pp cross section of midrapidity  $\Pi^0$  production at  $\sqrt{s} = 200 GeV$ factorization  $10^{-4}$ **Pythia** PHENIX(2007)  $10^{-6}$  $Ed^3\sigma/dp^3(mb\cdot GeV^{-2}c^3)$ 10-8  $10^{-10}$  $10^{-12}$ 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40

 $p_T(GeV/c)$