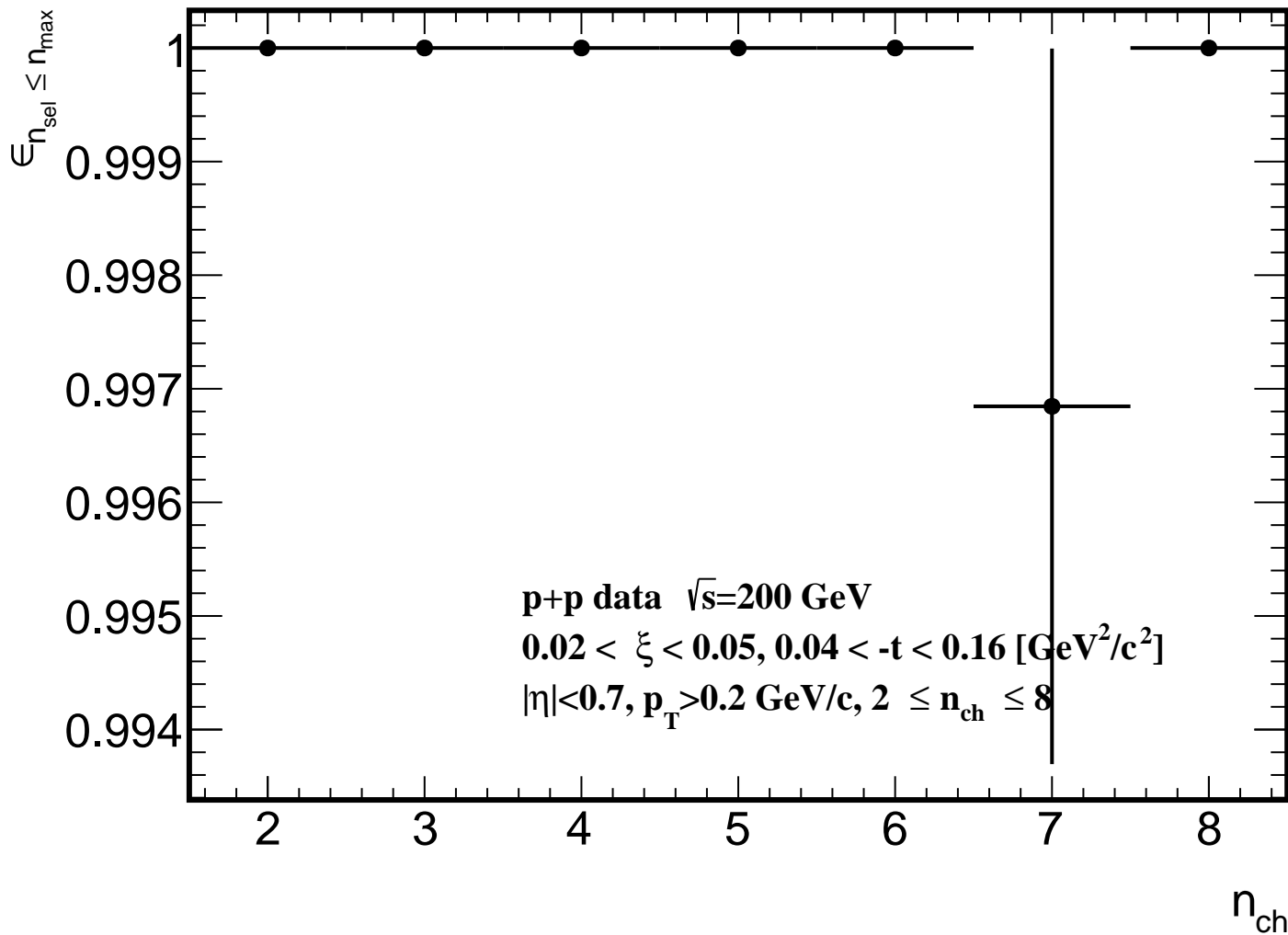


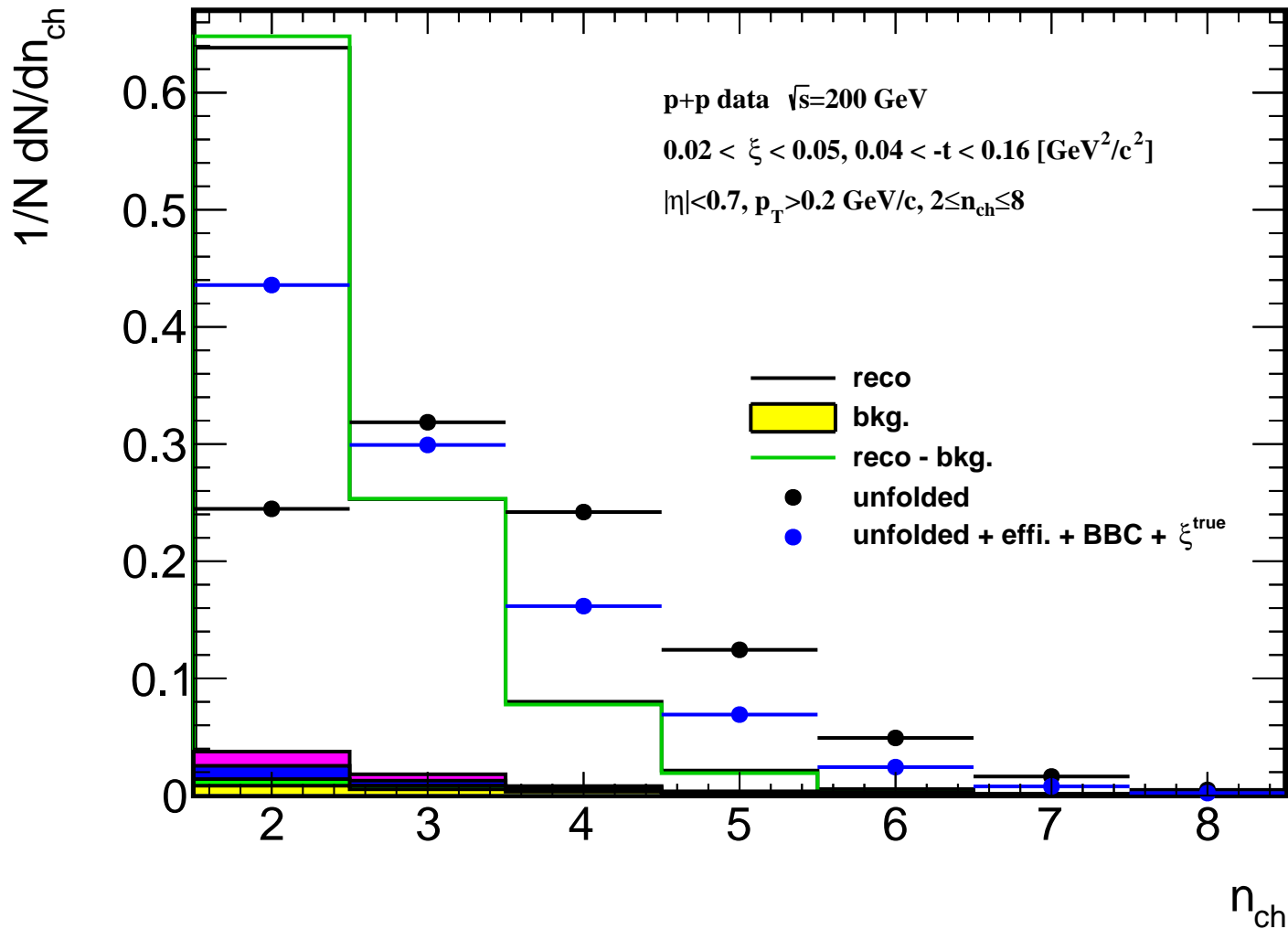


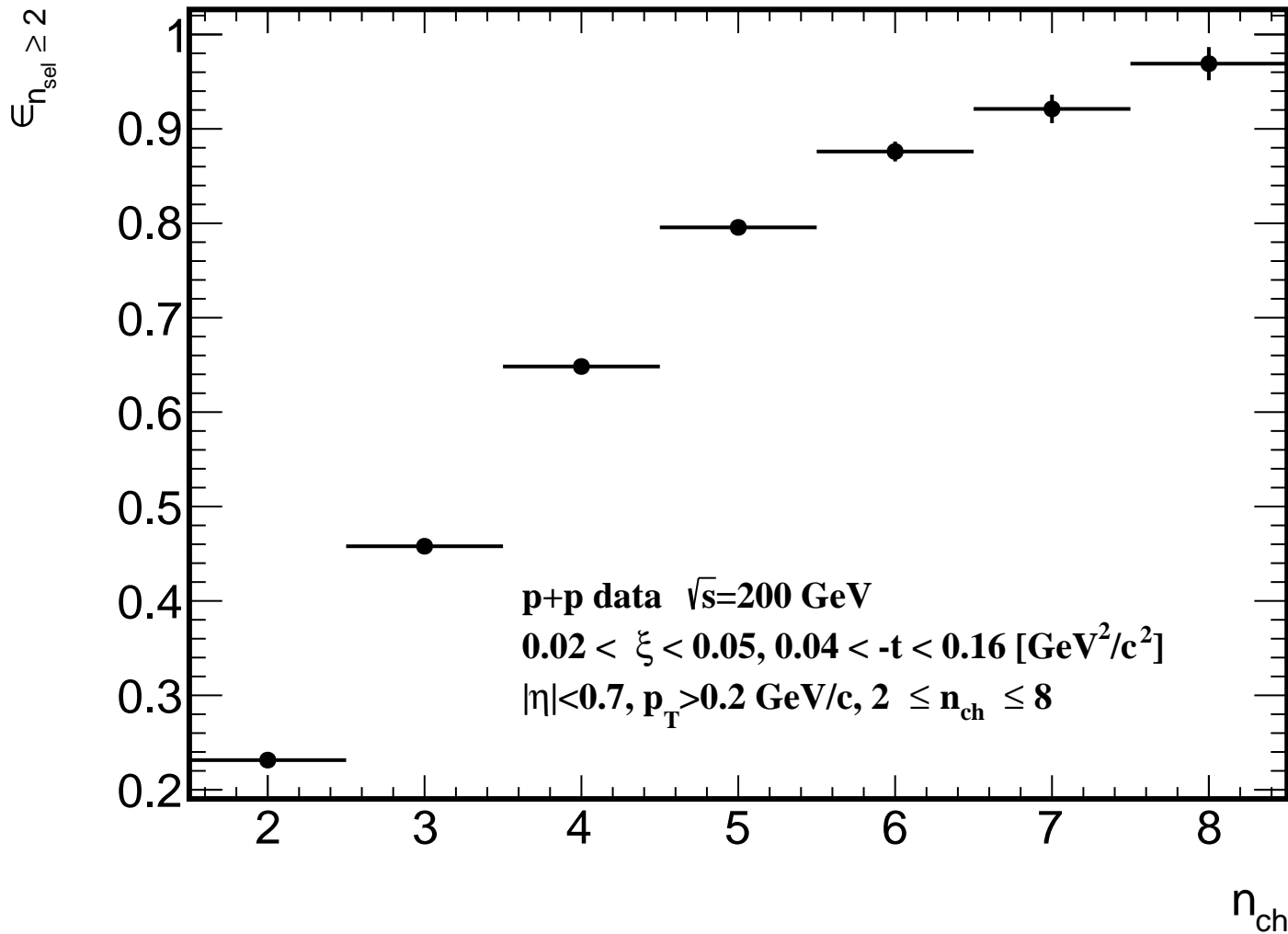
dN/dn_{ch}  $unf/true$ 

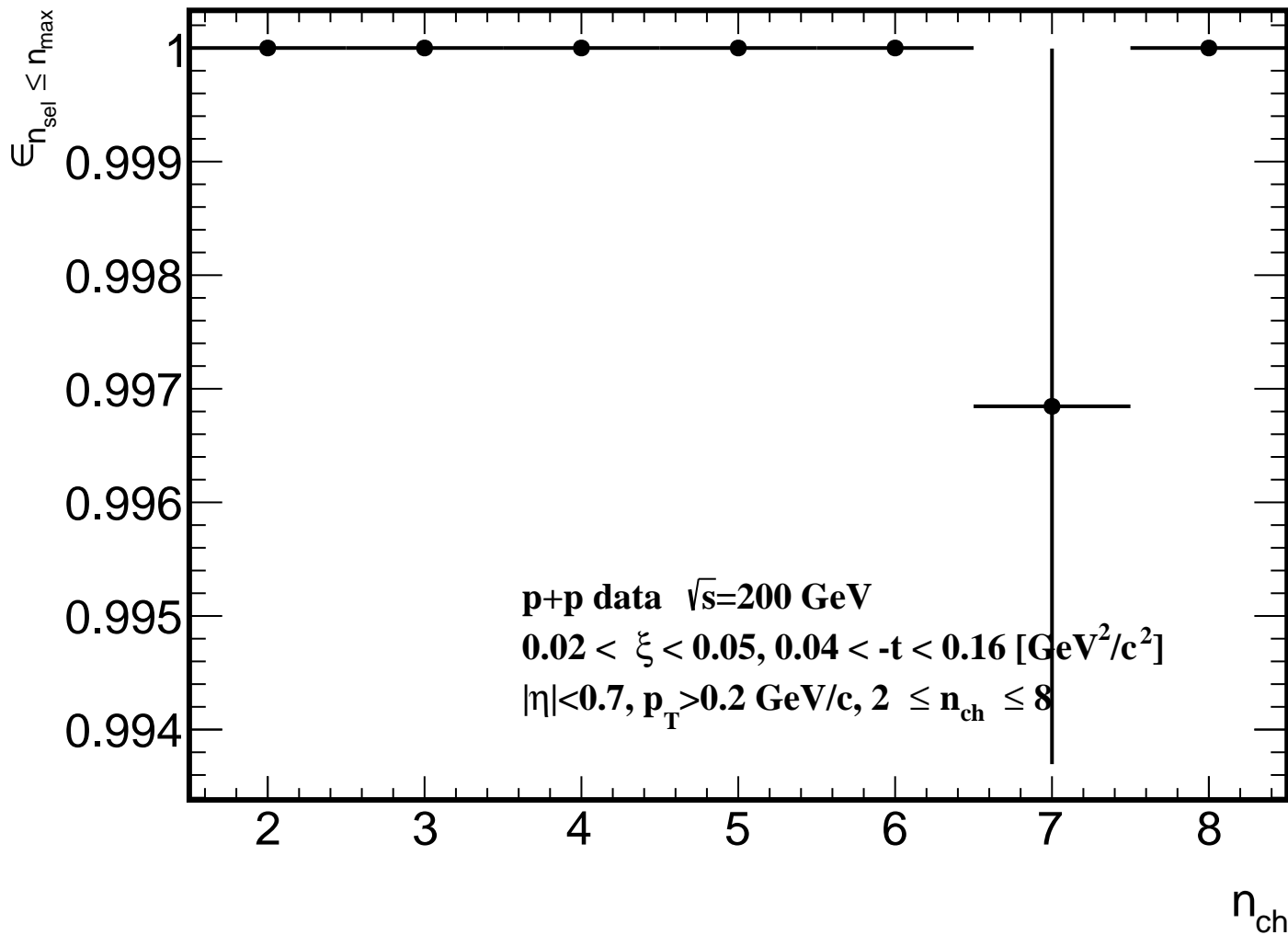


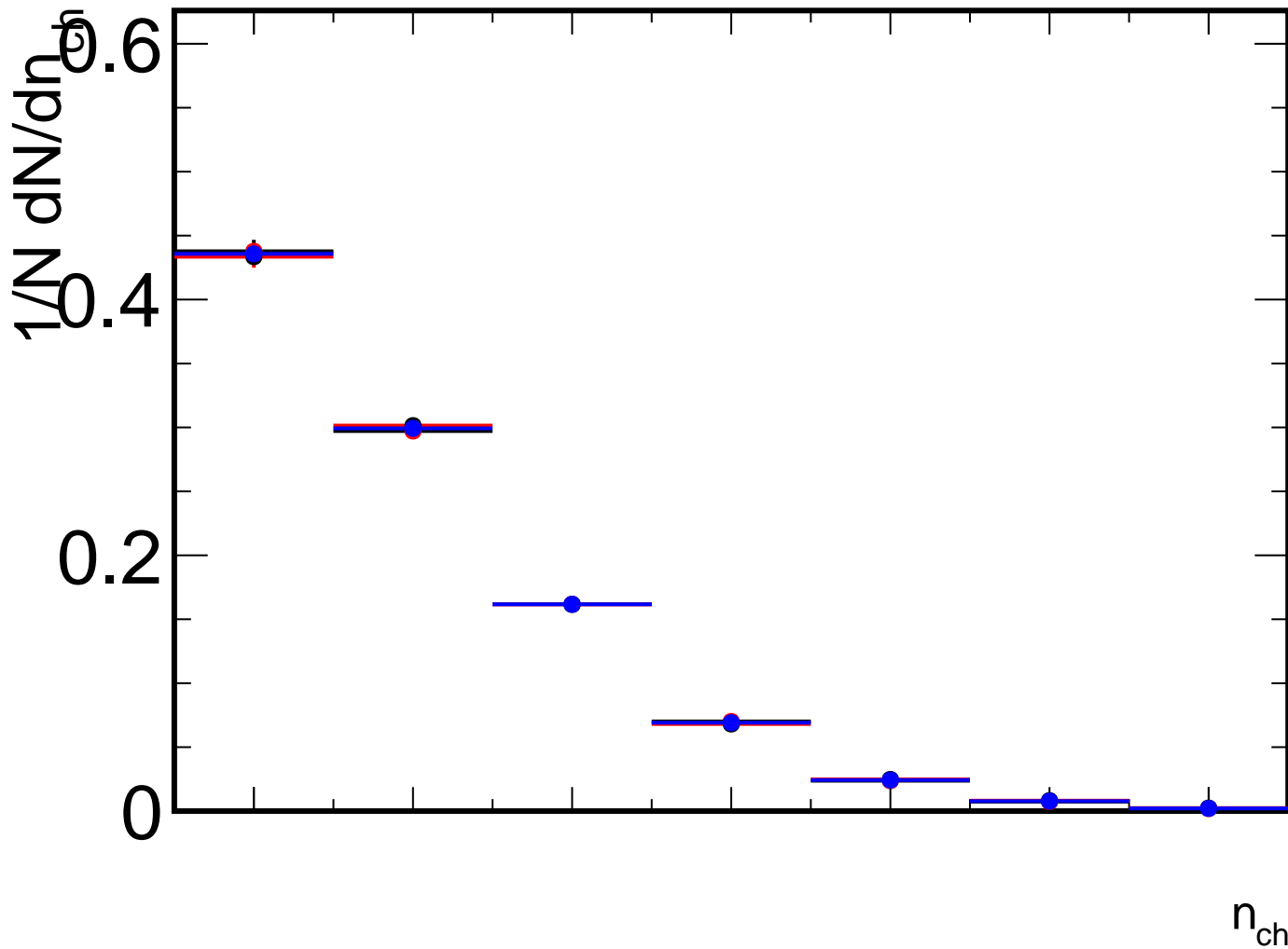


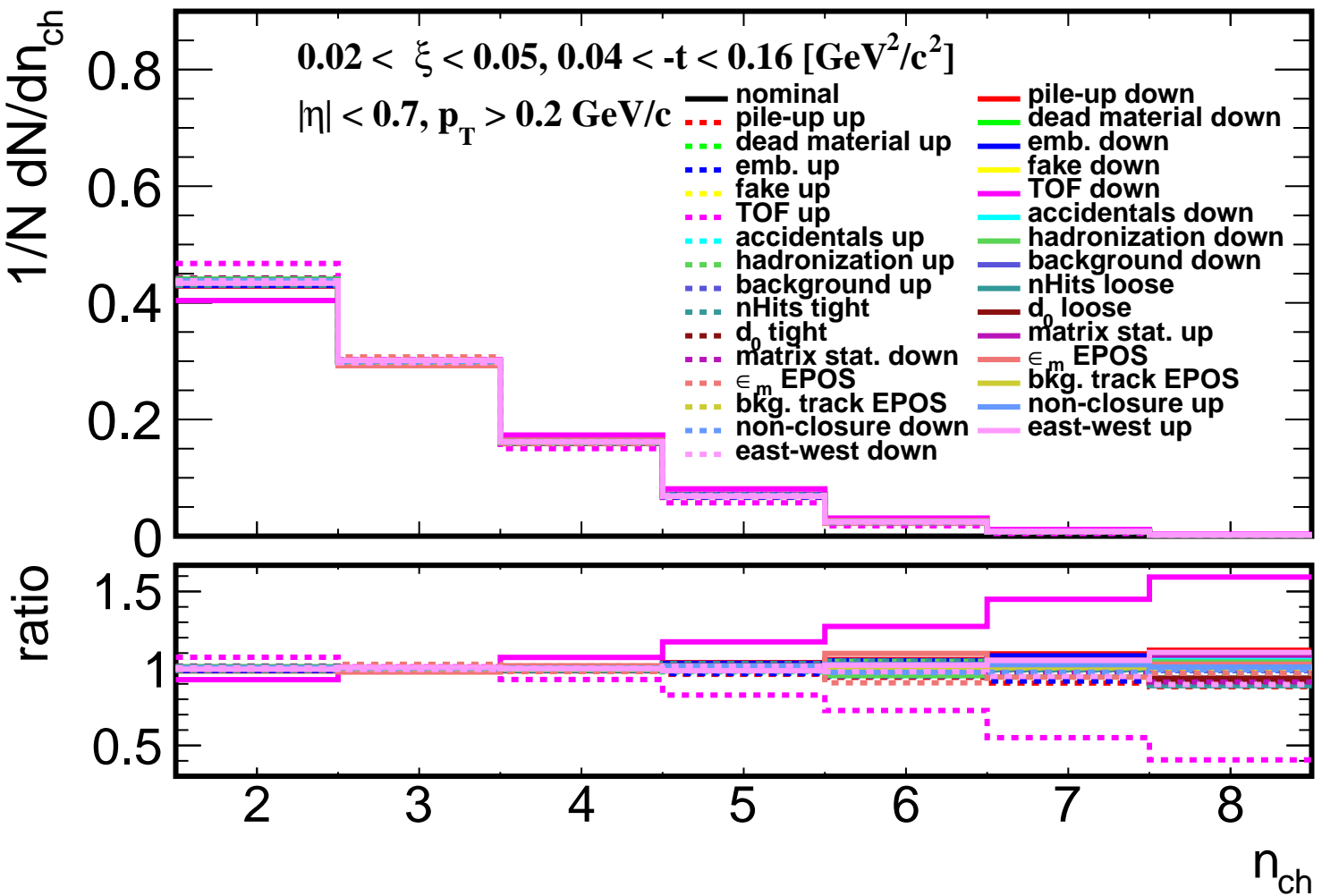


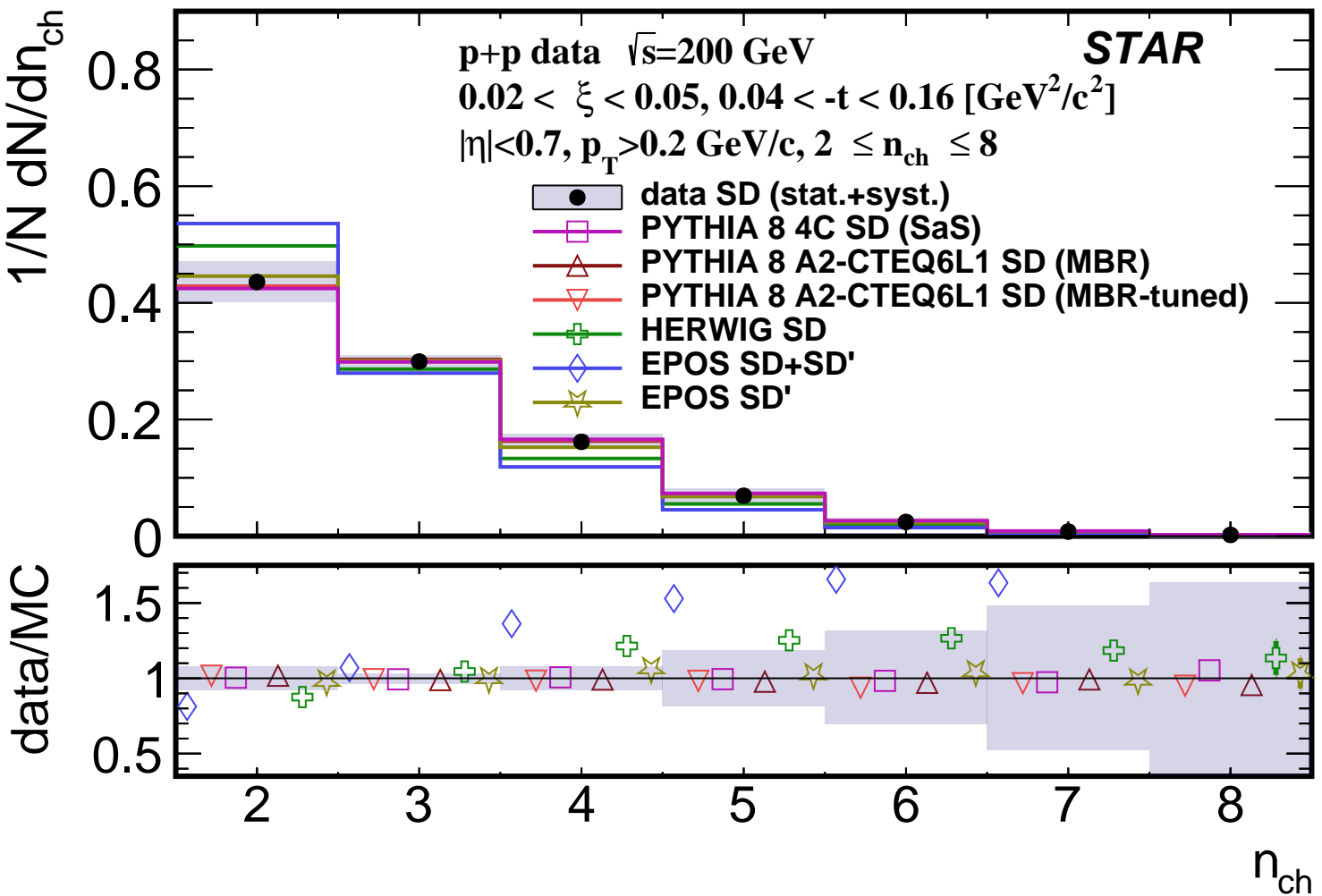


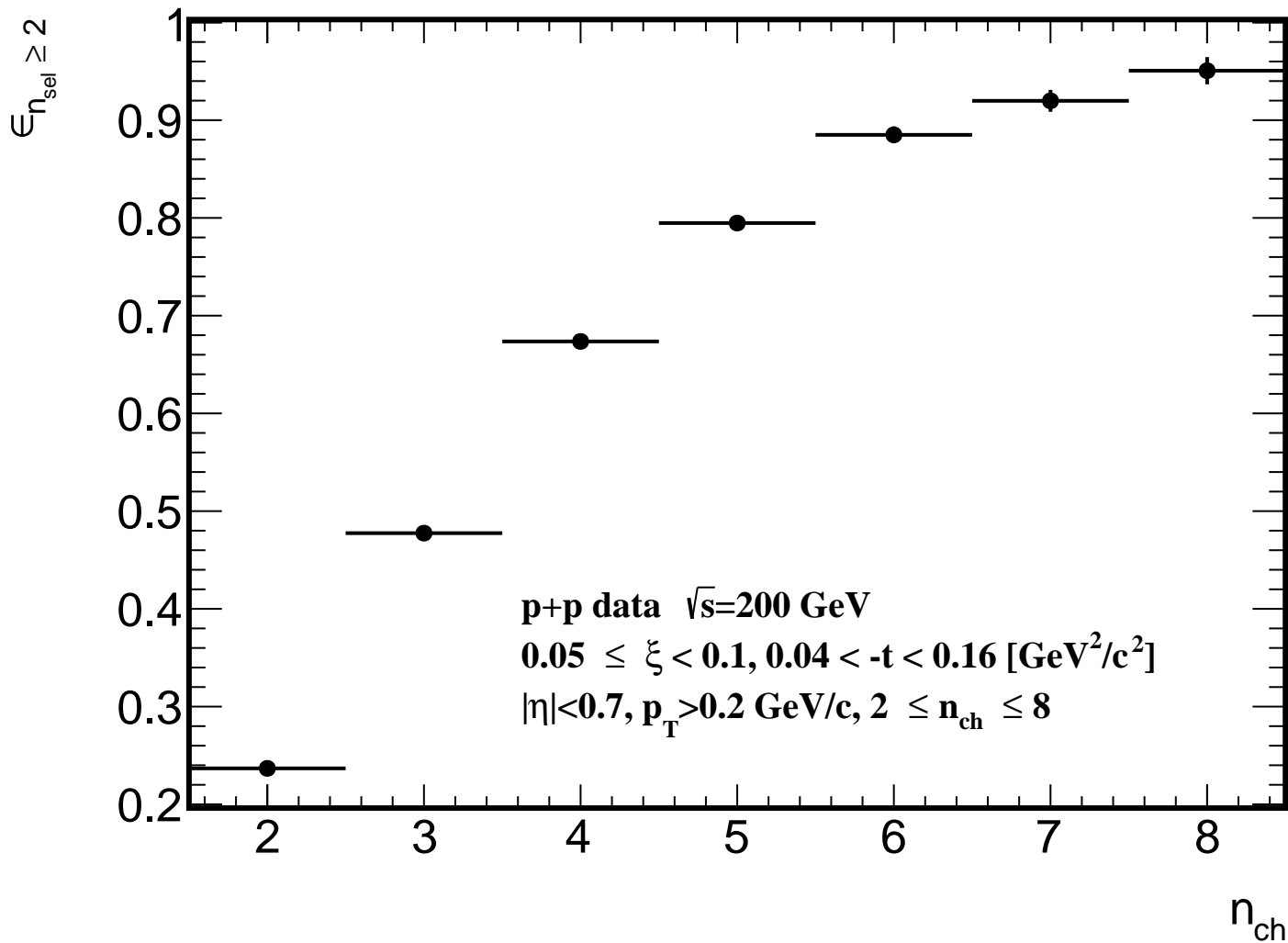


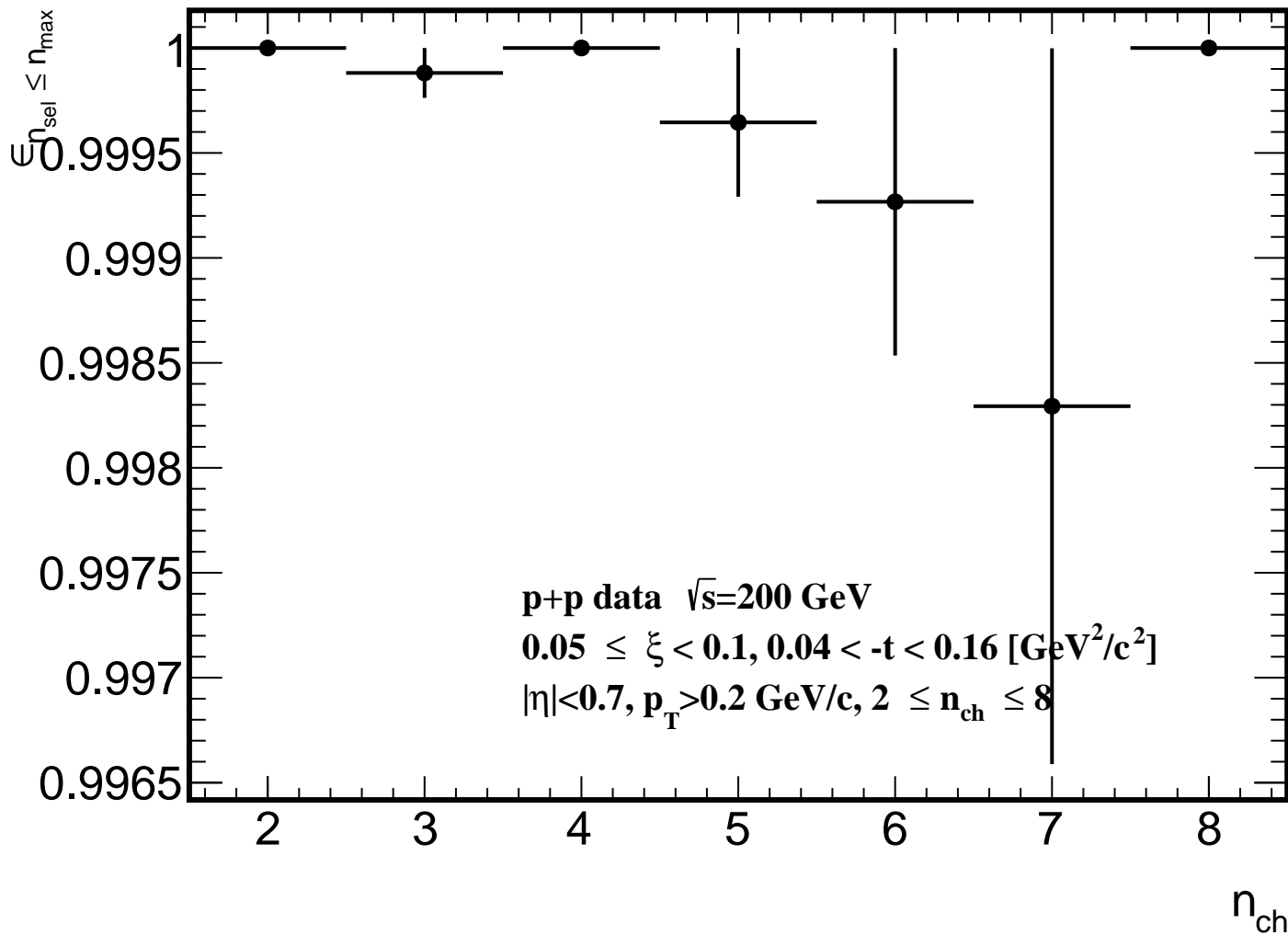


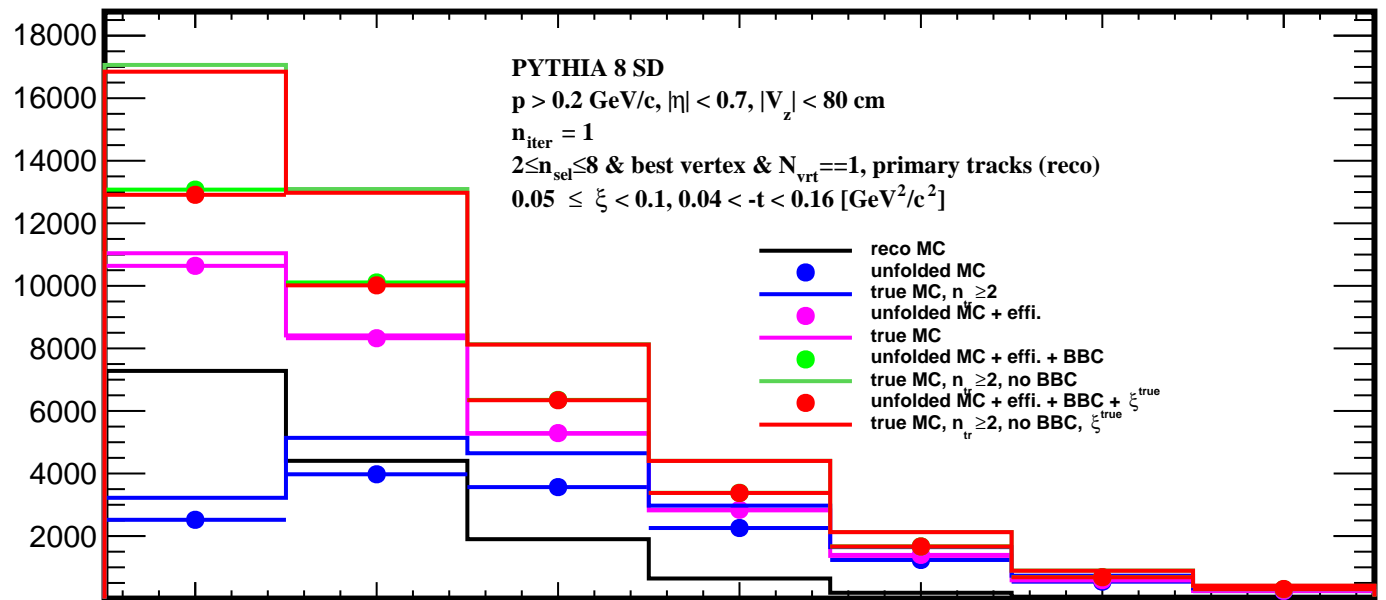
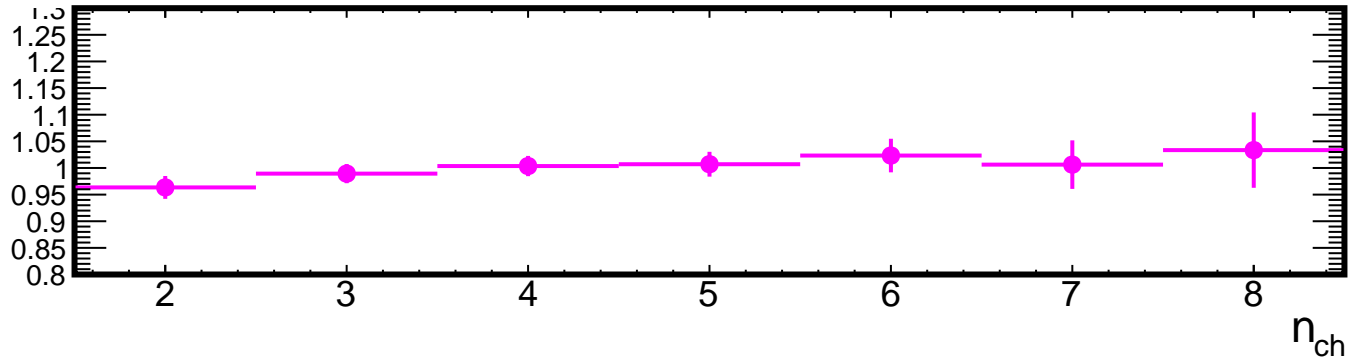


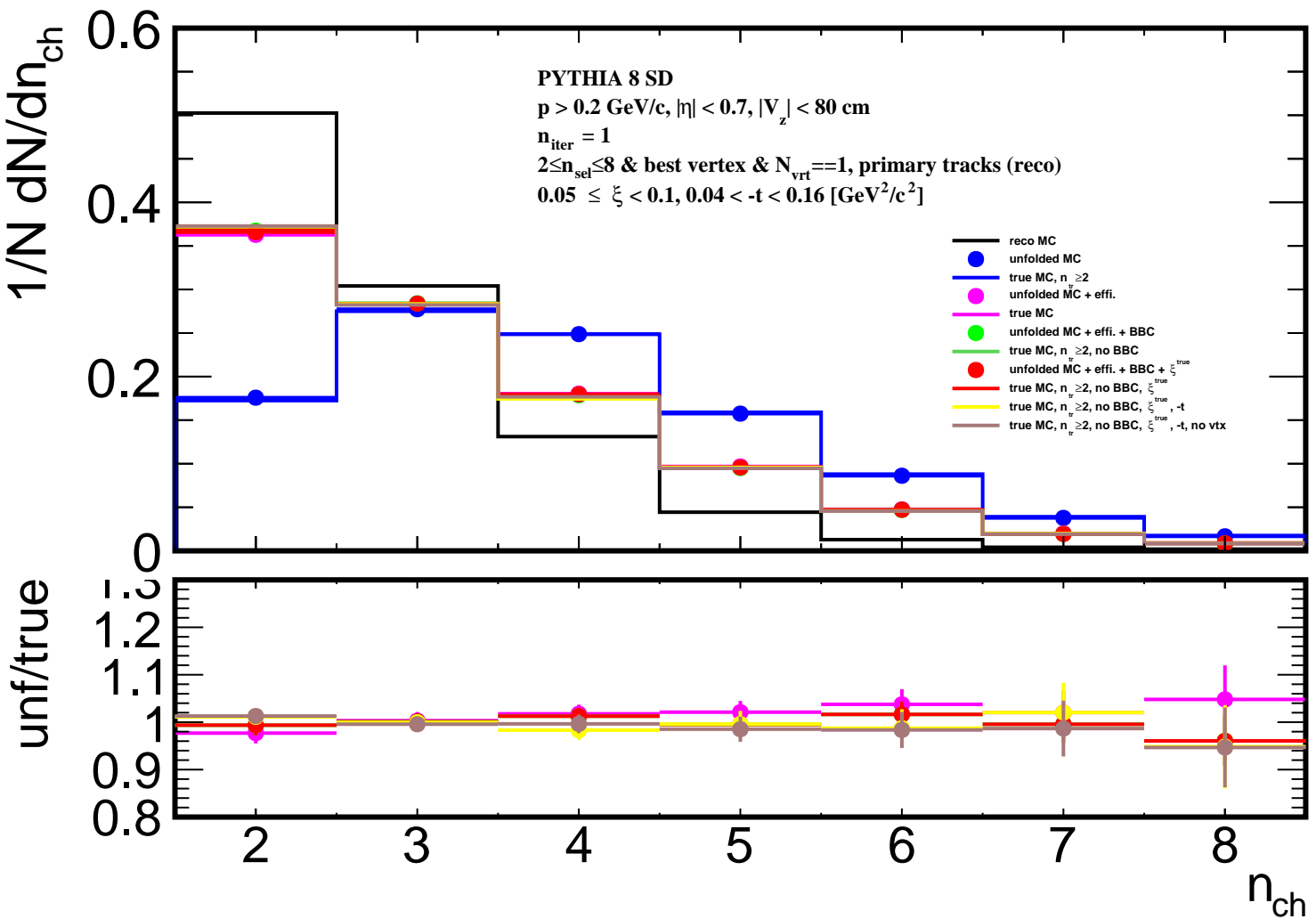


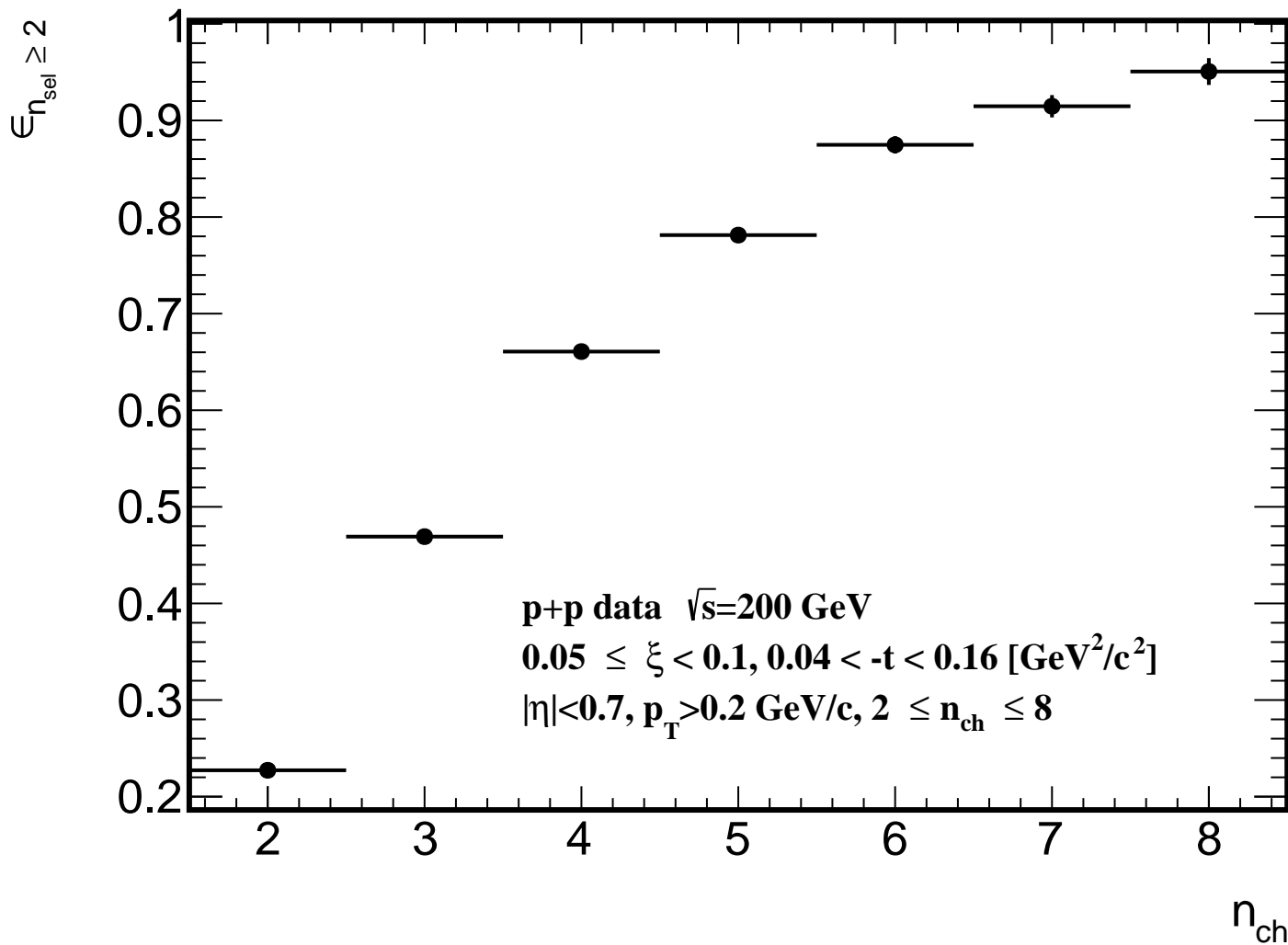


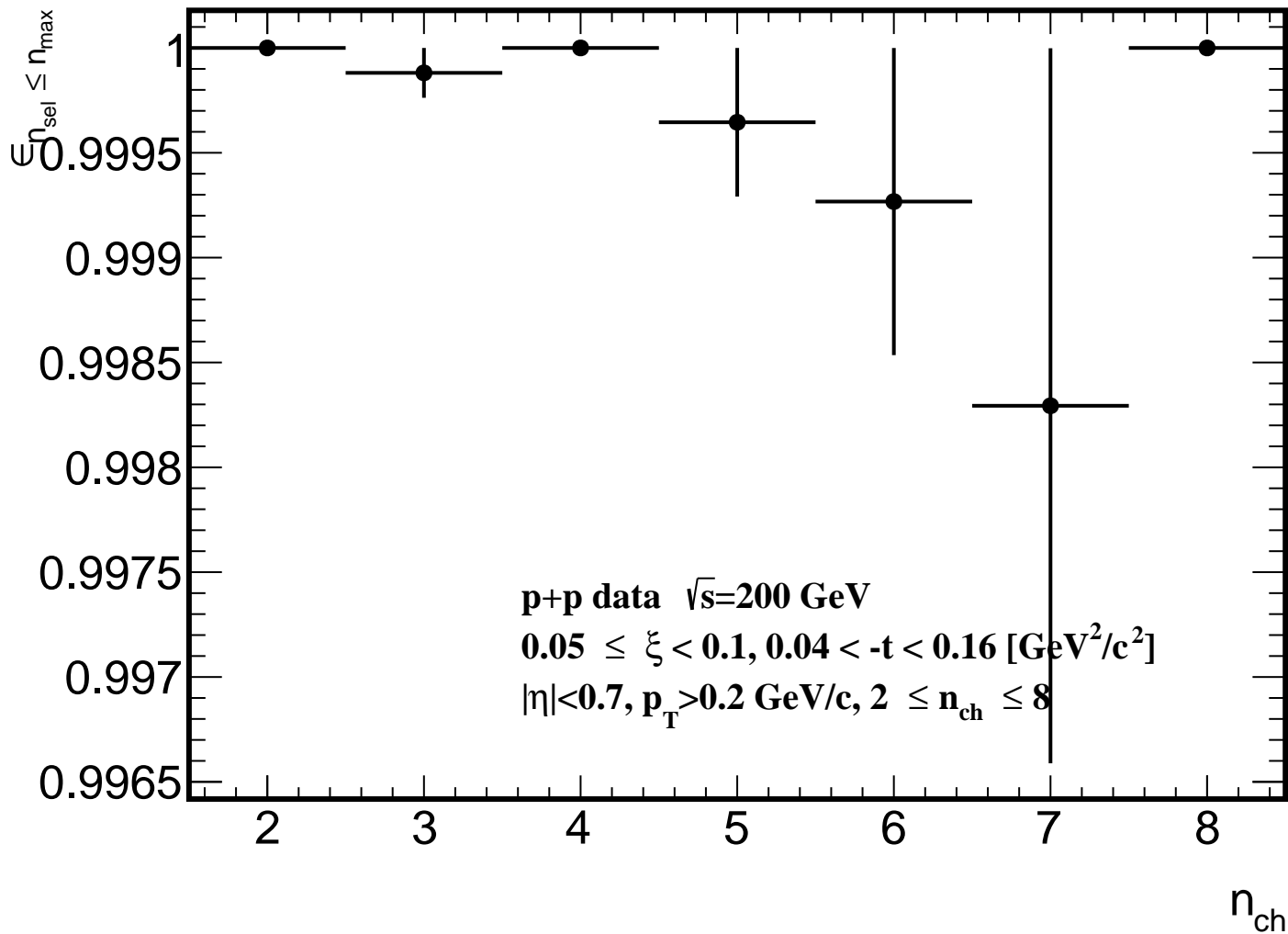


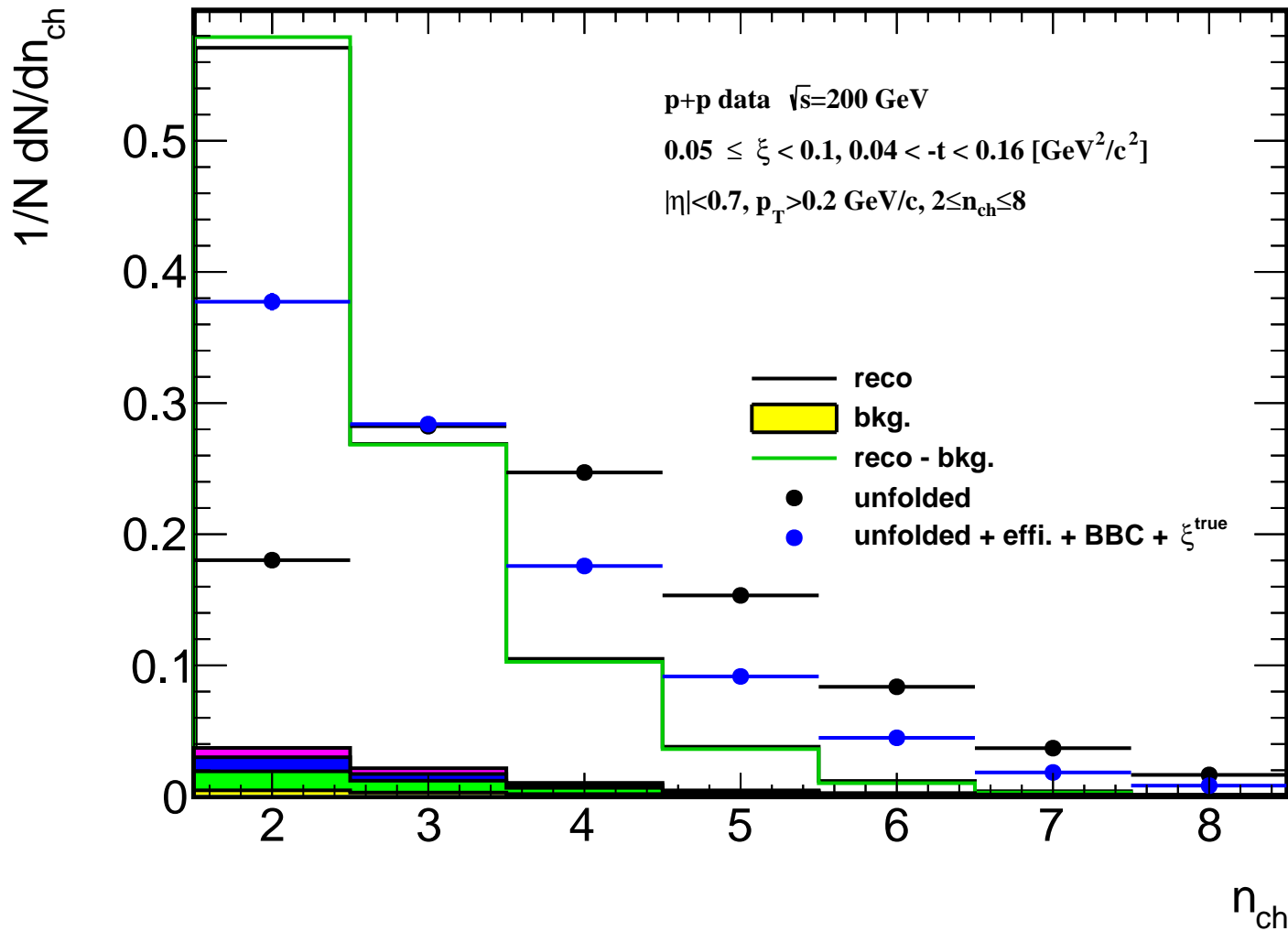


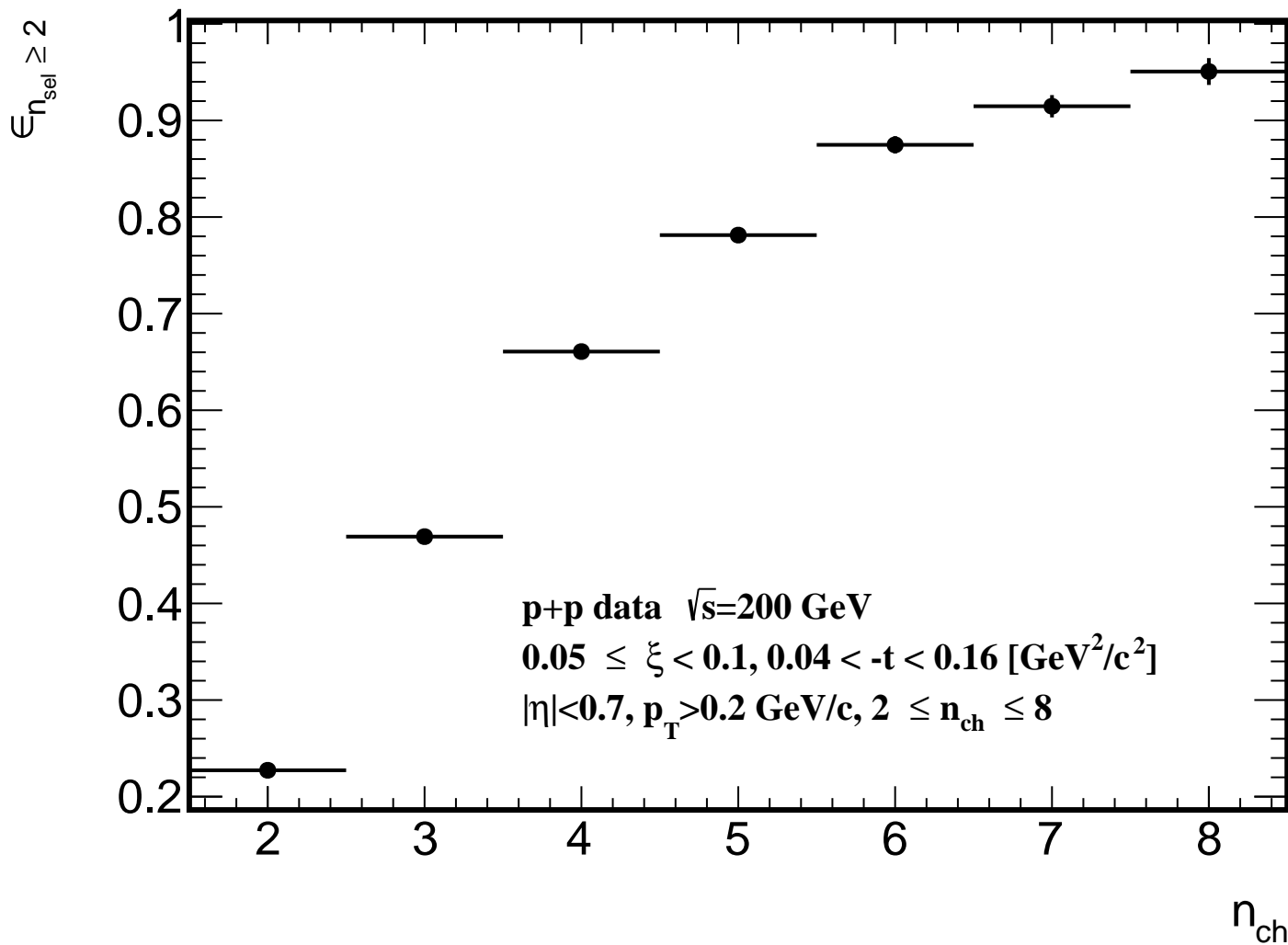
dN/dn_{ch}  $unf/true$ 

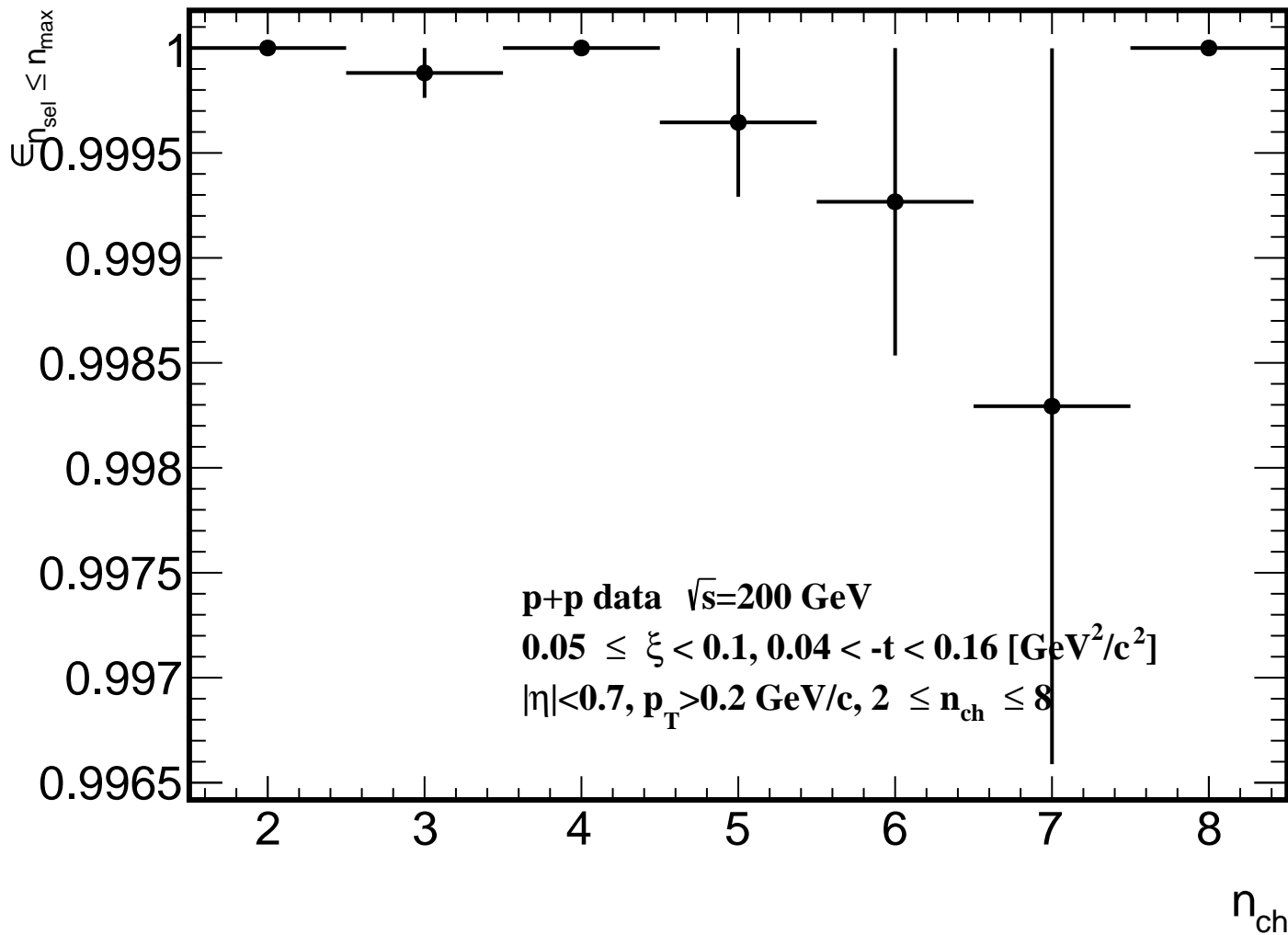


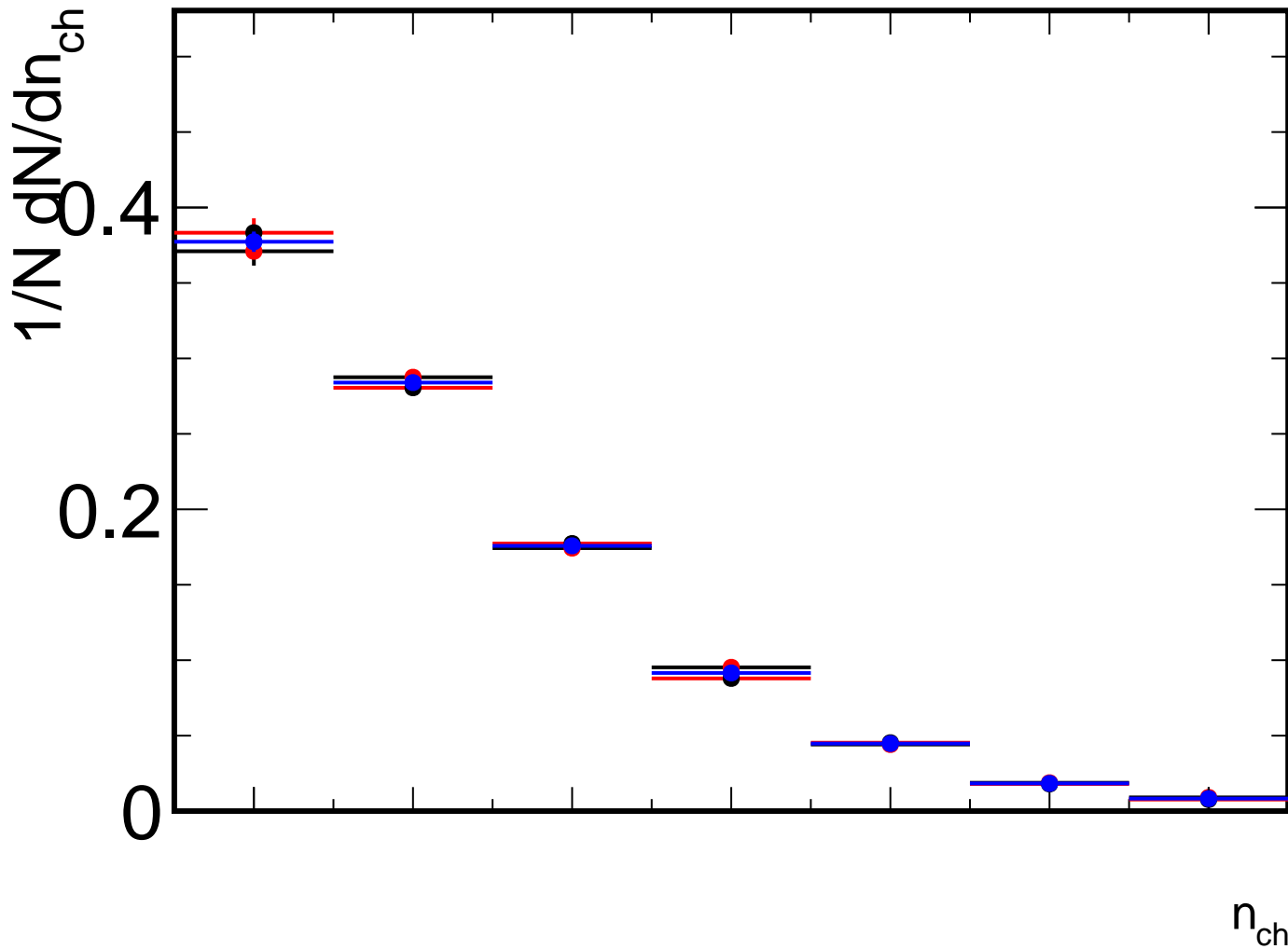


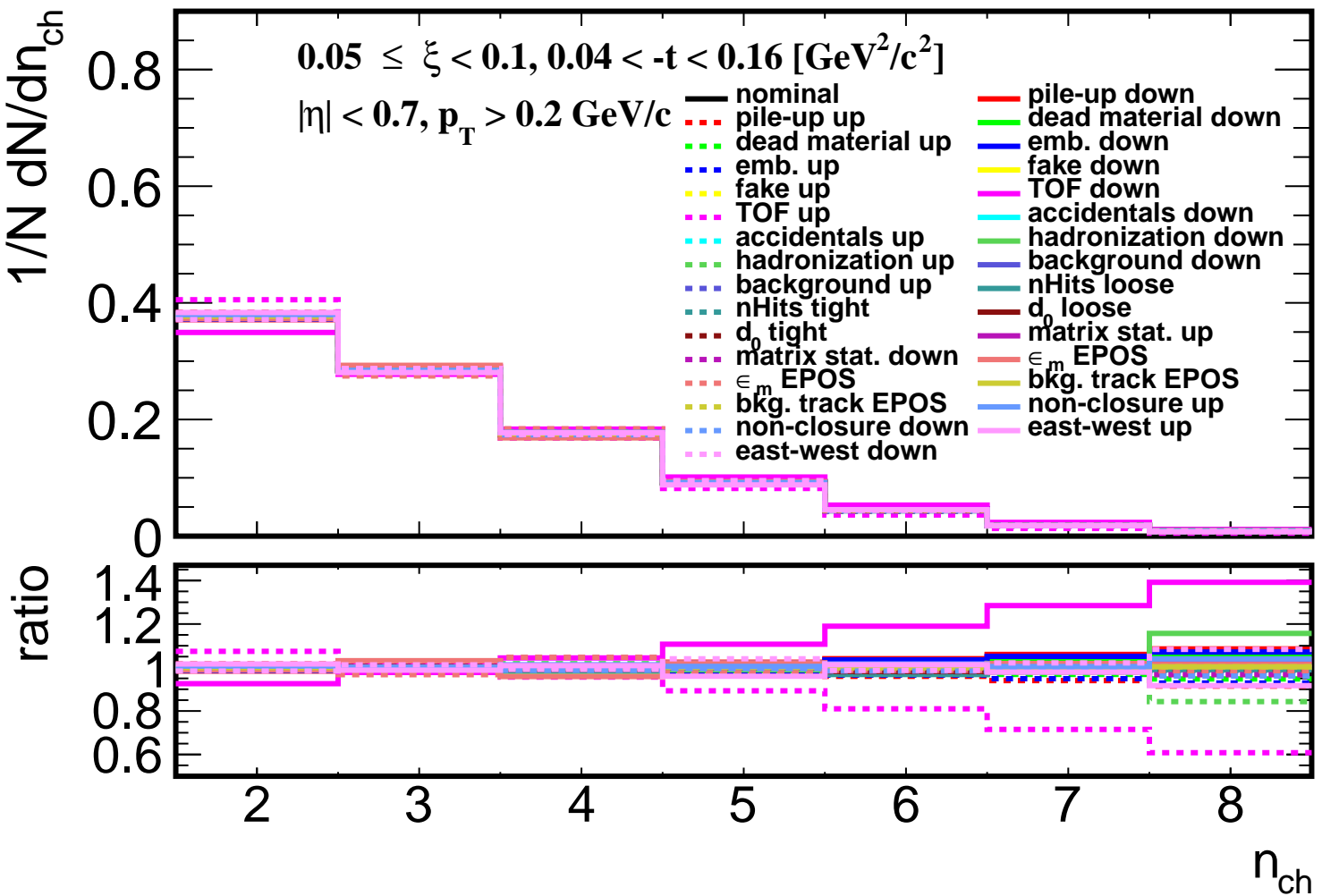


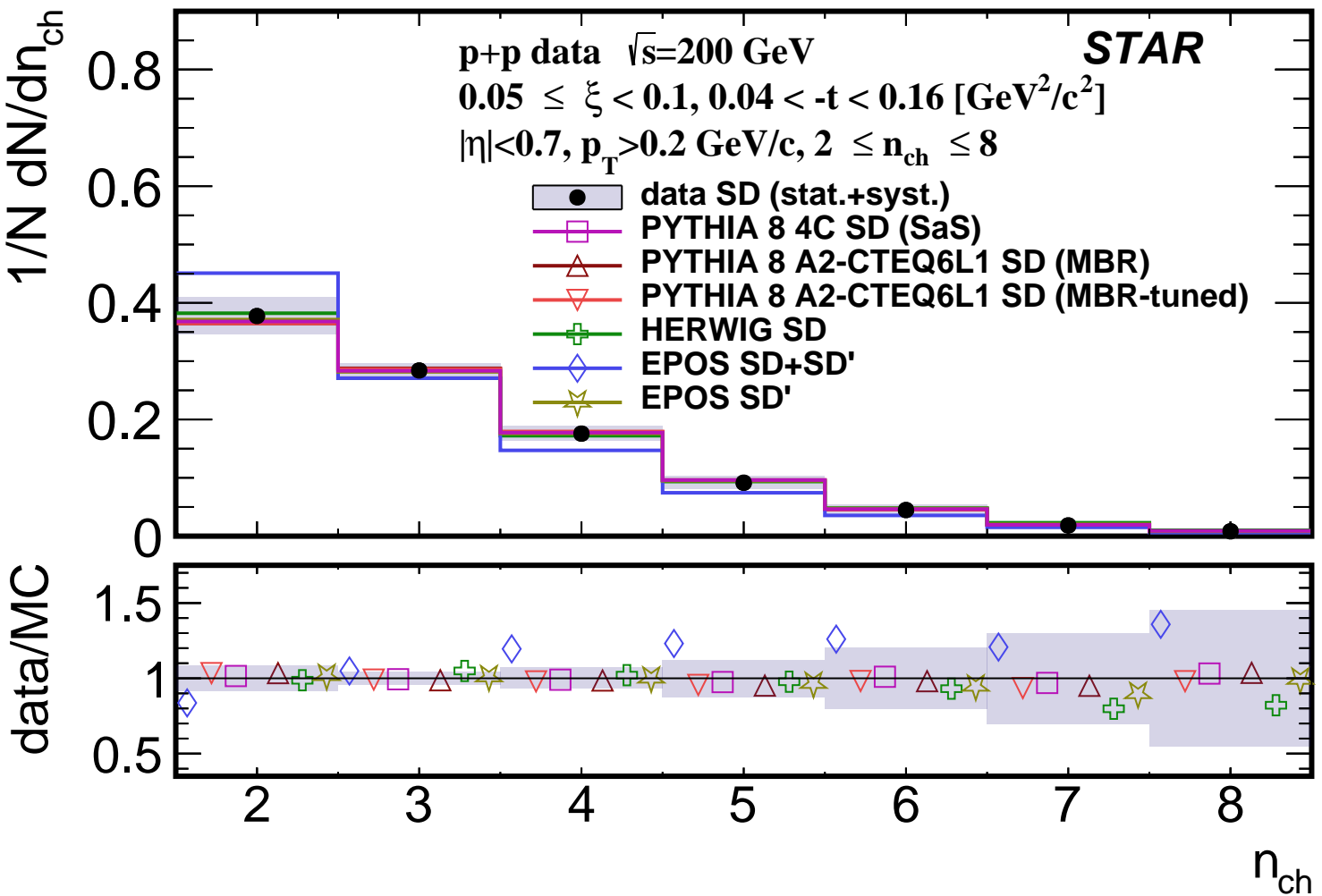


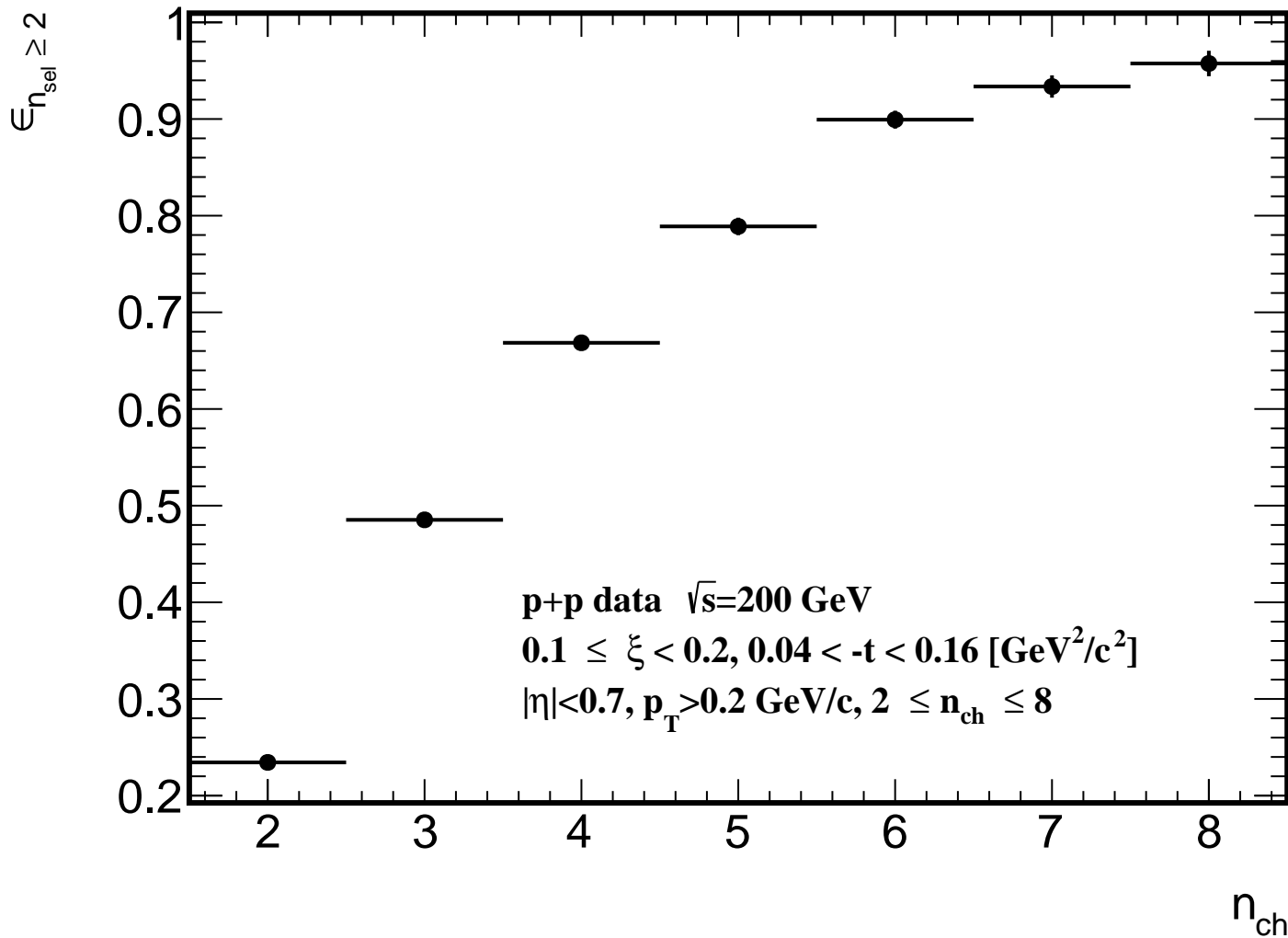


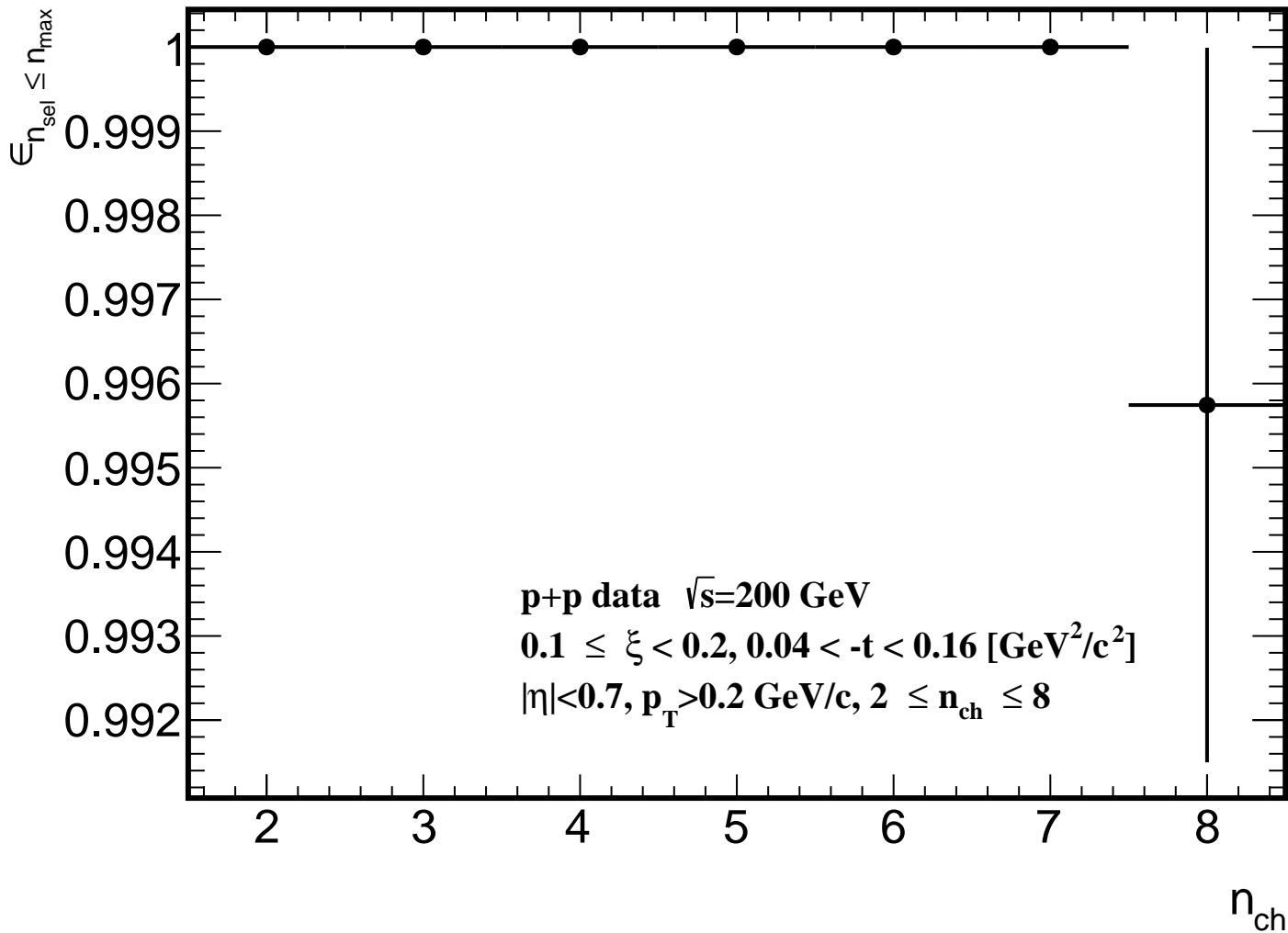


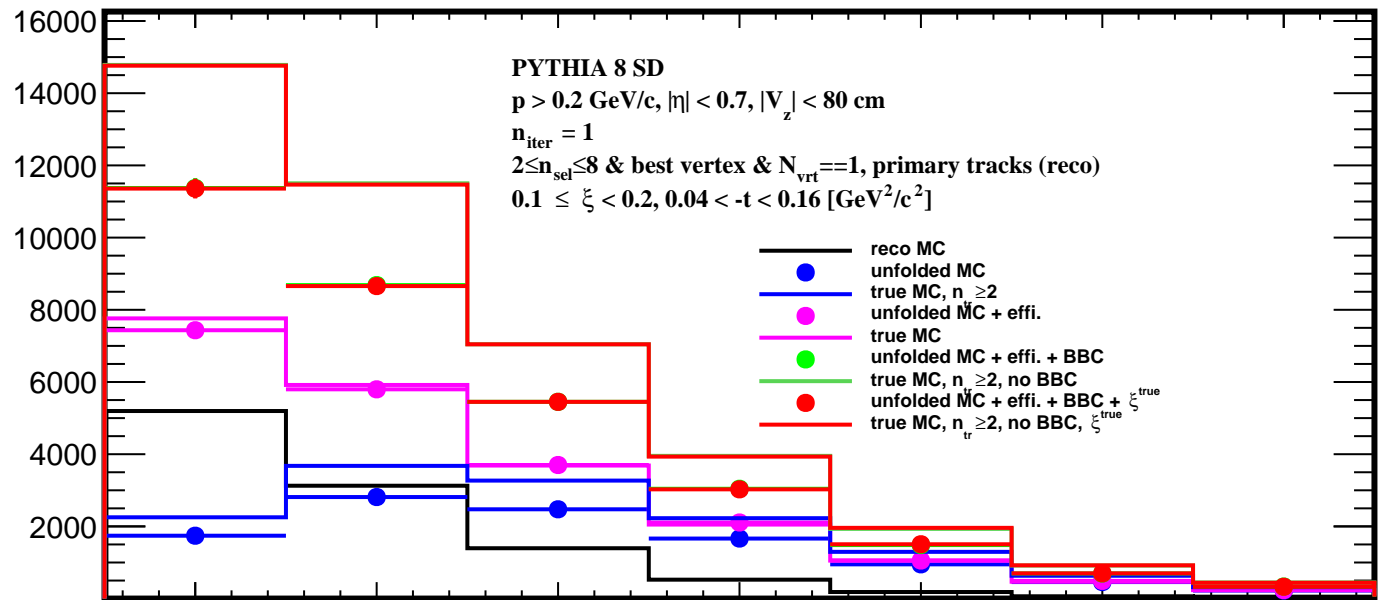




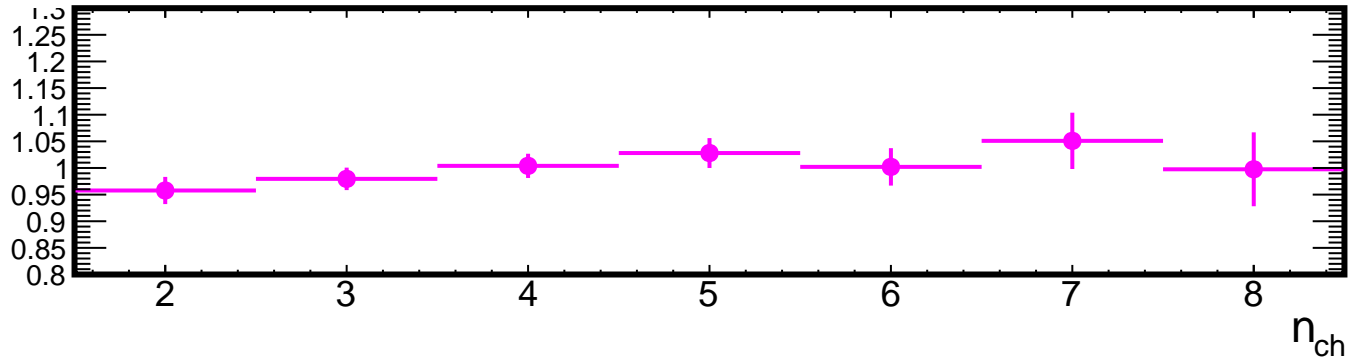


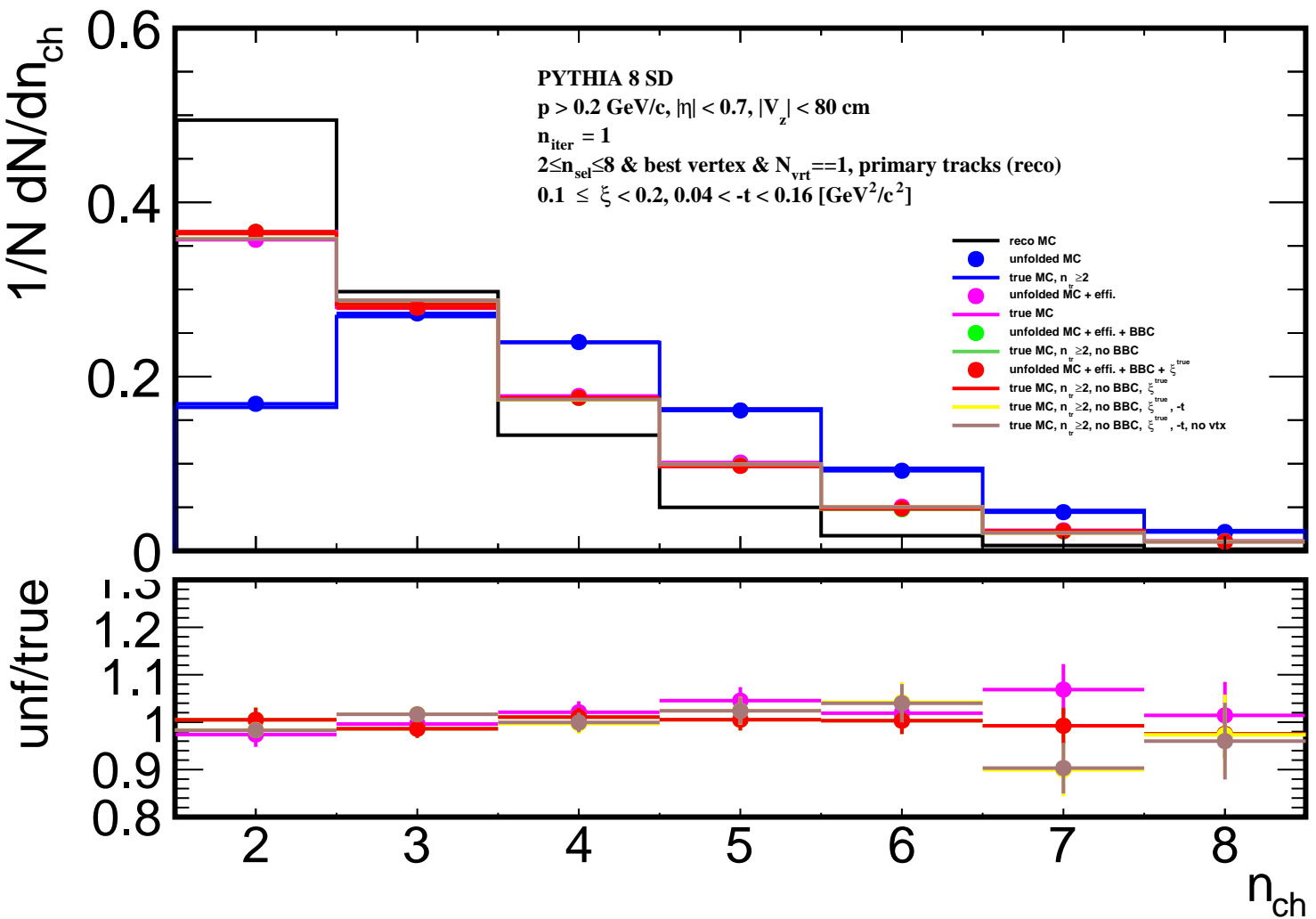


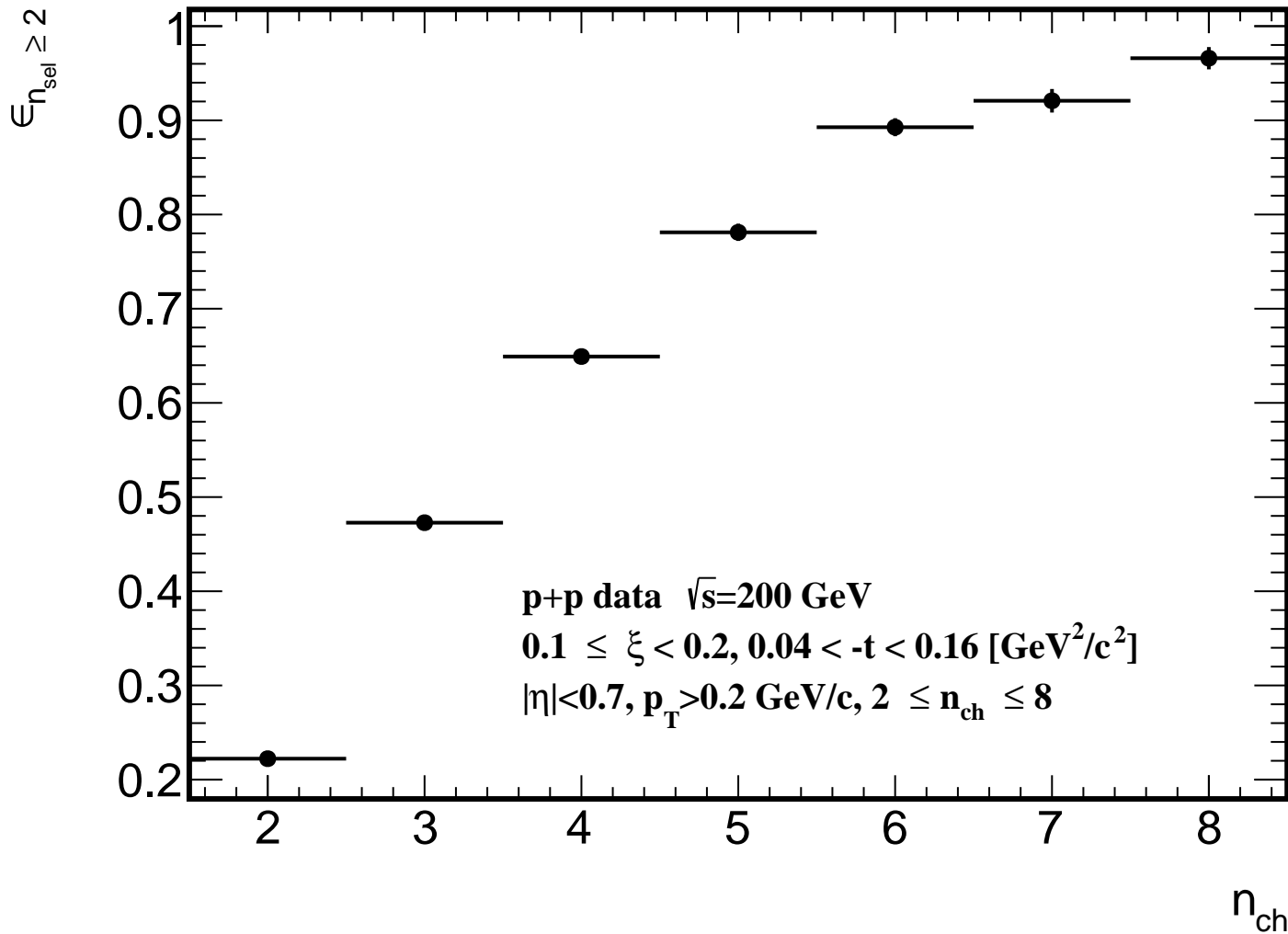


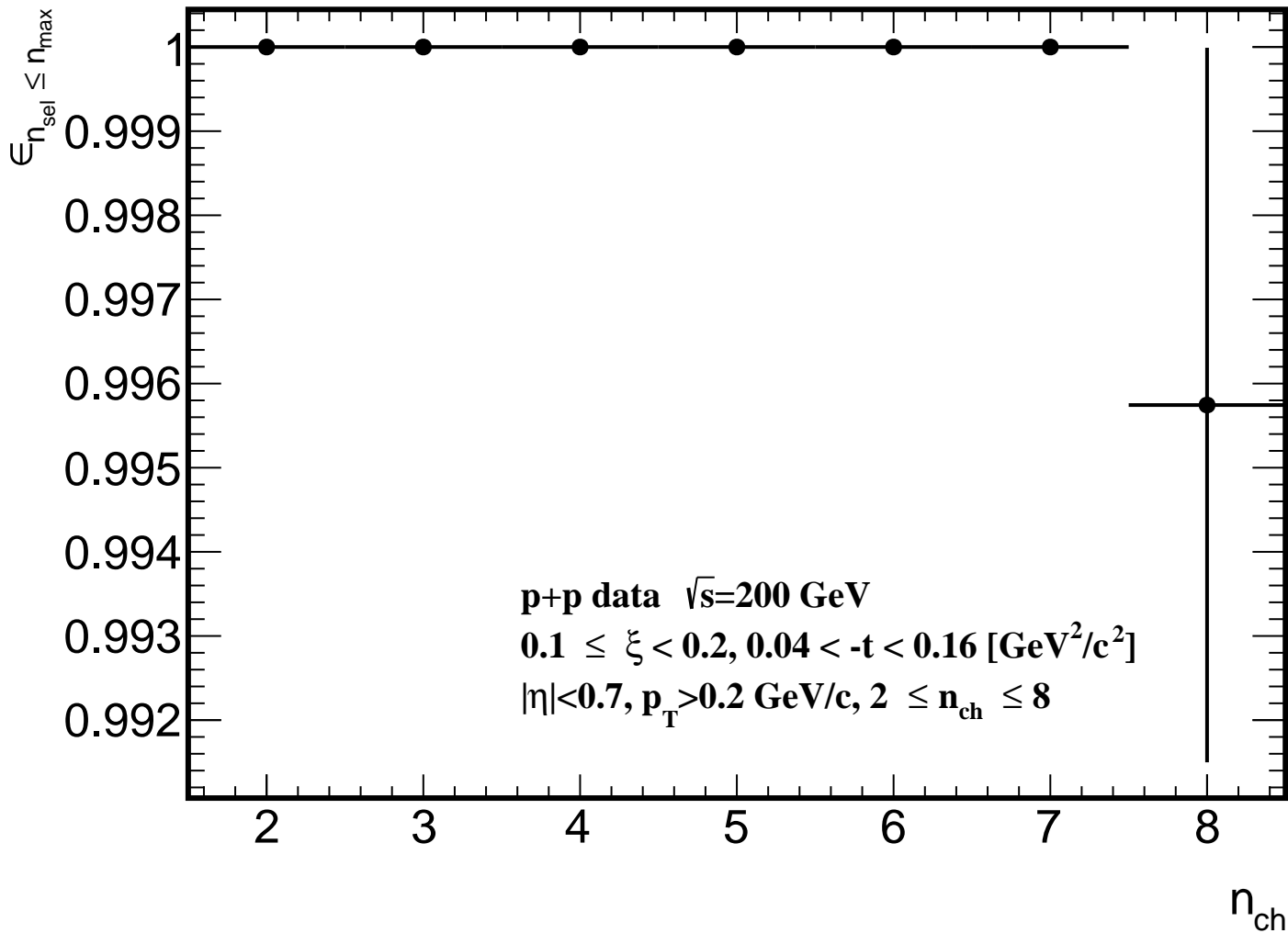
dN/dn_{ch} 

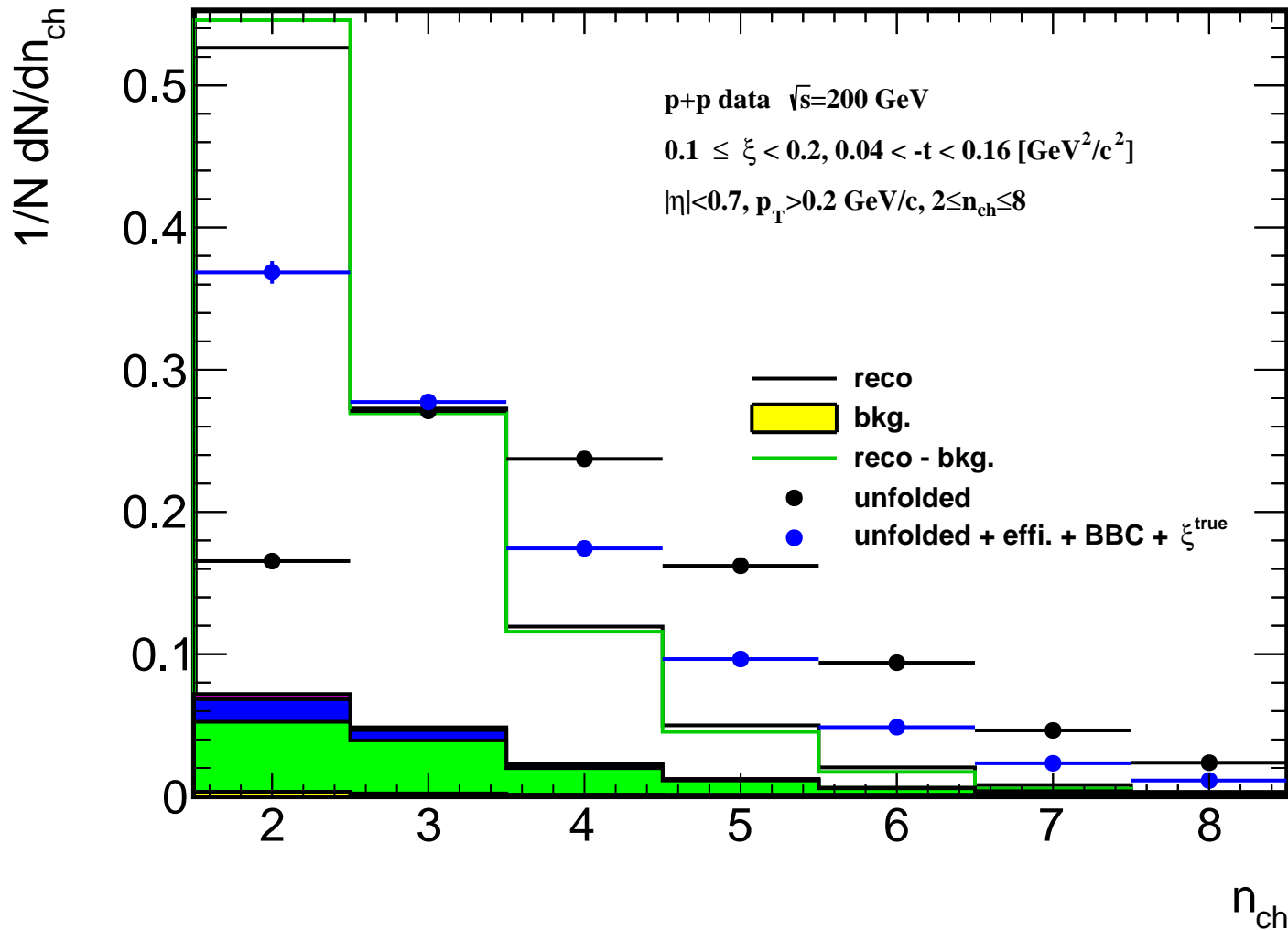
unf/true

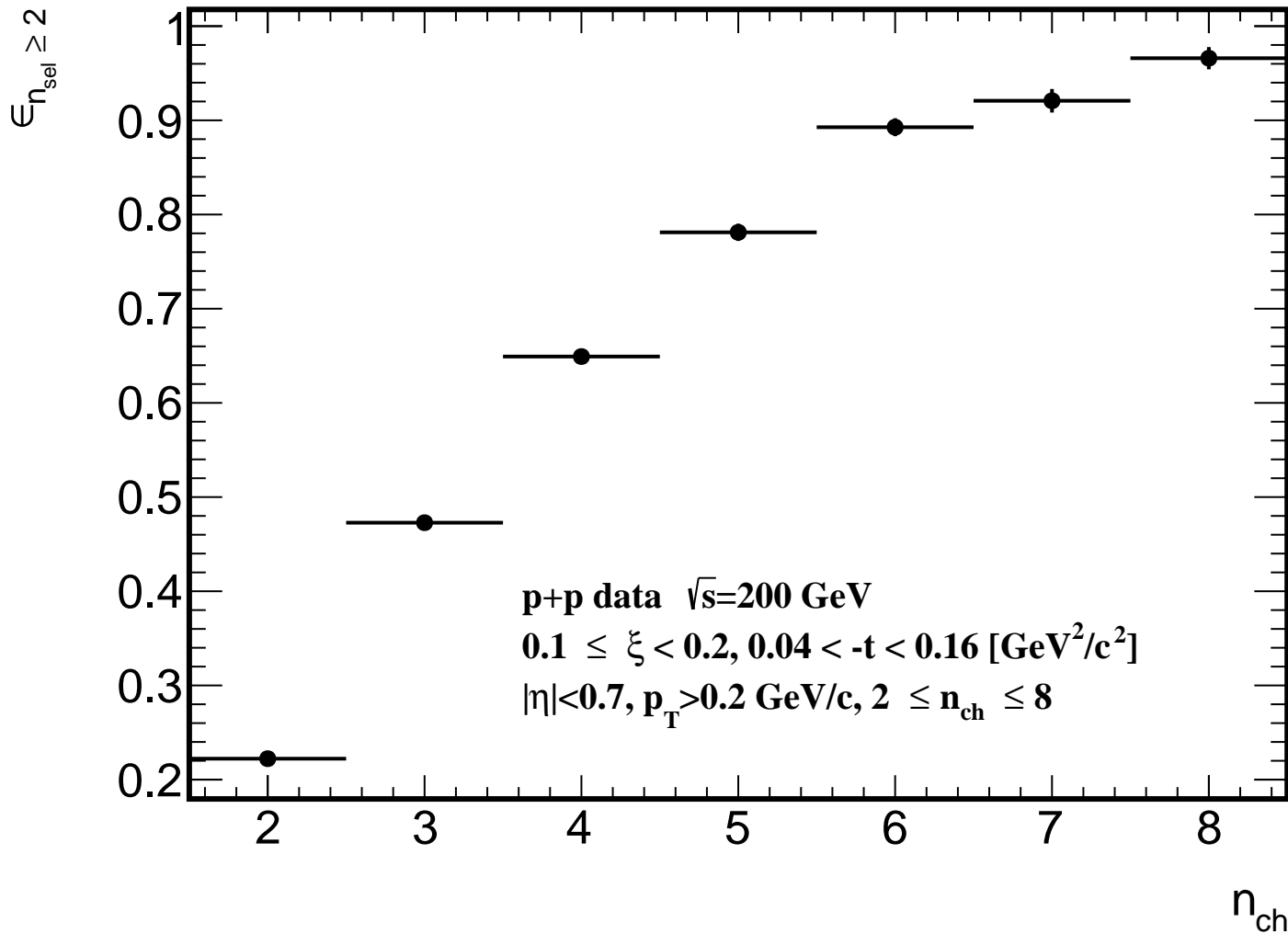


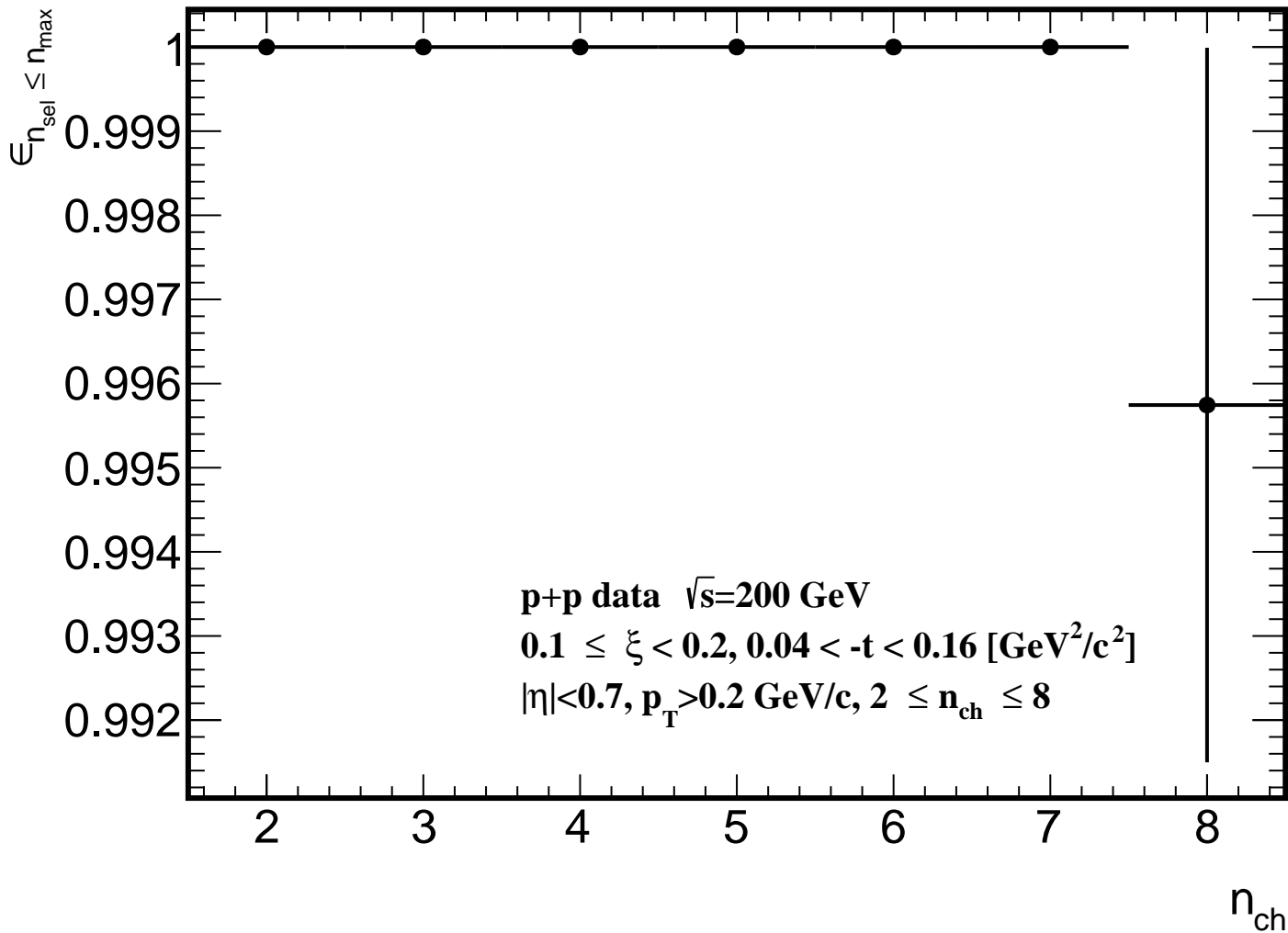


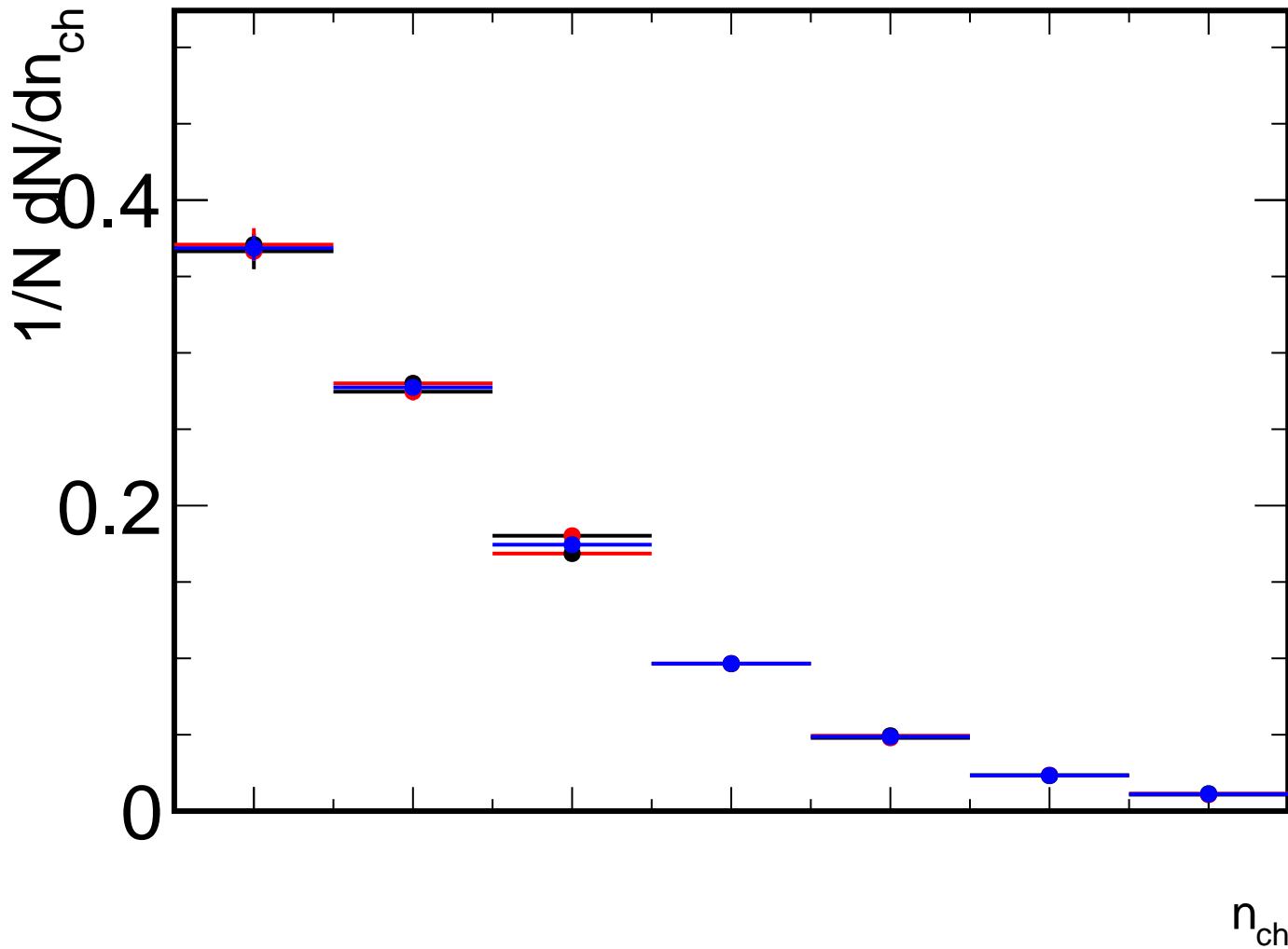


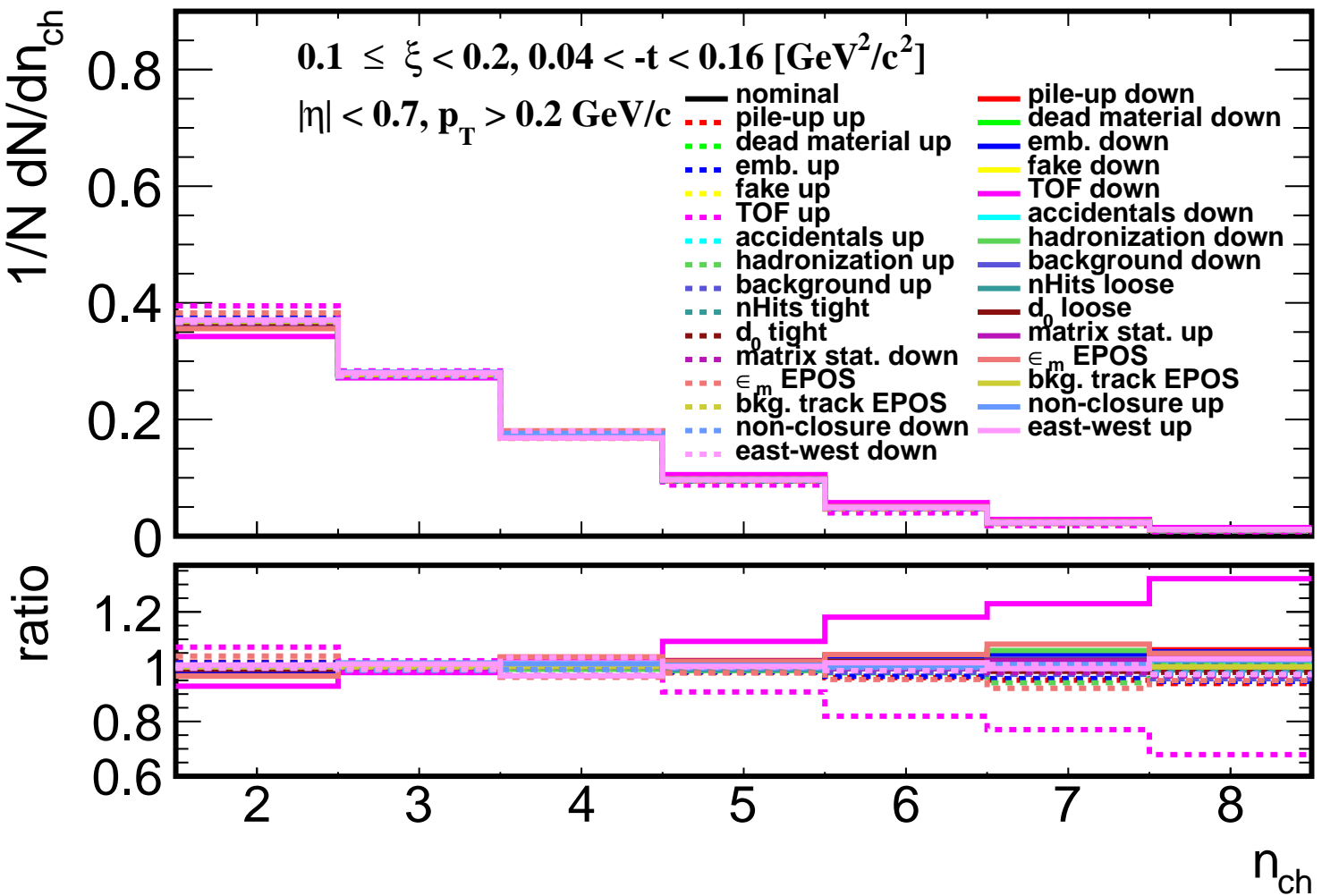


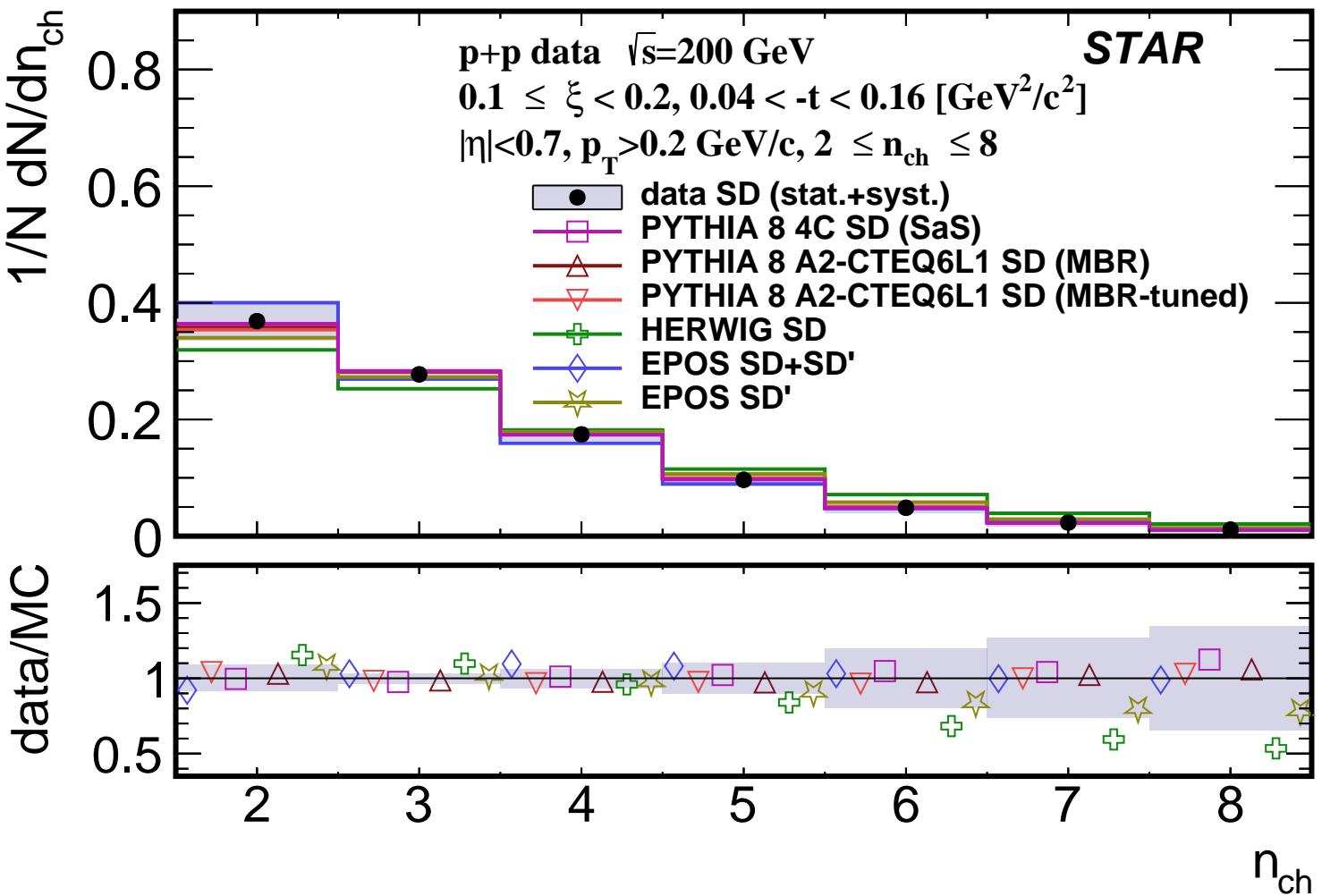












$\langle n_{\text{ch}} \rangle$

5

4

3

- | | | |
|-----------------------|------------------------|--------------------------|
| — nominal | — pile-up down | --- pile-up up |
| — dead material down | --- dead material up | — emb. down |
| --- emb. up | — fake down | --- fake up |
| — TOF down | --- TOF up | — accidentals down |
| --- accidentals up | — hadronization down | --- hadronization up |
| — background down | --- background up | — nHits loose |
| --- nHits tight | — d ₀ loose | --- d ₀ tight |
| — matrix stat. up | --- matrix stat. down | — ϵ_m EPOS |
| --- ϵ_m EPOS | — bkg. track EPOS | --- bkg. track EPOS |
| — non-closure up | --- non-closure down | — east-west up |
| --- east-west down | | |

$|\eta| < 0.7, p_T > 0.2 \text{ GeV}/c, 2 \leq n_{\text{ch}} \leq 8$
 $0.04 < -t < 0.16 \text{ GeV}^2/c^2$

ratio

1.04

1.02

1

0.98

0.96

0.05

0.1

0.15

0.2

 ξ

$\langle n_{ch} \rangle$ **STAR****p+p data $\sqrt{s}=200$ GeV** **$0.04 < -t < 0.16$ [GeV²/c²]** **$|\eta| < 0.7, p_T > 0.2$ GeV/c, $2 \leq n_{ch} \leq 8$**

- data SD (stat.+syst.)
- PYTHIA 8 4C SD (SaS)
- △ PYTHIA 8 A2-CTEQ6L1 SD (MBR)
- ▽ PYTHIA 8 A2-CTEQ6L1 SD (MBR-tuned)
- ✚ HERWIG SD
- ◇ EPOS SD+SD'
- ☆ EPOS SD'

