

Status Report on Pixel DB Conditions

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25 ns Collision Run Conditions

- ▶ Pixel Detector calibrations were carried out during the TS2
- ▶ **New Bad Module list**
 - ▶ Twiki:
<https://twiki.cern.ch/twiki/bin/viewauth/CMS/SiPixelQualityHistory>
- ▶ **Lorentz Angle was measured**
 - ▶ Twiki:
<https://twiki.cern.ch/twiki/bin/view/CMS/SiPixelLorentzAngleHistory>
- ▶ **New Templates, GenErrors**
 - ▶ Twiki:
<https://twiki.cern.ch/twiki/bin/view/CMS/SiPixelTemplateHistory>
 - ▶ Twiki:
<https://twiki.cern.ch/twiki/bin/viewauth/CMS/SiPixelGenErrorHistory>
- ▶ **Gain calibration**
 - ▶ Twiki:
<https://twiki.cern.ch/twiki/bin/view/CMS/SiPixelGainHistory>

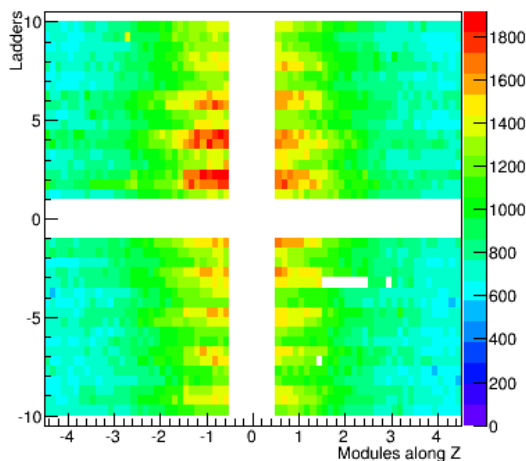
SiPixelQuality - tags

- ▶ Record: **SiPixelQualityFromDbRcd**
- ▶ Tag: **SiPixelQuality_v03_dup_hlt**
 - ▶ For HLT
 - ▶ FastTrack validation needed
- ▶ Tag: **SiPixelQuality_v5_hltvalidation**
 - ▶ Uploaded to ProdDB on 2015-09-04

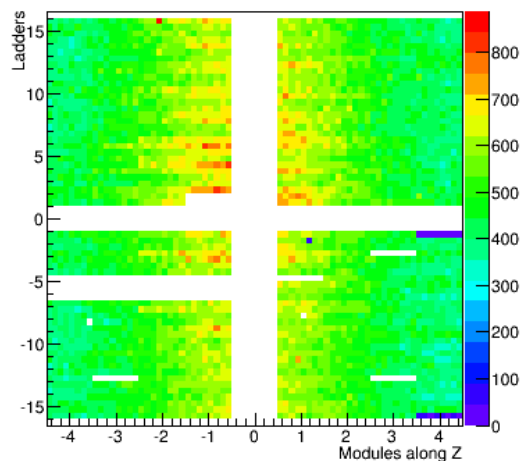
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light

SiPixelQuality – data map

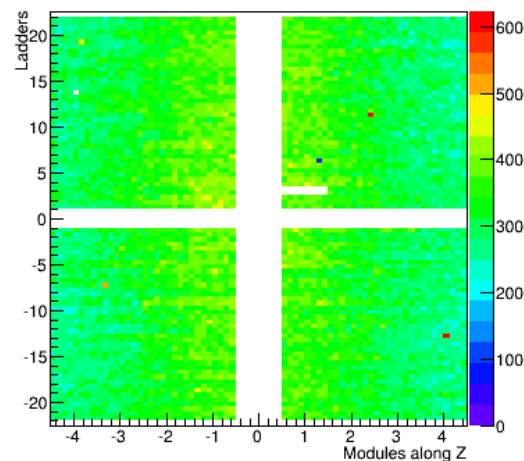
Layer 1



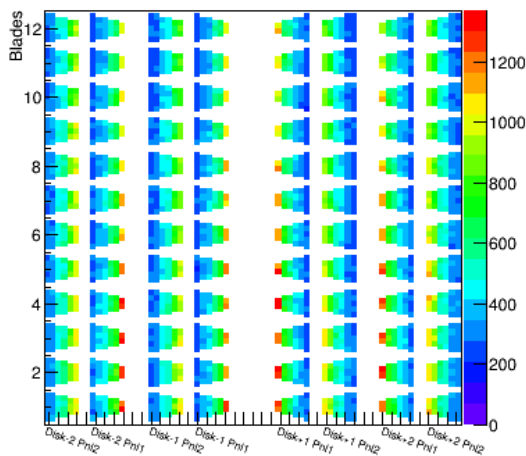
Layer 2



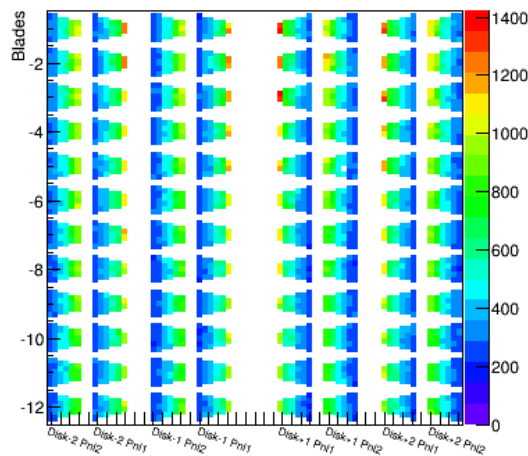
Layer 3



FPix Inner Shells (+x)



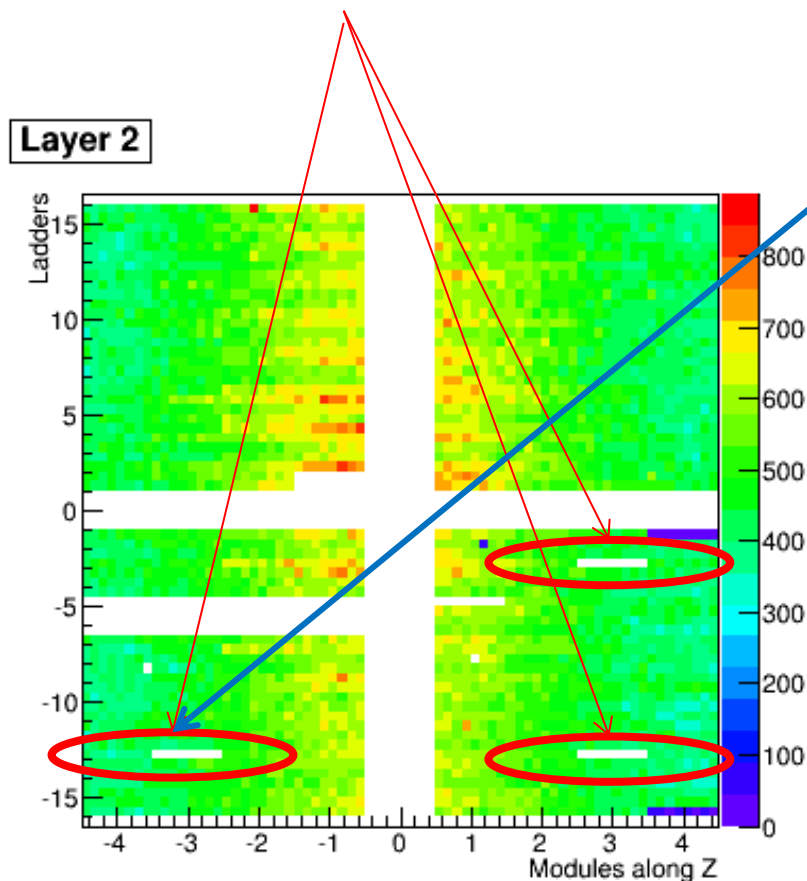
FPix Outer Shells (-X)



Run: 254790

SiPixelQuality – data map

► New bad modules



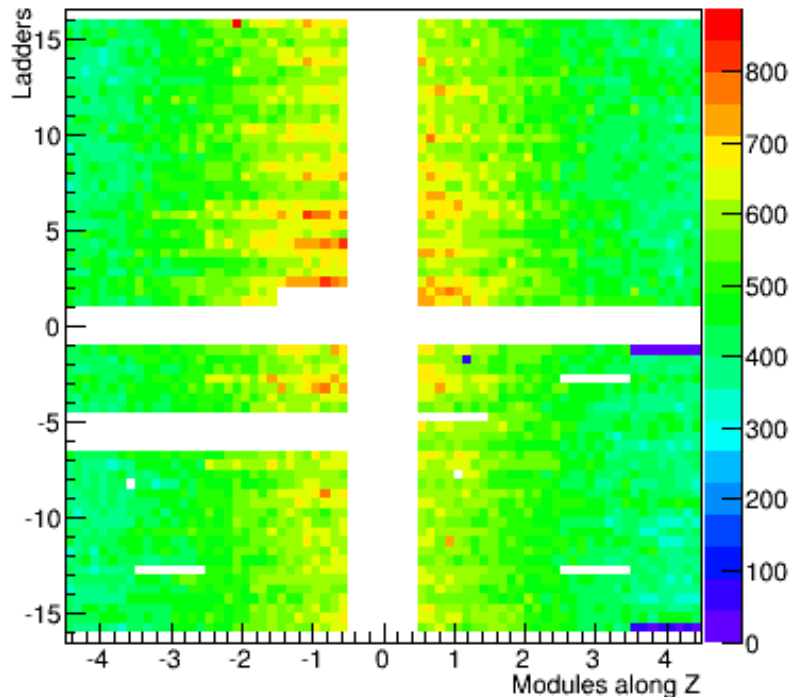
► New bad ROCs

- #BPix_BpO_LYR2_LDR8F_MOD1 (ROC3)
- #BPix_BmO_LYR2_LDR8F_MOD4 (ROC7)
- #BPix_BmI_LYR3_LDR14F_MOD4 (ROC11)
- #BPix_BpI_LYR3_LDR6F_MOD1 (ROC14)

SiPixelQuality – comparison

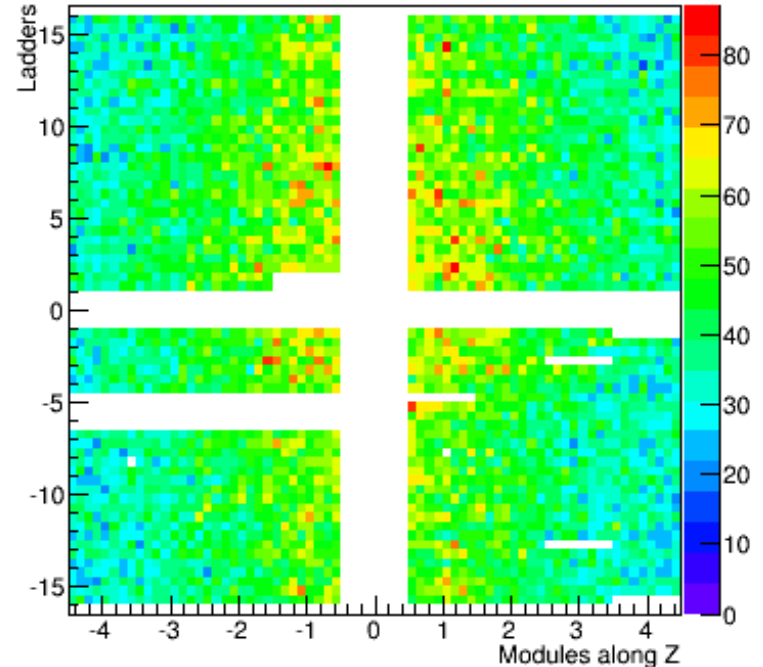
► Data

Layer 2



► Validation from MC

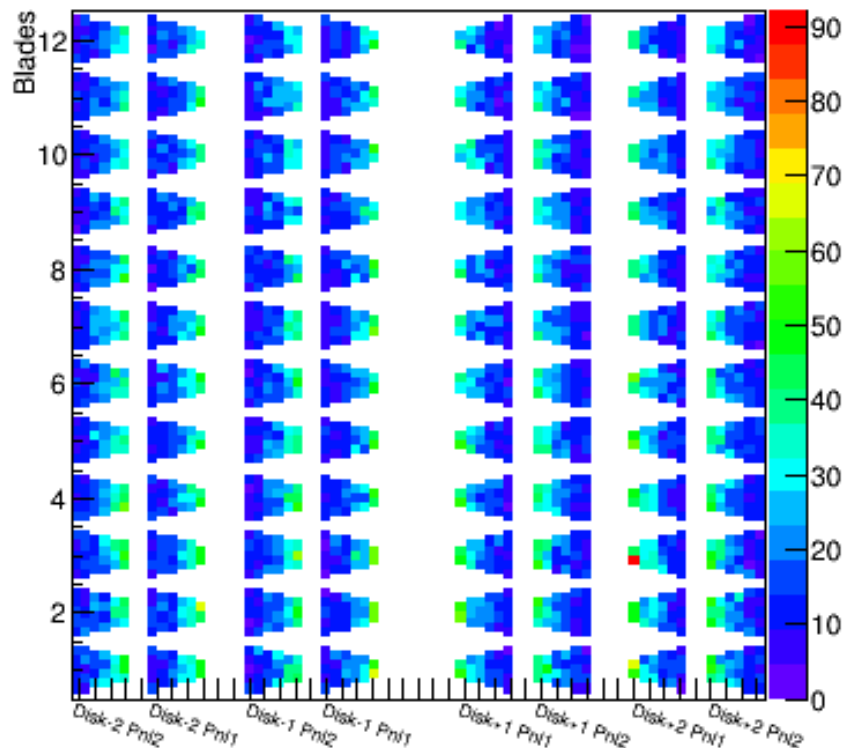
Layer 2



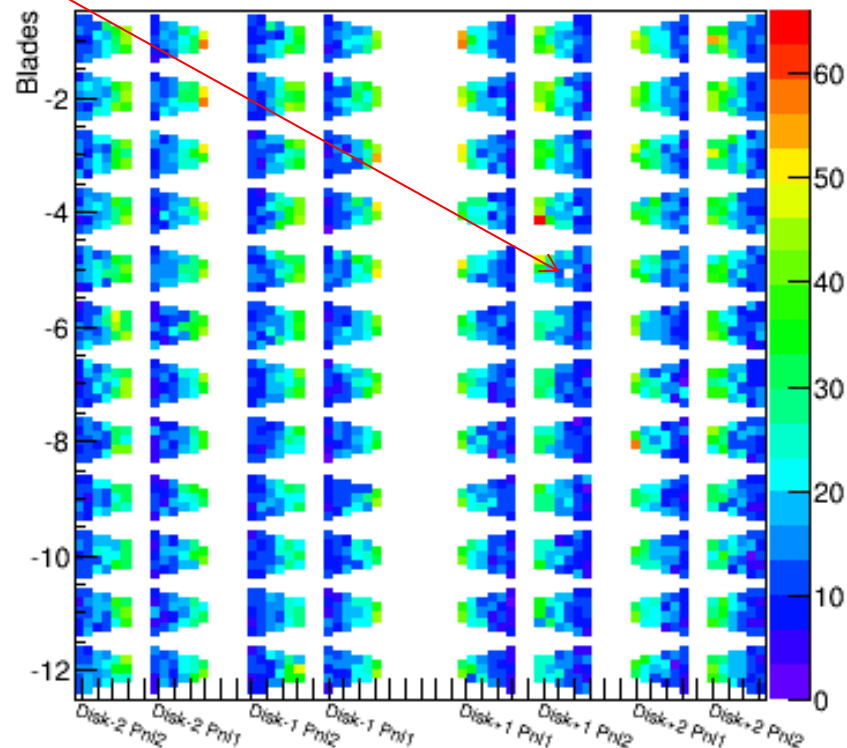
SiPixelQuality – data map

- FPix is OK, only 1 ROC is bad – included in DB

FPix Inner Shells (+x)



FPix Outer Shells (-X)



SiPixelLorentzAngle - tags

- ▶ Record: **SiPixelLorentzAngleRcd**
- ▶ Tag: **SiPixelLorentzAngle_2015_v3**
 - ▶ Uploaded to PrepDB on 2015-09-02
- ▶ Tag: **SiPixelLorentzAngle_2009_v1_[express,hlt,offline]**
 - ▶ Validation is needed
 - ▶ Accidentally uploaded to ProdDB on 2015-09-04
 - ▶ From Run 255731
- ▶ Tag: **SiPixelLorentzAngle_2015_v3_hltvalidation**
 - ▶ Uploaded to ProdDB on 2015-09-04

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SiPixelGenError - tags

- ▶ Record: **SiPixelGenErrorDBObjectRcd**
- ▶ Tag: **SiPixelGenErrorDBObject_38T_2015_v3**
 - ▶ Uploaded to PrepDB on 2015-09-02
- ▶ Tag: **SiPixelGenErrorDBObject_38T_v2 _[express, hlt]**
 - ▶ Validation is needed
- ▶ Tag: **SiPixelGenErrorDBObject_38T_2015_v3_hltvalidation**
 - ▶ Uploaded to ProdDB on 2015-09-04

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SiPixelTemplate - tags

- ▶ Record: **SiPixelTemplateDBObjectRcd**
 - ▶ Tag: **SiPixelTemplateDBObject_38T_2015_v3**
 - ▶ Uploaded to PrepDB on 2015-09-02
 - ▶ Tag: **SiPixelTemplateDBObject38Tv2 _[express, hlt]**
 - ▶ Validation is needed
 - ▶ Tag: **SiPixelTemplateDBObject_38T_2015_v3_hltvalidation**
 - ▶ Uploaded to ProdDB on 2015-09-04
- Waiting for green light

SiPixelGainCalibration - tags

- ▶ Record: **SiPixelGainCalibrationForHLTRcd**
- ▶ Description:
 - ▶ ...HLT... - gains/pedestals are per column,
 - ▶ ...Offline... - gains are per column, pedestals are per pixel
- ▶ Tag: **SiPixelGainCalibrationHLT_2009runs_[hlt,express]**
- ▶ Tag: **SiPixelGainCalibration_2009runs_[hlt,express]**
 - ▶ Validation is needed
- ▶ Tag: **SiPixelGainCalibration_2015_v3_hltvalidation**
 - ▶ Uploaded to ProdDB on 2015-09-05

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