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## A Polarized Drell-Yan Experiment to Probe the Dynamics of the Nucleon Sea

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In QCD, nucleon spin comes from the sum of the quark spin, gluon spin, and the quark and gluon orbital angular momentum, but how these different components contribute and the interplay among them is not yet understood. For instance, sea quark orbital contribution remains largely unexplored. Measurements of the Sivers function for the sea quarks will provide a probe of the sea quark orbital contribution. The upcoming E1039 experiment at Fermilab will measure the Sivers asymmetry of the sea quarks via the Drell-Yan process using a 120 GeV unpolarized proton beam directed at a transversely polarized ammonium target. We report on the status and plans of the E1039 polarized Drell-Yan experiment.

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