

# Neutral Pion Measurements from PHENIX in Polarized Proton Collisions at RHIC

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The Relativistic Heavy Ion Collider (RHIC) at Brookhaven National Laboratory (BNL) inaugurated its operation as the first polarized proton collider during the 2001-2002 run. From this run at  $\sqrt{s} = 200$  GeV, the PHENIX experiment measured the absolute cross section and single transverse asymmetries in several channels. In this talk, the results for the production of neutral pions at mid-rapidity for  $p_t$  between 2 and 15 GeV. These results extend the  $p_t$  range of present data significantly and will contribute to an improved understanding of the transverse degree of freedom in proton structure functions and partonic fragmentation processes, e.g. higher-twist effects, transversity, and intrinsic  $k_T$  effects.

