

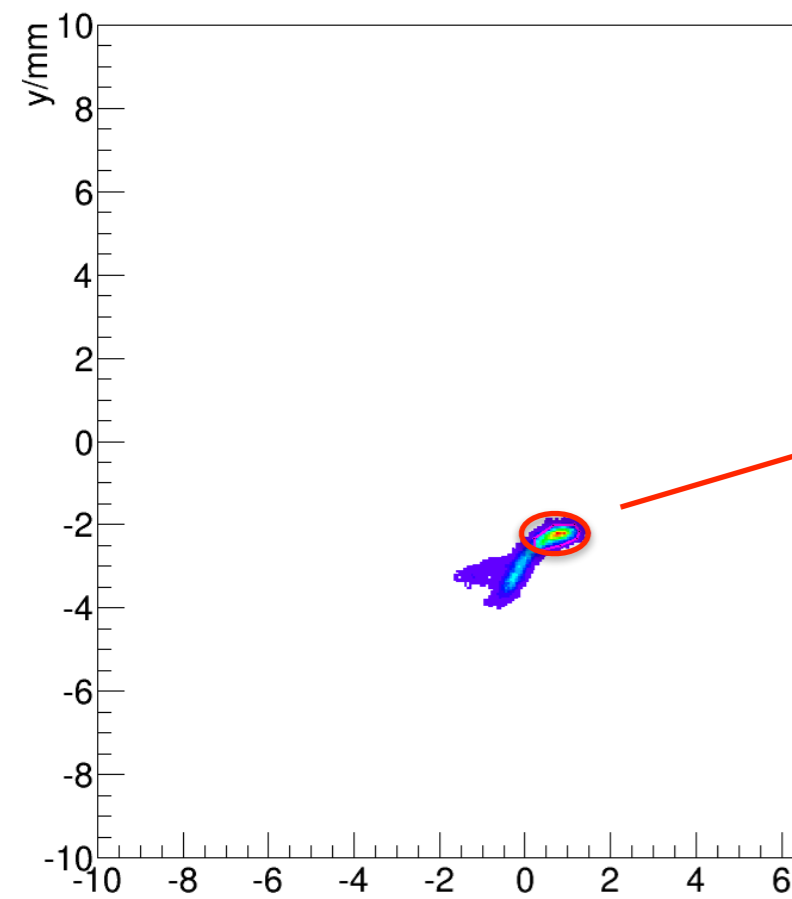
# Optics Status Update

Chao Gu

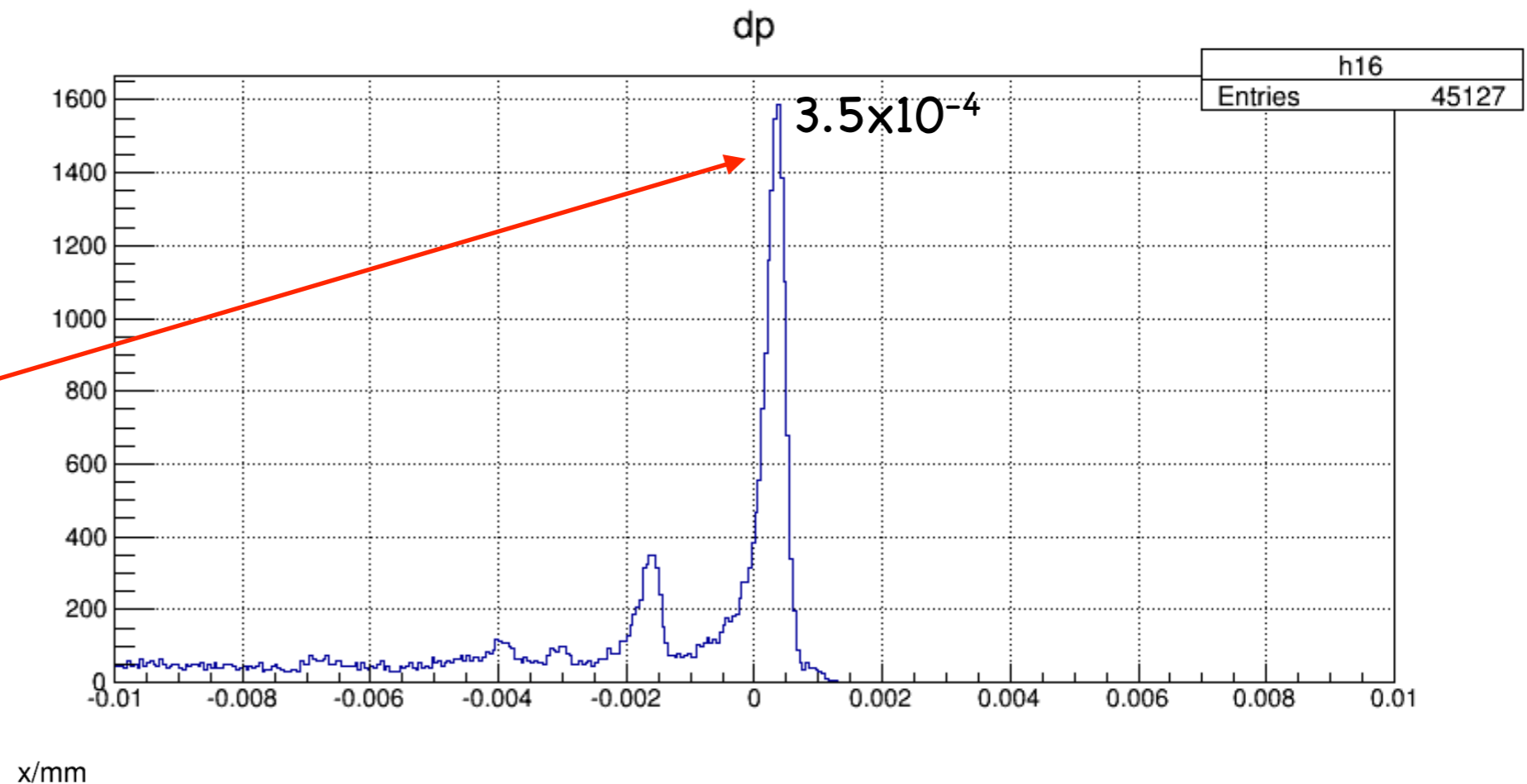
# Optics Status Update

- Problem: horizontal beam position changes dp reconstruction

BPM y vs. BPM x

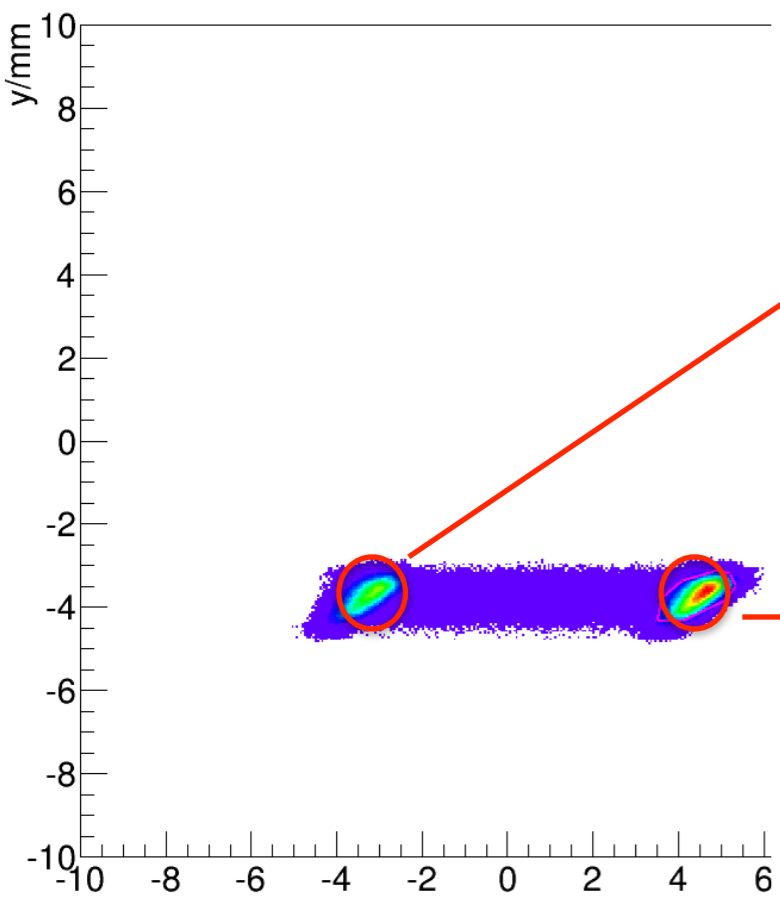


Run 5585

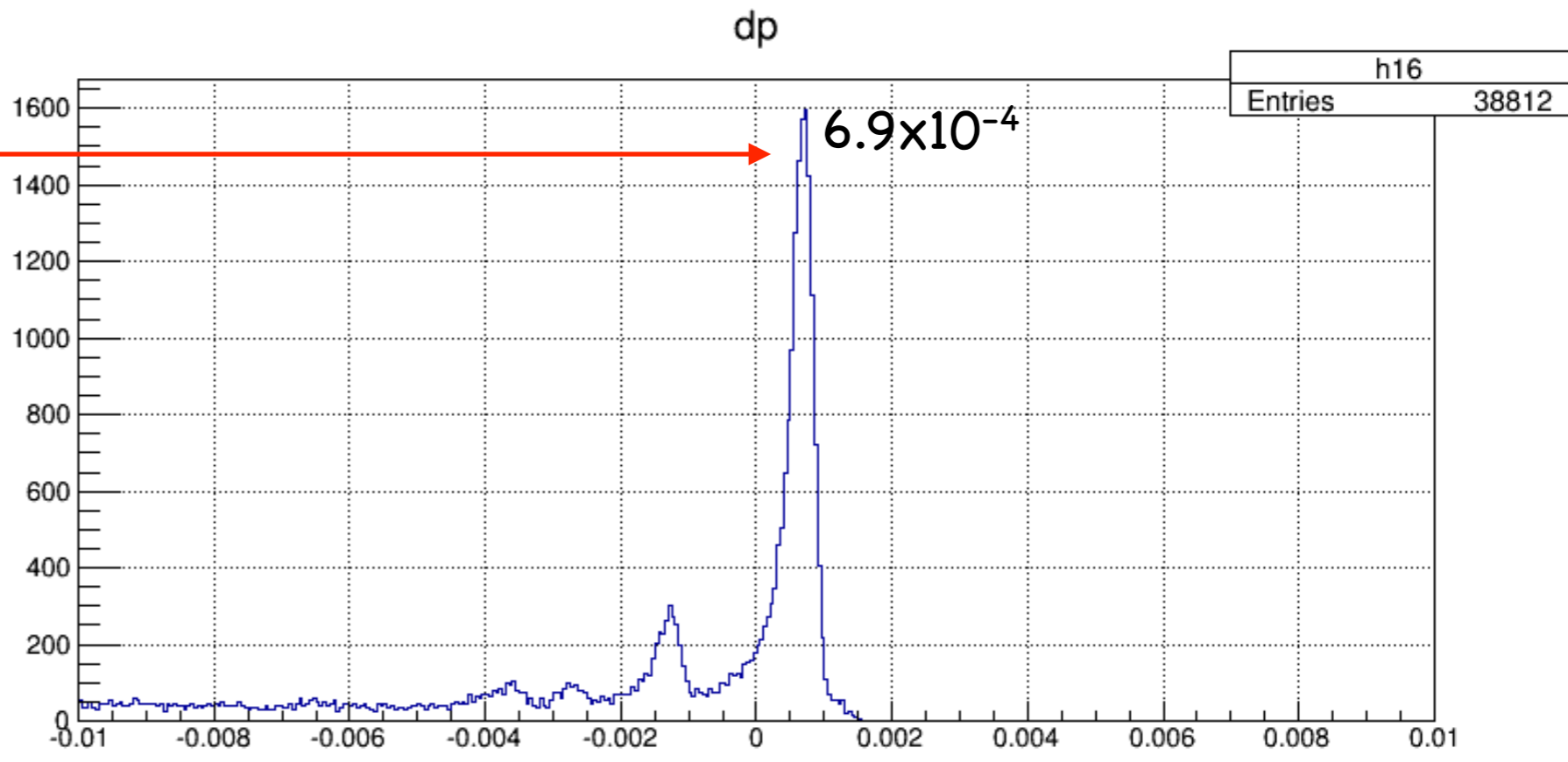
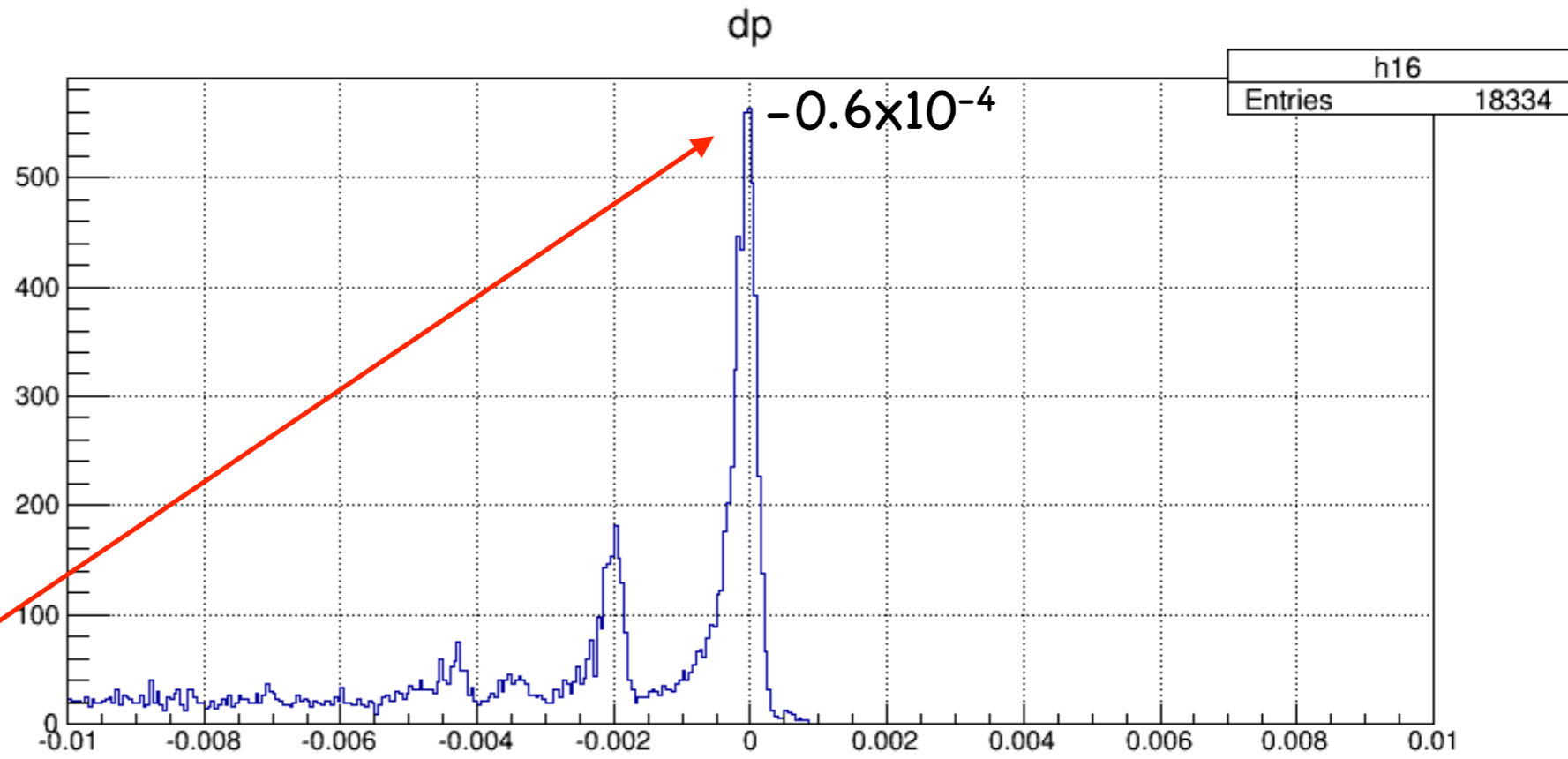


Only selected central hole

BPM y vs. BPM x



Run 5597  
Beam Scan Run at  
horizontal direction



3 Only selected central hole

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- The table shows the relations between the  $Y_{tg}$  and  $dp$ :

	$Y_{tg}/\text{mm}$	$dp_{\text{prec}}$	$dp_{\text{cal}}$
5585	2.0	$3.5 \times 10^{-4}$	$1.3 \times 10^{-4}$
5597, L	-1.9	$-0.6 \times 10^{-4}$	$-0.6 \times 10^{-4}$
5597, R	5.7	$6.9 \times 10^{-4}$	$2.2 \times 10^{-4}$

- Use beam position scan runs to fit a correction for this effect:
  - $dp = dp_{\text{matrix}} - 0.065 \times Y_{tg}$
  - $Y_{tg}$  is calculated from the beam position

# Optics Status Update

- The dp is corrected when checking with optics runs
- Still need to check with production runs with rasters on

- Test with run 5650

