Nuclear PDFs

Overview:

    Historical perspective on nPDFs: HKN, EPS, DSSZ …

    The challenges compared to proton PDFs

Processes:

Overview of DIS processes that go into the global fitting as used

by the different groups.

    Inclusive Neutral Current DIS

        Constraints mainly u,d.

        Positrons can help d

        Iso-spin symmetry is assumed

    Charged Current DIS

        Need hermetic detector

        Rate issues:

    Jets & Di-Jets

    Strange PDF via Charm jets

Charm and Bottom production

    Heavy quark mass (multi-scale) issues

        Various approaches to calculations

"Other observables"

    heavy mesons,

    SIDIS,

    centrality dependence; connections to A-A UPCs

    etc,

Looking ahead to EIC:

    Compare EIC stats to current data

    Study/anticipate potential nPDF signatures for gluon saturation

        Related issues: low-x resummation; BFKL dynamics;

    Improvement of A dependence

    Maybe, {A,Z} dependence

        … getting away from the nuclear stability curve ...