nCTEQ

nuclear parton distribution functions

(nuclear) CTEQ - The coordinated theoretical-experimental project on QCD

nCTEQ collaboration

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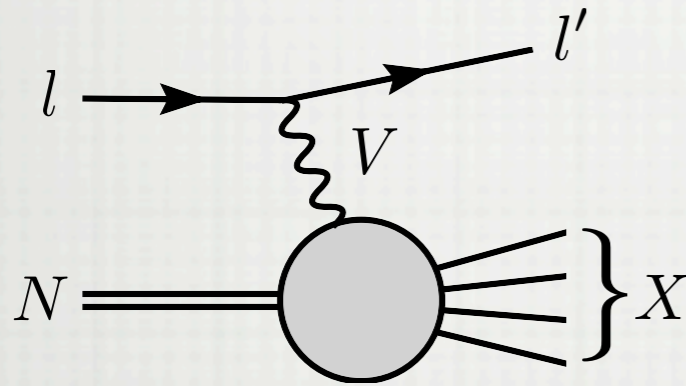
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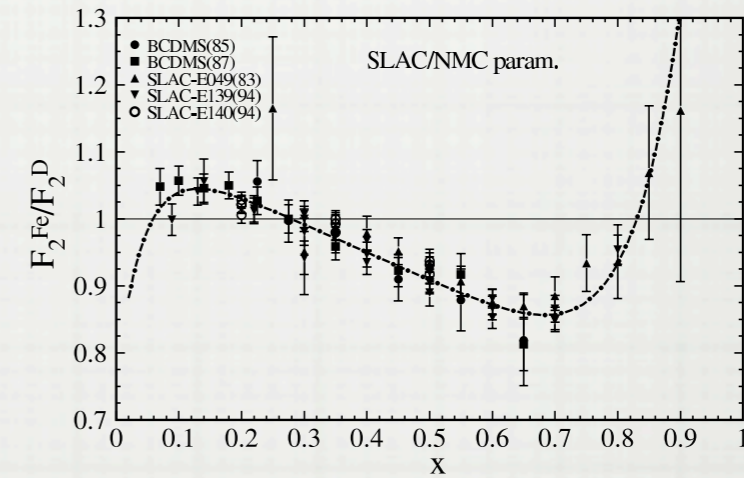
PDFs, structure of the proton & DIS

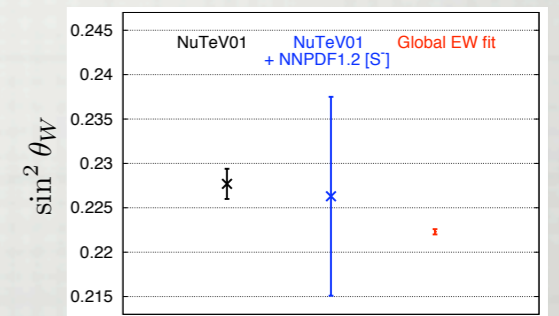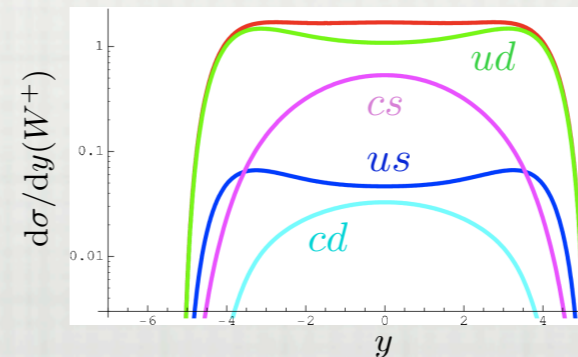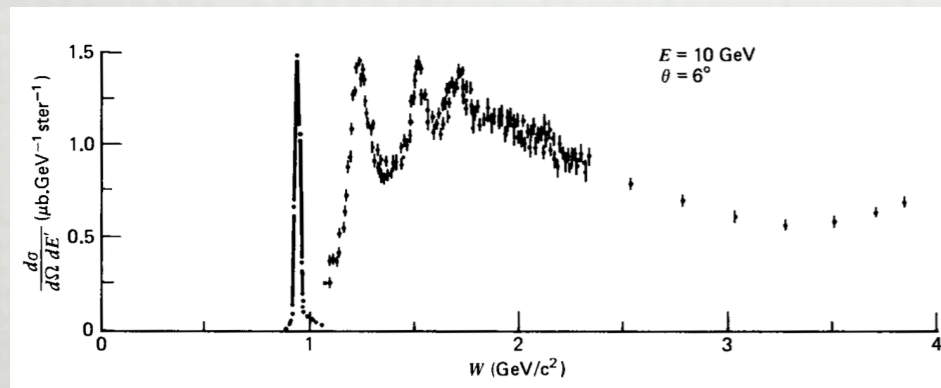- structure of proton & neutron bound in nuclei

$$l(k) + N(p_N) \rightarrow l'(k') + X$$

nuclear effects in PDFs - nPDFs

- nuclear effects for partons in bound proton & neutron

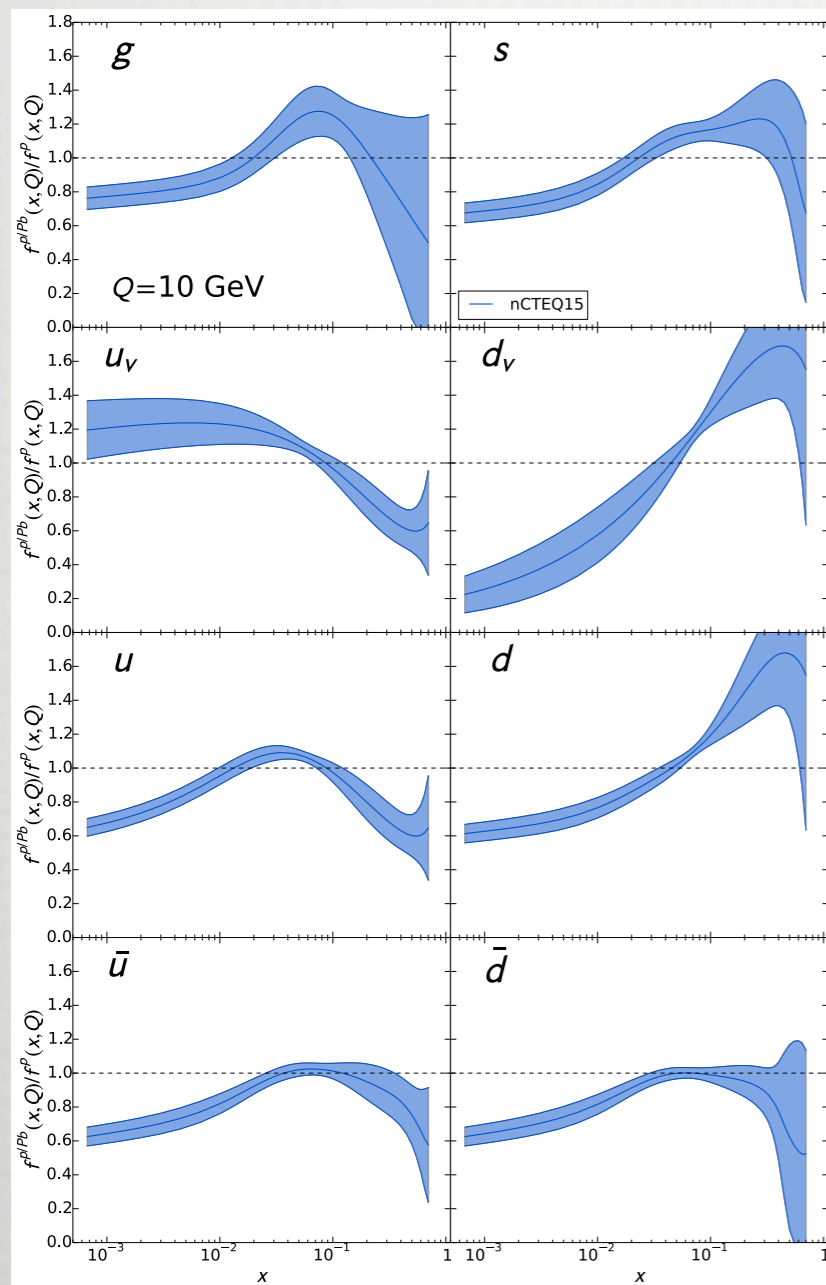- (anti-)strange PDF from (anti-)neutrino DIS with heavy nuclei

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nCTEQ15 - Global analysis of nuclear parton distributions with uncertainties in the CTEQ framework

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$$R_i(\mathrm{Pb}) = \frac{f_i^{Pb}(x,Q)}{f_i^p(x,Q)}$$

$$@ \ Q^2 = 100 \ \mathrm{GeV}^2$$

- larger uncertainty @ gluon nuclear correction factor & bigger low-x suppression

- different solution for d-valence & u-valence R factor & different underlying proton PDF