Search for CP Violation in Hyperon Decays with the *HyperCP* Spectrometer at Fermilab

Craig Dukes
University of Virginia

The *HyperCP* collaboration at Fermilab is making high-statistics studies of charged hyperon and kaon decays using 231 billion events collected in twelve months of data taking. With data samples a thousand times larger than any previously taken, a sensitive search for CP violation has been made by comparing the proton and antiproton angular decay distributions in $\Xi^- \to \Lambda\pi^- \to p\pi^-\pi^-$ and $\overline{\Xi}^+ \to \overline{\Lambda}\pi^+ \to \overline{p}\pi^+\pi^+$ decays, as well as in $\Omega^- \to \Lambda K^- \to p\pi^- K^-$ and $\overline{\Omega}^+ \to \overline{\Lambda}K^+ \to \overline{p}\pi^+ K^+$ decays. We report on new results from these searches.