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First analysis of world polarized DIS data with small- x helicity evolution

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We present the first-ever description the world data on the $g_1^{p,n}$ structure function at small Bjorken x using evolution equations in x derived from first principles QCD. This is a Monte-Carlo analysis within the JAM global framework that allows us to fit all existing polarized DIS data below $x < 0.1$ as well as predict future measurements of small x $g_1^{p,n}$ at the EIC. This is a necessary step in determining the quark helicity PDFs and, ultimately, the quark contribution to the proton spin.

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