

New Measurements of Hyperon Production From Charmonium States

Tuesday, 26 July 2016 15:50 (30 minutes)

Hyperon production in e^+e^- annihilation provides a clean laboratory for the production of baryons and strangeness in hadronization, and can provide insight into the structure of different hyperons by comparing their production rates. Using 52 pb⁻¹, 805 pb⁻¹, and 586 pb⁻¹ of e^+e^- annihilation data taken at the $\psi(2S)$, $\psi(3770)$, and $\psi(4160)$ resonances, respectively, with the CLEO-c detector, we measure for the first time the inclusive decays of these charmonium states to the Λ^0 , Σ^+ , Σ^0 , Ξ^0 , Ξ^- , Ω^0 , Ω^- hyperons. The implications of these measurements on hadronization at these energies and on the structure of these hyperons will be discussed.

Presenter: DOBBS, Sean (Northwestern University)

Session Classification: Baryons