

Flux Uncertainty

- Ends of straight have large angular spread
- Straights are relatively short
- RMS beam size will be larger than $0.1/\gamma$. Best we have is $0.34/\gamma$
- Try to find real uncertainty
 - ◆ Take graph from physics study
 - ◆ Fit to model
 - ★ Convolved Gaussians for beam and decays
 - ★ Flux at center

$$\frac{1}{\sqrt{1 + \frac{\sigma_x^2}{\sigma_0^2}} \sqrt{1 + \frac{\sigma_y^2}{\sigma_0^2}}}$$

★ Result: $\sigma_0 \approx 0.42/\gamma$

- Assume σ_x uncertainty of 15%
- Assume acceptance is at 2.5σ







