



Pixel template + LA calibration



- alignment/calibration
- validation

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Tracker Alignment Meeting

DESY, Hamburg

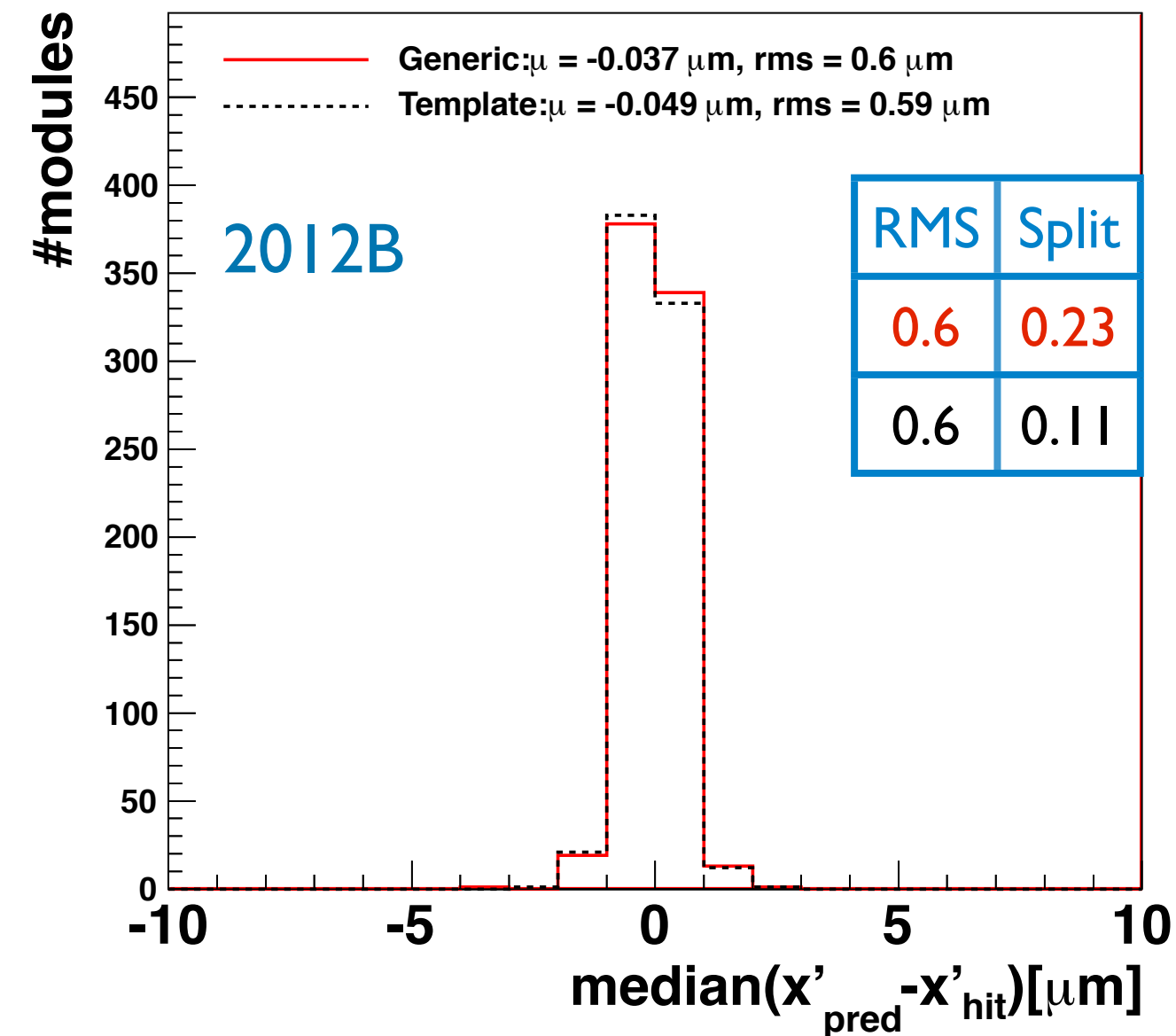
11.06.2013

Introduction

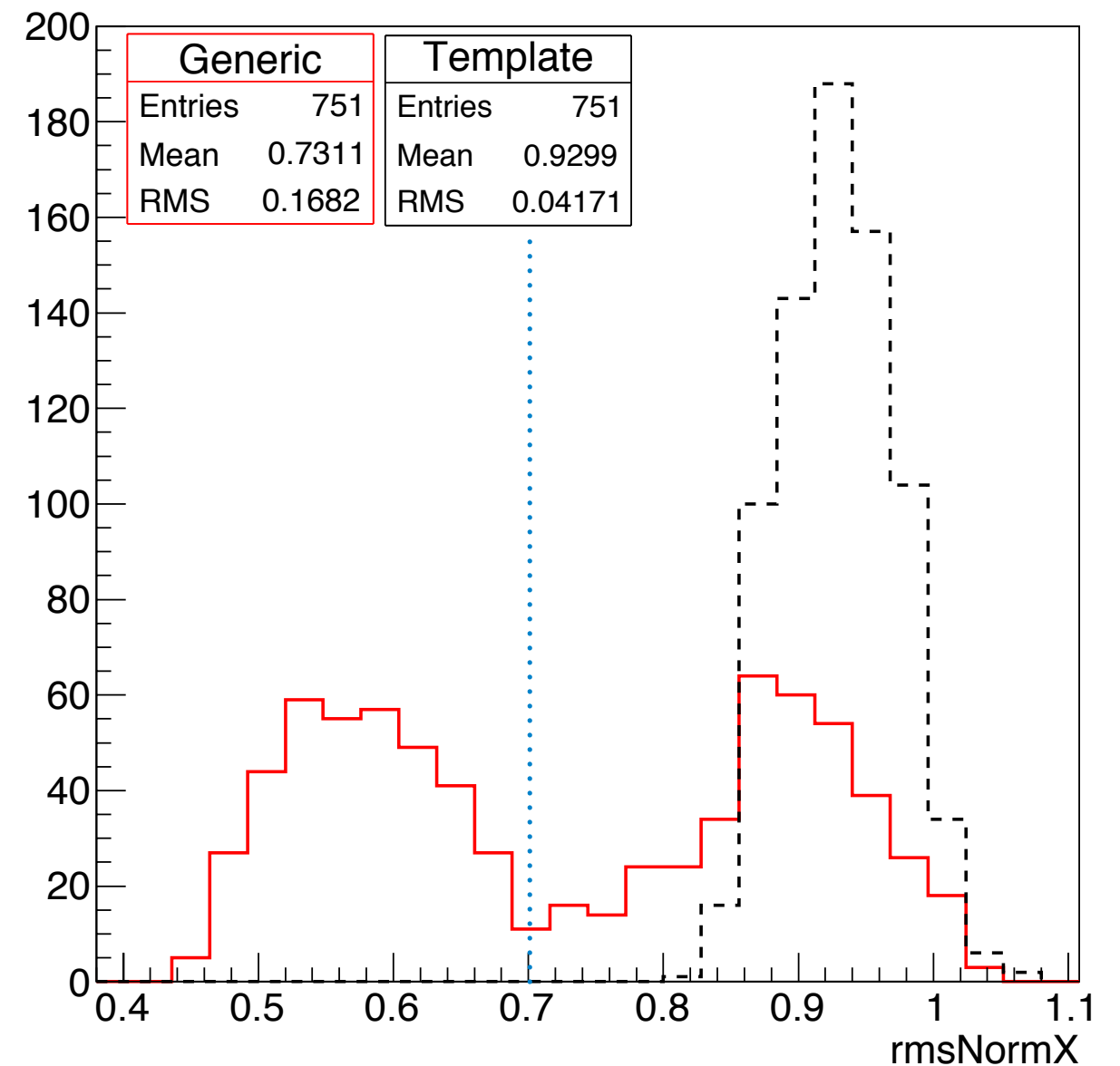
- Simultaneous alignment and LA calibration with template hit reconstruction in BPIX.
- Compared to generic hit reconstruction.
- Showed no difference in DMR plots.
- Resolution should improve – checked by Armin Burgmeier.

Validation of LA calibration

Distribution of the median of the residuals in BPIX



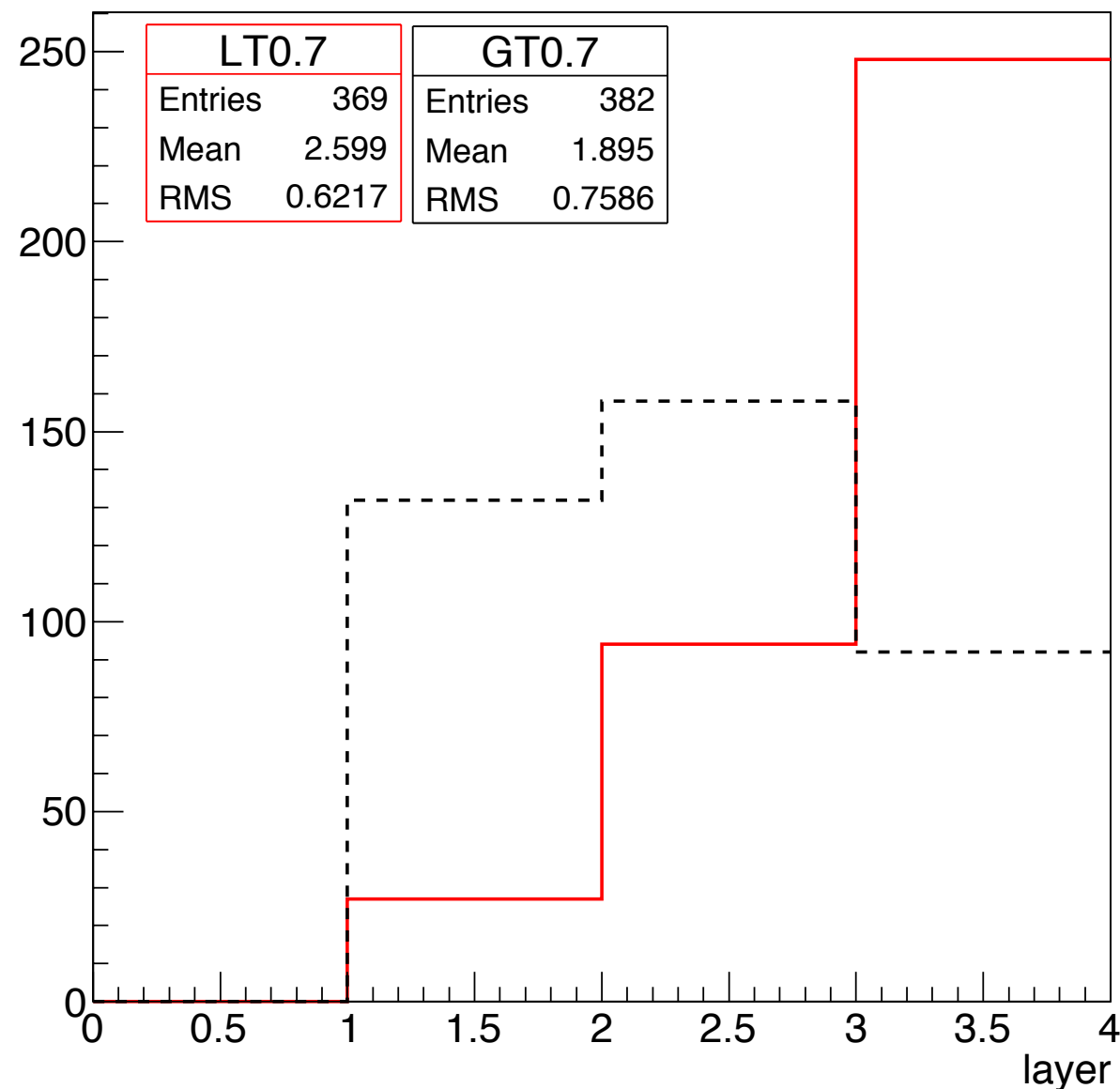
rmsNormX {entries>30 && subDetId==1}



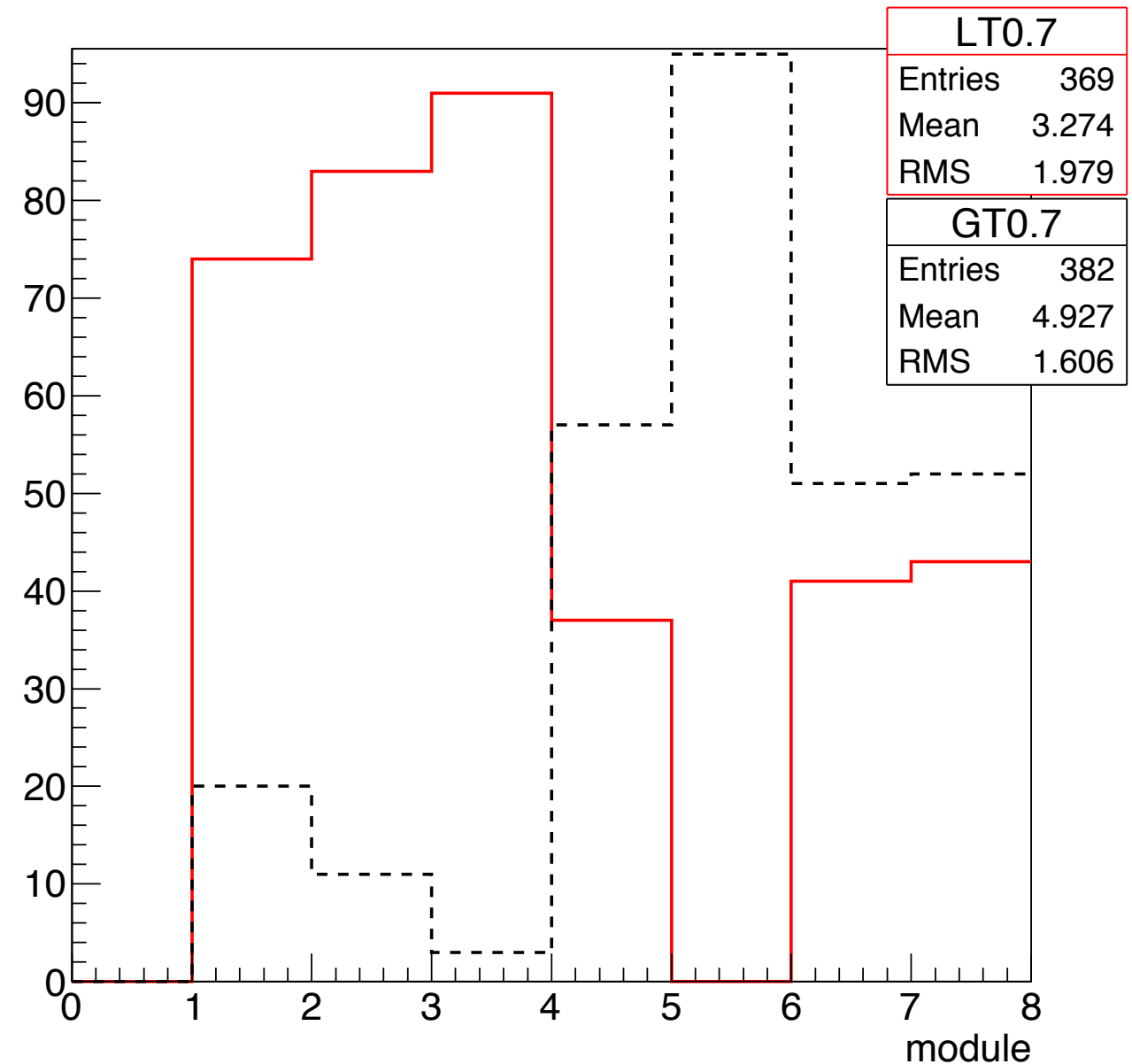
Generic
Pixel template

Generic hit reco double peak study

layer {entries>30 && subDetId==1 && rmsNormX<0.7}



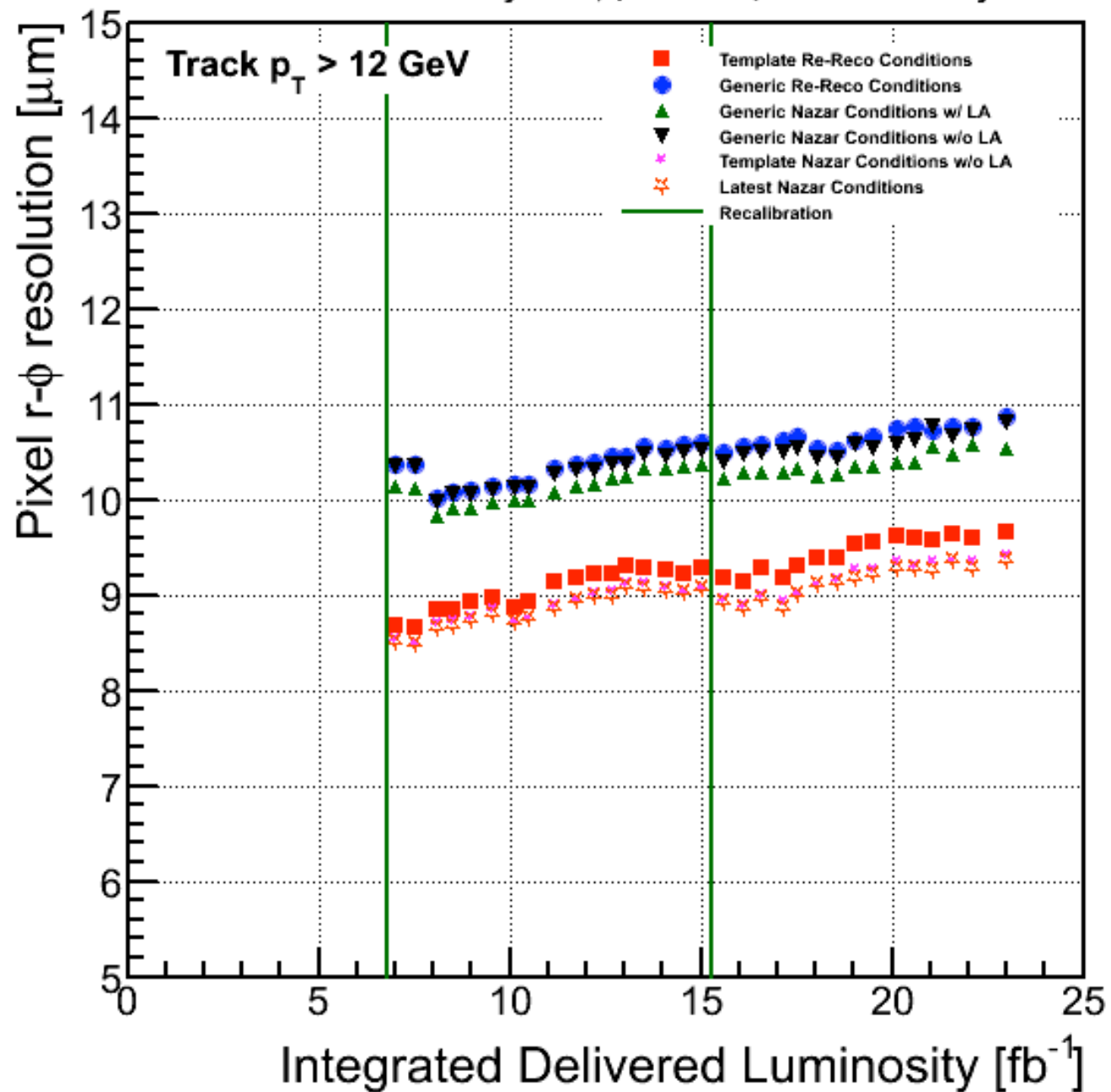
module {entries>30 && subDetId==1 && rmsNormX<0.7}



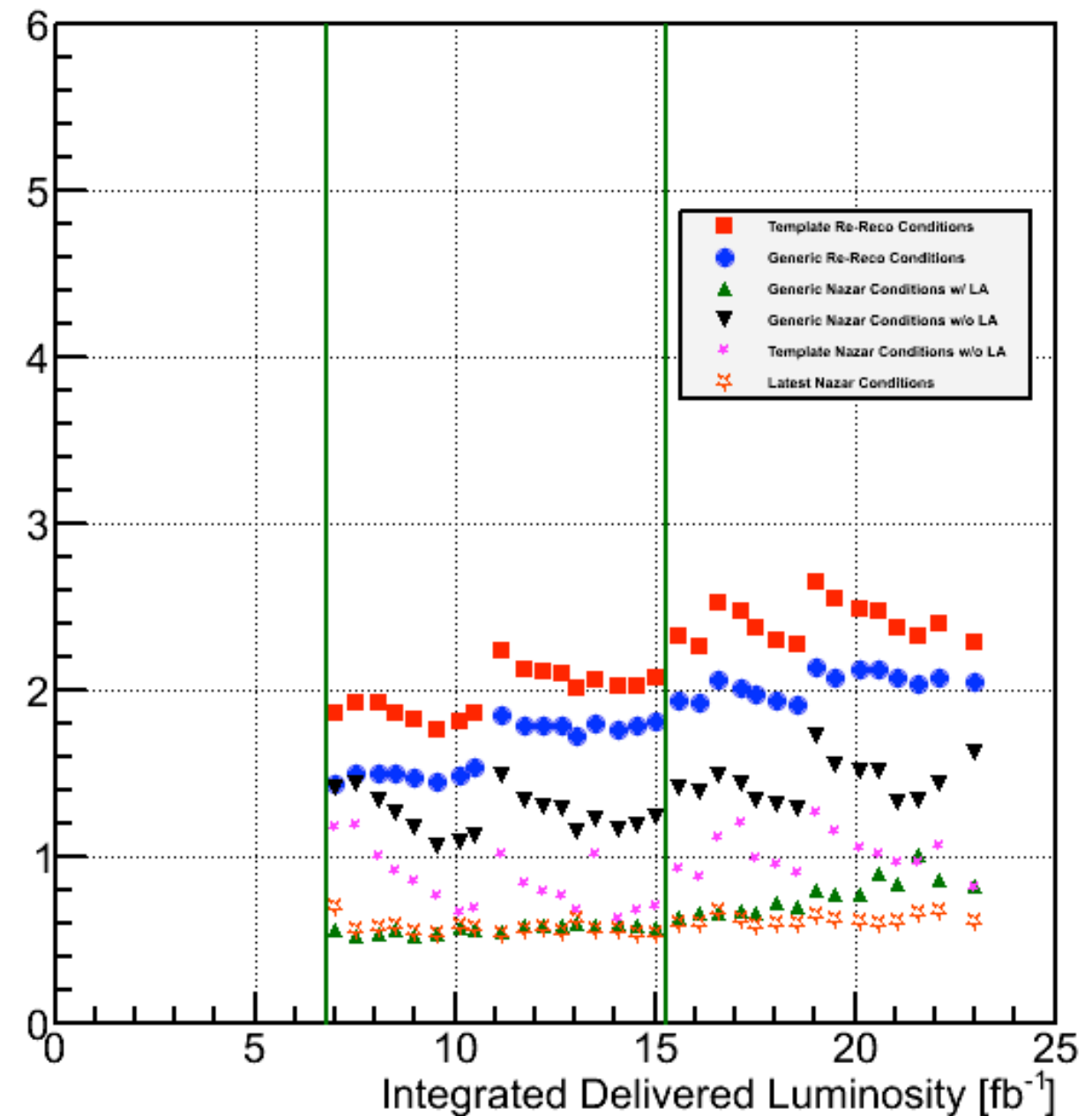
$RMS/\sigma < 0.7$
 $RMS/\sigma > 0.7$

Pixel resolution: 2012CD

CMS Preliminary 2012, $\sqrt{s} = 8$ TeV, Pixel Barrel Layer 2



PXB2 Δx Width in ϕ vs. Time



- Best resolution with LA calibration + template hit reconstruction.
- 2012AB in progress.