Automating Test Plots

• Test plots generated by hand for performance review
• In process of automating the process
  – Repeatability
  – Allows easy manipulation of parameters and algorithms
Plots from automated script
CAL Calibration/I&T Algorithm Development

• Problem is that data and algorithms come out of two environments
  –**CAL GSE**
    • “Non-OO” multidimensional matrix data format stored in binary format
    • Algorithms developed in Python
    • Standalone scripts (some with GUIs)
    • Byron Leas is lead developer
  –**SAS/GLEAM**
    • “OO” Root data format
    • Algorithms developed in C++/GLEAM environment
    • Sasha Chekhtman is lead developer
CAL Calibration/I&T Algorithm Development

• **Goal:** Minimize duplication of algorithm development

• **Solution:** Take advantage of (alleged) capability to call Root algorithms from Python and vice versa
  – Develop algorithms with separation of data I/O and computational tasks
  – Study any requirements imposed by cross-language interfaces
  – Develop common intermediate data format that both systems can access

• **Status:** Byron and Sasha working together to implement this scheme, using existing muon calibration analysis algorithms (in C++) as test case
Failure Modes

• Richard...