

update on bggen backgrounds

February 17 2014

Followup to DC2 Meeting on

February 14 2014

Kei Moriya

- new “official” DC2 code
- run summary
- low polar angle tracks
- CDC, FDC hits

official DC2 code

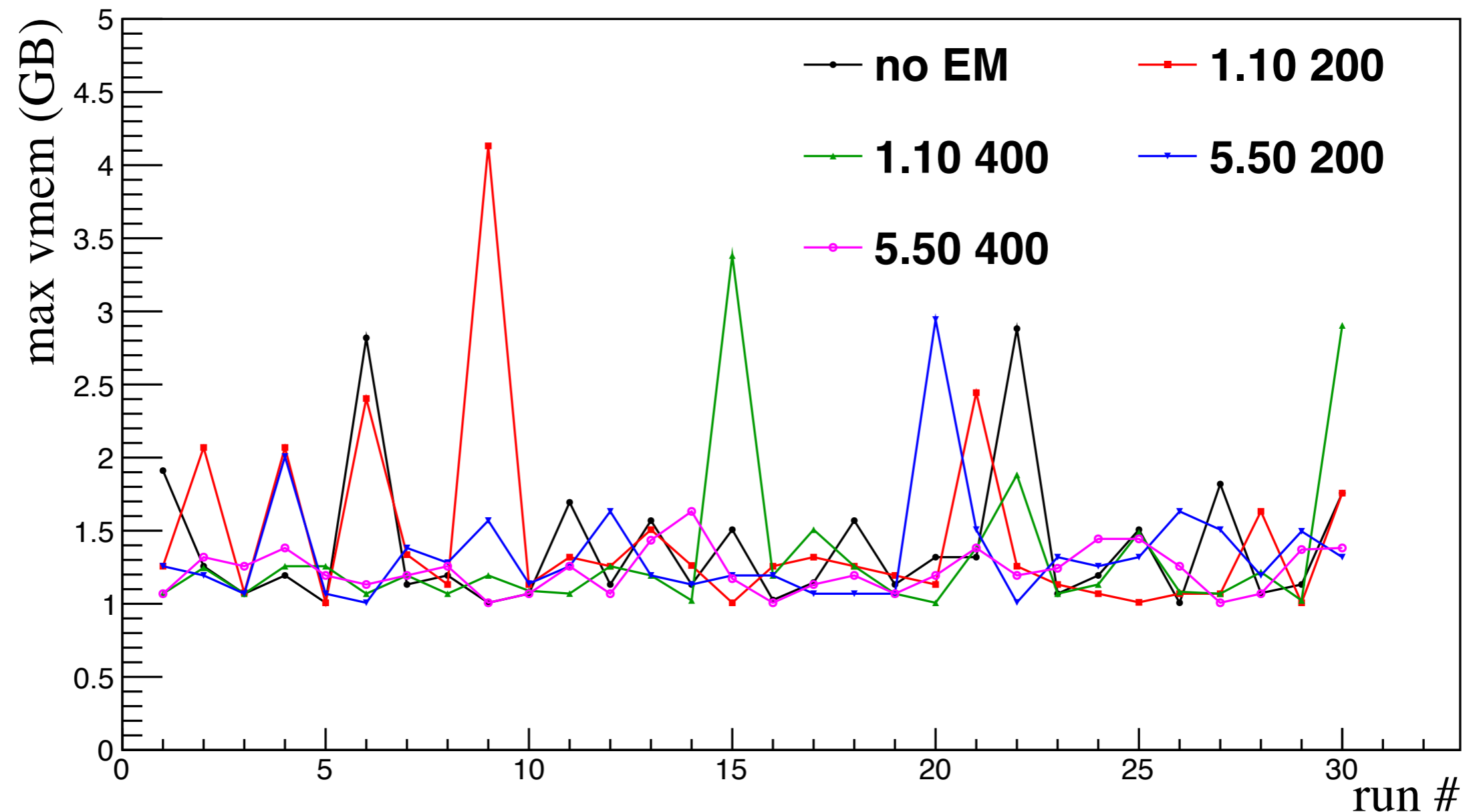
- updated to new official code, previously used jana0.7.1p01
- Ran 30 jobs of 10k events each for each configuration
 - 1.no EM background
 - 2.“standard”: rate = 1.1GHz, gate = ± 200 ns
 - 3.“long gate”: gate = ± 400 ns
 - 4.“high rate” : rate = 5.5GHz
 - 5.“long gate, high rate”

Failure Rates

- Only 1 file failed, for high rate long gate
- Crashes at start of REST processing, full stack trace [here](#)
- One file for no EM initially failed after 4869 events, but re-run worked. Stack trace from failure [here](#)

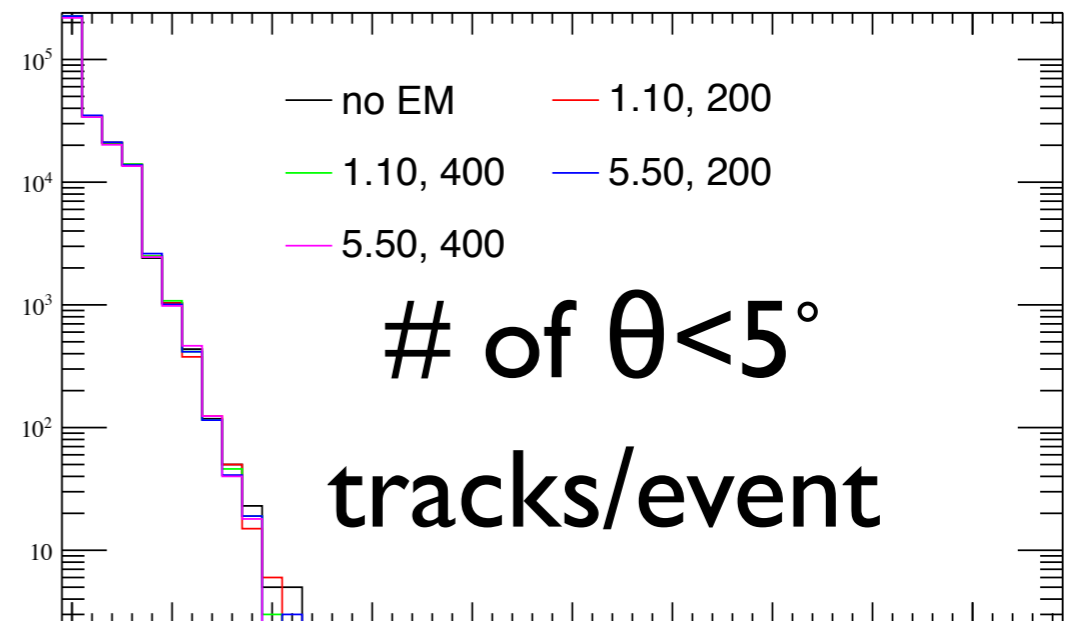
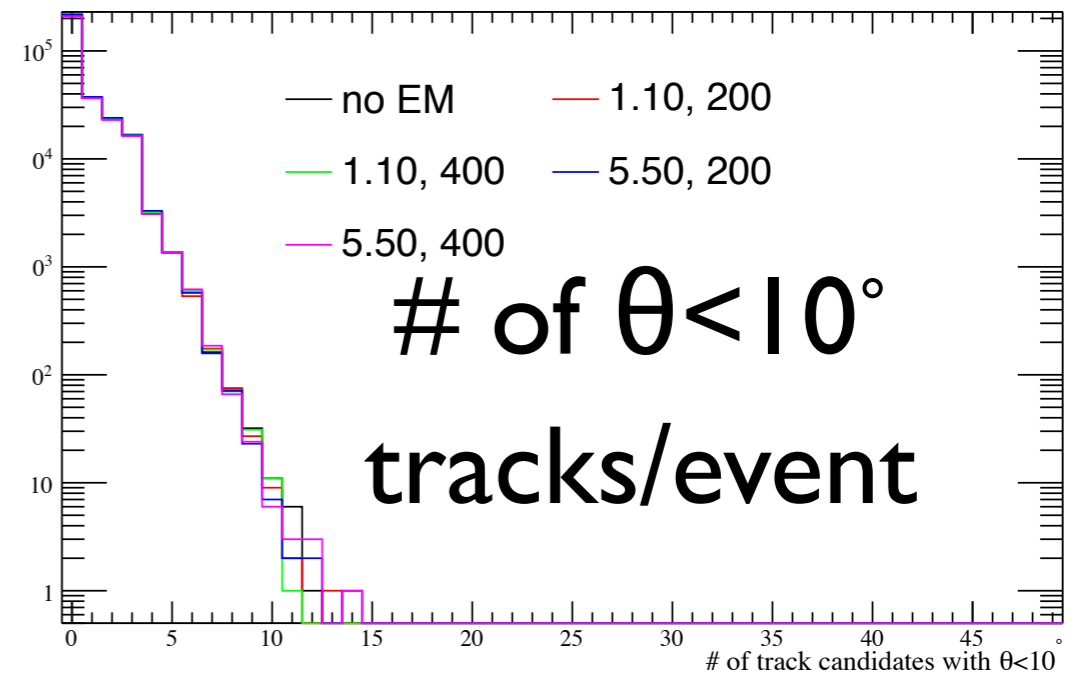
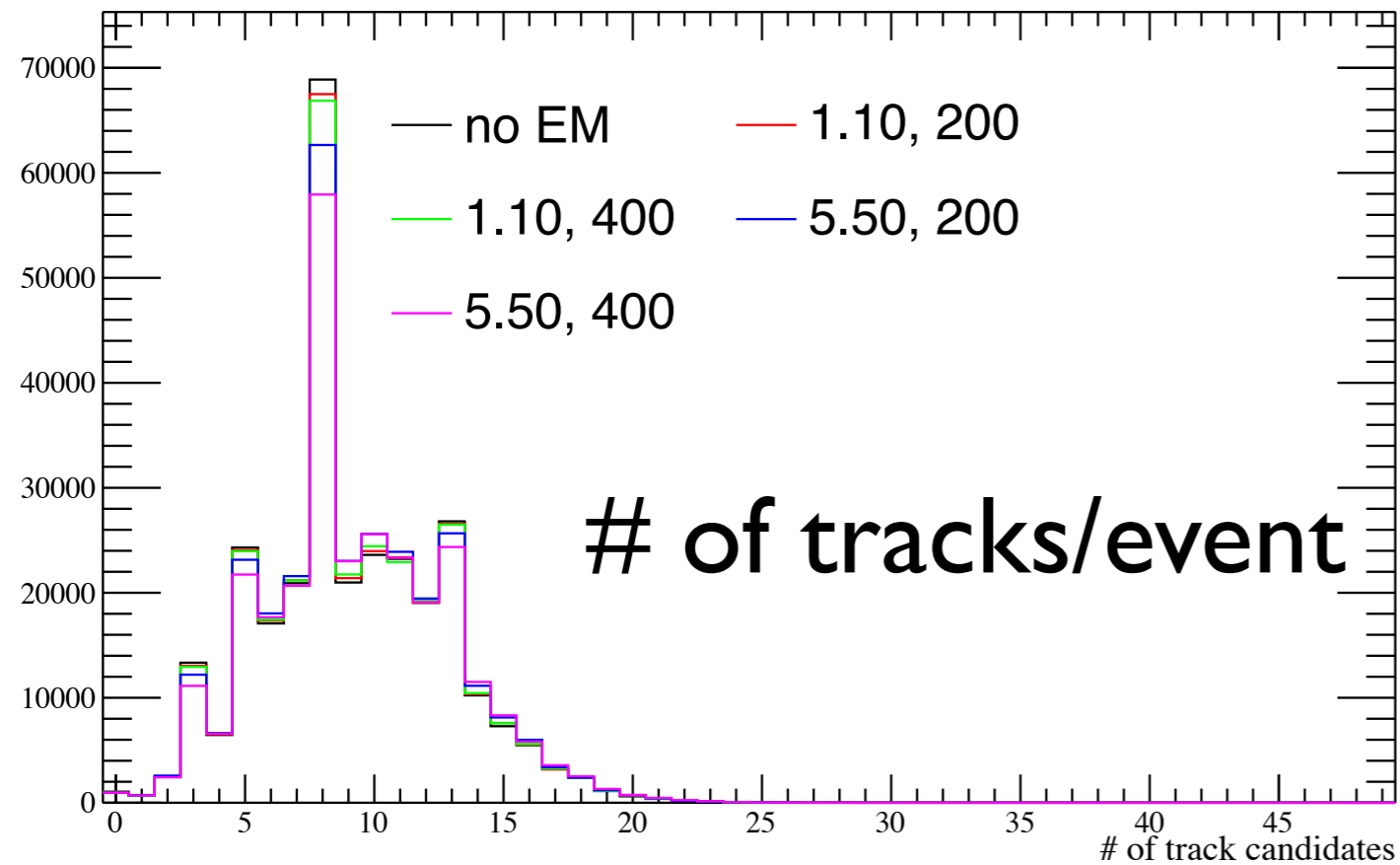
max vmem

- Checked max vmem usage
- For 150 jobs, max is ~4.3 GB
- Note **high rate, long gate** didn't have spikes in vmem

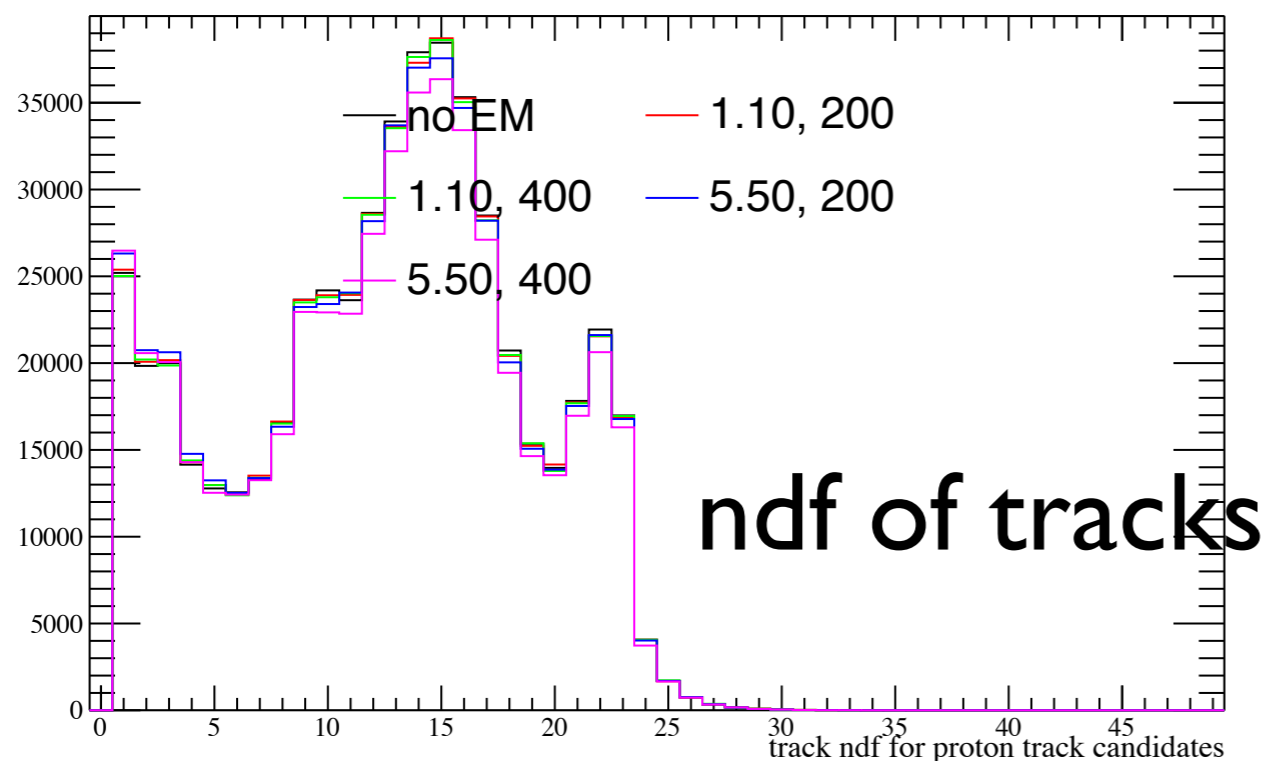
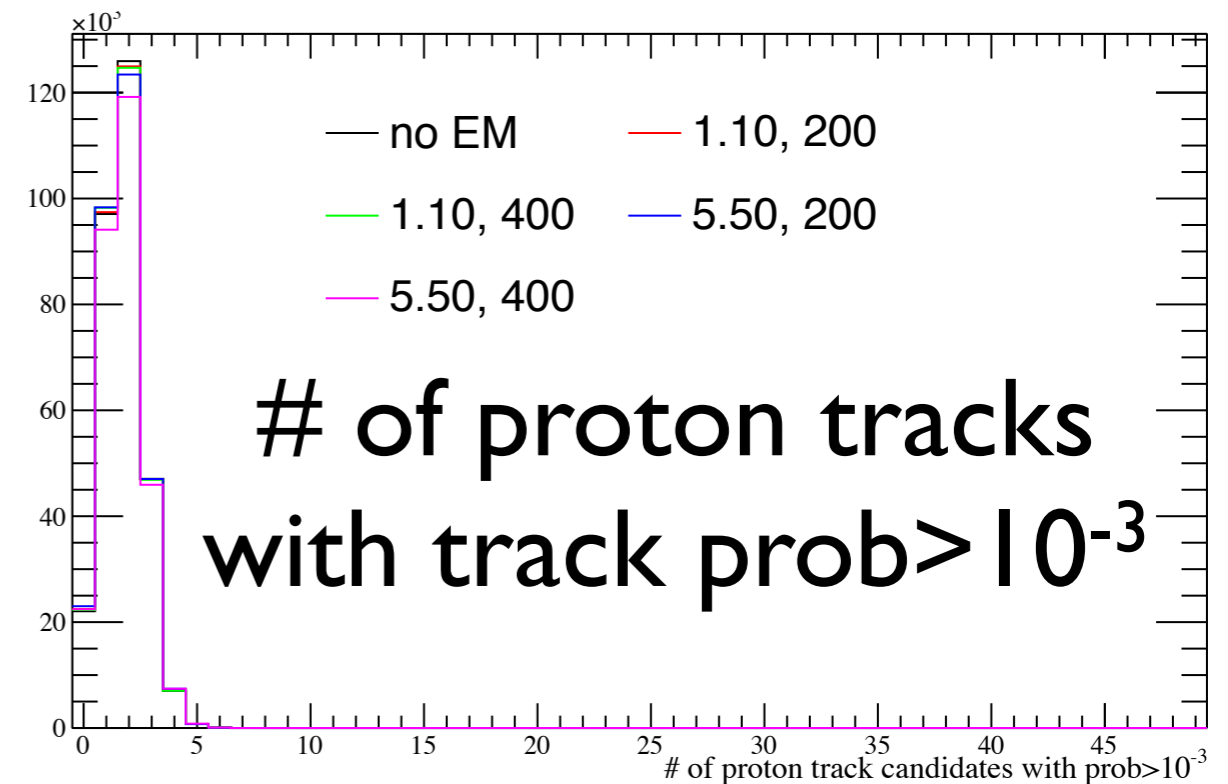
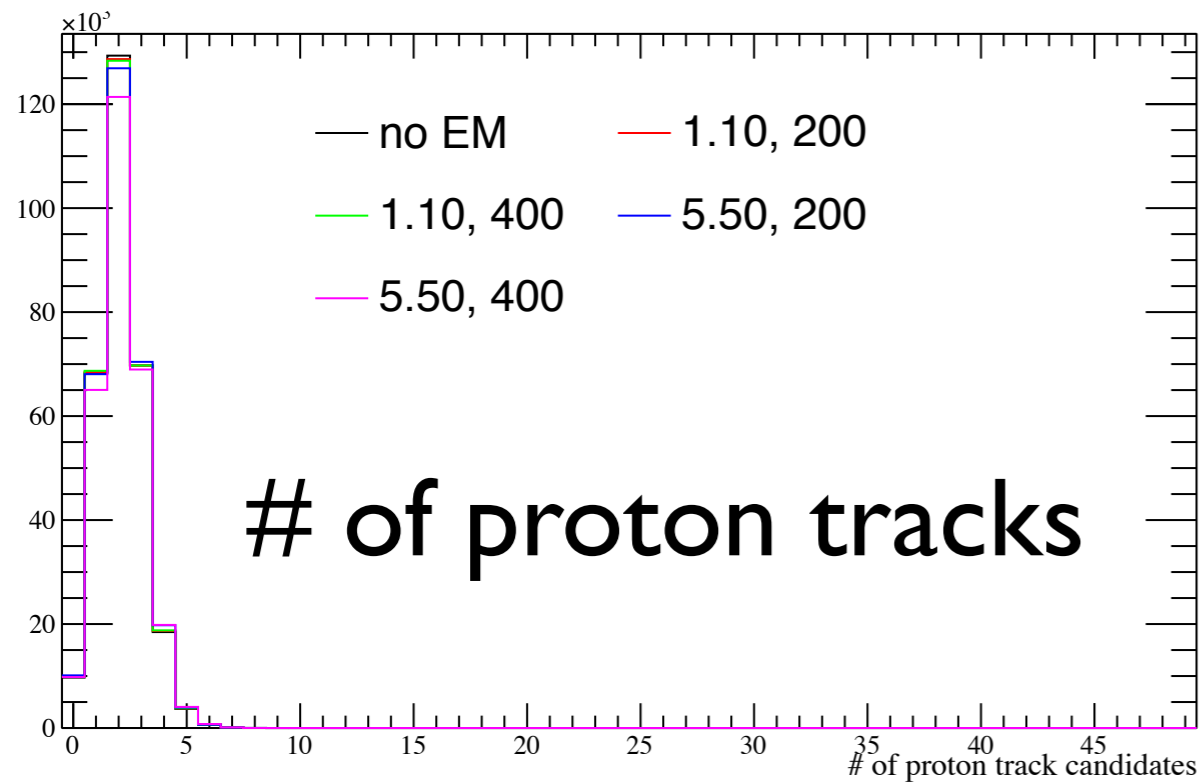


of tracks

- # of tracks is lower with high bg rate
- Loss not seen for low θ tracks



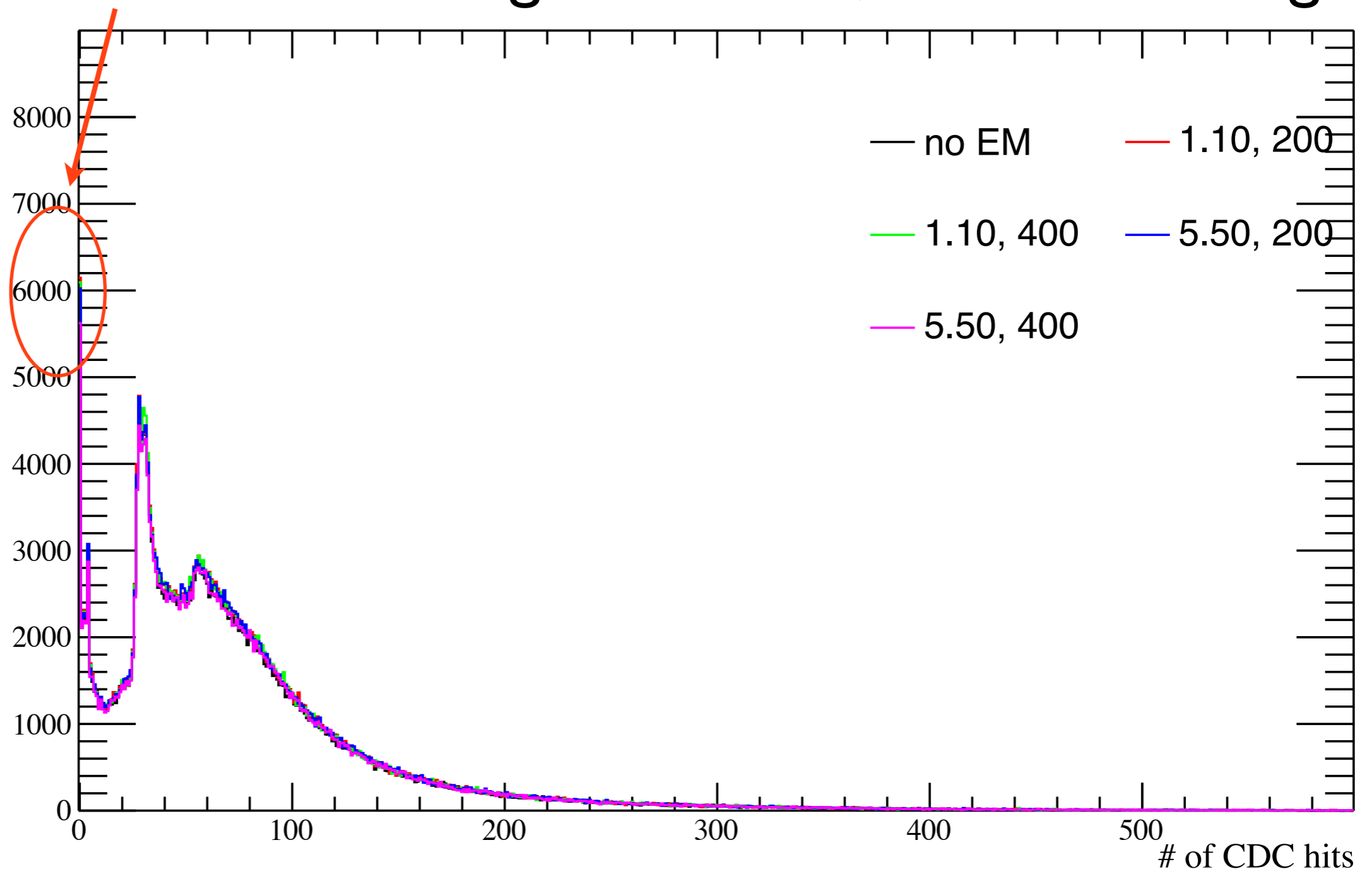
Proton Tracks



- Less tracks reconstructed at high bg rates
- Less tracks with large ndf for high bg rates
- Don't see loss for $\theta < 5^\circ$ or $\theta < 10^\circ$ tracks

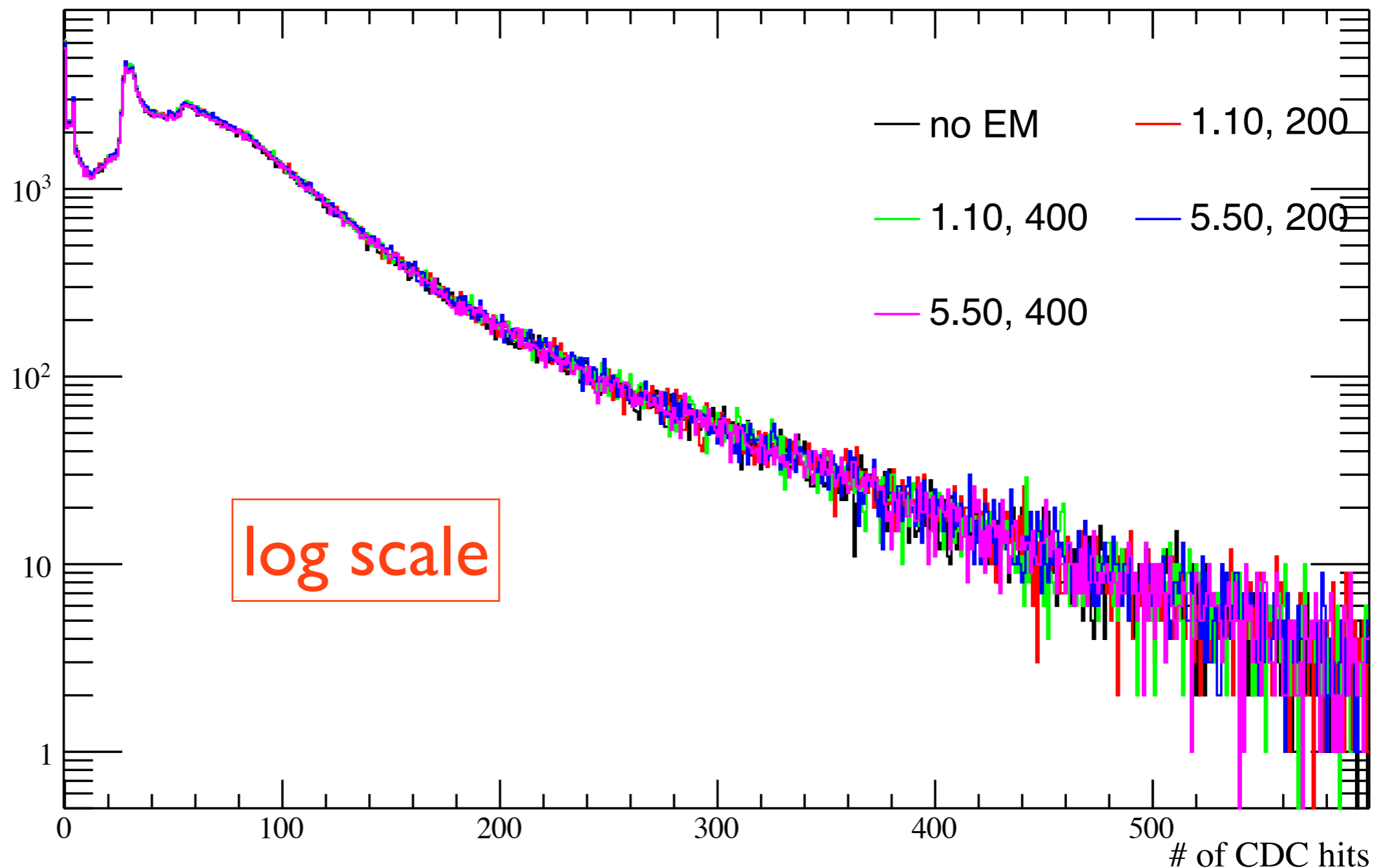
CDC Hits

- Grab DCDCHit objects
- Can't do in REST, all hit info gone
- Peak at 0 smaller for high rate runs, no other changes?



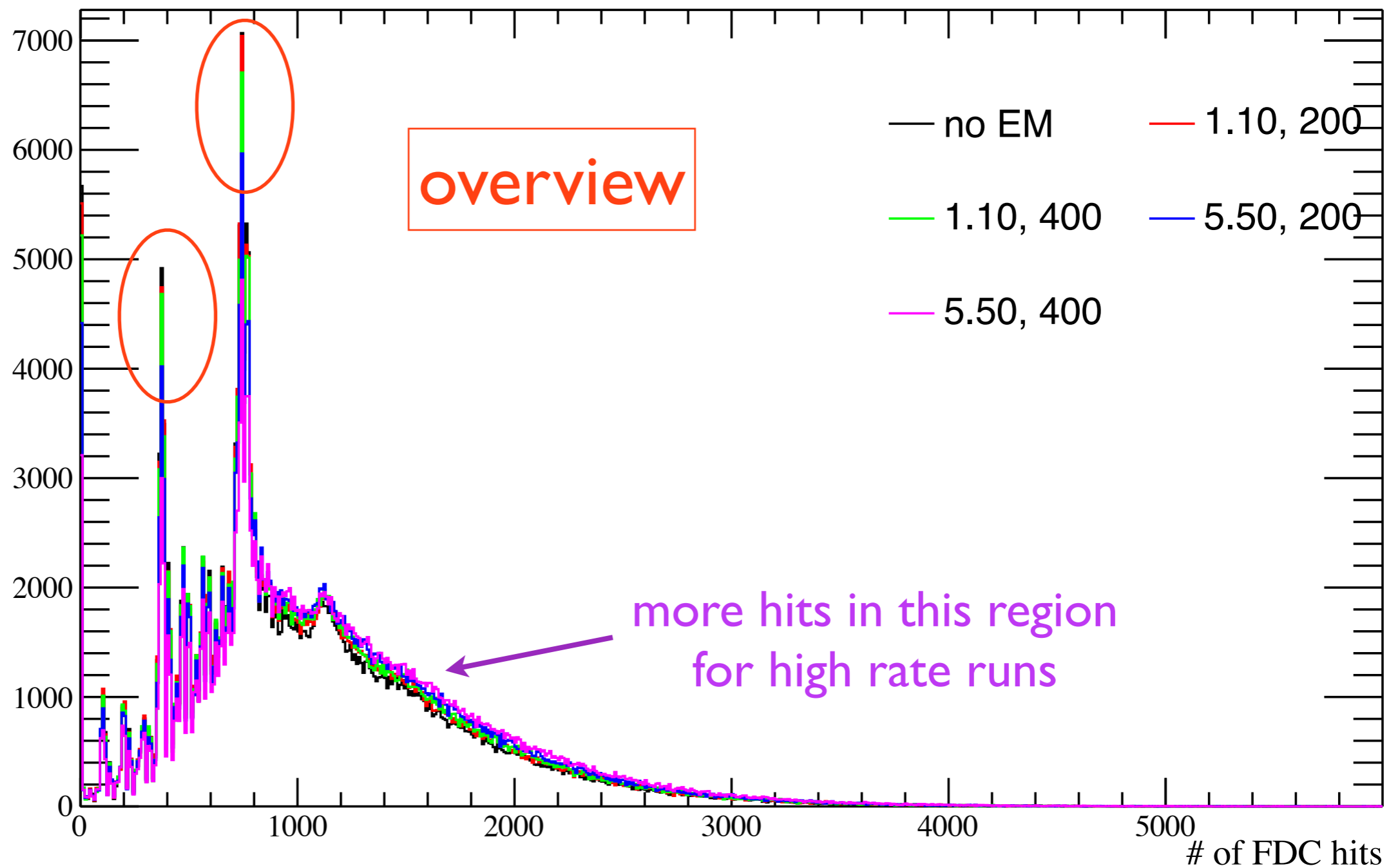
CDC Hits

- Grab DCDCHit objects
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FDC Hits

- Grab DFDCHit objects
- Can't do in REST, all hit info gone
- Counts in peaks smaller for high rate runs



FDC Hits

- Grab DFDCHit objects
- Can't do in REST, all hit info gone
- Counts in peaks smaller for high rate runs

