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**Constraints on Gluon Polarization in the Proton from PHENIX Double Helicity Asymmetry Data.** ALEXANDER BAZILEVSKY, Brookhaven National Laboratory, PHENIX COLLABORATION — PHENIX experiment at RHIC has collected significant amount of data on longitudinal double spin asymmetry ( $A_{LL}$ ) for different particle production in polarized proton collisions, which is sensitive to the gluon polarization ( $\Delta G$ ) in the proton. We discuss a simple approach to constrain  $\Delta G$  from PHENIX  $\pi^0$   $A_{LL}$  data through the comparison with NLO pQCD calculations that incorporate a model of gluon polarization. Limitations of this approach as well as an opportunity to include other channels will be discussed.

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