

PDF4VBS

getting started

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Desiderata:

- Identify theory and experimental input:
 - Theory:
 - predictions including NLO QCD + EW, fixed order
 - Experimental:
 - which process/observable can be considered? Provide an estimate of accuracy, bin by bin
 - VBS may be too rare, what about using also Z/W VBF?
(plus, we do not want to fit BSM... VBF has TGC with stronger limits)
 - 2-3 benchmark points. Proposal: end of runII / 300fb⁻¹ / HL
 - bin-bin correlations?

Workflow

Given a NNPDFX.Y (3.1?) set:

- Consider a given process (start e.g. with ssVWV)
- Generate theory predictions (pseudodata) in experimental bins, for all replicas. EW corrections can be included as a bin-by-bin reweighting factor (assume same for all replicas, at least at the beginning)
- Reweight PDFs by including pseudodata, in order to assess the impact on the starting PDF set
- How to share workload?