Abstract for an Invited Paper for the DNP06 Meeting of The American Physical Society

The Theory of the Nucleon Spin MARCO STRATMANN

The exploration of the spin of the proton and its relation to the angular momenta of the quark and gluon constituents continues to be a classic topic of nuclear physics. We give a synopsis of our present understanding, main theoretical concepts, and recent developments of the field. We address the most compelling questions and their theoretical background such as the role of the gluon polarization, the understanding of single-spin asymmetries in electron-proton and proton-proton collisions, or the transition to the low- Q^2 region.