E791 Search for CP violation in SCS D^+ decays

$$A_{CP} \equiv \frac{\Gamma(D^+ \to f^+) - \Gamma(D^- \to f^-)}{\Gamma(D^+ \to f^+) + \Gamma(D^- \to f^-)}$$

A_{CP} is largest (in the S.M.) for SCS decays such as $D^+ \to K^- K^+ \pi^+$, $\phi\pi^+$, $\bar{K}^{*0} K^+$, $\pi^-\pi^+\pi^+$

(No penguins to interfere with for CF decays)

Actually, we measure

$$A_{CP\,measured} \equiv \frac{\eta(D^+) - \eta(D^-)}{\eta(D^+) + \eta(D^-)}$$

$$\eta(D^\pm) \equiv \frac{N(D^\pm \to f^\pm_{SCS})}{N(D^\pm \to K^\mp\pi^\pm\pi^\pm)}$$