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Parton Momentum Distribution of the Λ[1] STEPHANIE HARP, TOM SHELLY, Seattle University — In the proton there exist valence quarks, two up and one down quark, as well as light flavor sea quarks: up, anti-up, down, anti-down; and gluons. Zhang et al. assumed a Fock state expansion for the proton and used the principal of detailed balance to find the probability of each state. They assumed that there are three types of transitions; a quark can split into a quark and a gluon, a gluon can split into a quark anti-quark pair and lastly a gluon can split into two gluons. In this model, the numbers of light flavor sea quarks were found to be asymmetrical (dbar-ubar $\neq 0$), in agreement with experiment. We extend this model to the Lambda particle, the lightest strange baryon. The Lambda particle has three valence quarks: an up quark, a down quark and a strange quark. We calculate parton distributions for the Lambda, and find a symmetric light sea. Using the assumption of detailed balance of Zhang et al. and a Monte-Carlo calculation, we find the momentum distribution of the partons in the Lambda.

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Stephanie Harp
Seattle University

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