Electroweak Analysis on Spin-dependent DIS Cross Sections at HERA

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The $ep$ collider HERA, after its luminosity upgrade, is colliding longitudinally polarized electrons or positrons and protons (HERA-II). The spin-dependent DIS cross sections measured by H1 and ZEUS experiments will be presented, and analyses on DIS and jet cross sections, which performs an NLO QCD and electroweak fits to determine unpolarized parton distribution functions and EW parameters simultaneously, will be described. The resulting precision on light-quark electroweak coupling to the $Z$ boson improves on those from LEP and Tevatron experiments.