CFT Cluster Finding Efficiency

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- Introduction
- Selection of good tracks
- Results

Introduction

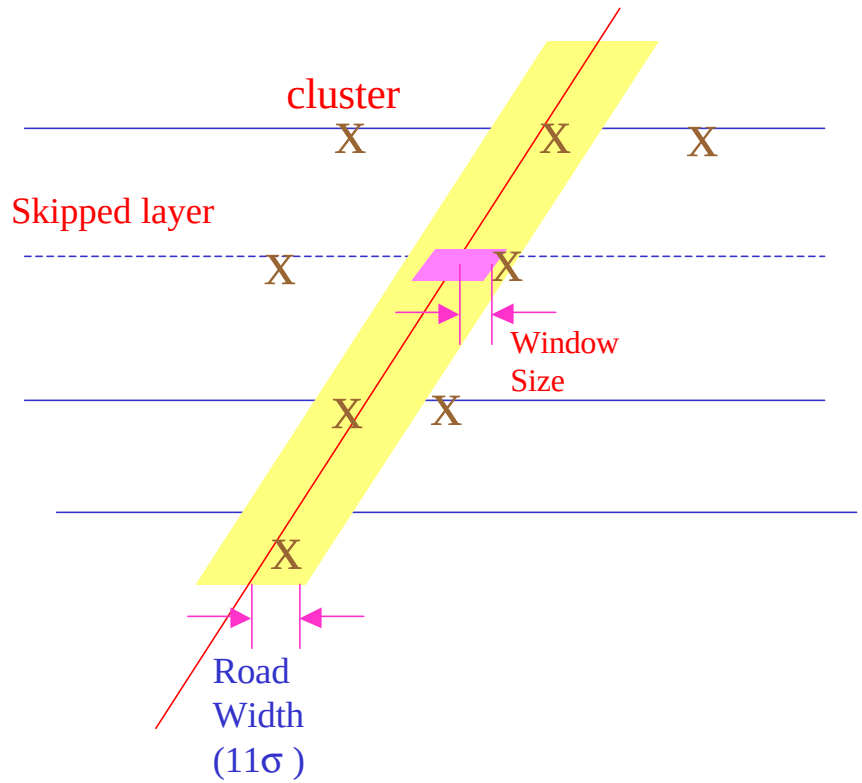
To measure cluster finding efficiency:

- Reconstruct the track with one layer skipped
- Predict the cluster position on the skipped layer
- Look for CFT cluster within a certain window around the predicted position

Selection of Good Tracks

Good tracks are those for which:

- Number of CFT hits =15
- Pt > 1 GeV
- No more than 1 hit within 11 s (tracking)
- Window size = 3 (resolution)



Runs Studied so far:

- Run 161083 2 Aug 02 lum~18-13E30
- Run 163641 9 Sep 02 lum ~9 E30
- Run 163948 12 Sep 02 lum~10E30
- Run 167311 4 Nov 02 lum~14E30
- Run 167664 8 Nov 02 lum~8E30
- Run 168728 2 Dec 02 lum~23-19E30
- Run 168731 2 Dec 02 lum~19-17E30
- Run 169889 30 Dec 02 lum~30-25E30
- Run 169896 31 Dec 02 lum~11E30
- Run 169999 3 Jan 03 lum ~15-13E30
- Run 170000 3 Jan 03 lum ~13-11E30

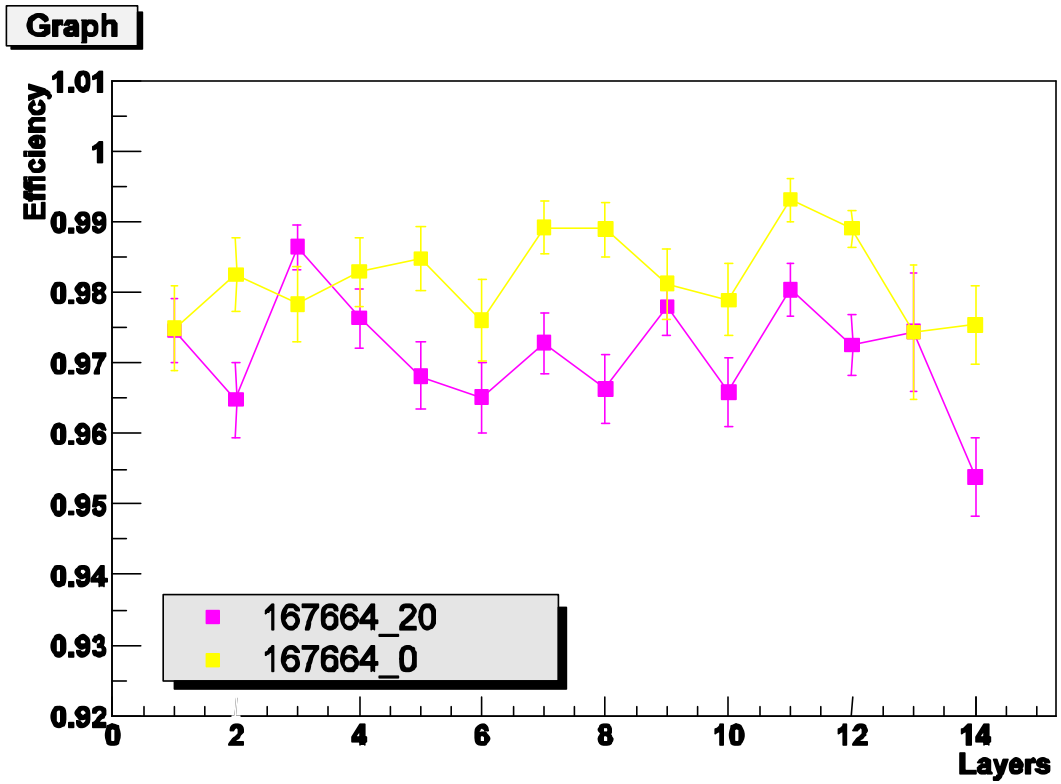
Looked in to:

- Efficiency for CFT layers (1 - 14)
- Efficiency vs Phi
- Efficiency vs SVX Chip
- Effect of Different Global Thresholds (0, 20)
- Effect of Luminosity

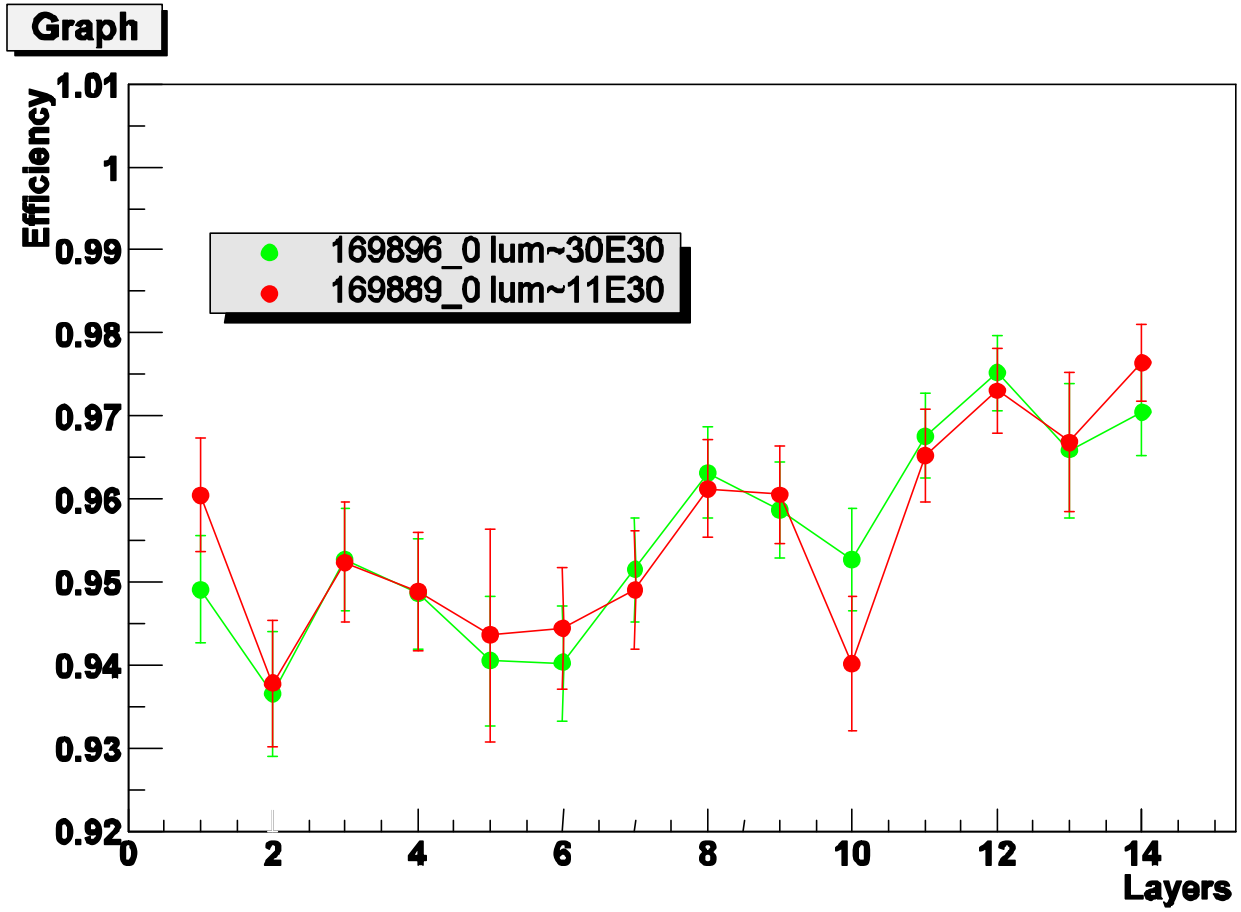
Eff at Different Thresholds

Run 167664 with Global Threshold = 0

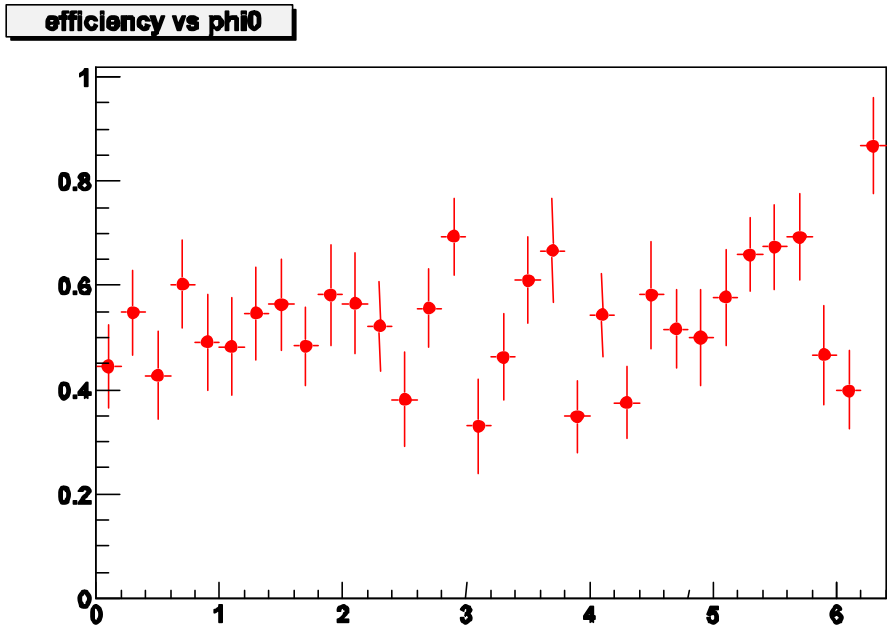
Run 167664 with Global Threshold = 20



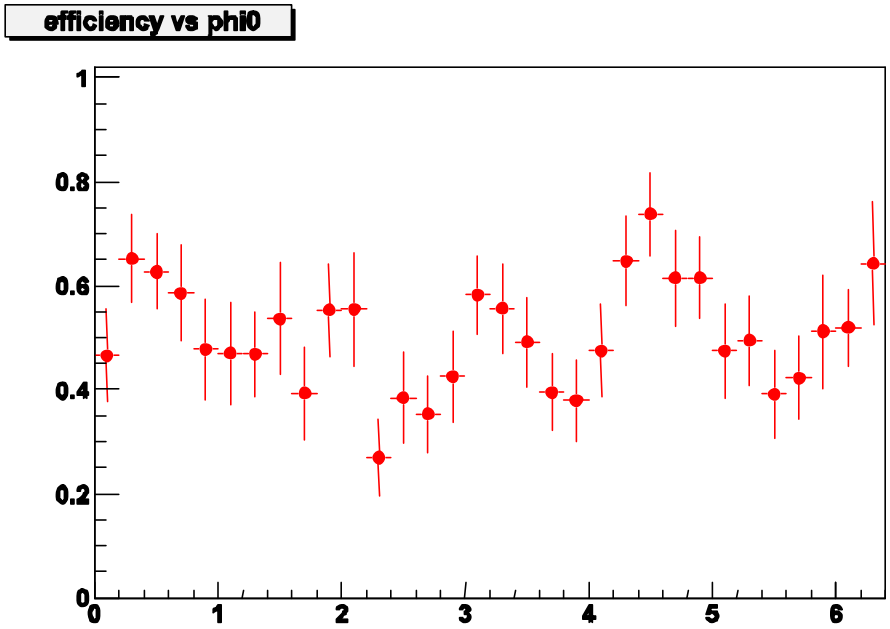
Eff at Different Luminosity



Overall Eff vs Phi

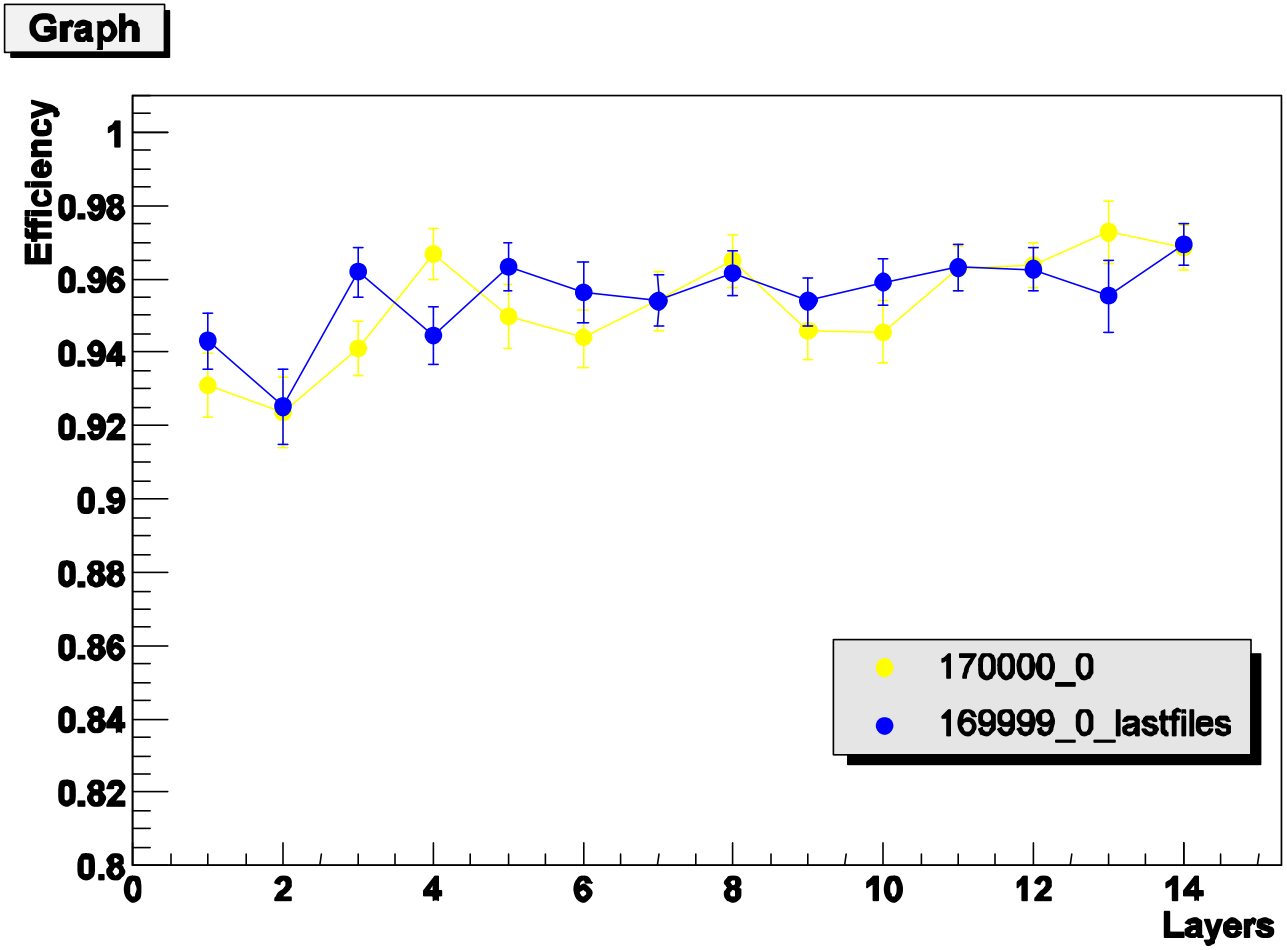


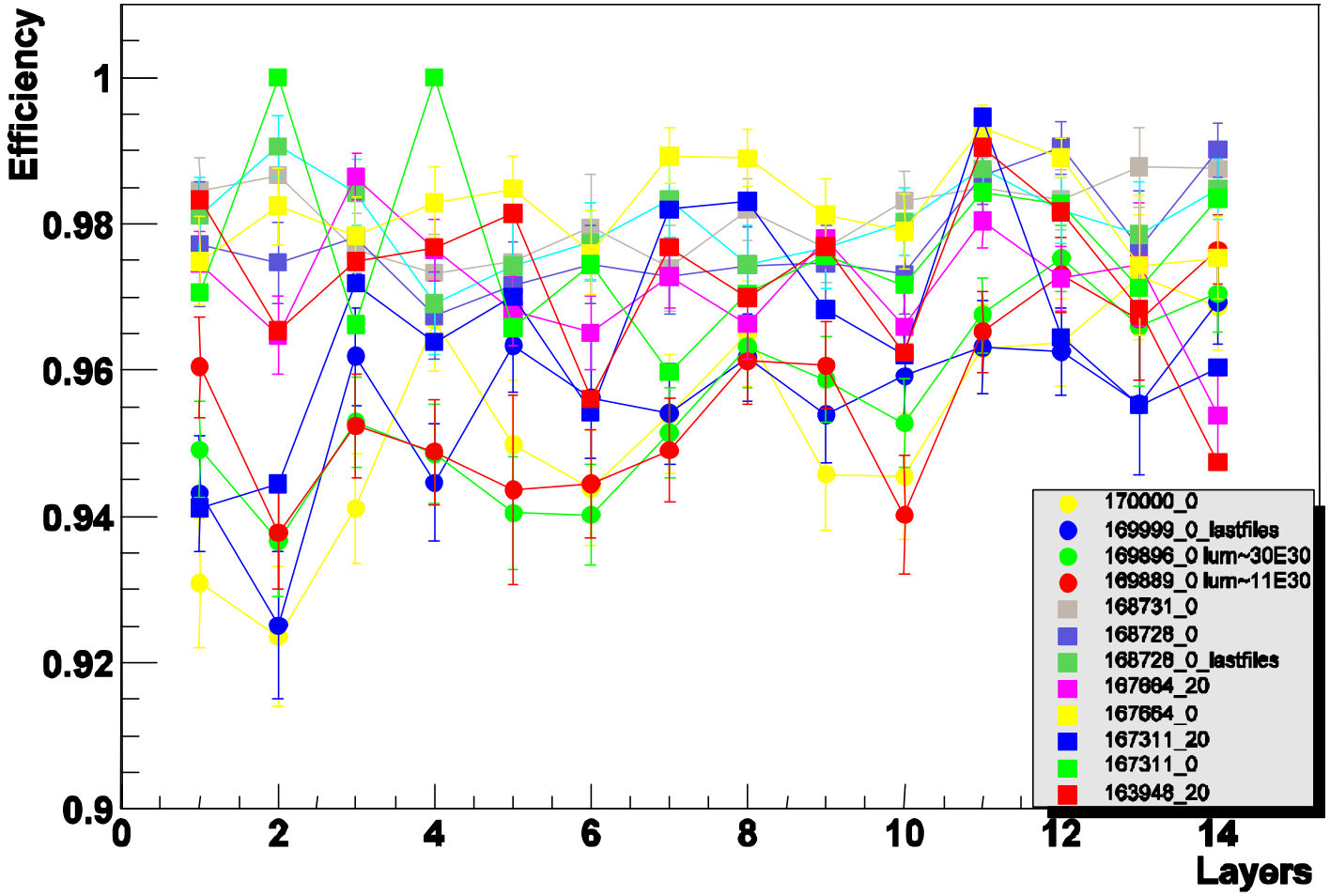
For Run 169999



For Run 170000

Overall Eff vs Layers



Last Four Months:

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