

Some PDF issues for Les Houches 2009

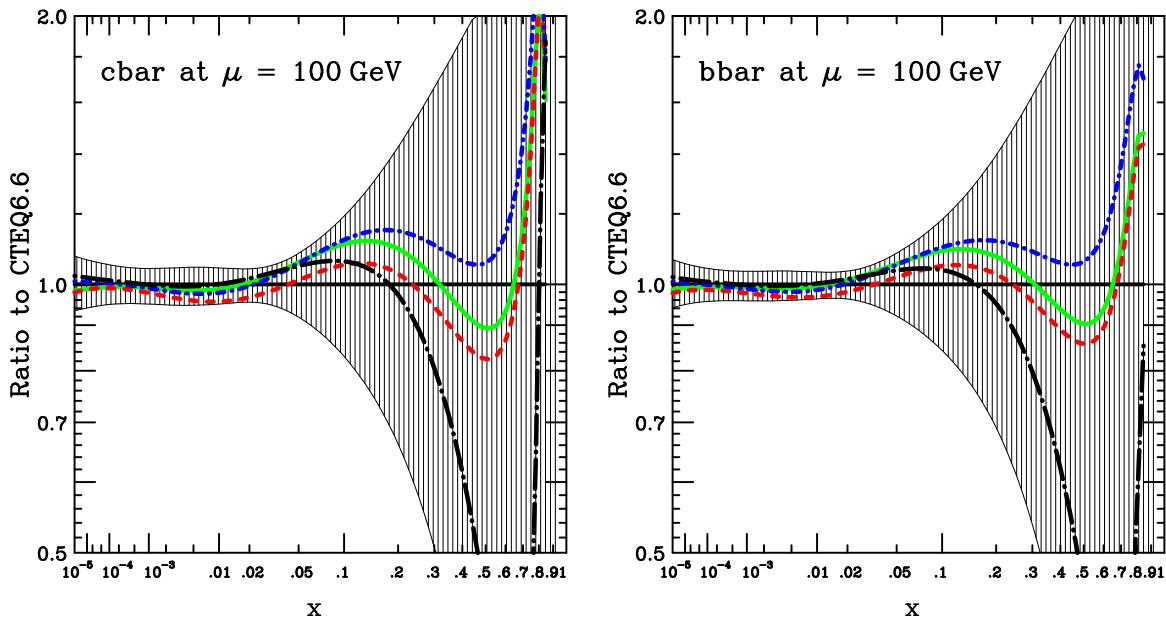
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- Compare CTEQ/MSTW predictions for central values and uncertainties of the usual suspects (W , Z , $t\bar{t}$, ...) with those from NNPDF.
- Does NNPDF **overestimate** the uncertainties by neglecting theory constraints such as Regge limits?
- Do CTEQ/MSTW **underestimate** the uncertainties by making overly strong assumptions about s , c , and b , and input parametrization?
- PDFs for use in MC simulations – Joey will cover.
- Future of LHAPDF: requests & ideas for the coming rewrite.

Sorry not to be in attendance — I'll remember to sign up early for LH2011

As viewed from sunny CERN, the morning rain clouds in direction Mont Blanc are spectacular!

PDF uncertainties in CTEQ6.6 at $\mu = 100$ GeV



CTEQ6.6 (shaded region) $\alpha_s(m_Z) = 0.118$,
 $m_c = 1.3$ GeV, $m_b = 4.5$ GeV.

solid = CT09 (most recent fit) same alpha and
quark masses as CTEQ6.6

dashed = Like CT09 but $m_c = 1.4$ GeV,
 $m_b = 4.75$ GeV

dot short-dashed = Like CT09 but $\alpha_s(m_Z) = 0.120$,
 $m_c = 1.4$ GeV, $m_b = 4.75$ GeV

dot long-dashed = Like **dot short-dashed** but used
weights similar to MSTW