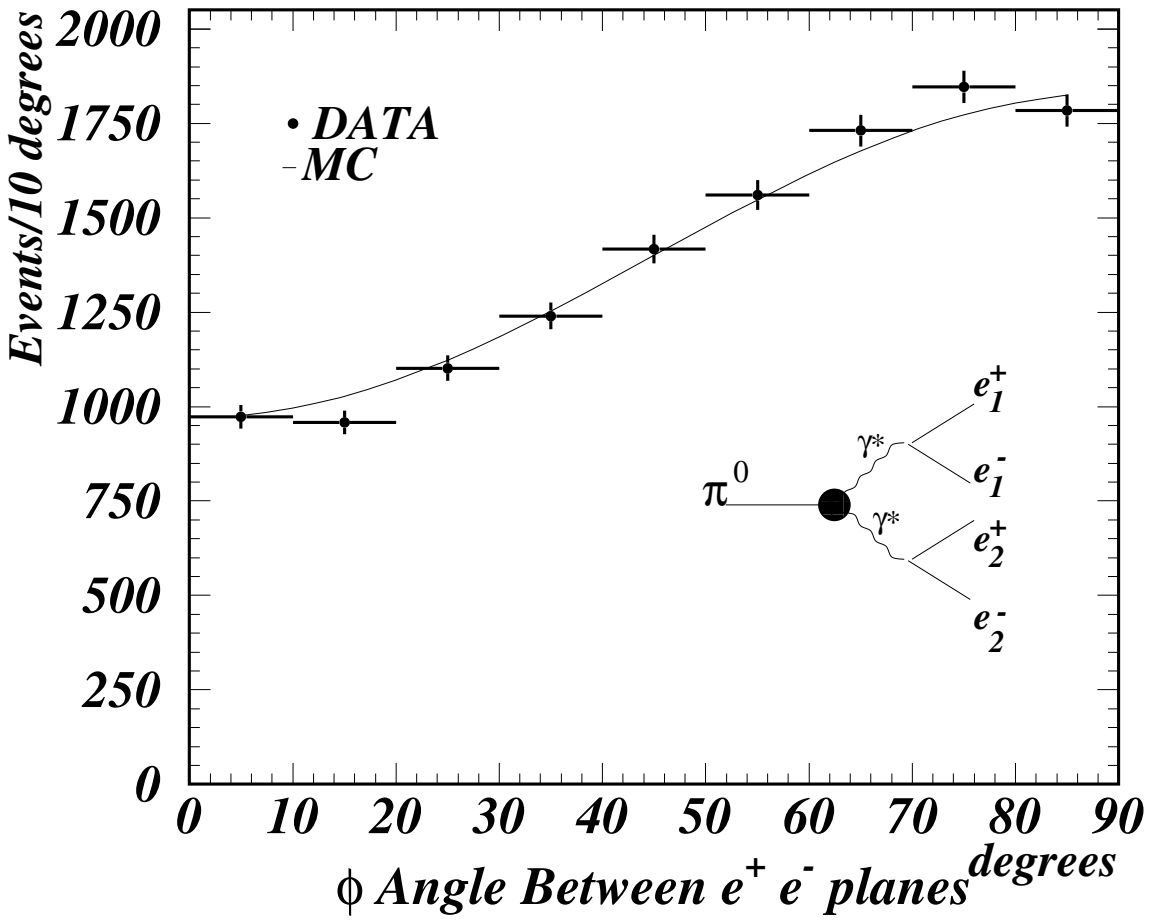
$\pi^0 \to e^+e^-e^+e^-$

from fully reconstructed $K_L \to \pi^0\pi^0\pi^0$

P Test



Fit to: $\frac{1}{N}\frac{dN}{d\phi} = 1 + \alpha cos2\phi$

For events with $M(e^+e^-) > 10MeV$:

Fit to data yields: $\alpha = -0.239 \pm 0.030$

Expectation: $\alpha = -0.250 \pm 0.003$

Previous Measurement:

Samios et. al., Phys. Rev. 126, 1844 (1962)

$\alpha = -0.12 \pm 0.15$

(112 Events, Both opening angles $> 3°$)

KTeV measurement is 10 times better!