

Phase I Failure Scenarios

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Pixel Offline meeting



Reminder

Presentation from Janos:

https://indico.cern.ch/event/602634/contributions/2431075/attachments/1393899/2124262/2017_01_11_PixelOfflineMeeting_PixelFailureScenarios.pdf

Presentation from me earlier:

http://tvami.web.cern.ch/tvami/presentations/20160902_TrackerDPG_PixelPhase1FailureScenarios.pdf

Scenarios

Scenario 1: Random 5%

Scenario 2: 1 BPix + 1 FPix cooling loop out

Scenario 3: BmO SEC4 L1+L4 out, Bpl SEC6 L2+L3 out,
Bml Disk1 ROG3 HV2 (Ring 1 Blade 6-7-8 Panel 1-2),
BpO Disk2 ROG1 HV1 (Ring 2 Blade 10-11-12-13 Panel 1-2)

Scenario 4: 1 BPix + 1 FPix FED out

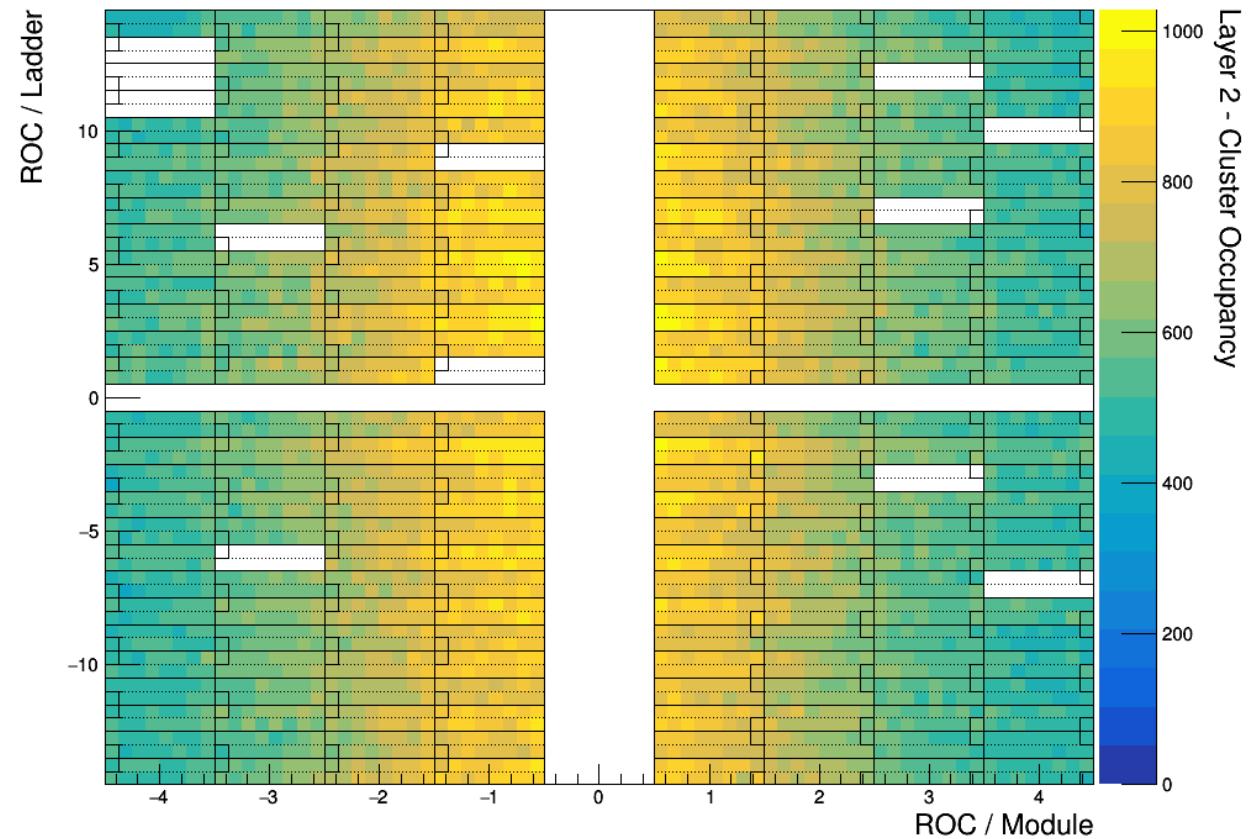
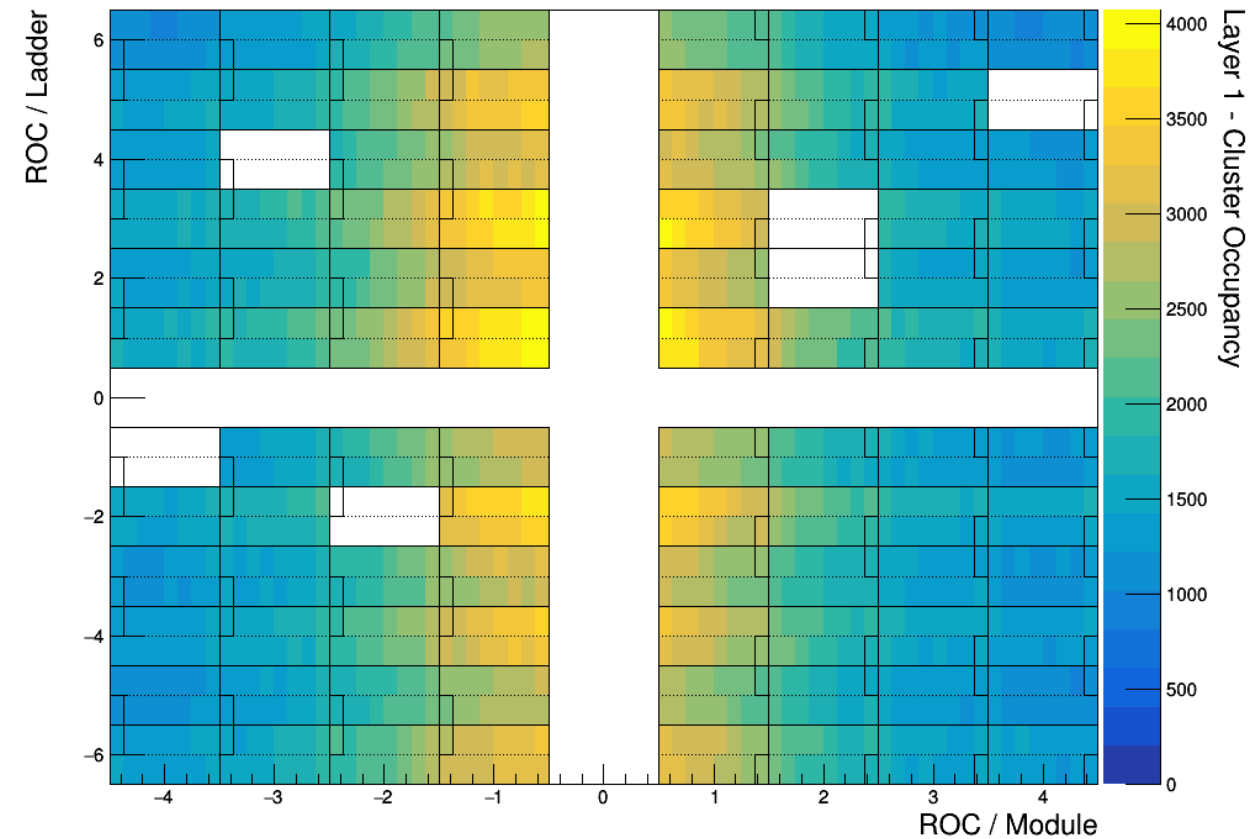
Method

MC Simulation with 10.000 events (MinBias)

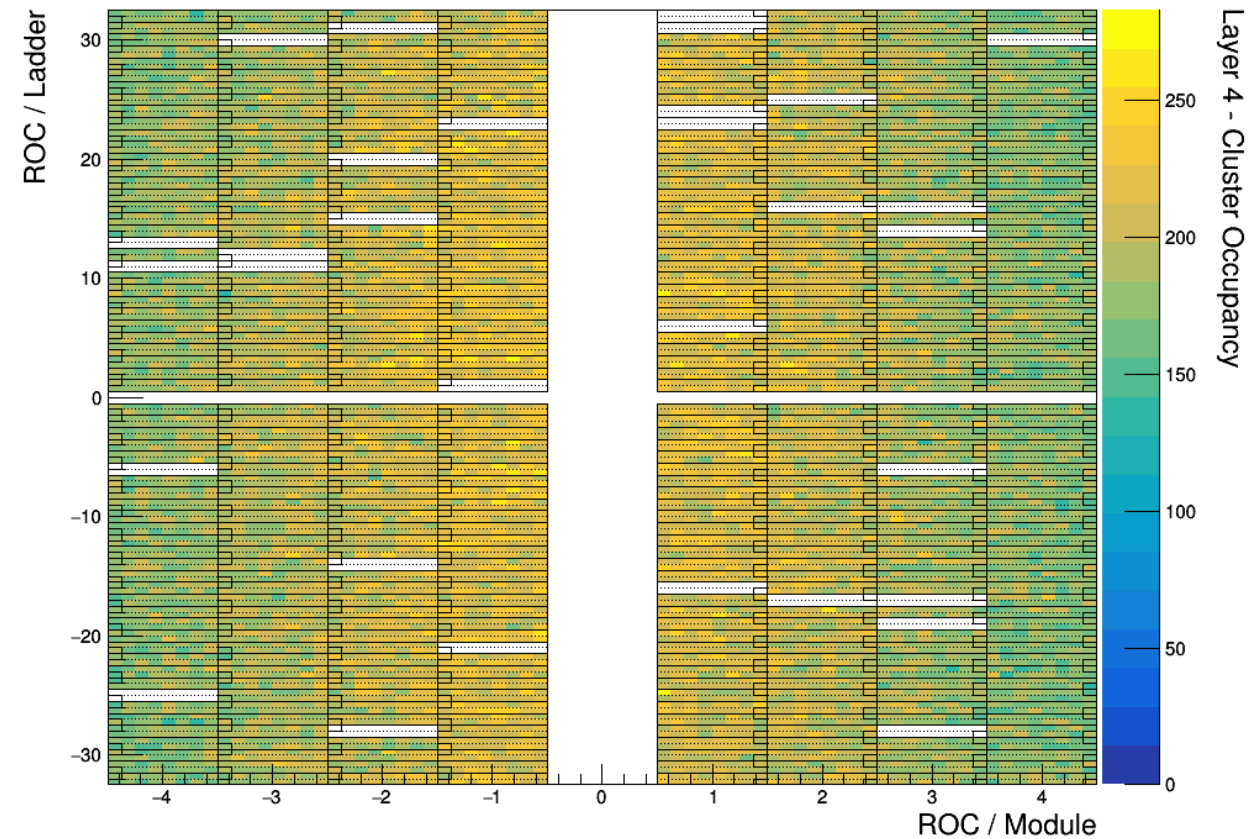
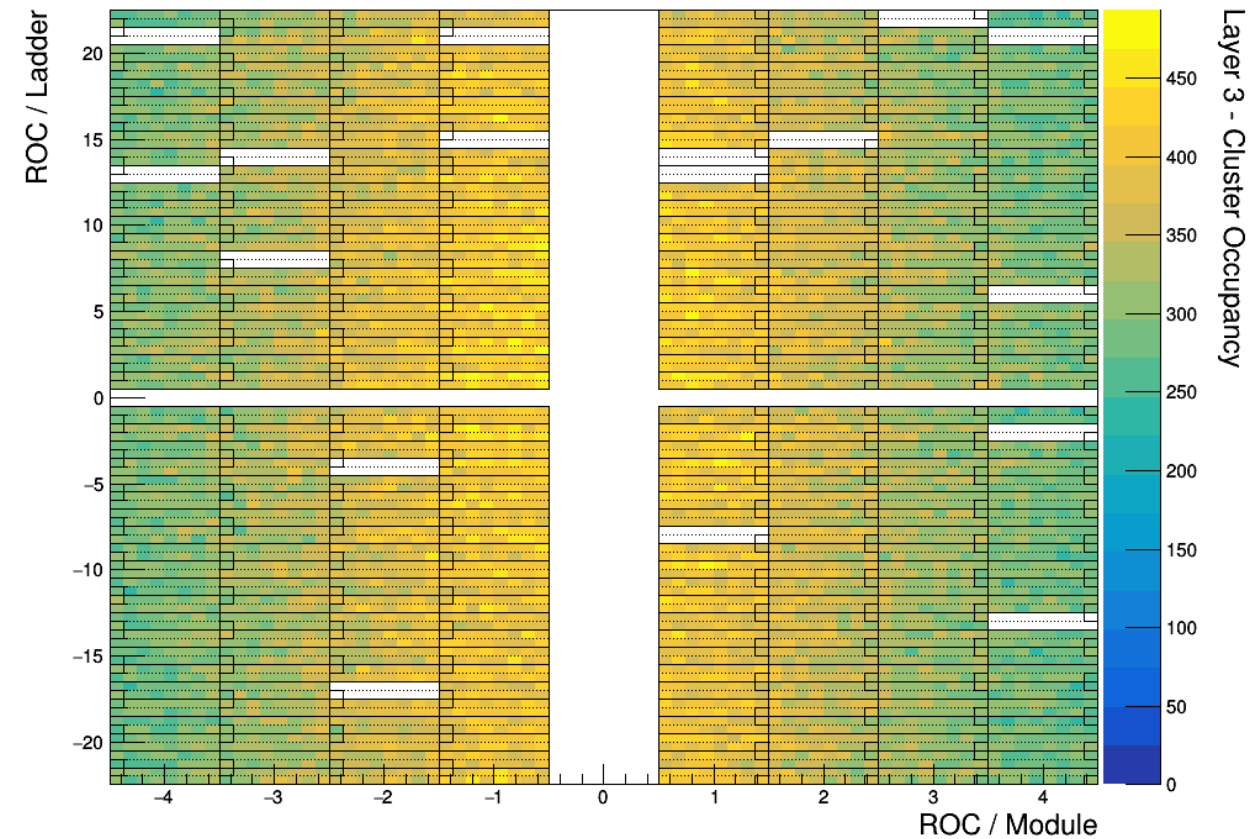
SiPixelQuality object is used to „kill” the dead parts of the detector

Occupancy is plotted

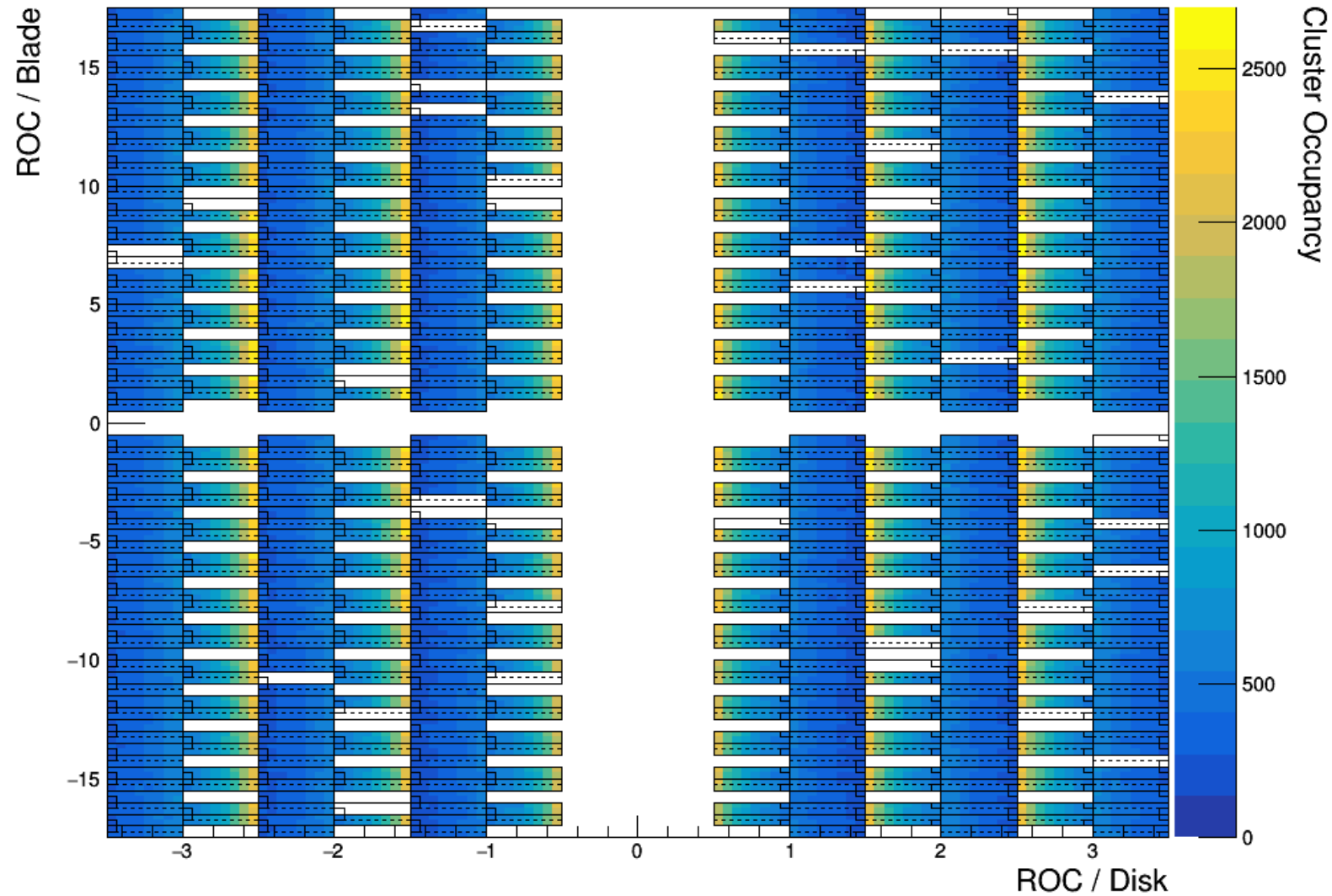
Scenario 1: Random 5%



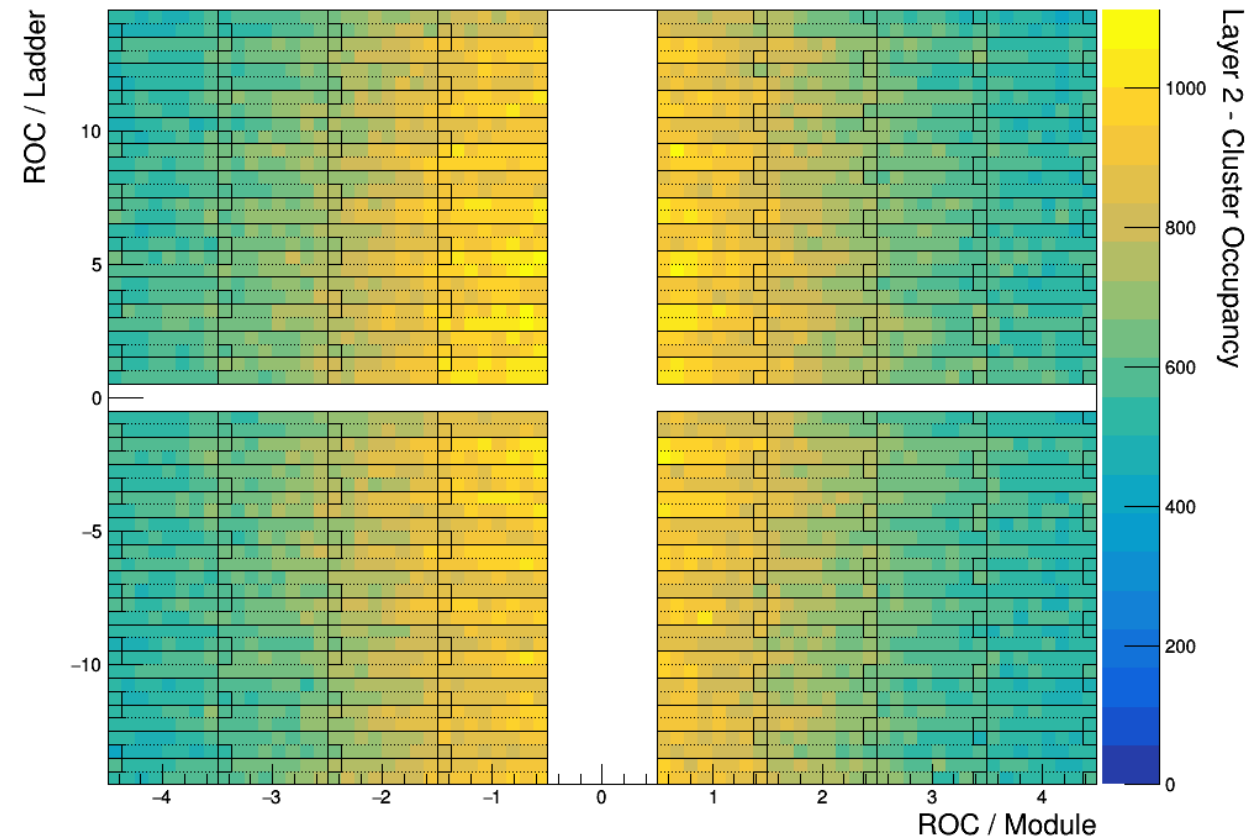
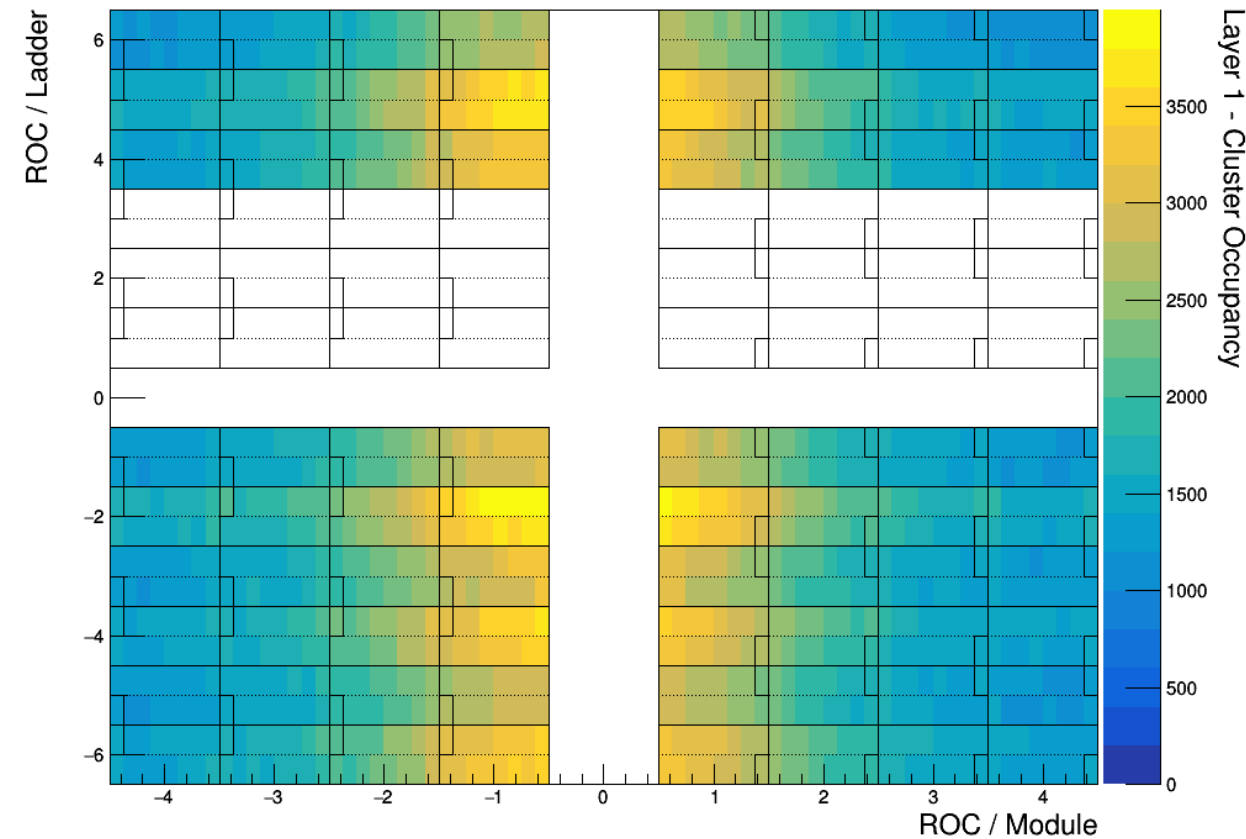
Scenario 1: Random 5%



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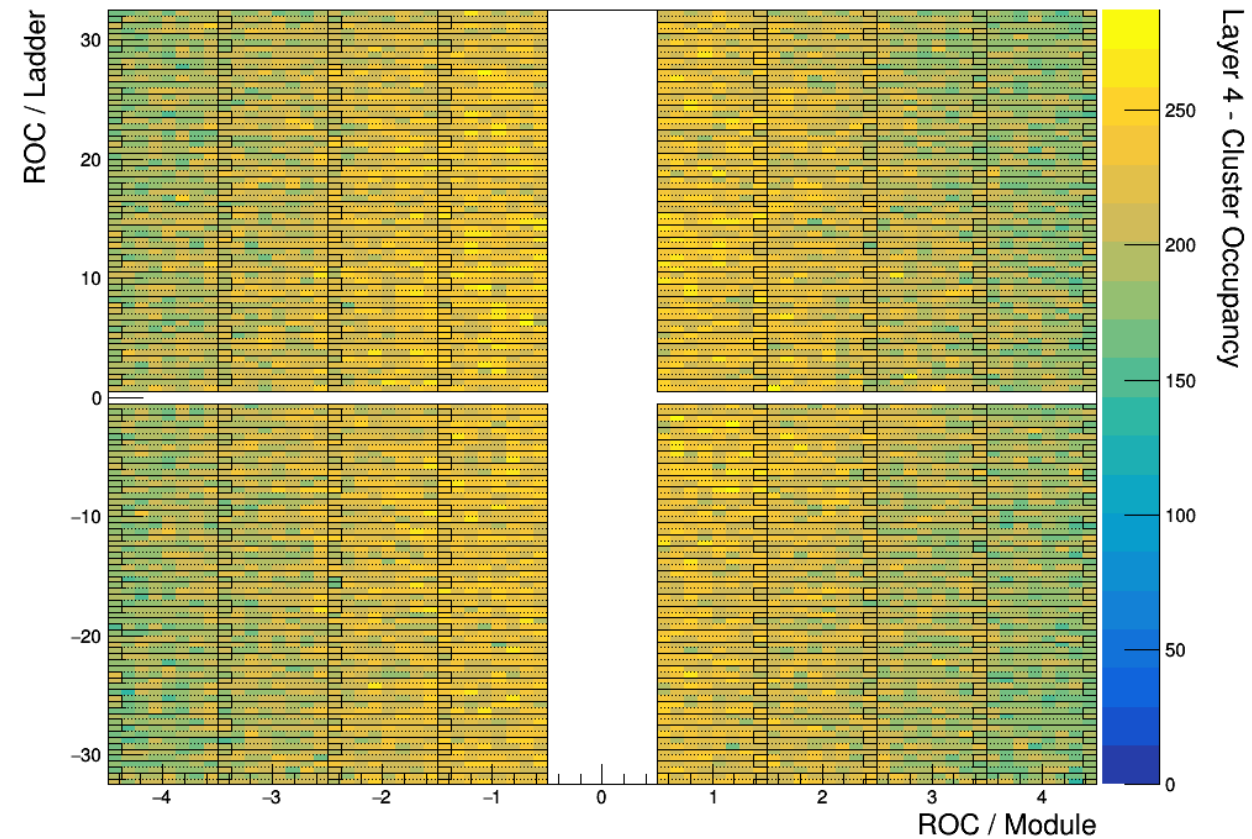
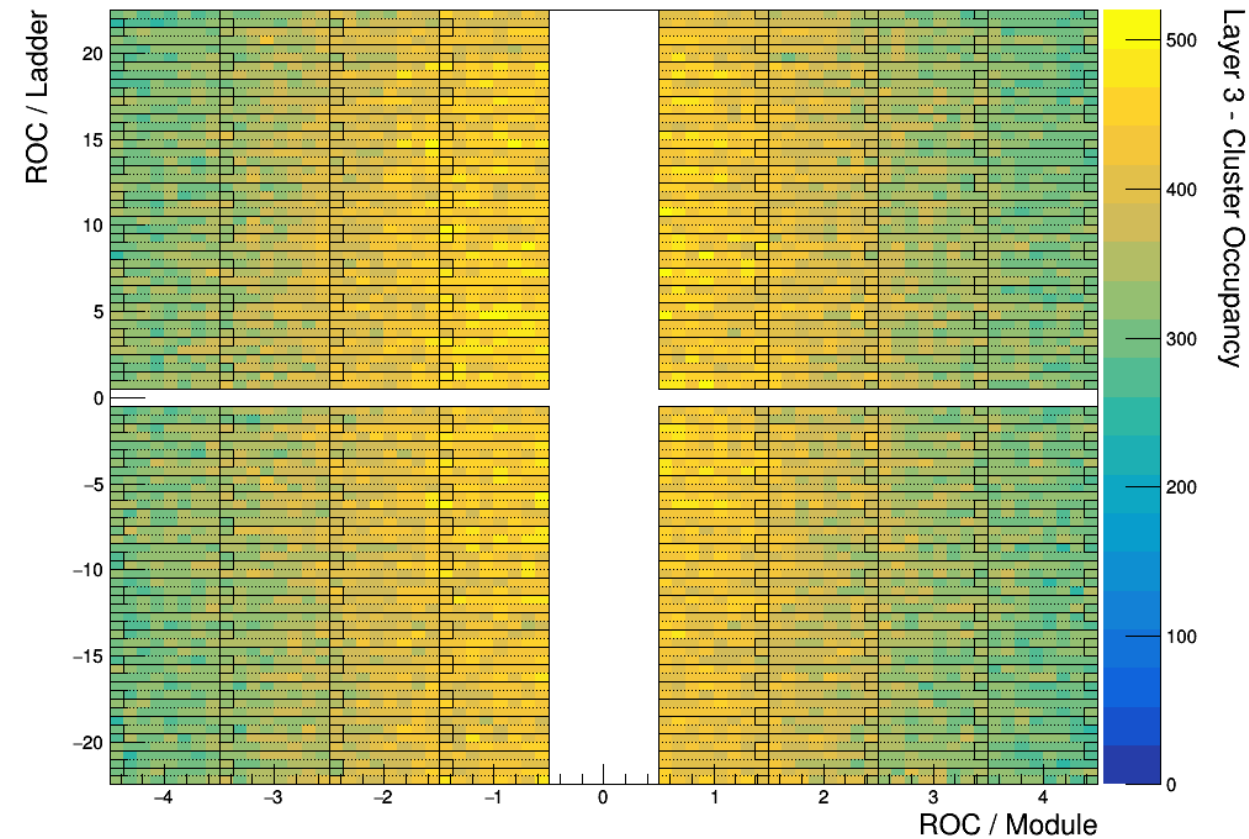


Scenario 2: 1 BPix + 1 FPix cooling loop

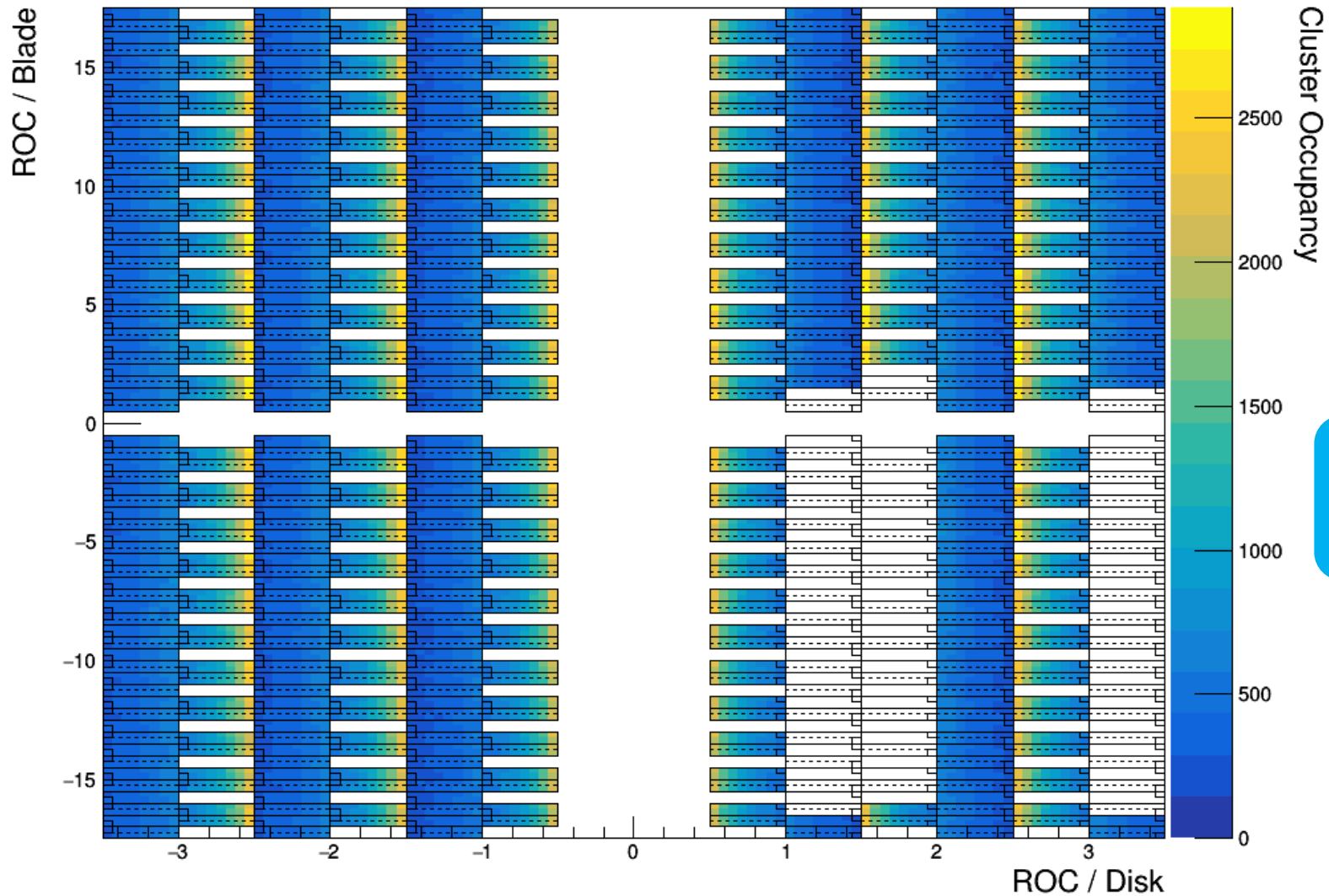


Info from Lea

Scenario 2: 1 BPix + 1 FPix cooling loop



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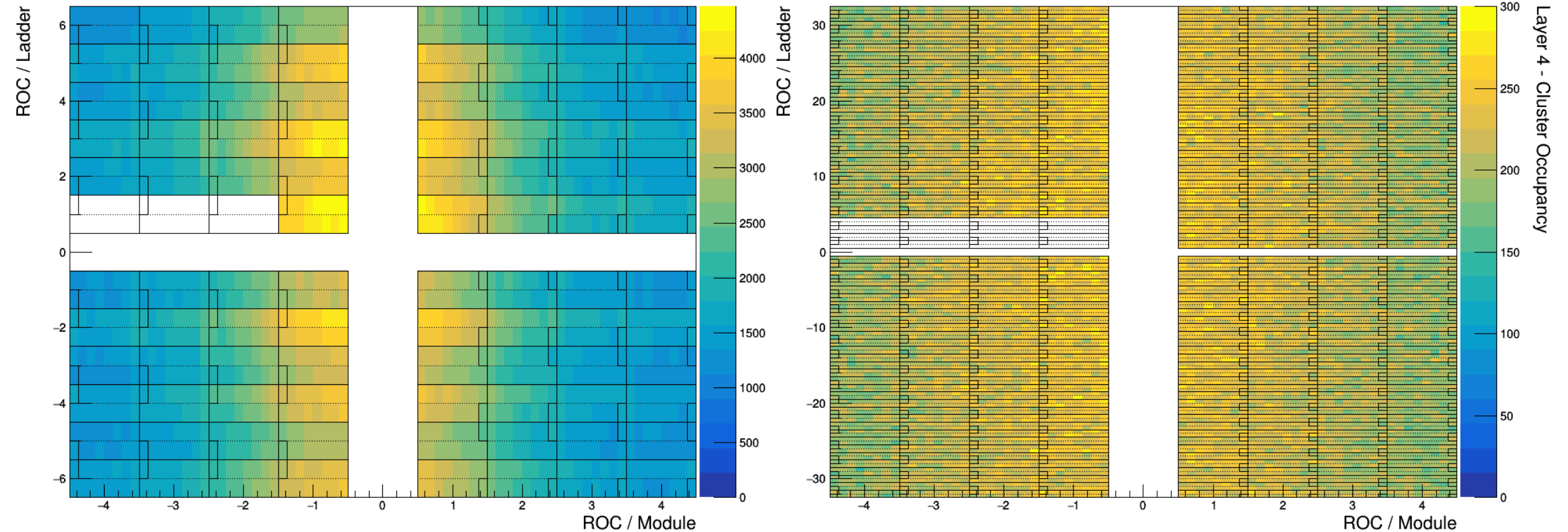


Info from Andrea

detidselectorTestOpt0a.log file

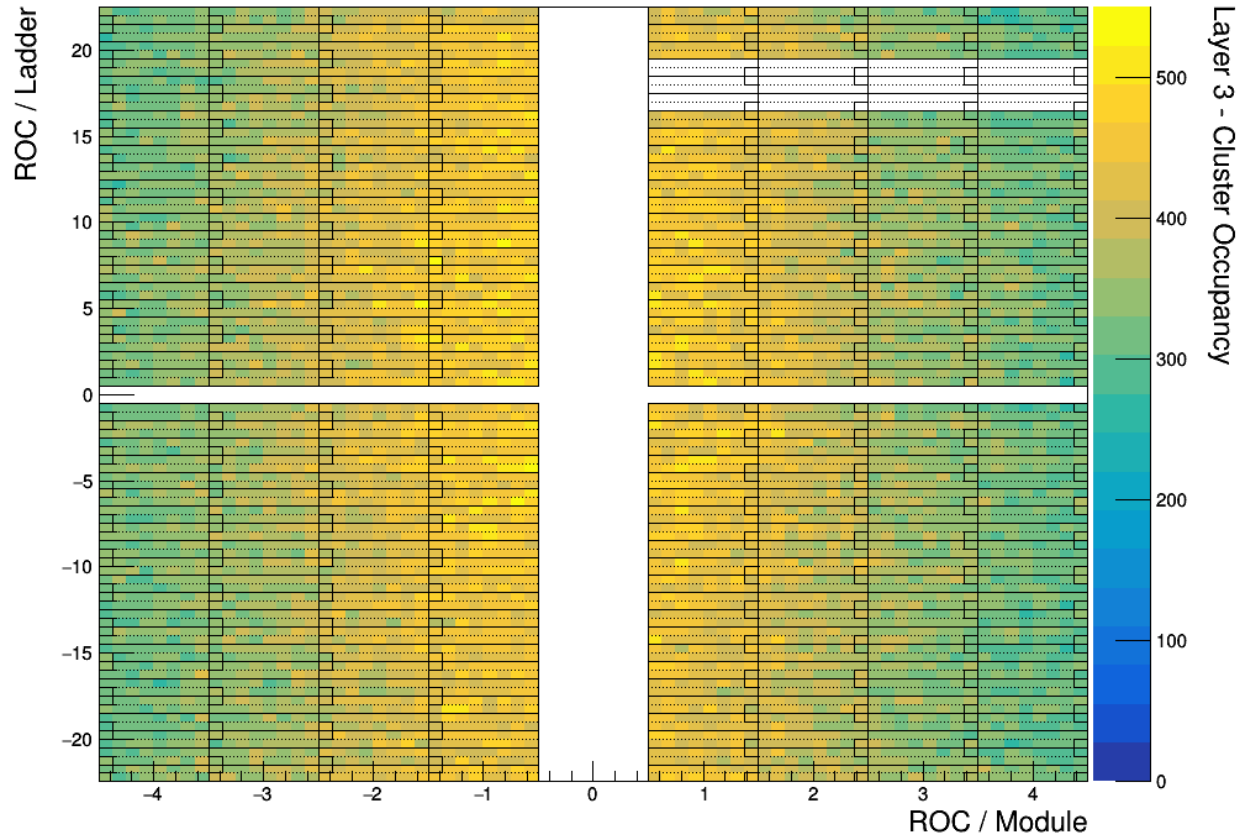
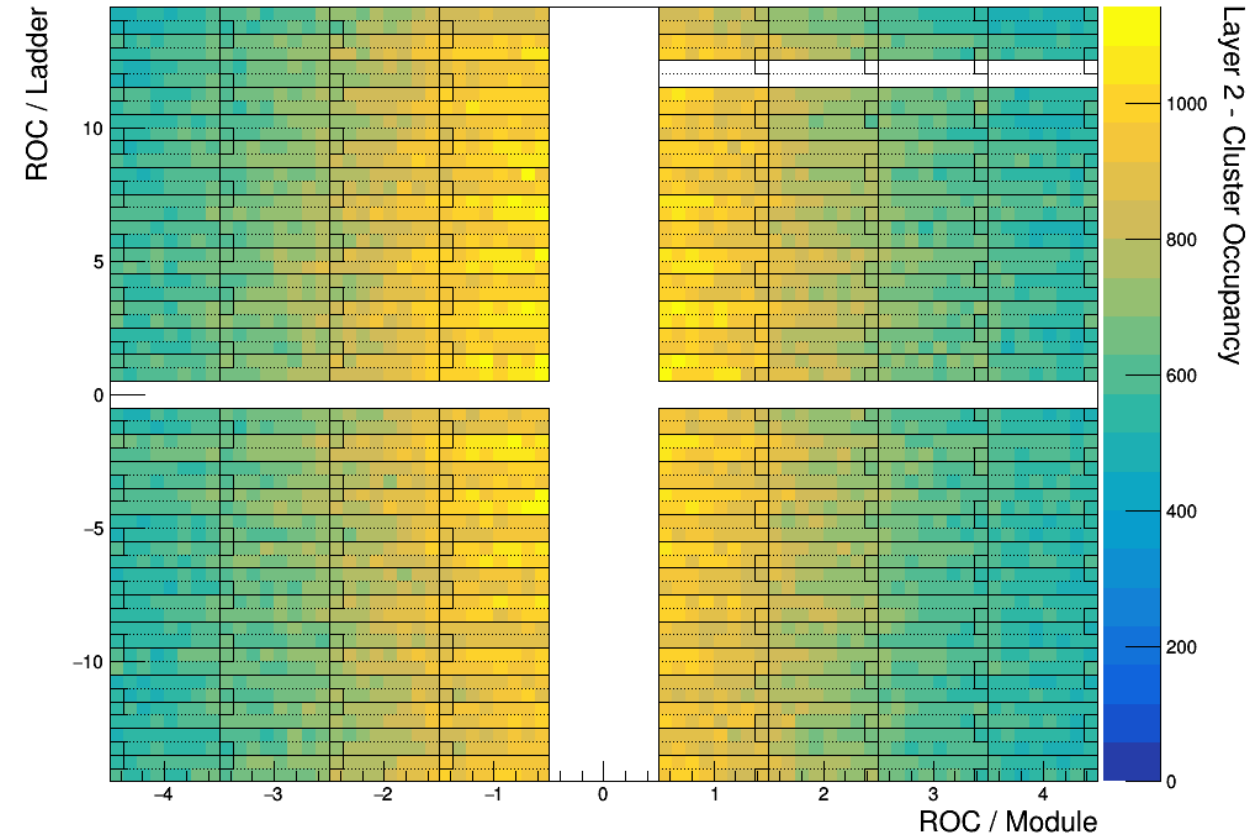
Scenario 3: HV group out

BmO SEC4 L1+L4 out

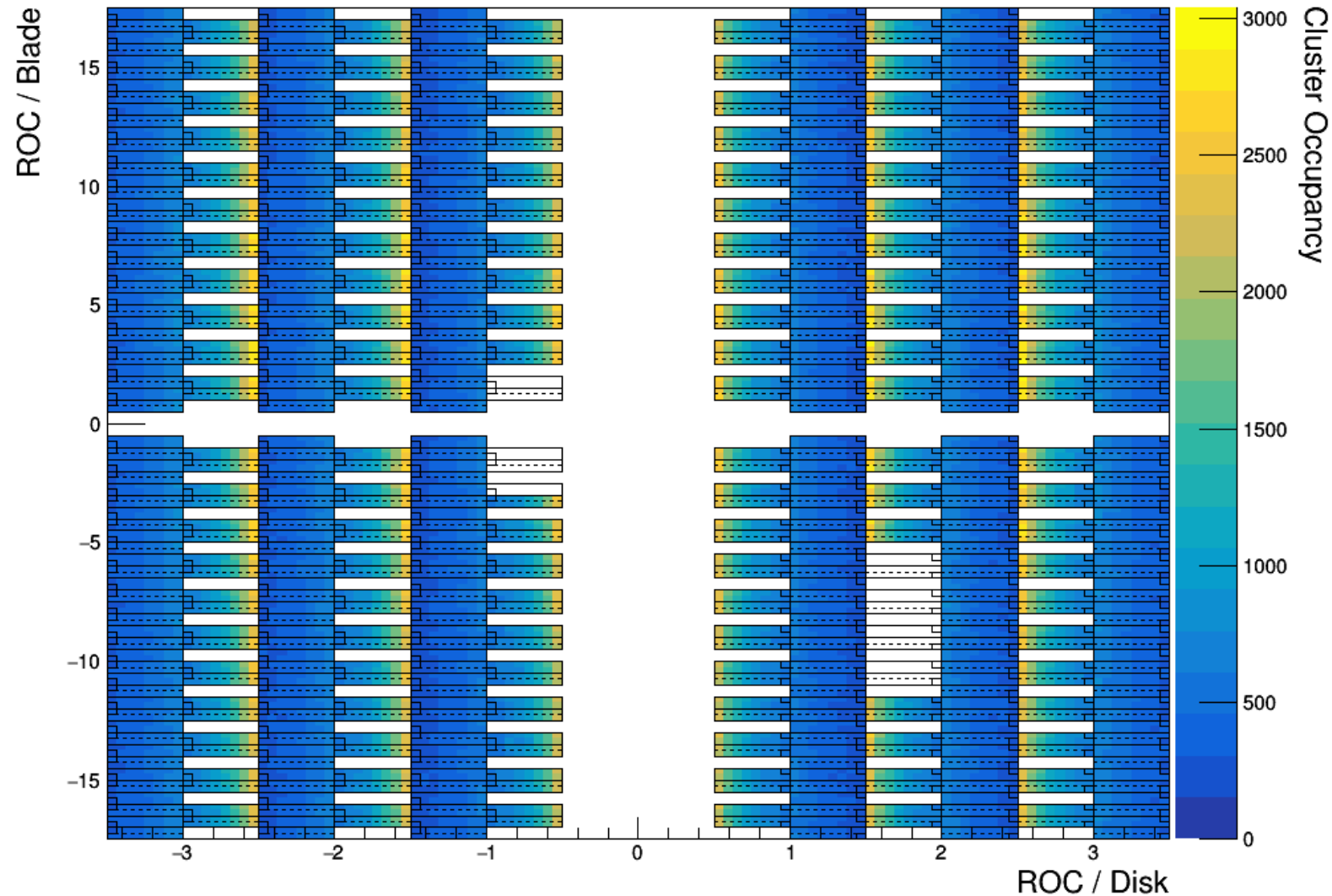


Scenario 3: HV group out

BpI SEC6 L2+L3 out

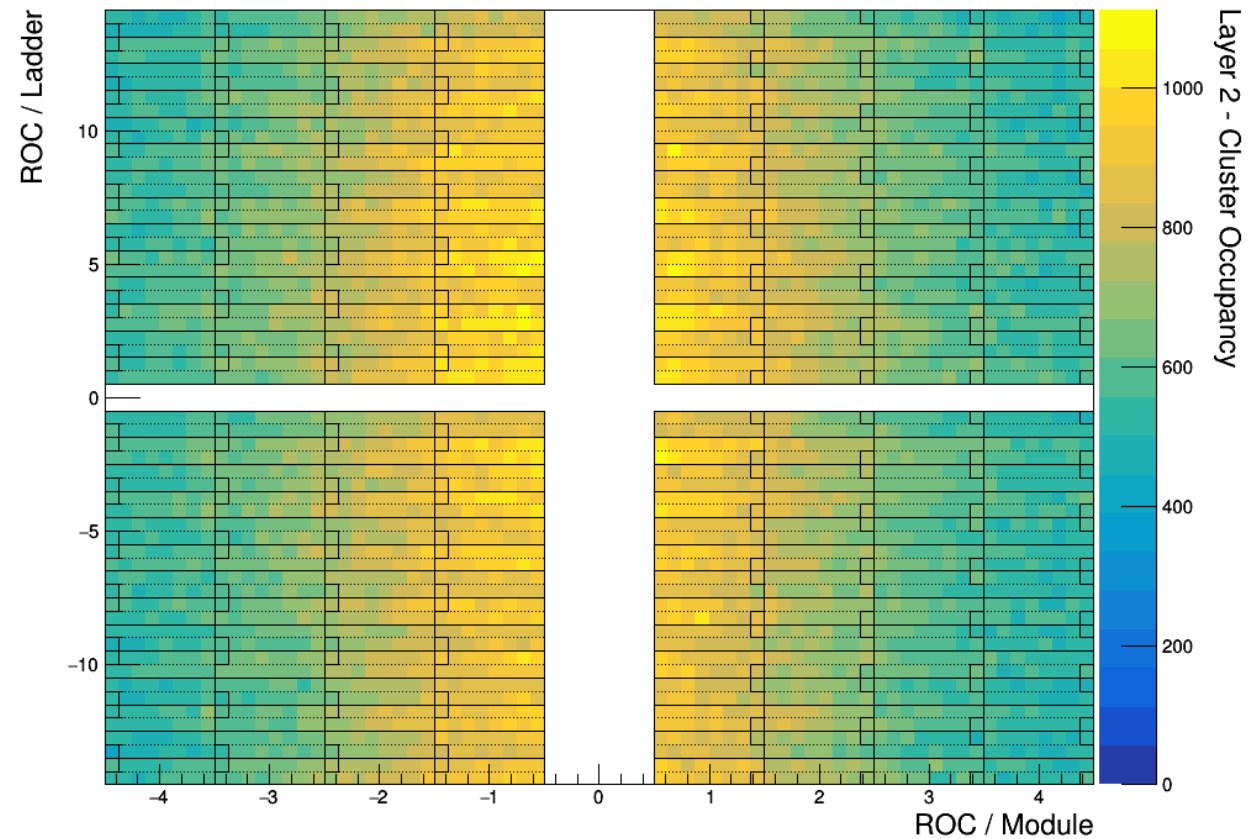
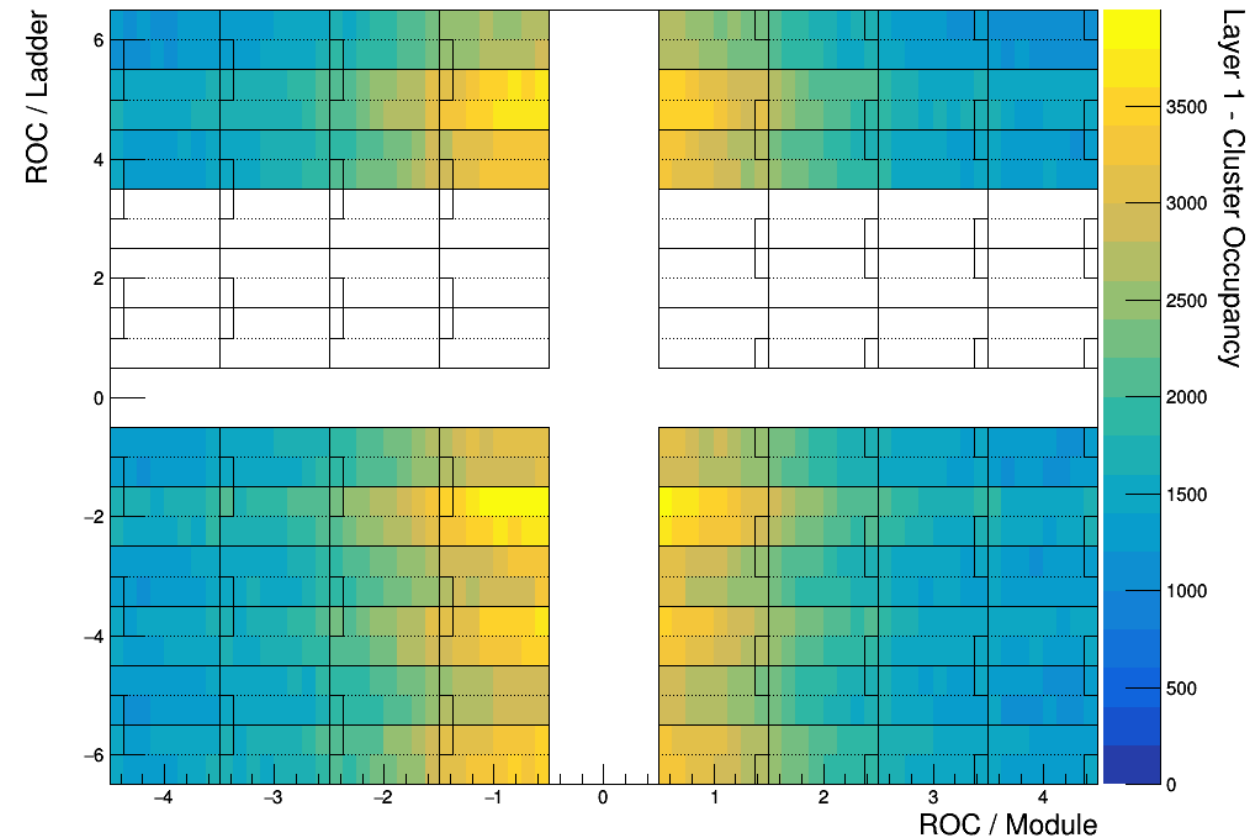


Scenario 3: HV group out



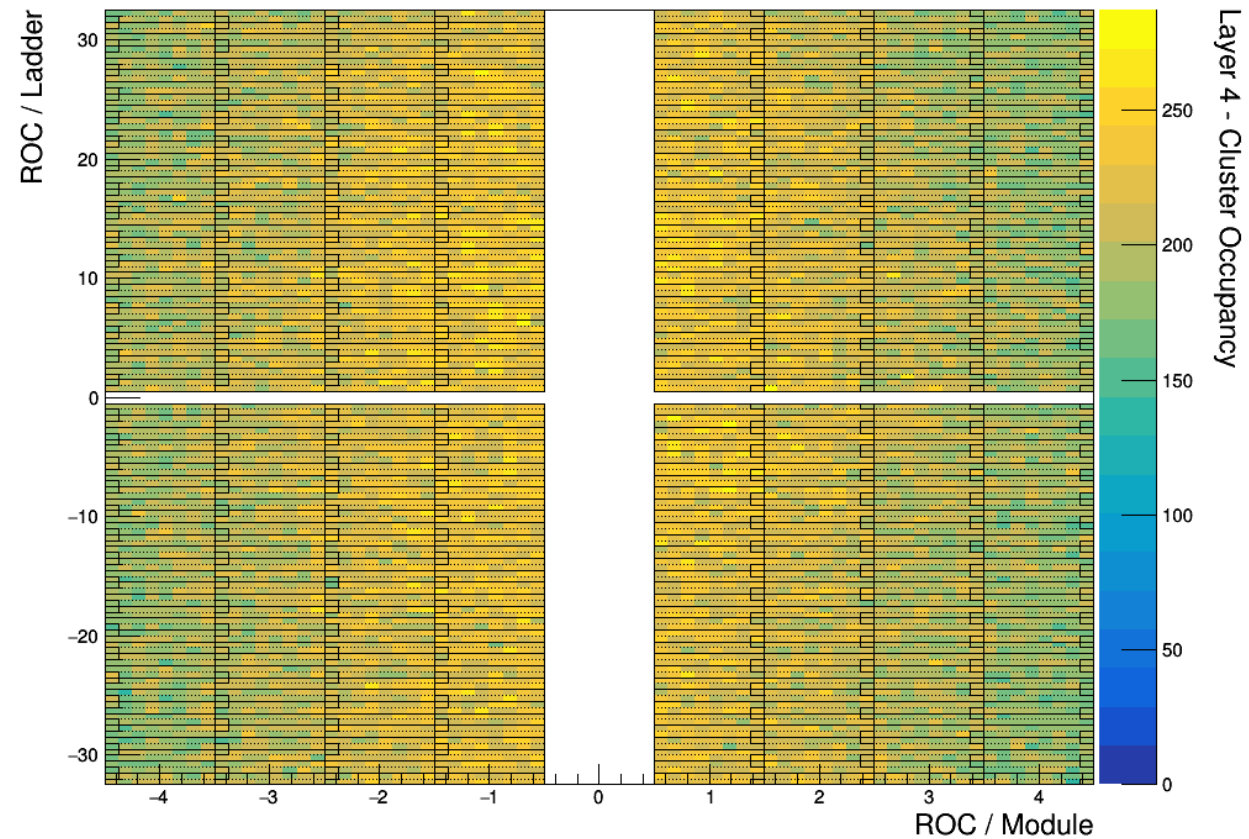
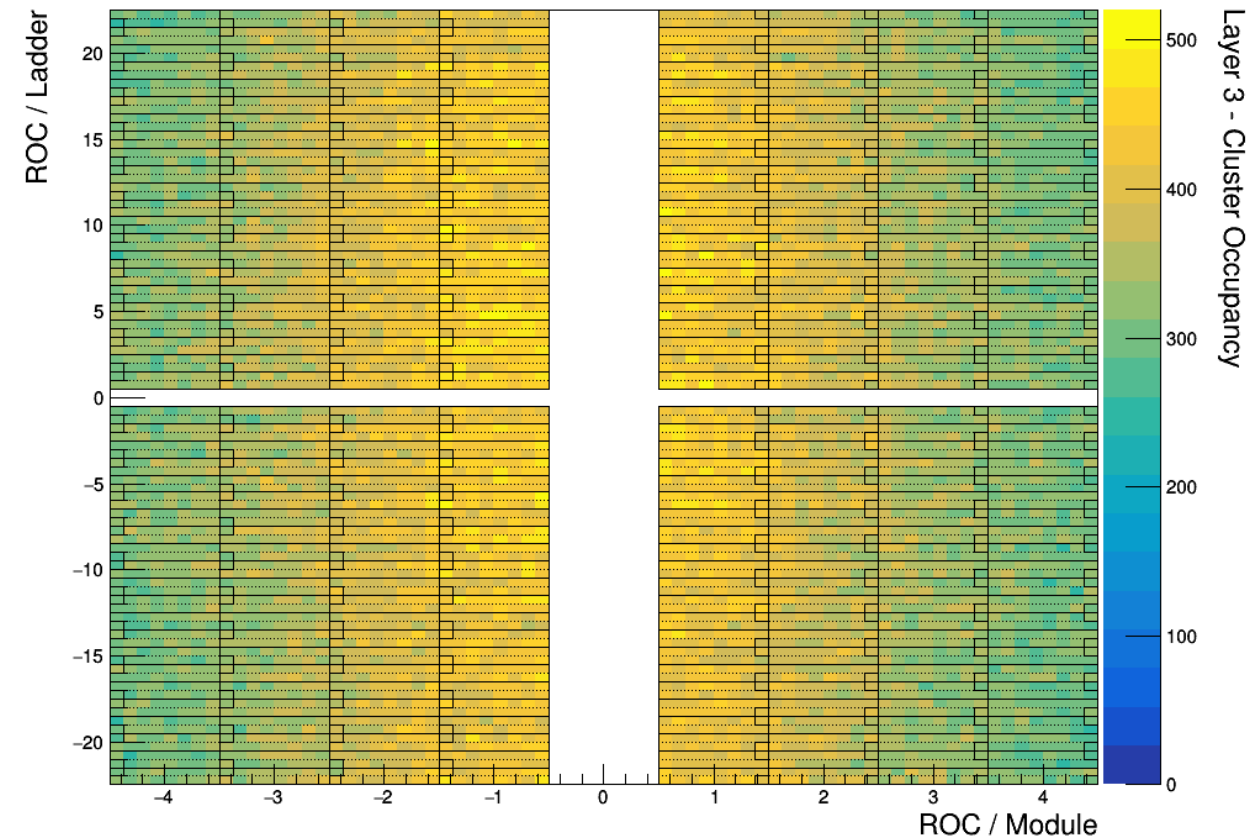
Bml Disk1 ROG3 HV2
(Ring 1
Blade 6-7-8 Panel 1-2),
BpO Disk2 ROG1 HV1
(Ring 2
Blade 10-11-12-13
Panel 1-2)

Scenario 4: 1 BPix + 1 FPix FED out

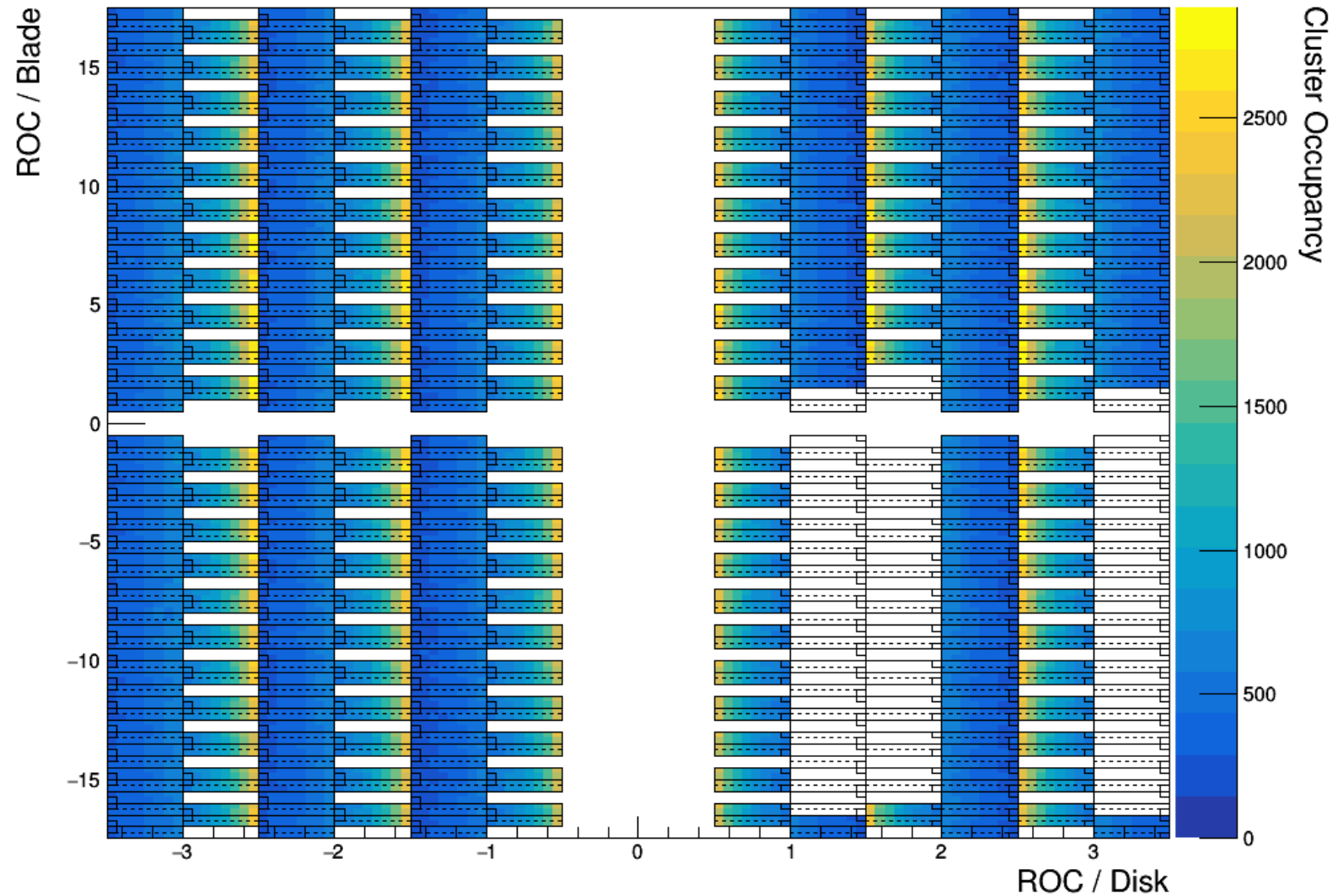


FED 1202 is out

Scenario 4: 1 BPix + 1 FPix FED out



Scenario 4: 1 BPix + 1 FPix FED out



FED 1295 is out