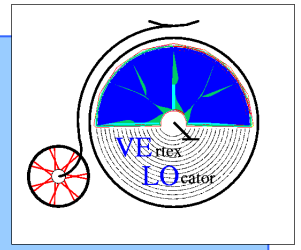

HOW to MAKE PROGRESS (Some Suggestions)

Ray Mountain

Syracuse University

HOW TO MAKE PROGRESS (1)

On RF Foil:

- Need to agree on a first iteration of L-shape design for fab testing
  - Module outline (see below)
    - Proposal: review L Si design, comment by email, post dim drawing of model plus 1 mm clearance all around as outline (will at least be good in inner region) – [John?, Ray]
  - Module spacing
    - Proposal: without objection, we can take 30 mm as nominal
  - Could be done over the next few weeks
- Continue with mostly independent work for the Spring term, review progress in early Summer
- Need to review testing facilities to see if we can make some common tests during prototyping

On Modules:

- Next, need "official" mech drawing of L-shape designs (for SIM, etc.)
  - L-shape, Si, two pieces, same plane – [?]
  - ? L-shape, Si, two pieces, different plane (split top/bottom or back/back)?
  - L-shape, Si+diamond, same plane – [Ray]
  - Others?
- Need proper drawings of U-shape layouts as well
  - U-shape, Si, three pieces, same plane – [?]

HOW TO MAKE PROGRESS (2)

On Simulation:

- Need to determine if any overlap is beneficial
  - Not needed for alignment, but otherwise? – [Steve?]
- Need to determine how much the gaps hurt us
  - Can we can afford a gap between Si pieces in same plane (due to GR)? – [Steve?]
  - Can we allow a gap between the A,C modules (~3.6 mm)? What happens to tracks as foil becomes more flat? How many tracks are lost? – [Steve?]
  - Same question: Is a gap offset from the center still a "gap"?
- Need to integrate CAD models (foil and module) into SIM (Geant4)
  - Convert CAD-to-XML? – [volunteer?]
- Need to simulate foil parameters and variations in Geant4
  - Comments on progress – [Victor?]
  - We "know" thinner is better from the physics point of view, but … How thin does it have to be to make a serious impact? ***