

DQM Report for run number 147

pysimdamicm.dqm.dqm_manager

January 27, 2023

Data directory:

/data/calidaq_backup/PhotoNeutron/DataTaking/Cf/Run_147

Output directory:

/data/chicago/PhotoNeutronData/WADERS/DataTaking/DQM/Cf

Reference used:

None

Total images: 13

List of Figures

| | | |
|----|--|----|
| 1 | Active Area. Median dark current (only $q_{i,j} < q_i^{th}$) vs row | 2 |
| 2 | Slope DC fit (from MEMeanDCperRow) vs file | 2 |
| 3 | Intercept DC fit (from MEMeanDCperRow) vs file | 3 |
| 4 | Active area. Baseline vs row | 3 |
| 5 | Active area. MAD vs row | 4 |
| 6 | Full Image. Baseline vs column | 4 |
| 7 | Full Image. MAD vs column | 5 |
| 8 | Overscan. Baseline vs row | 5 |
| 9 | Overscan. MAD vs row | 6 |
| 10 | PedestalSubtractionProcess: mean pedestal vs file (gauss fit) | 6 |
| 11 | PedestalSubtractionProcess: mean sigma vs file (gauss fit) | 7 |
| 12 | PedestalSubtractionProcess: mean pedestal vs file (gauss fit) | 7 |
| 13 | PedestalSubtractionProcess: mean sigma vs file (gauss fit) | 8 |
| 14 | Masked pixels | 9 |
| 15 | Masked pixels | 10 |
| 16 | Number of pixels with $E > 300.0$ eV vs file | 11 |
| 17 | Number of pixels with $E > 300.0$ eV vs file | 11 |
| 18 | Pixel Charge Distribution | 12 |
| 19 | Pixel Charge Distribution | 13 |
| 20 | Pixel Charge Distribution | 14 |
| 21 | Pixel Charge Distribution | 15 |
| 22 | Zero electron peak (from MEFitDC) vs Image | 16 |
| 23 | Electron Single Resolution (from MEFitDC) vs Image | 16 |
| 24 | Dark current (from MEFitDC per Row) vs Image | 17 |
| 25 | Calibration constant (from MEFitDC) vs Image | 17 |
| 26 | <i>Overscan. PCD Gaussian fit: μ_0</i> | 18 |
| 27 | <i>Overscan. PCD Gaussian fit: σ_0</i> | 18 |
| 28 | Electronic column transient showing an exponential behaviour | 19 |
| 29 | Column transient decay constant (from MEColTransient) vs Image | 19 |
| 30 | Column transient amplitude (from MEColTransient) vs Image | 20 |
| 31 | CCD Image | 21 |
| 32 | CCD Image | 22 |
| 33 | CCD Image | 23 |
| 34 | CCD Image | 24 |
| 35 | CCD Image | 25 |

| | | |
|----|--|----|
| 36 | CCD Image | 26 |
| 37 | CCD Image | 27 |
| 38 | CCD Image | 28 |
| 39 | CCD Image | 29 |
| 40 | CCD Image | 30 |
| 41 | CCD Image | 31 |
| 42 | CCD Image | 32 |
| 43 | CCD Image | 33 |
| 44 | Overscan. Baseline Shift Status vs Image | 34 |
| 45 | Skyline Shift Status vs Image | 34 |

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

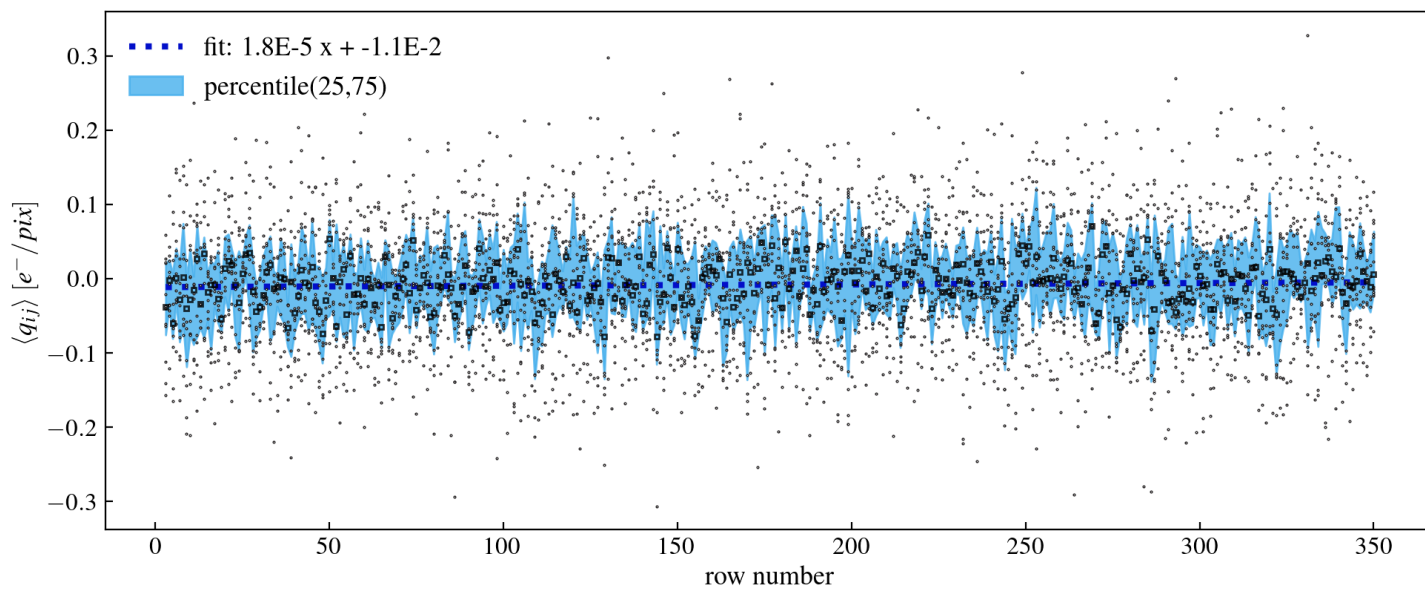


Figure 1: Active Area. Median dark current (only $q_{i,j} < q_i^{th}$) vs row

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

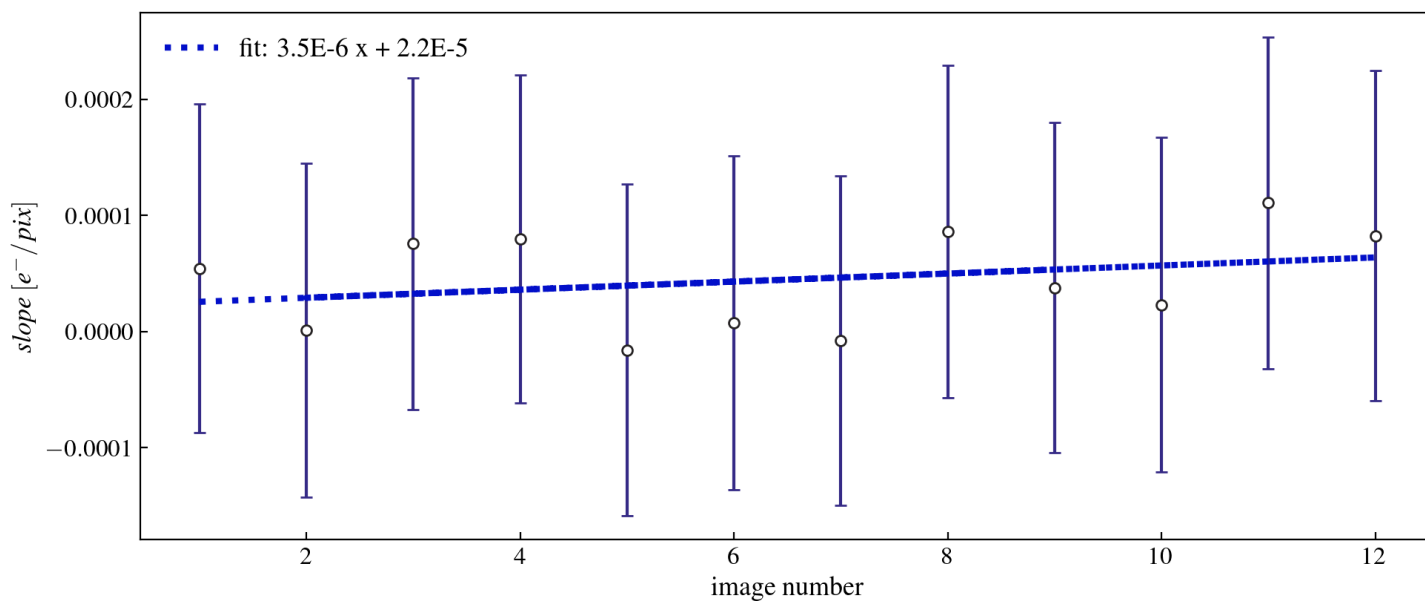


Figure 2: Slope DC fit (from MEMeanDCperRow) vs file

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

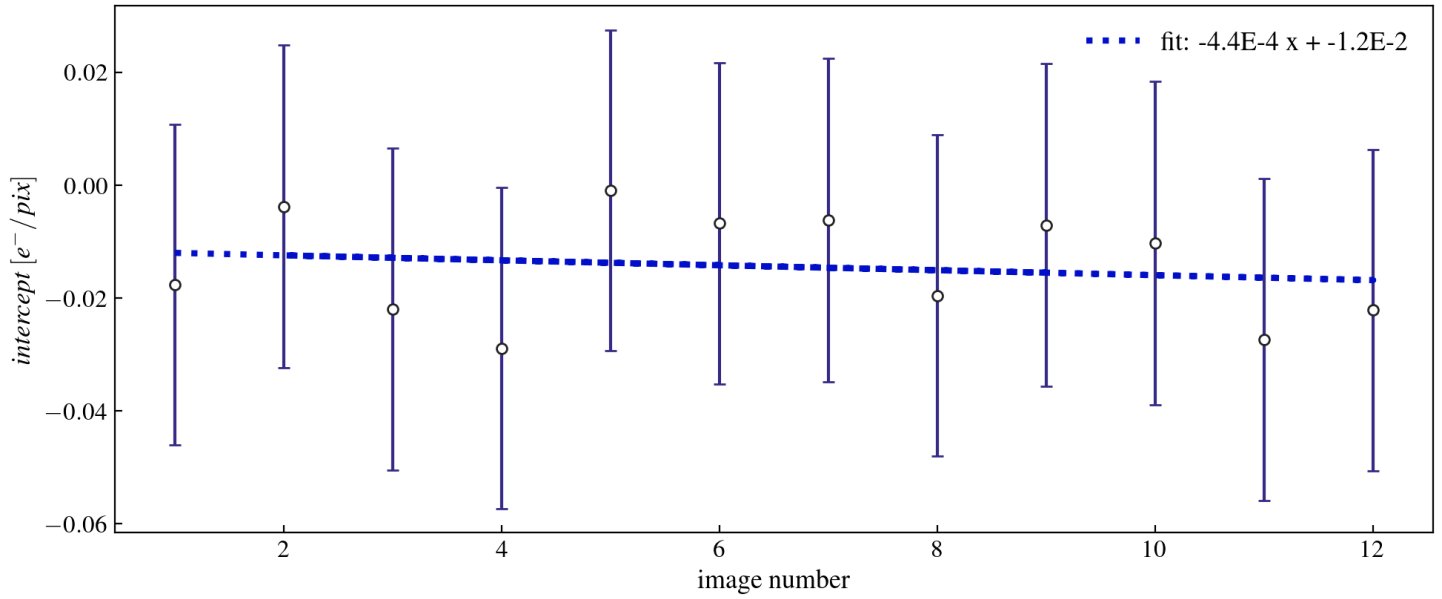


Figure 3: Intercept DC fit (from MEMeanDCperRow) vs file

Active area. Baseline vs row
[class MESensorMedianperRow]

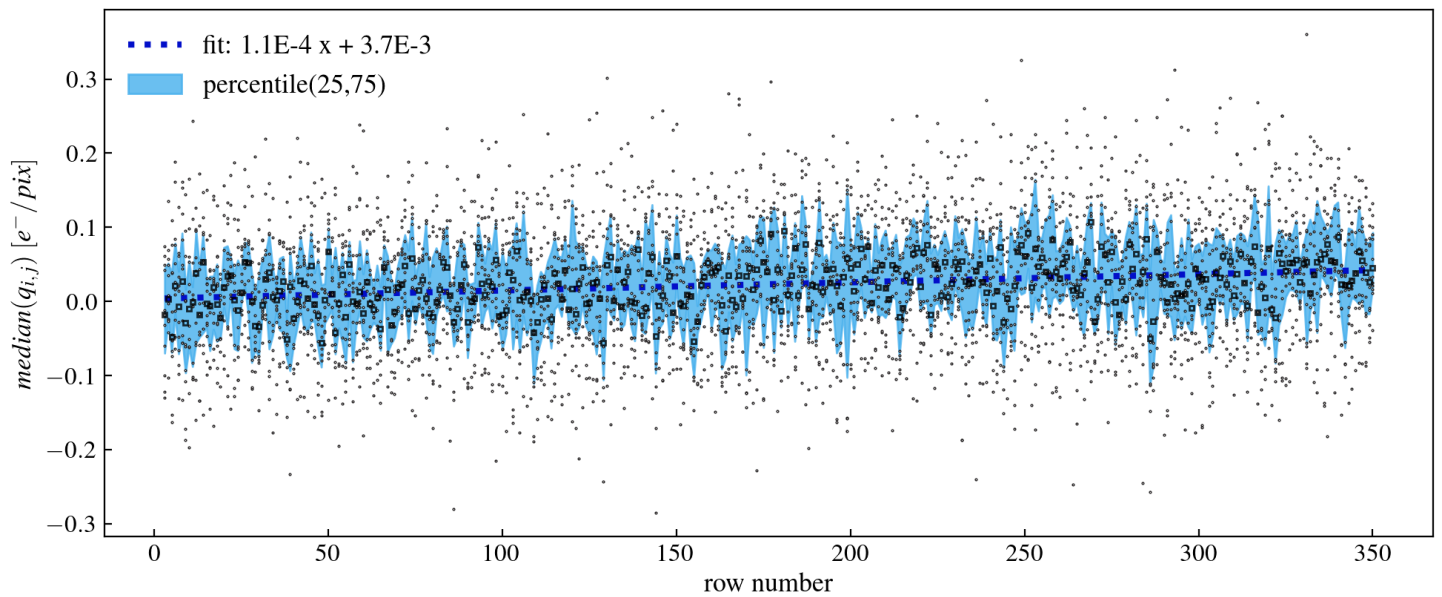


Figure 4: Active area. Baseline vs row

Active area. MAD vs row
[class MESensorMADperRow]

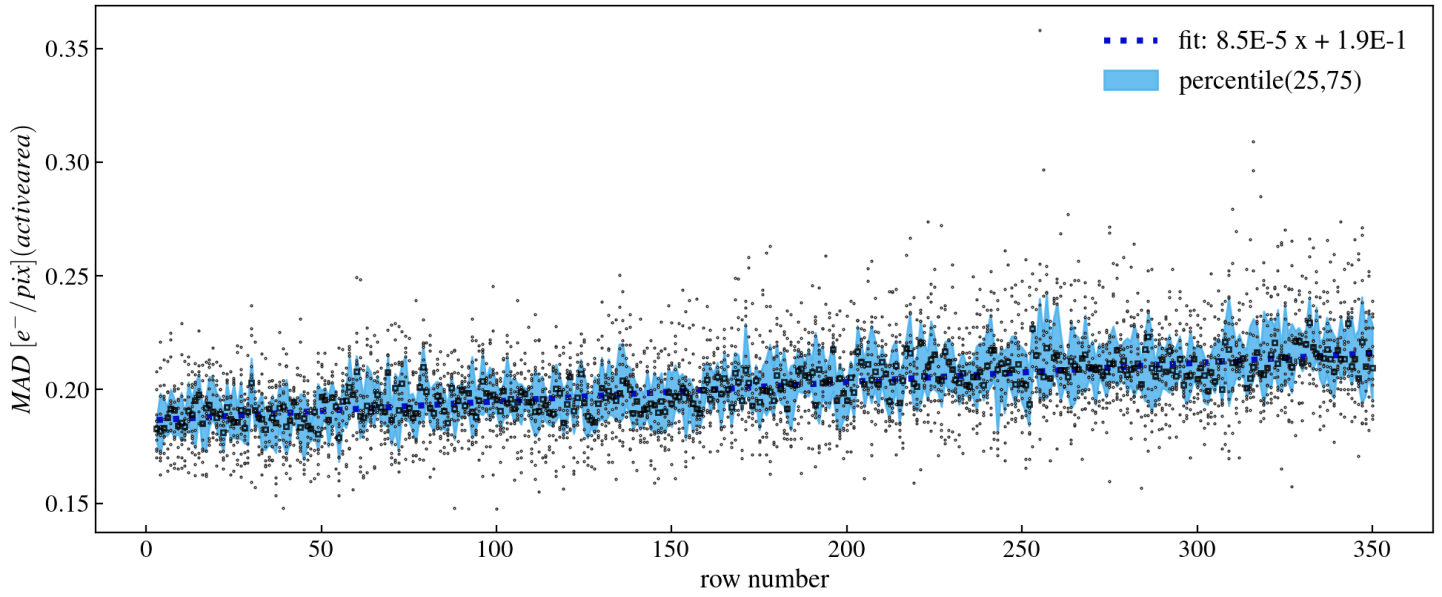


Figure 5: Active area. MAD vs row

Full Image. Baseline vs column
[class MEImageMedianperCol]

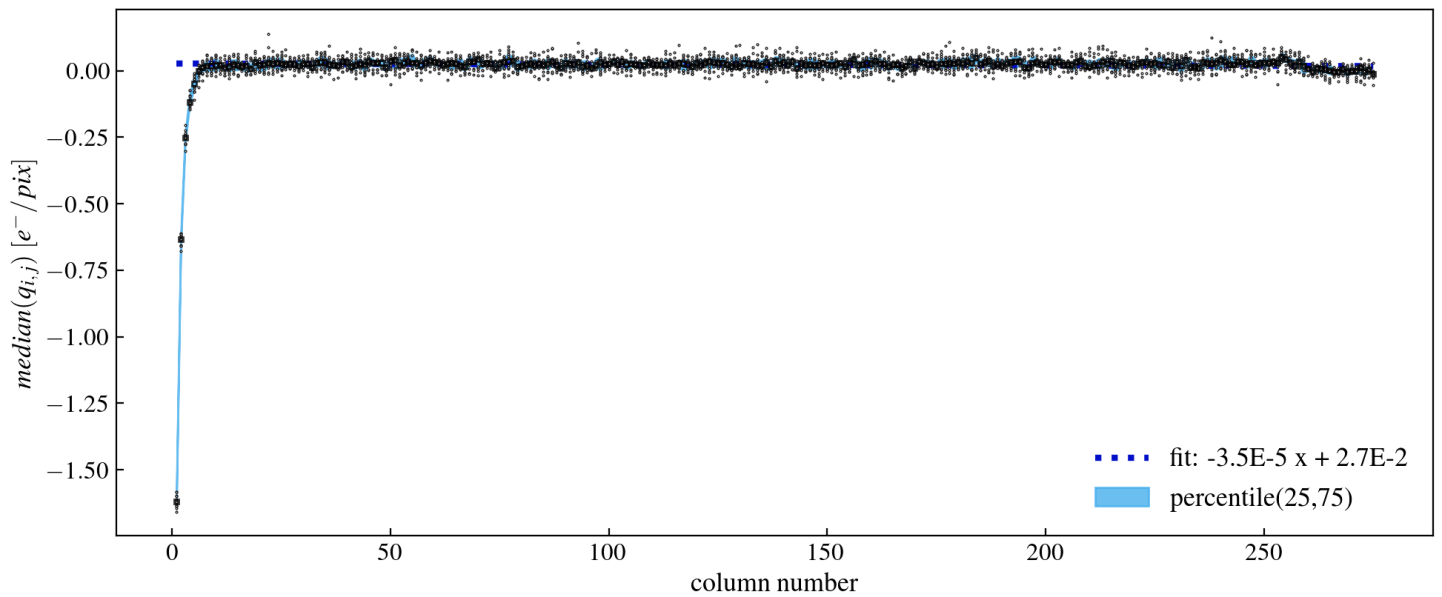


Figure 6: Full Image. Baseline vs column

Full Image. MAD vs column
[class MEImageMADperCol]

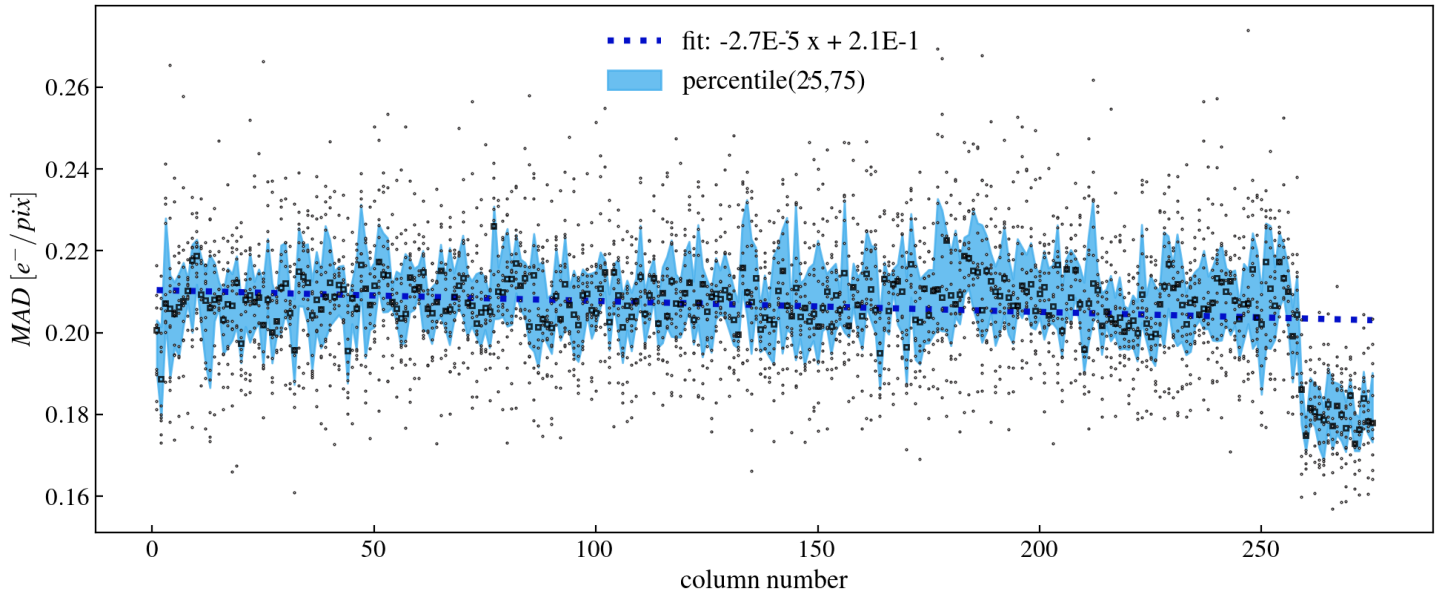


Figure 7: Full Image. MAD vs column

Overscan. Baseline vs row
[class MEOverscanMedianperRow]

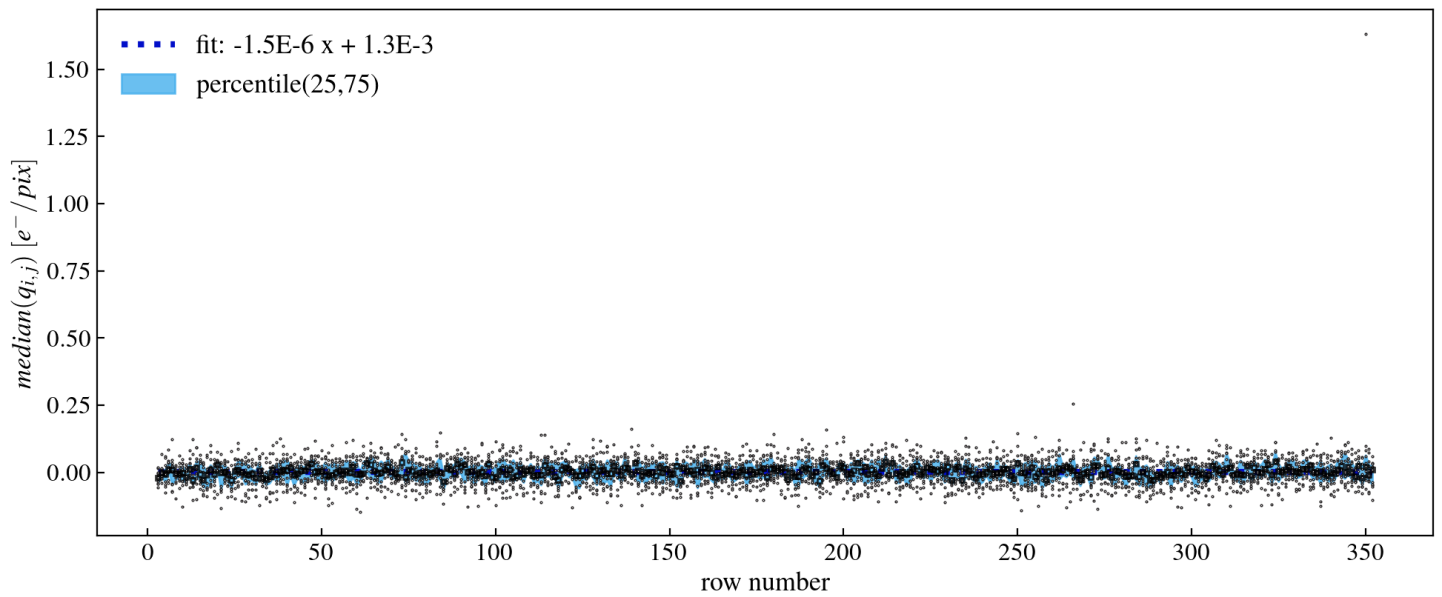


Figure 8: Overscan. Baseline vs row

Overscan. MAD vs row
[class MEOverscanMADperRow]

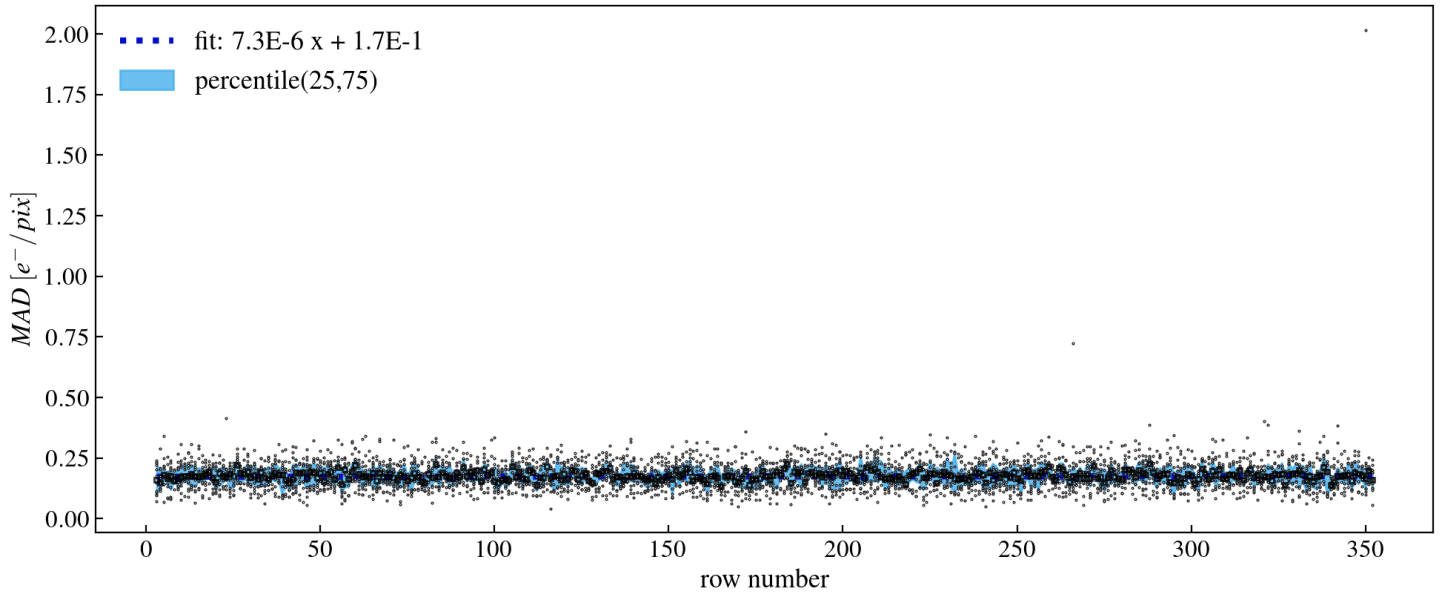


Figure 9: Overscan. MAD vs row

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

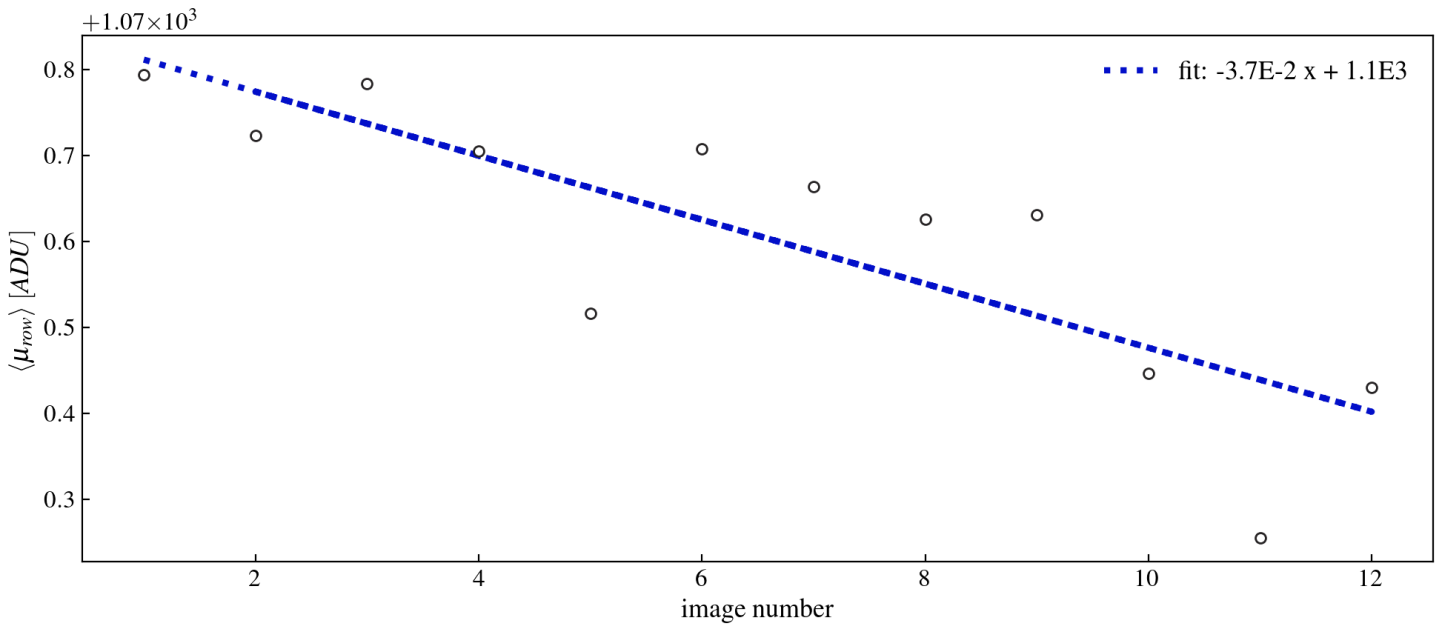


Figure 10: PedestalSubtractionProcess: mean pedestal vs file (gauss fit)

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

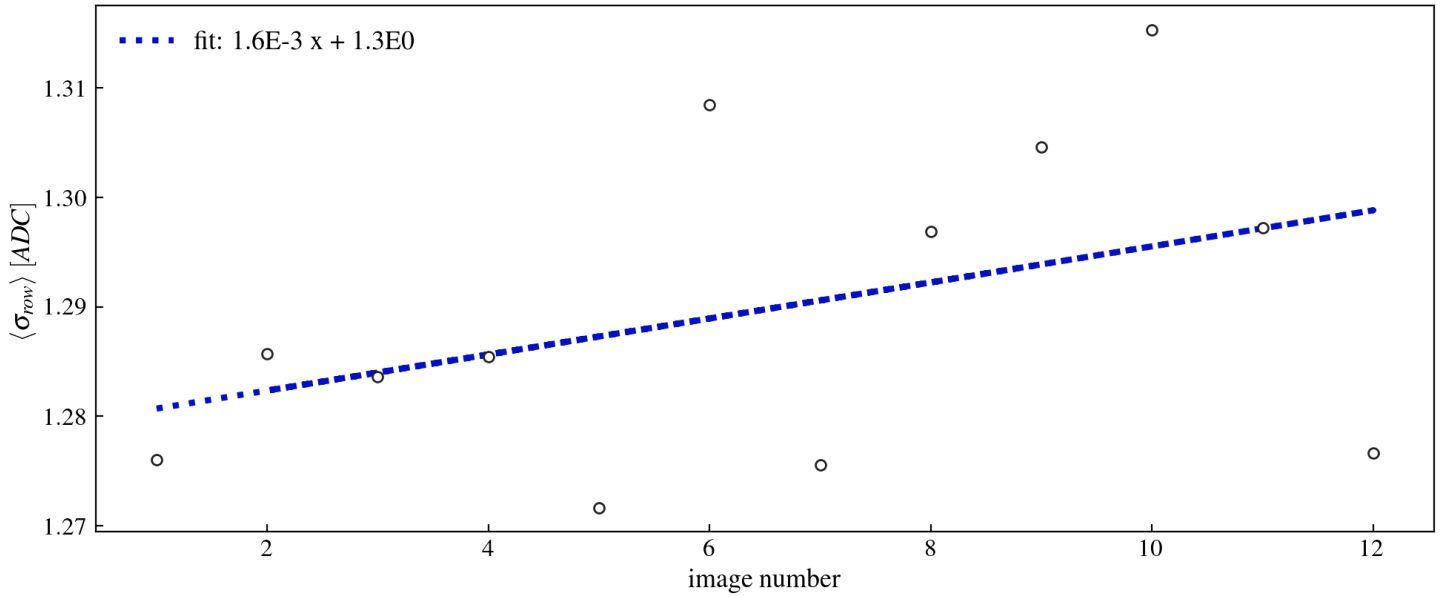


Figure 11: PedestalSubtractionProcess: mean sigma vs file (gauss fit)

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

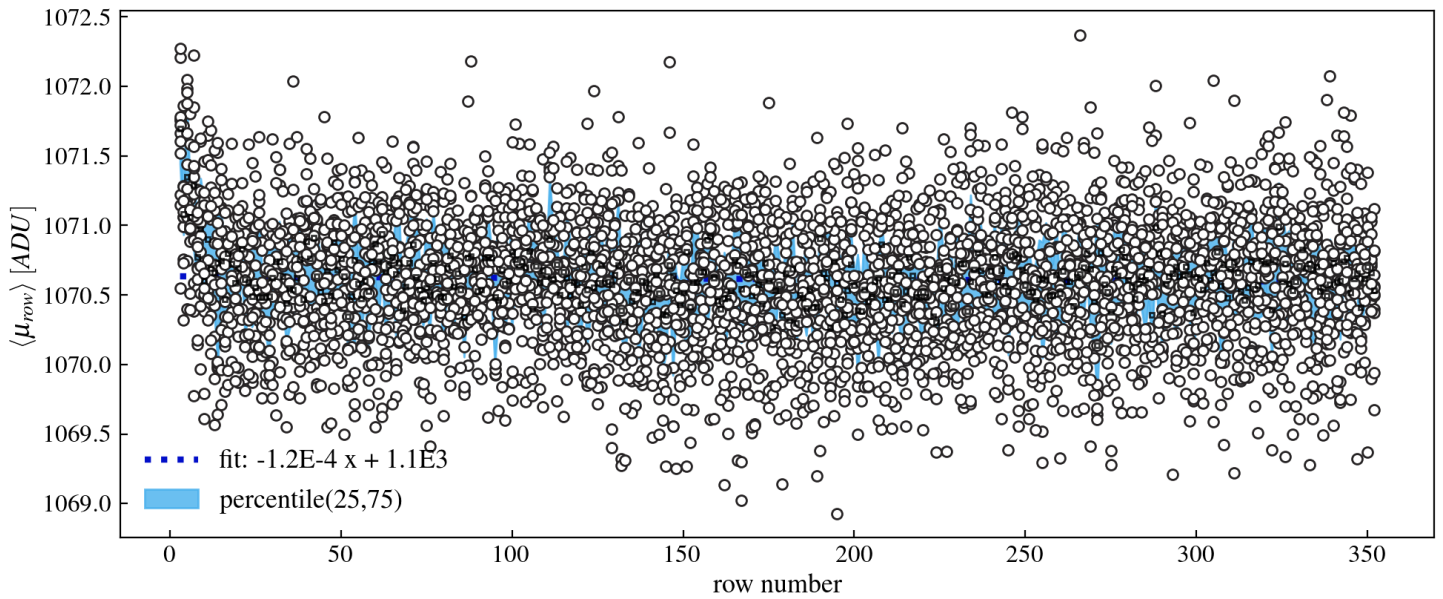


Figure 12: PedestalSubtractionProcess: mean pedestal vs file (gauss fit)

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

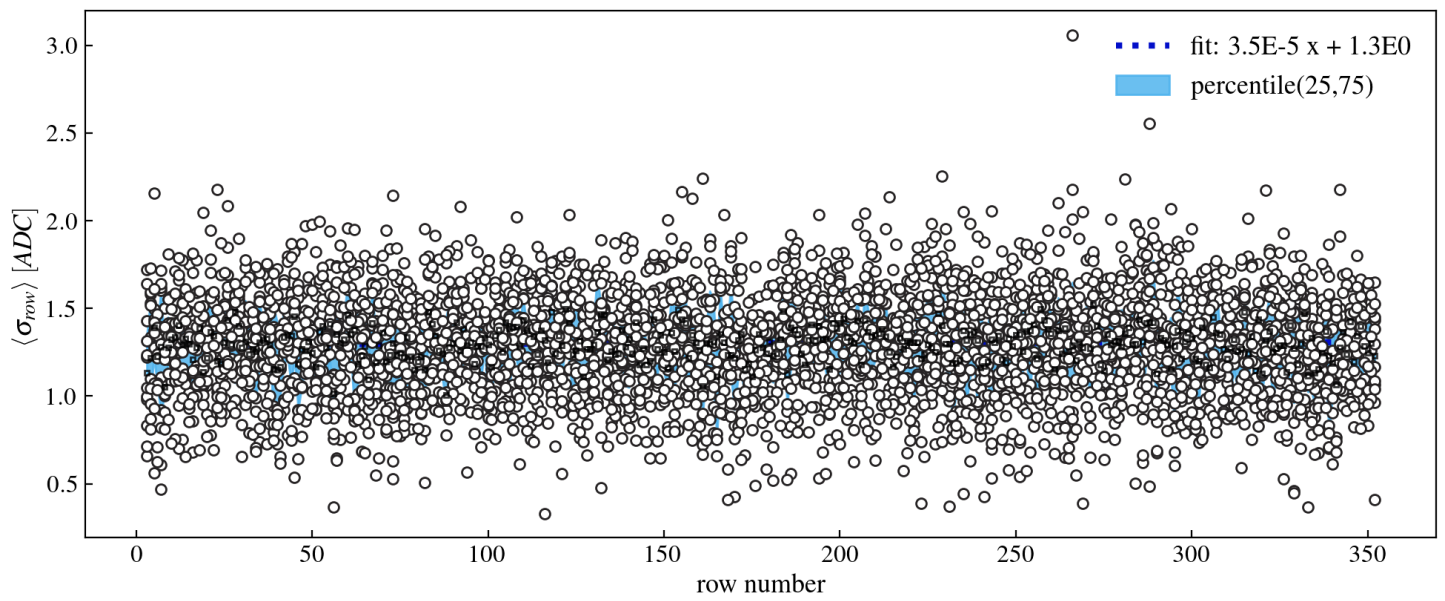


Figure 13: PedestalSubtractionProcess: mean sigma vs file (gauss fit)

Masked pixels [run 147]: frequency
[class MEMaskedPixels]

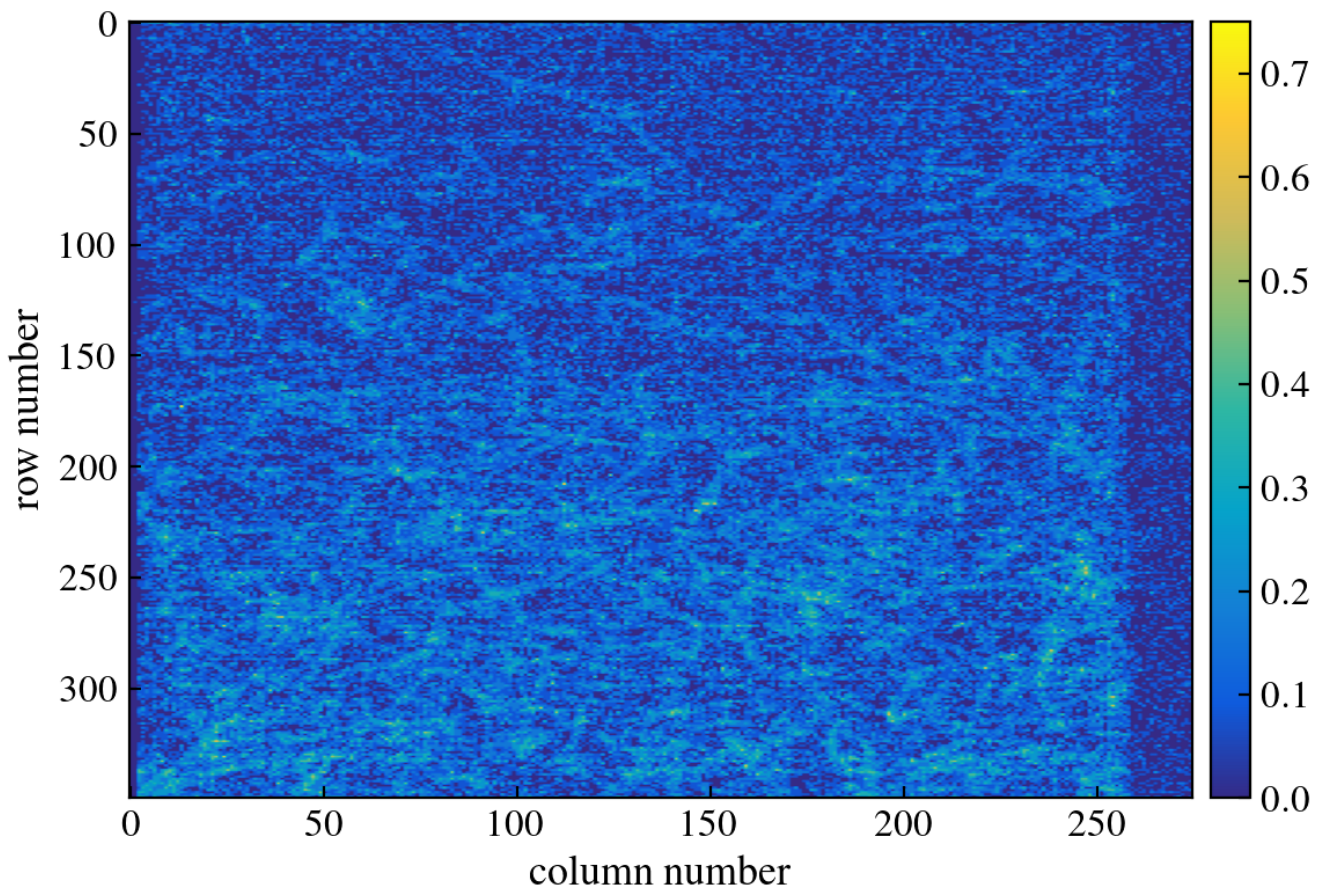


Figure 14: Masked pixels

Masked pixels [run 147]: mask
[21] masked pixels
[class MEMaskedPixels]

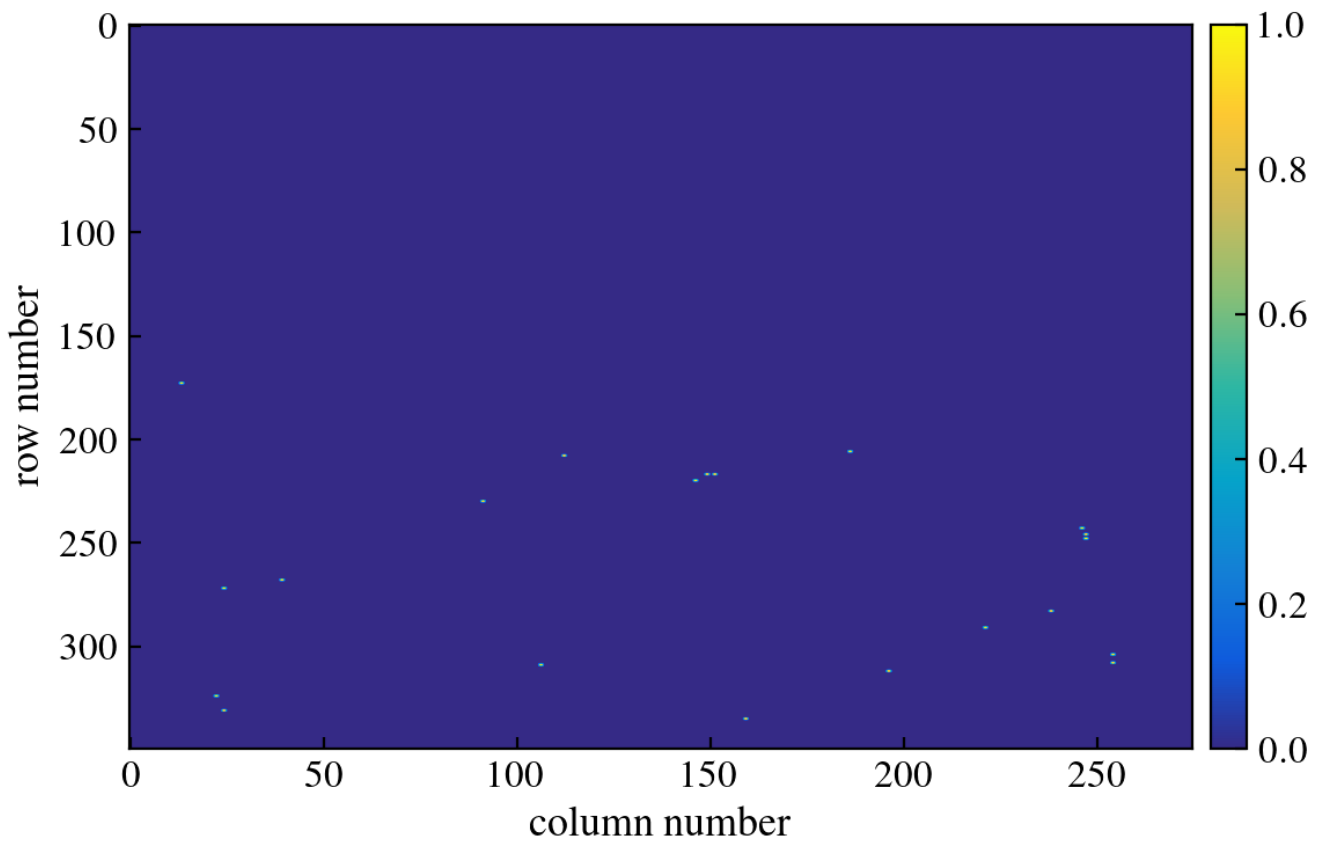


Figure 15: Masked pixels

Single Pixel Energy Distribution [w/ 5.12 ADC/e- and 3.74eV/e-]
[class MESinglePED]

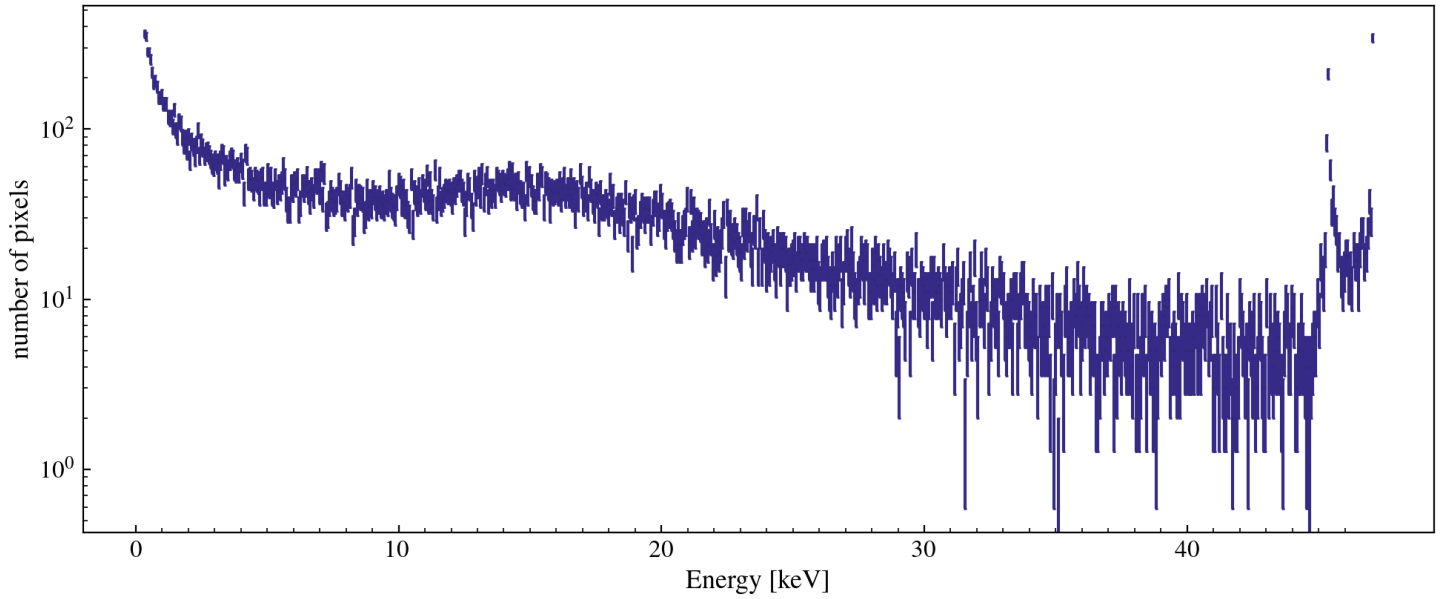


Figure 16: Number of pixels with $E > 300.0$ eV vs file

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

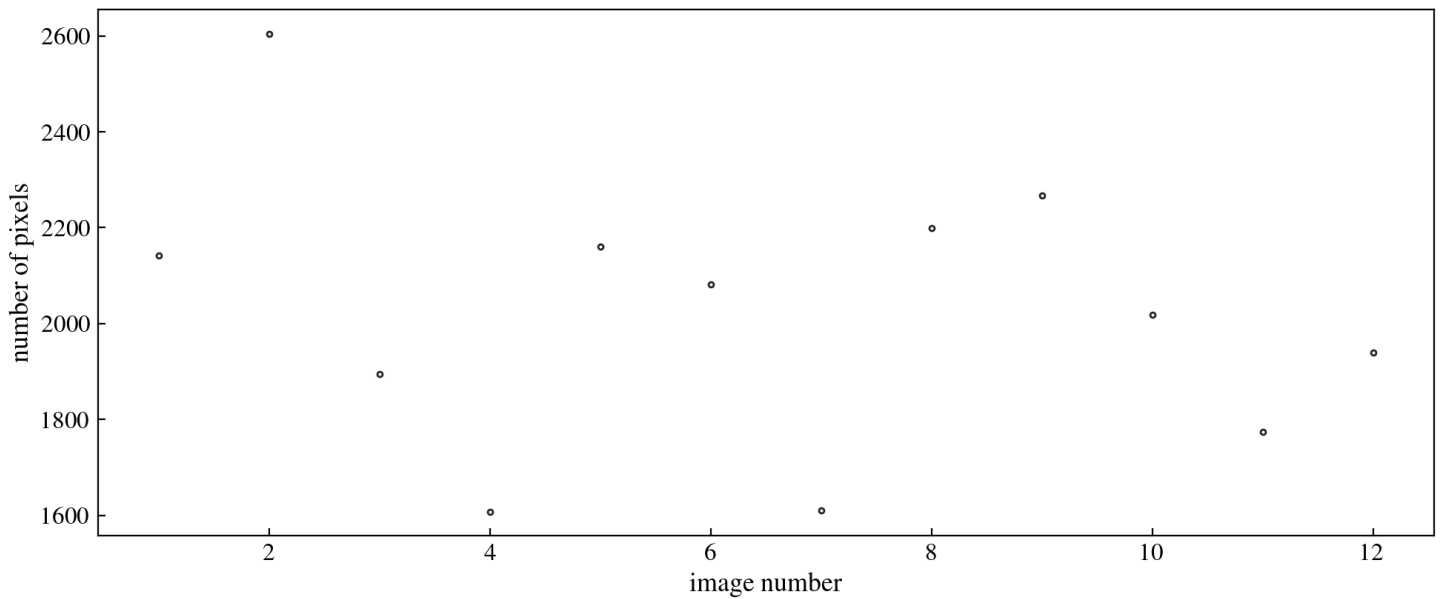


Figure 17: Number of pixels with $E > 300.0$ eV vs file

Pixel Charge Distribution

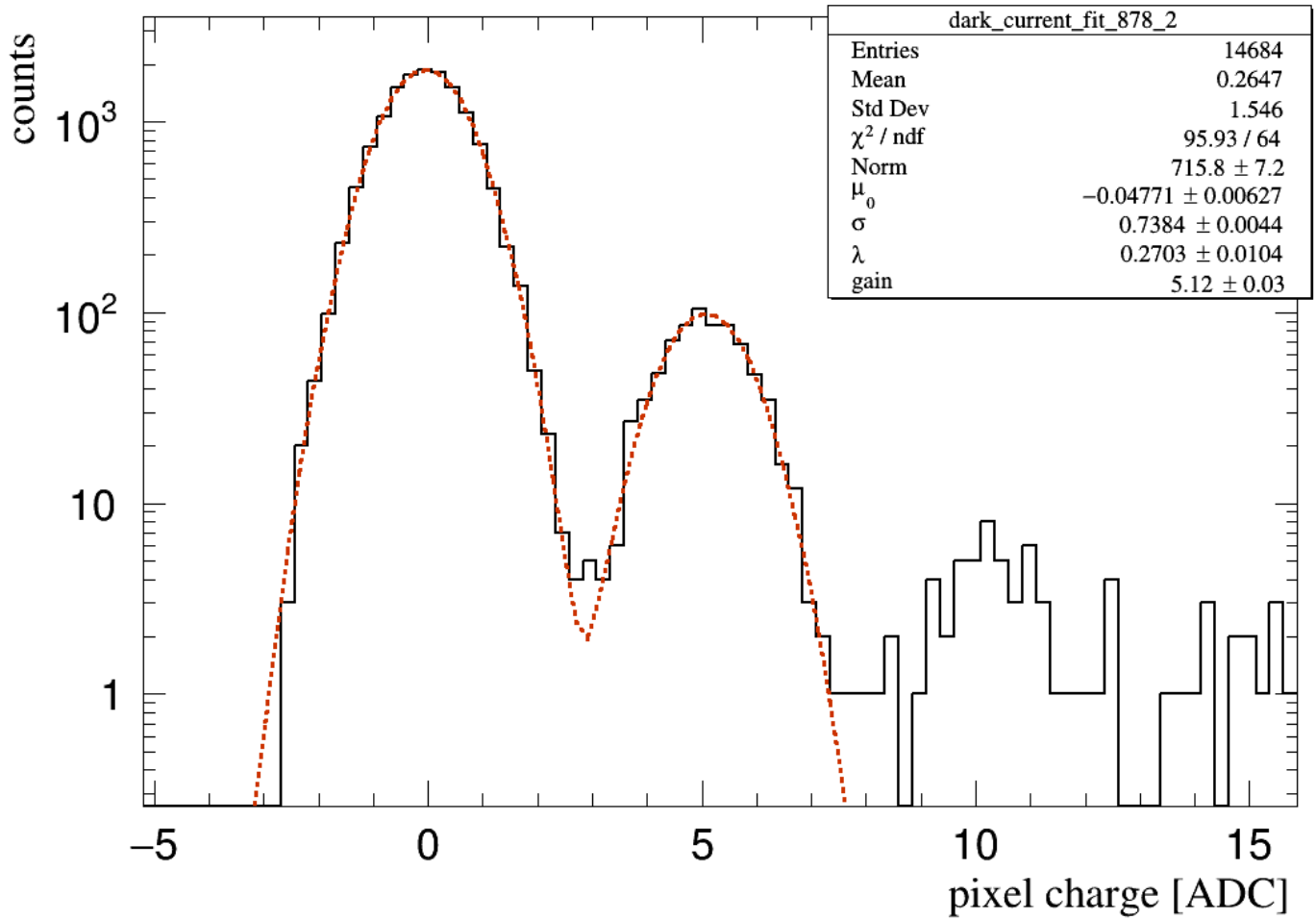


Figure 18: Pixel Charge Distribution

Image used to Fit DC (HR image)

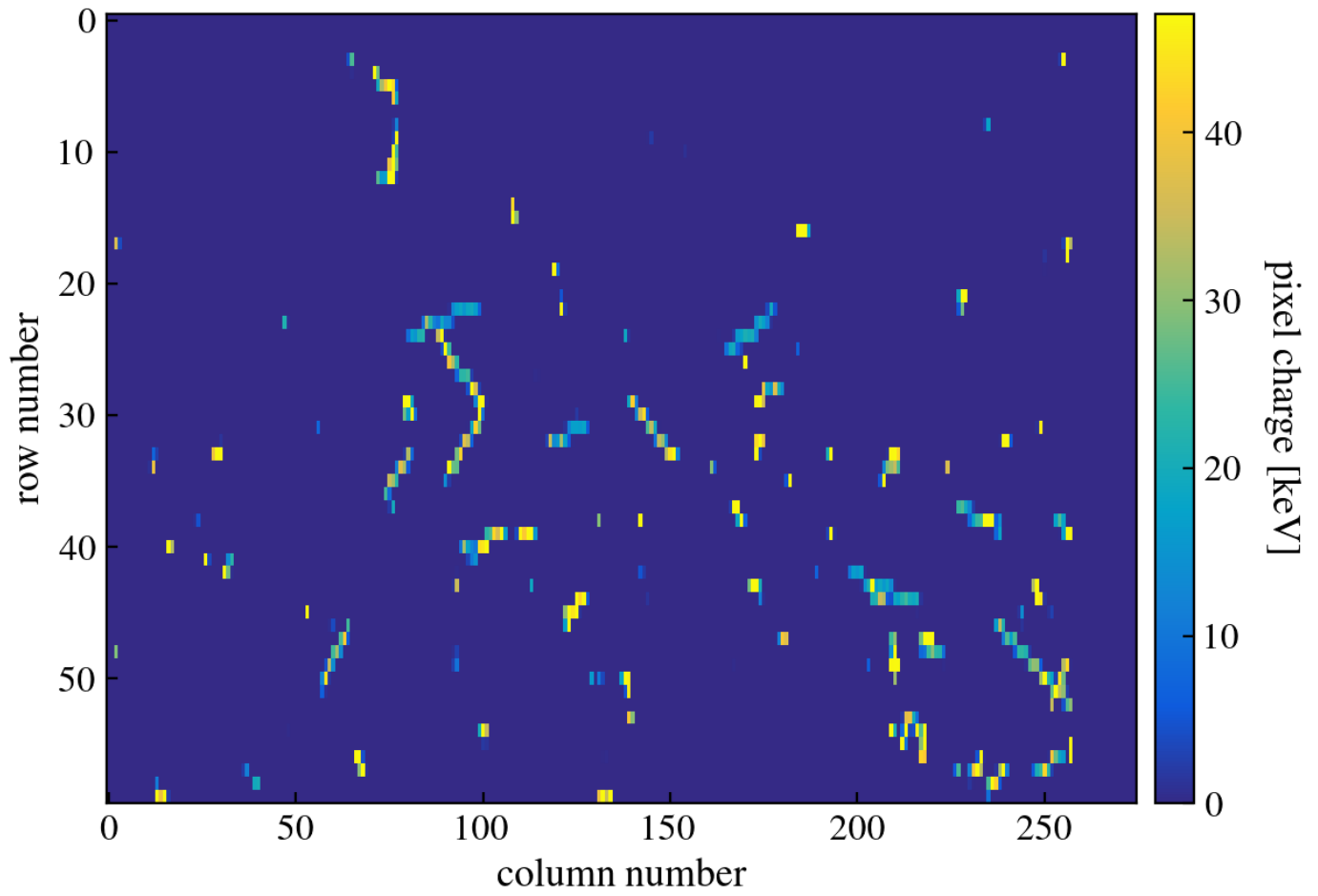


Figure 19: Pixel Charge Distribution

Pixel Charge Distribution

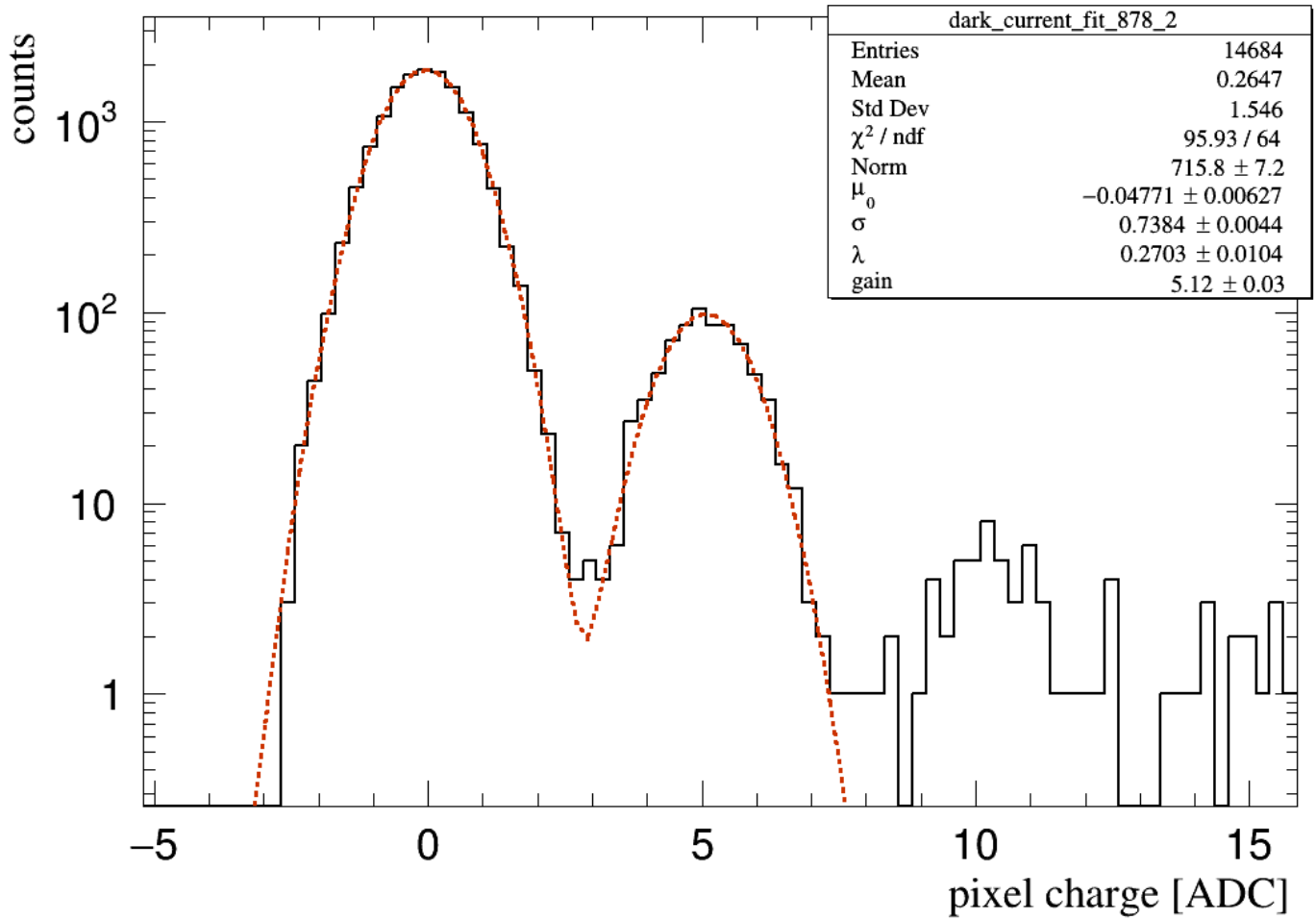


Figure 20: Pixel Charge Distribution

Image used to Fit DC (HR image)

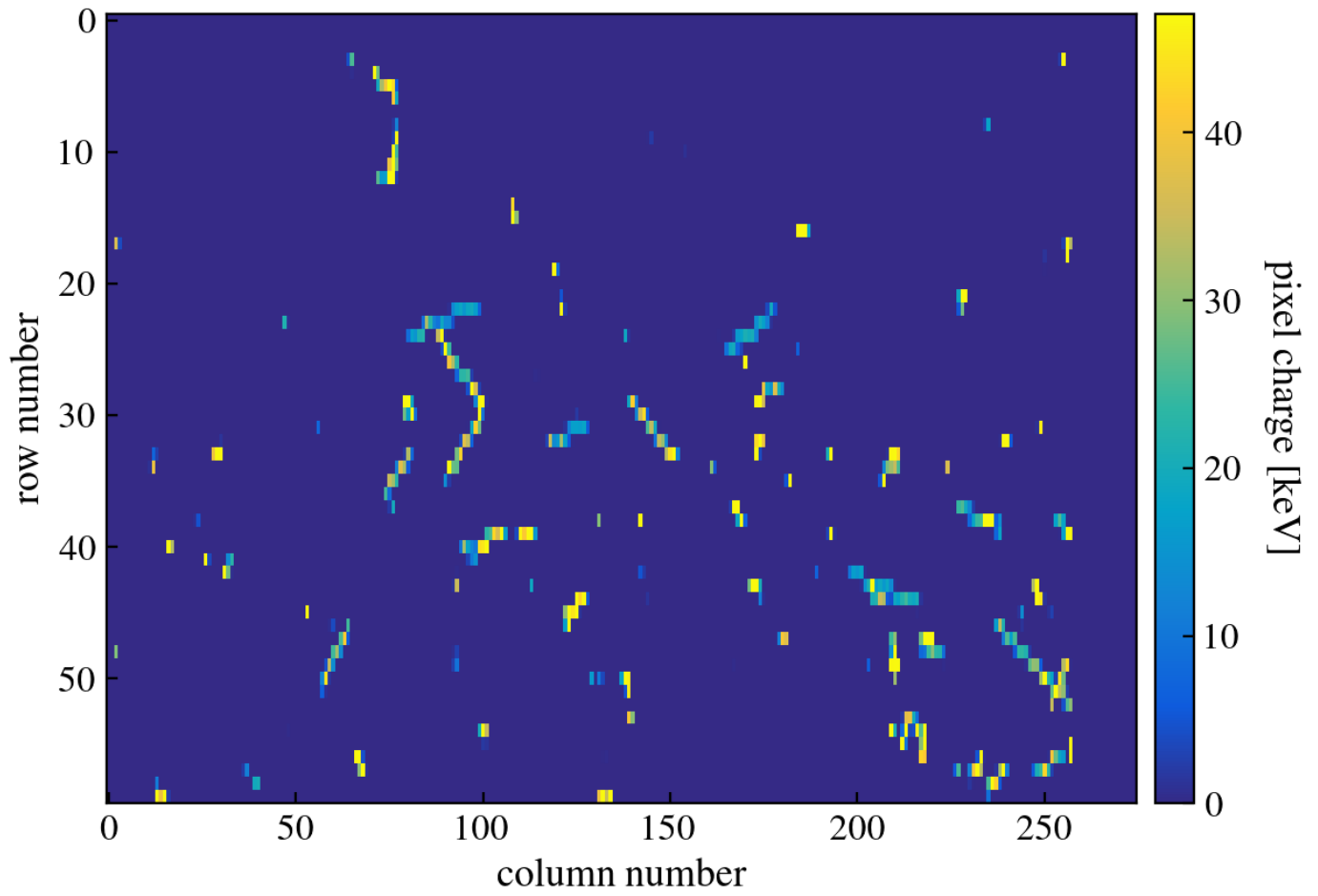


Figure 21: Pixel Charge Distribution

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

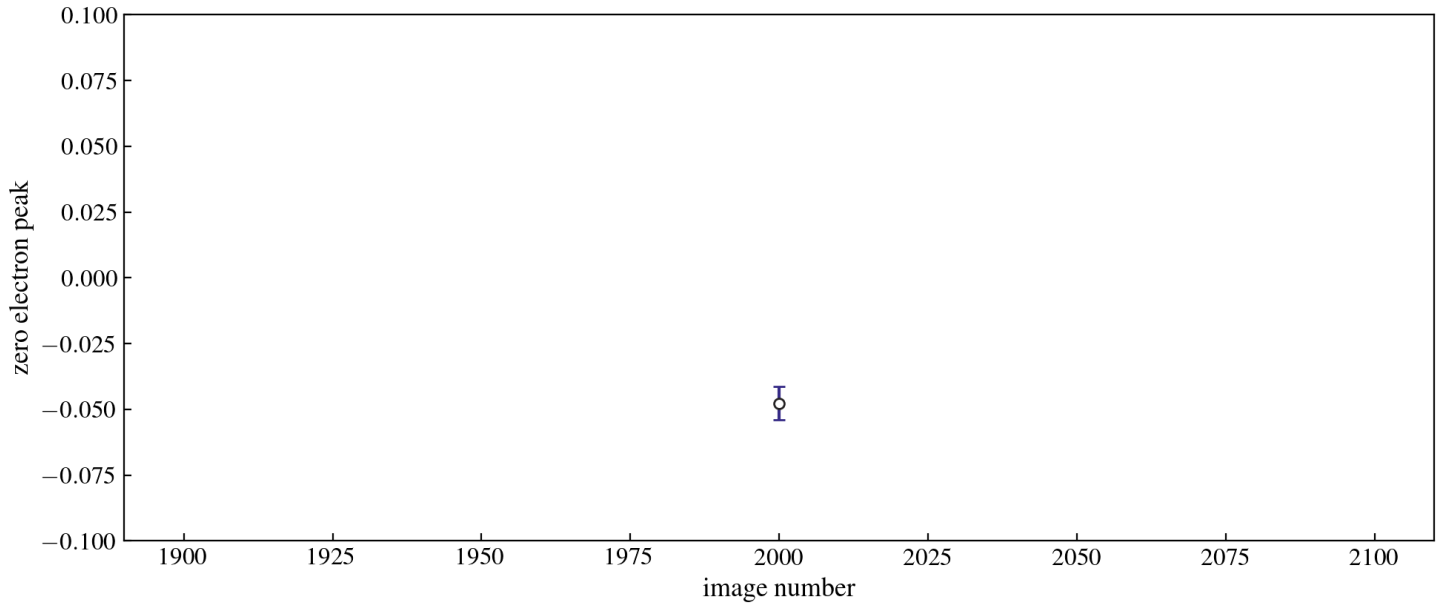


Figure 22: Zero electron peak (from MEFitDC) vs Image

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

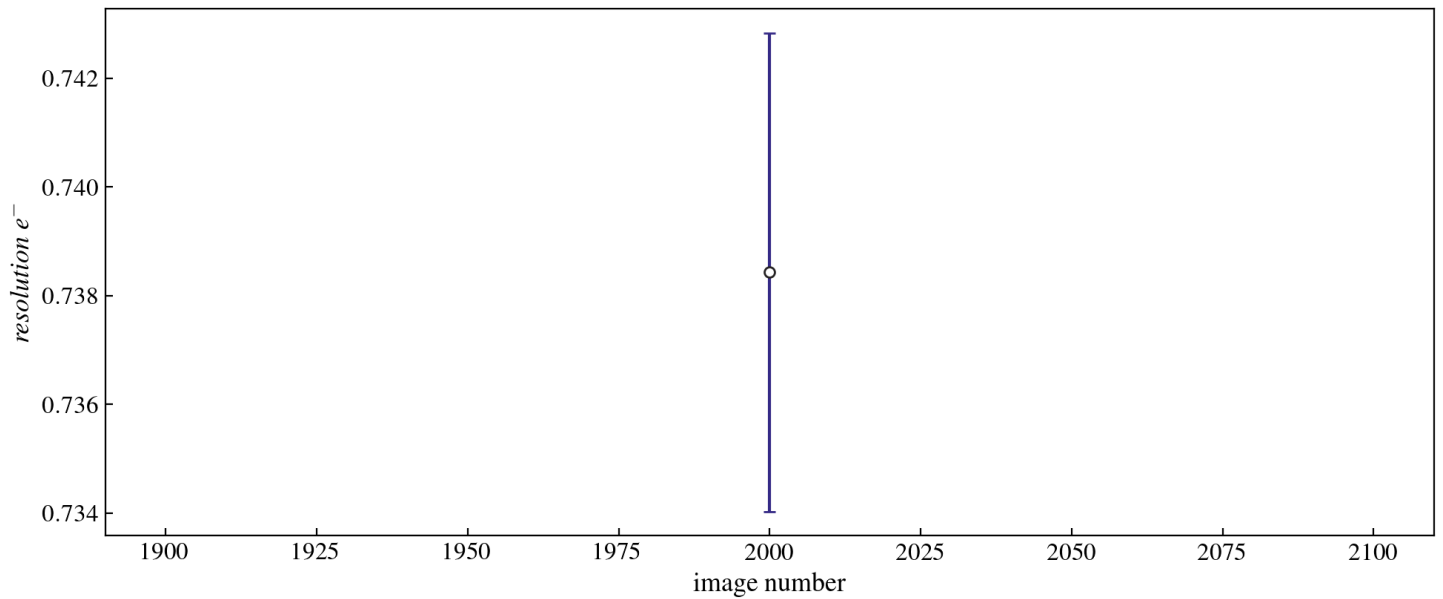


Figure 23: Electron Single Resolution (from MEFitDC) vs Image

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

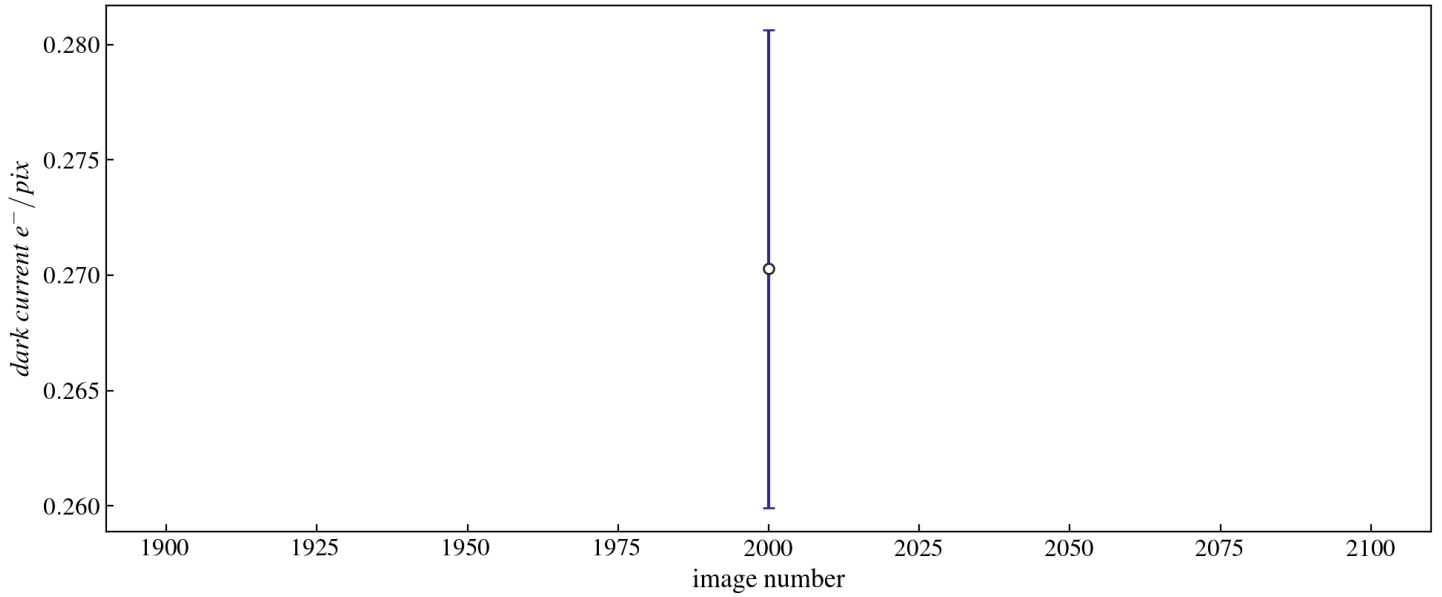


Figure 24: Dark current (from MEFitDC per Row) vs Image

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

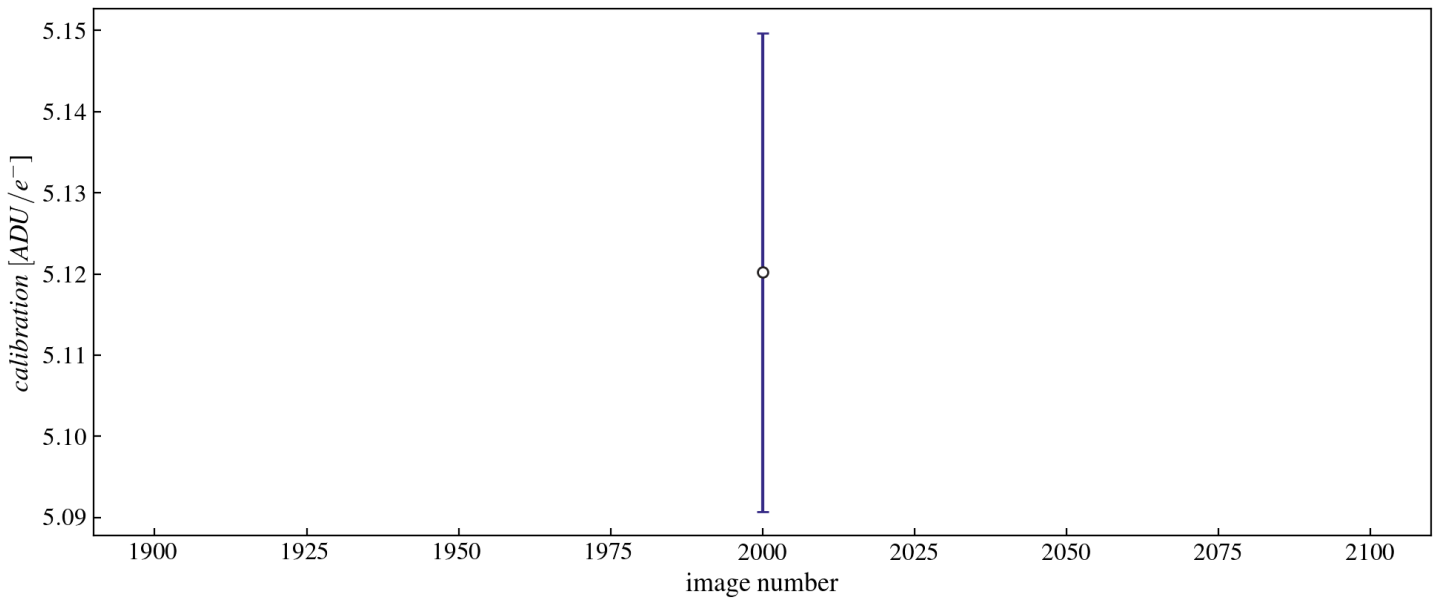


Figure 25: Calibration constant (from MEFitDC) vs Image

Overscan. PCD Gaussian fit: μ_0
[class MEOverscanPCDMu]

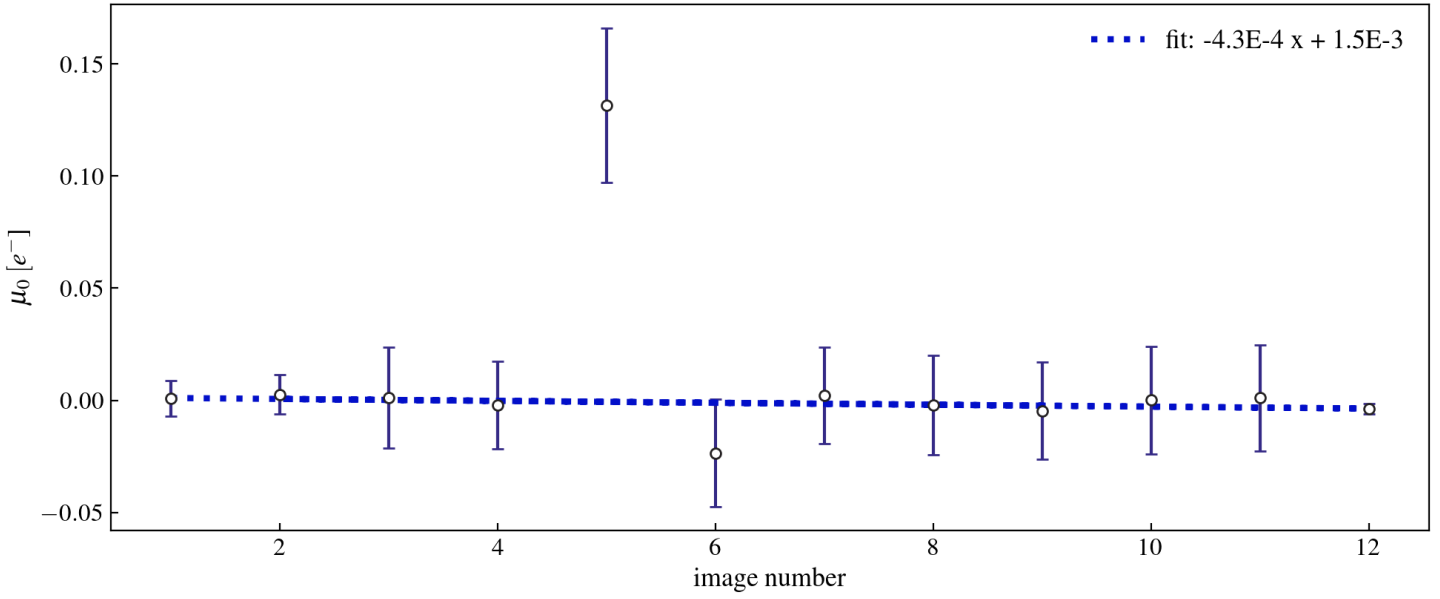


Figure 26: *Overscan. PCD Gaussian fit: μ_0*

Overscan. PCD Gaussian fit: σ_0
[class MEOverscanPCDSigma]

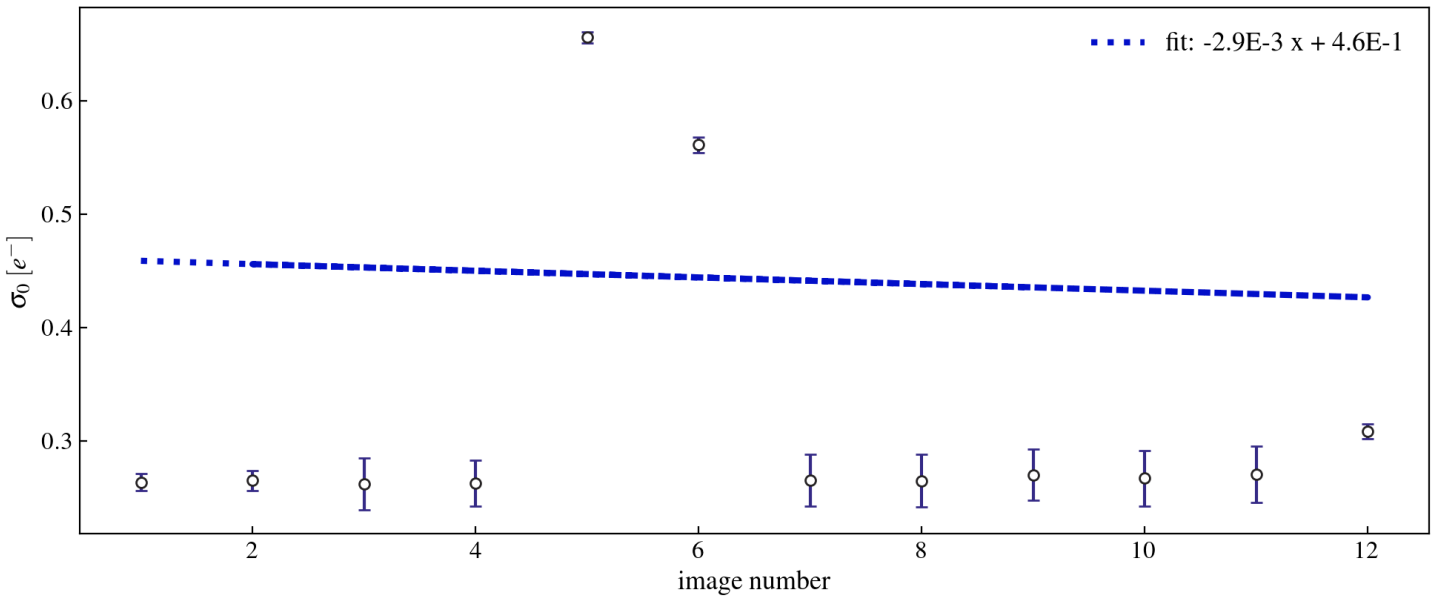


Figure 27: *Overscan. PCD Gaussian fit: σ_0*

Electronic column transient showing an exponential behaviour
[class MEColTransient]

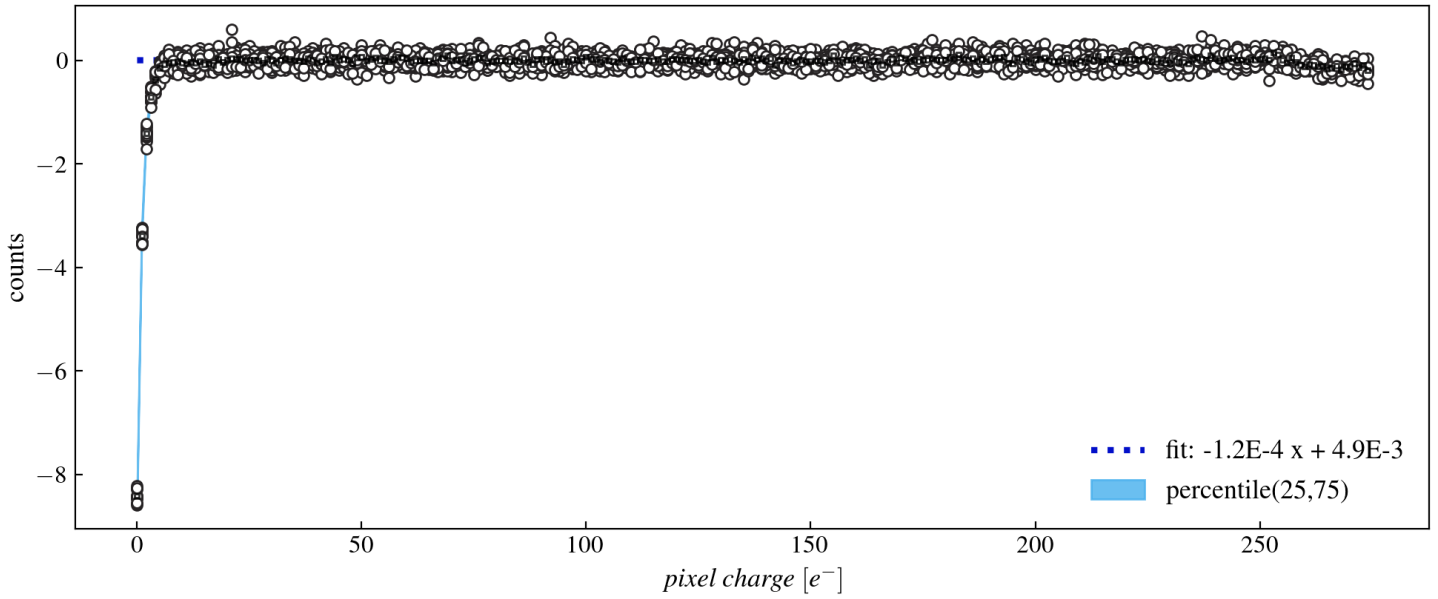


Figure 28: Electronic column transient showing an exponential behaviour

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

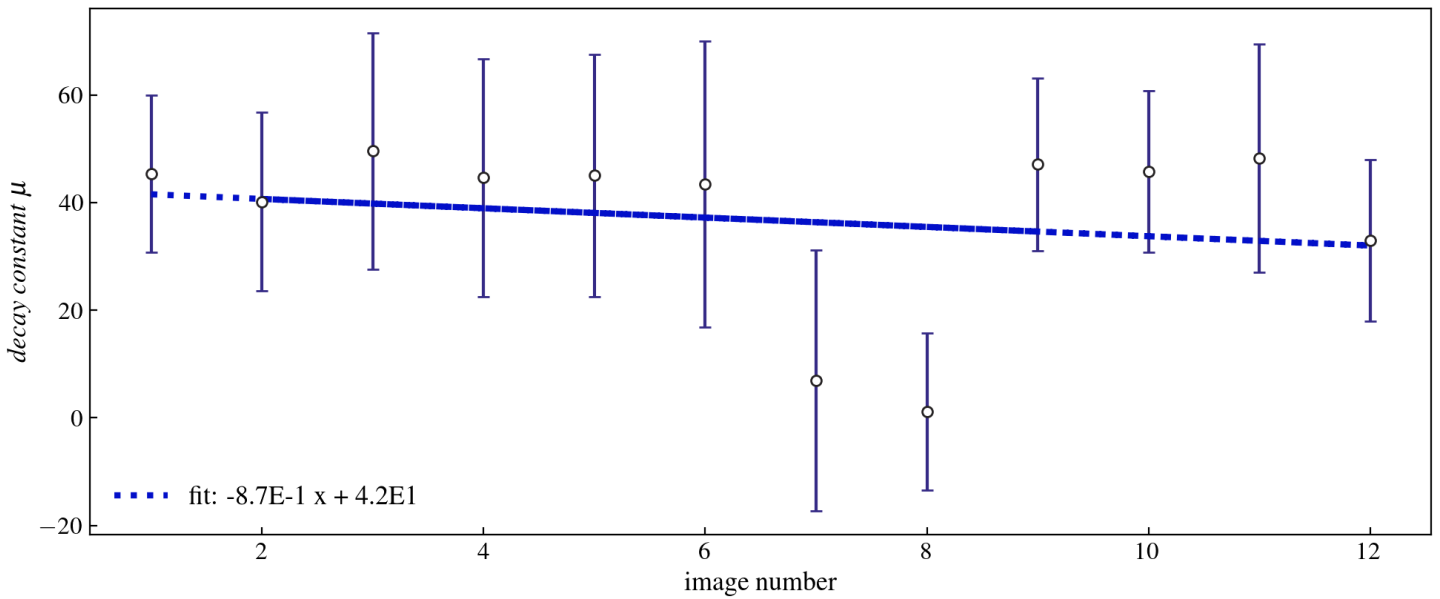


Figure 29: Column transient decay constant (from MEColTransient) vs Image

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

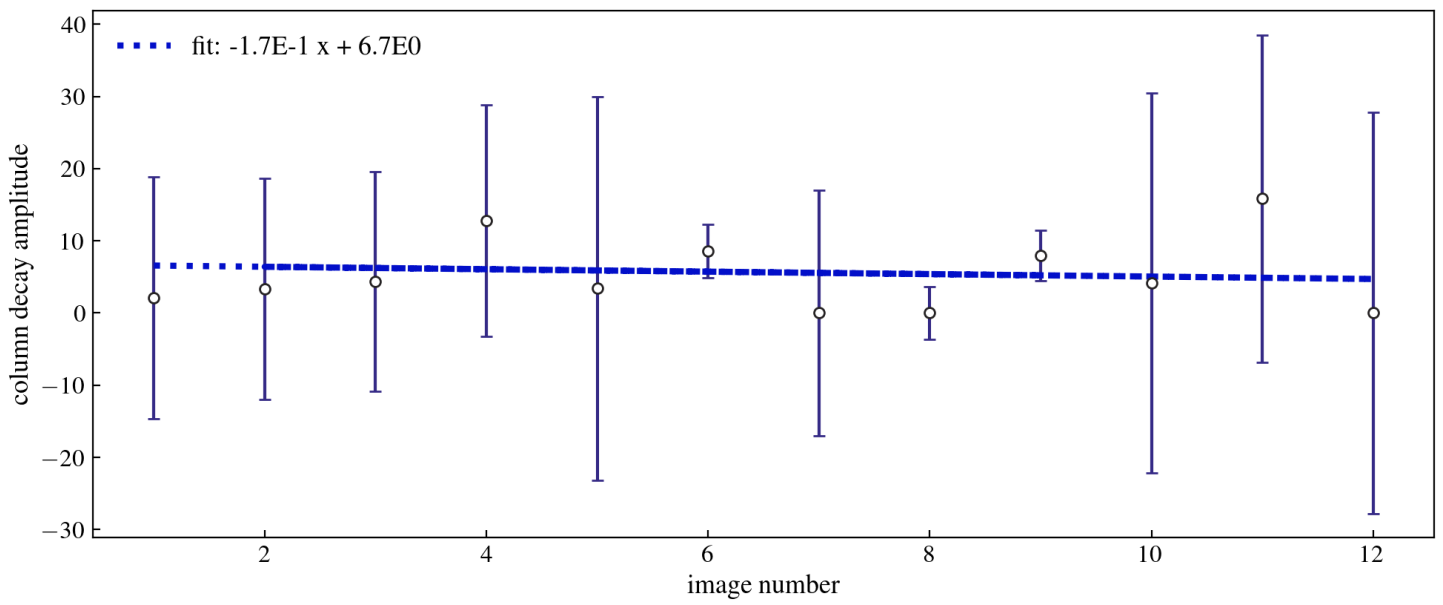


Figure 30: Column transient amplitude (from MEColTransient) vs Image

CCD Image: run 147, image 2000
[class MECCDImage]

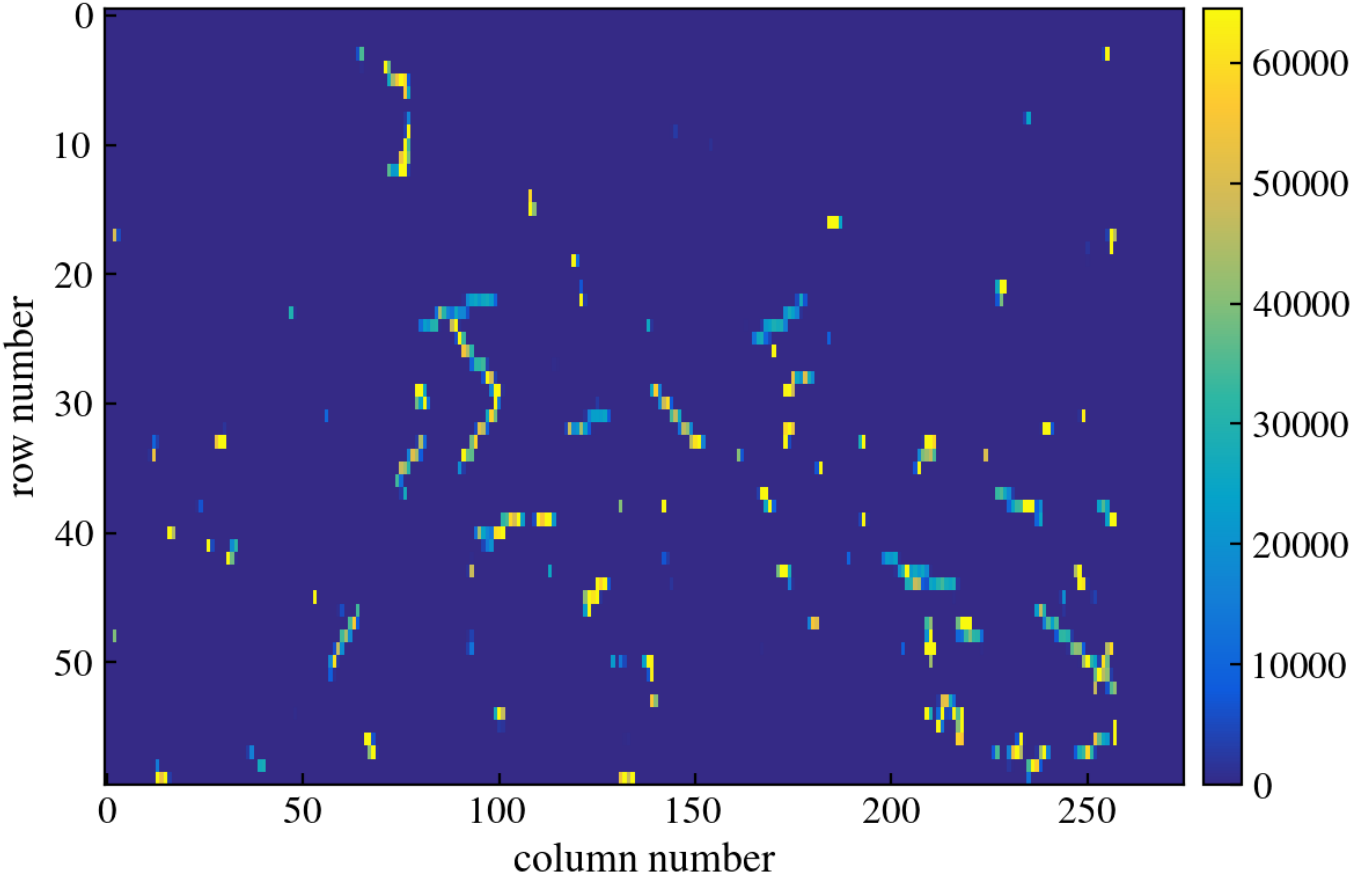


Figure 31: CCD Image

CCD Image: run 147, image 1
[class MECCDImage]

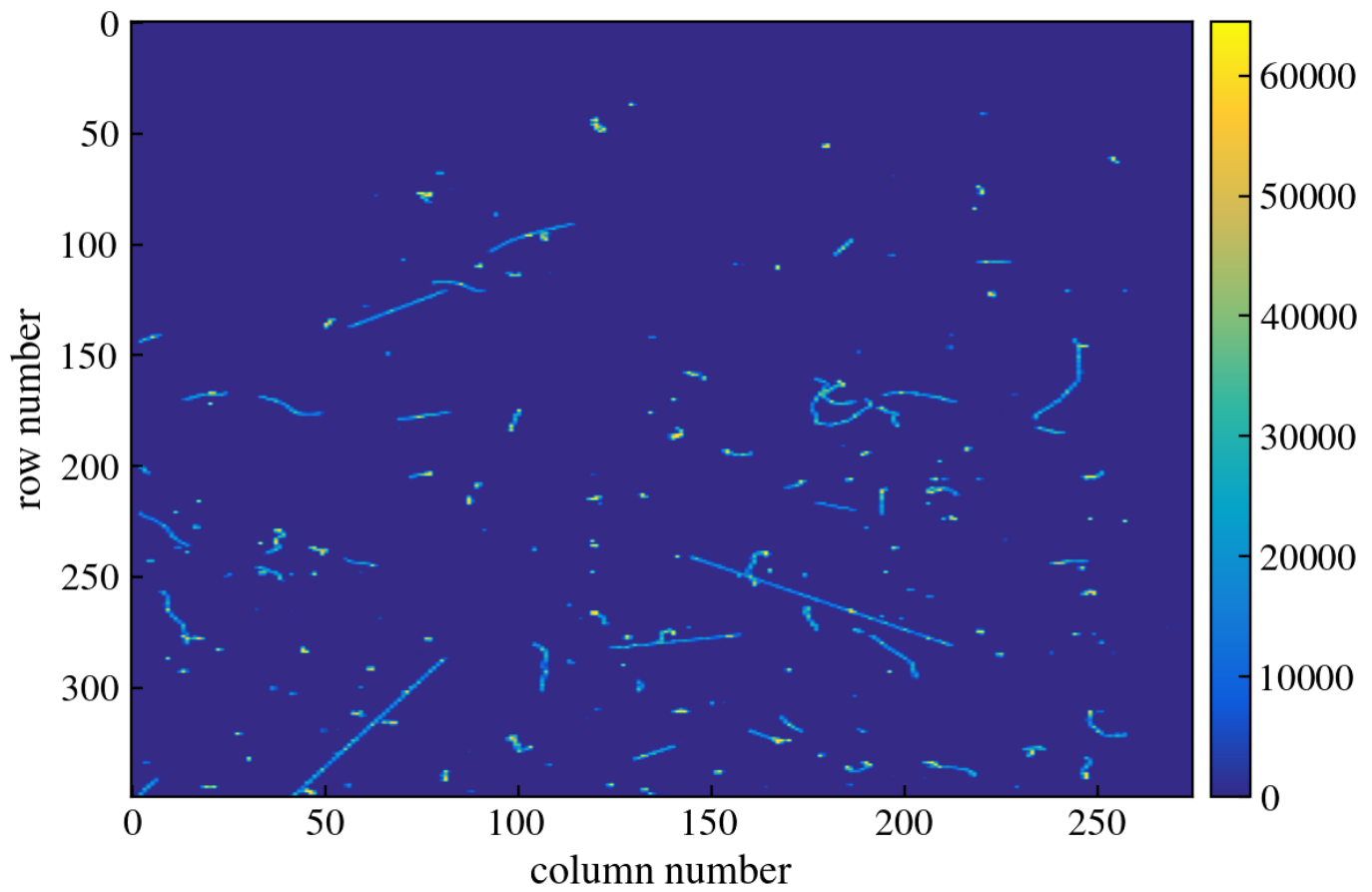


Figure 32: CCD Image

CCD Image: run 147, image 10
[class MECCDImage]

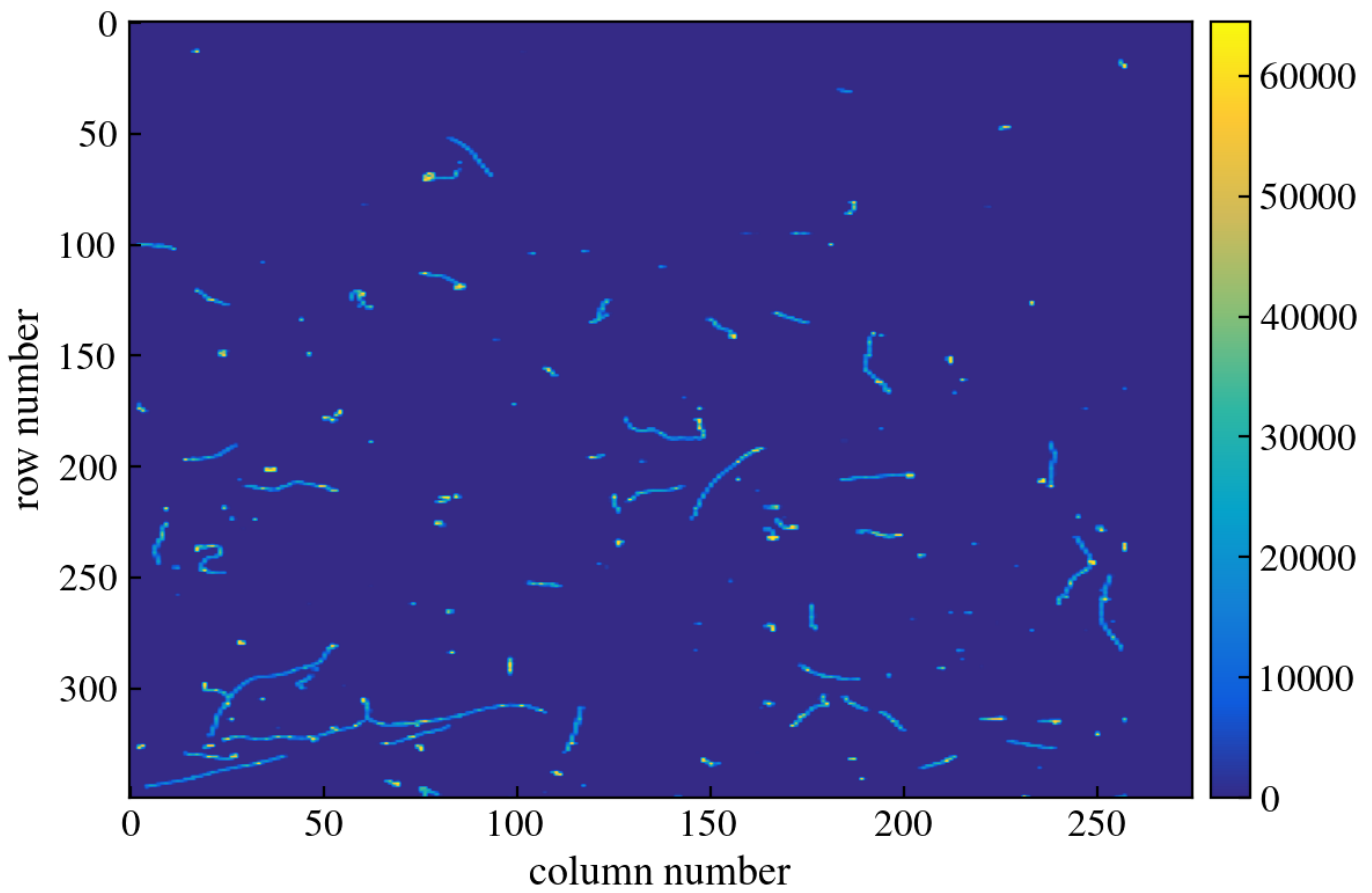


Figure 33: CCD Image

CCD Image: run 147, image 11
[class MECCDImage]

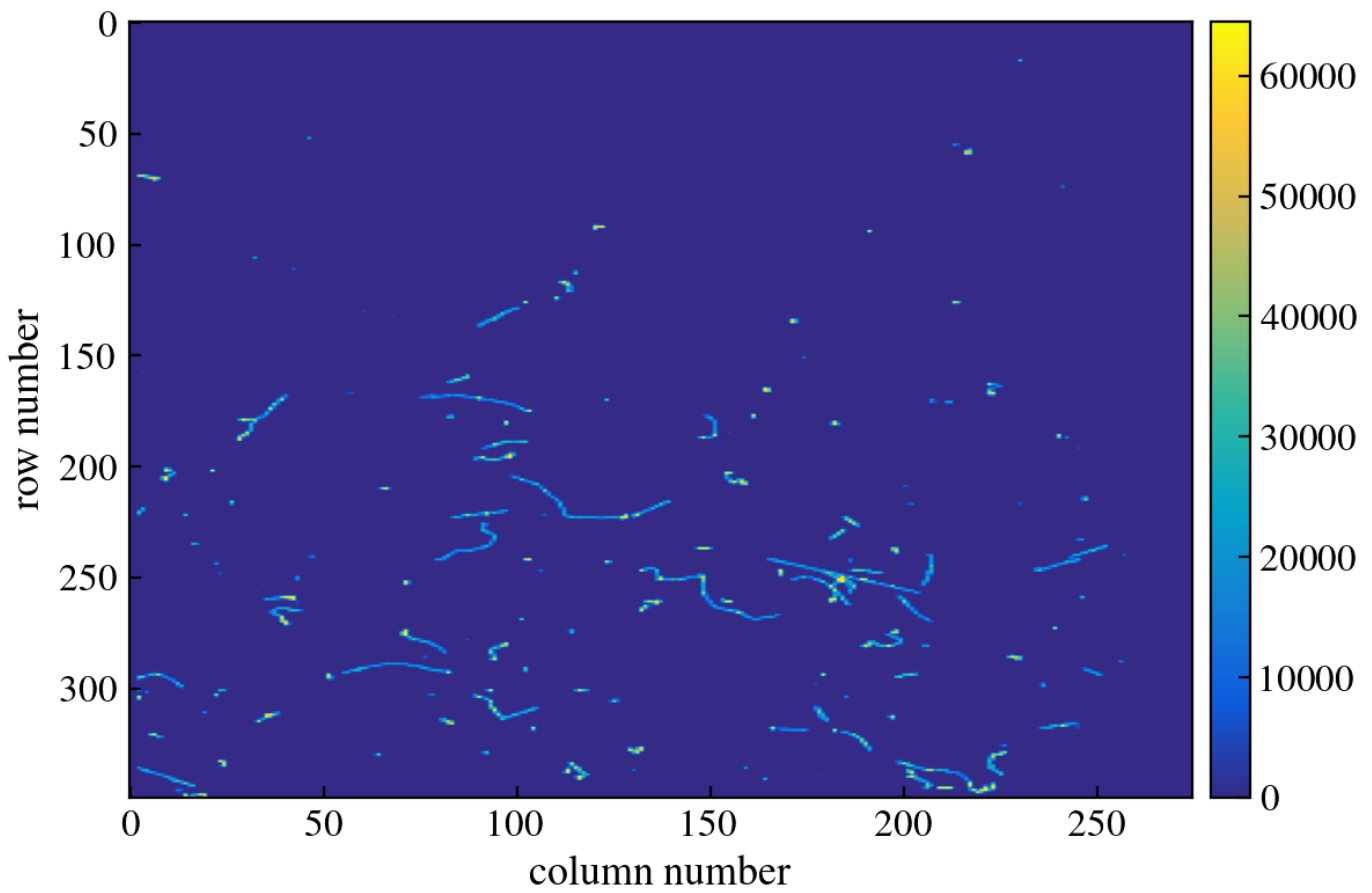


Figure 34: CCD Image

CCD Image: run 147, image 12
[class MECCDImage]

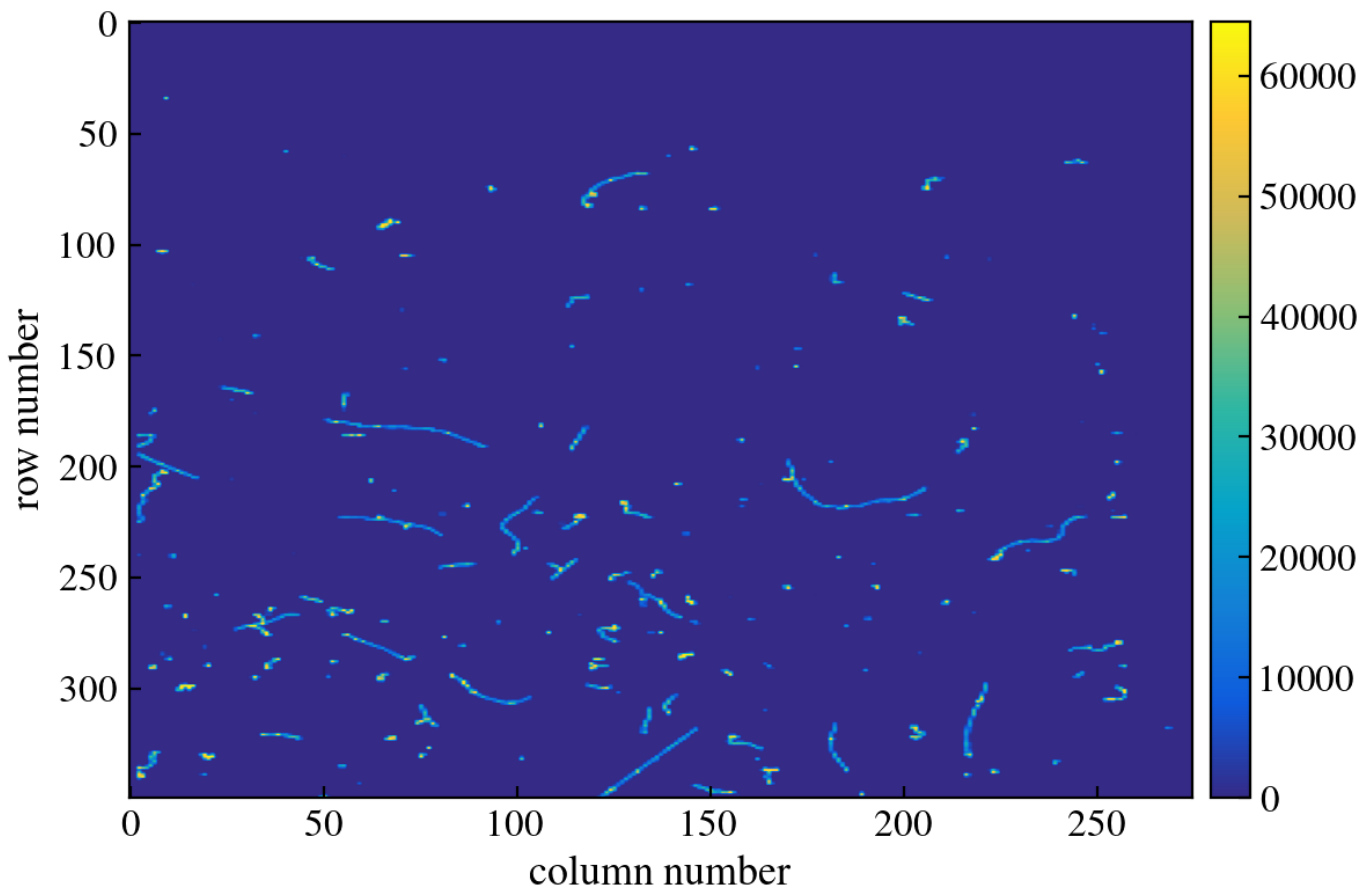


Figure 35: CCD Image

CCD Image: run 147, image 2
[class MECCDImage]

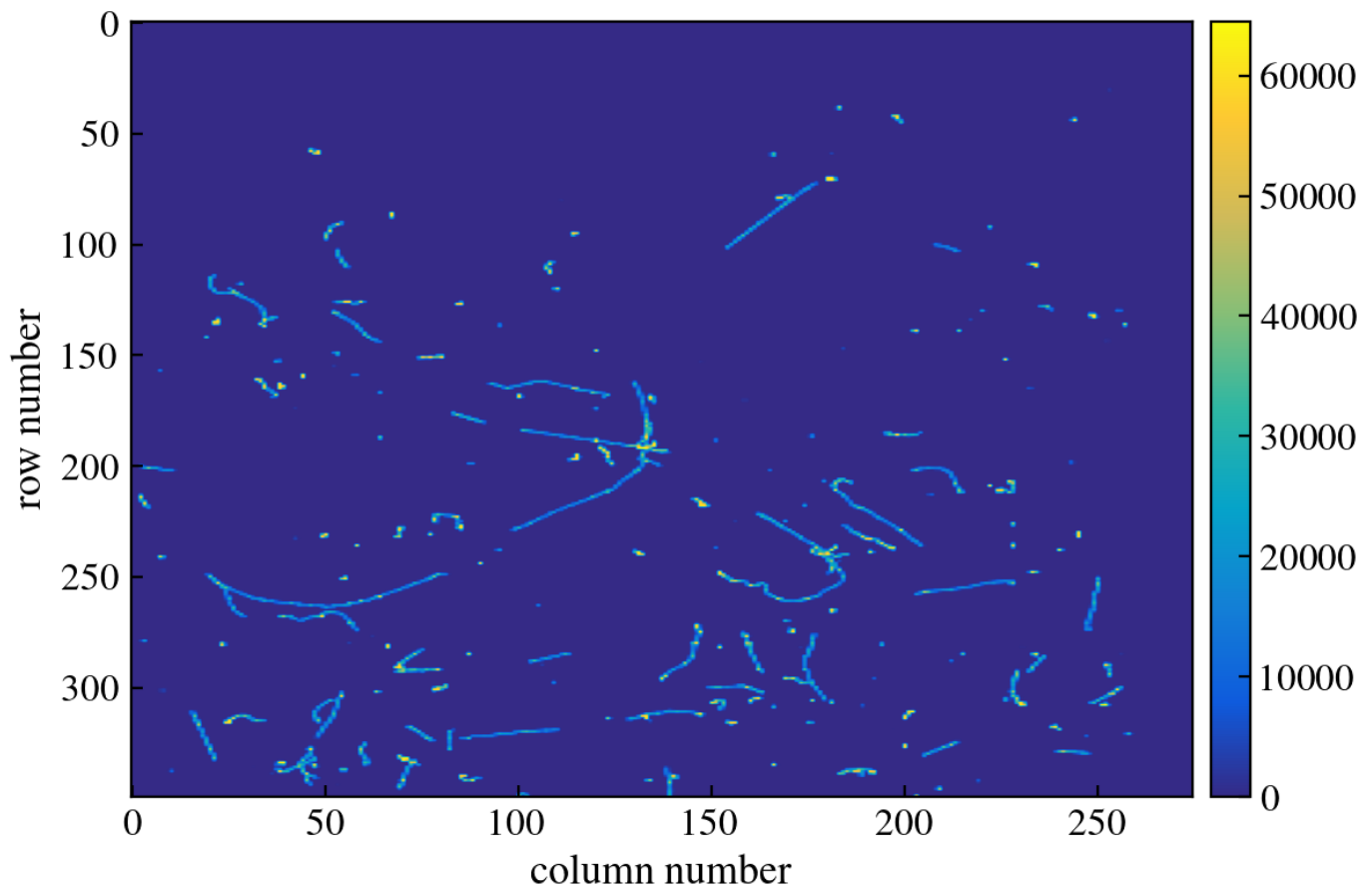


Figure 36: CCD Image

CCD Image: run 147, image 3
[class MECCDImage]

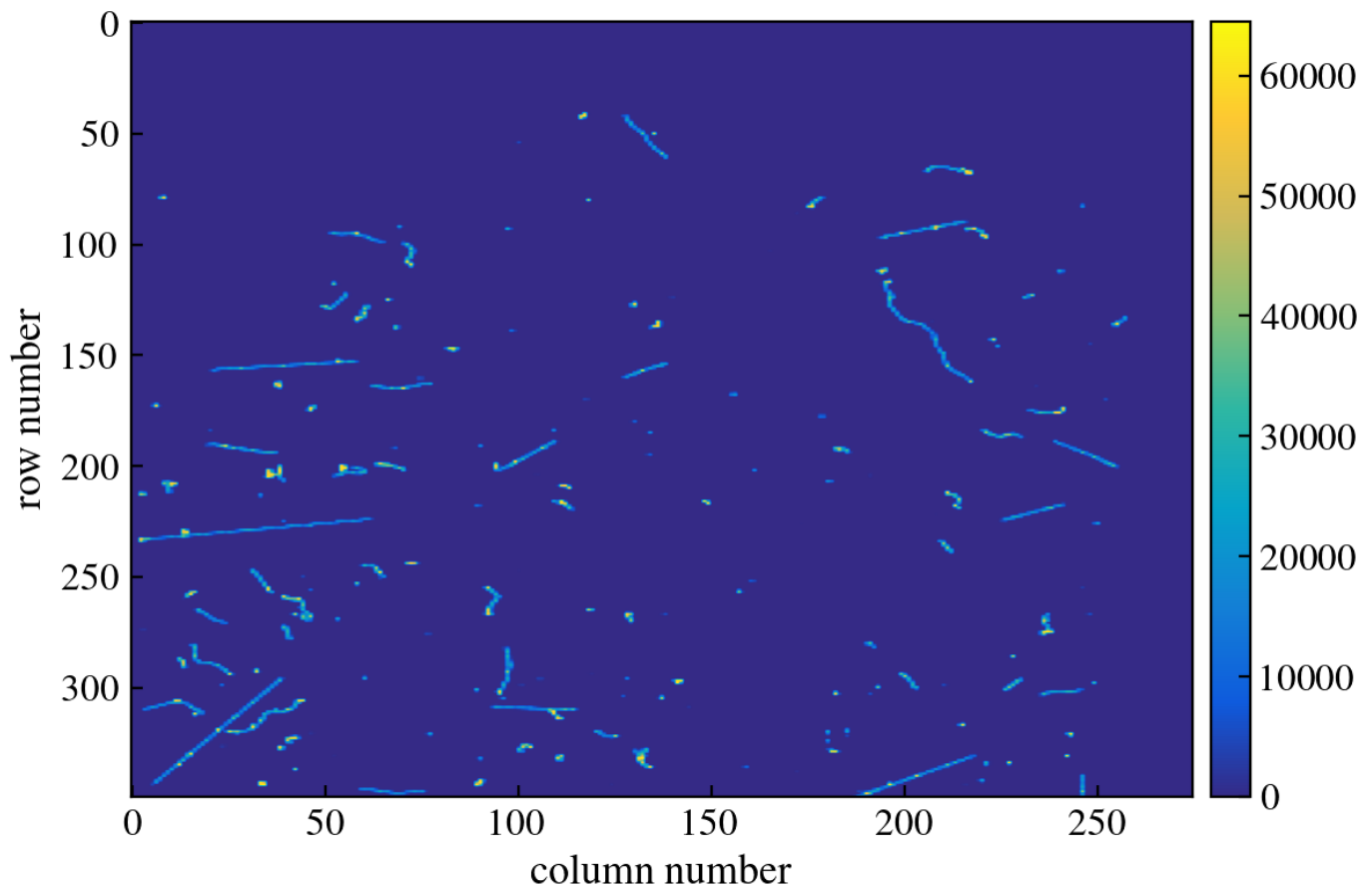


Figure 37: CCD Image

CCD Image: run 147, image 4
[class MECCDImage]

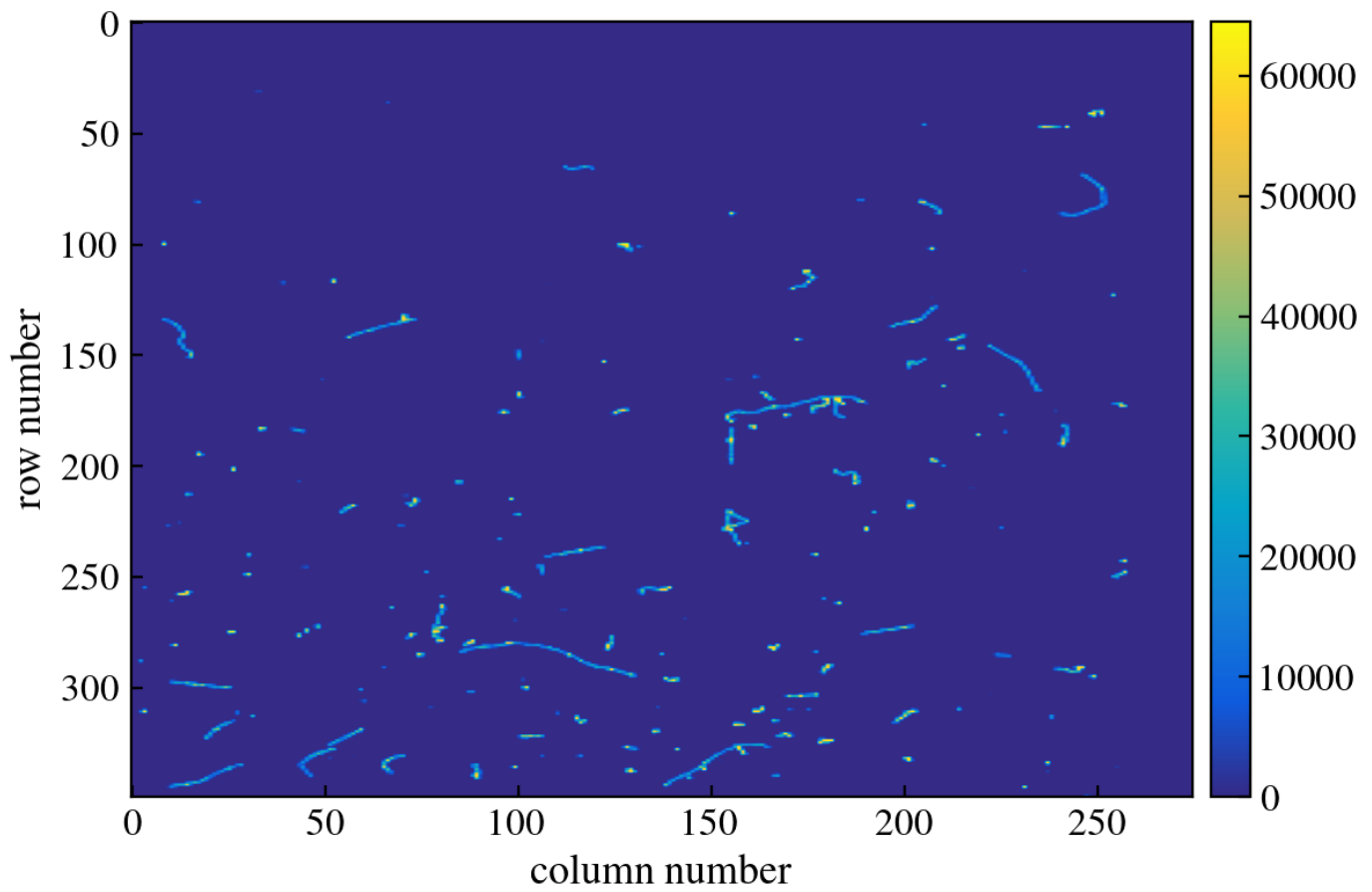


Figure 38: CCD Image

CCD Image: run 147, image 5
[class MECCDImage]

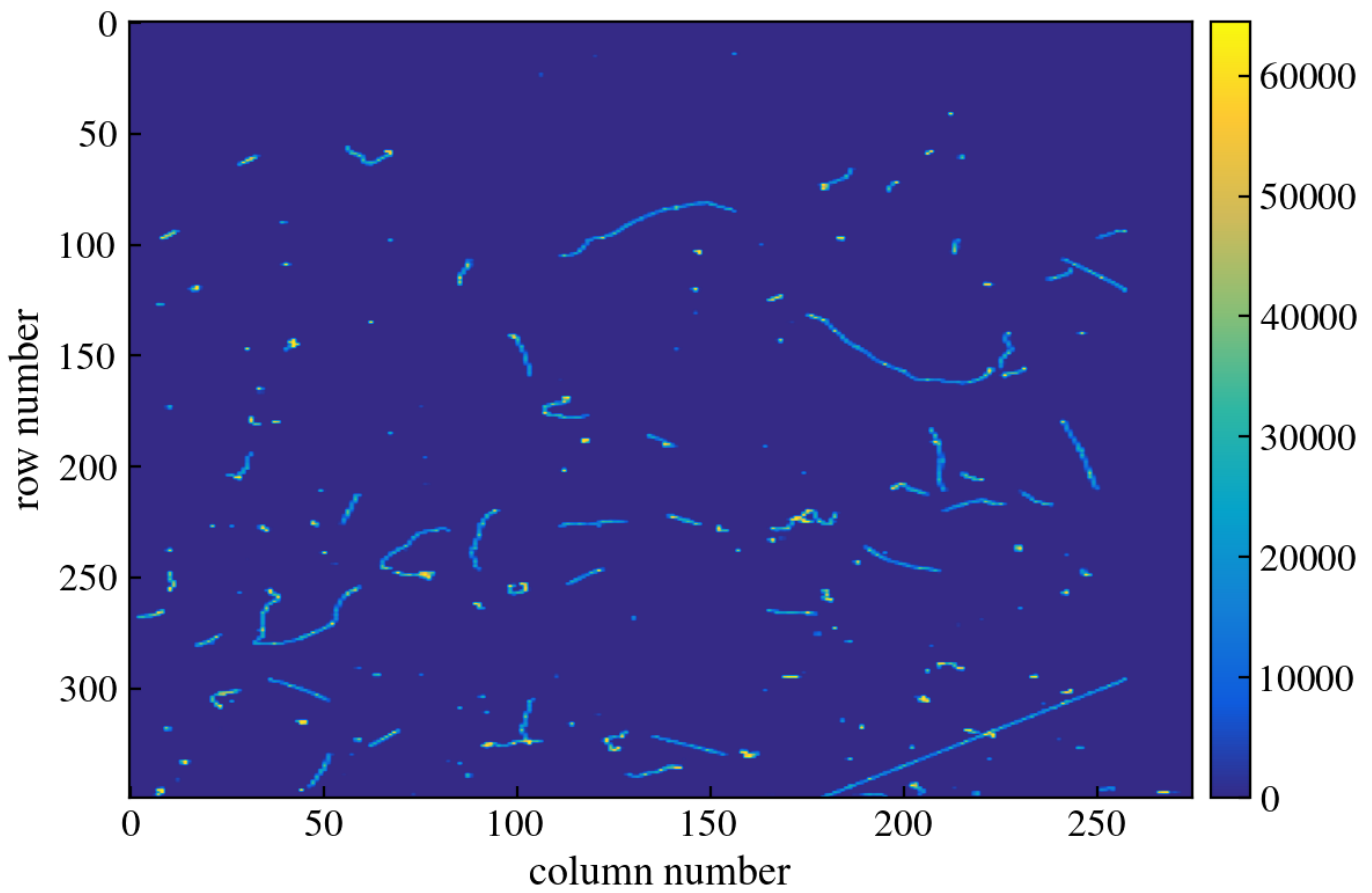


Figure 39: CCD Image

CCD Image: run 147, image 6
[class MECCDImage]

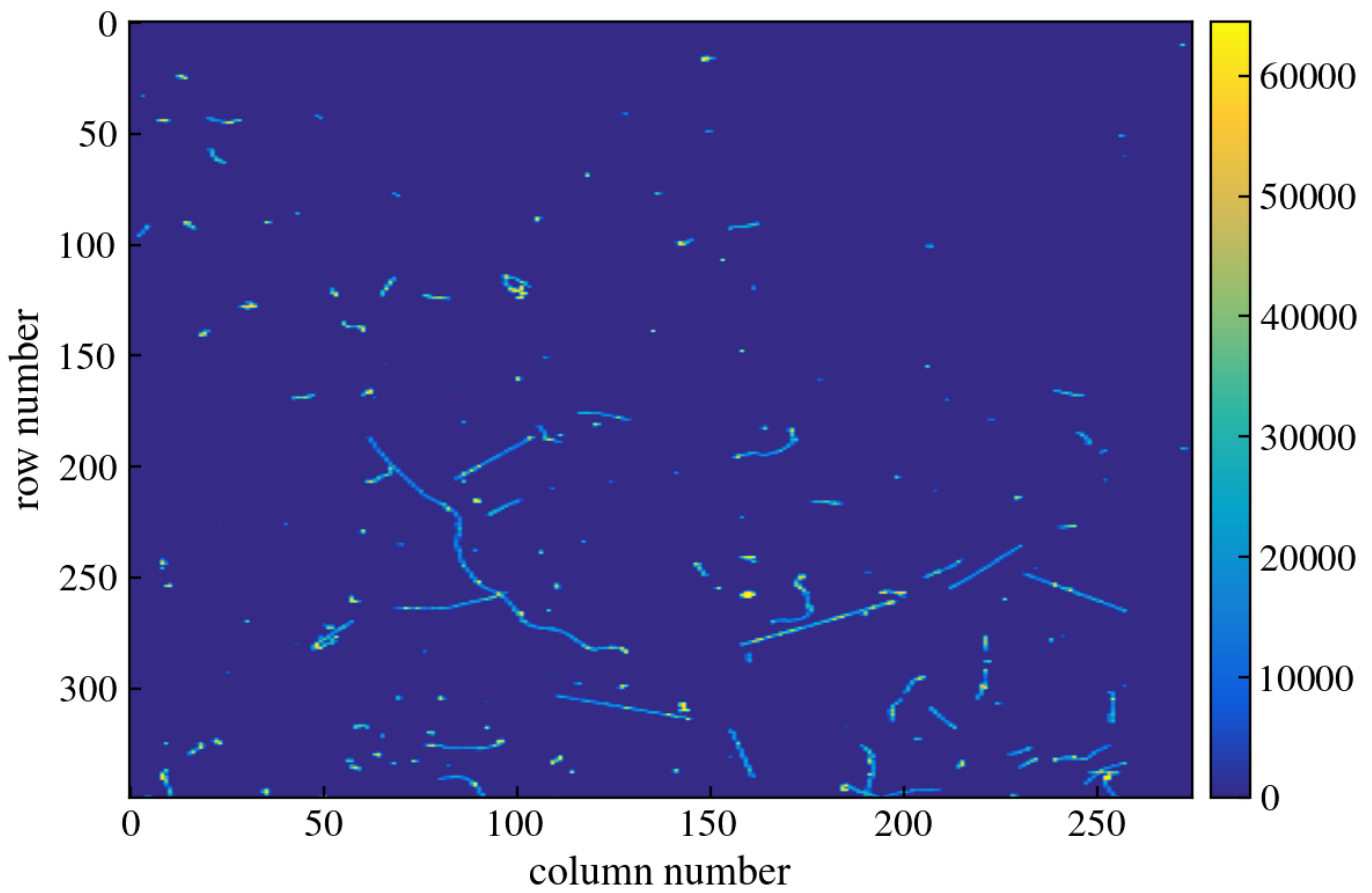


Figure 40: CCD Image

CCD Image: run 147, image 7
[class MECCDImage]

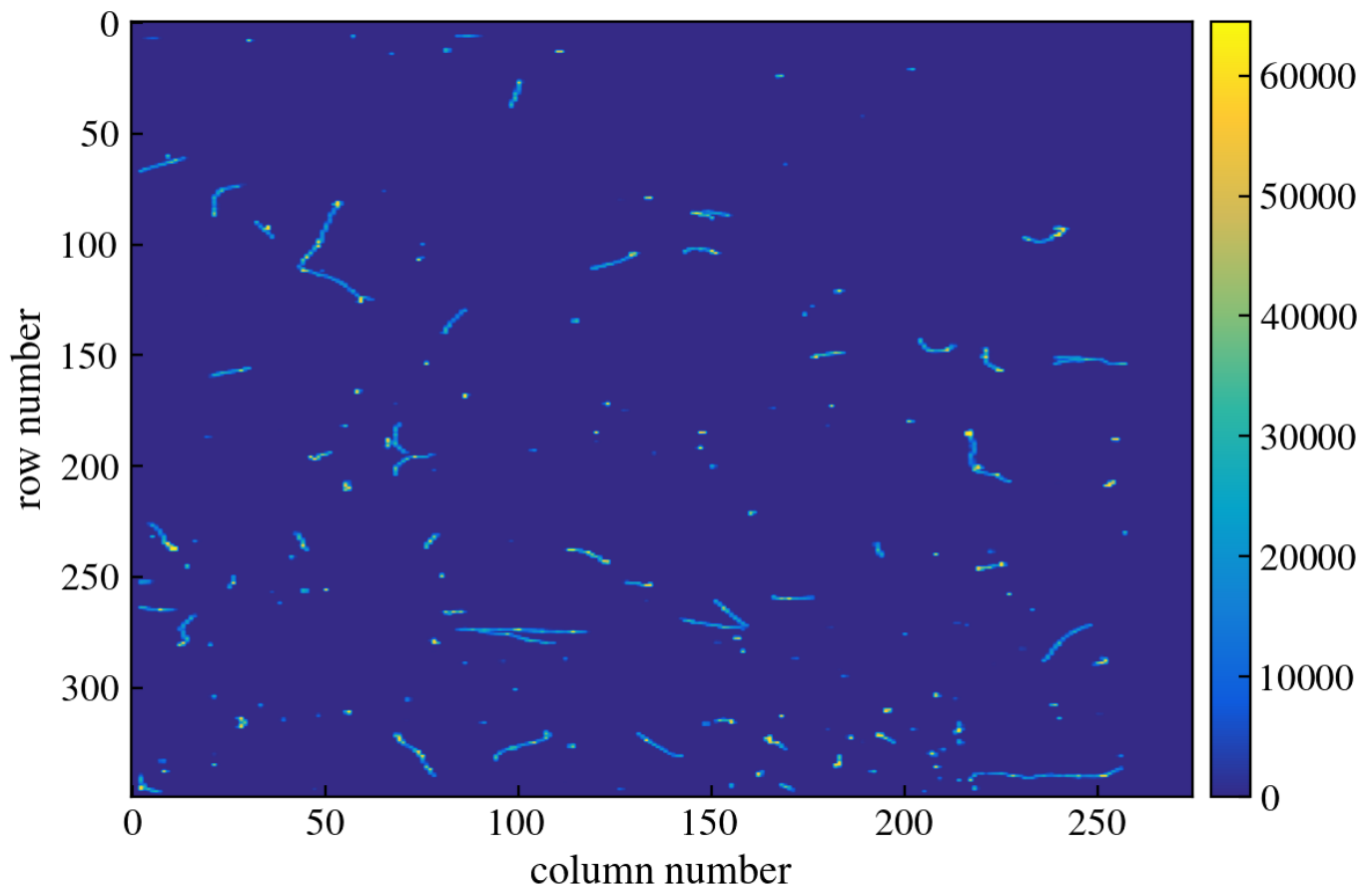


Figure 41: CCD Image

CCD Image: run 147, image 8
[class MECCDImage]

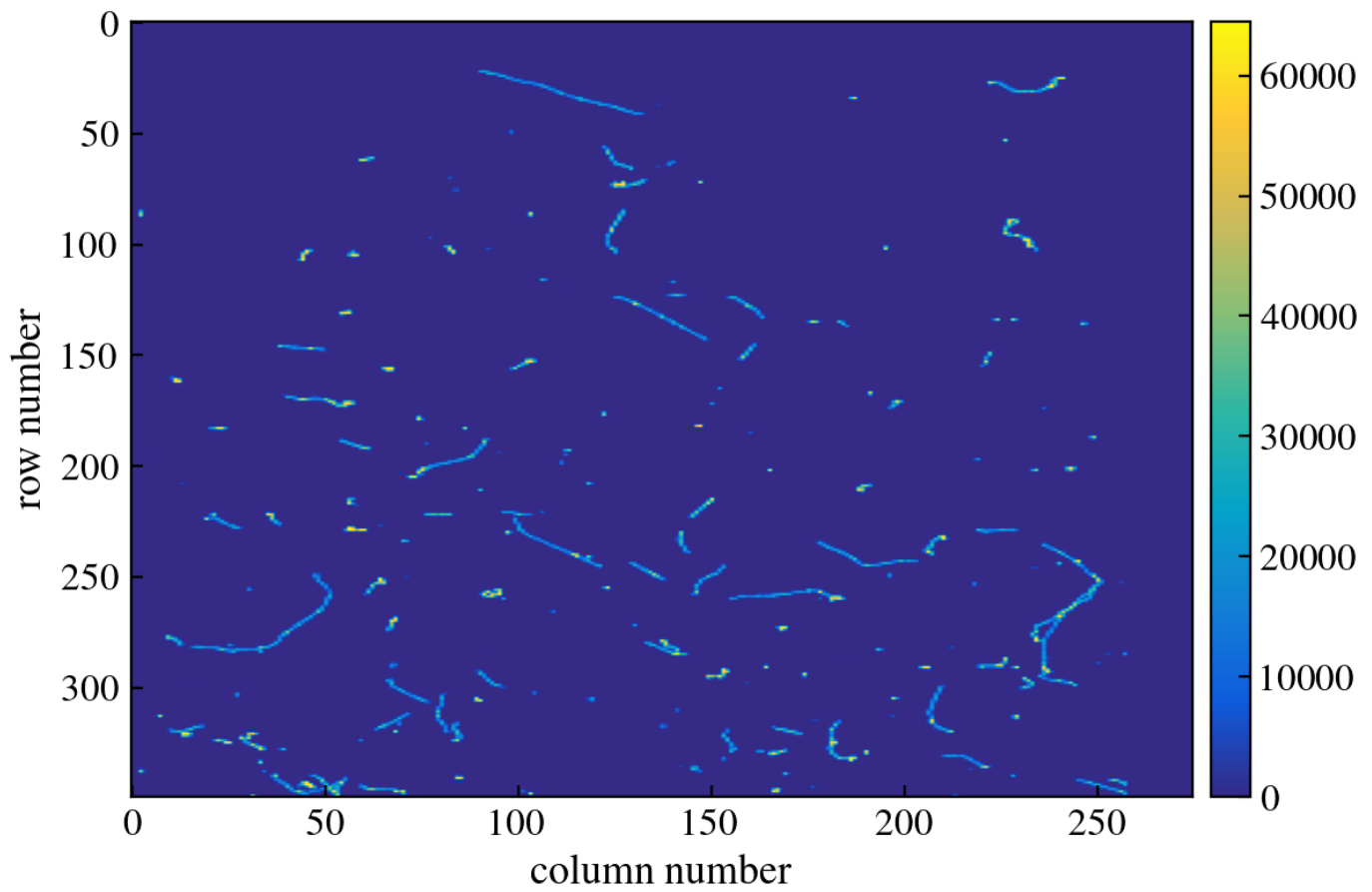


Figure 42: CCD Image

CCD Image: run 147, image 9
[class MECCDImage]

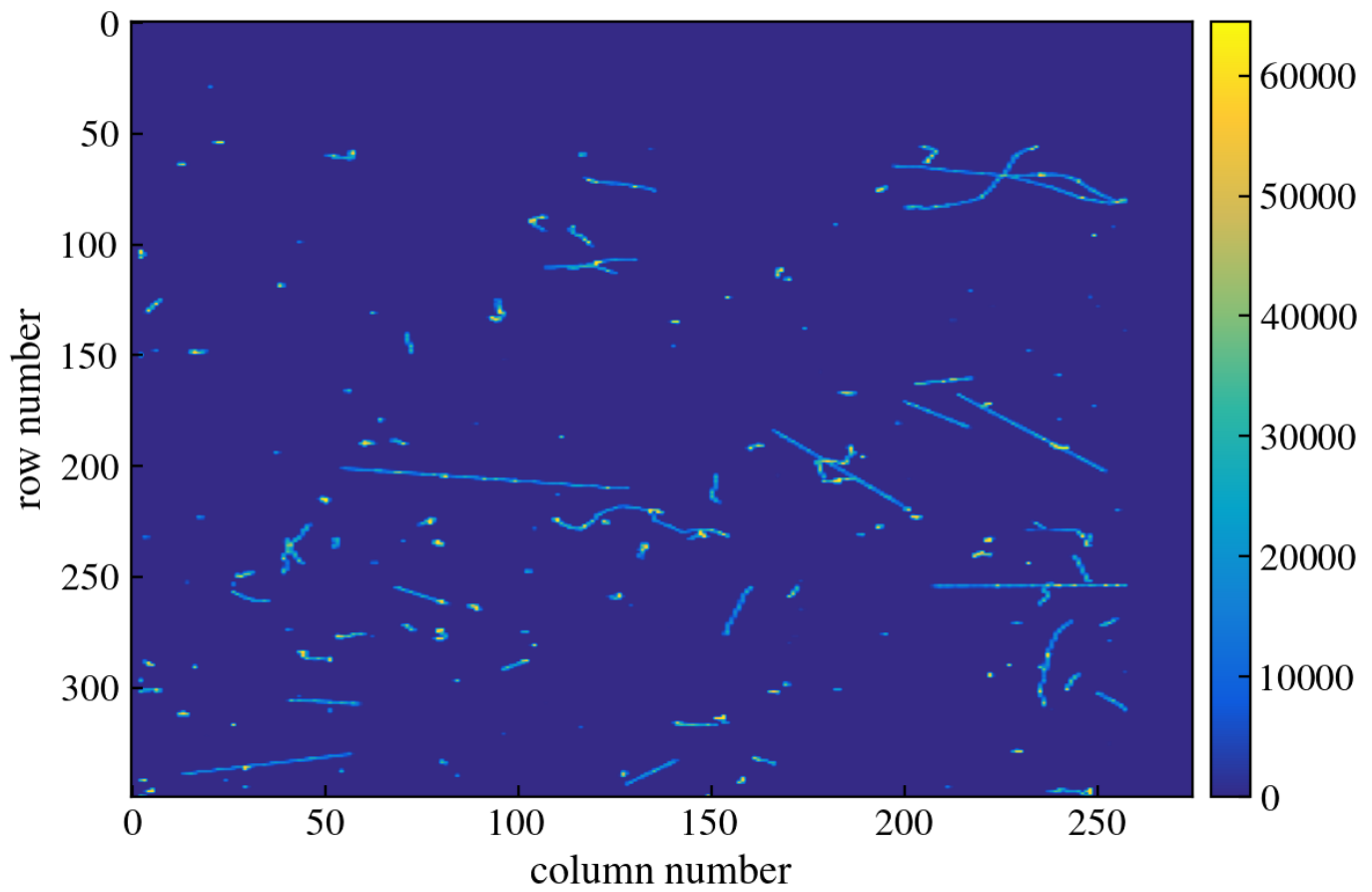


Figure 43: CCD Image

Overscan. Baseline Shift Status vs Image
[class MEBaselineShift]



Figure 44: Overscan. Baseline Shift Status vs Image

Skyline Shift Status vs Image
[class MESkylineShifts]

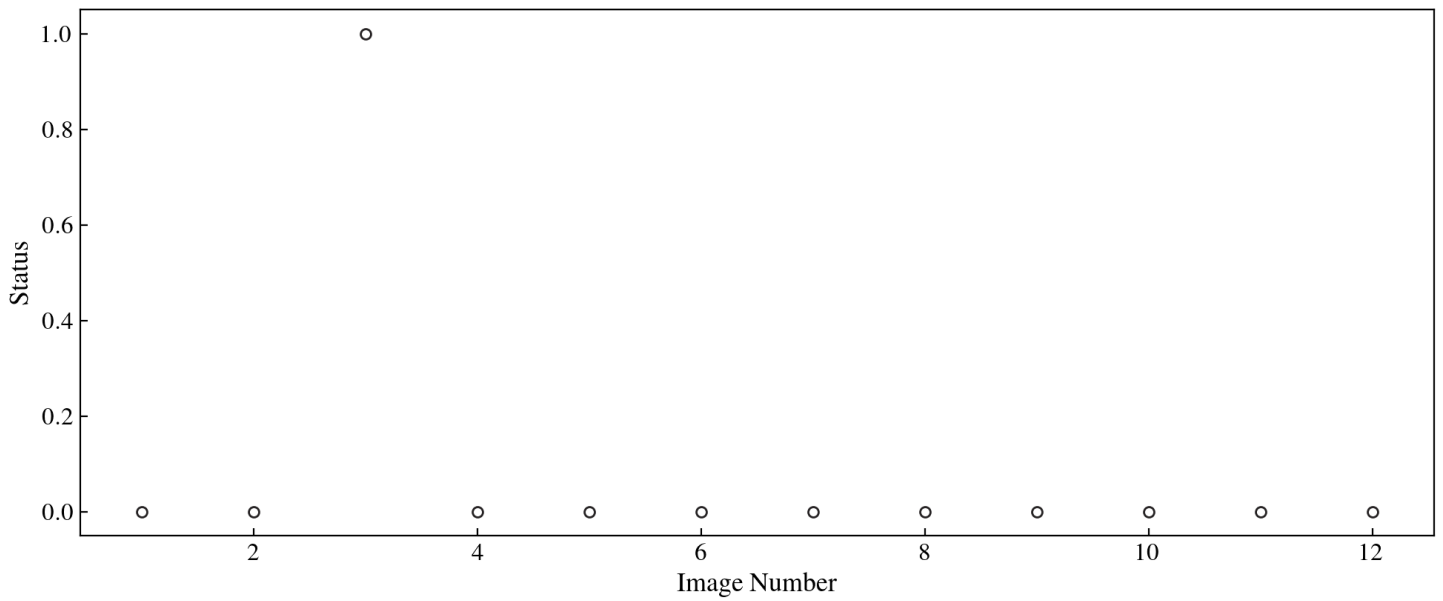


Figure 45: Skyline Shift Status vs Image