

Abstract Submitted  
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**Spin Asymmetry on the Nucleon Experiment** JAMES MAXWELL,  
University of Virginia, SANE COLLABORATION — The Spin Asymmetry on the  
Nucleon Experiment (SANE) will employ a revolutionary increase in Figure of Merit  
to obtain precise  $g_2^p$  and  $A_1^p$  results at high  $x$ . Using the highest available JLab  
beam energy, a 194 msr electromagnetic calorimeter will view the UVa polarized  
NH<sub>3</sub> target at  $8.5 \cdot 10^{34}$  proton luminosity. The large Bjorken  $x$  region provides  
an important view on proton structure where the sea quarks have been stripped  
away. Using measurements of these “naked protons” is crucial for the understanding  
of strong QCD and can provide a connection between experimentally measured  
moments of polarized structure functions and quark matrix elements calculated in  
lattice QCD. The experiment will take place in 2008, using JLab’s 5.7 GeV polarized  
electron beam, and covering the Bjorken  $x$  range from 0.3 and 0.8 with an average  
 $Q^2$  of 4.5 GeV<sup>2</sup>. We will discuss the physics motivation for SANE as well as the  
proposed experimental arrangement, and expected results.

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