## How John wants get radiative fraction

- the way we calculated rad fraction before (at least in Omar's analysis) was to use the rate for the $\mathrm{e}+\mathrm{e}$ - from the radiative gamma* for the numerator
- there is some fraction of detected recoil $e^{-}+$positron $A^{\prime}$ events that land in the correct mass window/bin
- this recoil+positron distribution is (as shown by Rafo yesterday) depends a lot on mass, most of it looks background-like
- the right way to account for this is:
- generate A' + reco as normal (don't just take A' daughters to make V0s)... generate array of masses
- overlay the A' MC (at a single mass) onto toy background MC
- fit using whatever signal shape we want (gaussian/CB whatever)
- get efficiency = \#A' fit/A' generated
- efficiency X cross-section = accepted cross-section ...do this for all masses
- interpolate between masses...this is your numerator.

