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# Spin-dependent PDFs from lattice QCD

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We present spin-dependent parton distribution functions calculated within lattice QCD simulations using physical values of the light quark mass. Non-perturbative renormalization is employed, and the lattice data are converted to the MS-scheme at a scale of 2 GeV. We then reconstruct the light-cone parton distribution functions using a matching procedure. We obtain a nice overlap for a range of Bjorken-x values between our results and phenomenological parameterizations of the polarized distributions. This presents a major success for the emerging field of direct calculations of quark distributions using lattice QCD.

**Primary author:** Dr STEFFENS, Fernanda (DESY - Zeuthen)

**Presenter:** Dr STEFFENS, Fernanda (DESY - Zeuthen)

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