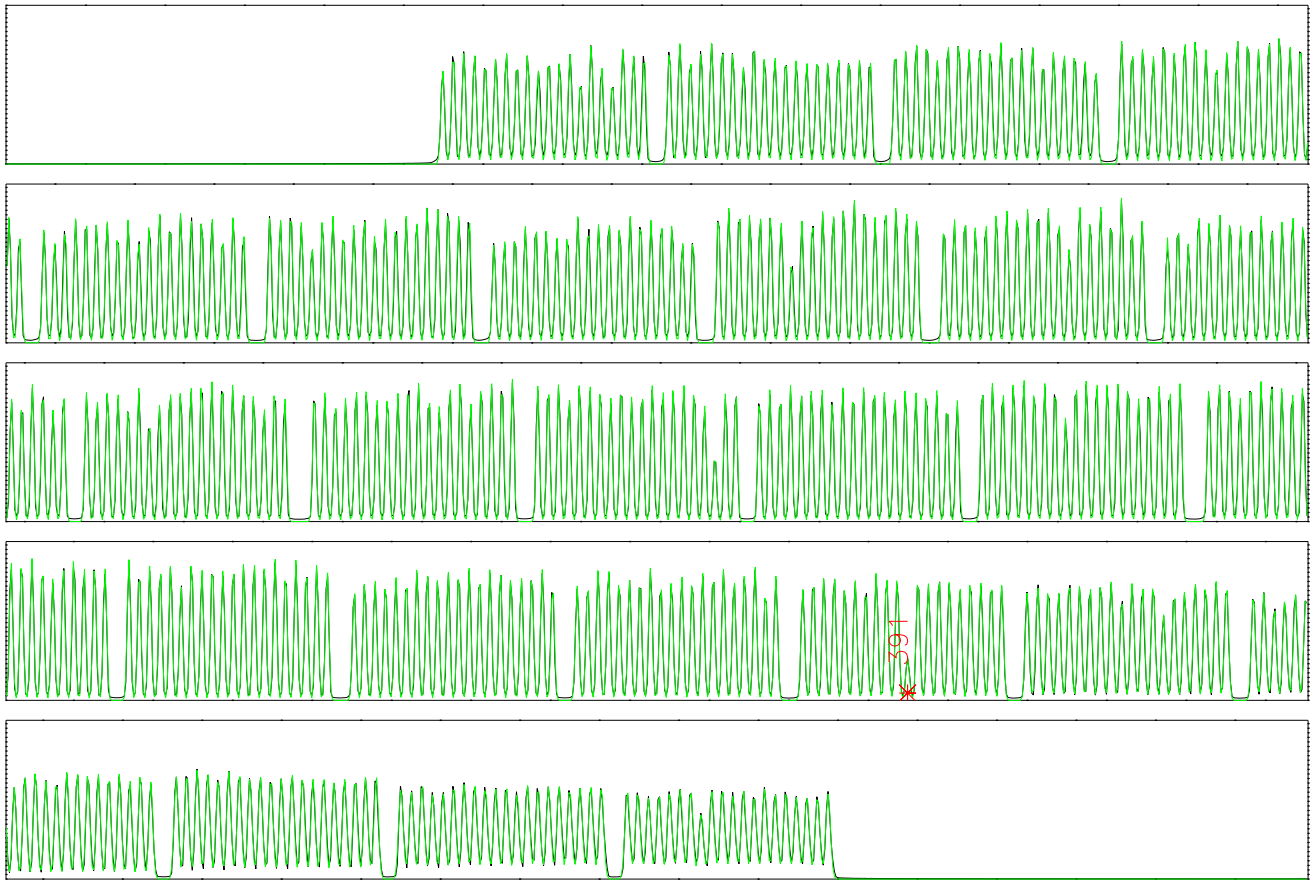
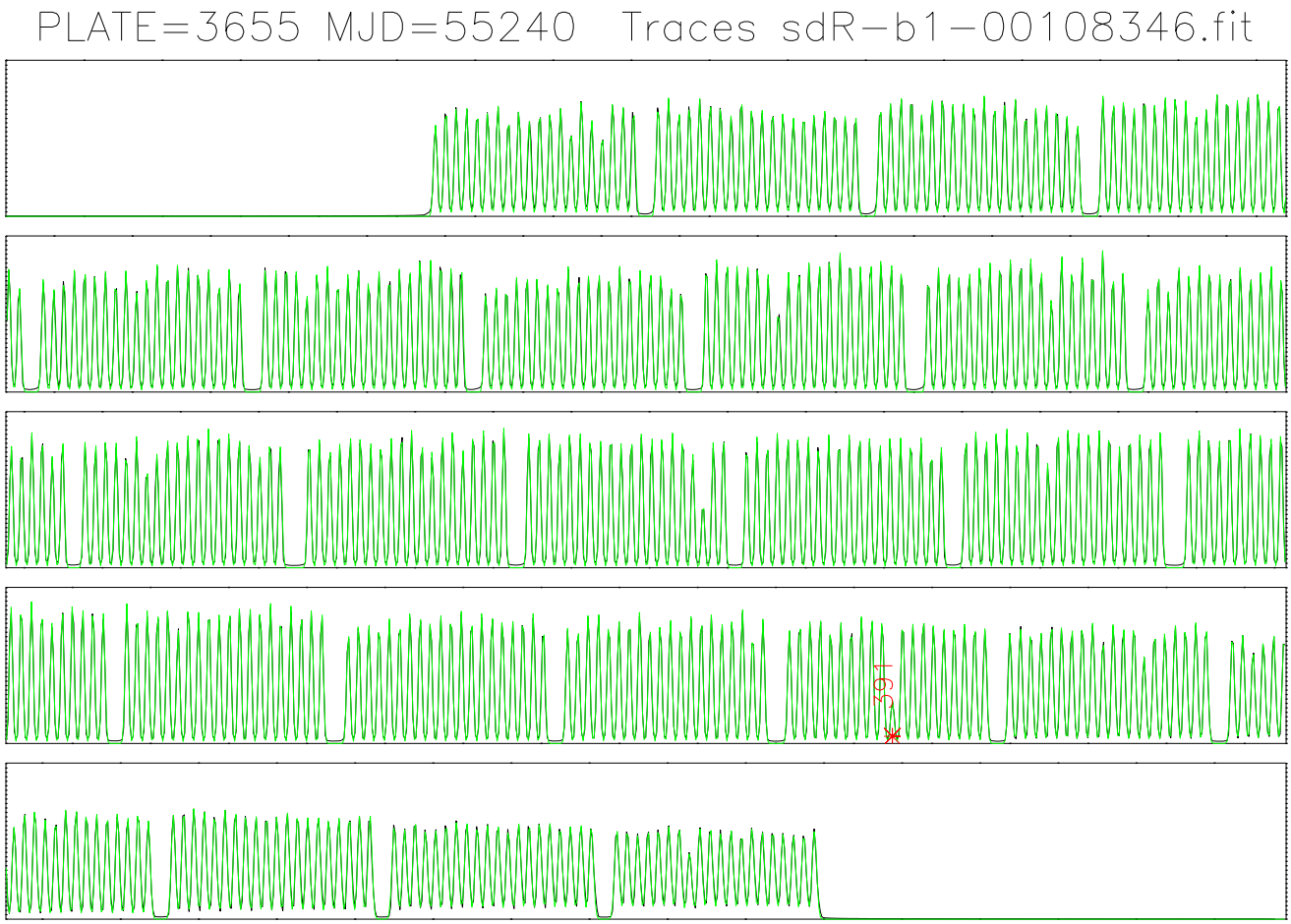
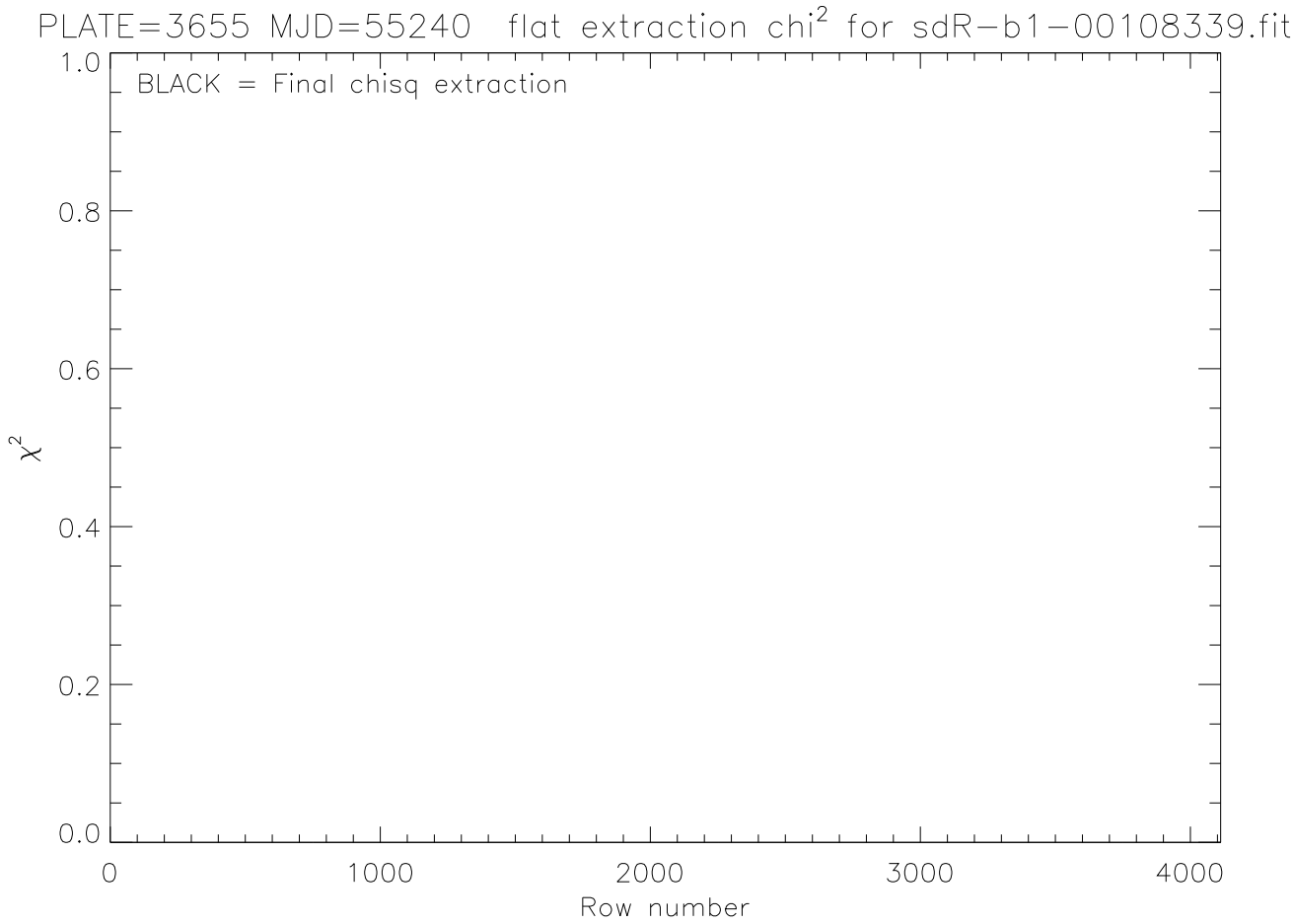
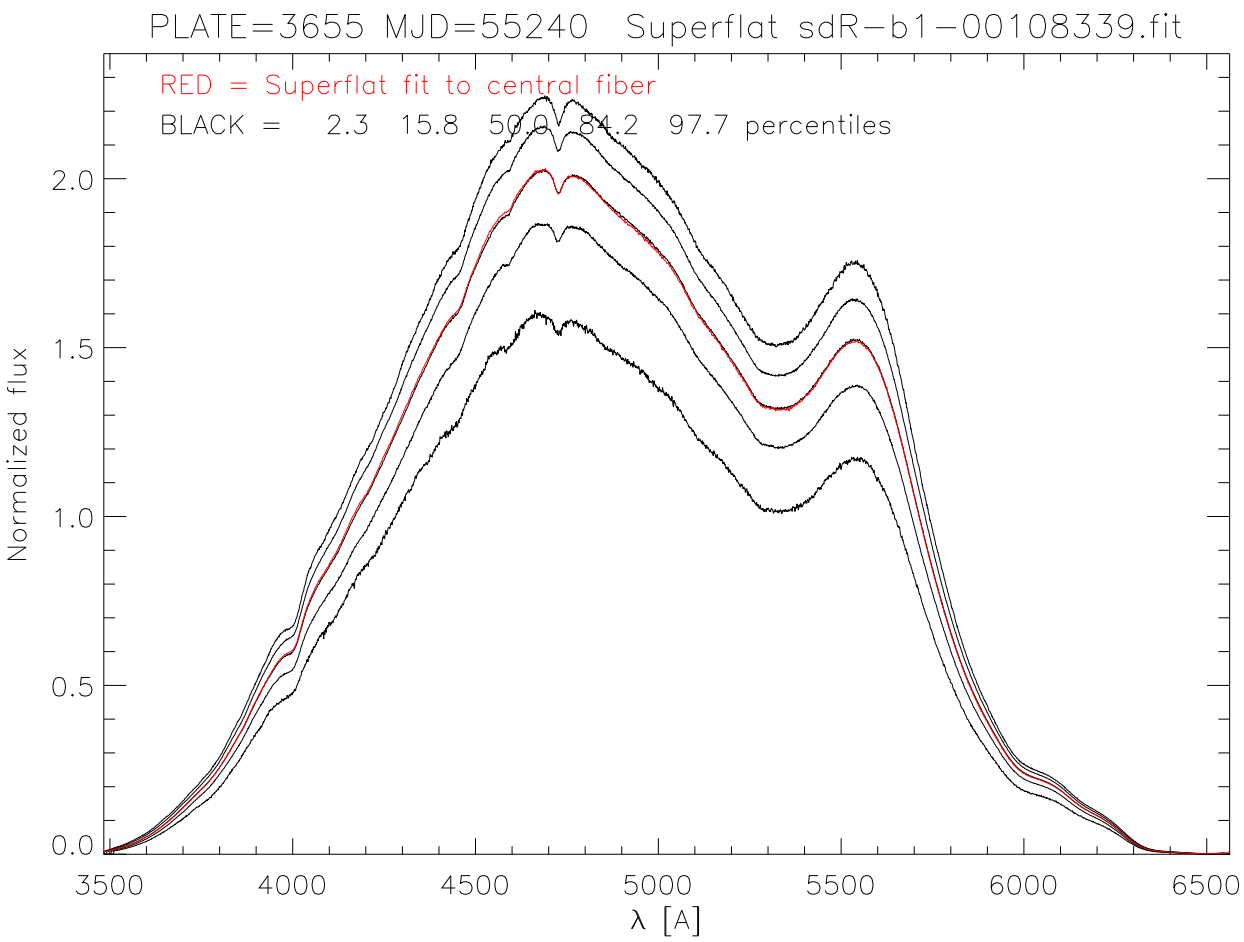
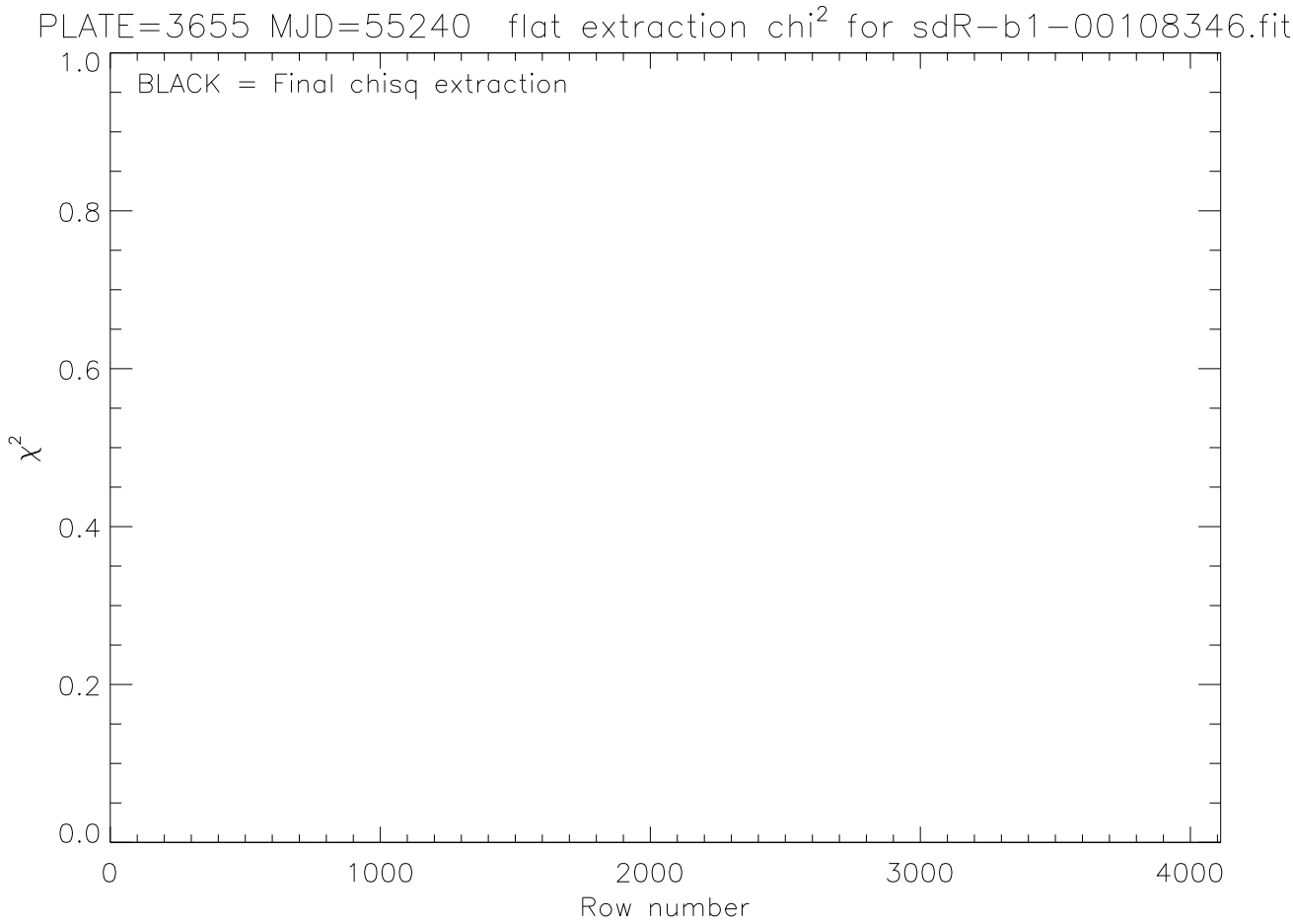
PLATE=3655 MJD=55240 Traces sdR-b1-00108339.fit

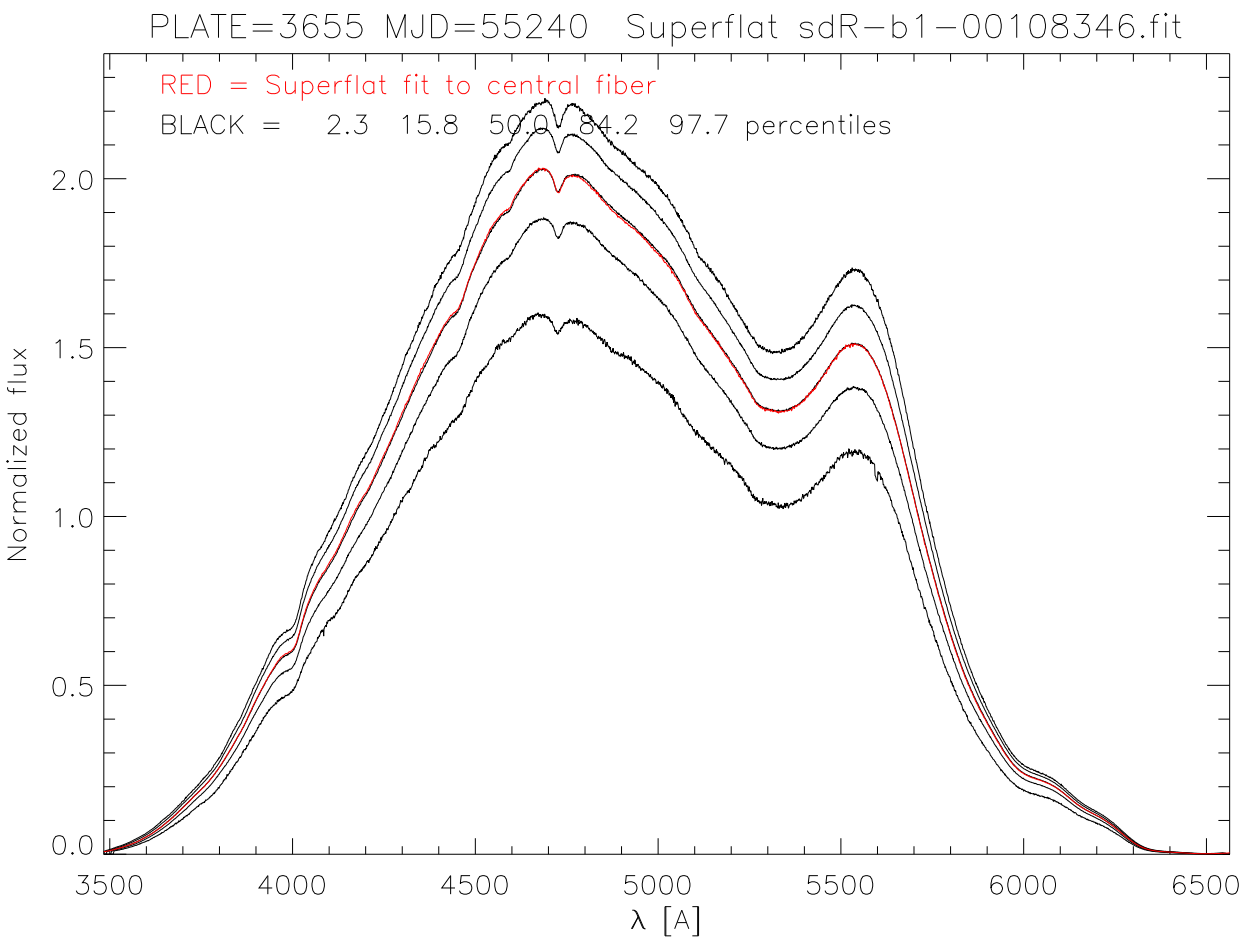


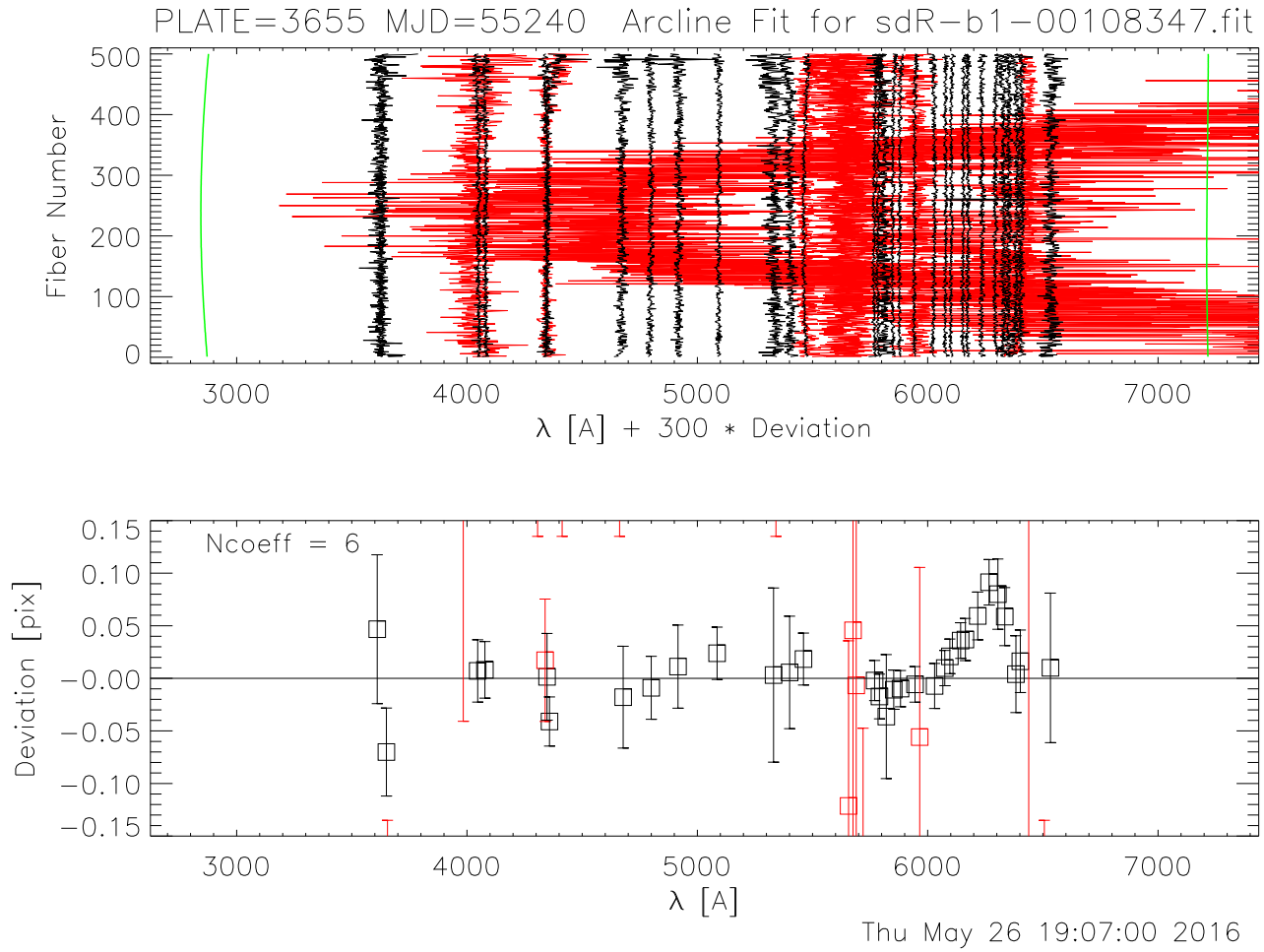

PLATE=3655 MJD=55240 Traces sdR-b1-00108346.fit
391

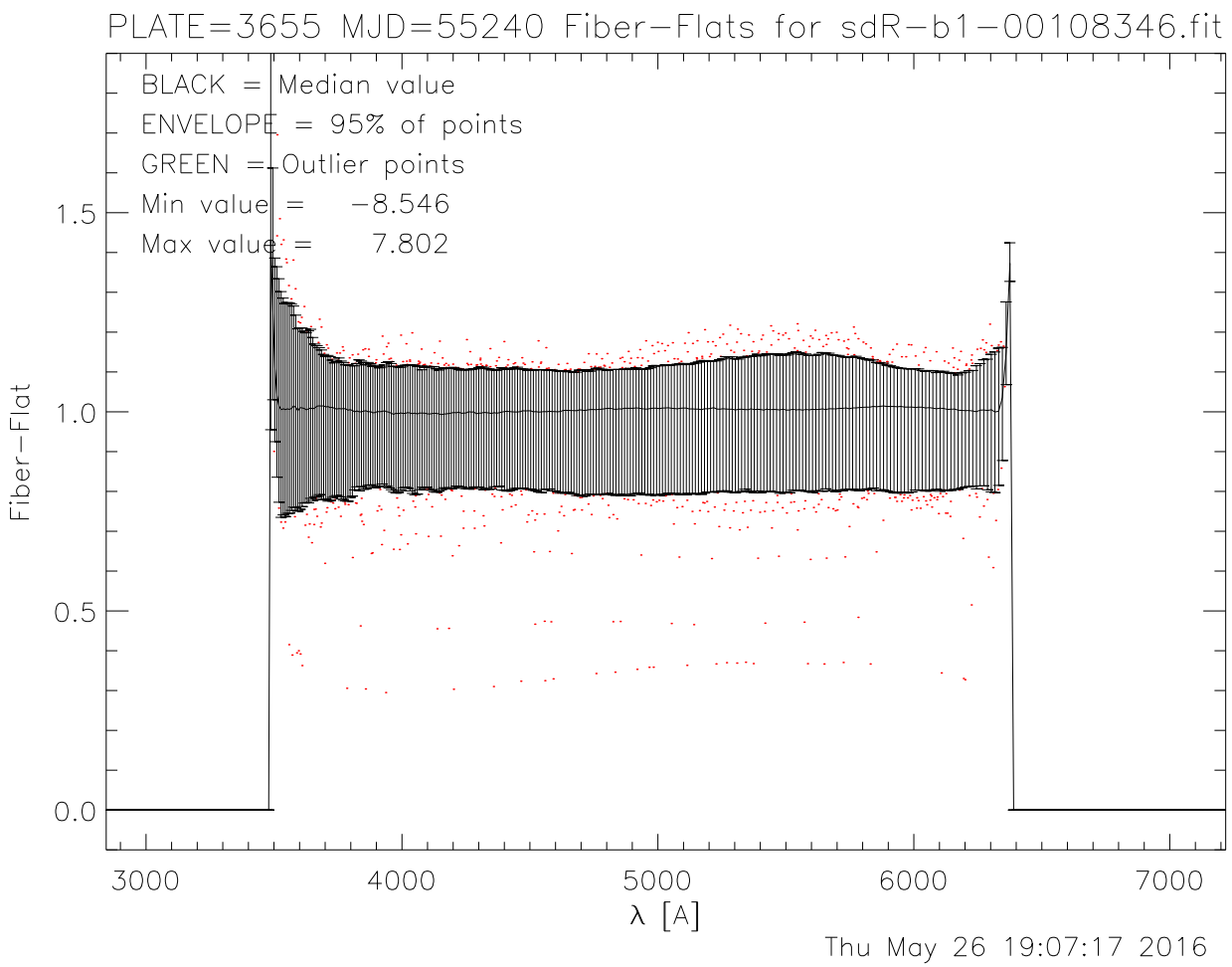

PLATE=3655 MJD=55240 flat extraction chi^2 for sdR−b1−00108339.fit
BLACK = Final chisq extraction
χ^2
1.0
0.8
0.6
0.4
0.2
0.0
0
1000
2000
3000
4000
Row number

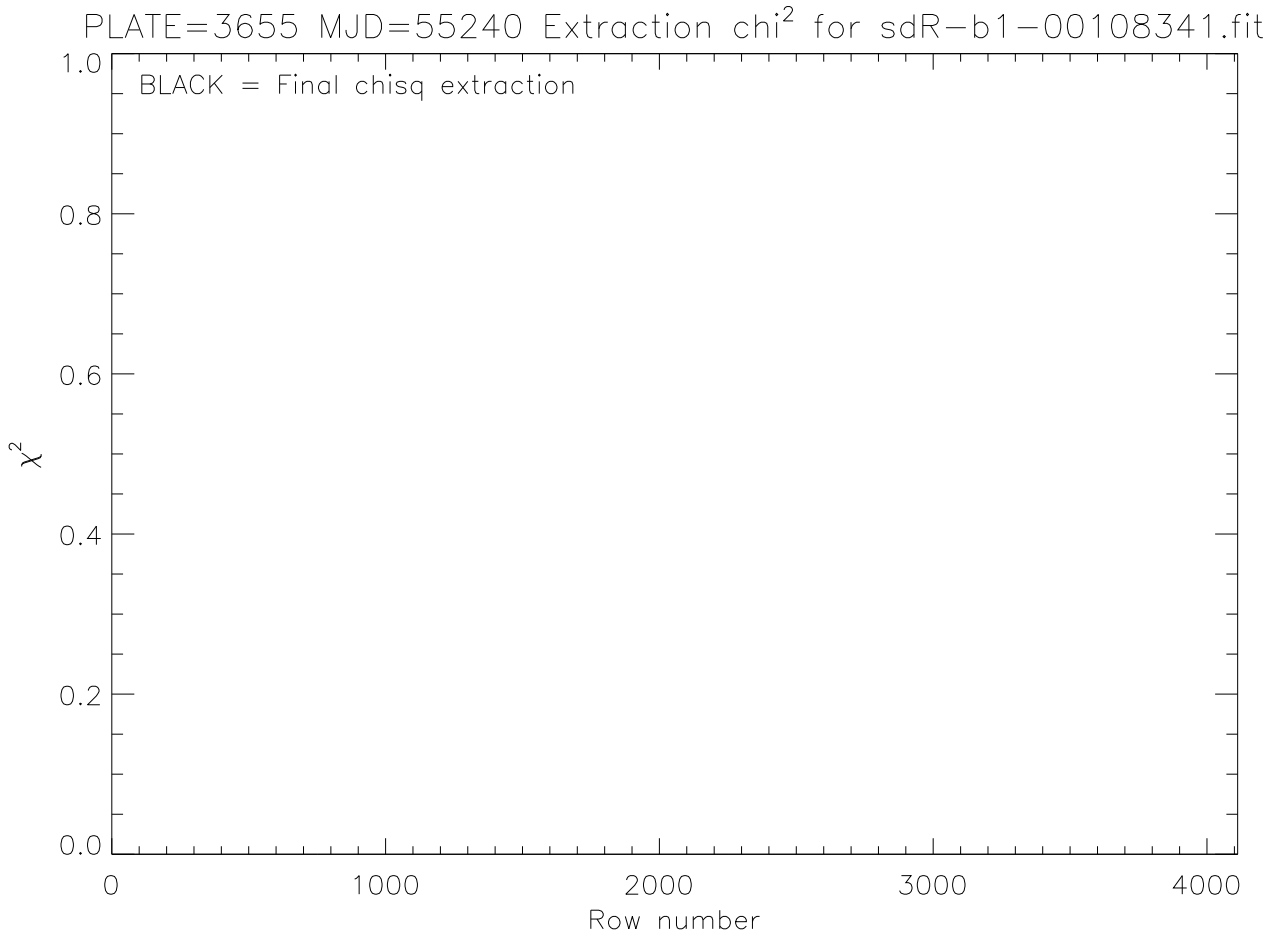

PLATE=3655 MJD=55240 Superflat sdR-b1-00108339.fit
RED = Superflat fit to central fiber
BLACK = 2.3 15.8 50.0 84.2 97.7 percentiles
Normalized flux
0.0
0.5
1.0
1.5
2.0
3500
4000
4500
5000
5500
6000
6500
λ [A]

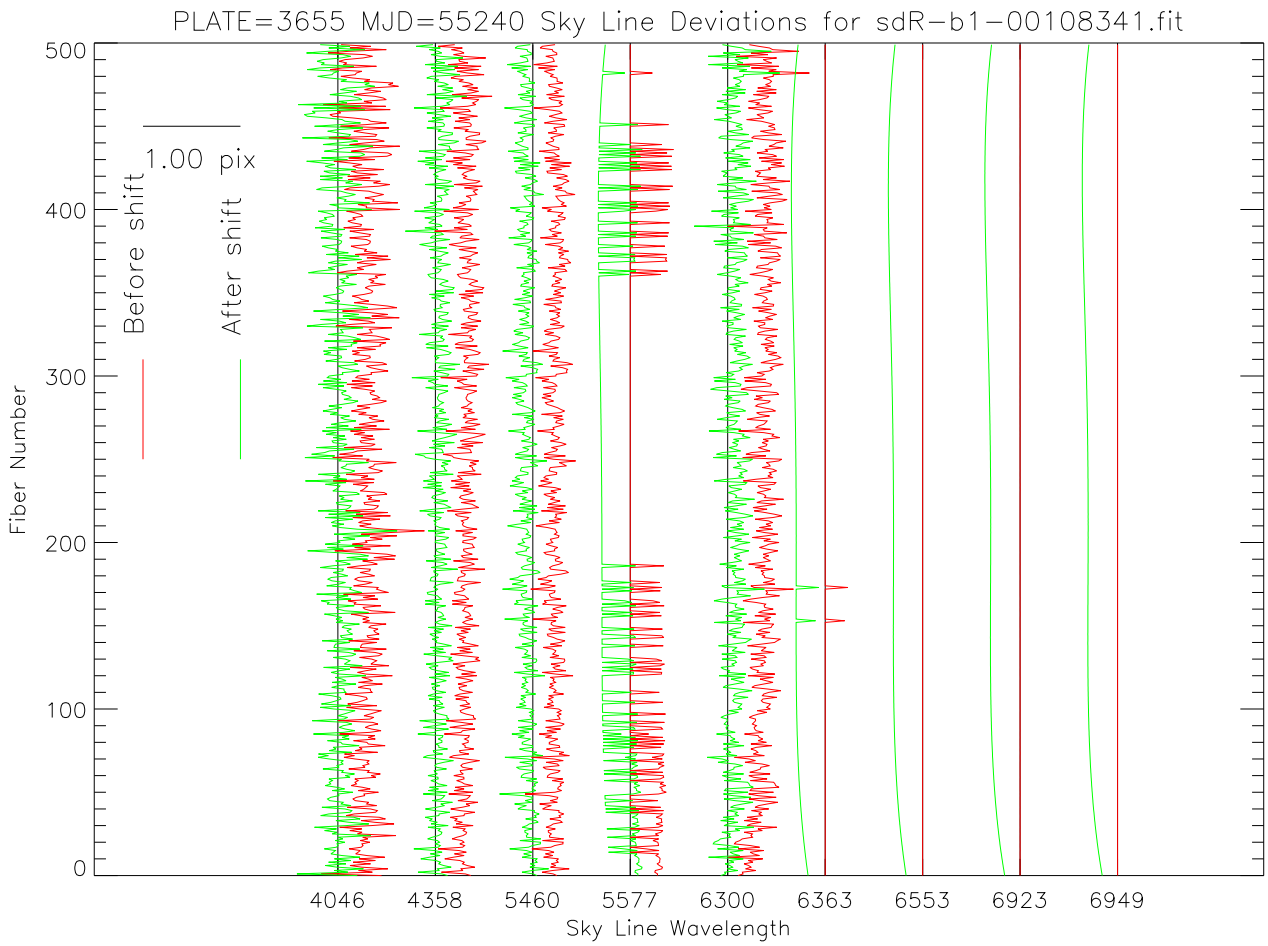

PLATE=3655 MJD=55240 flat extraction chi^2 for sdR−b1−00108346.fit
BLACK = Final chisq extraction
1.0
0.8
0.6
0.4
0.2
0.0
χ^2
0
1000
2000
3000
4000
Row number

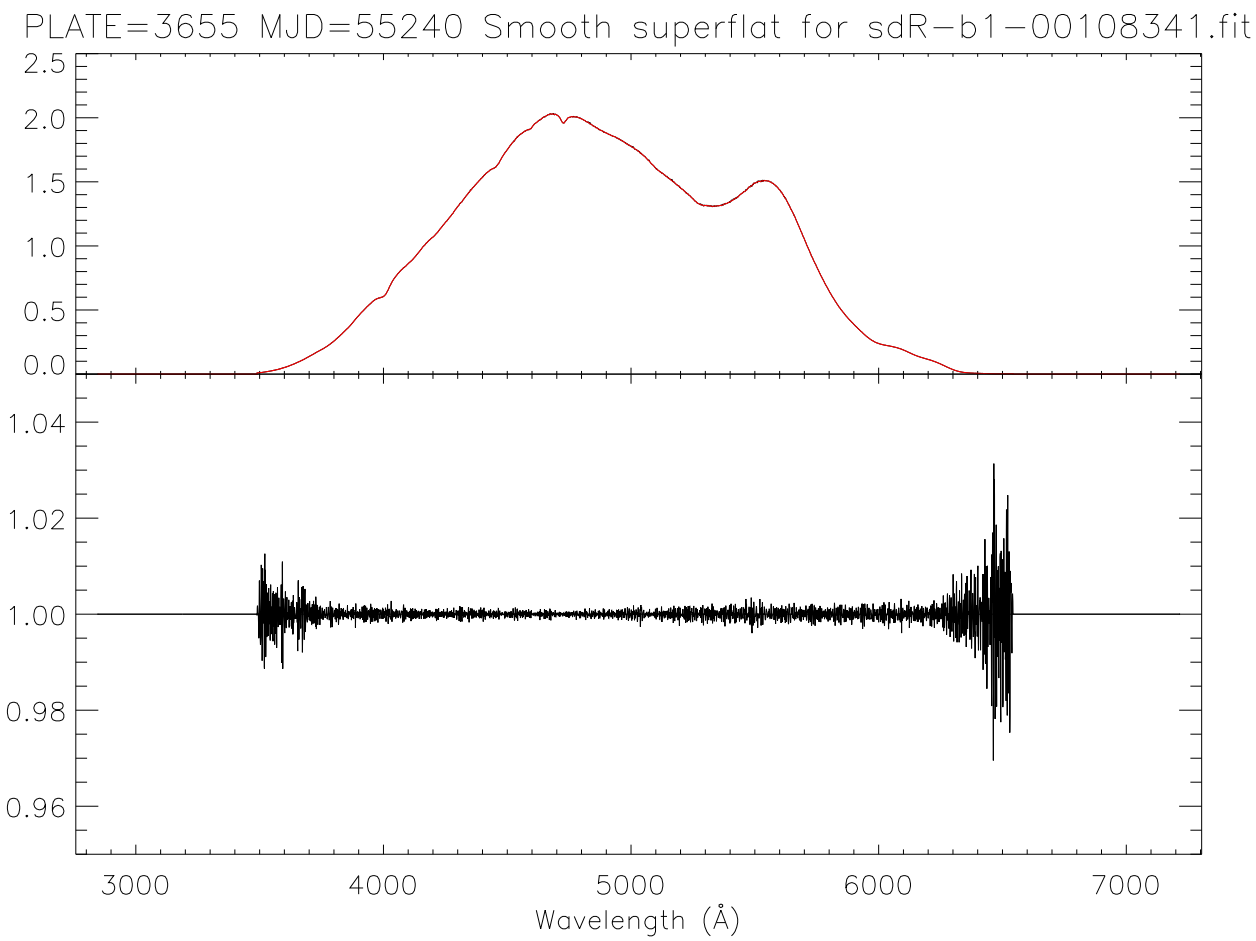

PLATE=3655 MJD=55240 Superflat sdR-b1-00108346.fit
RED = Superflat fit to central fiber
BLACK = 2.3 15.8 50.0 84.2 97.7 percentiles
Normalized flux
0.0
0.5
1.0
1.5
2.0
3500
4000
4500
5000
5500
6000
6500
λ [A]

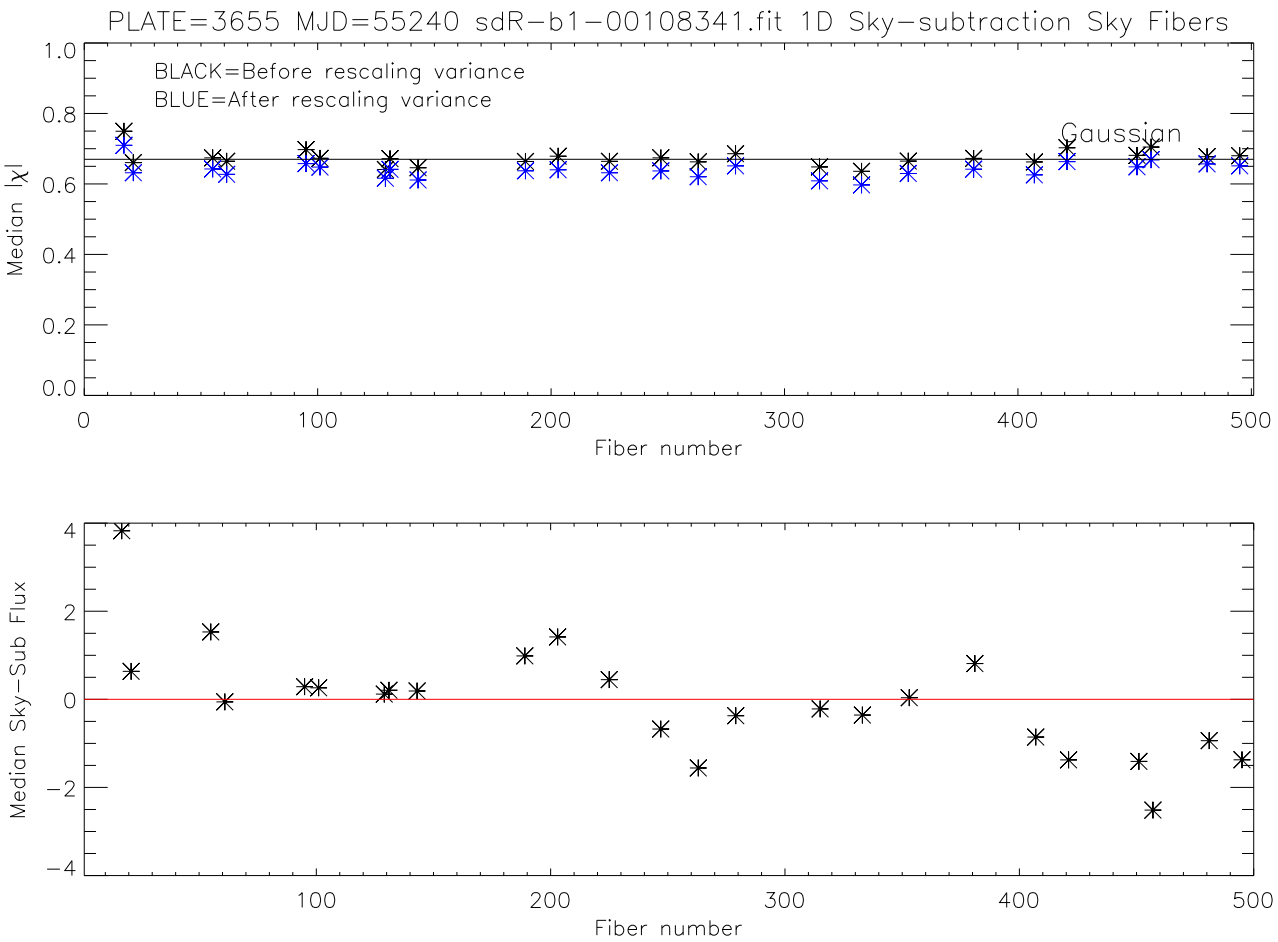

PLATE=3655 MJD=55240 Arcline Fit for sdR-b1-00108347.fit
Fiber Number
500
400
300
200
100
0
3000
4000
5000
6000
7000
λ [A] + 300 * Deviation
Ncoeff = 6
Deviation [pix]
0.15
0.10
0.05
−0.00
−0.05
−0.10
−0.15
3000
4000
5000
6000
7000
λ [A]
Thu May 26 19:07:00 2016

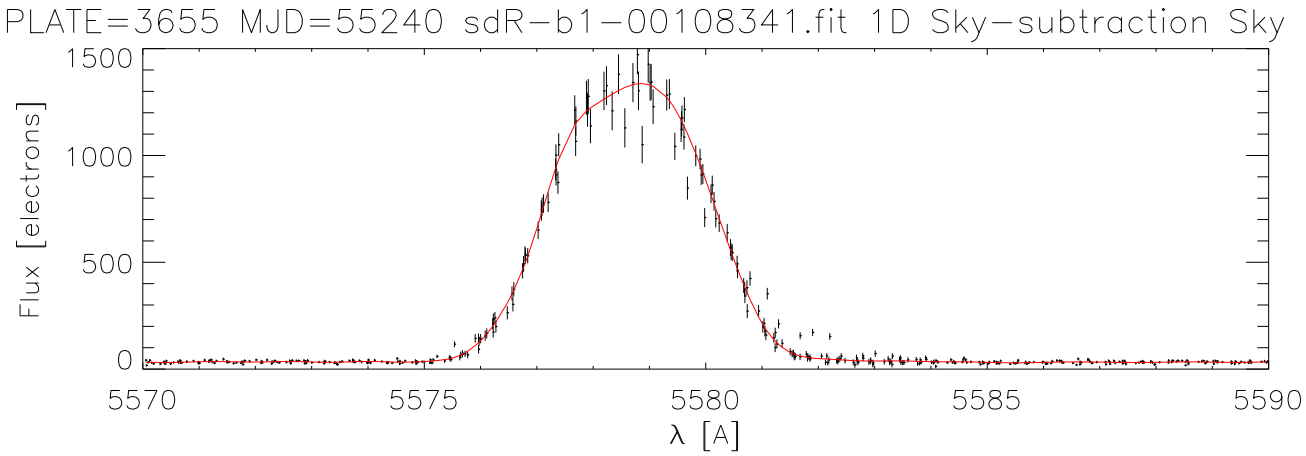

PLATE=3655 MJD=55240 Fiber−Flats for sdR−b1−00108346.fit
BLACK = Median value
ENVELOPE = 95% of points
GREEN = Outlier points
Min value = −8.546
Max value = 7.802
Fiber−Flat
1.5
1.0
0.5
0.0
3000
4000
5000
6000
7000
λ [A]
Thu May 26 19:07:17 2016

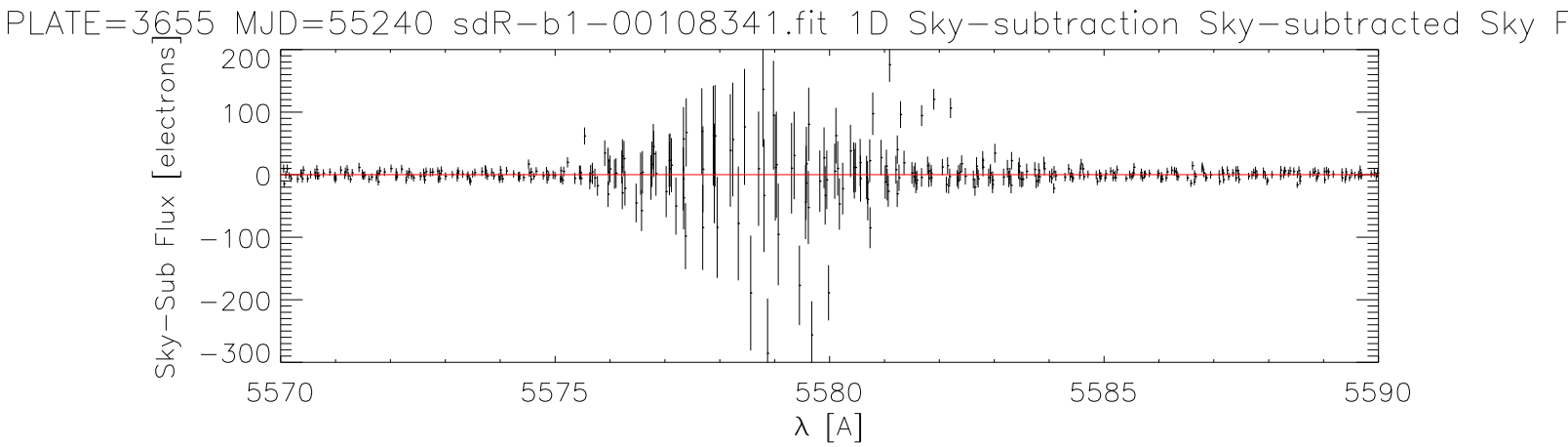

PLATE=3655 MJD=55240 Extraction chi^2 for sdR−b1−00108341.fit
BLACK = Final chisq extraction
χ^2
1.0
0.8
0.6
0.4
0.2
0.0
0
1000
2000
3000
4000
Row number


PLATE=3655 MJD=55240 Sky Line Deviations for sdR-b1-00108341.fit
1.00 pix
Before shift
After shift
Fiber Number
0
100
200
300
400
500
4046
4358
5460
5577
6300
6363
6553
6923
6949
Sky Line Wavelength

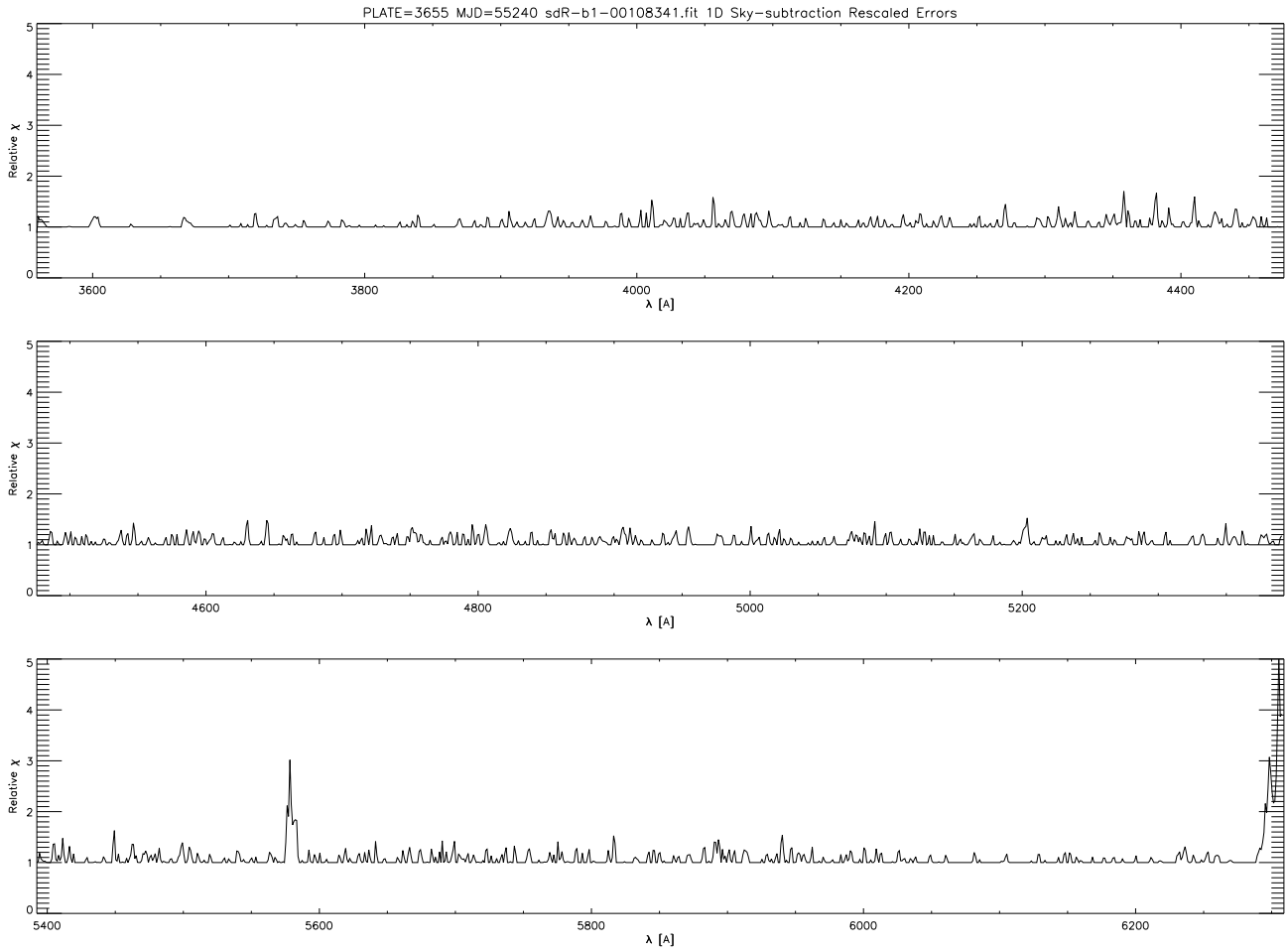

PLATE=3655 MJD=55240 Smooth superflat for sdR-b1-00108341.fit
2.5
2.0
1.5
1.0
0.5
0.0
1.04
1.02
1.00
0.98
0.96
3000
4000
5000
6000
7000
Wavelength (Å)

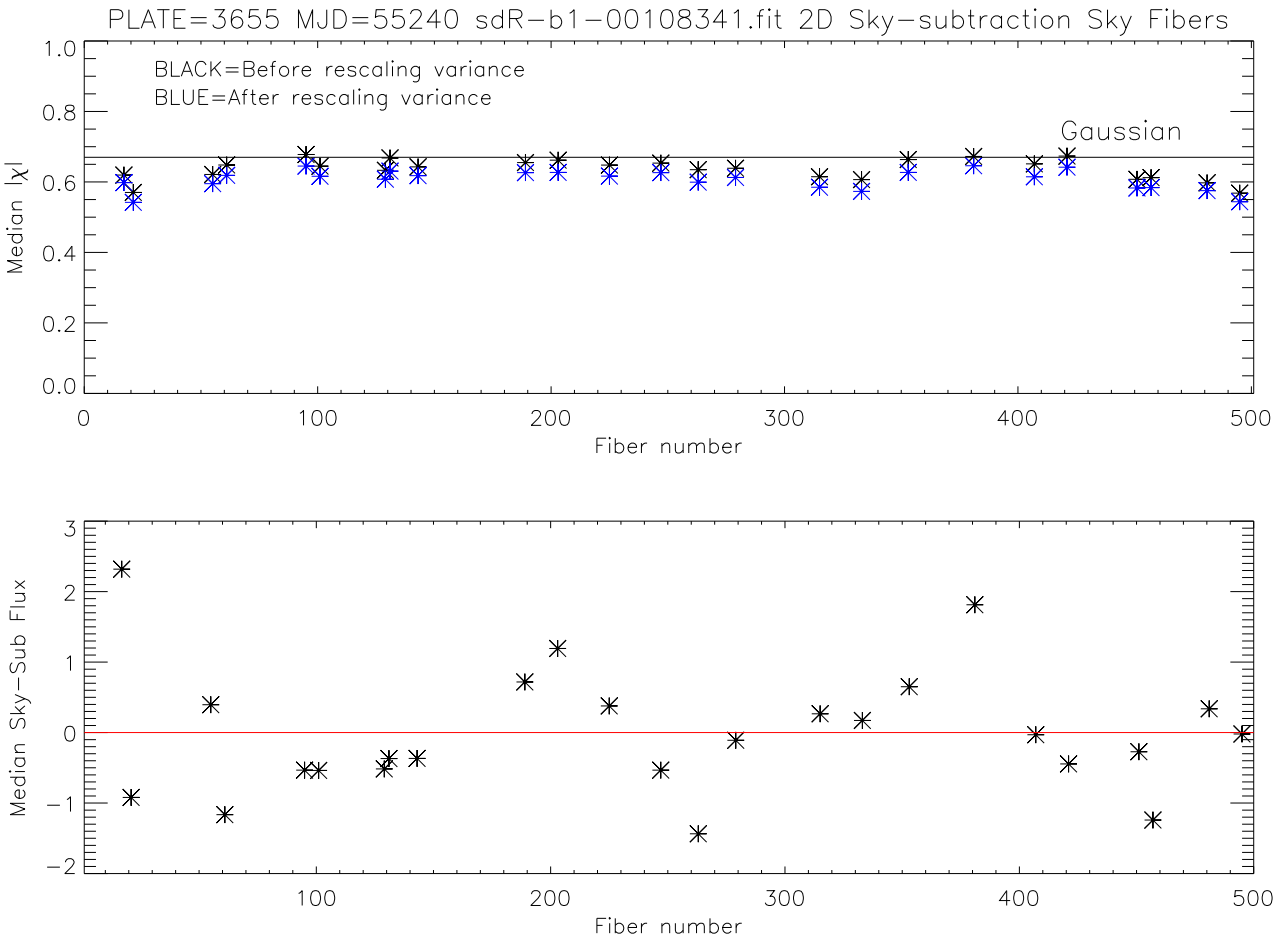

PLATE=3655 MJD=55240 sdR-b1-00108341.fit 1D Sky-subtraction Sky Fibers
BLACK=Before rescaling variance
BLUE=After rescaling variance
Gaussian
Median |χ|
Fiber number
Median Sky-Sub Flux
Fiber number

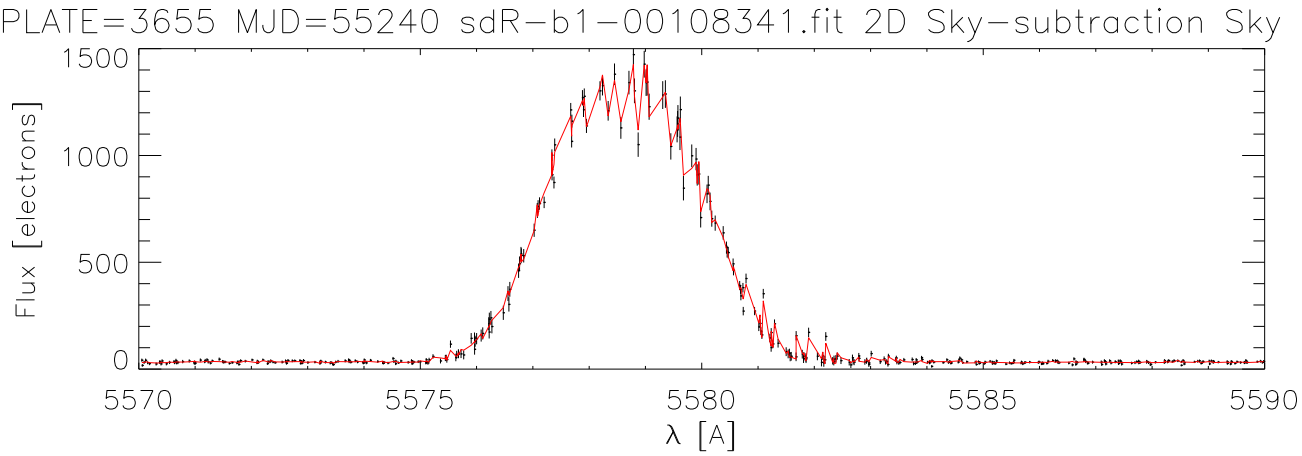

PLATE=3655 MJD=55240 sdR-b1-00108341.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
1500
1000
500
0
5570
5575
5580
5585
5590
λ [A]

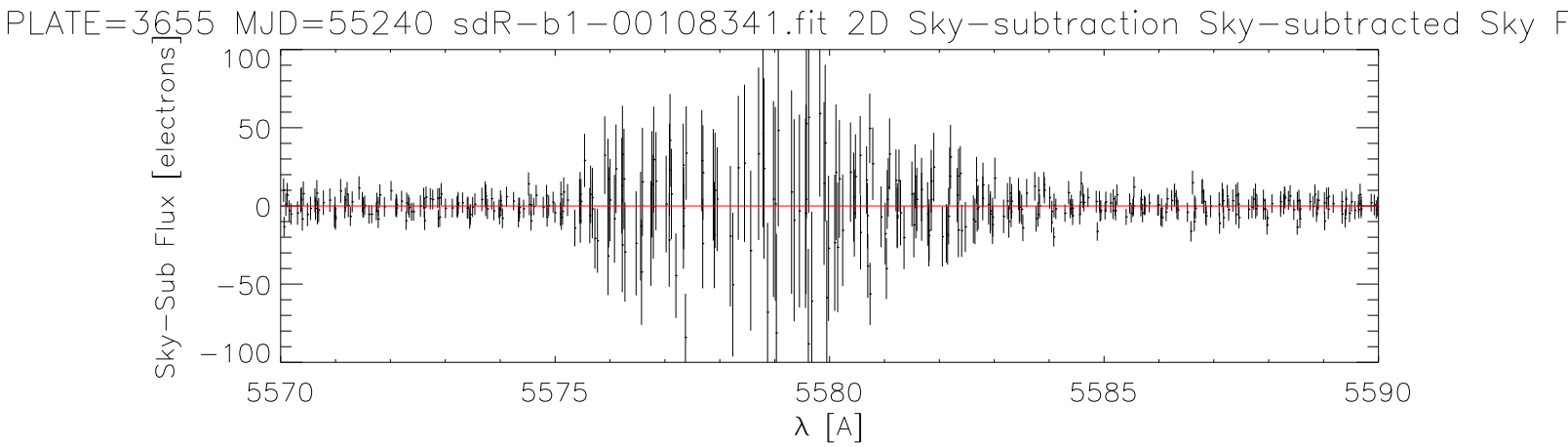

PLATE=3655 MJD=55240 sdR-b1-00108341.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
-300
5570
5575
5580
5585
5590
λ [A]

Number of sky fibers = 25

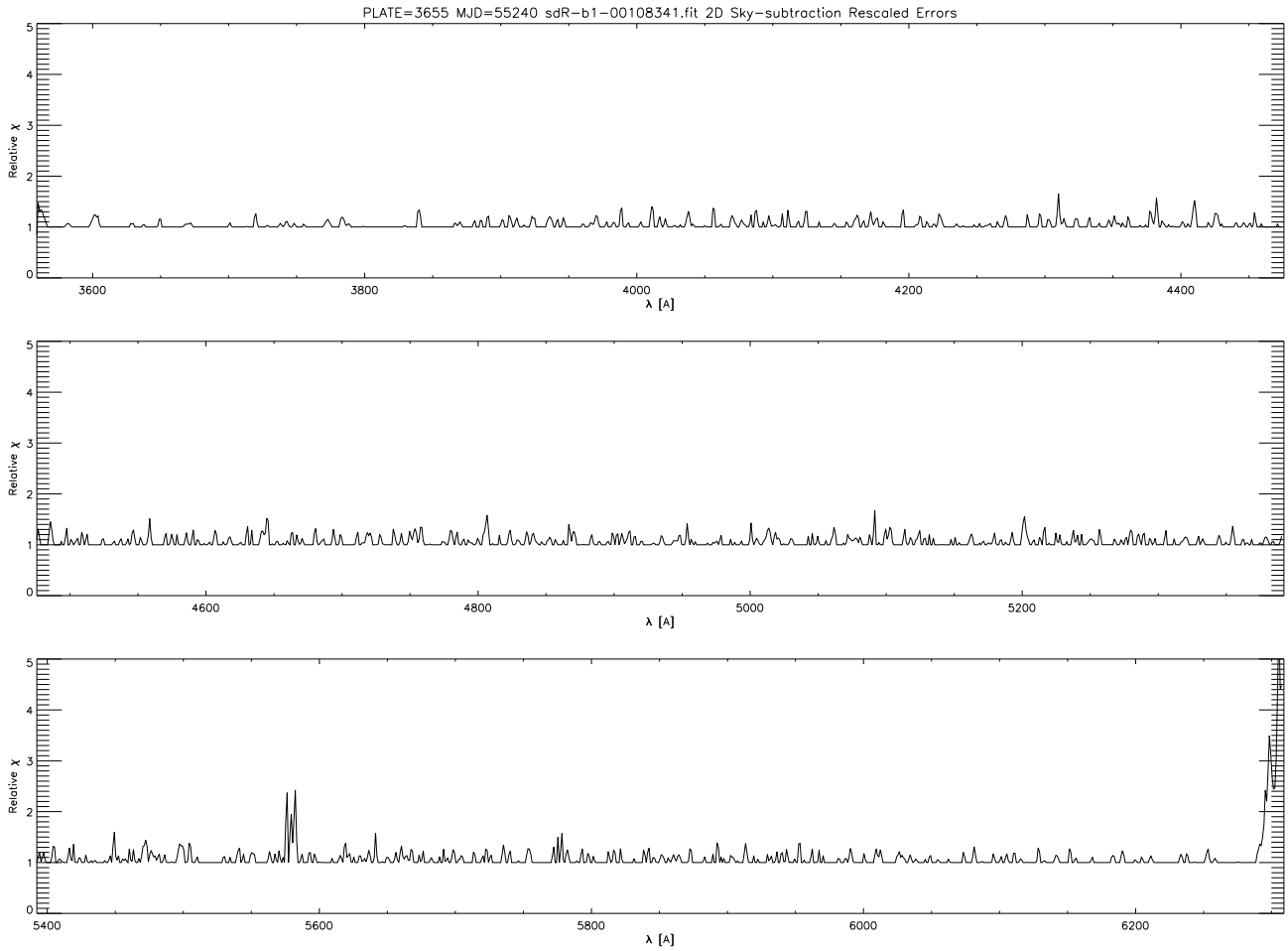


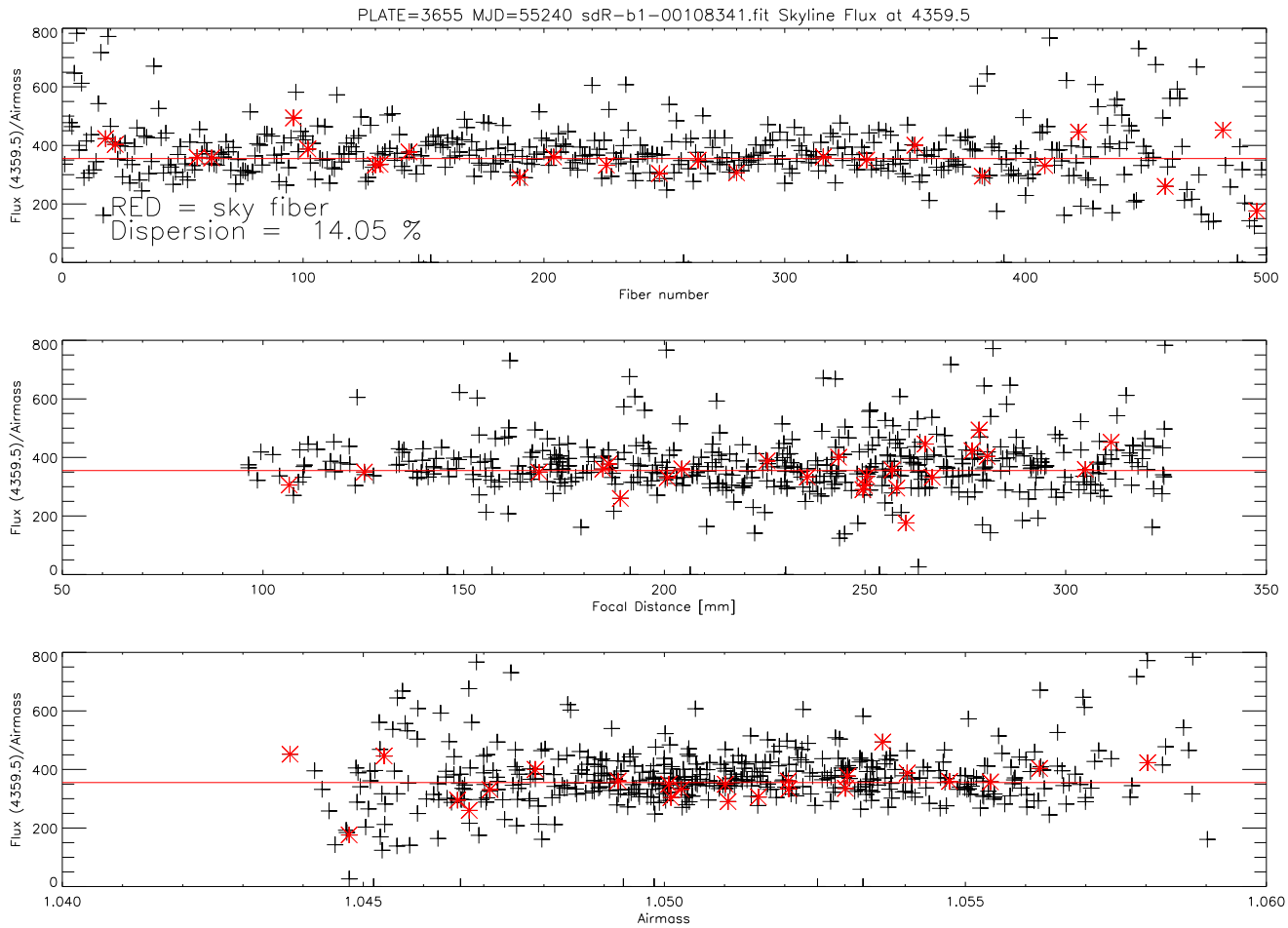

PLATE=3655 MJD=55240 sdR-b1-00108341.fit 2D Sky-subtraction Sky Fibers
BLACK=Before rescaling variance
BLUE=After rescaling variance
Gaussian
Median |χ|
Fiber number
Median Sky-Sub Flux
Fiber number

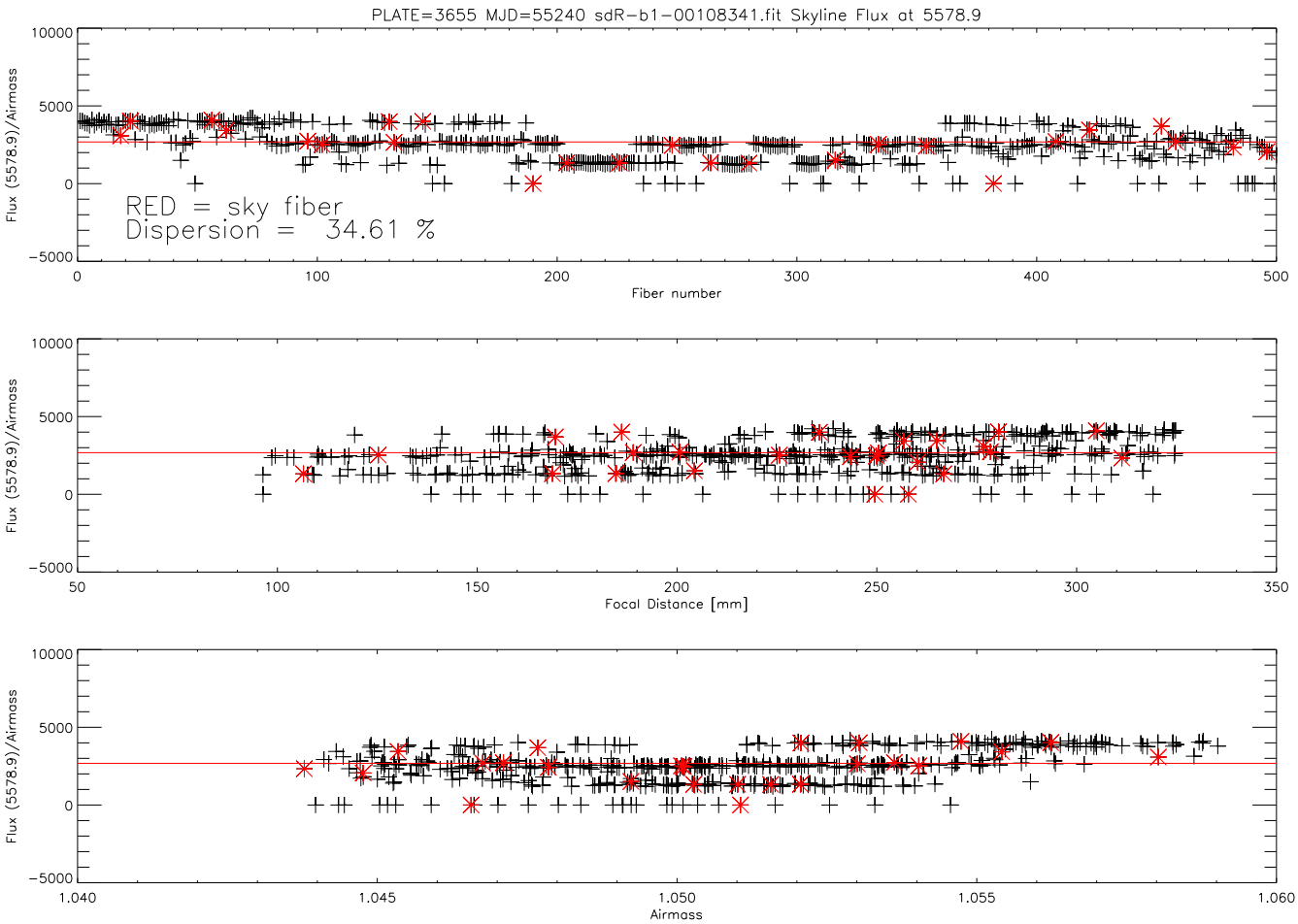

PLATE=3655 MJD=55240 sdR-b1-00108341.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
1500
1000
500
0
5570
5575
5580
5585
5590
λ [A]

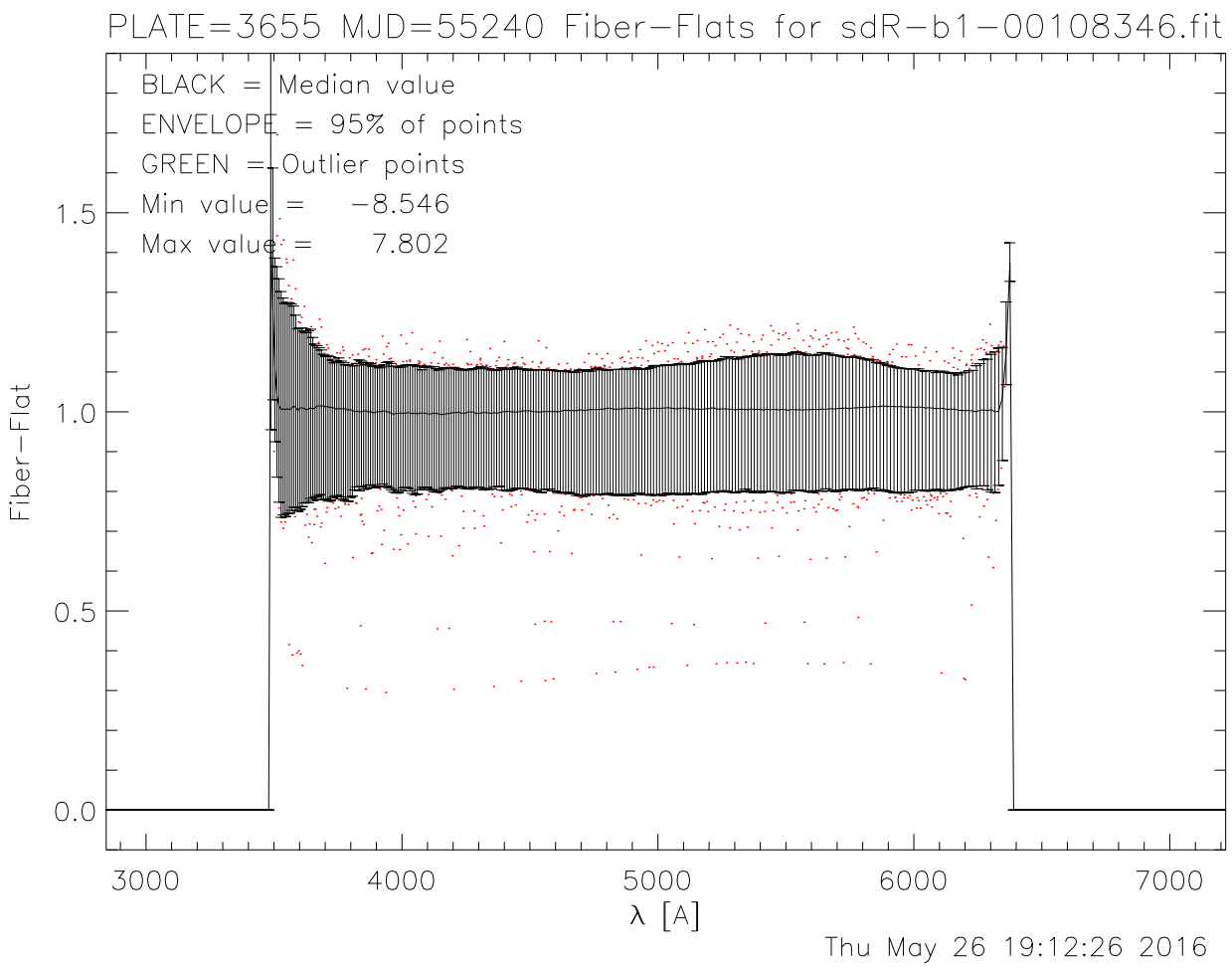

PLATE=3655 MJD=55240 sdR-b1-00108341.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
100
50
0
-50
-100
5570
5575
5580
5585
5590
λ [A]

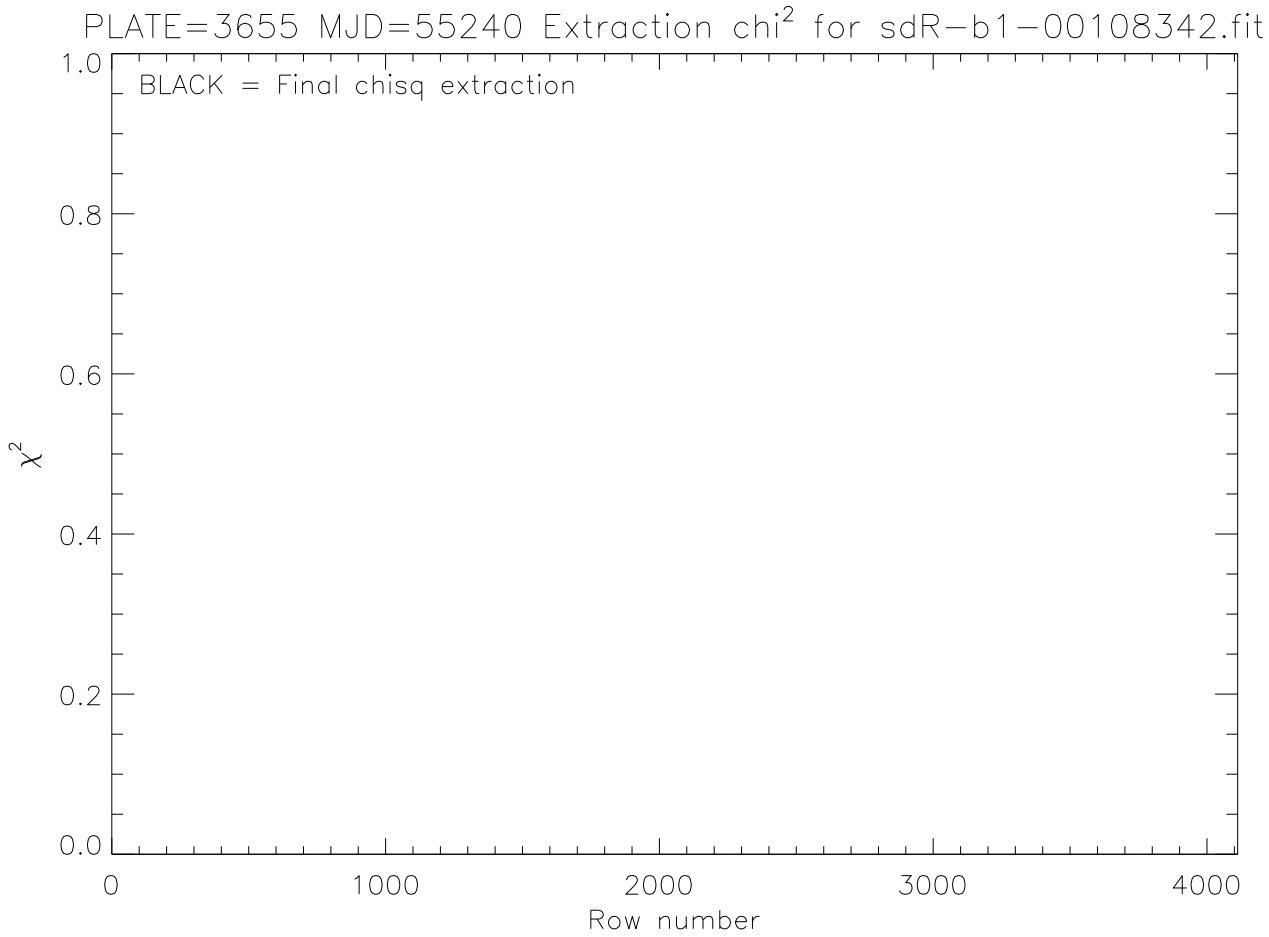
Number of sky fibers = 25

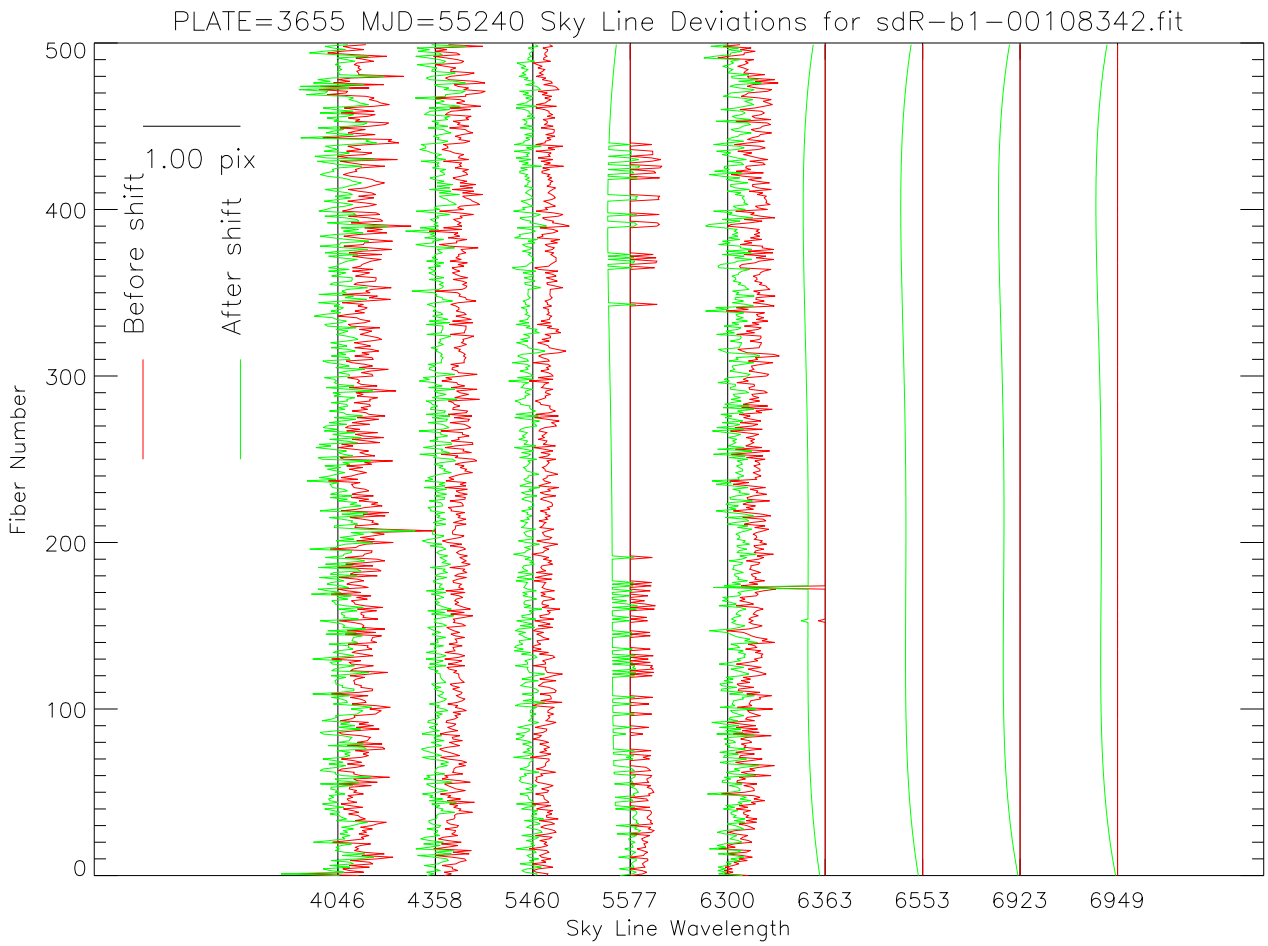


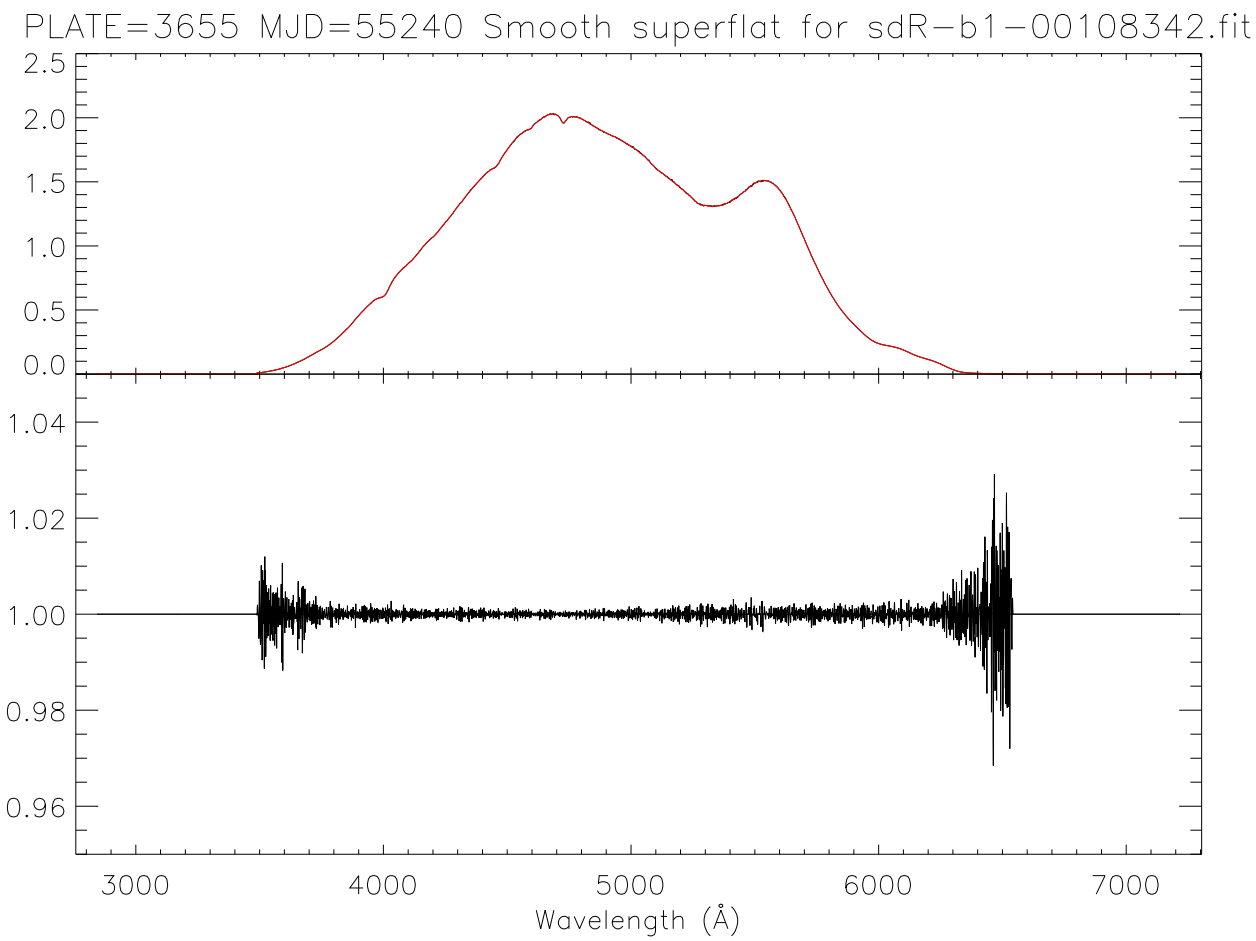

PLATE=3655 MJD=55240 sdR-b1-00108341.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
Fiber number
RED = sky fiber
Dispersion = 14.05 %
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

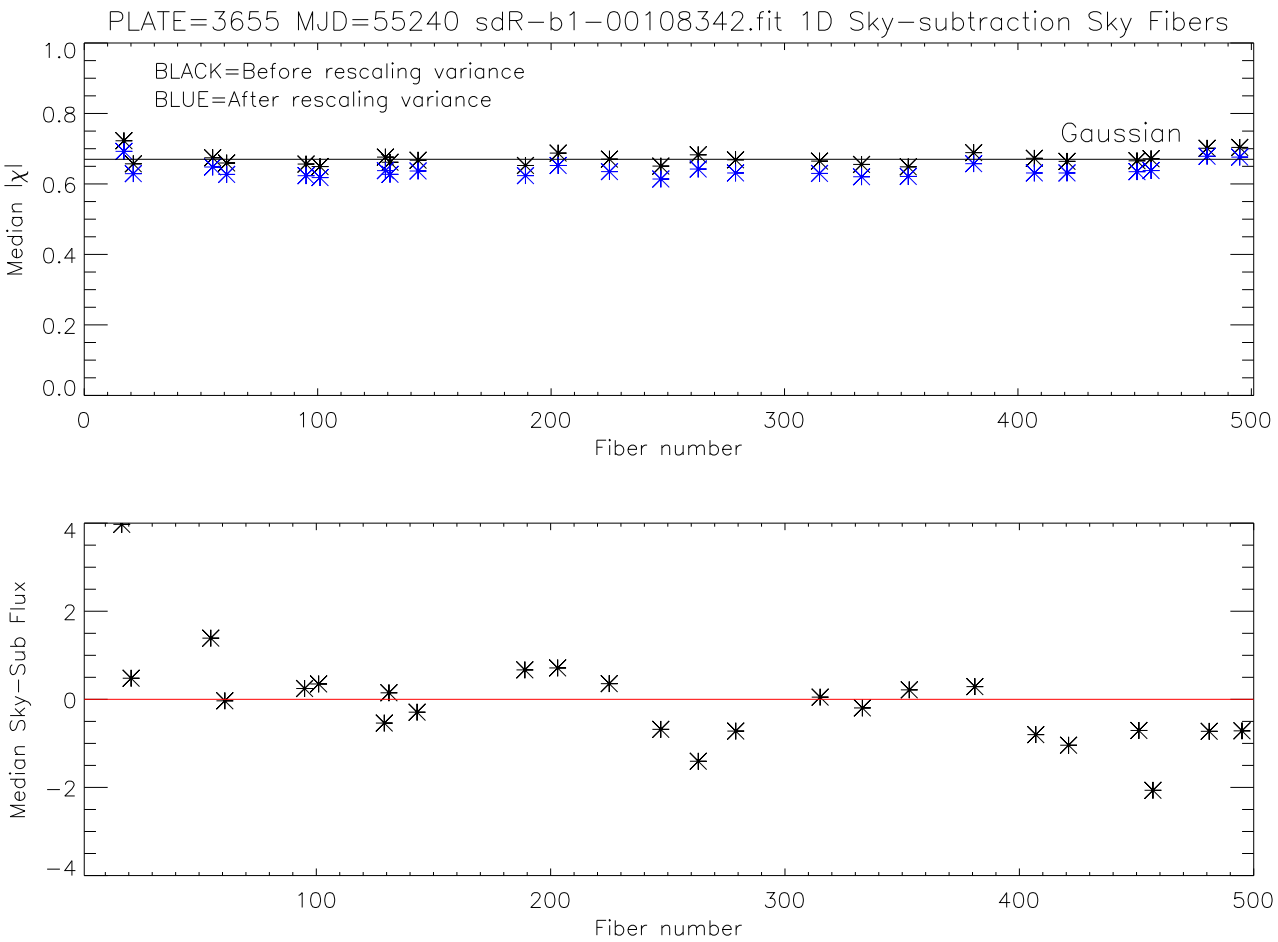

PLATE=3655 MJD=55240 sdR-b1-00108341.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
Fiber number
RED = sky fiber
Dispersion = 34.61 %
Flux (5578.9)/Airmass
Focal Distance [mm]
Flux (5578.9)/Airmass
Airmass

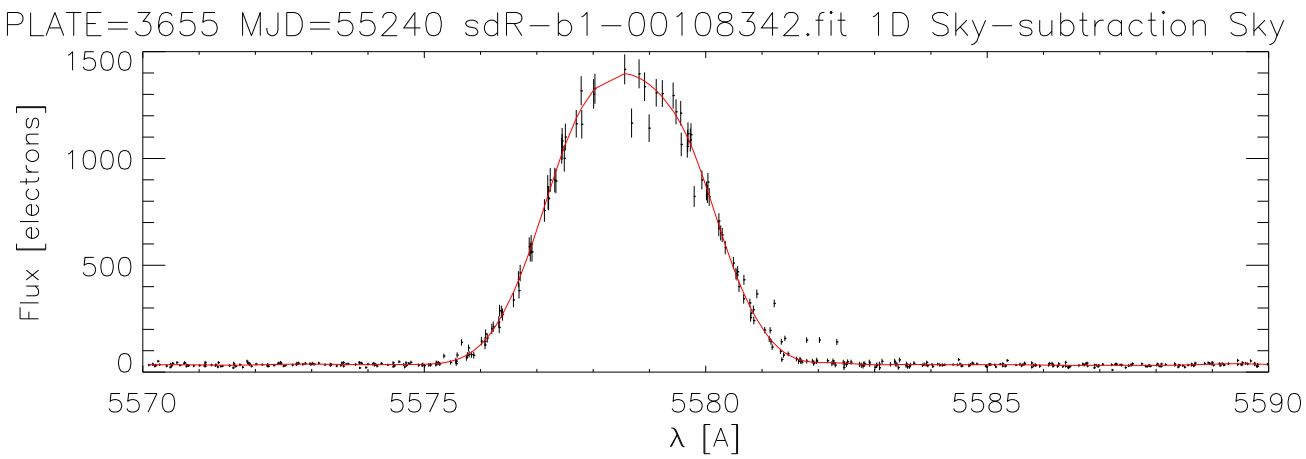

PLATE=3655 MJD=55240 Fiber−Flats for sdR−b1−00108346.fit
BLACK = Median value
ENVELOPE = 95% of points
GREEN = Outlier points
Min value = −8.546
Max value = 7.802
Fiber−Flat
1.5
1.0
0.5
0.0
3000
4000
5000
6000
7000
λ [A]
Thu May 26 19:12:26 2016

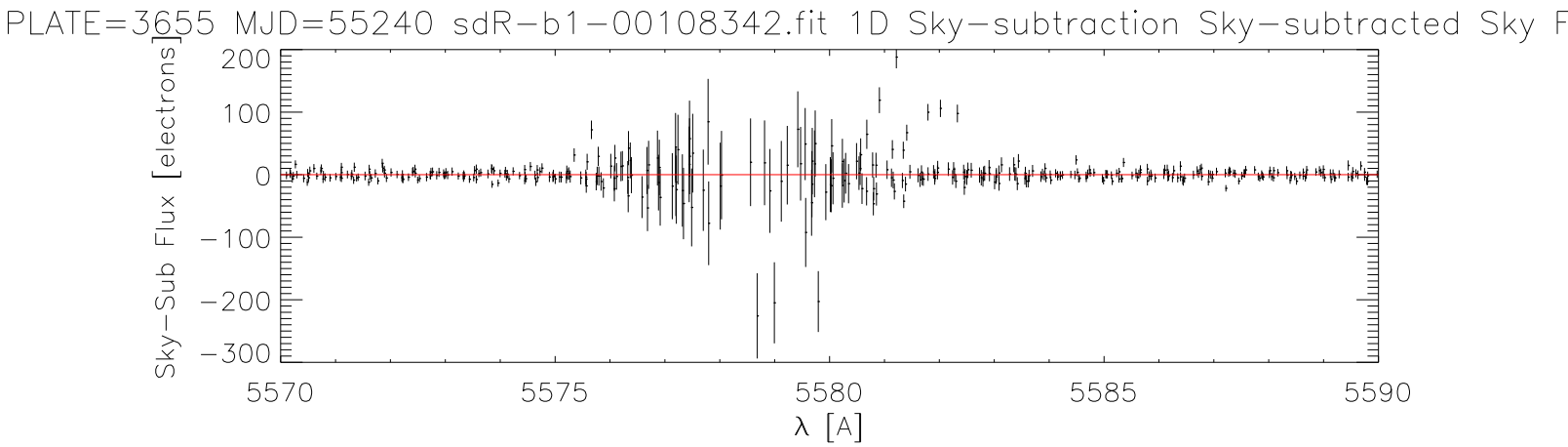

PLATE=3655 MJD=55240 Extraction chi^2 for sdR−b1−00108342.fit
BLACK = Final chisq extraction
χ^2
1.0
0.8
0.6
0.4
0.2
0.0
0
1000
2000
3000
4000
Row number


PLATE=3655 MJD=55240 Sky Line Deviations for sdR-b1-00108342.fit
1.00 pix
Before shift
After shift
Fiber Number
500
400
300
200
100
0
4046
4358
5460
5577
6300
6363
6553
6923
6949
Sky Line Wavelength

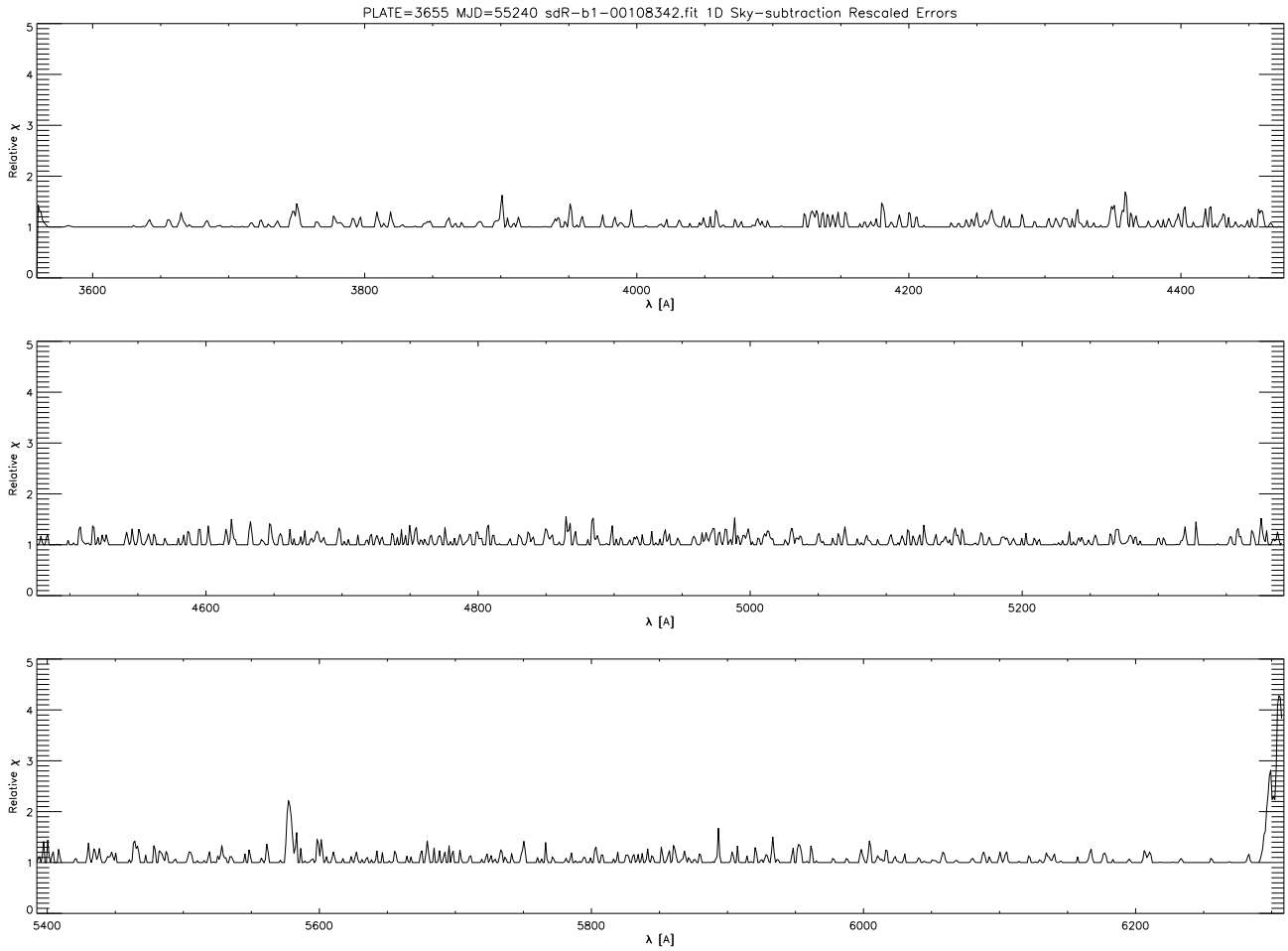

PLATE=3655 MJD=55240 Smooth superflat for sdR-b1-00108342.fit
2.5
2.0
1.5
1.0
0.5
0.0
1.04
1.02
1.00
0.98
0.96
3000
4000
5000
6000
7000
Wavelength (Å)

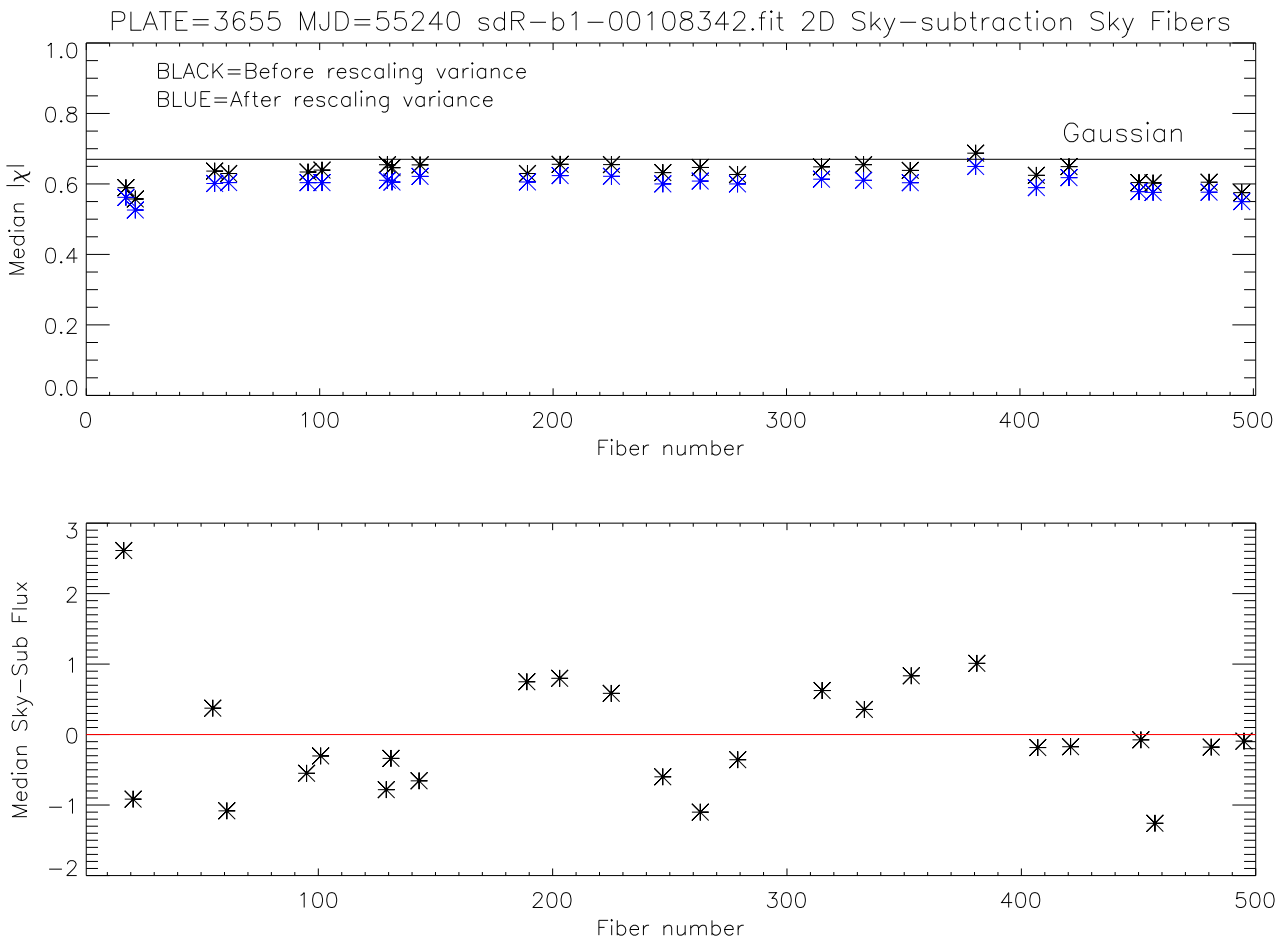

PLATE=3655 MJD=55240 sdR-b1-00108342.fit 1D Sky-subtraction Sky Fibers
BLACK=Before rescaling variance
BLUE=After rescaling variance
Gaussian
Median |χ|
Fiber number
Median Sky-Sub Flux
Fiber number

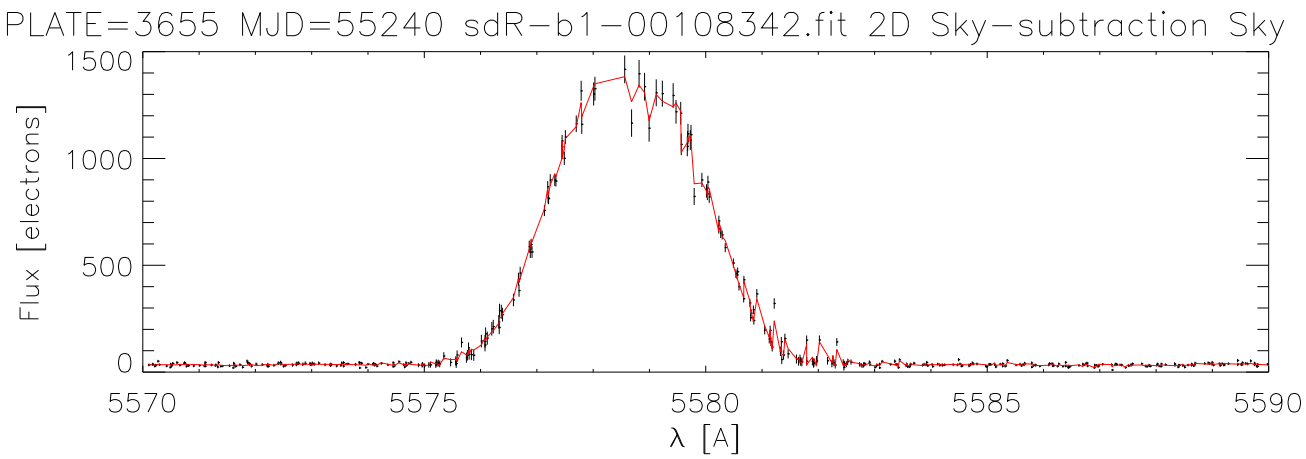

PLATE=3655 MJD=55240 sdR-b1-00108342.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
1500
1000
500
0
5570
5575
5580
5585
5590
λ [A]

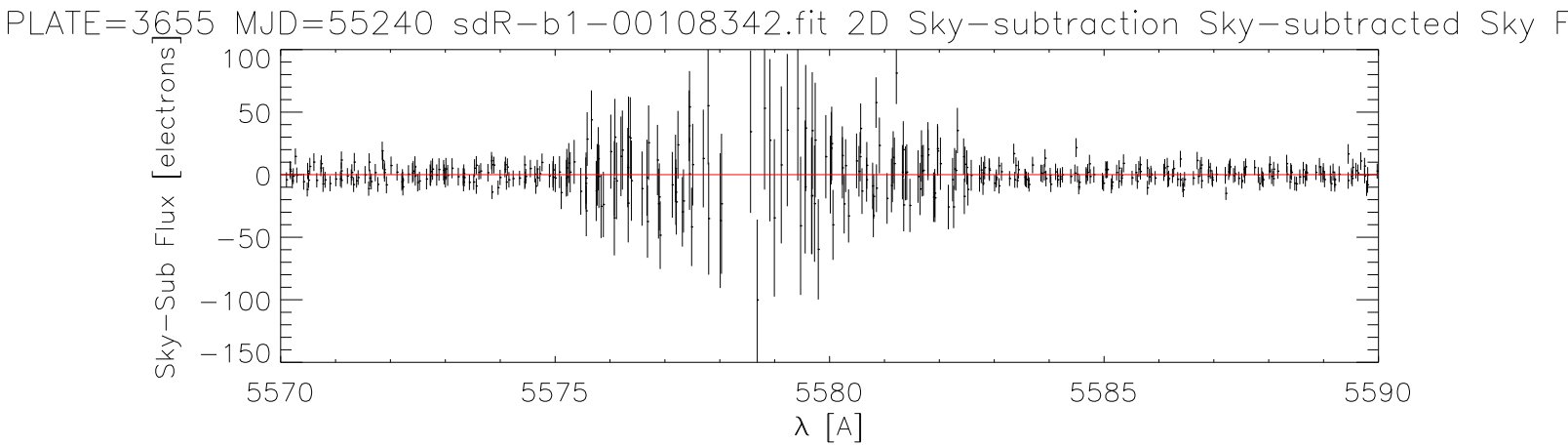

PLATE=3655 MJD=55240 sdR-b1-00108342.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
-300
5570
5575
5580
5585
5590
λ [A]

Number of sky fibers = 25

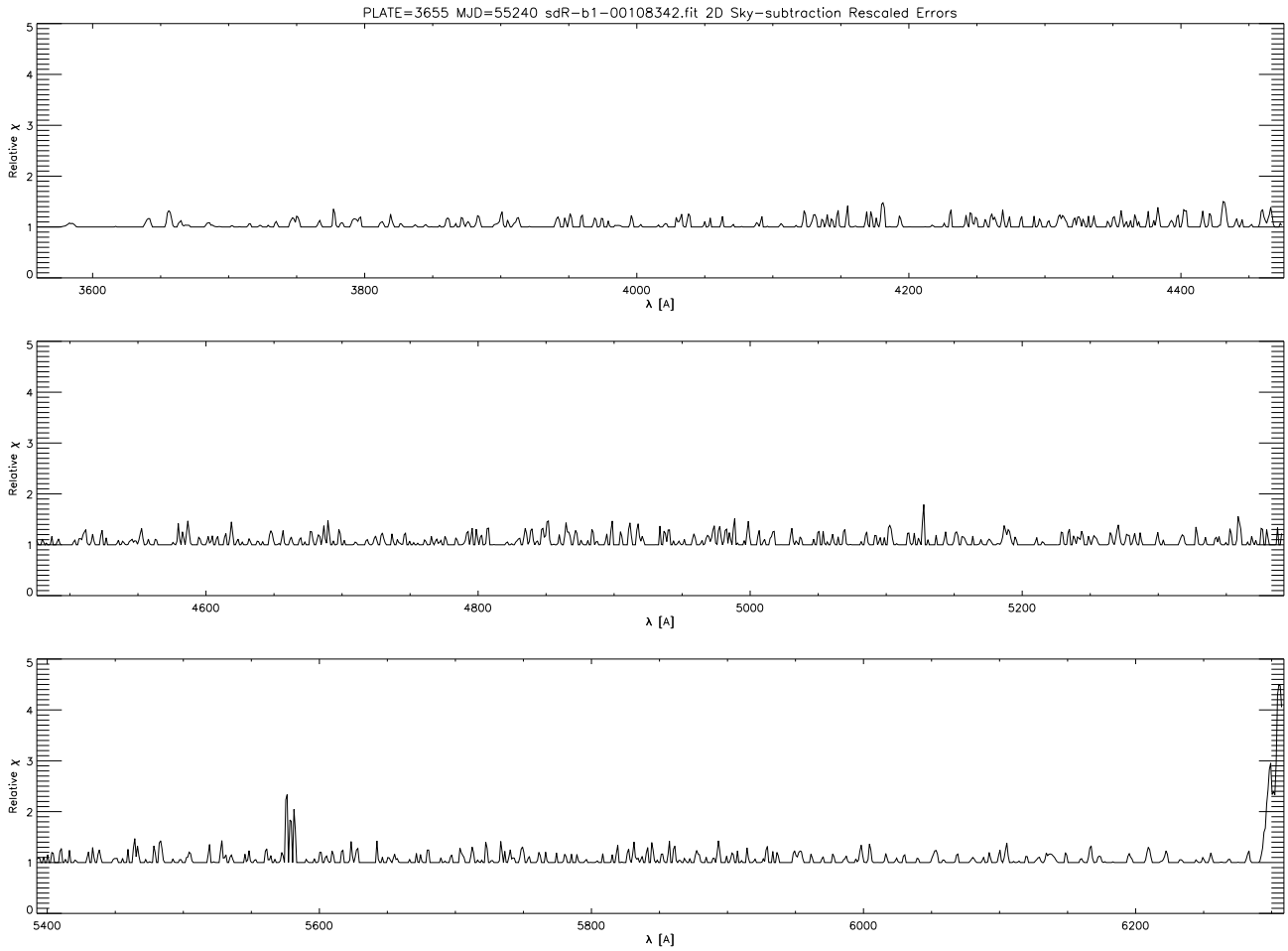


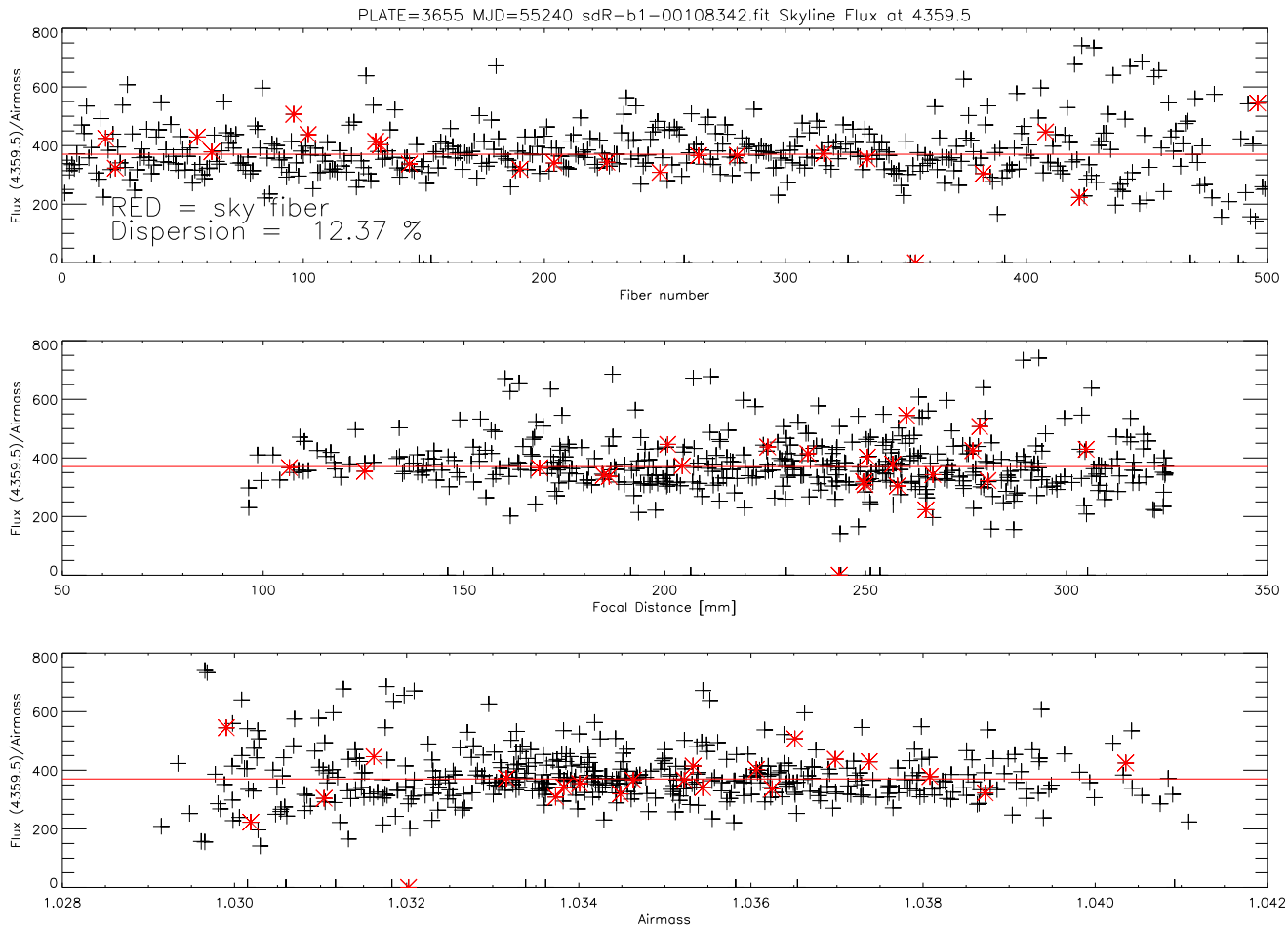

PLATE=3655 MJD=55240 sdR-b1-00108342.fit 2D Sky-subtraction Sky Fibers
BLACK=Before rescaling variance
BLUE=After rescaling variance
Gaussian
Median |χ|
Fiber number
Median Sky-Sub Flux
Fiber number

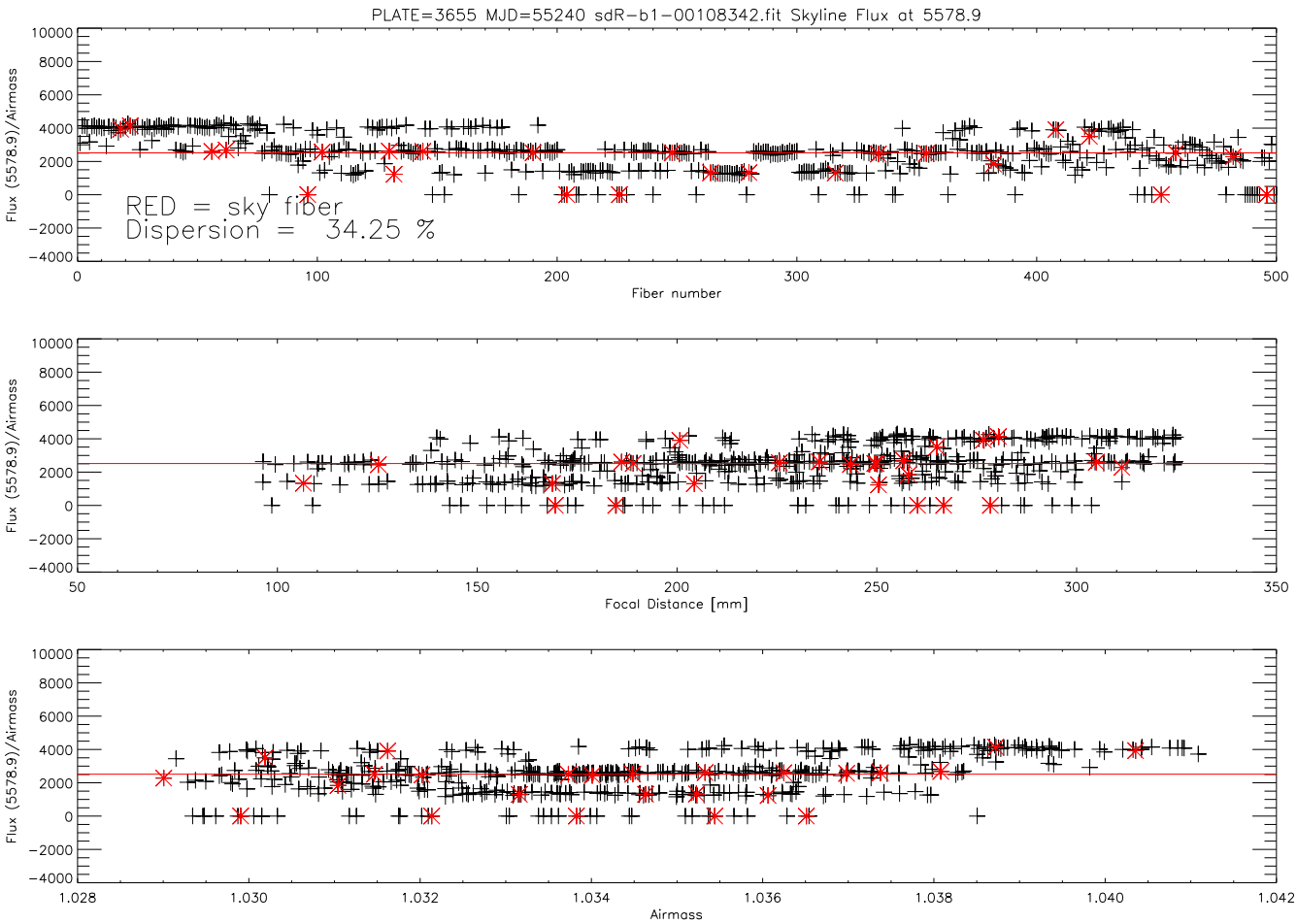

PLATE=3655 MJD=55240 sdR-b1-00108342.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
1500
1000
500
0
5570
5575
5580
5585
5590
λ [A]

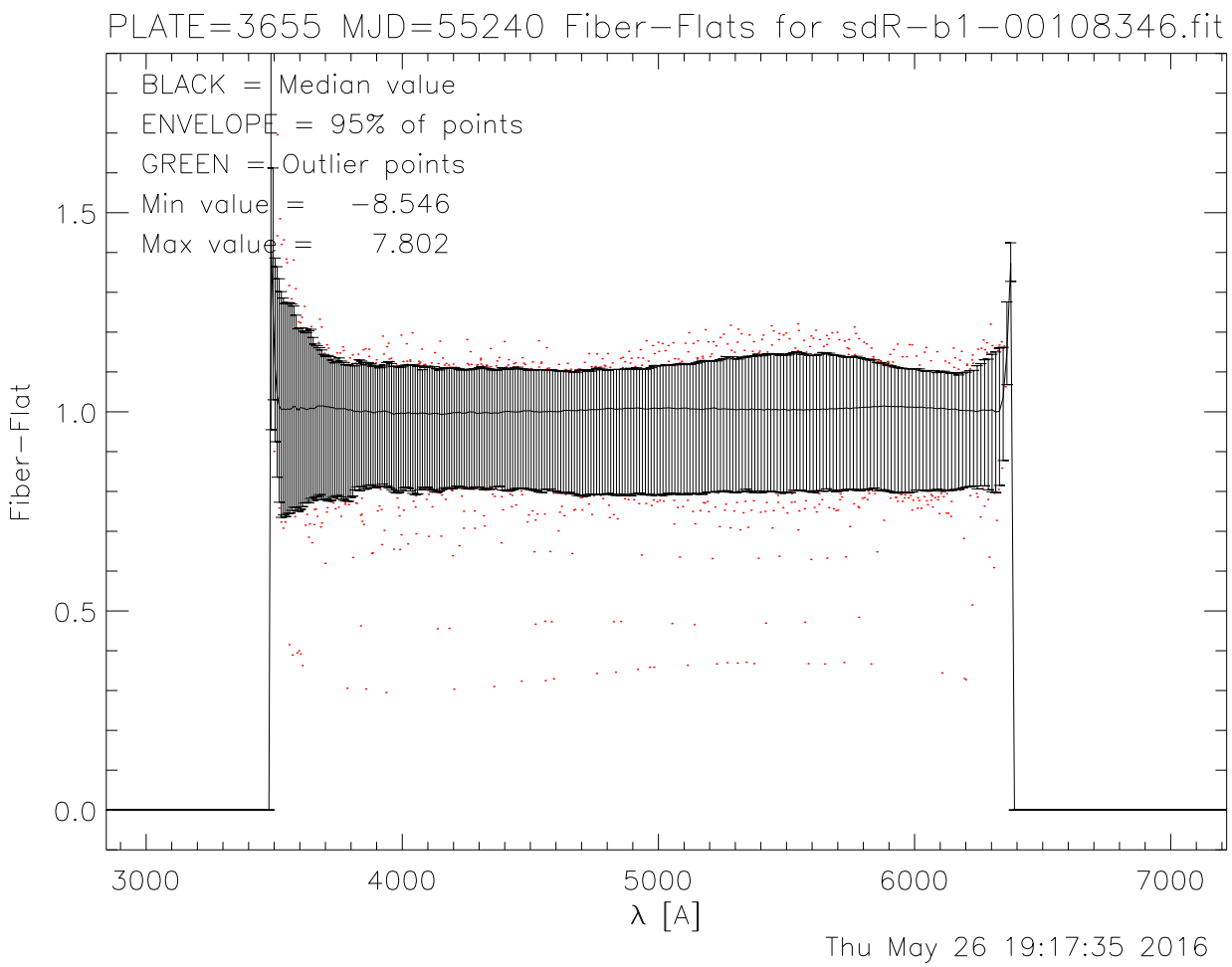

PLATE=3655 MJD=55240 sdR-b1-00108342.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
100
50
0
-50
-100
-150
5570
5575
5580
5585
5590
λ [A]

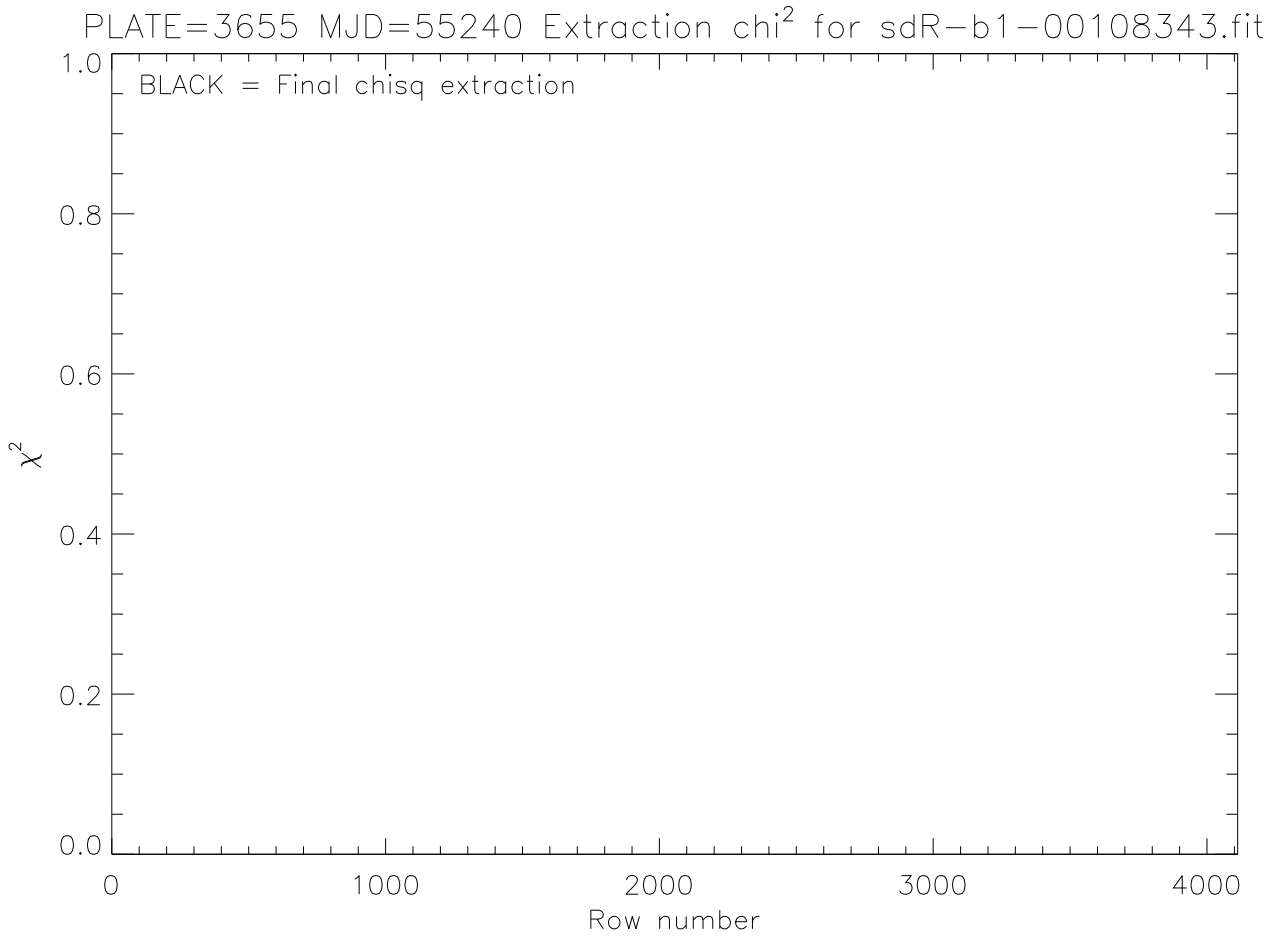
Number of sky fibers = 25

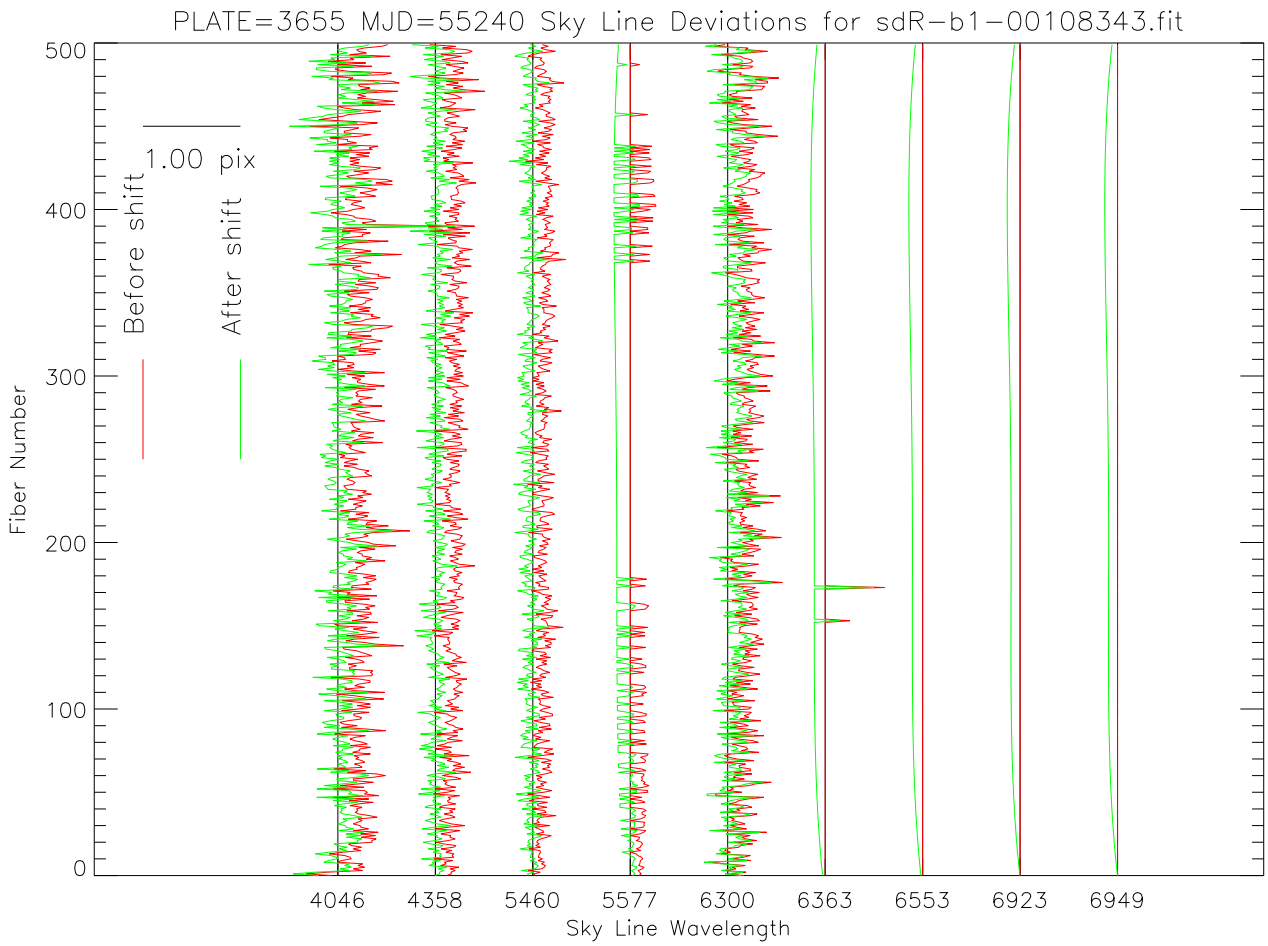


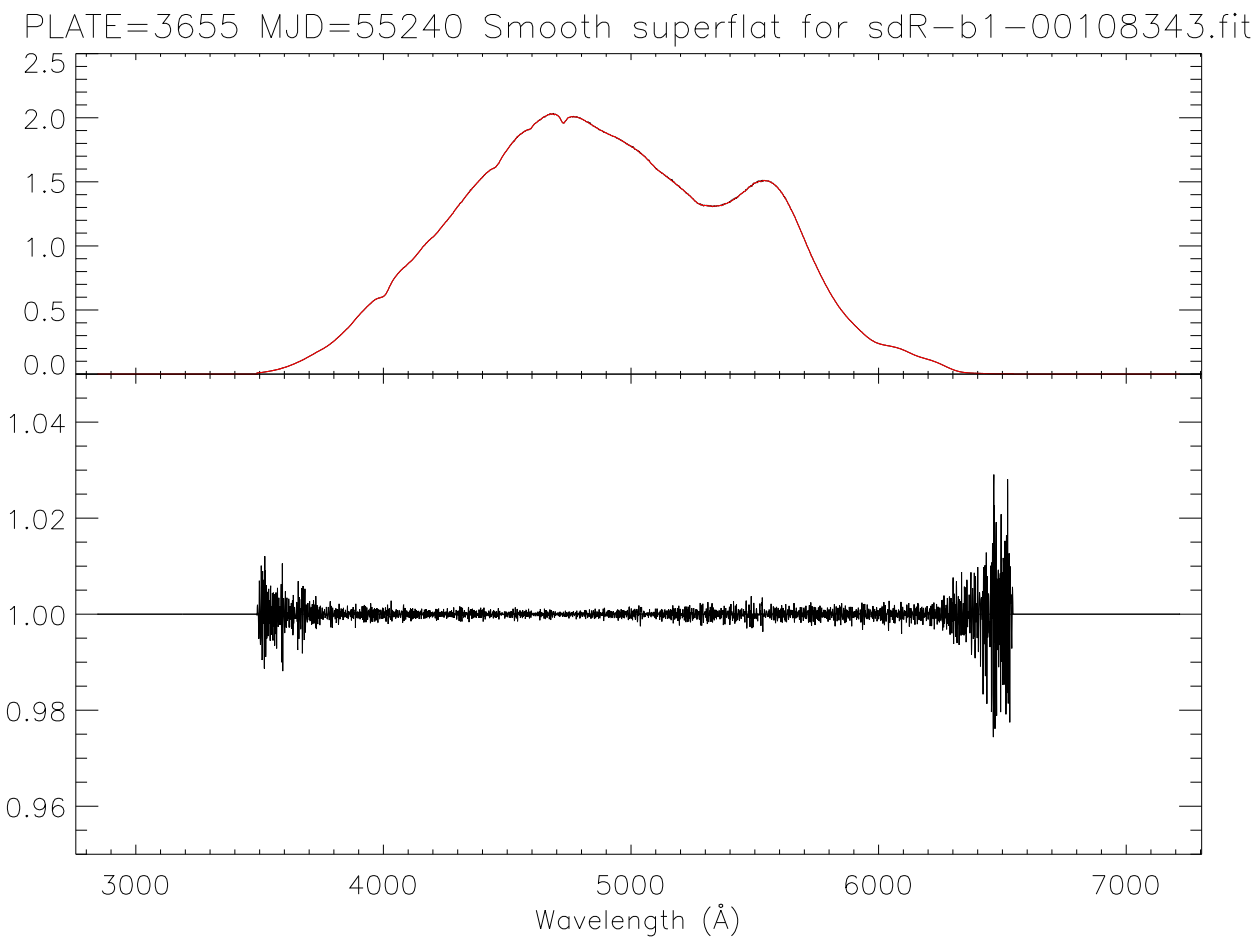

PLATE=3655 MJD=55240 sdR-b1-00108342.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 12.37 %
Fiber number
Focal Distance [mm]
Airmass

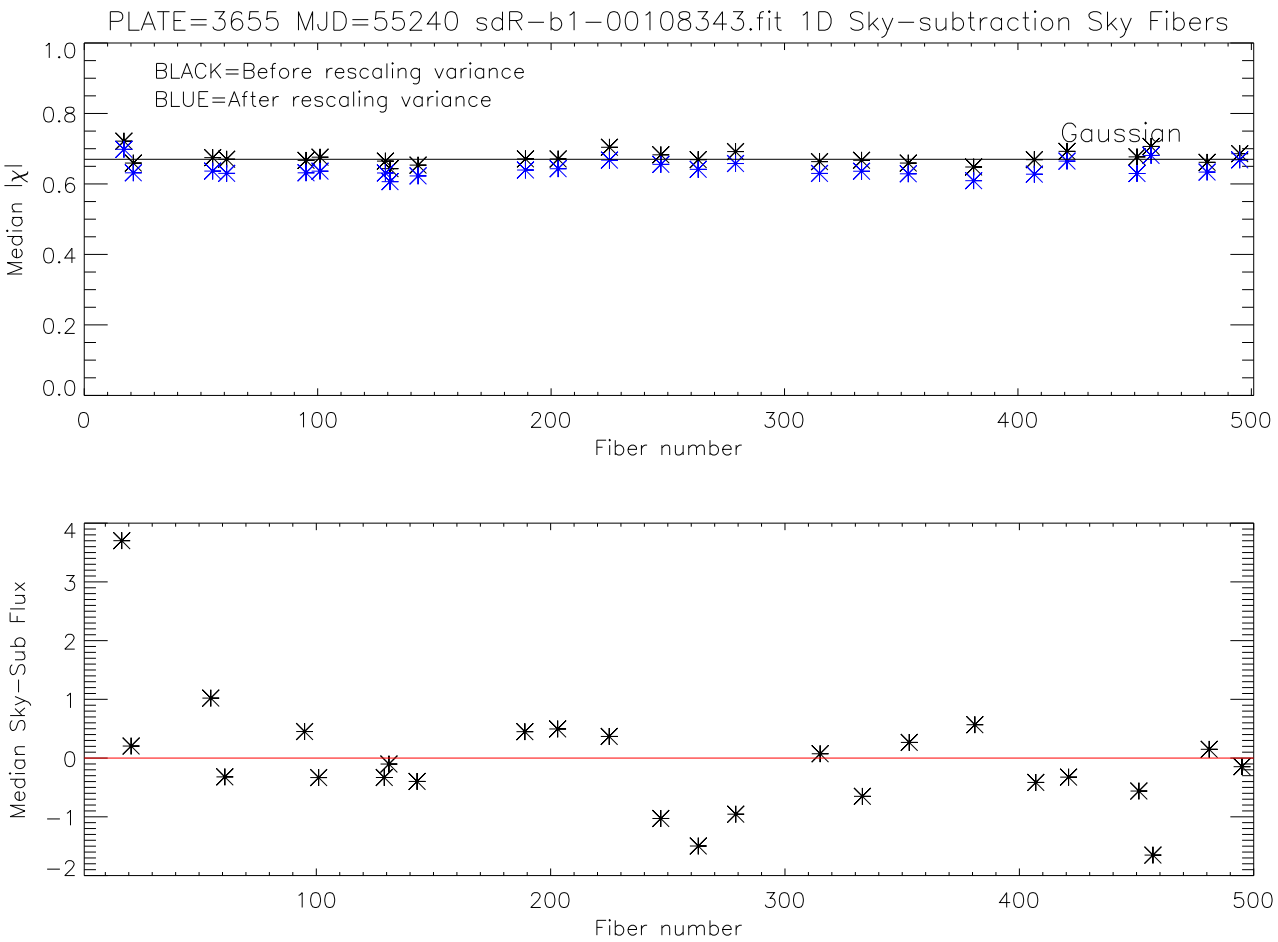

PLATE=3655 MJD=55240 sdR-b1-00108342.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
Fiber number
RED = sky fiber
Dispersion = 34.25 %
Flux (5578.9)/Airmass
Focal Distance [mm]
Flux (5578.9)/Airmass
Airmass

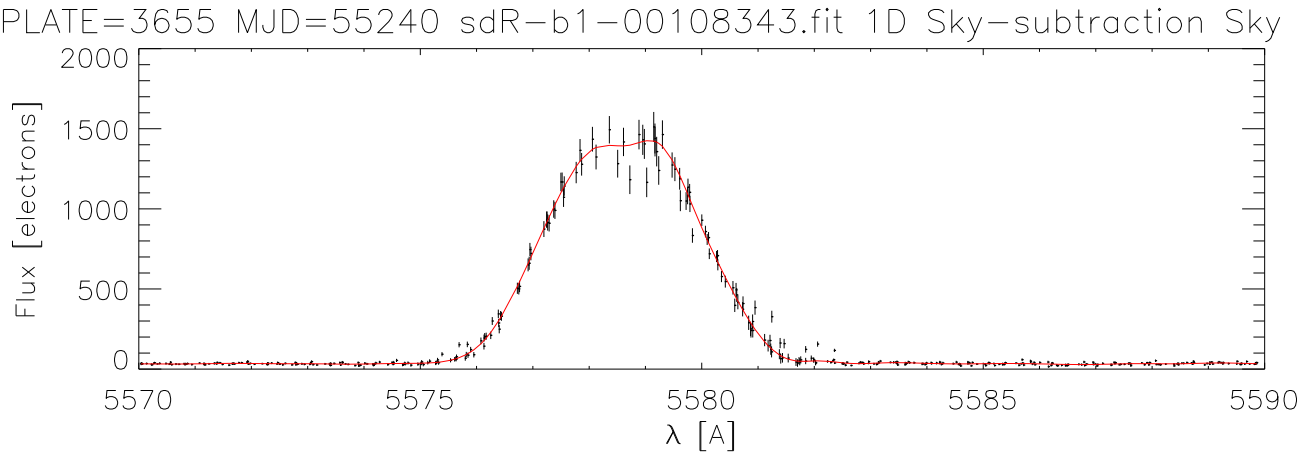

PLATE=3655 MJD=55240 Fiber−Flats for sdR−b1−00108346.fit
BLACK = Median value
ENVELOPE = 95% of points
GREEN = Outlier points
Min value = −8.546
Max value = 7.802
Fiber−Flat
1.5
1.0
0.5
0.0
3000
4000
5000
6000
7000
λ [A]
Thu May 26 19:17:35 2016

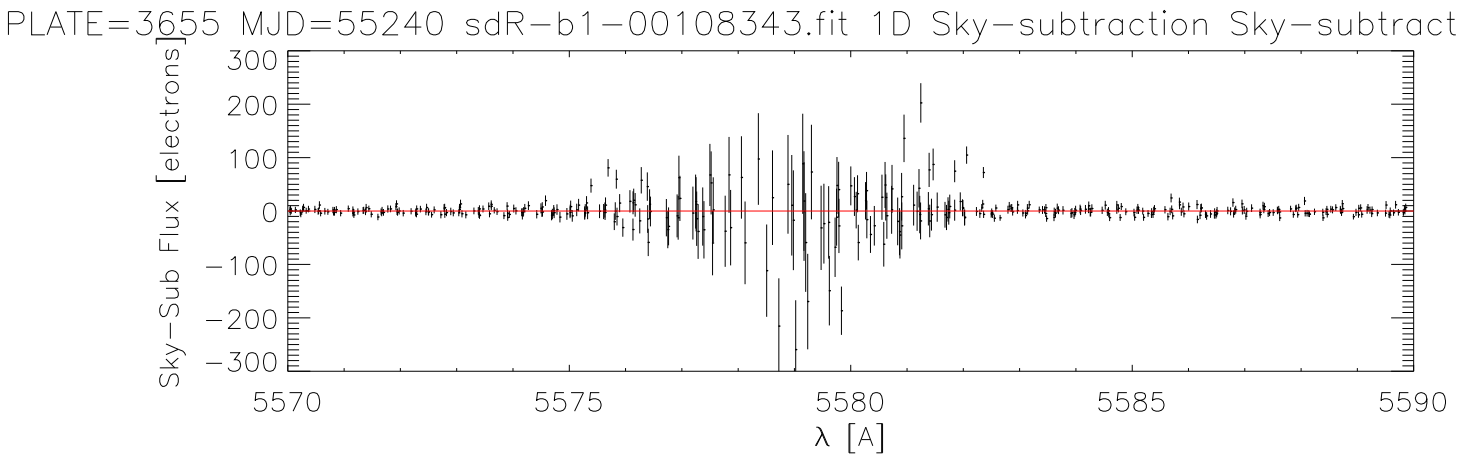

PLATE=3655 MJD=55240 Extraction chi^2 for sdR-b1-00108343.fit
BLACK = Final chisq extraction
χ^2
1.0
0.8
0.6
0.4
0.2
0.0
0
1000
2000
3000
4000
Row number


PLATE=3655 MJD=55240 Sky Line Deviations for sdR-b1-00108343.fit
1.00 pix
Before shift
After shift
Fiber Number
500
400
300
200
100
0
4046
4358
5460
5577
6300
6363
6553
6923
6949
Sky Line Wavelength

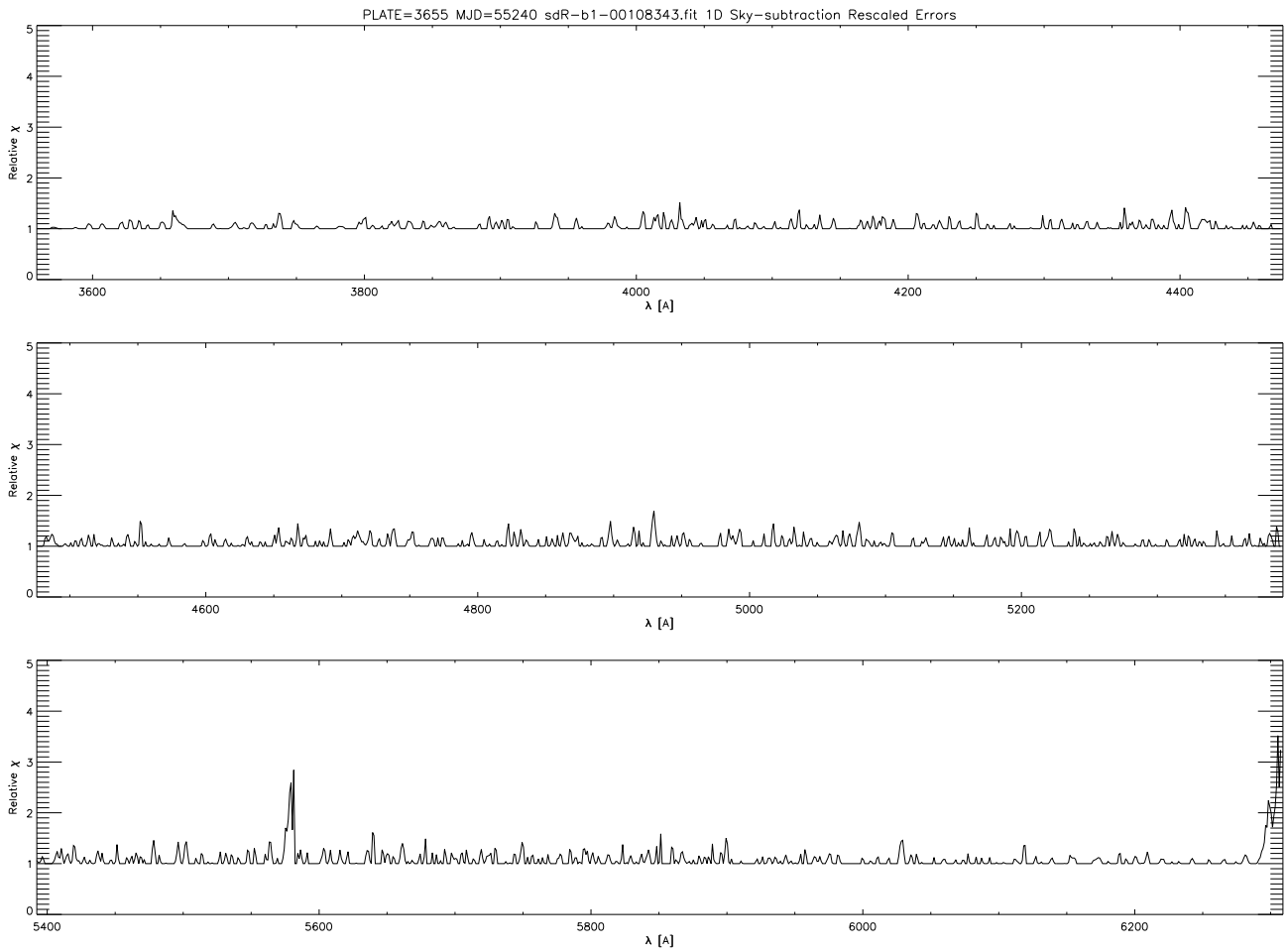

PLATE=3655 MJD=55240 Smooth superflat for sdR-b1-00108343.fit
2.5
2.0
1.5
1.0
0.5
0.0
1.04
1.02
1.00
0.98
0.96
3000
4000
5000
6000
7000
Wavelength (Å)

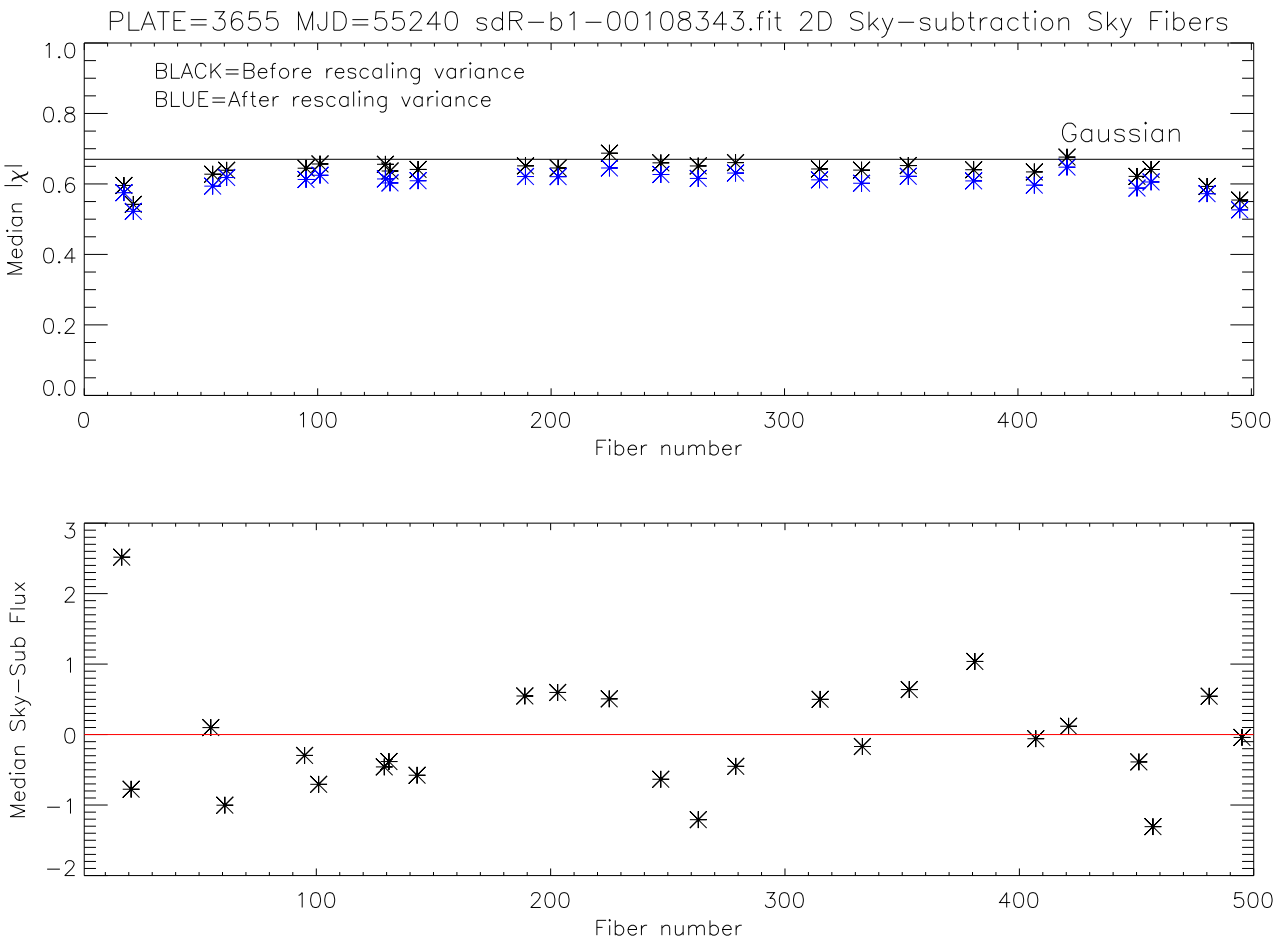

PLATE=3655 MJD=55240 sdR-b1-00108343.fit 1D Sky-subtraction Sky Fibers
BLACK=Before rescaling variance
BLUE=After rescaling variance
Gaussian
Median |χ|
Fiber number
Median Sky-Sub Flux
Fiber number

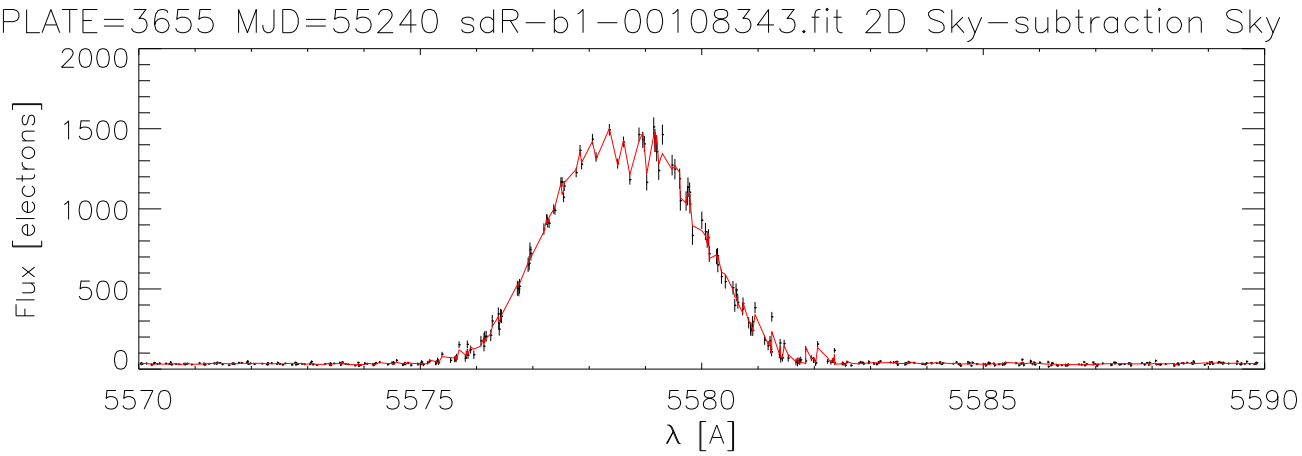

PLATE=3655 MJD=55240 sdR-b1-00108343.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
2000
1500
1000
500
0
5570
5575
5580
5585
5590
λ [A]

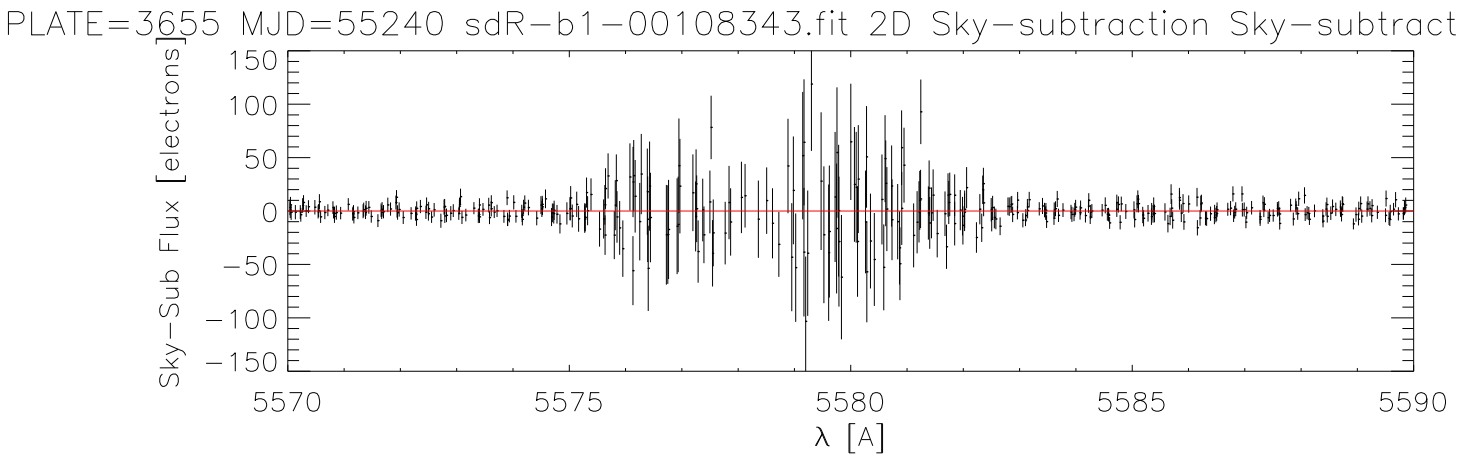

PLATE=3655 MJD=55240 sdR-b1-00108343.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
-300
5570
5575
5580
5585
5590
λ [A]

Number of sky fibers = 25

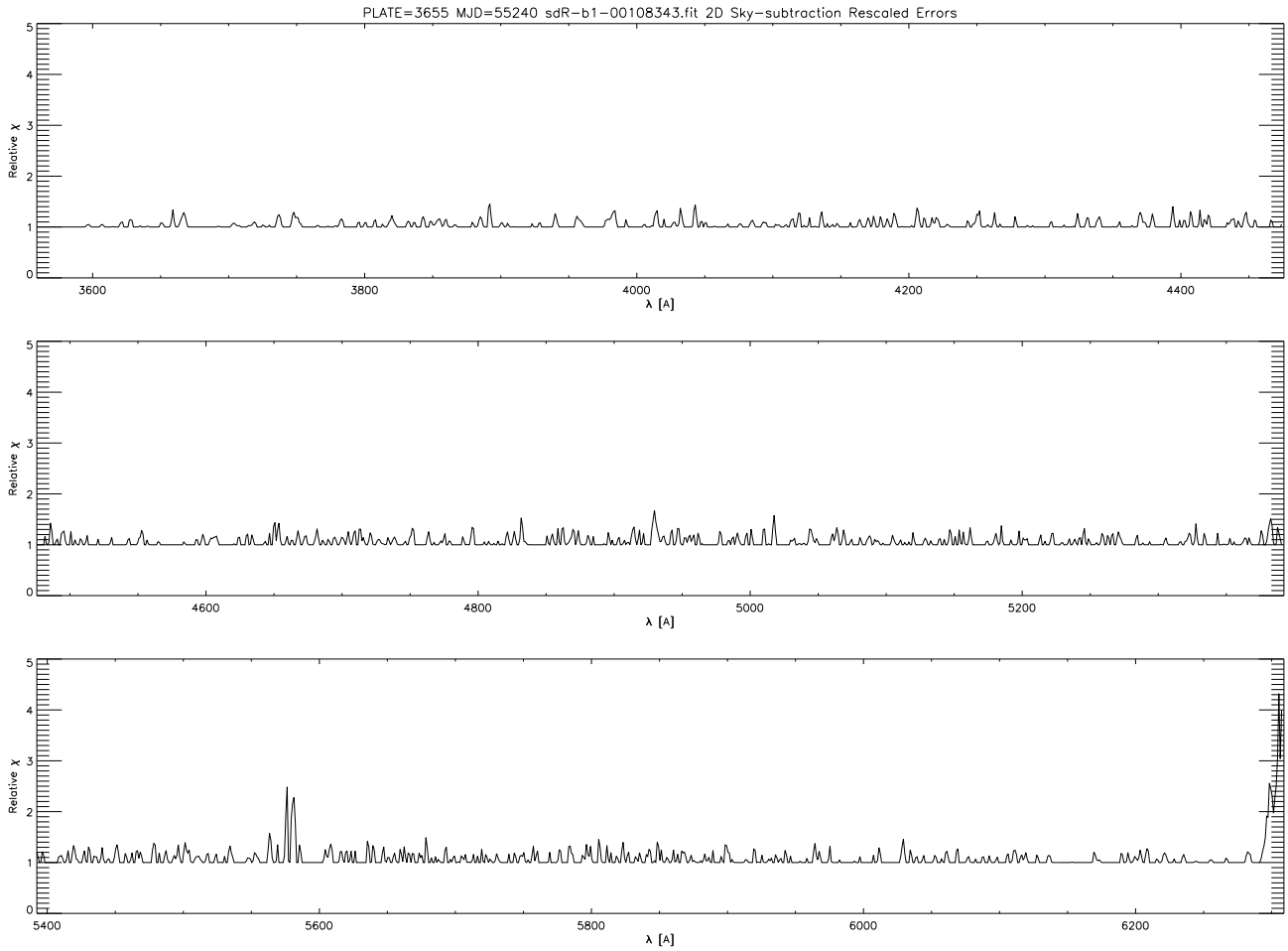


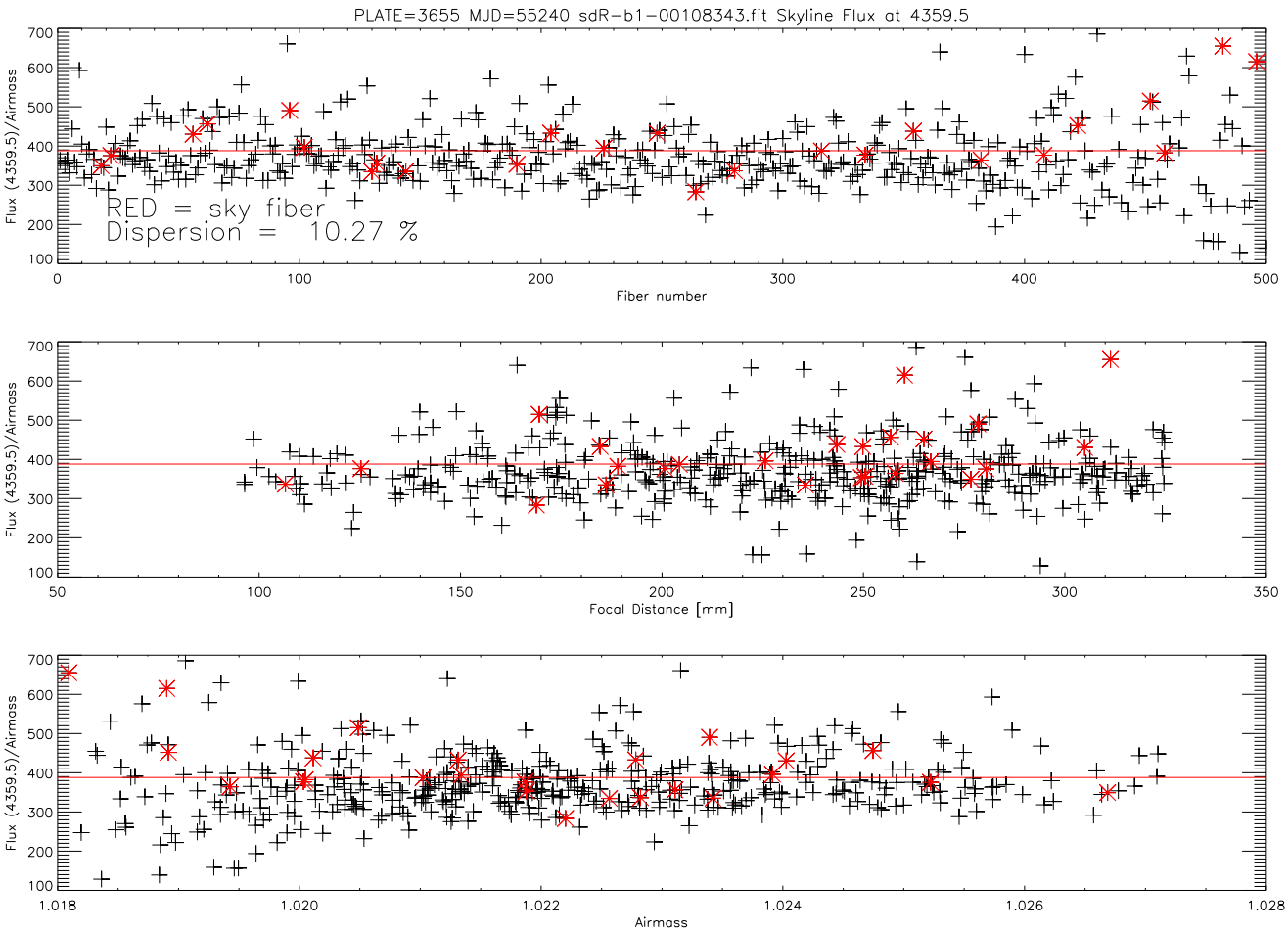

PLATE=3655 MJD=55240 sdR-b1-00108343.fit 2D Sky-subtraction Sky Fibers
BLACK=Before rescaling variance
BLUE=After rescaling variance
Gaussian
Median |χ|
Fiber number
Median Sky-Sub Flux
Fiber number

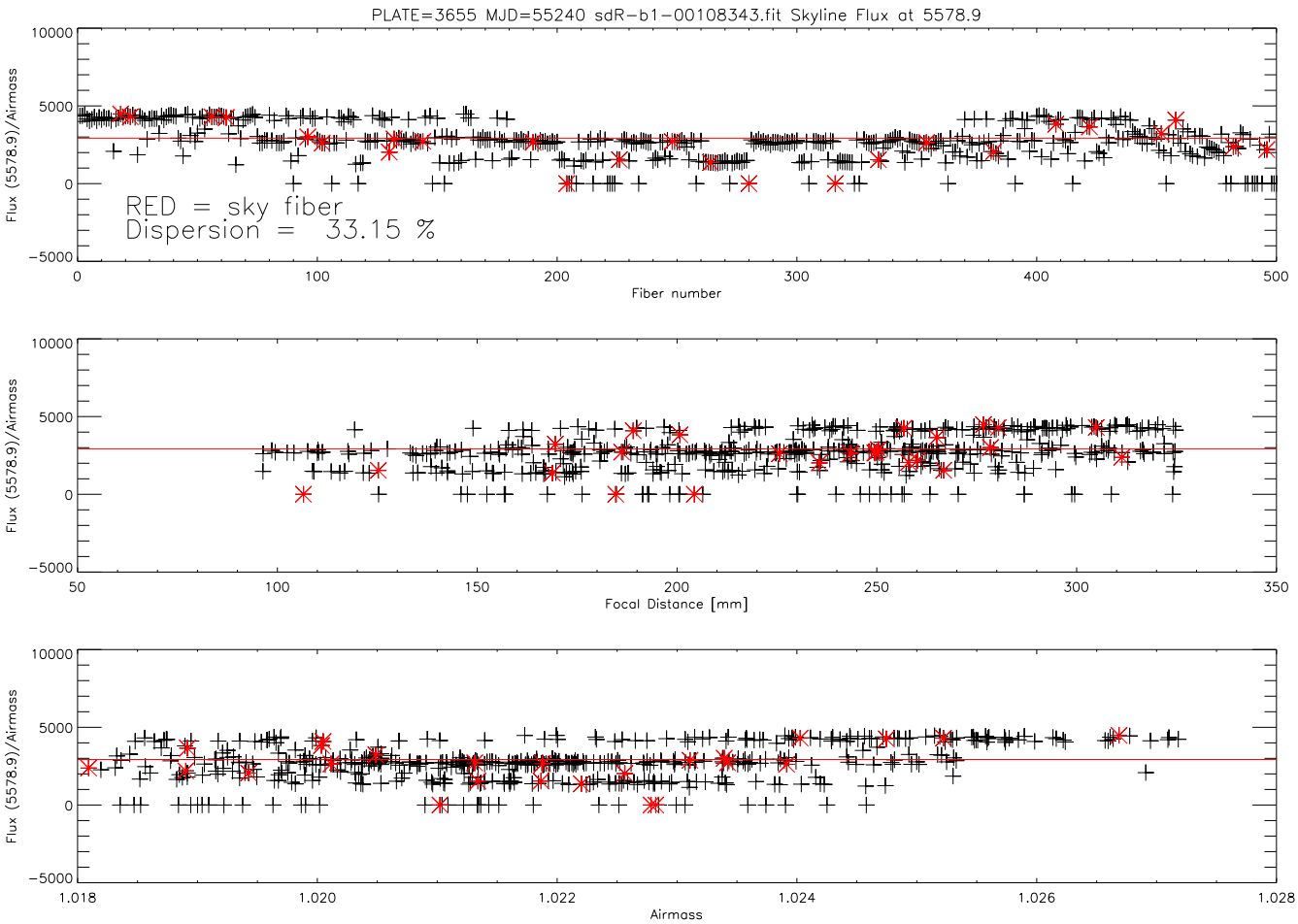

PLATE=3655 MJD=55240 sdR-b1-00108343.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
2000
1500
1000
500
0
5570
5575
5580
5585
5590
λ [A]

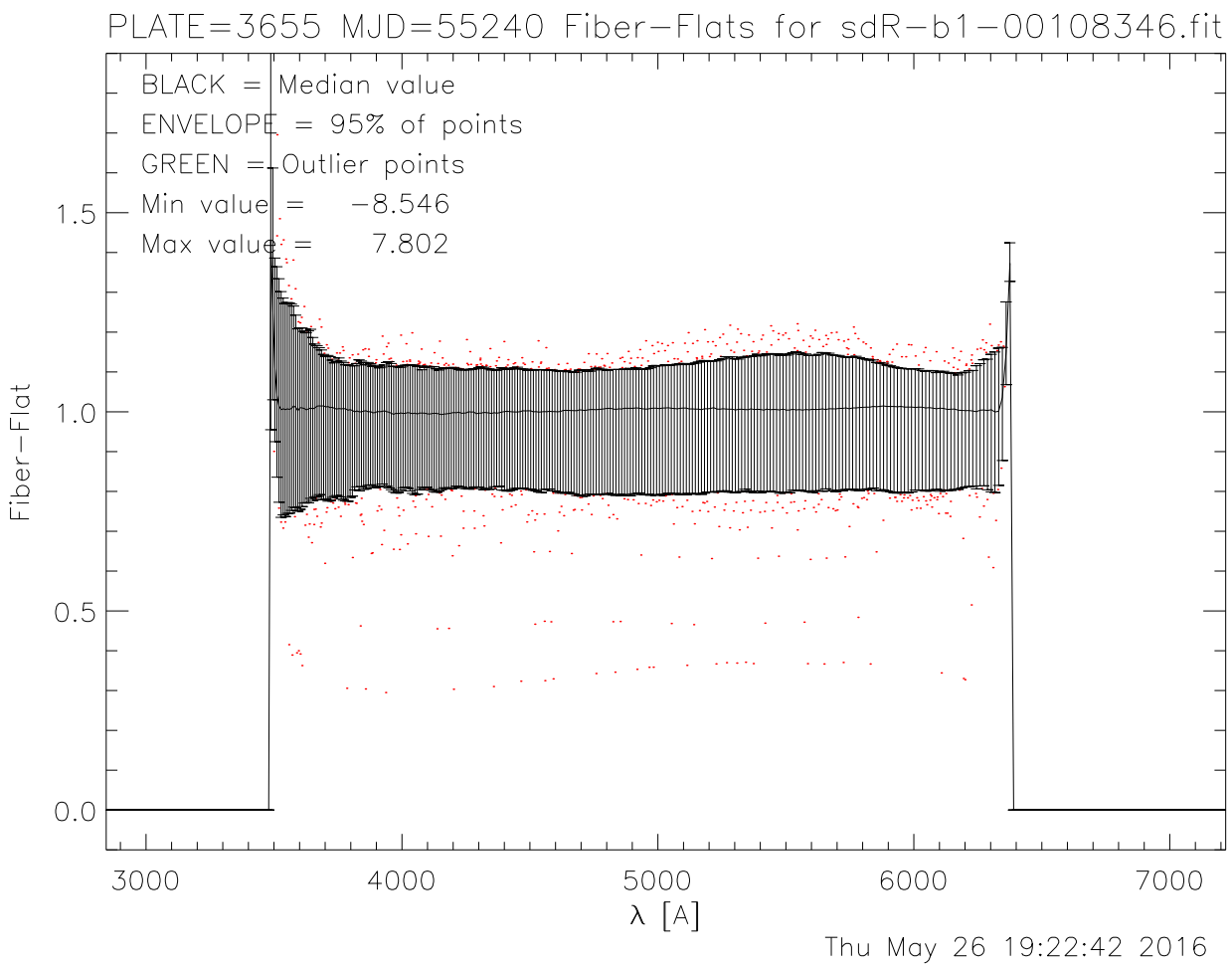

PLATE=3655 MJD=55240 sdR-b1-00108343.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
150
100
50
0
-50
-100
-150
5570
5575
5580
5585
5590
λ [A]

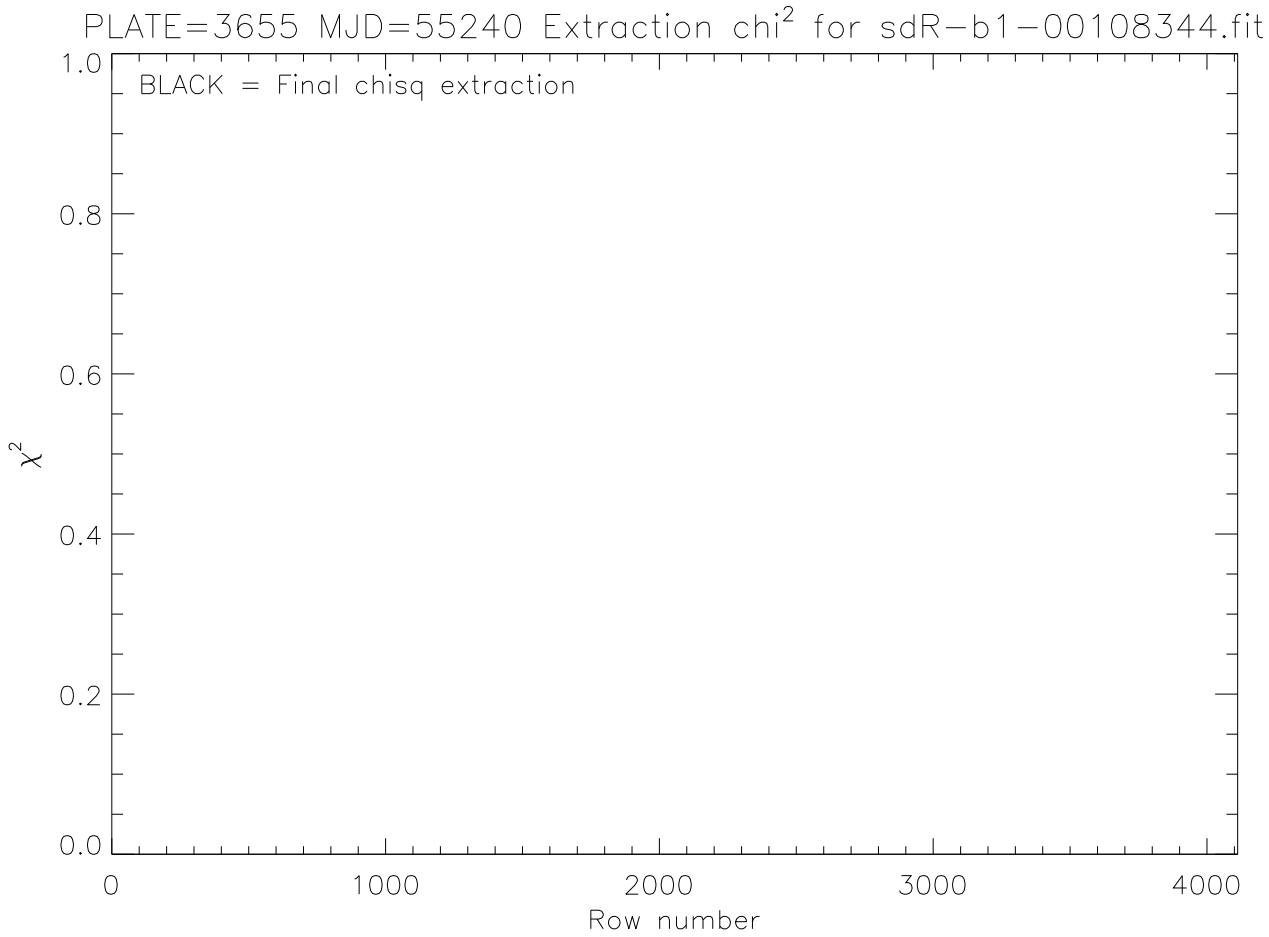
Number of sky fibers = 25

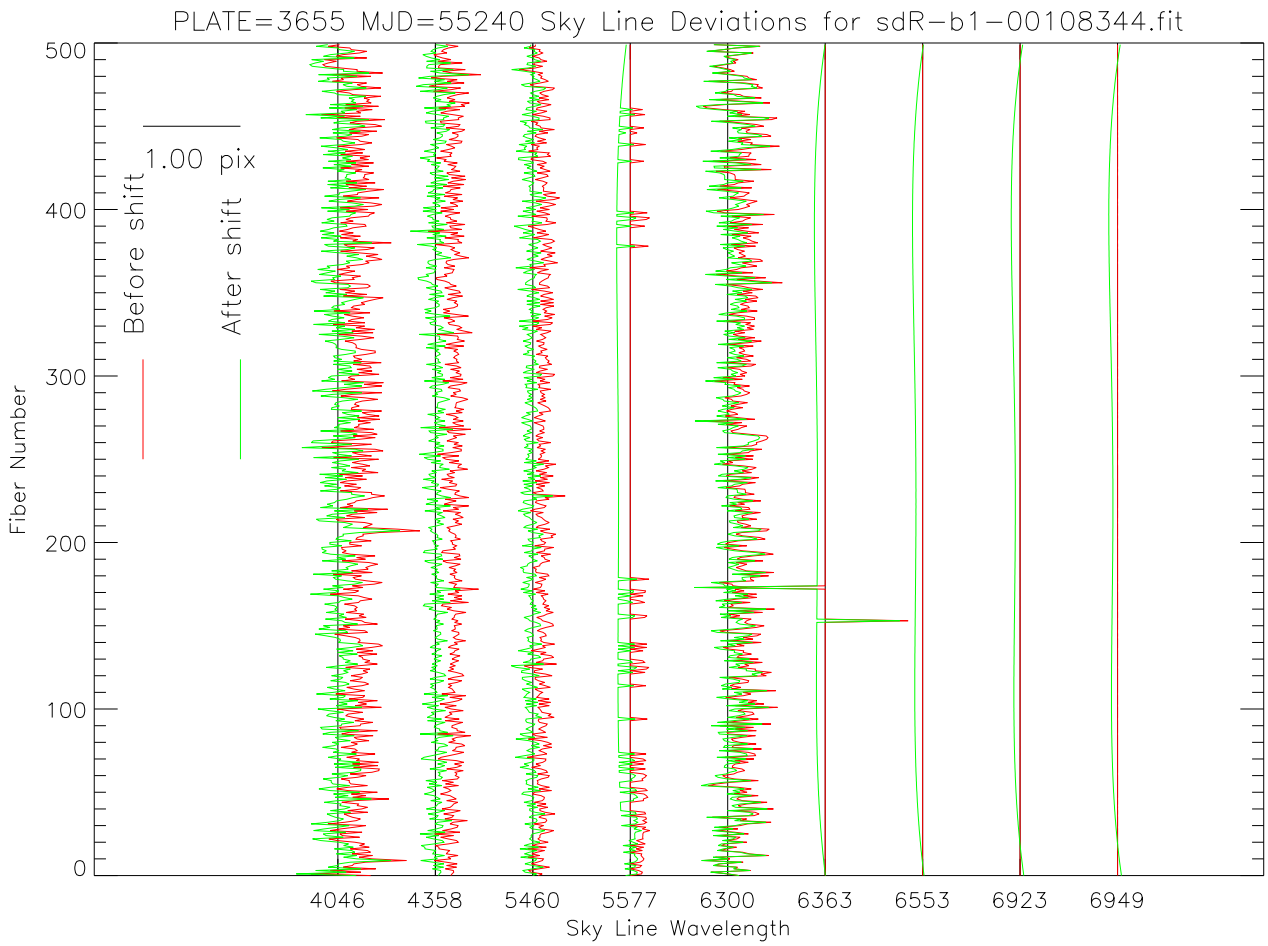


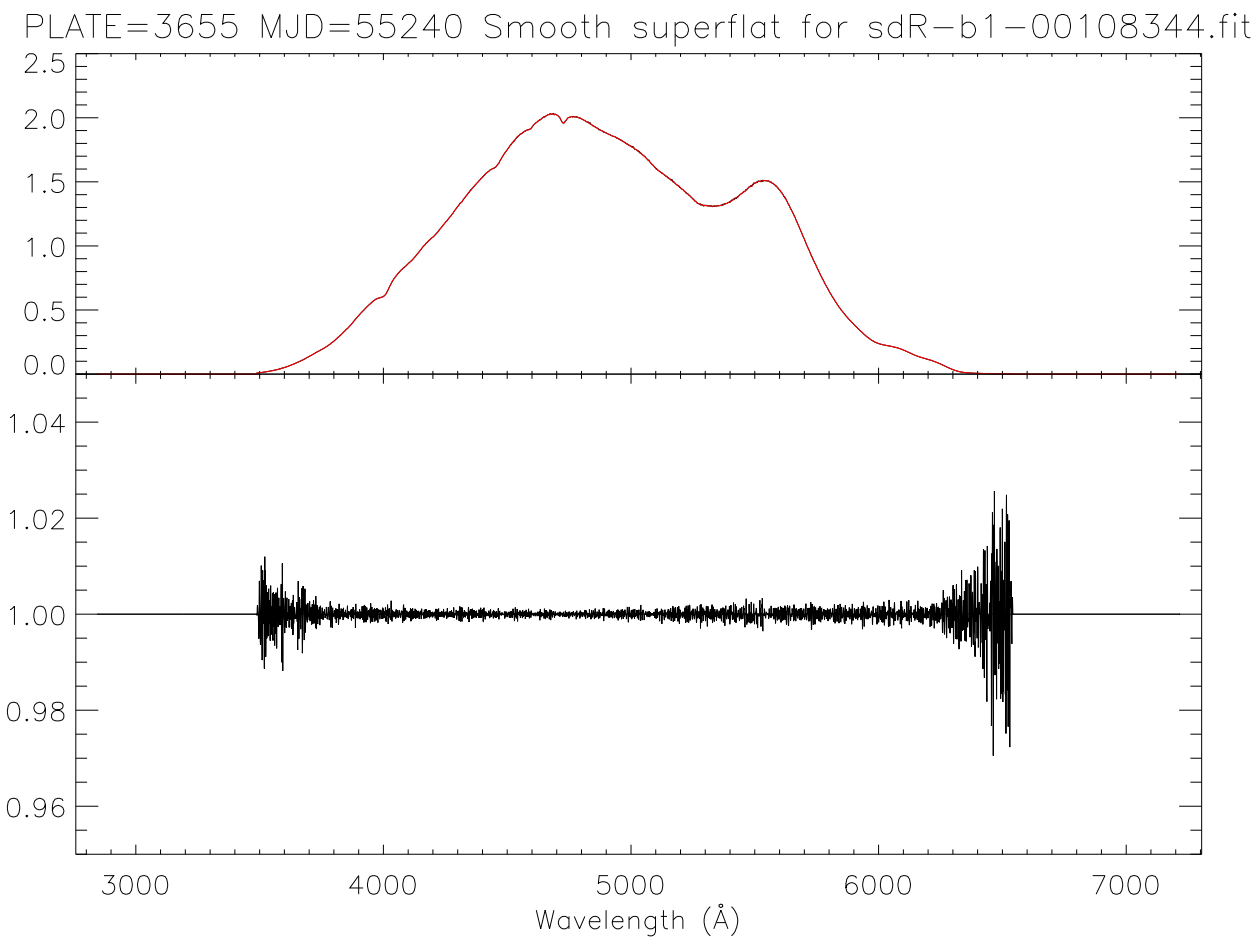

PLATE=3655 MJD=55240 sdR-b1-00108343.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 10.27 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

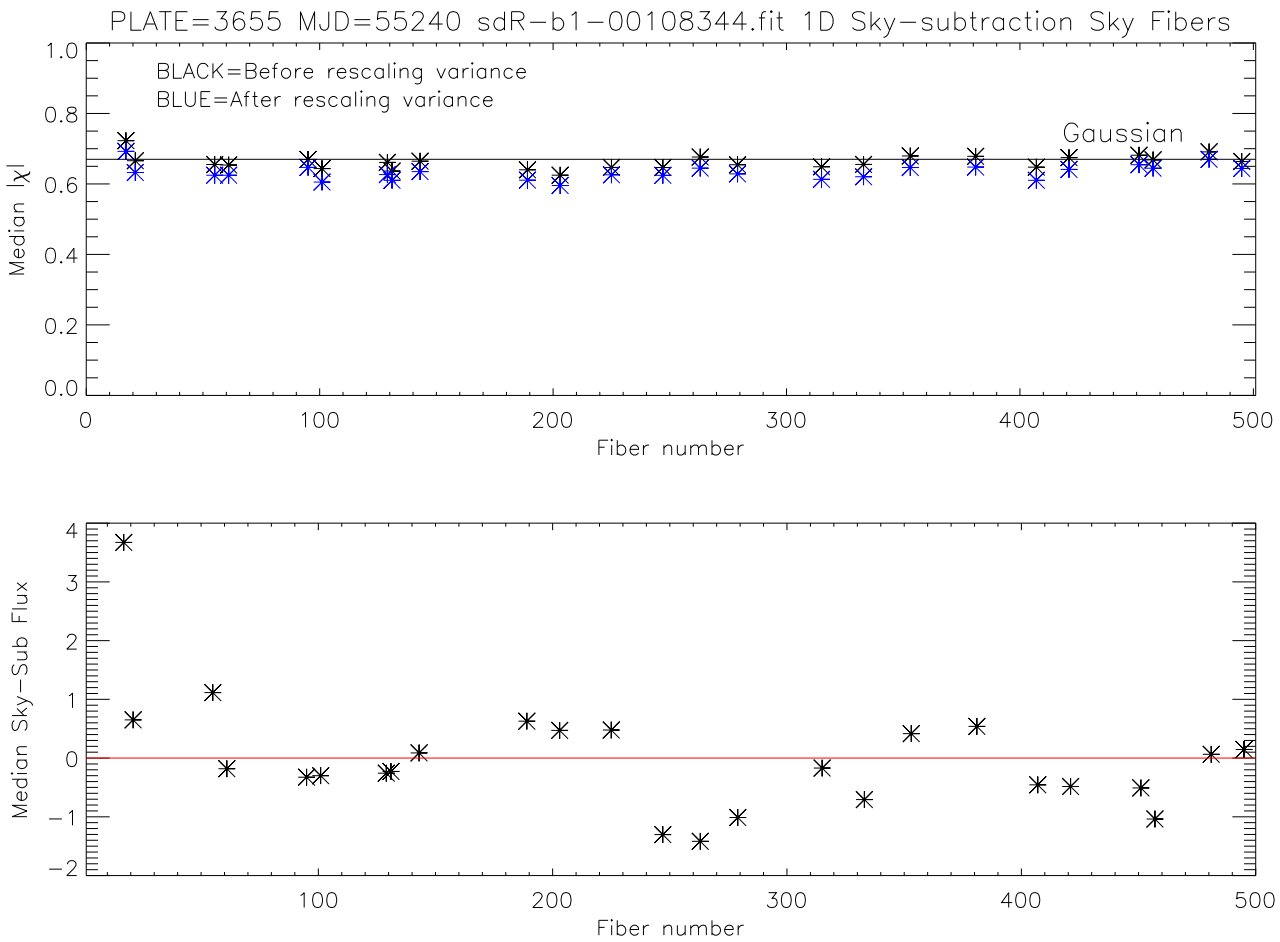

PLATE=3655 MJD=55240 sdR-b1-00108343.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 33.15 %
Fiber number
Focal Distance [mm]
Airmass

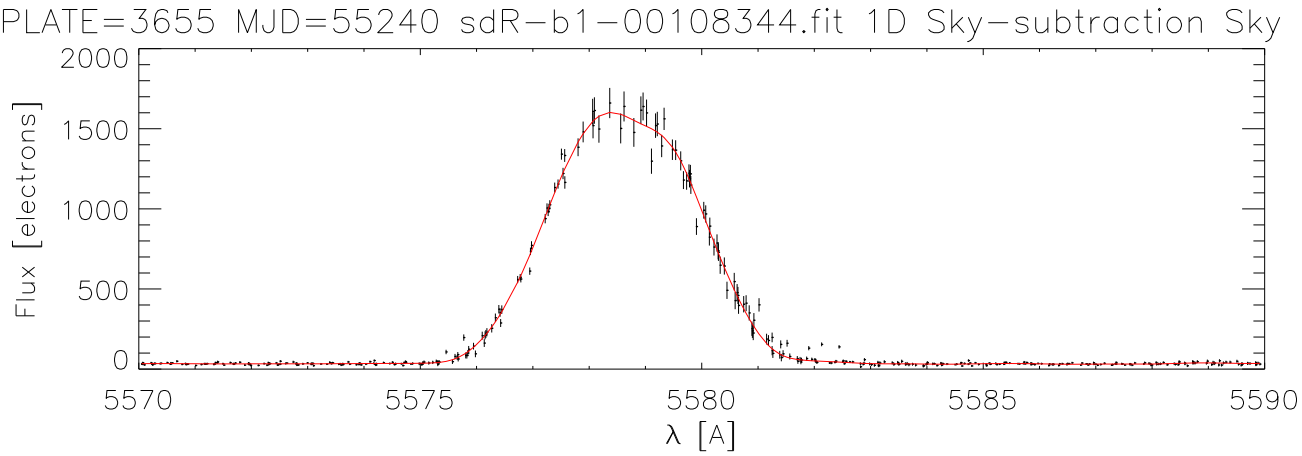

PLATE=3655 MJD=55240 Fiber-Flats for sdR-b1-00108346.fit
BLACK = Median value
ENVELOPE = 95% of points
GREEN = Outlier points
Min value = -8.546
Max value = 7.802
Fiber-Flat
1.5
1.0
0.5
0.0
3000
4000
5000
6000
7000
λ [A]
Thu May 26 19:22:42 2016

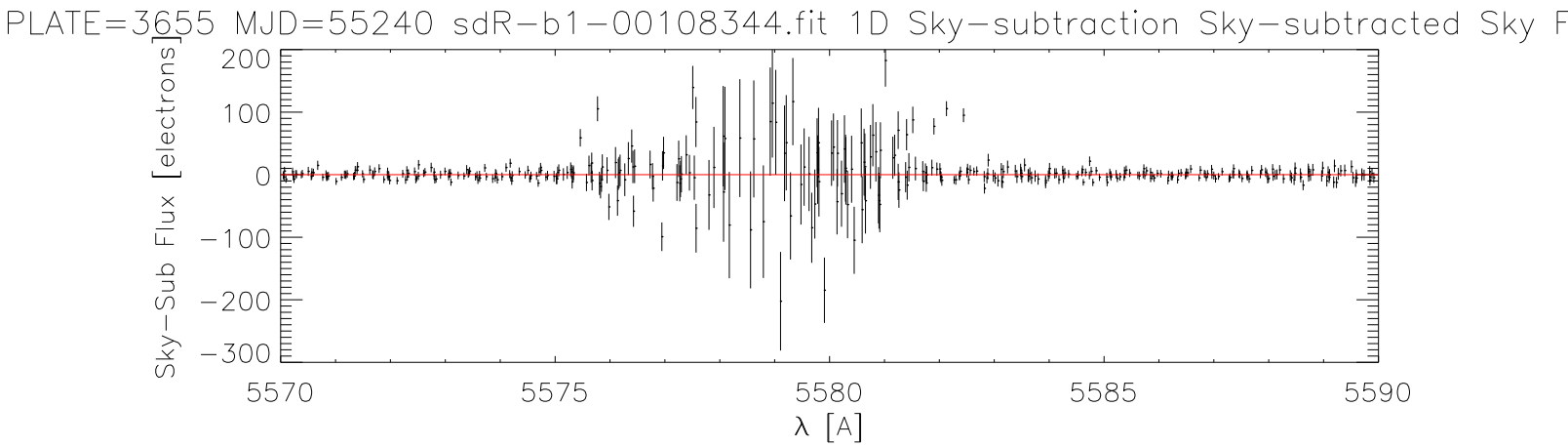

PLATE=3655 MJD=55240 Extraction chi^2 for sdR−b1−00108344.fit
BLACK = Final chisq extraction
χ^2
1.0
0.8
0.6
0.4
0.2
0.0
0
1000
2000
3000
4000
Row number


PLATE=3655 MJD=55240 Sky Line Deviations for sdR-b1-00108344.fit
Before shift
After shift
1.00 pix
Fiber Number
0
100
200
300
400
500
4046
4358
5460
5577
6300
6363
6553
6923
6949
Sky Line Wavelength

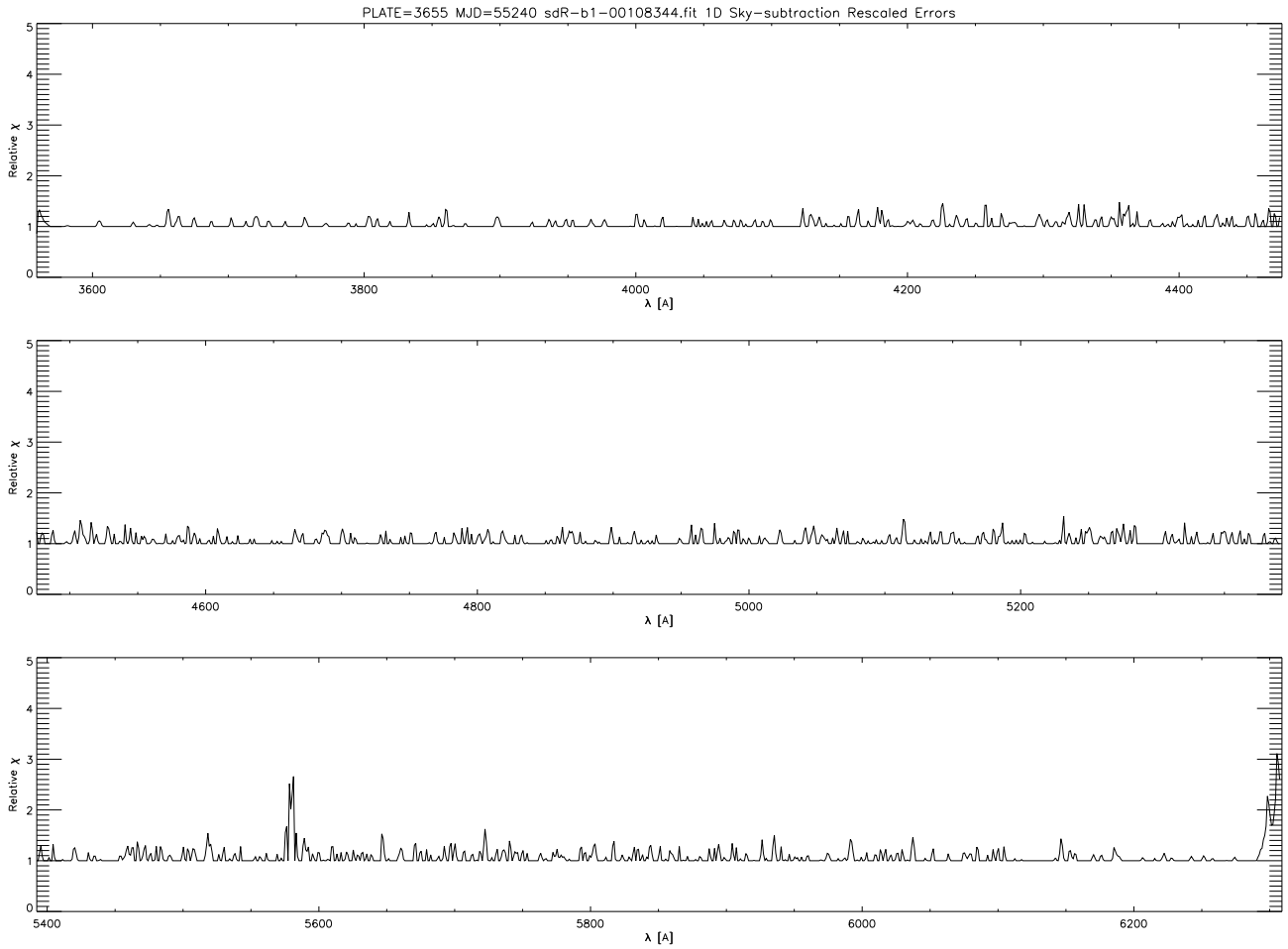

PLATE=3655 MJD=55240 Smooth superflat for sdR-b1-00108344.fit
2.5
2.0
1.5
1.0
0.5
0.0
1.04
1.02
1.00
0.98
0.96
3000
4000
5000
6000
7000
Wavelength (Å)

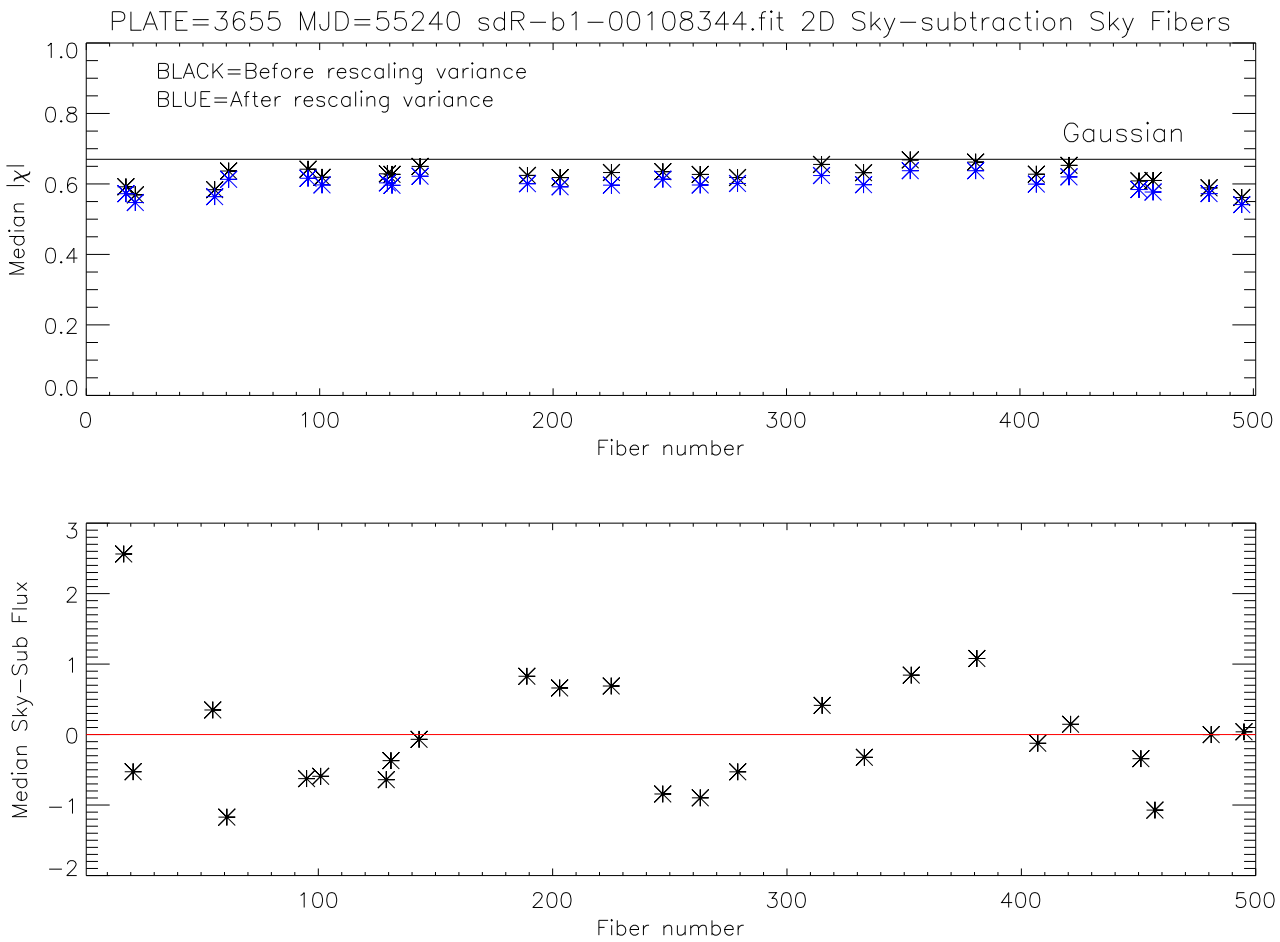

PLATE=3655 MJD=55240 sdR-b1-00108344.fit 1D Sky-subtraction Sky Fibers
BLACK=Before rescaling variance
BLUE=After rescaling variance
Gaussian
Median |χ|
Fiber number
Median Sky-Sub Flux
Fiber number

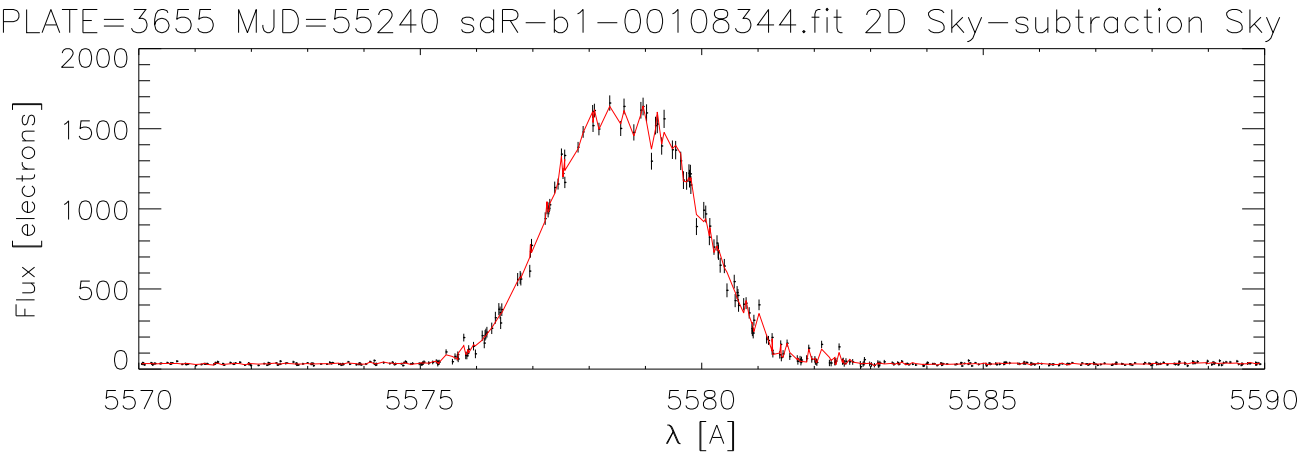

PLATE=3655 MJD=55240 sdR-b1-00108344.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
2000
1500
1000
500
0
5570
5575
5580
5585
5590
λ [A]

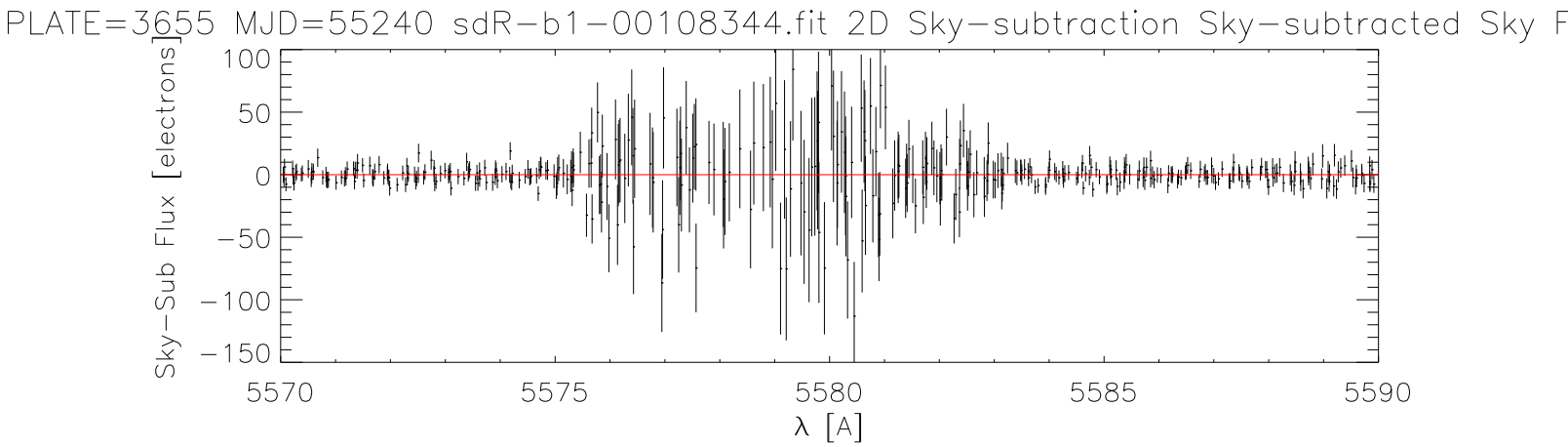

PLATE=3655 MJD=55240 sdR-b1-00108344.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
-300
5570
5575
5580
5585
5590
λ [A]

Number of sky fibers = 25

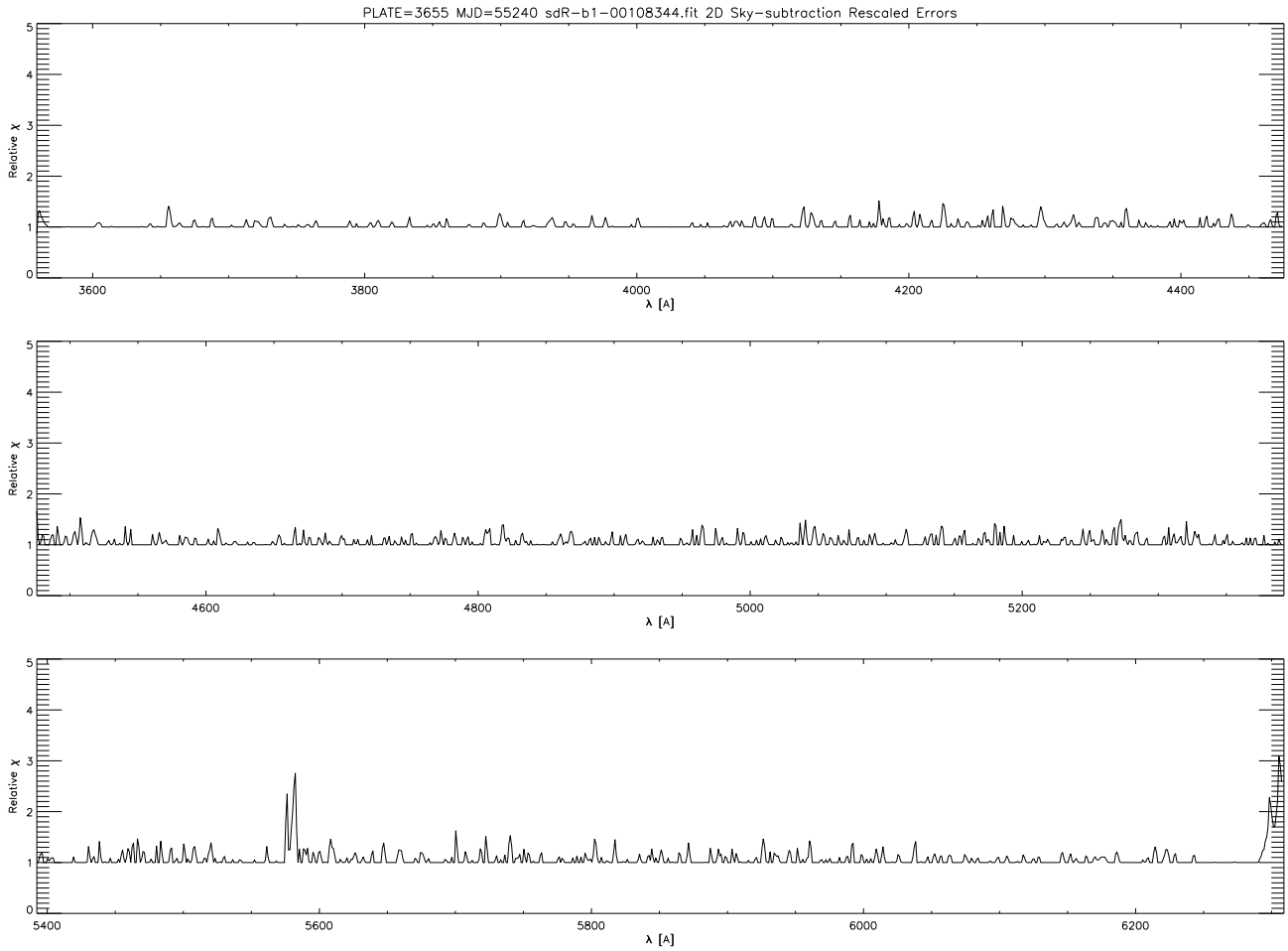


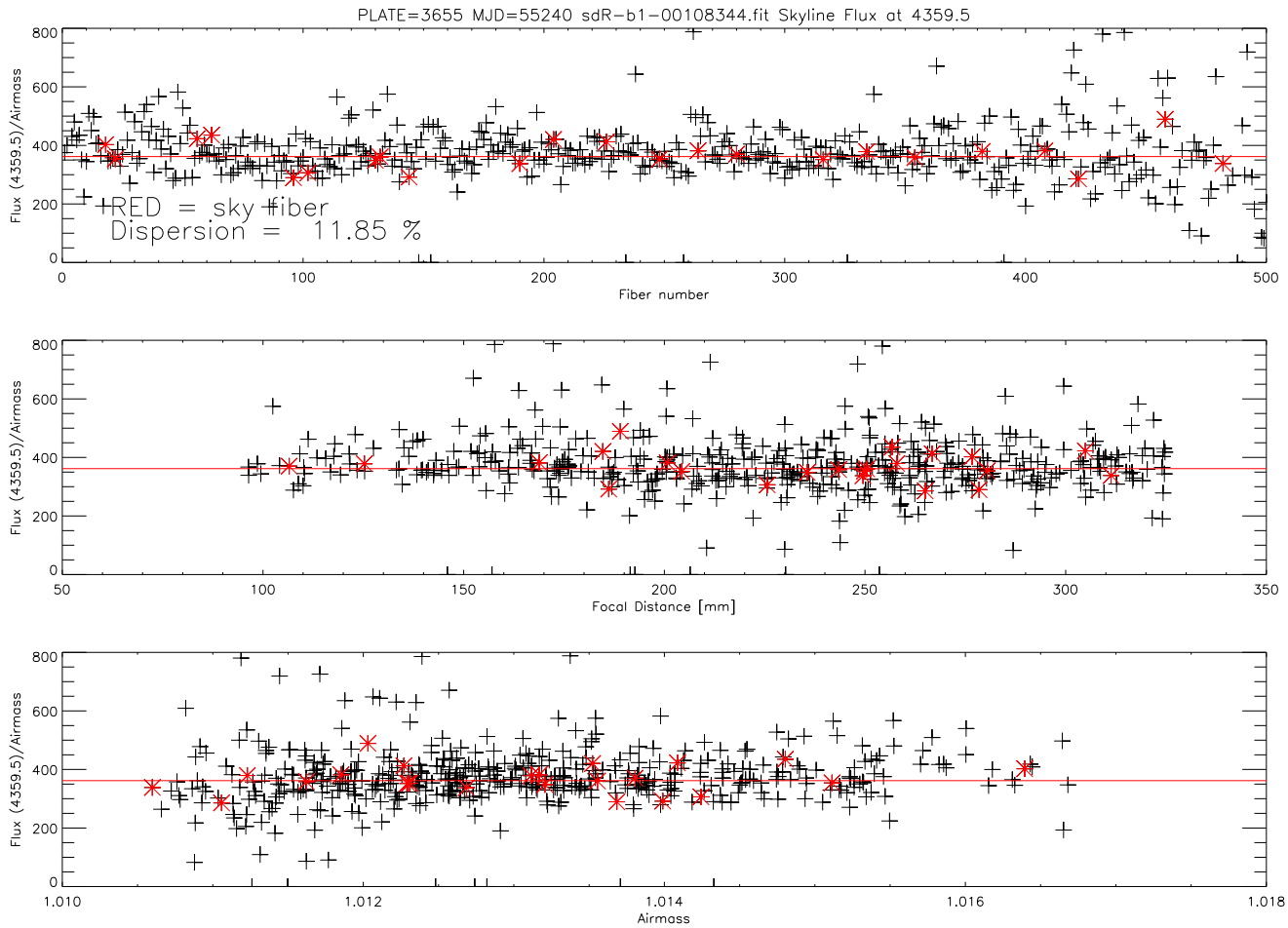

PLATE=3655 MJD=55240 sdR-b1-00108344.fit 2D Sky-subtraction Sky Fibers
BLACK=Before rescaling variance
BLUE=After rescaling variance
Gaussian
Median |χ|
Fiber number
Median Sky-Sub Flux
Fiber number

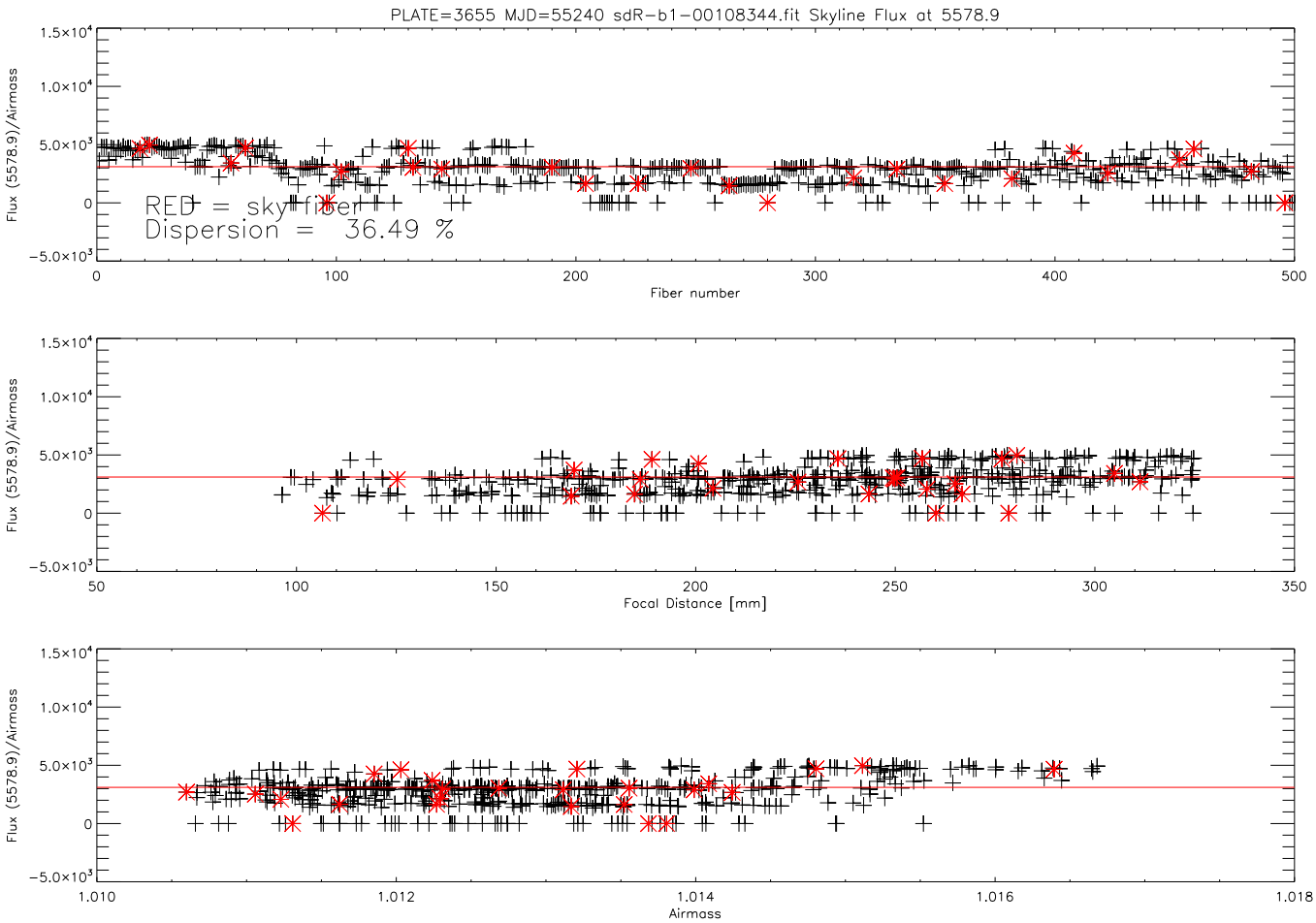

PLATE=3655 MJD=55240 sdR-b1-00108344.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
2000
1500
1000
500
0
5570
5575
5580
5585
5590
λ [A]

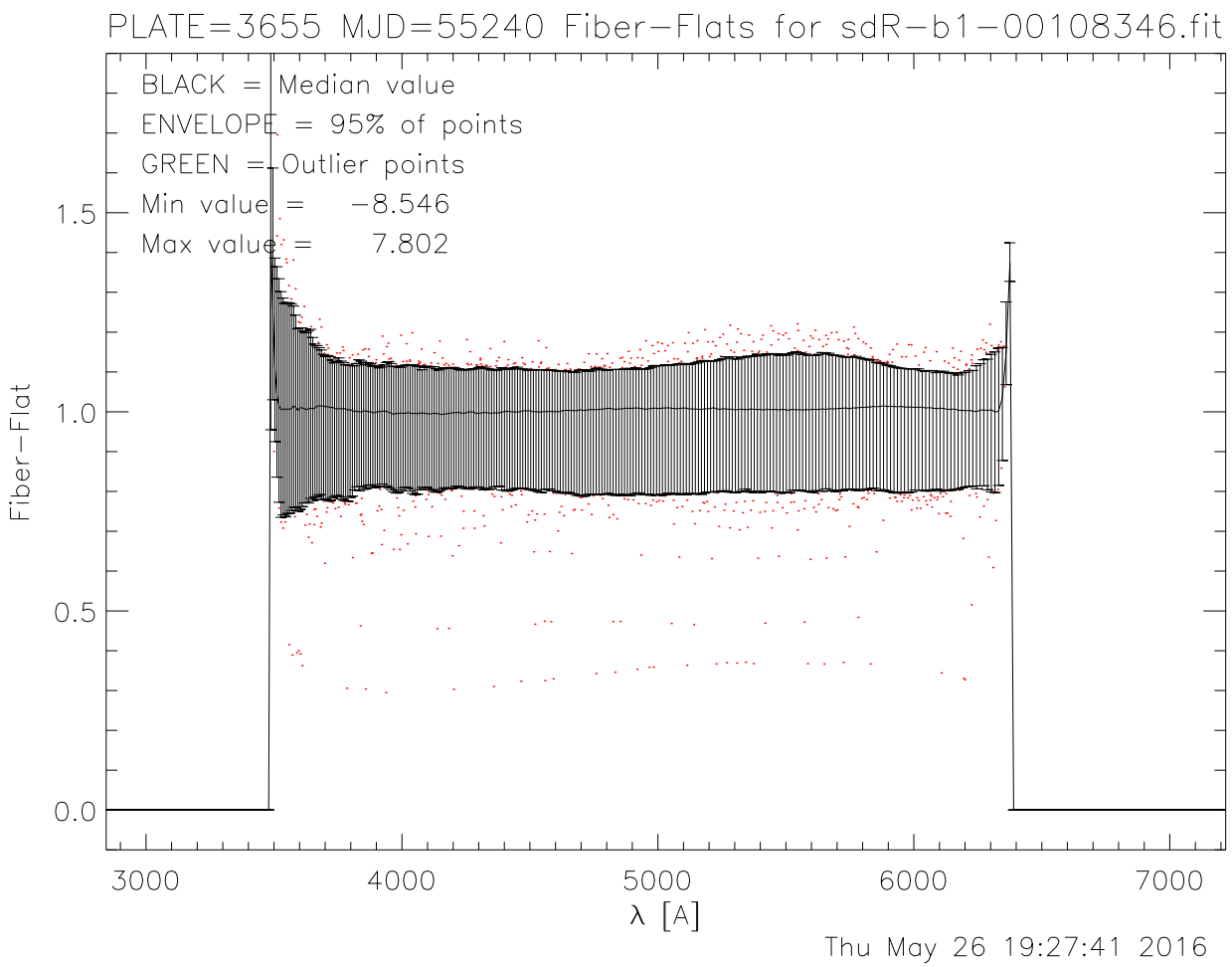

PLATE=3655 MJD=55240 sdR-b1-00108344.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
100
50
0
-50
-100
-150
5570
5575
5580
5585
5590
λ [A]

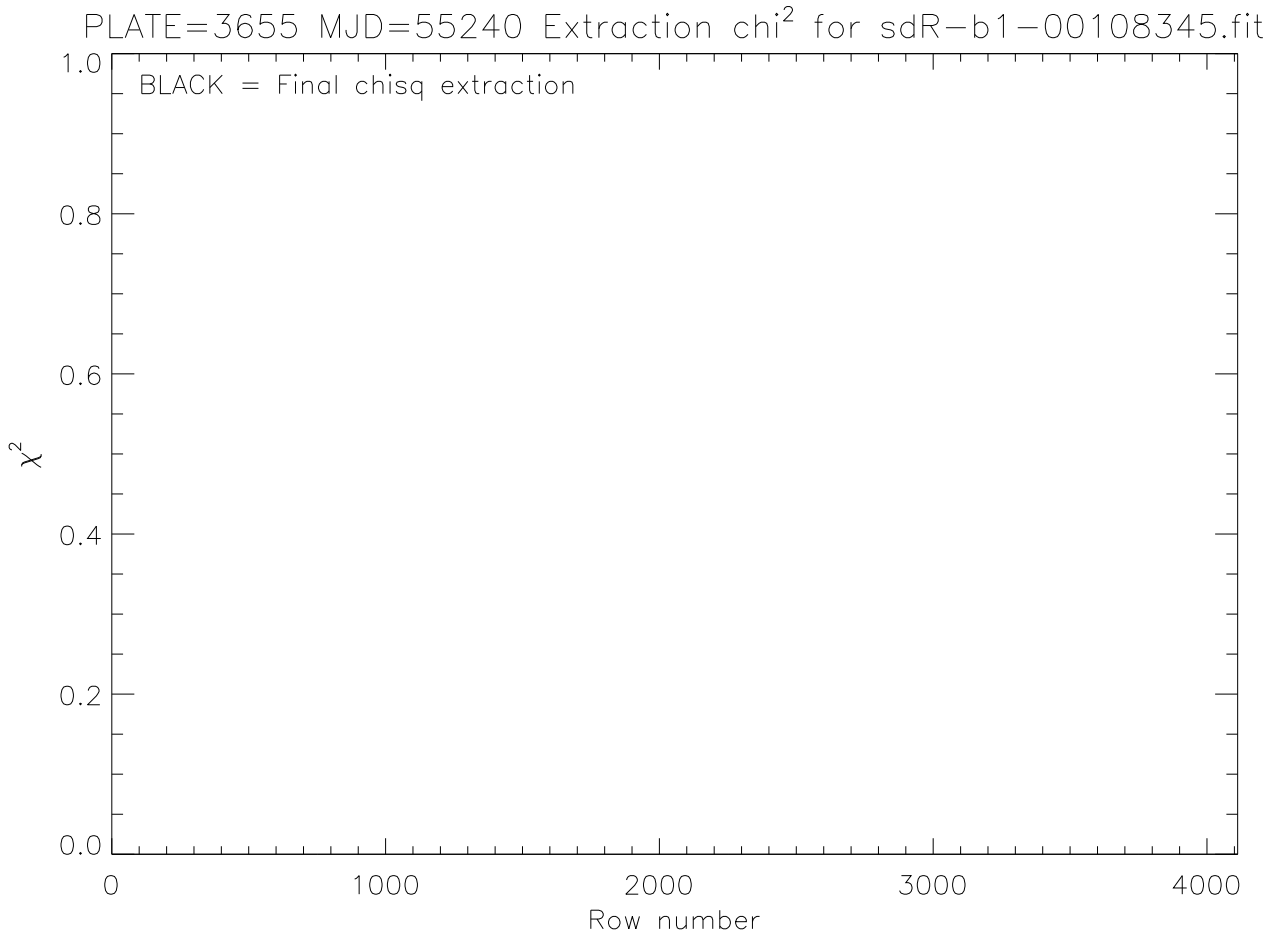
Number of sky fibers = 25

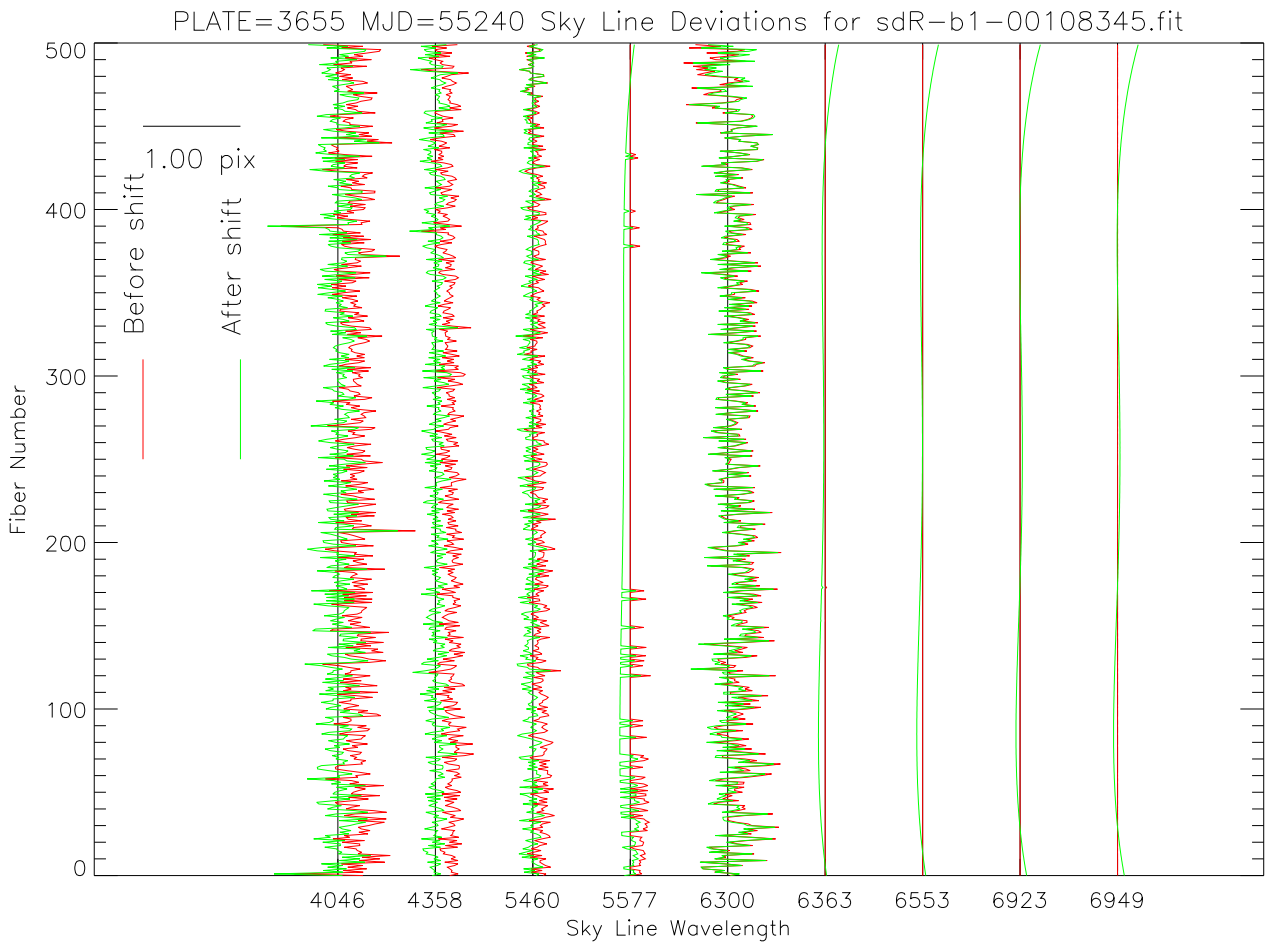


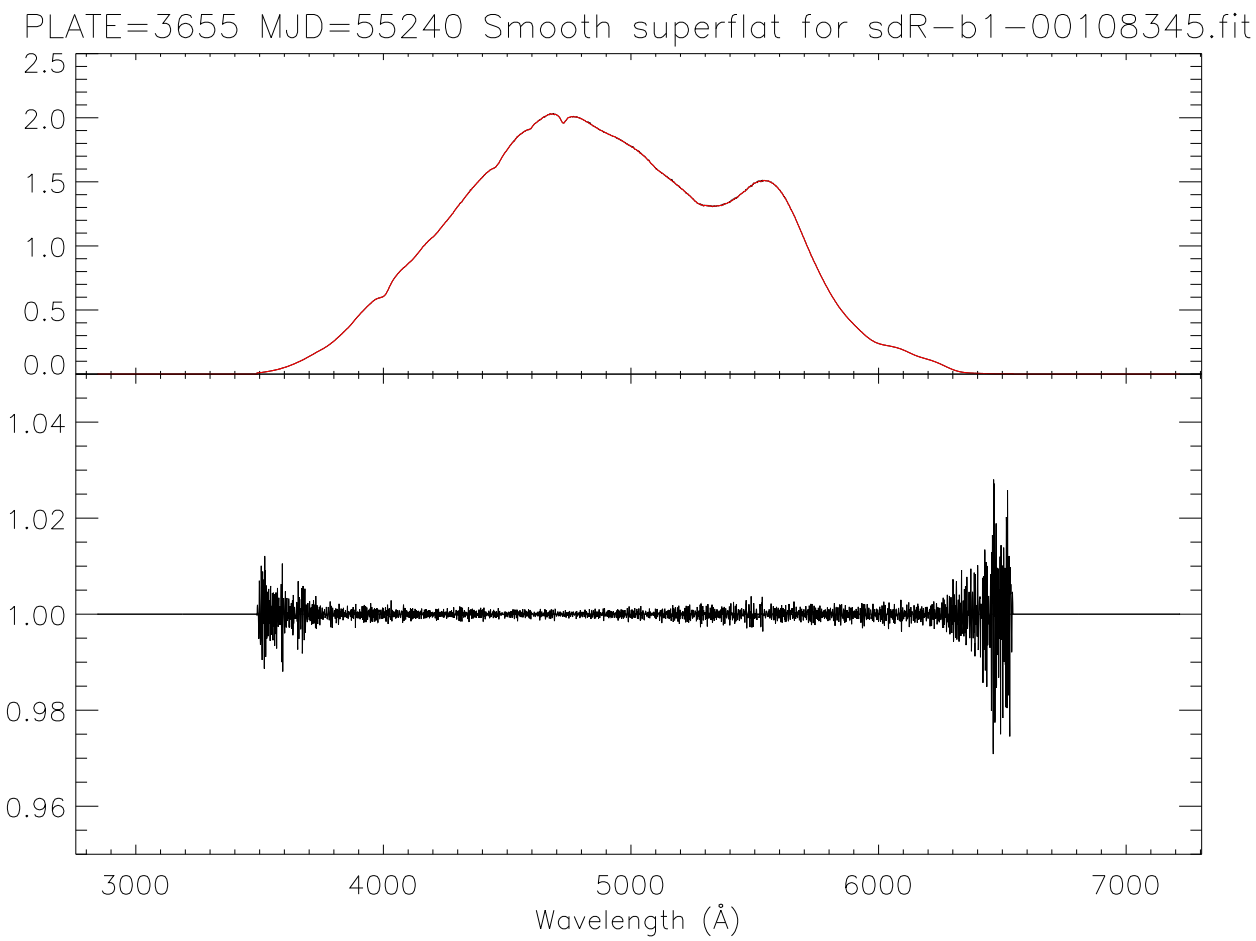

PLATE=3655 MJD=55240 sdR-b1-00108344.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 11.85 %
Fiber number
Focal Distance [mm]
Airmass

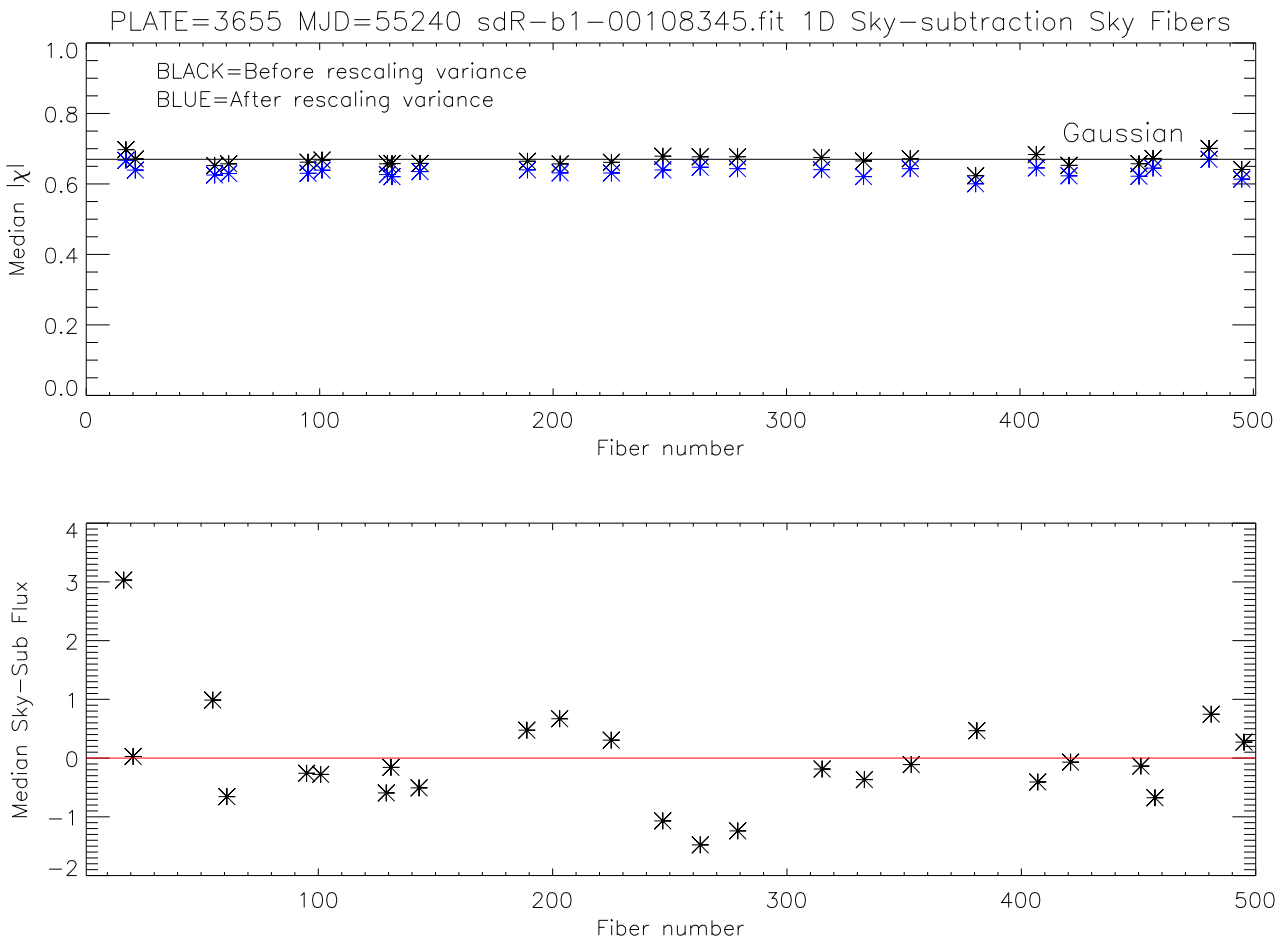

PLATE=3655 MJD=55240 sdR-b1-00108344.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
Fiber number
RED = sky fiber
Dispersion = 36.49 %
Flux (5578.9)/Airmass
Focal Distance [mm]
Flux (5578.9)/Airmass
Airmass

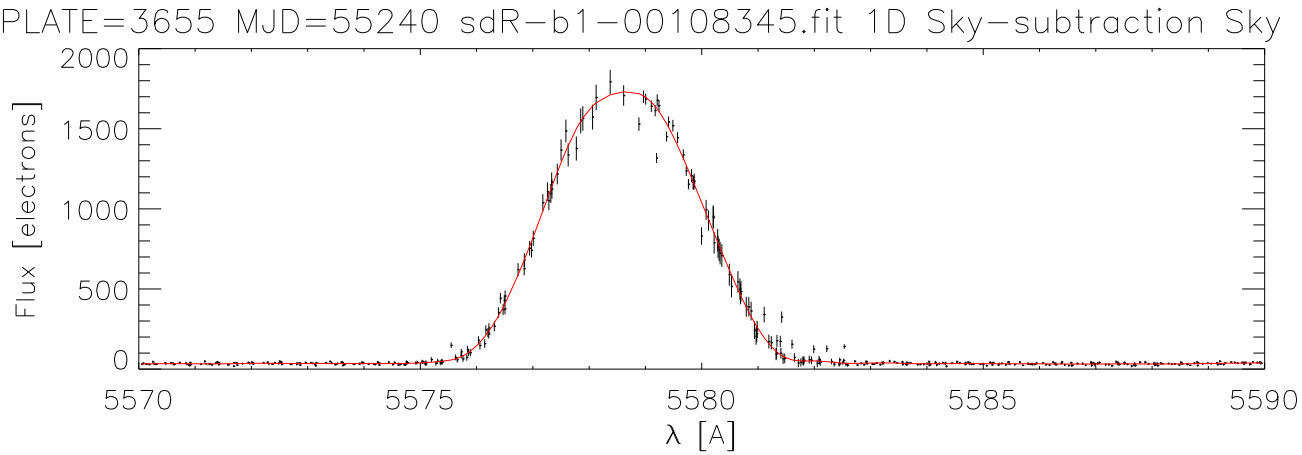

PLATE=3655 MJD=55240 Fiber−Flats for sdR−b1−00108346.fit
BLACK = Median value
ENVELOPE = 95% of points
GREEN = Outlier points
Min value = −8.546
Max value = 7.802
Fiber−Flat
1.5
1.0
0.5
0.0
3000
4000
5000
6000
7000
λ [A]
Thu May 26 19:27:41 2016

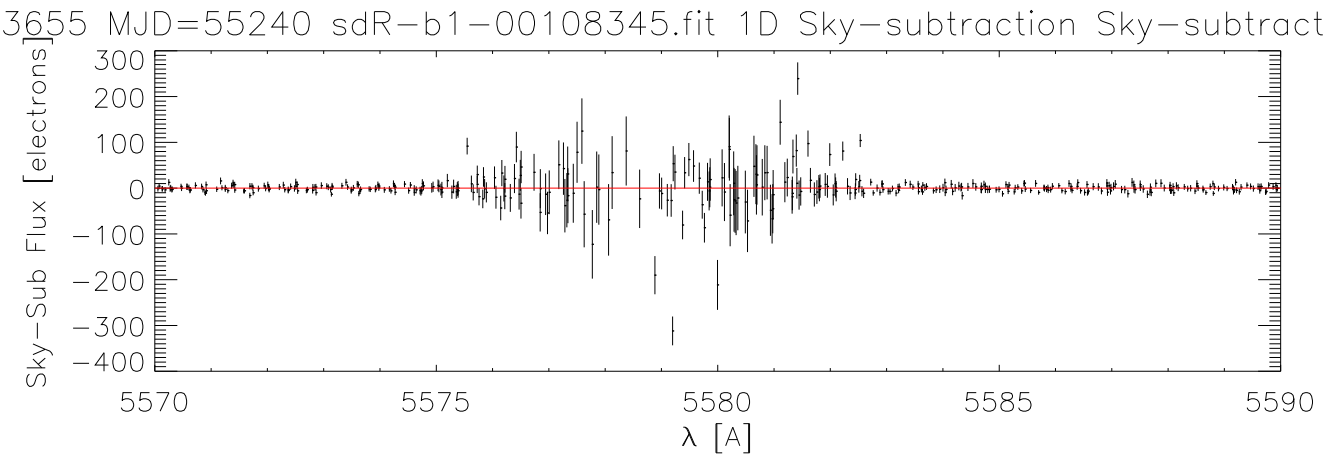

PLATE=3655 MJD=55240 Extraction chi^2 for sdR-b1-00108345.fit
BLACK = Final chisq extraction
χ^2
1.0
0.8
0.6
0.4
0.2
0.0
0
1000
2000
3000
4000
Row number


PLATE=3655 MJD=55240 Sky Line Deviations for sdR-b1-00108345.fit
1.00 pix
Before shift
After shift
Fiber Number
0
100
200
300
400
500
4046
4358
5460
5577
6300
6363
6553
6923
6949
Sky Line Wavelength

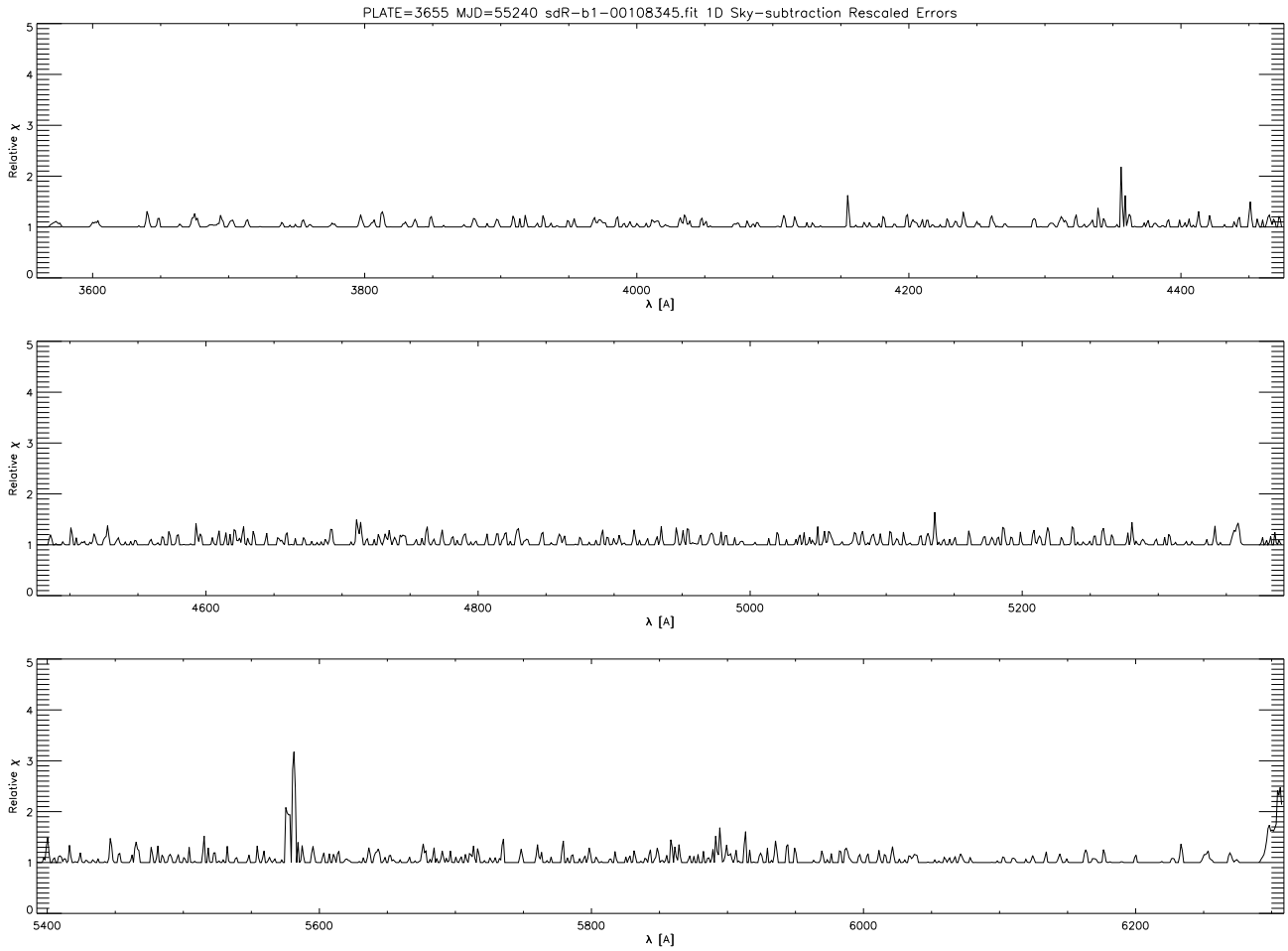

PLATE=3655 MJD=55240 Smooth superflat for sdR-b1-00108345.fit
2.5
2.0
1.5
1.0
0.5
0.0
1.04
1.02
1.00
0.98
0.96
3000
4000
5000
6000
7000
Wavelength (Å)

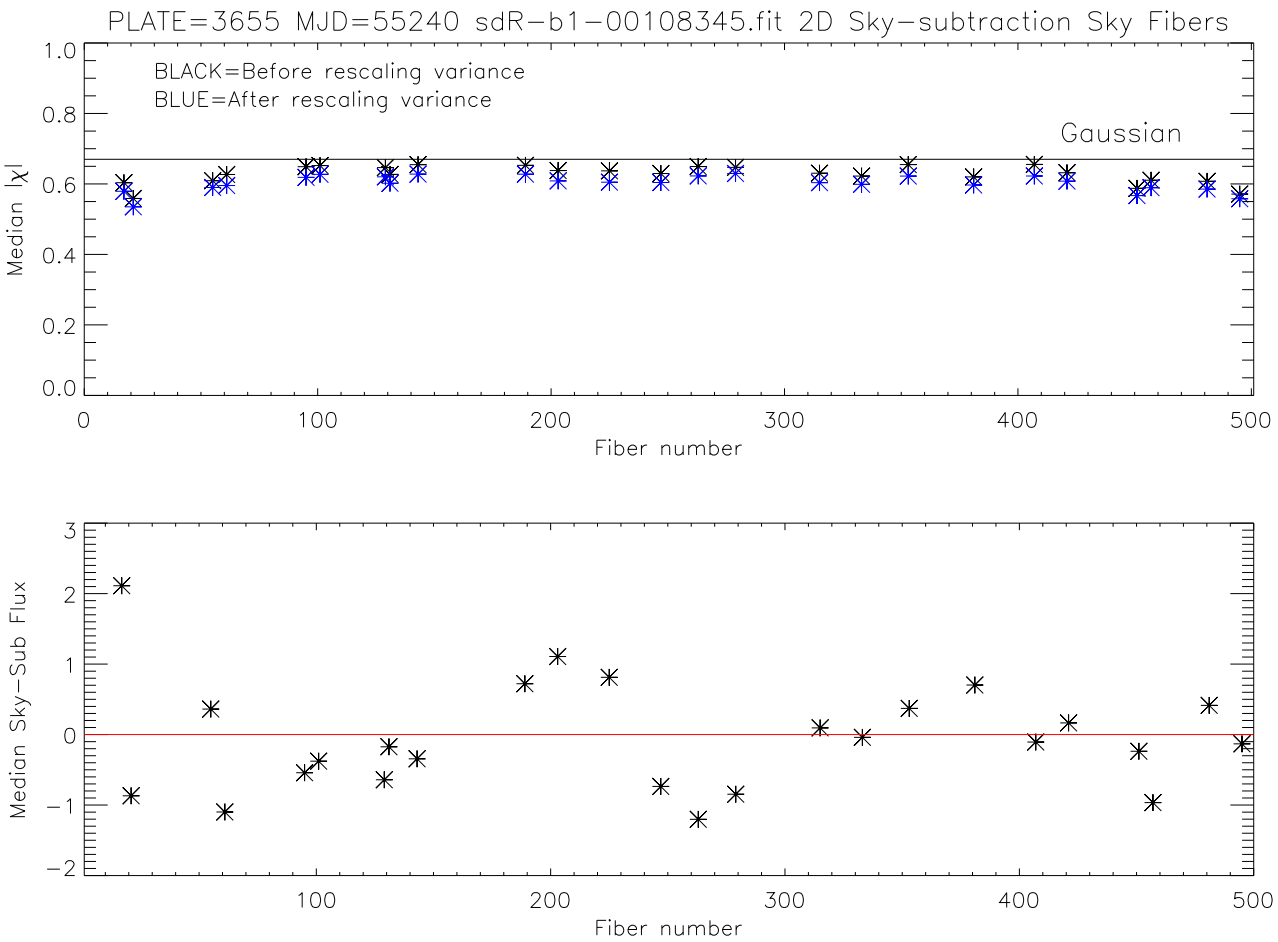

PLATE=3655 MJD=55240 sdR-b1-00108345.fit 1D Sky-subtraction Sky Fibers
BLACK=Before rescaling variance
BLUE=After rescaling variance
Gaussian
Median |χ|
Fiber number
Median Sky-Sub Flux
Fiber number

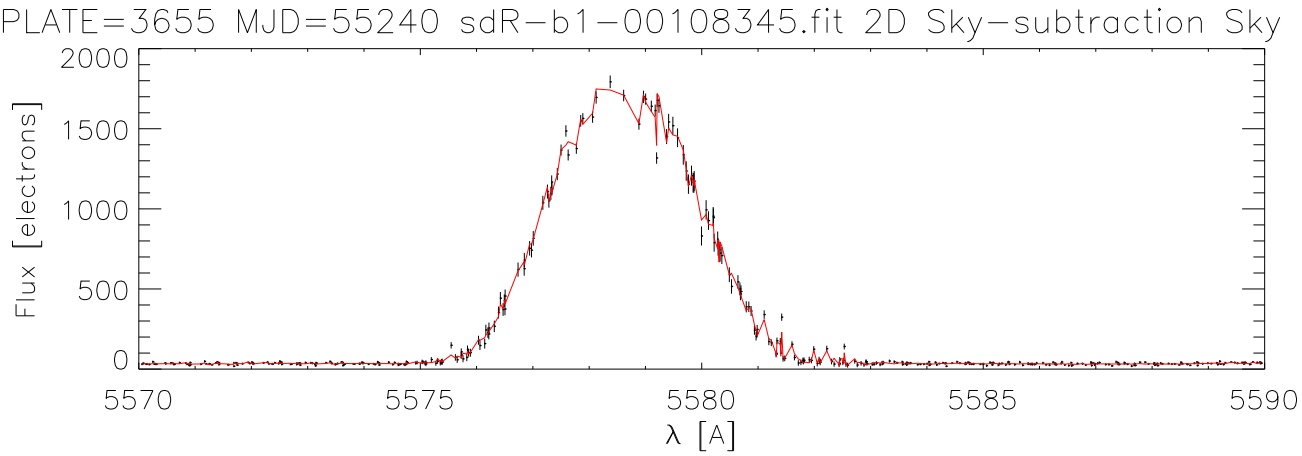

PLATE=3655 MJD=55240 sdR-b1-00108345.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
2000
1500
1000
500
0
5570
5575
5580
5585
5590
λ [A]

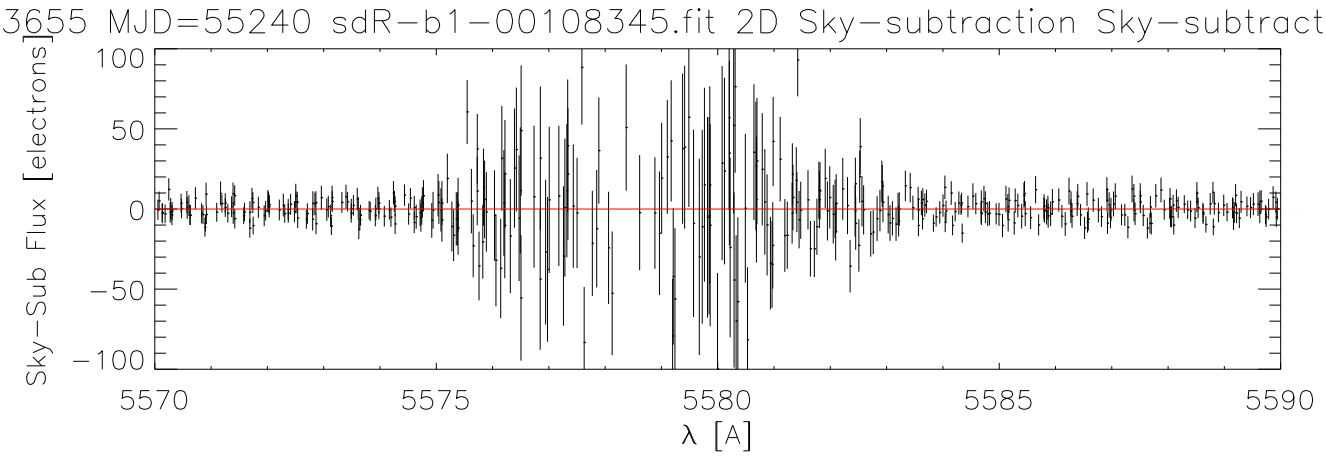

PLATE=3655 MJD=55240 sdR-b1-00108345.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
-300
-400
5570
5575
5580
5585
5590
λ [A]

Number of sky fibers = 25

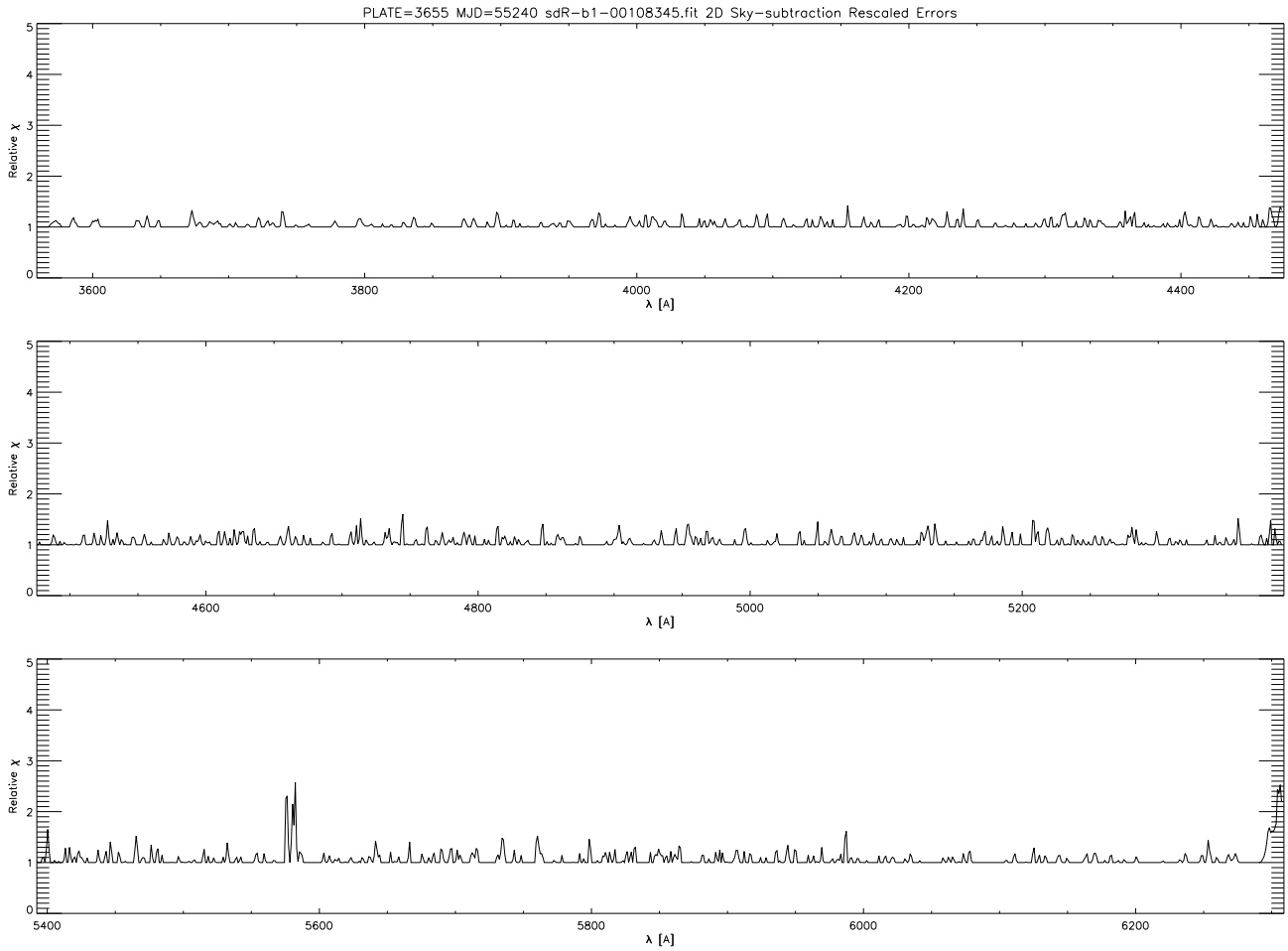


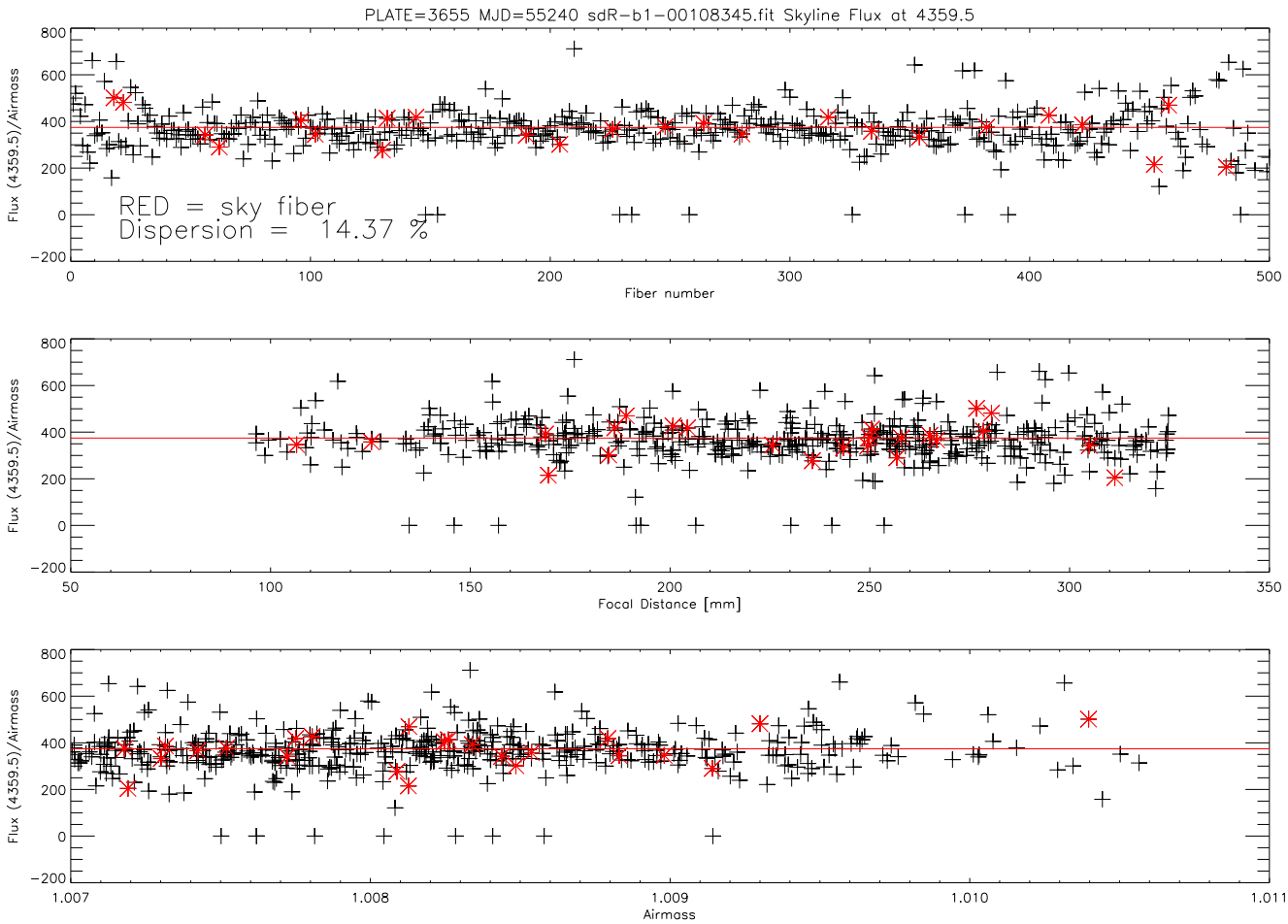

PLATE=3655 MJD=55240 sdR-b1-00108345.fit 2D Sky-subtraction Sky Fibers
BLACK=Before rescaling variance
BLUE=After rescaling variance
Gaussian
Median |χ|
Fiber number
Median Sky-Sub Flux
Fiber number

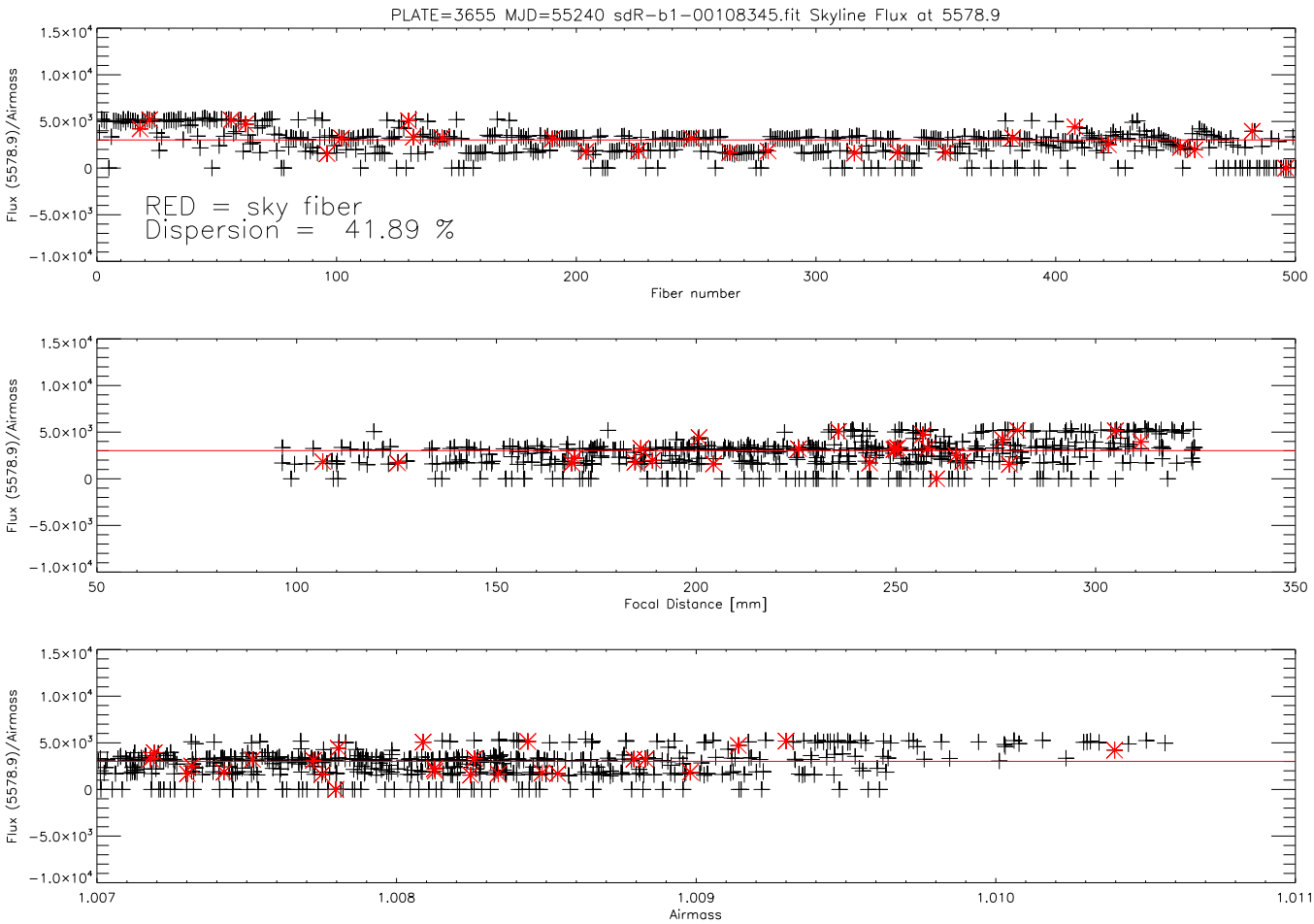

PLATE=3655 MJD=55240 sdR-b1-00108345.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
2000
1500
1000
500
0
5570
5575
5580
5585
5590
λ [A]


PLATE=3655 MJD=55240 sdR-b1-00108345.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
100
50
0
−50
−100
5570
5575
5580
5585
5590
λ [A]

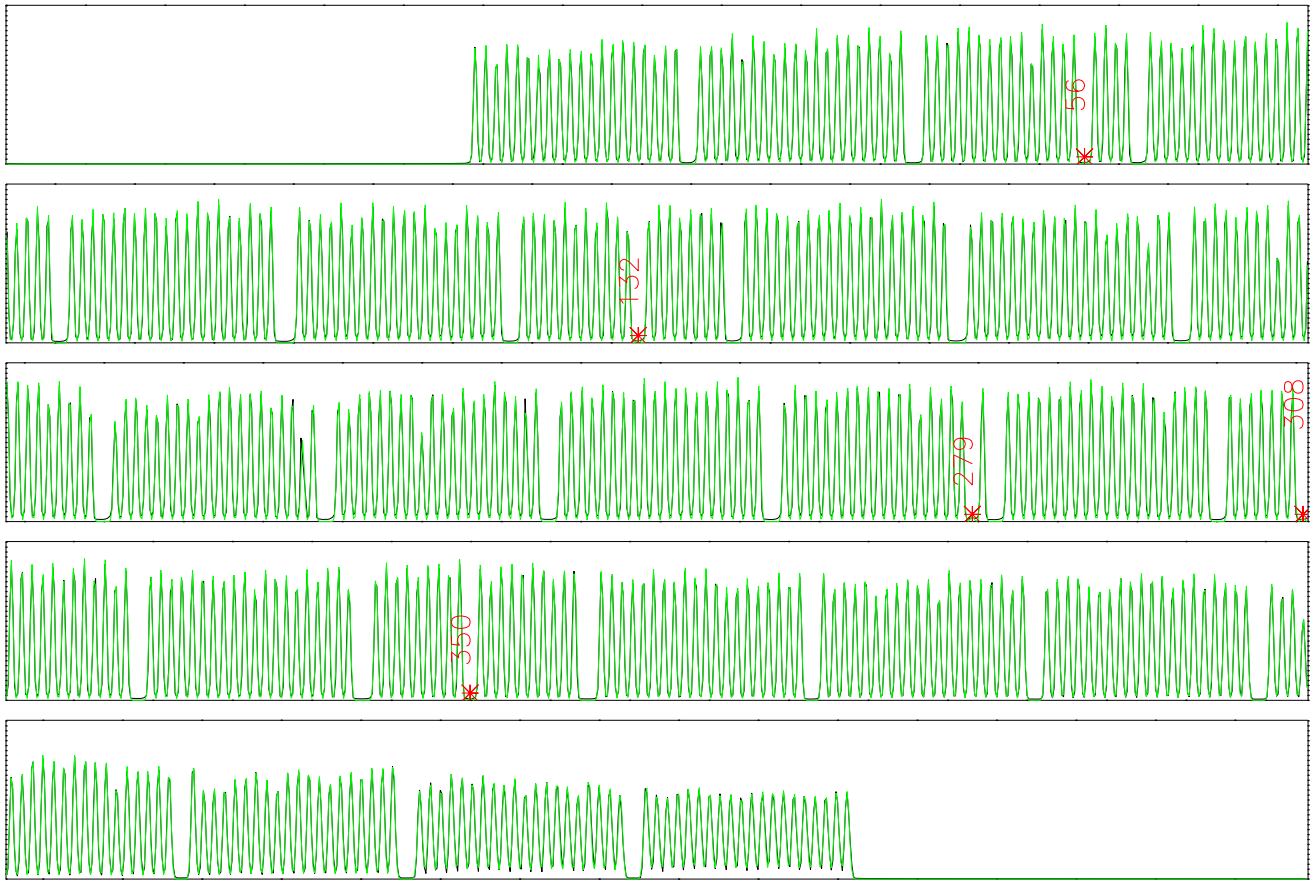
Number of sky fibers = 25



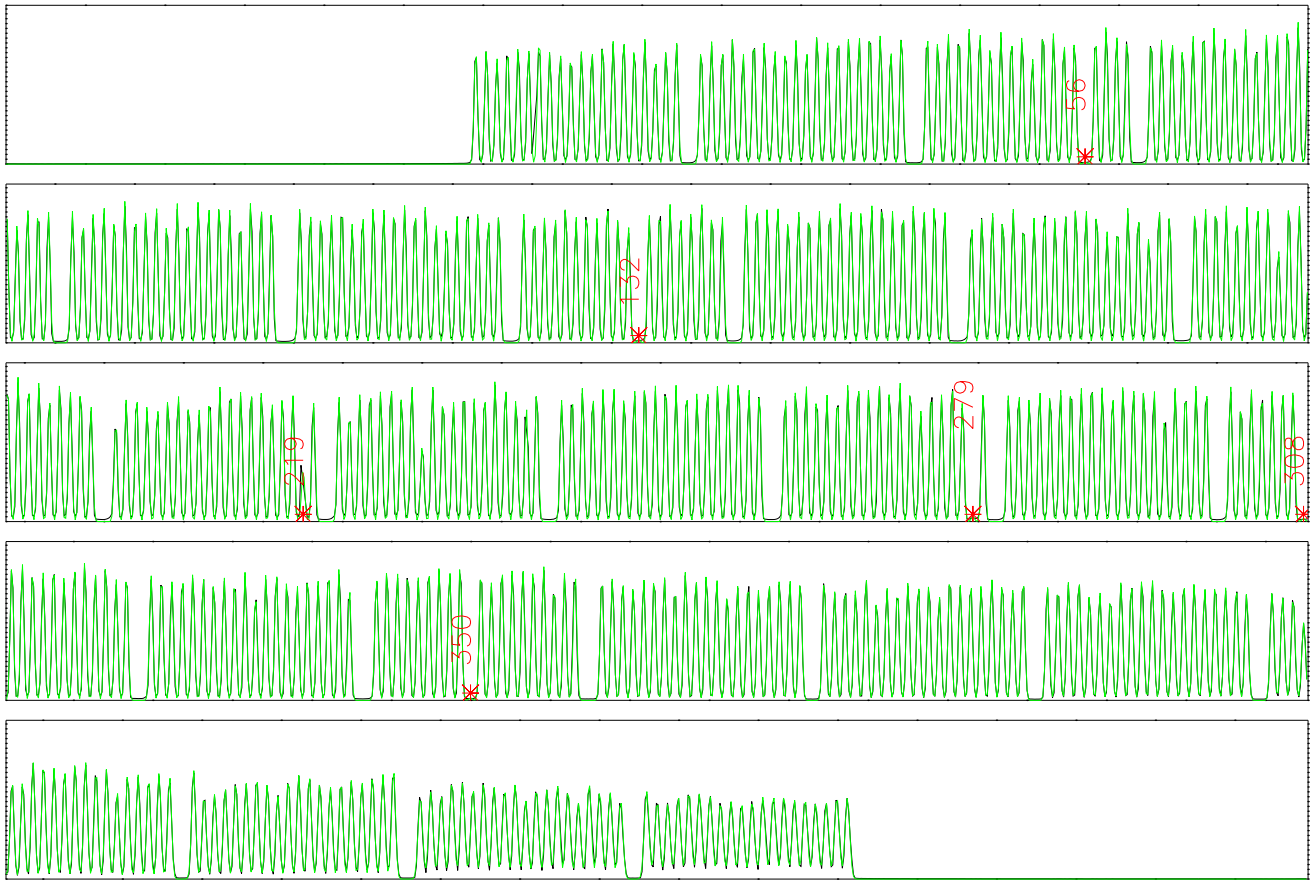

PLATE=3655 MJD=55240 sdR-b1-00108345.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 14.37 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

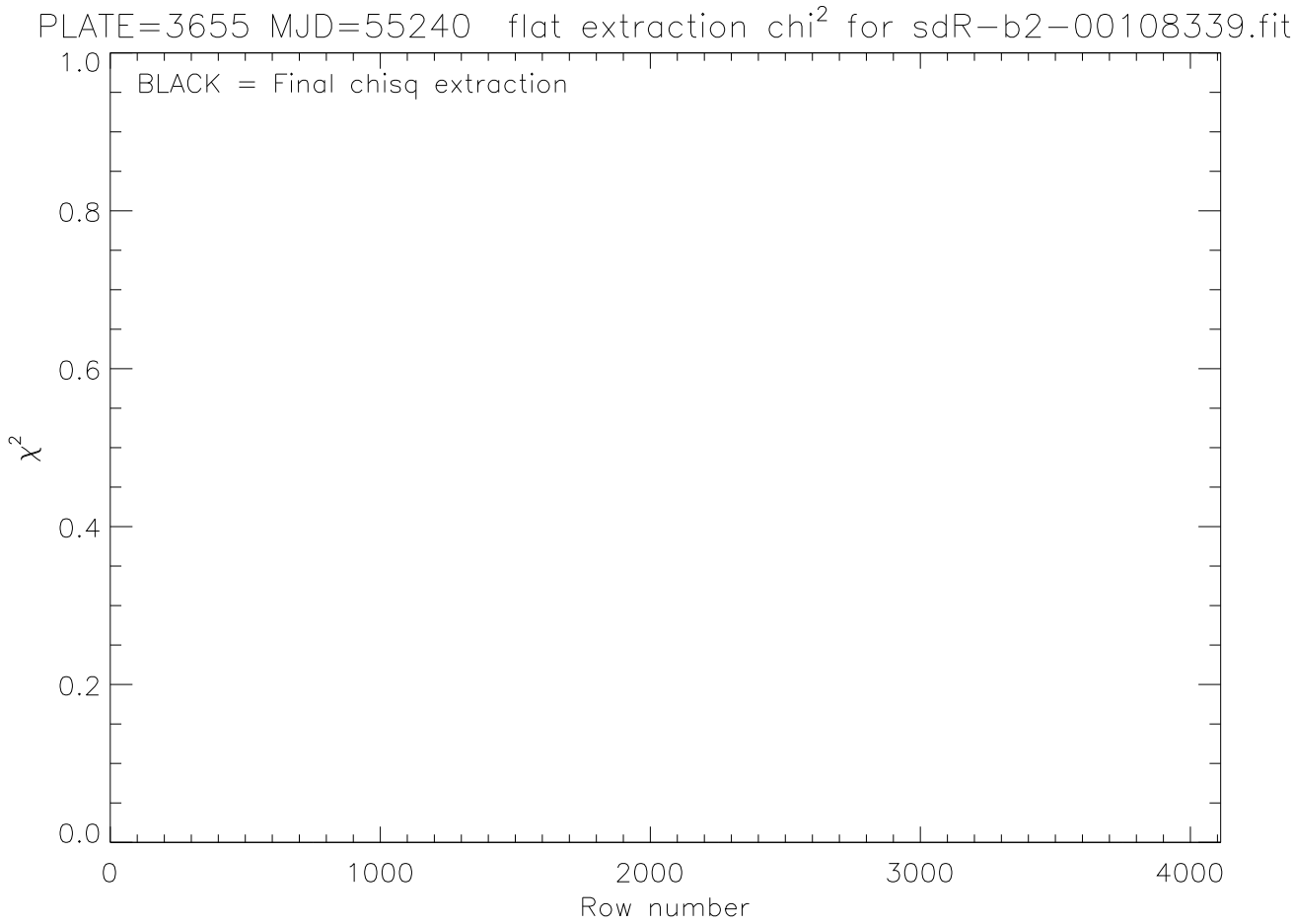

PLATE=3655 MJD=55240 sdR-b1-00108345.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
1.5×10^4
1.0×10^4
5.0×10^3
0
−5.0×10^3
−1.0×10^4
RED = sky fiber
Dispersion = 41.89 %
0
100
200
300
400
500
Fiber number
Flux (5578.9)/Airmass
50
100
150
200
250
300
350
Focal Distance [mm]
Flux (5578.9)/Airmass
1.007
1.008
1.009
1.010
1.011
Airmass

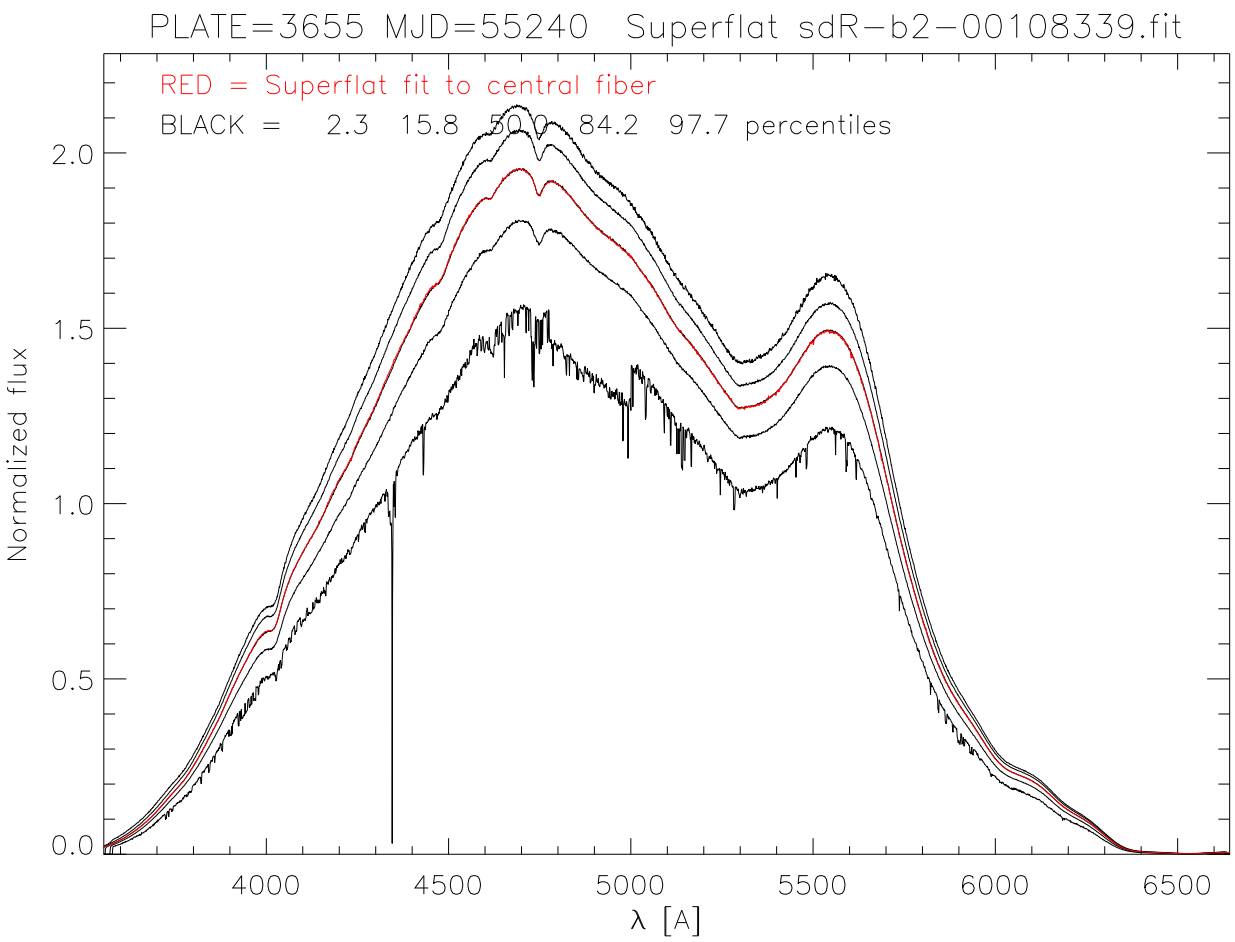
PLATE=3655 MJD=55240 Traces sdR-b2-00108339.fit

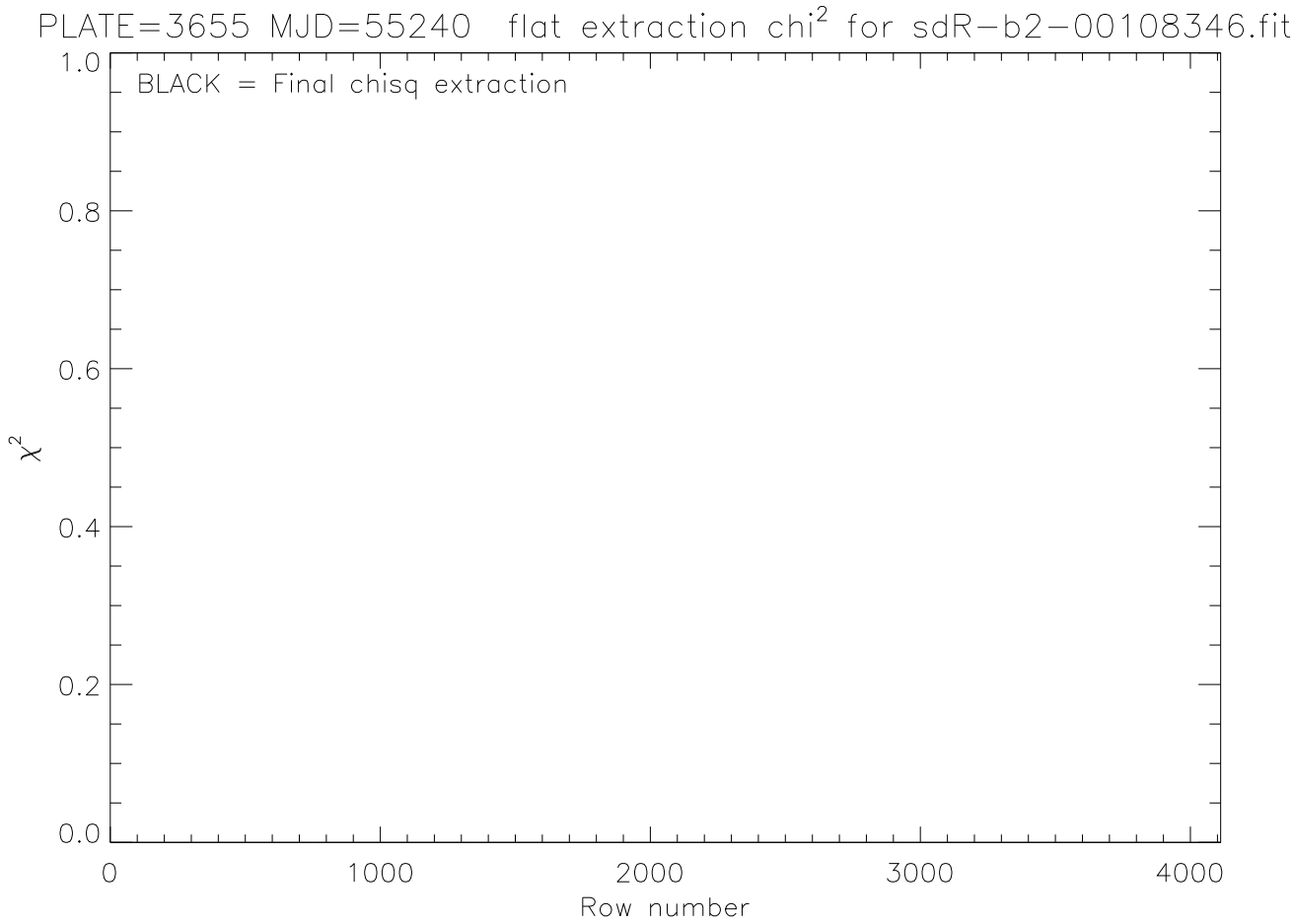


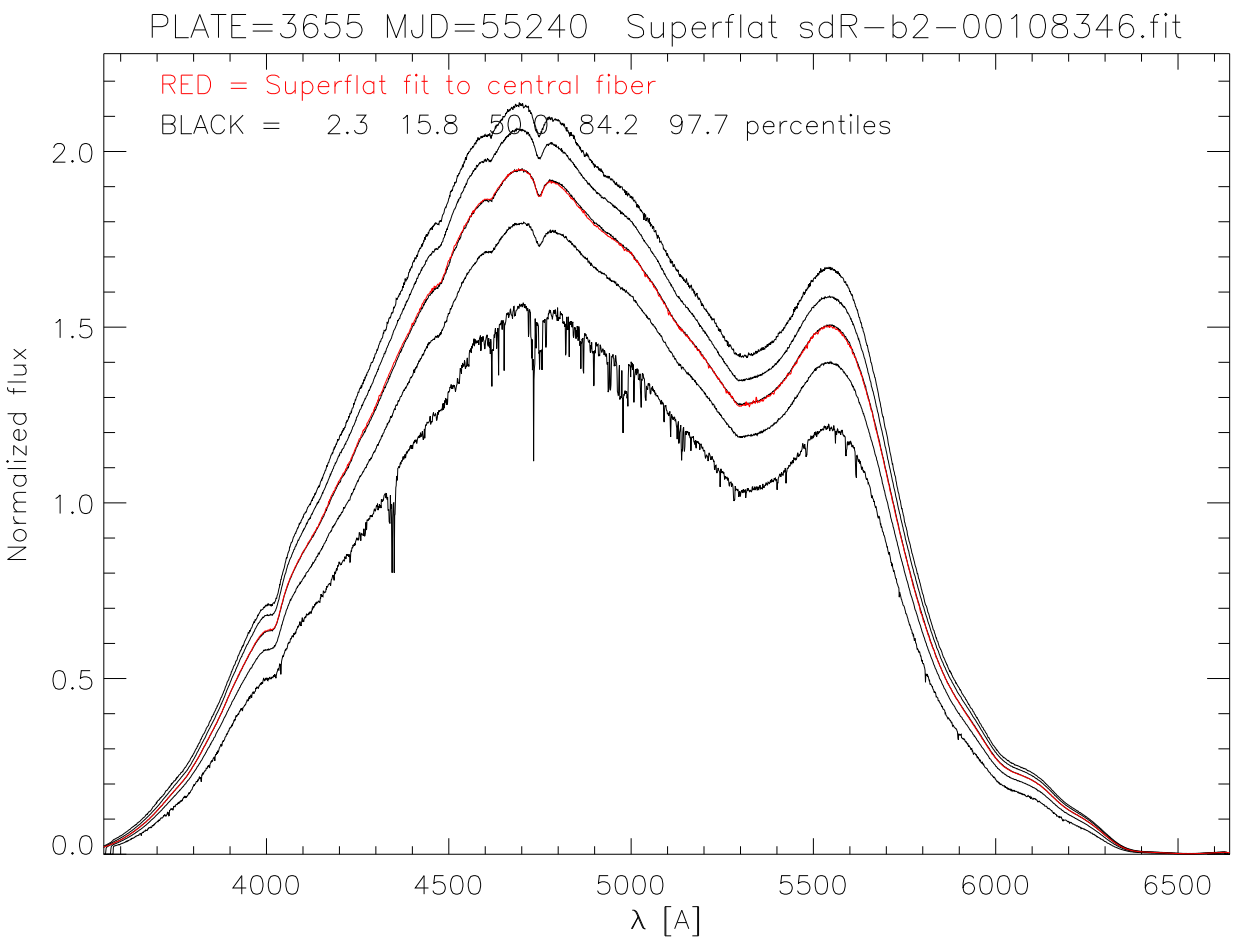
PLATE=3655 MJD=55240 Traces sdR-b2-00108346.fit

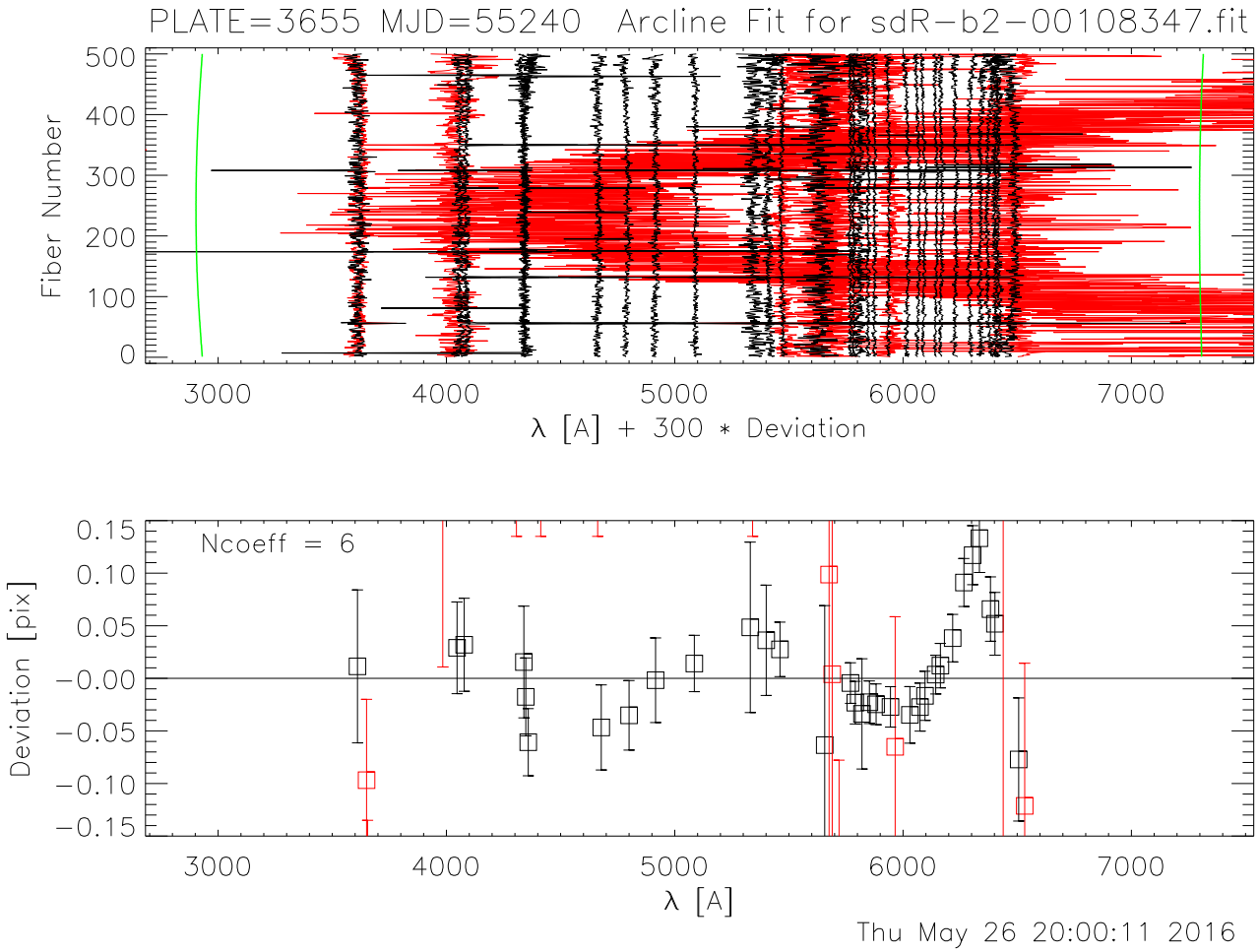



PLATE=3655 MJD=55240 flat extraction chi^2 for sdR−b2−00108339.fit
BLACK = Final chisq extraction
1.0
0.8
0.6
0.4
0.2
0.0
χ^2
0
1000
2000
3000
4000
Row number

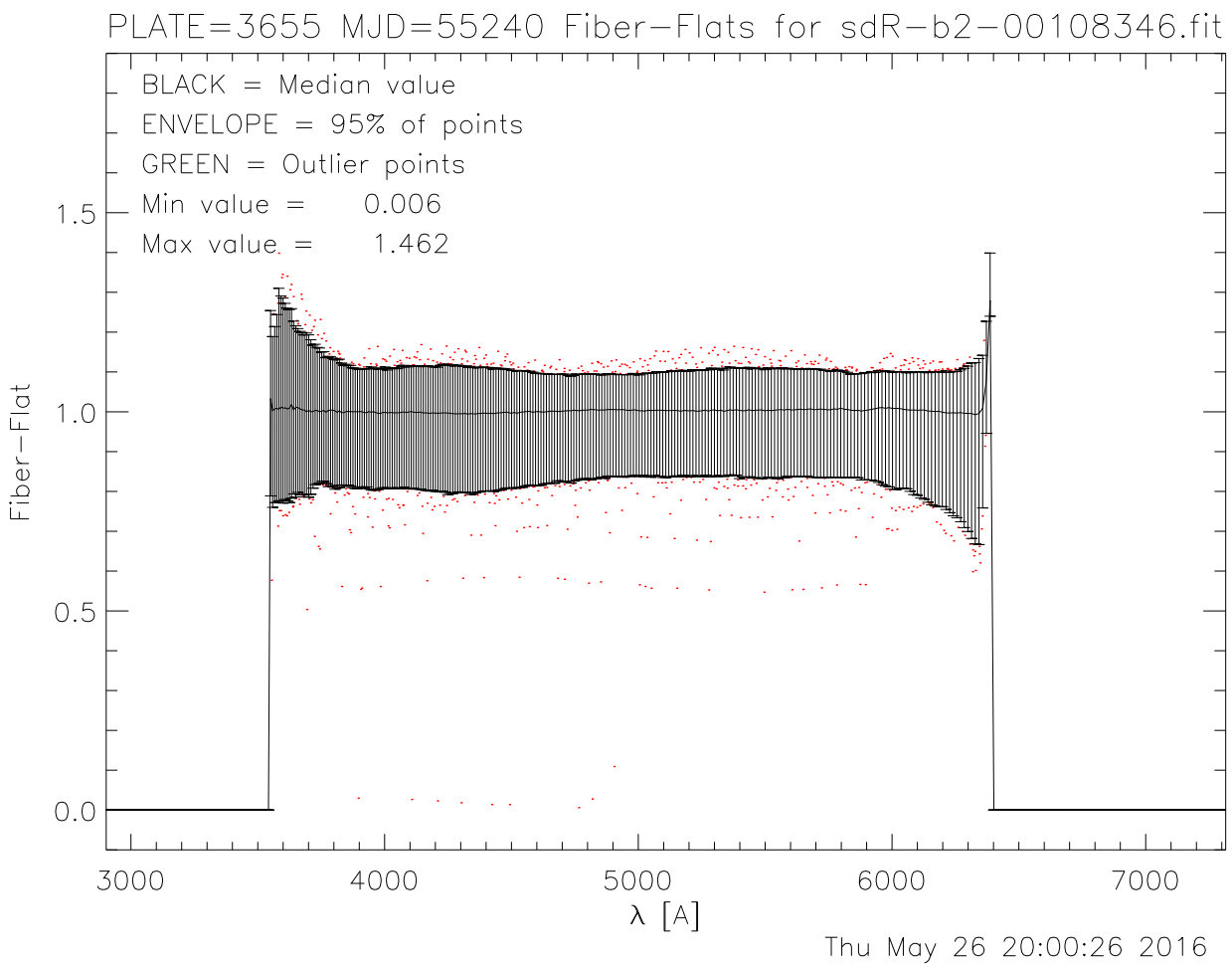

PLATE=3655 MJD=55240 Superflat sdR-b2-00108339.fit
RED = Superflat fit to central fiber
BLACK = 2.3 15.8 50.0 84.2 97.7 percentiles
Normalized flux
λ [A]
0.0
0.5
1.0
1.5
2.0
4000
4500
5000
5500
6000
6500

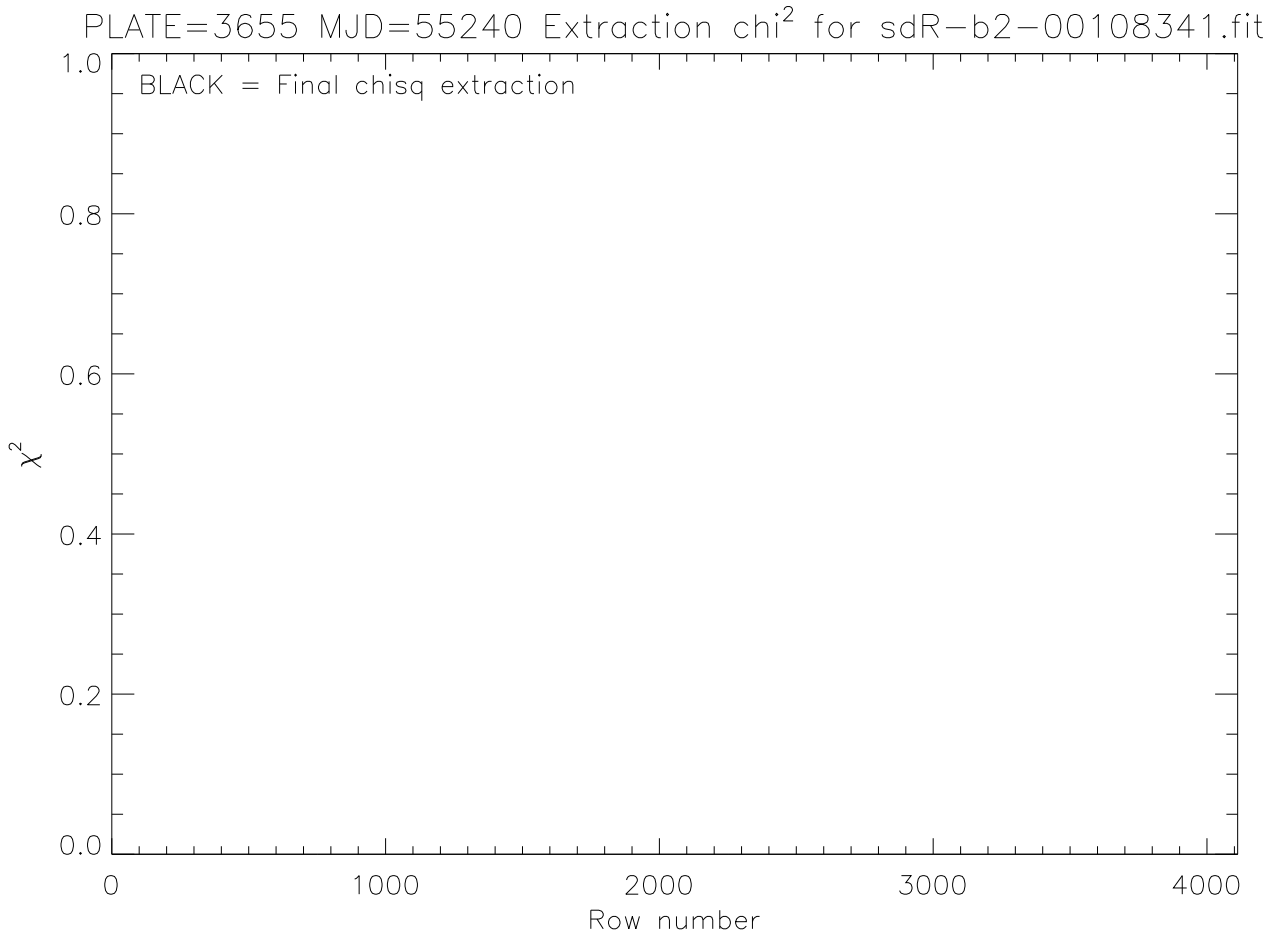

PLATE=3655 MJD=55240 flat extraction chi^2 for sdR−b2−00108346.fit
BLACK = Final chisq extraction
1.0
0.8
0.6
0.4
0.2
0.0
χ^2
0
1000
2000
3000
4000
Row number

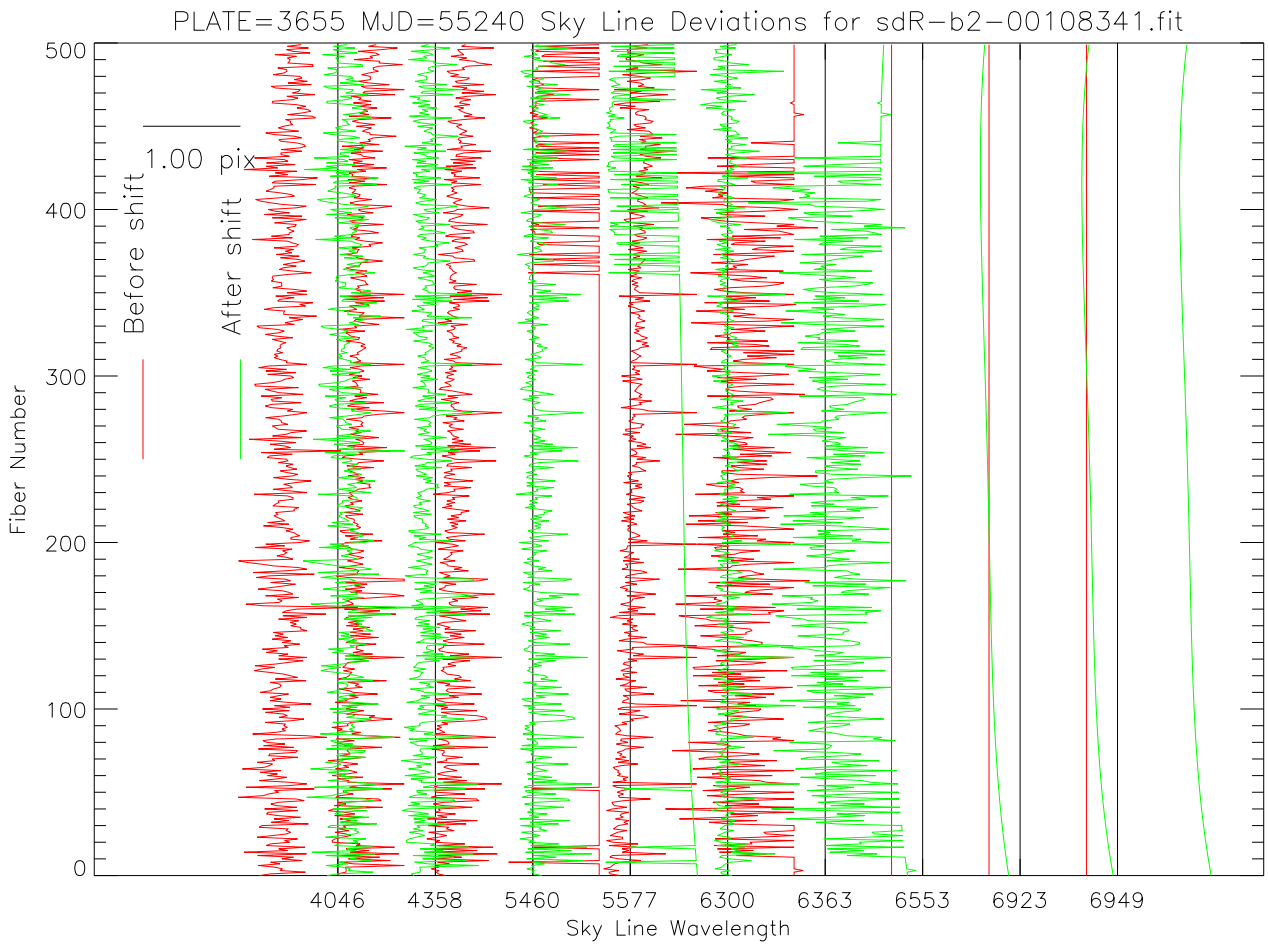

PLATE=3655 MJD=55240 Superflat sdR-b2-00108346.fit
RED = Superflat fit to central fiber
BLACK = 2.3 15.8 50.0 84.2 97.7 percentiles
Normalized flux
λ [A]
0.0
0.5
1.0
1.5
2.0
4000
4500
5000
5500
6000
6500

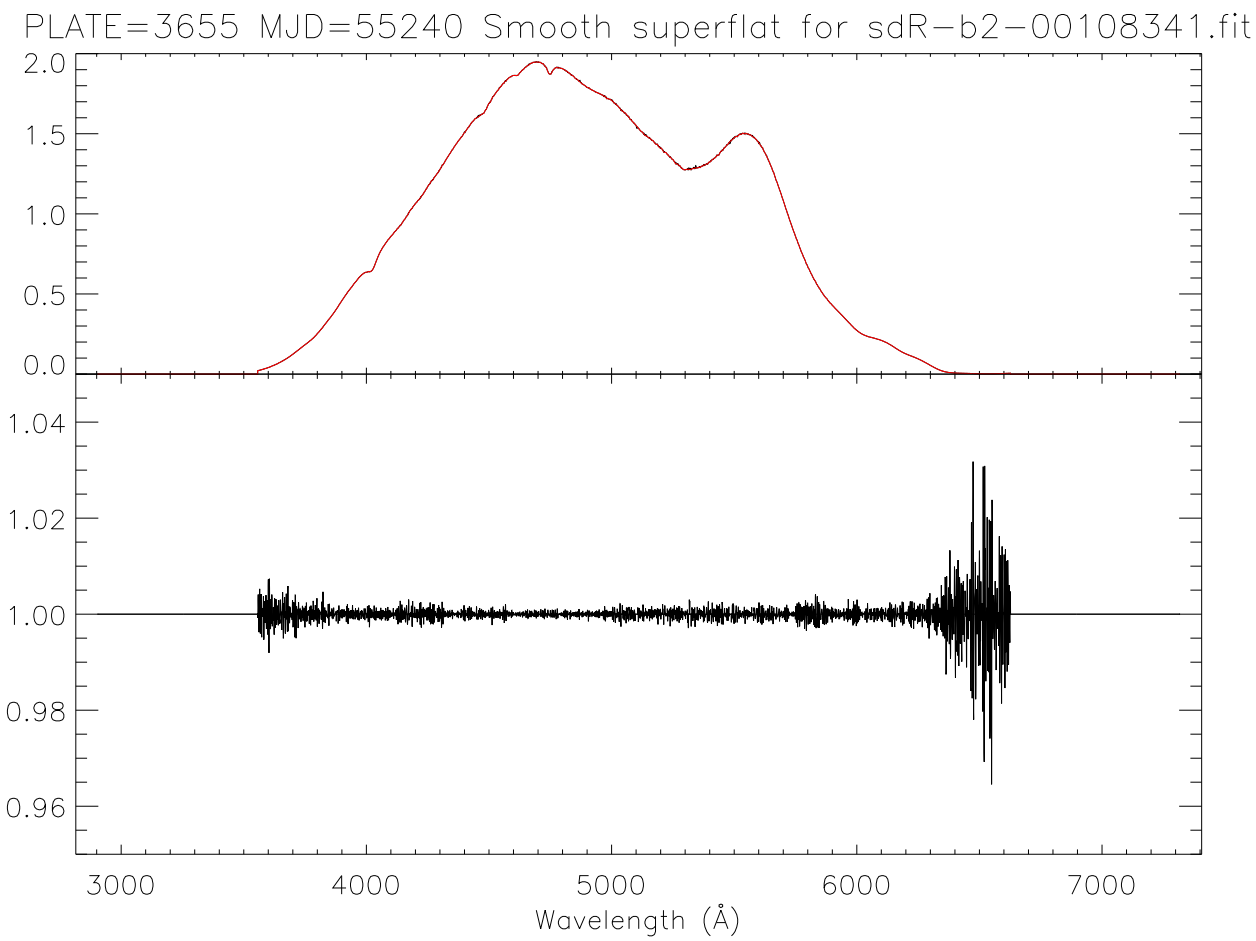

PLATE=3655 MJD=55240 Arcline Fit for sdR-b2-00108347.fit
Fiber Number
500
400
300
200
100
0
3000
4000
5000
6000
7000
λ [A] + 300 * Deviation

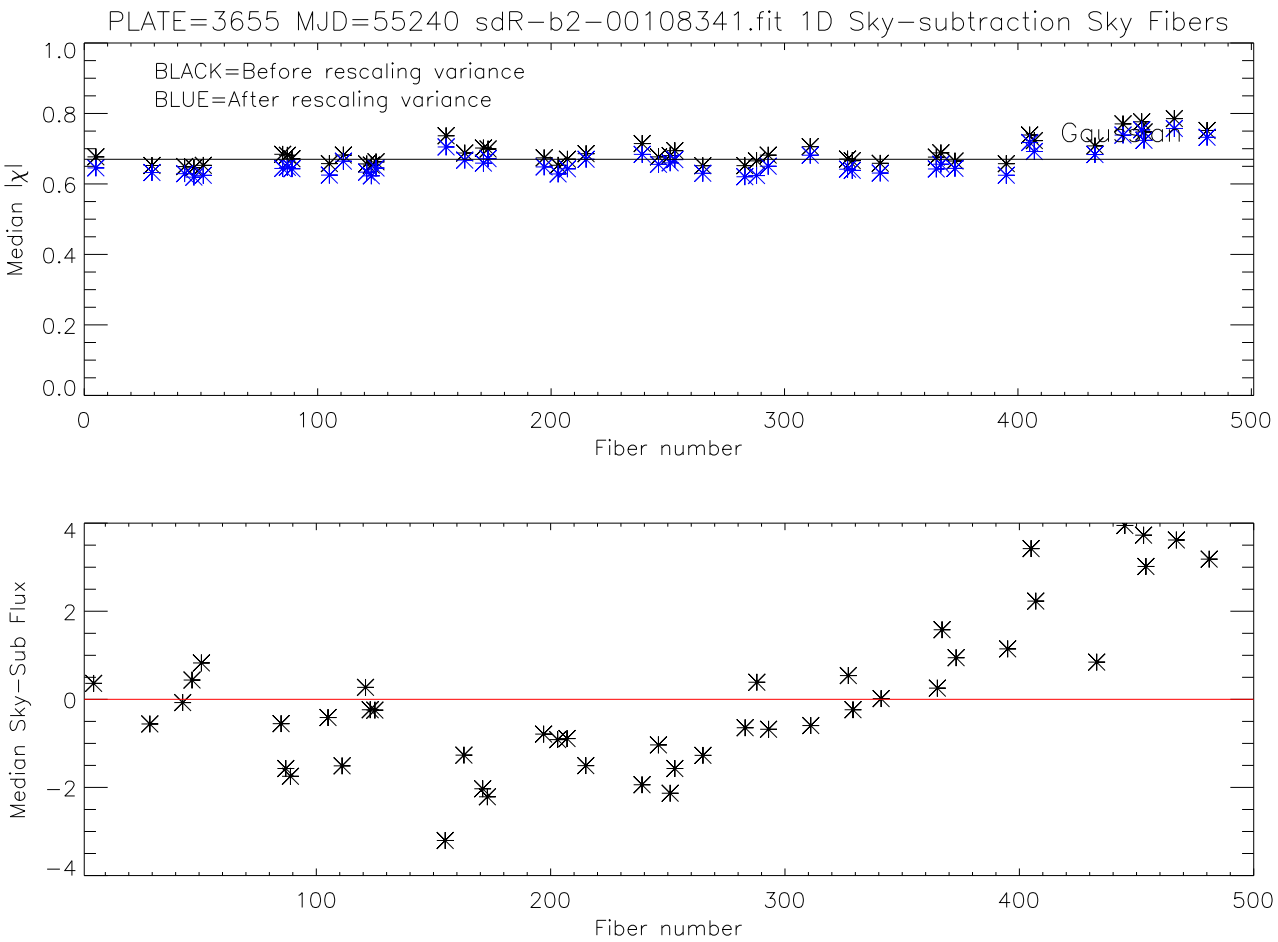
Ncoeff = 6
Deviation [pix]
0.15
0.10
0.05
−0.00
−0.05
−0.10
−0.15
3000
4000
5000
6000
7000
λ [A]
Thu May 26 20:00:11 2016

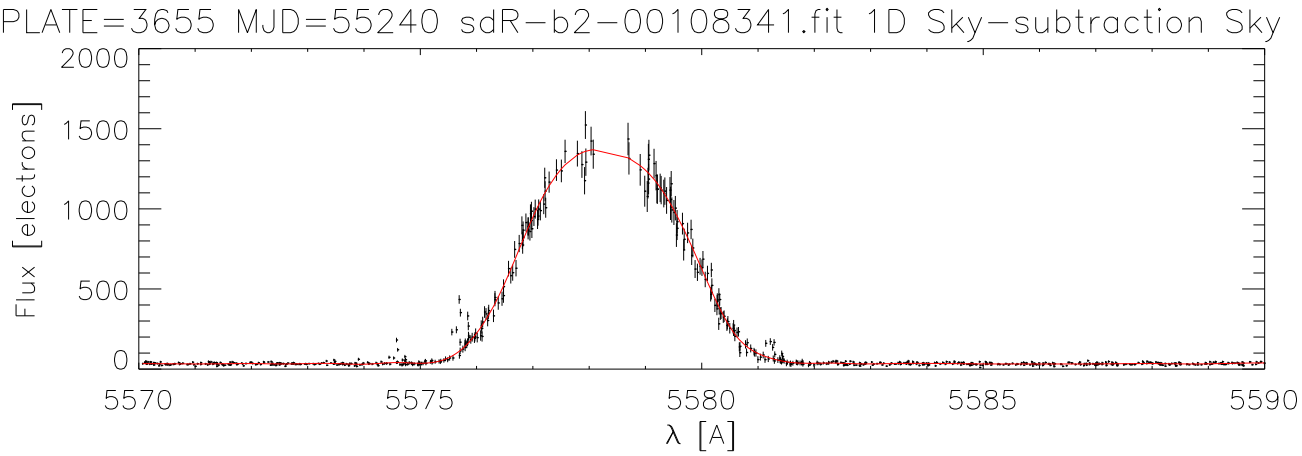

PLATE=3655 MJD=55240 Fiber-Flats for sdR-b2-00108346.fit
BLACK = Median value
ENVELOPE = 95% of points
GREEN = Outlier points
Min value = 0.006
Max value = 1.462
Fiber-Flat
1.5
1.0
0.5
0.0
3000
4000
5000
6000
7000
λ [A]
Thu May 26 20:00:26 2016

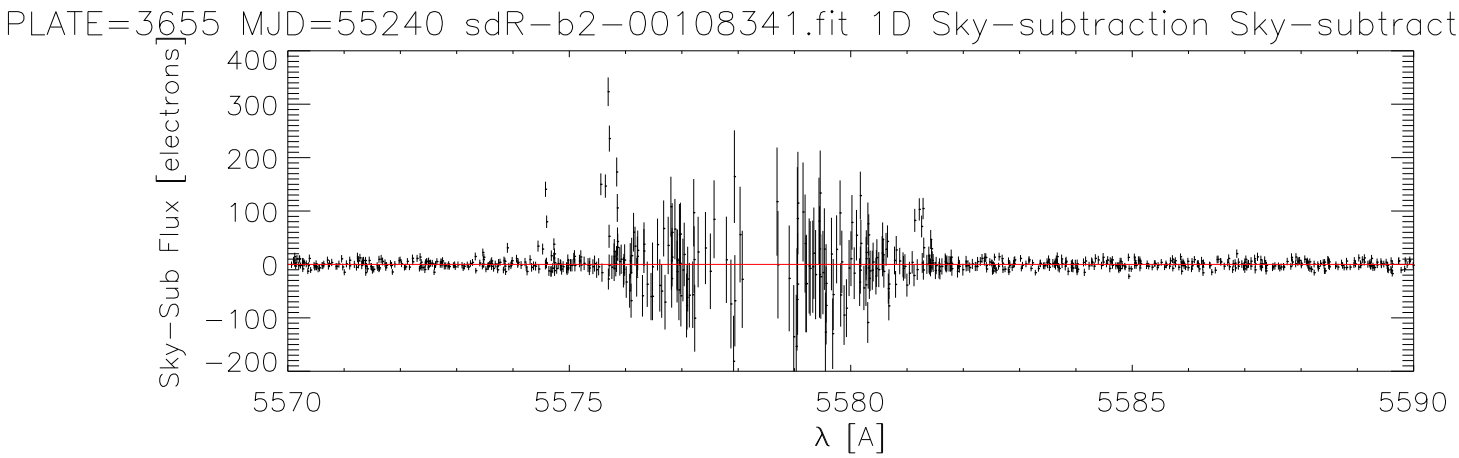

PLATE=3655 MJD=55240 Extraction chi^2 for sdR-b2-00108341.fit
BLACK = Final chisq extraction
χ^2
1.0
0.8
0.6
0.4
0.2
0.0
0
1000
2000
3000
4000
Row number


PLATE=3655 MJD=55240 Sky Line Deviations for sdR-b2-00108341.fit
1.00 pix
Before shift
After shift
Fiber Number
0
100
200
300
400
500
4046
4358
5460
5577
6300
6363
6553
6923
6949
Sky Line Wavelength

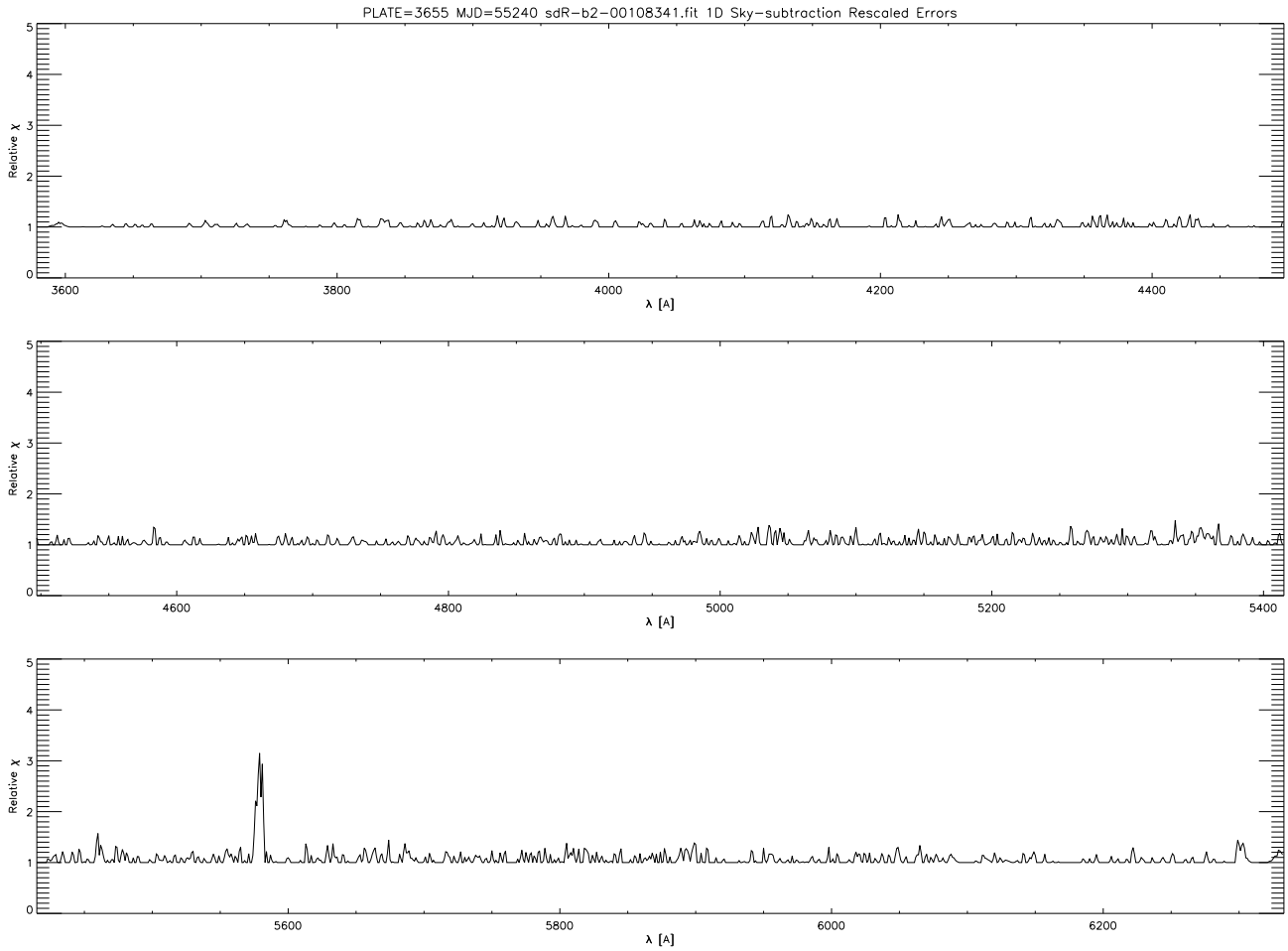

PLATE=3655 MJD=55240 Smooth superflat for sdR-b2-00108341.fit
2.0
1.5
1.0
0.5
0.0
1.04
1.02
1.00
0.98
0.96
3000
4000
5000
6000
7000
Wavelength (Å)

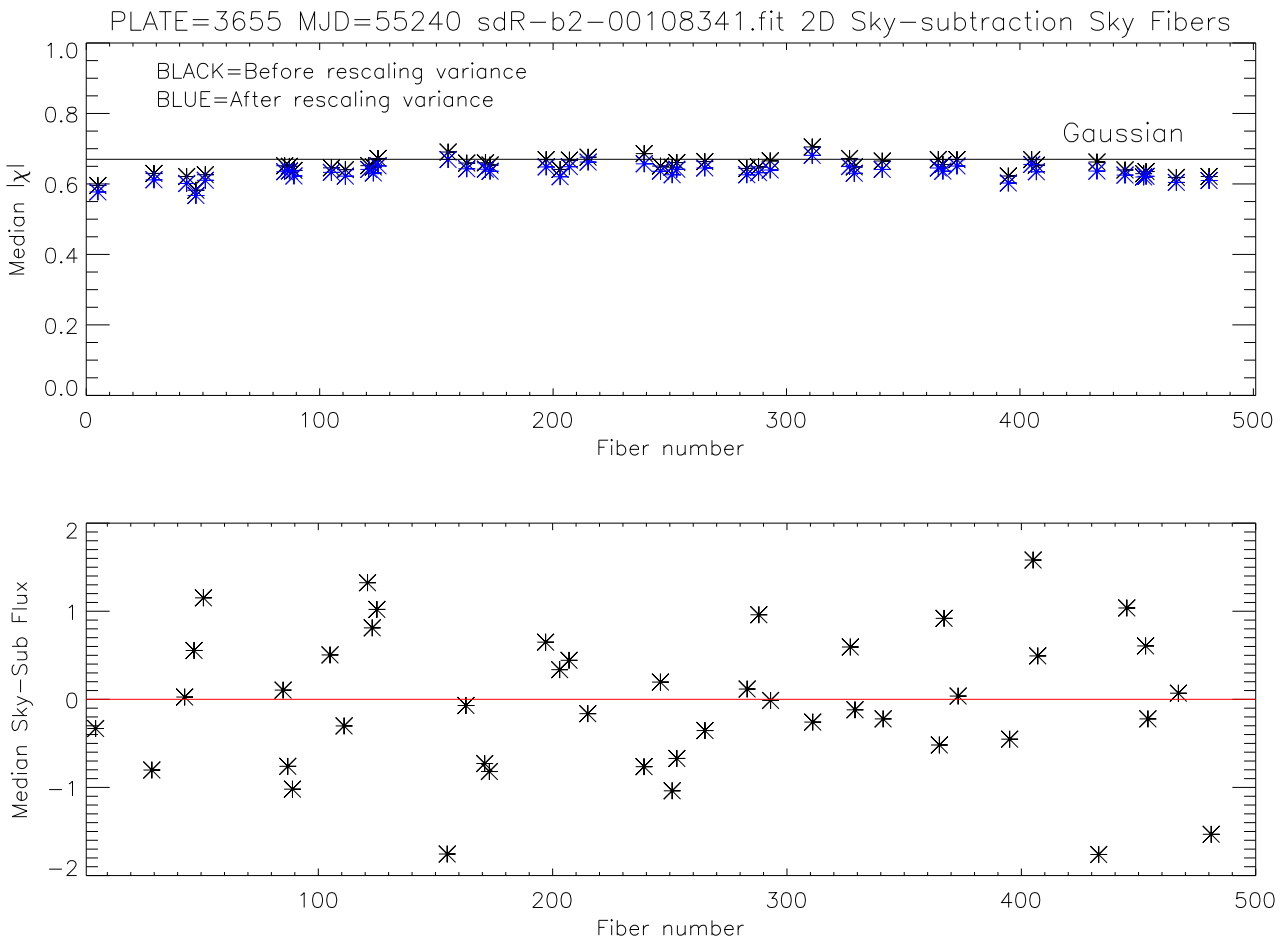

PLATE=3655 MJD=55240 sdR-b2-00108341.fit 1D Sky-subtraction Sky Fibers
BLACK=Before rescaling variance
BLUE=After rescaling variance
Gaussian
Median |χ|
Fiber number
Median Sky-Sub Flux
Fiber number

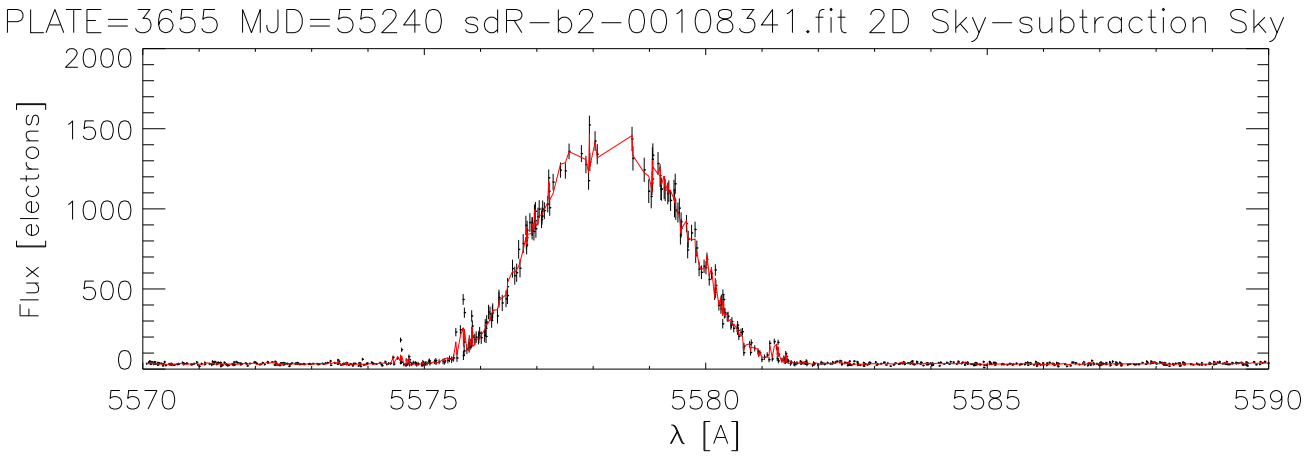

PLATE=3655 MJD=55240 sdR-b2-00108341.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
2000
1500
1000
500
0
5570
5575
5580
5585
5590
λ [A]

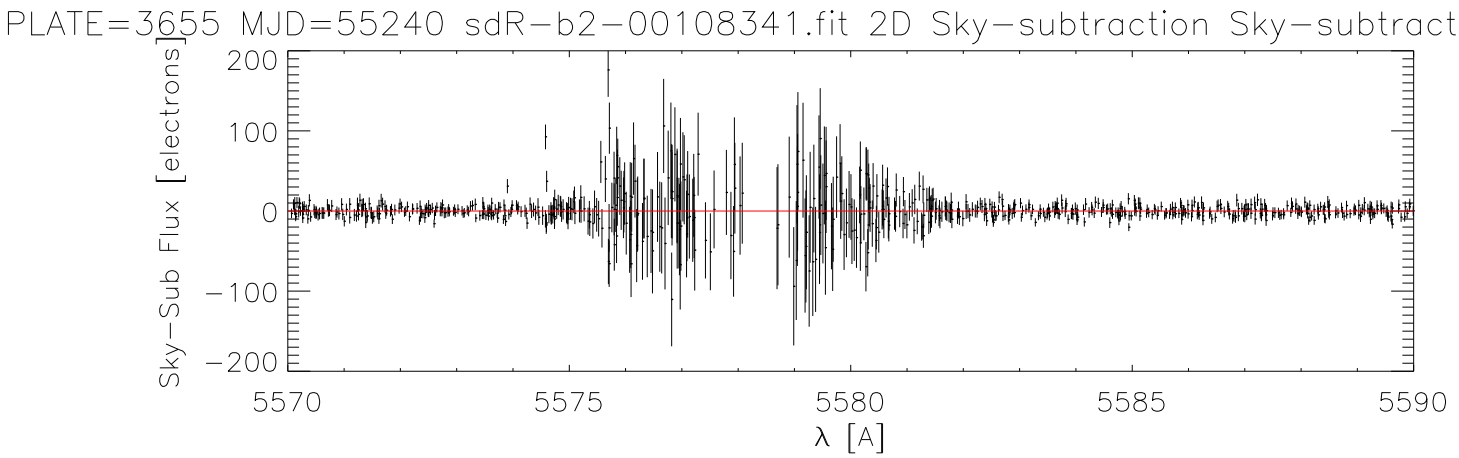

PLATE=3655 MJD=55240 sdR-b2-00108341.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
300
200
100
0
-100
-200
5570
5575
5580
5585
5590
λ [A]

Number of sky fibers = 45

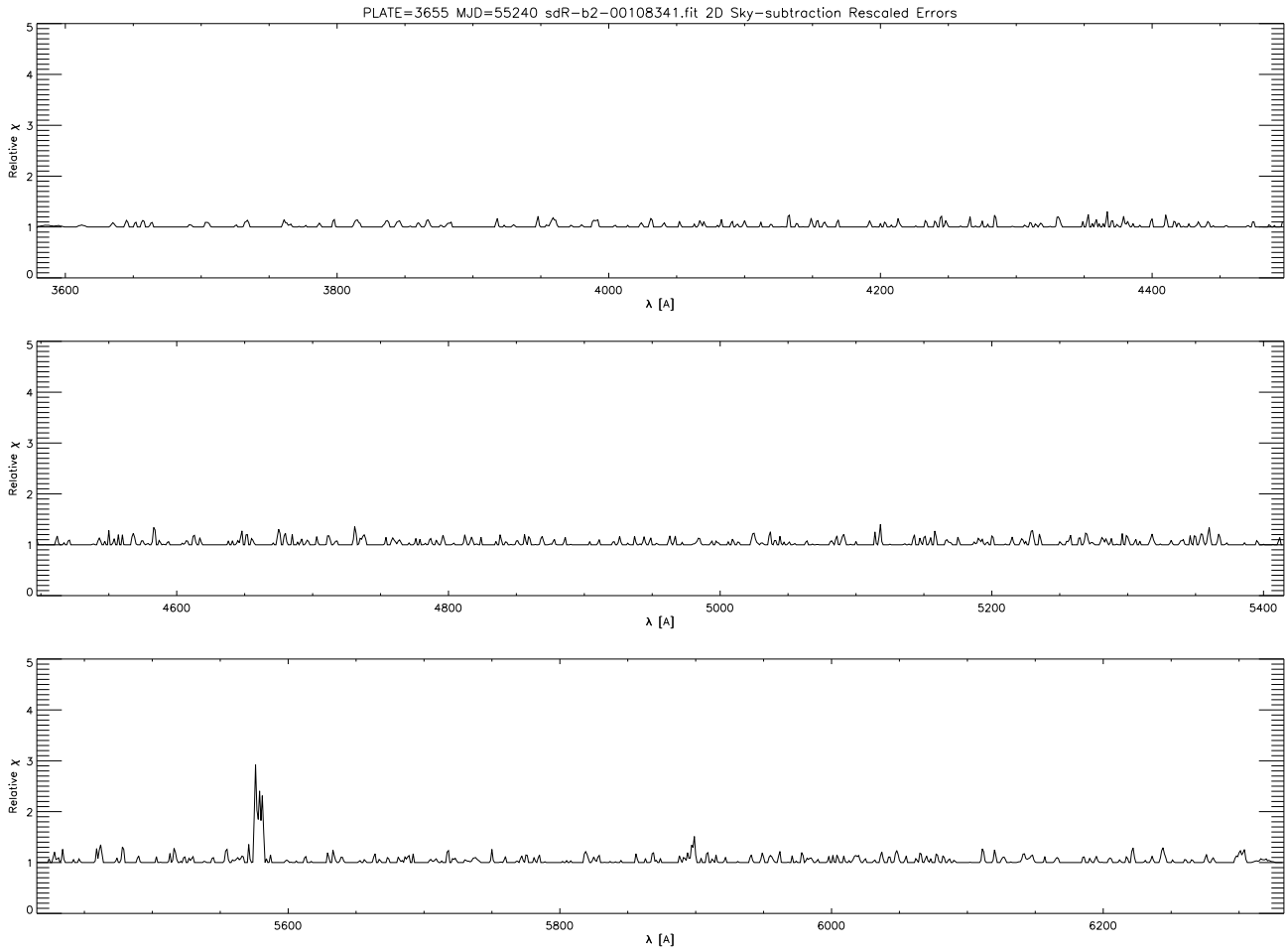


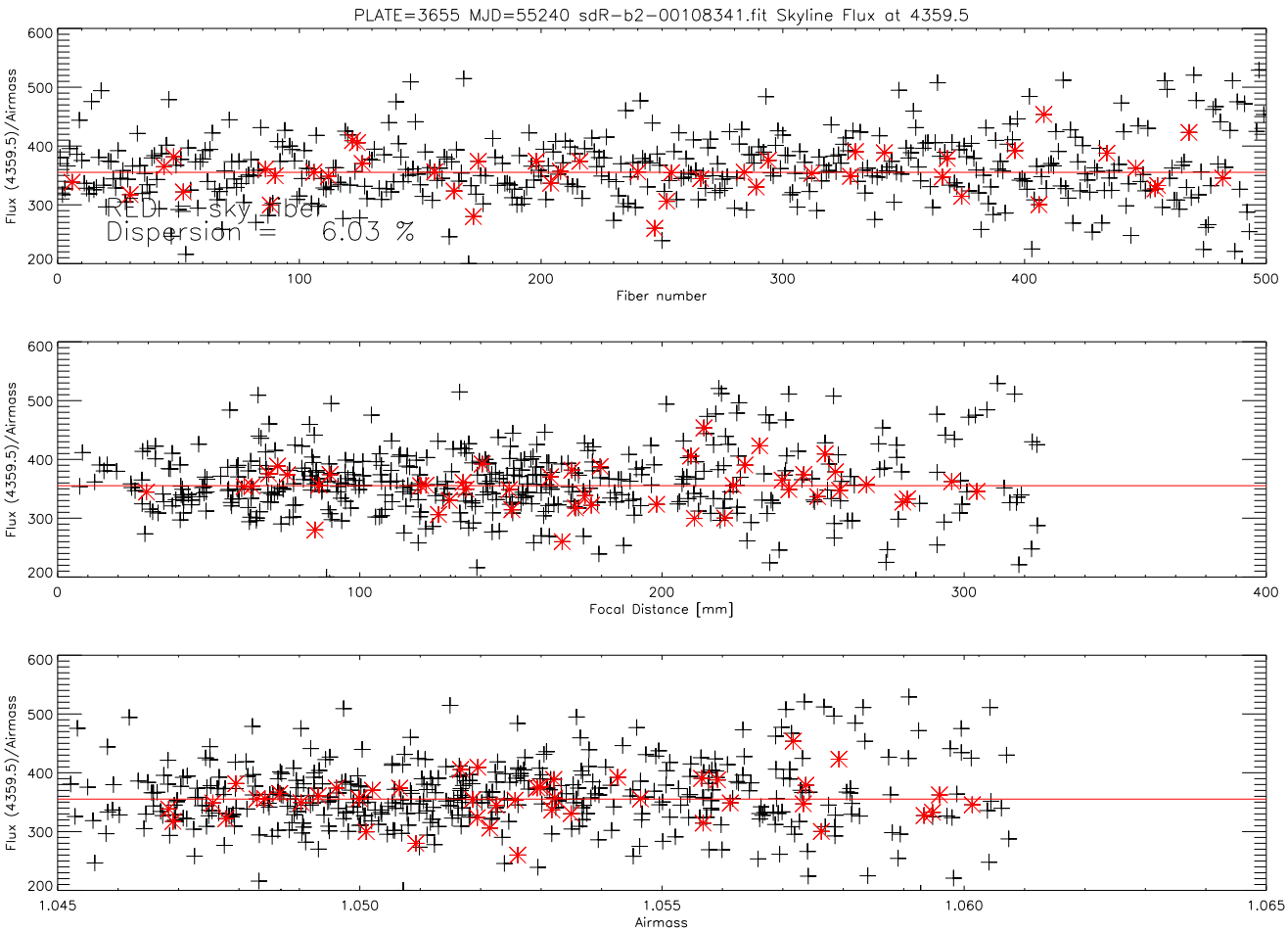

PLATE=3655 MJD=55240 sdR-b2-00108341.fit 2D Sky-subtraction Sky Fibers
BLACK=Before rescaling variance
BLUE=After rescaling variance
Gaussian
Median |χ|
Fiber number
Median Sky-Sub Flux
Fiber number

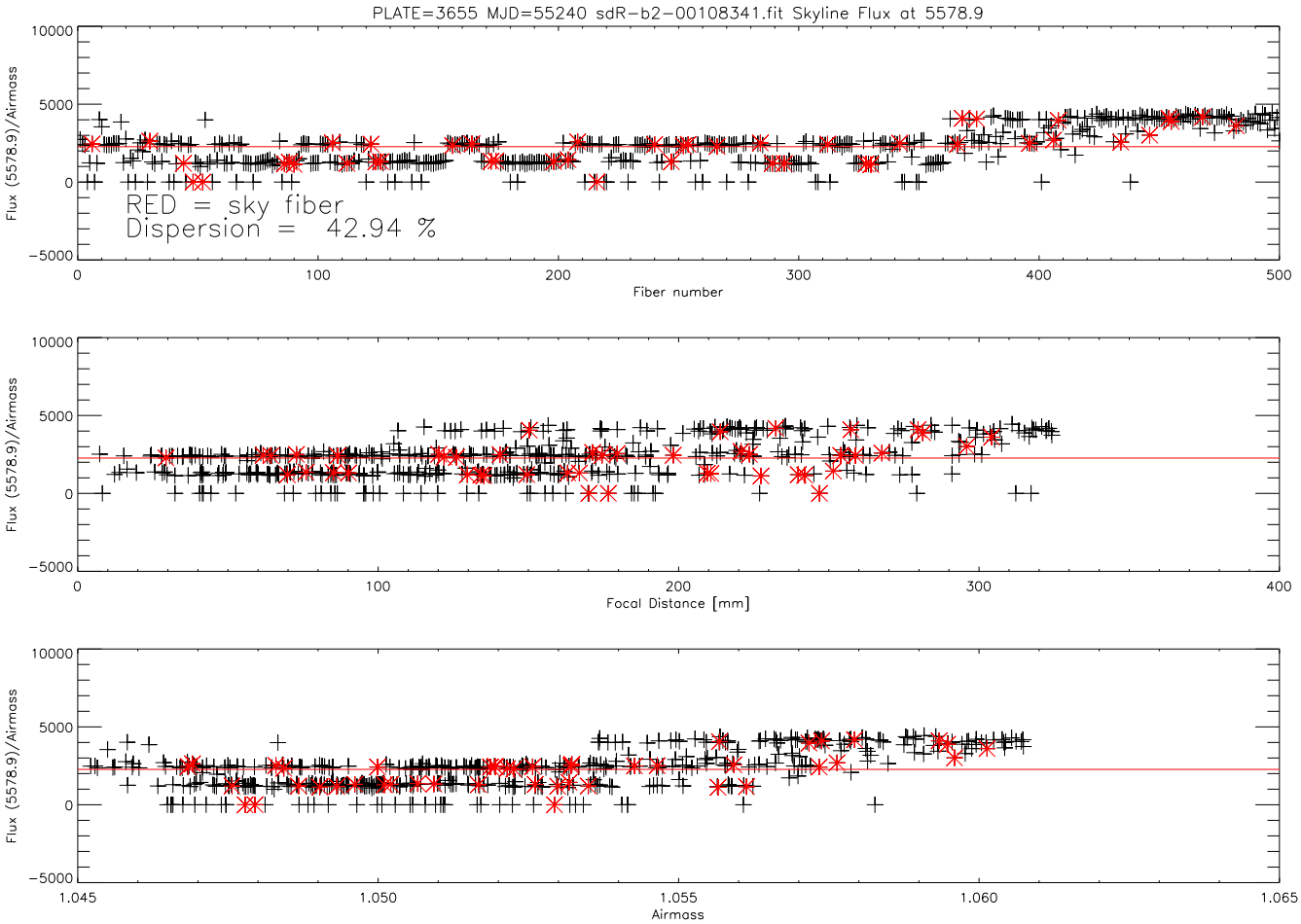

PLATE=3655 MJD=55240 sdR-b2-00108341.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
2000
1500
1000
500
0
5570
5575
5580
5585
5590
λ [A]

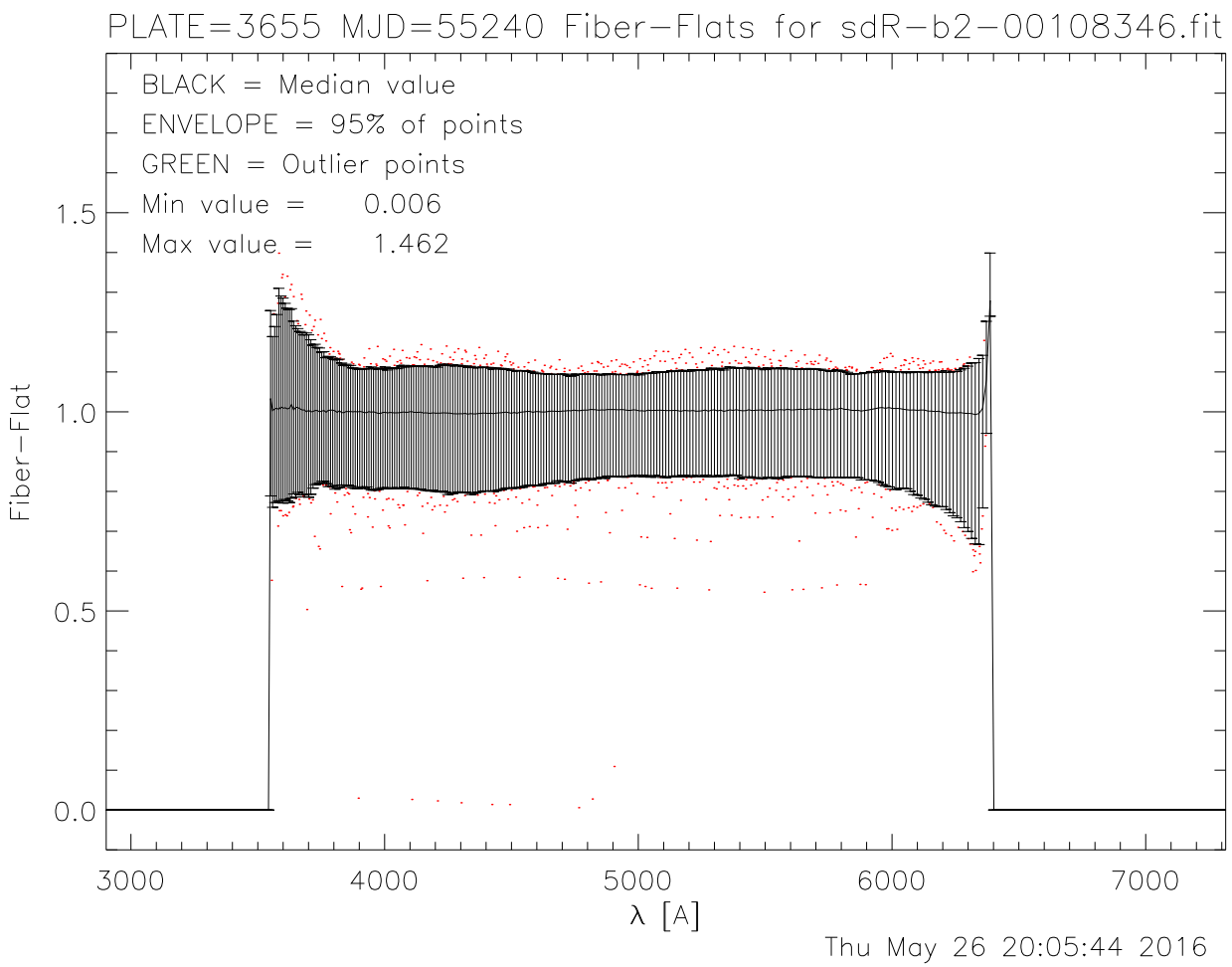

PLATE=3655 MJD=55240 sdR-b2-00108341.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
5570
5575
5580
5585
5590
λ [A]

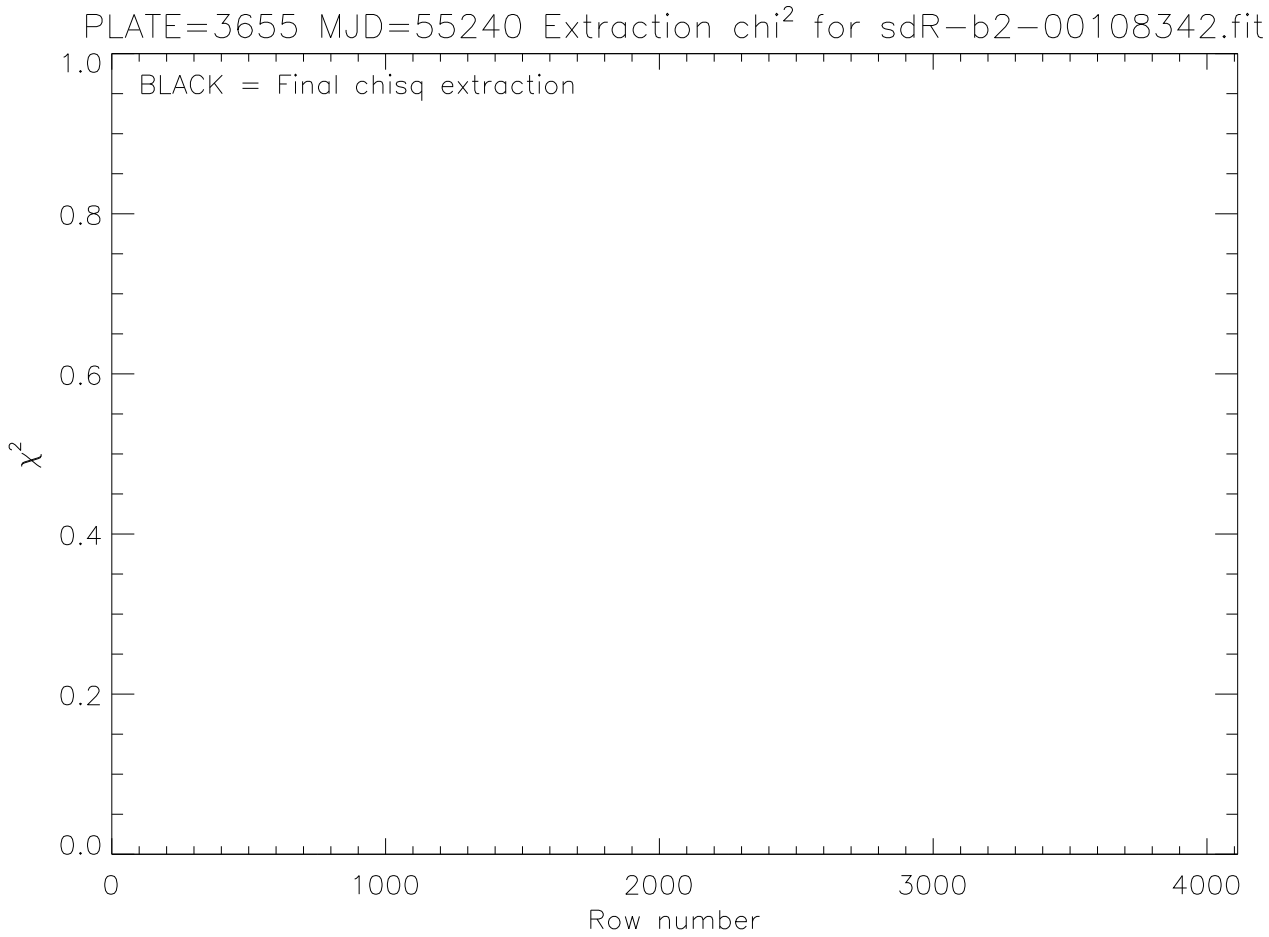
Number of sky fibers = 45

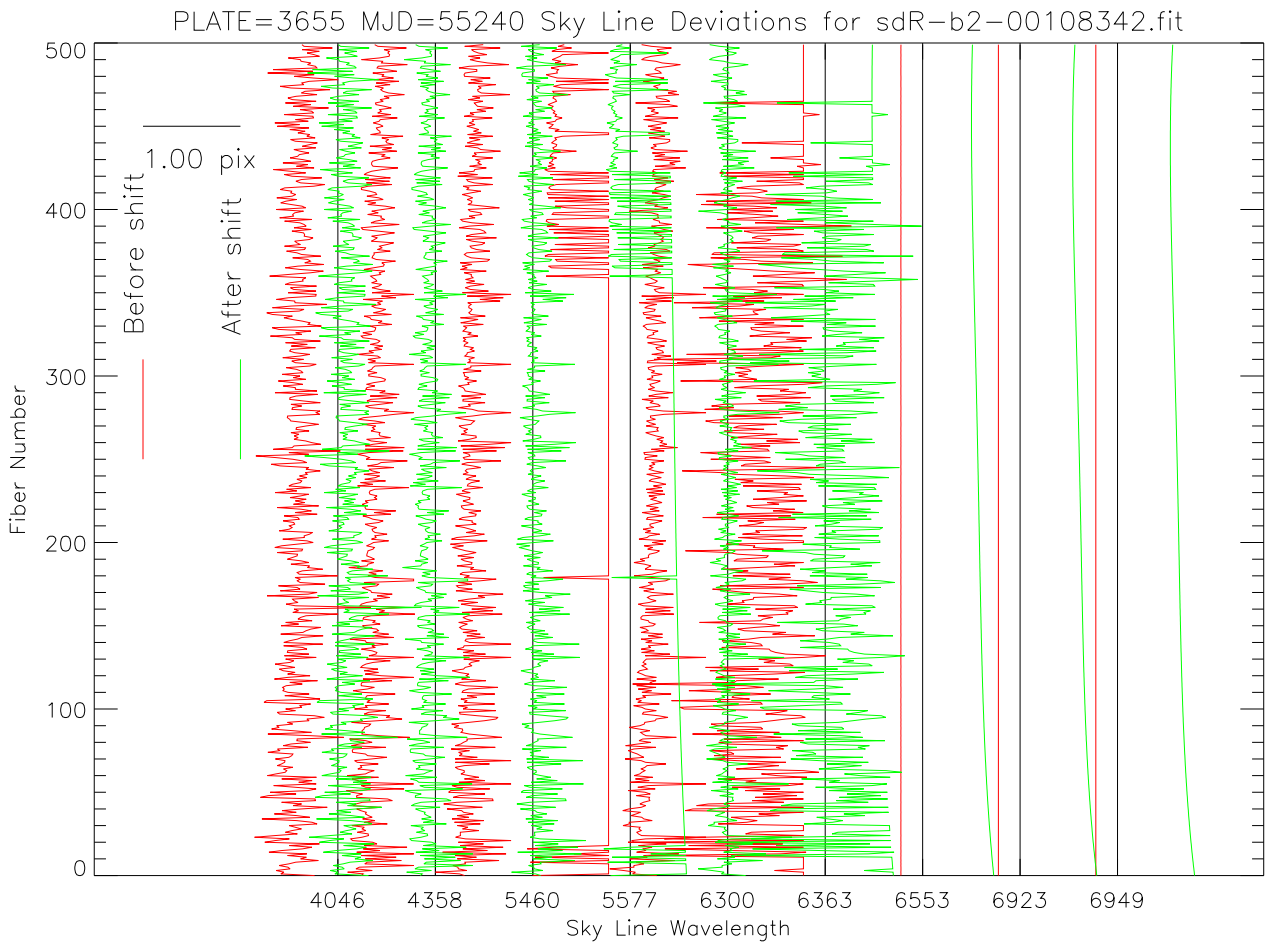


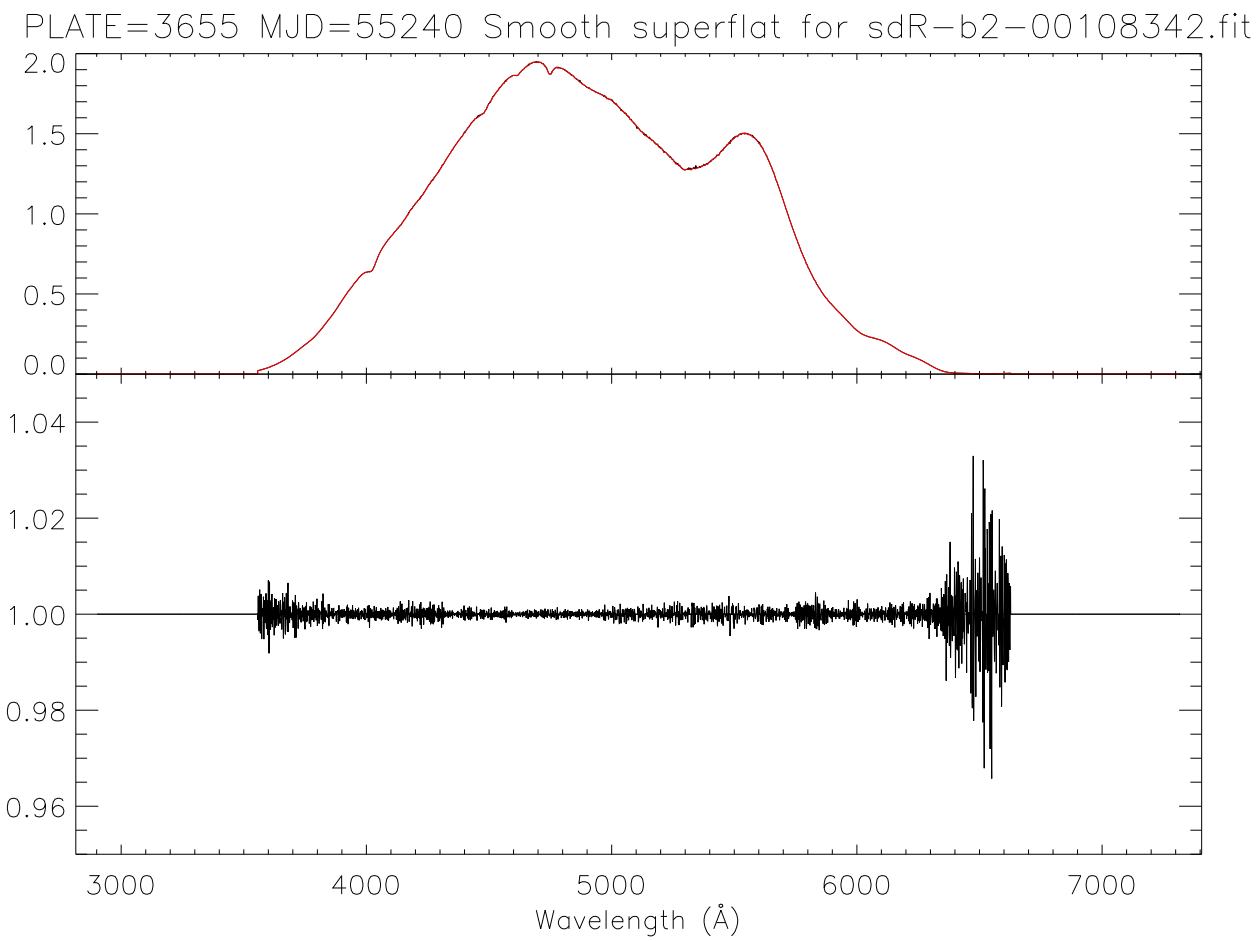

PLATE=3655 MJD=55240 sdR-b2-00108341.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
Fiber number
RED + sky fiber
Dispersion = 6.03 %
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

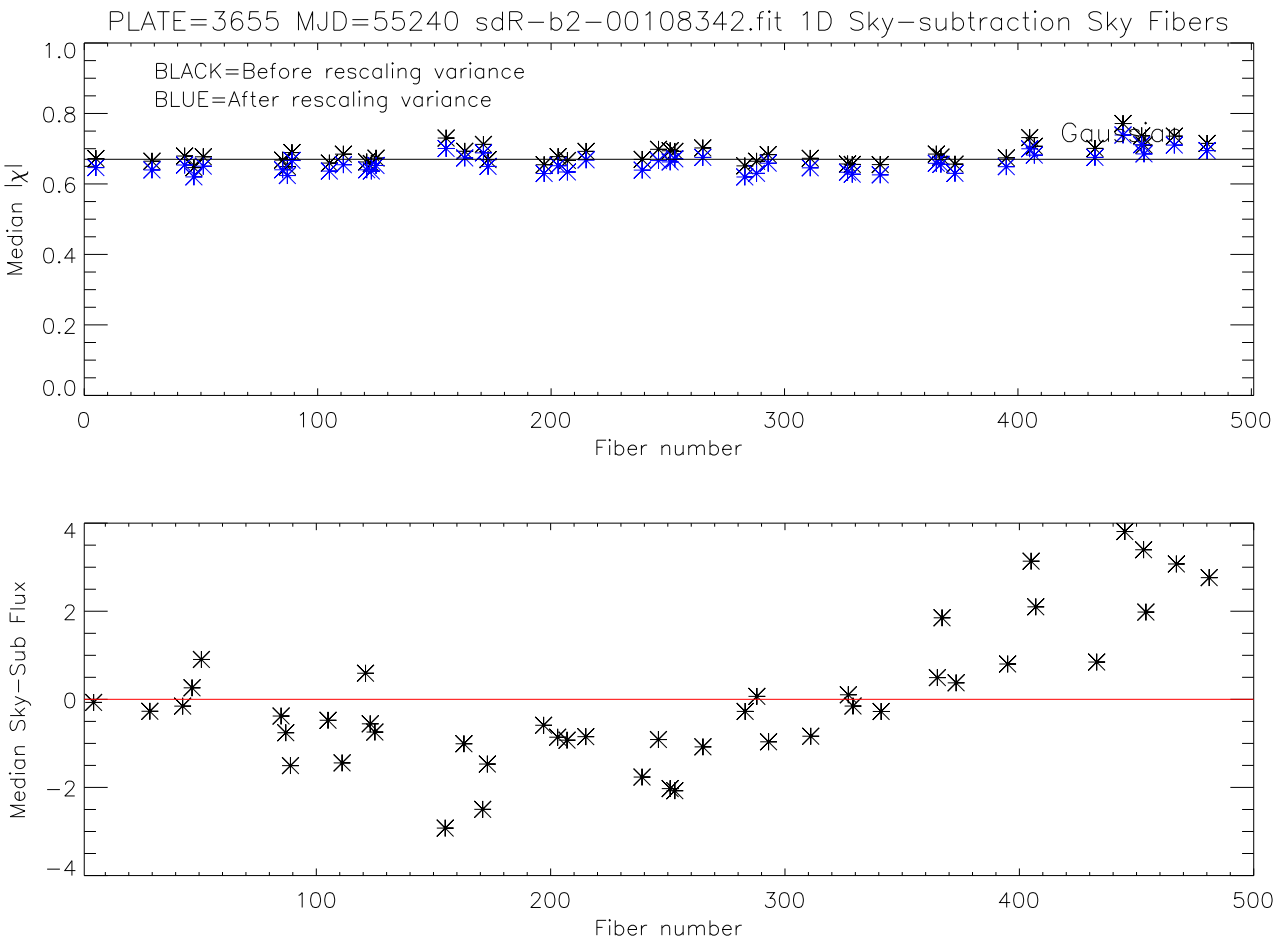

PLATE=3655 MJD=55240 sdR-b2-00108341.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 42.94 %
Fiber number
Focal Distance [mm]
Airmass

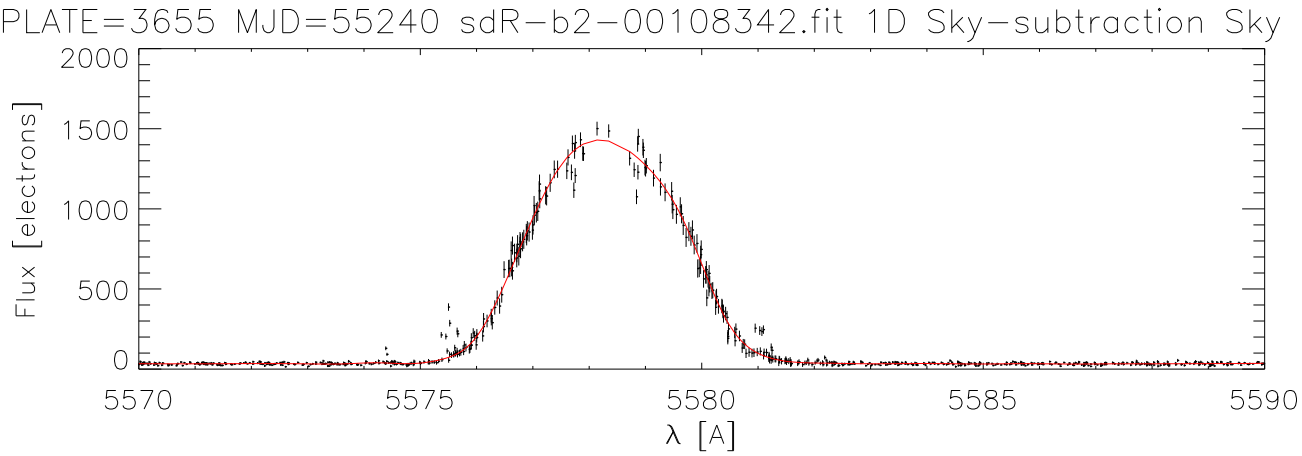

PLATE=3655 MJD=55240 Fiber-Flats for sdR-b2-00108346.fit
BLACK = Median value
ENVELOPE = 95% of points
GREEN = Outlier points
Min value = 0.006
Max value = 1.462
Fiber-Flat
1.5
1.0
0.5
0.0
3000
4000
5000
6000
7000
λ [A]
Thu May 26 20:05:44 2016

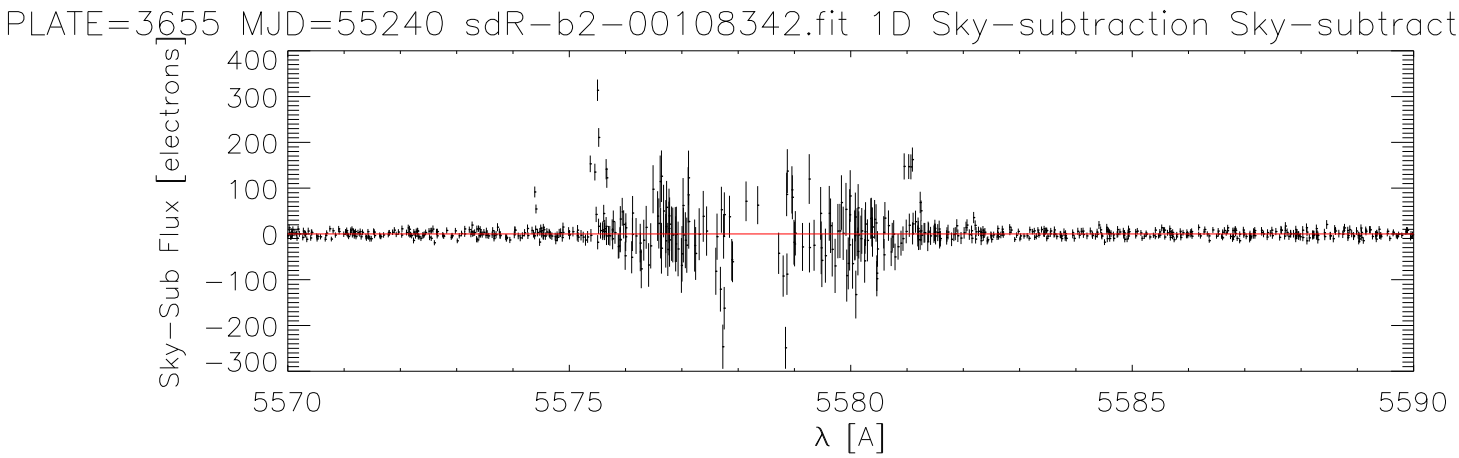

PLATE=3655 MJD=55240 Extraction chi^2 for sdR-b2-00108342.fit
BLACK = Final chisq extraction
χ^2
1.0
0.8
0.6
0.4
0.2
0.0
0
1000
2000
3000
4000
Row number


PLATE=3655 MJD=55240 Sky Line Deviations for sdR-b2-00108342.fit
1.00 pix
Before shift
After shift
Fiber Number
500
400
300
200
100
0
4046
4358
5460
5577
6300
6363
6553
6923
6949
Sky Line Wavelength

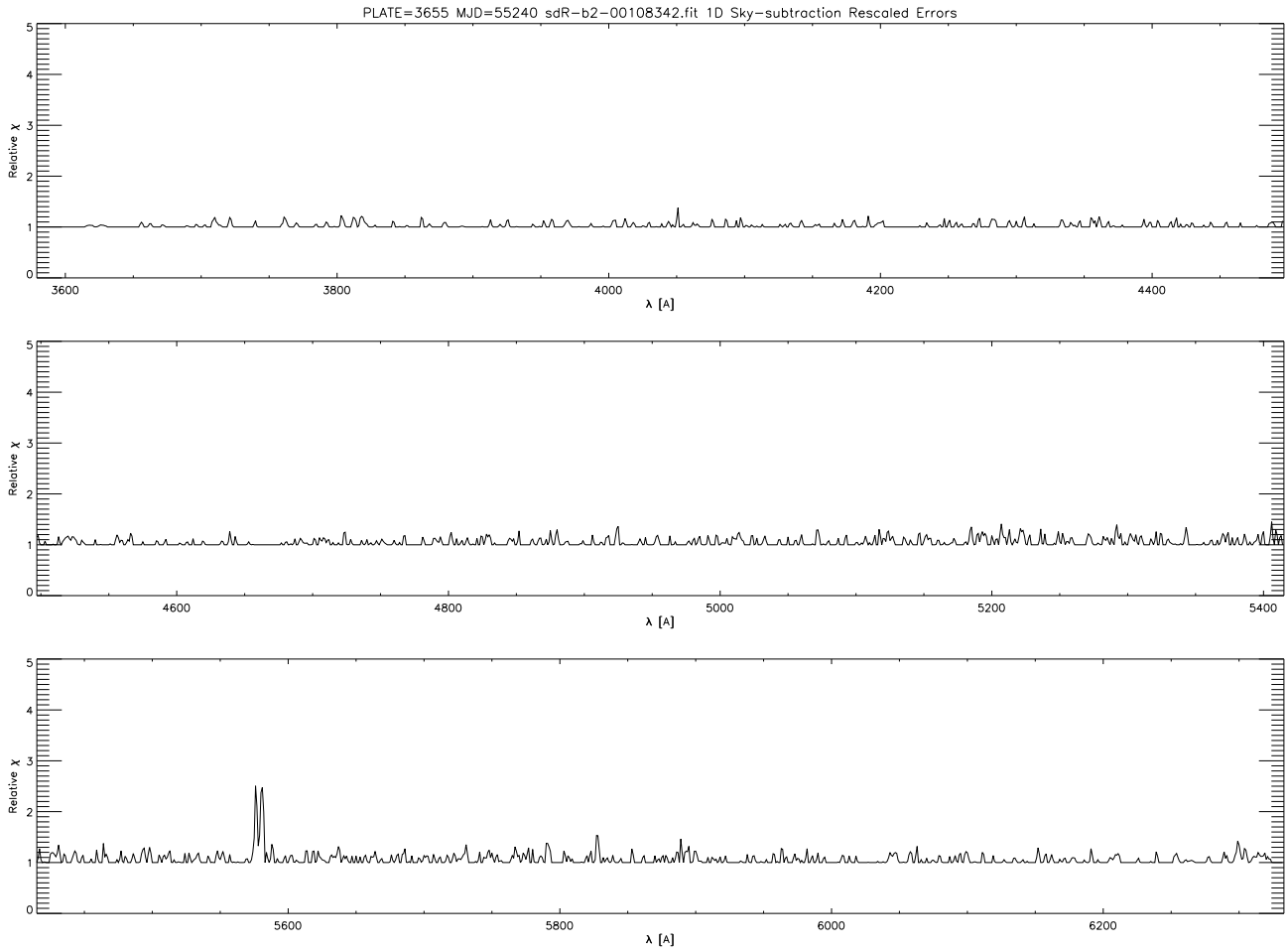

PLATE=3655 MJD=55240 Smooth superflat for sdR-b2-00108342.fit
2.0
1.5
1.0
0.5
0.0
1.04
1.02
1.00
0.98
0.96
3000
4000
5000
6000
7000
Wavelength (Å)

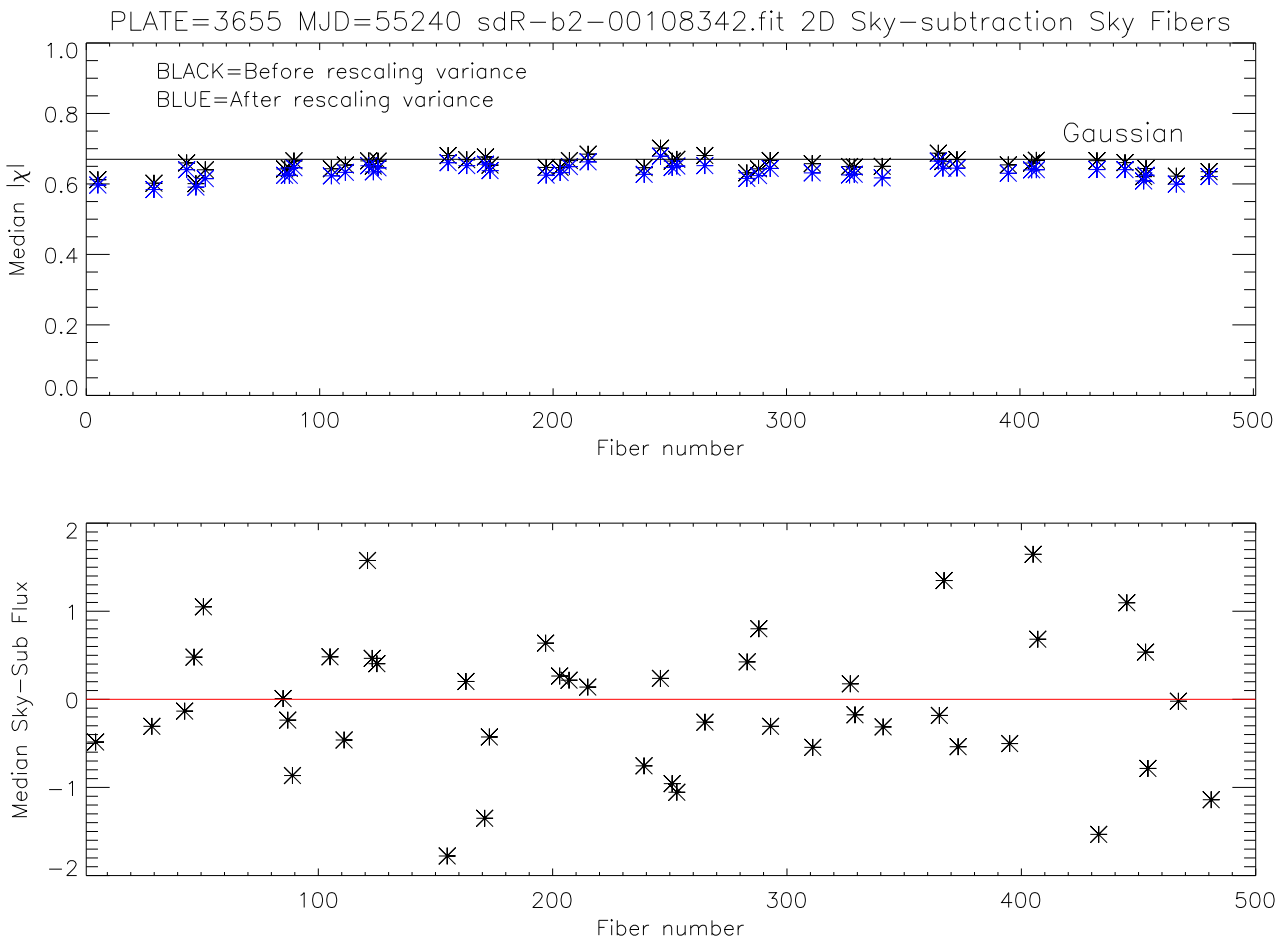

PLATE=3655 MJD=55240 sdR-b2-00108342.fit 1D Sky-subtraction Sky Fibers
BLACK=Before rescaling variance
BLUE=After rescaling variance
Gaussian
Median |χ|
Fiber number
Median Sky-Sub Flux
Fiber number

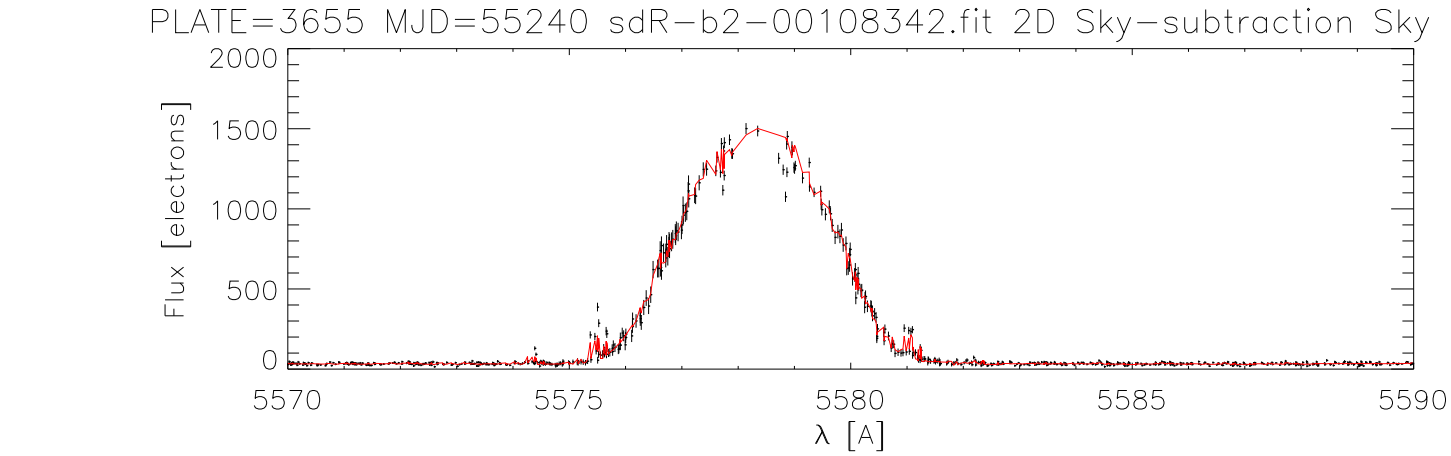

PLATE=3655 MJD=55240 sdR-b2-00108342.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
2000
1500
1000
500
0
5570
5575
5580
5585
5590
λ [A]

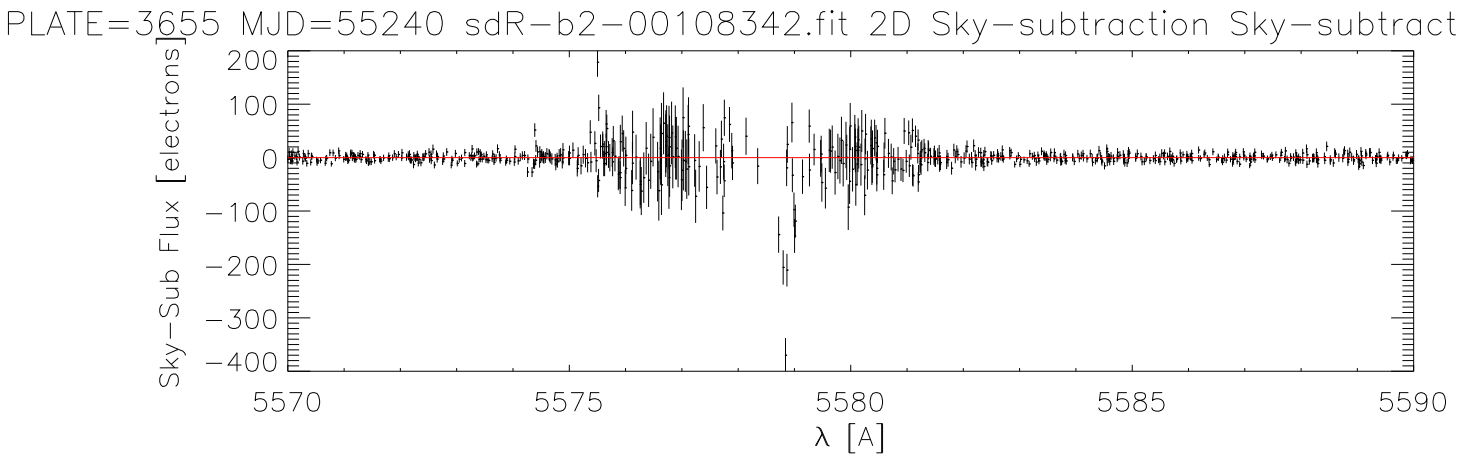

PLATE=3655 MJD=55240 sdR-b2-00108342.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
300
200
100
0
-100
-200
-300
5570
5575
5580
5585
5590
λ [A]

Number of sky fibers = 45

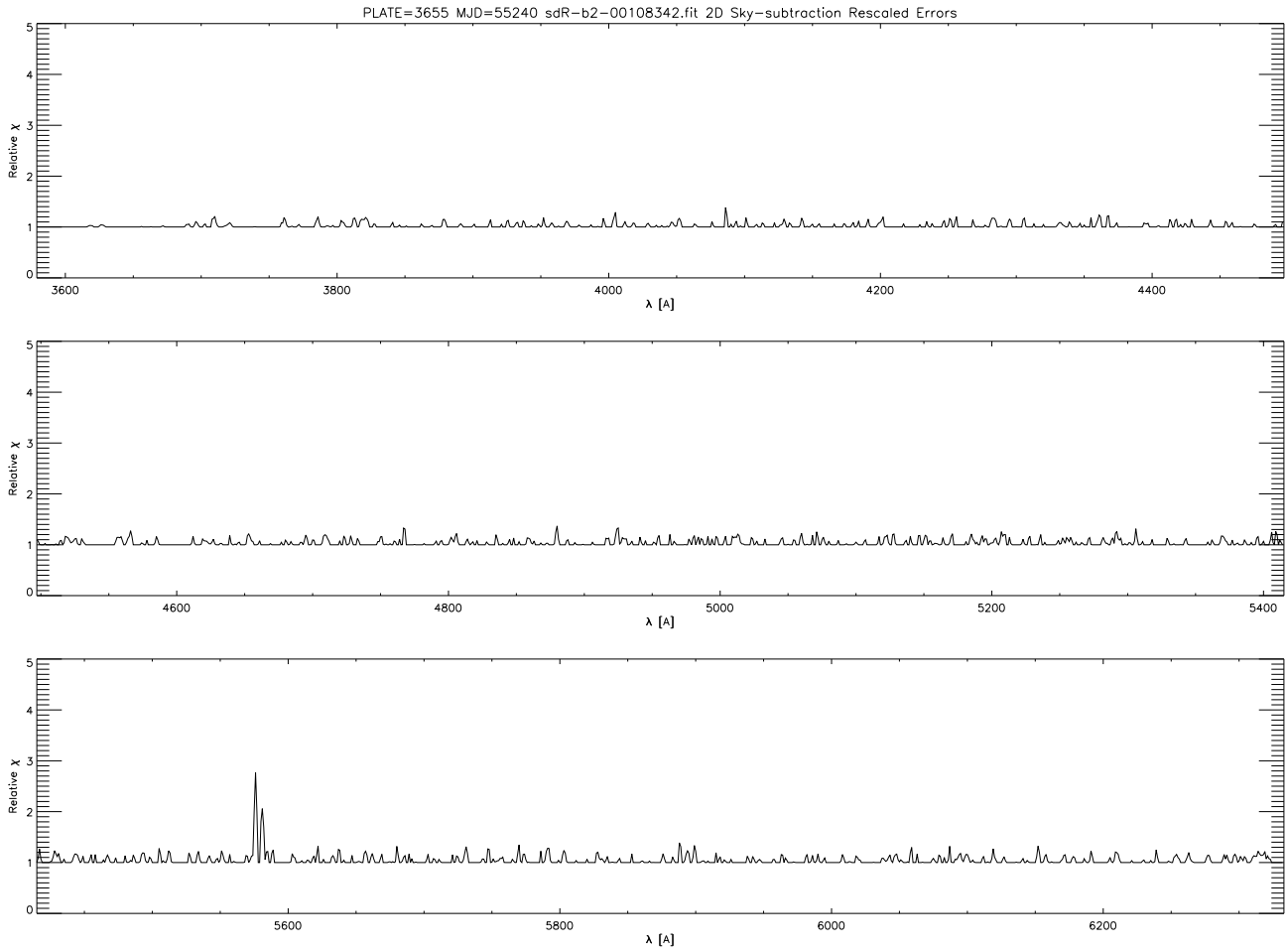


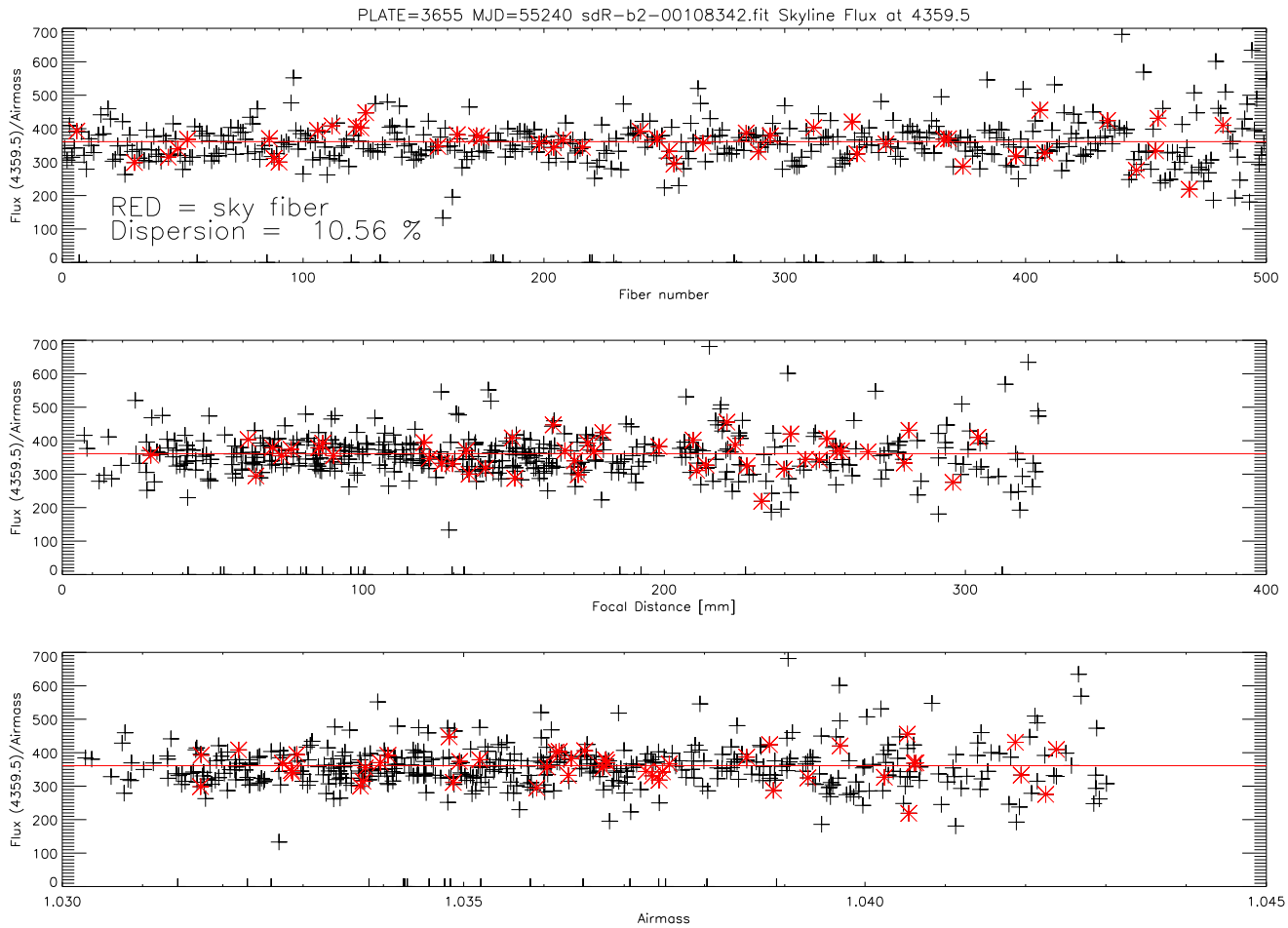

PLATE=3655 MJD=55240 sdR-b2-00108342.fit 2D Sky-subtraction Sky Fibers
BLACK=Before rescaling variance
BLUE=After rescaling variance
Gaussian
Median |χ|
Fiber number
Median Sky-Sub Flux
Fiber number

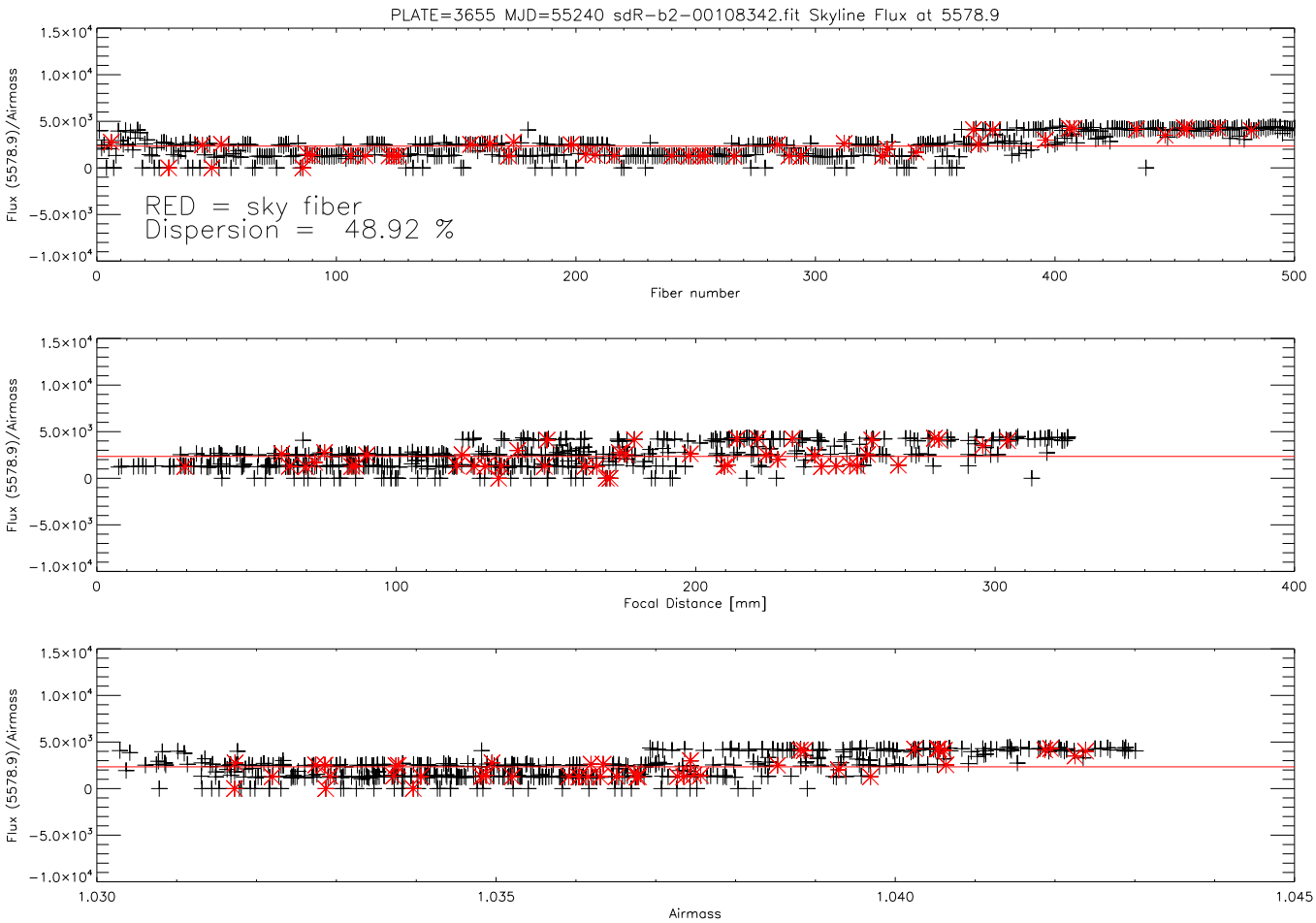

PLATE=3655 MJD=55240 sdR-b2-00108342.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
2000
1500
1000
500
0
5570
5575
5580
5585
5590
λ [A]

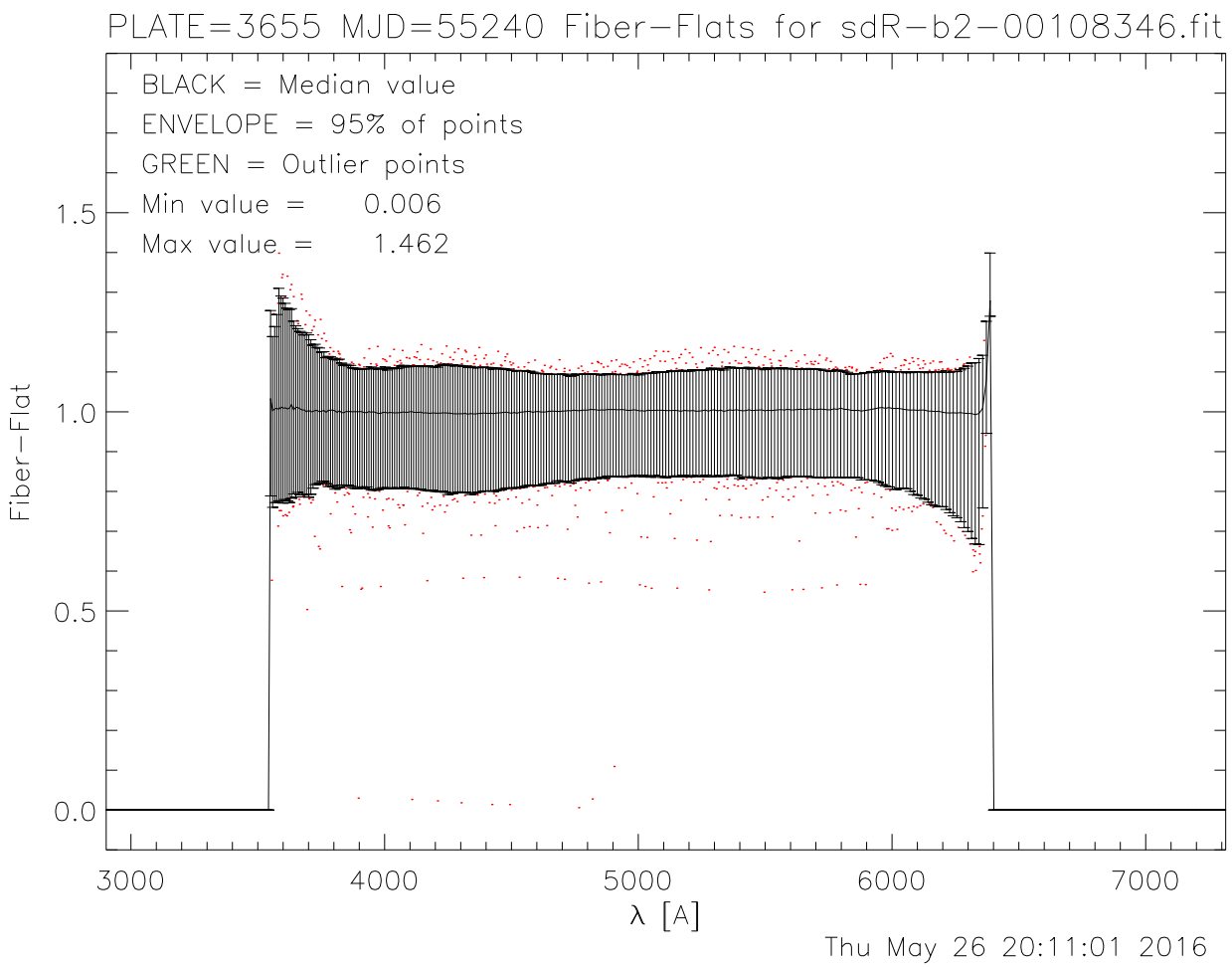

PLATE=3655 MJD=55240 sdR-b2-00108342.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
-300
-400
5570
5575
5580
5585
5590
λ [A]

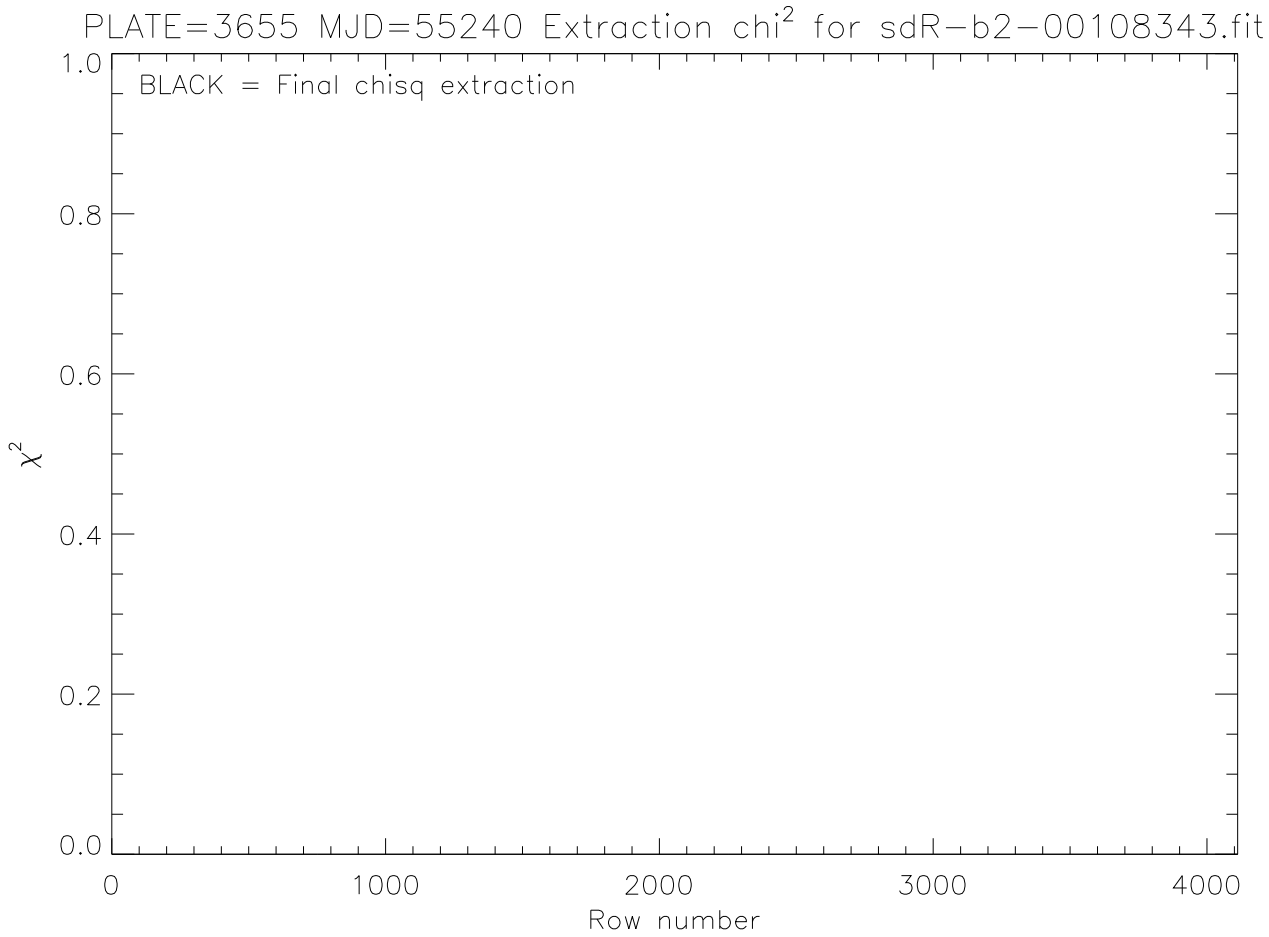
Number of sky fibers = 45

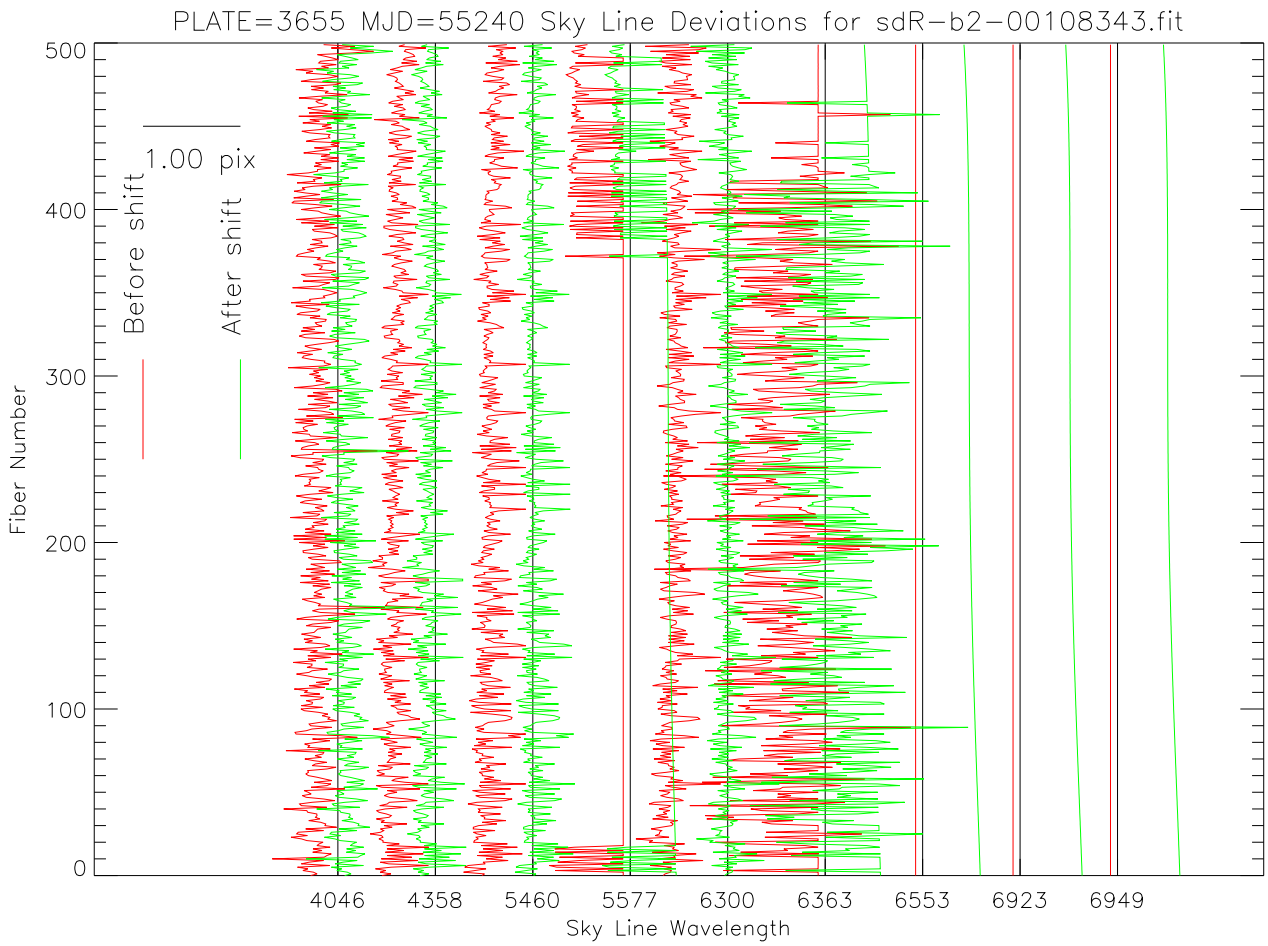


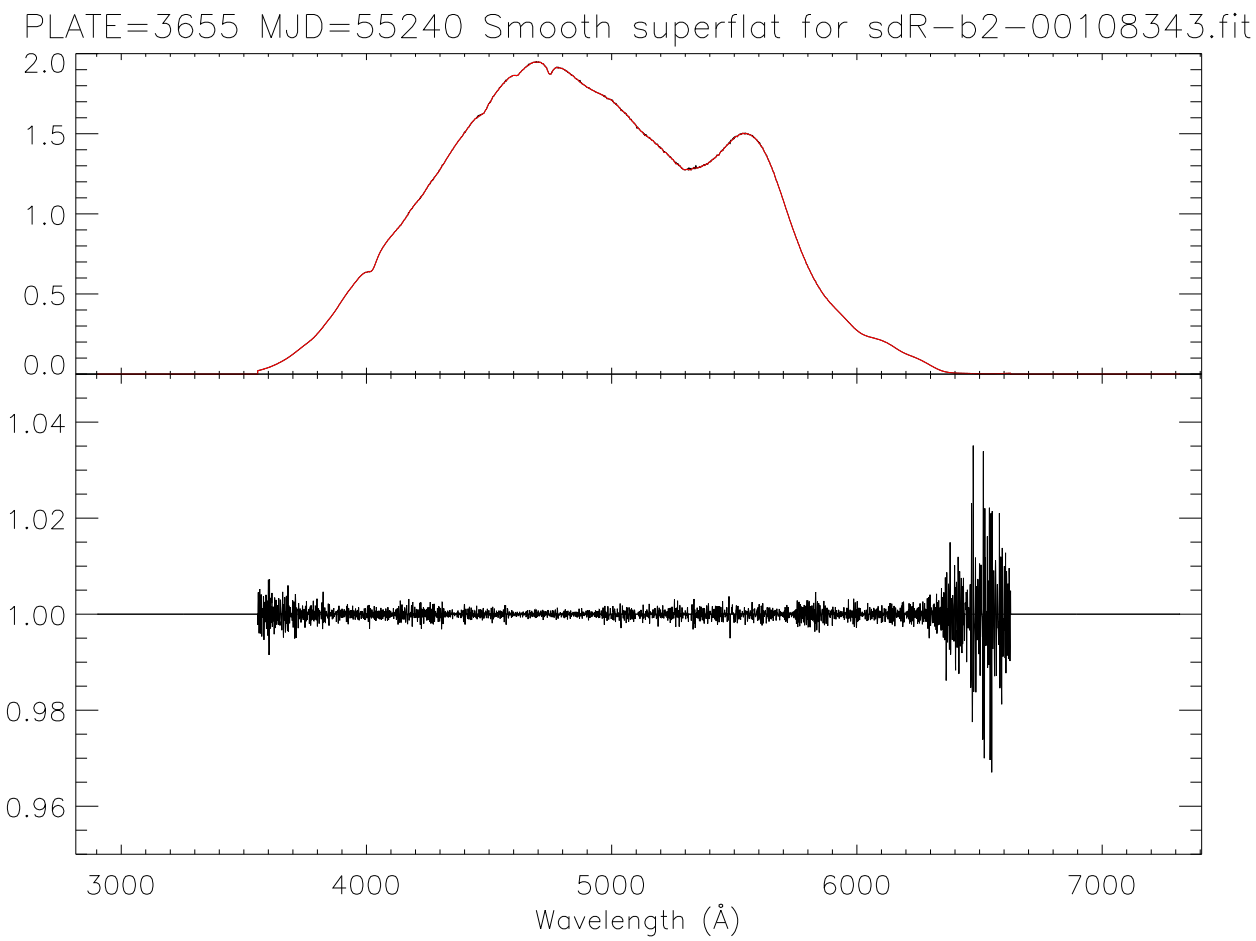

PLATE=3655 MJD=55240 sdR-b2-00108342.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 10.56 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

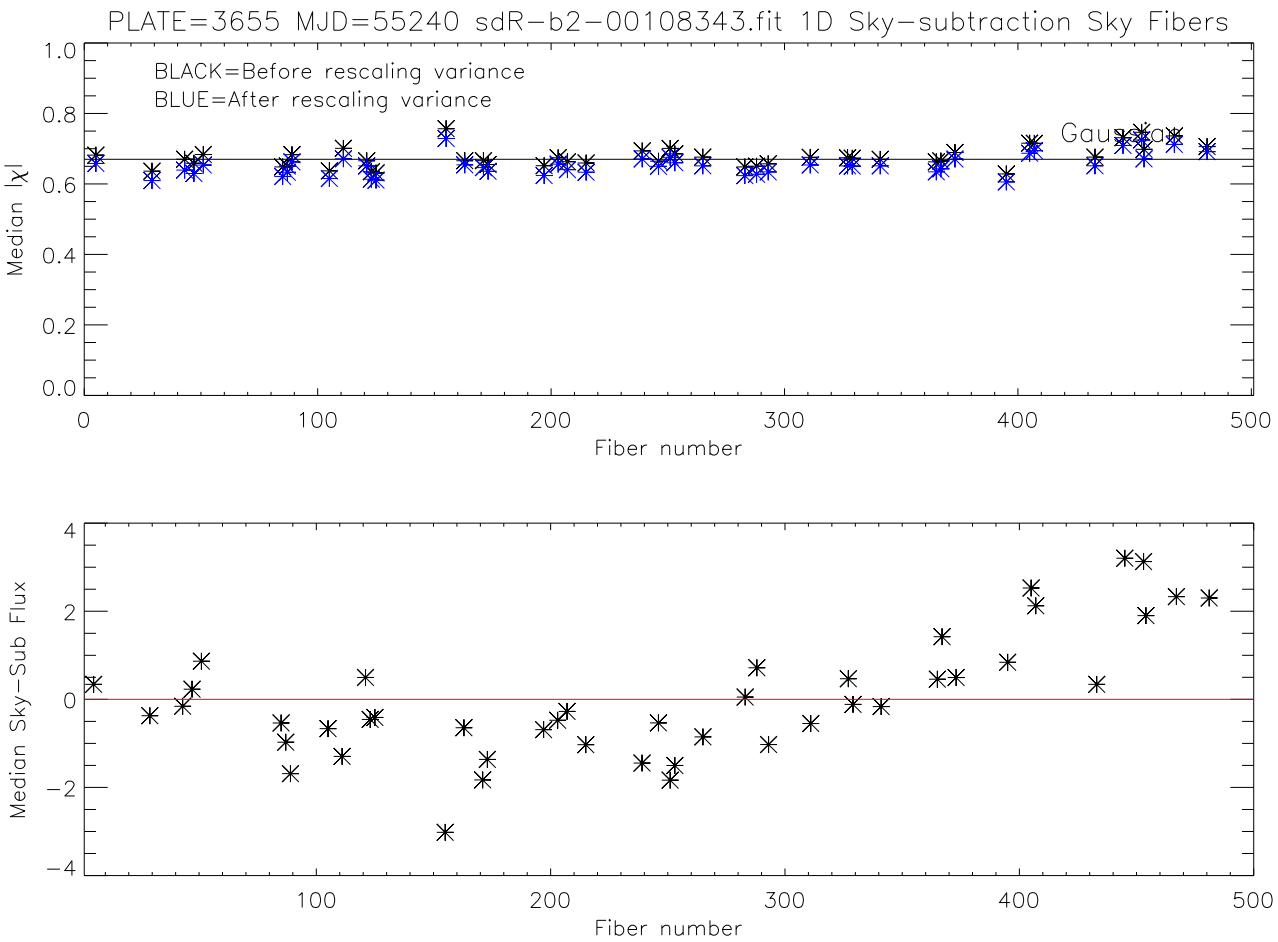

PLATE=3655 MJD=55240 sdR-b2-00108342.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 48.92 %
Fiber number
Focal Distance [mm]
Airmass

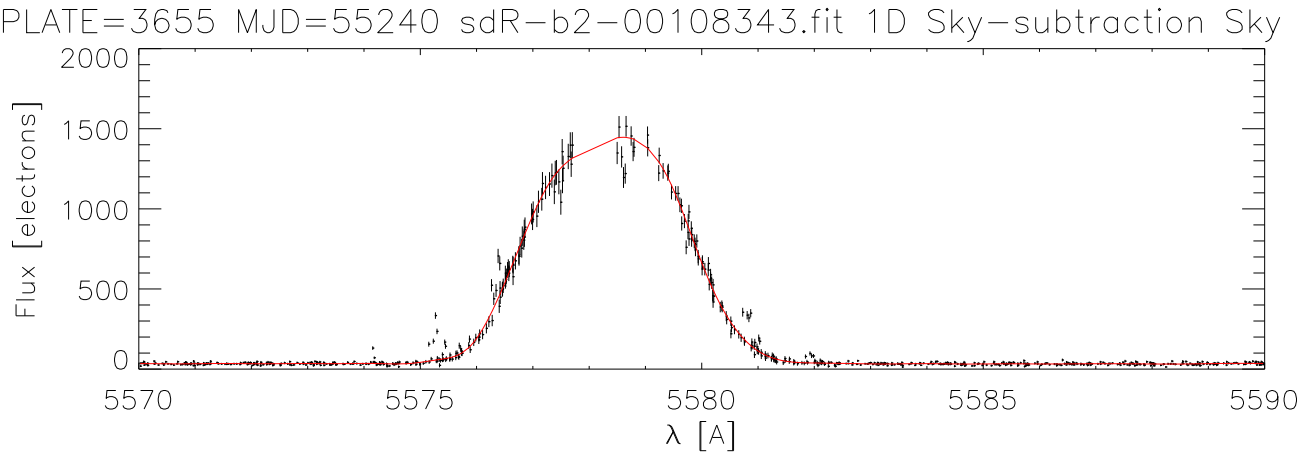

PLATE=3655 MJD=55240 Fiber-Flats for sdR-b2-00108346.fit
BLACK = Median value
ENVELOPE = 95% of points
GREEN = Outlier points
Min value = 0.006
Max value = 1.462
Fiber-Flat
1.5
1.0
0.5
0.0
3000
4000
5000
6000
7000
λ [A]
Thu May 26 20:11:01 2016

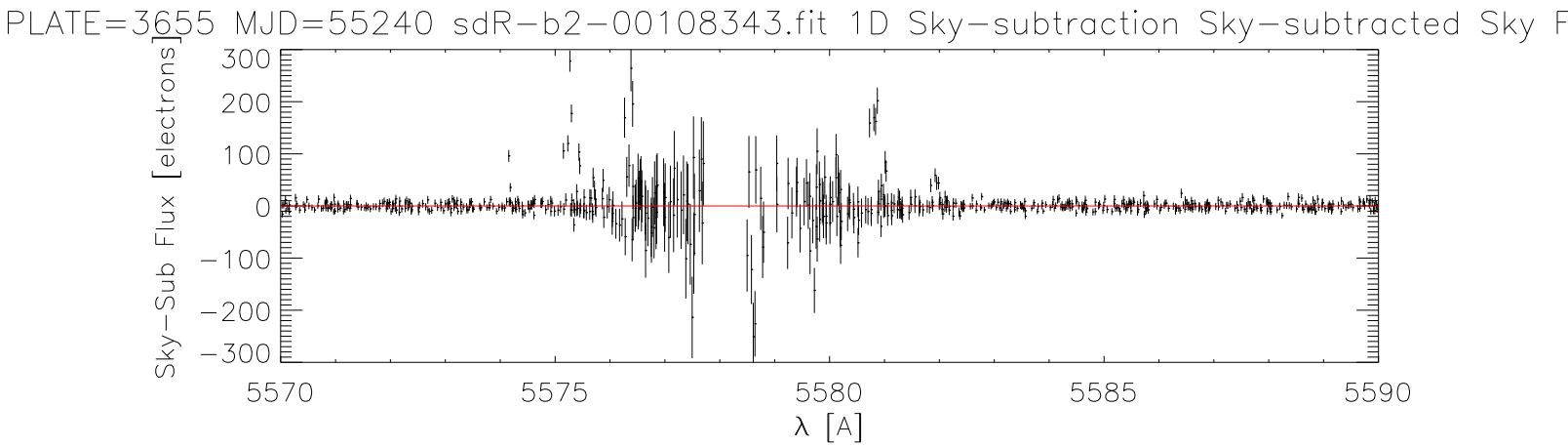

PLATE=3655 MJD=55240 Extraction chi^2 for sdR-b2-00108343.fit
BLACK = Final chisq extraction
χ^2
1.0
0.8
0.6
0.4
0.2
0.0
0
1000
2000
3000
4000
Row number


PLATE=3655 MJD=55240 Sky Line Deviations for sdR-b2-00108343.fit
1.00 pix
Before shift
After shift
Fiber Number
0
100
200
300
400
500
4046
4358
5460
5577
6300
6363
6553
6923
6949
Sky Line Wavelength

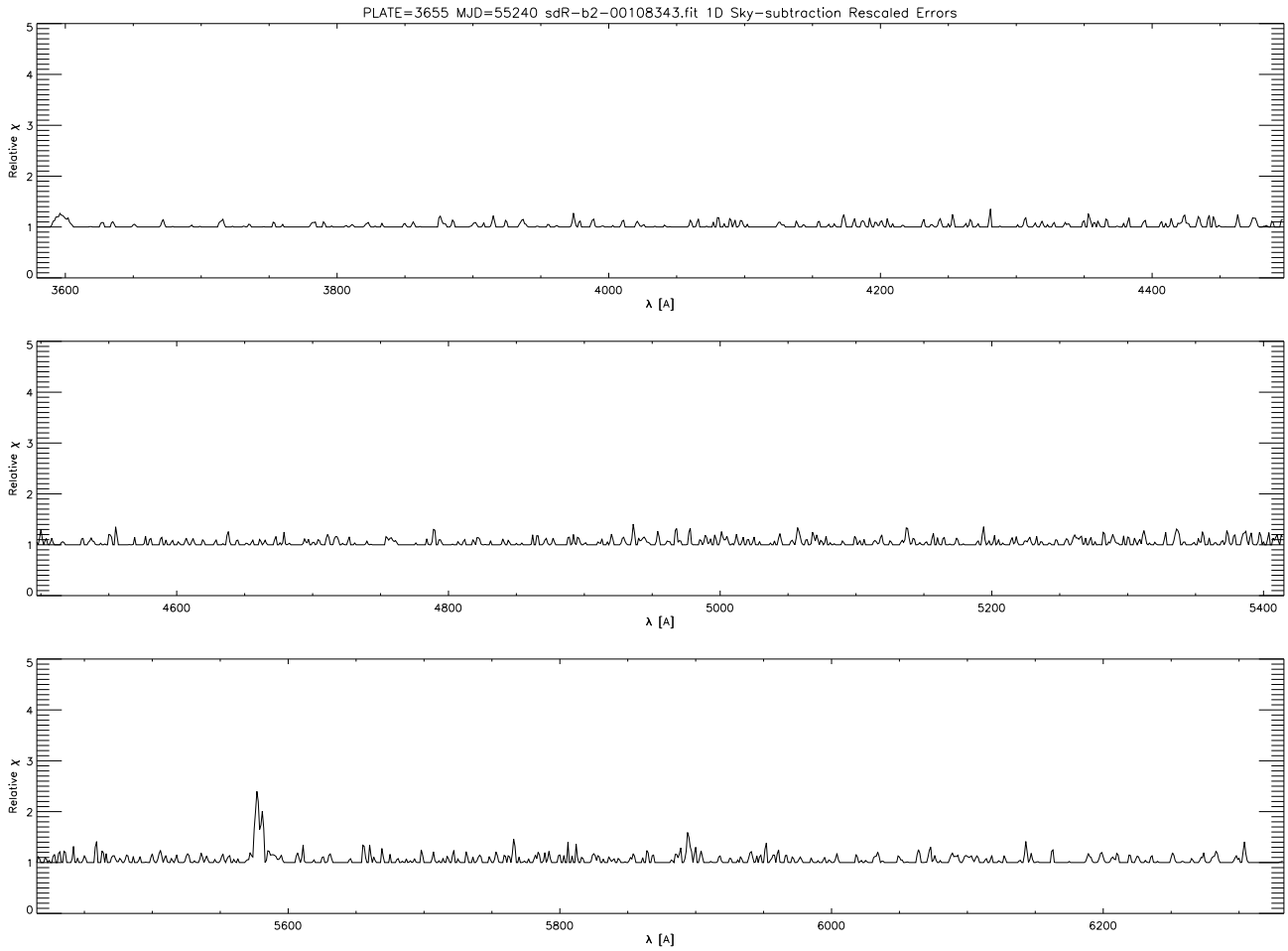

PLATE=3655 MJD=55240 Smooth superflat for sdR-b2-00108343.fit
2.0
1.5
1.0
0.5
0.0
1.04
1.02
1.00
0.98
0.96
3000
4000
5000
6000
7000
Wavelength (Å)

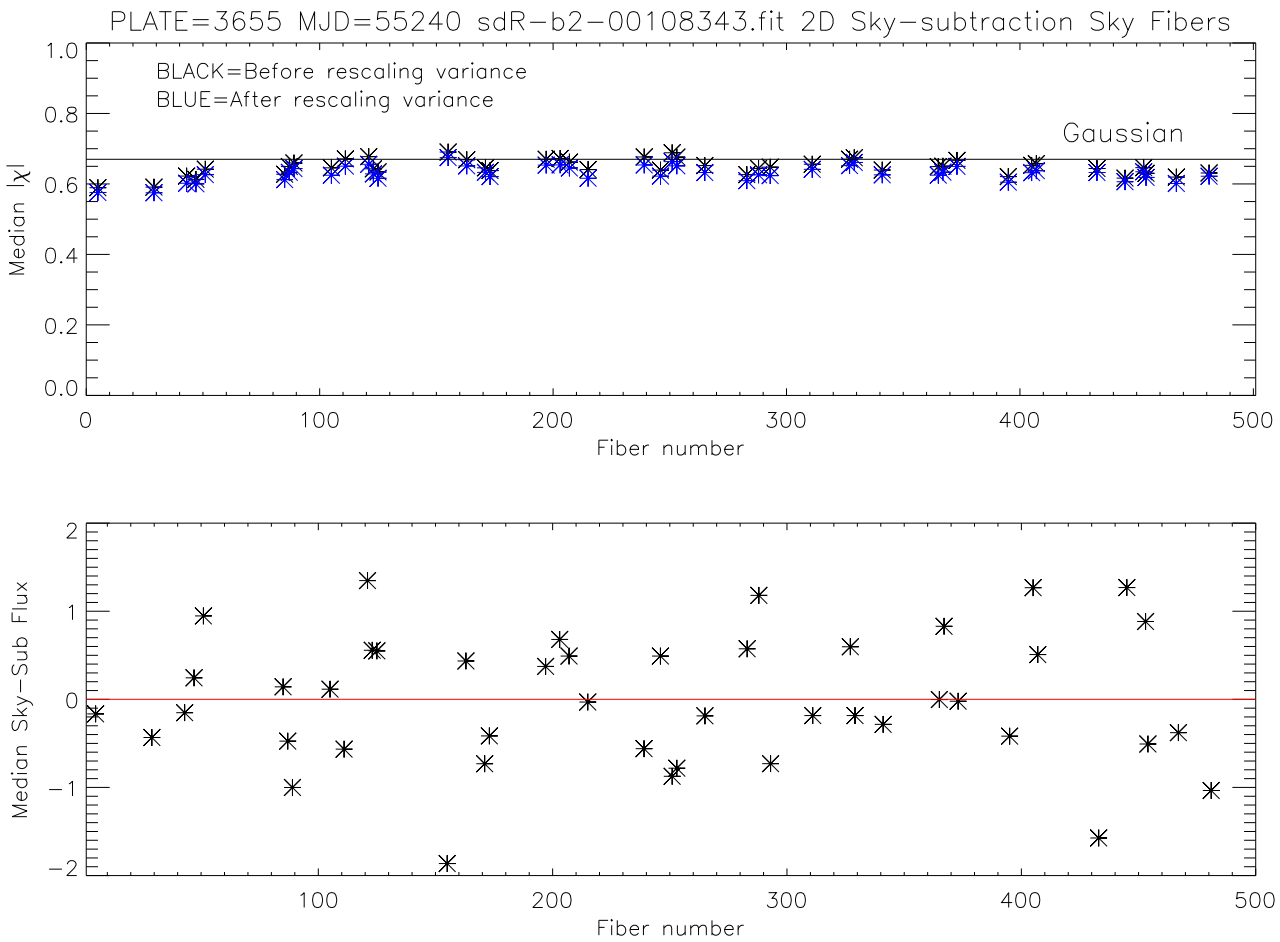

PLATE=3655 MJD=55240 sdR-b2-00108343.fit 1D Sky-subtraction Sky Fibers
BLACK=Before rescaling variance
BLUE=After rescaling variance
Gaussian
Median |χ|
Fiber number
Median Sky-Sub Flux
Fiber number

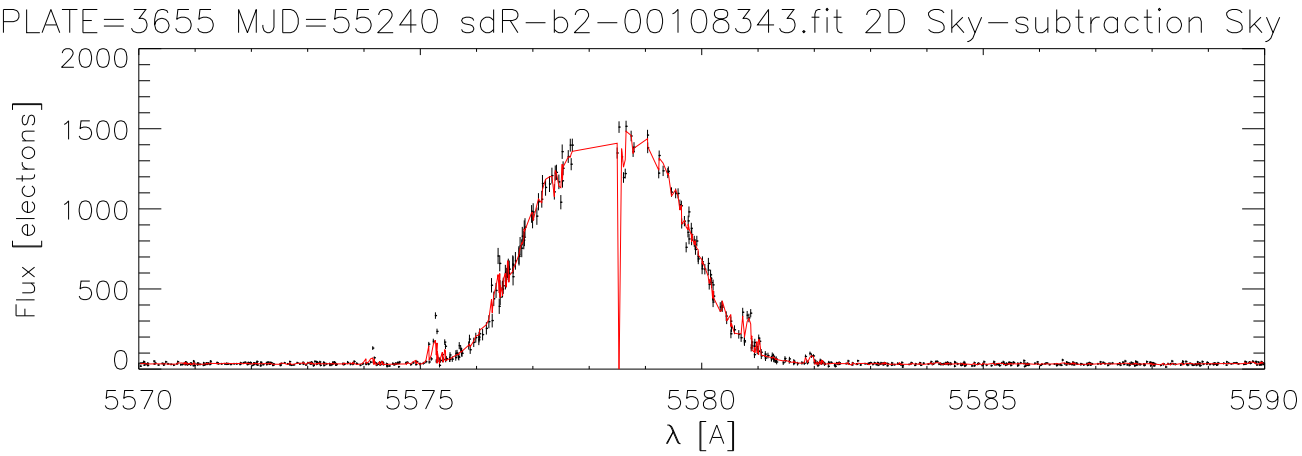

PLATE=3655 MJD=55240 sdR-b2-00108343.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
2000
1500
1000
500
0
5570
5575
5580
5585
5590
λ [A]

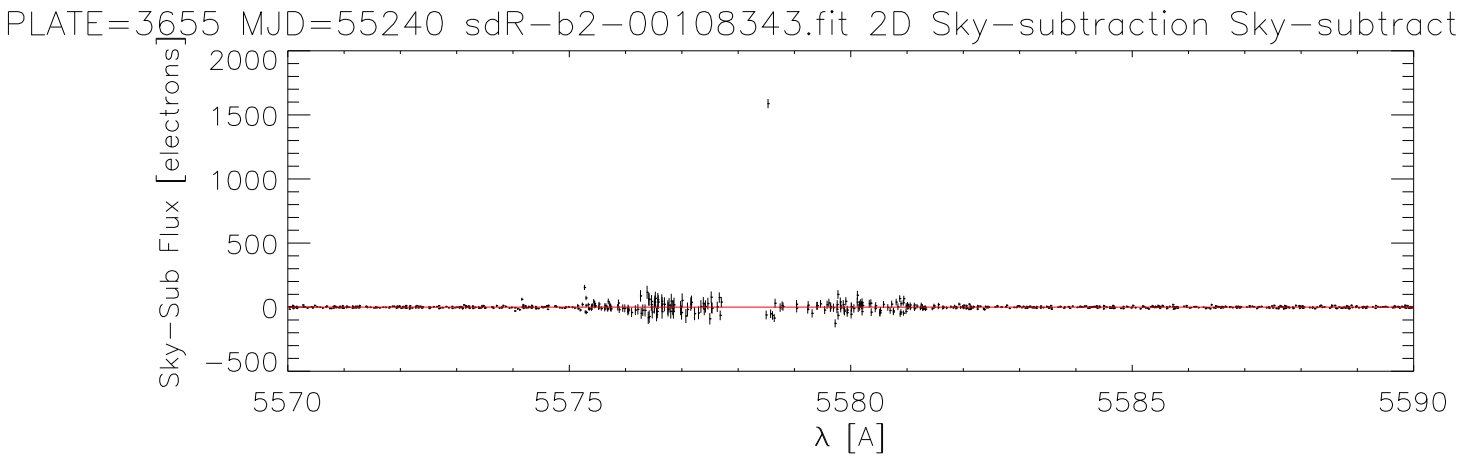

PLATE=3655 MJD=55240 sdR-b2-00108343.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
-300
5570
5575
5580
5585
5590
λ [A]

Number of sky fibers = 45

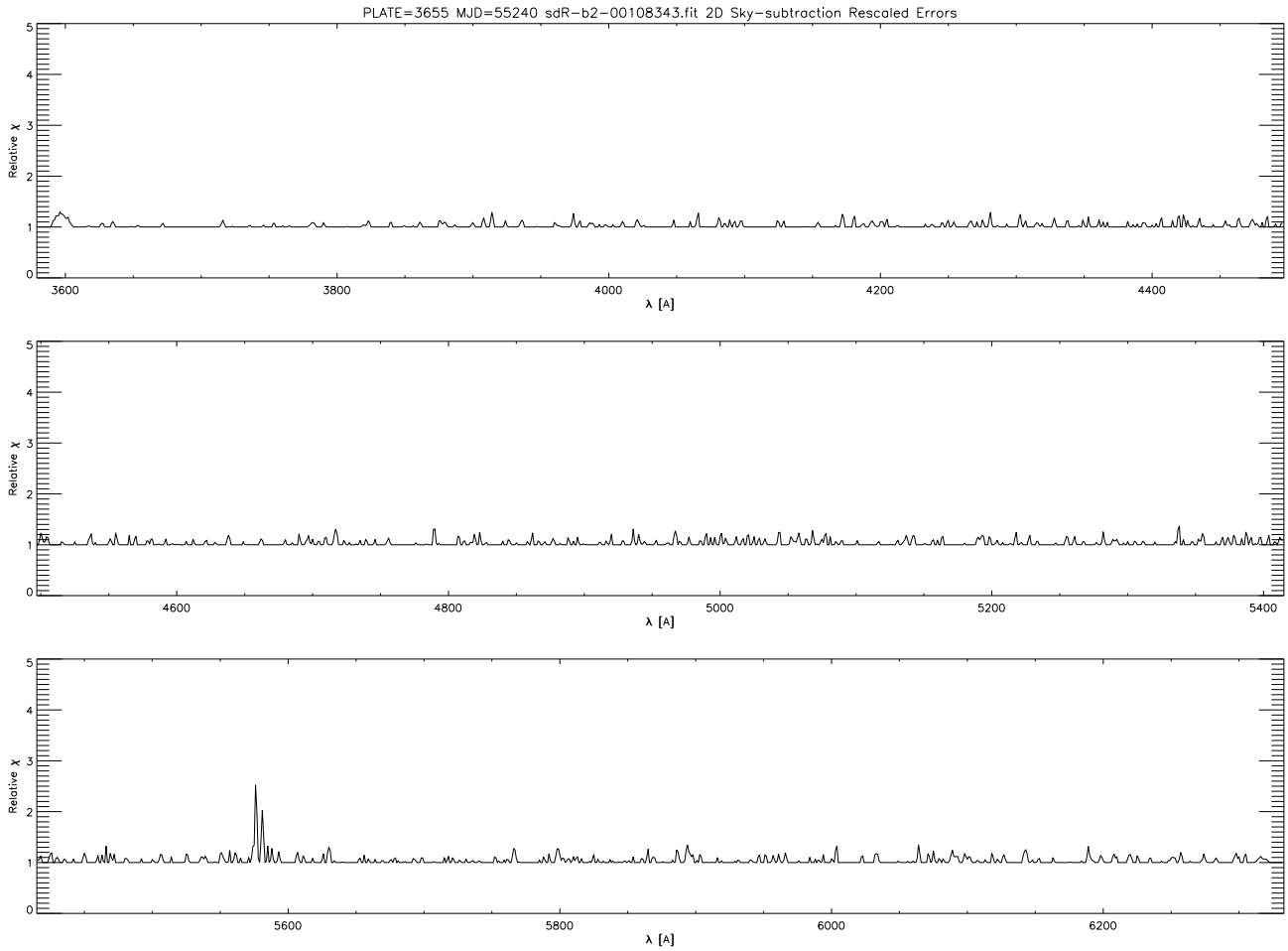


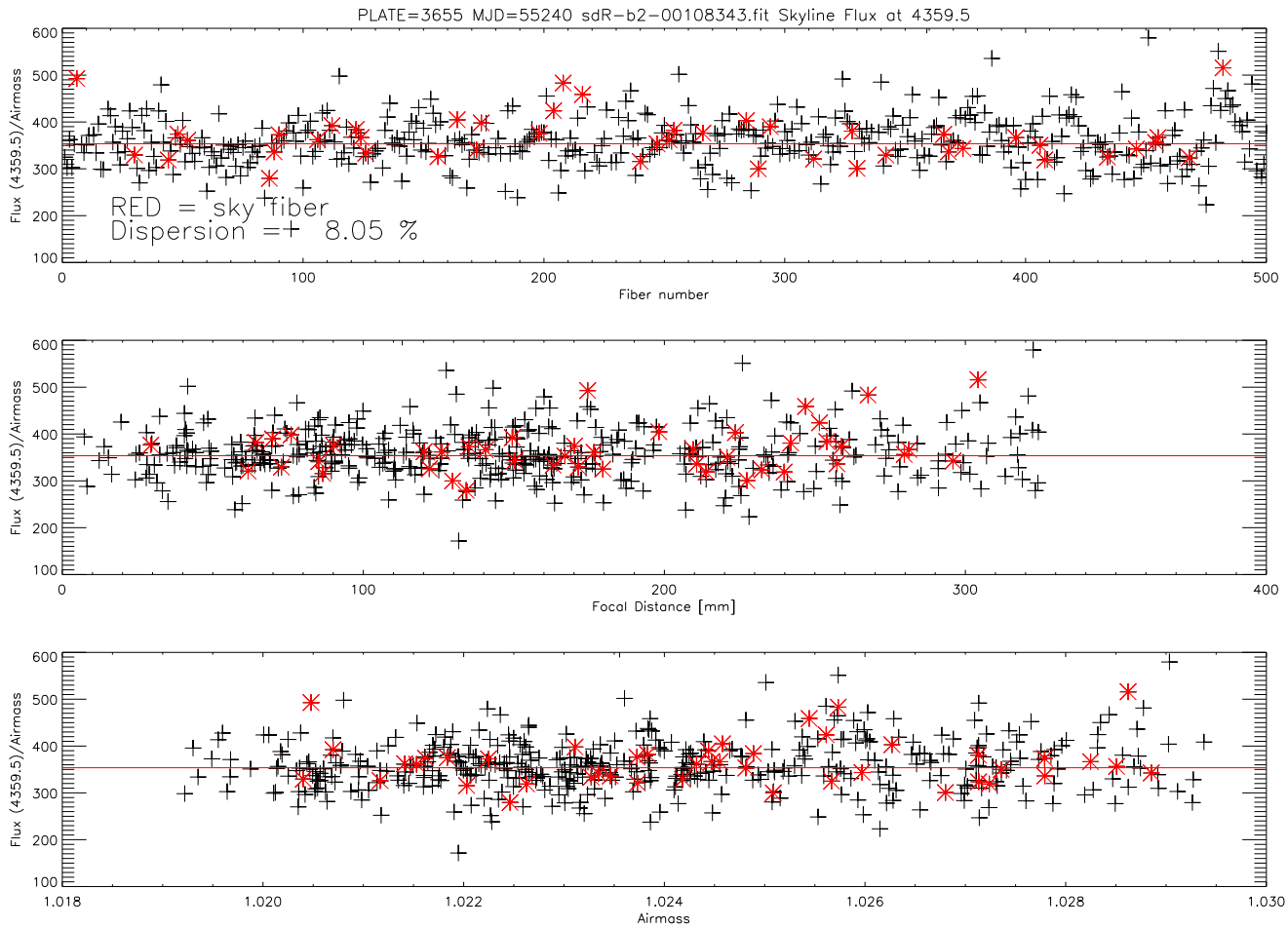

PLATE=3655 MJD=55240 sdR-b2-00108343.fit 2D Sky-subtraction Sky Fibers
BLACK=Before rescaling variance
BLUE=After rescaling variance
Gaussian
Median |χ|
Fiber number
Median Sky-Sub Flux
Fiber number

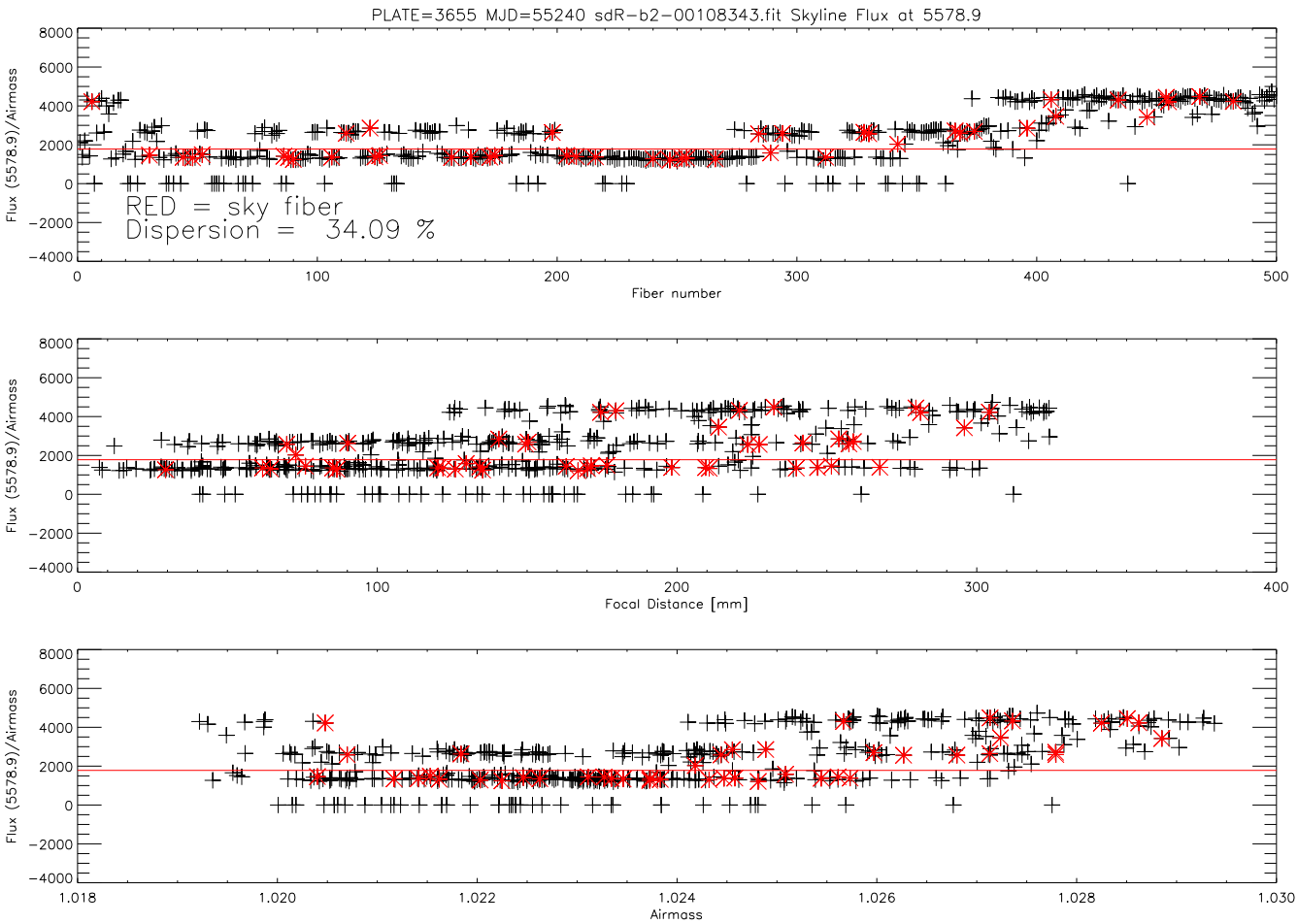

PLATE=3655 MJD=55240 sdR-b2-00108343.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
2000
1500
1000
500
0
5570
5575
5580
5585
5590
λ [A]

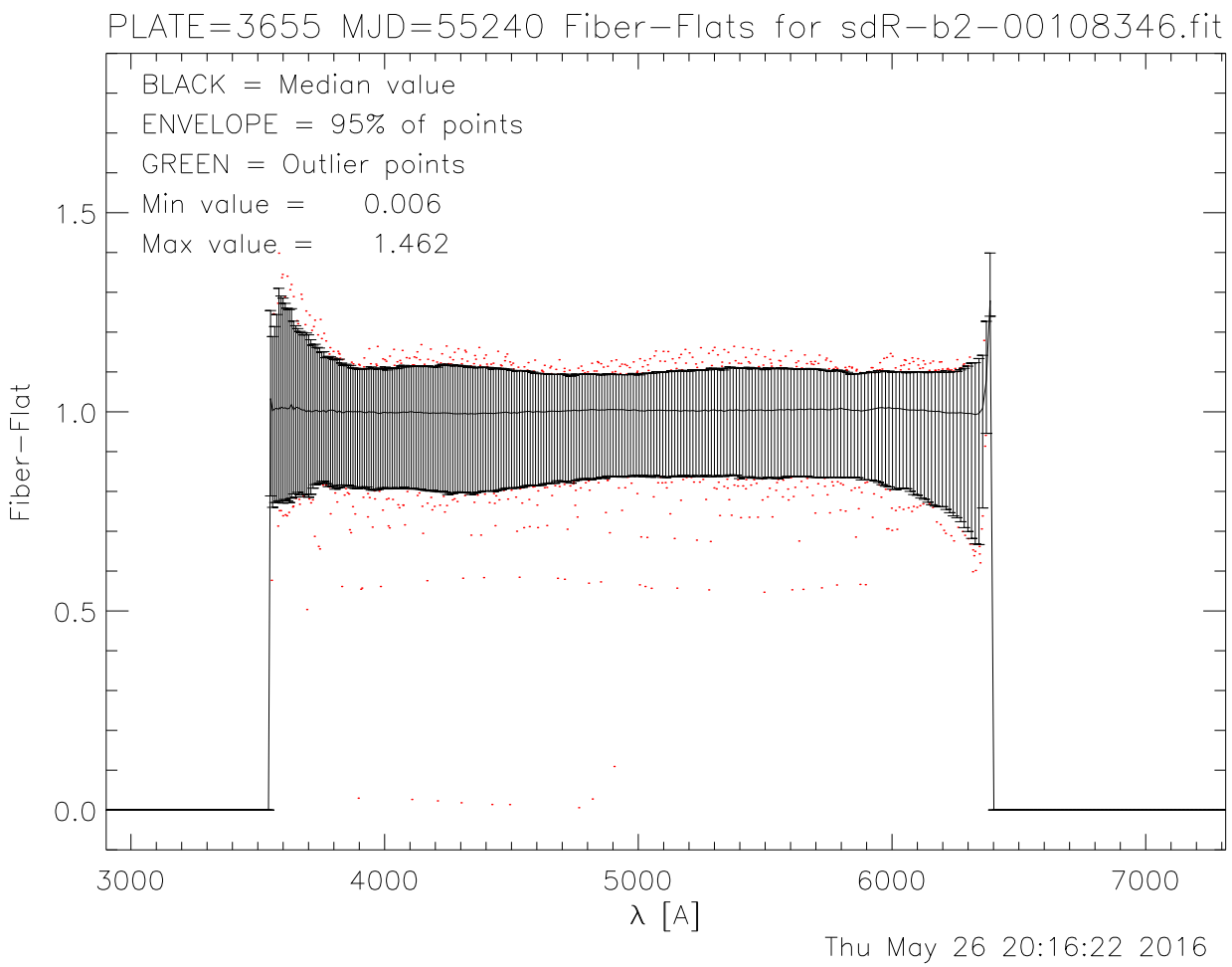

PLATE=3655 MJD=55240 sdR-b2-00108343.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
2000
1500
1000
500
0
-500
5570
5575
5580
5585
5590
λ [A]

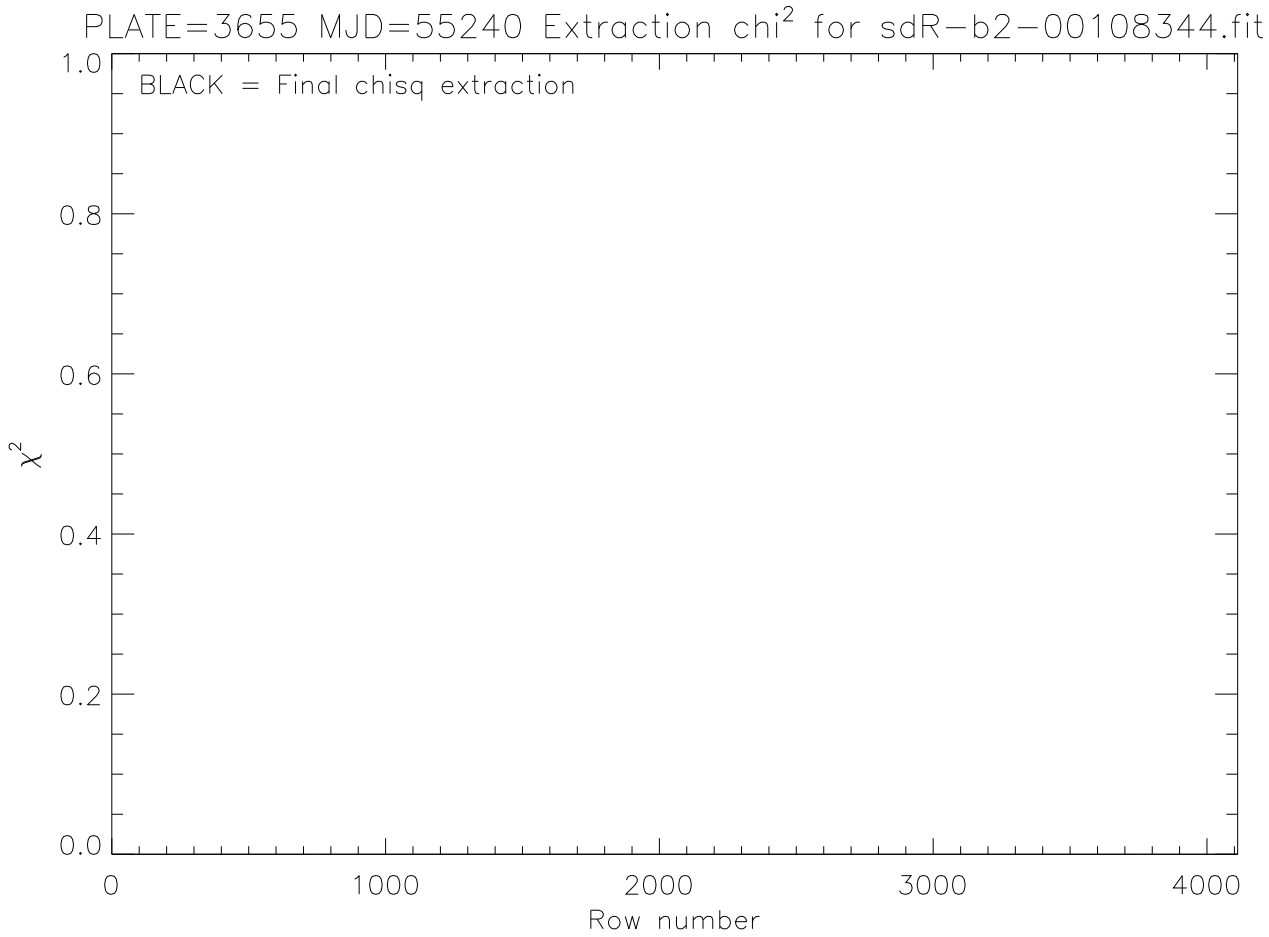
Number of sky fibers = 45

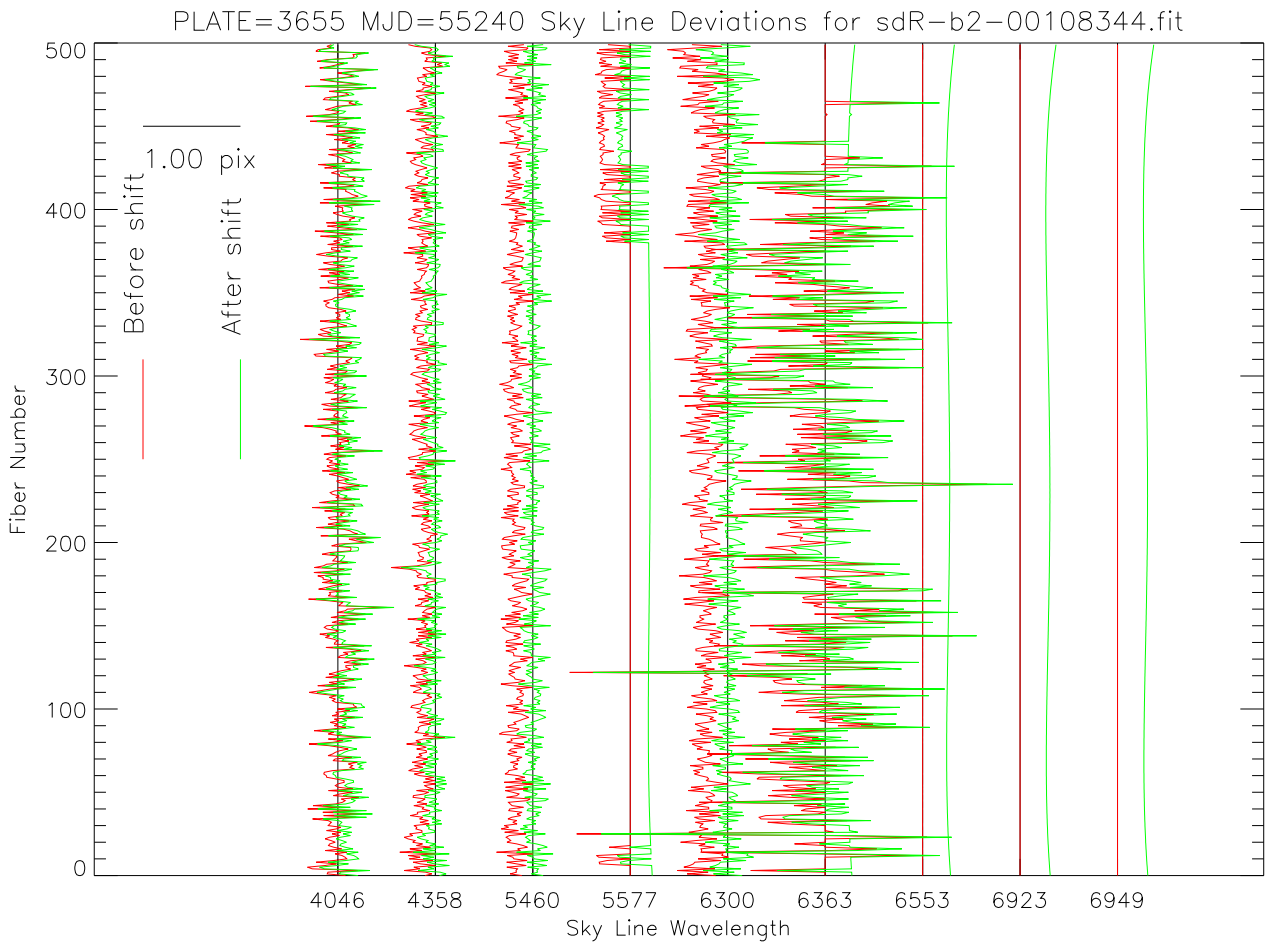


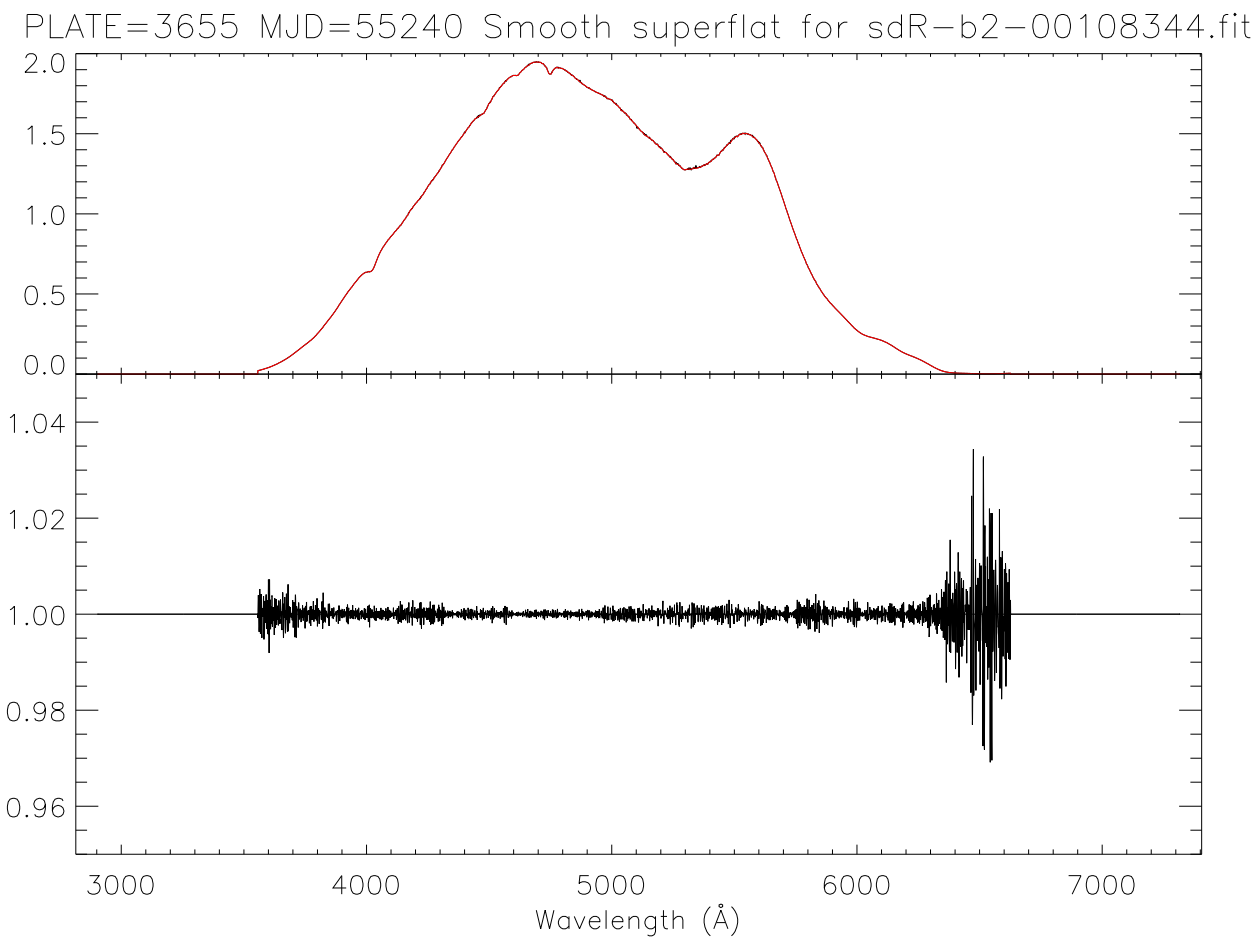

PLATE=3655 MJD=55240 sdR-b2-00108343.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion =+ 8.05 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

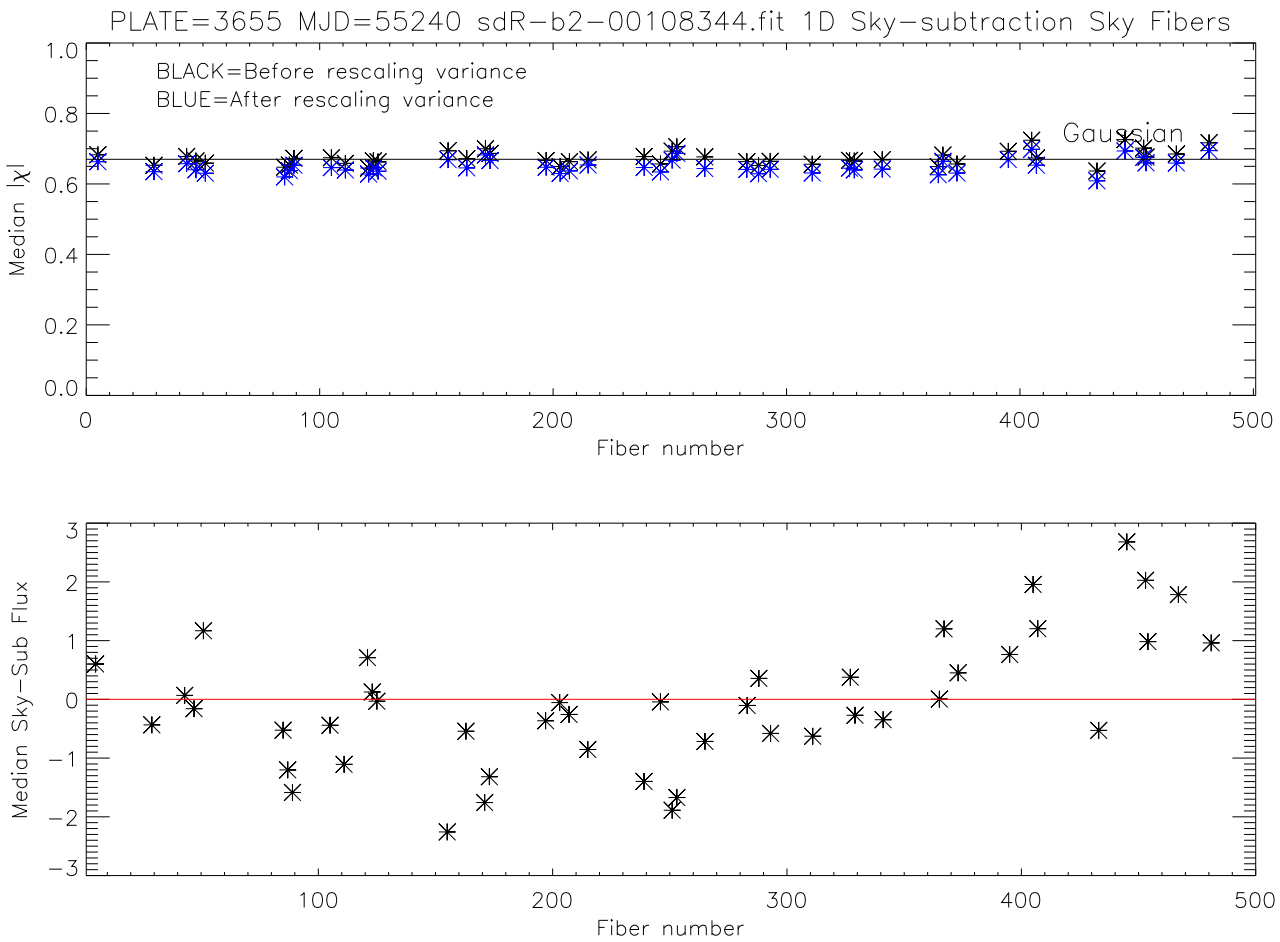

PLATE=3655 MJD=55240 sdR-b2-00108343.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 34.09 %
Fiber number
Flux (5578.9)/Airmass
Focal Distance [mm]
Flux (5578.9)/Airmass
Airmass

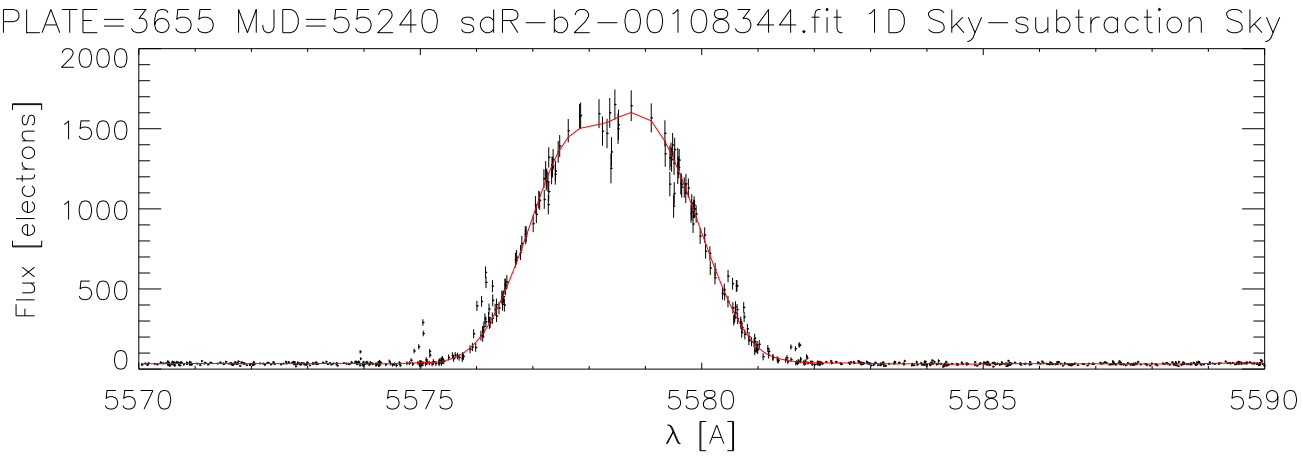

PLATE=3655 MJD=55240 Fiber-Flats for sdR-b2-00108346.fit
BLACK = Median value
ENVELOPE = 95% of points
GREEN = Outlier points
Min value = 0.006
Max value = 1.462
Fiber-Flat
1.5
1.0
0.5
0.0
3000
4000
5000
6000
7000
λ [A]
Thu May 26 20:16:22 2016

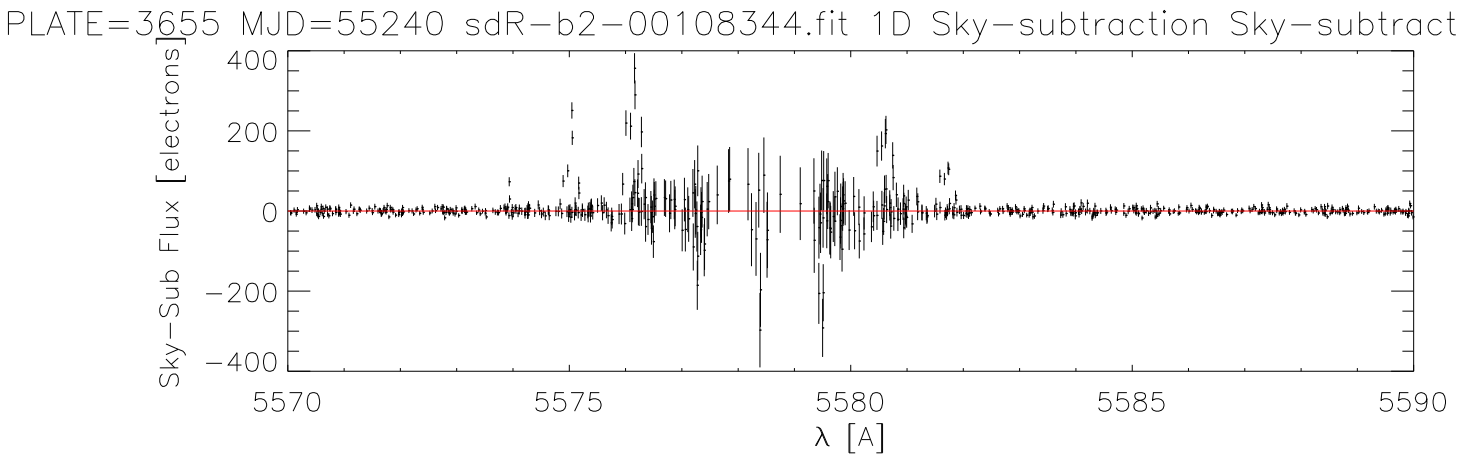

PLATE=3655 MJD=55240 Extraction chi^2 for sdR-b2-00108344.fit
BLACK = Final chisq extraction
χ^2
1.0
0.8
0.6
0.4
0.2
0.0
0
1000
2000
3000
4000
Row number


PLATE=3655 MJD=55240 Sky Line Deviations for sdR-b2-00108344.fit
1.00 pix
Before shift
After shift
Fiber Number
0
100
200
300
400
500
4046
4358
5460
5577
6300
6363
6553
6923
6949
Sky Line Wavelength

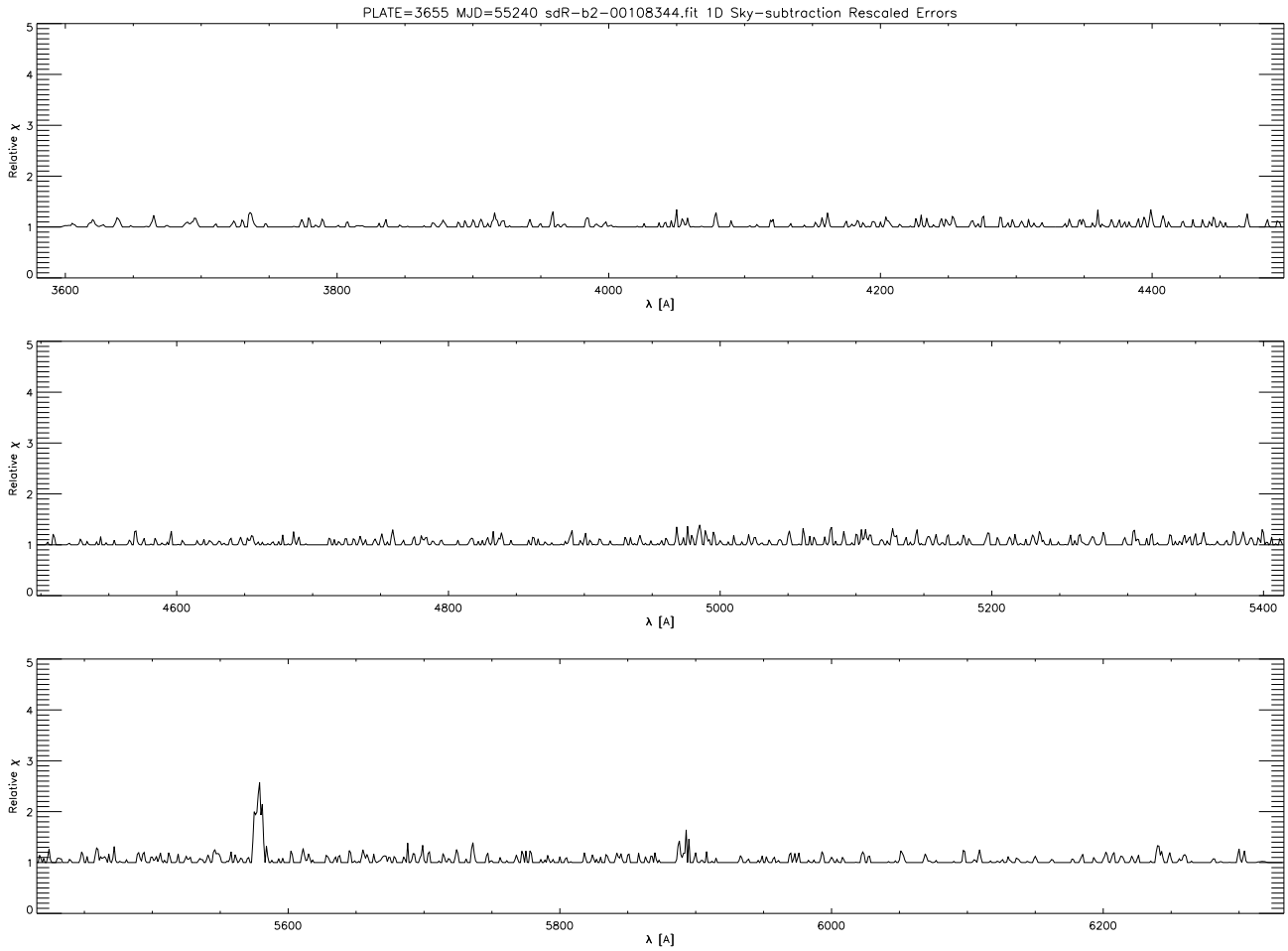

PLATE=3655 MJD=55240 Smooth superflat for sdR-b2-00108344.fit
2.0
1.5
1.0
0.5
0.0
1.04
1.02
1.00
0.98
0.96
3000
4000
5000
6000
7000
Wavelength (Å)

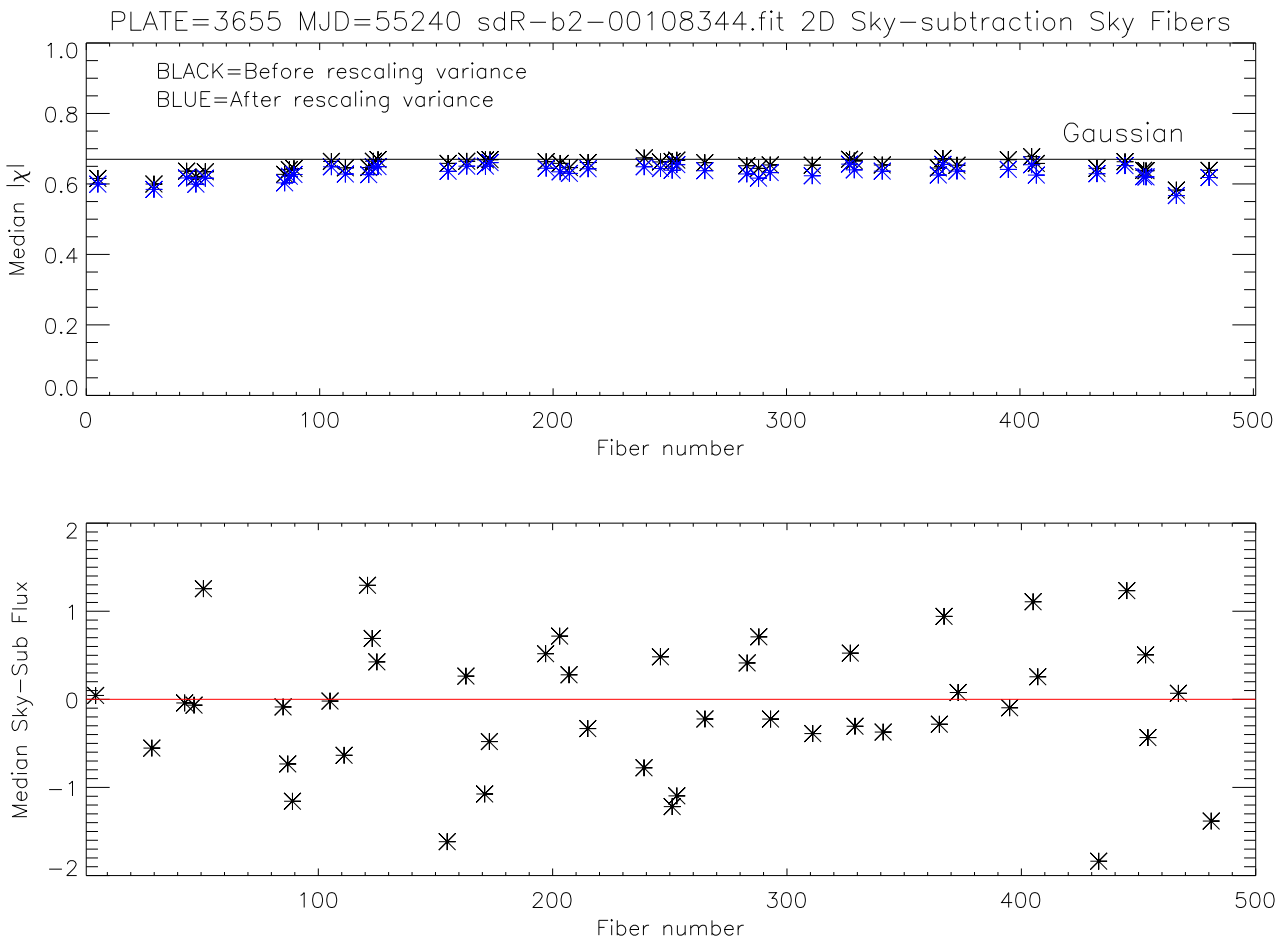

PLATE=3655 MJD=55240 sdR-b2-00108344.fit 1D Sky-subtraction Sky Fibers
BLACK=Before rescaling variance
BLUE=After rescaling variance
Gaussian
Median |χ|
Fiber number
Median Sky-Sub Flux
Fiber number

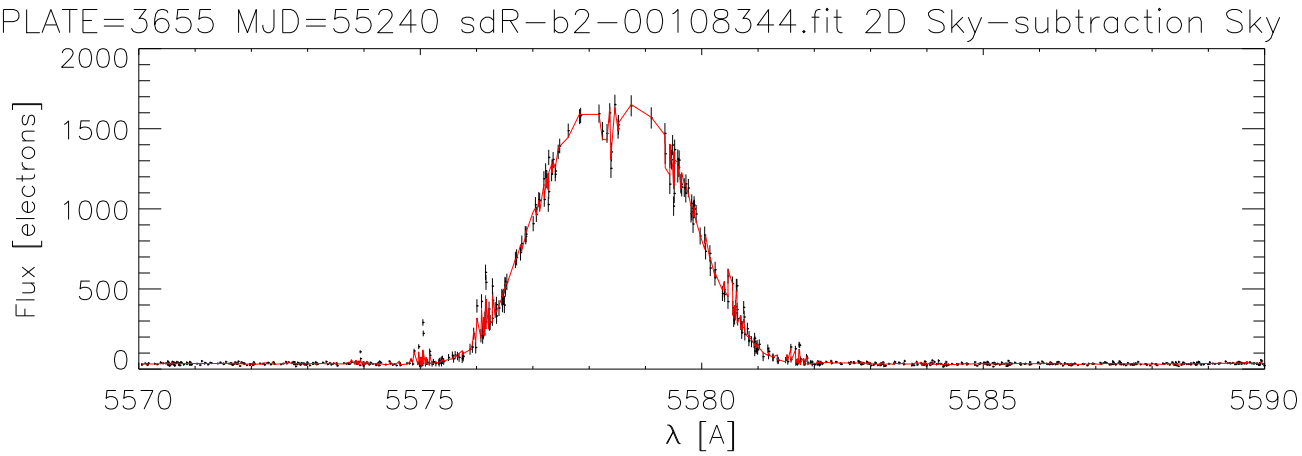

PLATE=3655 MJD=55240 sdR-b2-00108344.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
2000
1500
1000
500
0
5570
5575
5580
5585
5590
λ [A]

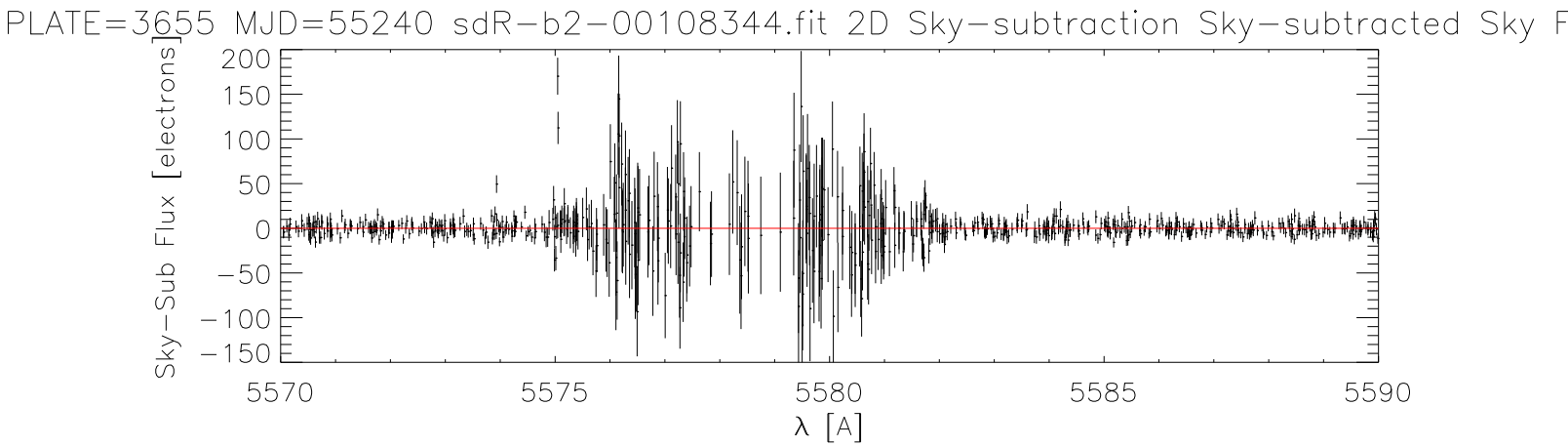

PLATE=3655 MJD=55240 sdR-b2-00108344.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
200
0
-200
-400
5570
5575
5580
5585
5590
λ [A]

Number of sky fibers = 45

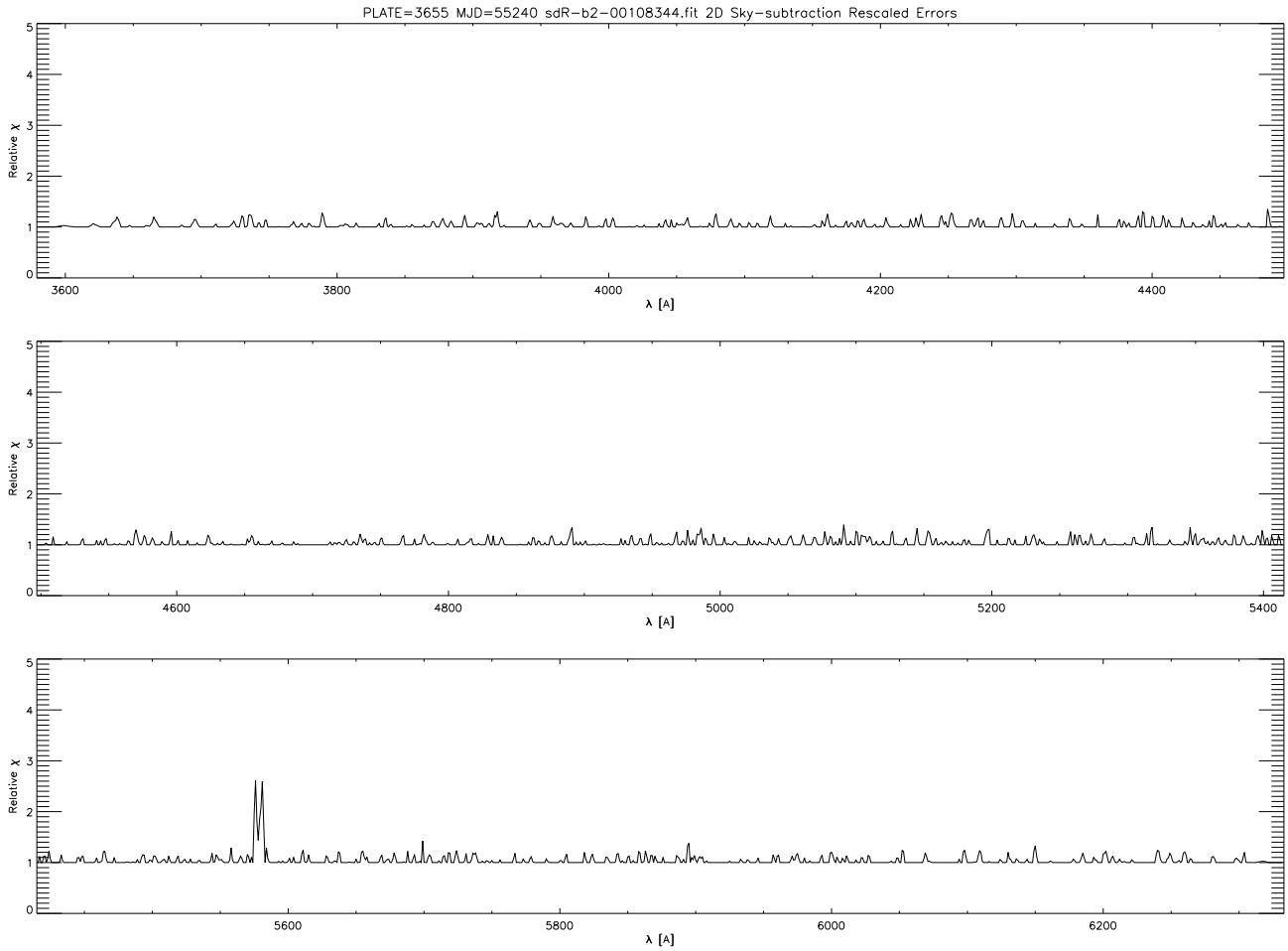


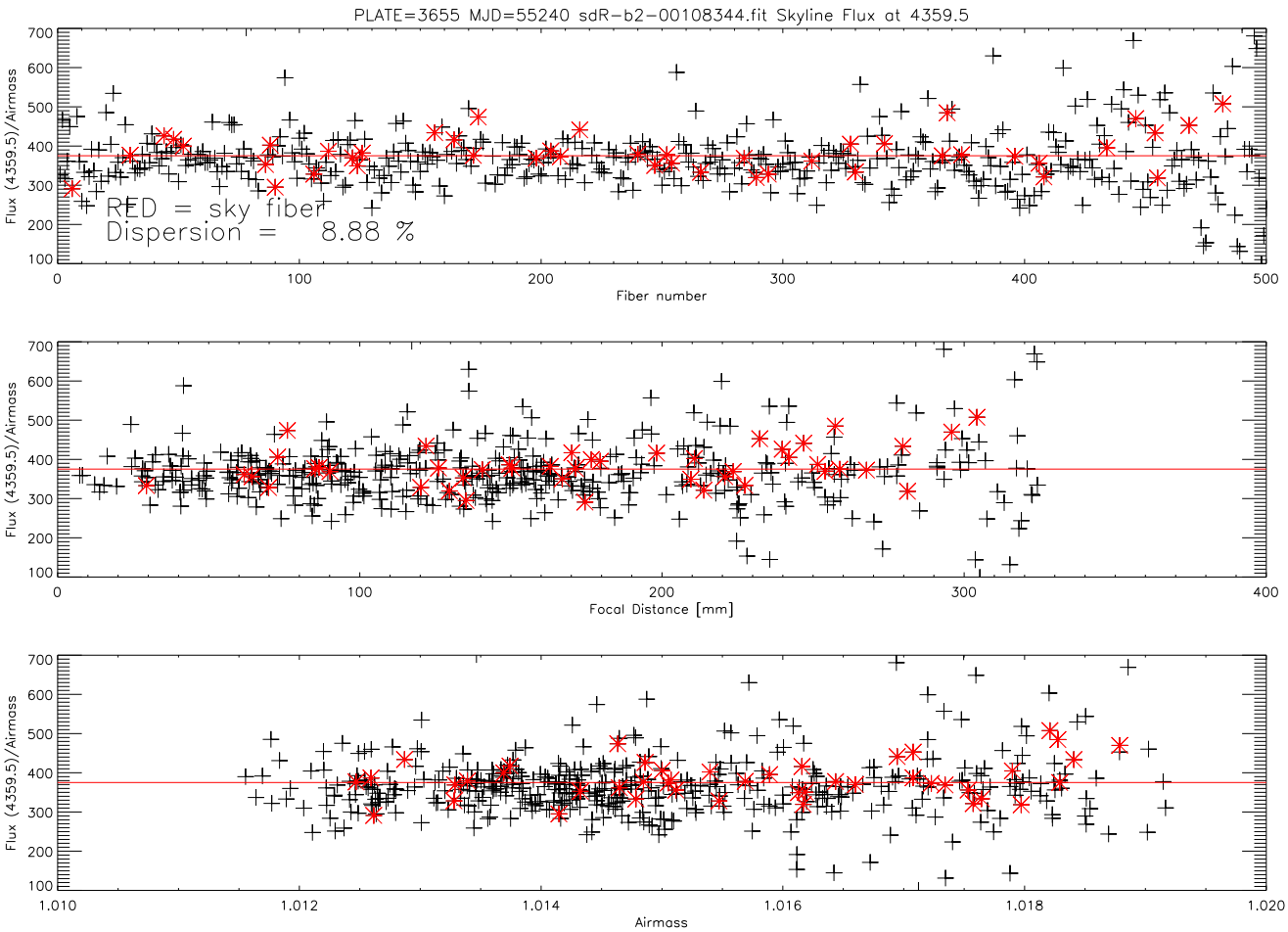

PLATE=3655 MJD=55240 sdR-b2-00108344.fit 2D Sky-subtraction Sky Fibers
BLACK=Before rescaling variance
BLUE=After rescaling variance
Gaussian
Median |χ|
Fiber number
Median Sky-Sub Flux
Fiber number

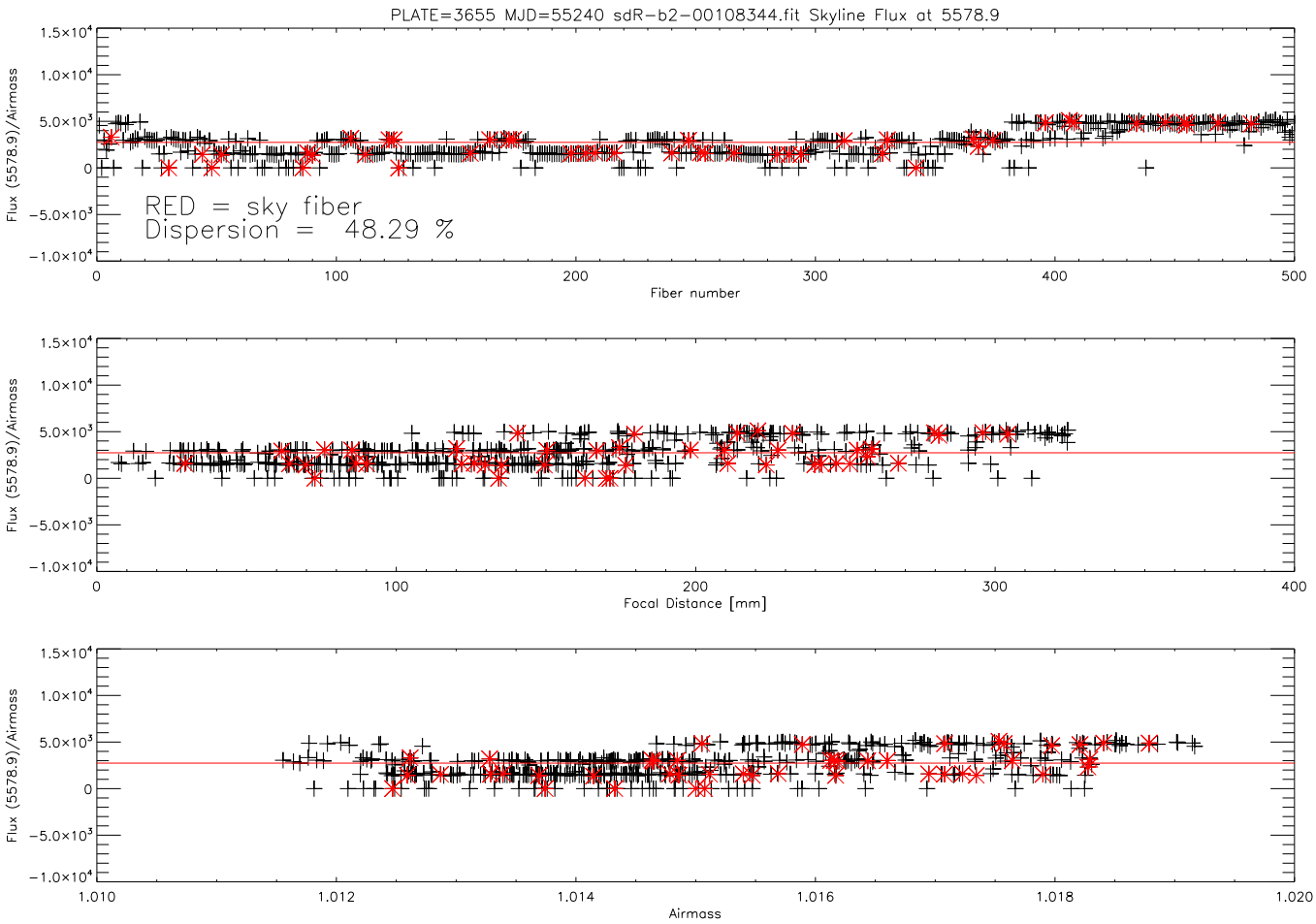

PLATE=3655 MJD=55240 sdR-b2-00108344.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
2000
1500
1000
500
0
5570
5575
5580
5585
5590
λ [A]

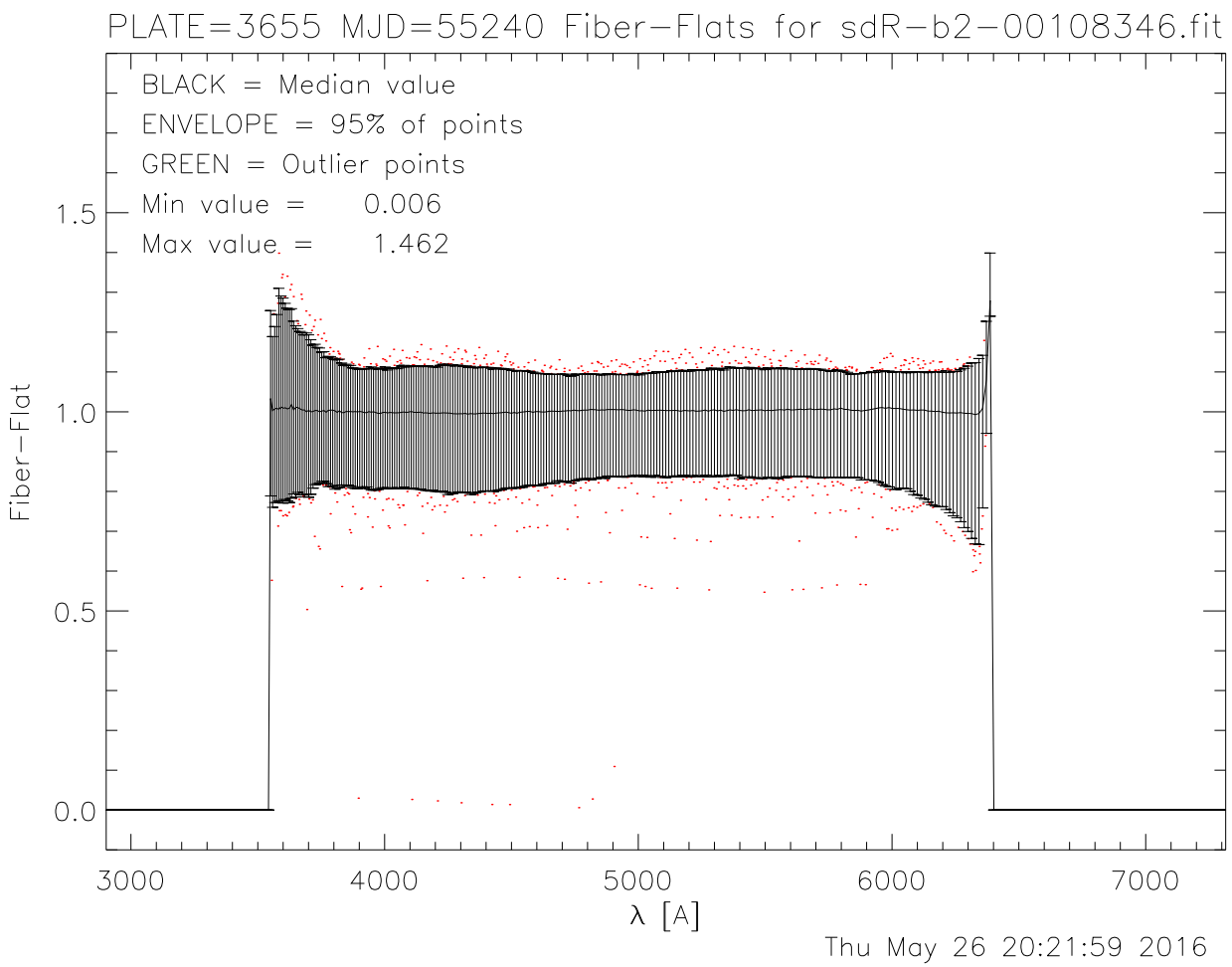

PLATE=3655 MJD=55240 sdR-b2-00108344.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
150
100
50
0
-50
-100
-150
5570
5575
5580
5585
5590
λ [A]

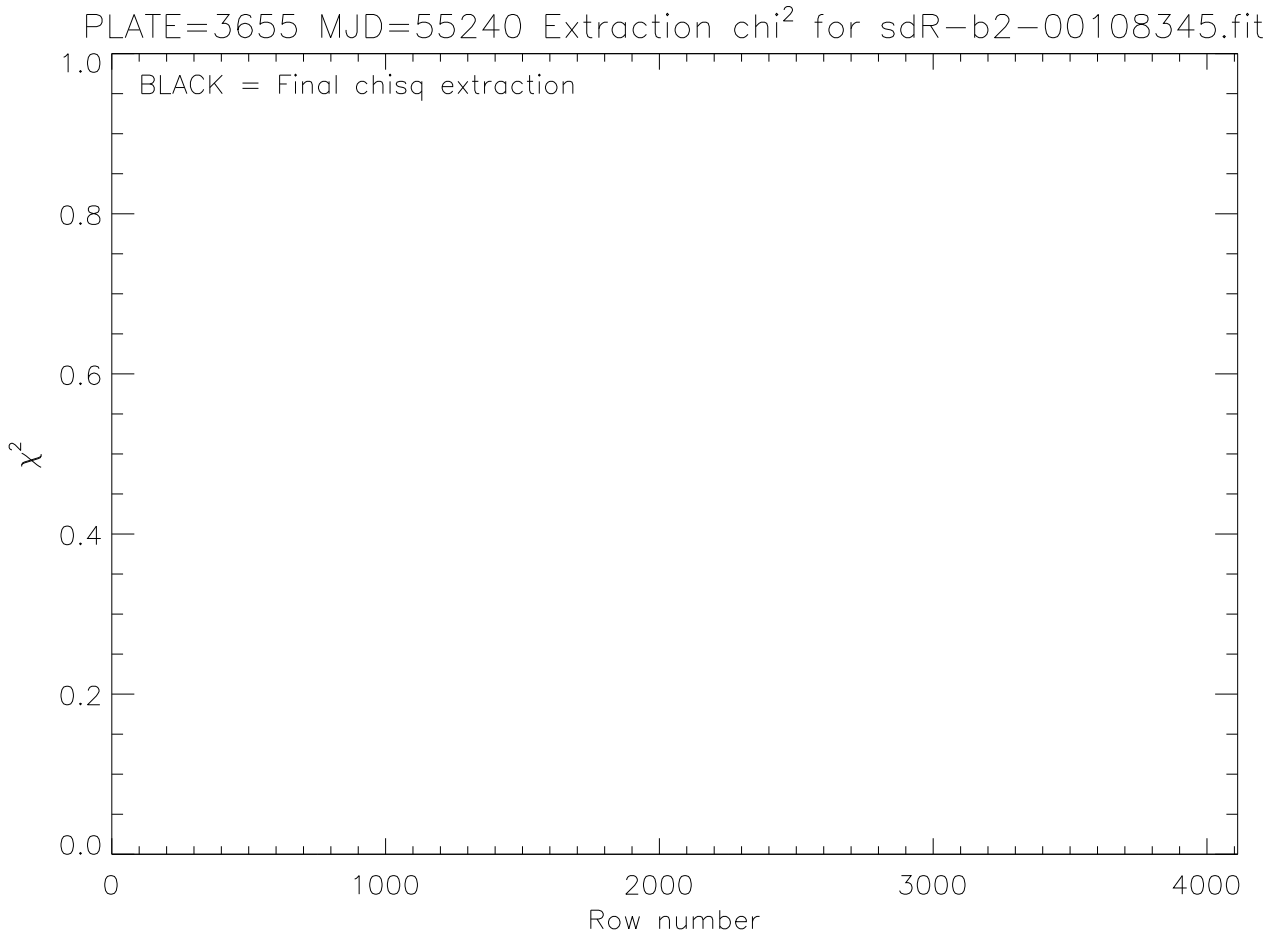
Number of sky fibers = 45

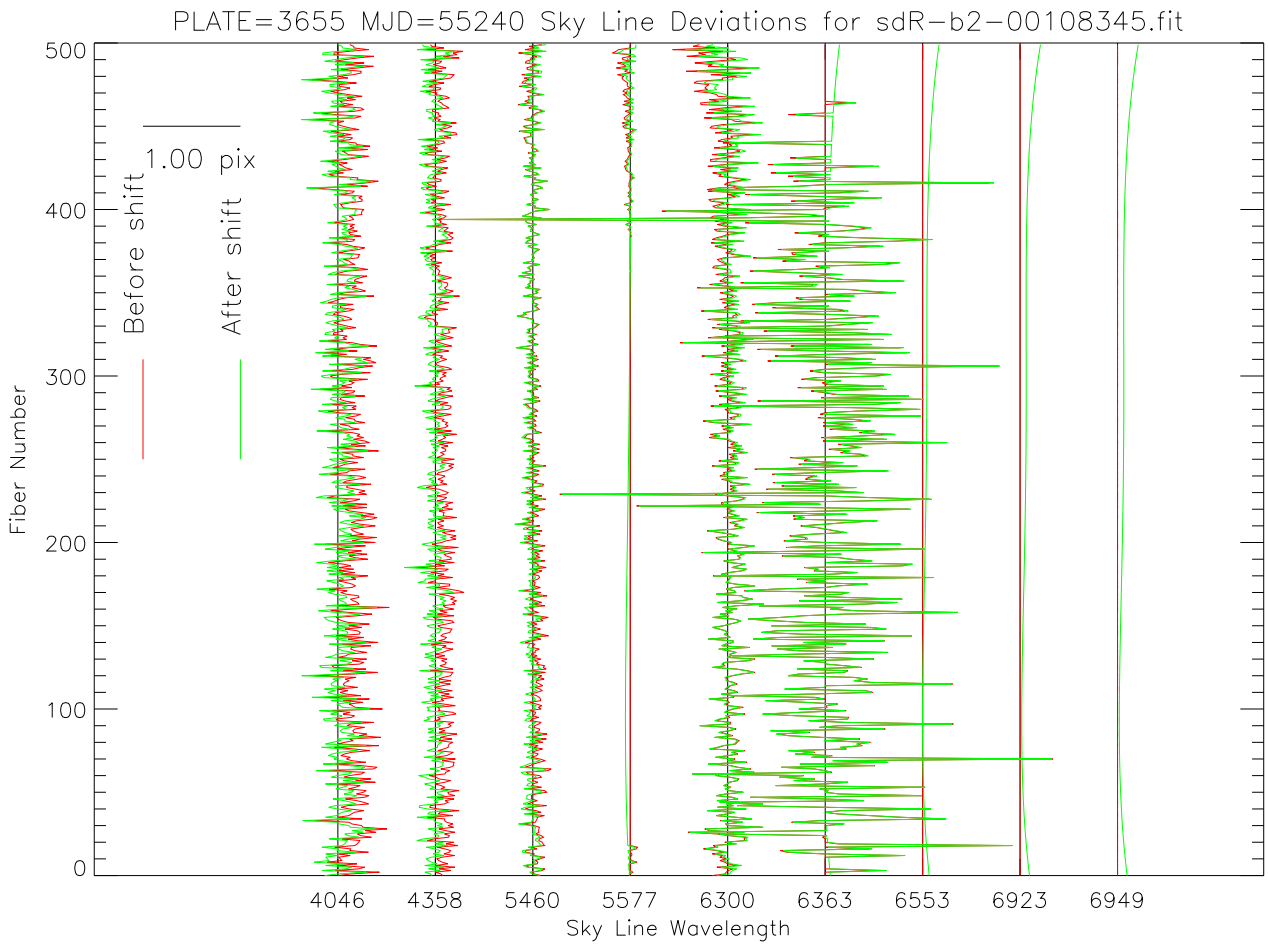


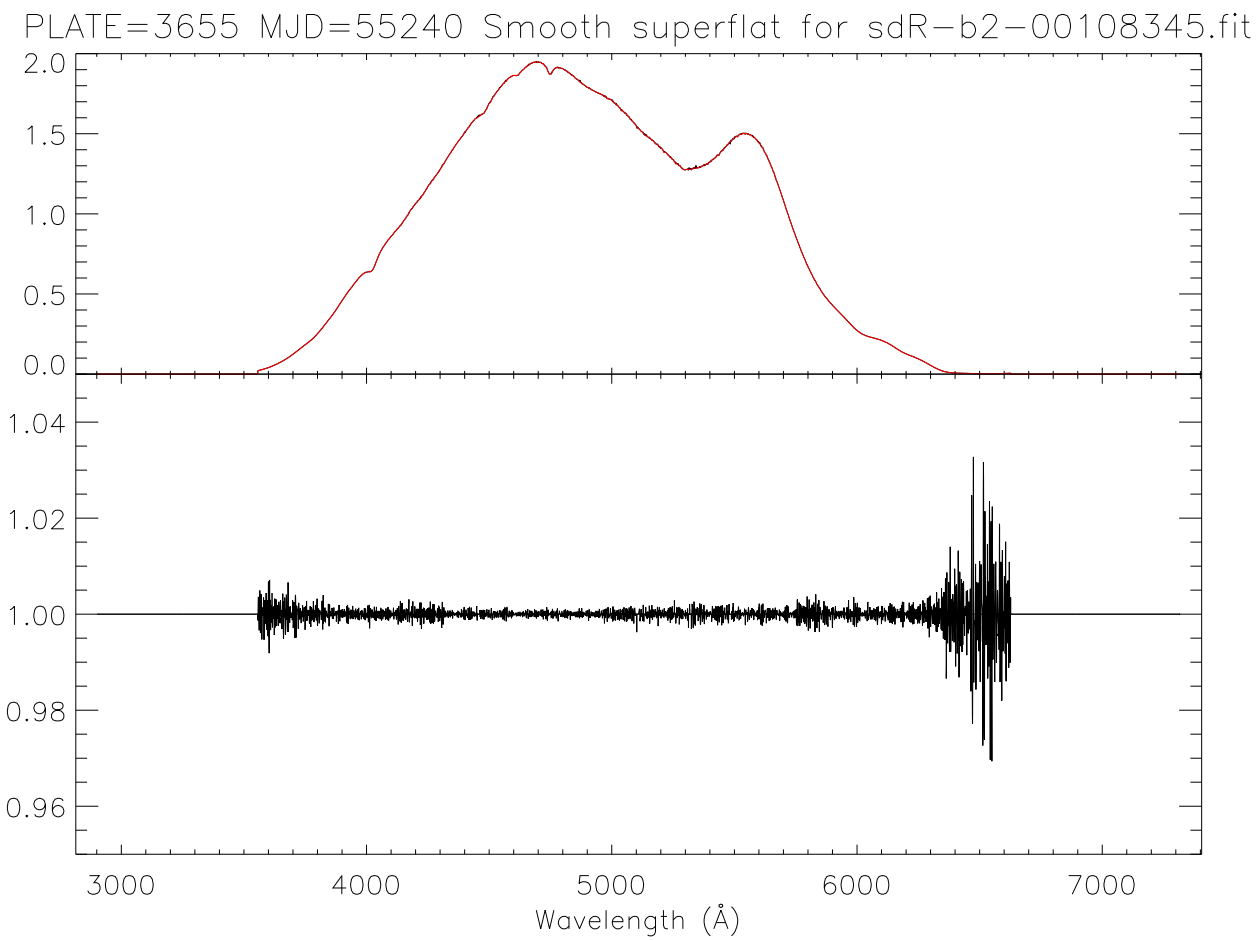

PLATE=3655 MJD=55240 sdR-b2-00108344.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 8.88 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

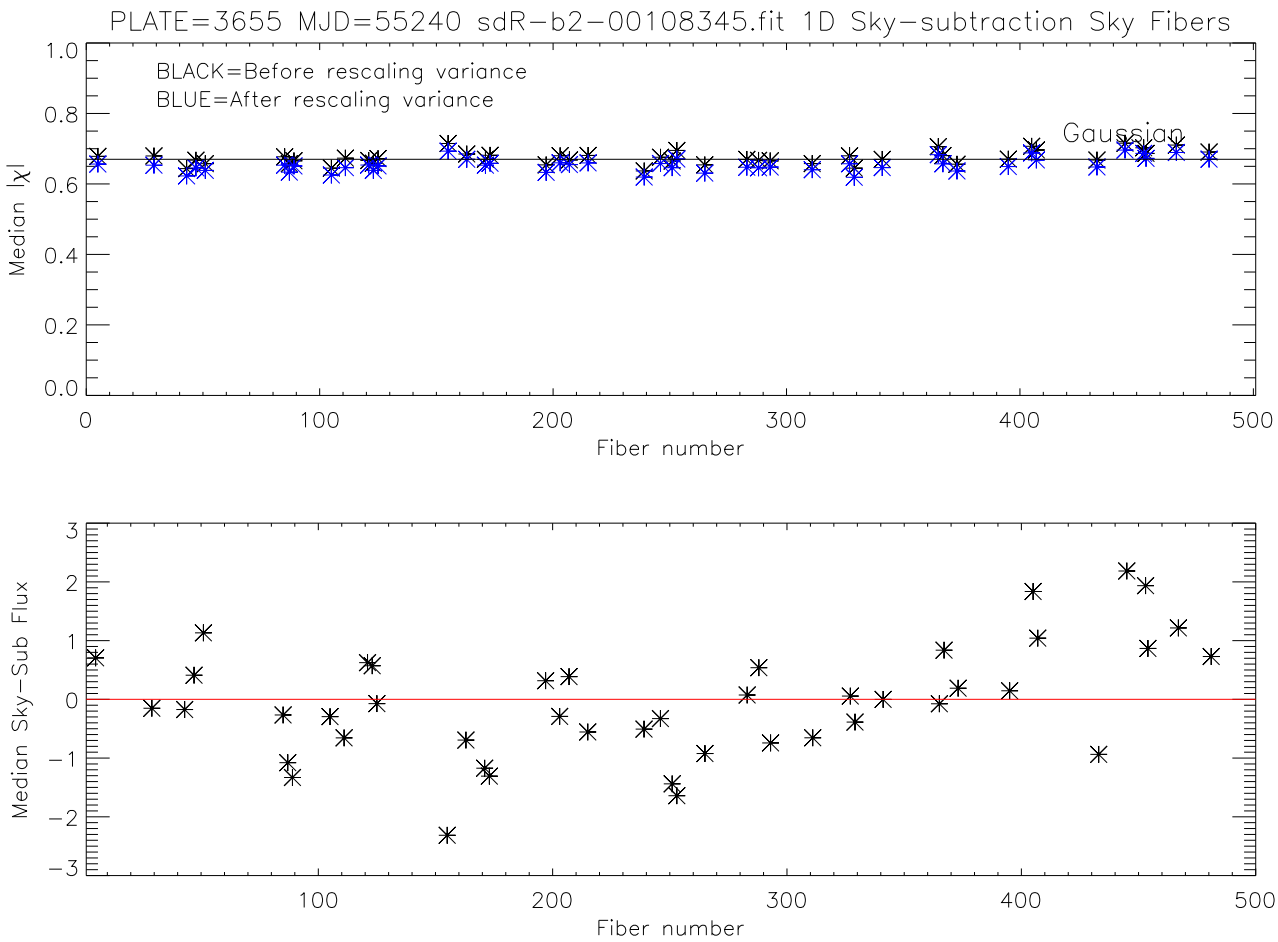

PLATE=3655 MJD=55240 sdR-b2-00108344.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
Fiber number
RED = sky fiber
Dispersion = 48.29 %
Flux (5578.9)/Airmass
Focal Distance [mm]
Flux (5578.9)/Airmass
Airmass

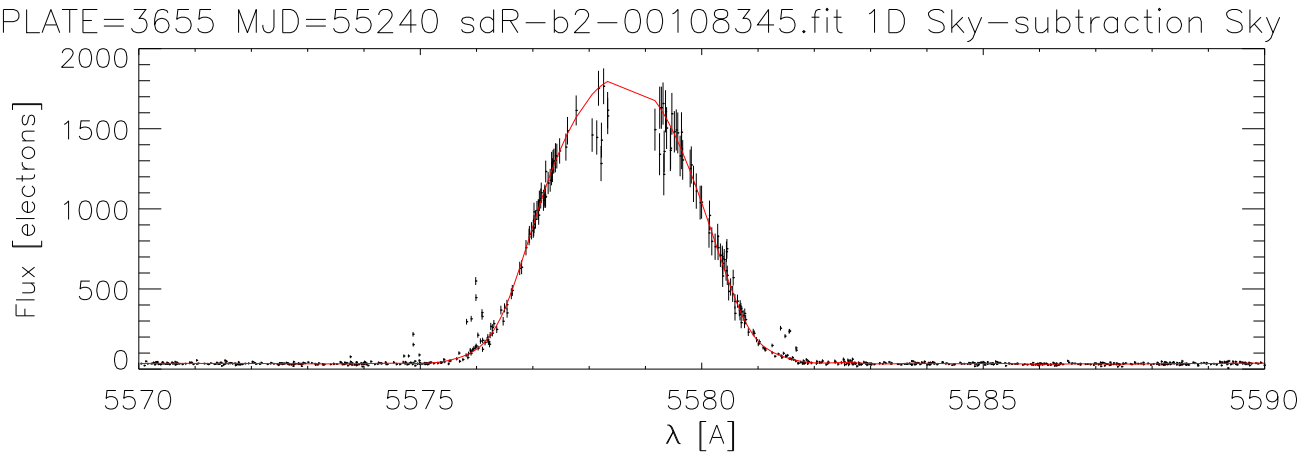

PLATE=3655 MJD=55240 Fiber-Flats for sdR-b2-00108346.fit
BLACK = Median value
ENVELOPE = 95% of points
GREEN = Outlier points
Min value = 0.006
Max value = 1.462
Fiber-Flat
1.5
1.0
0.5
0.0
3000
4000
5000
6000
7000
λ [A]
Thu May 26 20:21:59 2016

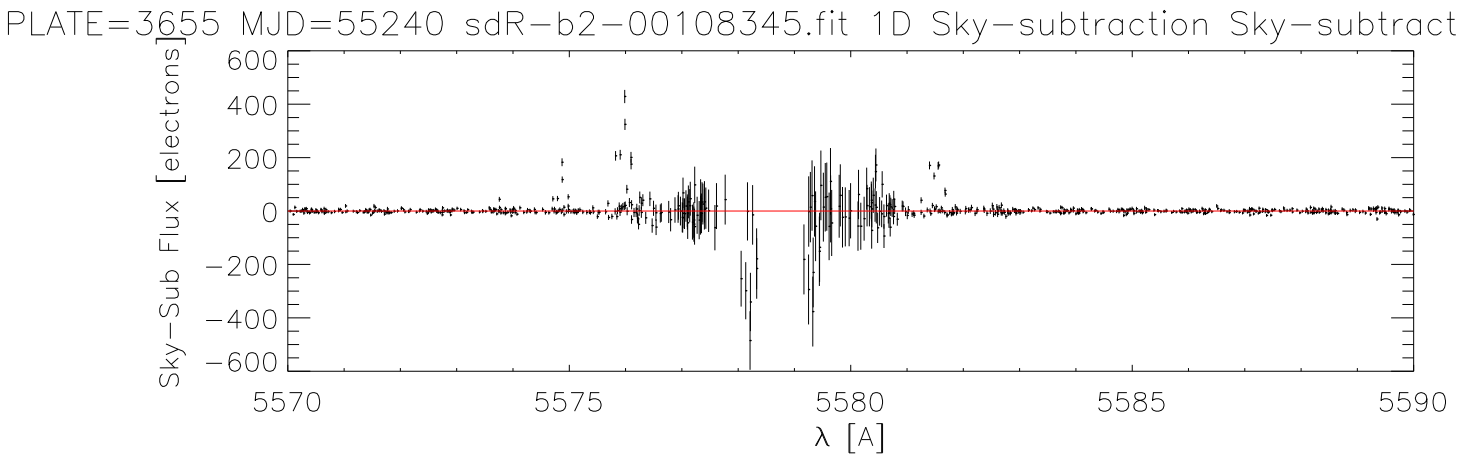

PLATE=3655 MJD=55240 Extraction chi^2 for sdR-b2-00108345.fit
BLACK = Final chisq extraction
χ^2
1.0
0.8
0.6
0.4
0.2
0.0
0
1000
2000
3000
4000
Row number


PLATE=3655 MJD=55240 Sky Line Deviations for sdR-b2-00108345.fit
1.00 pix
Before shift
After shift
Fiber Number
0
100
200
300
400
500
4046
4358
5460
5577
6300
6363
6553
6923
6949
Sky Line Wavelength

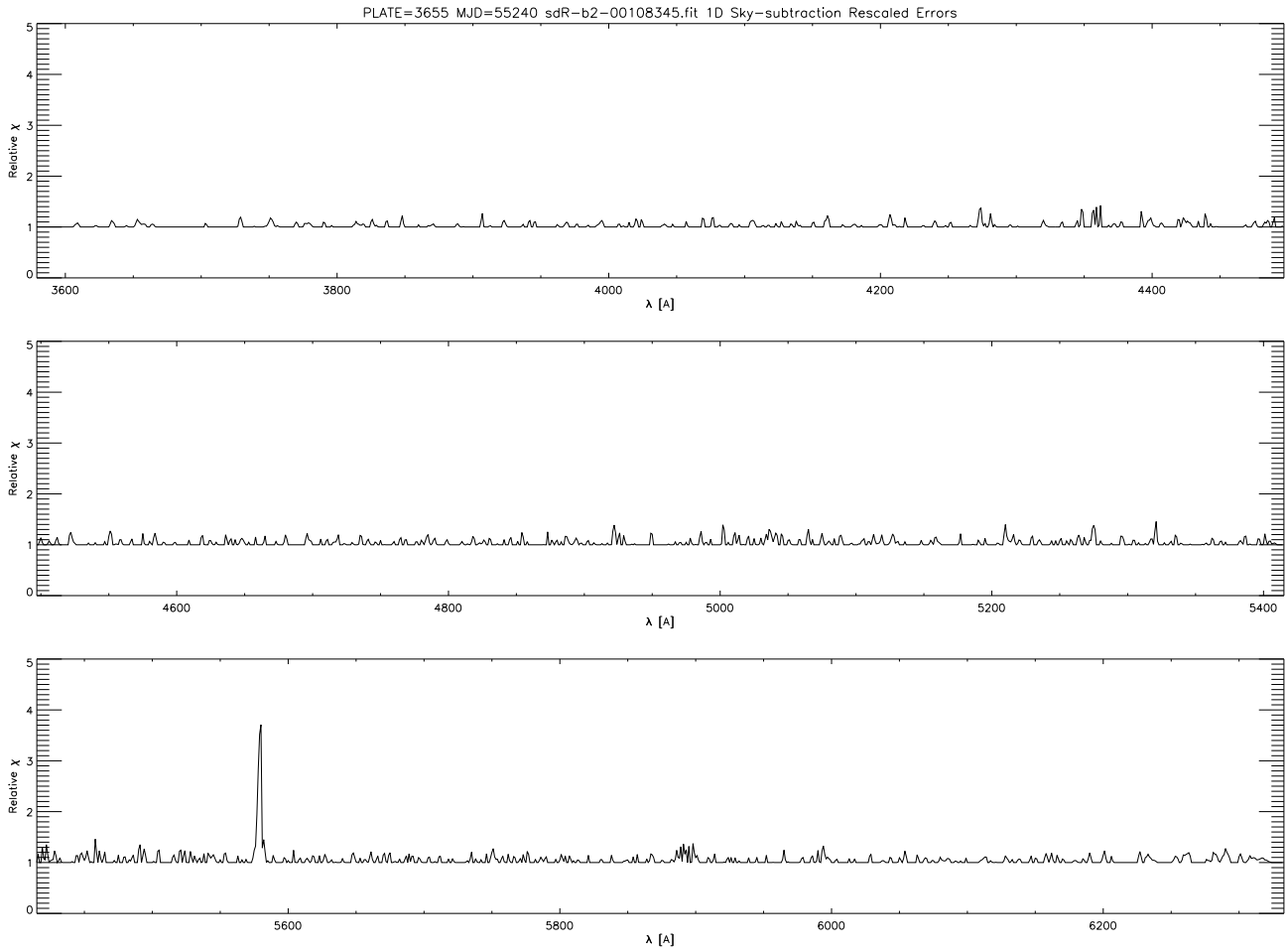

PLATE=3655 MJD=55240 Smooth superflat for sdR-b2-00108345.fit
2.0
1.5
1.0
0.5
0.0
1.04
1.02
1.00
0.98
0.96
3000
4000
5000
6000
7000
Wavelength (Å)

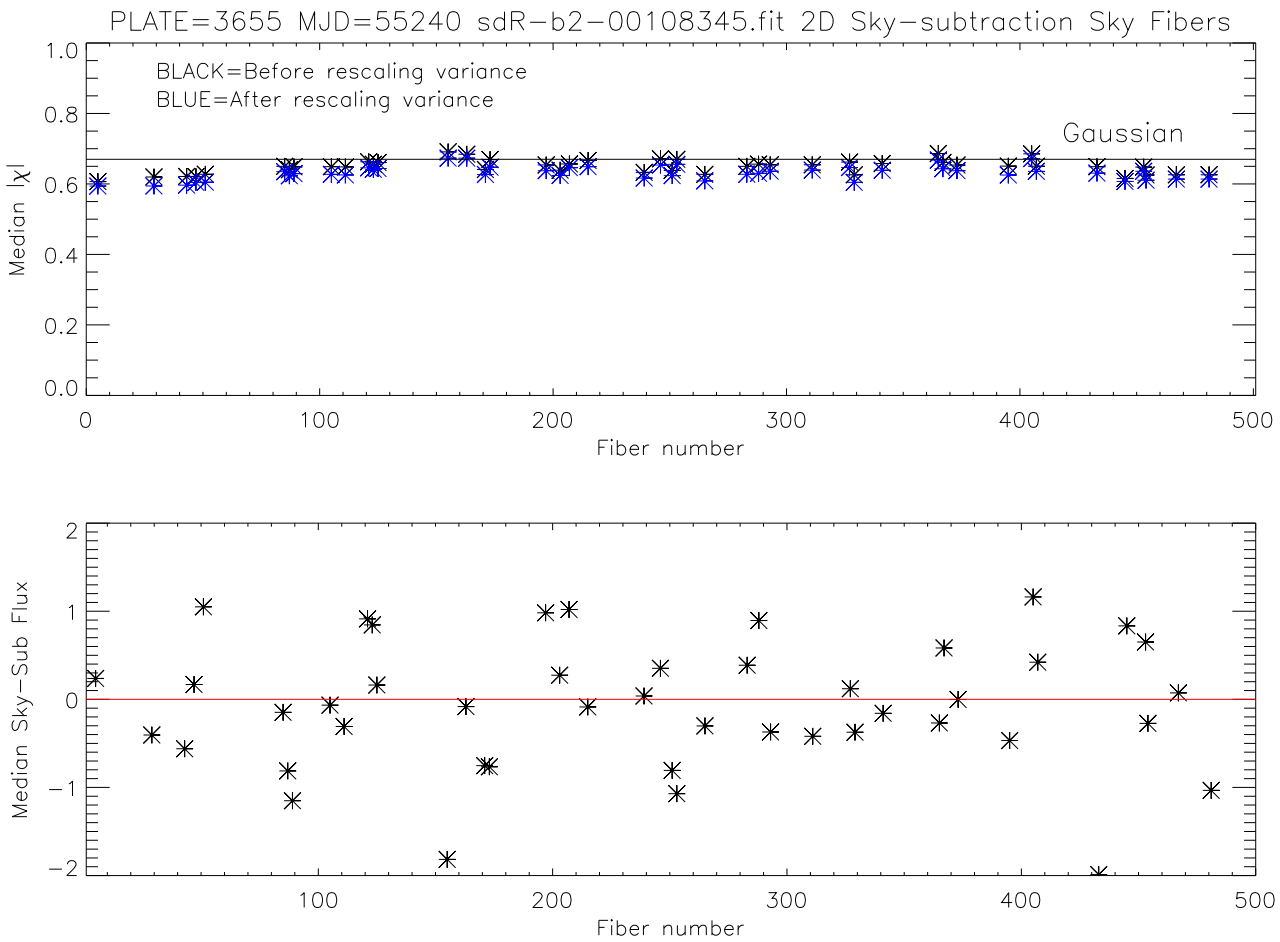

PLATE=3655 MJD=55240 sdR-b2-00108345.fit 1D Sky-subtraction Sky Fibers
BLACK=Before rescaling variance
BLUE=After rescaling variance
Gaussian
Median |χ|
Fiber number
Median Sky-Sub Flux
Fiber number

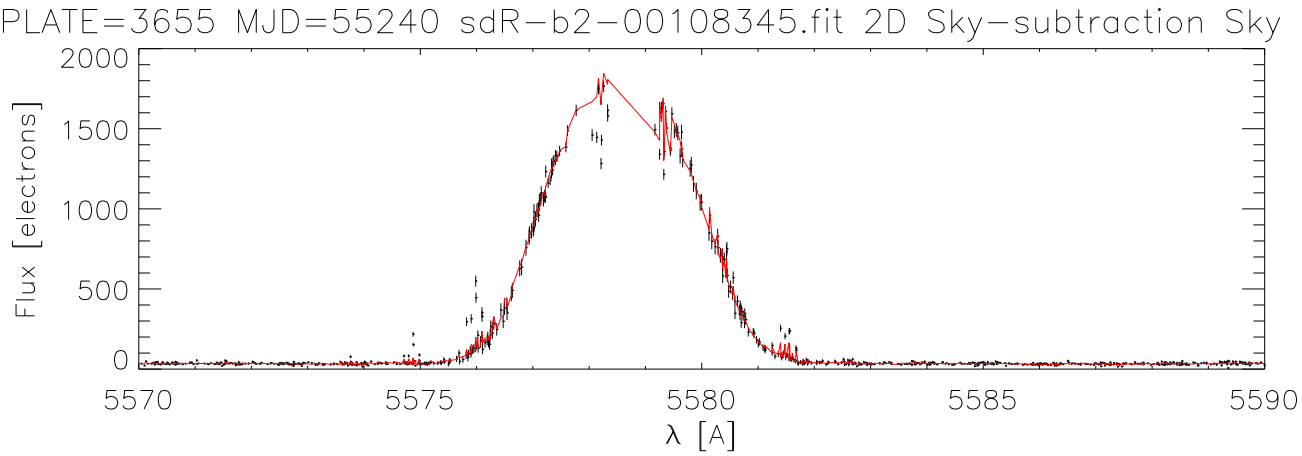

PLATE=3655 MJD=55240 sdR-b2-00108345.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
2000
1500
1000
500
0
5570
5575
5580
5585
5590
λ [A]

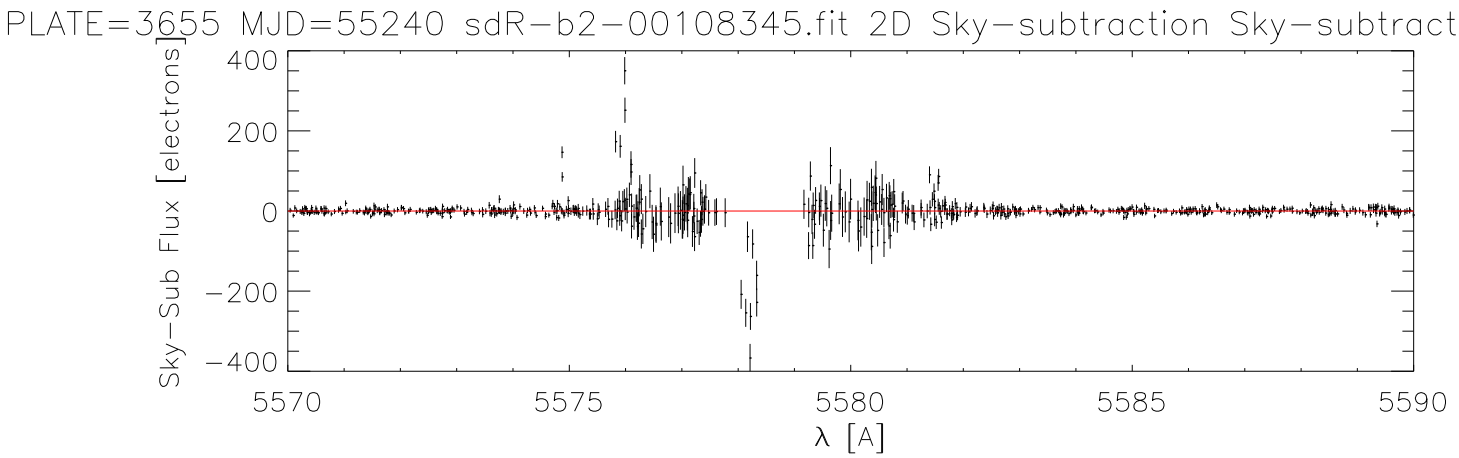

PLATE=3655 MJD=55240 sdR-b2-00108345.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
-200
-400
-600
5570
5575
5580
5585
5590
λ [A]

Number of sky fibers = 45

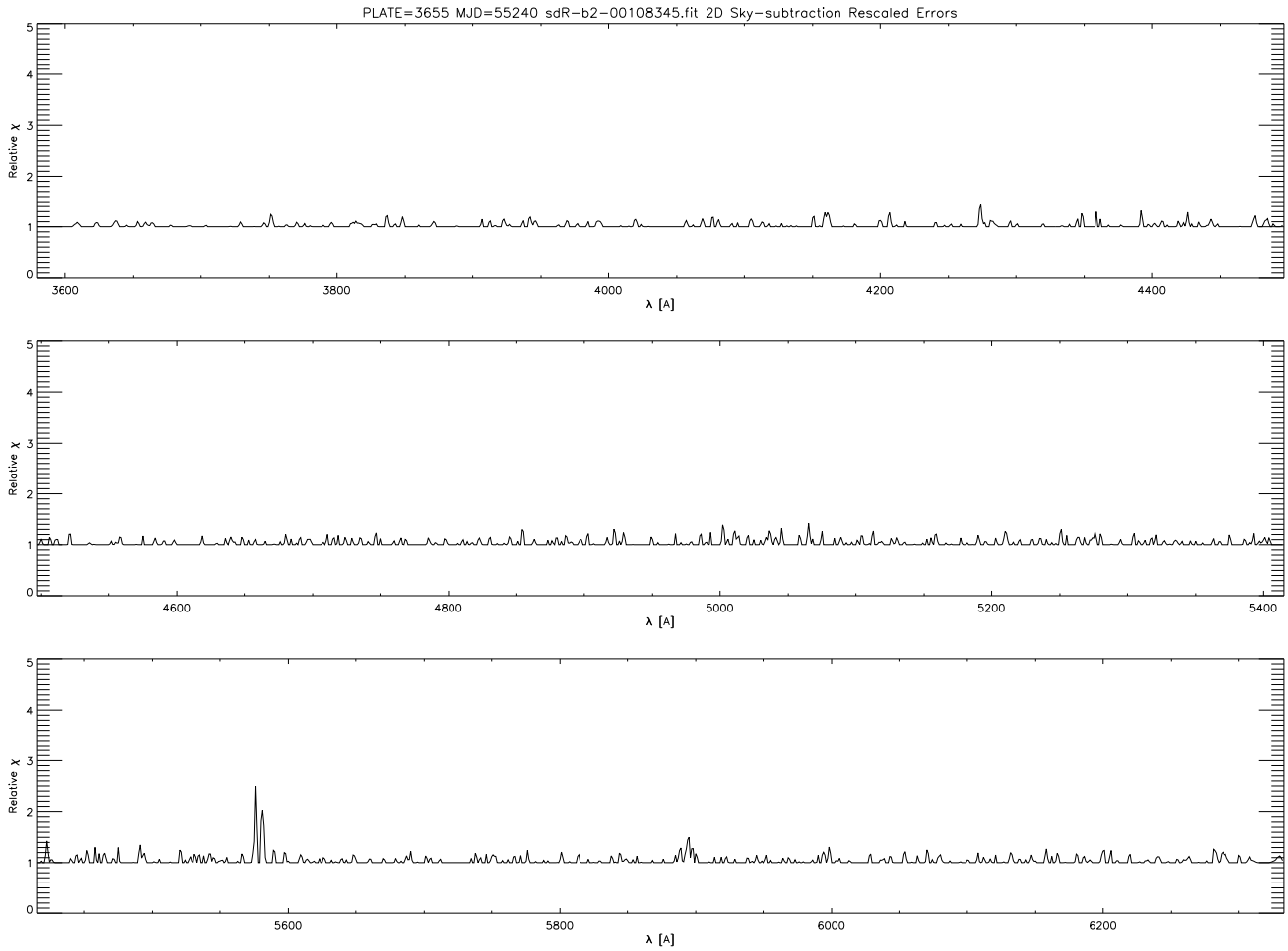


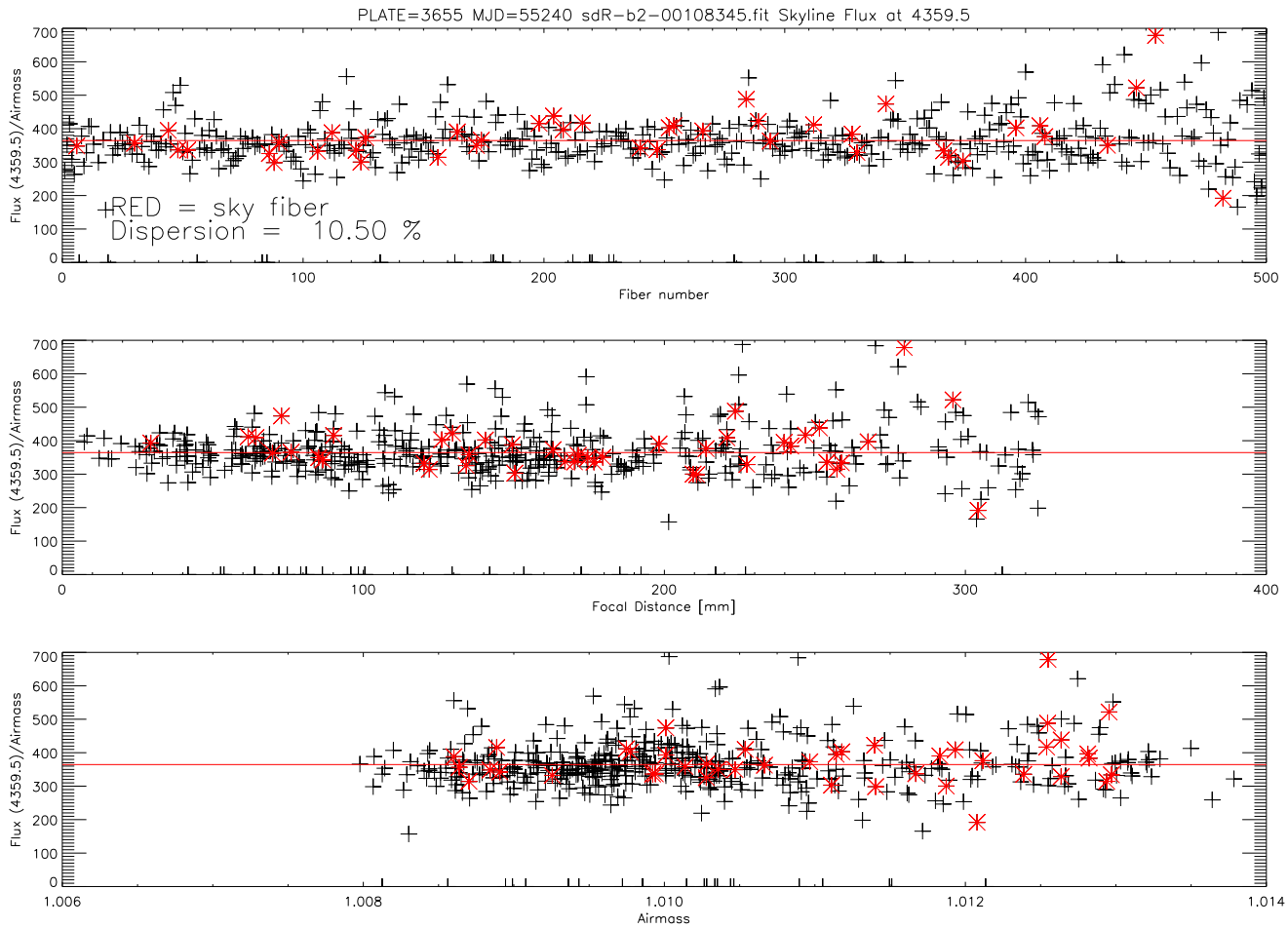

PLATE=3655 MJD=55240 sdR-b2-00108345.fit 2D Sky-subtraction Sky Fibers
BLACK=Before rescaling variance
BLUE=After rescaling variance
Gaussian
Median |χ|
Fiber number
Median Sky-Sub Flux
Fiber number

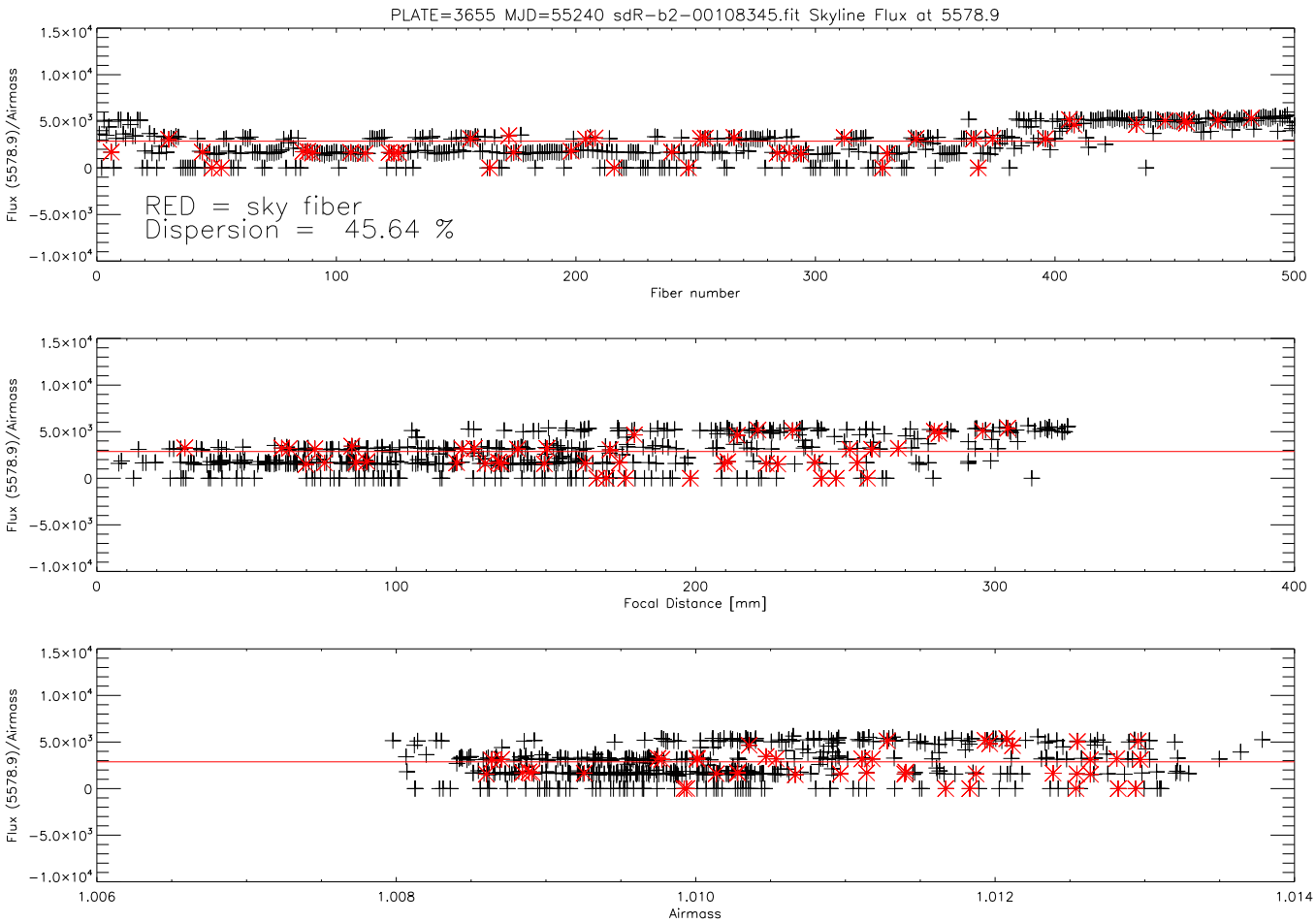

PLATE=3655 MJD=55240 sdR-b2-00108345.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
2000
1500
1000
500
0
5570
5575
5580
5585
5590
λ [A]


PLATE=3655 MJD=55240 sdR-b2-00108345.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
200
0
-200
-400
5570
5575
5580
5585
5590
λ [A]

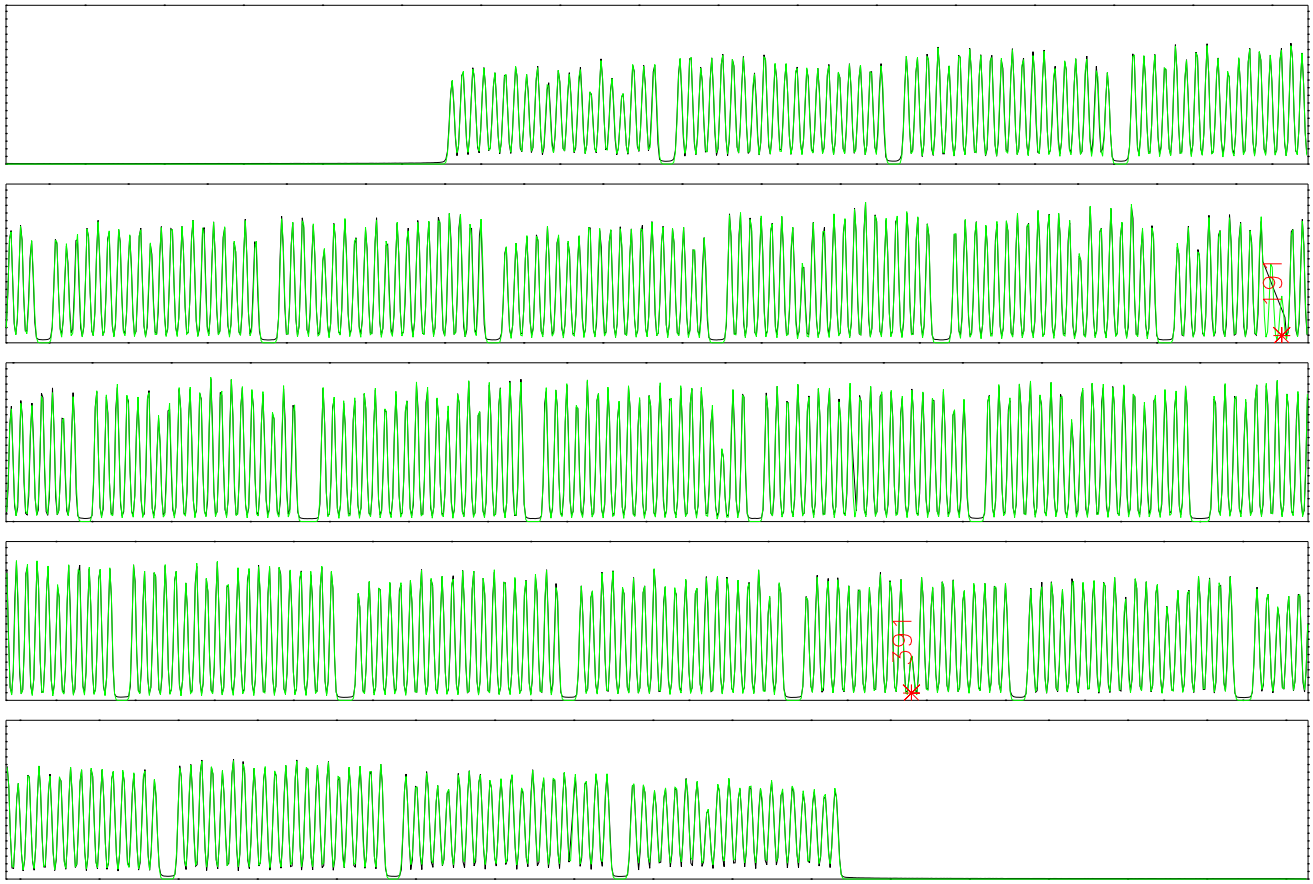
Number of sky fibers = 45



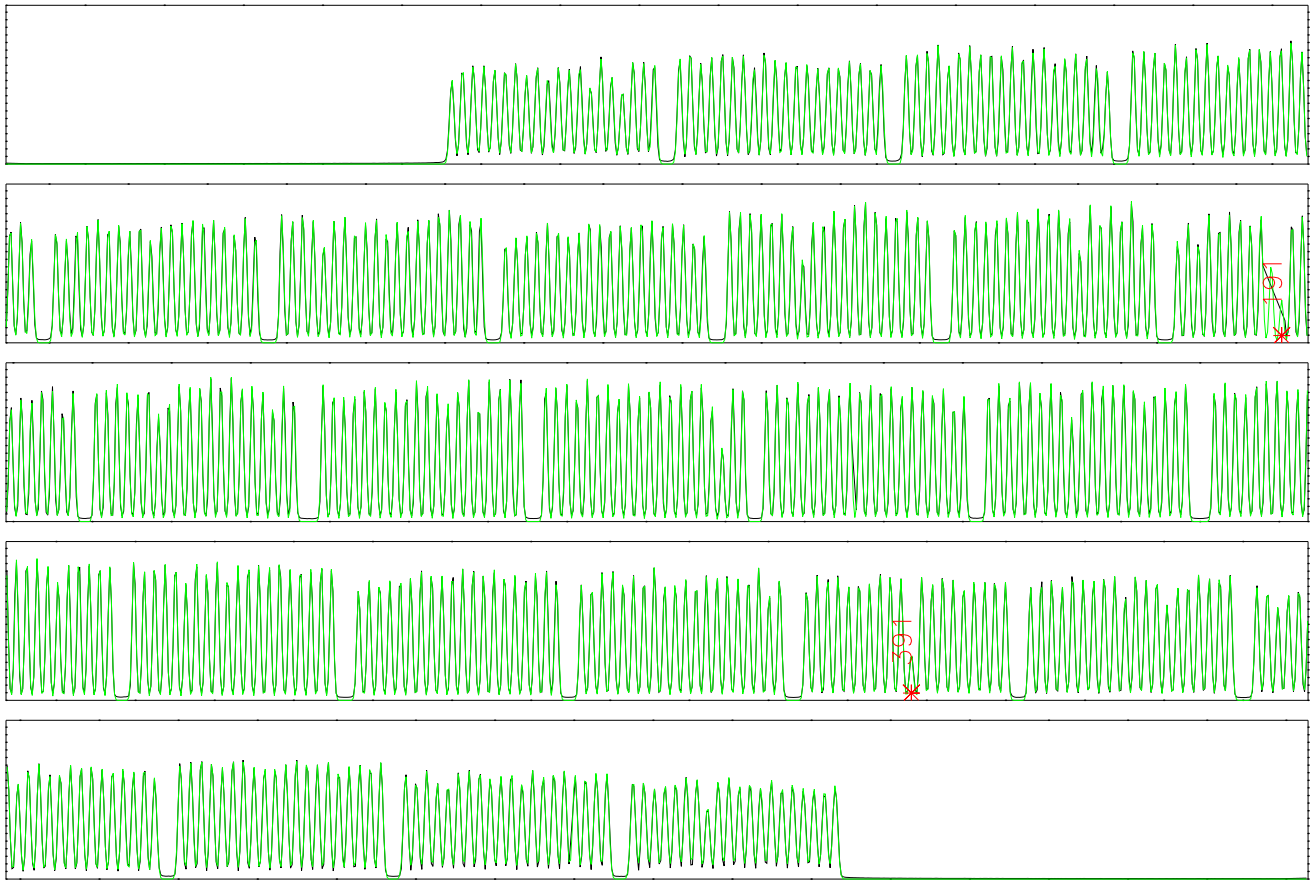

PLATE=3655 MJD=55240 sdR-b2-00108345.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 10.50 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

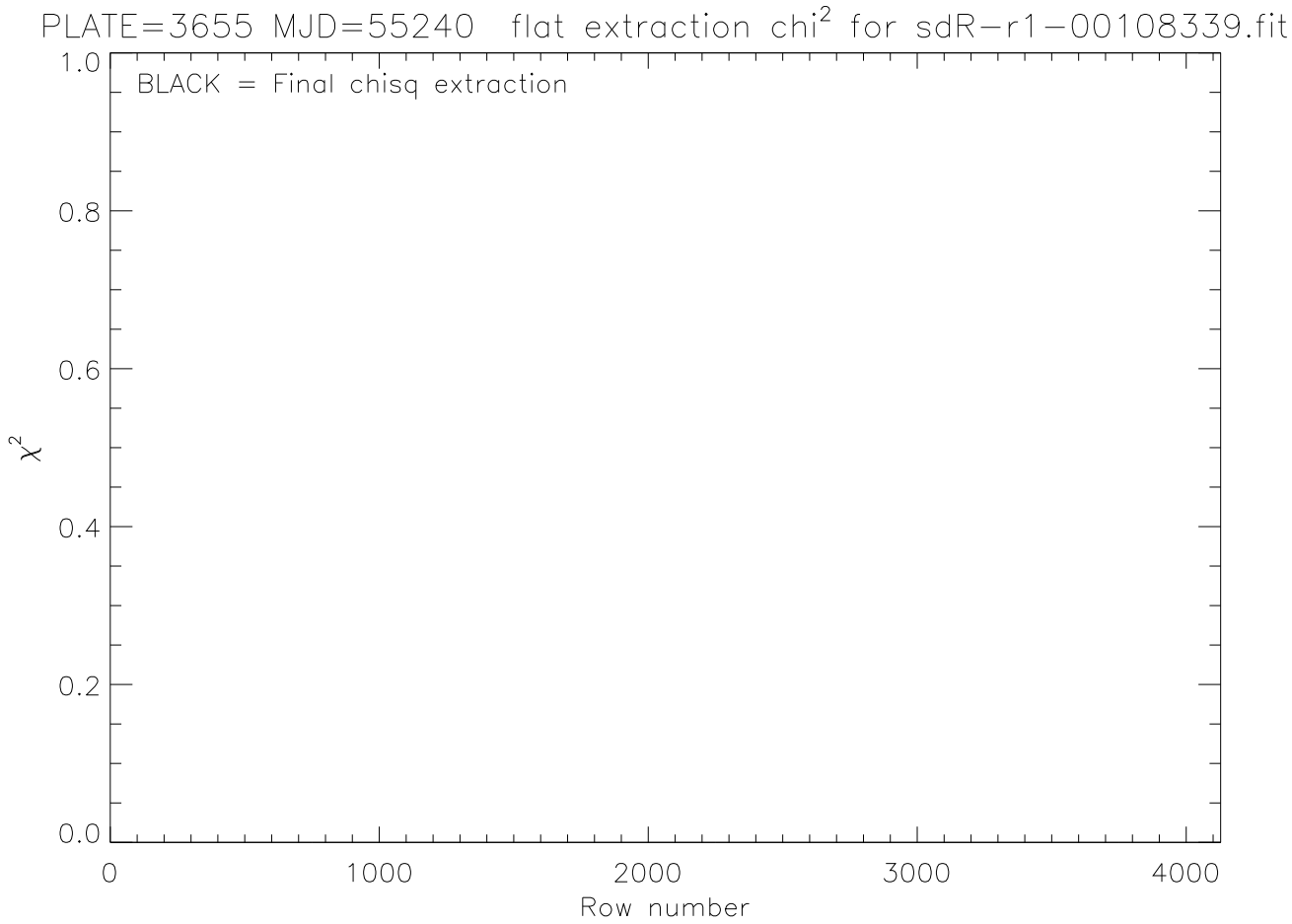

PLATE=3655 MJD=55240 sdR-b2-00108345.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
1.5×10⁴
1.0×10⁴
5.0×10³
0
−5.0×10³
−1.0×10⁴
RED = sky fiber
Dispersion = 45.64 %
0
100
200
300
400
500
Fiber number
Flux (5578.9)/Airmass
Focal Distance [mm]
Flux (5578.9)/Airmass
1.006
1.008
1.010
1.012
1.014
Airmass

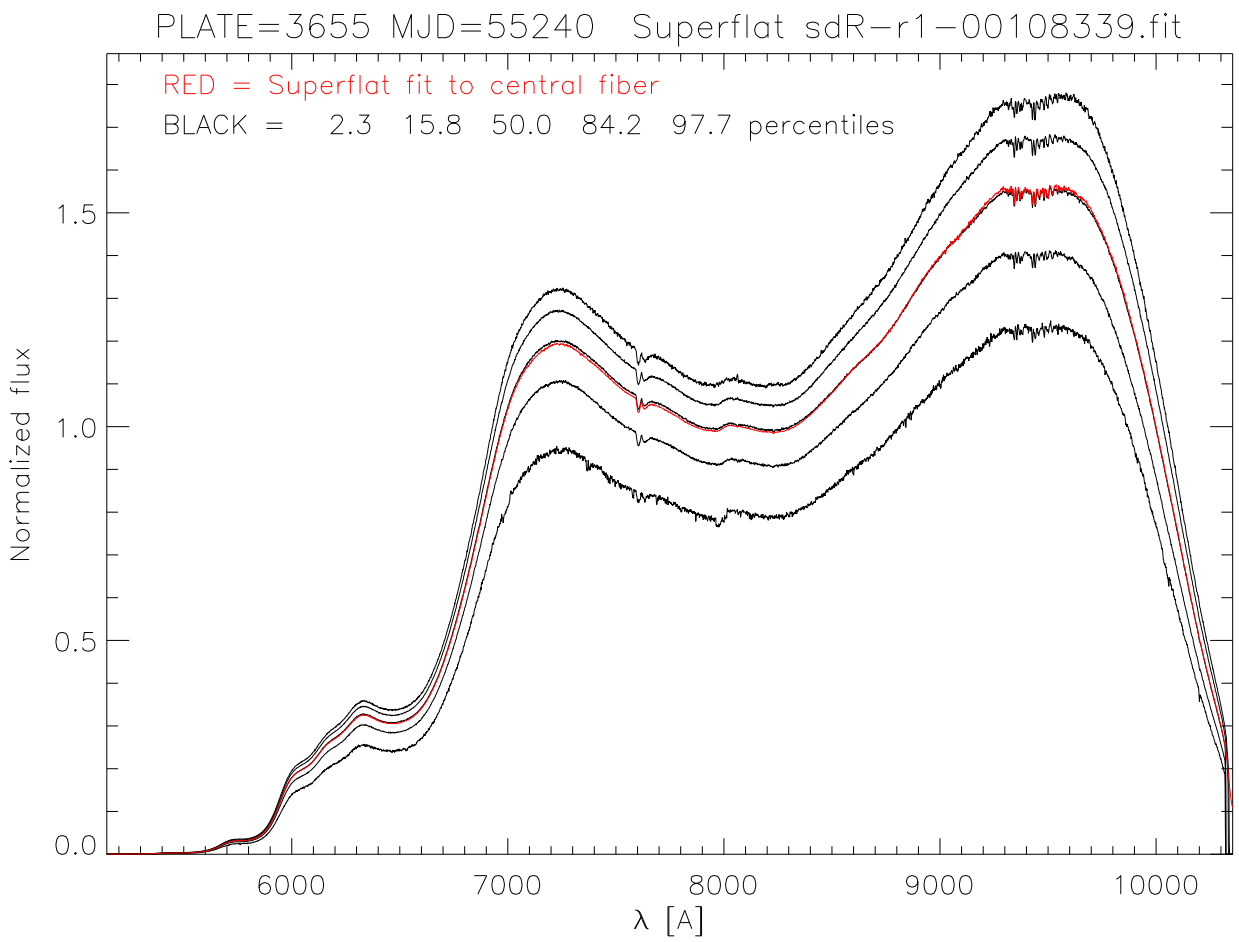
PLATE=3655 MJD=55240 Traces sdR-r1-00108339.fit

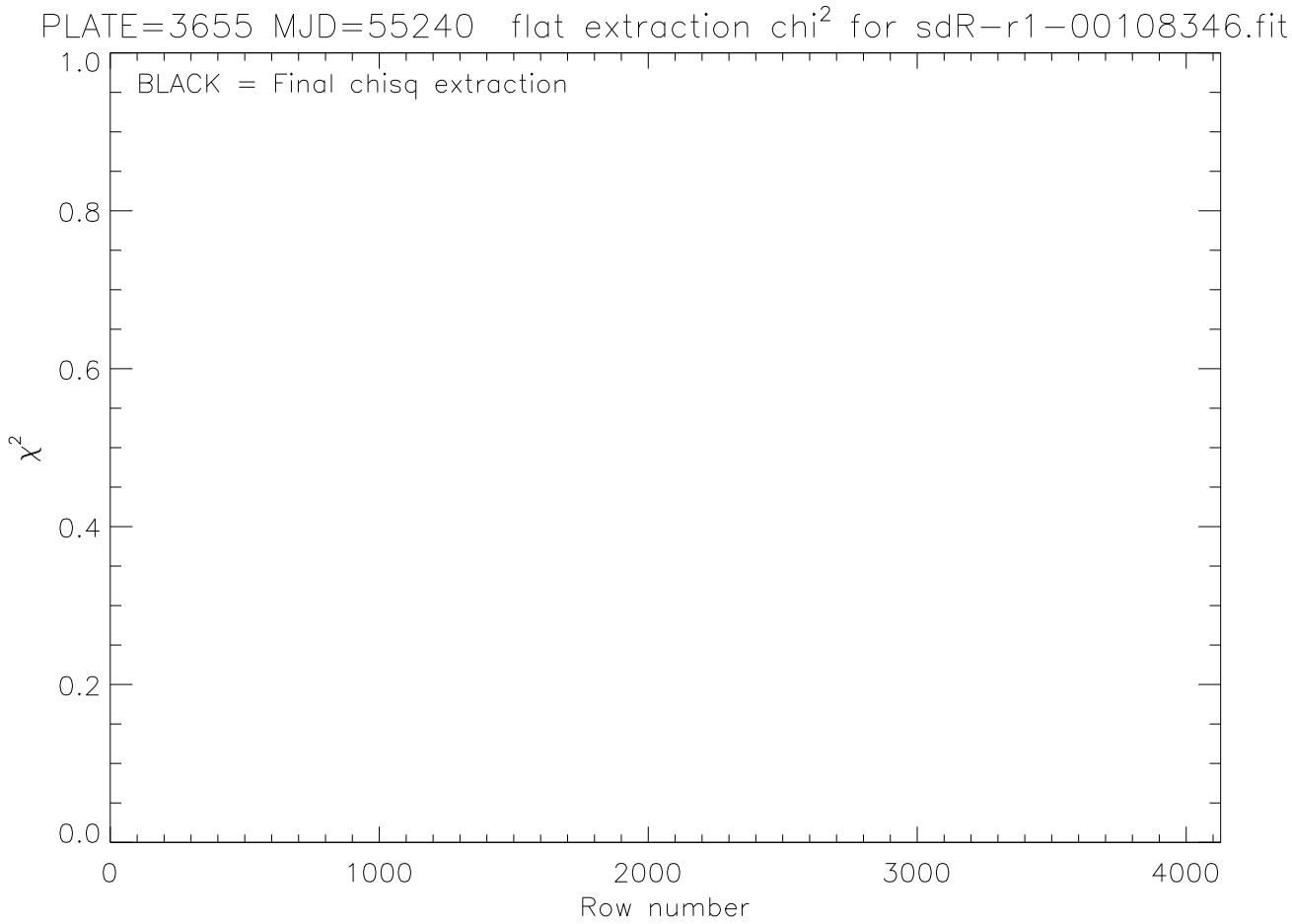


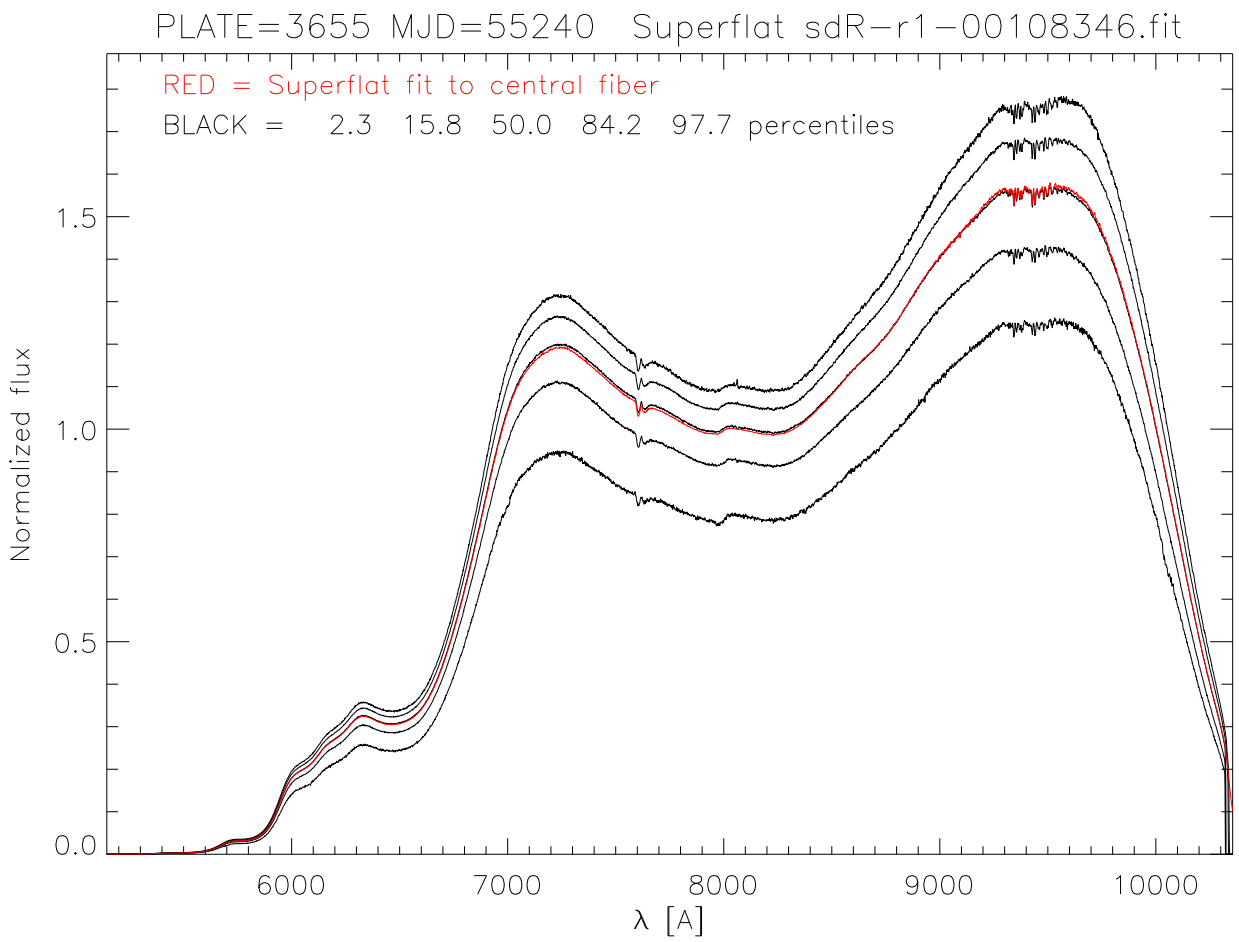
PLATE=3655 MJD=55240 Traces sdR-r1-00108346.fit

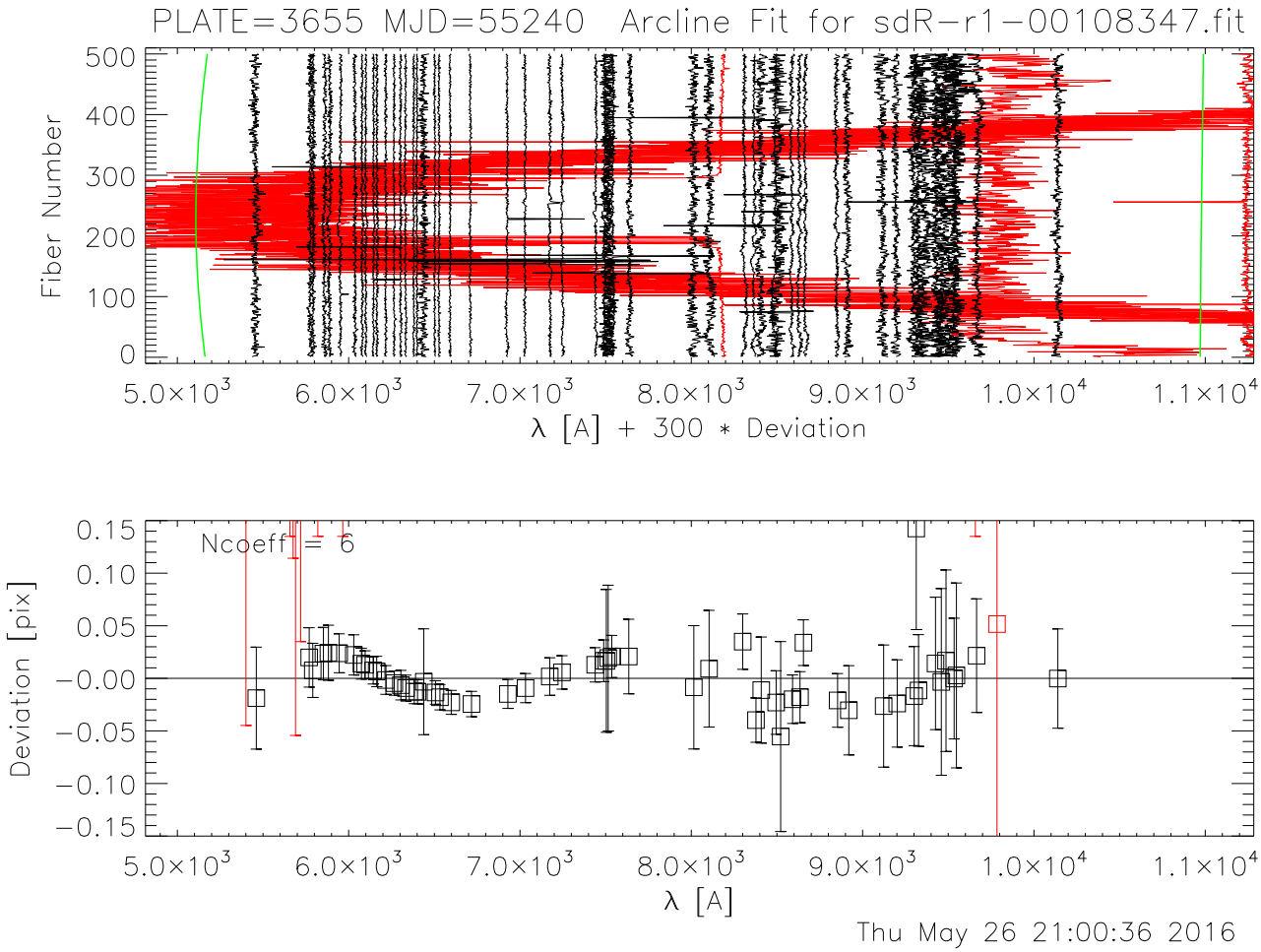



PLATE=3655 MJD=55240 flat extraction chi^2 for sdR−r1−00108339.fit
BLACK = Final chisq extraction
χ^2
1.0
0.8
0.6
0.4
0.2
0.0
0
1000
2000
3000
4000
Row number

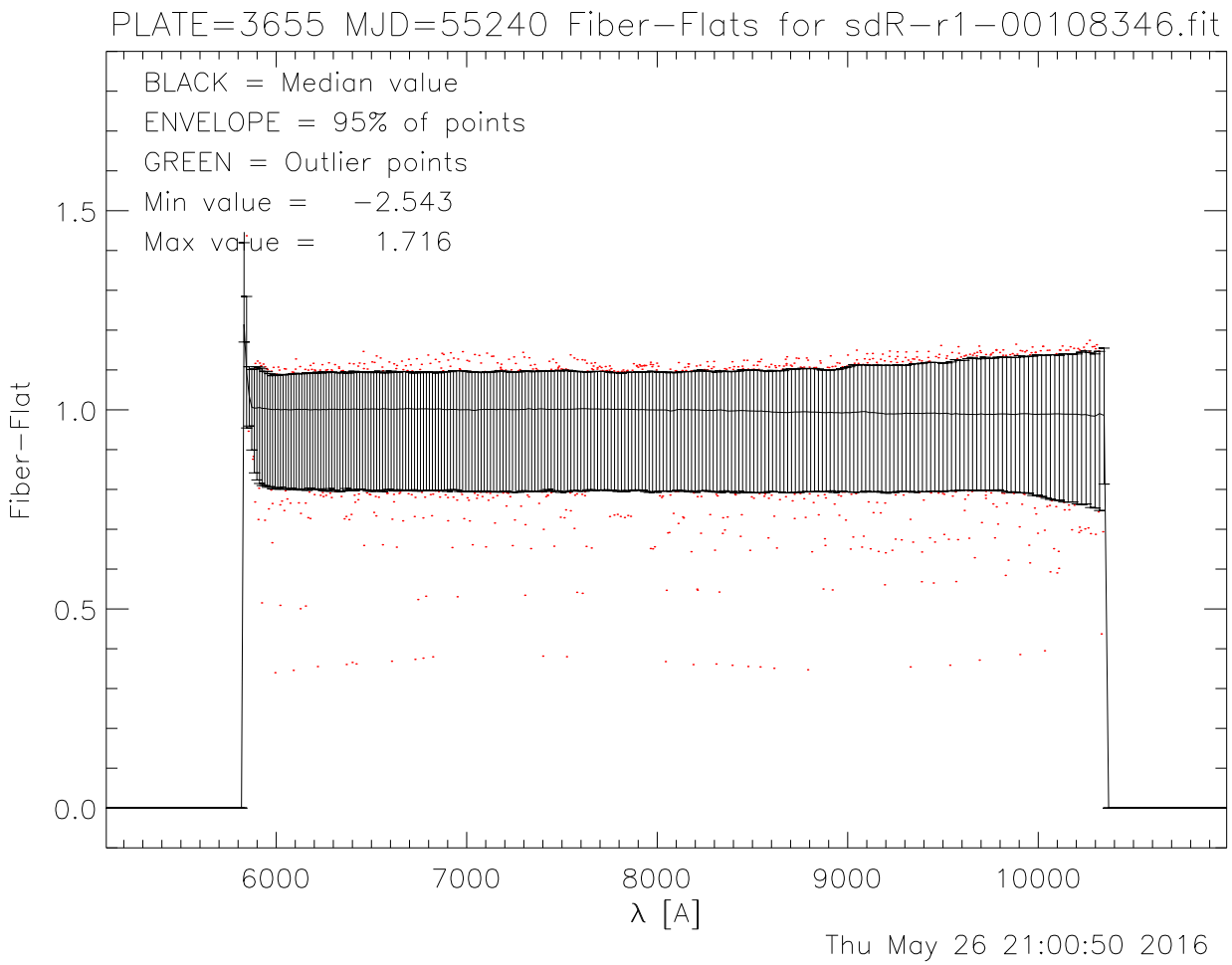

PLATE=3655 MJD=55240 Superflat sdR-r1-00108339.fit
RED = Superflat fit to central fiber
BLACK = 2.3 15.8 50.0 84.2 97.7 percentiles
Normalized flux
0.0
0.5
1.0
1.5
6000
7000
8000
9000
10000
λ [A]

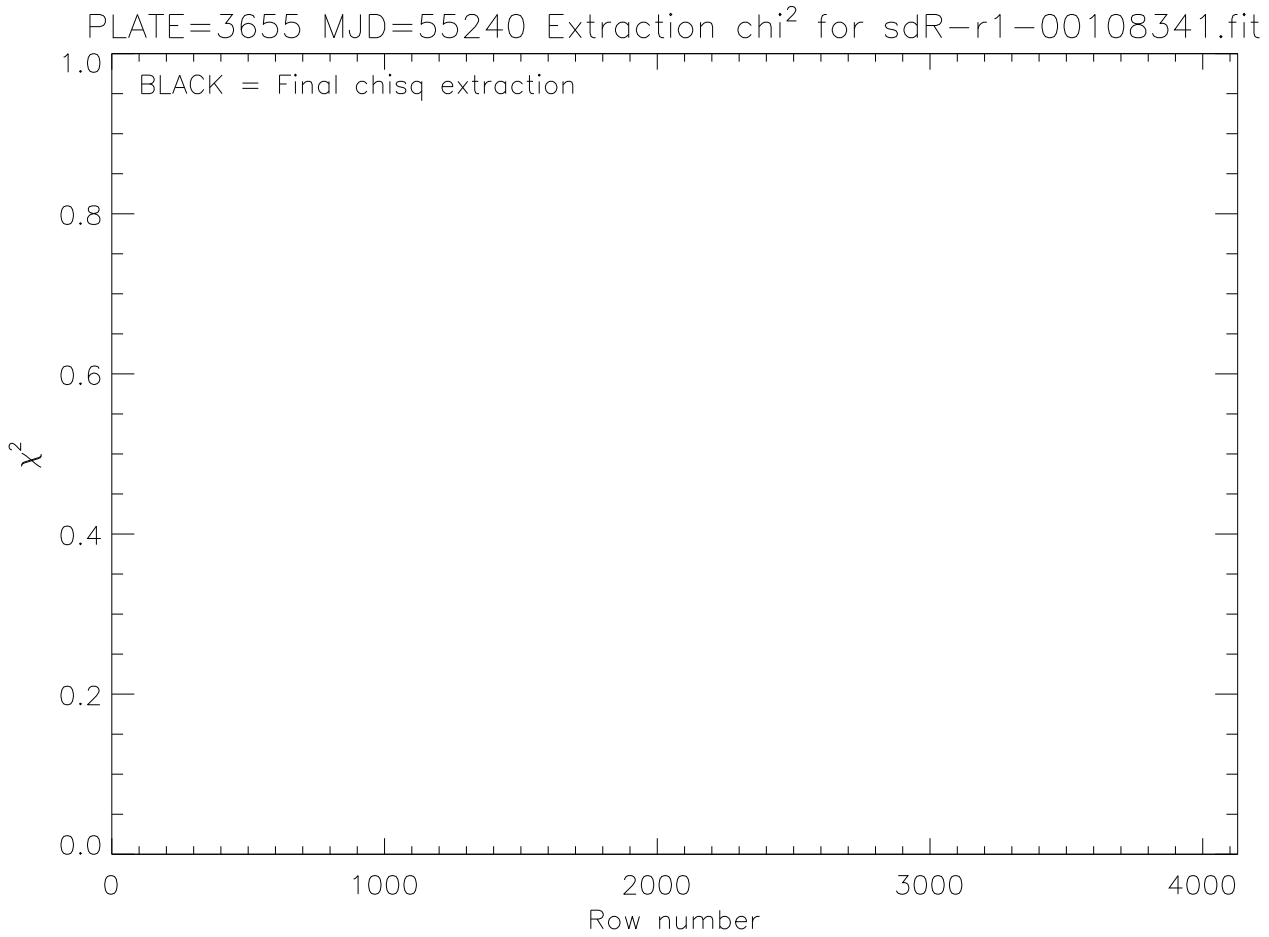

PLATE=3655 MJD=55240 flat extraction chi^2 for sdR−r1−00108346.fit
BLACK = Final chisq extraction
1.0
0.8
0.6
0.4
0.2
0.0
χ^2
0
1000
2000
3000
4000
Row number

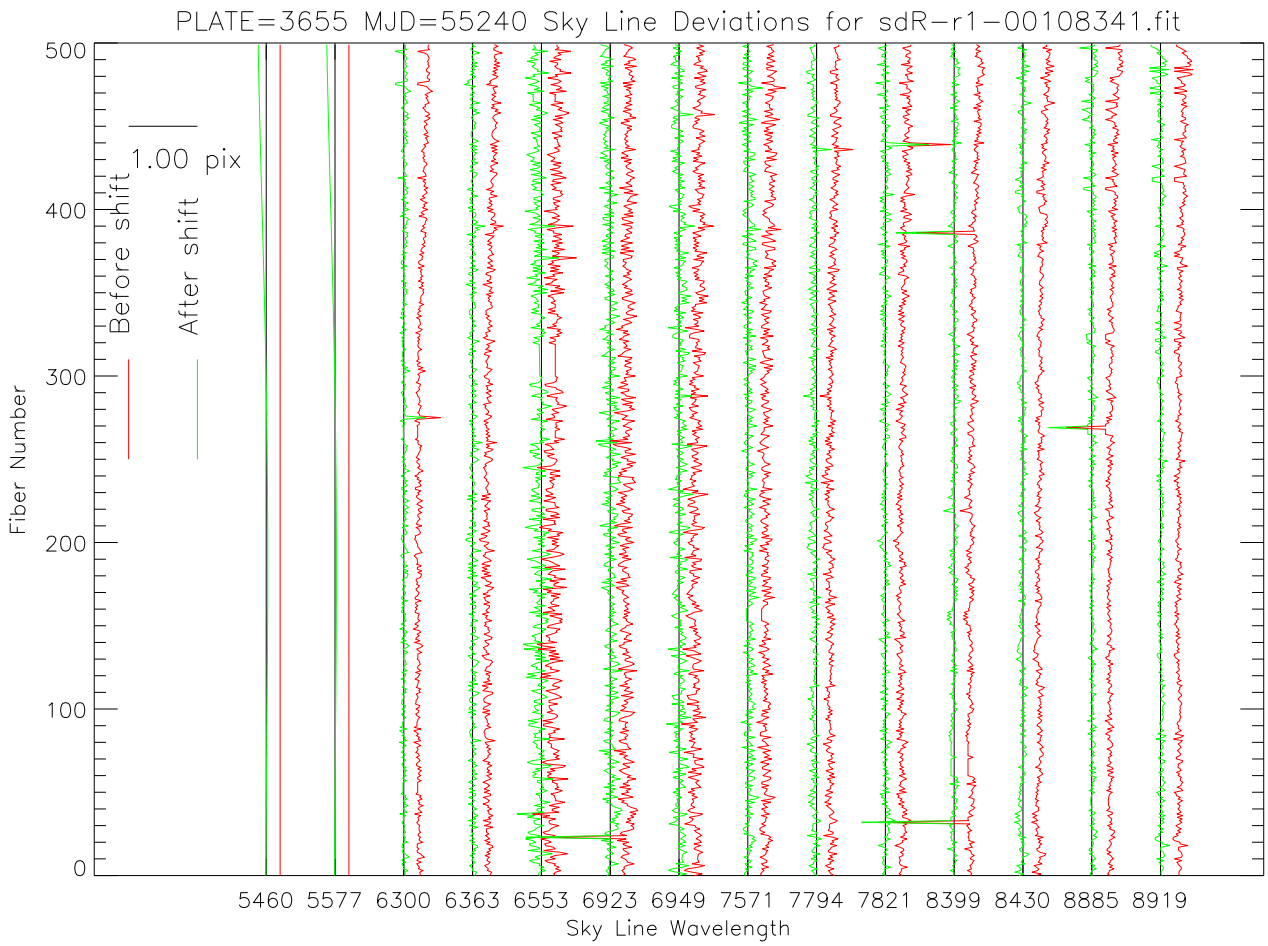

PLATE=3655 MJD=55240 Superflat sdR-r1-00108346.fit
RED = Superflat fit to central fiber
BLACK = 2.3 15.8 50.0 84.2 97.7 percentiles
Normalized flux
0.0
0.5
1.0
1.5
6000
7000
8000
9000
10000
λ [A]

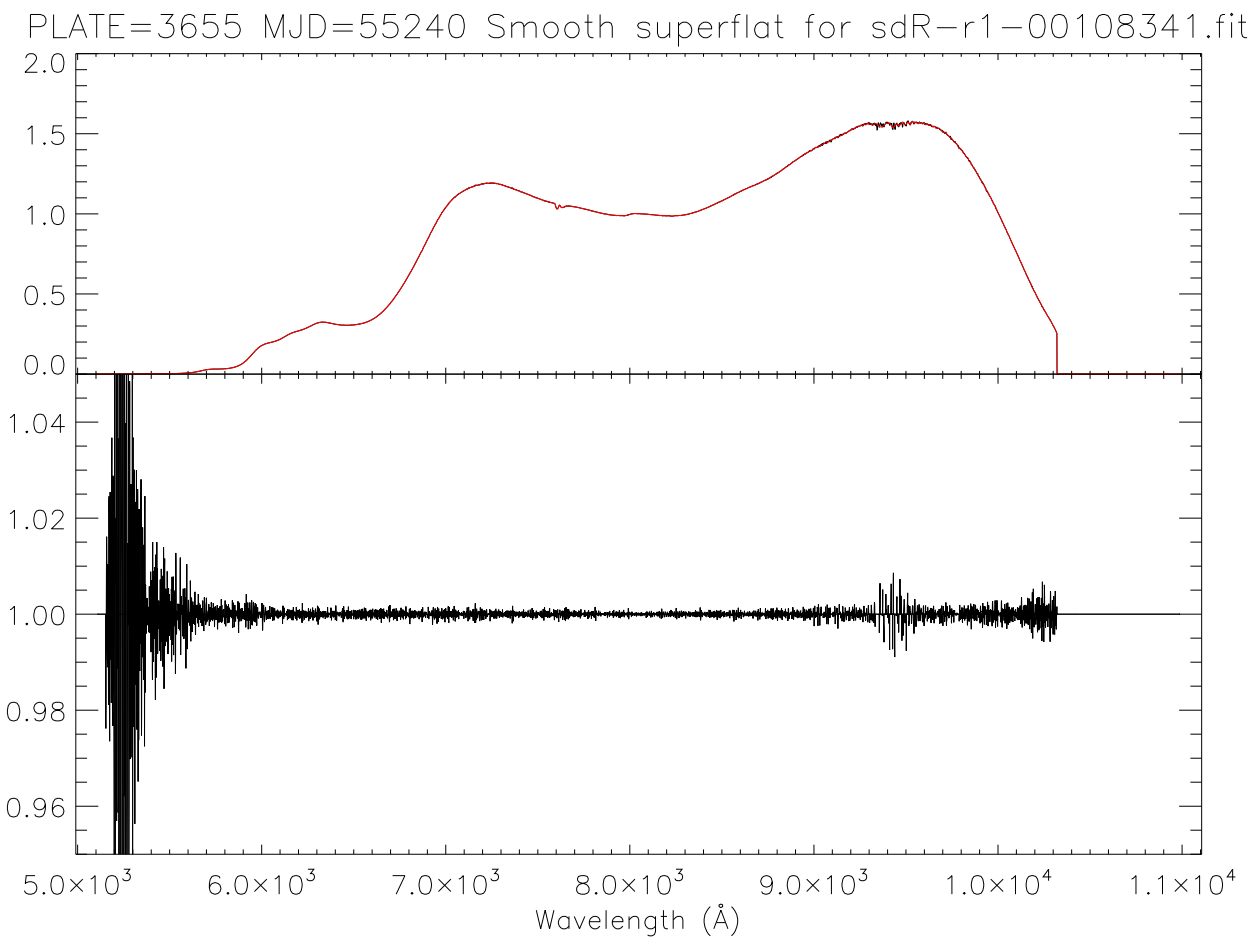

PLATE=3655 MJD=55240 Arcline Fit for sdR-r1-00108347.fit
Fiber Number
500
400
300
200
100
0
5.0×10^3
6.0×10^3
7.0×10^3
8.0×10^3
9.0×10^3
1.0×10^4
1.1×10^4
λ [A] + 300 * Deviation

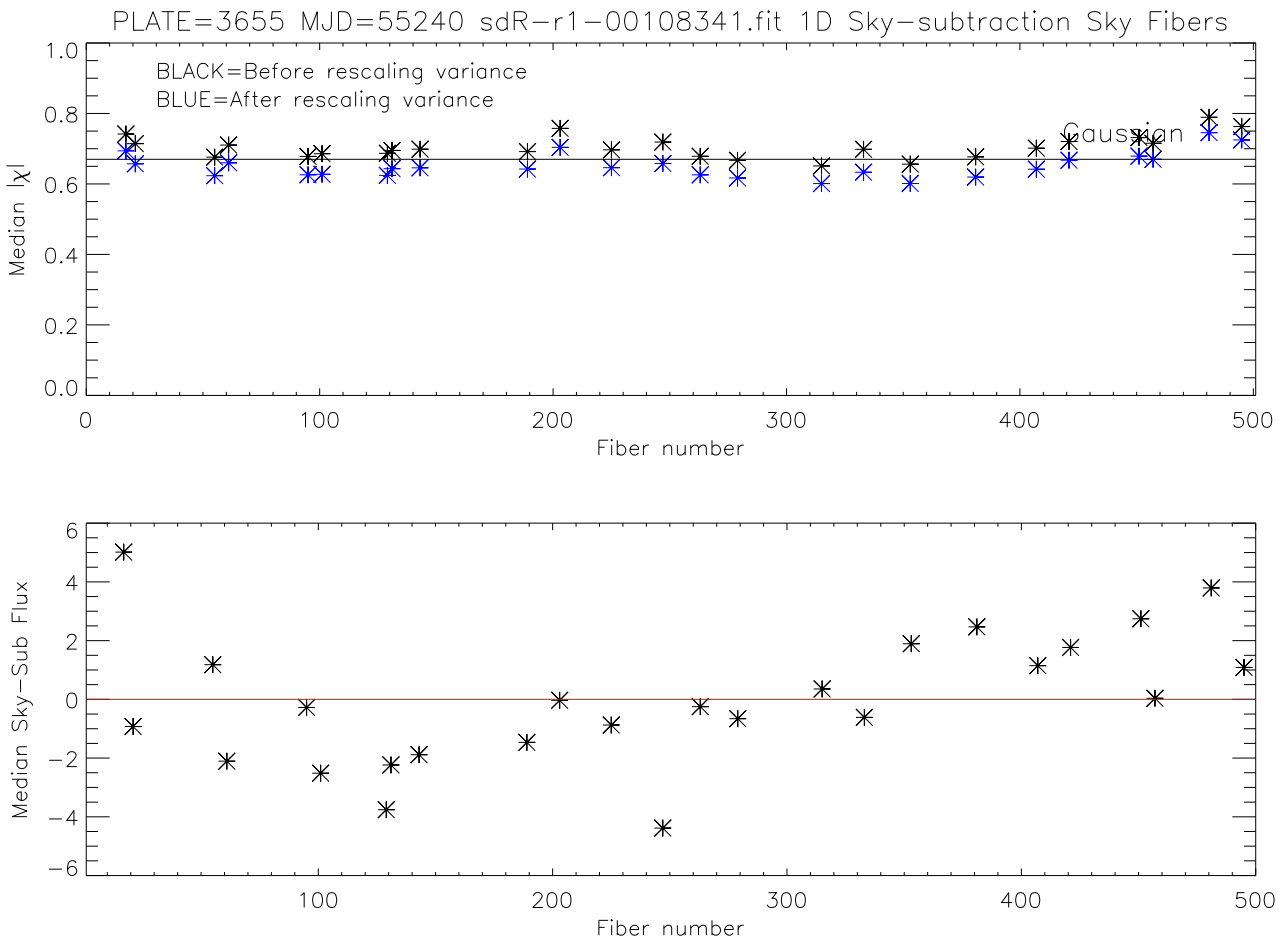
Ncoeff = 6
Deviation [pix]
0.15
0.10
0.05
−0.00
−0.05
−0.10
−0.15
5.0×10^3
6.0×10^3
7.0×10^3
8.0×10^3
9.0×10^3
1.0×10^4
1.1×10^4
λ [A]
Thu May 26 21:00:36 2016

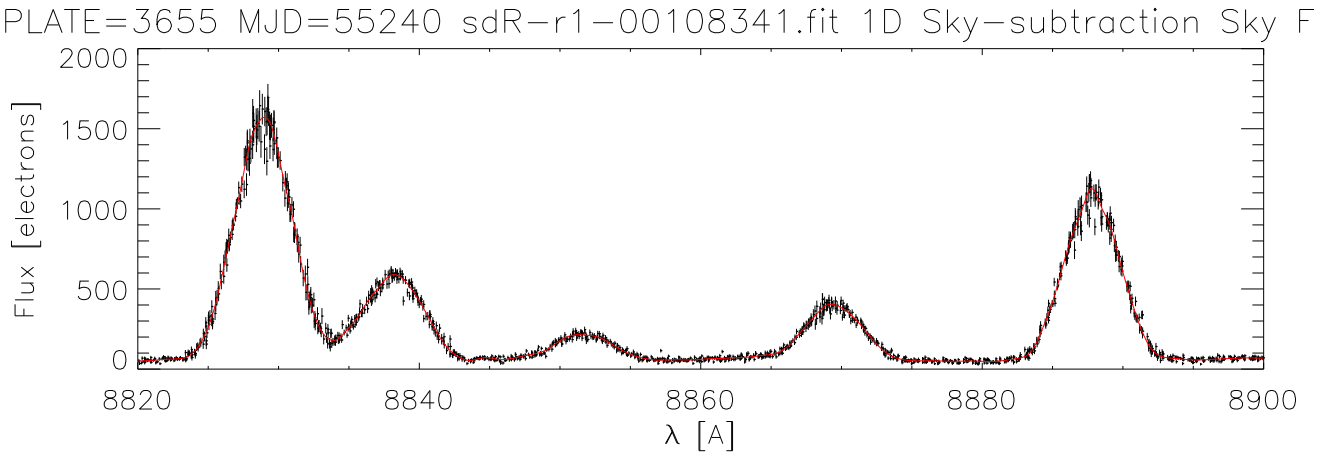

PLATE=3655 MJD=55240 Fiber−Flats for sdR−r1−00108346.fit
BLACK = Median value
ENVELOPE = 95% of points
GREEN = Outlier points
Min value = −2.543
Max value = 1.716
Fiber−Flat
1.5
1.0
0.5
0.0
6000
7000
8000
9000
10000
λ [A]
Thu May 26 21:00:50 2016

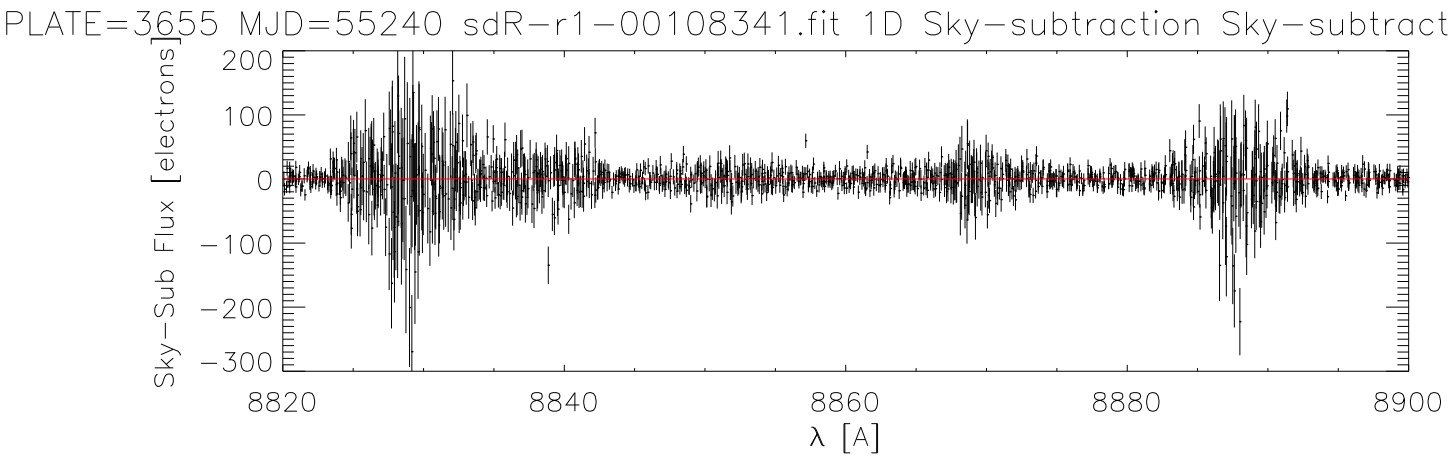

PLATE=3655 MJD=55240 Extraction chi^2 for sdR−r1−00108341.fit
BLACK = Final chisq extraction
χ^2
1.0
0.8
0.6
0.4
0.2
0.0
0
1000
2000
3000
4000
Row number


PLATE=3655 MJD=55240 Sky Line Deviations for sdR-r1-00108341.fit
Before shift
After shift
1.00 pix
Fiber Number
0
100
200
300
400
500
5460 5577 6300 6363 6553 6923 6949 7571 7794 7821 8399 8430 8885 8919
Sky Line Wavelength

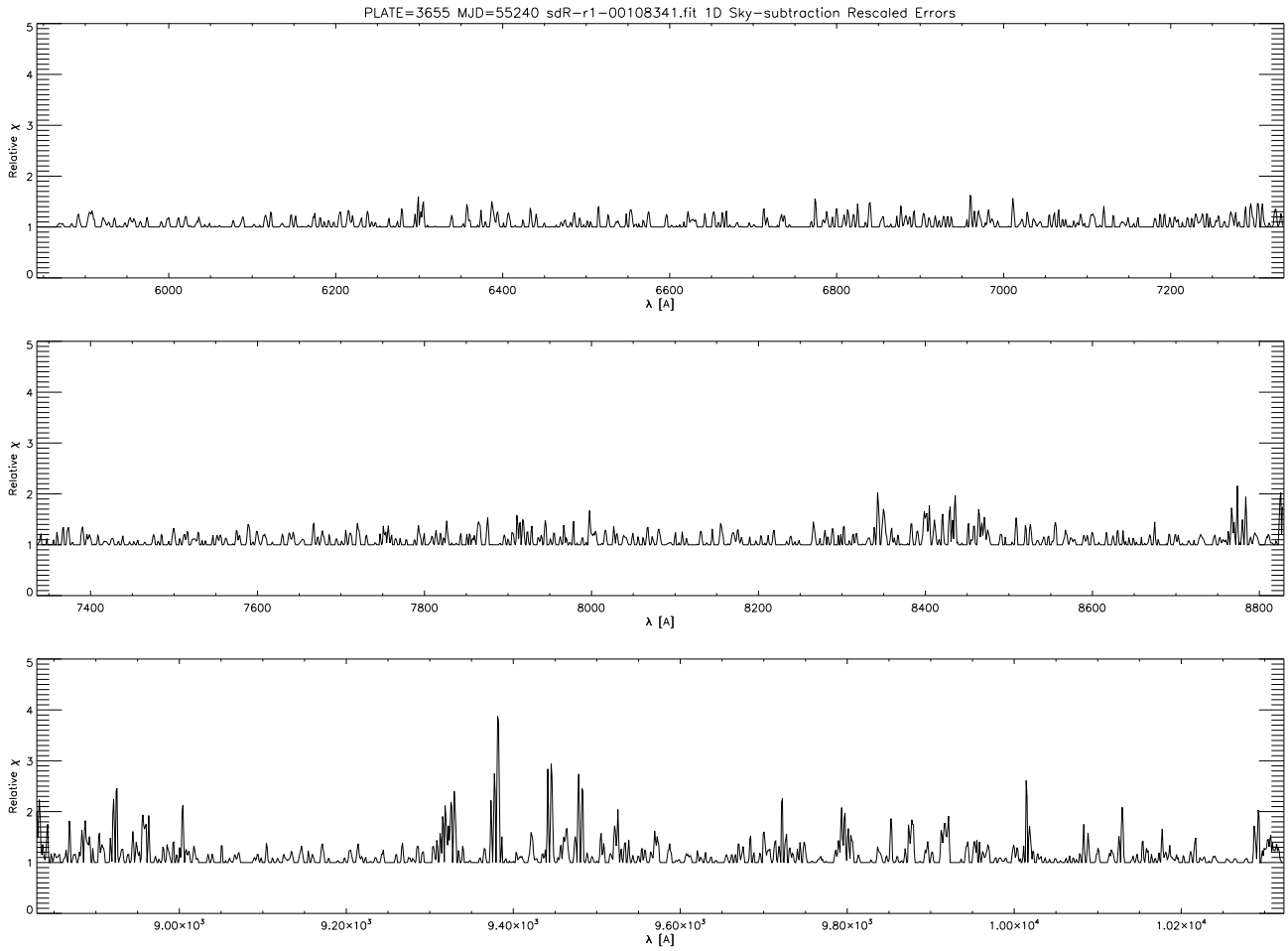

PLATE=3655 MJD=55240 Smooth superflat for sdR-r1-00108341.fit
2.0
1.5
1.0
0.5
0.0
1.04
1.02
1.00
0.98
0.96
5.0×10^3
6.0×10^3
7.0×10^3
8.0×10^3
9.0×10^3
1.0×10^4
1.1×10^4
Wavelength (Å)

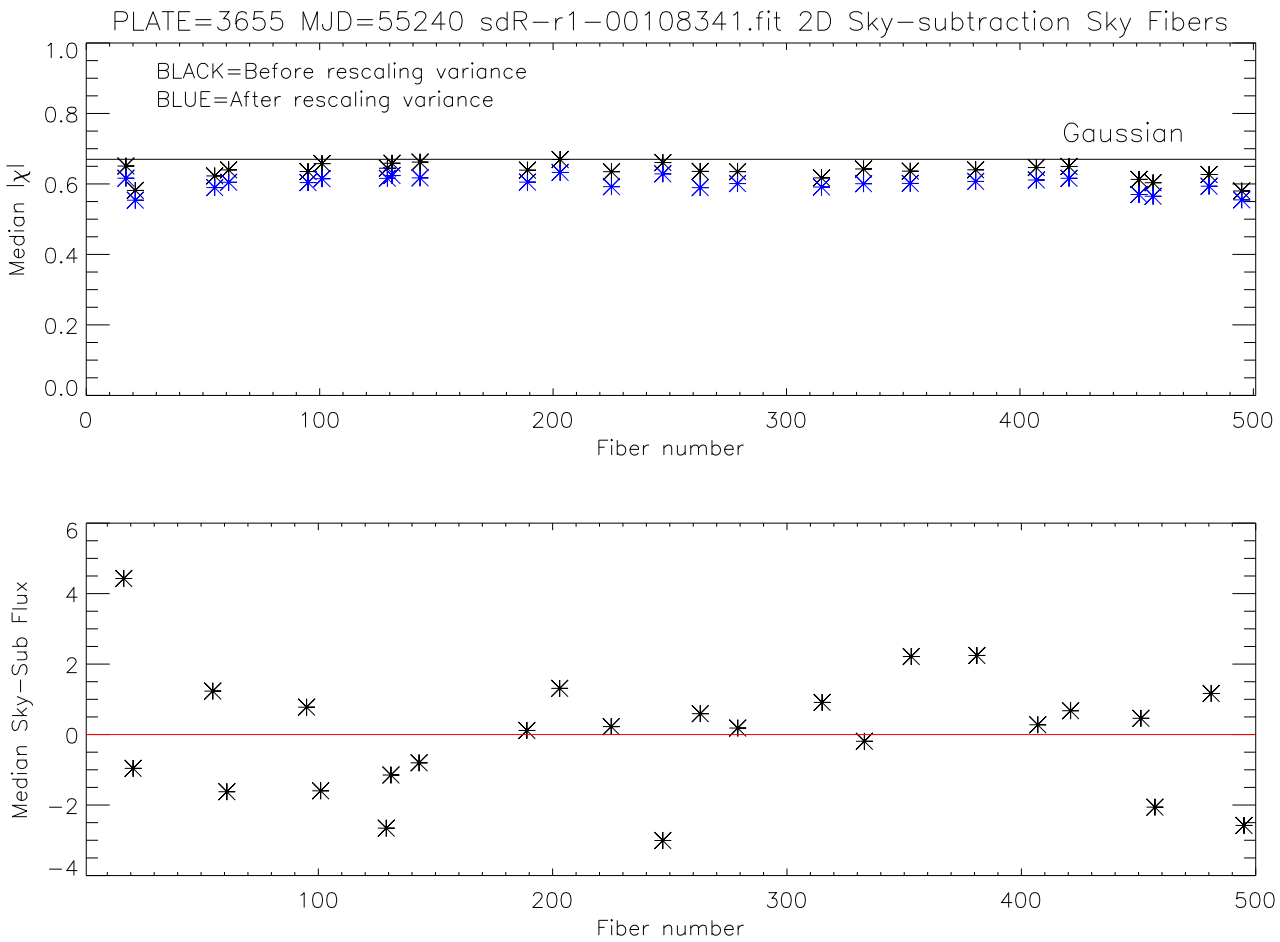

PLATE=3655 MJD=55240 sdR-r1-00108341.fit 1D Sky-subtraction Sky Fibers
BLACK=Before rescaling variance
BLUE=After rescaling variance
Gaussian
Median |χ|
Fiber number
Median Sky-Sub Flux
Fiber number

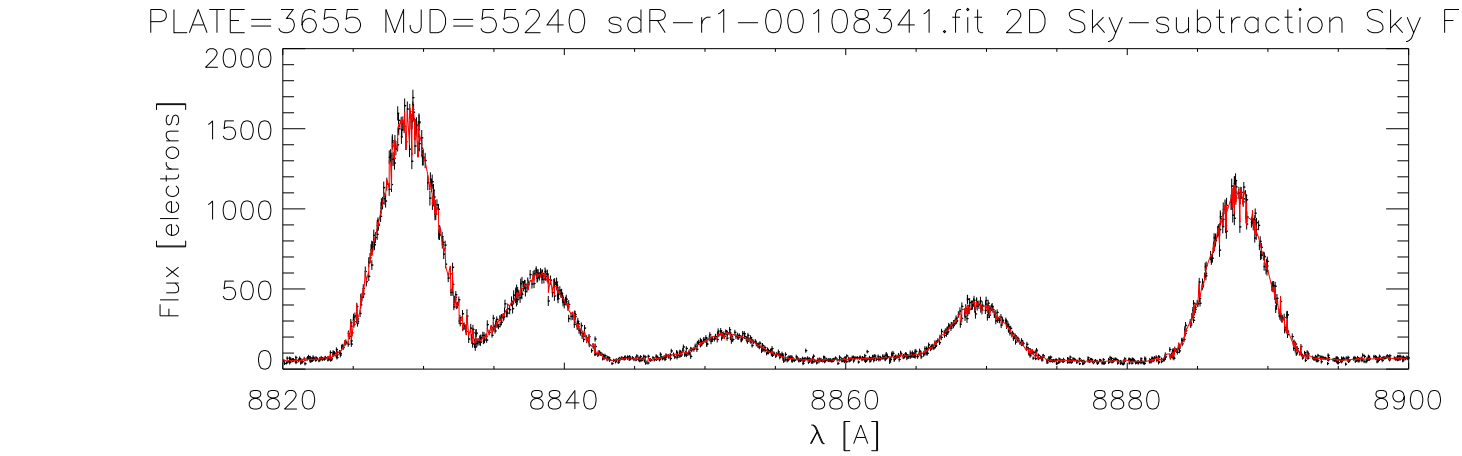

PLATE=3655 MJD=55240 sdR-r1-00108341.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
2000
1500
1000
500
0
8820
8840
8860
8880
8900
λ [A]

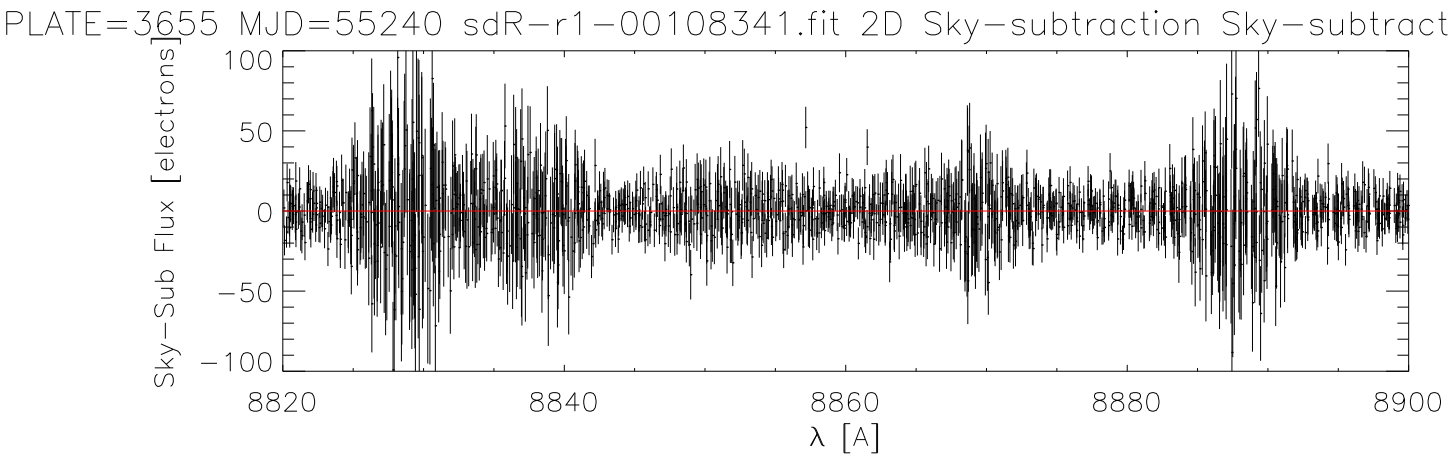

PLATE=3655 MJD=55240 sdR-r1-00108341.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
-300
8820
8840
8860
8880
8900
λ [A]

Number of sky fibers = 25

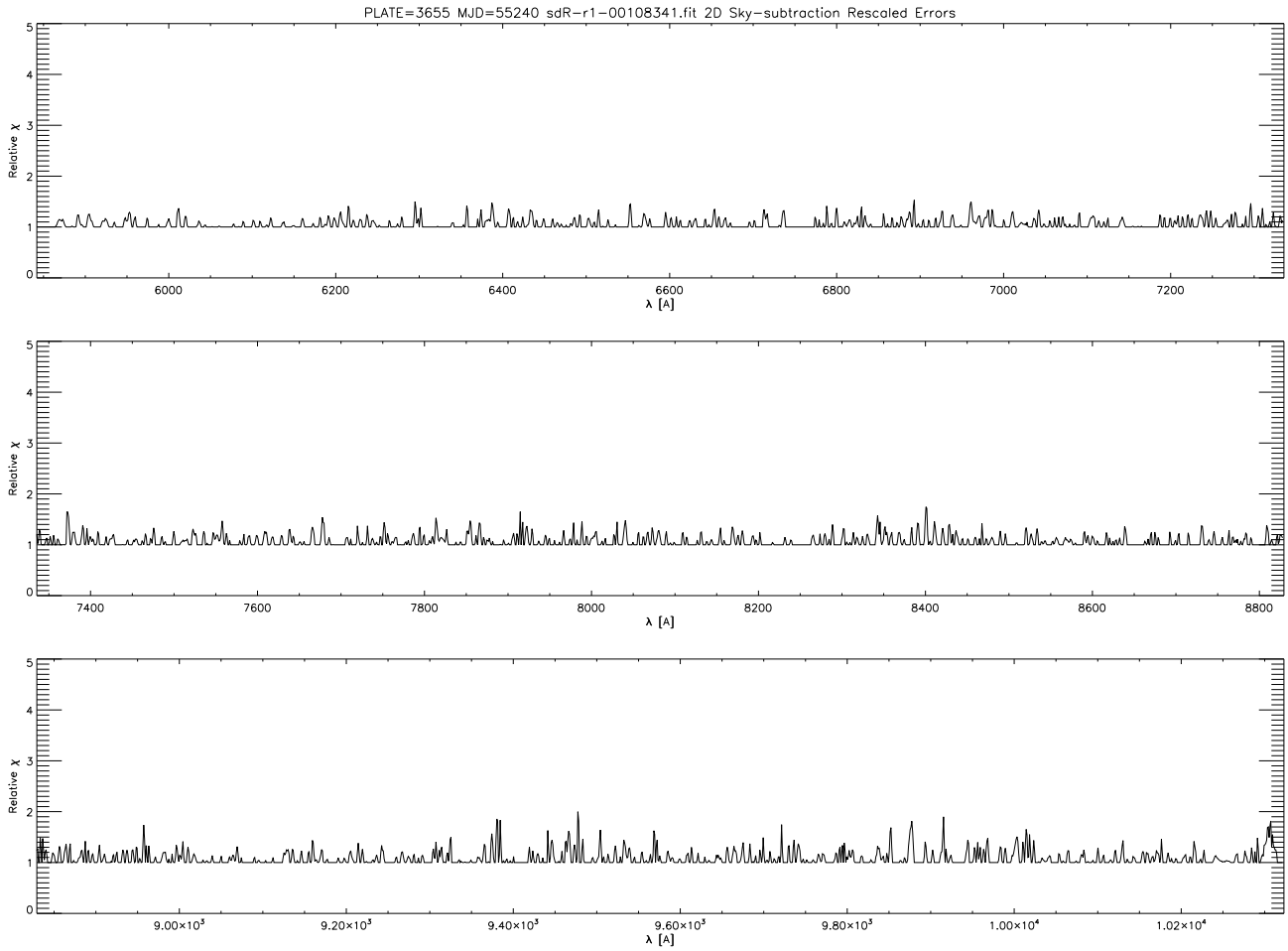


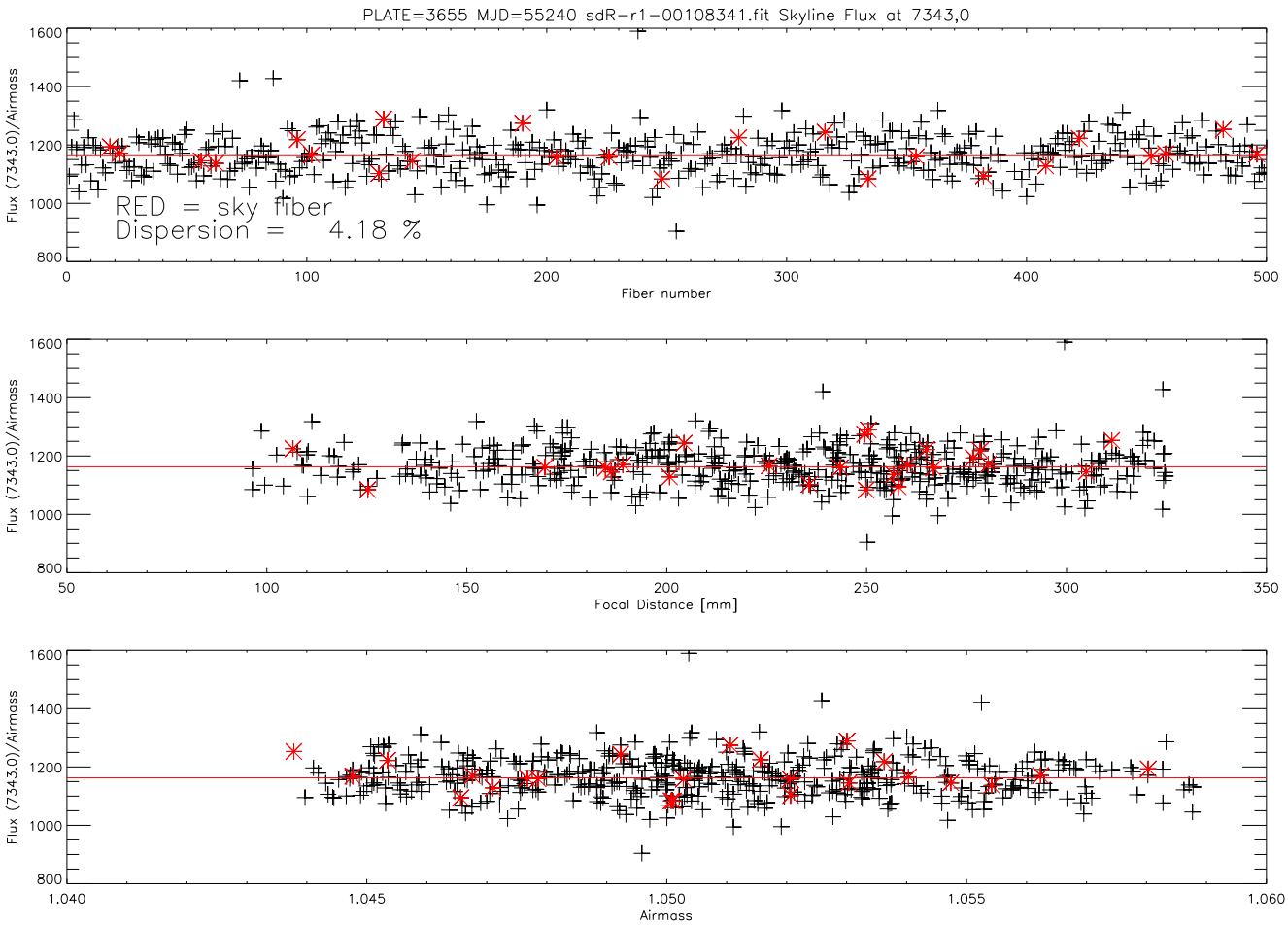

PLATE=3655 MJD=55240 sdR-r1-00108341.fit 2D Sky-subtraction Sky Fibers
BLACK=Before rescaling variance
BLUE=After rescaling variance
Gaussian
Median |χ|
Fiber number
Median Sky-Sub Flux
Fiber number

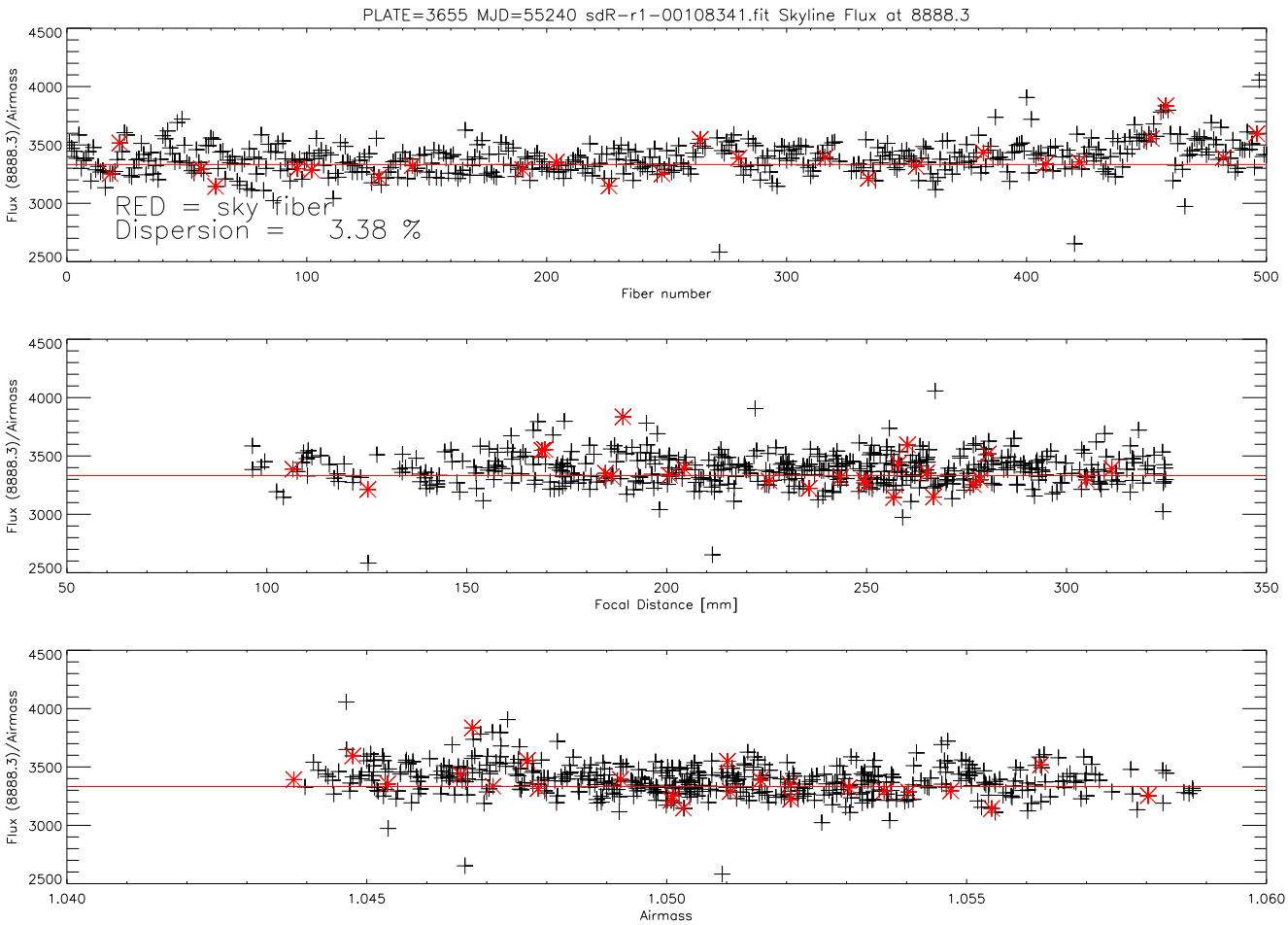

PLATE=3655 MJD=55240 sdR-r1-00108341.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
2000
1500
1000
500
0
8820
8840
8860
8880
8900
λ [A]

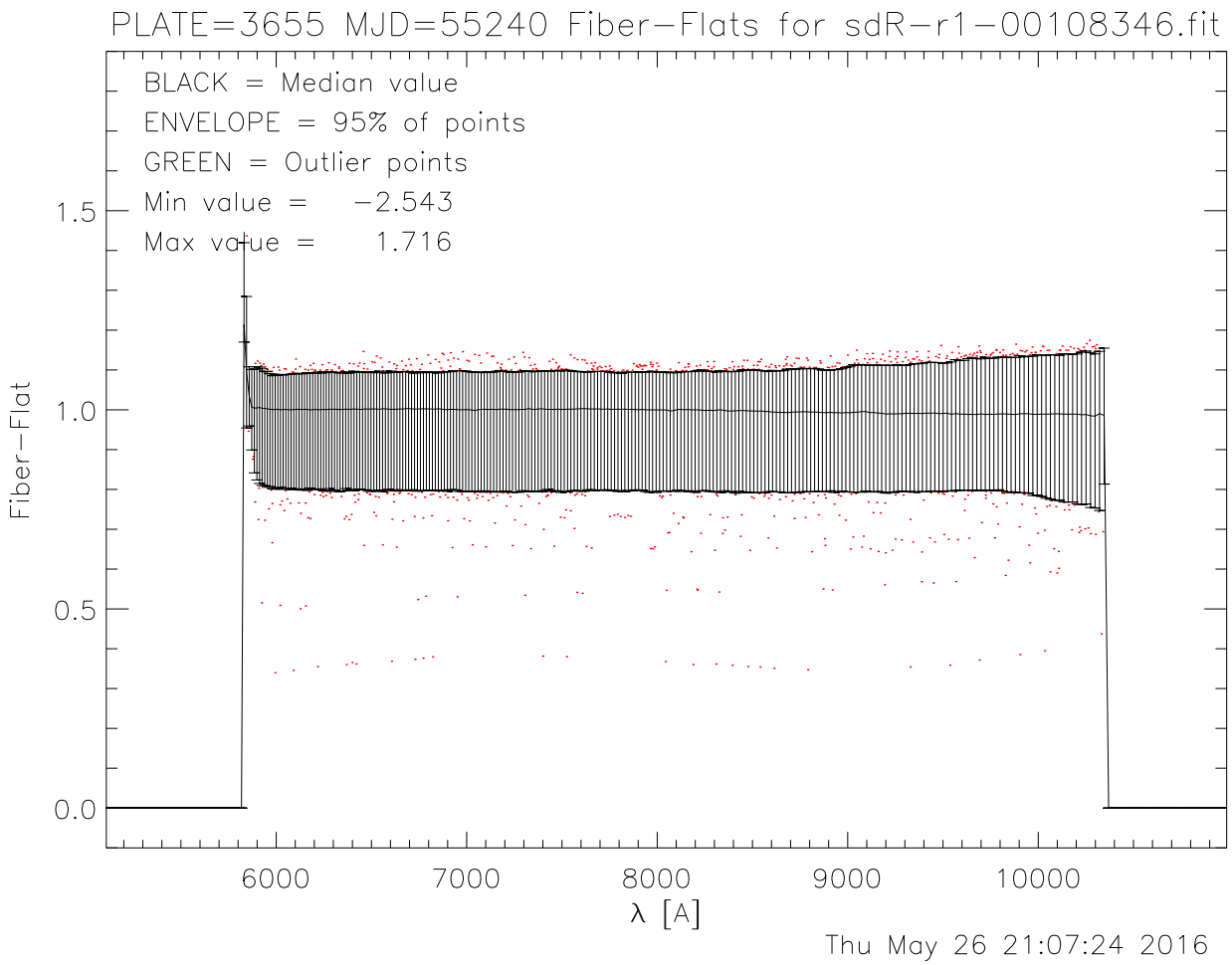

PLATE=3655 MJD=55240 sdR-r1-00108341.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
100
50
0
-50
-100
8820
8840
8860
8880
8900
λ [A]

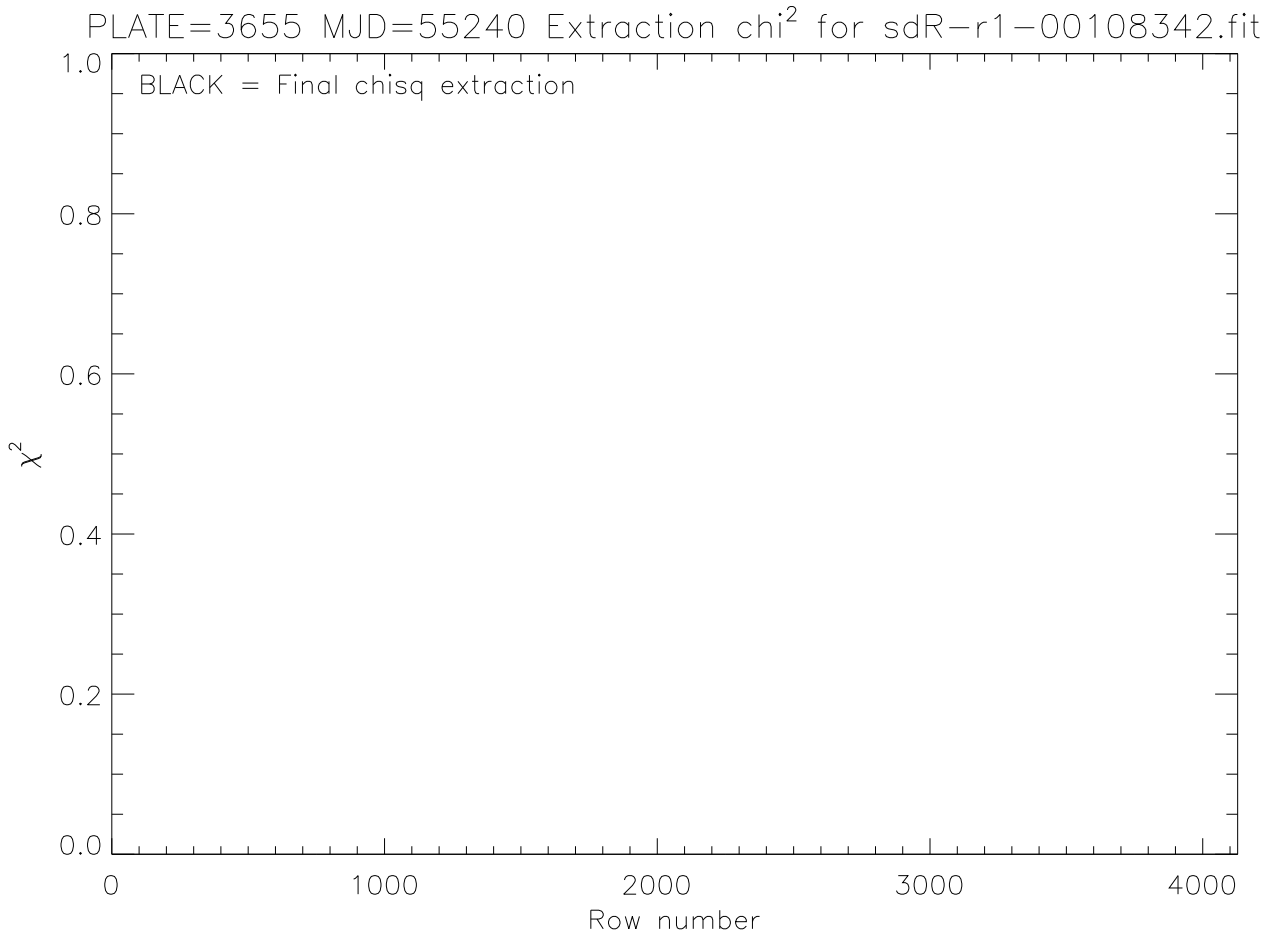
Number of sky fibers = 25

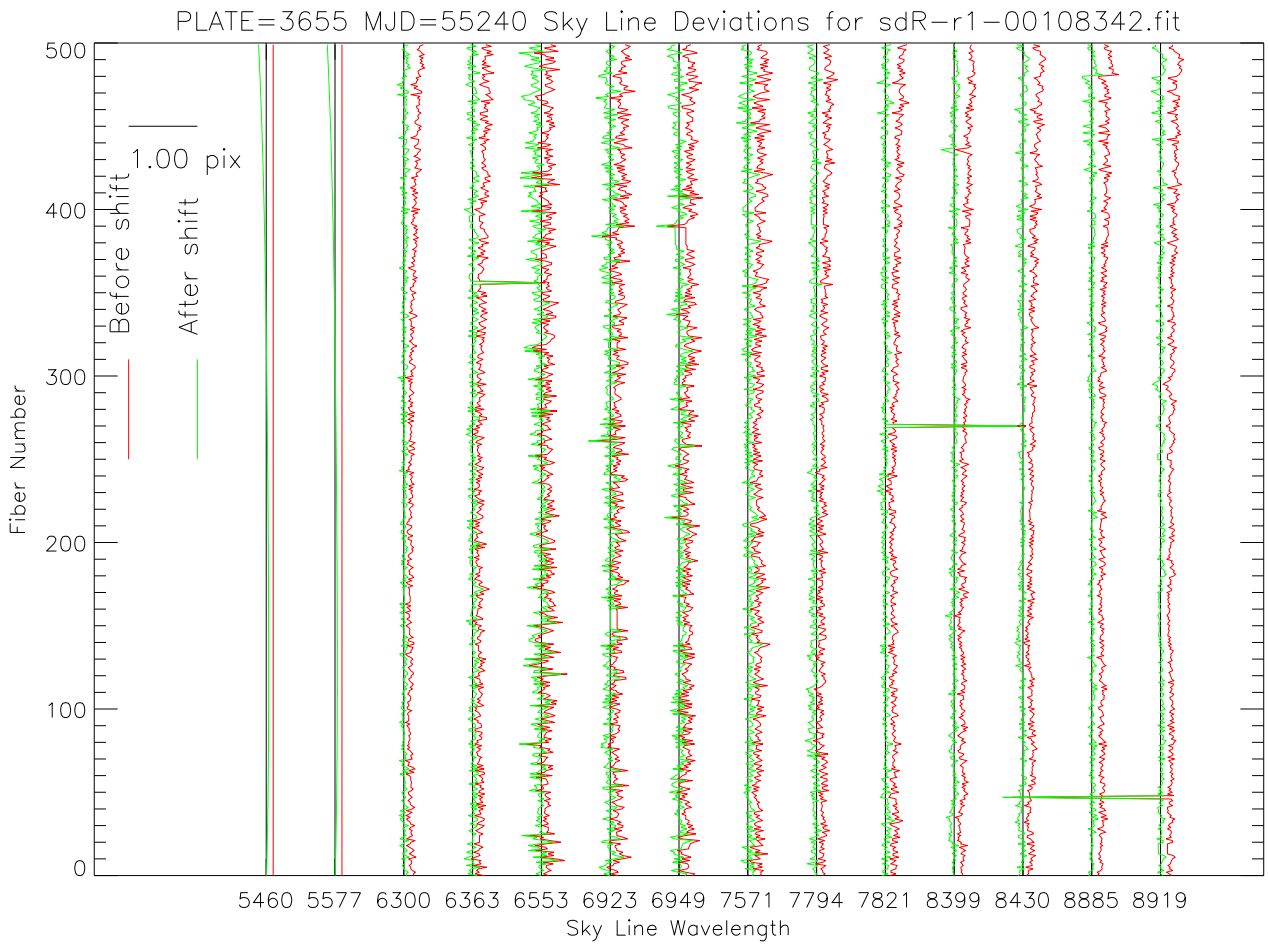


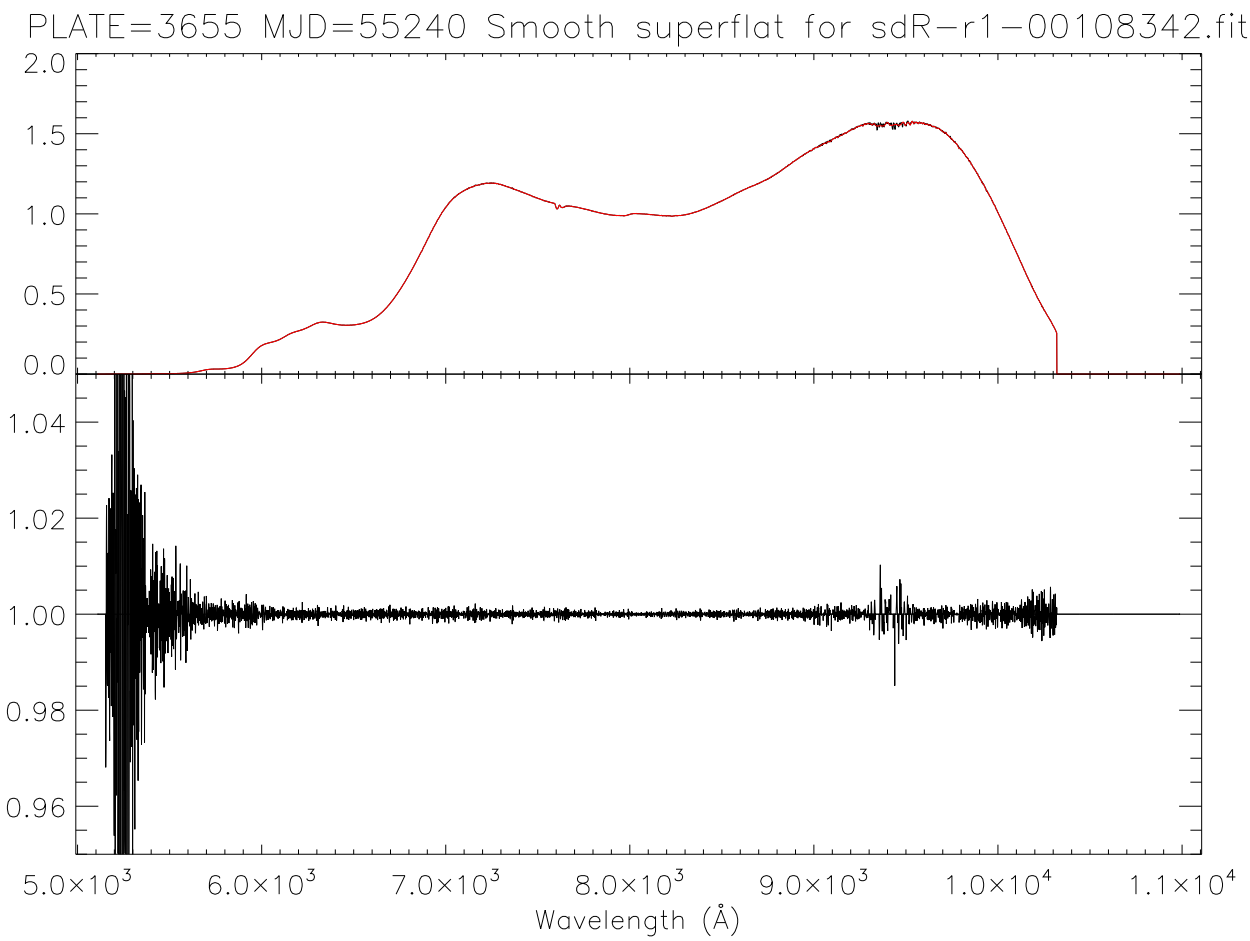

PLATE=3655 MJD=55240 sdR-r1-00108341.fit Skyline Flux at 7343.0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 4.18 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

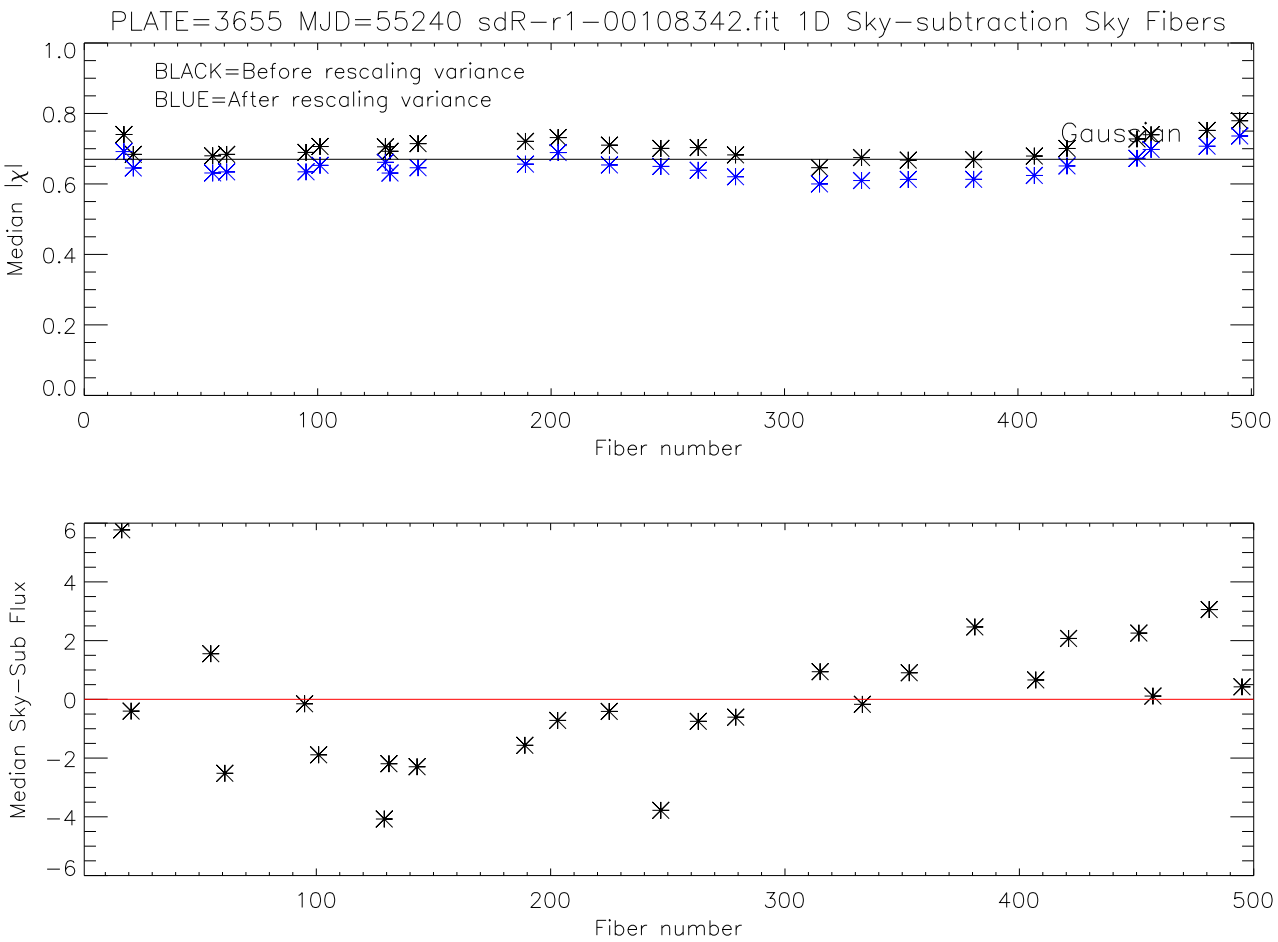

PLATE=3655 MJD=55240 sdR-r1-00108341.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 3.38 %
Fiber number
Focal Distance [mm]
Airmass

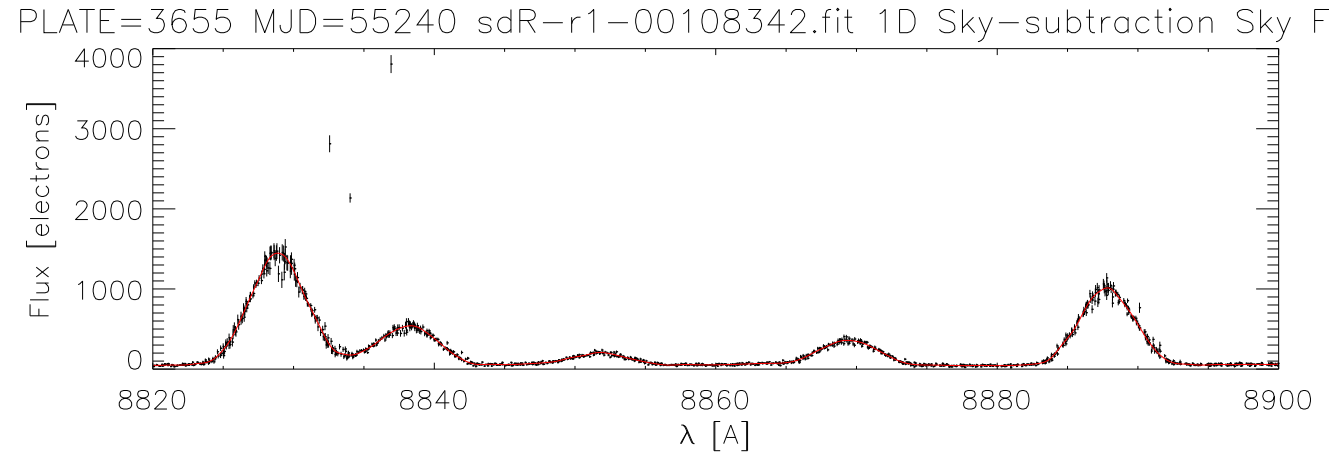

PLATE=3655 MJD=55240 Fiber−Flats for sdR−r1−00108346.fit
BLACK = Median value
ENVELOPE = 95% of points
GREEN = Outlier points
Min value = −2.543
Max value = 1.716
Fiber−Flat
1.5
1.0
0.5
0.0
6000
7000
8000
9000
10000
λ [A]
Thu May 26 21:07:24 2016

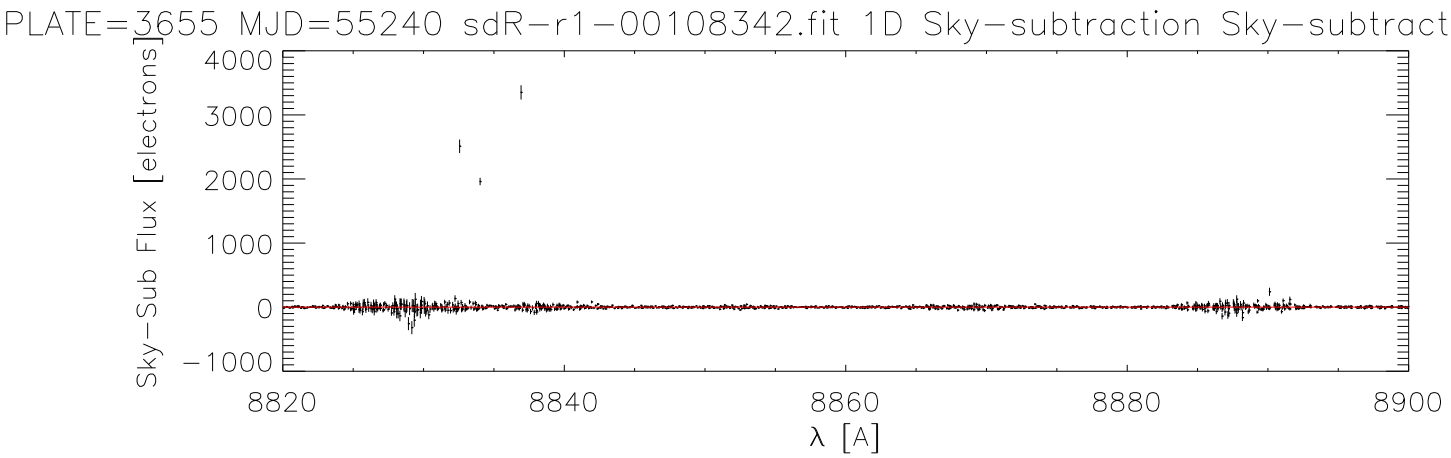

PLATE=3655 MJD=55240 Extraction chi^2 for sdR−r1−00108342.fit
BLACK = Final chisq extraction
χ^2
1.0
0.8
0.6
0.4
0.2
0.0
0
1000
2000
3000
4000
Row number


PLATE=3655 MJD=55240 Sky Line Deviations for sdR-r1-00108342.fit
Before shift
After shift
1.00 pix
Fiber Number
0
100
200
300
400
500
5460 5577 6300 6363 6553 6923 6949 7571 7794 7821 8399 8430 8885 8919
Sky Line Wavelength

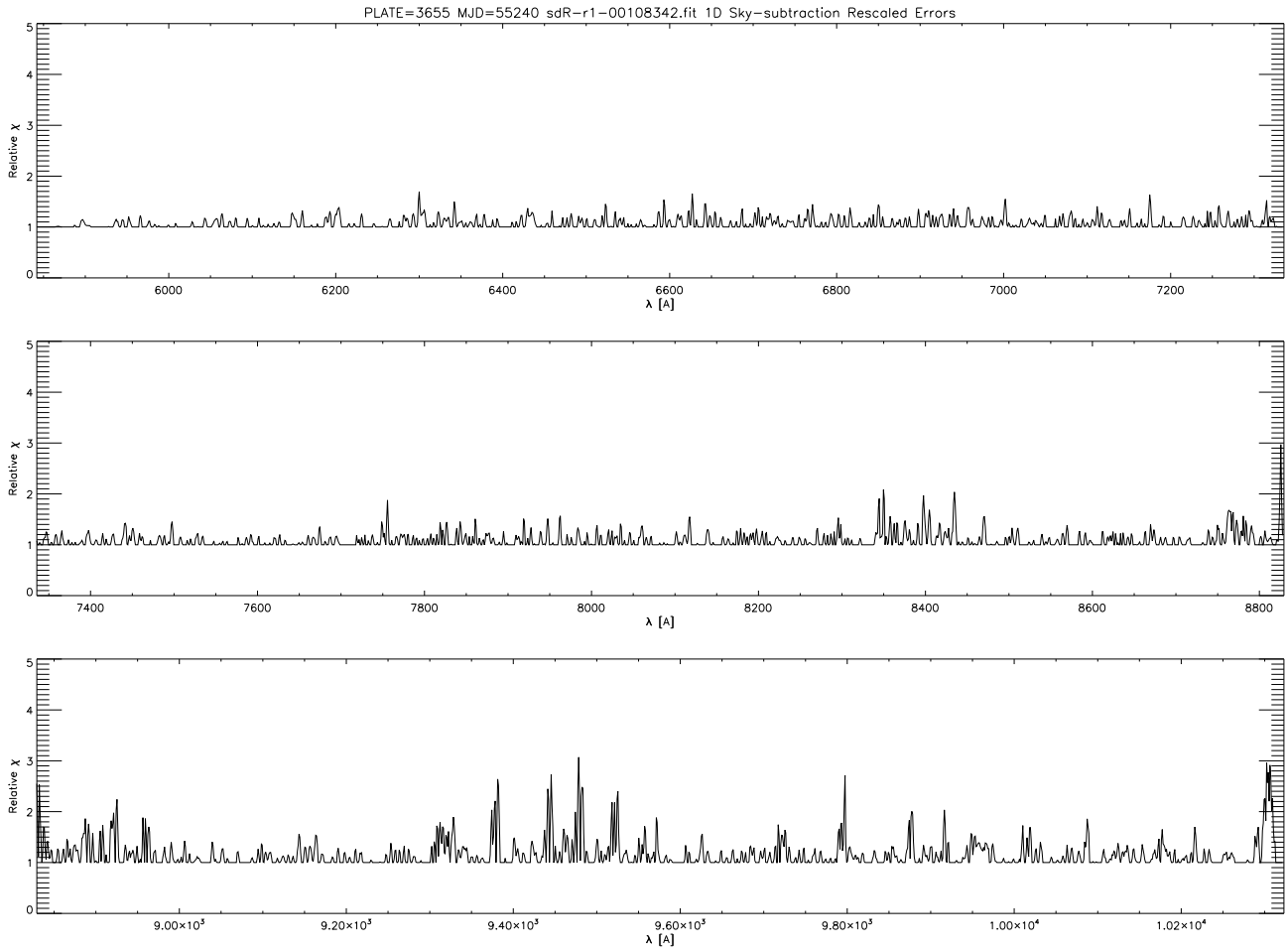

PLATE=3655 MJD=55240 Smooth superflat for sdR-r1-00108342.fit
2.0
1.5
1.0
0.5
0.0
1.04
1.02
1.00
0.98
0.96
5.0×10^3
6.0×10^3
7.0×10^3
8.0×10^3
9.0×10^3
1.0×10^4
1.1×10^4
Wavelength (Å)

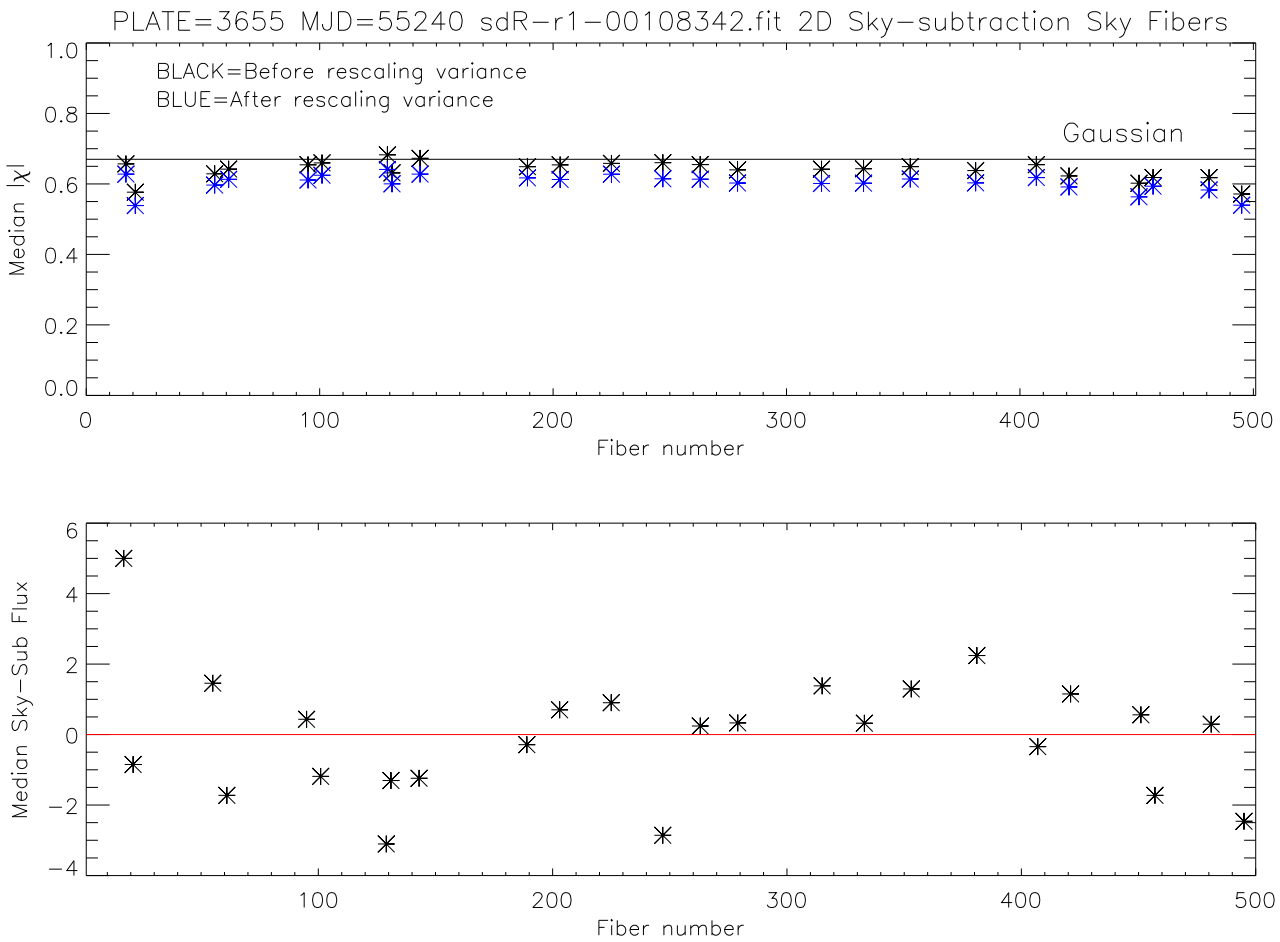

PLATE=3655 MJD=55240 sdR-r1-00108342.fit 1D Sky-subtraction Sky Fibers
BLACK=Before rescaling variance
BLUE=After rescaling variance
Gaussian
Median |χ|
Fiber number
Median Sky-Sub Flux
Fiber number

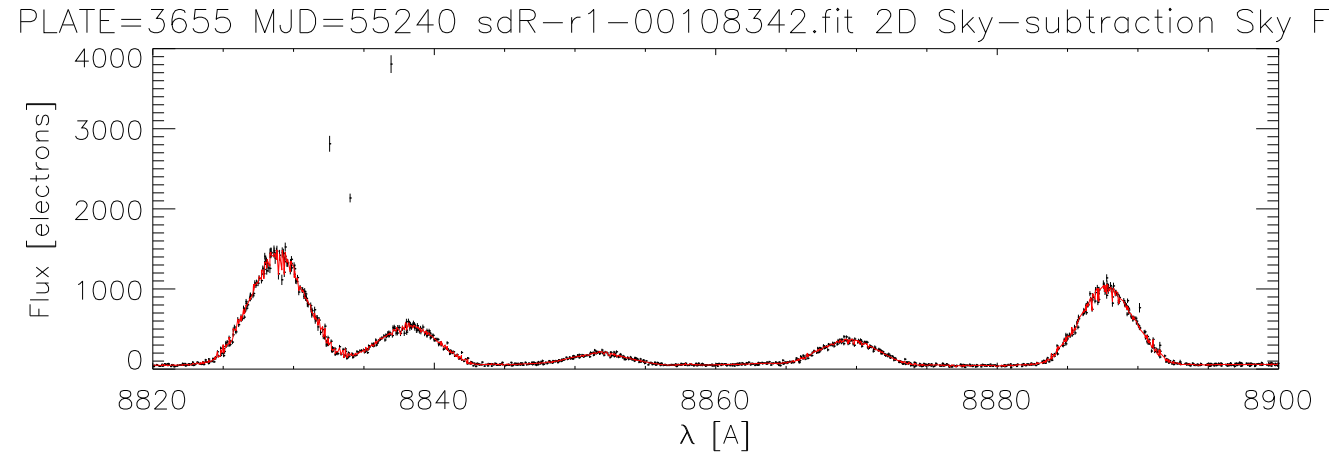

PLATE=3655 MJD=55240 sdR-r1-00108342.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

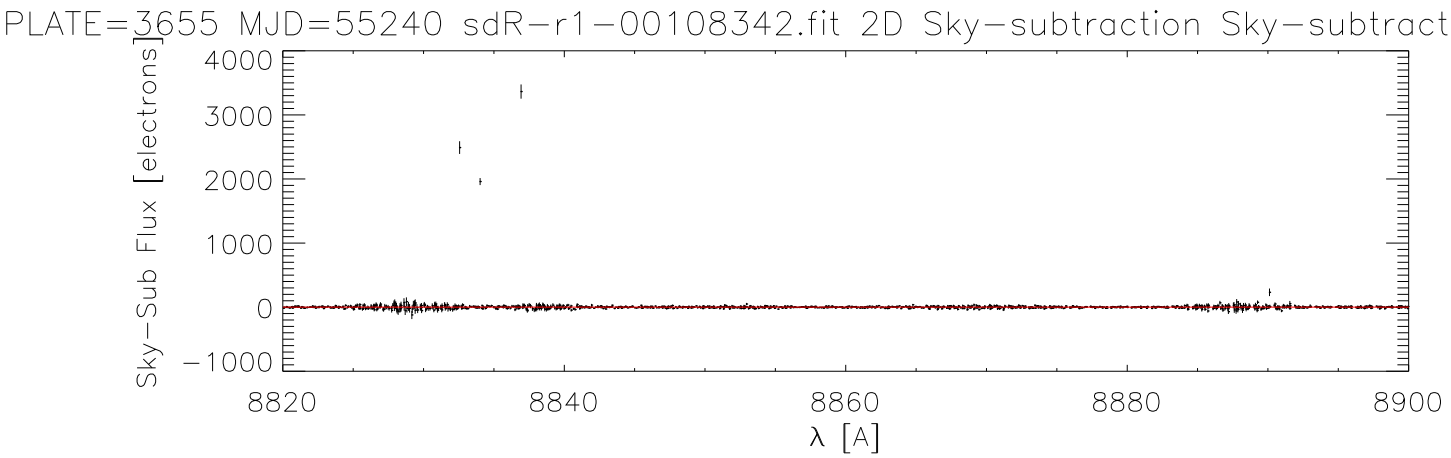

PLATE=3655 MJD=55240 sdR-r1-00108342.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
4000
3000
2000
1000
0
-1000
8820
8840
8860
8880
8900
λ [A]

Number of sky fibers = 25

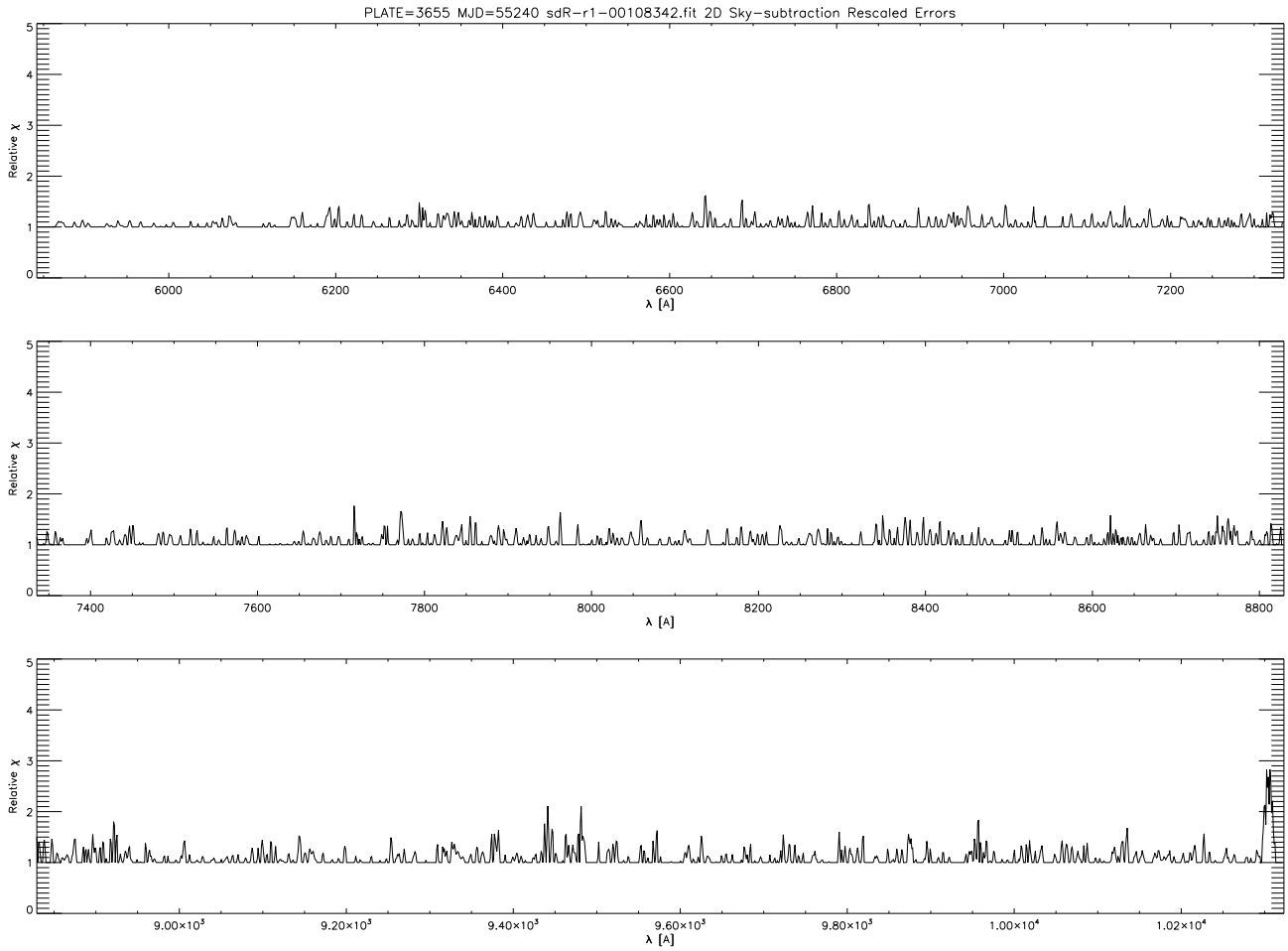


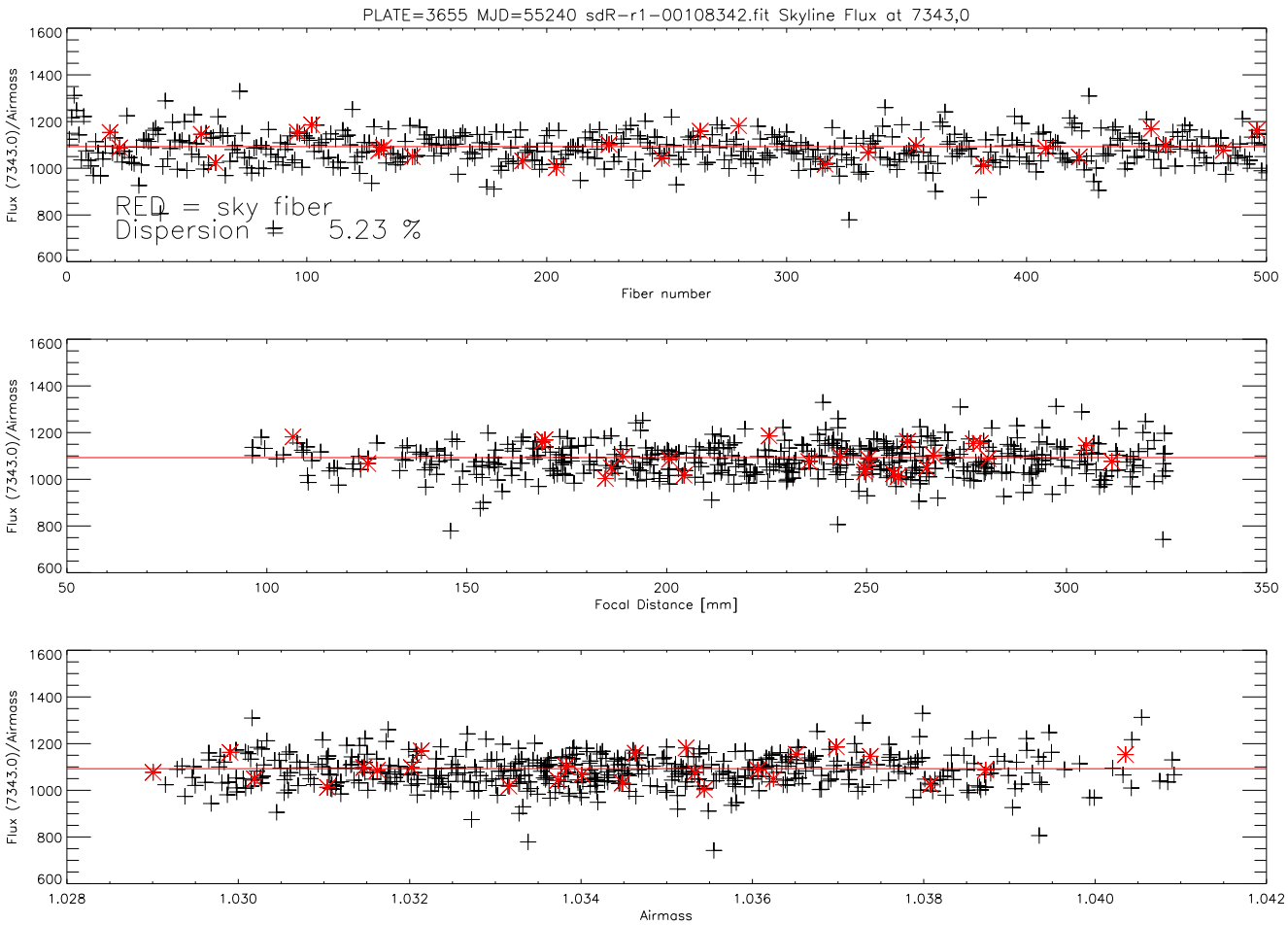

PLATE=3655 MJD=55240 sdR-r1-00108342.fit 2D Sky-subtraction Sky Fibers
BLACK=Before rescaling variance
BLUE=After rescaling variance
Gaussian
Median |χ|
Fiber number
Median Sky-Sub Flux
Fiber number

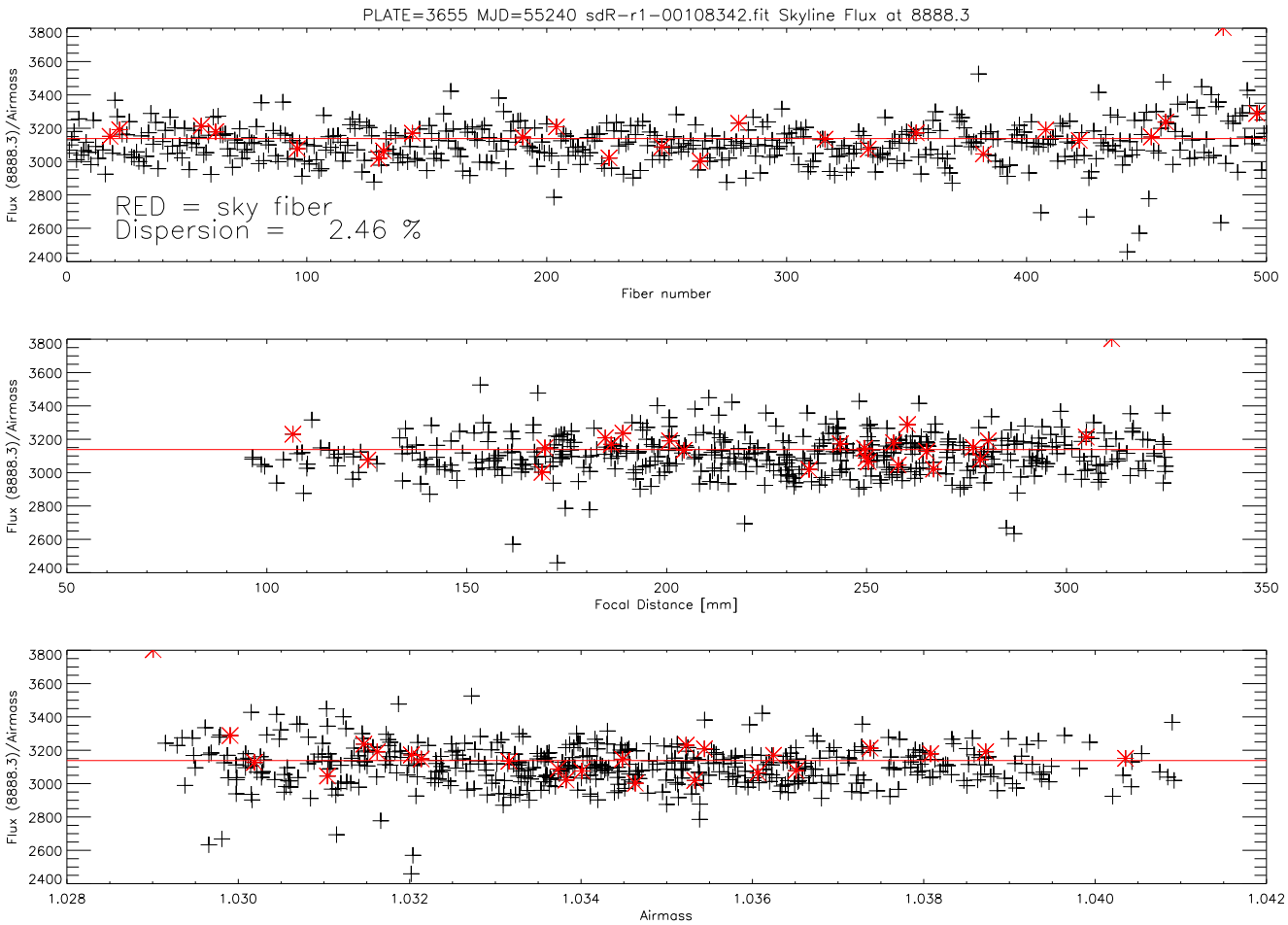

PLATE=3655 MJD=55240 sdR-r1-00108342.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

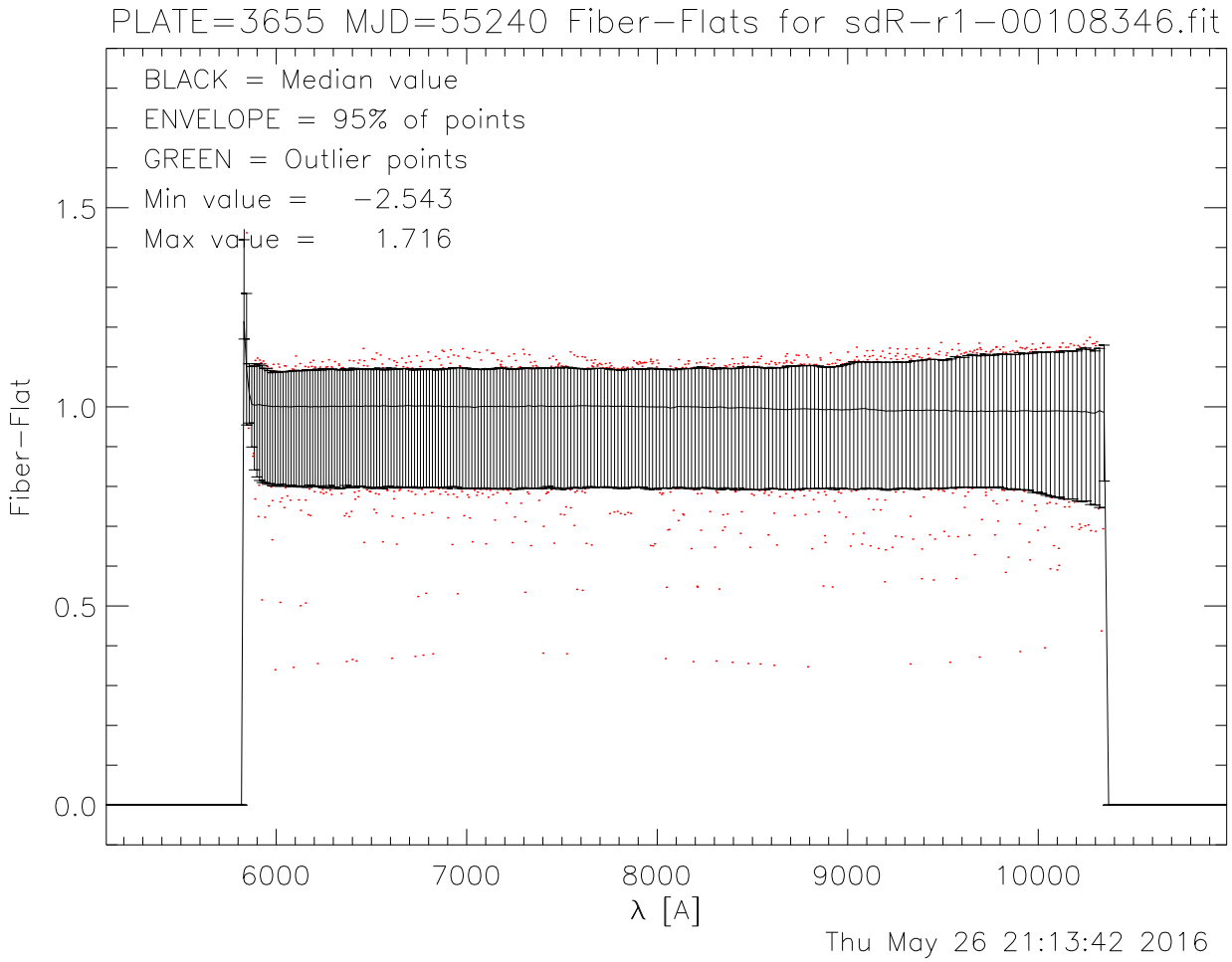

PLATE=3655 MJD=55240 sdR-r1-00108342.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
4000
3000
2000
1000
0
-1000
8820
8840
8860
8880
8900
λ [A]

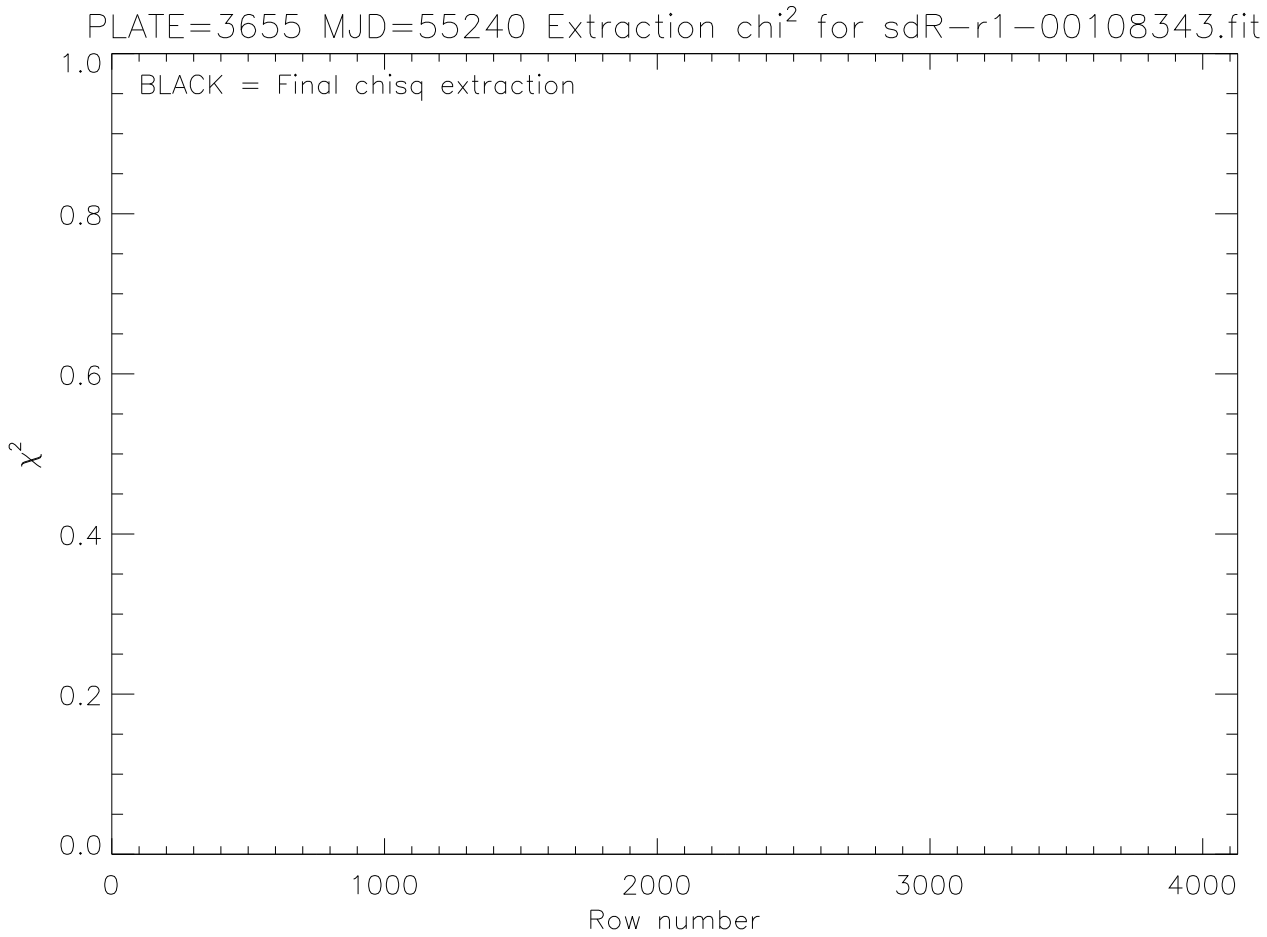
Number of sky fibers = 25

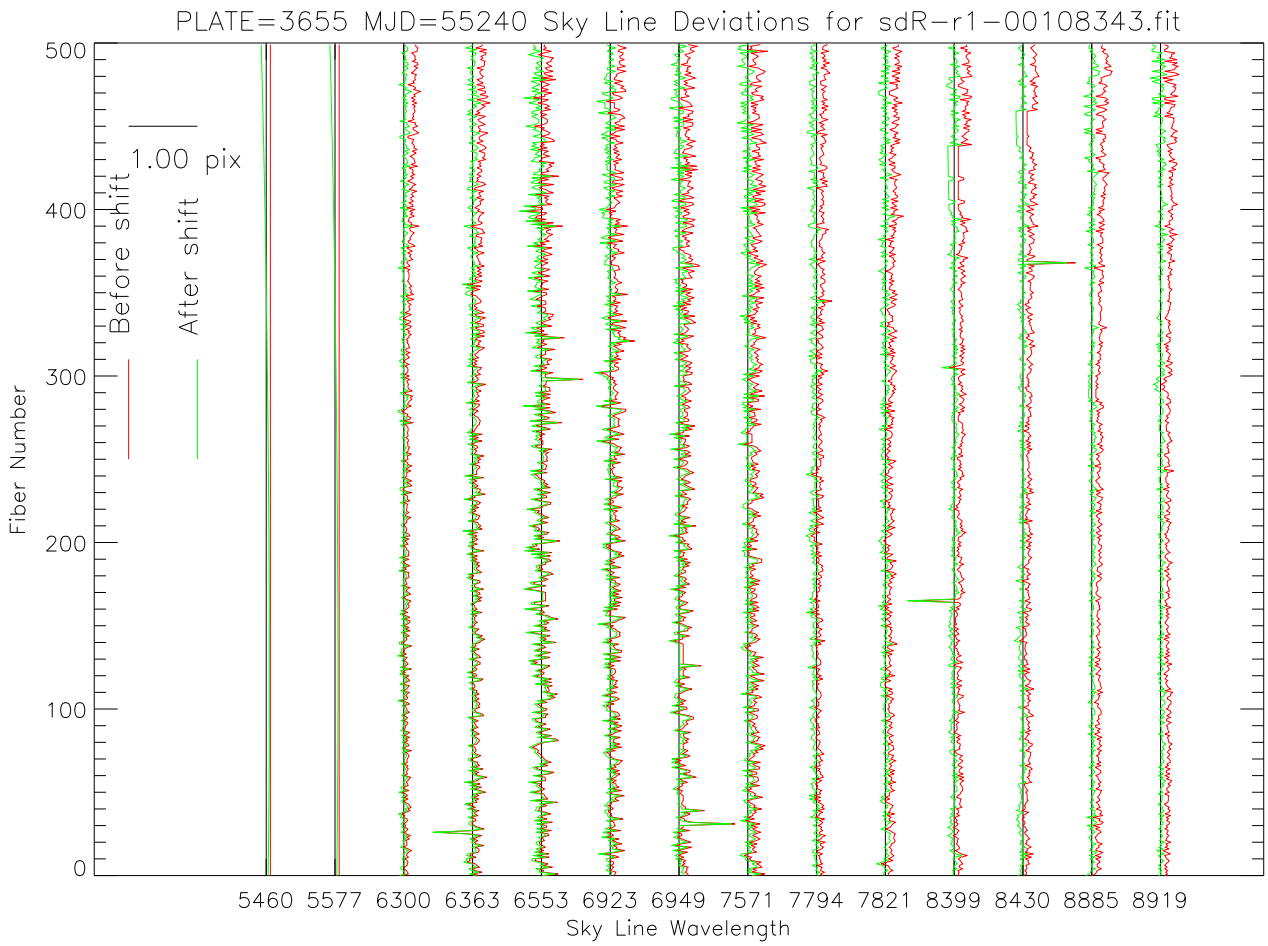


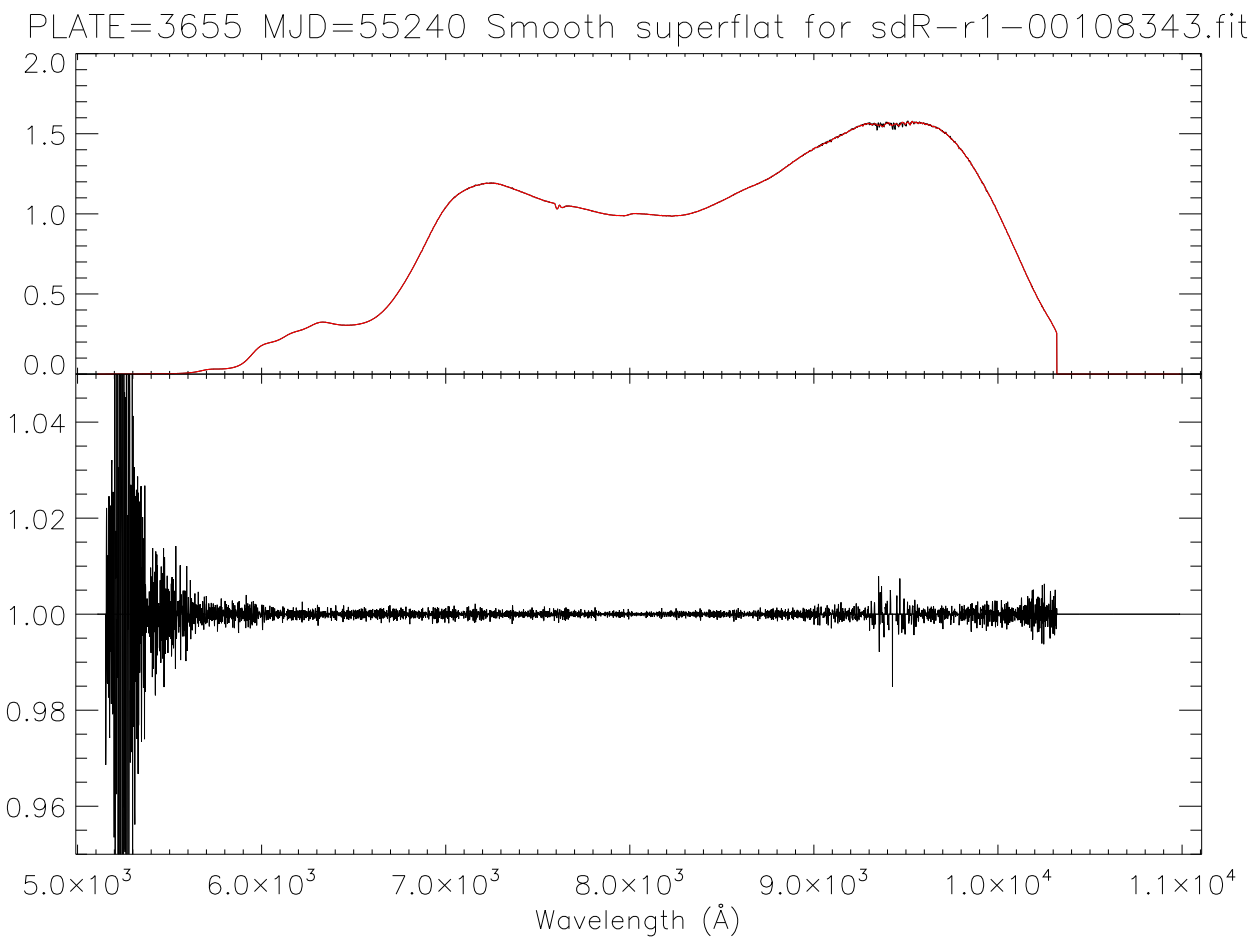

PLATE=3655 MJD=55240 sdR-r1-00108342.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
Fiber number
RED = sky fiber
Dispersion = 5.23 %
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

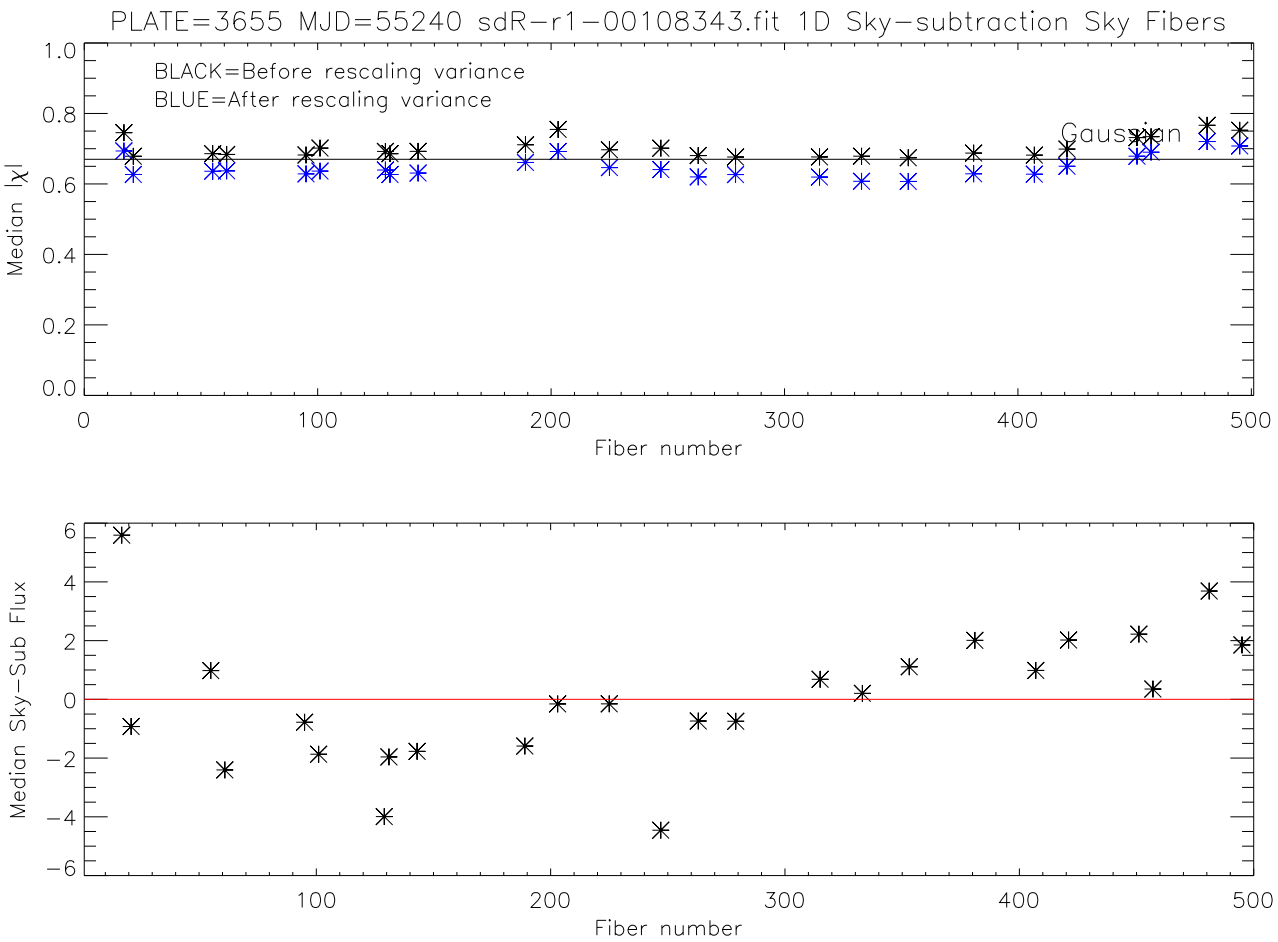

PLATE=3655 MJD=55240 sdR-r1-00108342.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 2.46 %
Fiber number
Focal Distance [mm]
Airmass

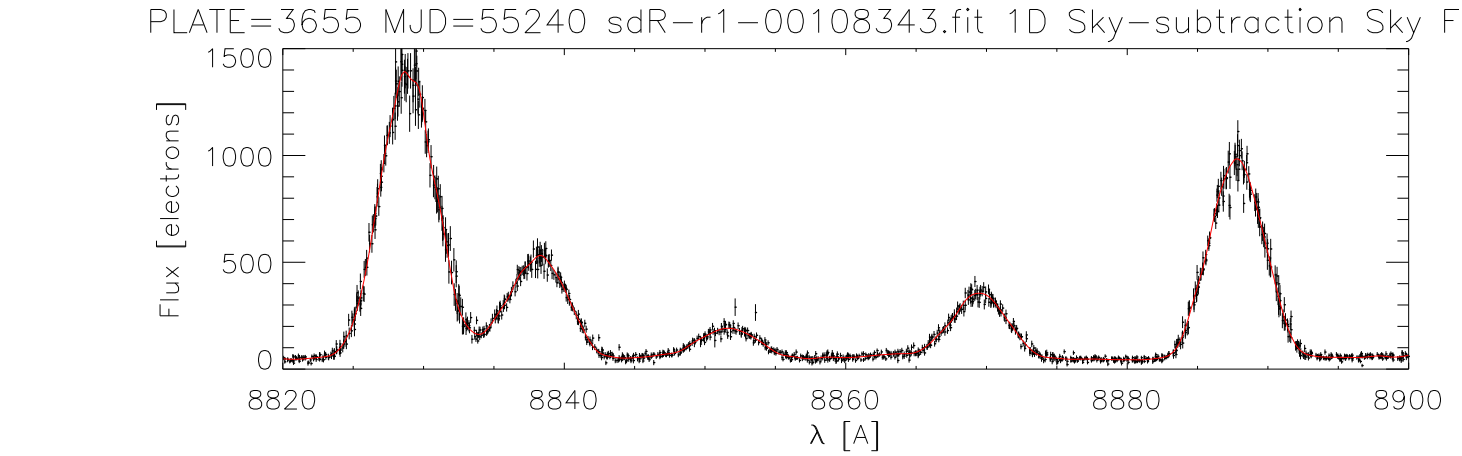

PLATE=3655 MJD=55240 Fiber−Flats for sdR−r1−00108346.fit
BLACK = Median value
ENVELOPE = 95% of points
GREEN = Outlier points
Min value = −2.543
Max value = 1.716
Fiber−Flat
1.5
1.0
0.5
0.0
6000
7000
8000
9000
10000
λ [A]
Thu May 26 21:13:42 2016

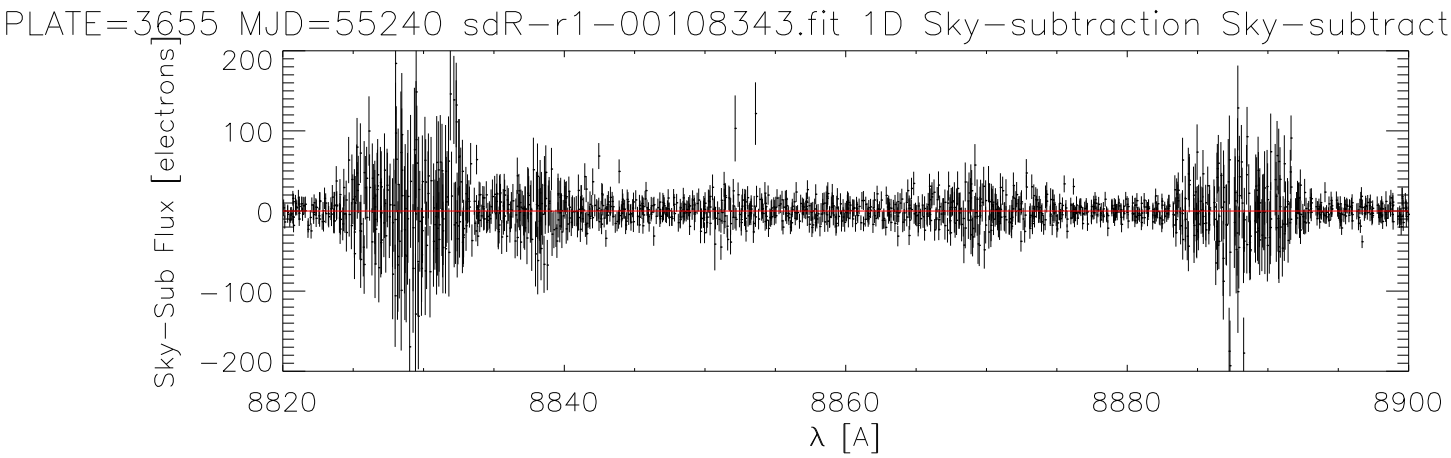

PLATE=3655 MJD=55240 Extraction chi^2 for sdR−r1−00108343.fit
BLACK = Final chisq extraction
χ^2
1.0
0.8
0.6
0.4
0.2
0.0
0
1000
2000
3000
4000
Row number


PLATE=3655 MJD=55240 Sky Line Deviations for sdR-r1-00108343.fit
Before shift
After shift
1.00 pix
Fiber Number
0
100
200
300
400
500
5460 5577 6300 6363 6553 6923 6949 7571 7794 7821 8399 8430 8885 8919
Sky Line Wavelength

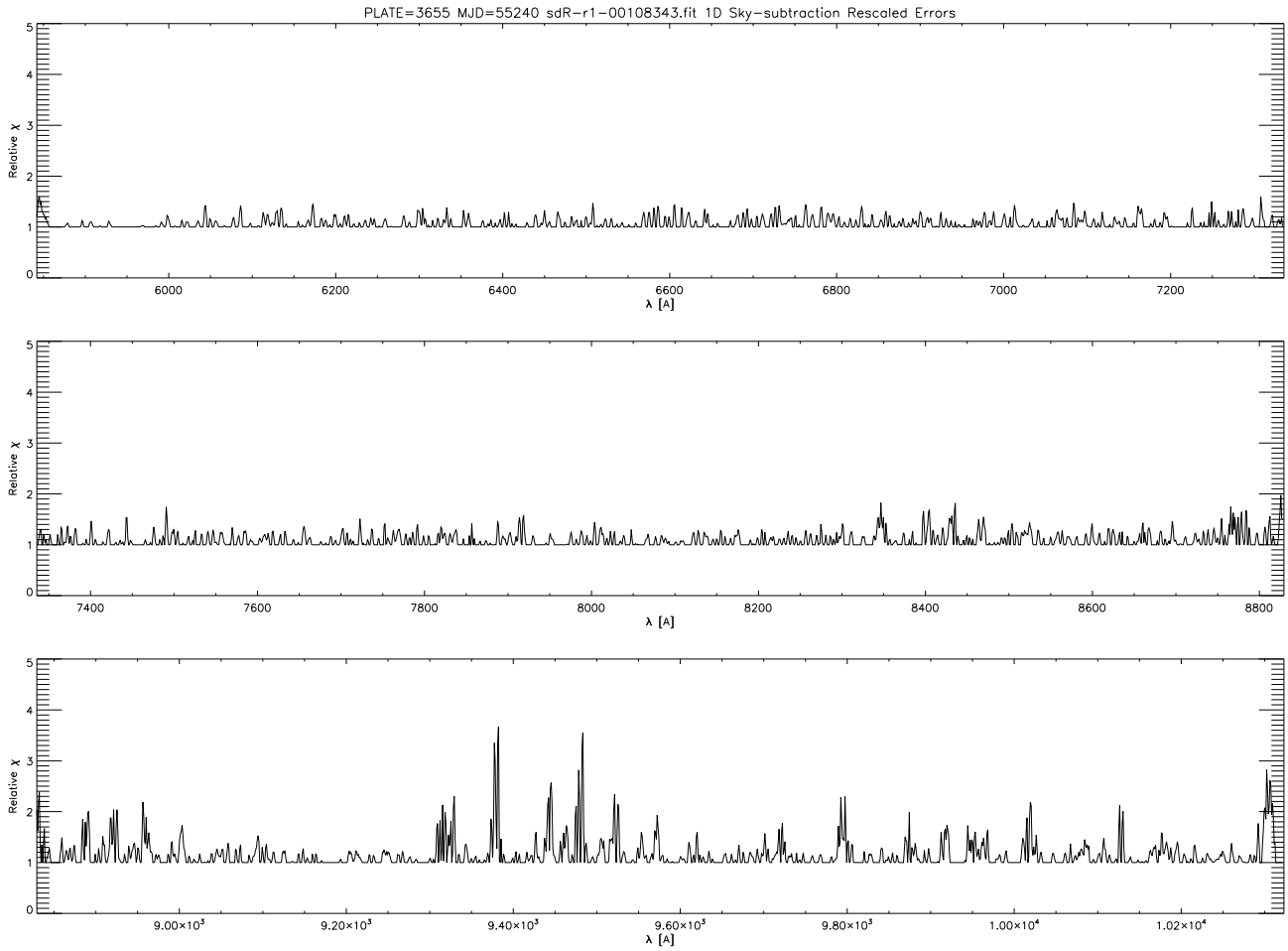

PLATE=3655 MJD=55240 Smooth superflat for sdR-r1-00108343.fit
2.0
1.5
1.0
0.5
0.0
1.04
1.02
1.00
0.98
0.96
5.0×10^3
6.0×10^3
7.0×10^3
8.0×10^3
9.0×10^3
1.0×10^4
1.1×10^4
Wavelength (Å)

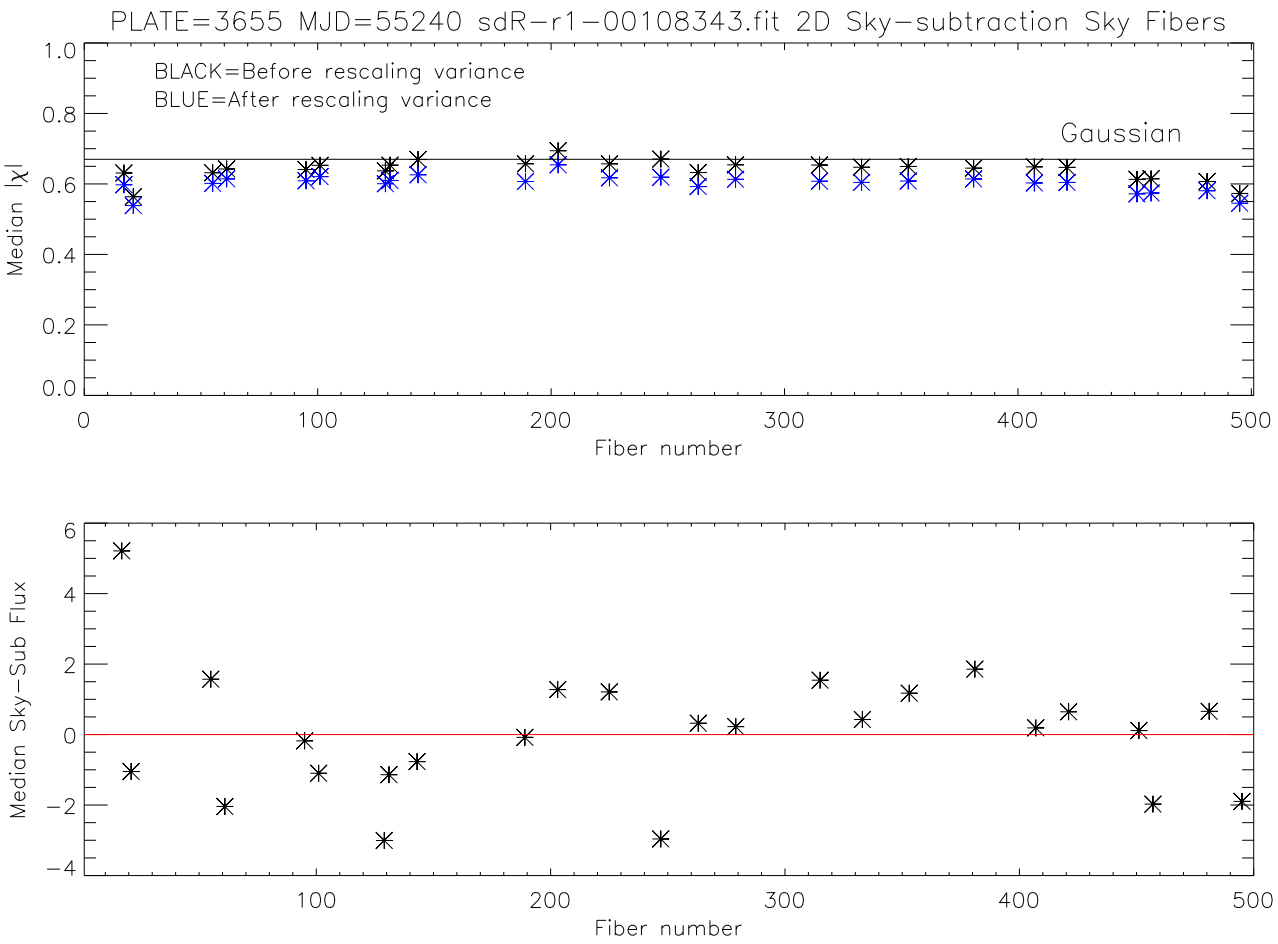

PLATE=3655 MJD=55240 sdR-r1-00108343.fit 1D Sky-subtraction Sky Fibers
BLACK=Before rescaling variance
BLUE=After rescaling variance
Gaussian
Median |χ|
Fiber number
Median Sky-Sub Flux
Fiber number

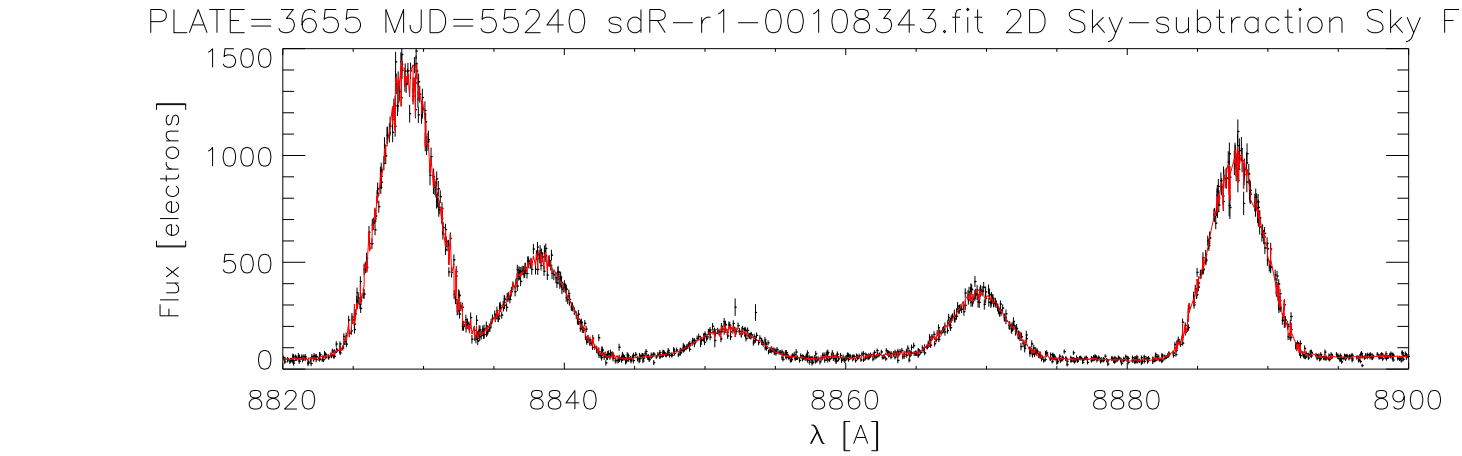

PLATE=3655 MJD=55240 sdR-r1-00108343.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
1500
1000
500
0
8820
8840
8860
8880
8900
λ [A]

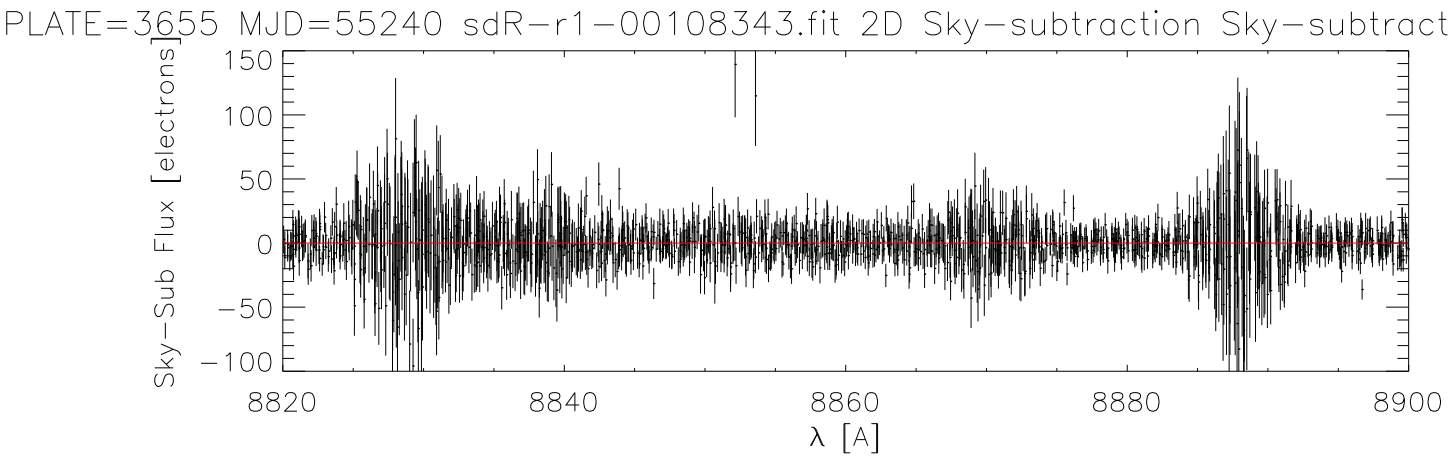

PLATE=3655 MJD=55240 sdR-r1-00108343.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
8820
8840
8860
8880
8900
λ [A]

Number of sky fibers = 25

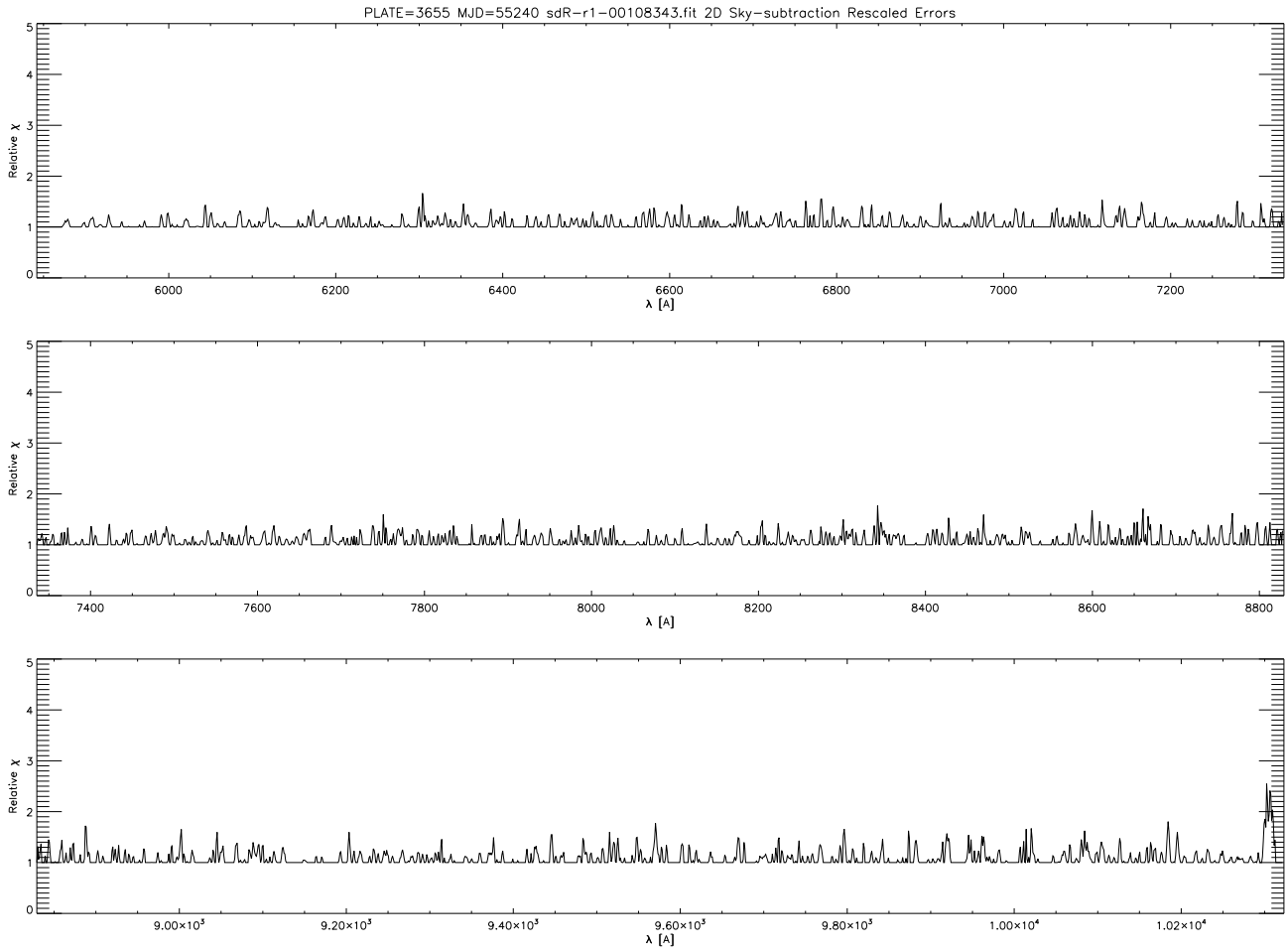


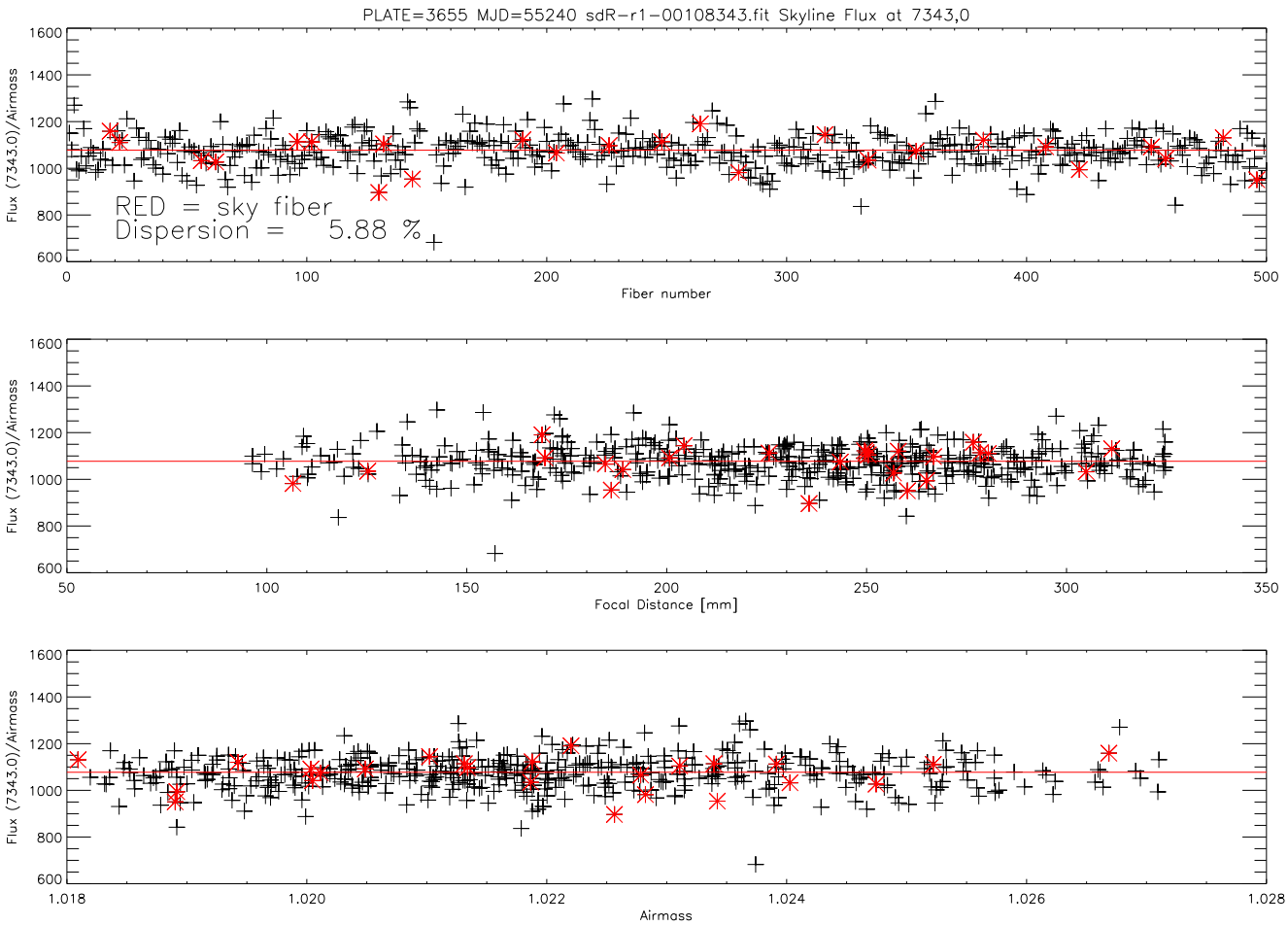

PLATE=3655 MJD=55240 sdR-r1-00108343.fit 2D Sky-subtraction Sky Fibers
BLACK=Before rescaling variance
BLUE=After rescaling variance
Gaussian
Median |χ|
Fiber number
Median Sky-Sub Flux
Fiber number

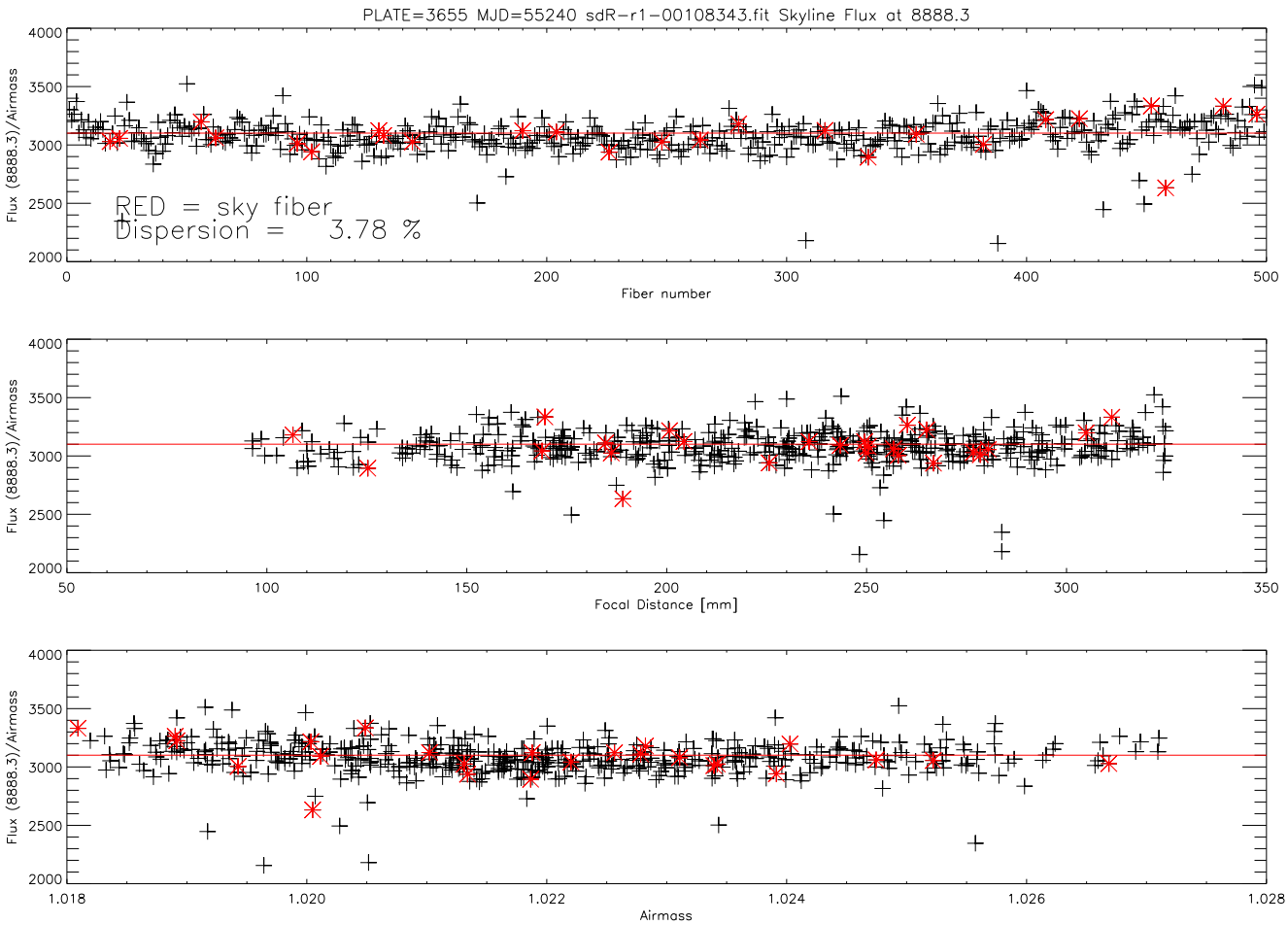

PLATE=3655 MJD=55240 sdR-r1-00108343.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
1500
1000
500
0
8820
8840
8860
8880
8900
λ [A]

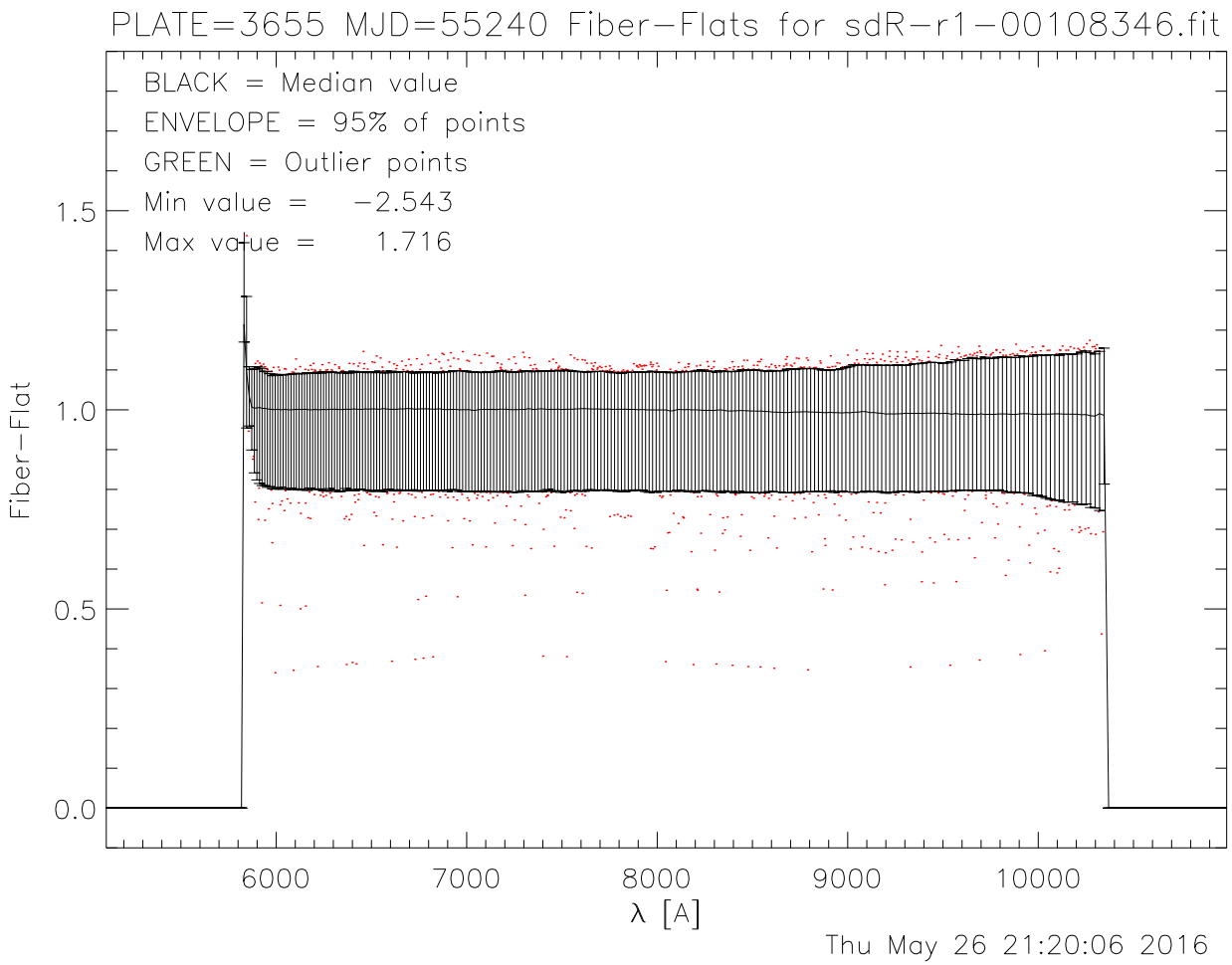

PLATE=3655 MJD=55240 sdR-r1-00108343.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
150
100
50
0
-50
-100
8820
8840
8860
8880
8900
λ [A]

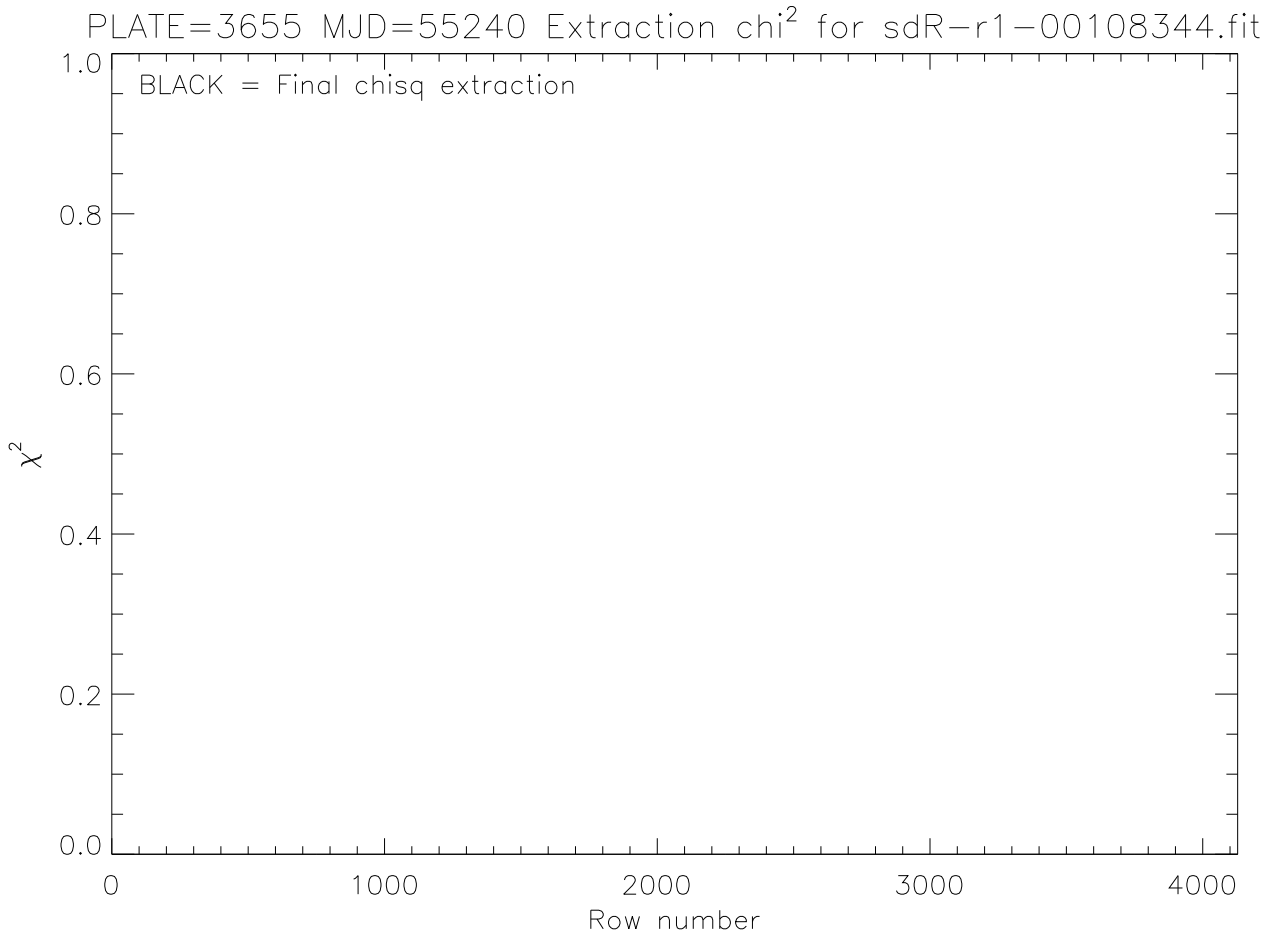
Number of sky fibers = 25

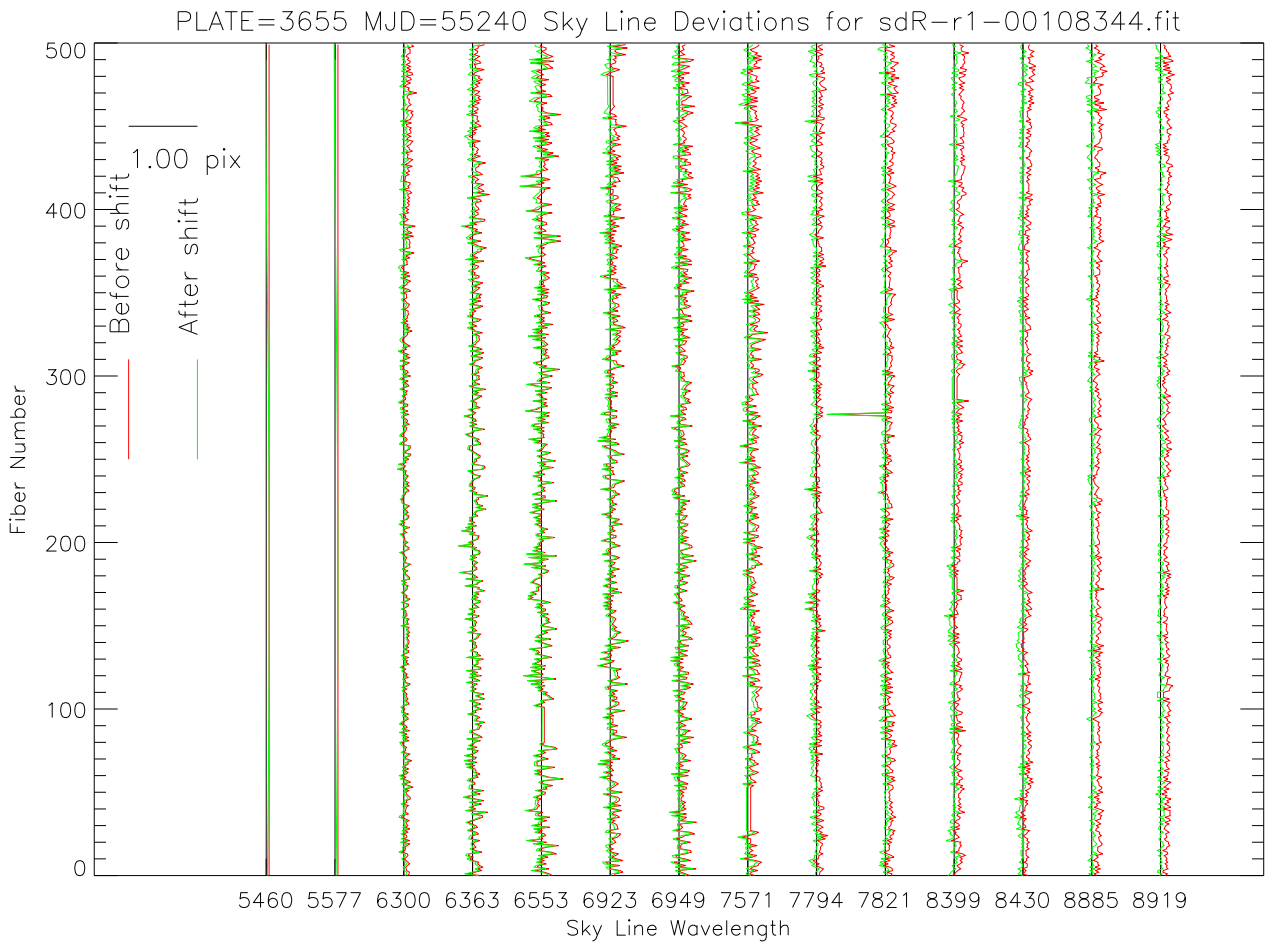


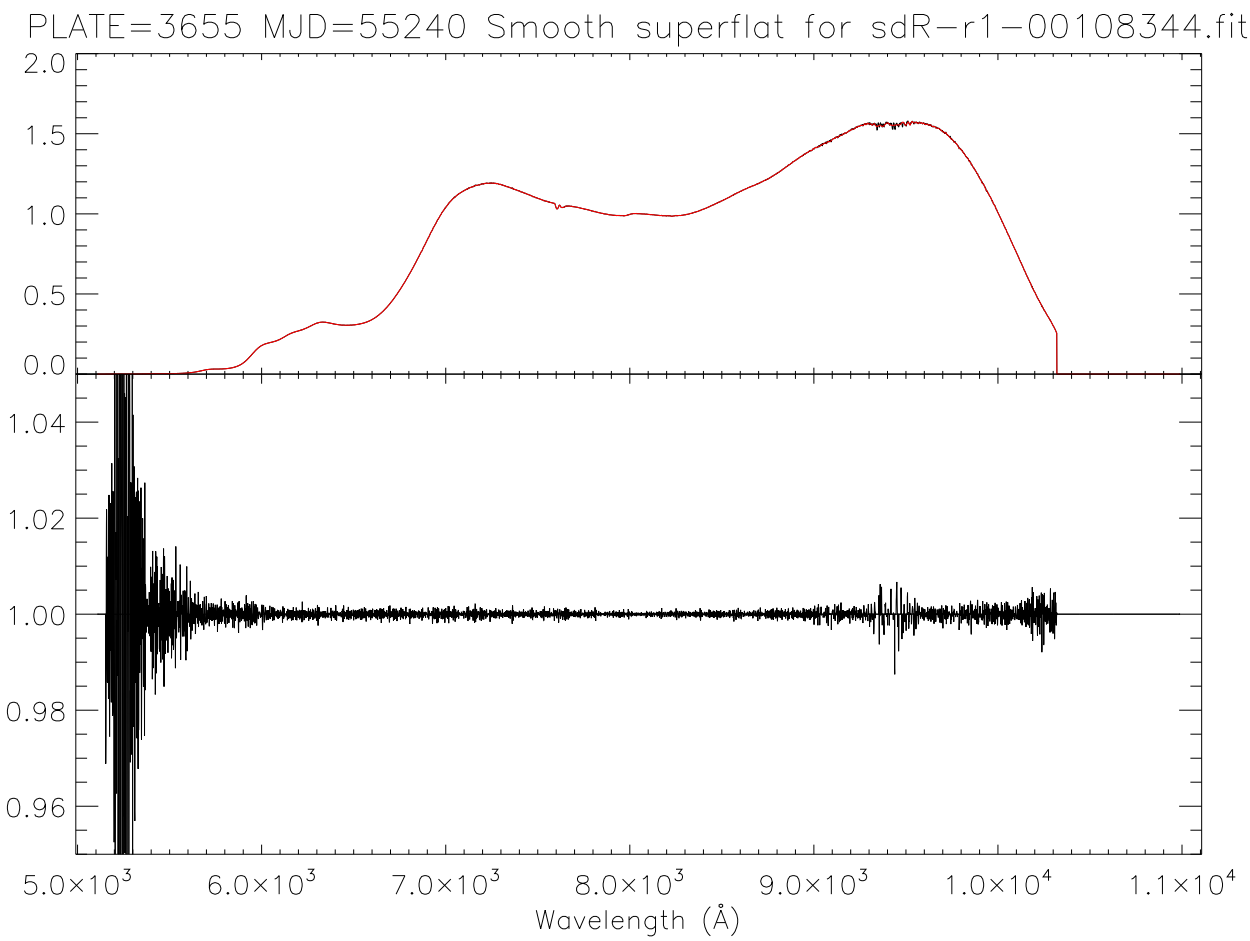

PLATE=3655 MJD=55240 sdR-r1-00108343.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 5.88 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

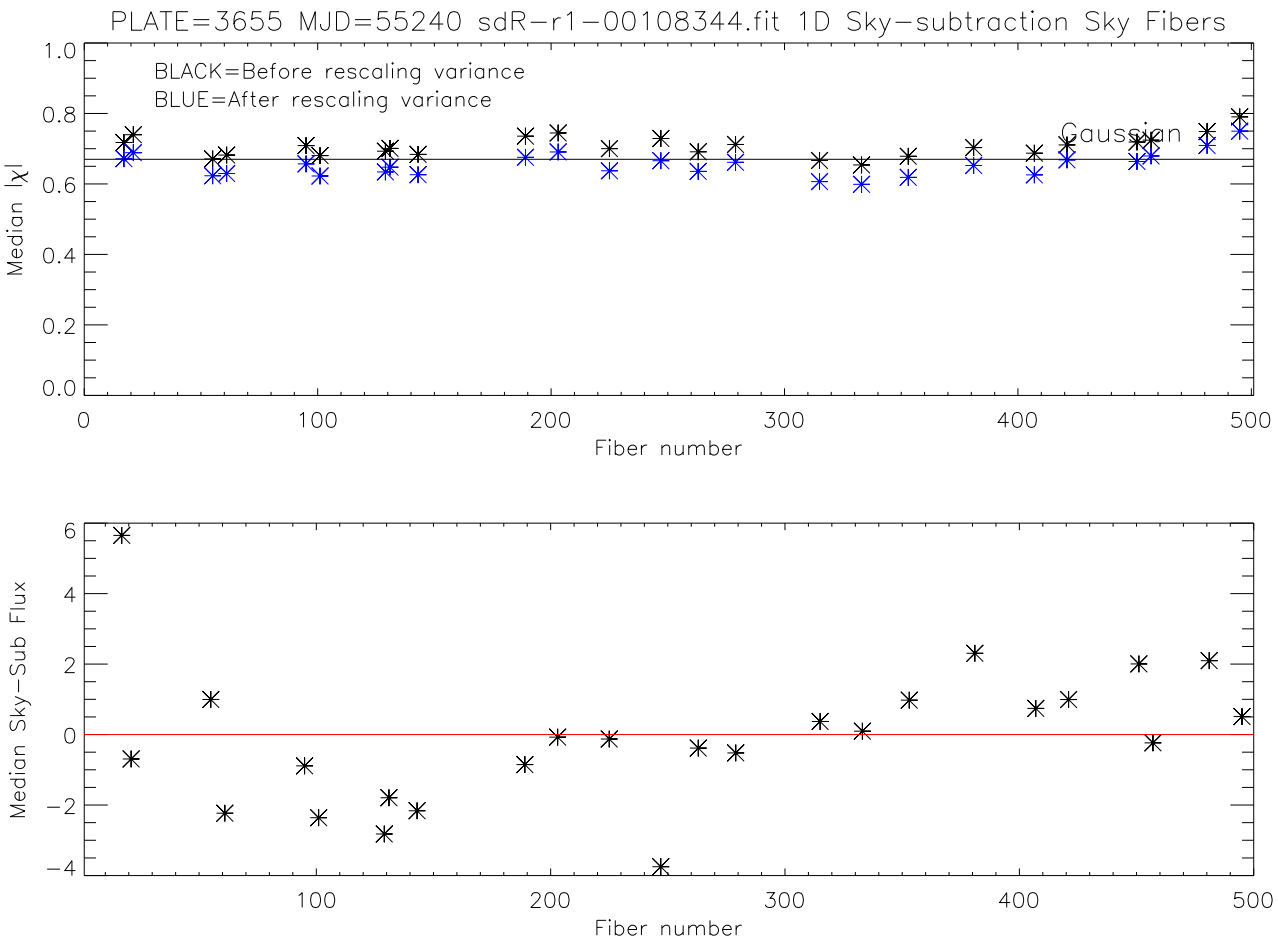

PLATE=3655 MJD=55240 sdR-r1-00108343.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 3.78 %
Fiber number
Focal Distance [mm]
Airmass

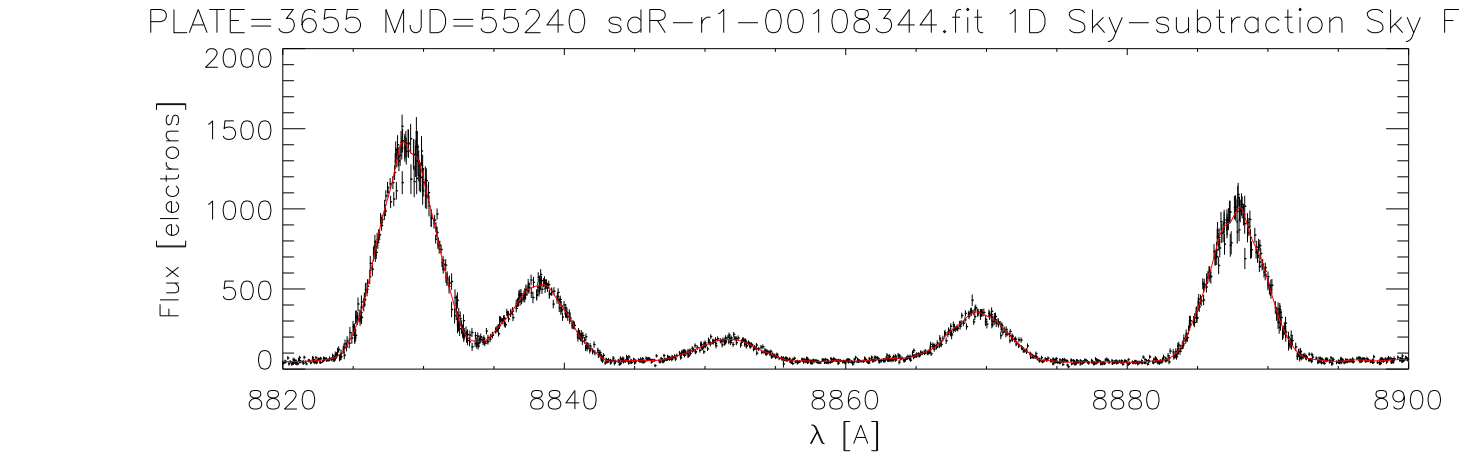

PLATE=3655 MJD=55240 Fiber−Flats for sdR−r1−00108346.fit
BLACK = Median value
ENVELOPE = 95% of points
GREEN = Outlier points
Min value = −2.543
Max value = 1.716
Fiber−Flat
1.5
1.0
0.5
0.0
6000
7000
8000
9000
10000
λ [A]
Thu May 26 21:20:06 2016

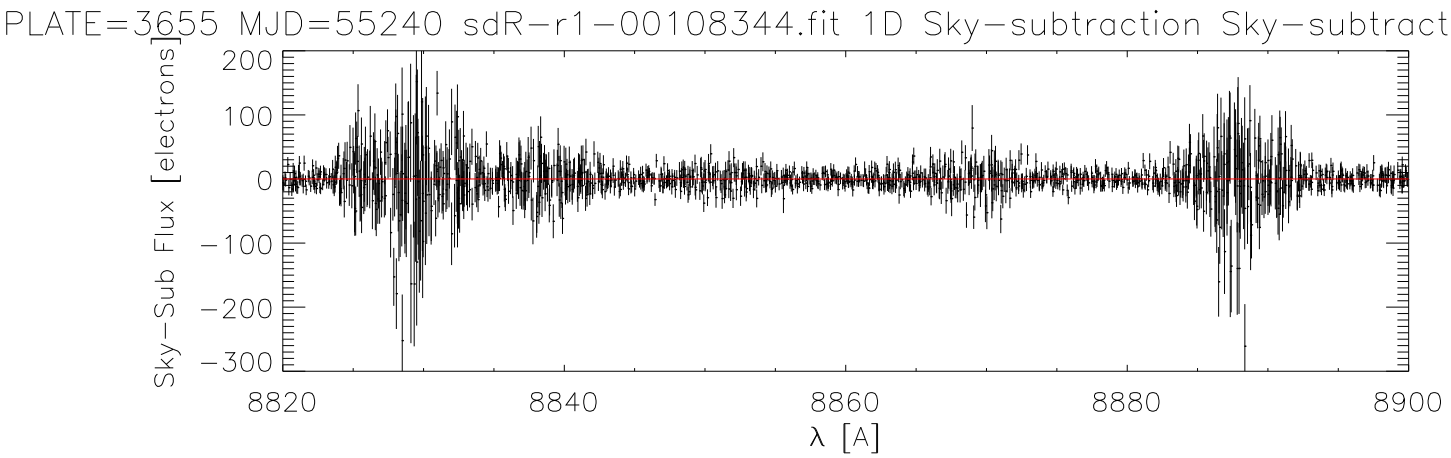

PLATE=3655 MJD=55240 Extraction chi^2 for sdR−r1−00108344.fit
BLACK = Final chisq extraction
χ^2
1.0
0.8
0.6
0.4
0.2
0.0
0
1000
2000
3000
4000
Row number


PLATE=3655 MJD=55240 Sky Line Deviations for sdR-r1-00108344.fit
Before shift
After shift
1.00 pix
Fiber Number
0
100
200
300
400
500
5460 5577 6300 6363 6553 6923 6949 7571 7794 7821 8399 8430 8885 8919
Sky Line Wavelength

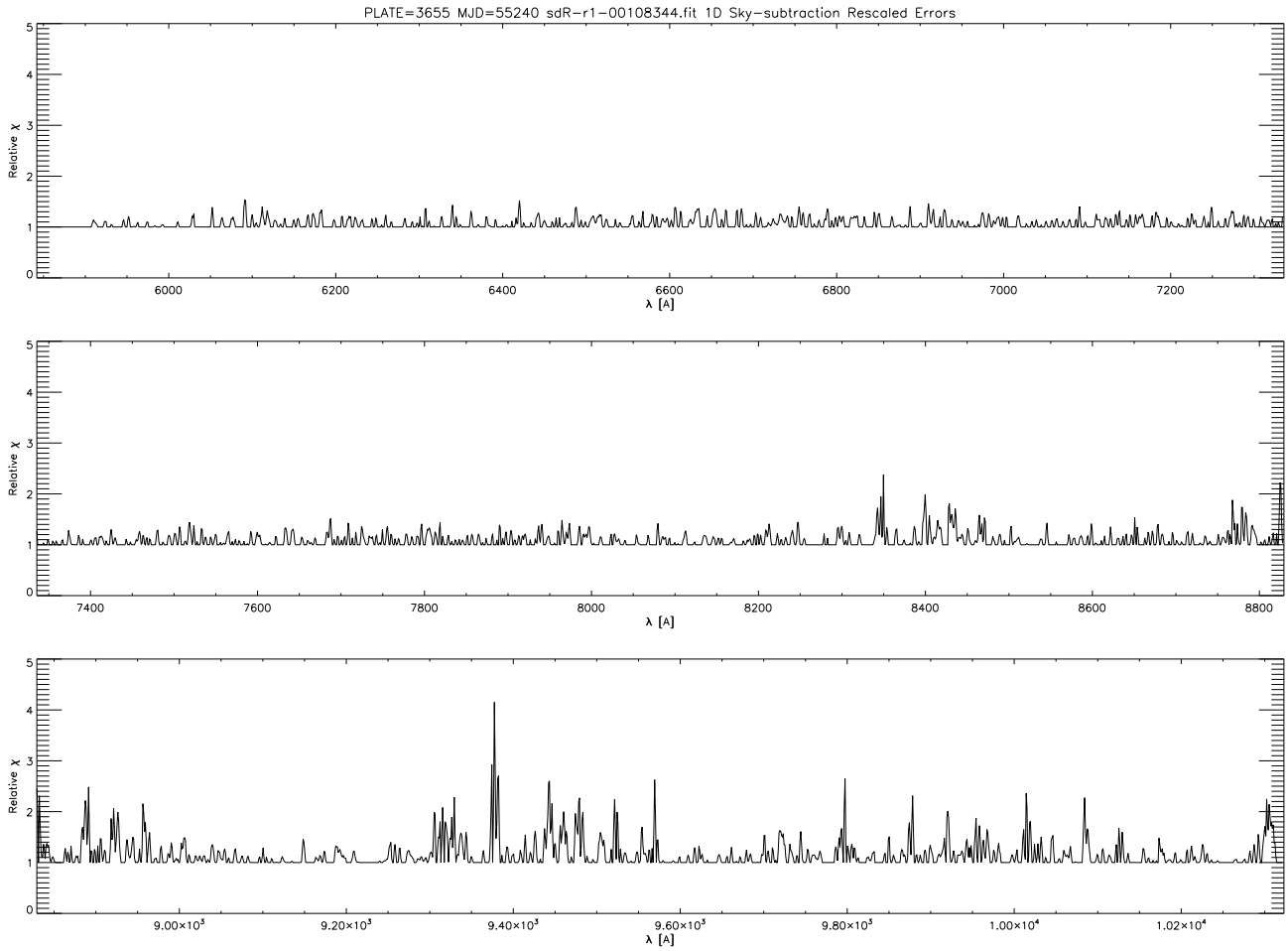

PLATE=3655 MJD=55240 Smooth superflat for sdR-r1-00108344.fit
2.0
1.5
1.0
0.5
0.0
1.04
1.02
1.00
0.98
0.96
5.0×10^3
6.0×10^3
7.0×10^3
8.0×10^3
9.0×10^3
1.0×10^4
1.1×10^4
Wavelength (Å)

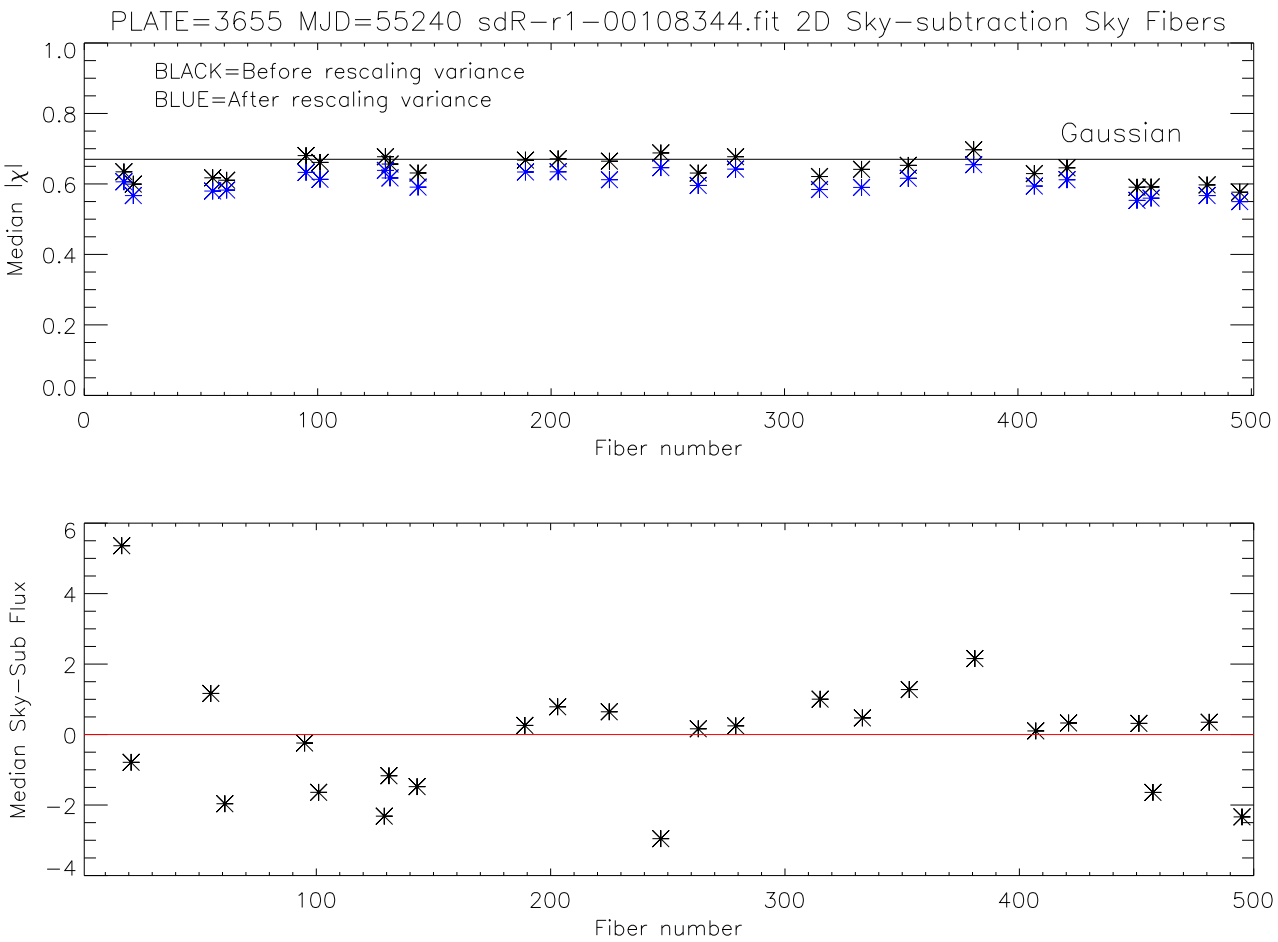

PLATE=3655 MJD=55240 sdR-r1-00108344.fit 1D Sky-subtraction Sky Fibers
BLACK=Before rescaling variance
BLUE=After rescaling variance
Gaussian
Median |χ|
Fiber number
Median Sky-Sub Flux
Fiber number

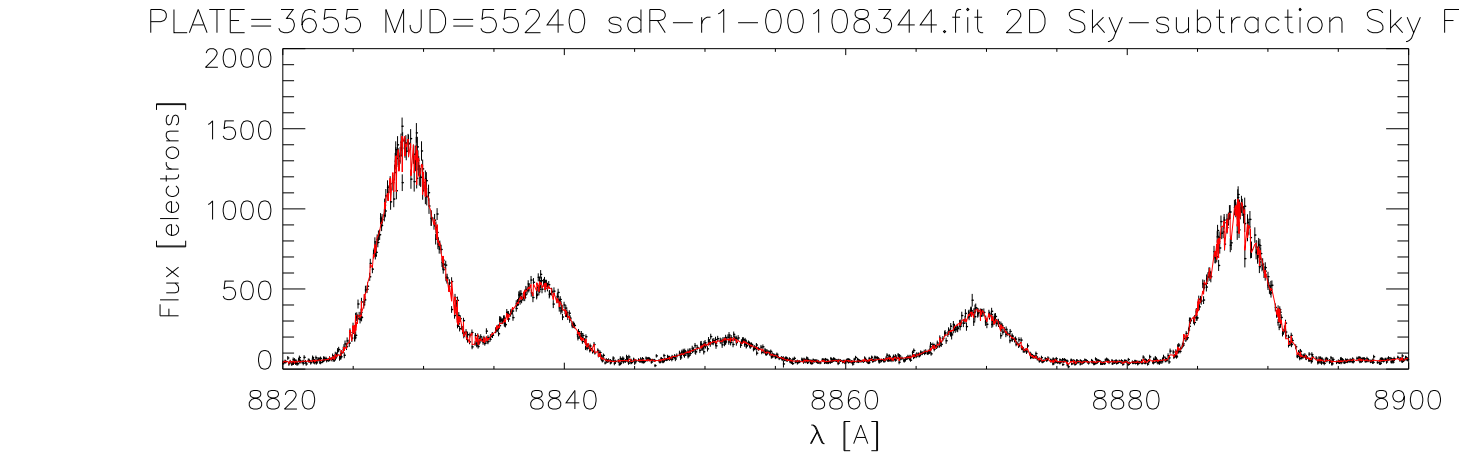

PLATE=3655 MJD=55240 sdR-r1-00108344.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
2000
1500
1000
500
0
8820
8840
8860
8880
8900
λ [A]

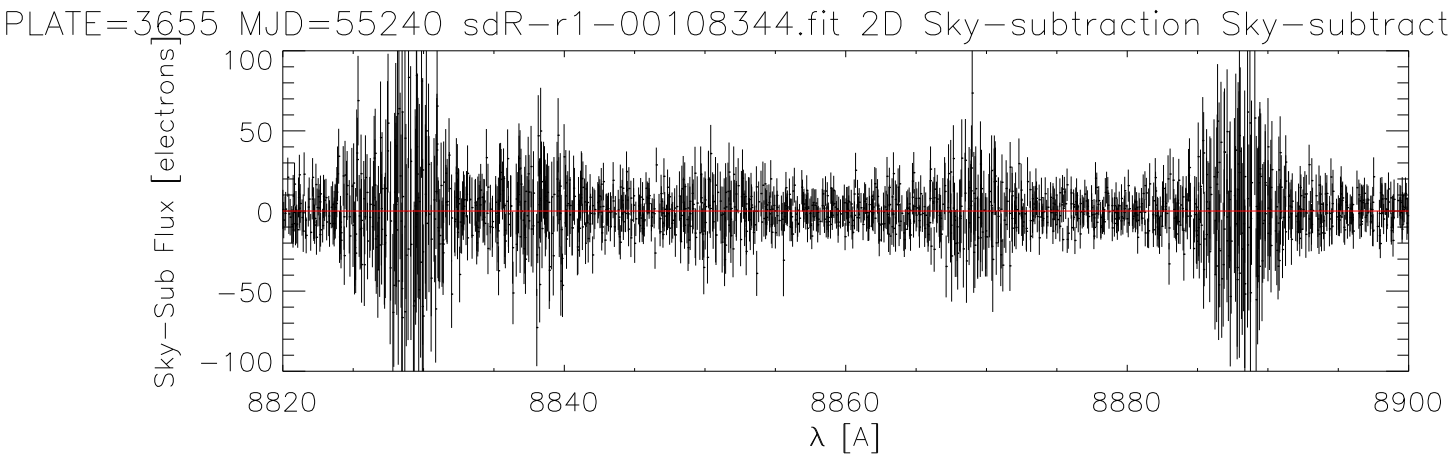

PLATE=3655 MJD=55240 sdR-r1-00108344.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
-300
8820
8840
8860
8880
8900
λ [A]

Number of sky fibers = 25

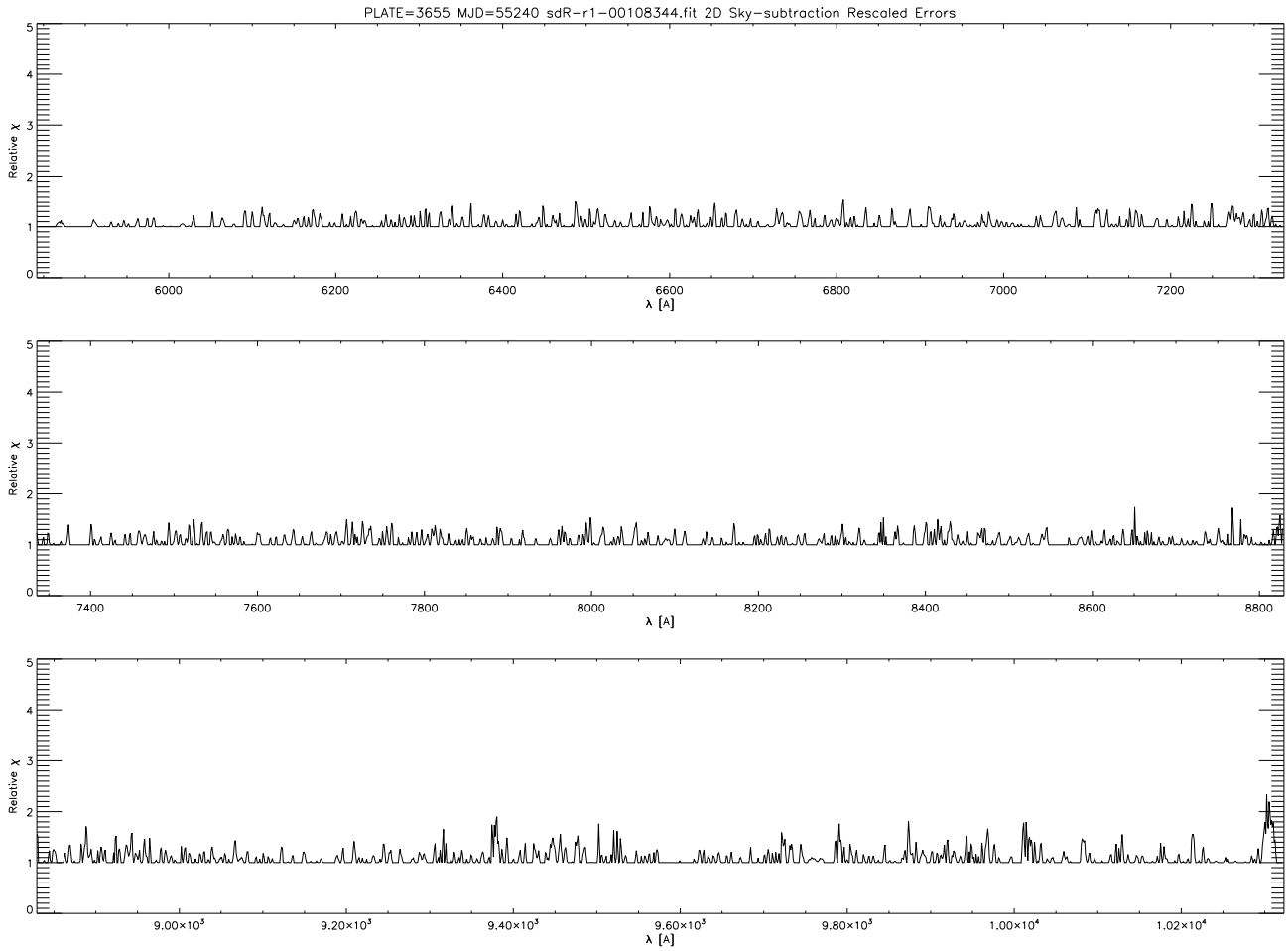


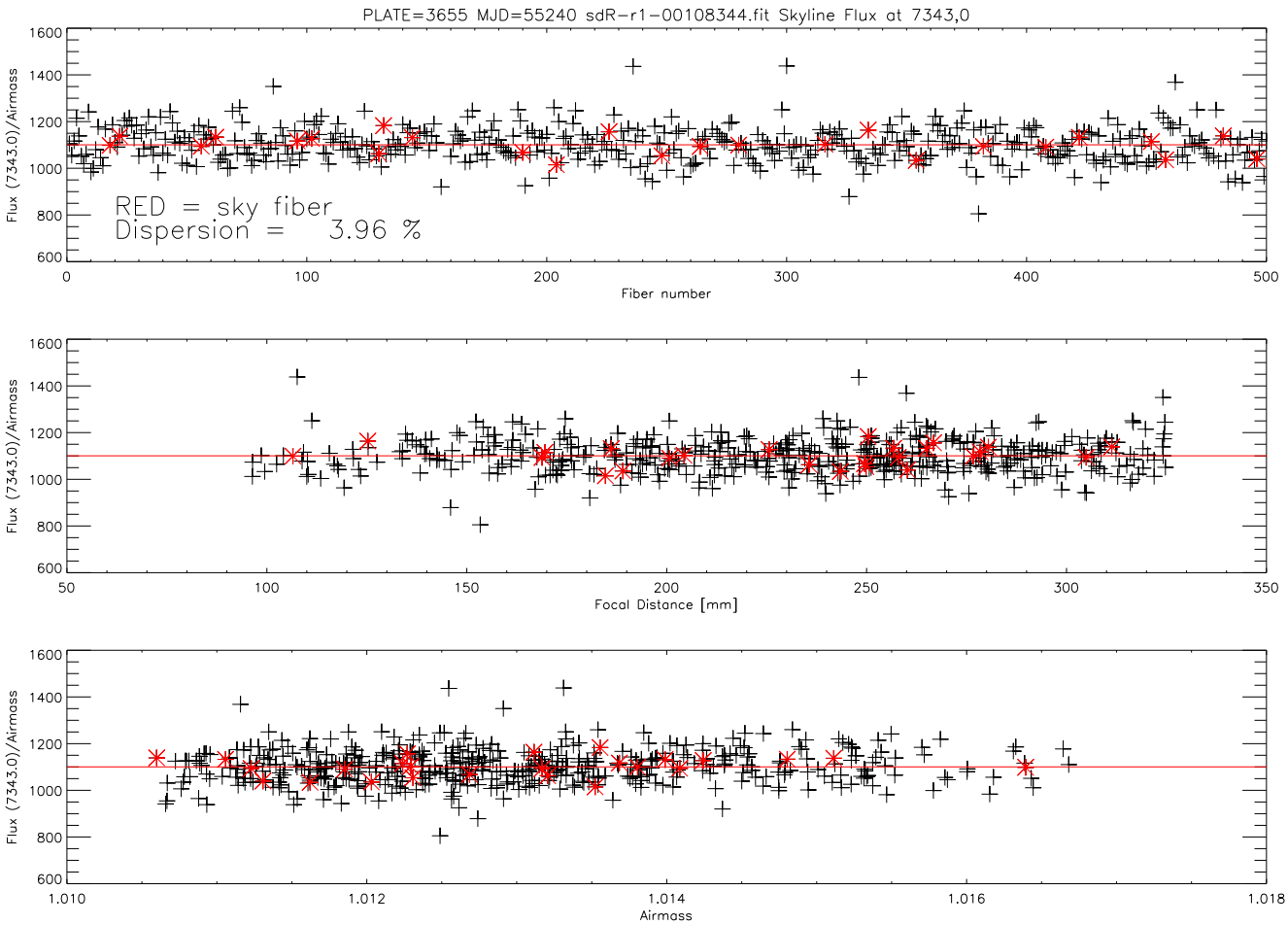

PLATE=3655 MJD=55240 sdR-r1-00108344.fit 2D Sky-subtraction Sky Fibers
BLACK=Before rescaling variance
BLUE=After rescaling variance
Gaussian
Median |χ|
Fiber number
Median Sky-Sub Flux
Fiber number

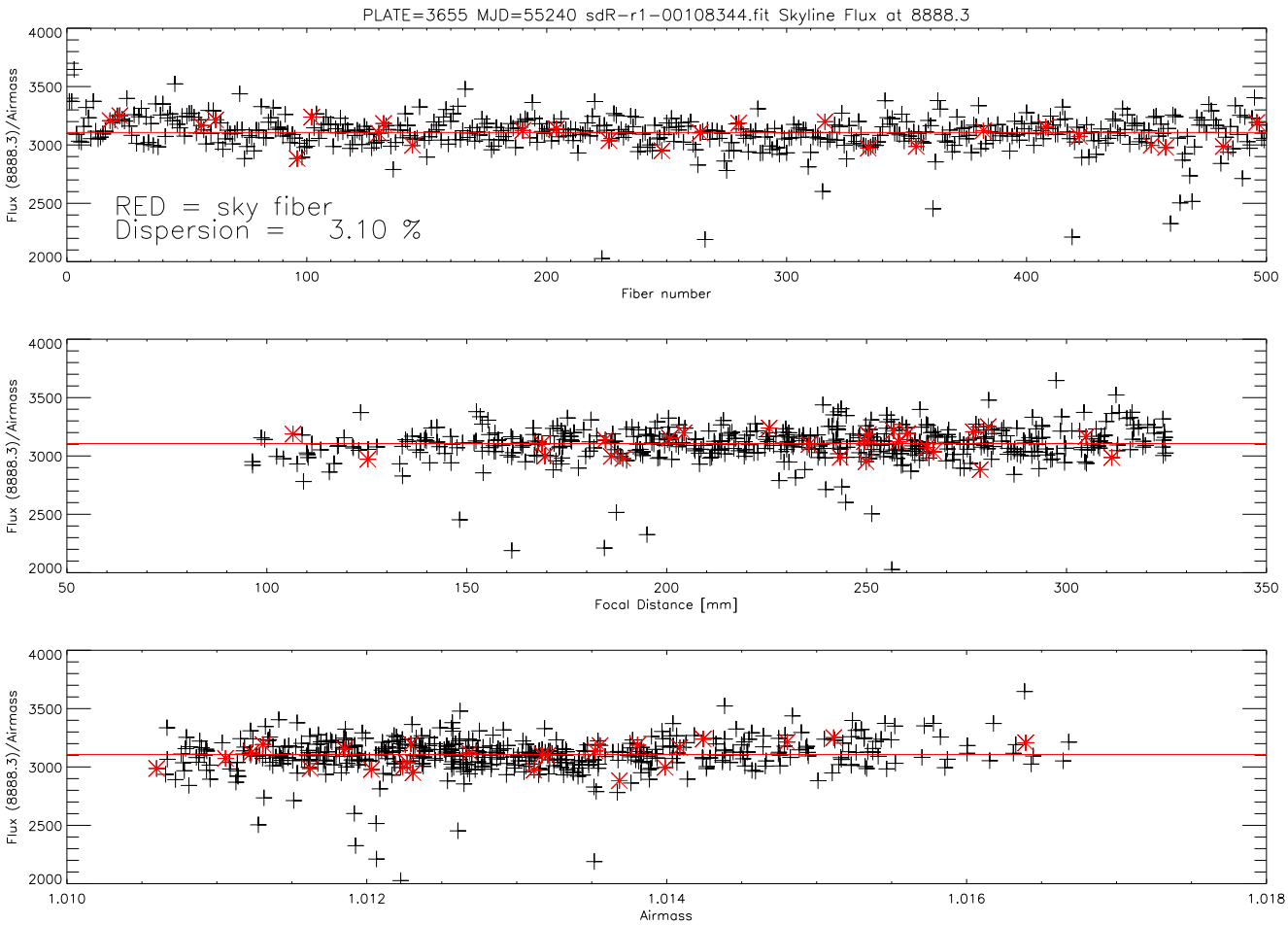

PLATE=3655 MJD=55240 sdR-r1-00108344.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
2000
1500
1000
500
0
8820
8840
8860
8880
8900
λ [A]

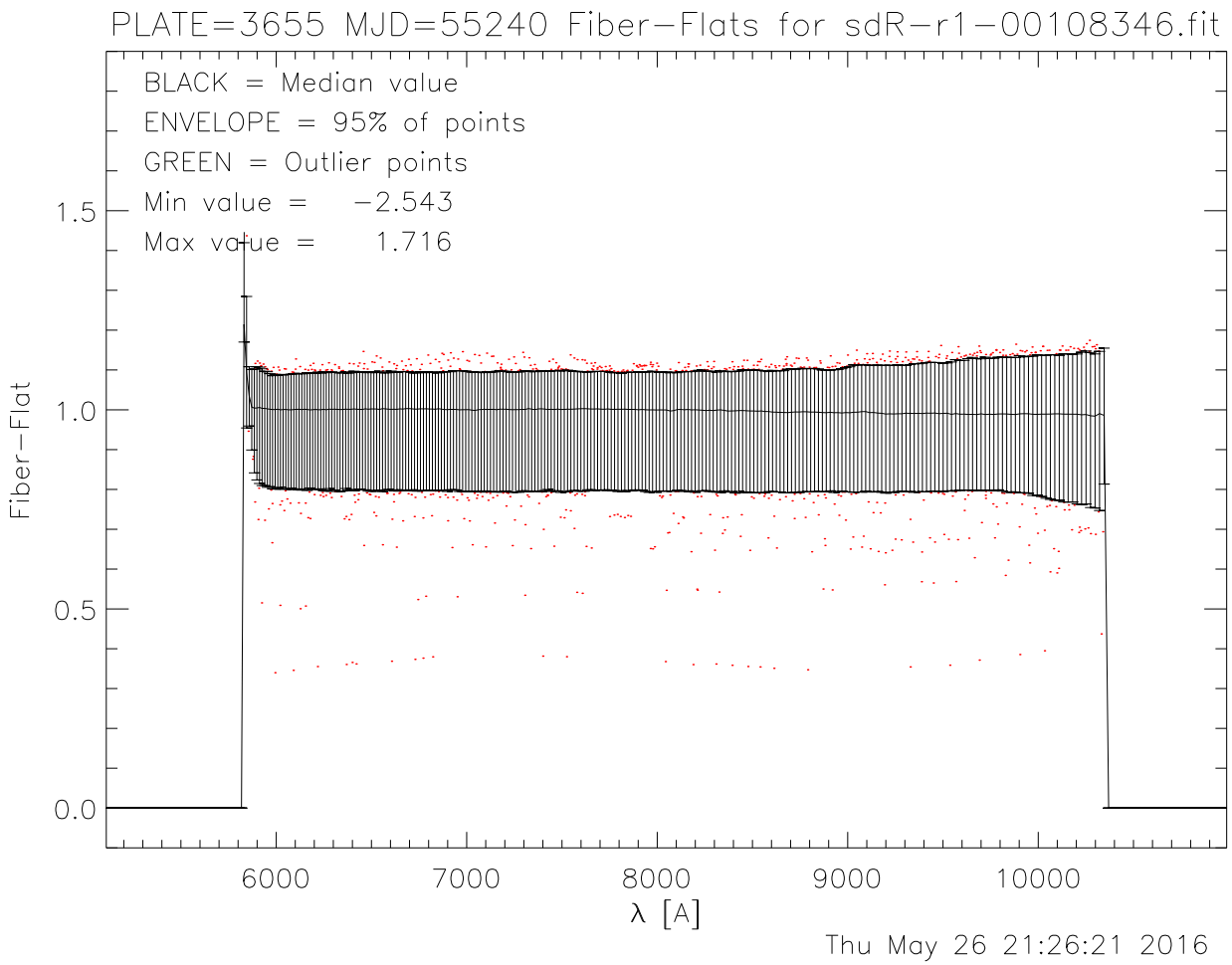

PLATE=3655 MJD=55240 sdR-r1-00108344.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
100
50
0
-50
-100
8820
8840
8860
8880
8900
λ [A]

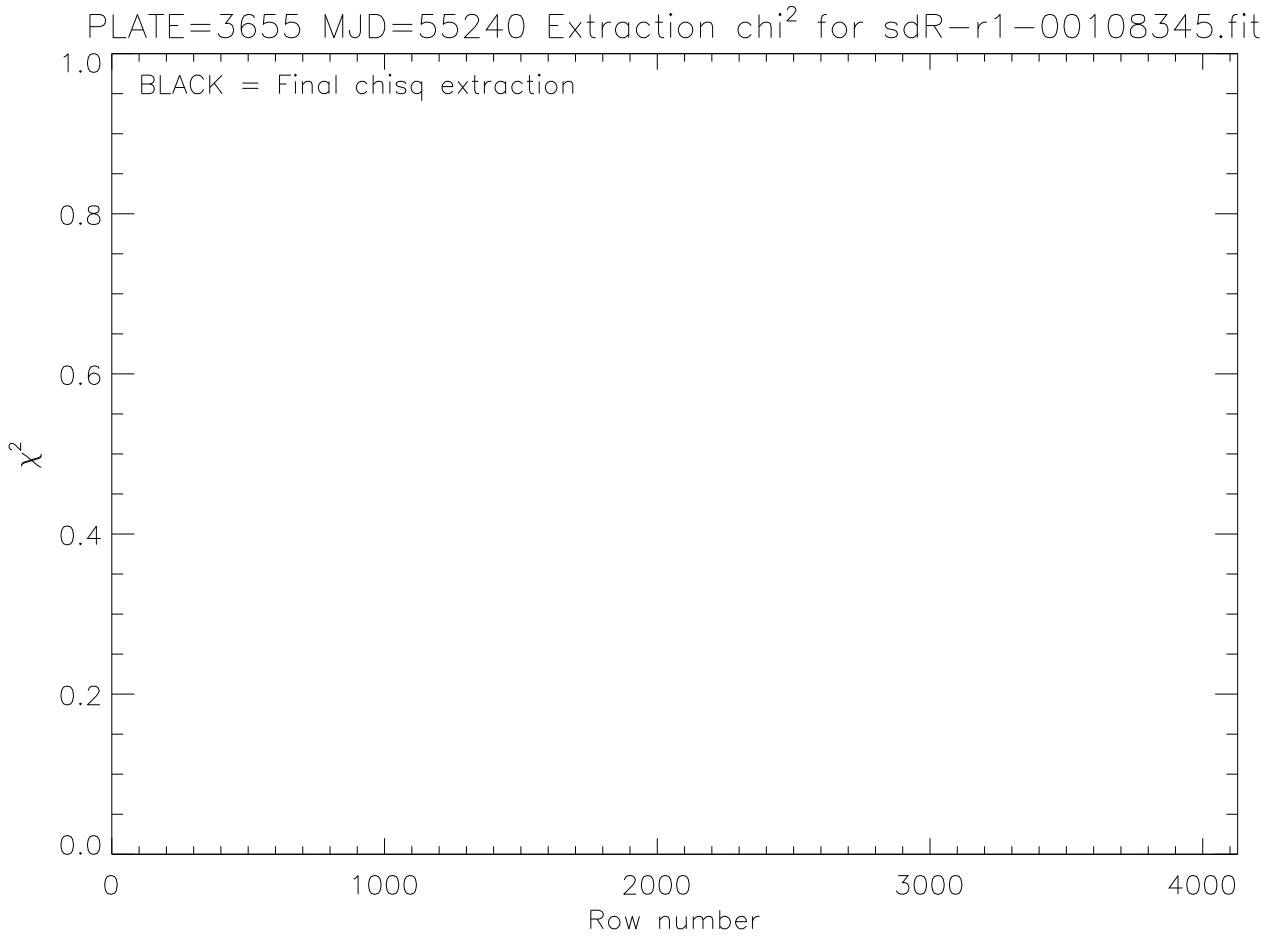
Number of sky fibers = 25

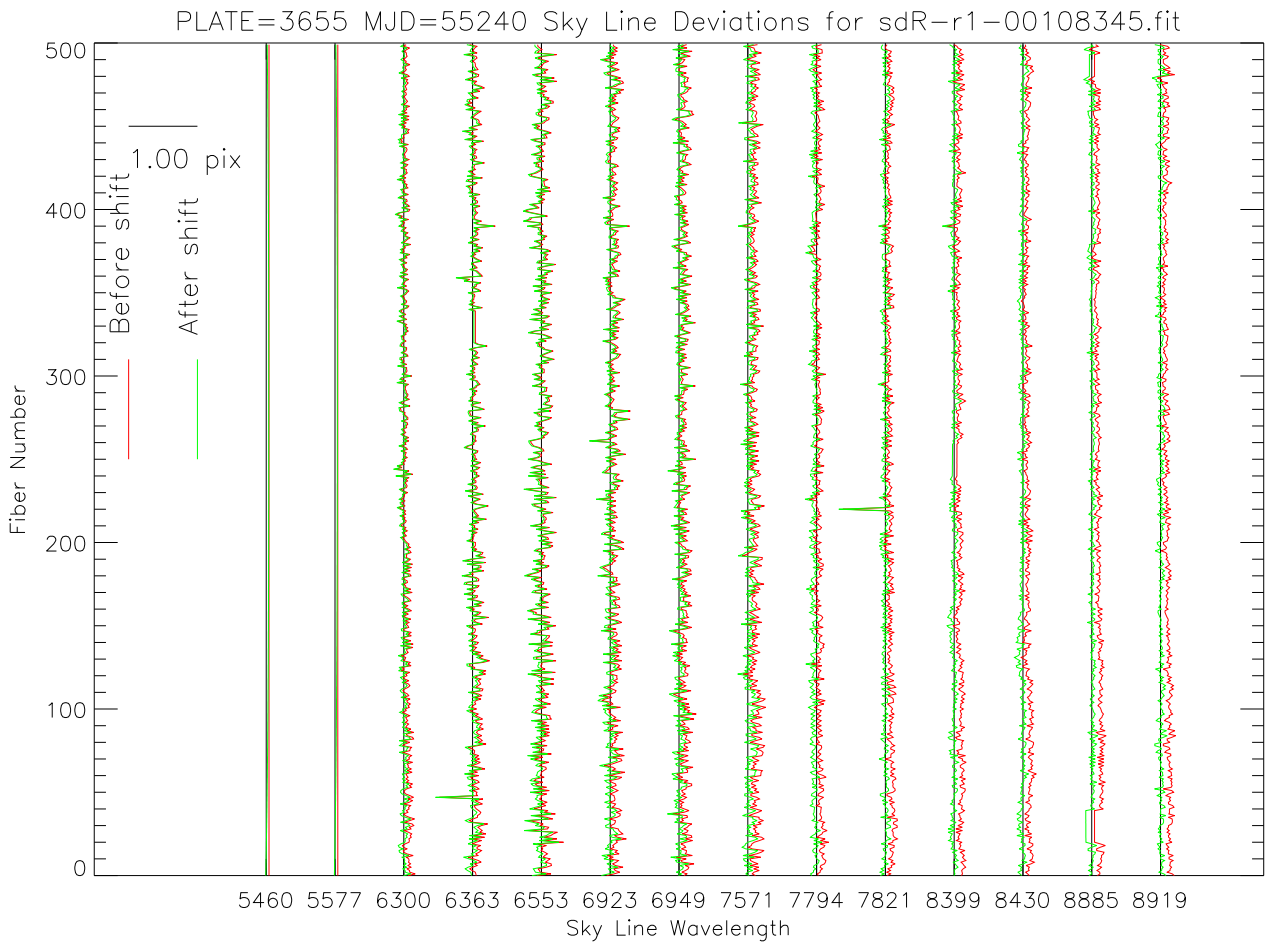


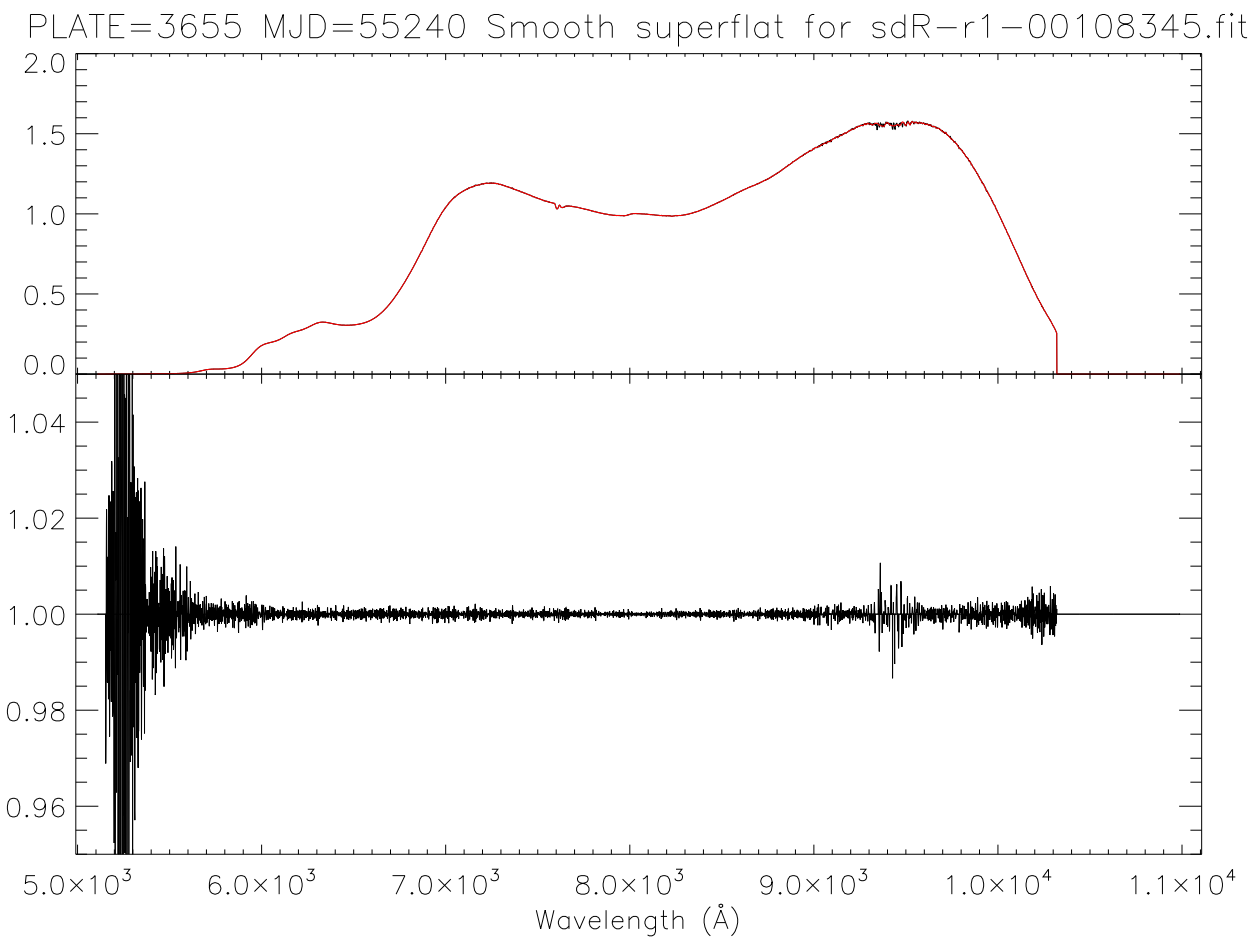

PLATE=3655 MJD=55240 sdR-r1-00108344.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 3.96 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

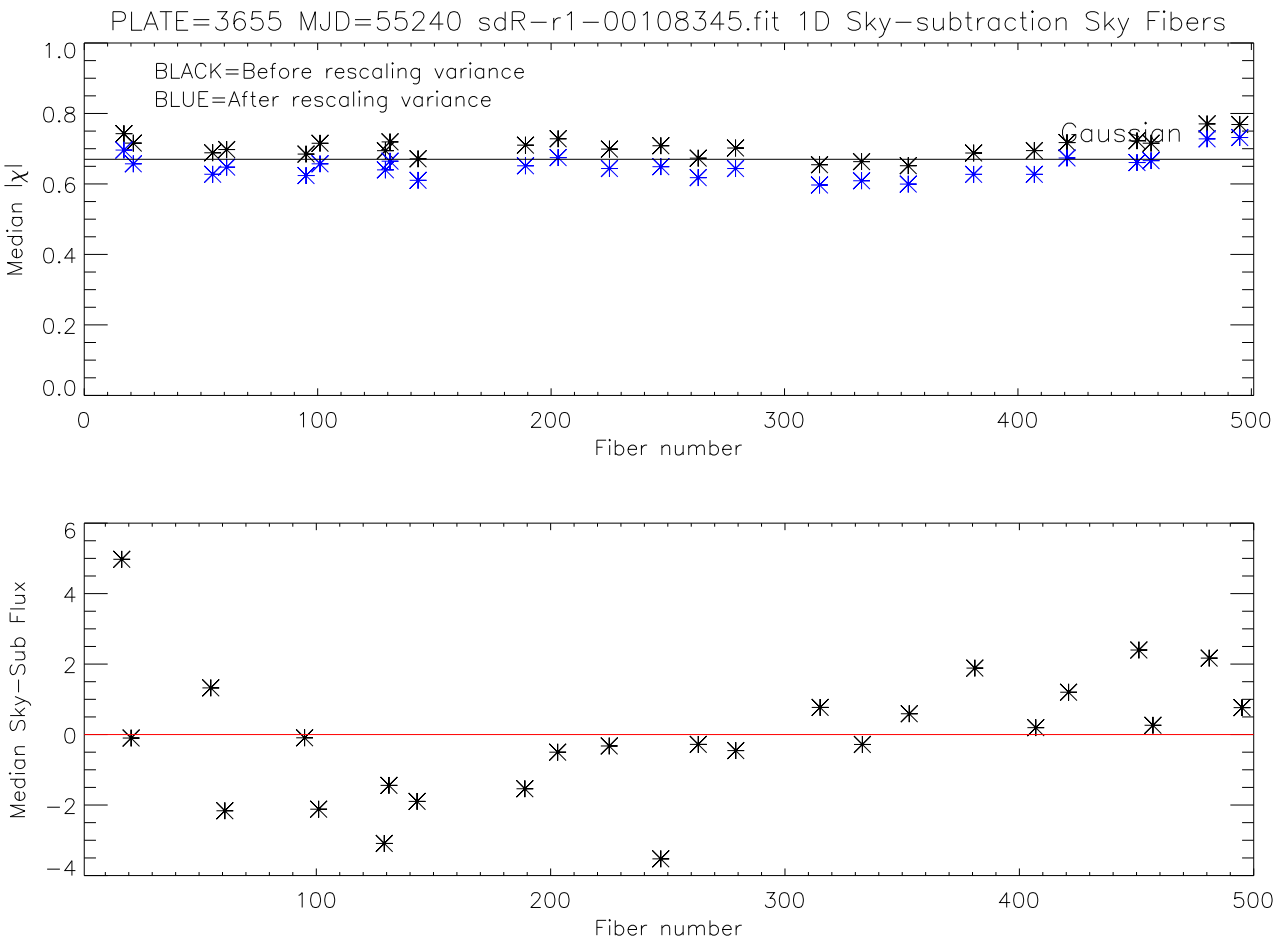

PLATE=3655 MJD=55240 sdR-r1-00108344.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 3.10 %
Fiber number
Focal Distance [mm]
Airmass

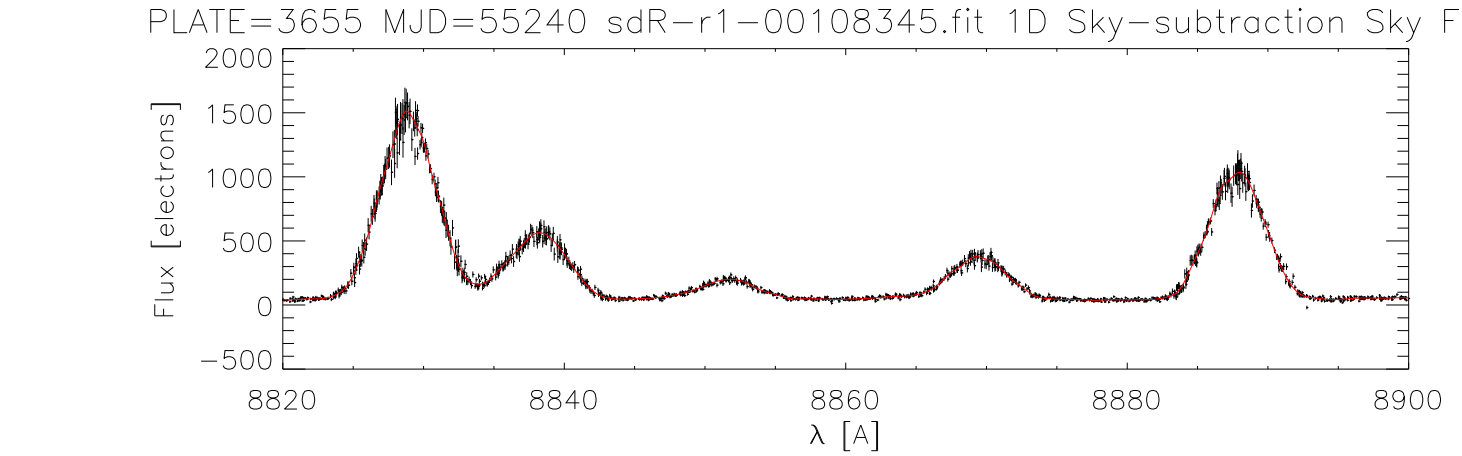

PLATE=3655 MJD=55240 Fiber−Flats for sdR−r1−00108346.fit
BLACK = Median value
ENVELOPE = 95% of points
GREEN = Outlier points
Min value = −2.543
Max value = 1.716
Fiber−Flat
1.5
1.0
0.5
0.0
6000
7000
8000
9000
10000
λ [A]
Thu May 26 21:26:21 2016

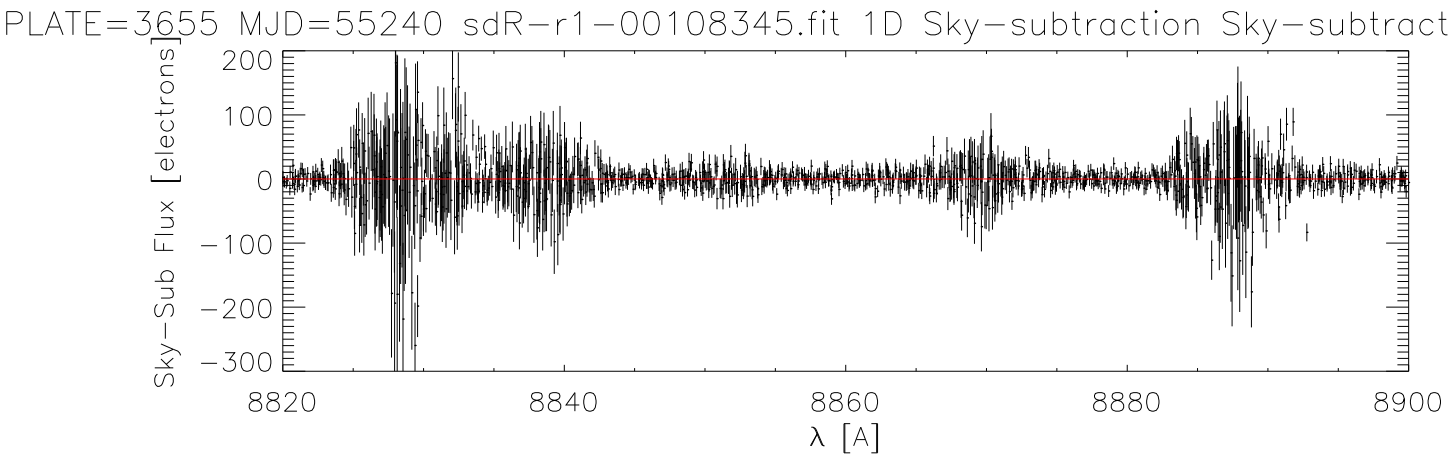

PLATE=3655 MJD=55240 Extraction chi^2 for sdR−r1−00108345.fit
BLACK = Final chisq extraction
1.0
0.8
0.6
0.4
0.2
0.0
χ^2
0
1000
2000
3000
4000
Row number


PLATE=3655 MJD=55240 Sky Line Deviations for sdR-r1-00108345.fit
Before shift
After shift
1.00 pix
Fiber Number
0
100
200
300
400
500
5460 5577 6300 6363 6553 6923 6949 7571 7794 7821 8399 8430 8885 8919
Sky Line Wavelength

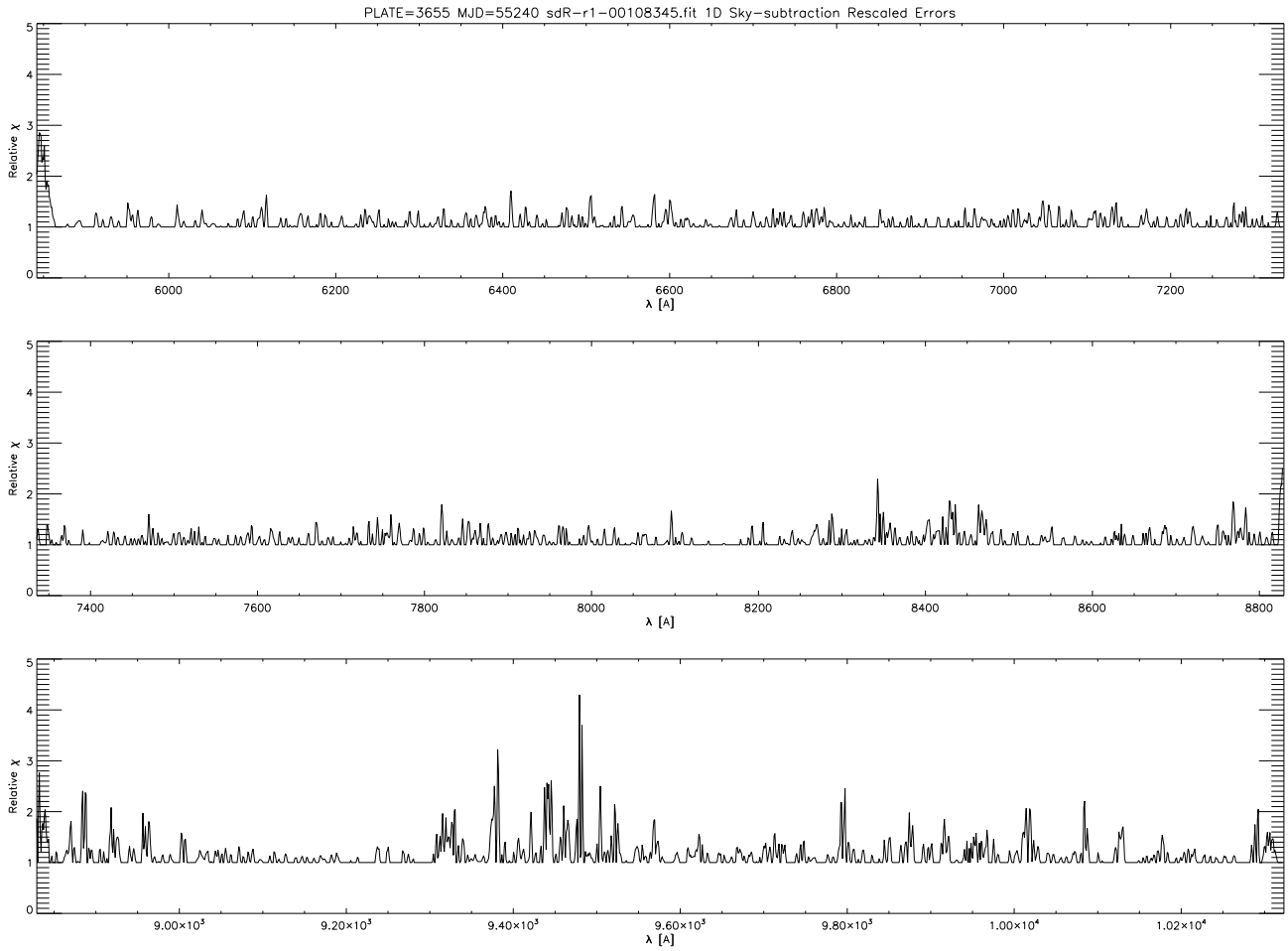

PLATE=3655 MJD=55240 Smooth superflat for sdR-r1-00108345.fit
2.0
1.5
1.0
0.5
0.0
1.04
1.02
1.00
0.98
0.96
5.0×10^3
6.0×10^3
7.0×10^3
8.0×10^3
9.0×10^3
1.0×10^4
1.1×10^4
Wavelength (Å)

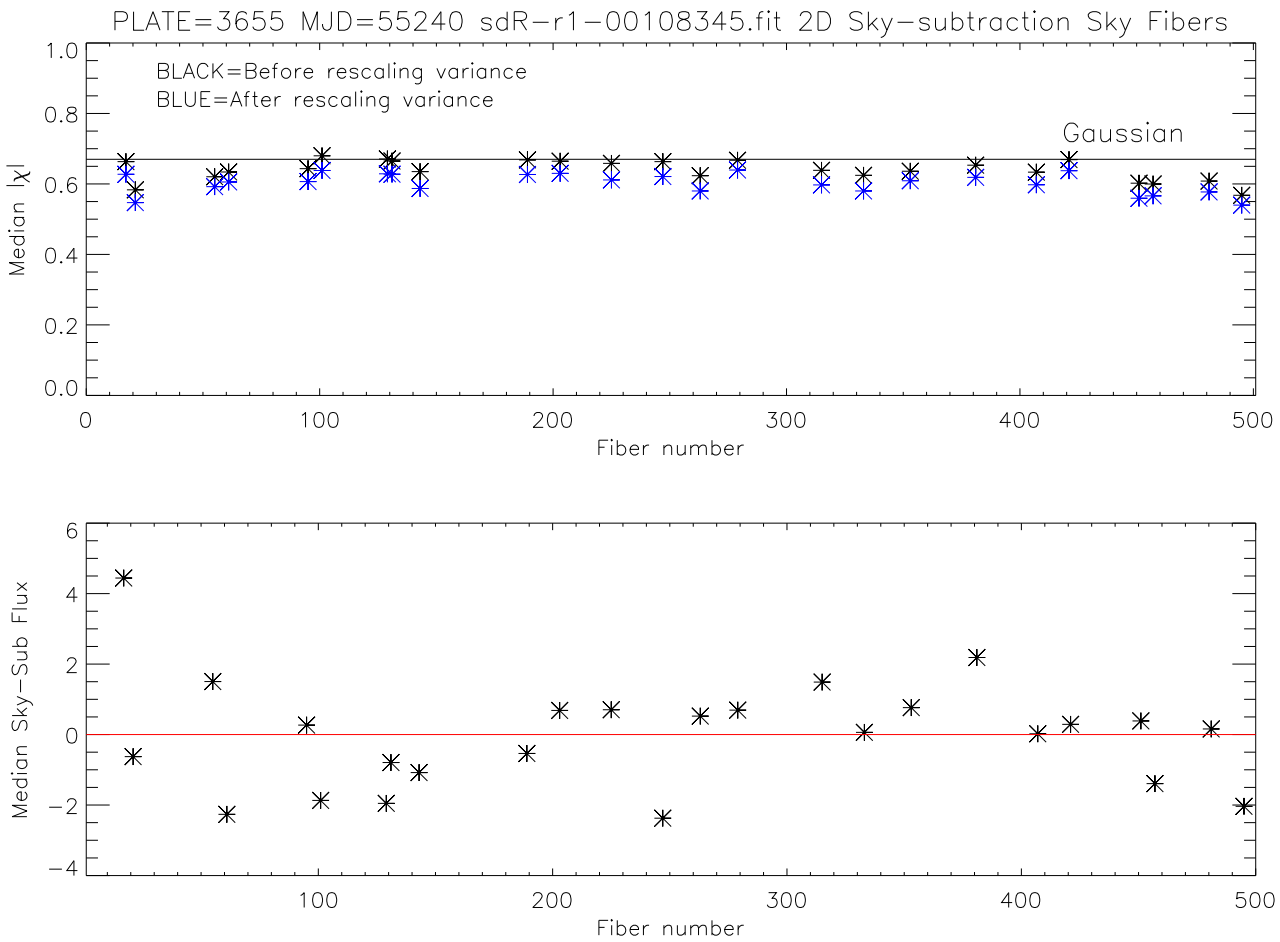

PLATE=3655 MJD=55240 sdR-r1-00108345.fit 1D Sky-subtraction Sky Fibers
BLACK=Before rescaling variance
BLUE=After rescaling variance
Gaussian
Median |χ|
Fiber number
Median Sky-Sub Flux
Fiber number

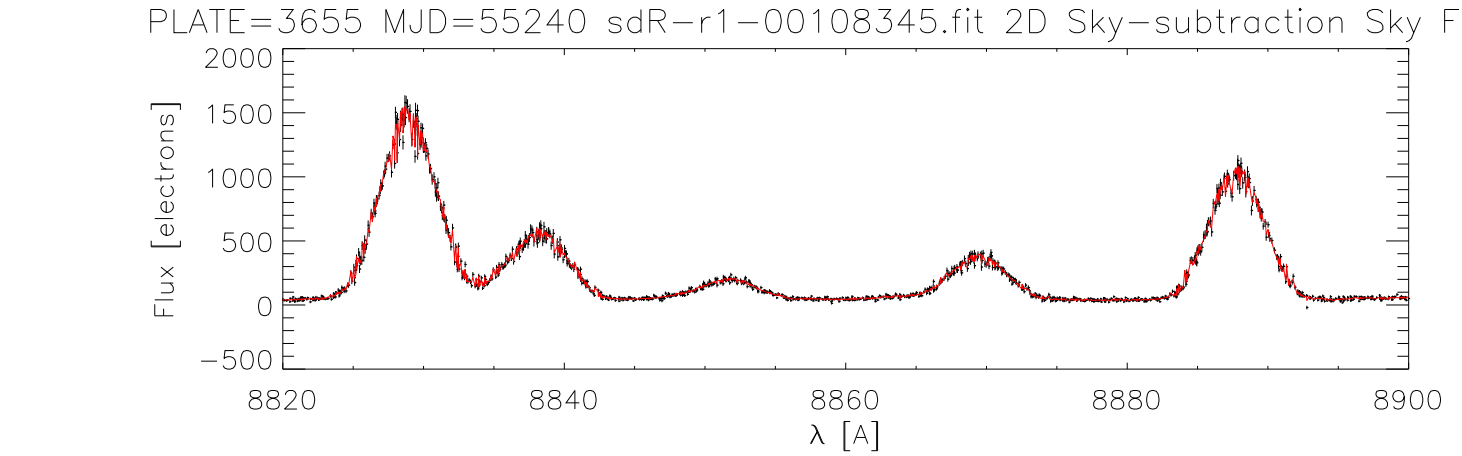

PLATE=3655 MJD=55240 sdR-r1-00108345.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
2000
1500
1000
500
0
-500
8820
8840
8860
8880
8900
λ [A]

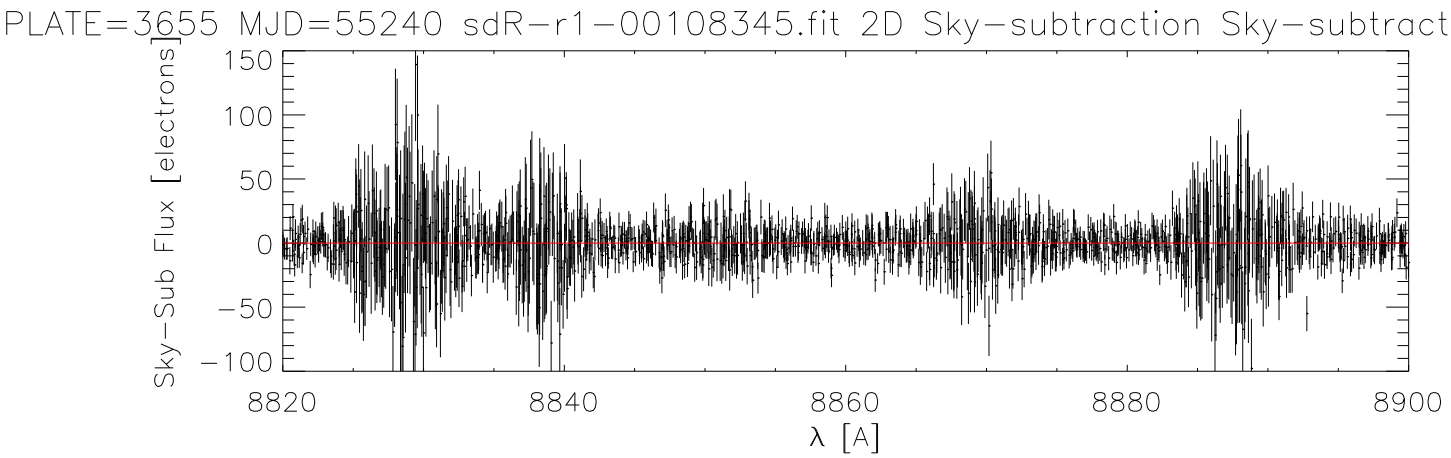

PLATE=3655 MJD=55240 sdR-r1-00108345.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
-300
8820
8840
8860
8880
8900
λ [A]

Number of sky fibers = 25

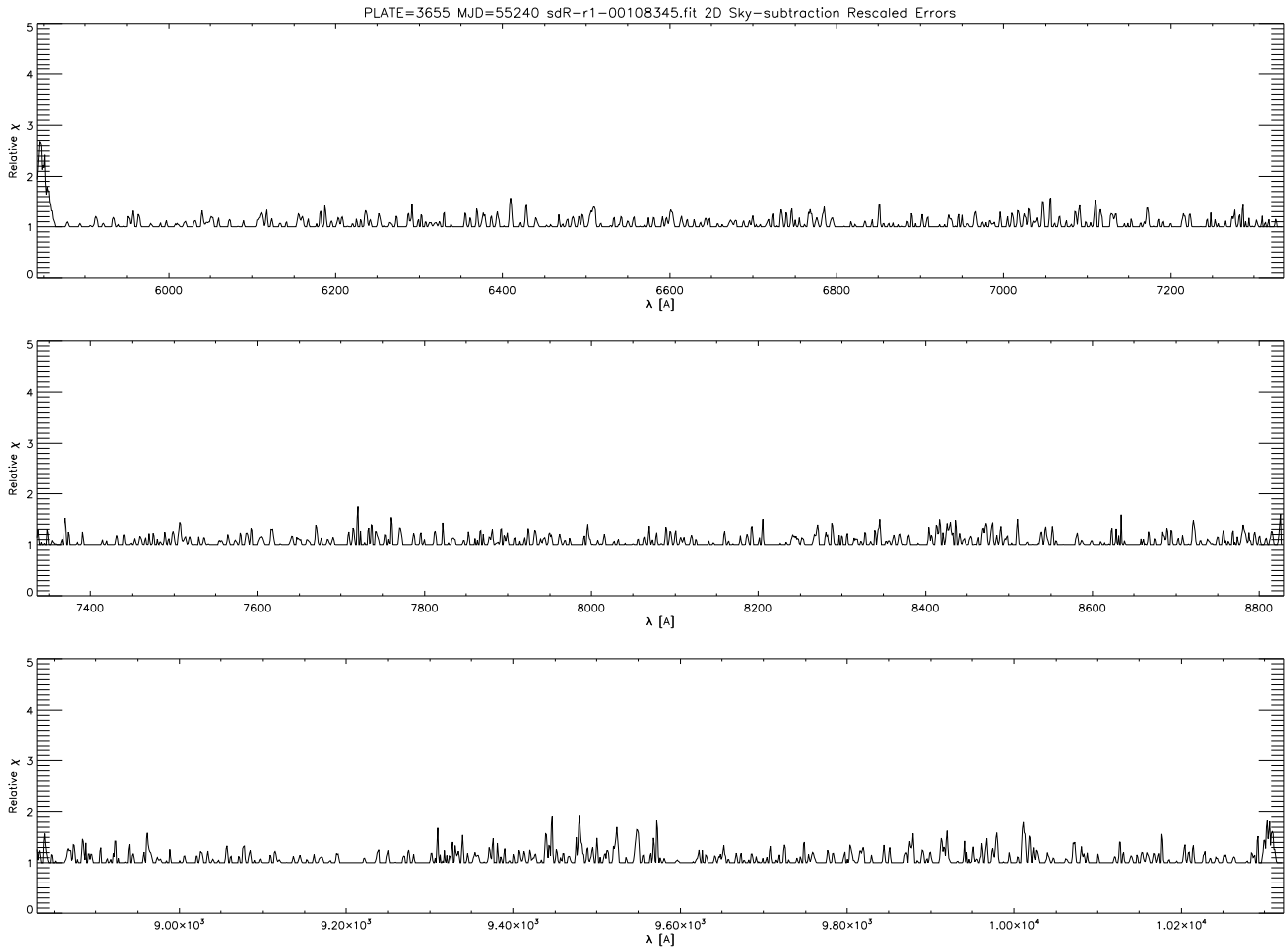


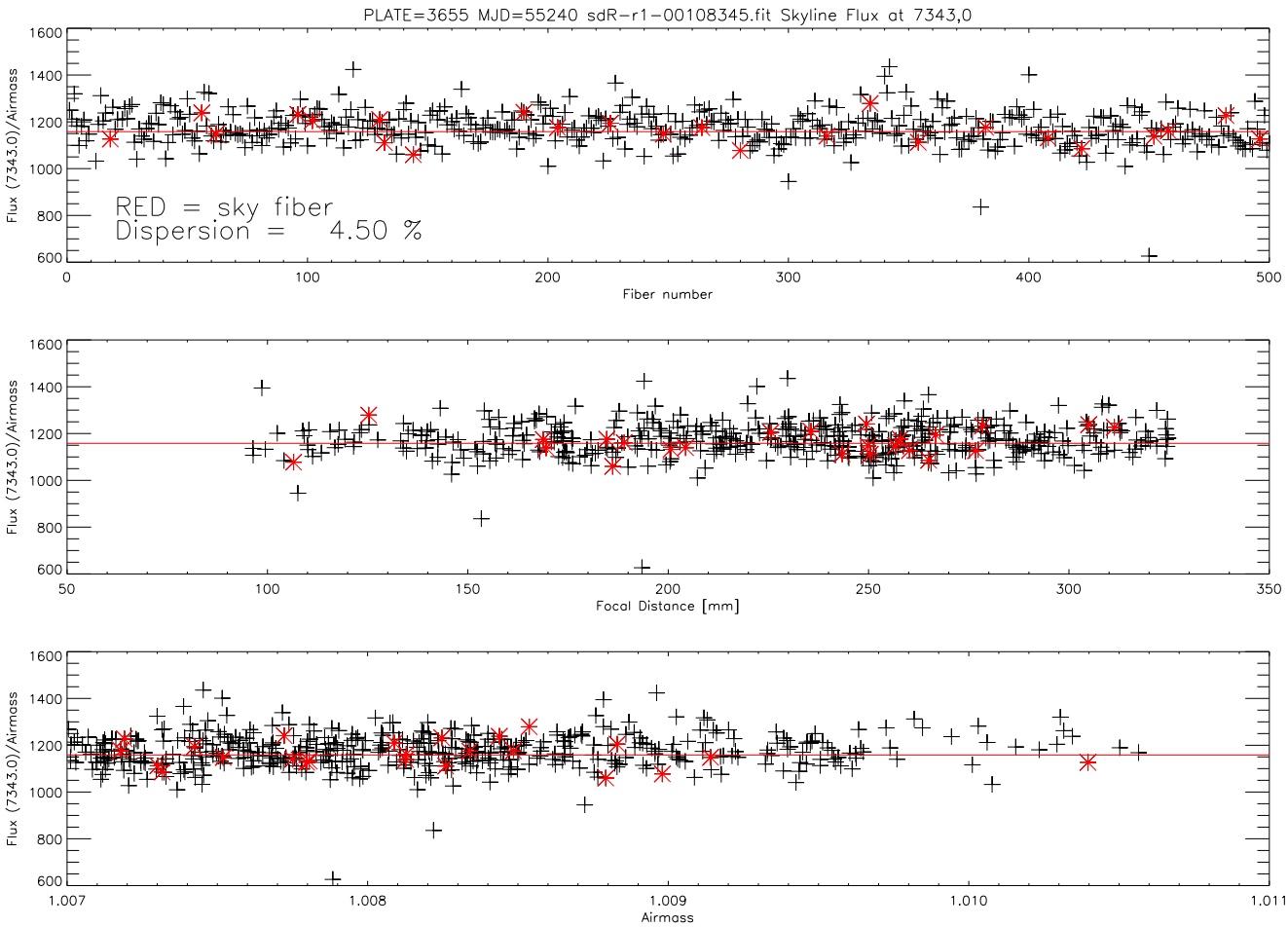

PLATE=3655 MJD=55240 sdR-r1-00108345.fit 2D Sky-subtraction Sky Fibers
BLACK=Before rescaling variance
BLUE=After rescaling variance
Gaussian
Median |χ|
Fiber number
Median Sky-Sub Flux
Fiber number

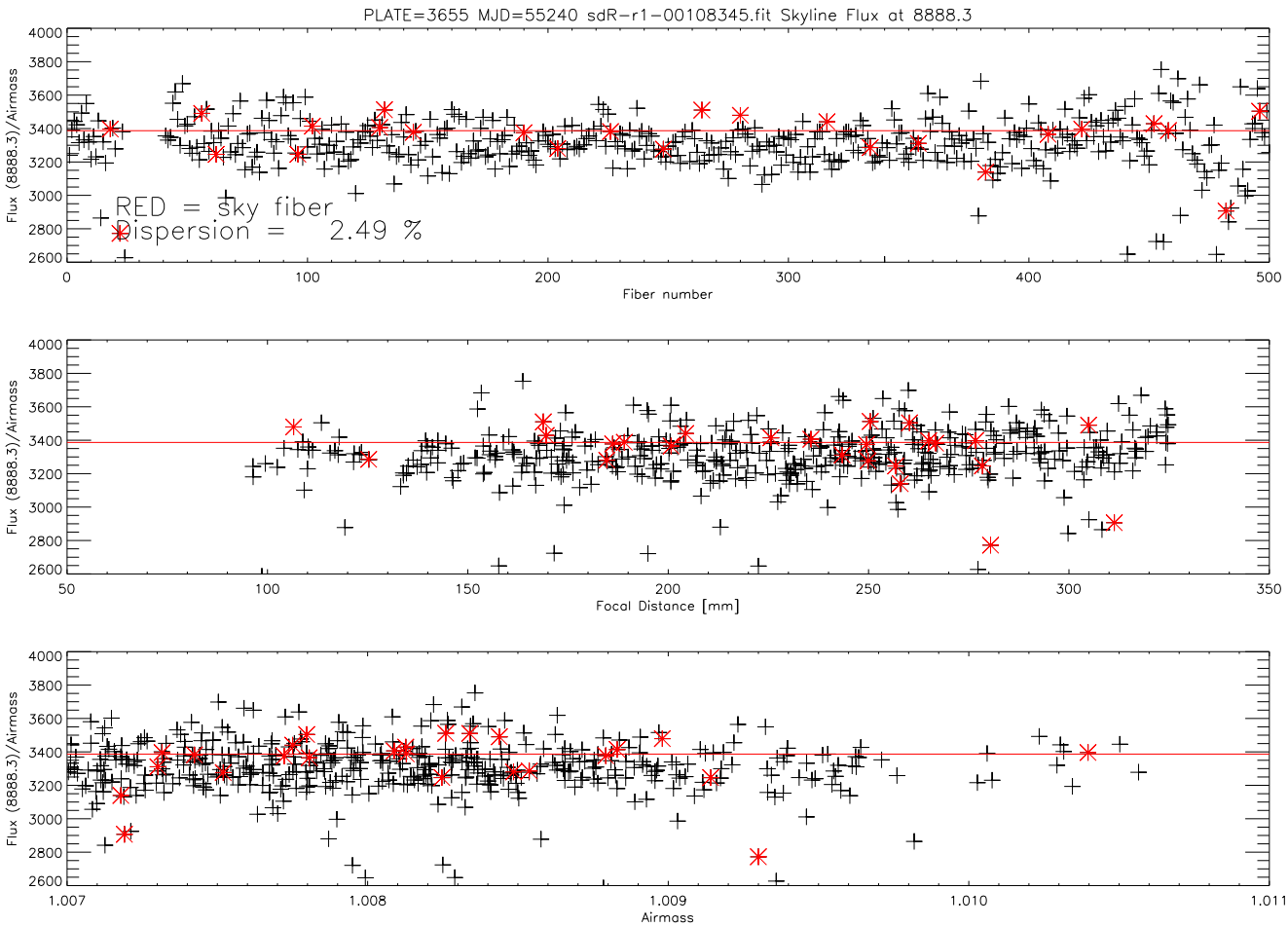

PLATE=3655 MJD=55240 sdR-r1-00108345.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
2000
1500
1000
500
0
-500
8820
8840
8860
8880
8900
λ [A]


PLATE=3655 MJD=55240 sdR-r1-00108345.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
150
100
50
0
-50
-100
8820
8840
8860
8880
8900
λ [A]

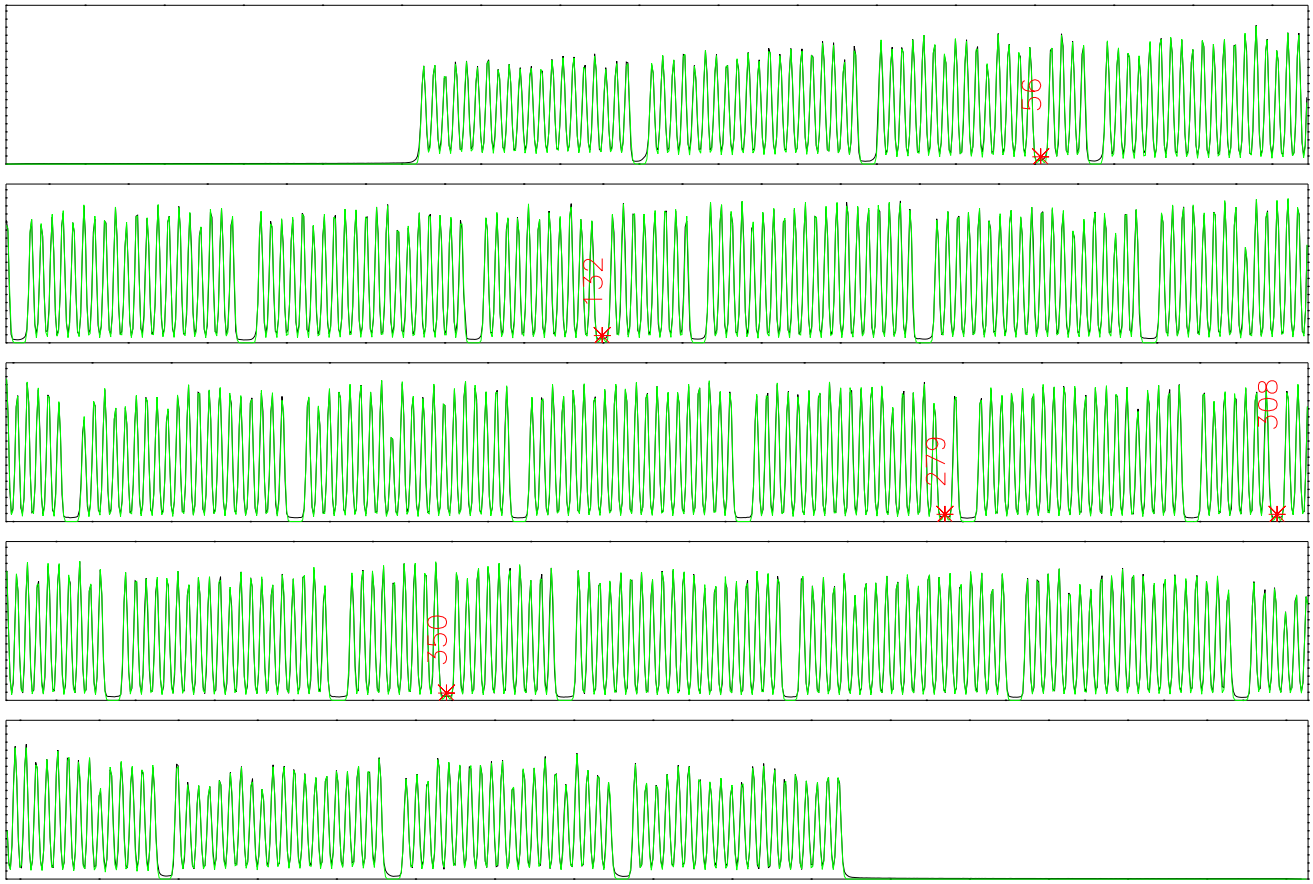
Number of sky fibers = 25



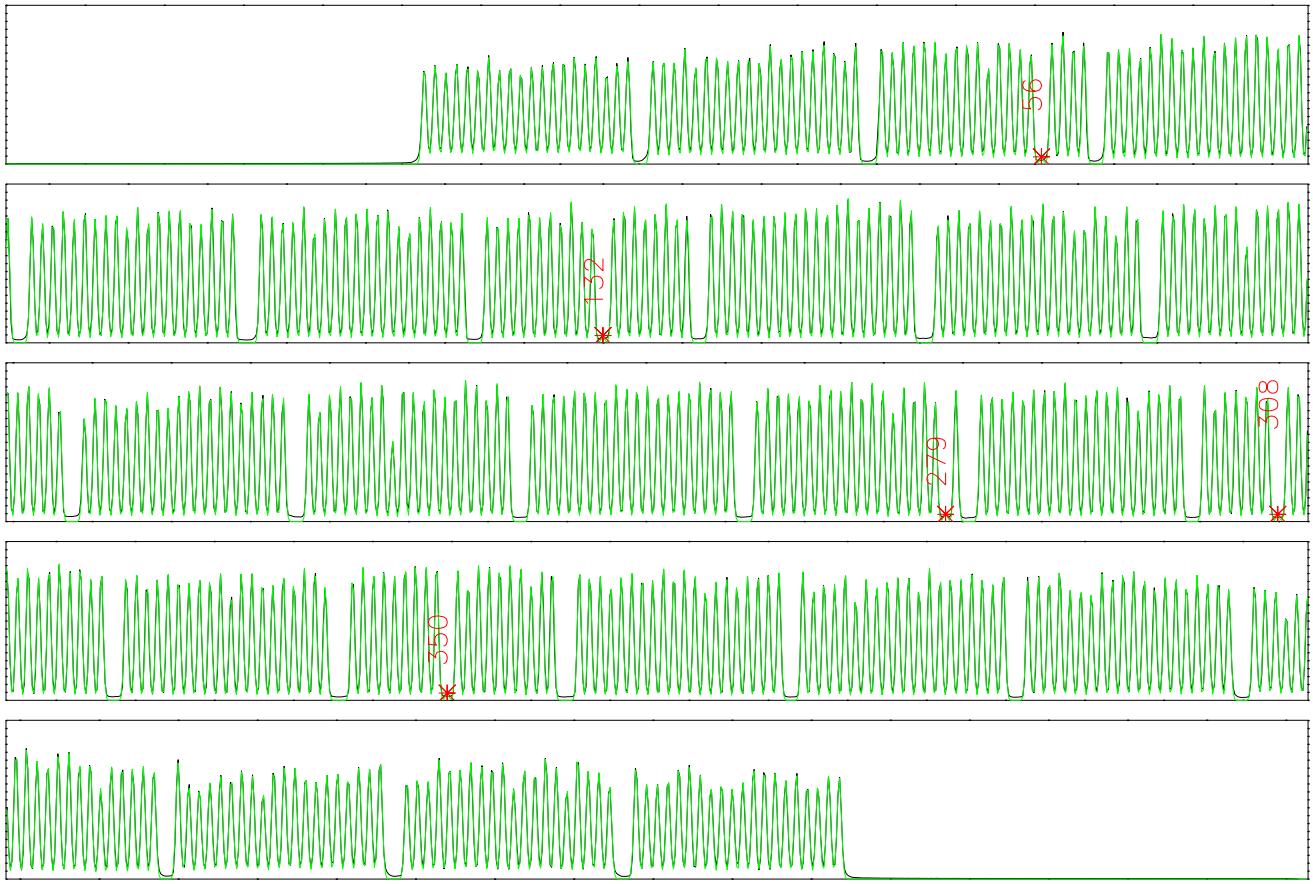

PLATE=3655 MJD=55240 sdR-r1-00108345.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 4.50 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

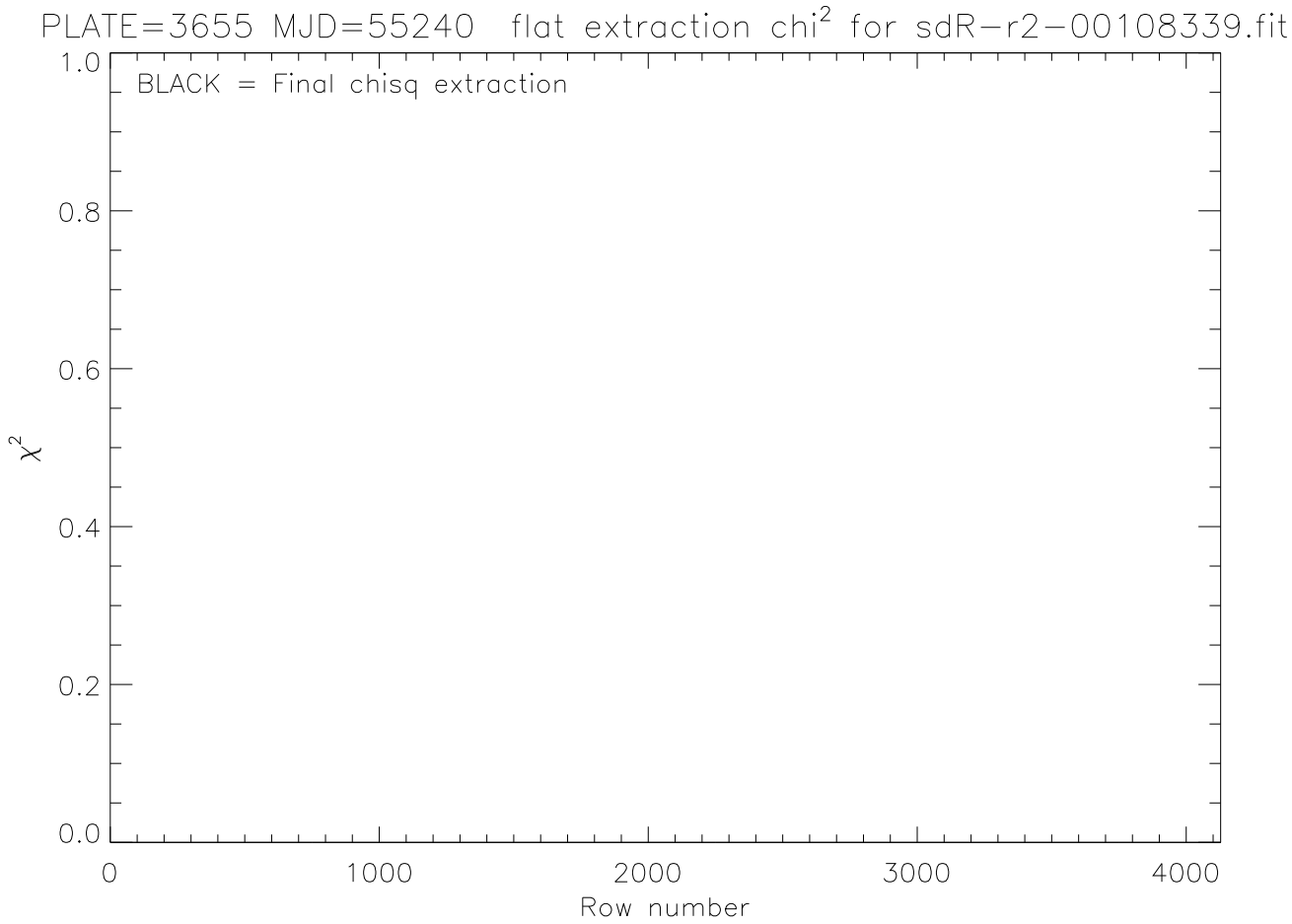

PLATE=3655 MJD=55240 sdR-r1-00108345.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 2.49 %
Fiber number
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass

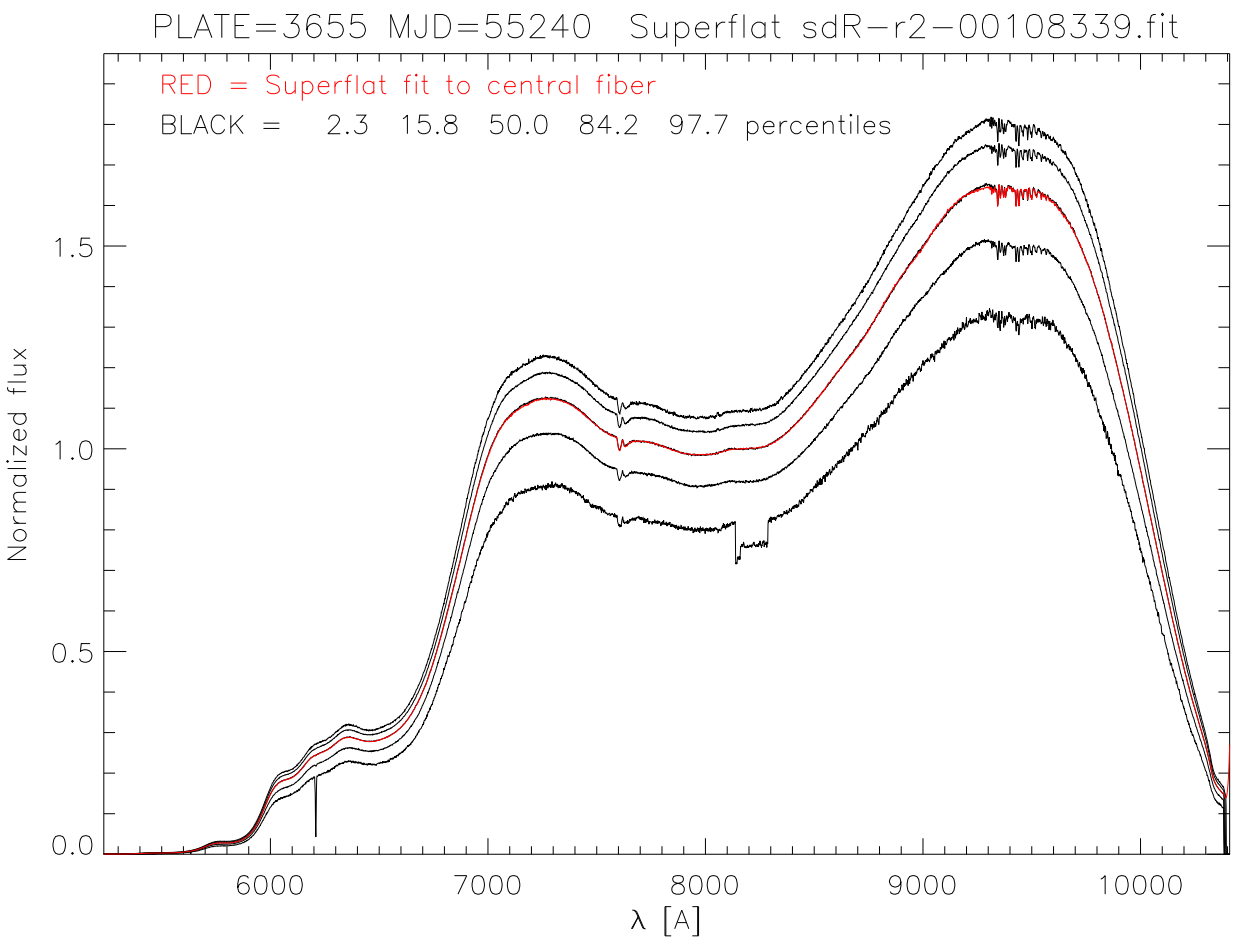
PLATE=3655 MJD=55240 Traces sdR-r2-00108339.fit

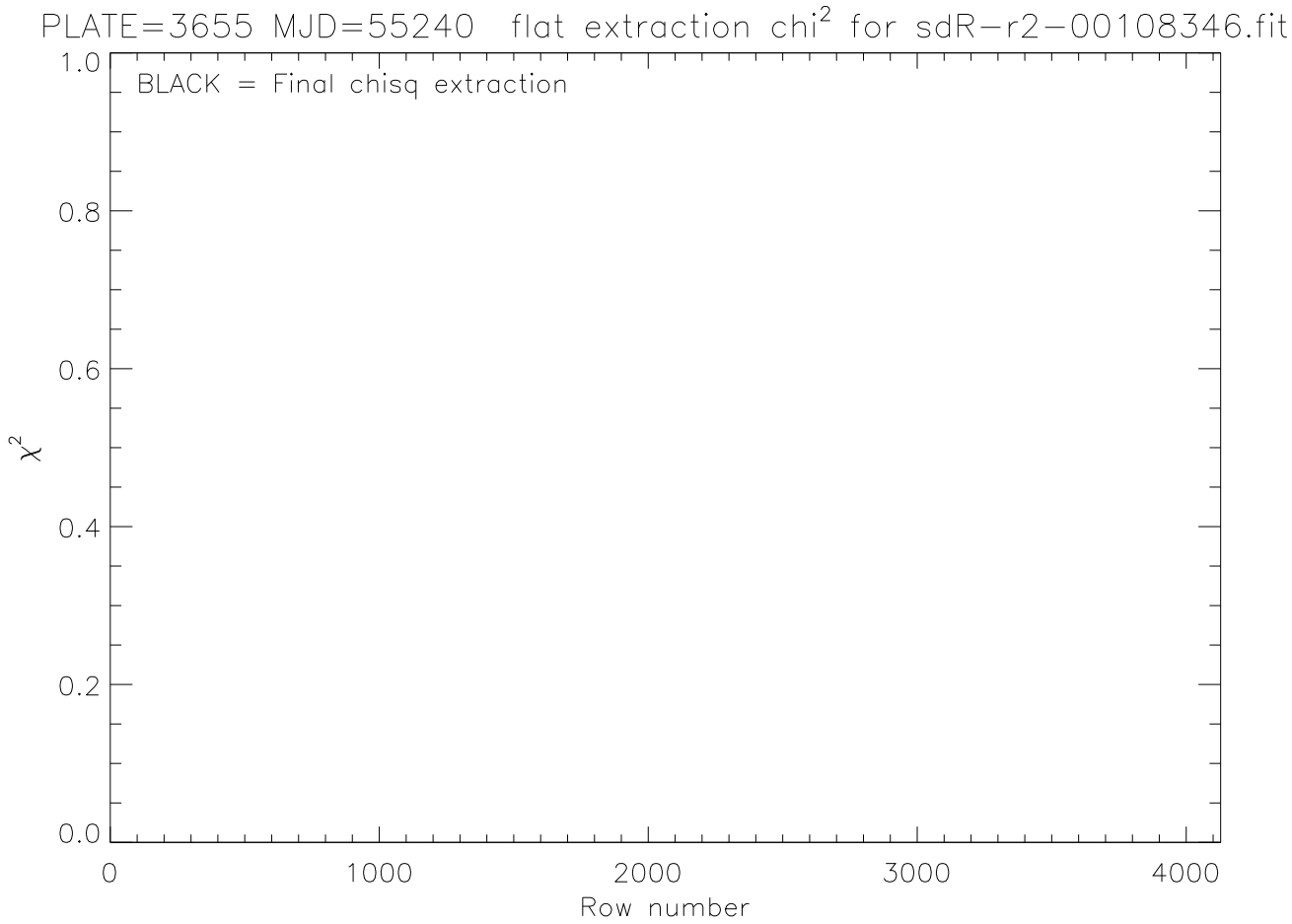


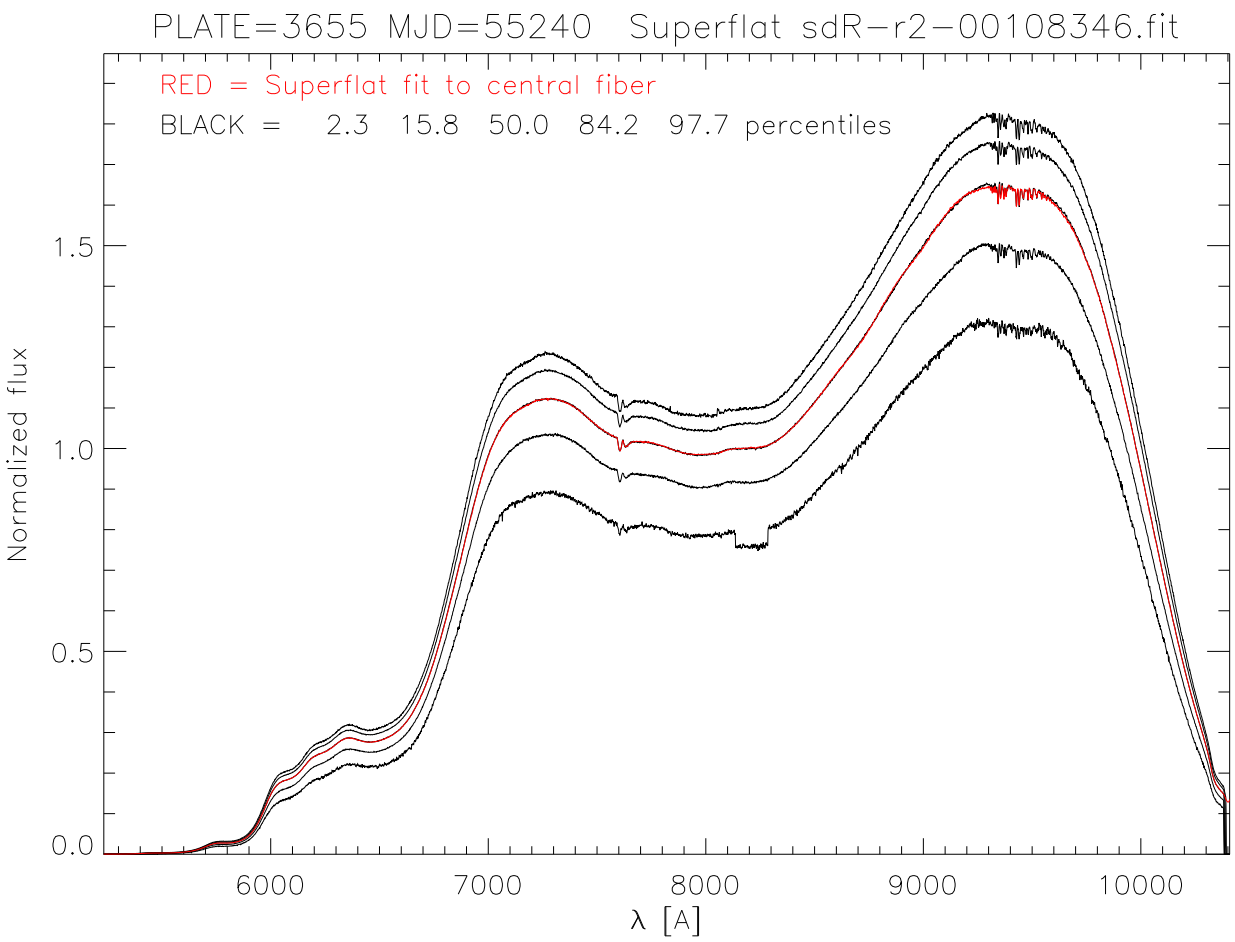
PLATE=3655 MJD=55240 Traces sdR-r2-00108346.fit

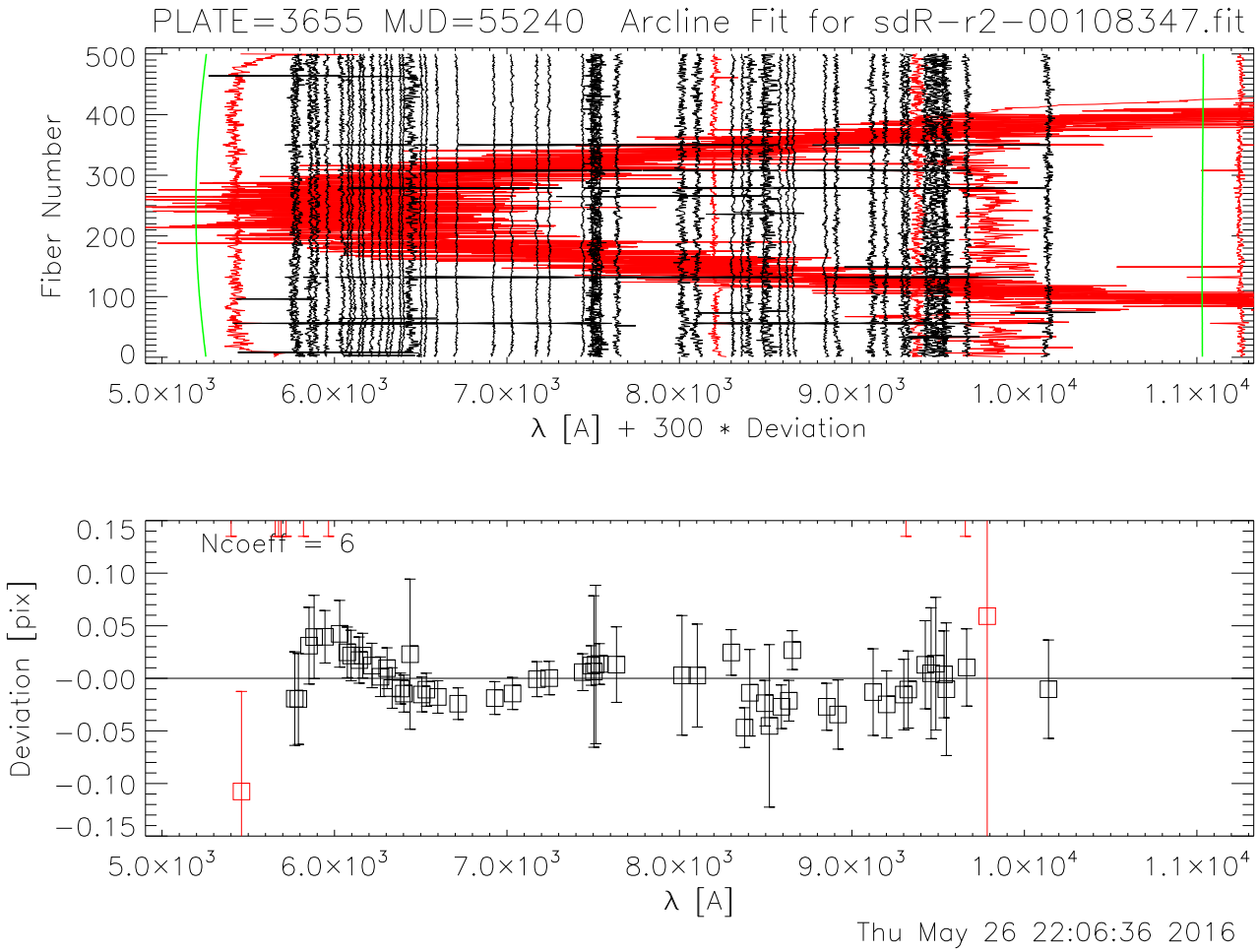


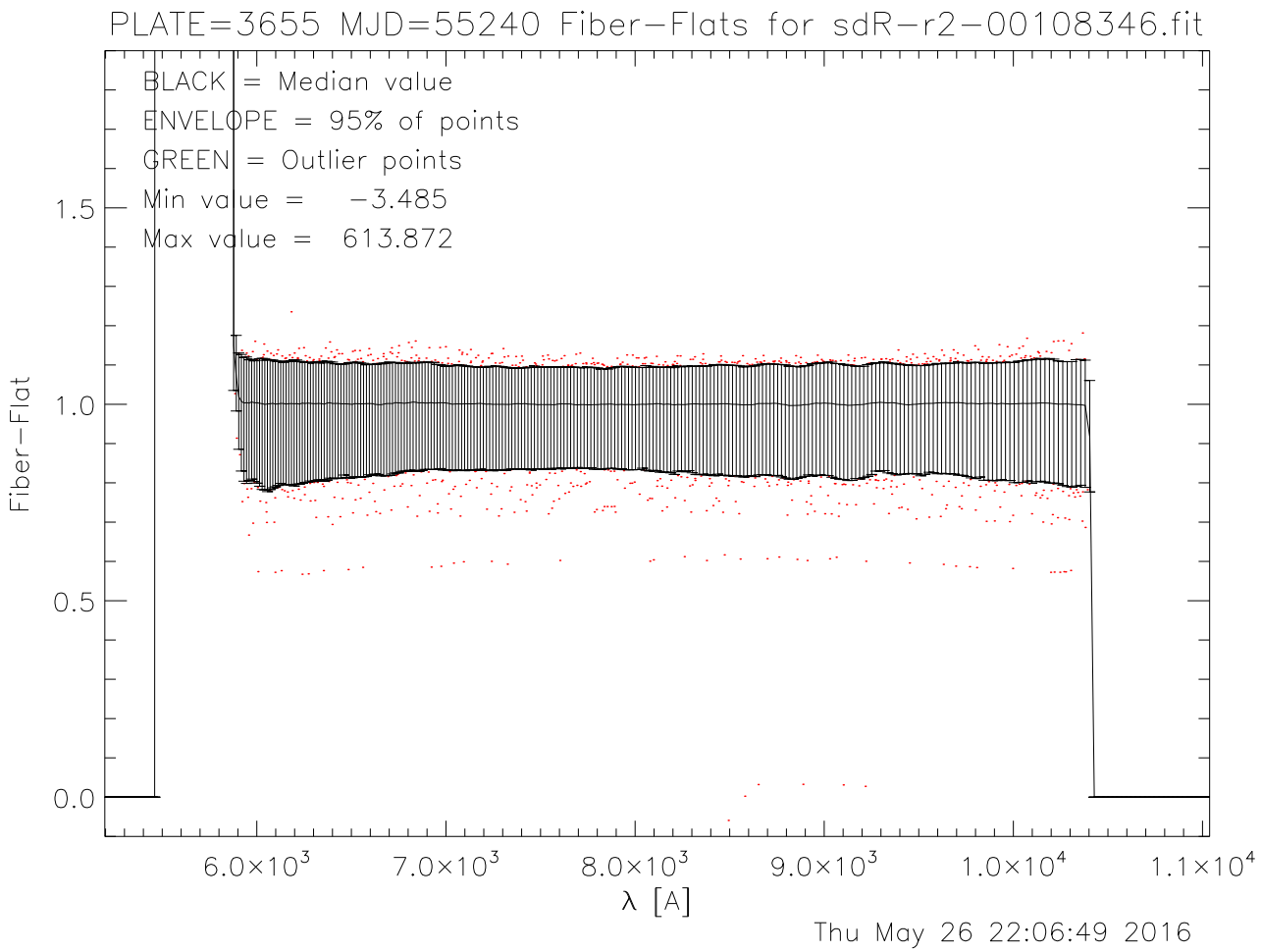

PLATE=3655 MJD=55240 flat extraction chi^2 for sdR−r2−00108339.fit
BLACK = Final chisq extraction
1.0
0.8
0.6
0.4
0.2
0.0
χ^2
0
1000
2000
3000
4000
Row number

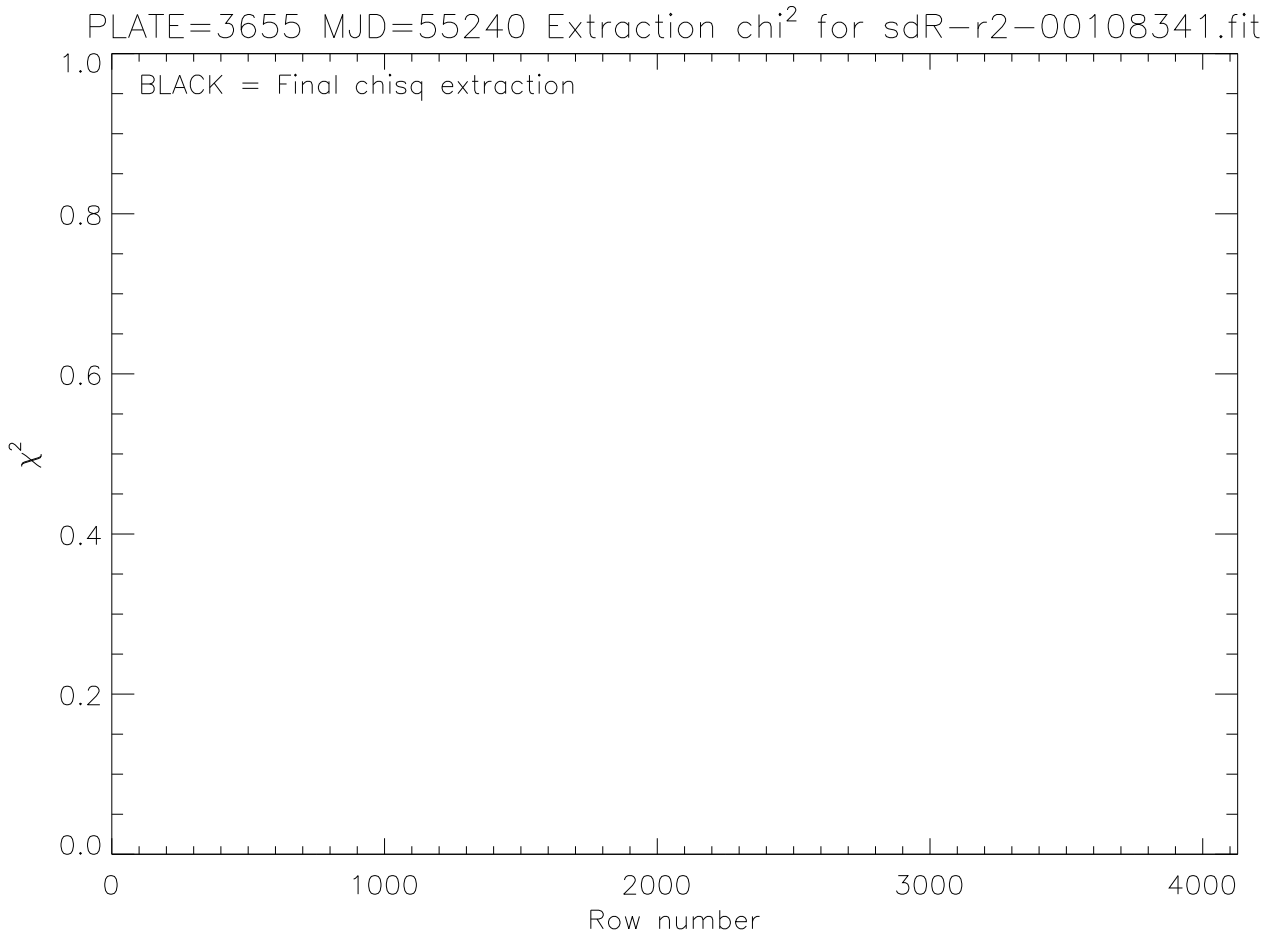

PLATE=3655 MJD=55240 Superflat sdR-r2-00108339.fit
RED = Superflat fit to central fiber
BLACK = 2.3 15.8 50.0 84.2 97.7 percentiles
Normalized flux
0.0
0.5
1.0
1.5
6000
7000
8000
9000
10000
λ [A]

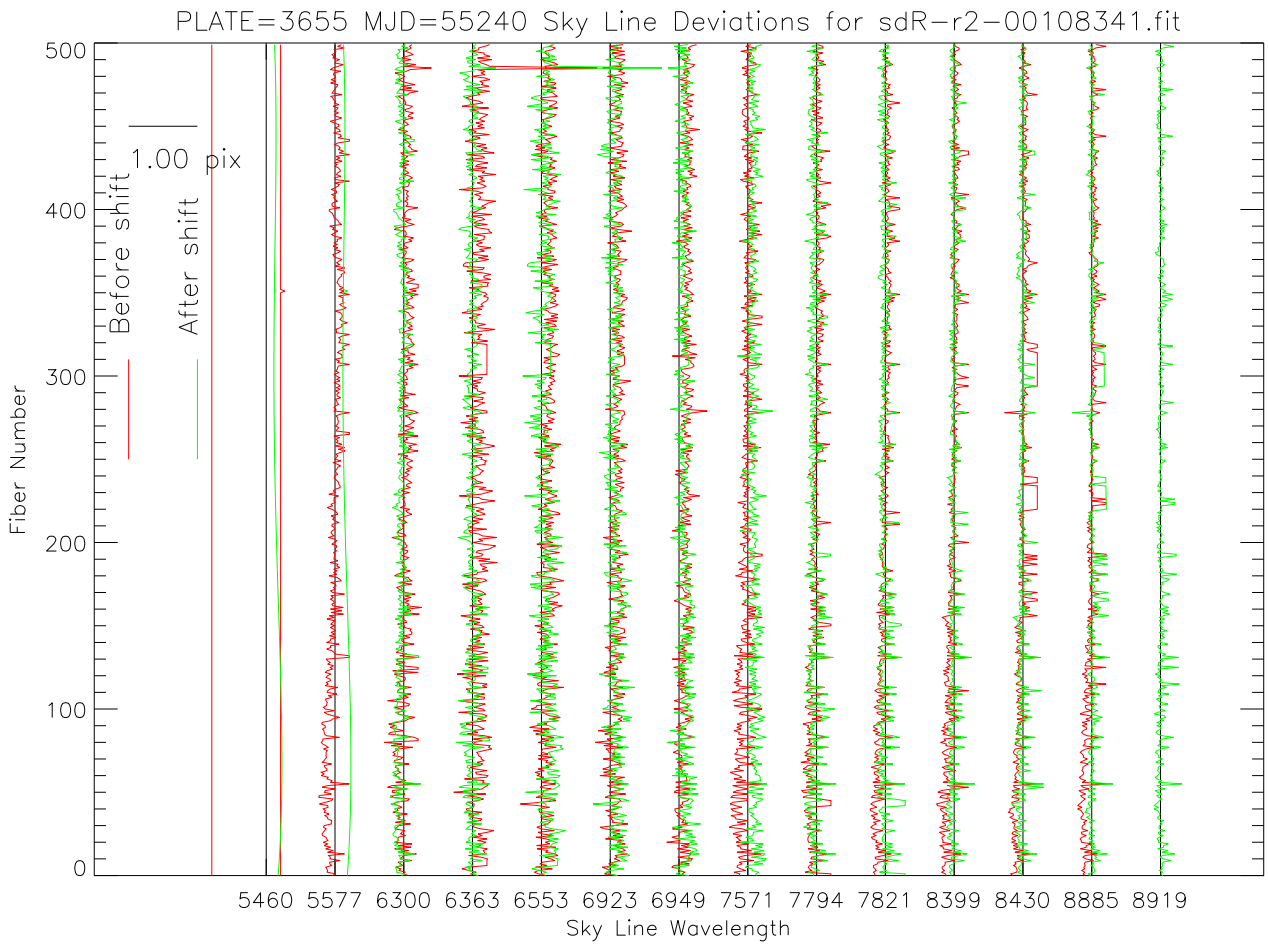

PLATE=3655 MJD=55240 flat extraction chi^2 for sdR−r2−00108346.fit
BLACK = Final chisq extraction
1.0
0.8
0.6
0.4
0.2
0.0
χ^2
0
1000
2000
3000
4000
Row number

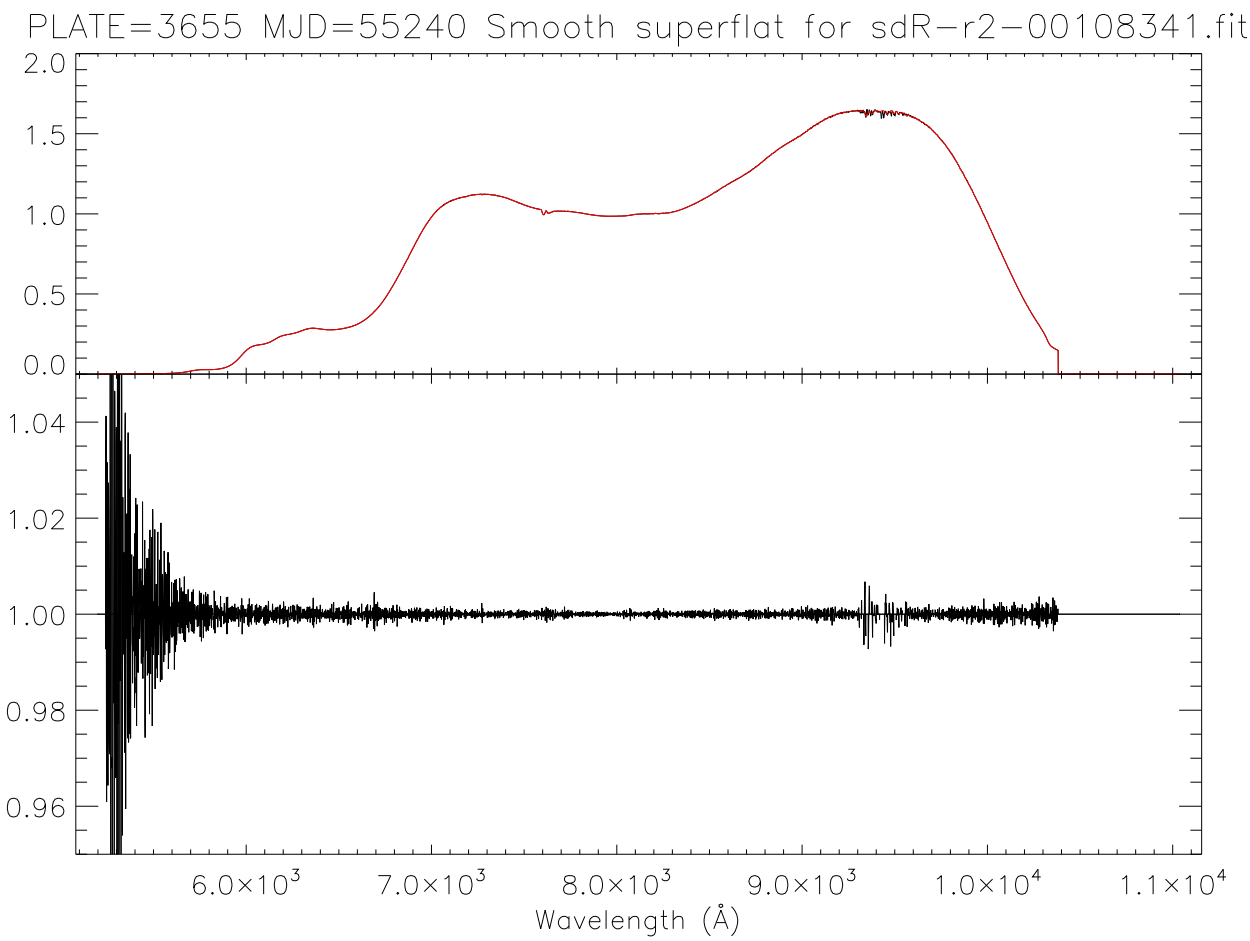

PLATE=3655 MJD=55240 Superflat sdR-r2-00108346.fit
RED = Superflat fit to central fiber
BLACK = 2.3 15.8 50.0 84.2 97.7 percentiles
Normalized flux
0.0
0.5
1.0
1.5
6000
7000
8000
9000
10000
λ [A]

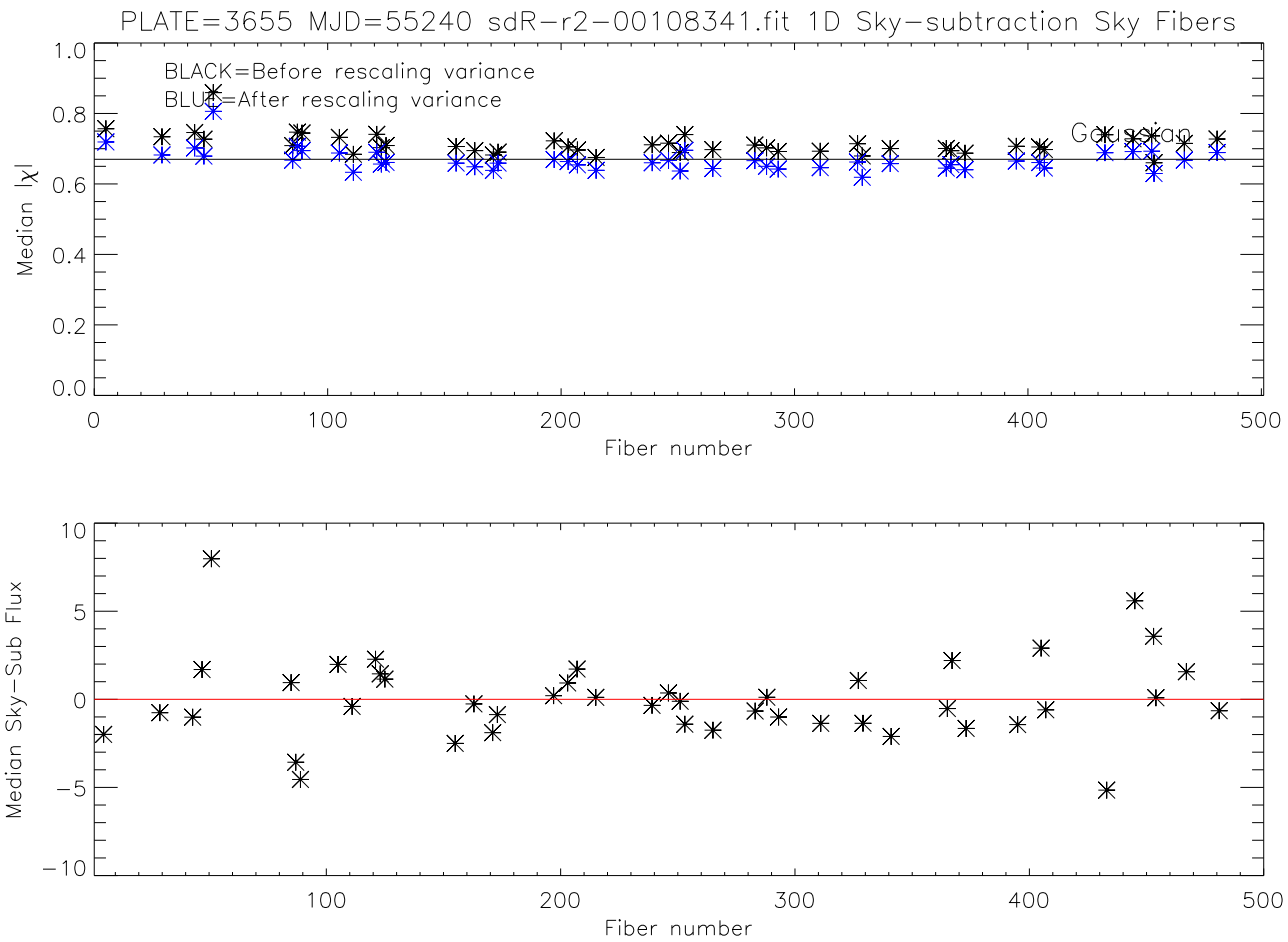

PLATE=3655 MJD=55240 Arcline Fit for sdR-r2-00108347.fit
Fiber Number
500
400
300
200
100
0
5.0×10^3
6.0×10^3
7.0×10^3
8.0×10^3
9.0×10^3
1.0×10^4
1.1×10^4
λ [A] + 300 * Deviation
Ncoeff = 6
Deviation [pix]
0.15
0.10
0.05
−0.00
−0.05
−0.10
−0.15
λ [A]
Thu May 26 22:06:36 2016

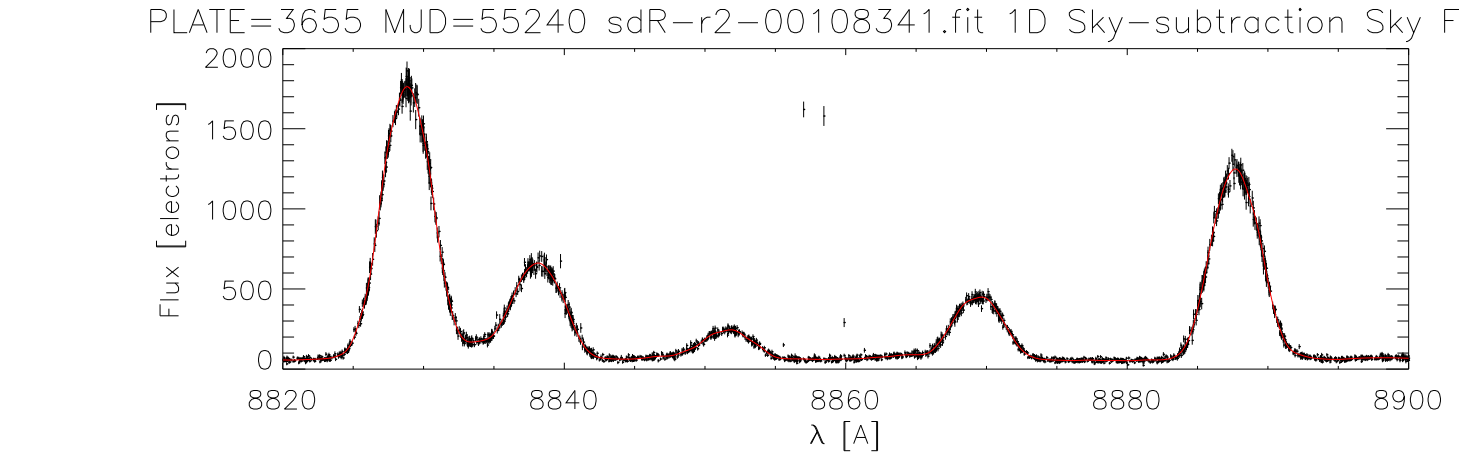

PLATE=3655 MJD=55240 Fiber−Flats for sdR−r2−00108346.fit
BLACK = Median value
ENVELOPE = 95% of points
GREEN = Outlier points
Min value = −3.485
Max value = 613.872
Fiber−Flat
1.5
1.0
0.5
0.0
6.0×10^3
7.0×10^3
8.0×10^3
9.0×10^3
1.0×10^4
1.1×10^4
λ [A]
Thu May 26 22:06:49 2016

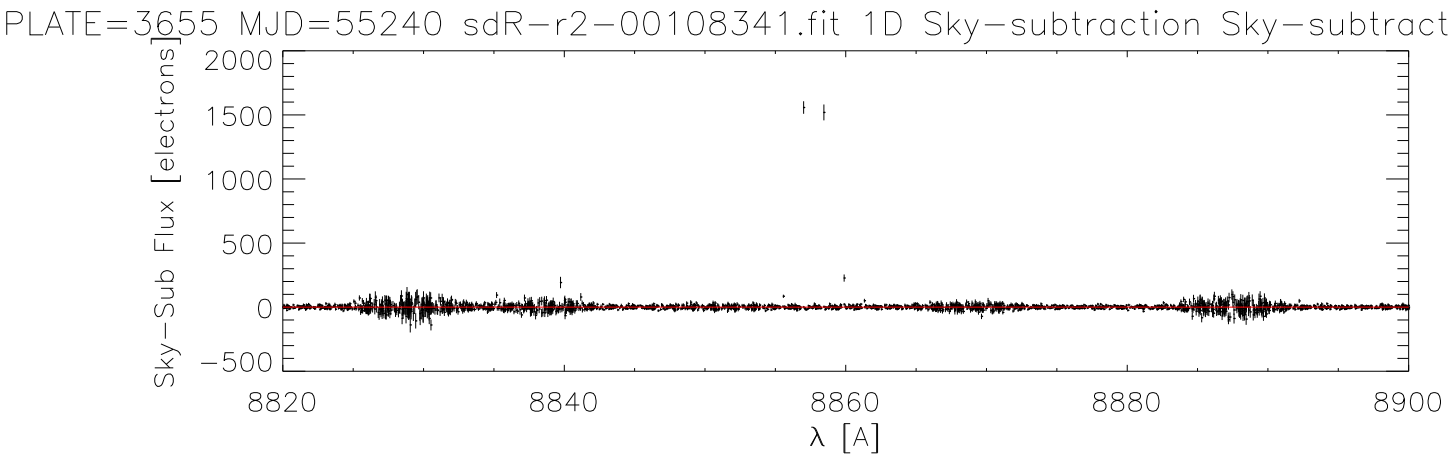

PLATE=3655 MJD=55240 Extraction chi^2 for sdR−r2−00108341.fit
BLACK = Final chisq extraction
χ^2
1.0
0.8
0.6
0.4
0.2
0.0
0
1000
2000
3000
4000
Row number


PLATE=3655 MJD=55240 Sky Line Deviations for sdR-r2-00108341.fit
Before shift
After shift
1.00 pix
Fiber Number
0
100
200
300
400
500
5460 5577 6300 6363 6553 6923 6949 7571 7794 7821 8399 8430 8885 8919
Sky Line Wavelength

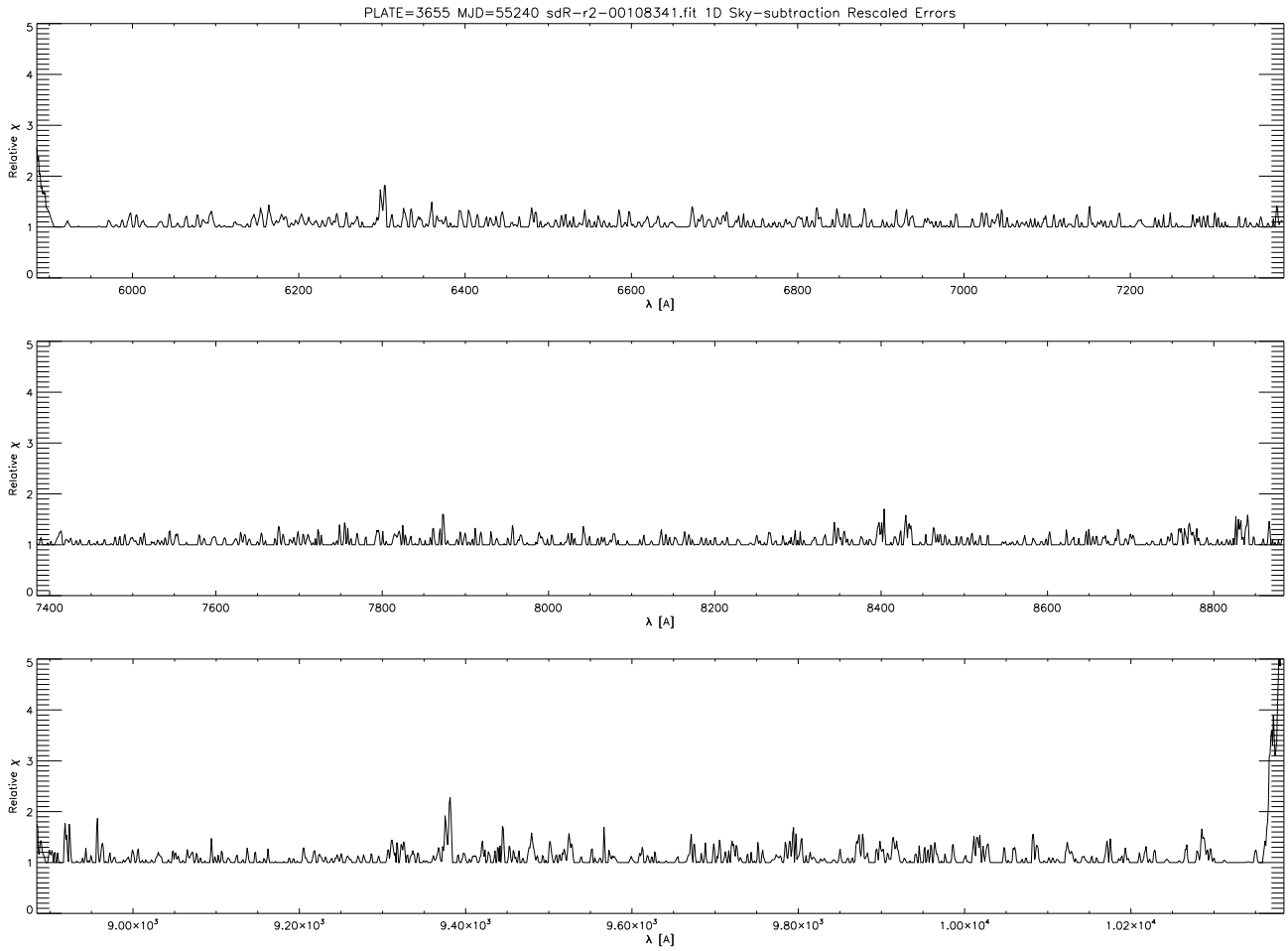

PLATE=3655 MJD=55240 Smooth superflat for sdR-r2-00108341.fit
2.0
1.5
1.0
0.5
0.0
1.04
1.02
1.00
0.98
0.96
6.0×10^3
7.0×10^3
8.0×10^3
9.0×10^3
1.0×10^4
1.1×10^4
Wavelength (Å)

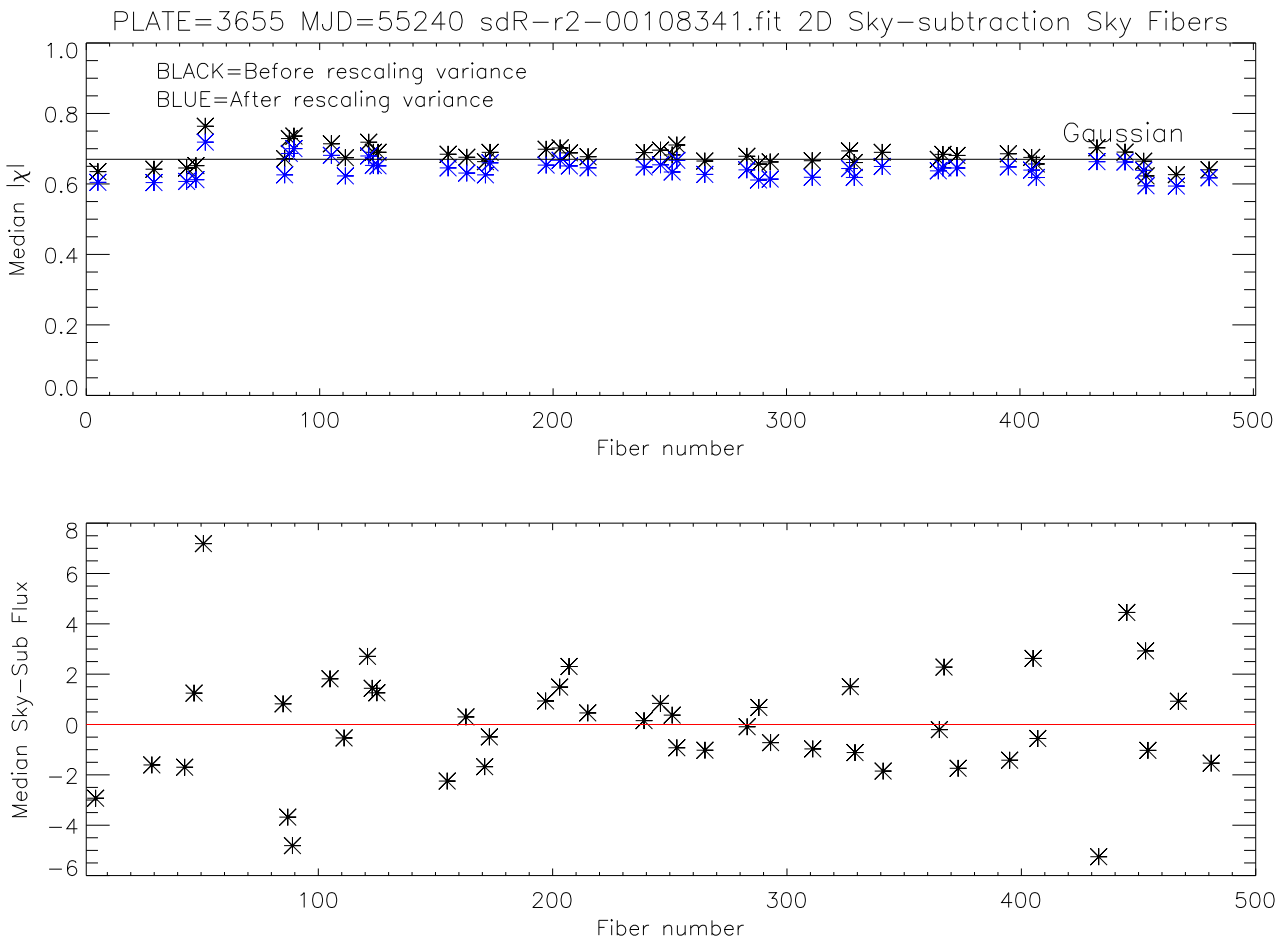

PLATE=3655 MJD=55240 sdR-r2-00108341.fit 1D Sky-subtraction Sky Fibers
BLACK=Before rescaling variance
BLUE=After rescaling variance
Gaussian
Median |χ|
Fiber number
Median Sky-Sub Flux
Fiber number

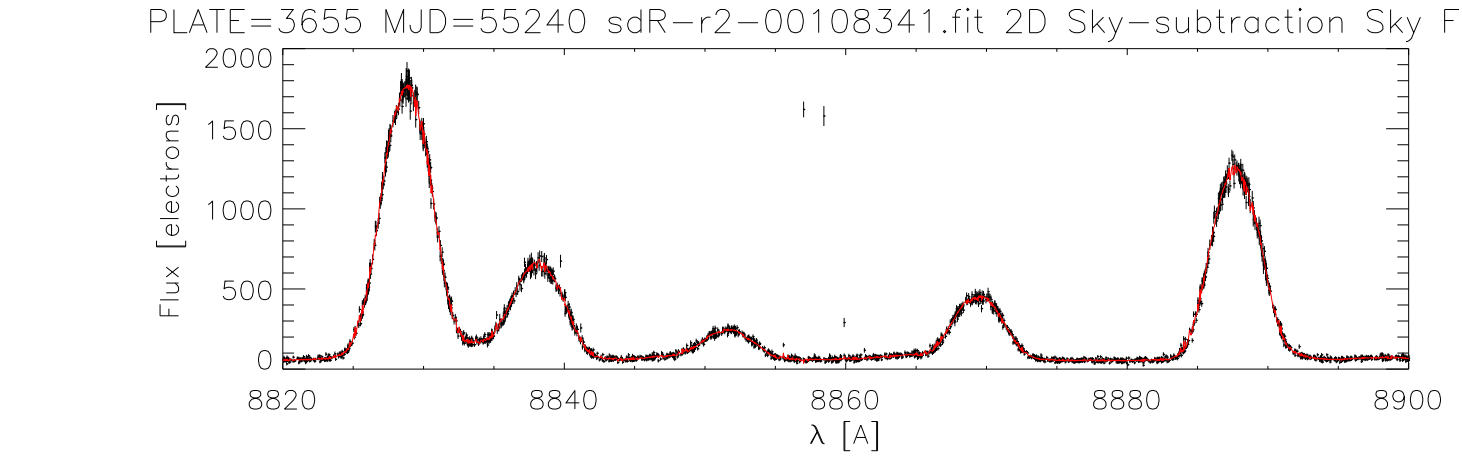

PLATE=3655 MJD=55240 sdR-r2-00108341.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
2000
1500
1000
500
0
8820
8840
8860
8880
8900
λ [A]

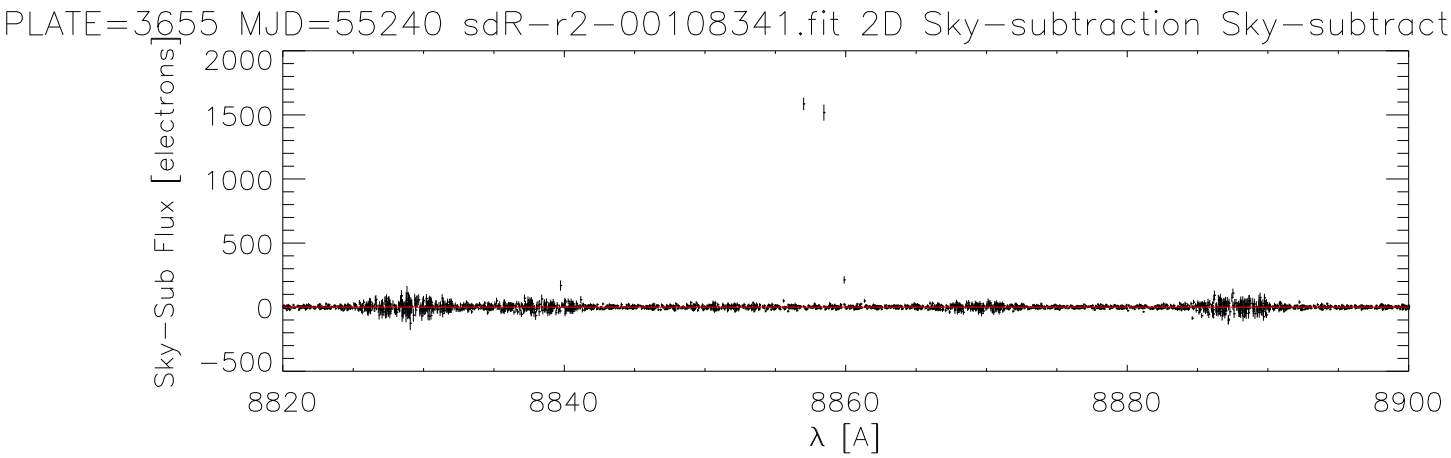

PLATE=3655 MJD=55240 sdR-r2-00108341.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
2000
1500
1000
500
0
-500
8820
8840
8860
8880
8900
λ [A]

Number of sky fibers = 45

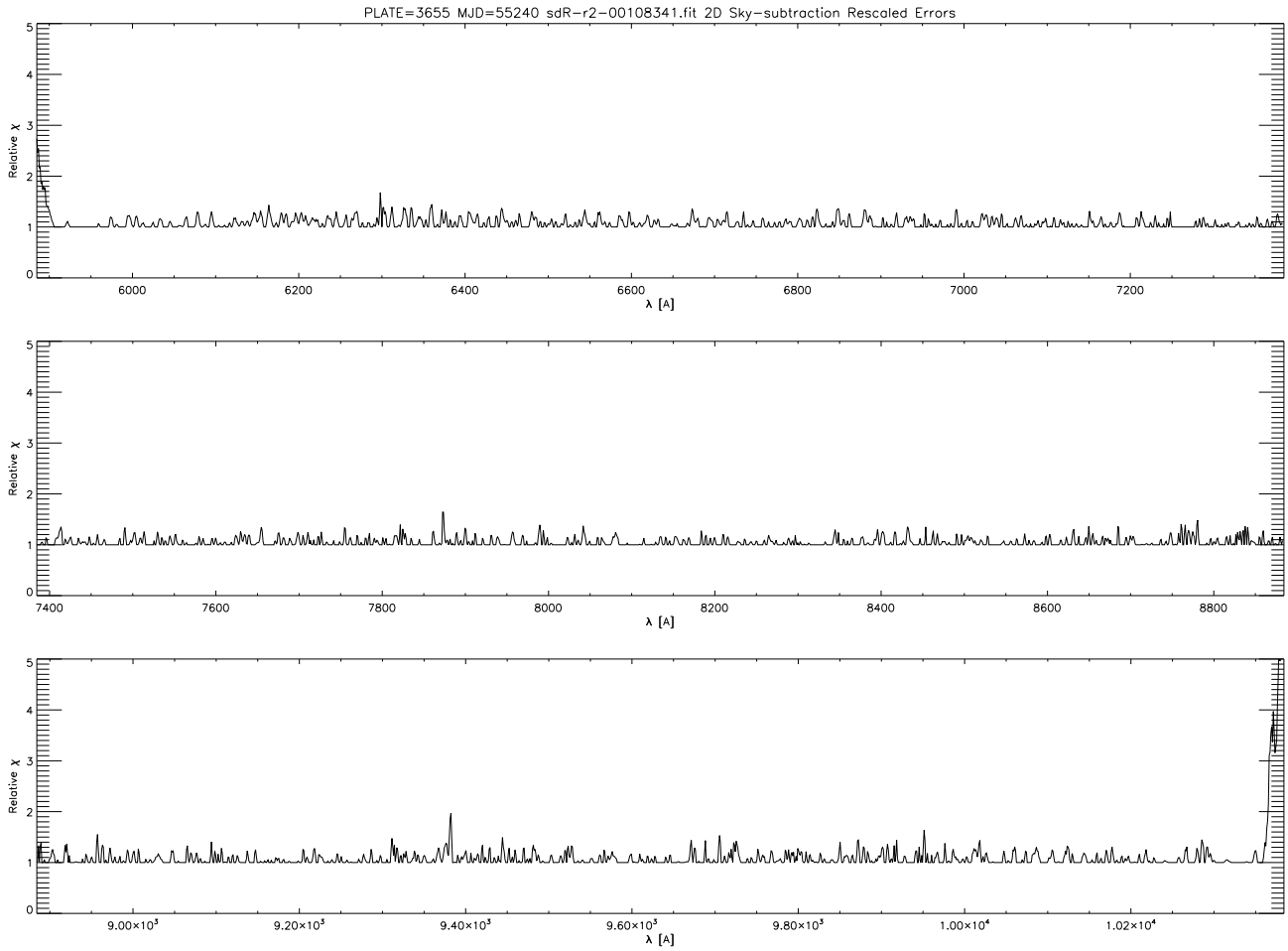


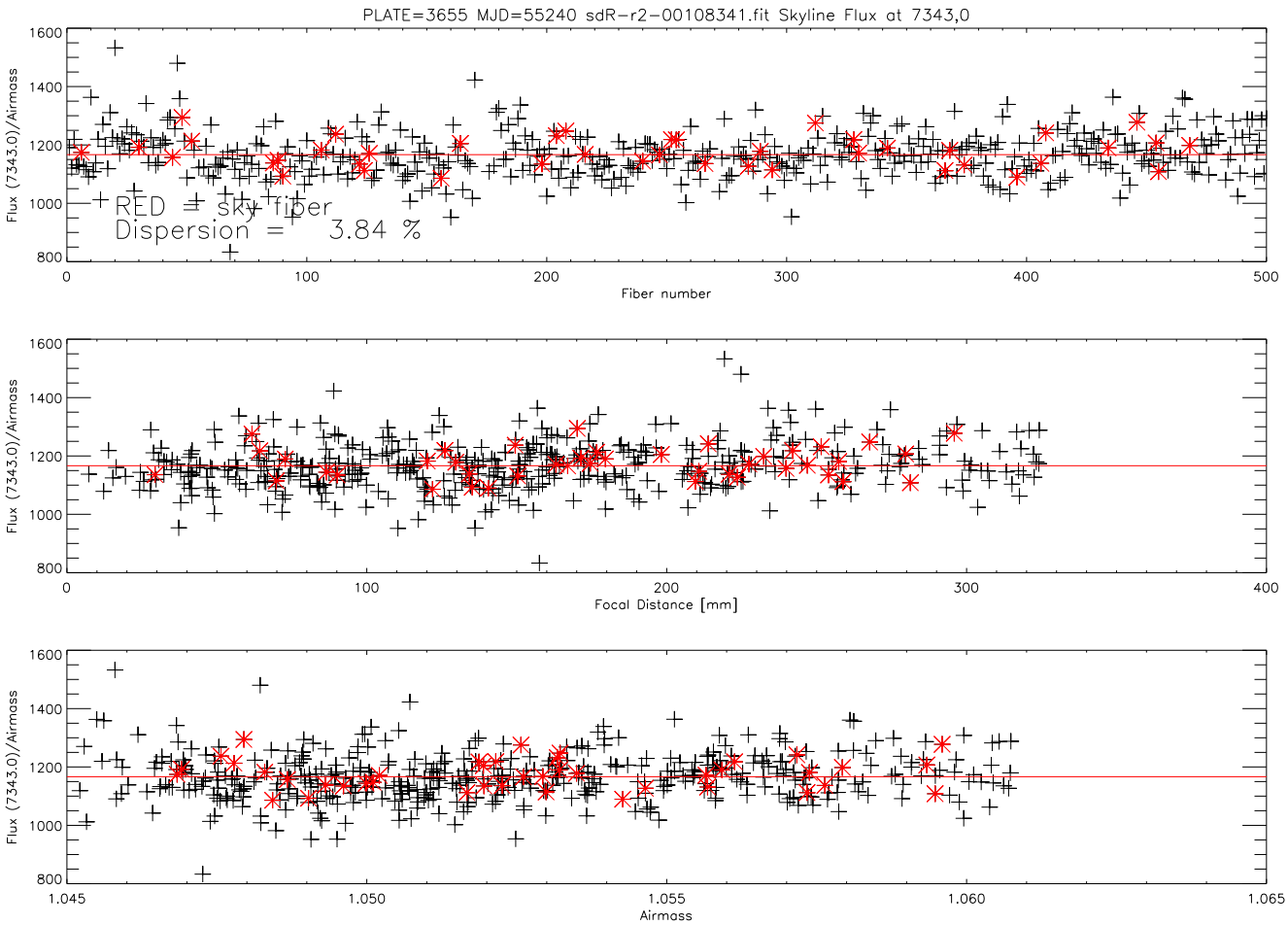

PLATE=3655 MJD=55240 sdR-r2-00108341.fit 2D Sky-subtraction Sky Fibers
BLACK=Before rescaling variance
BLUE=After rescaling variance
Gaussian
Median |χ|
Fiber number
Median Sky-Sub Flux
Fiber number

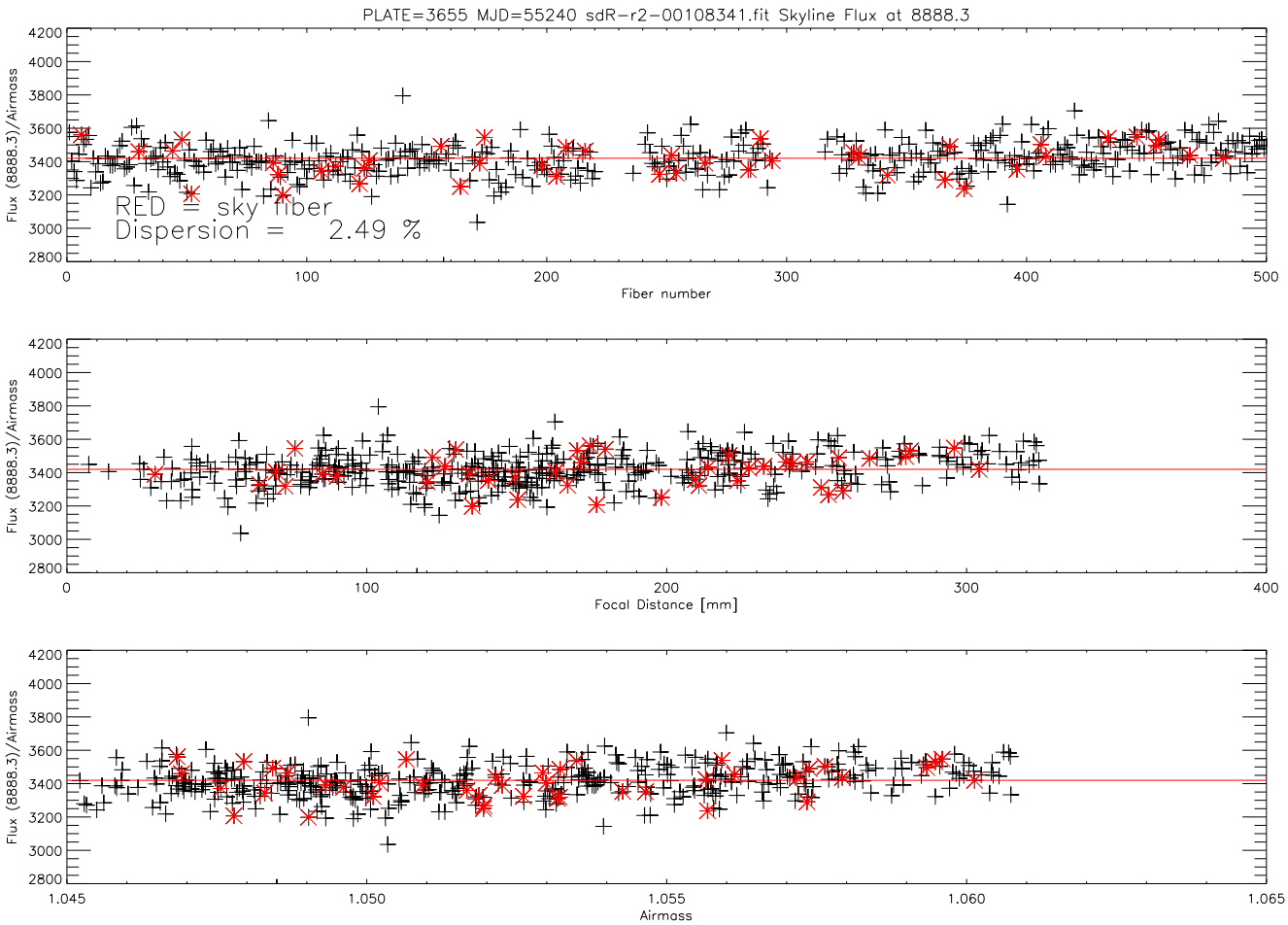

PLATE=3655 MJD=55240 sdR-r2-00108341.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
2000
1500
1000
500
0
8820
8840
8860
8880
8900
λ [A]

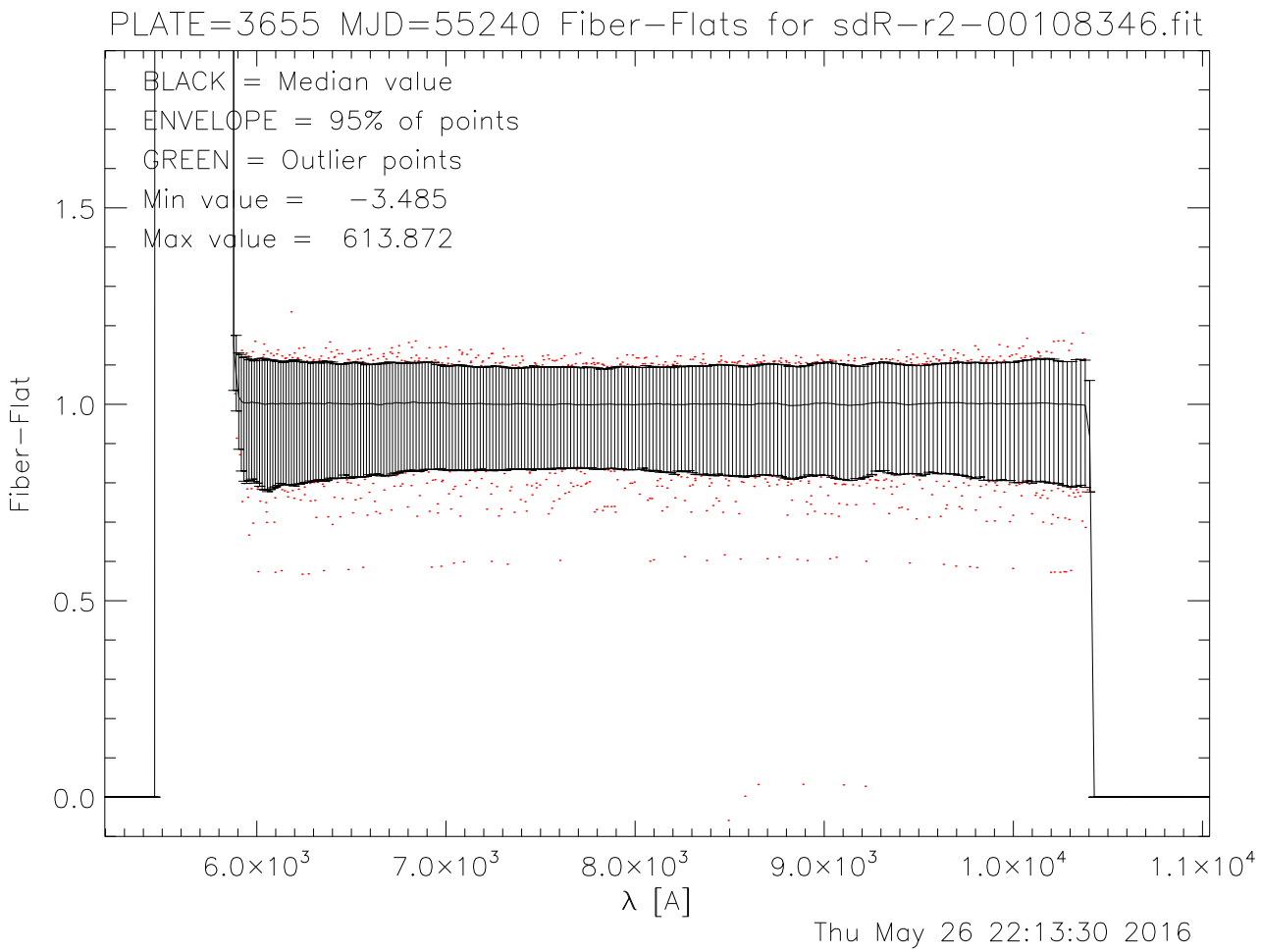

PLATE=3655 MJD=55240 sdR-r2-00108341.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
2000
1500
1000
500
0
-500
8820
8840
8860
8880
8900
λ [A]

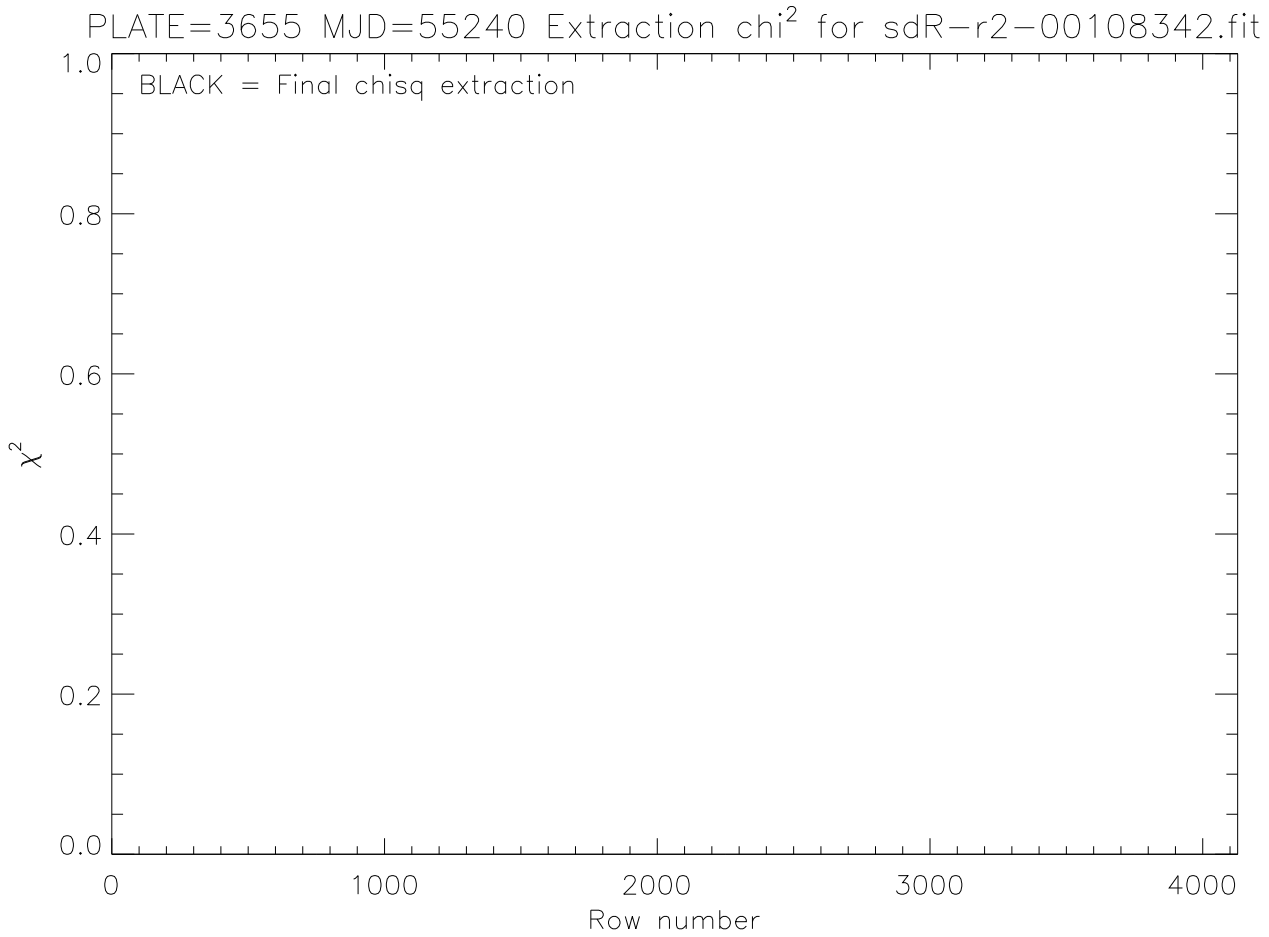
Number of sky fibers = 45

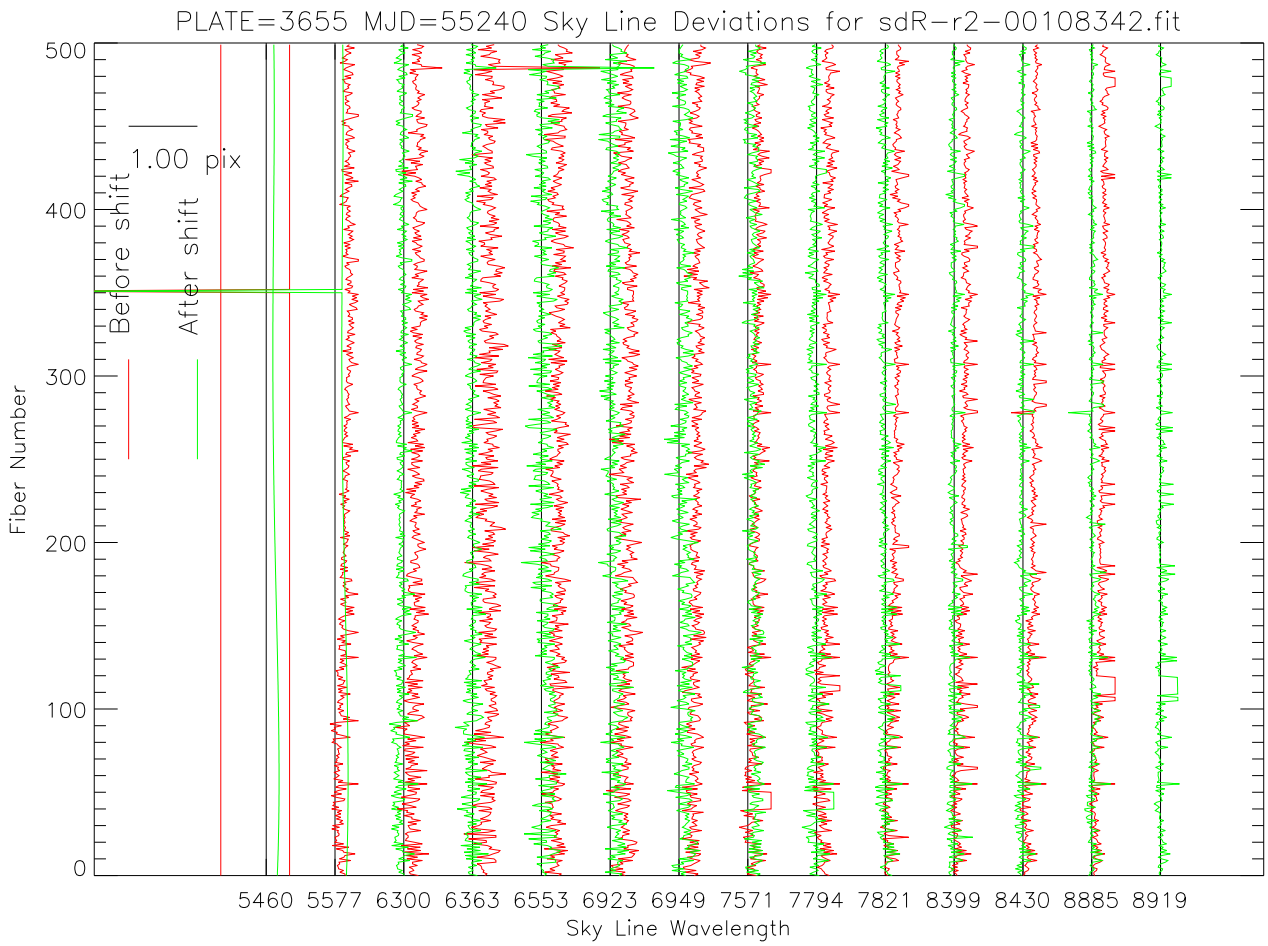


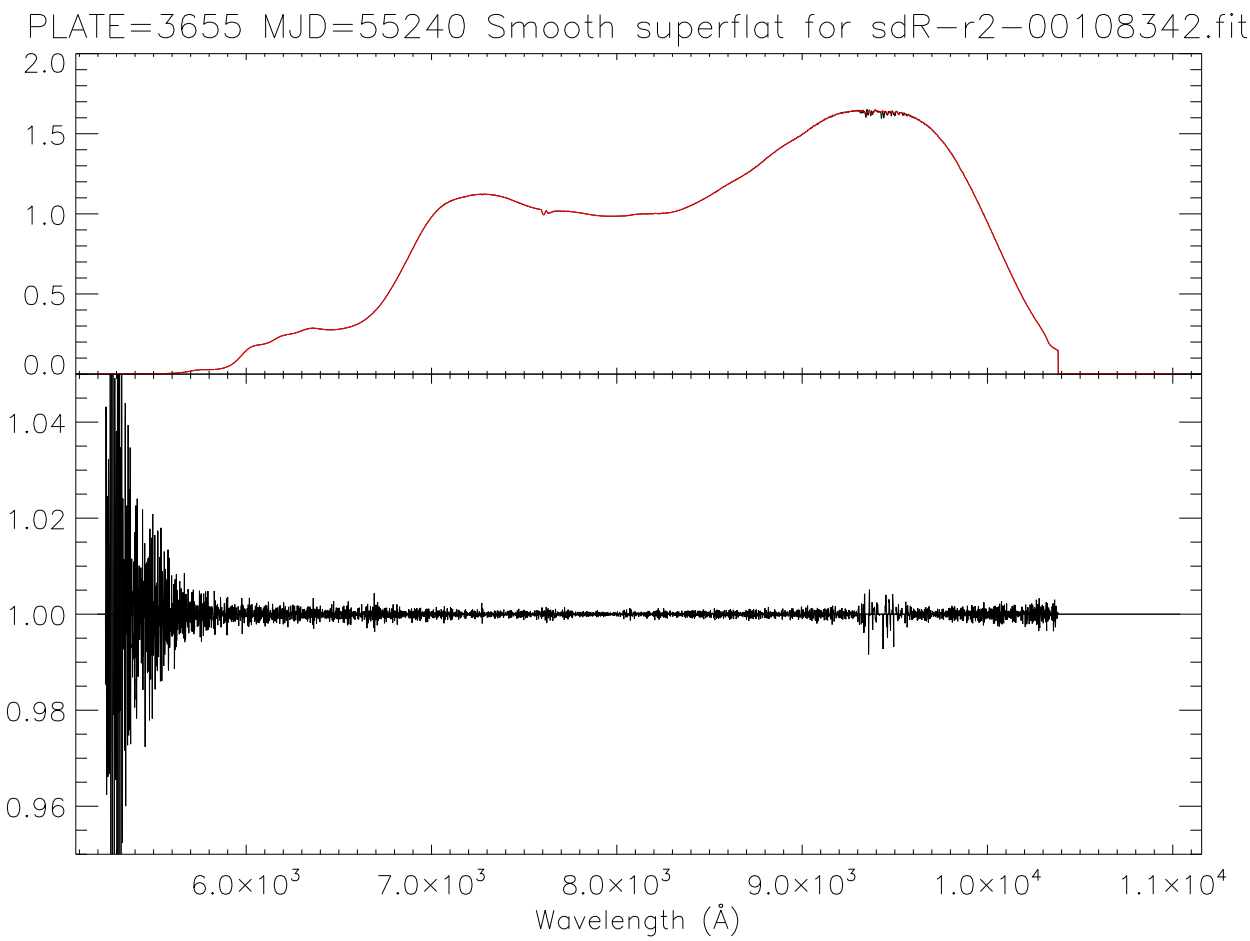

PLATE=3655 MJD=55240 sdR-r2-00108341.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
Fiber number
RED = sky fiber
Dispersion = 3.84 %
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

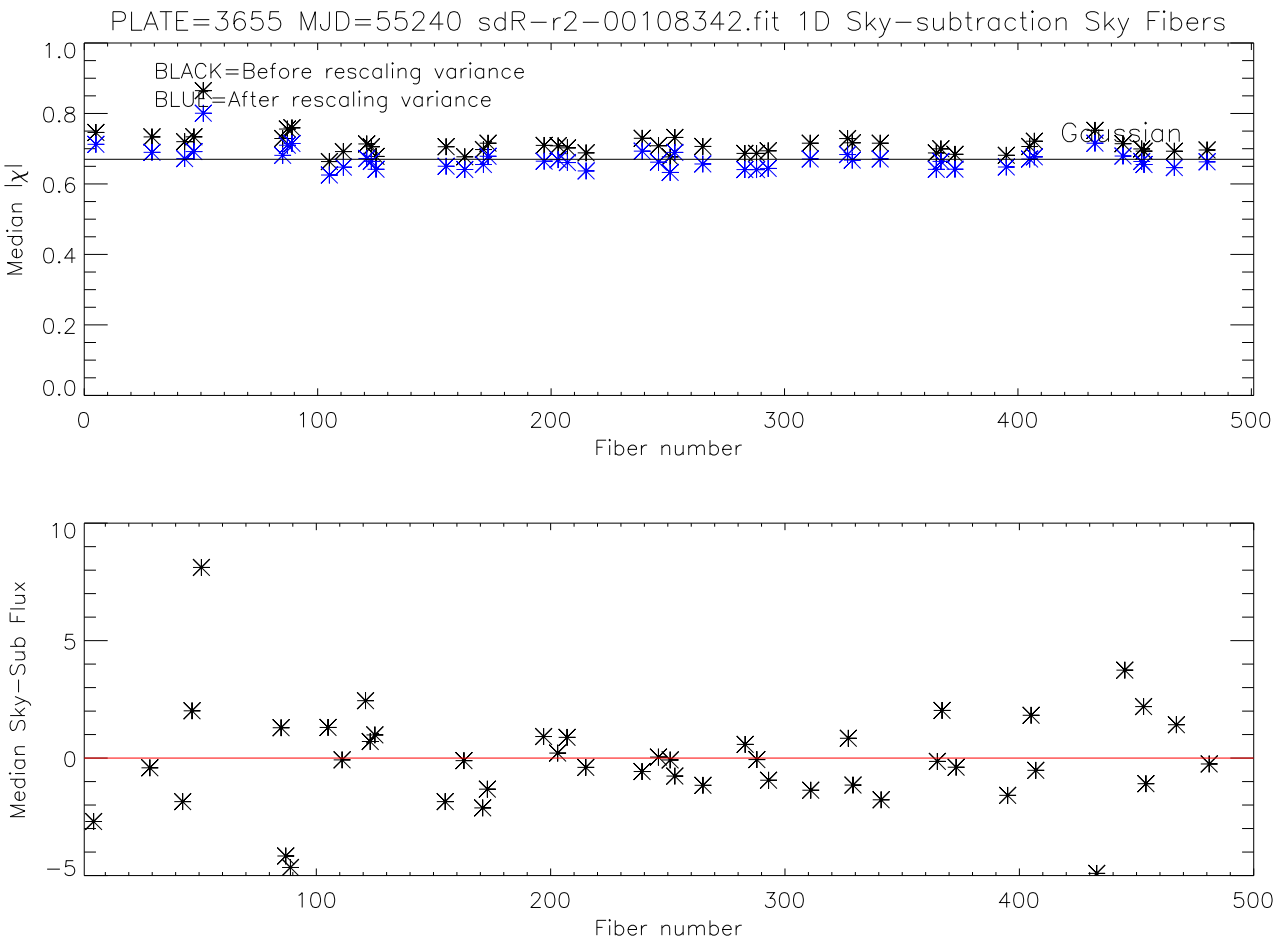

PLATE=3655 MJD=55240 sdR-r2-00108341.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 2.49 %
Fiber number
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass

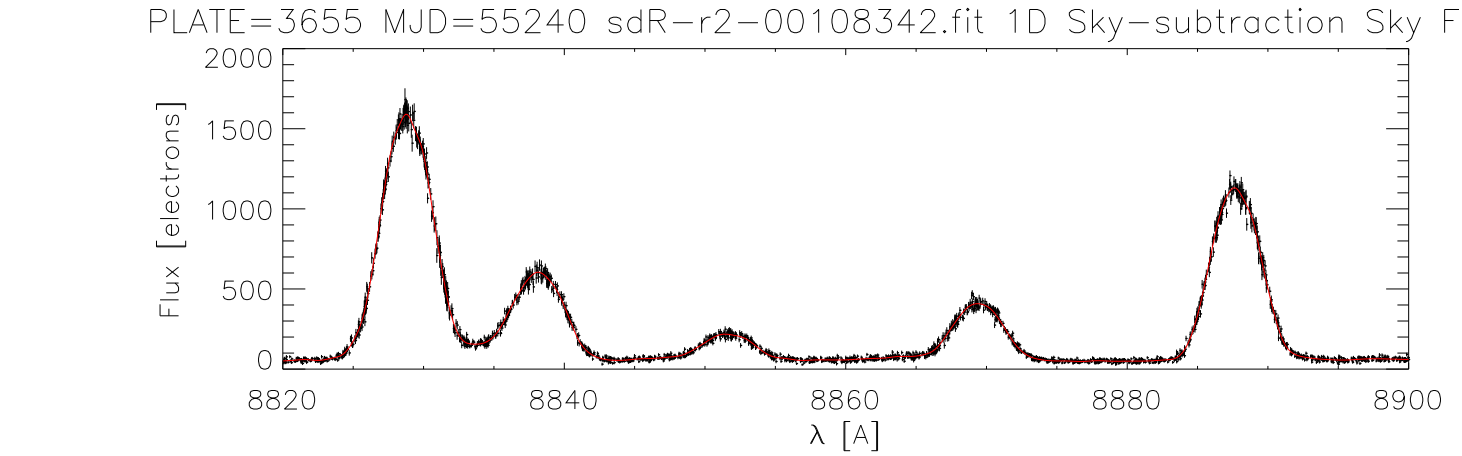

PLATE=3655 MJD=55240 Fiber−Flats for sdR−r2−00108346.fit
BLACK = Median value
ENVELOPE = 95% of points
GREEN = Outlier points
Min value = −3.485
Max value = 613.872
Fiber−Flat
1.5
1.0
0.5
0.0
6.0×10^3
7.0×10^3
8.0×10^3
9.0×10^3
1.0×10^4
1.1×10^4
λ [A]
Thu May 26 22:13:30 2016

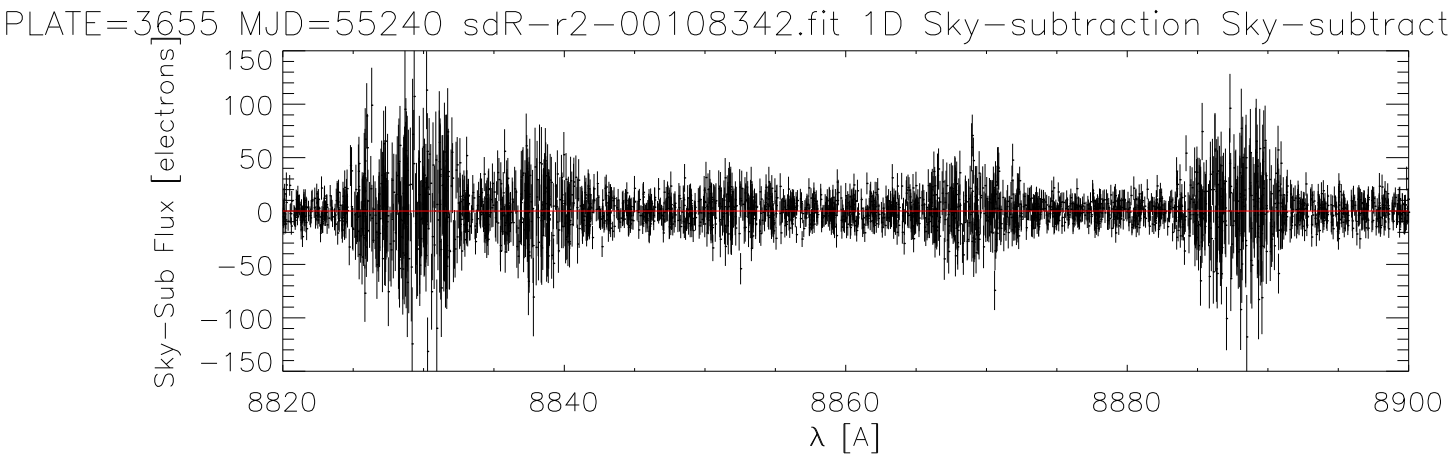

PLATE=3655 MJD=55240 Extraction chi^2 for sdR−r2−00108342.fit
BLACK = Final chisq extraction
χ^2
1.0
0.8
0.6
0.4
0.2
0.0
0
1000
2000
3000
4000
Row number


PLATE=3655 MJD=55240 Sky Line Deviations for sdR-r2-00108342.fit
Before shift
After shift
1.00 pix
Fiber Number
0
100
200
300
400
500
5460 5577 6300 6363 6553 6923 6949 7571 7794 7821 8399 8430 8885 8919
Sky Line Wavelength

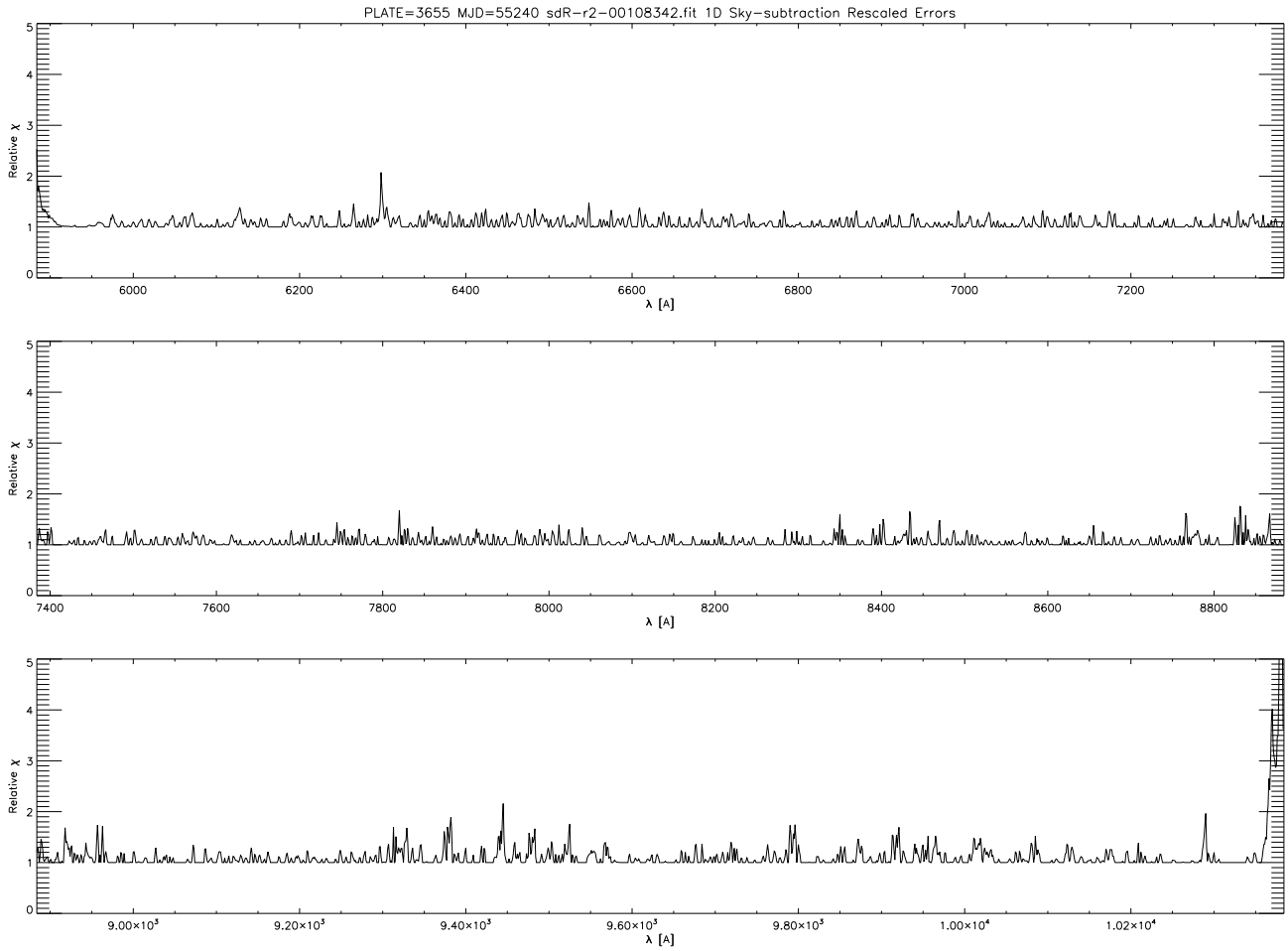

PLATE=3655 MJD=55240 Smooth superflat for sdR-r2-00108342.fit
2.0
1.5
1.0
0.5
0.0
1.04
1.02
1.00
0.98
0.96
6.0×10^3
7.0×10^3
8.0×10^3
9.0×10^3
1.0×10^4
1.1×10^4
Wavelength (Å)

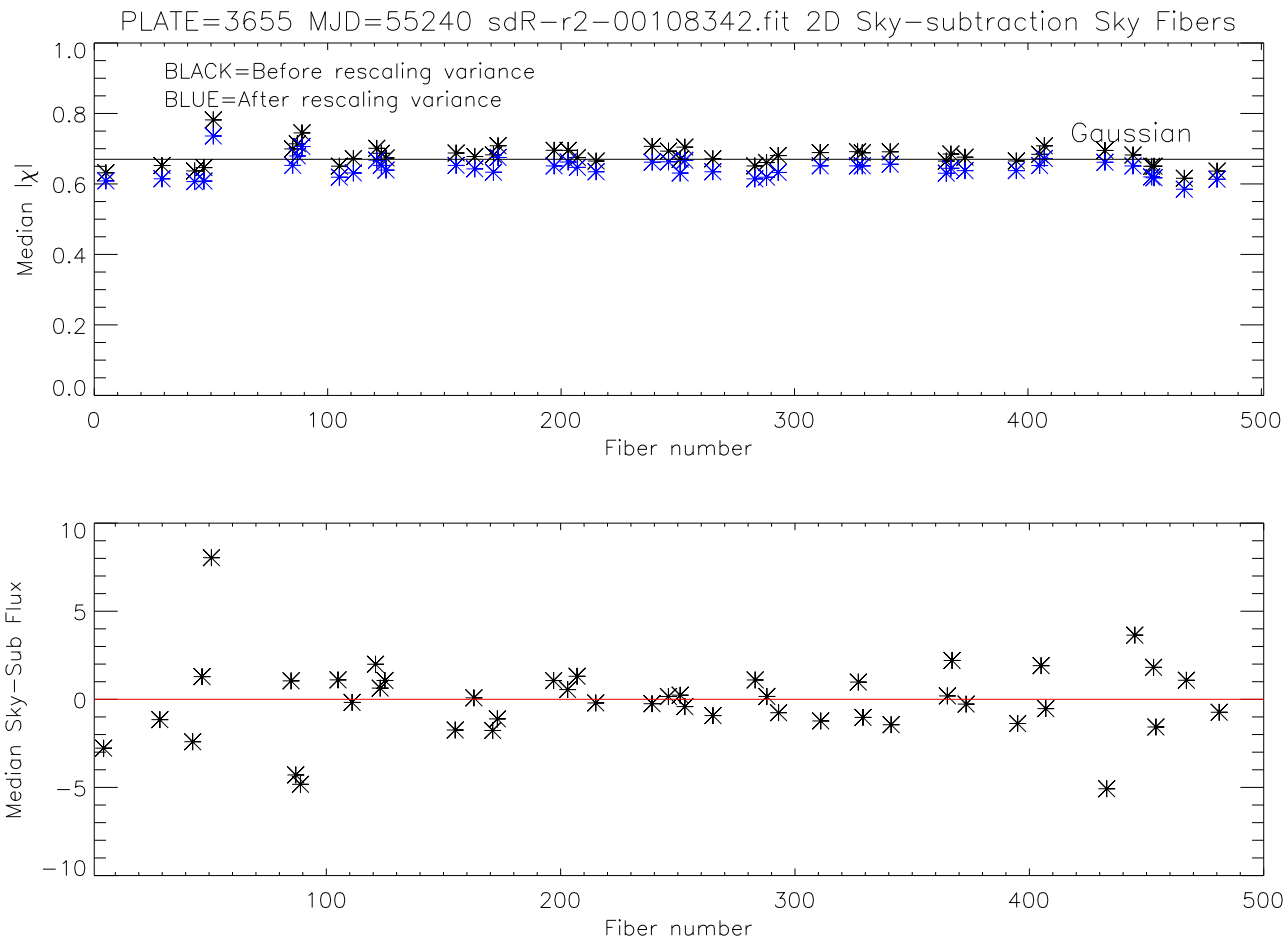

PLATE=3655 MJD=55240 sdR-r2-00108342.fit 1D Sky-subtraction Sky Fibers
BLACK=Before rescaling variance
BLUE=After rescaling variance
Gaussian
Median |χ|
Fiber number
Median Sky-Sub Flux
Fiber number

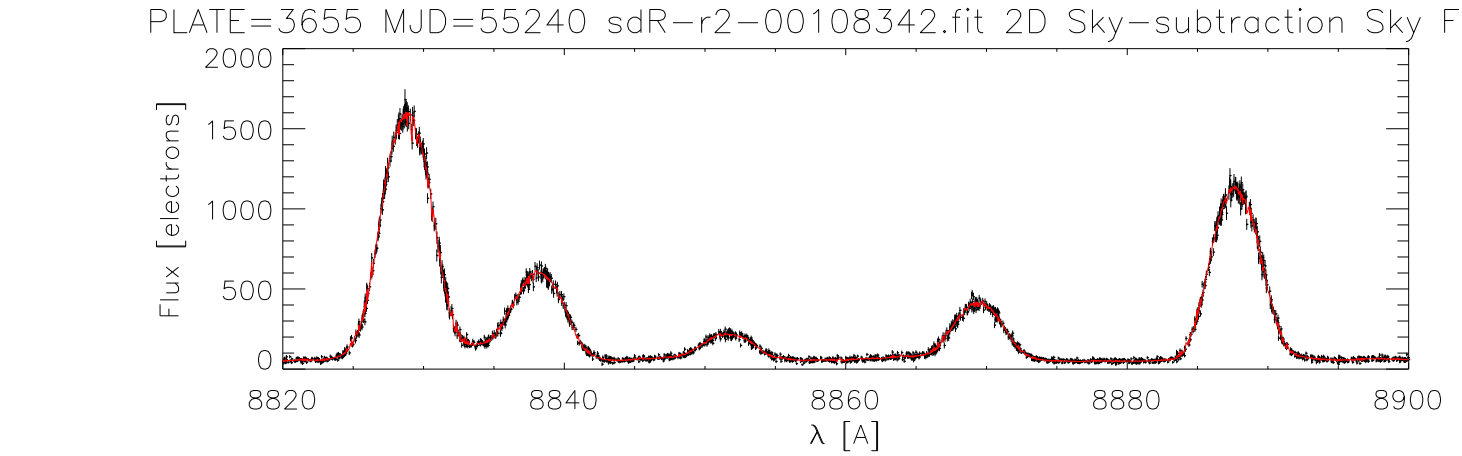

PLATE=3655 MJD=55240 sdR-r2-00108342.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
2000
1500
1000
500
0
8820
8840
8860
8880
8900
λ [A]

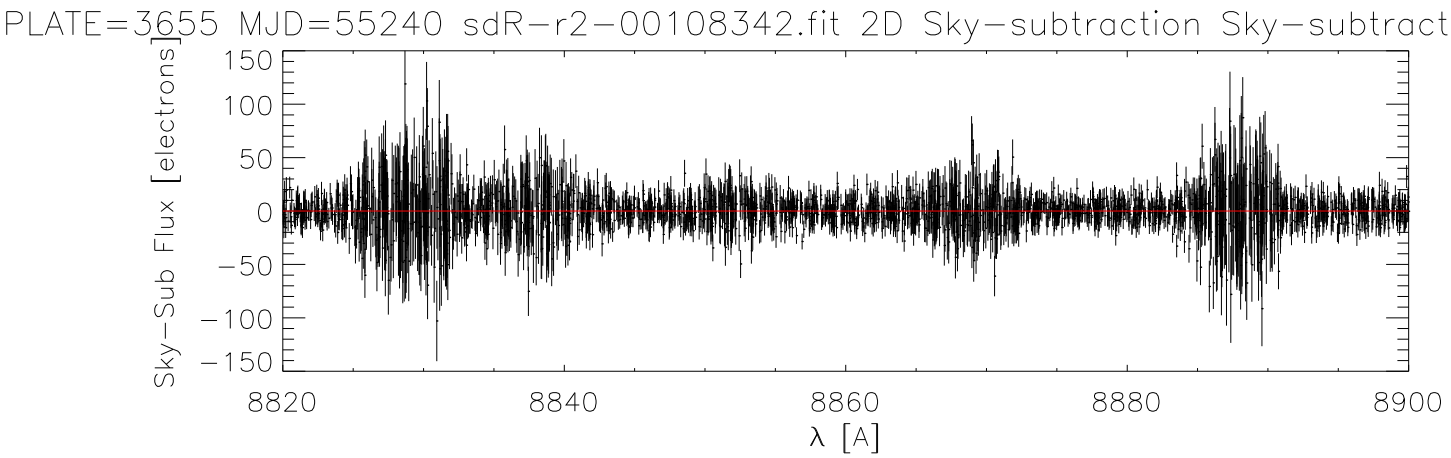

PLATE=3655 MJD=55240 sdR-r2-00108342.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
150
100
50
0
-50
-100
-150
8820
8840
8860
8880
8900
λ [A]

Number of sky fibers = 45

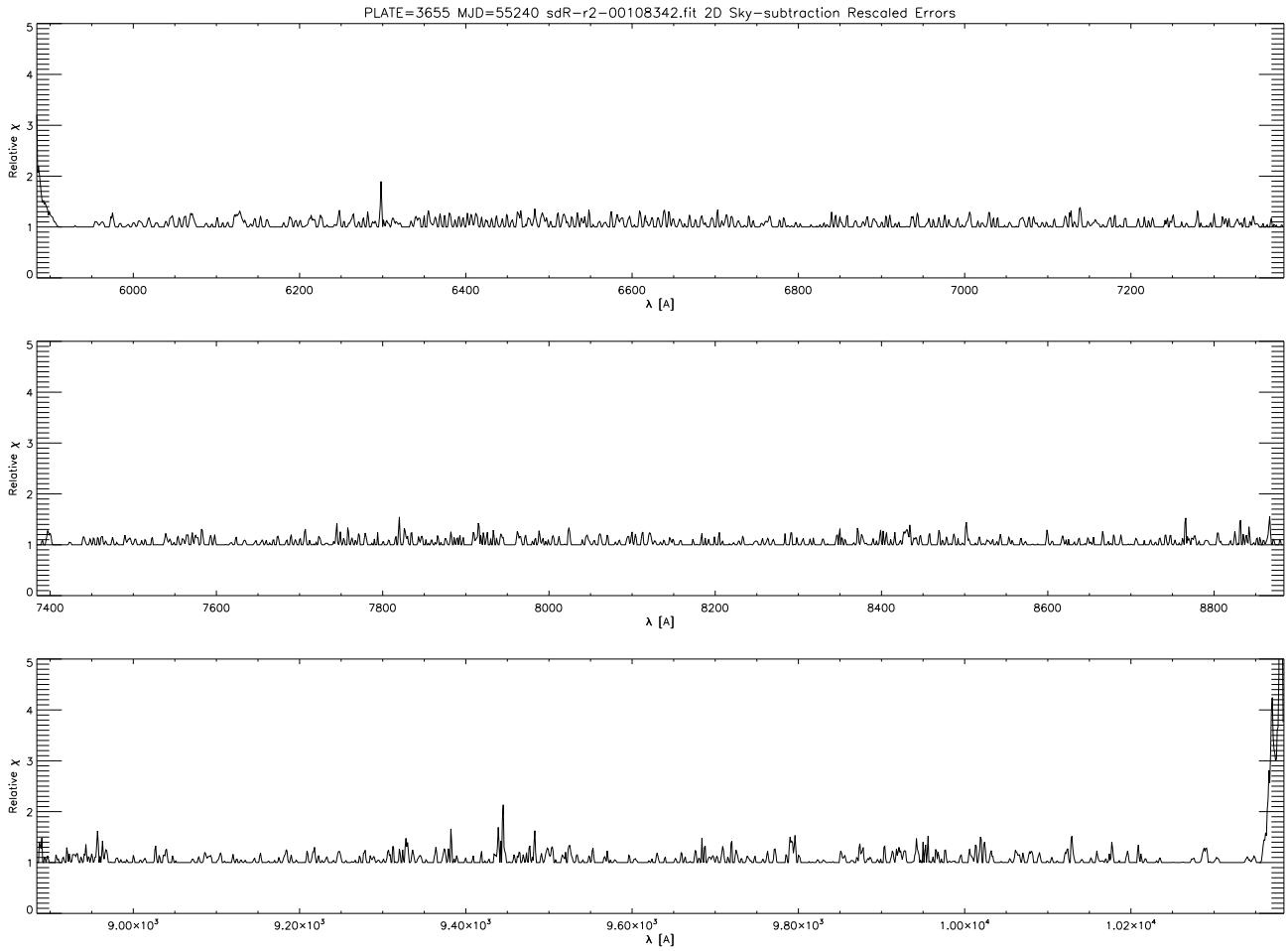


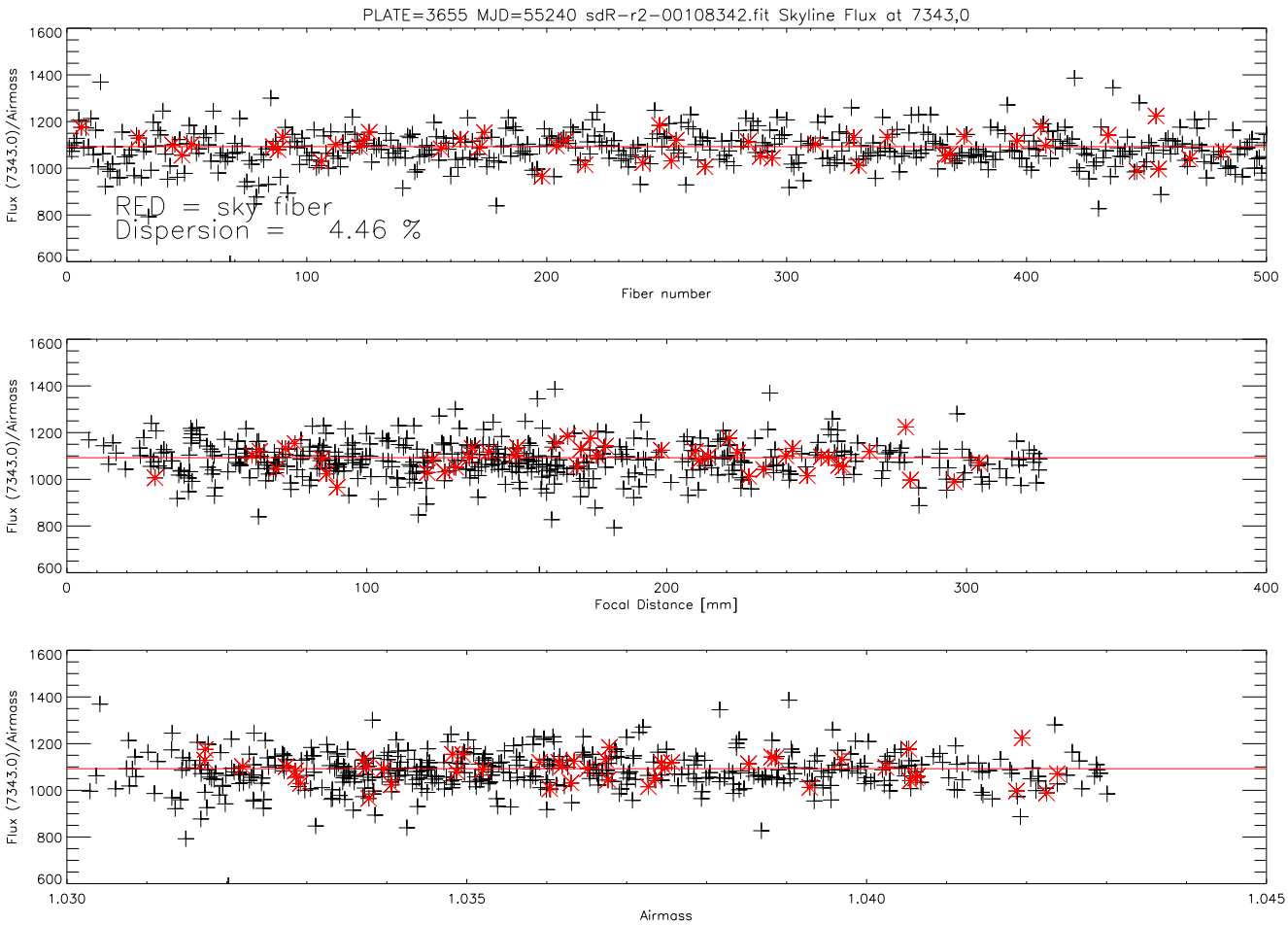

PLATE=3655 MJD=55240 sdR-r2-00108342.fit 2D Sky-subtraction Sky Fibers
BLACK=Before rescaling variance
BLUE=After rescaling variance
Gaussian
Median |χ|
Fiber number
Median Sky-Sub Flux
Fiber number

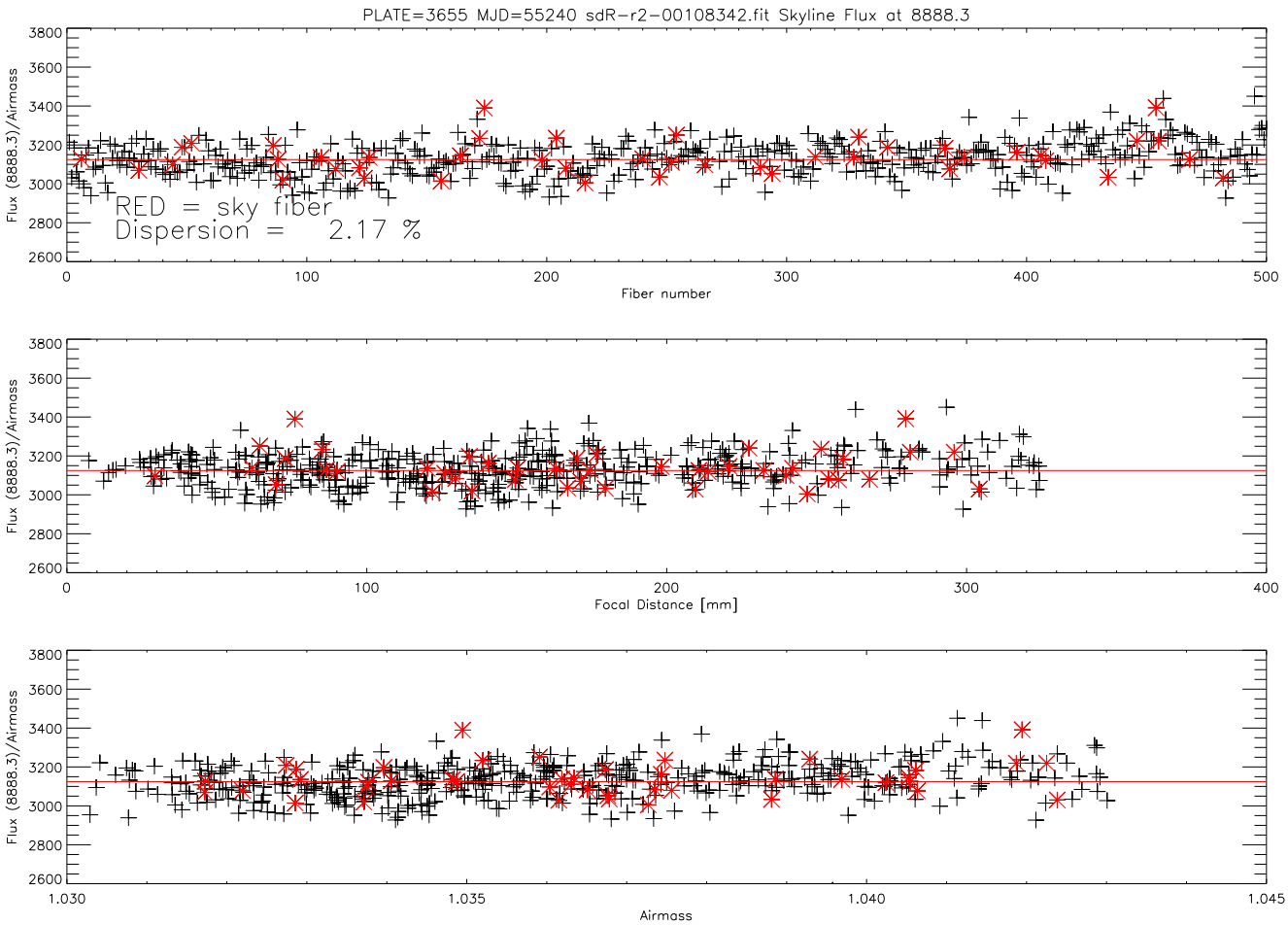

PLATE=3655 MJD=55240 sdR-r2-00108342.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
2000
1500
1000
500
0
8820
8840
8860
8880
8900
λ [A]

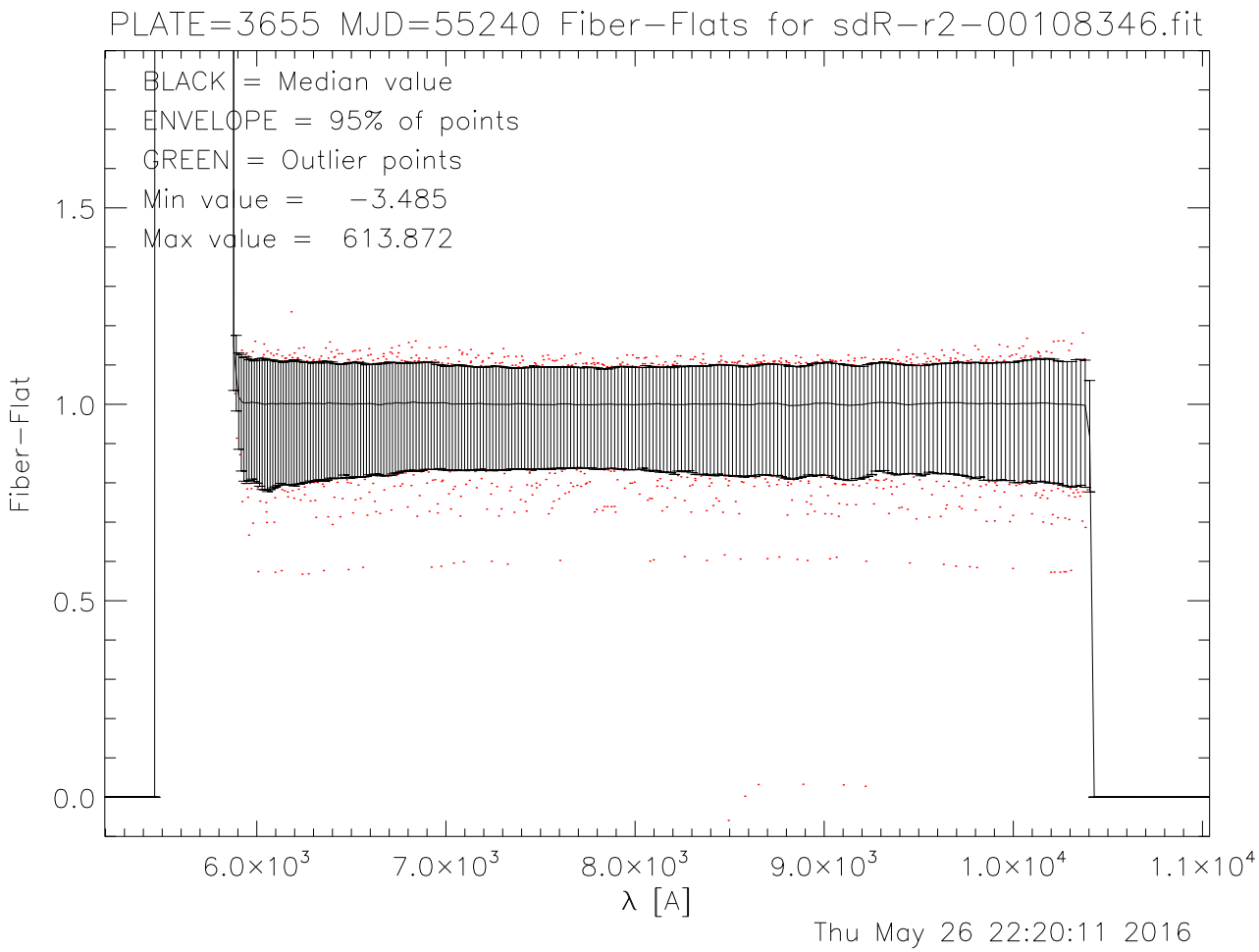

PLATE=3655 MJD=55240 sdR-r2-00108342.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
150
100
50
0
-50
-100
-150
8820
8840
8860
8880
8900
λ [A]

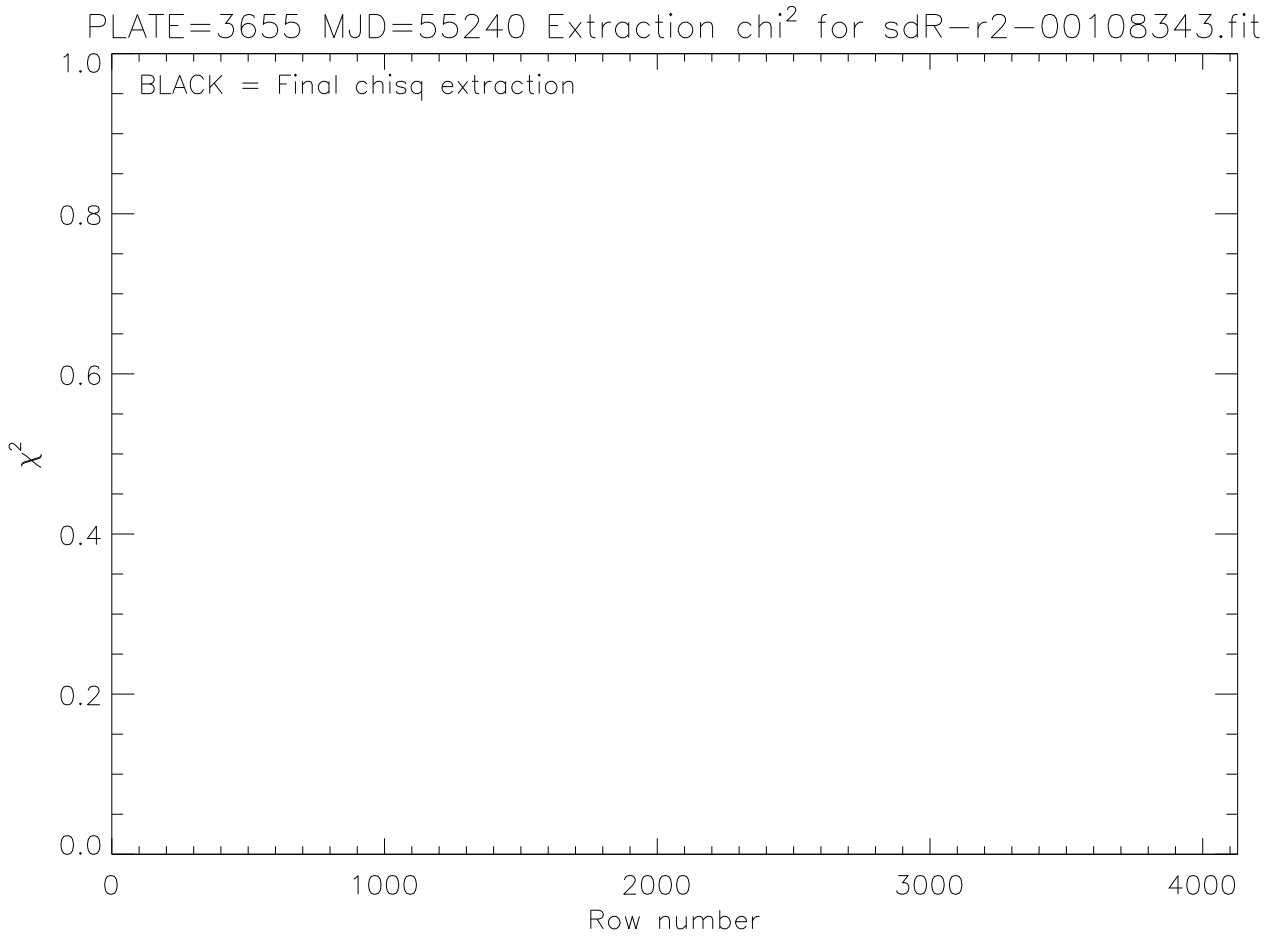
Number of sky fibers = 45

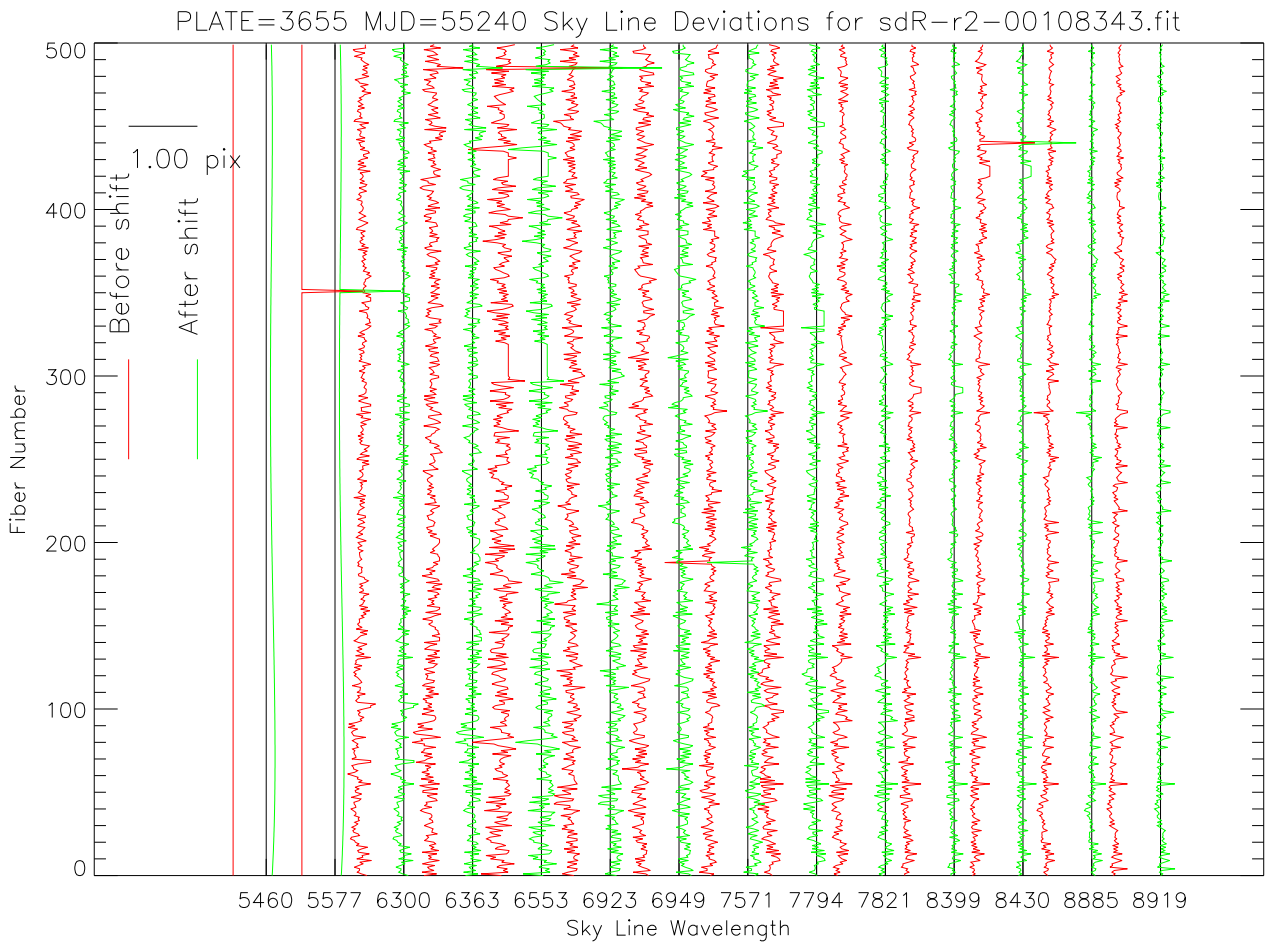


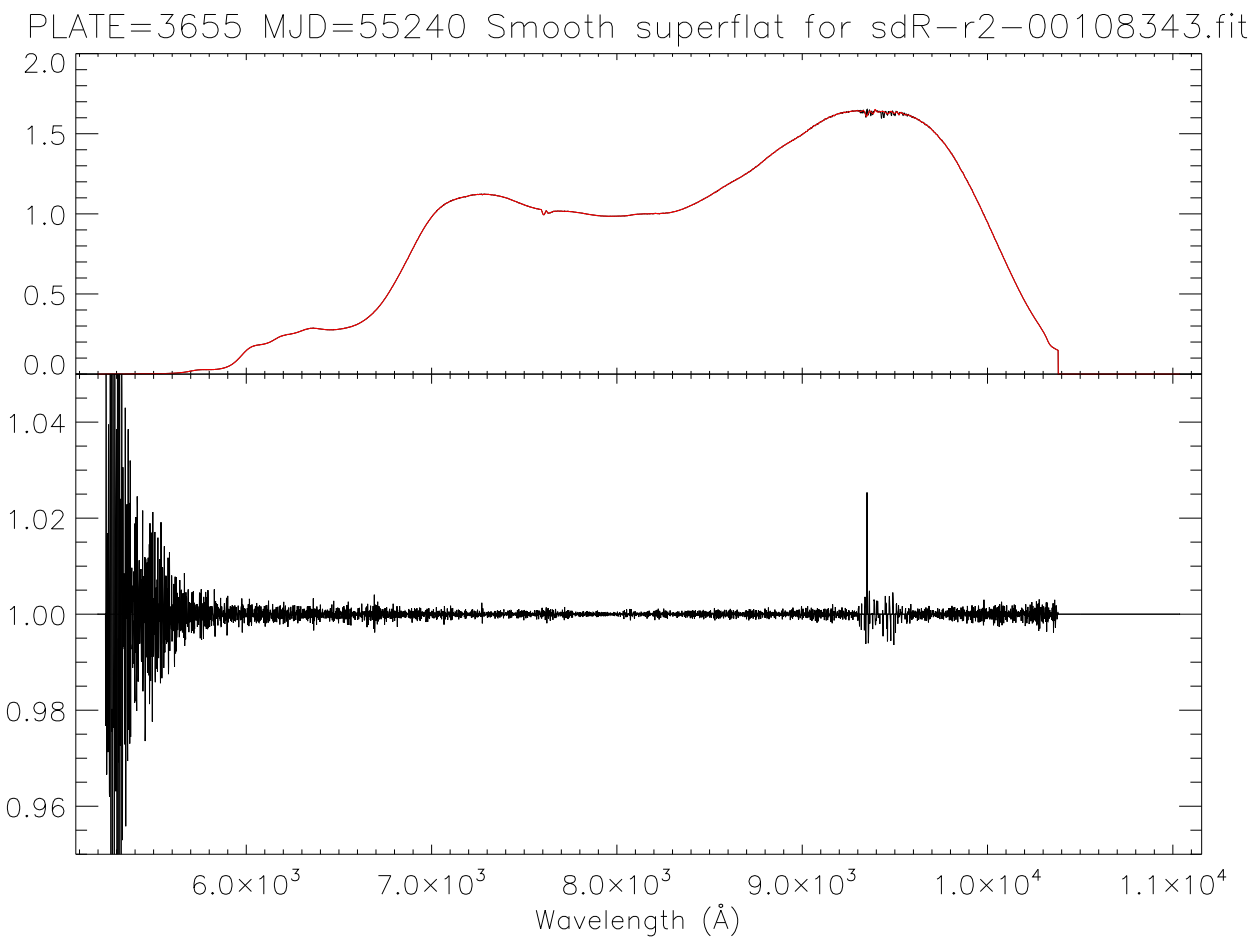

PLATE=3655 MJD=55240 sdR-r2-00108342.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 4.46 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

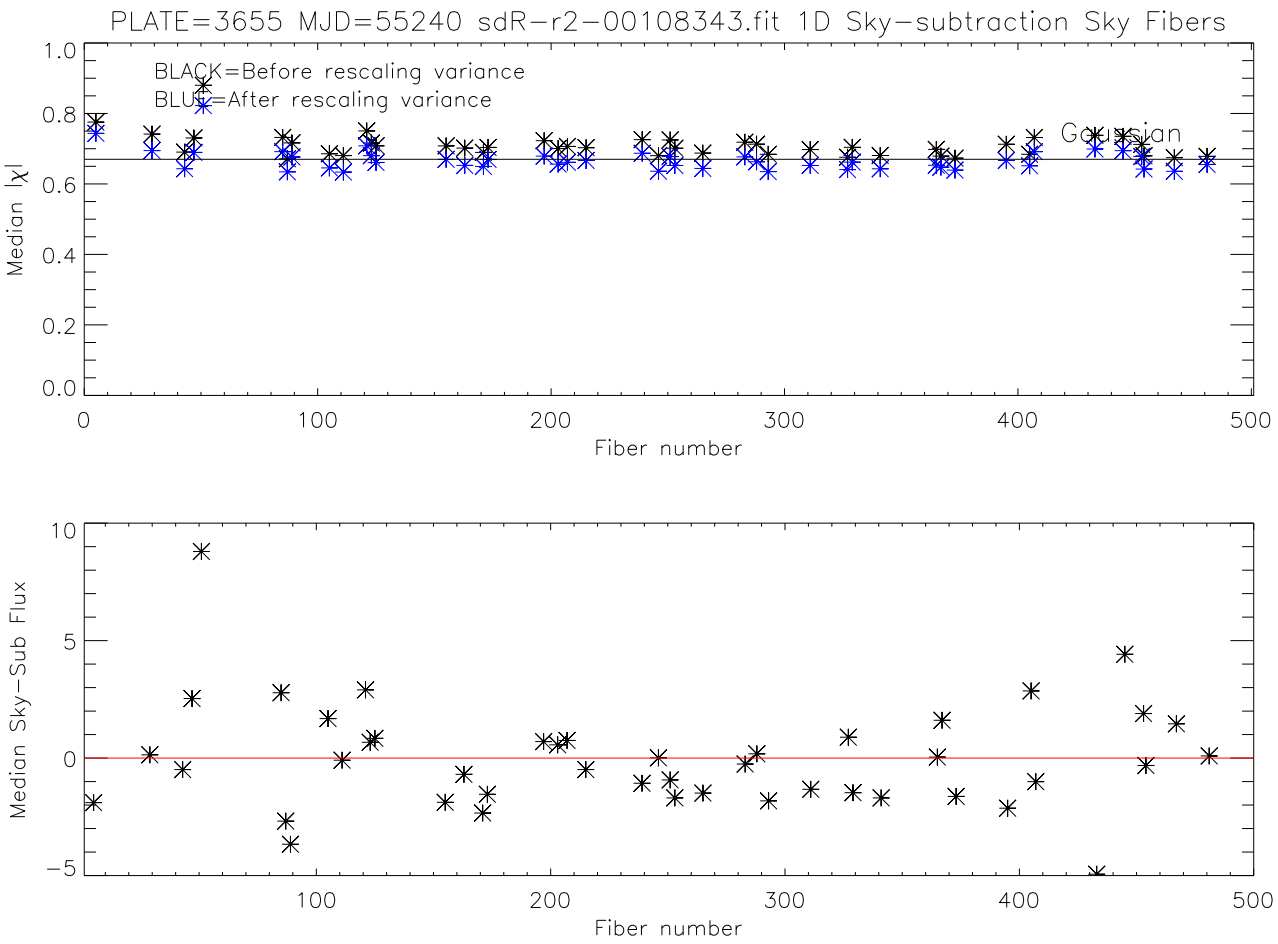

PLATE=3655 MJD=55240 sdR-r2-00108342.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
Fiber number
RED = sky fiber
Dispersion = 2.17 %
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass

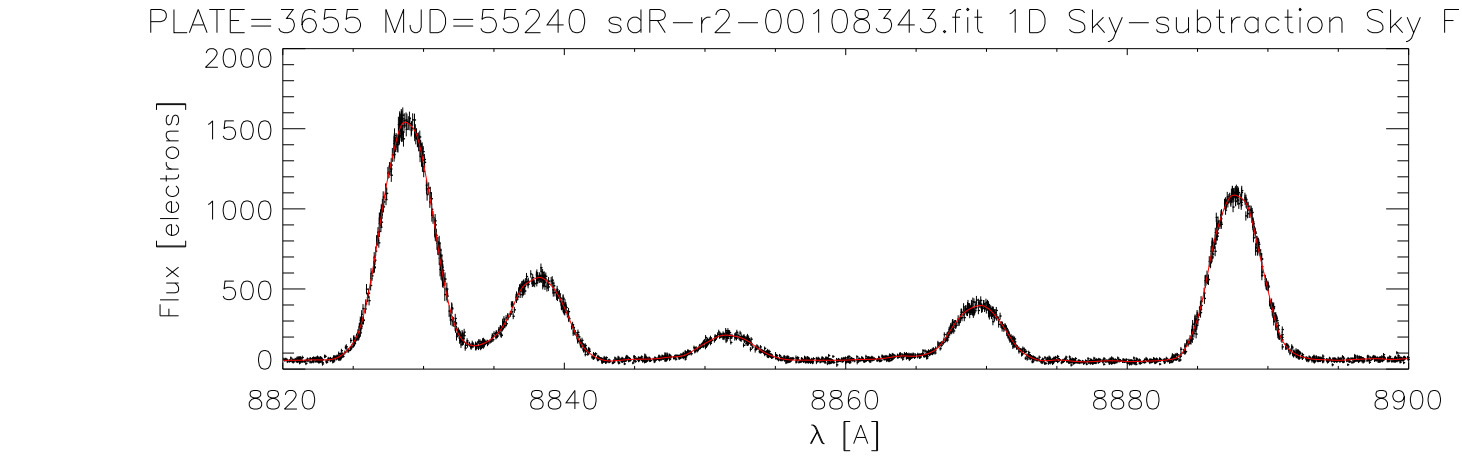

PLATE=3655 MJD=55240 Fiber−Flats for sdR−r2−00108346.fit
BLACK = Median value
ENVELOPE = 95% of points
GREEN = Outlier points
Min value = −3.485
Max value = 613.872
Fiber−Flat
1.5
1.0
0.5
0.0
6.0×10^3
7.0×10^3
8.0×10^3
9.0×10^3
1.0×10^4
1.1×10^4
λ [A]
Thu May 26 22:20:11 2016

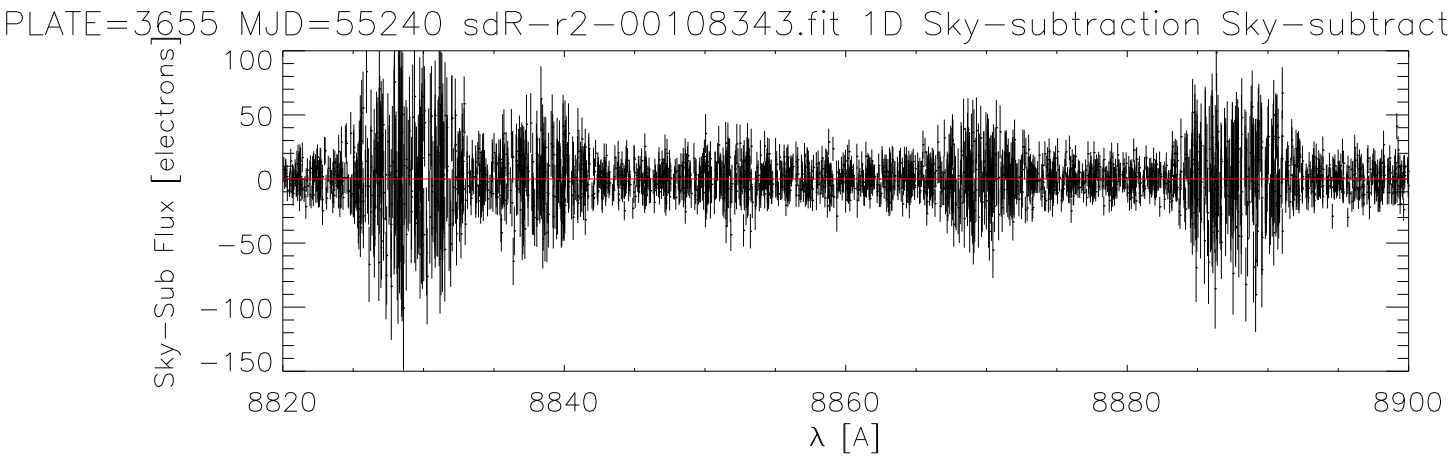

PLATE=3655 MJD=55240 Extraction chi^2 for sdR−r2−00108343.fit
BLACK = Final chisq extraction
χ^2
1.0
0.8
0.6
0.4
0.2
0.0
0
1000
2000
3000
4000
Row number


PLATE=3655 MJD=55240 Sky Line Deviations for sdR-r2-00108343.fit
Before shift
After shift
1.00 pix
Fiber Number
0
100
200
300
400
500
5460 5577 6300 6363 6553 6923 6949 7571 7794 7821 8399 8430 8885 8919
Sky Line Wavelength

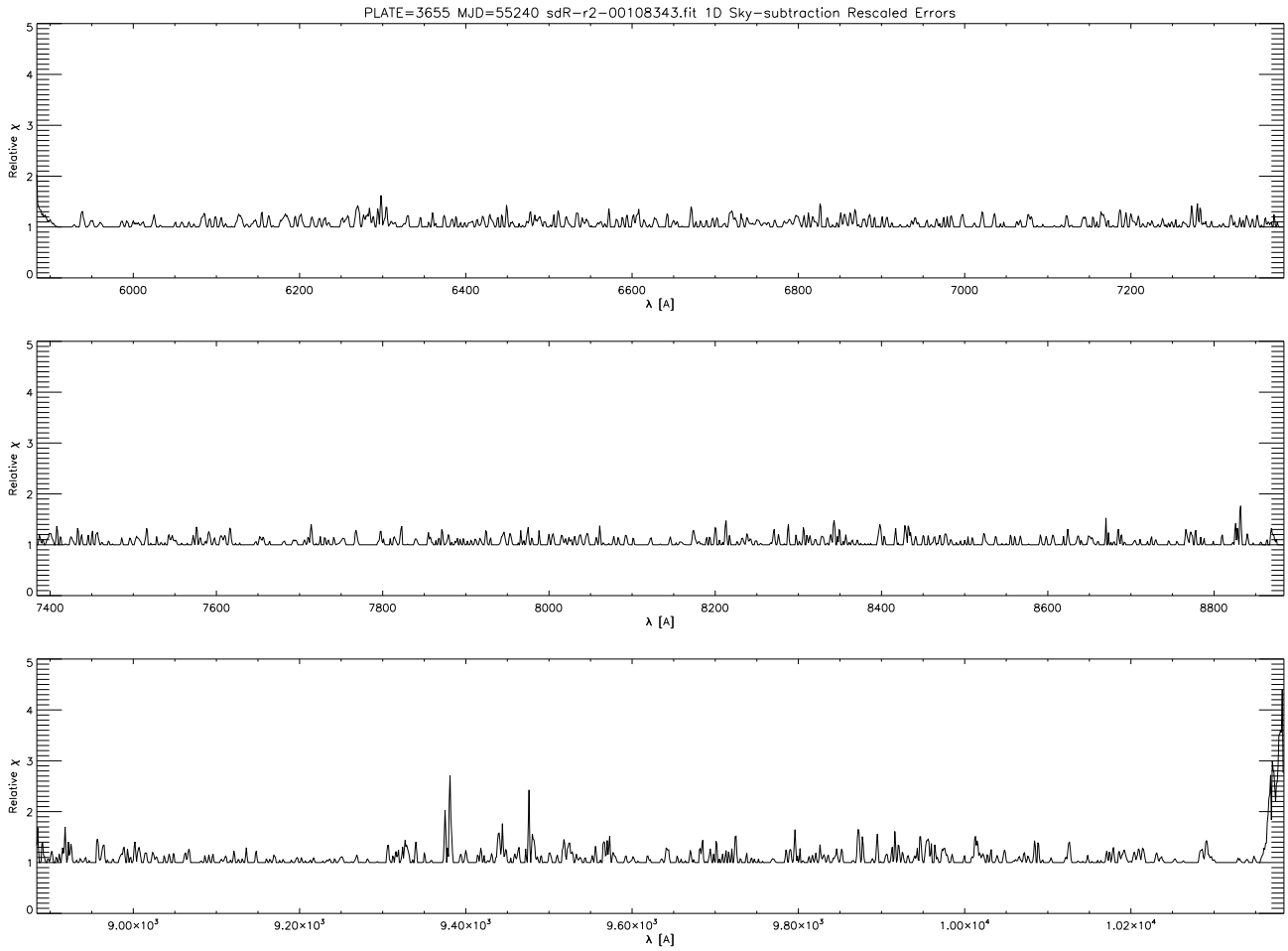

PLATE=3655 MJD=55240 Smooth superflat for sdR-r2-00108343.fit
2.0
1.5
1.0
0.5
0.0
1.04
1.02
1.00
0.98
0.96
6.0×10^3
7.0×10^3
8.0×10^3
9.0×10^3
1.0×10^4
1.1×10^4
Wavelength (Å)

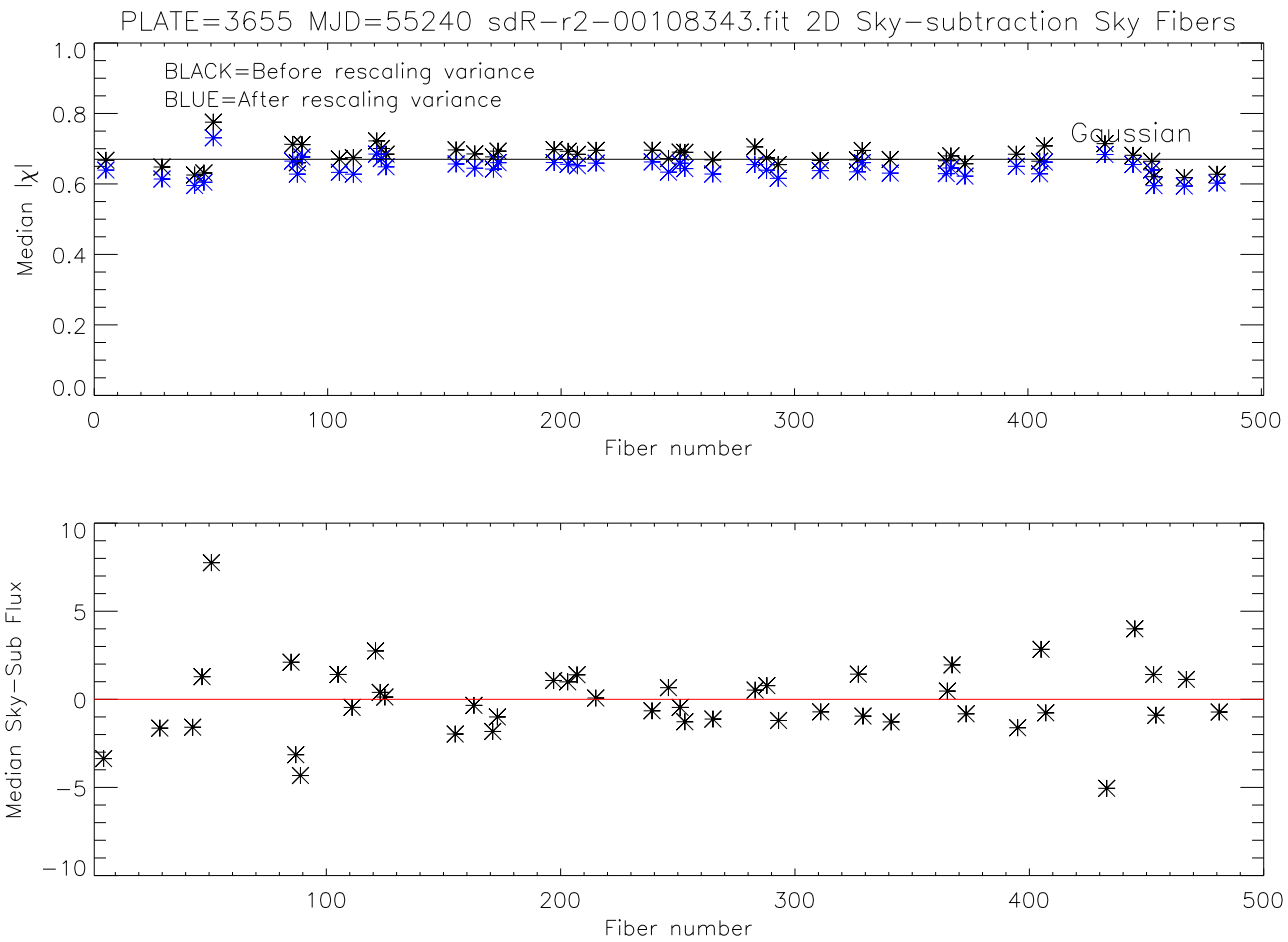

PLATE=3655 MJD=55240 sdR-r2-00108343.fit 1D Sky-subtraction Sky Fibers
BLACK=Before rescaling variance
BLUE=After rescaling variance
Gaussian
Median |χ|
Fiber number
Median Sky-Sub Flux
Fiber number

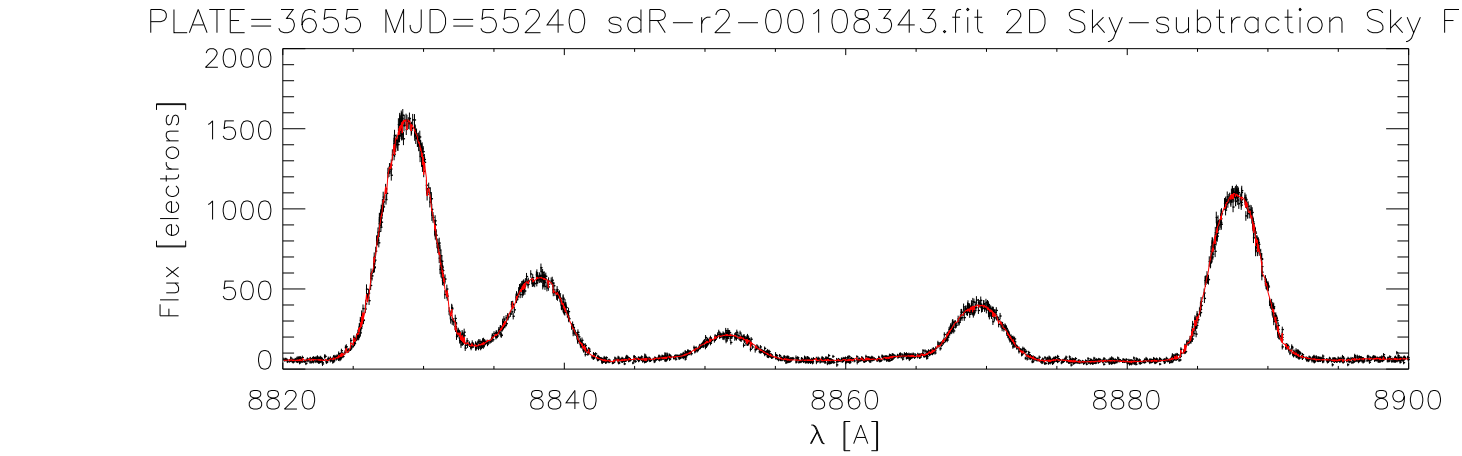

PLATE=3655 MJD=55240 sdR-r2-00108343.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
2000
1500
1000
500
0
8820
8840
8860
8880
8900
λ [A]

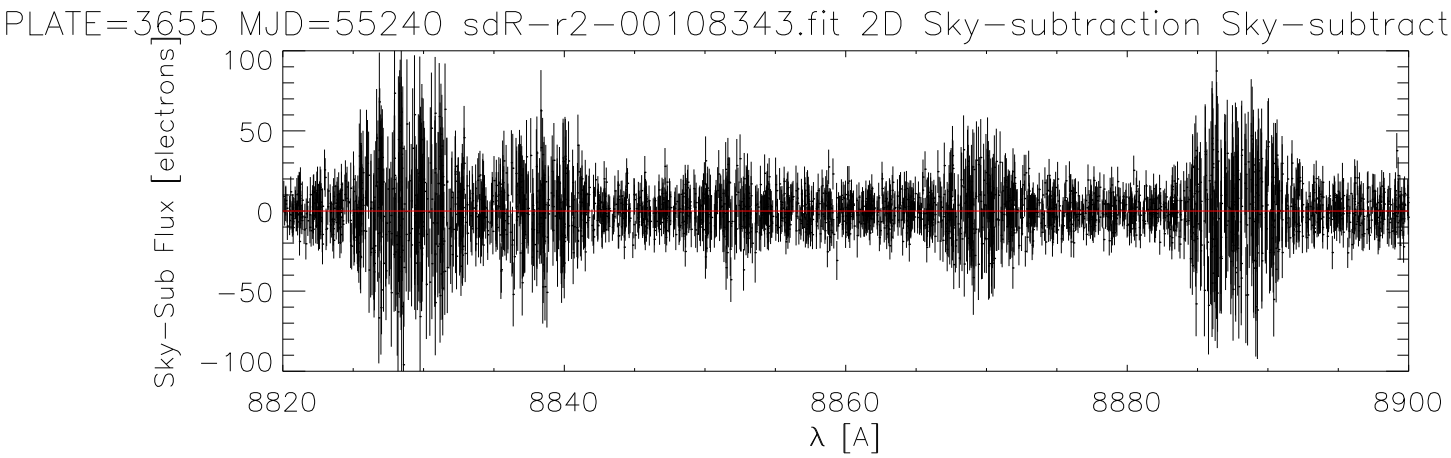

PLATE=3655 MJD=55240 sdR-r2-00108343.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
100
50
0
-50
-100
-150
8820
8840
8860
8880
8900
λ [A]

Number of sky fibers = 45

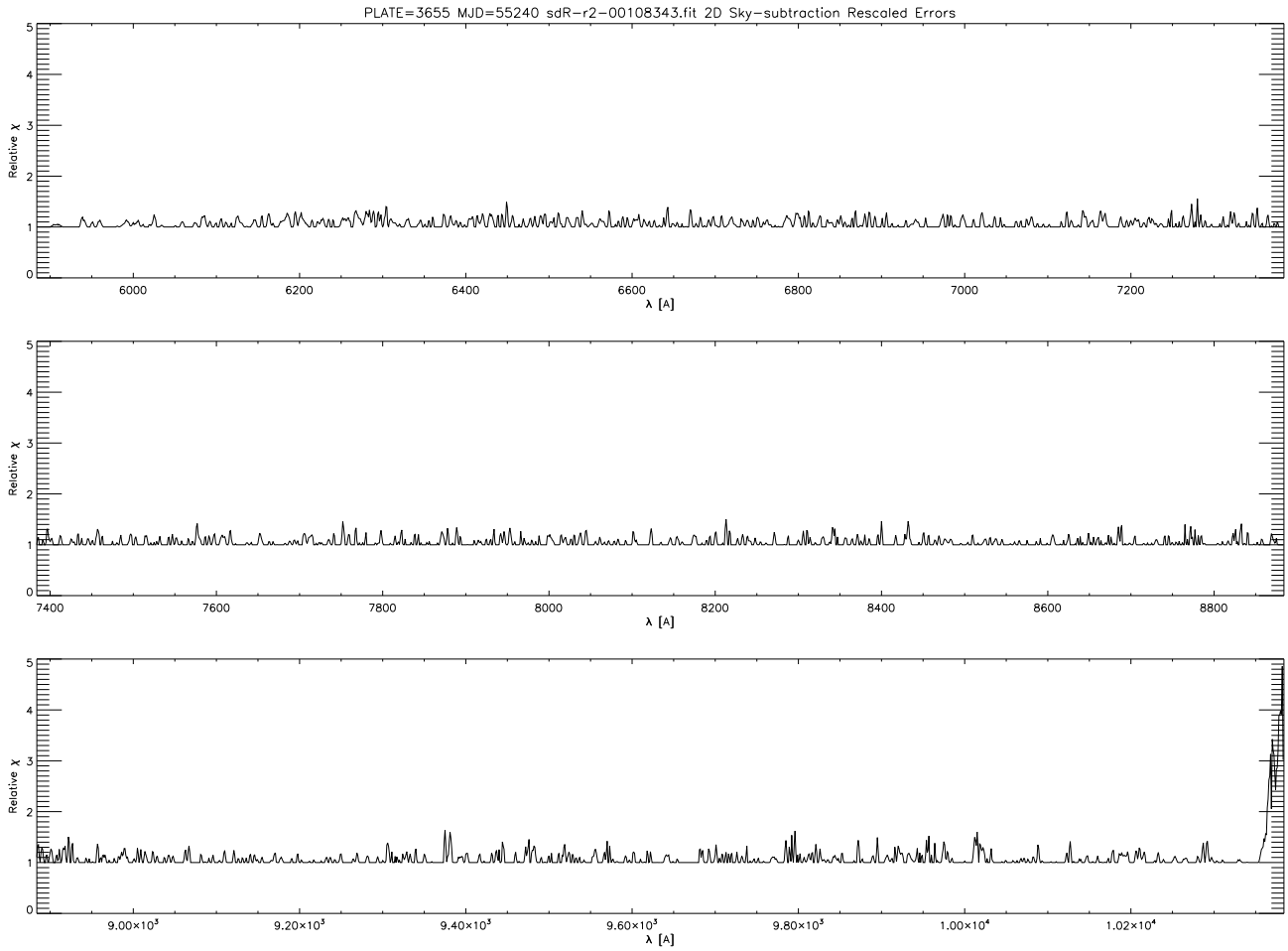


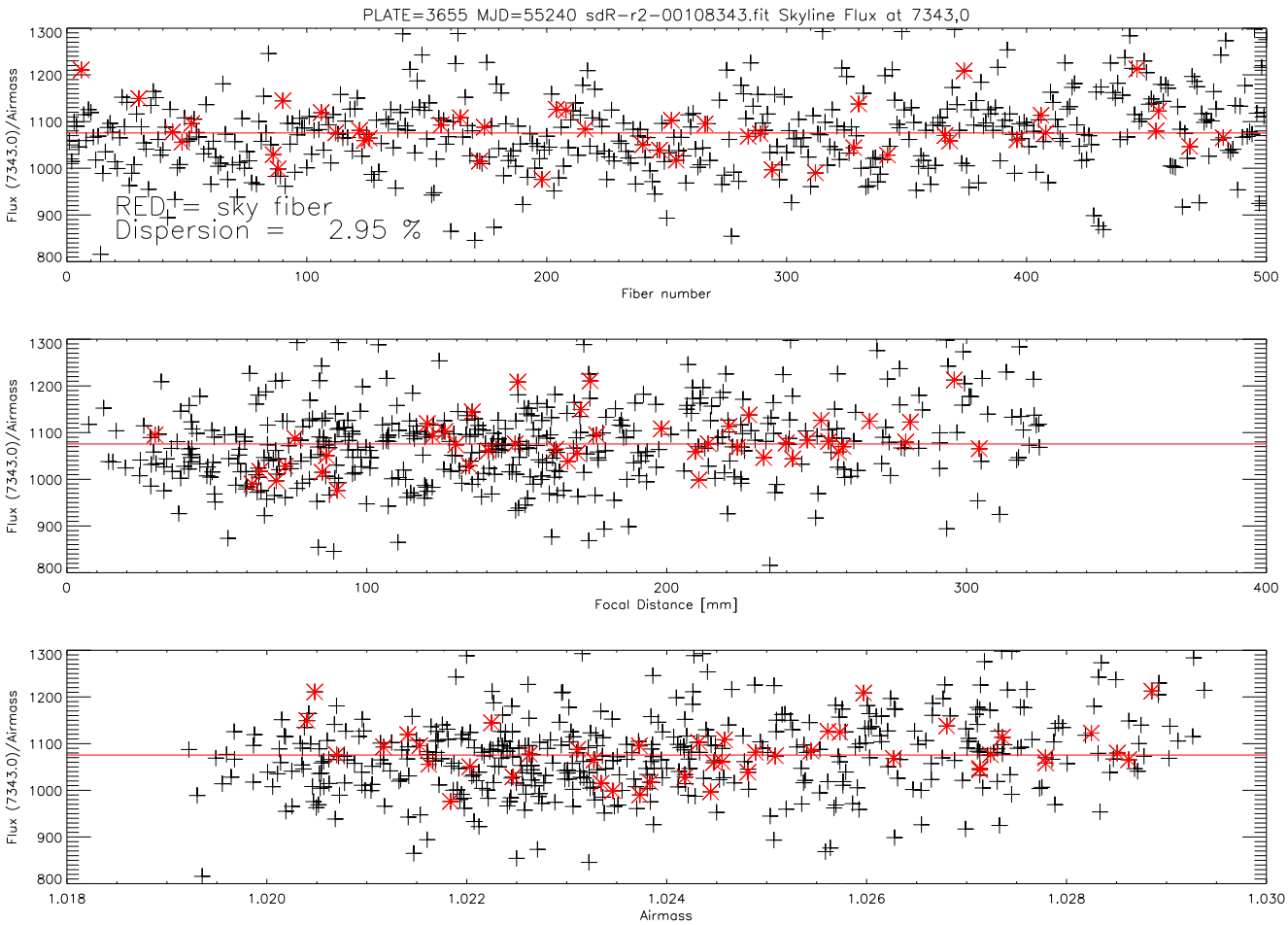

PLATE=3655 MJD=55240 sdR-r2-00108343.fit 2D Sky-subtraction Sky Fibers
BLACK=Before rescaling variance
BLUE=After rescaling variance
Gaussian
Median |χ|
Fiber number
Median Sky-Sub Flux
Fiber number

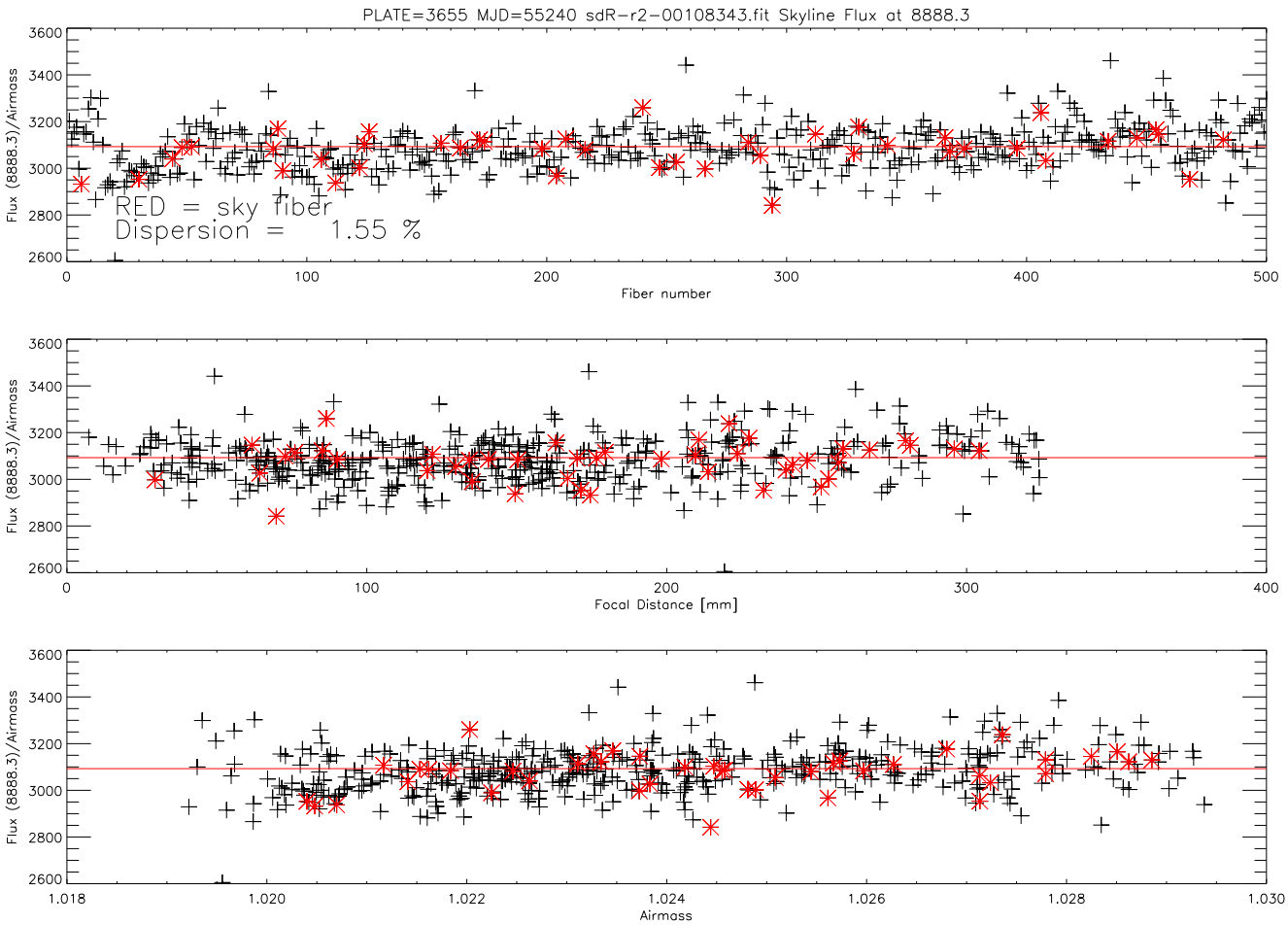

PLATE=3655 MJD=55240 sdR-r2-00108343.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
2000
1500
1000
500
0
8820
8840
8860
8880
8900
λ [A]

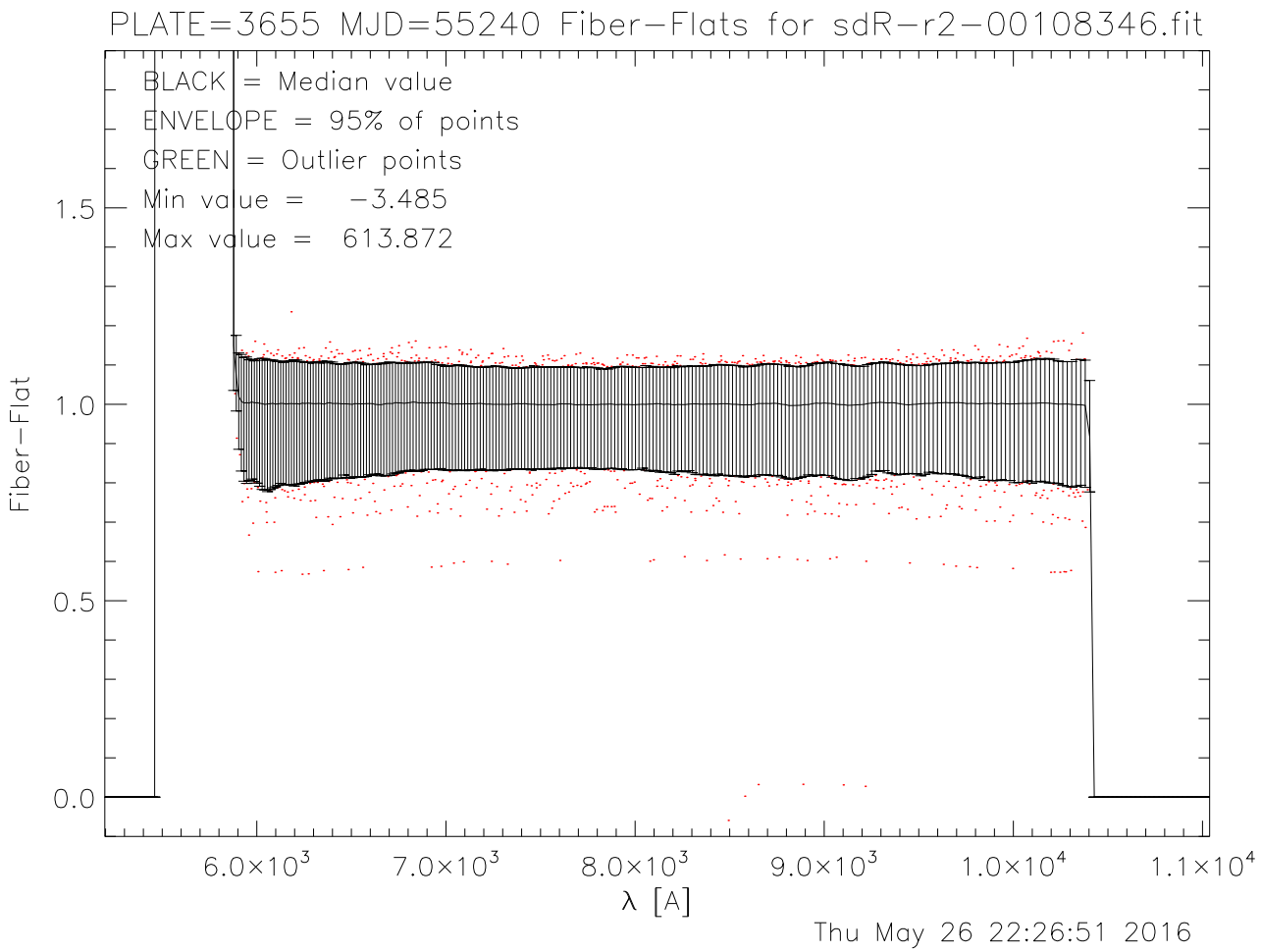

PLATE=3655 MJD=55240 sdR-r2-00108343.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
100
50
0
-50
-100
8820
8840
8860
8880
8900
λ [A]

Number of sky fibers = 45




PLATE=3655 MJD=55240 sdR-r2-00108343.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED= sky fiber
Dispersion = 2.95 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass


PLATE=3655 MJD=55240 sdR-r2-00108343.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 1.55 %
Fiber number
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass


PLATE=3655 MJD=55240 Fiber−Flats for sdR−r2−00108346.fit
BLACK = Median value
ENVELOPE = 95% of points
GREEN = Outlier points
Min value = −3.485
Max value = 613.872
Fiber−Flat
1.5
1.0
0.5
0.0
6.0×10^3
7.0×10^3
8.0×10^3
9.0×10^3
1.0×10^4
1.1×10^4
λ [A]
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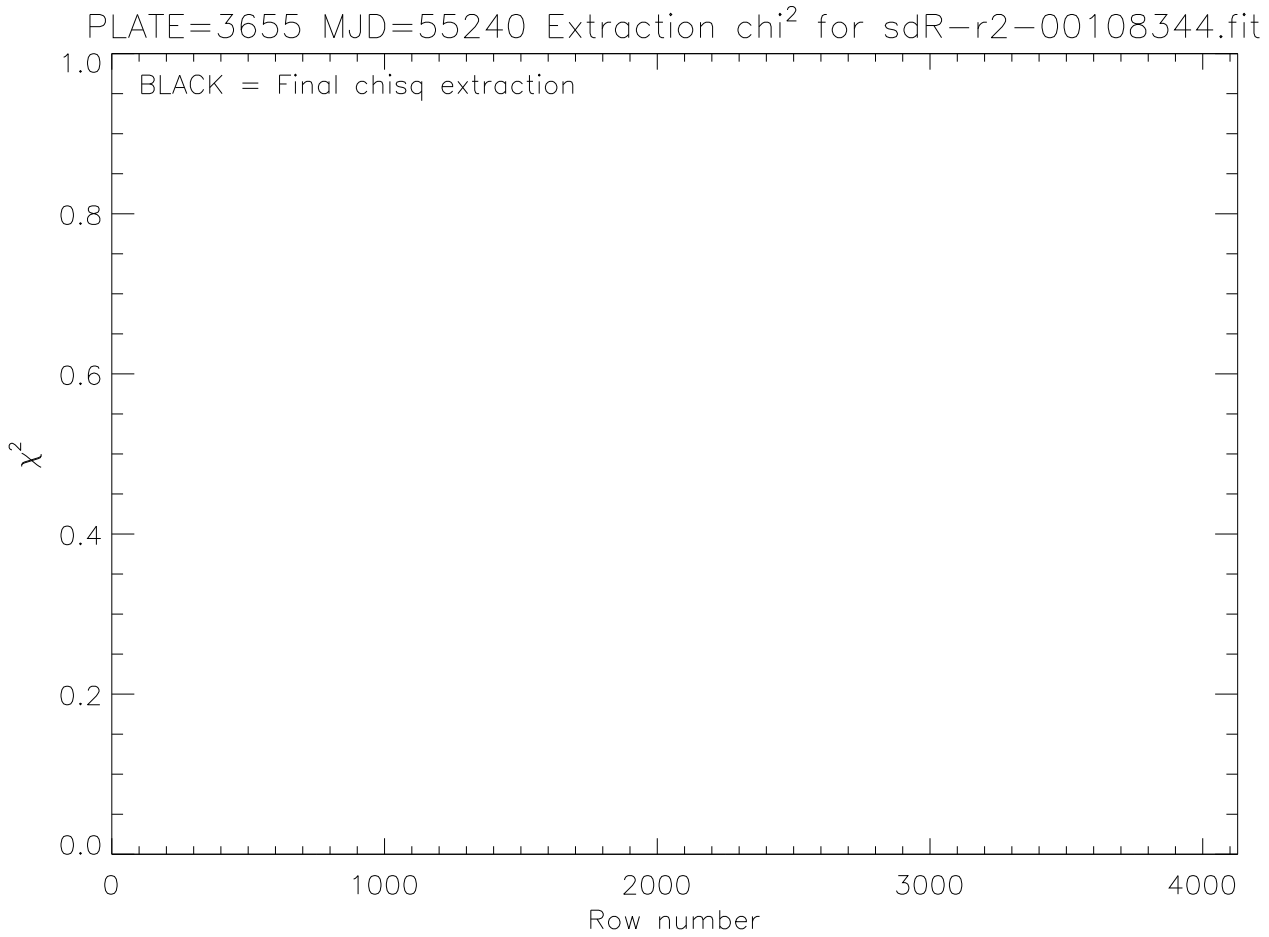
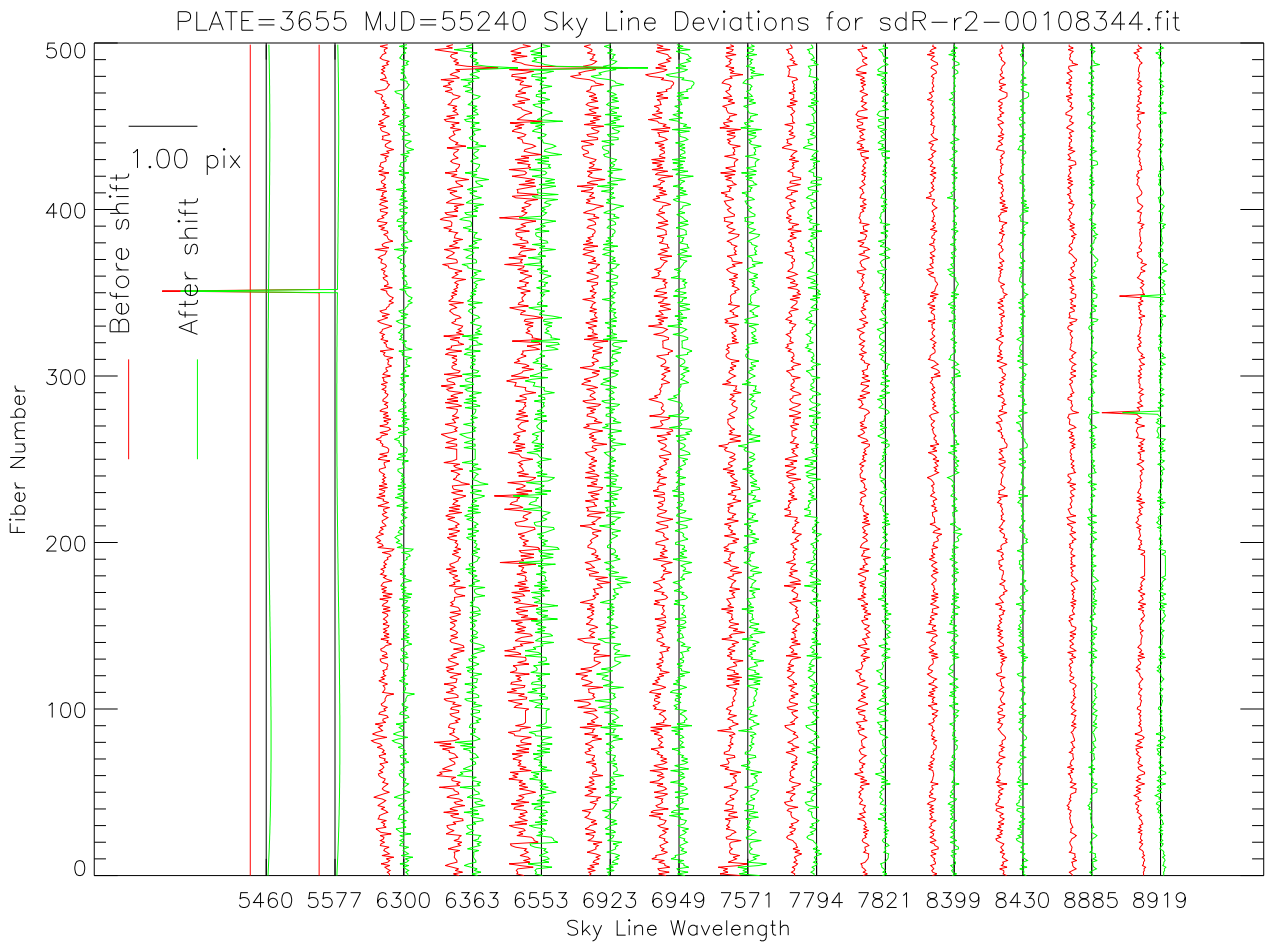
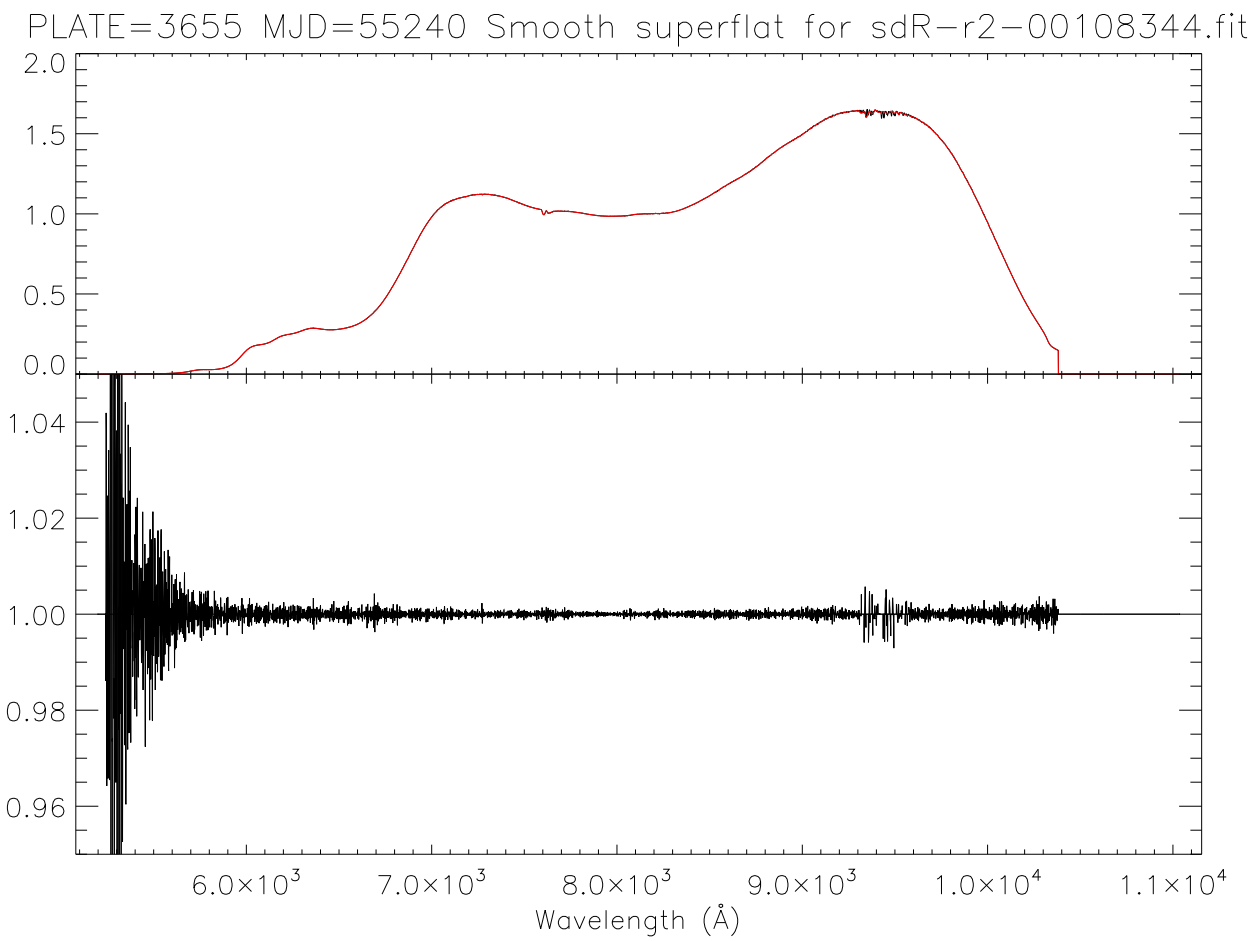
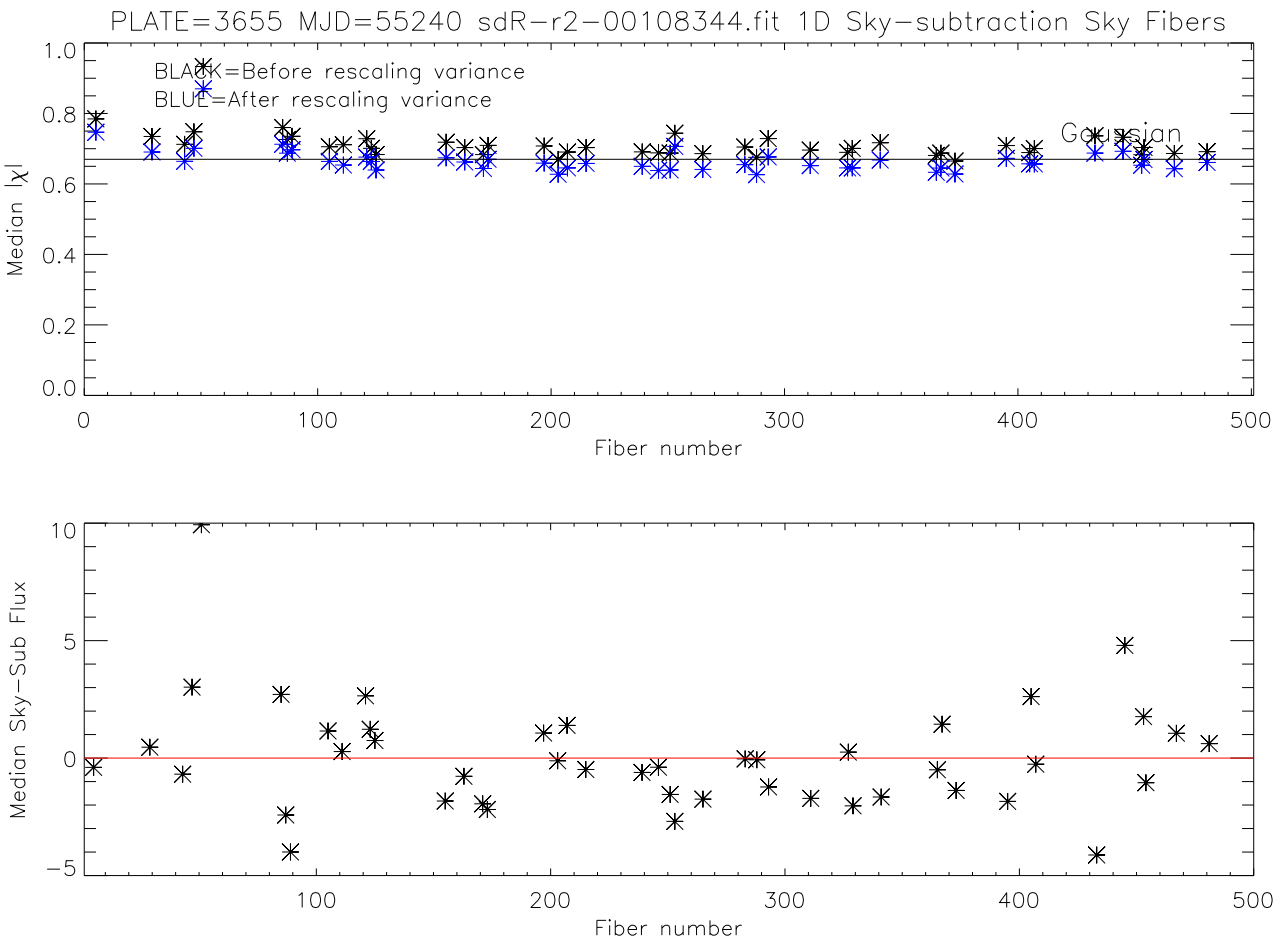
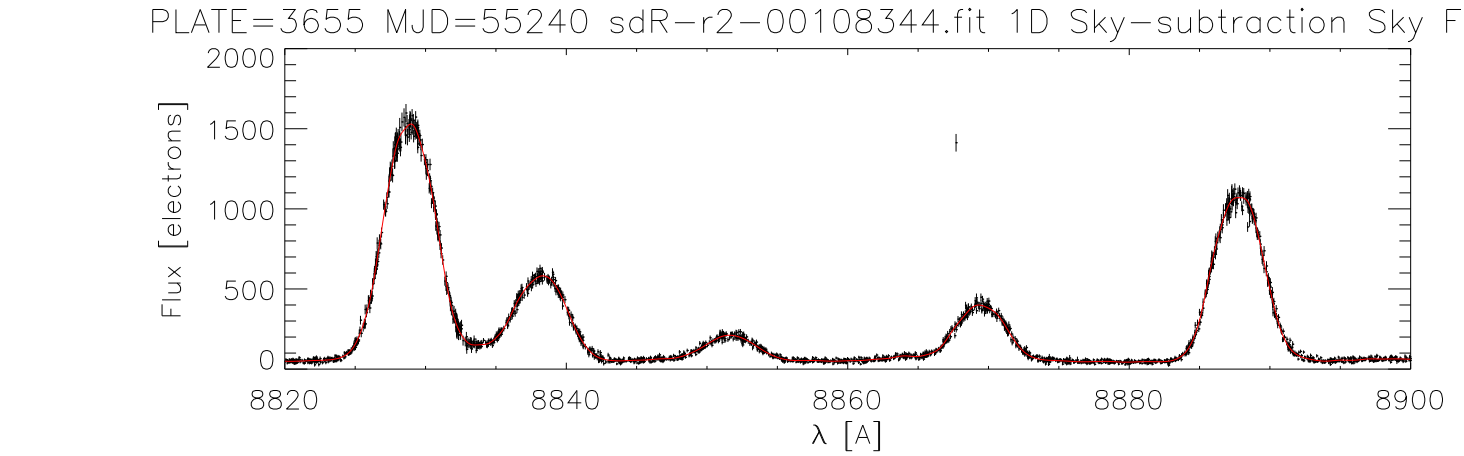
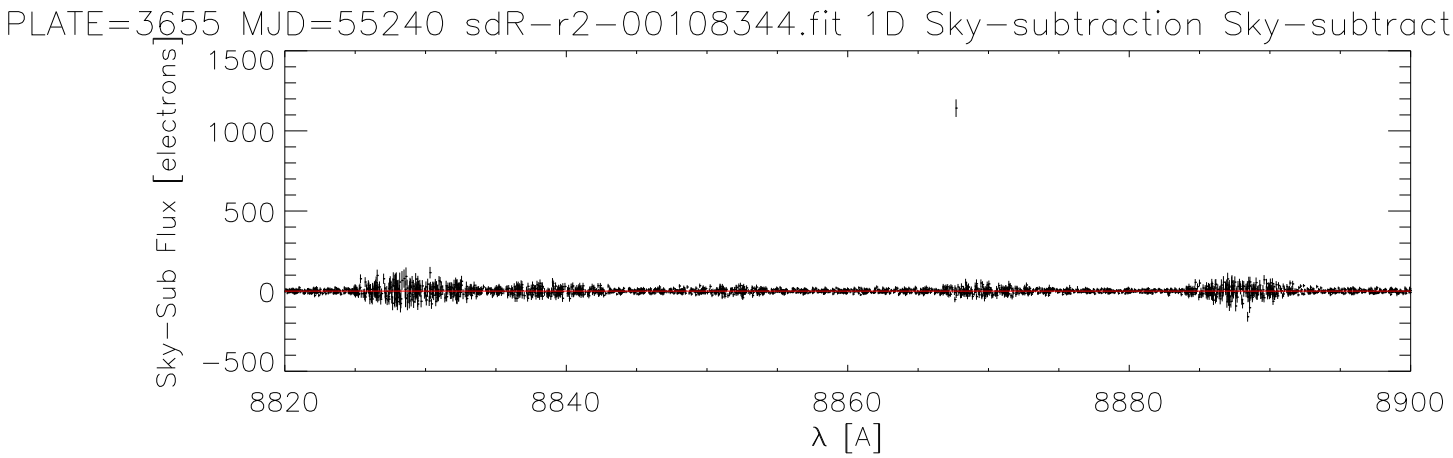

PLATE=3655 MJD=55240 Extraction chi^2 for sdR−r2−00108344.fit
BLACK = Final chisq extraction
χ^2
1.0
0.8
0.6
0.4
0.2
0.0
0
1000
2000
3000
4000
Row number


PLATE=3655 MJD=55240 Sky Line Deviations for sdR-r2-00108344.fit
Before shift
After shift
1.00 pix
Fiber Number
0
100
200
300
400
500
5460 5577 6300 6363 6553 6923 6949 7571 7794 7821 8399 8430 8885 8919
Sky Line Wavelength

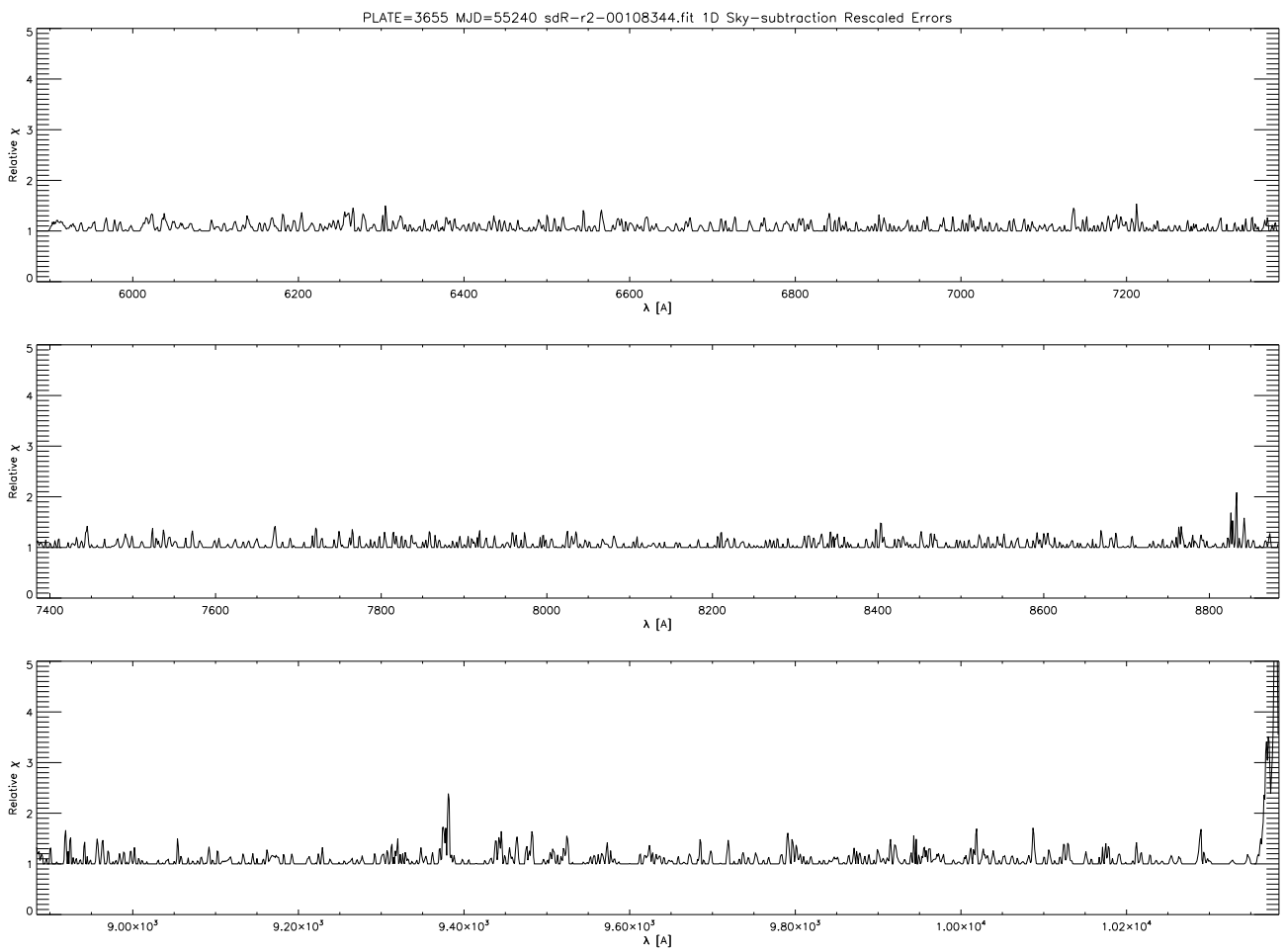

PLATE=3655 MJD=55240 Smooth superflat for sdR-r2-00108344.fit
2.0
1.5
1.0
0.5
0.0
1.04
1.02
1.00
0.98
0.96
6.0×10^3
7.0×10^3
8.0×10^3
9.0×10^3
1.0×10^4
1.1×10^4
Wavelength (Å)

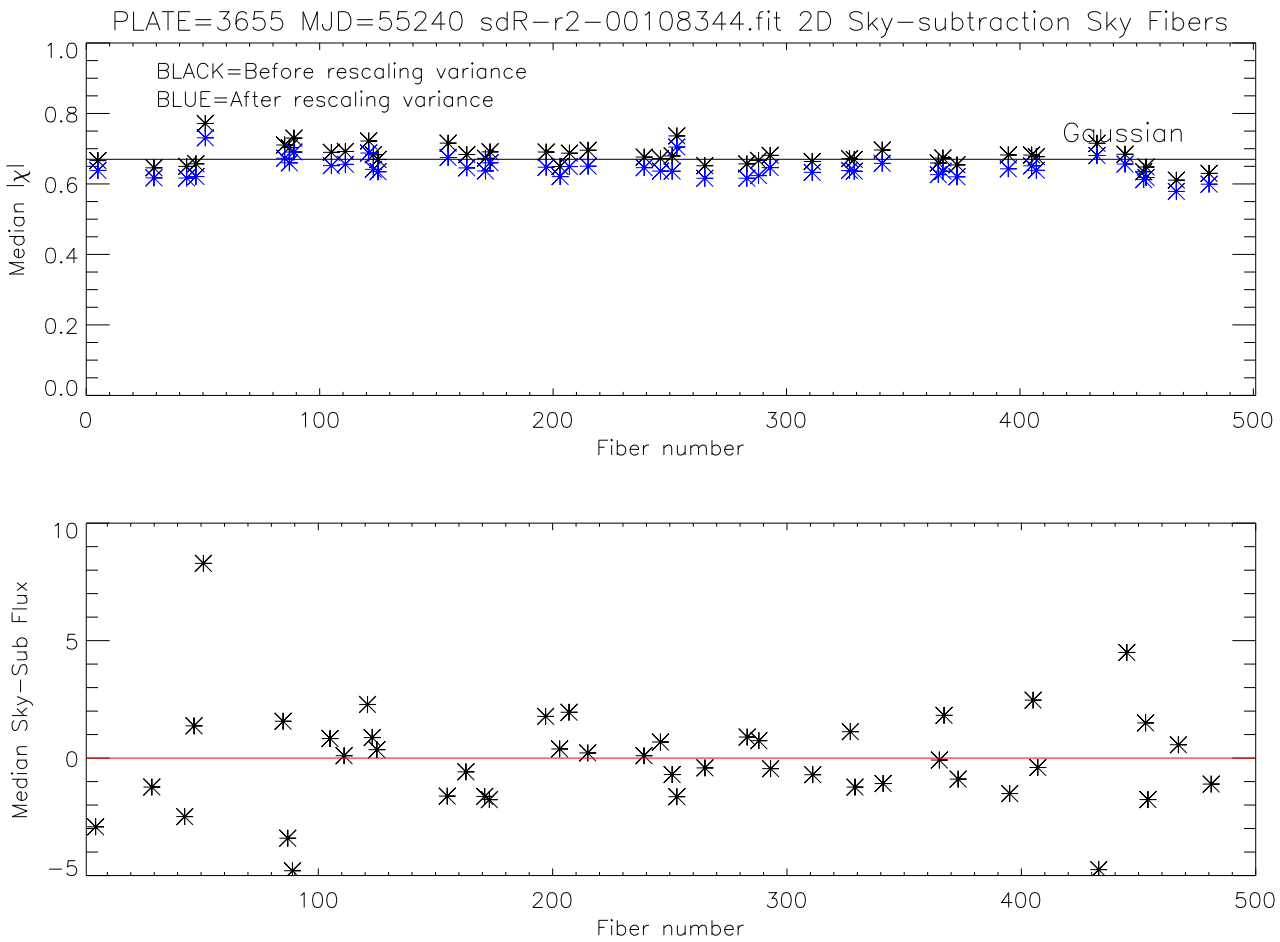

PLATE=3655 MJD=55240 sdR-r2-00108344.fit 1D Sky-subtraction Sky Fibers
BLACK=Before rescaling variance
BLUE=After rescaling variance
Gaussian
Median |χ|
Fiber number
Median Sky-Sub Flux
Fiber number

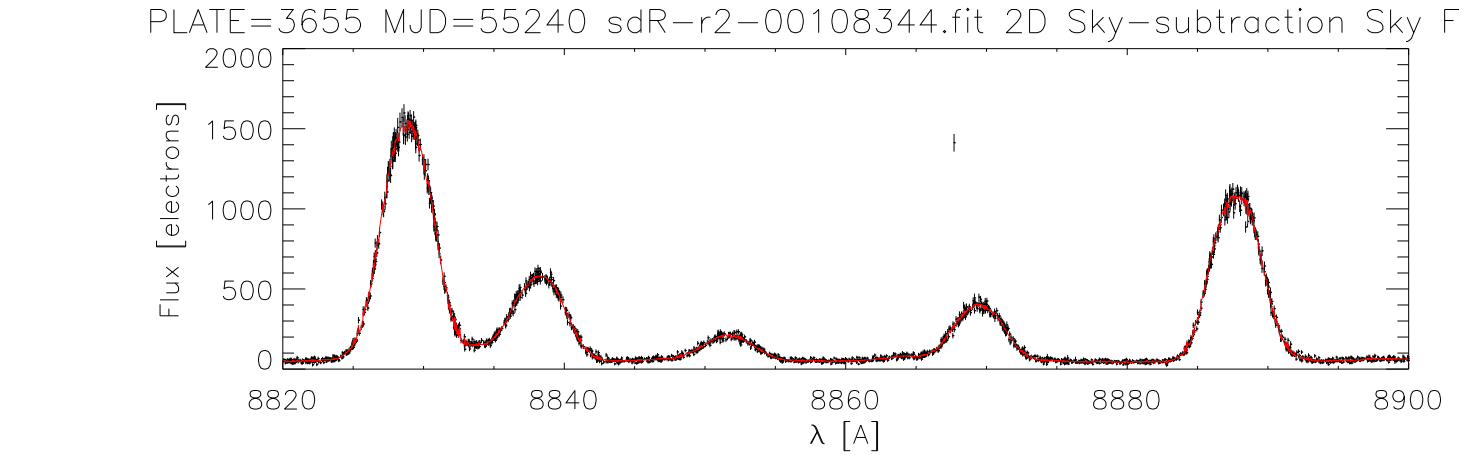

PLATE=3655 MJD=55240 sdR-r2-00108344.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
2000
1500
1000
500
0
8820
8840
8860
8880
8900
λ [A]

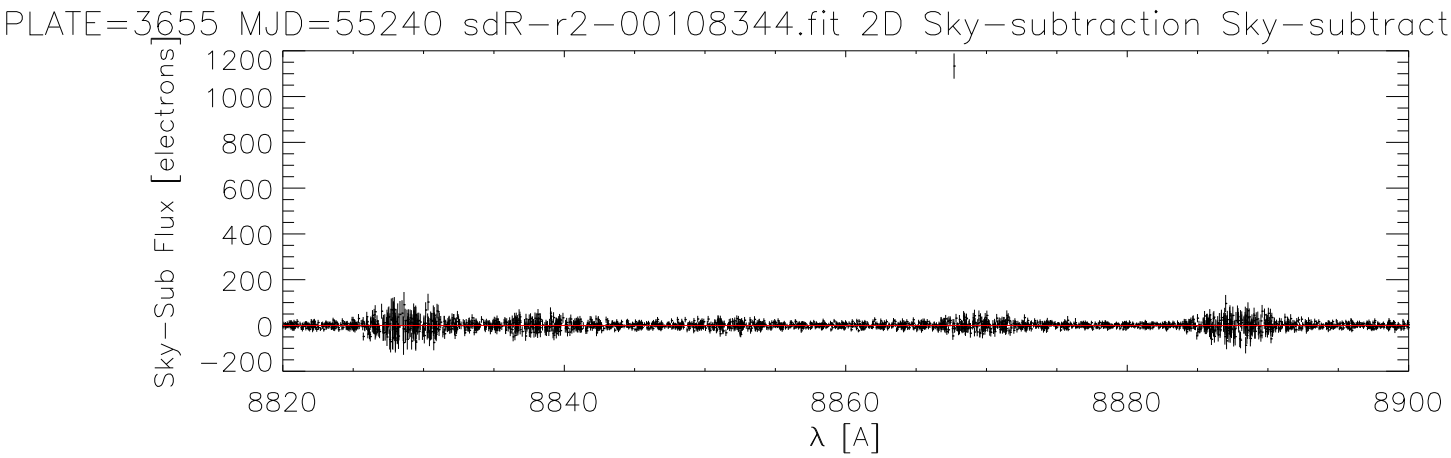

PLATE=3655 MJD=55240 sdR-r2-00108344.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
1500
1000
500
0
-500
8820
8840
8860
8880
8900
λ [A]

Number of sky fibers = 45

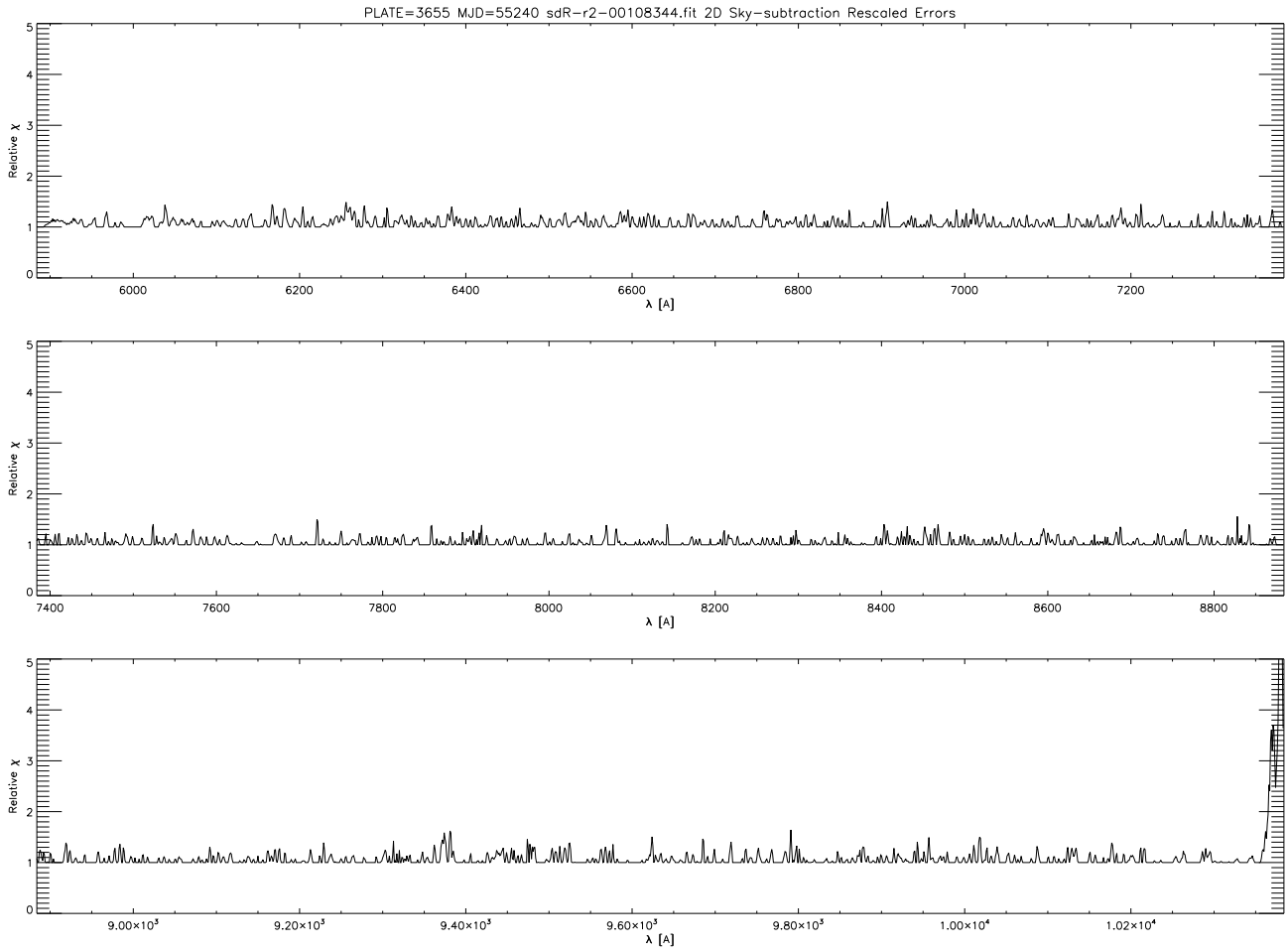


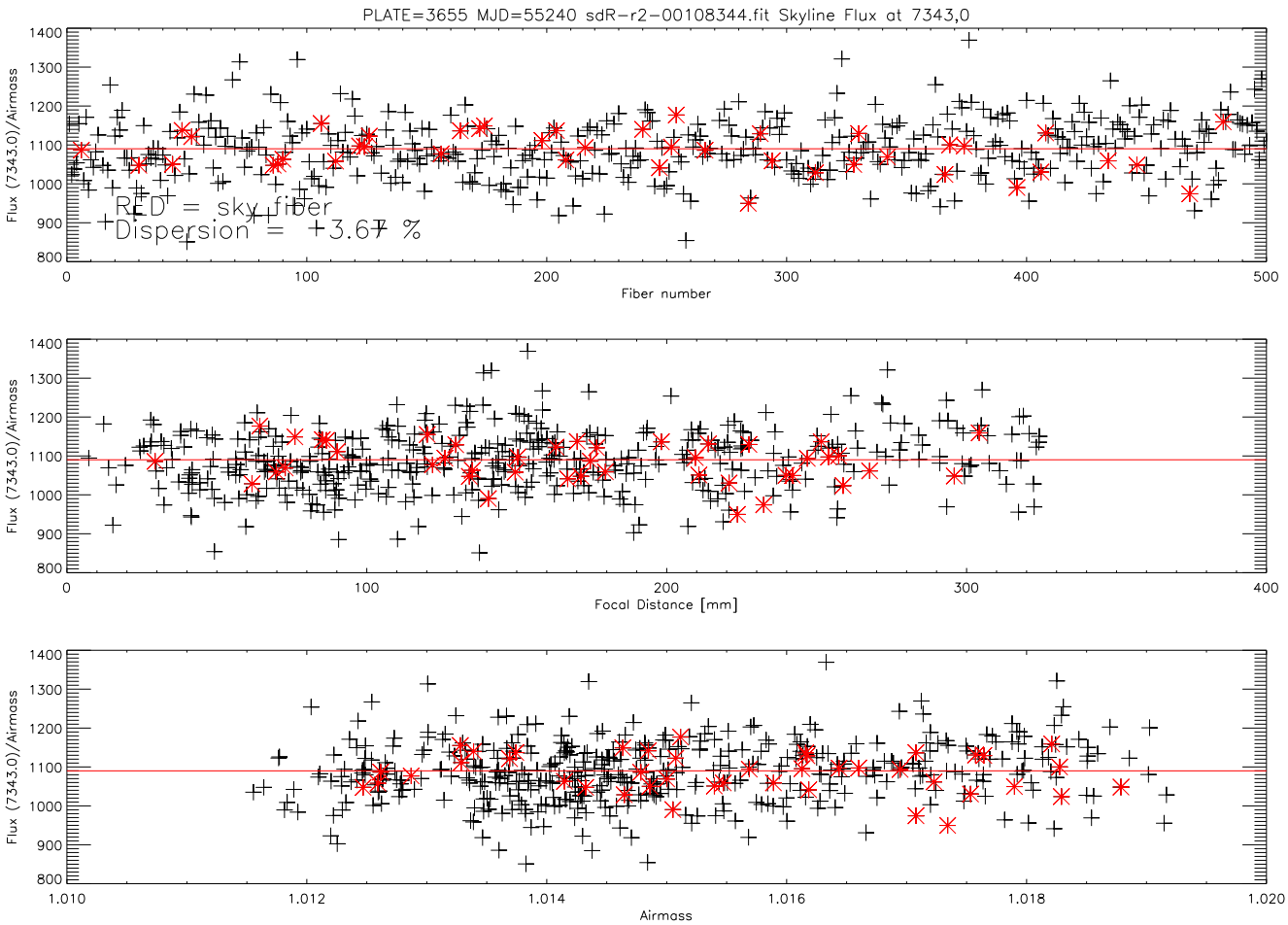

PLATE=3655 MJD=55240 sdR-r2-00108344.fit 2D Sky-subtraction Sky Fibers
BLACK=Before rescaling variance
BLUE=After rescaling variance
Gaussian
Median |χ|
Fiber number
Median Sky-Sub Flux
Fiber number

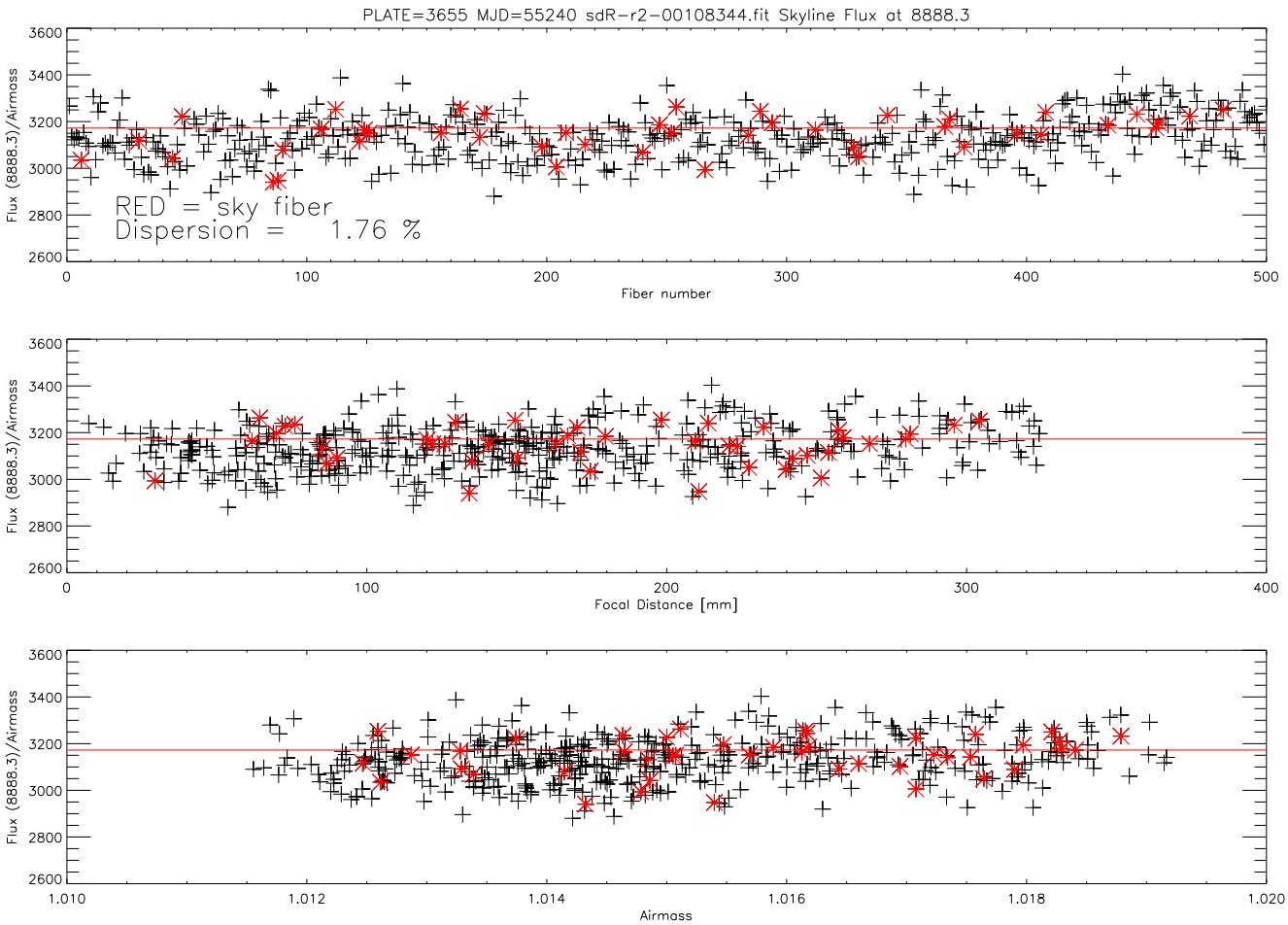

PLATE=3655 MJD=55240 sdR-r2-00108344.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
2000
1500
1000
500
0
8820
8840
8860
8880
8900
λ [A]

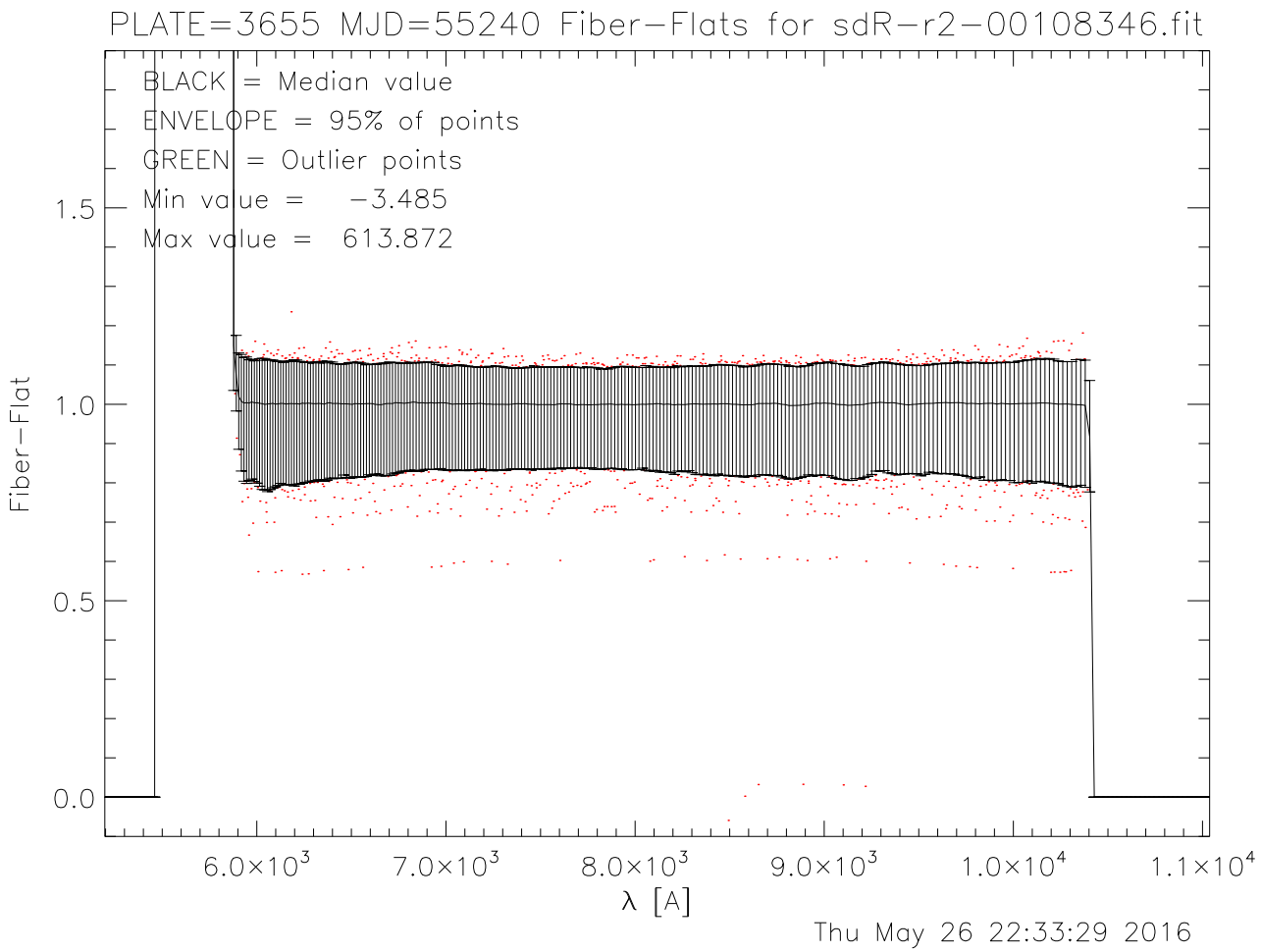

PLATE=3655 MJD=55240 sdR-r2-00108344.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
1200
1000
800
600
400
200
0
-200
8820
8840
8860
8880
8900
λ [A]

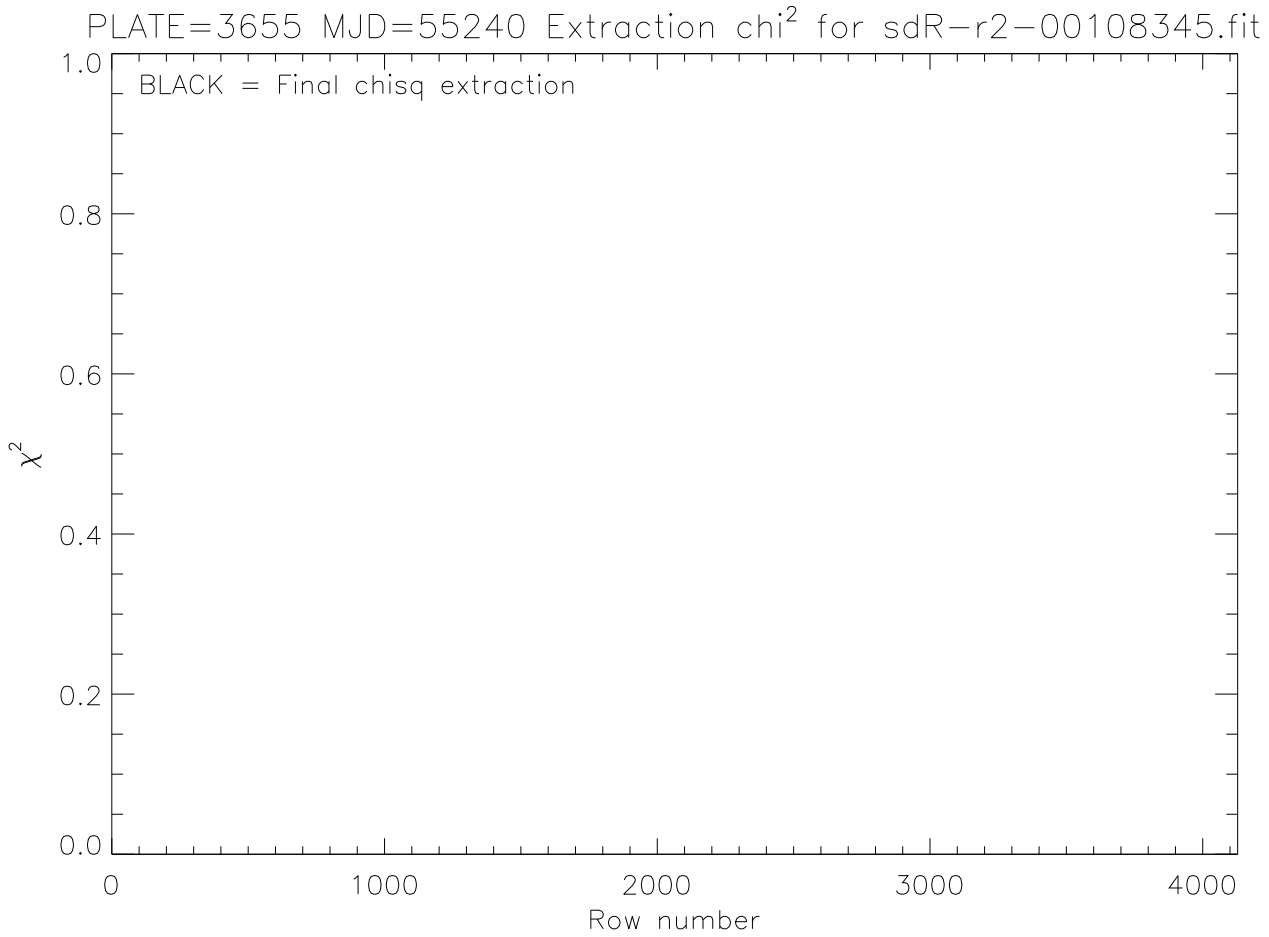
Number of sky fibers = 45

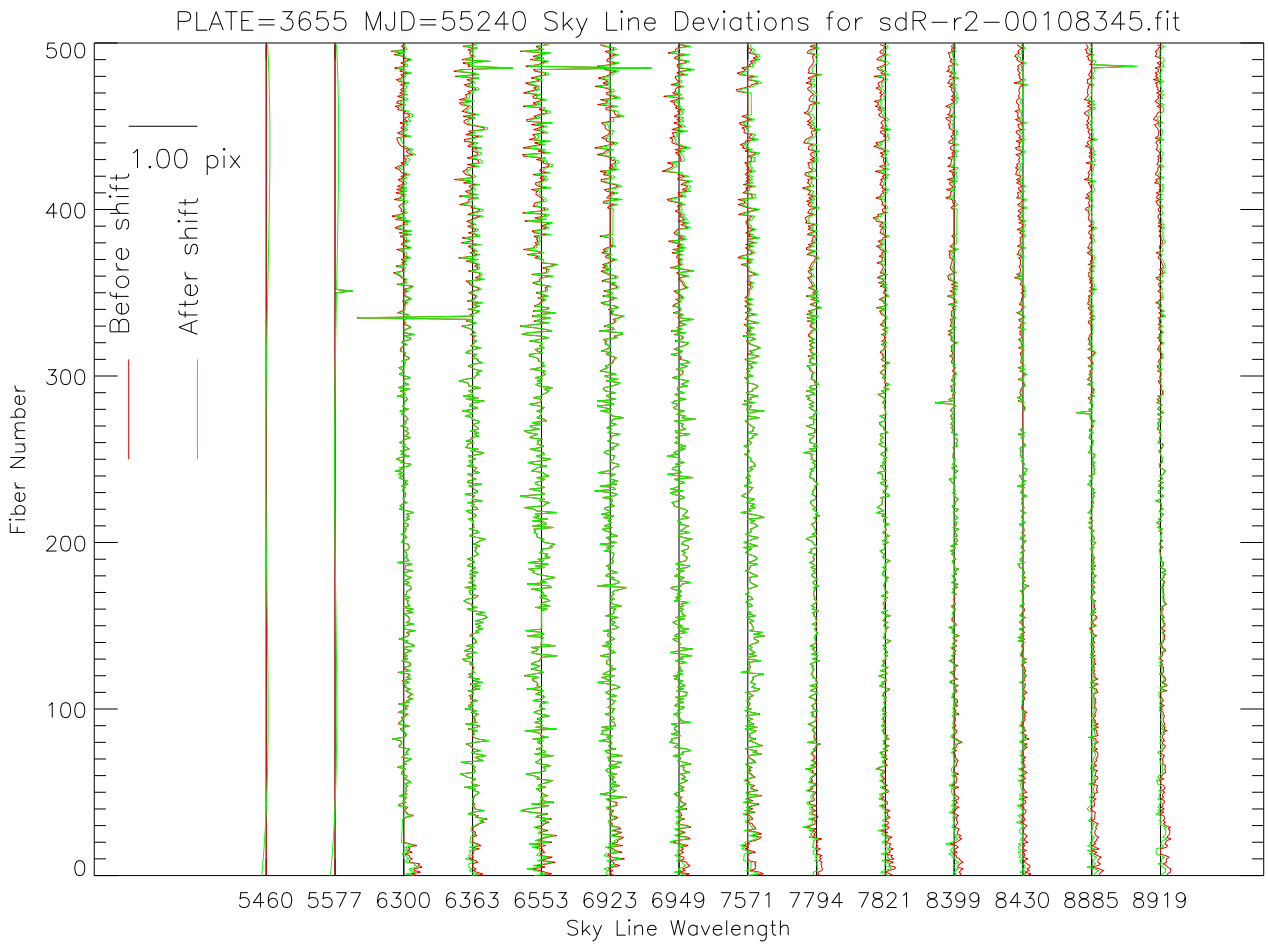


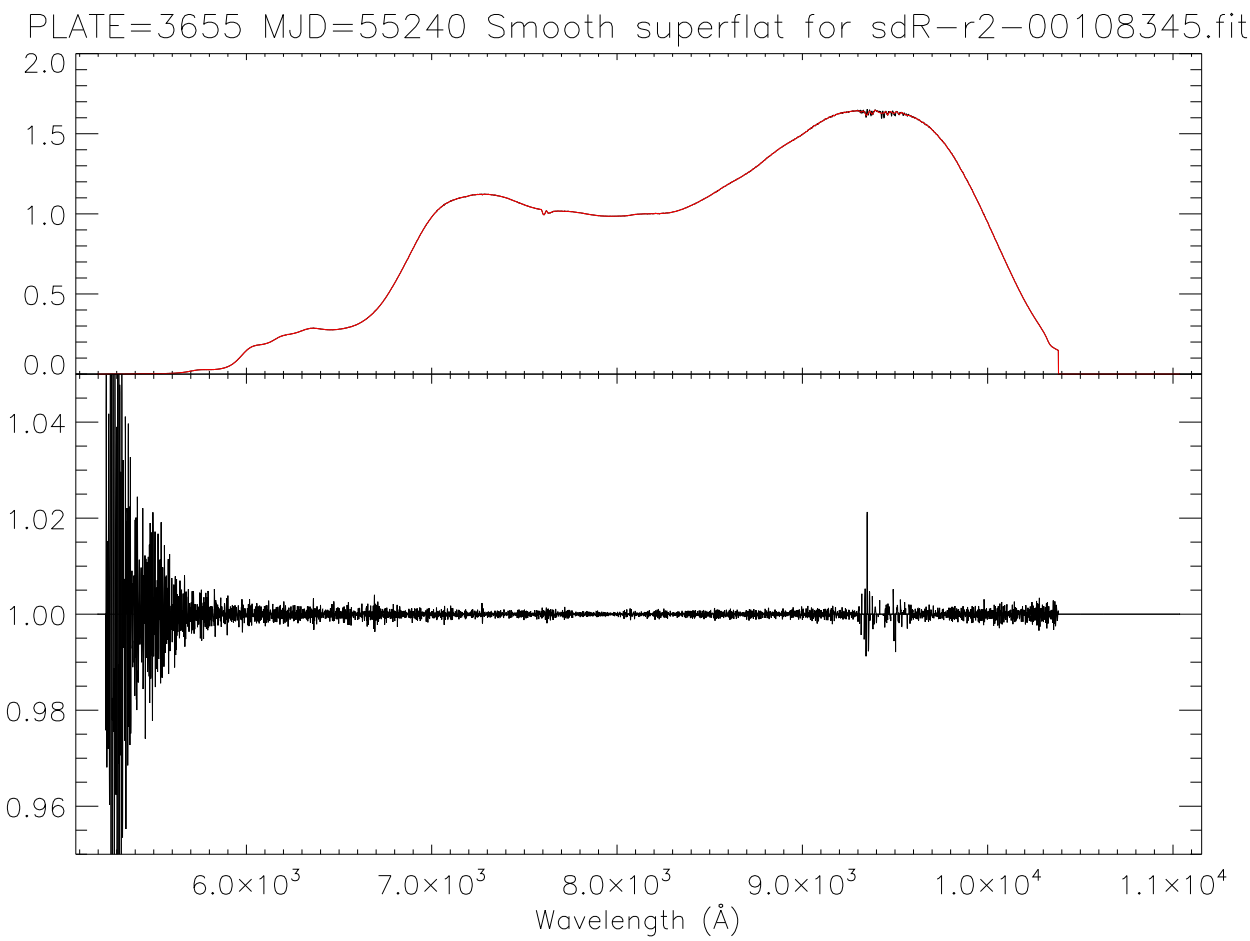

PLATE=3655 MJD=55240 sdR-r2-00108344.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
Fiber number
RED = sky fiber
Dispersion = +3.67 %
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

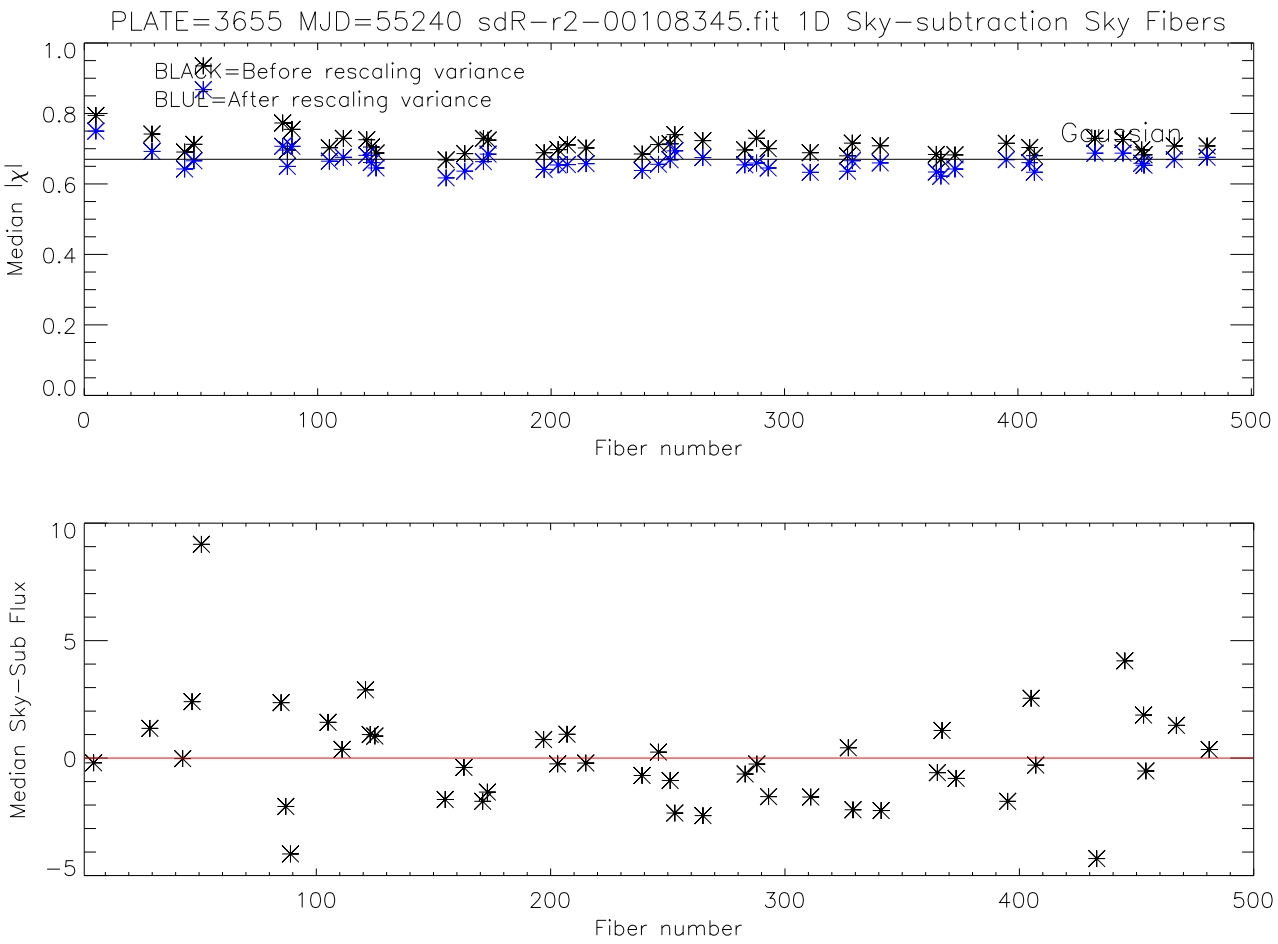

PLATE=3655 MJD=55240 sdR-r2-00108344.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
Fiber number
RED = sky fiber
Dispersion = 1.76 %
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass

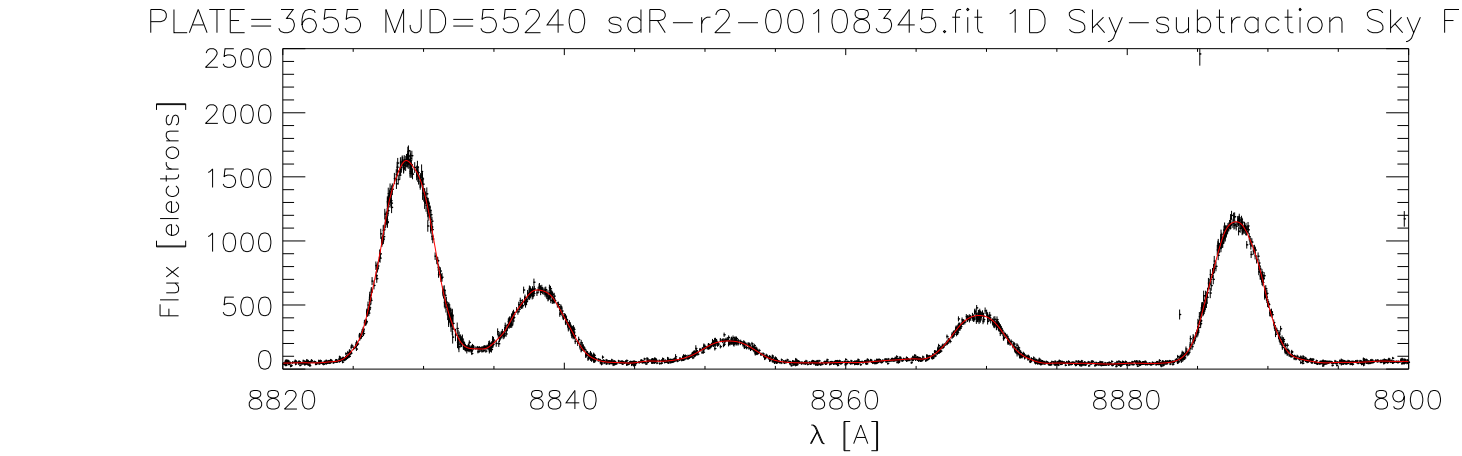

PLATE=3655 MJD=55240 Fiber−Flats for sdR−r2−00108346.fit
BLACK = Median value
ENVELOPE = 95% of points
GREEN = Outlier points
Min value = −3.485
Max value = 613.872
Fiber−Flat
1.5
1.0
0.5
0.0
6.0×10^3
7.0×10^3
8.0×10^3
9.0×10^3
1.0×10^4
1.1×10^4
λ [A]
Thu May 26 22:33:29 2016

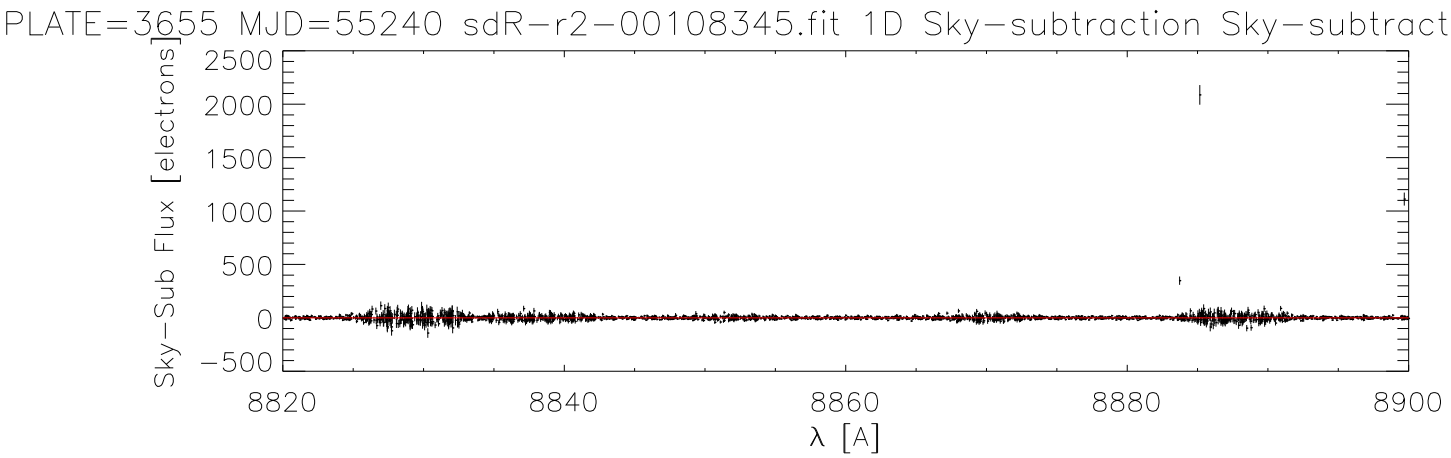

PLATE=3655 MJD=55240 Extraction chi^2 for sdR−r2−00108345.fit
BLACK = Final chisq extraction
χ^2
1.0
0.8
0.6
0.4
0.2
0.0
0
1000
2000
3000
4000
Row number


PLATE=3655 MJD=55240 Sky Line Deviations for sdR-r2-00108345.fit
Before shift
After shift
1.00 pix
Fiber Number
0
100
200
300
400
500
5460 5577 6300 6363 6553 6923 6949 7571 7794 7821 8399 8430 8885 8919
Sky Line Wavelength

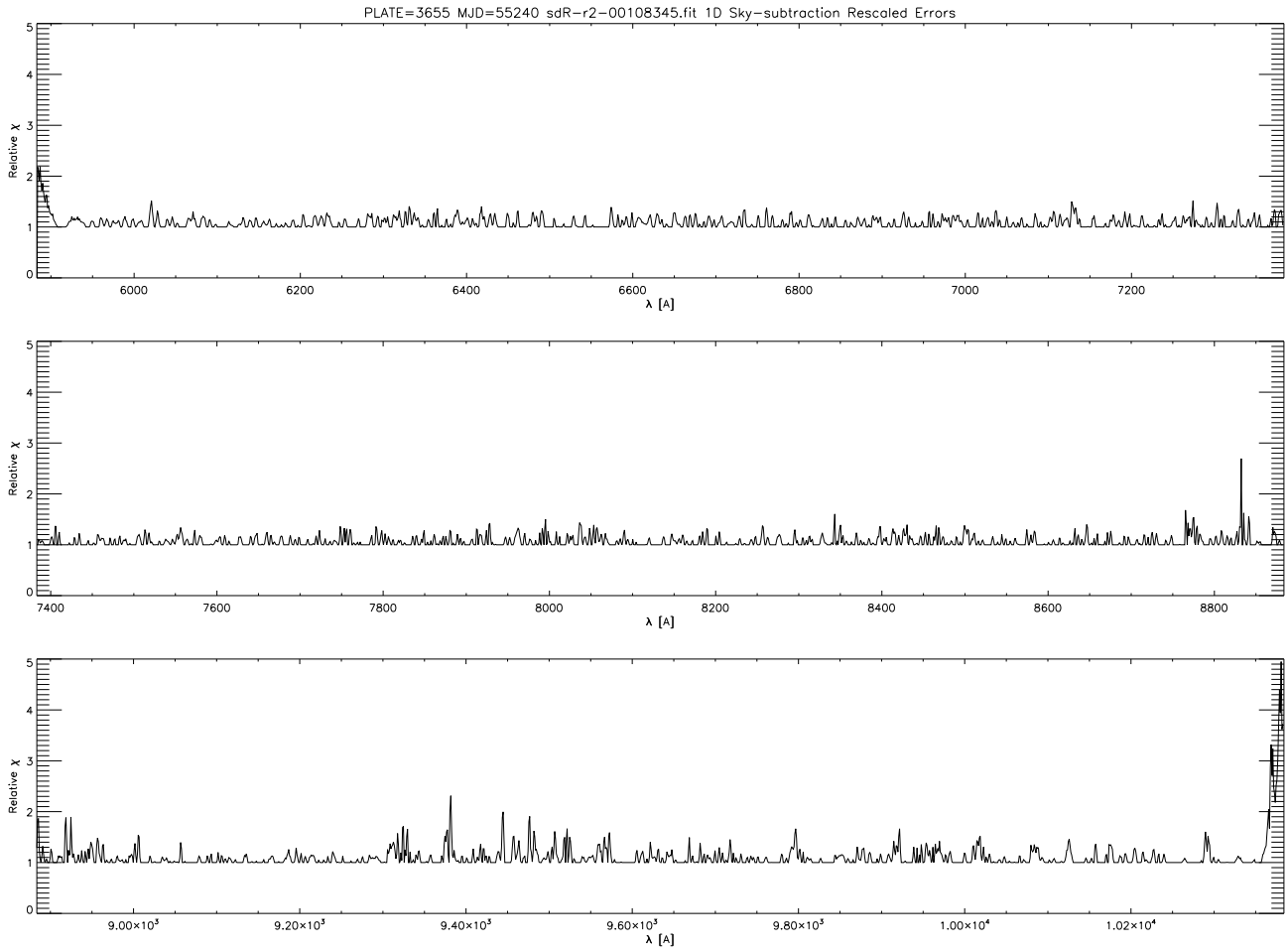

PLATE=3655 MJD=55240 Smooth superflat for sdR-r2-00108345.fit
2.0
1.5
1.0
0.5
0.0
1.04
1.02
1.00
0.98
0.96
6.0×10^3
7.0×10^3
8.0×10^3
9.0×10^3
1.0×10^4
1.1×10^4
Wavelength (Å)

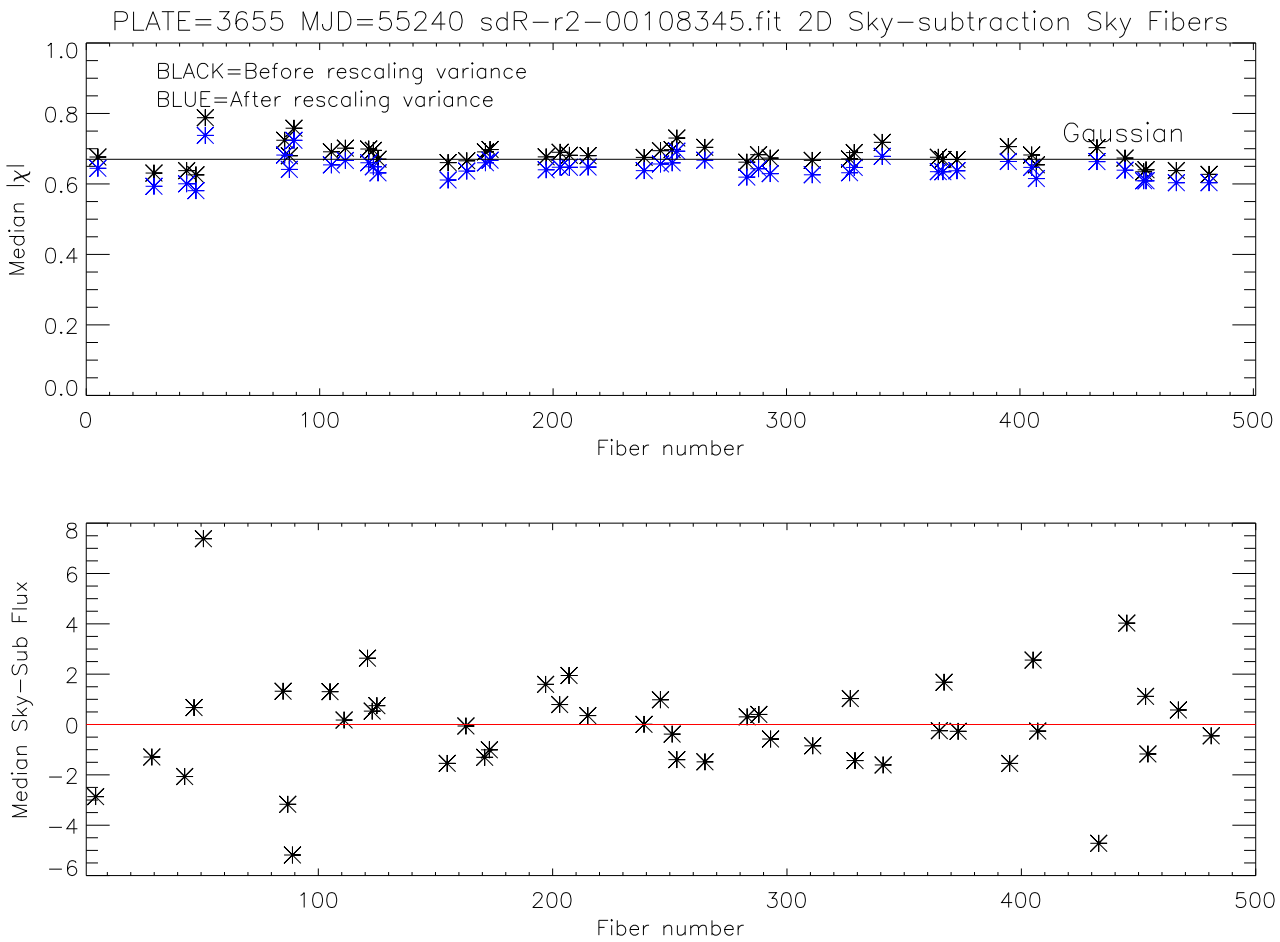

PLATE=3655 MJD=55240 sdR-r2-00108345.fit 1D Sky-subtraction Sky Fibers
BLACK=Before rescaling variance
BLUE=After rescaling variance
Gaussian
Median |χ|
Fiber number
Median Sky-Sub Flux
Fiber number

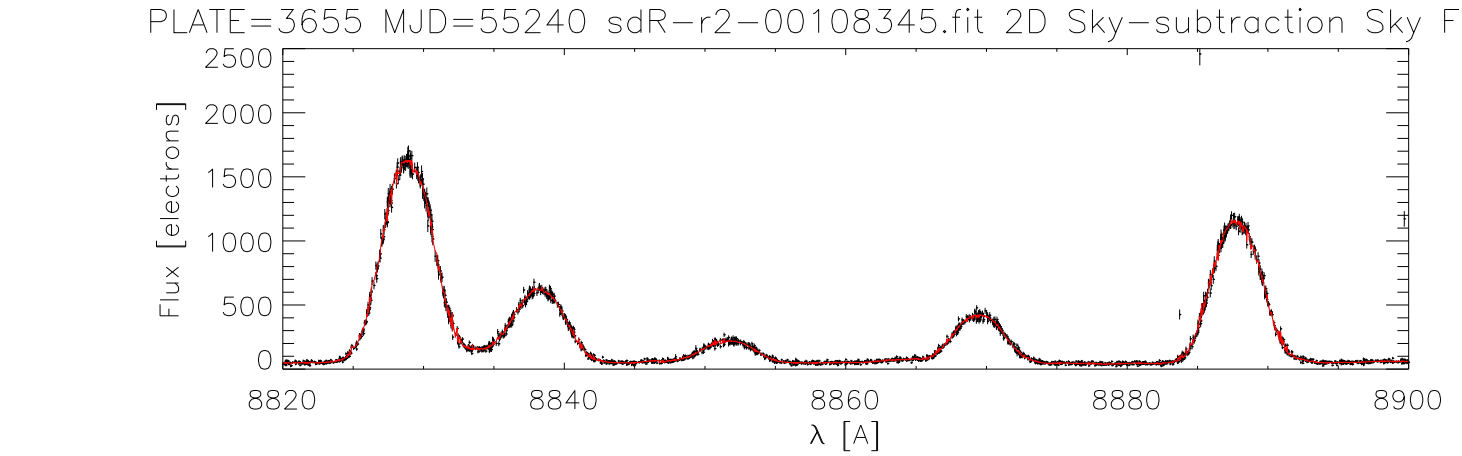

PLATE=3655 MJD=55240 sdR-r2-00108345.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
2500
2000
1500
1000
500
0
8820
8840
8860
8880
8900
λ [A]

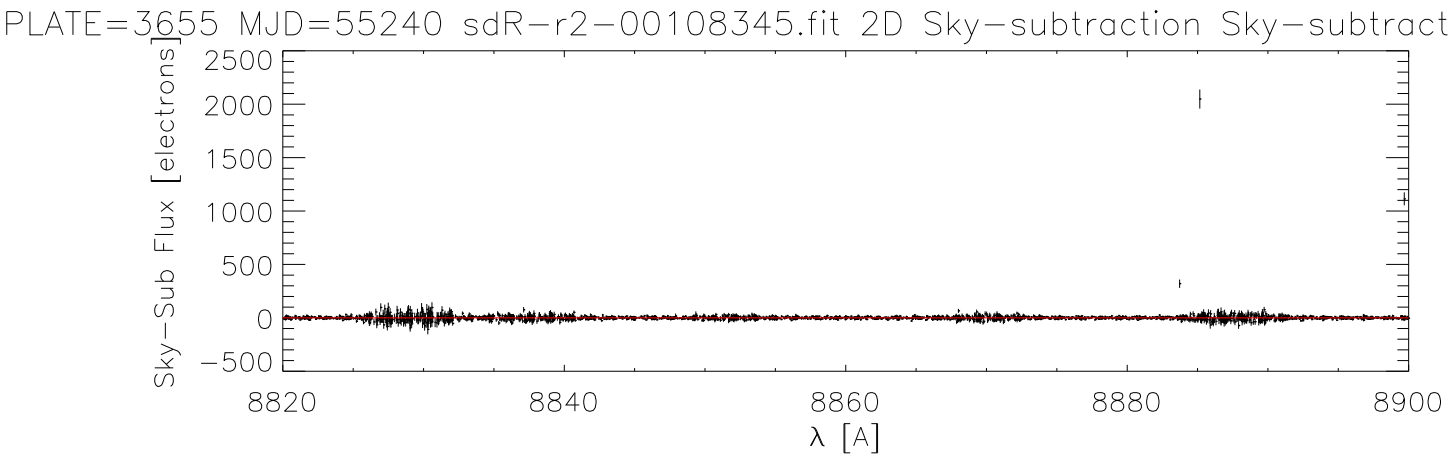

PLATE=3655 MJD=55240 sdR-r2-00108345.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
2500
2000
1500
1000
500
0
-500
8820
8840
8860
8880
8900
λ [A]

Number of sky fibers = 45

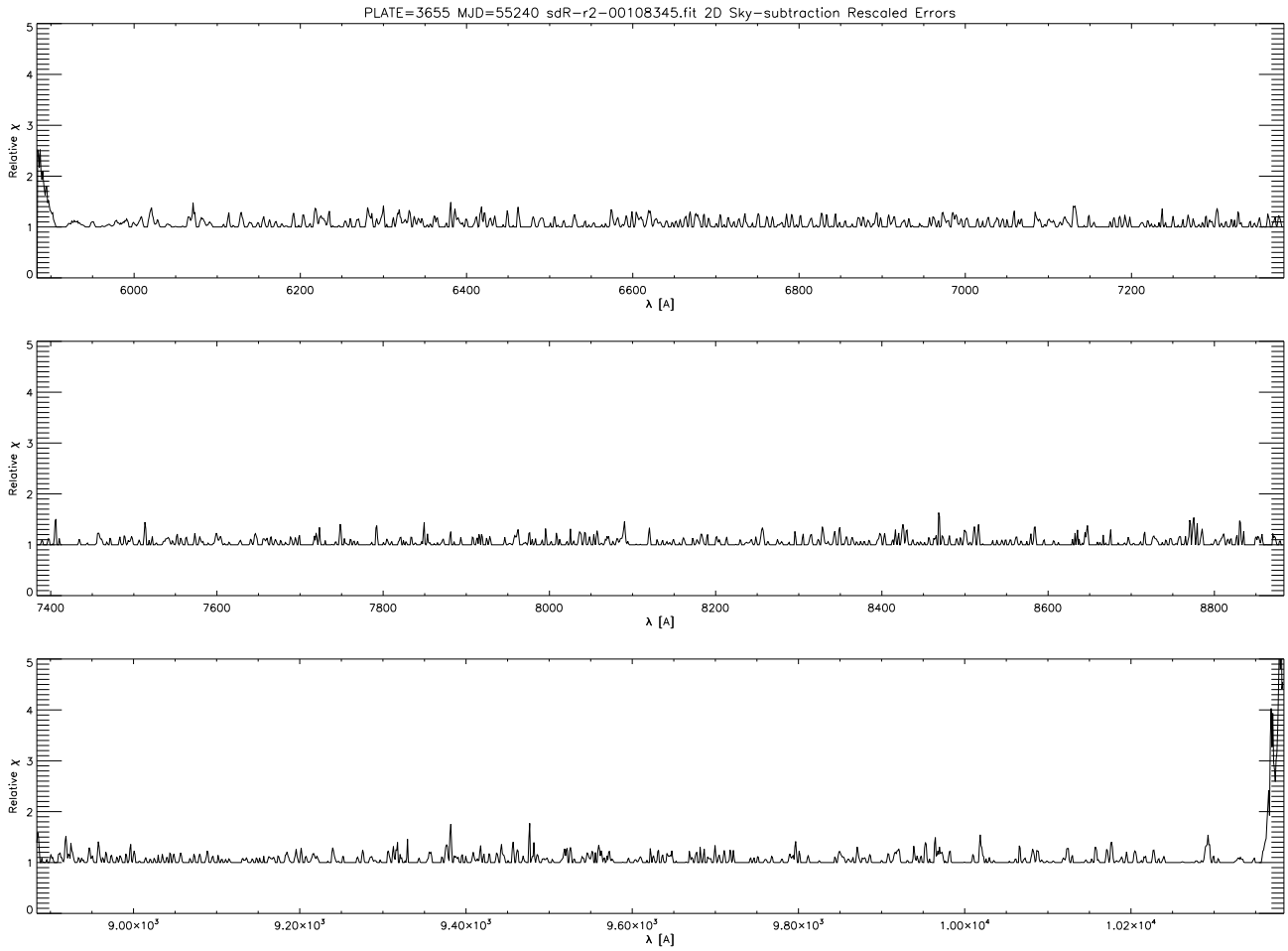


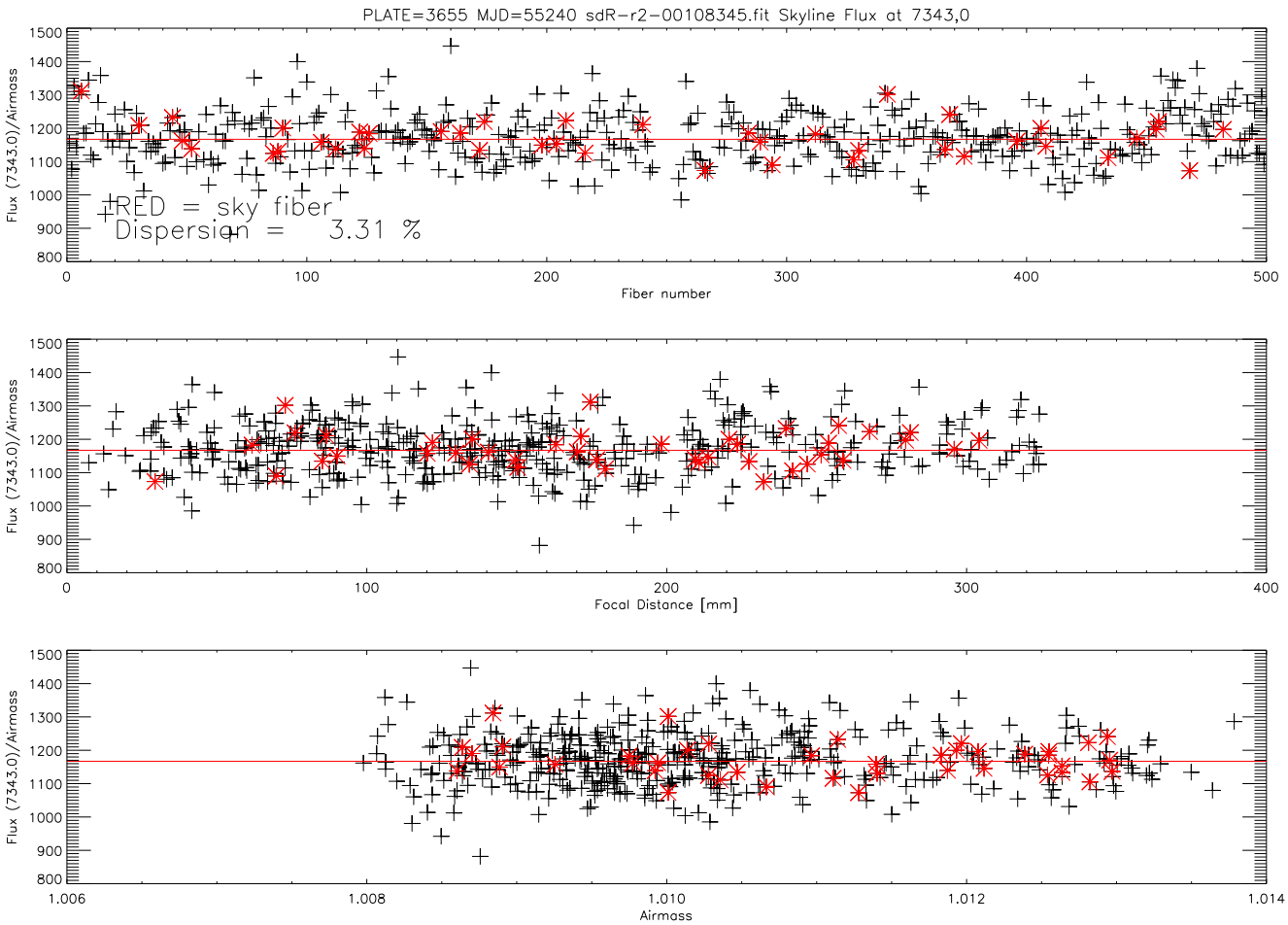

PLATE=3655 MJD=55240 sdR-r2-00108345.fit 2D Sky-subtraction Sky Fibers
BLACK=Before rescaling variance
BLUE=After rescaling variance
Gaussian
Median |χ|
Fiber number
Median Sky-Sub Flux
Fiber number

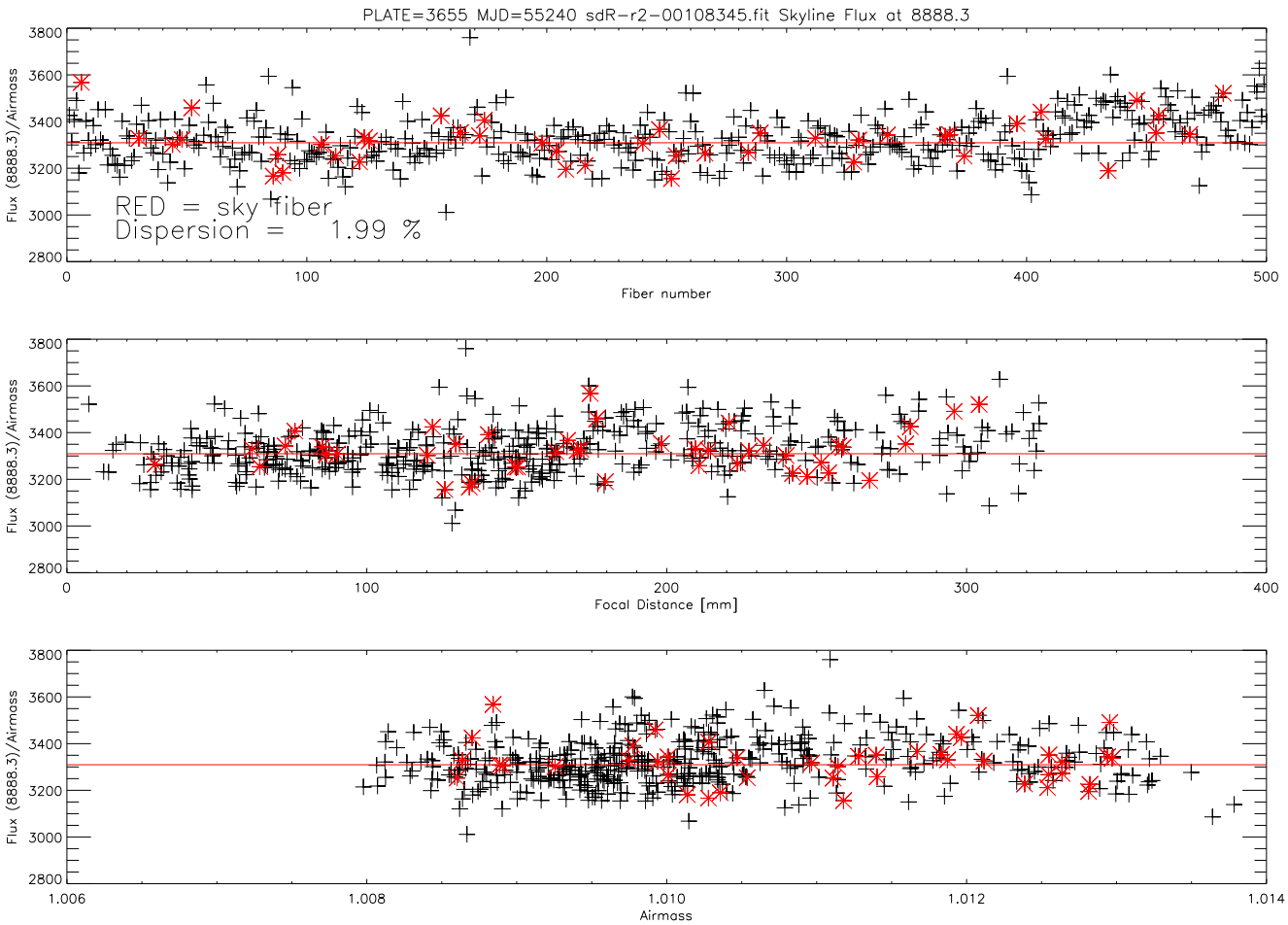

PLATE=3655 MJD=55240 sdR-r2-00108345.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
2500
2000
1500
1000
500
0
8820
8840
8860
8880
8900
λ [A]


PLATE=3655 MJD=55240 sdR-r2-00108345.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
2500
2000
1500
1000
500
0
-500
8820
8840
8860
8880
8900
λ [A]

Number of sky fibers = 45




PLATE=3655 MJD=55240 sdR-r2-00108345.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
Fiber number
RED = sky fiber
Dispersion = 3.31 %
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass


PLATE=3655 MJD=55240 sdR-r2-00108345.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 1.99 %
Fiber number
Focal Distance [mm]
Airmass