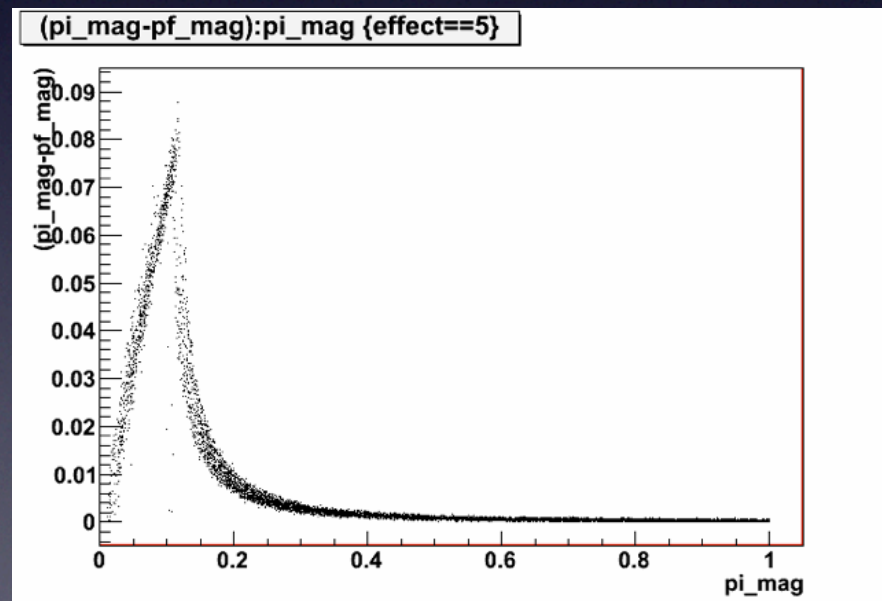
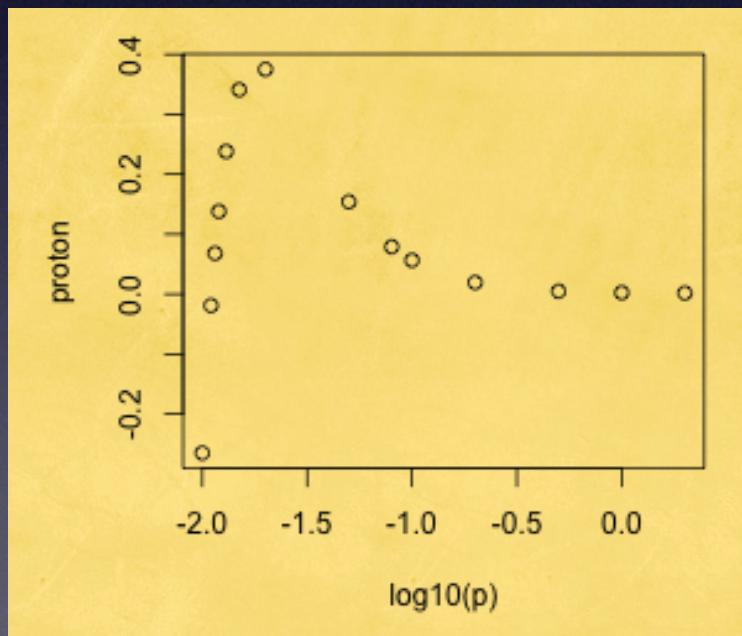


# Energy Loss Problem

- Noticed by John Walsh
  - low-momentum protons leaving very little energy in Svt layers
- Reproduced in unit tests of PacDetEffect



# Explanation + Fix

- Energy loss computed in 2 steps
  - Mean energy loss ( $\leq$  total kinetic energy)
  - (Gaussian) smearing
- If mean  $\Delta E = KE$  (stopping), smeared  $\Delta E < KE$ , particle was allowed to continue
- Fix is to test for stopping before smearing

