Data Challenge 2

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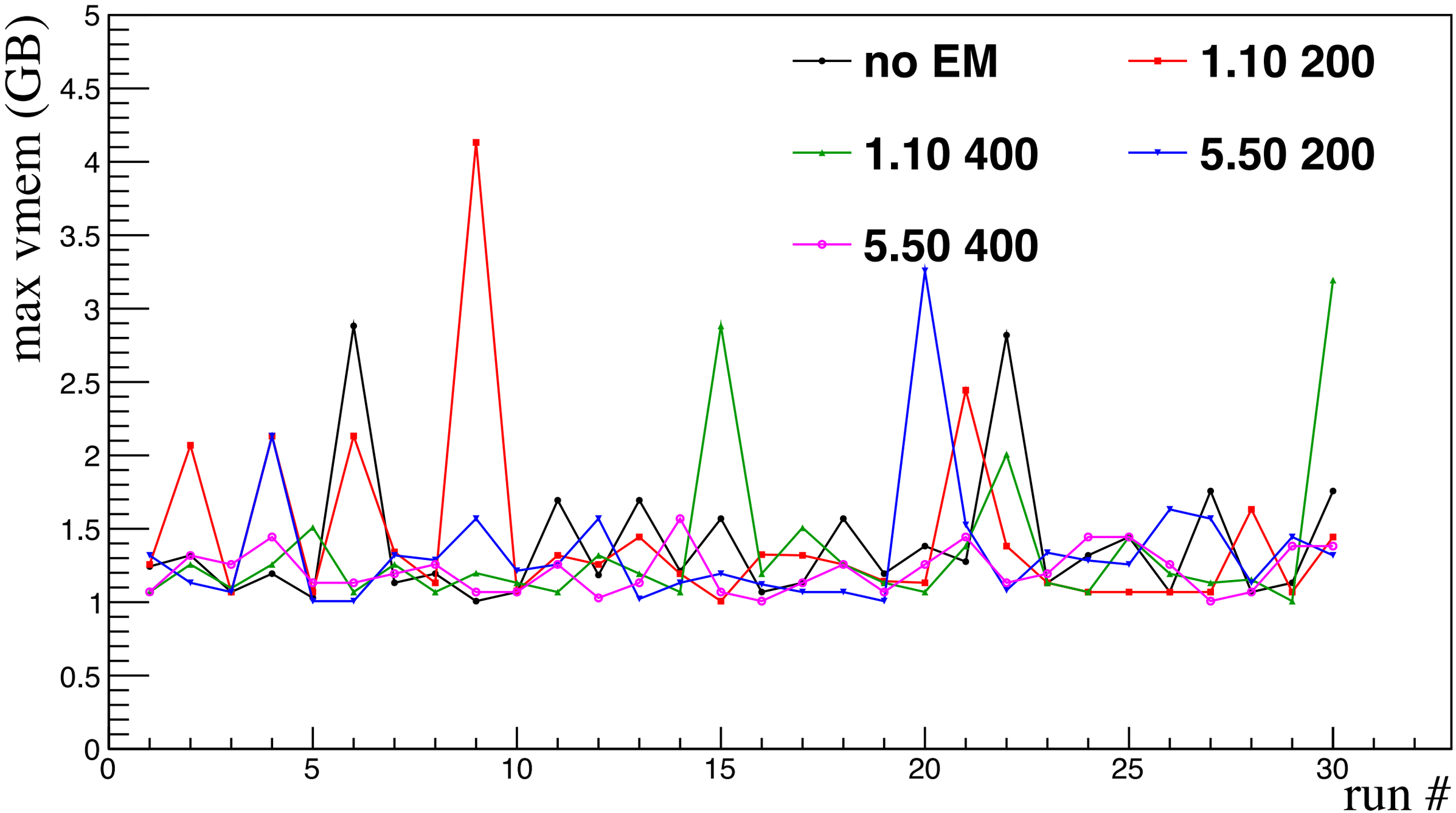
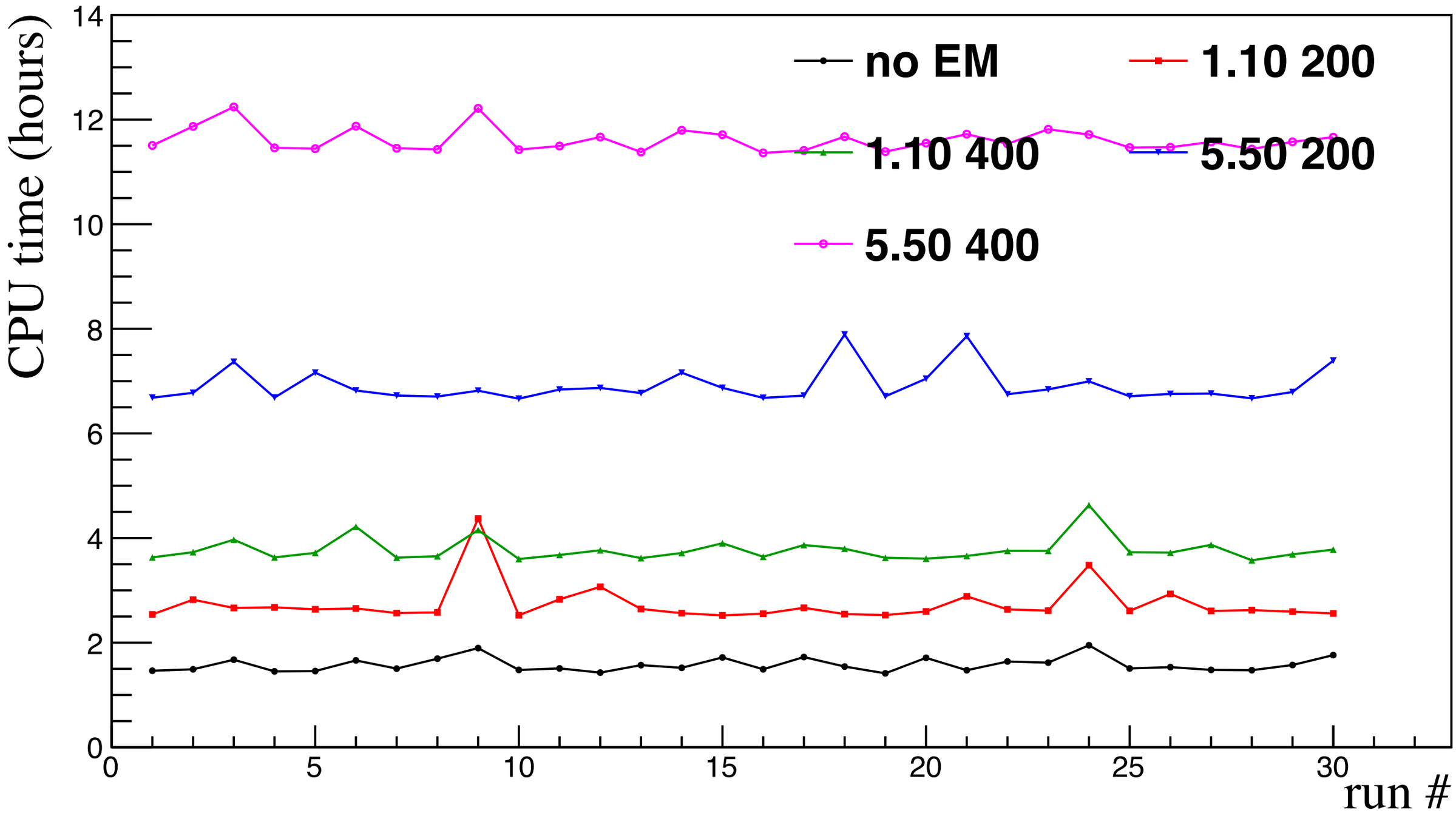
Updates from
hdds-dc-2.0, sim-recon-dc-2.1

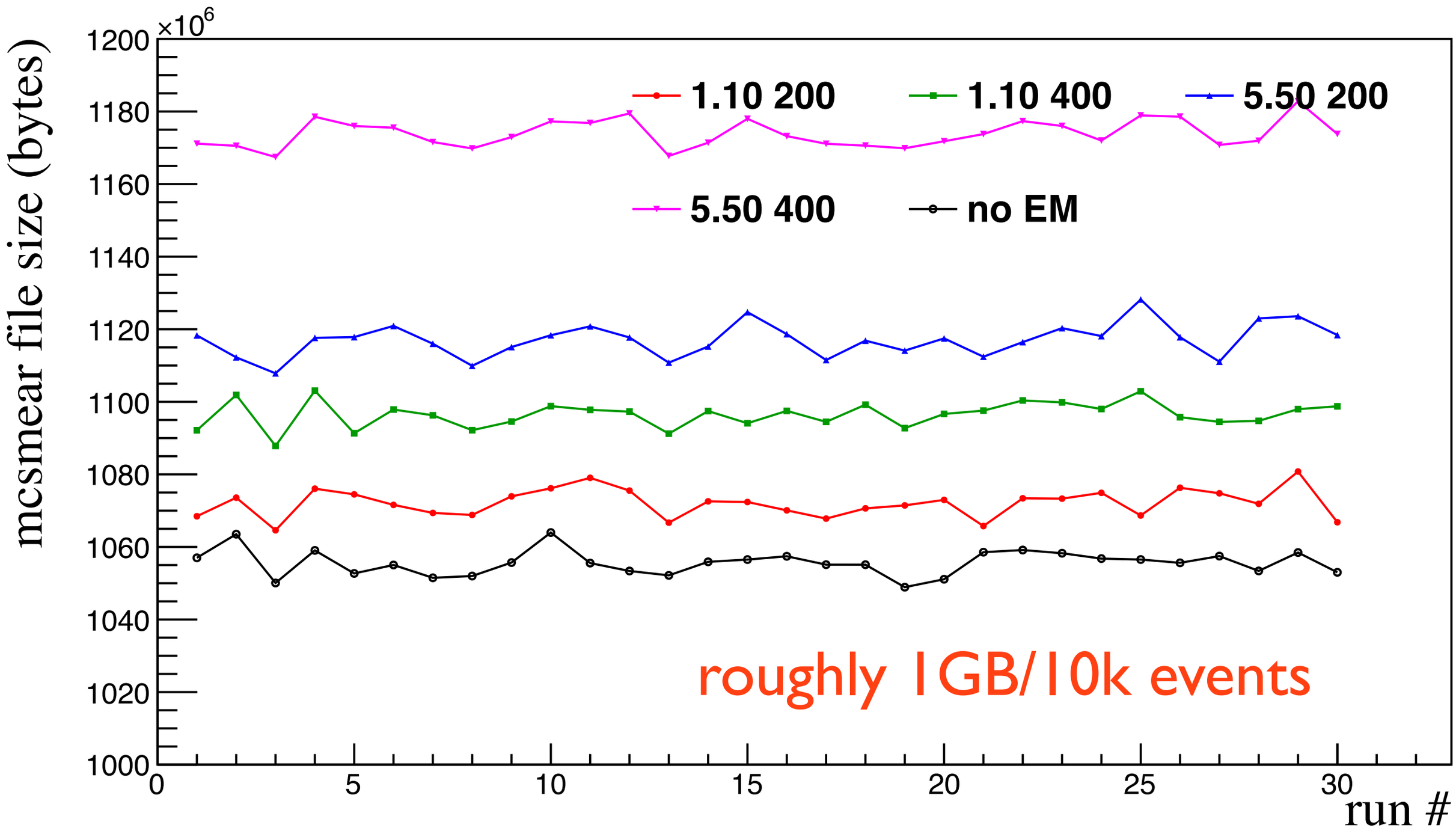
Memory Usage



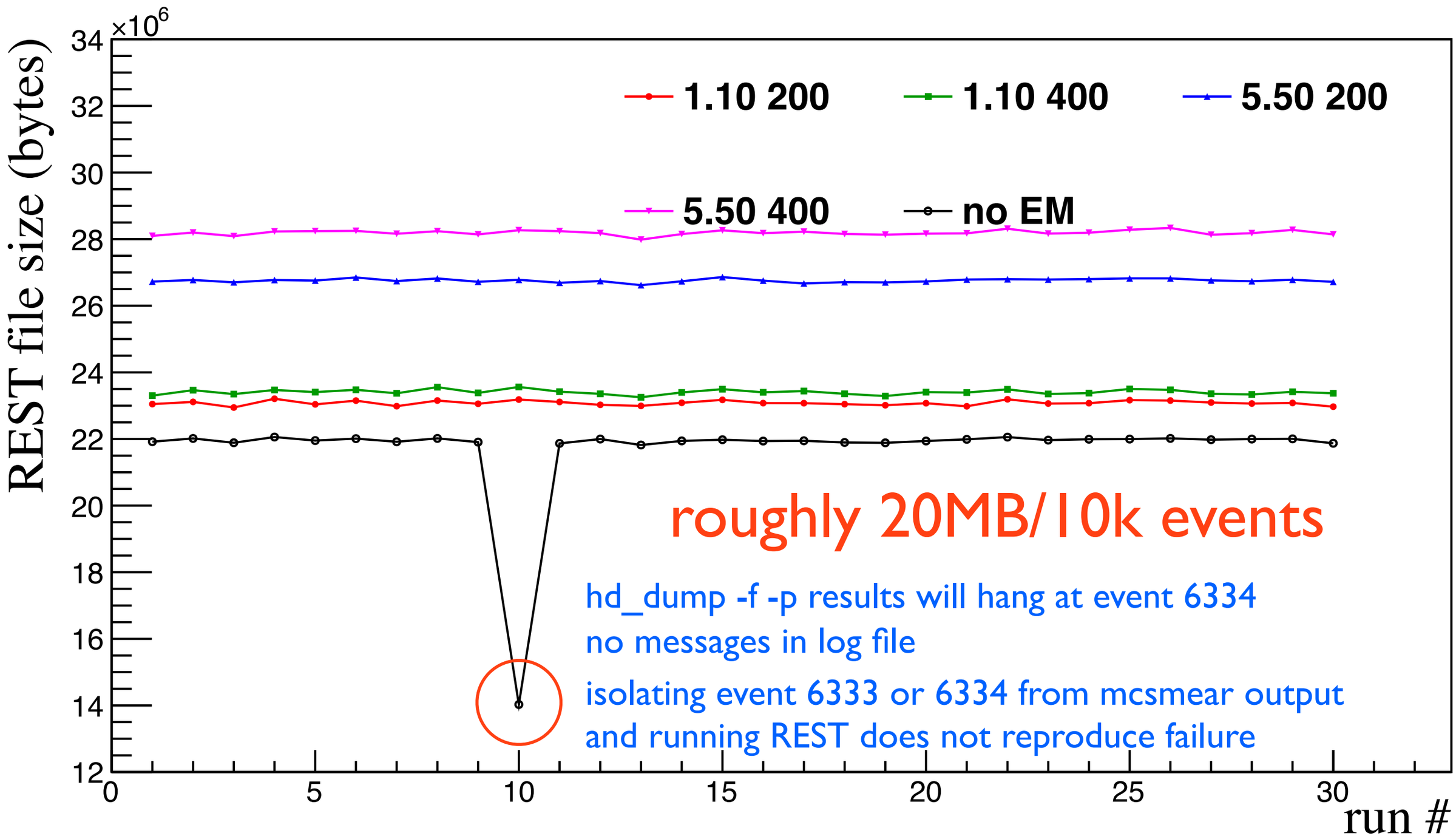
CPU time


CPU time (hours)
14
12
10
8
6
4
2
0
0
5
10
15
20
25
30
run #
no EM
1.10 200
1.10 400
5.50 200
5.50 400

mcsmear File Sizes



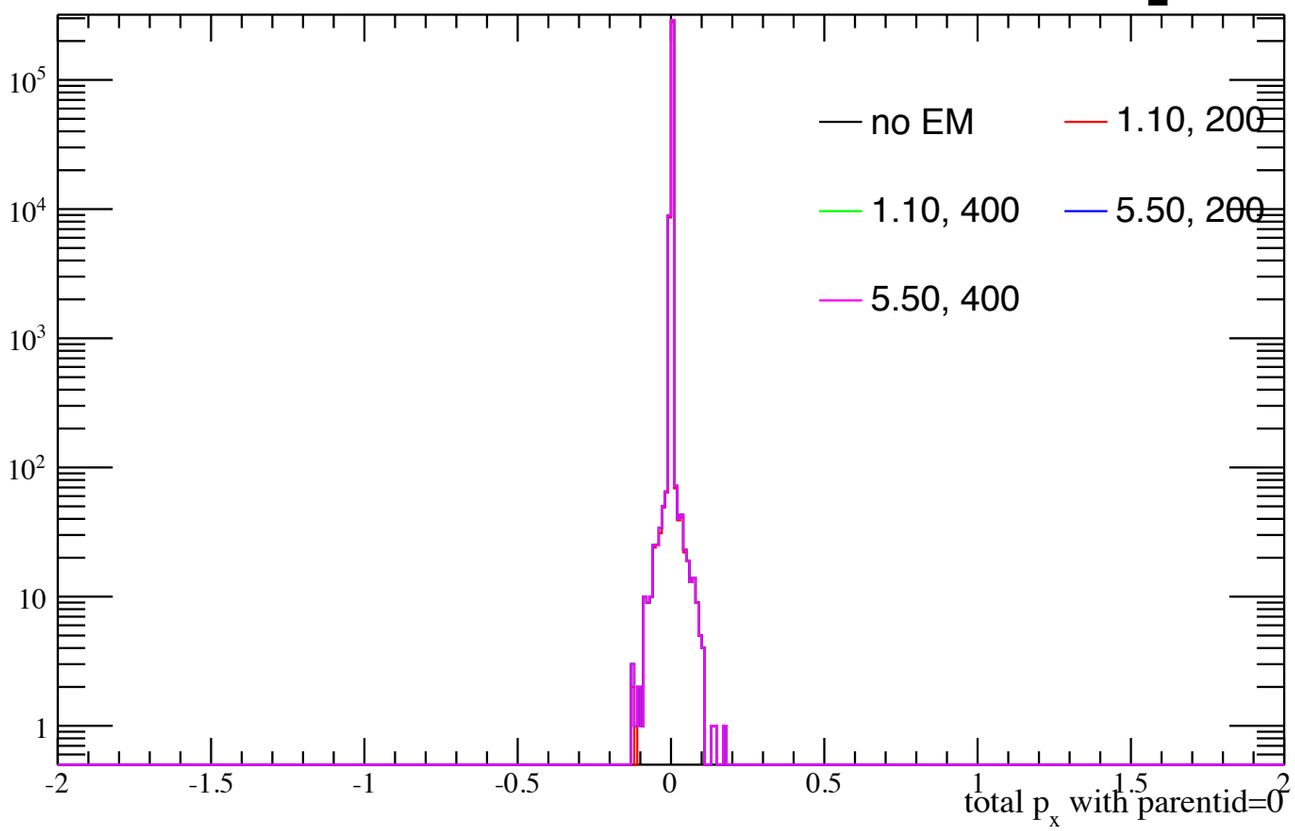
REST File Sizes



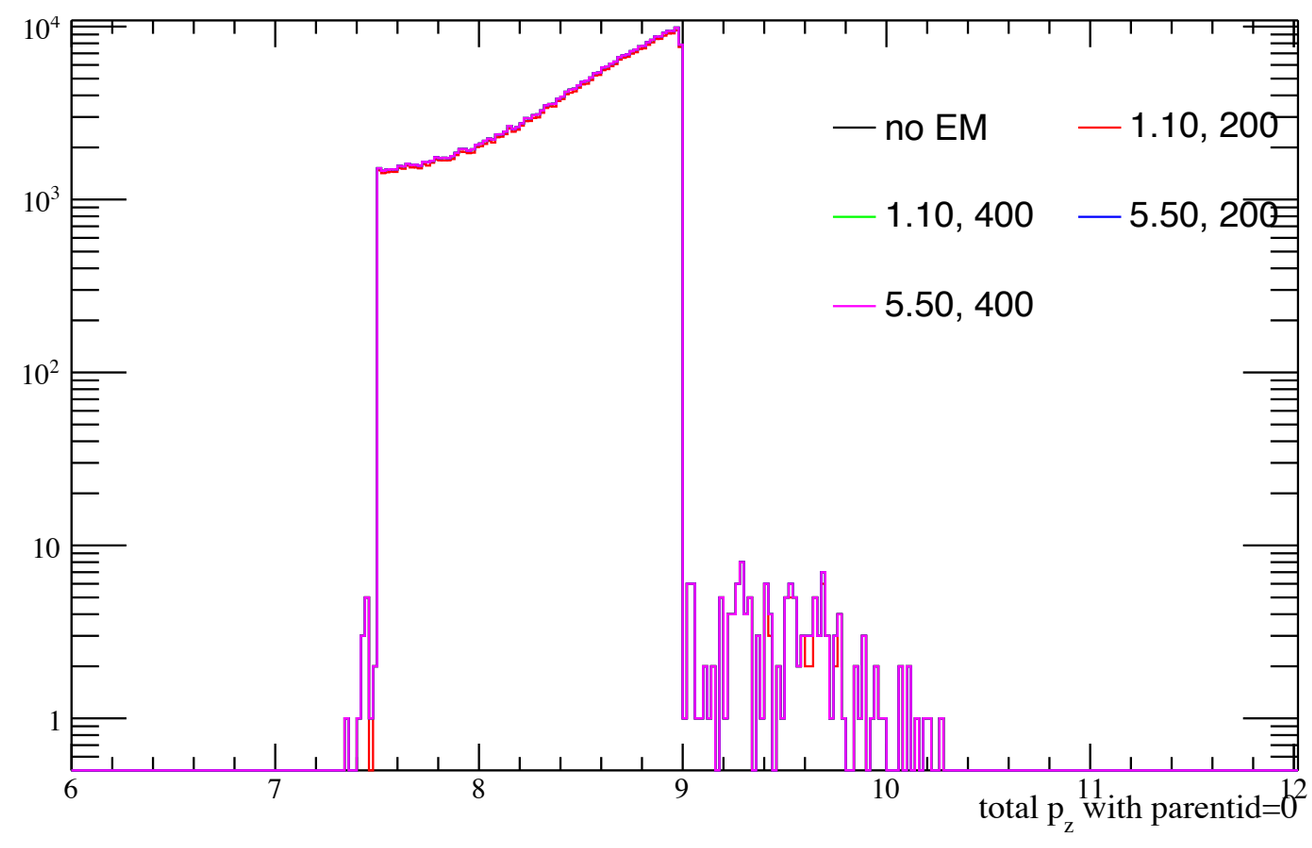
Another Bad File

- When running processor over REST file for standard EM bg file 08, processor gets stuck on event 822 for more than 1 hour (most jobs finish in 20 min for 10k events)
- Tried hddm_cull_events for 20 events but could not proceed due to
  ERROR: CANNOT SET RESONANCE PID.
- Need updates to sim-recon

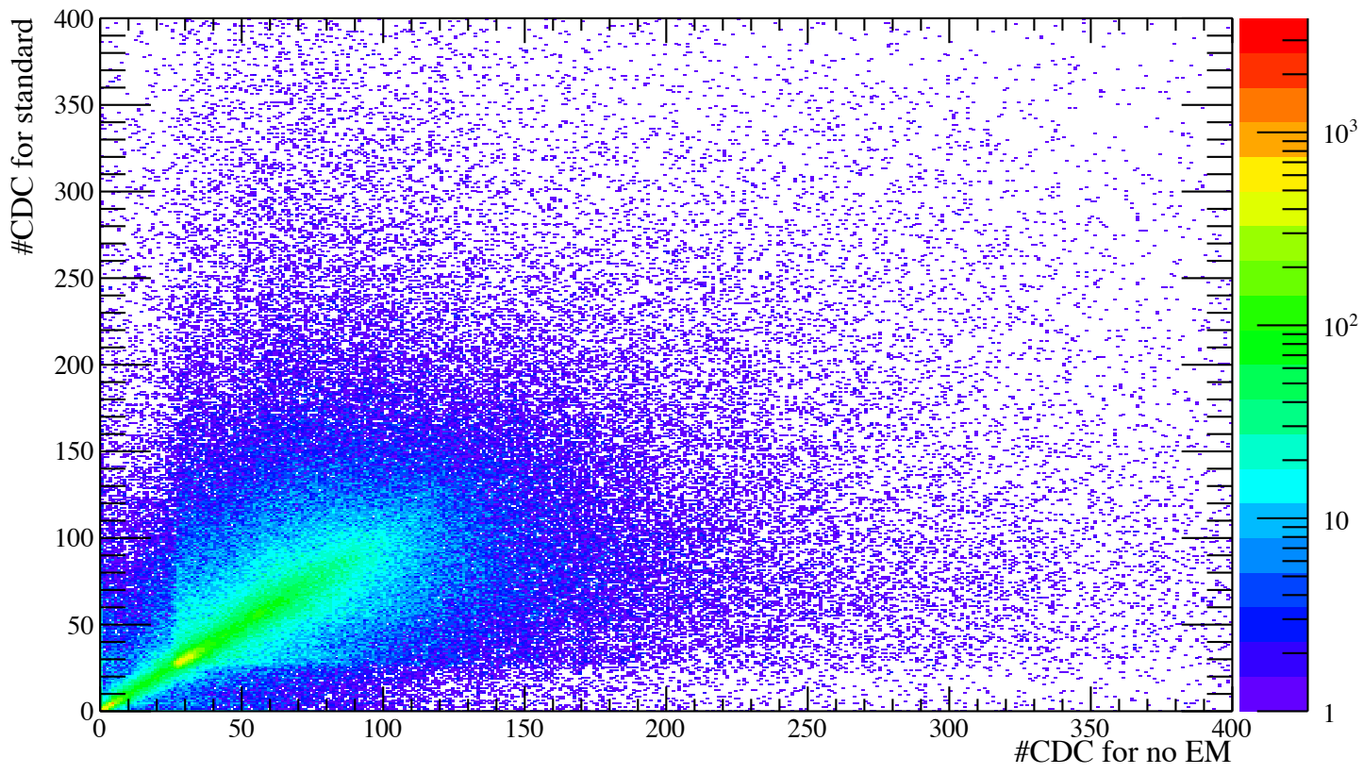
Sum of parentid=0



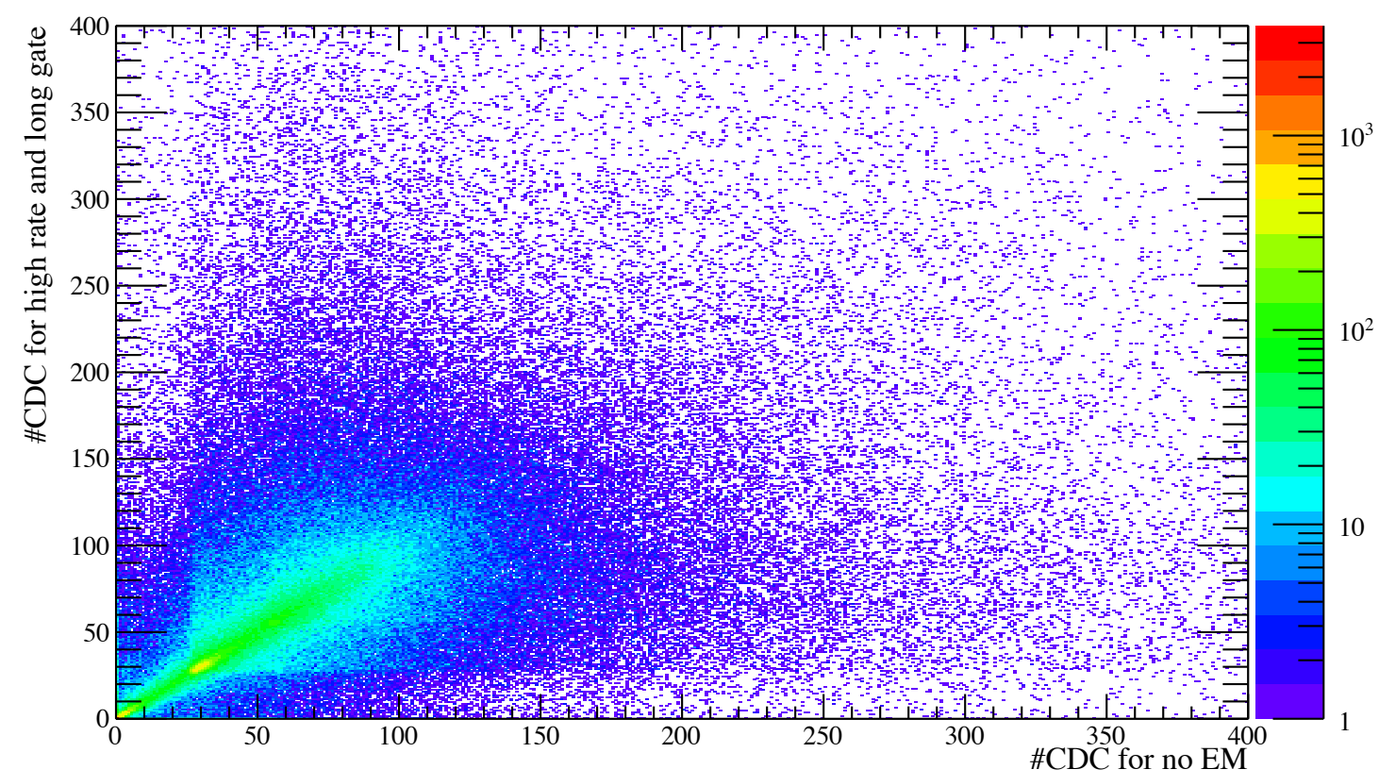
same for all EM bg types
(1.10, 200 has 1 file missing)



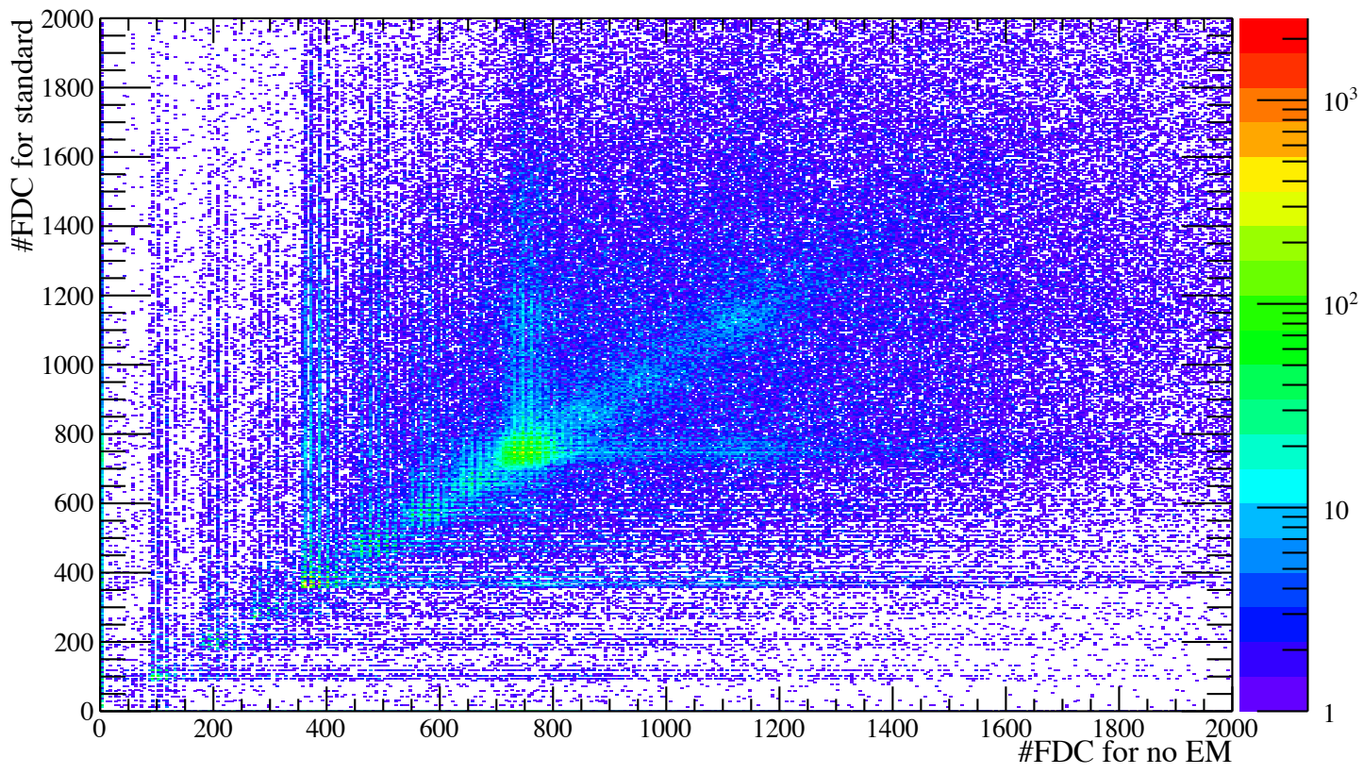
Correlation of CDC hits



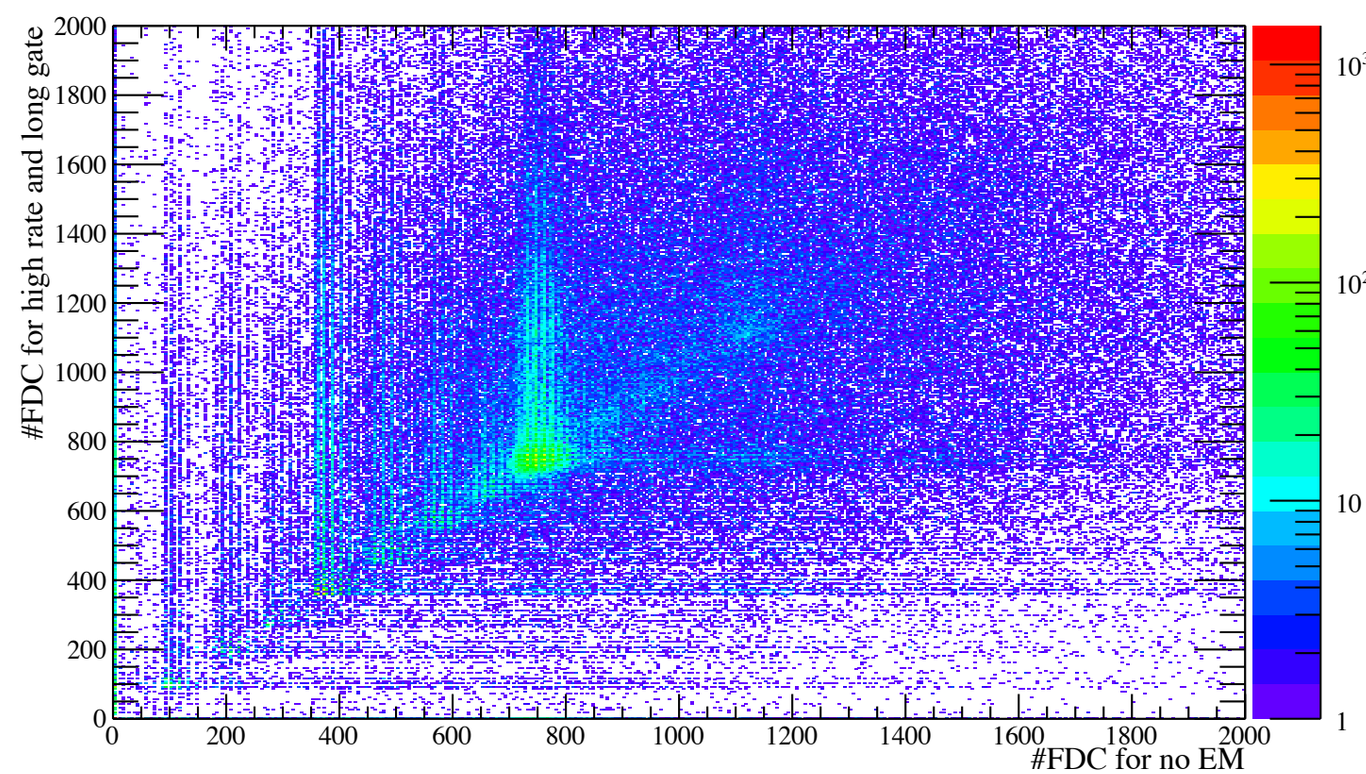
- Event by event correlation of CDC hits
- No increase due to EM bg
- Checked with mean, RMS of histograms (diff << 1%)



Correlation of FDC hits



- Event by event correlation of FDC hits
- See stronger upward vertical bands with larger EM bg



$p\pi^+\pi^-$ Events

- Make up ~10% of all events (lots of statistics)
- Select out events based on thrown information
- Use processor for $p\pi^+\pi^-$ and see how resolution changes with EM background

in progress with new sim-recon, hope to work on some channels with neutrals also