

## Physics Perspectives with a Polarized Positron Beam at JLab

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Positron beams, either polarized or unpolarized, are identified as essential ingredients for the experimental program at the next generation of lepton accelerators. In the context of the Hadronic Physics program of the Jefferson Laboratory, positron beams are complementary to mandatory tools for the understanding of the electromagnetic structure of the nucleon, both in the elastic and the deep-inelastic regimes. For instance, elastic scattering of polarized electrons and positrons off the nucleon allows for a model independent determination of the electromagnetic form factors of the nucleon. Also, the deeply virtual Compton scattering (DVCS) of polarized electrons and positrons allows to isolate the different contributions to the photon electroproduction cross section, enabling an accurate determination of the nucleon generalized parton distributions.

This talk reviews the physics motivations for a polarized positron beam at JLab and discusses the PEPPo (Polarized Electrons for Polarized Positrons) concept for the production of polarized positrons.