Analysis of $s\bar{s}$ asymmetry in the proton sea combining the Meson Cloud and Statistical Model[1] JORDAN FOX, GARRETT BUDNIK, SAM TUPPAN, Seattle Univ — We investigate strangeness in the proton in a hybrid version of the Meson Cloud Model. The convolution functions used to calculate the $s\bar{s}$ distributions consist of splitting functions and parton distributions. The splitting functions represent the non-perturbative fluctuations of the proton into a strange baryon and an anti-strange meson. The parton distributions of the baryons and mesons are calculated in a statistical model which represents perturbative processes of quarks and gluons. We consider six fluctuation states composed of ΛK^+, $\Sigma^0 K^+$, $\Sigma^+ K^0$, ΛK^{*+}, $\Sigma^0 K^{*+}$, $\Sigma^+ K^{*0}$. We then compare the results of these calculations to other theory, to the NuTeV, ATLAS, and HERMES experiments, and to global parton distributions.

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