

Run plan

1. a) With PMT in place measure Δt of attenuated beam.

b) at $\approx 550 \frac{\text{keV}}{u}$ ^{13}C .

$$\Delta t = 3.4 \pm 0.7 \text{ nsec}$$

↑ Kick from γ ($\approx 5.7 \text{ MeV}$)

→ see if we can separate beam / recoils

→ want to put timing through a TAC and into one of the ADC's. I will look into this

2. Put DSSD in to get an E signal

→ also would like to get t signal into ADC via TAC.

→ $n = \text{const. } Et^2$

• should be able to get const from previous tests (^{20}Ne , I think) would give 2 points for measurement of const. (^{13}C the other)

• from MLP to DSSSB $l \approx 60 \text{ cm}$, if we get 1.5 nsec ~~time~~ and $\Delta E = 2\%$.

$$\frac{\Delta m}{m} \approx \frac{1}{18}$$

(Is $l = 60 \text{ cm}$ if timing blw)
MLP and RF?

\Rightarrow would be able to separate ^{13}C from ^{14}N

• Problem? E and t correlated if \pm use buncher. Would have to see which term dominates.

\rightarrow do $E t^2$ analysis of beam and records