Weak Radiative Ξ° Decays at KTEV

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May 16, 1998

Abstract

Besides investigating CP violation in the neutral kaon sector, the KTeV experiment at Fermilab also has a strong program of neutral hyperon physics. We report here on the status of our work on studying the two weak radiative decays of the Ξ° hyperon: $\Xi^\circ \to \Lambda\gamma$ and $\Xi^\circ \to \Sigma^\circ\gamma$. We have increased the worlds sample by factors of 6 and 50 respectively in these two decays. We also discuss photon asymmetry measurements and polarization issues in this sector.