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Studies of ATLAS measurements sensitive to the Proton Structure

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Several measurements performed by the ATLAS collaboration are either useful to constrain the proton structure or are affected by its associated uncertainties.
Measurements of the W+c production and the inclusive W and Z differential cross sections are found to constrain the poorly known strange-quark density at low x. Similarly, the ratio of W+/W- production is found to constrain the valence quarks at low x. Drell-Yan cross section measurements performed above and below the Z peak region have a different sensitivity to parton flavour, parton momentum fraction x and scale Q compared to measurements on the Z peak and can also be used to constrain the photon content of the proton.
Measurements of the inclusive jet and photon cross sections are standard candles and can be useful to constrain the medium and high x gluon densities.
Precision electroweak studies performed by ATLAS can be limited by the current knowledge on the proton structure. ...

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