

First look at 3E34

- Three full eta 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:
 - Roadfinder: 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