First look at 3E34

• Three fulleta configurations:
  – **TSP**: 50x64x36, 128M / region
  – **Split Wide**: 4L 25x36 (4M) and 8L 32 (6M)
    • Single muon eff: 89% at 8L, 80% final
      – (using tight chi2 cut – already reached eff plateau)
  – **Split Narrow**: 4L 16x18 (10M) and 8L 16 (12M)
    • Single muon eff: 75% at 8L, 54% final
      – (NOT reached eff plateau yet!)

• Caveats:
  – Only 5 events
  – No 3E34 efficiencies due to beam offset bug
  – To minimize fitting time, use ONE_PER_ROAD
CPU run time per event

• **TSP:**
  - Roadinder: 100 min
  - Roadmerger (cross-sector RW): >60 hours
  - Trackfitter (one per road) –O(30 min)

• **Split wide:**
  - 8L Roadfinder: 50 min, 4L roadfinder: 600 min
  - Trackfitters –O(1 min)

• **Split narrow:**
  - 8L Roadfinder: 4 min, 4L roadfinder: 11 min
  - Trackfitters –O(0.5 min)
TSP problem

- # of roads in each event AFTER in-sector RW:
  - [4.3M,1.1M,1.4M,1.4M,2.5M] roads/region
  - Average = 2.2M roads/region
- # fits is also very large
- Clearly, final TSP roads must be much thinner
  - Currently: 50x64x36
  - Alberto is working on smaller SS TSP bank
Split performance

- Wide superstrip (worst region):
  - 8L:
    - 60k roads, 360k full fits, 1.1M total fits
  - 4L (number of roads out of AM):
    - 60k roads, 16k full fits, 330k total fits

- Wide superstrip (worst region):
  - 8L:
    - 8k roads, 6k full fits, 43k total fits
  - 4L (number of roads out of AM):
    - 10k roads, 600 full fits, 22k total fits

- CAVEAT: bank is only 50% efficient on muons