

# DQM Report for run number 4

pysimdamicm.dqm.dqm\_manager

June 1, 2022

Data directory:

/data/calidaq\_backup/PhotoNeutron/DataTaking/SbA1/Run\_4

Output directory:

/data/chicago/PhotoNeutronData/WADERS/DataTaking/DQM/SbA1

Reference used:

None

Total images: 13

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Active Area. Median dark current (only  $q_{i,j} < q_i^{th}$ ) vs row  
 [class MEMeanDCperRow]

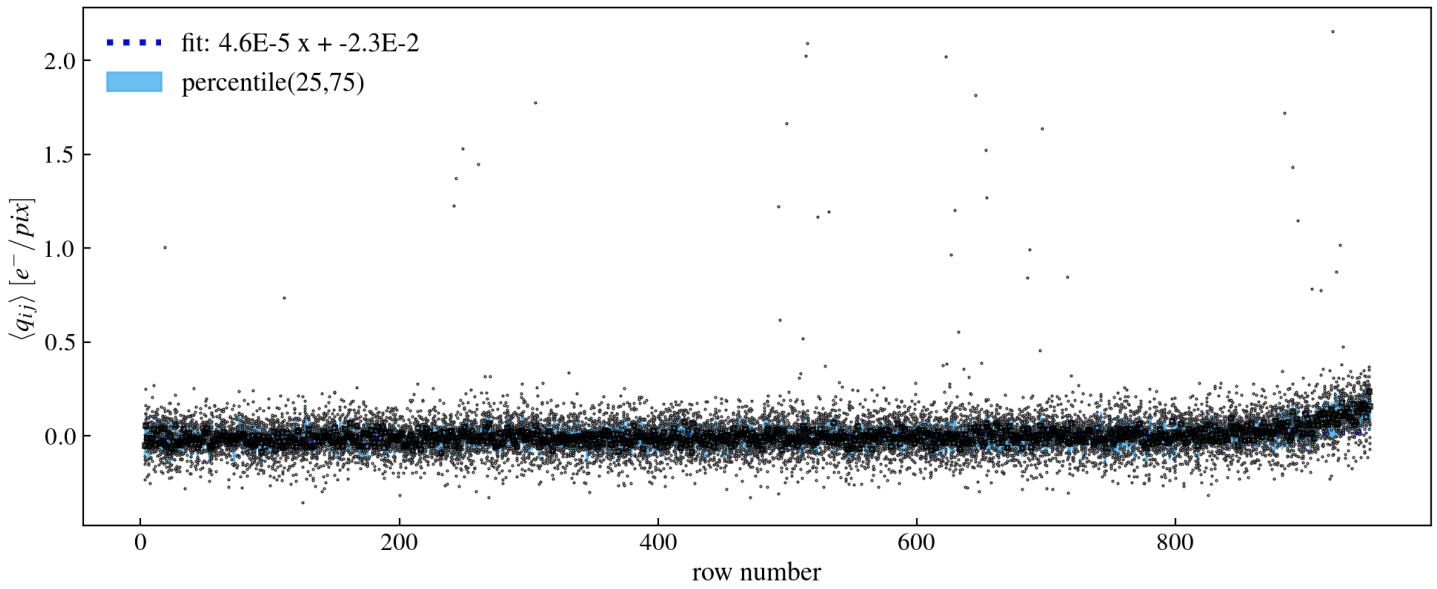


Figure 1: Active Area. Median dark current (only  $q_{i,j} < q_i^{th}$ ) vs row

Slope DC fit (from MEMeanDCperRow) vs file  
 [class MEDCSlope]

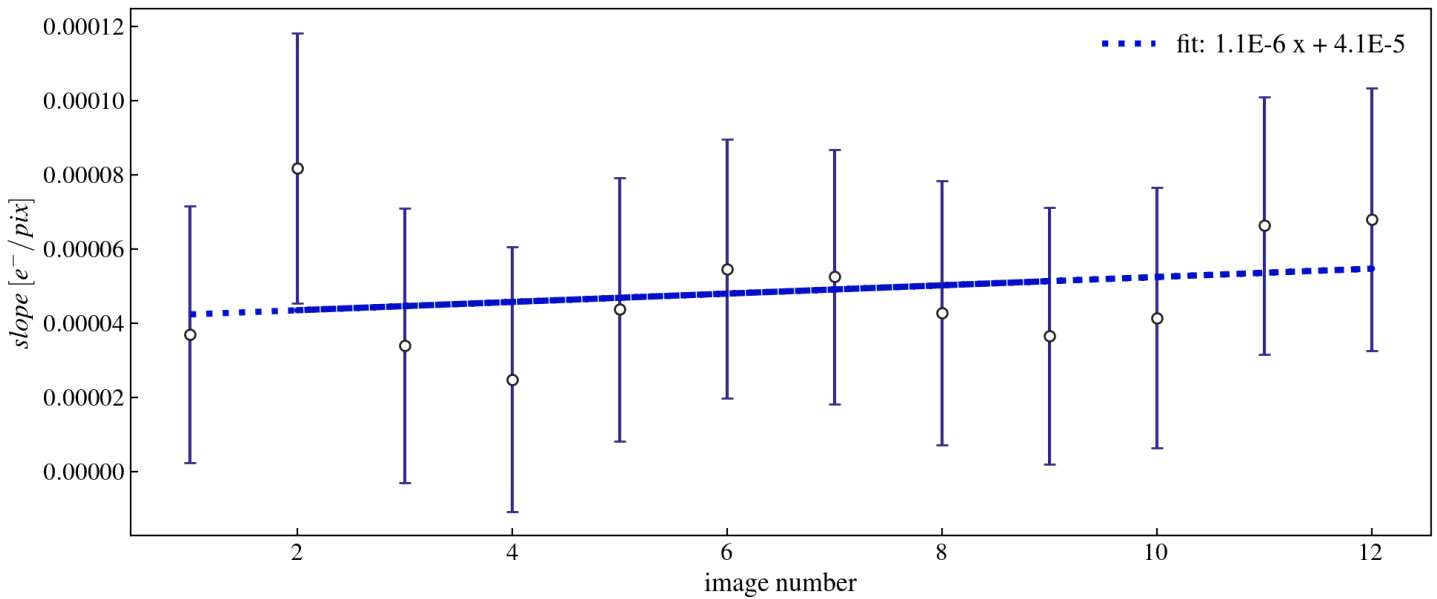


Figure 2: Slope DC fit (from MEMeanDCperRow) vs file

Intercept DC fit (from MEMeanDCperRow) vs file  
[class MEDCintercept]

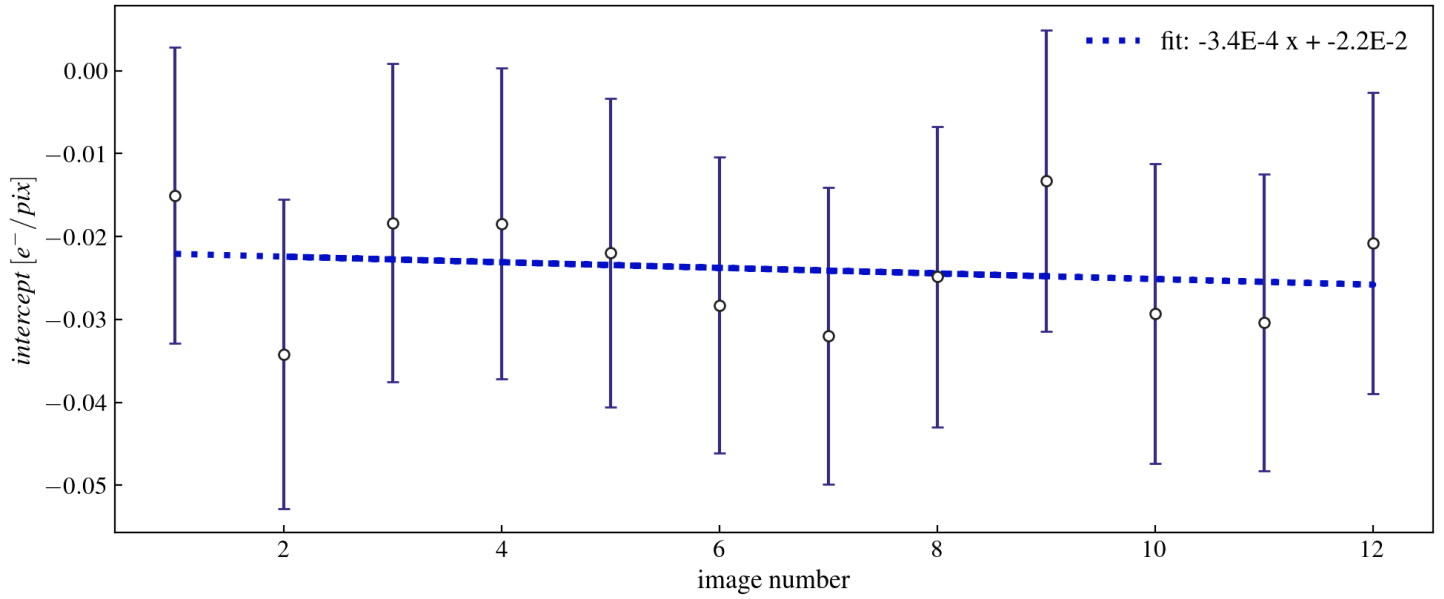


Figure 3: Intercept DC fit (from MEMeanDCperRow) vs file

Active area. Baseline vs row  
[class MESensorMedianperRow]

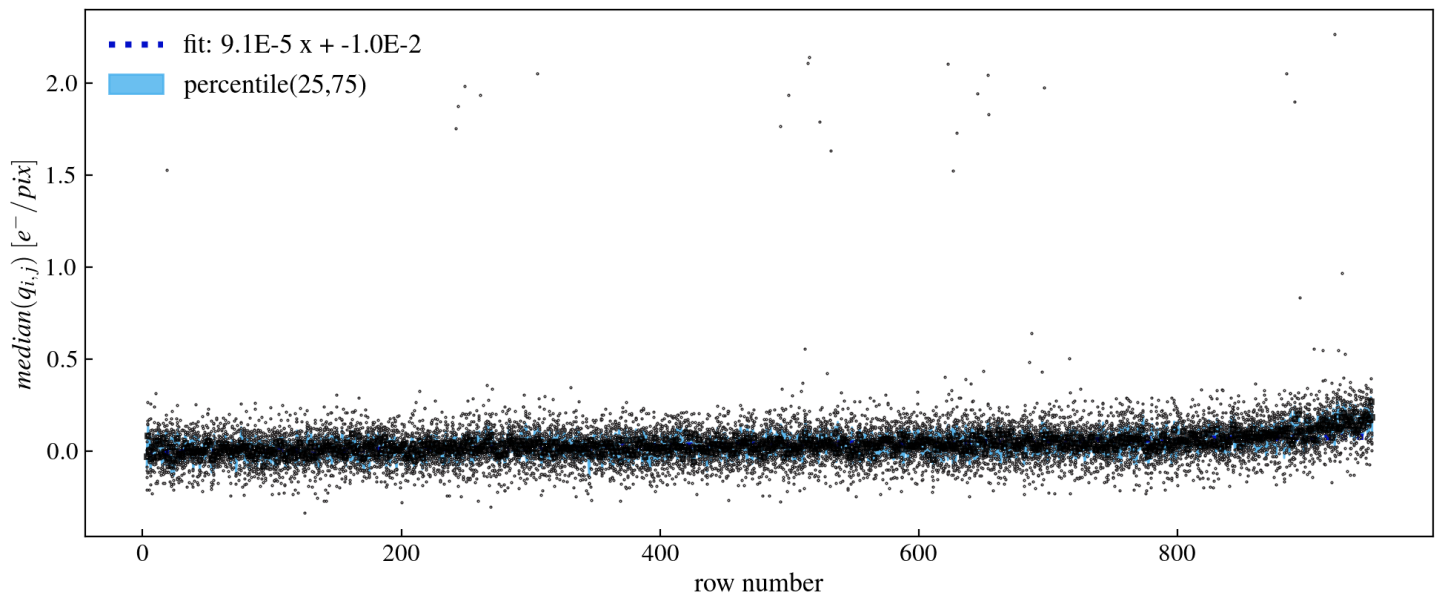


Figure 4: Active area. Baseline vs row

Active area. MAD vs row  
[class MESensorMADperRow]

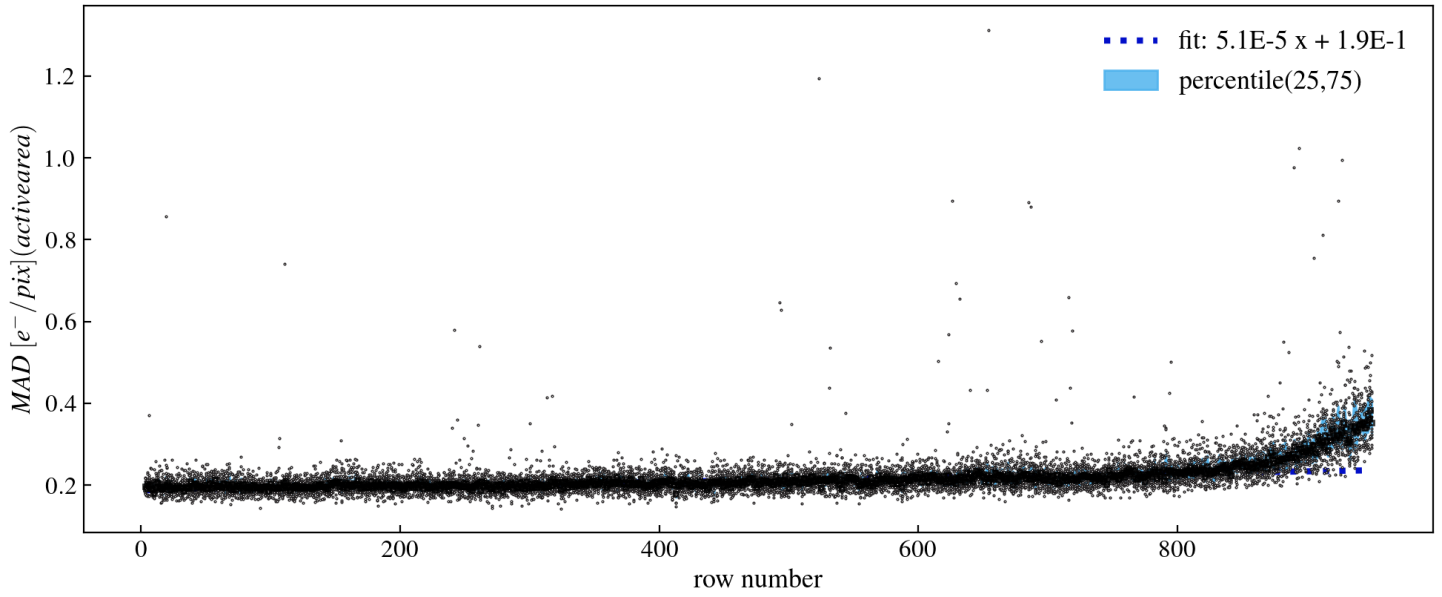


Figure 5: Active area. MAD vs row

Full Image. Baseline vs column  
[class MEImageMedianperCol]

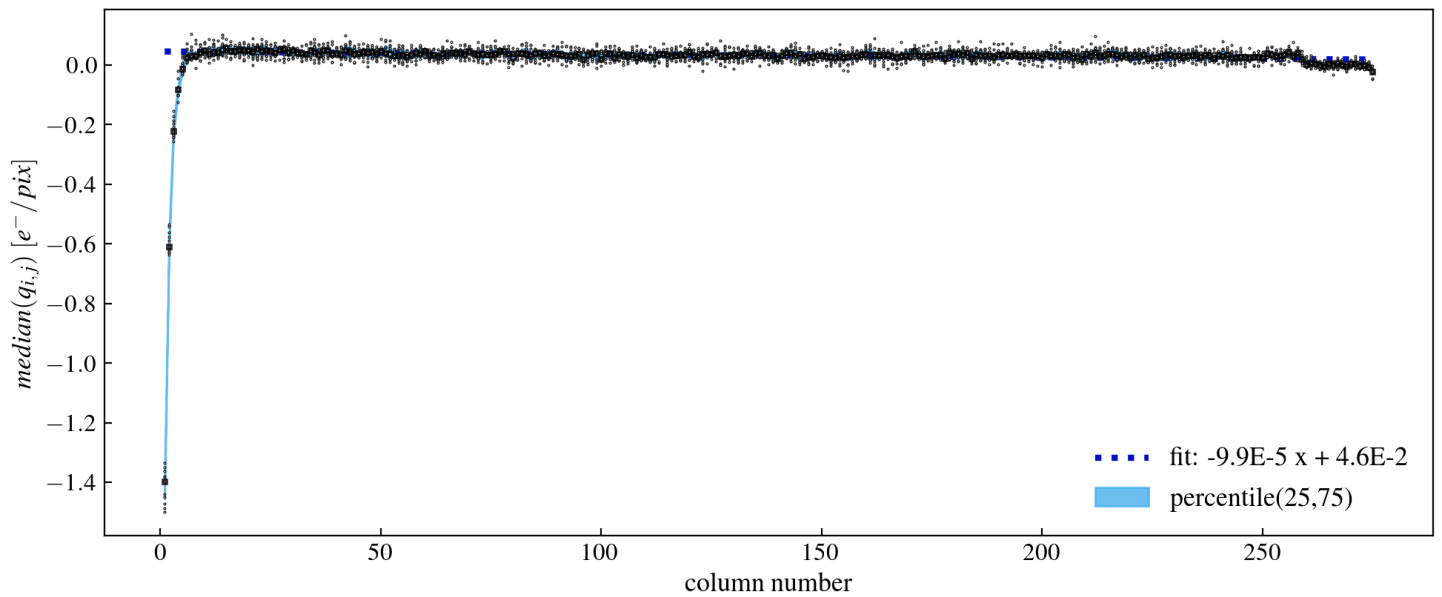


Figure 6: Full Image. Baseline vs column

Full Image. MAD vs column  
[class MEImageMADperCol]

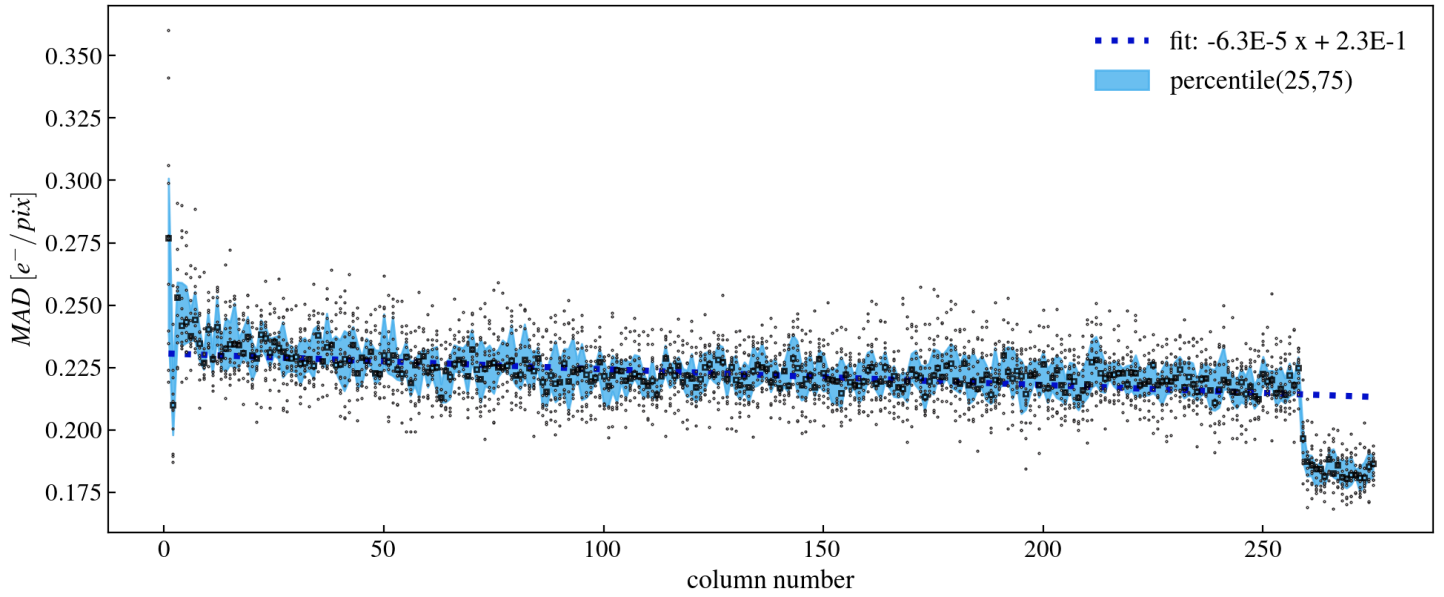


Figure 7: Full Image. MAD vs column

Overscan. Baseline vs row  
[class MEOverscanMedianperRow]

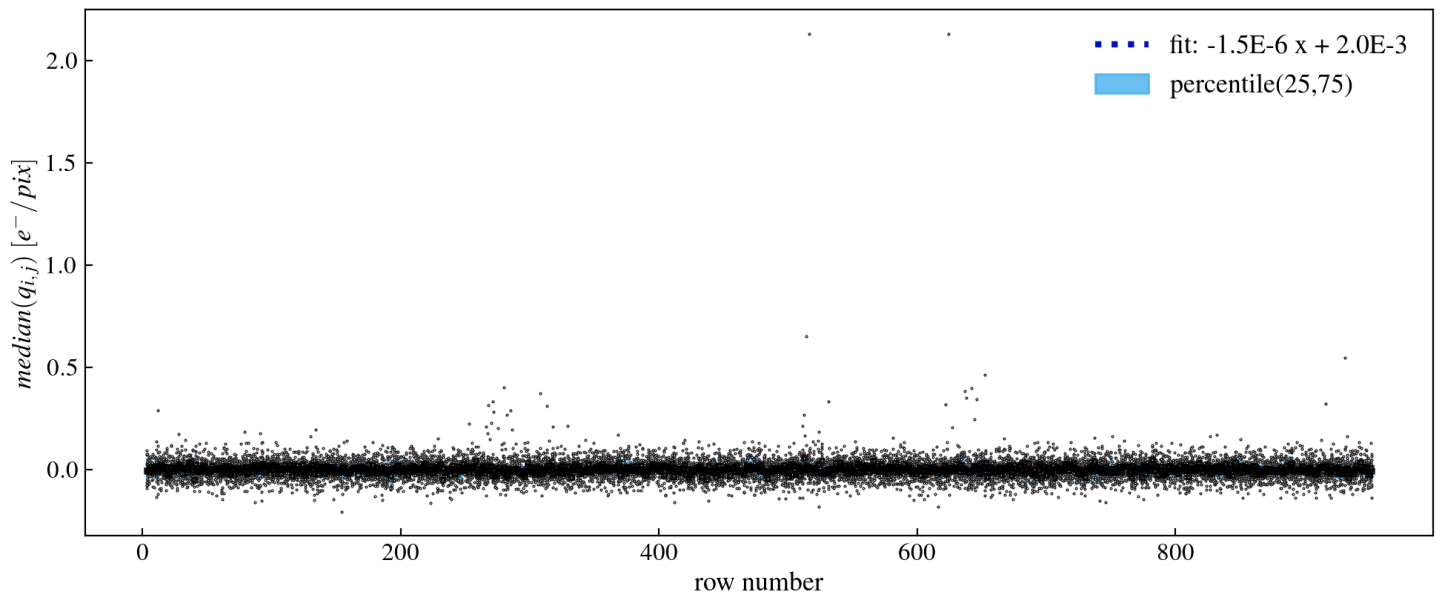


Figure 8: Overscan. Baseline vs row

Overscan. MAD vs row  
[class MEOverscanMADperRow]

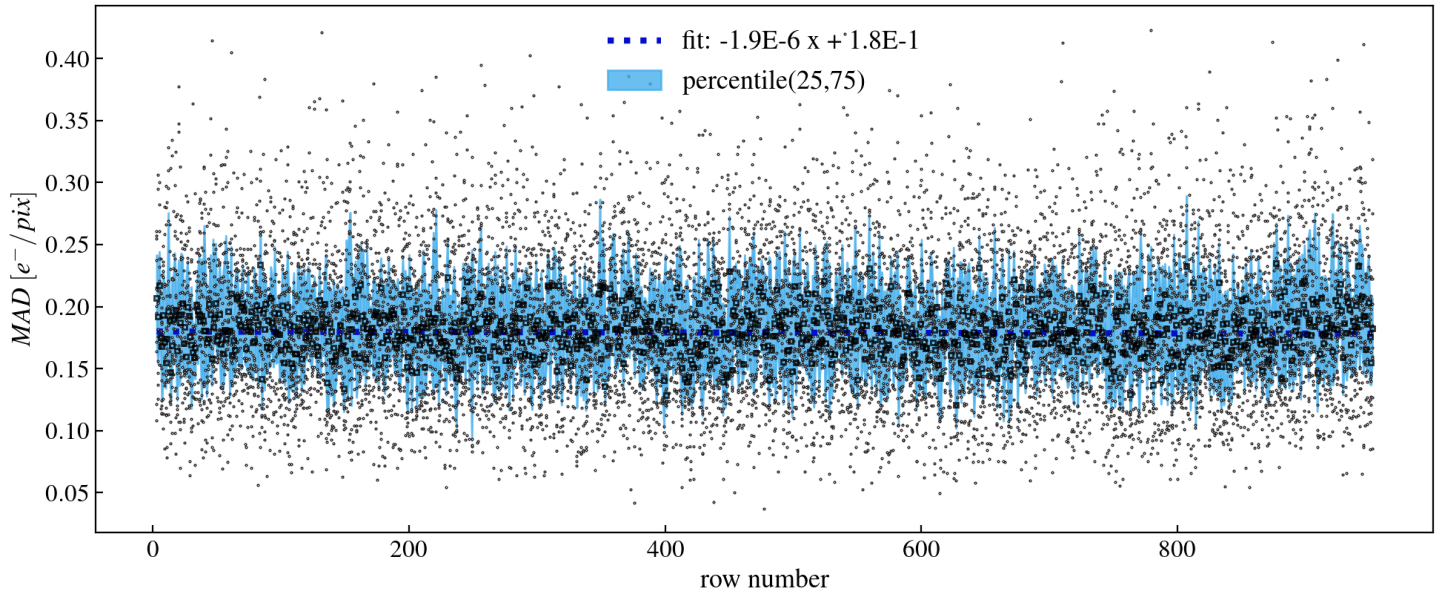


Figure 9: Overscan. MAD vs row

PedestalSubtractionProcess: mean pedestal vs file (gauss fit)  
[class MEMeanPedestalMu]

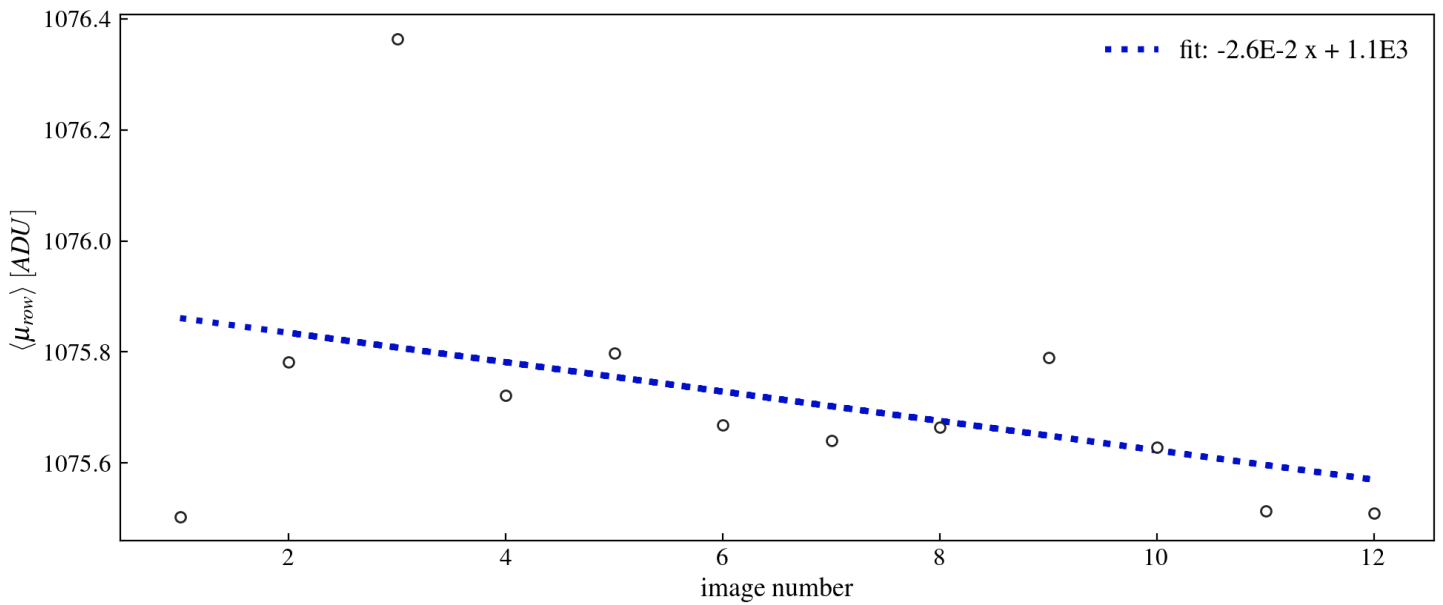


Figure 10: PedestalSubtractionProcess: mean pedestal vs file (gauss fit)

PedestalSubtractionProcess: mean sigma vs file (gauss fit)  
[class MEMeanPedestalSigma]

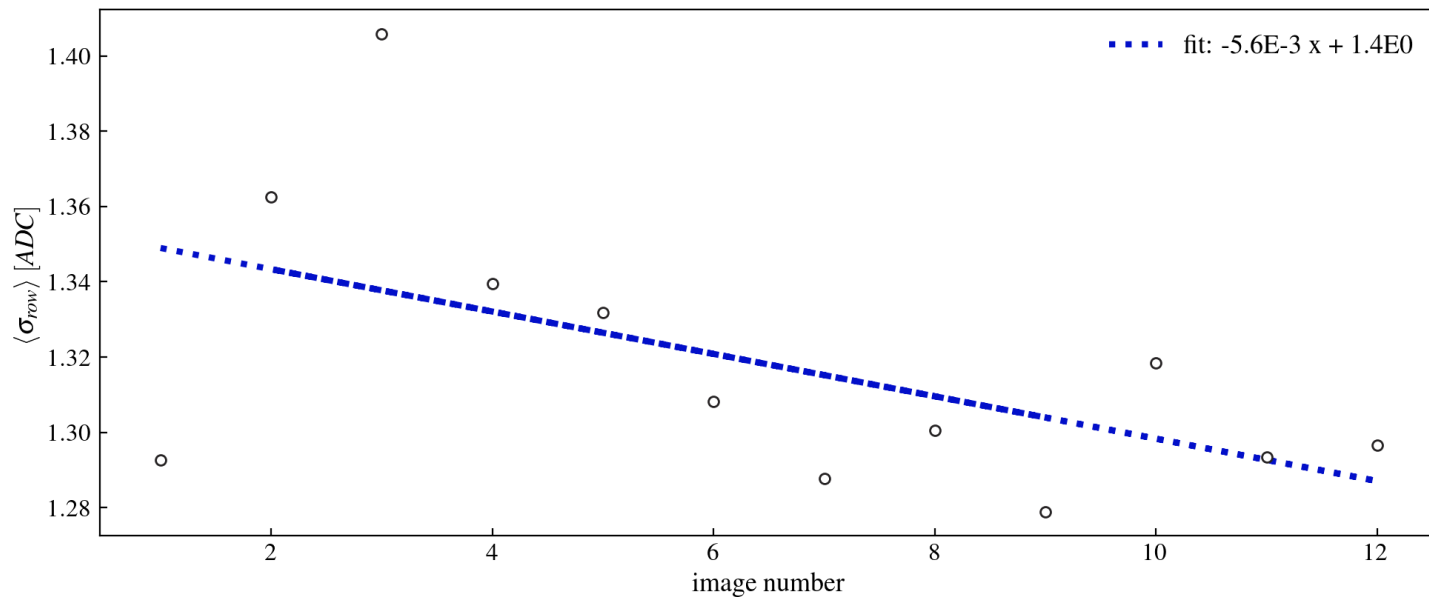


Figure 11: PedestalSubtractionProcess: mean sigma vs file (gauss fit)

PedestalSubtractionProcess: mean pedestal vs file (gauss fit)  
[class MEPedestalMuPerRow]

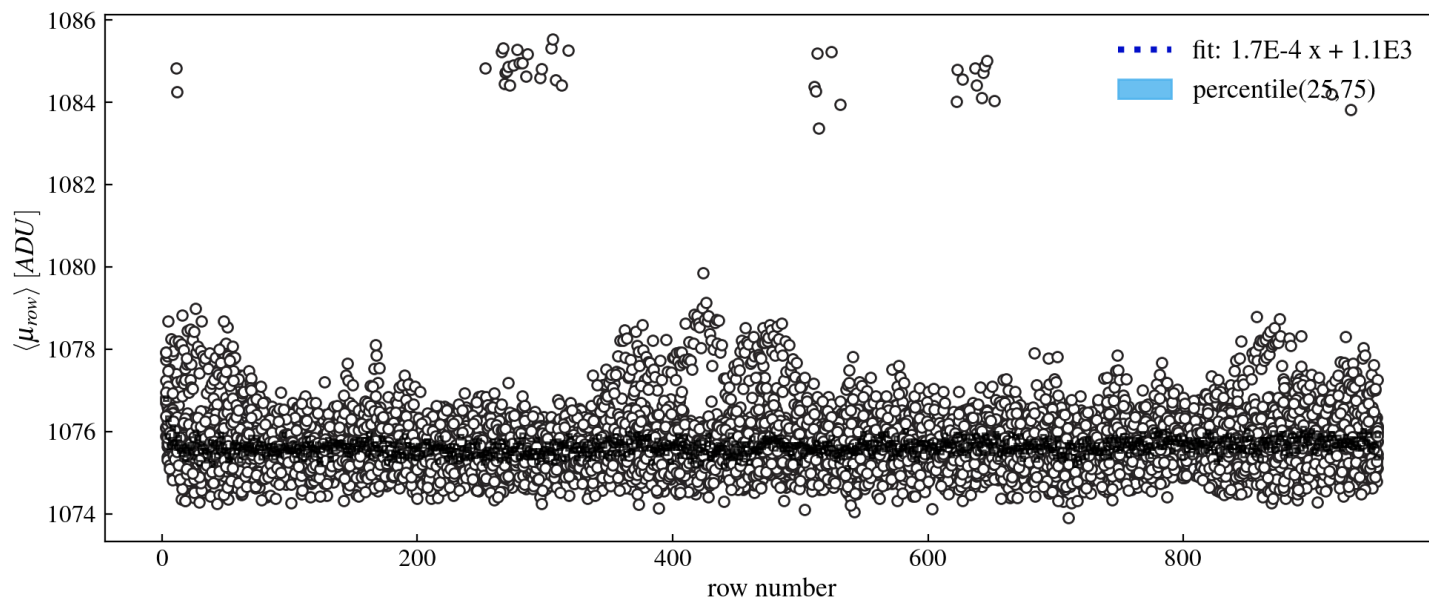


Figure 12: PedestalSubtractionProcess: mean pedestal vs file (gauss fit)



PedestalSubtractionProcess: mean sigma vs file (gauss fit)  
[class MEPedestalSigmaPerRow]

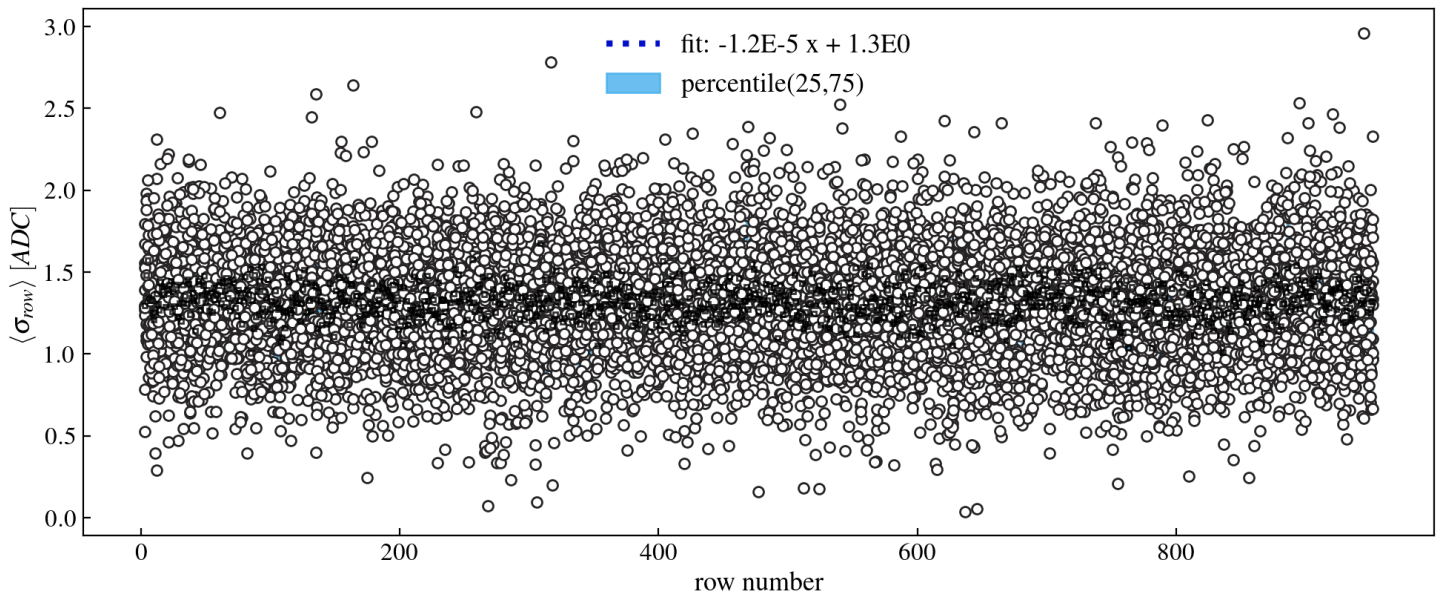


Figure 13: PedestalSubtractionProcess: mean sigma vs file (gauss fit)

Masked pixels [run 4]: frequency  
[class MEMaskedPixels]

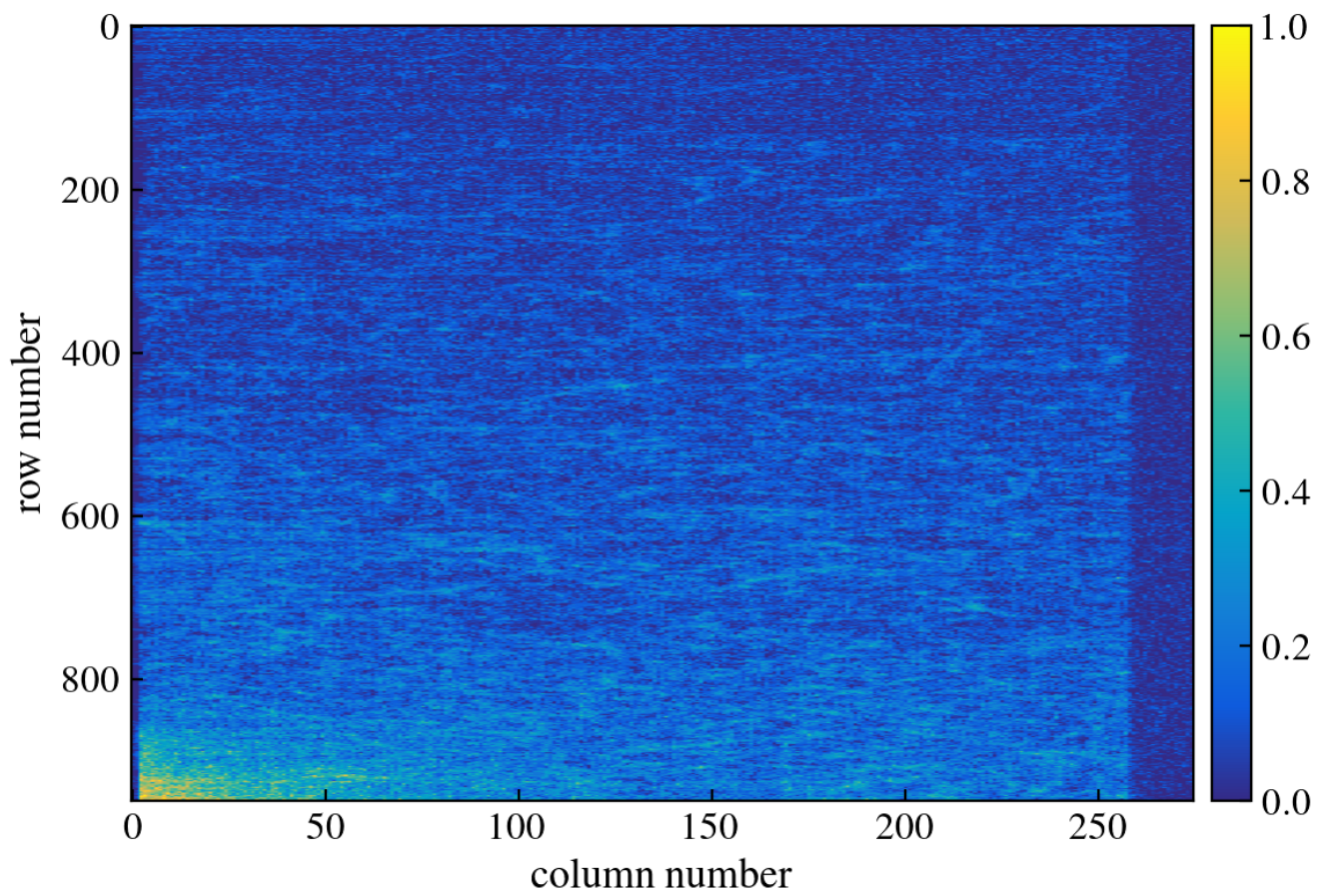


Figure 14: Masked pixels

Masked pixels [run 4]: mask  
[1327] masked pixels  
[class MEMaskedPixels]

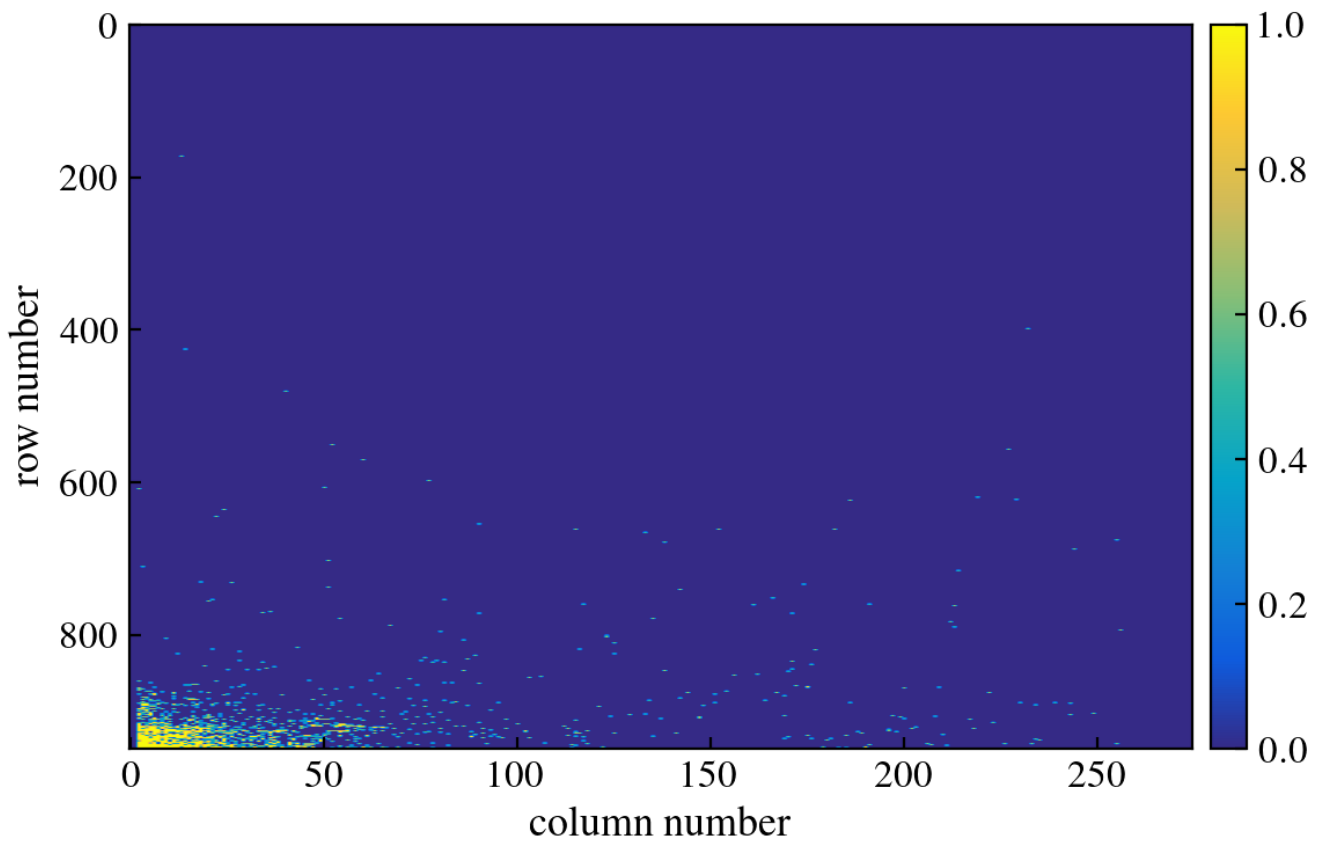


Figure 15: Masked pixels

Single Pixel Energy Distribution [w/ 5.1 ADC/e- and 3.74eV/e-]  
[class MESinglePED]

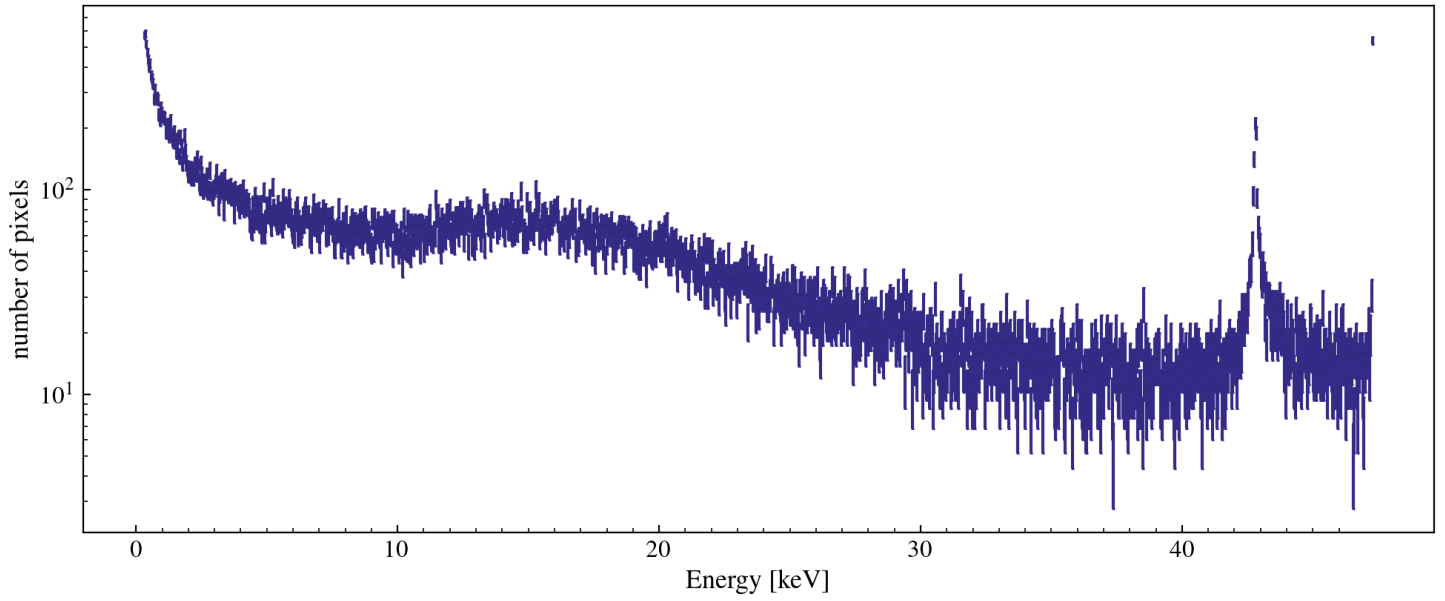


Figure 16: Number of pixels with  $E > 300.0$  eV vs file

Number of pixels with  $E > 300.0$  eV vs file  
[class MESinglePED]

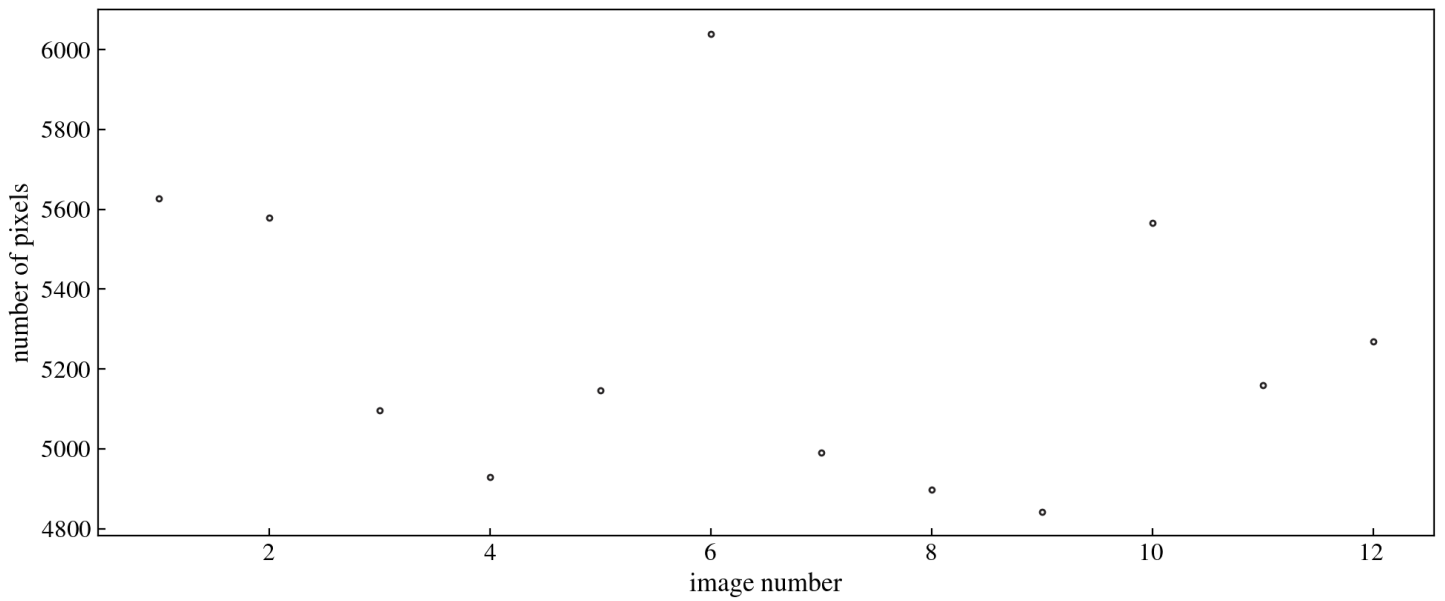


Figure 17: Number of pixels with  $E > 300.0$  eV vs file

## Pixel Charge Distribution

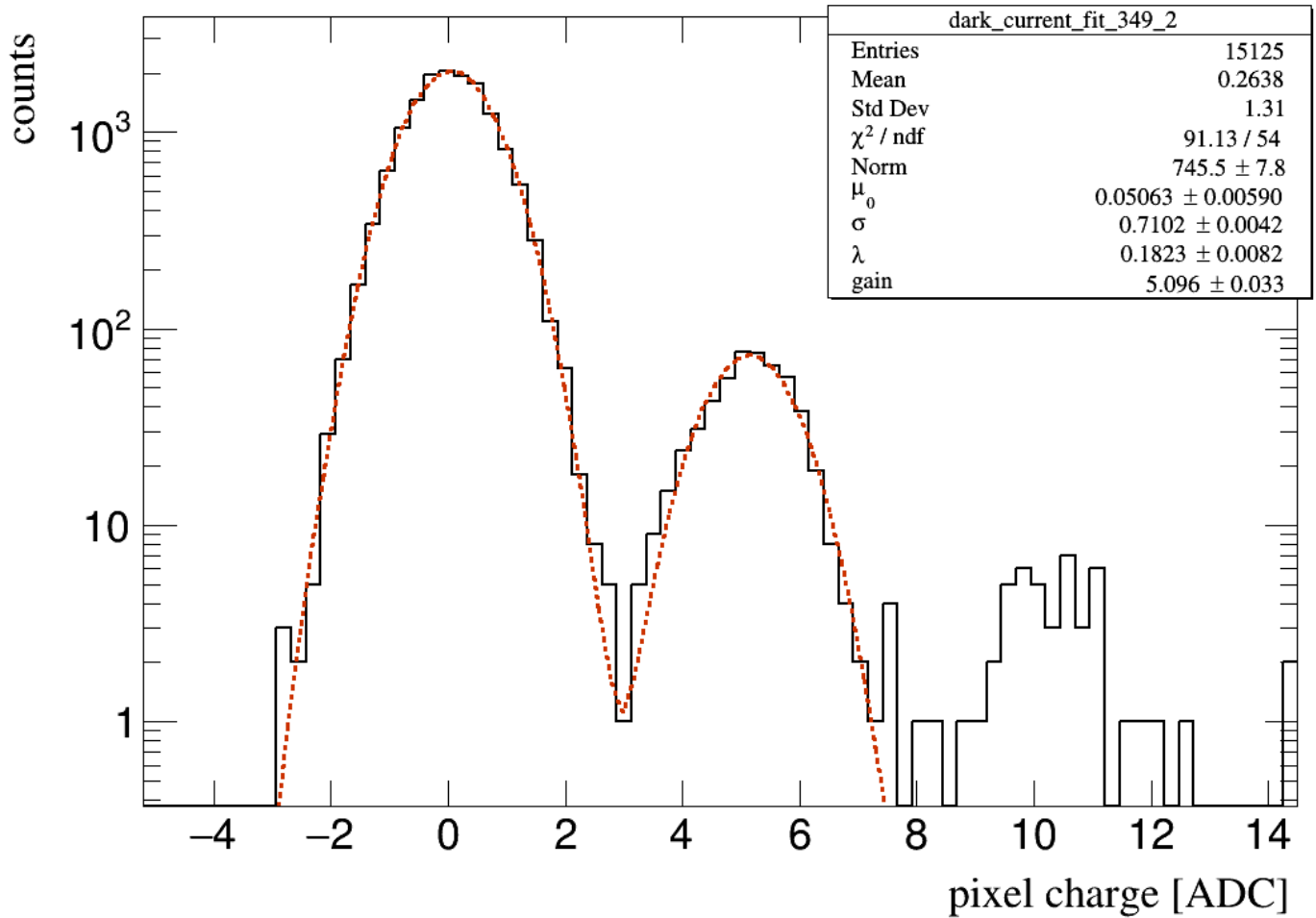


Figure 18: Pixel Charge Distribution

### Image used to Fit DC (HR image)

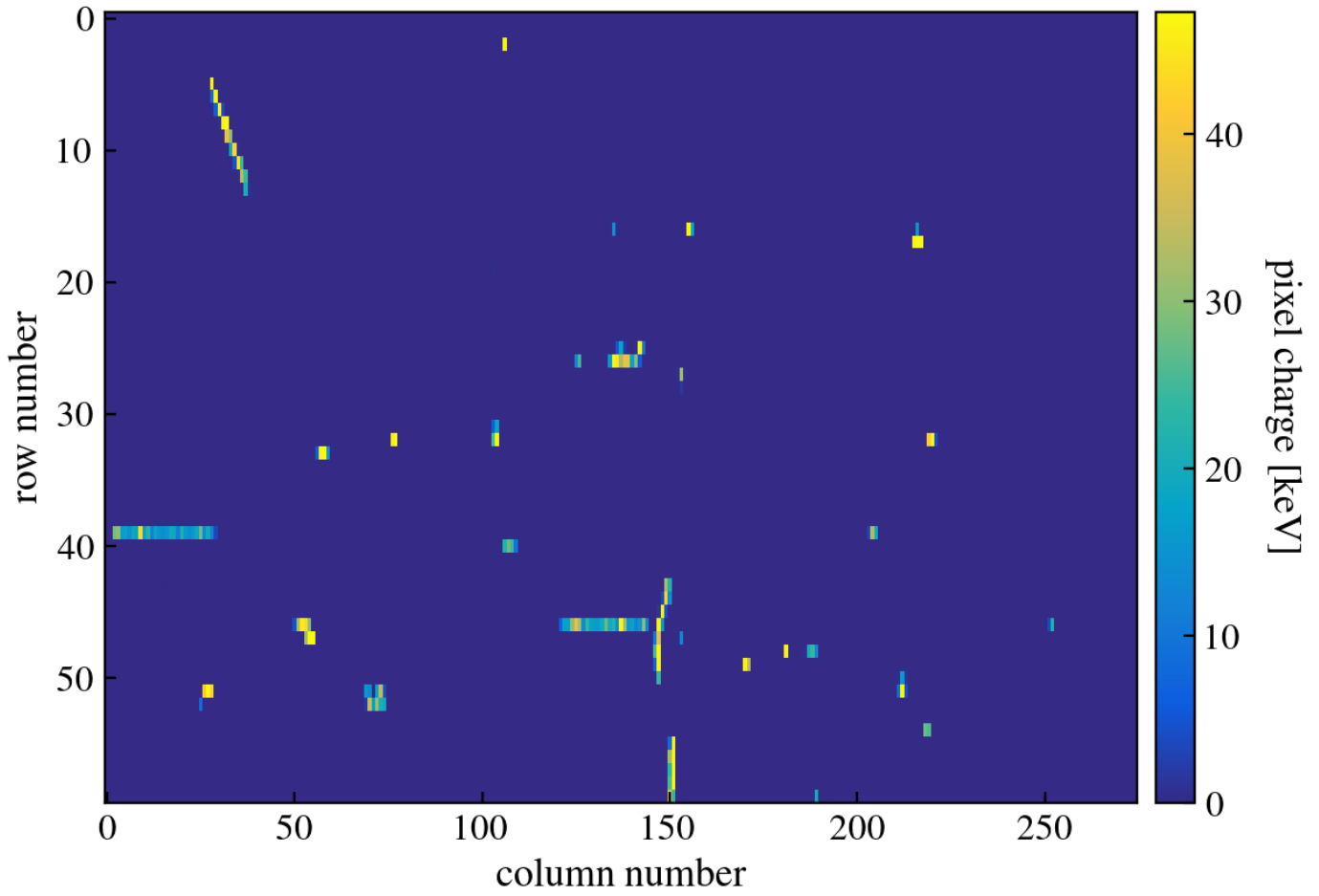


Figure 19: Pixel Charge Distribution

## Pixel Charge Distribution

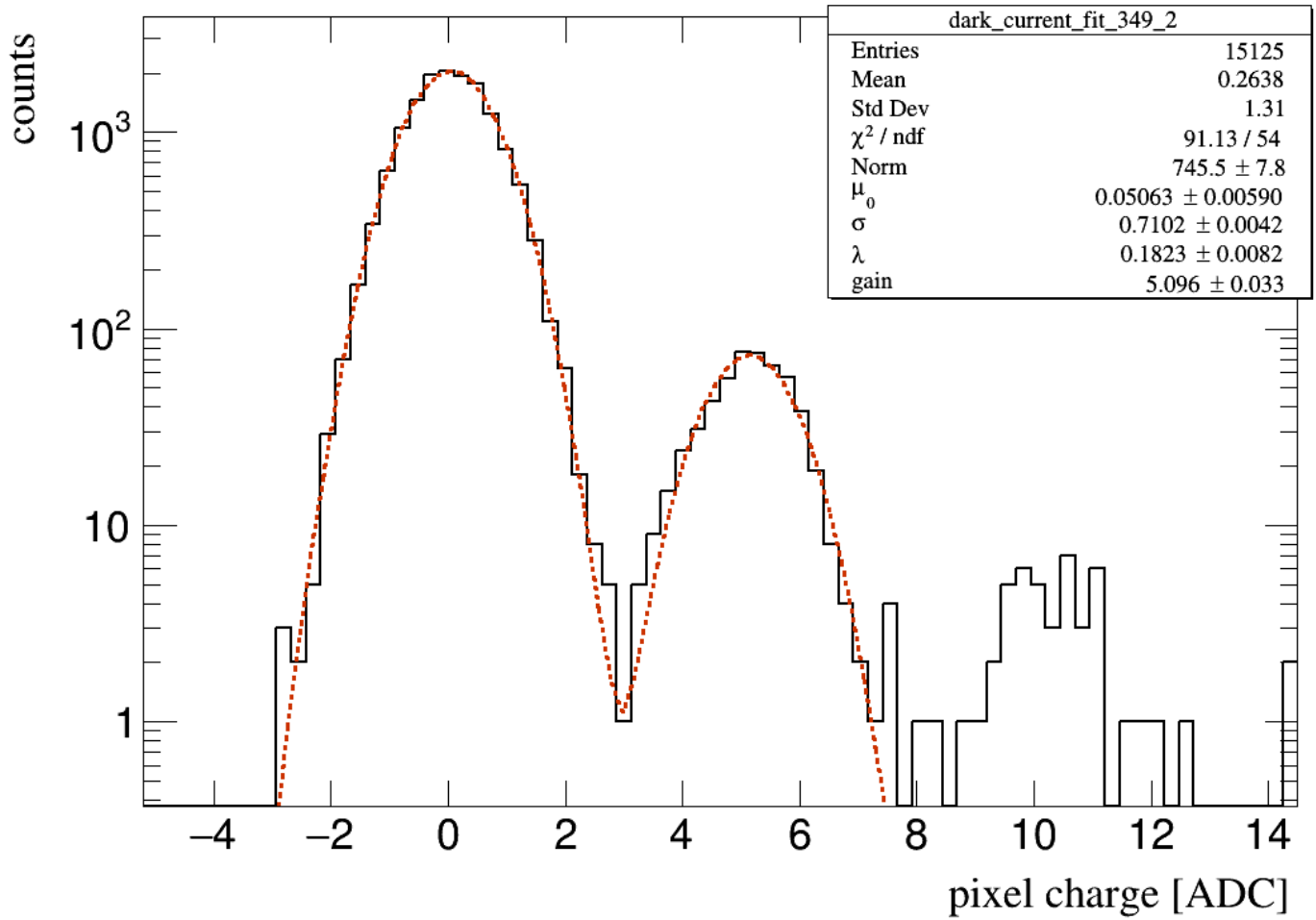


Figure 20: Pixel Charge Distribution

### Image used to Fit DC (HR image)

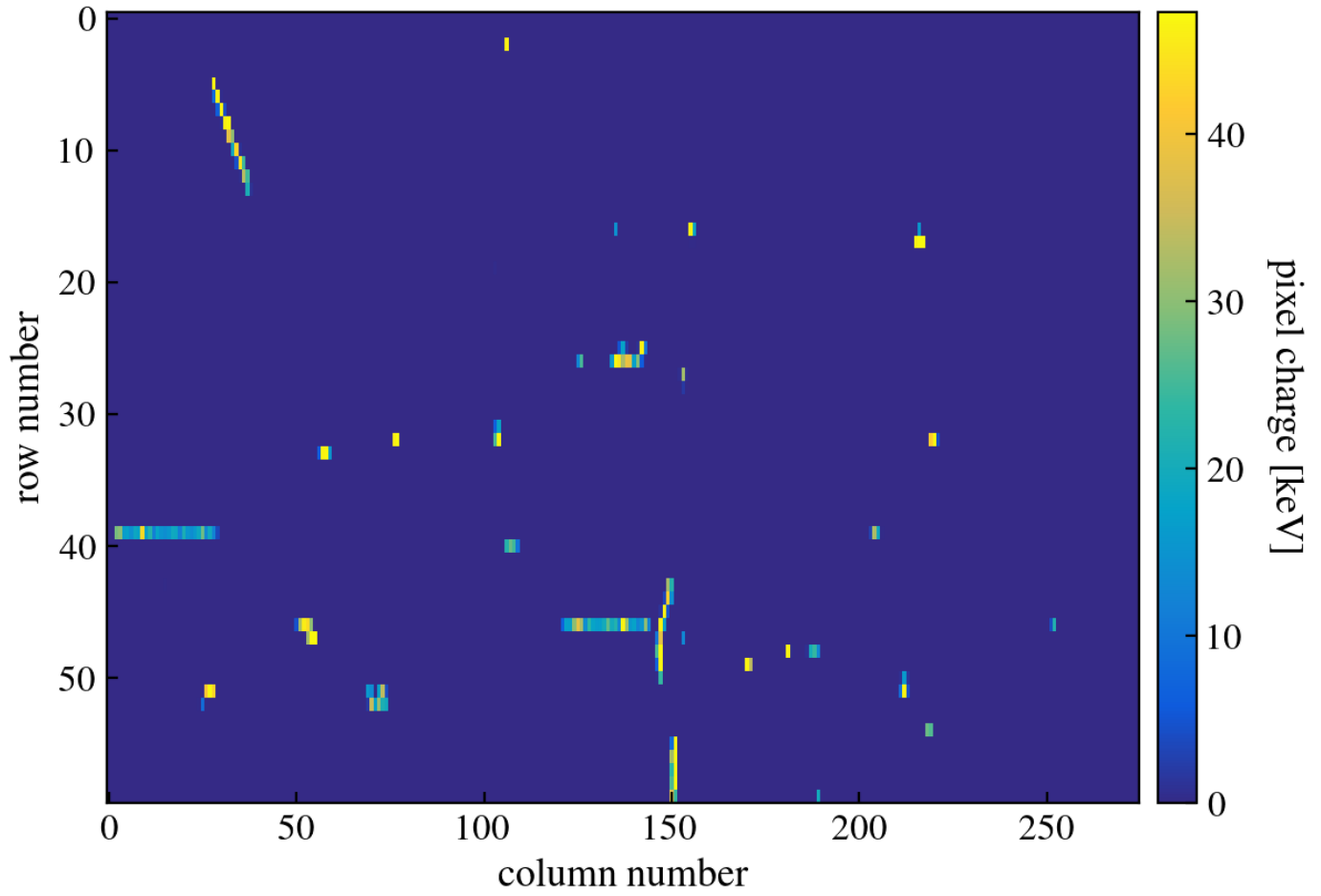


Figure 21: Pixel Charge Distribution



Zero electron peak (from MEFitDC) vs Image  
[class MEFitDCMu0]

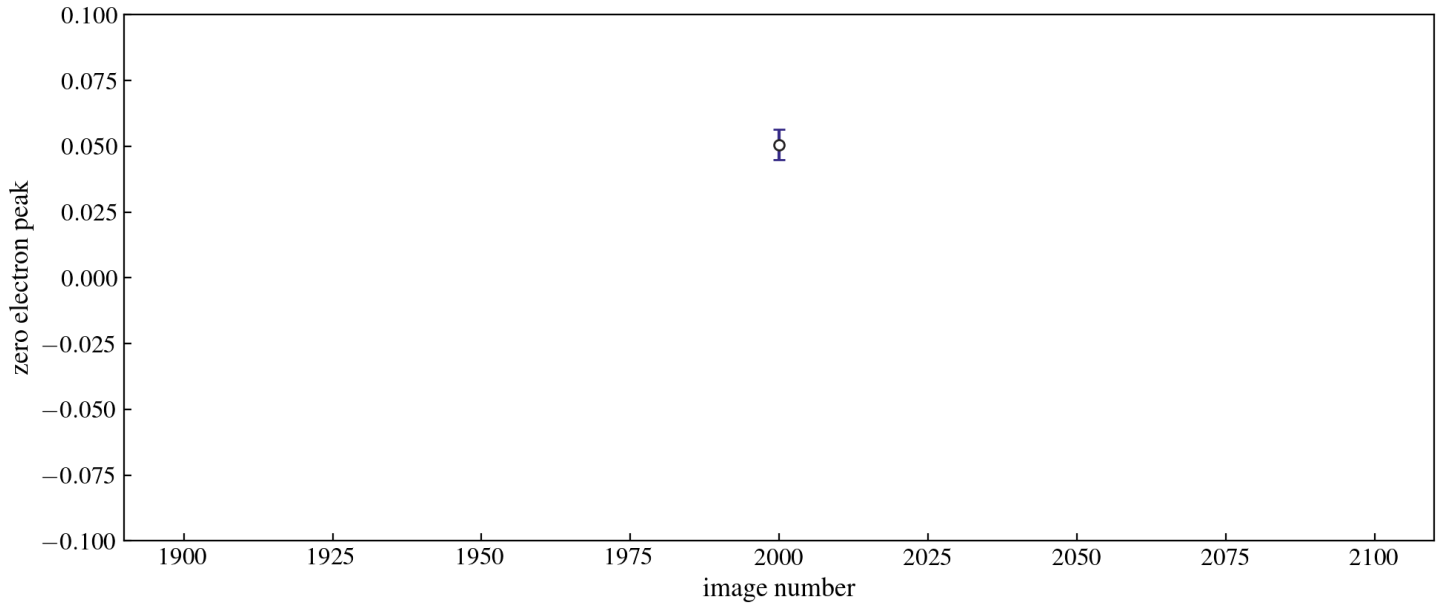


Figure 22: Zero electron peak (from MEFitDC) vs Image

Electron Single Resolution (from MEFitDC) vs Image  
[class MEFitDCSigma]

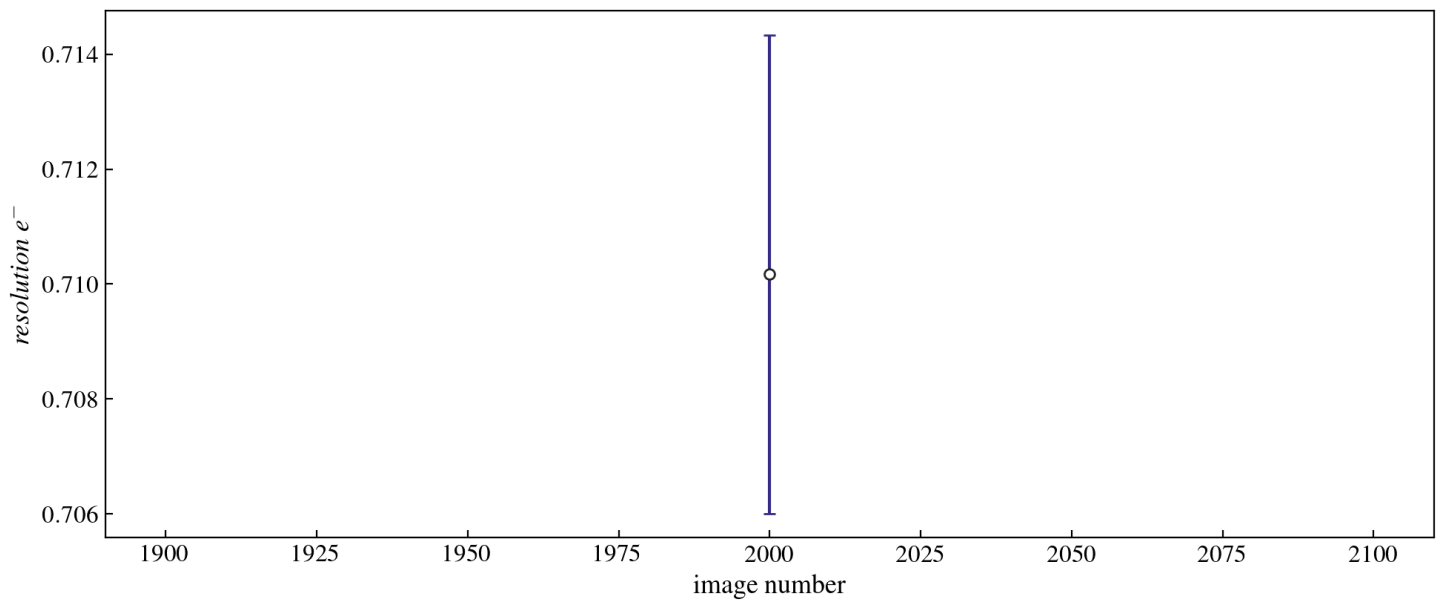


Figure 23: Electron Single Resolution (from MEFitDC) vs Image

Dark current (from MEFitDC per Row) vs Image  
[class MEFitDCLambda]

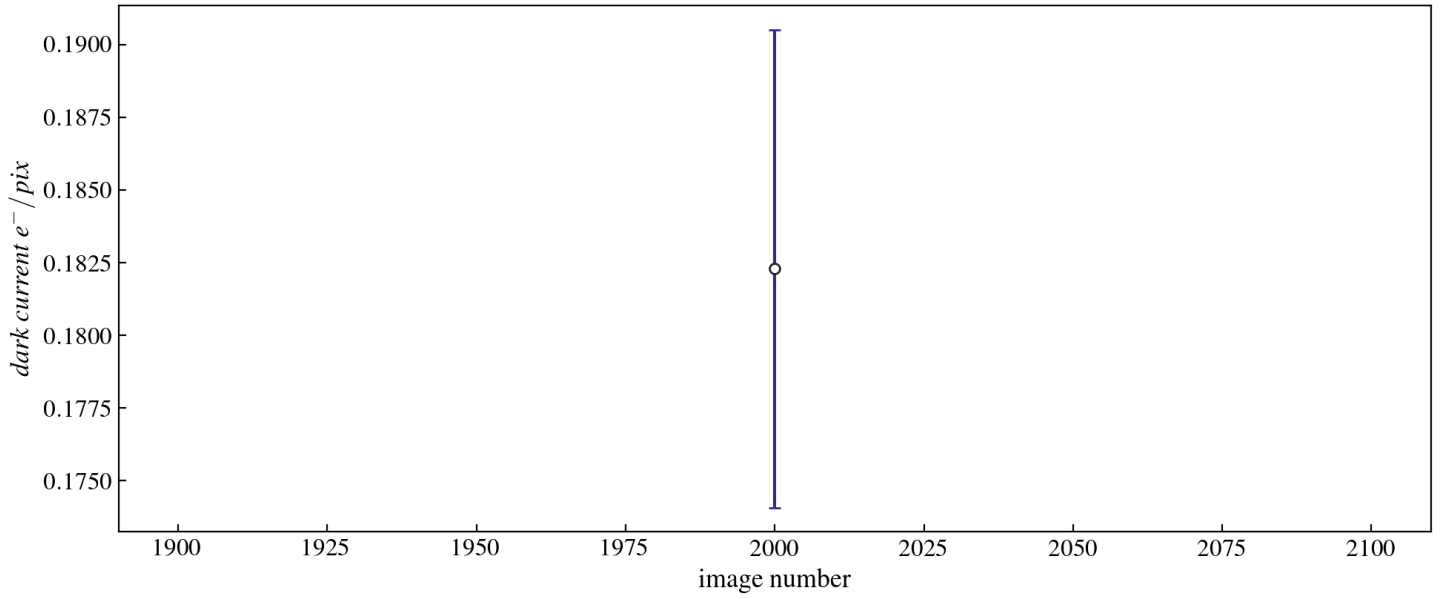


Figure 24: Dark current (from MEFitDC per Row) vs Image

Calibration constant (from MEFitDC) vs Image  
[class MEFitDCCalibration]

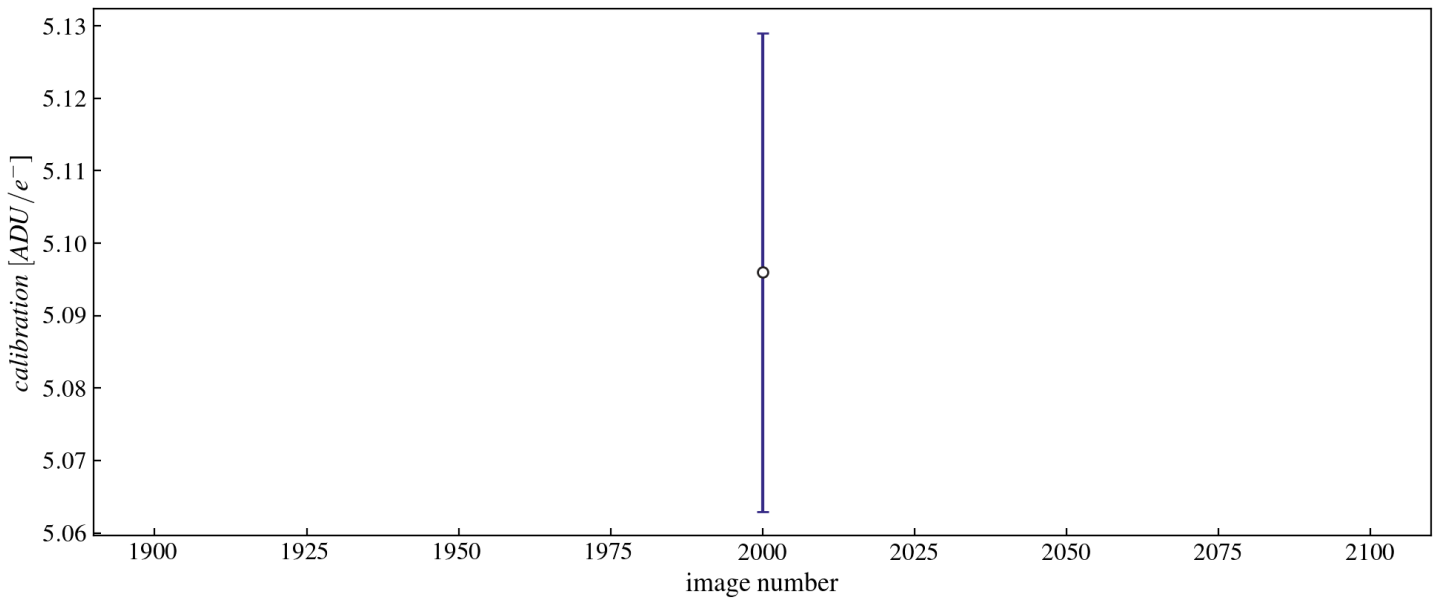


Figure 25: Calibration constant (from MEFitDC) vs Image

Overscan. PCD Gaussian fit:  $\mu_0$   
[class MEOverscanPCDMu]

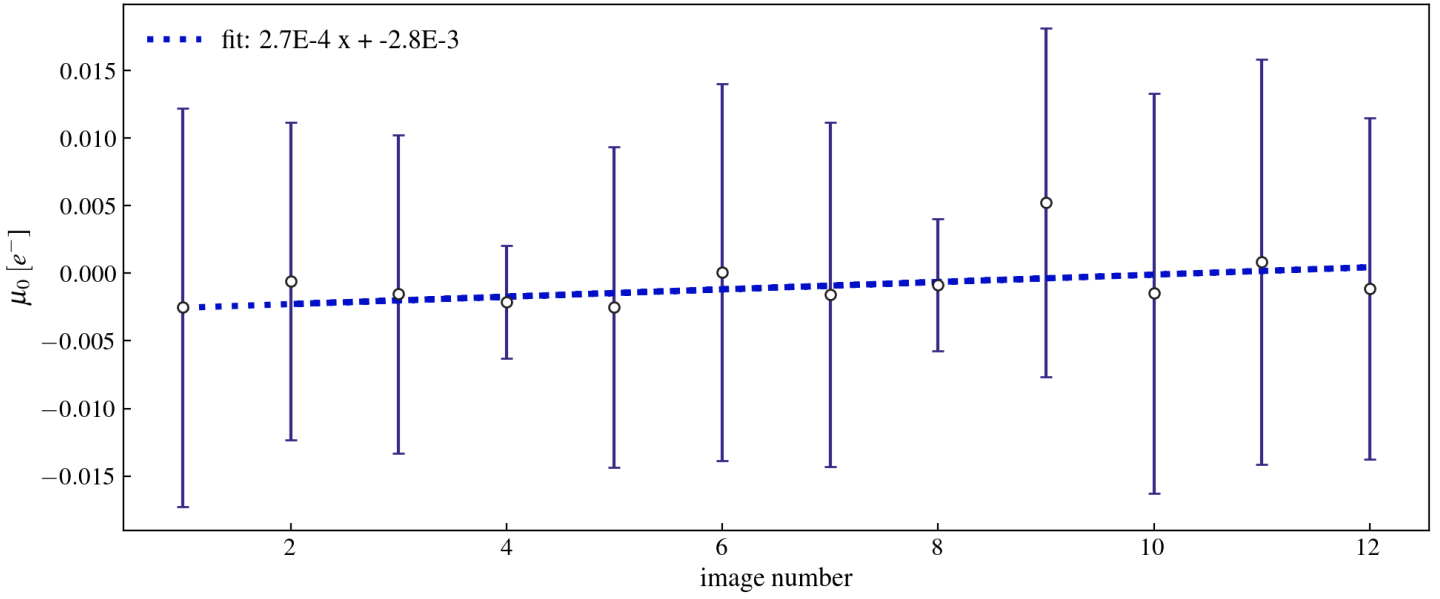


Figure 26: *Overscan. PCD Gaussian fit:  $\mu_0$*

Overscan. PCD Gaussian fit:  $\sigma_0$   
[class MEOverscanPCDSigma]

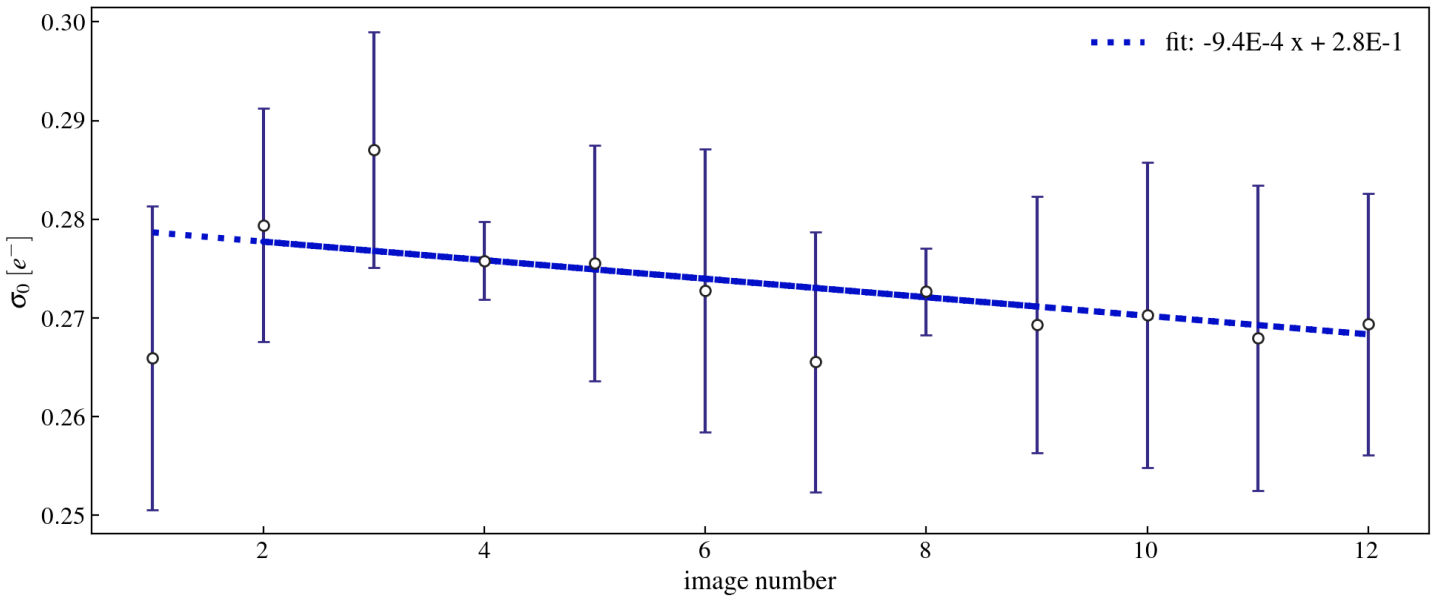


Figure 27: *Overscan. PCD Gaussian fit:  $\sigma_0$*

Electronic column transient showing an exponential behaviour  
[class MEColTransient]

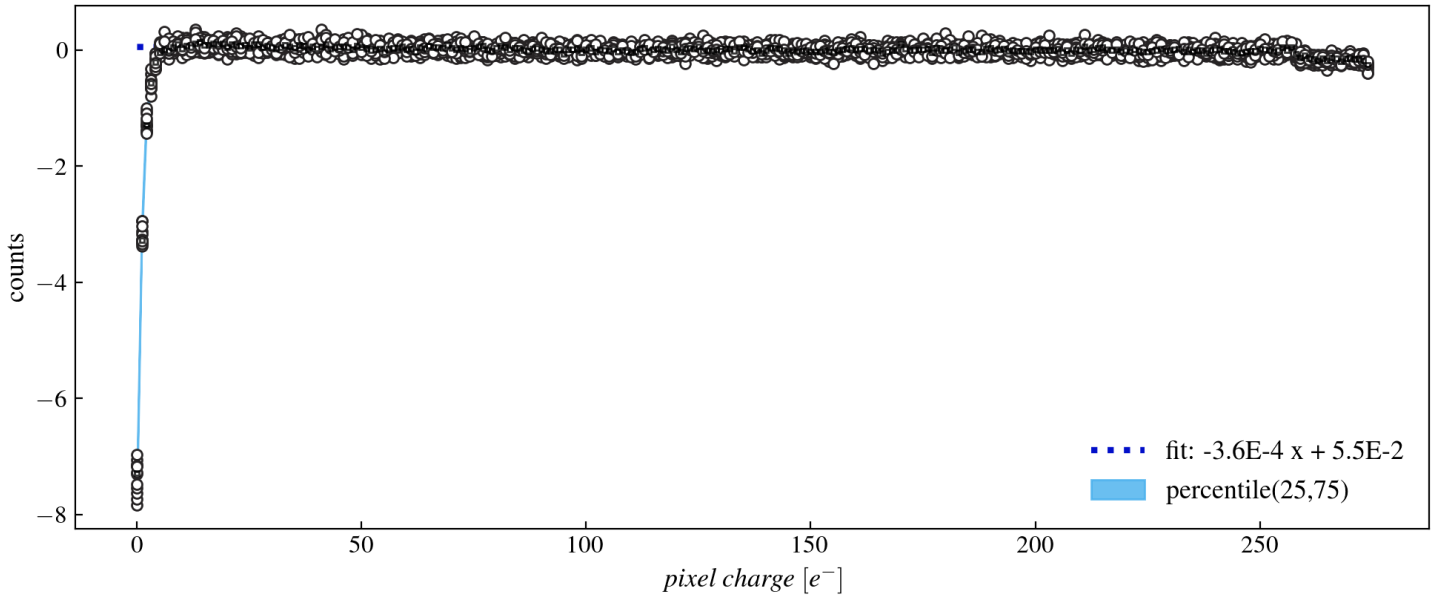


Figure 28: Electronic column transient showing an exponential behaviour

Column transient decay constant (from MEColTransient) vs Image  
[class MEColTransientMu]

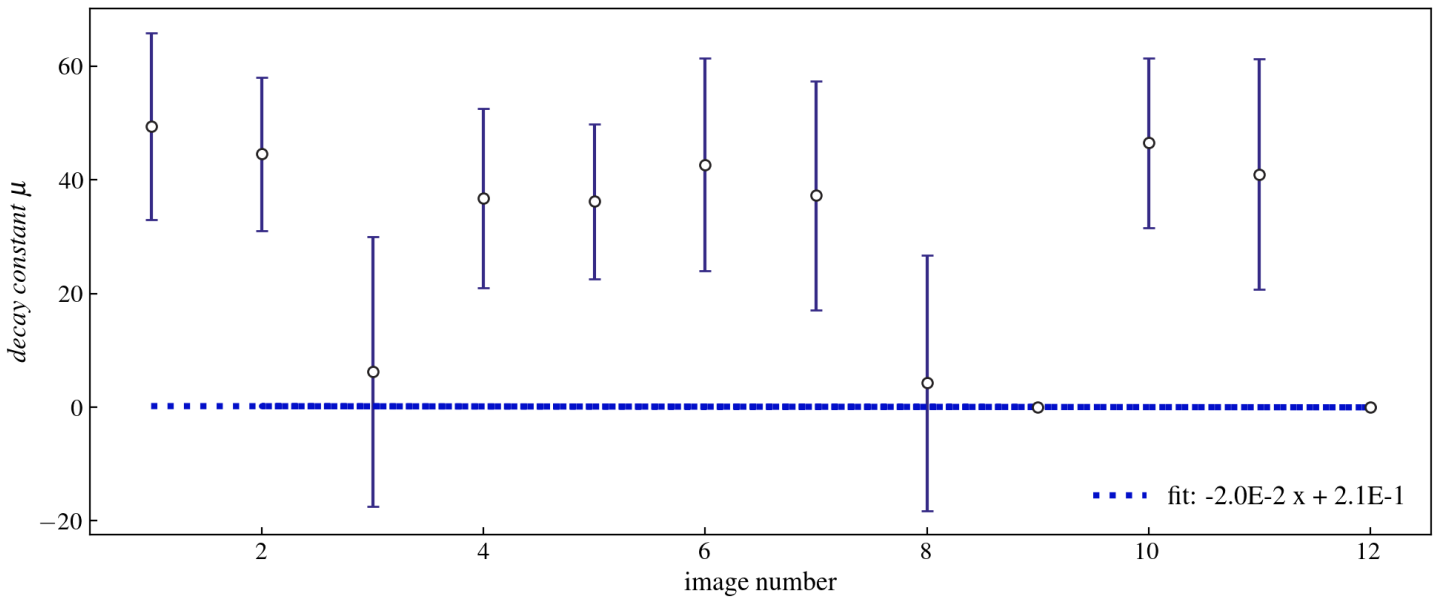


Figure 29: Column transient decay constant (from MEColTransient) vs Image

Column transient amplitude (from MEColTransient) vs Image  
[class MEColTransientAmplitude]

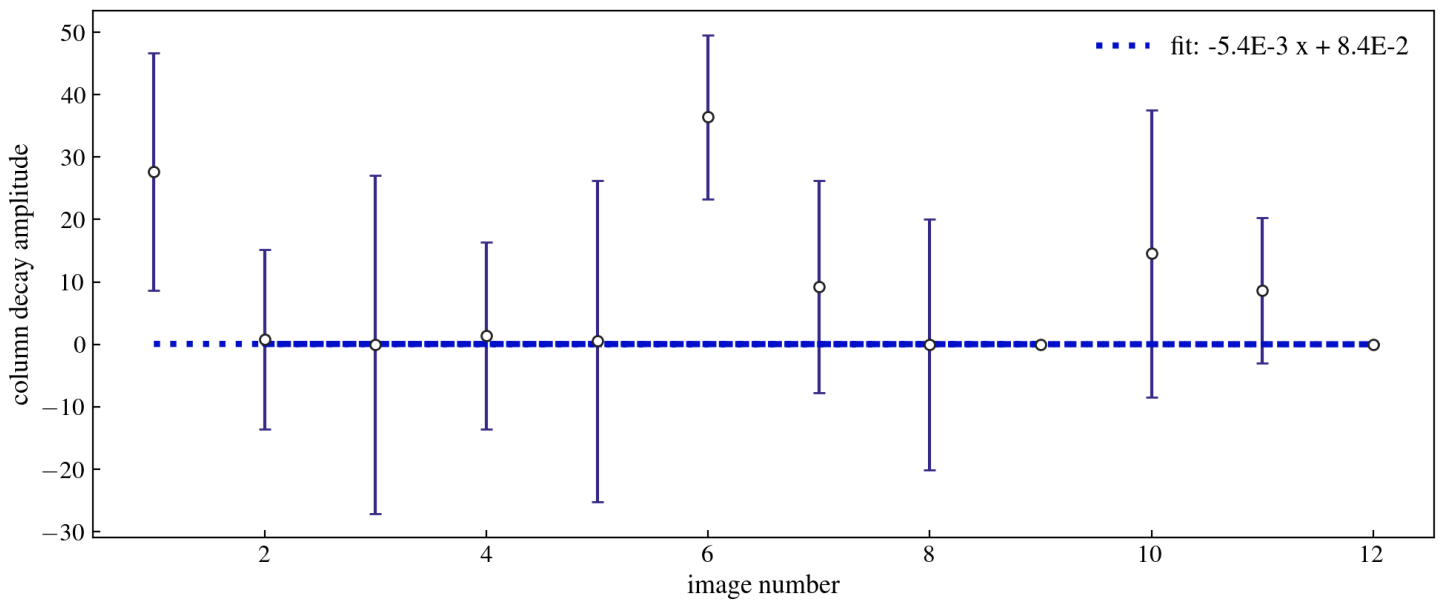


Figure 30: Column transient amplitude (from MEColTransient) vs Image

CCD Image: run 4, image 2000  
[class MECCDImage]

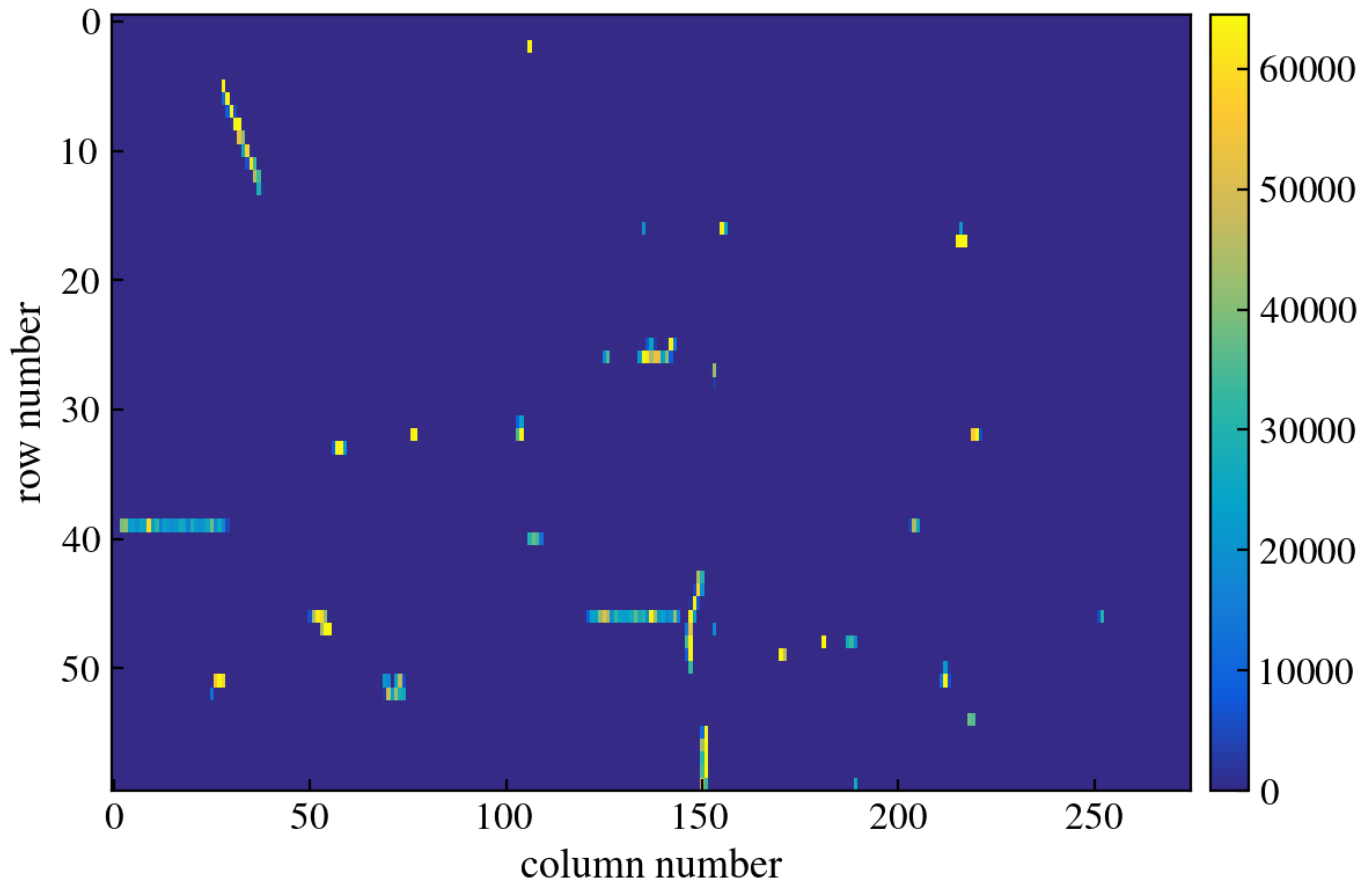


Figure 31: CCD Image

CCD Image: run 4, image 1  
[class MECCDImage]

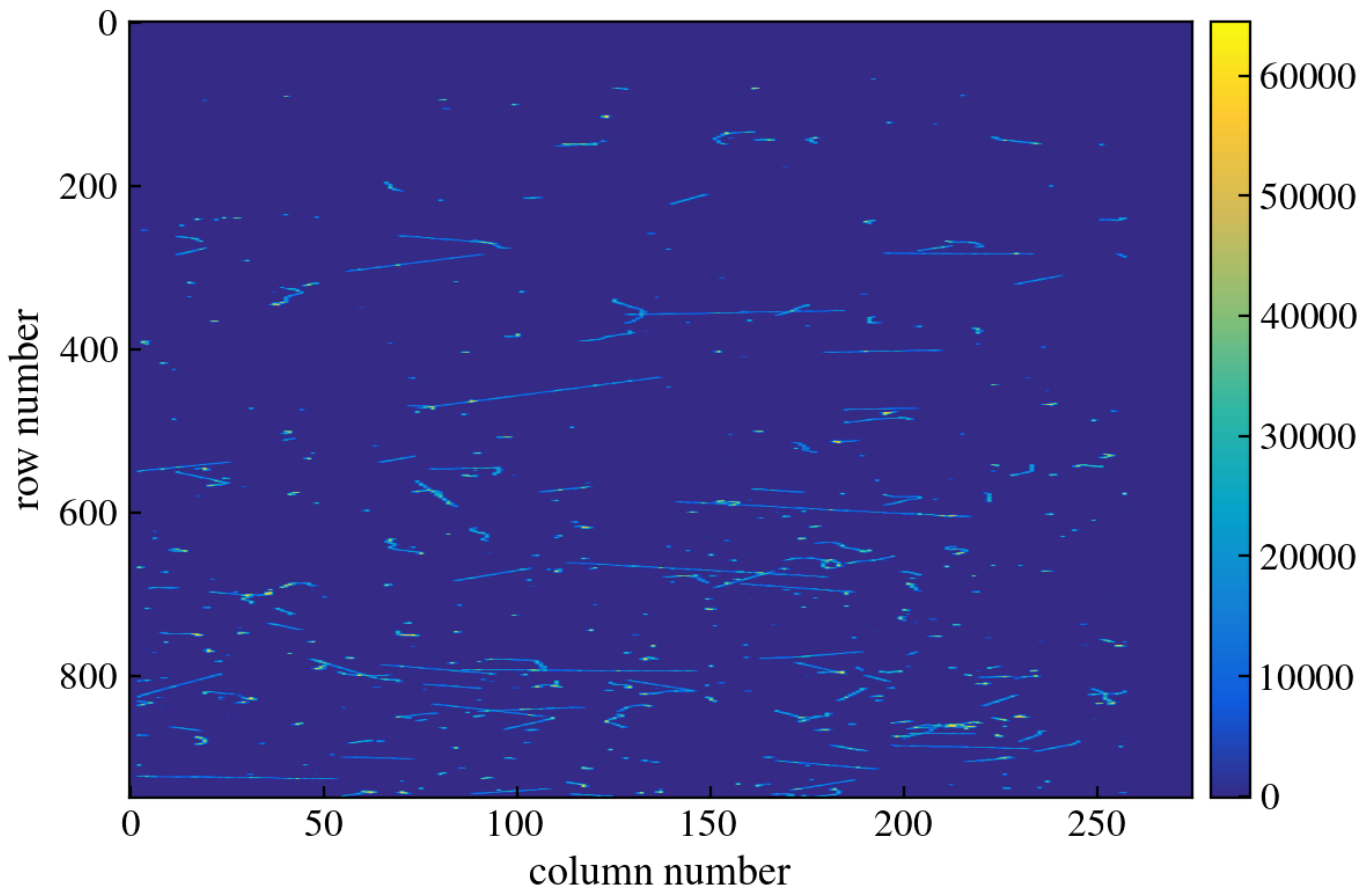


Figure 32: CCD Image

CCD Image: run 4, image 10  
[class MECCDImage]

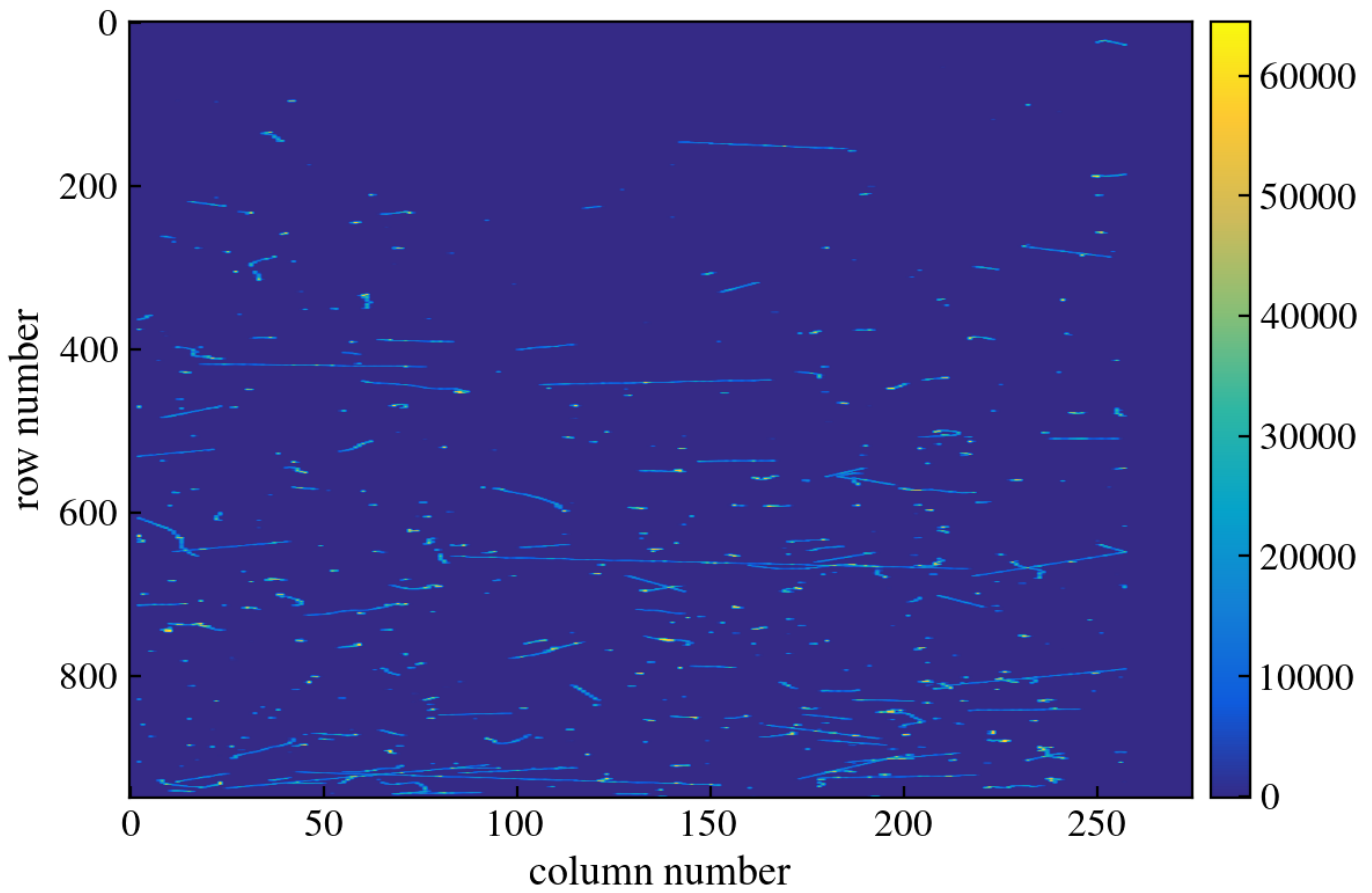


Figure 33: CCD Image



CCD Image: run 4, image 11  
[class MECCDImage]

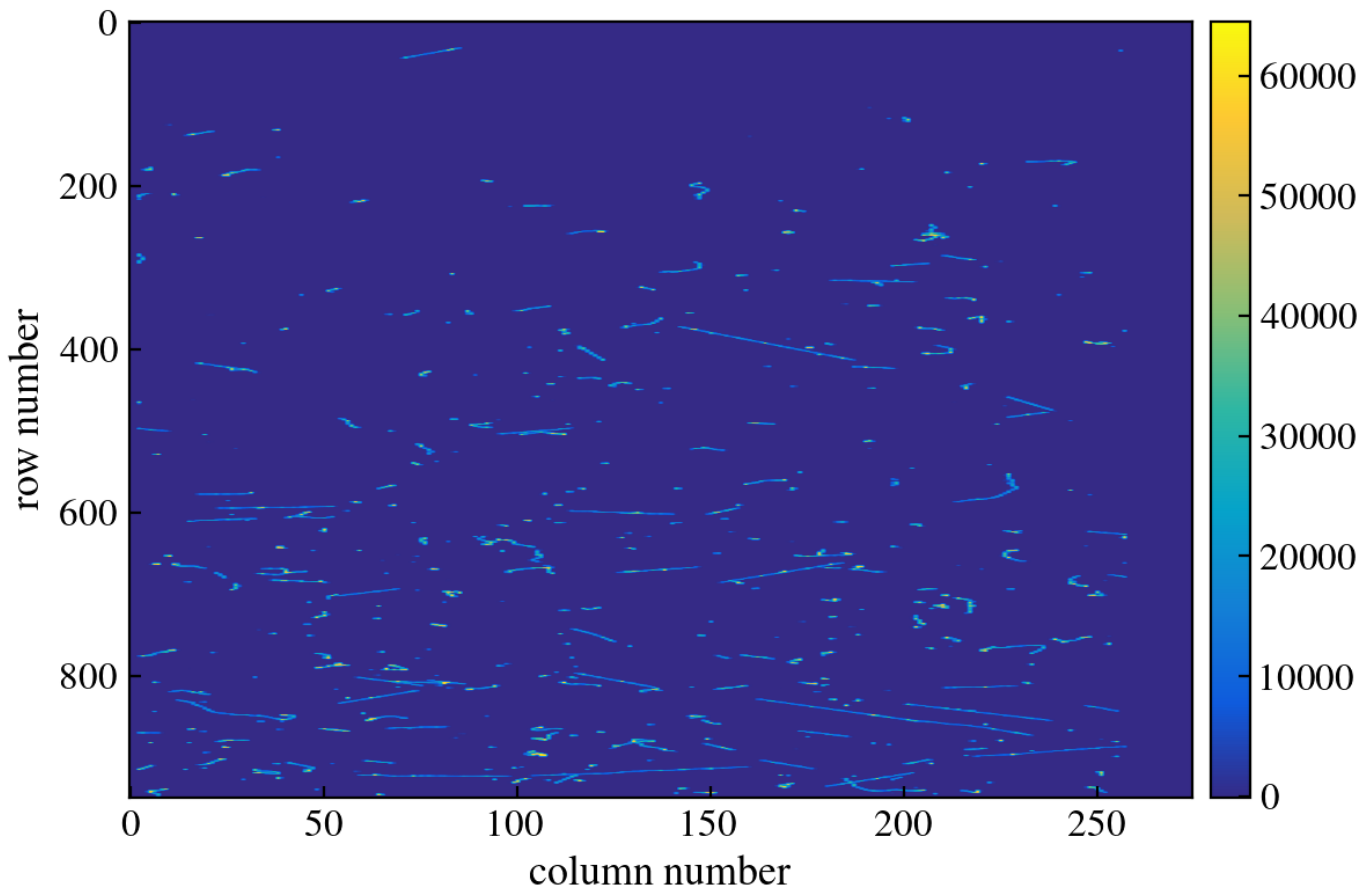


Figure 34: CCD Image

CCD Image: run 4, image 12  
[class MECCDImage]

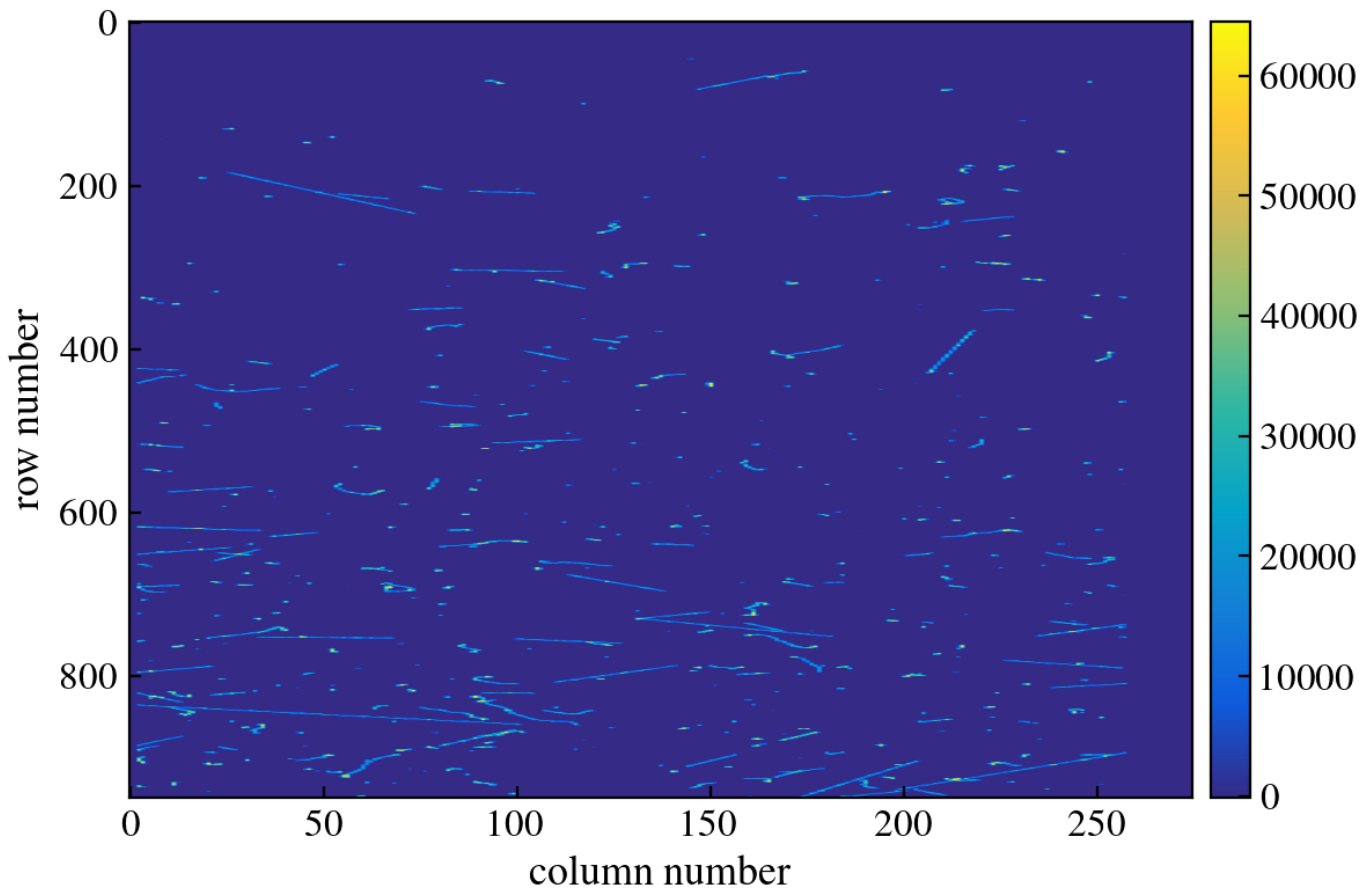


Figure 35: CCD Image

CCD Image: run 4, image 2  
[class MECCDImage]

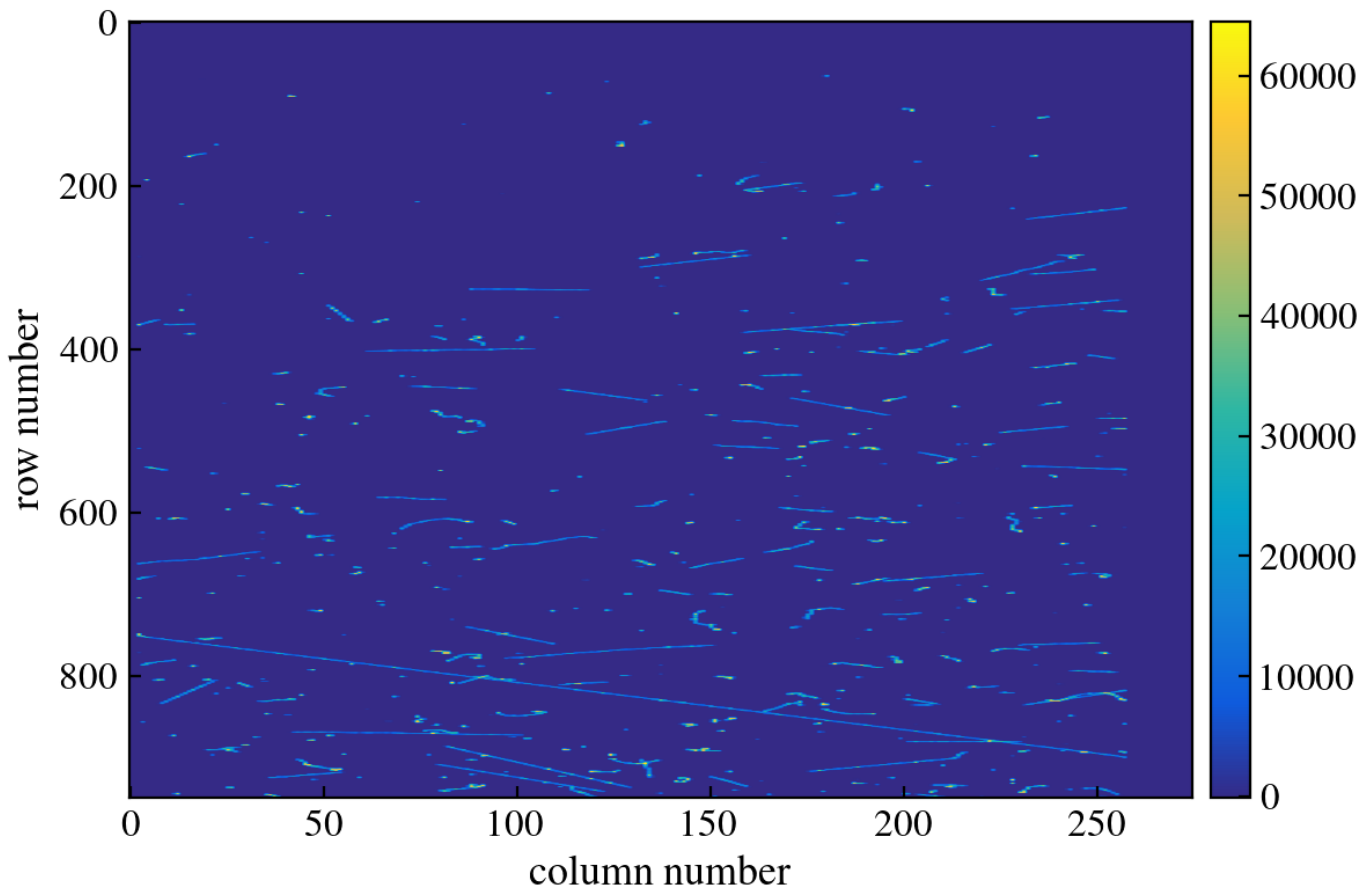


Figure 36: CCD Image

CCD Image: run 4, image 3  
[class MECCDImage]

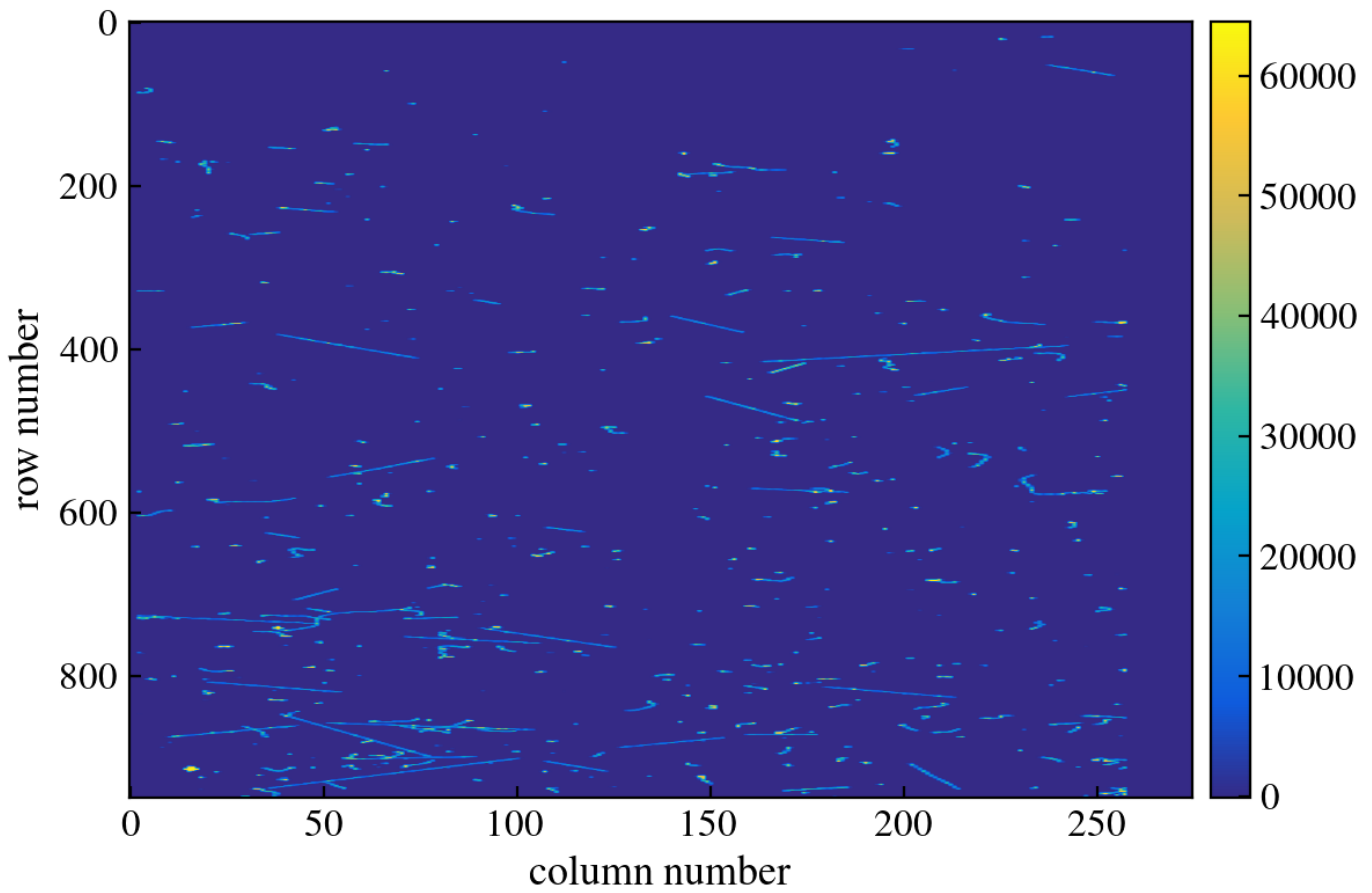


Figure 37: CCD Image

CCD Image: run 4, image 4  
[class MECCDImage]

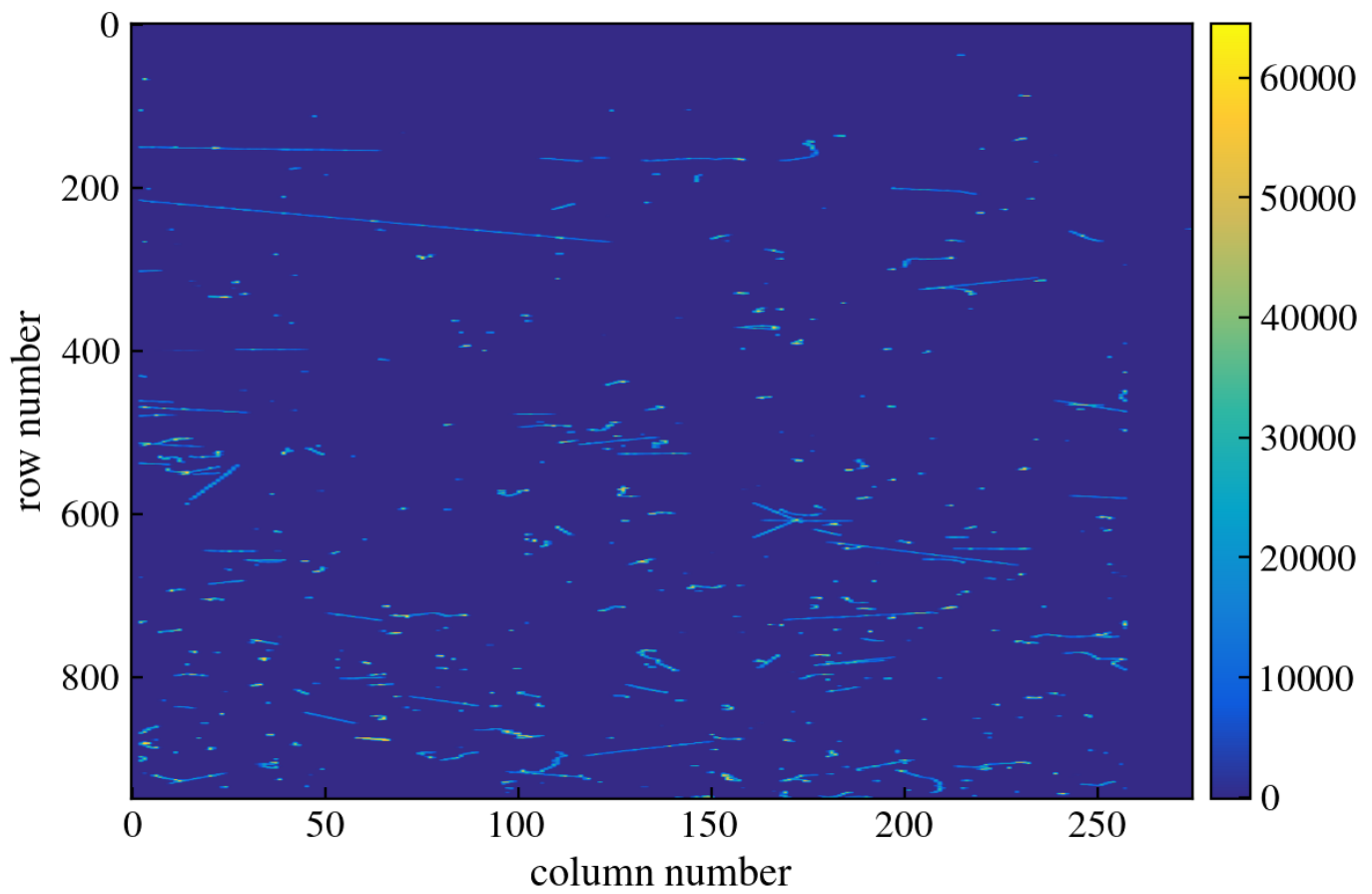


Figure 38: CCD Image

CCD Image: run 4, image 5  
[class MECCDImage]

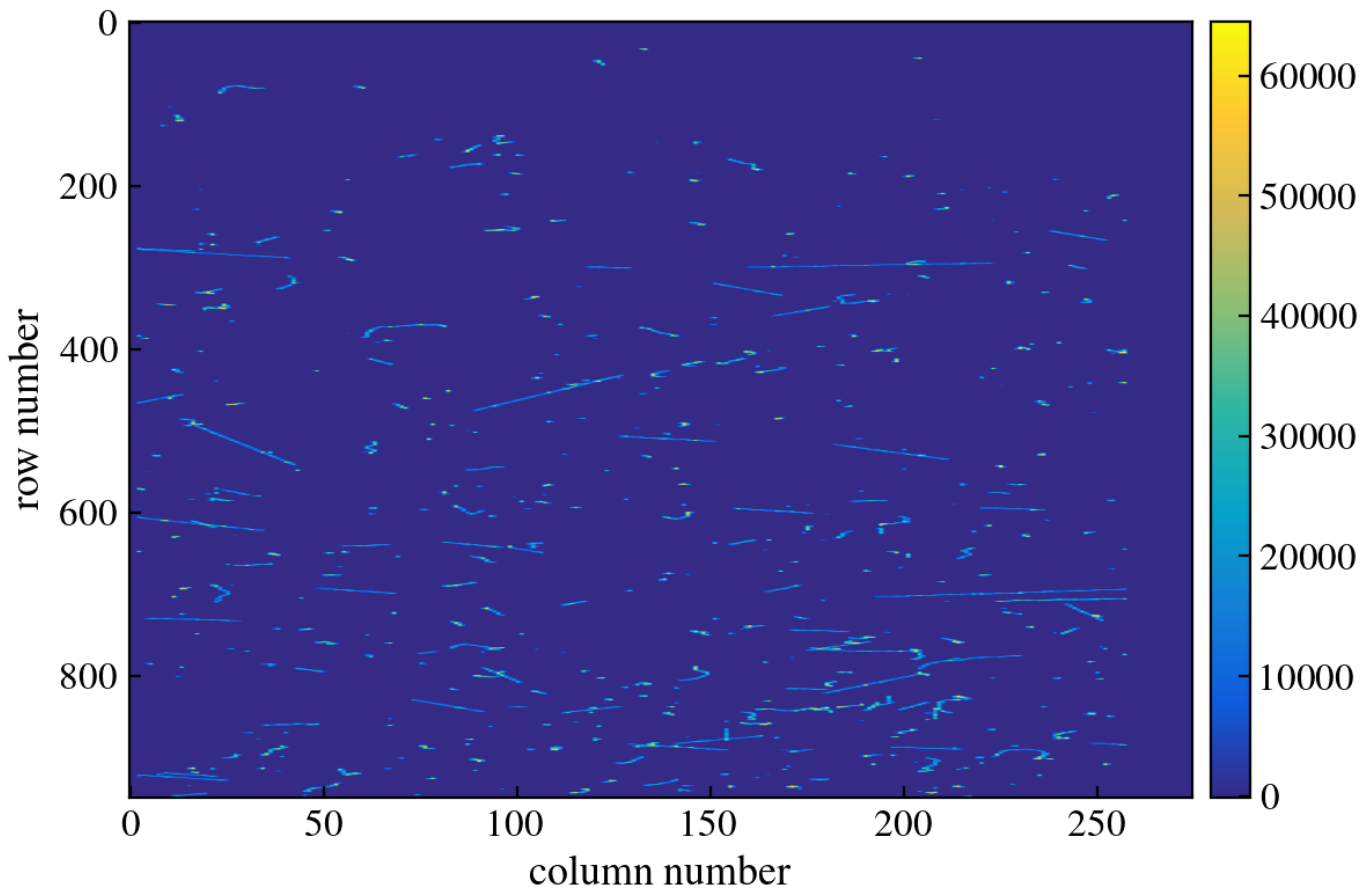


Figure 39: CCD Image

CCD Image: run 4, image 6  
[class MECCDImage]

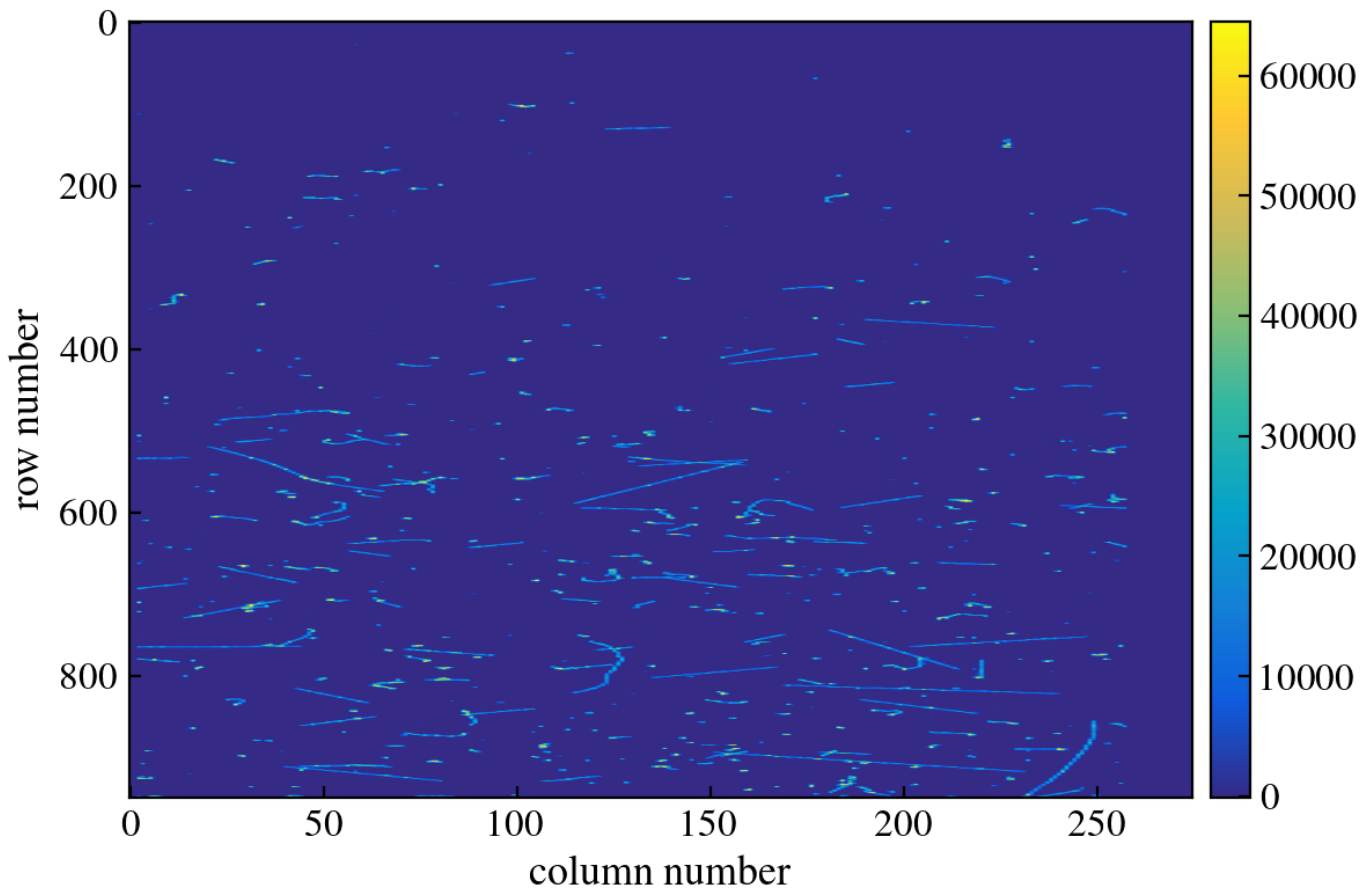


Figure 40: CCD Image

CCD Image: run 4, image 7  
[class MECCDImage]

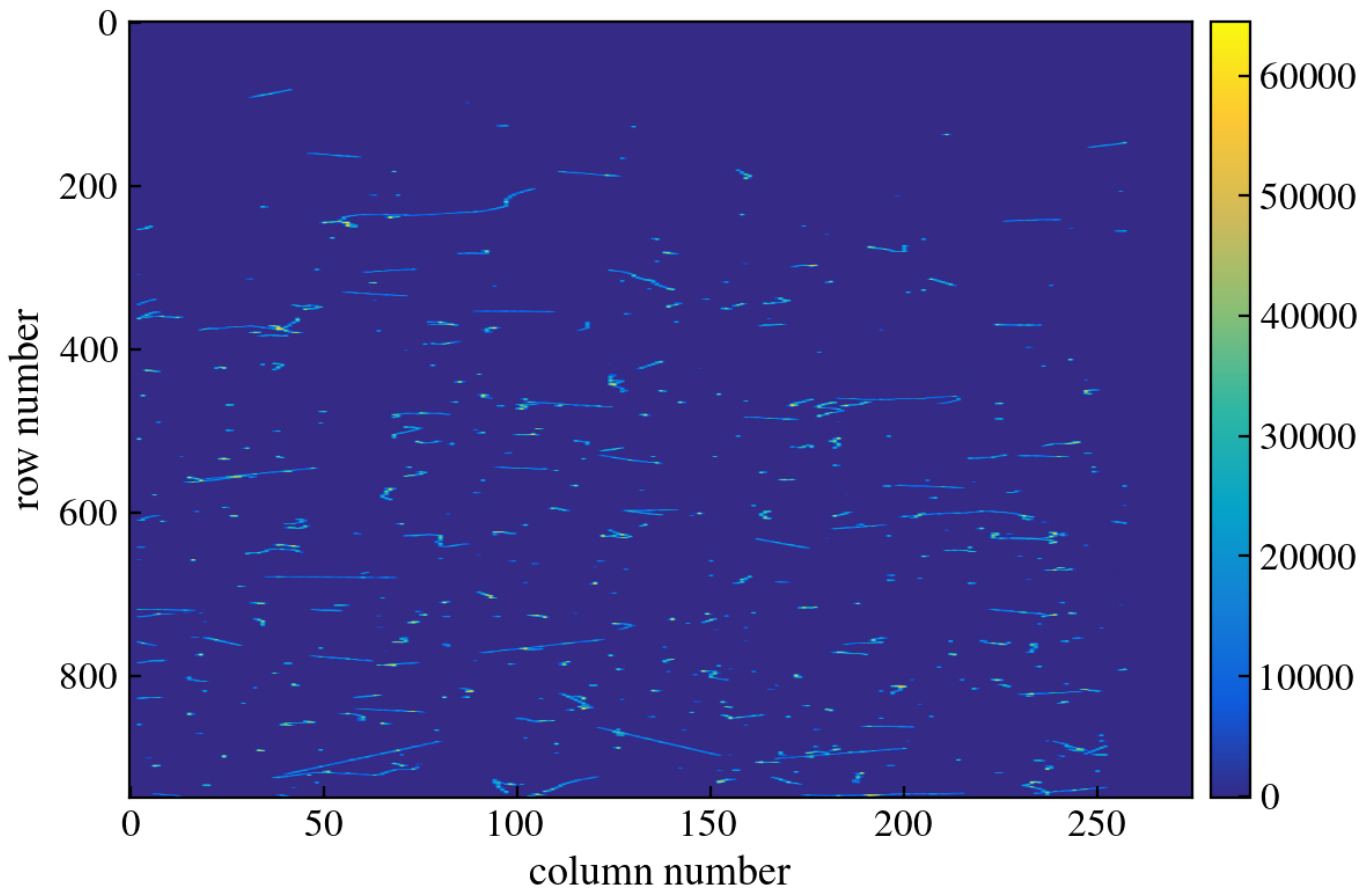


Figure 41: CCD Image



CCD Image: run 4, image 8  
[class MECCDImage]

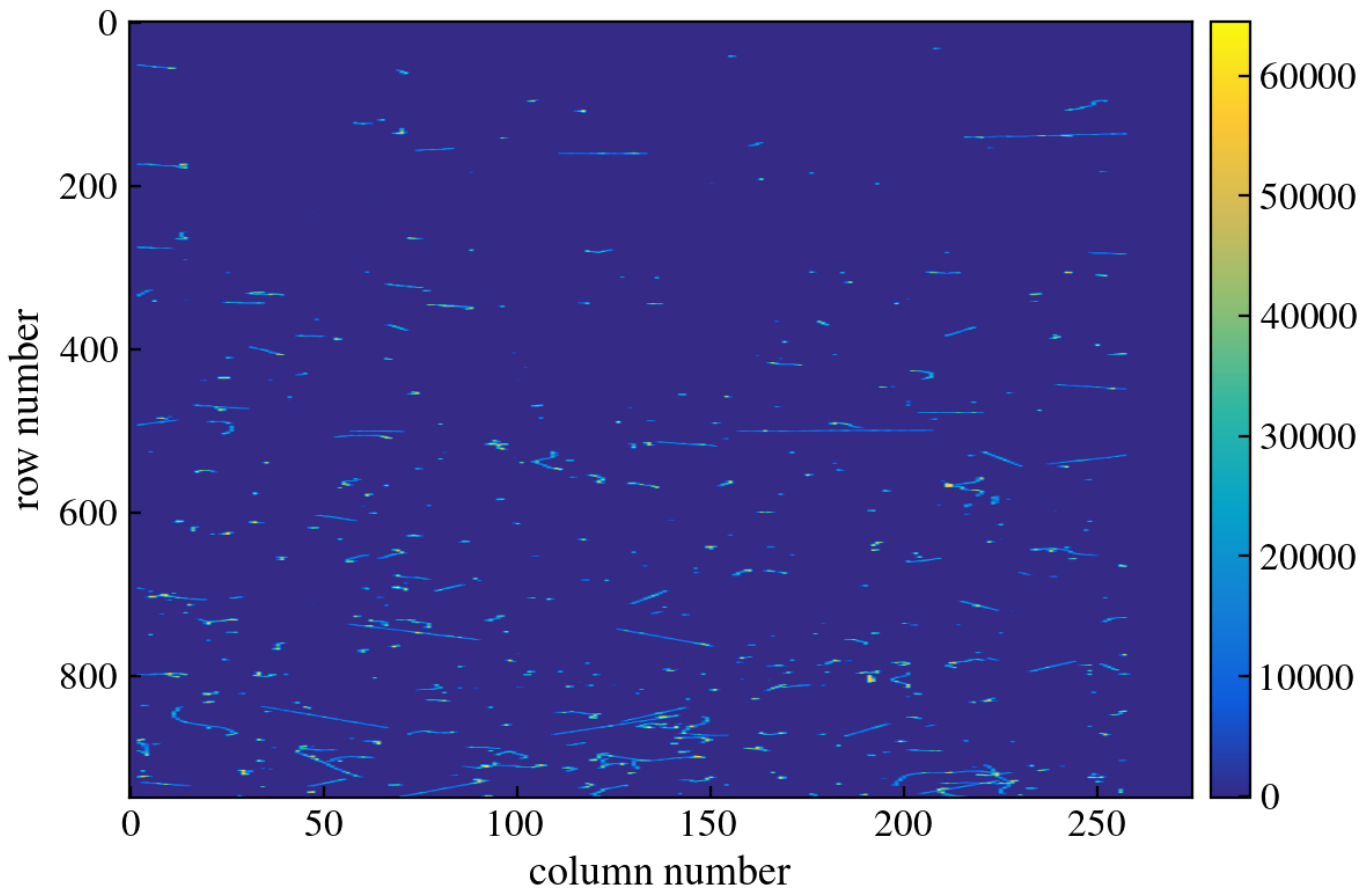


Figure 42: CCD Image

CCD Image: run 4, image 9  
[class MECCDImage]

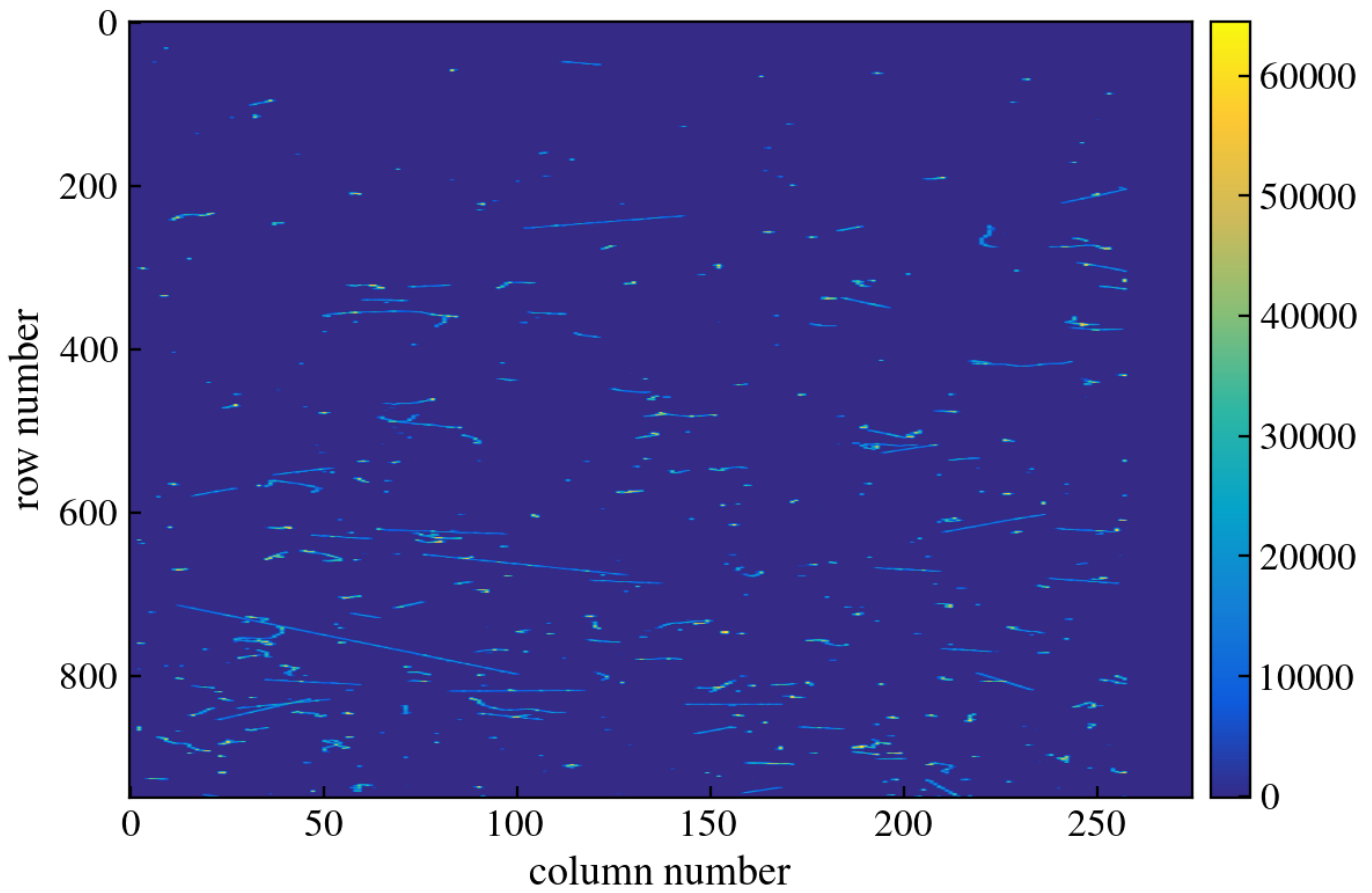


Figure 43: CCD Image

Overscan. Baseline Shift Status vs Image  
[class MEBaselineShift]

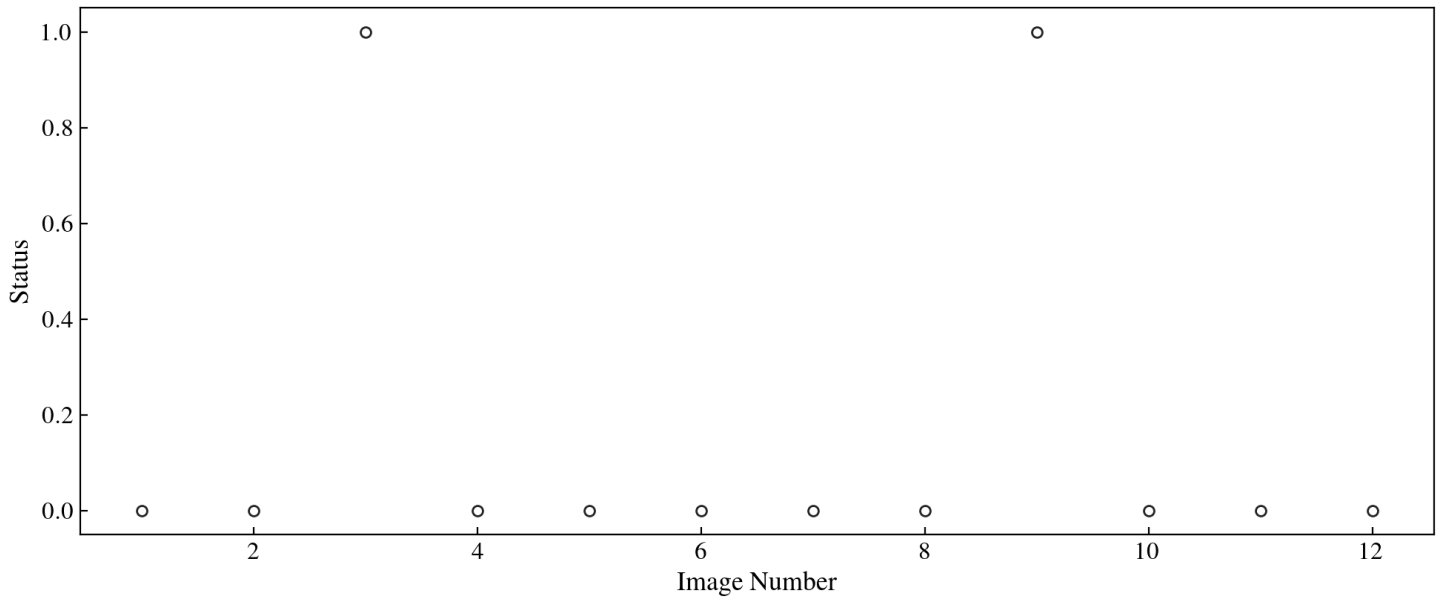


Figure 44: Overscan. Baseline Shift Status vs Image

Overscan. Horizontal Clusters vs Image  
[class MEHorizontalClusters]

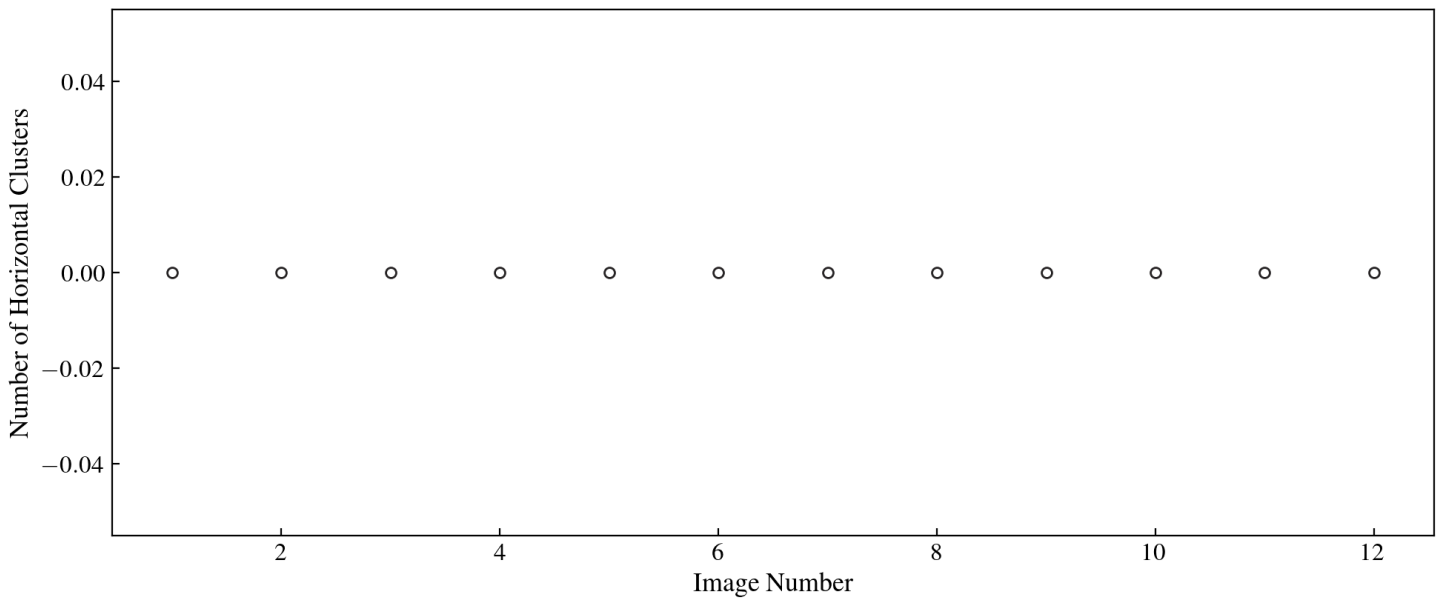


Figure 45: Overscan. Horizontal Clusters vs Image

Overscan. Miscellaneous Noise Found Status  
[class MESigmaCutoffNoise]



Figure 46: Overscan. Miscellaneous Noise Found Status