A Search for CP Violation in Hyperon Decays by the *HyperCP* Experiment at Fermilab

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The *HyperCP* collaboration is performing a precision search for CP violation in hyperon decays; these decays are sensitive to sources of CP violation that *e.g.* neutral-kaon decays are not. The measured CP observable is proportional to the difference between the product of the Ξ^- and Λ decay α parameters and that of the CP-conjugate decays. About 2.5 billion fully-reconstructed $\Xi^- \to \Lambda\pi^- \to p\pi^-\pi^-$ and $\overline{\Xi}^+ \to \overline{\Lambda}\pi^+ \to \overline{p}\pi^+\pi^+$ decays were taken in two fixed-target runs at Fermilab, allowing a statistical sensitivity of about 2×10^{-4} in the CP asymmetry. Preliminary results from a fraction of the data will be presented.