

Abstract Submitted  
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**Longitudinal Spin Transfer of  $\Lambda$  and  $\bar{\Lambda}$  in Polarized Proton-Proton Collisions at  $\sqrt{s} = 200$  GeV** RAMON CENDEJAS, UCLA/LBL, STAR COLLABORATION — The longitudinal spin transfer,  $D_{LL}$ , of  $\Lambda$  and  $\bar{\Lambda}$  hyperons in longitudinally polarized proton-proton collisions is sensitive to the polarization of strange quarks and anti-quarks in the polarized proton, and polarized fragmentation. The STAR collaboration previously reported  $D_{LL}$  from a data sample obtained in 2005 that corresponds to an integrated luminosity of  $2 \text{ pb}^{-1}$  with 50% beam polarization. In 2006 and 2009 larger data samples were obtained, corresponding to  $8.5 \text{ pb}^{-1}$  and  $25 \text{ pb}^{-1}$  with beam polarizations of 53% and 57%, respectively. These data are expected to considerably improve the precision of the  $D_{LL}$  measurement and extend their range to larger transverse momenta,  $p_T$ . Increased acceptance of jet triggered events in 2009 are expected to enhance the sample of  $\Lambda$  and  $\bar{\Lambda}$  hyperons associated to jets. The analysis status will be discussed.

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