## Paul and KK Summer R&D

Are backgrounds at Mainz test same as backgrounds in MOLLER apparatus? Is 0.2 light guide event/electron assumption conservative, aggressive or realistic?

- Scintillation
  - what is the light guide efficiency as a function of depth for scintillation?
    - LED measurements: mimic scintillation at various depths in the light guide: reasonable?
- Delta rays and Bremsstrahlung
  - MC Studies:
    - Production as a function of angle in 500 micron foil
    - Significant production in air before detector?
    - Production in air light guide material
  - Source tests
    - Low energy gamma & alpha source with a scintillator: ionization produces any signal?

Outcome of tests and MC studies will allow us to devise better tests for December test beam