Chip Alignment

Nick Sundstrom EPICAL2 Meeting Nov 14
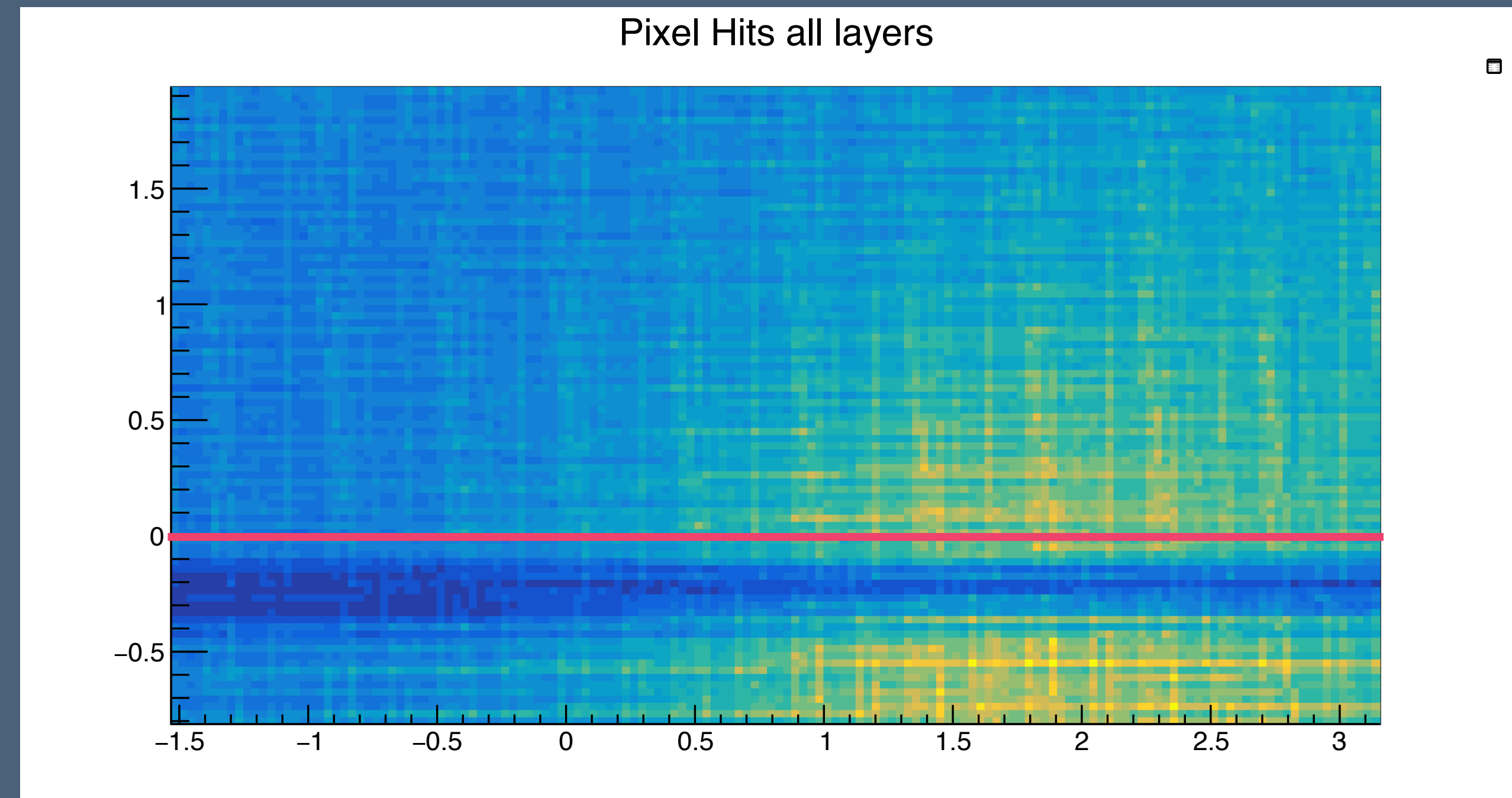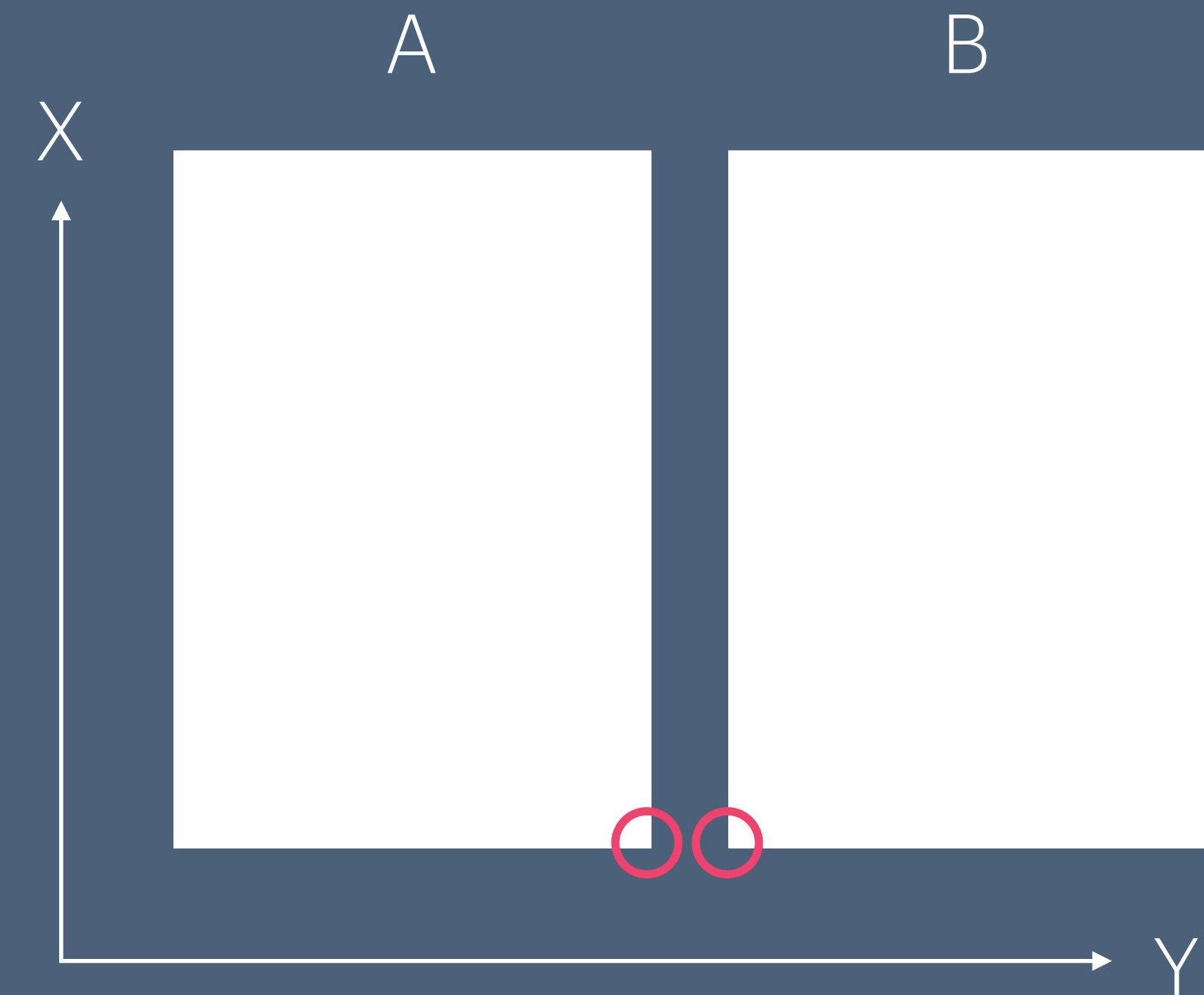
Reminder from last week

- Expected gap to be centered about 0

- Layer alignment explains the gap smearing

  - (Gap larger than ~100micrometer)

Pixel Hits all layers

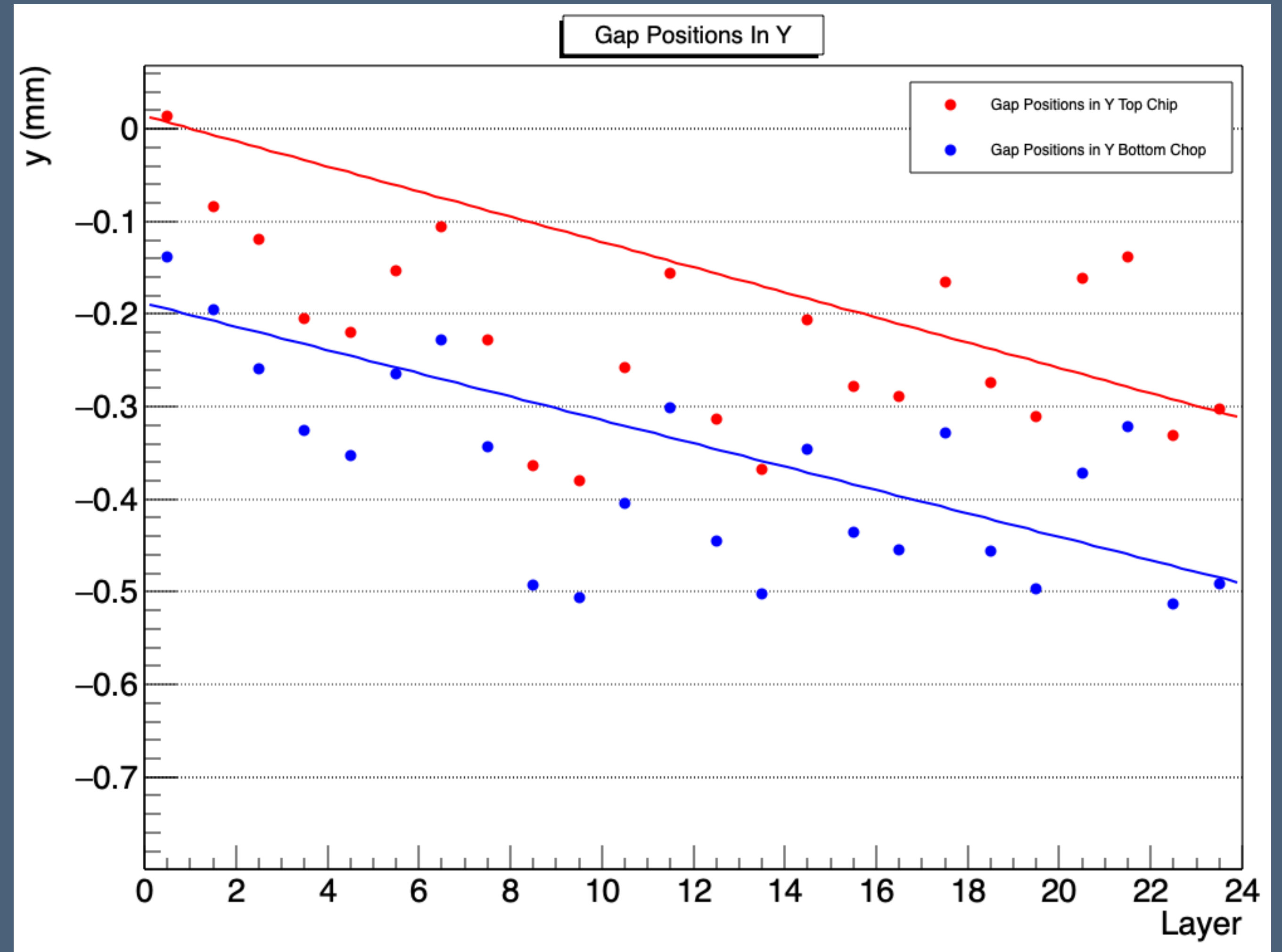# Checking Pixel position

- Checking X and Y Values of pixels circled in red

- Noticed pixel on chip A was at global position Y = .01344mm

  - This is half of the Pixel Y-size

  - Chip A ends at (X,0)

- Pixel on chip B was located at Y = .13905mm
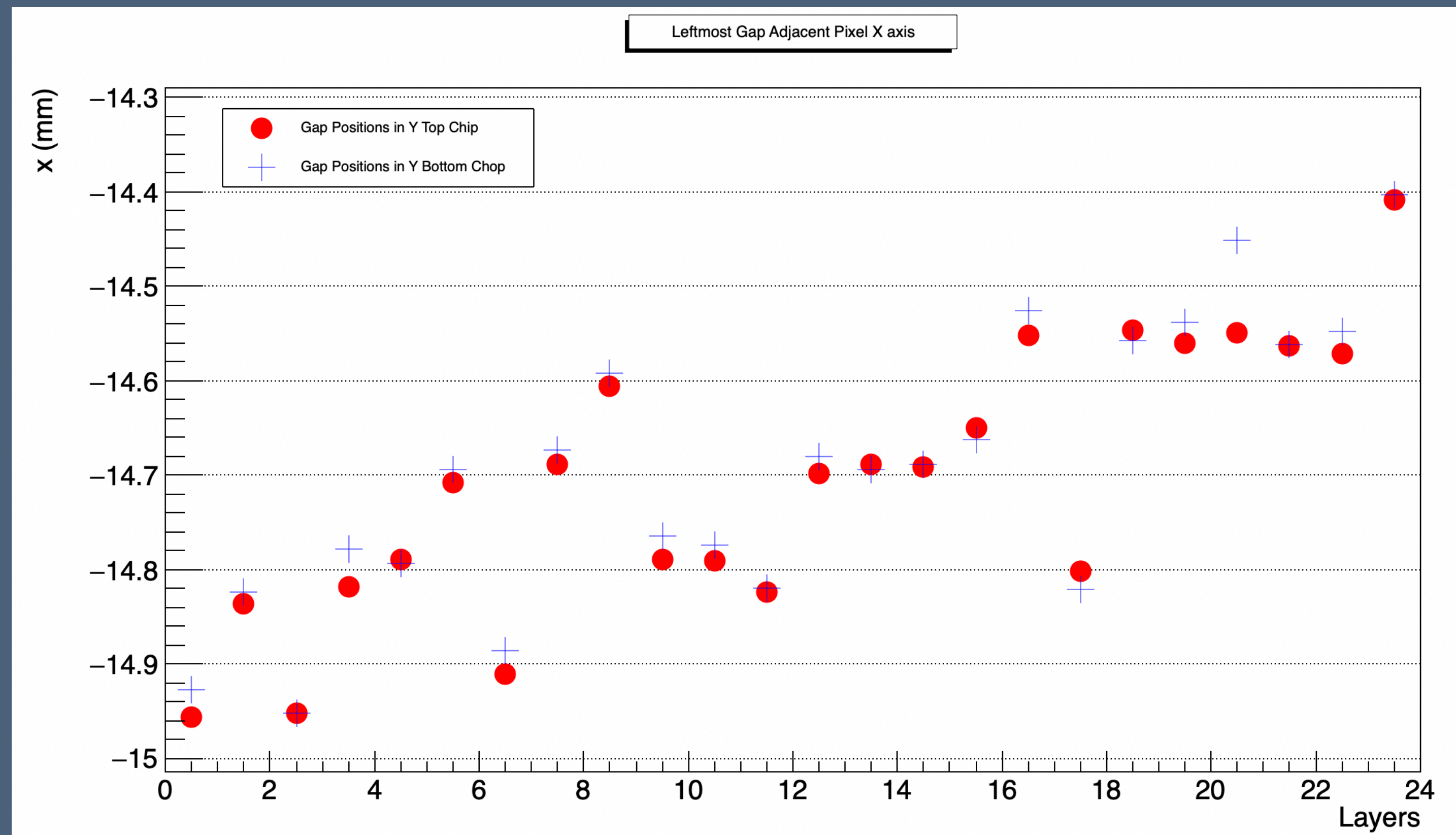
Y Alignment

- Overall shift in the negative direction
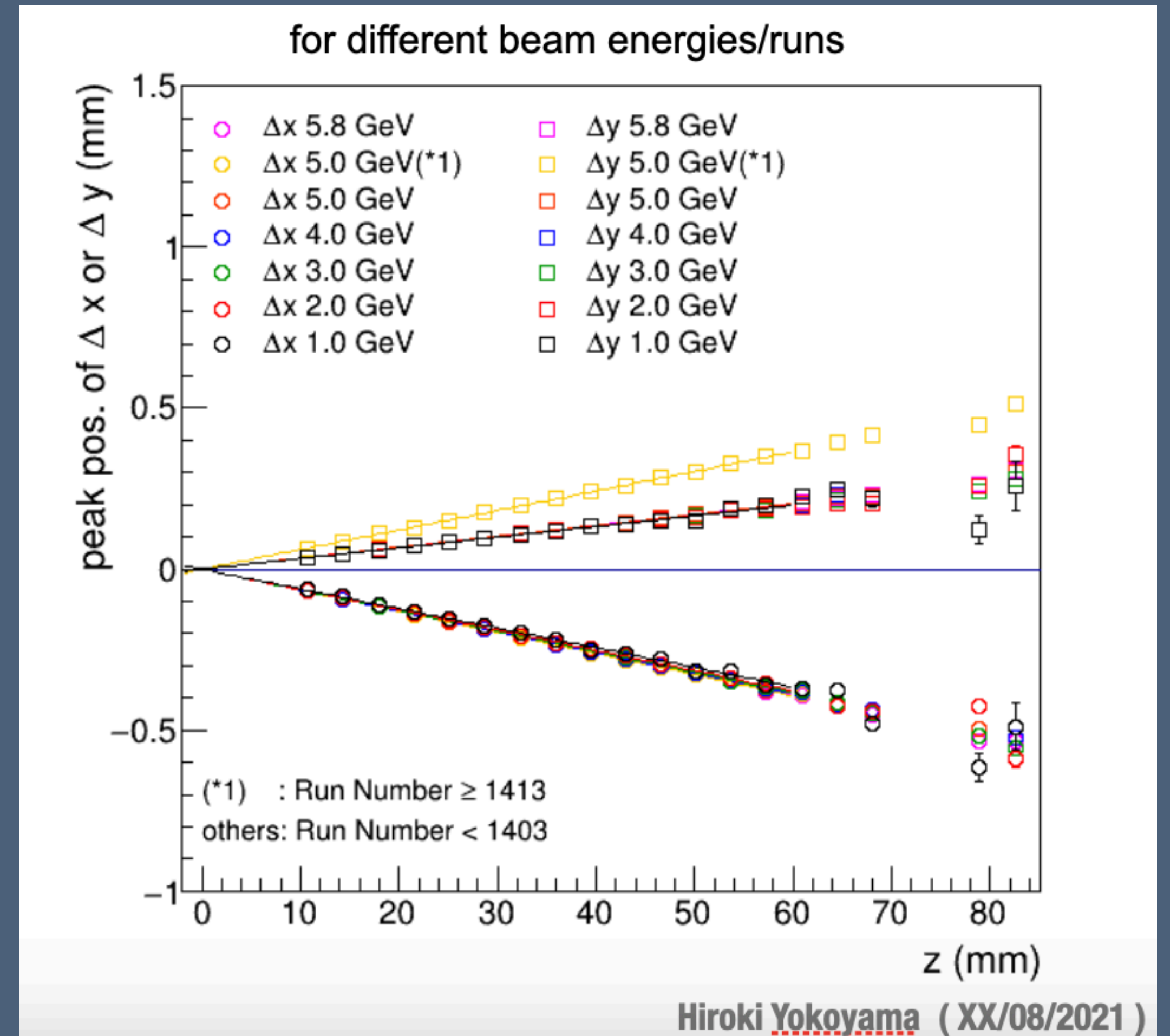
  - (Left)

X Alignment

- Overall shift in the positive direction

  - (Up)

Hiroki Alignment

- Hiroki slides show the alignment derived from the beam propagation on each layer

- The X and Y deviation output agrees with what we see in Hiroki slides.

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Hiroki Yokoyama (XX/08/2021)

Should we account for center in analysis?

- Since the true zero Y value is at the bottom of a chip and not in the center of the gap

  - Should we take this into consideration?

- Certainly means analysis should not extend to the outer .5mm

Pixel Hits all layers

PixelHits	
Entries	4.292358e+08
Mean x	0.2398
Mean y	−0.3844
Std Dev x	4.376
Std Dev y	4.426