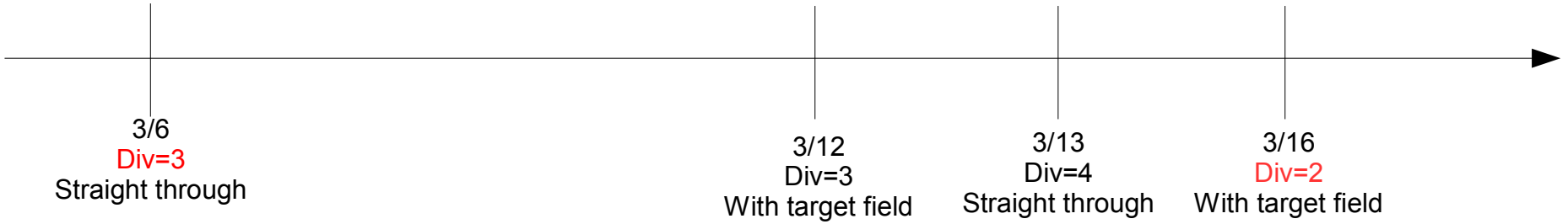
Calibration constant for optics runs near 3185(div=2)
Difficulties: no straight through calibrations for div=2



The most closed result for div=2 calibration is 3/6 div=3
Calibration for 3/6-3/28(autogain): without subtracting pedestal

Check with optics

3185 run position calculated by using 3/6 div=3 calibration const

-0.84mm(x) 2.39mm (y) at target

Fitted X_{beam}
-3.5mm

Compared with the fitted result x from optics

Check with div=2 harp scan run

BPM A hall(x,y,z): 0.57, -96.93, -955.9
BPM B hall(x,y,z): 0.30, -68.15, -691.9
Harp05 hall(x,y,z): 0.41, -81.23, -814.3

Run Number 3228
Current: 73nA

3185: 77nA
2819: 85nA

Runs for div=2

Optics runs for 2.2GeV, 2.5T
2919-2991 80-110nA div=3

Optics runs for straight through
3177-3199 56-83nA

Production runs: 3281-3295 35-42nA

Harp scan runs(same beam position):
3228(73nA):

BPM A local(x,y): 0.67 0.85
BPM B local(x,y): 0.15 1.52
BPM A hall(x,y,z): 0.57, -96.93, -955.9
BPM B hall(x,y,z): 0.30, -68.15, -691.9
Harp05 hall(x,y,z): 0.41, -81.23, -814.3

3229(42nA):

BPM A local: 1.36 0.98
BPM B local: 3.68 -0.82
BPM A hall(x,y,z): 0.97, -96.34, -955.9
BPM B hall(x,y,z): 4.54, -68.20, -691.9

One possible fix method:
Use offset between 3228 and 3229