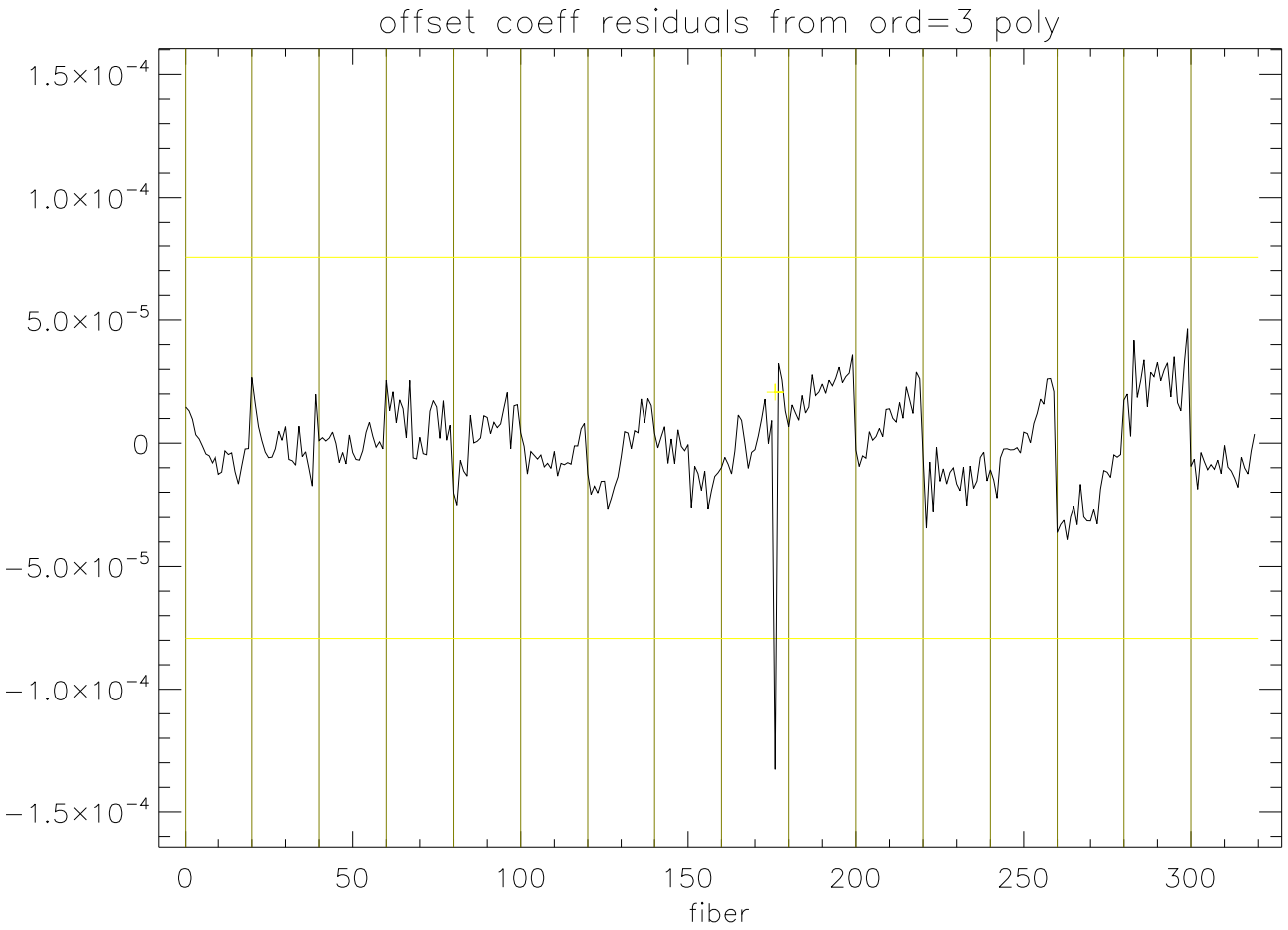
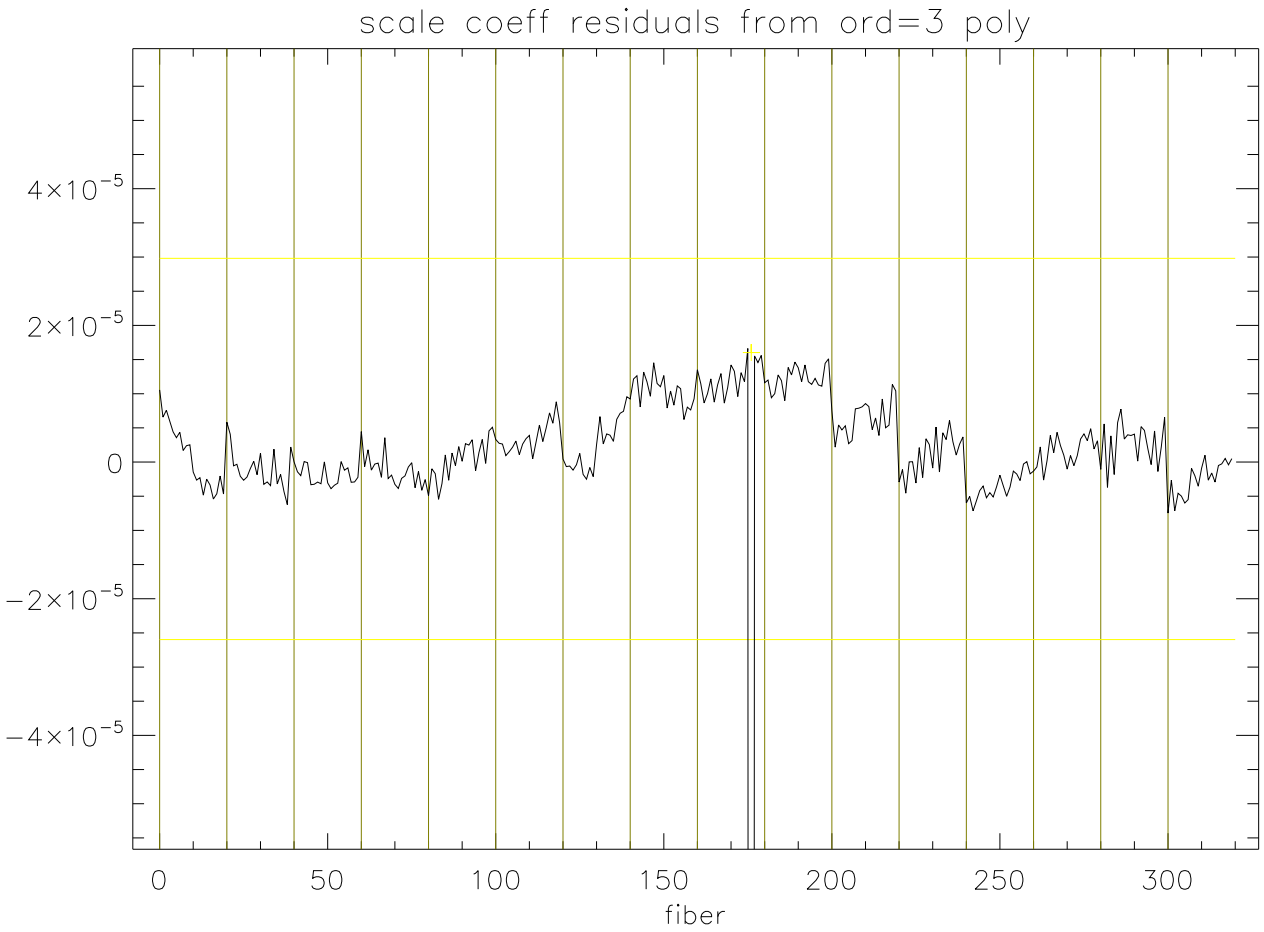
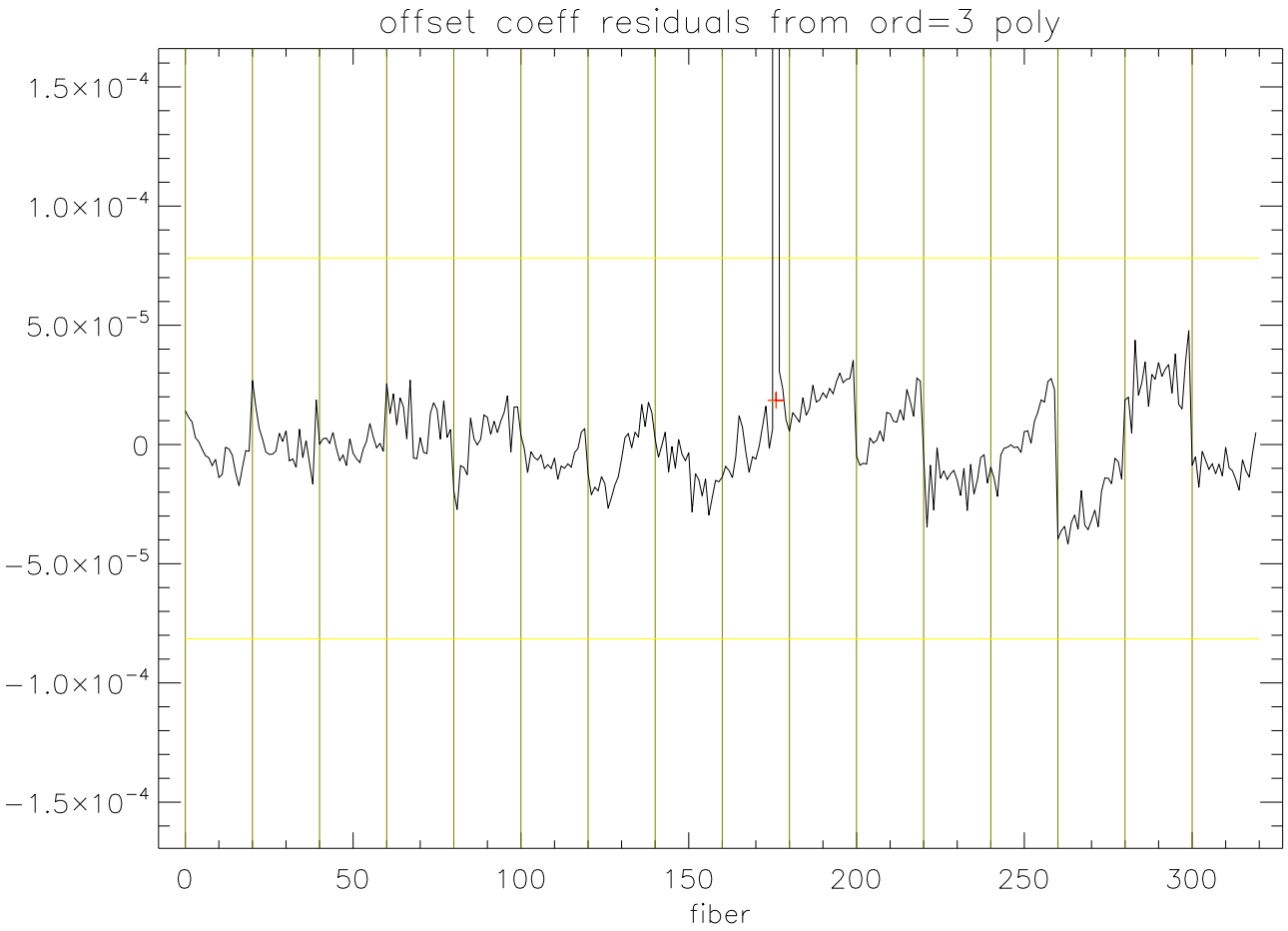
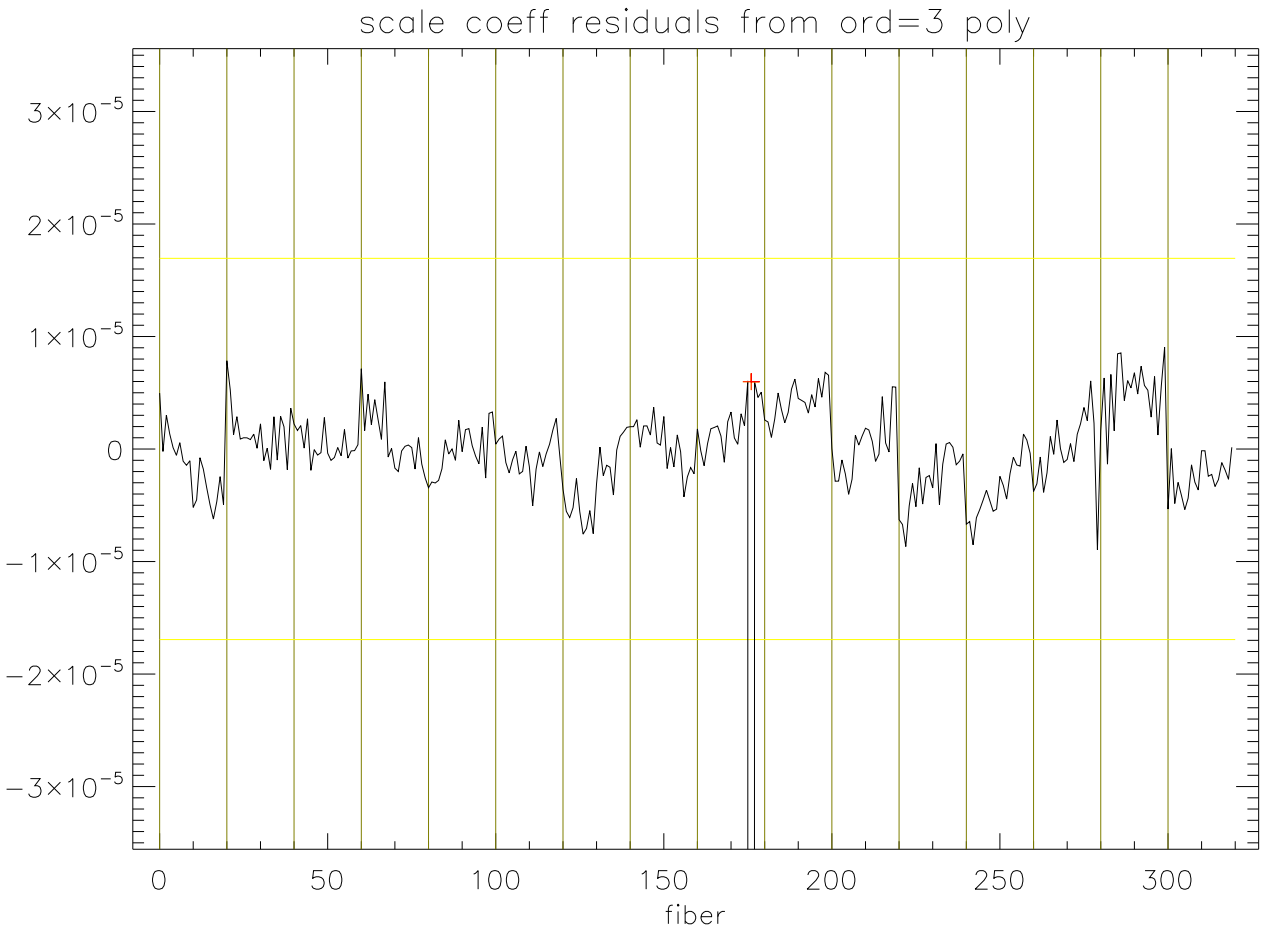
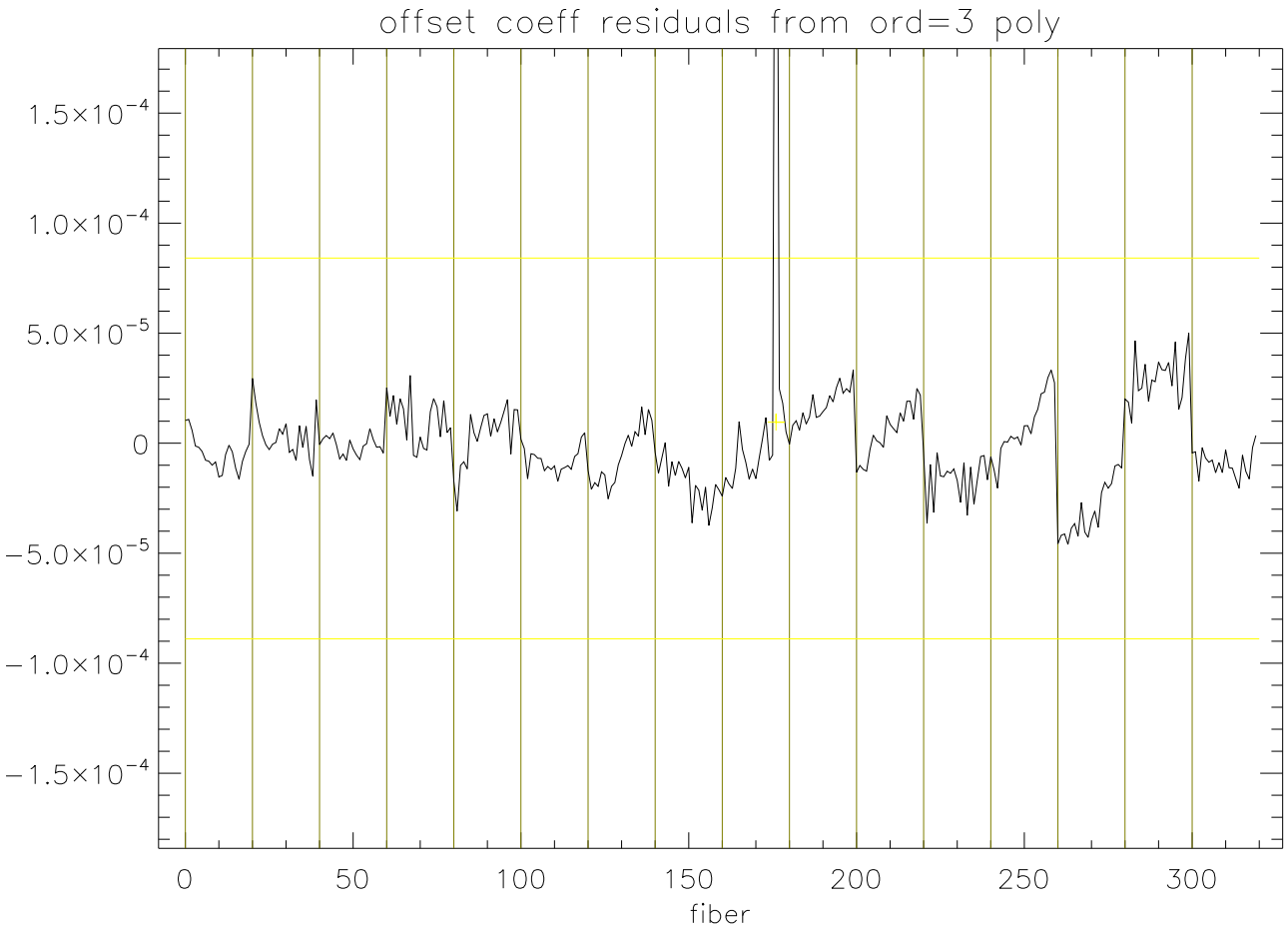
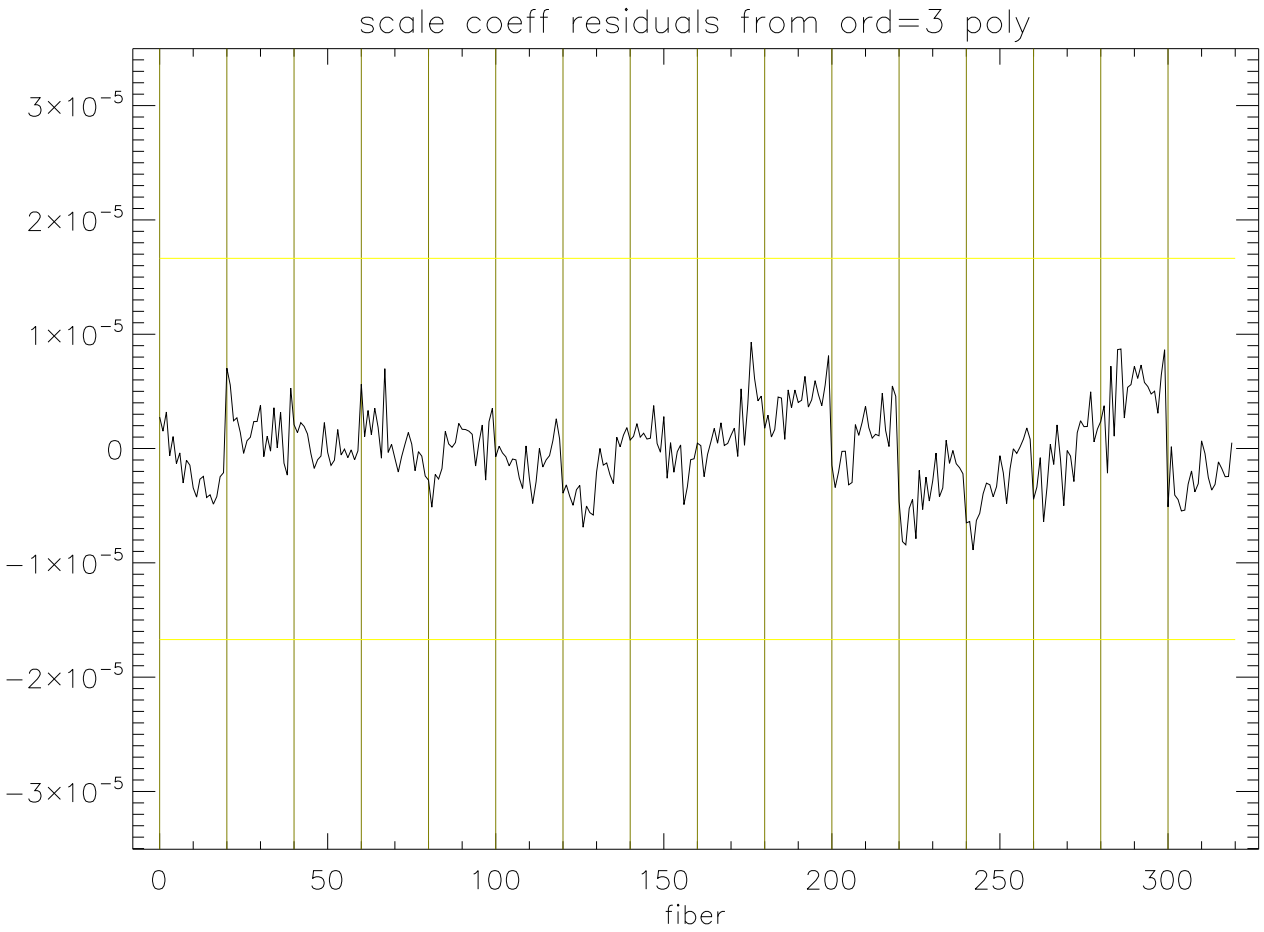

offset coeff residuals from ord=3 poly
1.5×10^-4
1.0×10^-4
5.0×10^-5
0
−5.0×10^-5
−1.0×10^-4
−1.5×10^-4
0
50
100
150
200
250
300
fiber

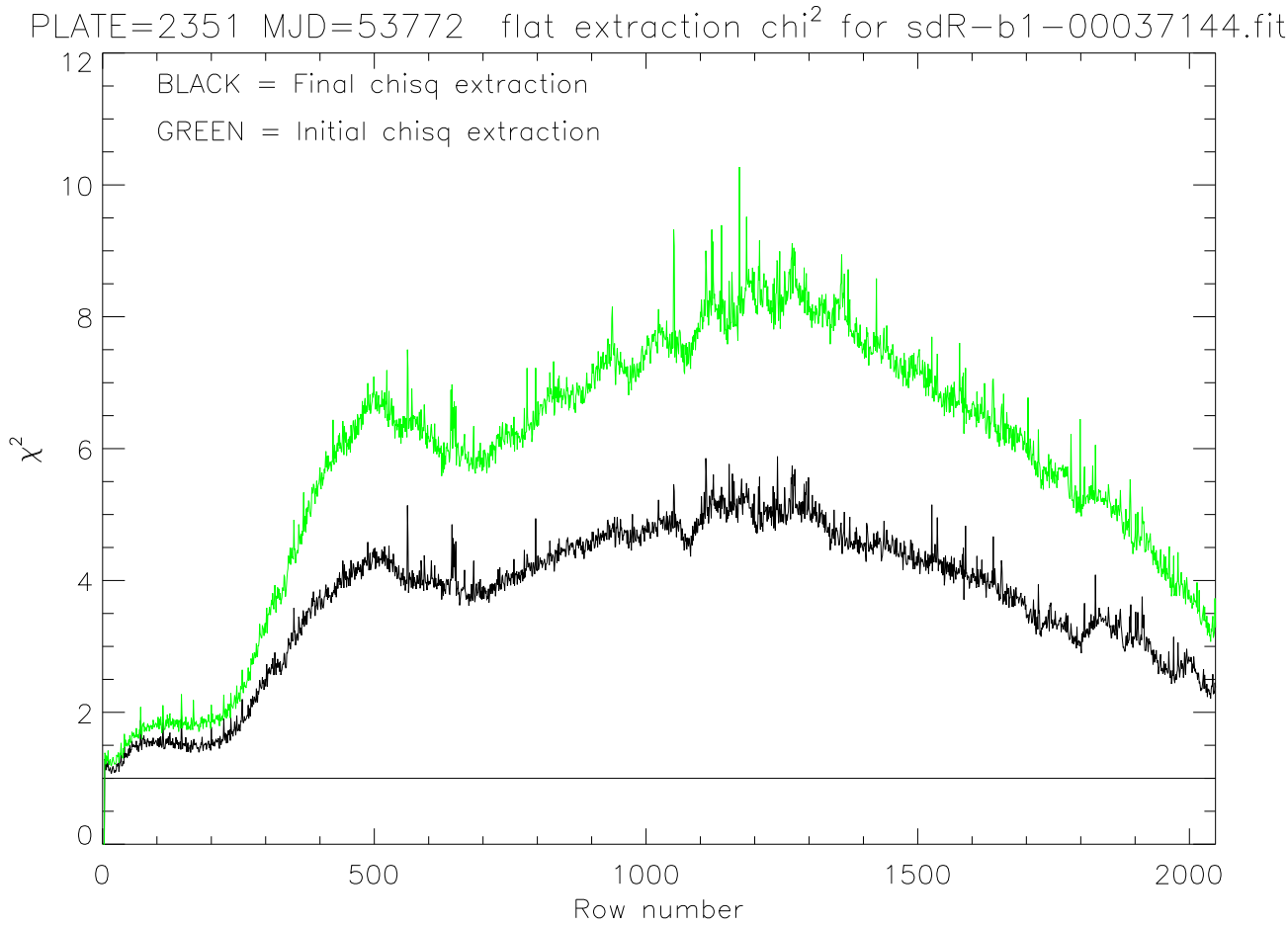

scale coeff residuals from ord=3 poly
4×10⁻⁵
2×10⁻⁵
0
−2×10⁻⁵
−4×10⁻⁵
0
50
100
150
200
250
300
fiber

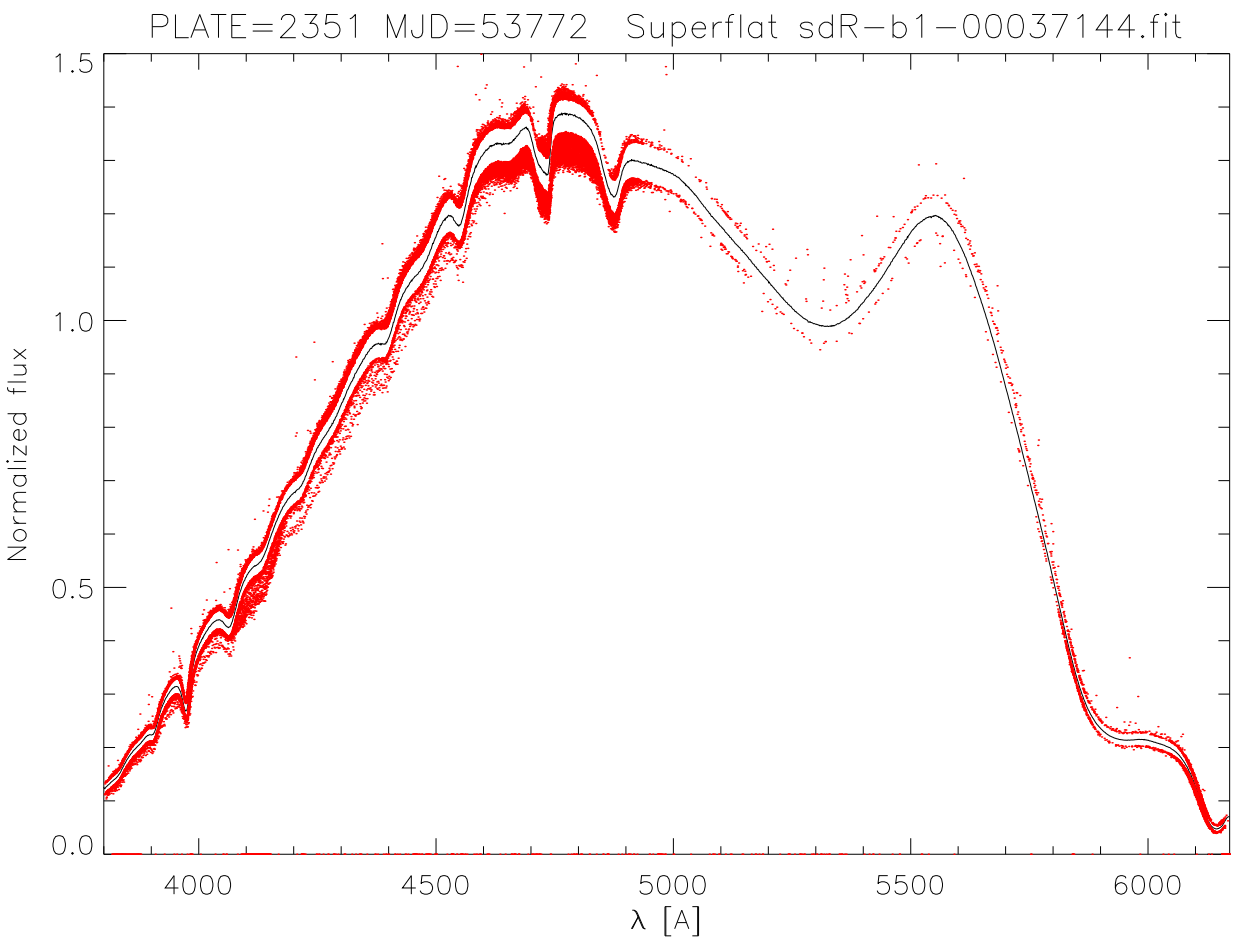

offset coeff residuals from ord=3 poly
1.5×10⁻⁴
1.0×10⁻⁴
5.0×10⁻⁵
0
−5.0×10⁻⁵
−1.0×10⁻⁴
−1.5×10⁻⁴
0
50
100
150
200
250
300
fiber

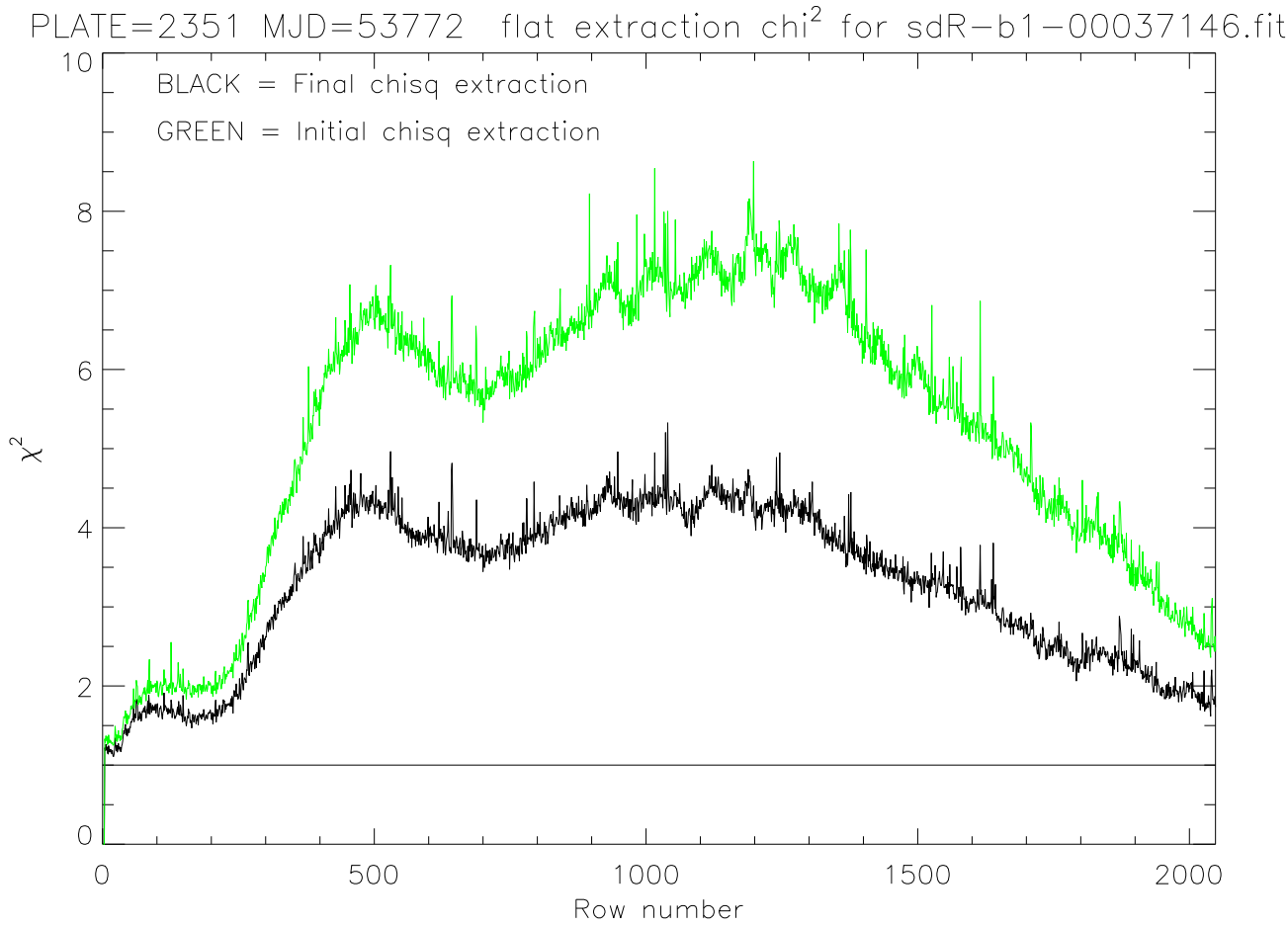

scale coeff residuals from ord=3 poly
3×10⁻⁵
2×10⁻⁵
1×10⁻⁵
0
−1×10⁻⁵
−2×10⁻⁵
−3×10⁻⁵
0
50
100
150
200
250
300
fiber

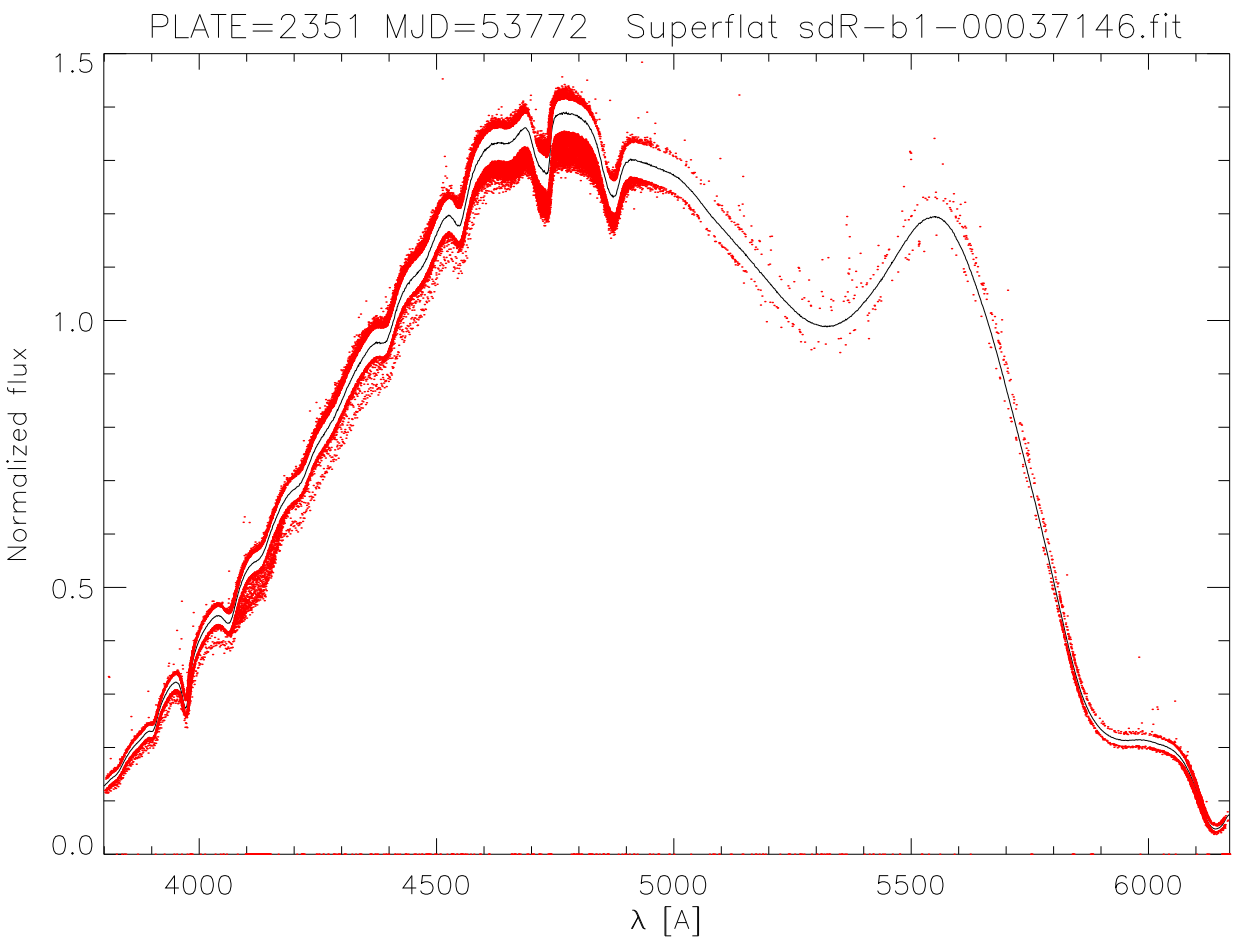

offset coeff residuals from ord=3 poly
1.5×10⁻⁴
1.0×10⁻⁴
5.0×10⁻⁵
0
−5.0×10⁻⁵
−1.0×10⁻⁴
−1.5×10⁻⁴
0
50
100
150
200
250
300
fiber

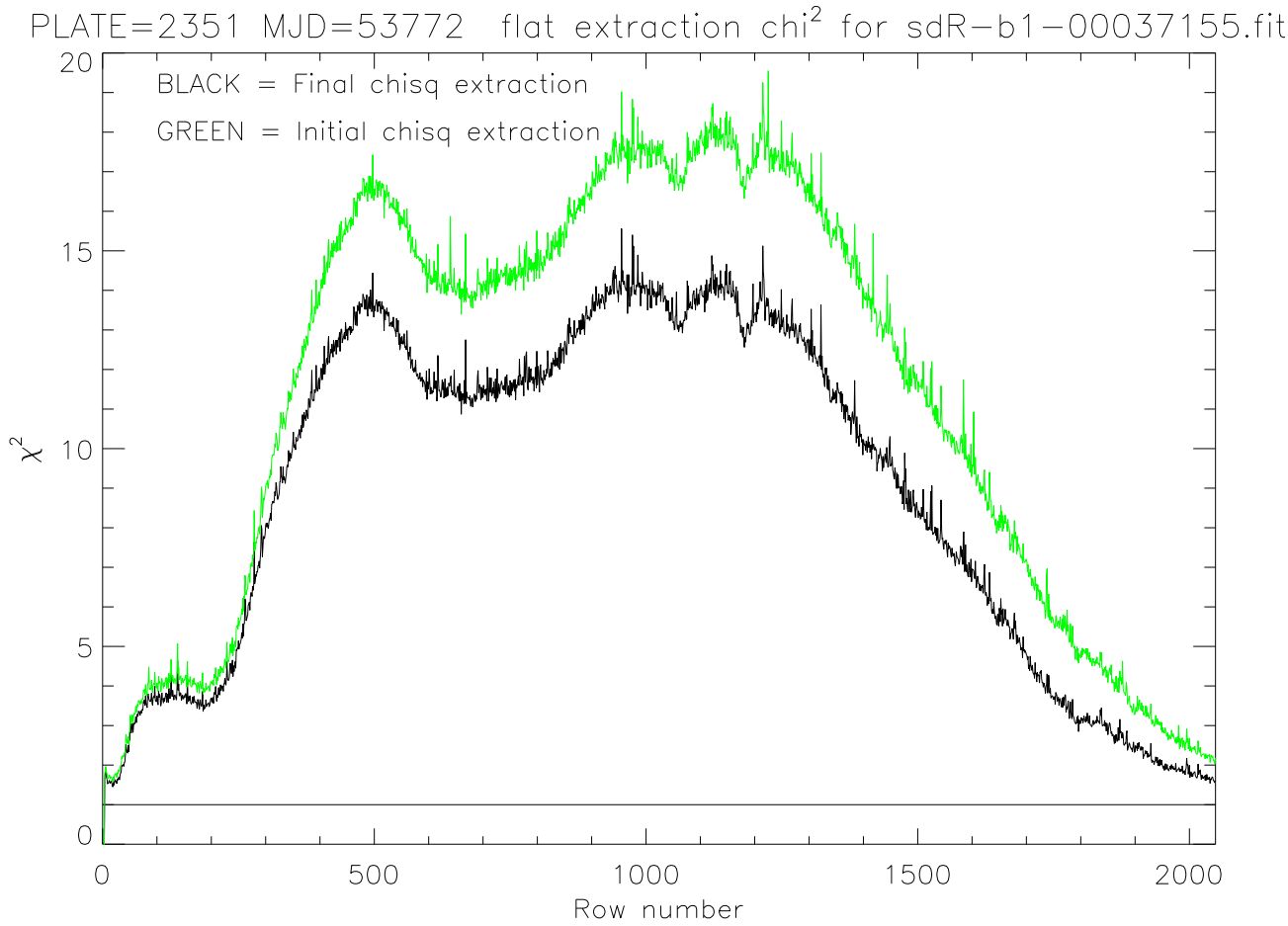

scale coeff residuals from ord=3 poly
3×10⁻⁵
2×10⁻⁵
1×10⁻⁵
0
−1×10⁻⁵
−2×10⁻⁵
−3×10⁻⁵
0
50
100
150
200
250
300
fiber

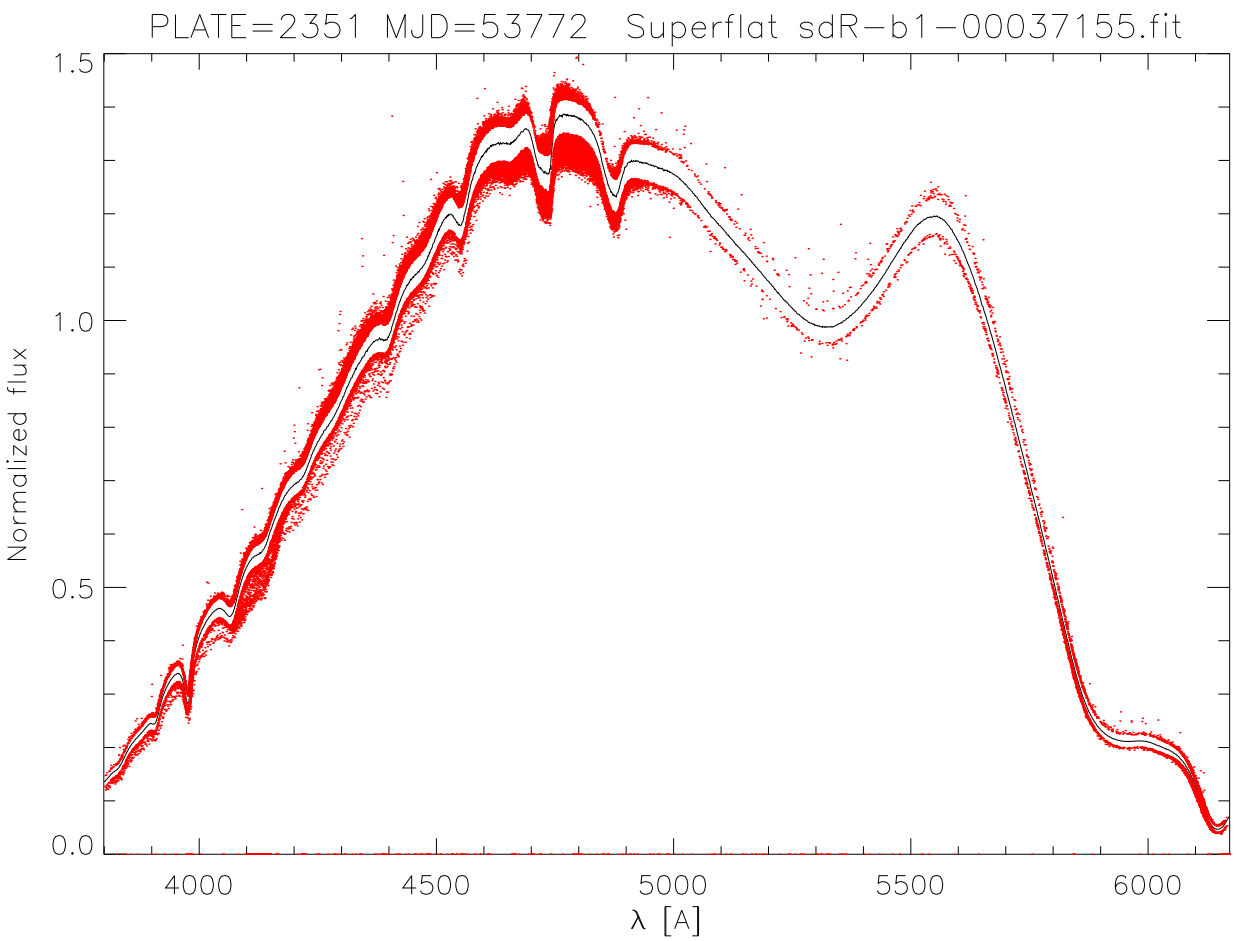

PLATE=2351 MJD=53772 flat extraction chi^2 for sdR−b1−00037144.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
2
4
6
8
10
12
0
500
1000
1500
2000

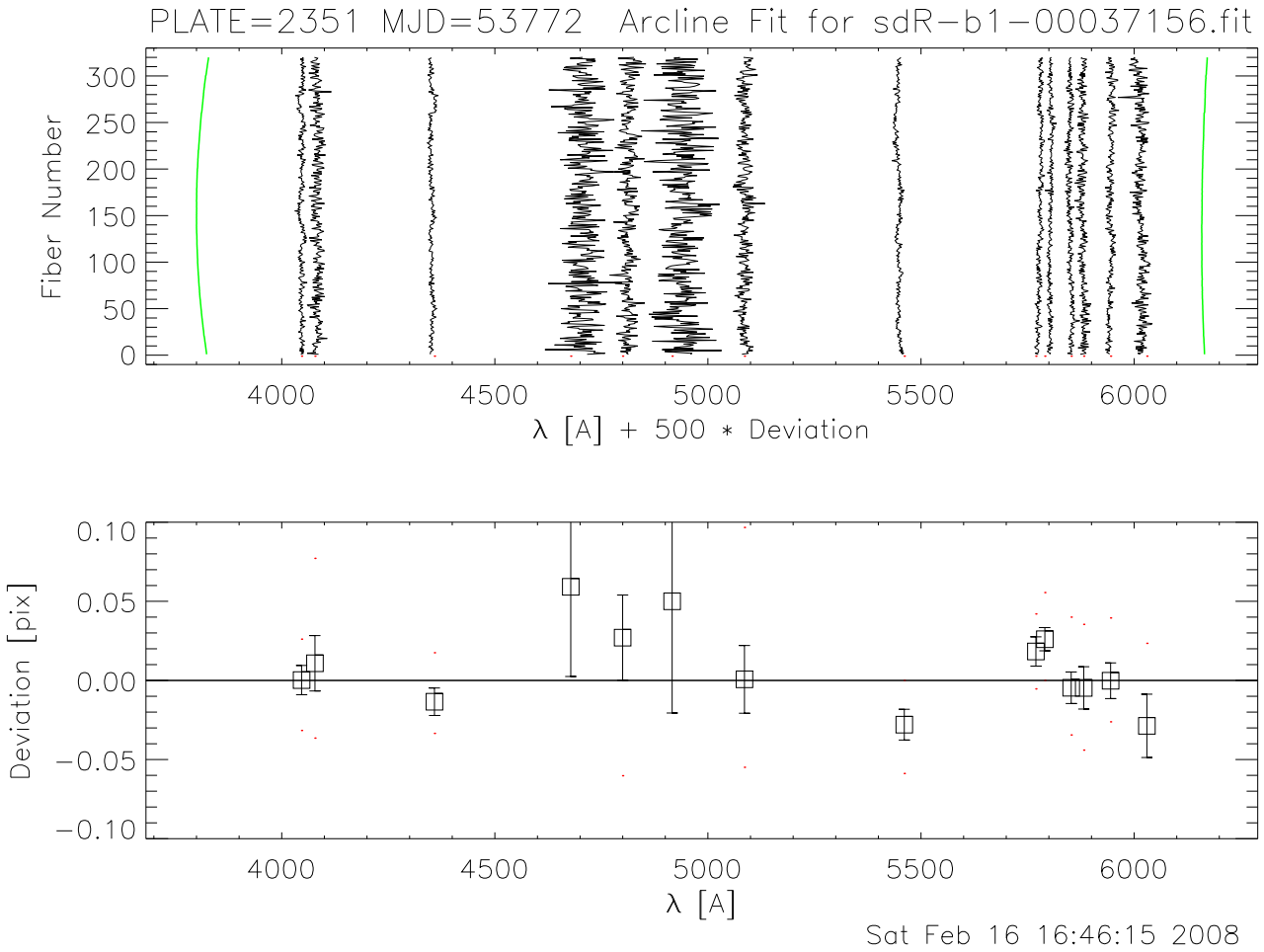

PLATE=2351 MJD=53772 Superflat sdR-b1-00037144.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

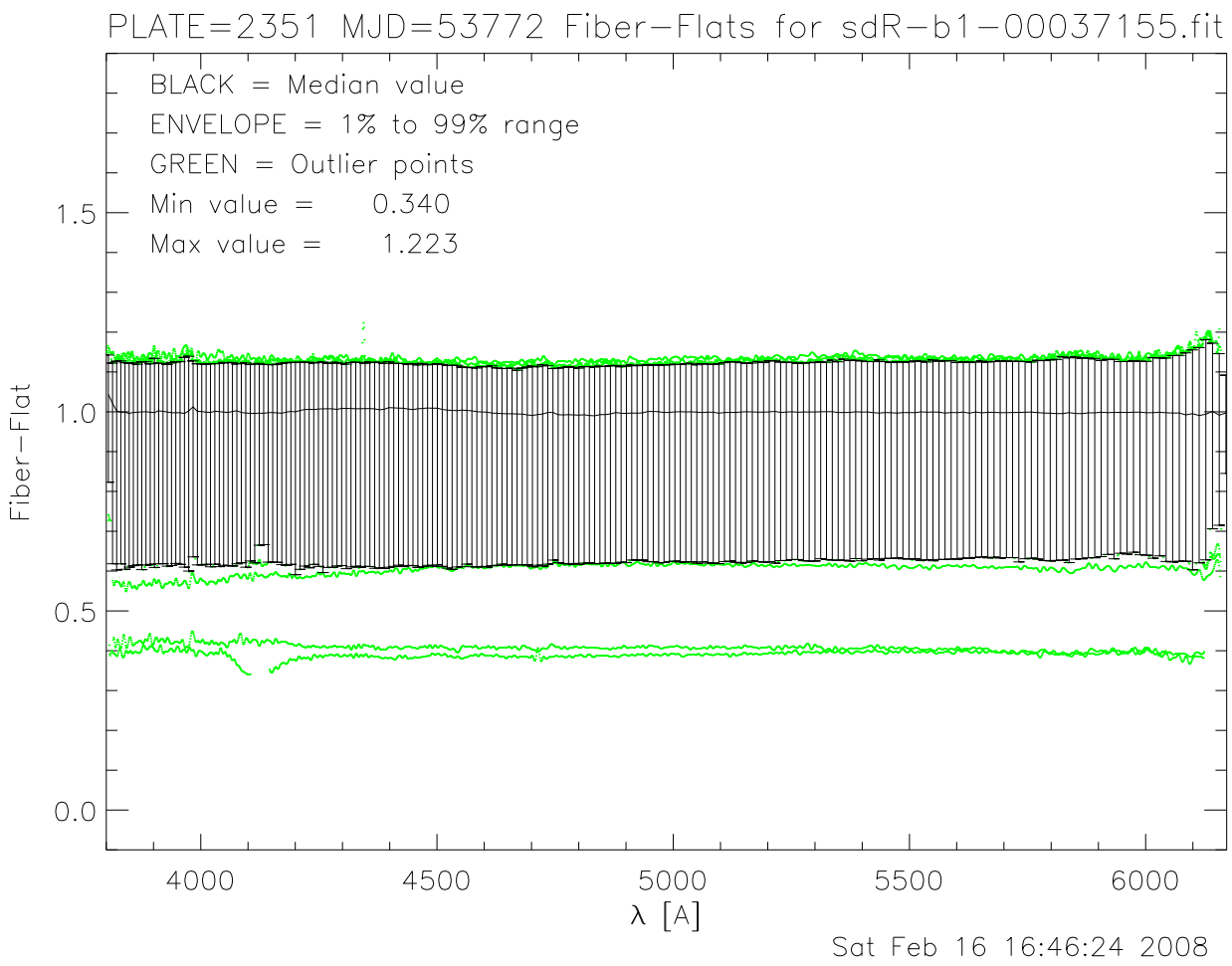

PLATE=2351 MJD=53772 flat extraction chi^2 for sdR−b1−00037146.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
2
4
6
8
10
0
500
1000
1500
2000

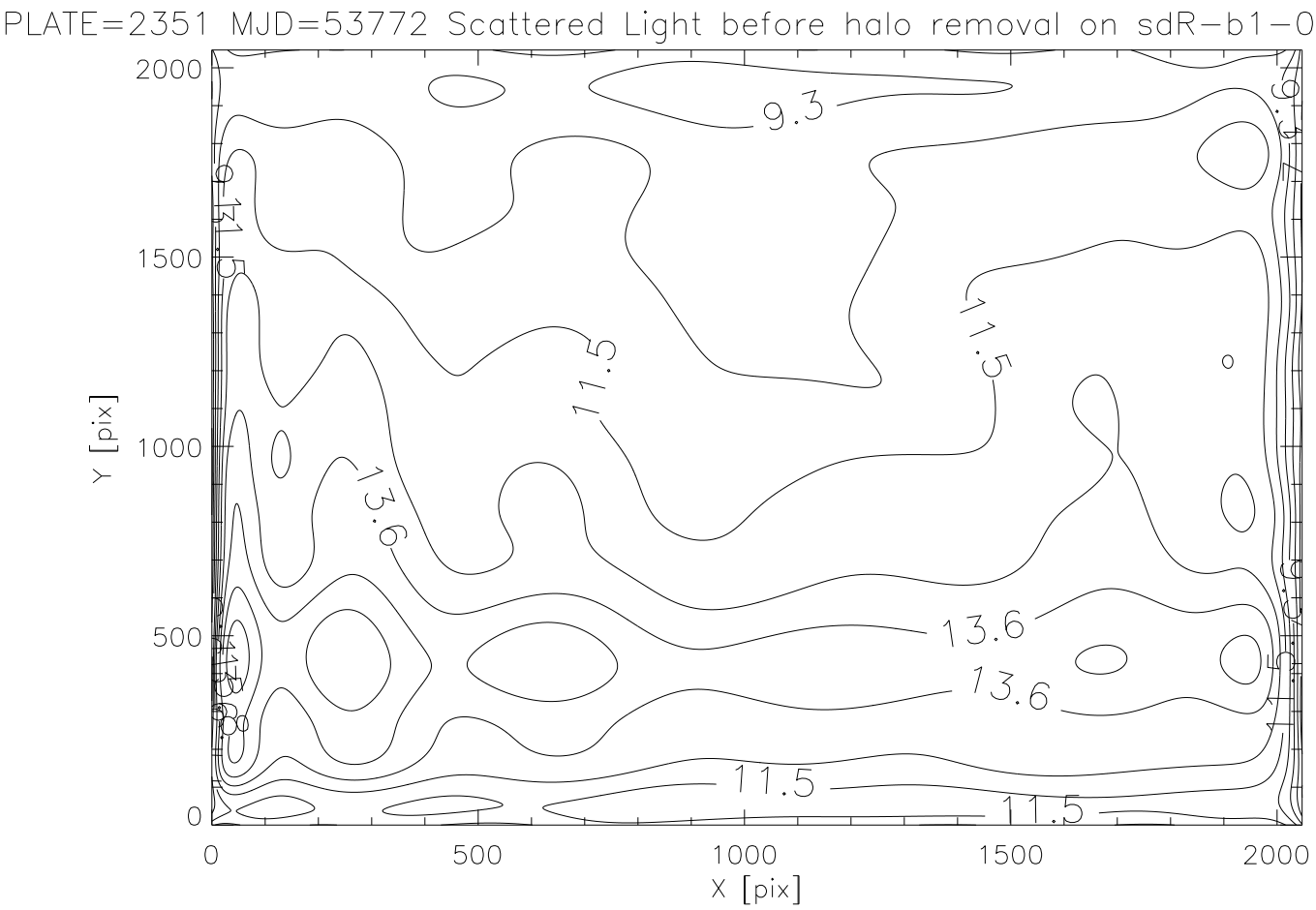

PLATE=2351 MJD=53772 Superflat sdR-b1-00037146.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

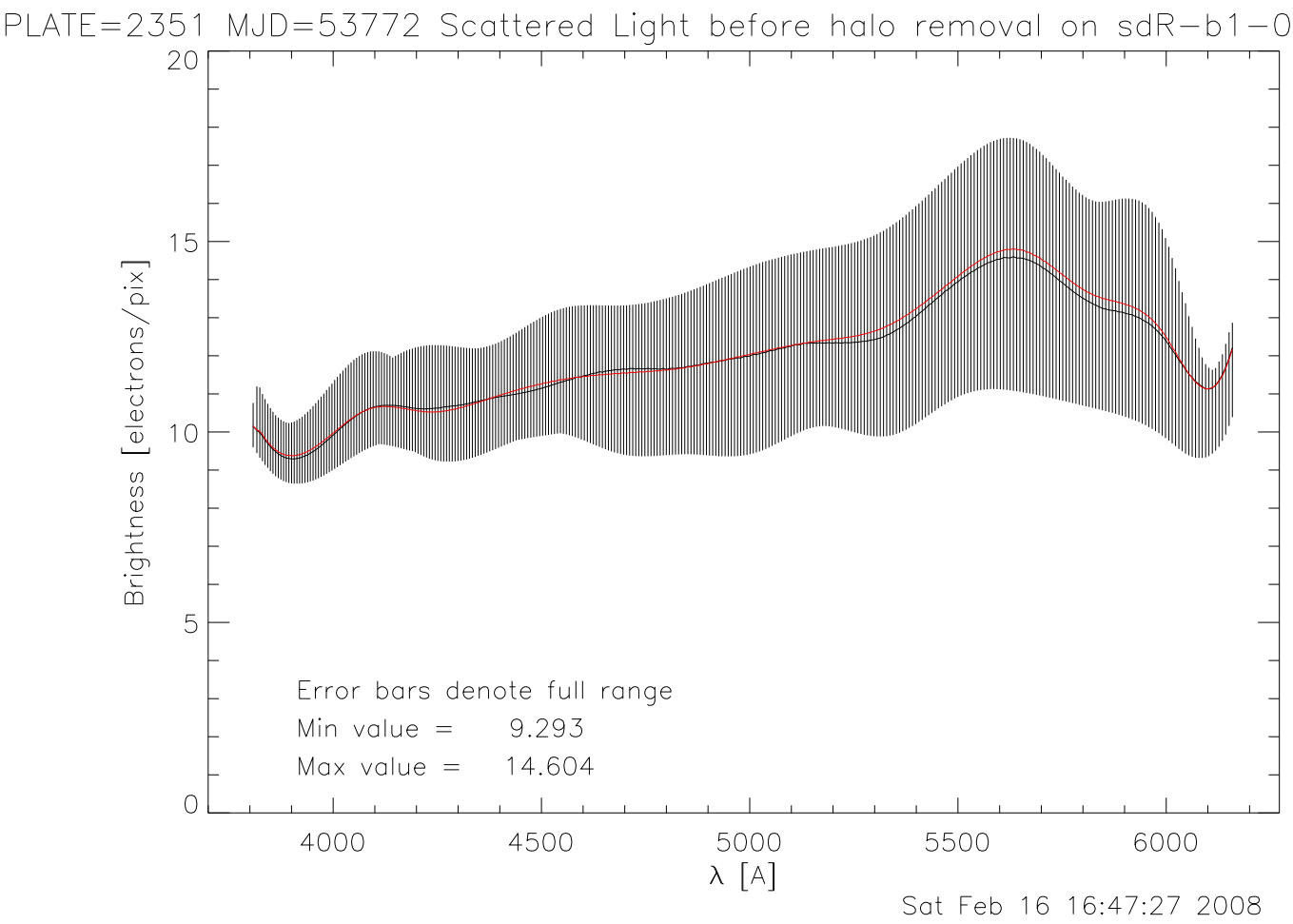

PLATE=2351 MJD=53772 flat extraction chi^2 for sdR−b1−00037155.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
5
10
15
20
0
500
1000
1500
2000

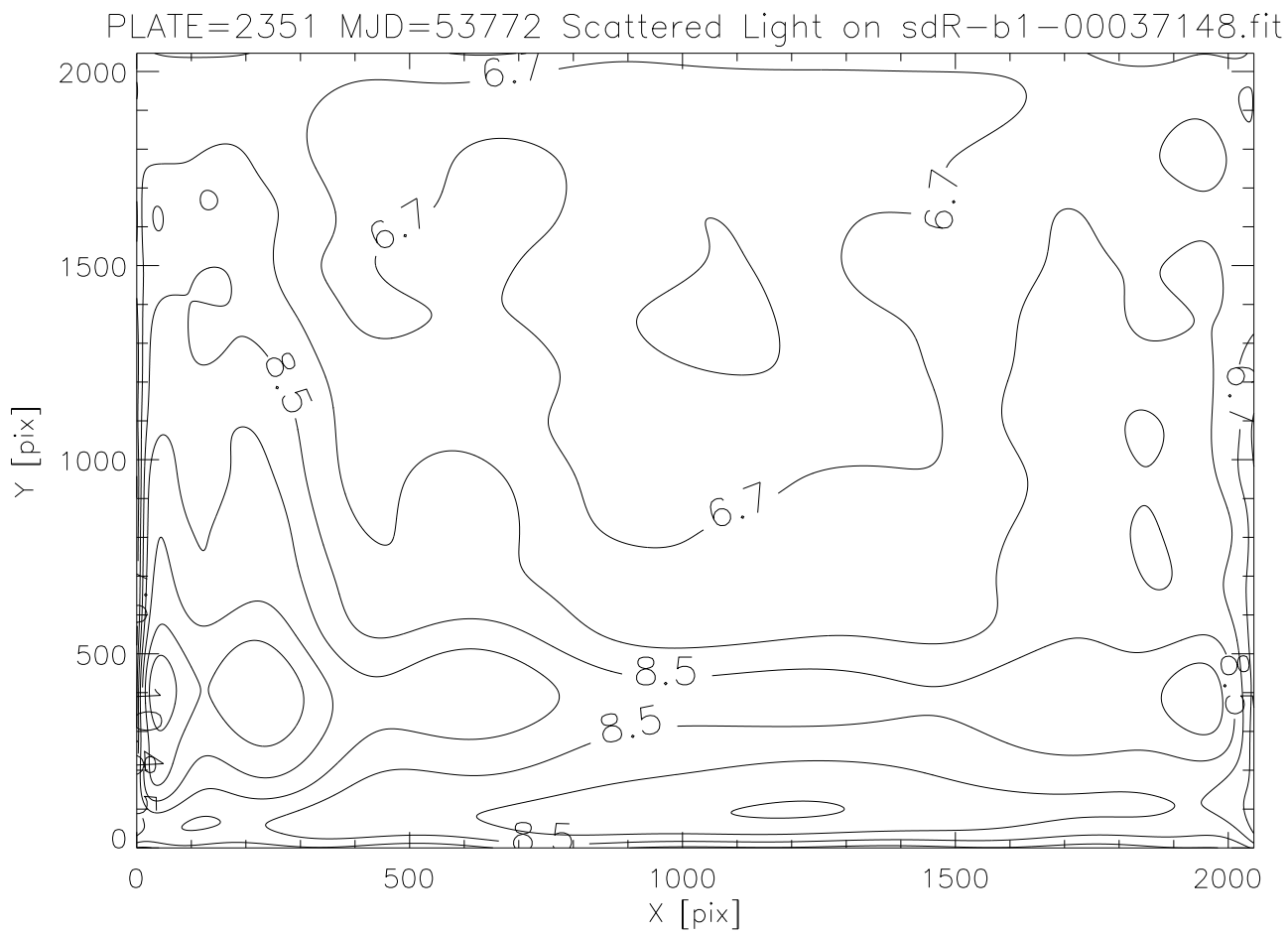

PLATE=2351 MJD=53772 Superflat sdR-b1-00037155.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

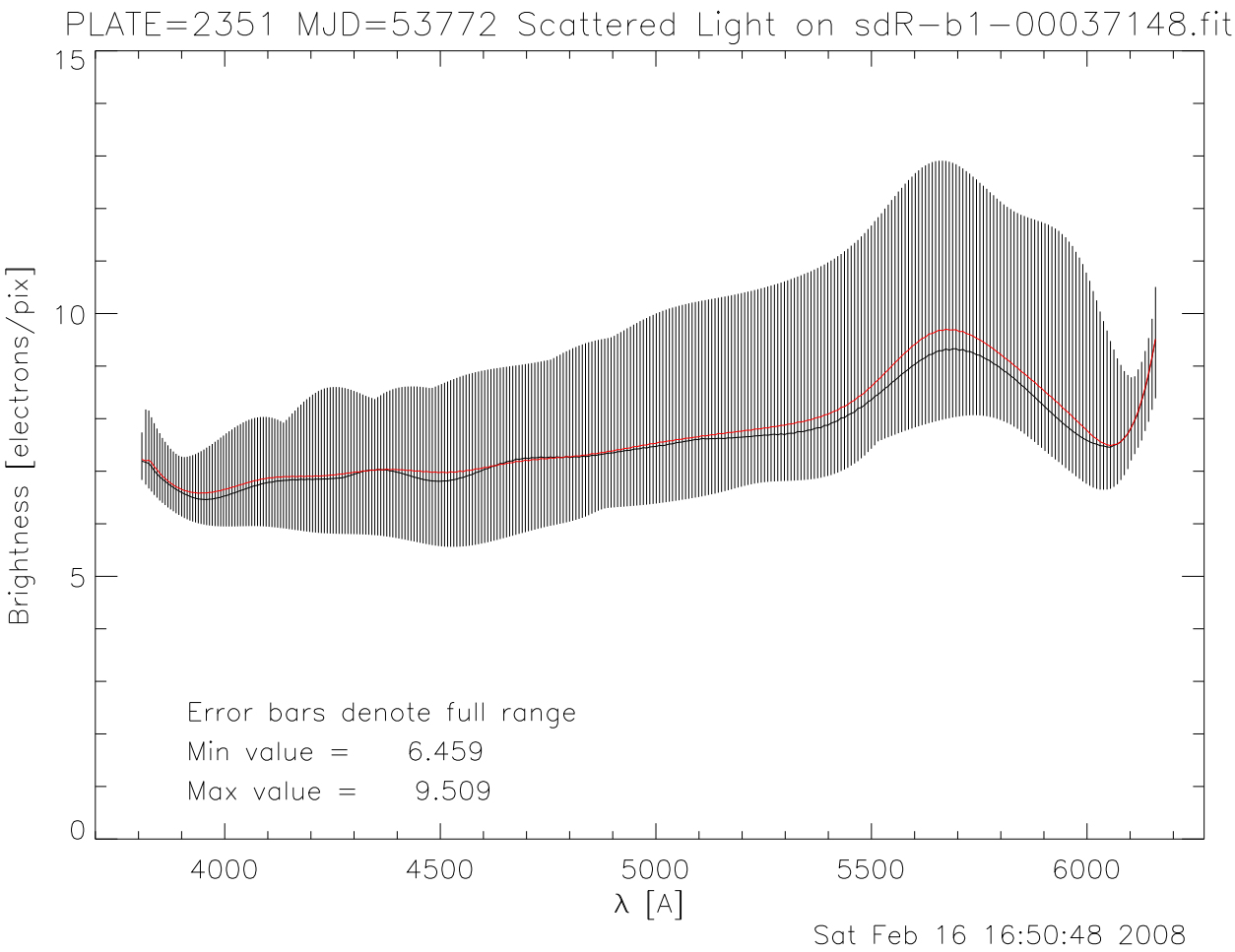

PLATE=2351 MJD=53772 Arcline Fit for sdR-b1-00037156.fit
Fiber Number
300
250
200
150
100
50
0
4000
4500
5000
5500
6000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
4000
4500
5000
5500
6000
λ [A]
Sat Feb 16 16:46:15 2008

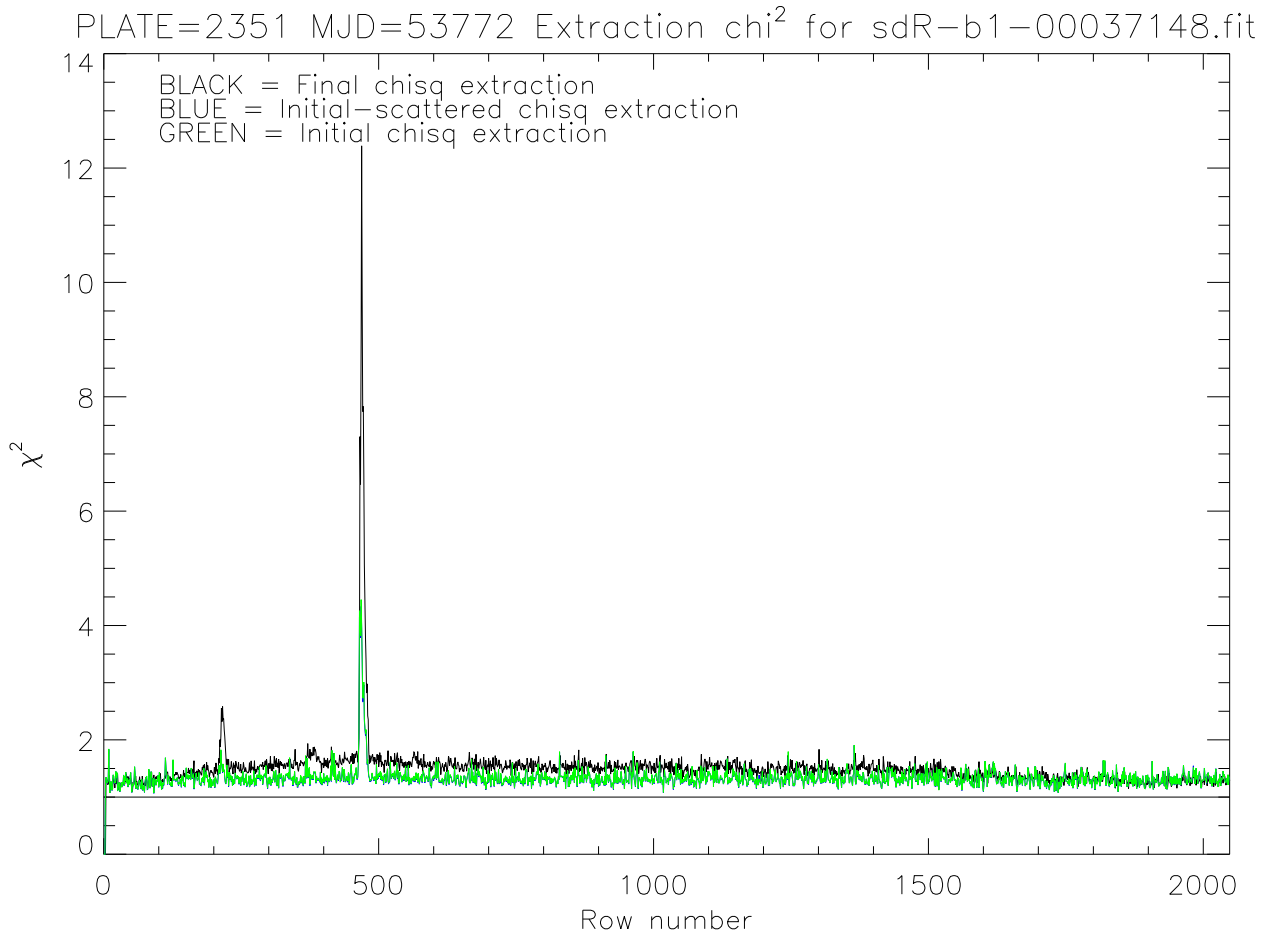

PLATE=2351 MJD=53772 Fiber-Flats for sdR-b1-00037155.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.340
Max value = 1.223
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Sat Feb 16 16:46:24 2008

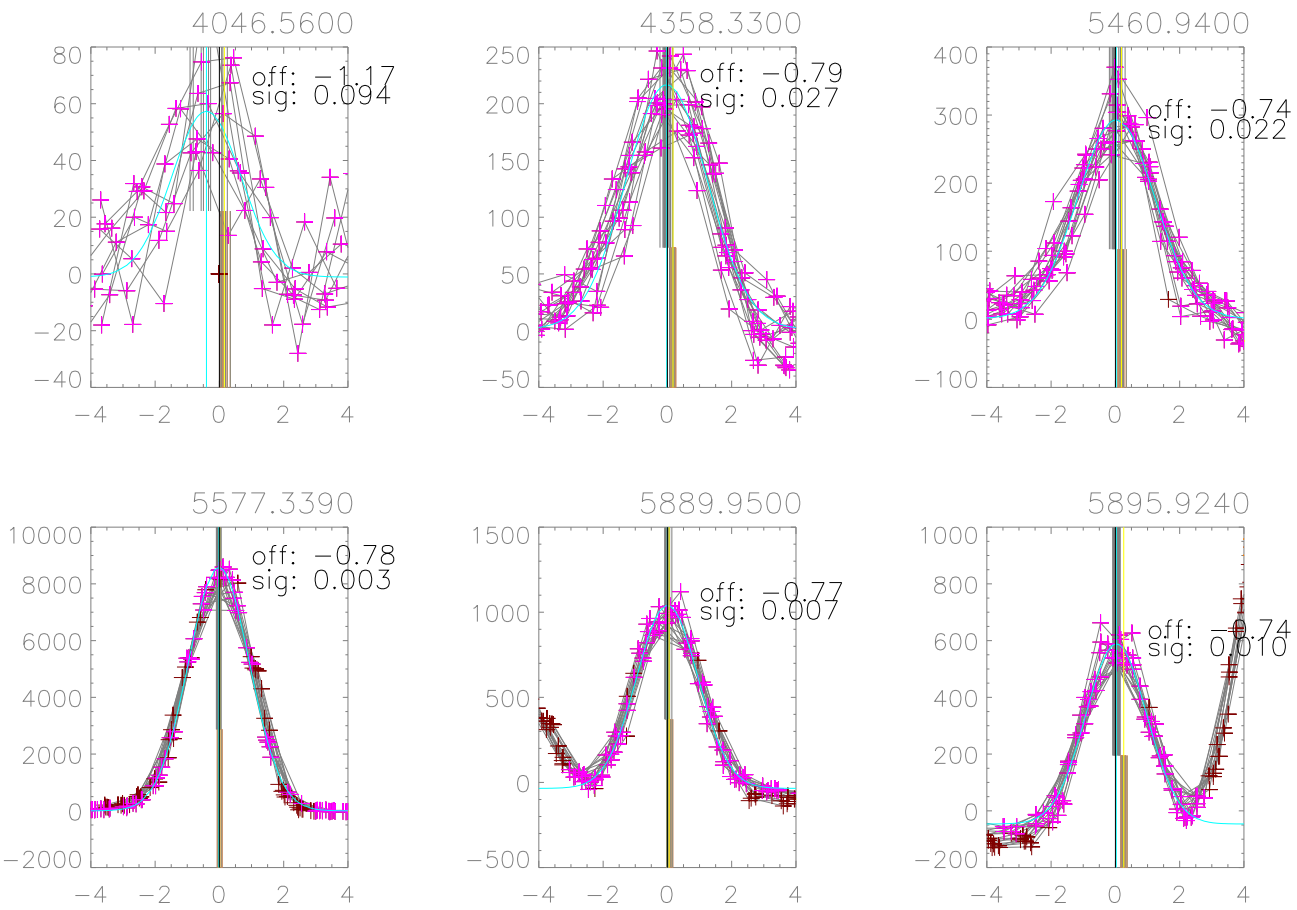

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR−b1−00037148.f
9.3
11.5
13.6
Y [pix]
X [pix]
0
500
1000
1500
2000

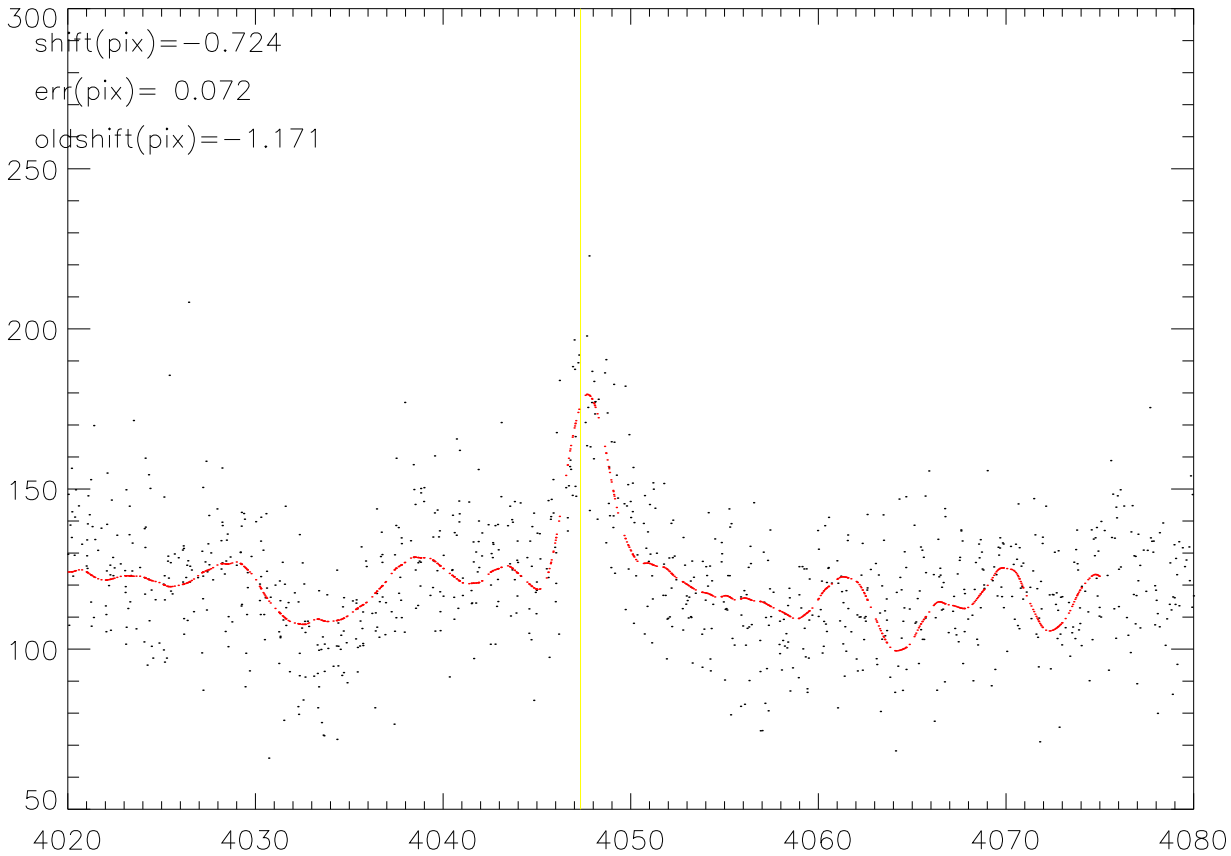

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR−b1−00037148.f
Brightness [electrons/pix]
20
15
10
5
0
Error bars denote full range
Min value = 9.293
Max value = 14.604
4000
4500
5000
5500
6000
λ [A]
Sat Feb 16 16:47:27 2008

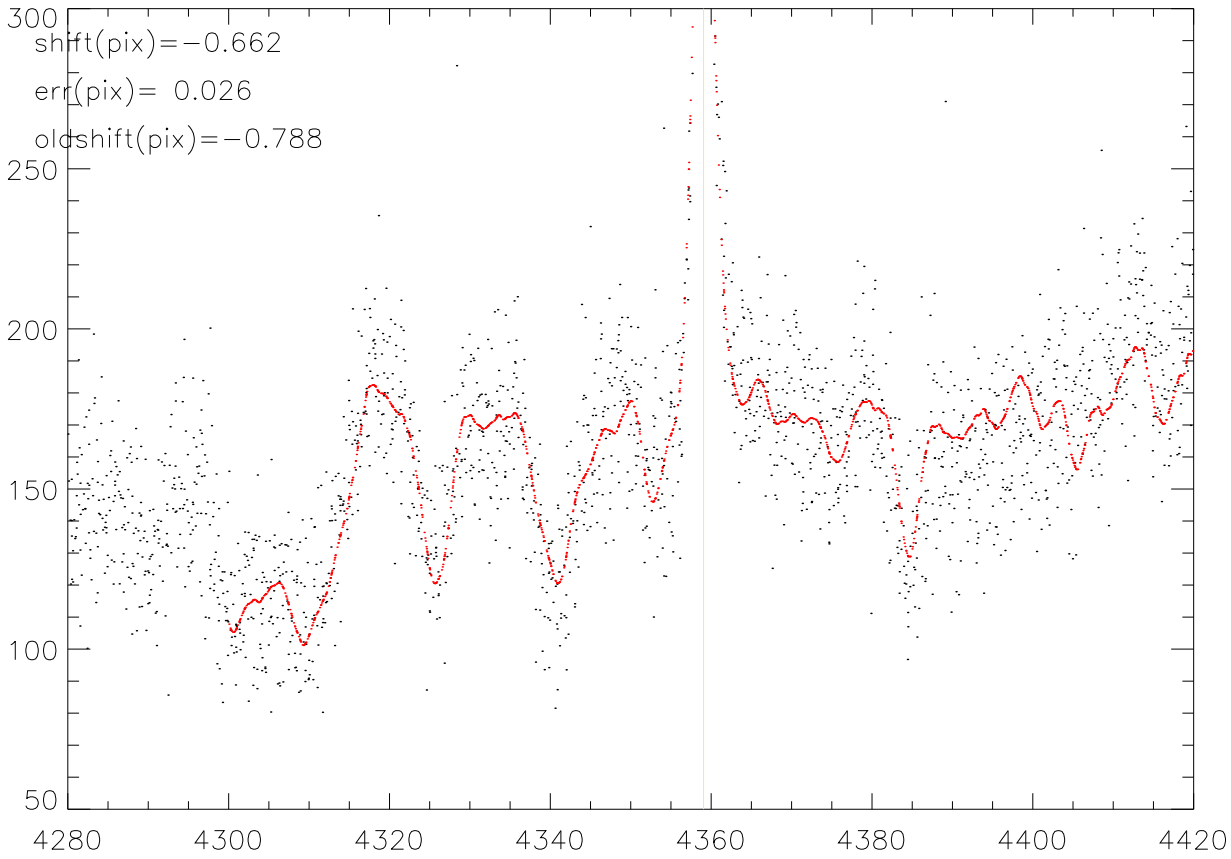

PLATE=2351 MJD=53772 Scattered Light on sdR-b1-00037148.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
6.7
8.5

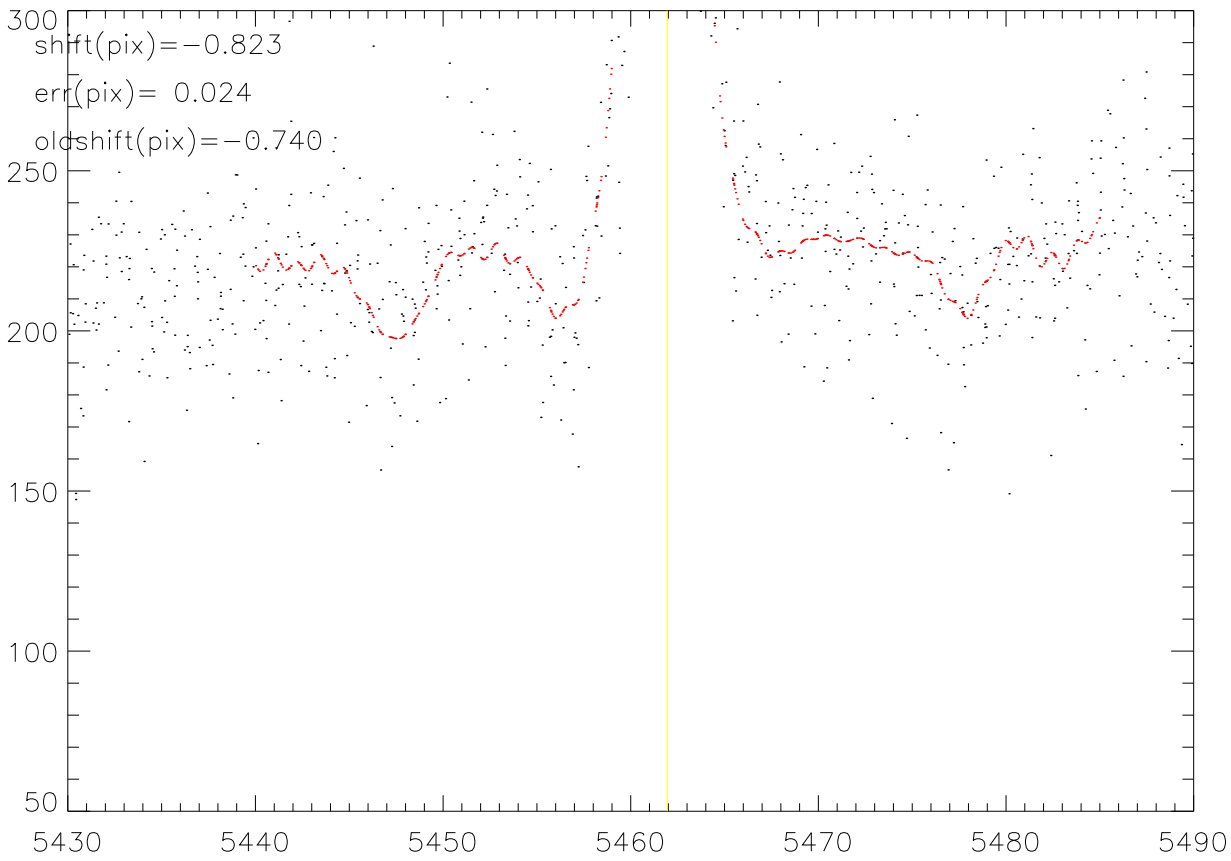

PLATE=2351 MJD=53772 Scattered Light on sdR-b1-00037148.fit
Brightness [electrons/pix]
15
10
5
0
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 6.459
Max value = 9.509
Sat Feb 16 16:50:48 2008

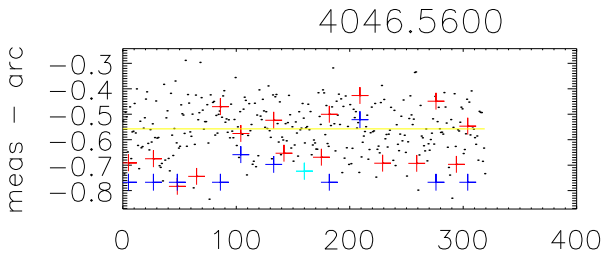

PLATE=2351 MJD=53772 Extraction chi^2 for sdR-b1-00037148.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
10
12
14
0
500
1000
1500
2000
Row number

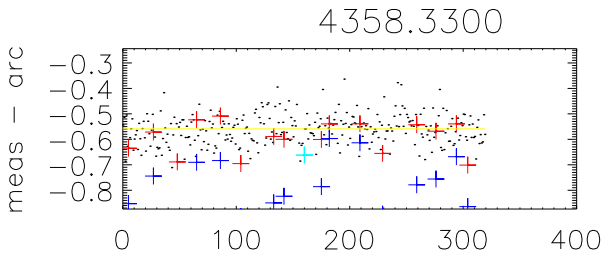

4046.5600
off: −1.17
sig: 0.094
4358.3300
off: −0.79
sig: 0.027
5460.9400
off: −0.74
sig: 0.022
5577.3390
off: −0.78
sig: 0.003
5889.9500
off: −0.77
sig: 0.007
5895.9240
off: −0.74
sig: 0.010

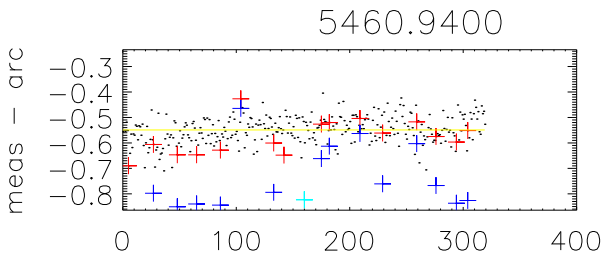

shift(pix)=−0.724
err(pix)= 0.072
oldshift(pix)=−1.171
300
250
200
150
100
50
4020
4030
4040
4050
4060
4070
4080

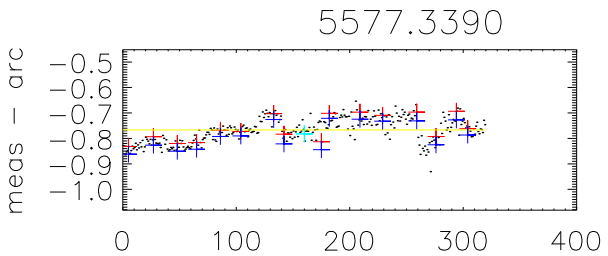

shift(pix)=−0.662
err(pix)= 0.026
oldshift(pix)=−0.788
300
250
200
150
100
50
4280
4300
4320
4340
4360
4380
4400
4420

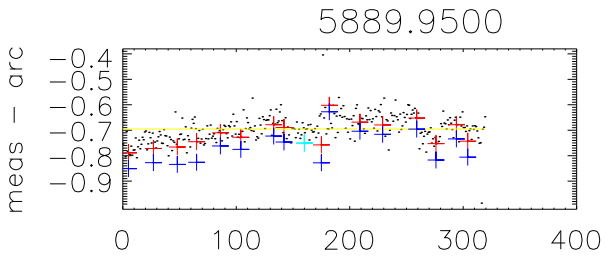

shift(pix)=−0.823
err(pix)= 0.024
oldshift(pix)=−0.740
300
250
200
150
100
50
5430
5440
5450
5460
5470
5480
5490

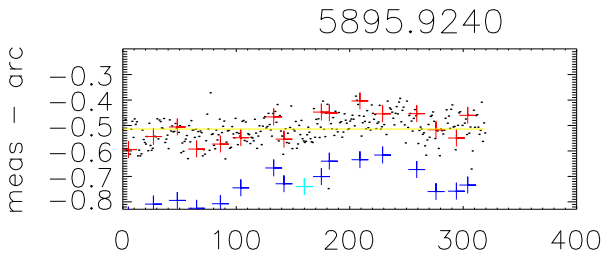

4046.5600
meas − arc
−0.3
−0.4
−0.5
−0.6
−0.7
−0.8
0
100
200
300
400

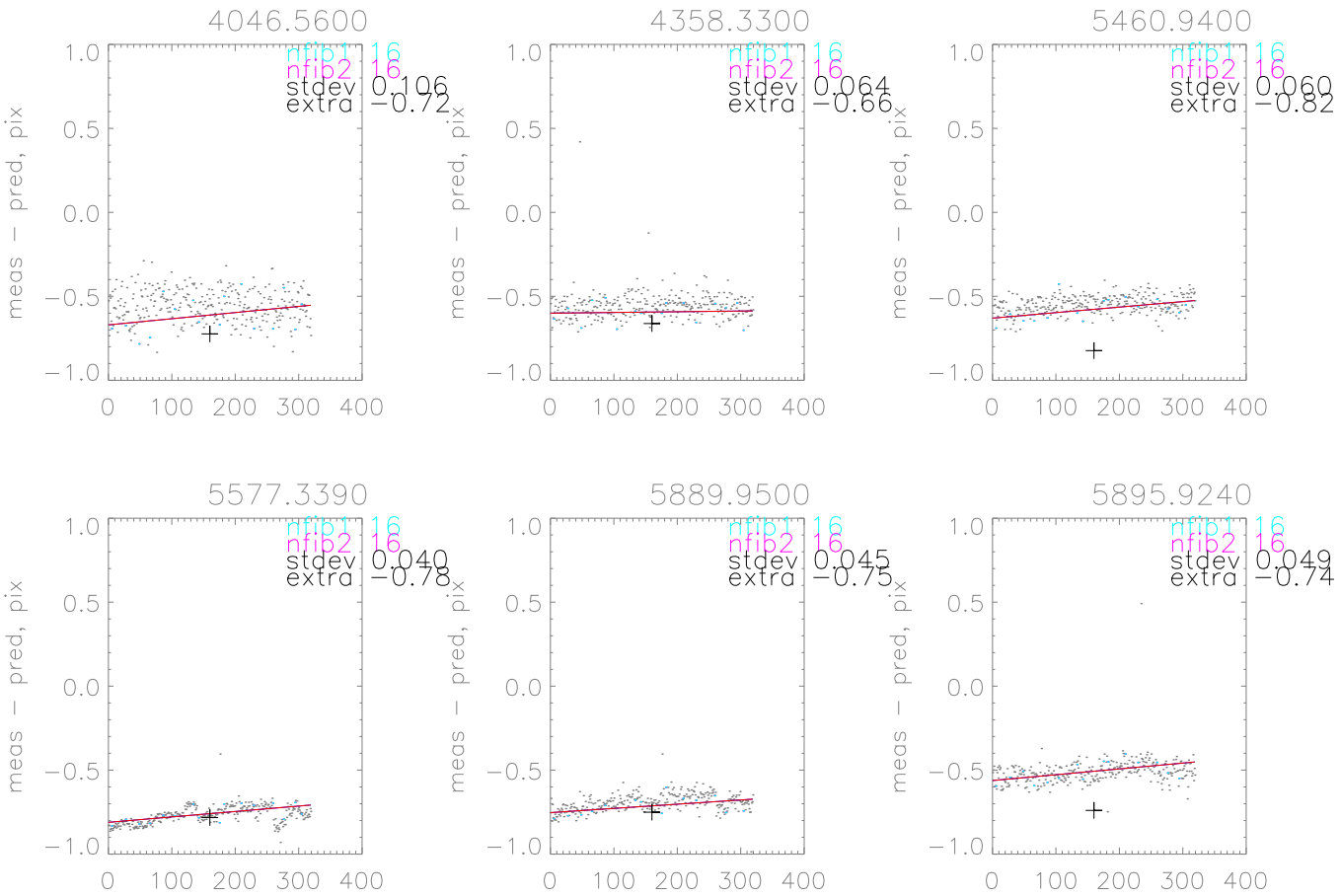

4358.3300
meas − arc
−0.3
−0.4
−0.5
−0.6
−0.7
−0.8
0
100
200
300
400

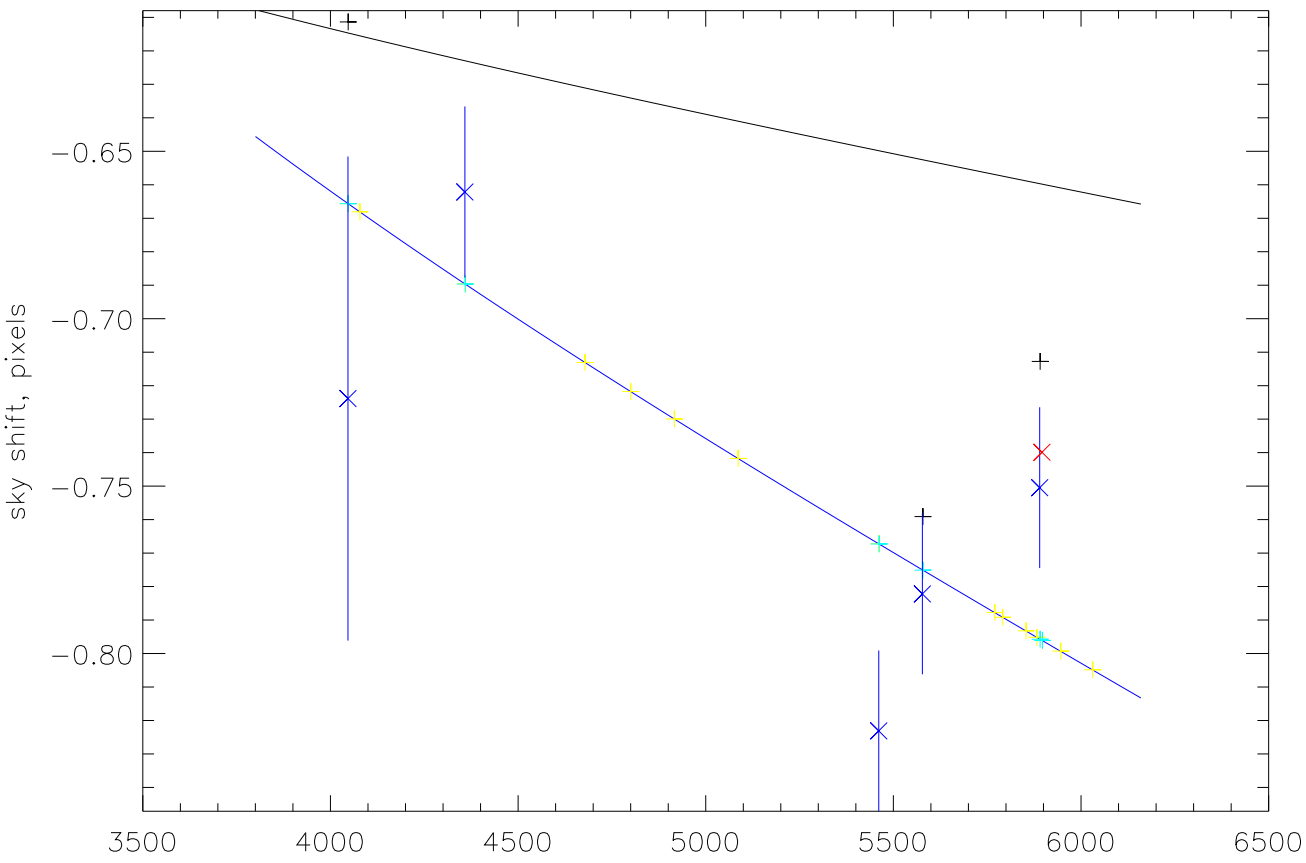

5460.9400
meas − arc
−0.3
−0.4
−0.5
−0.6
−0.7
−0.8
0
100
200
300
400

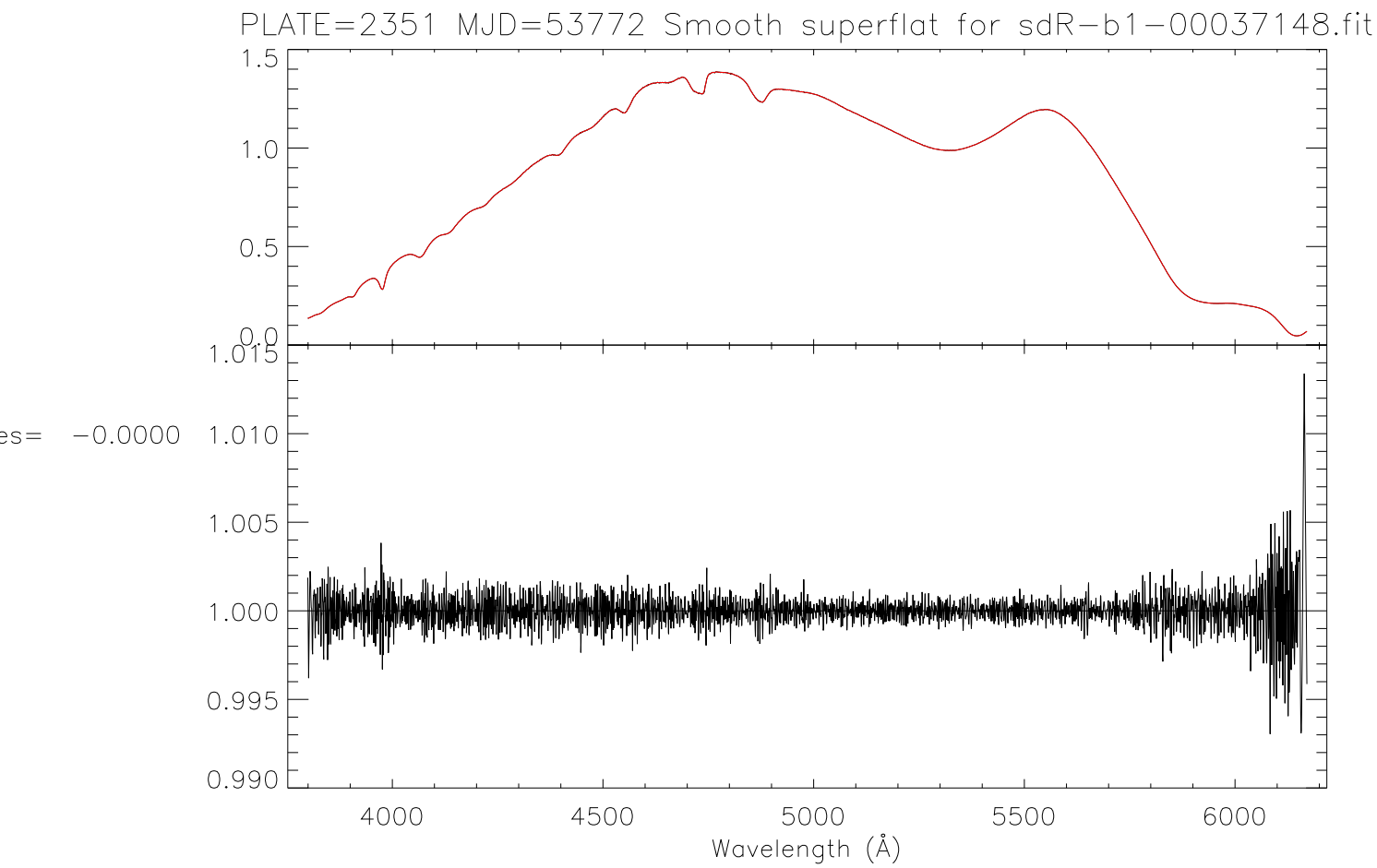

5577.3390
meas − arc
−0.5
−0.6
−0.7
−0.8
−0.9
−1.0
0
100
200
300
400

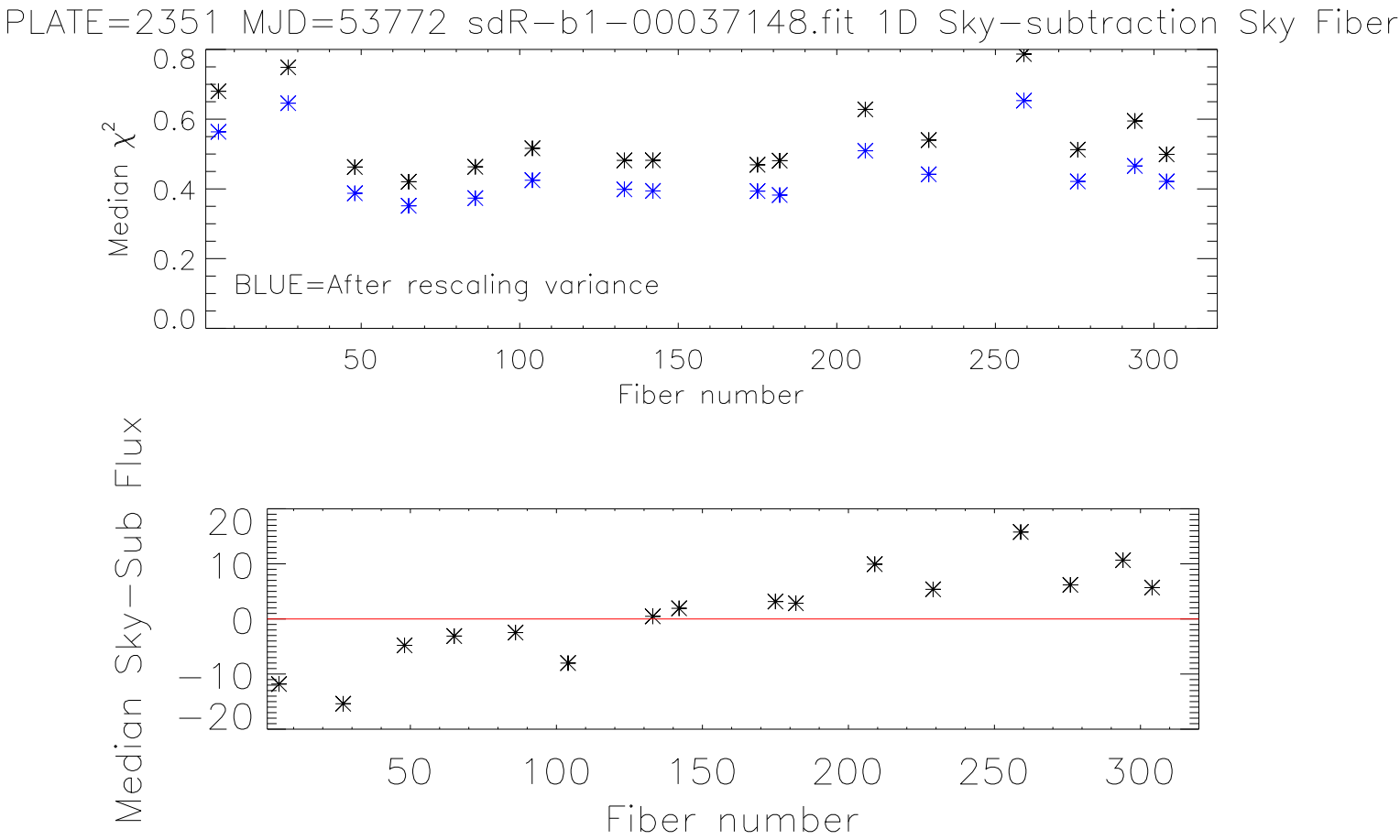

5889.9500
meas − arc
−0.4
−0.5
−0.6
−0.7
−0.8
−0.9
0
100
200
300
400

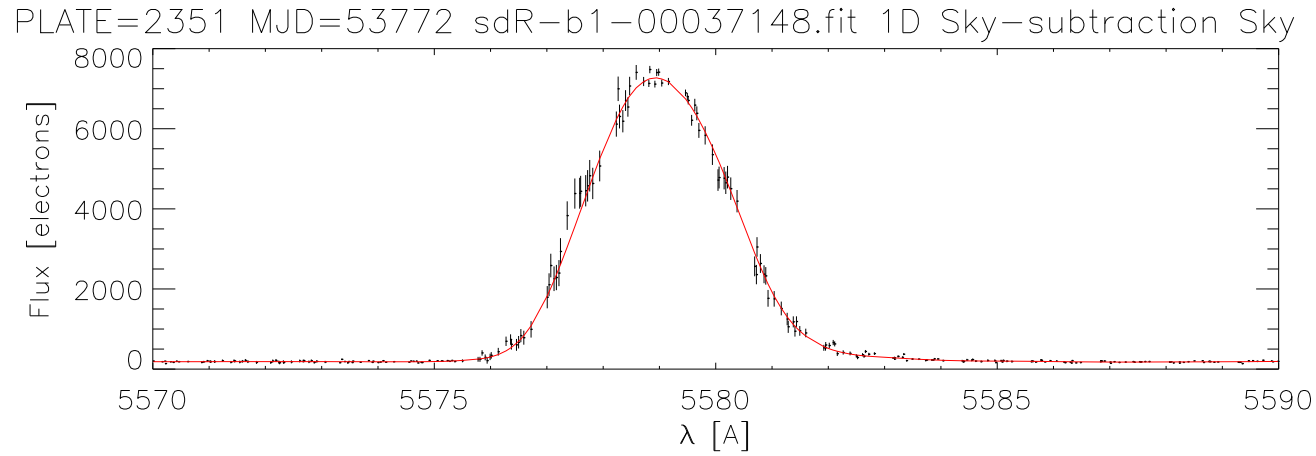

5895.9240
meas − arc
−0.3
−0.4
−0.5
−0.6
−0.7
−0.8
0
100
200
300
400

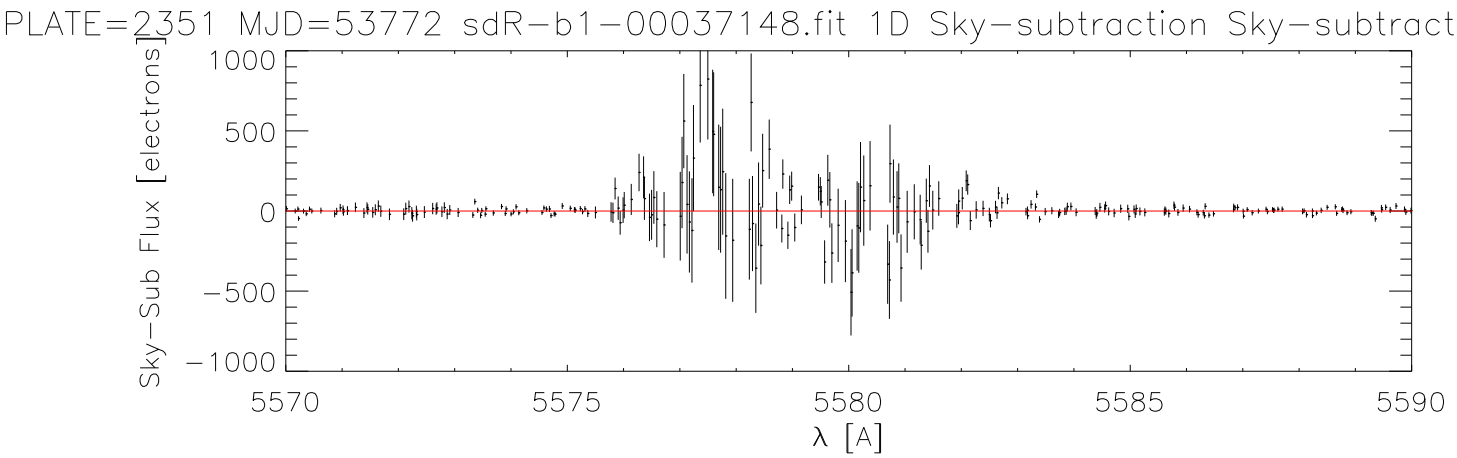

4046.5600
nfib1 16
nfib2 16
stdev 0.106
extra −0.72
4358.3300
nfib1 16
nfib2 16
stdev 0.064
extra −0.66
5460.9400
nfib1 16
nfib2 16
stdev 0.060
extra −0.82
5577.3390
nfib1 16
nfib2 16
stdev 0.040
extra −0.78
5889.9500
nfib1 16
nfib2 16
stdev 0.045
extra −0.75
5895.9240
nfib1 16
nfib2 16
stdev 0.049
extra −0.74
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

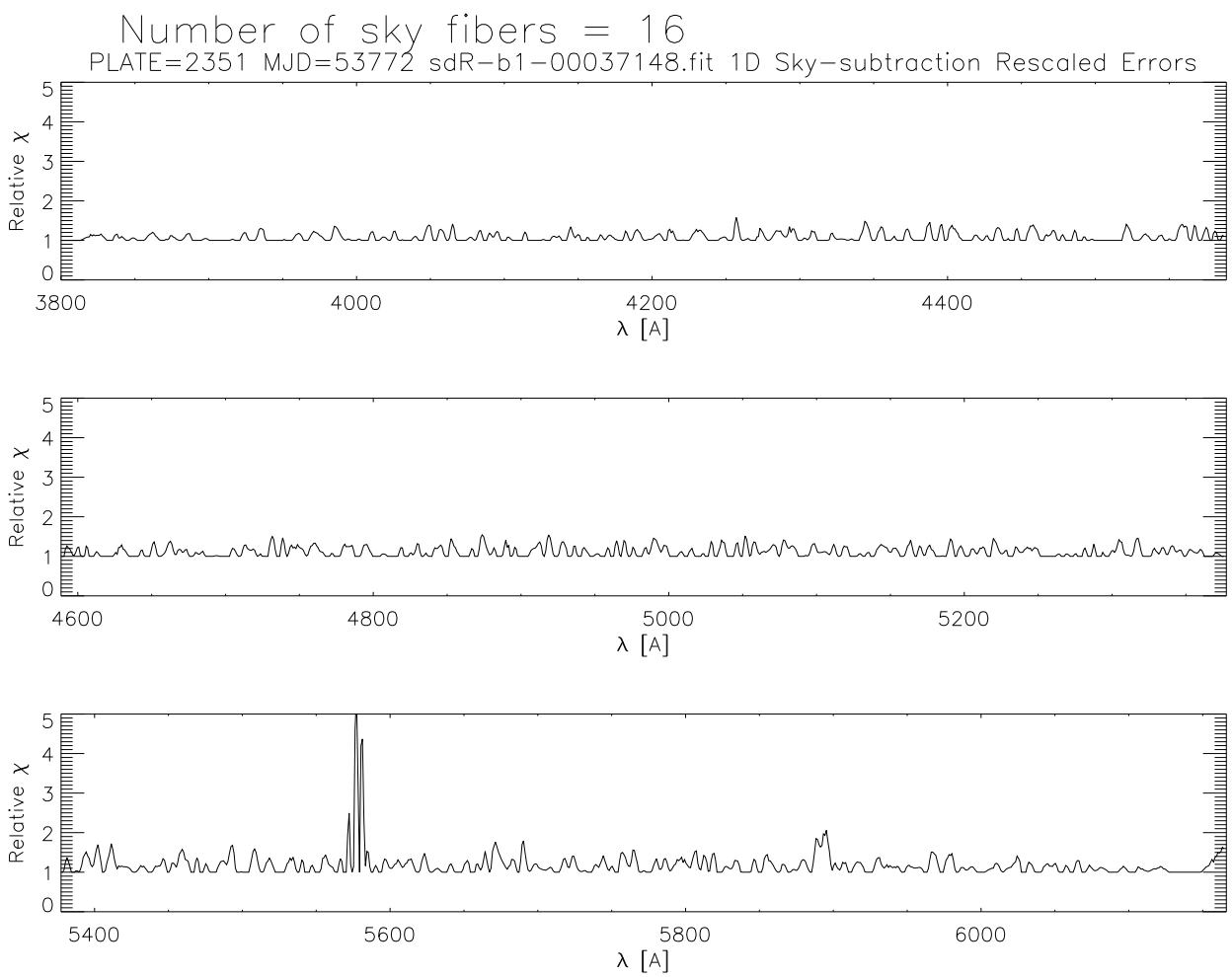

sky shift, pixels
−0.65
−0.70
−0.75
−0.80
3500
4000
4500
5000
5500
6000
6500

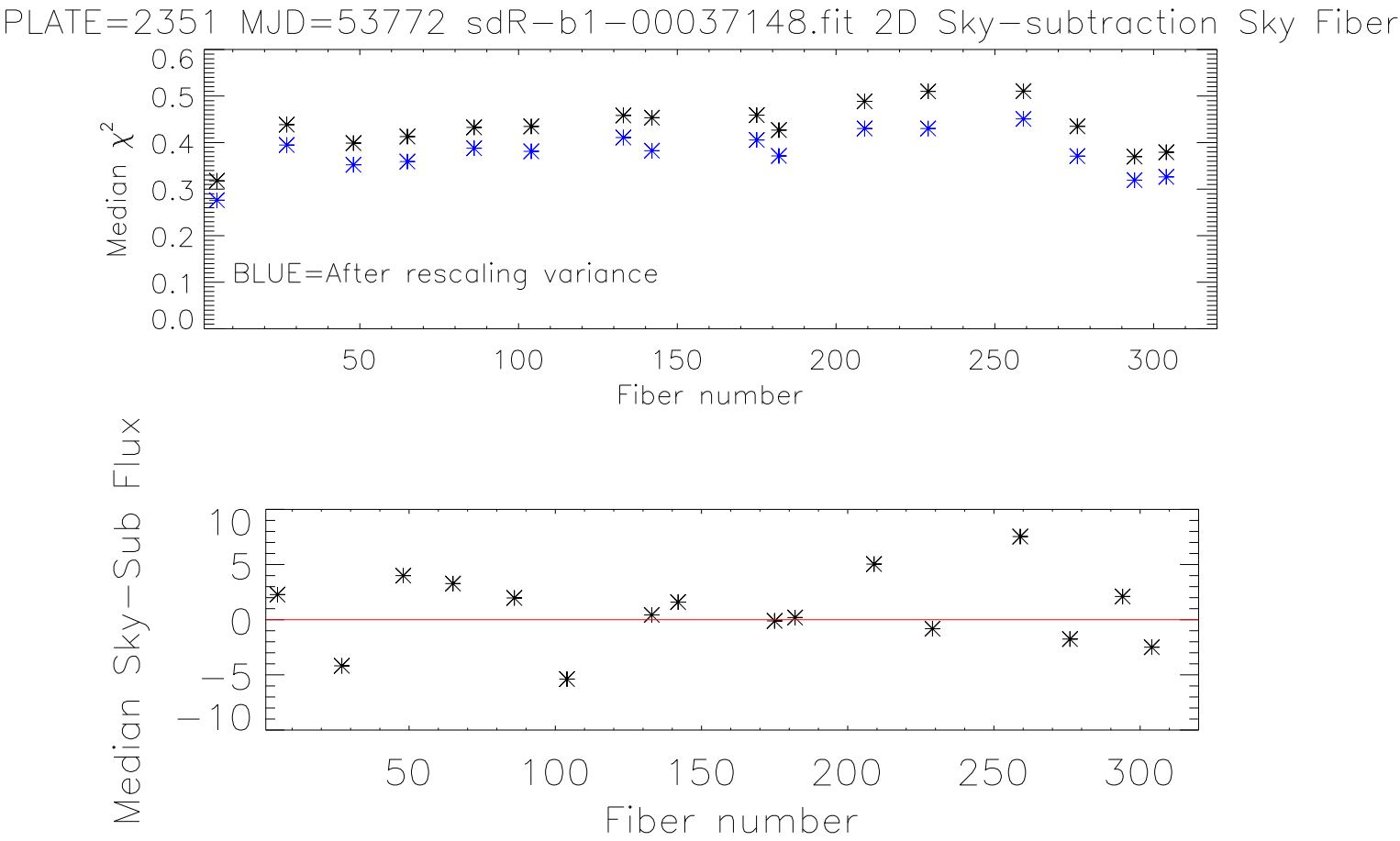

PLATE=2351 MJD=53772 Smooth superflat for sdR-b1-00037148.fit
1.5
1.0
0.5
0.0
1.015
1.010
1.005
1.000
0.995
0.990
es= −0.0000
4000
4500
5000
5500
6000
Wavelength (Å)

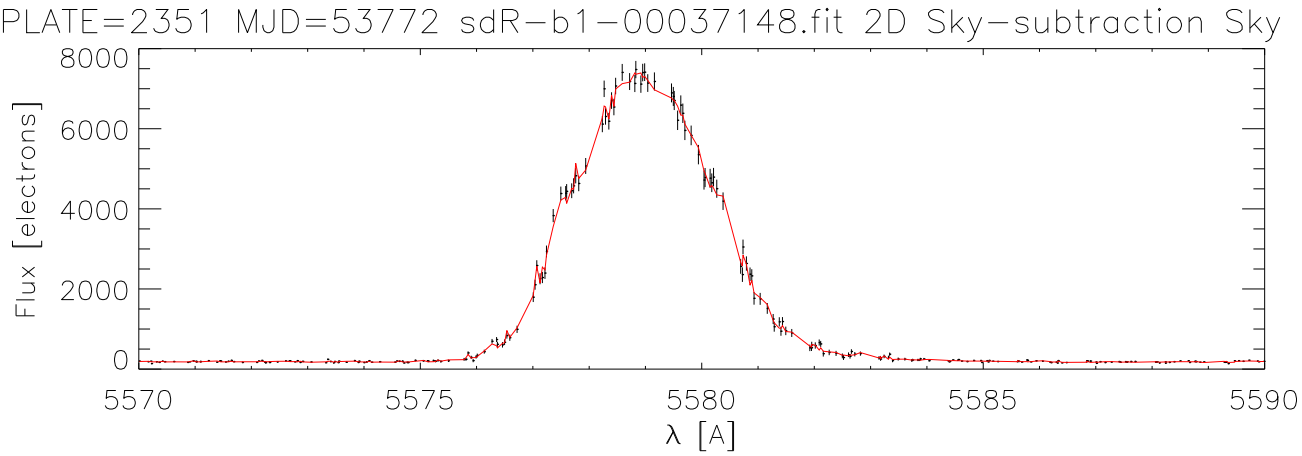

PLATE=2351 MJD=53772 sdR-b1-00037148.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
20
10
0
-10
-20
50
100
150
200
250
300
Fiber number

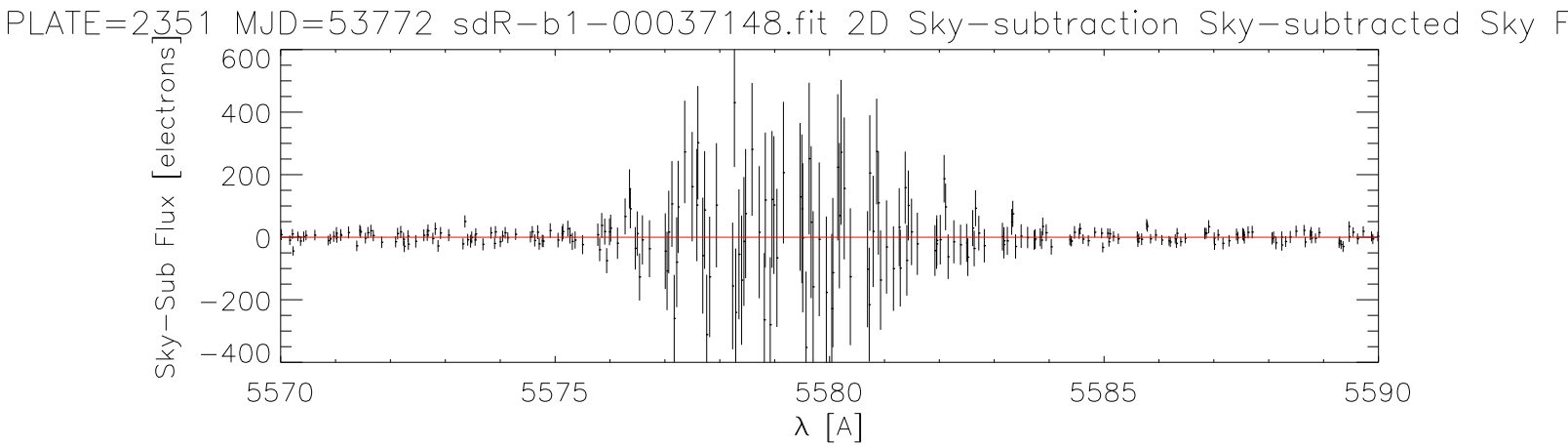

PLATE=2351 MJD=53772 sdR-b1-00037148.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

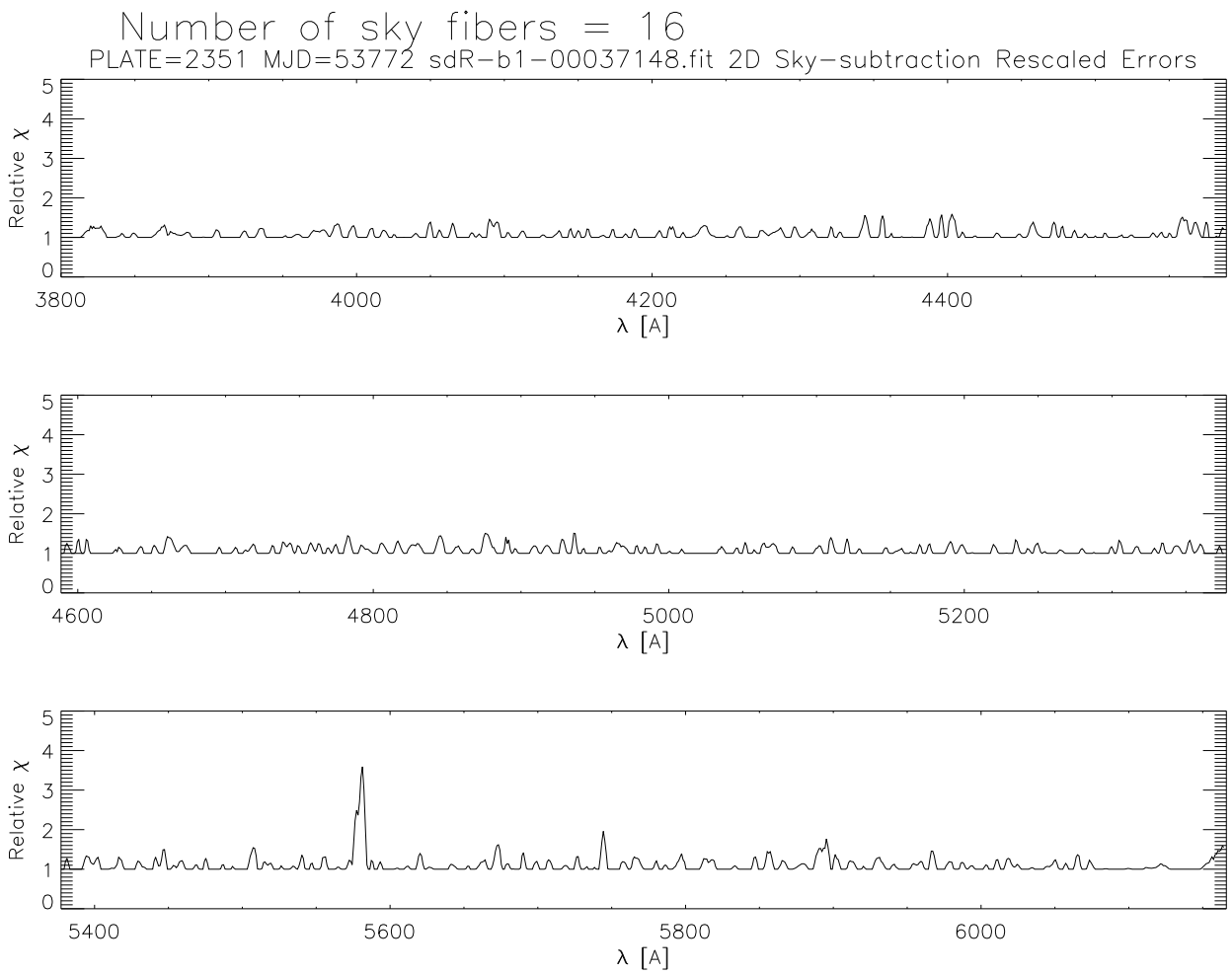

PLATE=2351 MJD=53772 sdR-b1-00037148.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
1000
500
0
-500
-1000
5570
5575
5580
5585
5590
λ [A]

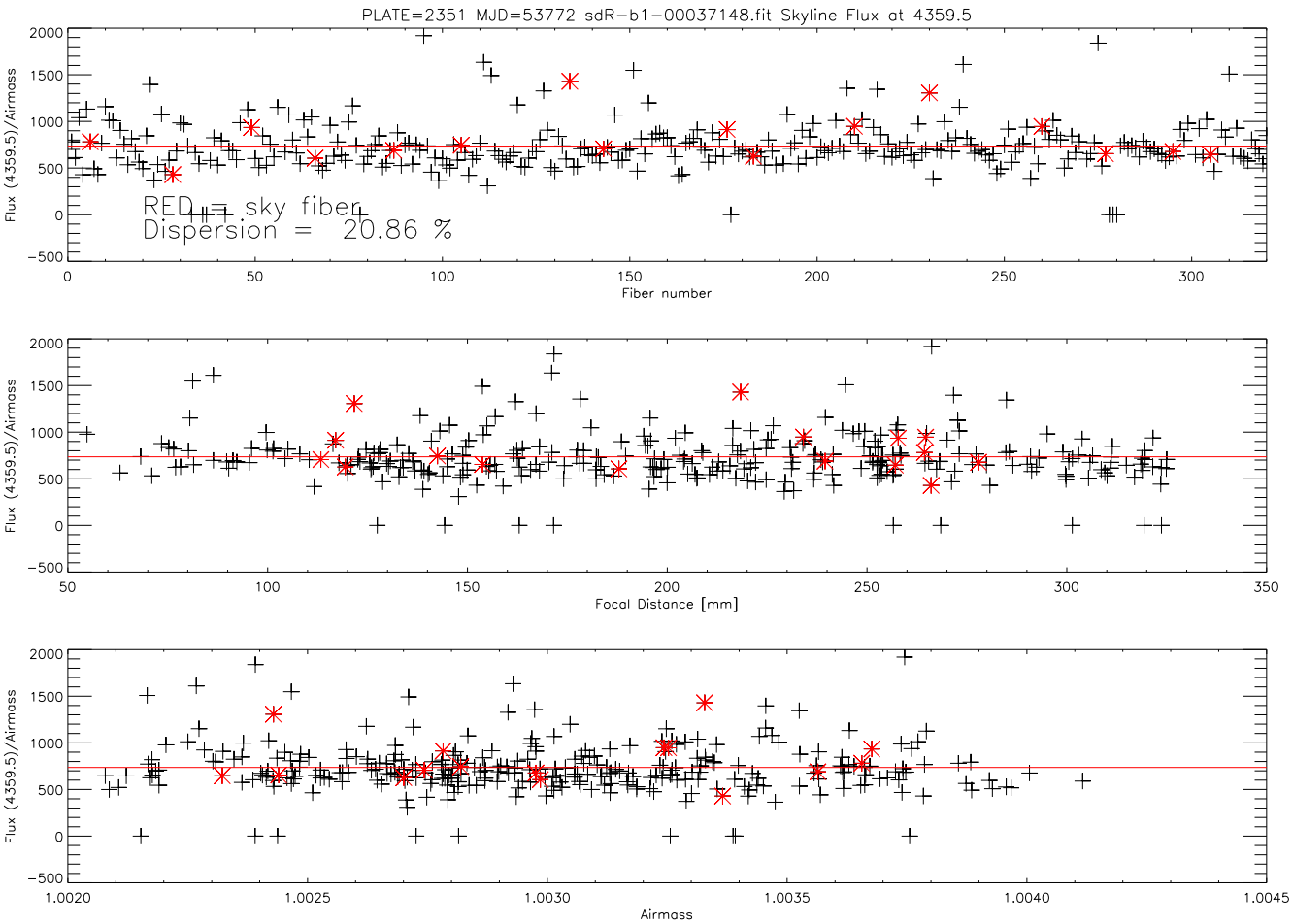

Number of sky fibers = 16
PLATE=2351 MJD=53772 sdR-b1-00037148.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

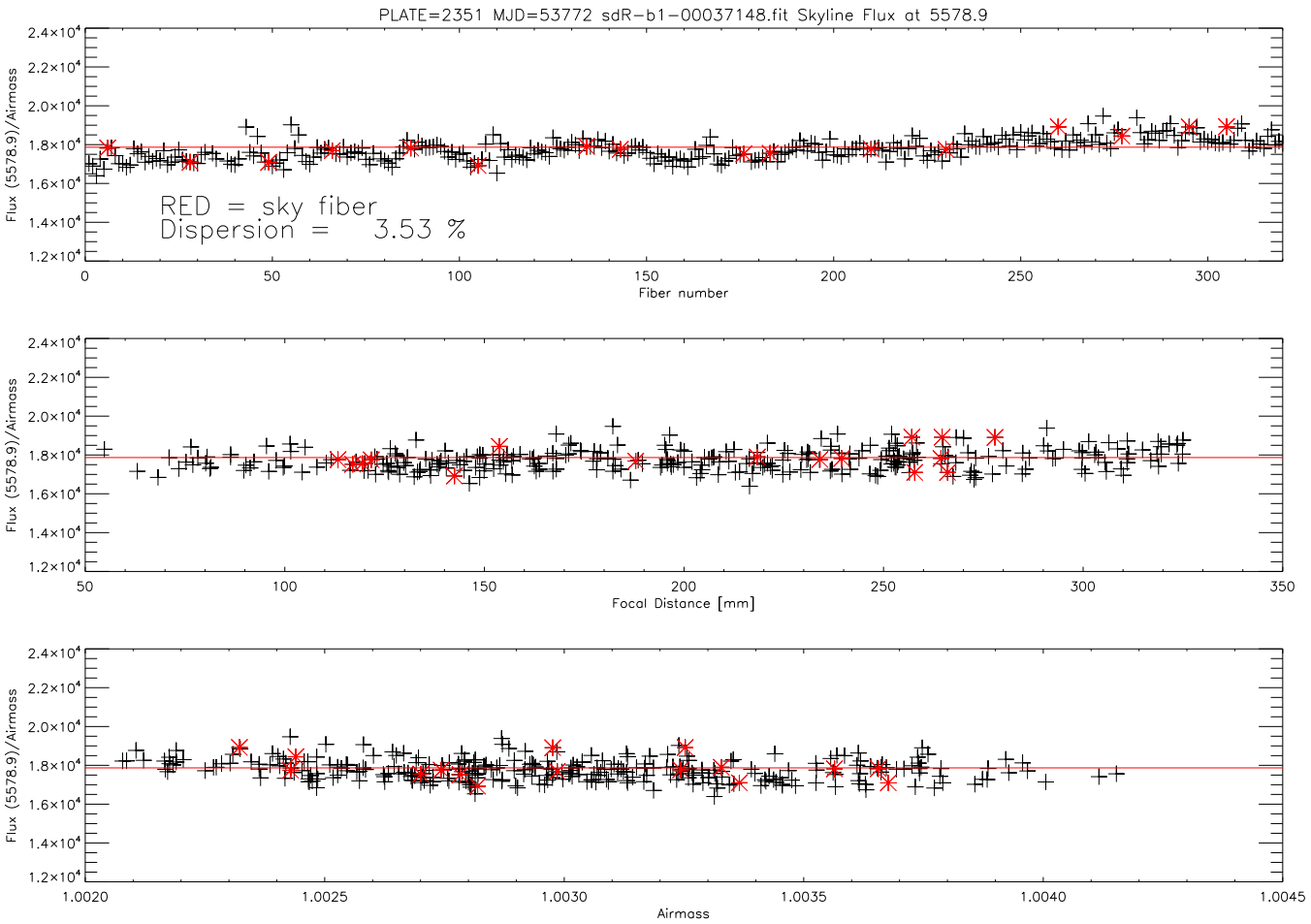

PLATE=2351 MJD=53772 sdR-b1-00037148.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

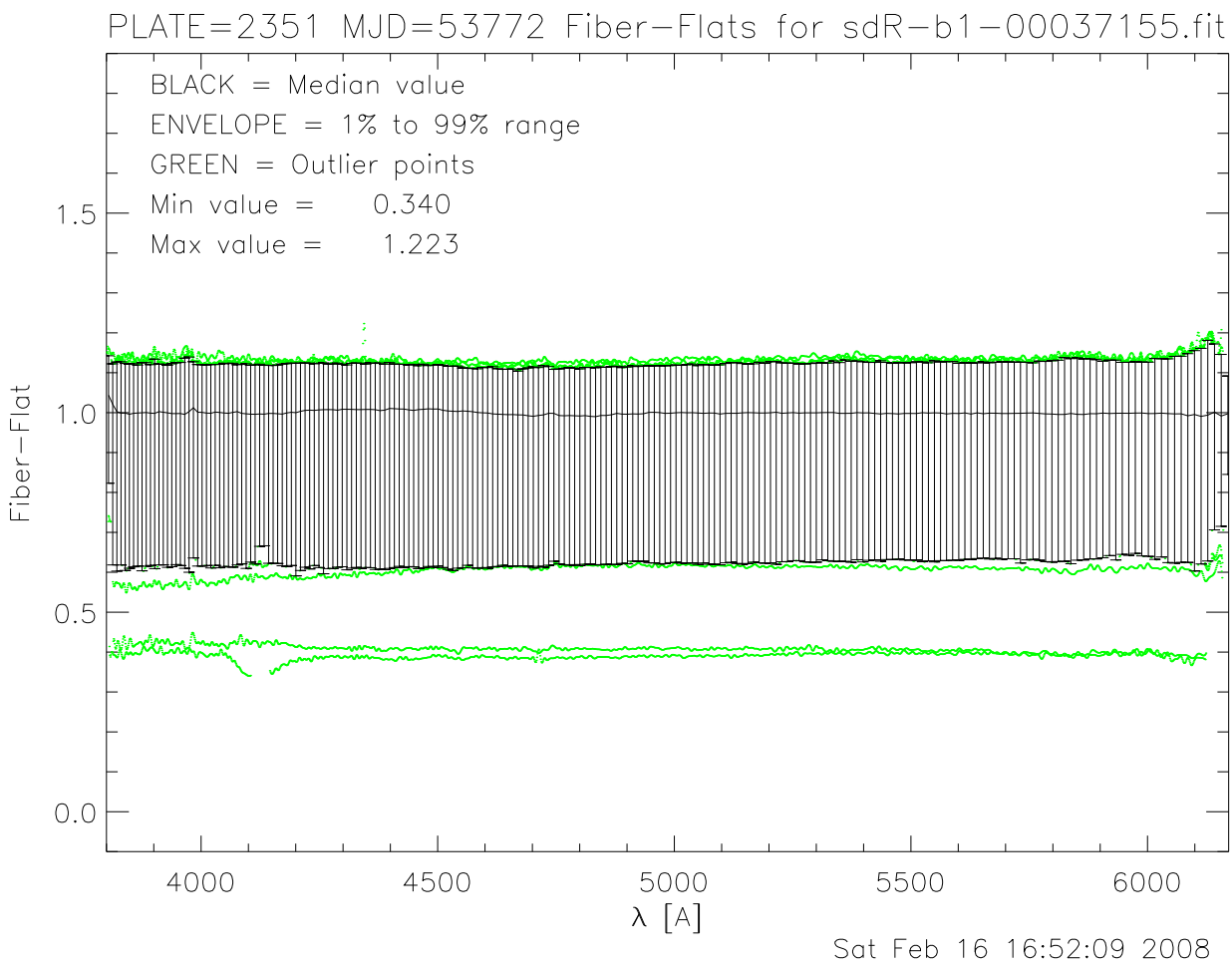

PLATE=2351 MJD=53772 sdR-b1-00037148.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

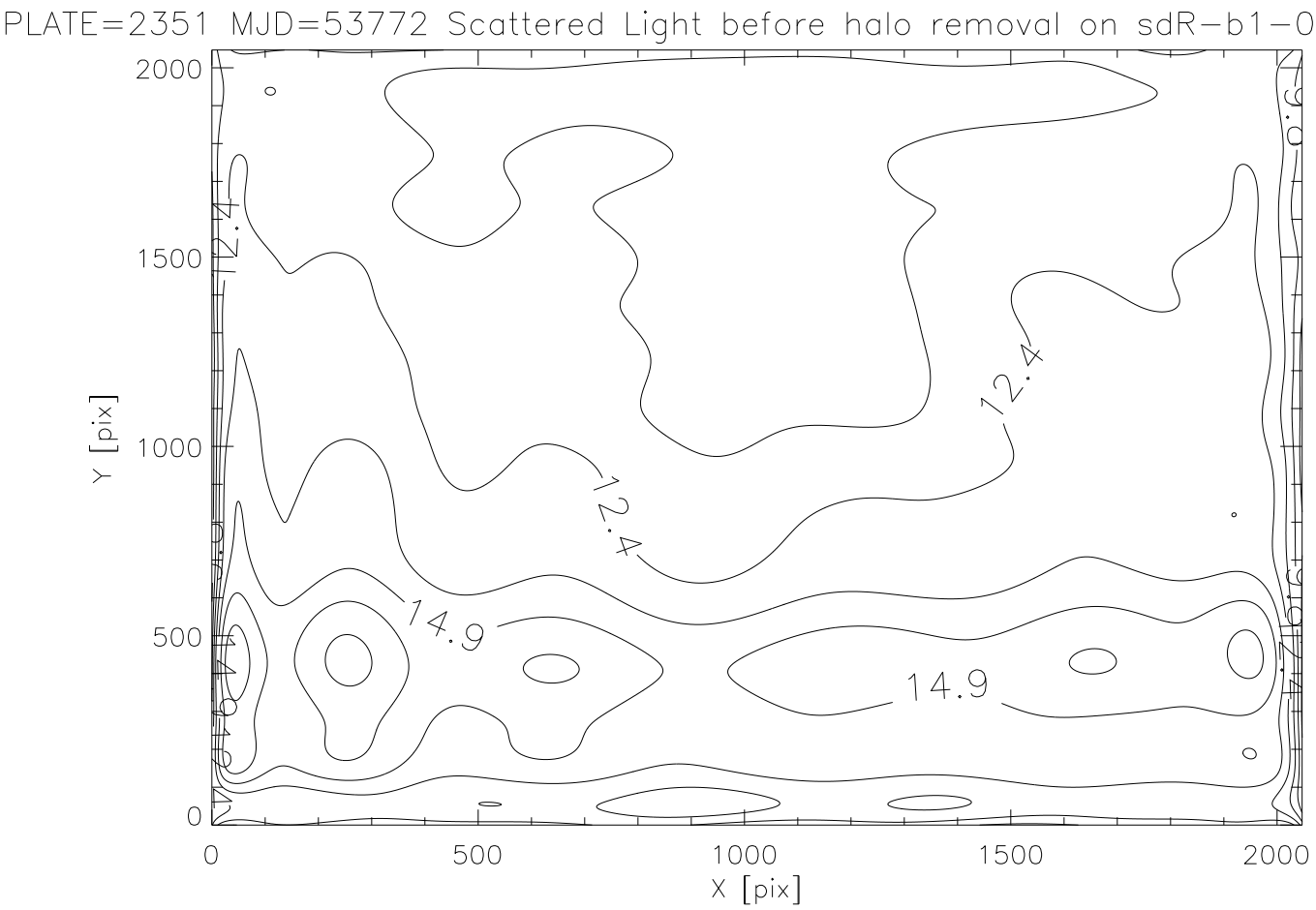

PLATE=2351 MJD=53772 sdR-b1-00037148.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
-200
-400
5570
5575
5580
5585
5590
λ [A]

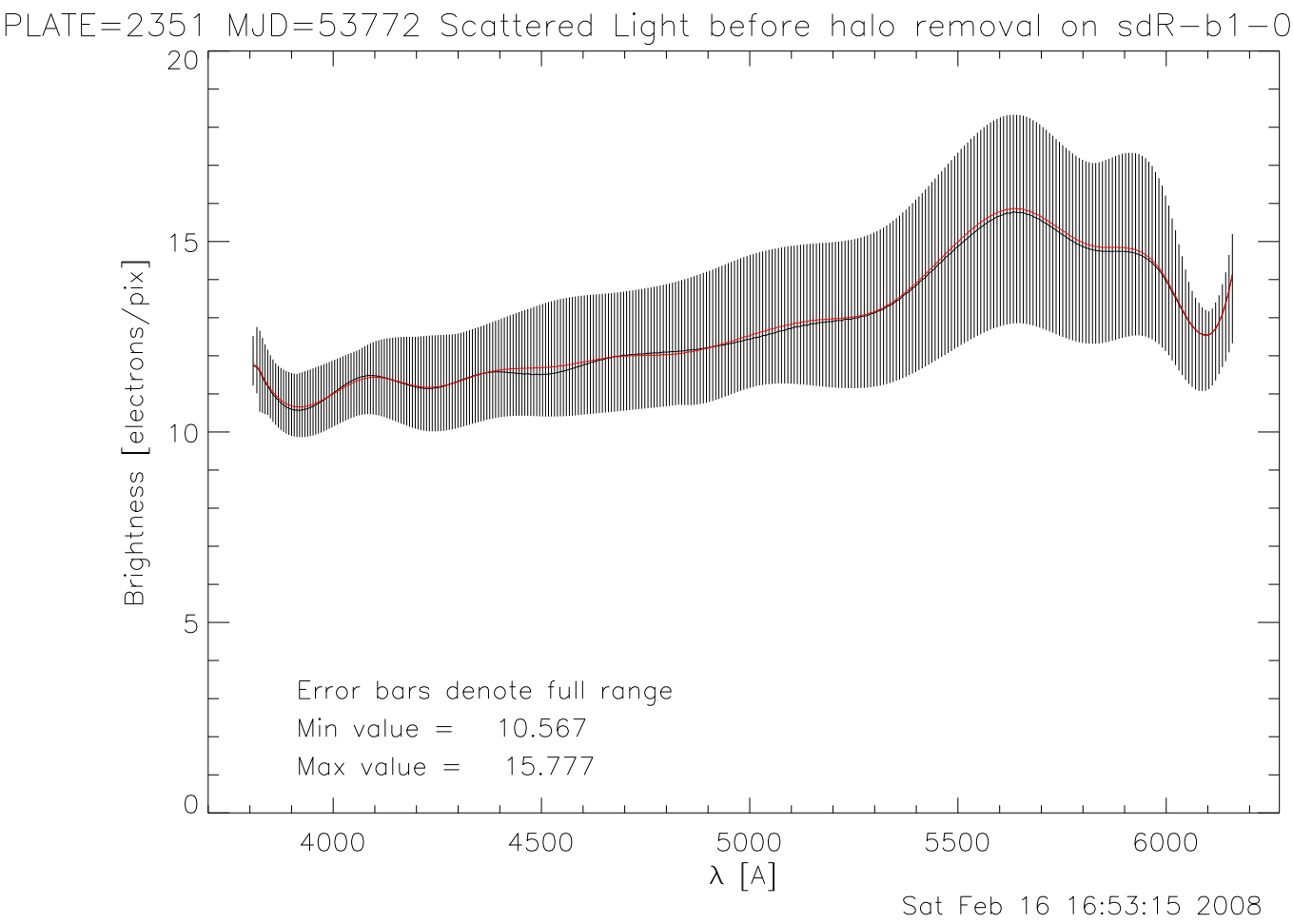

Number of sky fibers = 16
PLATE=2351 MJD=53772 sdR-b1-00037148.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

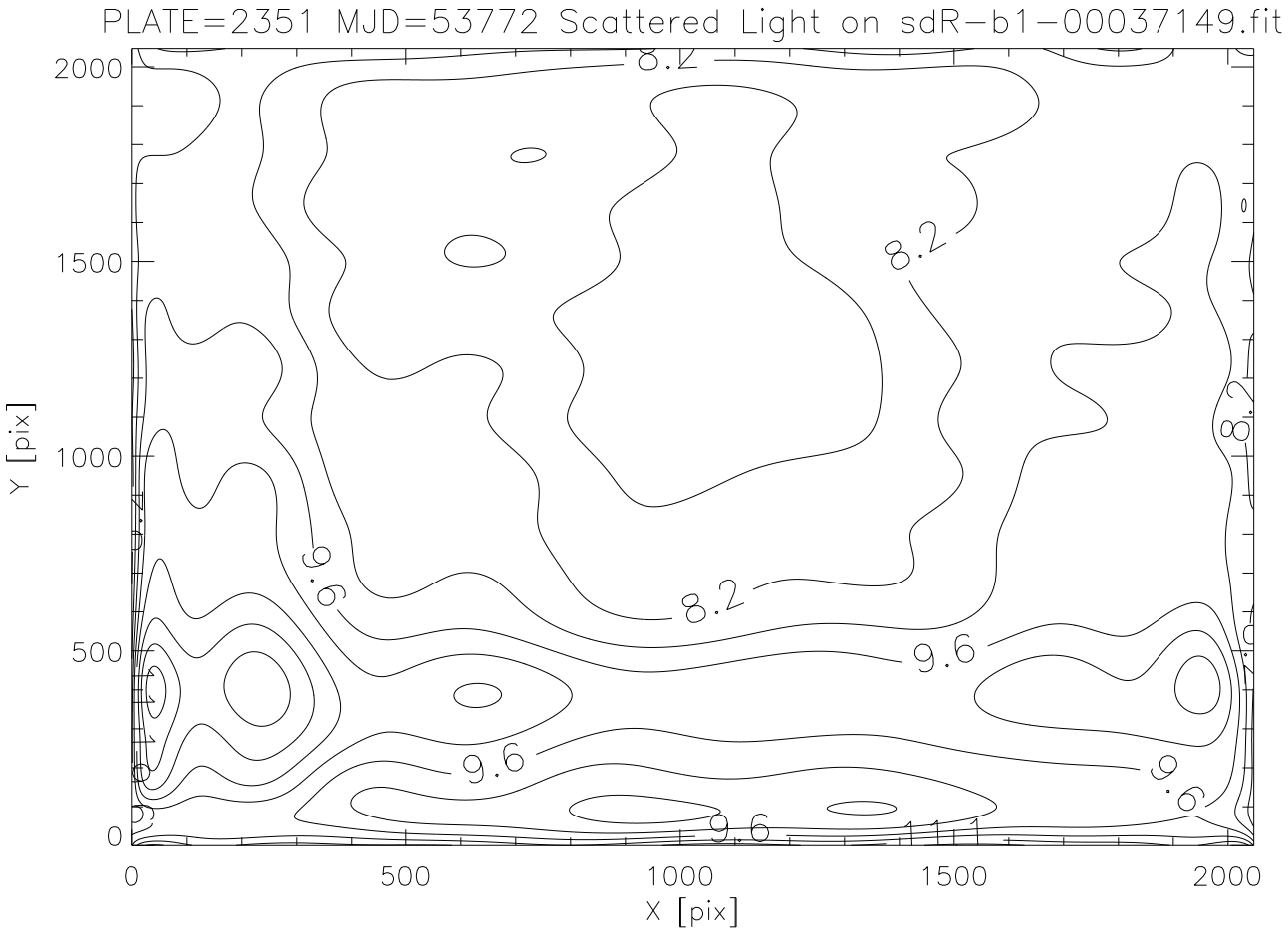

PLATE=2351 MJD=53772 sdR-b1-00037148.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
Fiber number
RED = sky fiber
Dispersion = 20.86 %
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

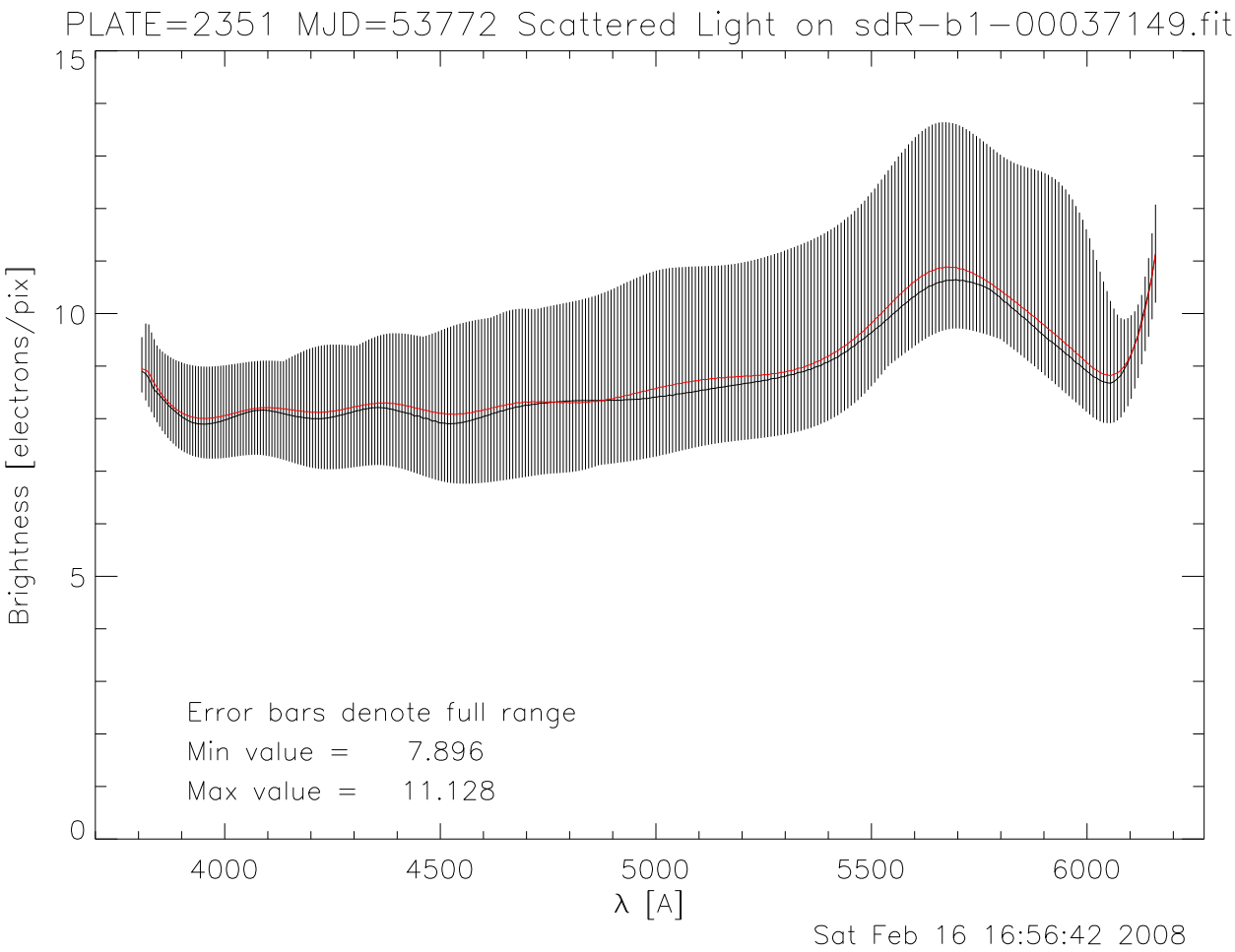

PLATE=2351 MJD=53772 sdR-b1-00037148.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 3.53 %
Fiber number
Focal Distance [mm]
Airmass

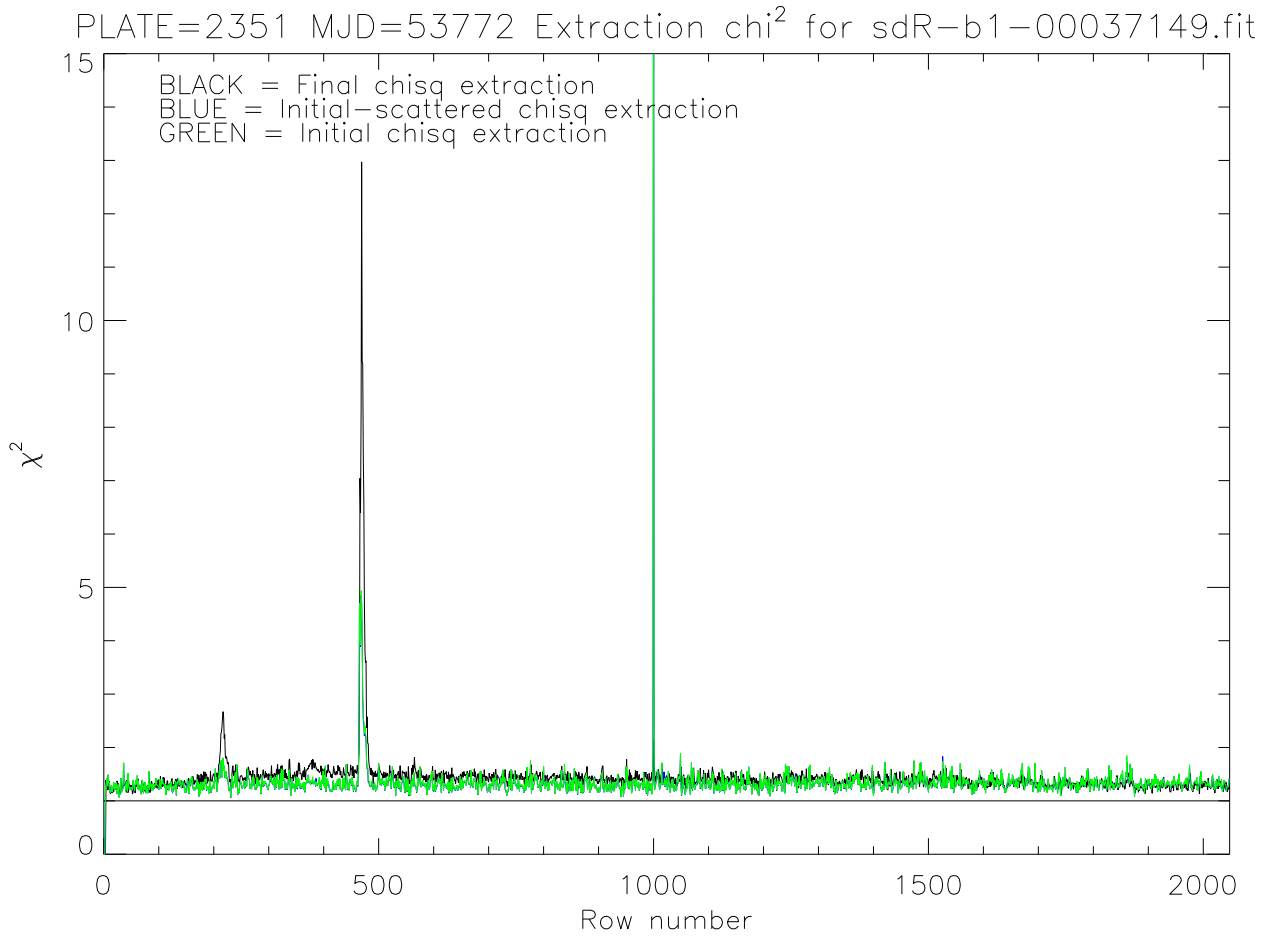

PLATE=2351 MJD=53772 Fiber-Flats for sdR-b1-00037155.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.340
Max value = 1.223
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Sat Feb 16 16:52:09 2008

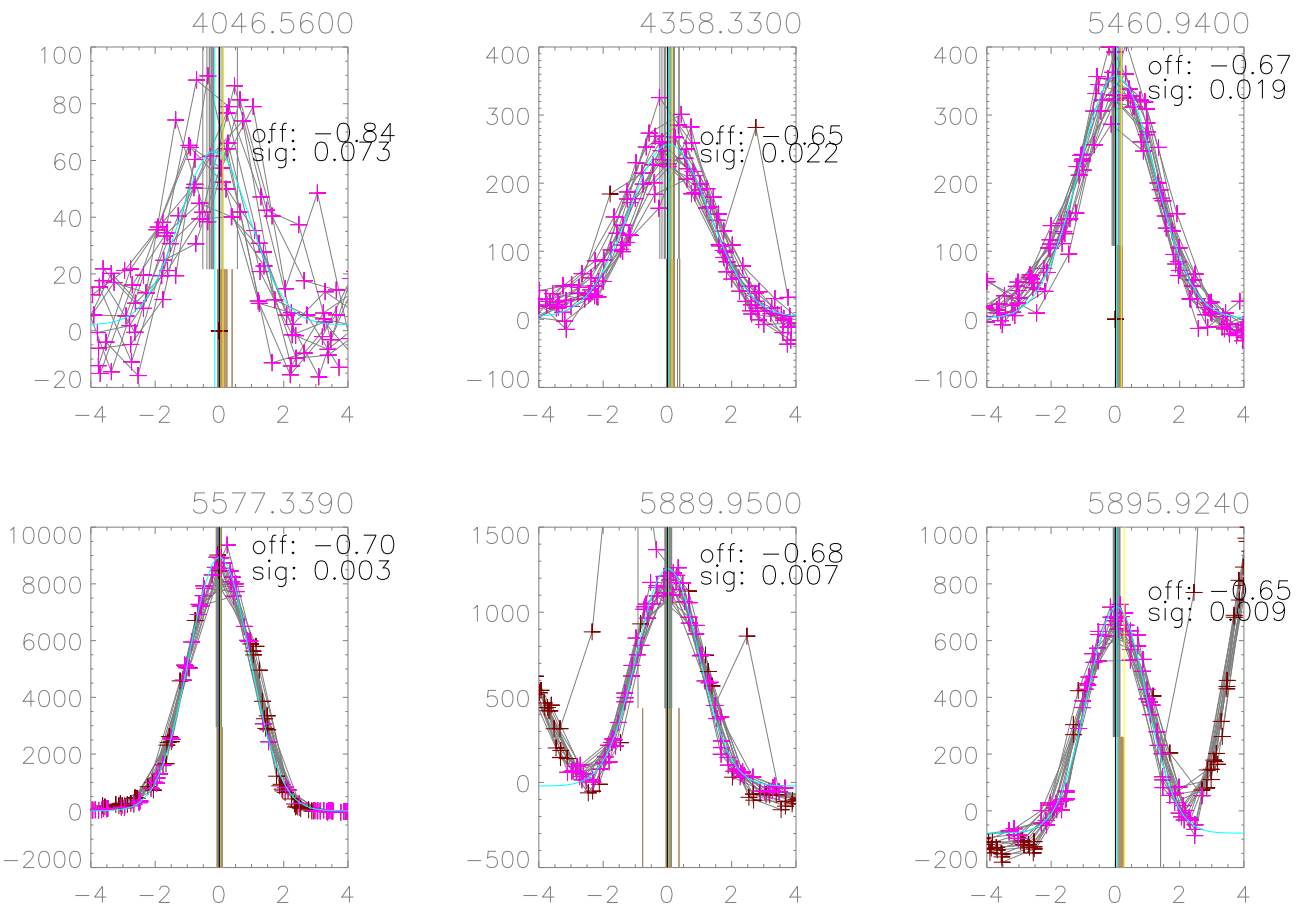

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR−b1−00037149.f
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
12.4
14.9
12.4
14.9
12.4
14.9

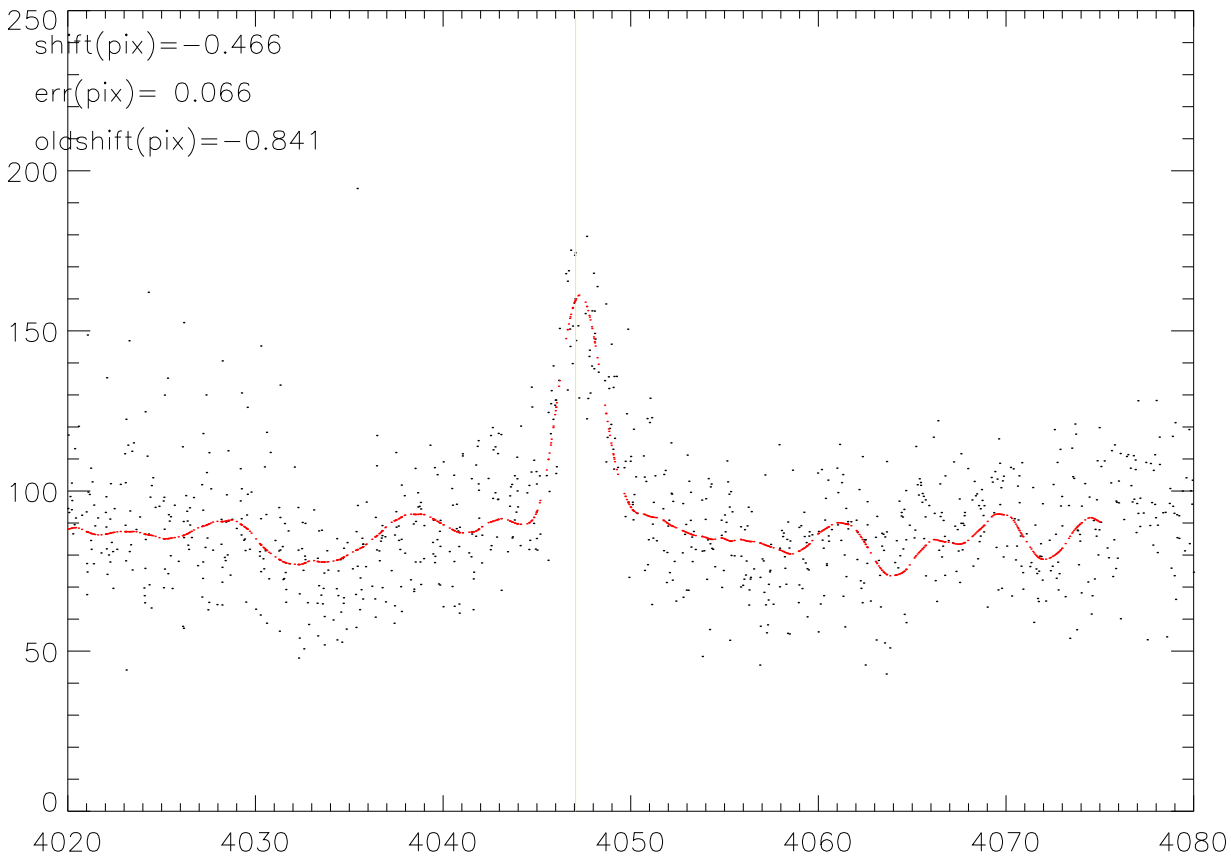

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR−b1−00037149.f
Brightness [electrons/pix]
20
15
10
5
0
Error bars denote full range
Min value = 10.567
Max value = 15.777
4000
4500
5000
5500
6000
λ [A]
Sat Feb 16 16:53:15 2008

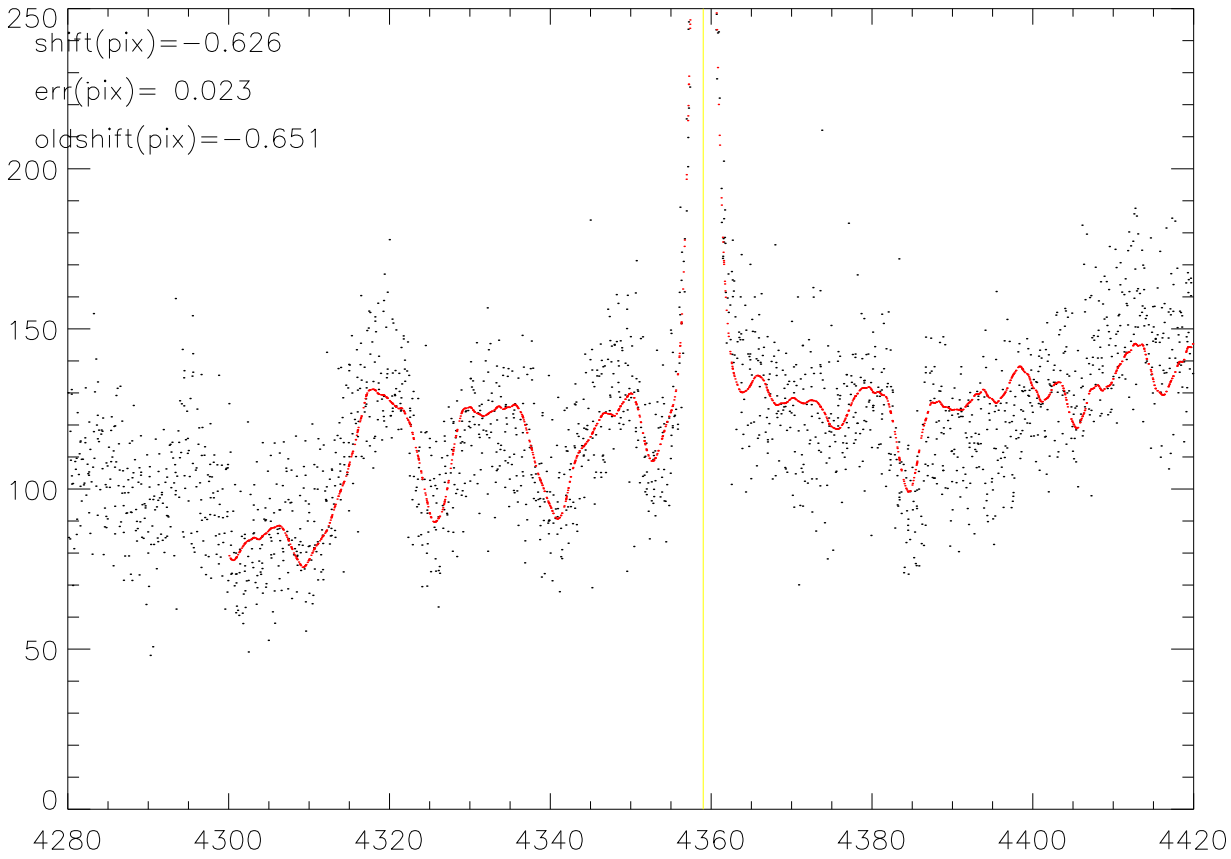

PLATE=2351 MJD=53772 Scattered Light on sdR-b1-00037149.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
8.2
9.6

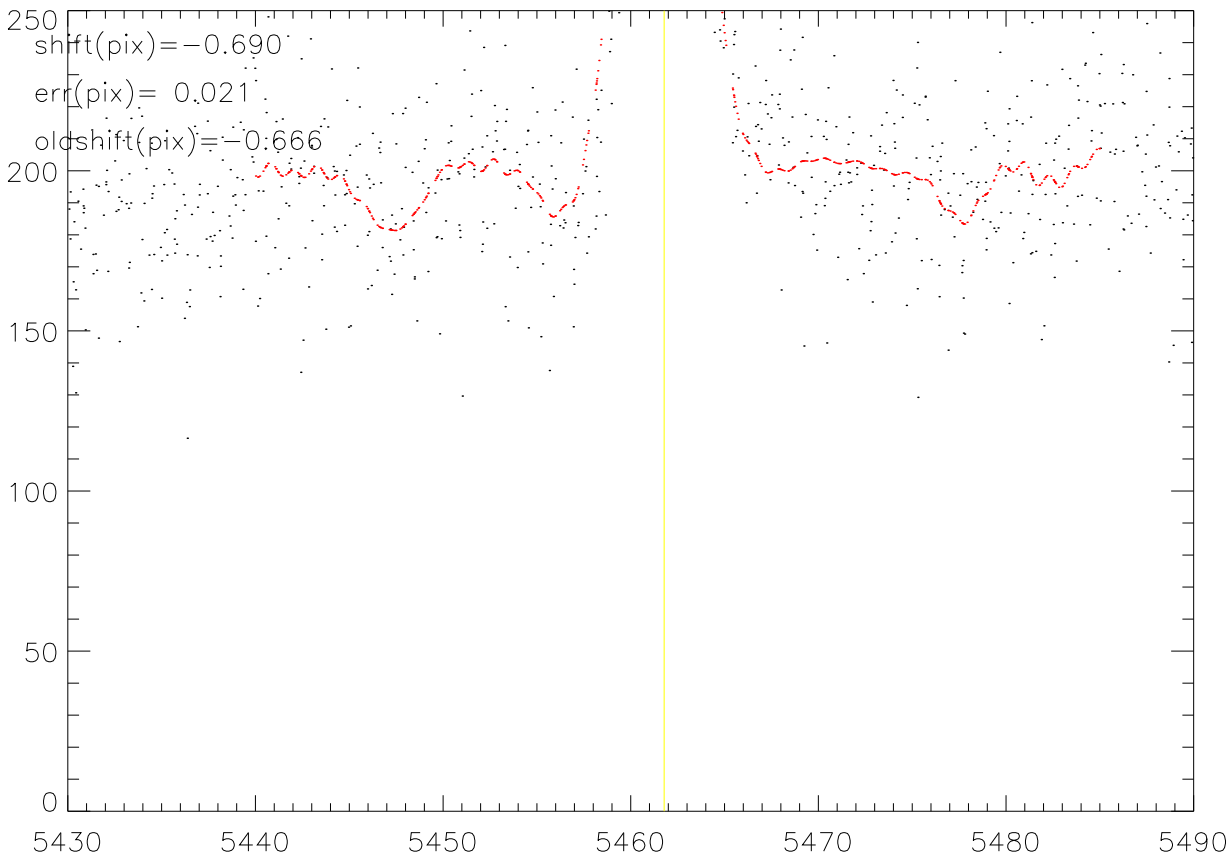

PLATE=2351 MJD=53772 Scattered Light on sdR-b1-00037149.fit
Brightness [electrons/pix]
15
10
5
0
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 7.896
Max value = 11.128
Sat Feb 16 16:56:42 2008

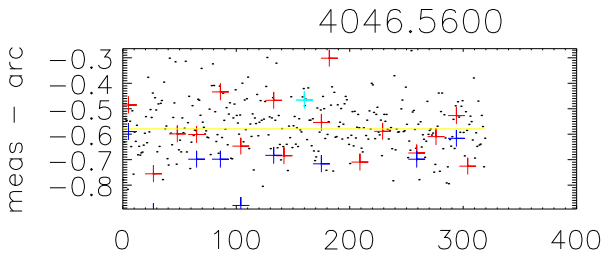

PLATE=2351 MJD=53772 Extraction chi^2 for sdR-b1-00037149.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
5
10
15
0
500
1000
1500
2000
Row number

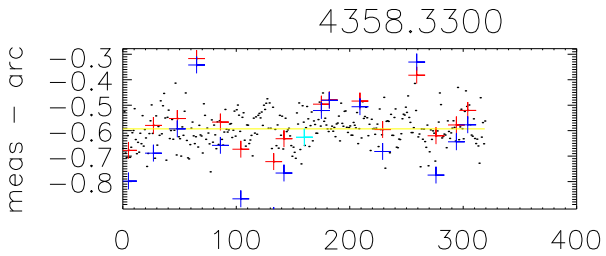

4046.5600
off: −0.84
sig: 0.073
4358.3300
off: −0.65
sig: 0.022
5460.9400
off: −0.67
sig: 0.019
5577.3390
off: −0.70
sig: 0.003
5889.9500
off: −0.68
sig: 0.007
5895.9240
off: −0.65
sig: 0.009

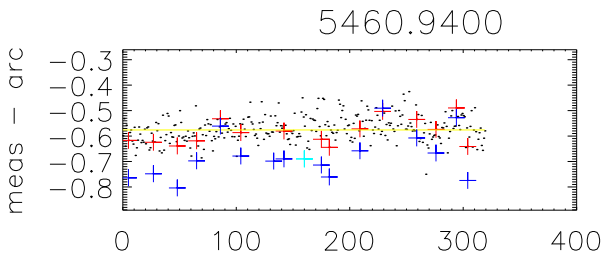

shift(pix)=−0.466
err(pix)= 0.066
oldshift(pix)=−0.841
250
200
150
100
50
0
4020
4030
4040
4050
4060
4070
4080

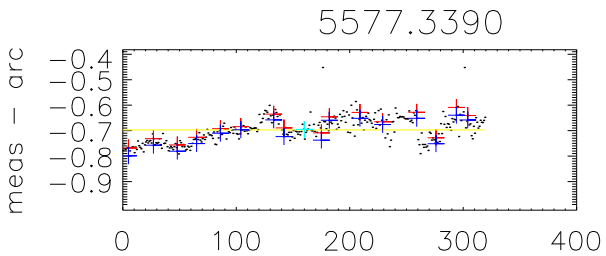

shift(pix)=−0.626
err(pix)= 0.023
oldshift(pix)=−0.651
250
200
150
100
50
0
4280
4300
4320
4340
4360
4380
4400
4420

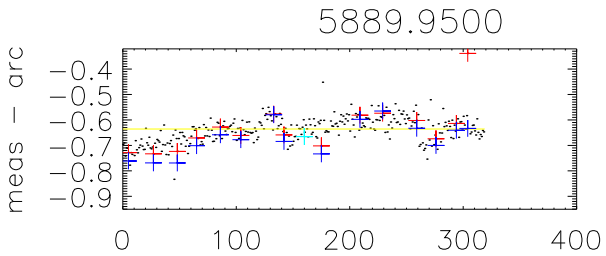

shift(pix)=−0.690
err(pix)= 0.021
oldshift(pix)=−0.666
250
200
150
100
50
0
5430
5440
5450
5460
5470
5480
5490

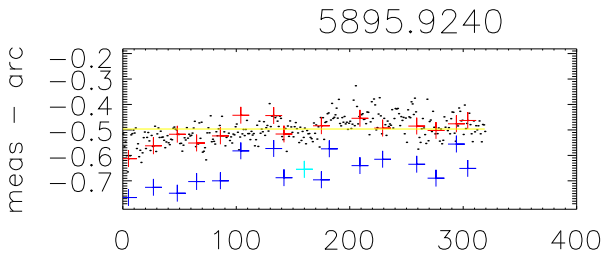

4046.5600
meas − arc
−0.3
−0.4
−0.5
−0.6
−0.7
−0.8
0
100
200
300
400

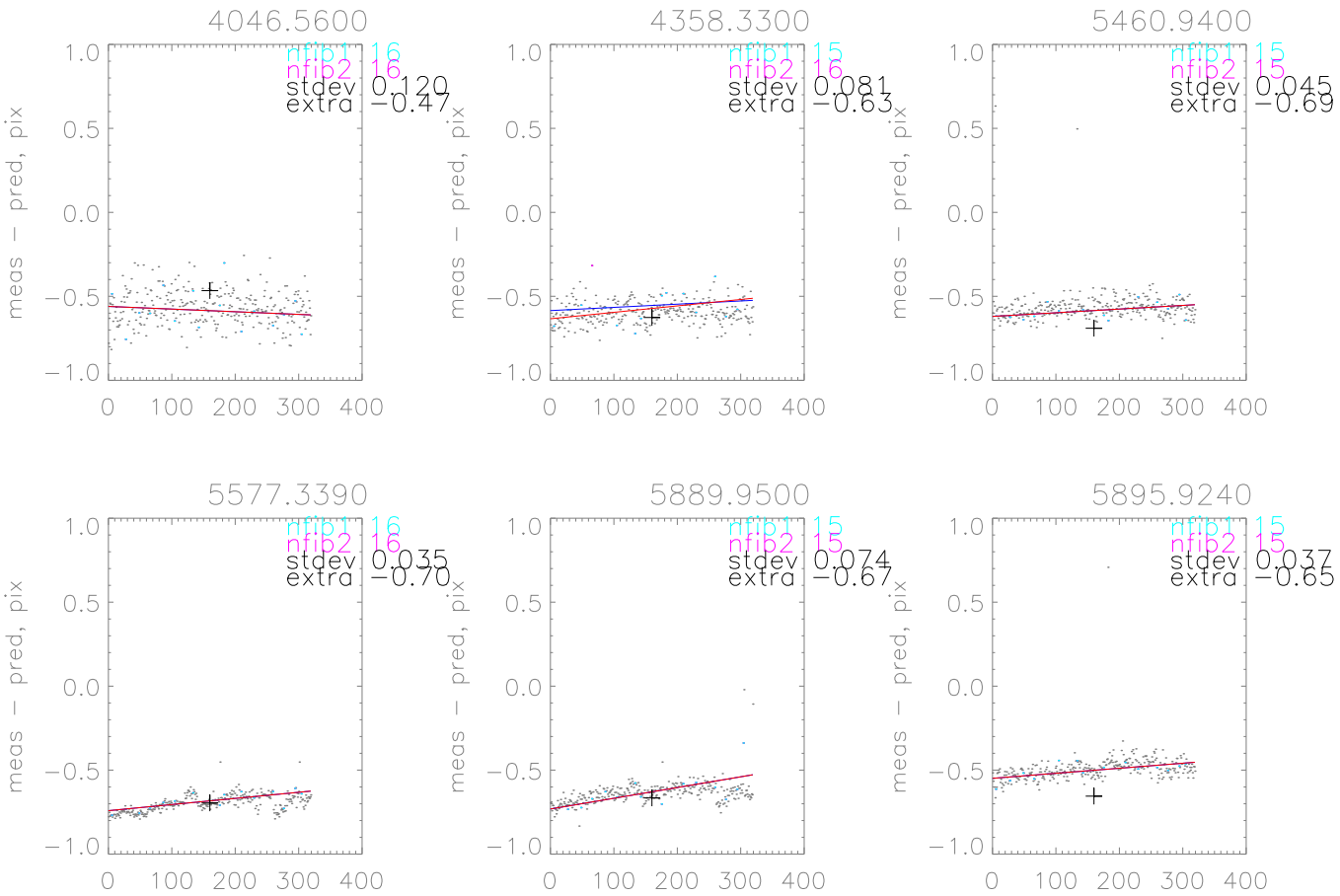

4358.3300
meas − arc
−0.3
−0.4
−0.5
−0.6
−0.7
−0.8
0
100
200
300
400

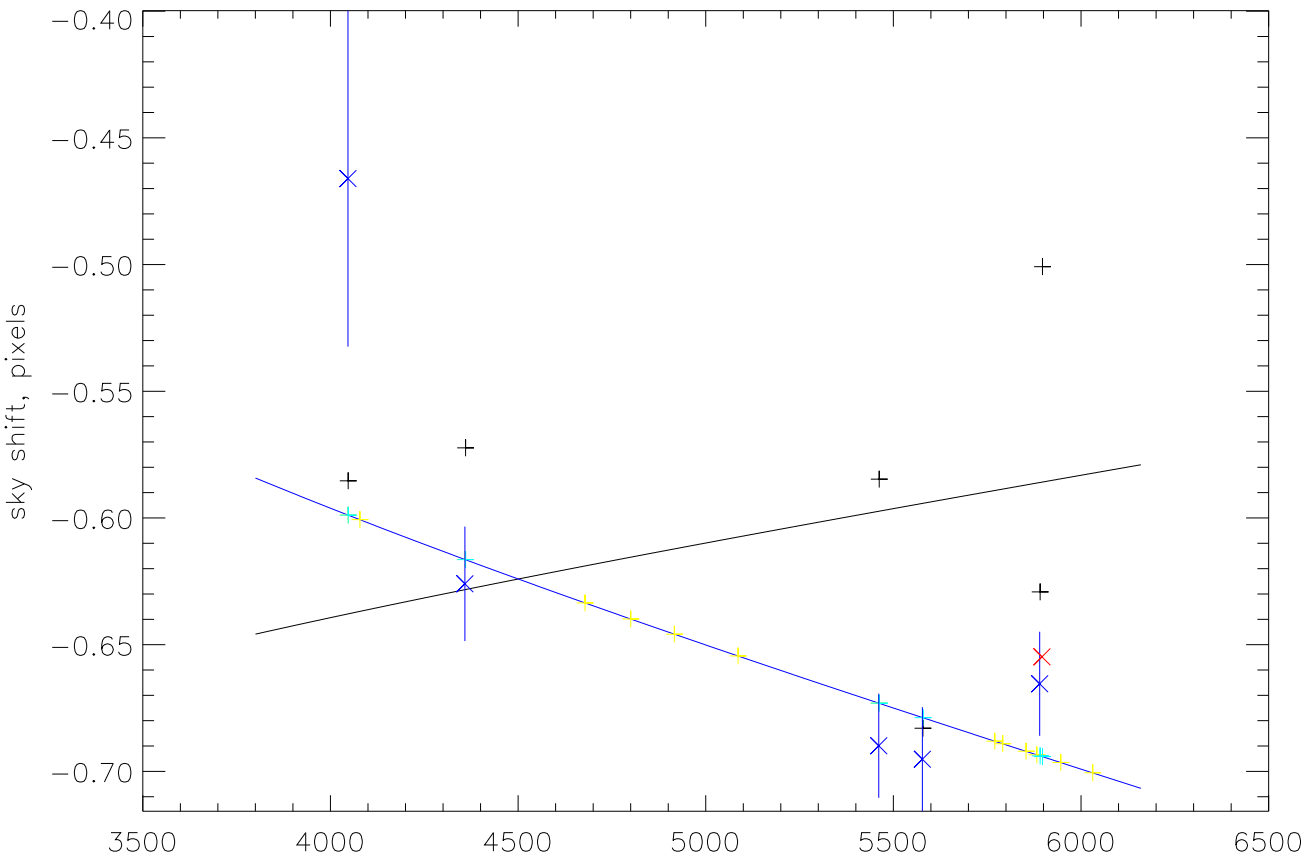

5460.9400
meas − arc
−0.3
−0.4
−0.5
−0.6
−0.7
−0.8
0
100
200
300
400

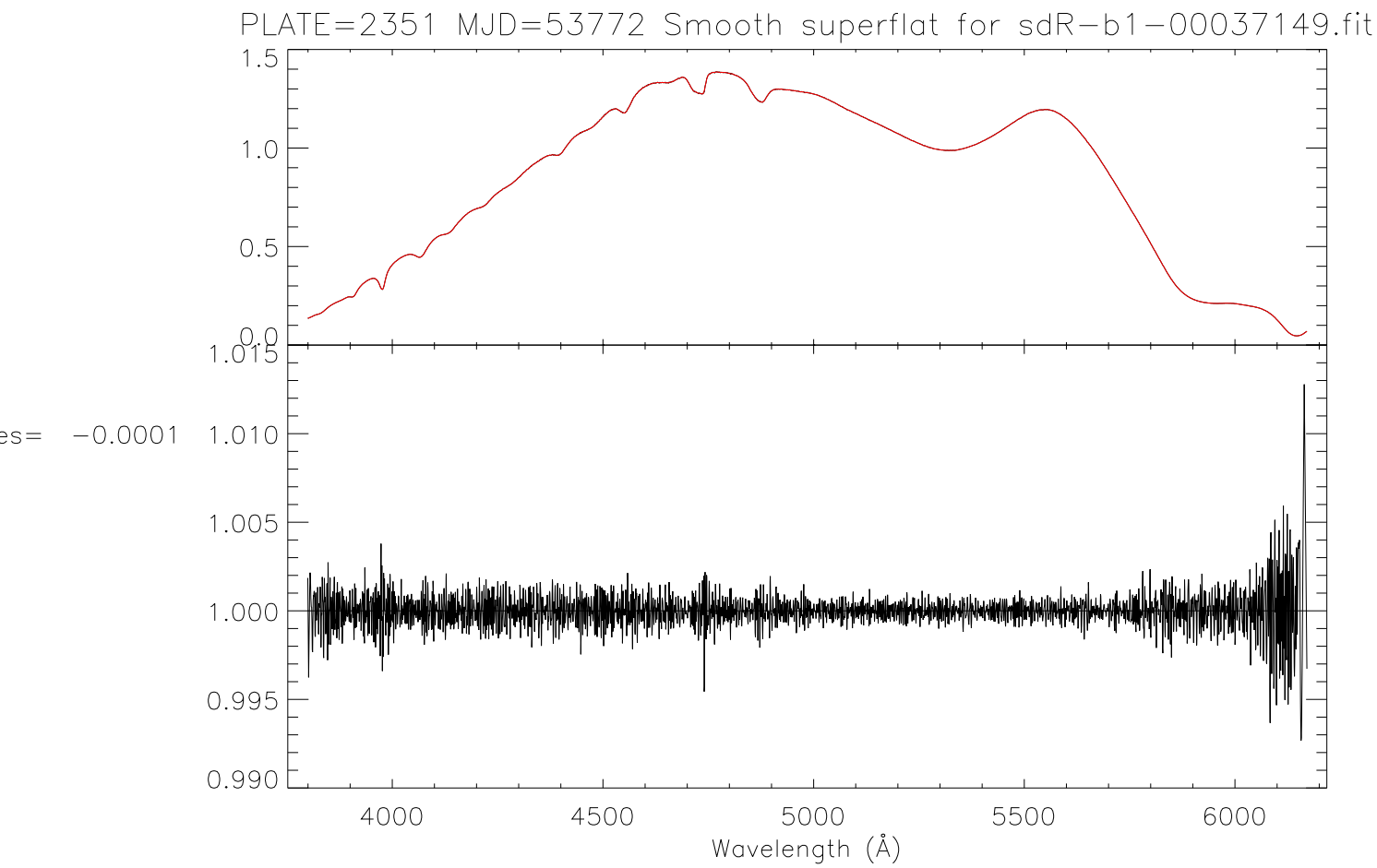

5577.3390
meas − arc
−0.4
−0.5
−0.6
−0.7
−0.8
−0.9
0
100
200
300
400


5889.9500
meas − arc
−0.4
−0.5
−0.6
−0.7
−0.8
−0.9
0
100
200
300
400

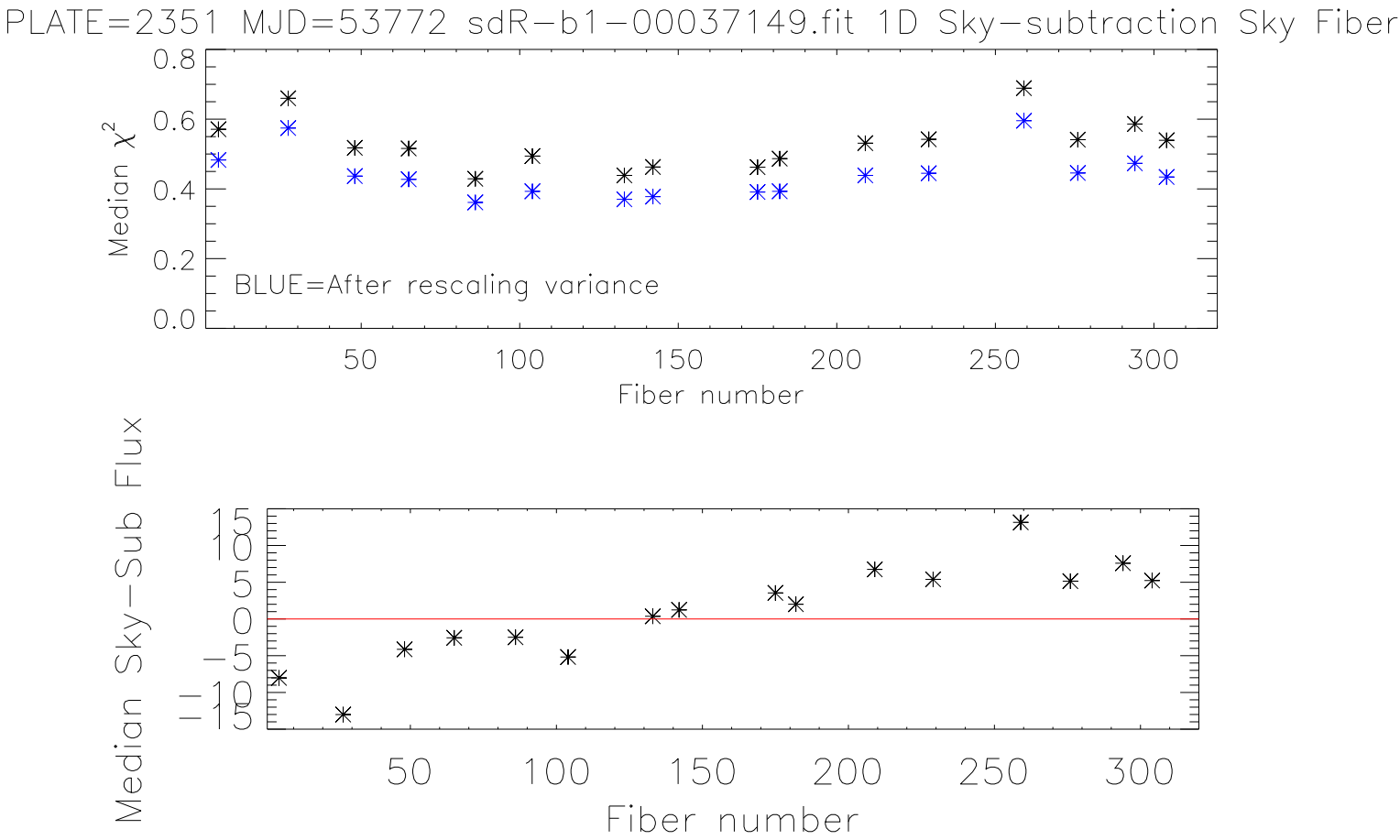

5895.9240
meas − arc
−0.2
−0.3
−0.4
−0.5
−0.6
−0.7
0
100
200
300
400

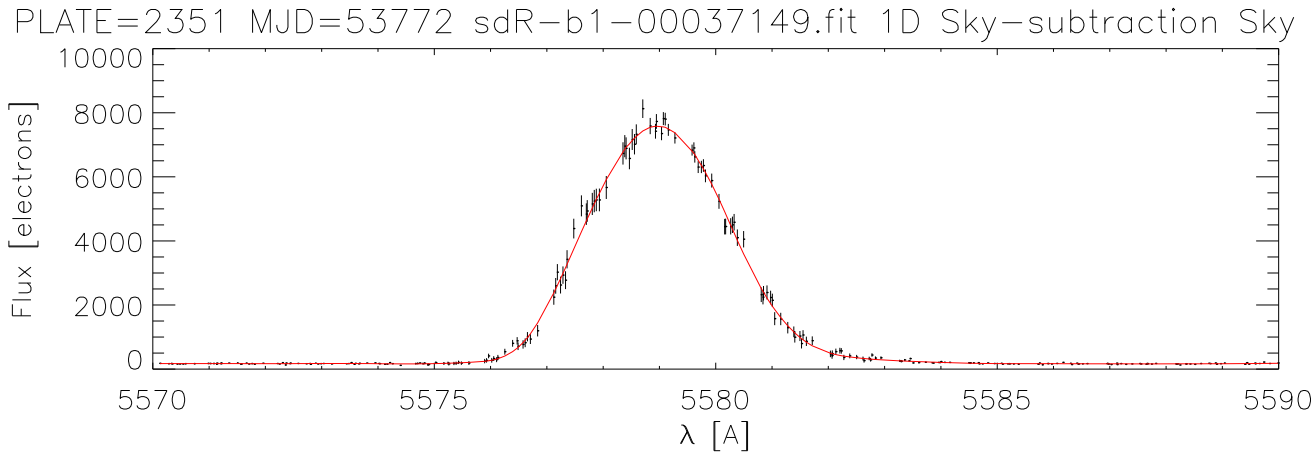

4046.5600
nfib1 16
nfib2 16
stdev 0.120
extra −0.47
4358.3300
nfib1 15
nfib2 16
stdev 0.081
extra −0.63
5460.9400
nfib1 15
nfib2 15
stdev 0.045
extra −0.69
5577.3390
nfib1 16
nfib2 16
stdev 0.035
extra −0.70
5889.9500
nfib1 15
nfib2 15
stdev 0.074
extra −0.67
5895.9240
nfib1 15
nfib2 15
stdev 0.037
extra −0.65
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

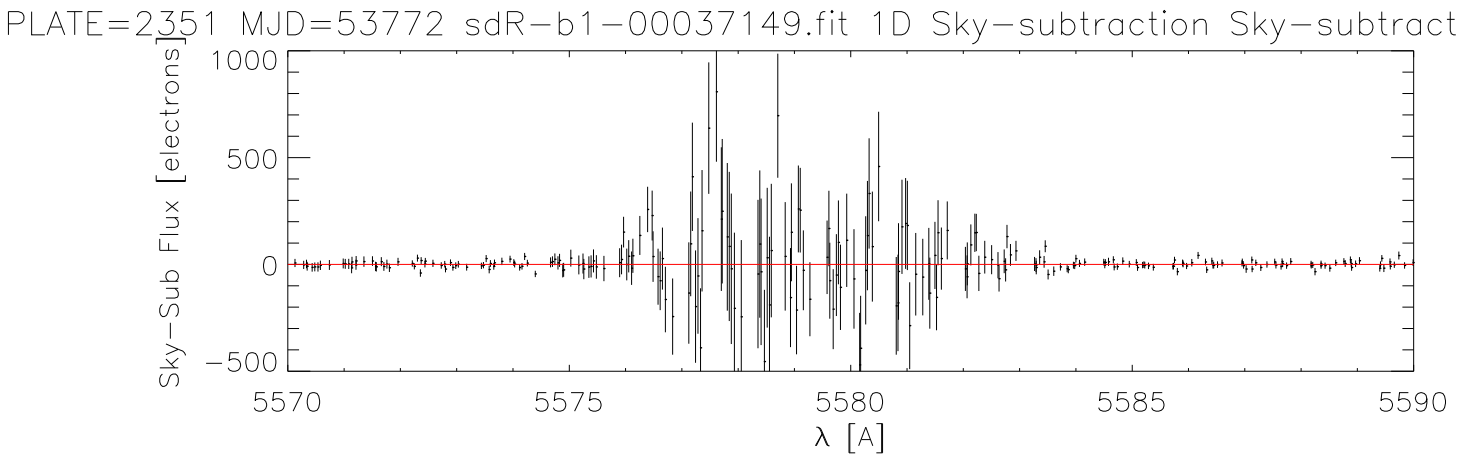

−0.40
−0.45
−0.50
−0.55
−0.60
−0.65
−0.70
sky shift, pixels
3500
4000
4500
5000
5500
6000
6500

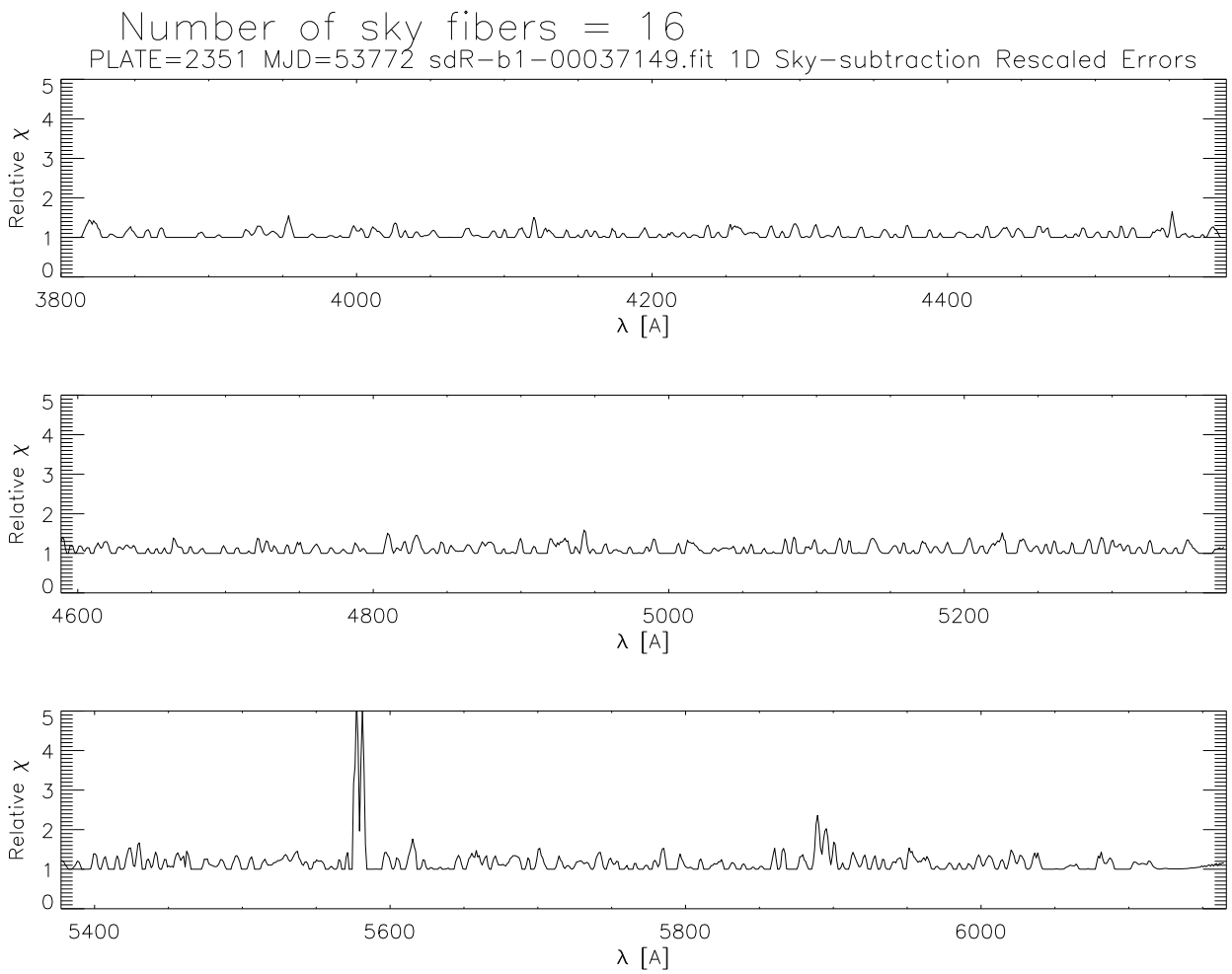

PLATE=2351 MJD=53772 Smooth superflat for sdR-b1-00037149.fit
1.5
1.0
0.5
0.0
1.015
1.010
1.005
1.000
0.995
0.990
4000
4500
5000
5500
6000
Wavelength (Å)

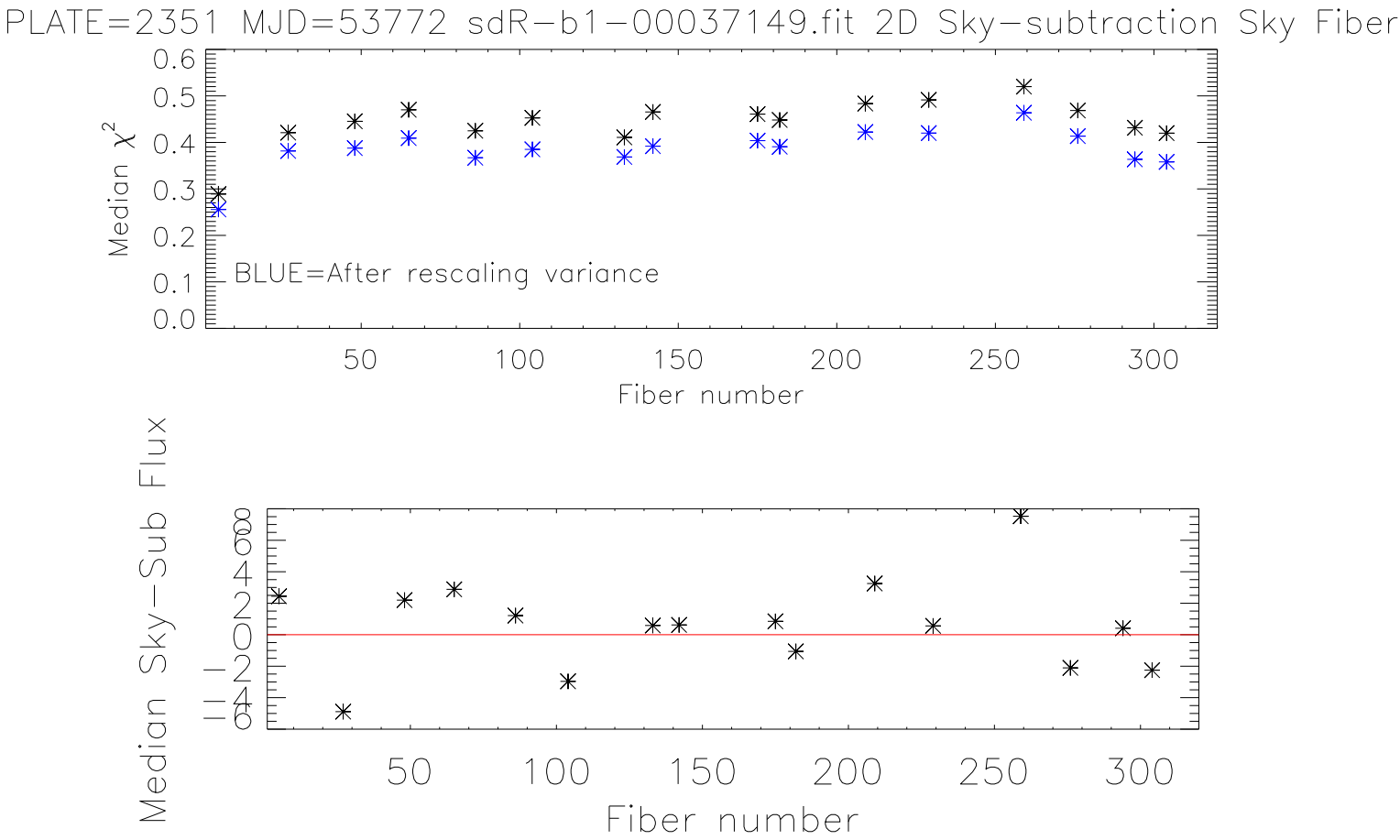
es= −0.0001

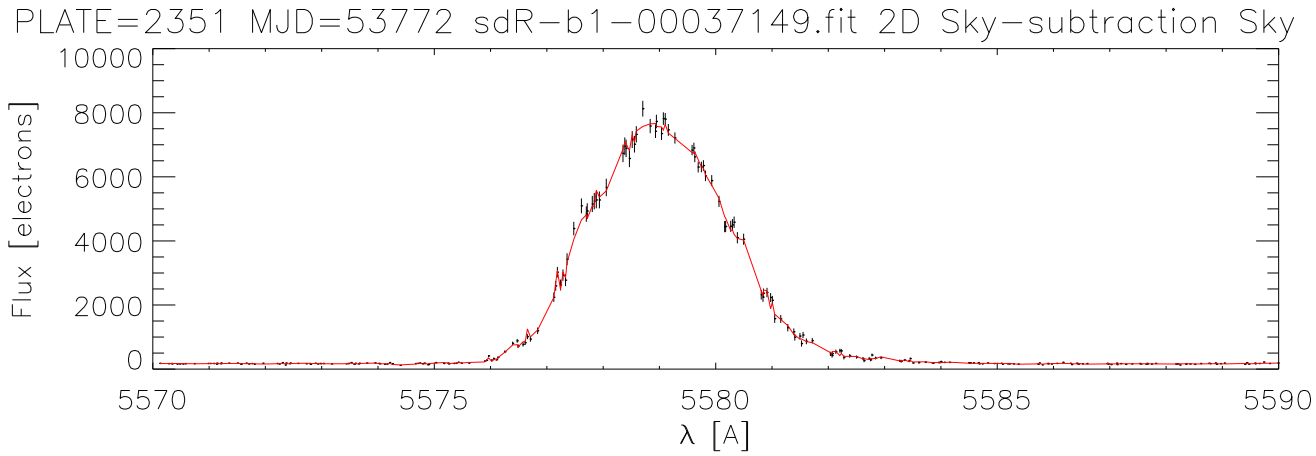

PLATE=2351 MJD=53772 sdR-b1-00037149.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
15
10
5
0
-5
-10
-15
50
100
150
200
250
300
Fiber number

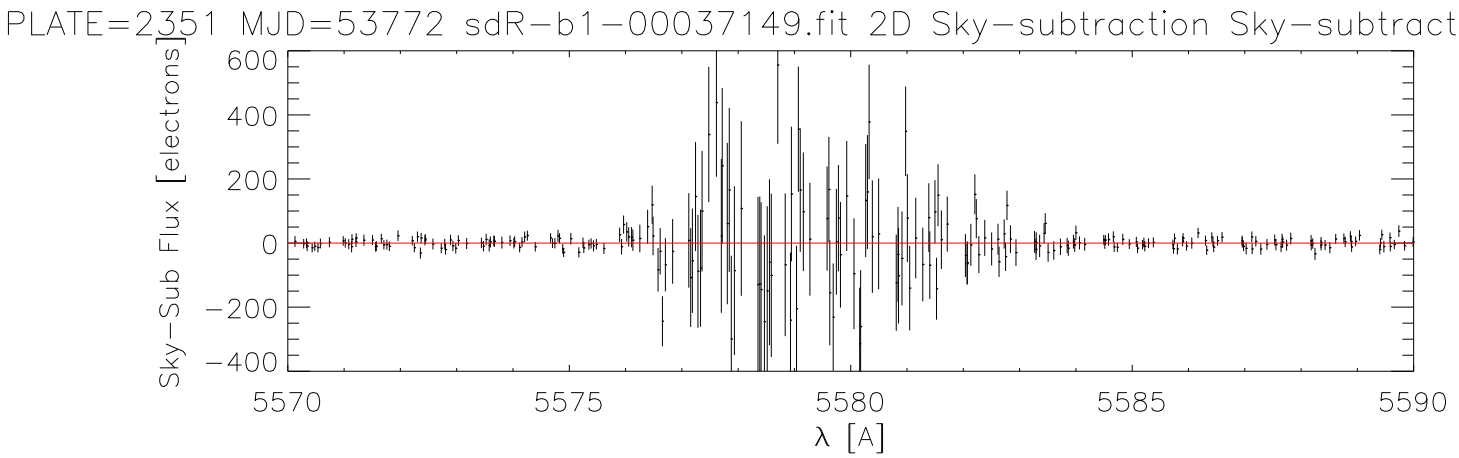

PLATE=2351 MJD=53772 sdR-b1-00037149.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
10000
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

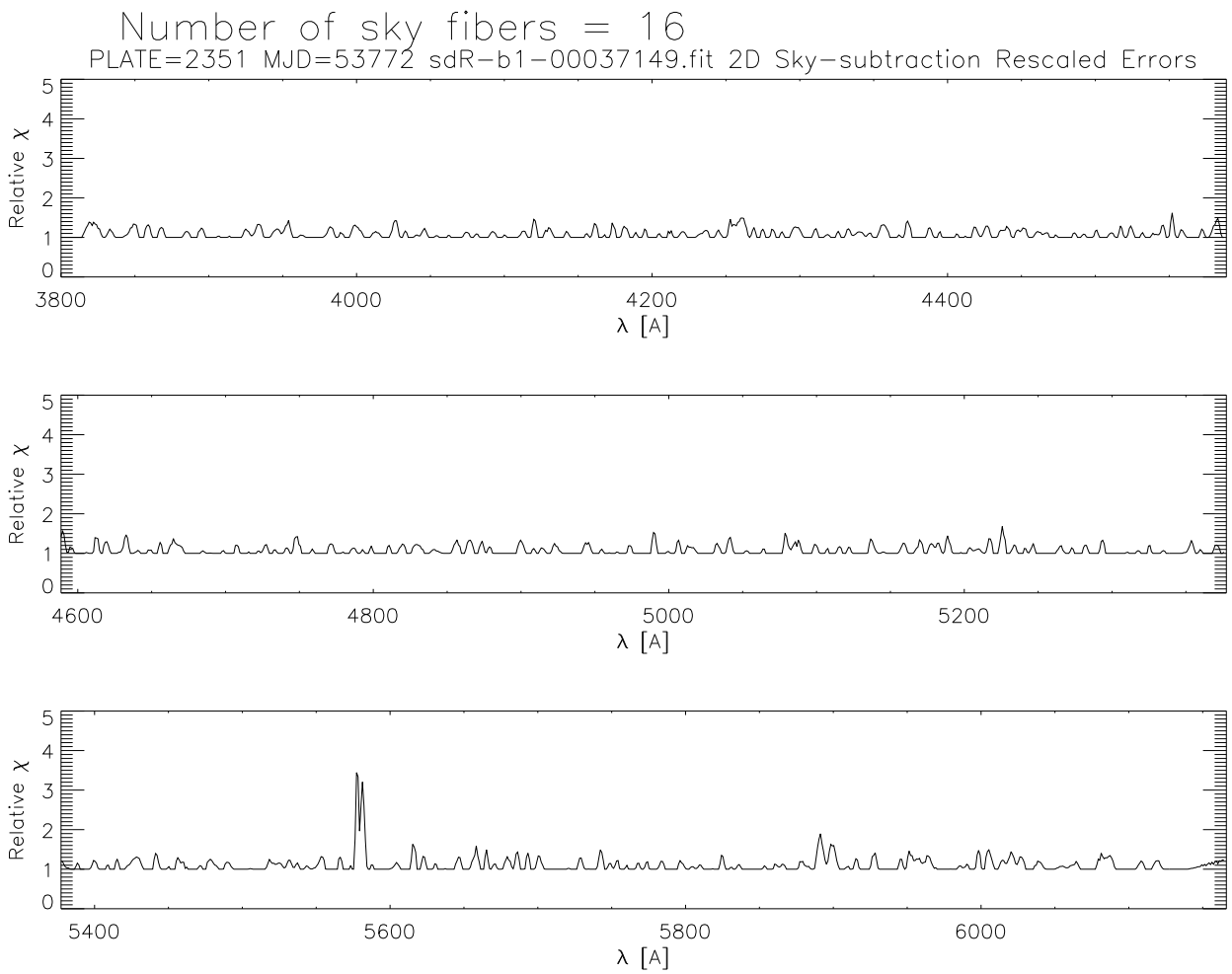

PLATE=2351 MJD=53772 sdR-b1-00037149.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
1000
500
0
−500
5570
5575
5580
5585
5590
λ [A]

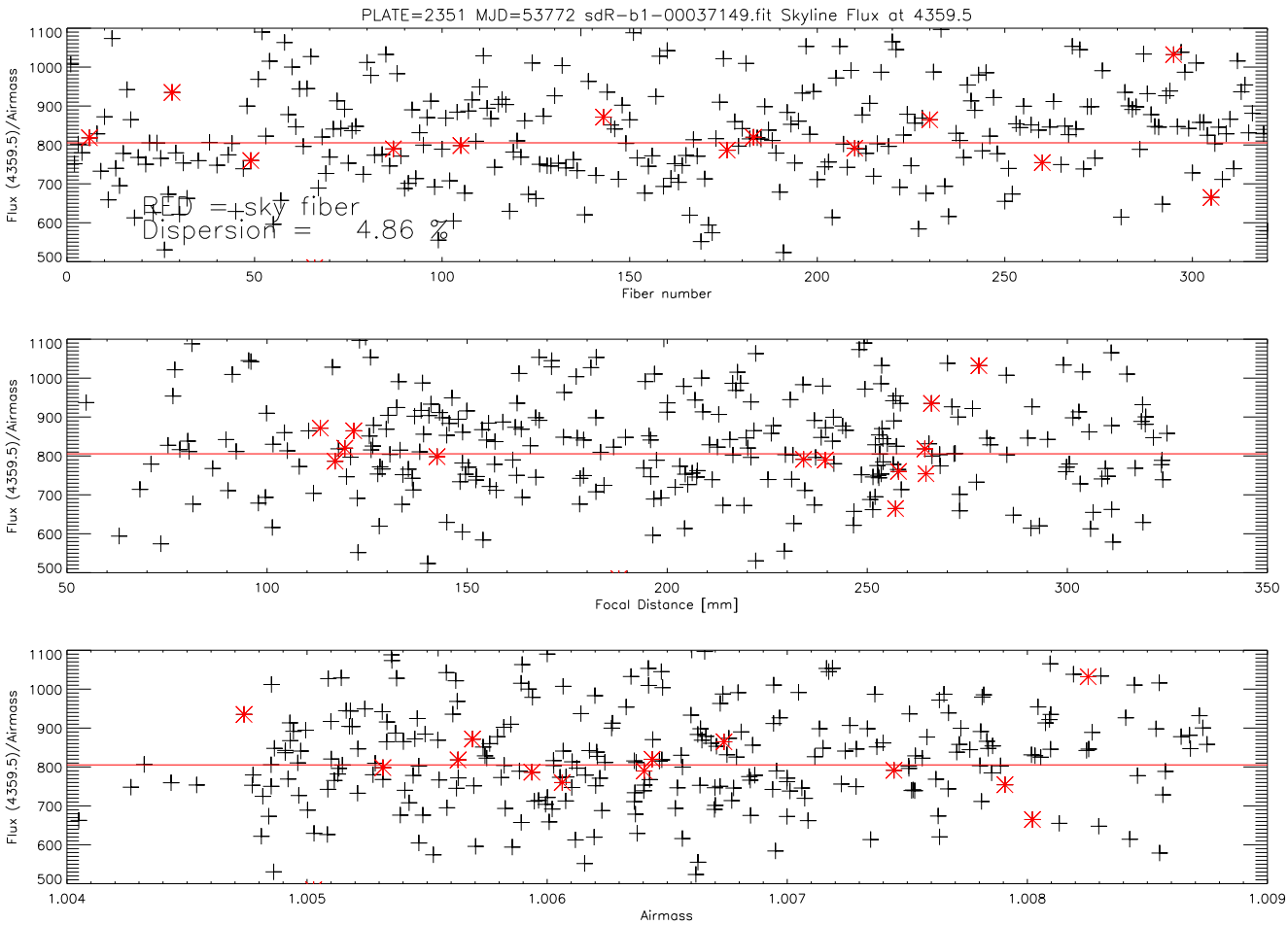

Number of sky fibers = 16
PLATE=2351 MJD=53772 sdR-b1-00037149.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

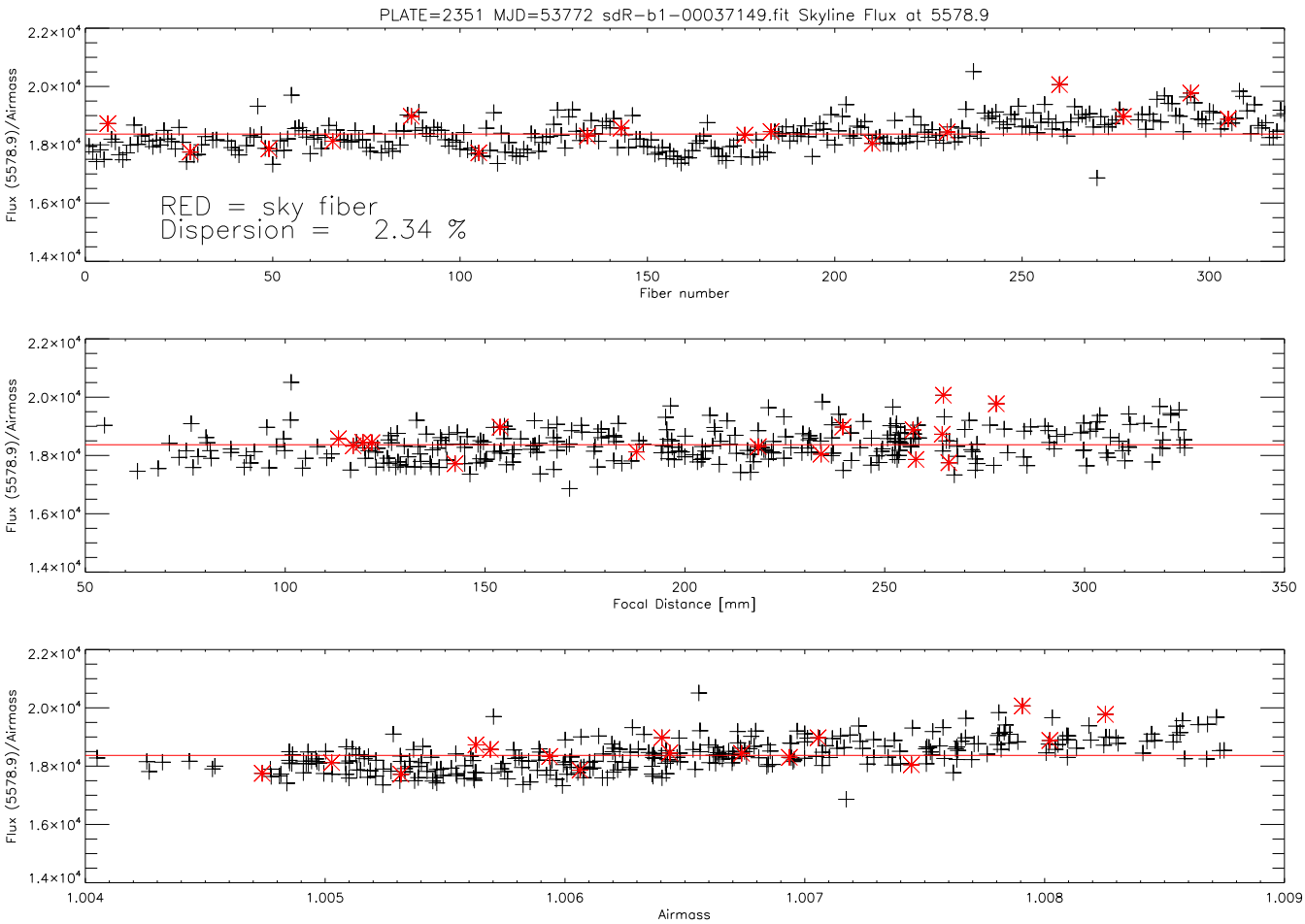

PLATE=2351 MJD=53772 sdR-b1-00037149.fit 2D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-11
-6
-4
-2
0
2
4
6
8
50
100
150
200
250
300
Fiber number

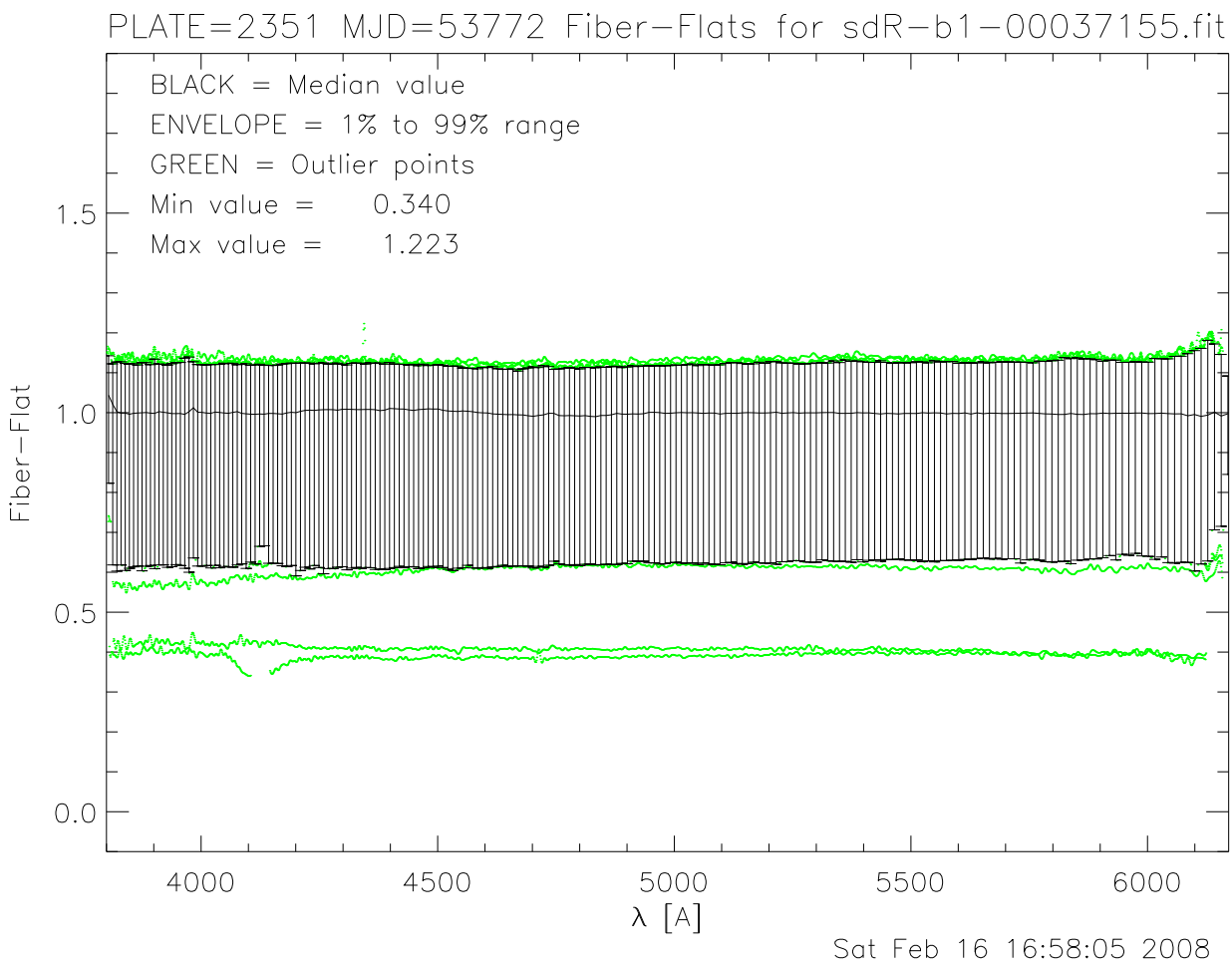

PLATE=2351 MJD=53772 sdR-b1-00037149.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
10000
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

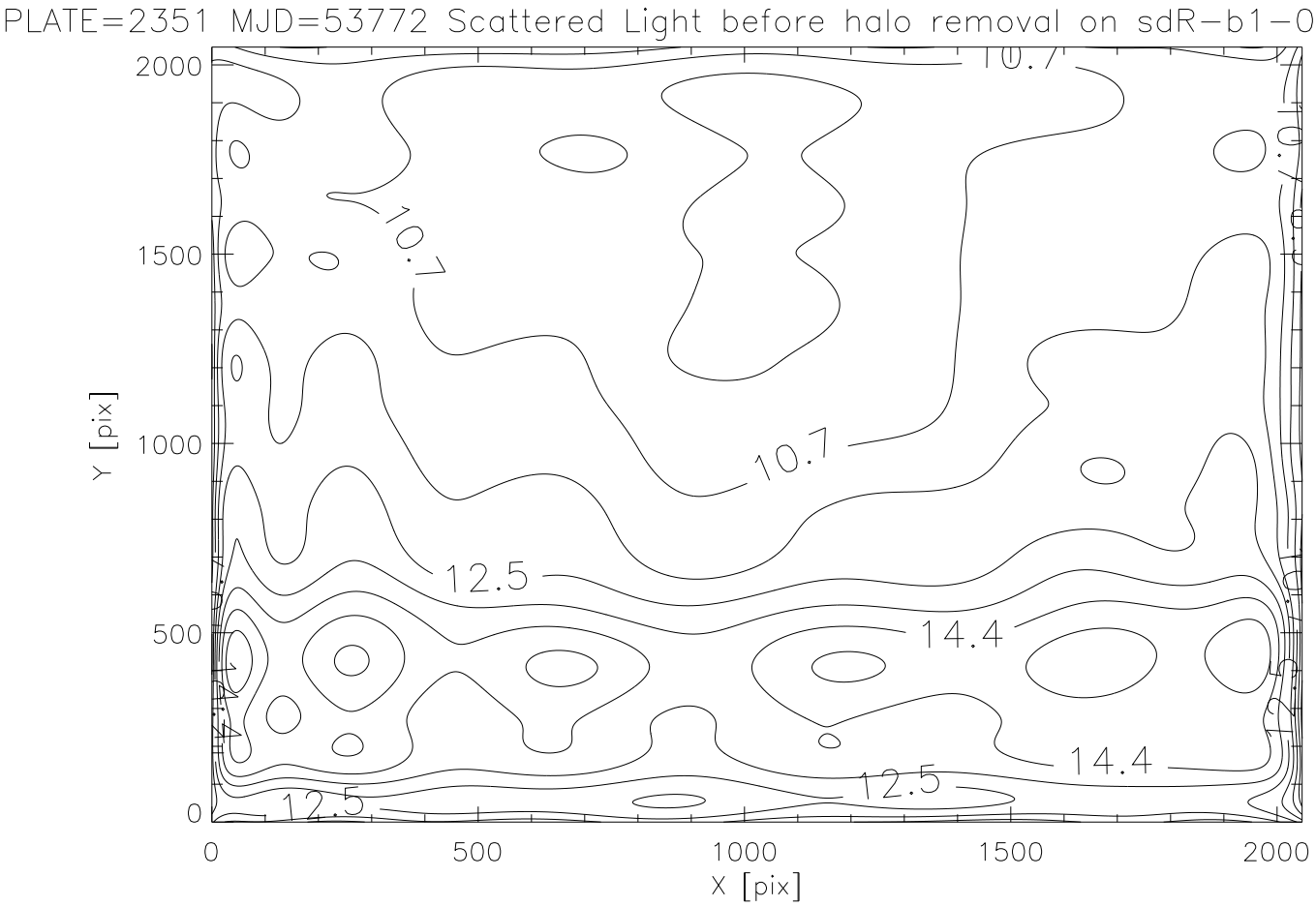

PLATE=2351 MJD=53772 sdR-b1-00037149.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
-200
-400
5570
5575
5580
5585
5590
λ [A]

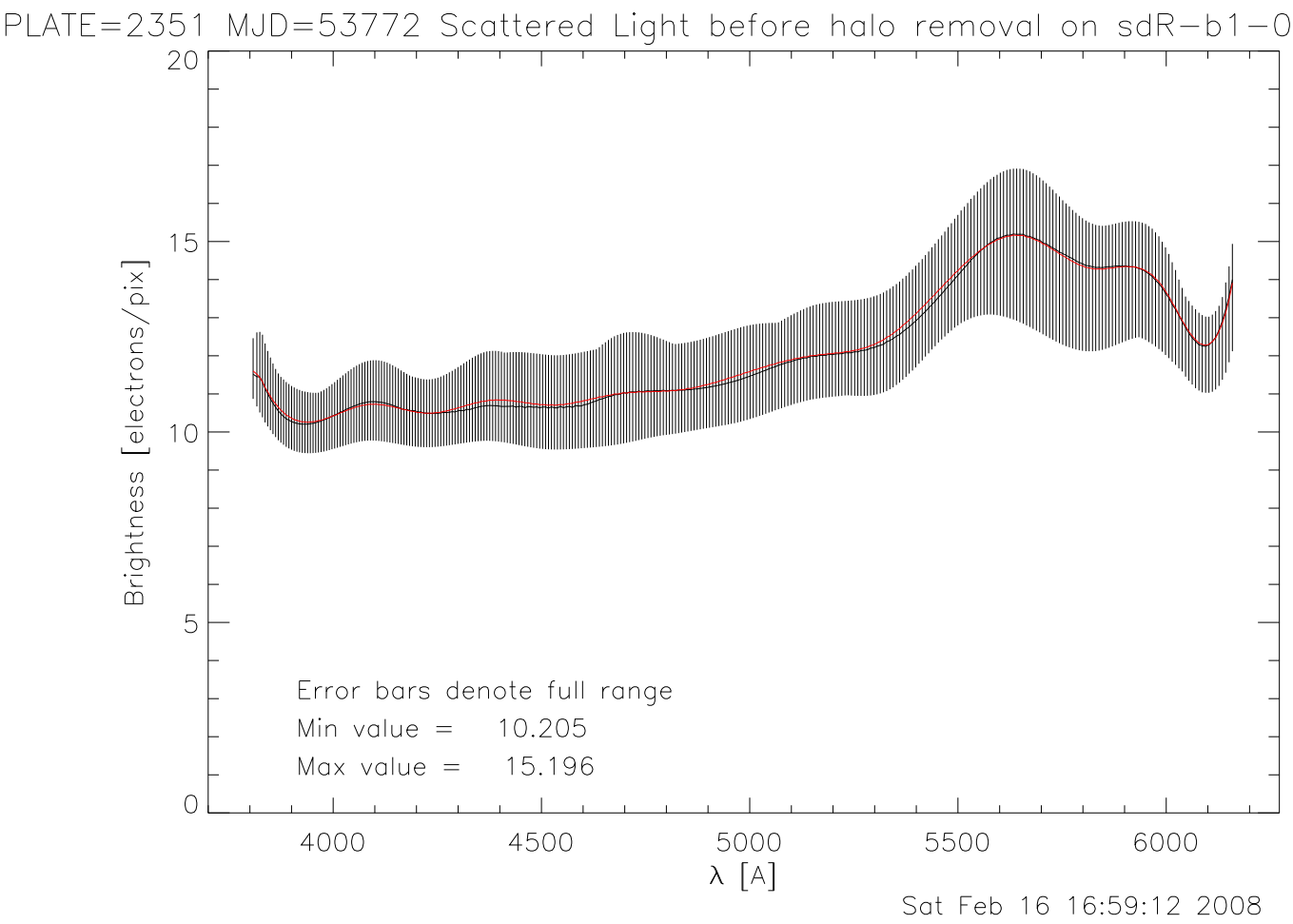

Number of sky fibers = 16
PLATE=2351 MJD=53772 sdR-b1-00037149.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

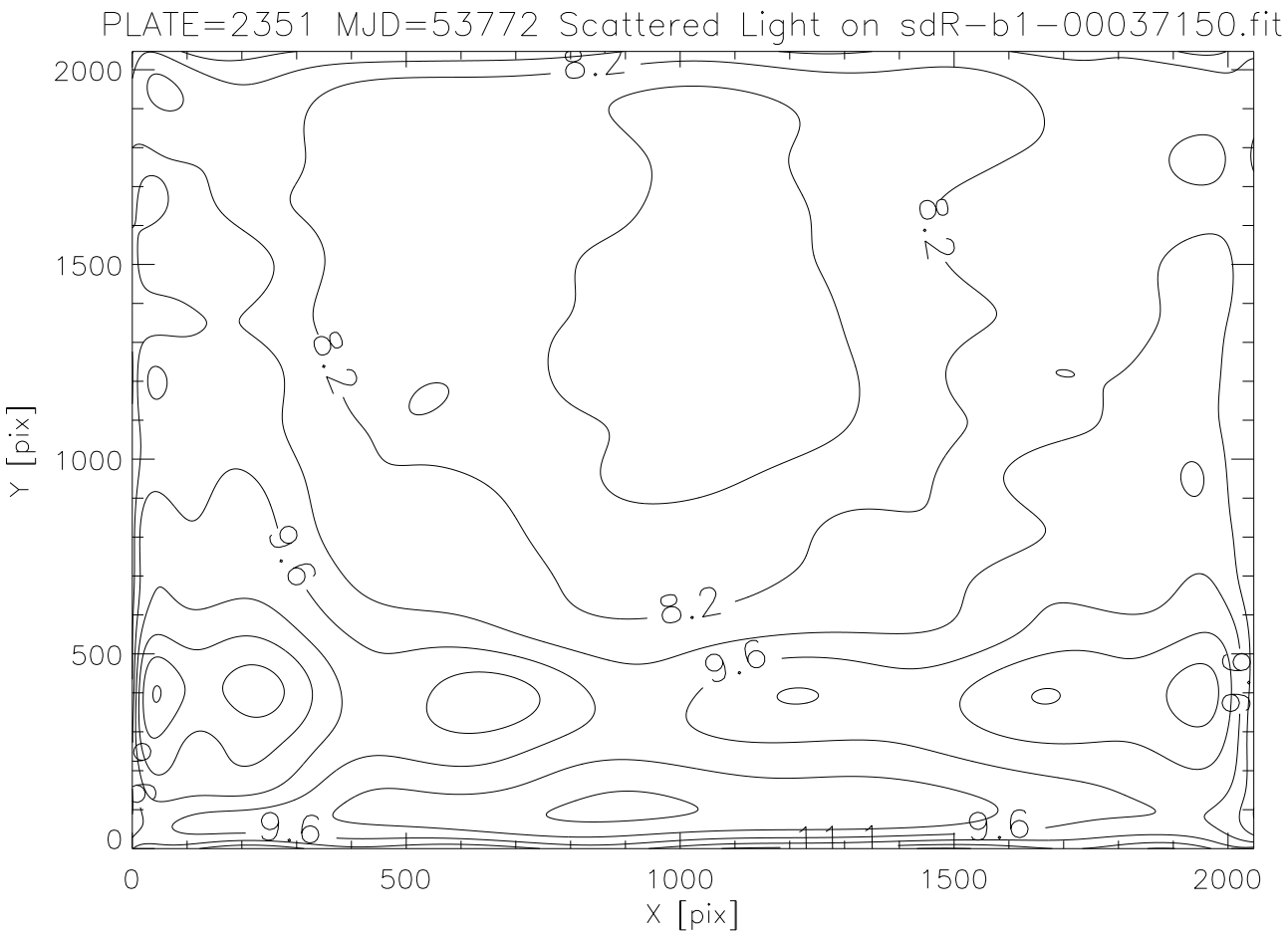

PLATE=2351 MJD=53772 sdR-b1-00037149.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
Fiber number
RED =+sky fiber
Dispersion = 4.86 %
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

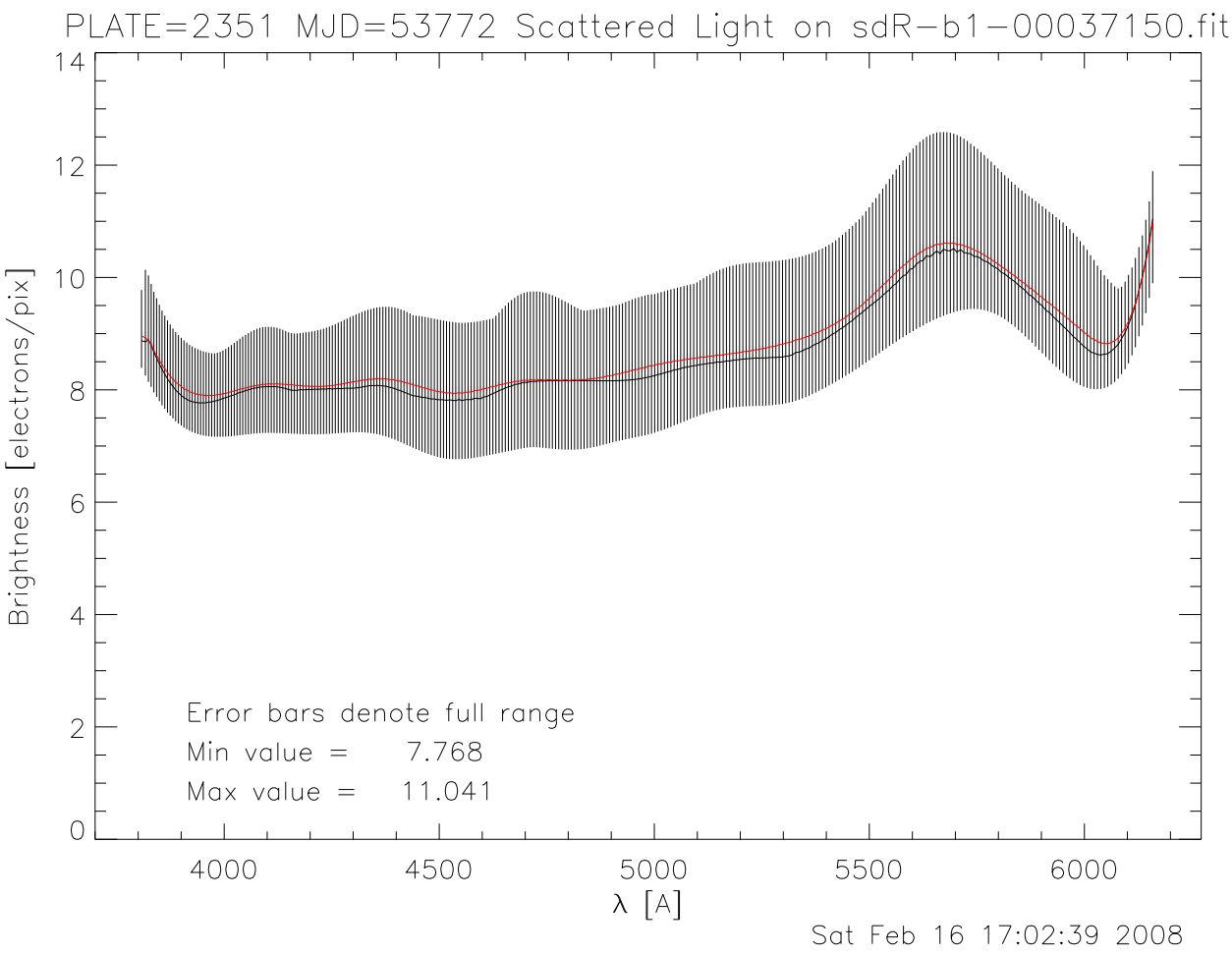

PLATE=2351 MJD=53772 sdR-b1-00037149.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
Fiber number
RED = sky fiber
Dispersion = 2.34 %
Flux (5578.9)/Airmass
Focal Distance [mm]
Flux (5578.9)/Airmass
Airmass

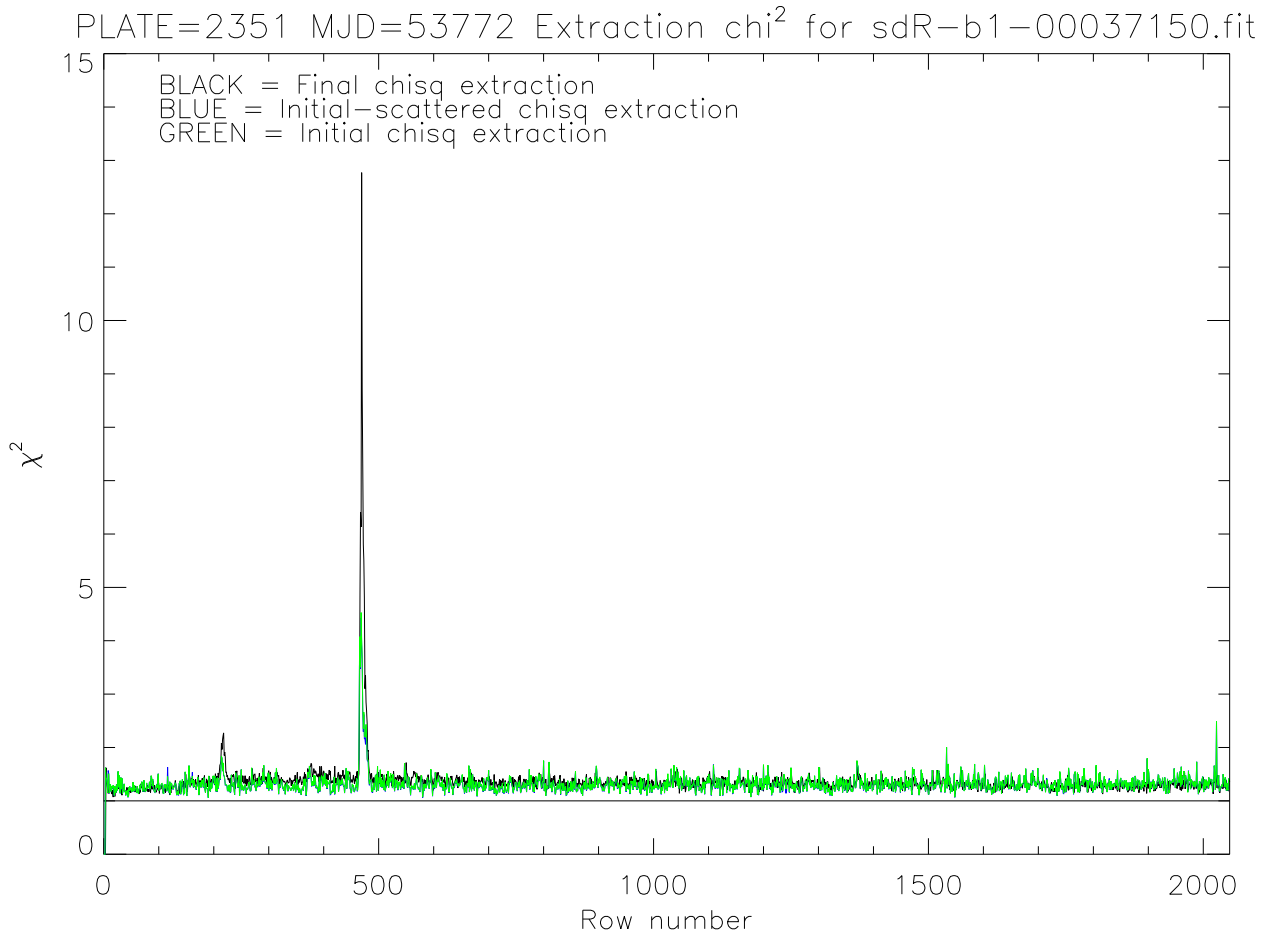

PLATE=2351 MJD=53772 Fiber-Flats for sdR-b1-00037155.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.340
Max value = 1.223
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Sat Feb 16 16:58:05 2008

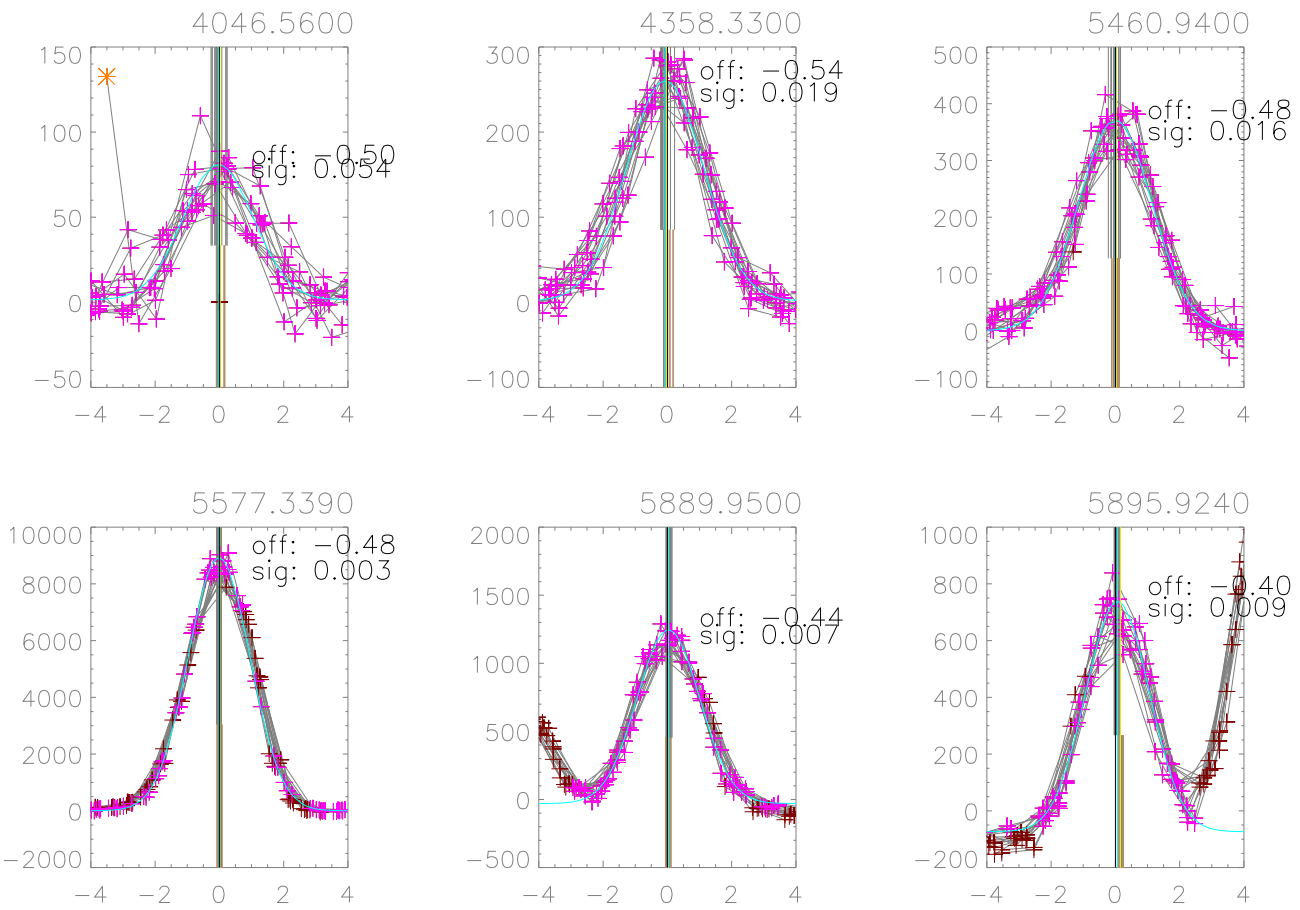

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR−b1−00037150.f
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
10.7
12.5
14.4

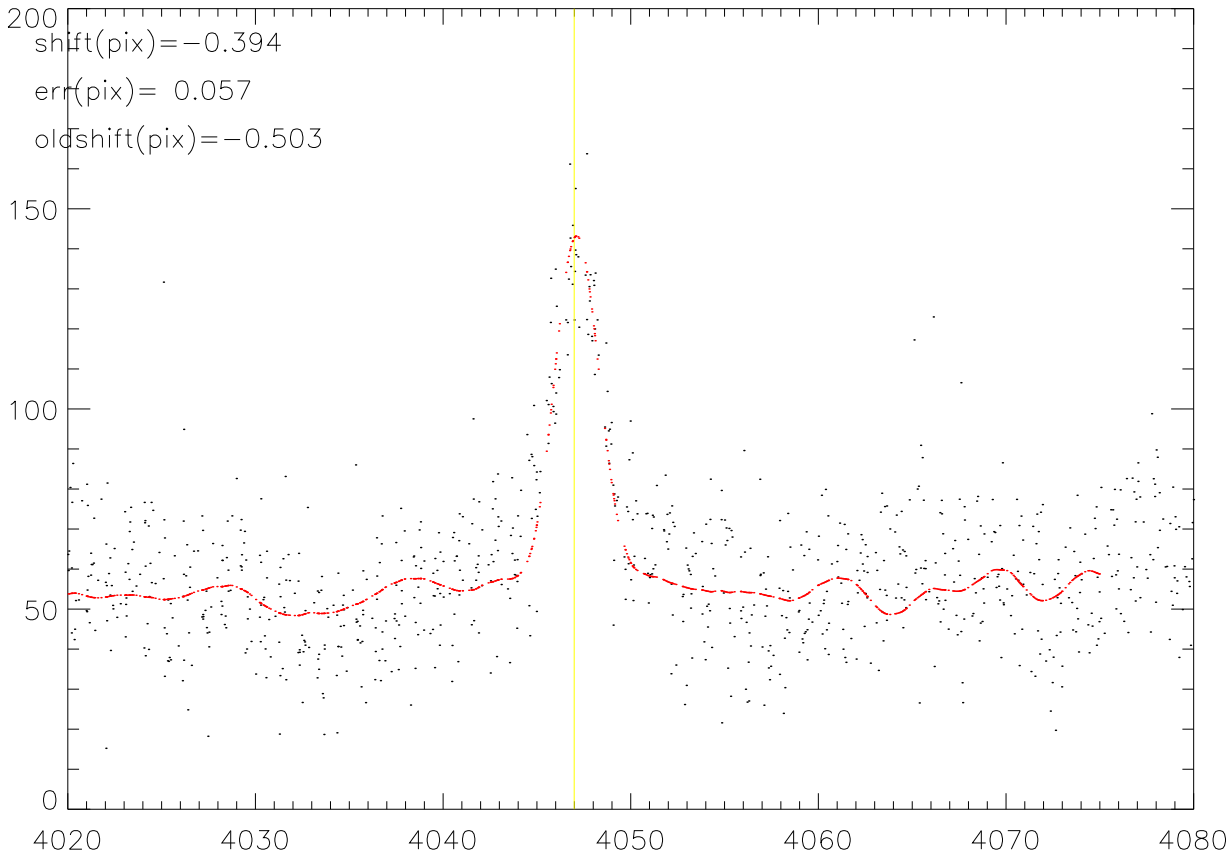

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR−b1−00037150.f
Brightness [electrons/pix]
20
15
10
5
0
Error bars denote full range
Min value = 10.205
Max value = 15.196
4000
4500
5000
5500
6000
λ [A]
Sat Feb 16 16:59:12 2008

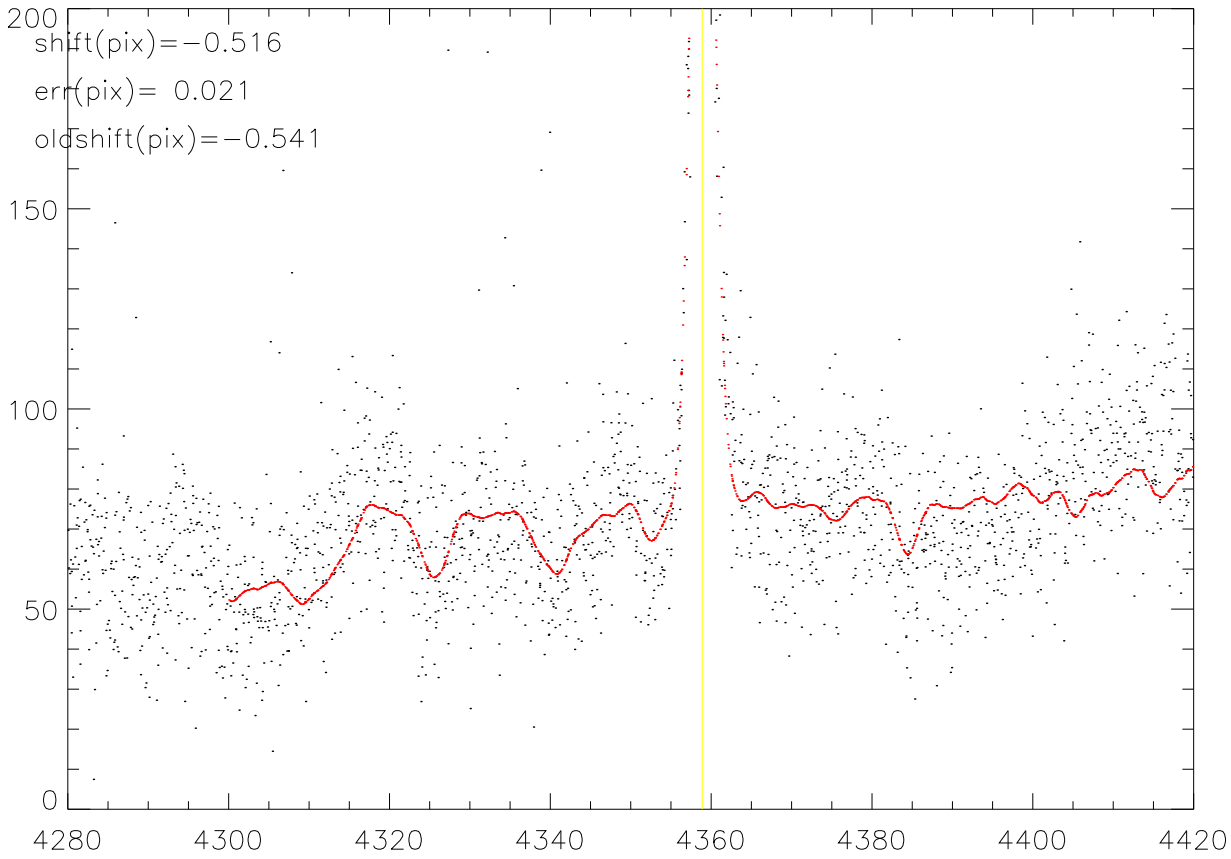

PLATE=2351 MJD=53772 Scattered Light on sdR-b1-00037150.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
8.2
9.6
11.1

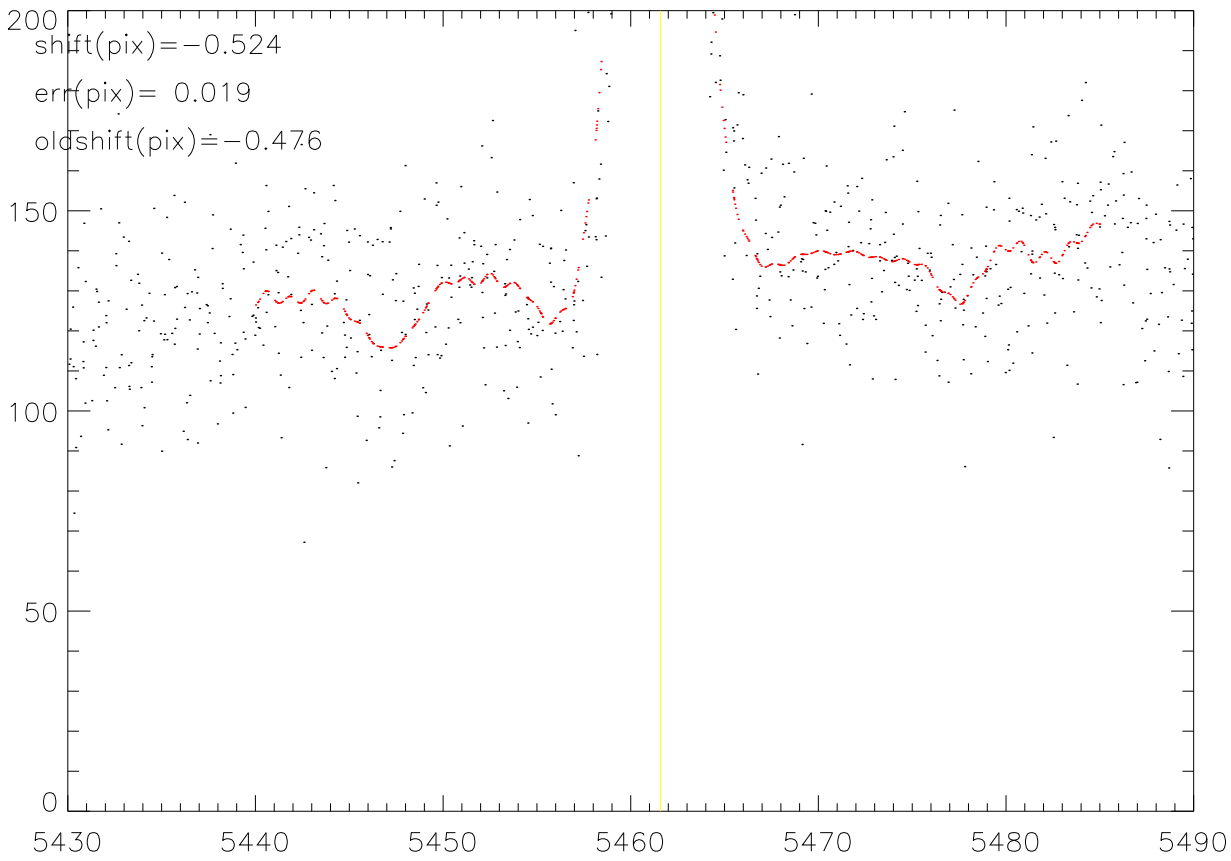

PLATE=2351 MJD=53772 Scattered Light on sdR-b1-00037150.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 7.768
Max value = 11.041
Sat Feb 16 17:02:39 2008

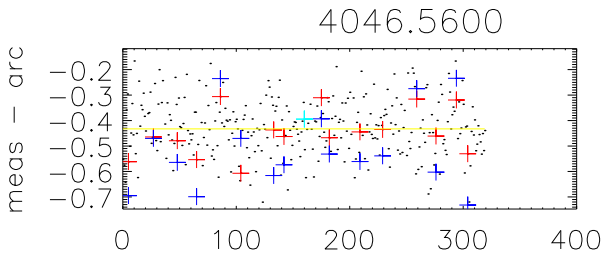

PLATE=2351 MJD=53772 Extraction chi^2 for sdR-b1-00037150.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
5
10
15
0
500
1000
1500
2000
Row number

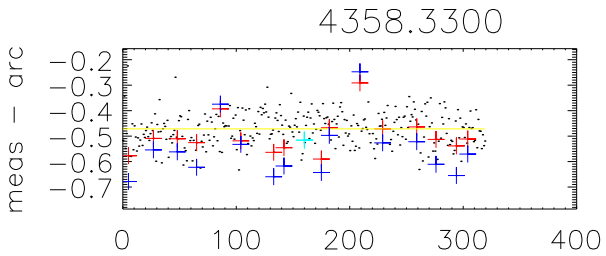

4046.5600
off: −0.50
sig: 0.054
4358.3300
off: −0.54
sig: 0.019
5460.9400
off: −0.48
sig: 0.016
5577.3390
off: −0.48
sig: 0.003
5889.9500
off: −0.44
sig: 0.007
5895.9240
off: −0.40
sig: 0.009

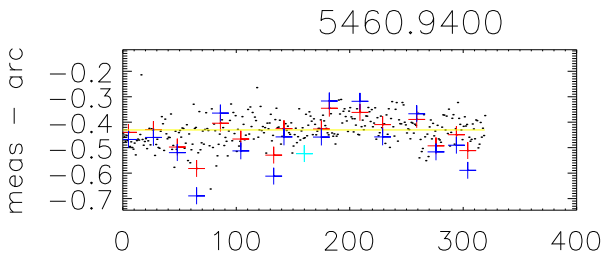

shift(pix)=−0.394
err(pix)= 0.057
oldshift(pix)=−0.503
200
150
100
50
0
4020
4030
4040
4050
4060
4070
4080

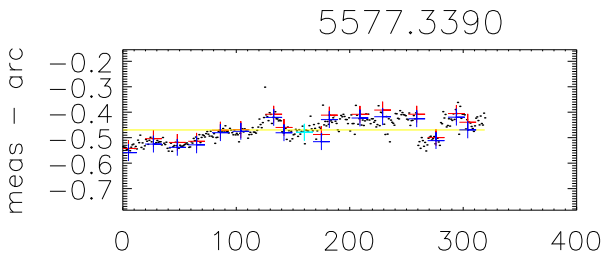

shift(pix)=−0.516
err(pix)= 0.021
oldshift(pix)=−0.541
200
150
100
50
0
4280
4300
4320
4340
4360
4380
4400
4420

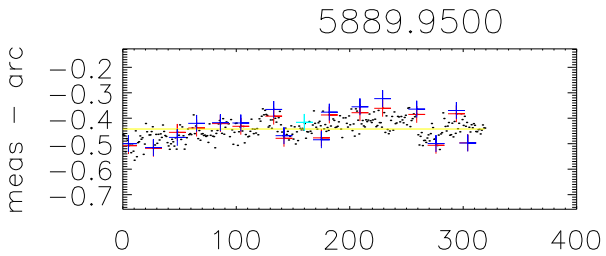

shift(pix)=−0.524
err(pix)= 0.019
oldshift(pix)=−0.476
200
150
100
50
0
5430
5440
5450
5460
5470
5480
5490

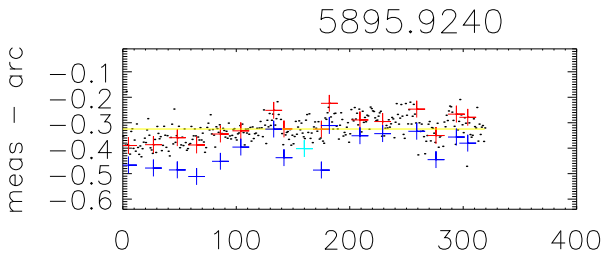

4046.5600
meas − arc
−0.2
−0.3
−0.4
−0.5
−0.6
−0.7
0
100
200
300
400

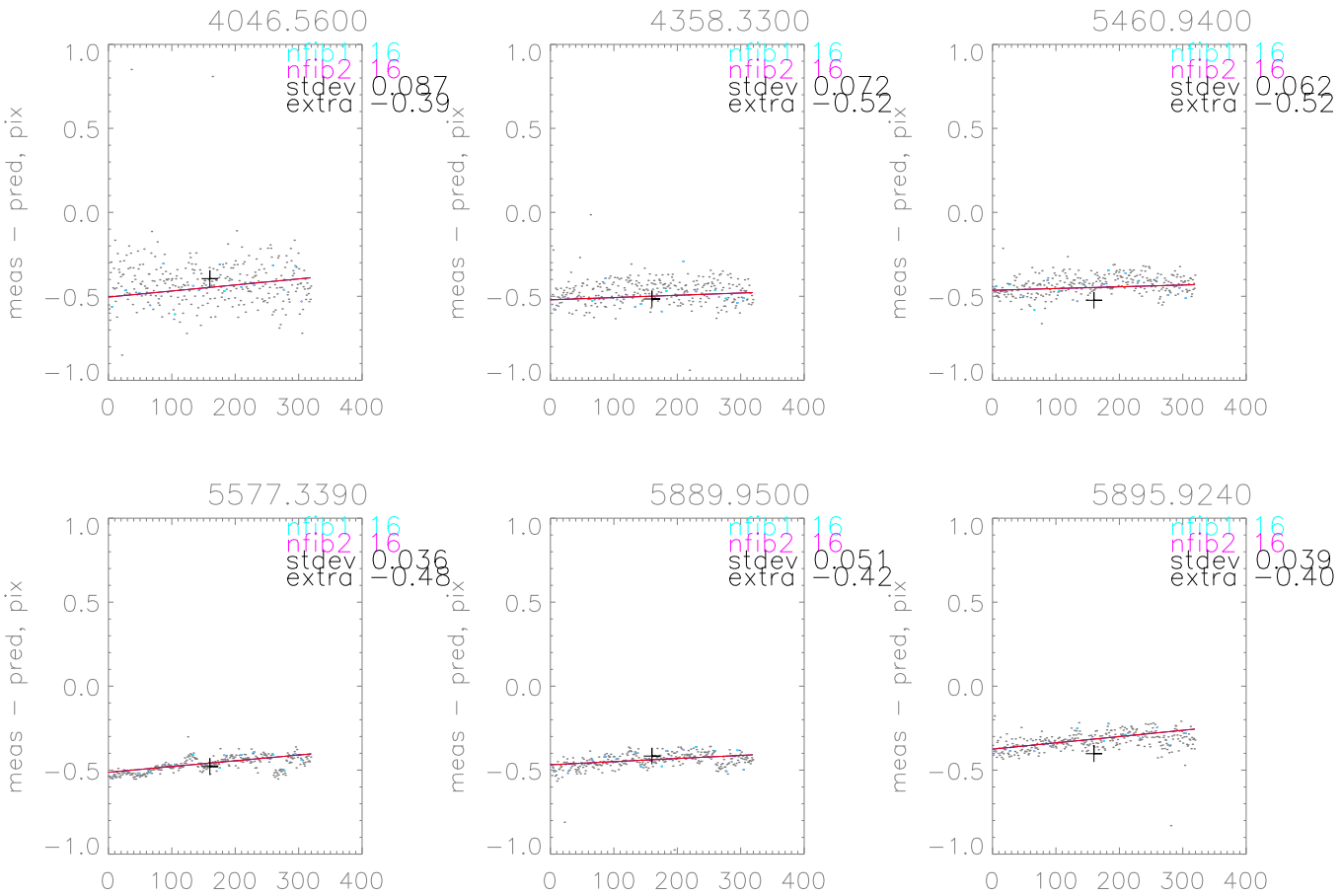

4358.3300
meas − arc
−0.2
−0.3
−0.4
−0.5
−0.6
−0.7
0
100
200
300
400

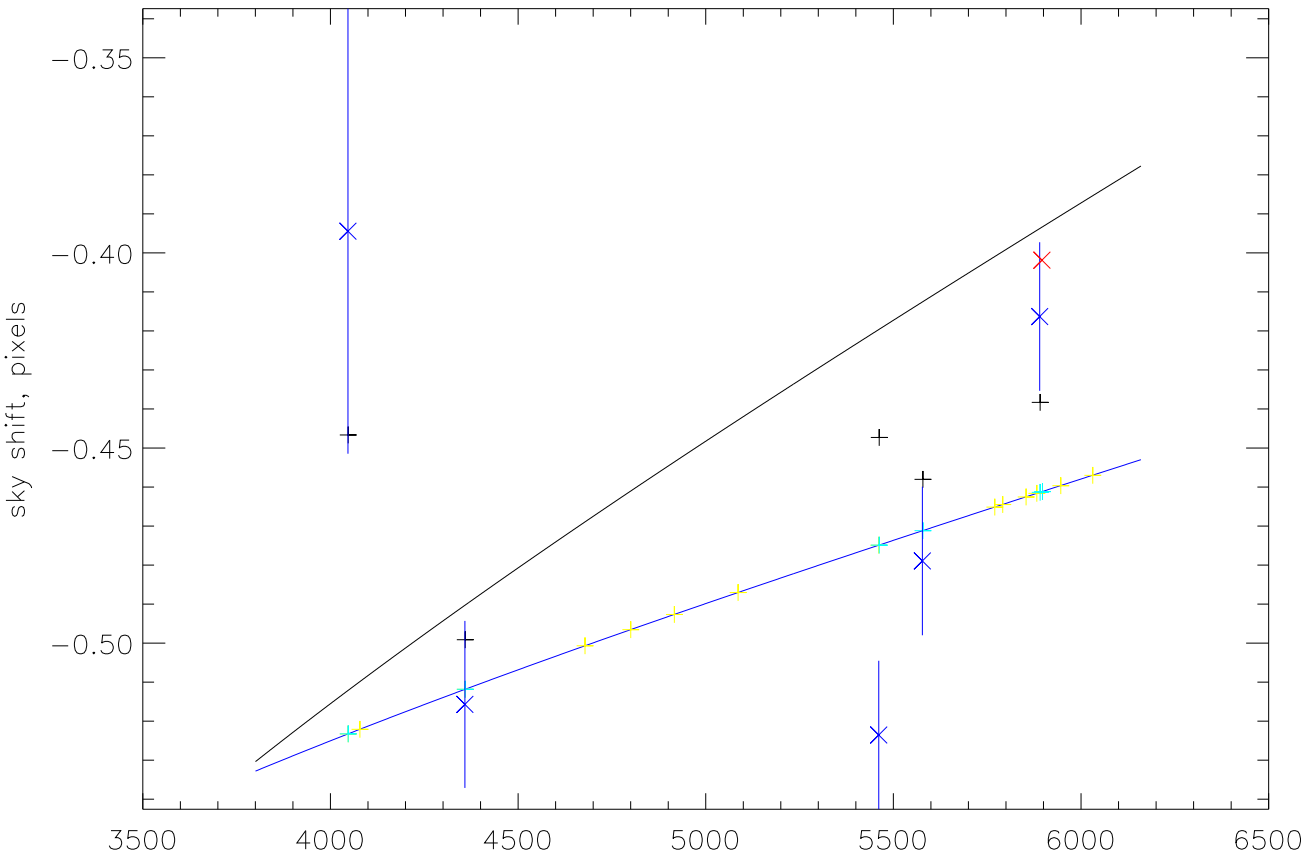

5460.9400
meas − arc
−0.2
−0.3
−0.4
−0.5
−0.6
−0.7
0
100
200
300
400

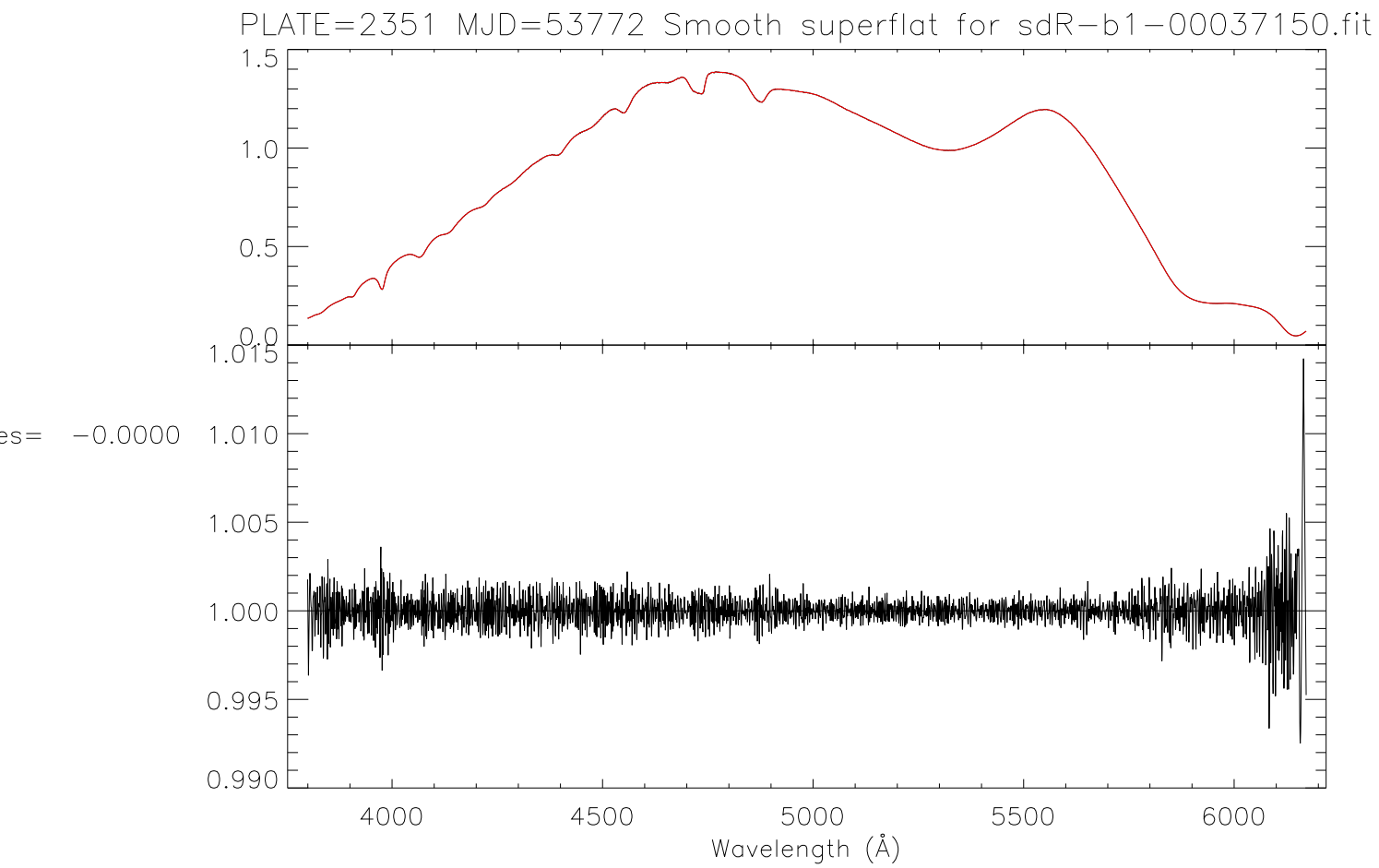

5577.3390
meas − arc
−0.2
−0.3
−0.4
−0.5
−0.6
−0.7
0
100
200
300
400

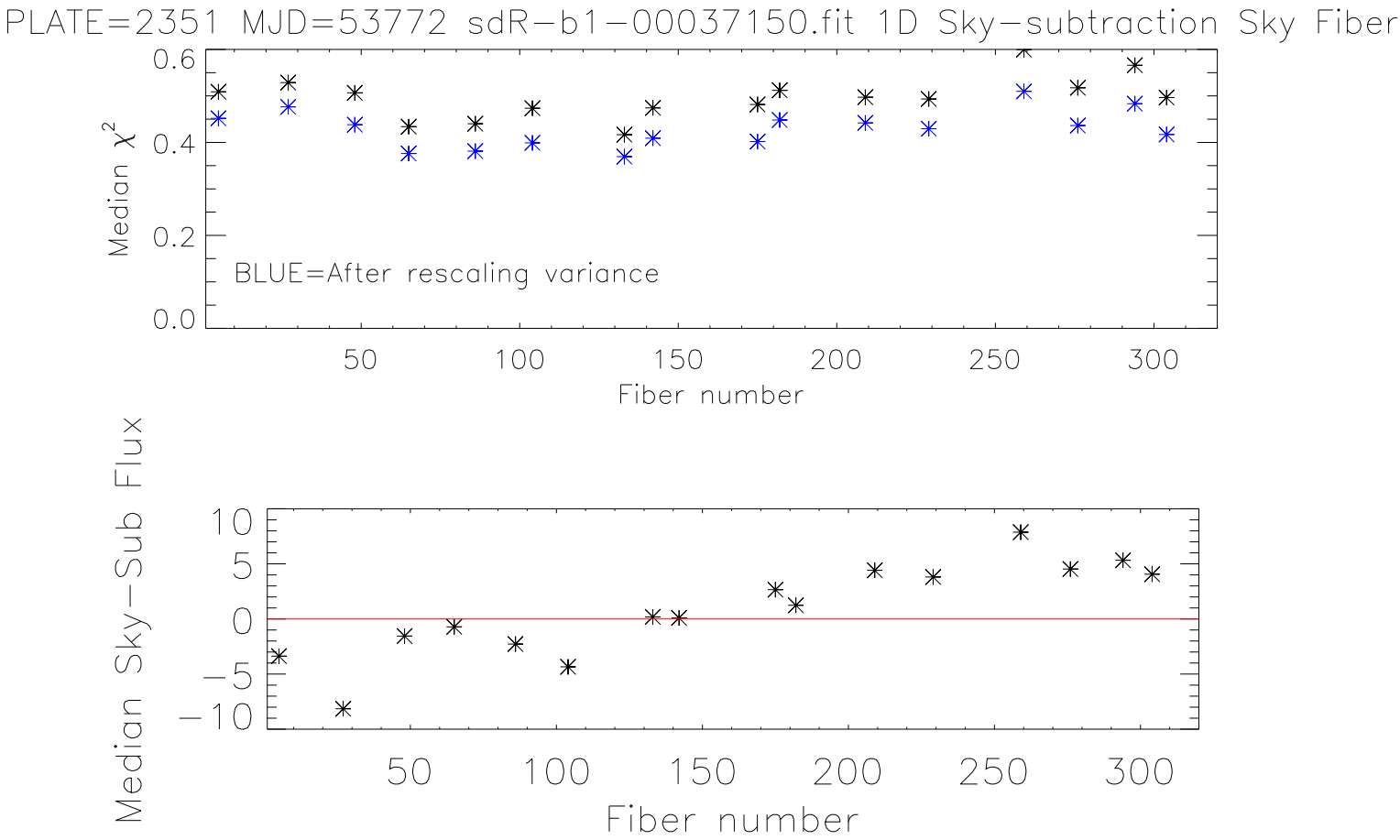

5889.9500
meas − arc
−0.2
−0.3
−0.4
−0.5
−0.6
−0.7
0
100
200
300
400

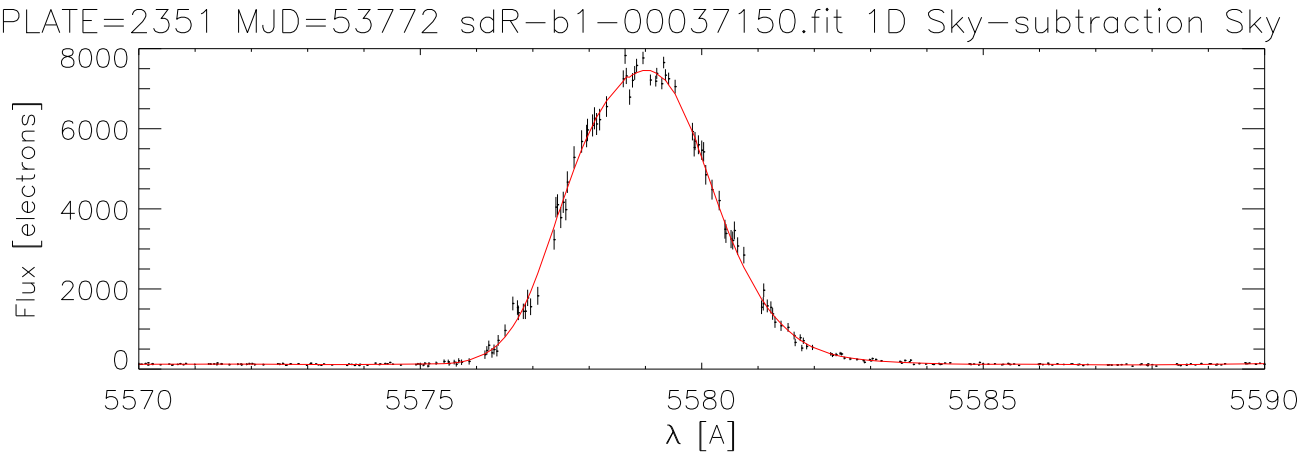

5895.9240
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

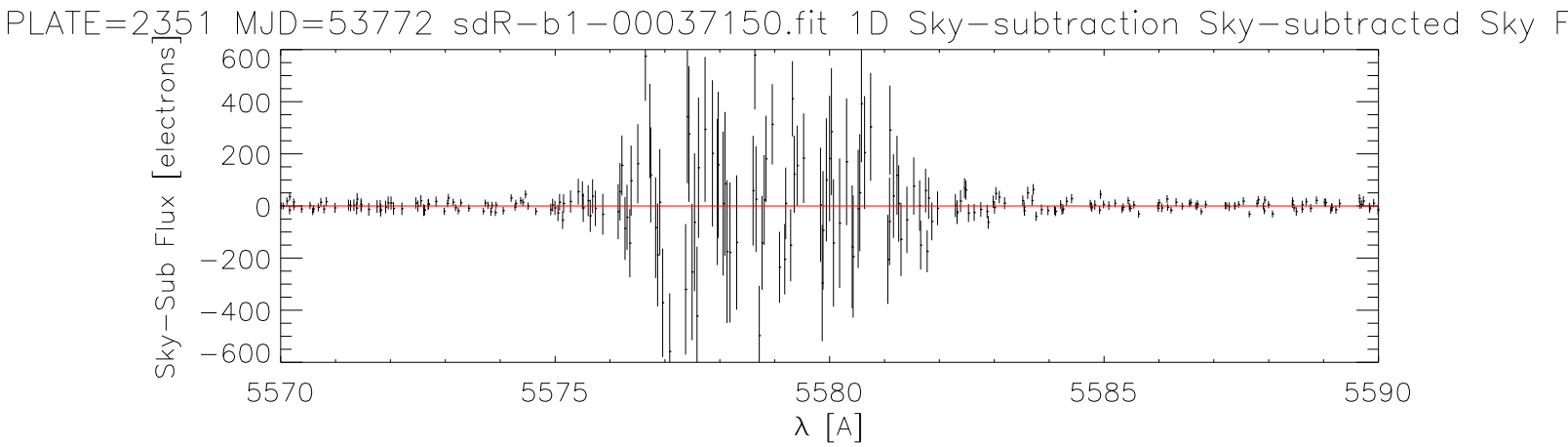

4046.5600
nfib1 16
nfib2 16
stdev 0.087
extra −0.39
4358.3300
nfib1 16
nfib2 16
stdev 0.072
extra −0.52
5460.9400
nfib1 16
nfib2 16
stdev 0.062
extra −0.52
5577.3390
nfib1 16
nfib2 16
stdev 0.036
extra −0.48
5889.9500
nfib1 16
nfib2 16
stdev 0.051
extra −0.42
5895.9240
nfib1 16
nfib2 16
stdev 0.039
extra −0.40
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

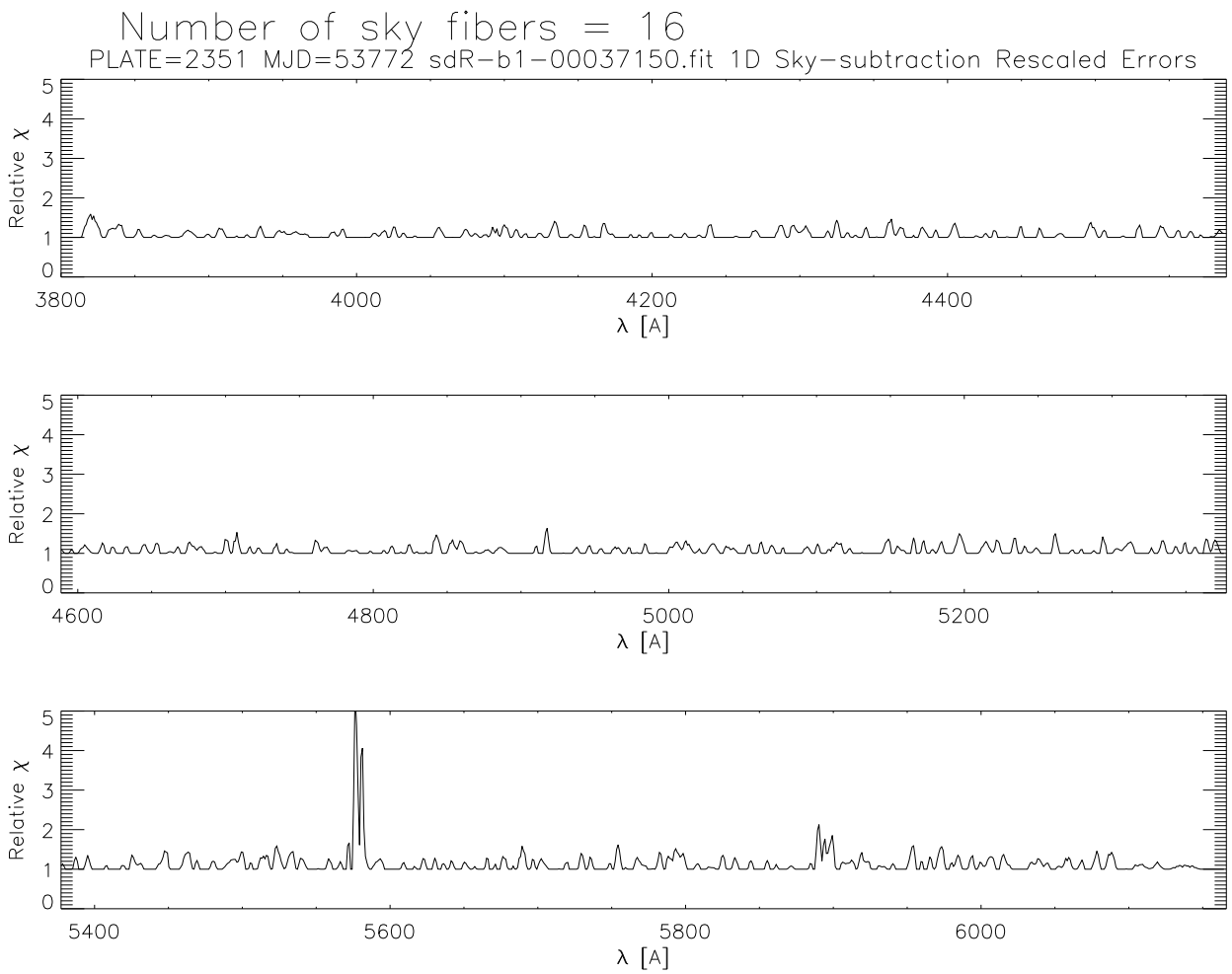

−0.35
−0.40
−0.45
−0.50
sky shift, pixels
3500
4000
4500
5000
5500
6000
6500

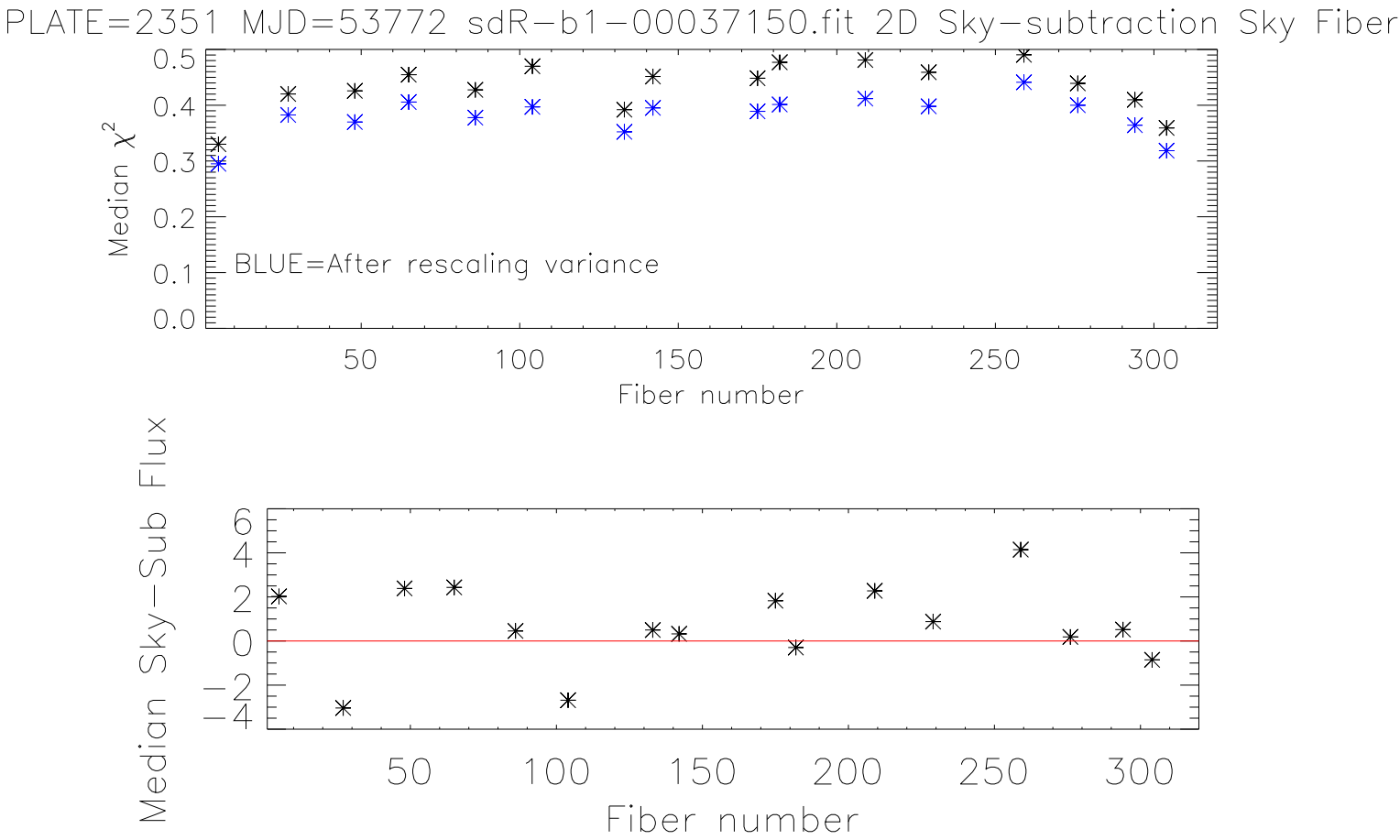

PLATE=2351 MJD=53772 Smooth superflat for sdR-b1-00037150.fit
1.5
1.0
0.5
0.0
es= -0.0000
1.015
1.010
1.005
1.000
0.995
0.990
4000
4500
5000
5500
6000
Wavelength (Å)

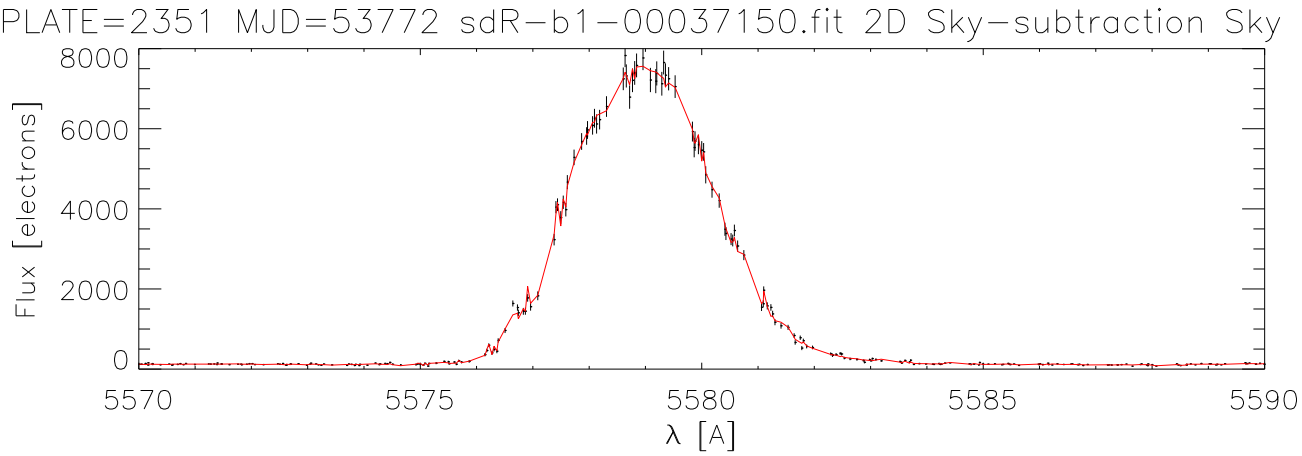

PLATE=2351 MJD=53772 sdR-b1-00037150.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.2
0.4
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
−5
−10
50
100
150
200
250
300
Fiber number

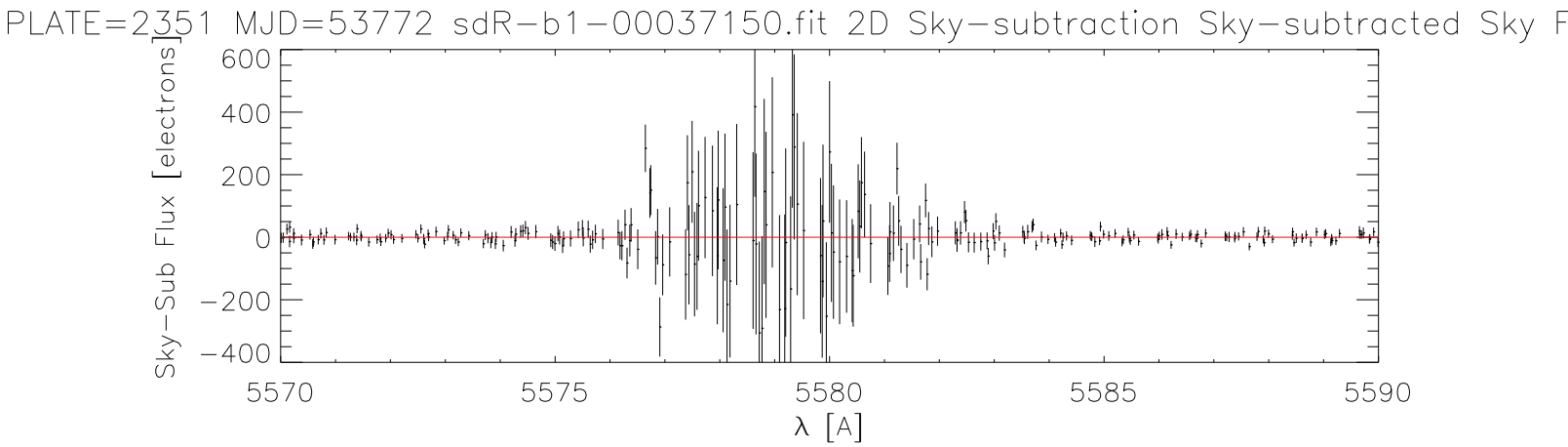

PLATE=2351 MJD=53772 sdR-b1-00037150.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

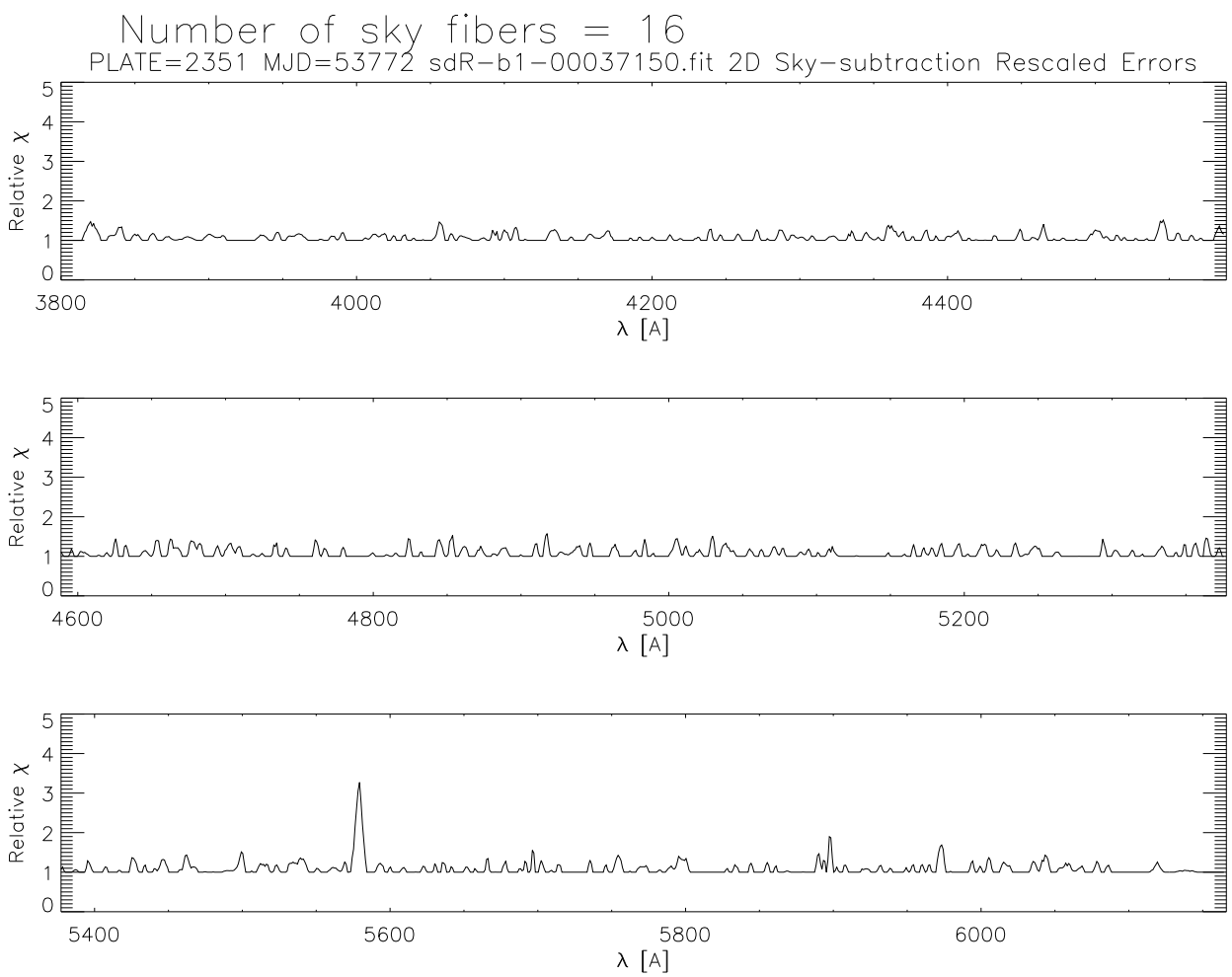

PLATE=2351 MJD=53772 sdR-b1-00037150.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
-200
-400
-600
5570
5575
5580
5585
5590
λ [A]

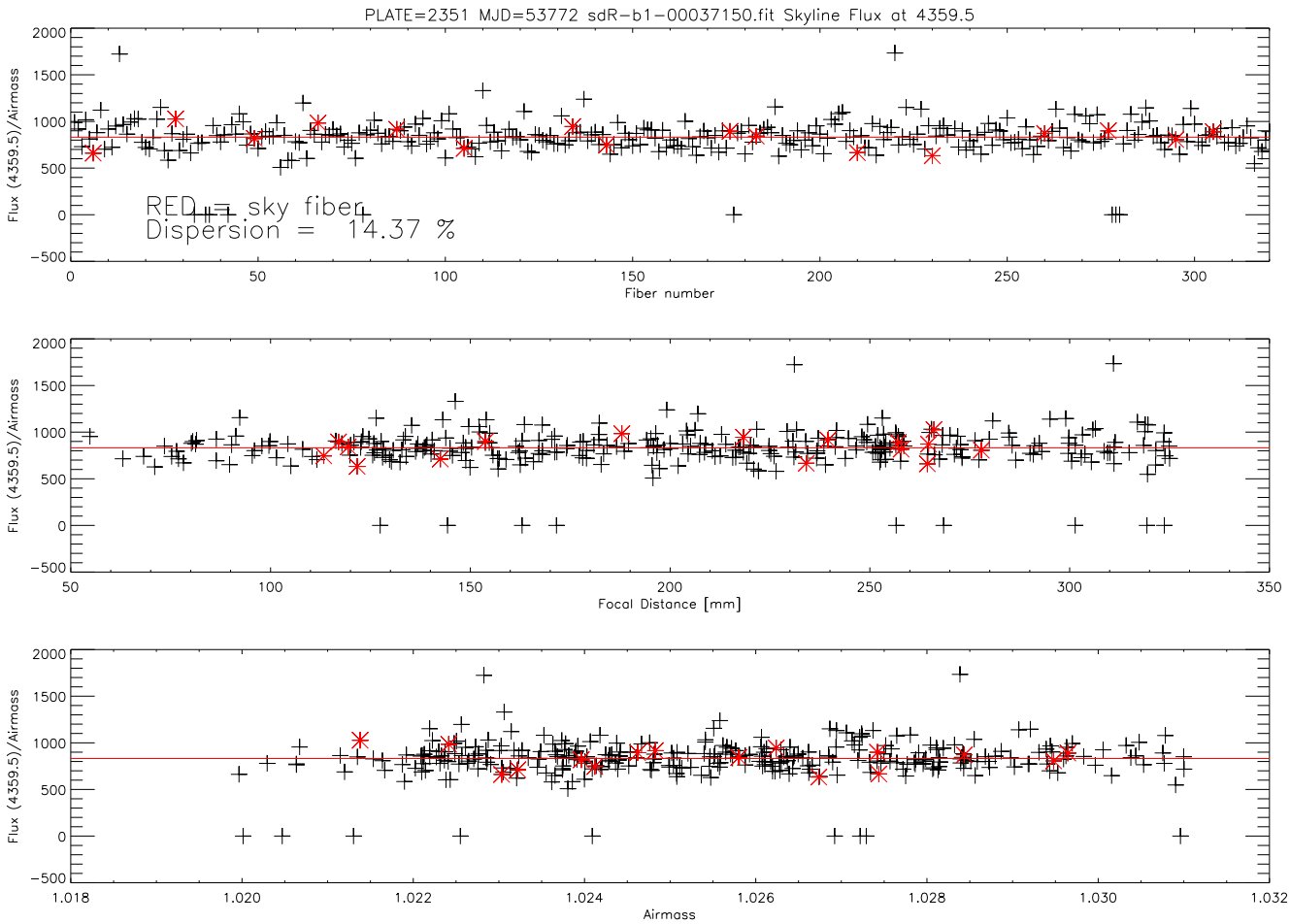

Number of sky fibers = 16
PLATE=2351 MJD=53772 sdR-b1-00037150.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

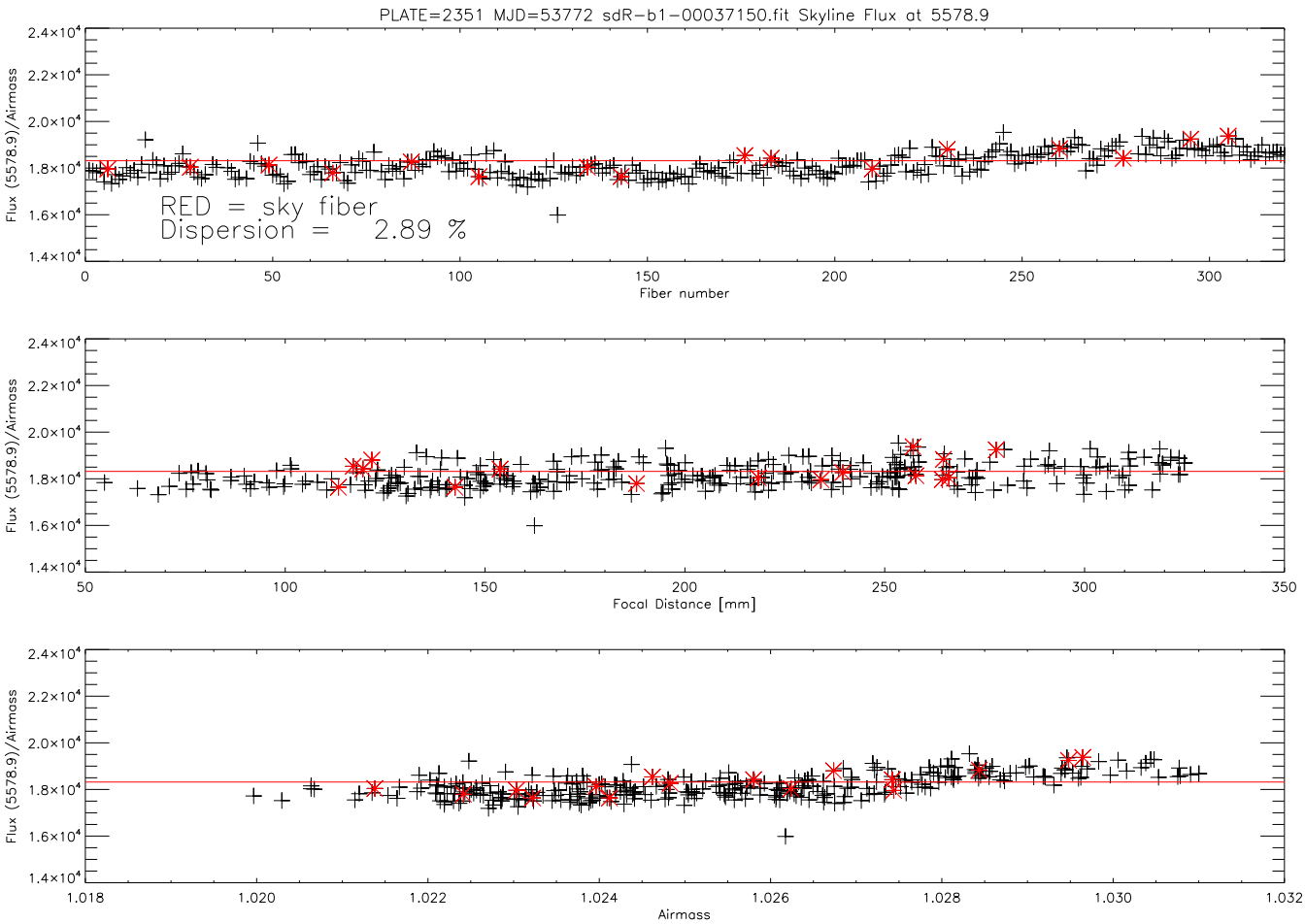

PLATE=2351 MJD=53772 sdR-b1-00037150.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

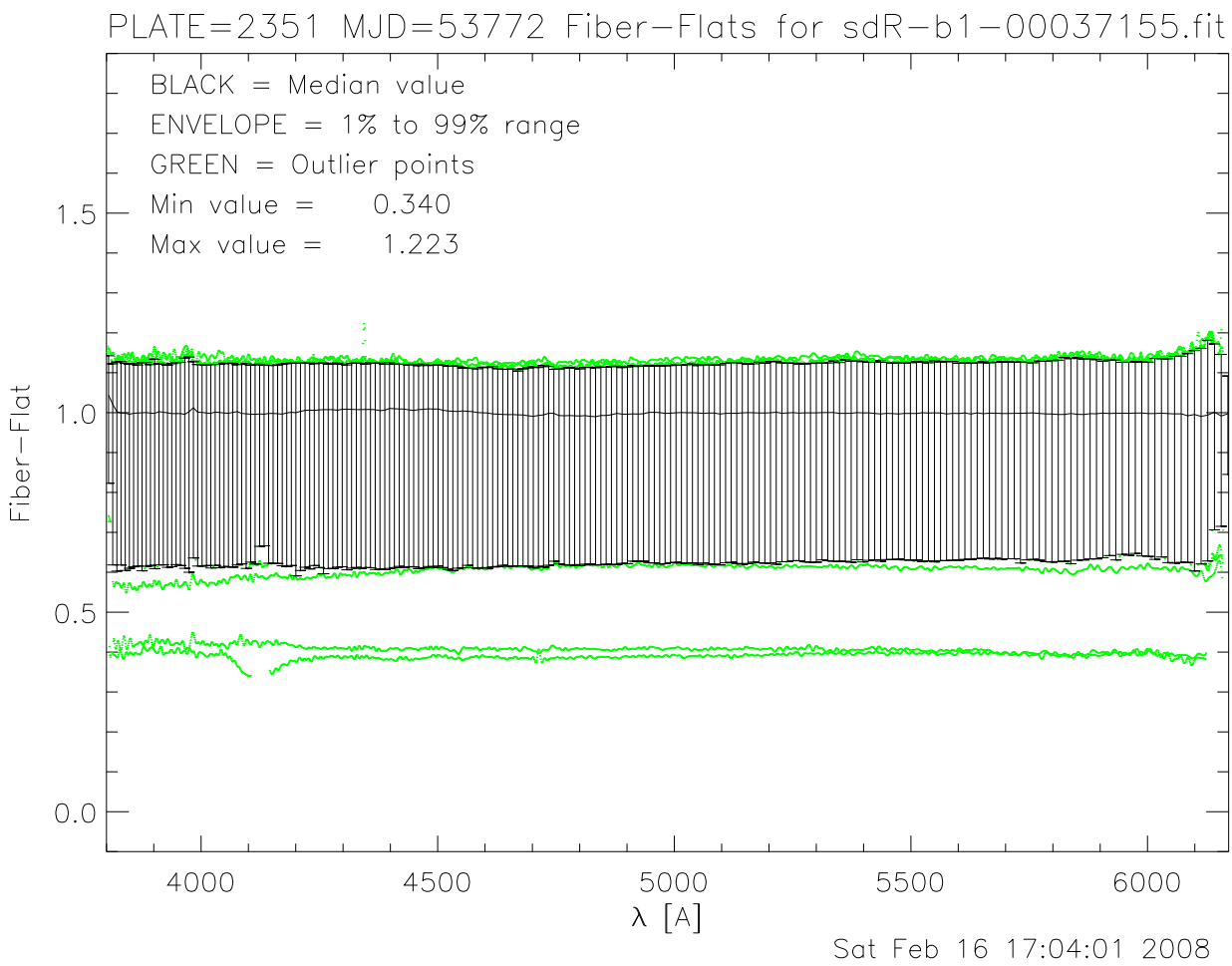

PLATE=2351 MJD=53772 sdR-b1-00037150.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

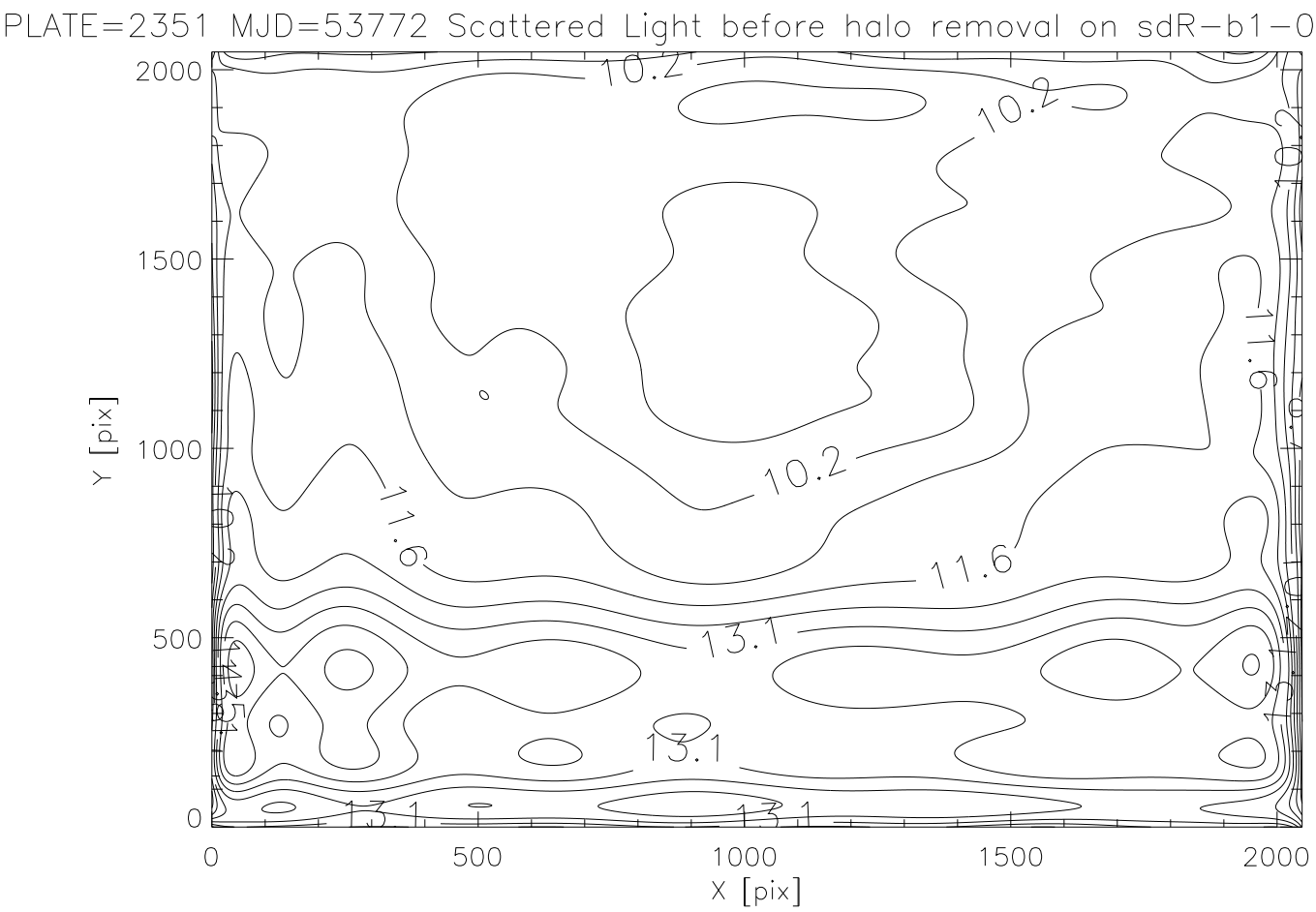

PLATE=2351 MJD=53772 sdR-b1-00037150.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
-200
-400
5570
5575
5580
5585
5590
λ [A]

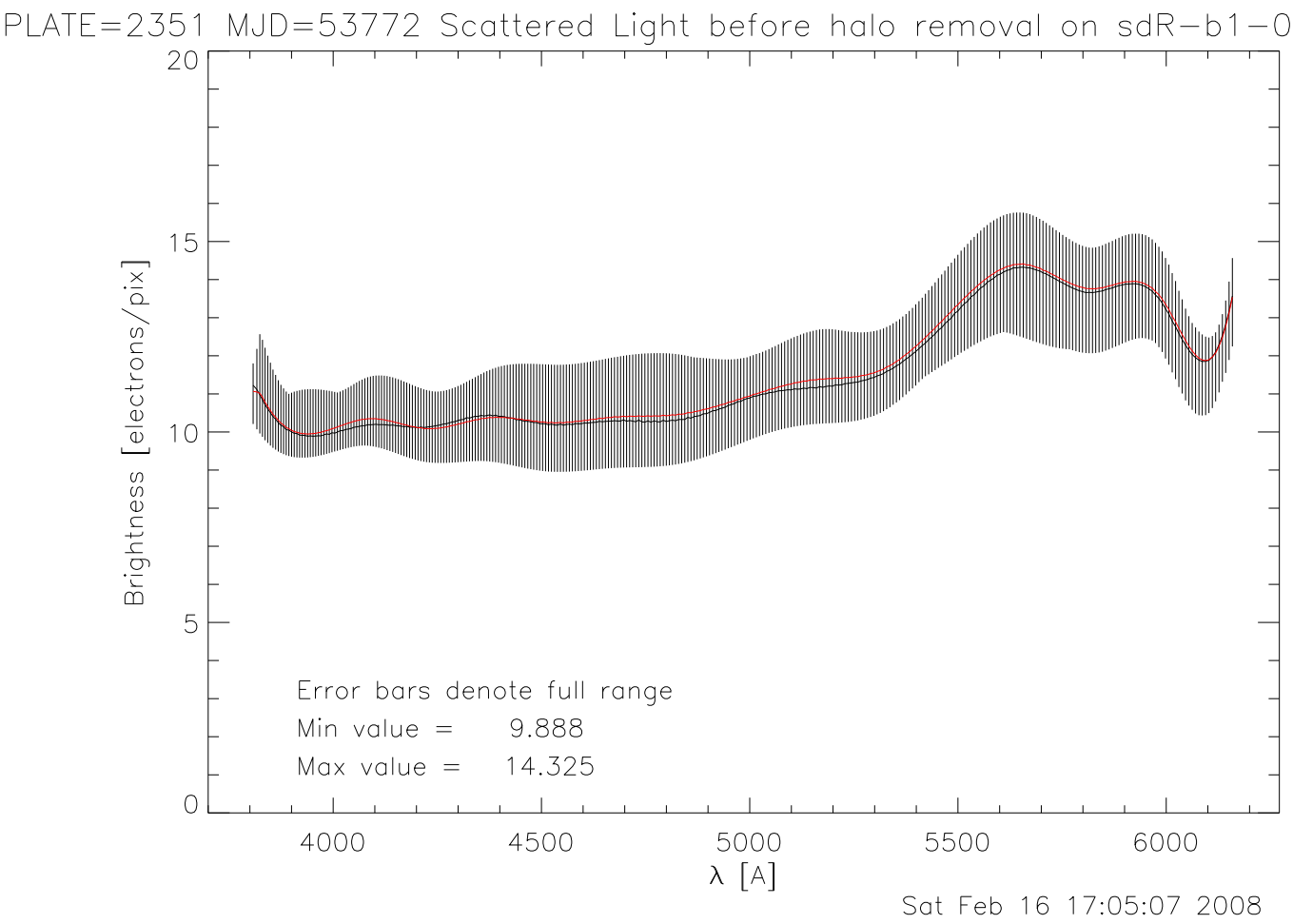

Number of sky fibers = 16
PLATE=2351 MJD=53772 sdR-b1-00037150.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

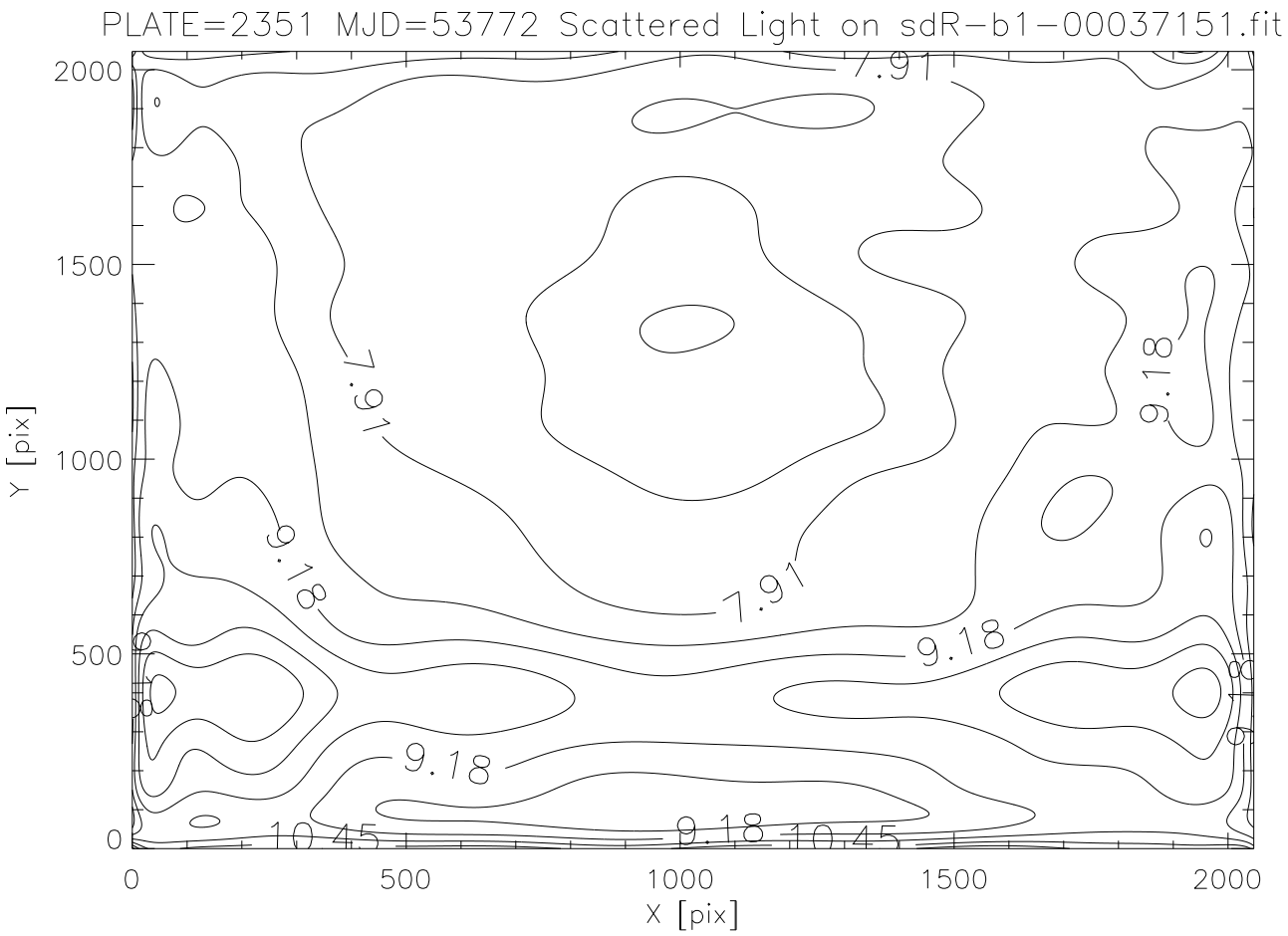

PLATE=2351 MJD=53772 sdR-b1-00037150.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
Fiber number
RED = sky fiber
Dispersion = 14.37 %
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

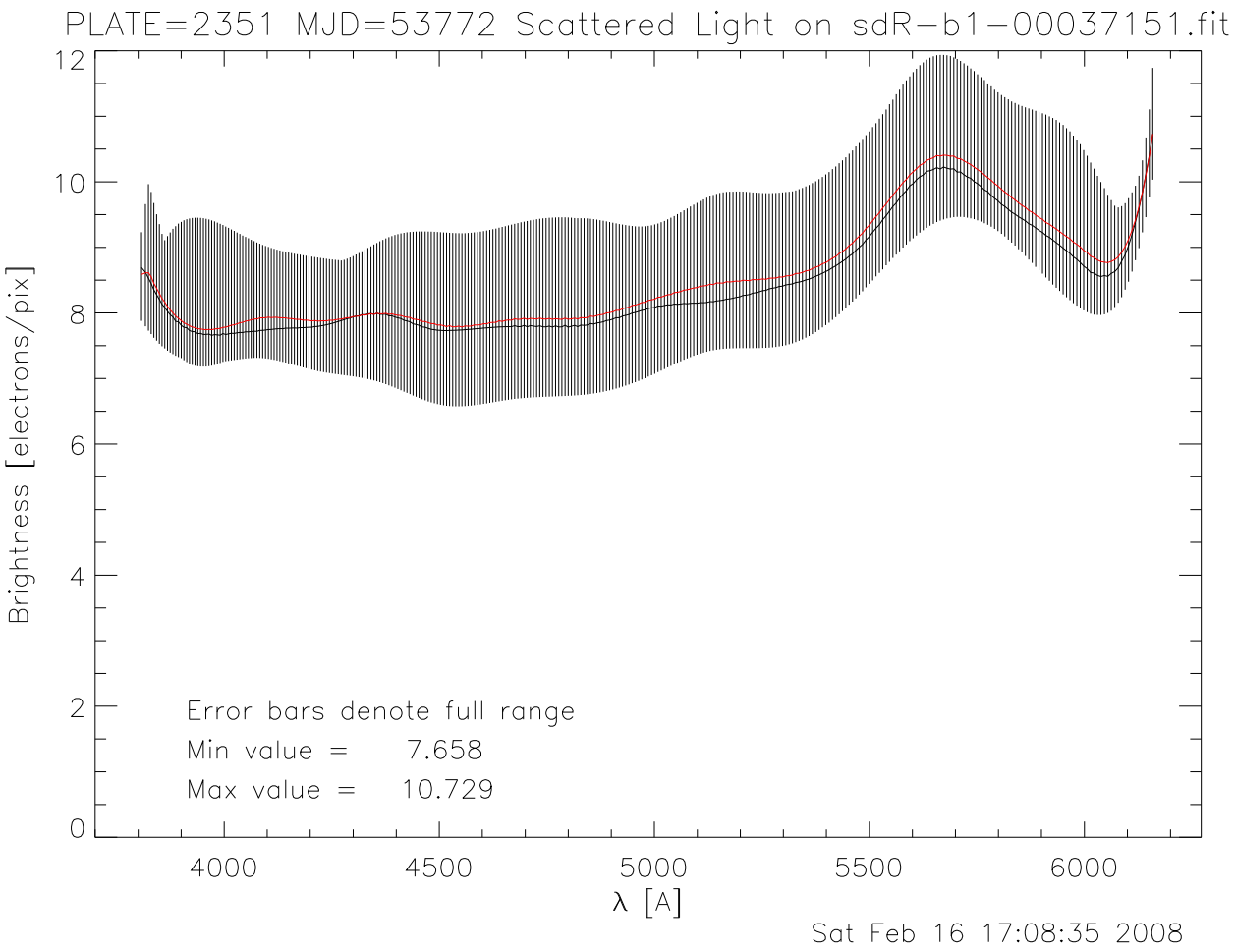

PLATE=2351 MJD=53772 sdR-b1-00037150.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
2.4×10^4
2.2×10^4
2.0×10^4
1.8×10^4
1.6×10^4
1.4×10^4
RED = sky fiber
Dispersion = 2.89 %
0
50
100
150
200
250
300
Fiber number
Flux (5578.9)/Airmass
2.4×10^4
2.2×10^4
2.0×10^4
1.8×10^4
1.6×10^4
1.4×10^4
50
100
150
200
250
300
350
Focal Distance [mm]
Flux (5578.9)/Airmass
2.4×10^4
2.2×10^4
2.0×10^4
1.8×10^4
1.6×10^4
1.4×10^4
1.018
1.020
1.022
1.024
1.026
1.028
1.030
1.032
Airmass

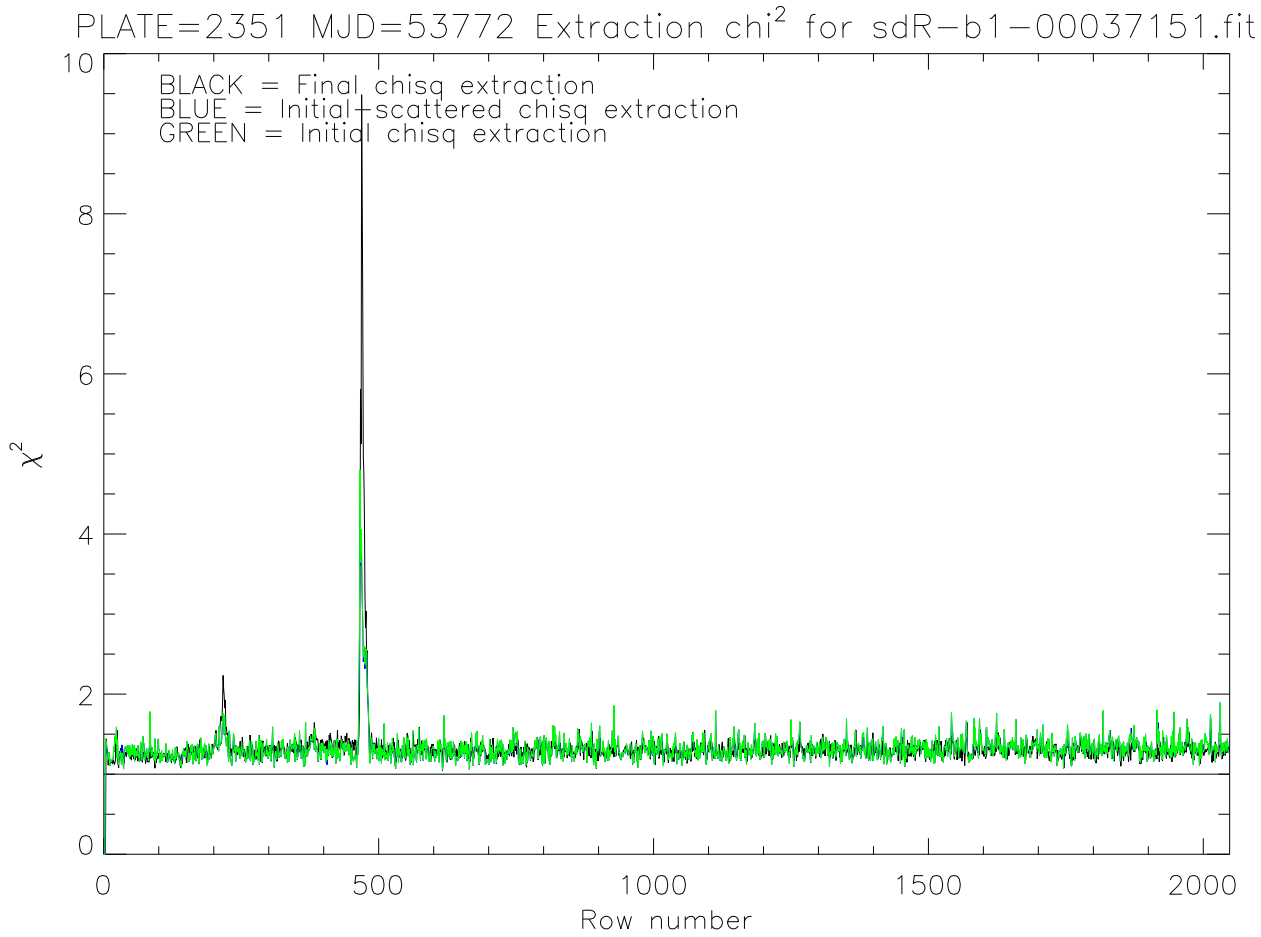

PLATE=2351 MJD=53772 Fiber-Flats for sdR-b1-00037155.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.340
Max value = 1.223
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Sat Feb 16 17:04:01 2008

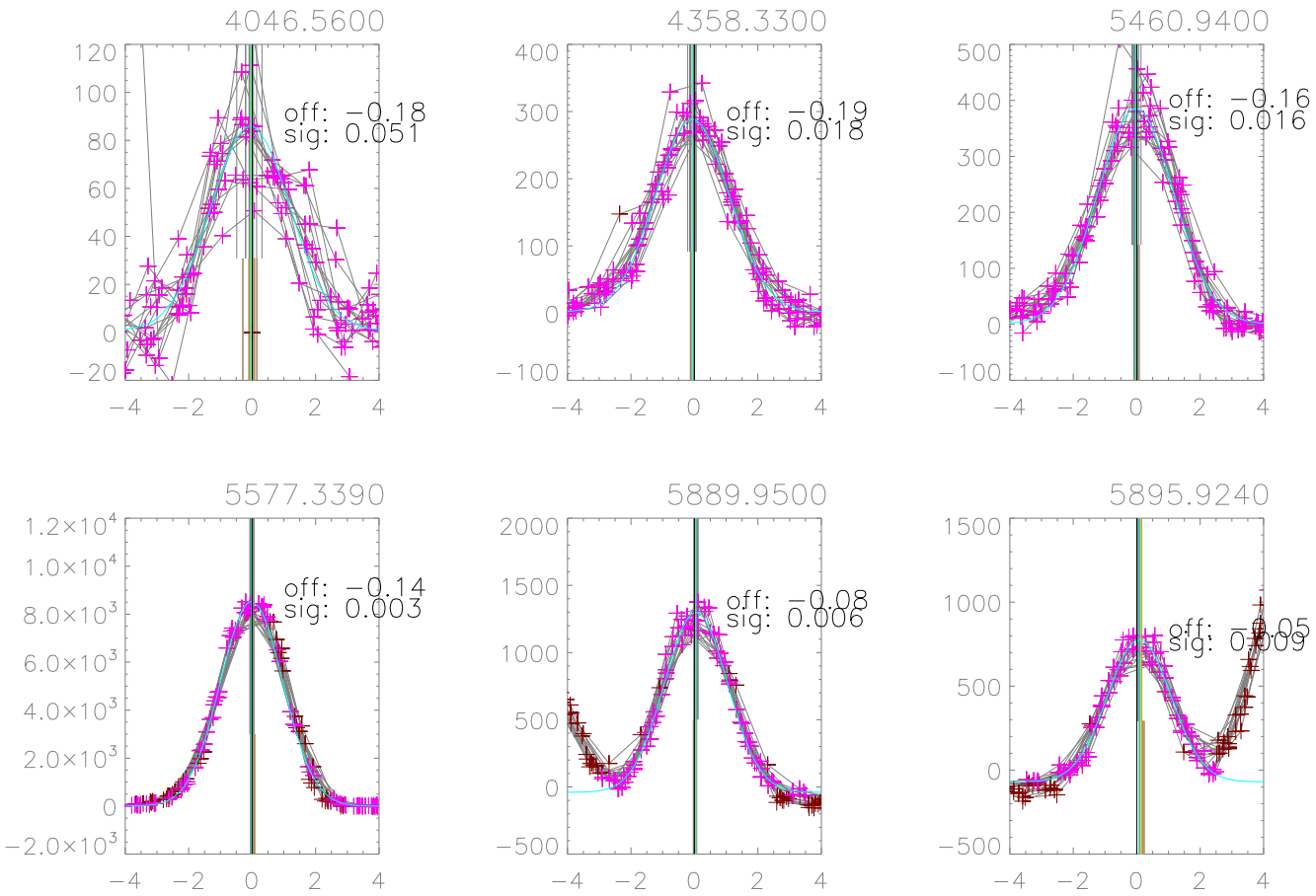

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR−b1−00037151.f
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
10.2
11.6
13.1

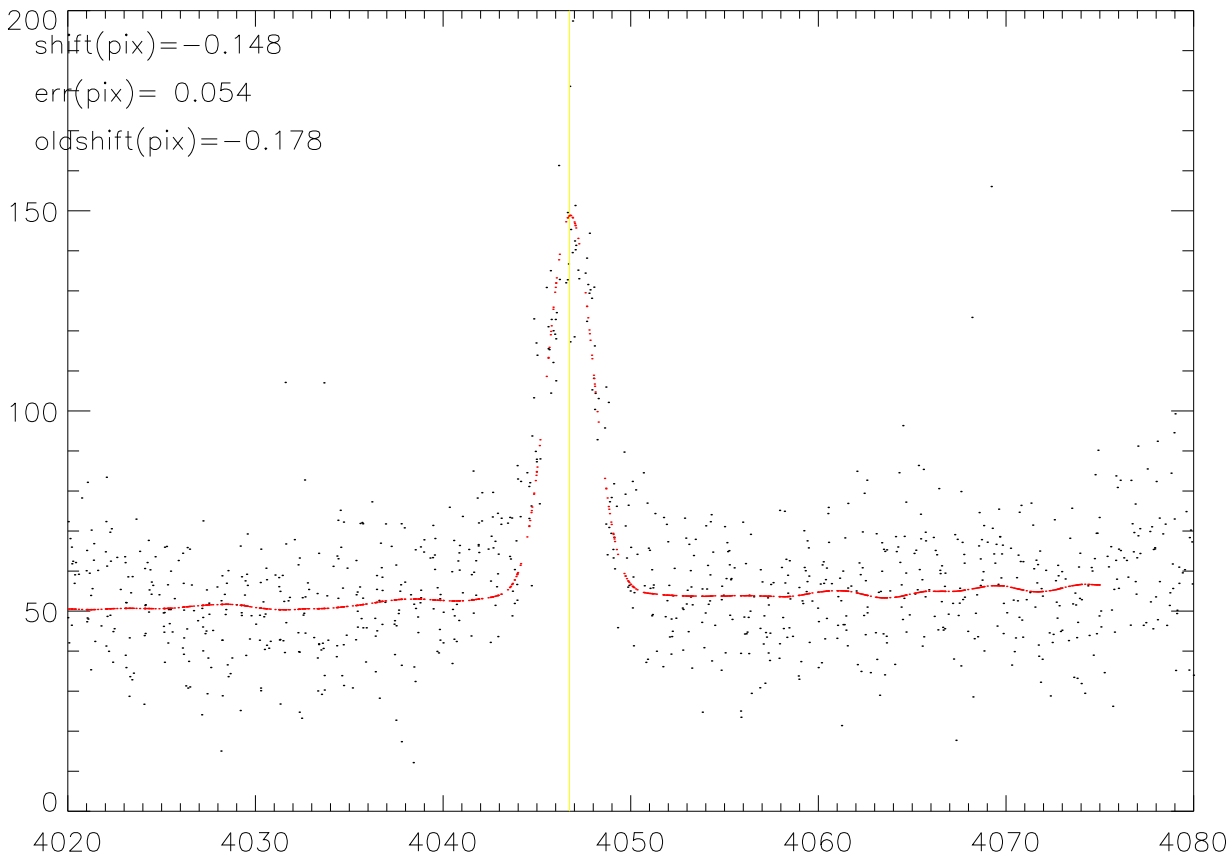

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR-b1-00037151.f
Brightness [electrons/pix]
20
15
10
5
0
Error bars denote full range
Min value = 9.888
Max value = 14.325
4000
4500
5000
5500
6000
λ [A]
Sat Feb 16 17:05:07 2008

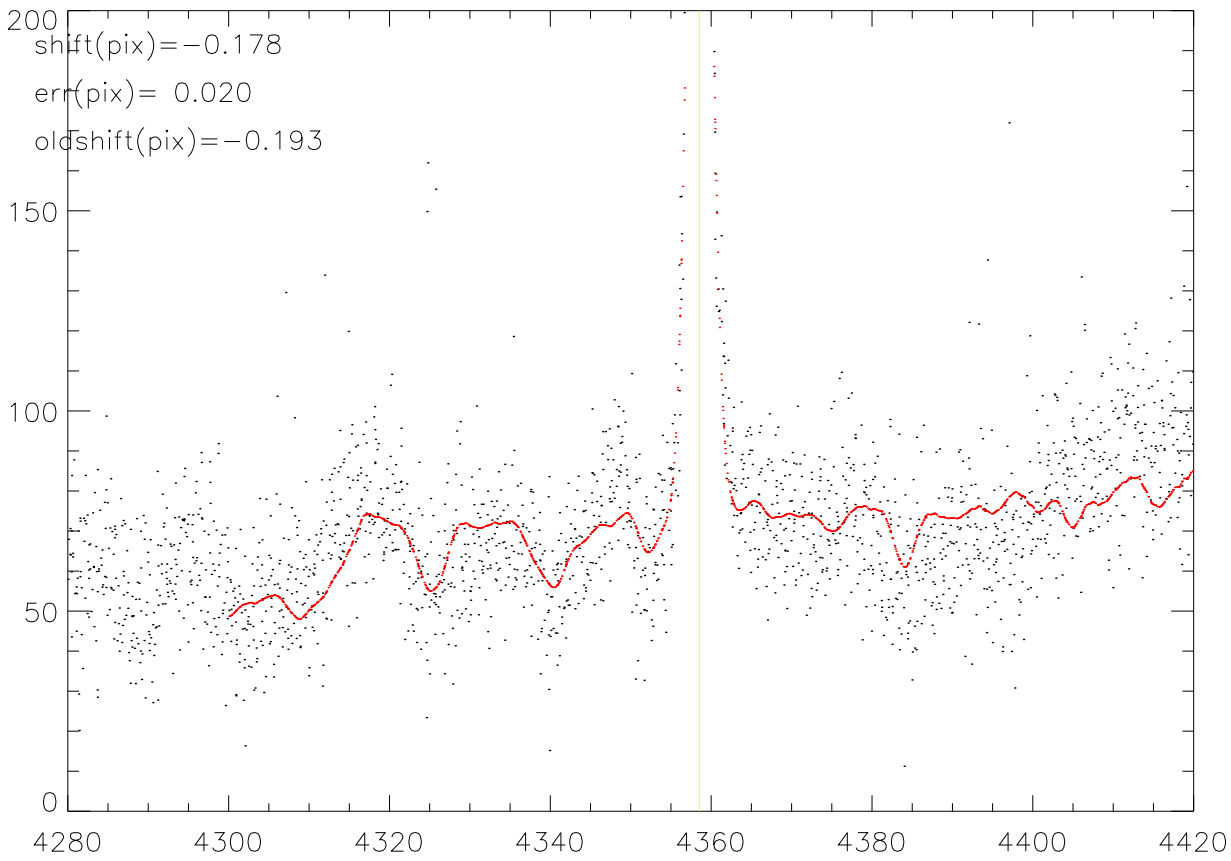

PLATE=2351 MJD=53772 Scattered Light on sdR-b1-00037151.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
7.91
9.18
10.45

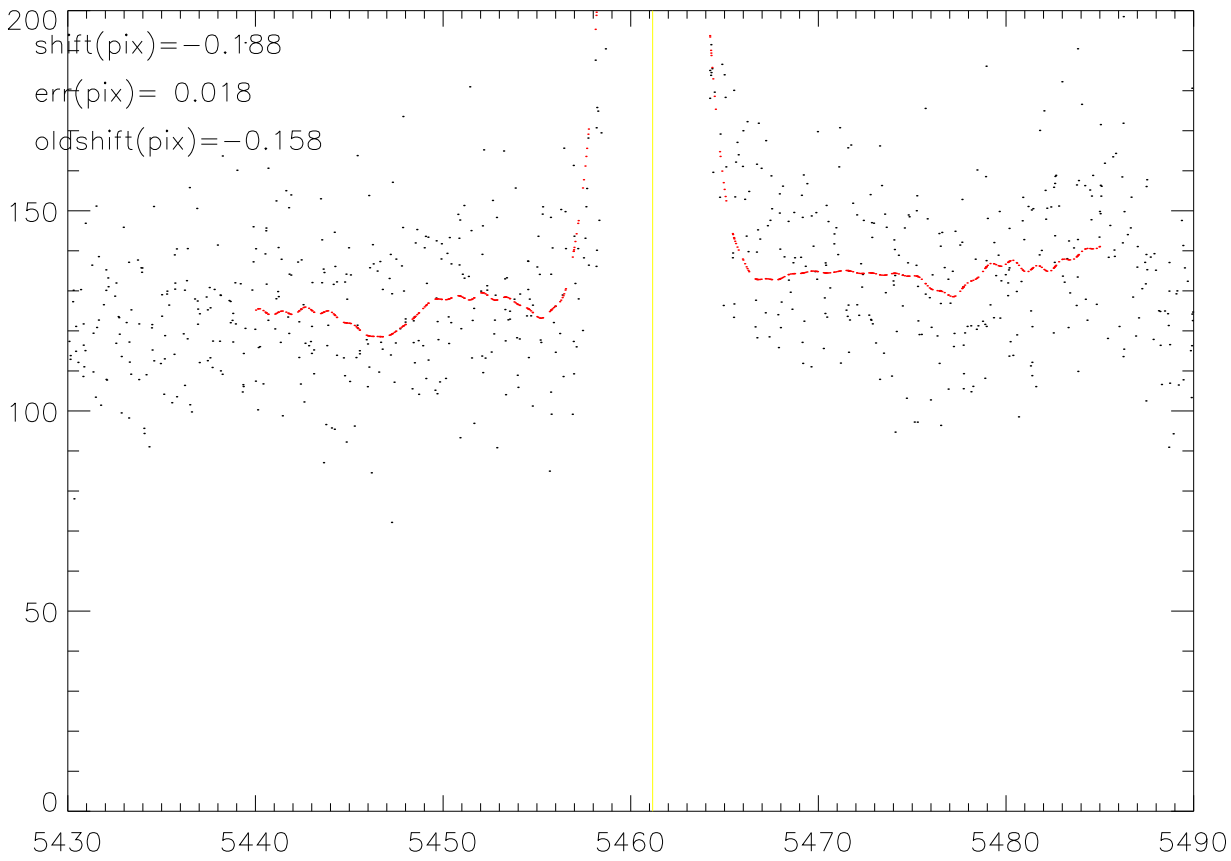

PLATE=2351 MJD=53772 Scattered Light on sdR-b1-00037151.fit
Brightness [electrons/pix]
12
10
8
6
4
2
0
Error bars denote full range
Min value = 7.658
Max value = 10.729
4000
4500
5000
5500
6000
λ [A]
Sat Feb 16 17:08:35 2008

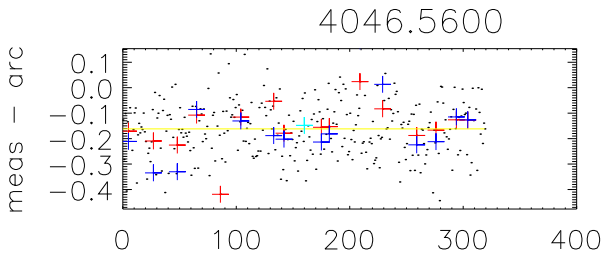

PLATE=2351 MJD=53772 Extraction chi^2 for sdR-b1-00037151.fit
BLACK = Final chisq extraction
BLUE = Initial+scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
2
4
6
8
10
0
500
1000
1500
2000

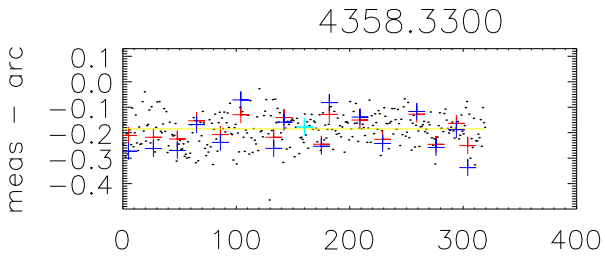

4046.5600
off: −0.18
sig: 0.051
4358.3300
off: −0.19
sig: 0.018
5460.9400
off: −0.16
sig: 0.016
5577.3390
off: −0.14
sig: 0.003
5889.9500
off: −0.08
sig: 0.006
5895.9240
off: −0.05
sig: 0.009

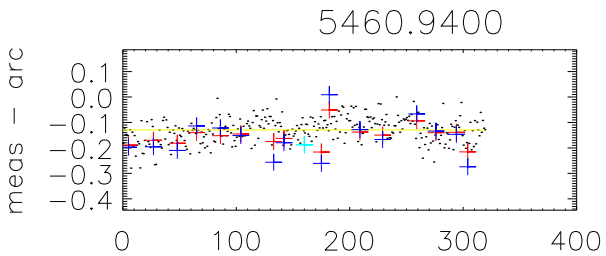

shift(pix)=−0.148
err(pix)= 0.054
oldshift(pix)=−0.178
200
150
100
50
0
4020
4030
4040
4050
4060
4070
4080

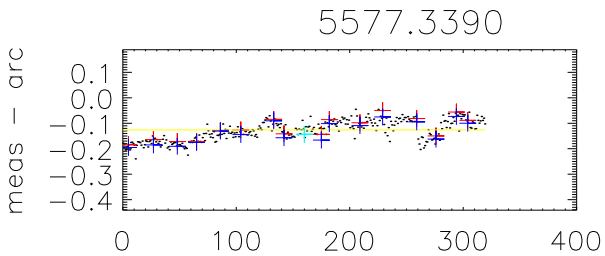

shift(pix)=−0.178
err(pix)= 0.020
oldshift(pix)=−0.193
200
150
100
50
0
4280
4300
4320
4340
4360
4380
4400
4420

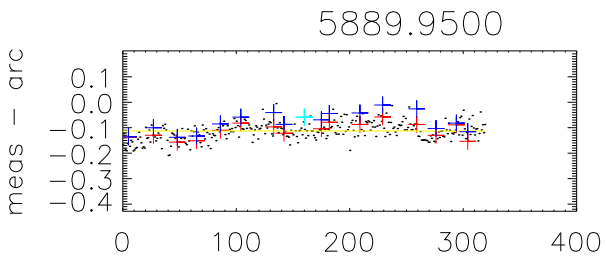

shift(pix)=−0.188
err(pix)= 0.018
oldshift(pix)=−0.158
200
150
100
50
0
5430
5440
5450
5460
5470
5480
5490

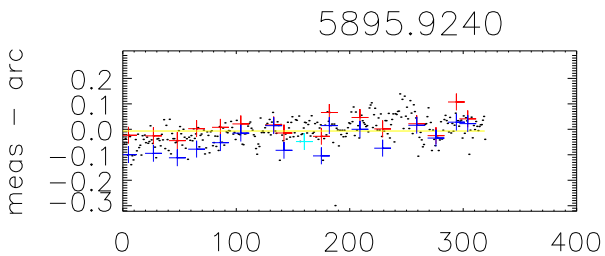

4046.5600
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

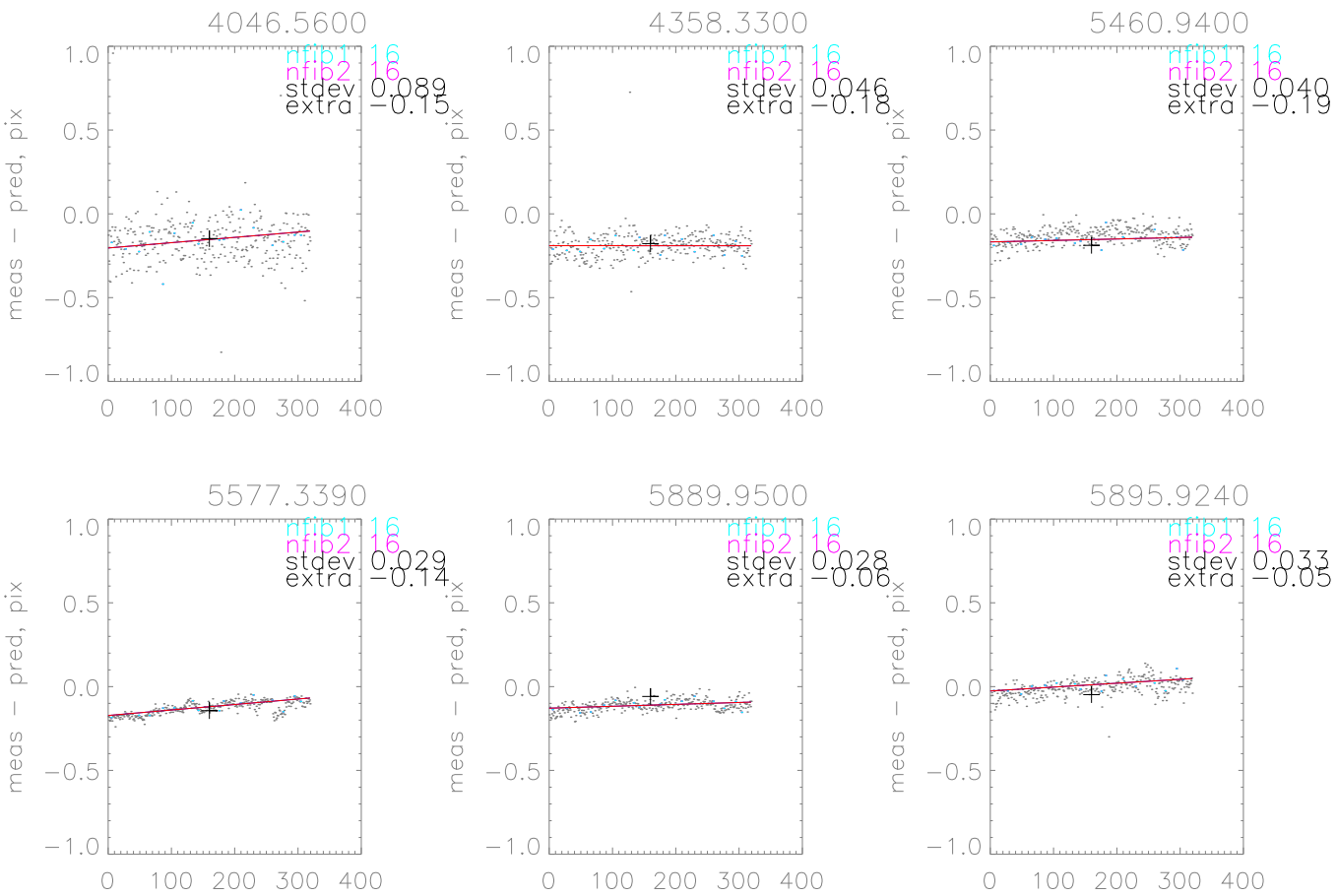

4358.3300
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

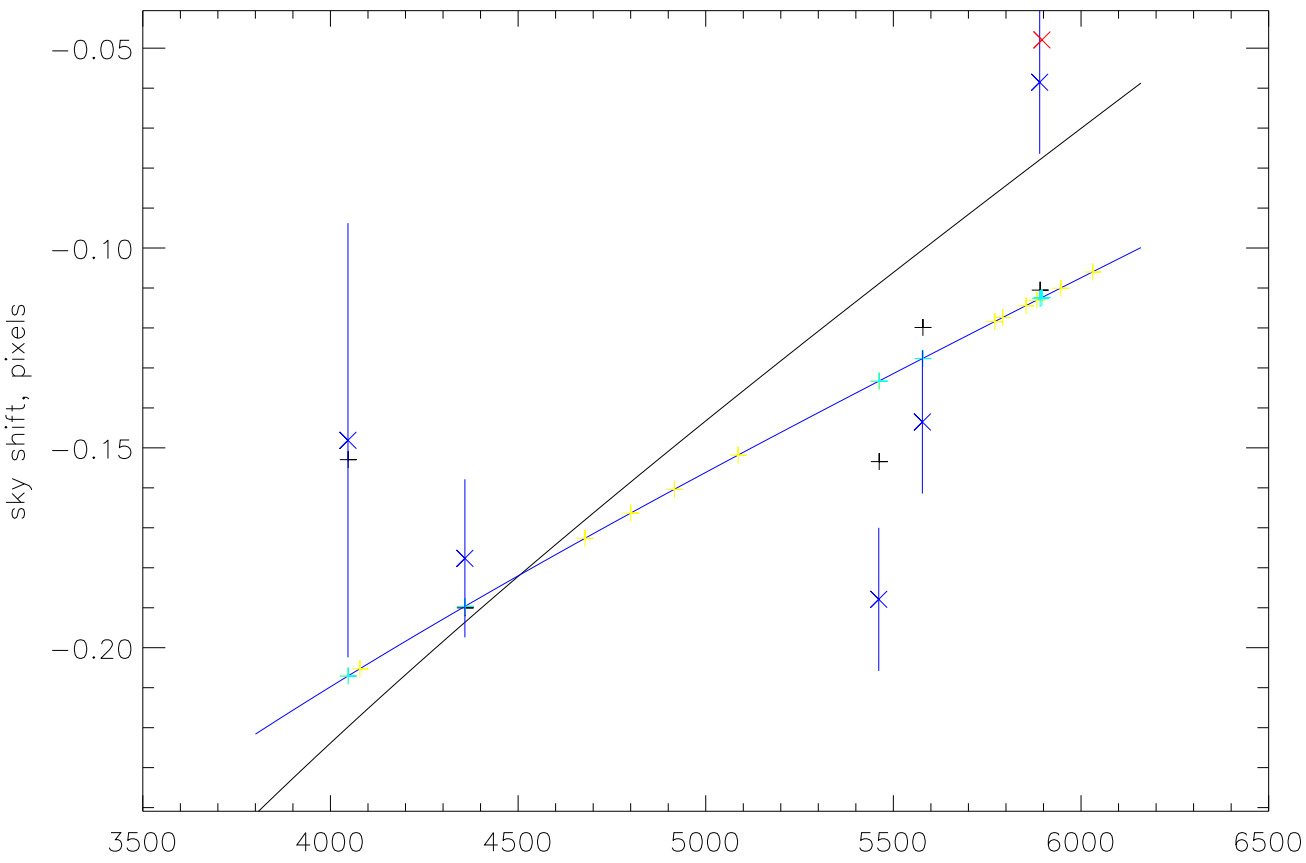

5460.9400
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400


5577.3390
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

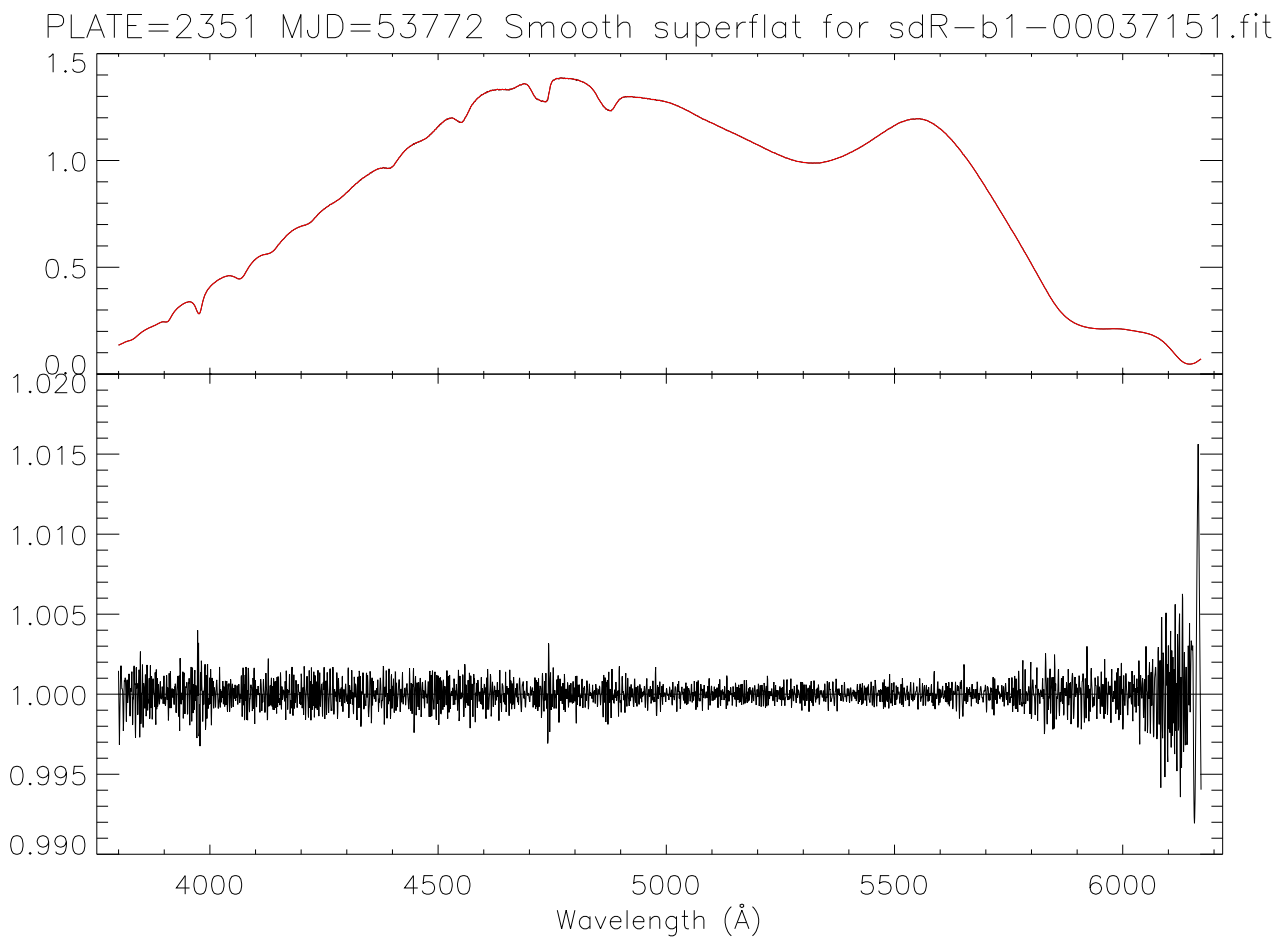

5889.9500
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

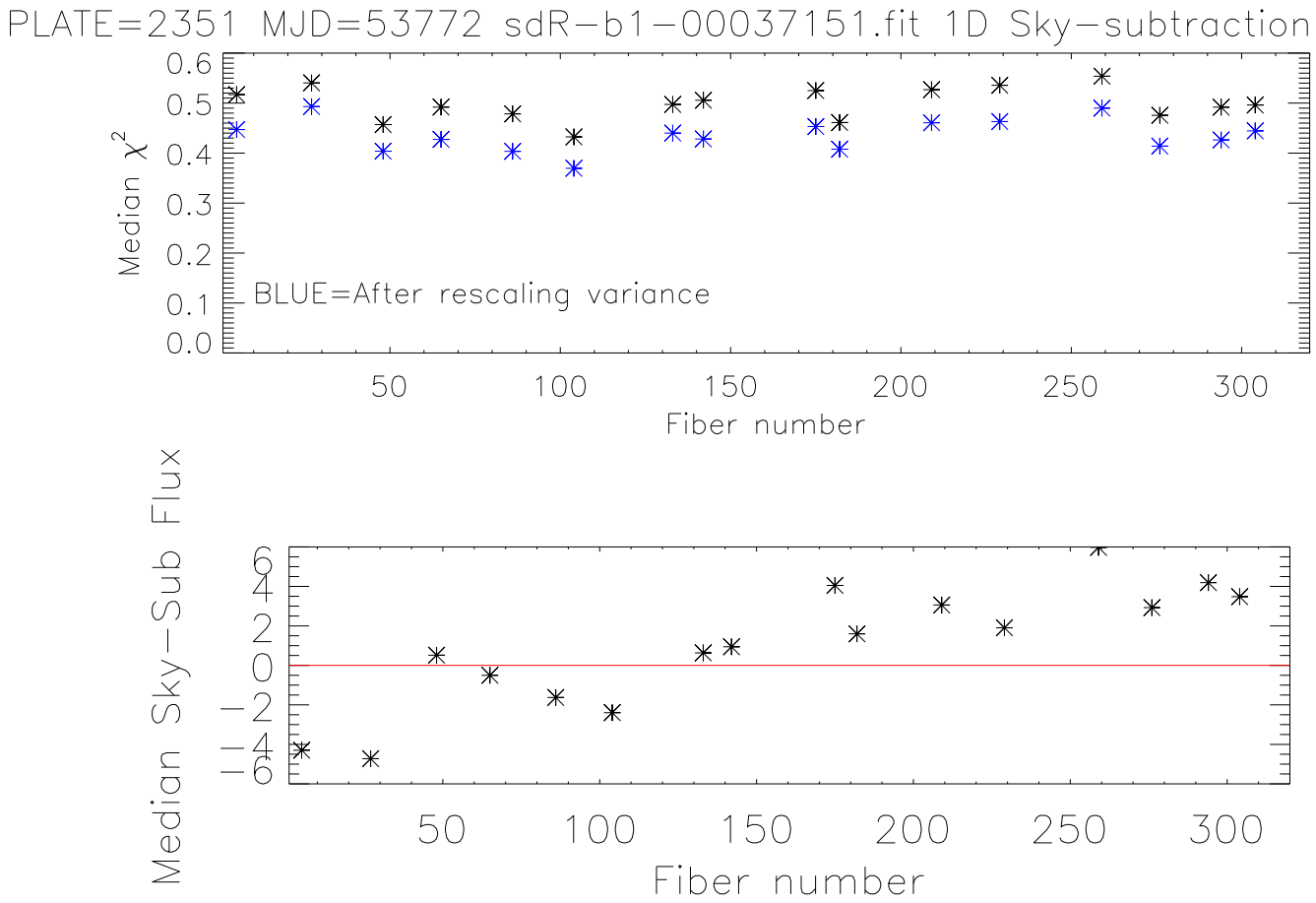

5895.9240
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

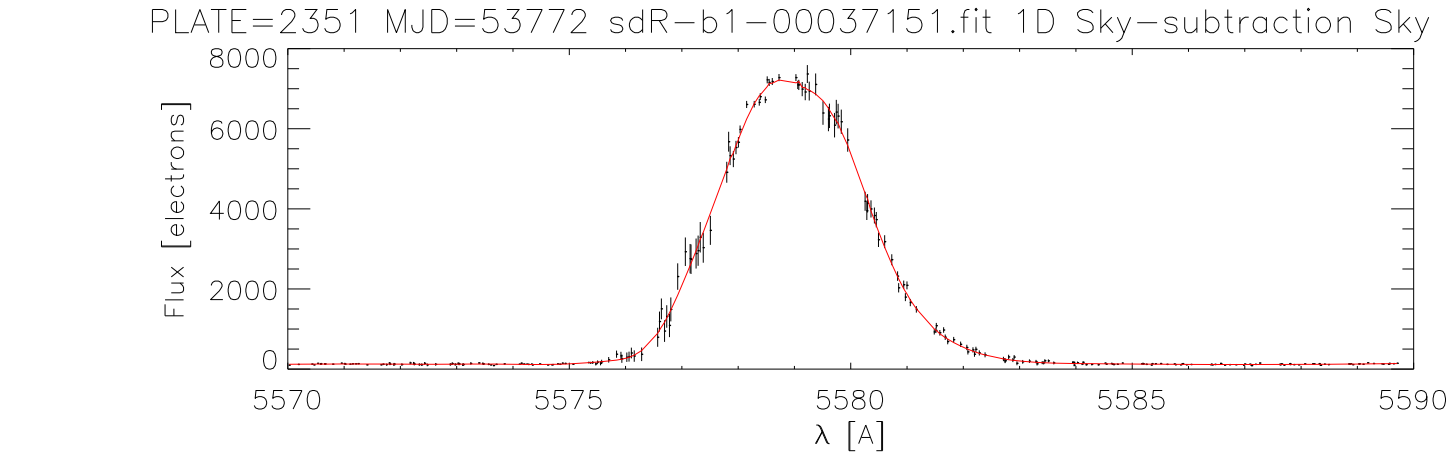

4046.5600
nfib1 16
nfib2 16
stdev 0.089
extra −0.15
4358.3300
nfib1 16
nfib2 16
stdev 0.046
extra −0.18
5460.9400
nfib1 16
nfib2 16
stdev 0.040
extra −0.19
5577.3390
nfib1 16
nfib2 16
stdev 0.029
extra −0.14
5889.9500
nfib1 16
nfib2 16
stdev 0.028
extra −0.06
5895.9240
nfib1 16
nfib2 16
stdev 0.033
extra −0.05
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

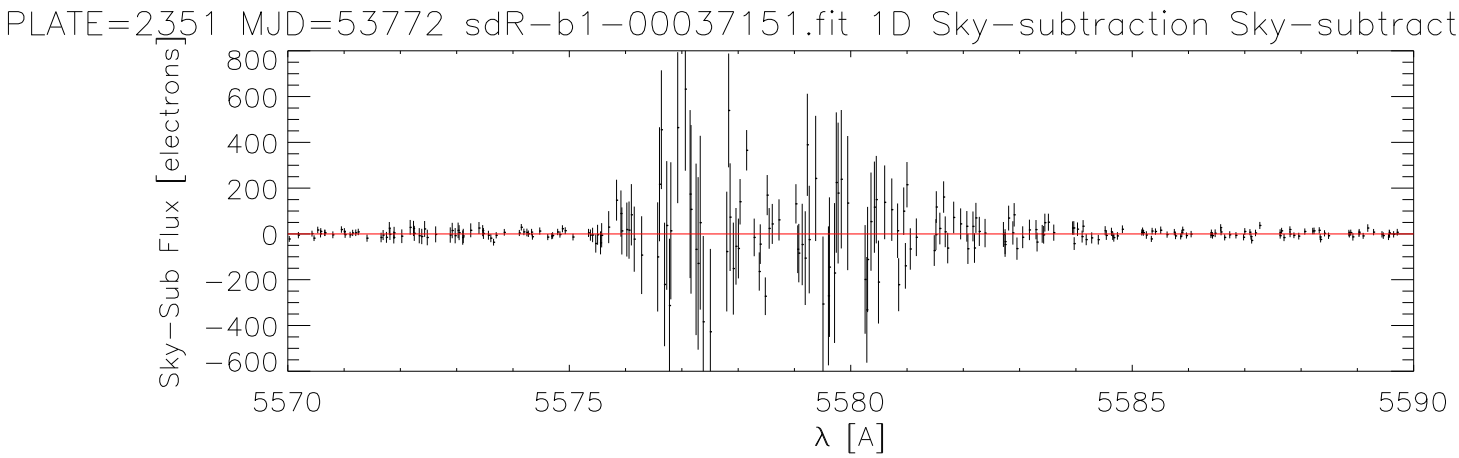

−0.05
−0.10
−0.15
−0.20
sky shift, pixels
3500
4000
4500
5000
5500
6000
6500

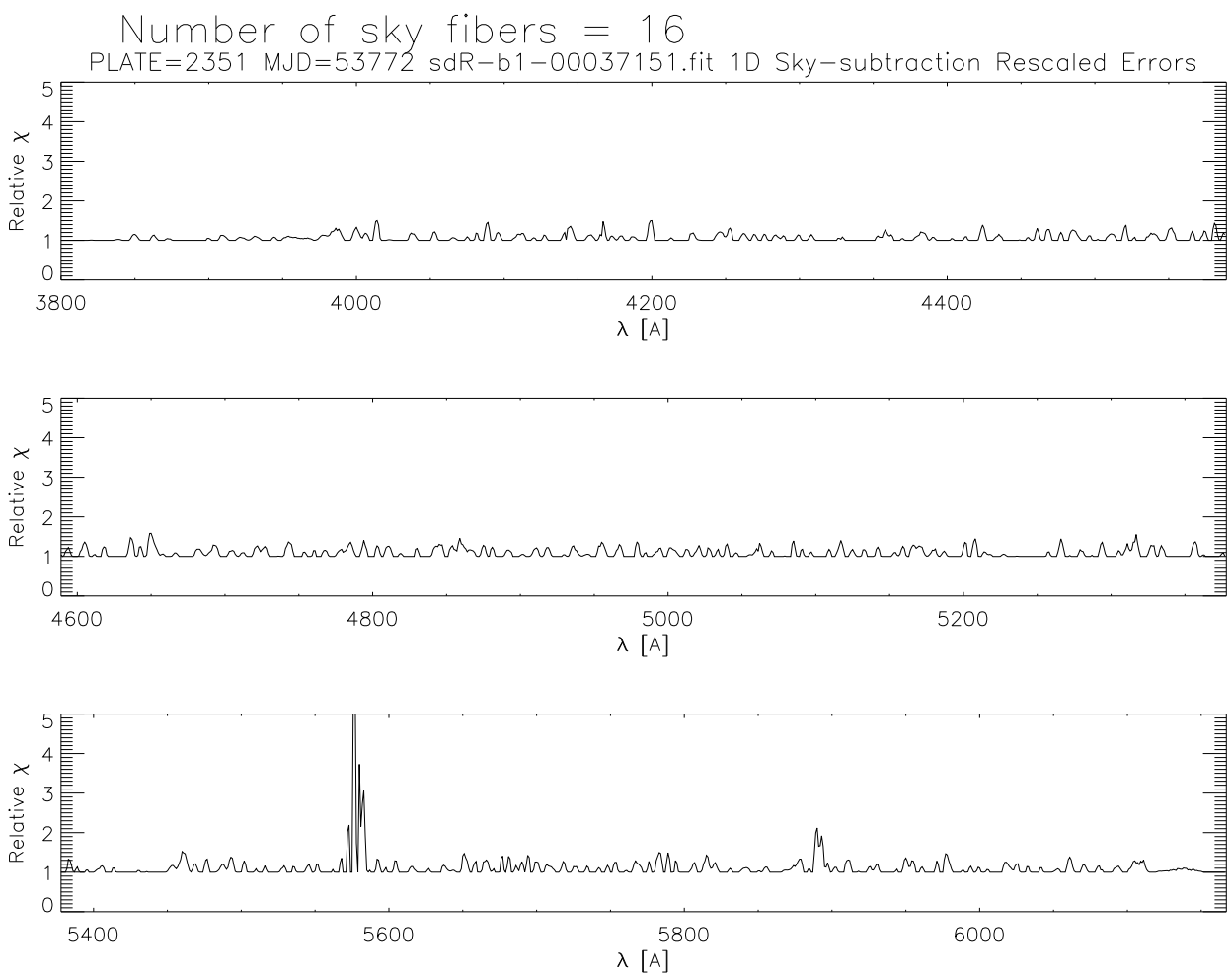
es= 0.0000

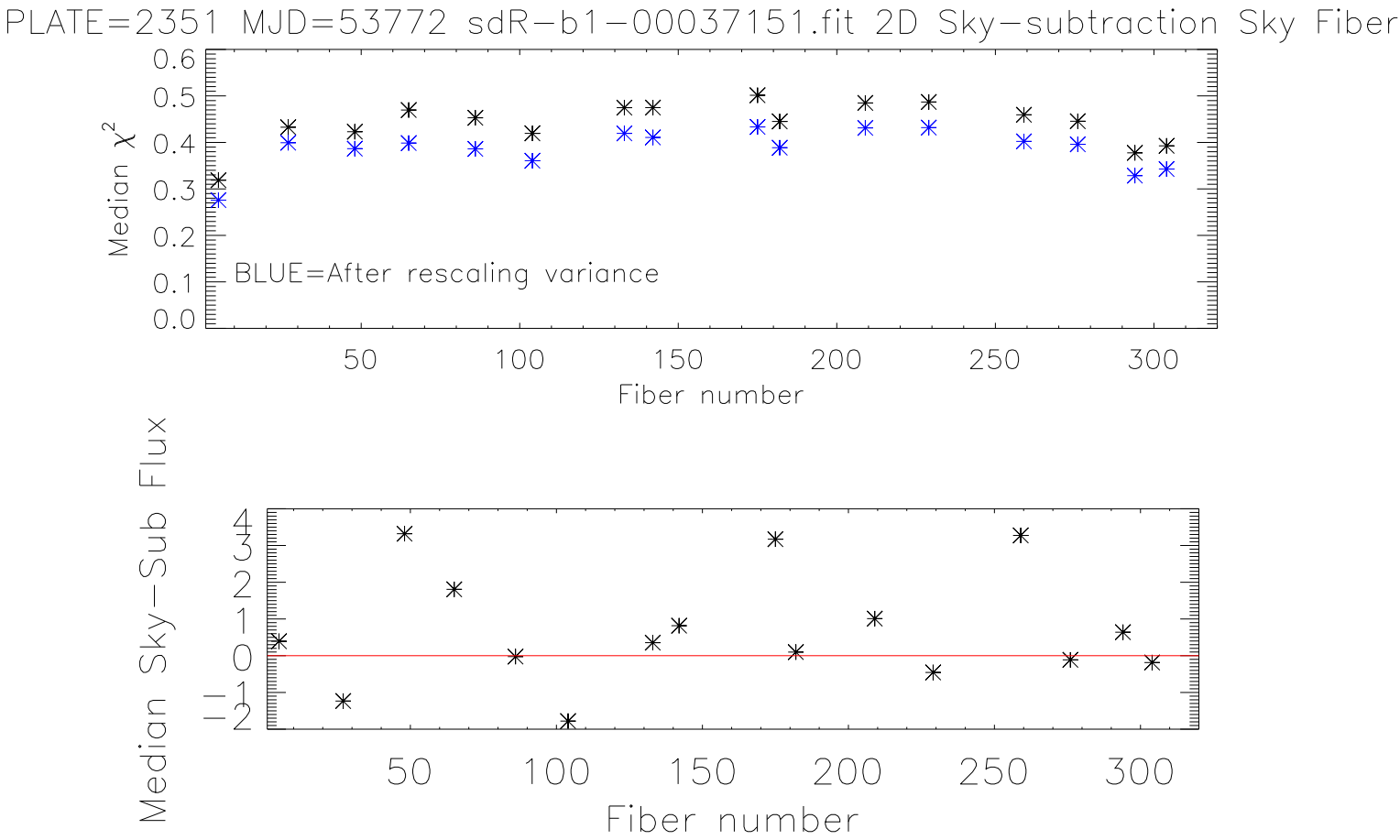

PLATE=2351 MJD=53772 Smooth superflat for sdR-b1-00037151.fit
1.5
1.0
0.5
0.0
1.020
1.015
1.010
1.005
1.000
0.995
0.990
4000
4500
5000
5500
6000
Wavelength (Å)

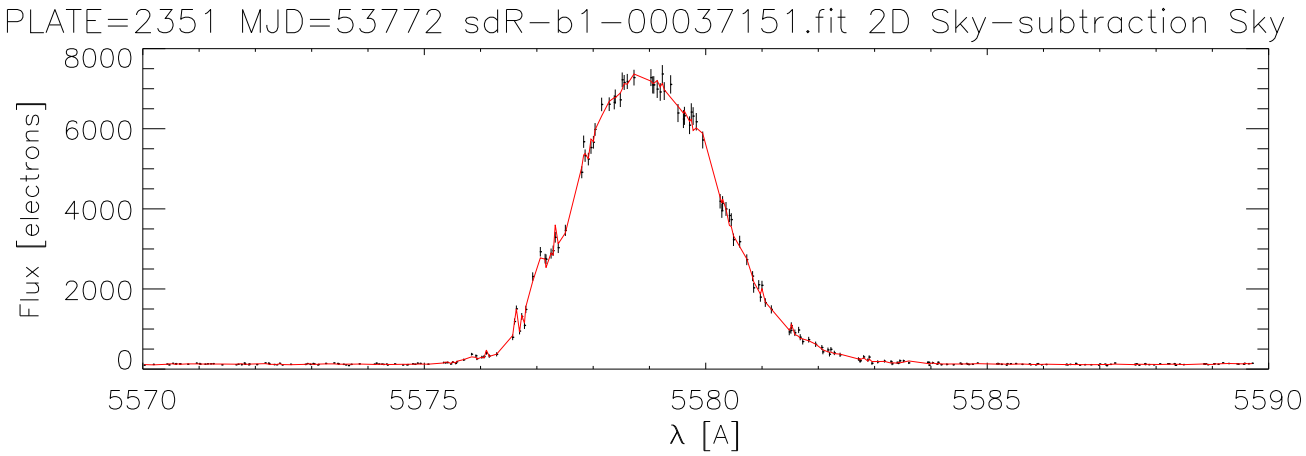

PLATE=2351 MJD=53772 sdR-b1-00037151.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-6
-4
-2
0
2
4
6
50
100
150
200
250
300
Fiber number

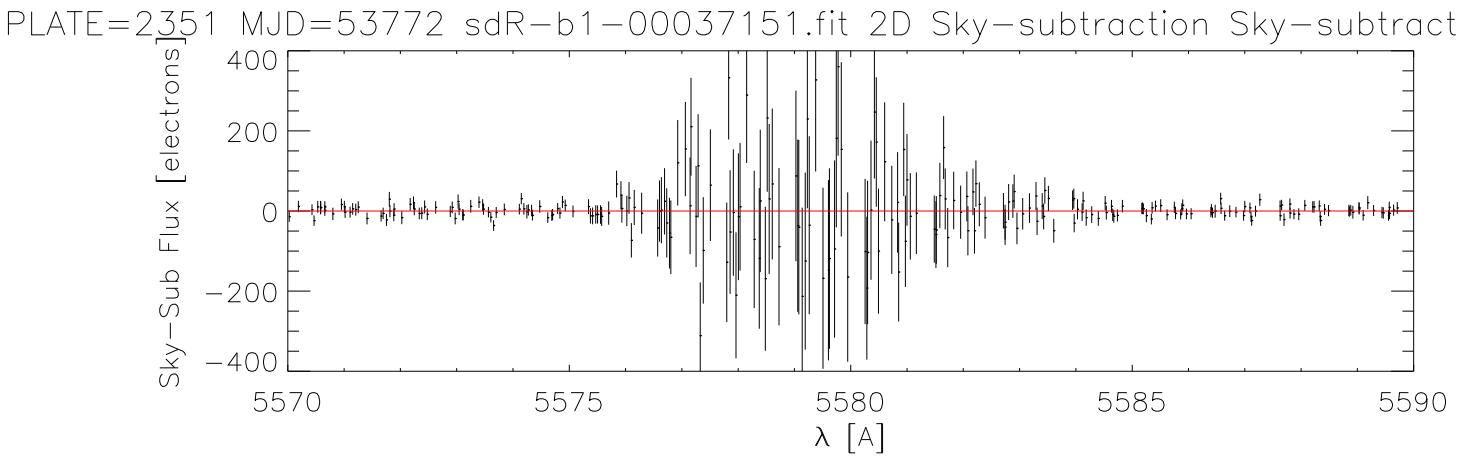

PLATE=2351 MJD=53772 sdR-b1-00037151.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

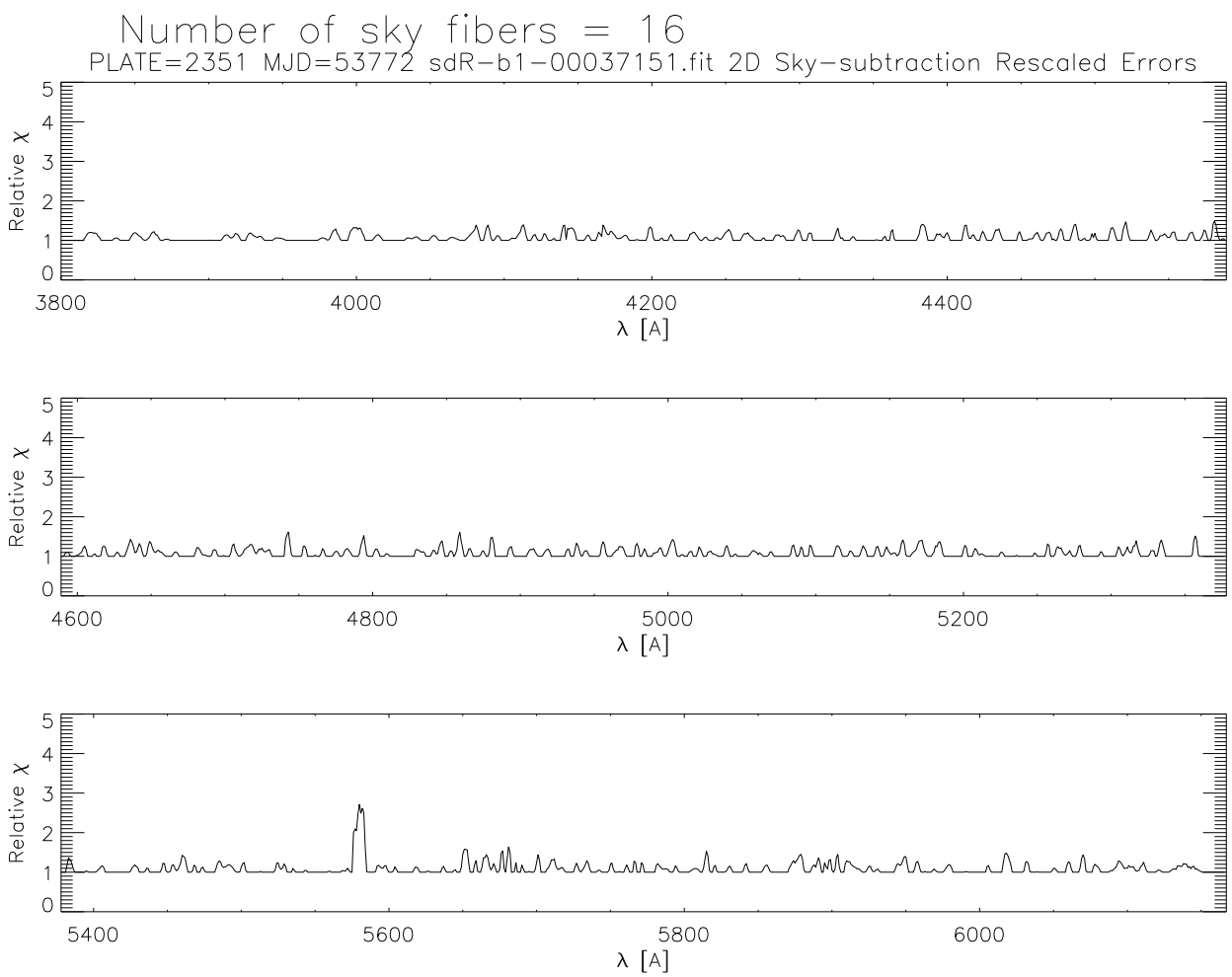

PLATE=2351 MJD=53772 sdR-b1-00037151.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
800
600
400
200
0
-200
-400
-600
5570
5575
5580
5585
5590
λ [A]

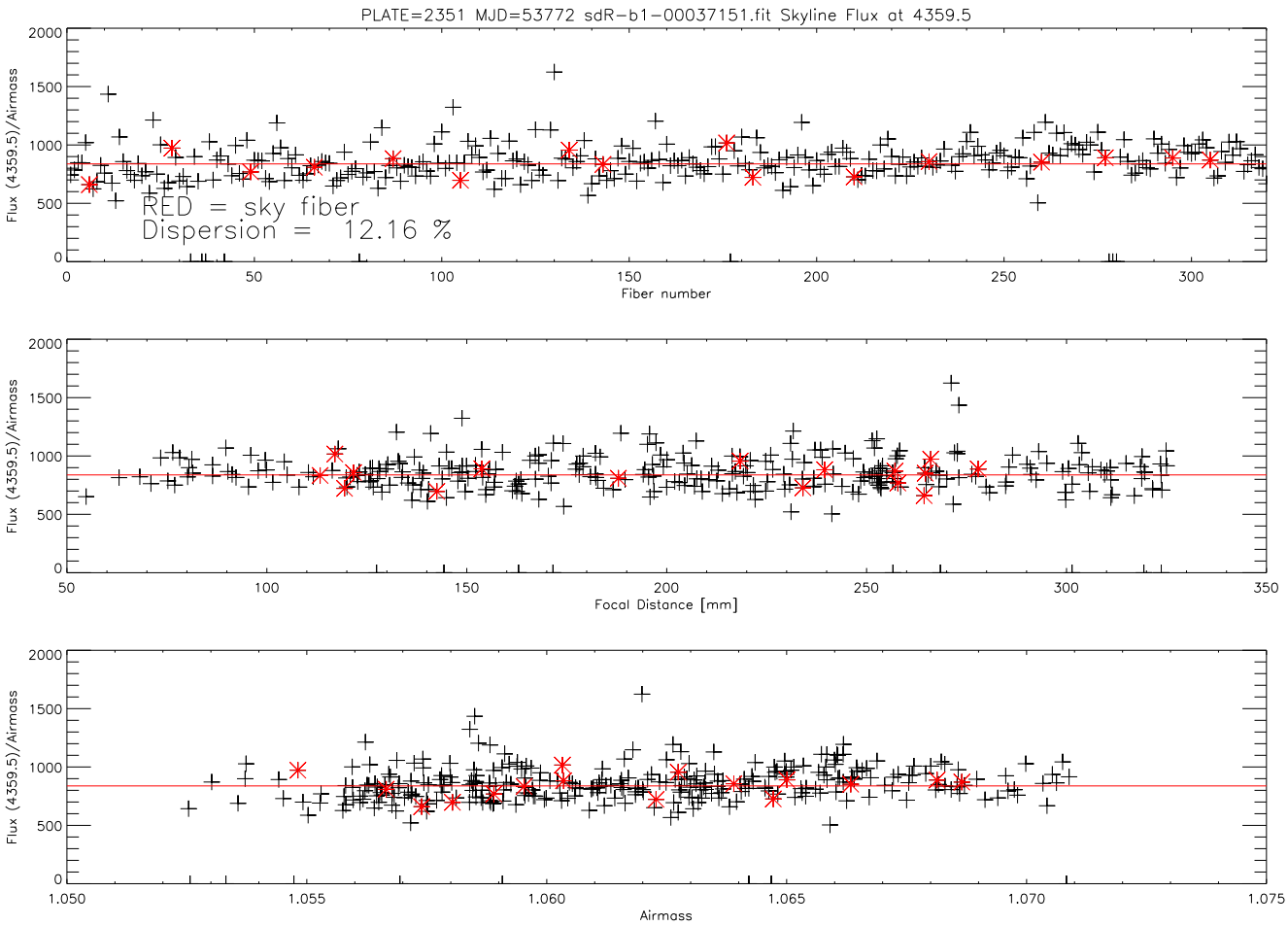

Number of sky fibers = 16
PLATE=2351 MJD=53772 sdR-b1-00037151.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

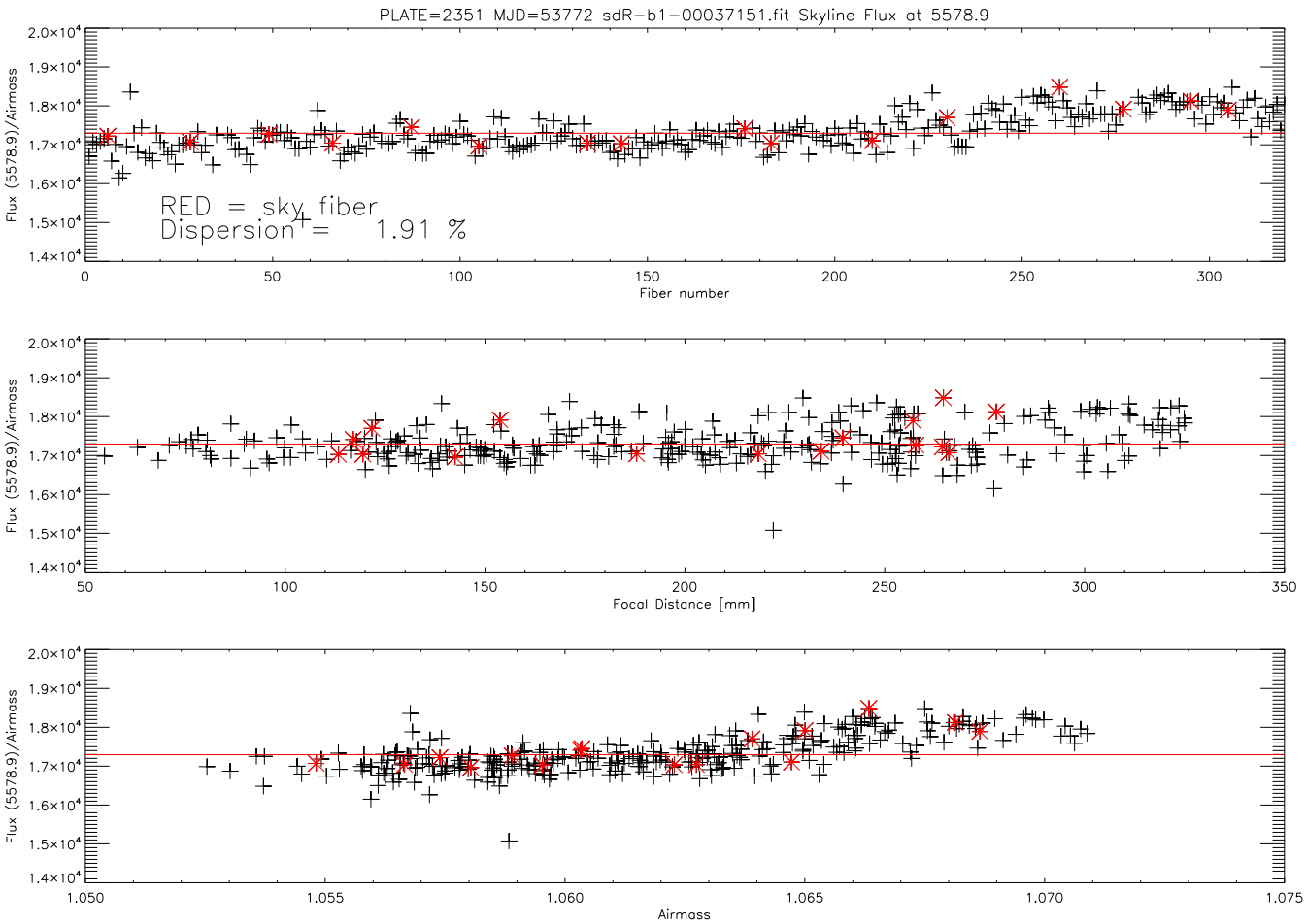

PLATE=2351 MJD=53772 sdR-b1-00037151.fit 2D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-2
-1
0
1
2
3
4
50
100
150
200
250
300
Fiber number

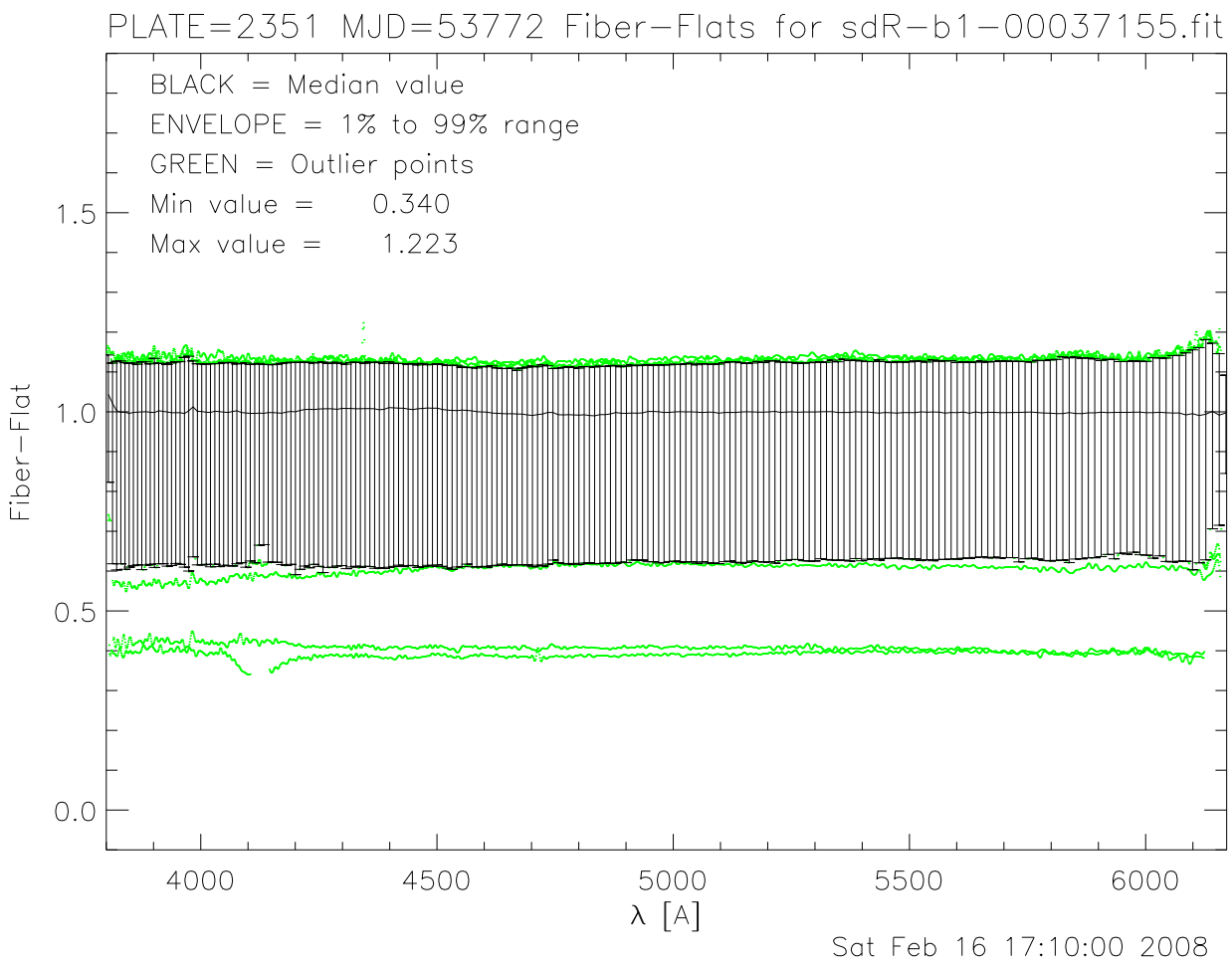

PLATE=2351 MJD=53772 sdR-b1-00037151.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

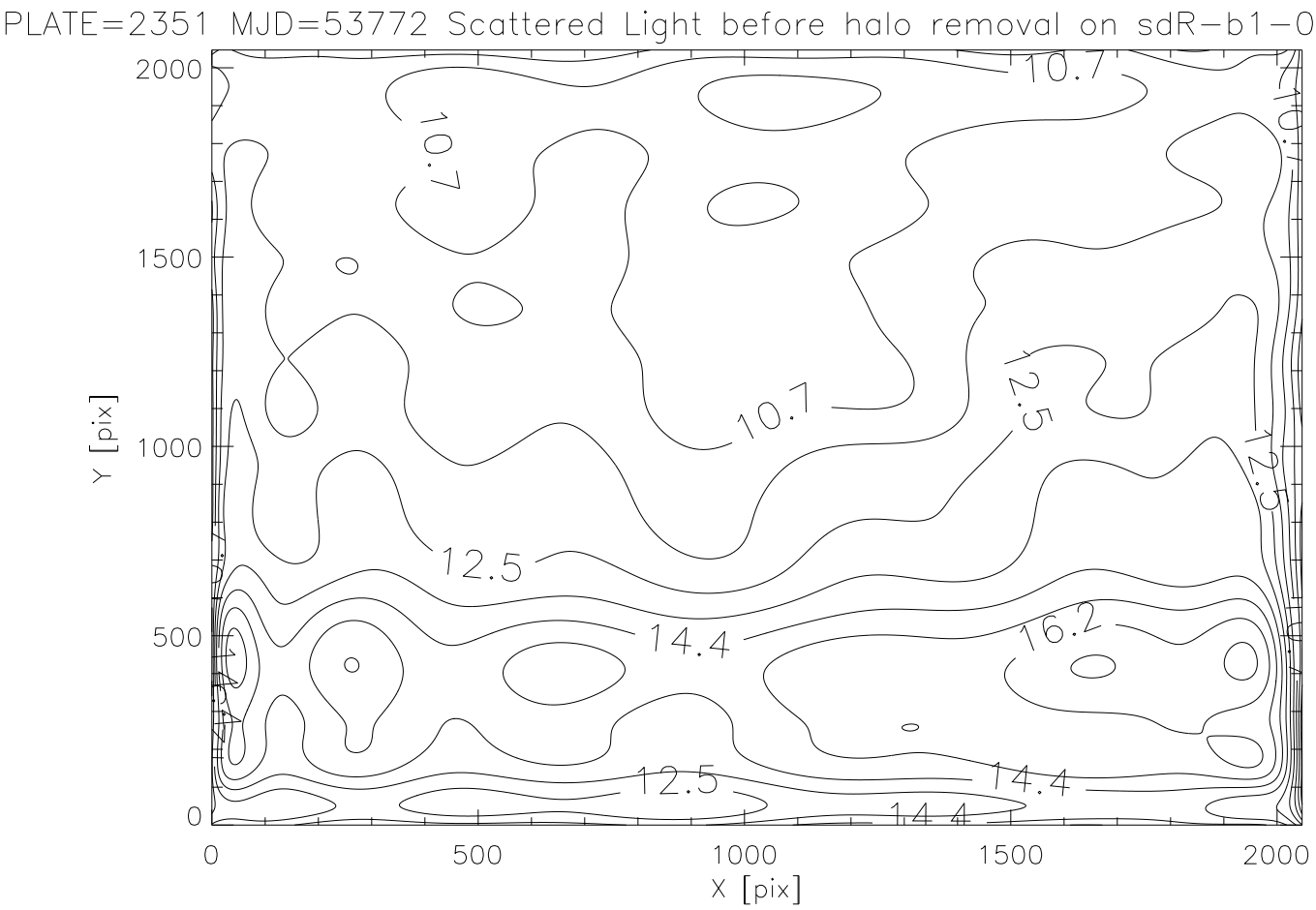

PLATE=2351 MJD=53772 sdR-b1-00037151.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
200
0
-200
-400
5570
5575
5580
5585
5590
λ [A]

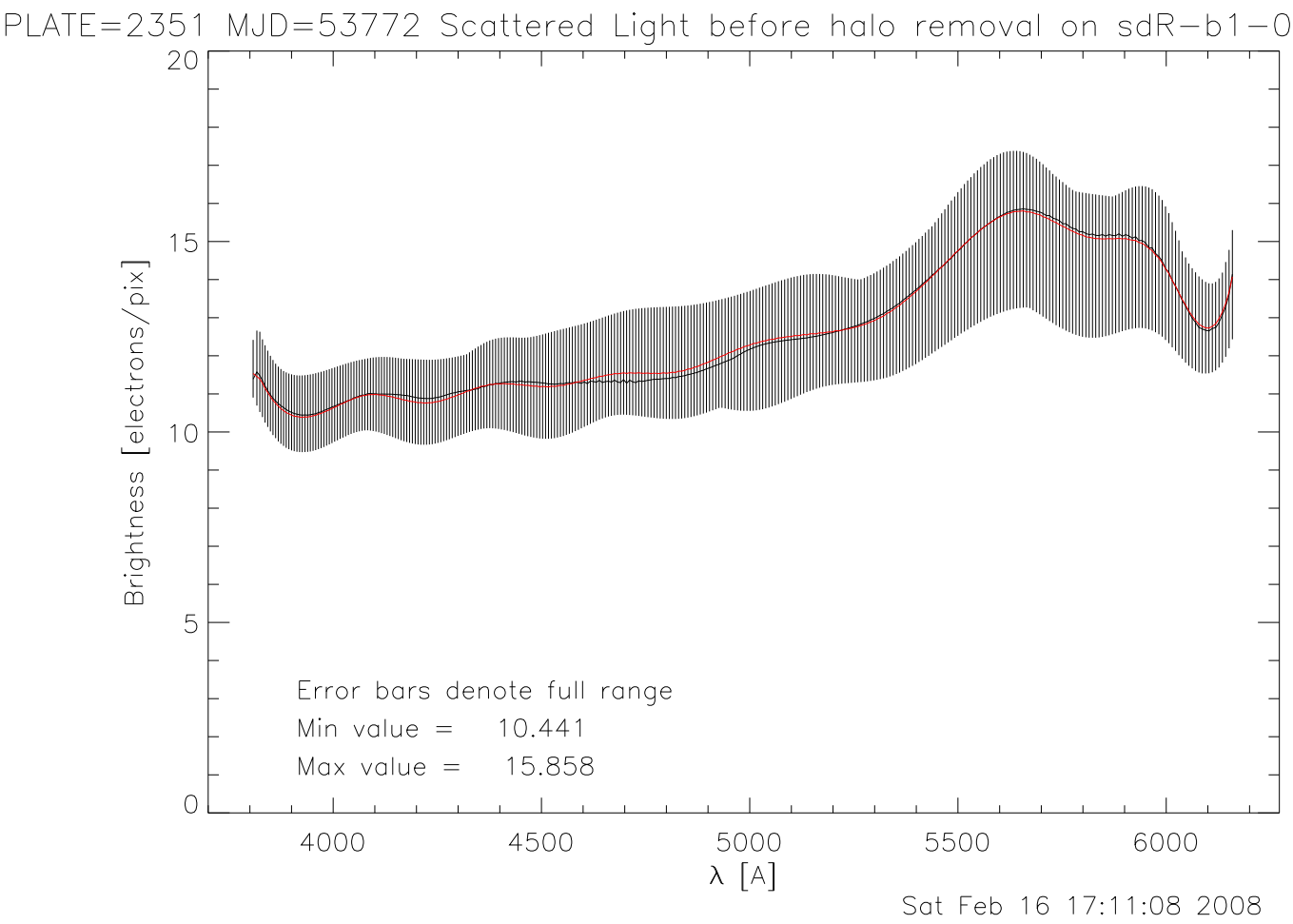

Number of sky fibers = 16
PLATE=2351 MJD=53772 sdR-b1-00037151.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

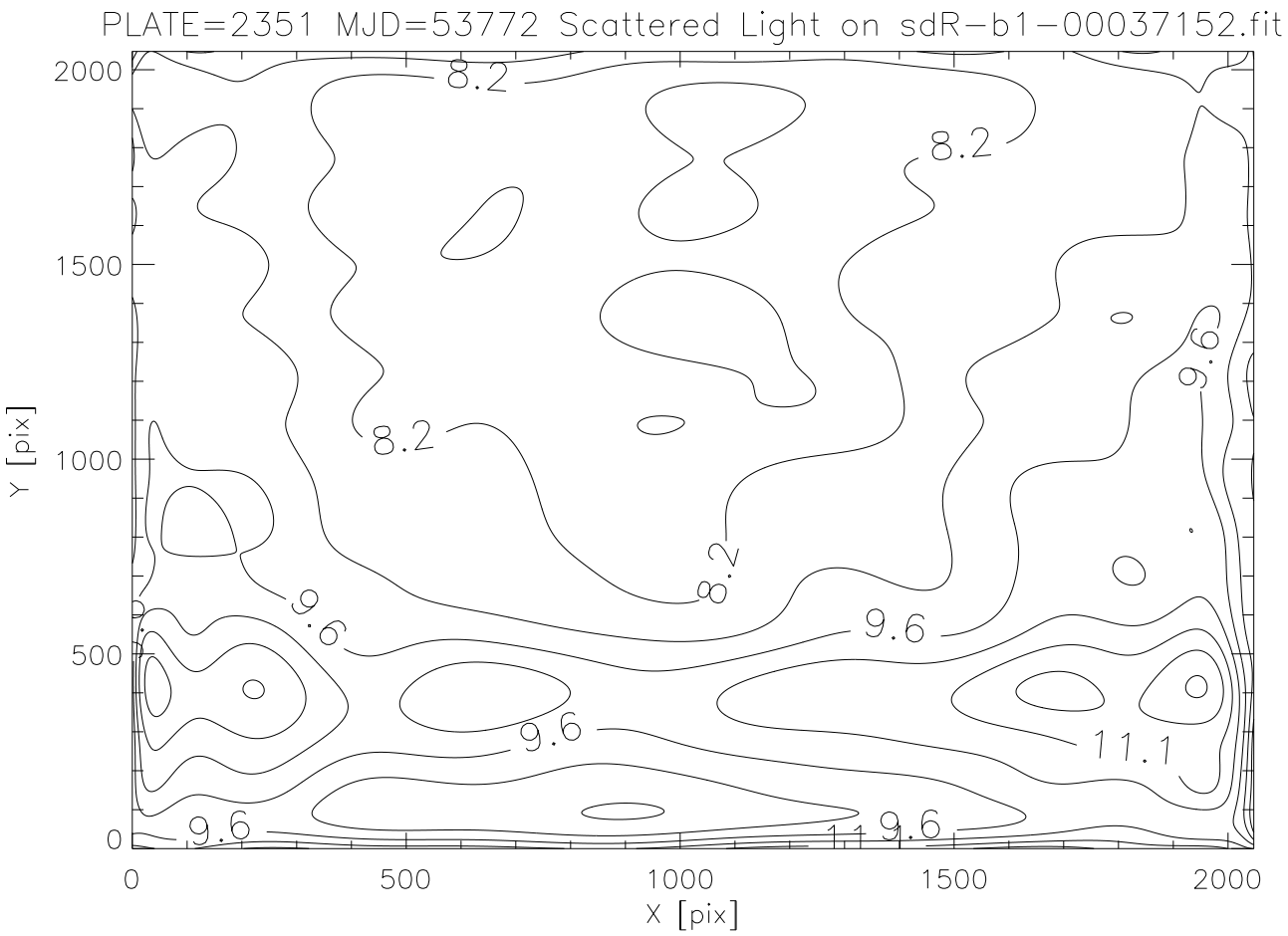

PLATE=2351 MJD=53772 sdR-b1-00037151.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 12.16 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

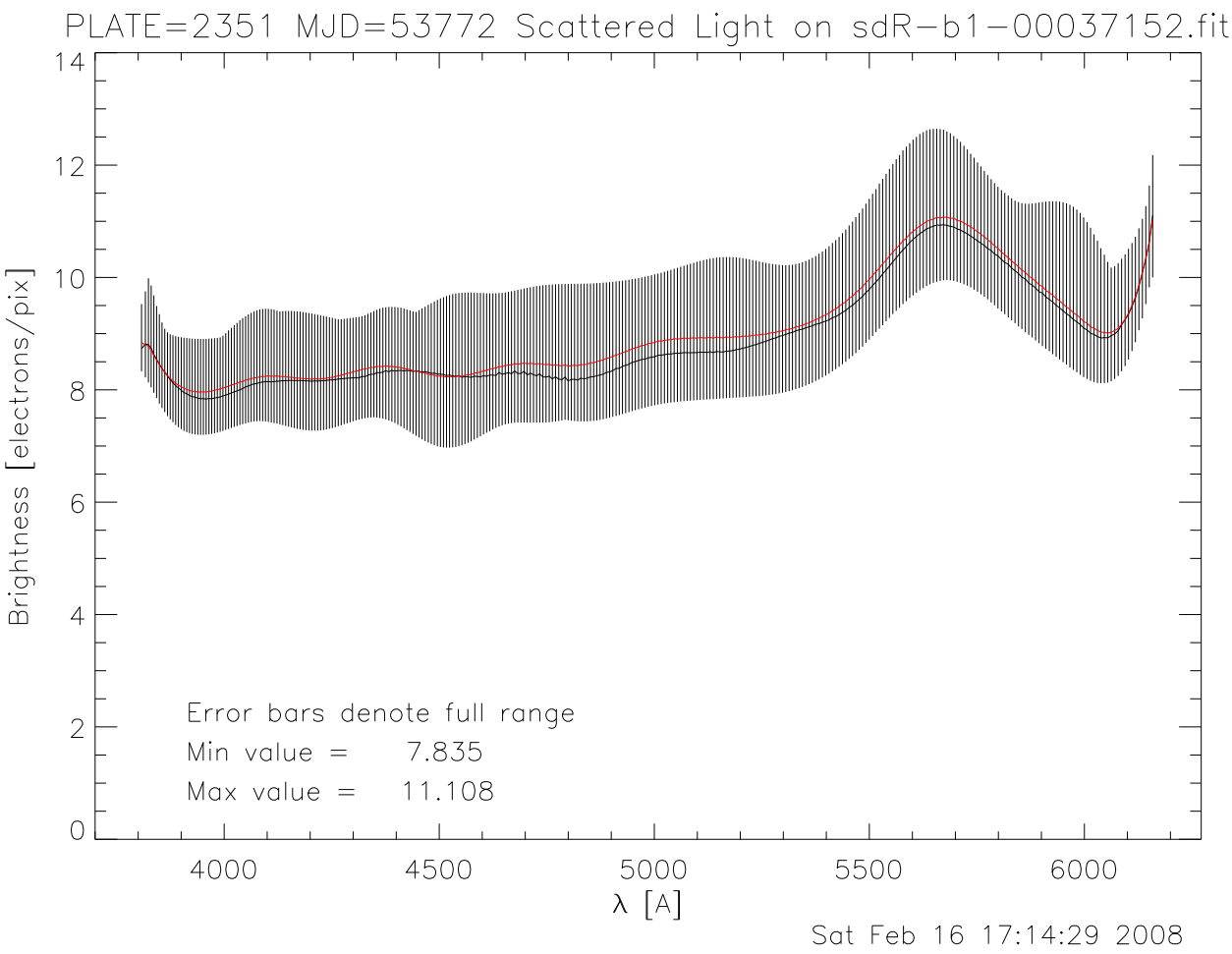

PLATE=2351 MJD=53772 sdR-b1-00037151.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 1.91 %
Fiber number
Focal Distance [mm]
Airmass

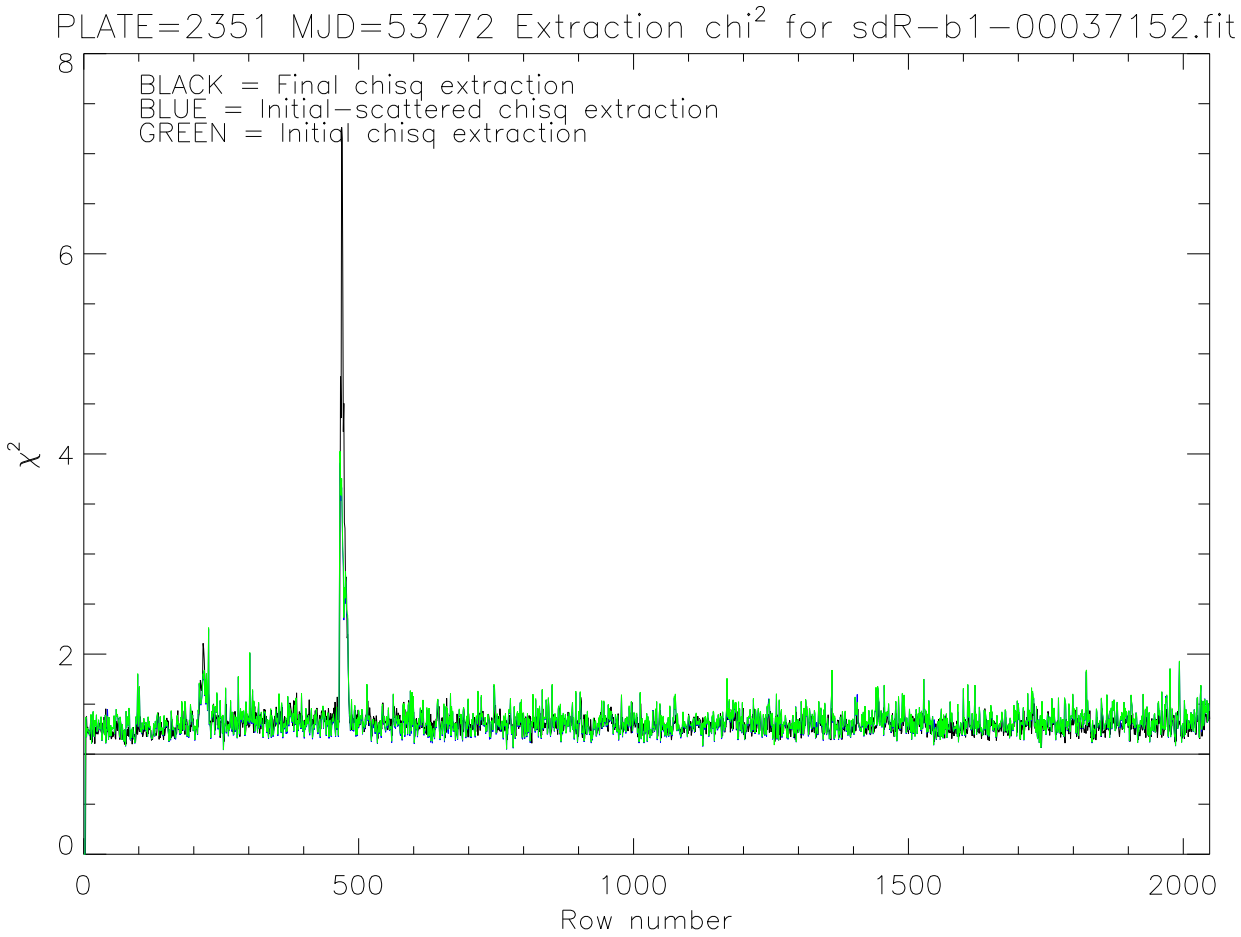

PLATE=2351 MJD=53772 Fiber-Flats for sdR-b1-00037155.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.340
Max value = 1.223
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Sat Feb 16 17:10:00 2008

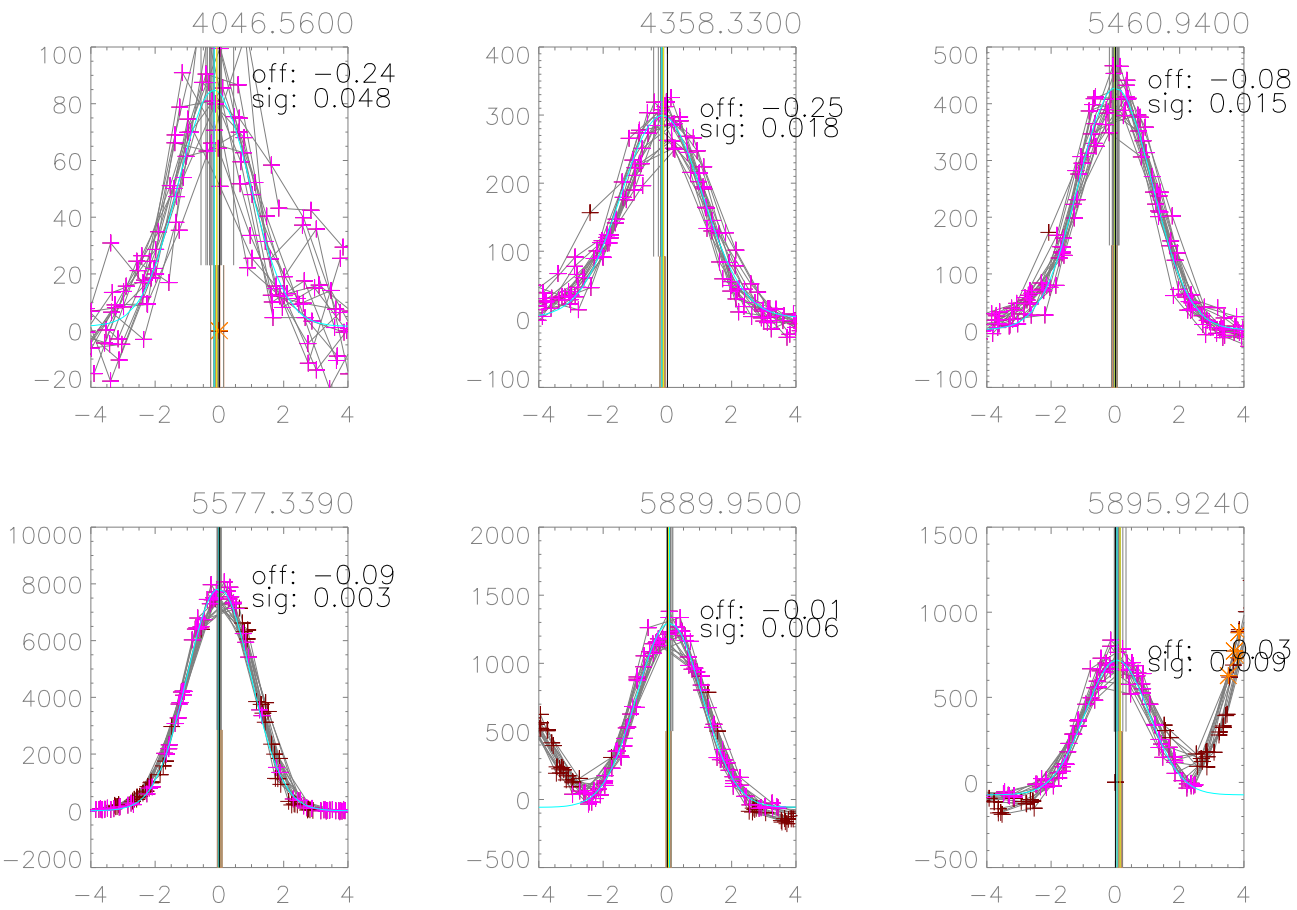

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR−b1−00037152.f
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
10.7
12.5
14.4
16.2

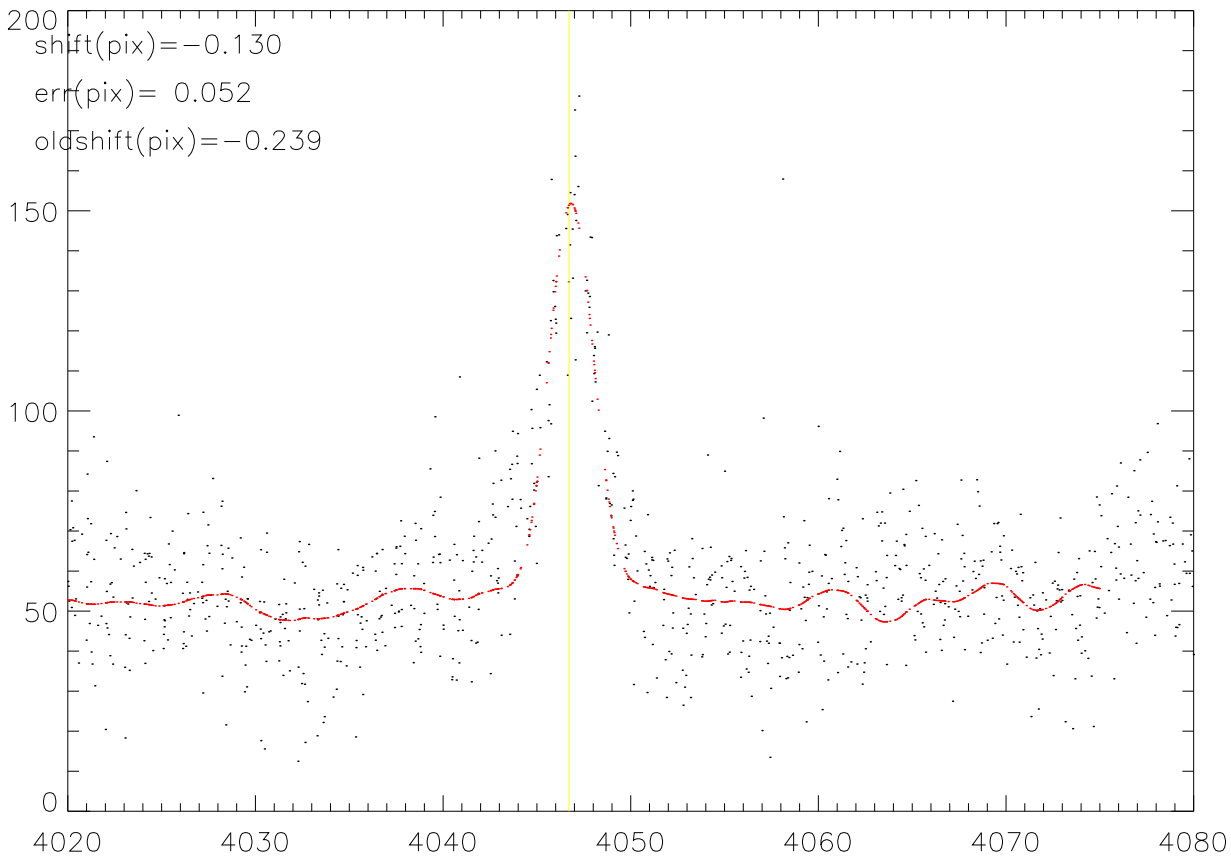

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR−b1−00037152.f
Brightness [electrons/pix]
20
15
10
5
0
Error bars denote full range
Min value = 10.441
Max value = 15.858
4000
4500
5000
5500
6000
λ [A]
Sat Feb 16 17:11:08 2008

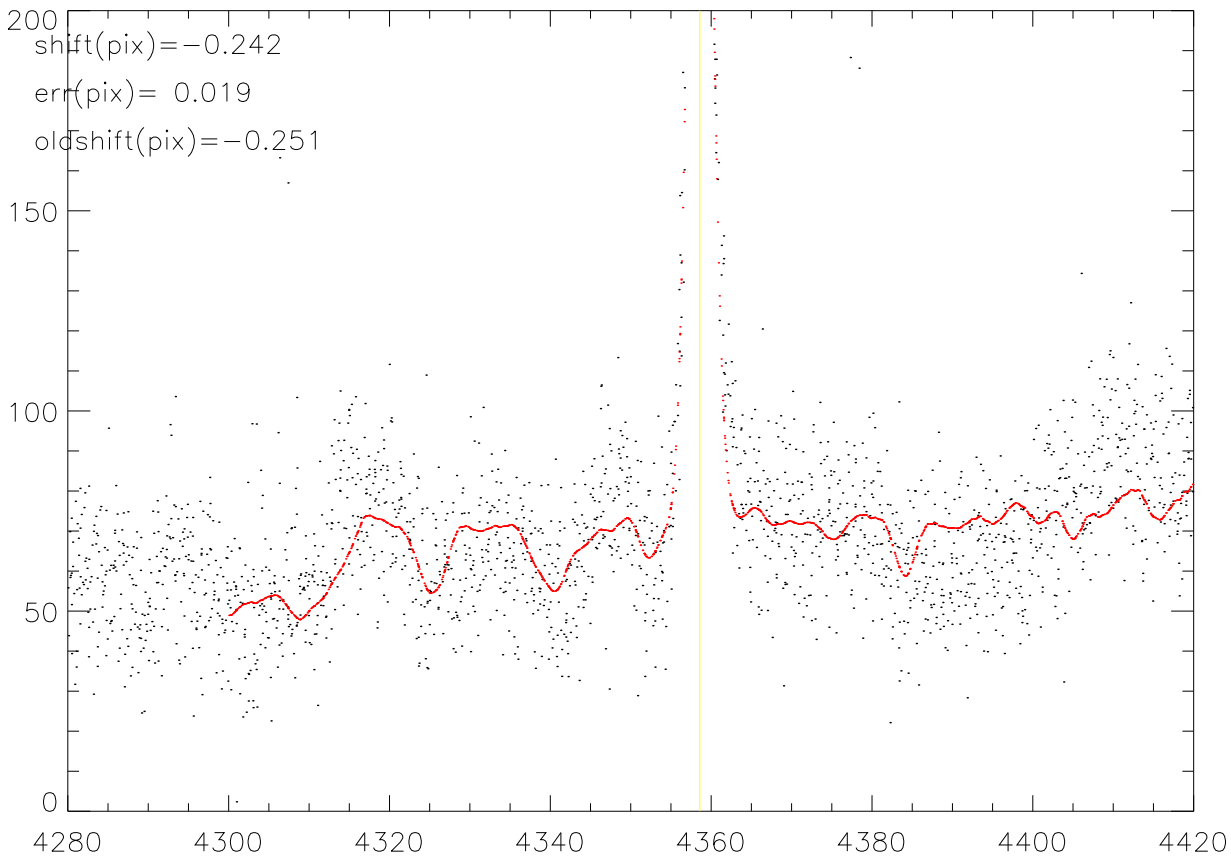

PLATE=2351 MJD=53772 Scattered Light on sdR-b1-00037152.fit
8.2
8.2
8.2
8.2
9.6
9.6
9.6
9.6
9.6
11.1
11.1
Y [pix]
X [pix]
0
500
1000
1500
2000

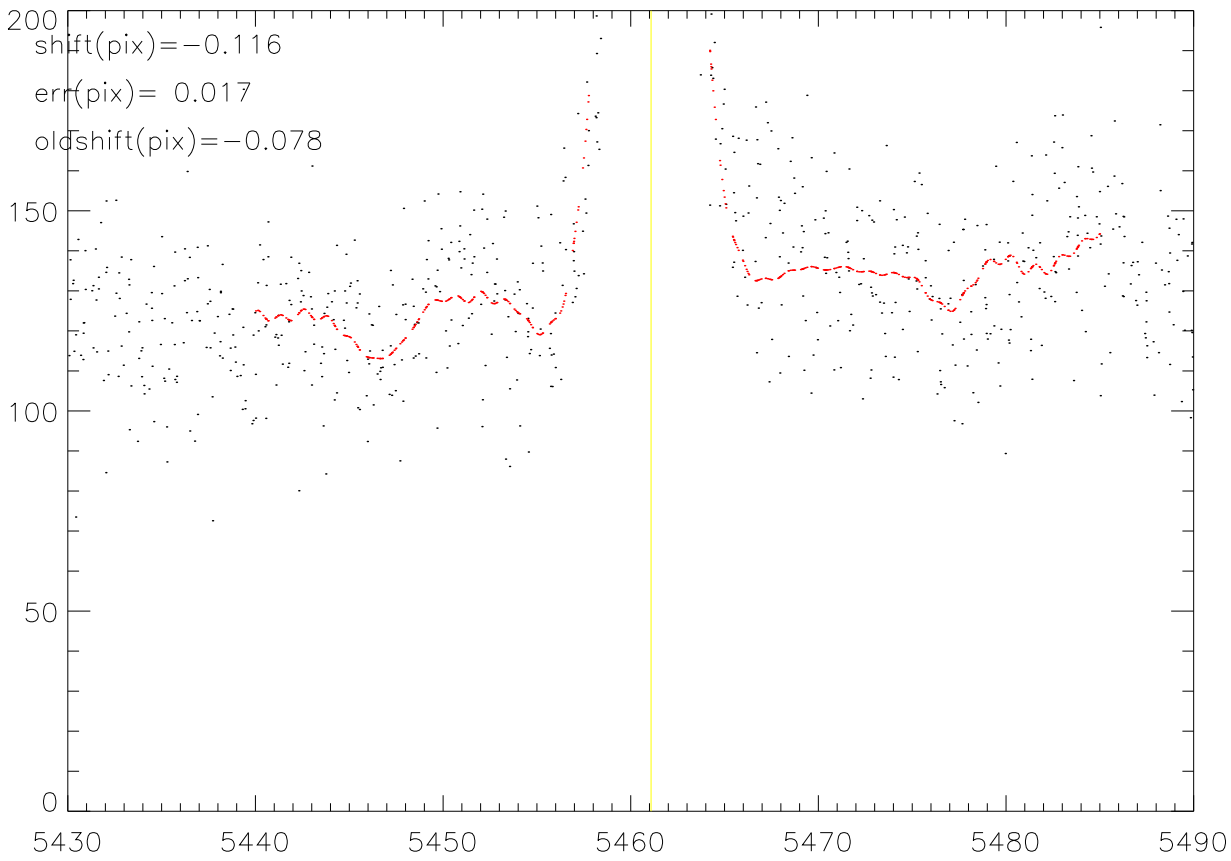

PLATE=2351 MJD=53772 Scattered Light on sdR-b1-00037152.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 7.835
Max value = 11.108
Sat Feb 16 17:14:29 2008

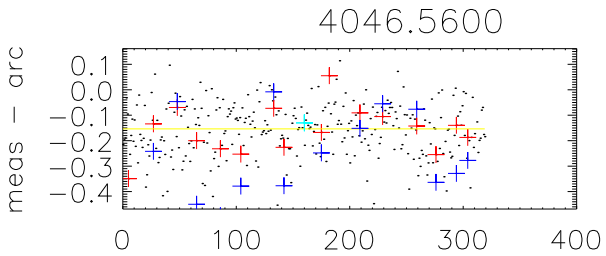

PLATE=2351 MJD=53772 Extraction chi^2 for sdR−b1−00037152.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
0
500
1000
1500
2000
Row number

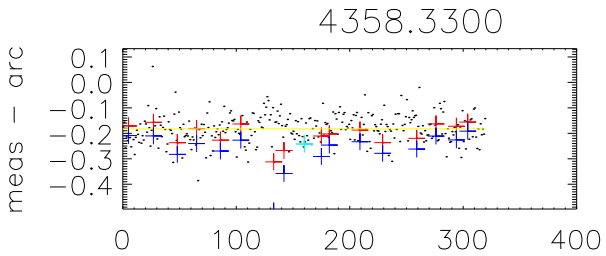

4046.5600
off: −0.24
sig: 0.048
4358.3300
off: −0.25
sig: 0.018
5460.9400
off: −0.08
sig: 0.015
5577.3390
off: −0.09
sig: 0.003
5889.9500
off: −0.01
sig: 0.006
5895.9240
off: −0.03
sig: 0.009

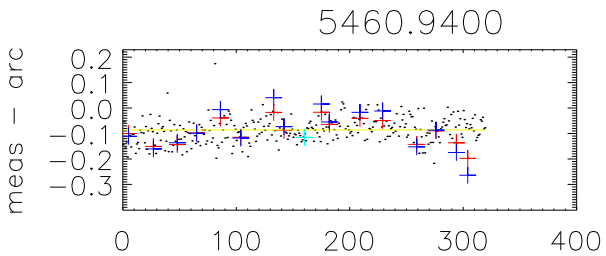

shift(pix)=−0.130
err(pix)= 0.052
oldshift(pix)=−0.239
200
150
100
50
0
4020
4030
4040
4050
4060
4070
4080

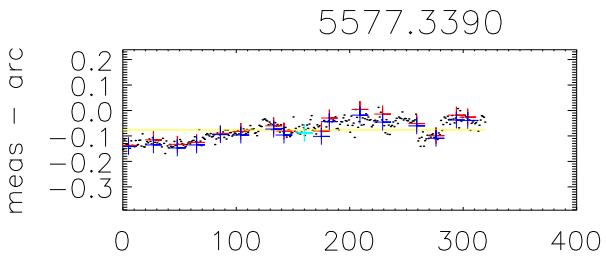

shift(pix)=−0.242
err(pix)= 0.019
oldshift(pix)=−0.251
200
150
100
50
0
4280
4300
4320
4340
4360
4380
4400
4420

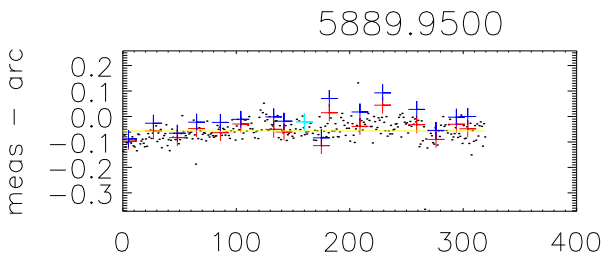

shift(pix)=−0.116
err(pix)= 0.017
oldshift(pix)=−0.078
200
150
100
50
0
5430
5440
5450
5460
5470
5480
5490

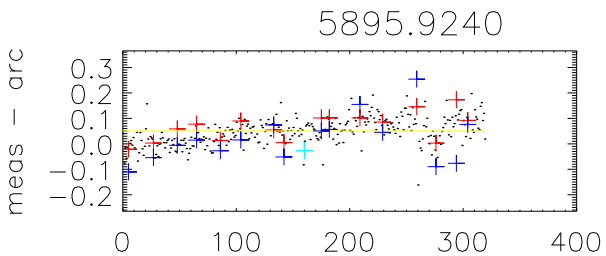

4046.5600
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

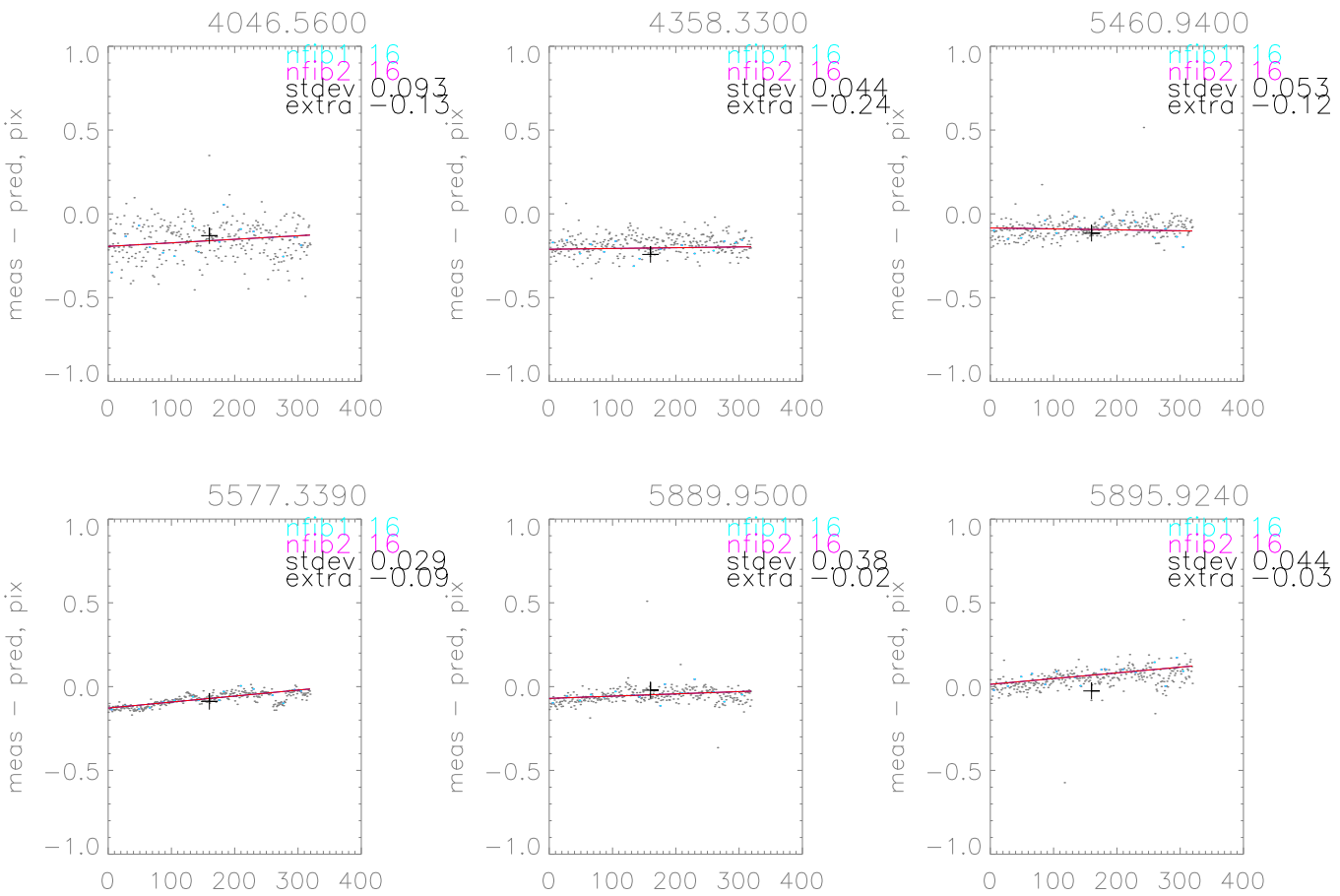

4358.3300
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

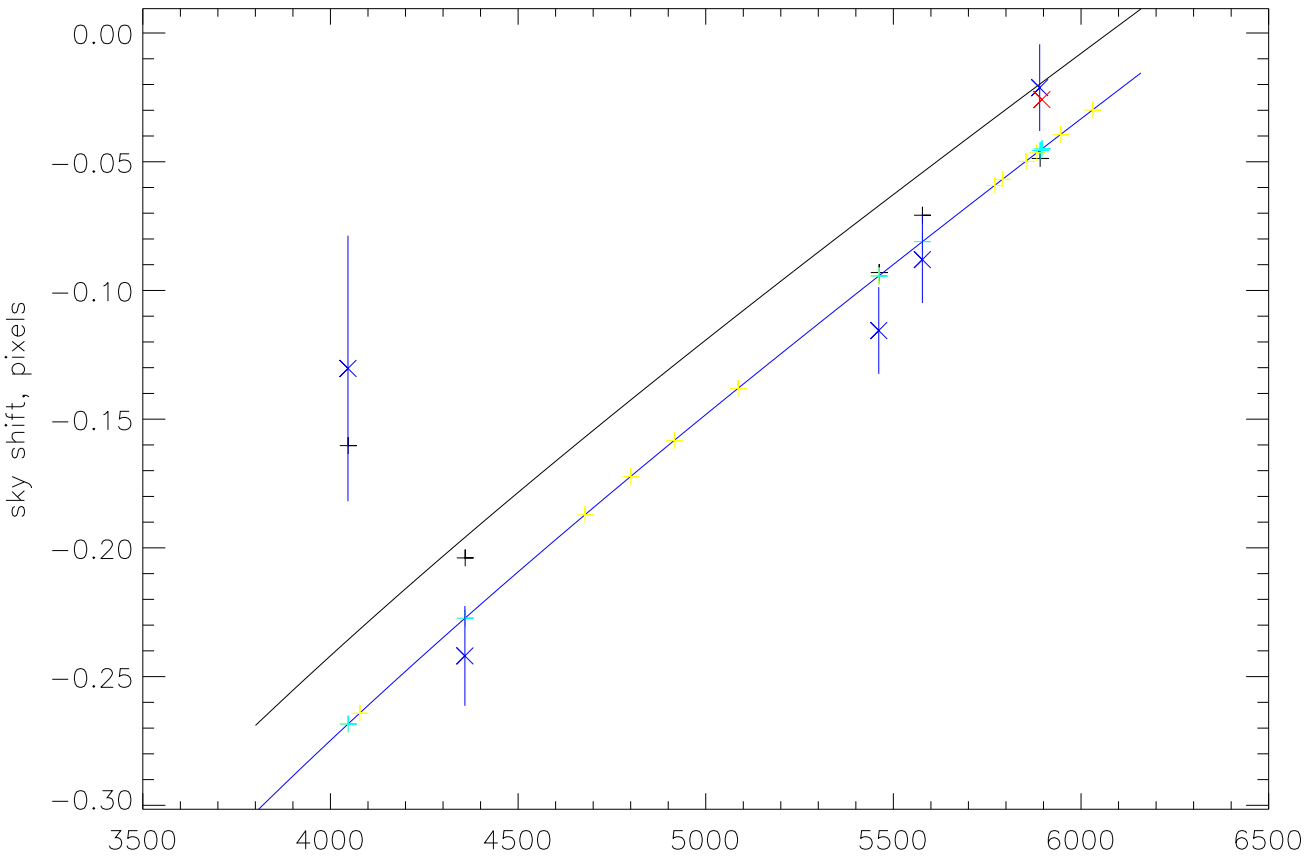

5460.9400
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

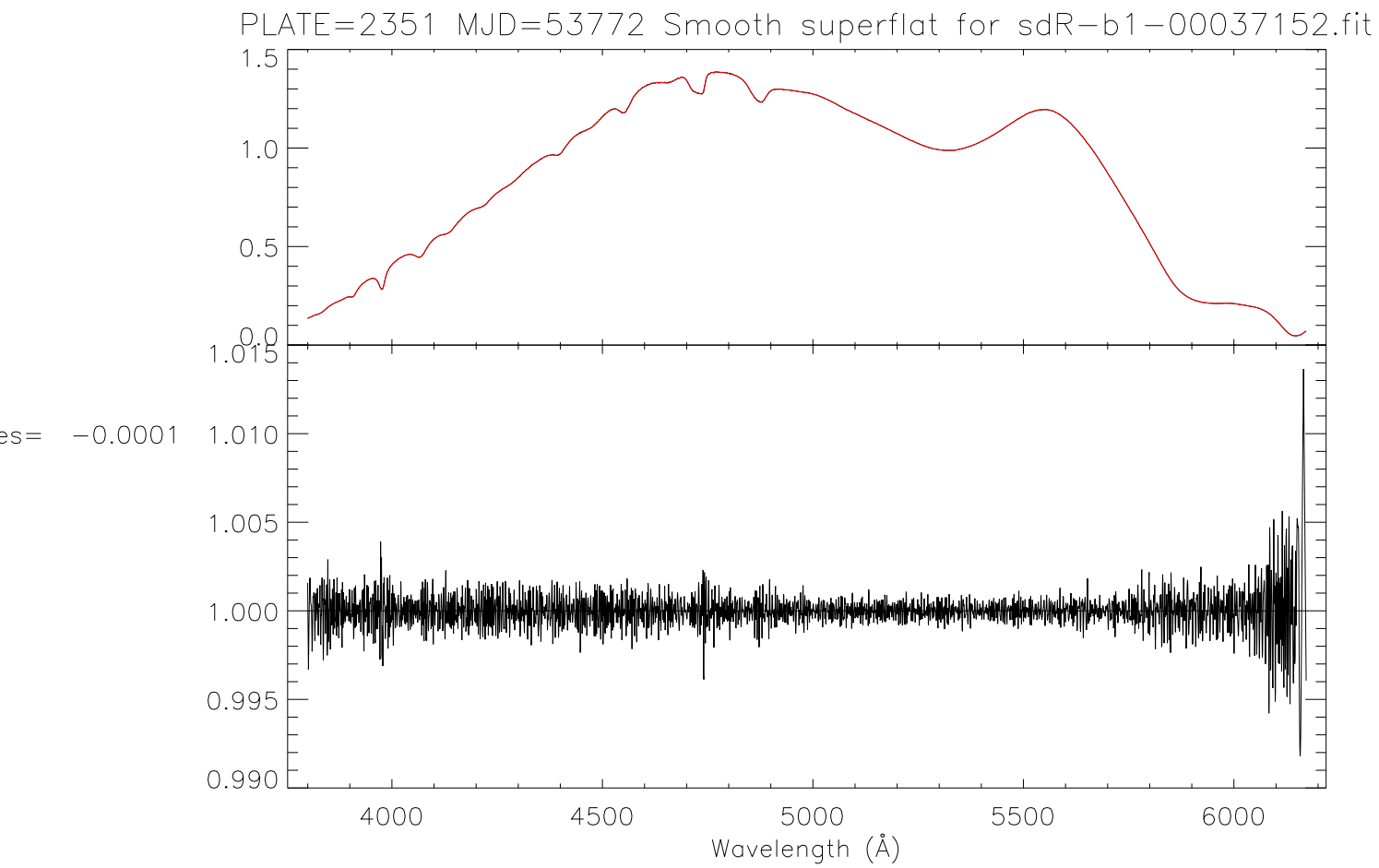

5577.3390
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

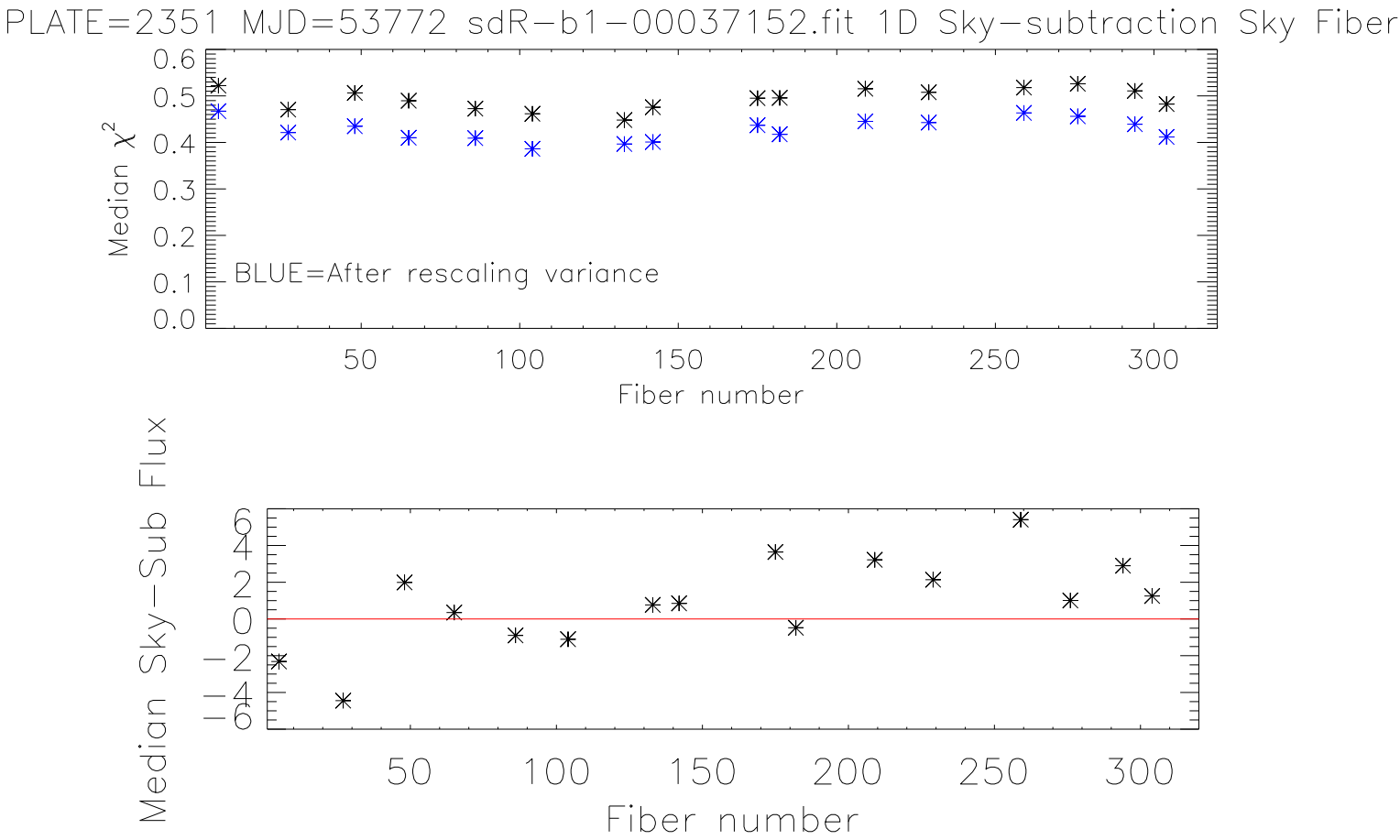

5889.9500
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

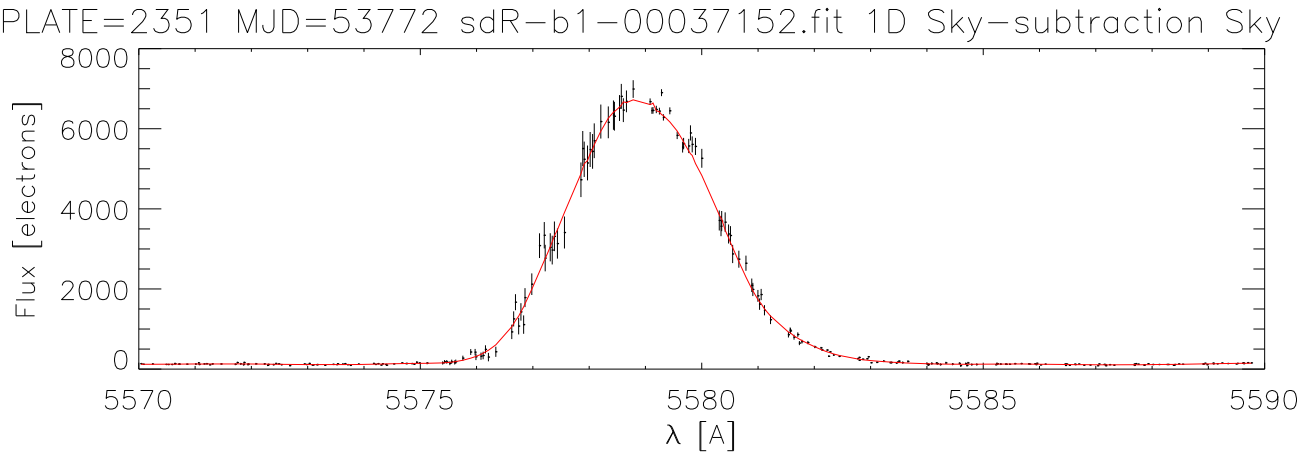

5895.9240
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

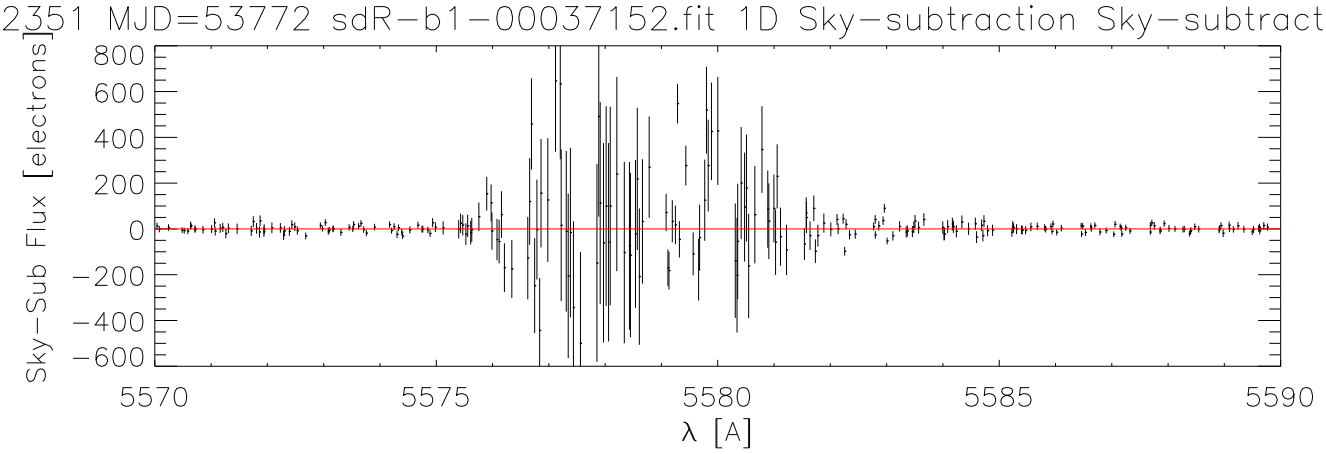

4046.5600
nfib1 16
nfib2 16
stdev 0.093
extra −0.13
4358.3300
nfib1 16
nfib2 16
stdev 0.044
extra −0.24
5460.9400
nfib1 16
nfib2 16
stdev 0.053
extra −0.12
5577.3390
nfib1 16
nfib2 16
stdev 0.029
extra −0.09
5889.9500
nfib1 16
nfib2 16
stdev 0.038
extra −0.02
5895.9240
nfib1 16
nfib2 16
stdev 0.044
extra −0.03
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

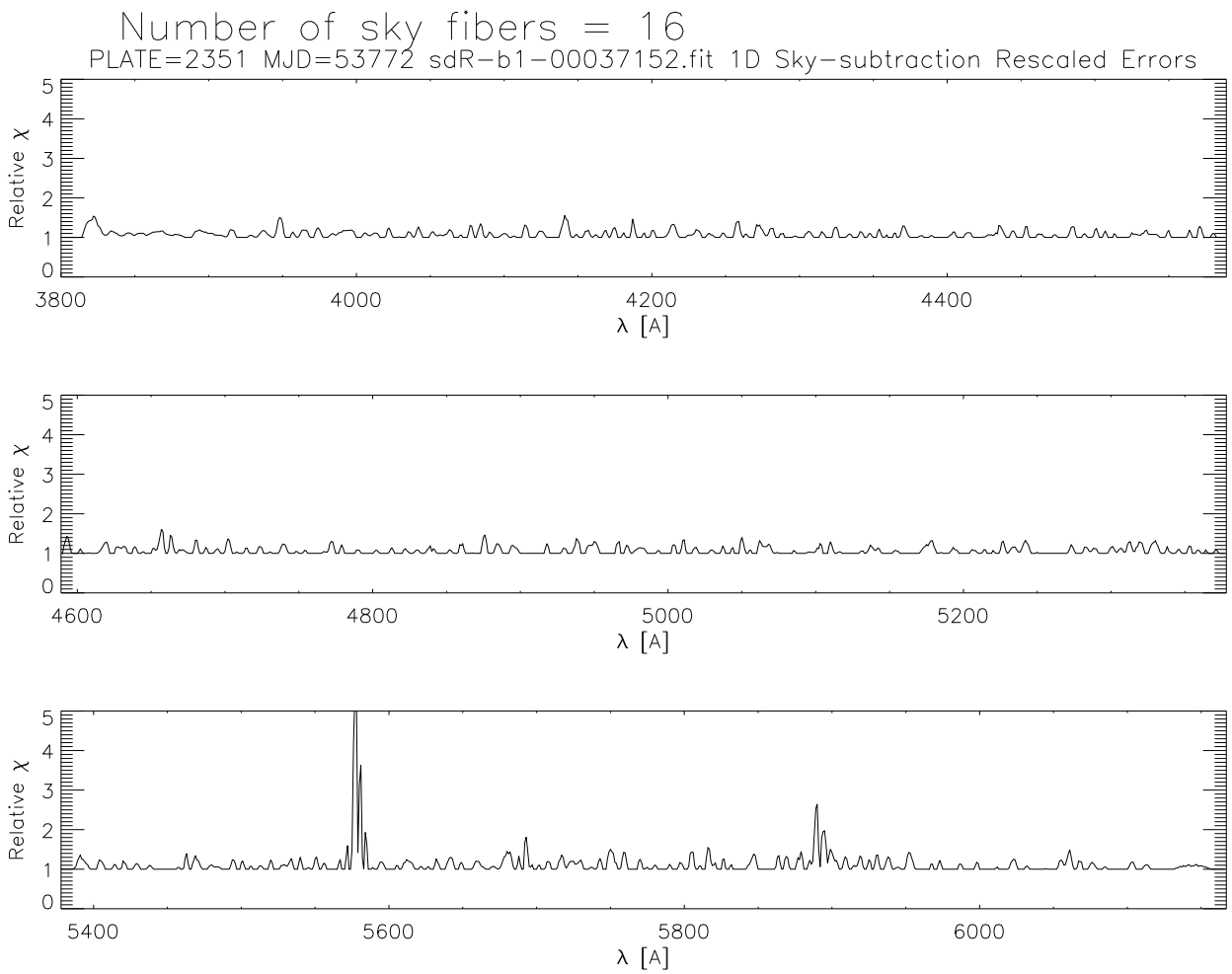

0.00
−0.05
−0.10
−0.15
−0.20
−0.25
−0.30
sky shift, pixels
3500
4000
4500
5000
5500
6000
6500

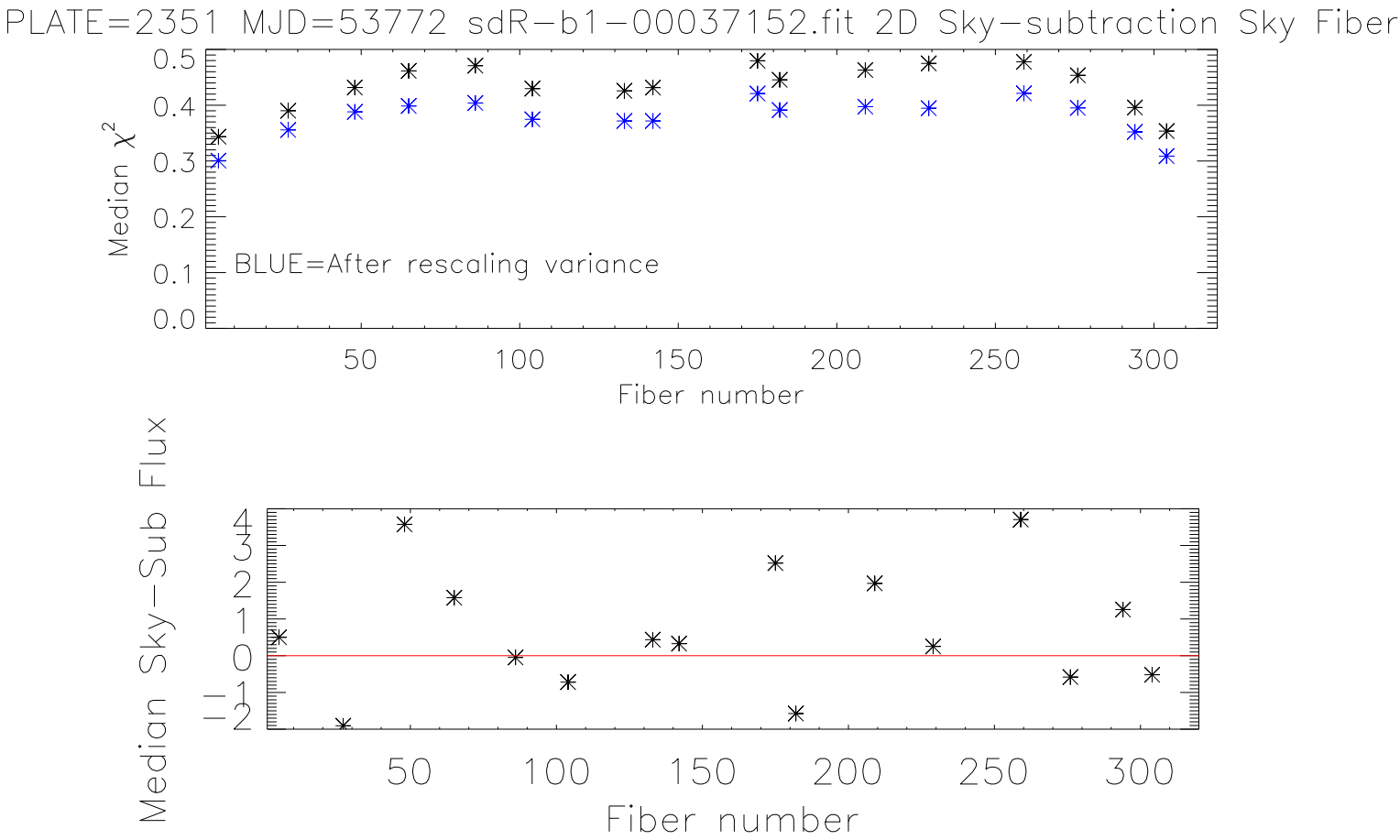

PLATE=2351 MJD=53772 Smooth superflat for sdR-b1-00037152.fit
1.5
1.0
0.5
0.0
1.015
1.010
1.005
1.000
0.995
0.990
es= −0.0001
4000
4500
5000
5500
6000
Wavelength (Å)

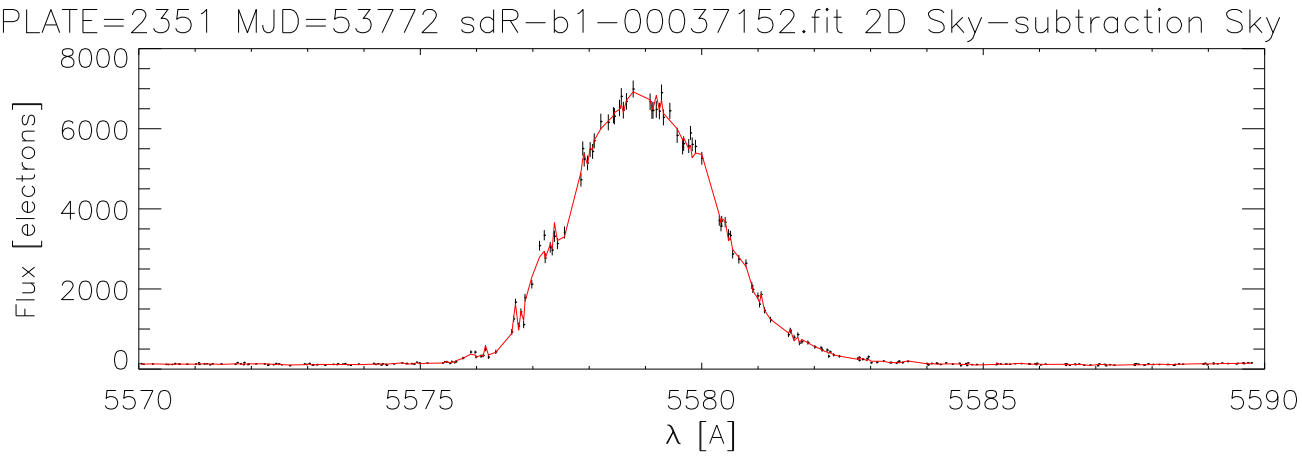

PLATE=2351 MJD=53772 sdR-b1-00037152.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-6
-4
-2
0
2
4
6
50
100
150
200
250
300
Fiber number

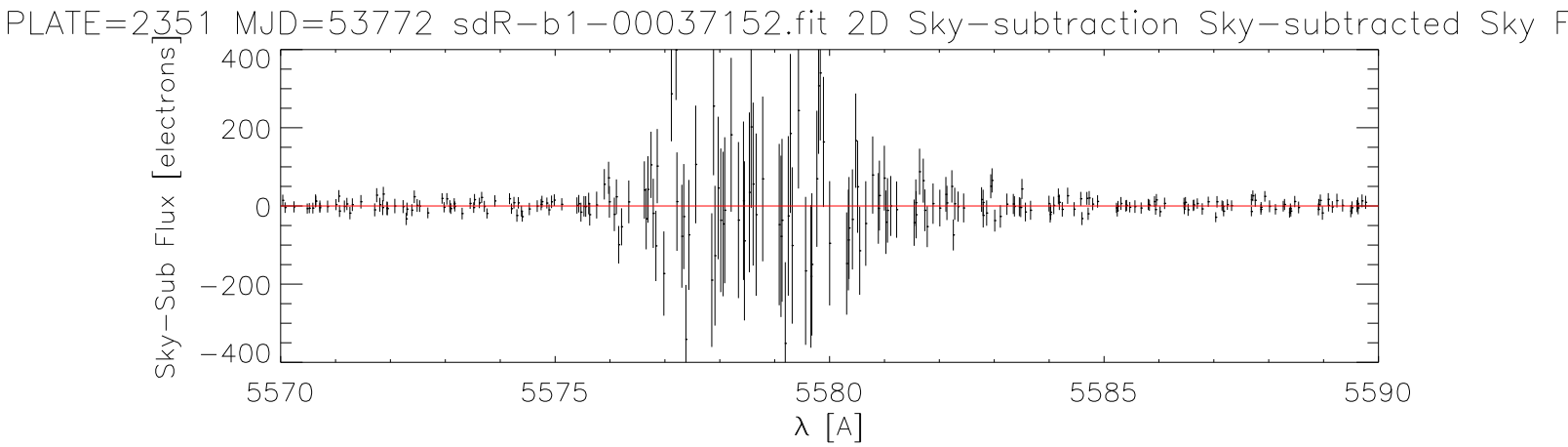

PLATE=2351 MJD=53772 sdR-b1-00037152.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

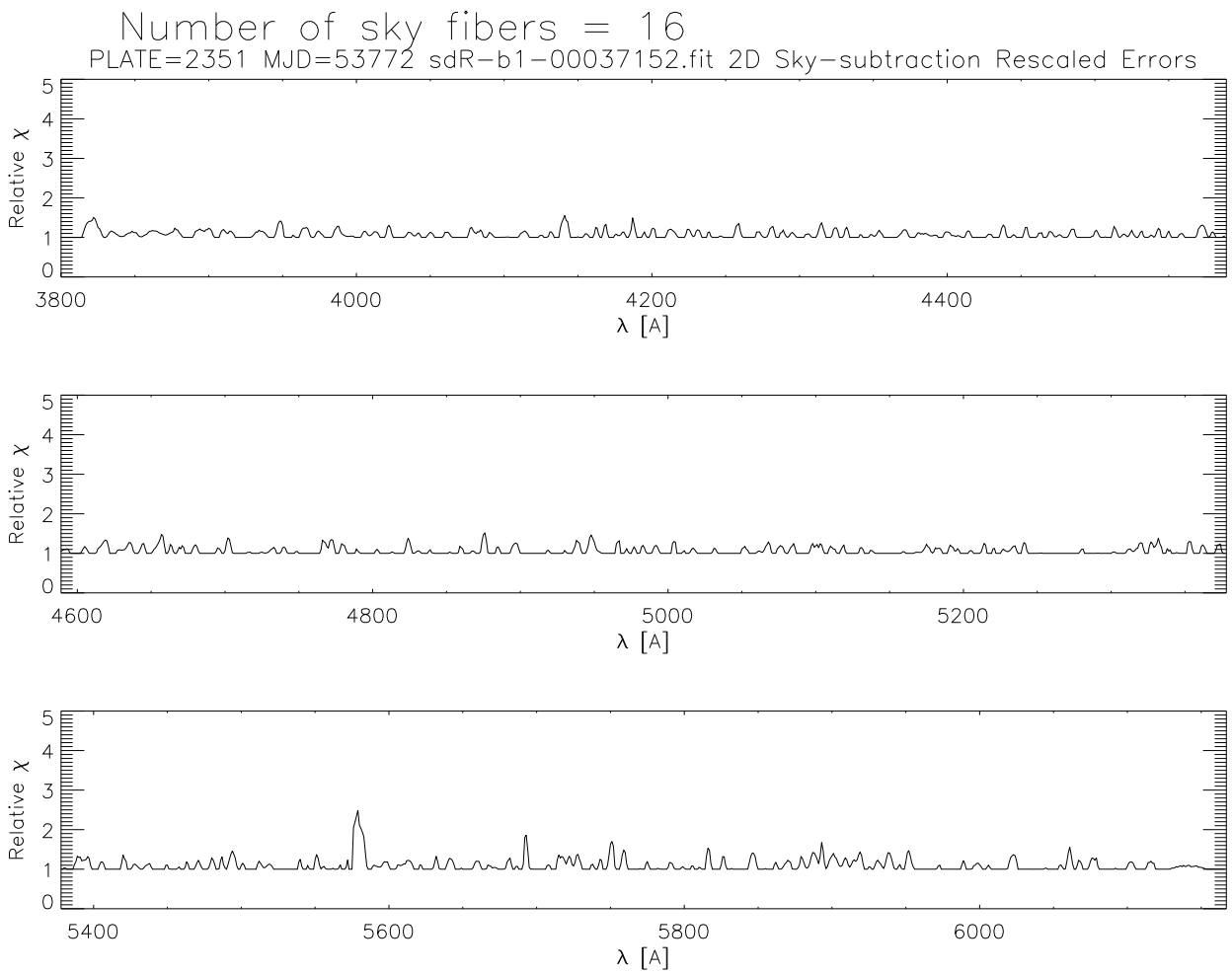

PLATE=2351 MJD=53772 sdR-b1-00037152.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
800
600
400
200
0
-200
-400
-600
5570
5575
5580
5585
5590
λ [A]

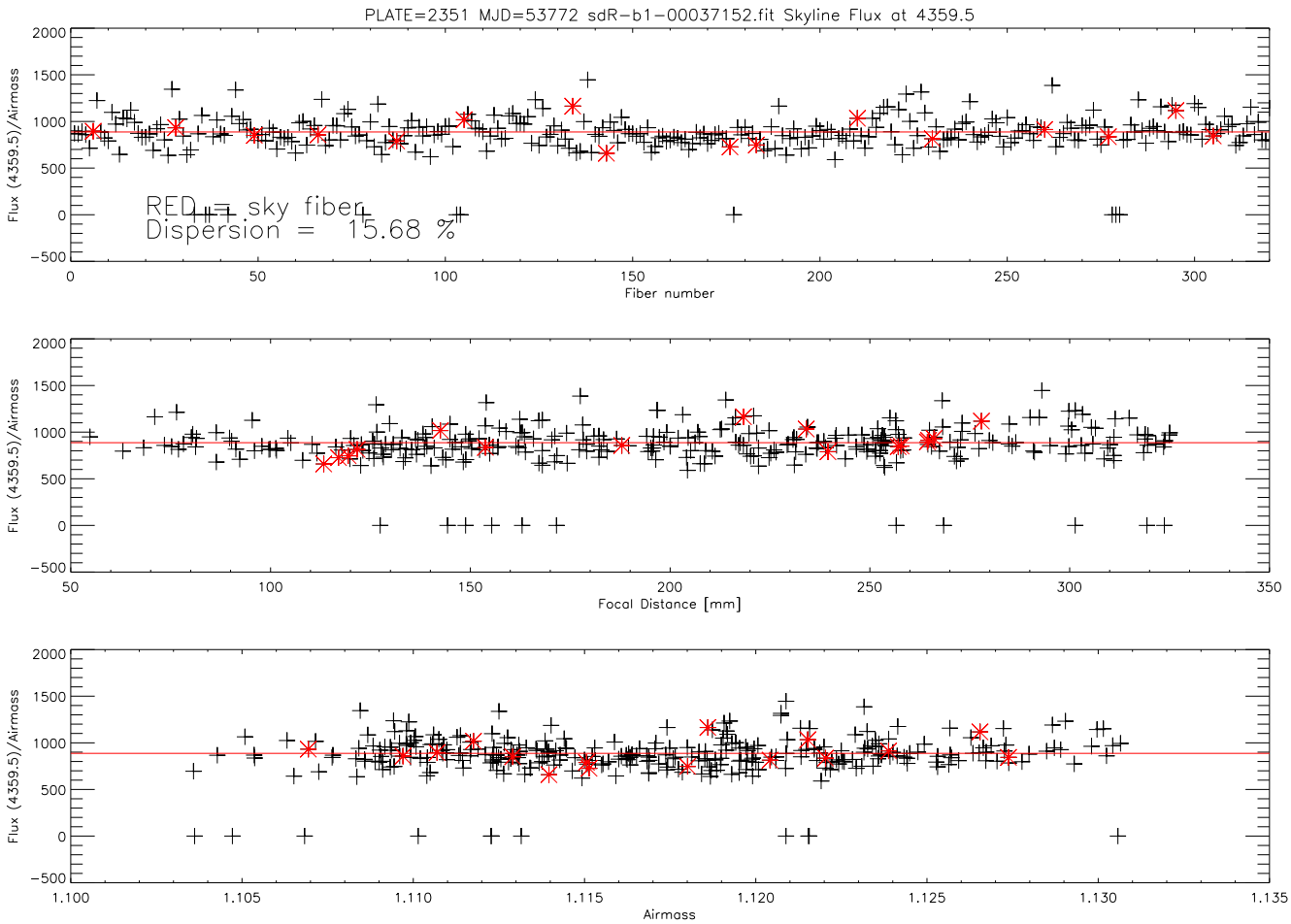

Number of sky fibers = 16
PLATE=2351 MJD=53772 sdR-b1-00037152.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

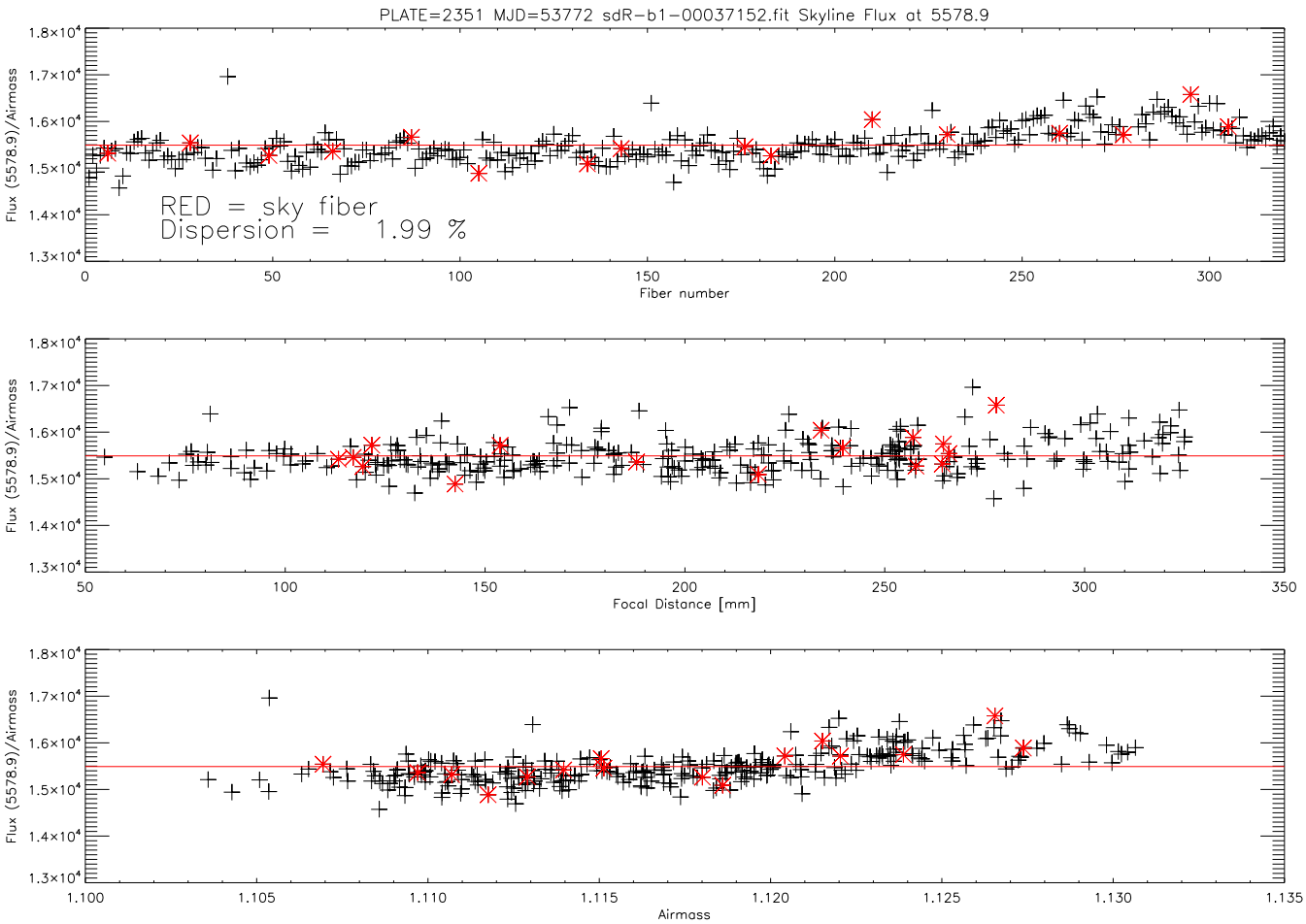

PLATE=2351 MJD=53772 sdR-b1-00037152.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

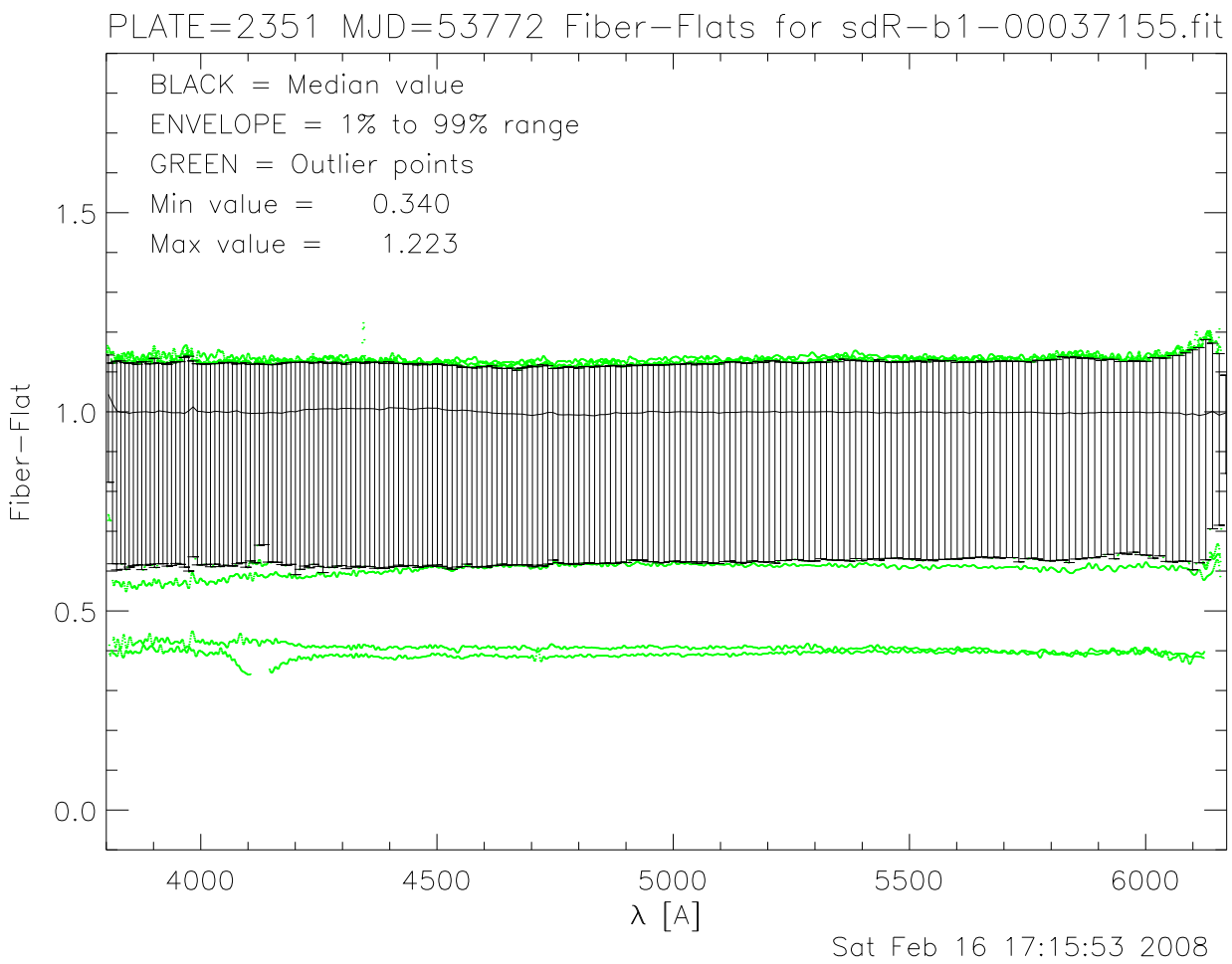

PLATE=2351 MJD=53772 sdR-b1-00037152.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

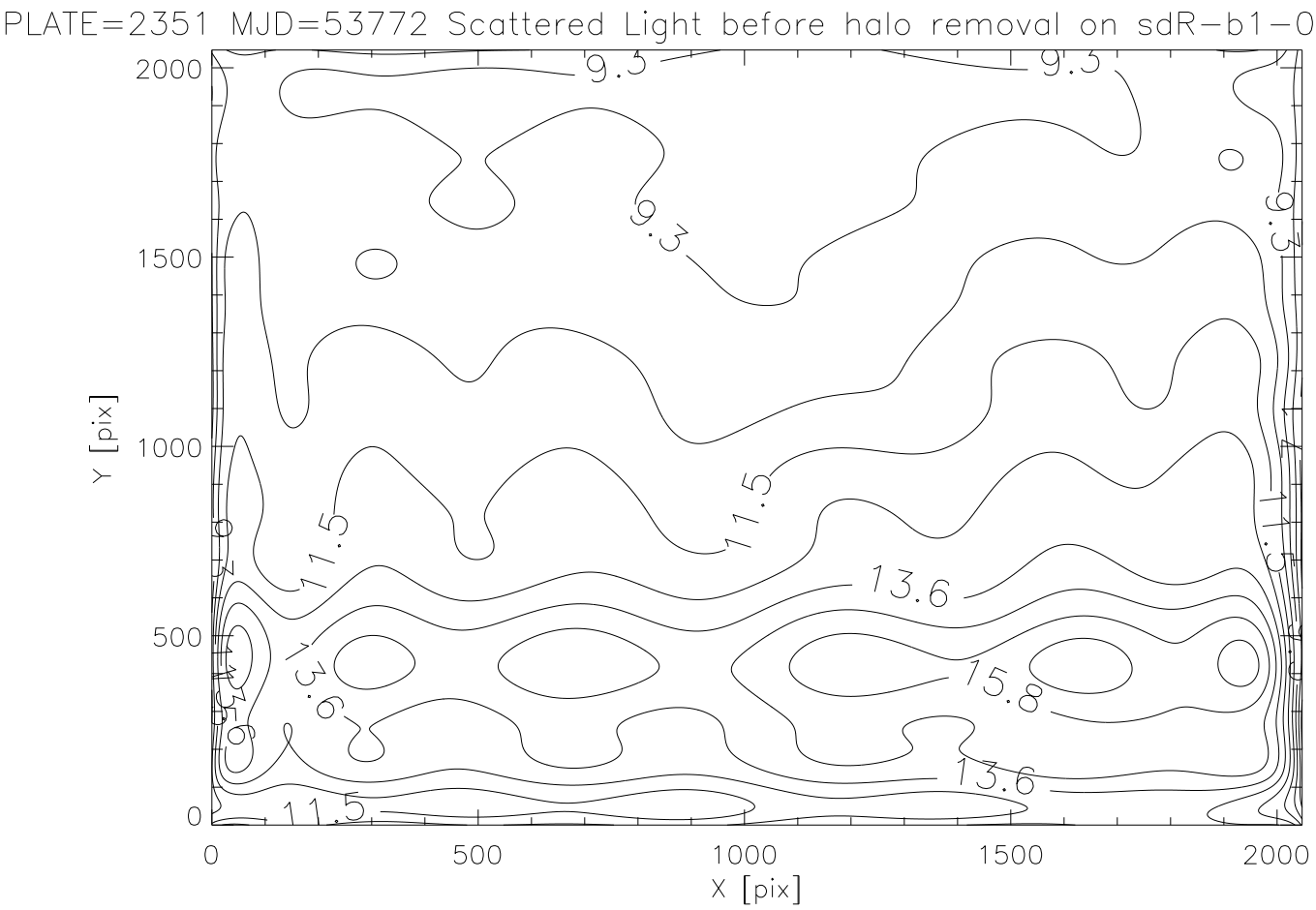

PLATE=2351 MJD=53772 sdR-b1-00037152.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
200
0
-200
-400
5570
5575
5580
5585
5590
λ [A]

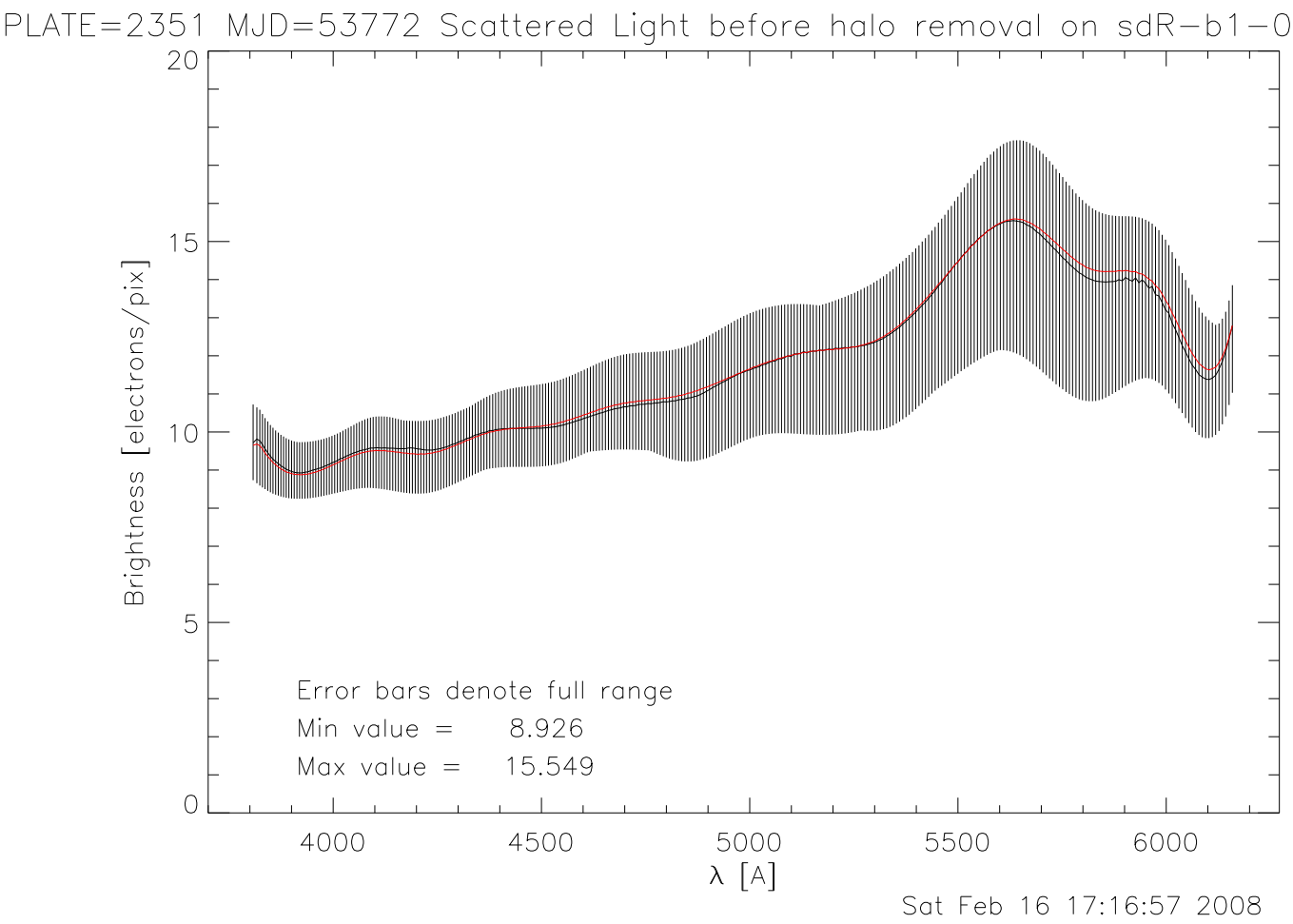

Number of sky fibers = 16
PLATE=2351 MJD=53772 sdR-b1-00037152.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

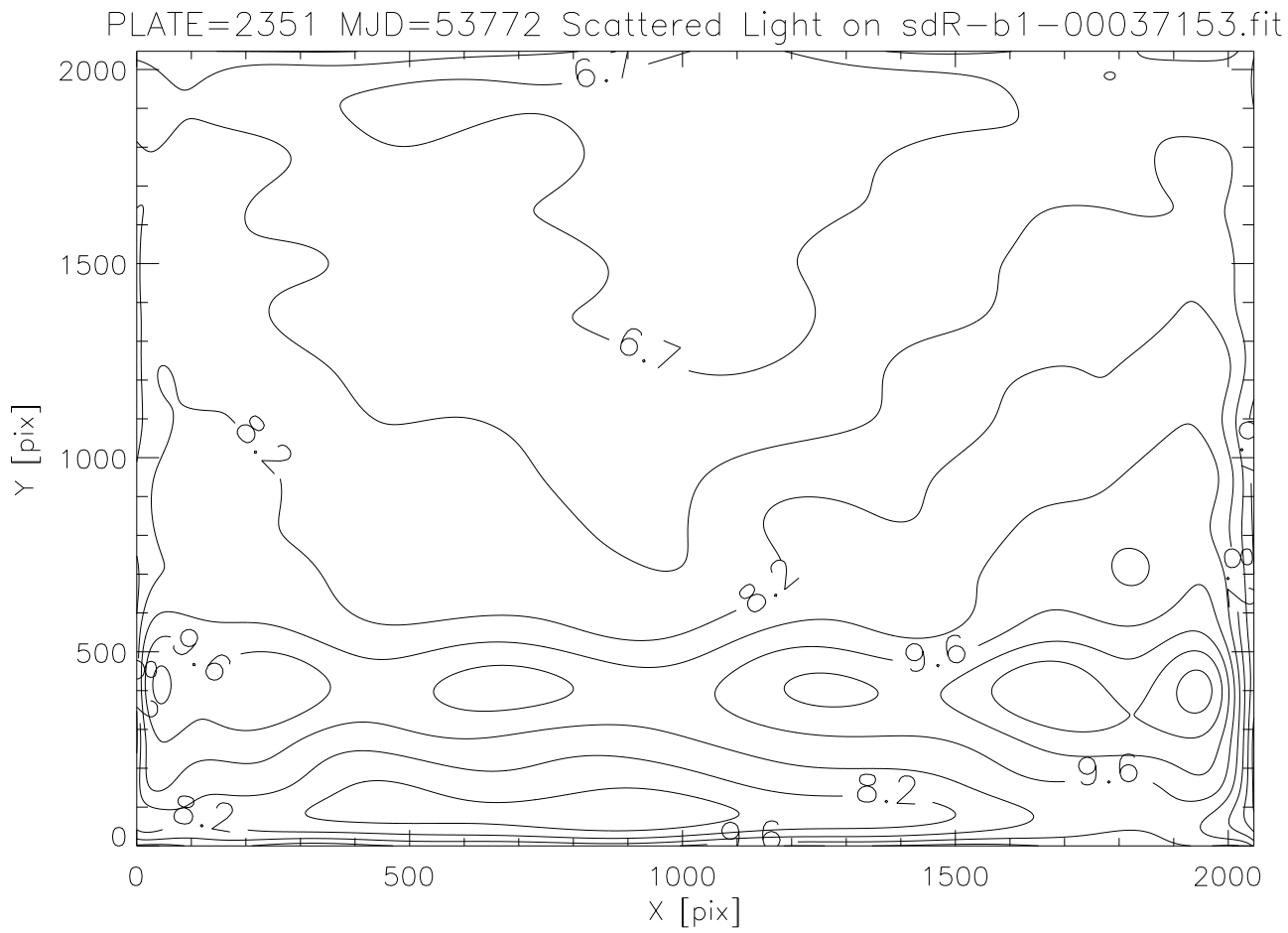

PLATE=2351 MJD=53772 sdR-b1-00037152.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 15.68 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

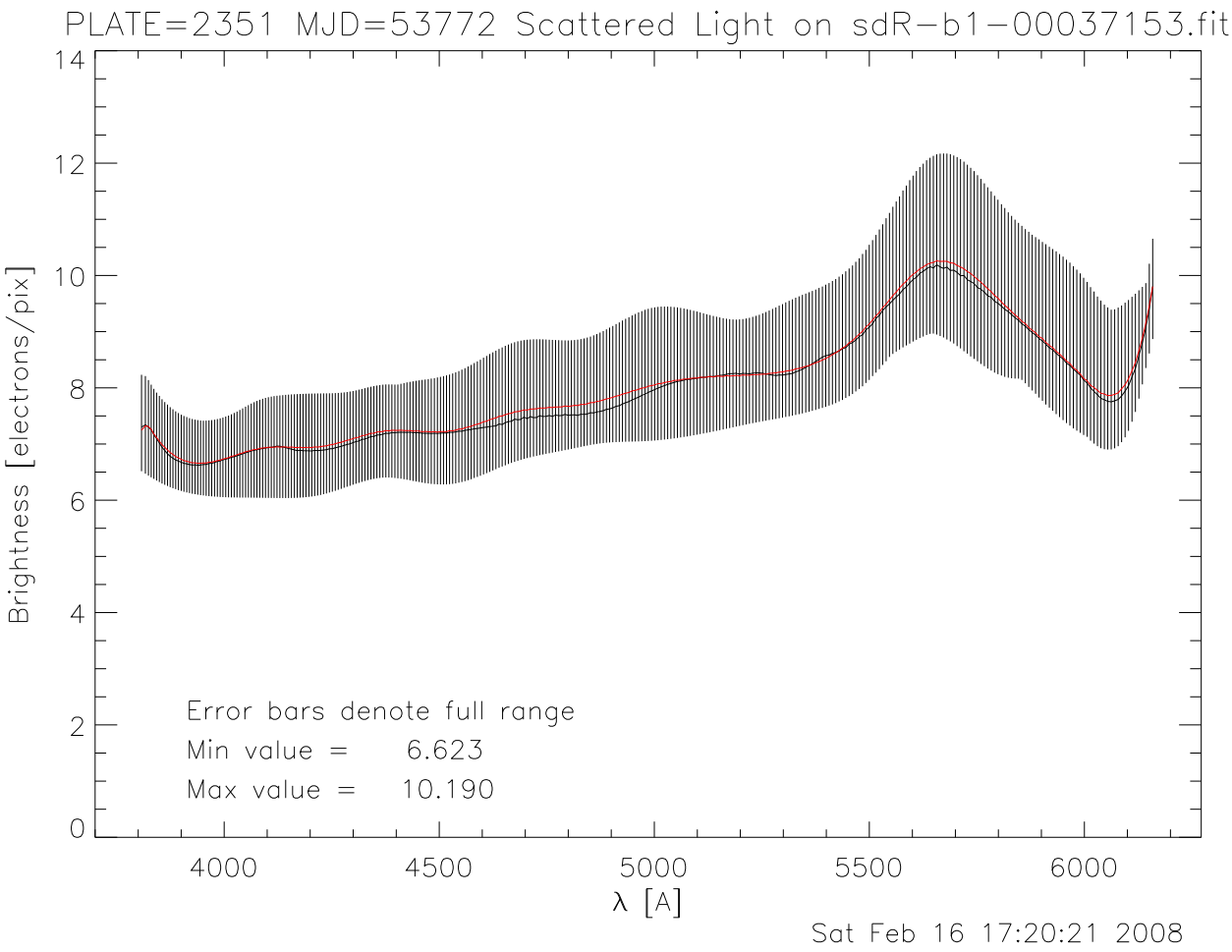

PLATE=2351 MJD=53772 sdR-b1-00037152.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 1.99 %
Fiber number
Focal Distance [mm]
Airmass

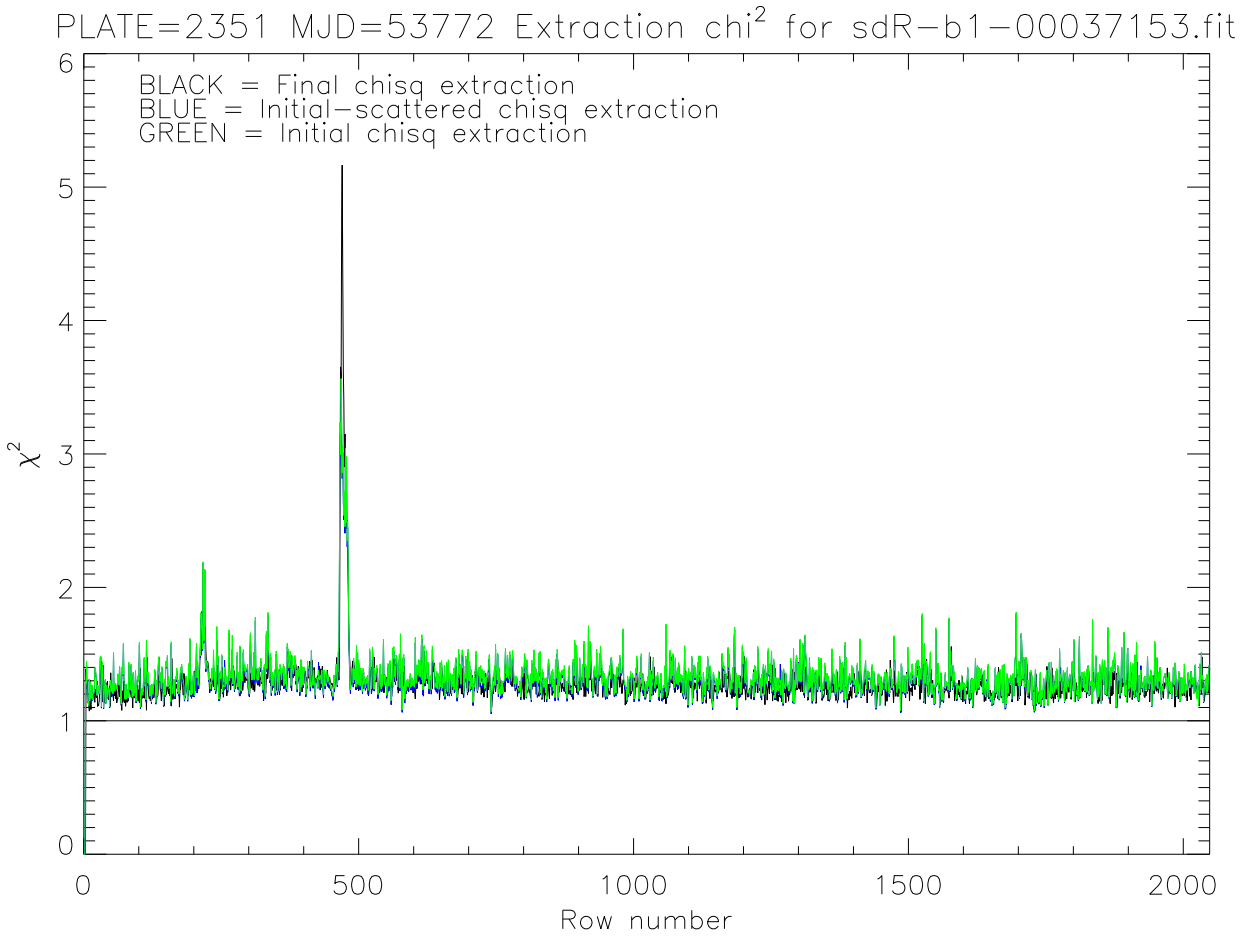

PLATE=2351 MJD=53772 Fiber-Flats for sdR-b1-00037155.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.340
Max value = 1.223
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Sat Feb 16 17:15:53 2008

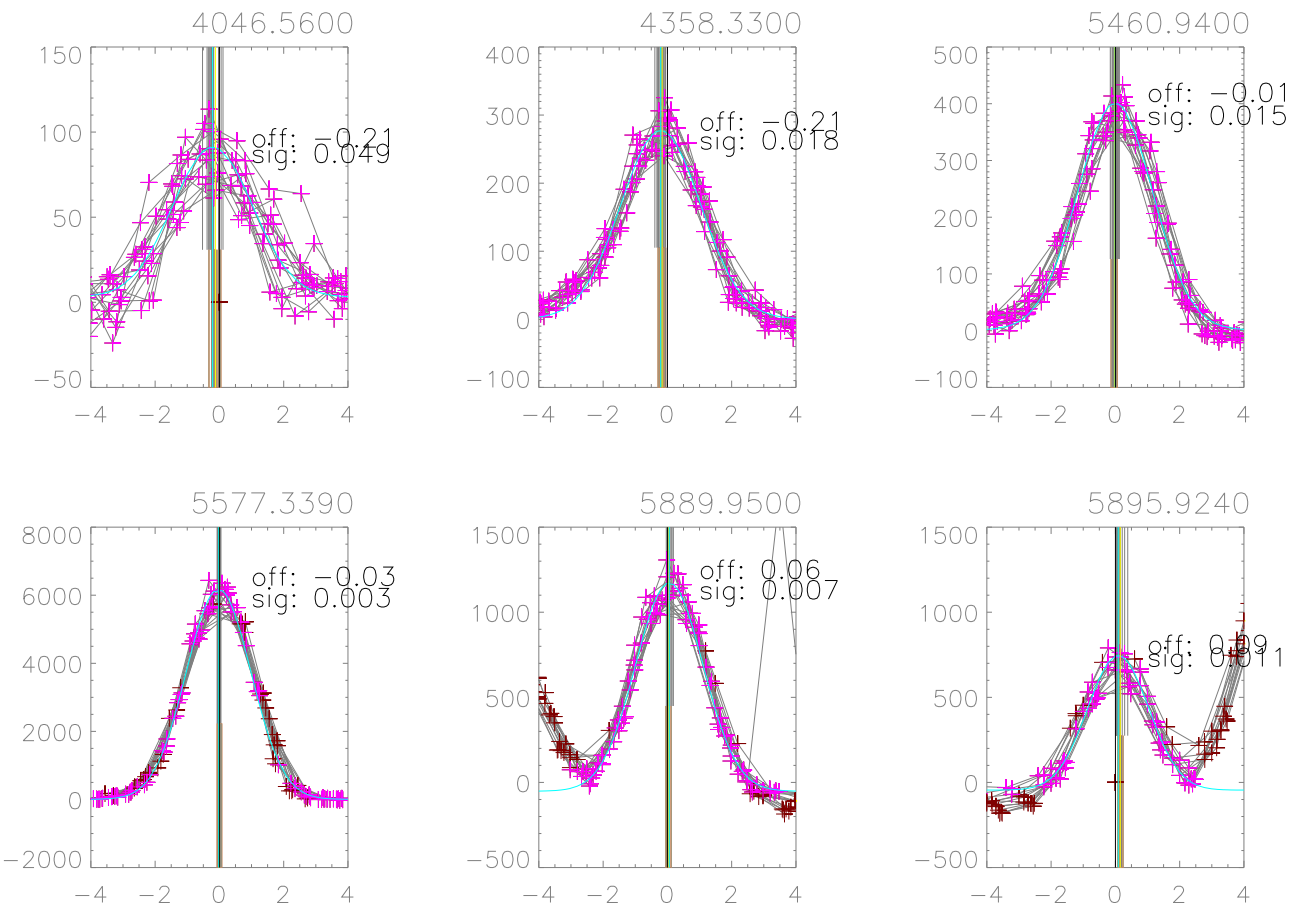

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR−b1−00037153.f
9.3
9.3
9.3
9.3
0
0
11.5
11.5
11.5
13.6
13.6
13.6
15.8
11.5
Y [pix]
X [pix]
0
500
1000
1500
2000

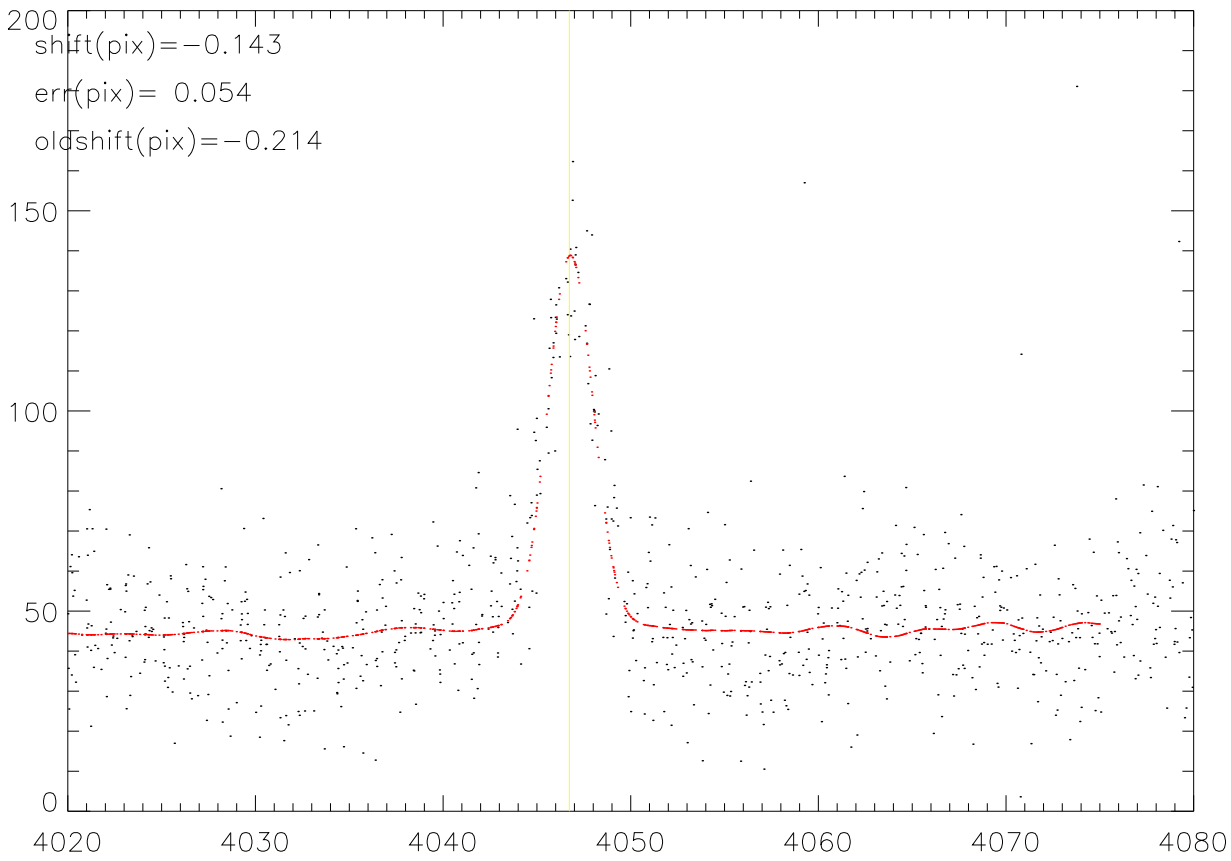

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR−b1−00037153.f
Brightness [electrons/pix]
20
15
10
5
0
Error bars denote full range
Min value = 8.926
Max value = 15.549
4000
4500
5000
5500
6000
λ [A]
Sat Feb 16 17:16:57 2008

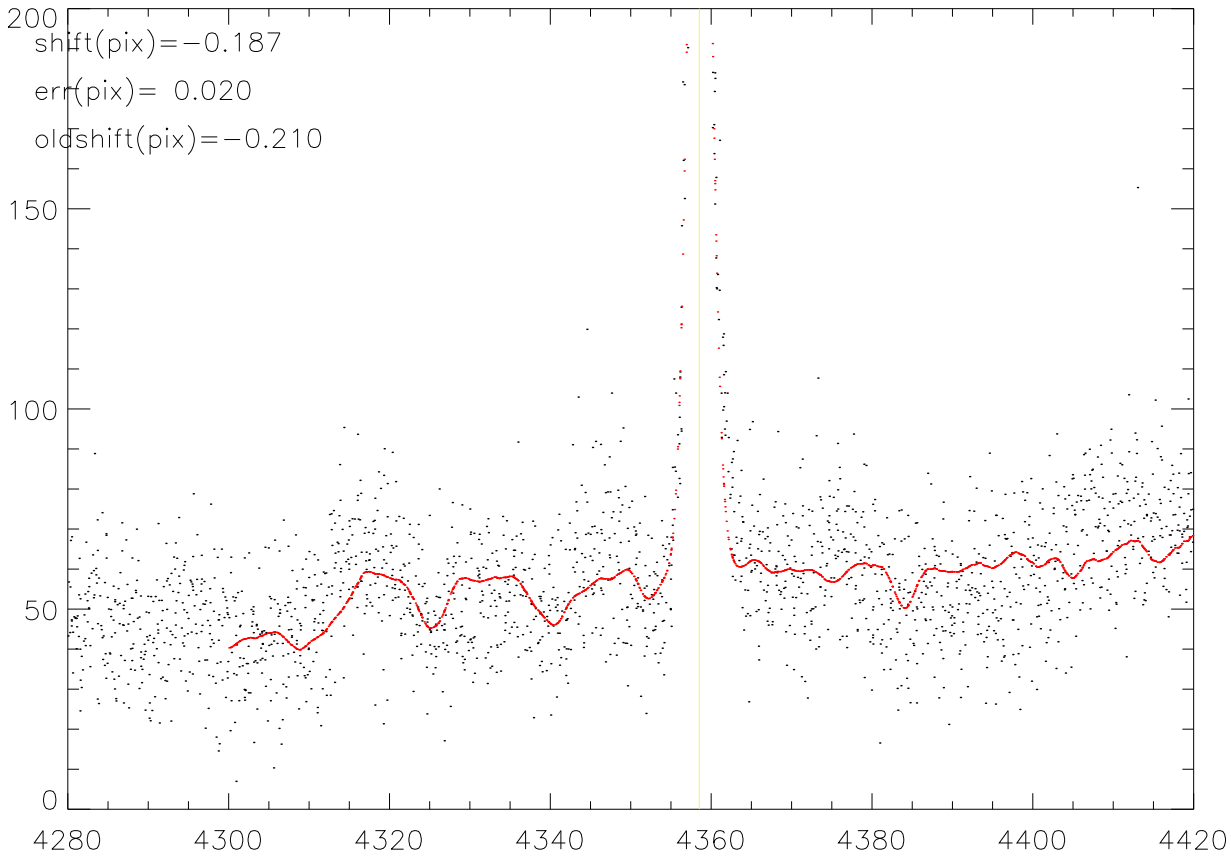

PLATE=2351 MJD=53772 Scattered Light on sdR-b1-00037153.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
6.7
8.2
9.6

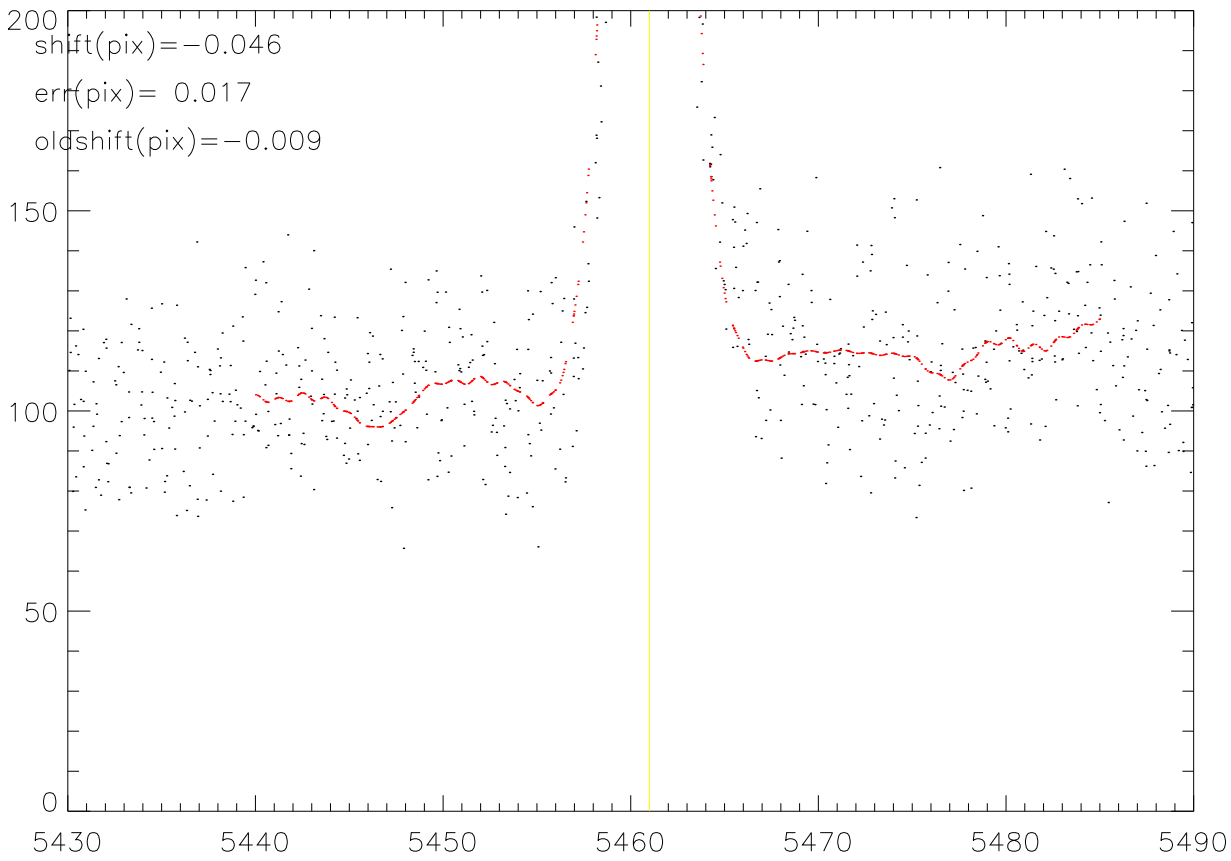

PLATE=2351 MJD=53772 Scattered Light on sdR-b1-00037153.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 6.623
Max value = 10.190
Sat Feb 16 17:20:21 2008

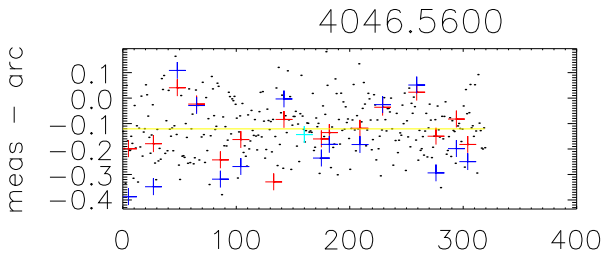

PLATE=2351 MJD=53772 Extraction chi^2 for sdR-b1-00037153.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
5
6
0
500
1000
1500
2000
Row number

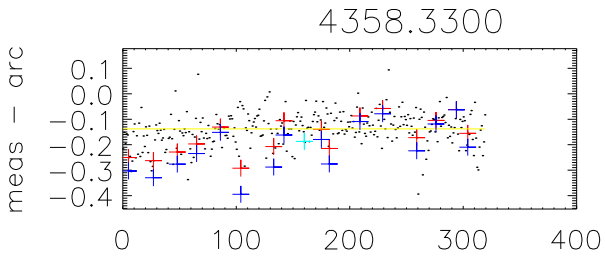

4046.5600
off: −0.21
sig: 0.049
4358.3300
off: −0.21
sig: 0.018
5460.9400
off: −0.01
sig: 0.015
5577.3390
off: −0.03
sig: 0.003
5889.9500
off: 0.06
sig: 0.007
5895.9240
off: 0.09
sig: 0.011

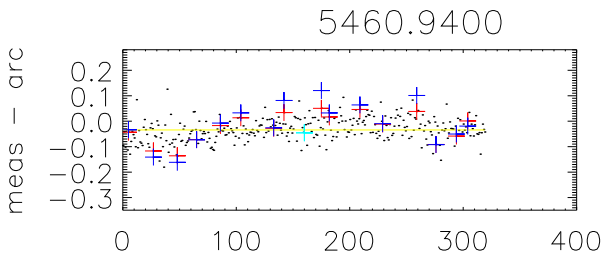

shift(pix)=−0.143
err(pix)= 0.054
oldshift(pix)=−0.214
200
150
100
50
0
4020
4030
4040
4050
4060
4070
4080

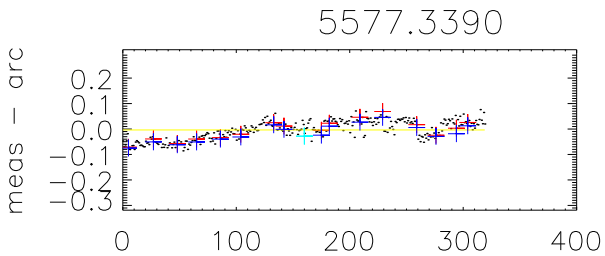

shift(pix)=−0.187
err(pix)= 0.020
oldshift(pix)=−0.210
200
150
100
50
0
4280
4300
4320
4340
4360
4380
4400
4420

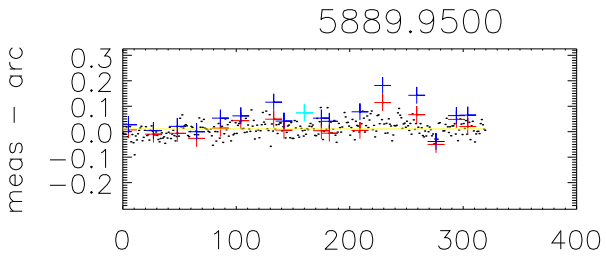

shift(pix)=−0.046
err(pix)= 0.017
oldshift(pix)=−0.009
200
150
100
50
0
5430
5440
5450
5460
5470
5480
5490

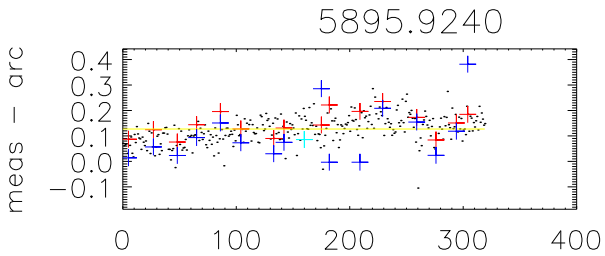

4046.5600
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

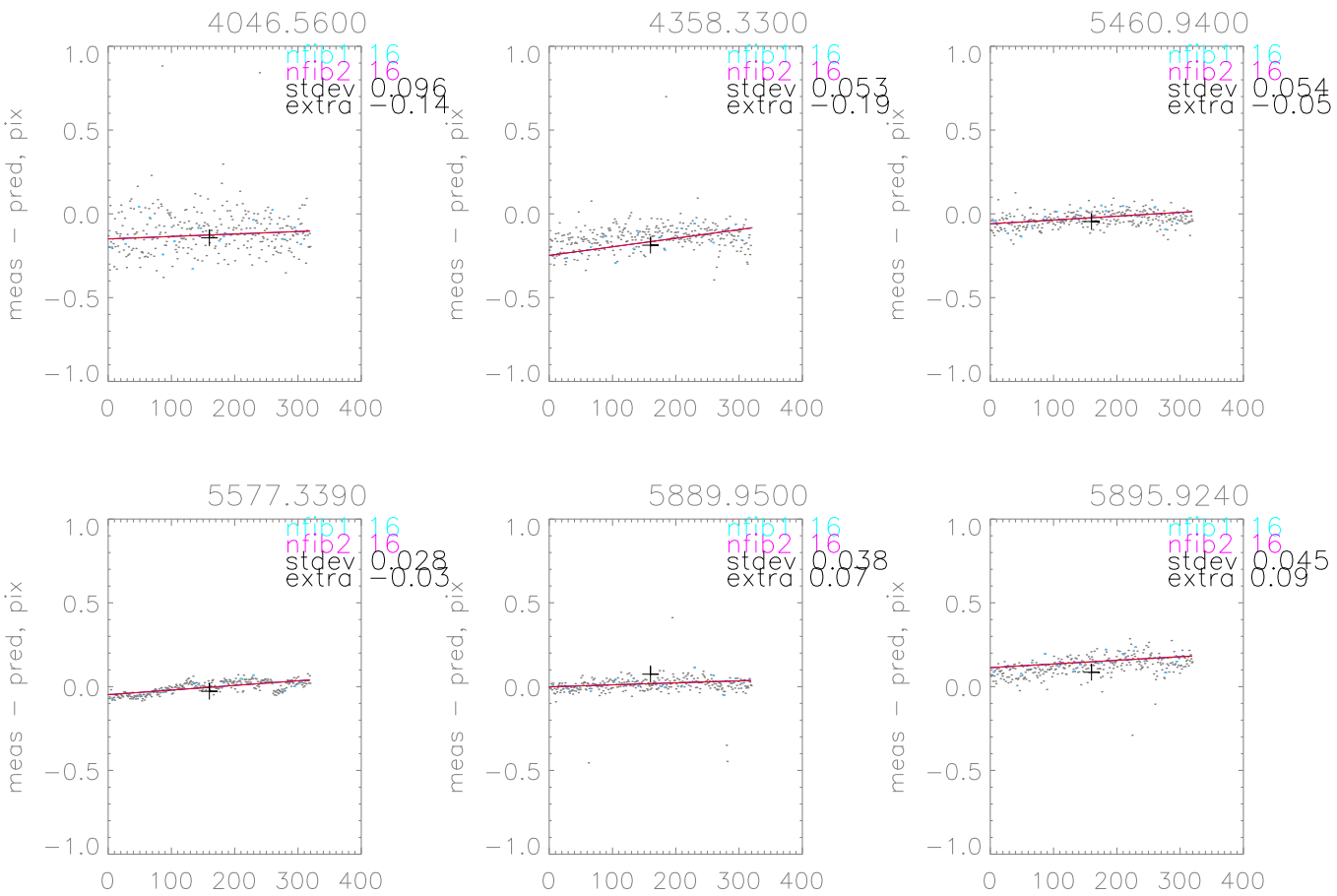

4358.3300
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

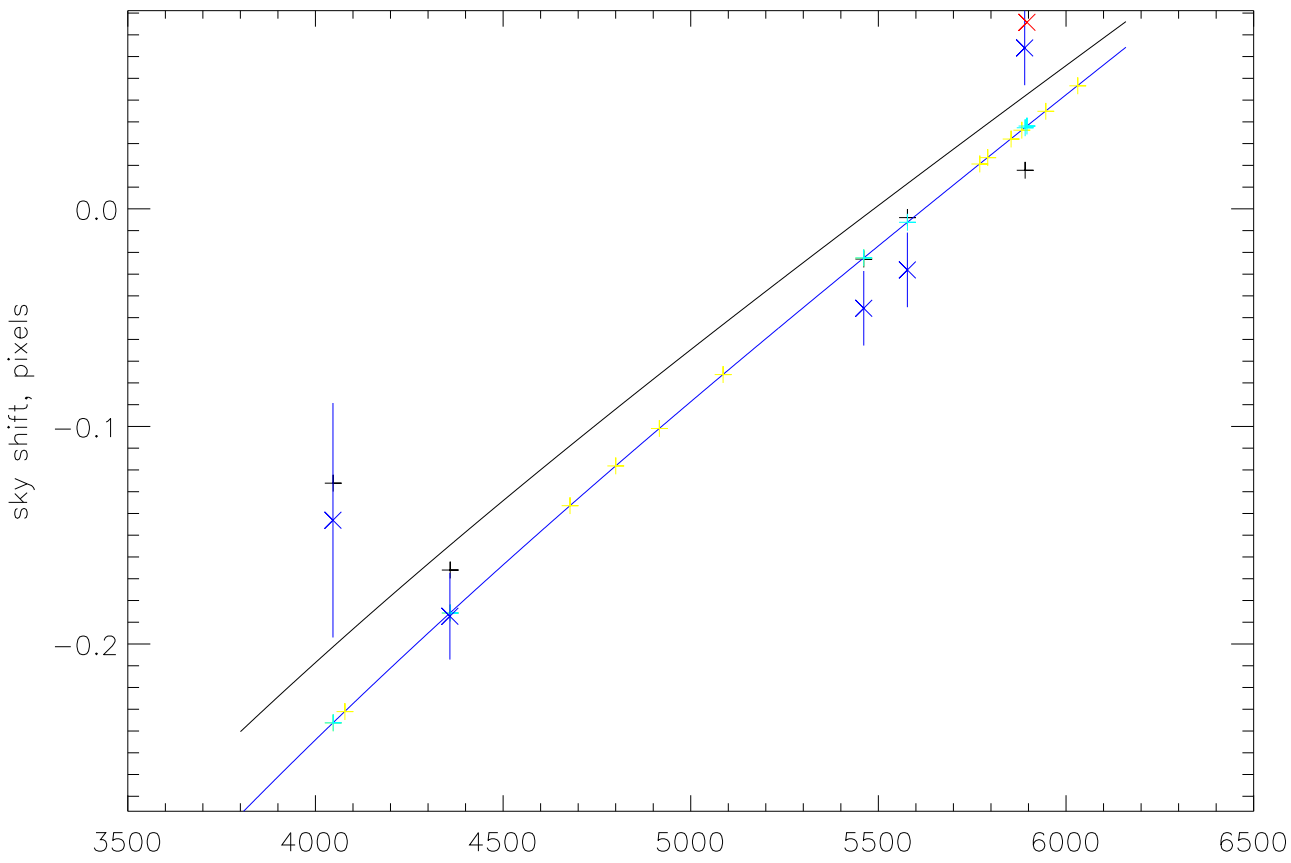

5460.9400
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400


5577.3390
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

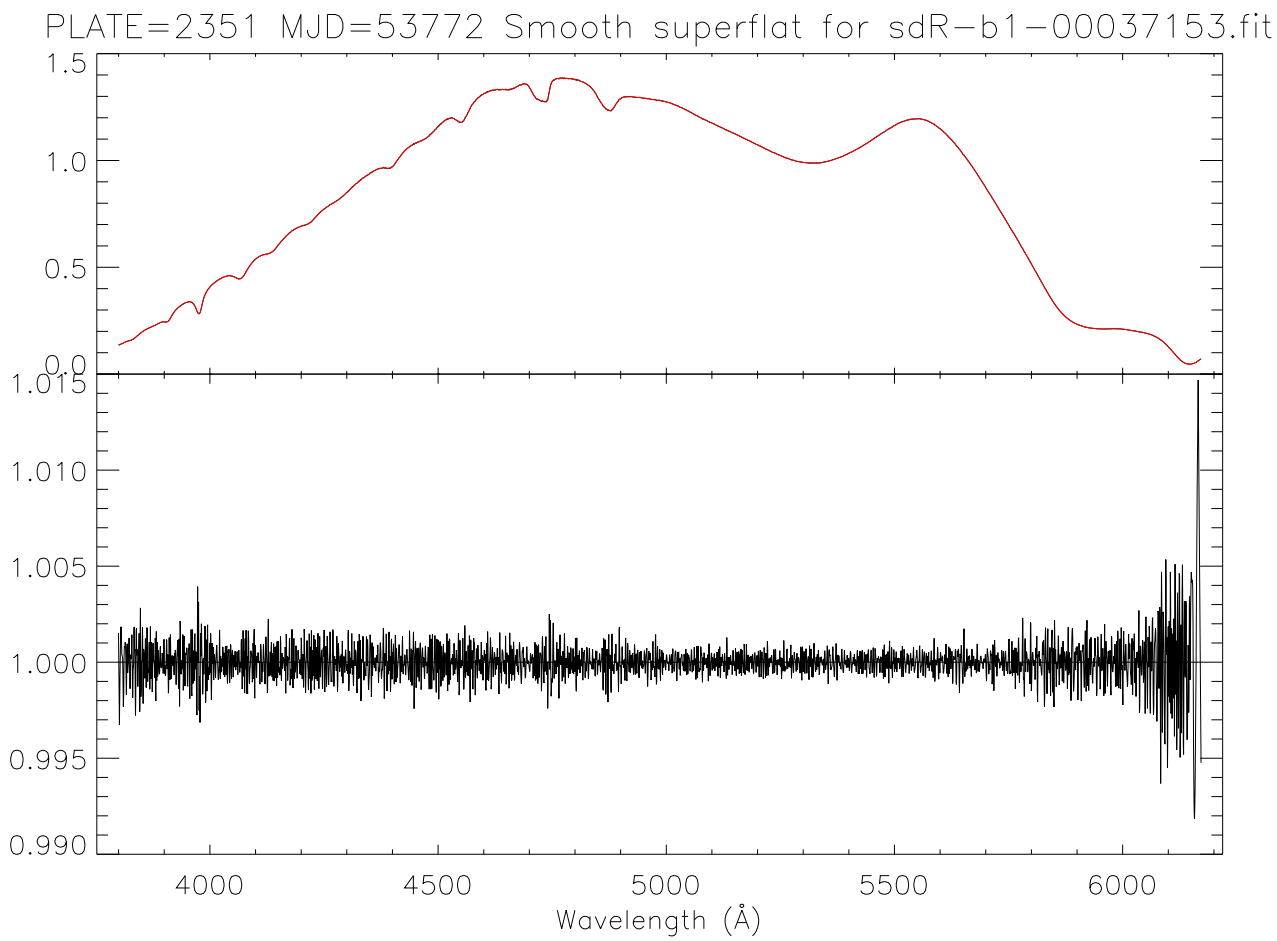

5889.9500
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

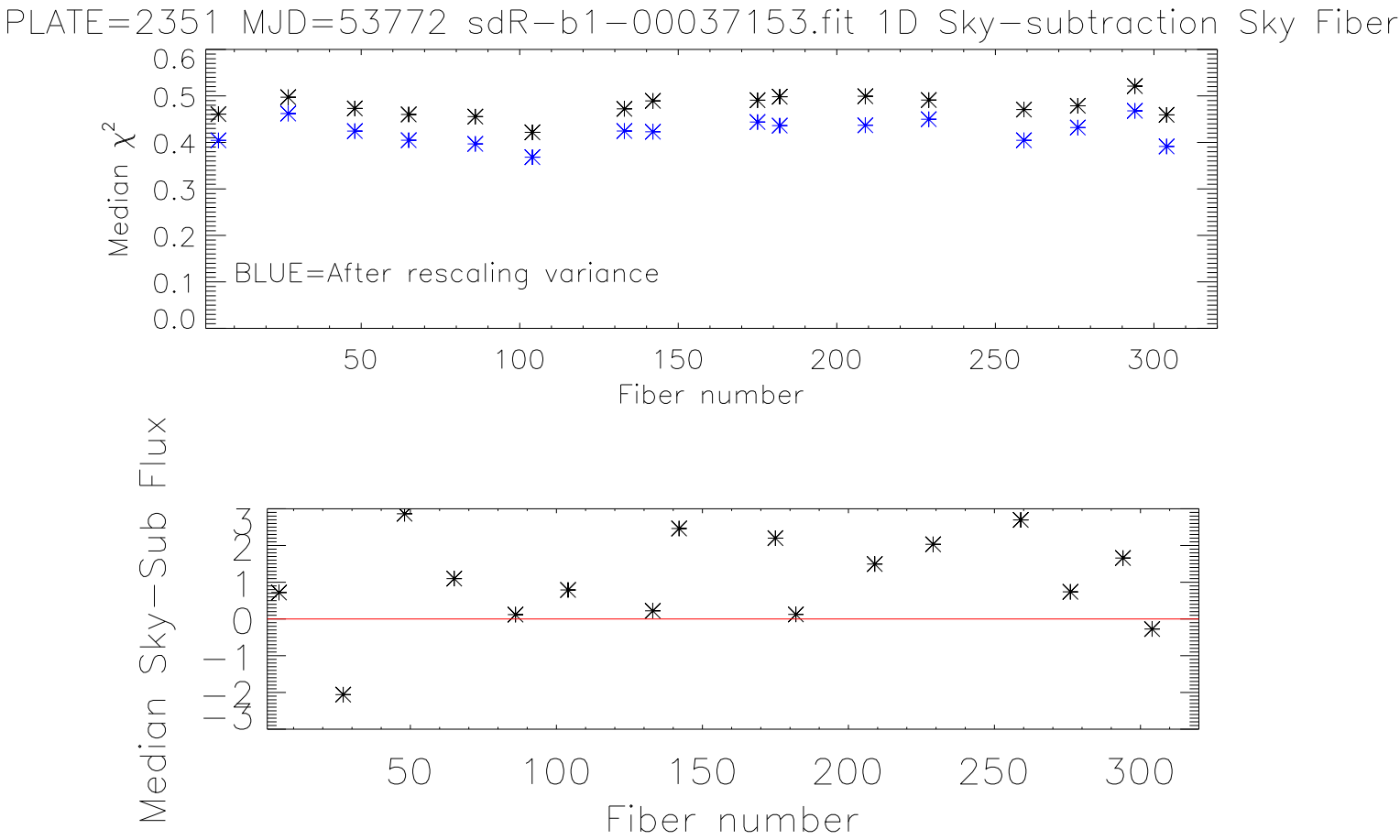

5895.9240
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

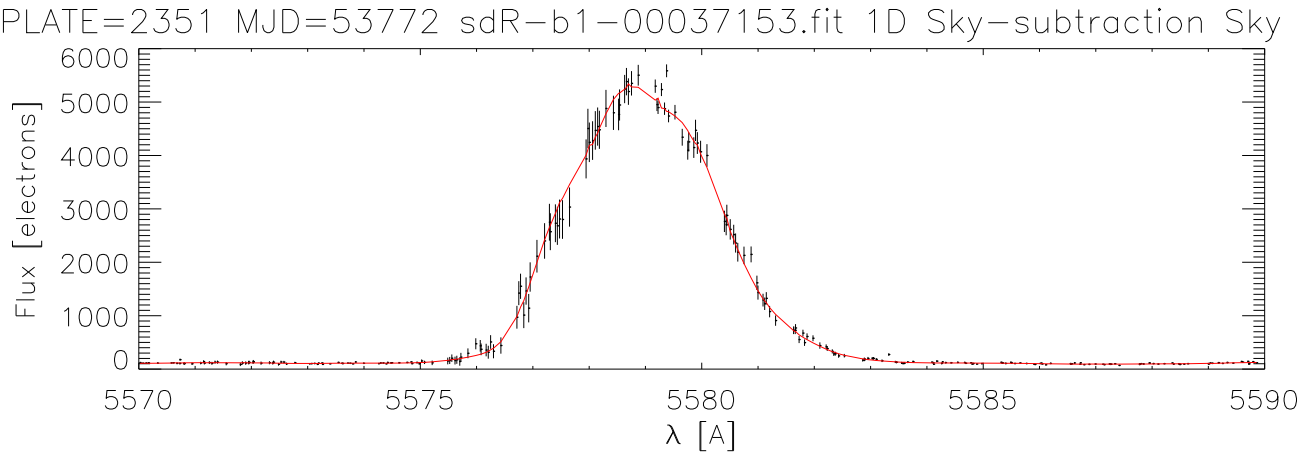

4046.5600
nfib1 16
nfib2 16
stdev 0.096
extra −0.14
4358.3300
nfib1 16
nfib2 16
stdev 0.053
extra −0.19
5460.9400
nfib1 16
nfib2 16
stdev 0.054
extra −0.05
5577.3390
nfib1 16
nfib2 16
stdev 0.028
extra −0.03
5889.9500
nfib1 16
nfib2 16
stdev 0.038
extra 0.07
5895.9240
nfib1 16
nfib2 16
stdev 0.045
extra 0.09
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

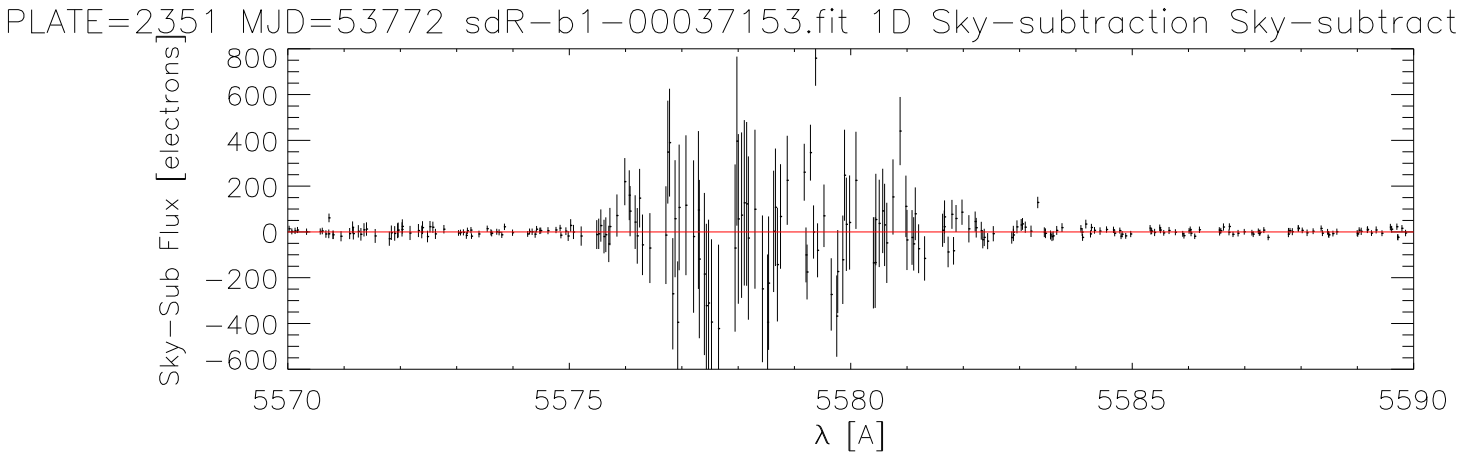

sky shift, pixels
0.0
−0.1
−0.2
3500
4000
4500
5000
5500
6000
6500

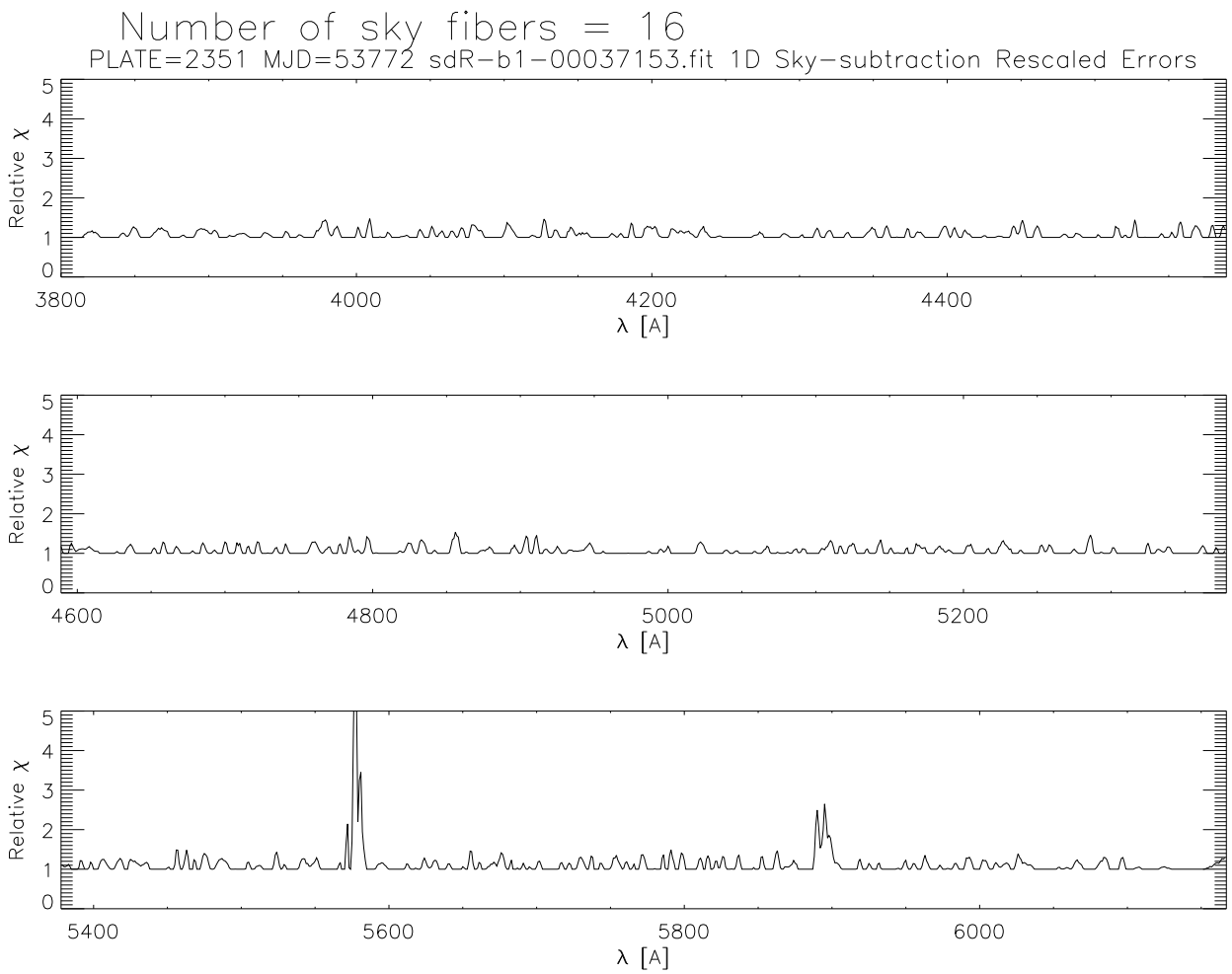
es= 0.0000

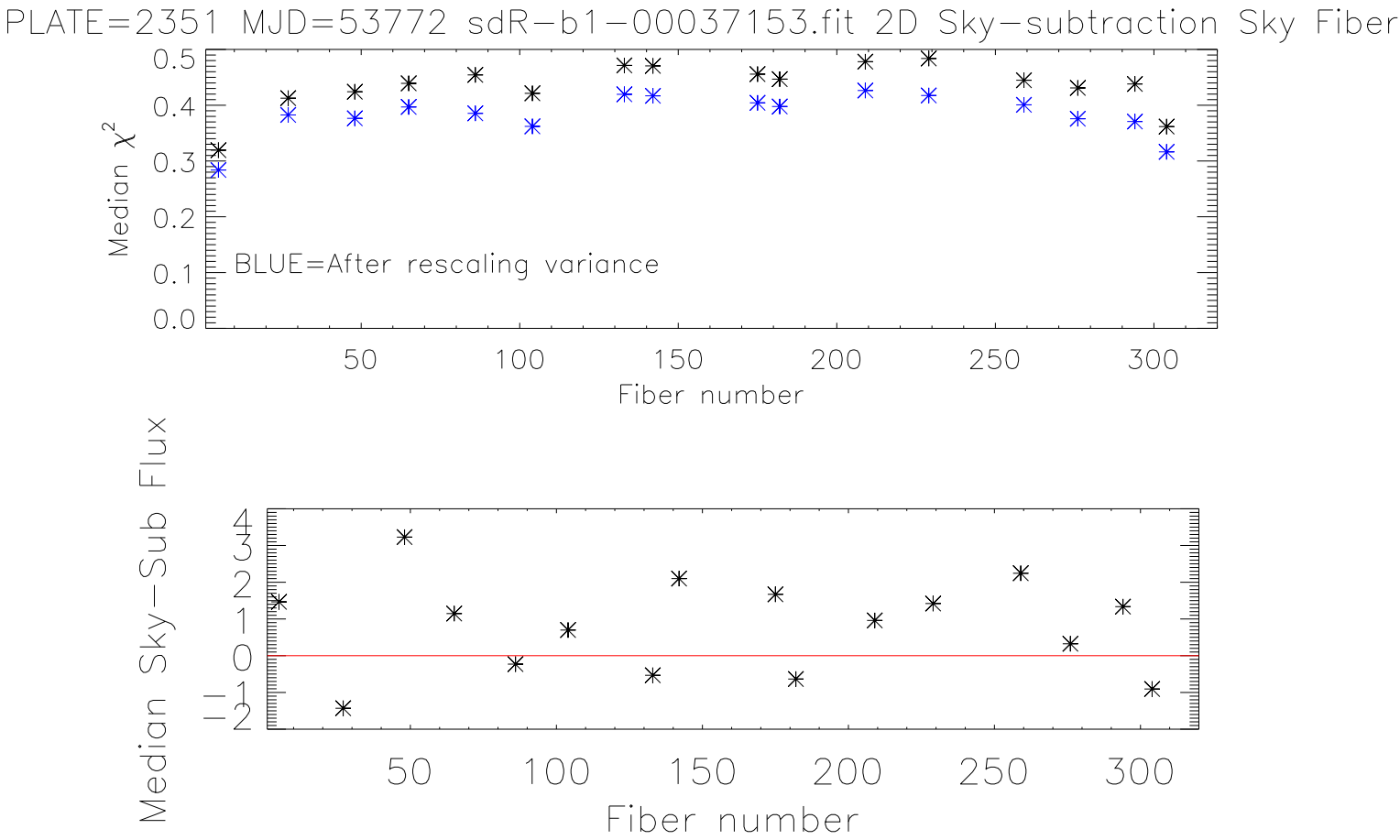

PLATE=2351 MJD=53772 Smooth superflat for sdR-b1-00037153.fit
1.5
1.0
0.5
0.0
1.015
1.010
1.005
1.000
0.995
0.990
4000
4500
5000
5500
6000
Wavelength (Å)

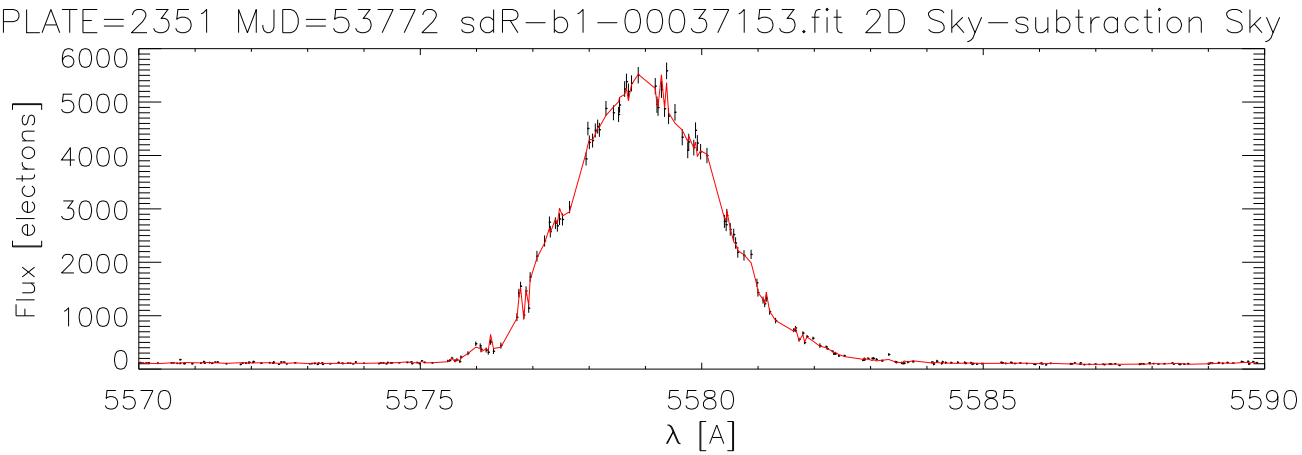

PLATE=2351 MJD=53772 sdR-b1-00037153.fit 1D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

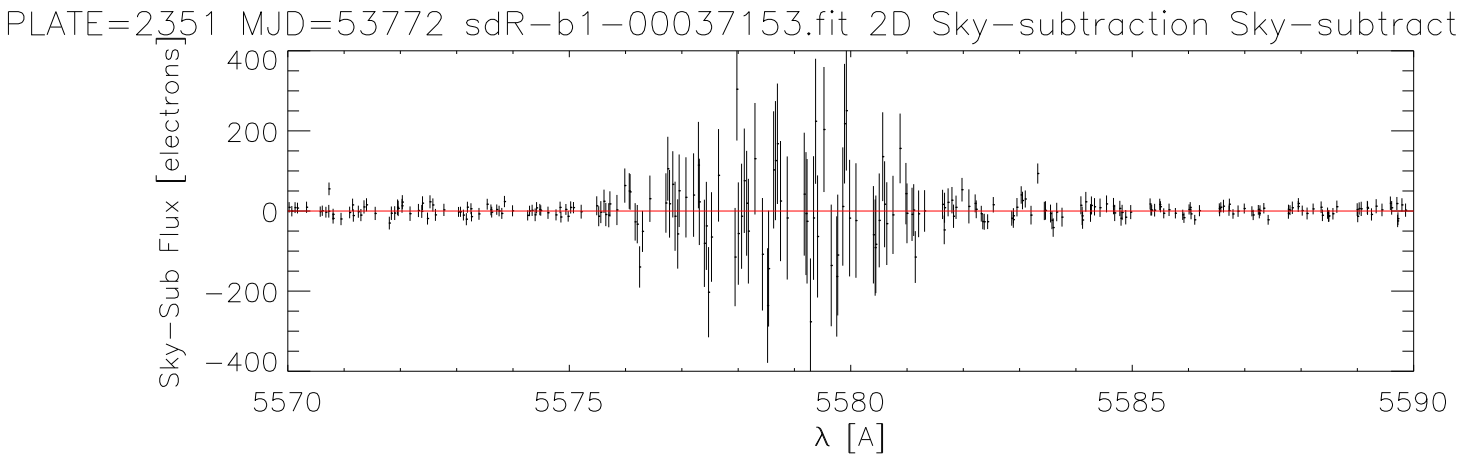

PLATE=2351 MJD=53772 sdR-b1-00037153.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
6000
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

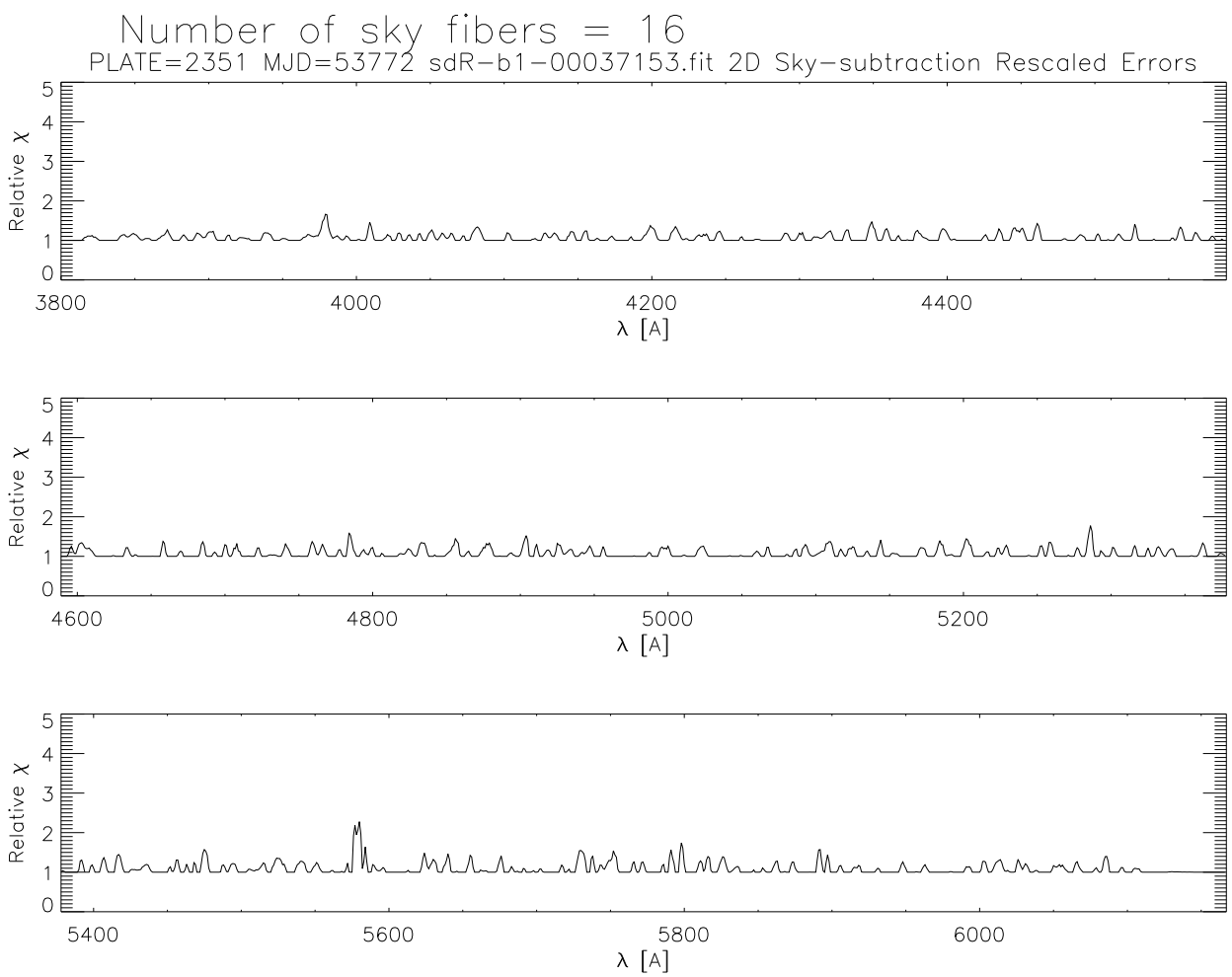

PLATE=2351 MJD=53772 sdR-b1-00037153.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
800
600
400
200
0
-200
-400
-600
5570
5575
5580
5585
5590
λ [A]

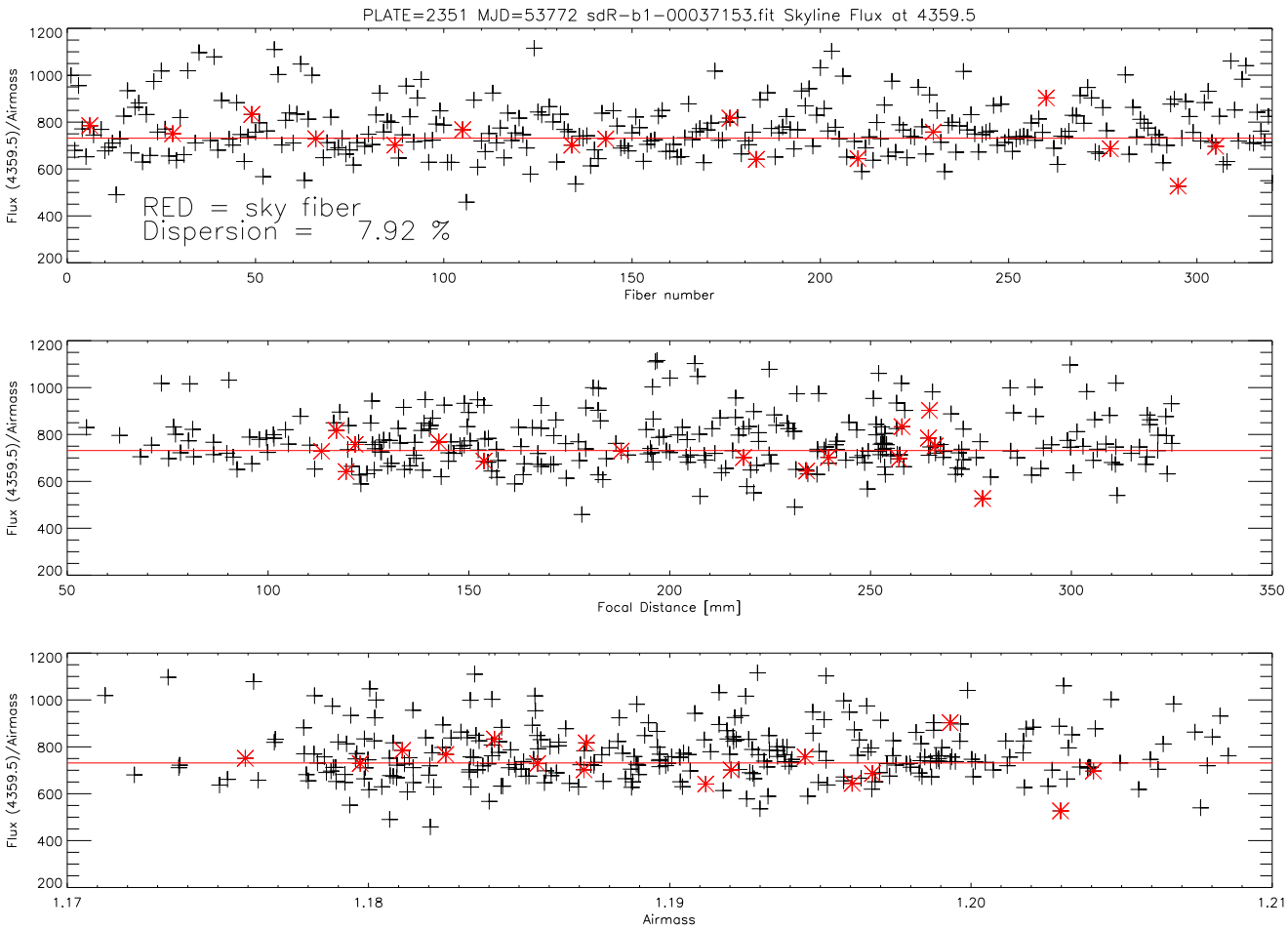

Number of sky fibers = 16
PLATE=2351 MJD=53772 sdR-b1-00037153.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

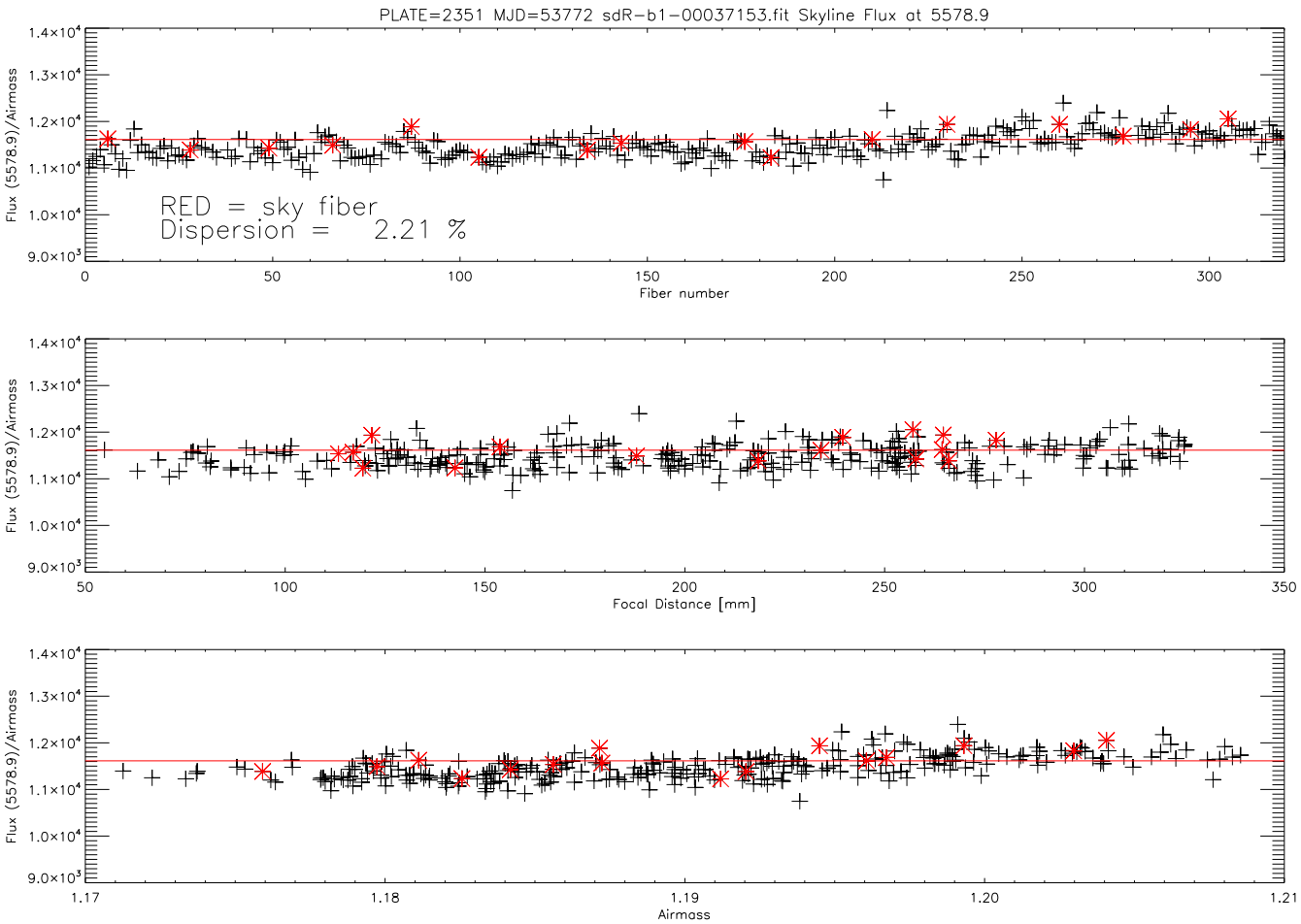

PLATE=2351 MJD=53772 sdR-b1-00037153.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

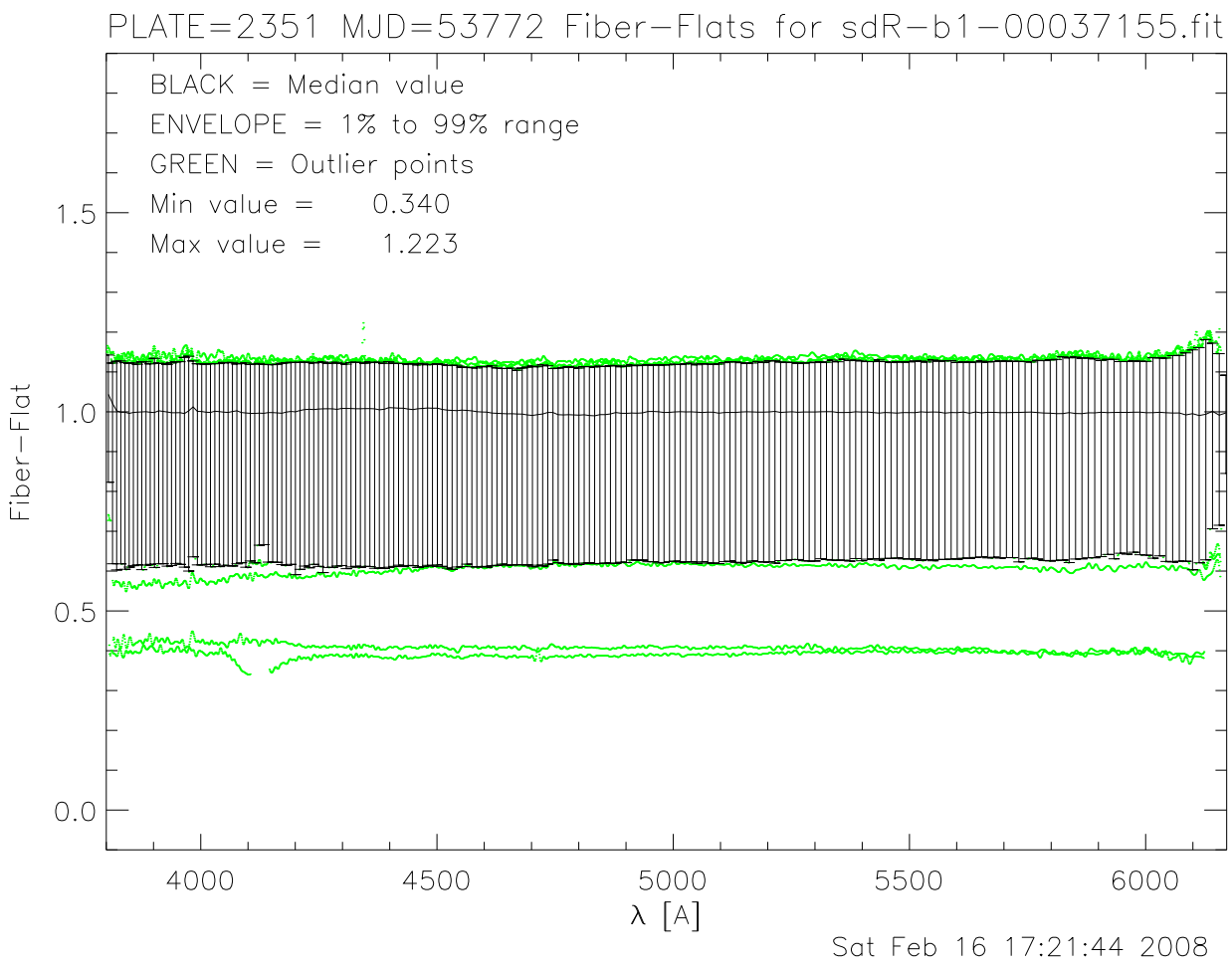

PLATE=2351 MJD=53772 sdR-b1-00037153.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
6000
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

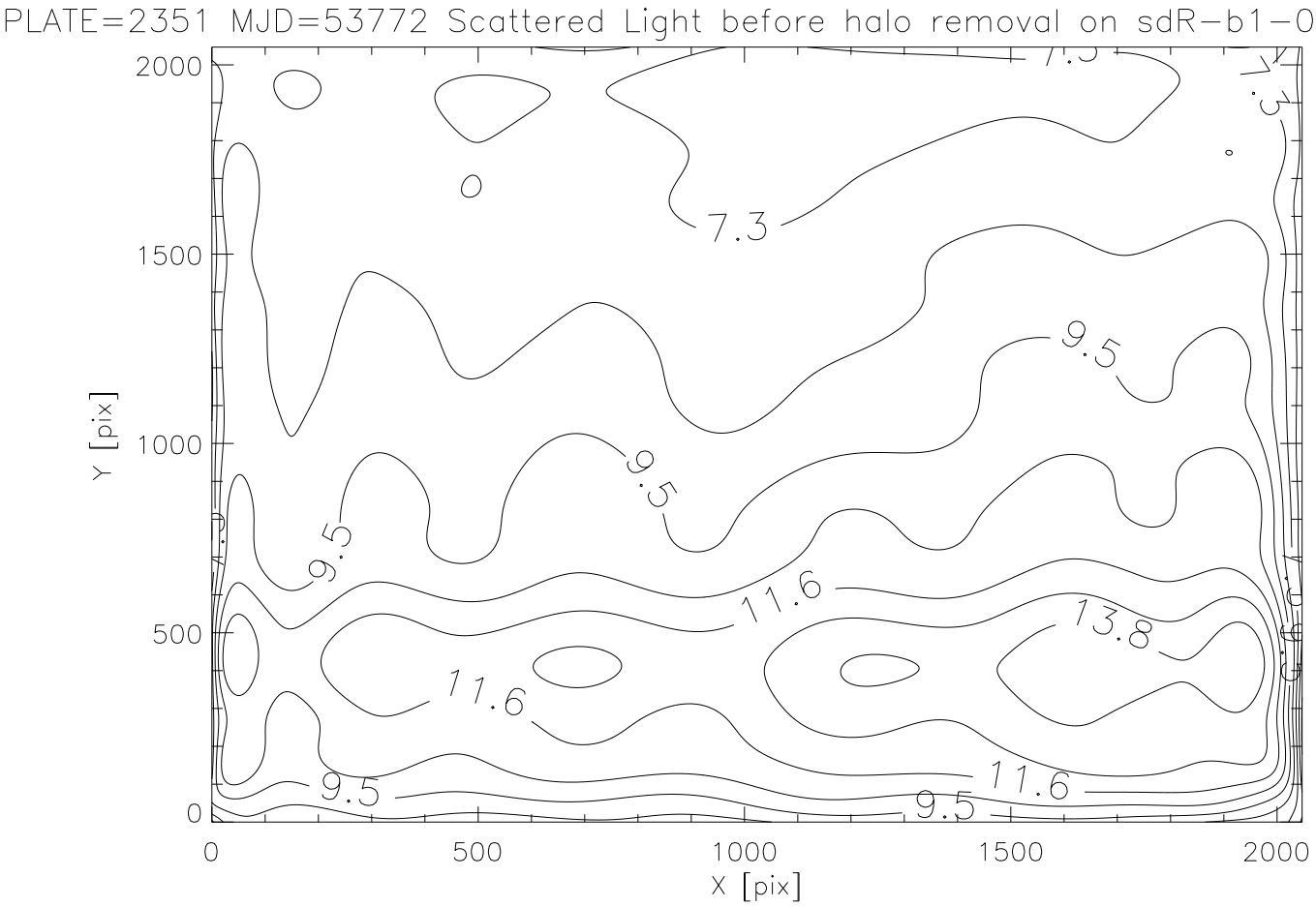

PLATE=2351 MJD=53772 sdR-b1-00037153.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
200
0
-200
-400
5570
5575
5580
5585
5590
λ [A]

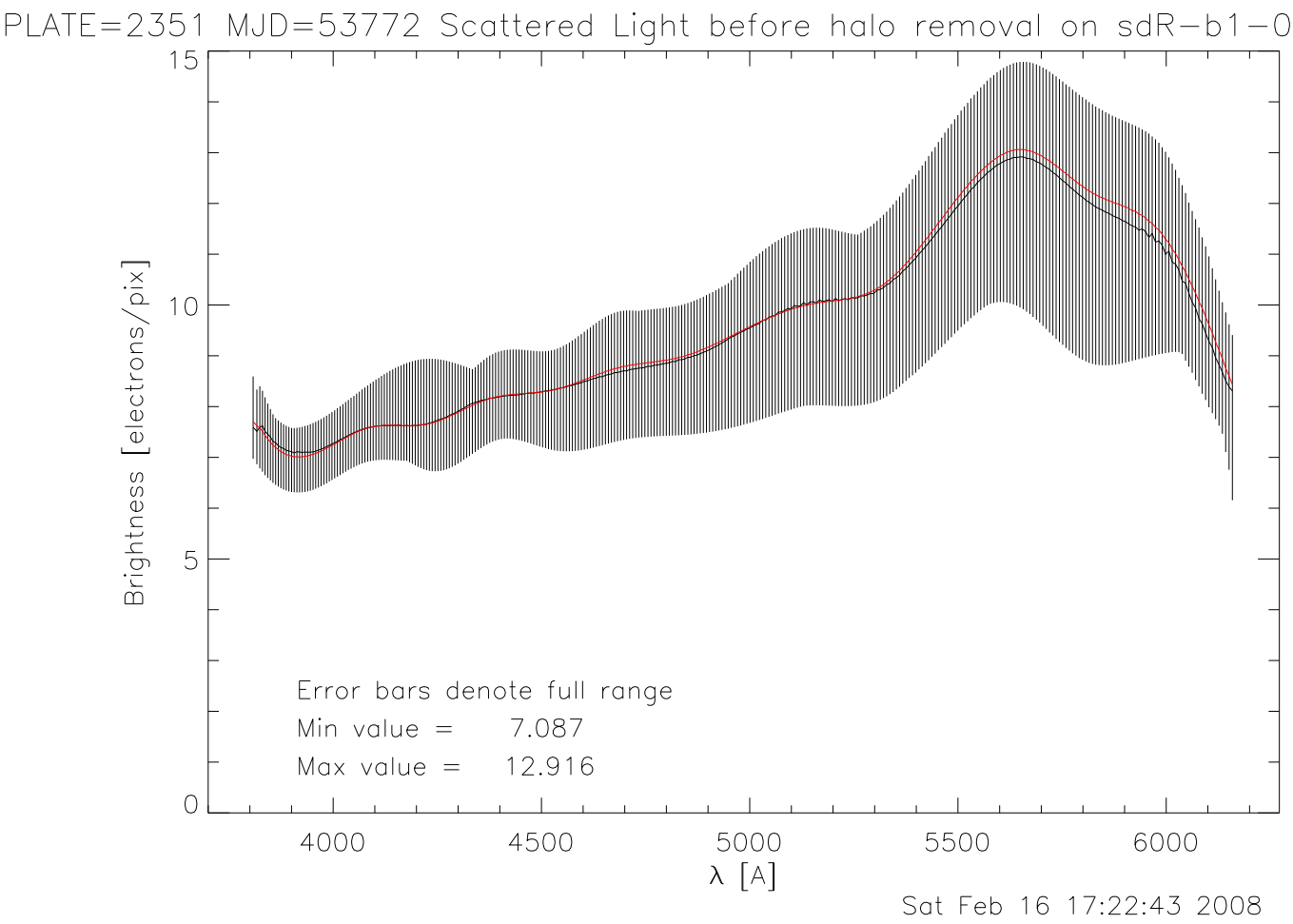

Number of sky fibers = 16
PLATE=2351 MJD=53772 sdR-b1-00037153.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

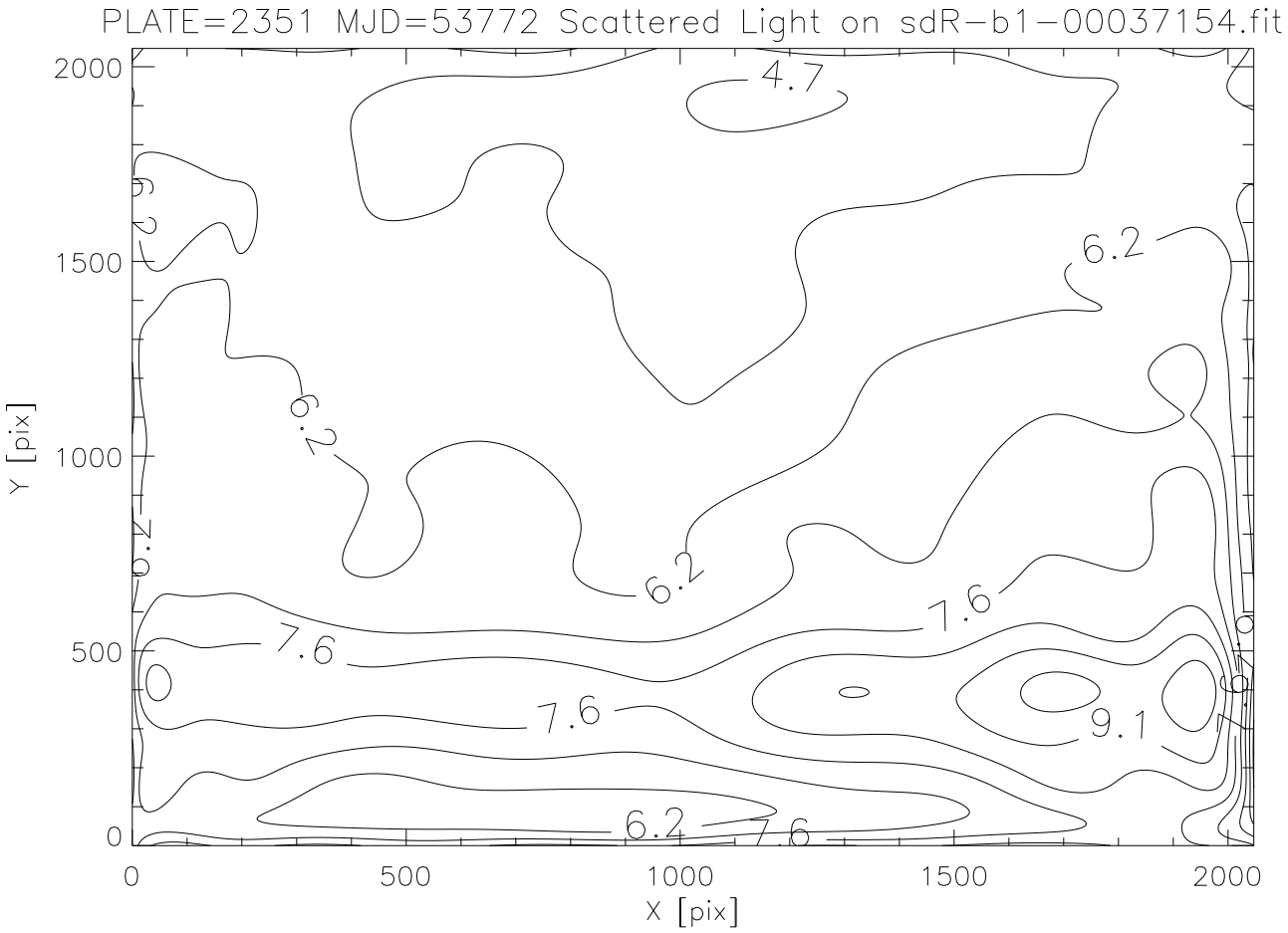

PLATE=2351 MJD=53772 sdR-b1-00037153.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 7.92 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

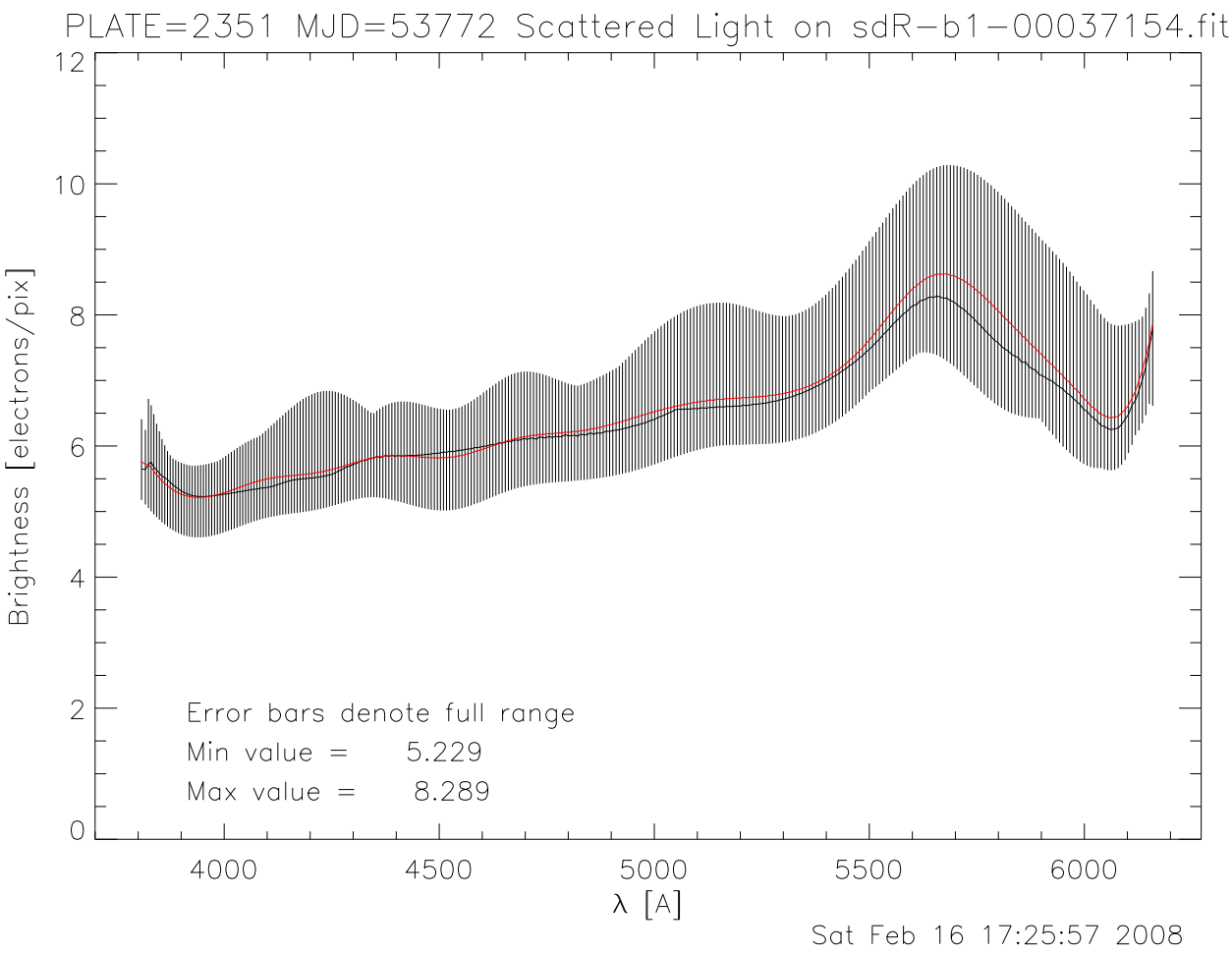

PLATE=2351 MJD=53772 sdR-b1-00037153.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 2.21 %
Fiber number
Focal Distance [mm]
Airmass

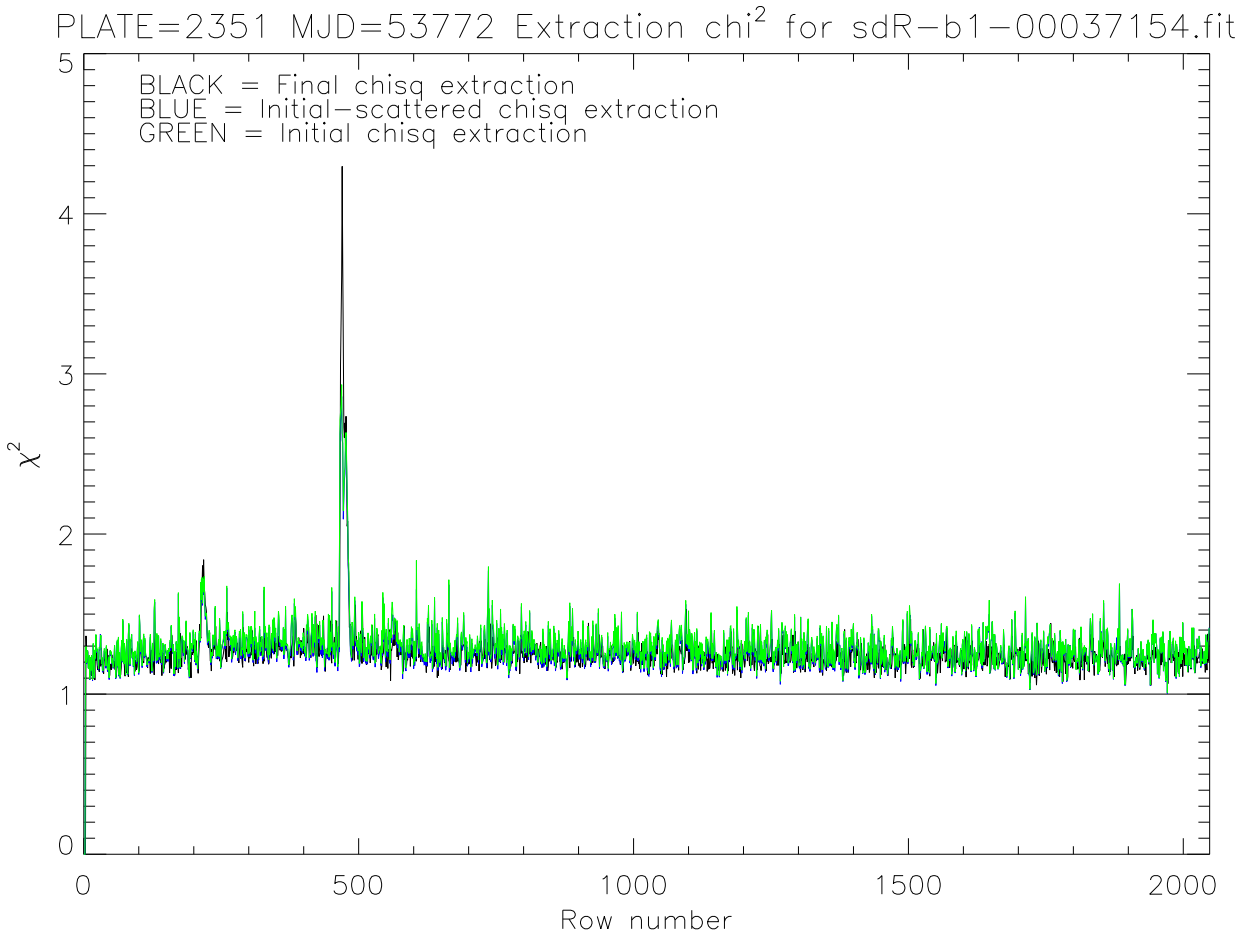

PLATE=2351 MJD=53772 Fiber-Flats for sdR-b1-00037155.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.340
Max value = 1.223
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Sat Feb 16 17:21:44 2008

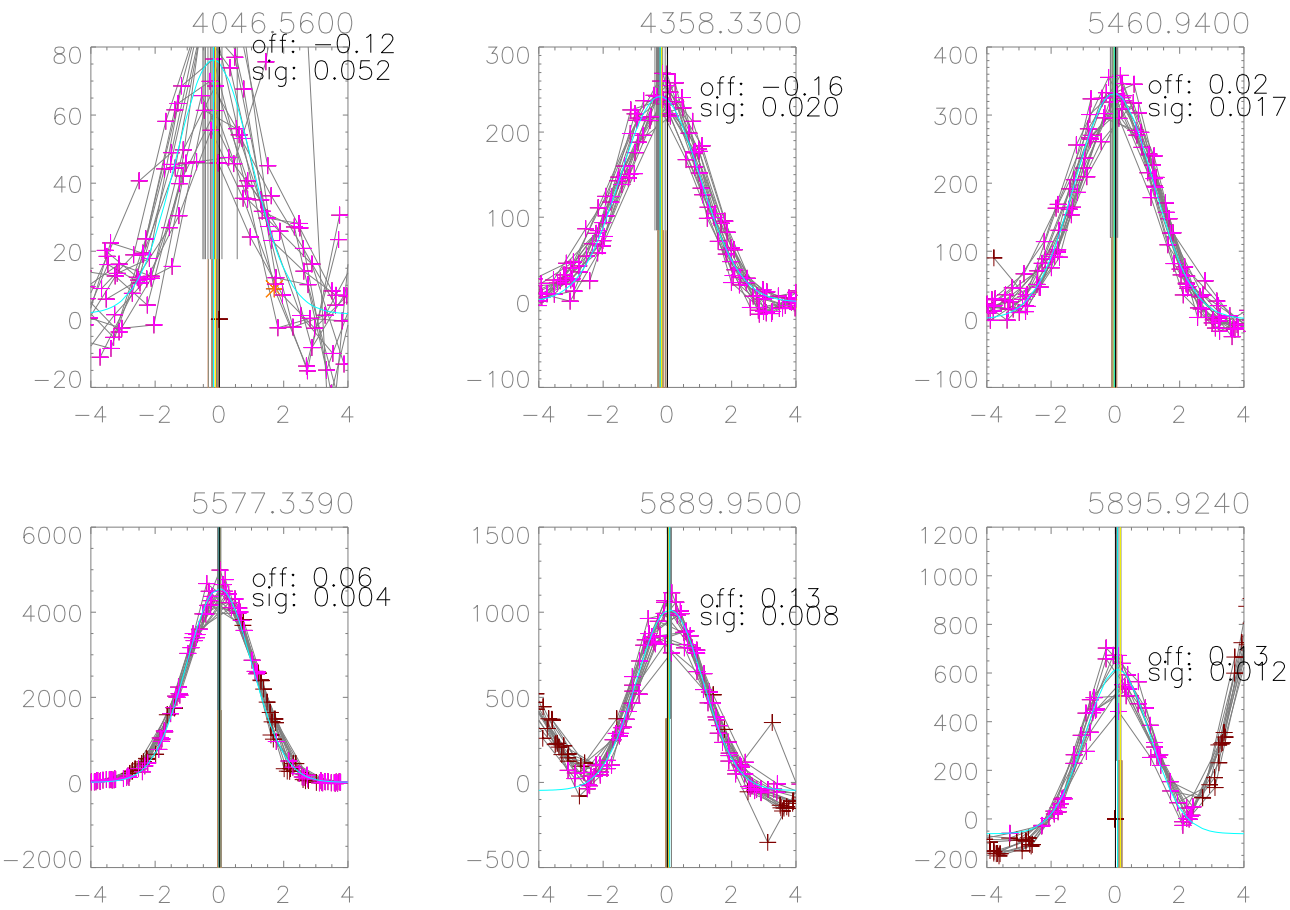

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR−b1−00037154.f
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
7.3
9.5
11.6
13.8

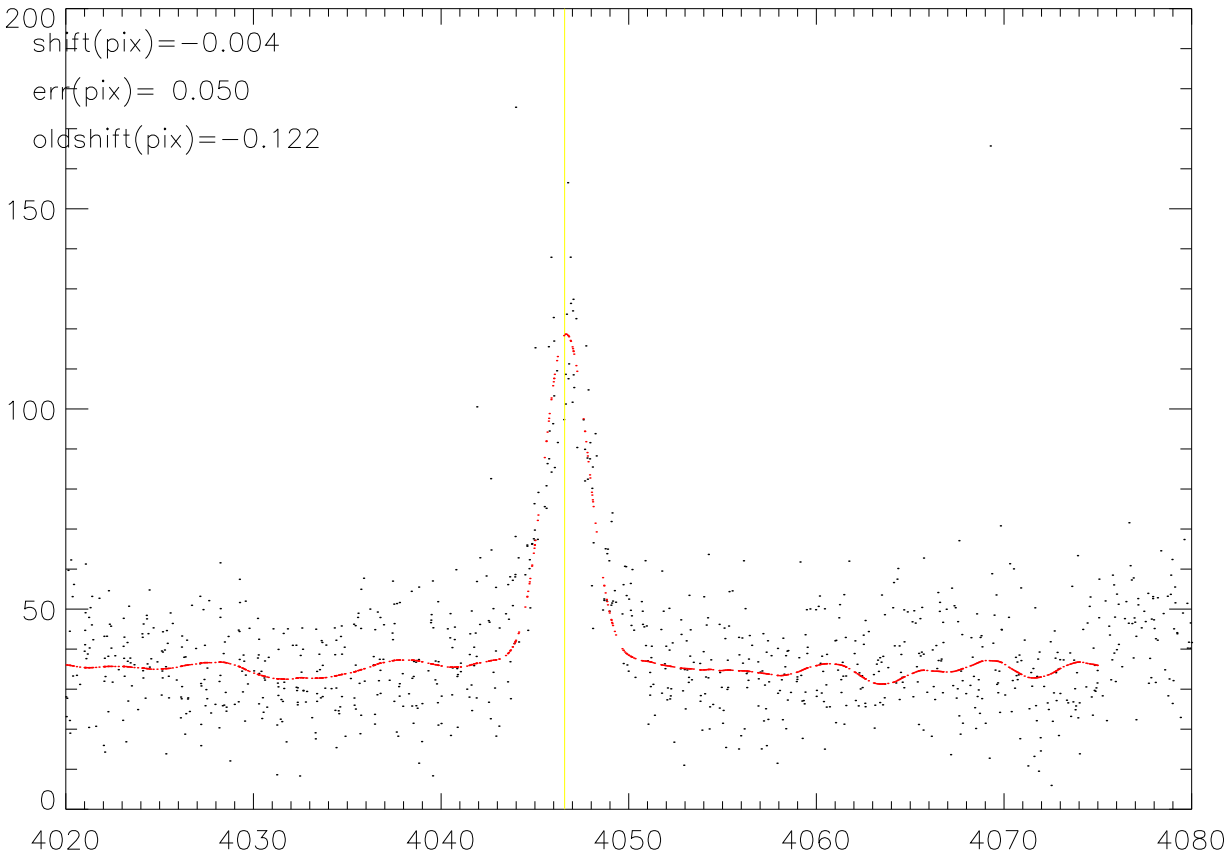

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR−b1−00037154.f
Brightness [electrons/pix]
15
10
5
0
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 7.087
Max value = 12.916
Sat Feb 16 17:22:43 2008

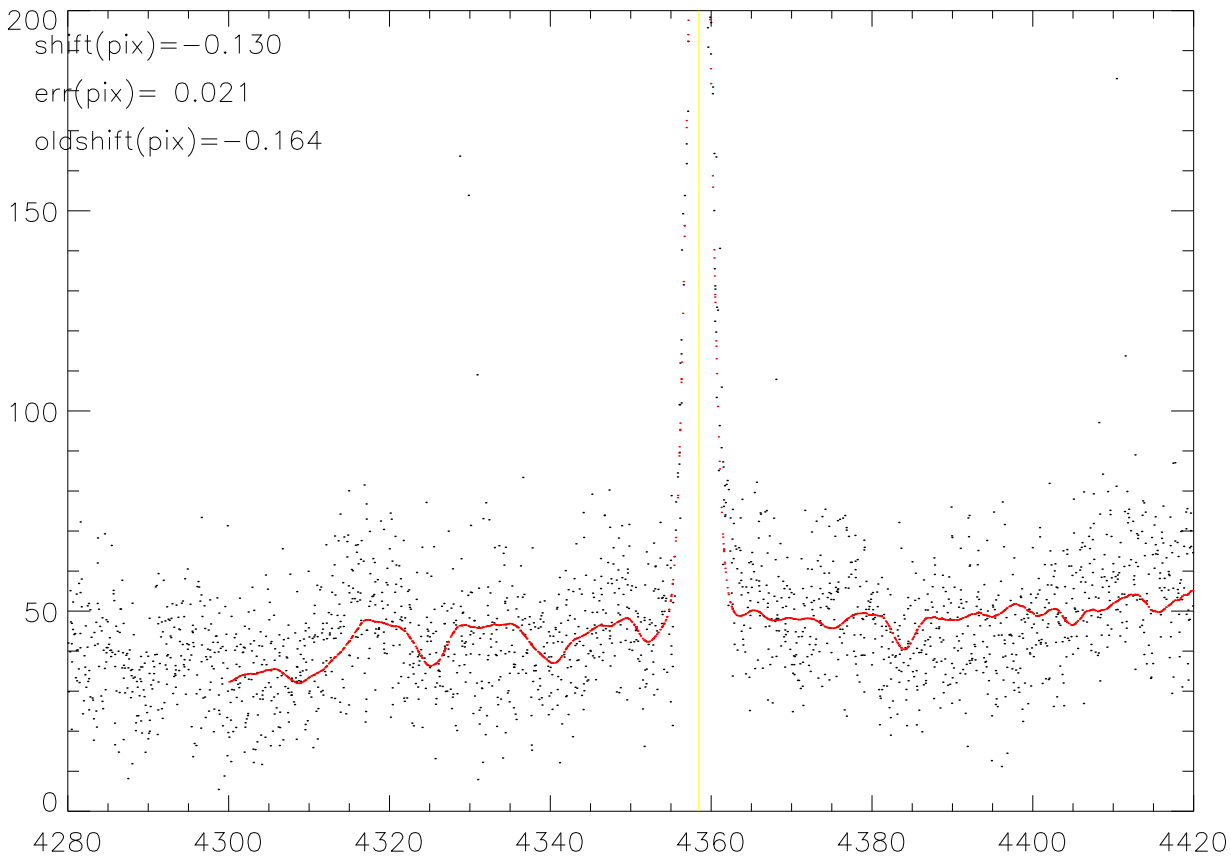

PLATE=2351 MJD=53772 Scattered Light on sdR-b1-00037154.fit
4.7
6.2
6.2
6.2
6.2
7.6
7.6
7.6
9.1
6.2
7.6
Y [pix]
X [pix]
0
500
1000
1500
2000

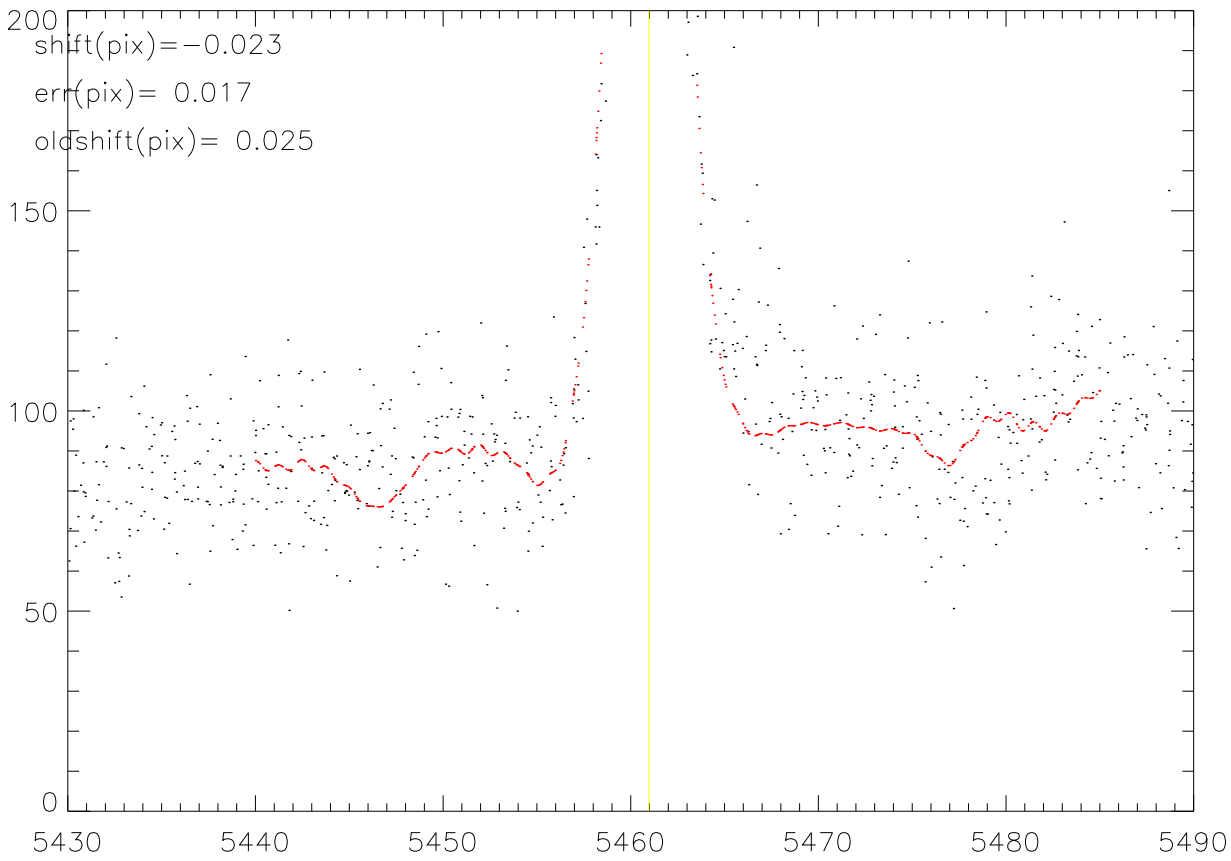

PLATE=2351 MJD=53772 Scattered Light on sdR-b1-00037154.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 5.229
Max value = 8.289
Sat Feb 16 17:25:57 2008

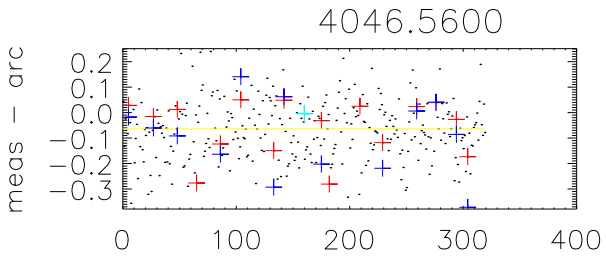

PLATE=2351 MJD=53772 Extraction chi^2 for sdR-b1-00037154.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
5
0
500
1000
1500
2000
Row number

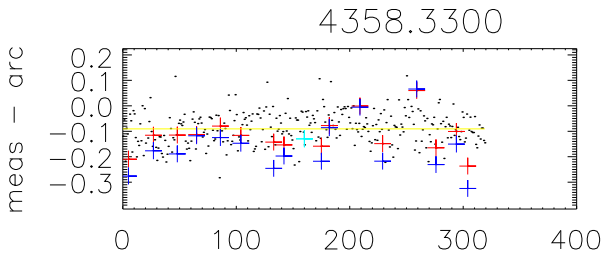

4046.5600
off: −0.12
sig: 0.052
4358.3300
off: −0.16
sig: 0.020
5460.9400
off: 0.02
sig: 0.017
5577.3390
off: 0.06
sig: 0.004
5889.9500
off: 0.13
sig: 0.008
5895.9240
off: 0.13
sig: 0.012

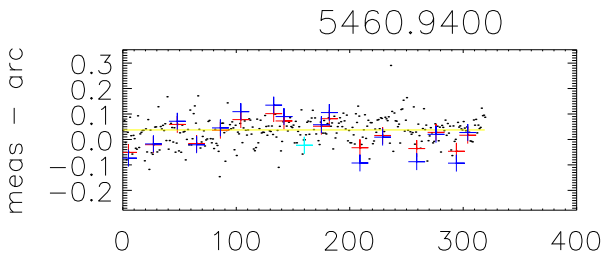

shift(pix)=−0.004
err(pix)= 0.050
oldshift(pix)=−0.122
200
150
100
50
0
4020
4030
4040
4050
4060
4070
4080

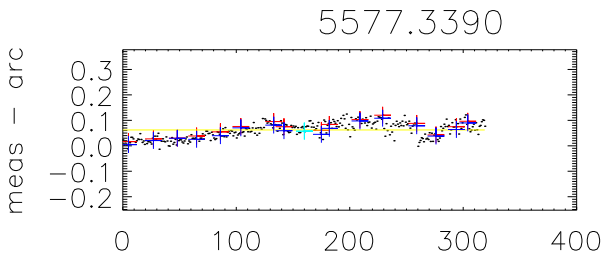

shift(pix)=−0.130
err(pix)= 0.021
oldshift(pix)=−0.164
200
150
100
50
0
4280
4300
4320
4340
4360
4380
4400
4420

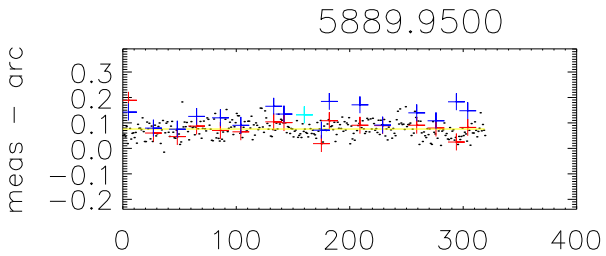

shift(pix)=−0.023
err(pix)= 0.017
oldshift(pix)= 0.025
200
150
100
50
0
5430
5440
5450
5460
5470
5480
5490

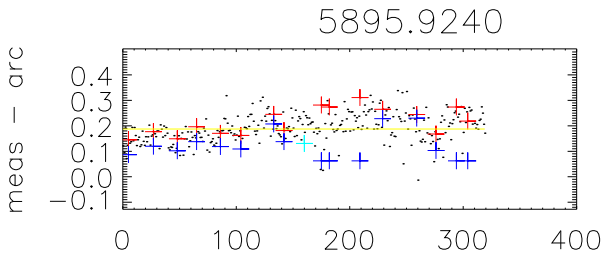

4046.5600
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

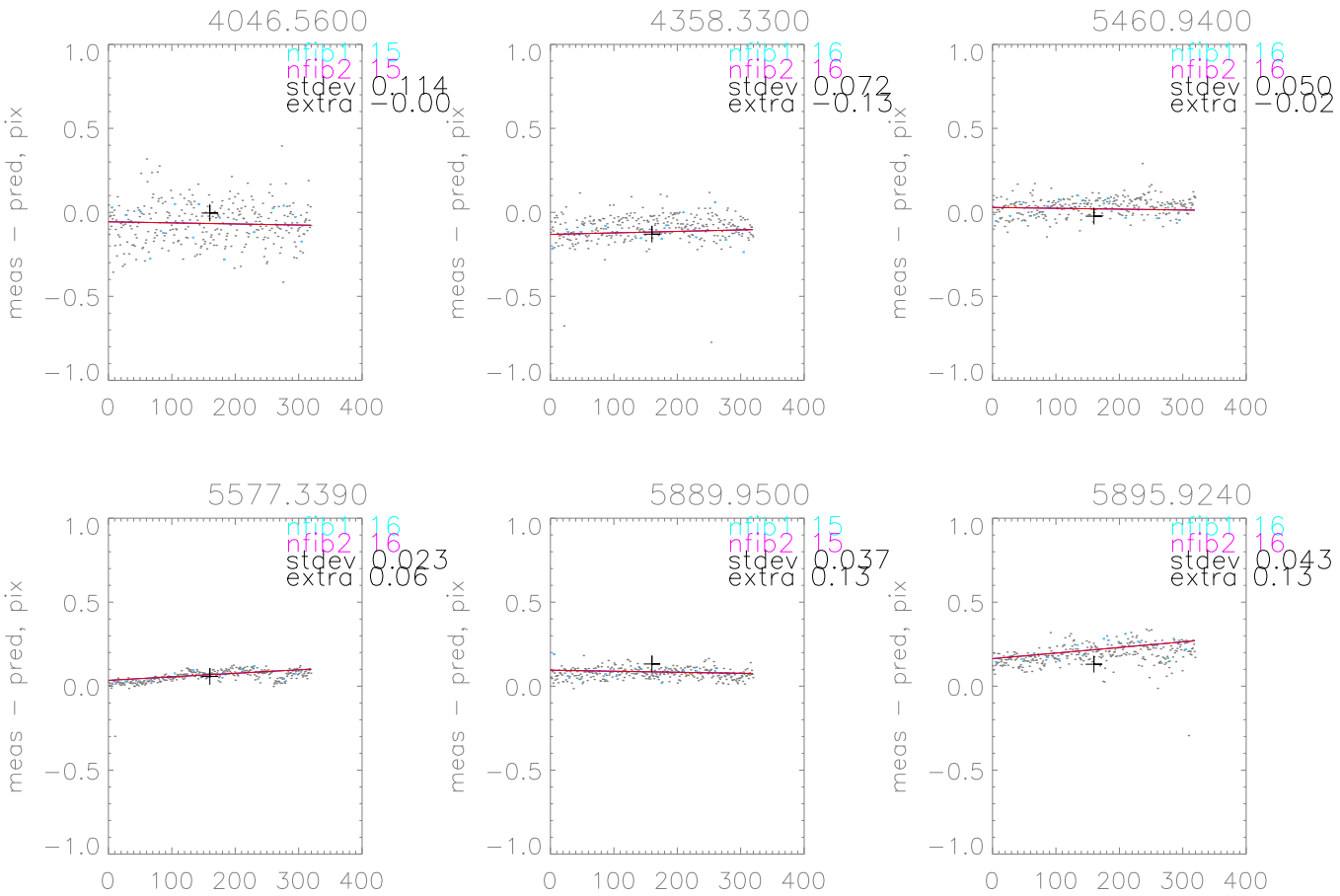

4358.3300
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

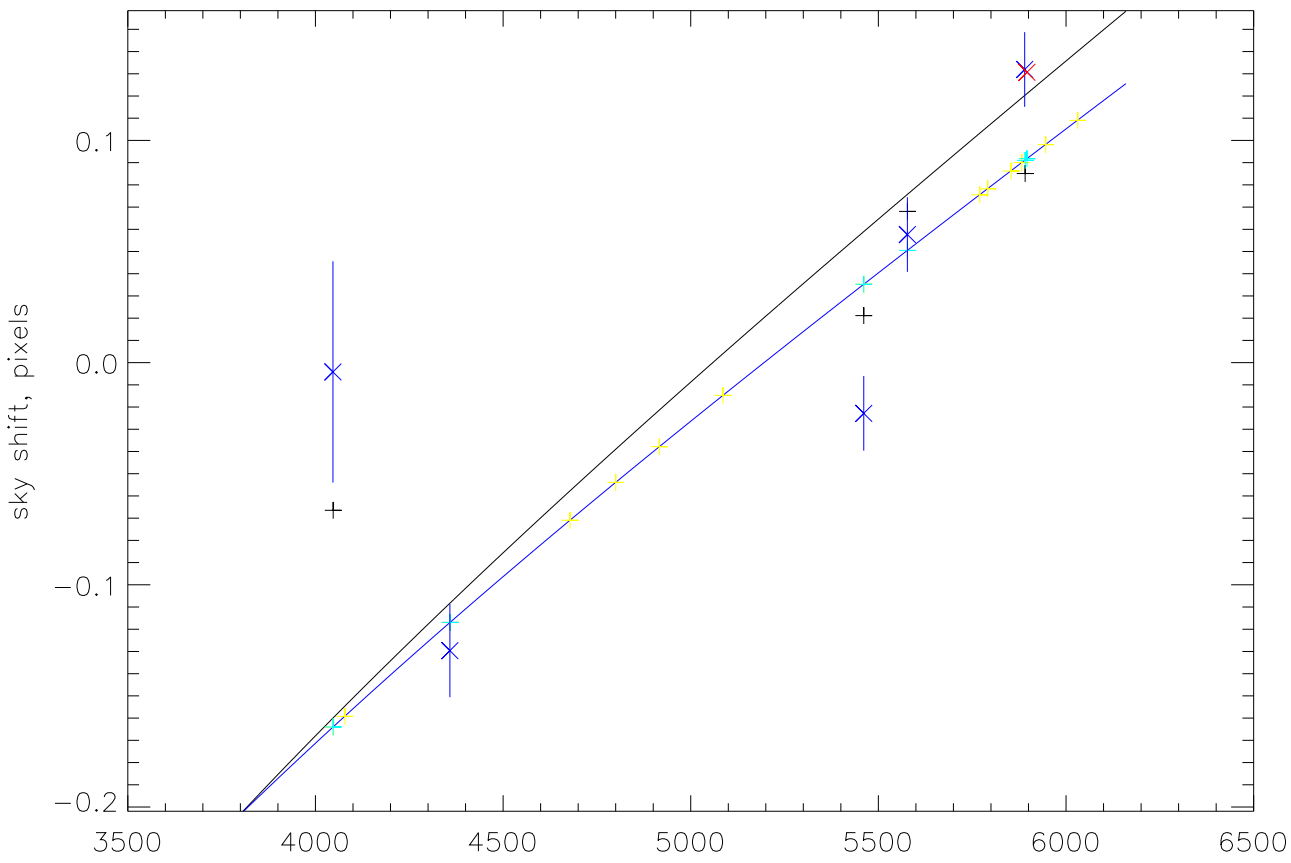

5460.9400
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400


5577.3390
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

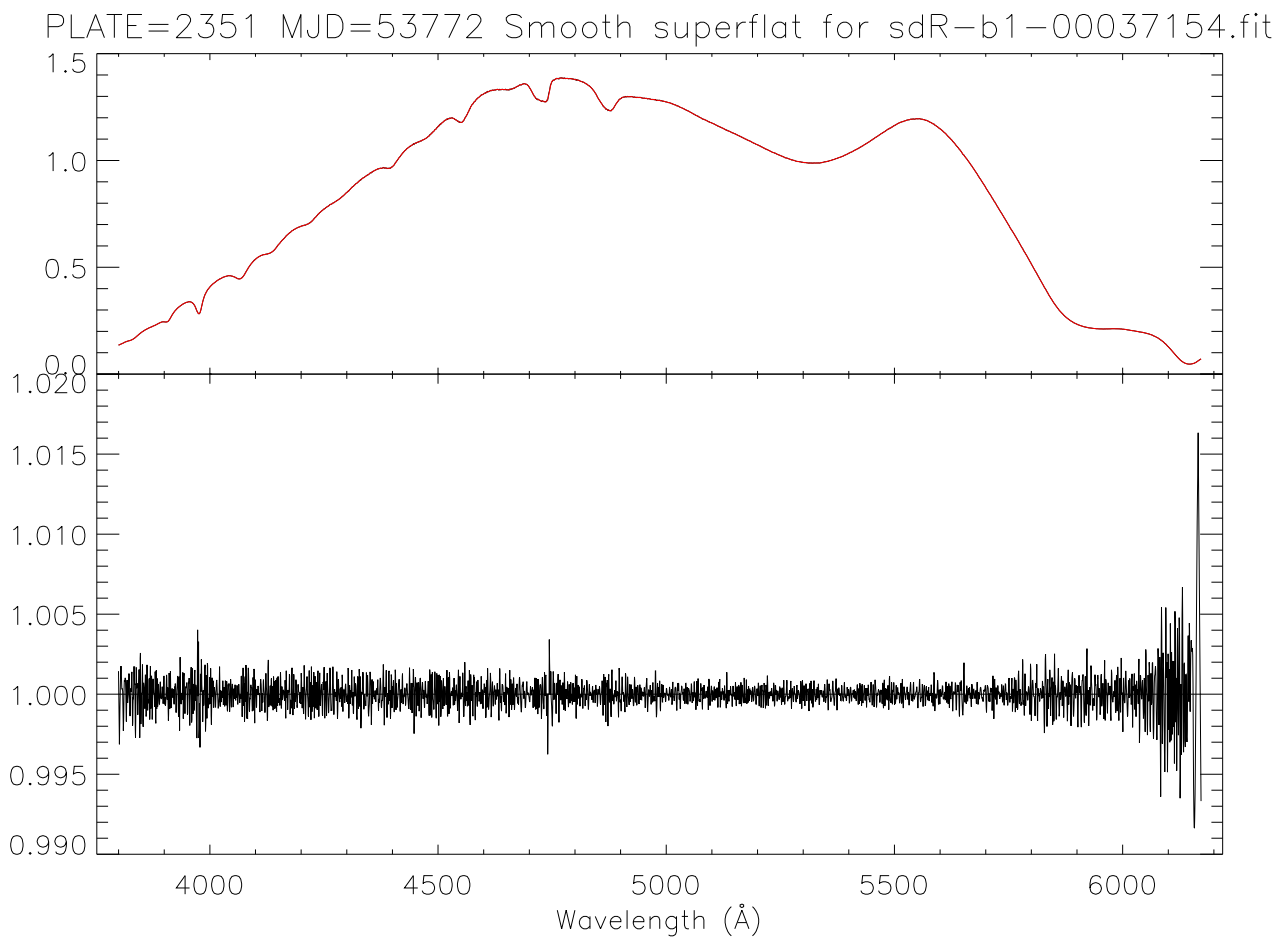

5889.9500
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

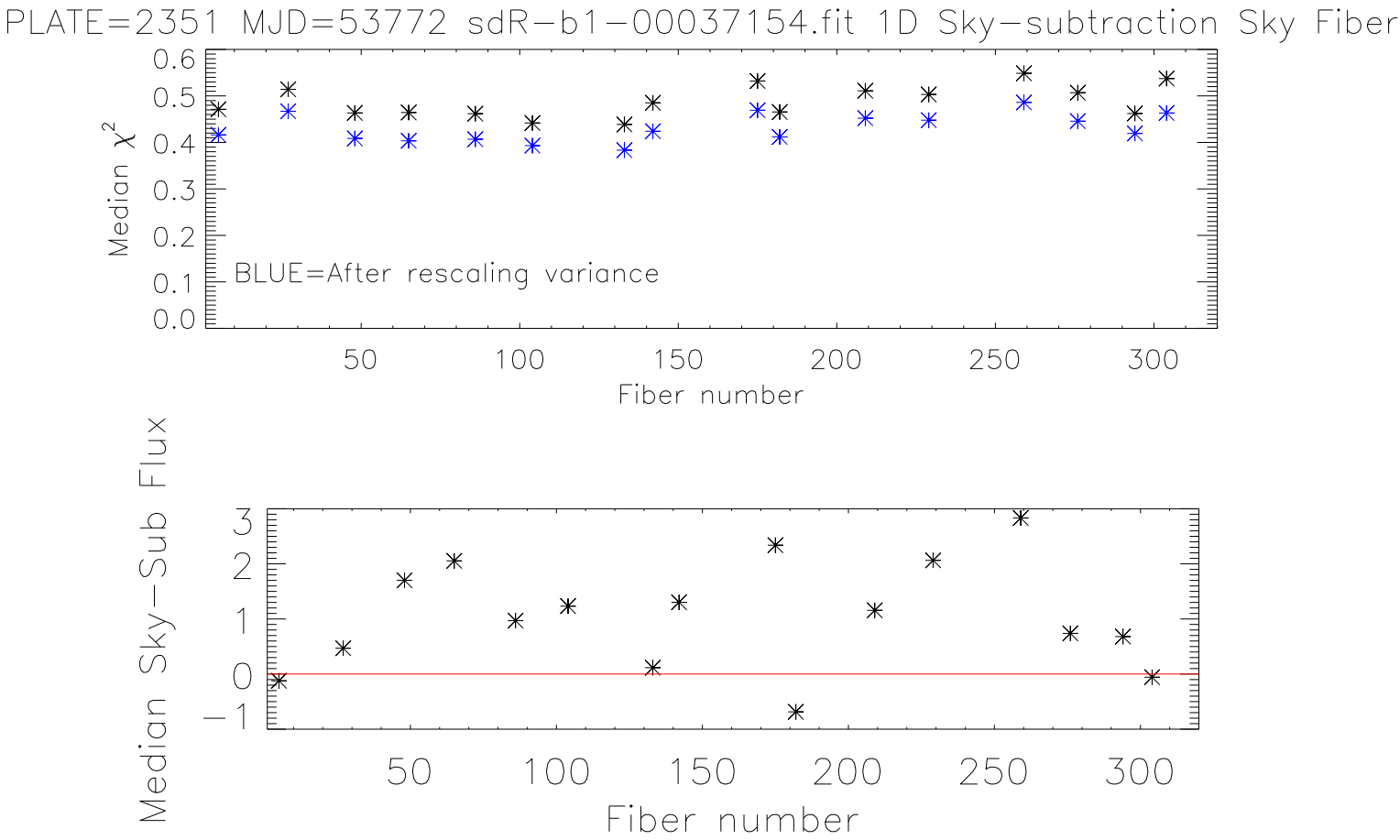

5895.9240
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

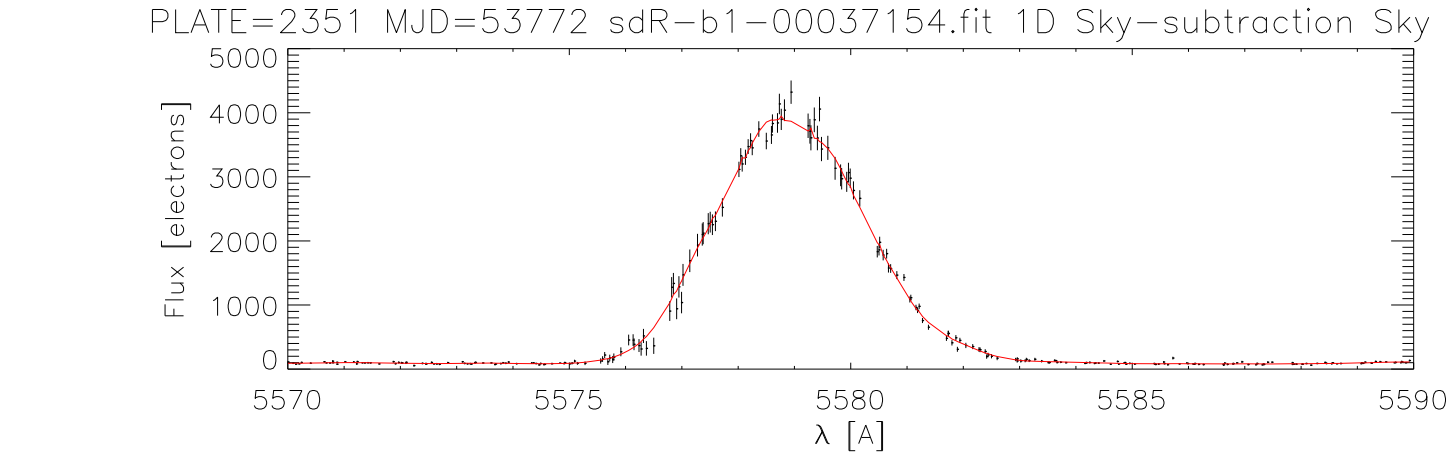

4046.5600
nfib1 15
nfib2 15
stdev 0.114
extra −0.00
4358.3300
nfib1 16
nfib2 16
stdev 0.072
extra −0.13
5460.9400
nfib1 16
nfib2 16
stdev 0.050
extra −0.02
5577.3390
nfib1 16
nfib2 16
stdev 0.023
extra 0.06
5889.9500
nfib1 15
nfib2 15
stdev 0.037
extra 0.13
5895.9240
nfib1 16
nfib2 16
stdev 0.043
extra 0.13
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

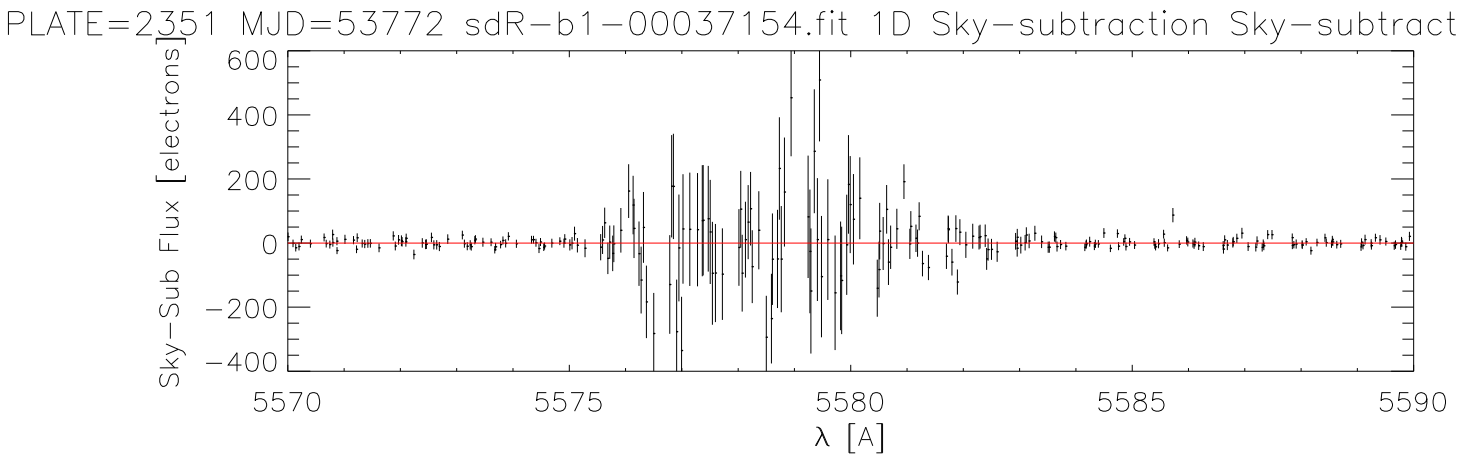

sky shift, pixels
0.1
0.0
−0.1
−0.2
3500
4000
4500
5000
5500
6000
6500

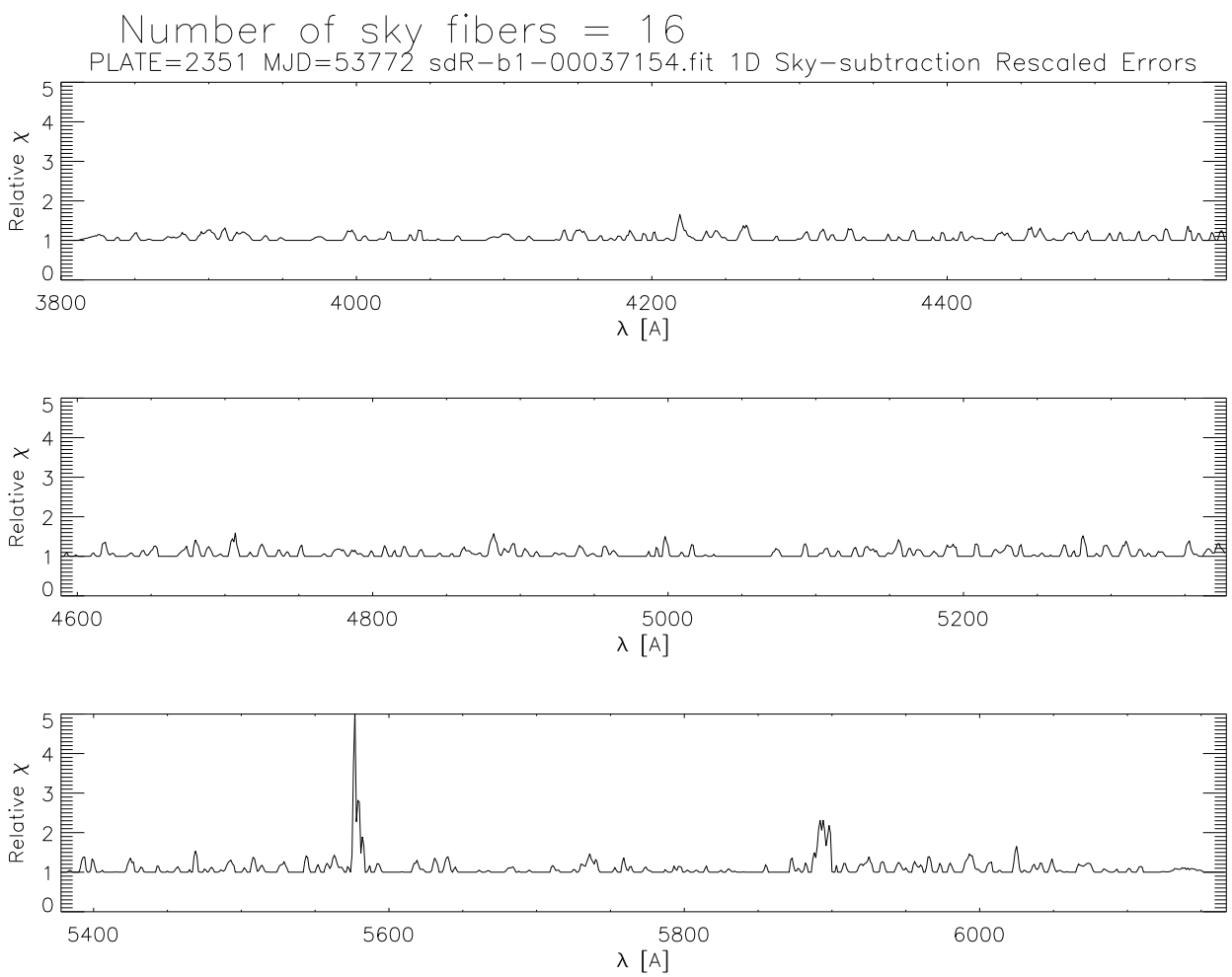
es= 0.0000

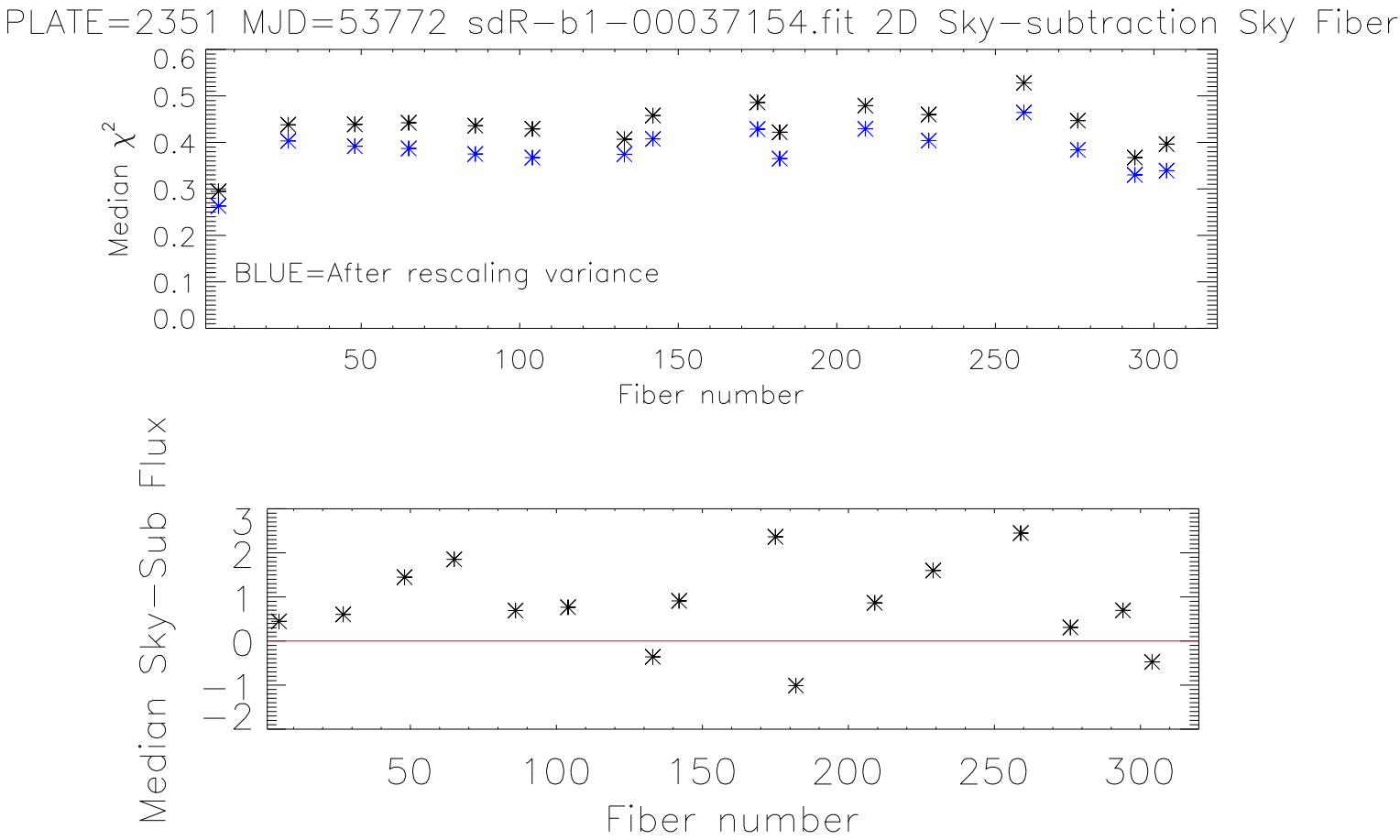

PLATE=2351 MJD=53772 Smooth superflat for sdR-b1-00037154.fit
1.5
1.0
0.5
0.0
1.020
1.015
1.010
1.005
1.000
0.995
0.990
4000
4500
5000
5500
6000
Wavelength (Å)

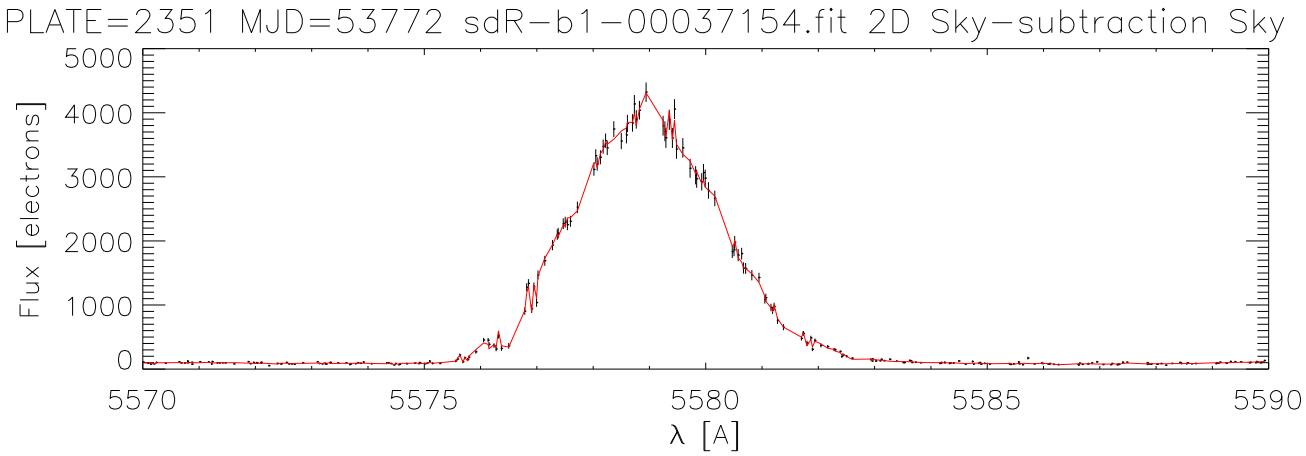

PLATE=2351 MJD=53772 sdR-b1-00037154.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
−1
0
1
2
3
50
100
150
200
250
300
Fiber number

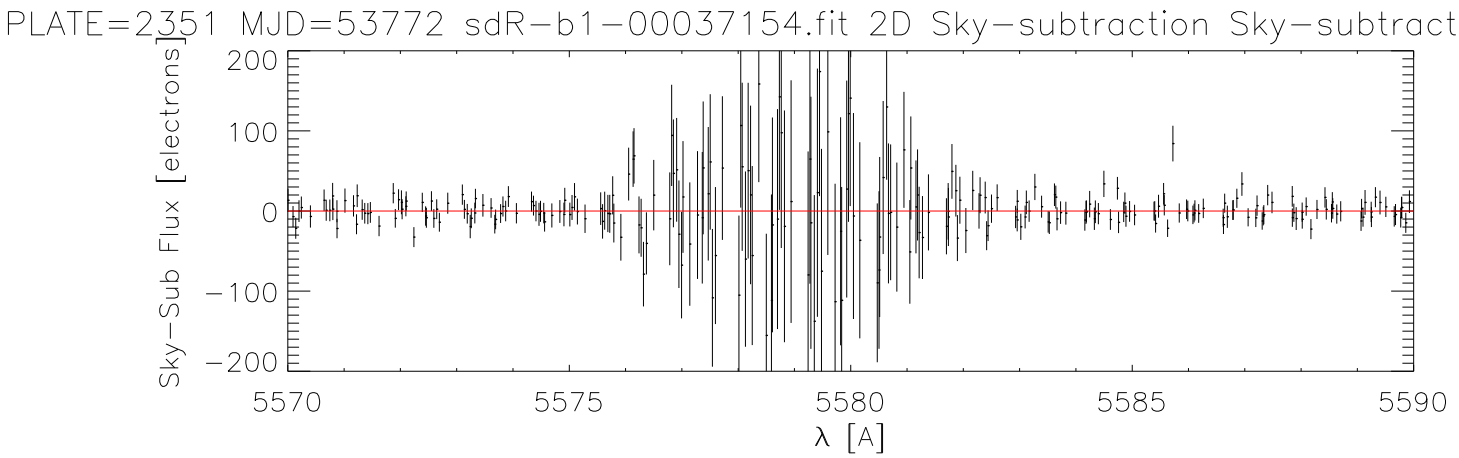

PLATE=2351 MJD=53772 sdR-b1-00037154.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

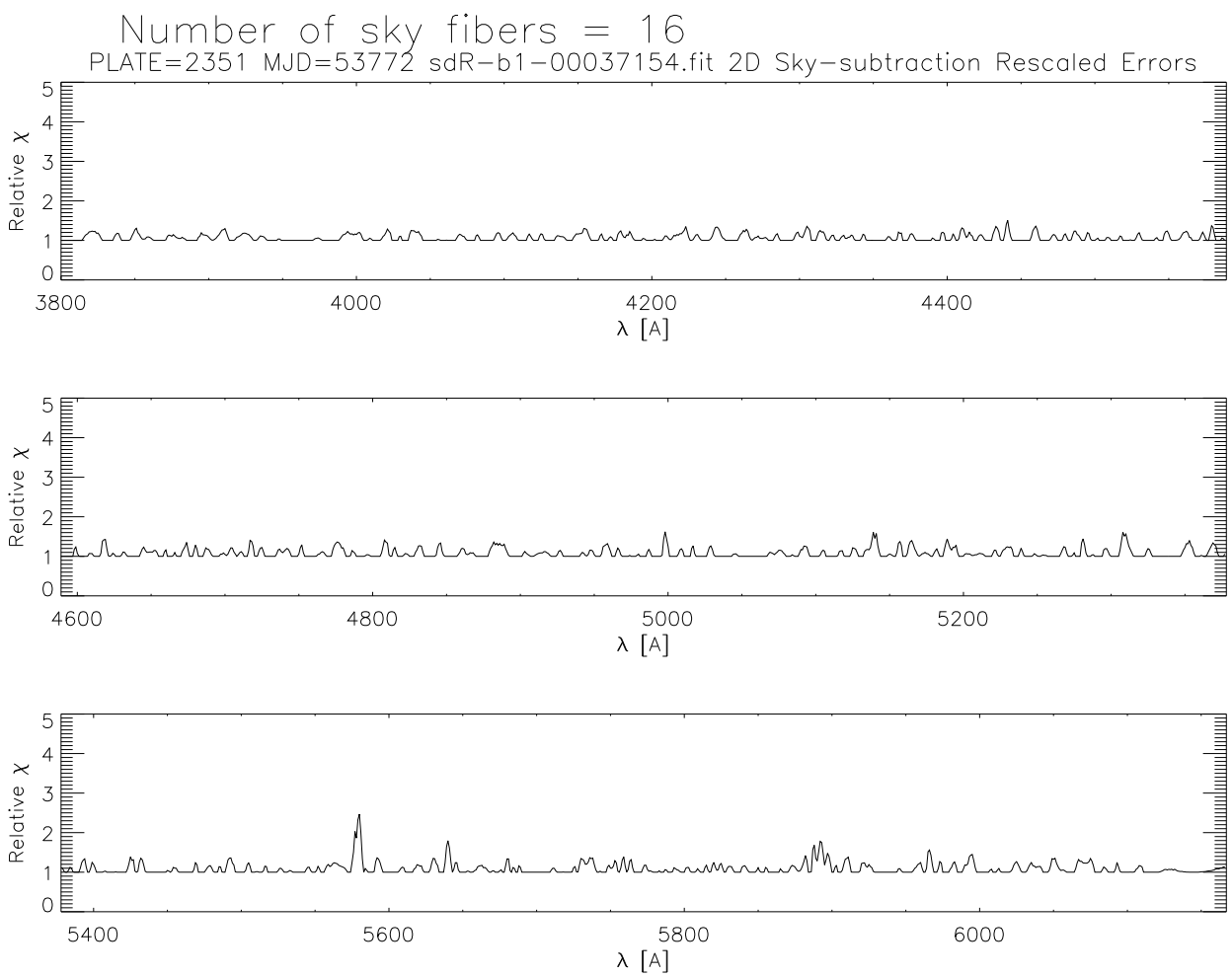

PLATE=2351 MJD=53772 sdR-b1-00037154.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
−200
−400
5570
5575
5580
5585
5590
λ [A]

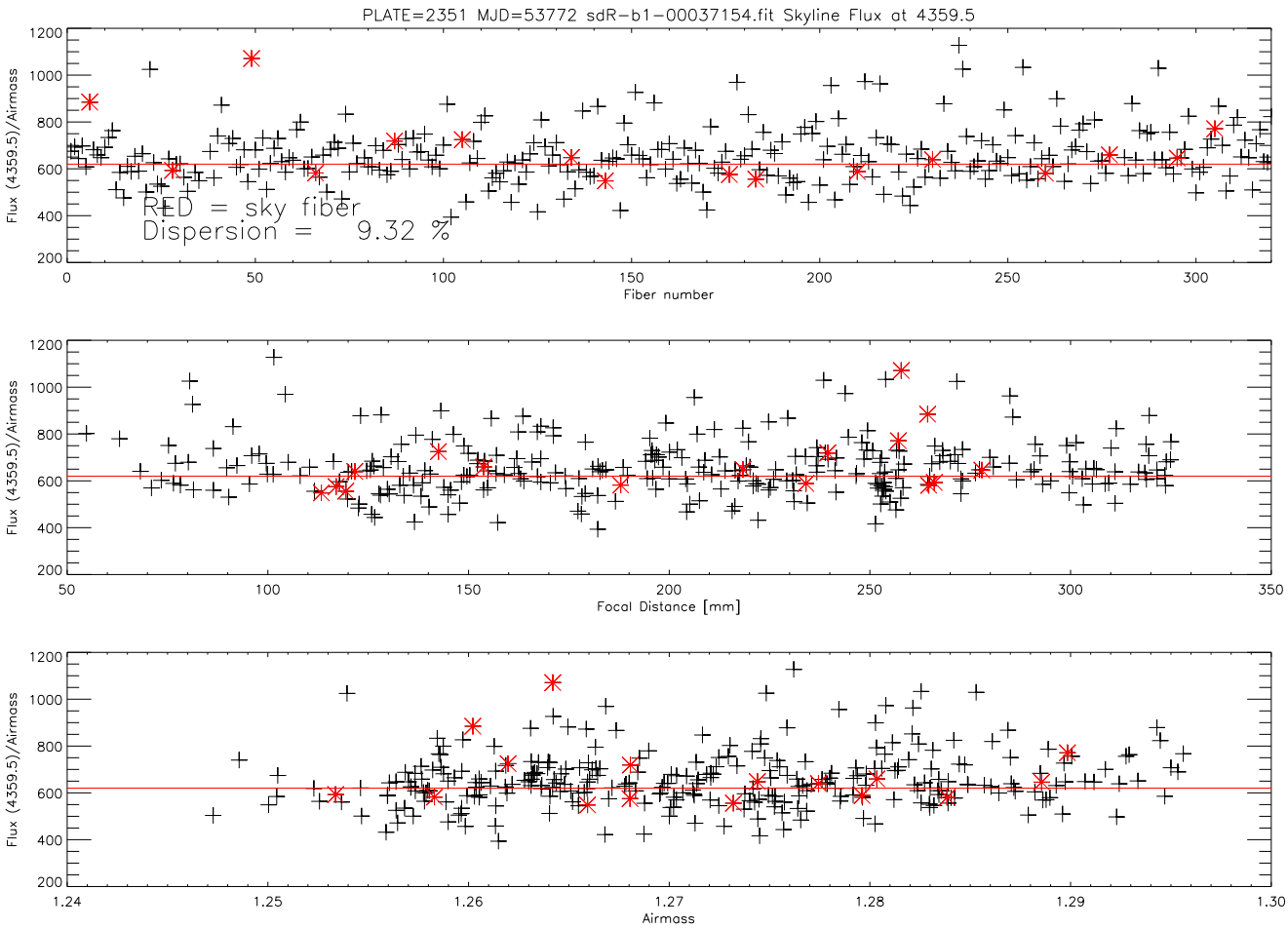

Number of sky fibers = 16
PLATE=2351 MJD=53772 sdR-b1-00037154.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

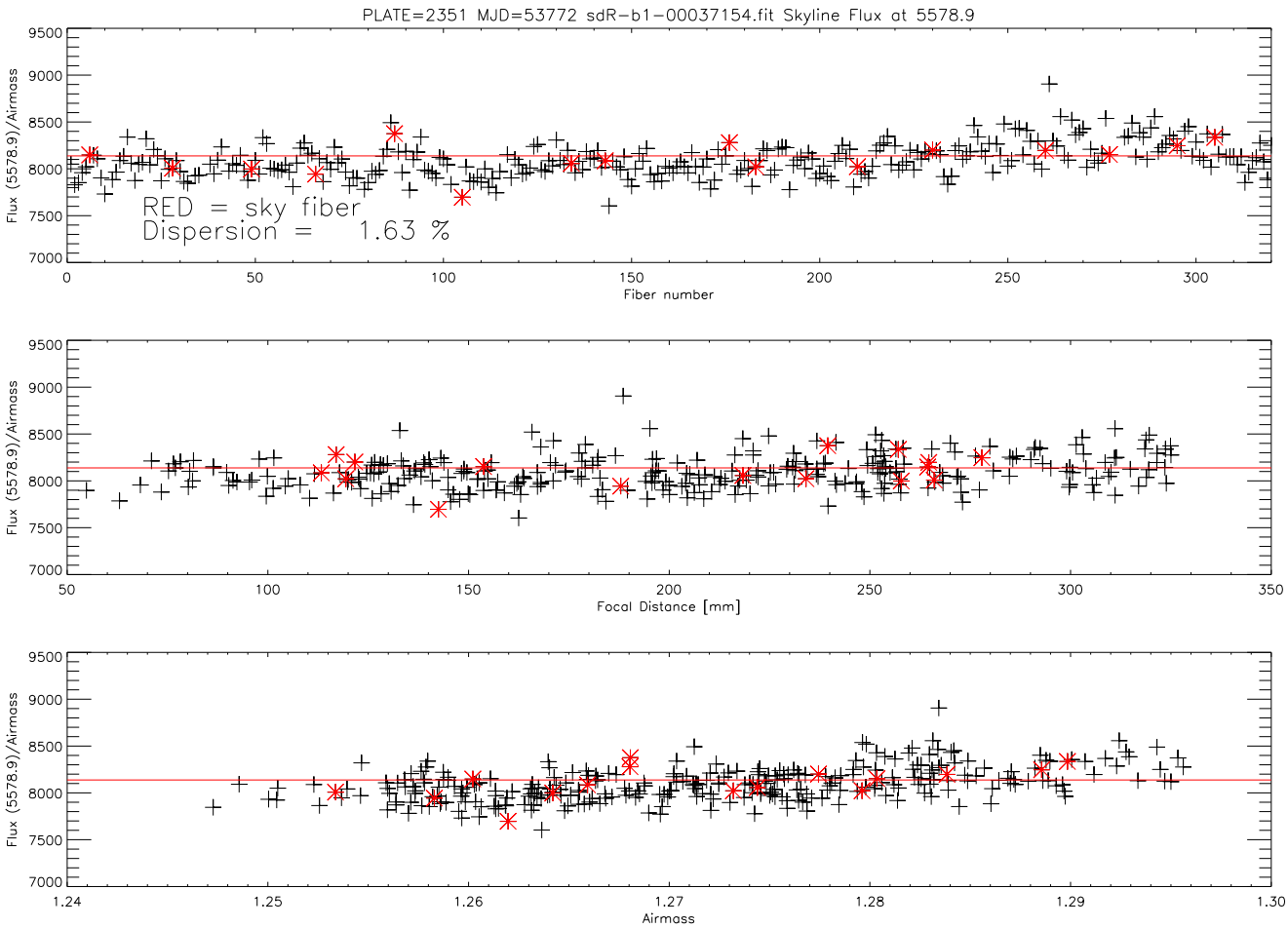

PLATE=2351 MJD=53772 sdR-b1-00037154.fit 2D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-2
-1
0
1
2
3
50
100
150
200
250
300
Fiber number

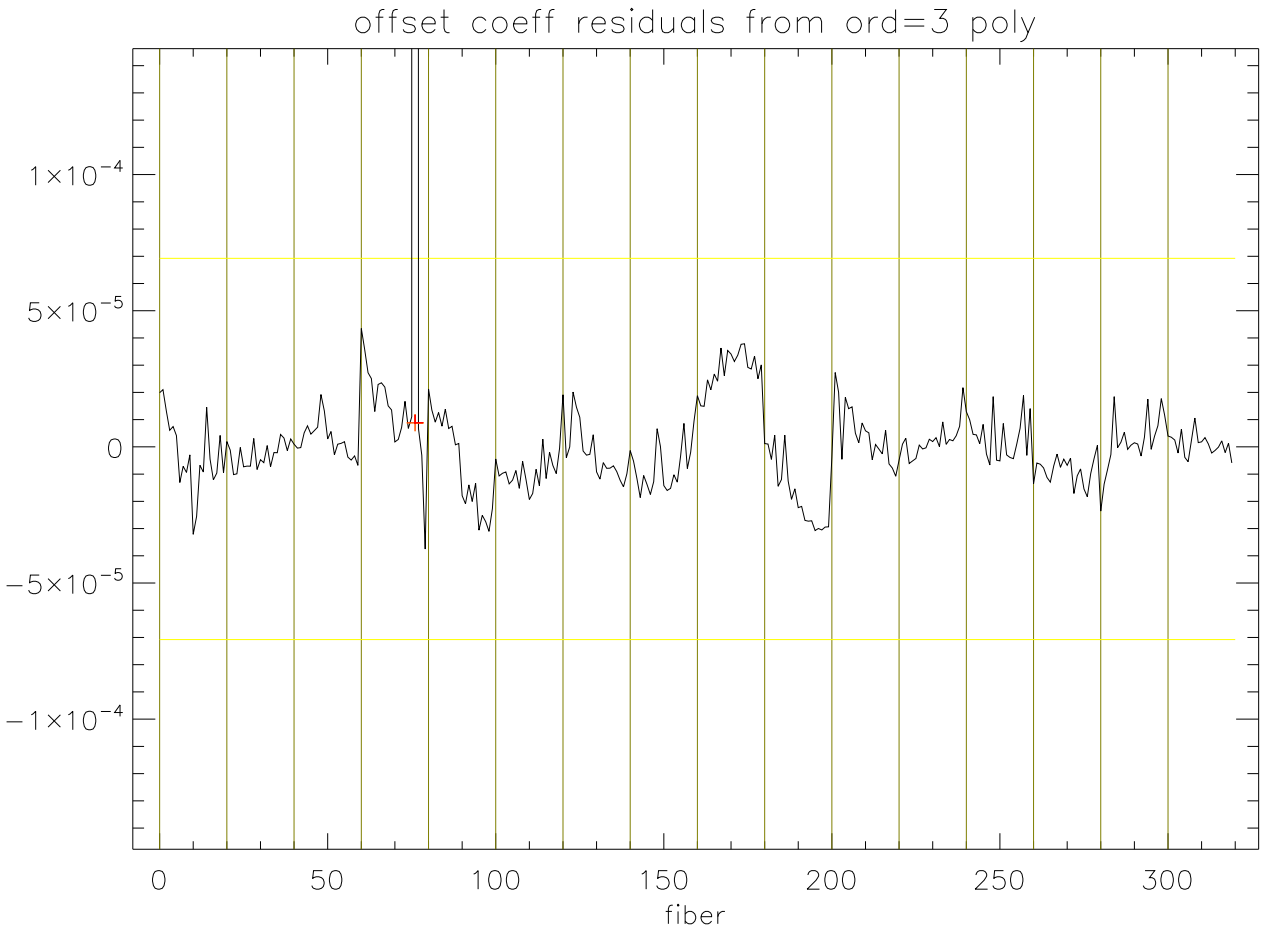

PLATE=2351 MJD=53772 sdR-b1-00037154.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

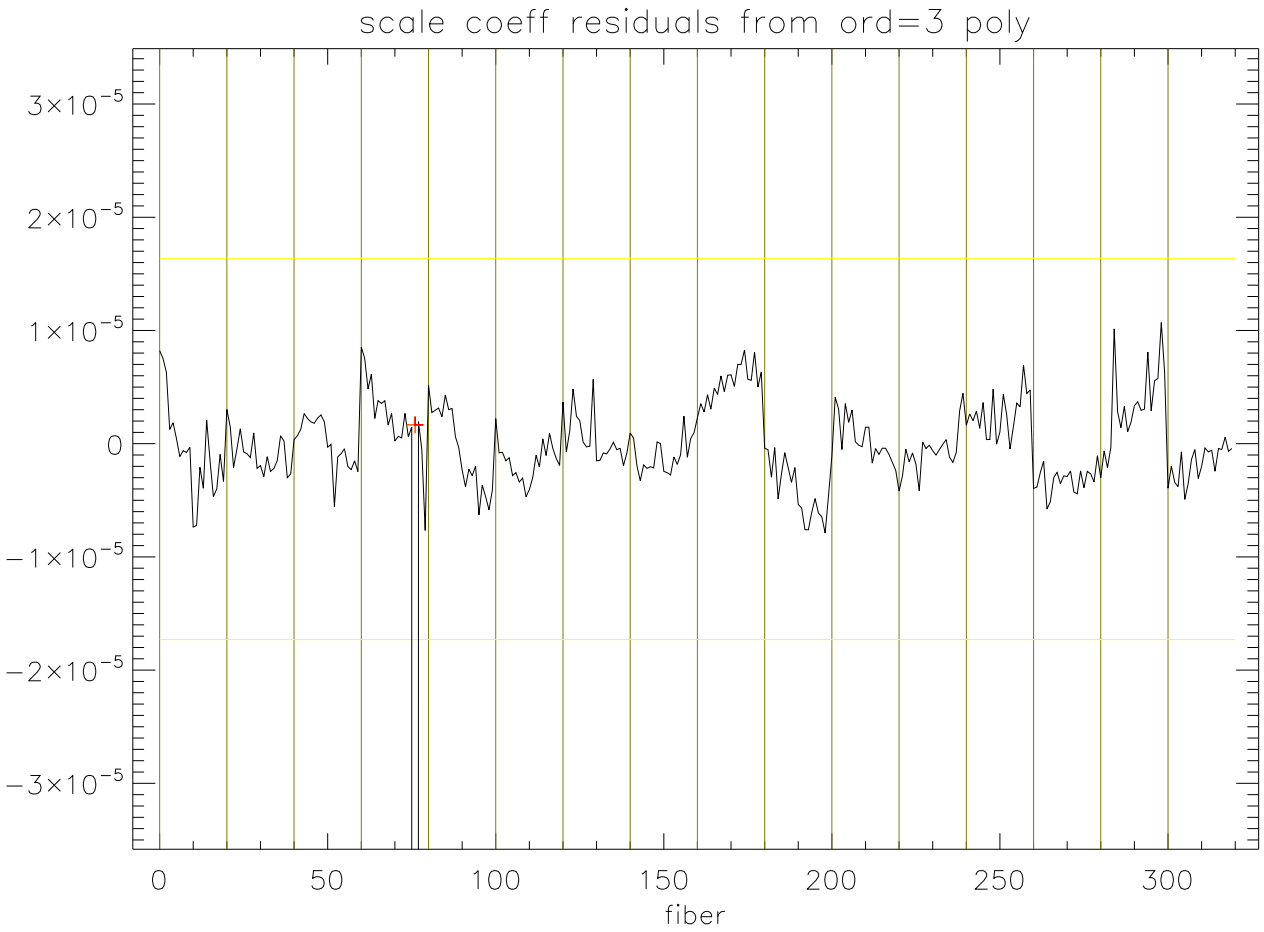

PLATE=2351 MJD=53772 sdR-b1-00037154.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
5570
5575
5580
5585
5590
λ [A]

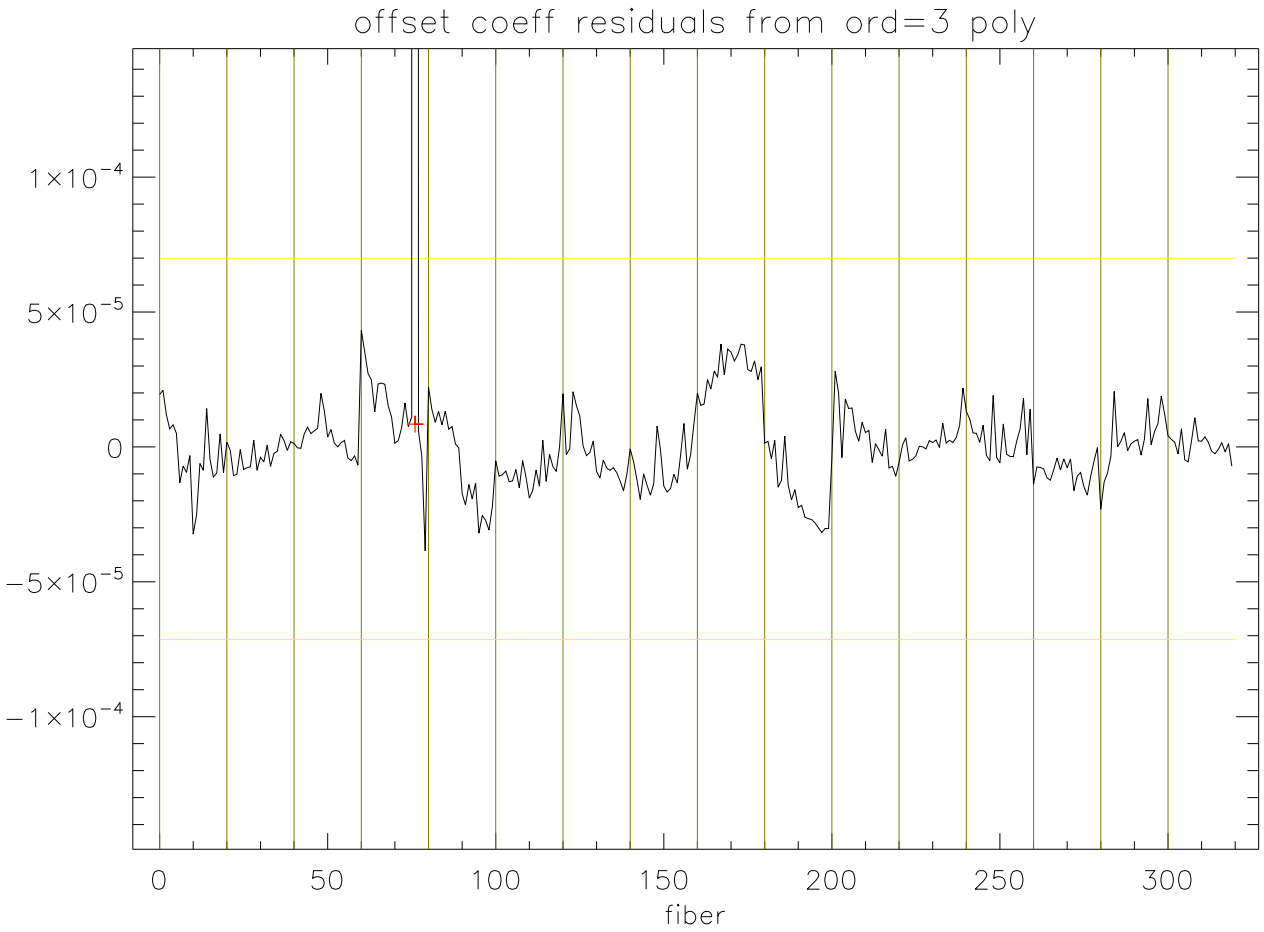

Number of sky fibers = 16
PLATE=2351 MJD=53772 sdR-b1-00037154.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

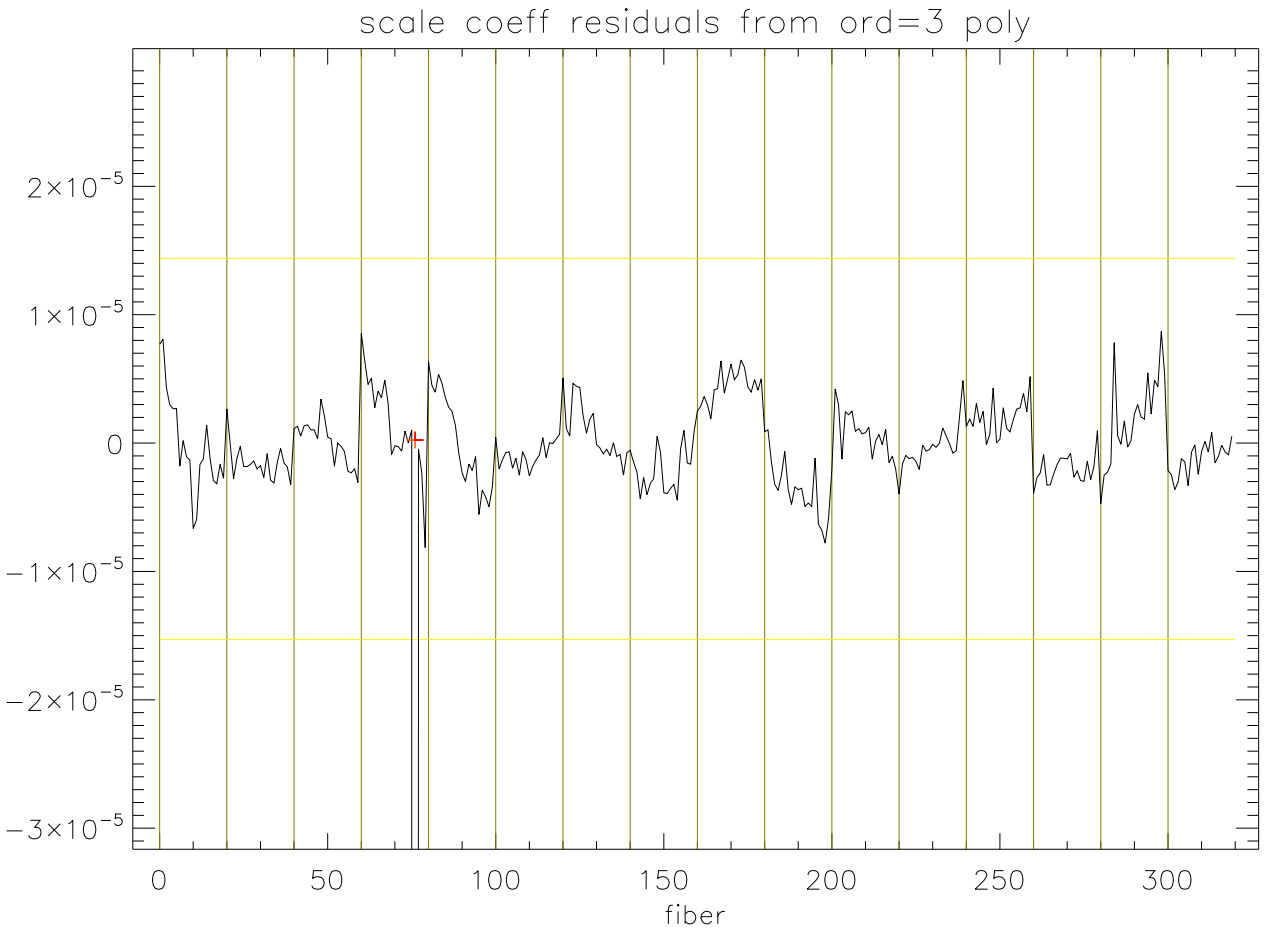

PLATE=2351 MJD=53772 sdR-b1-00037154.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
Fiber number
RED = sky fiber
Dispersion = 9.32 %
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

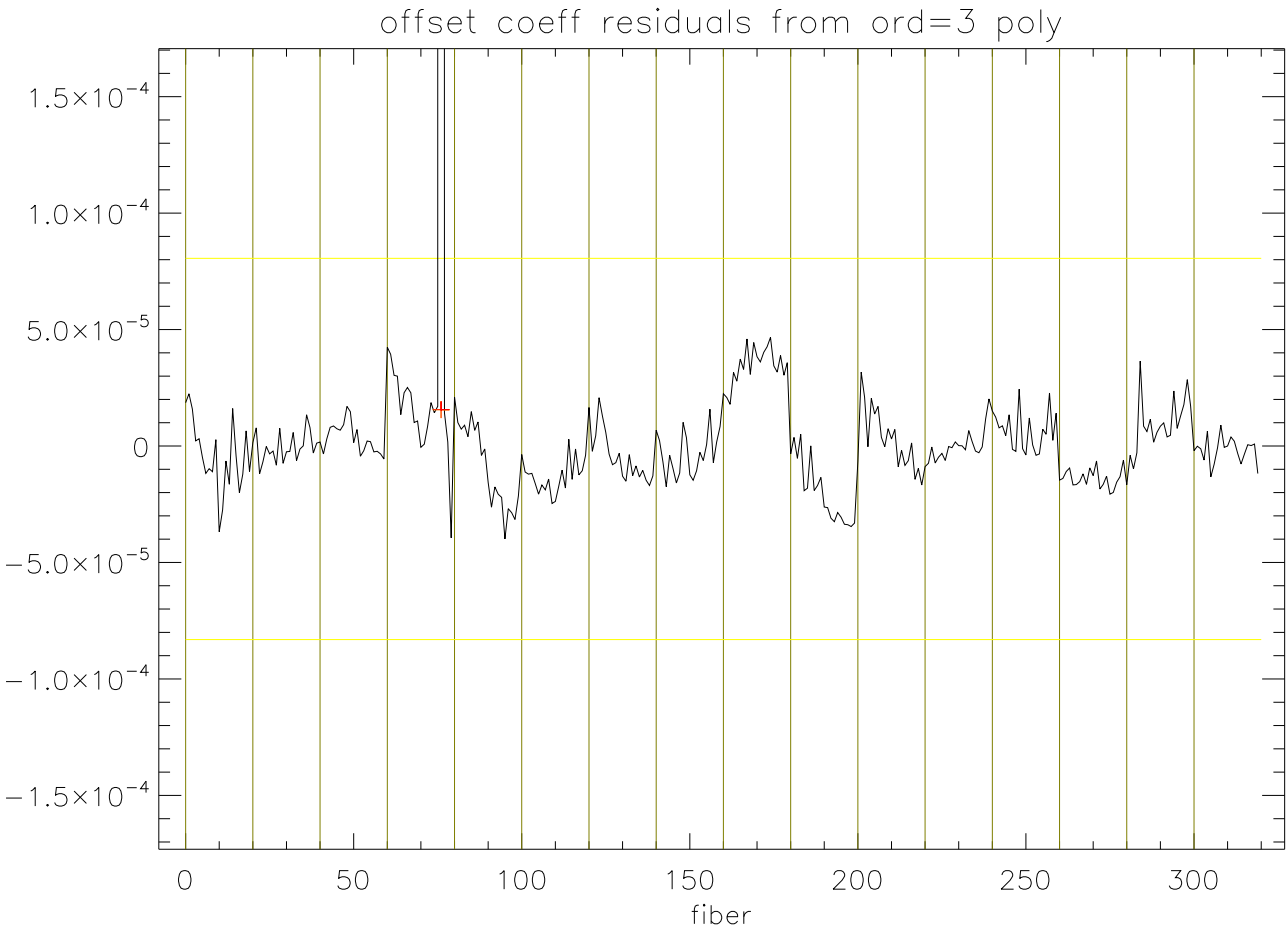

PLATE=2351 MJD=53772 sdR-b1-00037154.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 1.63 %
Fiber number
Focal Distance [mm]
Airmass

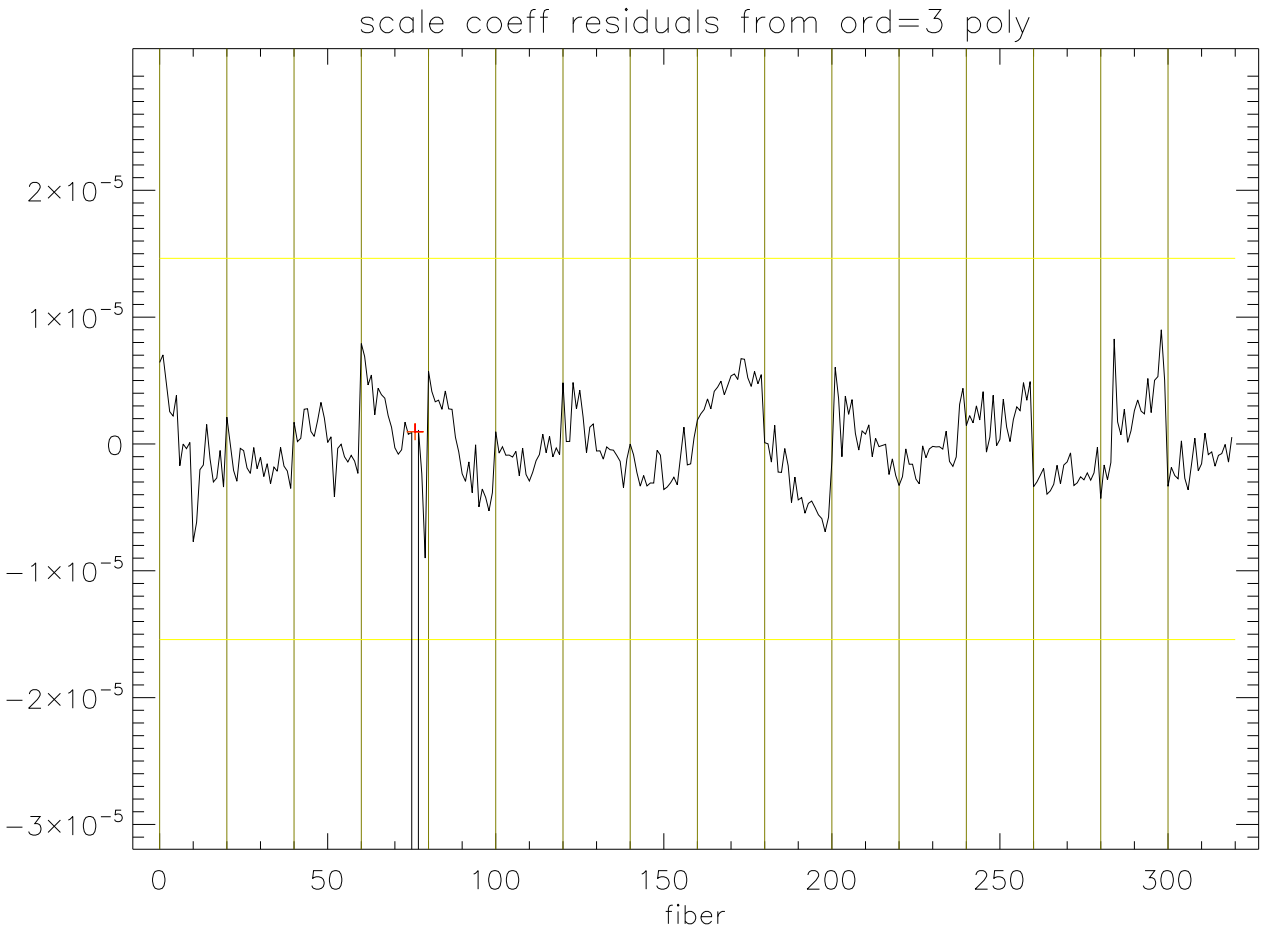

offset coeff residuals from ord=3 poly
1×10^-4
5×10^-5
0
−5×10^-5
−1×10^-4
0
50
100
150
200
250
300
fiber

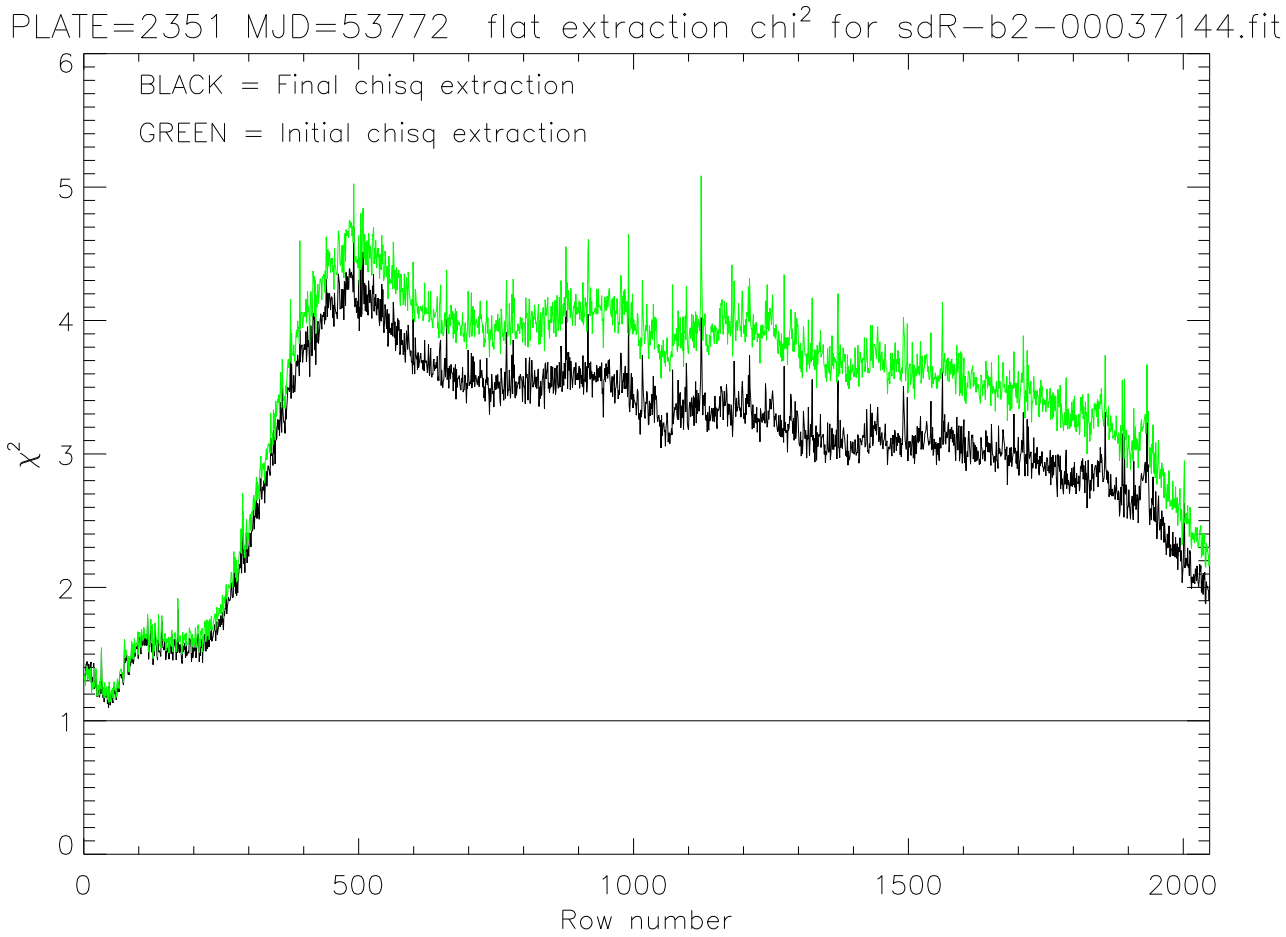

scale coeff residuals from ord=3 poly
3×10⁻⁵
2×10⁻⁵
1×10⁻⁵
0
−1×10⁻⁵
−2×10⁻⁵
−3×10⁻⁵
0
50
100
150
200
250
300
fiber

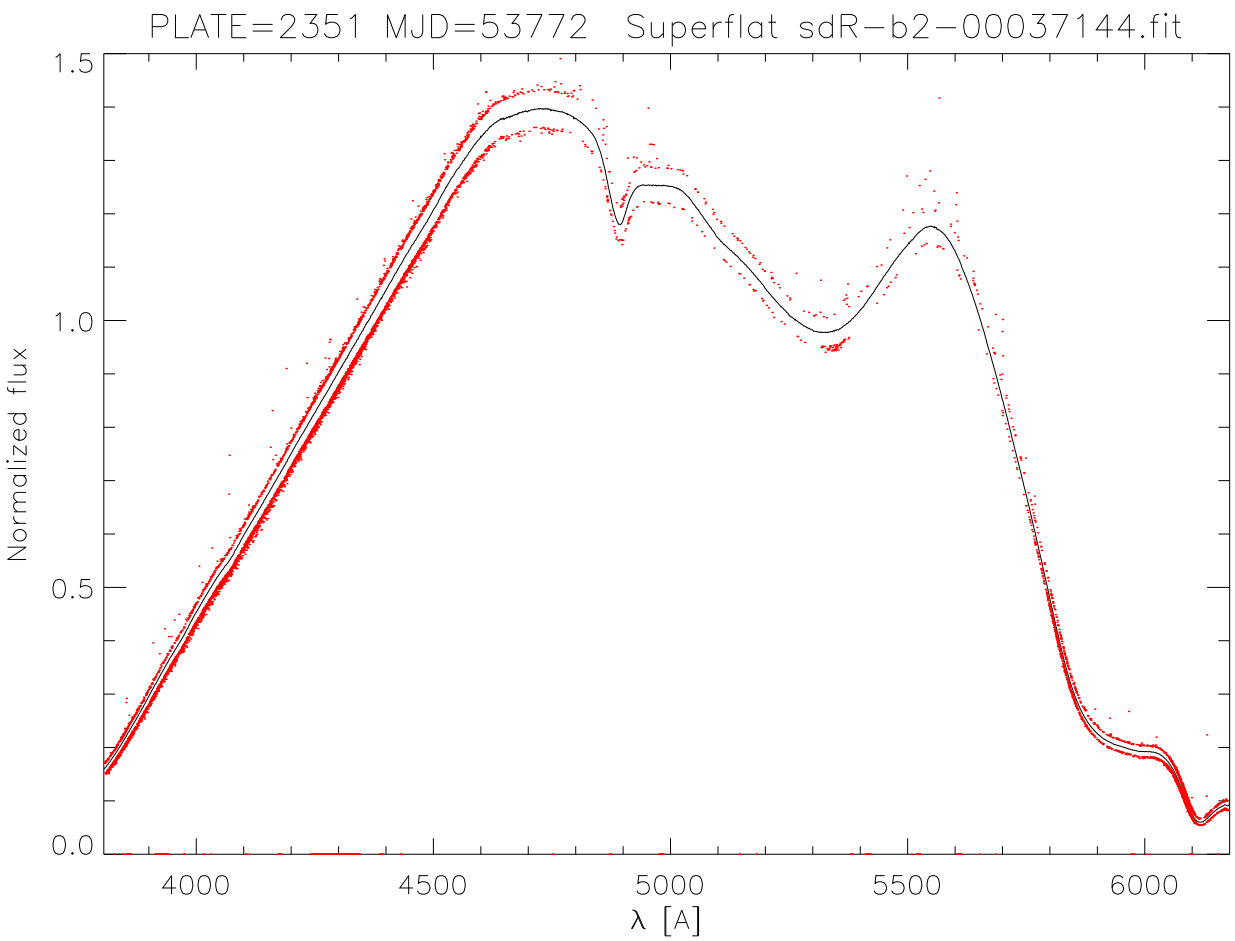

offset coeff residuals from ord=3 poly
1×10^-4
5×10^-5
0
−5×10^-5
−1×10^-4
0
50
100
150
200
250
300
fiber

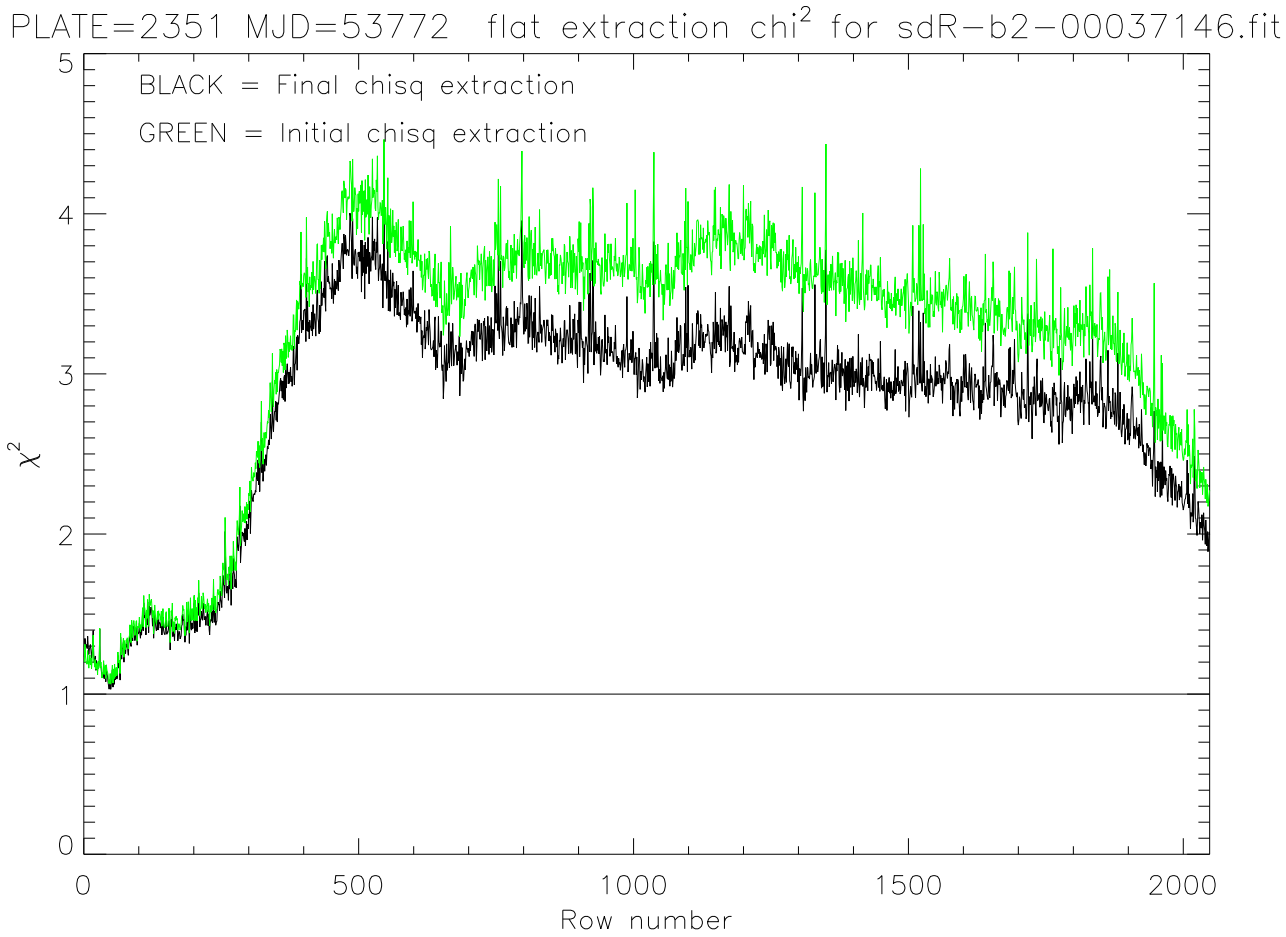

scale coeff residuals from ord=3 poly
2×10⁻⁵
1×10⁻⁵
0
−1×10⁻⁵
−2×10⁻⁵
−3×10⁻⁵
0
50
100
150
200
250
300
fiber

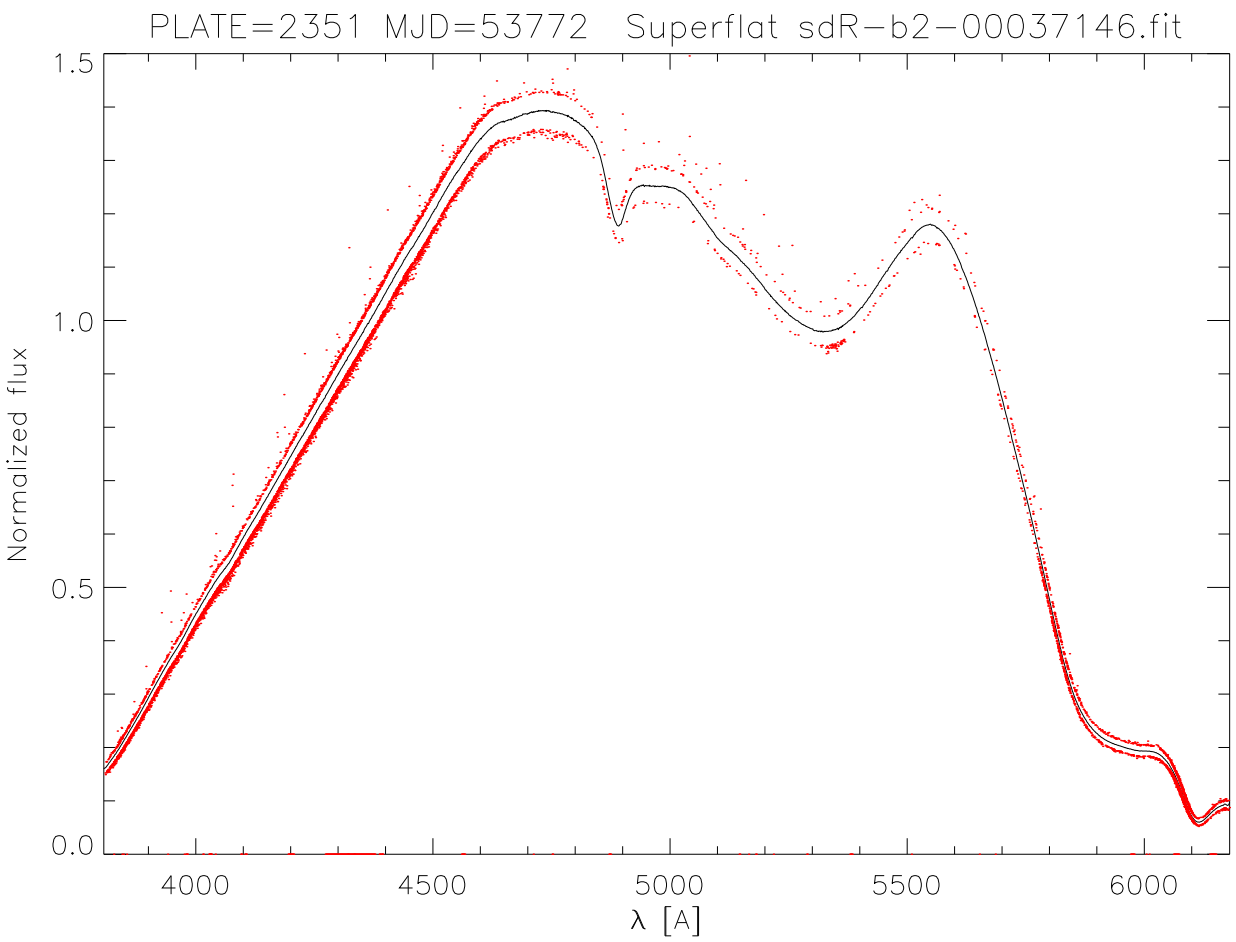

offset coeff residuals from ord=3 poly
1.5×10⁻⁴
1.0×10⁻⁴
5.0×10⁻⁵
0
−5.0×10⁻⁵
−1.0×10⁻⁴
−1.5×10⁻⁴
0
50
100
150
200
250
300
fiber

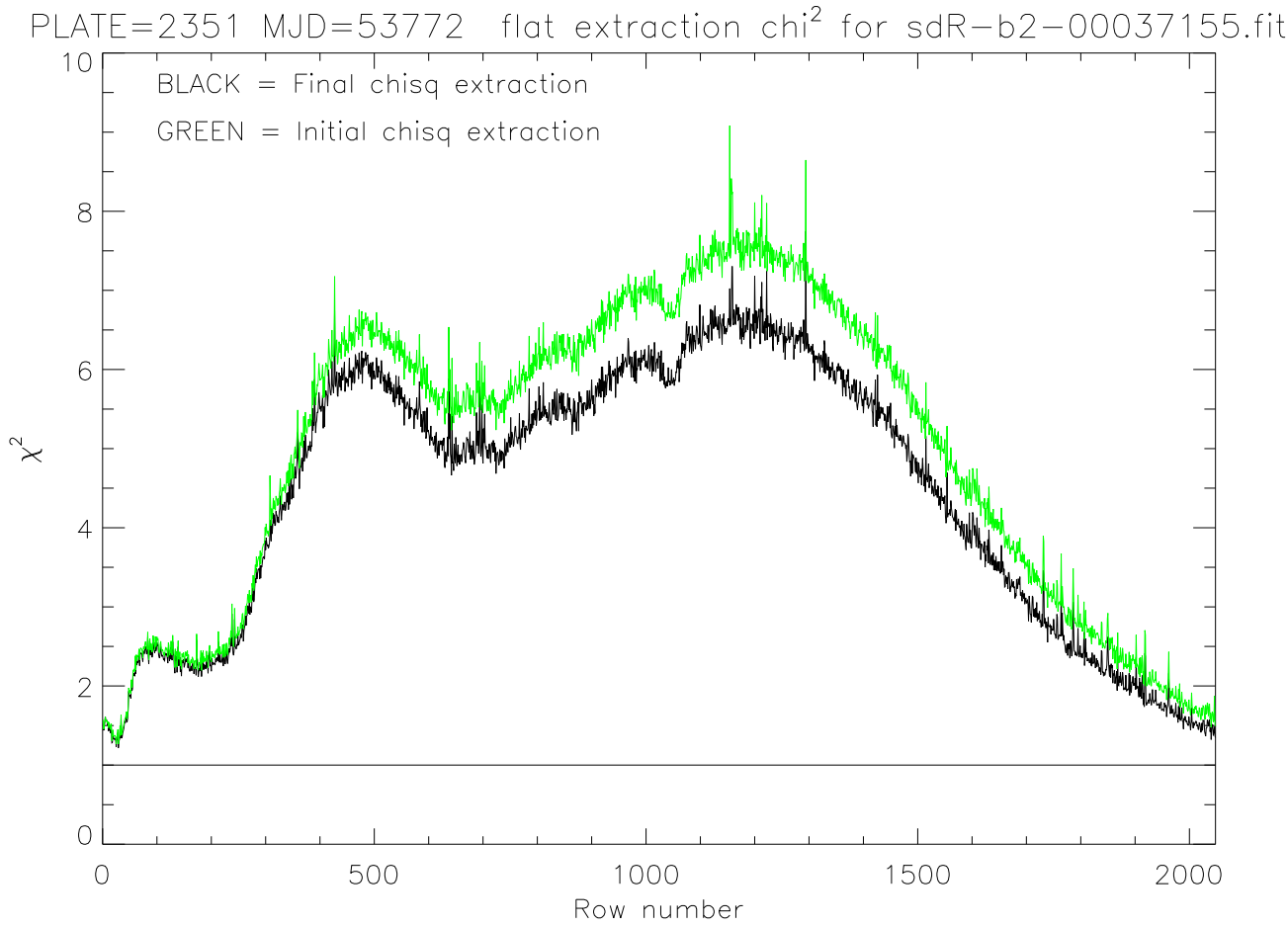

scale coeff residuals from ord=3 poly
2×10⁻⁵
1×10⁻⁵
0
−1×10⁻⁵
−2×10⁻⁵
−3×10⁻⁵
0
50
100
150
200
250
300
fiber

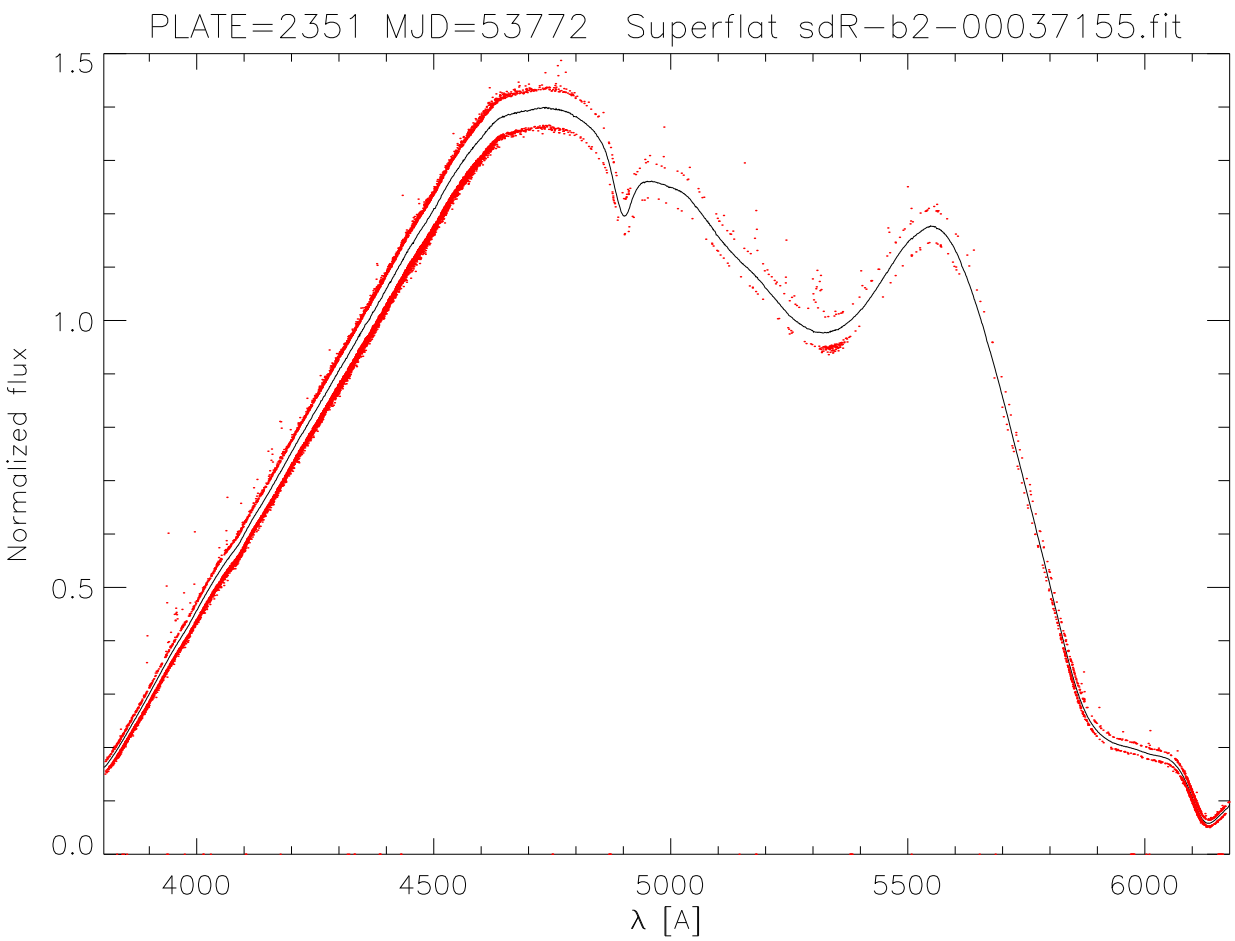

PLATE=2351 MJD=53772 flat extraction chi^2 for sdR−b2−00037144.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
1
2
3
4
5
6
0
500
1000
1500
2000

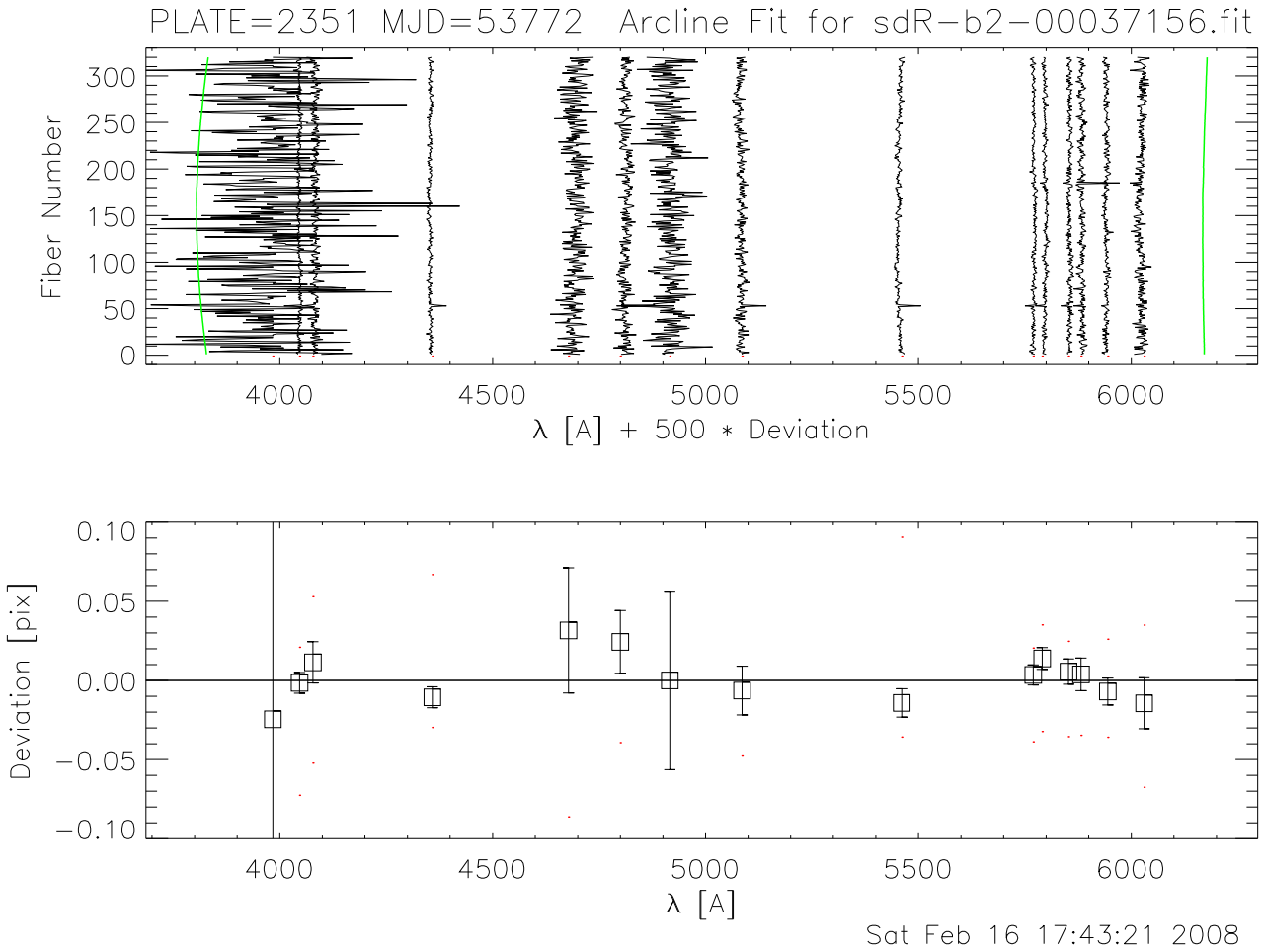

PLATE=2351 MJD=53772 Superflat sdR-b2-00037144.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

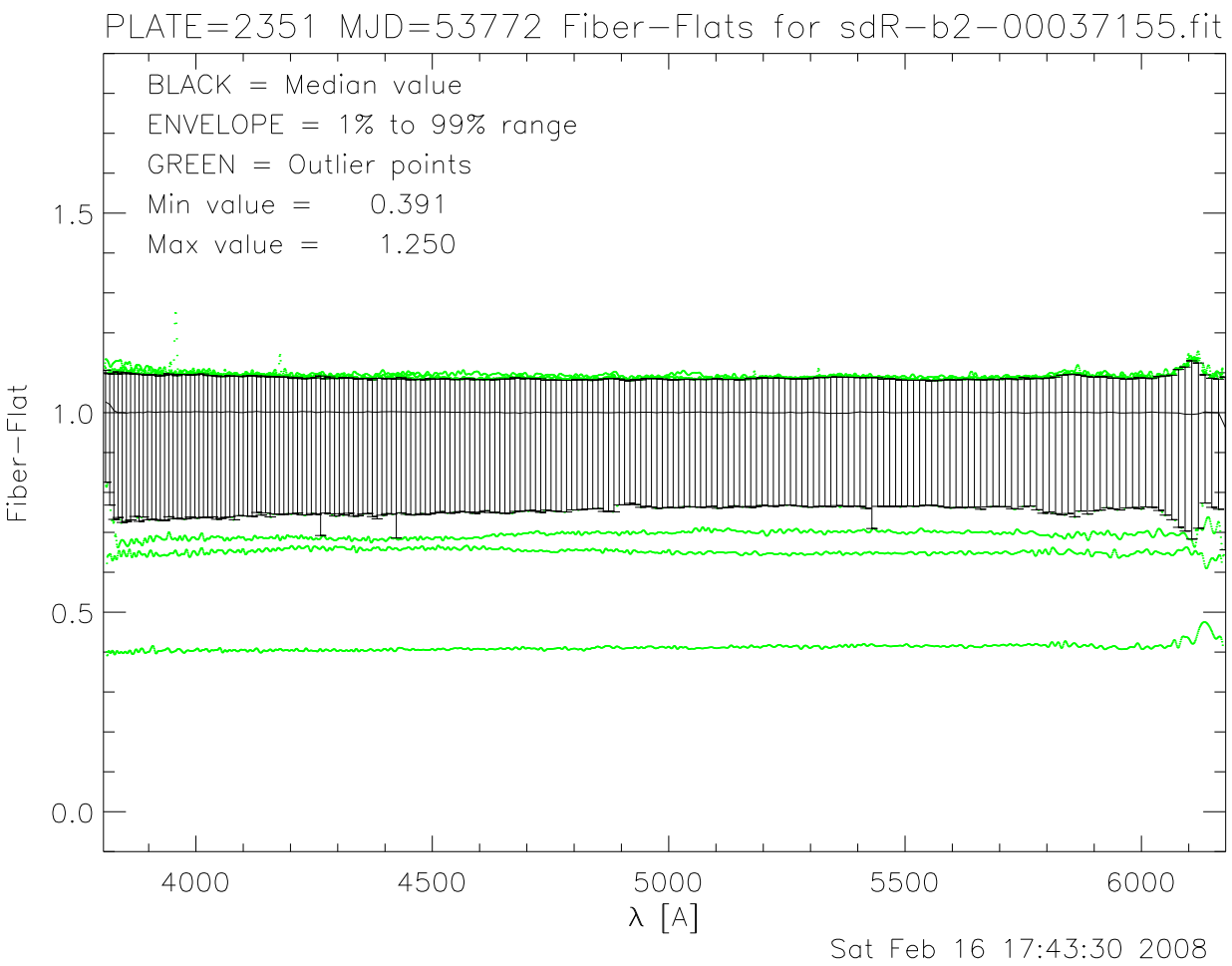

PLATE=2351 MJD=53772 flat extraction chi^2 for sdR−b2−00037146.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
1
2
3
4
5
0
500
1000
1500
2000

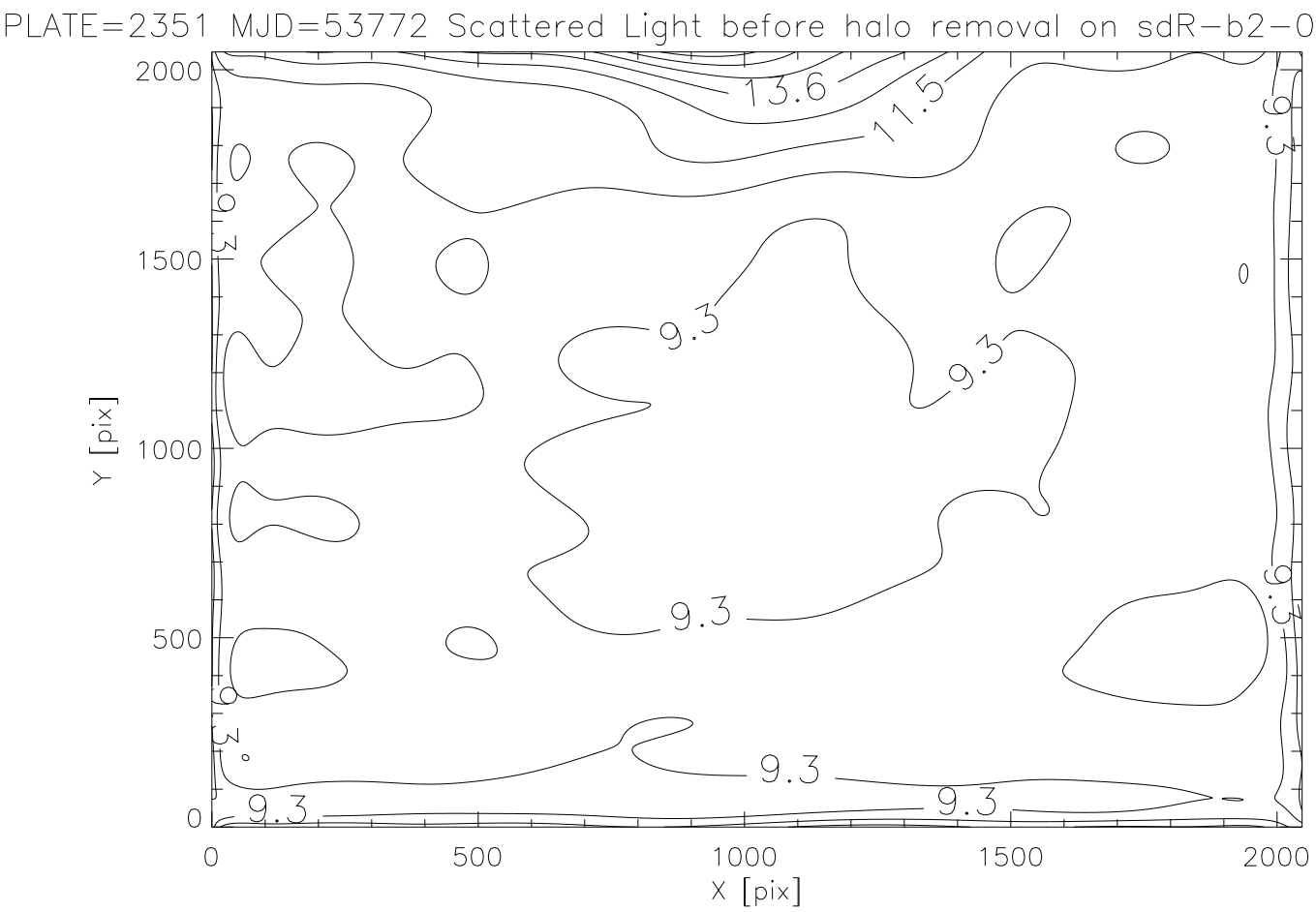

PLATE=2351 MJD=53772 Superflat sdR-b2-00037146.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

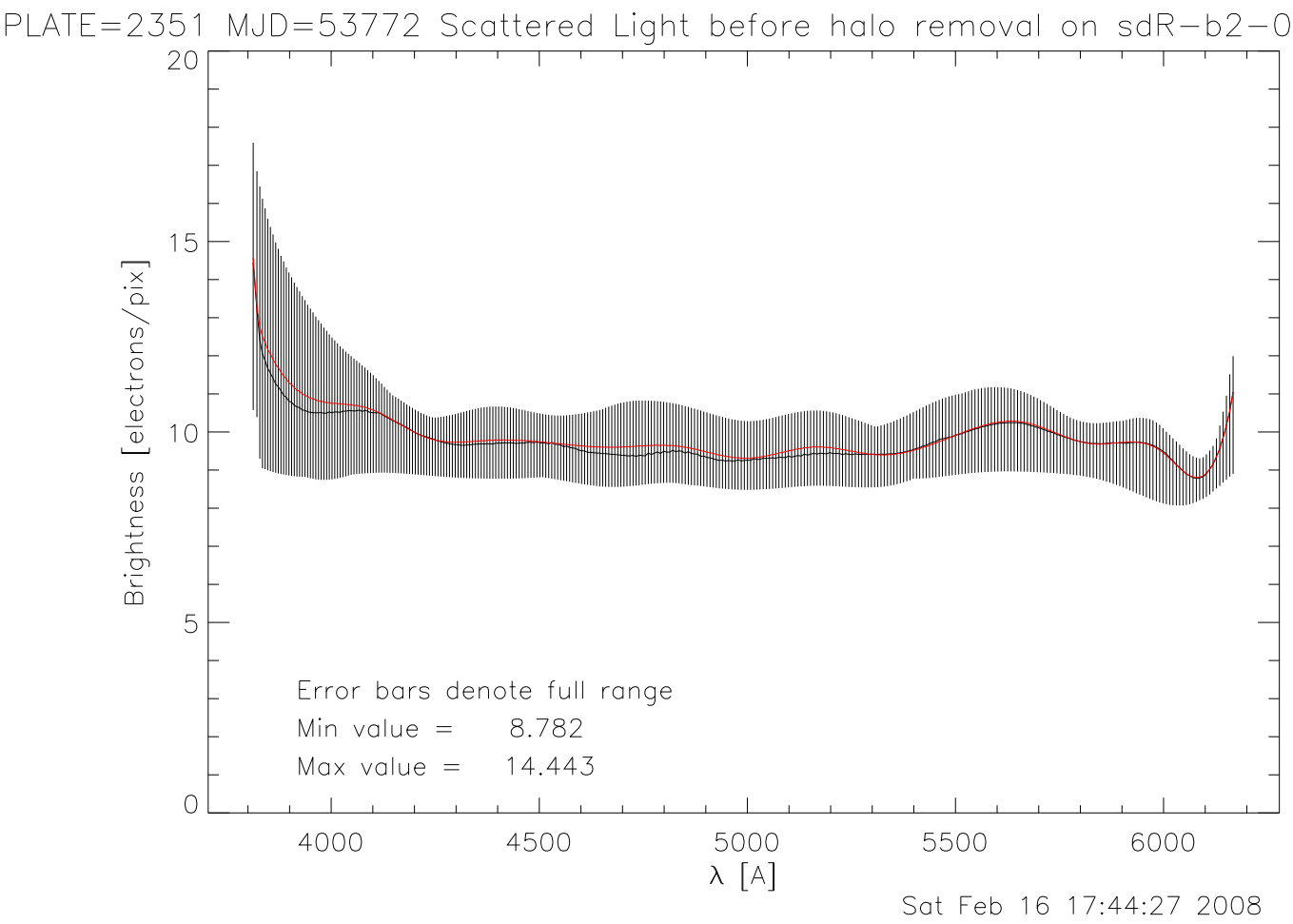

PLATE=2351 MJD=53772 flat extraction chi^2 for sdR−b2−00037155.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
2
4
6
8
10
0
500
1000
1500
2000

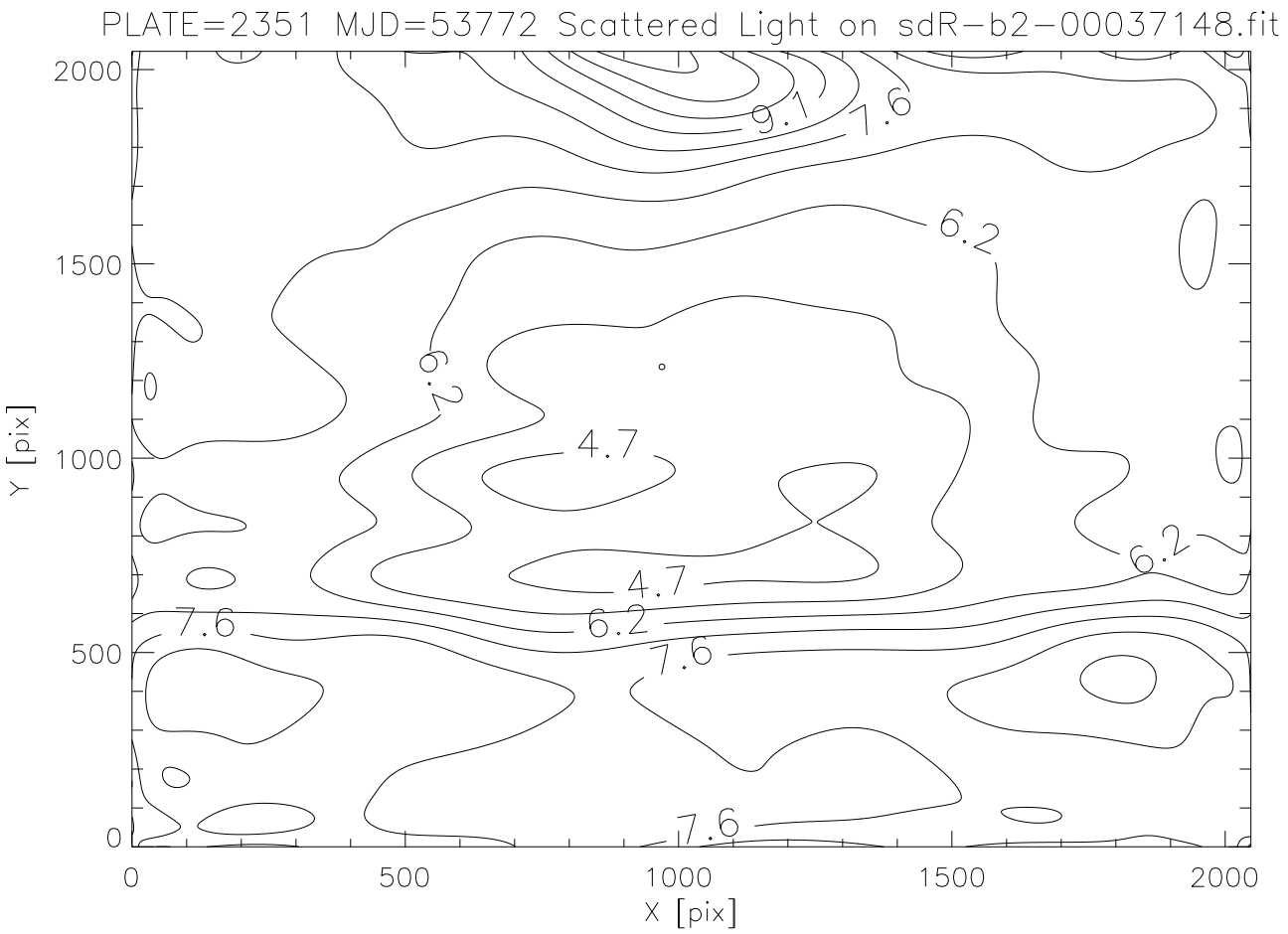

PLATE=2351 MJD=53772 Superflat sdR-b2-00037155.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

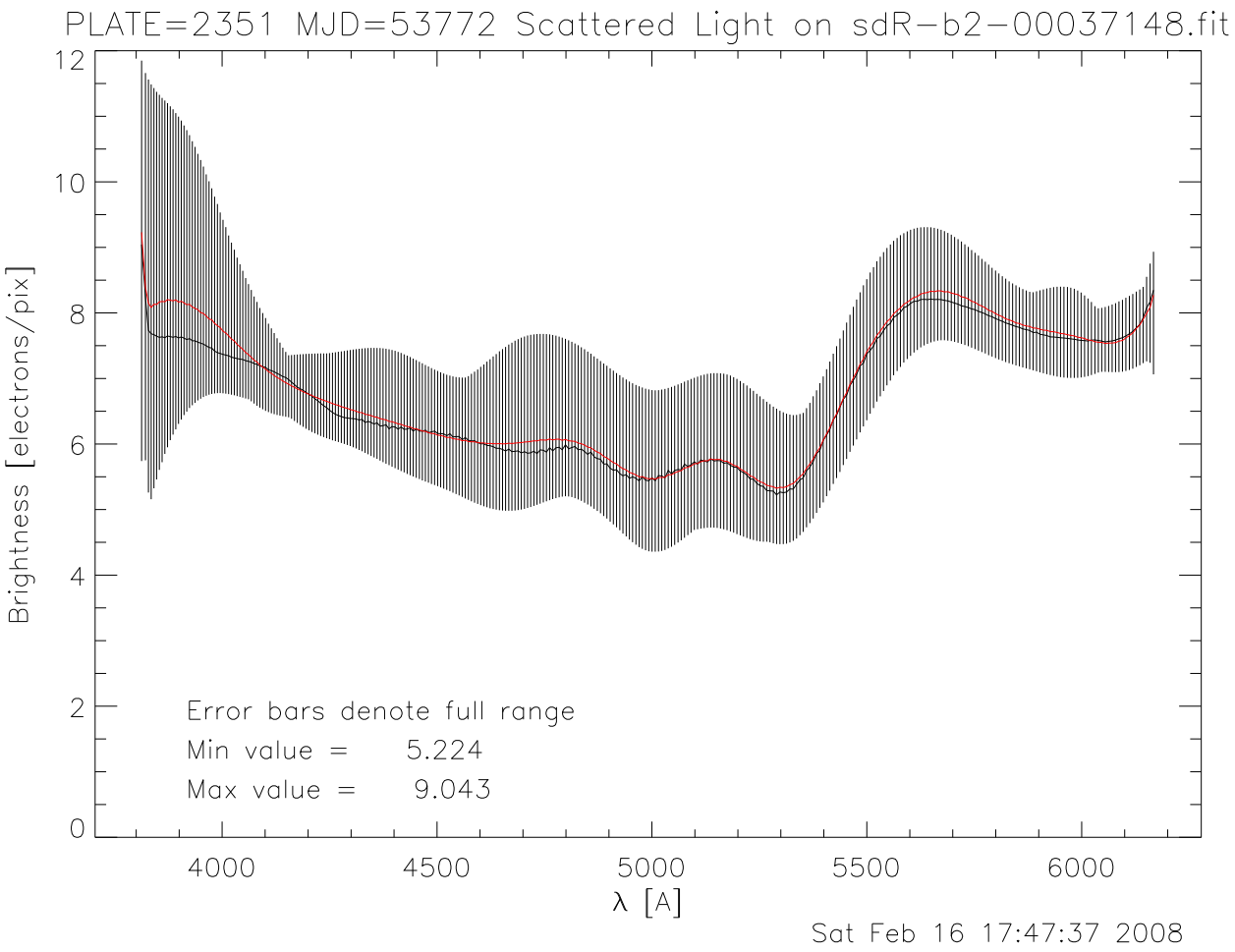

PLATE=2351 MJD=53772 Arcline Fit for sdR-b2-00037156.fit
Fiber Number
300
250
200
150
100
50
0
4000
4500
5000
5500
6000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
4000
4500
5000
5500
6000
λ [A]
Sat Feb 16 17:43:21 2008

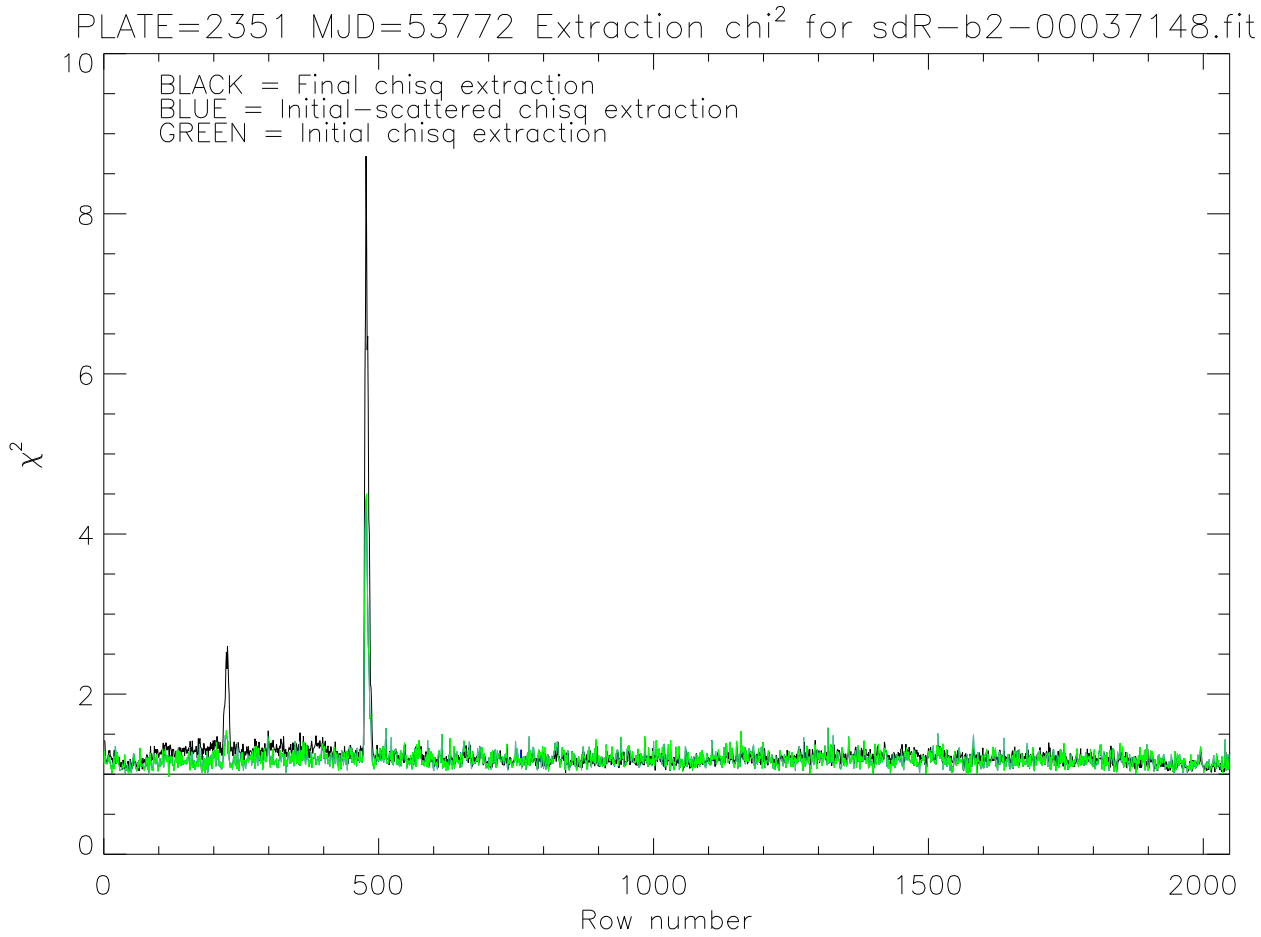

PLATE=2351 MJD=53772 Fiber−Flats for sdR−b2−00037155.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.391
Max value = 1.250
Fiber−Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Sat Feb 16 17:43:30 2008

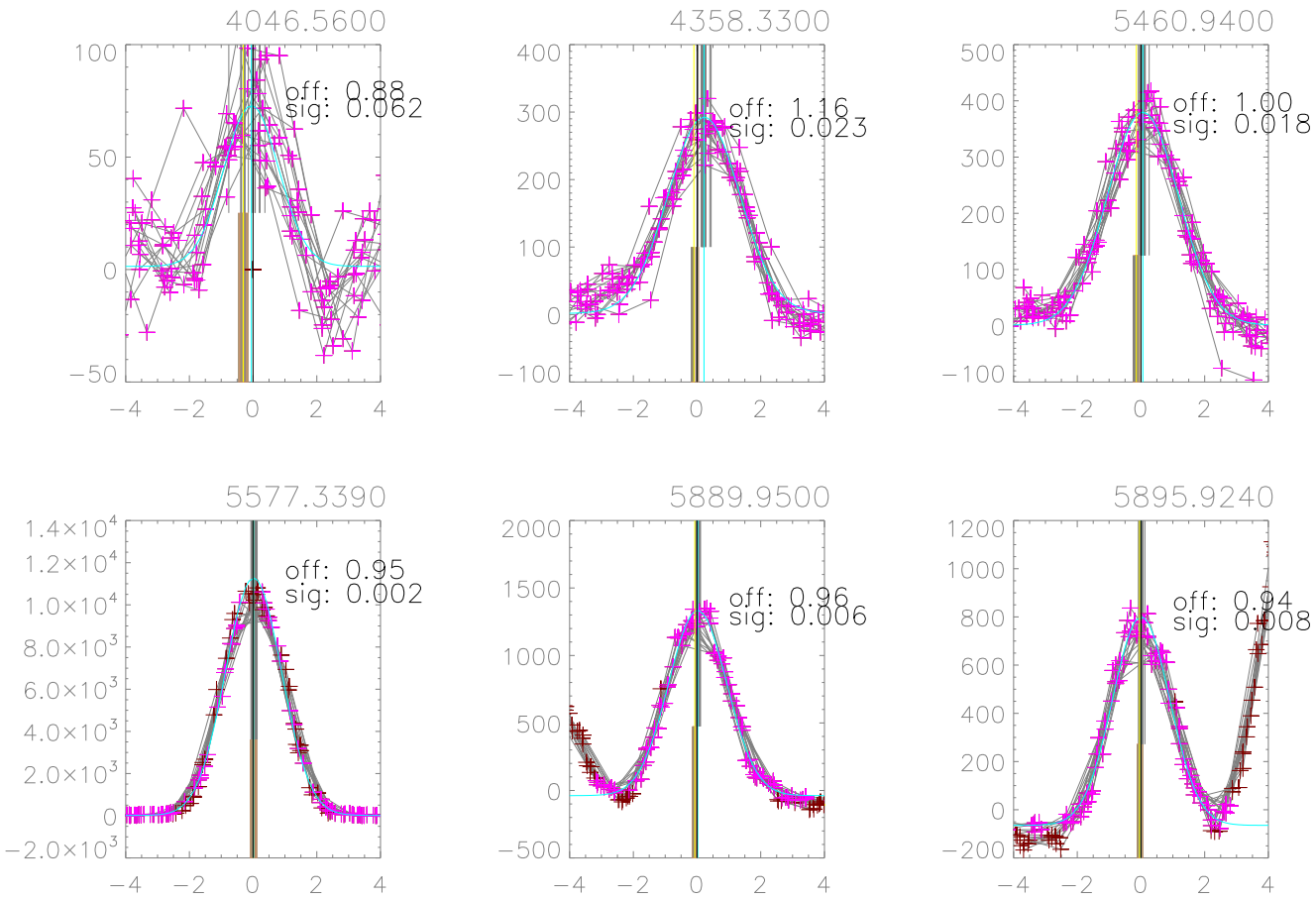

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR−b2−00037148.f
13.6
11.5
9.3
0
Y [pix]
X [pix]
0
500
1000
1500
2000

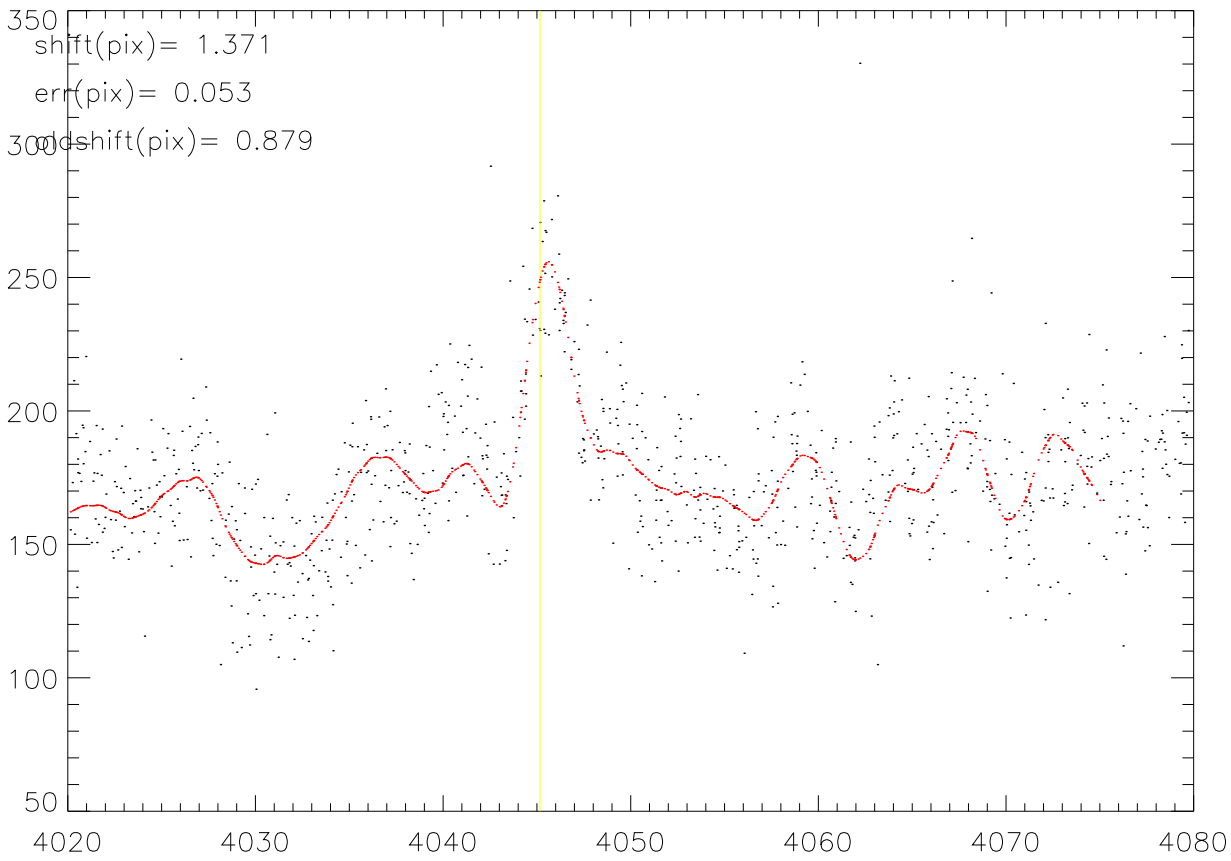

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR−b2−00037148.f
Brightness [electrons/pix]
20
15
10
5
0
Error bars denote full range
Min value = 8.782
Max value = 14.443
4000
4500
5000
5500
6000
λ [A]
Sat Feb 16 17:44:27 2008

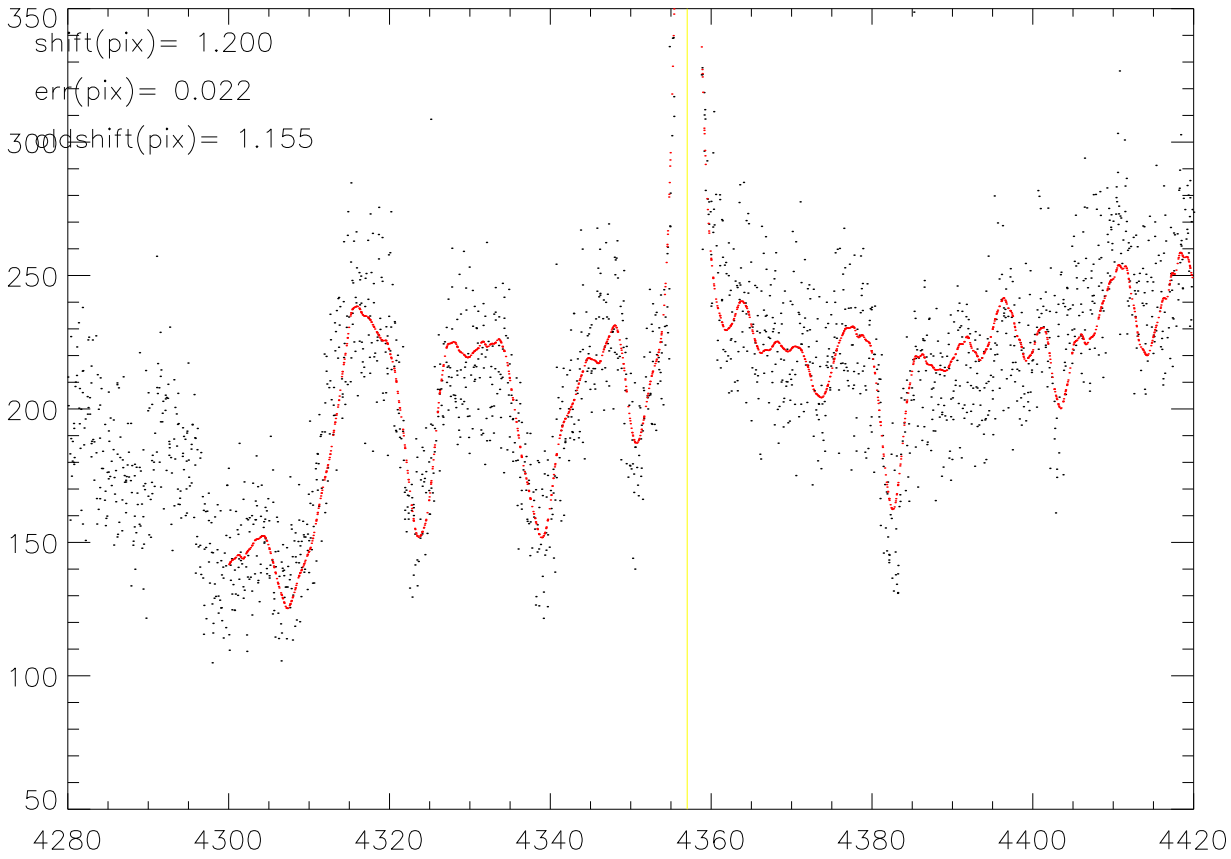

PLATE=2351 MJD=53772 Scattered Light on sdR-b2-00037148.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
9.1
7.6
6.2
4.7
7.6
6.2
4.7
6.2
7.6
7.6
0

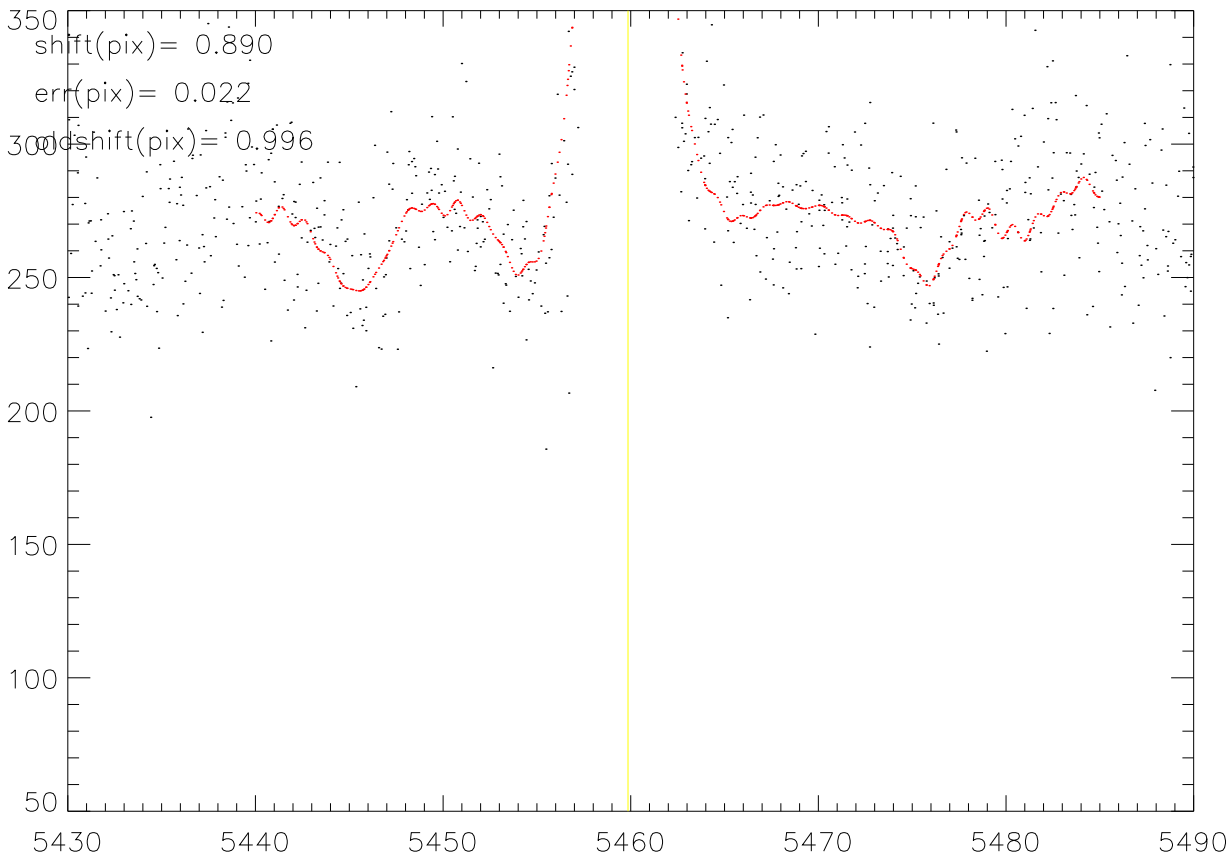

PLATE=2351 MJD=53772 Scattered Light on sdR-b2-00037148.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 5.224
Max value = 9.043
Sat Feb 16 17:47:37 2008

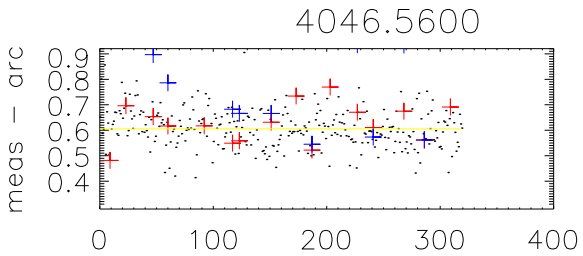

PLATE=2351 MJD=53772 Extraction chi^2 for sdR-b2-00037148.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
2
4
6
8
10
0
500
1000
1500
2000

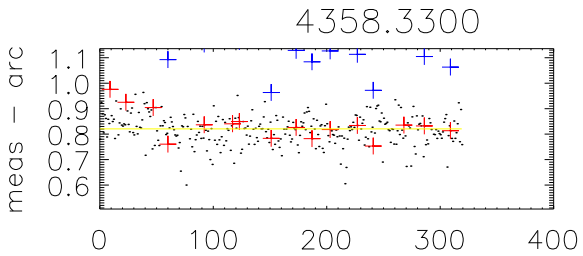

4046.5600
off: 0.88
sig: 0.062
4358.3300
off: 1.16
sig: 0.023
5460.9400
off: 1.00
sig: 0.018
5577.3390
off: 0.95
sig: 0.002
5889.9500
off: 0.96
sig: 0.006
5895.9240
off: 0.94
sig: 0.008

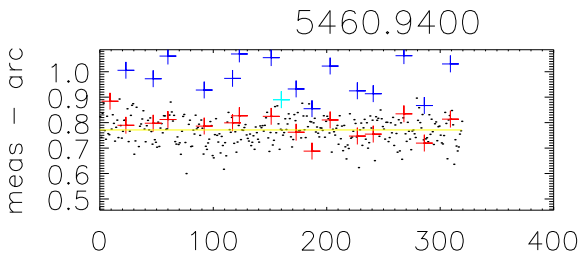

shift(pix)= 1.371
err(pix)= 0.053
oldshift(pix)= 0.879
350
300
250
200
150
100
50
4020
4030
4040
4050
4060
4070
4080

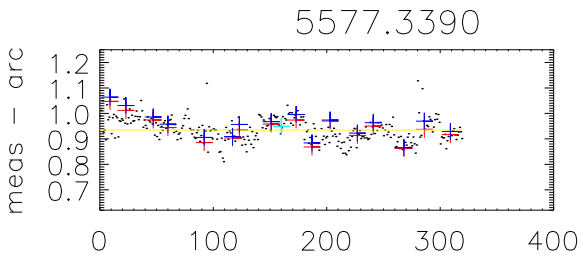

shift(pix)= 1.200
err(pix)= 0.022
oldshift(pix)= 1.155
350
300
250
200
150
100
50
4280
4300
4320
4340
4360
4380
4400
4420

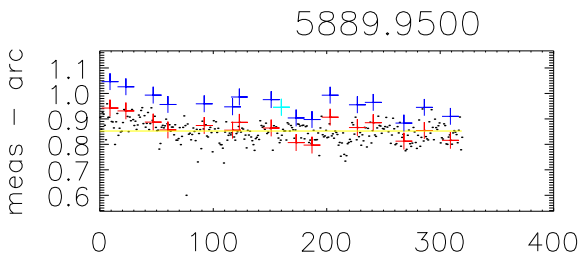

shift(pix)= 0.890
err(pix)= 0.022
oldshift(pix)= 0.996
350
300
250
200
150
100
50
5430
5440
5450
5460
5470
5480
5490

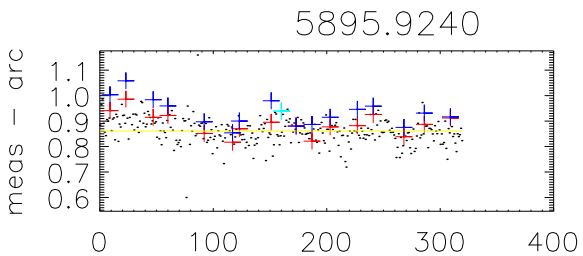

4046.5600
meas − arc
0.9
0.8
0.7
0.6
0.5
0.4
0
100
200
300
400

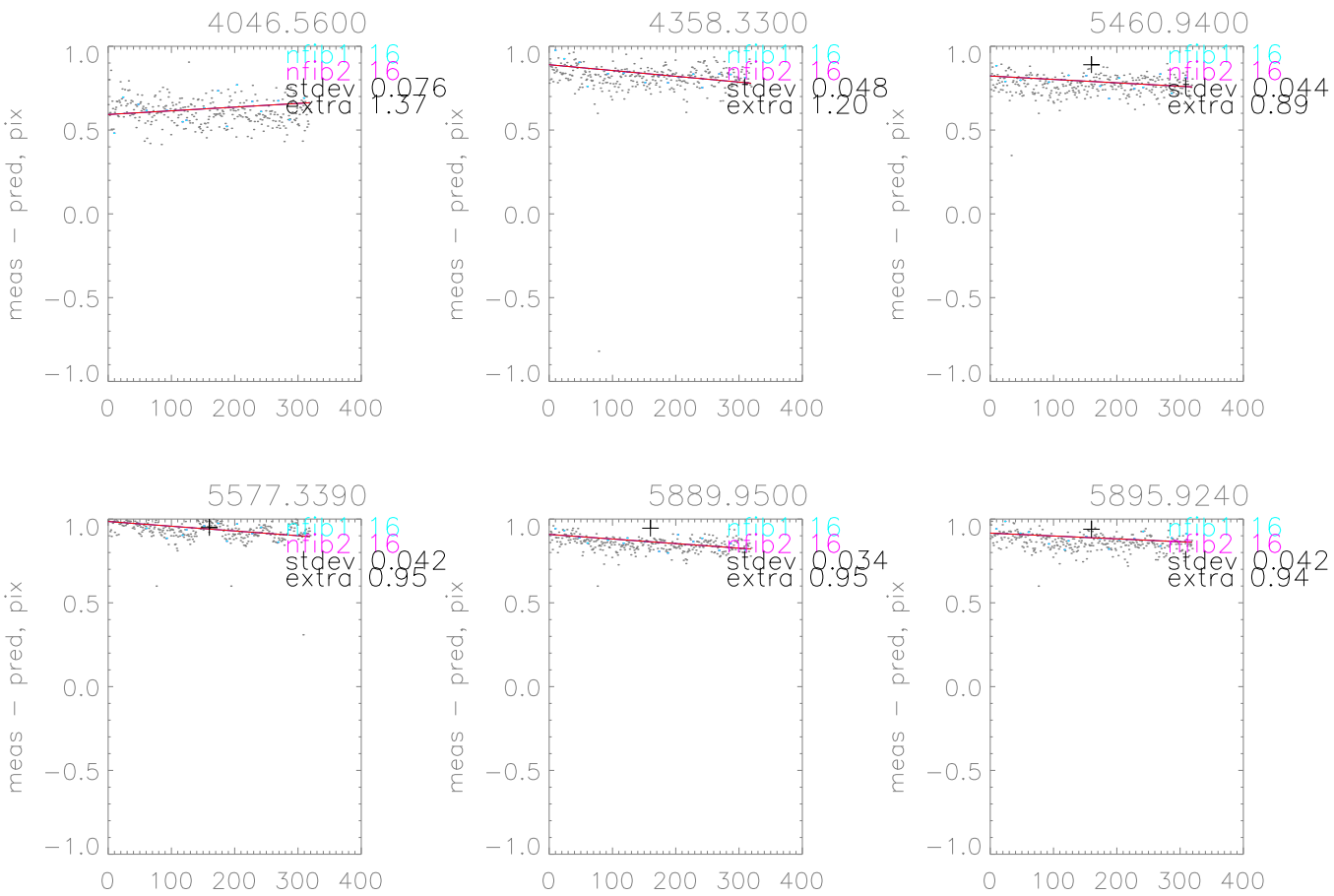

4358.3300
meas − arc
1.1
1.0
0.9
0.8
0.7
0.6
0
100
200
300
400

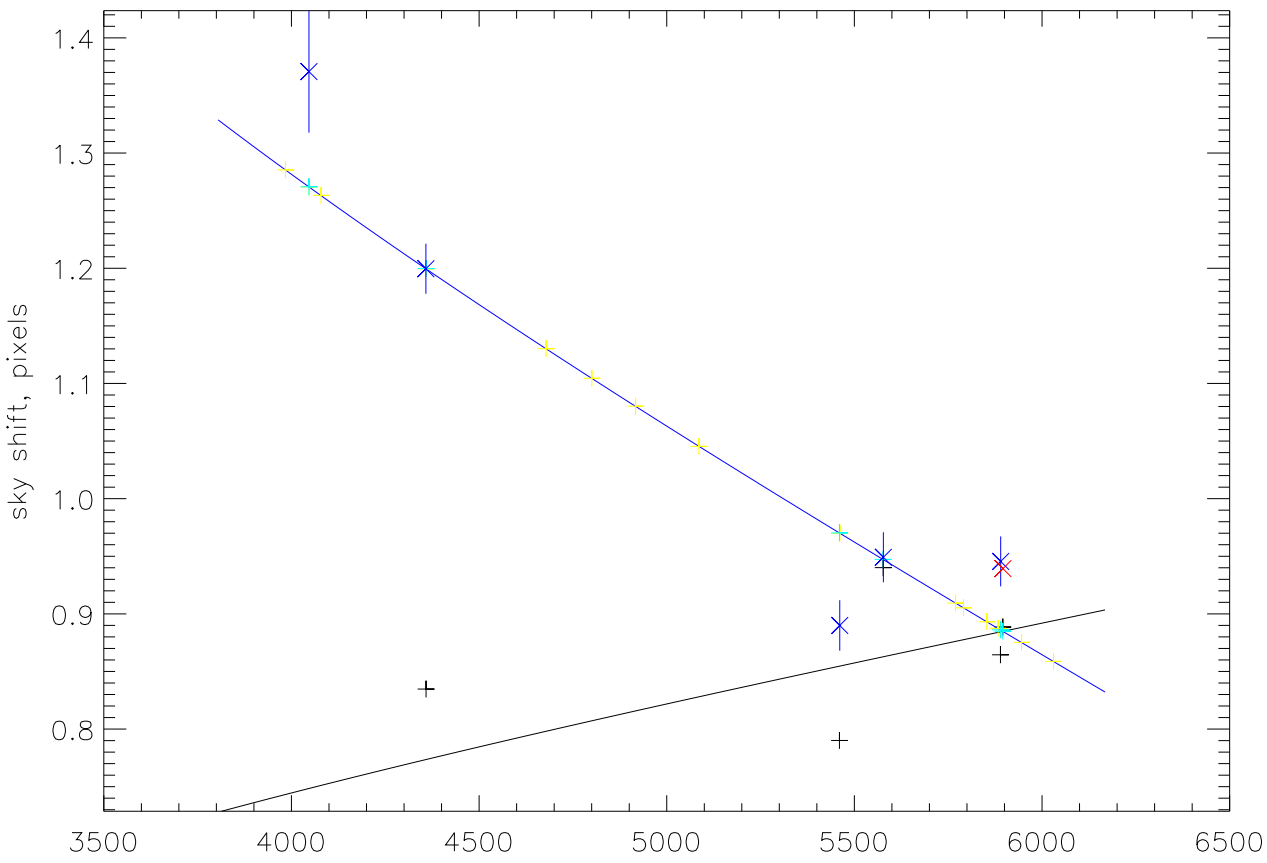

5460.9400
meas − arc
1.0
0.9
0.8
0.7
0.6
0.5
0
100
200
300
400

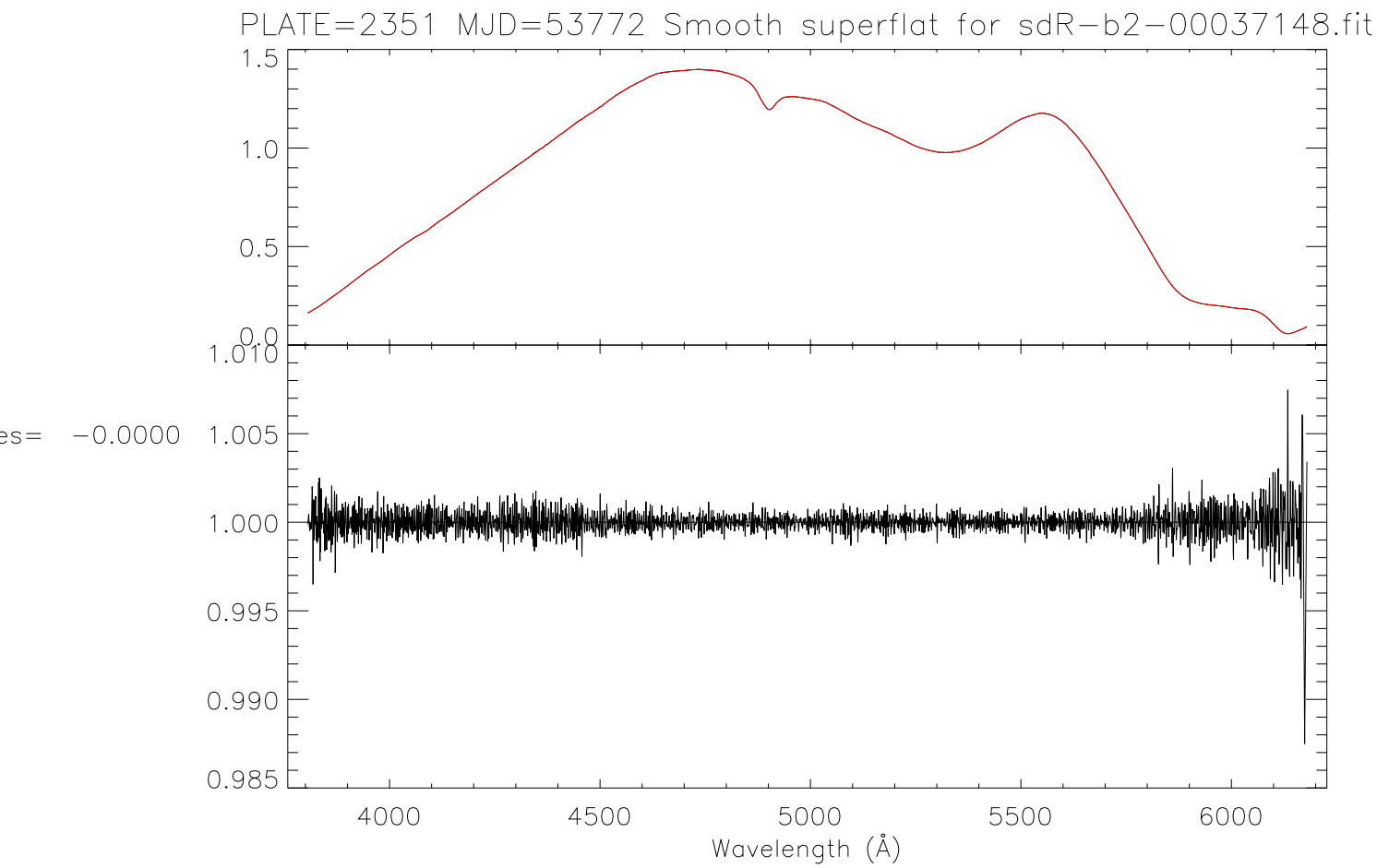

5577.3390
meas − arc
1.2
1.1
1.0
0.9
0.8
0.7
0
100
200
300
400


5889.9500
meas − arc
1.1
1.0
0.9
0.8
0.7
0.6
0
100
200
300
400

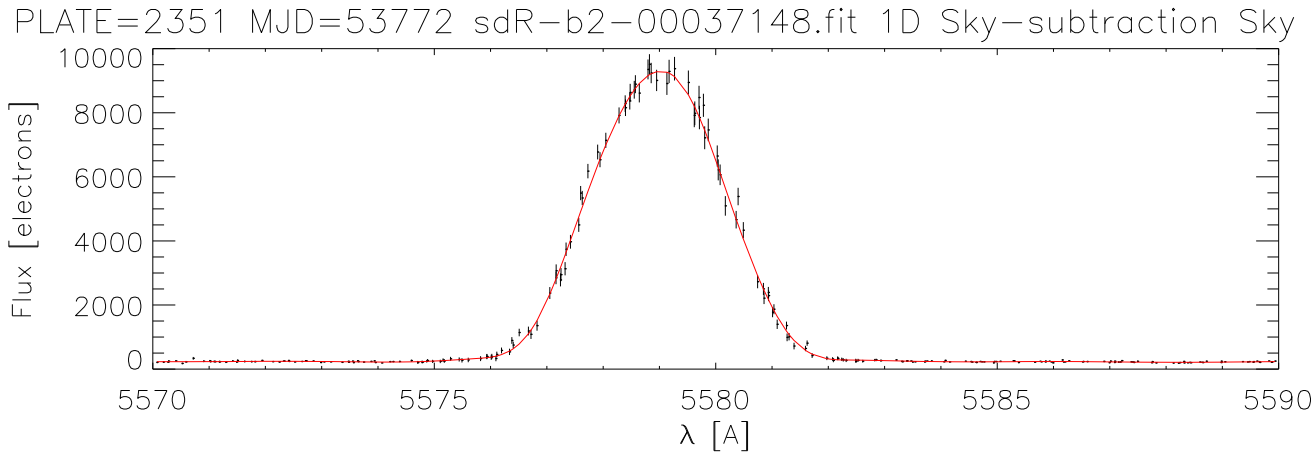

5895.9240
meas − arc
1.1
1.0
0.9
0.8
0.7
0.6
0
100
200
300
400

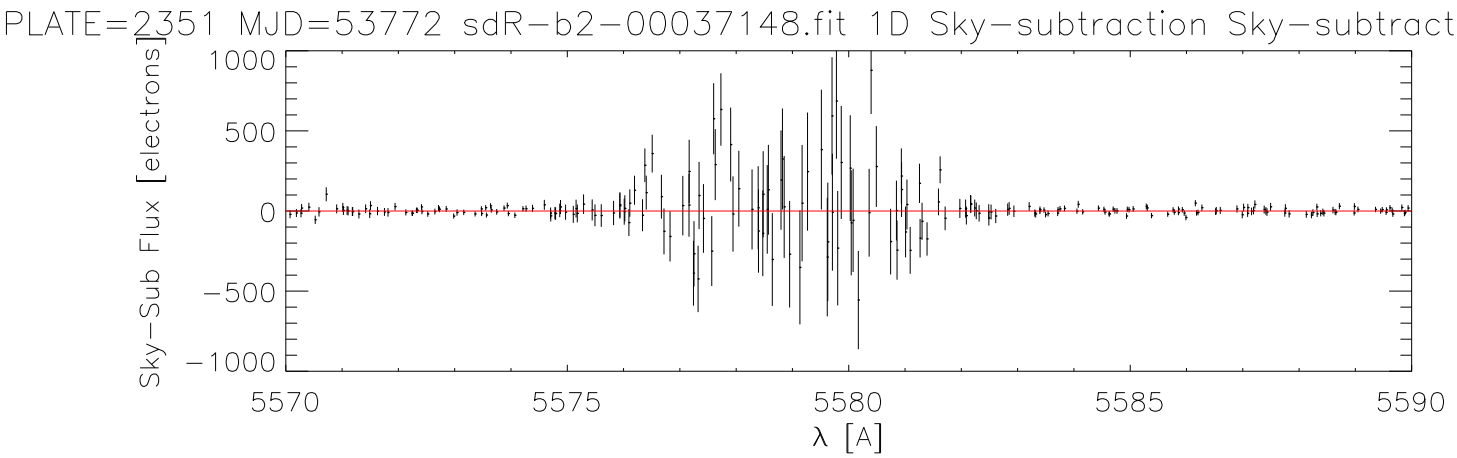

4046.5600
4358.3300
5460.9400
5577.3390
5889.9500
5895.9240
nfib1 16
nfib2 16
stdev 0.076
extra 1.37
stdev 0.048
extra 1.20
stdev 0.044
extra 0.89
stdev 0.042
extra 0.95
stdev 0.034
extra 0.95
stdev 0.042
extra 0.94
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

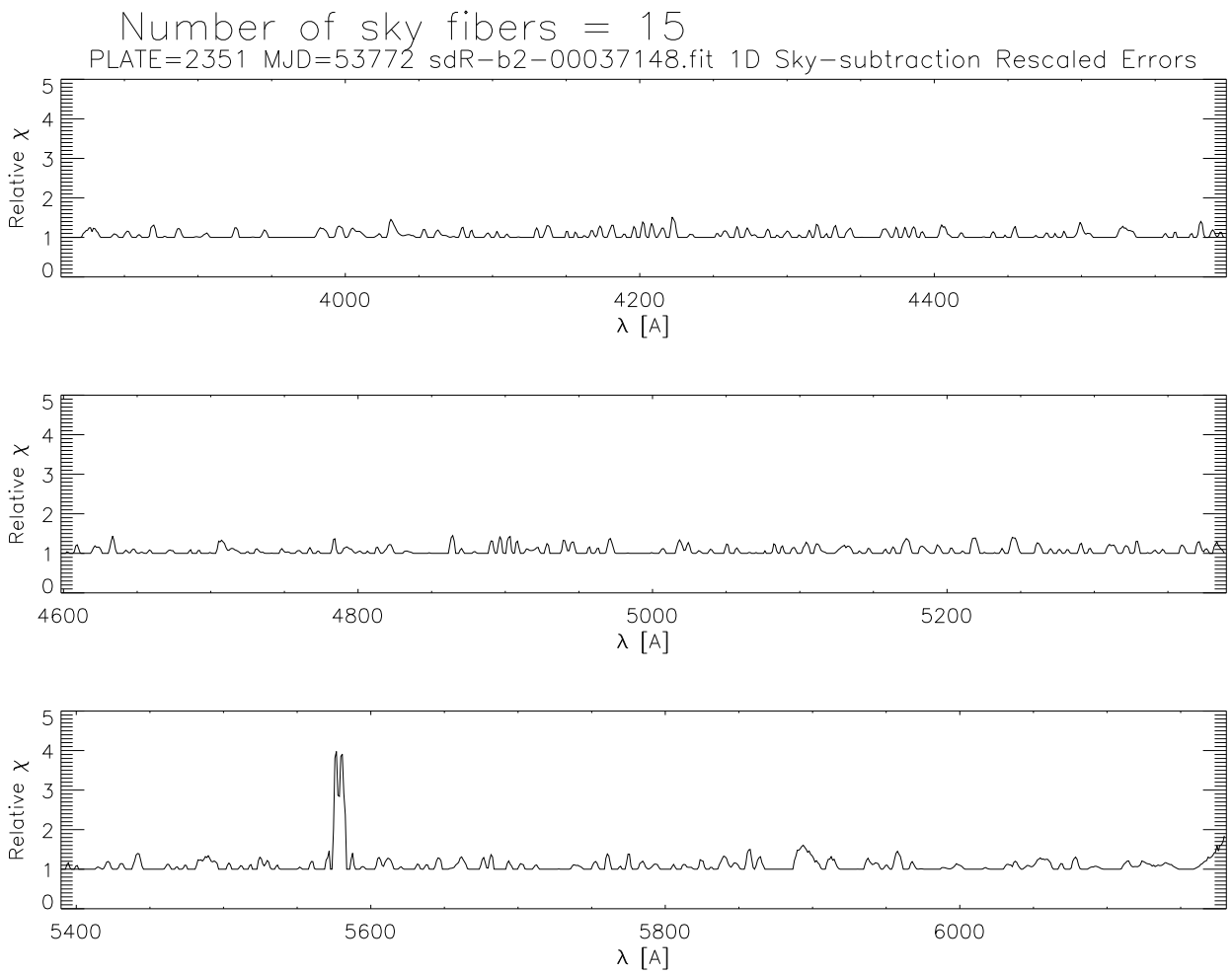

sky shift, pixels
1.4
1.3
1.2
1.1
1.0
0.9
0.8
3500
4000
4500
5000
5500
6000
6500

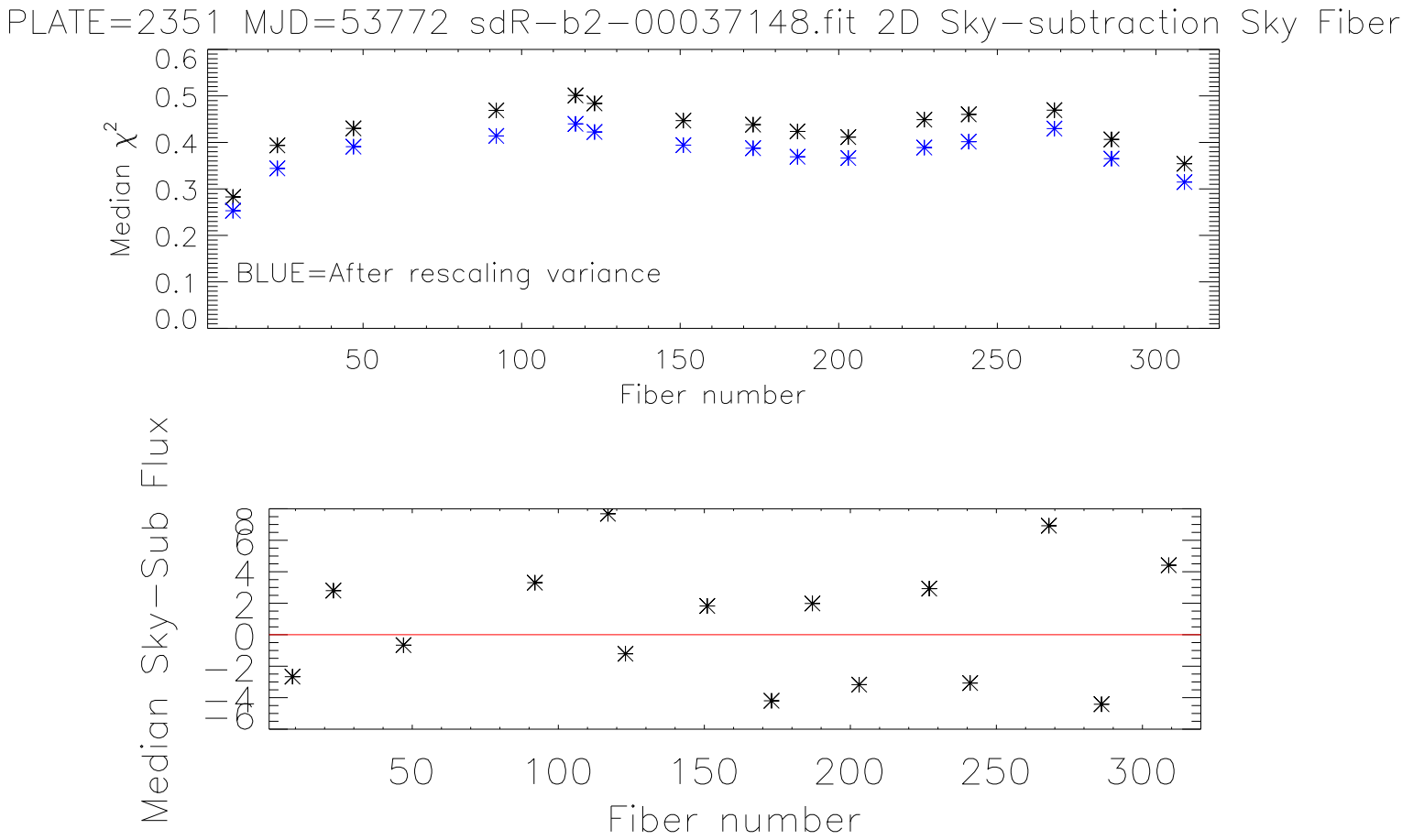

PLATE=2351 MJD=53772 Smooth superflat for sdR-b2-00037148.fit
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
0.985
es= −0.0000
4000
4500
5000
5500
6000
Wavelength (Å)

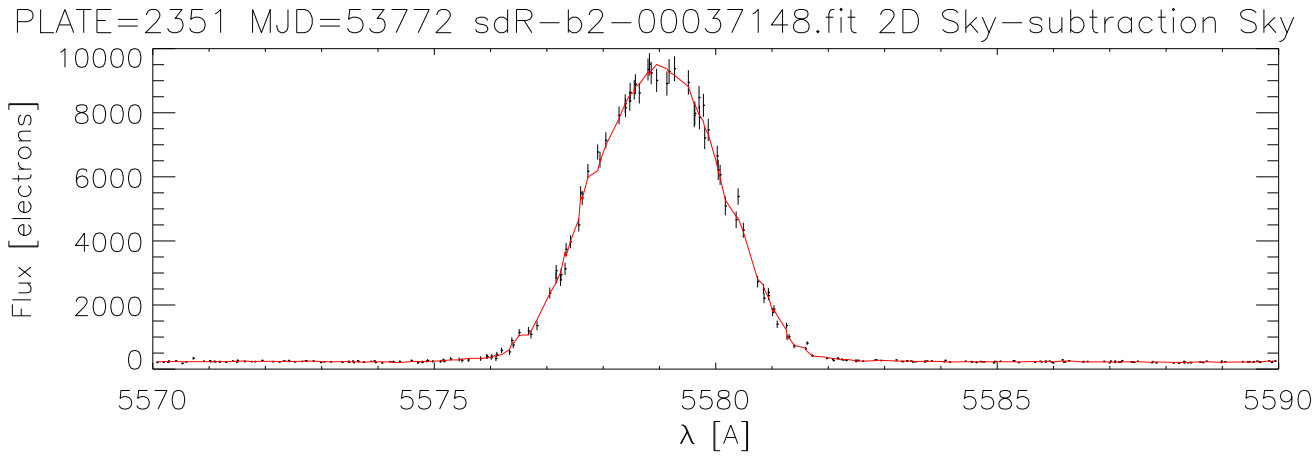
PLATE=2351 MJD=53772 sdR-b2-00037148.fit 1D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

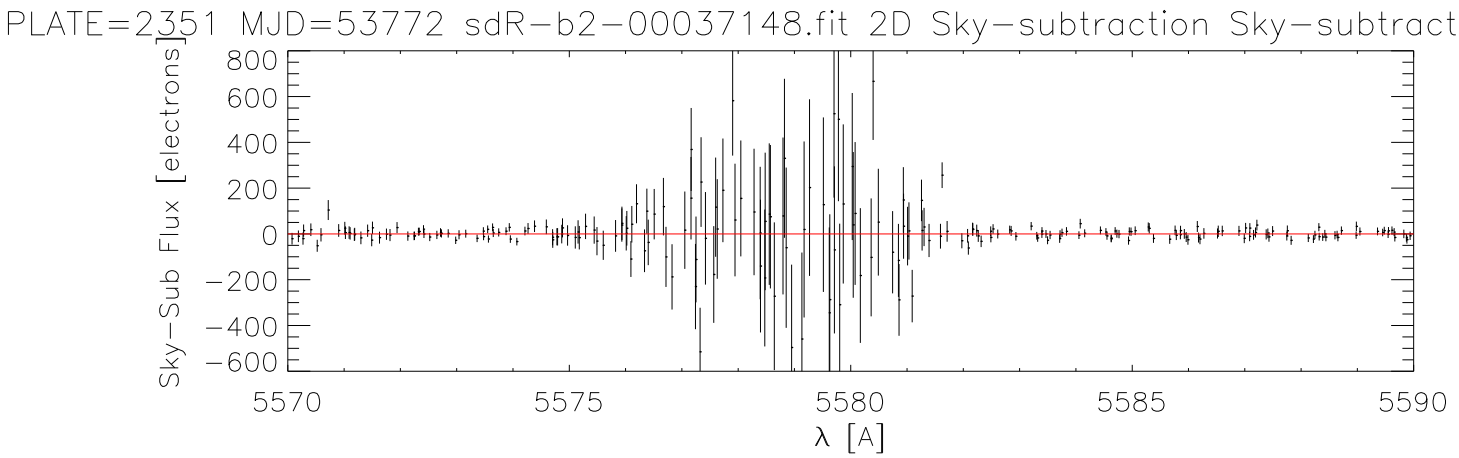

PLATE=2351 MJD=53772 sdR-b2-00037148.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
10000
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

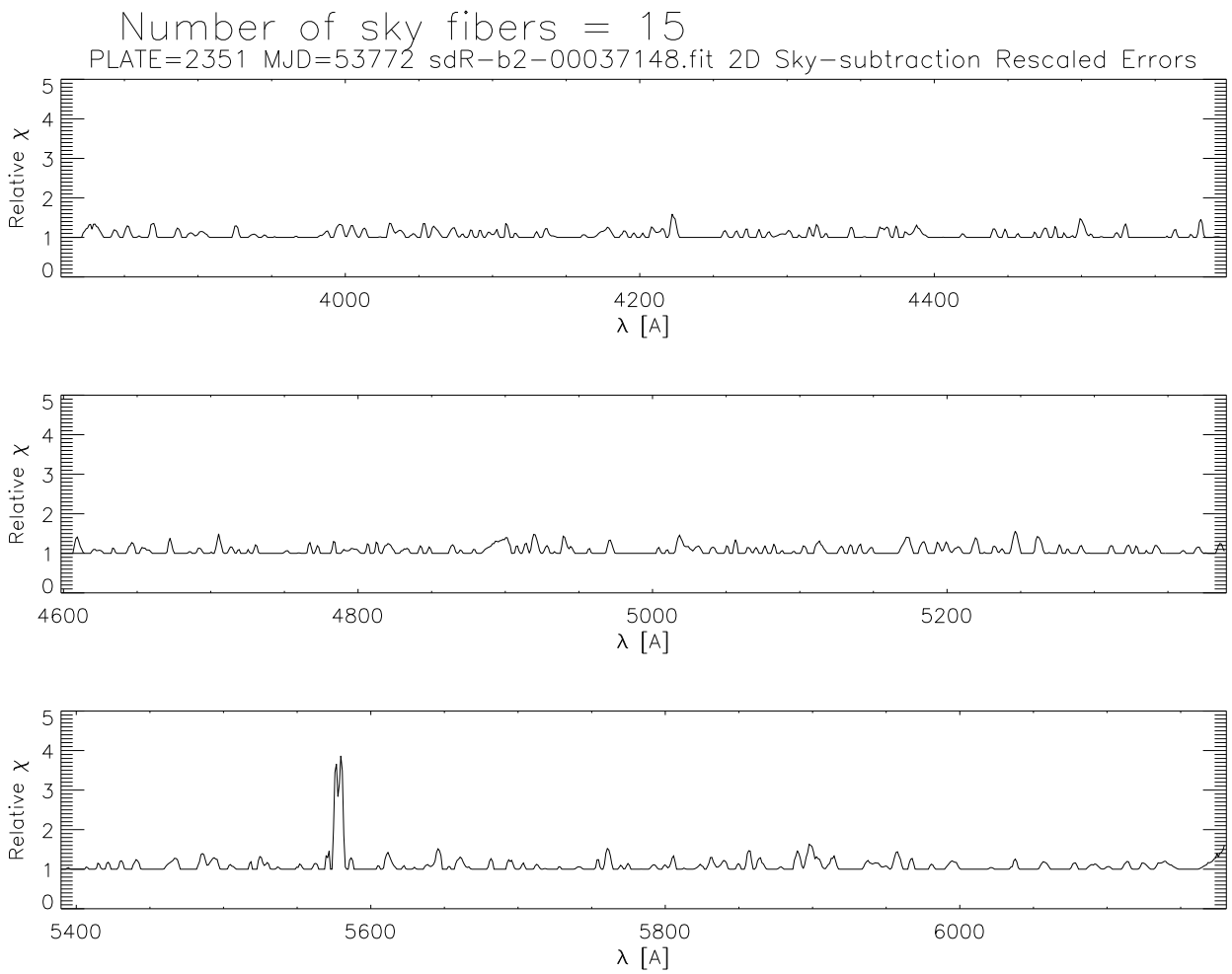

PLATE=2351 MJD=53772 sdR-b2-00037148.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
1000
500
0
-500
-1000
5570
5575
5580
5585
5590
λ [A]

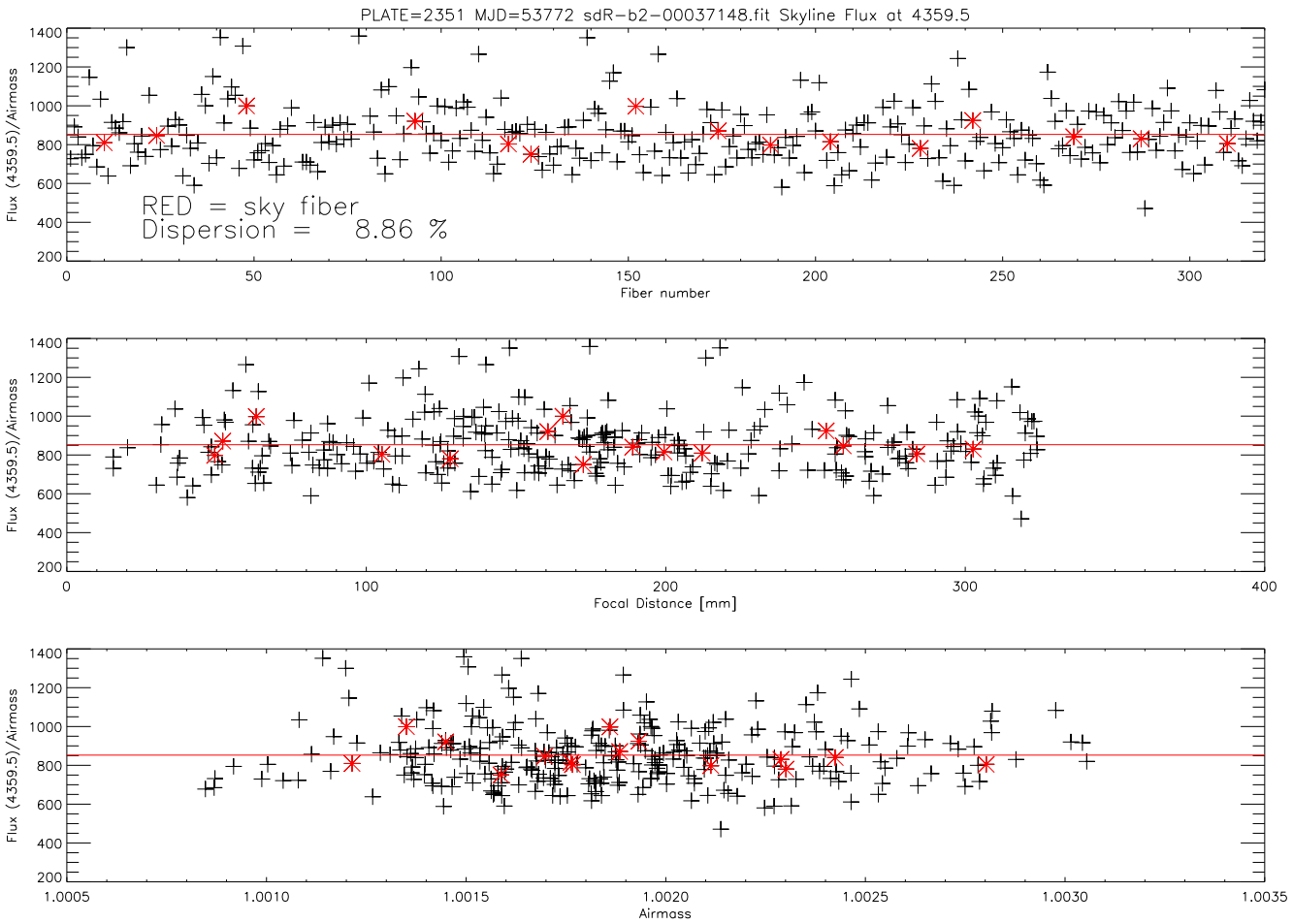

Number of sky fibers = 15
PLATE=2351 MJD=53772 sdR-b2-00037148.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

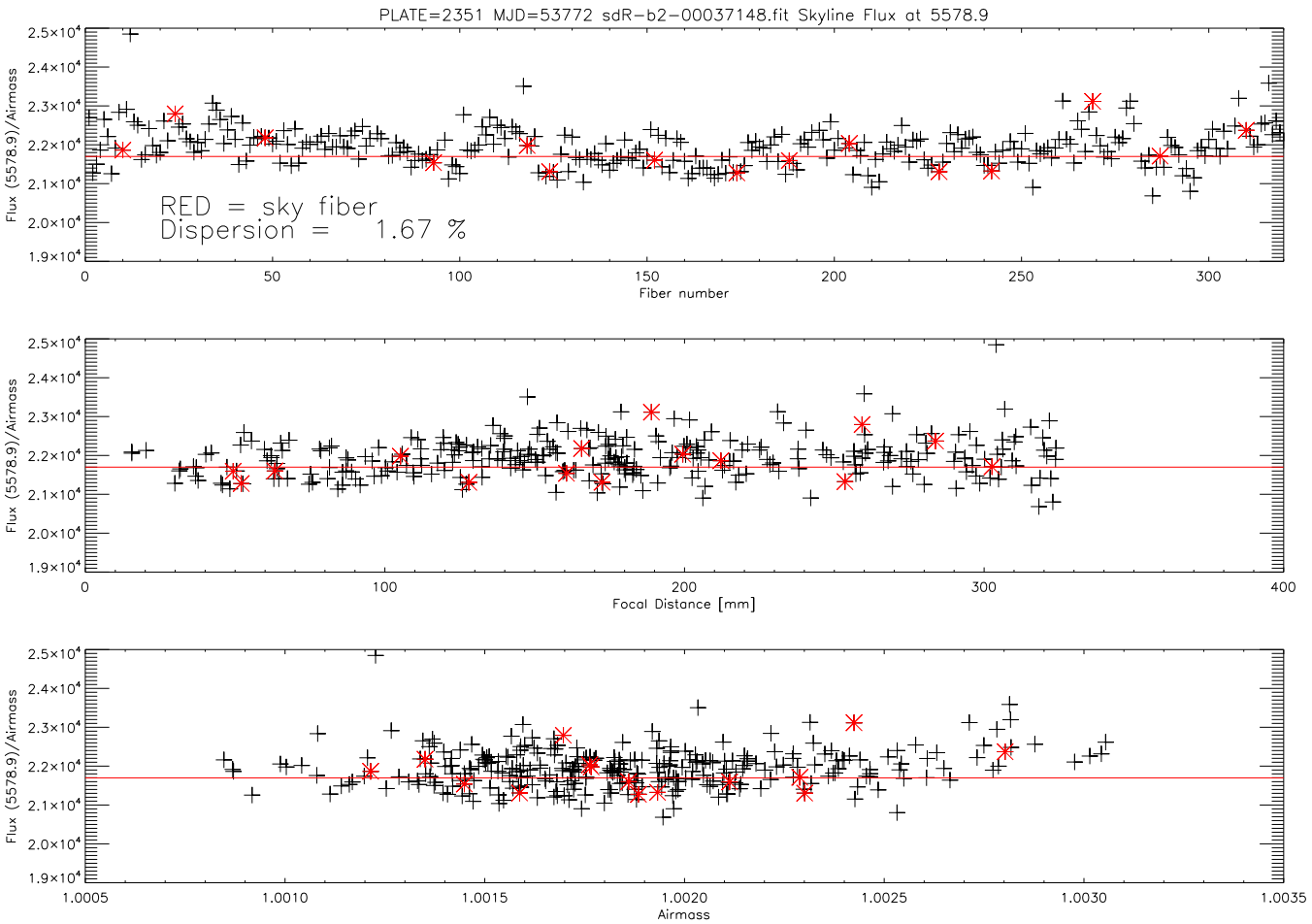

PLATE=2351 MJD=53772 sdR-b2-00037148.fit 2D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-6
-4
-2
0
2
4
6
8
50
100
150
200
250
300
Fiber number

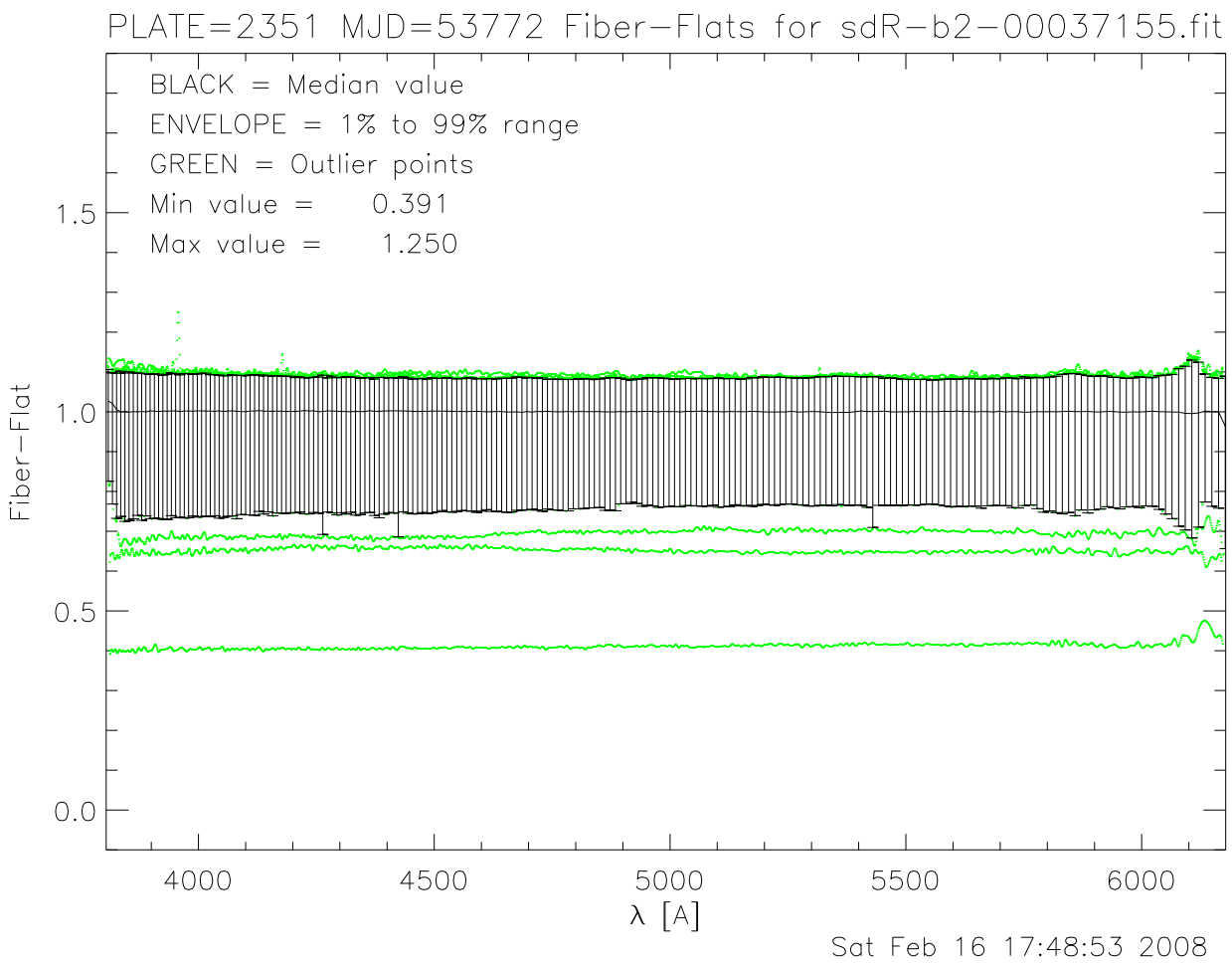

PLATE=2351 MJD=53772 sdR-b2-00037148.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
10000
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

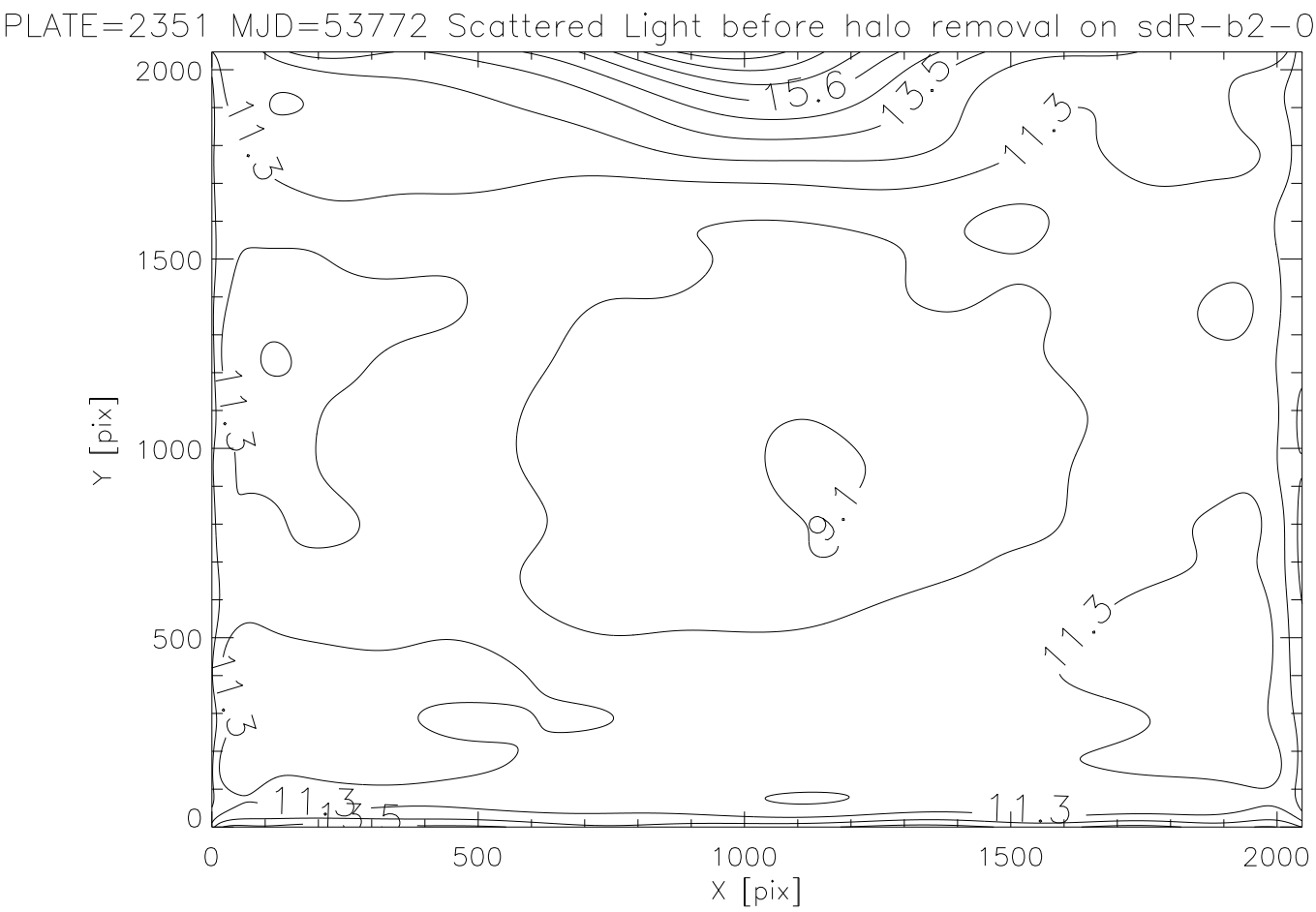

PLATE=2351 MJD=53772 sdR-b2-00037148.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
800
600
400
200
0
-200
-400
-600
5570
5575
5580
5585
5590
λ [A]

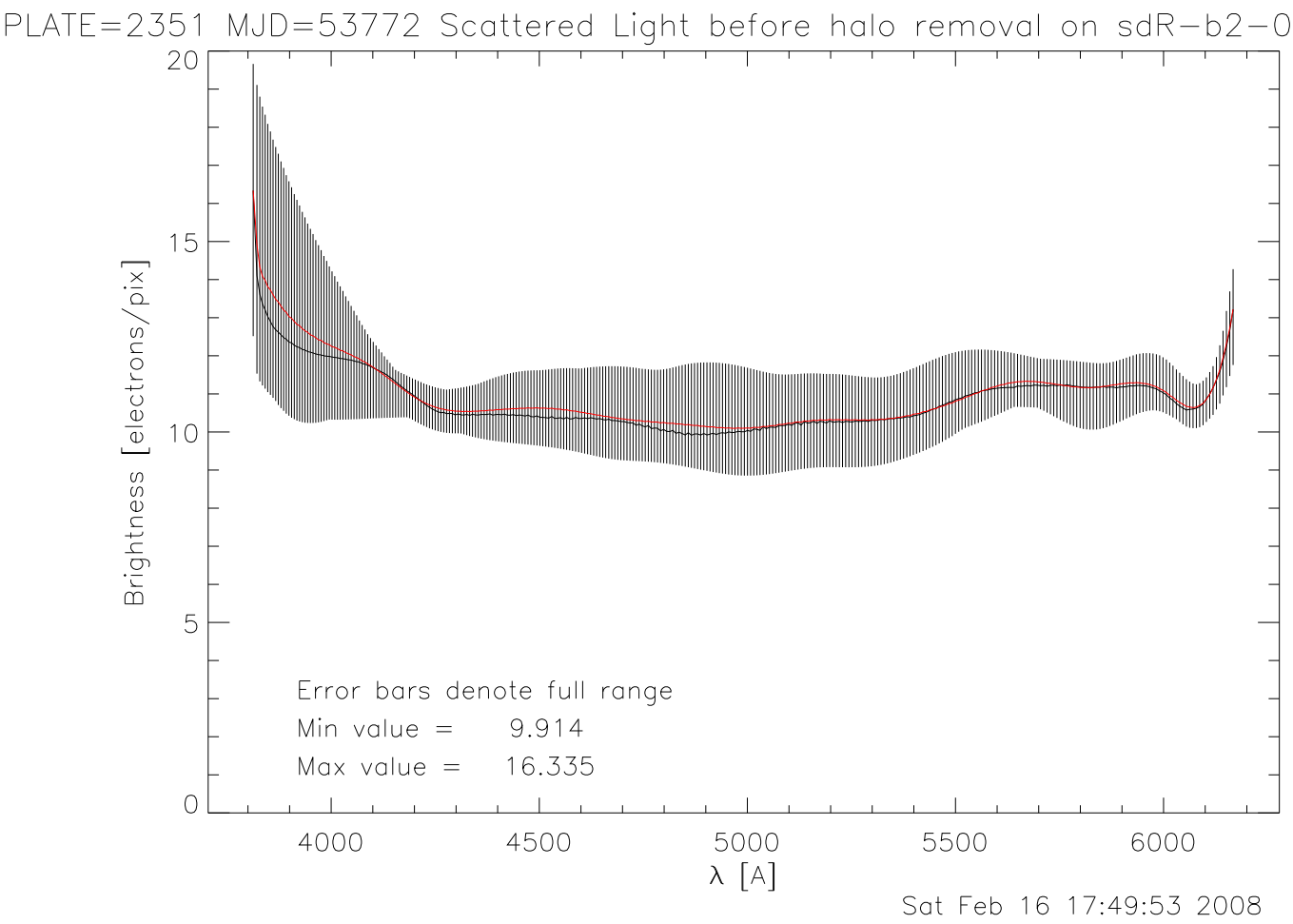

Number of sky fibers = 15
PLATE=2351 MJD=53772 sdR-b2-00037148.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

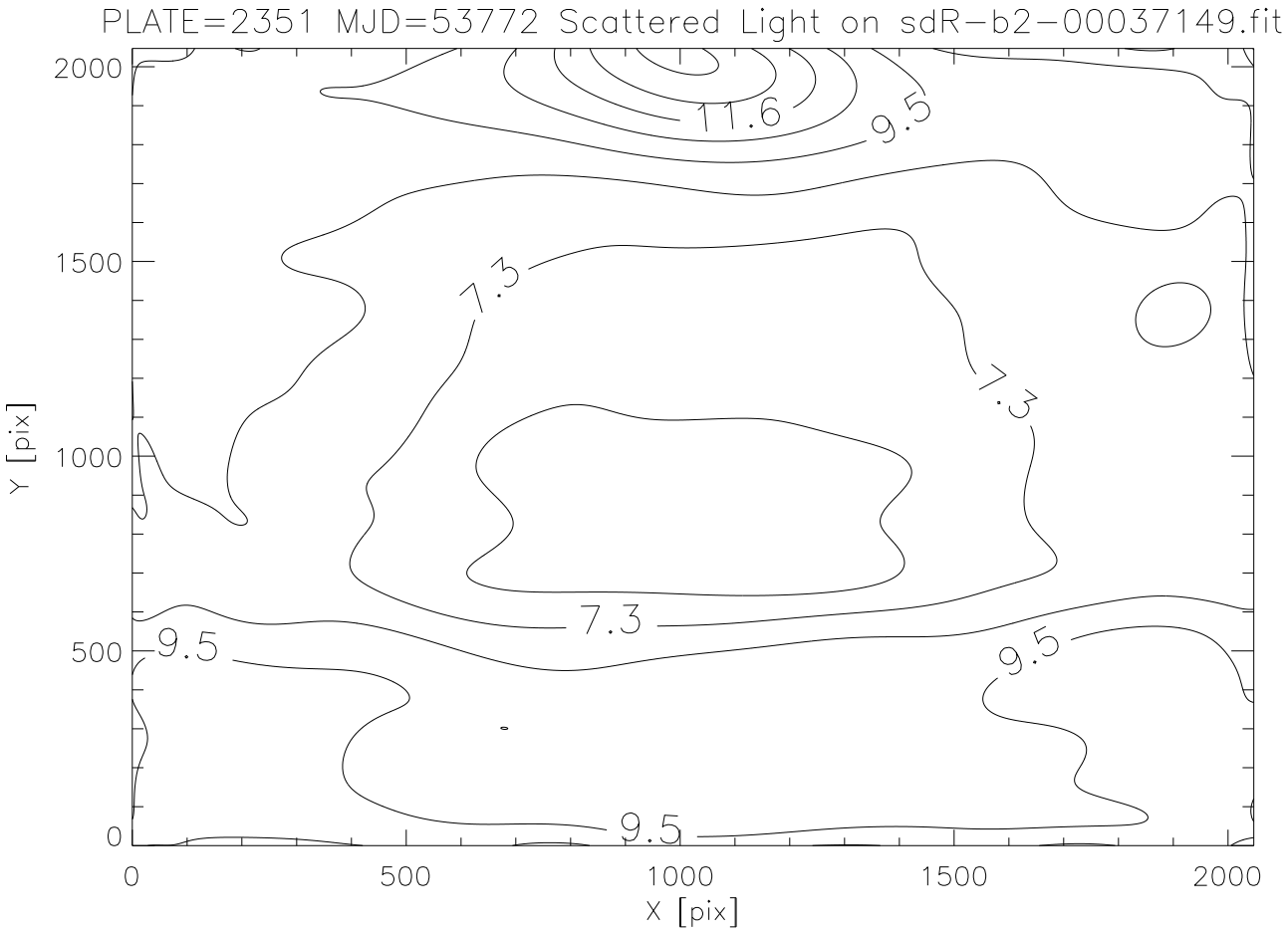

PLATE=2351 MJD=53772 sdR-b2-00037148.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 8.86 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

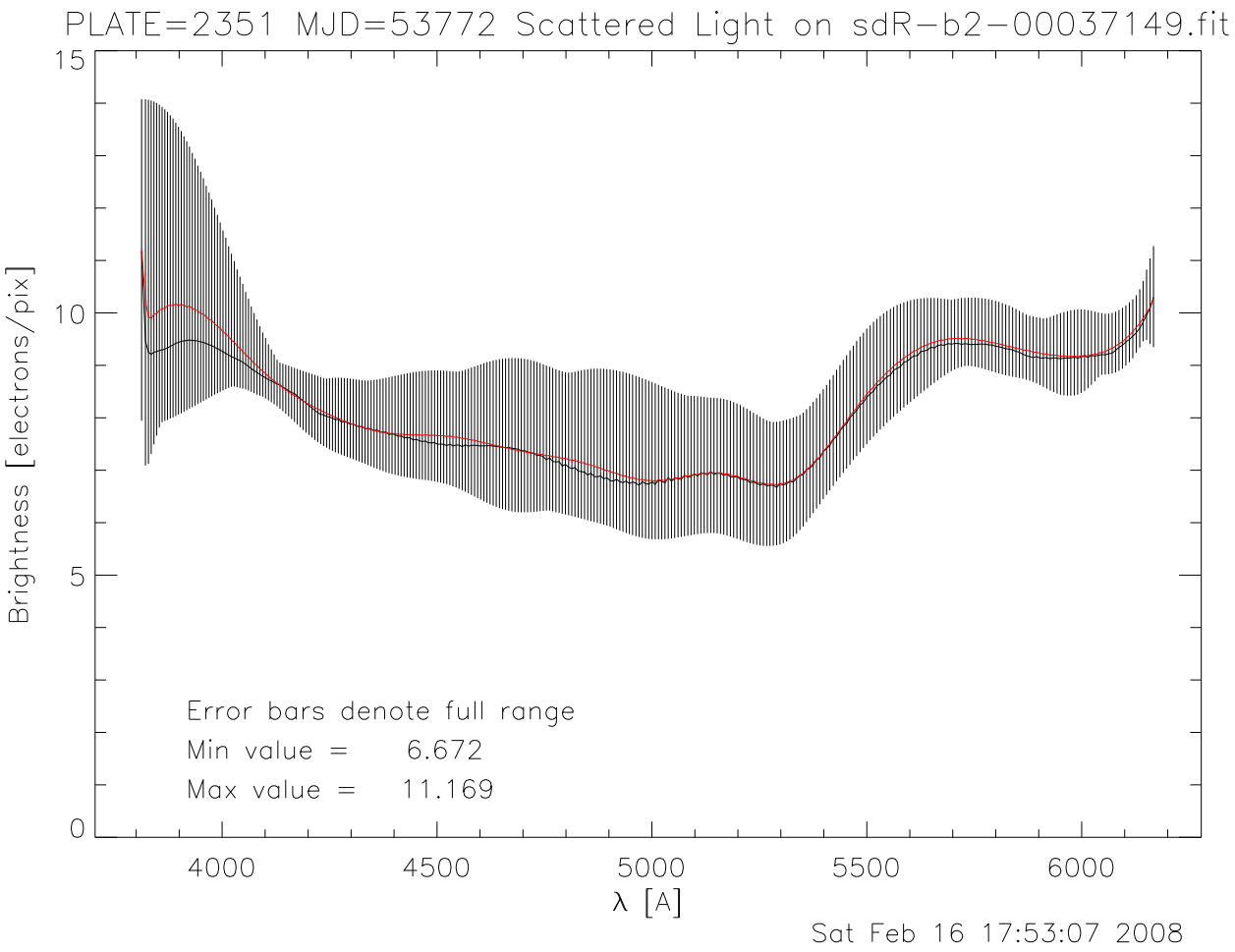

PLATE=2351 MJD=53772 sdR-b2-00037148.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 1.67 %
Fiber number
Focal Distance [mm]
Airmass

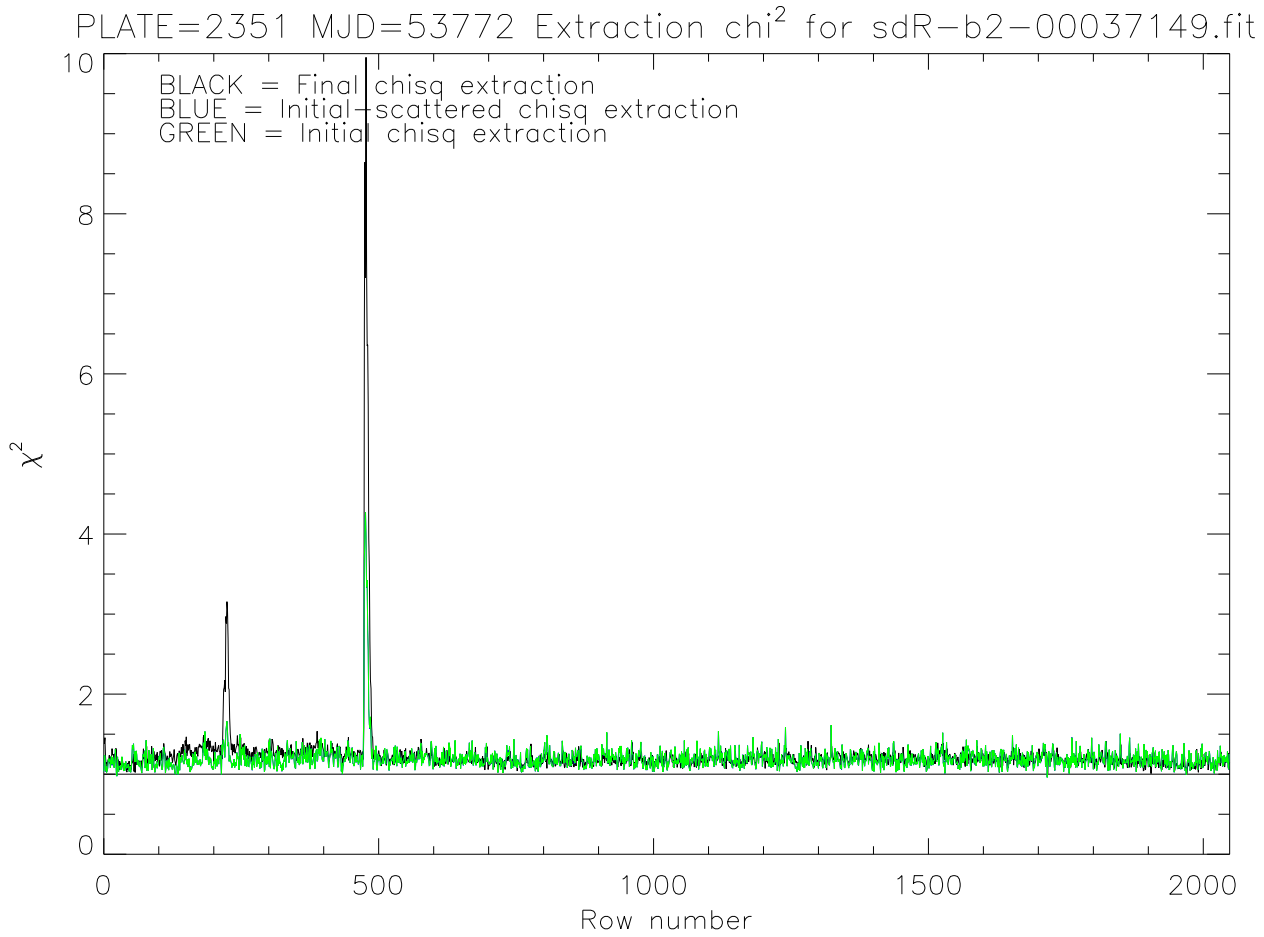

PLATE=2351 MJD=53772 Fiber−Flats for sdR−b2−00037155.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.391
Max value = 1.250
Fiber−Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Sat Feb 16 17:48:53 2008

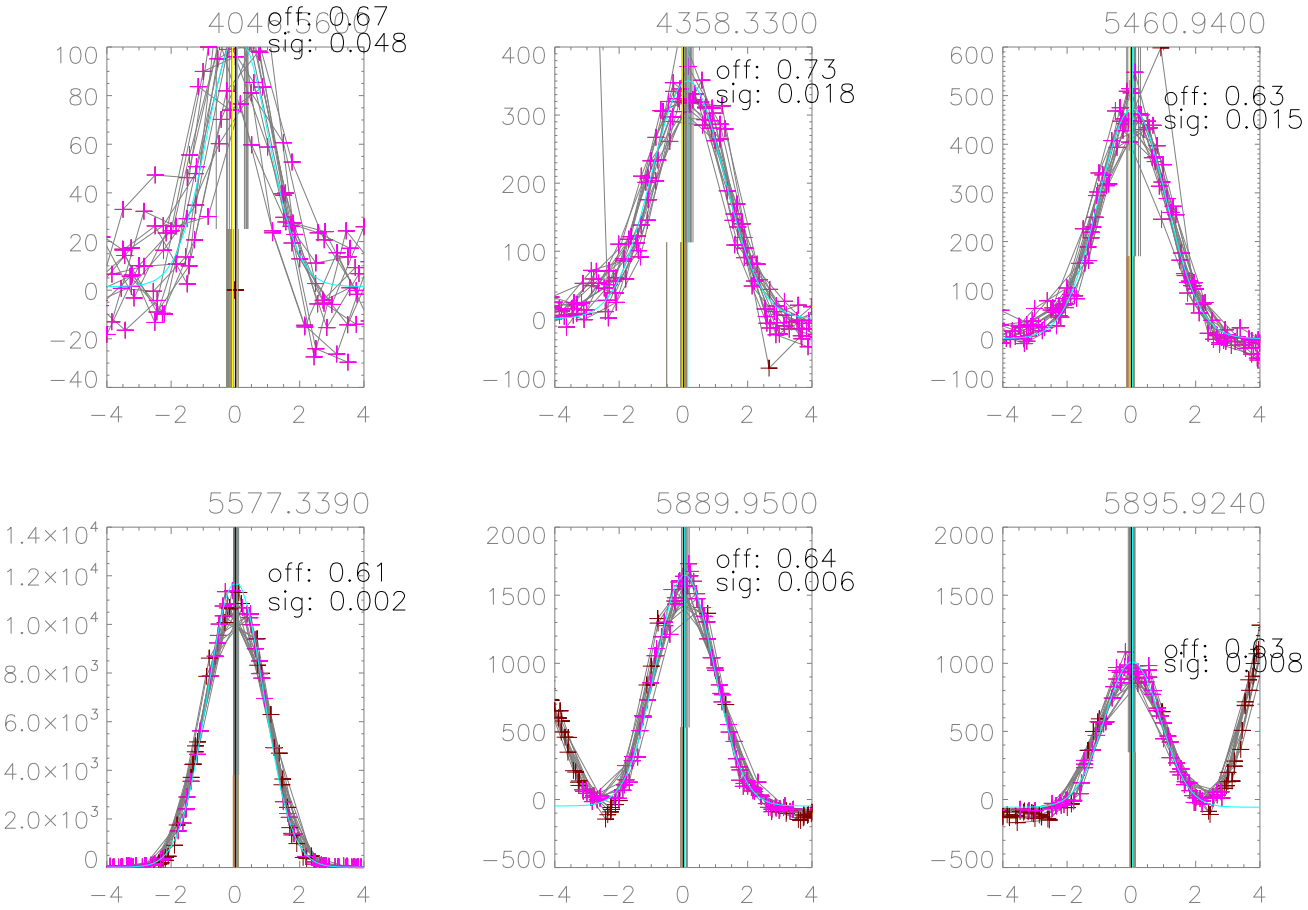

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR−b2−00037149.f
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
15.6
13.5
11.3
9.1

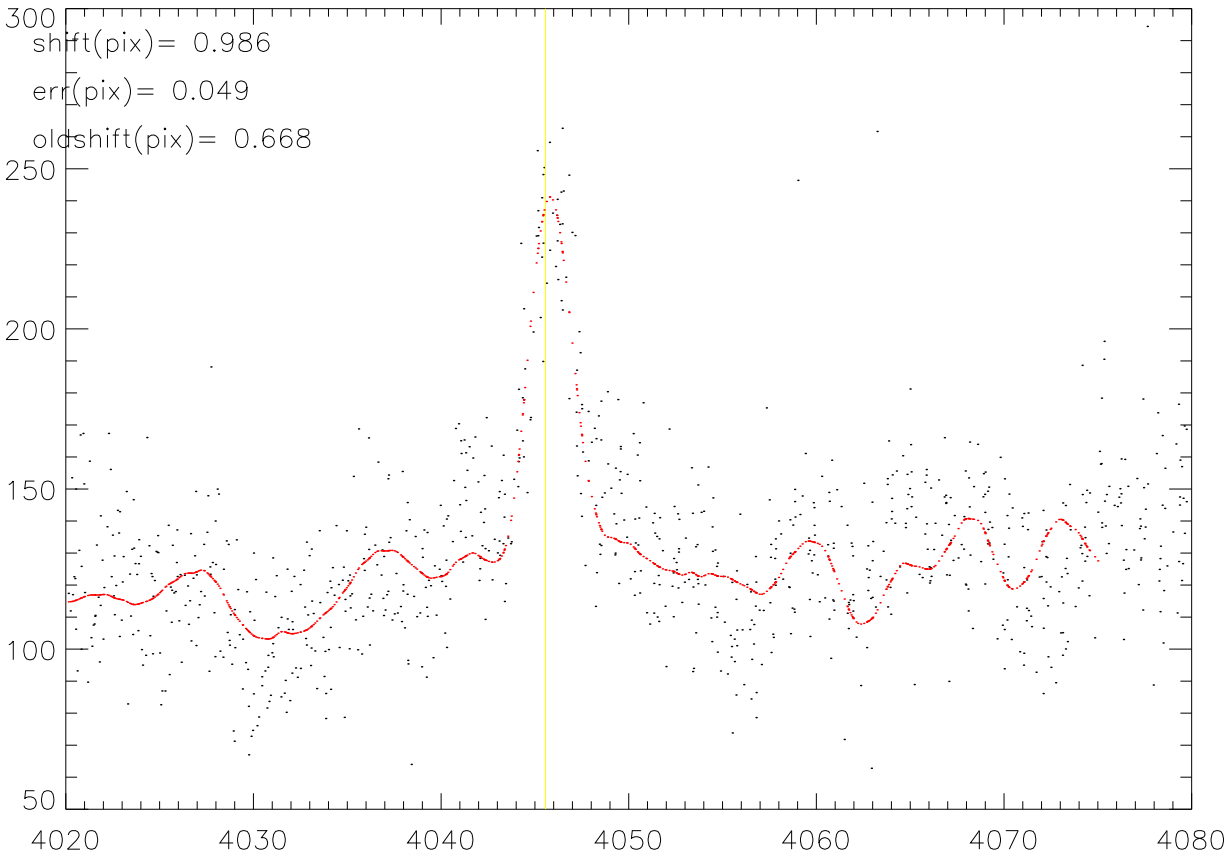

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR−b2−00037149.f
Brightness [electrons/pix]
20
15
10
5
0
Error bars denote full range
Min value = 9.914
Max value = 16.335
4000
4500
5000
5500
6000
λ [A]
Sat Feb 16 17:49:53 2008

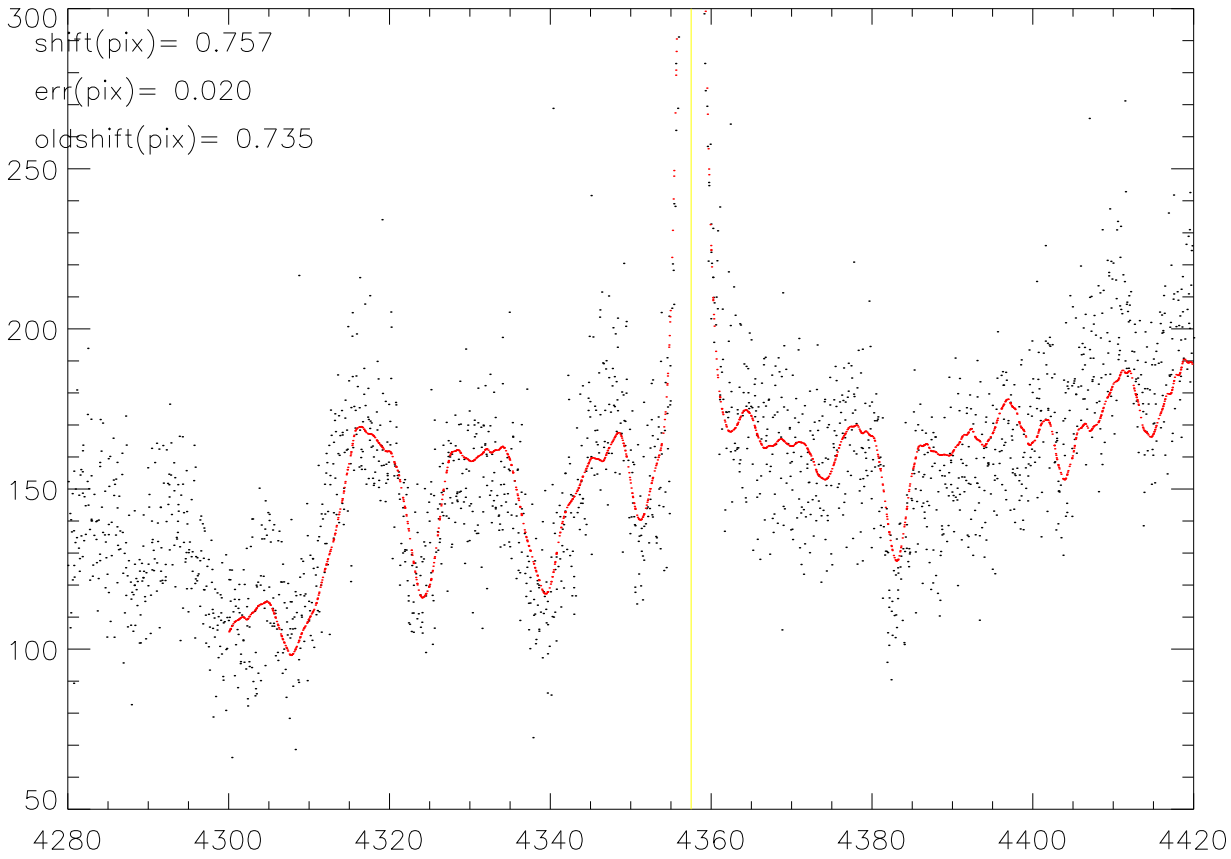

PLATE=2351 MJD=53772 Scattered Light on sdR-b2-00037149.fit
11.6
9.5
7.3
7.3
7.3
9.5
9.5
9.5
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]

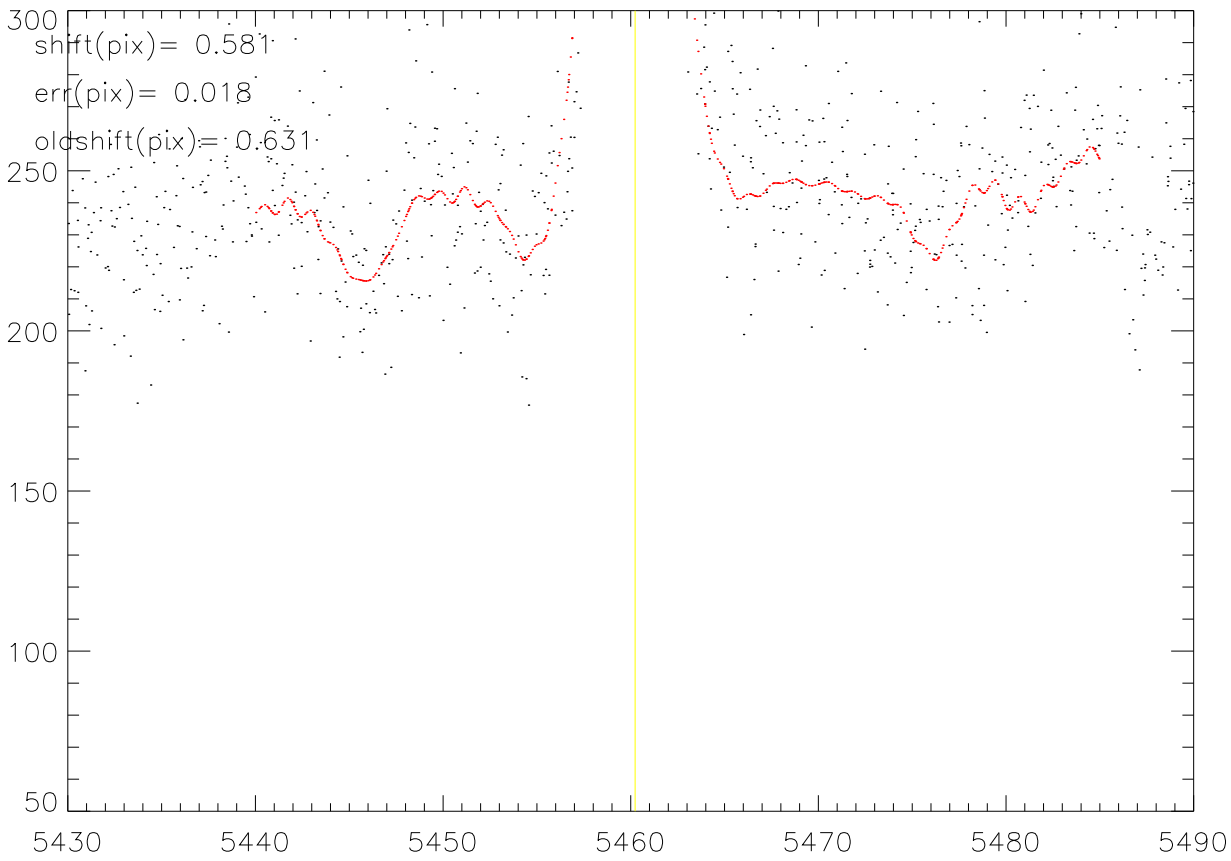

PLATE=2351 MJD=53772 Scattered Light on sdR-b2-00037149.fit
Brightness [electrons/pix]
15
10
5
0
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 6.672
Max value = 11.169
Sat Feb 16 17:53:07 2008

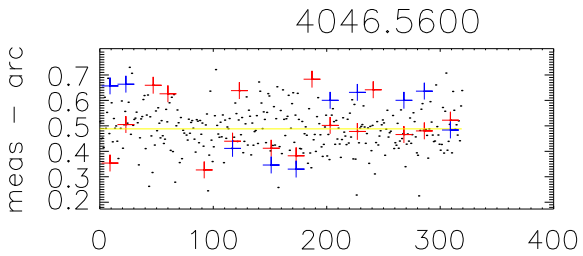

PLATE=2351 MJD=53772 Extraction chi^2 for sdR-b2-00037149.fit
BLACK = Final chisq extraction
BLUE = Initial+scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
2
4
6
8
10
0
500
1000
1500
2000

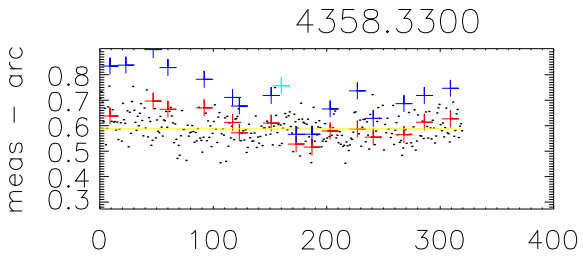

4046.5600
off: 0.67
sig: 0.048
4358.3300
off: 0.73
sig: 0.018
5460.9400
off: 0.63
sig: 0.015
5577.3390
off: 0.61
sig: 0.002
5889.9500
off: 0.64
sig: 0.006
5895.9240
off: 0.63
sig: 0.008

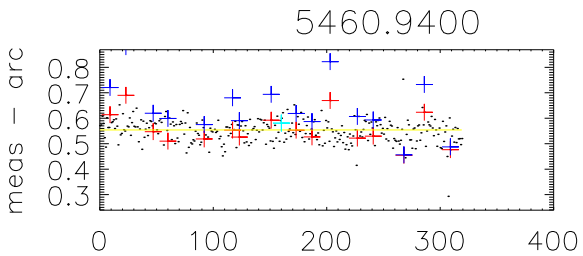

shift(pix)= 0.986
err(pix)= 0.049
oldshift(pix)= 0.668
300
250
200
150
100
50
4020
4030
4040
4050
4060
4070
4080

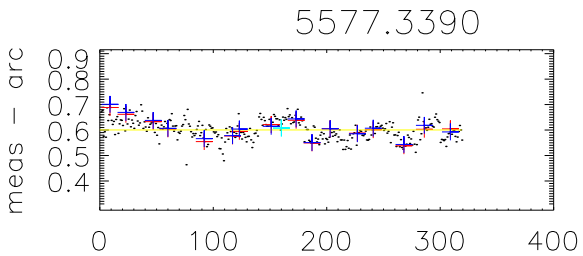

shift(pix)= 0.757
err(pix)= 0.020
oldshift(pix)= 0.735
300
250
200
150
100
50
4280
4300
4320
4340
4360
4380
4400
4420

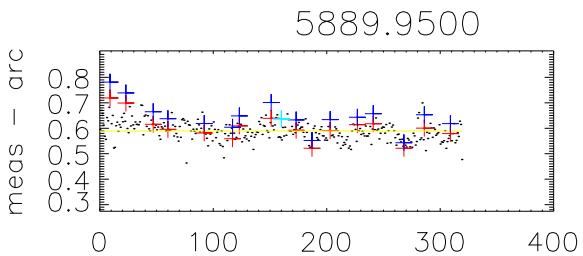

shift(pix)= 0.581
err(pix)= 0.018
oldshift(pix)= 0.631
300
250
200
150
100
50
5430
5440
5450
5460
5470
5480
5490

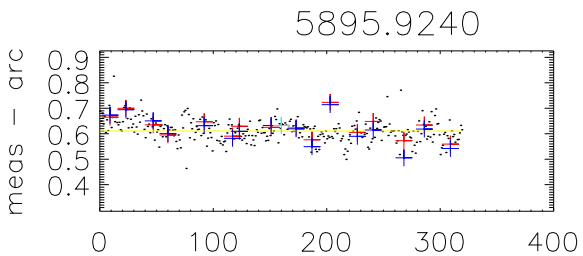

4046.5600
meas − arc
0.7
0.6
0.5
0.4
0.3
0.2
0
100
200
300
400

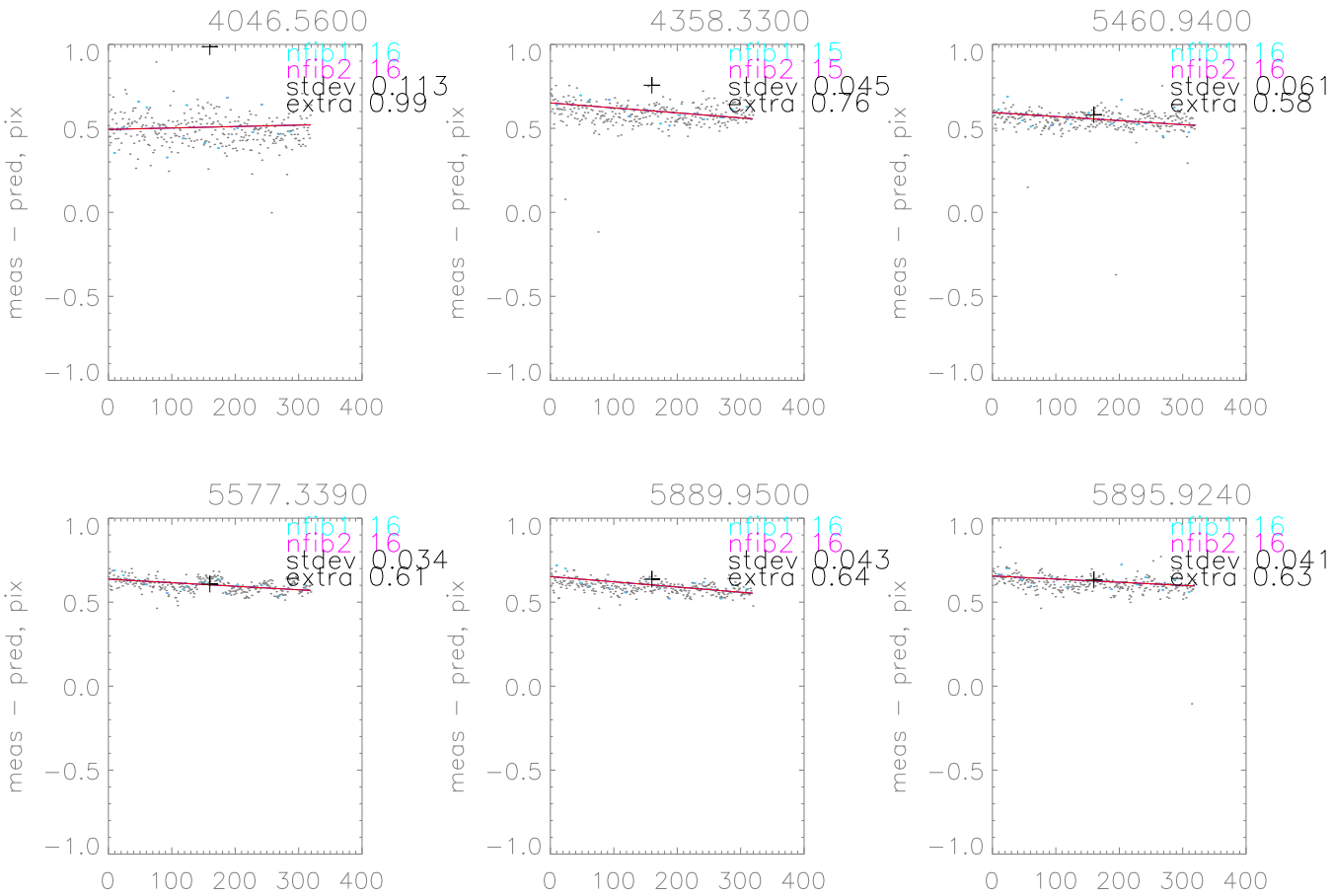

4358.3300
meas − arc
0.8
0.7
0.6
0.5
0.4
0.3
0
100
200
300
400

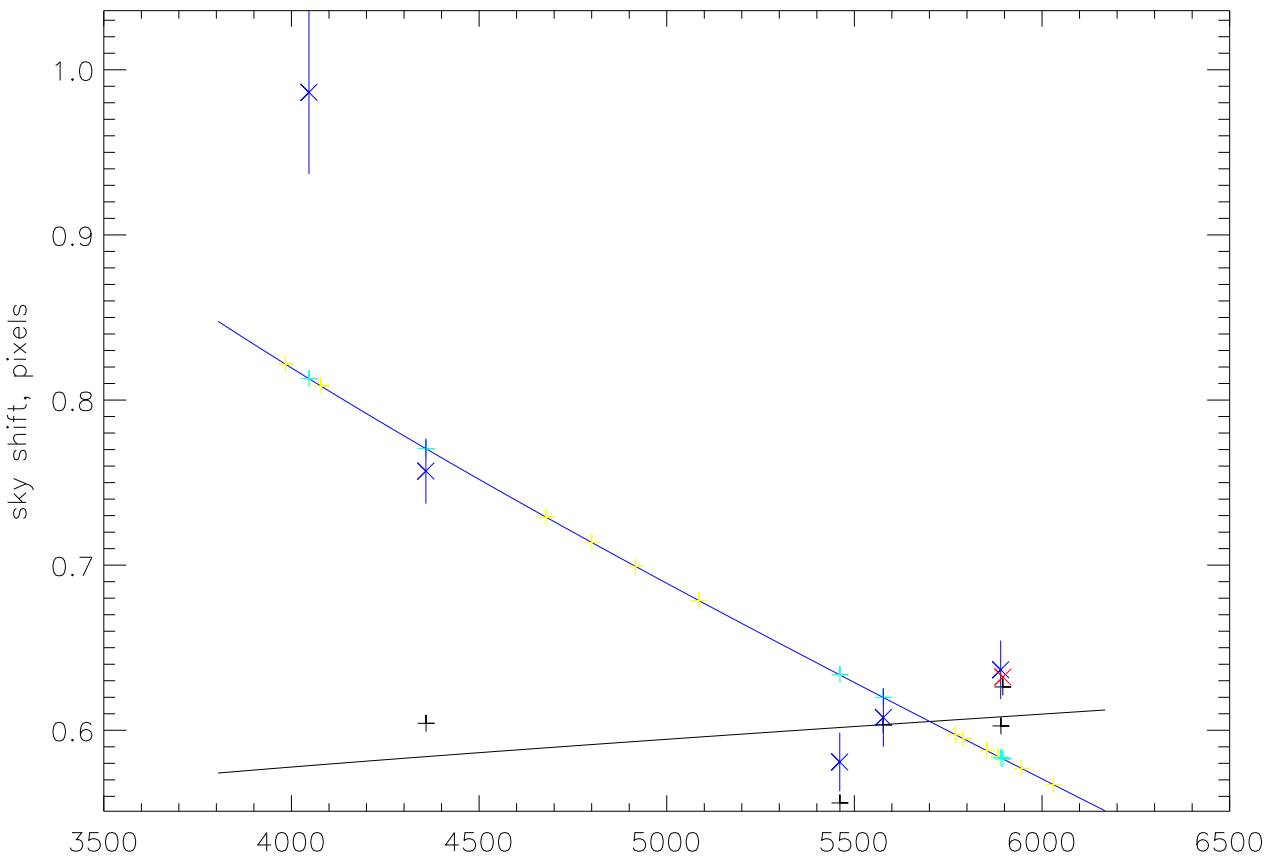

5460.9400
meas − arc
0.8
0.7
0.6
0.5
0.4
0.3
0
100
200
300
400

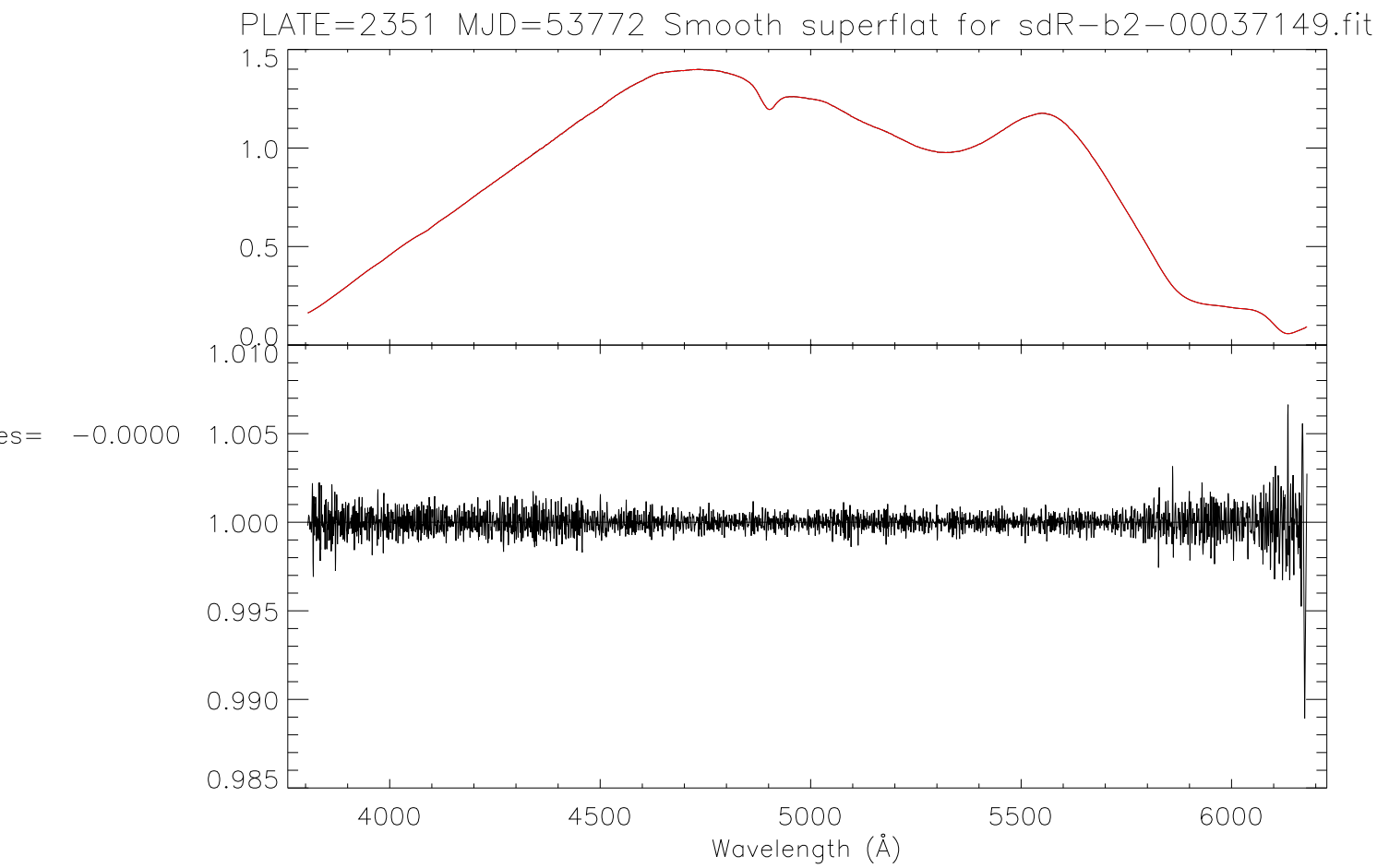

5577.3390
meas − arc
0.9
0.8
0.7
0.6
0.5
0.4
0
100
200
300
400

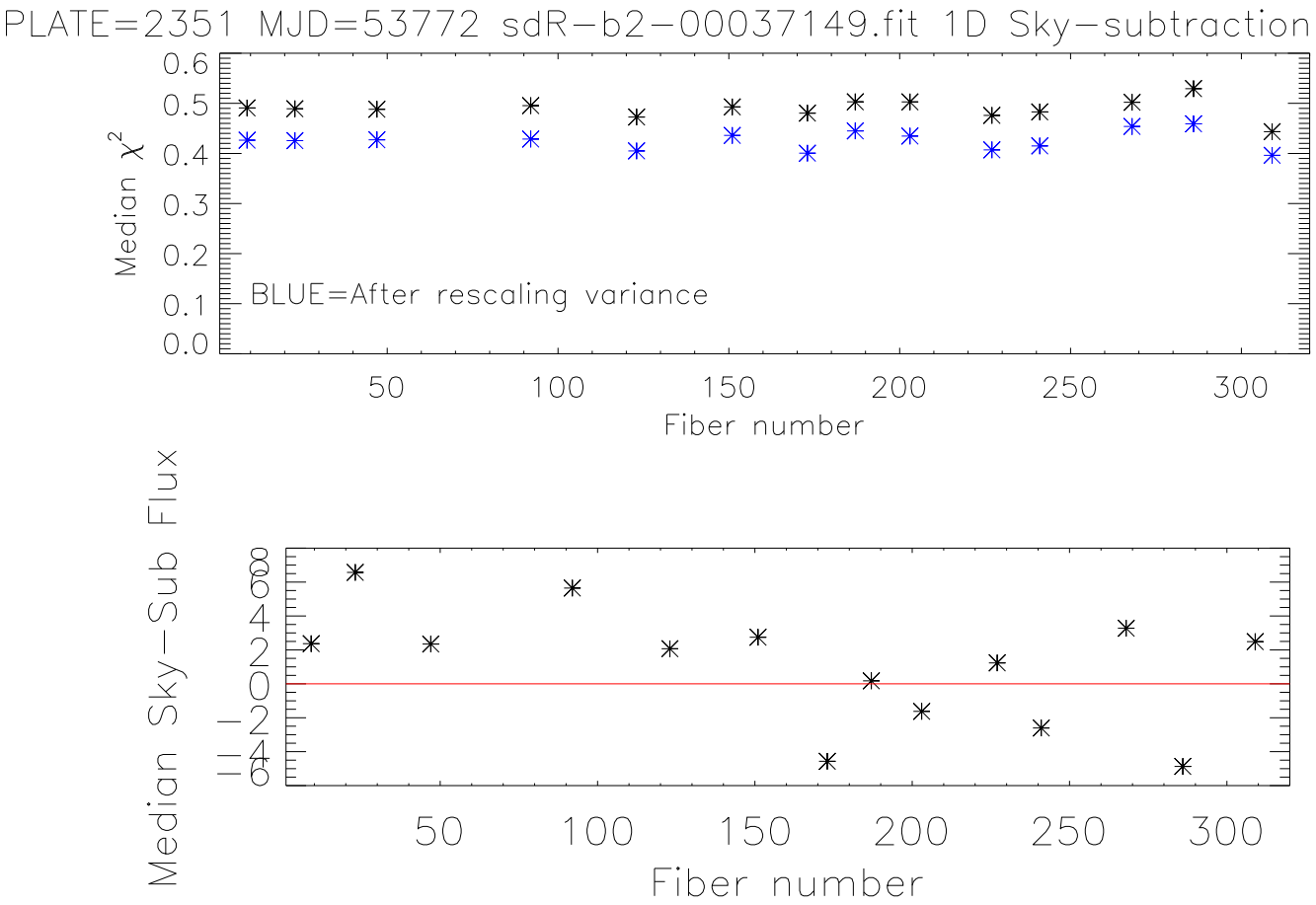

5889.9500
meas − arc
0.8
0.7
0.6
0.5
0.4
0.3
0
100
200
300
400

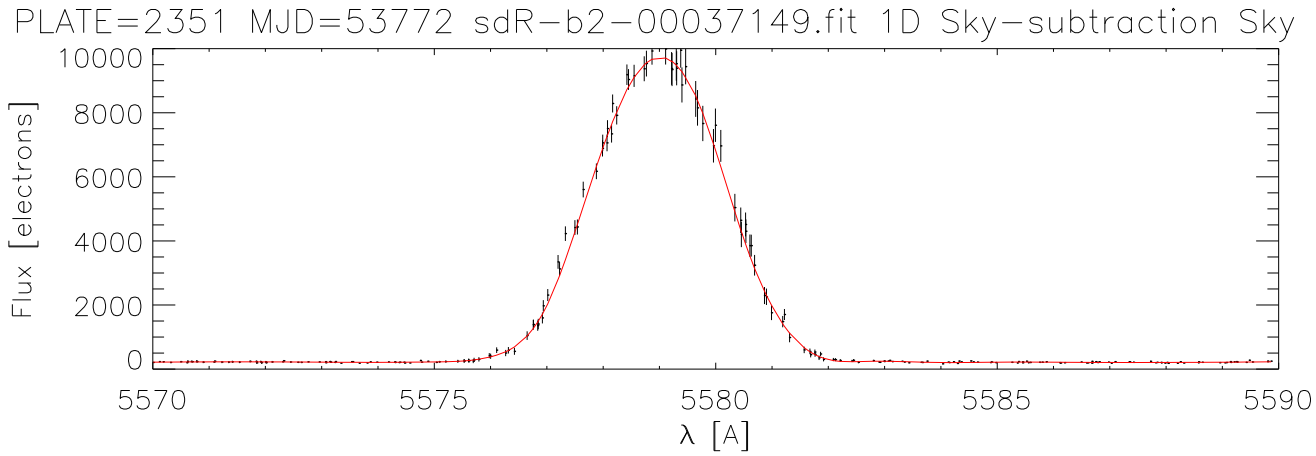

5895.9240
meas − arc
0.9
0.8
0.7
0.6
0.5
0.4
0
100
200
300
400

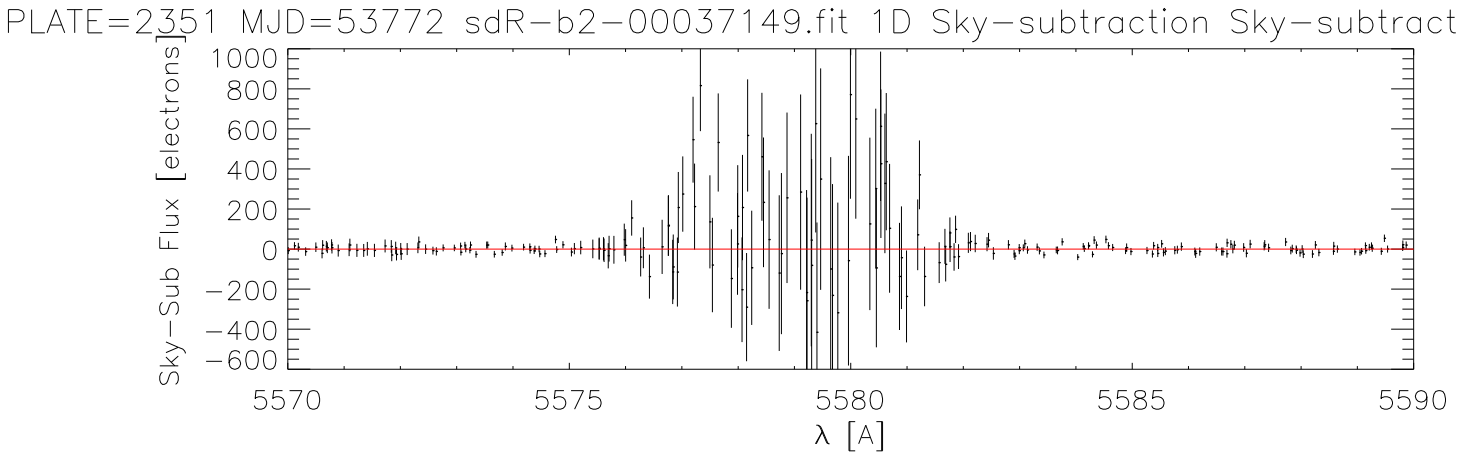

4046.5600
nfib1 16
nfib2 16
stdev 0.113
extra 0.99
4358.3300
nfib1 15
nfib2 15
stdev 0.045
extra 0.76
5460.9400
nfib1 16
nfib2 16
stdev 0.061
extra 0.58
5577.3390
nfib1 16
nfib2 16
stdev 0.034
extra 0.61
5889.9500
nfib1 16
nfib2 16
stdev 0.043
extra 0.64
5895.9240
nfib1 16
nfib2 16
stdev 0.041
extra 0.63
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

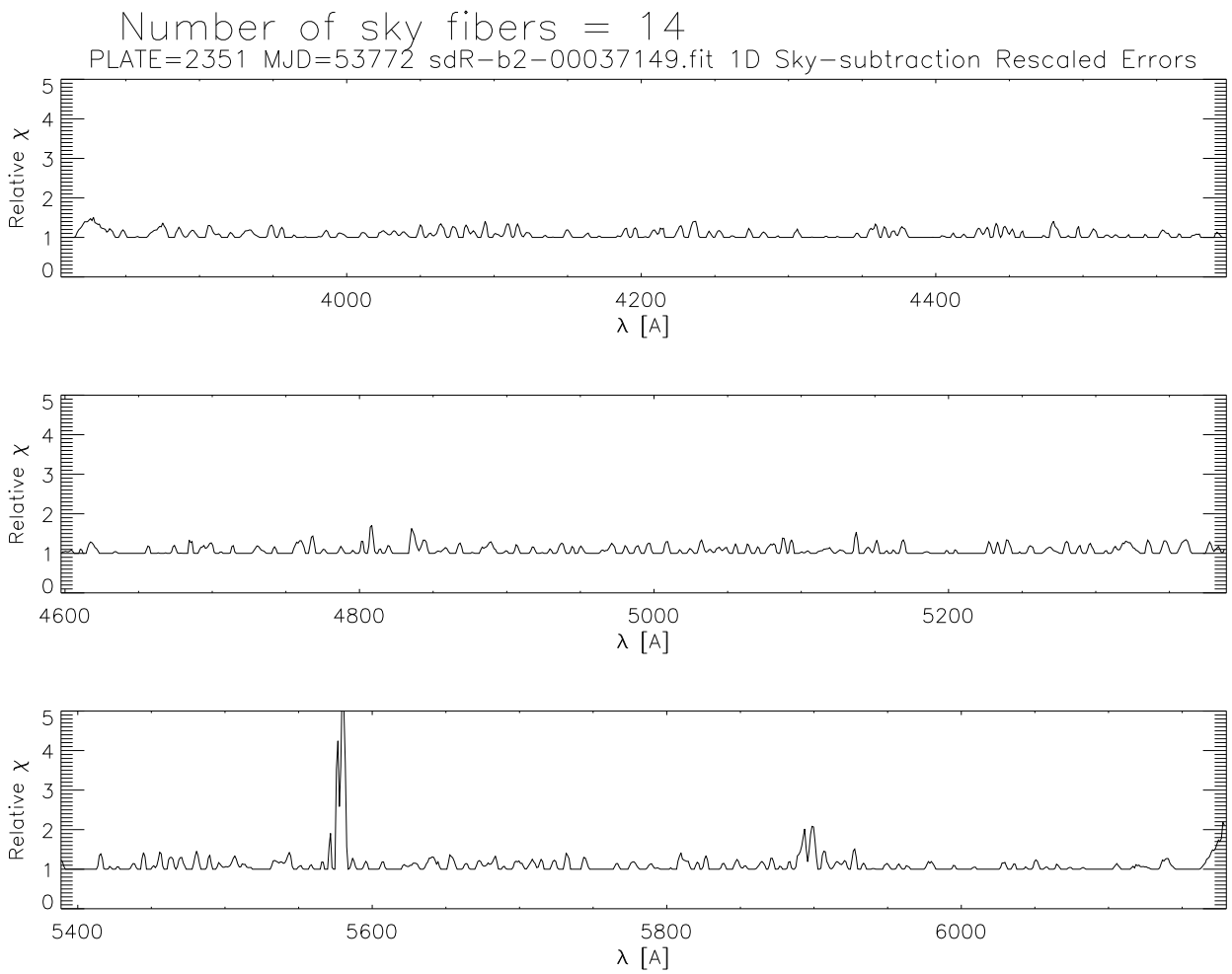

sky shift, pixels
1.0
0.9
0.8
0.7
0.6
3500
4000
4500
5000
5500
6000
6500

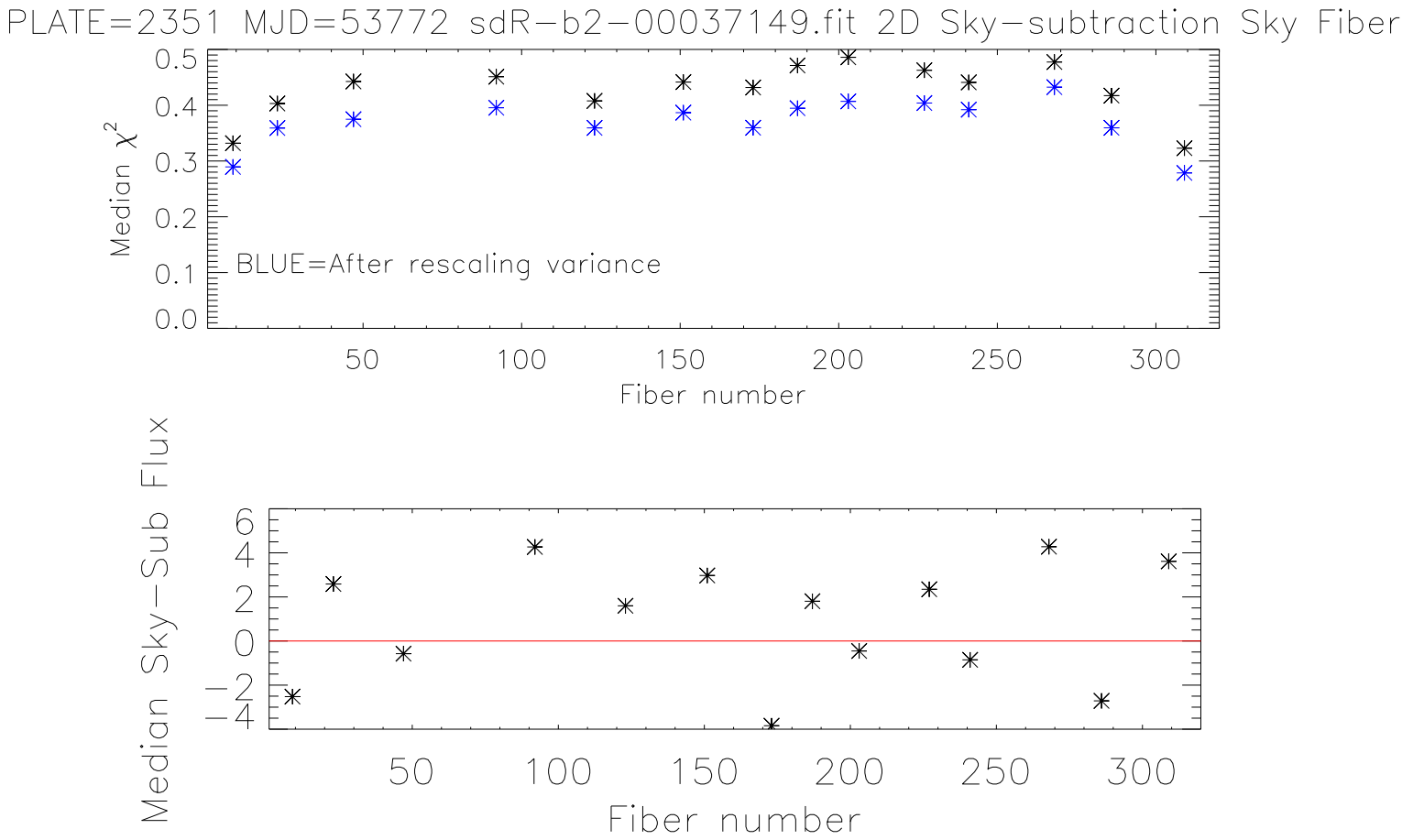

PLATE=2351 MJD=53772 Smooth superflat for sdR-b2-00037149.fit
1.5
1.0
0.5
0.0
es= -0.0000
1.010
1.005
1.000
0.995
0.990
0.985
4000
4500
5000
5500
6000
Wavelength (Å)

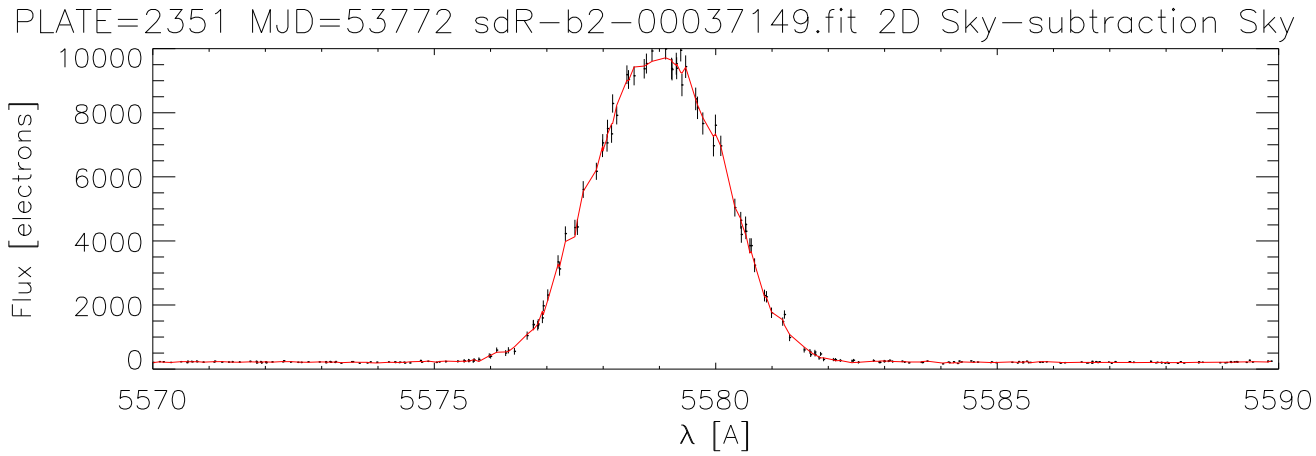

PLATE=2351 MJD=53772 sdR-b2-00037149.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-6
-4
-2
0
2
4
6
8
50
100
150
200
250
300
Fiber number

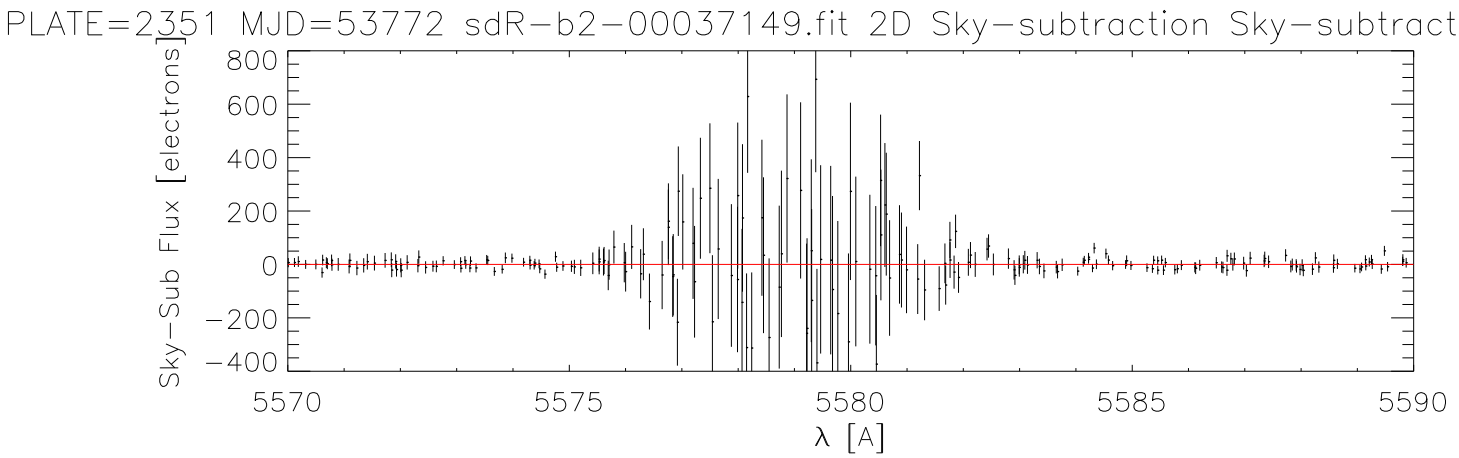

PLATE=2351 MJD=53772 sdR-b2-00037149.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
10000
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

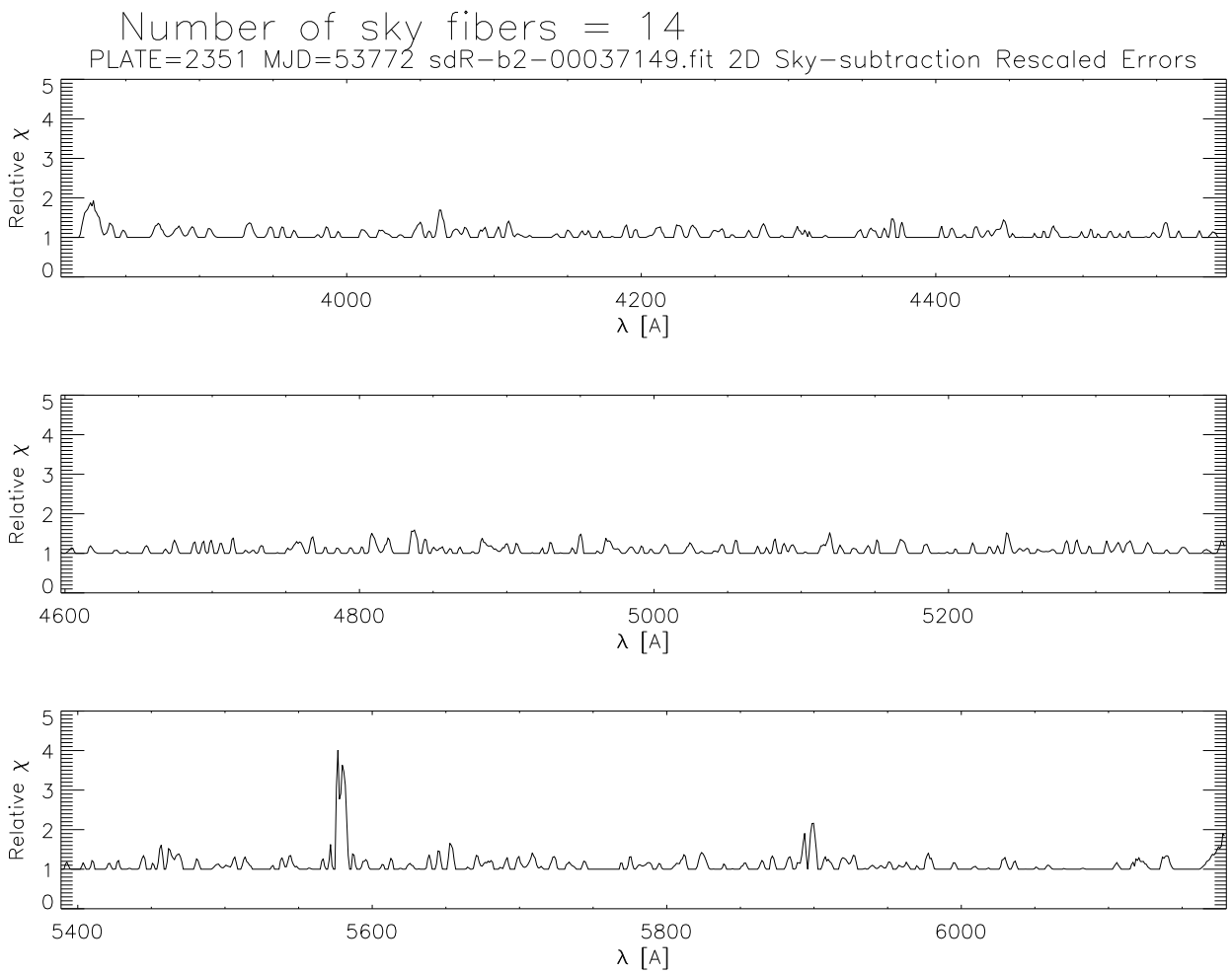

PLATE=2351 MJD=53772 sdR-b2-00037149.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
1000
800
600
400
200
0
-200
-400
-600
5570
5575
5580
5585
5590
λ [A]

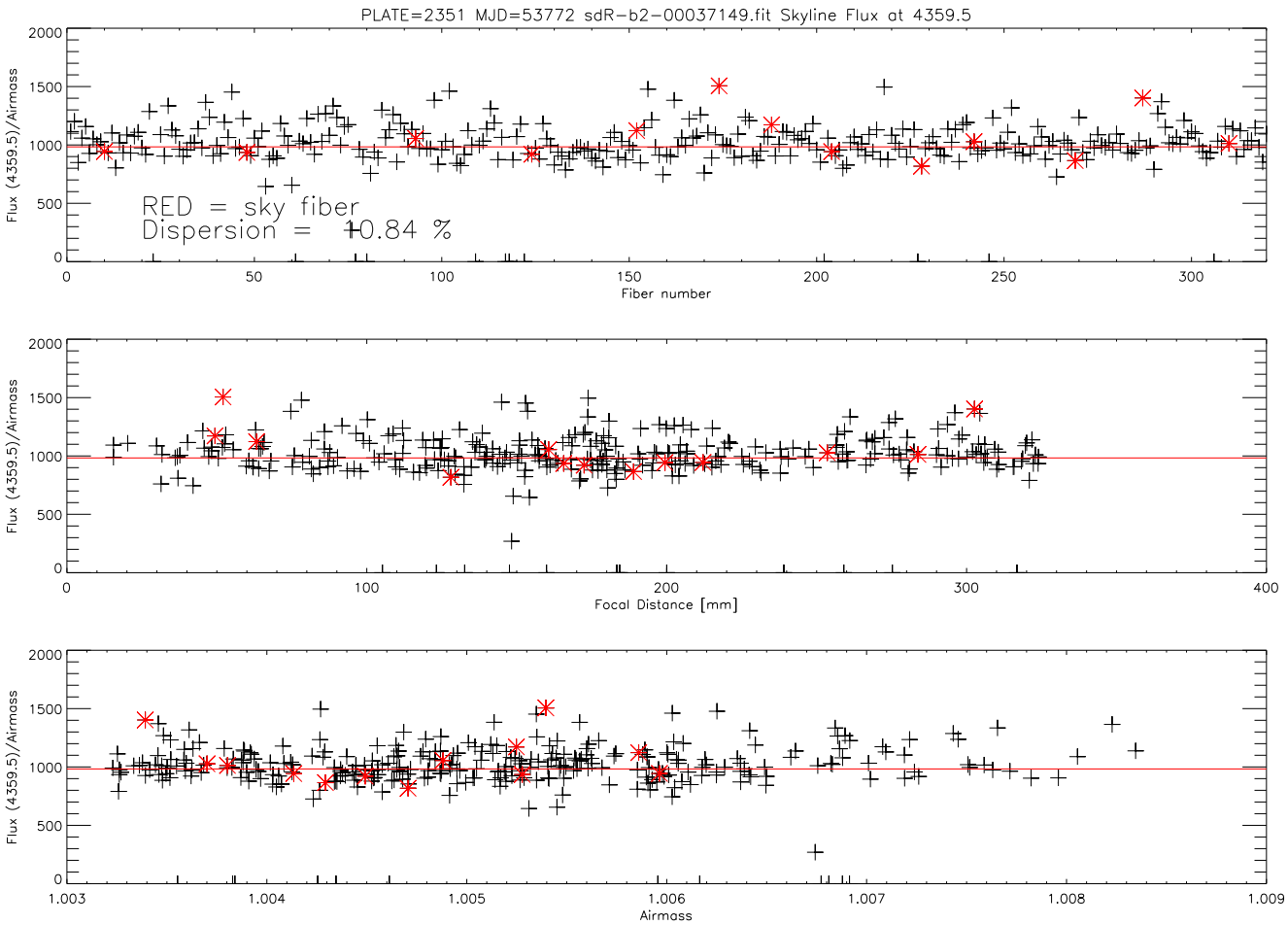

Number of sky fibers = 14
PLATE=2351 MJD=53772 sdR-b2-00037149.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

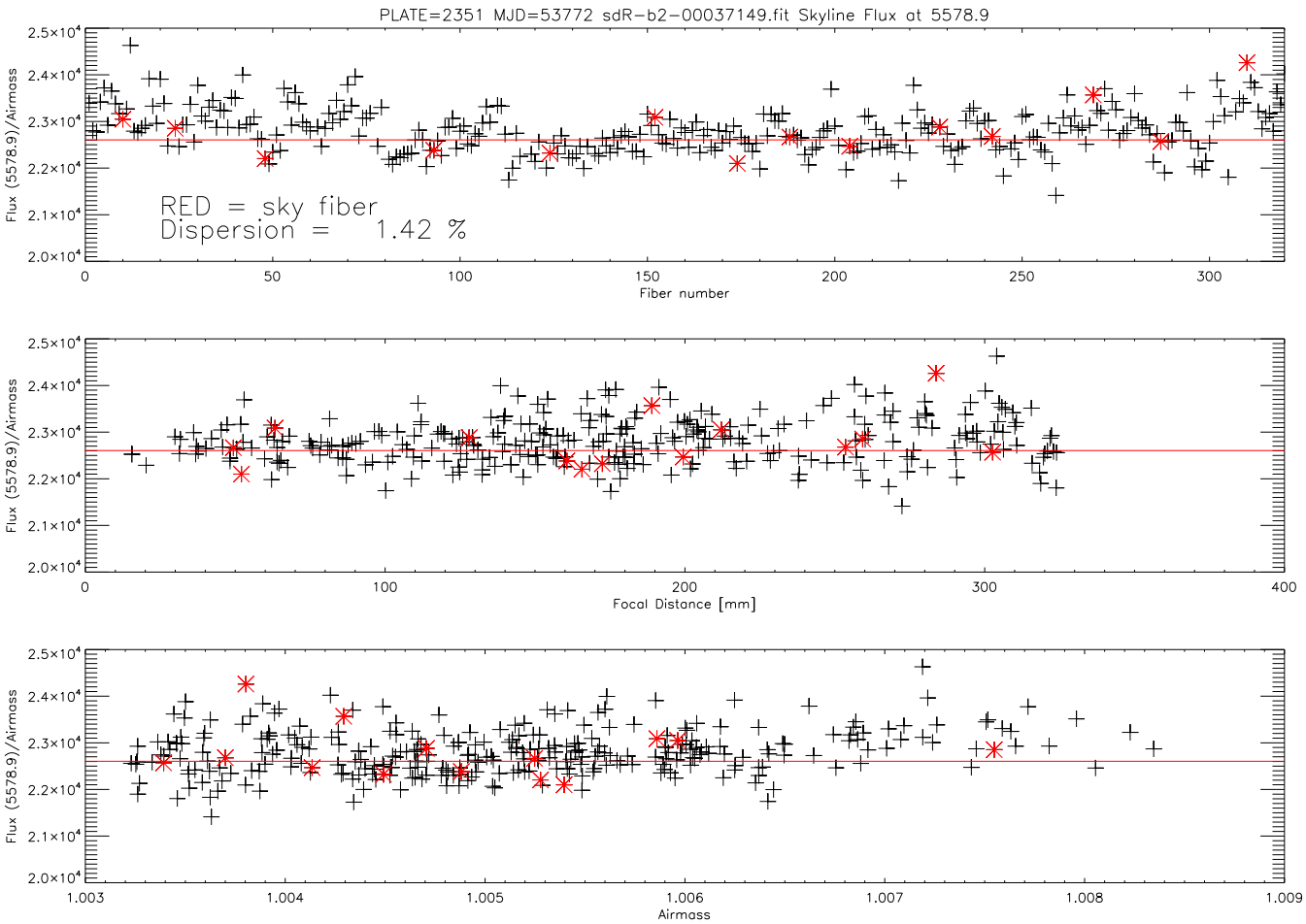

PLATE=2351 MJD=53772 sdR-b2-00037149.fit 2D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-4
-2
0
2
4
6
50
100
150
200
250
300
Fiber number

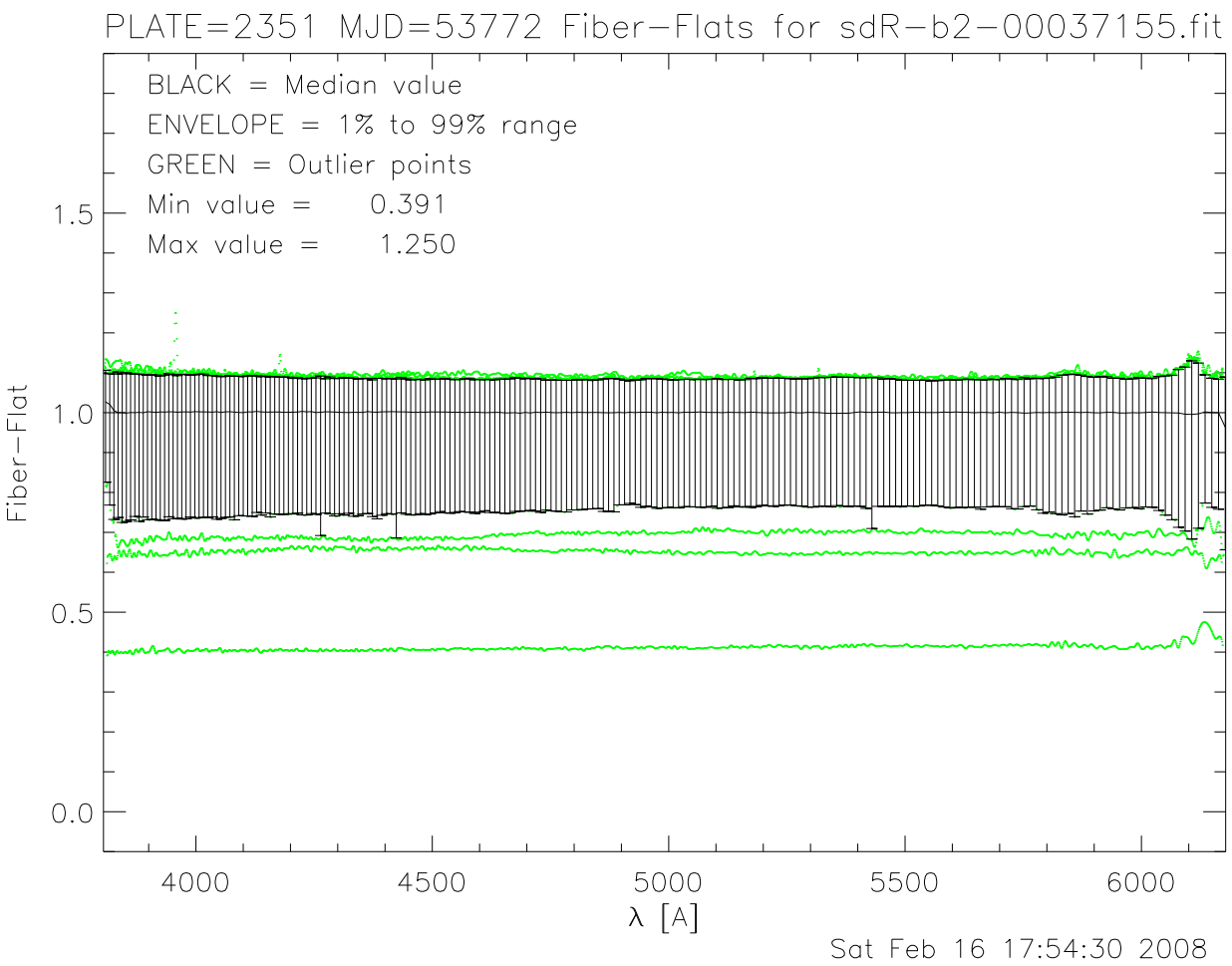

PLATE=2351 MJD=53772 sdR-b2-00037149.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
10000
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

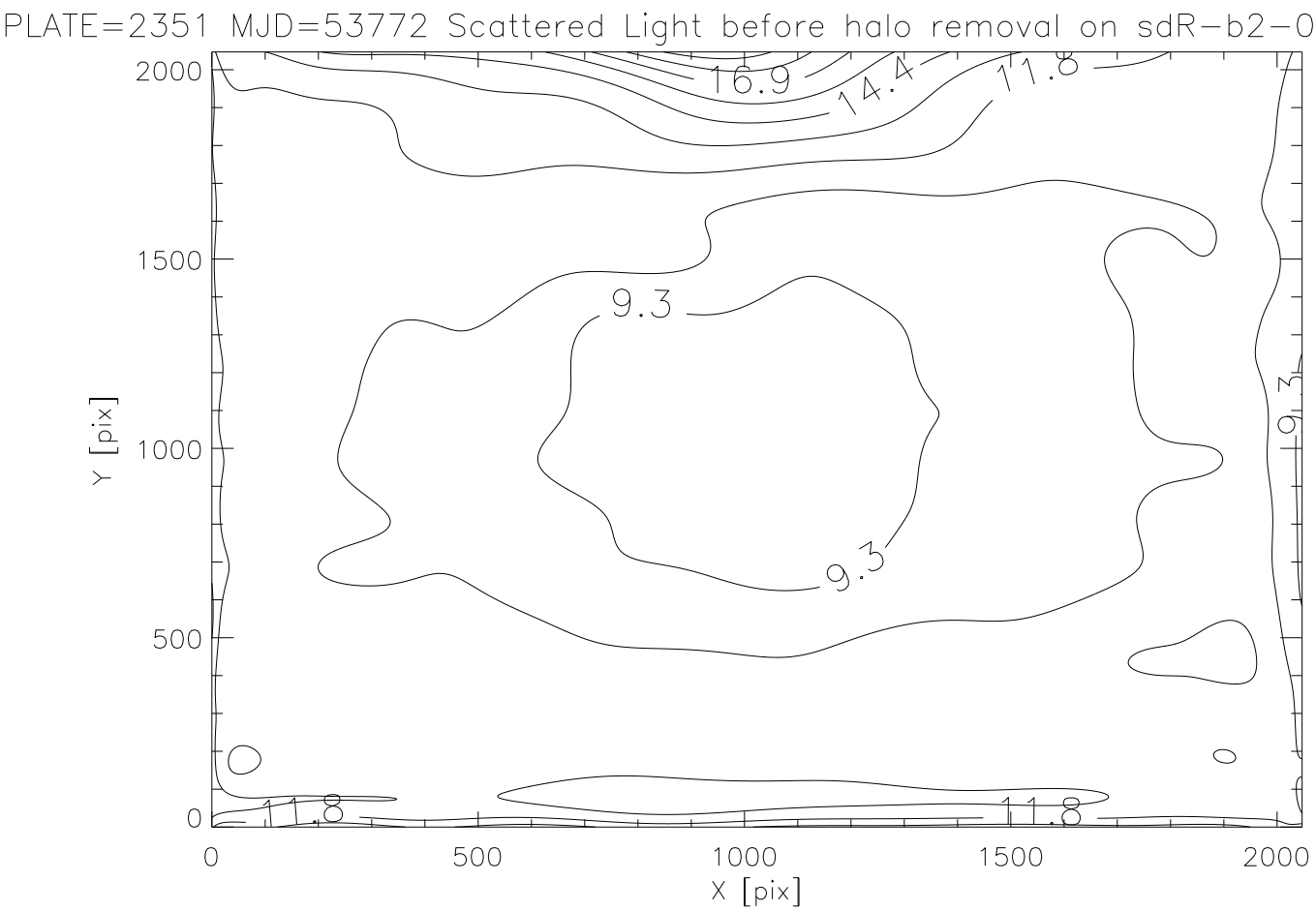

PLATE=2351 MJD=53772 sdR-b2-00037149.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
800
600
400
200
0
−200
−400
5570
5575
5580
5585
5590
λ [A]

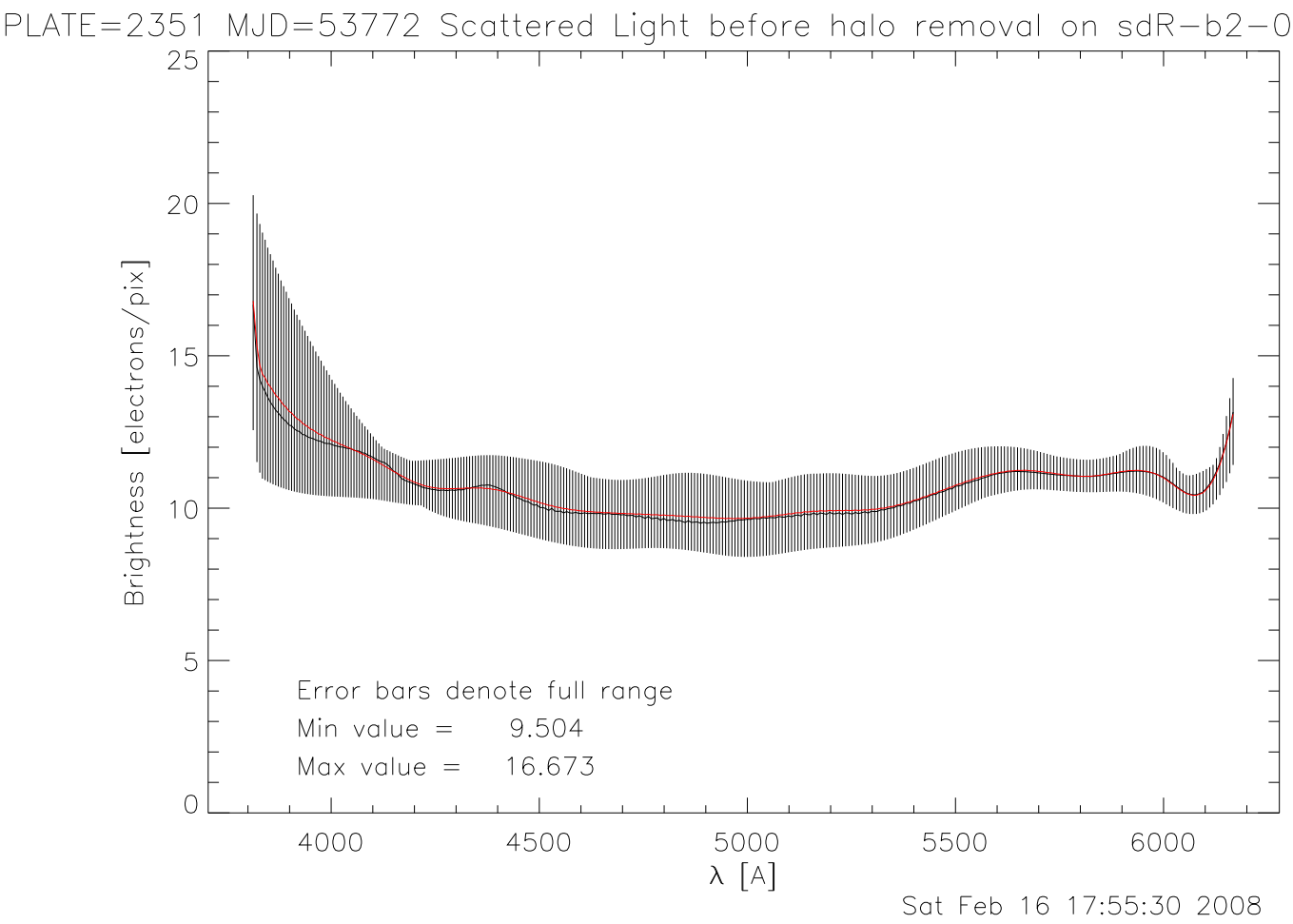

Number of sky fibers = 14
PLATE=2351 MJD=53772 sdR-b2-00037149.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

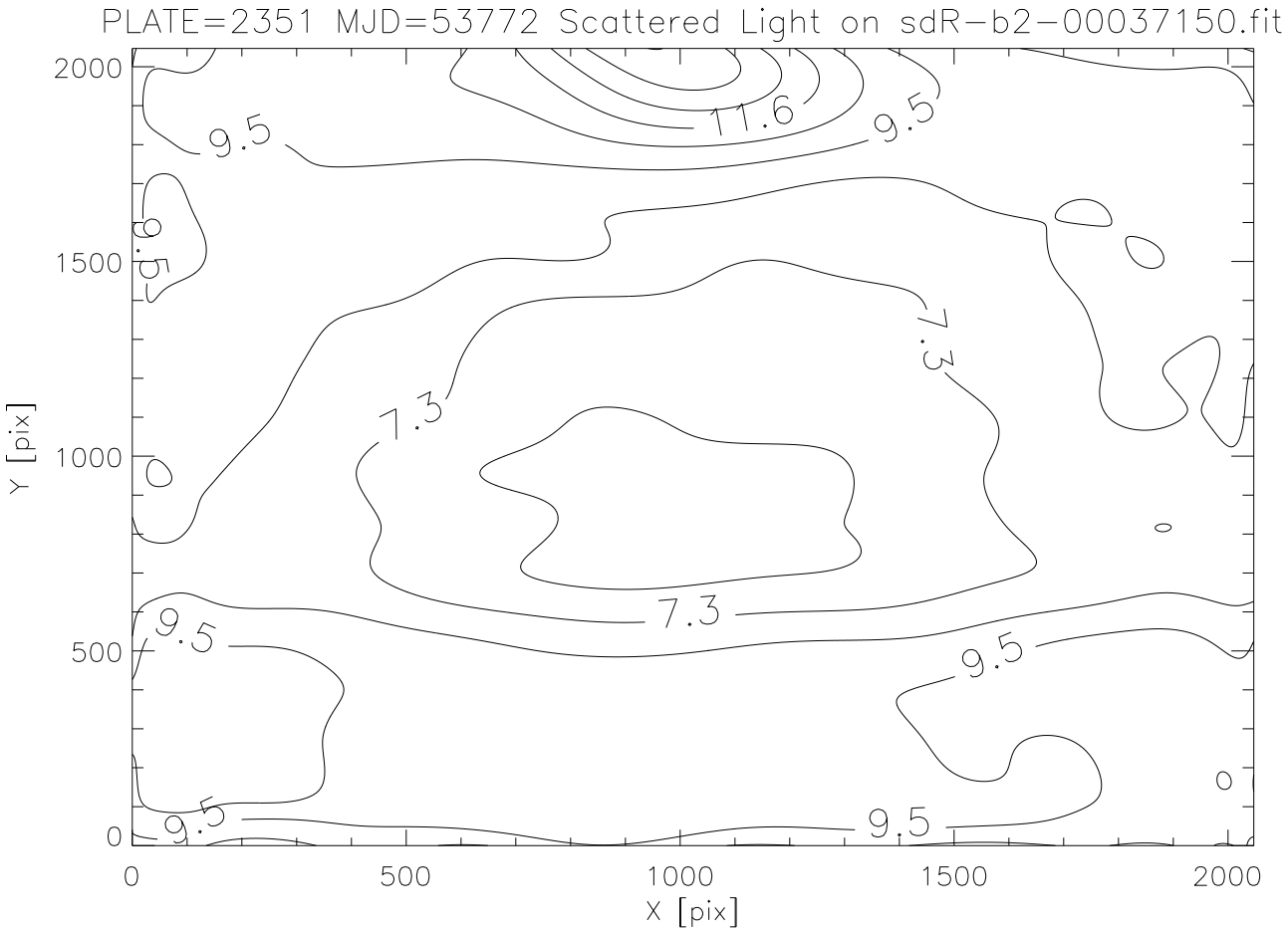

PLATE=2351 MJD=53772 sdR-b2-00037149.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
Fiber number
RED = sky fiber
Dispersion = 10.84 %
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

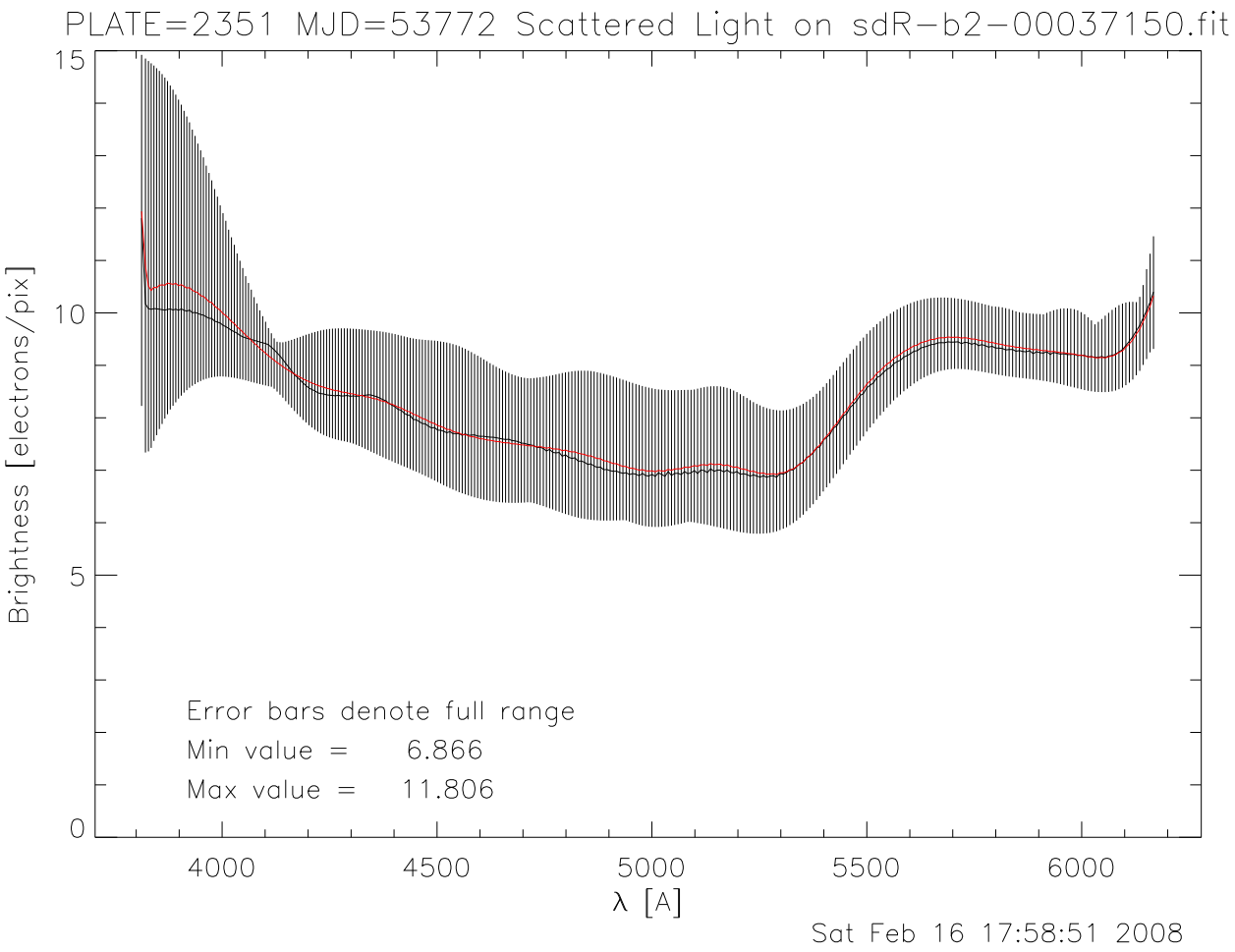

PLATE=2351 MJD=53772 sdR-b2-00037149.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 1.42 %
Fiber number
Focal Distance [mm]
Airmass

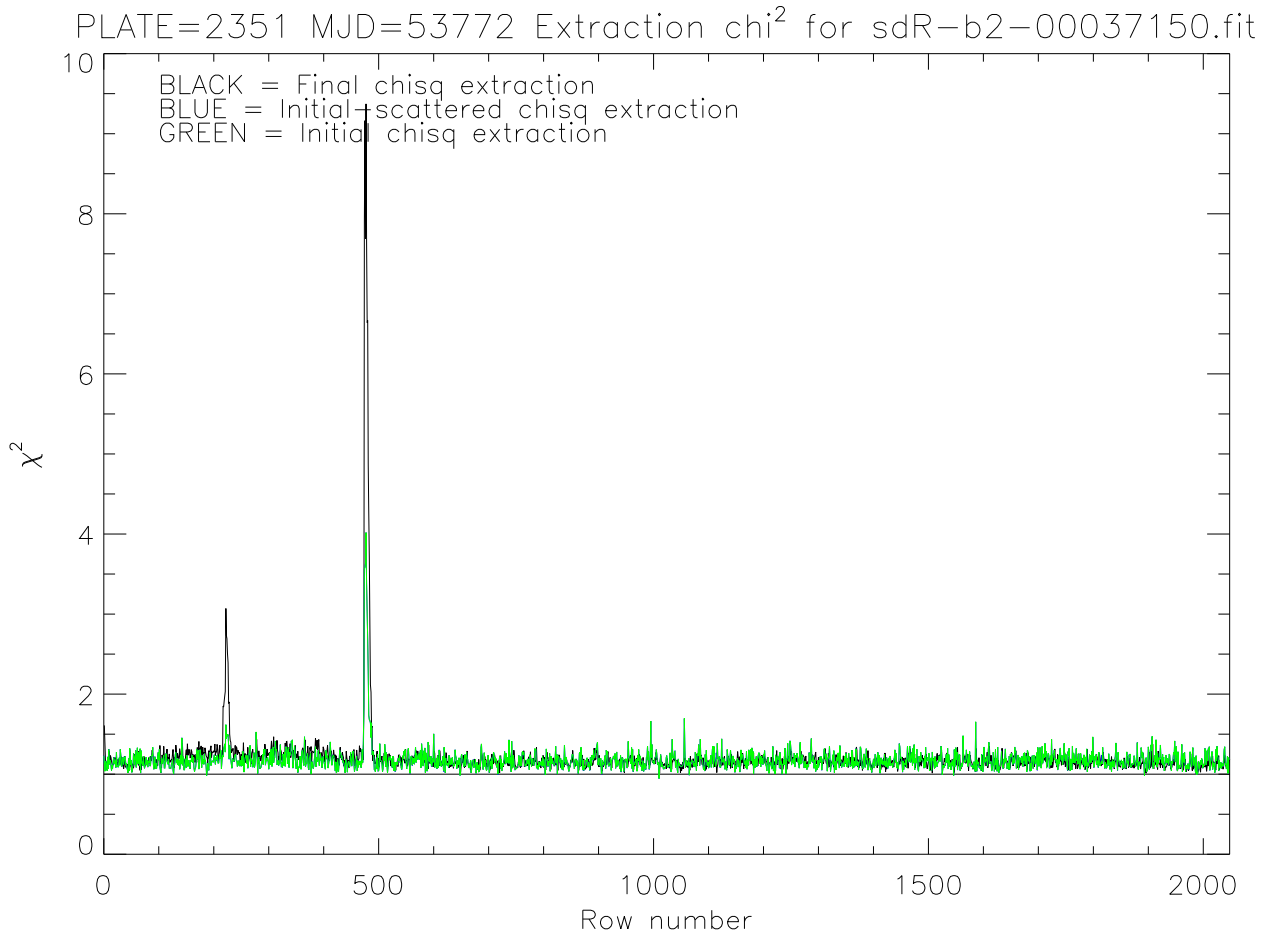

PLATE=2351 MJD=53772 Fiber−Flats for sdR−b2−00037155.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.391
Max value = 1.250
Fiber−Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Sat Feb 16 17:54:30 2008

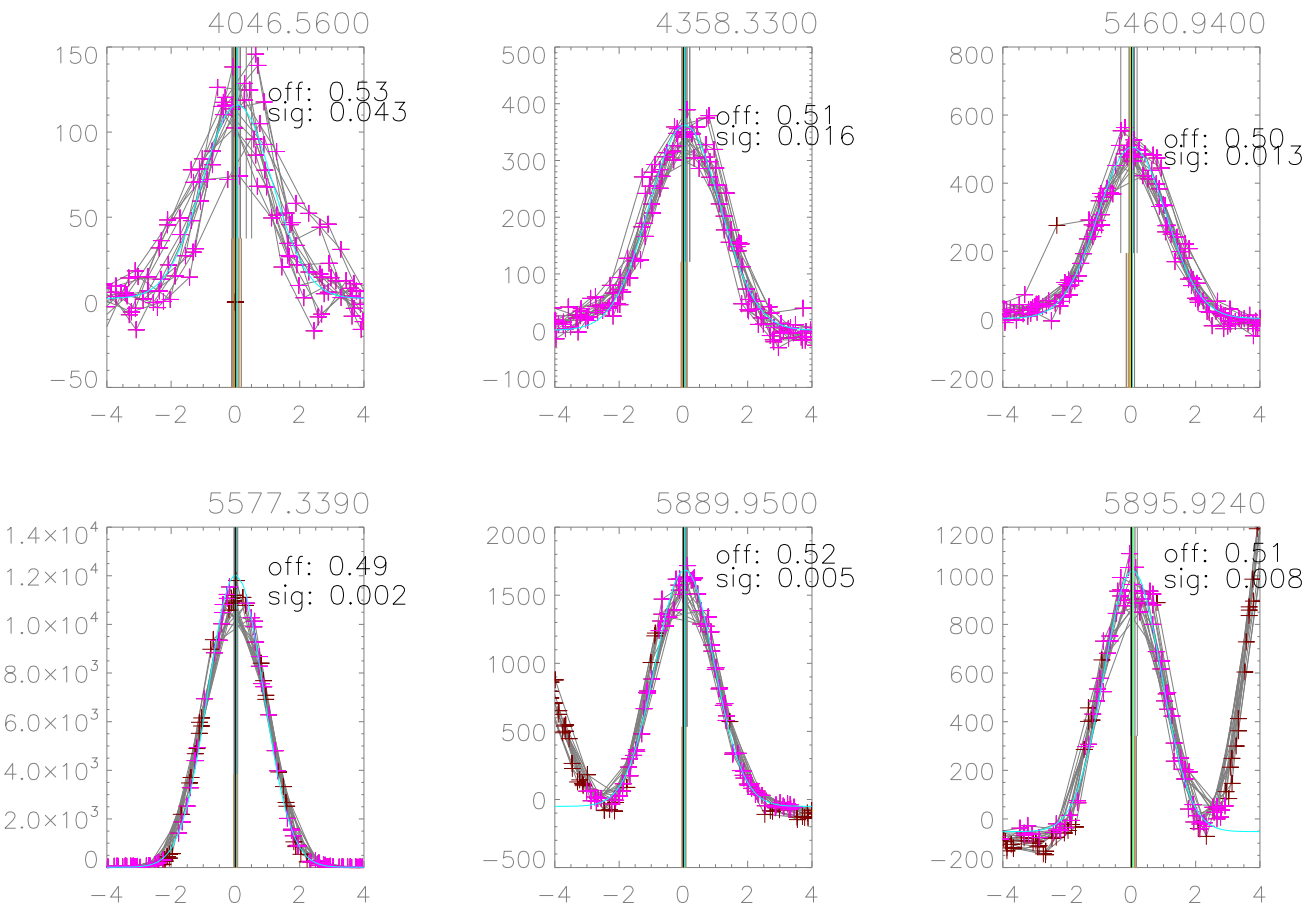

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR−b2−00037150.f
16.9
14.4
11.8
9.3
9.3
11.8
11.8
0
0
2000
1500
1000
500
0
0
500
1000
1500
2000
Y [pix]
X [pix]

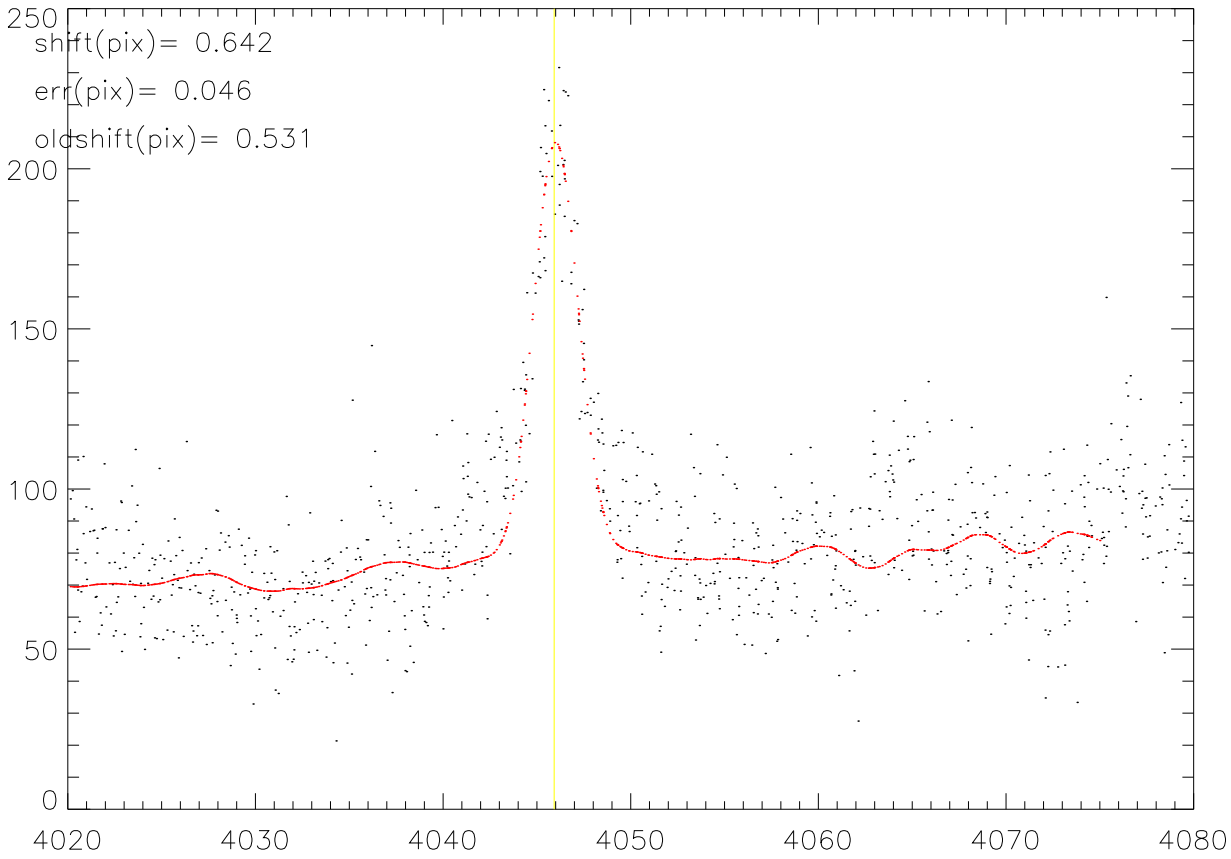

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR−b2−00037150.f
Brightness [electrons/pix]
25
20
15
10
5
0
Error bars denote full range
Min value = 9.504
Max value = 16.673
4000
4500
5000
5500
6000
λ [A]
Sat Feb 16 17:55:30 2008

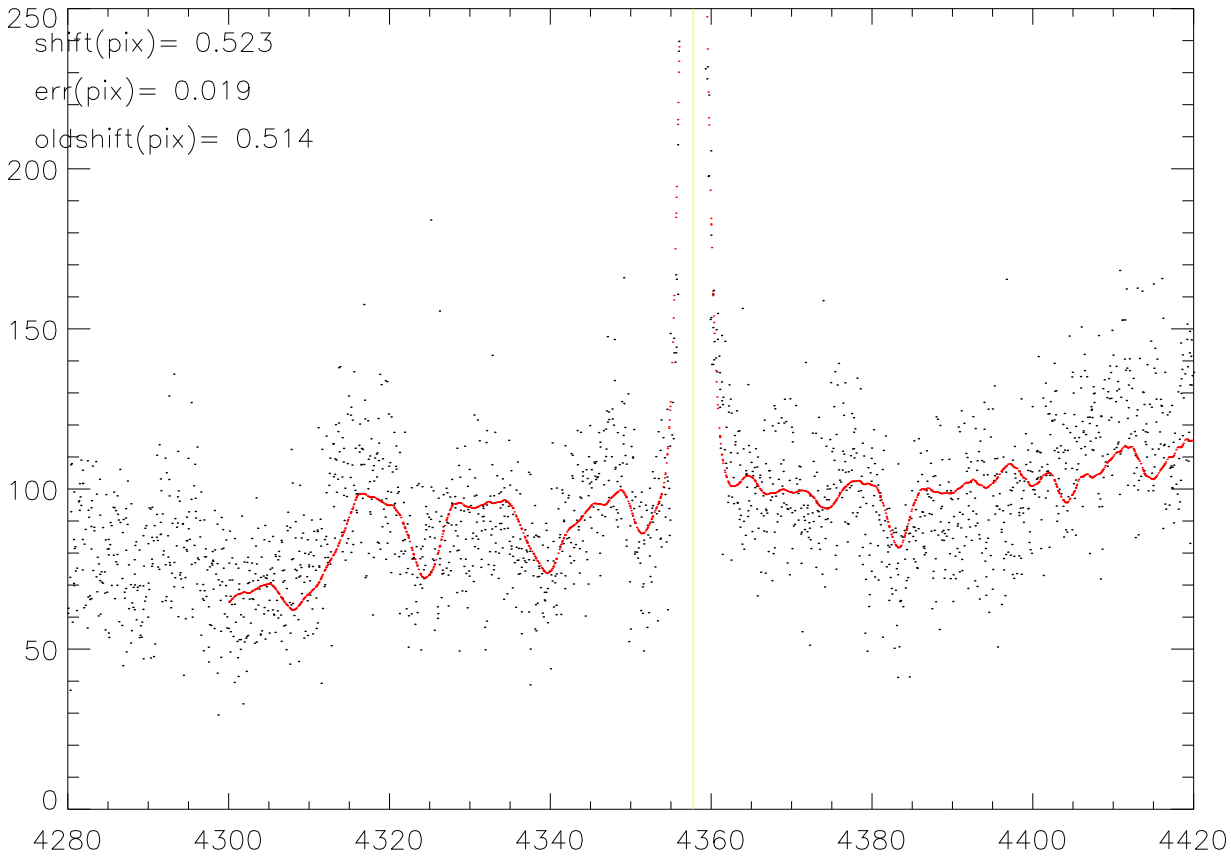

PLATE=2351 MJD=53772 Scattered Light on sdR-b2-00037150.fit
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
9.5
11.6
9.5
9.5
7.3
7.3
9.5
9.5
9.5
9.5

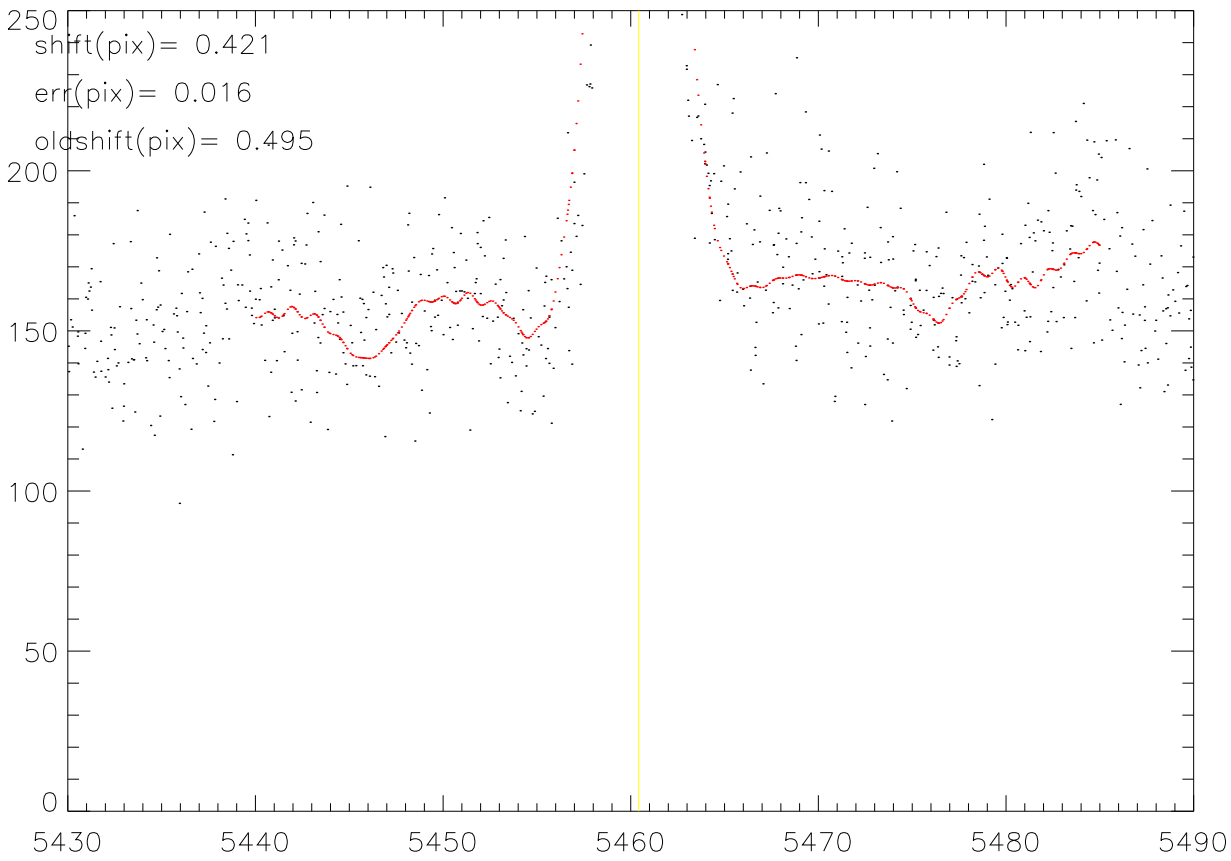

PLATE=2351 MJD=53772 Scattered Light on sdR-b2-00037150.fit
Brightness [electrons/pix]
15
10
5
0
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 6.866
Max value = 11.806
Sat Feb 16 17:58:51 2008

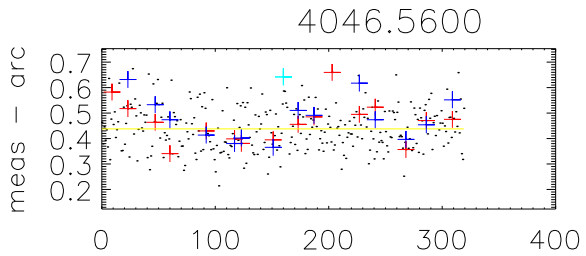

PLATE=2351 MJD=53772 Extraction chi^2 for sdR-b2-00037150.fit
BLACK = Final chisq extraction
BLUE = Initial+scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
2
4
6
8
10
0
500
1000
1500
2000

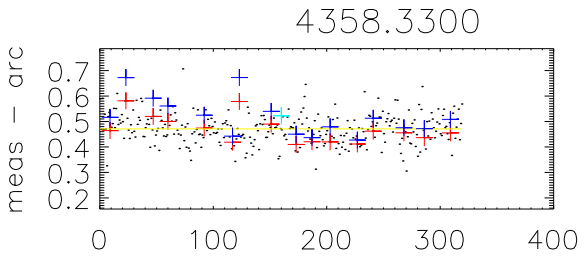

4046.5600
off: 0.53
sig: 0.043
4358.3300
off: 0.51
sig: 0.016
5460.9400
off: 0.50
sig: 0.013
5577.3390
off: 0.49
sig: 0.002
5889.9500
off: 0.52
sig: 0.005
5895.9240
off: 0.51
sig: 0.008

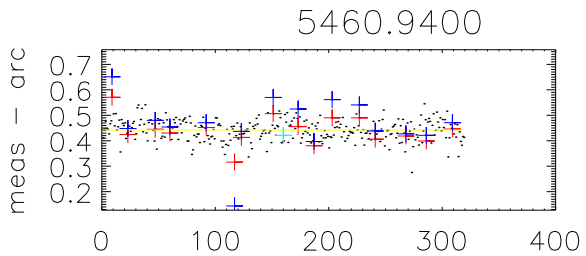

shift(pix)= 0.642
err(pix)= 0.046
oldshift(pix)= 0.531
250
200
150
100
50
0
4020
4030
4040
4050
4060
4070
4080

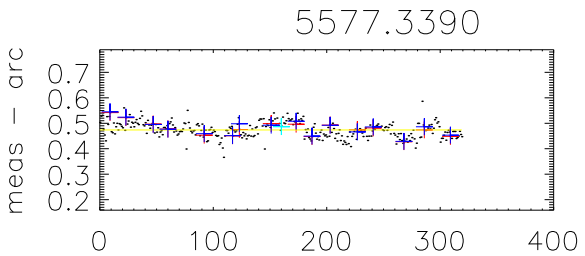

shift(pix)= 0.523
err(pix)= 0.019
oldshift(pix)= 0.514
250
200
150
100
50
0
4280
4300
4320
4340
4360
4380
4400
4420

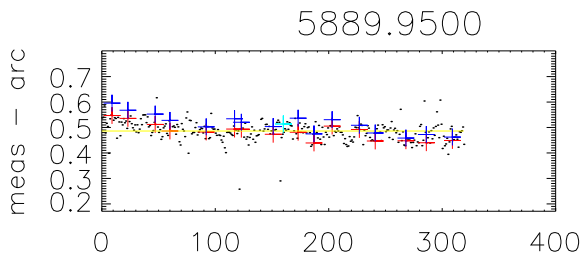

shift(pix)= 0.421
err(pix)= 0.016
oldshift(pix)= 0.495
250
200
150
100
50
0
5430
5440
5450
5460
5470
5480
5490

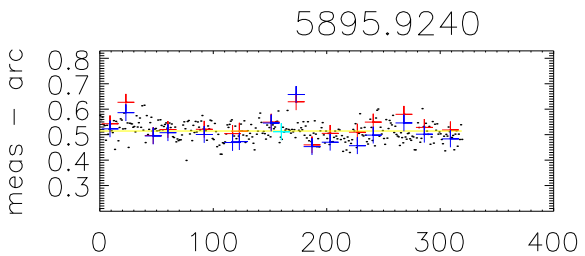

4046.5600
meas − arc
0.7
0.6
0.5
0.4
0.3
0.2
0
100
200
300
400

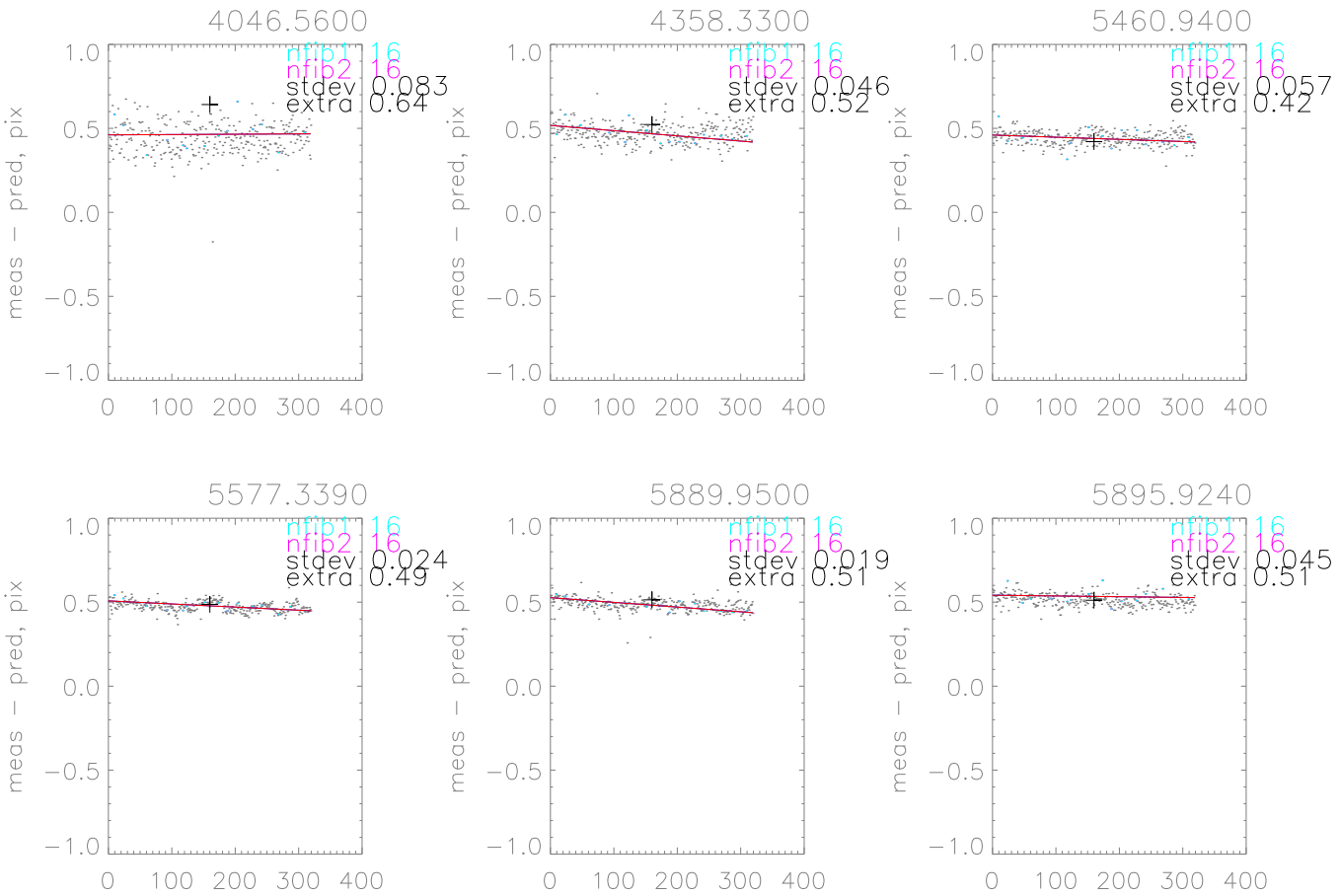

4358.3300
meas − arc
0.7
0.6
0.5
0.4
0.3
0.2
0
100
200
300
400

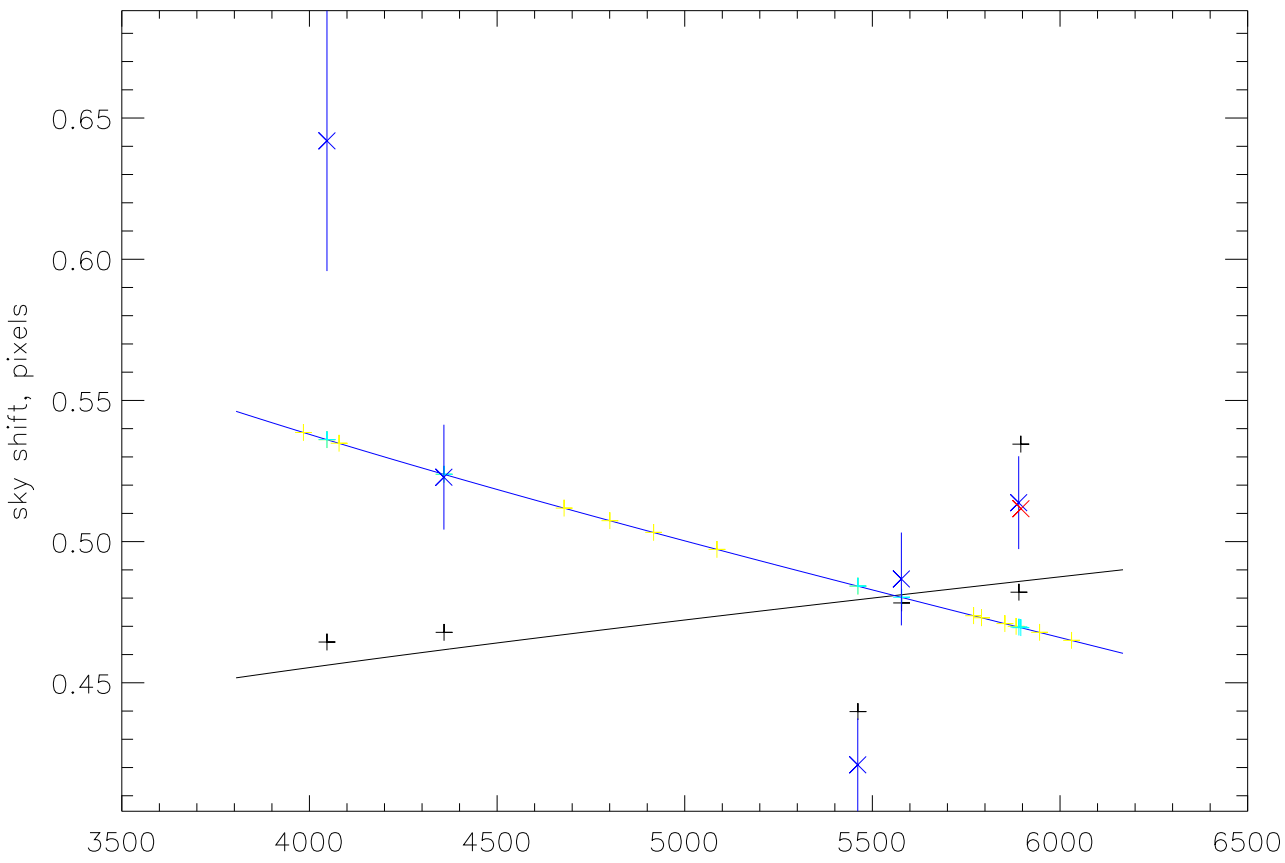

5460.9400
meas − arc
0.7
0.6
0.5
0.4
0.3
0.2
0
100
200
300
400

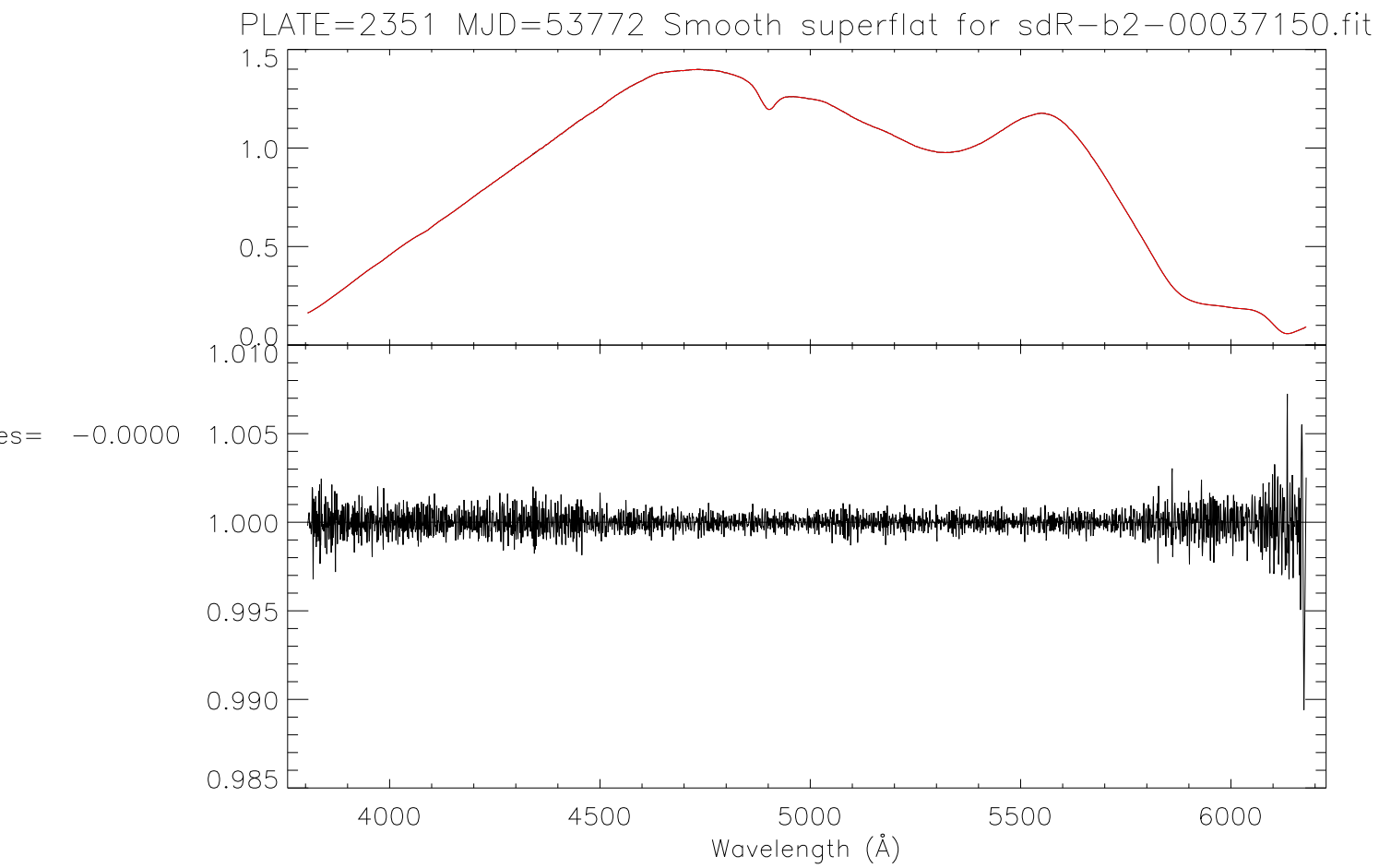

5577.3390
meas − arc
0.7
0.6
0.5
0.4
0.3
0.2
0
100
200
300
400

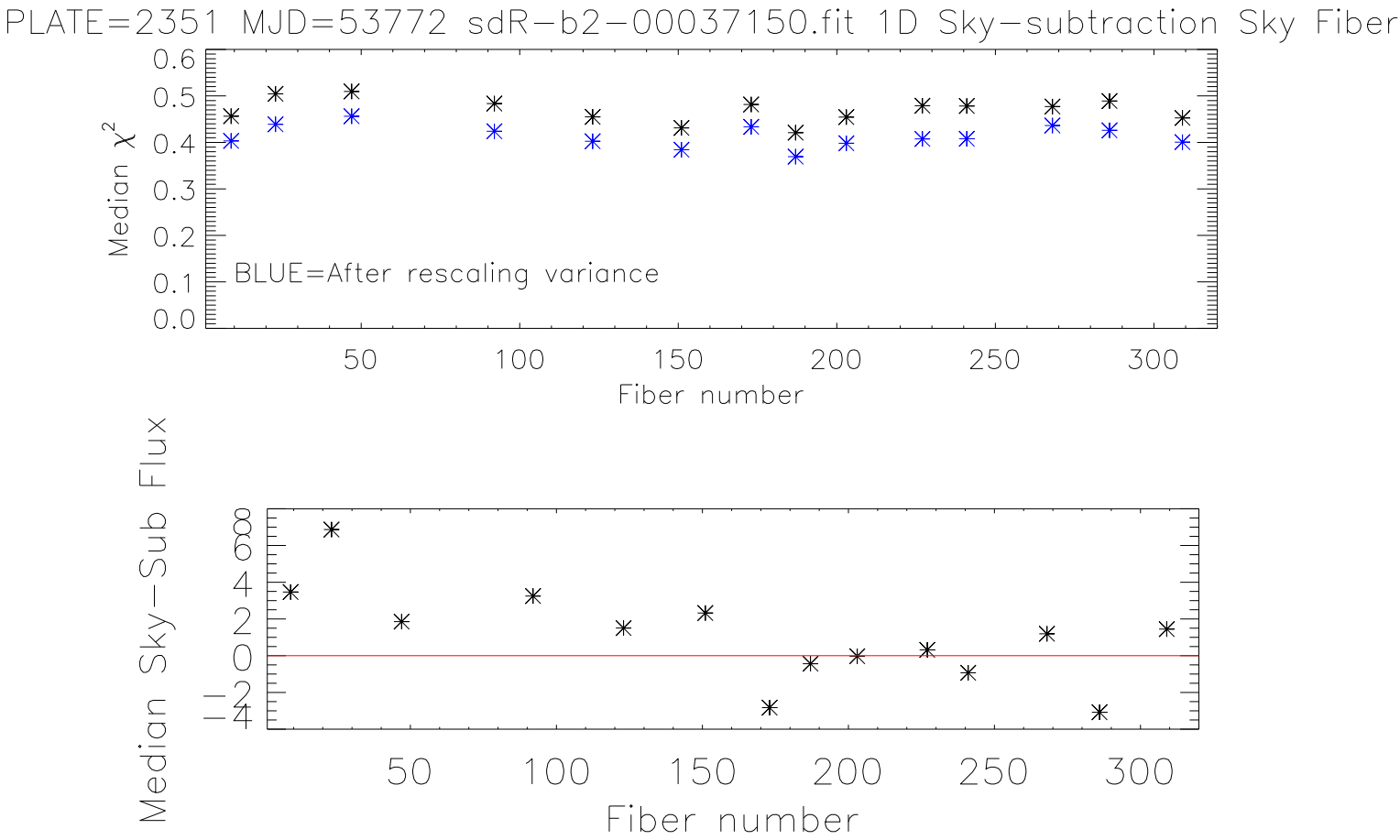

5889.9500
meas − arc
0.7
0.6
0.5
0.4
0.3
0.2
0
100
200
300
400

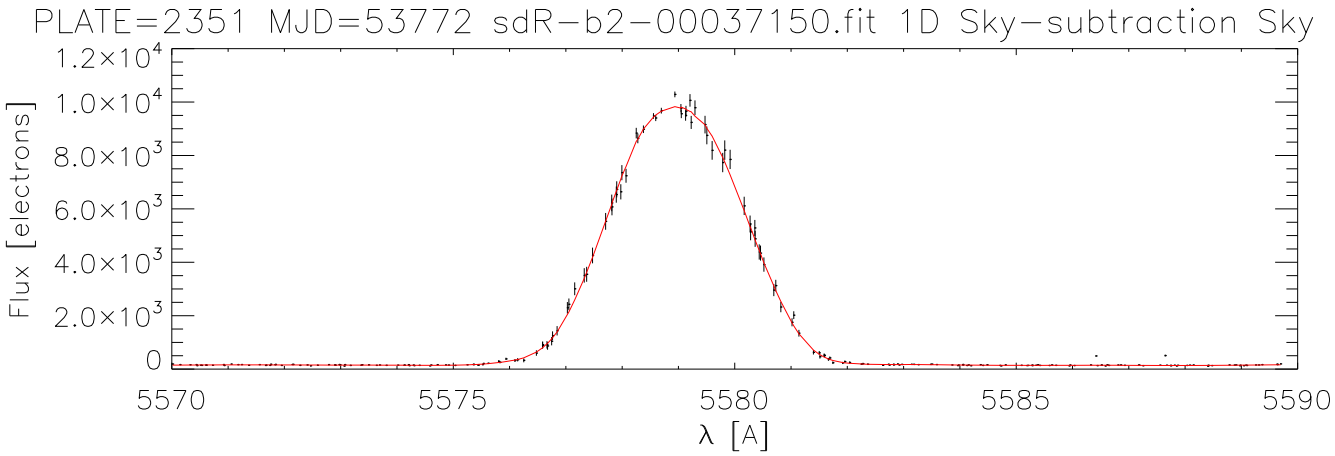

5895.9240
meas − arc
0.8
0.7
0.6
0.5
0.4
0.3
0
100
200
300
400

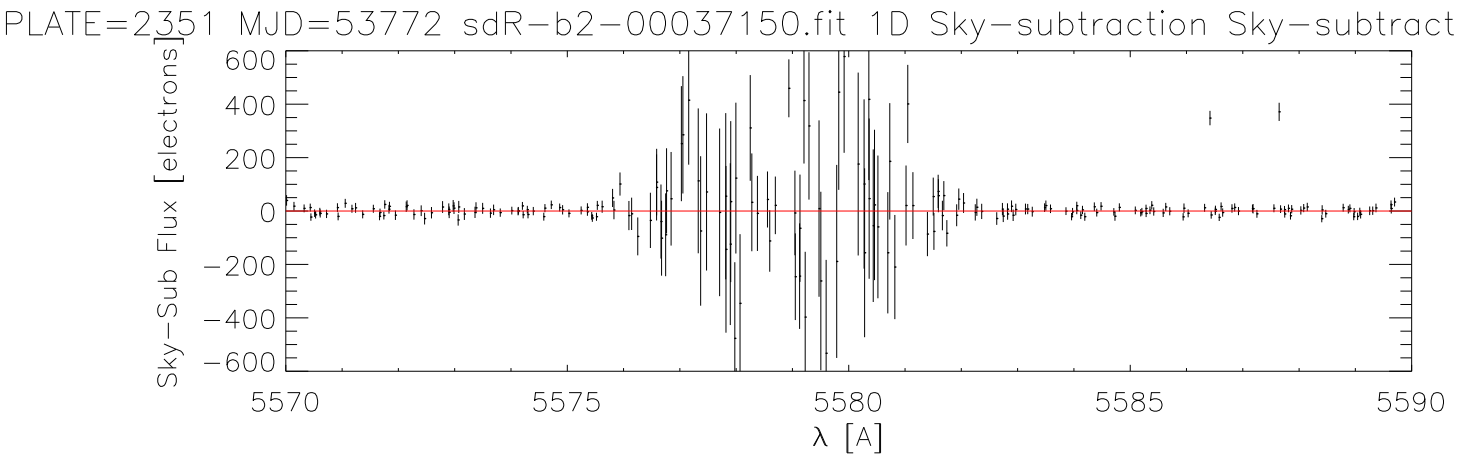

4046.5600
nfib1 16
nfib2 16
stdev 0.083
extra 0.64
4358.3300
nfib1 16
nfib2 16
stdev 0.046
extra 0.52
5460.9400
nfib1 16
nfib2 16
stdev 0.057
extra 0.42
5577.3390
nfib1 16
nfib2 16
stdev 0.024
extra 0.49
5889.9500
nfib1 16
nfib2 16
stdev 0.019
extra 0.51
5895.9240
nfib1 16
nfib2 16
stdev 0.045
extra 0.51
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

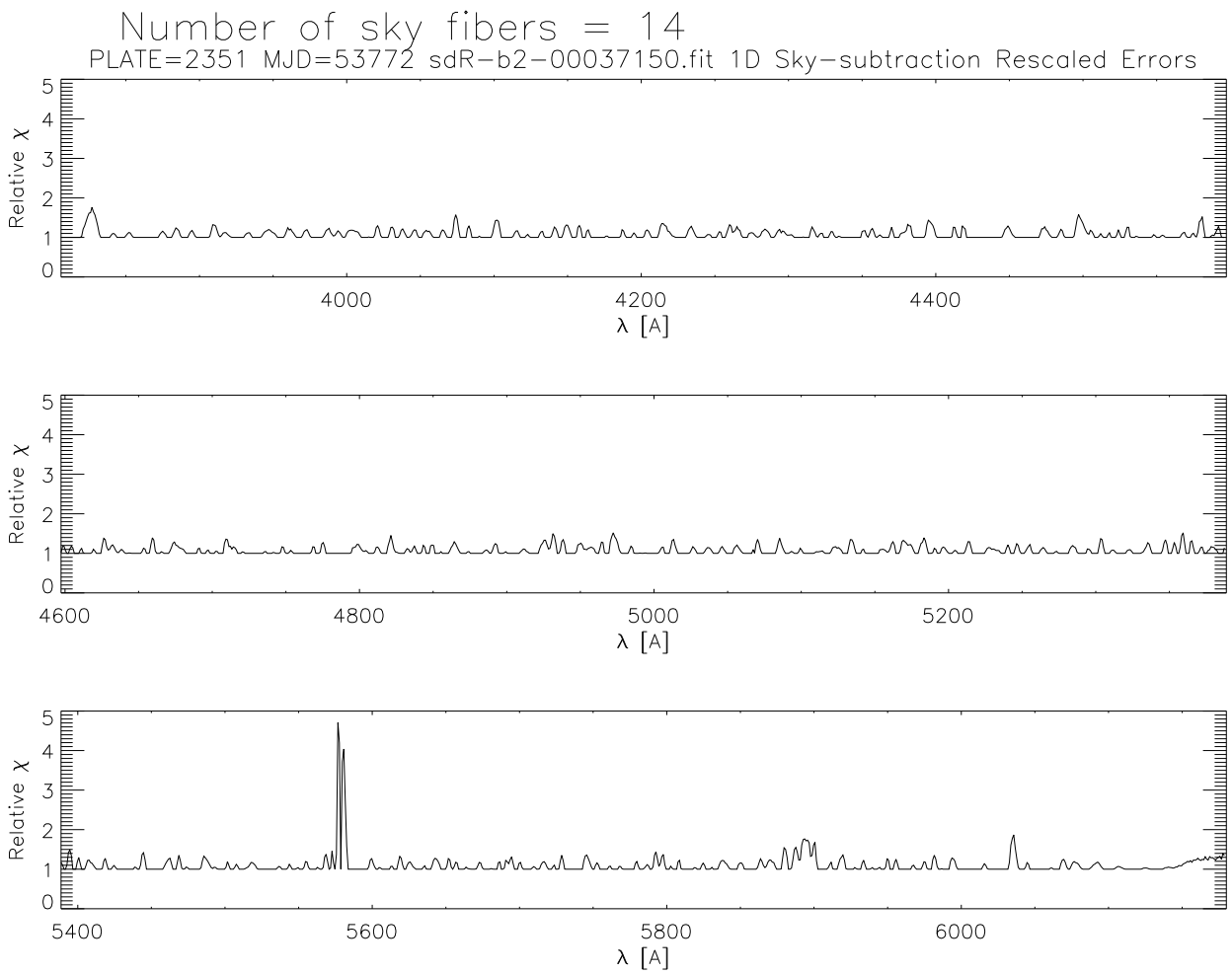

sky shift, pixels
0.65
0.60
0.55
0.50
0.45
3500
4000
4500
5000
5500
6000
6500

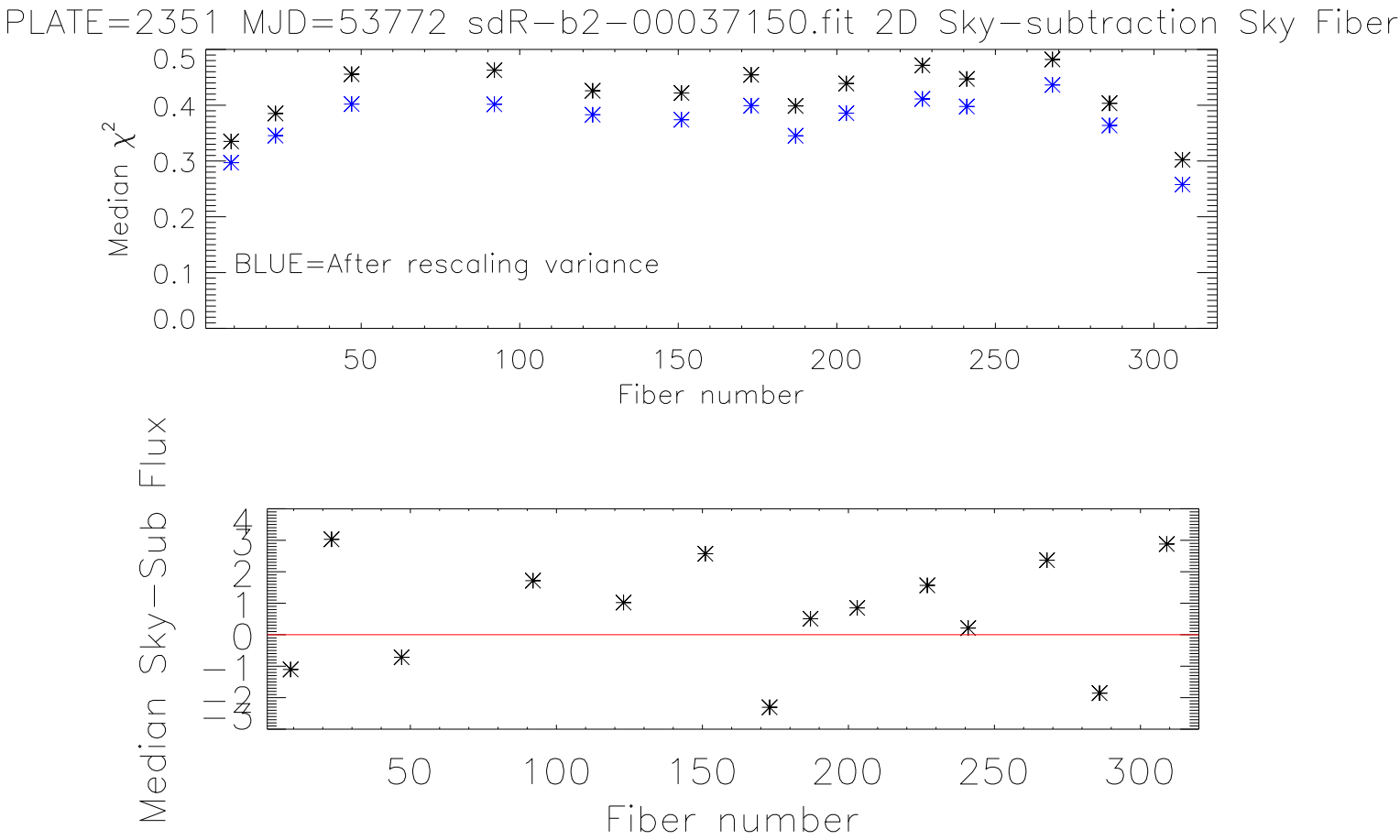

PLATE=2351 MJD=53772 Smooth superflat for sdR-b2-00037150.fit
1.5
1.0
0.5
0.0
es= -0.0000
1.010
1.005
1.000
0.995
0.990
0.985
4000
4500
5000
5500
6000
Wavelength (Å)

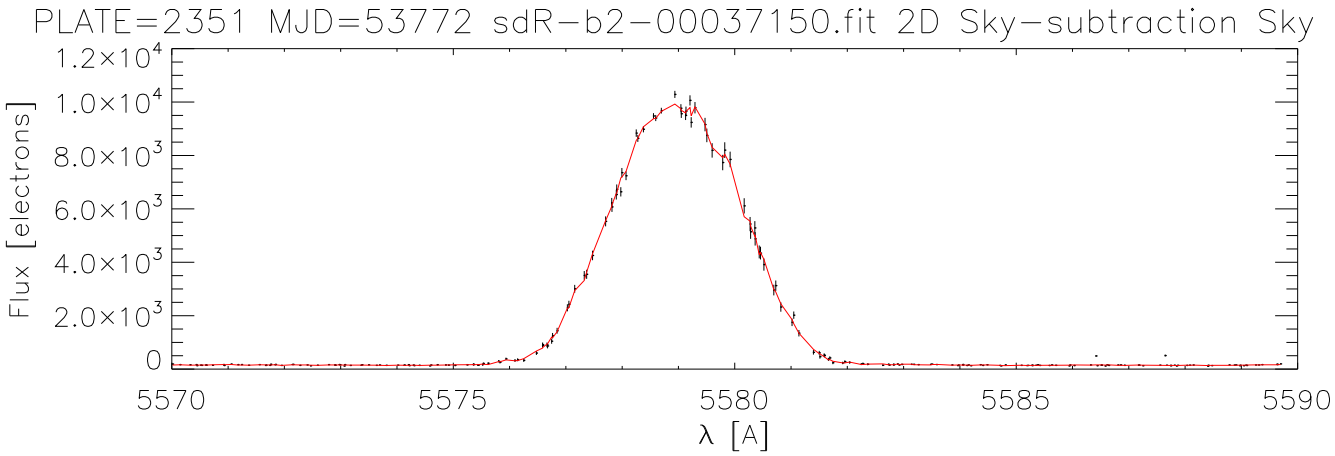

PLATE=2351 MJD=53772 sdR-b2-00037150.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-4
-2
0
2
4
6
8
50
100
150
200
250
300
Fiber number

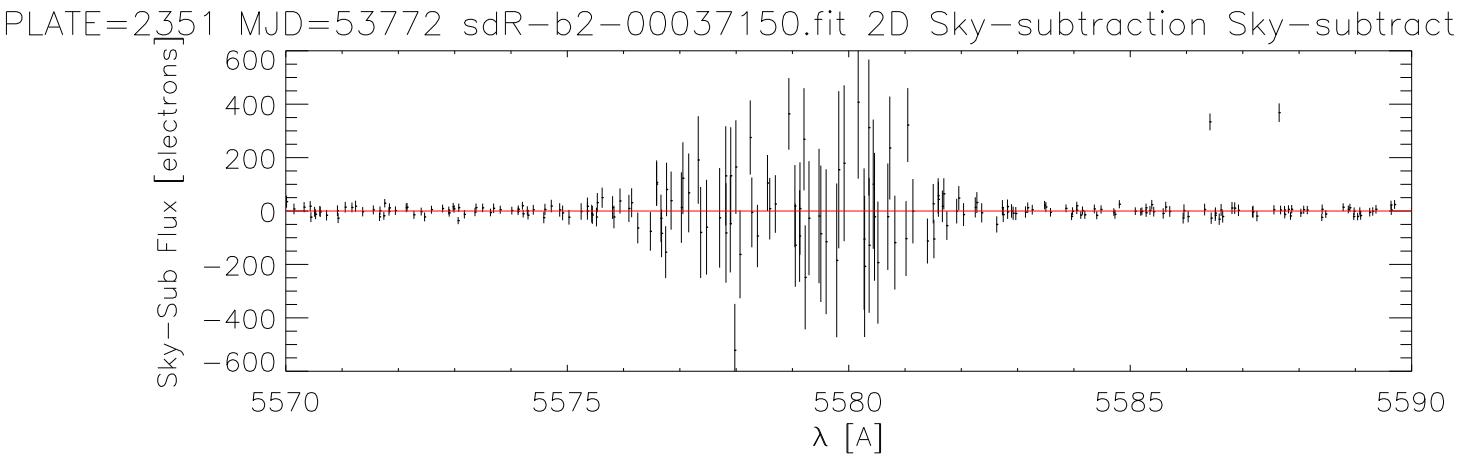

PLATE=2351 MJD=53772 sdR-b2-00037150.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
1.2×10^4
1.0×10^4
8.0×10^3
6.0×10^3
4.0×10^3
2.0×10^3
0
5570
5575
5580
5585
5590
λ [A]

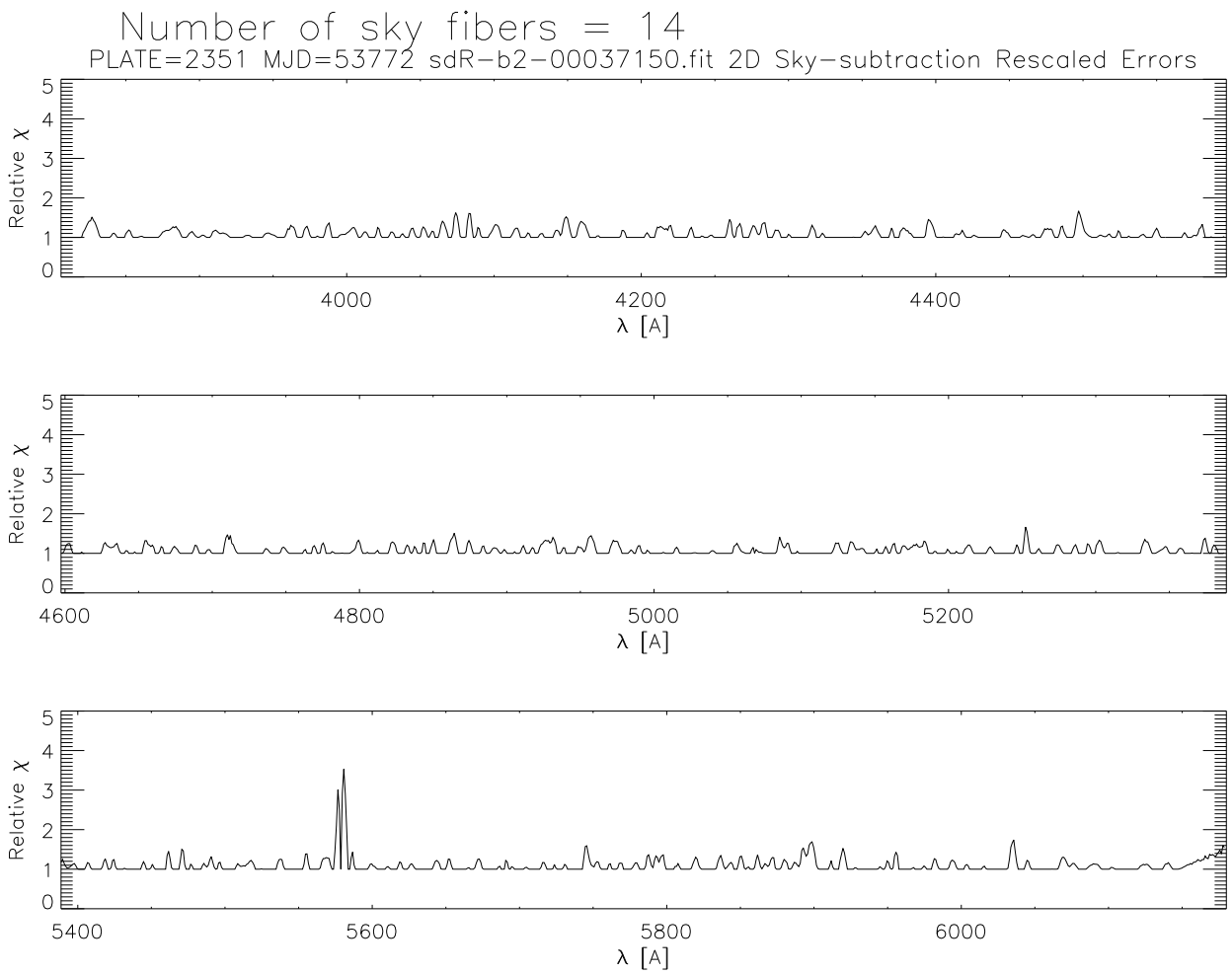

PLATE=2351 MJD=53772 sdR-b2-00037150.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
−200
−400
−600
5570
5575
5580
5585
5590
λ [A]

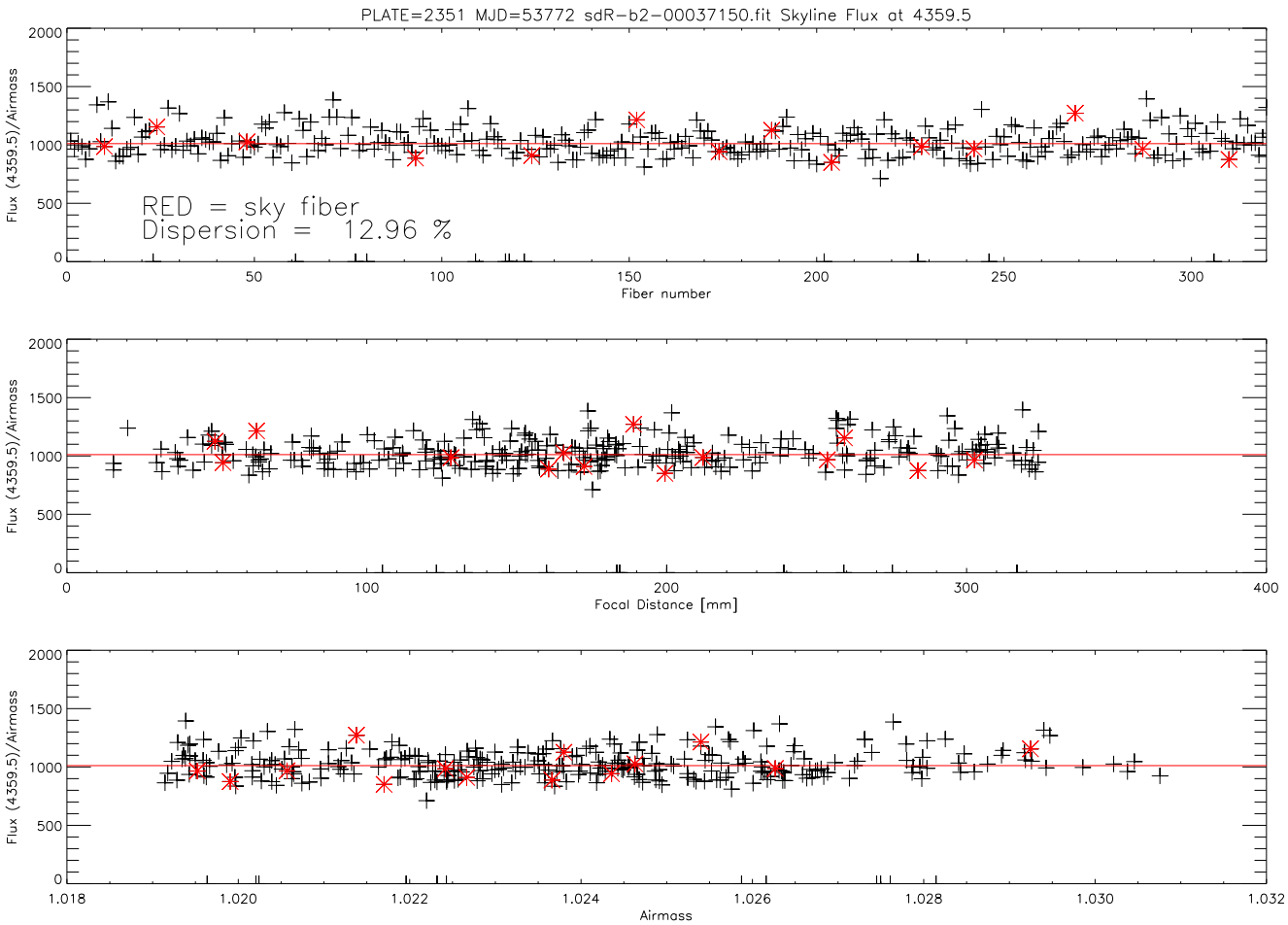

Number of sky fibers = 14
PLATE=2351 MJD=53772 sdR-b2-00037150.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

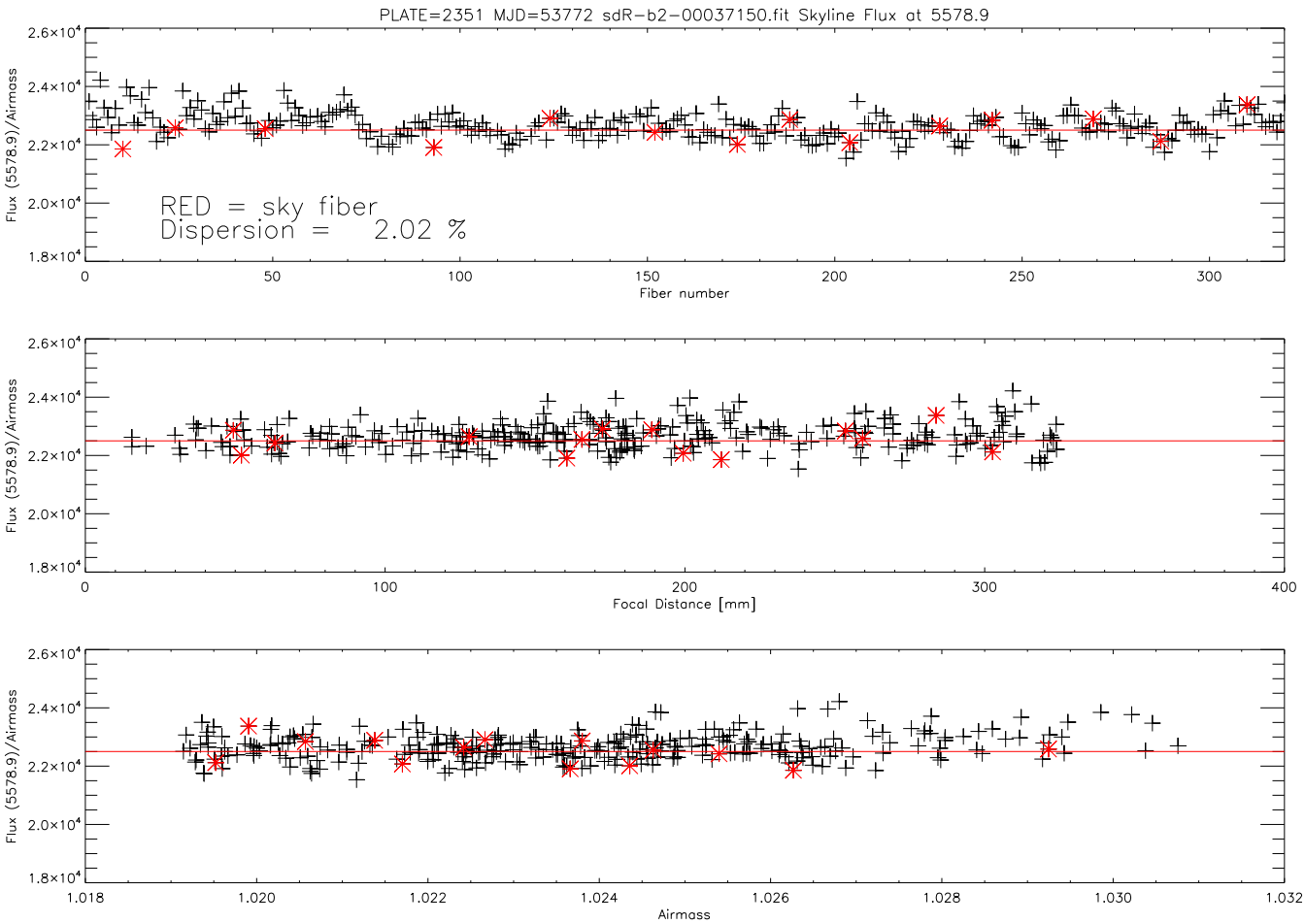

PLATE=2351 MJD=53772 sdR-b2-00037150.fit 2D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-3
-2
-1
0
1
2
3
4
50
100
150
200
250
300
Fiber number

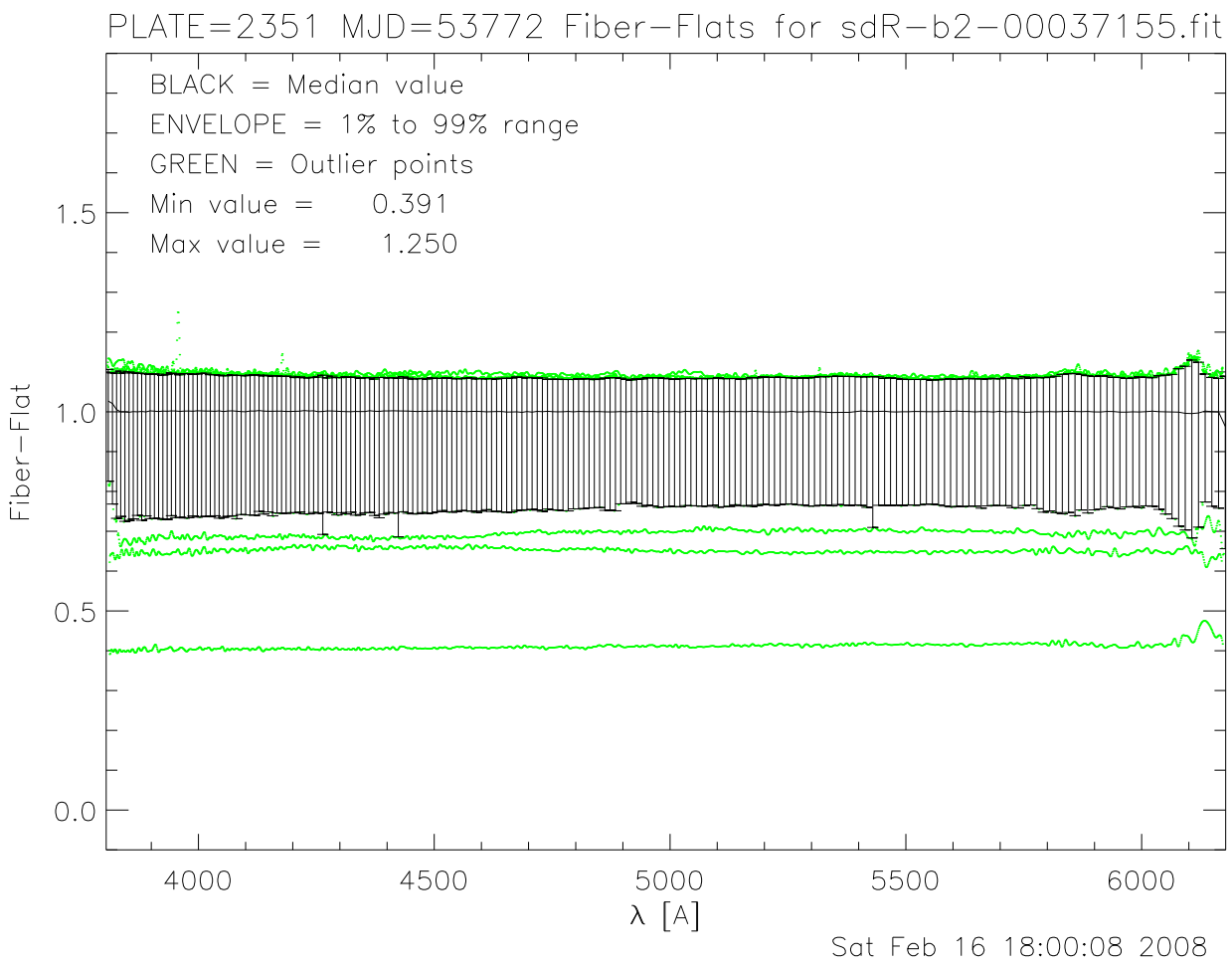

PLATE=2351 MJD=53772 sdR-b2-00037150.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
1.2×10^4
1.0×10^4
8.0×10^3
6.0×10^3
4.0×10^3
2.0×10^3
0
5570
5575
5580
5585
5590
λ [A]

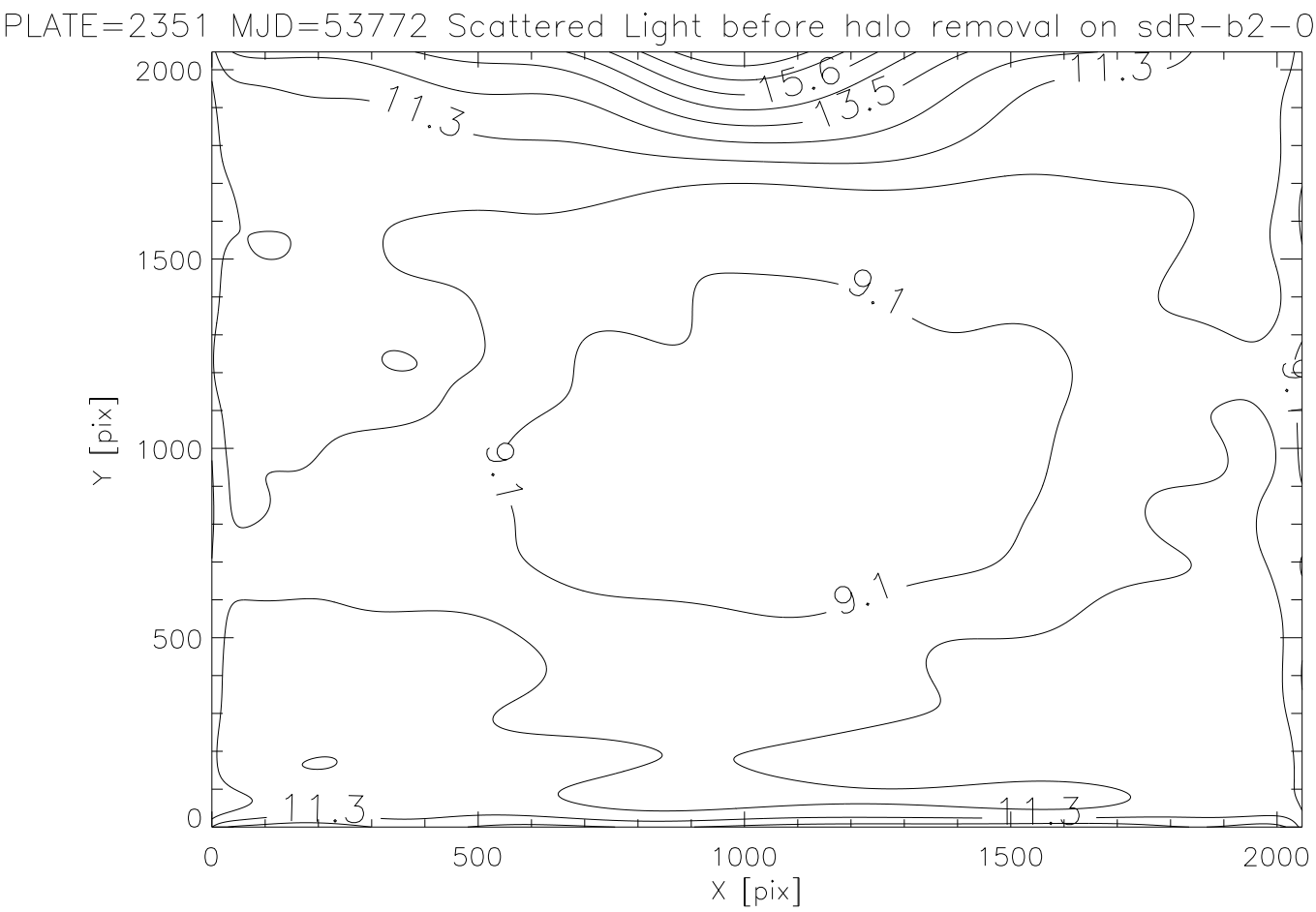

PLATE=2351 MJD=53772 sdR-b2-00037150.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
−200
−400
−600
5570
5575
5580
5585
5590
λ [A]

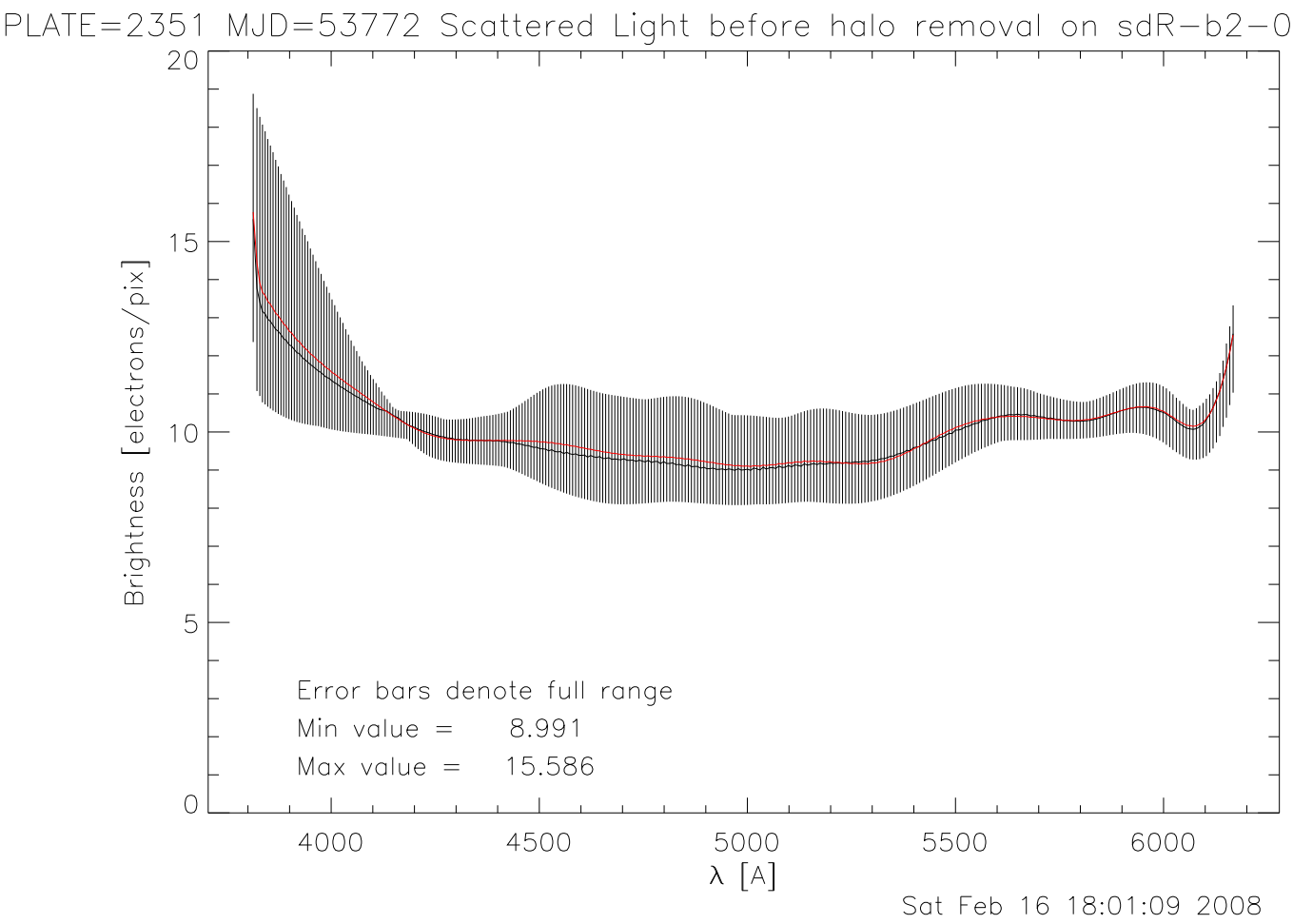

Number of sky fibers = 14
PLATE=2351 MJD=53772 sdR-b2-00037150.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

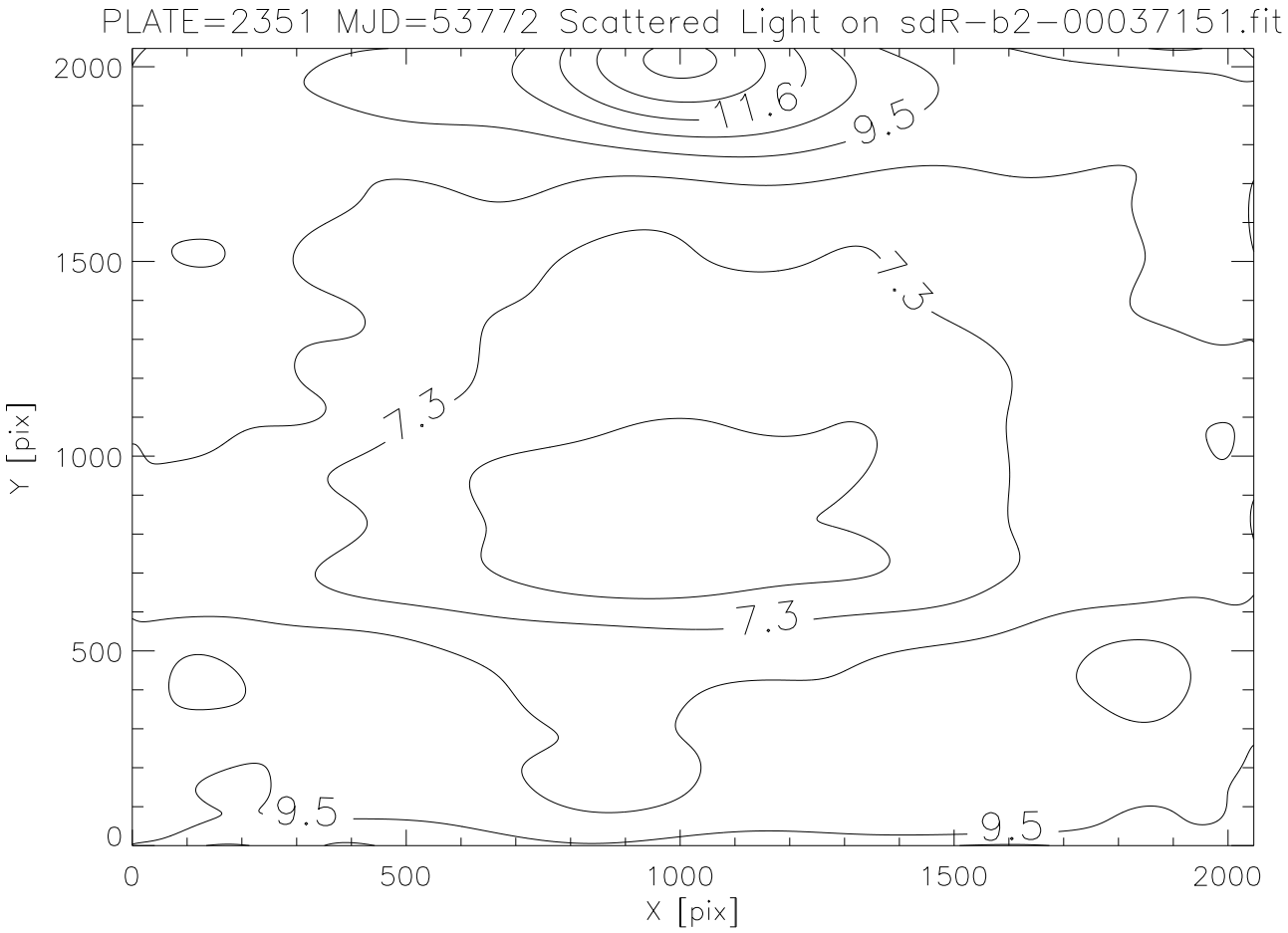

PLATE=2351 MJD=53772 sdR-b2-00037150.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 12.96 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

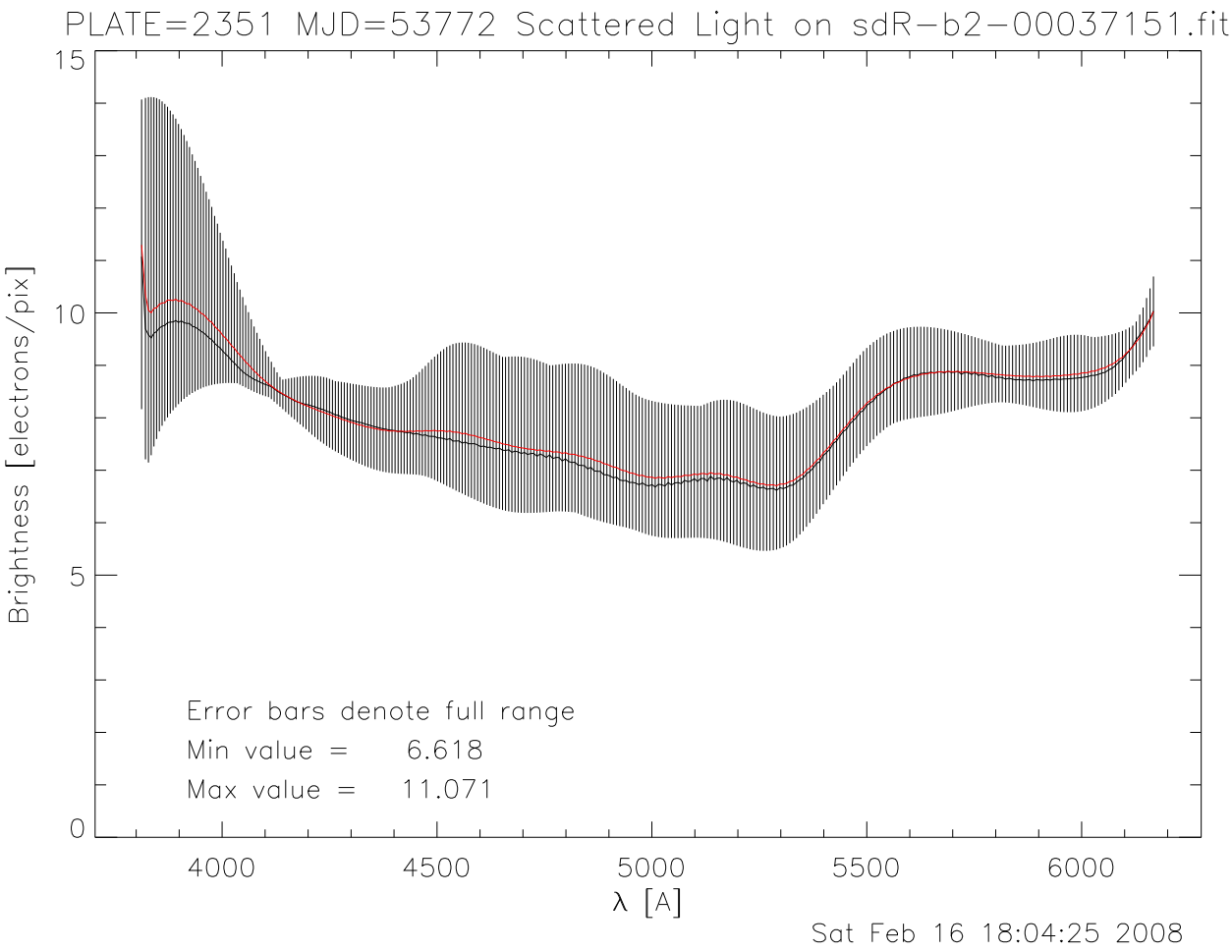

PLATE=2351 MJD=53772 sdR-b2-00037150.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 2.02 %
Fiber number
Focal Distance [mm]
Airmass

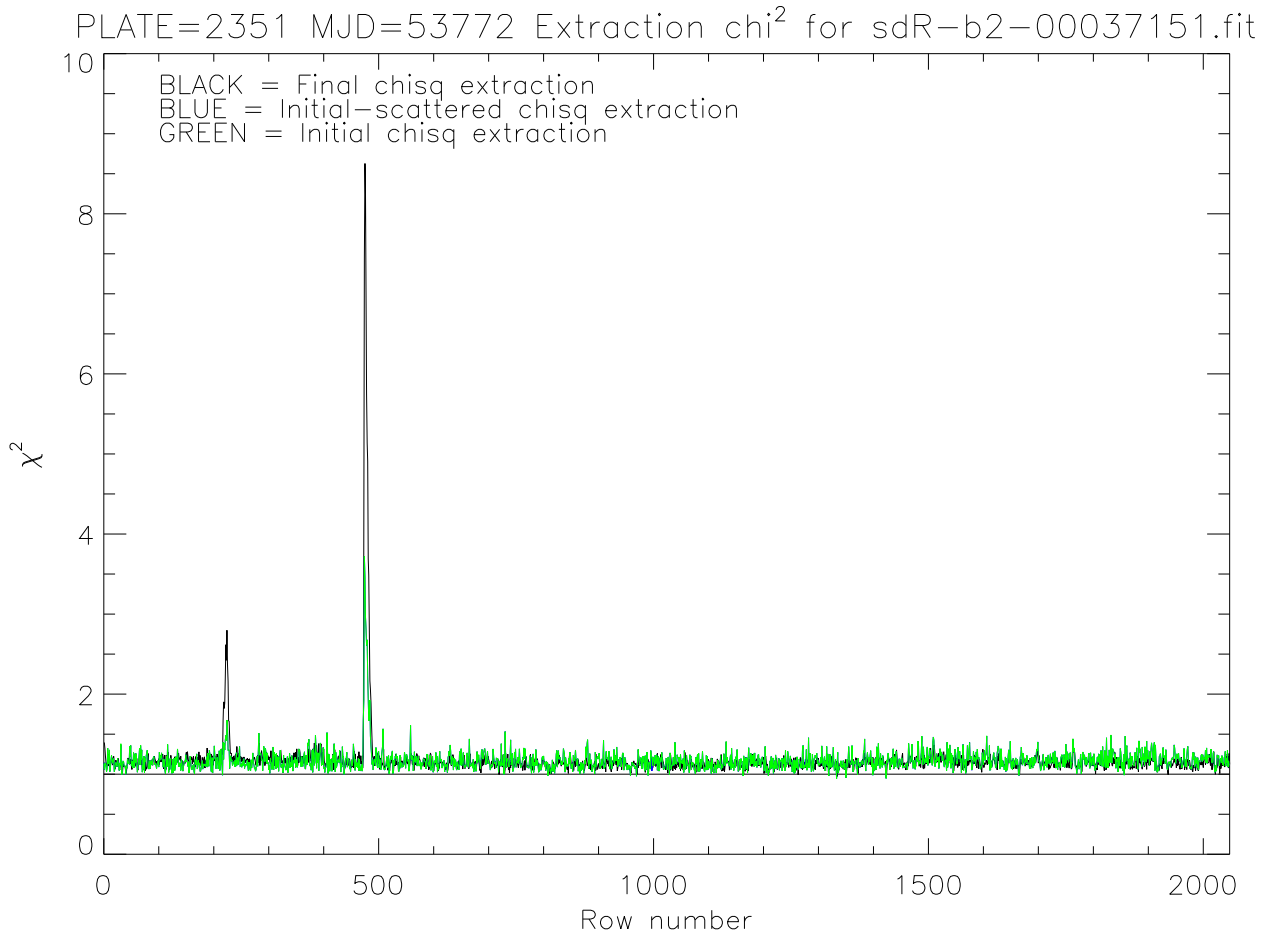

PLATE=2351 MJD=53772 Fiber−Flats for sdR−b2−00037155.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.391
Max value = 1.250
Fiber−Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Sat Feb 16 18:00:08 2008

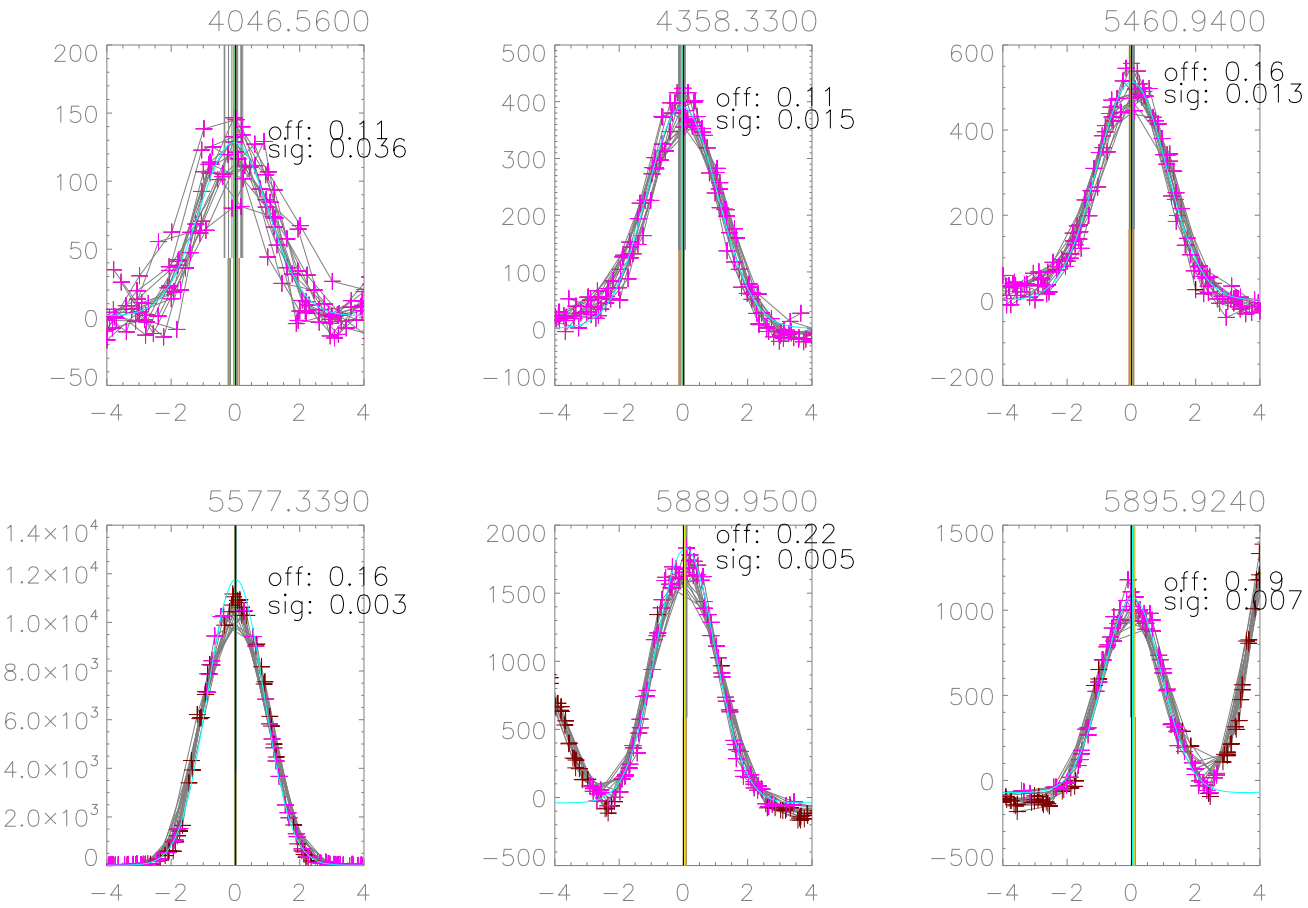

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR−b2−00037151.f
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
15.6
13.5
11.3
11.3
9.1
9.1
9.1
11.3
11.3
0
0
0

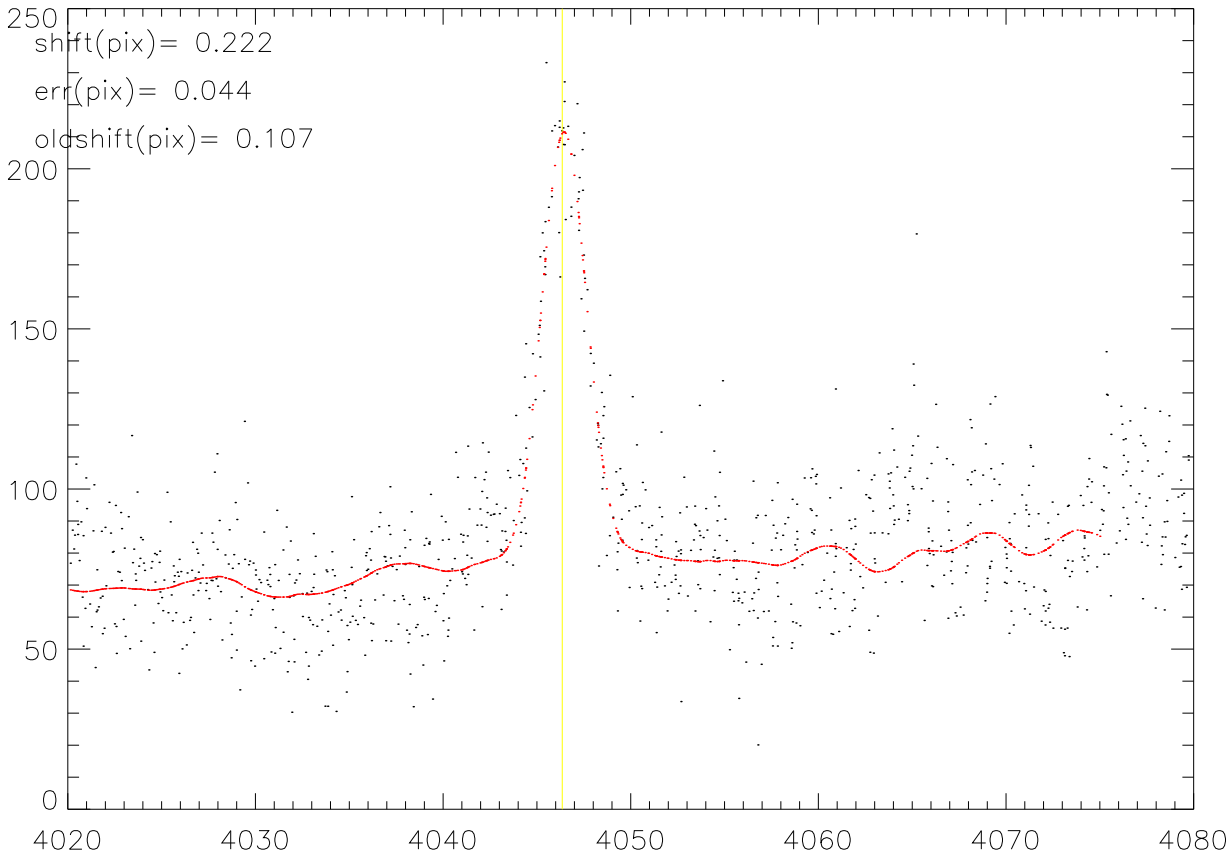

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR-b2-00037151.f
Brightness [electrons/pix]
20
15
10
5
0
Error bars denote full range
Min value = 8.991
Max value = 15.586
4000
4500
5000
5500
6000
λ [A]
Sat Feb 16 18:01:09 2008

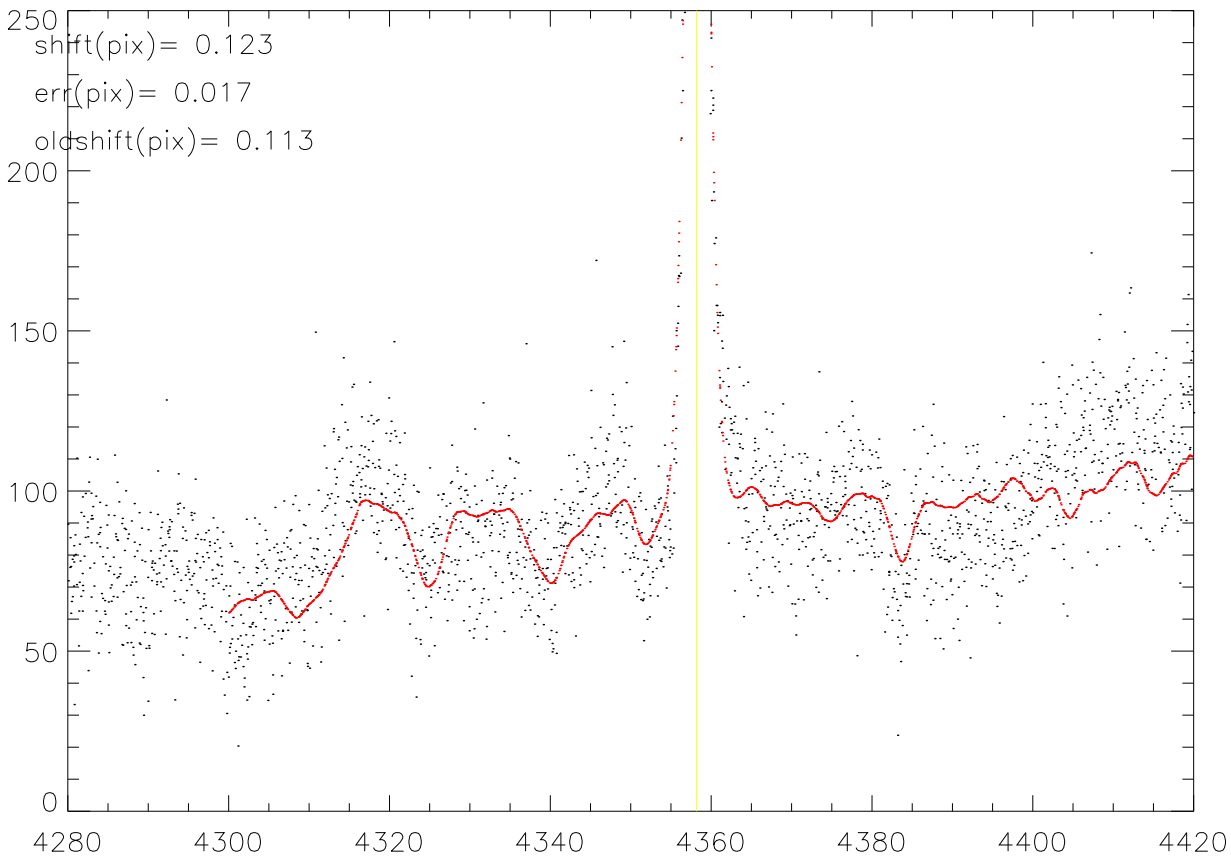

PLATE=2351 MJD=53772 Scattered Light on sdR-b2-00037151.fit
11.6
9.5
7.3
7.3
7.3
0
0
9.5
9.5
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]

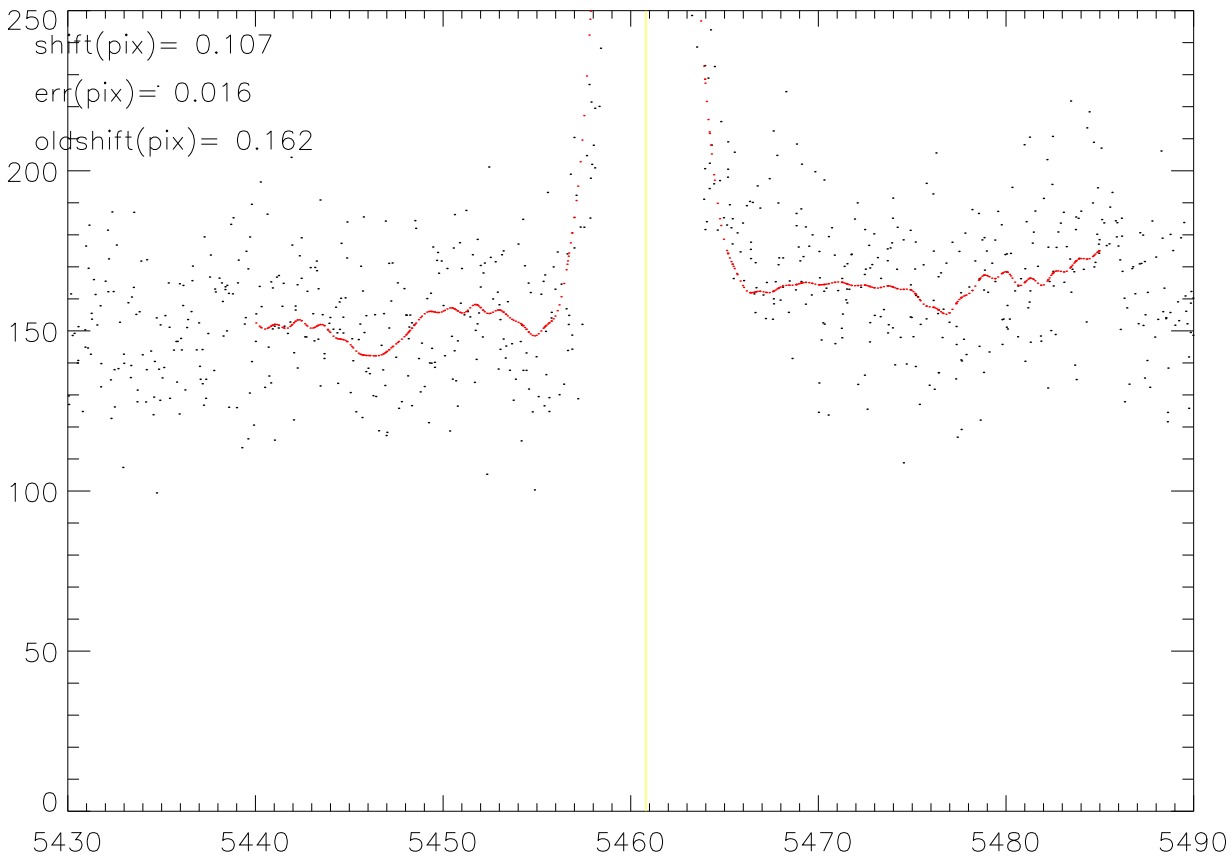

PLATE=2351 MJD=53772 Scattered Light on sdR-b2-00037151.fit
Brightness [electrons/pix]
15
10
5
0
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 6.618
Max value = 11.071
Sat Feb 16 18:04:25 2008

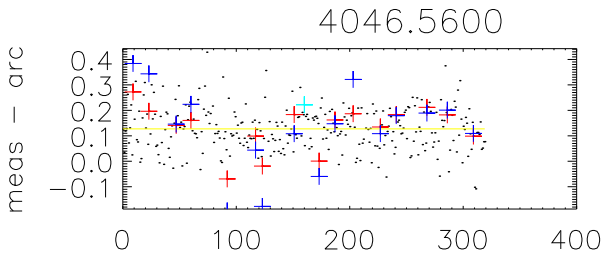

PLATE=2351 MJD=53772 Extraction chi^2 for sdR-b2-00037151.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
2
4
6
8
10
0
500
1000
1500
2000

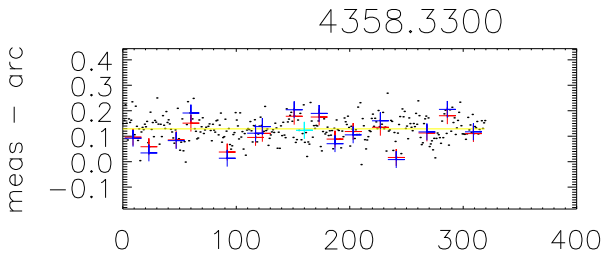

4046.5600
off: 0.11
sig: 0.036
4358.3300
off: 0.11
sig: 0.015
5460.9400
off: 0.16
sig: 0.013
5577.3390
off: 0.16
sig: 0.003
5889.9500
off: 0.22
sig: 0.005
5895.9240
off: 0.19
sig: 0.007

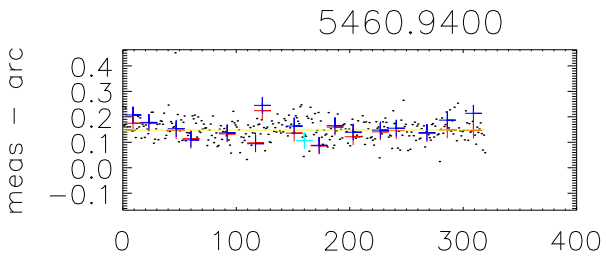

shift(pix)= 0.222
err(pix)= 0.044
oldshift(pix)= 0.107
250
200
150
100
50
0
4020
4030
4040
4050
4060
4070
4080

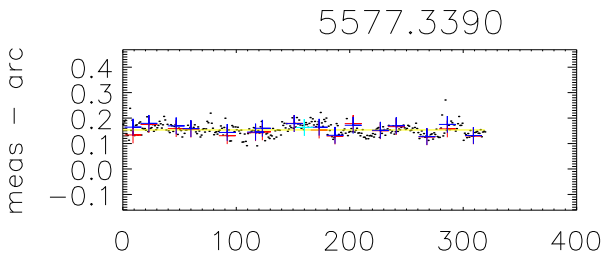

shift(pix)= 0.123
err(pix)= 0.017
oldshift(pix)= 0.113
250
200
150
100
50
0
4280
4300
4320
4340
4360
4380
4400
4420

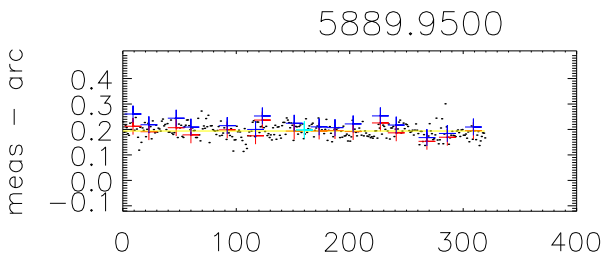

shift(pix)= 0.107
err(pix)= 0.016
oldshift(pix)= 0.162
250
200
150
100
50
0
5430
5440
5450
5460
5470
5480
5490

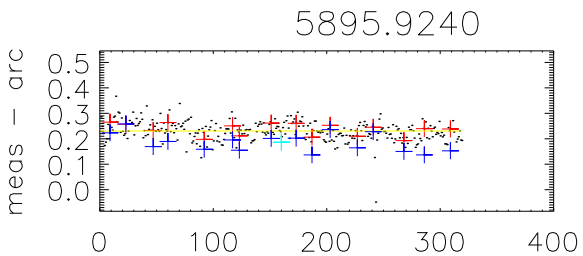

4046.5600
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

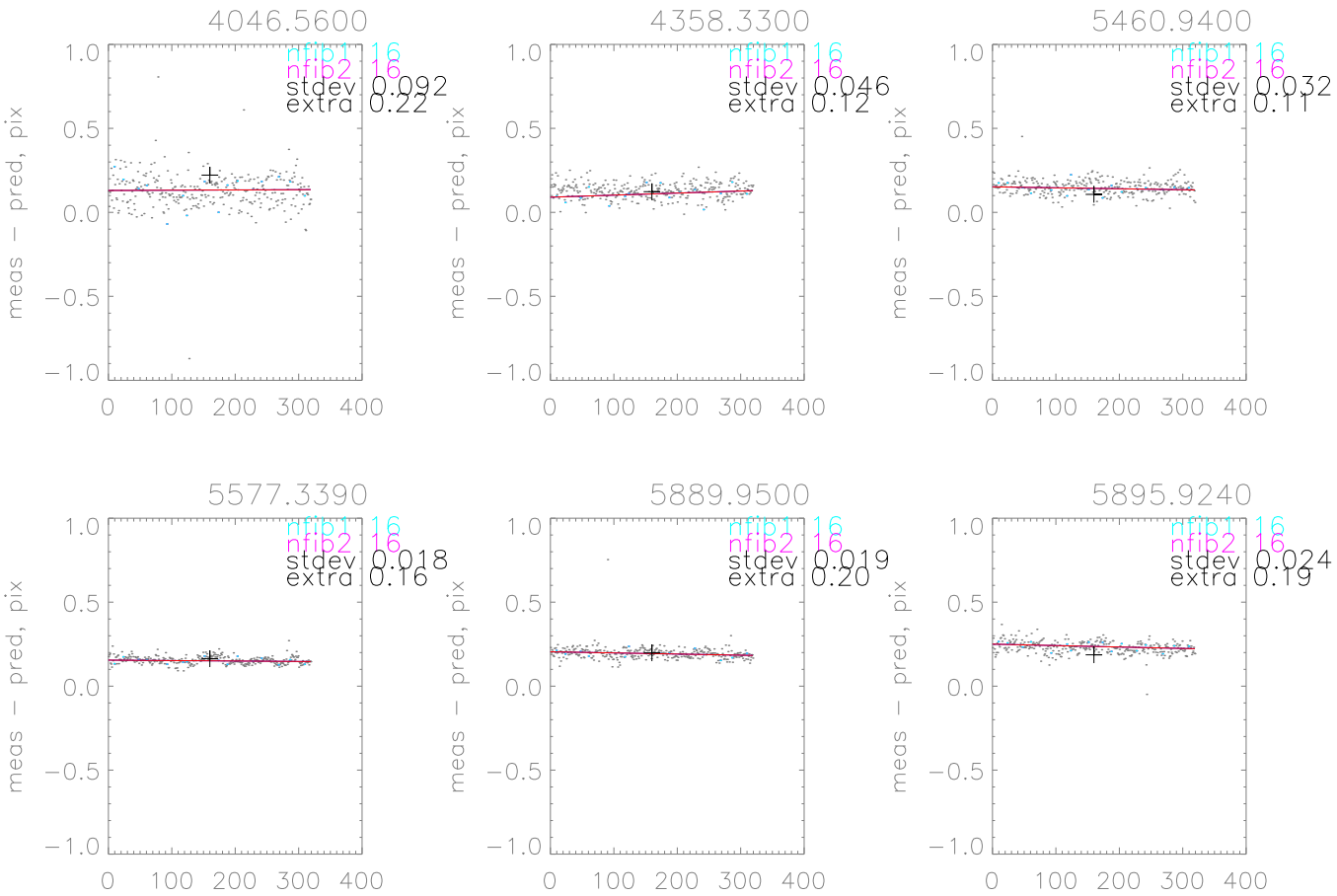

4358.3300
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

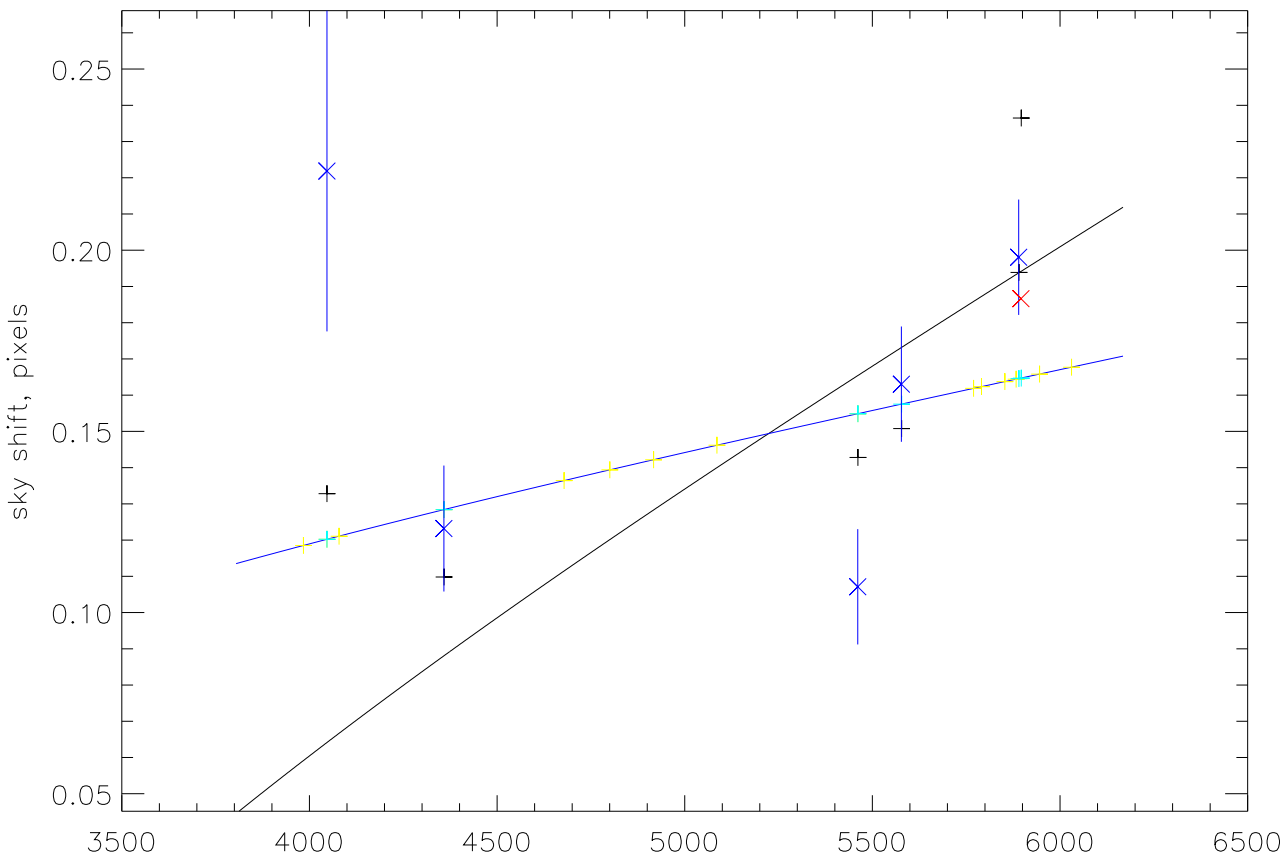

5460.9400
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

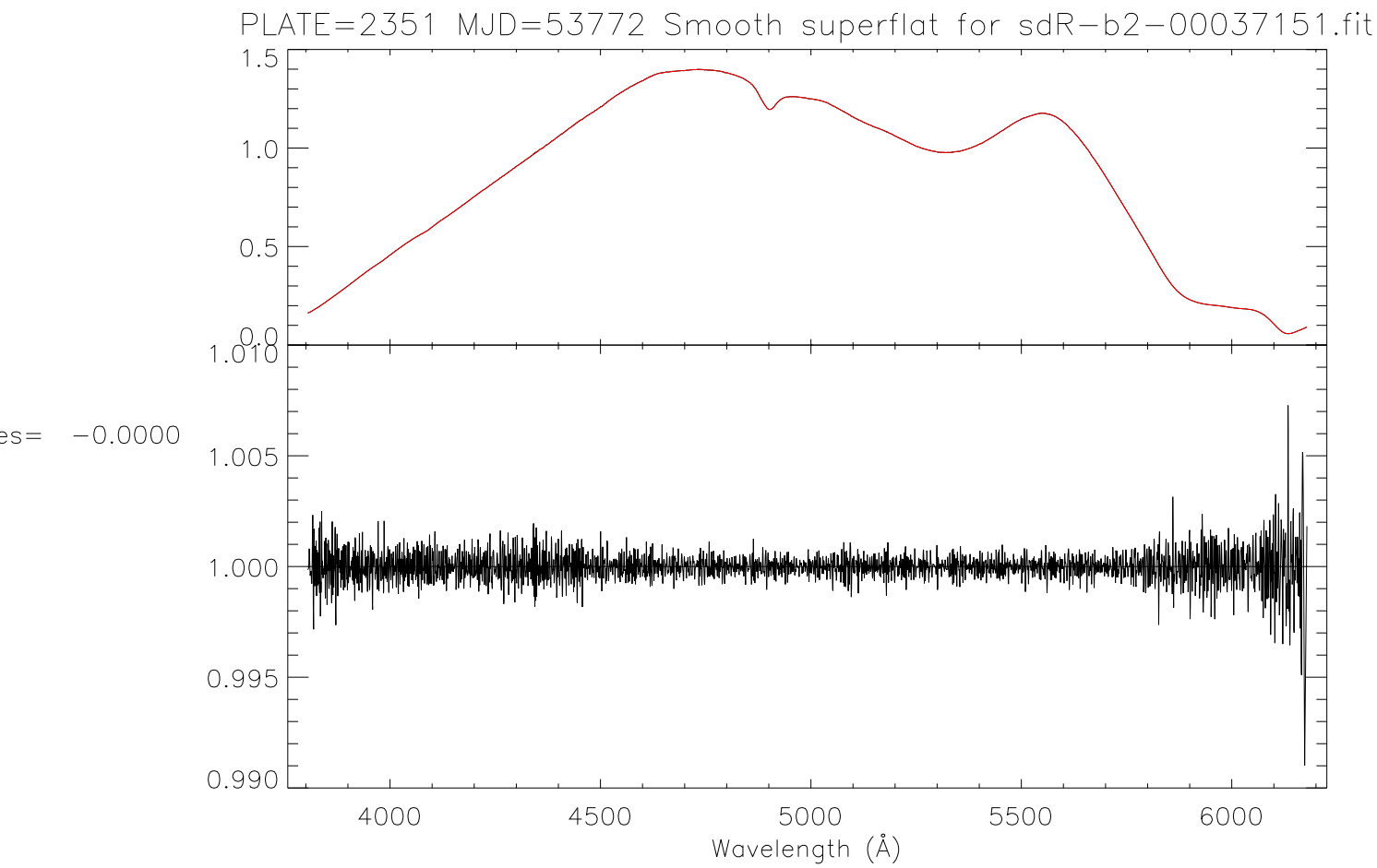

5577.3390
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

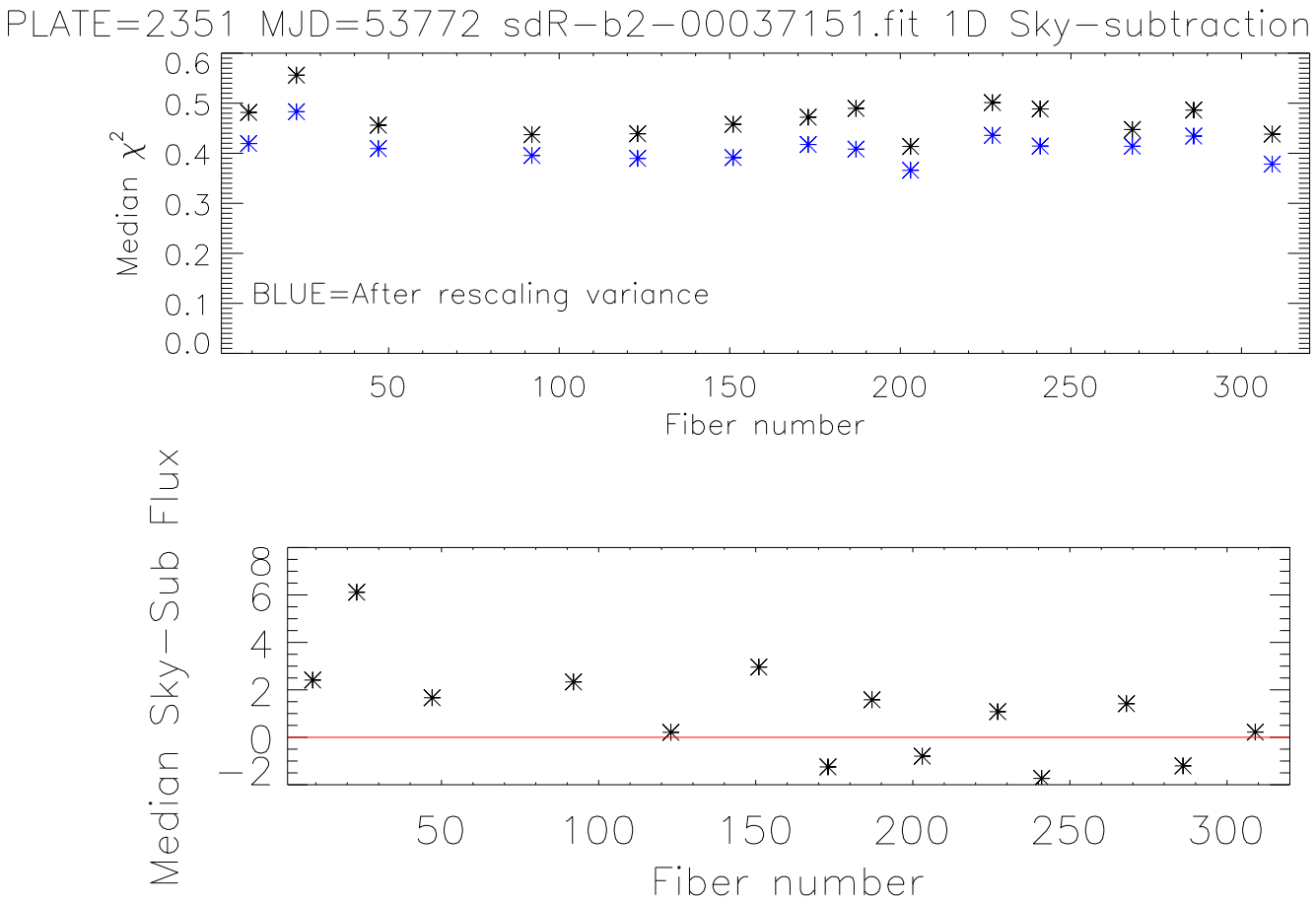

5889.9500
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

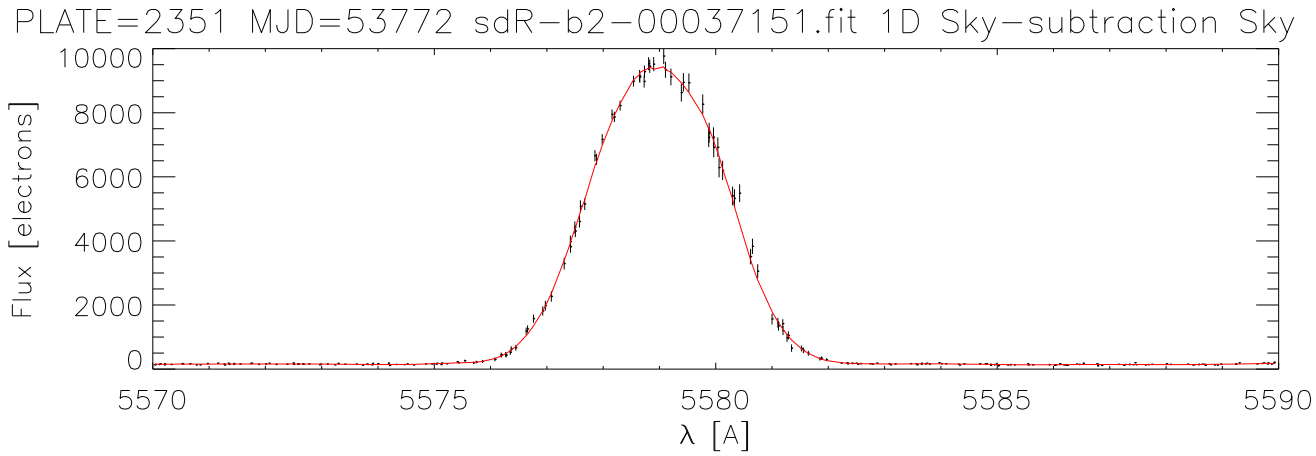

5895.9240
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

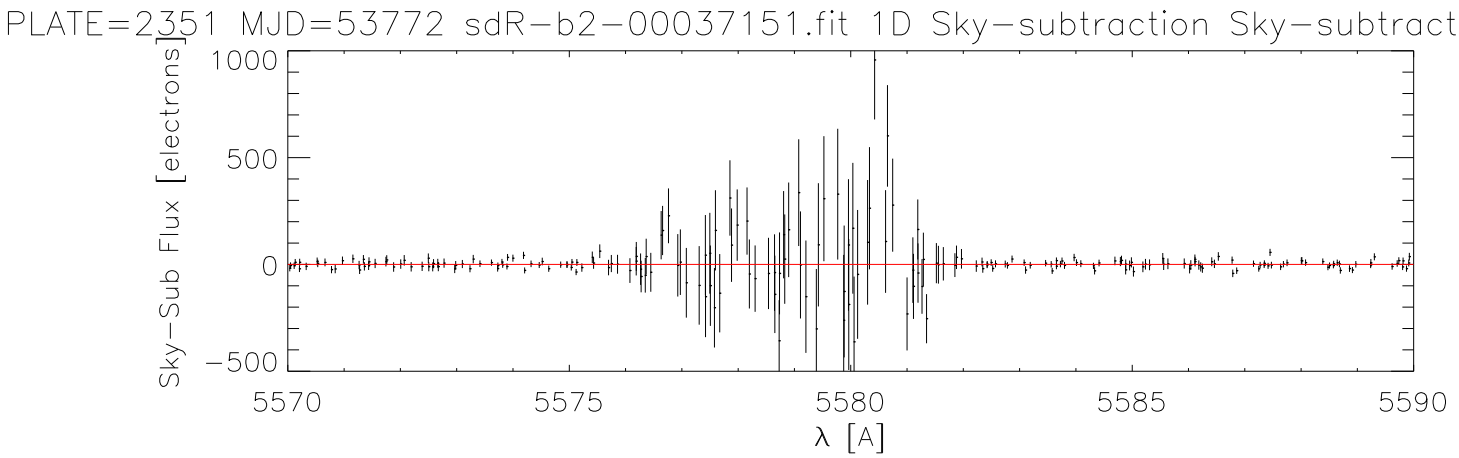

4046.5600
nfib1 16
nfib2 16
stdev 0.092
extra 0.22
4358.3300
nfib1 16
nfib2 16
stdev 0.046
extra 0.12
5460.9400
nfib1 16
nfib2 16
stdev 0.032
extra 0.11
5577.3390
nfib1 16
nfib2 16
stdev 0.018
extra 0.16
5889.9500
nfib1 16
nfib2 16
stdev 0.019
extra 0.20
5895.9240
nfib1 16
nfib2 16
stdev 0.024
extra 0.19
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

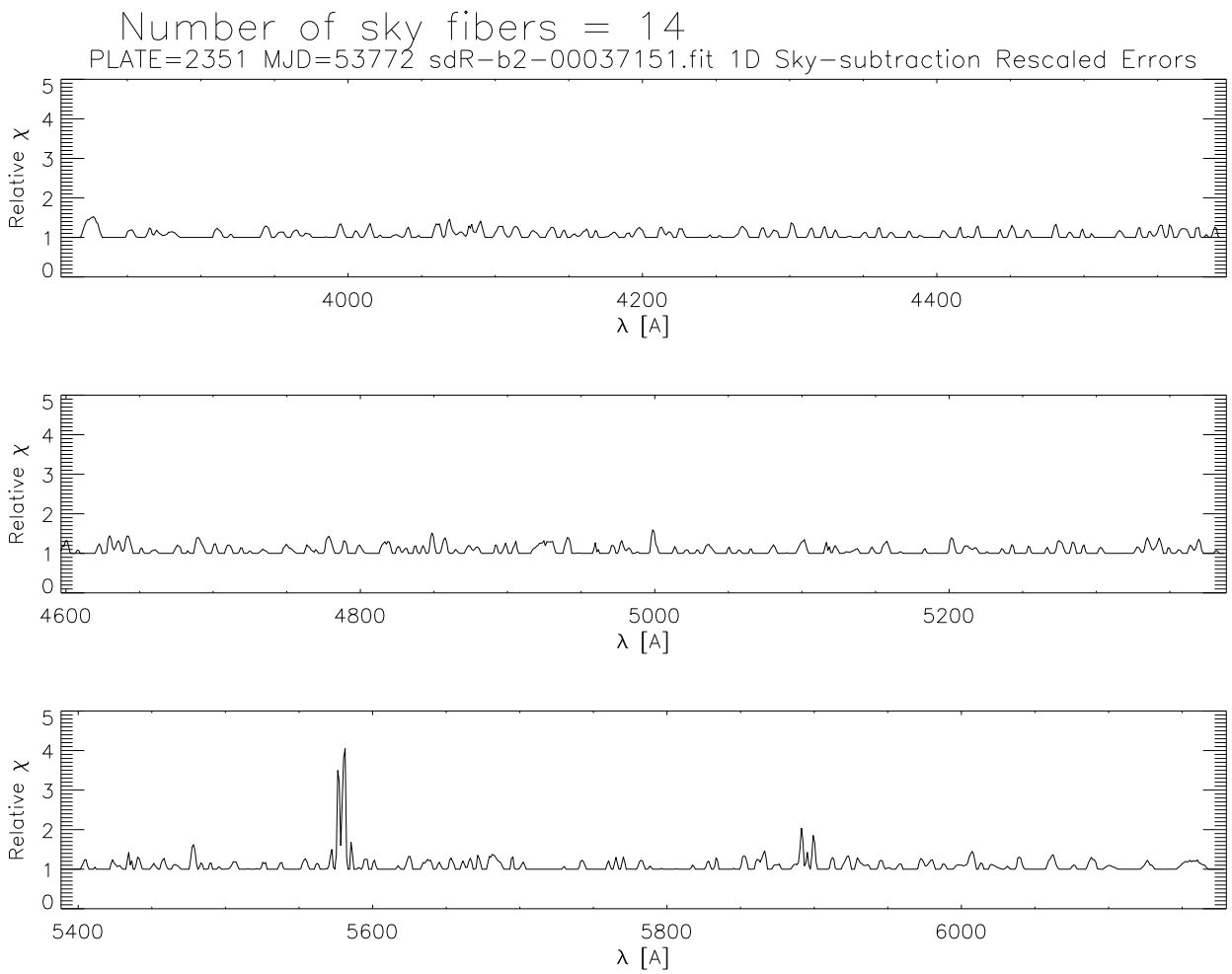

sky shift, pixels
0.25
0.20
0.15
0.10
0.05
3500
4000
4500
5000
5500
6000
6500

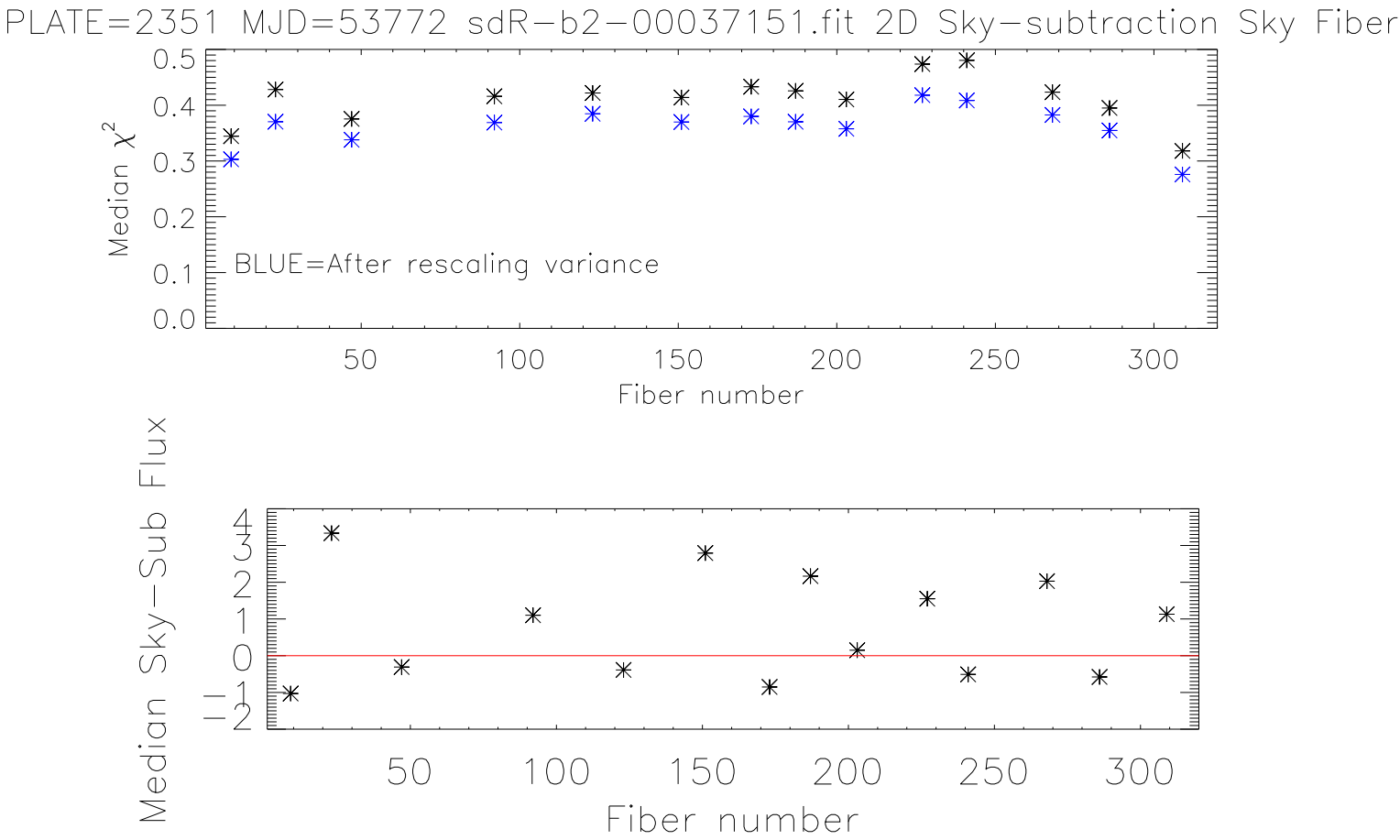

PLATE=2351 MJD=53772 Smooth superflat for sdR-b2-00037151.fit
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
es= −0.0000
4000
4500
5000
5500
6000
Wavelength (Å)

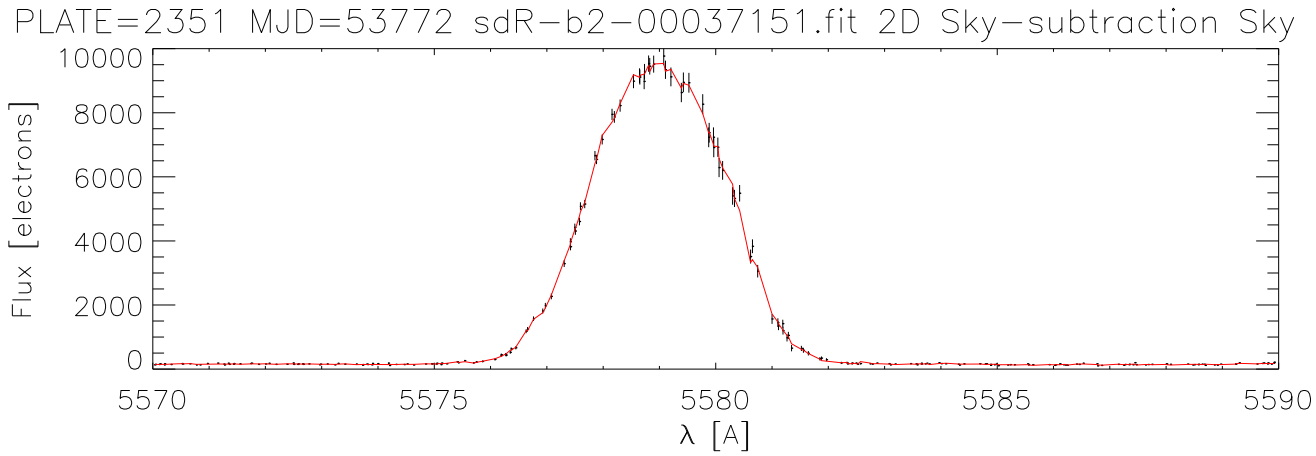

PLATE=2351 MJD=53772 sdR-b2-00037151.fit 1D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

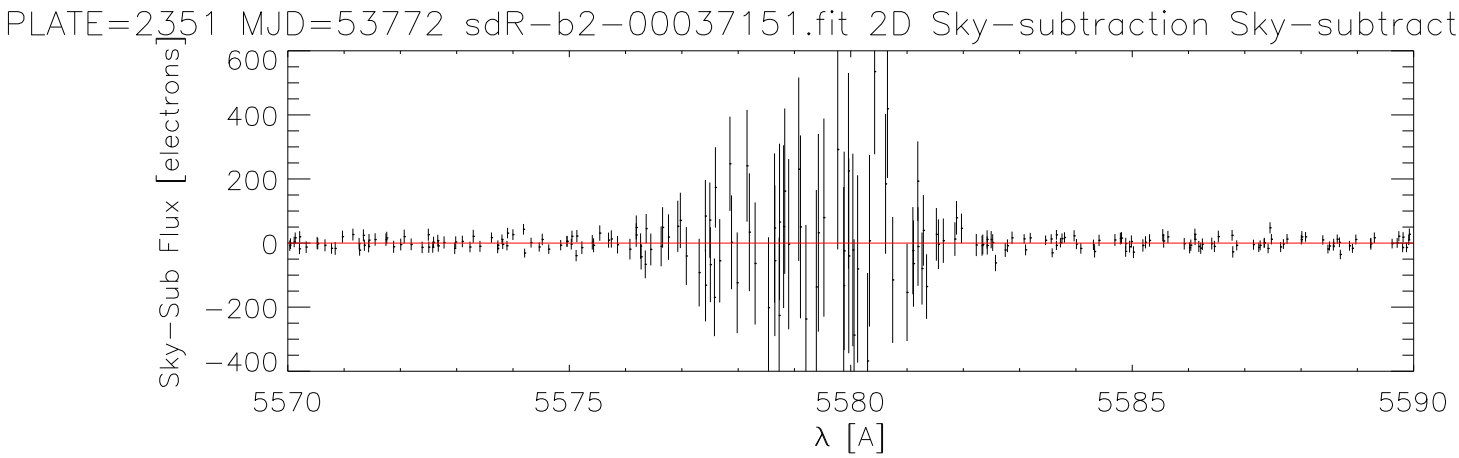

PLATE=2351 MJD=53772 sdR-b2-00037151.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
10000
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

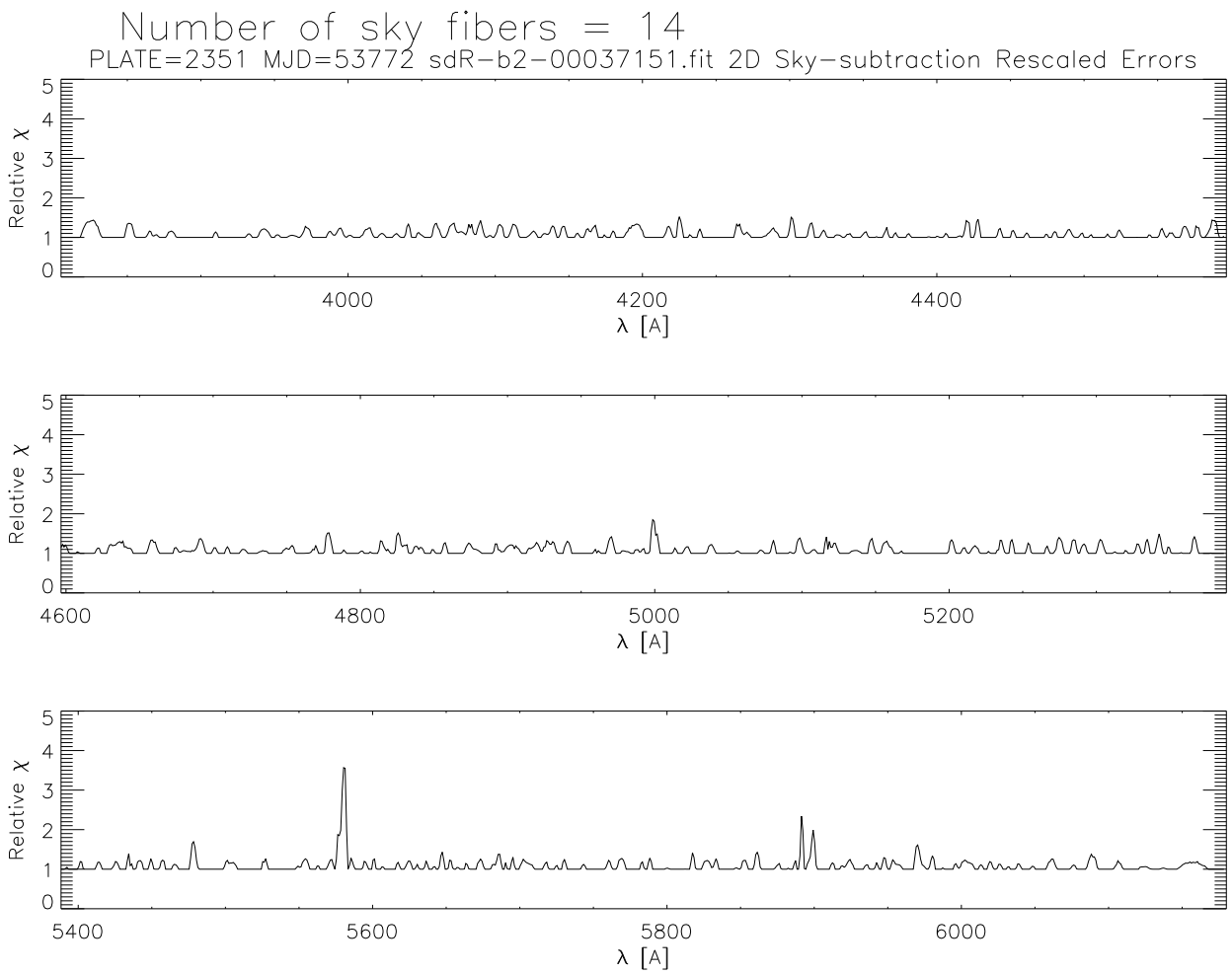

PLATE=2351 MJD=53772 sdR-b2-00037151.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
1000
500
0
-500
5570
5575
5580
5585
5590
λ [A]

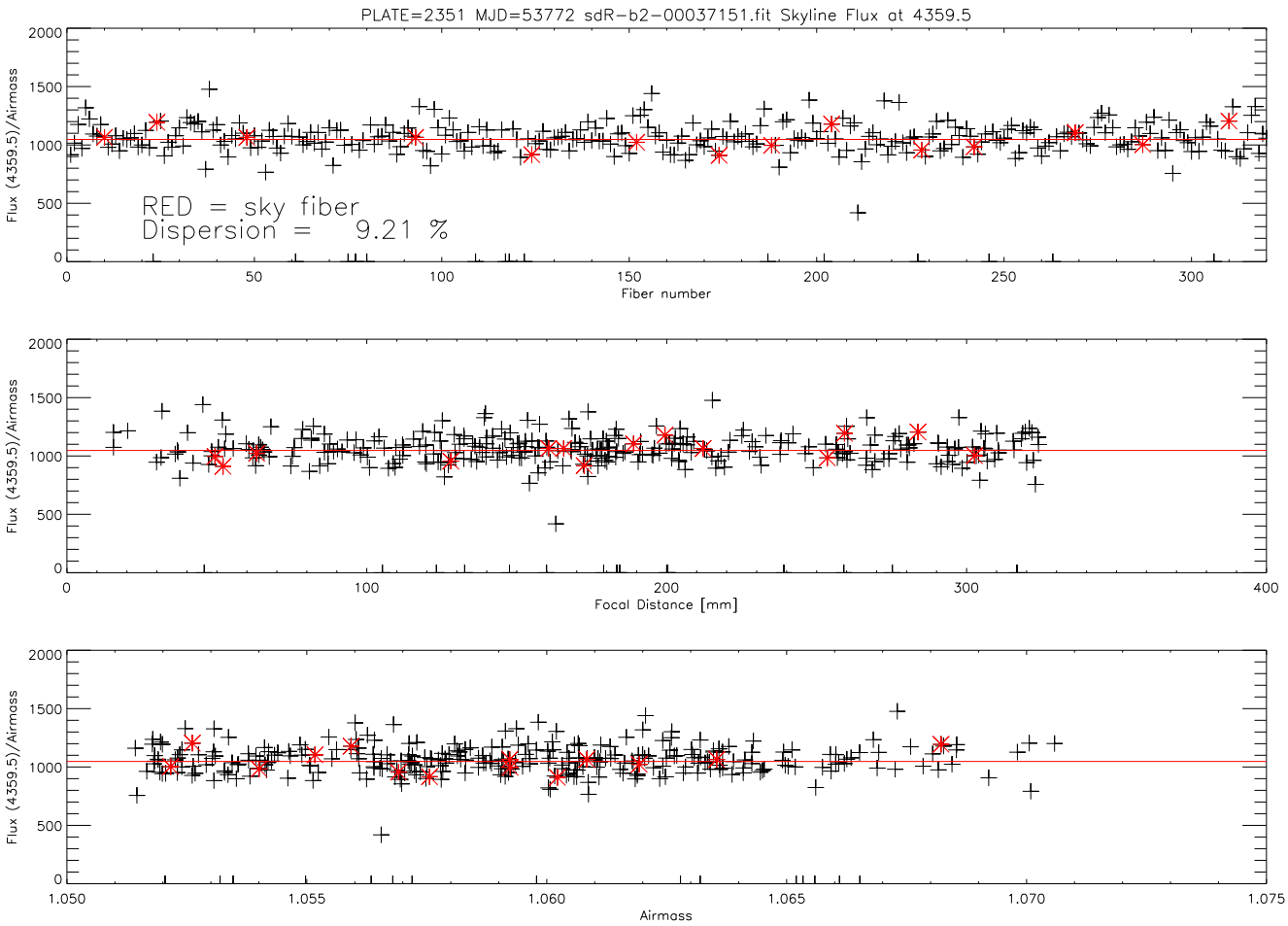

Number of sky fibers = 14
PLATE=2351 MJD=53772 sdR-b2-00037151.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

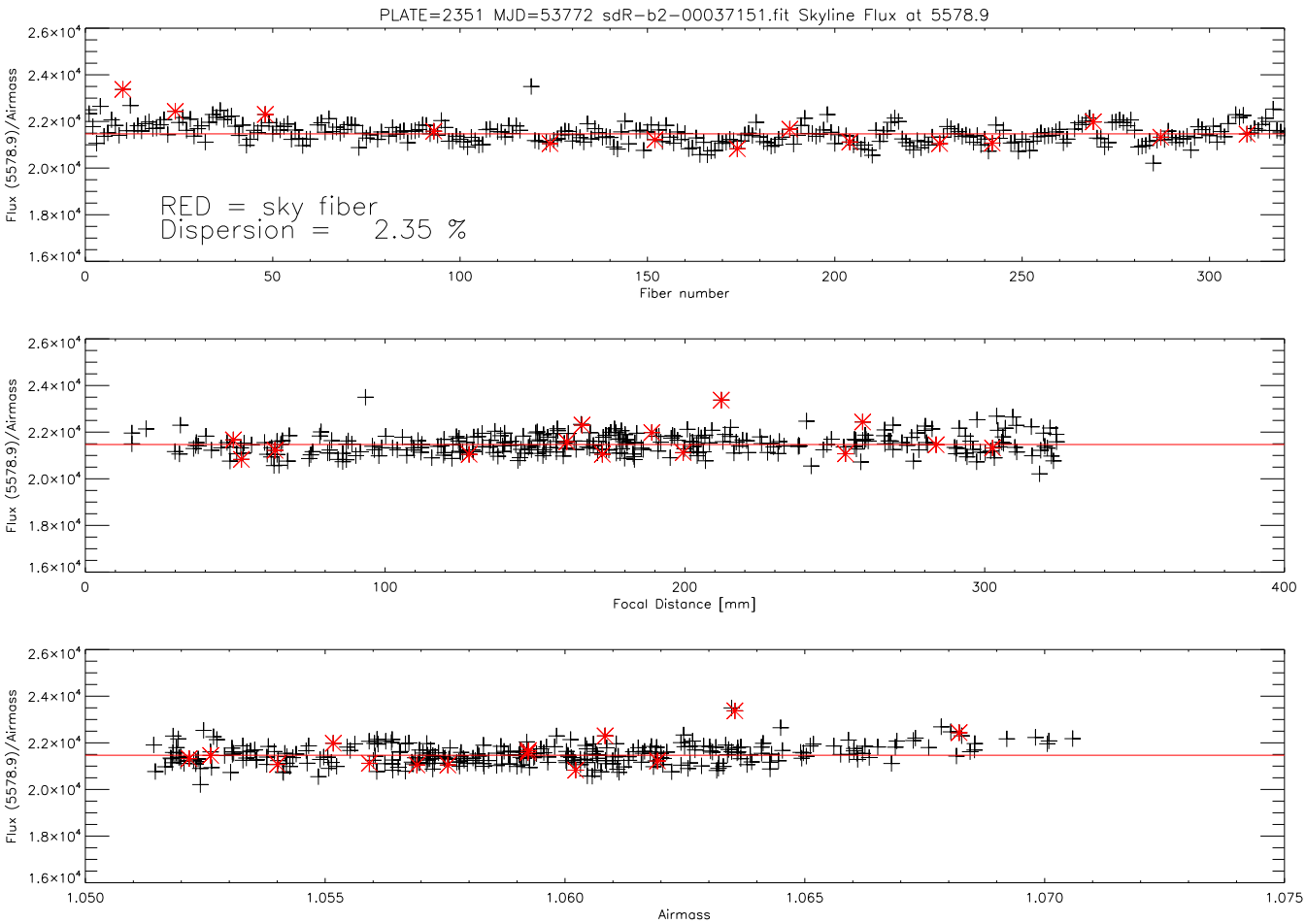

PLATE=2351 MJD=53772 sdR-b2-00037151.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

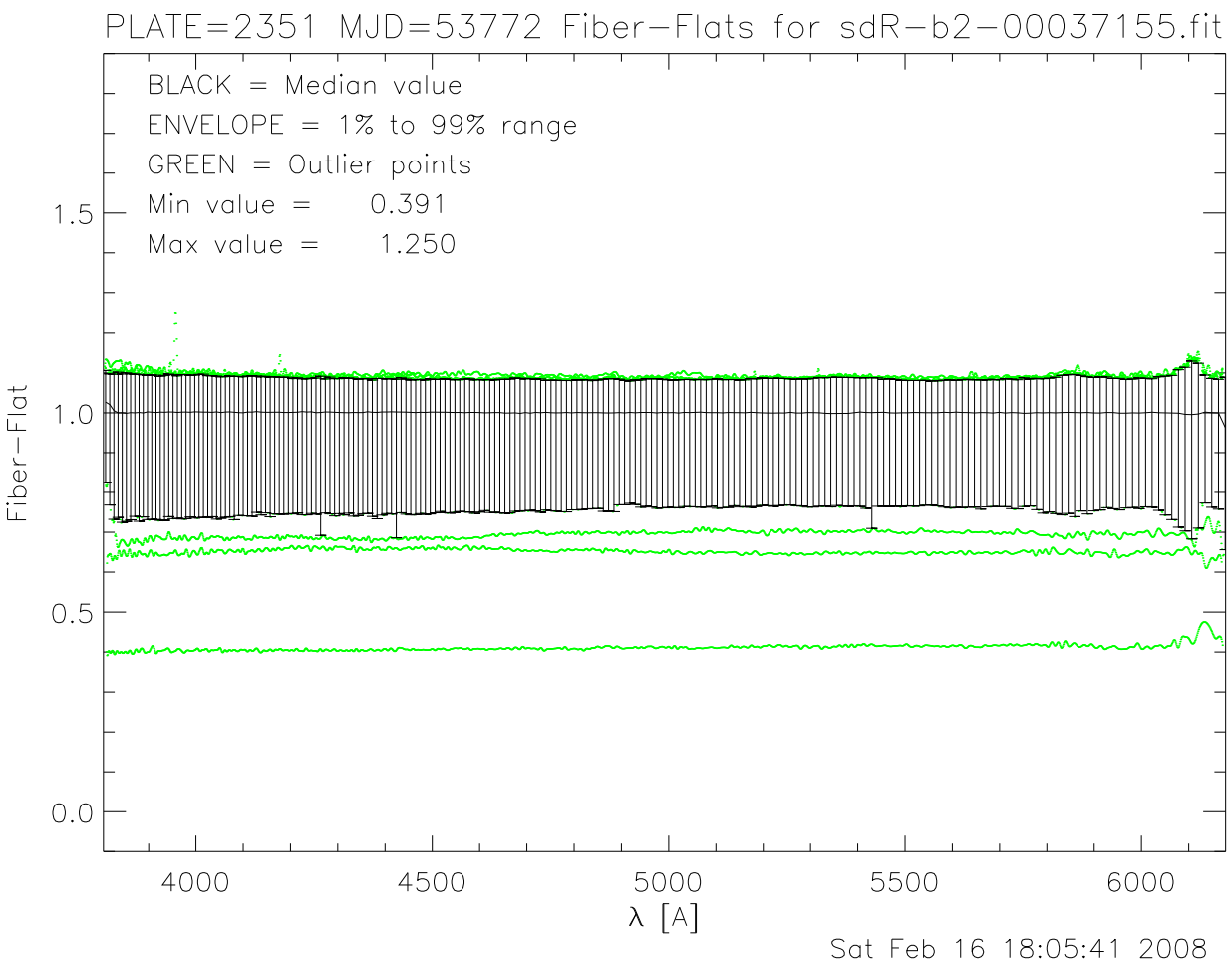

PLATE=2351 MJD=53772 sdR-b2-00037151.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
10000
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

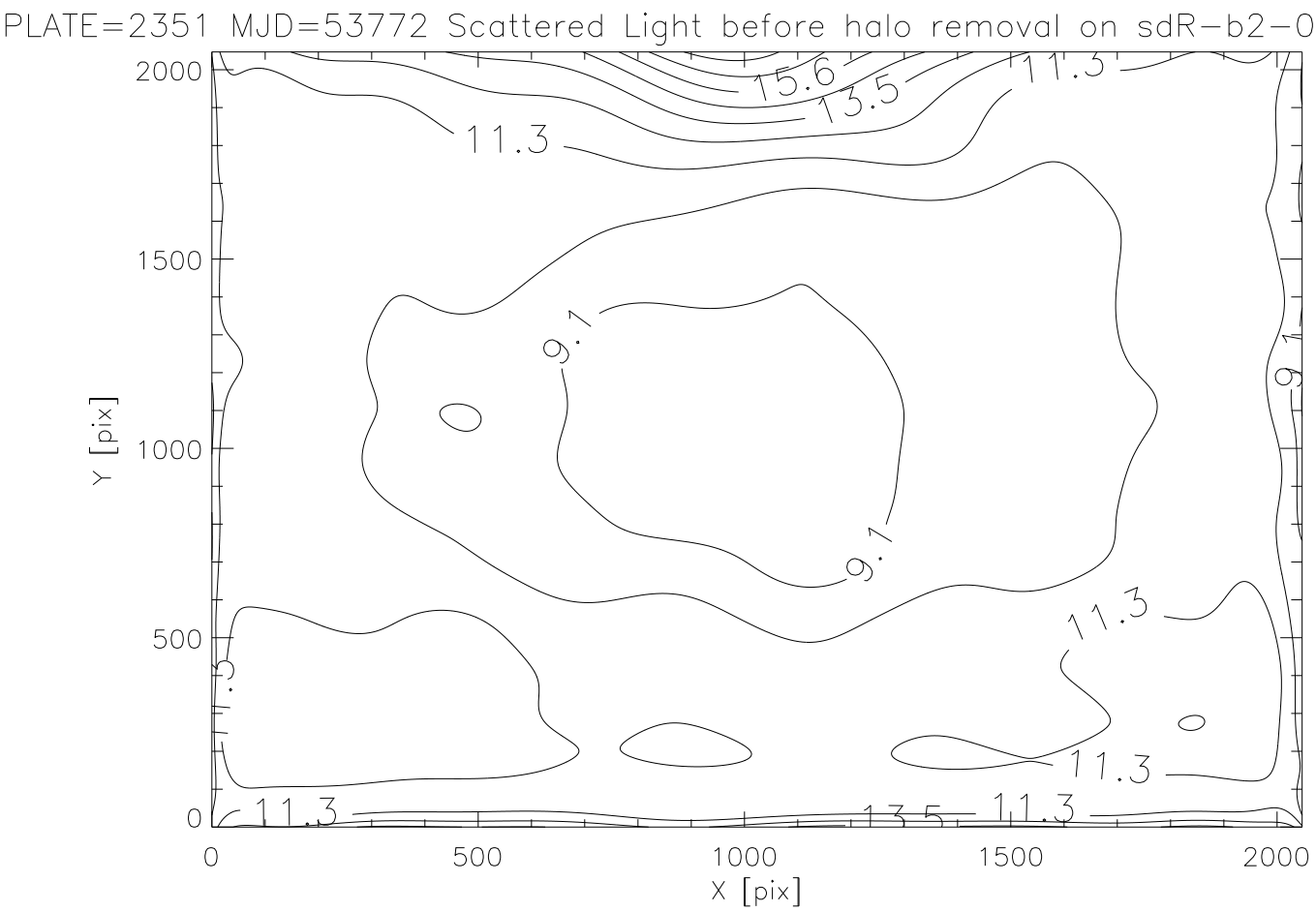

PLATE=2351 MJD=53772 sdR-b2-00037151.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
-200
-400
5570
5575
5580
5585
5590
λ [A]

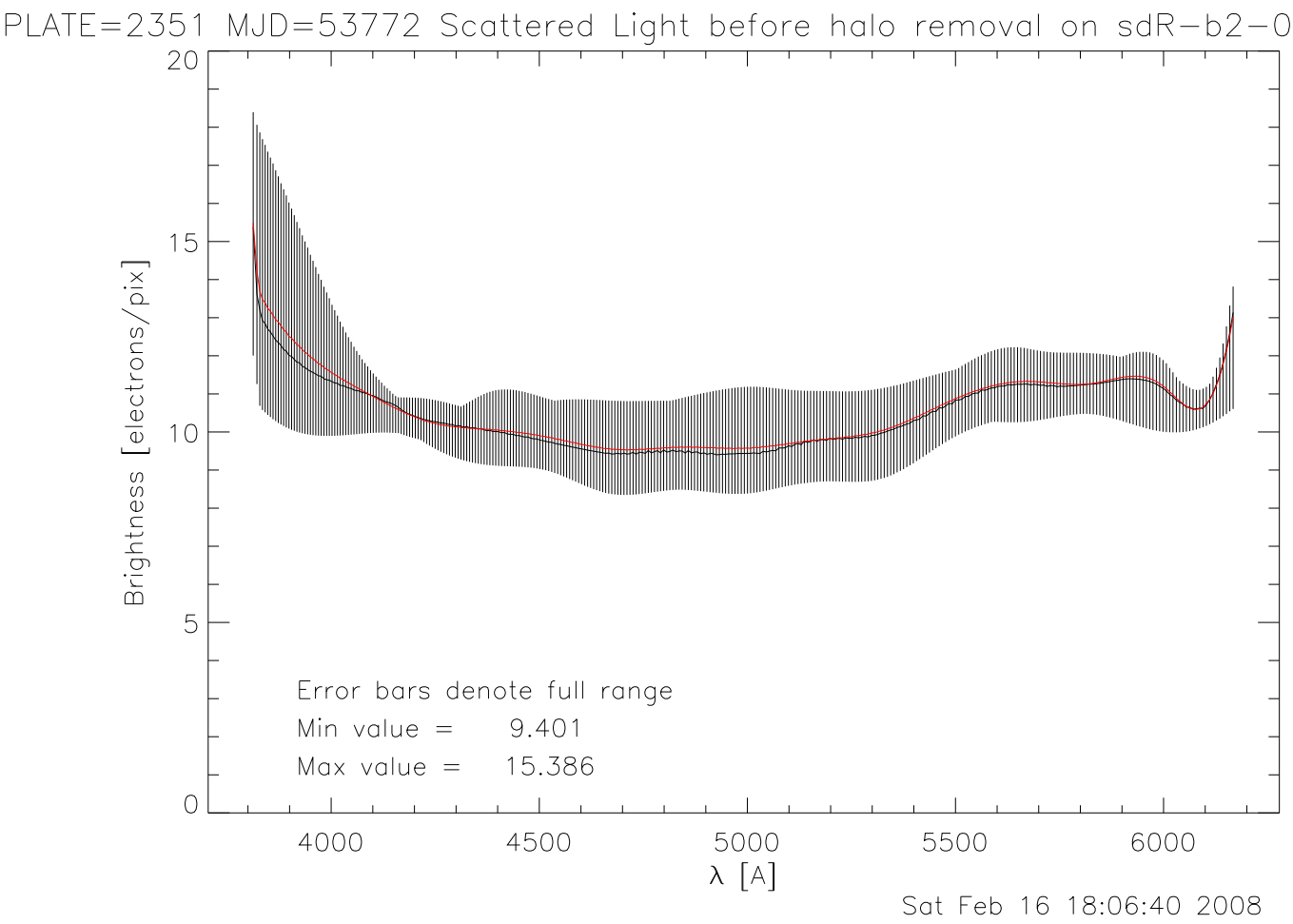

Number of sky fibers = 14
PLATE=2351 MJD=53772 sdR-b2-00037151.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

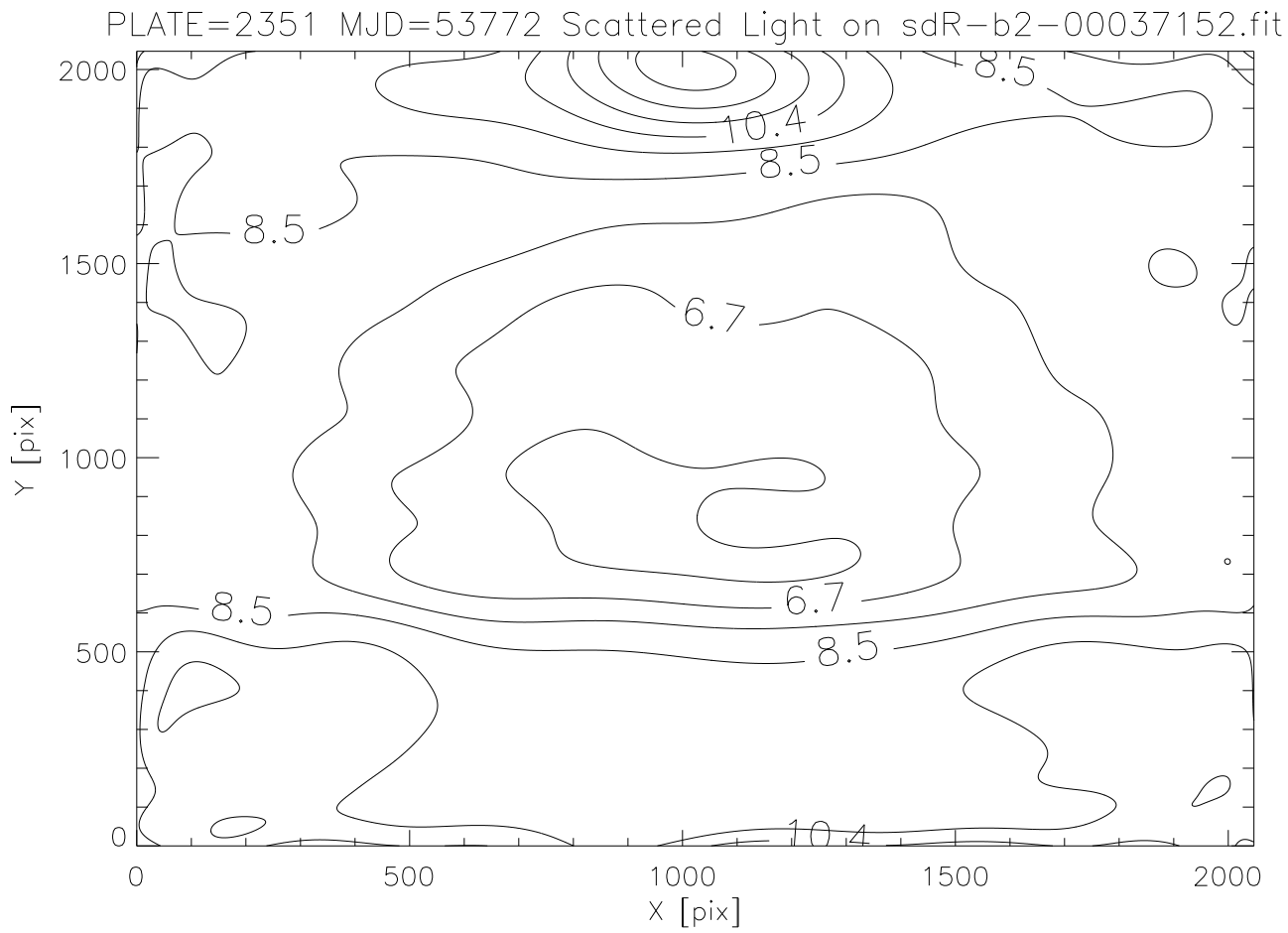

PLATE=2351 MJD=53772 sdR-b2-00037151.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 9.21 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

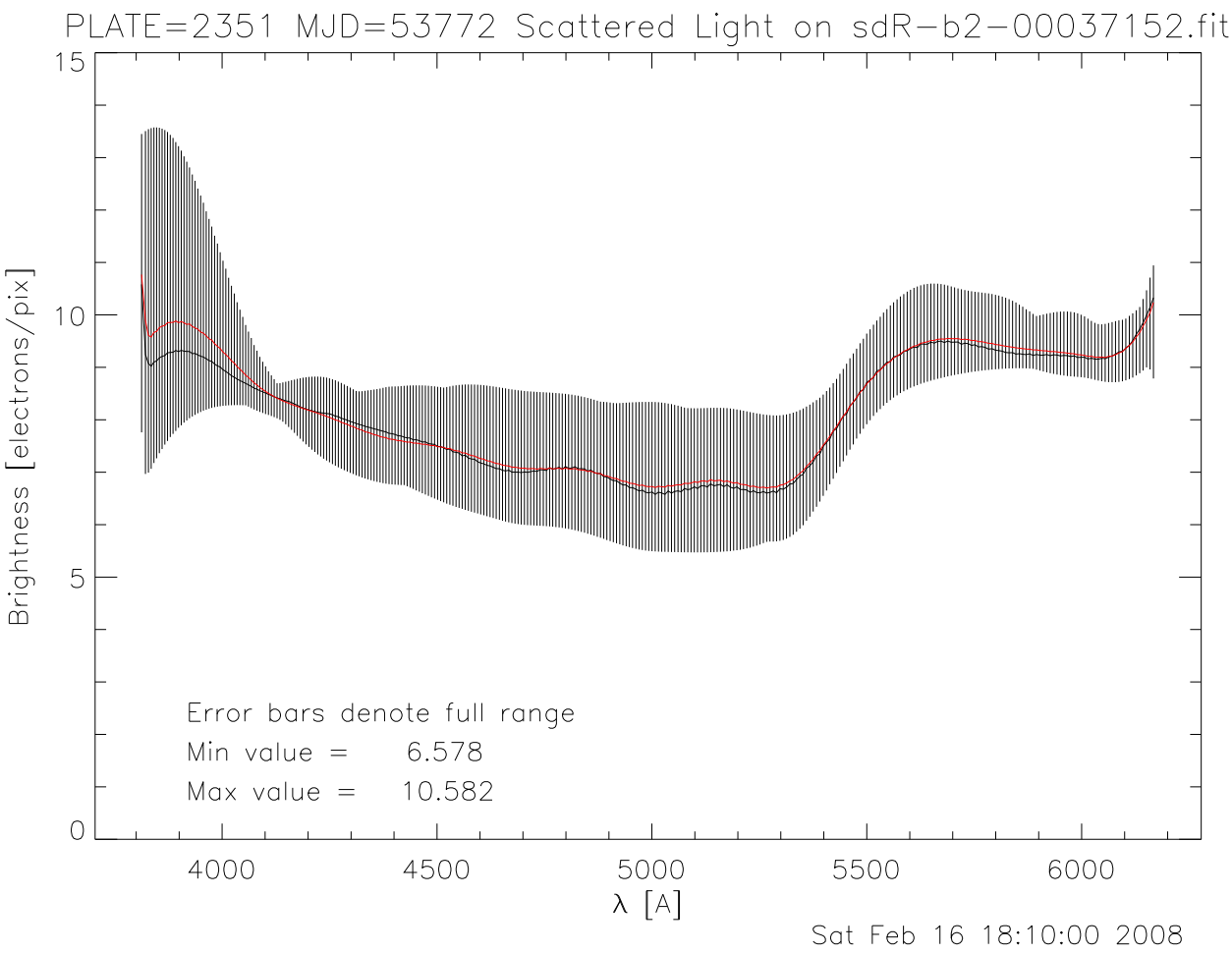

PLATE=2351 MJD=53772 sdR-b2-00037151.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
Fiber number
RED = sky fiber
Dispersion = 2.35 %
Flux (5578.9)/Airmass
Focal Distance [mm]
Flux (5578.9)/Airmass
Airmass

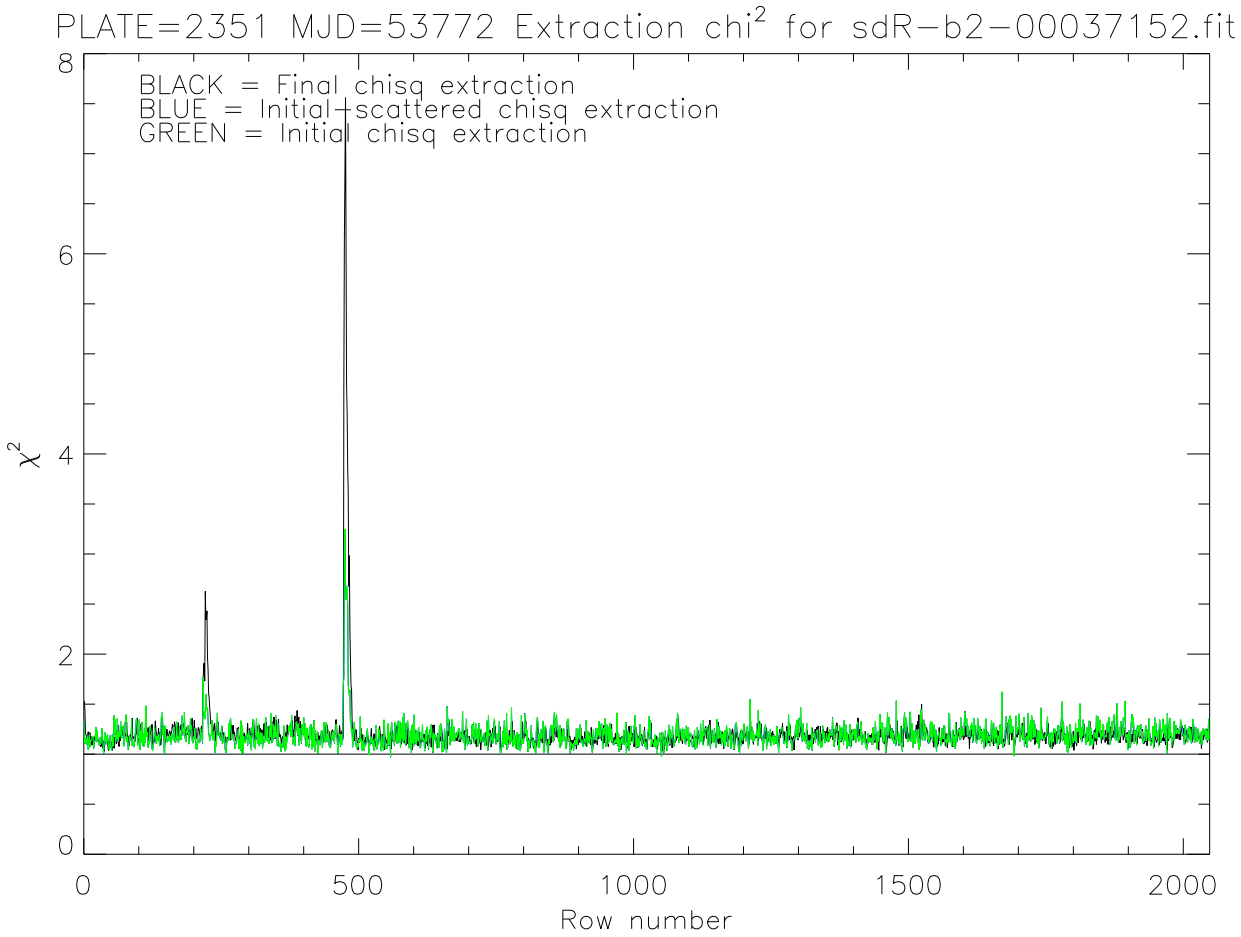

PLATE=2351 MJD=53772 Fiber−Flats for sdR−b2−00037155.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.391
Max value = 1.250
Fiber−Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Sat Feb 16 18:05:41 2008

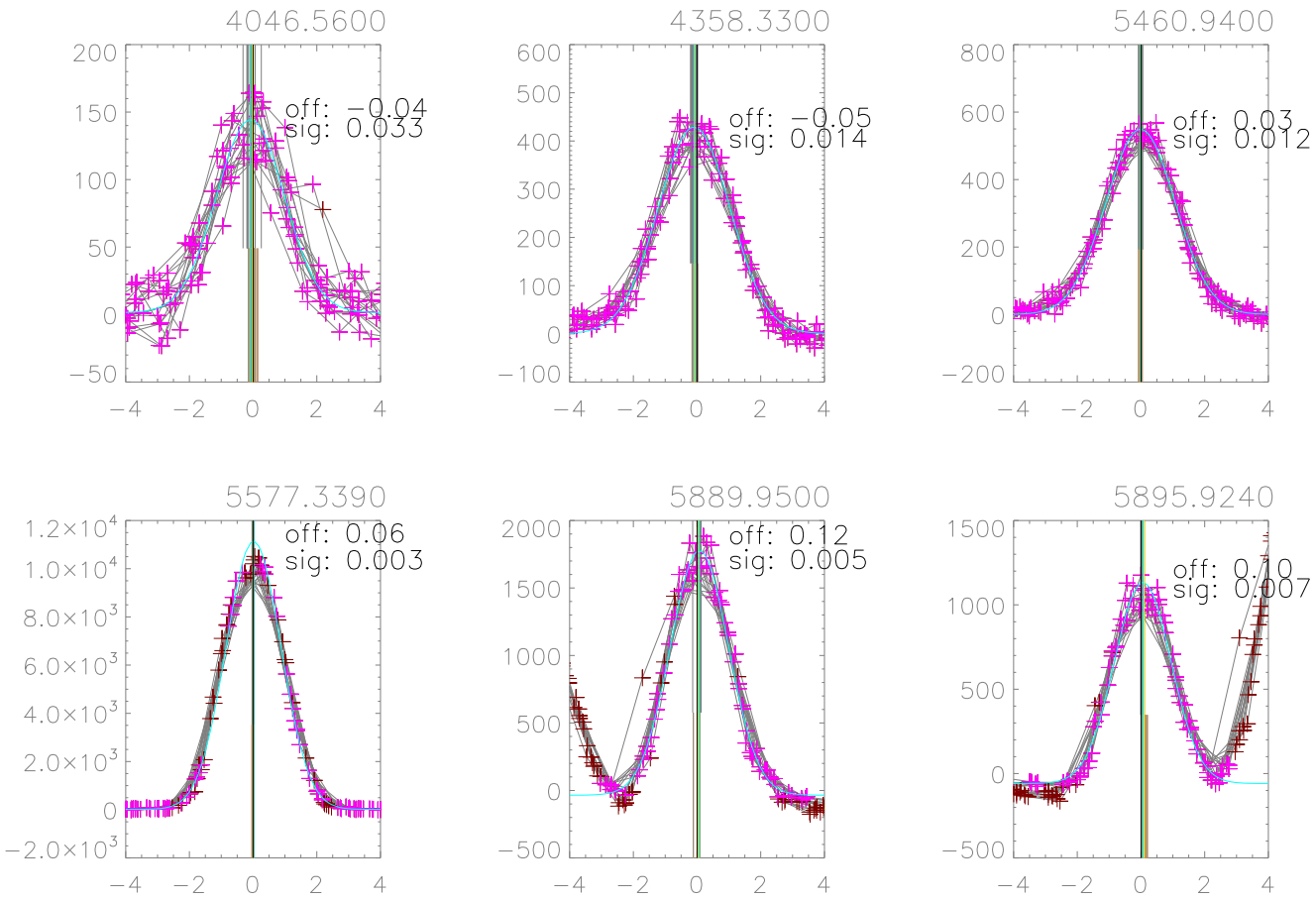

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR-b2-00037152.f
15.6
13.5
11.3
11.3
9.1
9.1
11.3
11.3
11.3
13.5
11.3
0
0
Y [pix]
X [pix]
0
500
1000
1500
2000

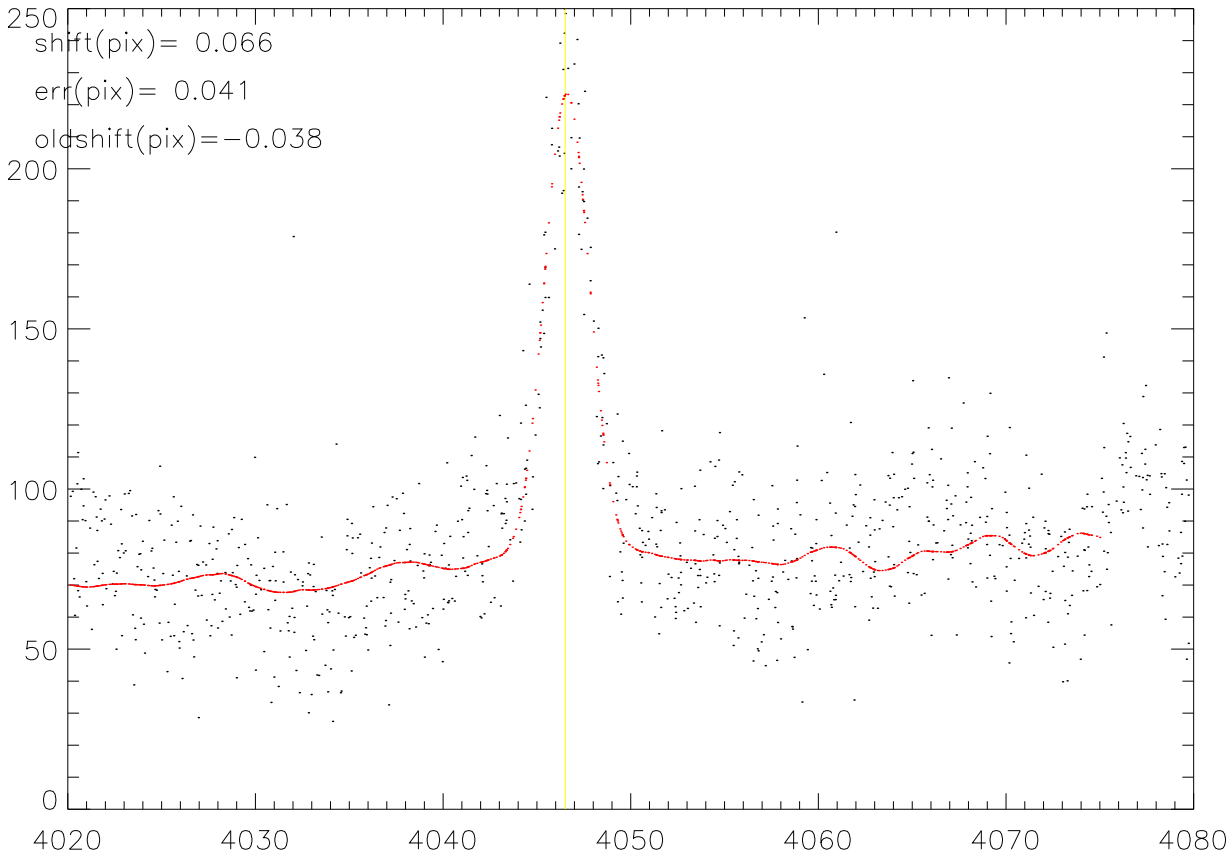

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR-b2-00037152.f
Brightness [electrons/pix]
20
15
10
5
0
Error bars denote full range
Min value = 9.401
Max value = 15.386
4000
4500
5000
5500
6000
λ [A]
Sat Feb 16 18:06:40 2008

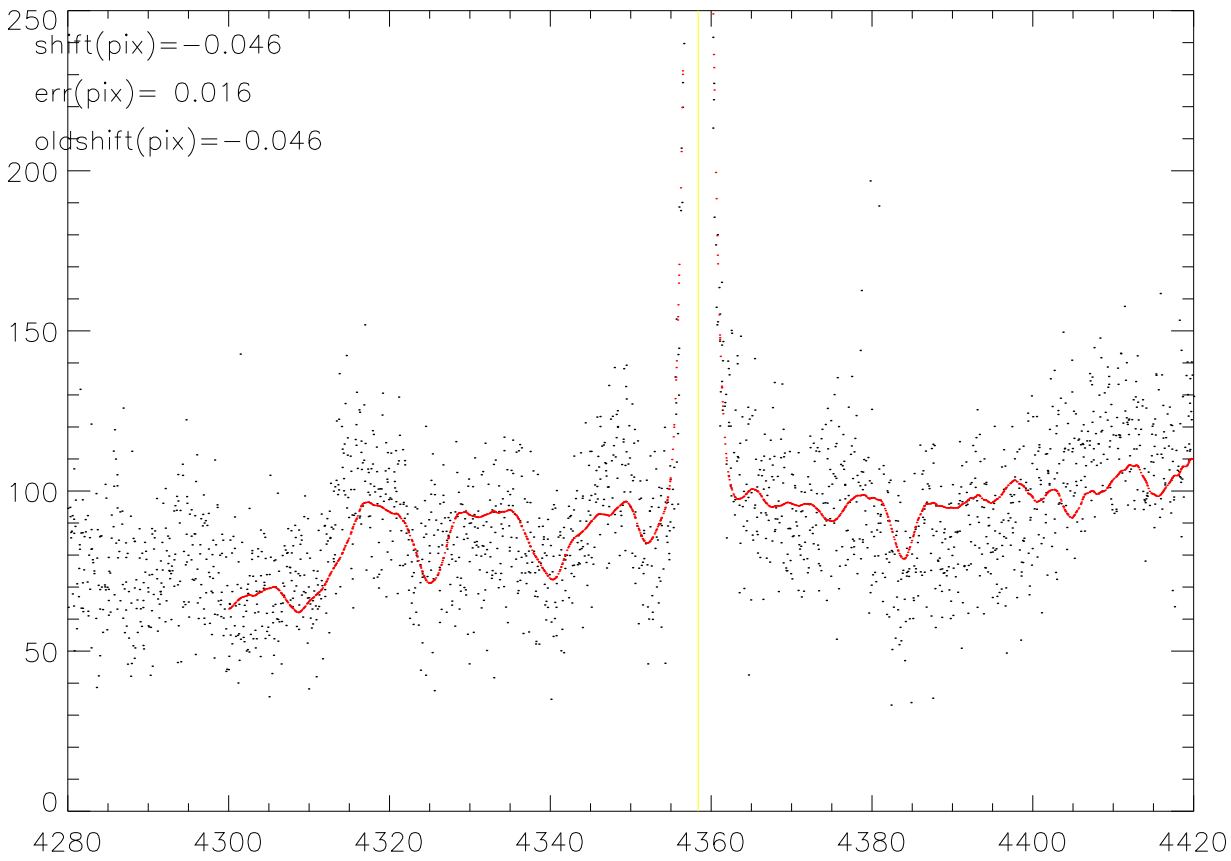

PLATE=2351 MJD=53772 Scattered Light on sdR-b2-00037152.fit
8.5
10.4
8.5
8.5
6.7
8.5
6.7
8.5
10.4
Y [pix]
X [pix]
0
500
1000
1500
2000

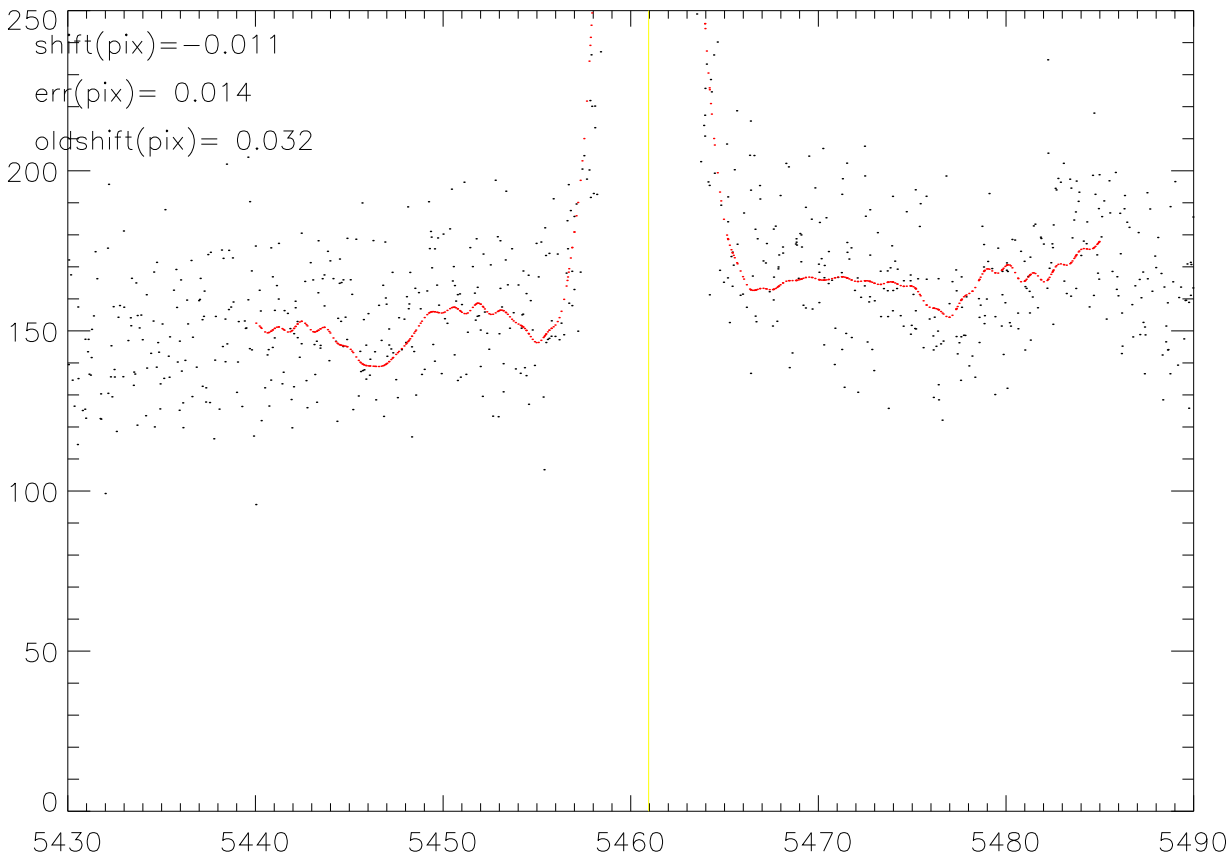

PLATE=2351 MJD=53772 Scattered Light on sdR-b2-00037152.fit
Brightness [electrons/pix]
15
10
5
0
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 6.578
Max value = 10.582
Sat Feb 16 18:10:00 2008

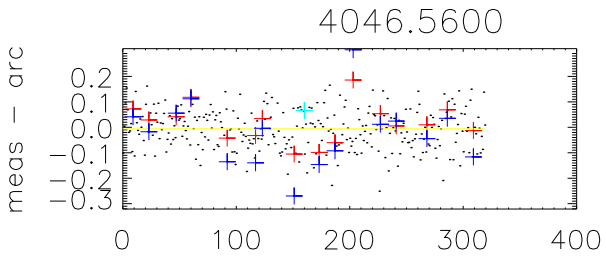

PLATE=2351 MJD=53772 Extraction chi^2 for sdR-b2-00037152.fit
BLACK = Final chisq extraction
BLUE = Initial+scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
0
500
1000
1500
2000
Row number

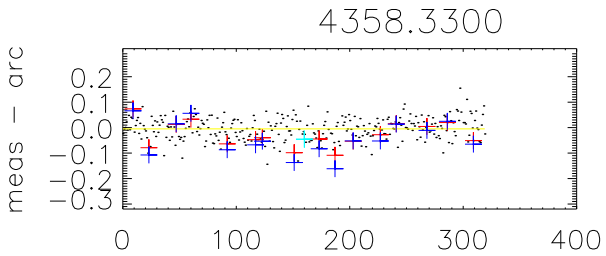

4046.5600
off: −0.04
sig: 0.033
4358.3300
off: −0.05
sig: 0.014
5460.9400
off: 0.03
sig: 0.012
5577.3390
off: 0.06
sig: 0.003
5889.9500
off: 0.12
sig: 0.005
5895.9240
off: 0.10
sig: 0.007

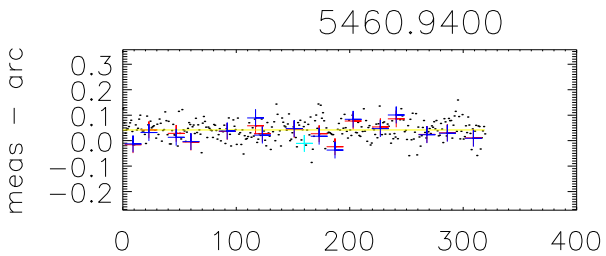

shift(pix)= 0.066
err(pix)= 0.041
oldshift(pix)=−0.038
250
200
150
100
50
0
4020
4030
4040
4050
4060
4070
4080

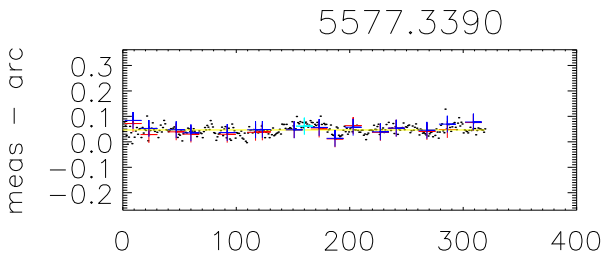

shift(pix)=−0.046
err(pix)= 0.016
oldshift(pix)=−0.046
250
200
150
100
50
0
4280
4300
4320
4340
4360
4380
4400
4420

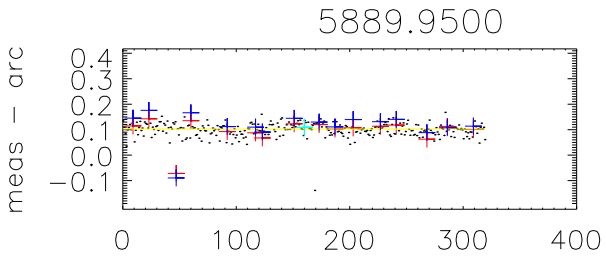

shift(pix)=−0.011
err(pix)= 0.014
oldshift(pix)= 0.032
250
200
150
100
50
0
5430
5440
5450
5460
5470
5480
5490

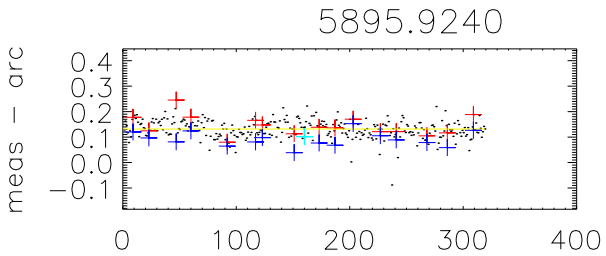

4046.5600
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

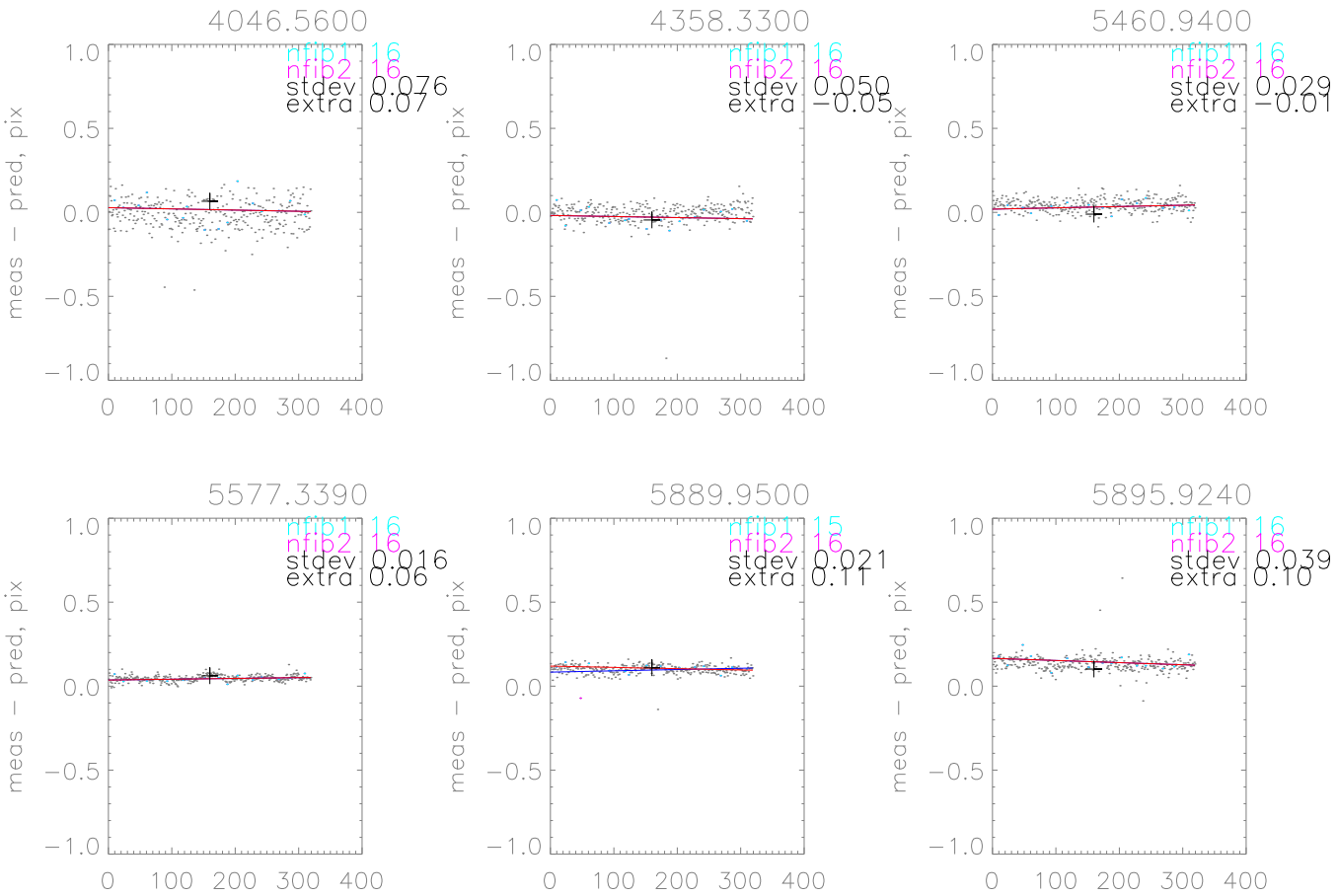

4358.3300
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

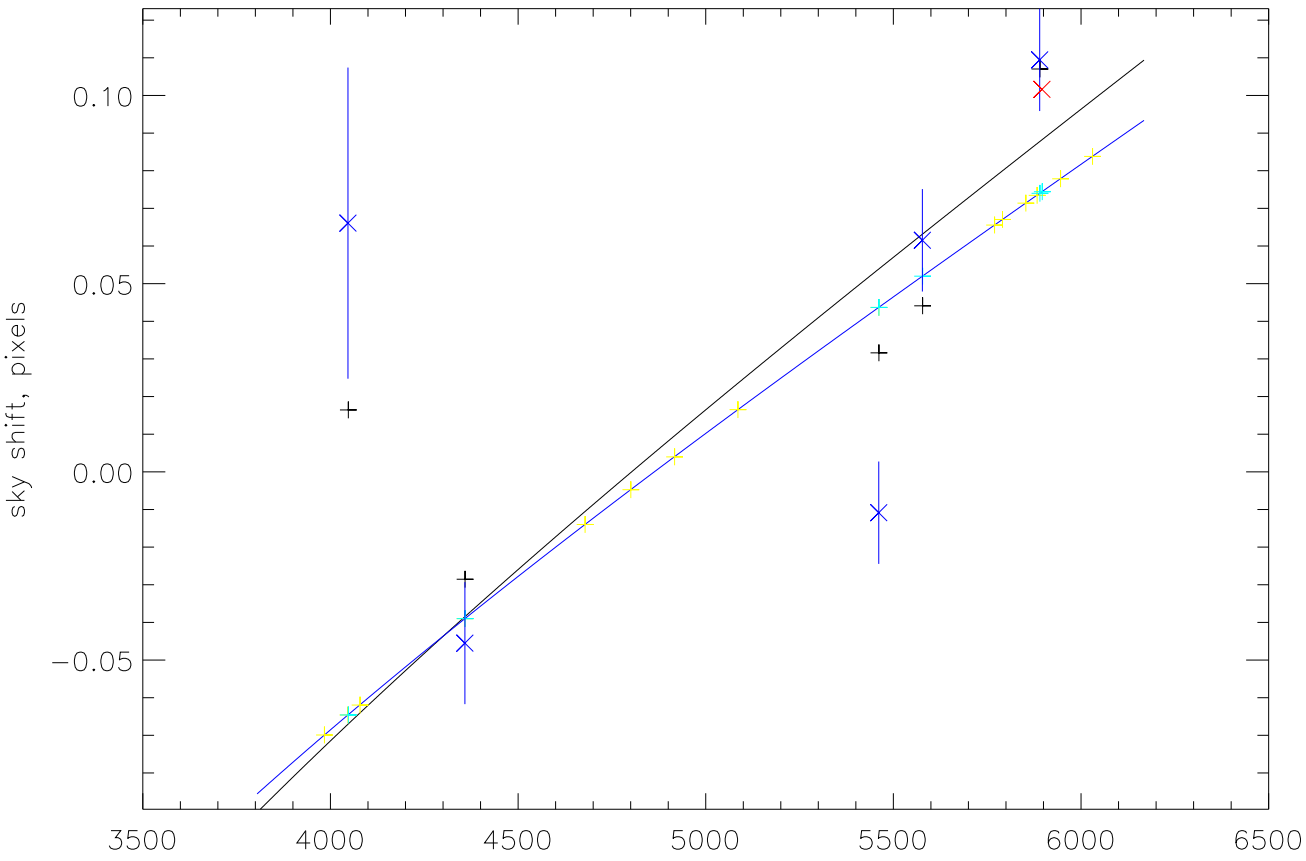

5460.9400
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

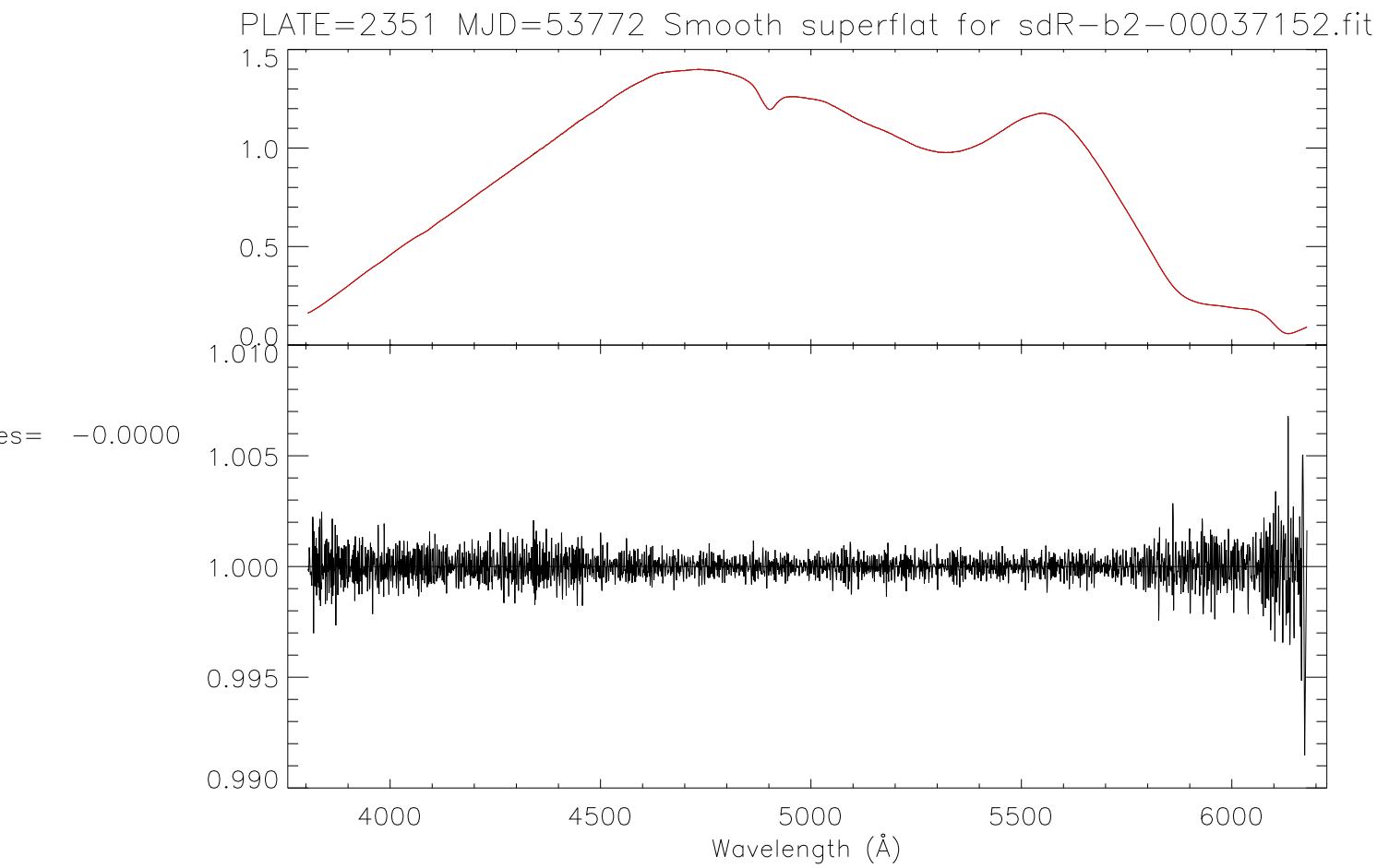

5577.3390
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400


5889.9500
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

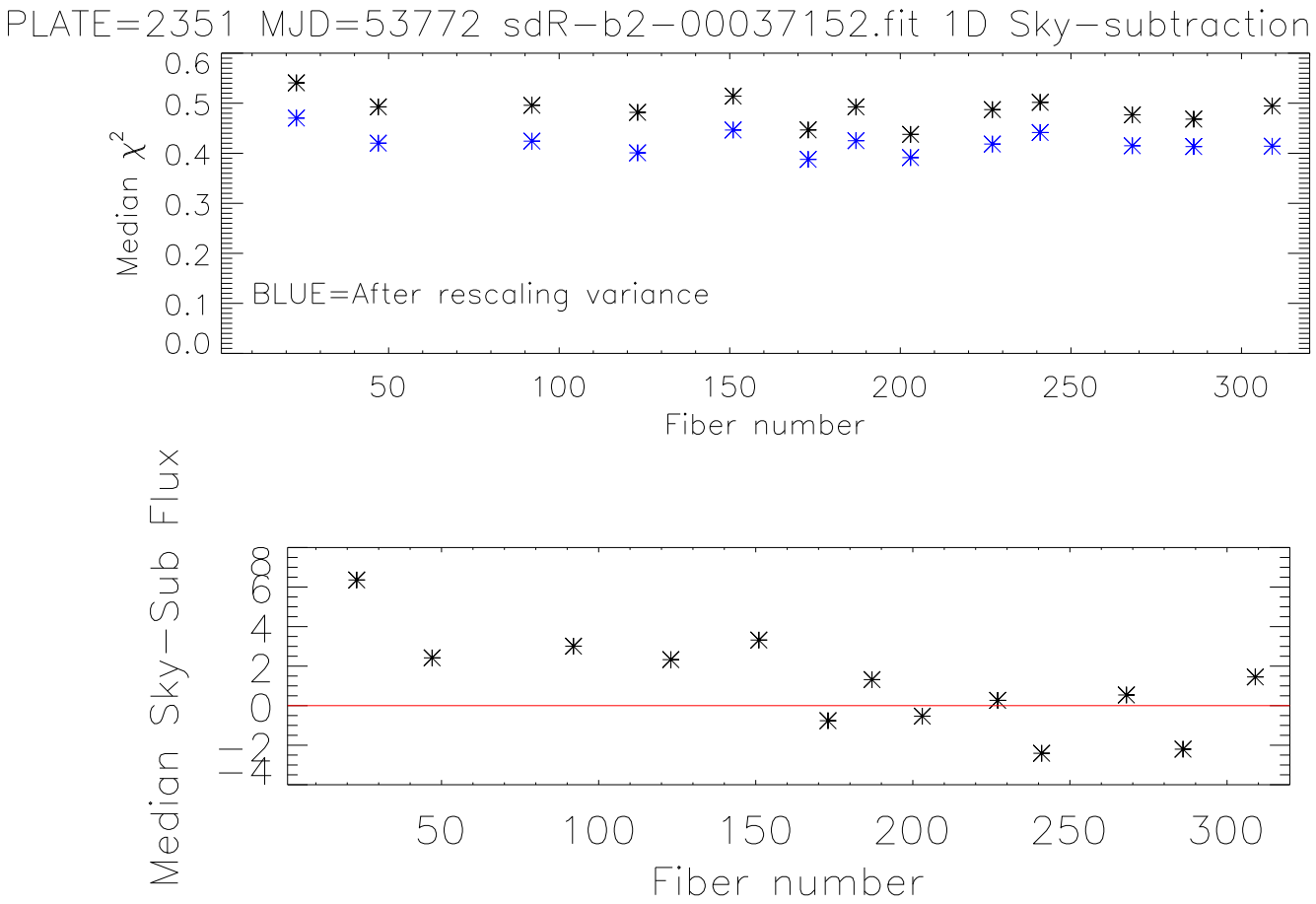

5895.9240
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

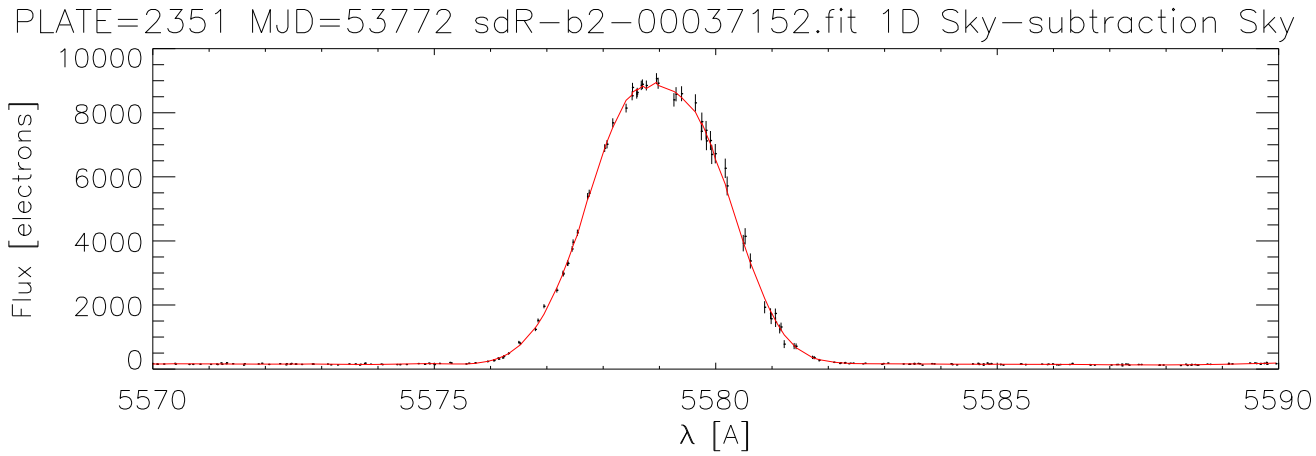

4046.5600
nfib1 16
nfib2 16
stdev 0.076
extra 0.07
4358.3300
nfib1 16
nfib2 16
stdev 0.050
extra −0.05
5460.9400
nfib1 16
nfib2 16
stdev 0.029
extra −0.01
5577.3390
nfib1 16
nfib2 16
stdev 0.016
extra 0.06
5889.9500
nfib1 15
nfib2 16
stdev 0.021
extra 0.11
5895.9240
nfib1 16
nfib2 16
stdev 0.039
extra 0.10
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

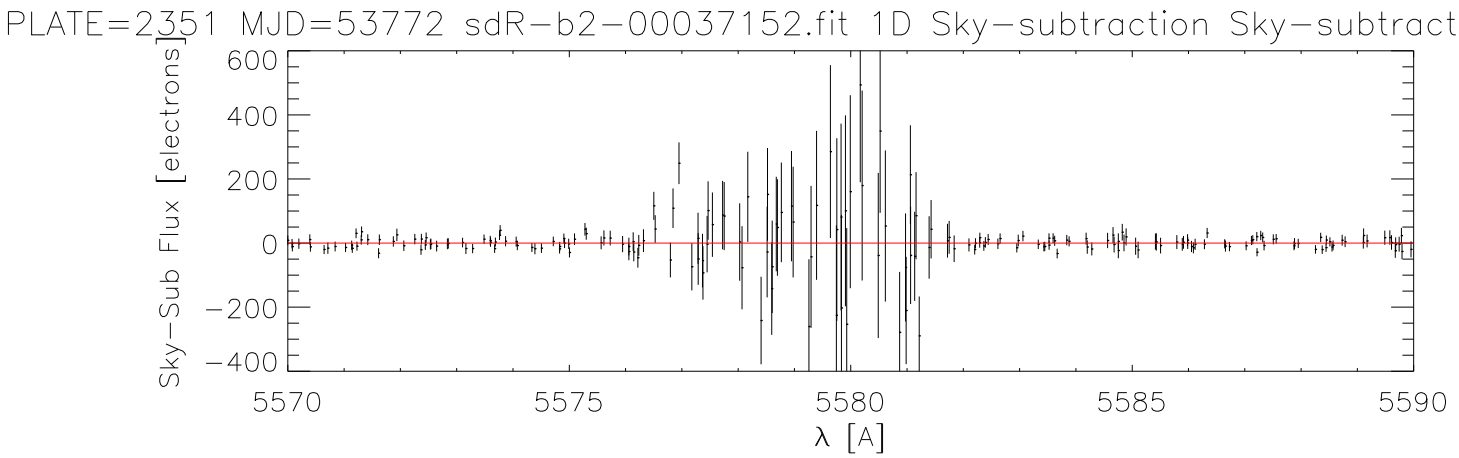

sky shift, pixels
0.10
0.05
0.00
−0.05
3500
4000
4500
5000
5500
6000
6500

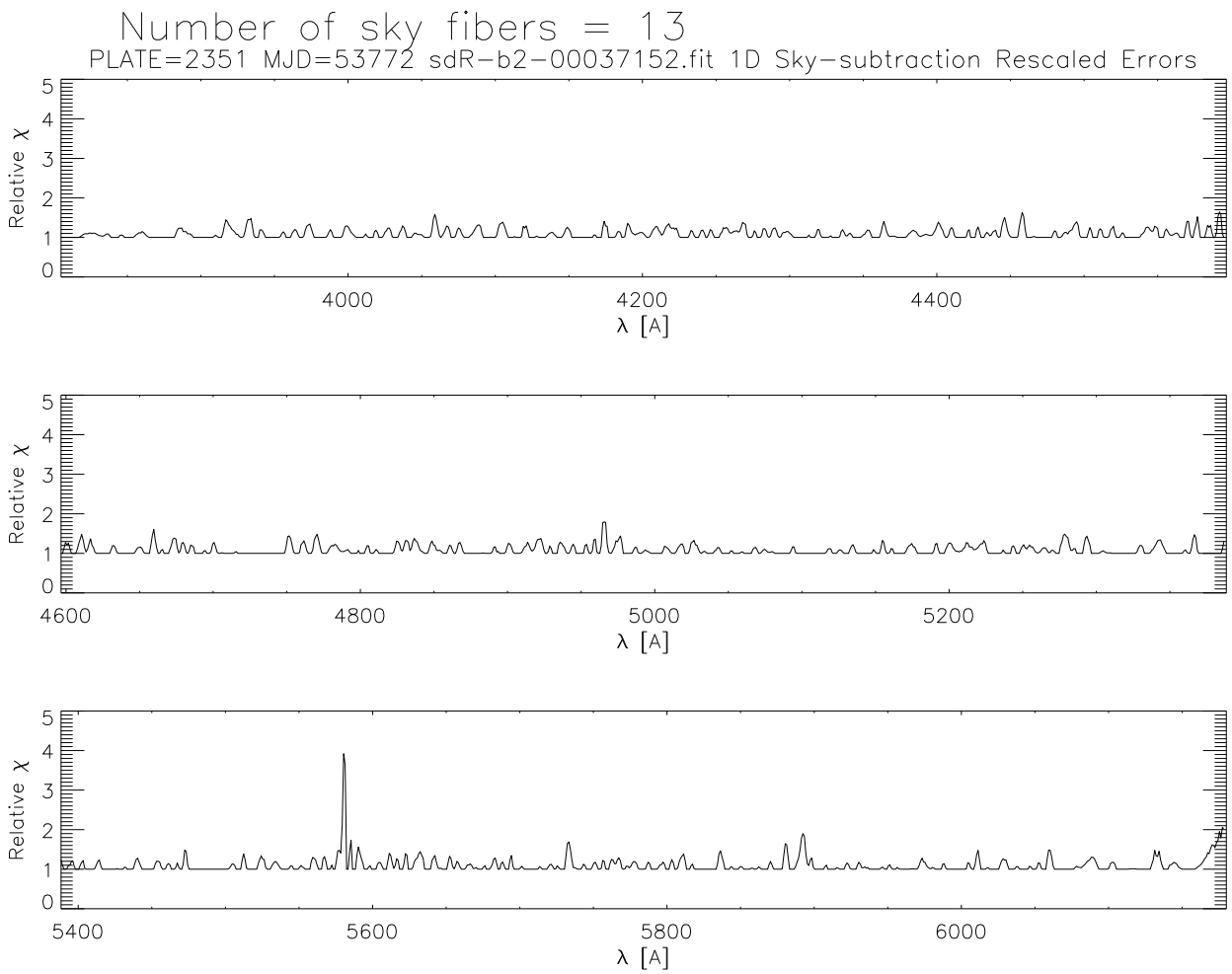

PLATE=2351 MJD=53772 Smooth superflat for sdR-b2-00037152.fit
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
4000
4500
5000
5500
6000
Wavelength (Å)

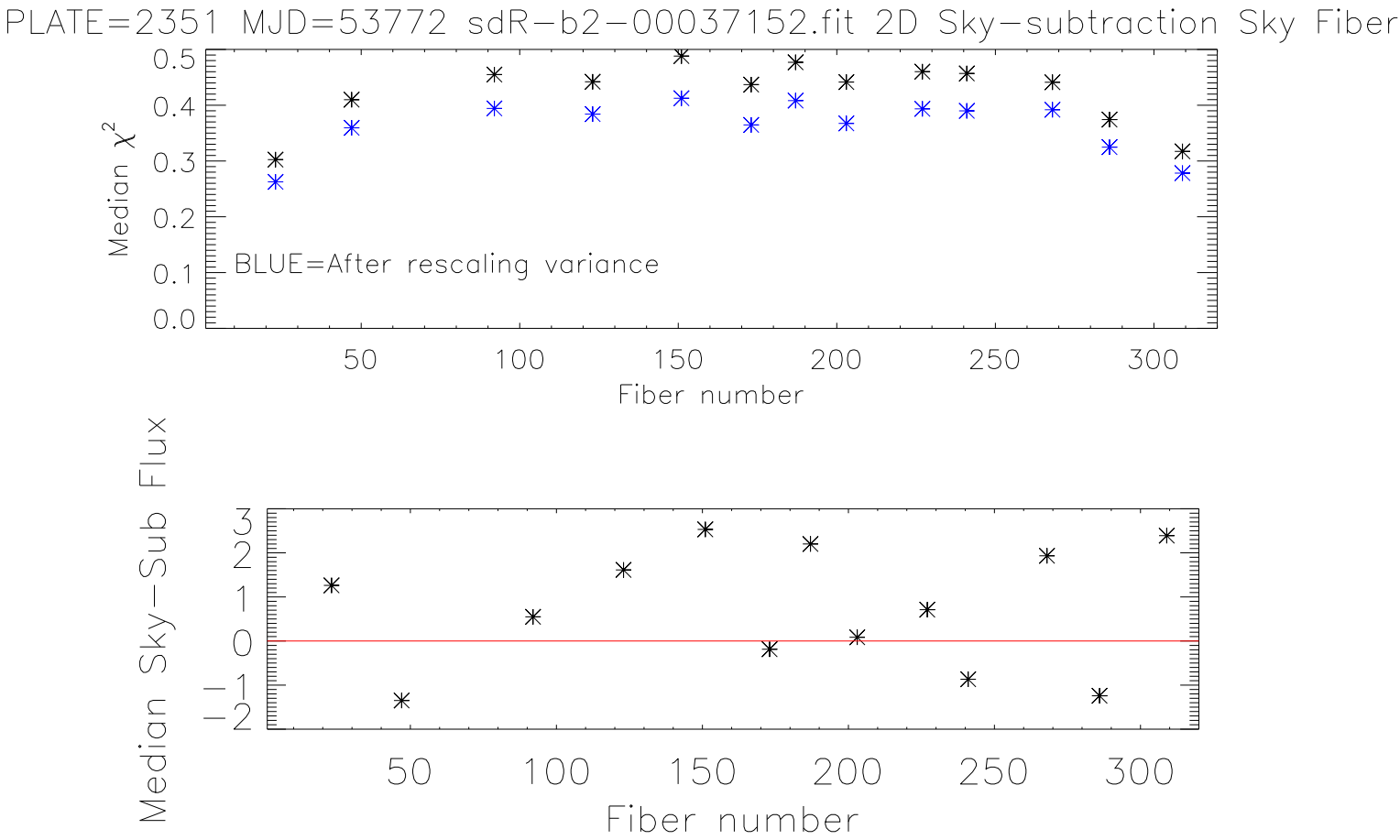
es= −0.0000

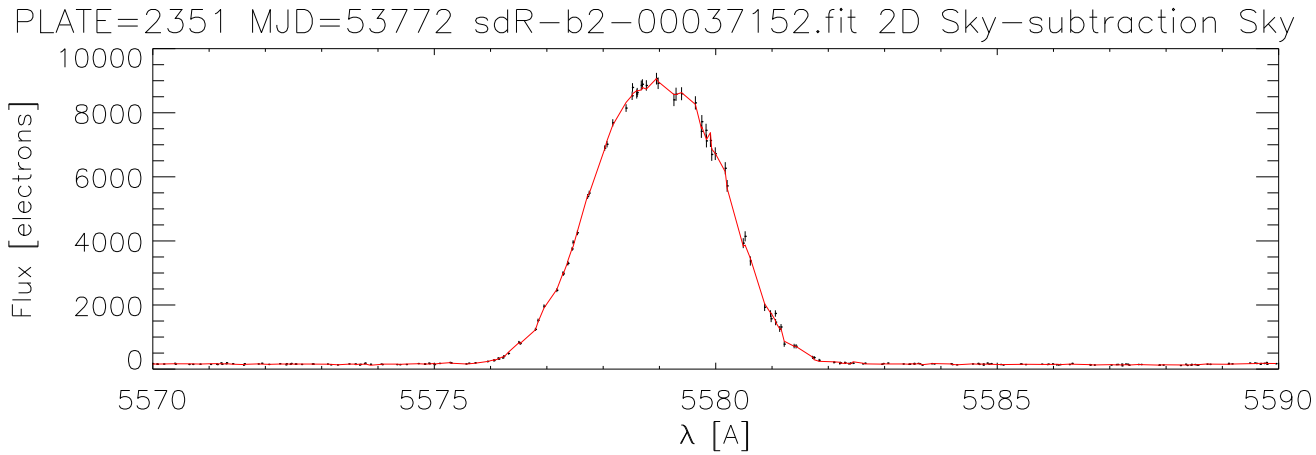

PLATE=2351 MJD=53772 sdR-b2-00037152.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-4
-2
0
2
4
6
8
50
100
150
200
250
300
Fiber number

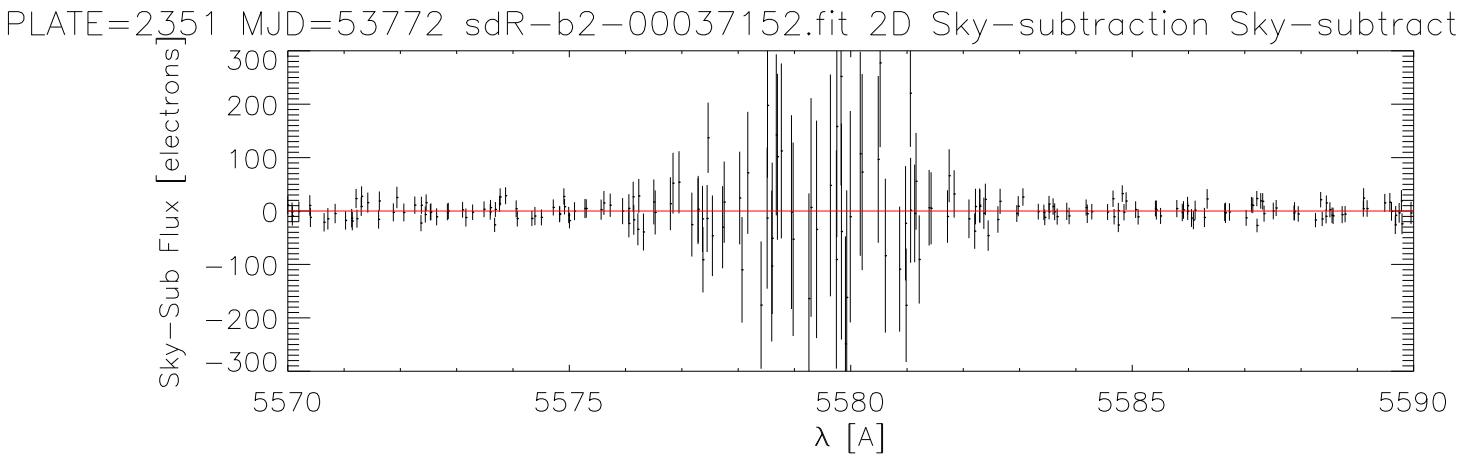

PLATE=2351 MJD=53772 sdR-b2-00037152.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
10000
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

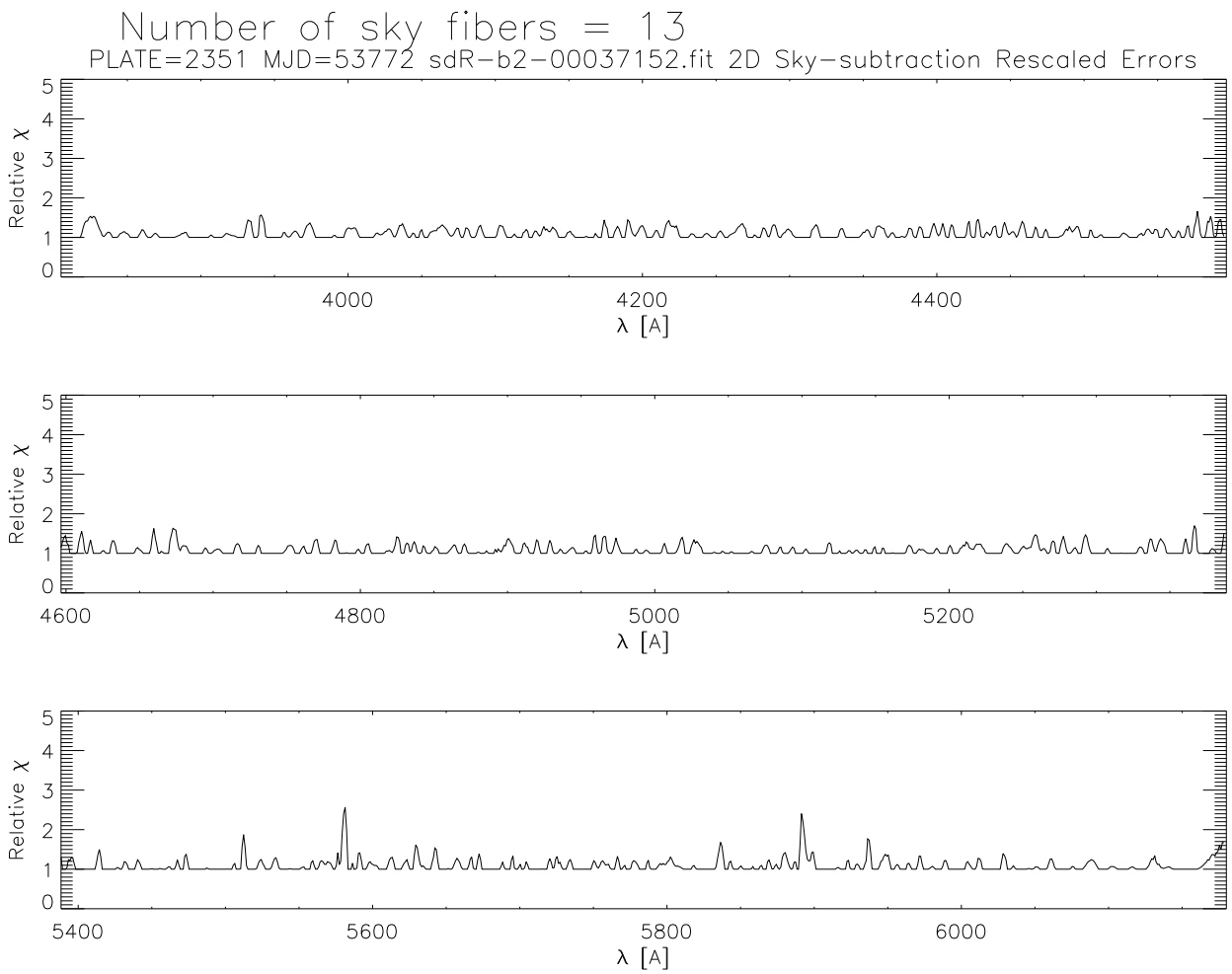

PLATE=2351 MJD=53772 sdR-b2-00037152.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
-200
-400
5570
5575
5580
5585
5590
λ [A]

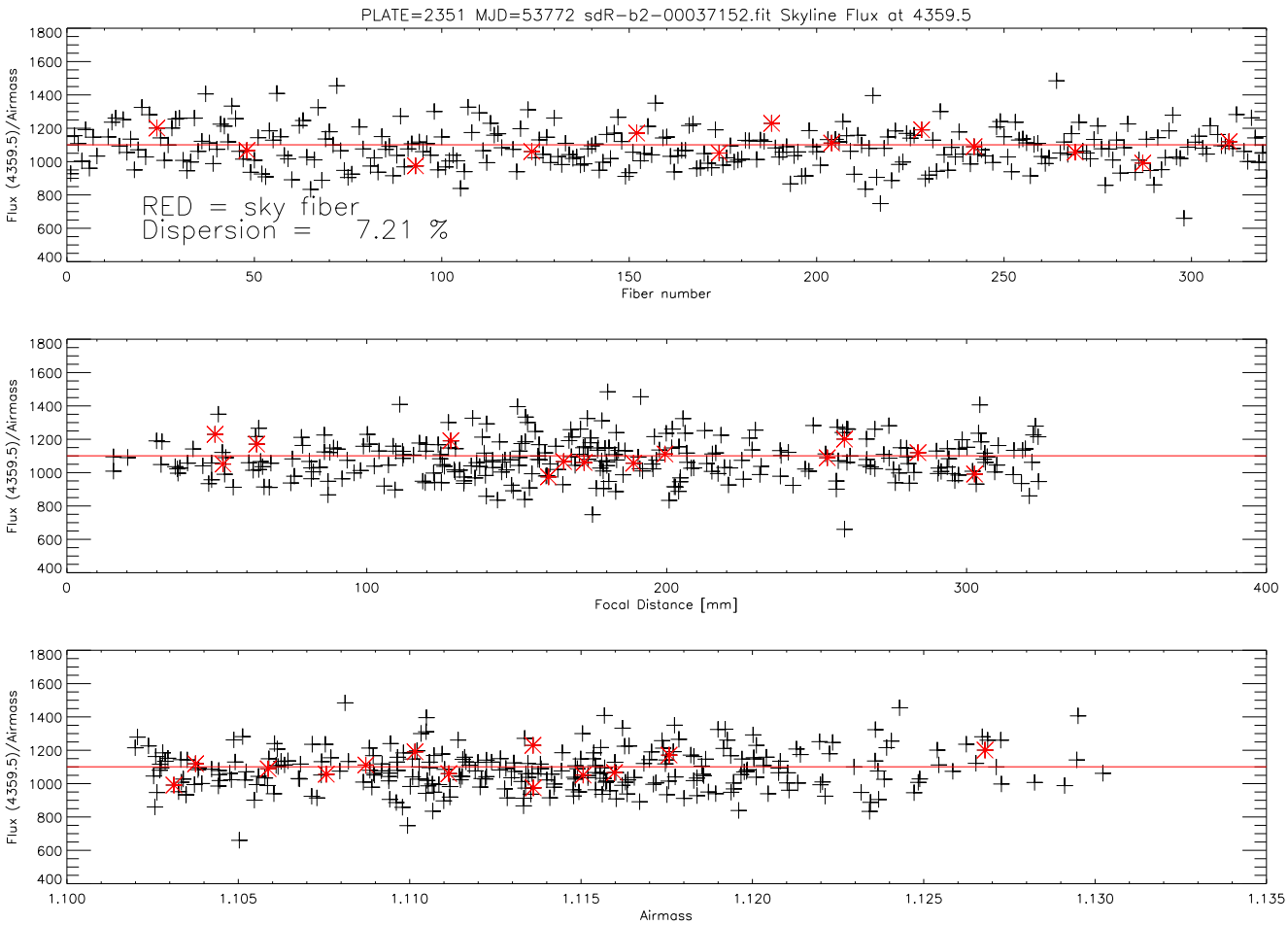

Number of sky fibers = 13
PLATE=2351 MJD=53772 sdR-b2-00037152.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

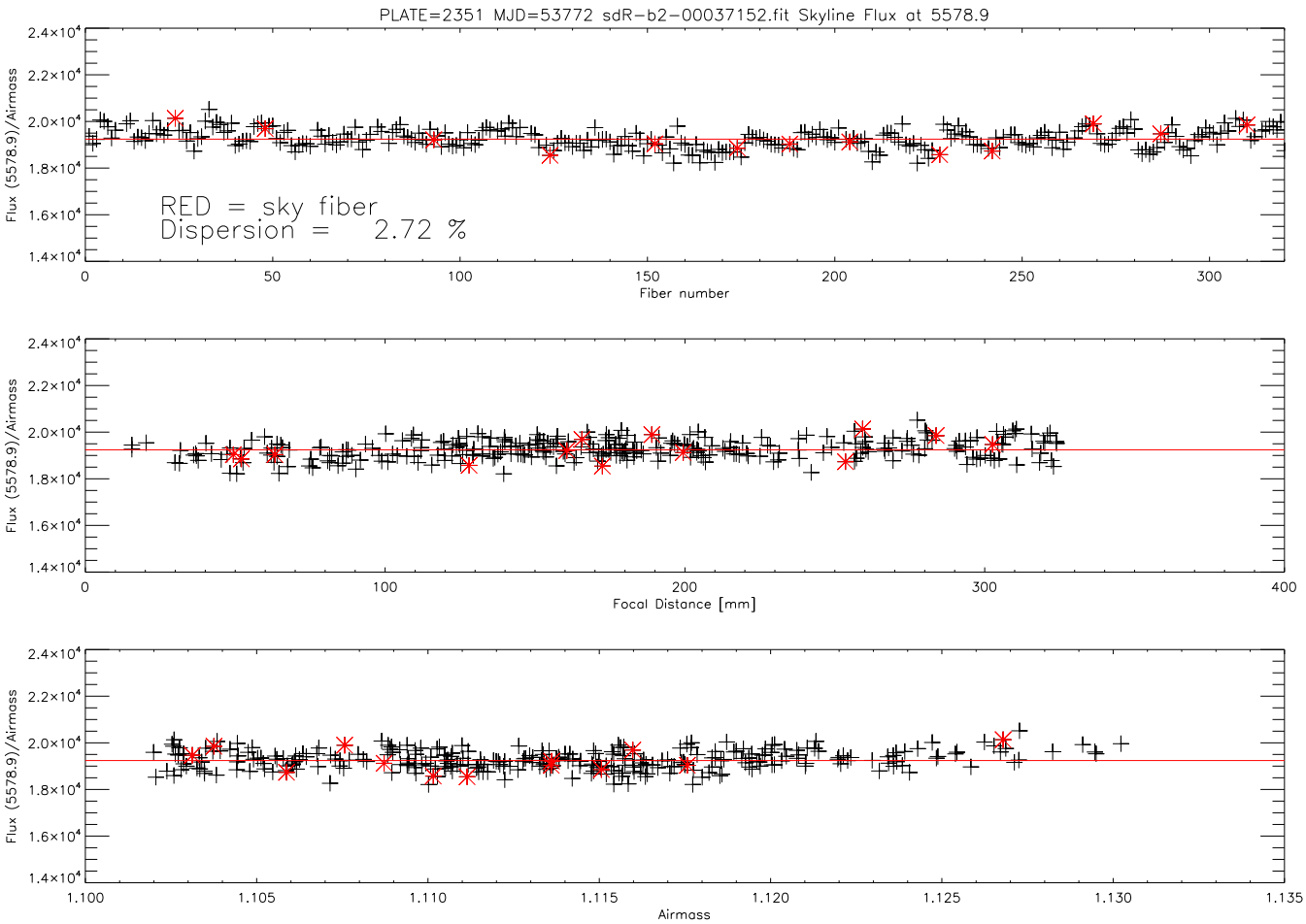

PLATE=2351 MJD=53772 sdR-b2-00037152.fit 2D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-2
-1
0
1
2
3
50
100
150
200
250
300
Fiber number

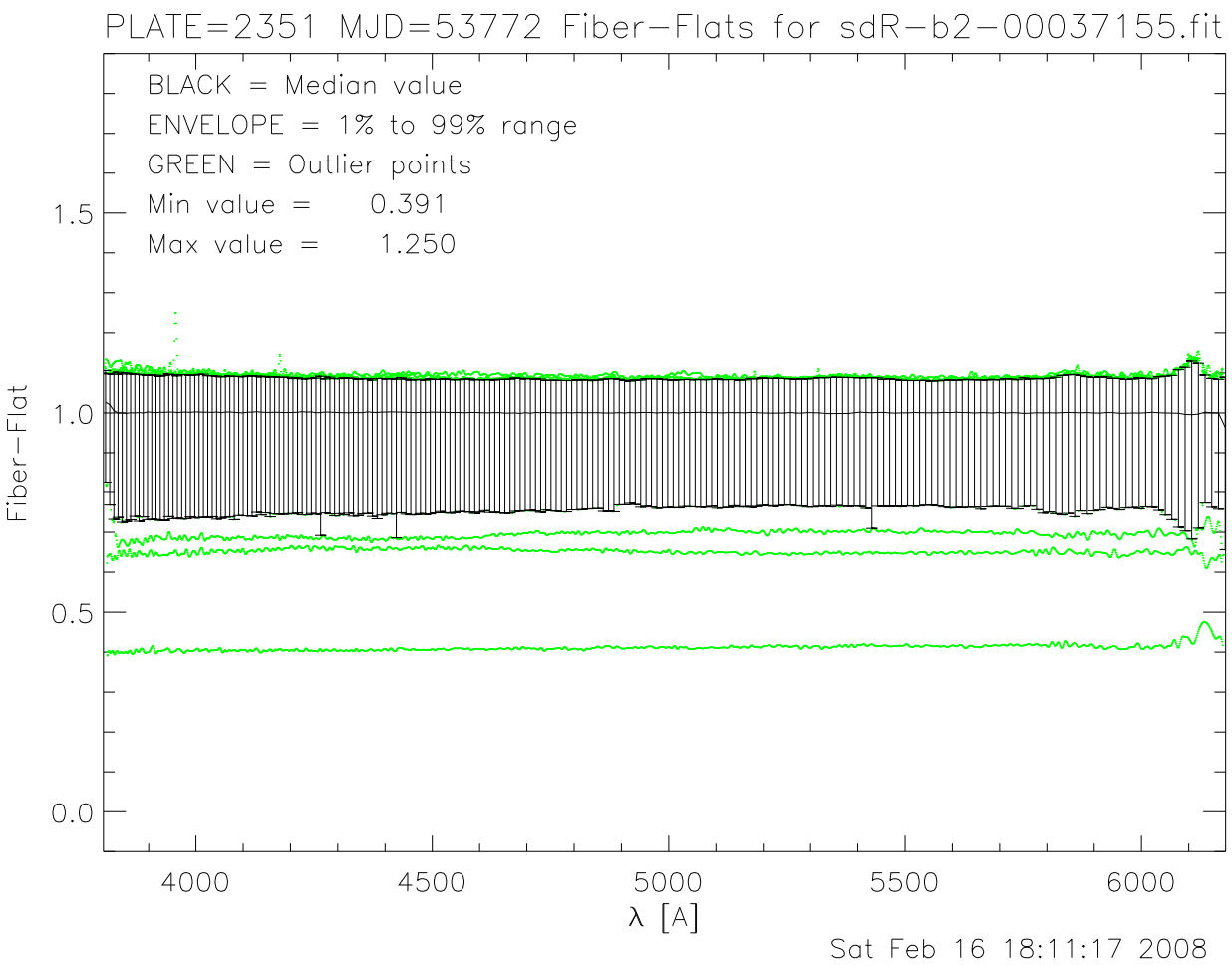

PLATE=2351 MJD=53772 sdR-b2-00037152.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
10000
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

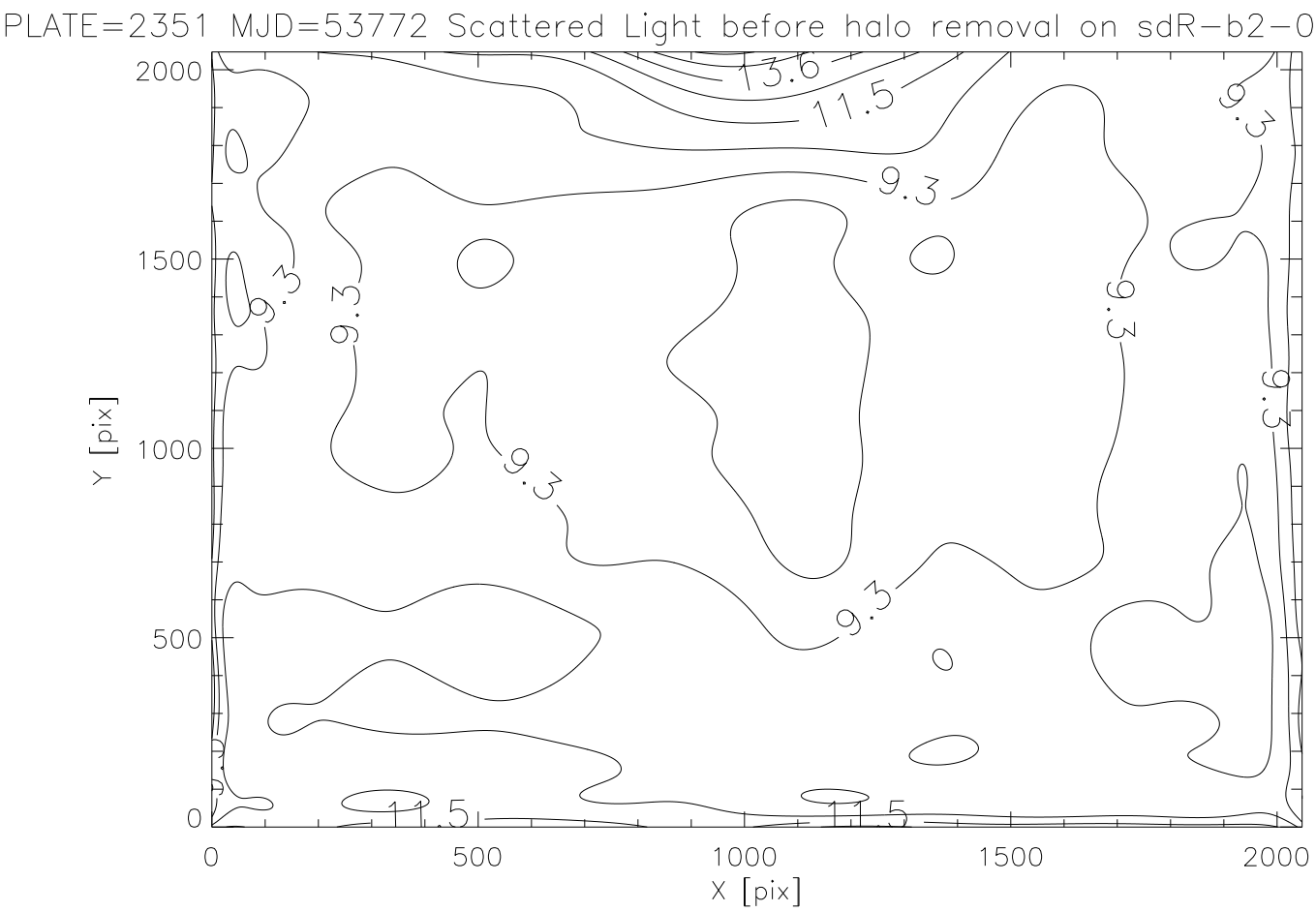

PLATE=2351 MJD=53772 sdR-b2-00037152.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
-300
5570
5575
5580
5585
5590
λ [A]

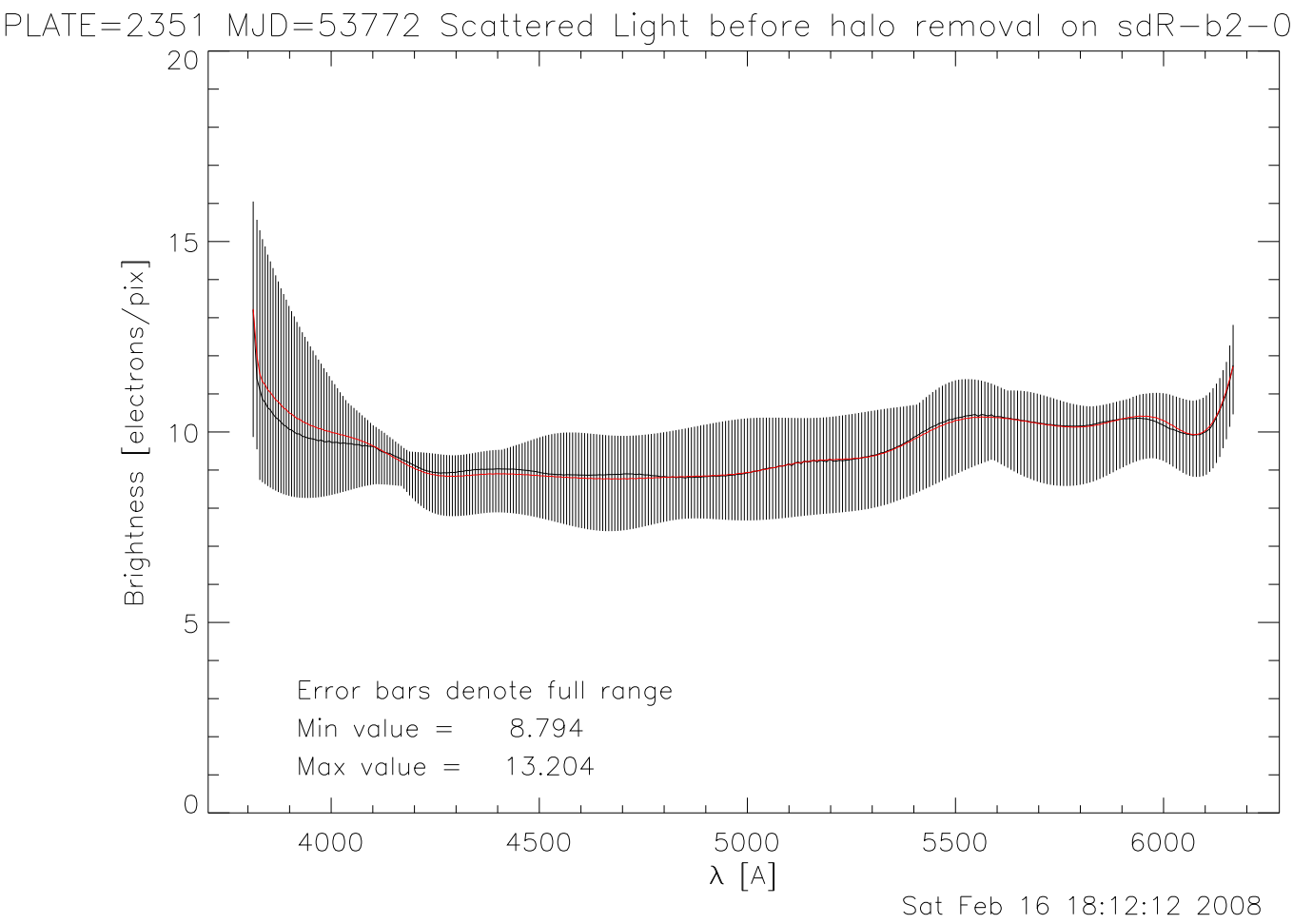

Number of sky fibers = 13
PLATE=2351 MJD=53772 sdR-b2-00037152.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

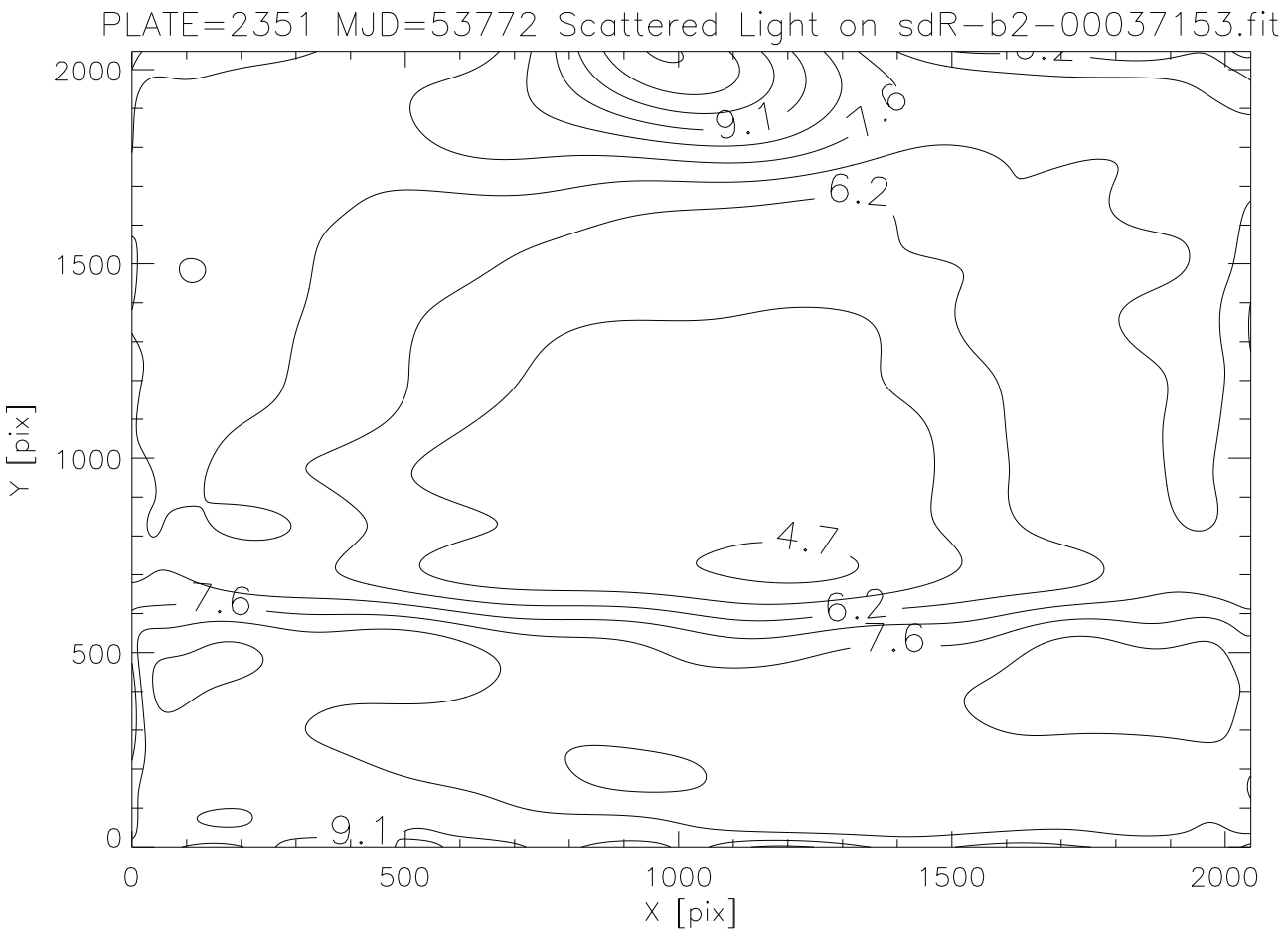

PLATE=2351 MJD=53772 sdR-b2-00037152.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 7.21 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

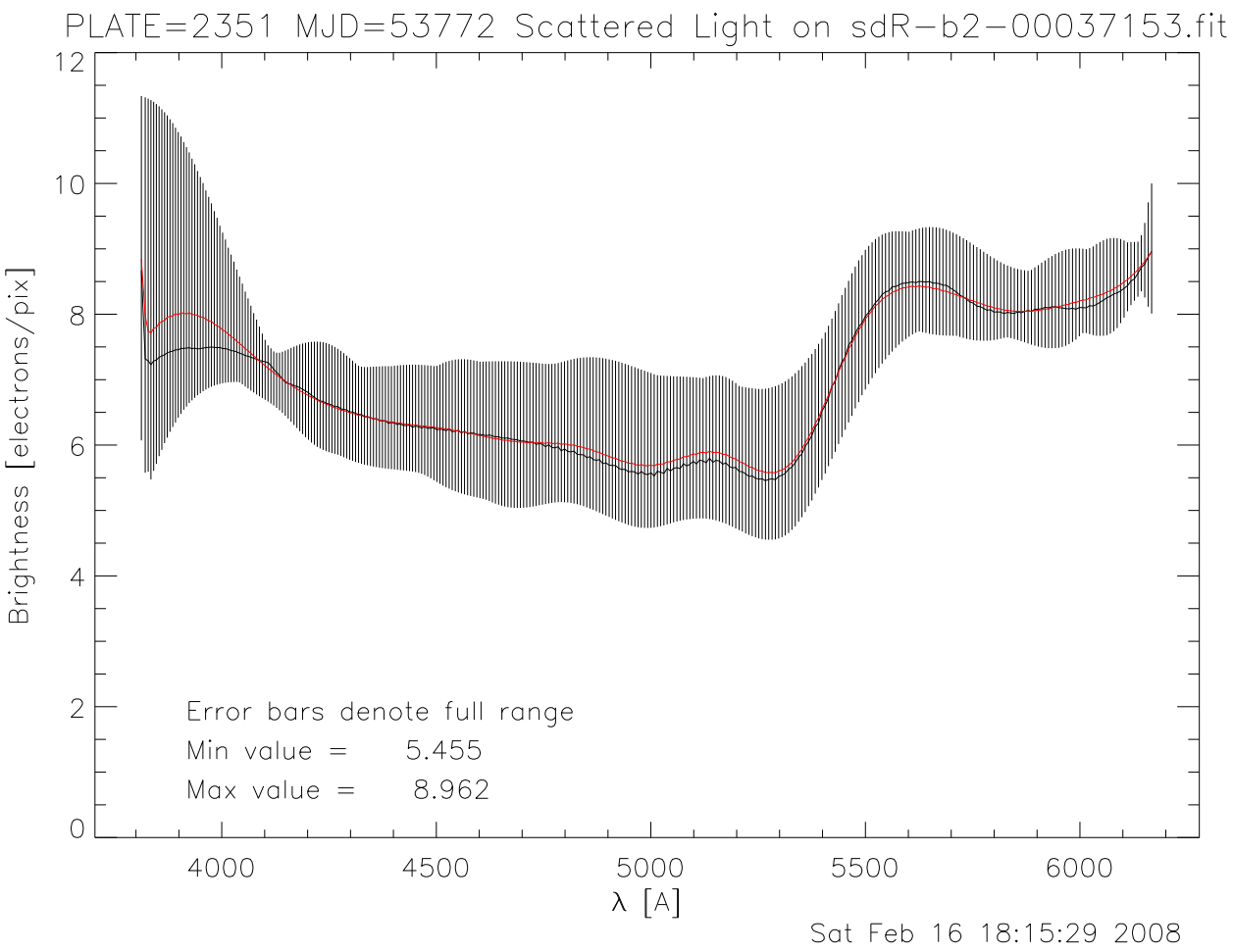

PLATE=2351 MJD=53772 sdR-b2-00037152.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 2.72 %
Fiber number
Focal Distance [mm]
Airmass

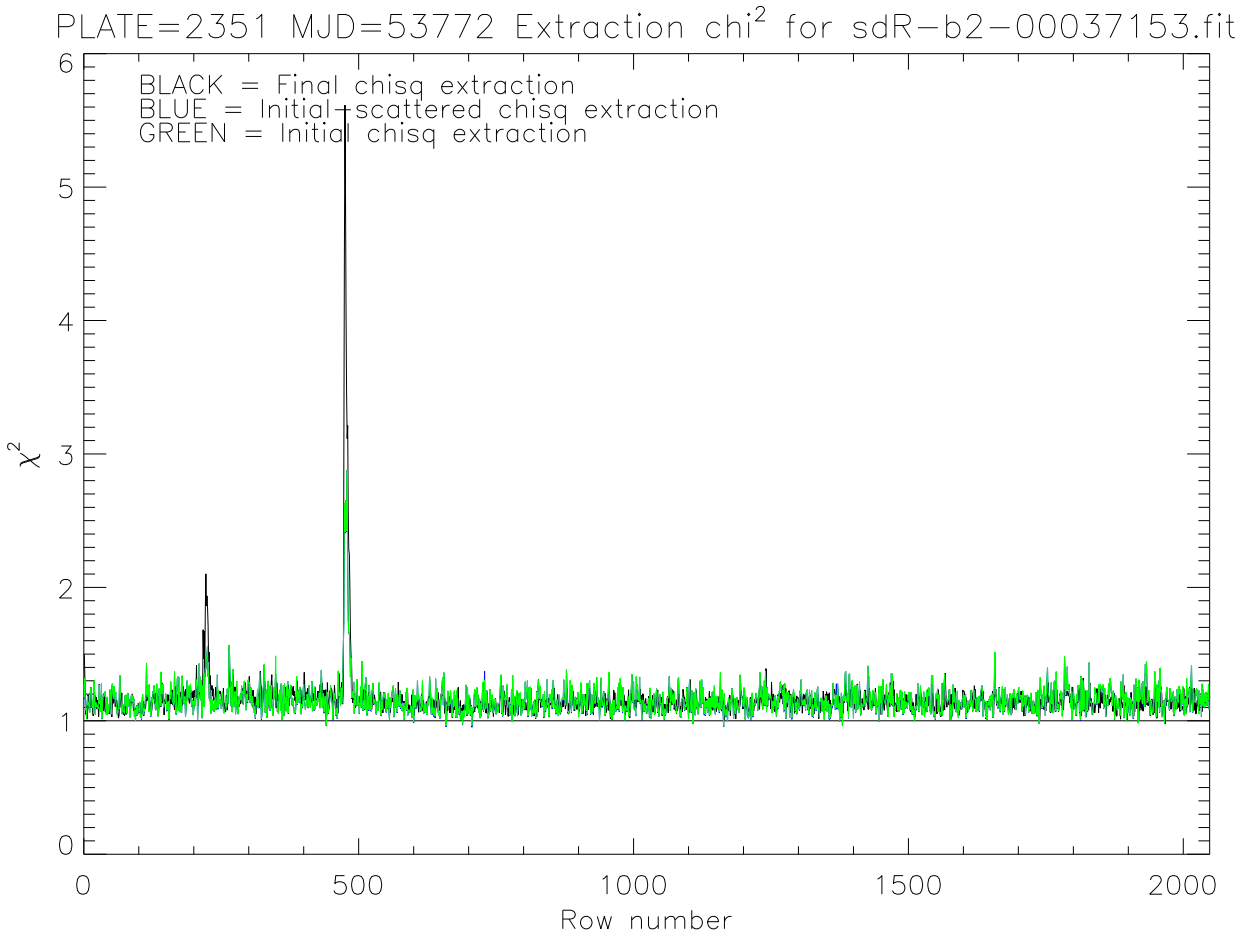

PLATE=2351 MJD=53772 Fiber−Flats for sdR−b2−00037155.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.391
Max value = 1.250
Fiber−Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Sat Feb 16 18:11:17 2008

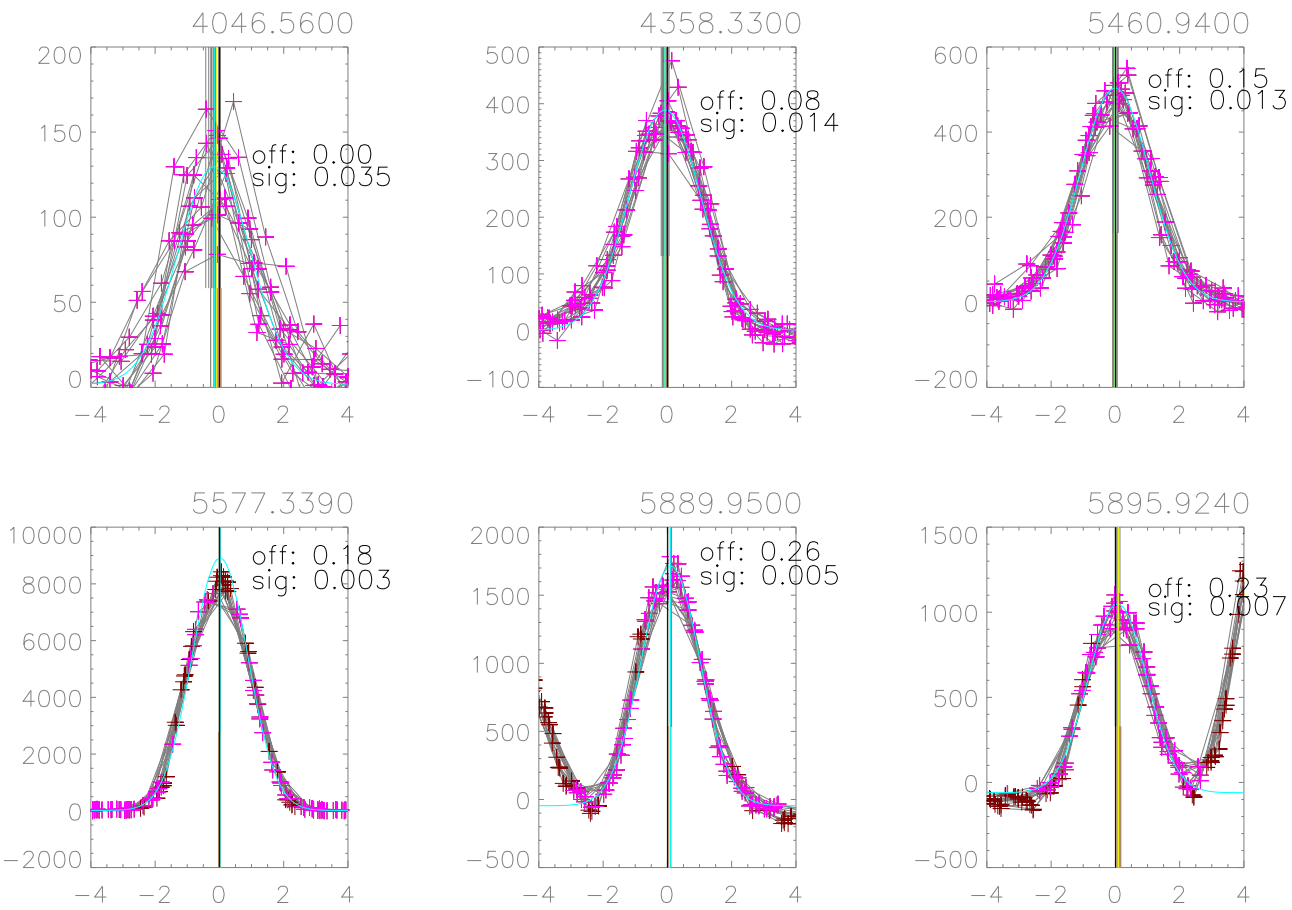

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR−b2−00037153.f
13.6
11.5
9.3
0
Y [pix]
X [pix]
2000
1500
1000
500
0
0
500
1000
1500
2000

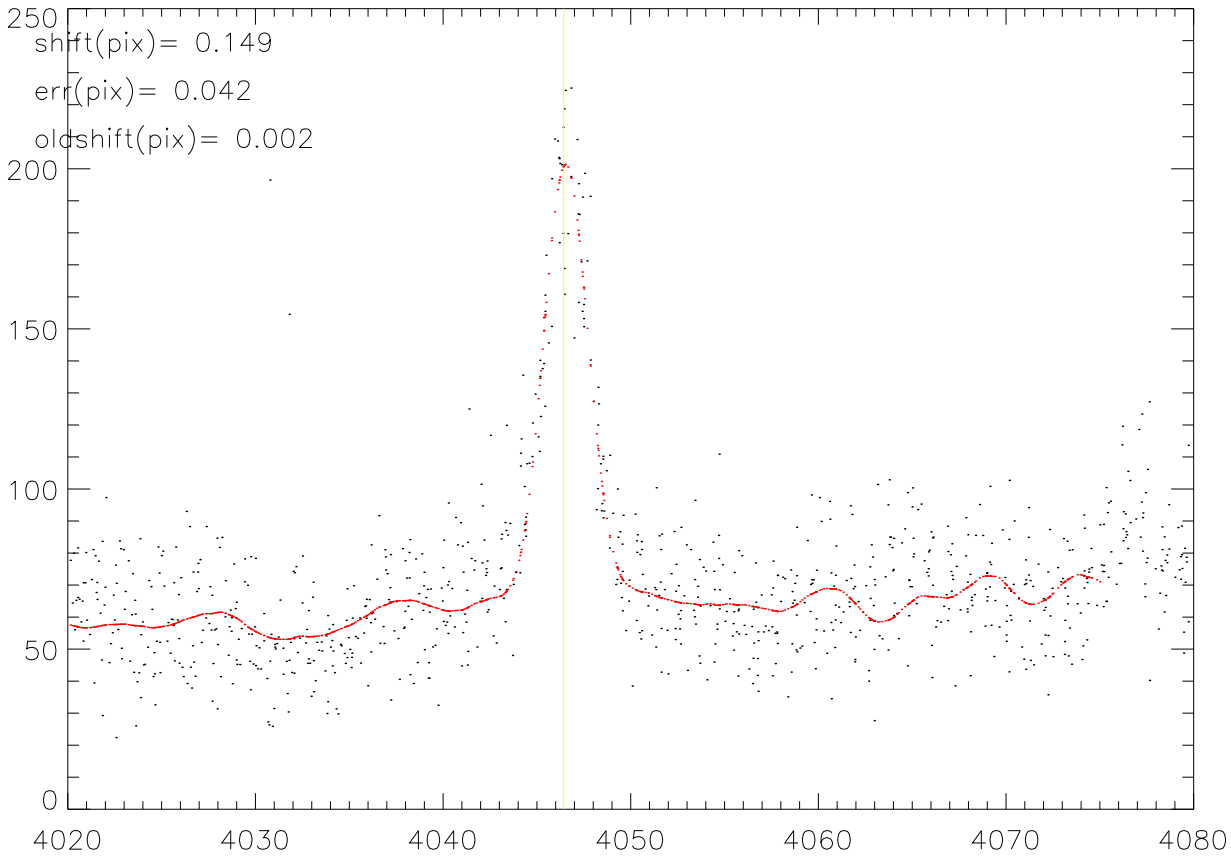

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR-b2-00037153.f
Brightness [electrons/pix]
20
15
10
5
0
Error bars denote full range
Min value = 8.794
Max value = 13.204
4000
4500
5000
5500
6000
λ [A]
Sat Feb 16 18:12:12 2008

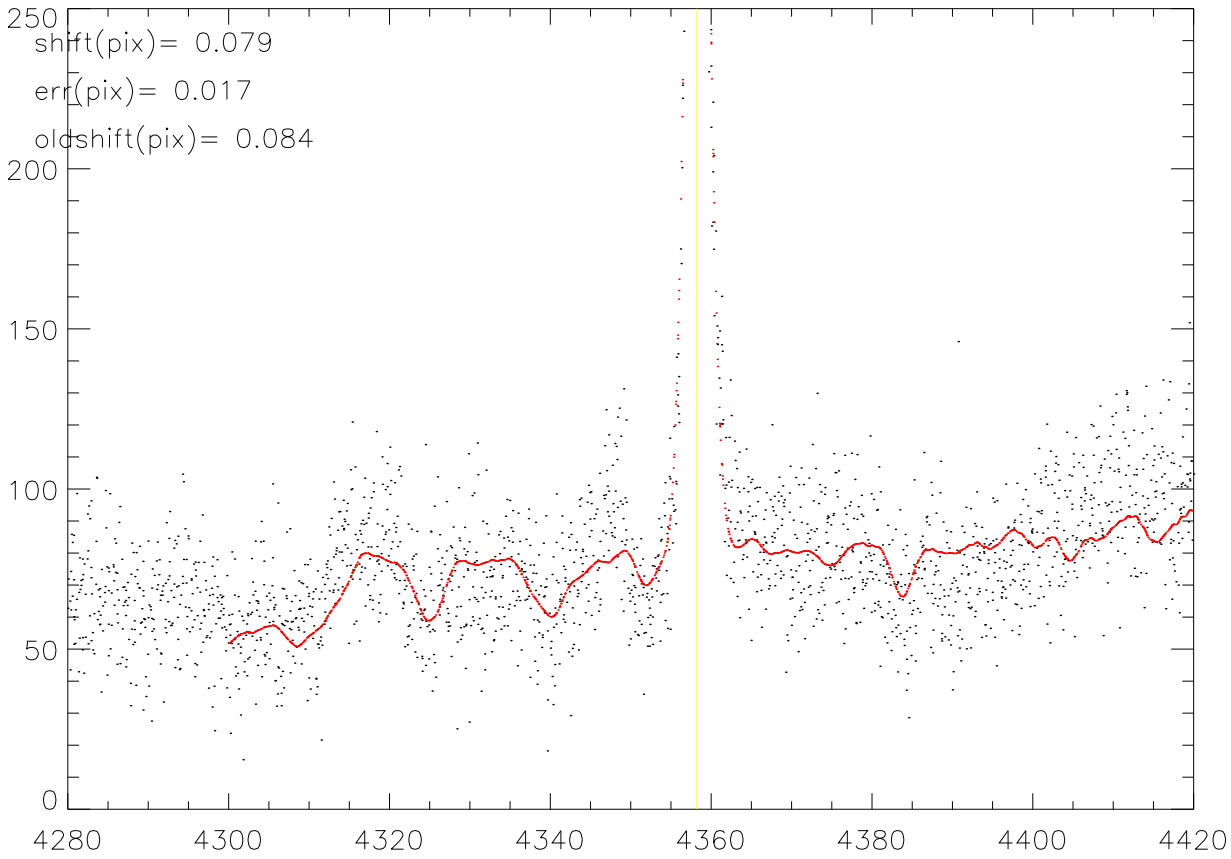

PLATE=2351 MJD=53772 Scattered Light on sdR-b2-00037153.fit
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
9.1
7.6
6.2
4.7
7.6
6.2
7.6
9.1

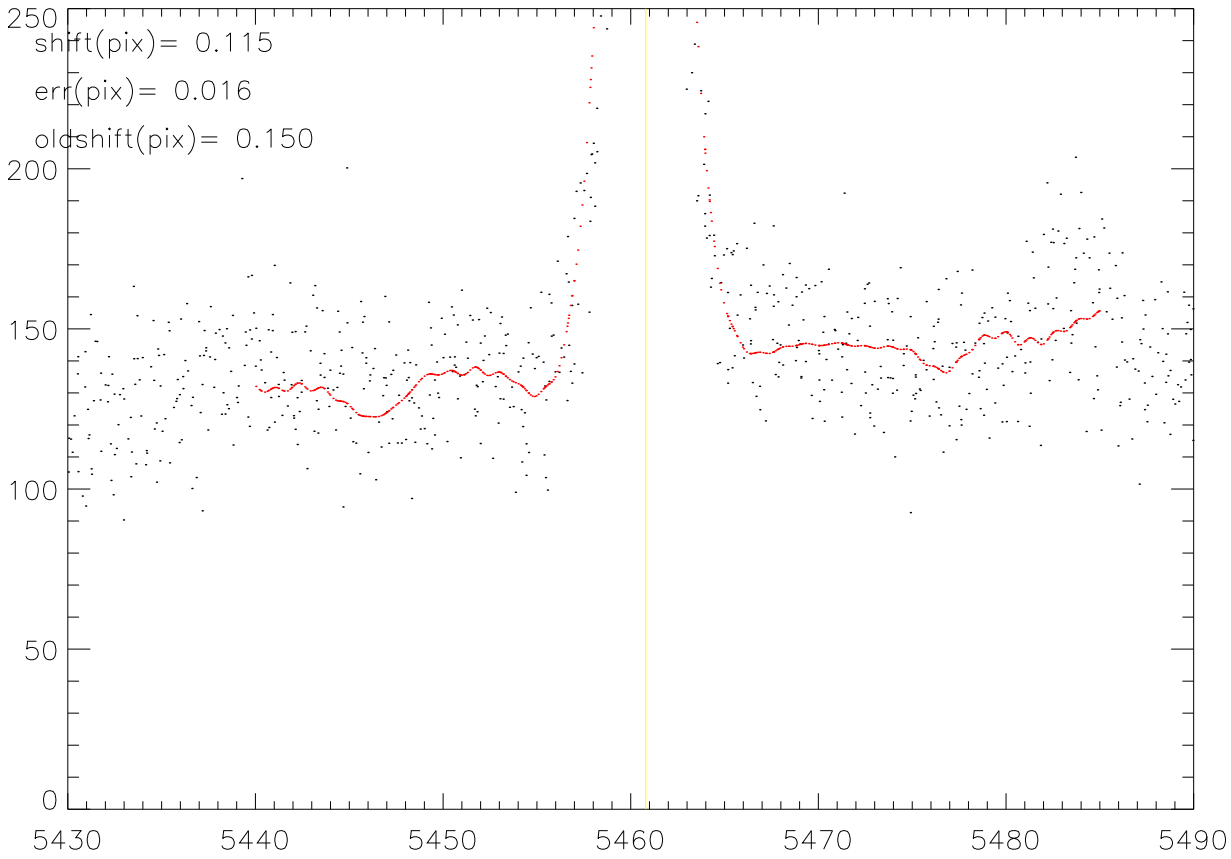

PLATE=2351 MJD=53772 Scattered Light on sdR-b2-00037153.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 5.455
Max value = 8.962
Sat Feb 16 18:15:29 2008

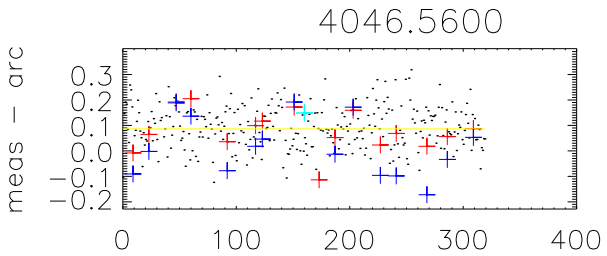

PLATE=2351 MJD=53772 Extraction chi^2 for sdR-b2-00037153.fit
BLACK = Final chisq extraction
BLUE = Initial+scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
5
6
0
500
1000
1500
2000
Row number

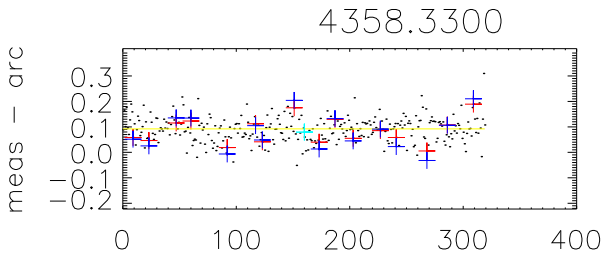

4046.5600
off: 0.00
sig: 0.035
4358.3300
off: 0.08
sig: 0.014
5460.9400
off: 0.15
sig: 0.013
5577.3390
off: 0.18
sig: 0.003
5889.9500
off: 0.26
sig: 0.005
5895.9240
off: 0.23
sig: 0.007

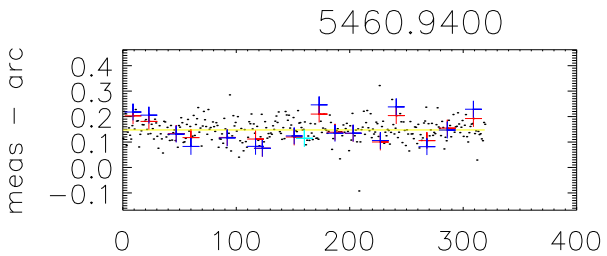

shift(pix)= 0.149
err(pix)= 0.042
oldshift(pix)= 0.002
250
200
150
100
50
0
4020
4030
4040
4050
4060
4070
4080

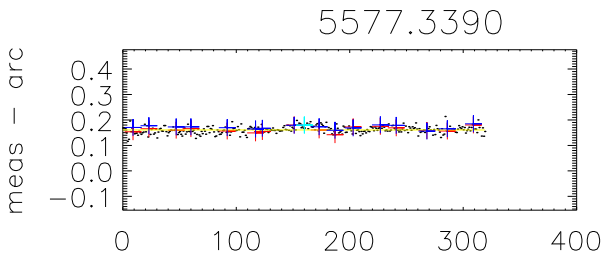

shift(pix)= 0.079
err(pix)= 0.017
oldshift(pix)= 0.084
250
200
150
100
50
0
4280
4300
4320
4340
4360
4380
4400
4420

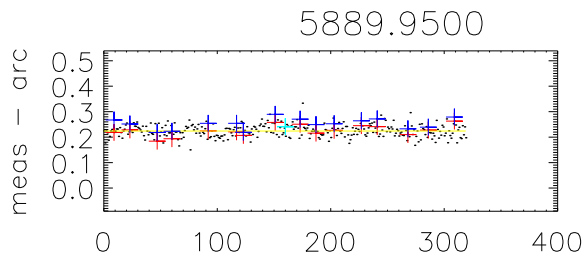

shift(pix)= 0.115
err(pix)= 0.016
oldshift(pix)= 0.150
250
200
150
100
50
0
5430
5440
5450
5460
5470
5480
5490

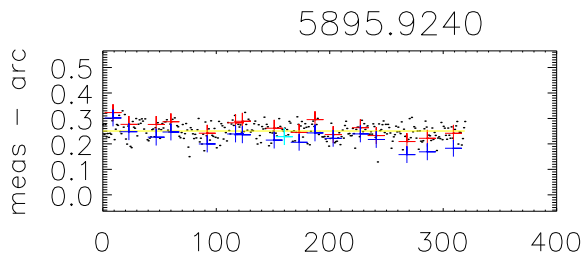

4046.5600
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

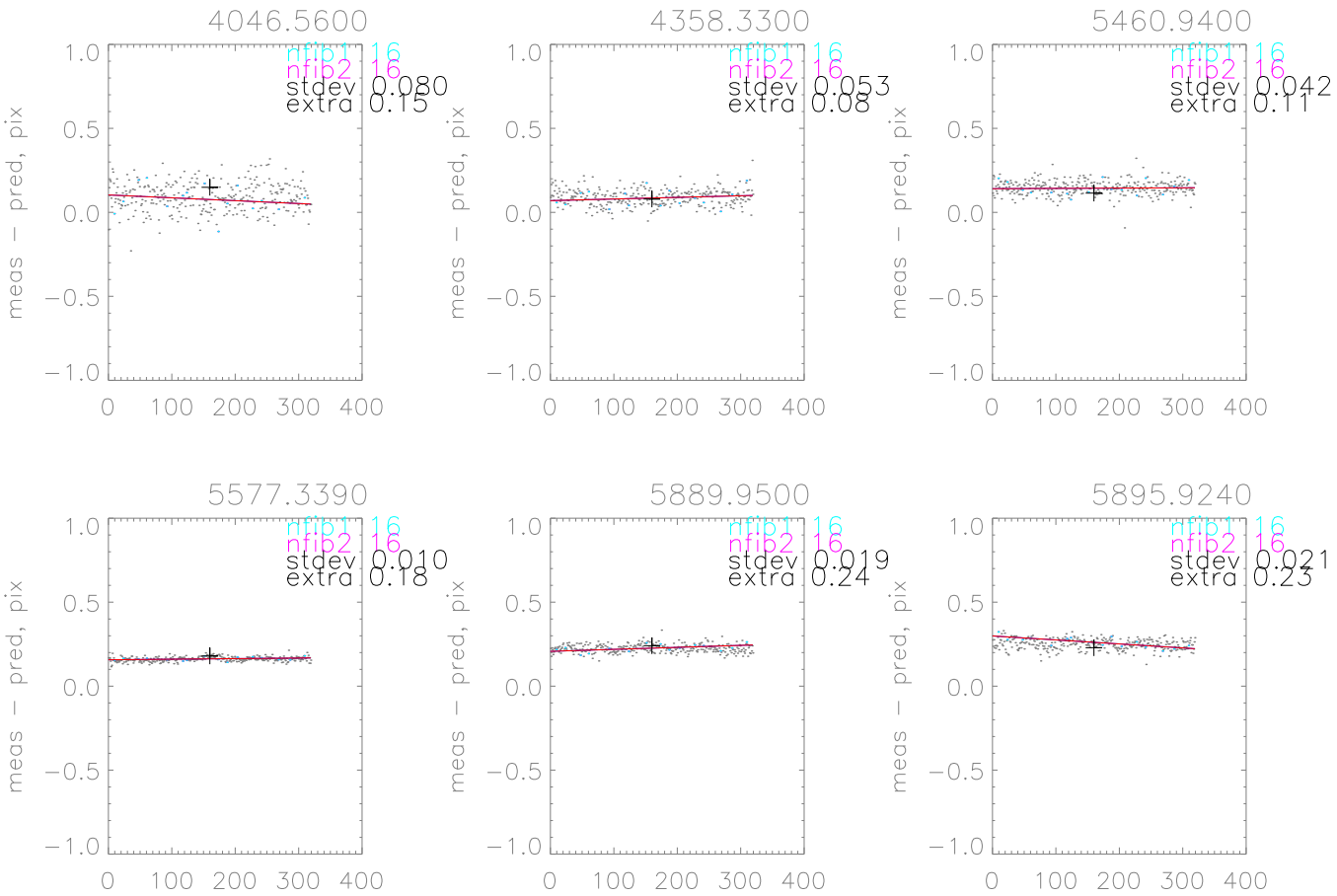

4358.3300
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

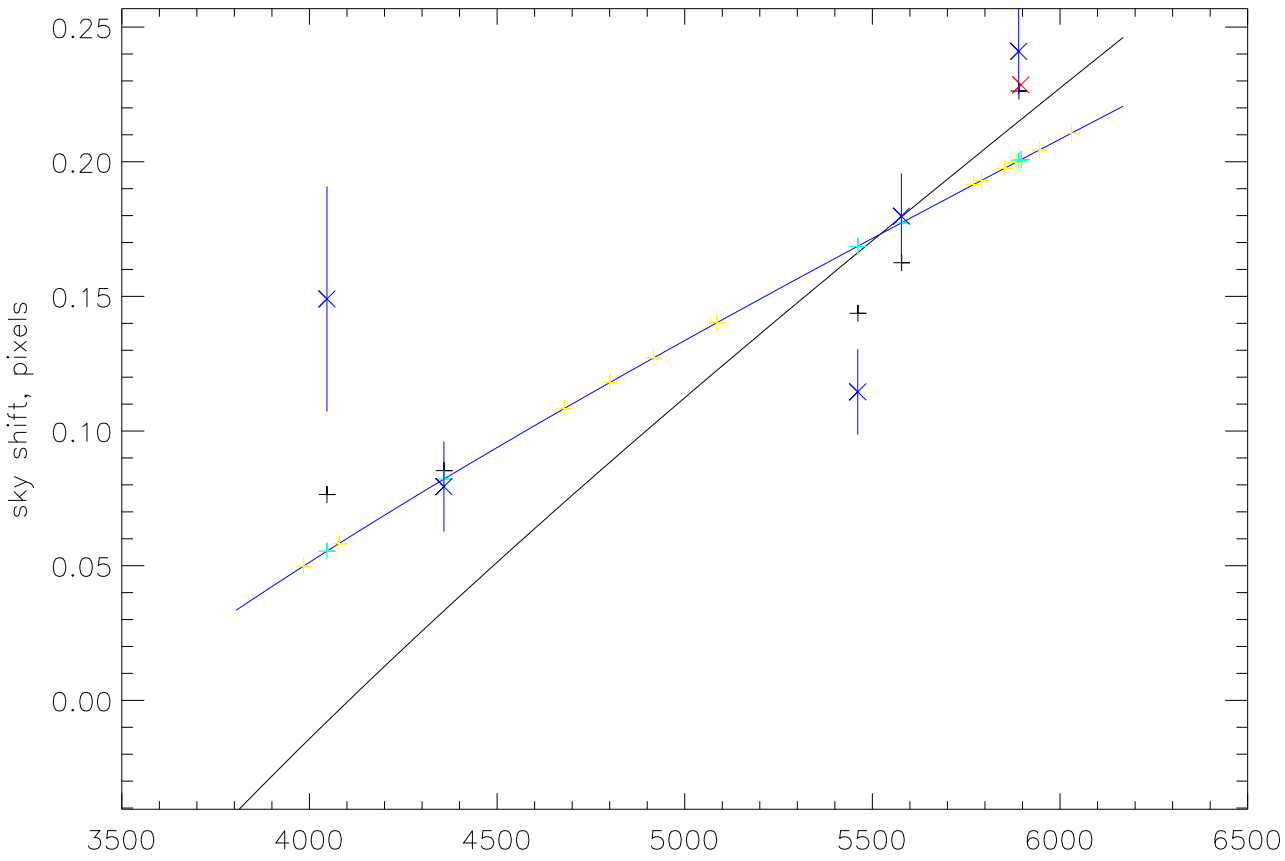

5460.9400
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

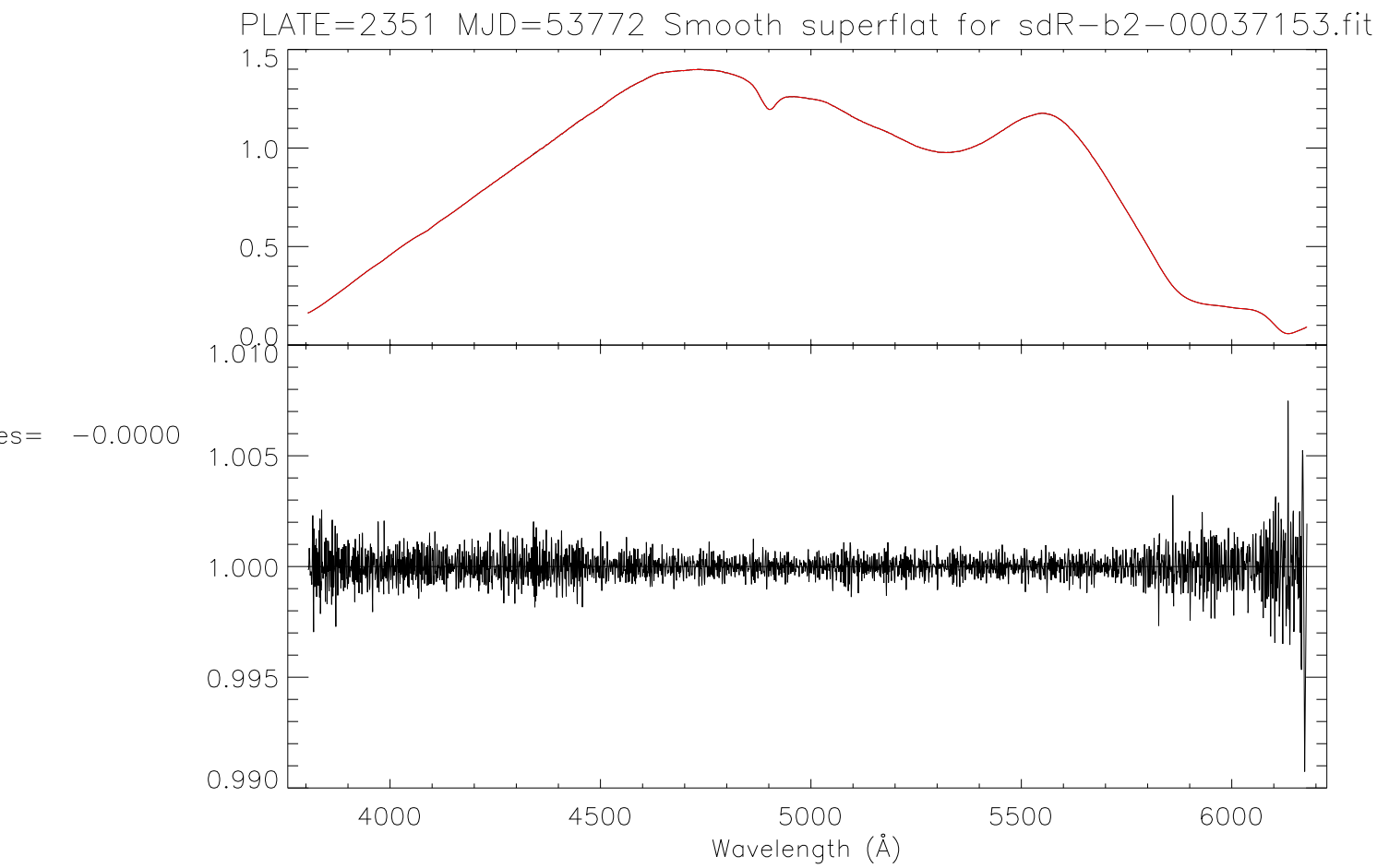

5577.3390
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

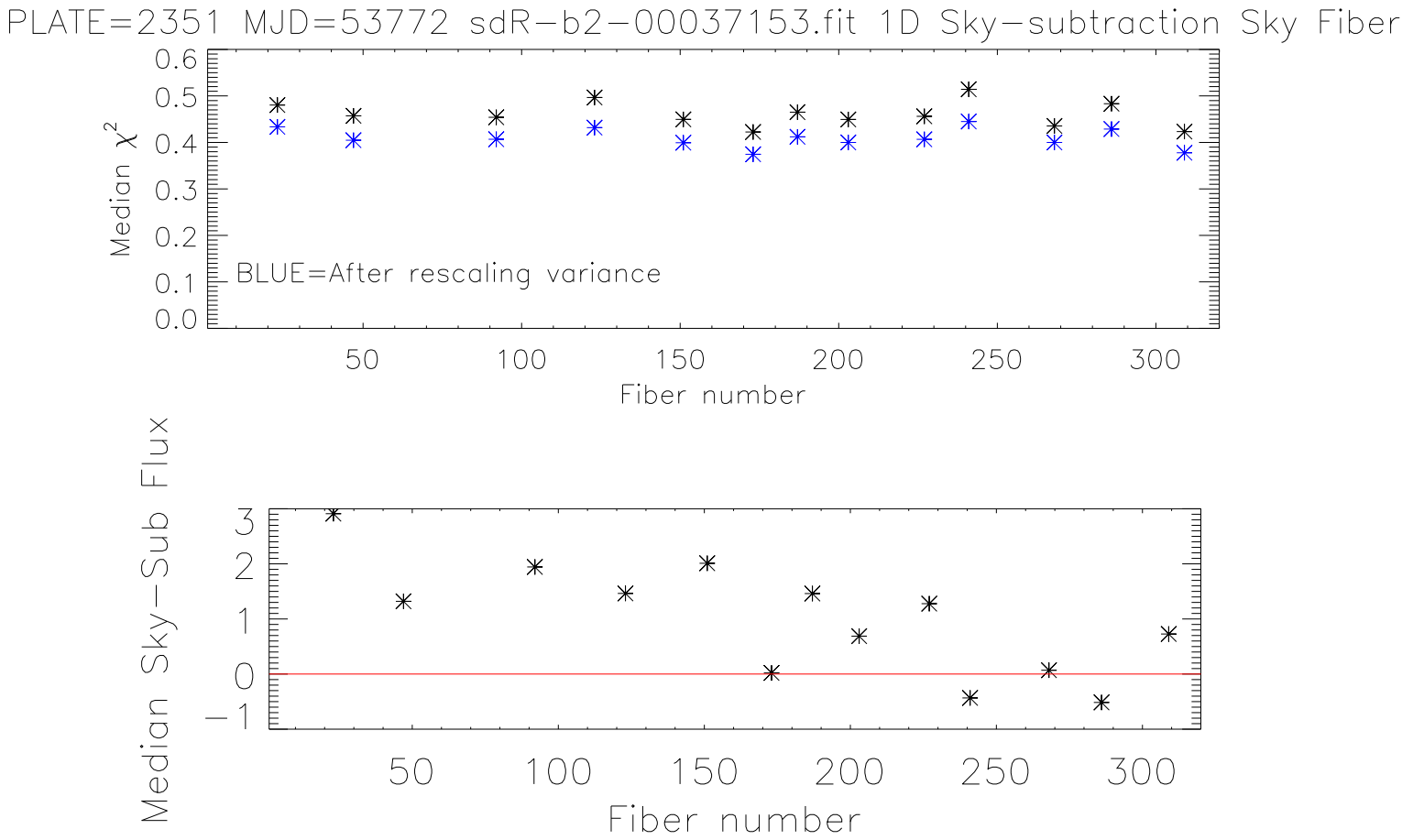

5889.9500
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

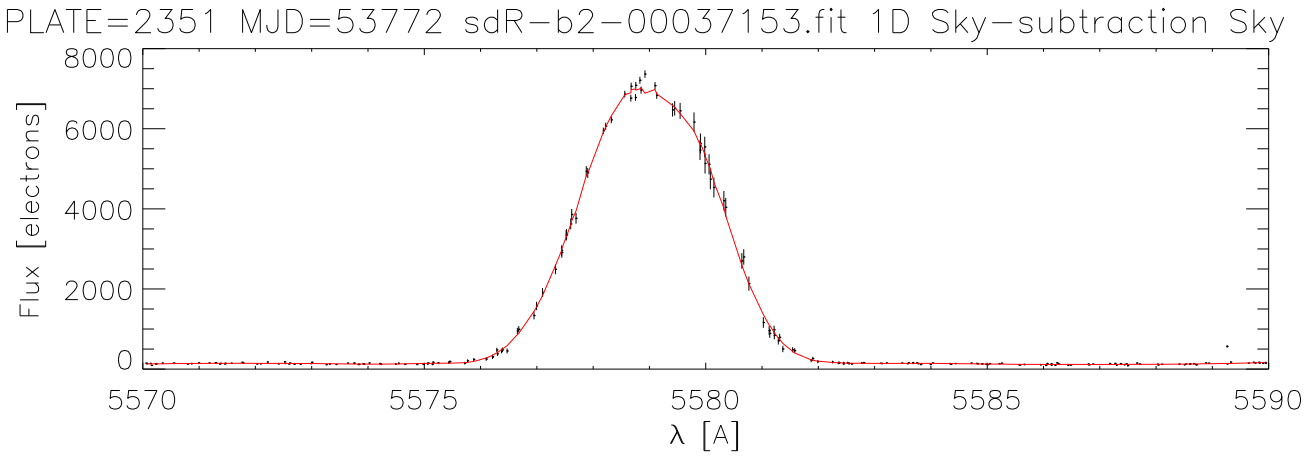

5895.9240
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

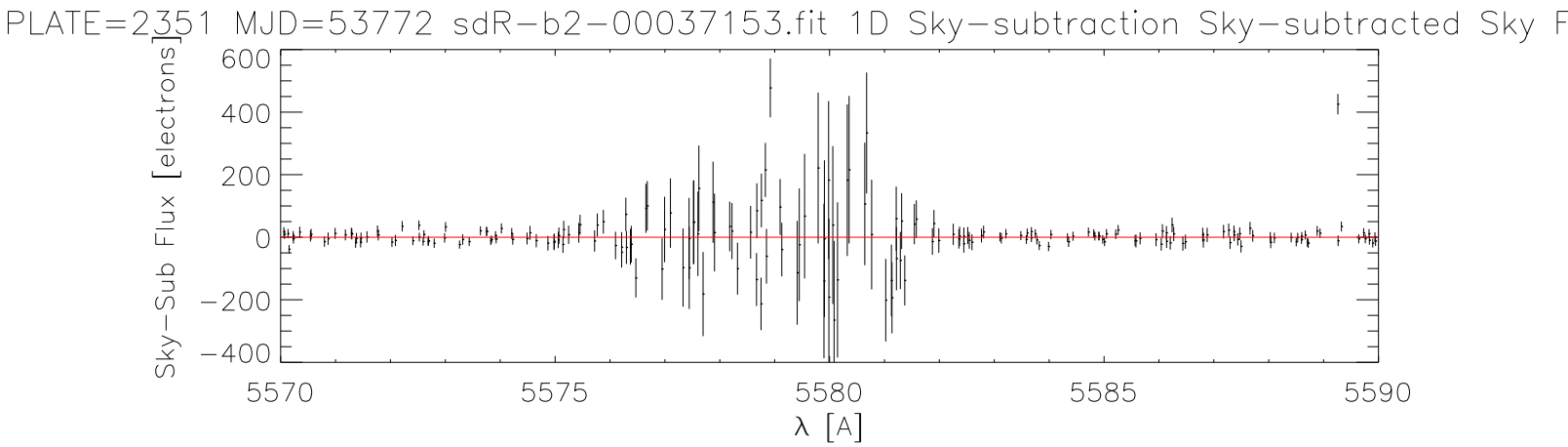

4046.5600
nfib1 16
nfib2 16
stdev 0.080
extra 0.15
4358.3300
nfib1 16
nfib2 16
stdev 0.053
extra 0.08
5460.9400
nfib1 16
nfib2 16
stdev 0.042
extra 0.11
5577.3390
nfib1 16
nfib2 16
stdev 0.010
extra 0.18
5889.9500
nfib1 16
nfib2 16
stdev 0.019
extra 0.24
5895.9240
nfib1 16
nfib2 16
stdev 0.021
extra 0.23
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

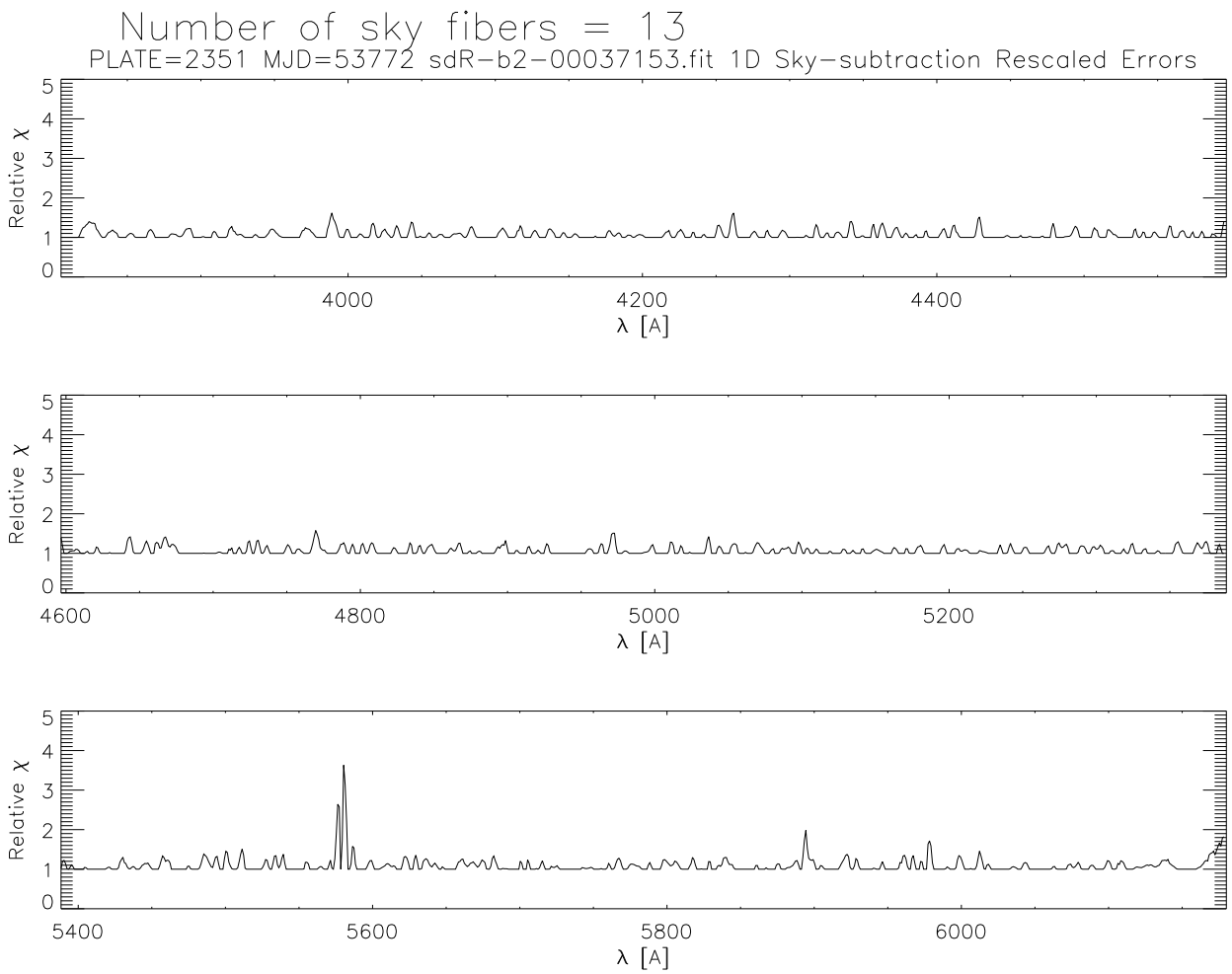

0.25
0.20
0.15
0.10
0.05
0.00
sky shift, pixels
3500
4000
4500
5000
5500
6000
6500

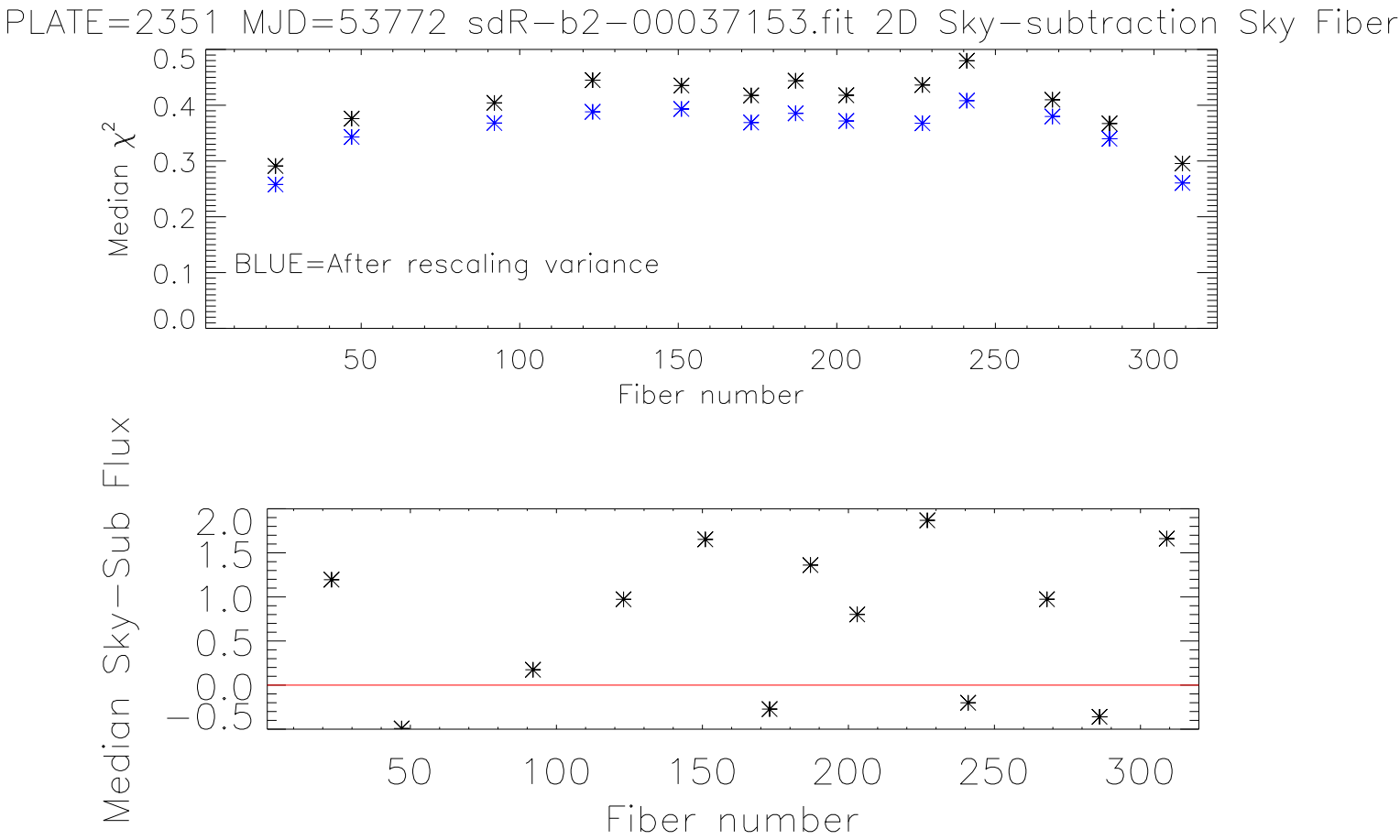

PLATE=2351 MJD=53772 Smooth superflat for sdR-b2-00037153.fit
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
es= −0.0000
4000
4500
5000
5500
6000
Wavelength (Å)

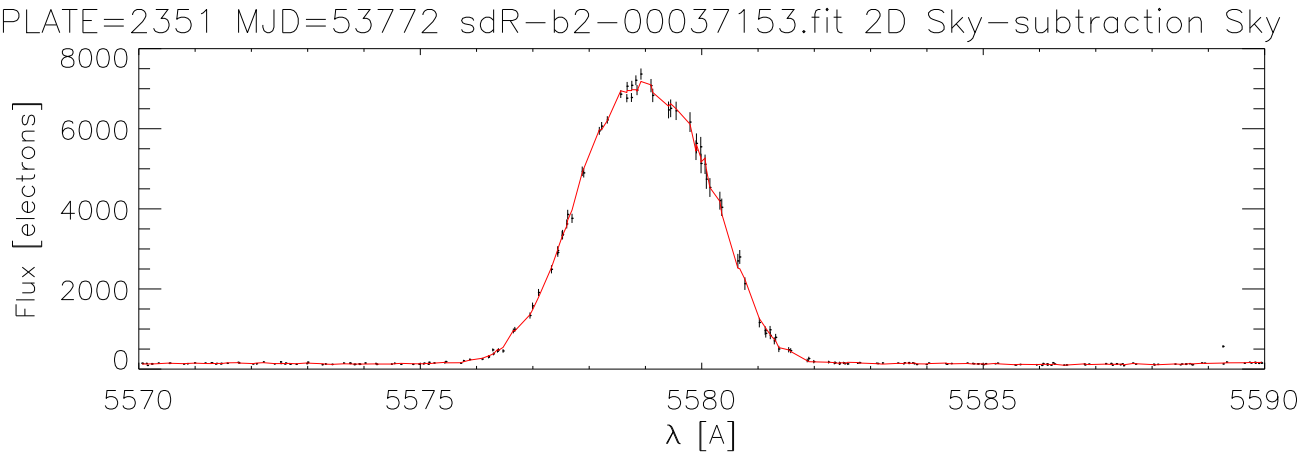

PLATE=2351 MJD=53772 sdR-b2-00037153.fit 1D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

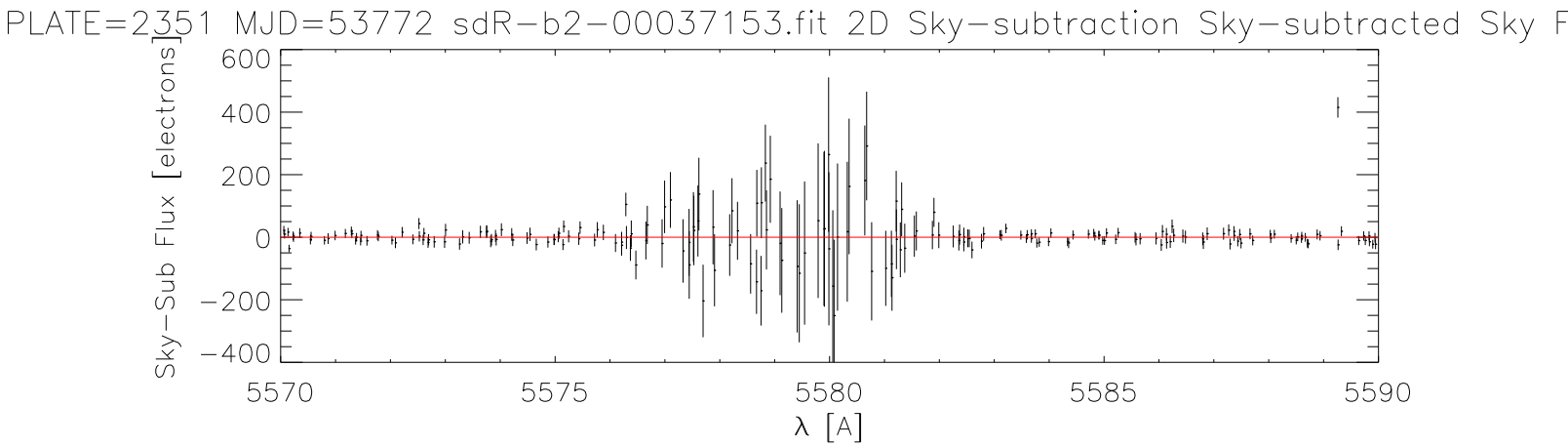

PLATE=2351 MJD=53772 sdR-b2-00037153.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

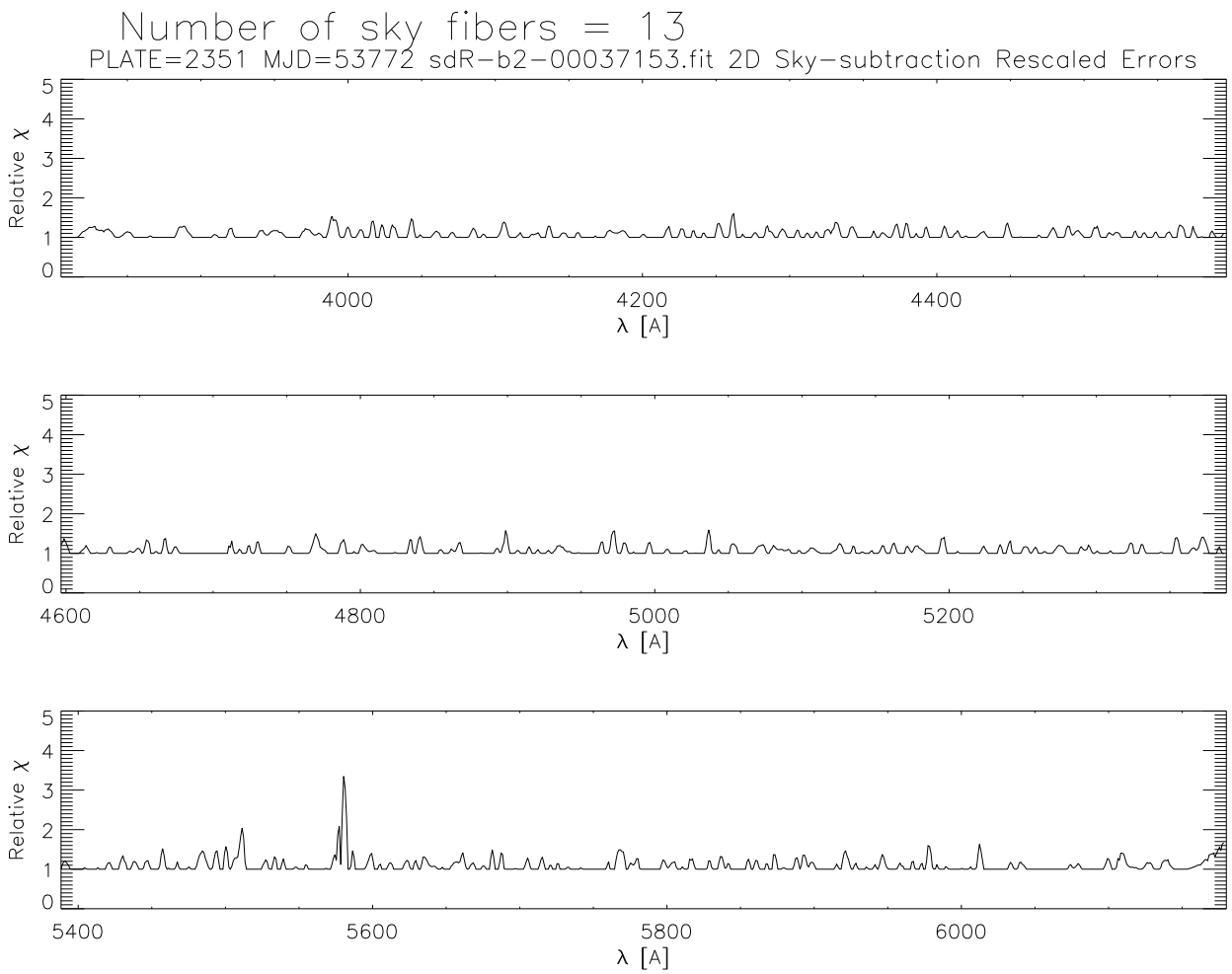

PLATE=2351 MJD=53772 sdR-b2-00037153.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
-200
-400
5570
5575
5580
5585
5590
λ [A]

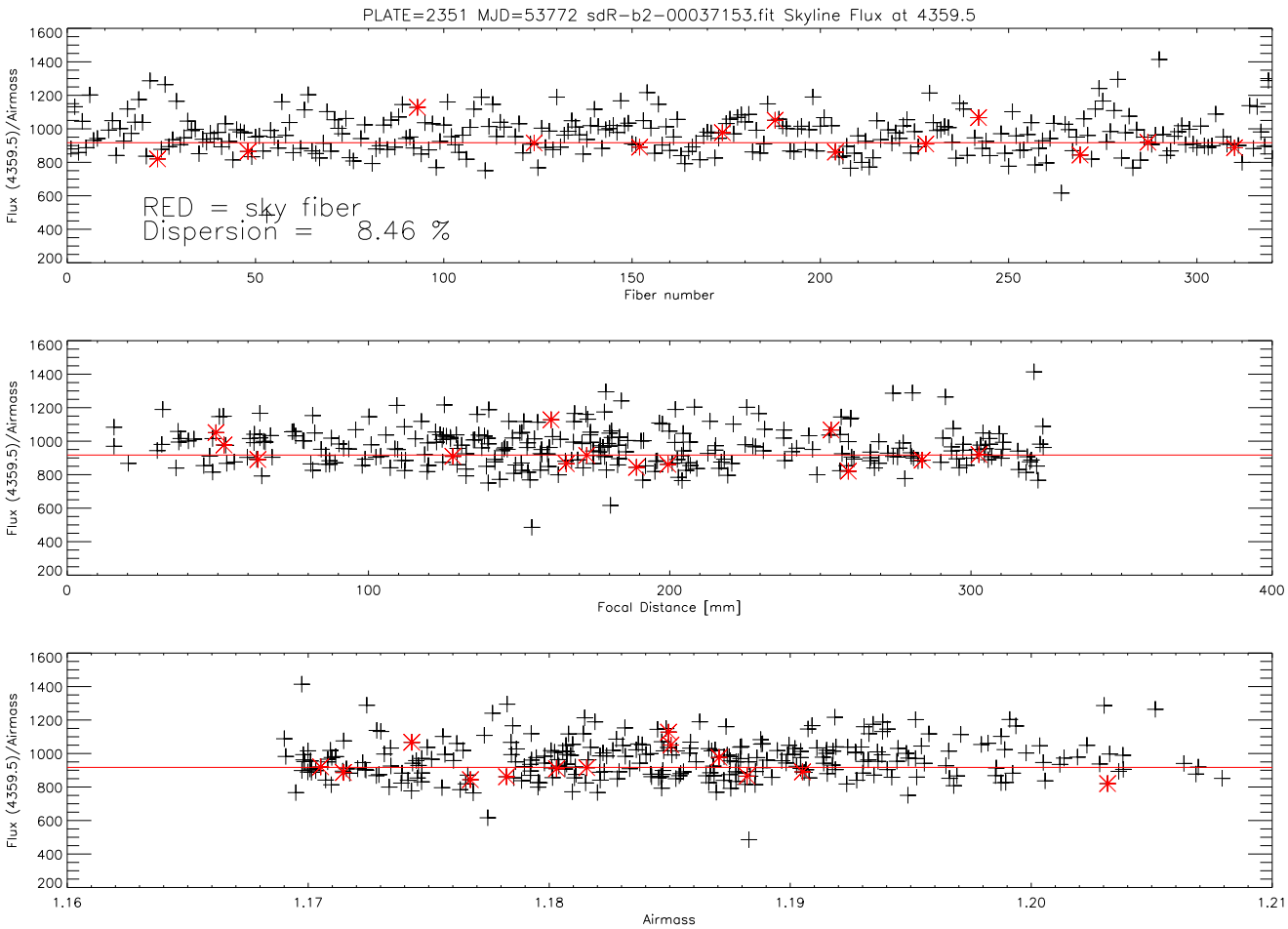

Number of sky fibers = 13
PLATE=2351 MJD=53772 sdR-b2-00037153.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

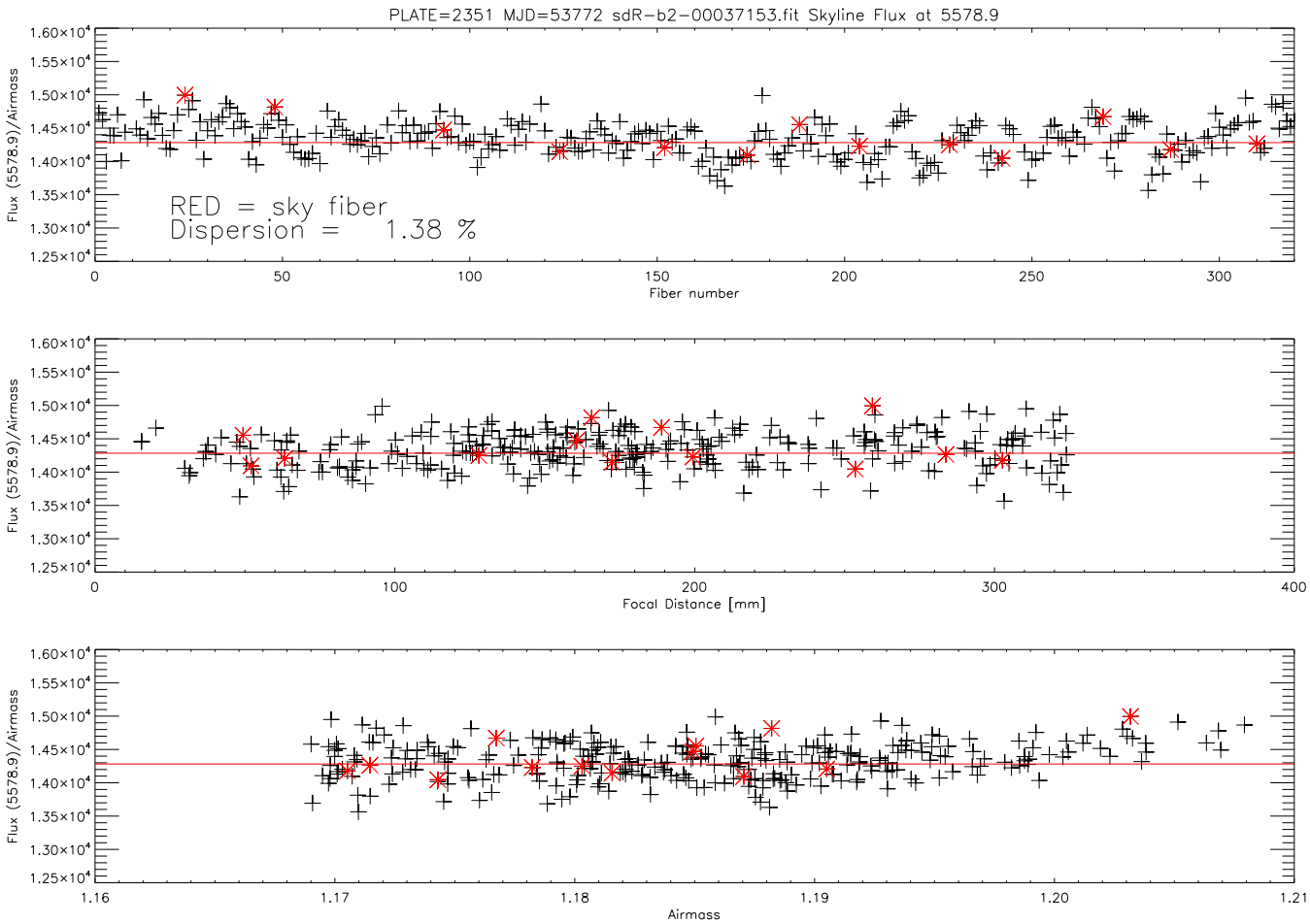

PLATE=2351 MJD=53772 sdR-b2-00037153.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

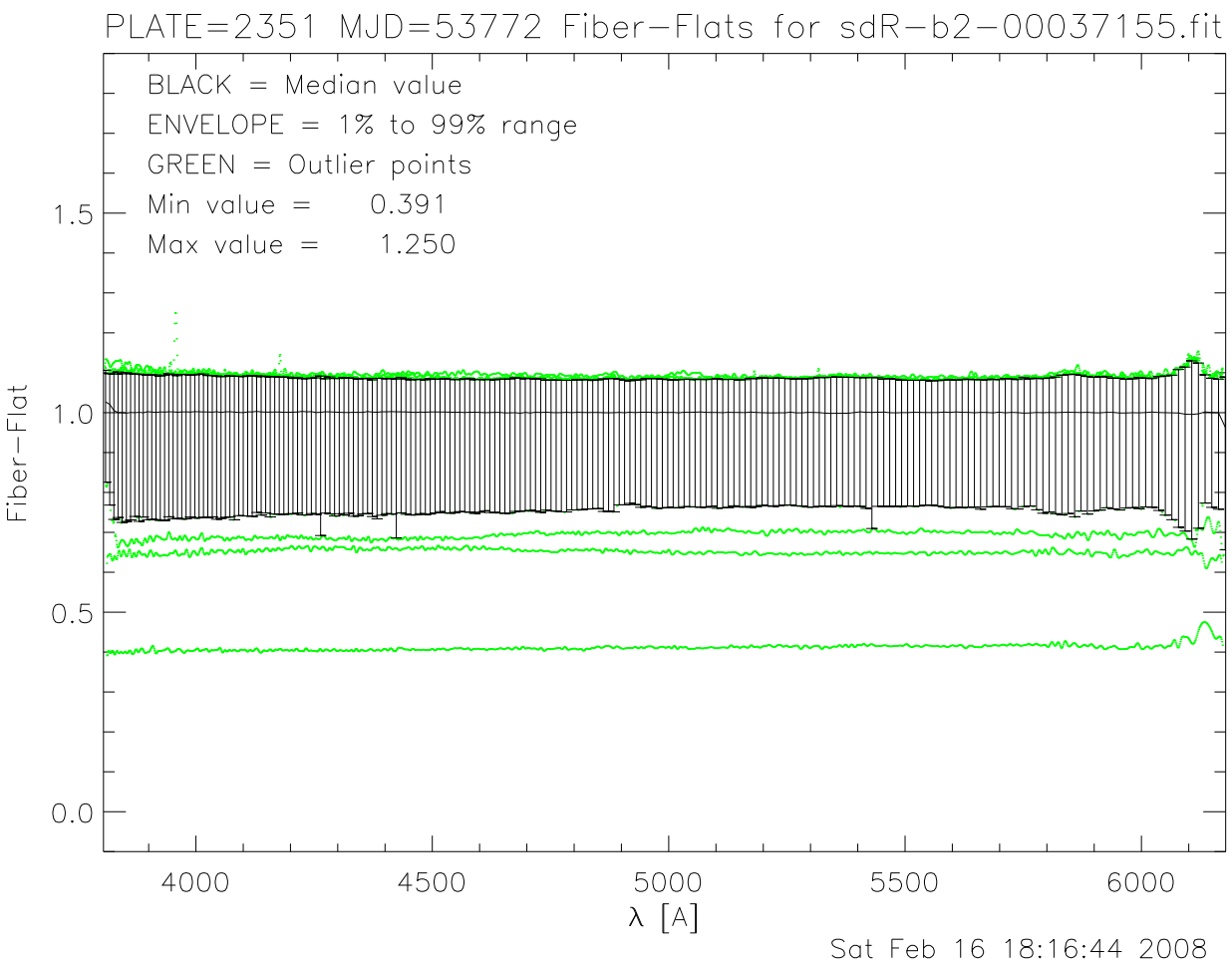

PLATE=2351 MJD=53772 sdR-b2-00037153.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

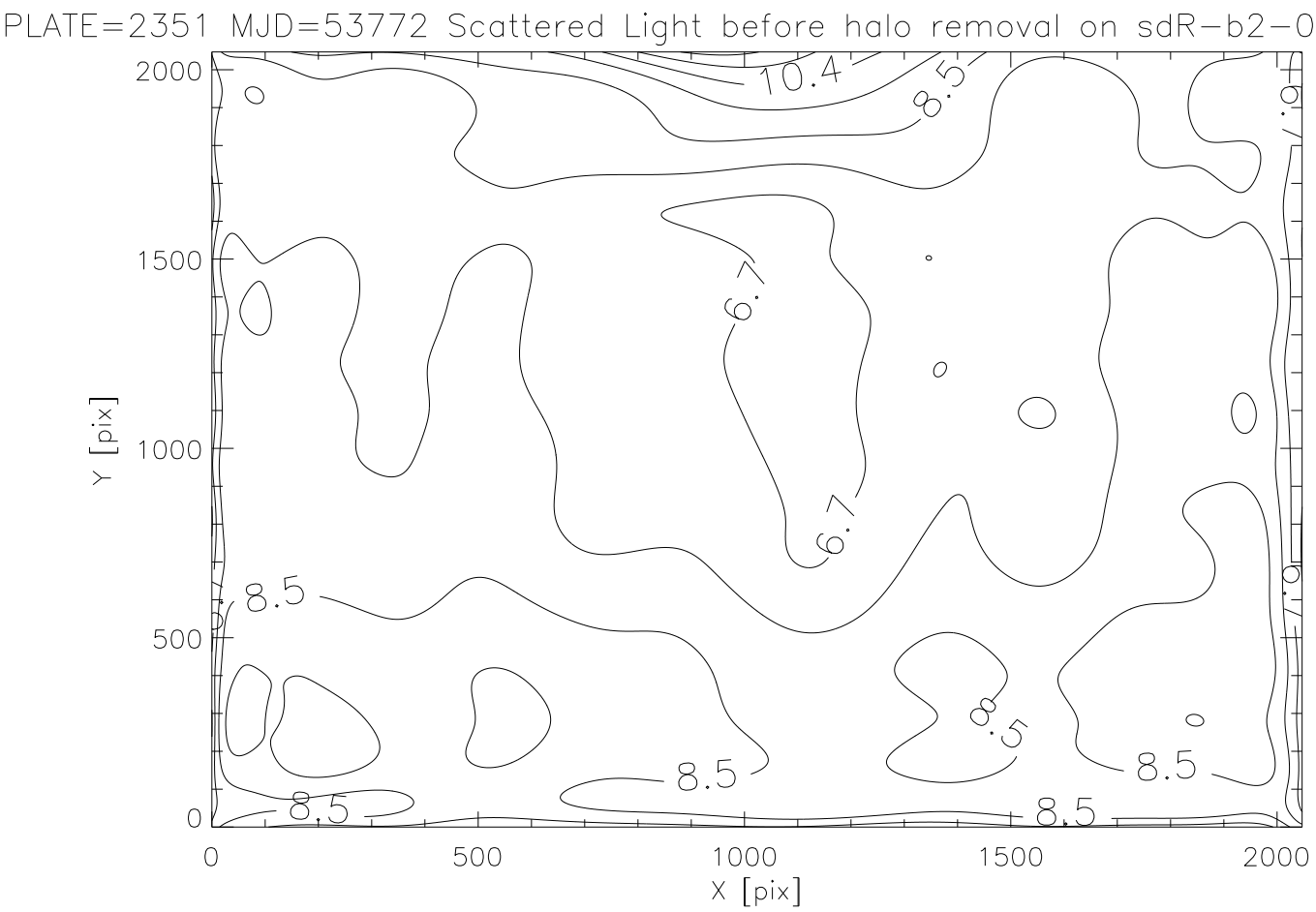

PLATE=2351 MJD=53772 sdR-b2-00037153.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
-200
-400
5570
5575
5580
5585
5590
λ [A]

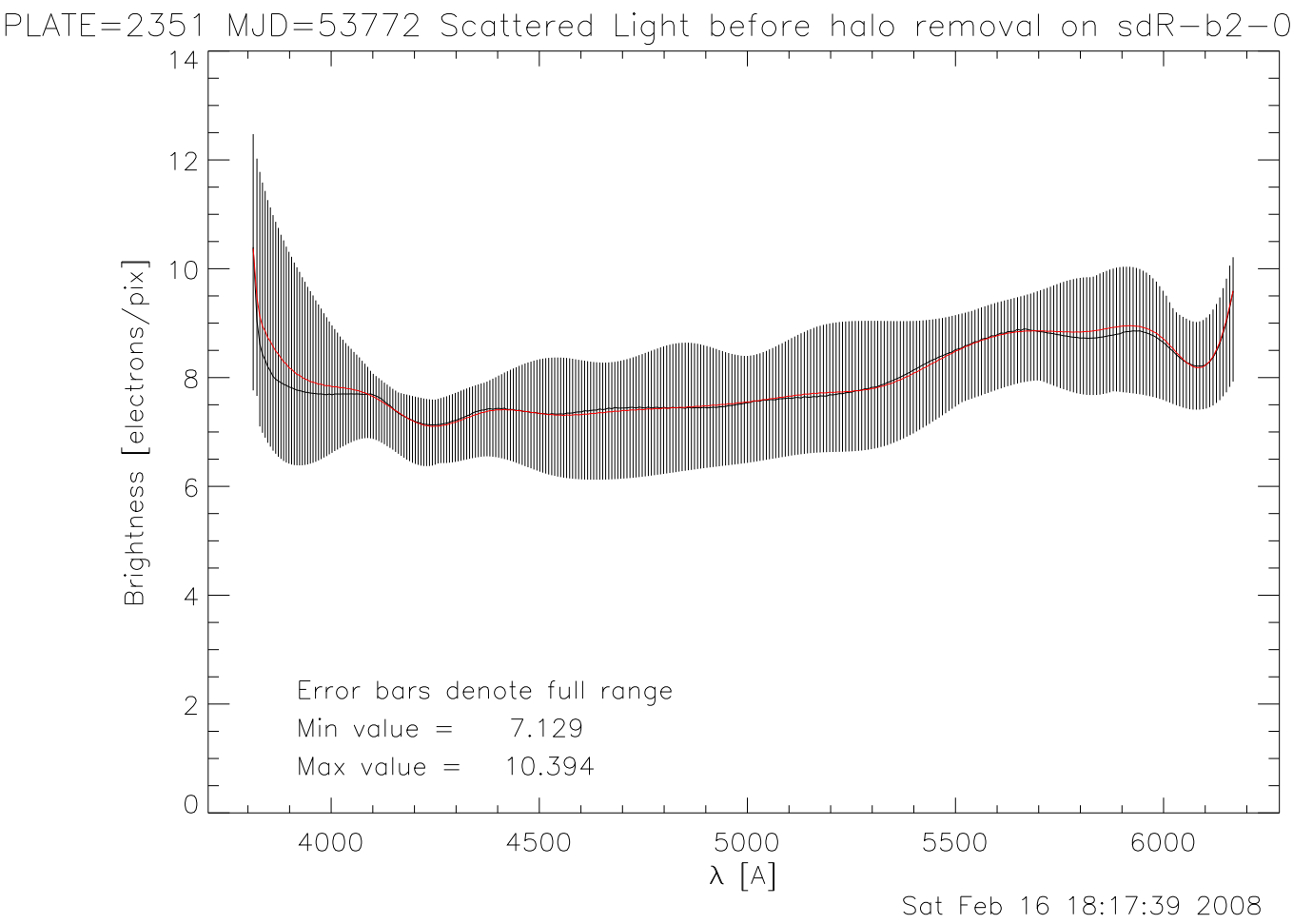

Number of sky fibers = 13
PLATE=2351 MJD=53772 sdR-b2-00037153.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

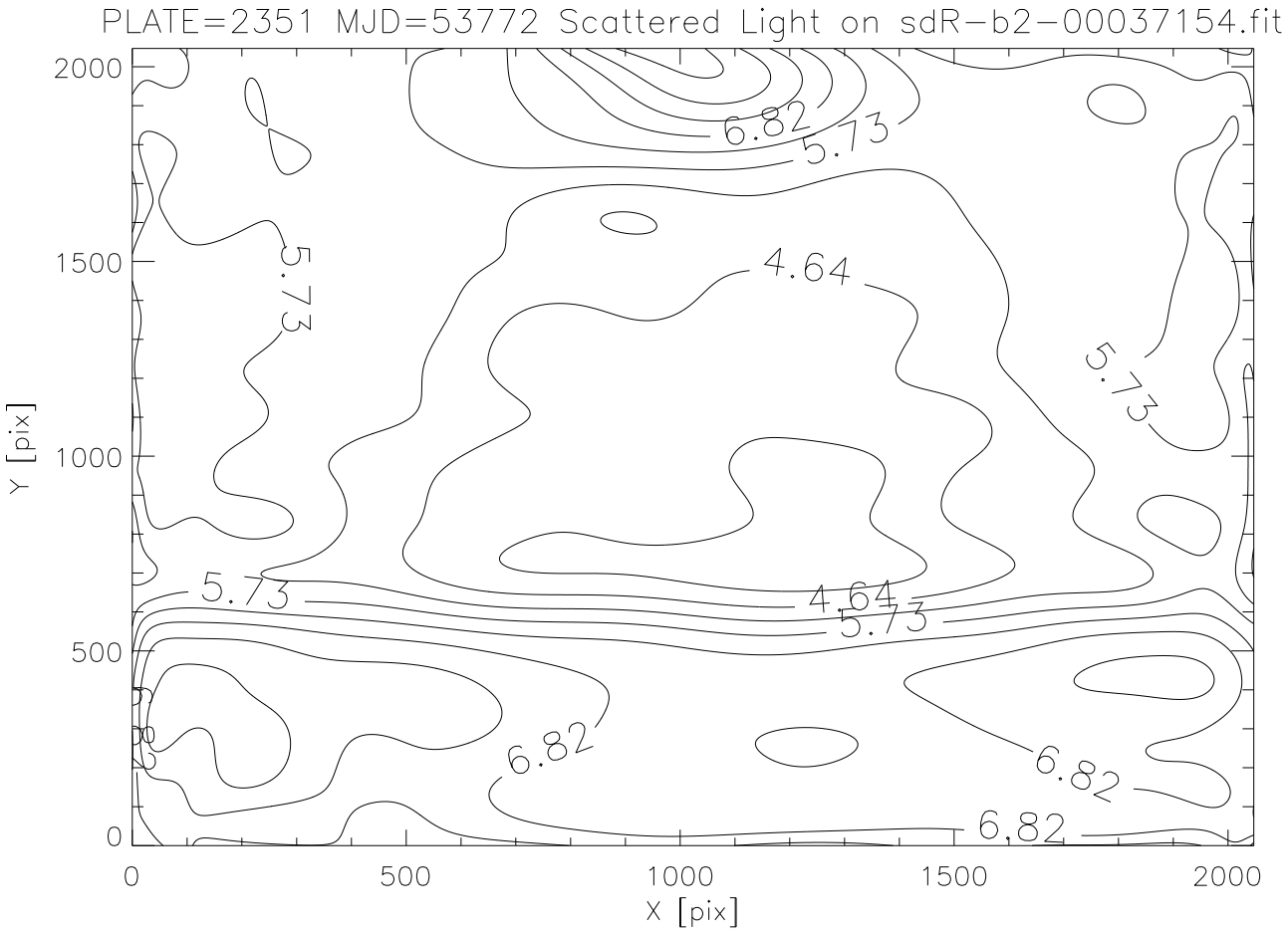

PLATE=2351 MJD=53772 sdR-b2-00037153.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 8.46 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

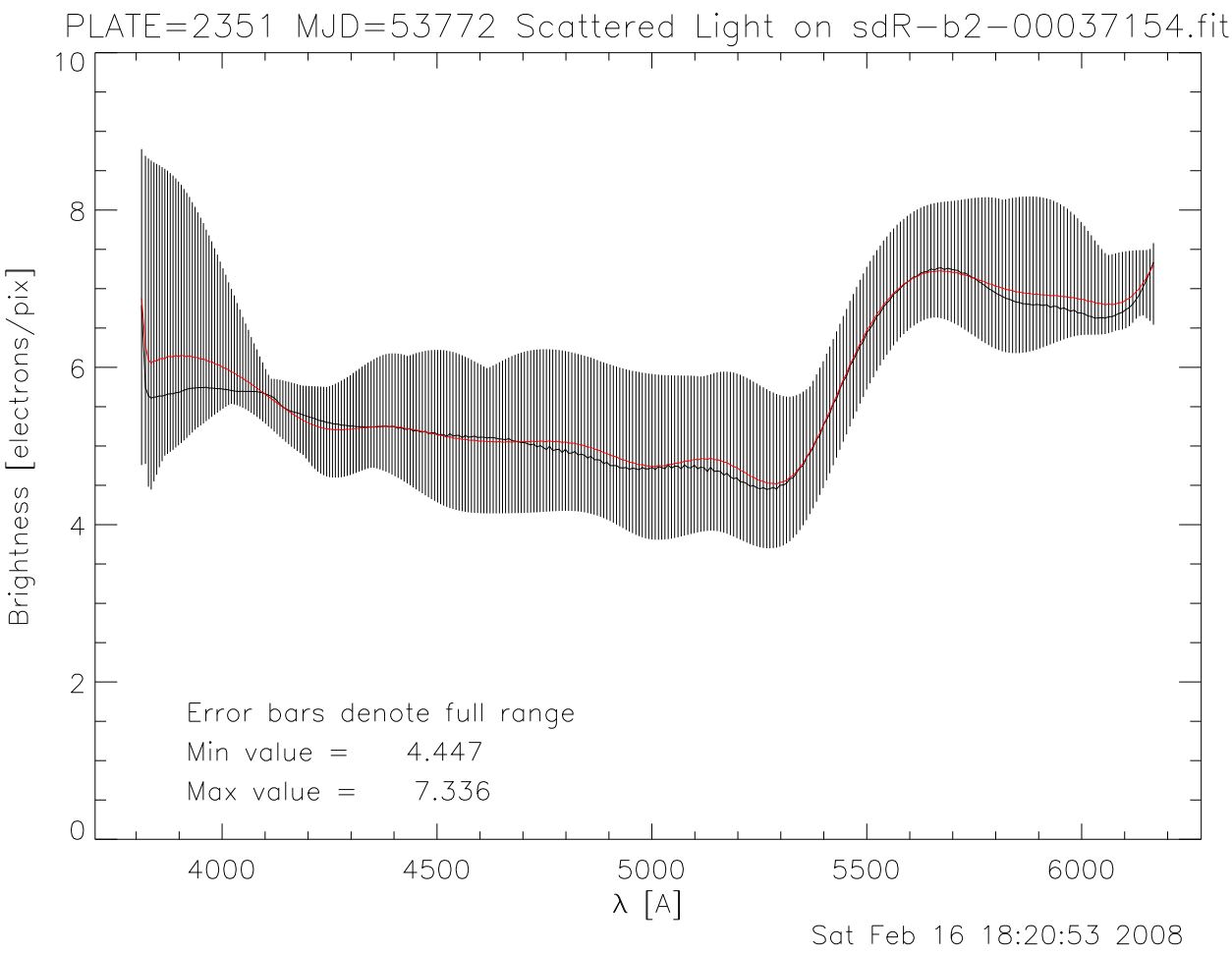

PLATE=2351 MJD=53772 sdR-b2-00037153.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 1.38 %
Fiber number
Flux (5578.9)/Airmass
Focal Distance [mm]
Flux (5578.9)/Airmass
Airmass

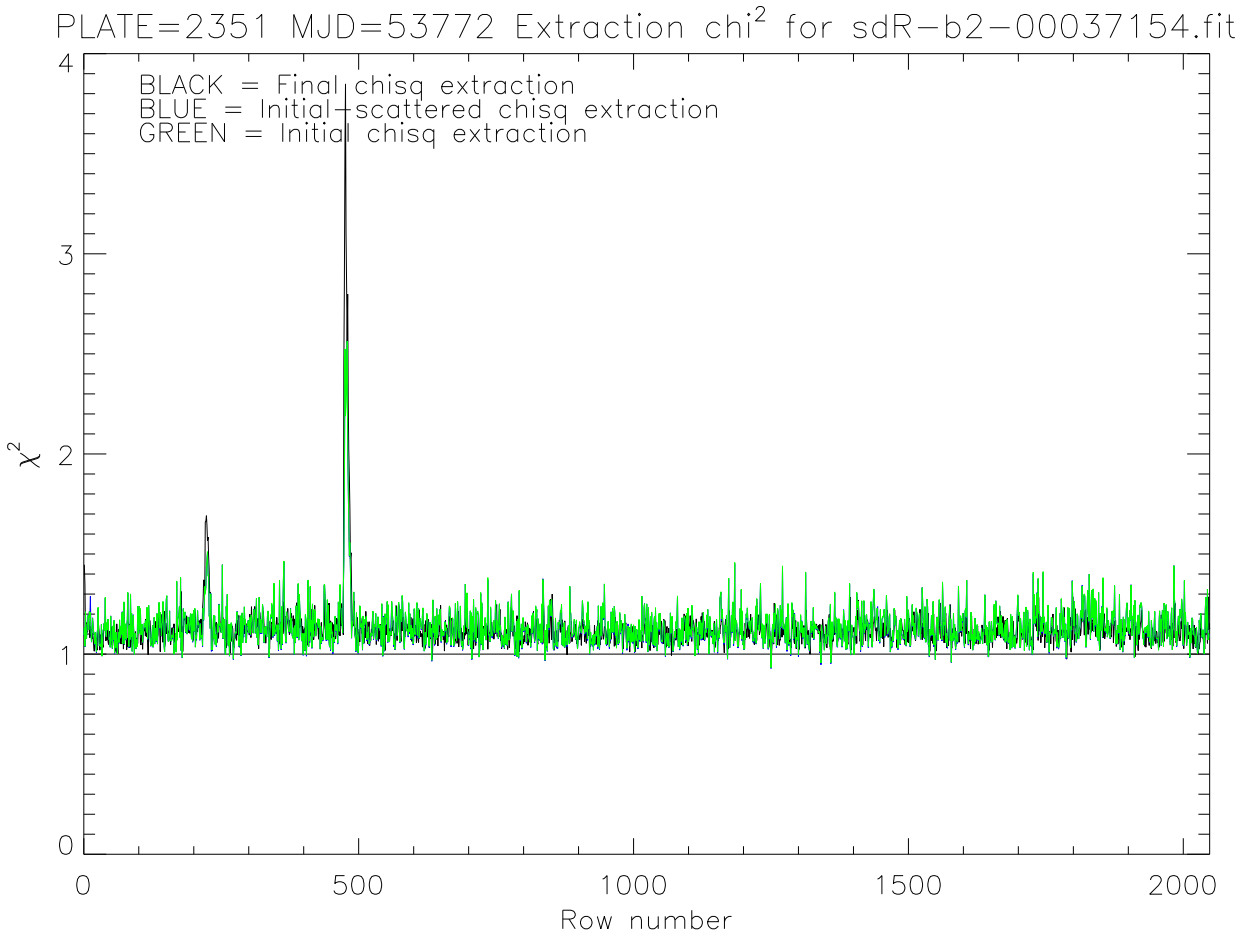

PLATE=2351 MJD=53772 Fiber−Flats for sdR−b2−00037155.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.391
Max value = 1.250
Fiber−Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Sat Feb 16 18:16:44 2008

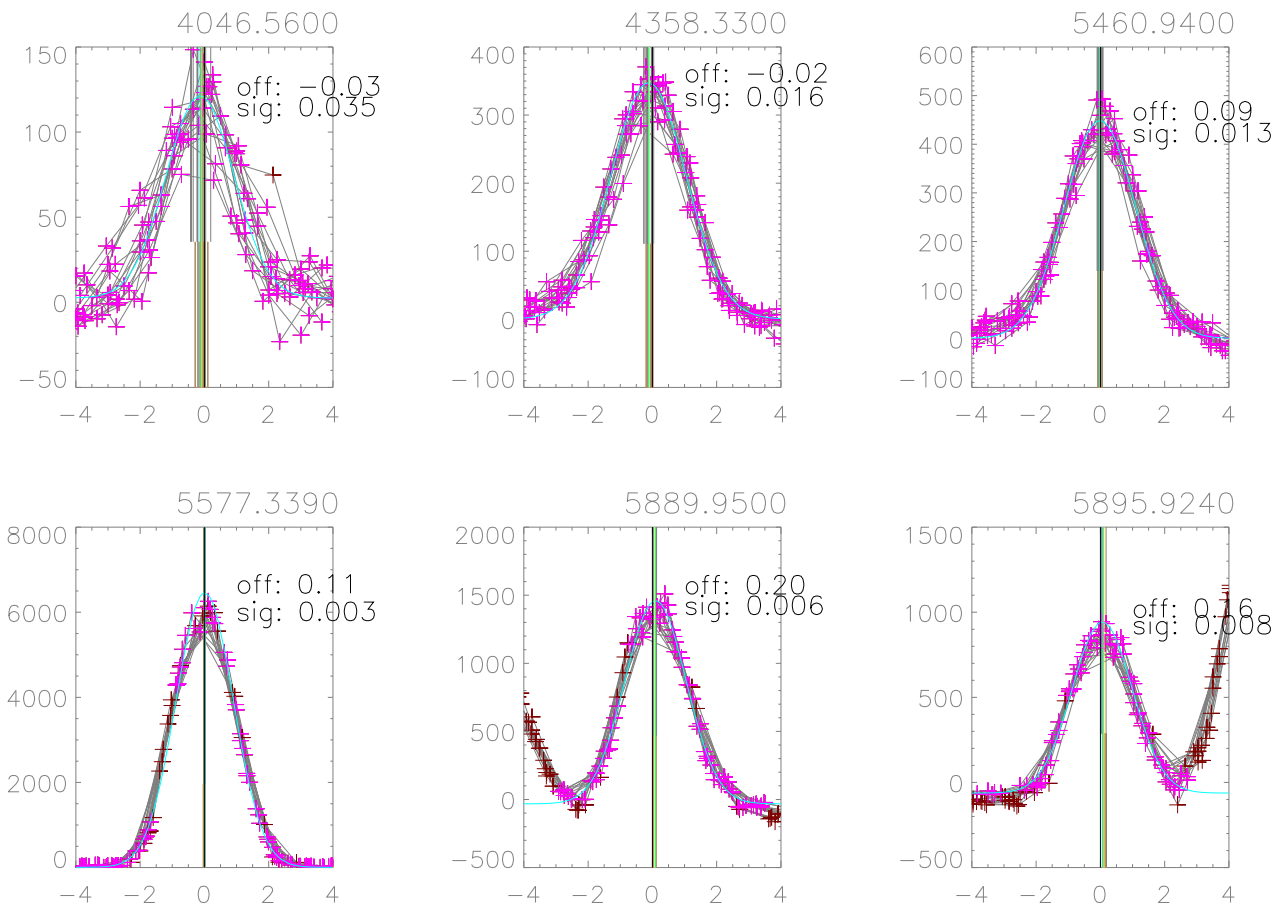

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR-b2-00037154.f
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
10.4
8.5
6.7
6.7
8.5
8.5
8.5
8.5
8.5

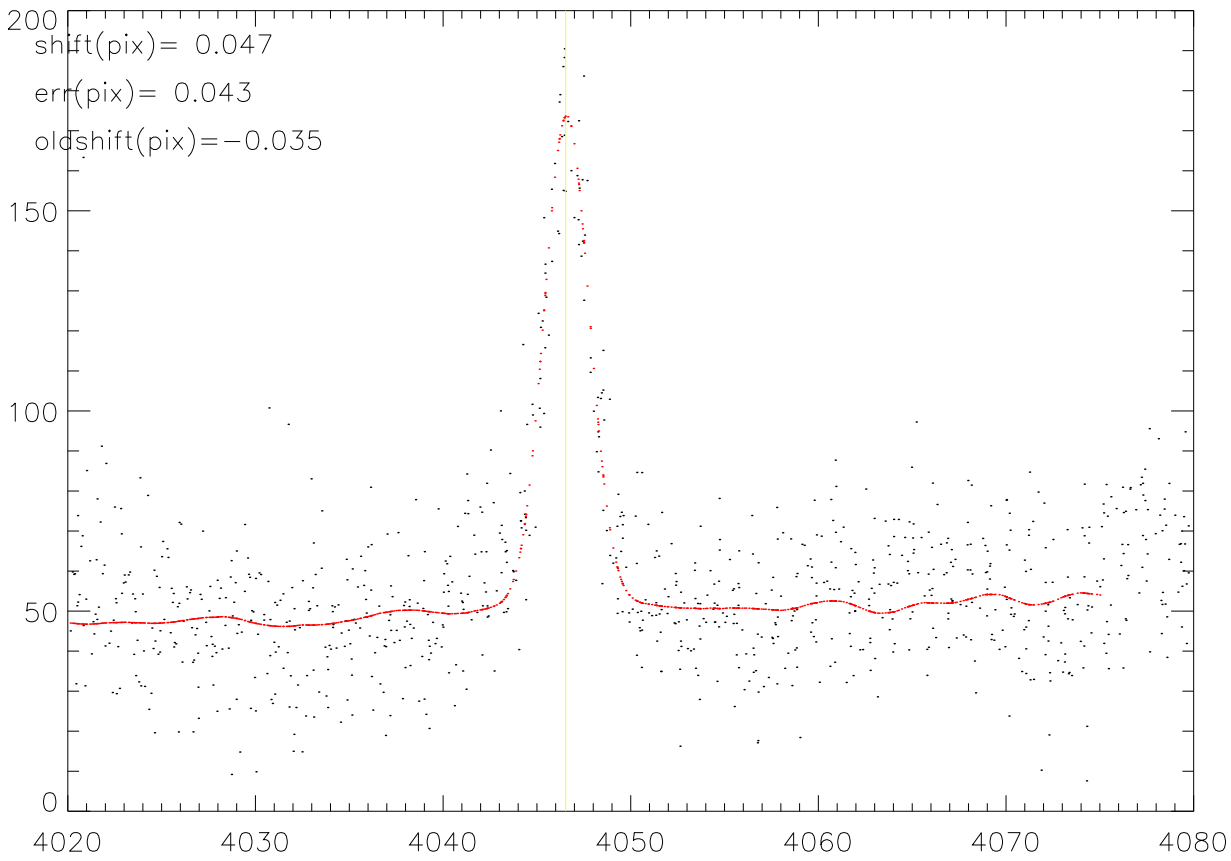

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR-b2-00037154.f
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 7.129
Max value = 10.394
Sat Feb 16 18:17:39 2008

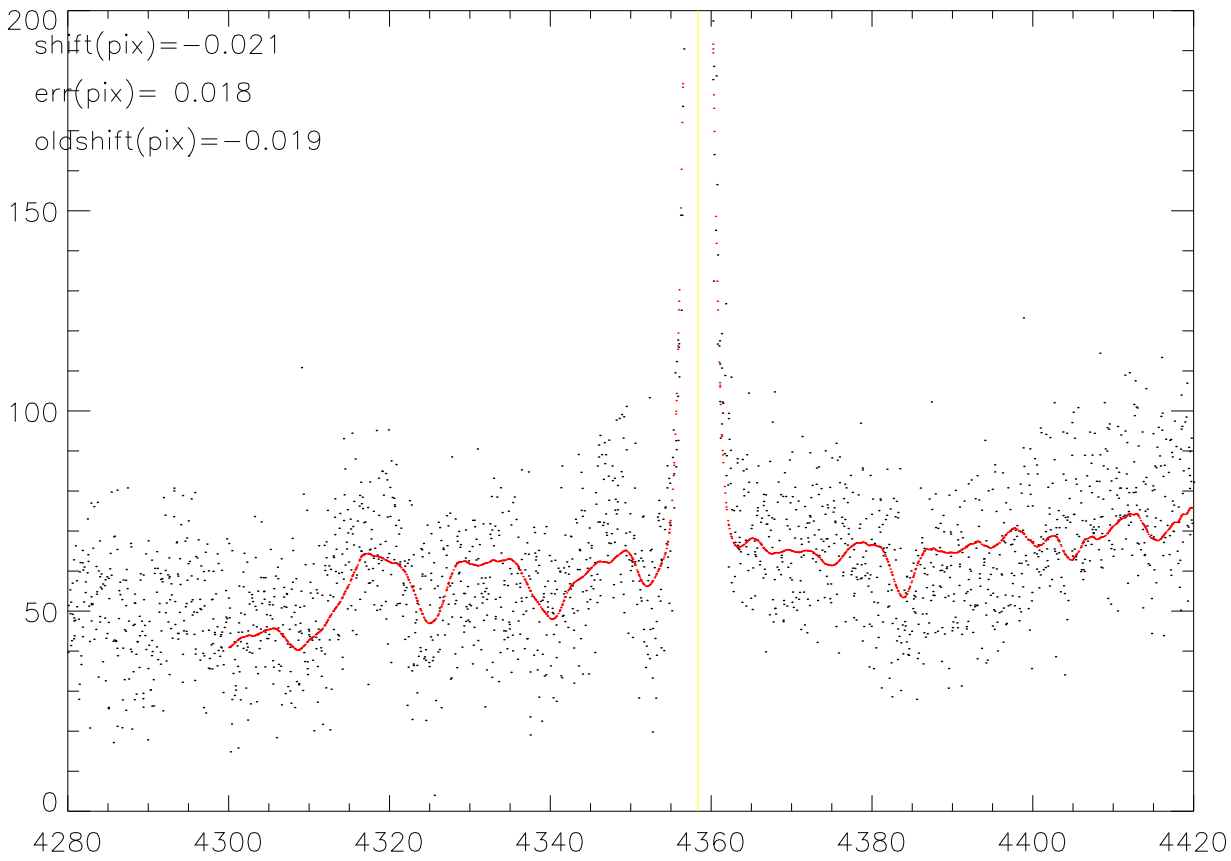

PLATE=2351 MJD=53772 Scattered Light on sdR-b2-00037154.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
6.82
5.73
4.64
5.73
5.73
4.64
5.73
6.82
6.82
6.82

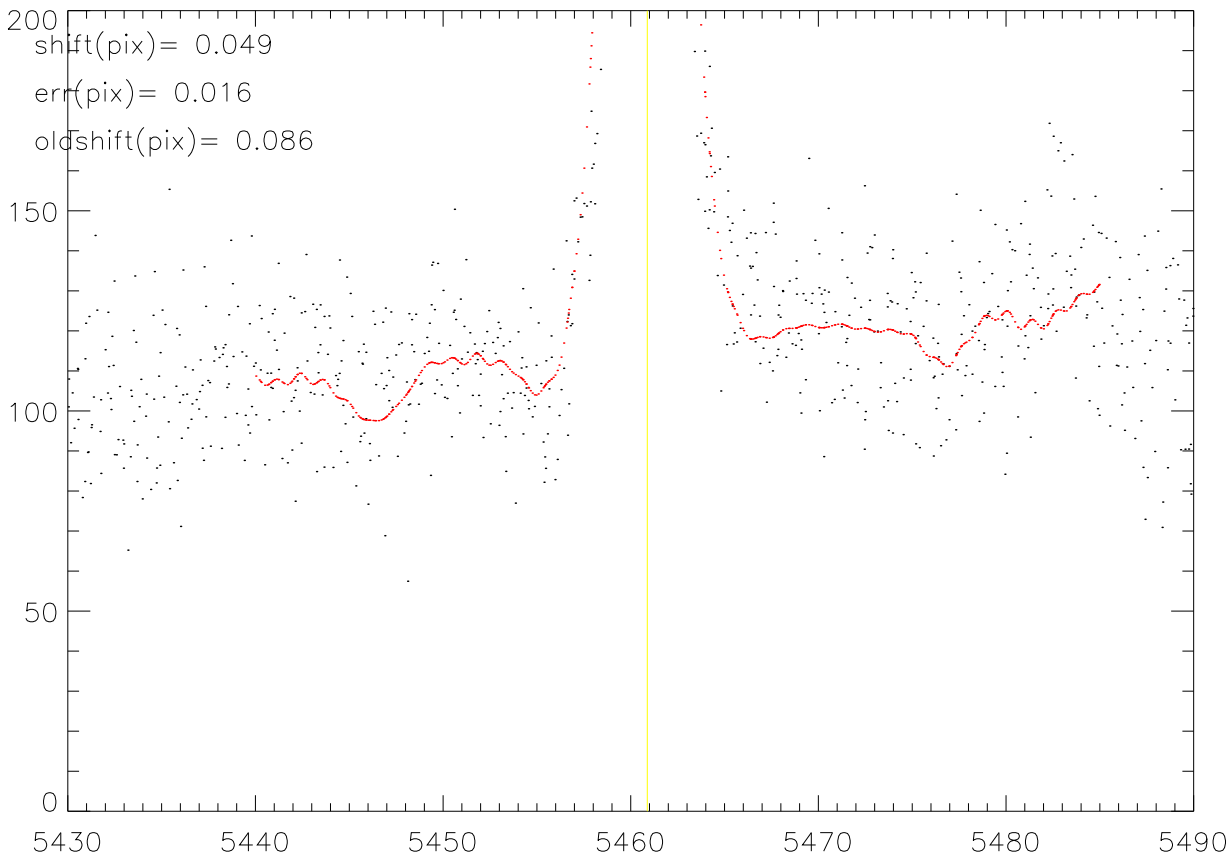

PLATE=2351 MJD=53772 Scattered Light on sdR-b2-00037154.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 4.447
Max value = 7.336
Sat Feb 16 18:20:53 2008

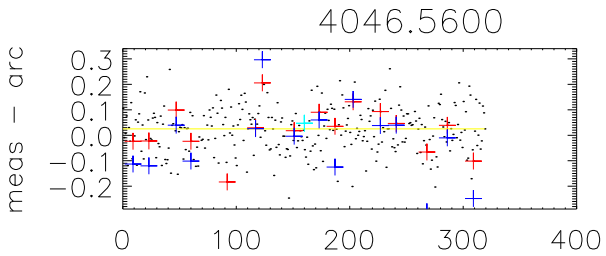

PLATE=2351 MJD=53772 Extraction chi^2 for sdR-b2-00037154.fit
BLACK = Final chisq extraction
BLUE = Initial+scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
0
500
1000
1500
2000
Row number

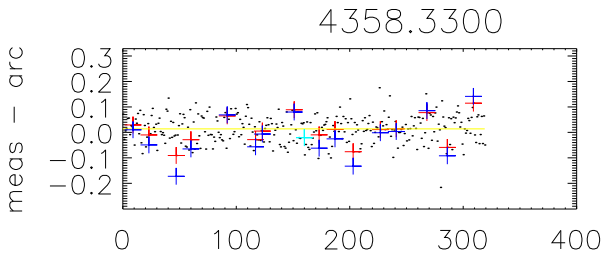

4046.5600
off: −0.03
sig: 0.035
4358.3300
off: −0.02
sig: 0.016
5460.9400
off: 0.09
sig: 0.013
5577.3390
off: 0.11
sig: 0.003
5889.9500
off: 0.20
sig: 0.006
5895.9240
off: 0.16
sig: 0.008

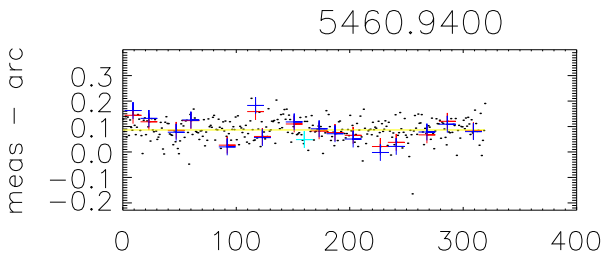

shift(pix)= 0.047
err(pix)= 0.043
oldshift(pix)=-0.035
200
150
100
50
0
4020
4030
4040
4050
4060
4070
4080

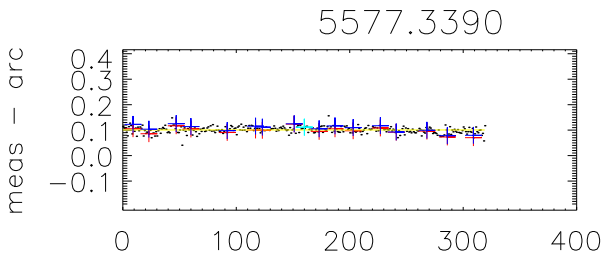

shift(pix)=−0.021
err(pix)= 0.018
oldshift(pix)=−0.019
200
150
100
50
0
4280
4300
4320
4340
4360
4380
4400
4420

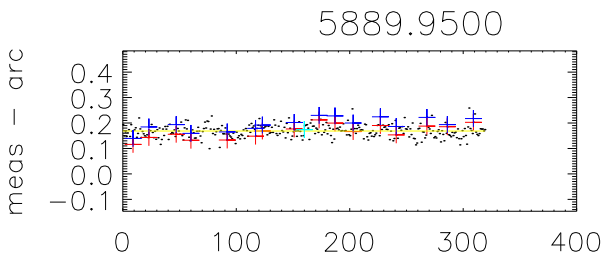

shift(pix)= 0.049
err(pix)= 0.016
oldshift(pix)= 0.086
200
150
100
50
0
5430
5440
5450
5460
5470
5480
5490

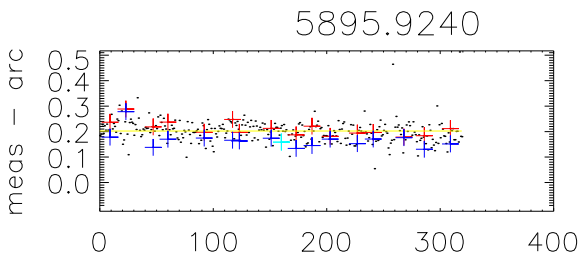

4046.5600
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

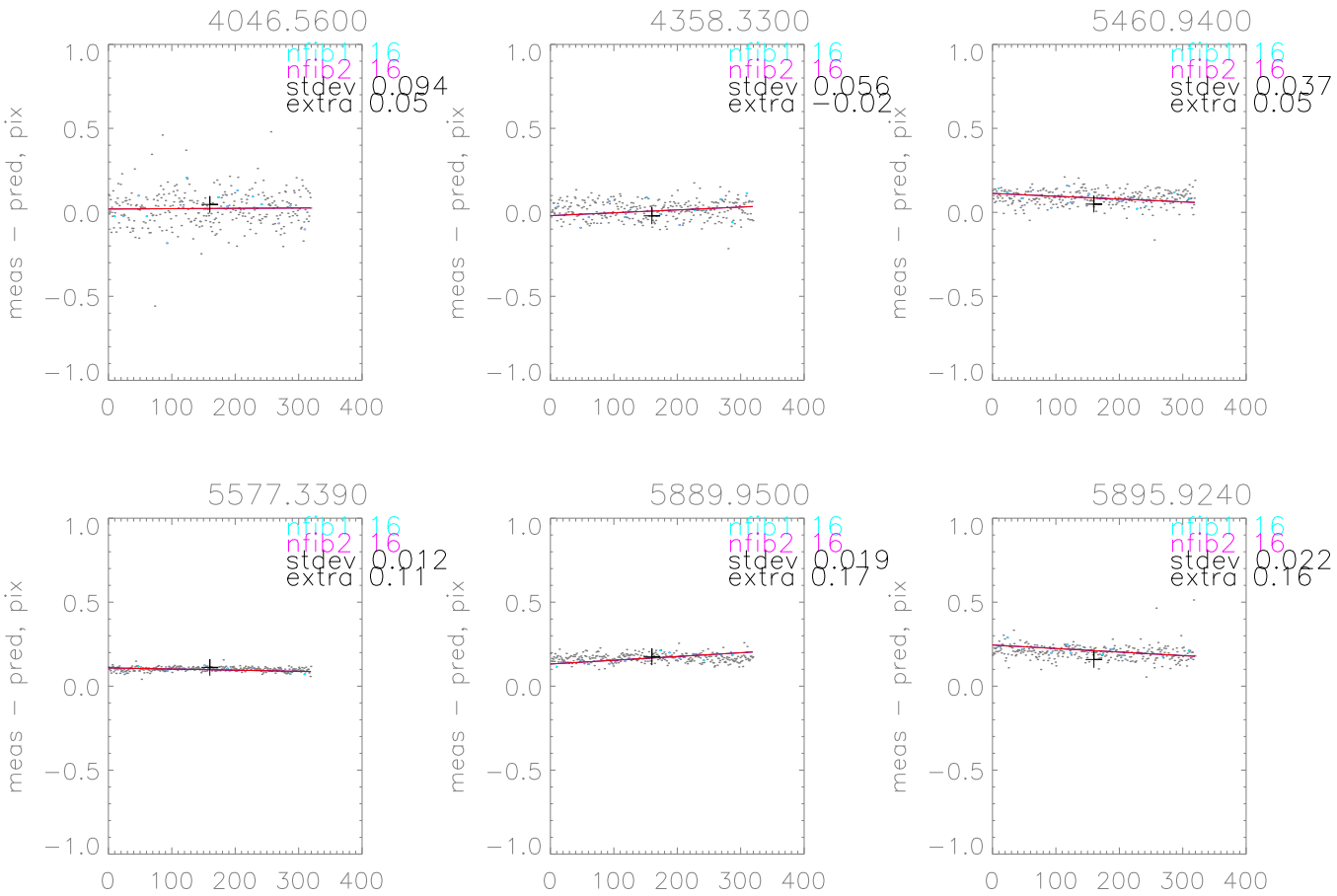

4358.3300
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

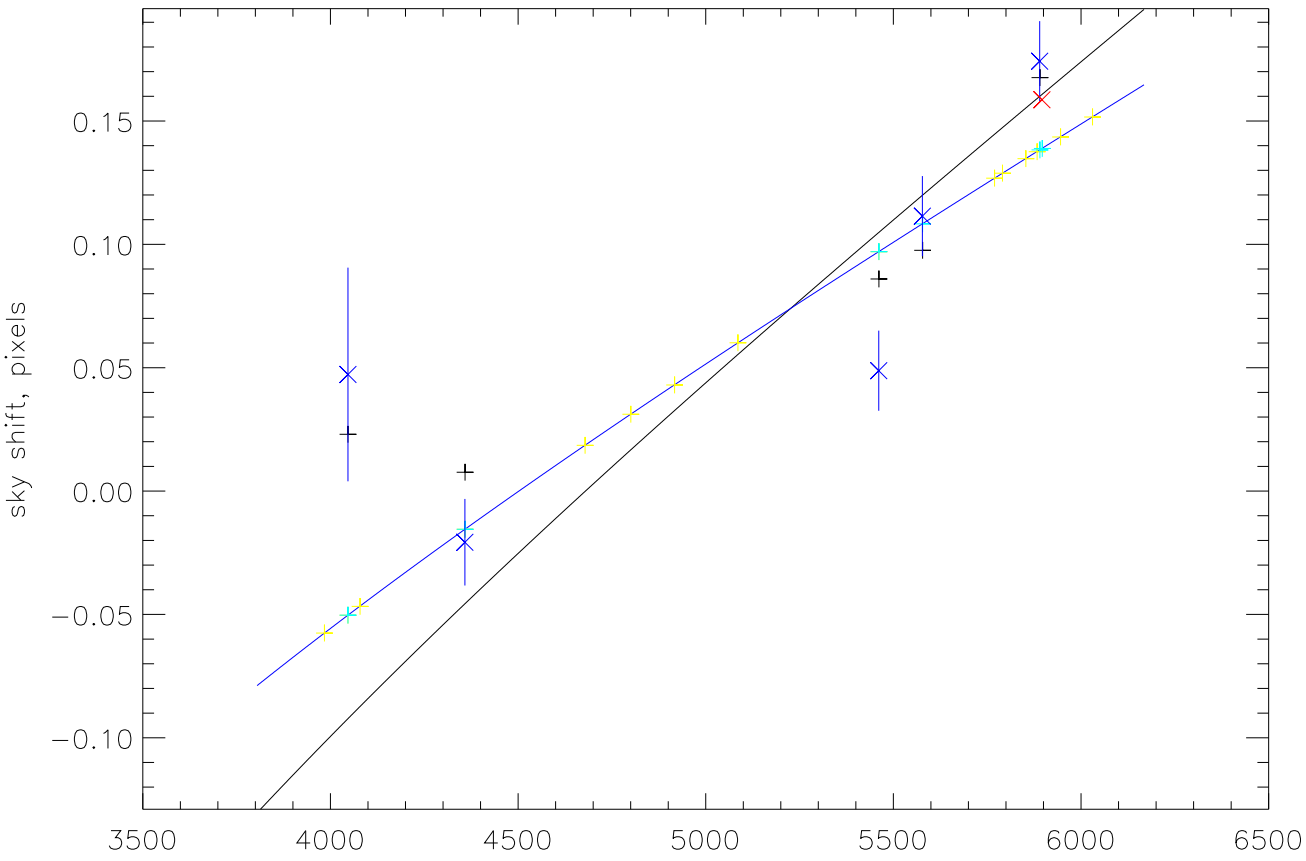

5460.9400
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

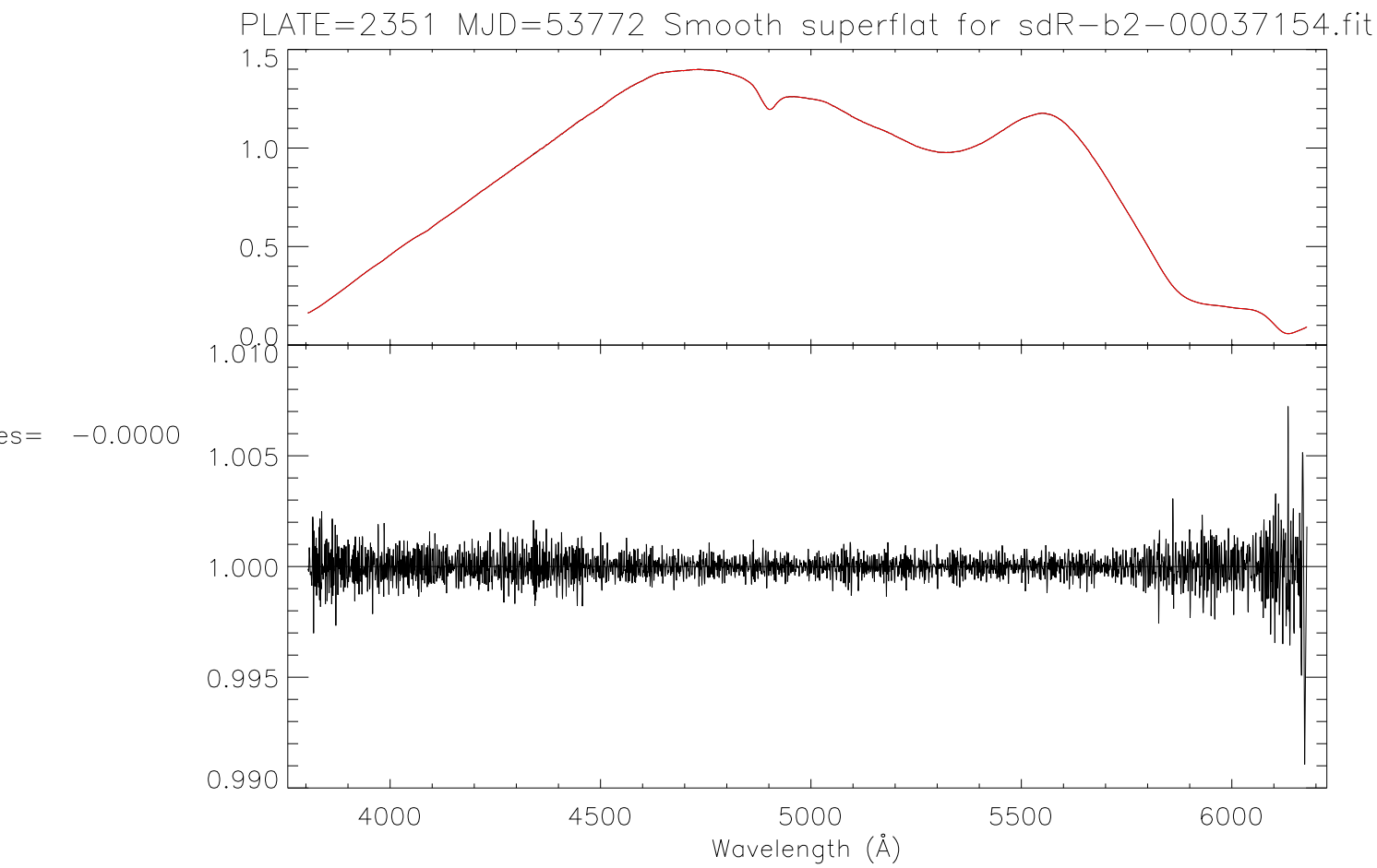

5577.3390
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

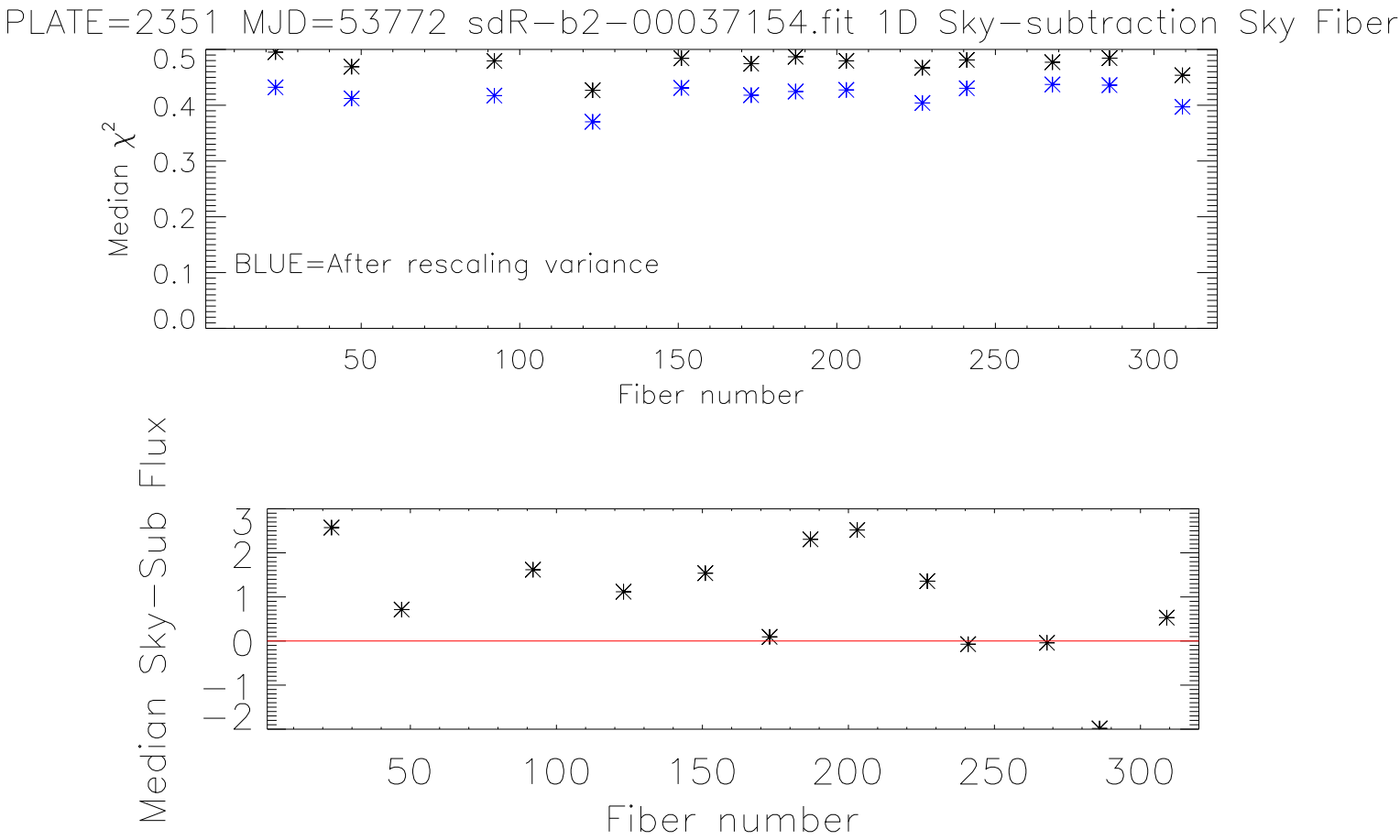

5889.9500
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

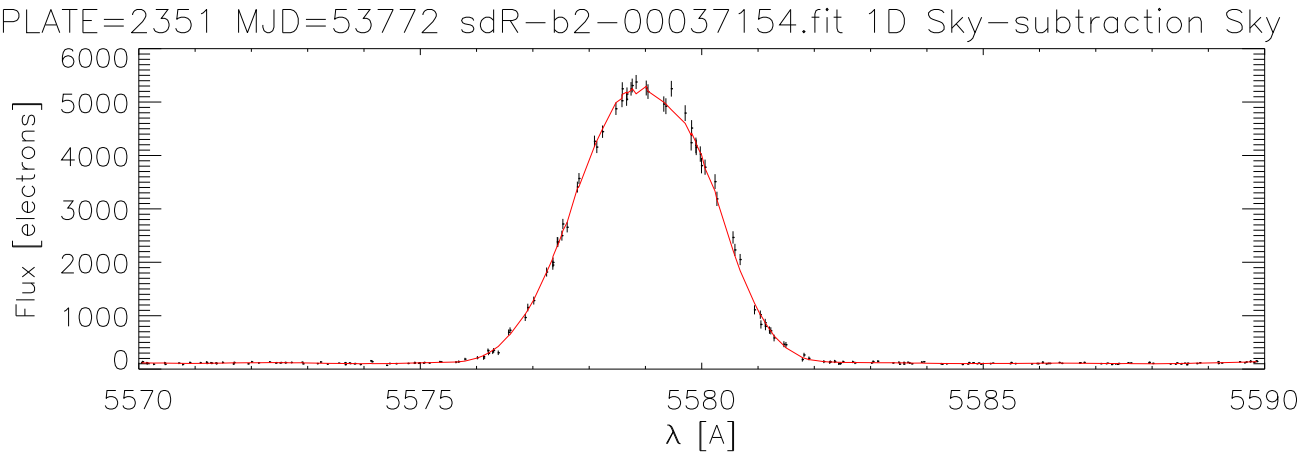

5895.9240
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

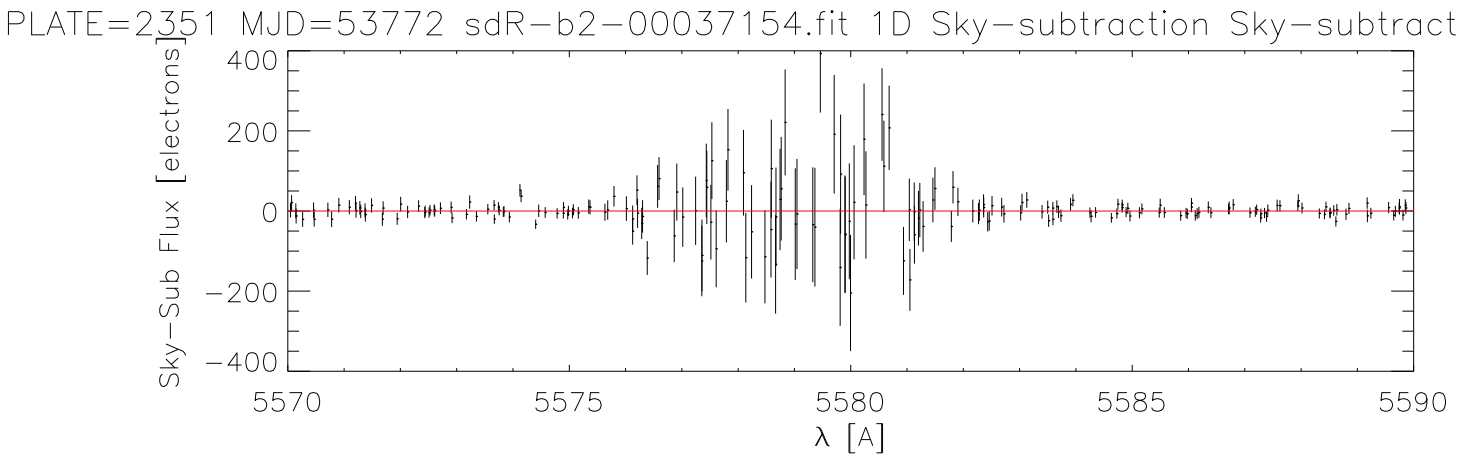

4046.5600
nfib1 16
nfib2 16
stdev 0.094
extra 0.05
4358.3300
nfib1 16
nfib2 16
stdev 0.056
extra −0.02
5460.9400
nfib1 16
nfib2 16
stdev 0.037
extra 0.05
5577.3390
nfib1 16
nfib2 16
stdev 0.012
extra 0.11
5889.9500
nfib1 16
nfib2 16
stdev 0.019
extra 0.17
5895.9240
nfib1 16
nfib2 16
stdev 0.022
extra 0.16
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

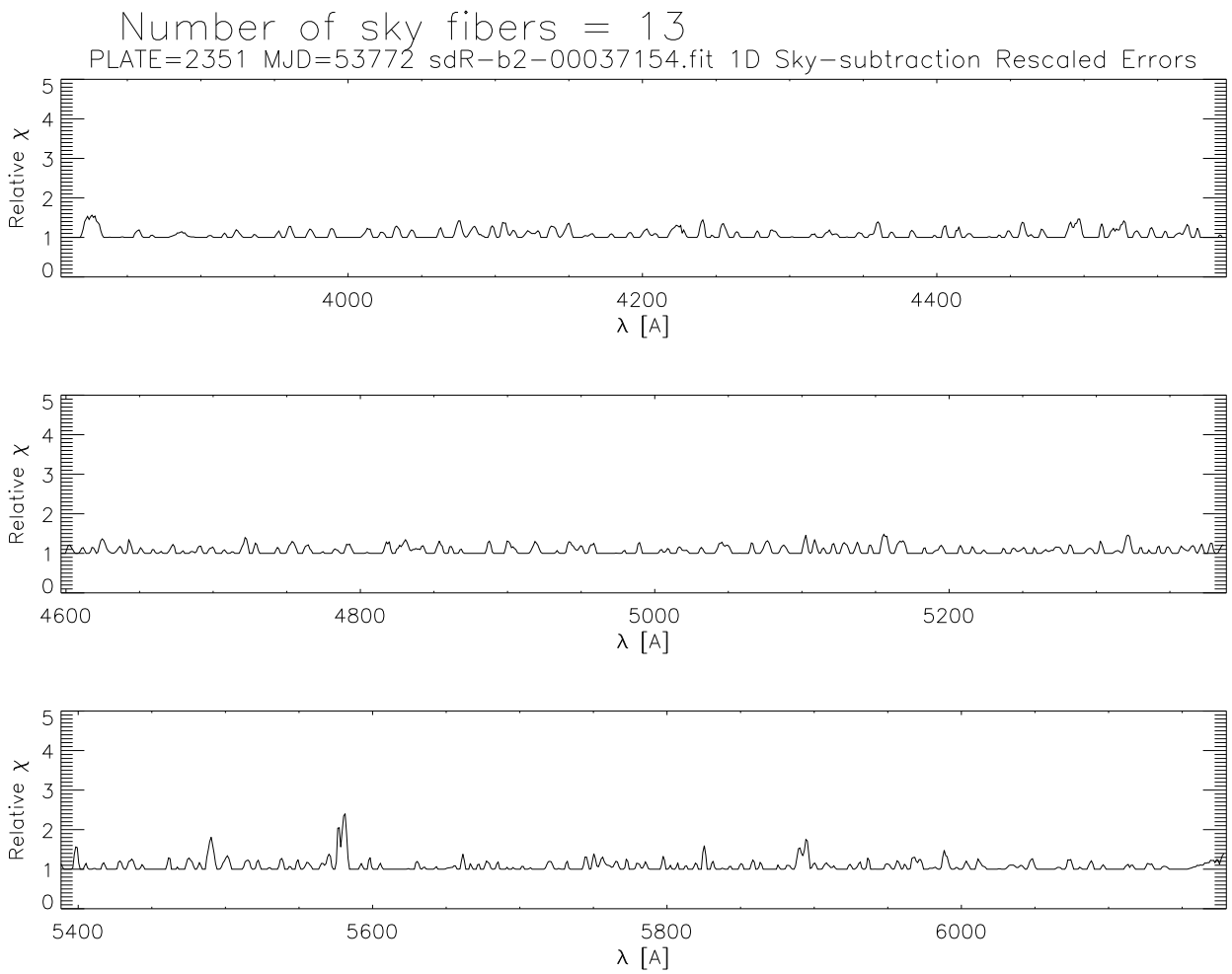

sky shift, pixels
0.15
0.10
0.05
0.00
−0.05
−0.10
3500
4000
4500
5000
5500
6000
6500

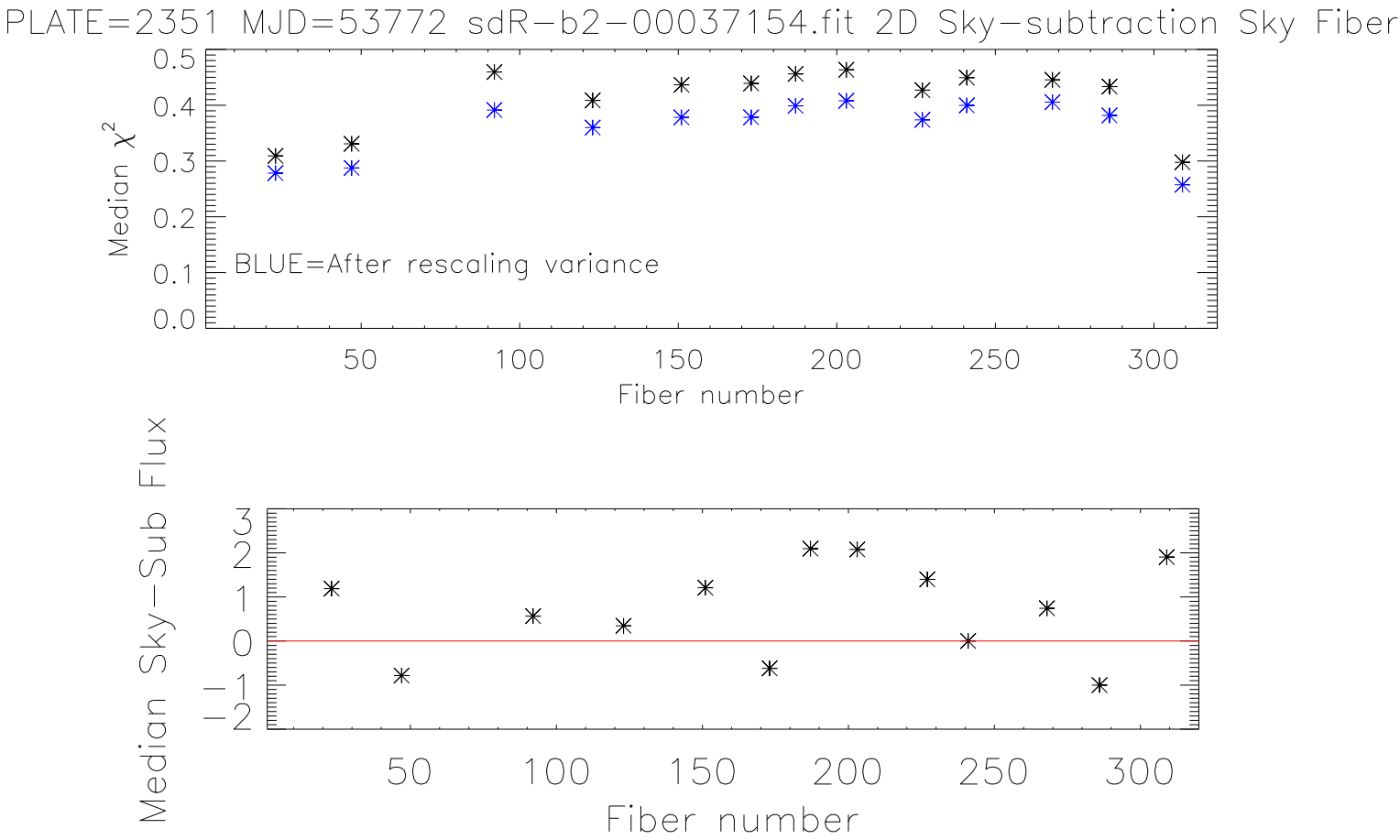

PLATE=2351 MJD=53772 Smooth superflat for sdR-b2-00037154.fit
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
es= −0.0000
4000
4500
5000
5500
6000
Wavelength (Å)

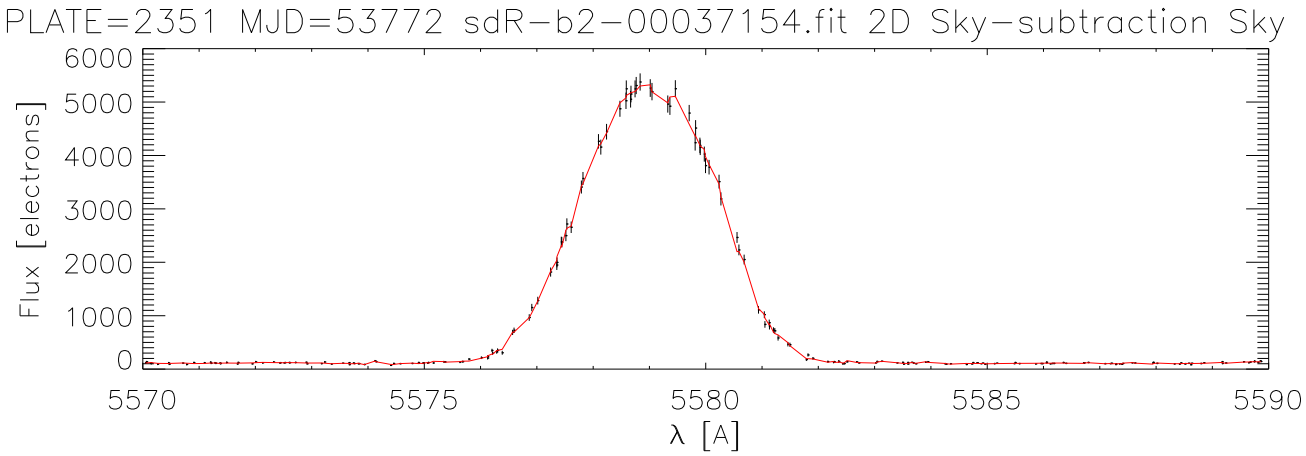

PLATE=2351 MJD=53772 sdR-b2-00037154.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-2
-1
0
1
2
3
50
100
150
200
250
300
Fiber number

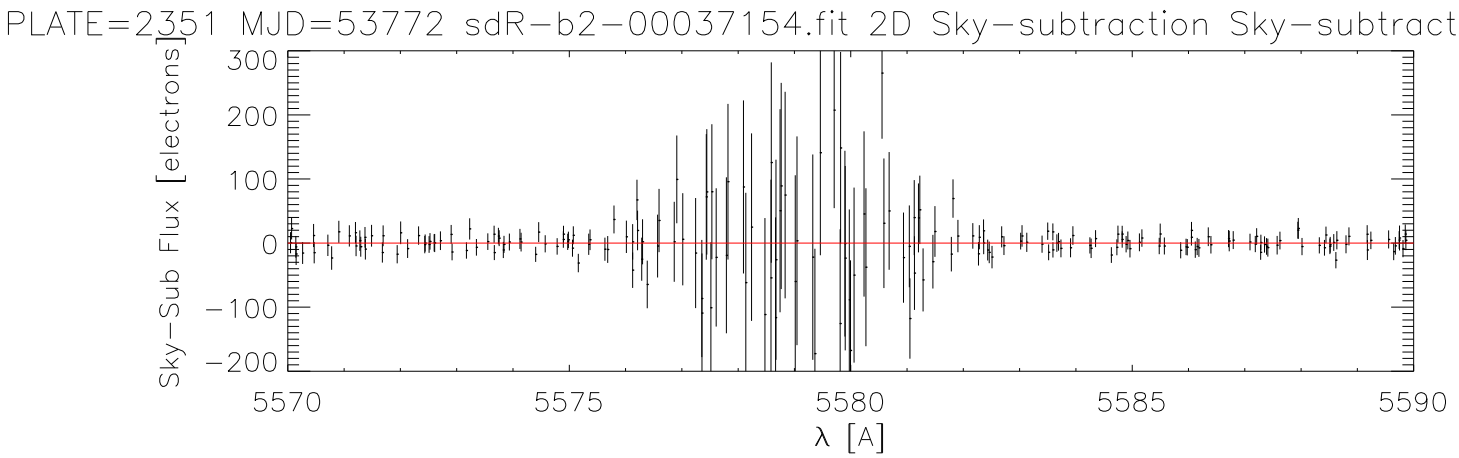

PLATE=2351 MJD=53772 sdR-b2-00037154.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
6000
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

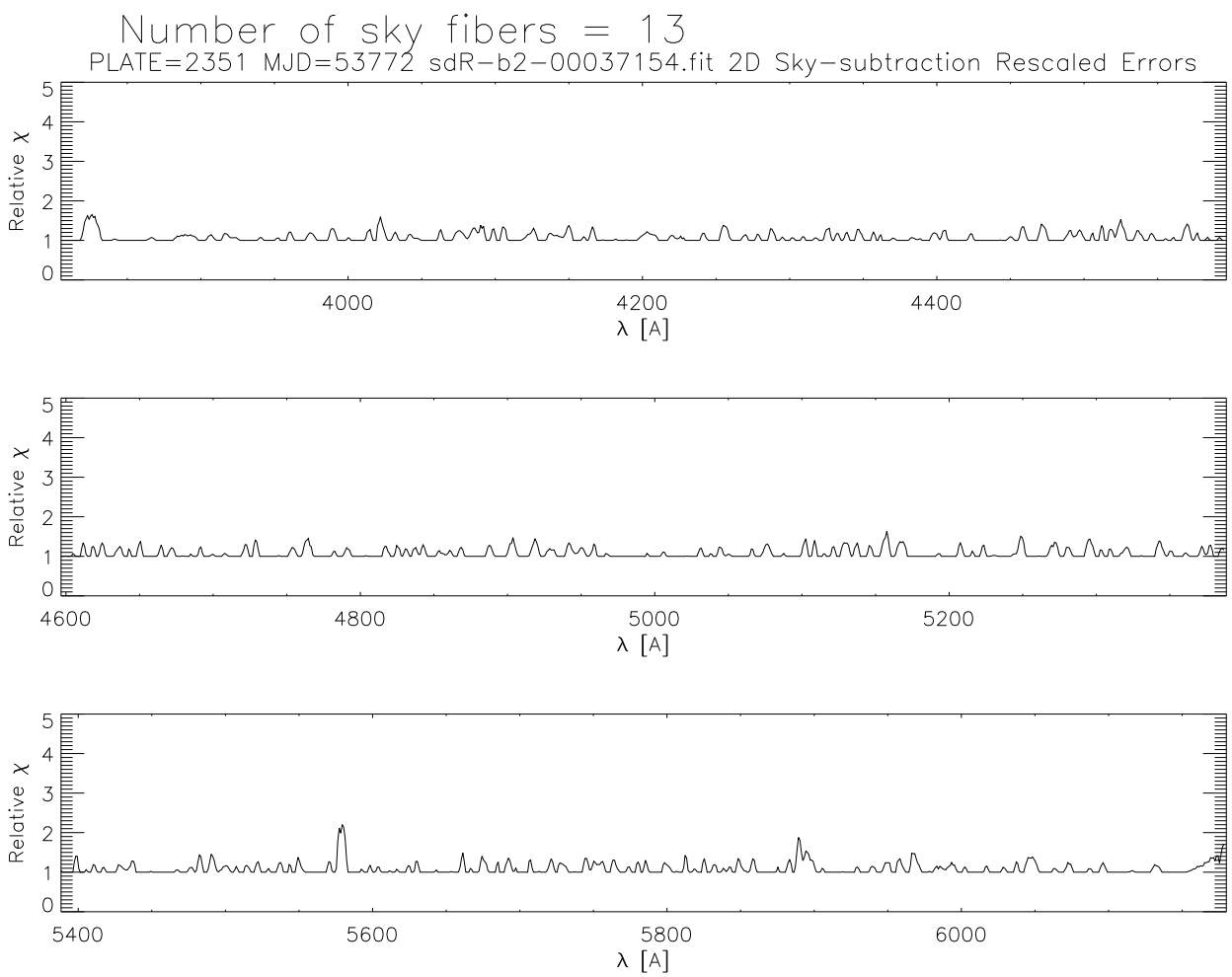

PLATE=2351 MJD=53772 sdR-b2-00037154.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
200
0
-200
-400
5570
5575
5580
5585
5590
λ [A]

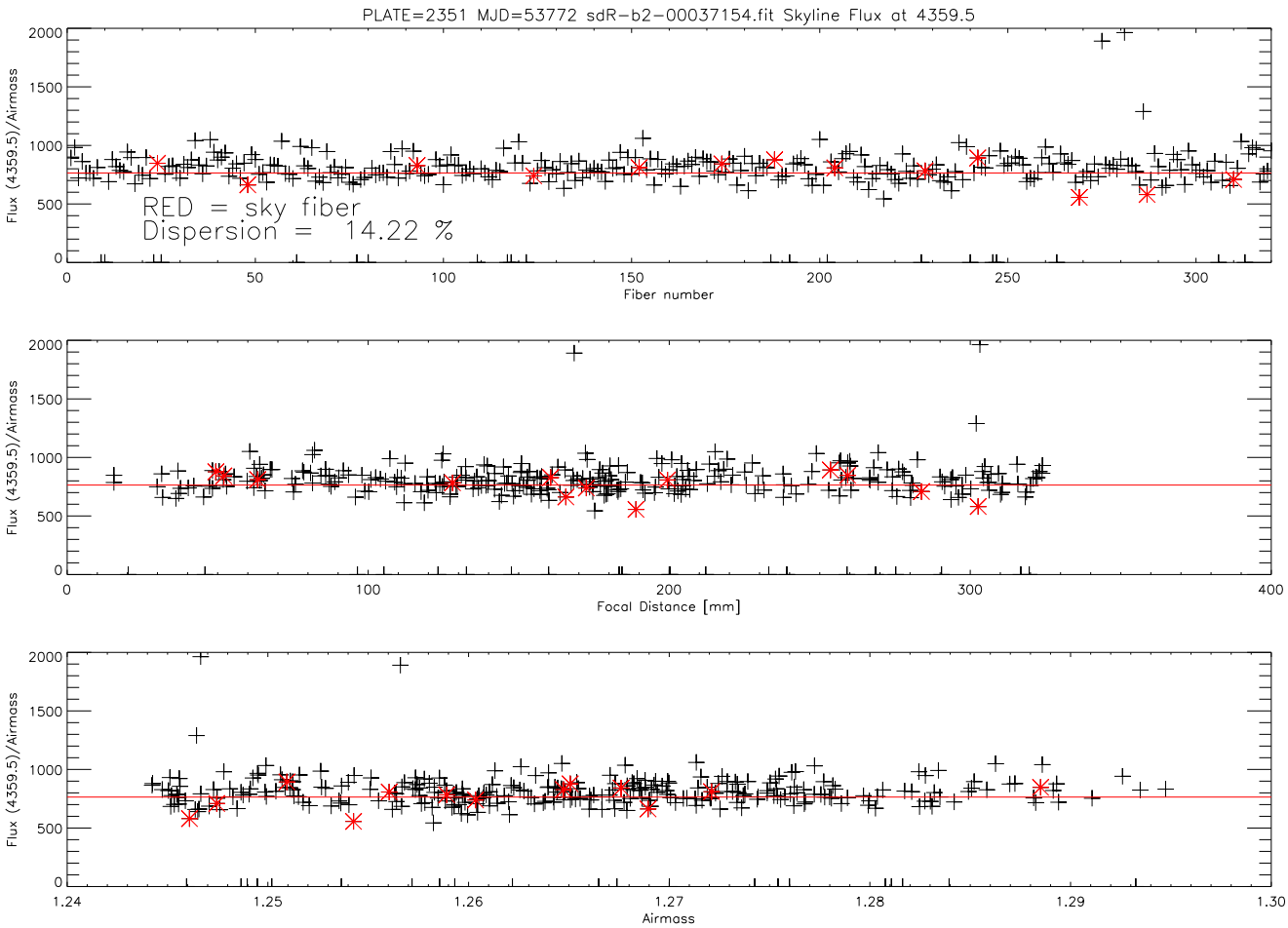

Number of sky fibers = 13
PLATE=2351 MJD=53772 sdR-b2-00037154.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

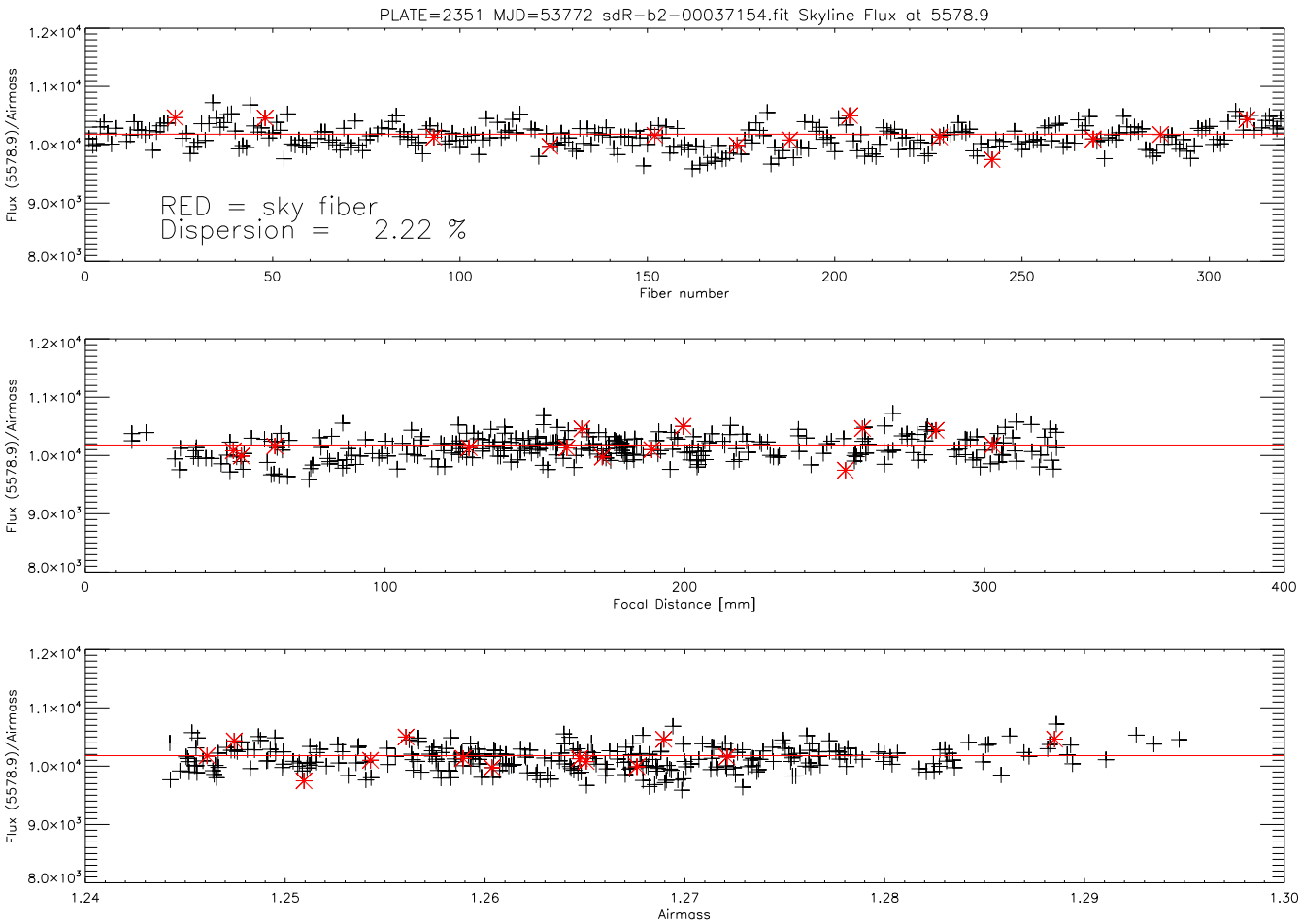

PLATE=2351 MJD=53772 sdR-b2-00037154.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

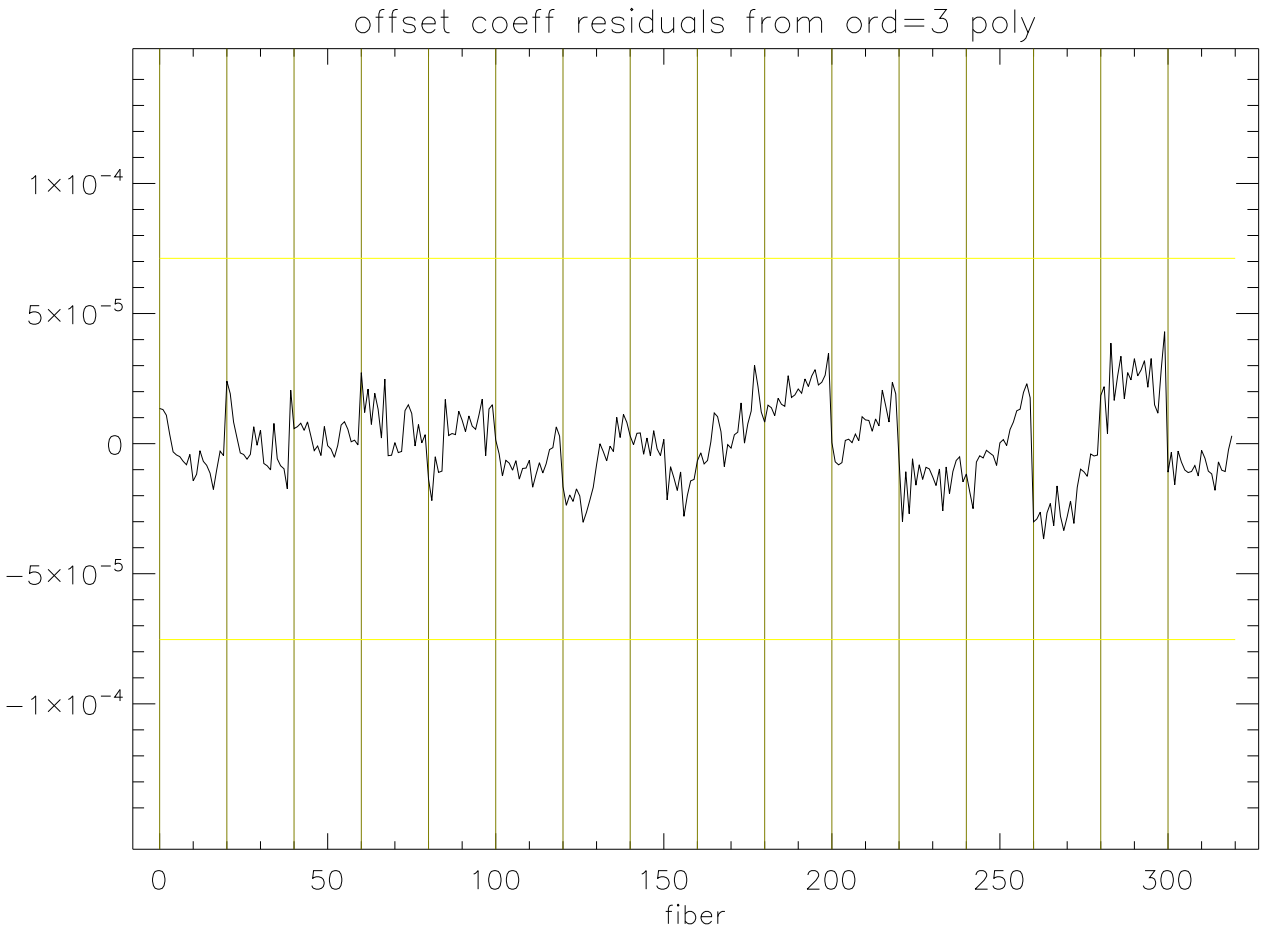

PLATE=2351 MJD=53772 sdR-b2-00037154.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
6000
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

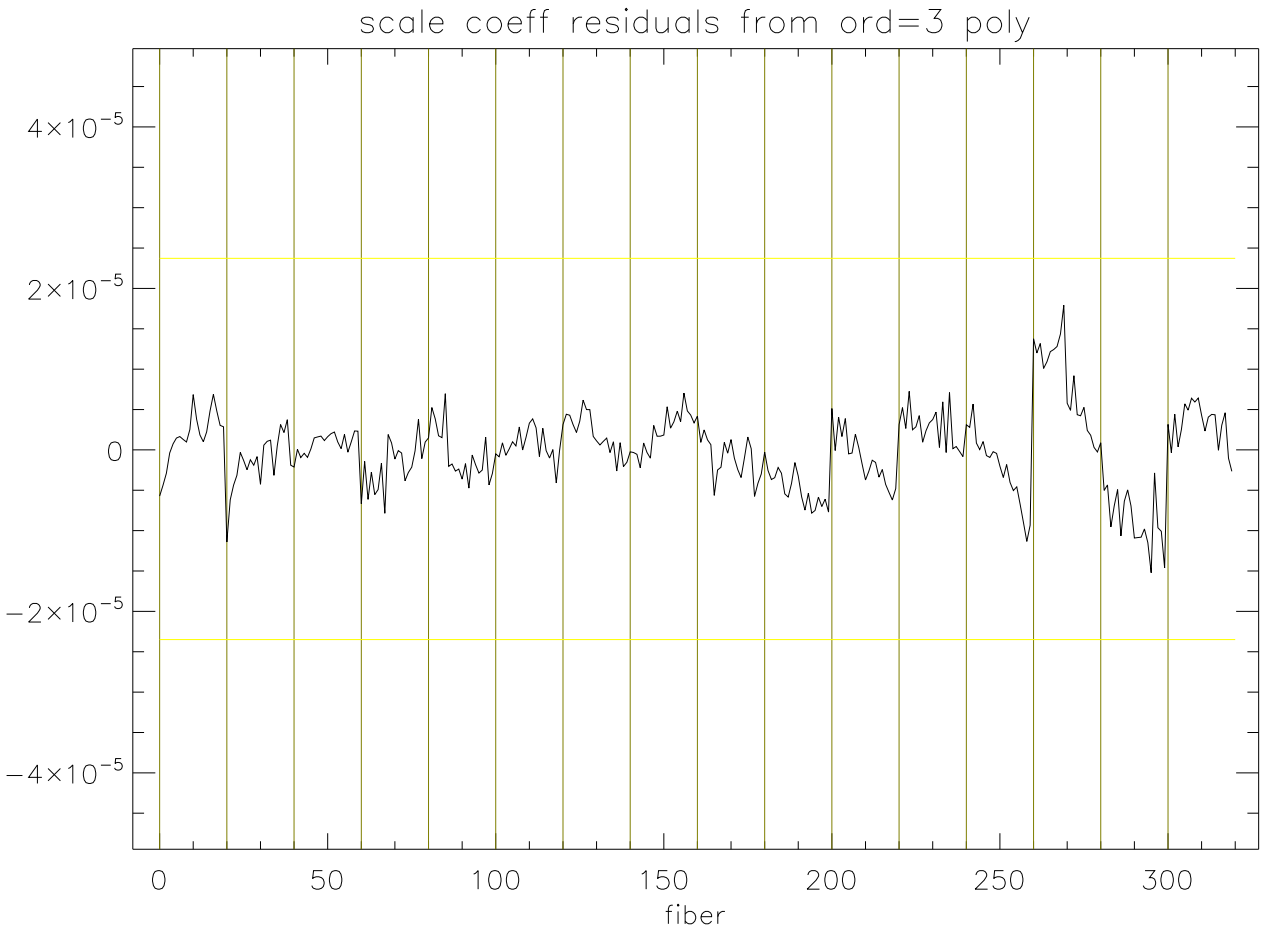

PLATE=2351 MJD=53772 sdR-b2-00037154.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
−100
−200
5570
5575
5580
5585
5590
λ [A]

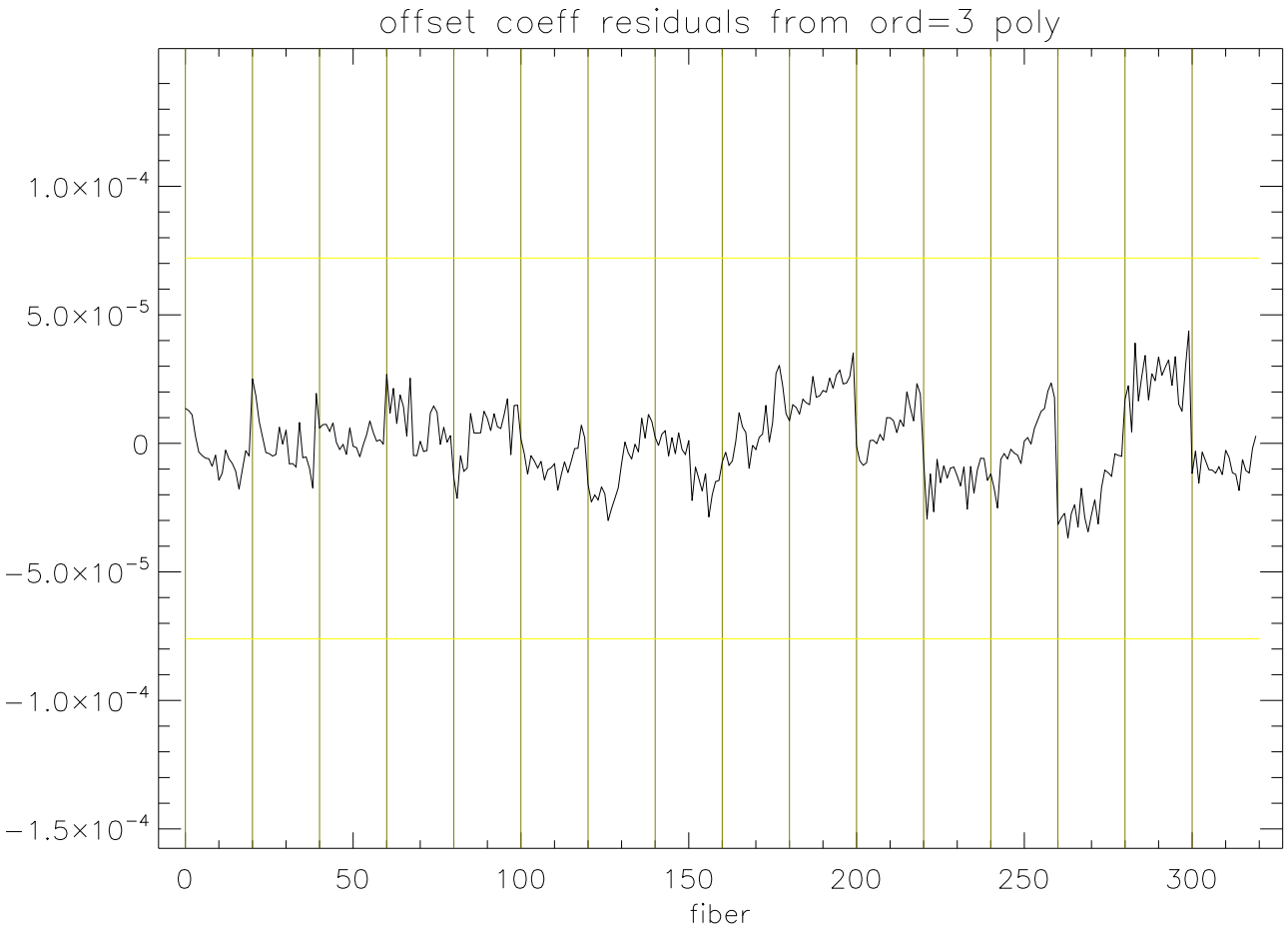

Number of sky fibers = 13
PLATE=2351 MJD=53772 sdR-b2-00037154.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

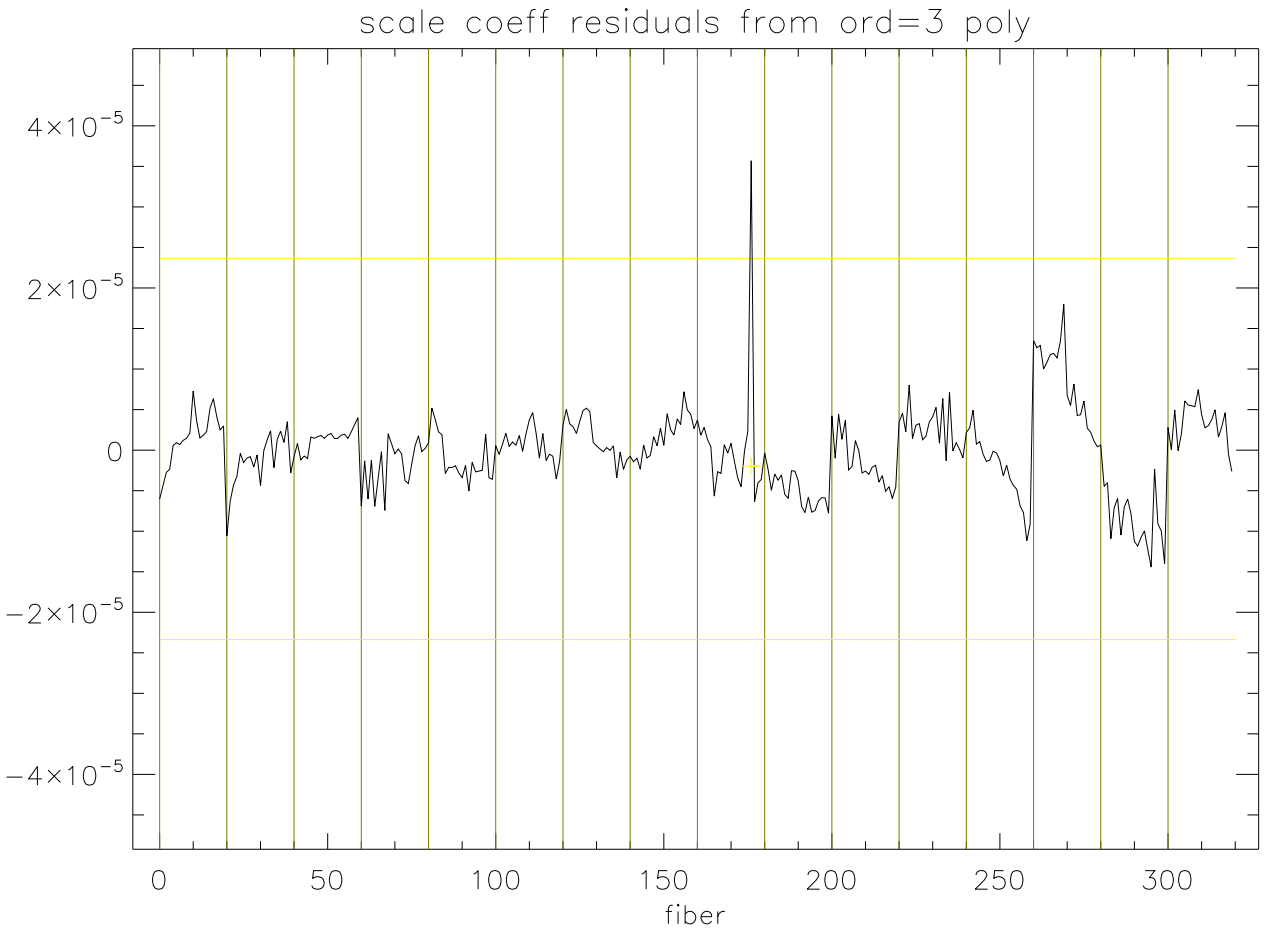

PLATE=2351 MJD=53772 sdR-b2-00037154.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
Fiber number
RED = sky fiber
Dispersion = 14.22 %
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

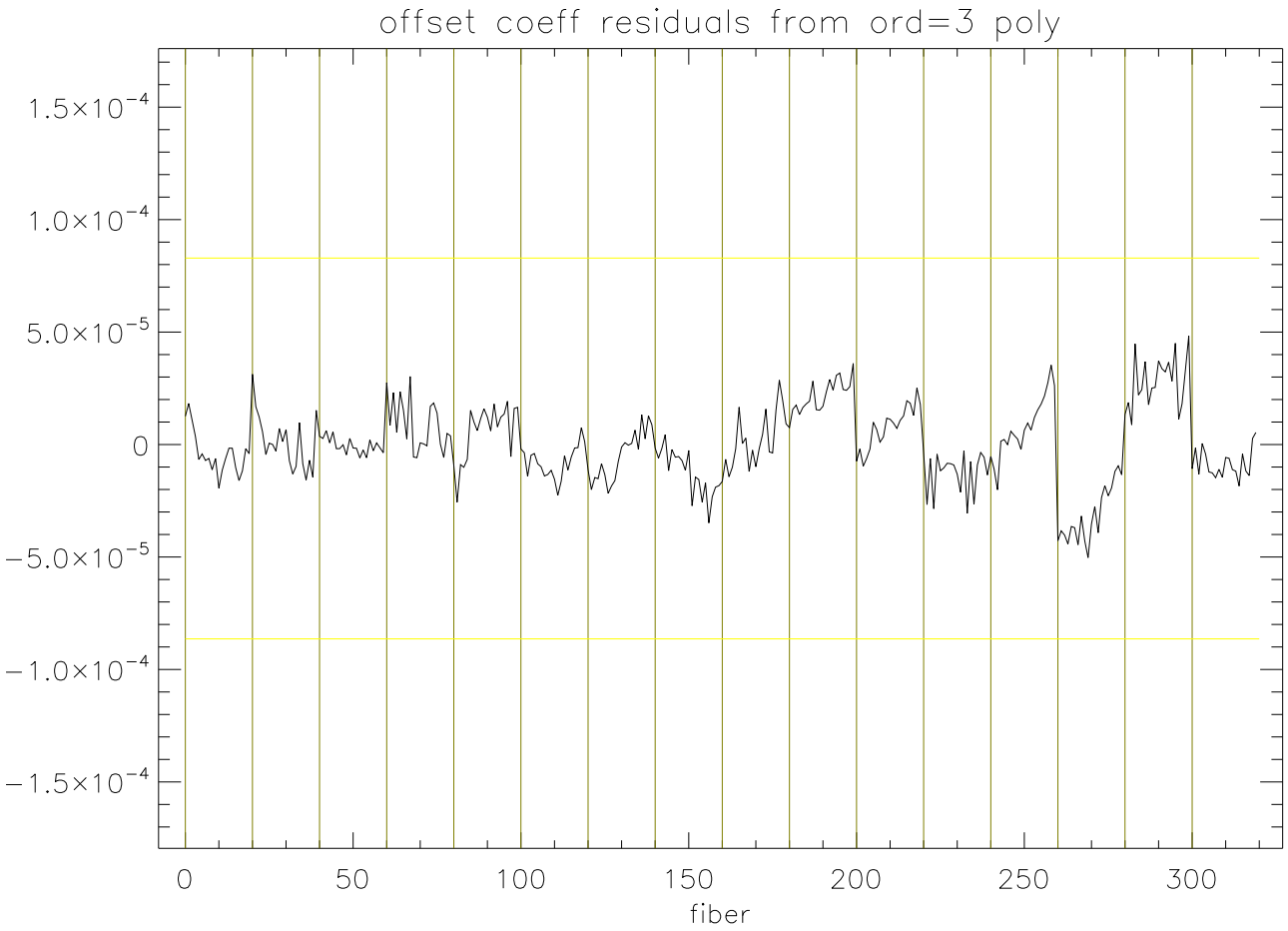

PLATE=2351 MJD=53772 sdR-b2-00037154.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 2.22 %
Fiber number
Focal Distance [mm]
Airmass

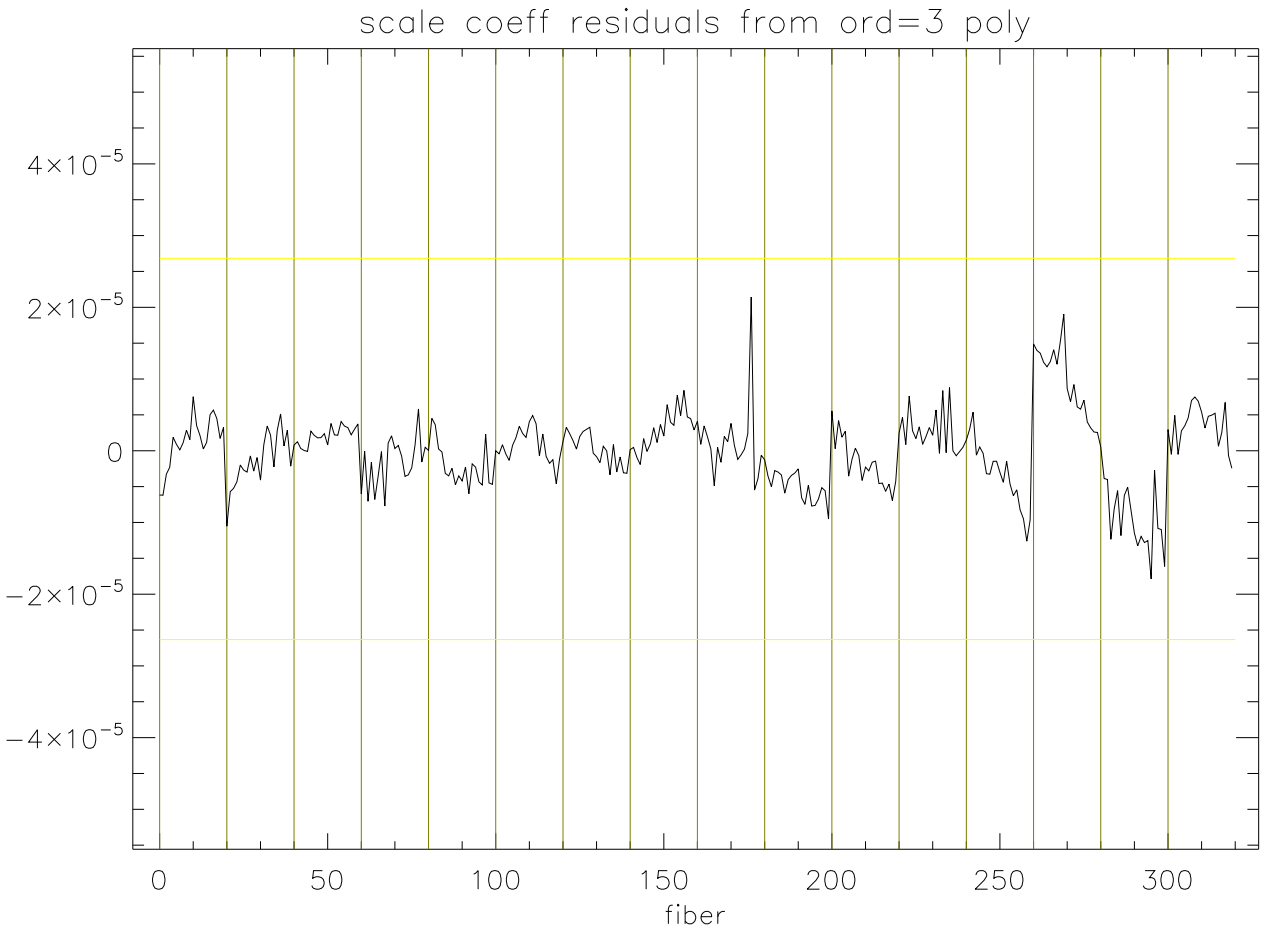

offset coeff residuals from ord=3 poly
1×10^-4
5×10^-5
0
−5×10^-5
−1×10^-4
0
50
100
150
200
250
300
fiber

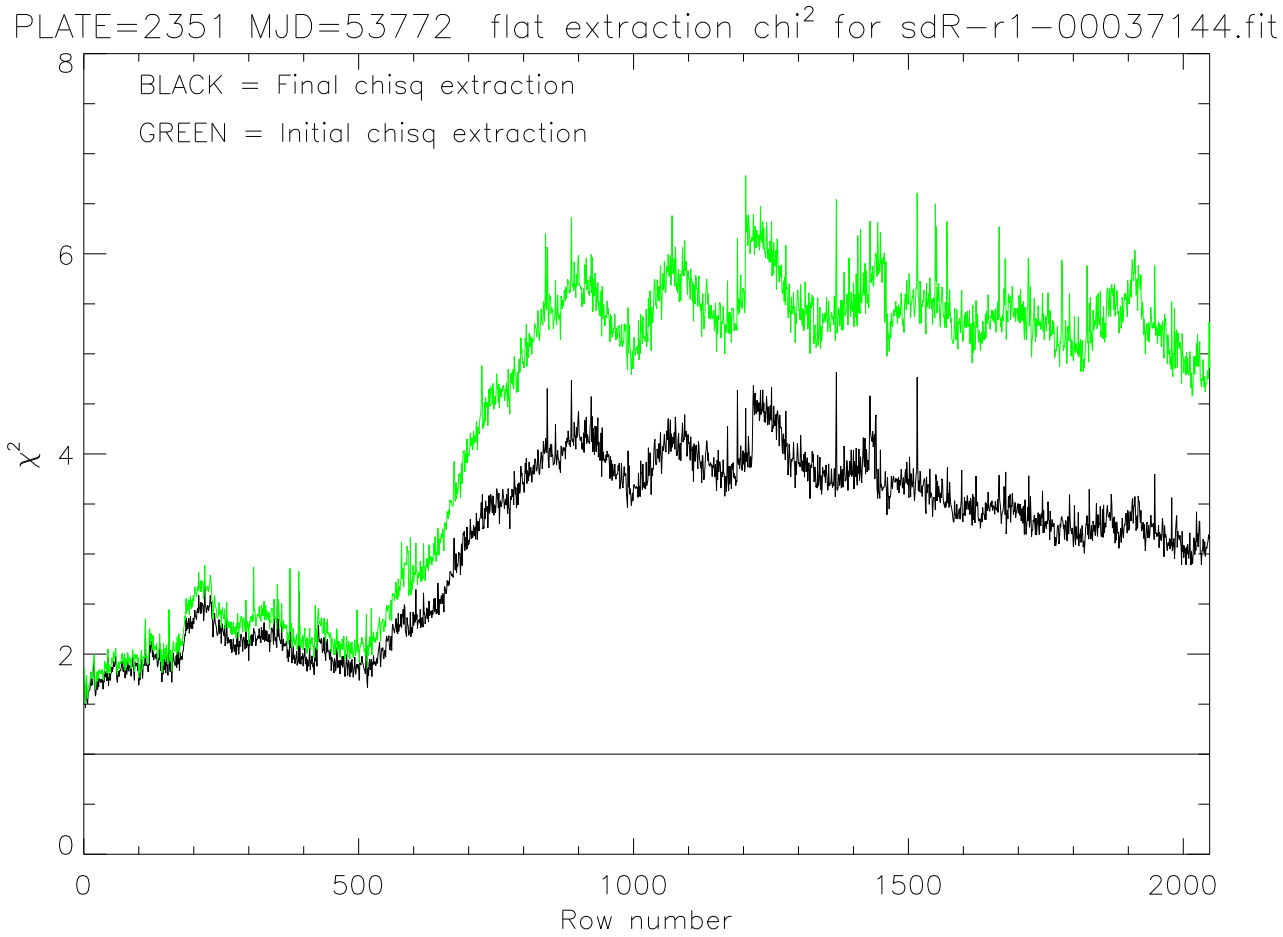

scale coeff residuals from ord=3 poly
4×10⁻⁵
2×10⁻⁵
0
−2×10⁻⁵
−4×10⁻⁵
0
50
100
150
200
250
300
fiber

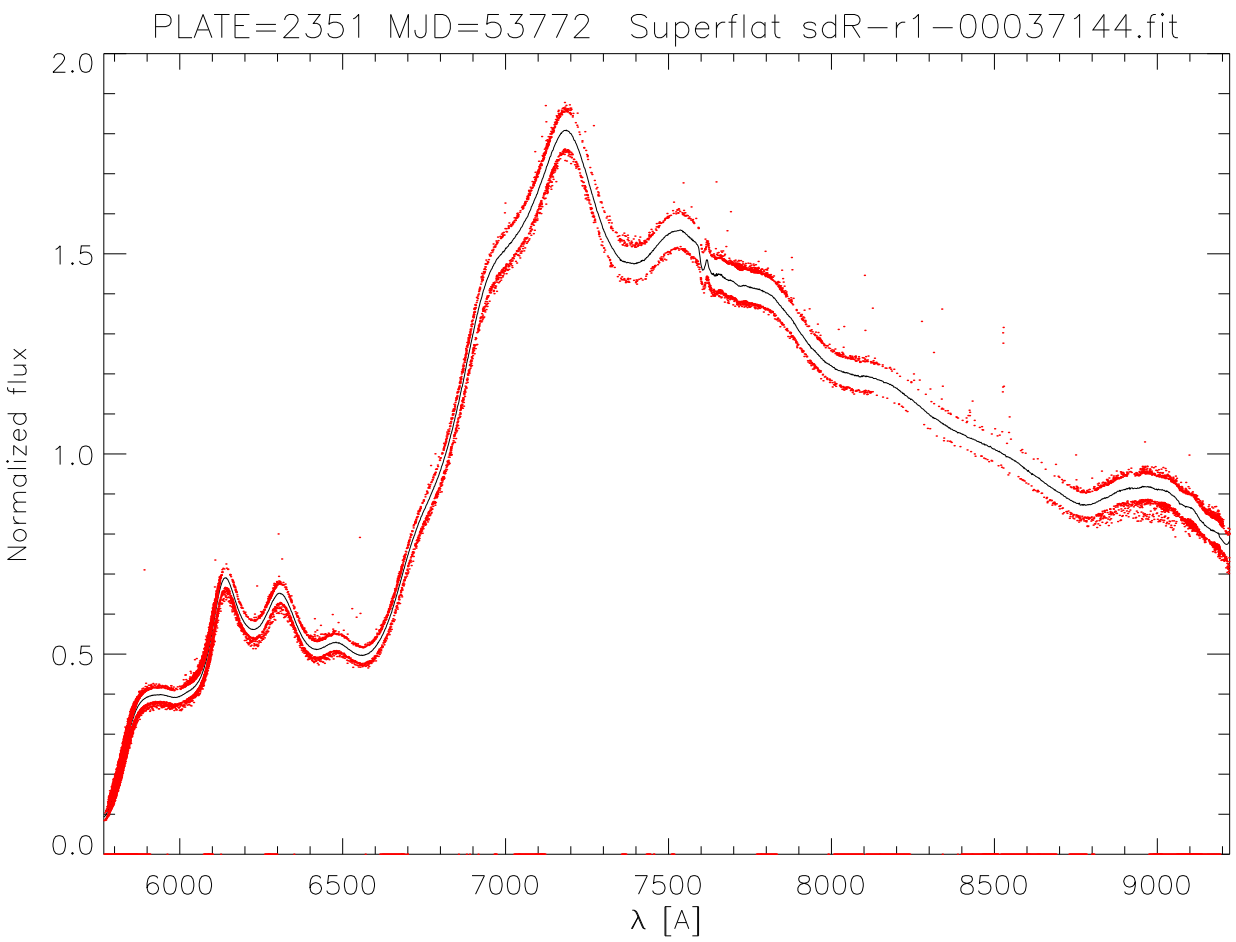

offset coeff residuals from ord=3 poly
1.0×10^-4
5.0×10^-5
0
−5.0×10^-5
−1.0×10^-4
−1.5×10^-4
0
50
100
150
200
250
300
fiber

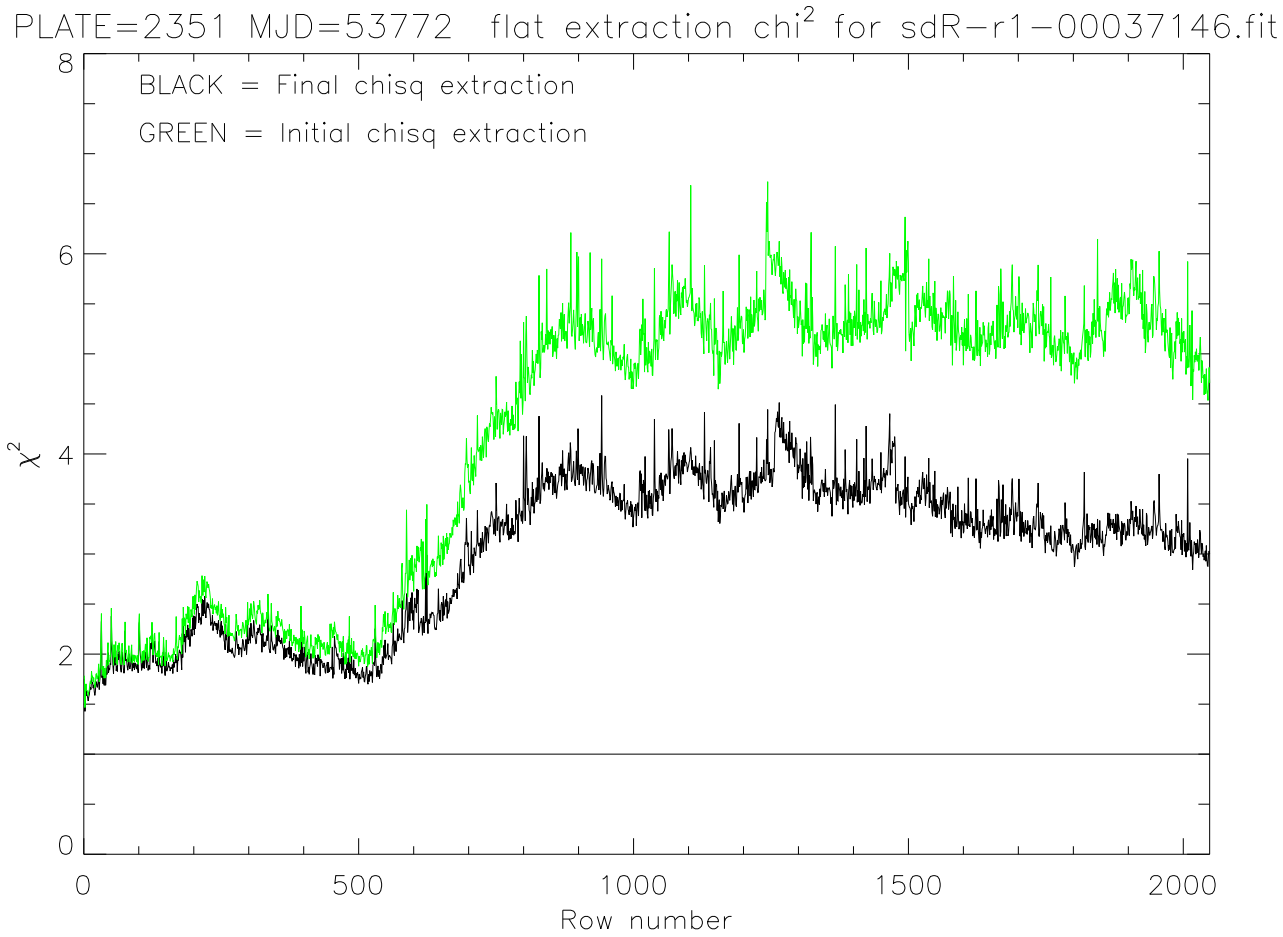

scale coeff residuals from ord=3 poly
4×10⁻⁵
2×10⁻⁵
0
−2×10⁻⁵
−4×10⁻⁵
0
50
100
150
200
250
300
fiber

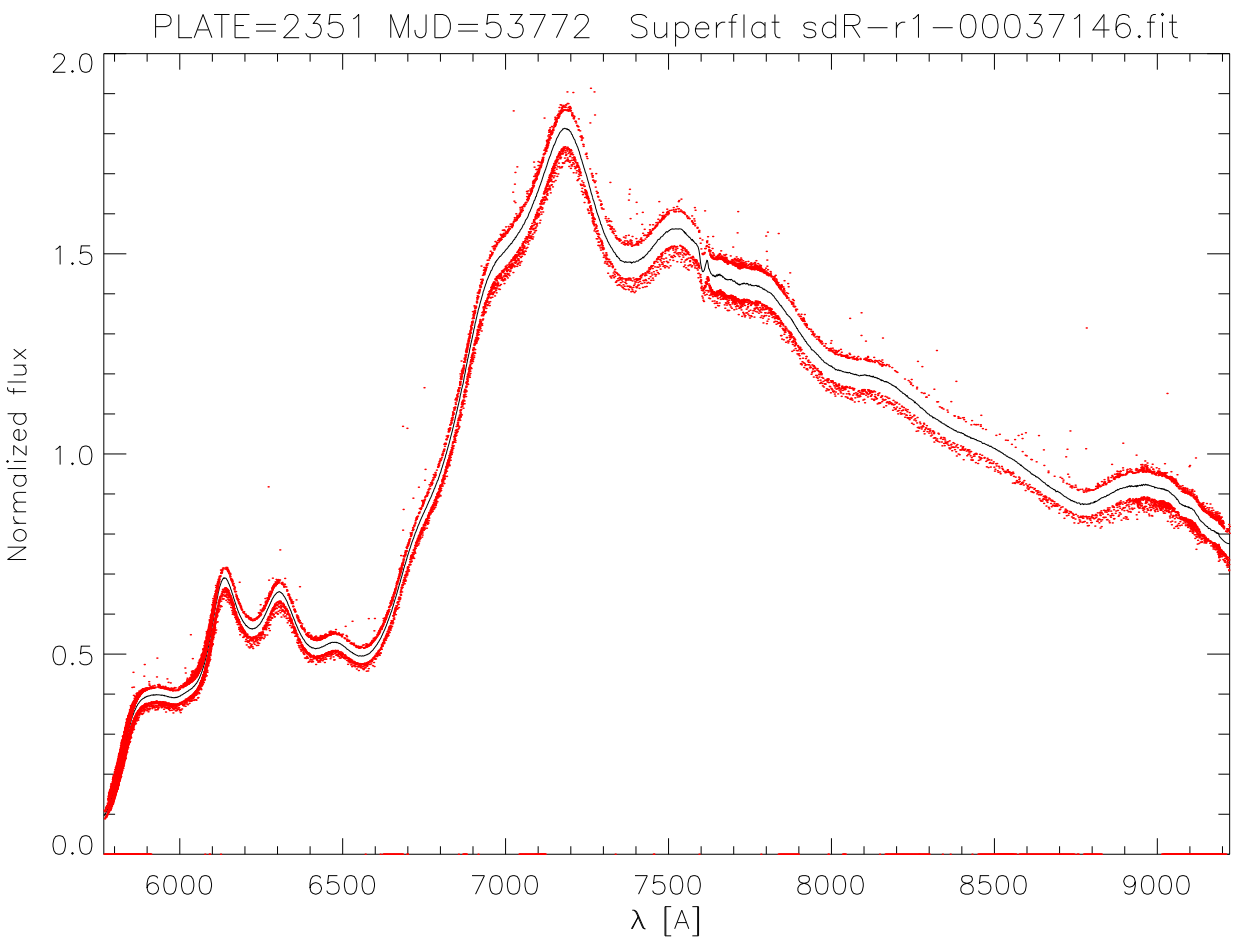

offset coeff residuals from ord=3 poly
1.5×10⁻⁴
1.0×10⁻⁴
5.0×10⁻⁵
0
−5.0×10⁻⁵
−1.0×10⁻⁴
−1.5×10⁻⁴
0
50
100
150
200
250
300
fiber

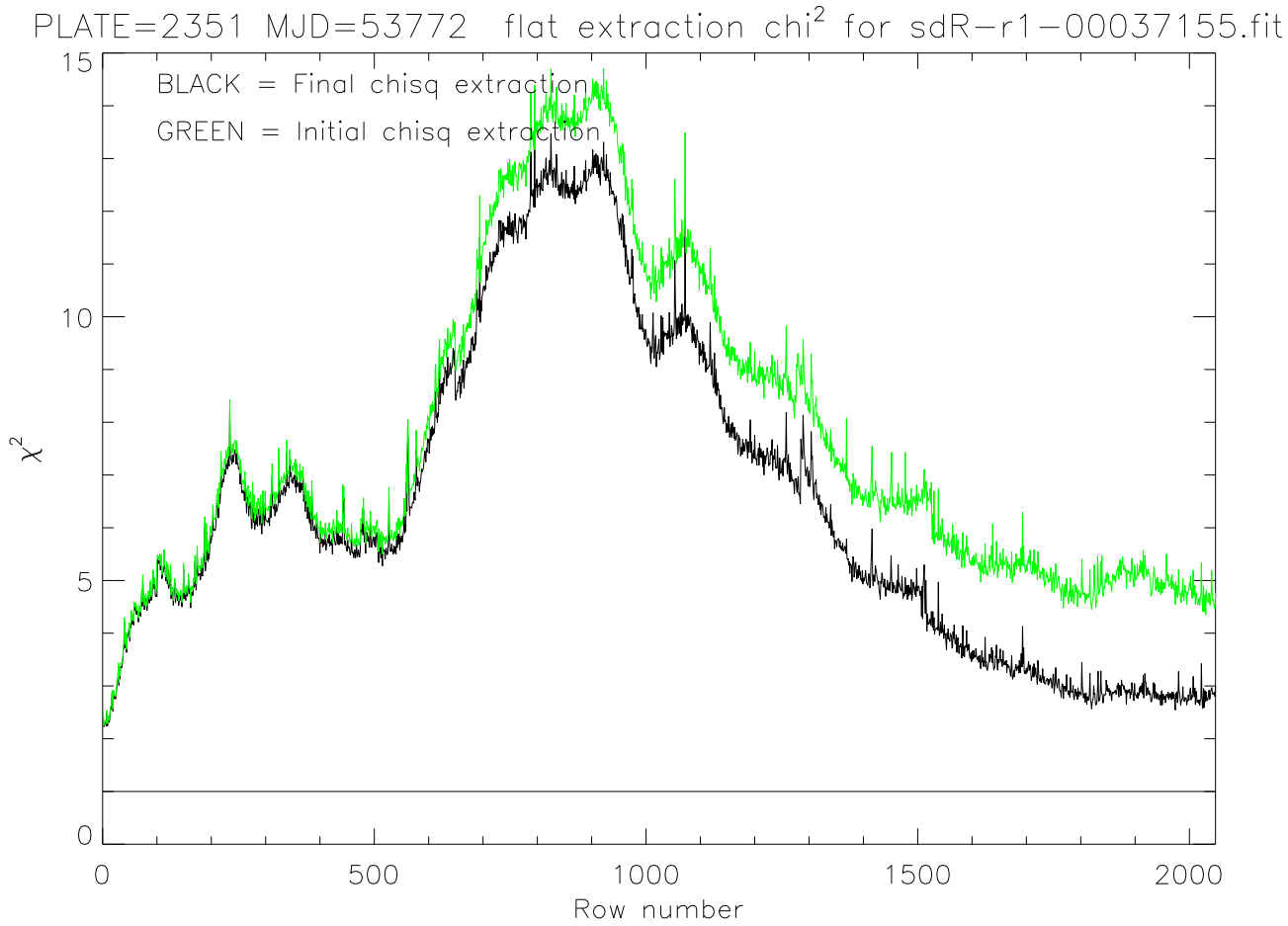

scale coeff residuals from ord=3 poly
4×10⁻⁵
2×10⁻⁵
0
−2×10⁻⁵
−4×10⁻⁵
0
50
100
150
200
250
300
fiber

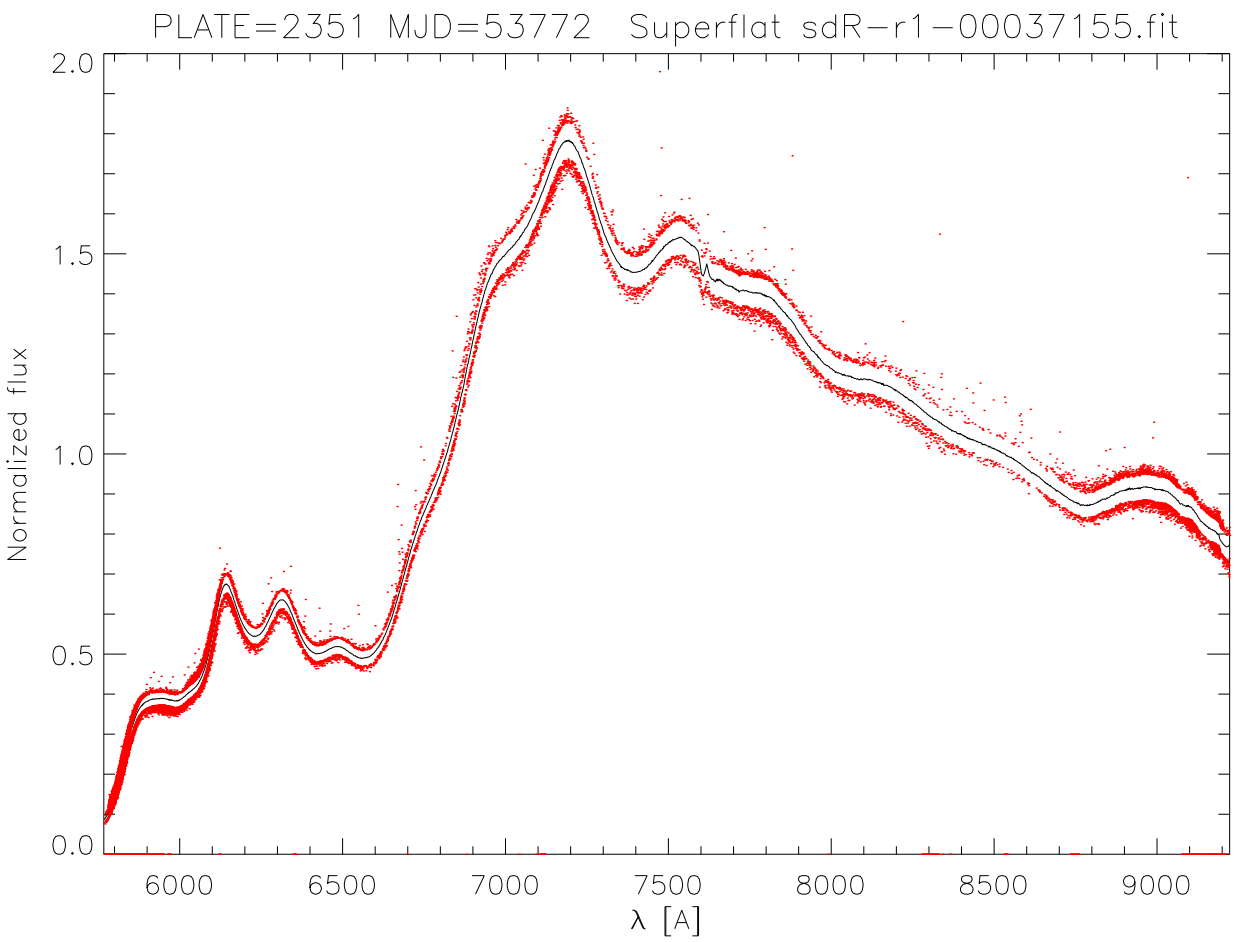

PLATE=2351 MJD=53772 flat extraction chi^2 for sdR−r1−00037144.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
0
500
1000
1500
2000
Row number

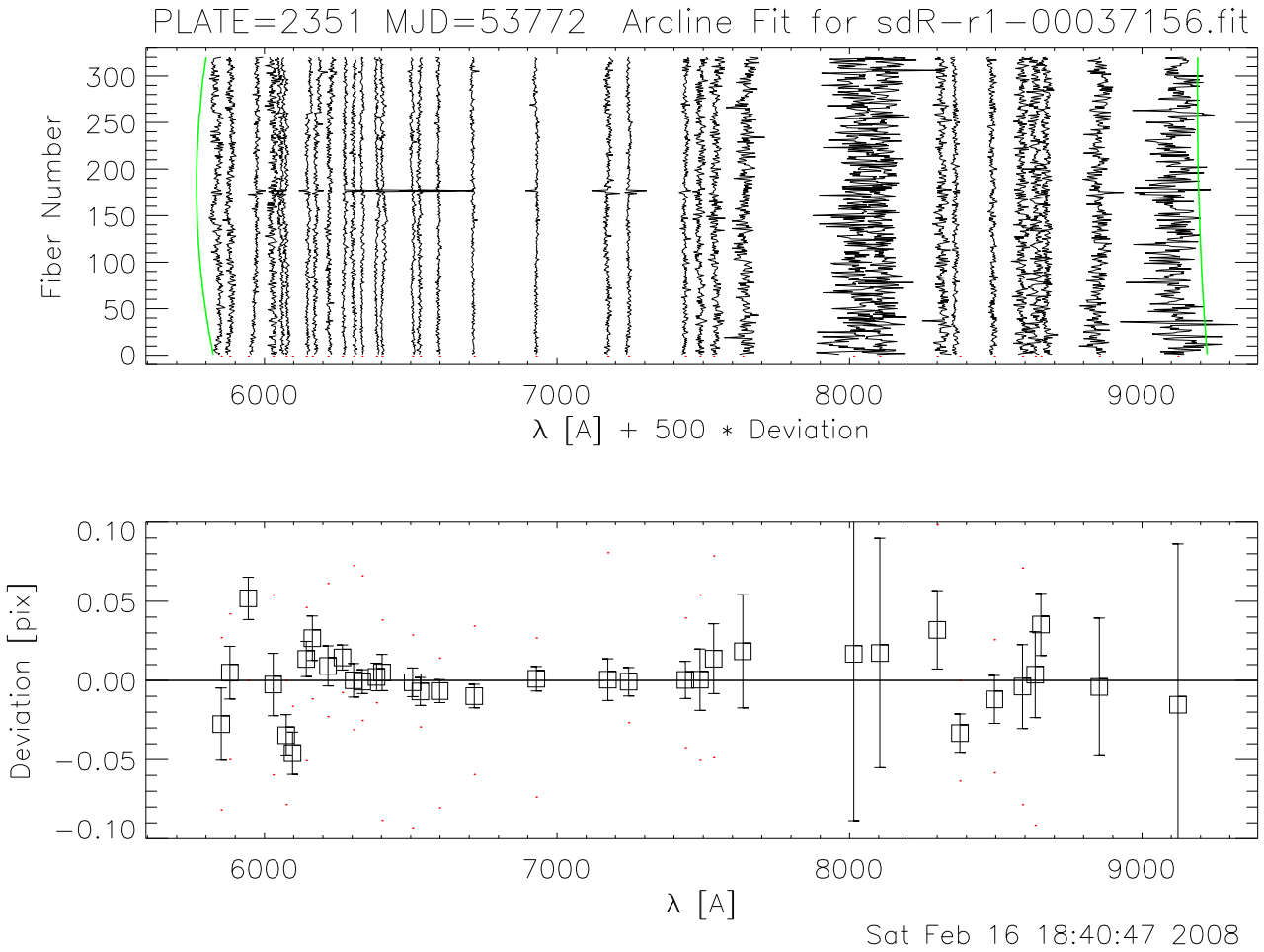

PLATE=2351 MJD=53772 Superflat sdR-r1-00037144.fit
Normalized flux
2.0
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

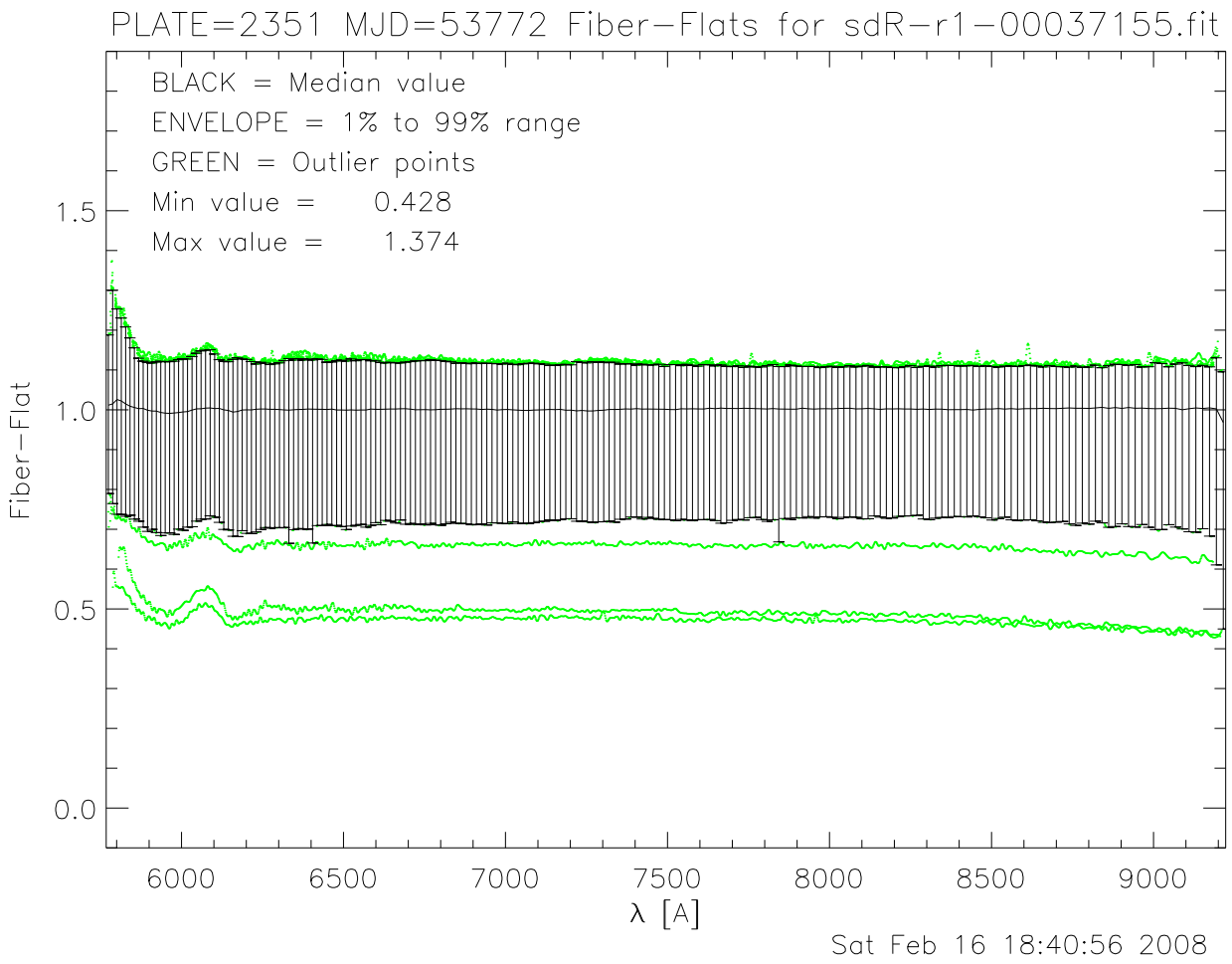

PLATE=2351 MJD=53772 flat extraction chi^2 for sdR−r1−00037146.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
0
500
1000
1500
2000
Row number

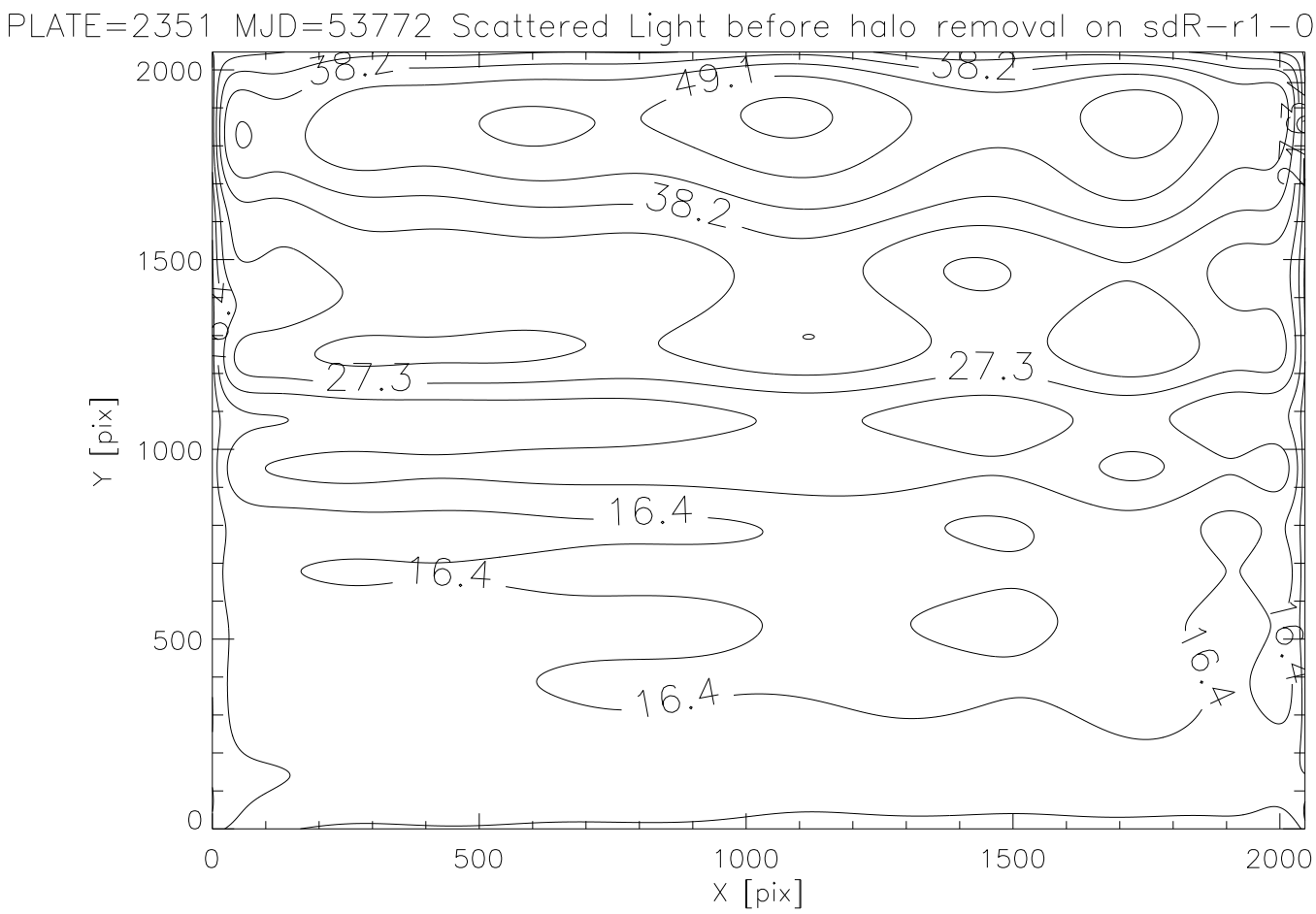

PLATE=2351 MJD=53772 Superflat sdR-r1-00037146.fit
Normalized flux
2.0
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

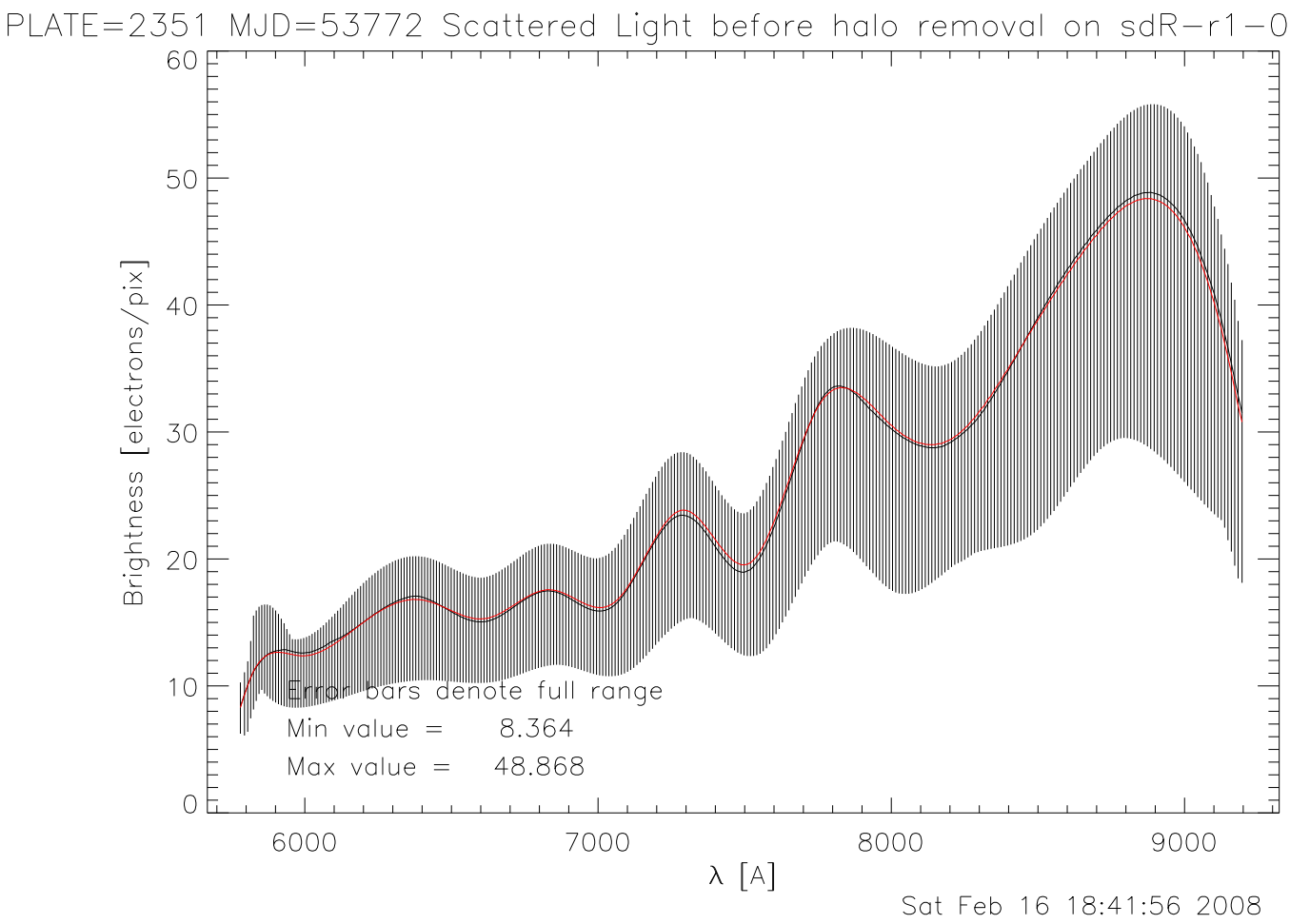

PLATE=2351 MJD=53772 flat extraction chi^2 for sdR−r1−00037155.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
5
10
15
0
500
1000
1500
2000

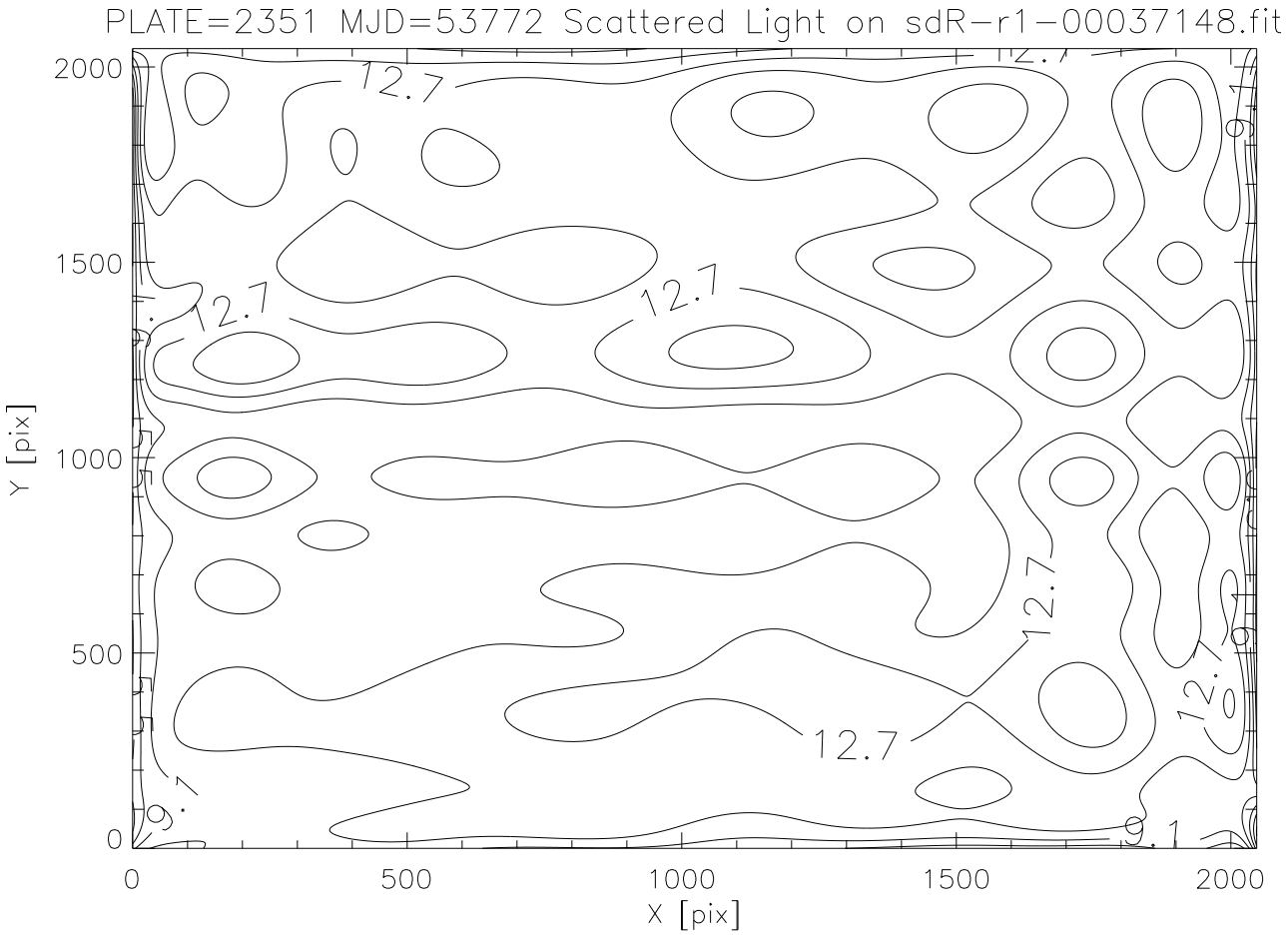

PLATE=2351 MJD=53772 Superflat sdR-r1-00037155.fit
Normalized flux
2.0
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

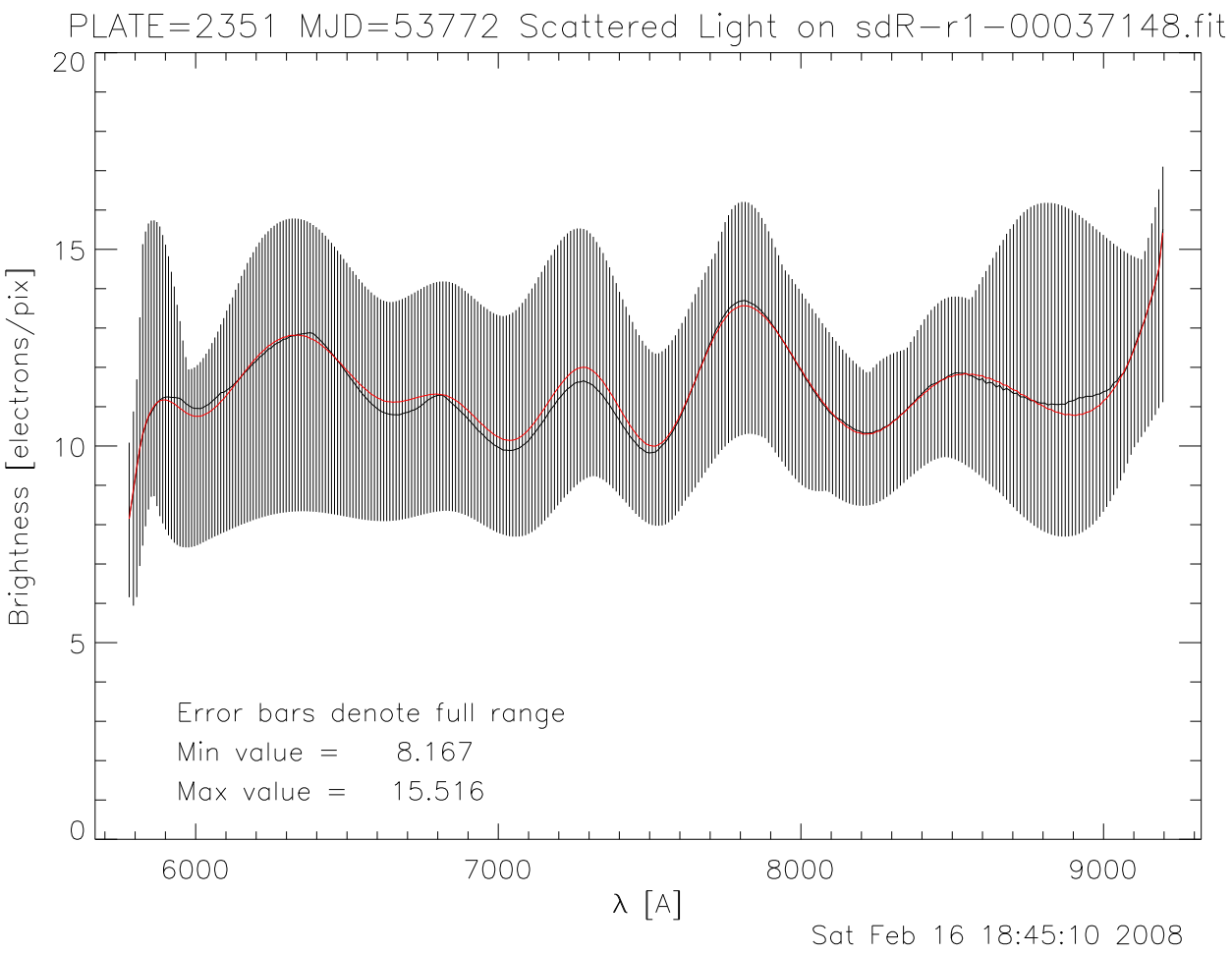

PLATE=2351 MJD=53772 Arcline Fit for sdR-r1-00037156.fit
Fiber Number
300
250
200
150
100
50
0
6000
7000
8000
9000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
6000
7000
8000
9000
λ [A]
Sat Feb 16 18:40:47 2008

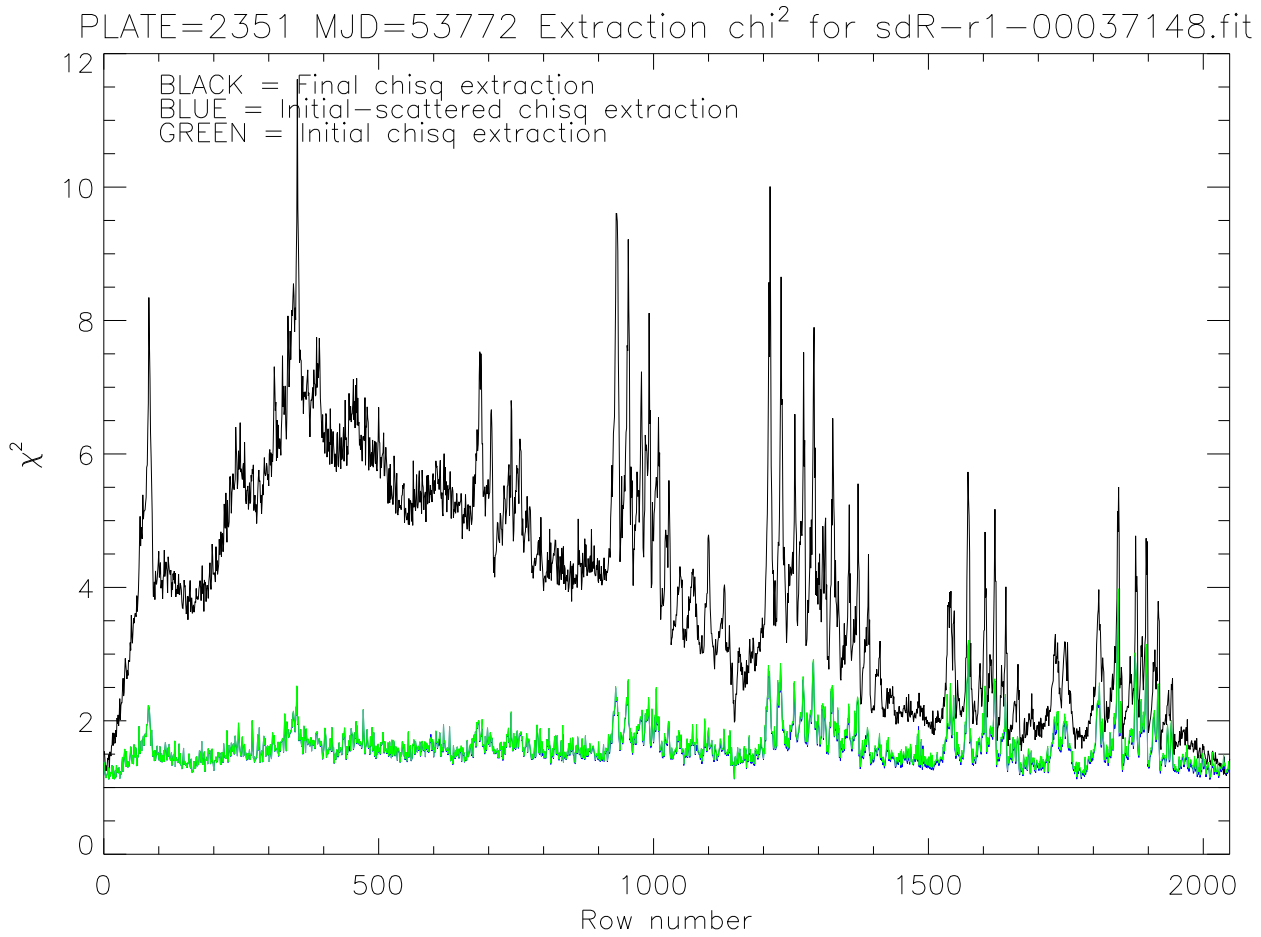

PLATE=2351 MJD=53772 Fiber−Flats for sdR−r1−00037155.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.428
Max value = 1.374
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sat Feb 16 18:40:56 2008

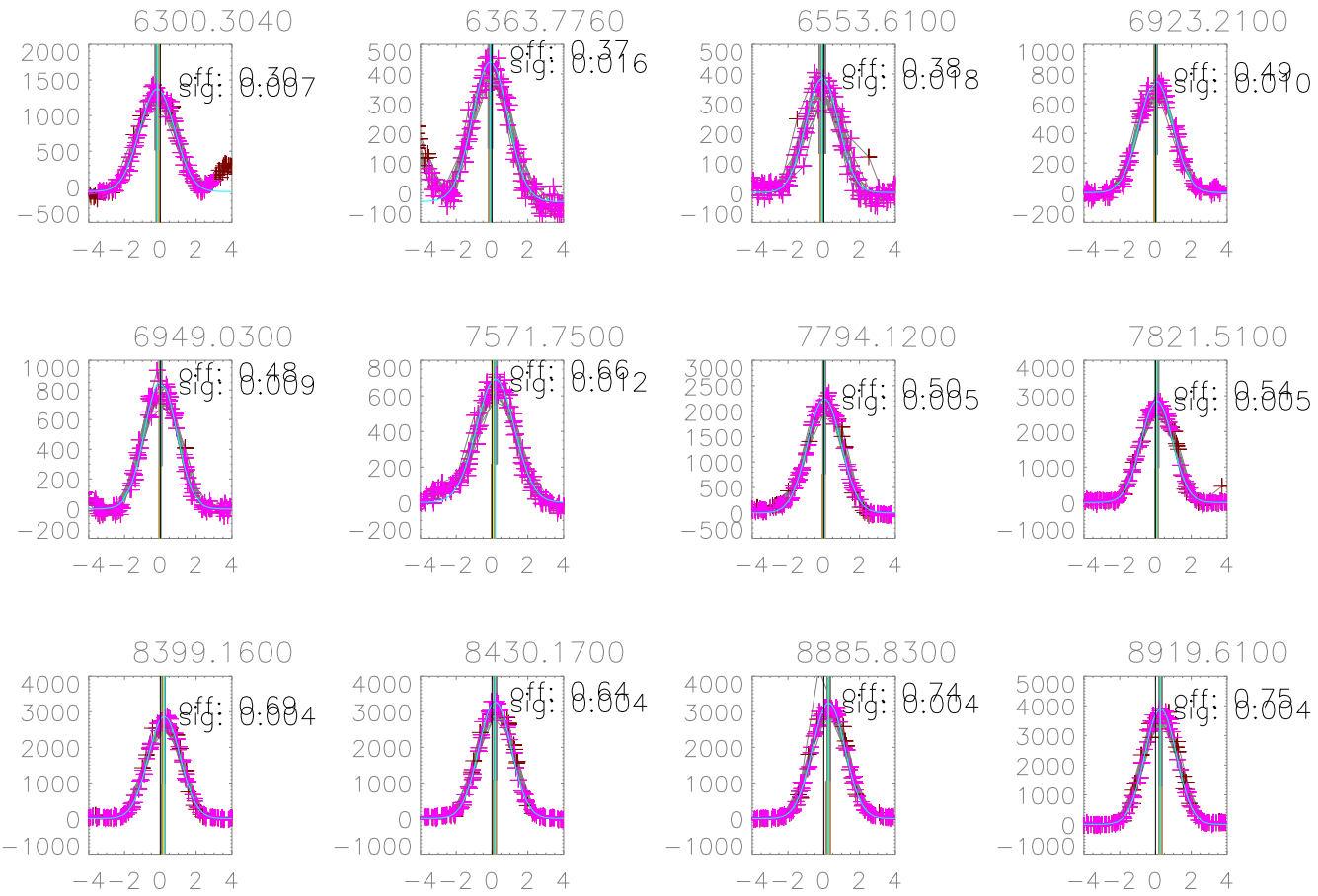

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR-r1-00037148.fi
38.2
49.1
38.2
0
38.2
27.3
27.3
16.4
16.4
16.4
16.4
16.4
2000
1500
1000
500
0
0
500
1000
1500
2000
Y [pix]
X [pix]

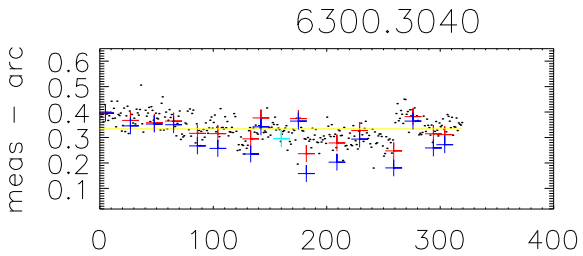

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR-r1-00037148.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 8.364
Max value = 48.868
Sat Feb 16 18:41:56 2008

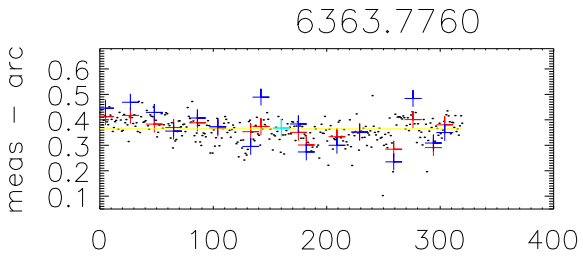

PLATE=2351 MJD=53772 Scattered Light on sdR-r1-00037148.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
12.7
9.1

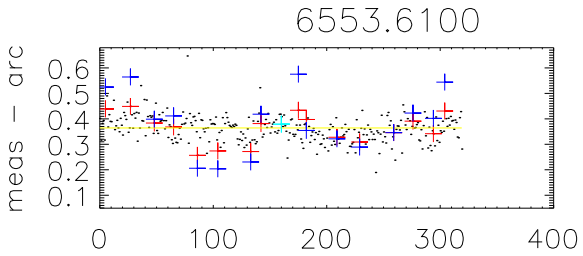

PLATE=2351 MJD=53772 Scattered Light on sdR-r1-00037148.fit
Brightness [electrons/pix]
20
15
10
5
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 8.167
Max value = 15.516
Sat Feb 16 18:45:10 2008

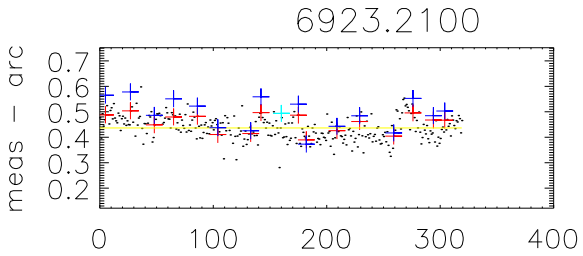

PLATE=2351 MJD=53772 Extraction chi^2 for sdR−r1−00037148.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
2
4
6
8
10
12
0
500
1000
1500
2000

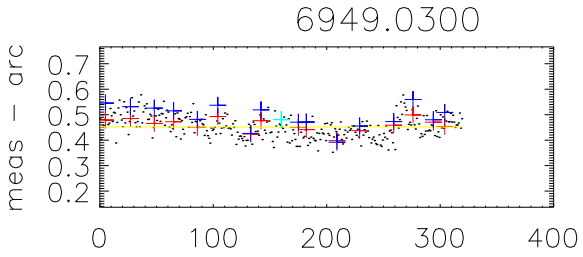

6300.3040
off: 0.30
sig: 0.007
6363.7760
off: 0.37
sig: 0.016
6553.6100
off: 0.38
sig: 0.018
6923.2100
off: 0.49
sig: 0.010
6949.0300
off: 0.48
sig: 0.009
7571.7500
off: 0.66
sig: 0.012
7794.1200
off: 0.50
sig: 0.005
7821.5100
off: 0.54
sig: 0.005
8399.1600
off: 0.69
sig: 0.004
8430.1700
off: 0.64
sig: 0.004
8885.8300
off: 0.74
sig: 0.004
8919.6100
off: 0.75
sig: 0.004

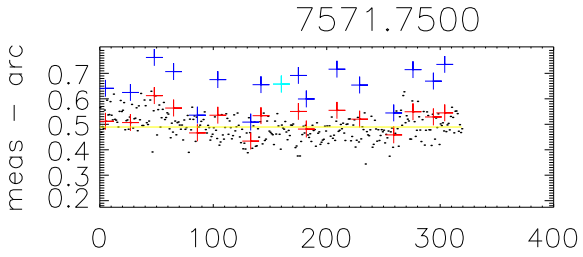

6300.3040
meas − arc
0.6
0.5
0.4
0.3
0.2
0.1
0
100
200
300
400

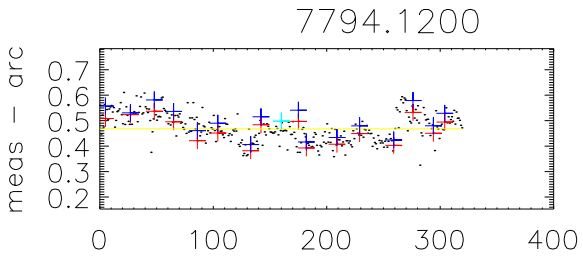

6363.7760
meas − arc
0.6
0.5
0.4
0.3
0.2
0.1
0
100
200
300
400

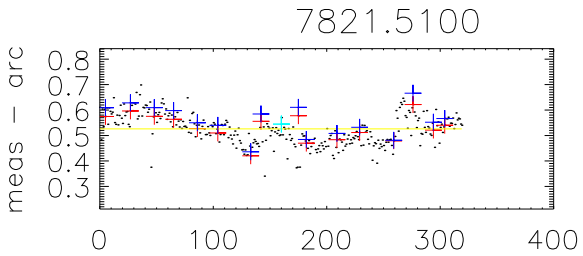

6553.6100
meas − arc
0.6
0.5
0.4
0.3
0.2
0.1
0
100
200
300
400

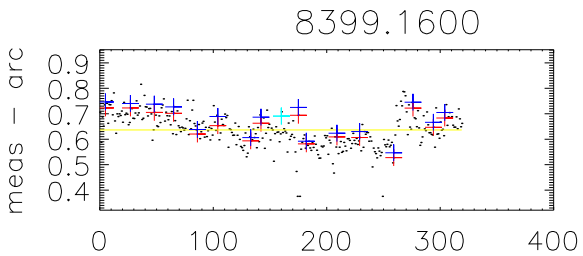

6923.2100
meas − arc
0.7
0.6
0.5
0.4
0.3
0.2
0
100
200
300
400

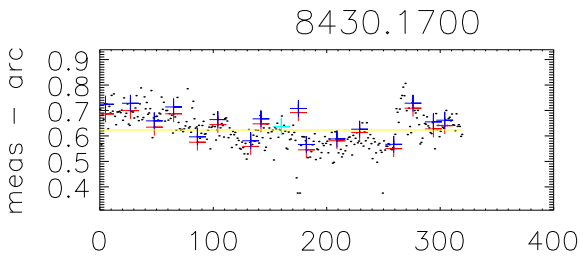

6949.0300
meas − arc
0.7
0.6
0.5
0.4
0.3
0.2
0
100
200
300
400

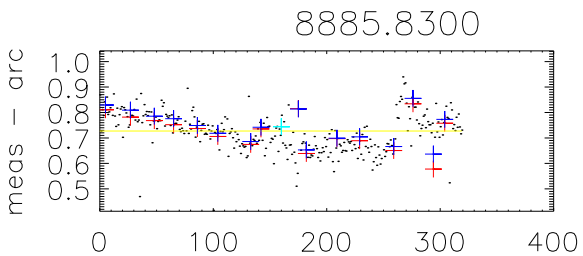

7571.7500
meas − arc
0.7
0.6
0.5
0.4
0.3
0.2
0
100
200
300
400

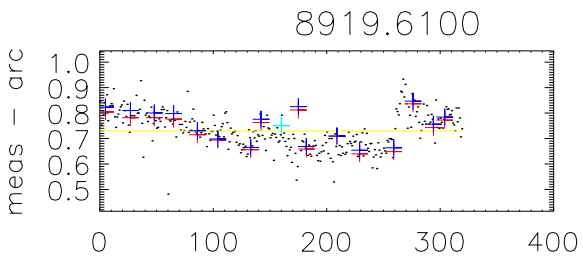

7794.1200
meas − arc
0.7
0.6
0.5
0.4
0.3
0.2
0
100
200
300
400

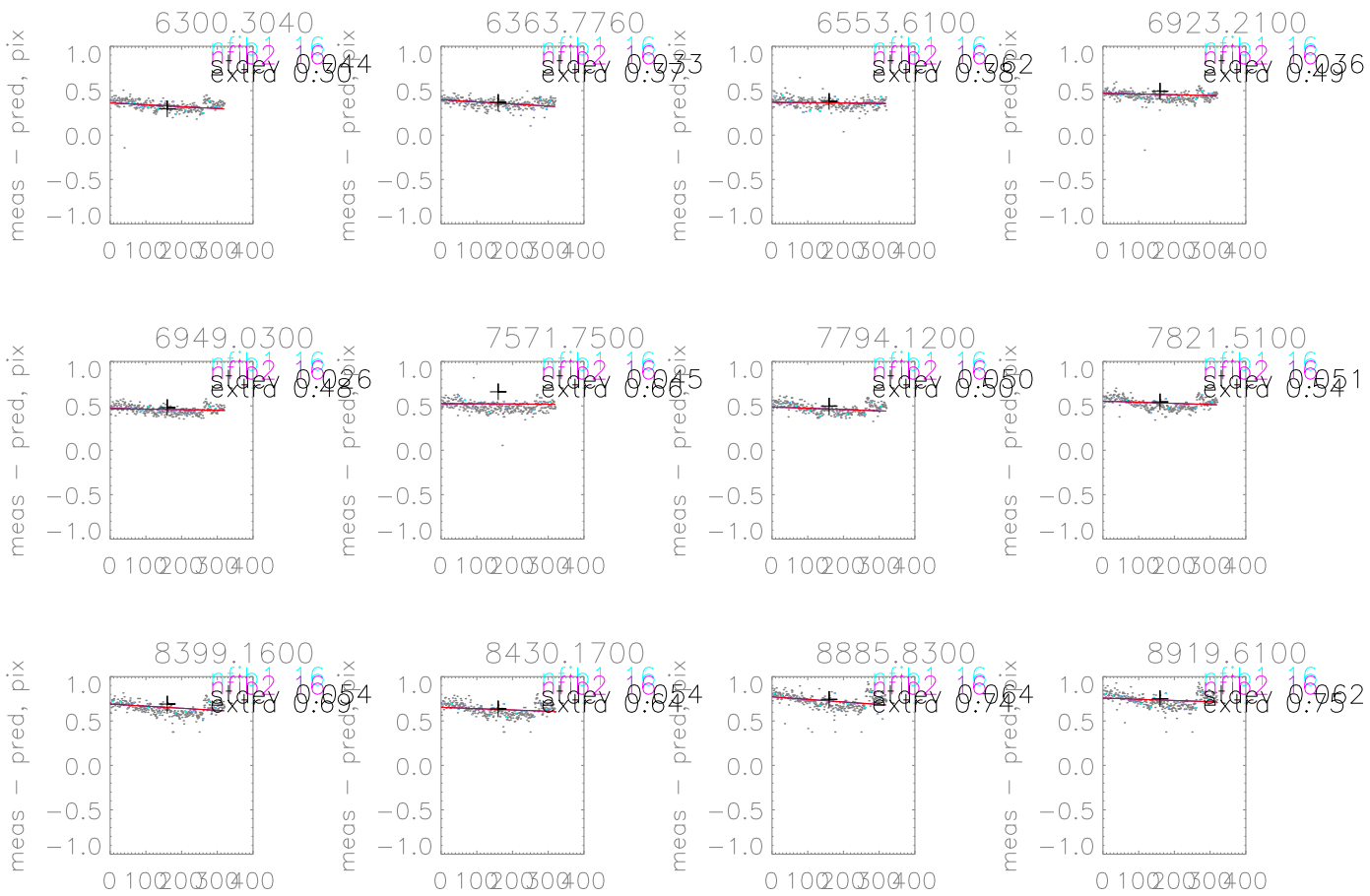

7821.5100
meas − arc
0.8
0.7
0.6
0.5
0.4
0.3
0
100
200
300
400

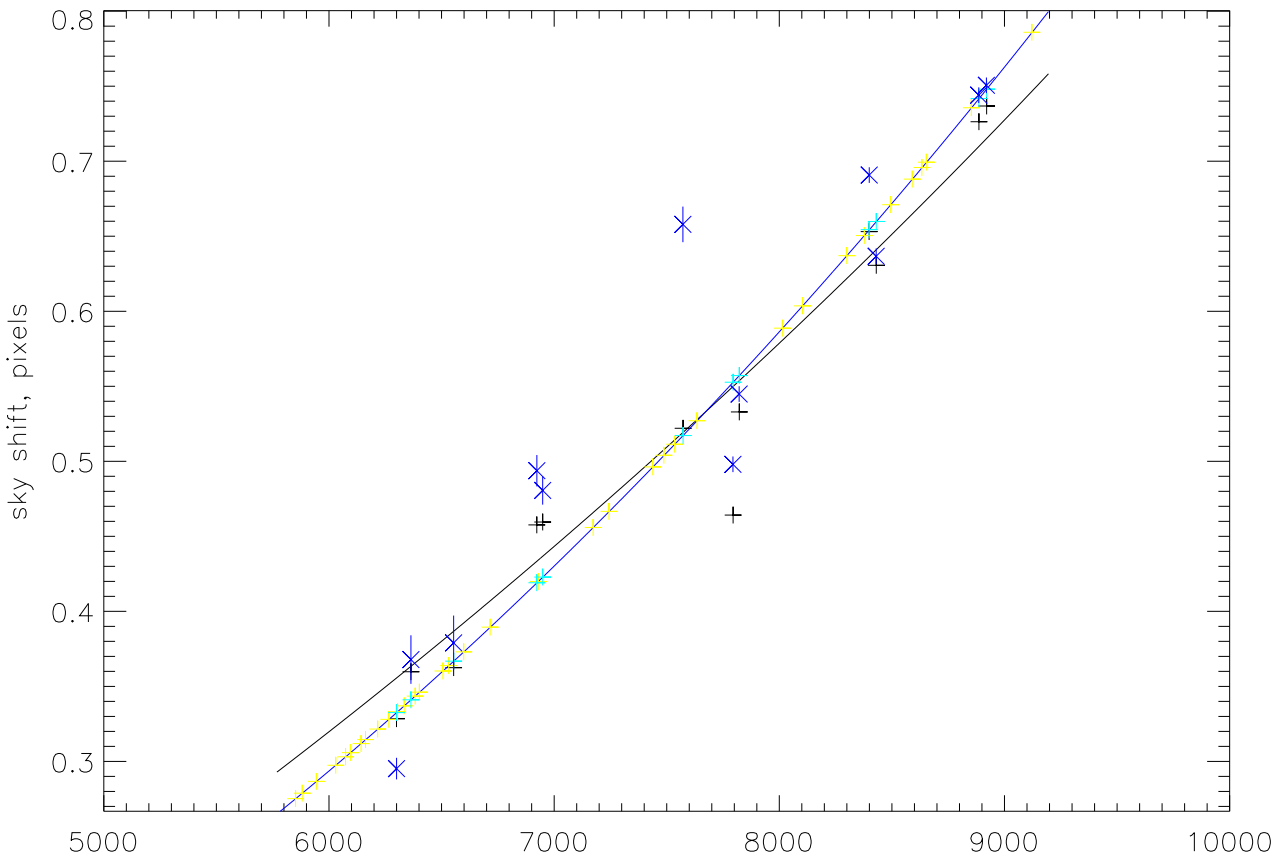

8399.1600
meas − arc
0.9
0.8
0.7
0.6
0.5
0.4
0
100
200
300
400


8430.1700
meas − arc
0.9
0.8
0.7
0.6
0.5
0.4
0
100
200
300
400

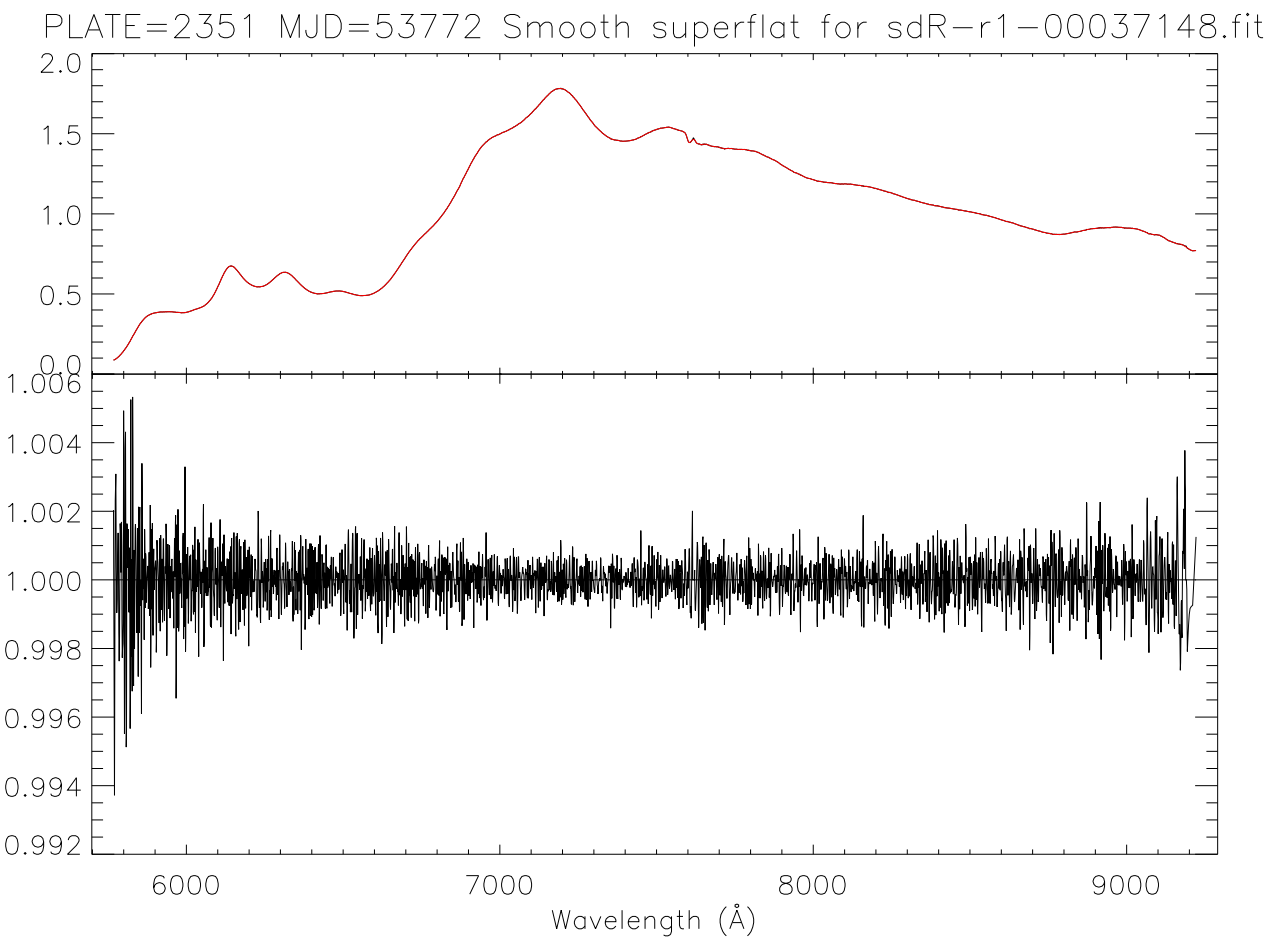

8885.8300
meas − arc
1.0
0.9
0.8
0.7
0.6
0.5
0
100
200
300
400

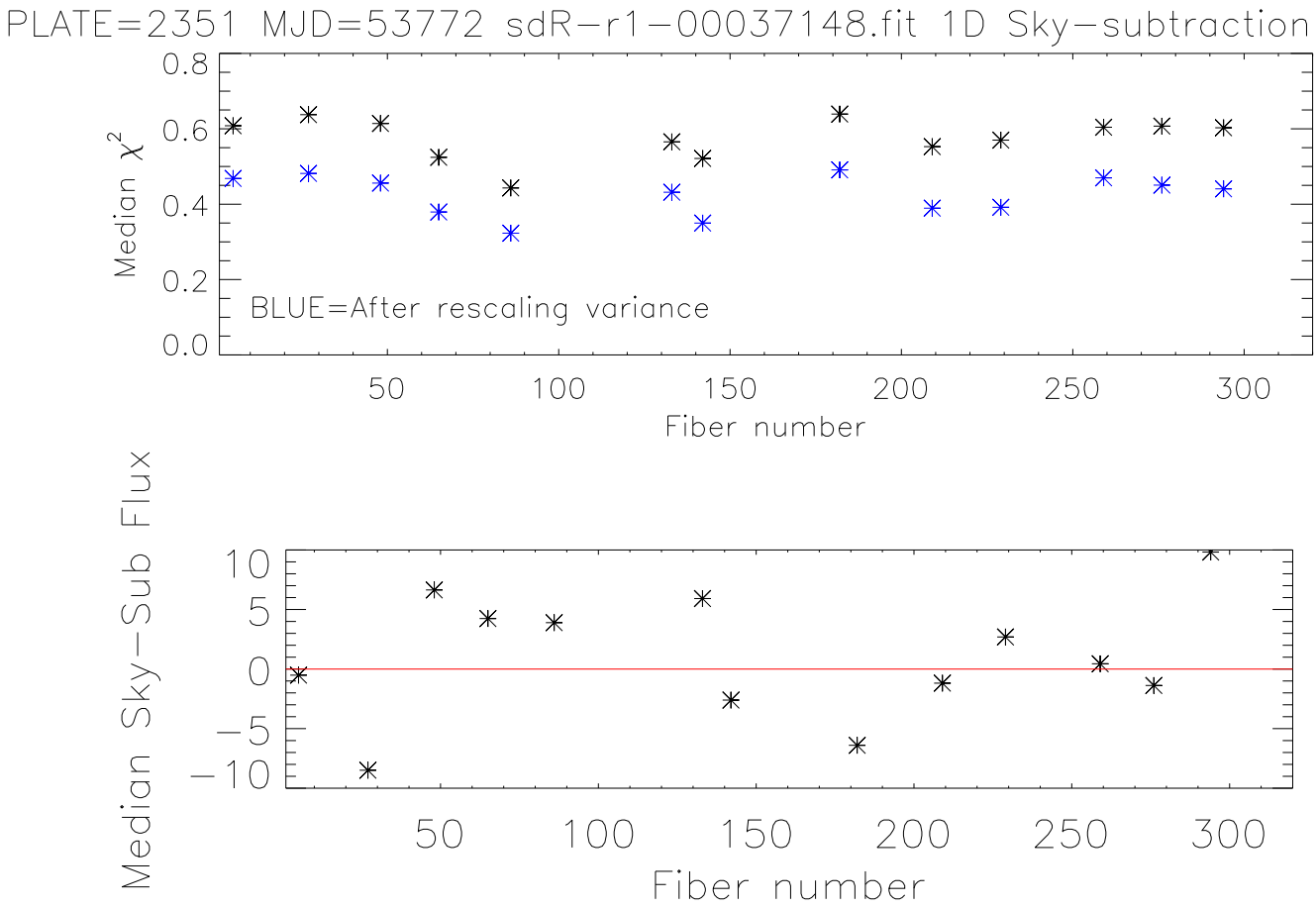

8919.6100
meas − arc
1.0
0.9
0.8
0.7
0.6
0.5
0
100
200
300
400

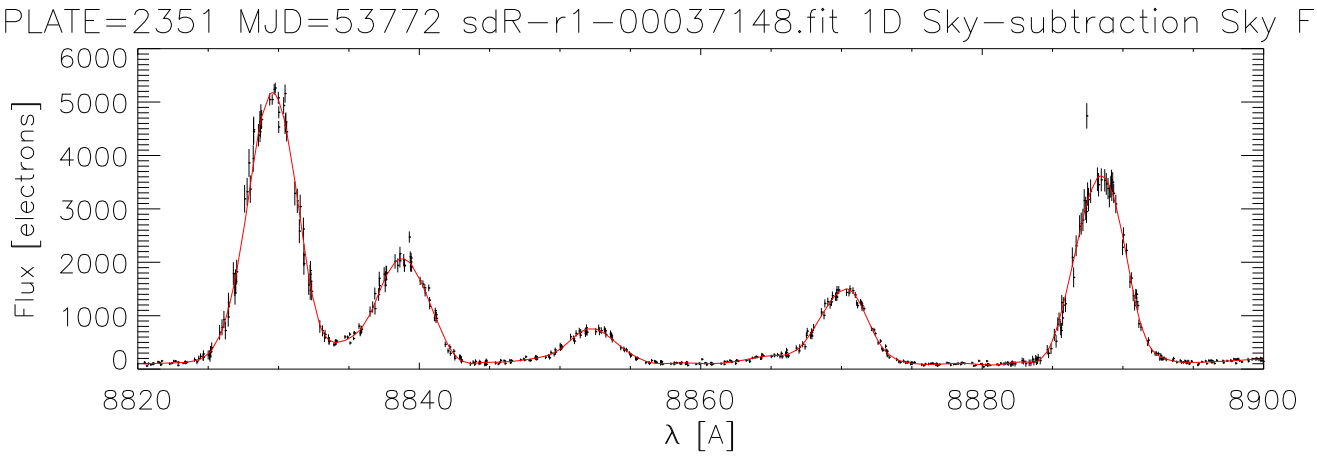

6300.3040
stdev 0.044
extra 0.30
6363.7760
stdev 0.033
extra 0.37
6553.6100
stdev 0.062
extra 0.38
6923.2100
stdev 0.036
extra 0.49
6949.0300
stdev 0.026
extra 0.48
7571.7500
stdev 0.045
extra 0.66
7794.1200
stdev 0.050
extra 0.50
7821.5100
stdev 0.051
extra 0.54
8399.1600
stdev 0.054
extra 0.69
8430.1700
stdev 0.054
extra 0.64
8885.8300
stdev 0.064
extra 0.74
8919.6100
stdev 0.062
extra 0.75
meas − pred, pix
mfhd2 16
mfhd1 16

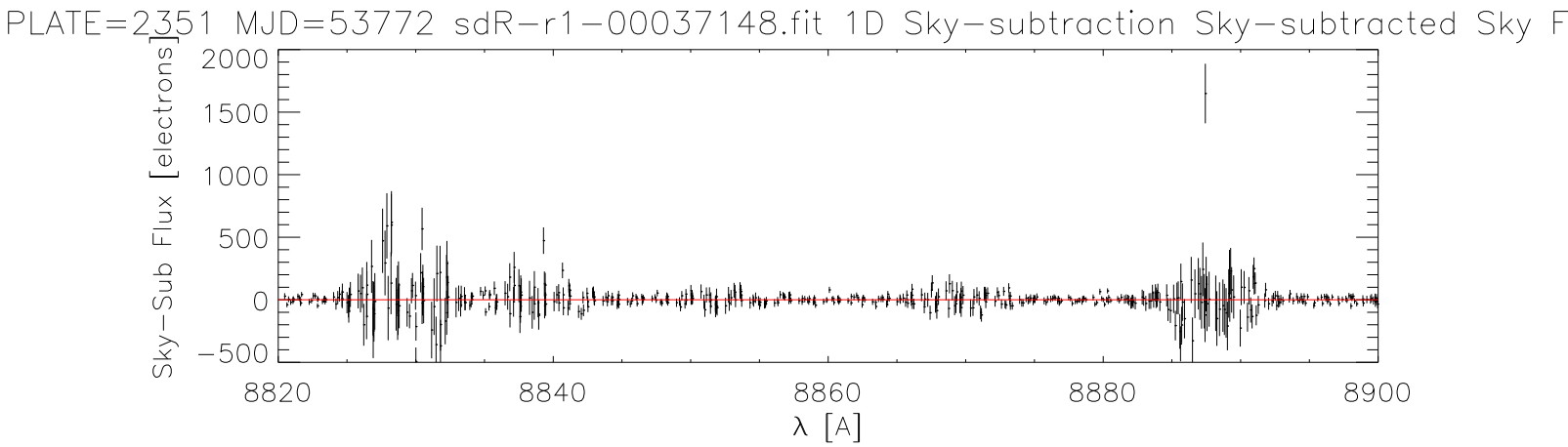

0.8
0.7
0.6
0.5
0.4
0.3
sky shift, pixels
5000
6000
7000
8000
9000
10000

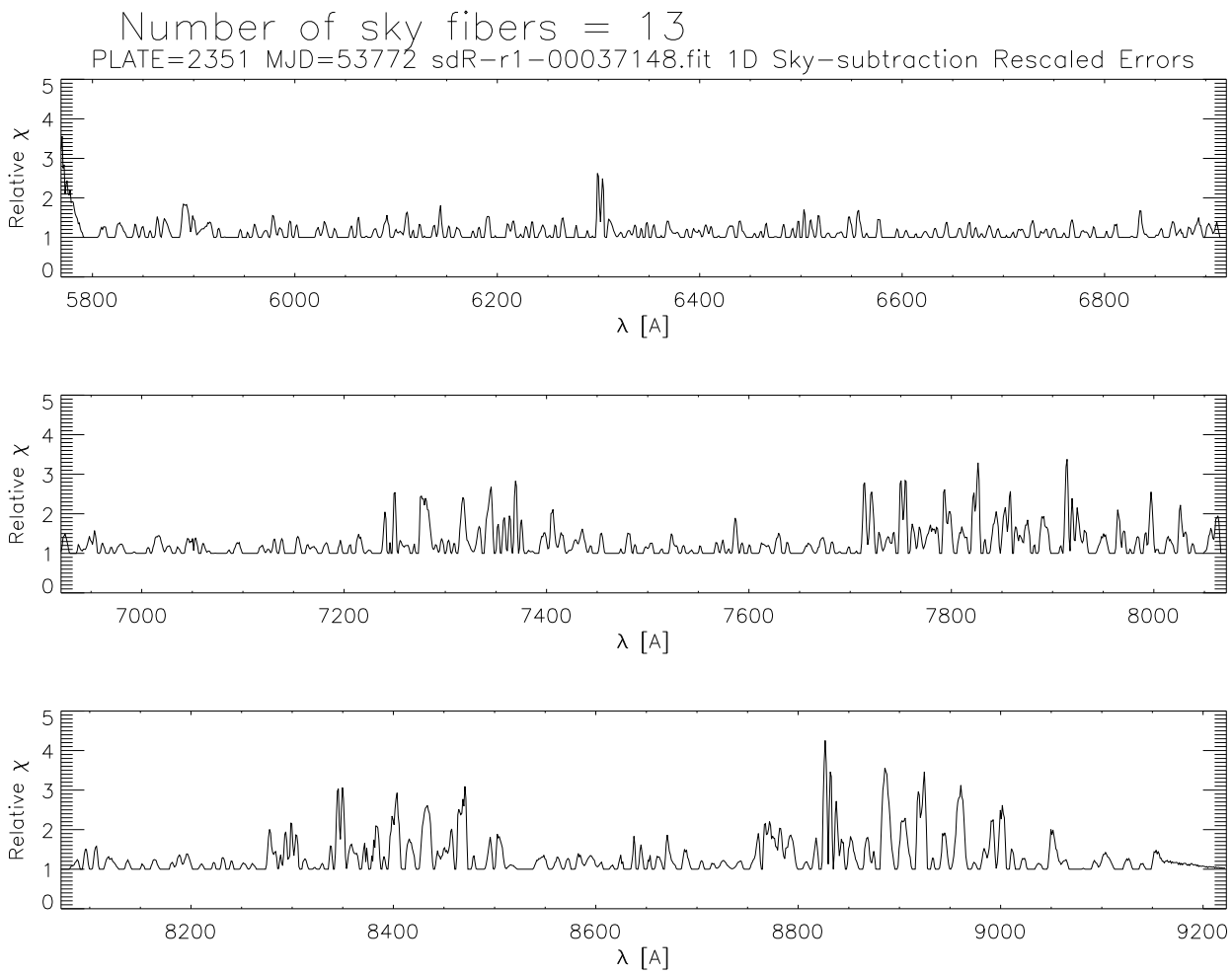
es= −0.0000

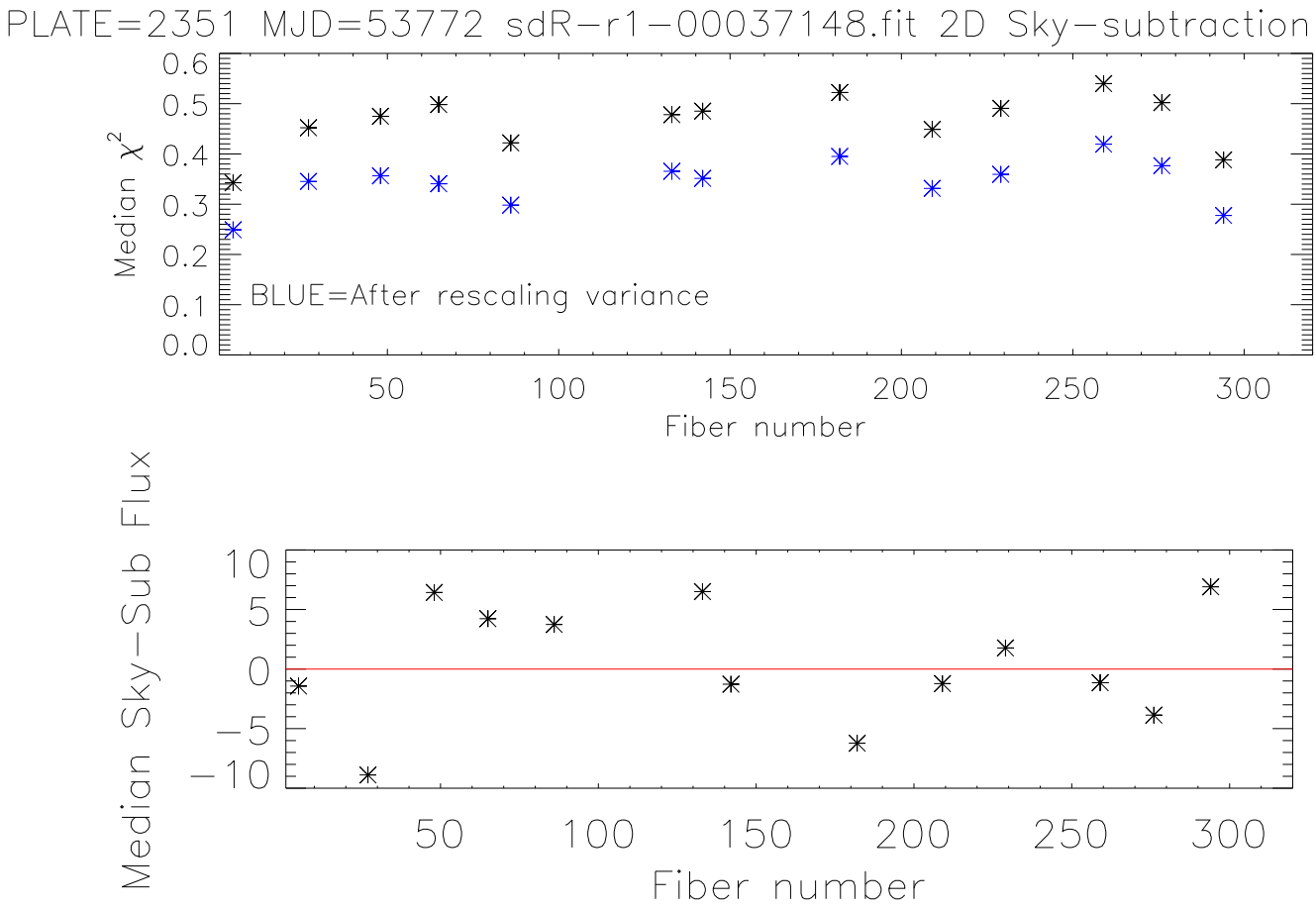

PLATE=2351 MJD=53772 Smooth superflat for sdR−r1−00037148.fit
2.0
1.5
1.0
0.5
0.0
1.006
1.004
1.002
1.000
0.998
0.996
0.994
0.992
6000
7000
8000
9000
Wavelength (Å)

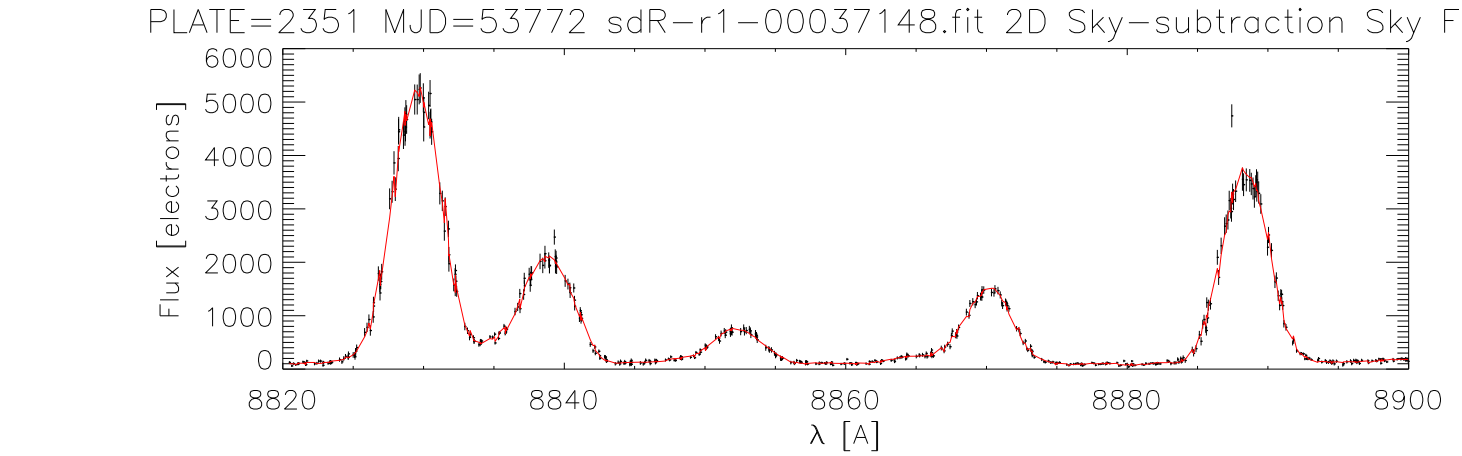

PLATE=2351 MJD=53772 sdR-r1-00037148.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
−5
−10
50
100
150
200
250
300
Fiber number

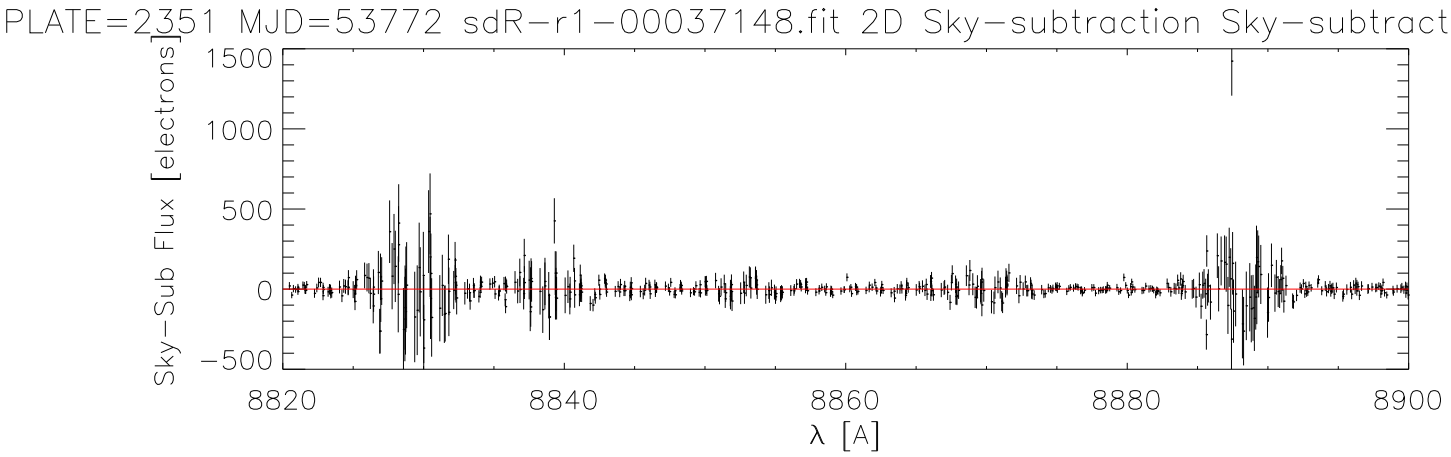

PLATE=2351 MJD=53772 sdR-r1-00037148.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
6000
5000
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

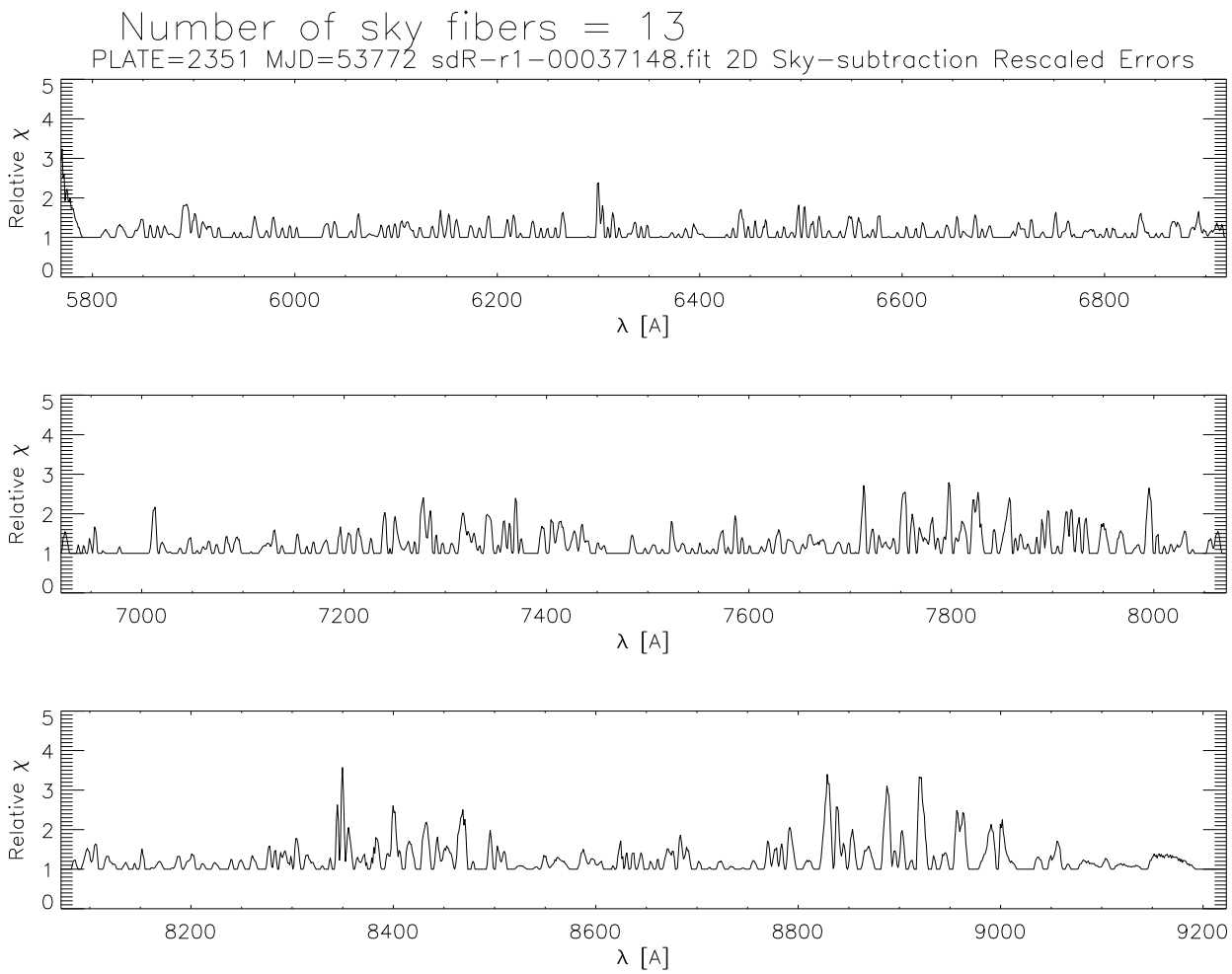

PLATE=2351 MJD=53772 sdR-r1-00037148.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
2000
1500
1000
500
0
−500
8820
8840
8860
8880
8900
λ [A]

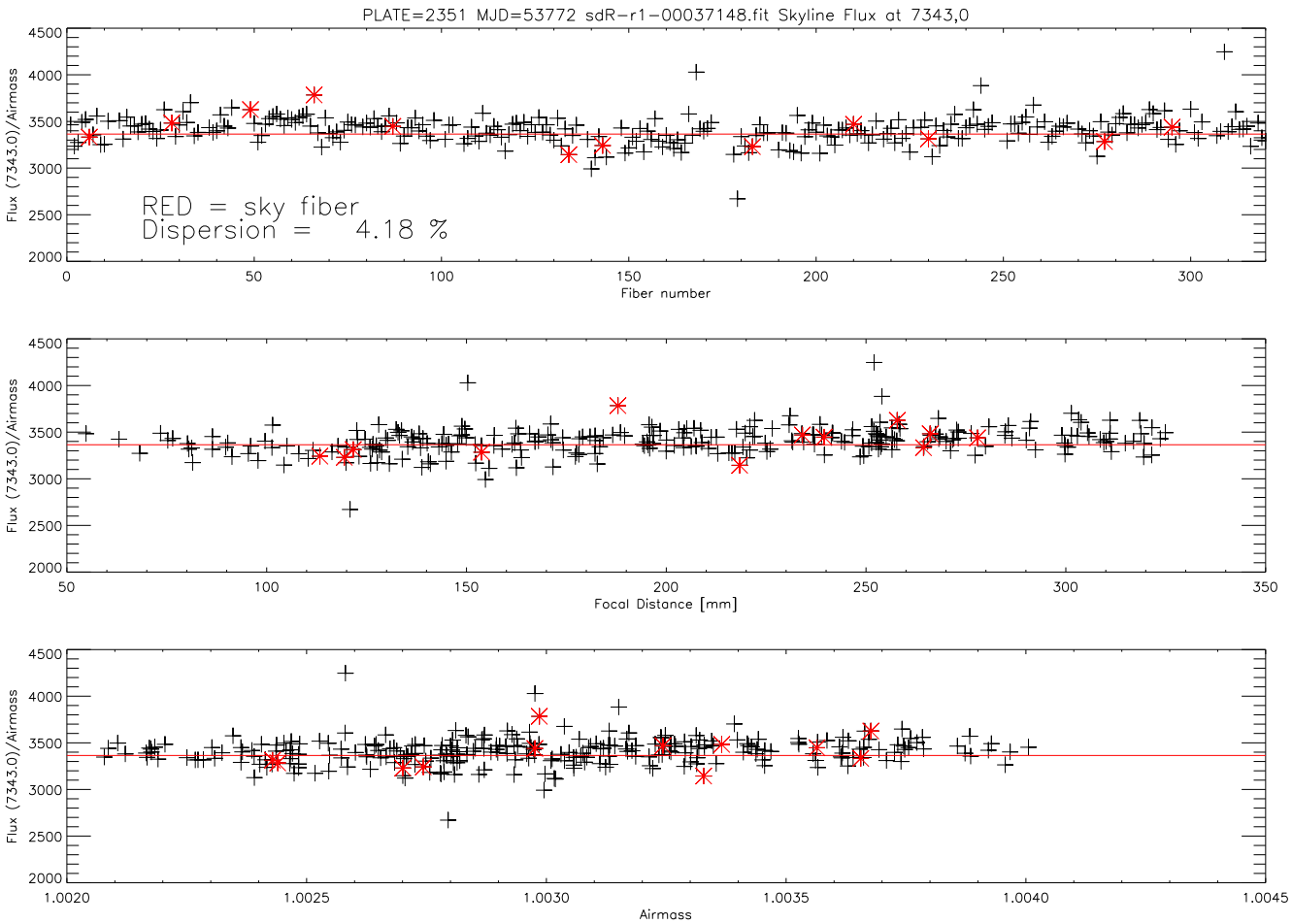

Number of sky fibers = 13
PLATE=2351 MJD=53772 sdR-r1-00037148.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

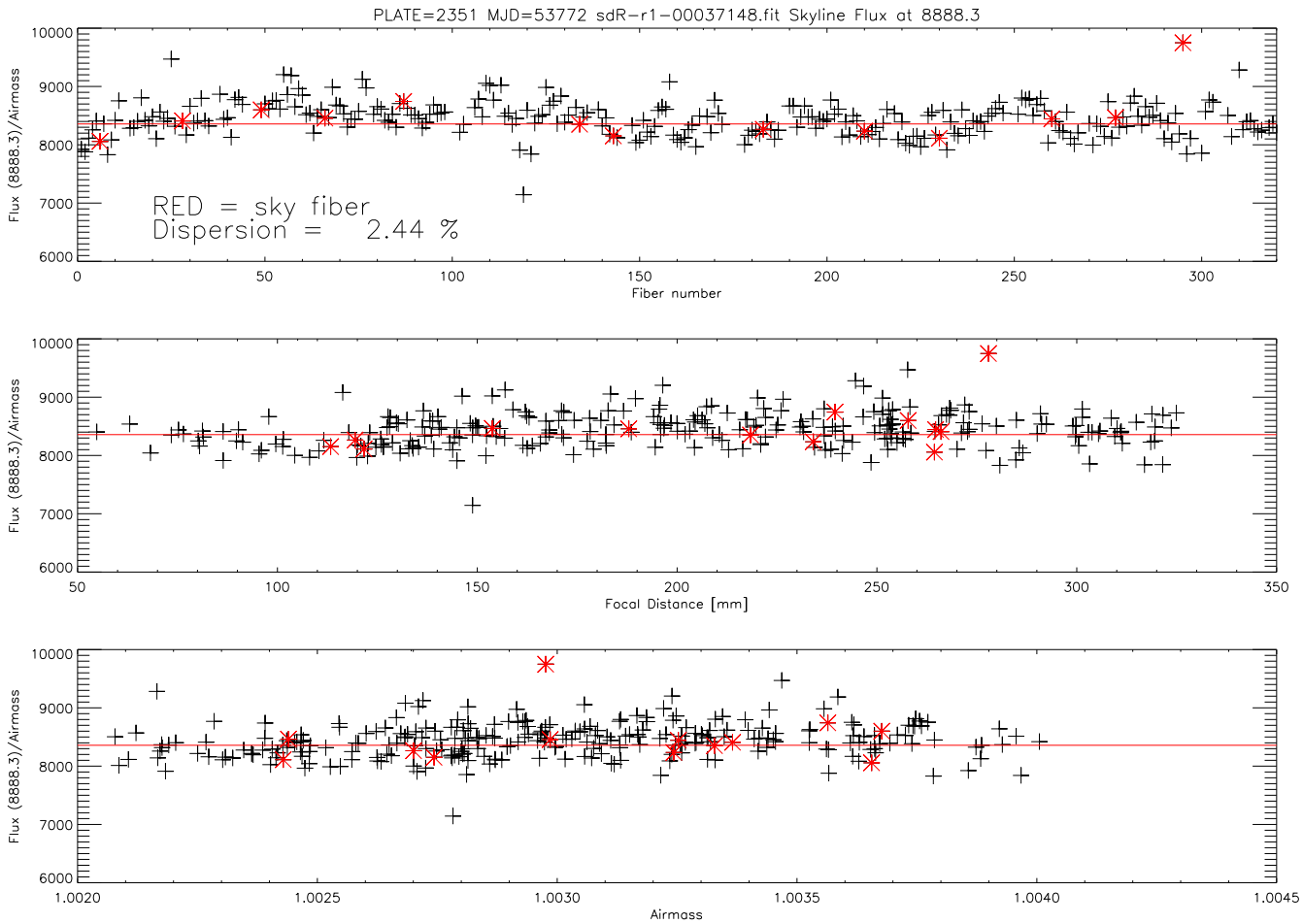

PLATE=2351 MJD=53772 sdR-r1-00037148.fit 2D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

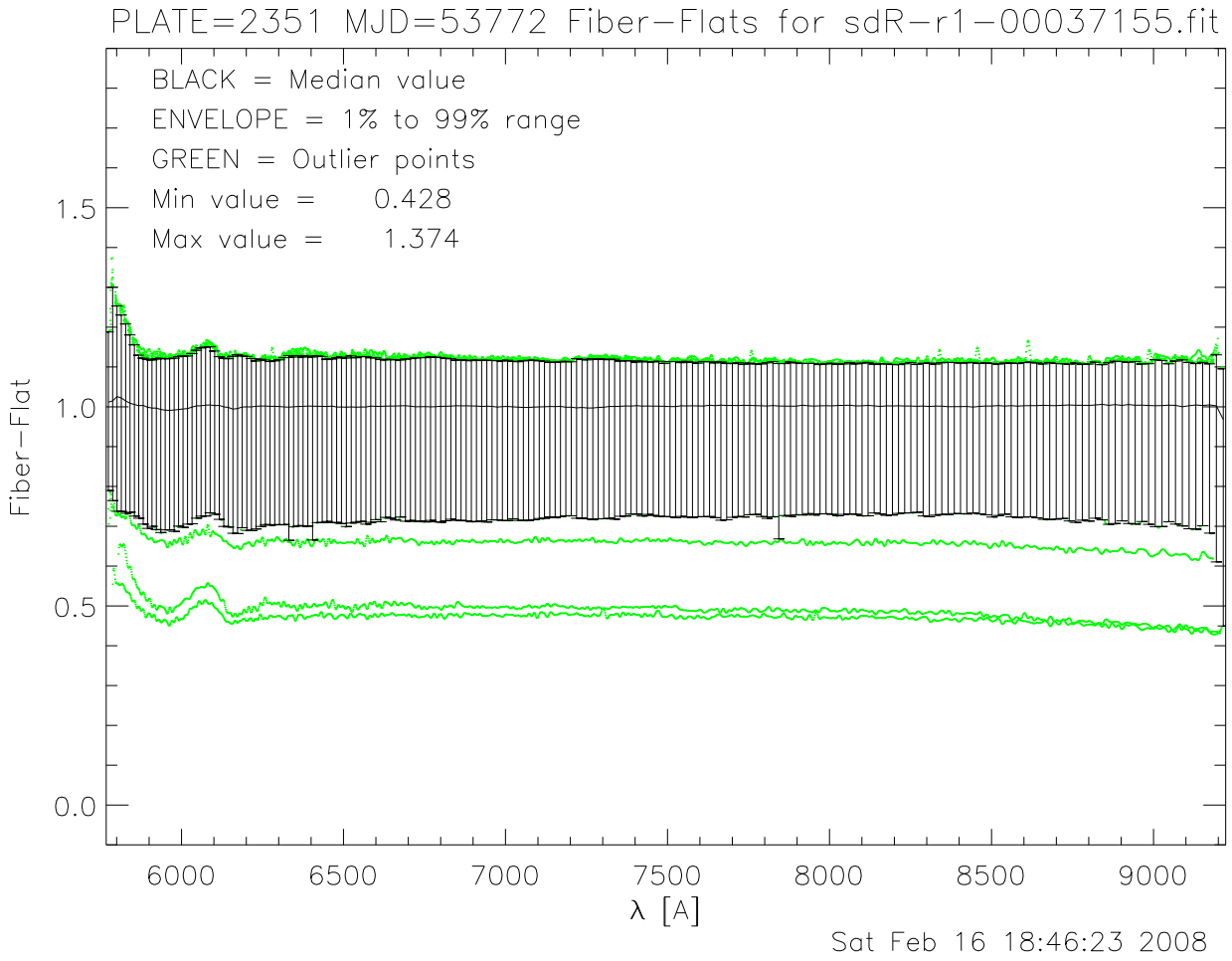

PLATE=2351 MJD=53772 sdR-r1-00037148.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
6000
5000
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

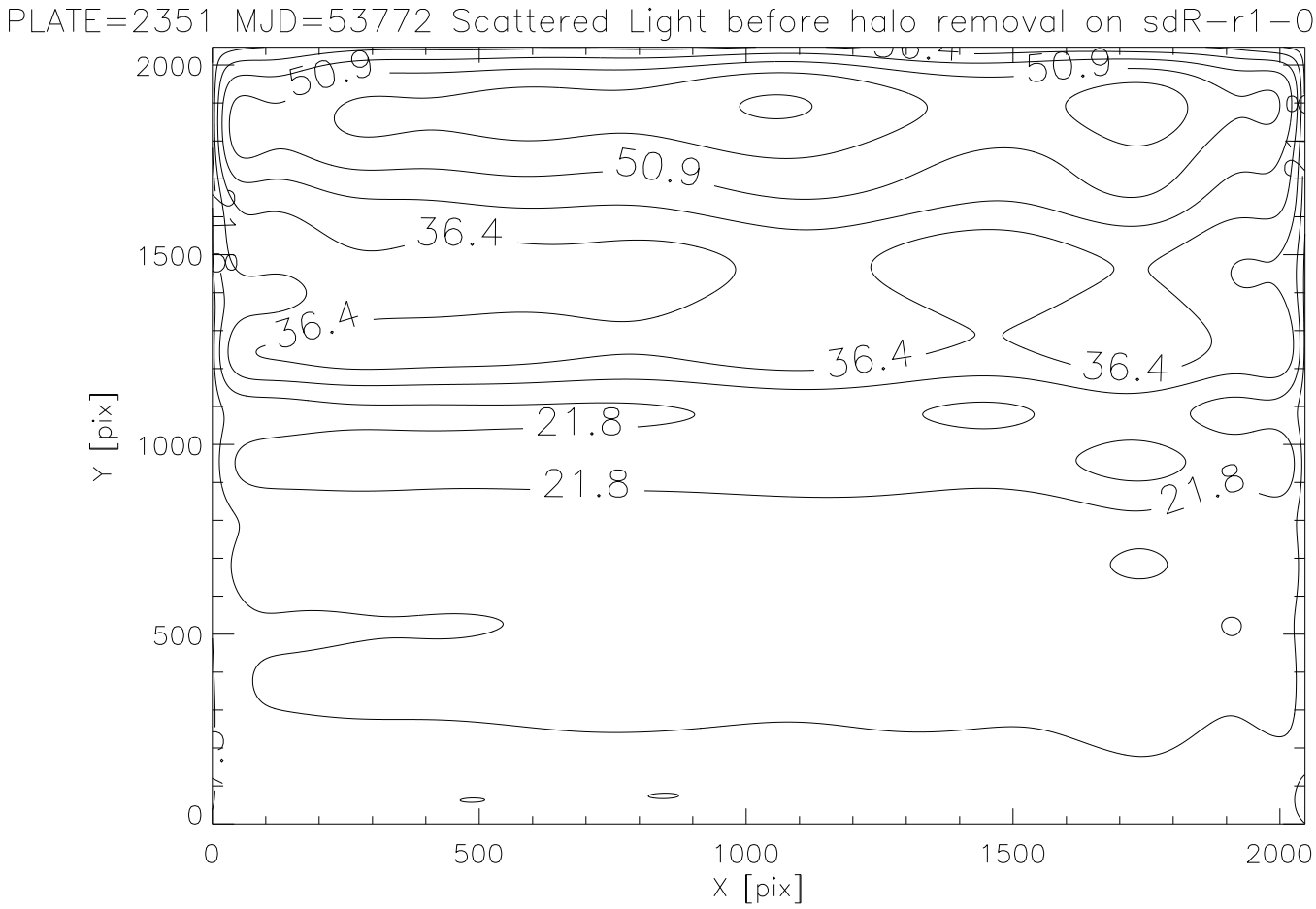

PLATE=2351 MJD=53772 sdR-r1-00037148.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
1500
1000
500
0
−500
8820
8840
8860
8880
8900
λ [A]

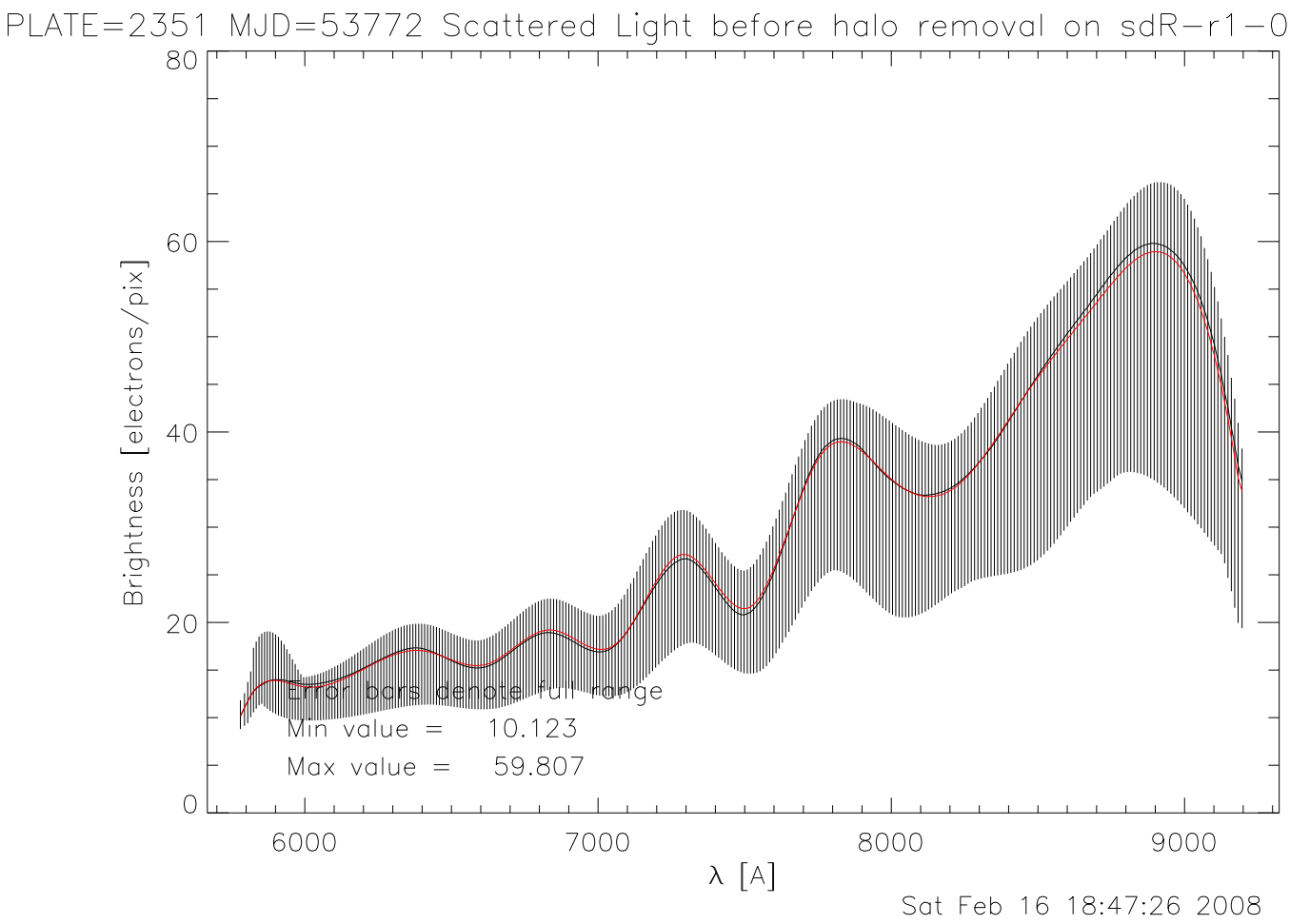

Number of sky fibers = 13
PLATE=2351 MJD=53772 sdR-r1-00037148.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

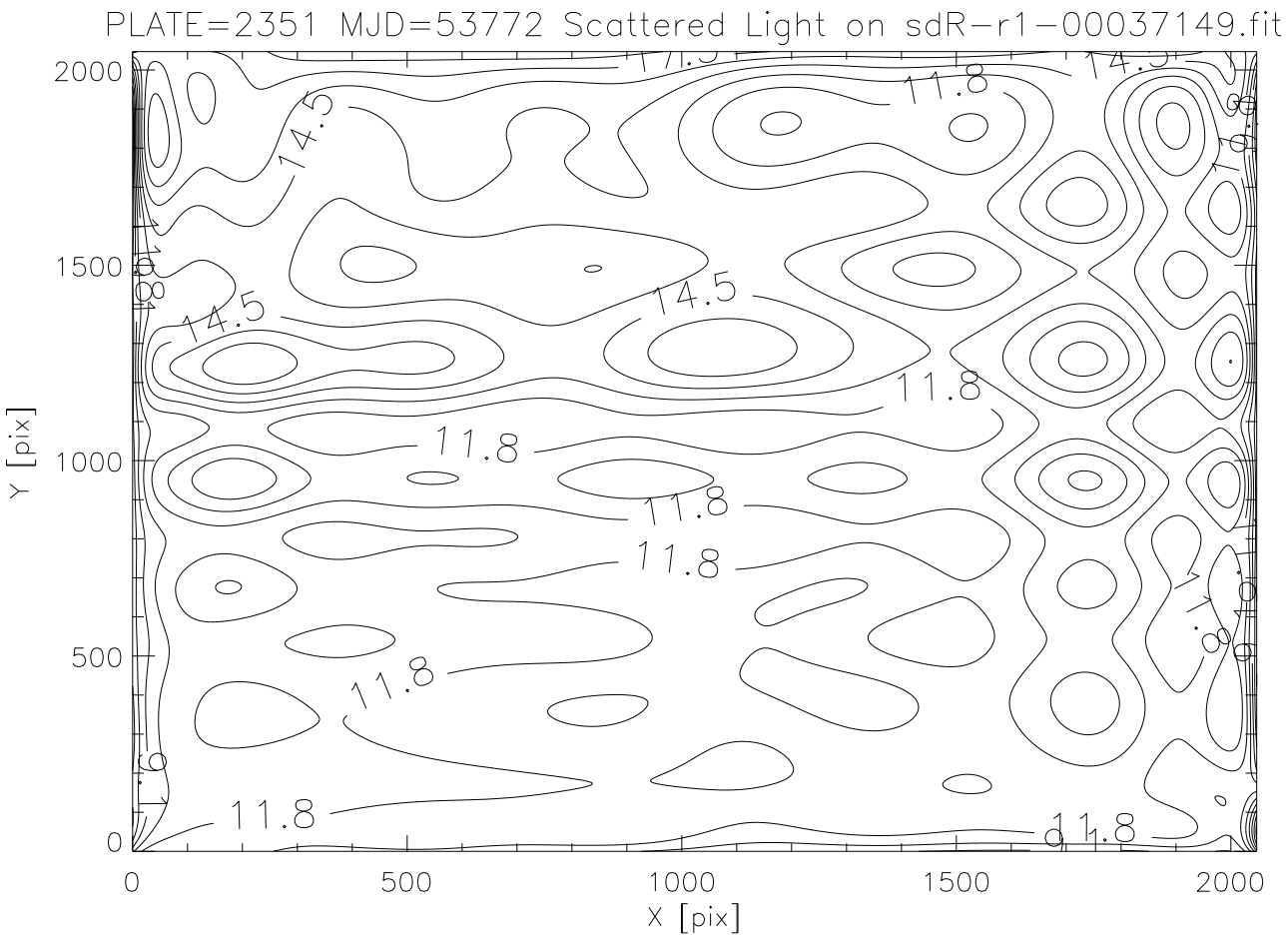

PLATE=2351 MJD=53772 sdR-r1-00037148.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 4.18 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

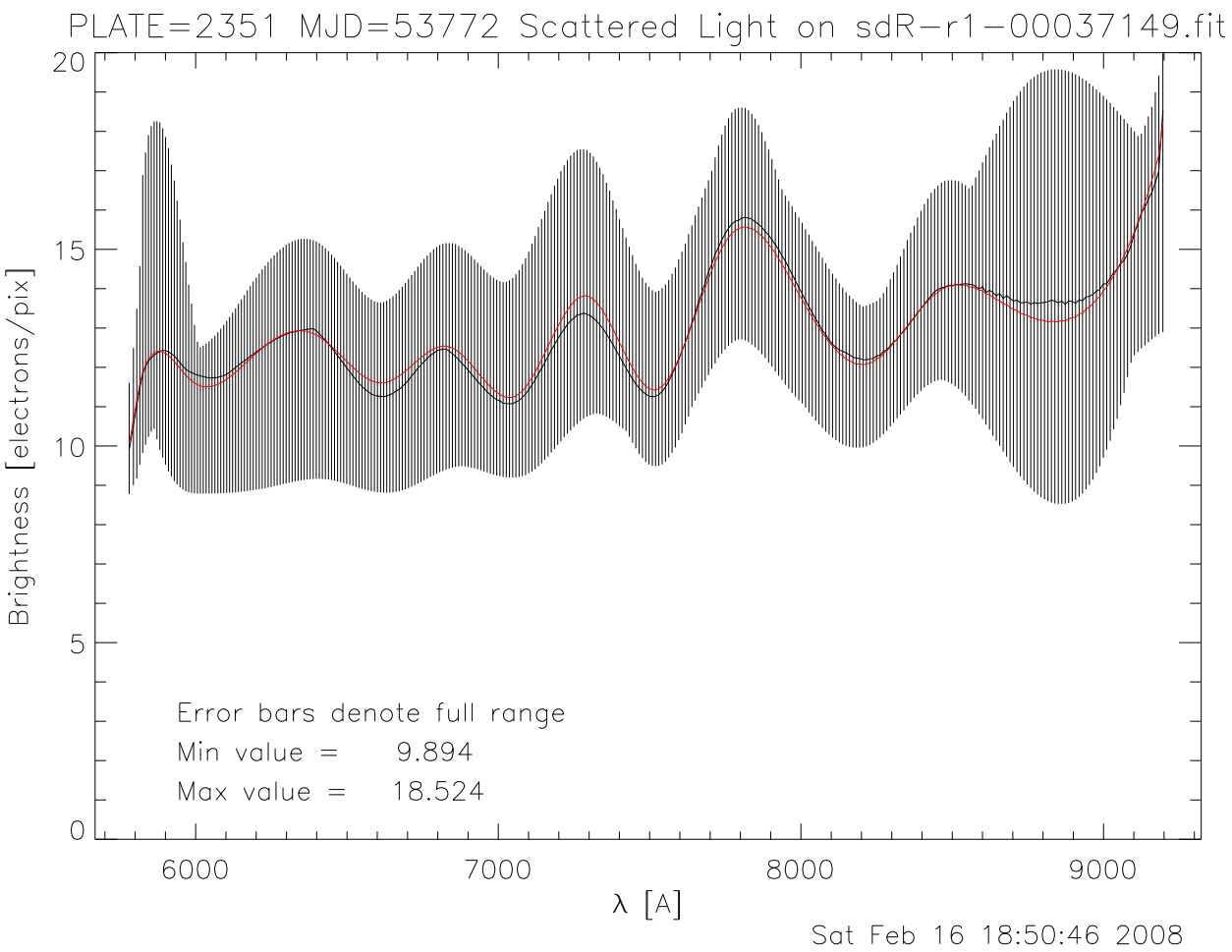

PLATE=2351 MJD=53772 sdR-r1-00037148.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 2.44 %
Fiber number
Focal Distance [mm]
Airmass

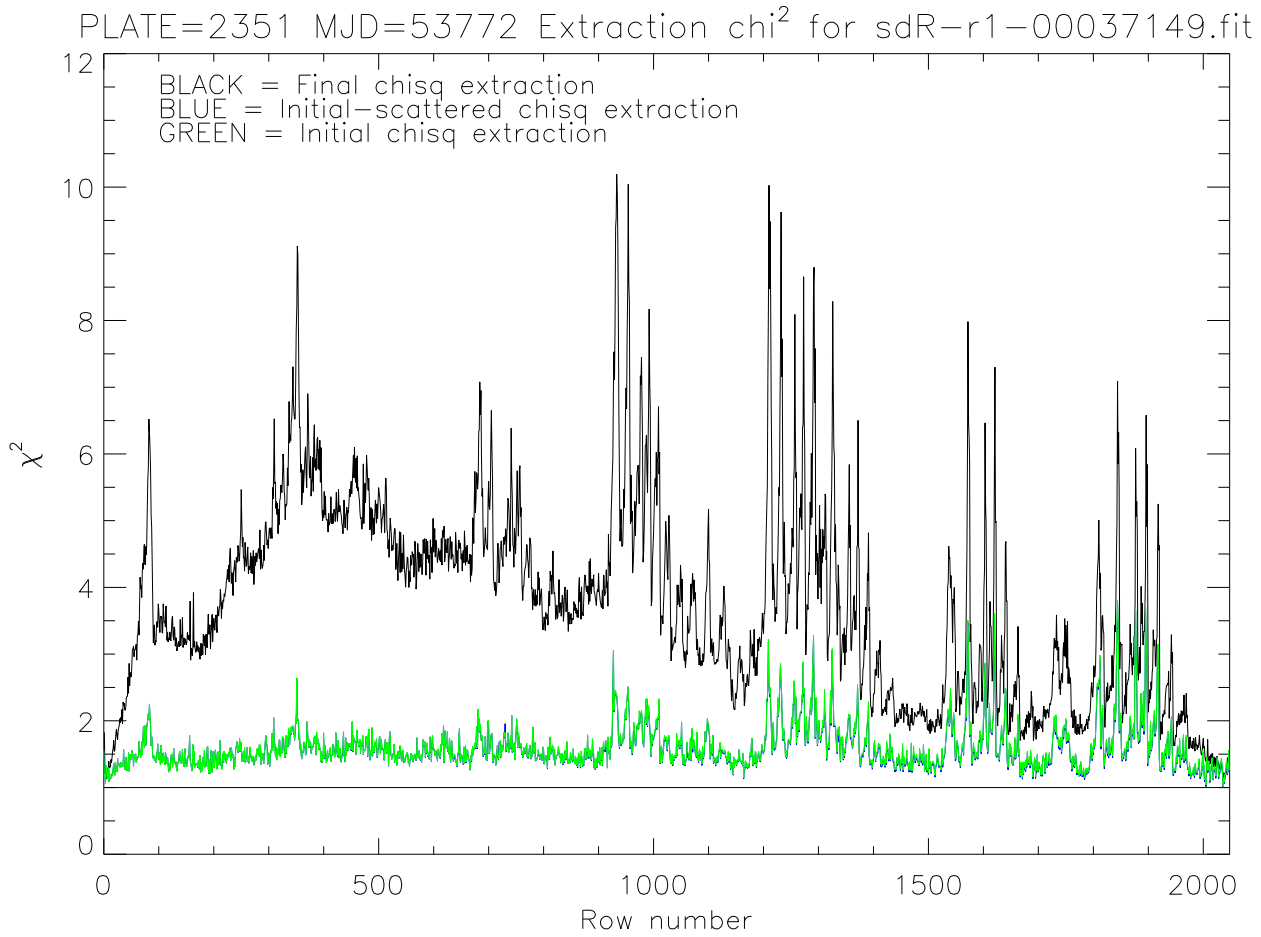

PLATE=2351 MJD=53772 Fiber−Flats for sdR−r1−00037155.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.428
Max value = 1.374
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sat Feb 16 18:46:23 2008

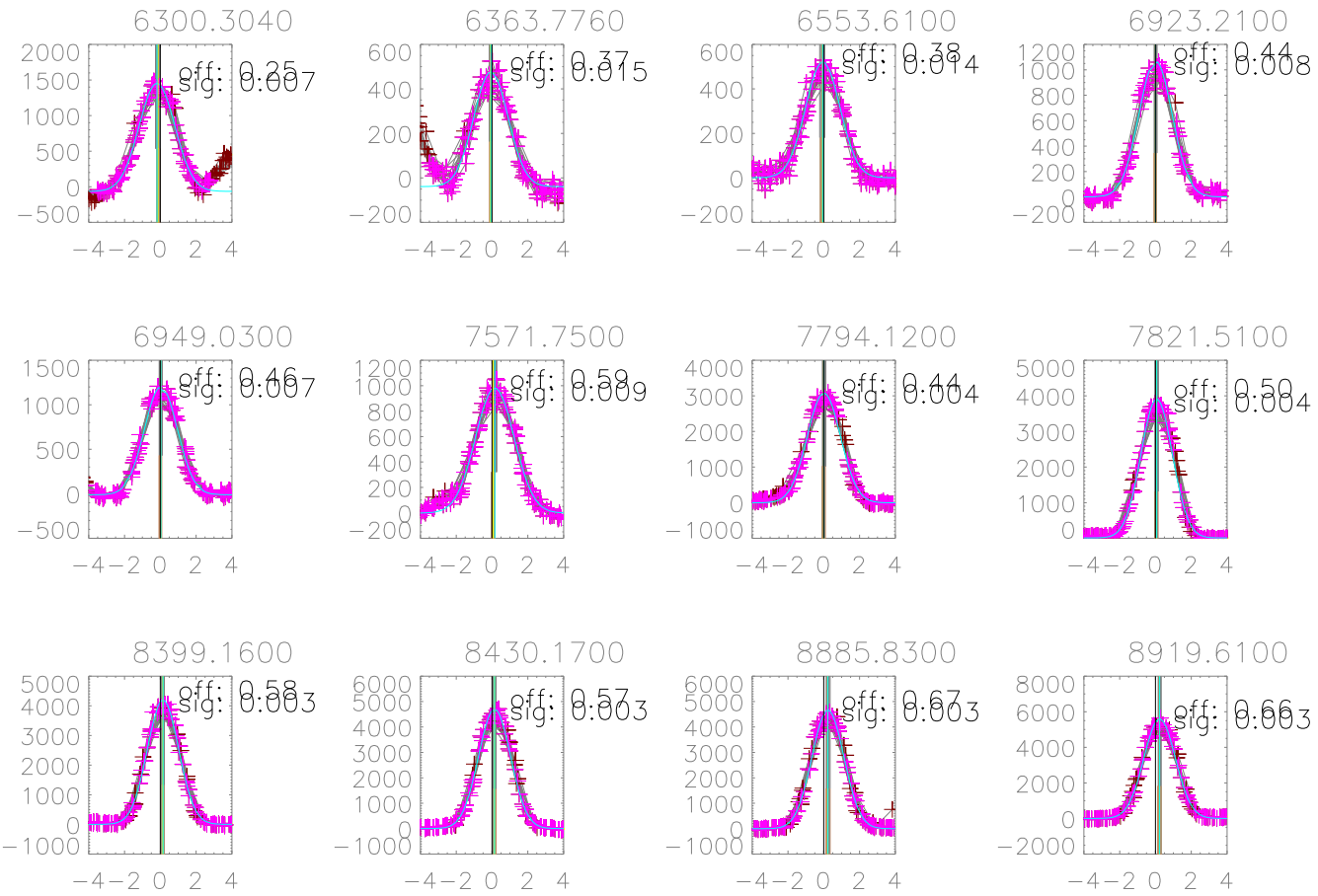

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR-r1-00037149.fi
50.9
50.9
50.9
36.4
36.4
36.4
36.4
21.8
21.8
21.8
Y [pix]
X [pix]
0
500
1000
1500
2000

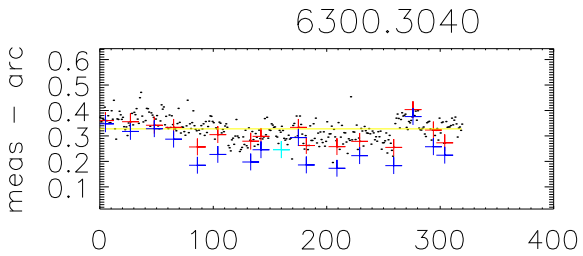

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR-r1-00037149.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 10.123
Max value = 59.807
Sat Feb 16 18:47:26 2008

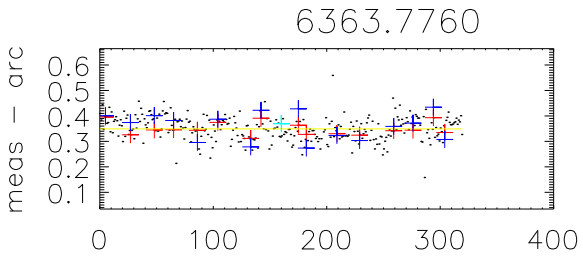

PLATE=2351 MJD=53772 Scattered Light on sdR−r1−00037149.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
14.5
11.8

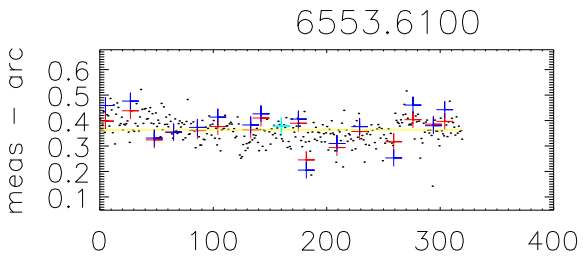

PLATE=2351 MJD=53772 Scattered Light on sdR-r1-00037149.fit
Brightness [electrons/pix]
20
15
10
5
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 9.894
Max value = 18.524
Sat Feb 16 18:50:46 2008

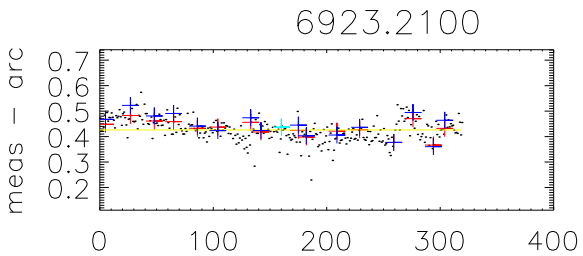

PLATE=2351 MJD=53772 Extraction chi^2 for sdR−r1−00037149.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
2
4
6
8
10
12
0
500
1000
1500
2000

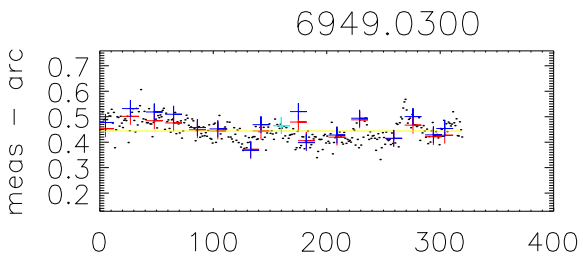

6300.3040
off: 0.25
sig: 0.007
6363.7760
off: 0.37
sig: 0.015
6553.6100
off: 0.38
sig: 0.014
6923.2100
off: 0.44
sig: 0.008
6949.0300
off: 0.46
sig: 0.007
7571.7500
off: 0.58
sig: 0.009
7794.1200
off: 0.44
sig: 0.004
7821.5100
off: 0.50
sig: 0.004
8399.1600
off: 0.58
sig: 0.003
8430.1700
off: 0.57
sig: 0.003
8885.8300
off: 0.67
sig: 0.003
8919.6100
off: 0.66
sig: 0.003

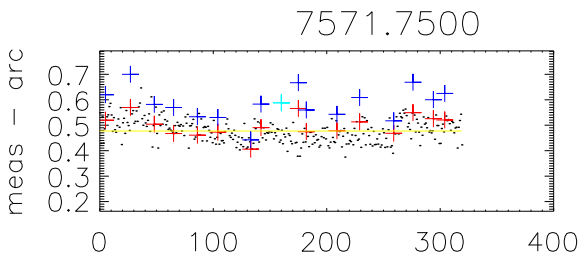

6300.3040
meas − arc
0.6
0.5
0.4
0.3
0.2
0.1
0
100
200
300
400

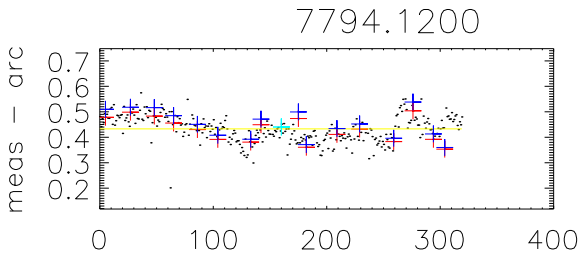

6363.7760
meas − arc
0.6
0.5
0.4
0.3
0.2
0.1
0
100
200
300
400

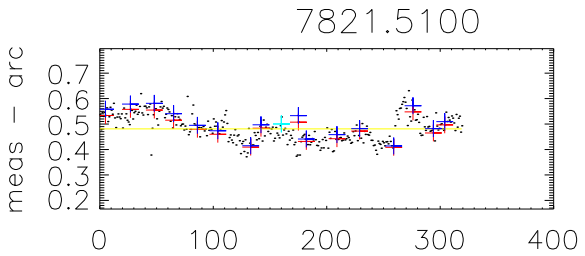

6553.6100
meas − arc
0.6
0.5
0.4
0.3
0.2
0.1
0
100
200
300
400

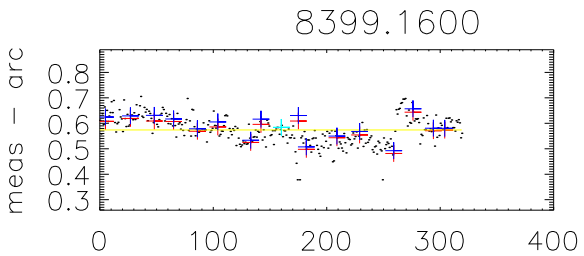

6923.2100
meas − arc
0.7
0.6
0.5
0.4
0.3
0.2
0
100
200
300
400

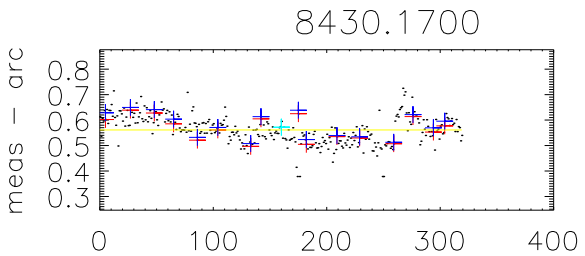

6949.0300
meas − arc
0.7
0.6
0.5
0.4
0.3
0.2
0
100
200
300
400

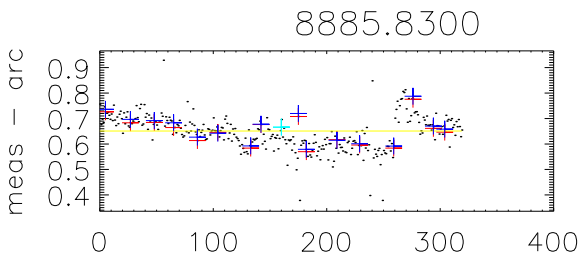

7571.7500
meas − arc
0.7
0.6
0.5
0.4
0.3
0.2
0
100
200
300
400

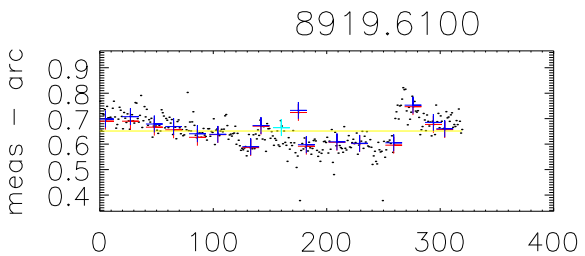

7794.1200
meas − arc
0.7
0.6
0.5
0.4
0.3
0.2
0
100
200
300
400

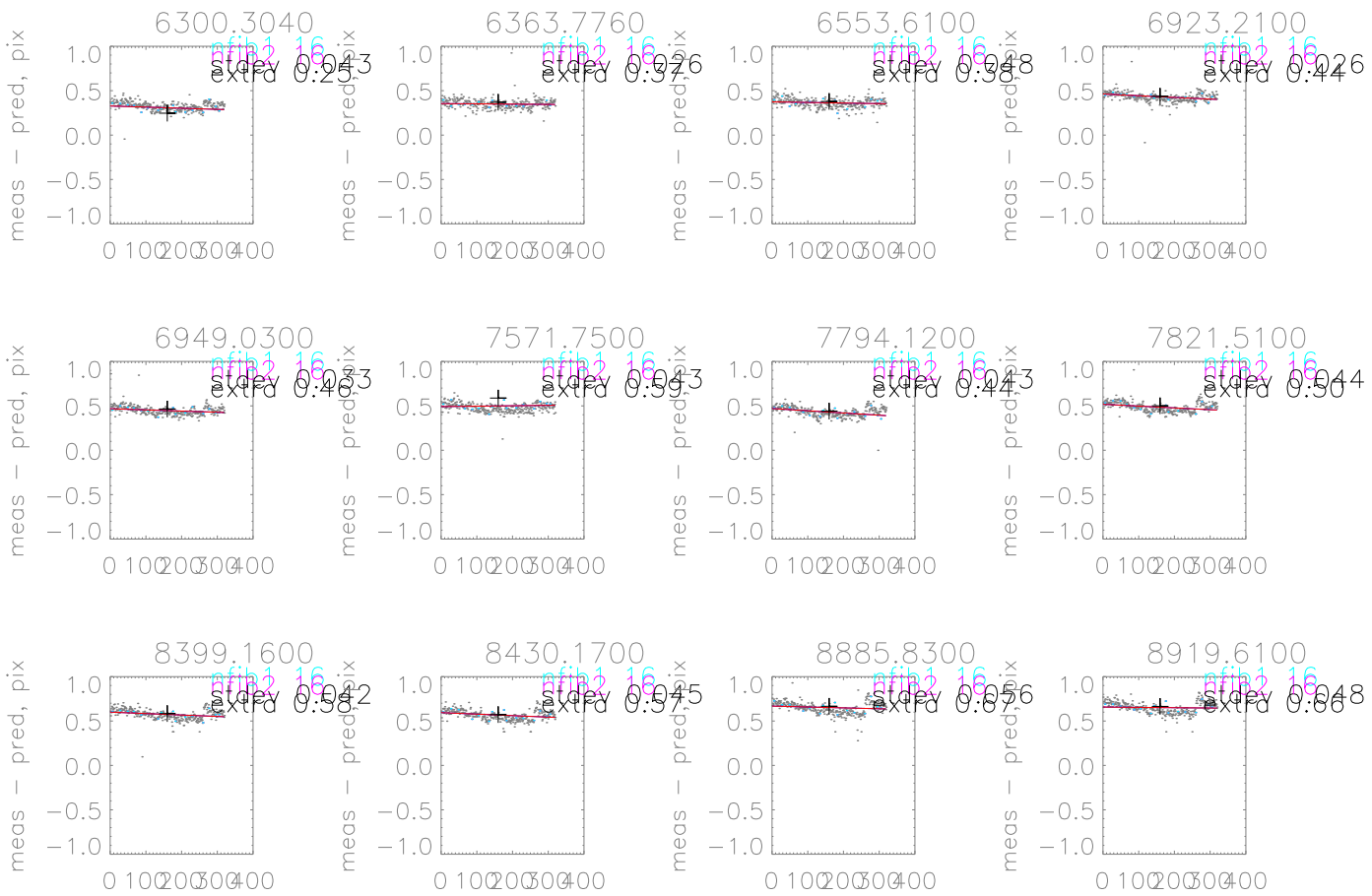

7821.5100
meas − arc
0.7
0.6
0.5
0.4
0.3
0.2
0
100
200
300
400

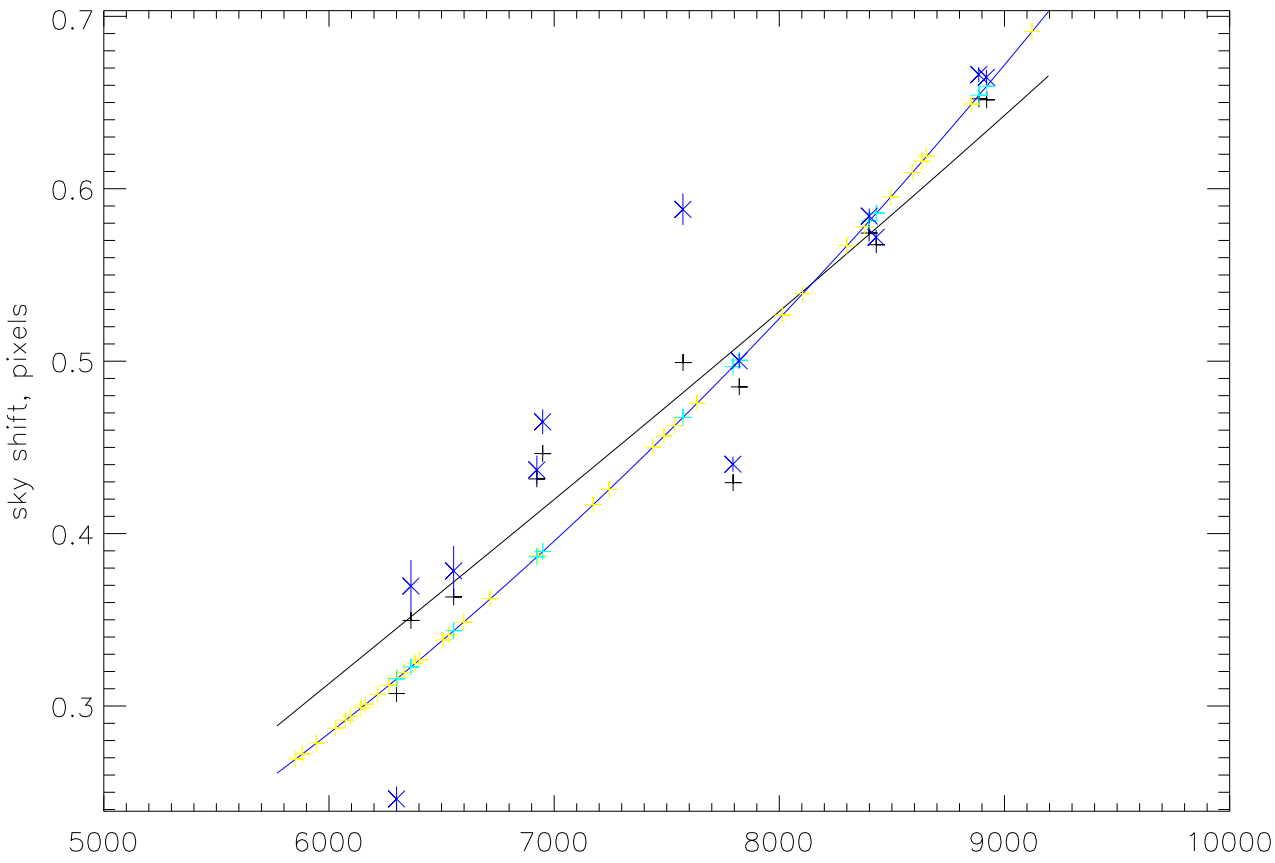

8399.1600
meas − arc
0.8
0.7
0.6
0.5
0.4
0.3
0
100
200
300
400

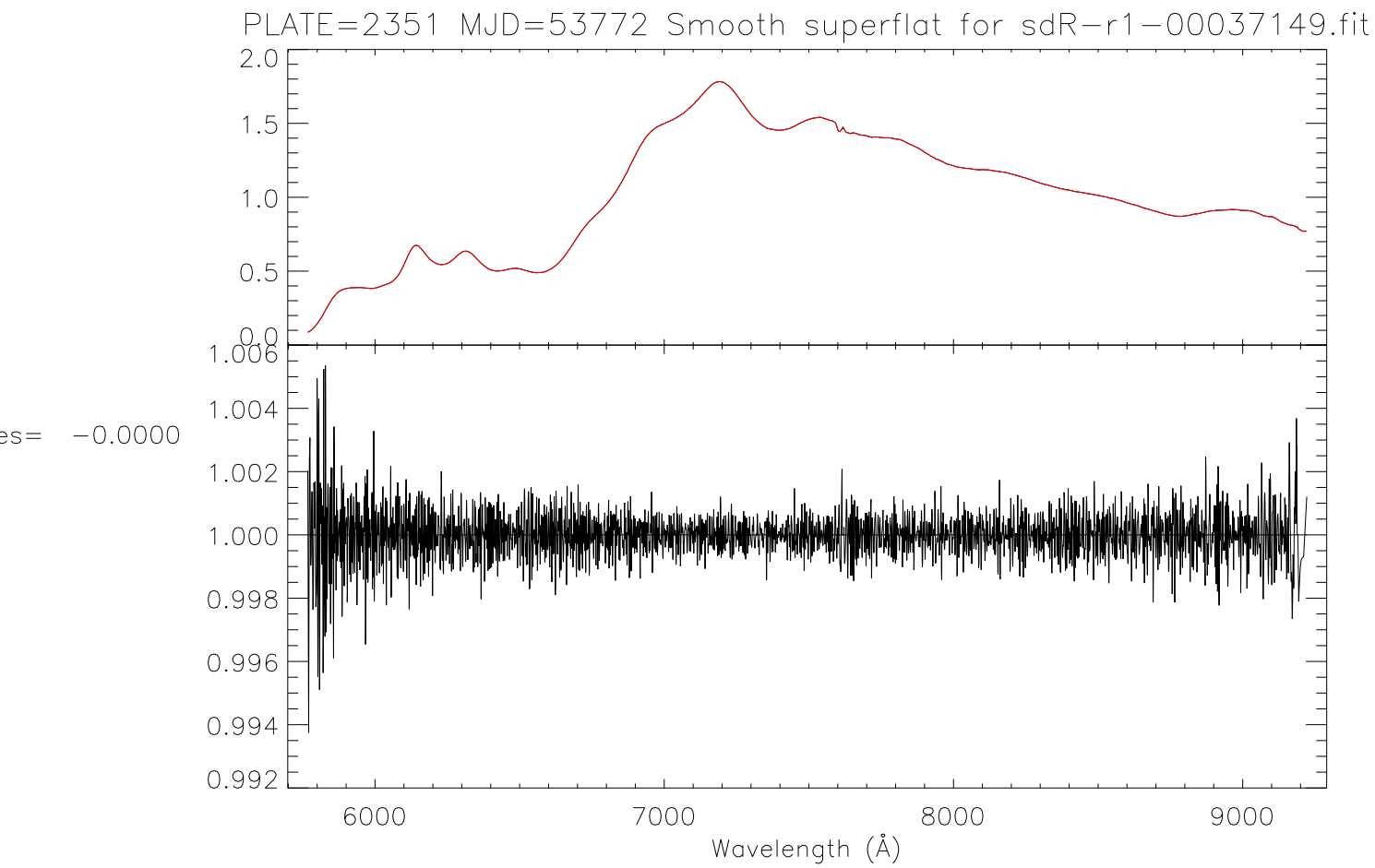

8430.1700
meas − arc
0.8
0.7
0.6
0.5
0.4
0.3
0
100
200
300
400


8885.8300
meas − arc
0.9
0.8
0.7
0.6
0.5
0.4
0
100
200
300
400

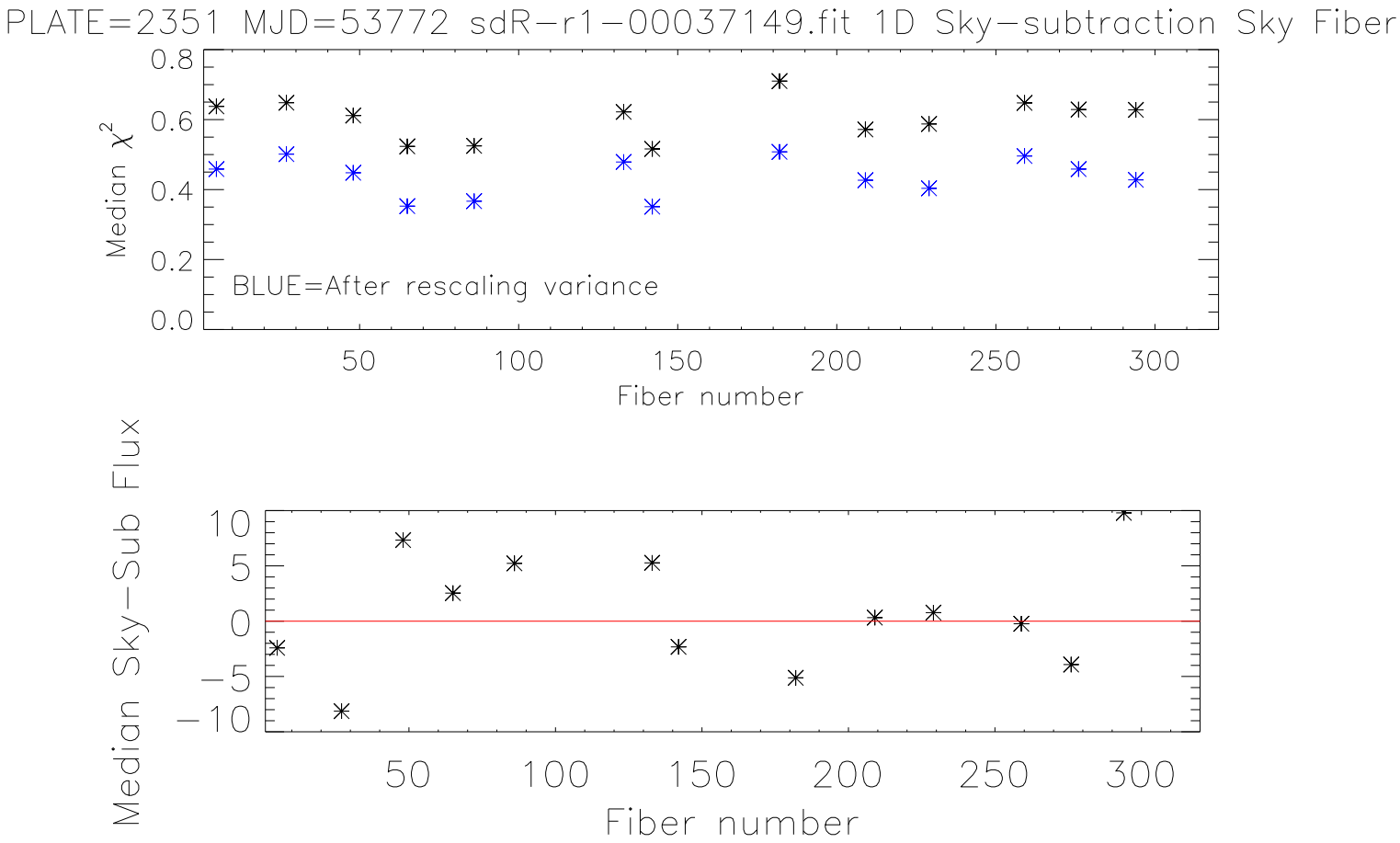

8919.6100
meas − arc
0.9
0.8
0.7
0.6
0.5
0.4
0
100
200
300
400

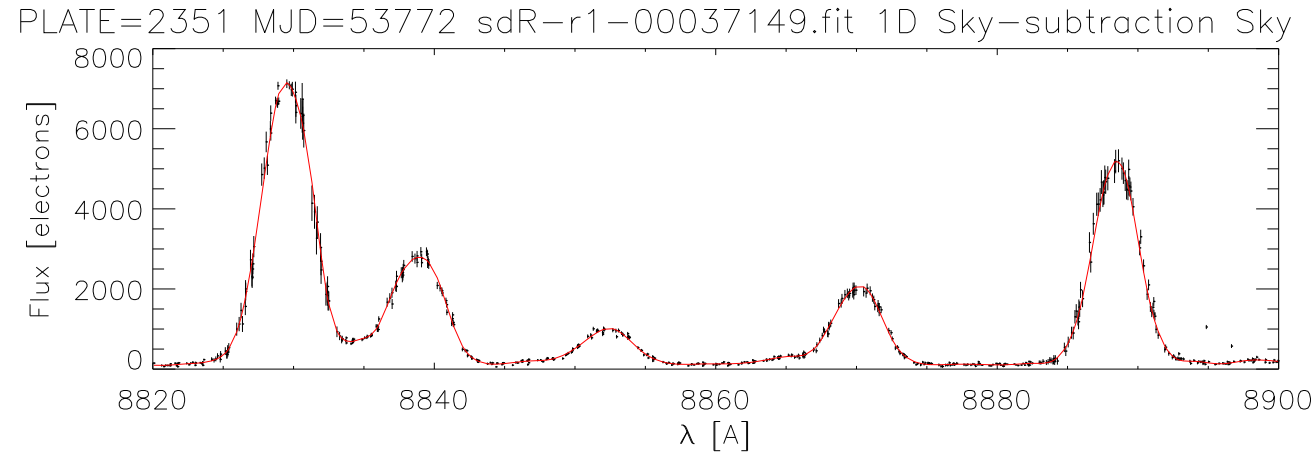

6300.3040
stdev 0.043
extra 0.25
6363.7760
stdev 0.026
extra 0.37
6553.6100
stdev 0.048
extra 0.38
6923.2100
stdev 0.026
extra 0.44
6949.0300
stdev 0.033
extra 0.46
7571.7500
stdev 0.043
extra 0.59
7794.1200
stdev 0.043
extra 0.44
7821.5100
stdev 0.044
extra 0.50
8399.1600
stdev 0.042
extra 0.58
8430.1700
stdev 0.045
extra 0.57
8885.8300
stdev 0.056
extra 0.67
8919.6100
stdev 0.048
extra 0.66
meas − pred, pix
mfhd2 16
mfhd1 16

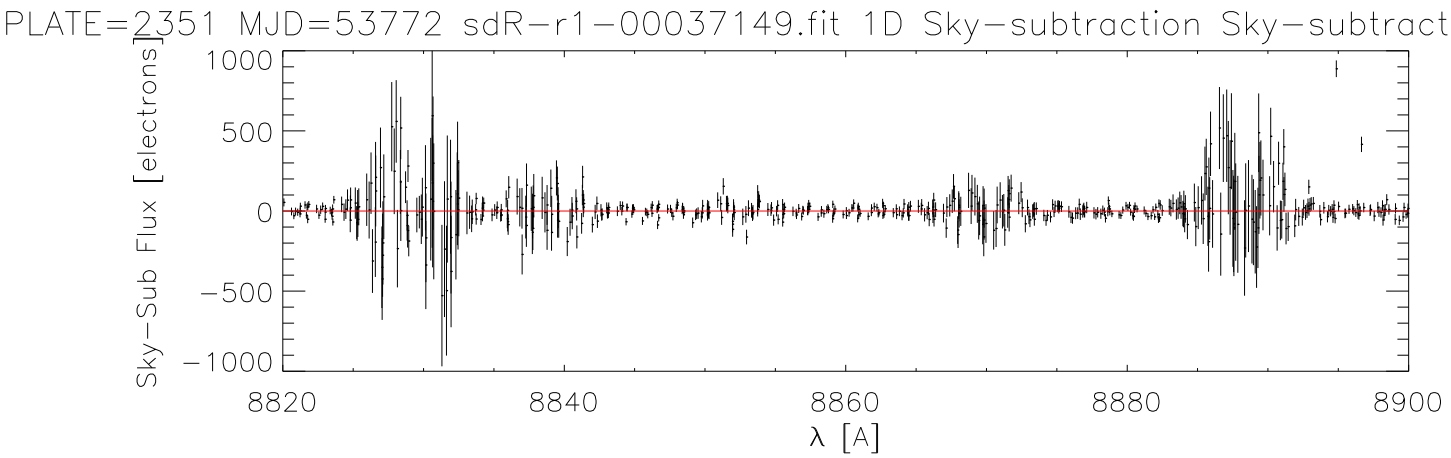

0.7
0.6
0.5
0.4
0.3
sky shift, pixels
5000
6000
7000
8000
9000
10000

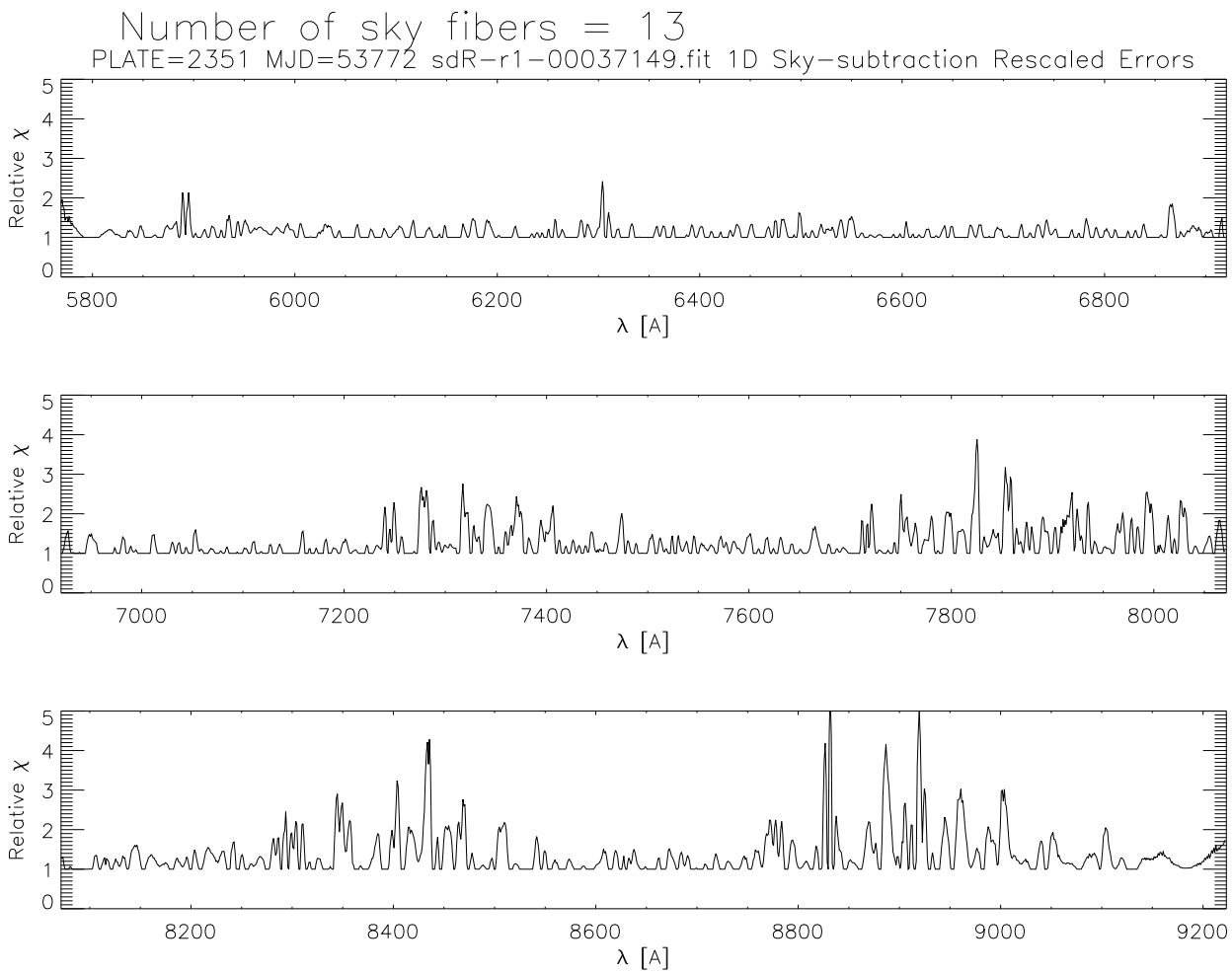

PLATE=2351 MJD=53772 Smooth superflat for sdR-r1-00037149.fit
2.0
1.5
1.0
0.5
0.0
1.006
1.004
1.002
1.000
0.998
0.996
0.994
0.992
6000
7000
8000
9000
Wavelength (Å)

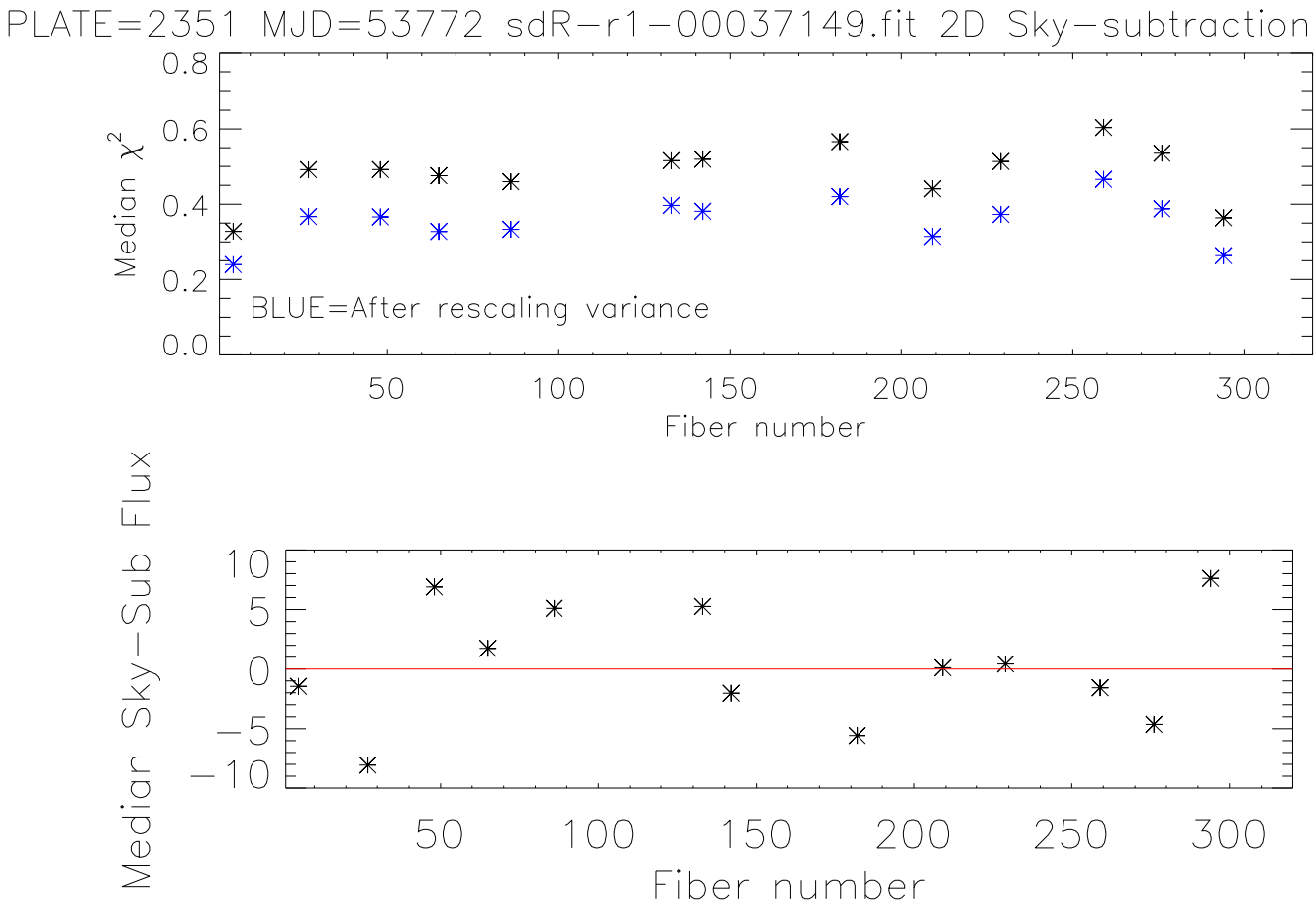
es= −0.0000

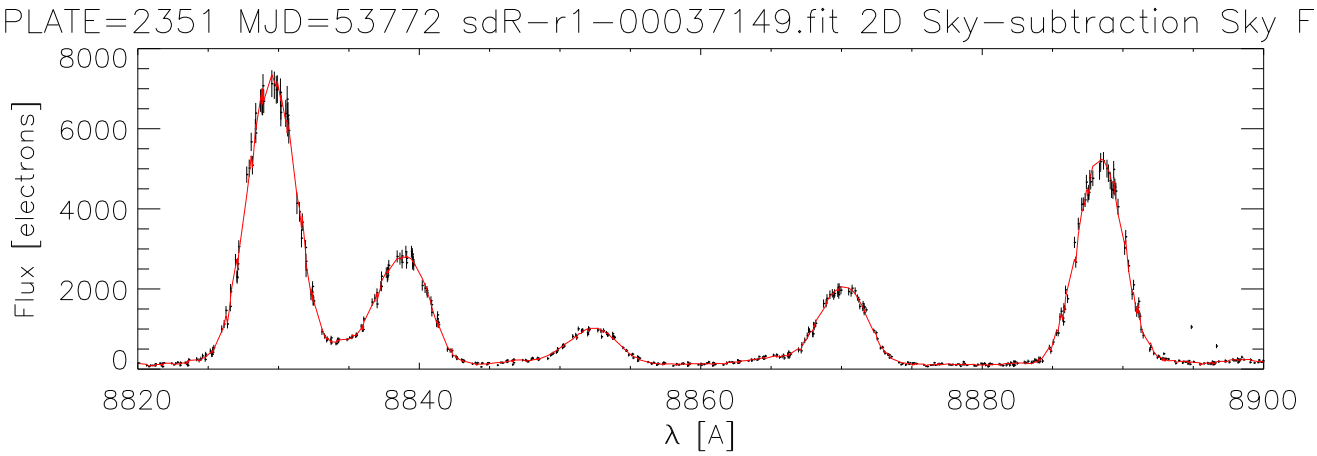

PLATE=2351 MJD=53772 sdR-r1-00037149.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
−5
−10
50
100
150
200
250
300
Fiber number

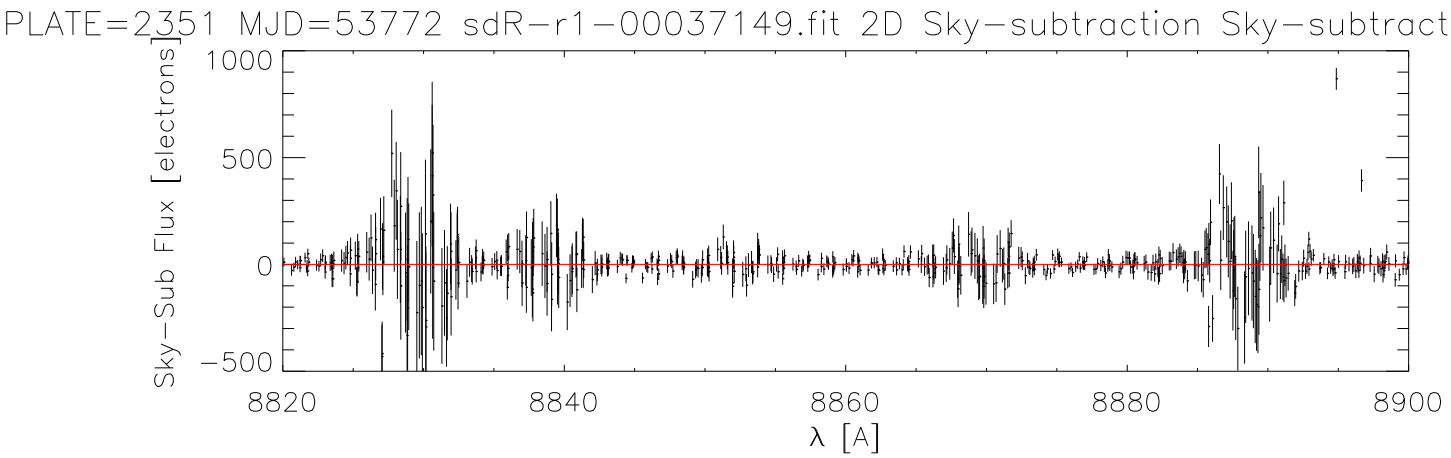

PLATE=2351 MJD=53772 sdR-r1-00037149.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
8820
8840
8860
8880
8900
λ [A]

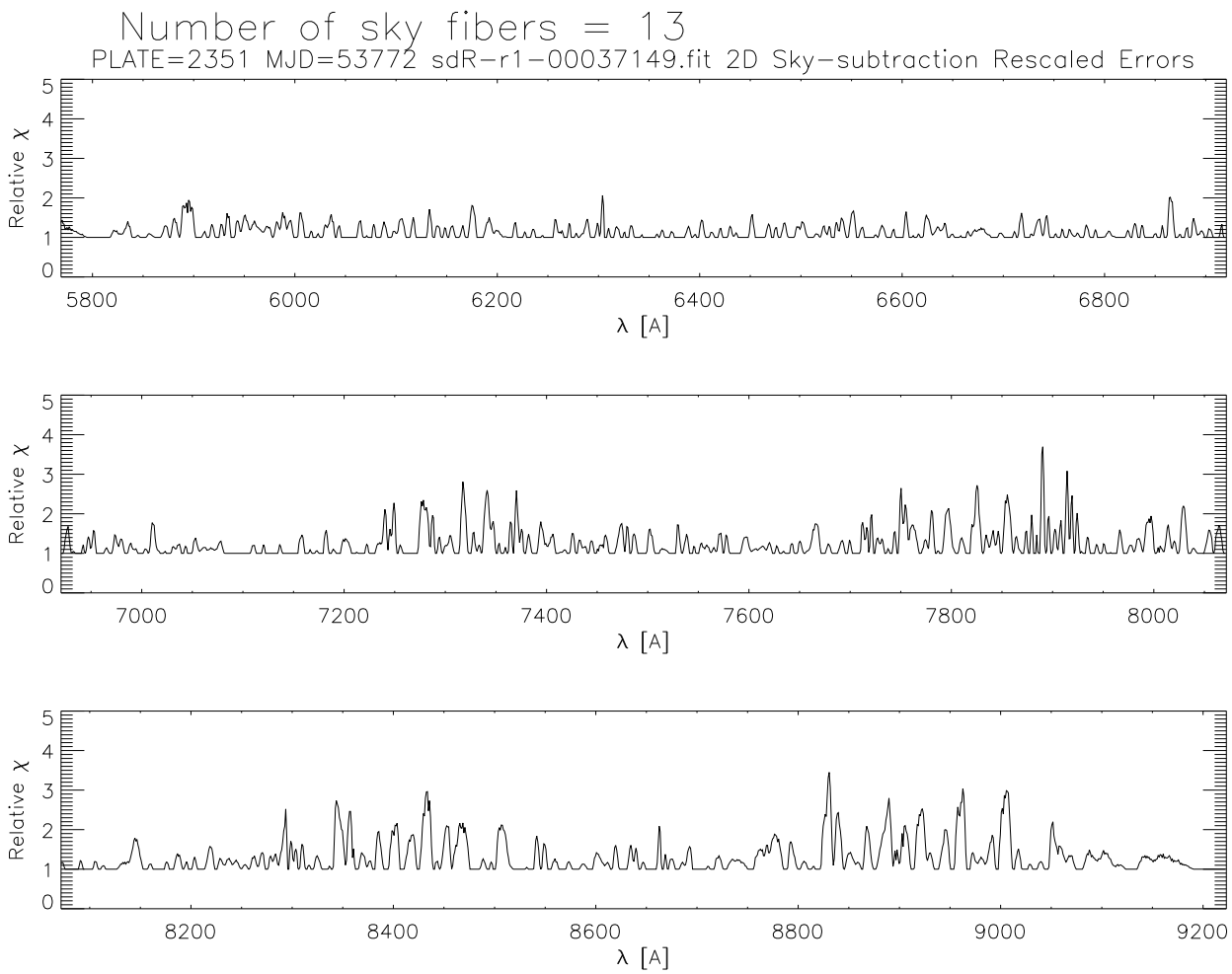

PLATE=2351 MJD=53772 sdR-r1-00037149.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
1000
500
0
-500
-1000
8820
8840
8860
8880
8900
λ [A]

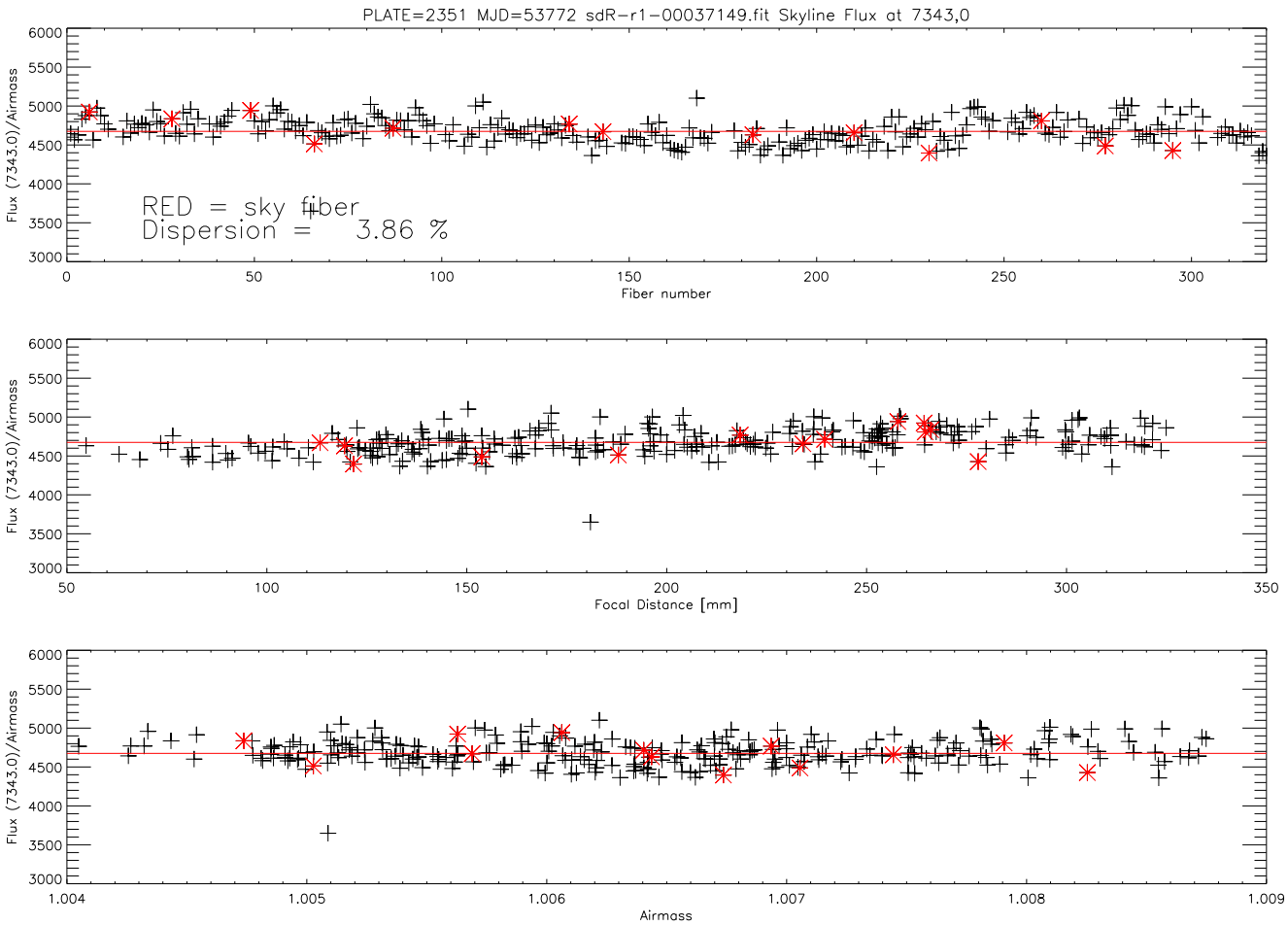

Number of sky fibers = 13
PLATE=2351 MJD=53772 sdR-r1-00037149.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

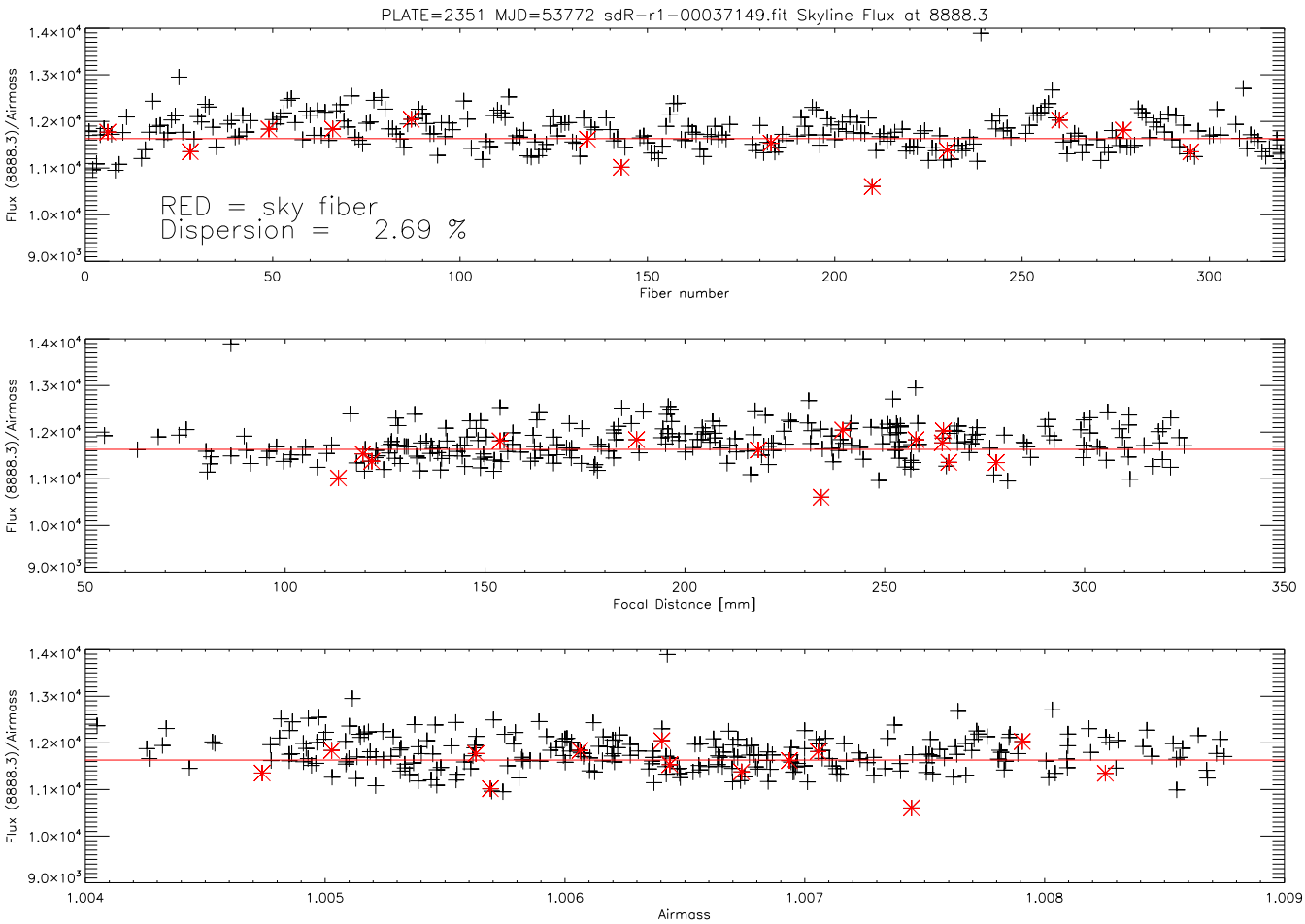

PLATE=2351 MJD=53772 sdR-r1-00037149.fit 2D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
−5
−10
50
100
150
200
250
300
Fiber number

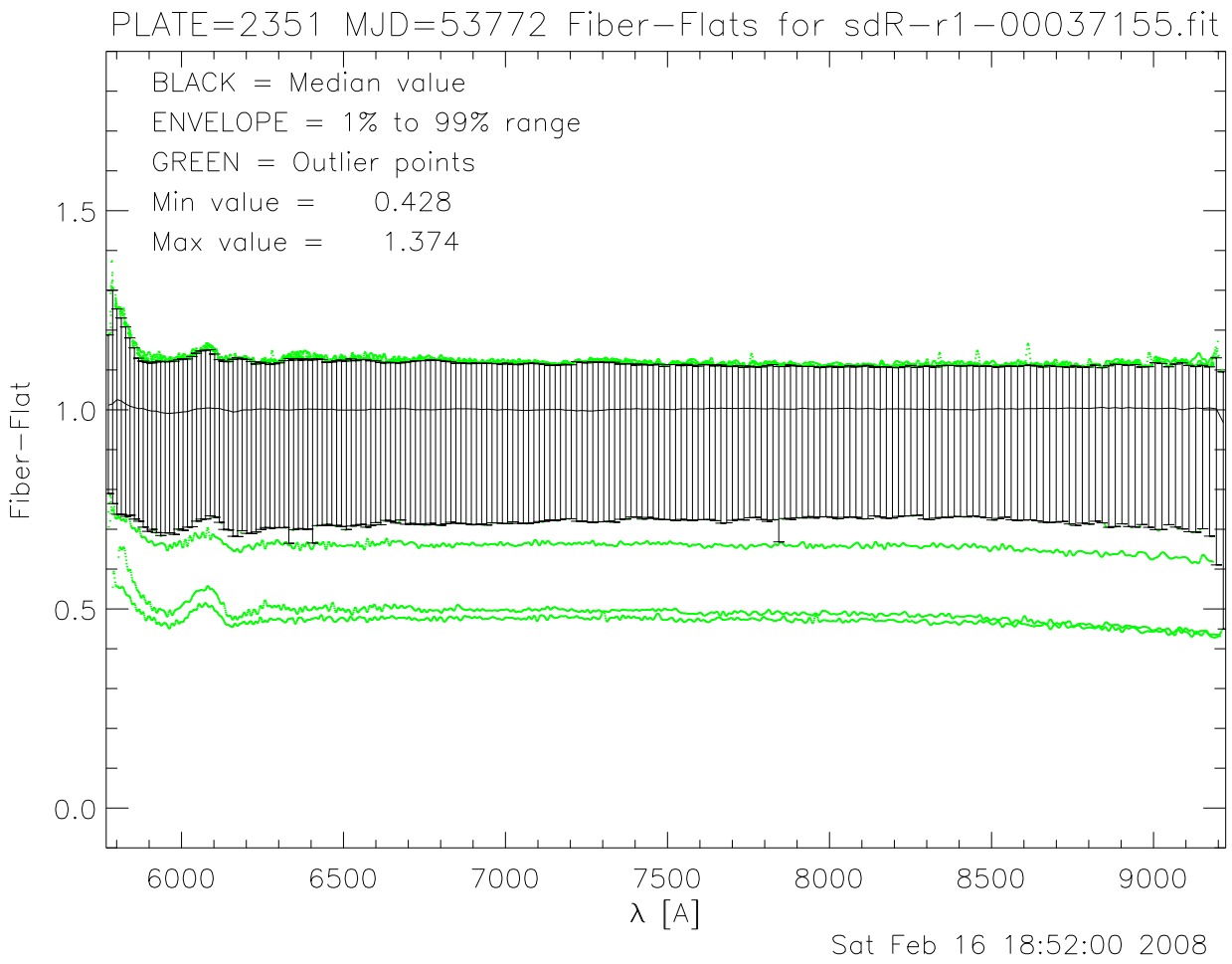

PLATE=2351 MJD=53772 sdR-r1-00037149.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
8820
8840
8860
8880
8900
λ [A]

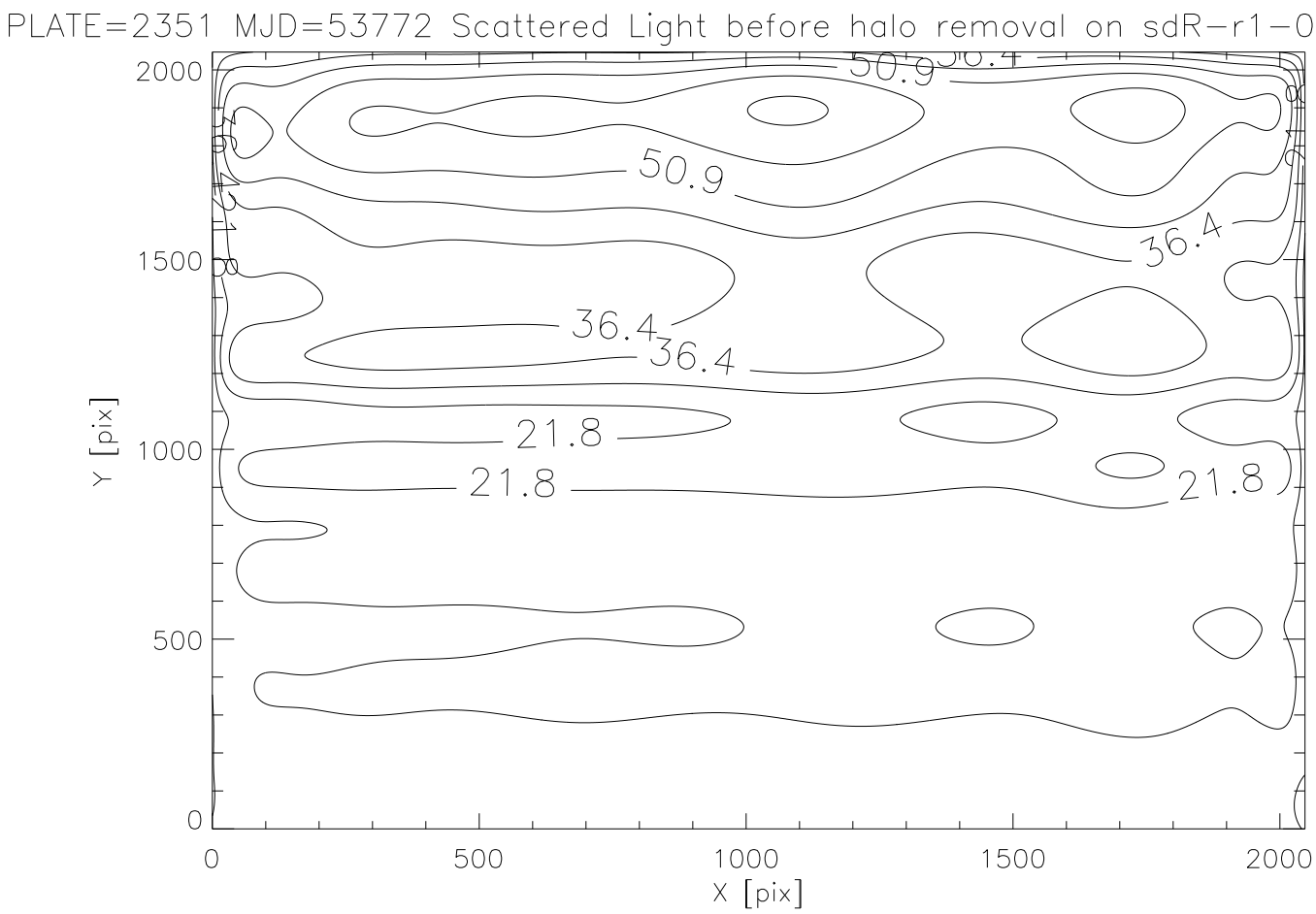

PLATE=2351 MJD=53772 sdR-r1-00037149.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
1000
500
0
-500
8820
8840
8860
8880
8900
λ [A]

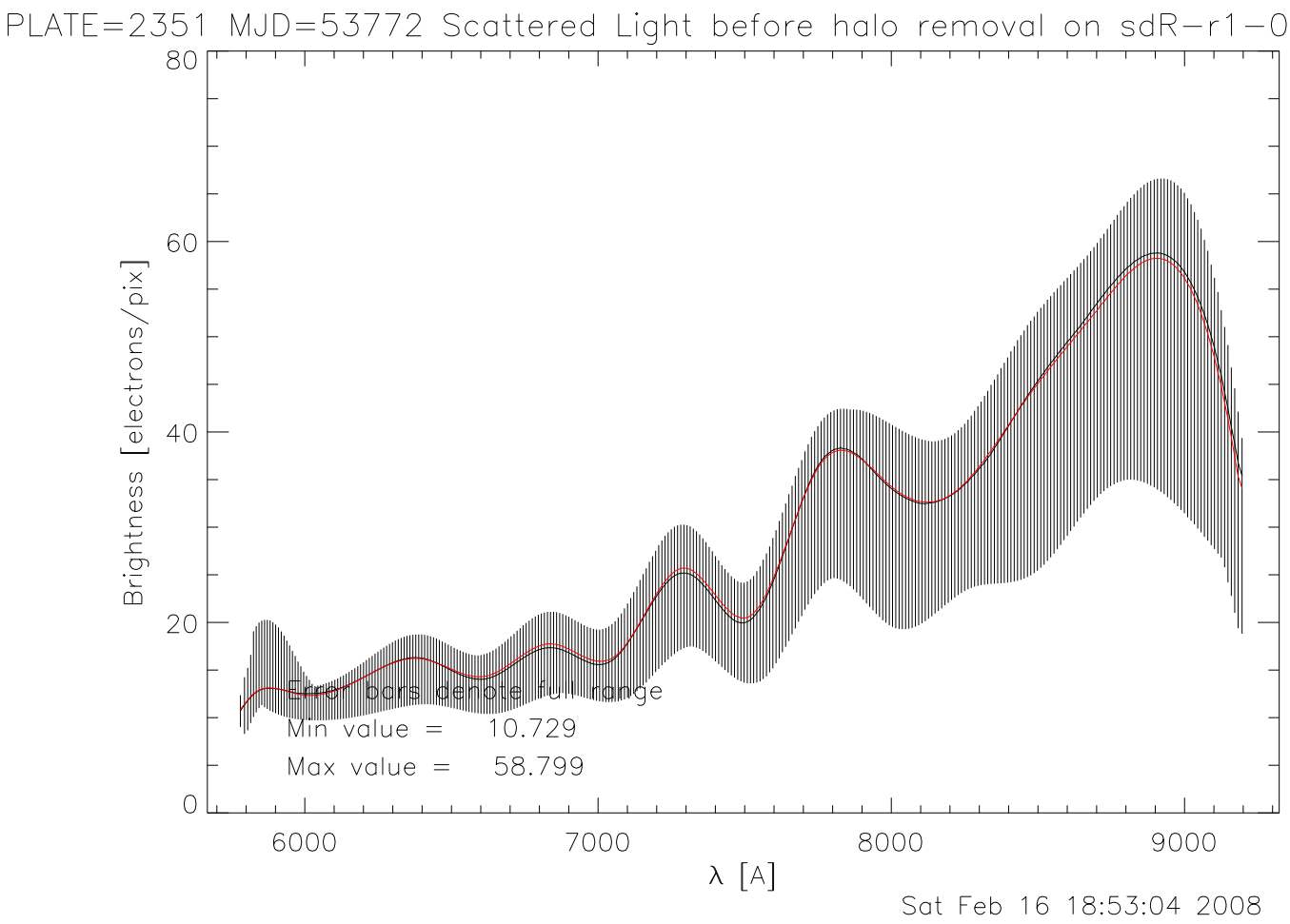

Number of sky fibers = 13
PLATE=2351 MJD=53772 sdR-r1-00037149.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

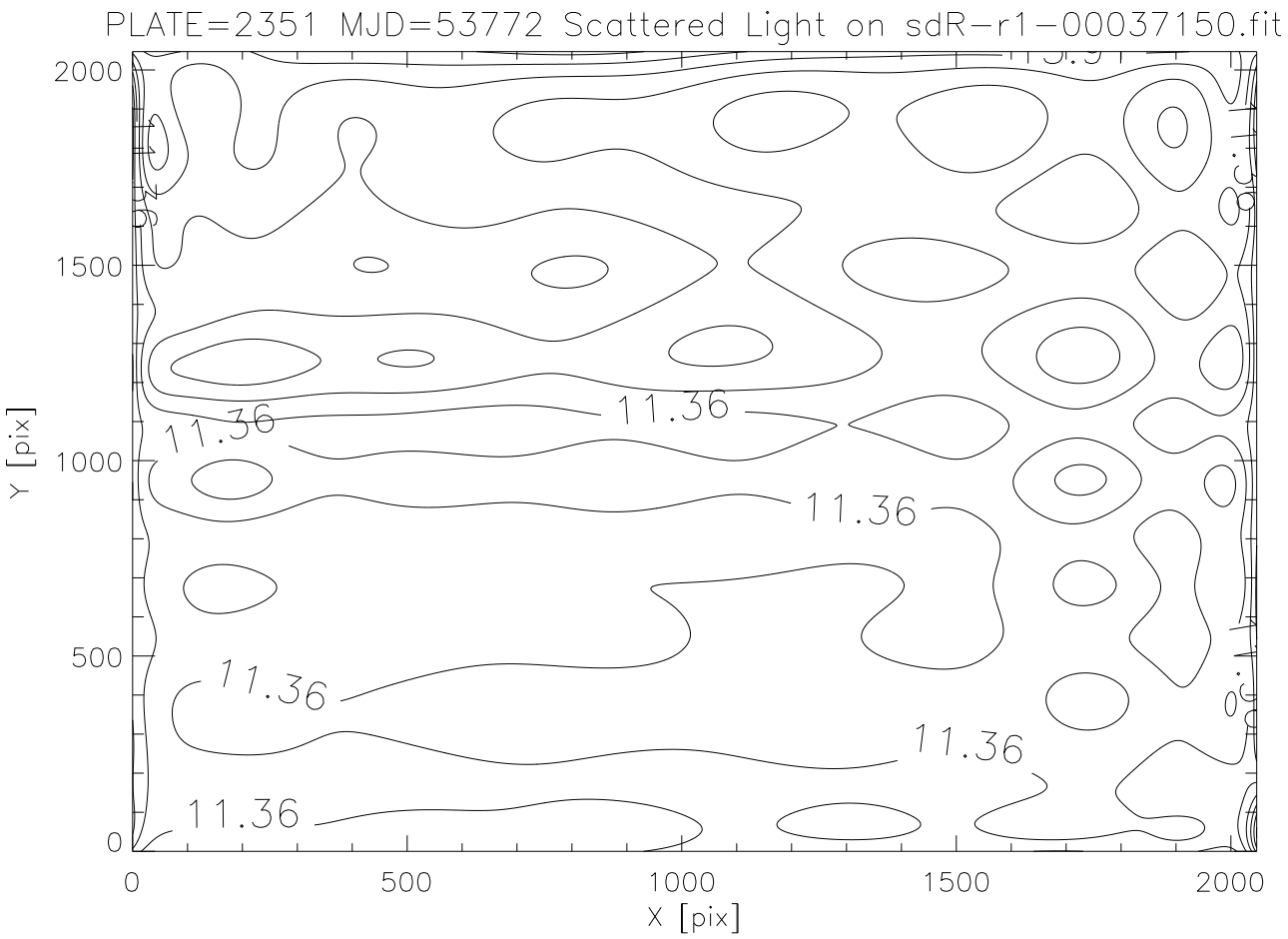

PLATE=2351 MJD=53772 sdR-r1-00037149.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 3.86 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

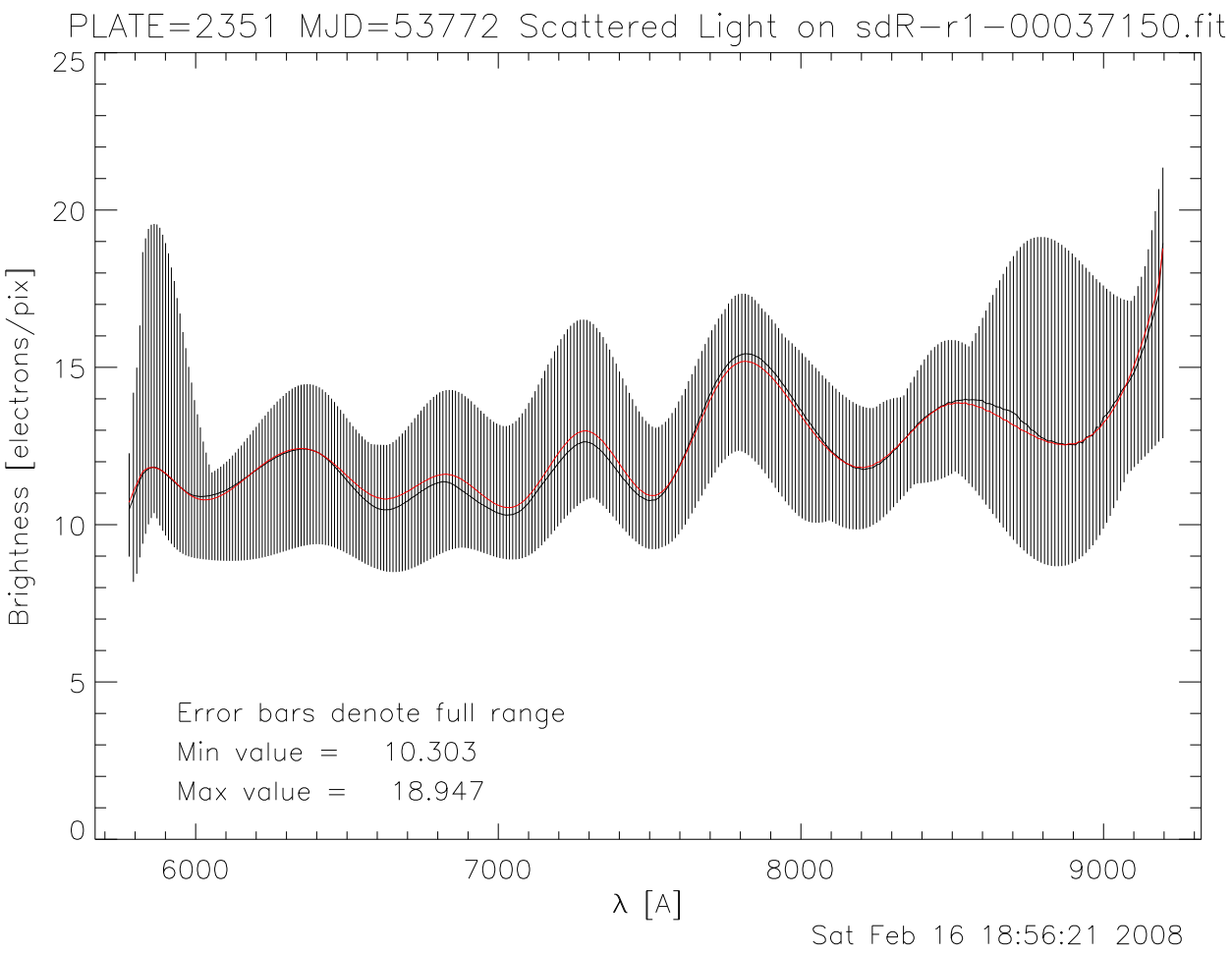

PLATE=2351 MJD=53772 sdR-r1-00037149.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 2.69 %
Fiber number
Focal Distance [mm]
Airmass

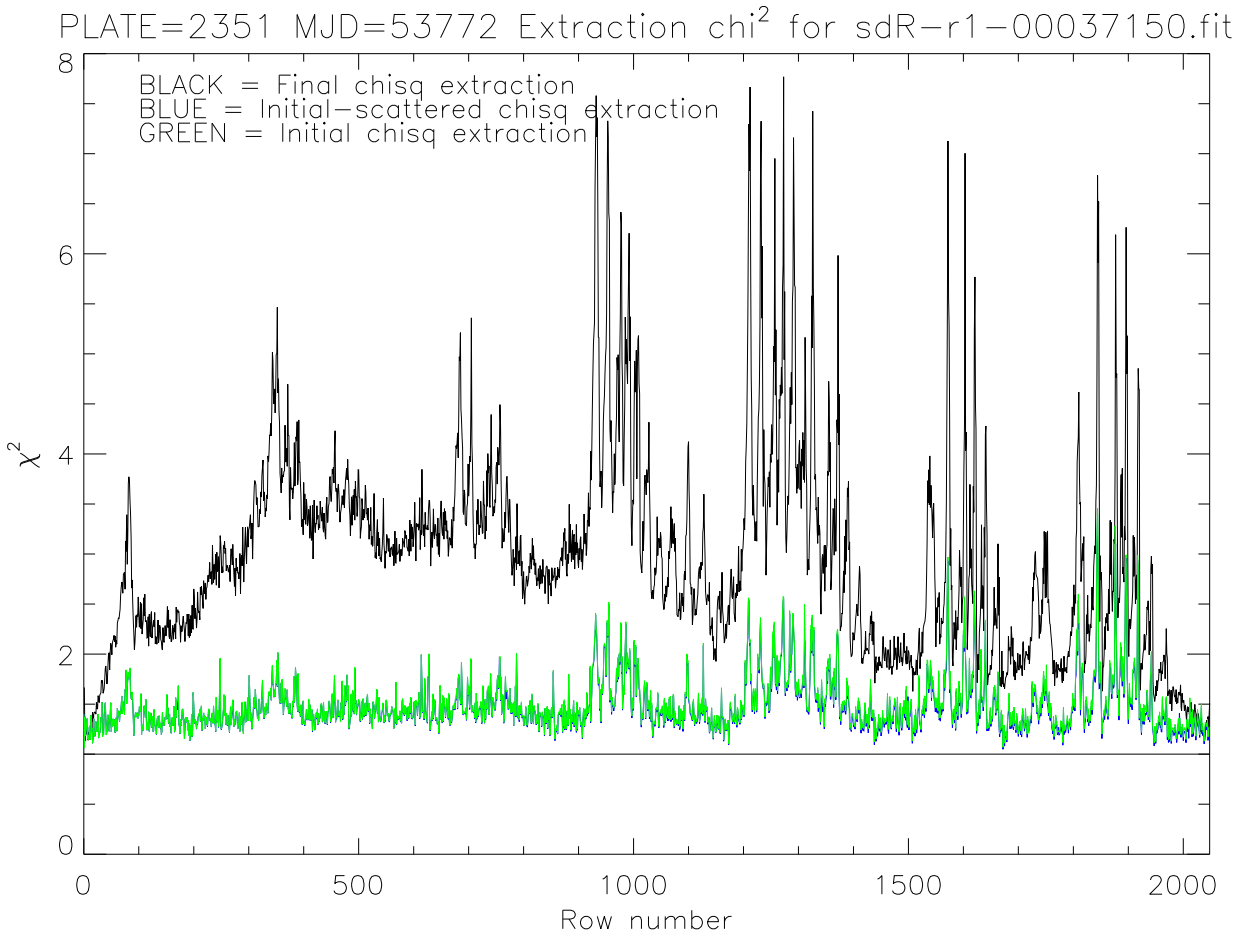

PLATE=2351 MJD=53772 Fiber−Flats for sdR−r1−00037155.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.428
Max value = 1.374
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sat Feb 16 18:52:00 2008

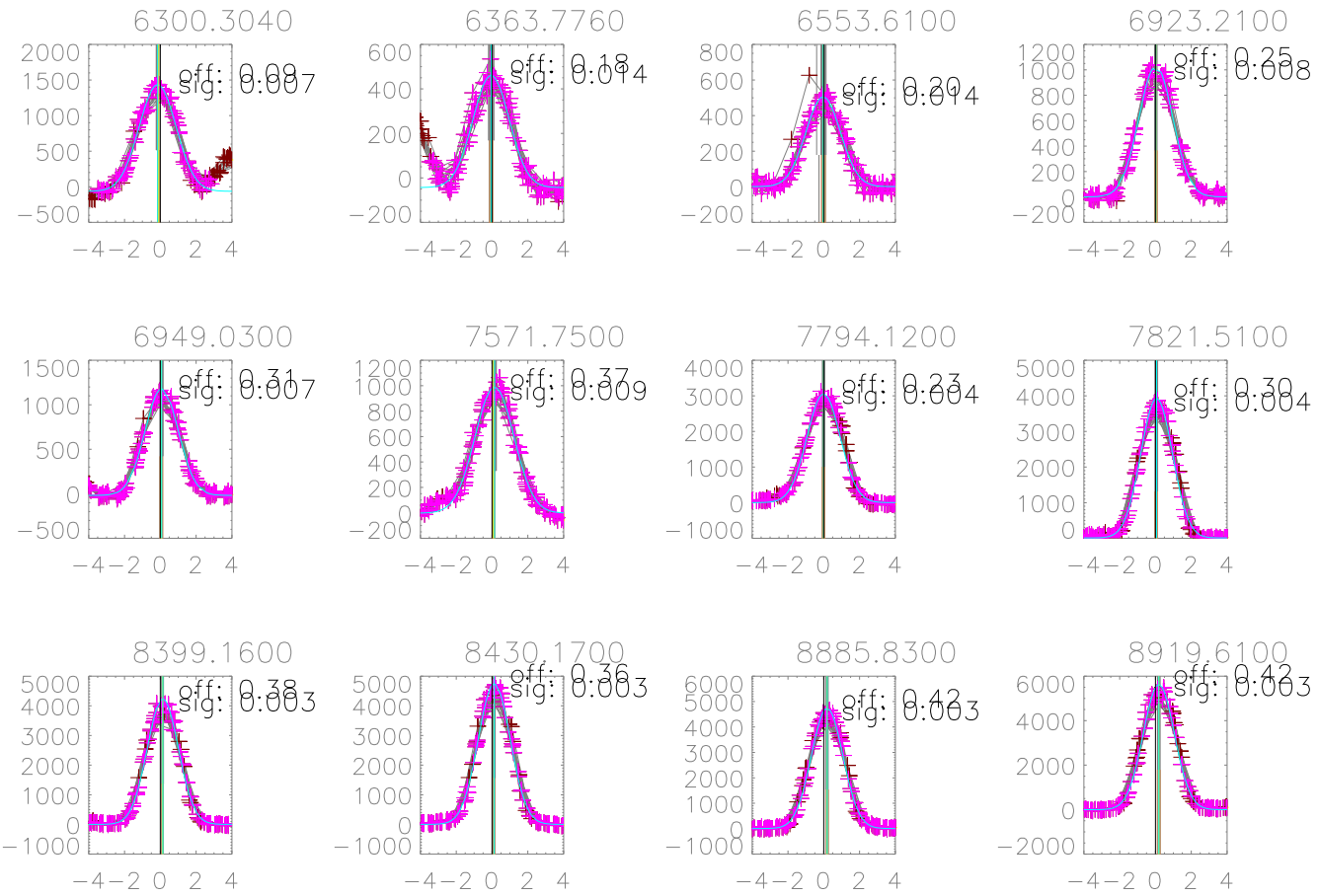

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR-r1-00037150.fi
50.9
50.9
36.4
36.4
36.4
21.8
21.8
21.8
Y [pix]
X [pix]
0
500
1000
1500
2000

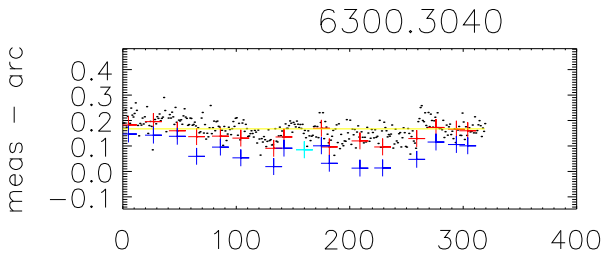

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR-r1-00037150.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 10.729
Max value = 58.799
Sat Feb 16 18:53:04 2008

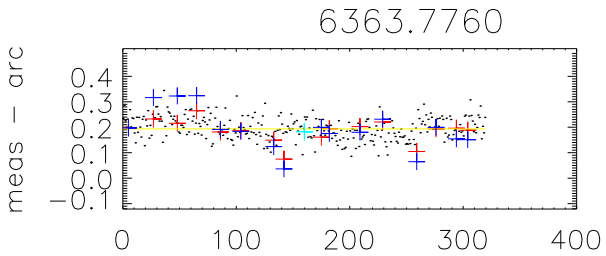

PLATE=2351 MJD=53772 Scattered Light on sdR−r1−00037150.fit
11.36
11.36
11.36
11.36
11.36
11.36
11.36
11.36
Y [pix]
X [pix]
0
500
1000
1500
2000

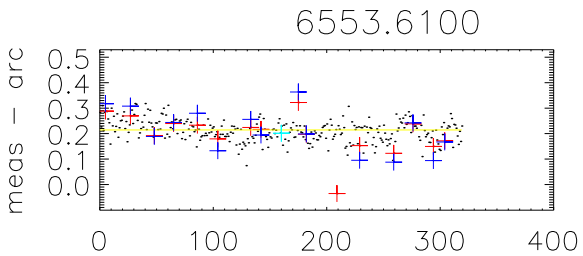

PLATE=2351 MJD=53772 Scattered Light on sdR-r1-00037150.fit
Brightness [electrons/pix]
25
20
15
10
5
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 10.303
Max value = 18.947
Sat Feb 16 18:56:21 2008

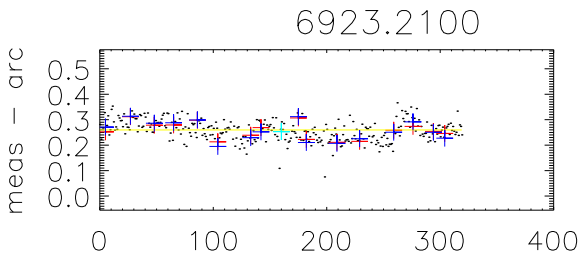

PLATE=2351 MJD=53772 Extraction chi^2 for sdR−r1−00037150.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
0
500
1000
1500
2000
Row number

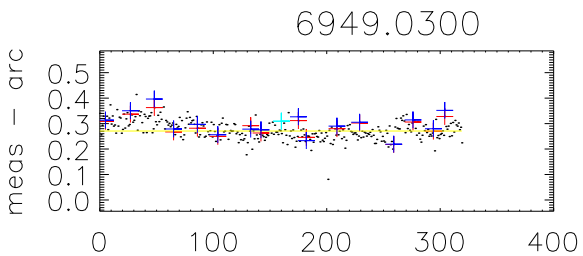

6300.3040
off: 0.08
sig: 0.007
6363.7760
off: 0.18
sig: 0.014
6553.6100
off: 0.20
sig: 0.014
6923.2100
off: 0.25
sig: 0.008
6949.0300
off: 0.31
sig: 0.007
7571.7500
off: 0.37
sig: 0.009
7794.1200
off: 0.23
sig: 0.004
7821.5100
off: 0.30
sig: 0.004
8399.1600
off: 0.38
sig: 0.003
8430.1700
off: 0.36
sig: 0.003
8885.8300
off: 0.42
sig: 0.003
8919.6100
off: 0.42
sig: 0.003

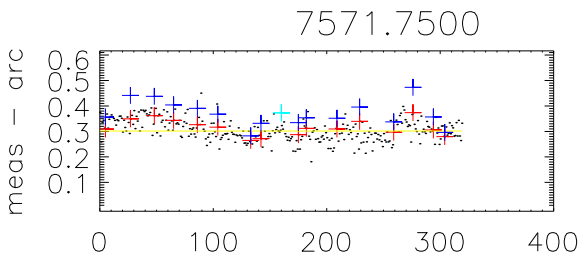

6300.3040
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

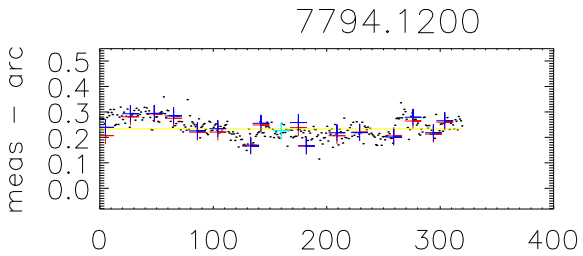

6363.7760
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

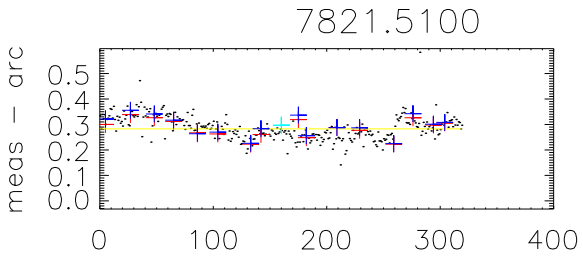

6553.6100
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

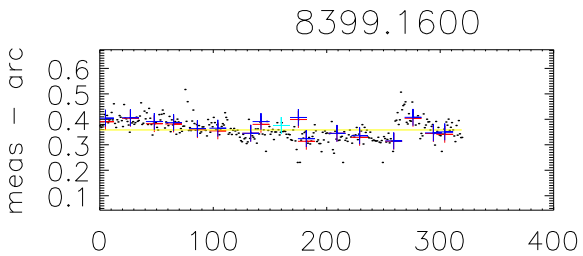

6923.2100
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

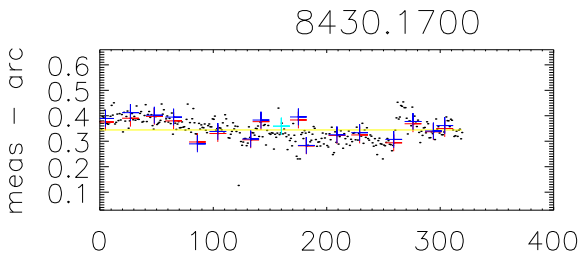

6949.0300
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

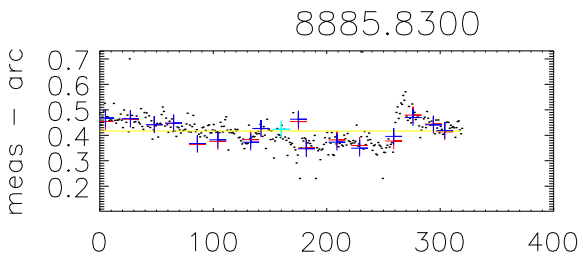

7571.7500
meas − arc
0.6
0.5
0.4
0.3
0.2
0.1
0
100
200
300
400

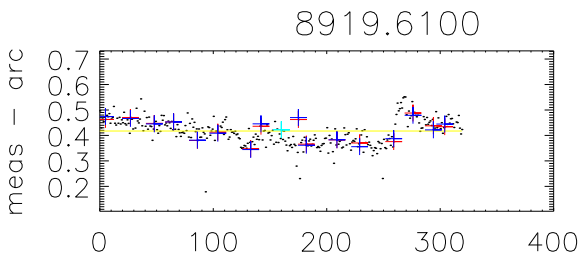

7794.1200
meas − arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400

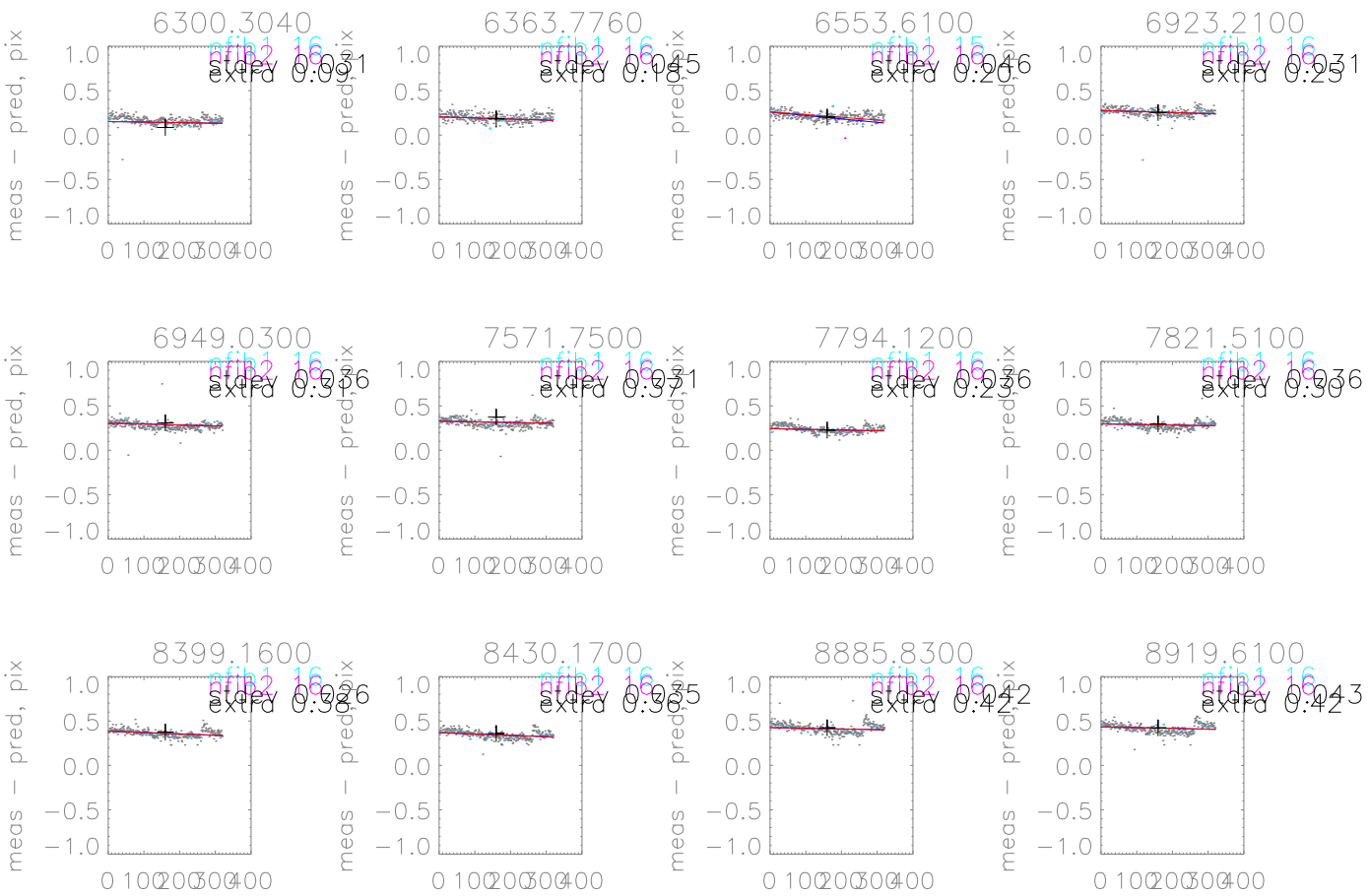

7821.5100
meas − arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400

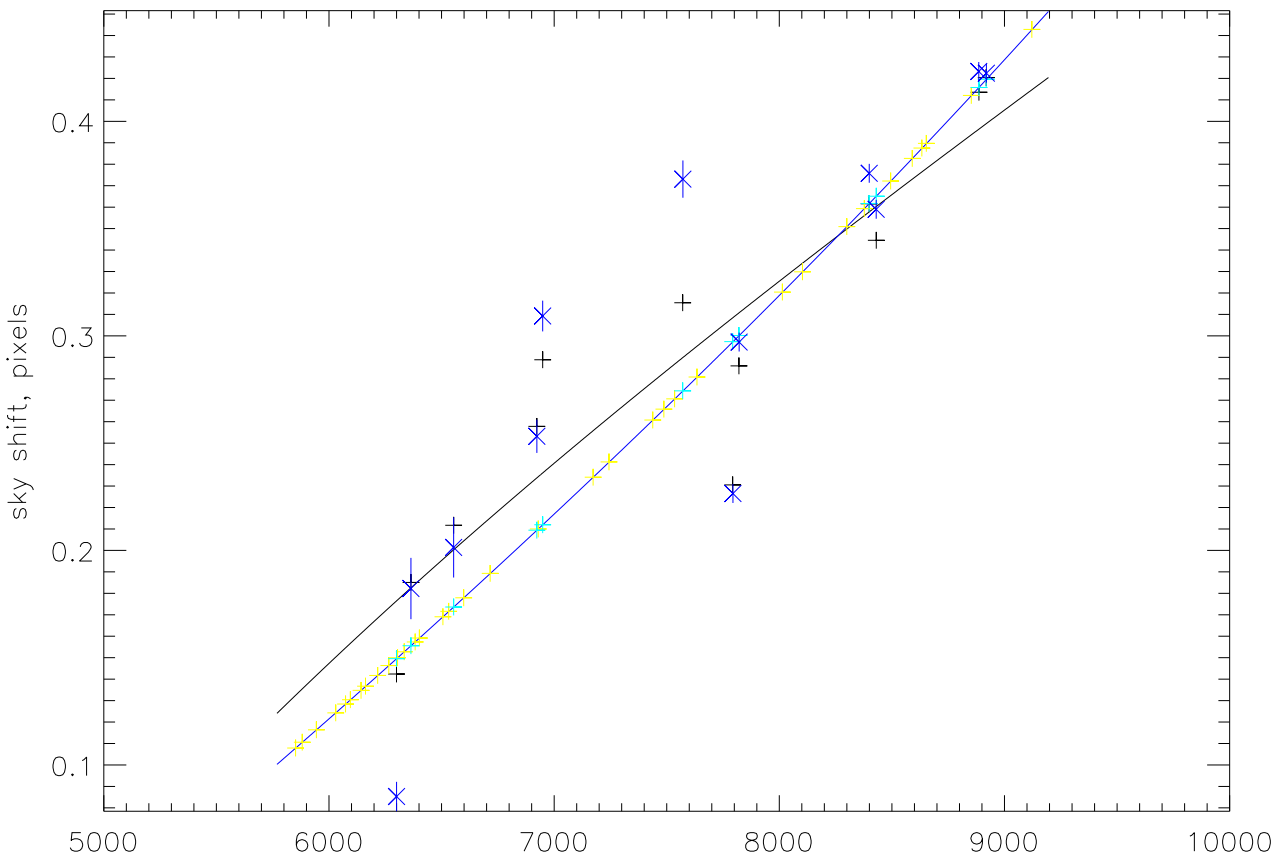

8399.1600
meas − arc
0.1
0.2
0.3
0.4
0.5
0.6
0
100
200
300
400

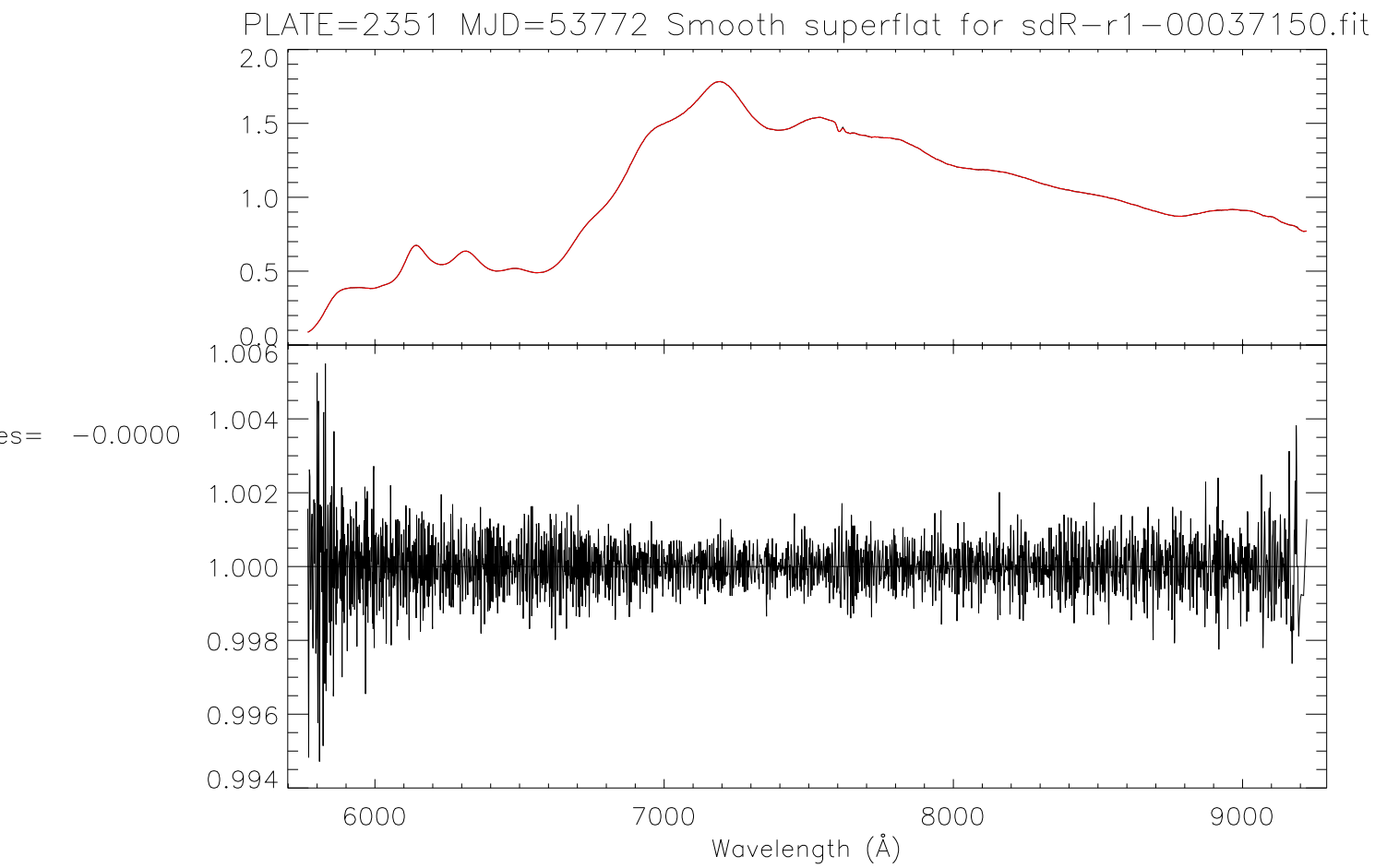

8430.1700
meas − arc
0.1
0.2
0.3
0.4
0.5
0.6
0
100
200
300
400

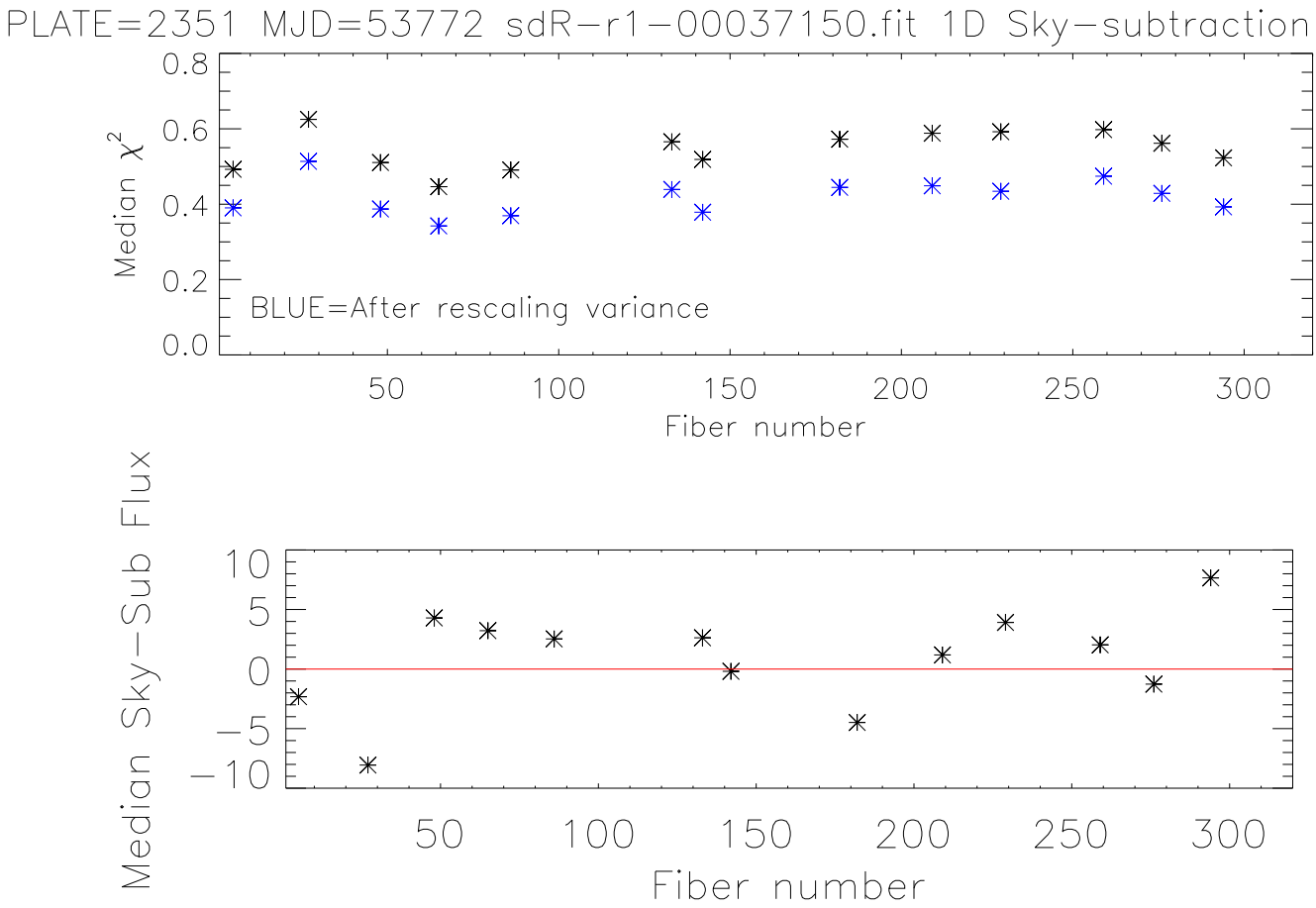

8885.8300
meas − arc
0.2
0.3
0.4
0.5
0.6
0.7
0
100
200
300
400

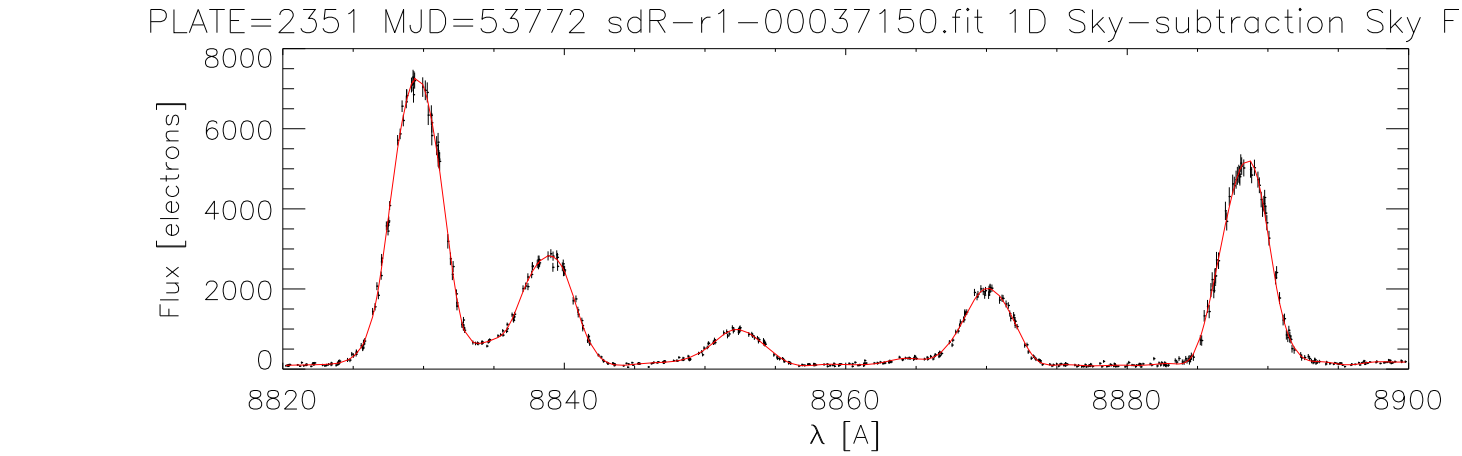

8919.6100
meas − arc
0.2
0.3
0.4
0.5
0.6
0.7
0
100
200
300
400

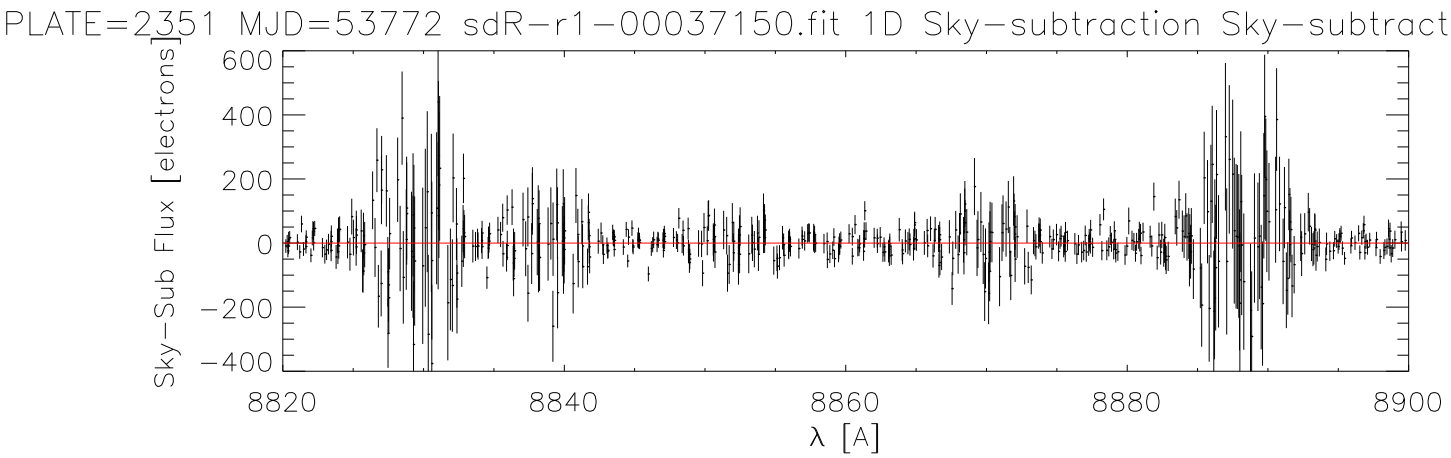

6300.3040
stdev 0.031
extra 0.09
6363.7760
stdev 0.045
extra 0.18
6553.6100
stdev 0.046
extra 0.20
6923.2100
stdev 0.031
extra 0.25
6949.0300
stdev 0.036
extra 0.31
7571.7500
stdev 0.031
extra 0.37
7794.1200
stdev 0.036
extra 0.23
7821.5100
stdev 0.036
extra 0.30
8399.1600
stdev 0.026
extra 0.38
8430.1700
stdev 0.035
extra 0.36
8885.8300
stdev 0.042
extra 0.42
8919.6100
stdev 0.043
extra 0.42
meas − pred, pix

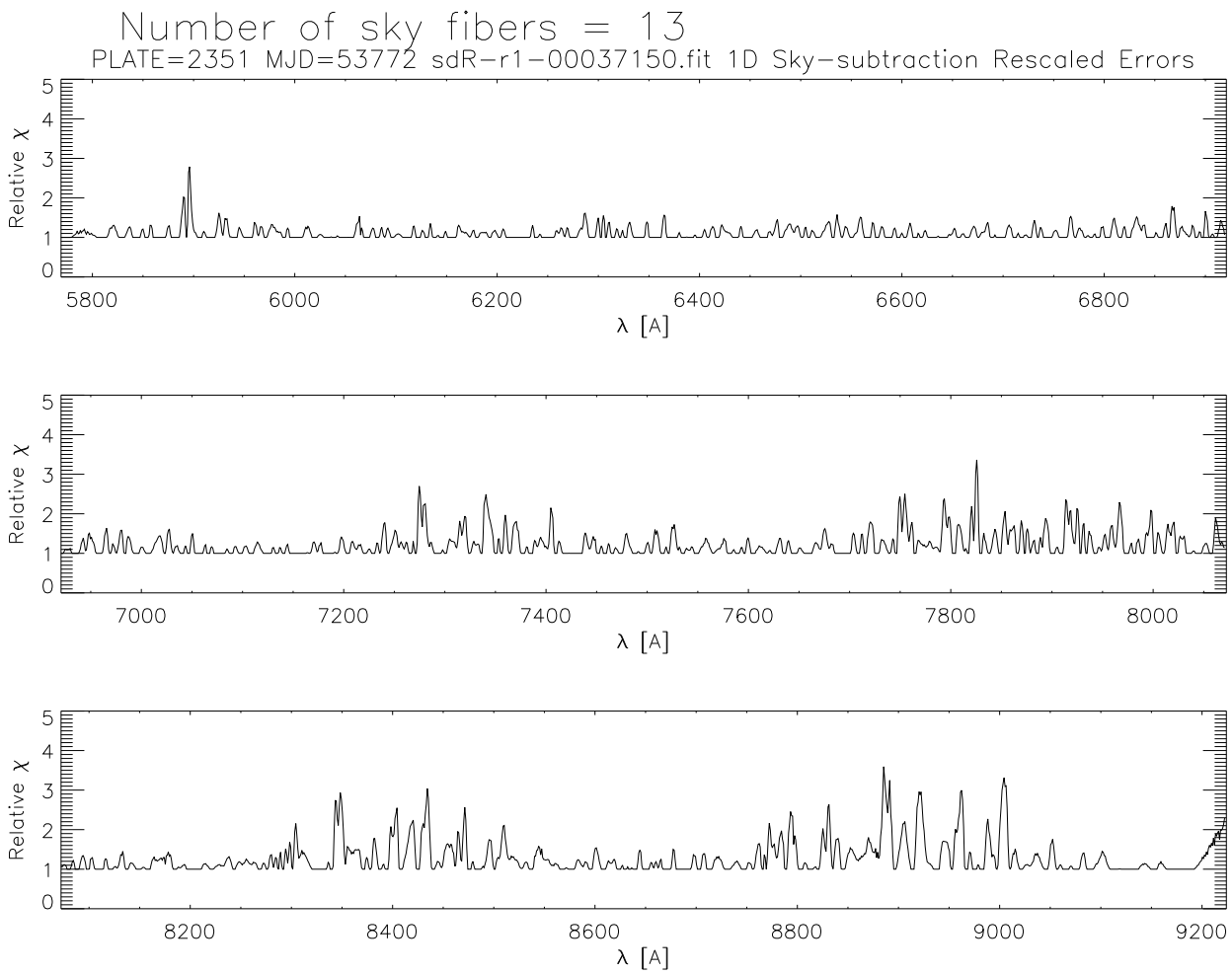

sky shift, pixels
0.1
0.2
0.3
0.4
5000
6000
7000
8000
9000
10000

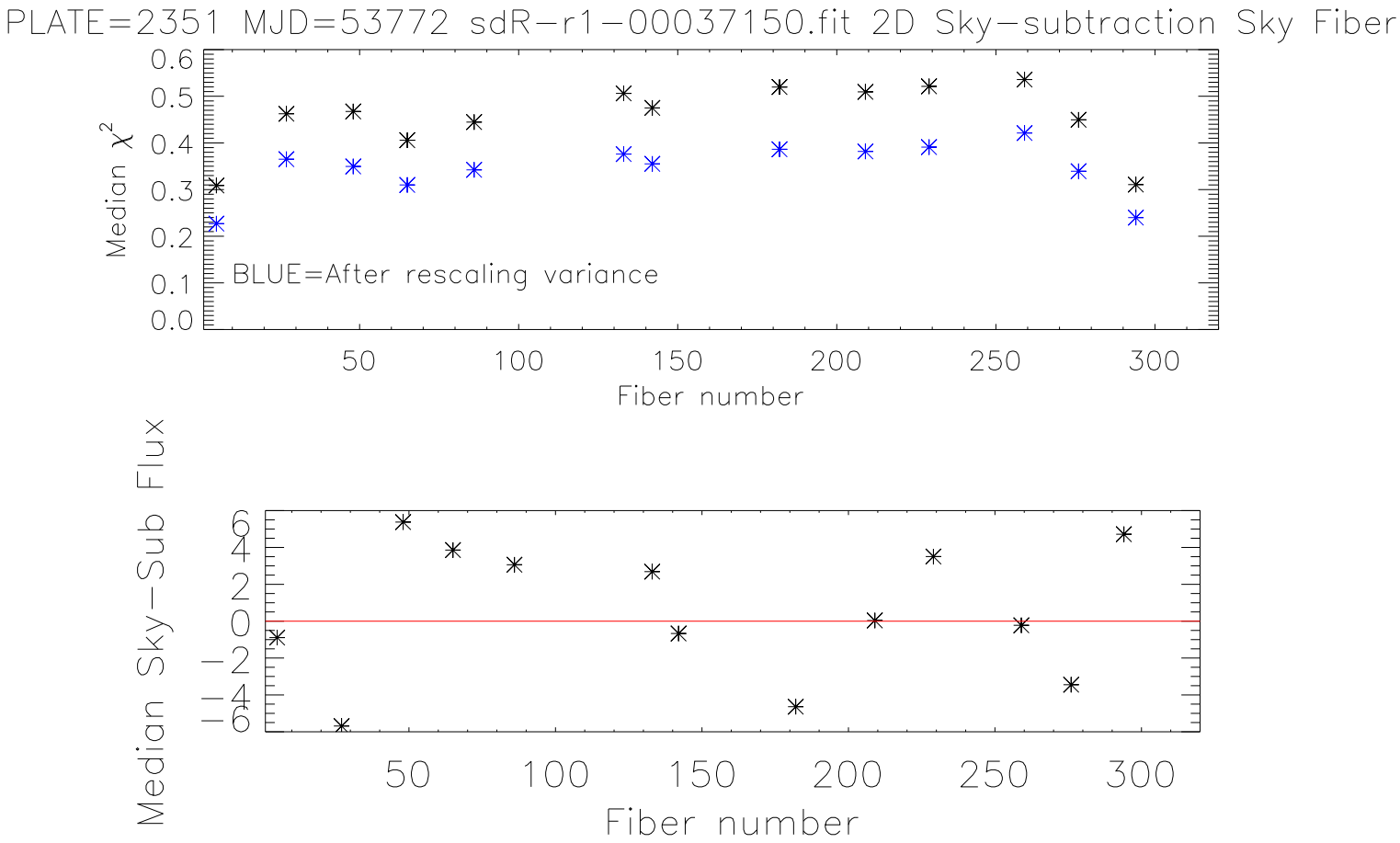

PLATE=2351 MJD=53772 Smooth superflat for sdR-r1-00037150.fit
2.0
1.5
1.0
0.5
0.0
1.006
1.004
1.002
1.000
0.998
0.996
0.994
es= −0.0000
6000
7000
8000
9000
Wavelength (Å)

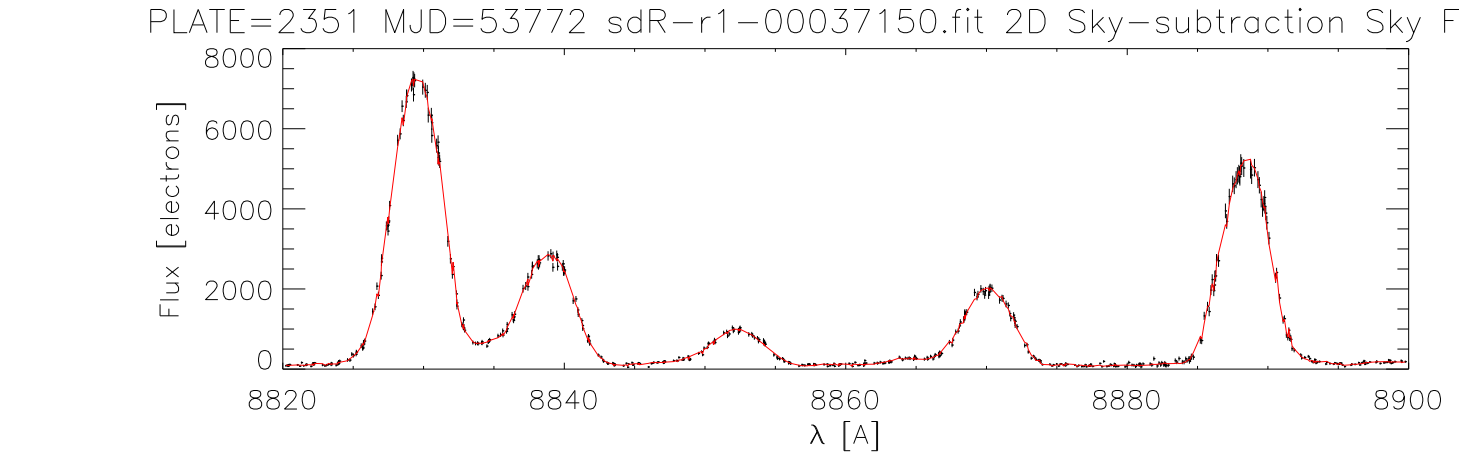

PLATE=2351 MJD=53772 sdR-r1-00037150.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
−5
−10
50
100
150
200
250
300
Fiber number

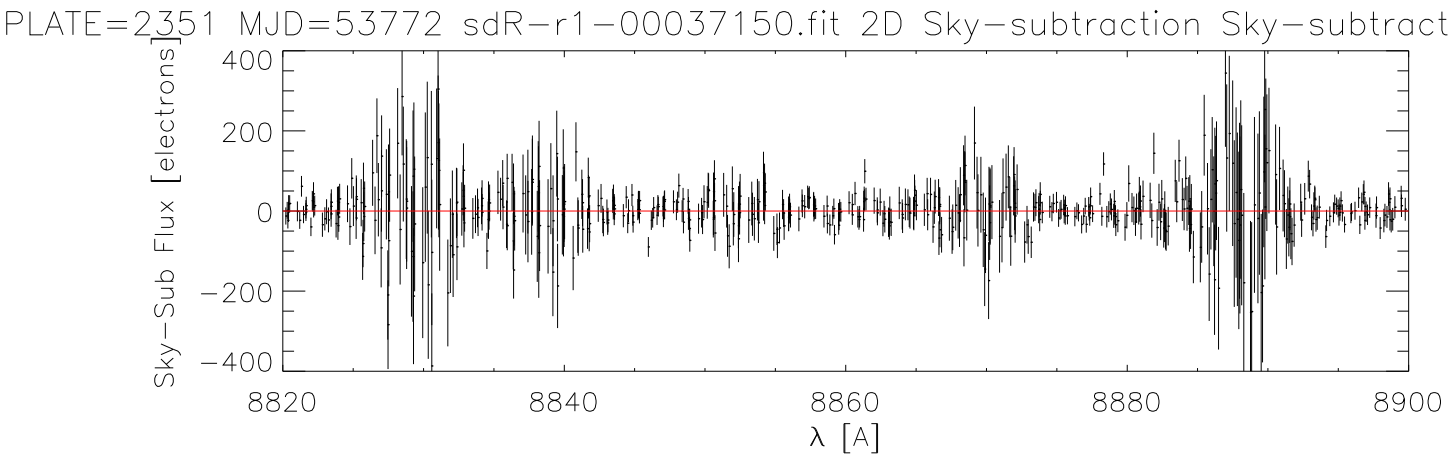

PLATE=2351 MJD=53772 sdR-r1-00037150.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
8820
8840
8860
8880
8900
λ [A]

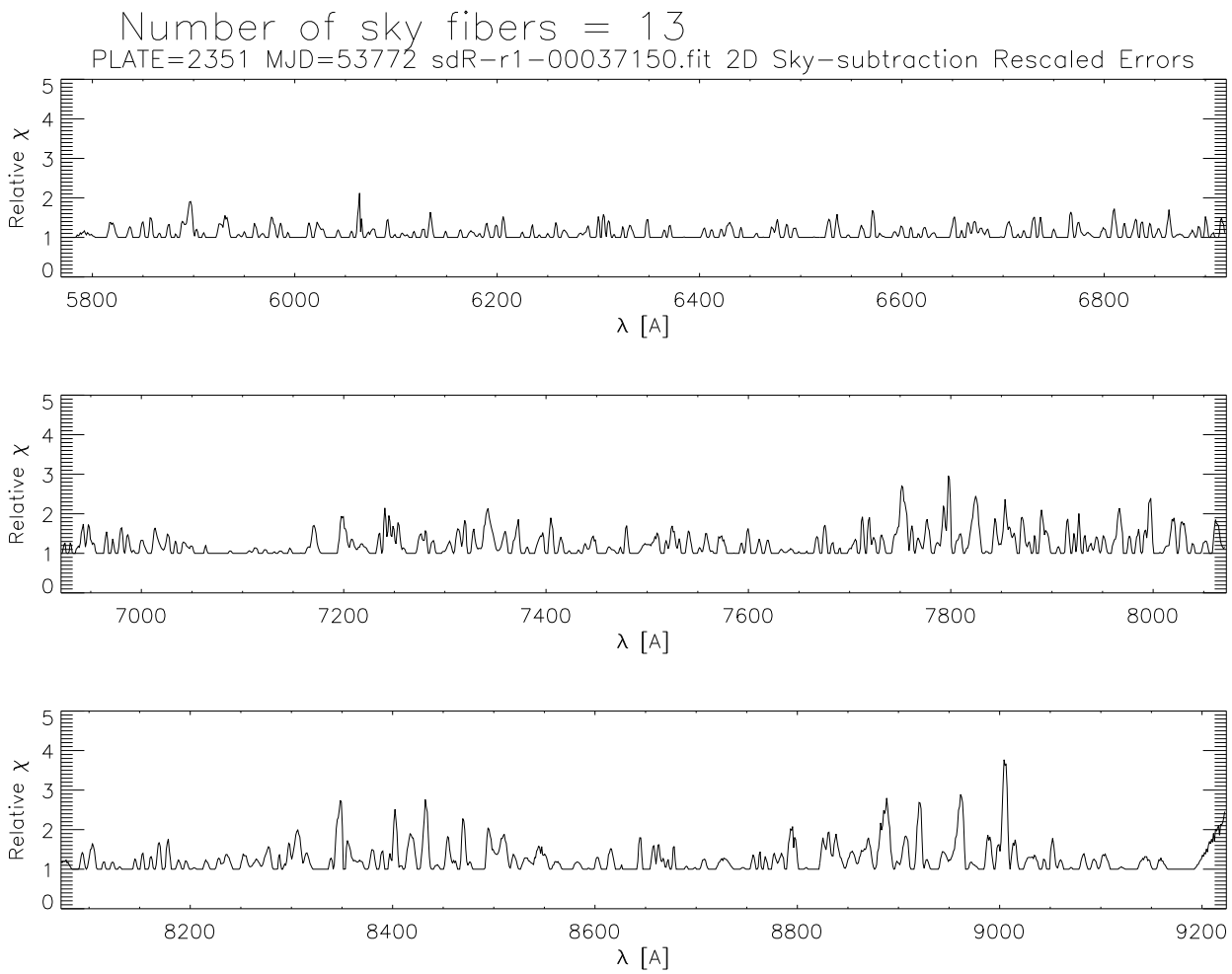

PLATE=2351 MJD=53772 sdR-r1-00037150.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
-200
-400
8820
8840
8860
8880
8900
λ [A]

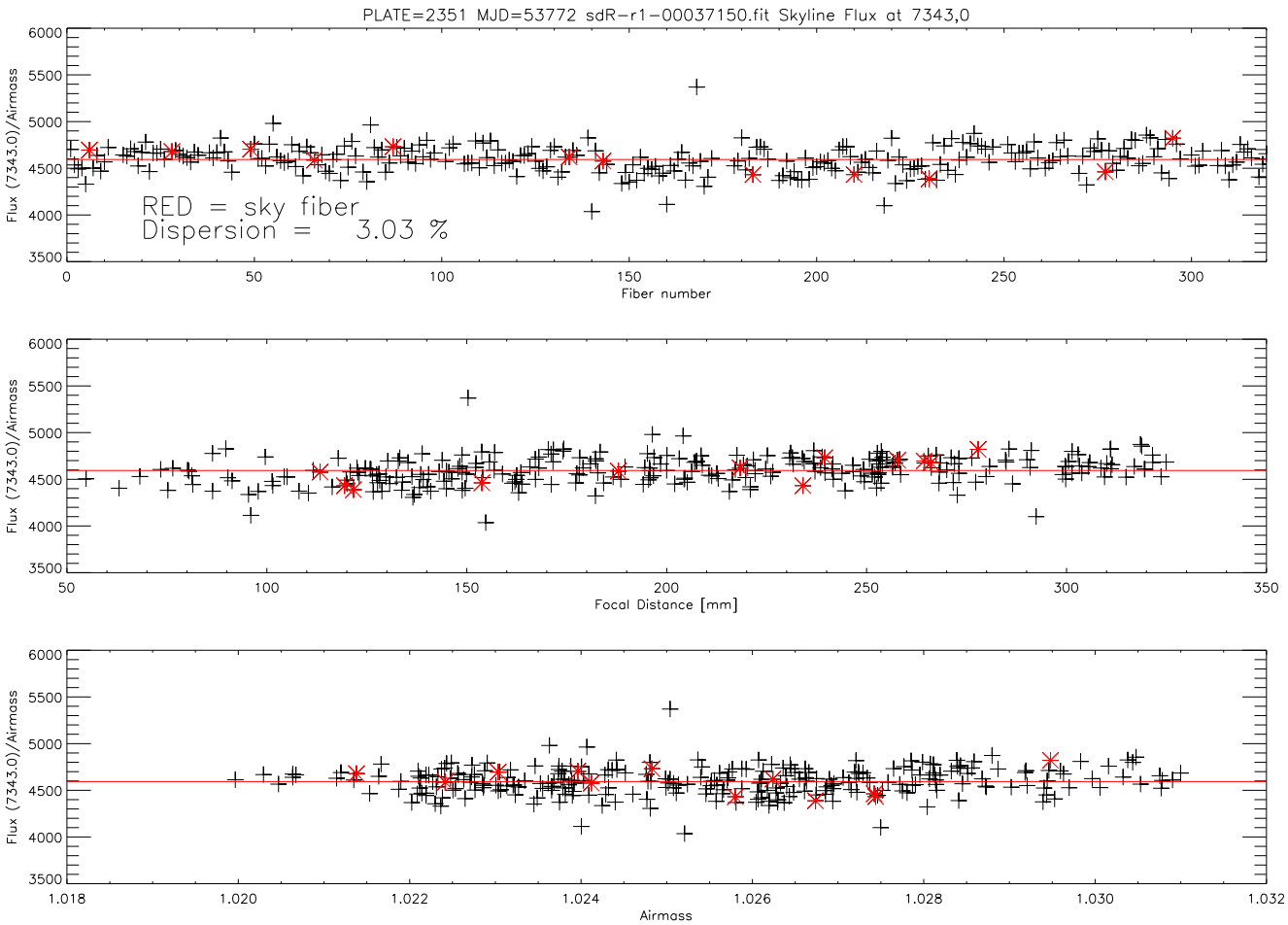

Number of sky fibers = 13
PLATE=2351 MJD=53772 sdR-r1-00037150.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

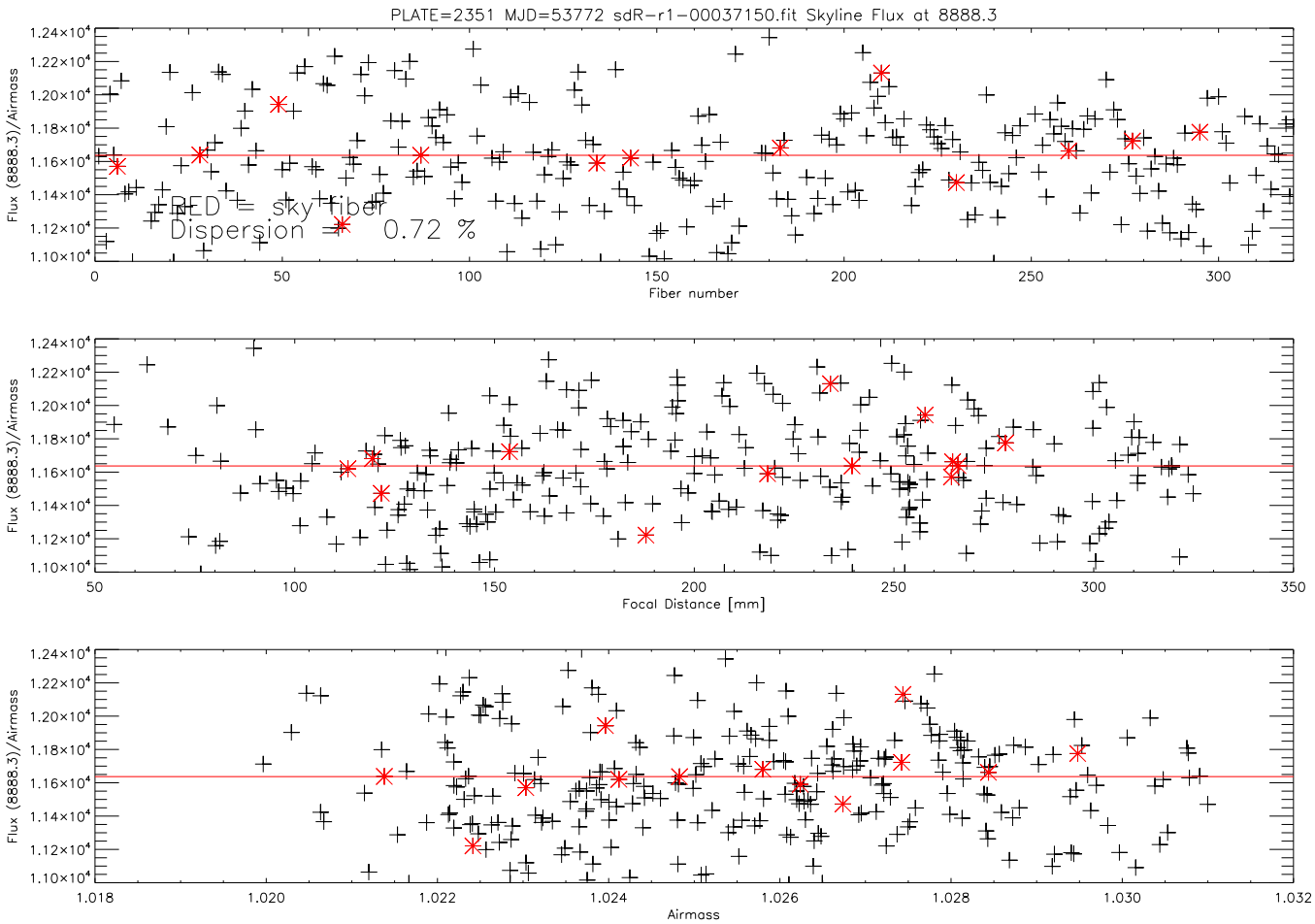

PLATE=2351 MJD=53772 sdR-r1-00037150.fit 2D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-6
-4
-2
0
2
4
6
50
100
150
200
250
300
Fiber number

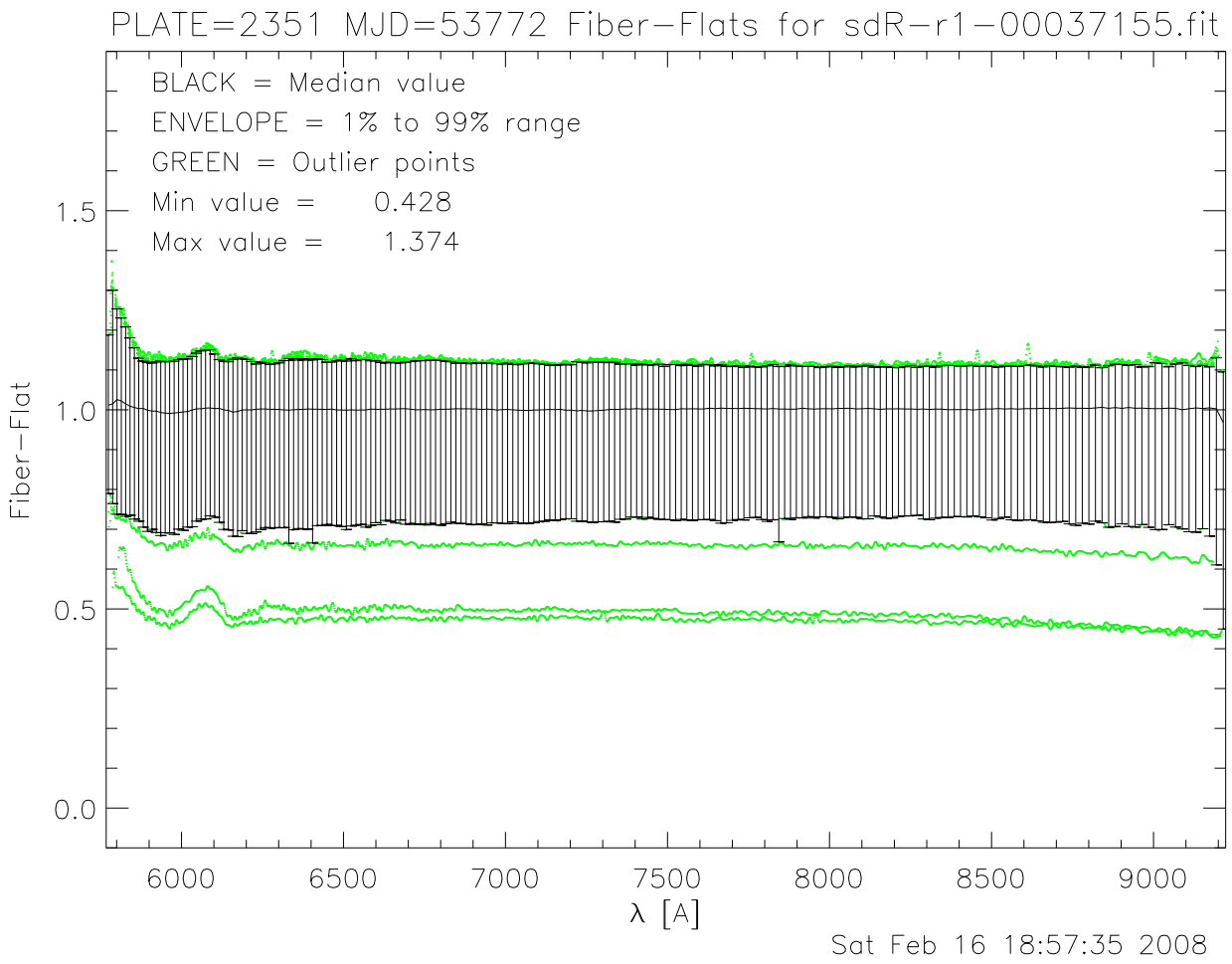

PLATE=2351 MJD=53772 sdR-r1-00037150.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
8820
8840
8860
8880
8900
λ [A]

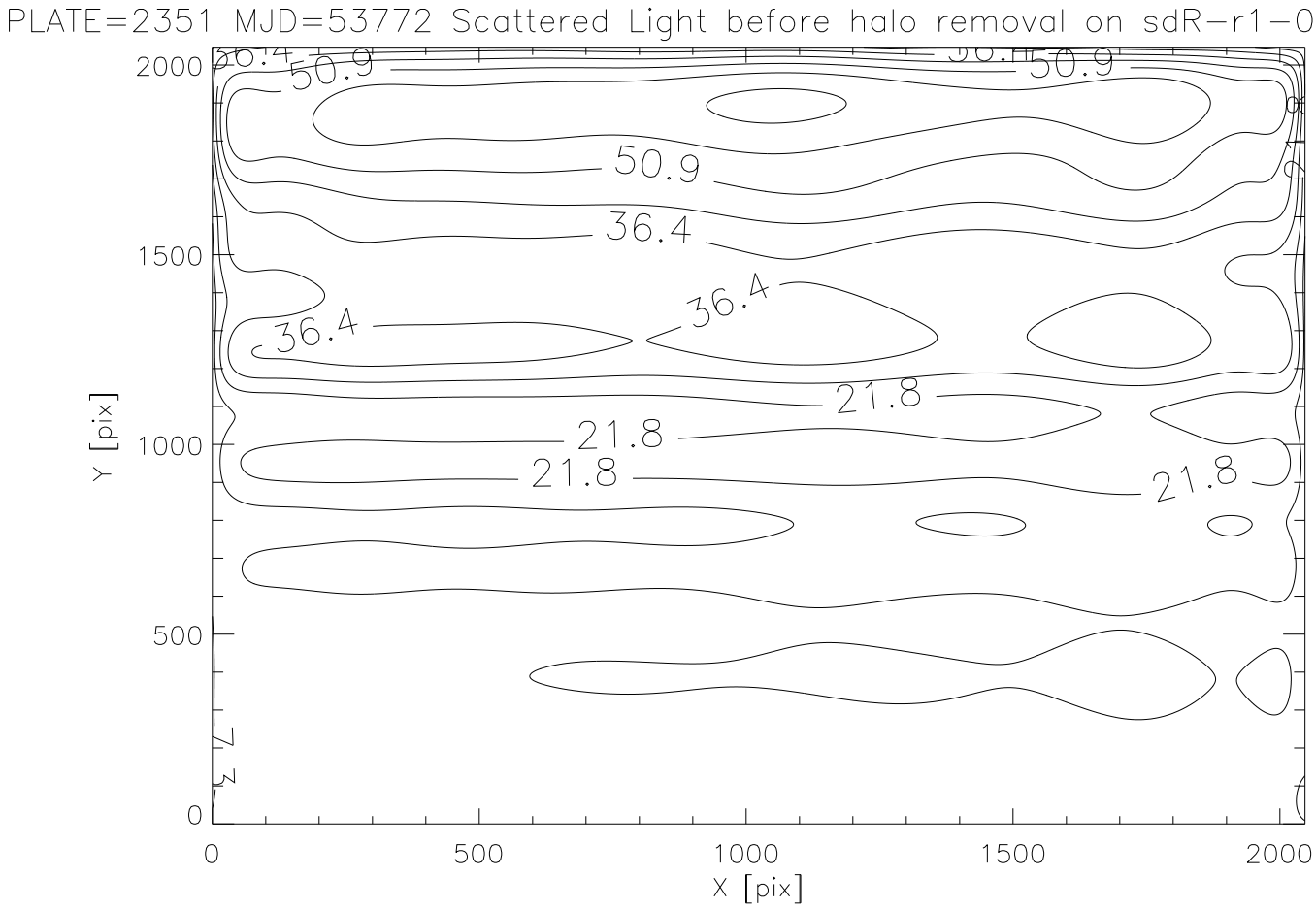

PLATE=2351 MJD=53772 sdR-r1-00037150.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
200
0
-200
-400
8820
8840
8860
8880
8900
λ [A]

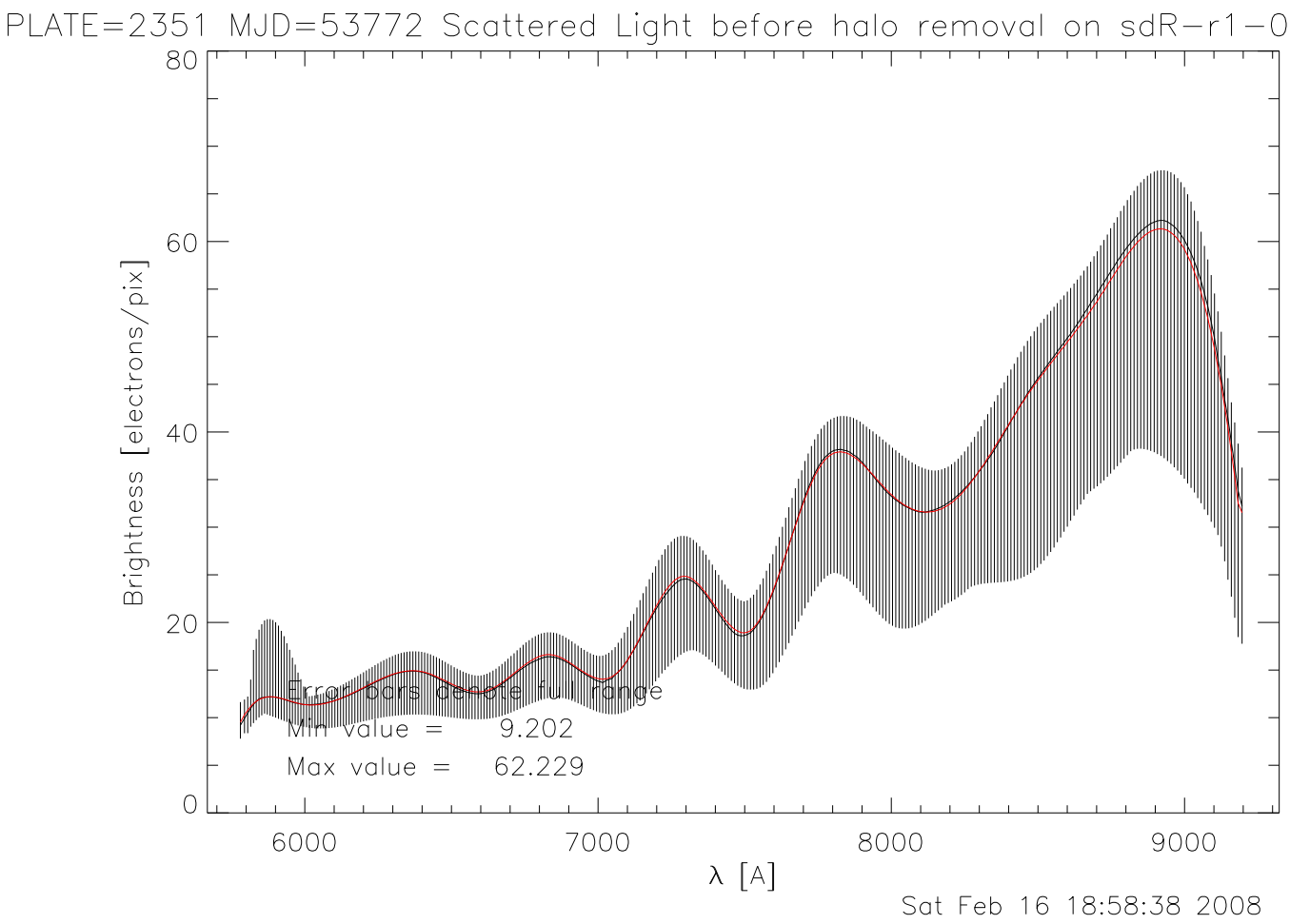

Number of sky fibers = 13
PLATE=2351 MJD=53772 sdR-r1-00037150.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

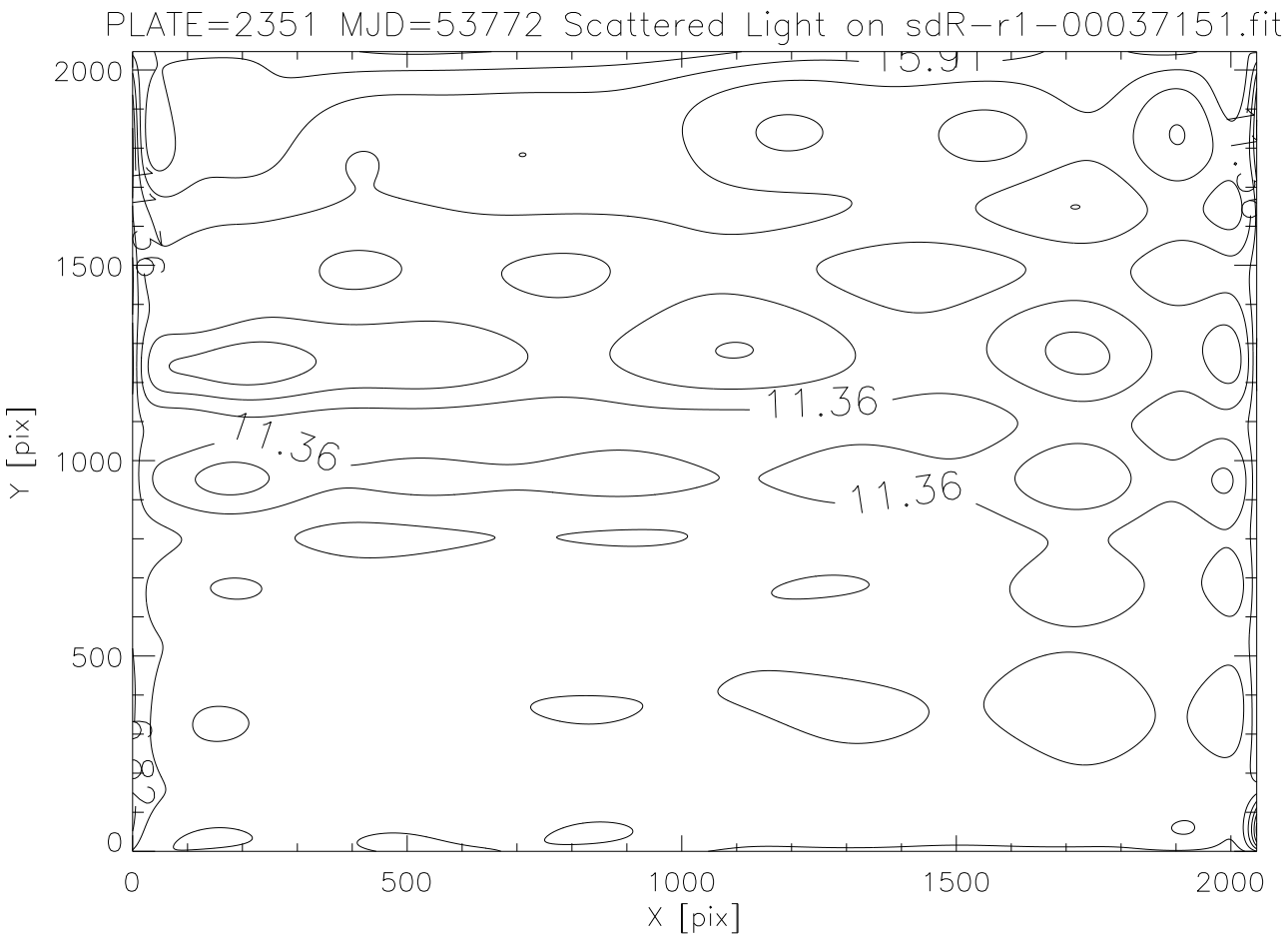

PLATE=2351 MJD=53772 sdR-r1-00037150.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 3.03 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

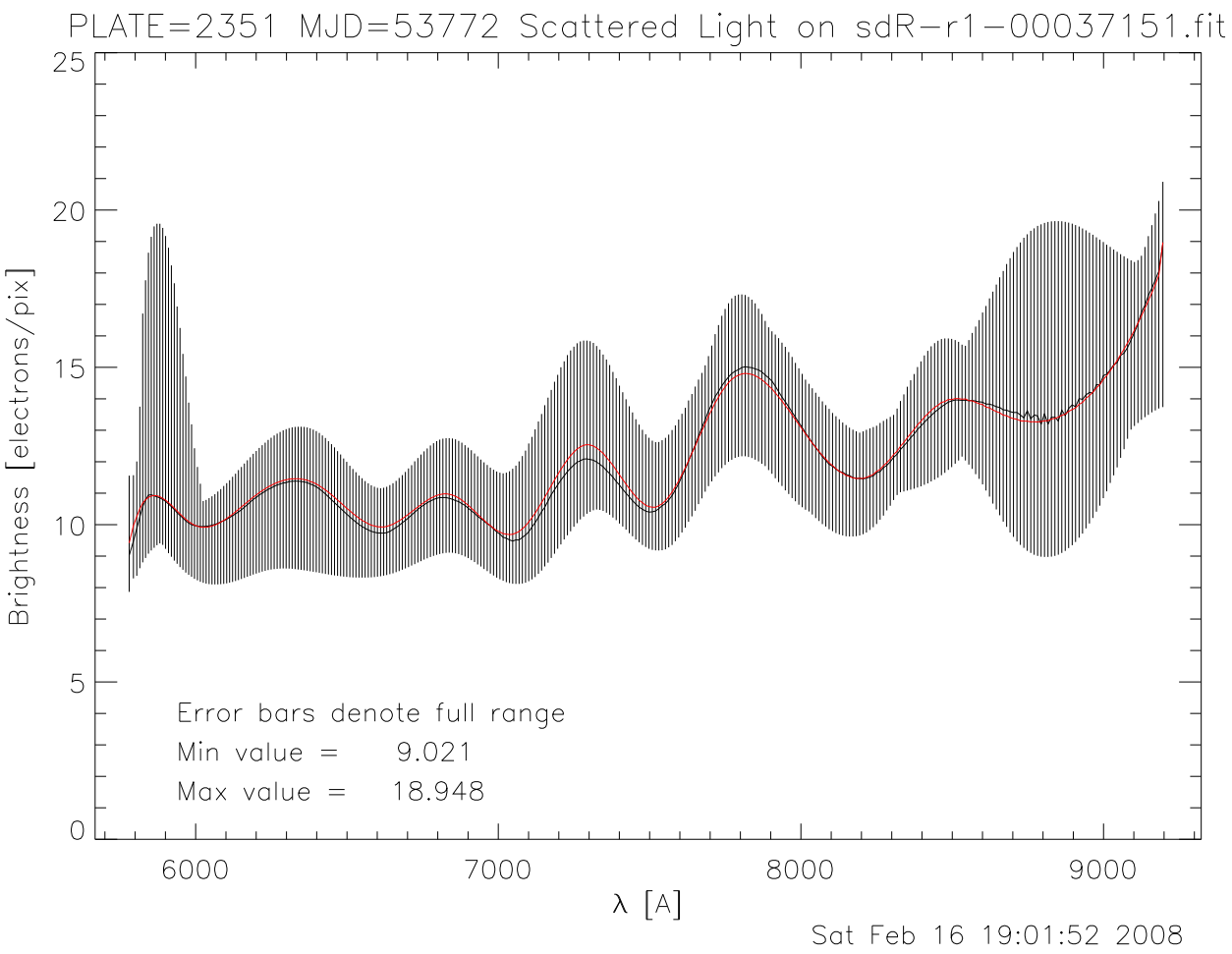

PLATE=2351 MJD=53772 sdR-r1-00037150.fit Skyline Flux at 8888.3
RED = sky fiber
Dispersion = 0.72 %
Flux (8888.3)/Airmass
Fiber number
Focal Distance [mm]
Airmass

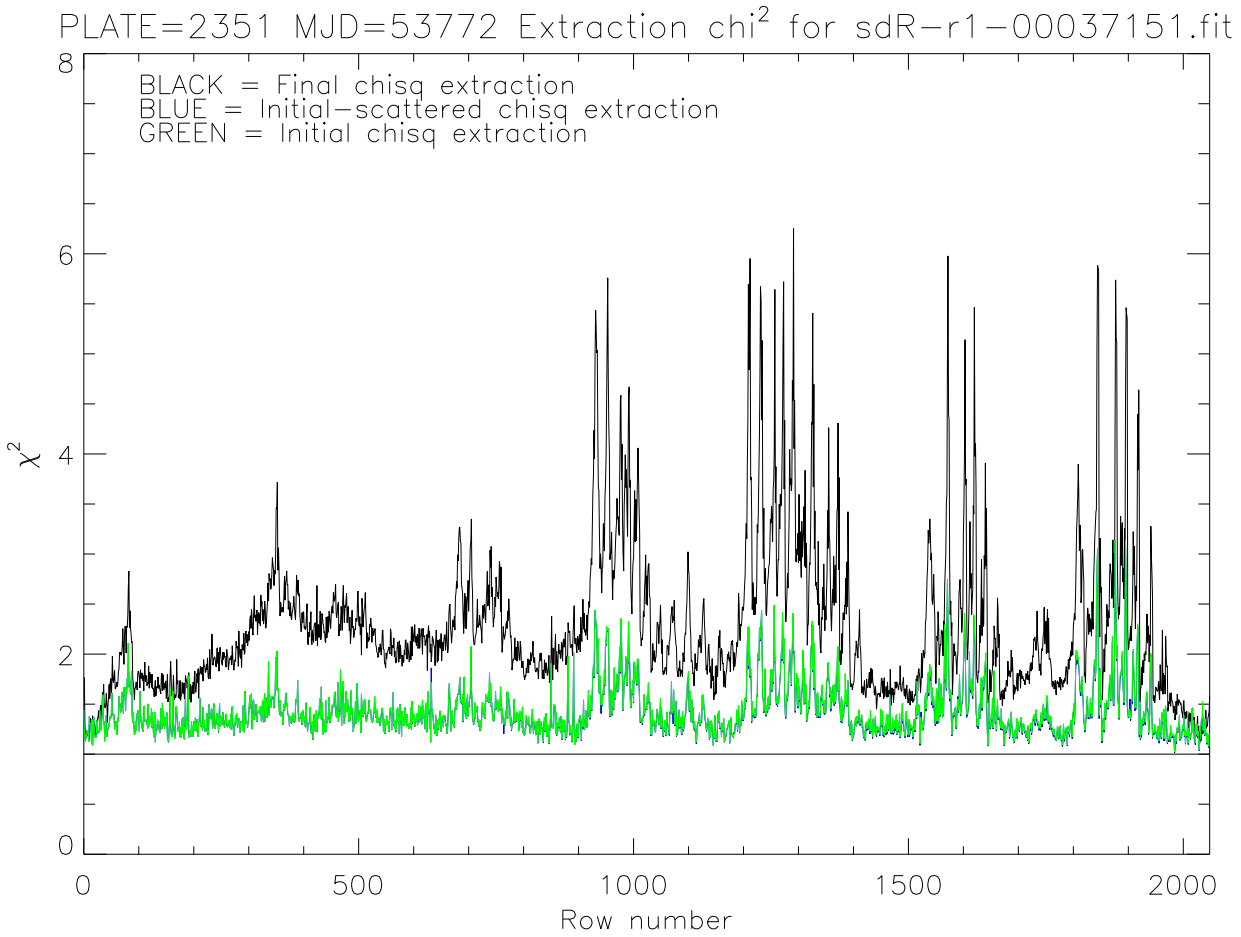

PLATE=2351 MJD=53772 Fiber−Flats for sdR−r1−00037155.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.428
Max value = 1.374
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sat Feb 16 18:57:35 2008

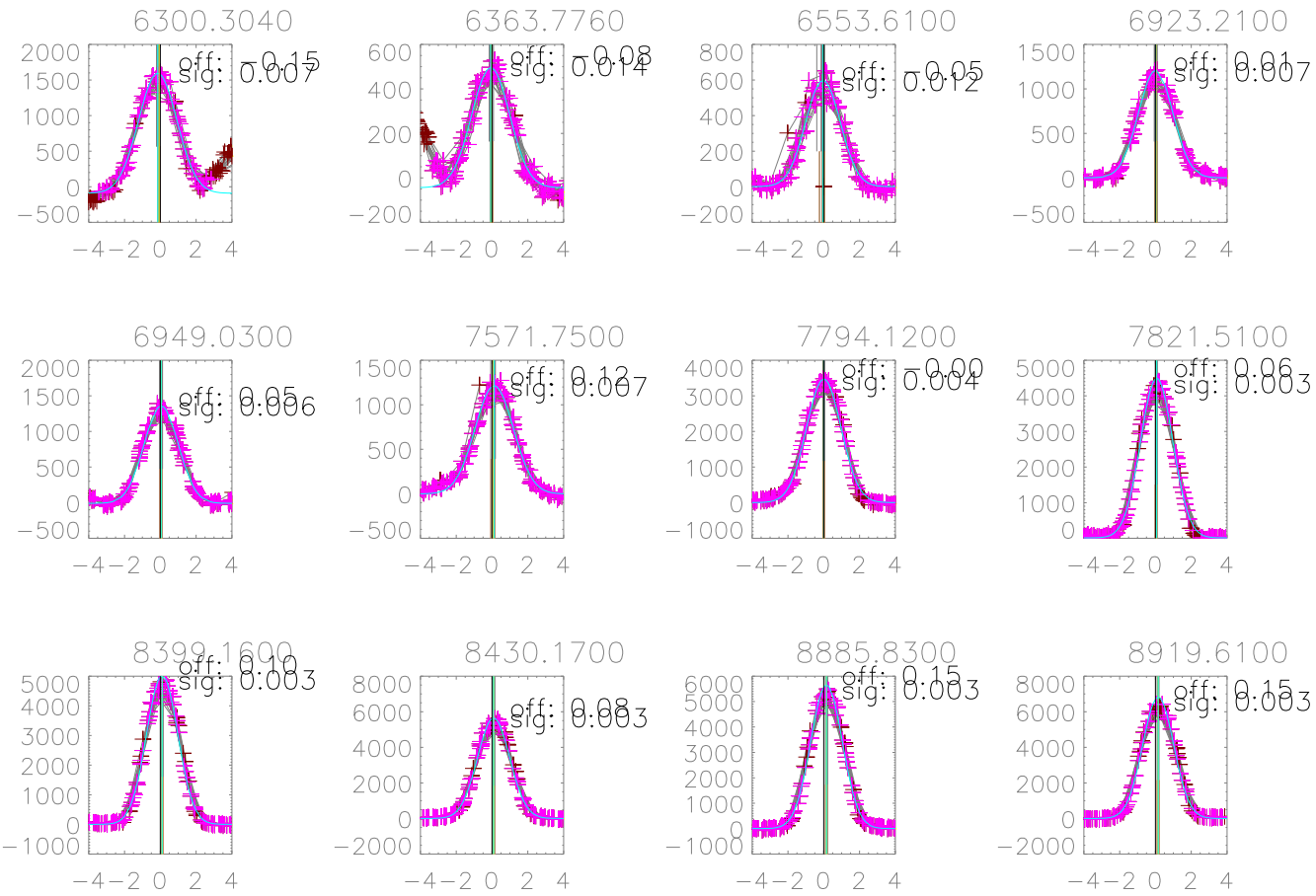

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR-r1-00037151.fi
50.9
50.9
50.9
36.4
36.4
36.4
21.8
21.8
21.8
21.8
Y [pix]
X [pix]
0
500
1000
1500
2000

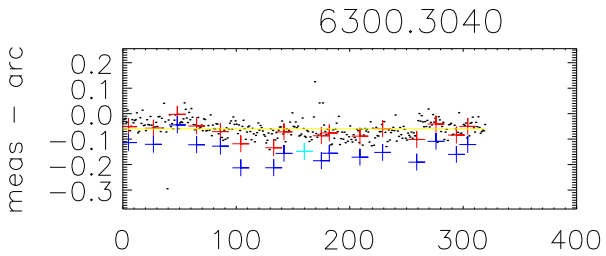

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR-r1-00037151.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 9.202
Max value = 62.229
Sat Feb 16 18:58:38 2008

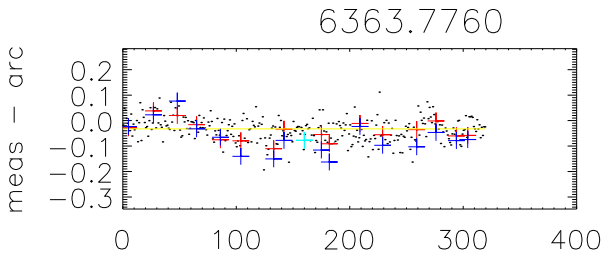

PLATE=2351 MJD=53772 Scattered Light on sdR−r1−00037151.fit
15.91
11.36
11.36
11.36

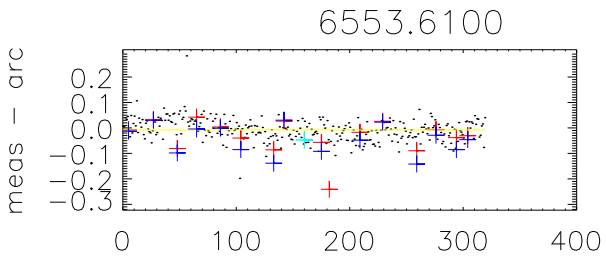

PLATE=2351 MJD=53772 Scattered Light on sdR-r1-00037151.fit
Brightness [electrons/pix]
25
20
15
10
5
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 9.021
Max value = 18.948
Sat Feb 16 19:01:52 2008

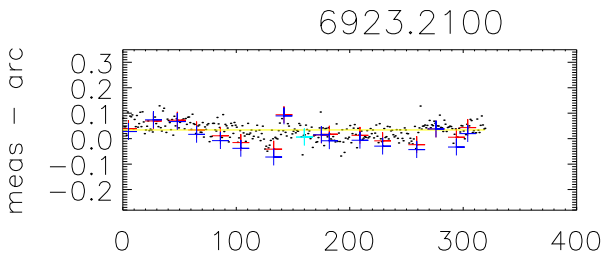

PLATE=2351 MJD=53772 Extraction chi^2 for sdR−r1−00037151.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
0
500
1000
1500
2000
Row number

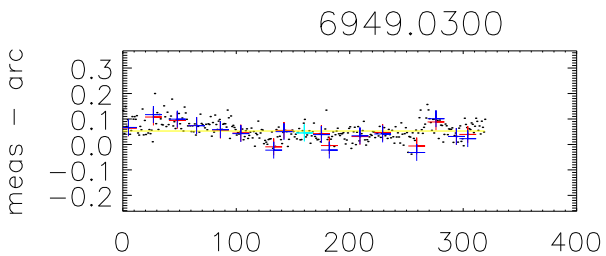

6300.3040
off: −0.15
sig: 0.007
6363.7760
off: −0.08
sig: 0.014
6553.6100
off: −0.05
sig: 0.012
6923.2100
off: 0.01
sig: 0.007
6949.0300
off: 0.05
sig: 0.006
7571.7500
off: 0.12
sig: 0.007
7794.1200
off: −0.00
sig: 0.004
7821.5100
off: 0.06
sig: 0.003
8399.1600
off: 0.10
sig: 0.003
8430.1700
off: 0.08
sig: 0.003
8885.8300
off: 0.15
sig: 0.003
8919.6100
off: 0.15
sig: 0.003

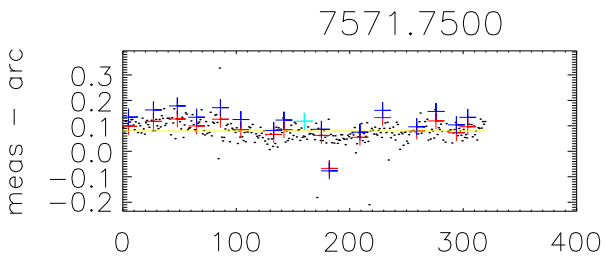

6300.3040
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

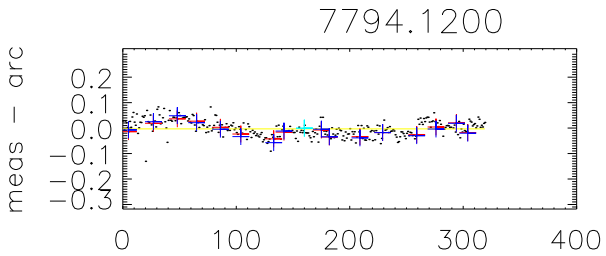

6363.7760
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

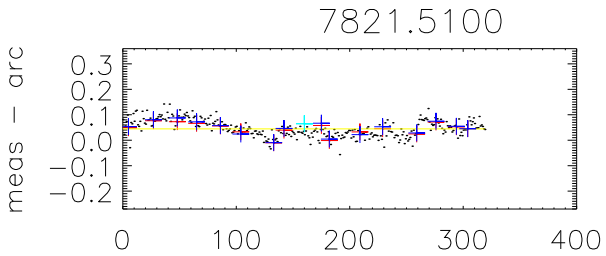

6553.6100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

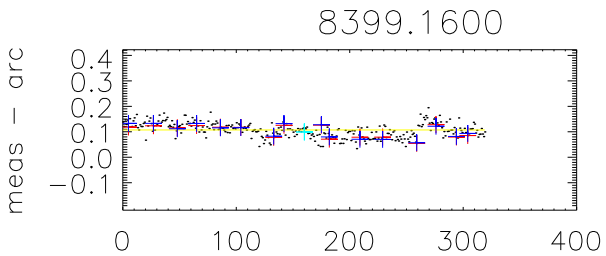

6923.2100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

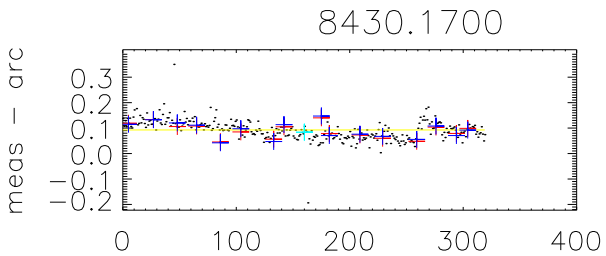

6949.0300
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

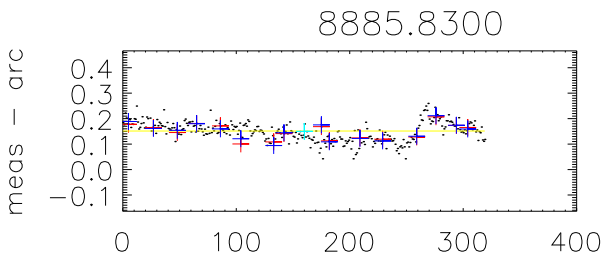

7571.7500
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

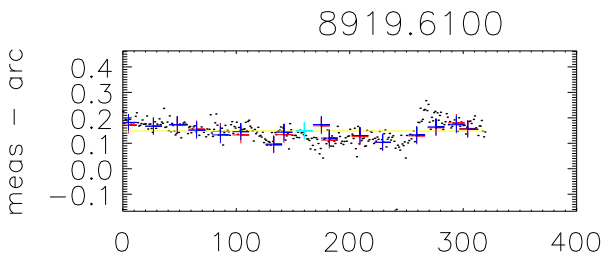

7794.1200
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

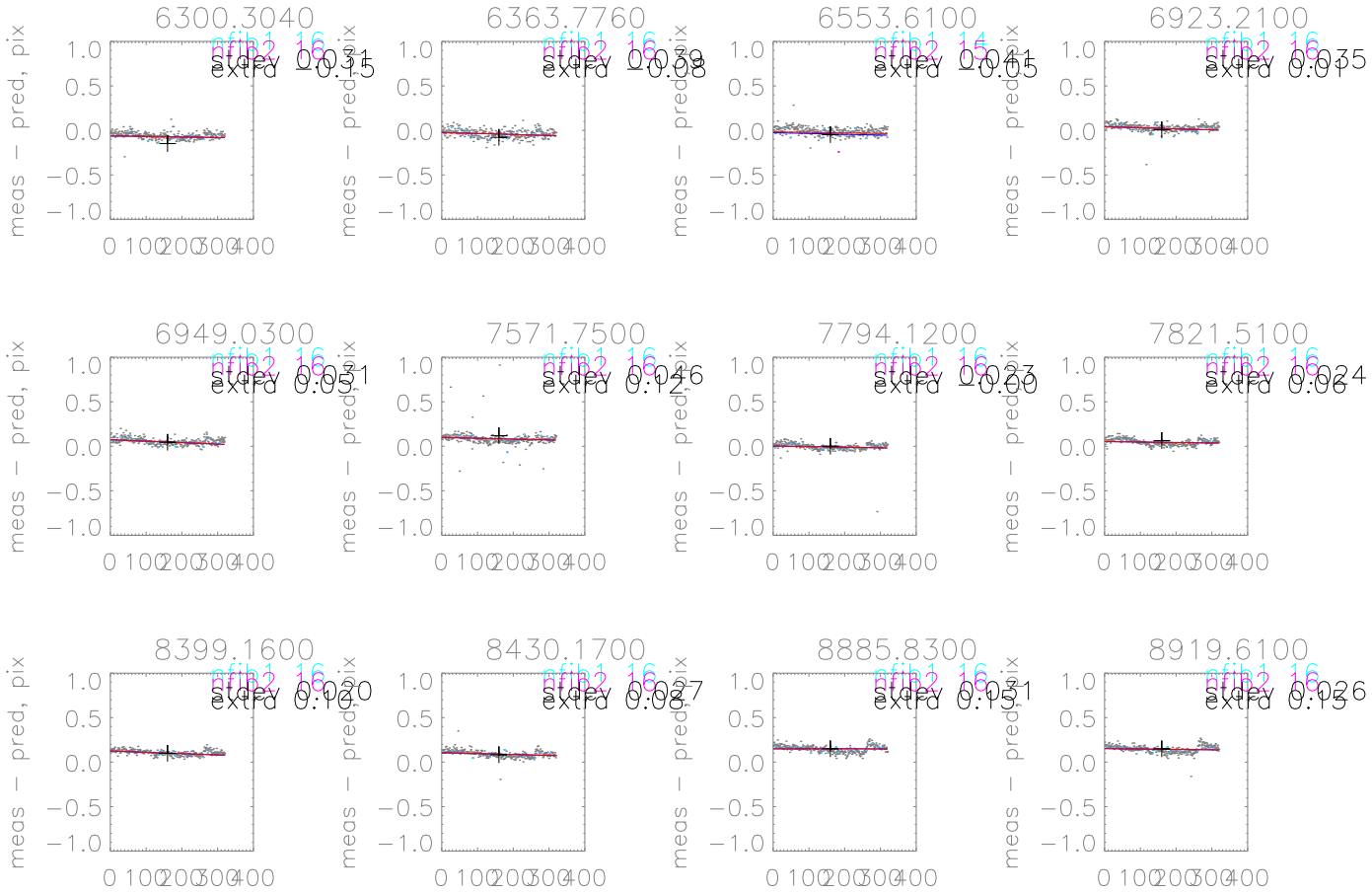

7821.5100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

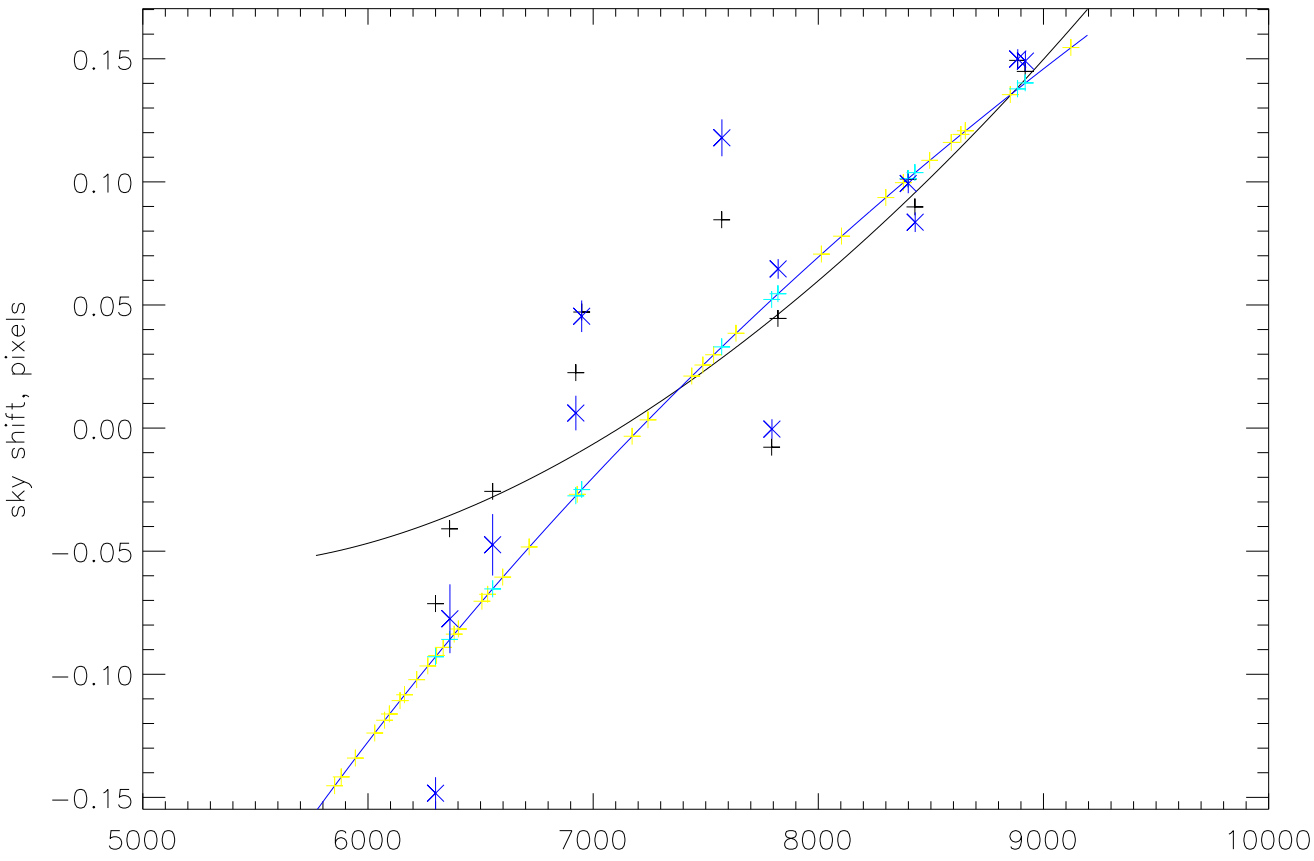

8399.1600
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

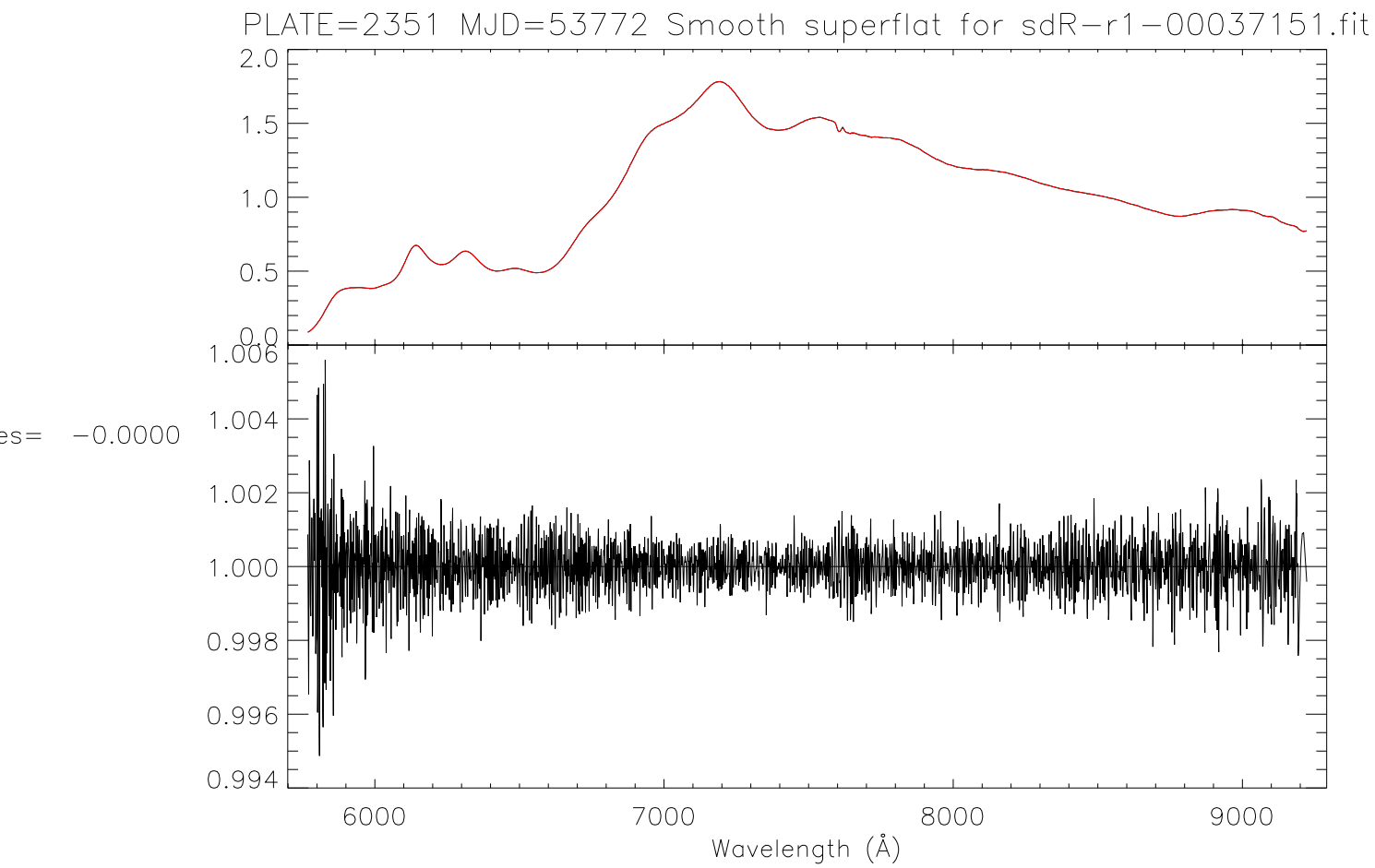

8430.1700
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400


8885.8300
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

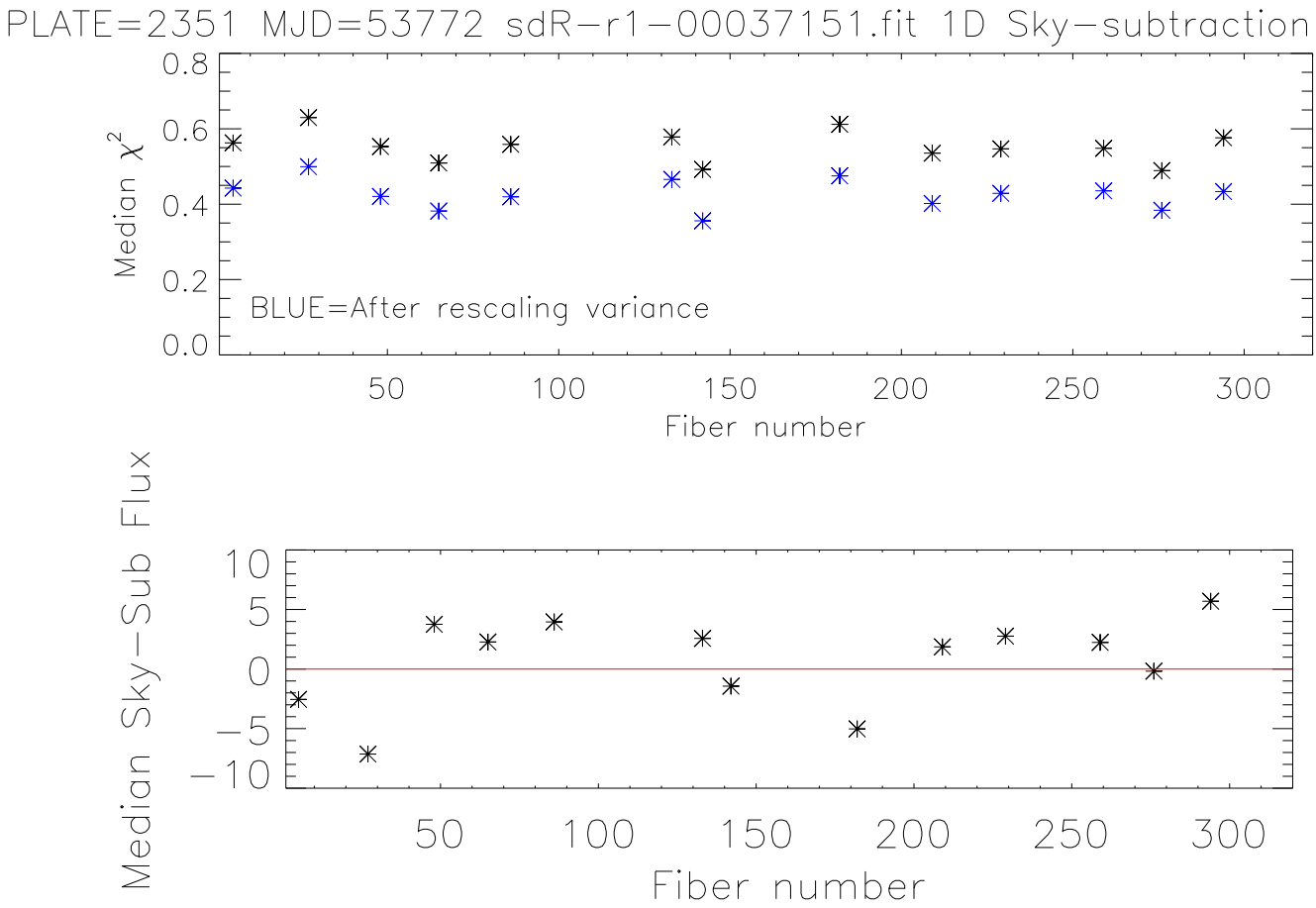

8919.6100
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

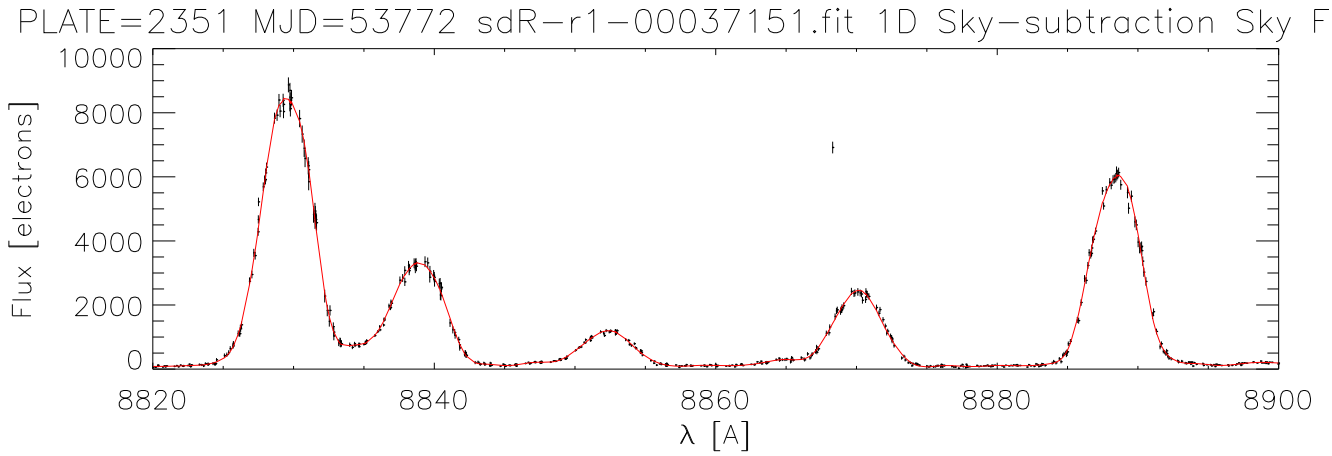

6300.3040
stdev 0.031
extra −0.015
6363.7760
stdev 0.039
extra −0.008
6553.6100
stdev 0.041
extra −0.005
6923.2100
stdev 0.035
extra 0.001
6949.0300
stdev 0.031
extra 0.051
7571.7500
stdev 0.046
extra 0.112
7794.1200
stdev 0.033
extra −0.000
7821.5100
stdev 0.024
extra 0.006
8399.1600
stdev 0.020
extra 0.110
8430.1700
stdev 0.027
extra 0.008
8885.8300
stdev 0.031
extra 0.151
8919.6100
stdev 0.026
extra 0.113
meas − pred, pix
mfib1 16
mfib2 16
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400

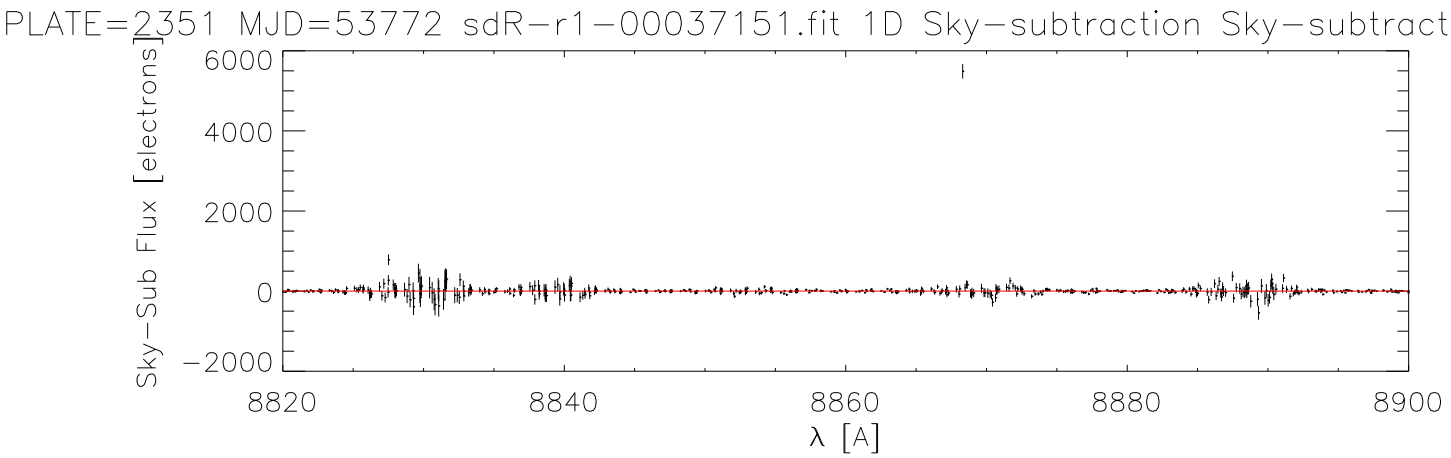

sky shift, pixels
0.15
0.10
0.05
0.00
−0.05
−0.10
−0.15
5000
6000
7000
8000
9000
10000

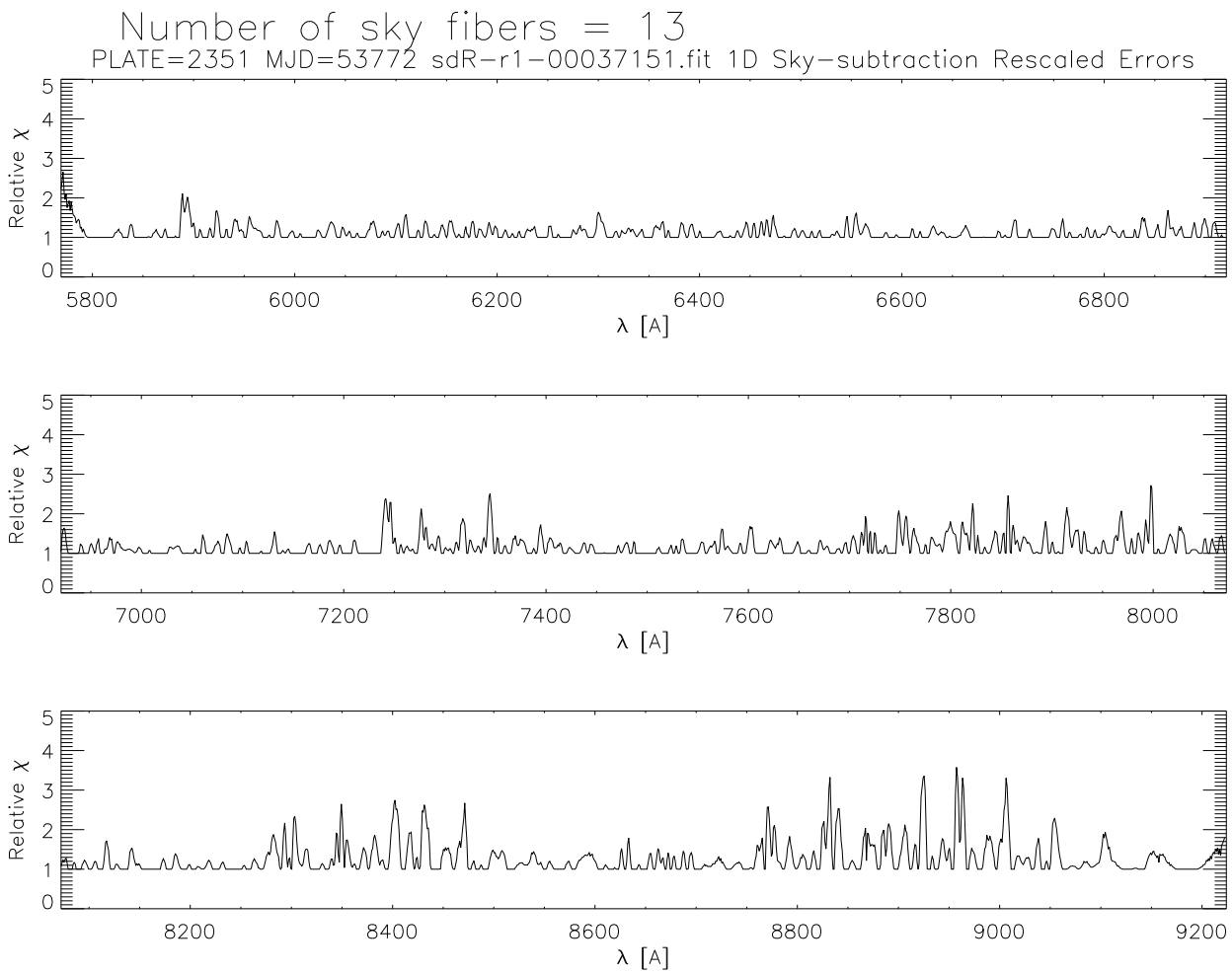

PLATE=2351 MJD=53772 Smooth superflat for sdR-r1-00037151.fit
2.0
1.5
1.0
0.5
0.0
1.006
1.004
1.002
1.000
0.998
0.996
0.994
6000
7000
8000
9000
Wavelength (Å)

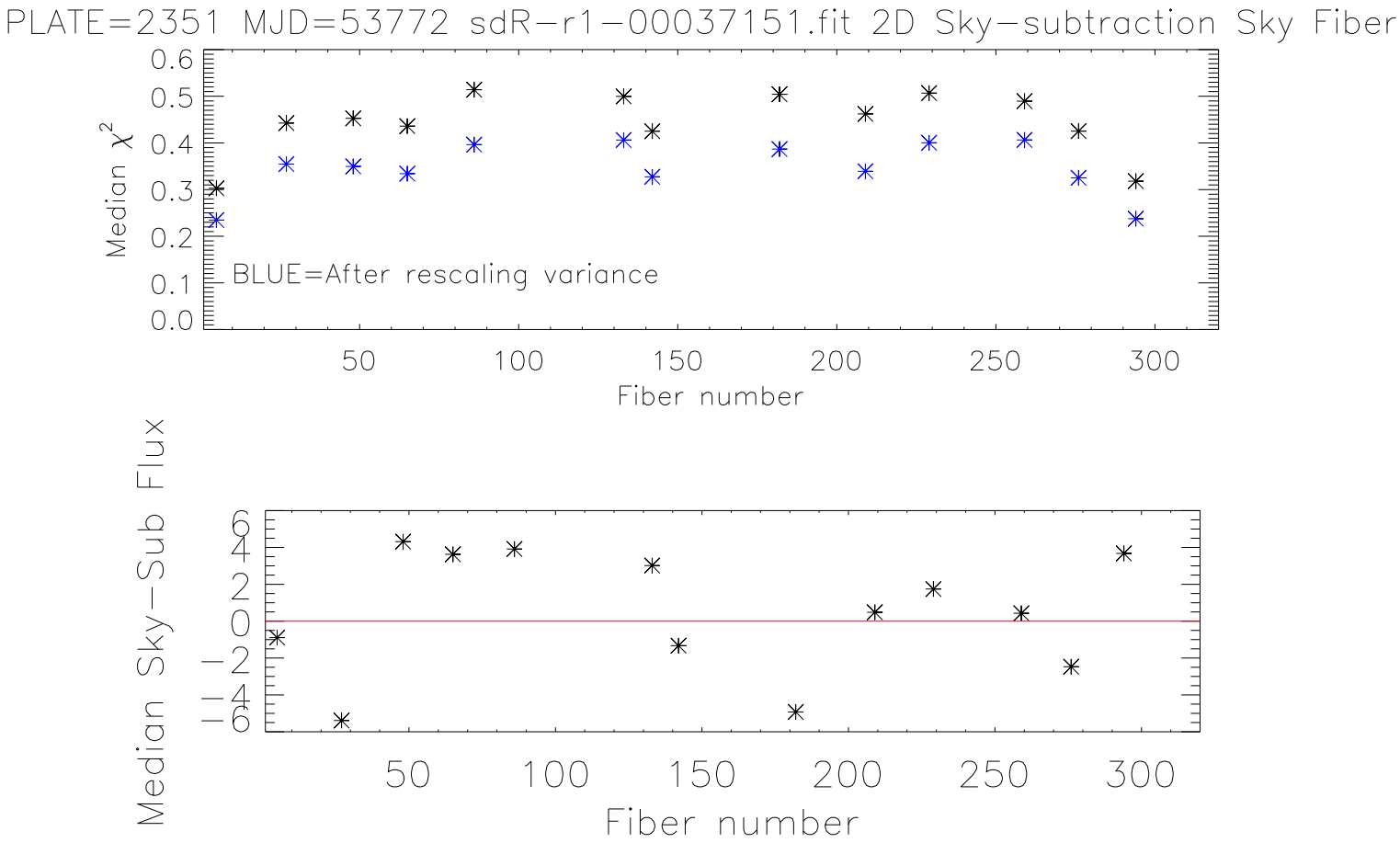
es= −0.0000

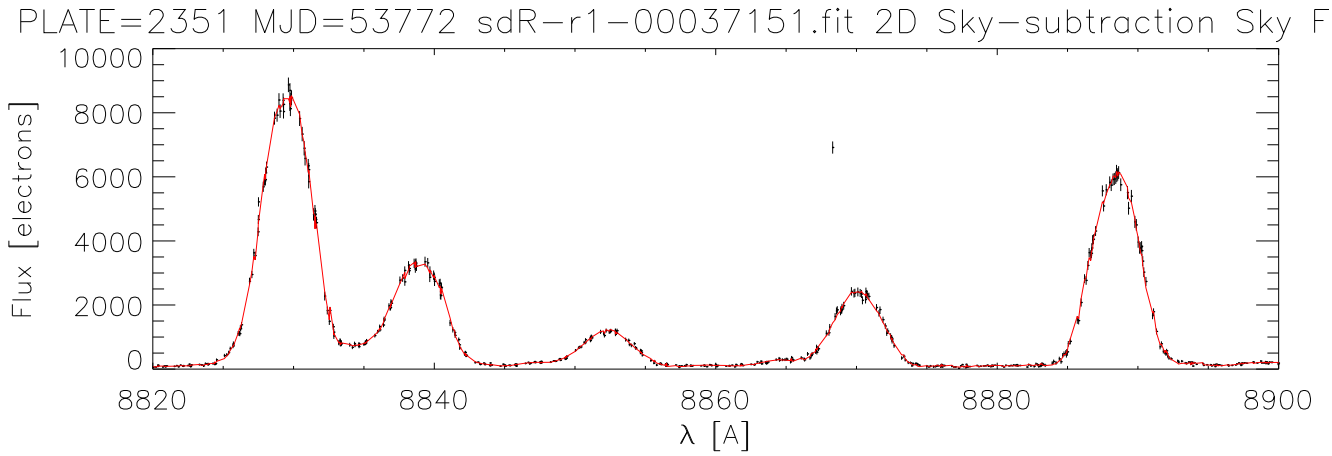

PLATE=2351 MJD=53772 sdR-r1-00037151.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
−5
−10
50
100
150
200
250
300
Fiber number

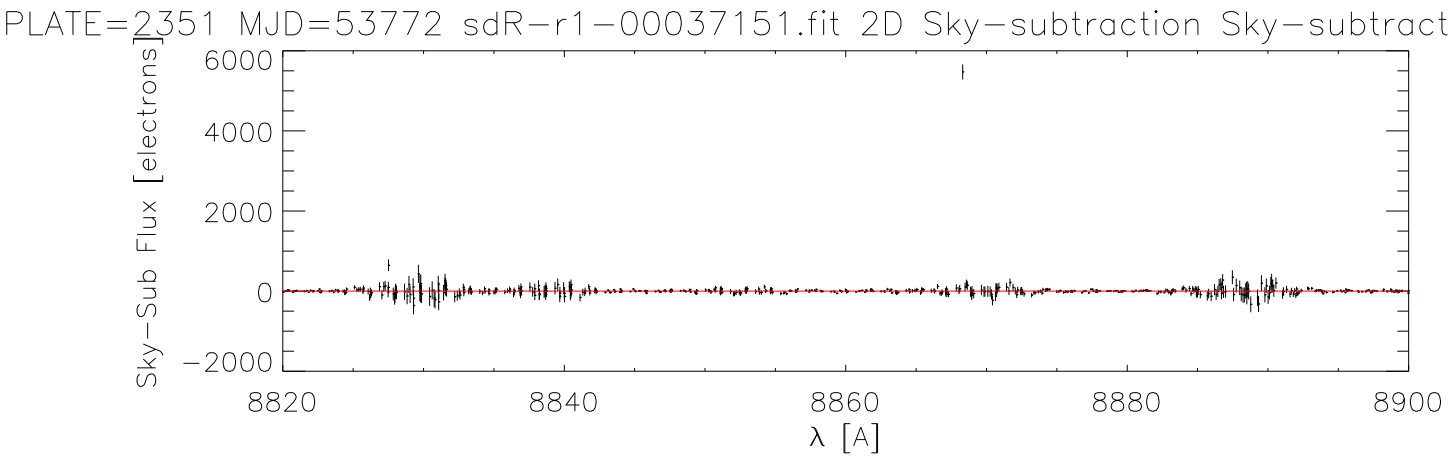

PLATE=2351 MJD=53772 sdR-r1-00037151.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
10000
8000
6000
4000
2000
0
8820
8840
8860
8880
8900
λ [A]

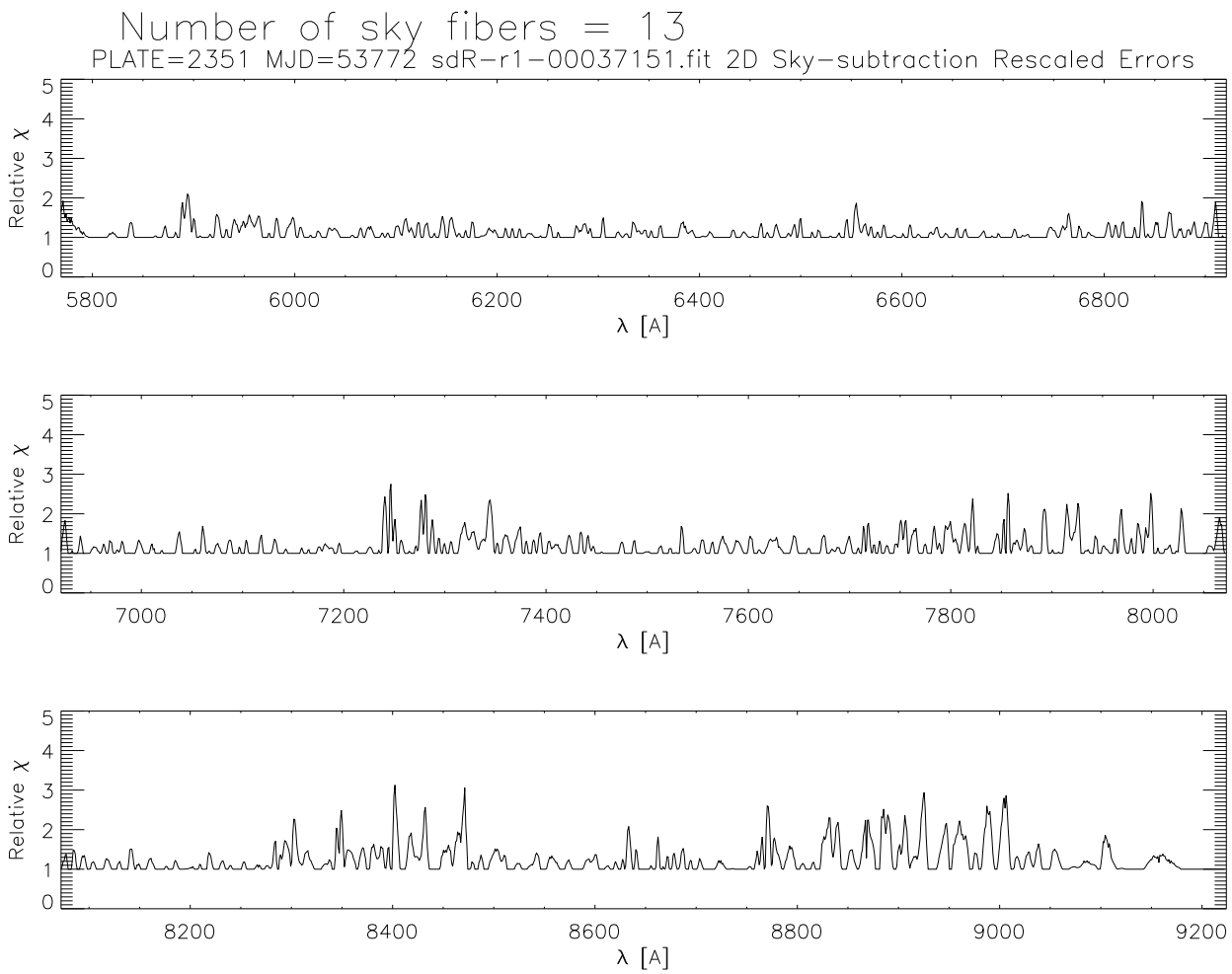

PLATE=2351 MJD=53772 sdR-r1-00037151.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
6000
4000
2000
0
-2000
8820
8840
8860
8880
8900
λ [A]

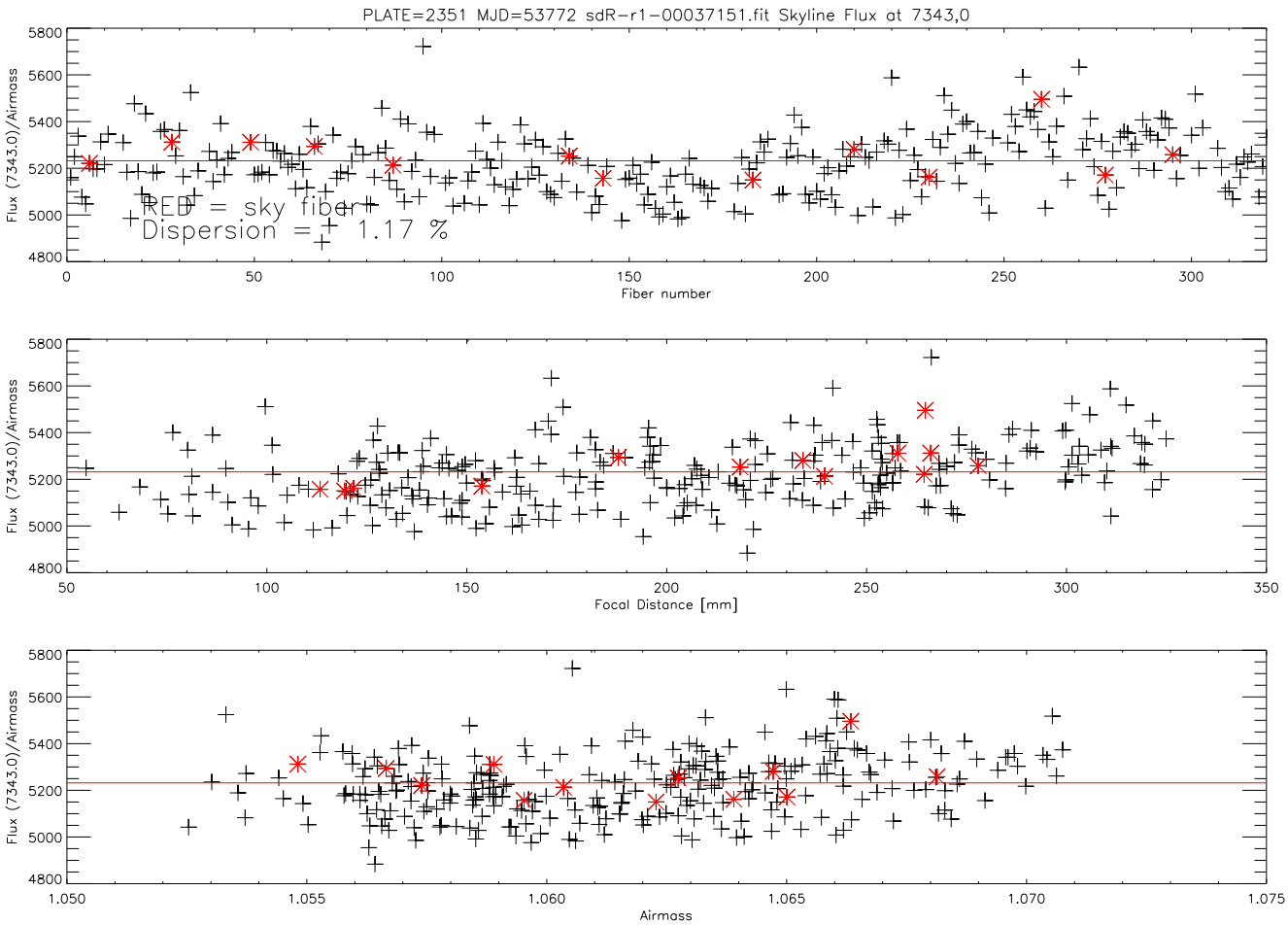

Number of sky fibers = 13
PLATE=2351 MJD=53772 sdR-r1-00037151.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

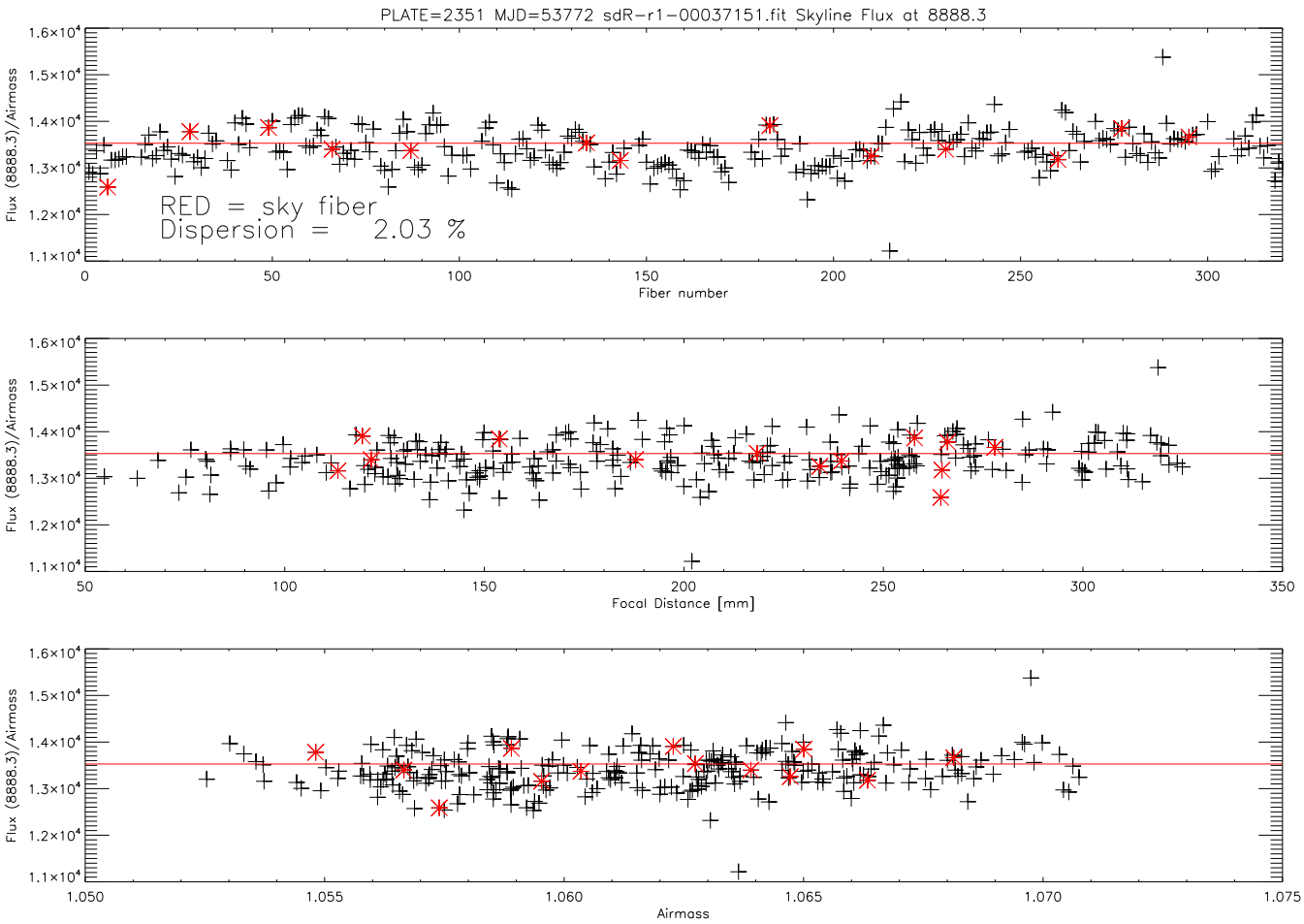

PLATE=2351 MJD=53772 sdR-r1-00037151.fit 2D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-6
-4
-2
0
2
4
6
50
100
150
200
250
300
Fiber number

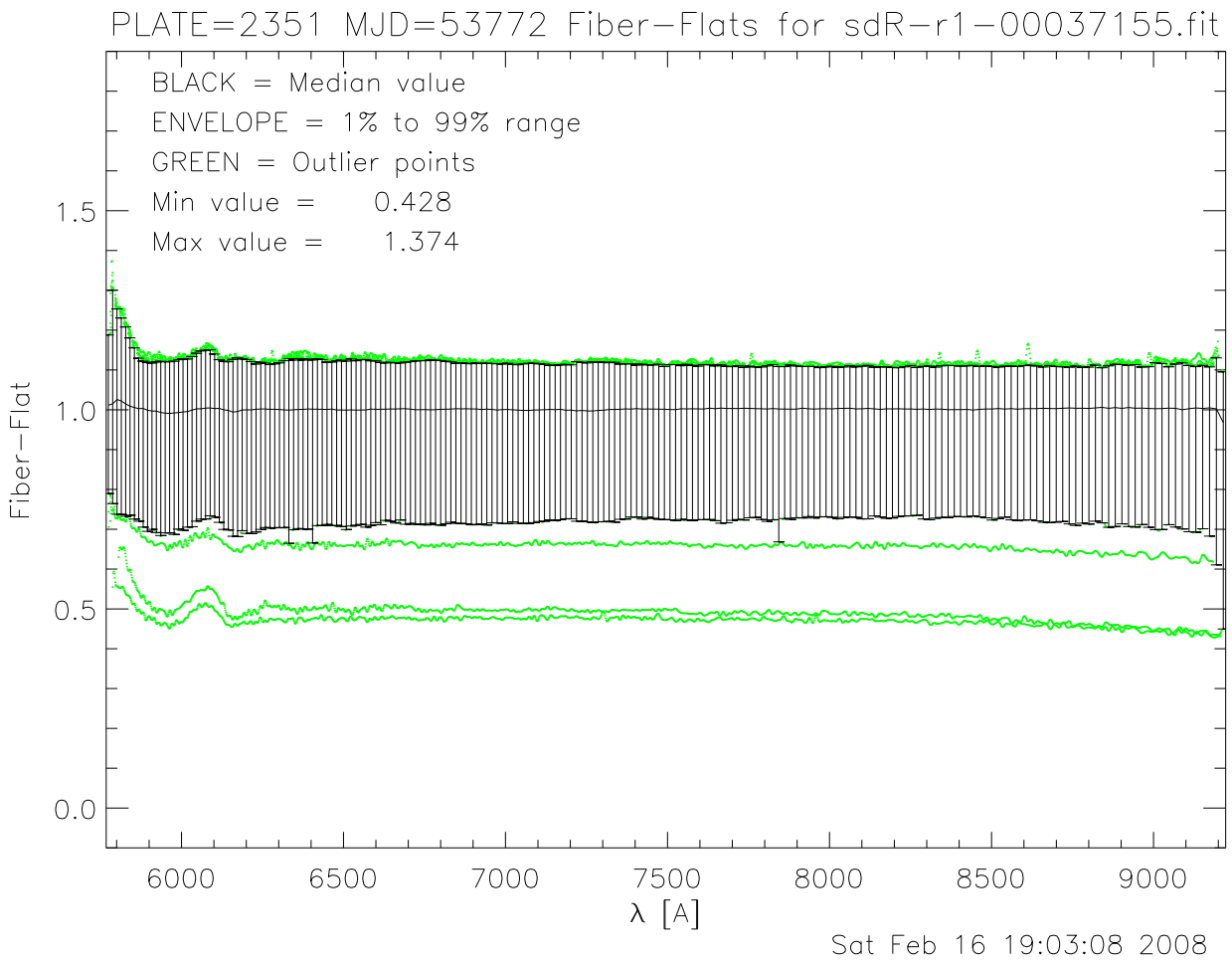

PLATE=2351 MJD=53772 sdR-r1-00037151.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
10000
8000
6000
4000
2000
0
8820
8840
8860
8880
8900
λ [A]

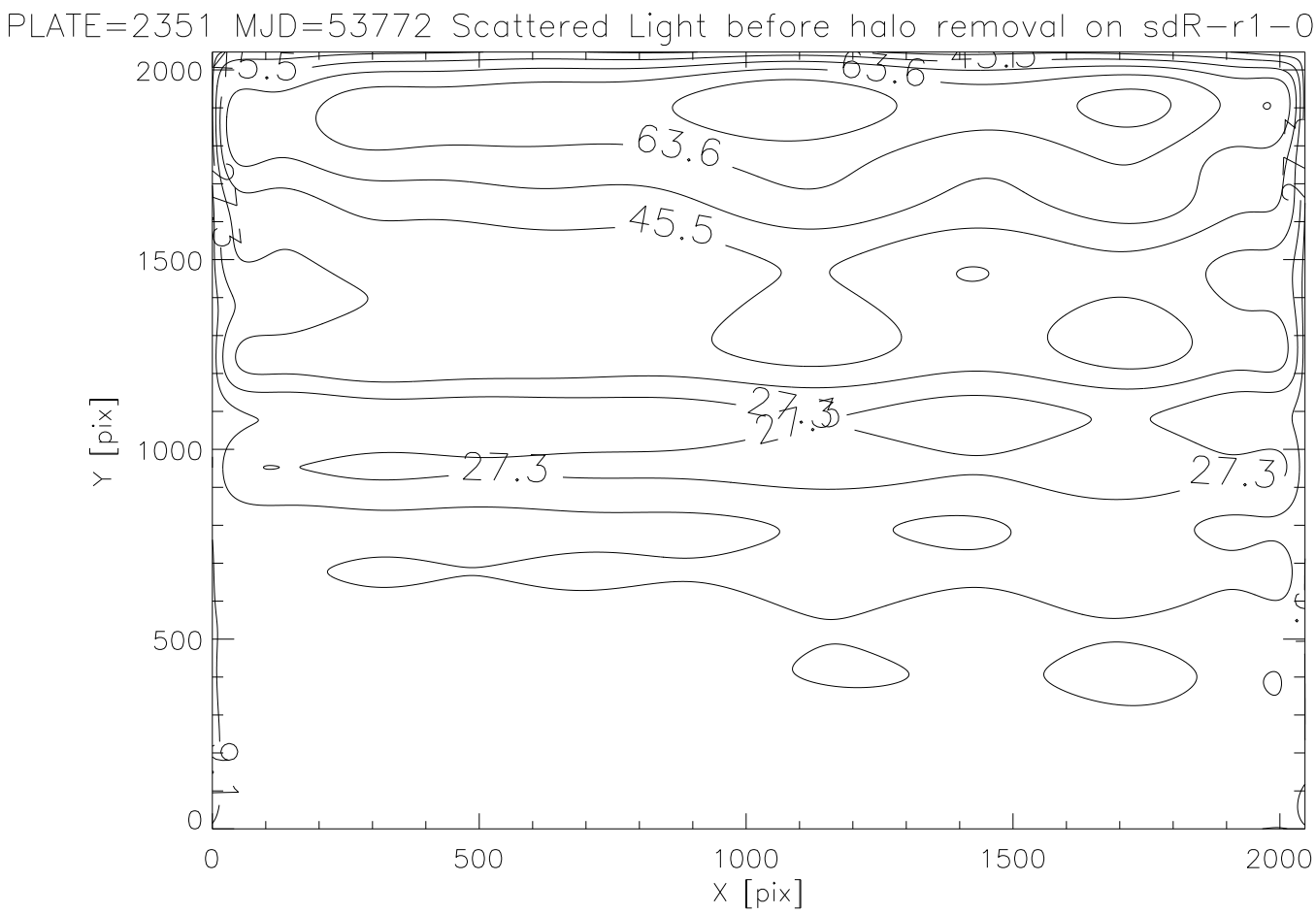

PLATE=2351 MJD=53772 sdR-r1-00037151.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
6000
4000
2000
0
-2000
8820
8840
8860
8880
8900
λ [A]

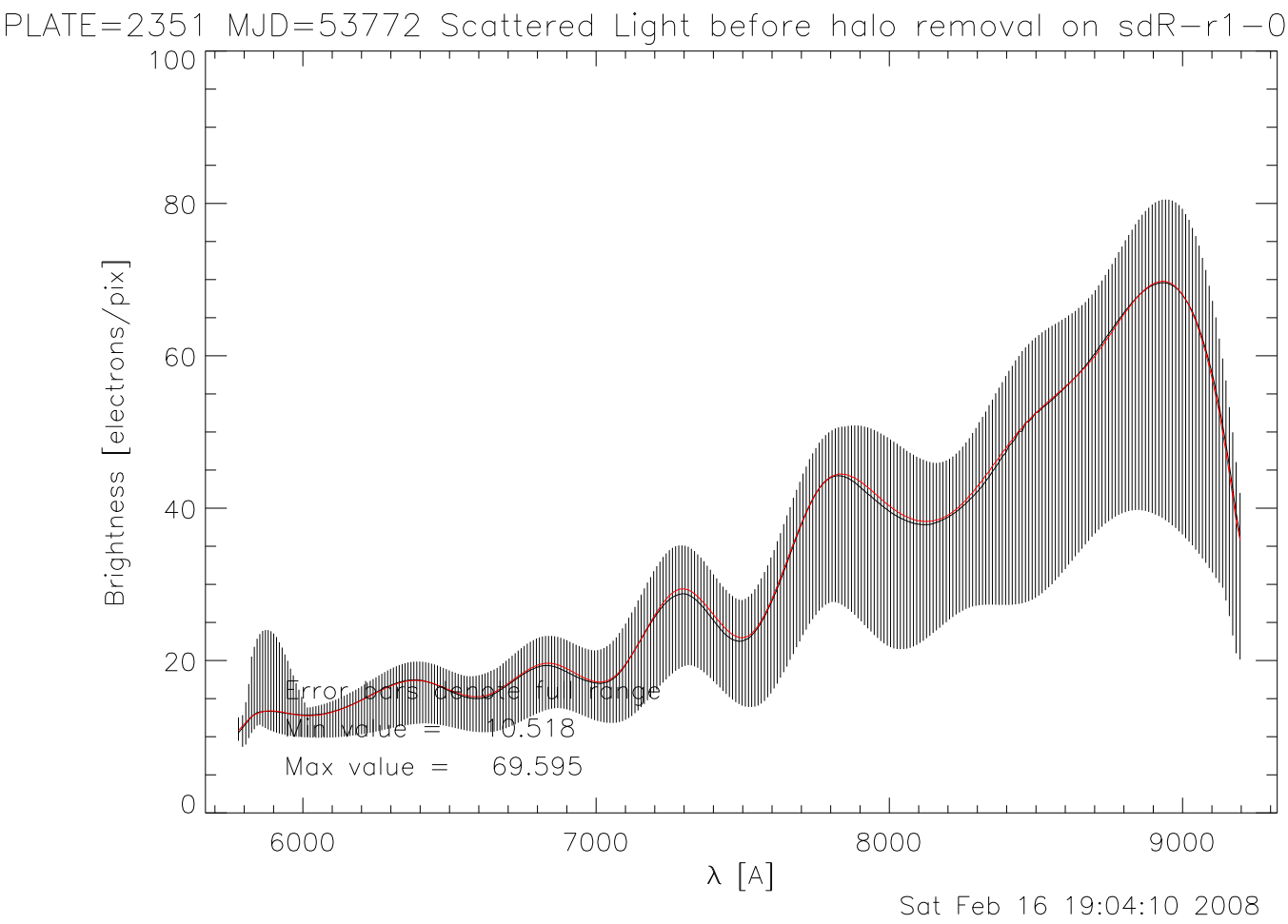

Number of sky fibers = 13
PLATE=2351 MJD=53772 sdR-r1-00037151.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

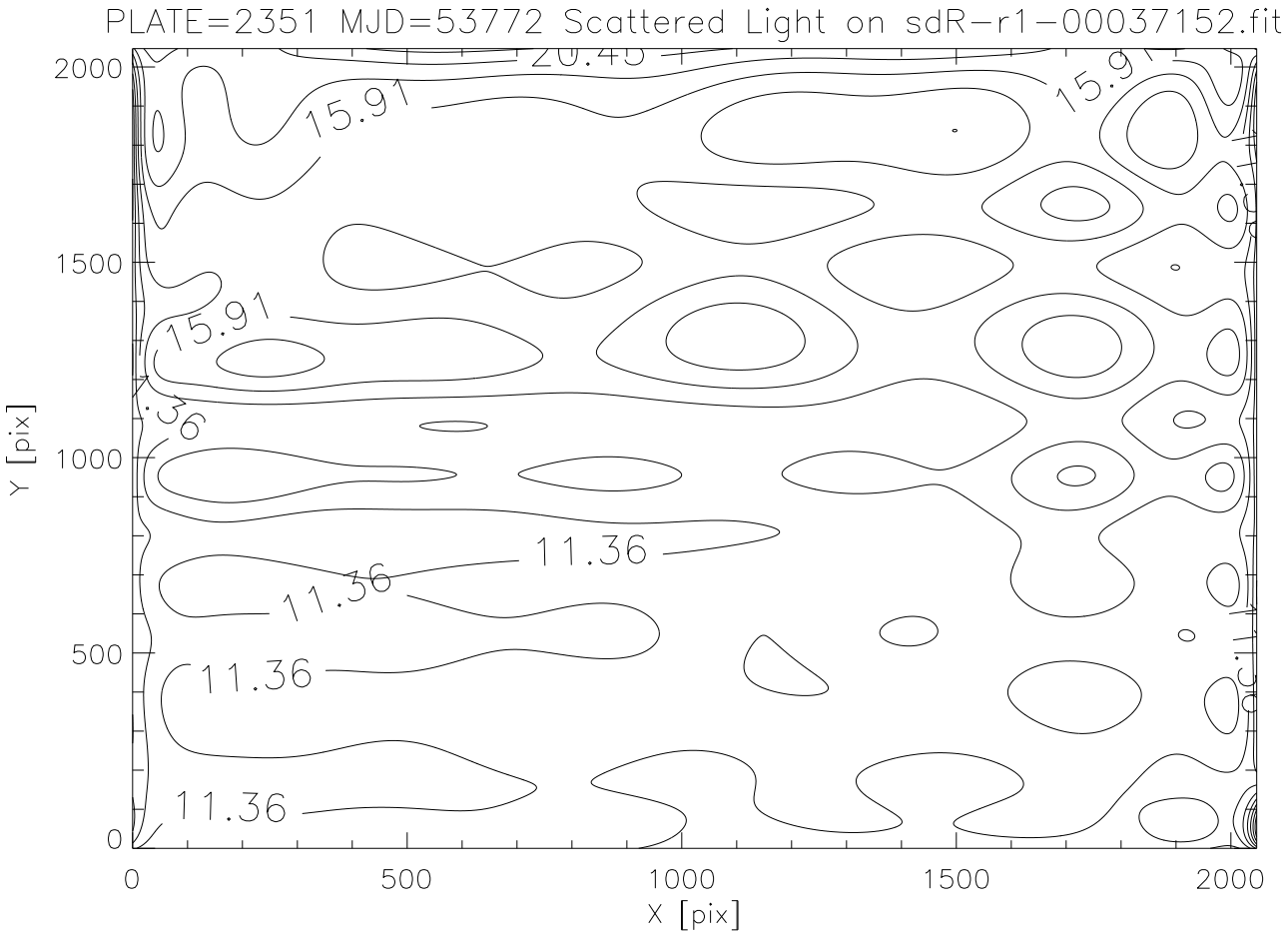

PLATE=2351 MJD=53772 sdR-r1-00037151.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
Fiber number
RED = sky fiber
Dispersion = 1.17 %
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

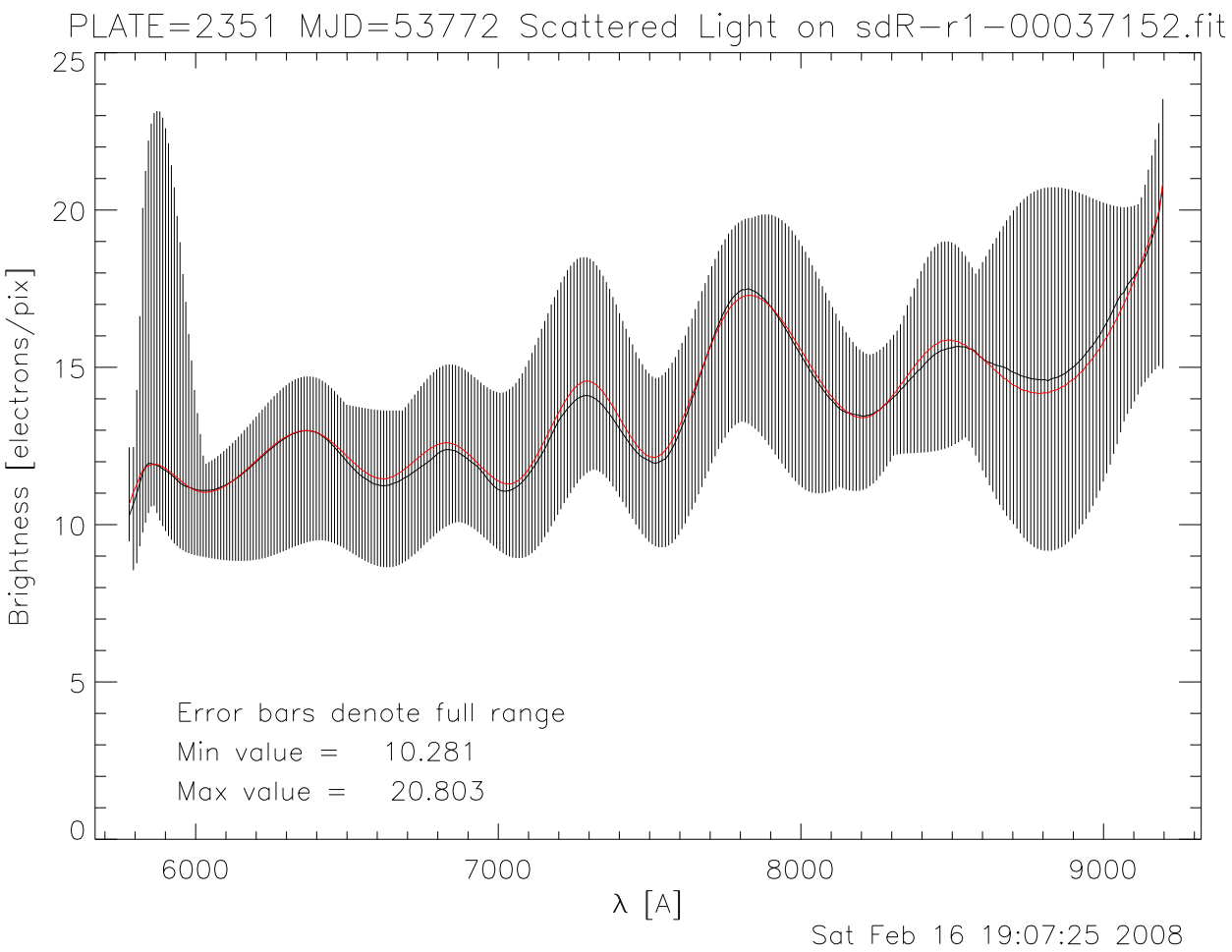

PLATE=2351 MJD=53772 sdR-r1-00037151.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 2.03 %
Fiber number
Focal Distance [mm]
Airmass

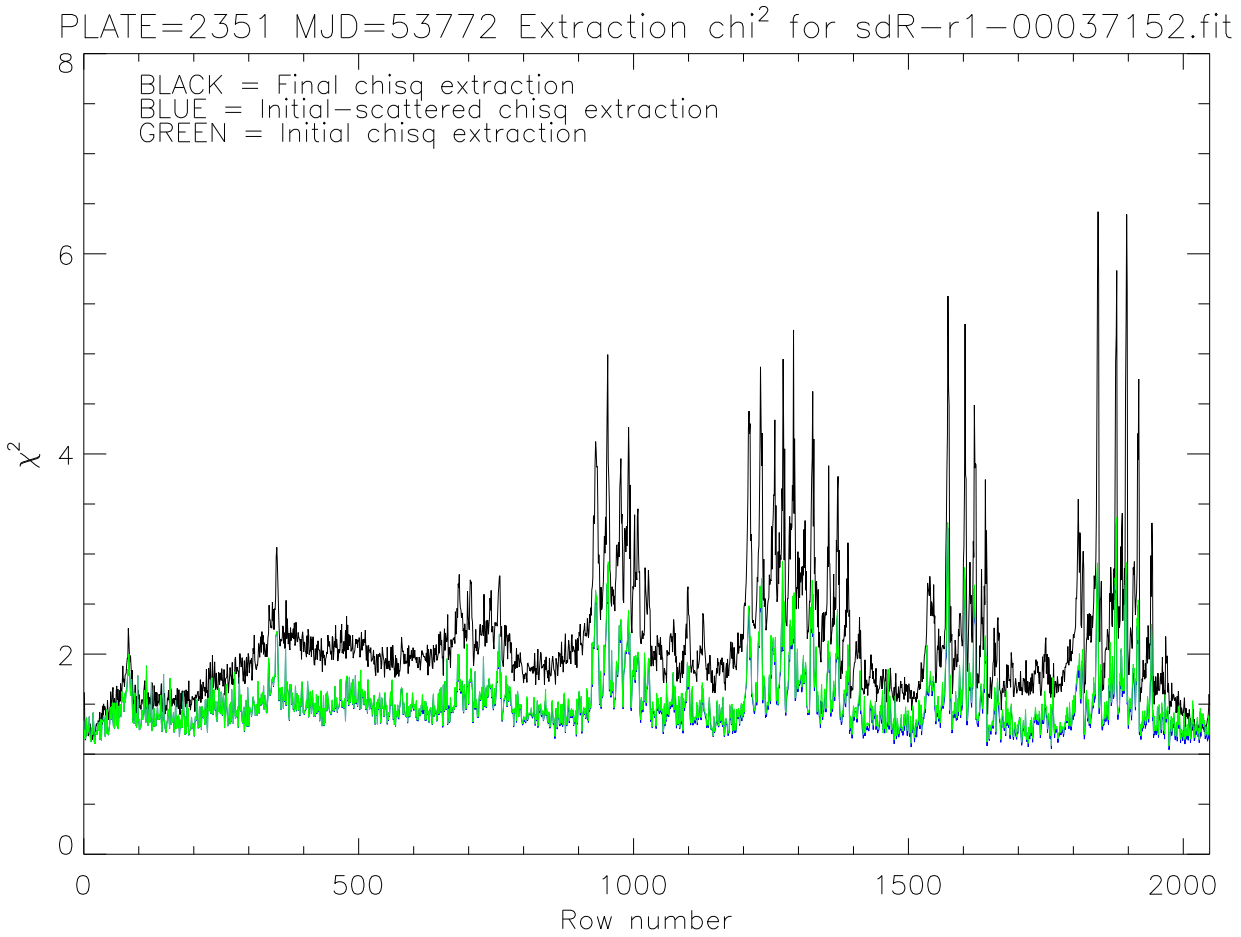

PLATE=2351 MJD=53772 Fiber−Flats for sdR−r1−00037155.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.428
Max value = 1.374
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sat Feb 16 19:03:08 2008

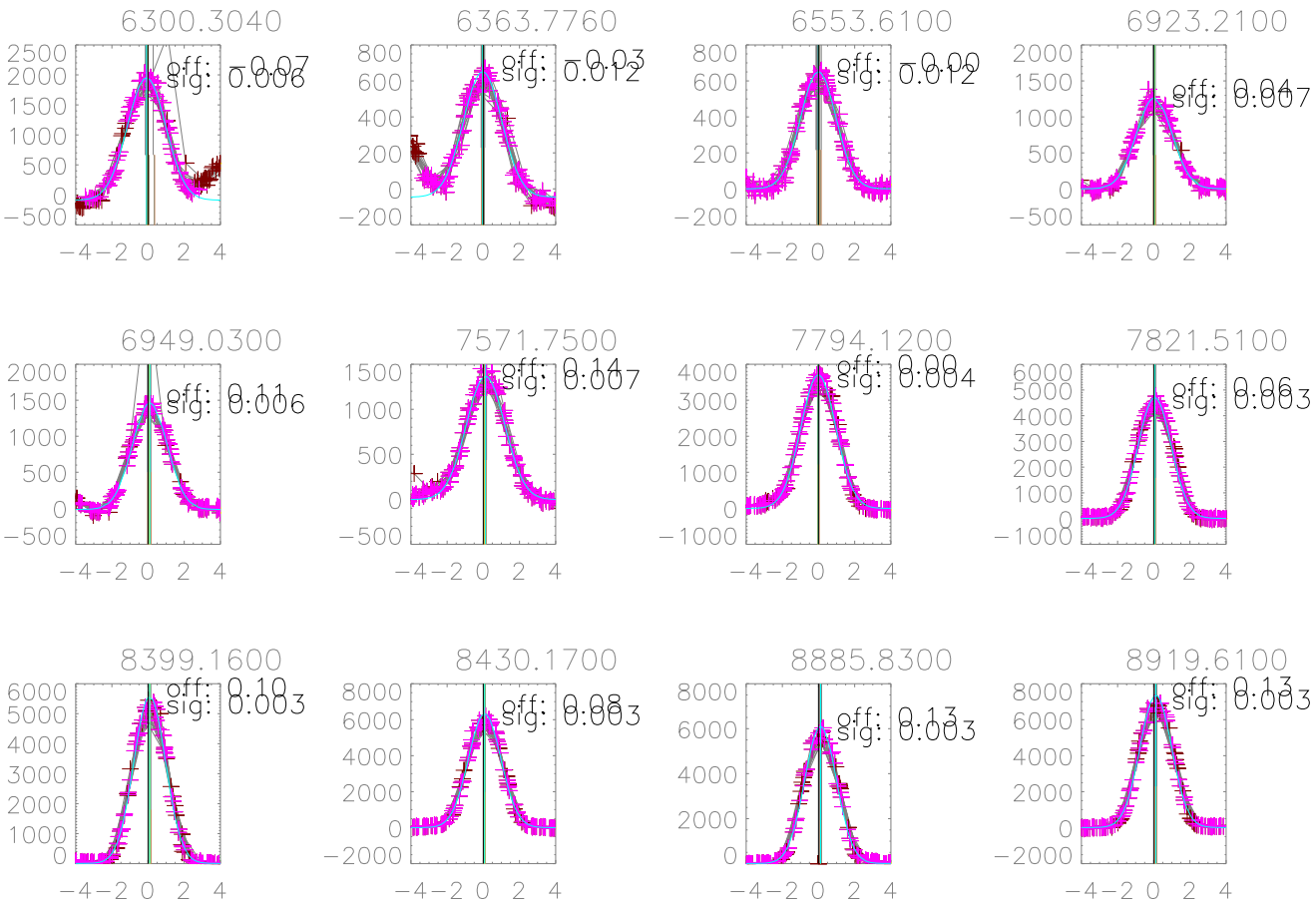

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR-r1-00037152.fi
63.6
45.5
27.3
0
Y [pix]
X [pix]
0
500
1000
1500
2000

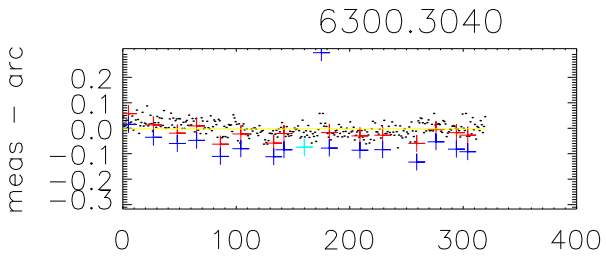

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR-r1-00037152.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 10.518
Max value = 69.595
Sat Feb 16 19:04:10 2008

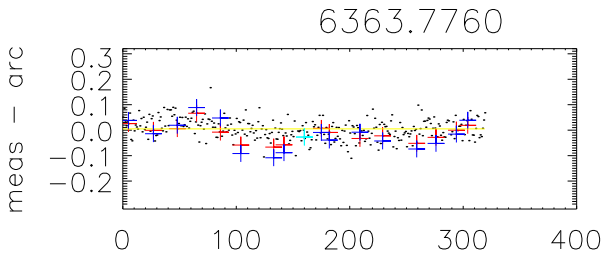

PLATE=2351 MJD=53772 Scattered Light on sdR-r1-00037152.fit
20.45
15.91
15.91
15.91
11.36
11.36
11.36
11.36
11.36
0
500
1000
1500
2000
X [pix]
Y [pix]

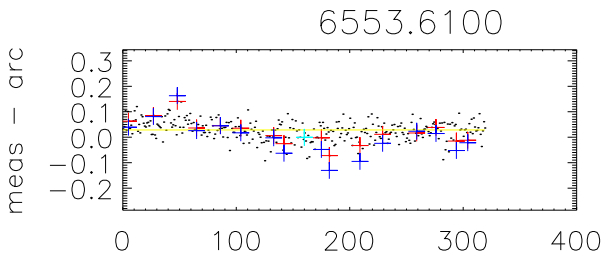

PLATE=2351 MJD=53772 Scattered Light on sdR-r1-00037152.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 10.281
Max value = 20.803
Sat Feb 16 19:07:25 2008

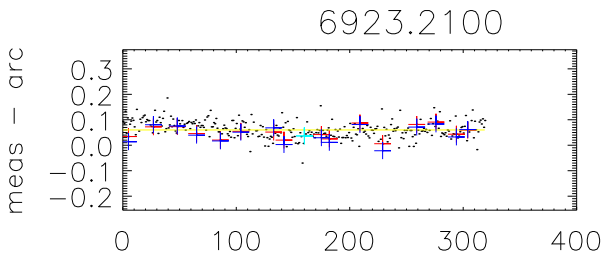

PLATE=2351 MJD=53772 Extraction chi^2 for sdR−r1−00037152.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
0
500
1000
1500
2000
Row number

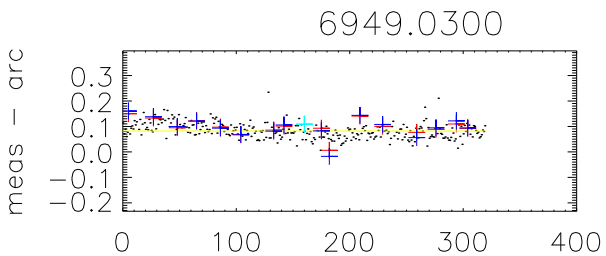

6300.3040
off: −0.07
sig: 0.006
6363.7760
off: −0.03
sig: 0.012
6553.6100
off: −0.00
sig: 0.012
6923.2100
off: 0.04
sig: 0.007
6949.0300
off: 0.11
sig: 0.006
7571.7500
off: 0.14
sig: 0.007
7794.1200
off: 0.00
sig: 0.004
7821.5100
off: 0.06
sig: 0.003
8399.1600
off: 0.10
sig: 0.003
8430.1700
off: 0.08
sig: 0.003
8885.8300
off: 0.13
sig: 0.003
8919.6100
off: 0.13
sig: 0.003

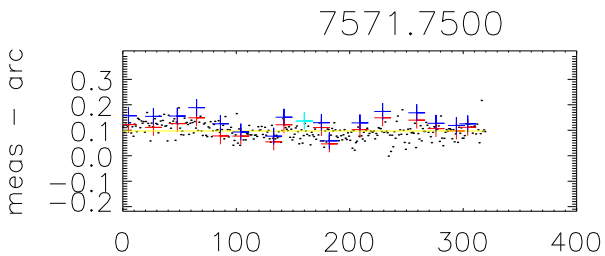

6300.3040
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

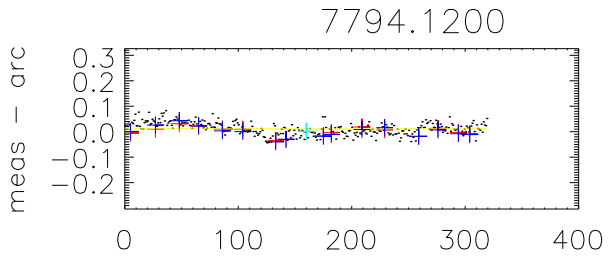

6363.7760
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

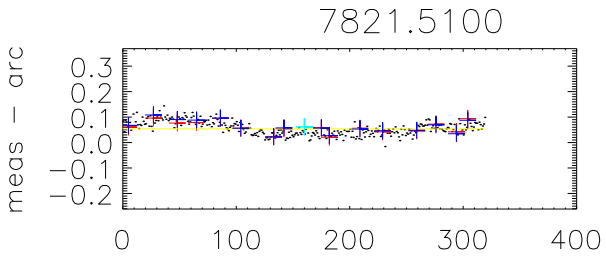

6553.6100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

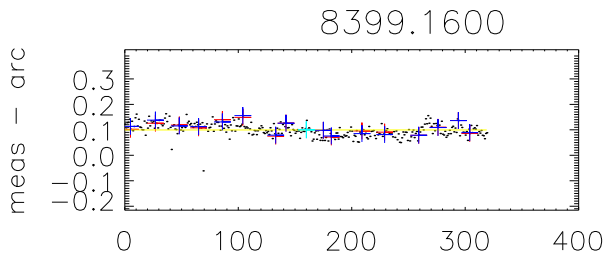

6923.2100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

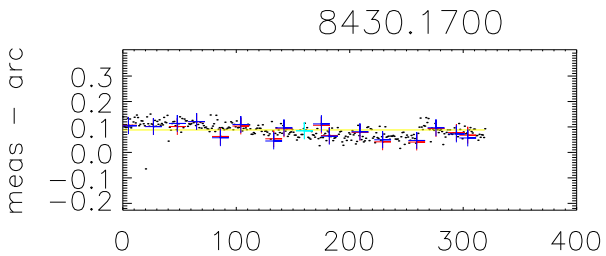

6949.0300
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

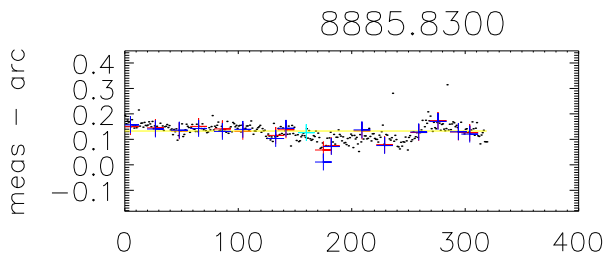

7571.7500
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

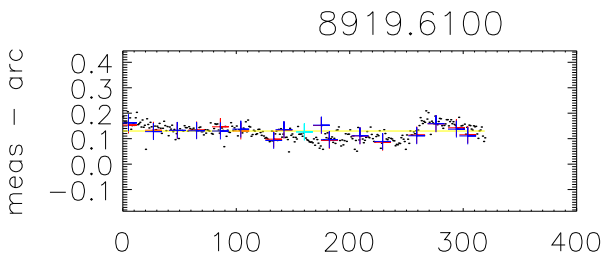

7794.1200
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

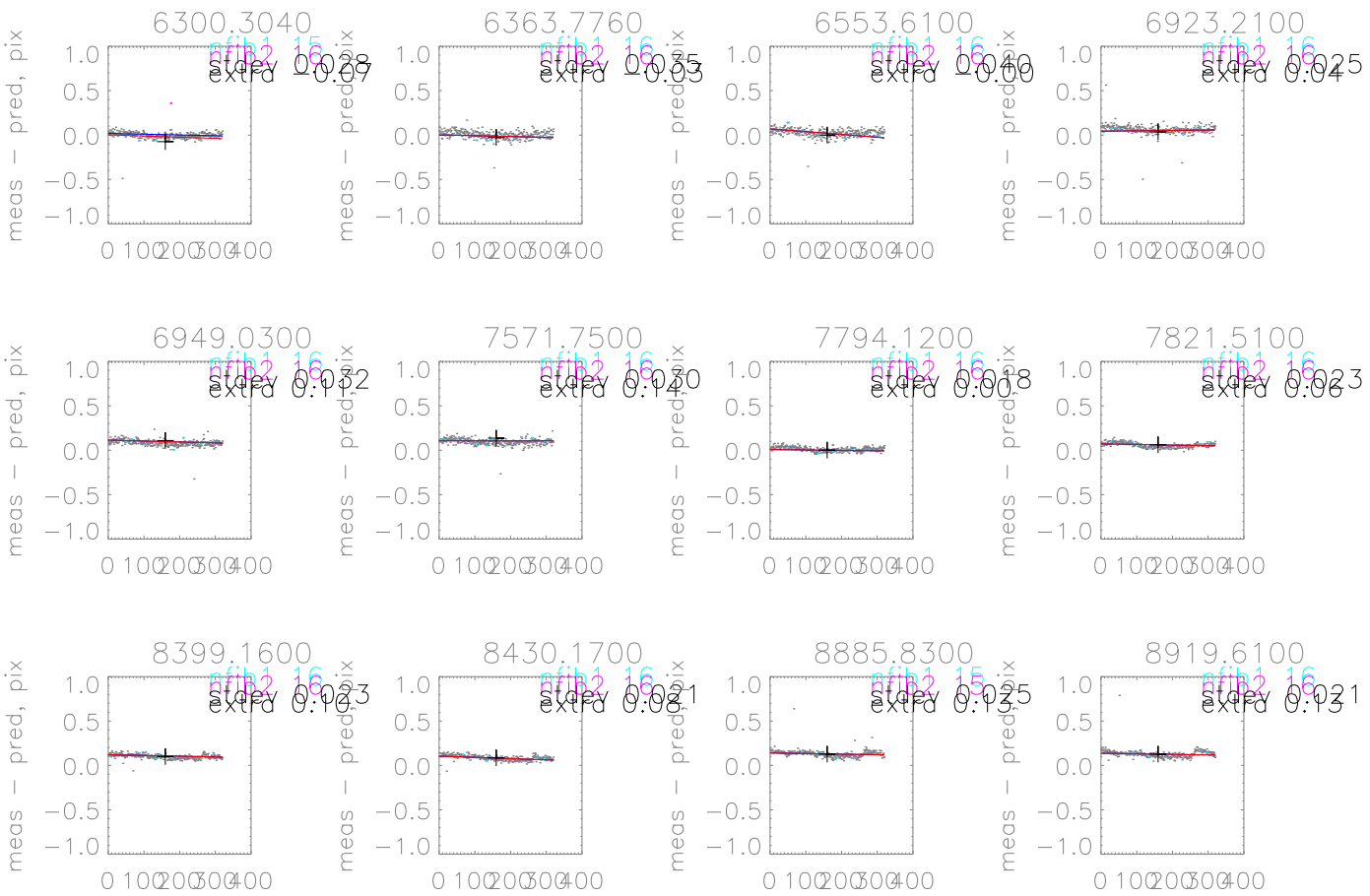

7821.5100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

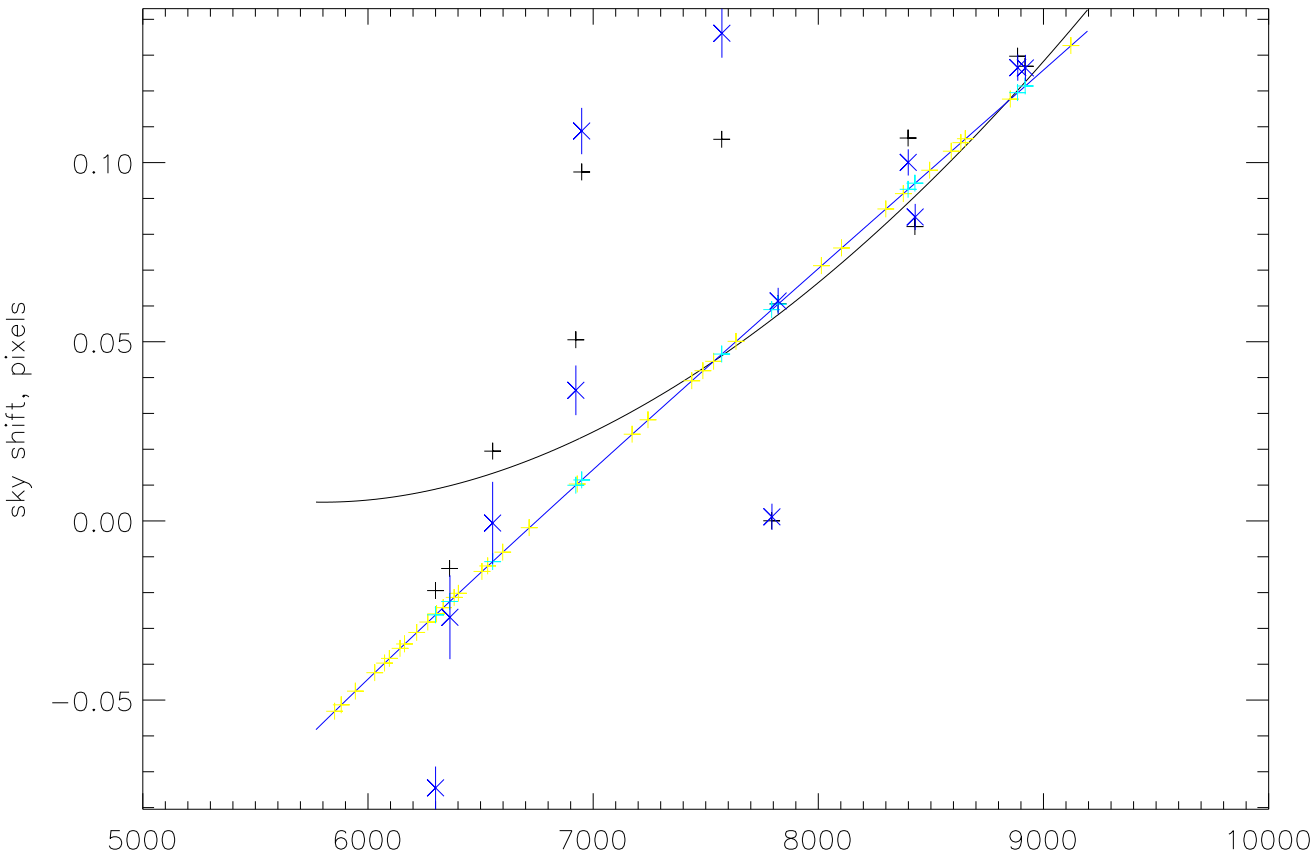

8399.1600
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

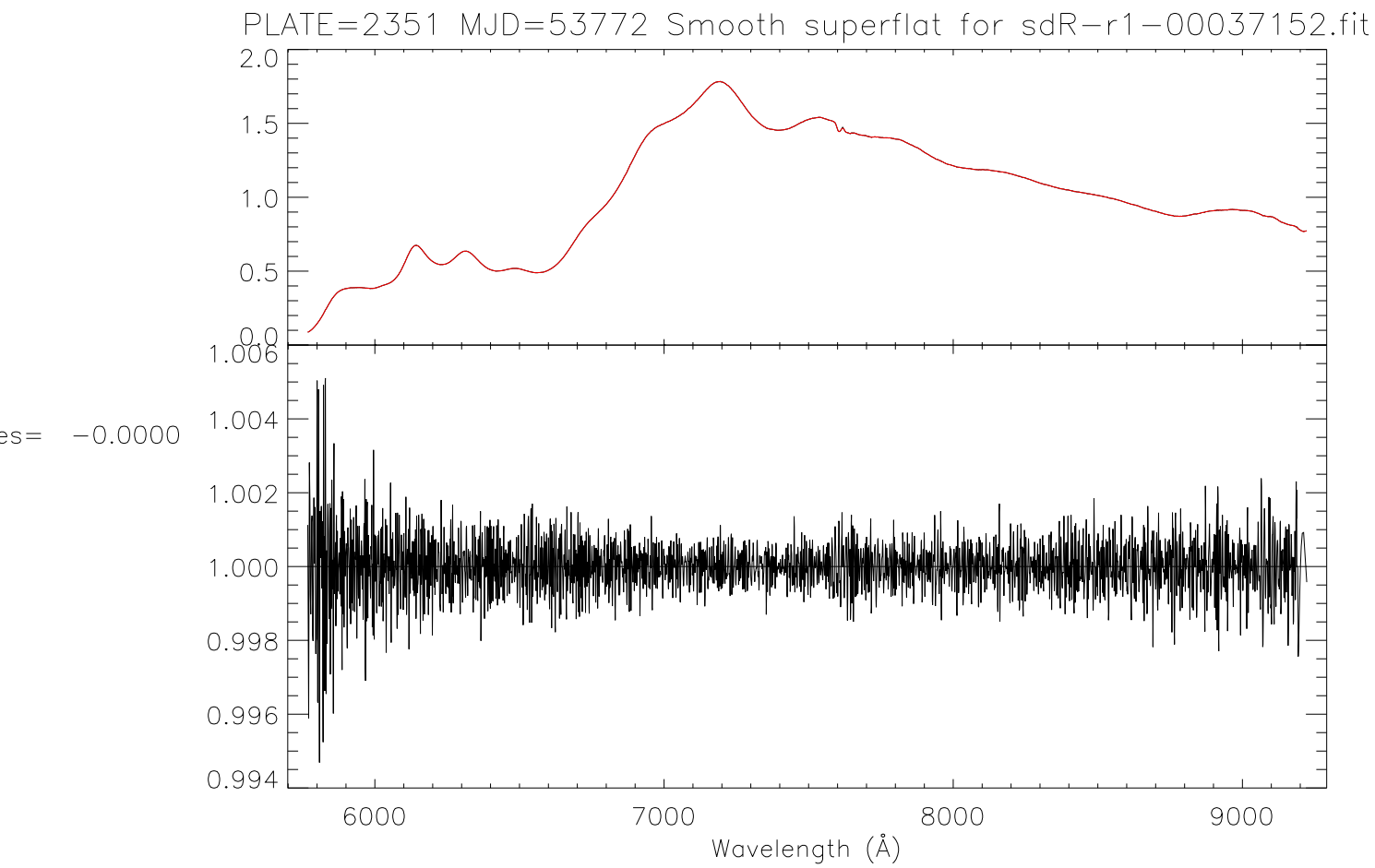

8430.1700
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

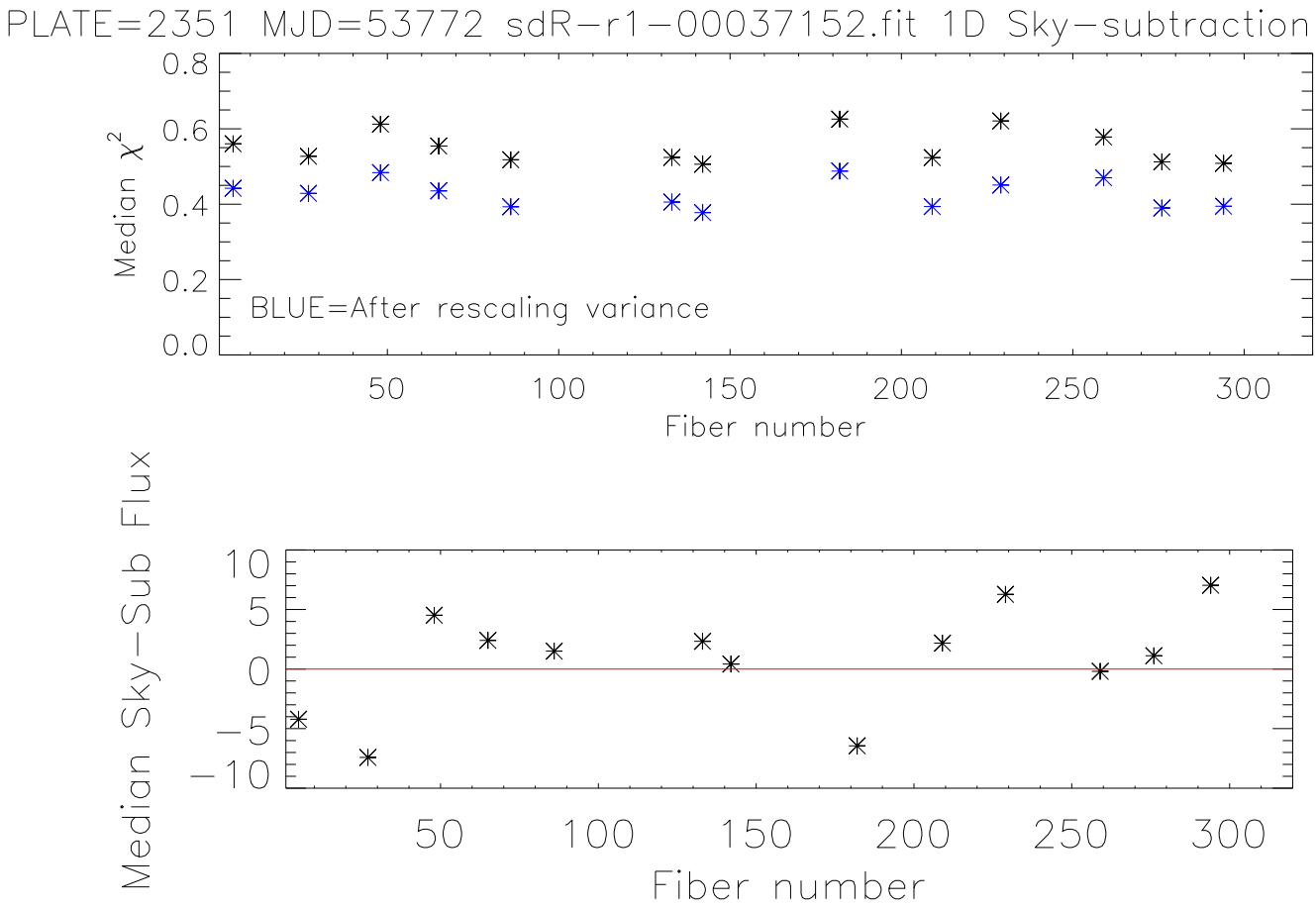

8885.8300
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

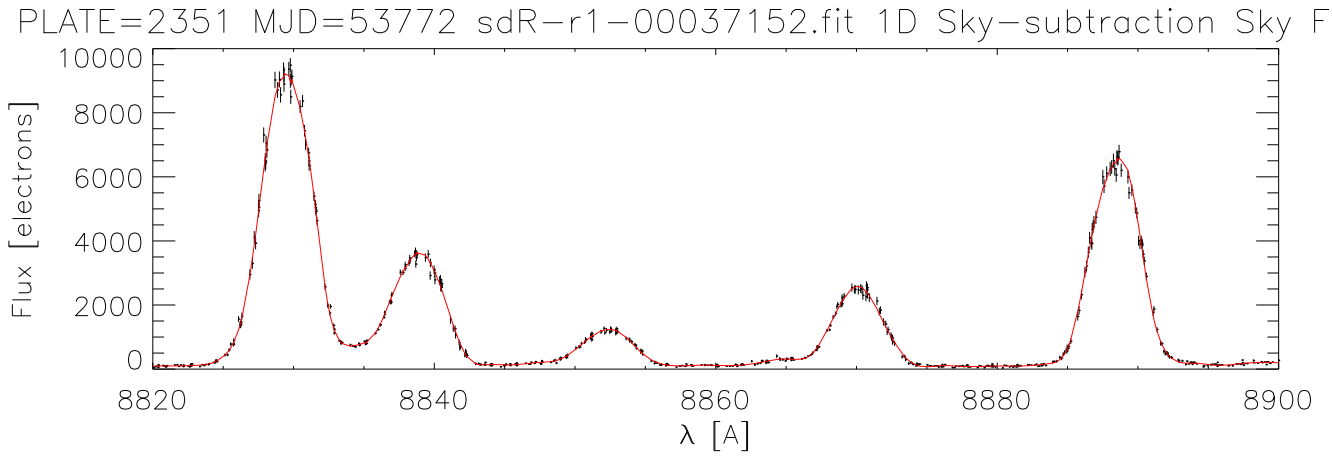

8919.6100
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

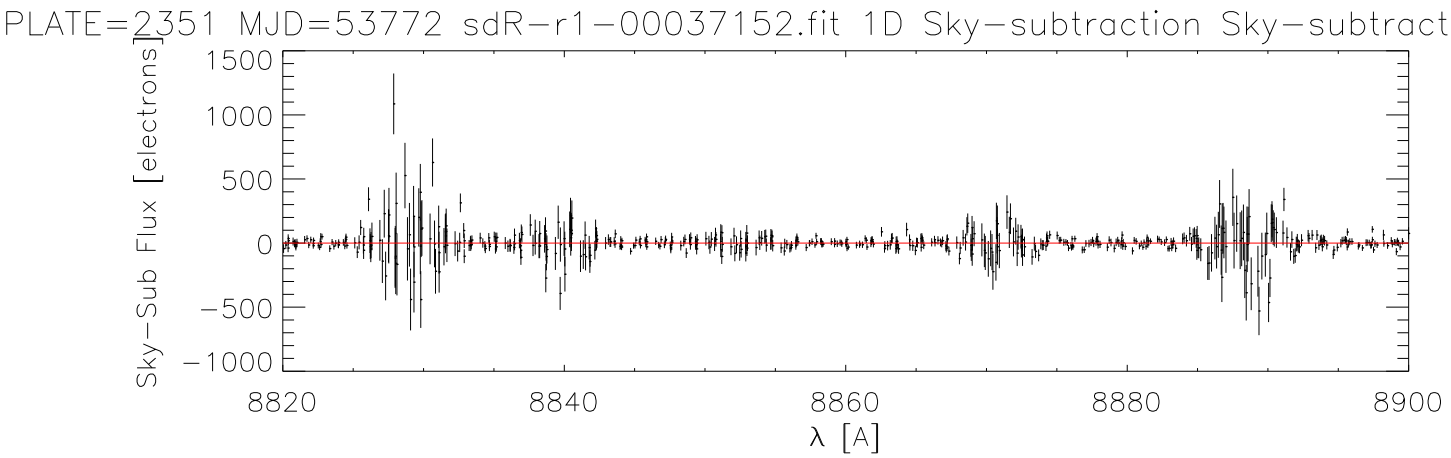

6300.3040
stdev 0.028
extra −0.007
6363.7760
stdev 0.035
extra −0.003
6553.6100
stdev 0.040
extra −0.000
6923.2100
stdev 0.025
extra 0.004
6949.0300
stdev 0.032
extra 0.012
7571.7500
stdev 0.030
extra 0.014
7794.1200
stdev 0.028
extra 0.000
7821.5100
stdev 0.023
extra 0.006
8399.1600
stdev 0.023
extra 0.010
8430.1700
stdev 0.021
extra 0.008
8885.8300
stdev 0.025
extra 0.013
8919.6100
stdev 0.021
extra 0.013
meas − pred, pix
meas − pred, pix

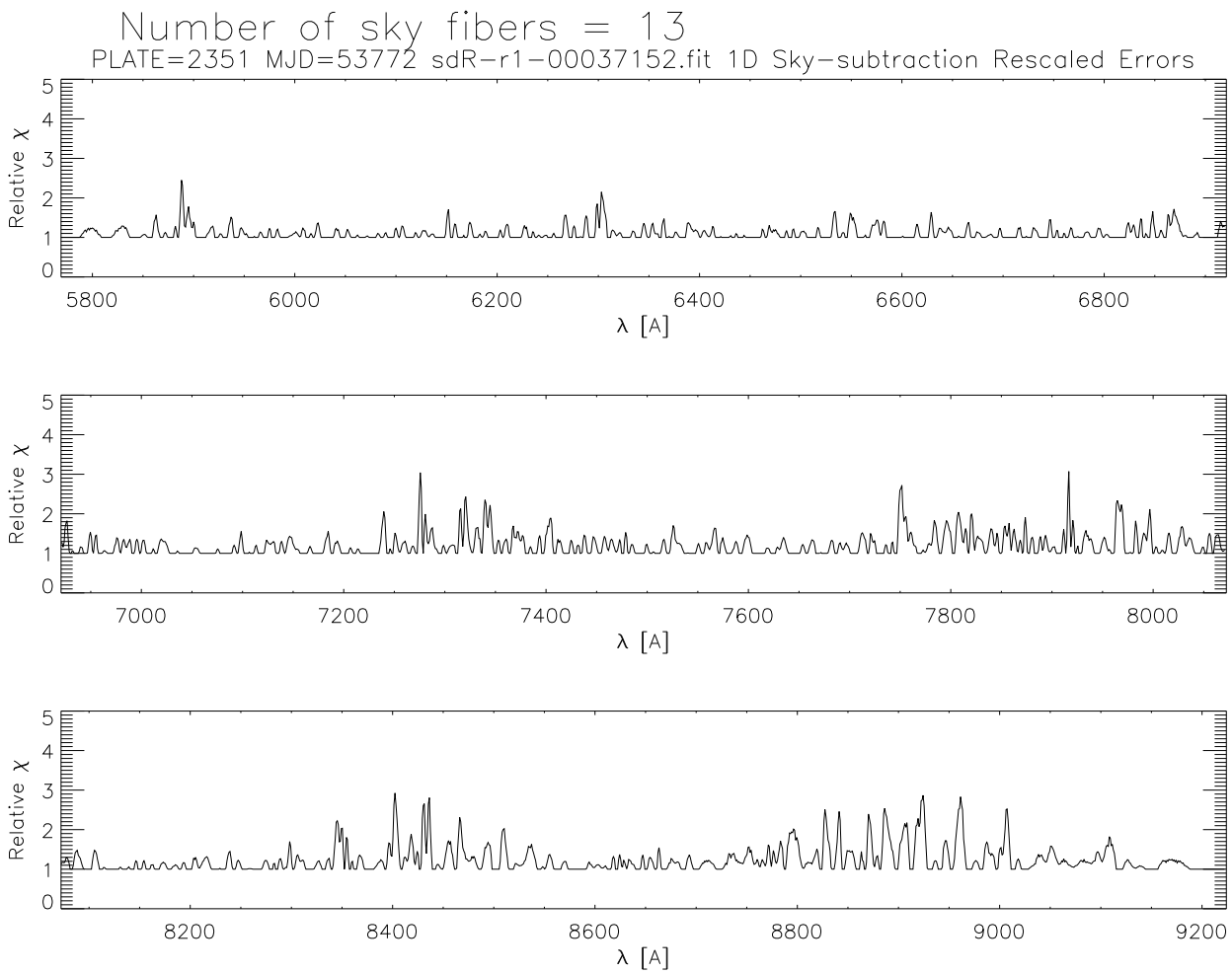

sky shift, pixels
0.10
0.05
0.00
−0.05
5000
6000
7000
8000
9000
10000

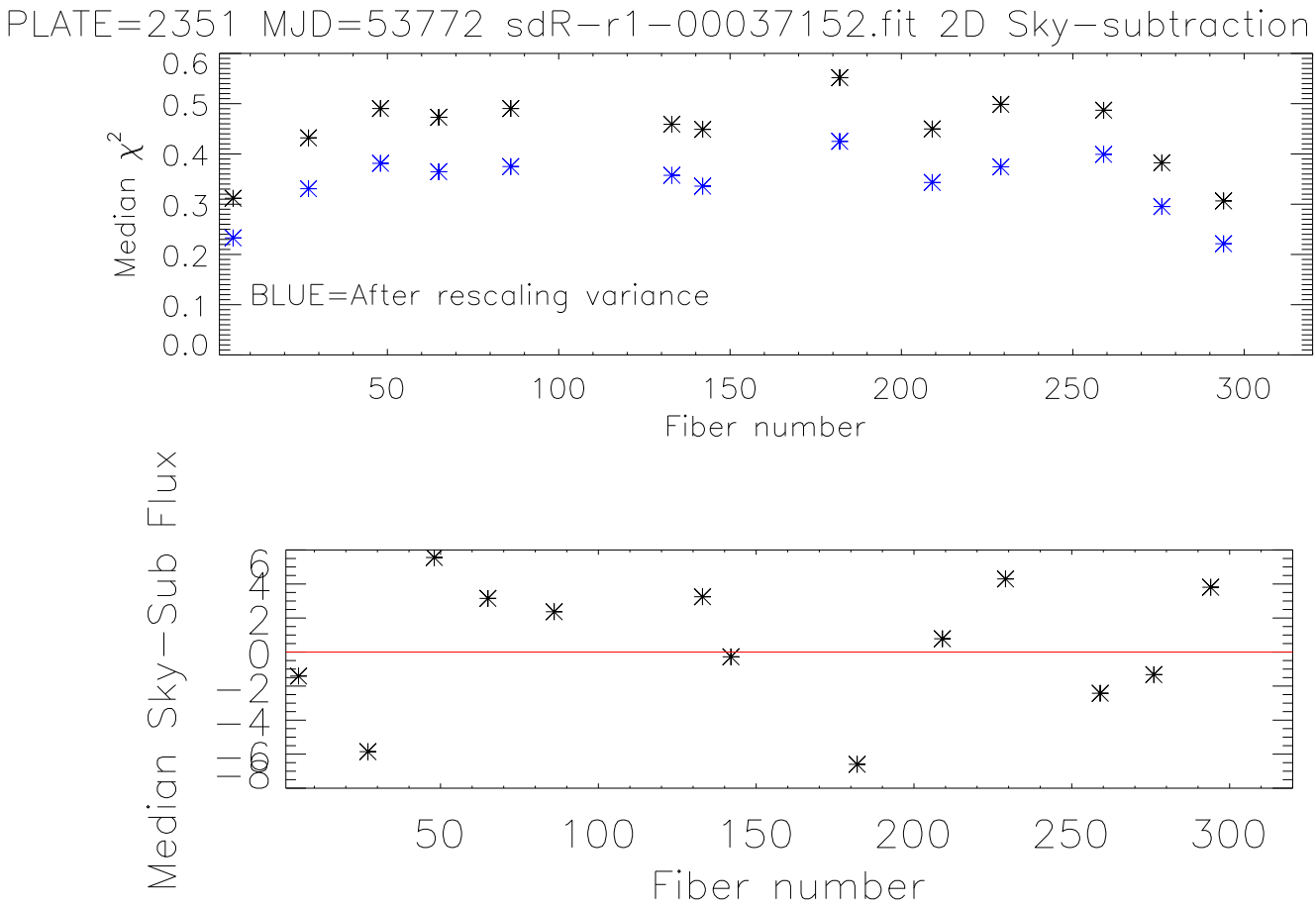

PLATE=2351 MJD=53772 Smooth superflat for sdR-r1-00037152.fit
2.0
1.5
1.0
0.5
0.0
1.006
1.004
1.002
1.000
0.998
0.996
0.994
es= −0.0000
6000
7000
8000
9000
Wavelength (Å)

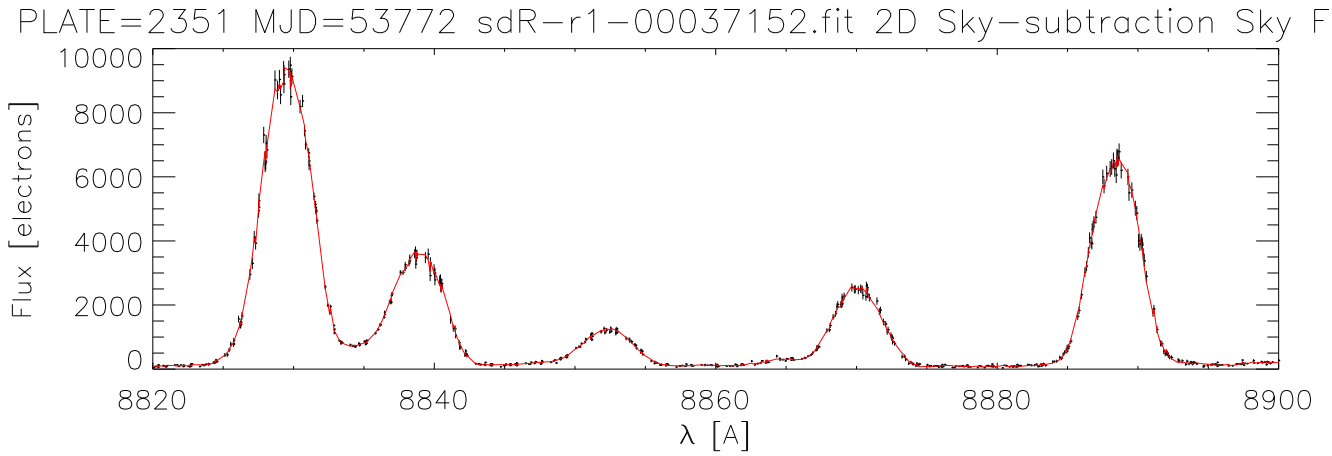

PLATE=2351 MJD=53772 sdR-r1-00037152.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
−5
−10
50
100
150
200
250
300
Fiber number

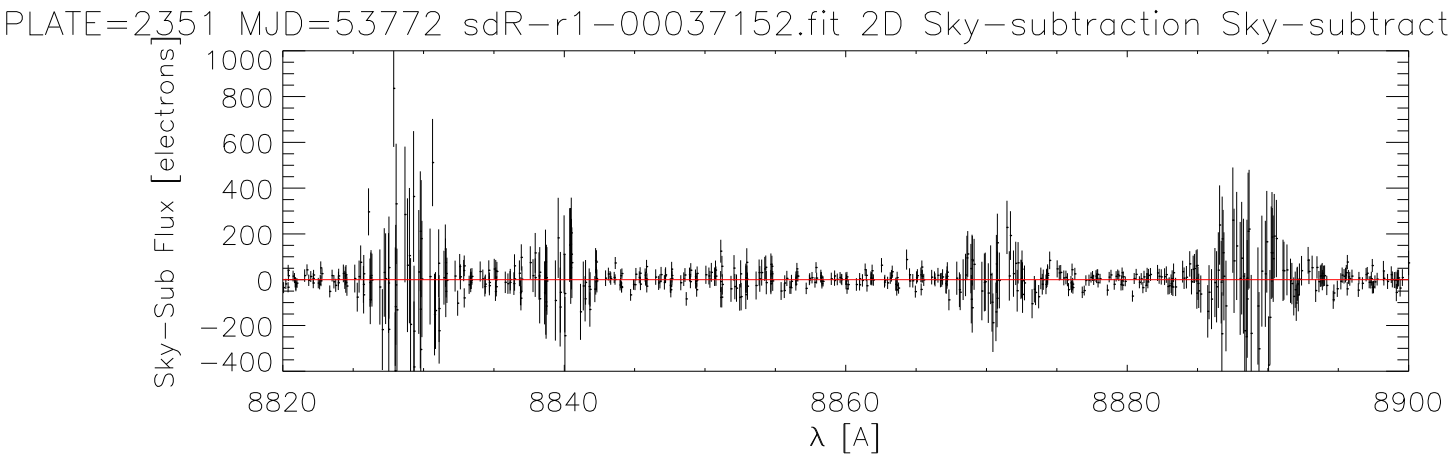

PLATE=2351 MJD=53772 sdR-r1-00037152.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
10000
8000
6000
4000
2000
0
8820
8840
8860
8880
8900
λ [A]

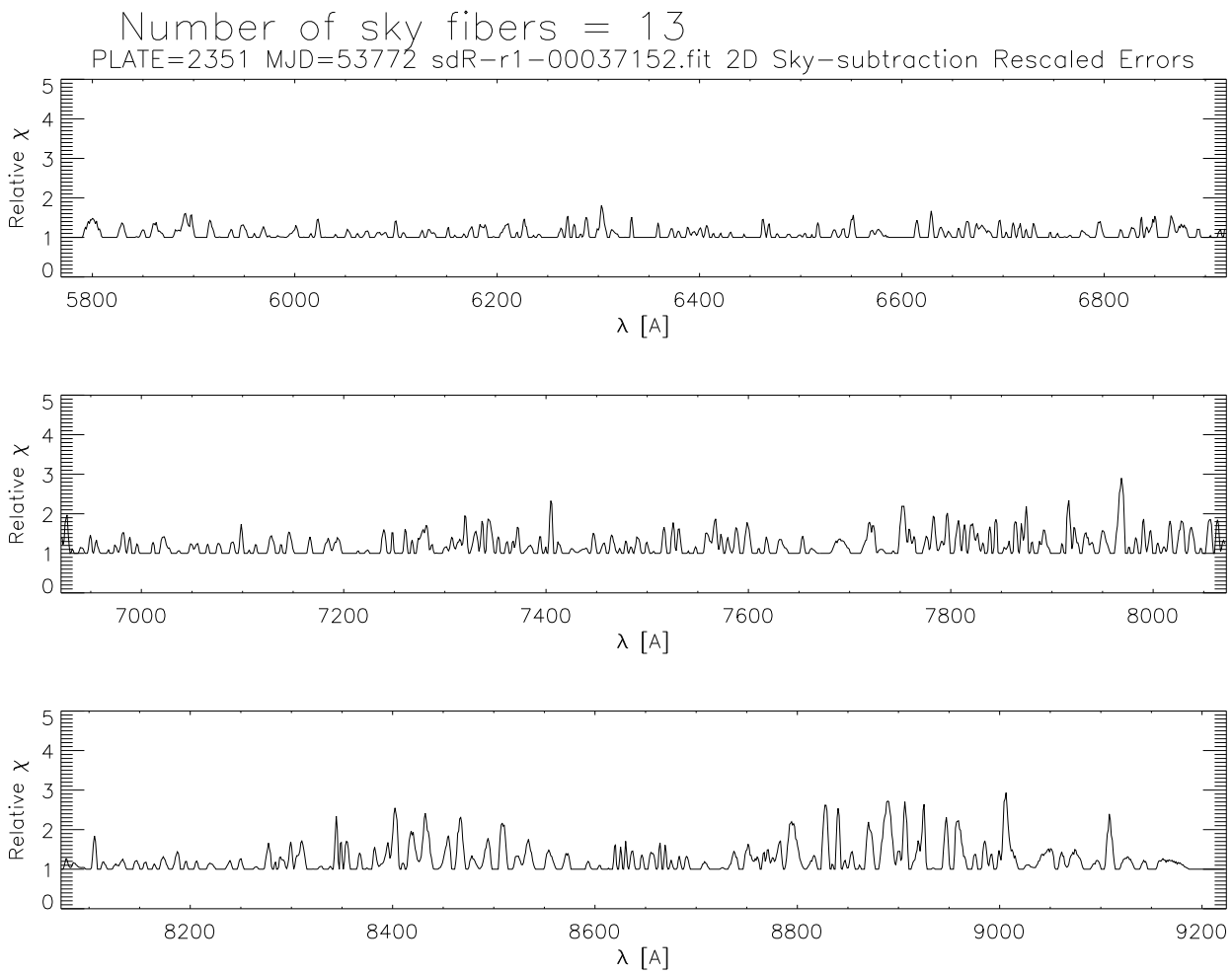

PLATE=2351 MJD=53772 sdR-r1-00037152.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
1500
1000
500
0
-500
-1000
8820
8840
8860
8880
8900
λ [A]

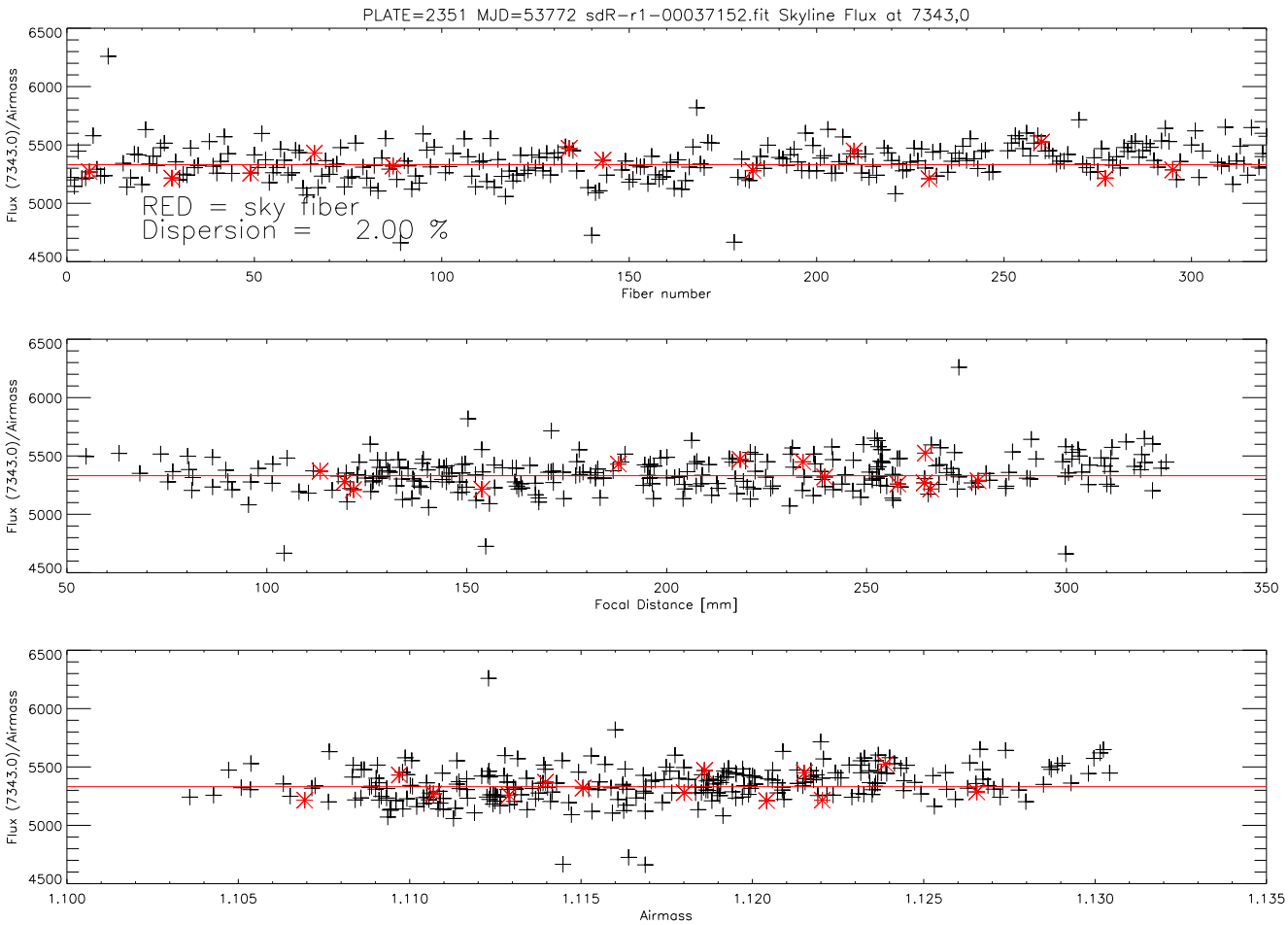

Number of sky fibers = 13
PLATE=2351 MJD=53772 sdR-r1-00037152.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

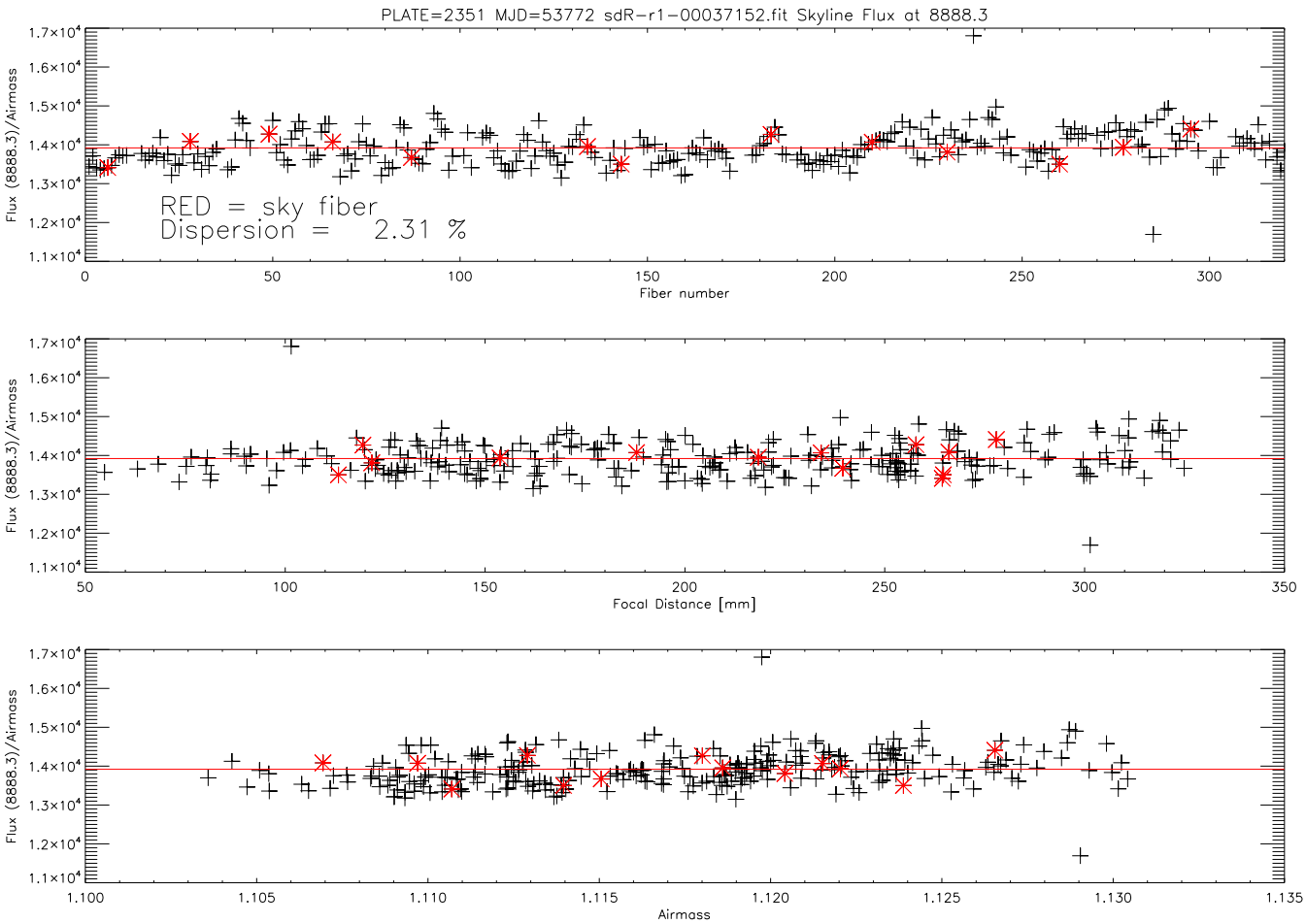

PLATE=2351 MJD=53772 sdR-r1-00037152.fit 2D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
Fiber number

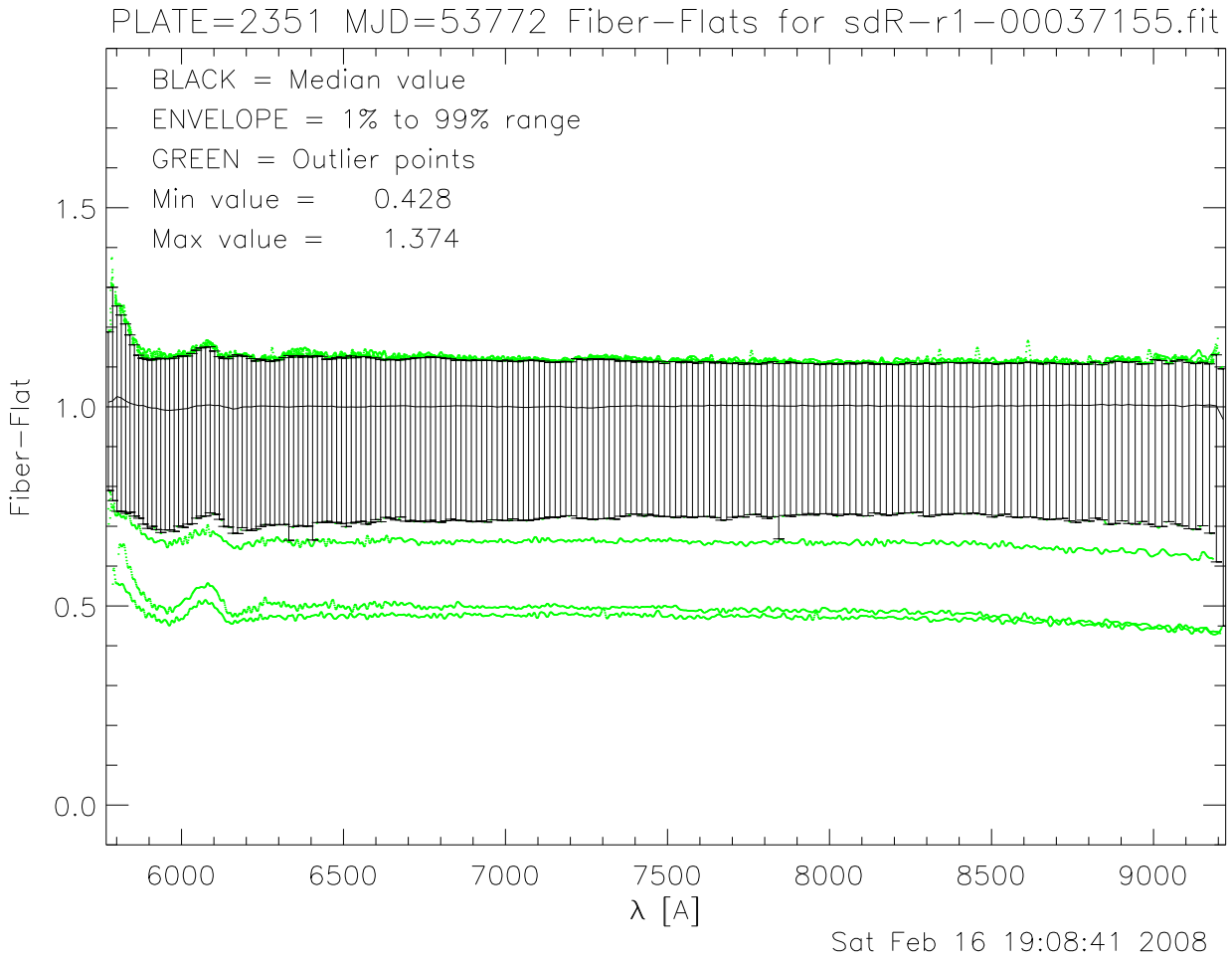

PLATE=2351 MJD=53772 sdR-r1-00037152.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
10000
8000
6000
4000
2000
0
8820
8840
8860
8880
8900
λ [A]

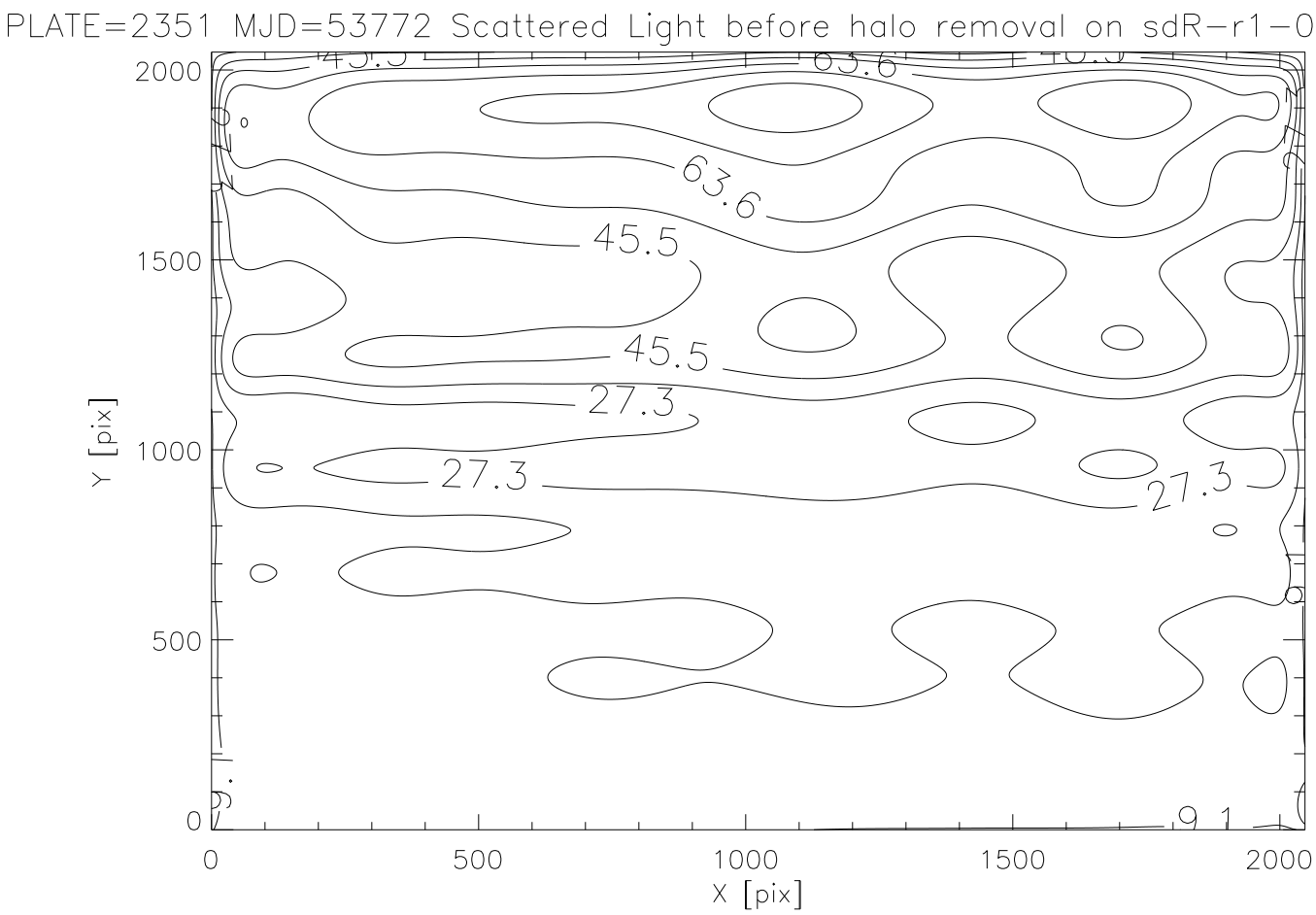

PLATE=2351 MJD=53772 sdR-r1-00037152.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
1000
800
600
400
200
0
-200
-400
8820
8840
8860
8880
8900
λ [A]

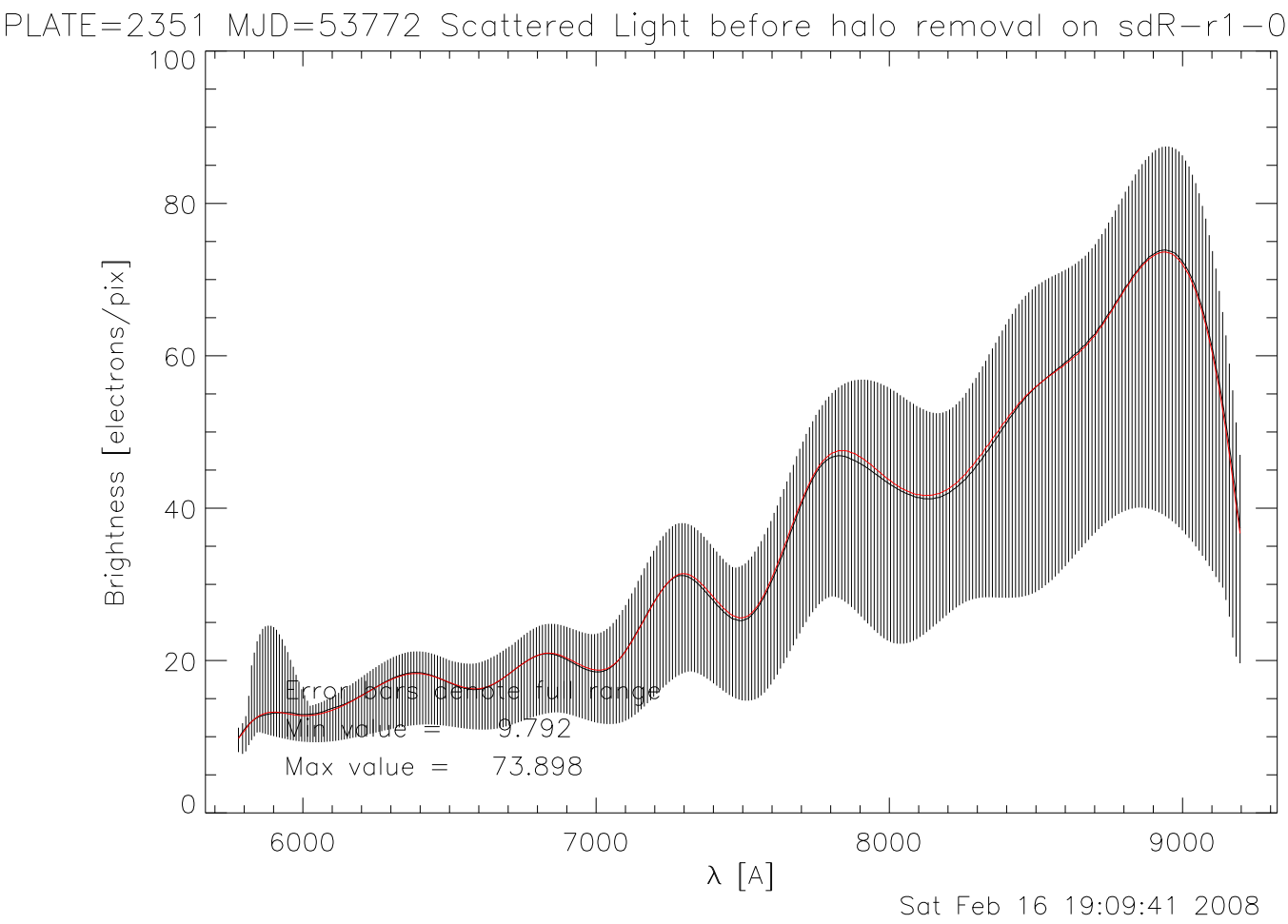

Number of sky fibers = 13
PLATE=2351 MJD=53772 sdR-r1-00037152.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

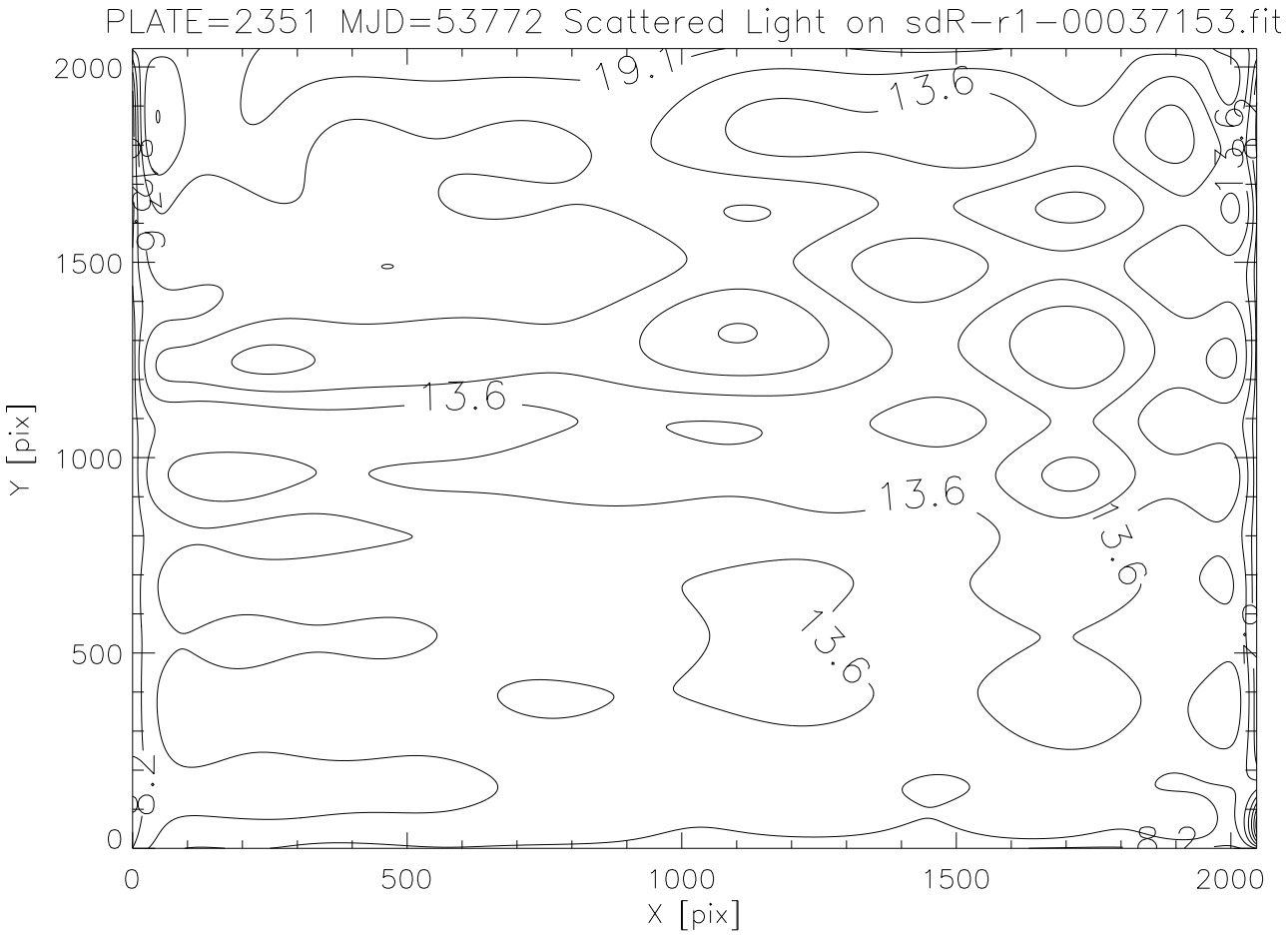

PLATE=2351 MJD=53772 sdR-r1-00037152.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
Fiber number
RED = sky fiber
Dispersion = 2.00 %
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

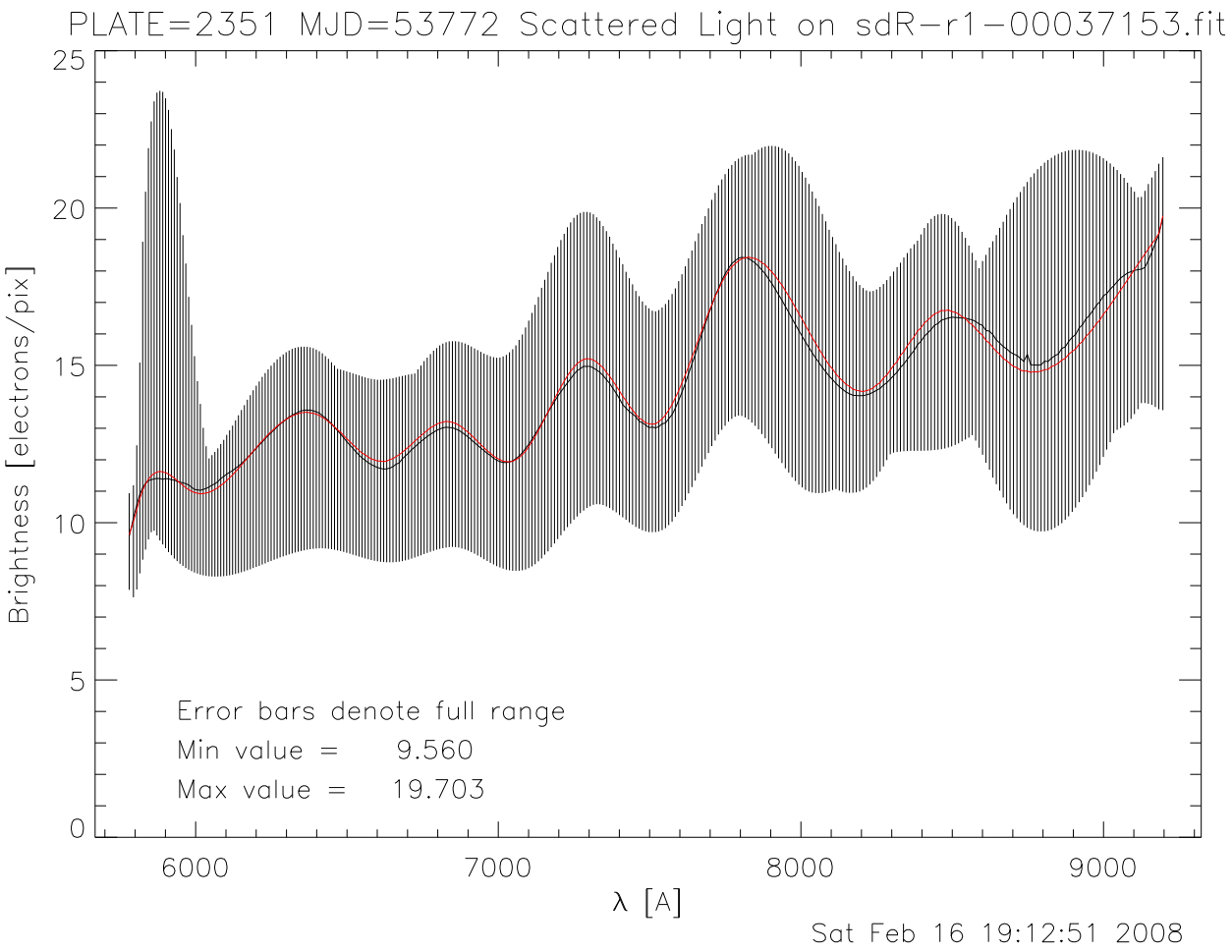

PLATE=2351 MJD=53772 sdR-r1-00037152.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 2.31 %
Fiber number
Focal Distance [mm]
Airmass

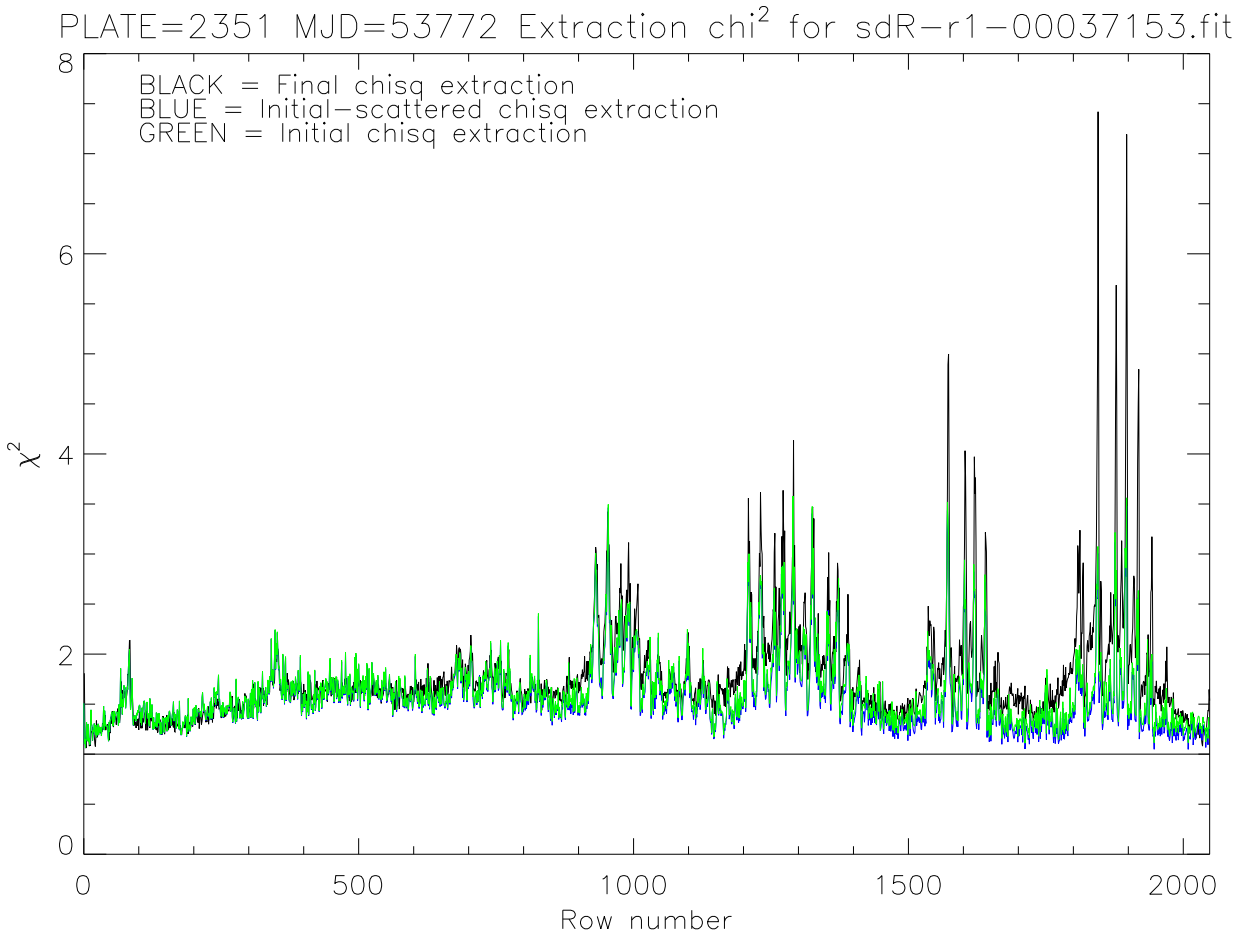

PLATE=2351 MJD=53772 Fiber−Flats for sdR−r1−00037155.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.428
Max value = 1.374
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sat Feb 16 19:08:41 2008

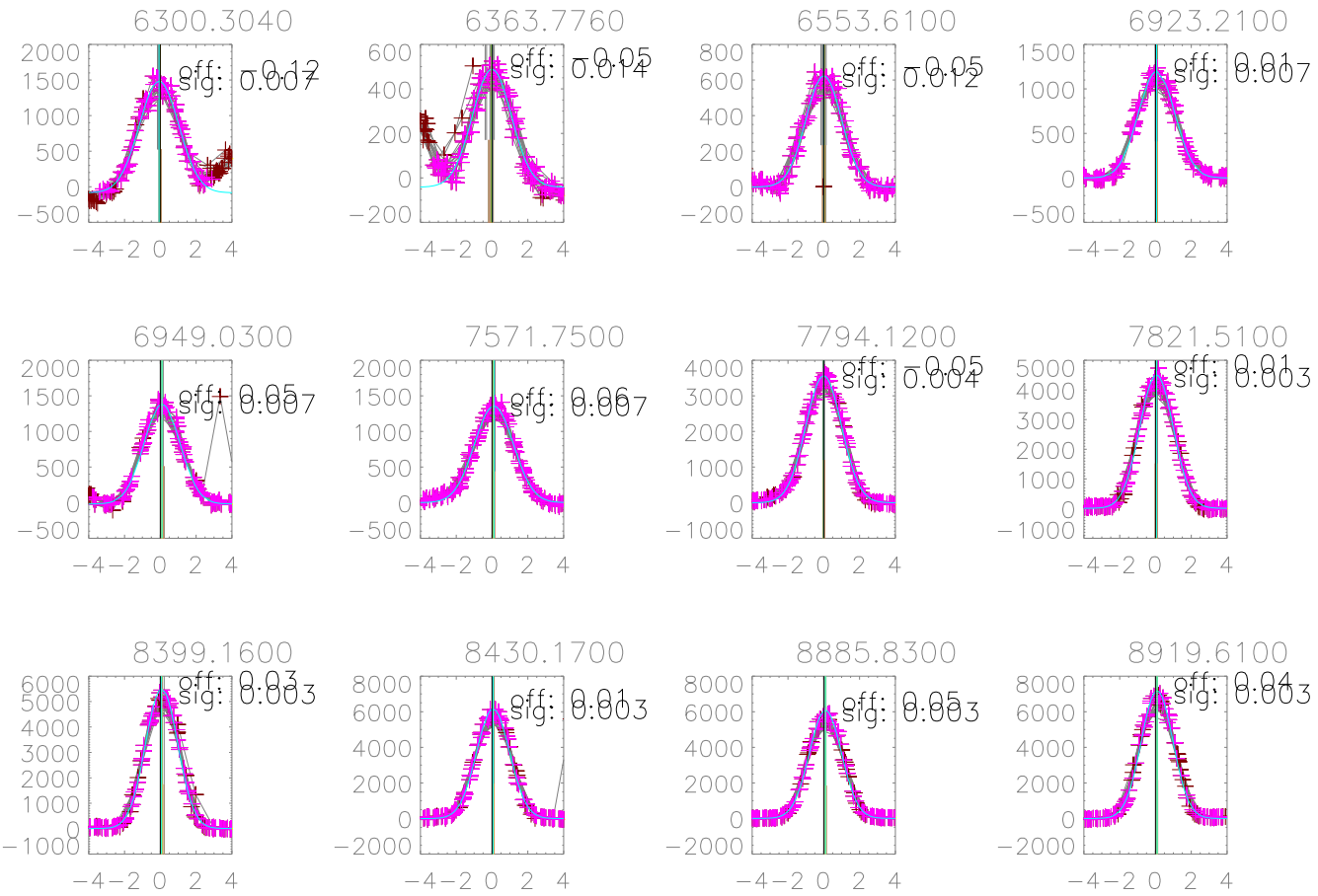

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR-r1-00037153.fi
63.6
63.6
45.5
45.5
27.3
27.3
27.3
9.1
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]

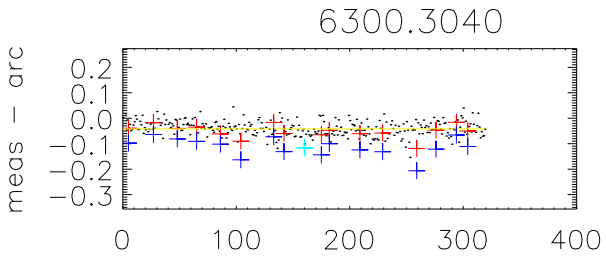

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR-r1-00037153.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 9.792
Max value = 73.898
Sat Feb 16 19:09:41 2008

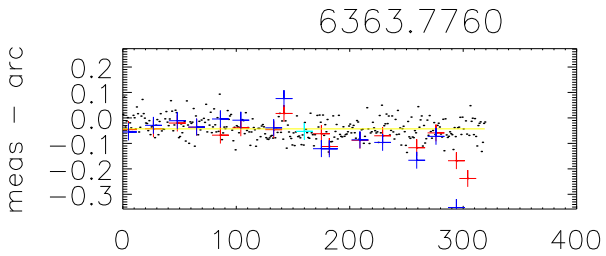

PLATE=2351 MJD=53772 Scattered Light on sdR-r1-00037153.fit
19.1
13.6
13.6
13.6
13.6
13.6
13.6
13.6
8.2
8.2
8.2

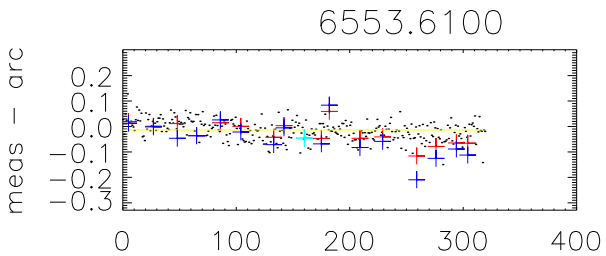

PLATE=2351 MJD=53772 Scattered Light on sdR-r1-00037153.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 9.560
Max value = 19.703
Sat Feb 16 19:12:51 2008

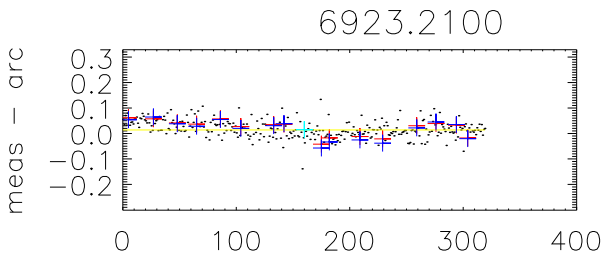

PLATE=2351 MJD=53772 Extraction chi^2 for sdR−r1−00037153.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
0
500
1000
1500
2000
Row number

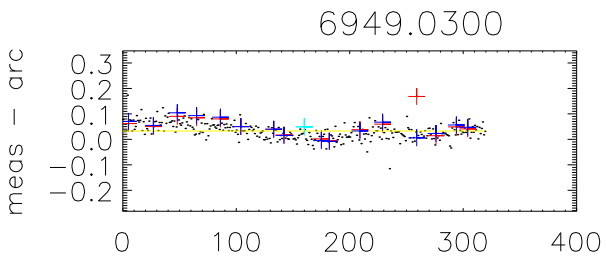

6300.3040
off: −0.12
sig: 0.007
6363.7760
off: −0.05
sig: 0.014
6553.6100
off: −0.05
sig: 0.012
6923.2100
off: 0.01
sig: 0.007
6949.0300
off: −0.05
sig: 0.007
7571.7500
off: 0.06
sig: 0.007
7794.1200
off: −0.05
sig: 0.004
7821.5100
off: 0.01
sig: 0.003
8399.1600
off: 0.03
sig: 0.003
8430.1700
off: 0.01
sig: 0.003
8885.8300
off: 0.05
sig: 0.003
8919.6100
off: 0.04
sig: 0.003

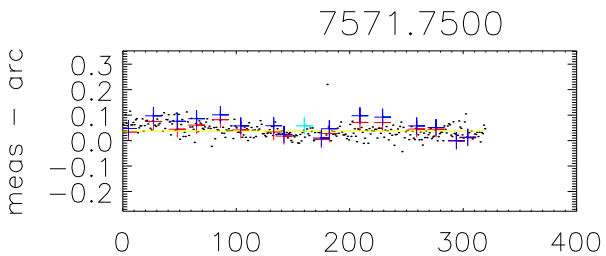

6300.3040
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

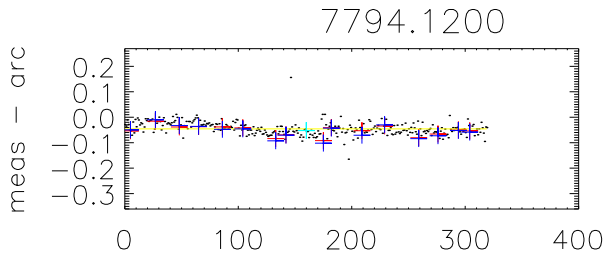

6363.7760
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

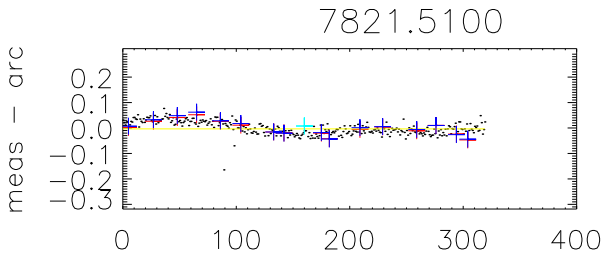

6553.6100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

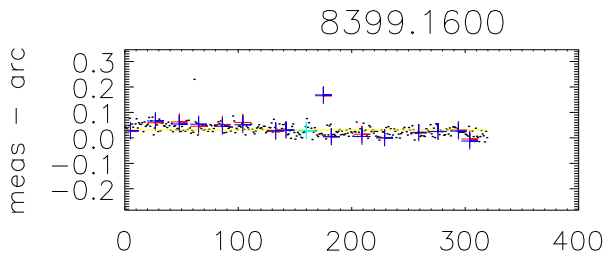

6923.2100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

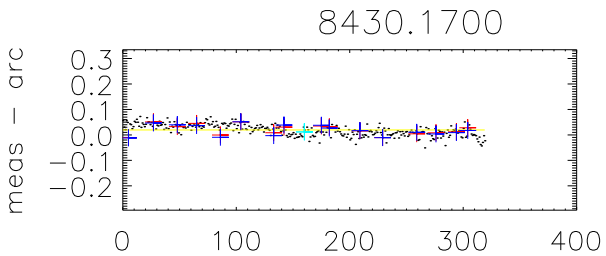

6949.0300
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

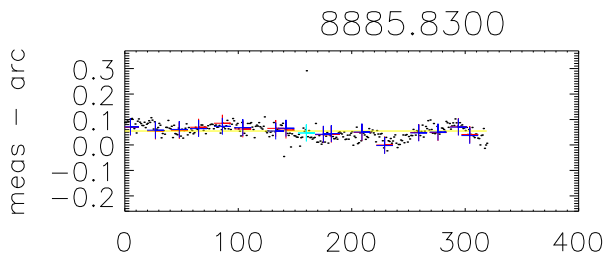

7571.7500
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

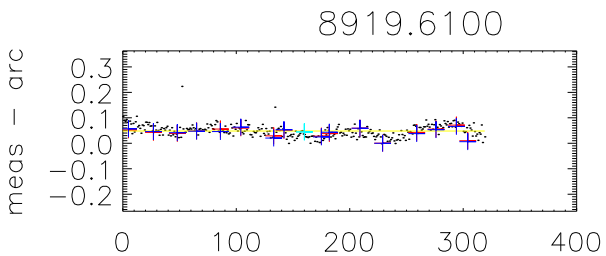

7794.1200
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

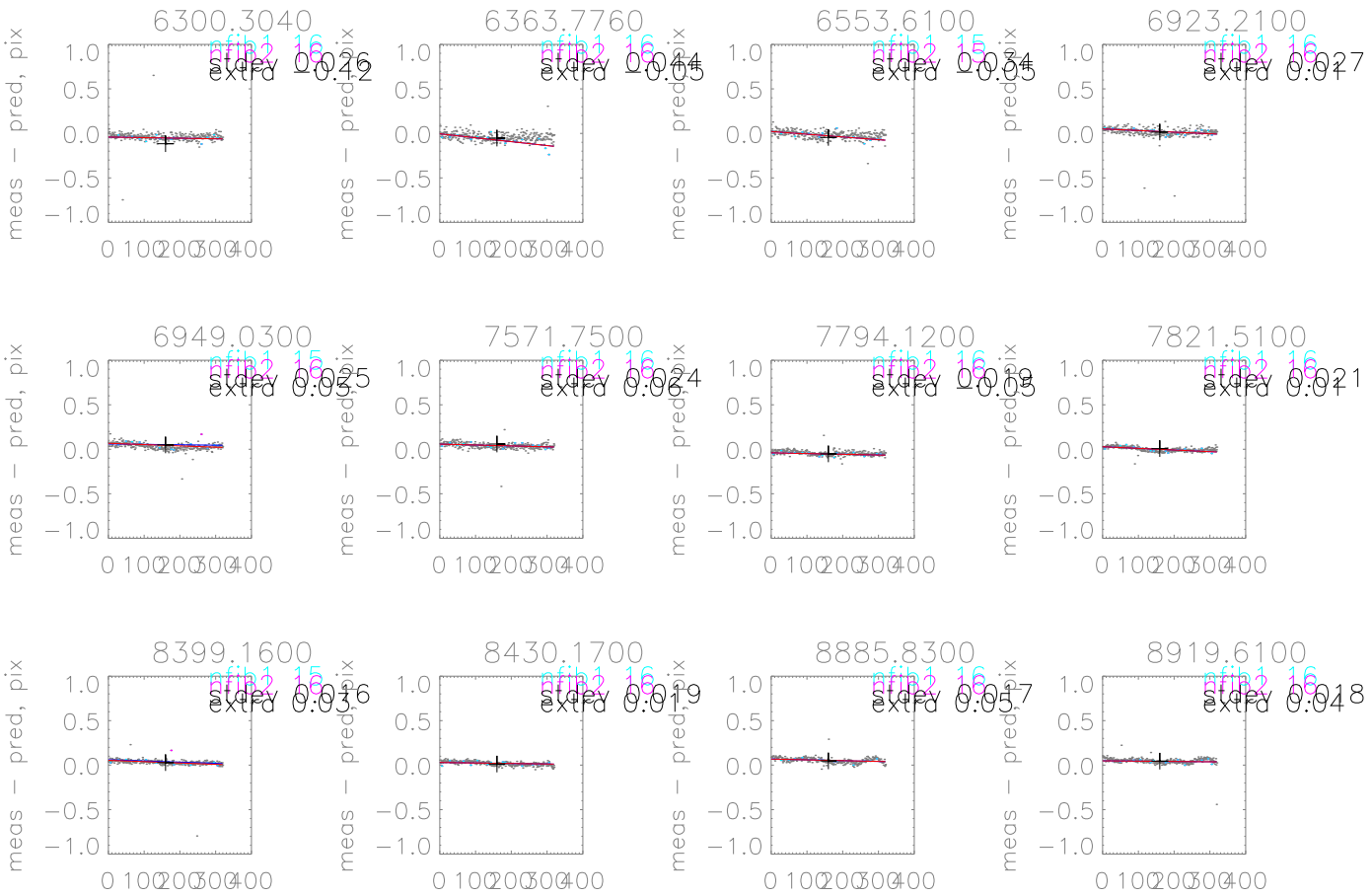

7821.5100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

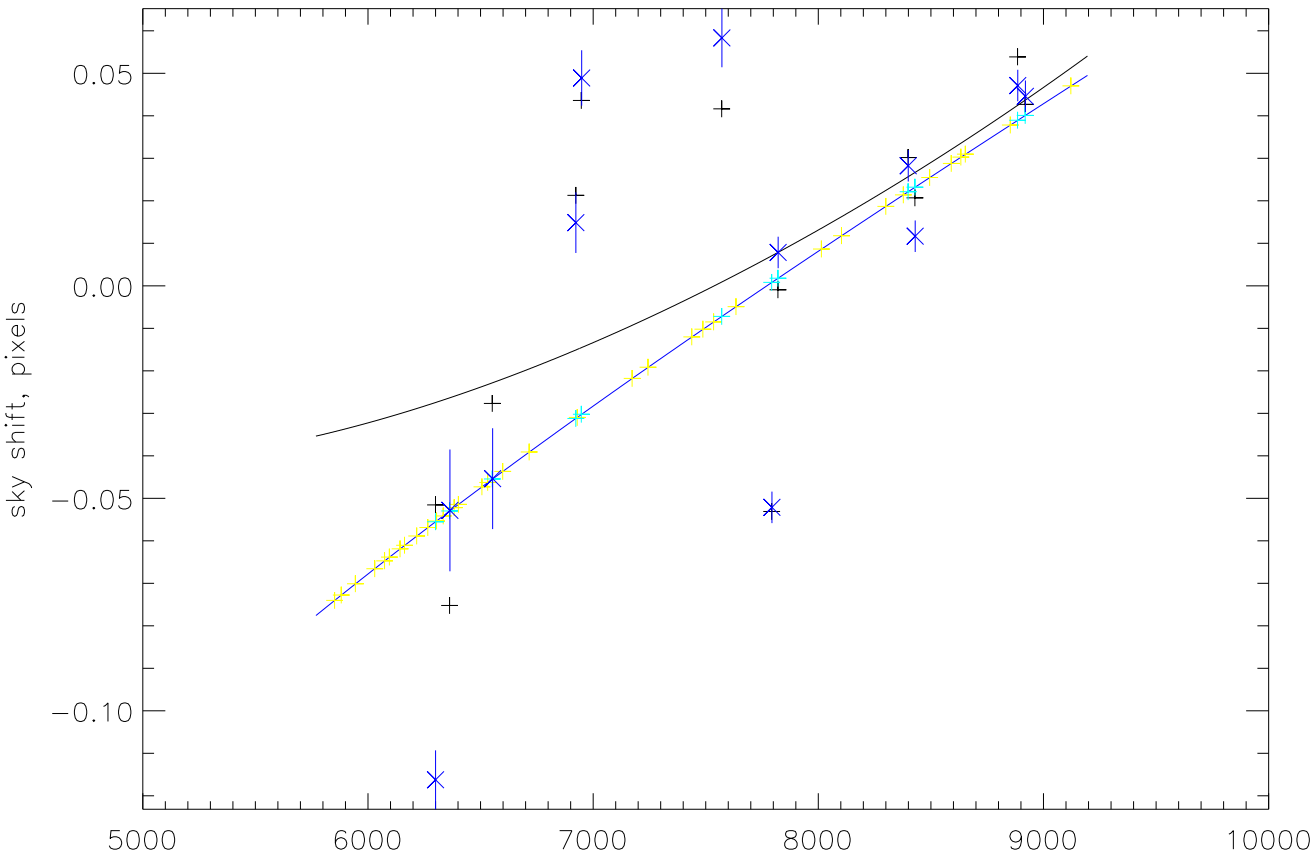

8399.1600
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

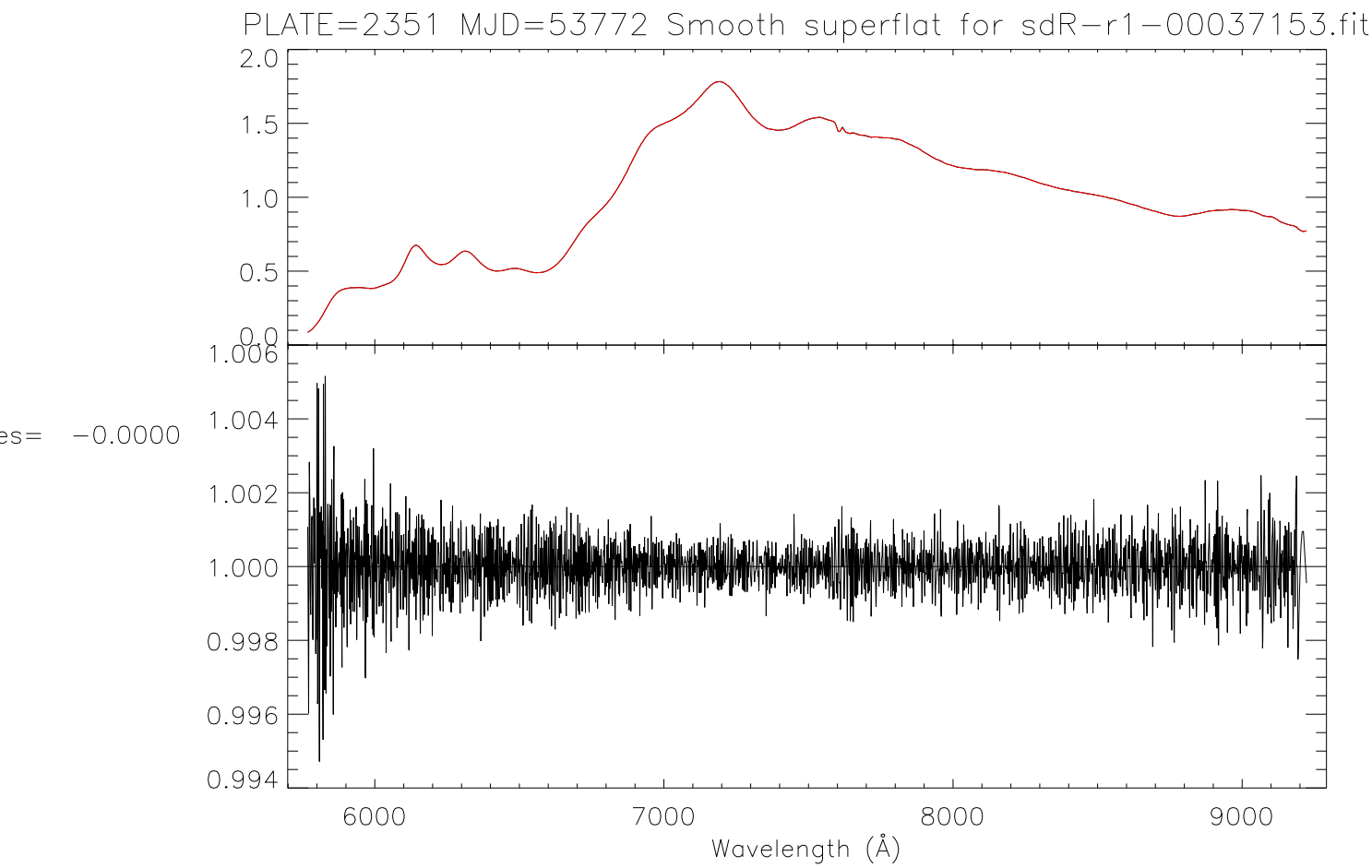

8430.1700
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400


8885.8300
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

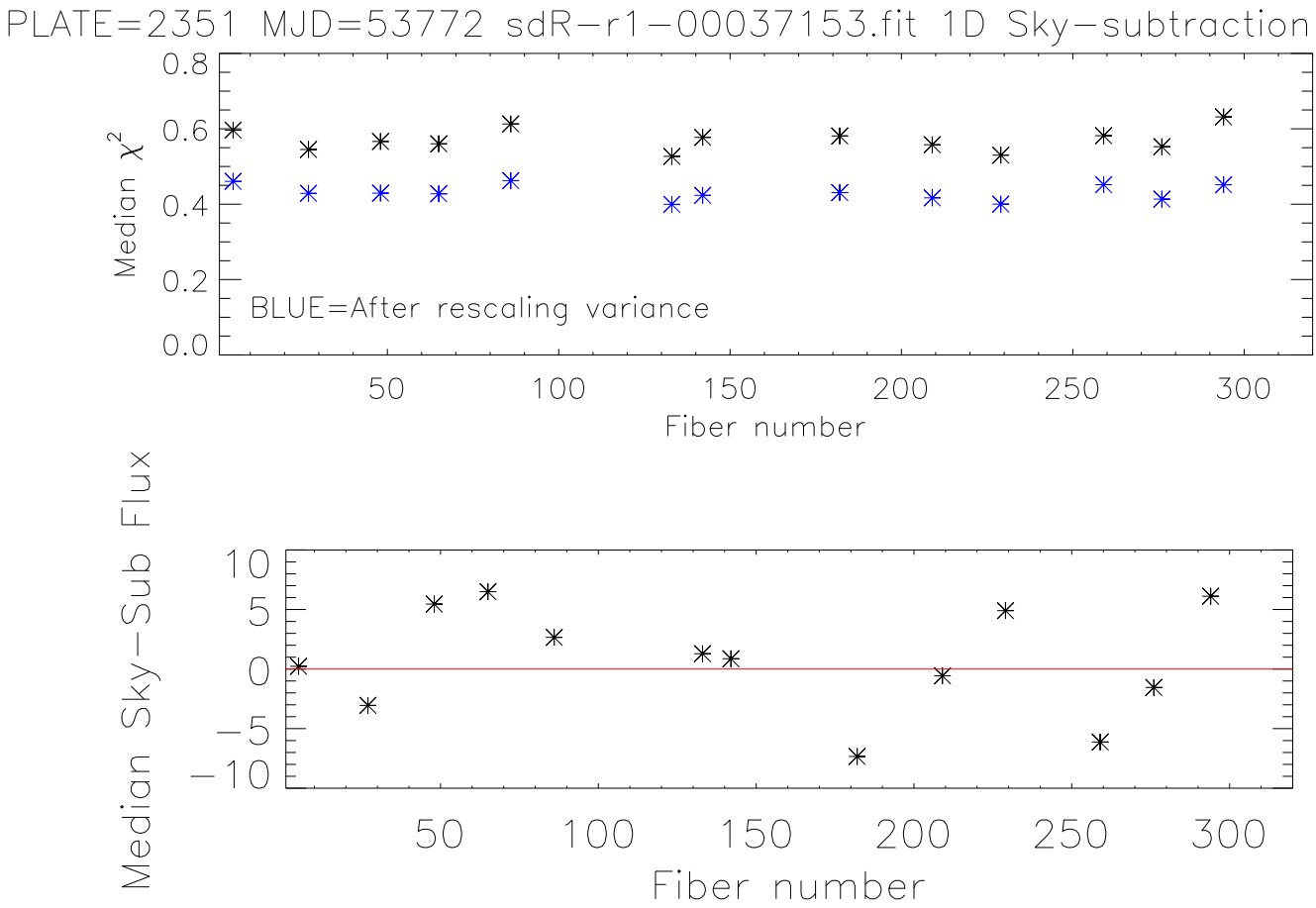

8919.6100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

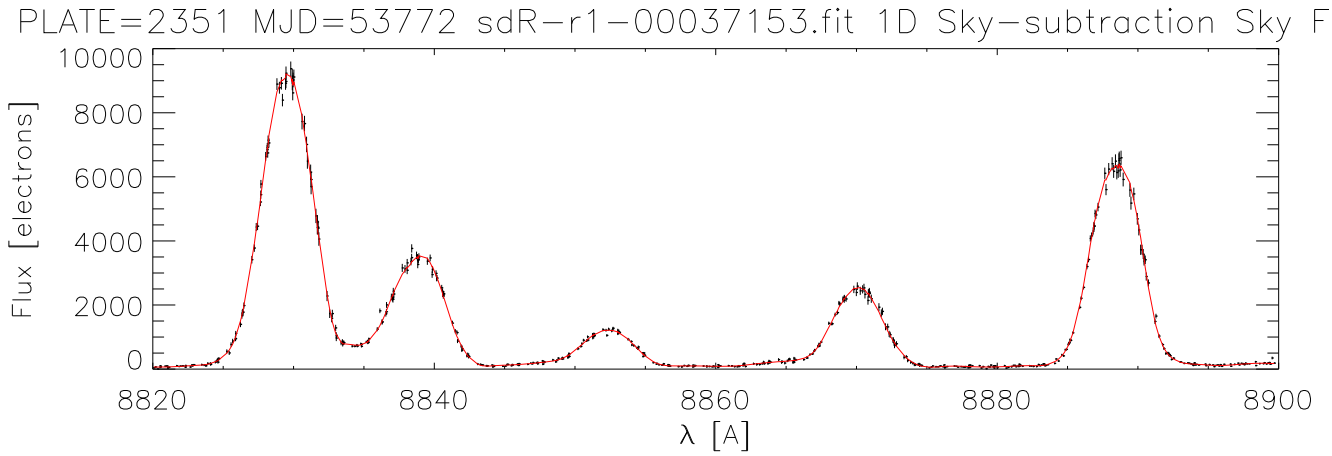

6300.3040
stdev 0.026
extra −0.042
6363.7760
stdev 0.044
extra −0.005
6553.6100
stdev 0.034
extra −0.005
6923.2100
stdev 0.027
extra 0.01
6949.0300
stdev 0.025
extra 0.005
7571.7500
stdev 0.024
extra 0.006
7794.1200
stdev 0.019
extra −0.005
7821.5100
stdev 0.021
extra 0.01
8399.1600
stdev 0.036
extra 0.03
8430.1700
stdev 0.019
extra 0.01
8885.8300
stdev 0.057
extra 0.05
8919.6100
stdev 0.018
extra 0.04
meas − pred, pix
mfib1 15
mfib2 16

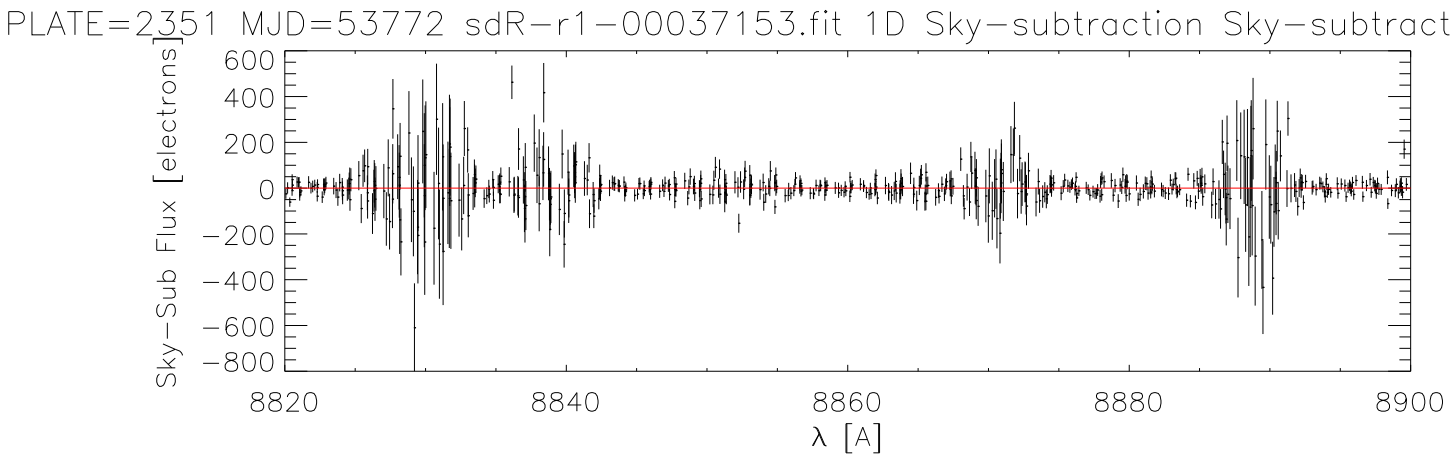

0.05
0.00
−0.05
−0.10
sky shift, pixels
5000
6000
7000
8000
9000
10000

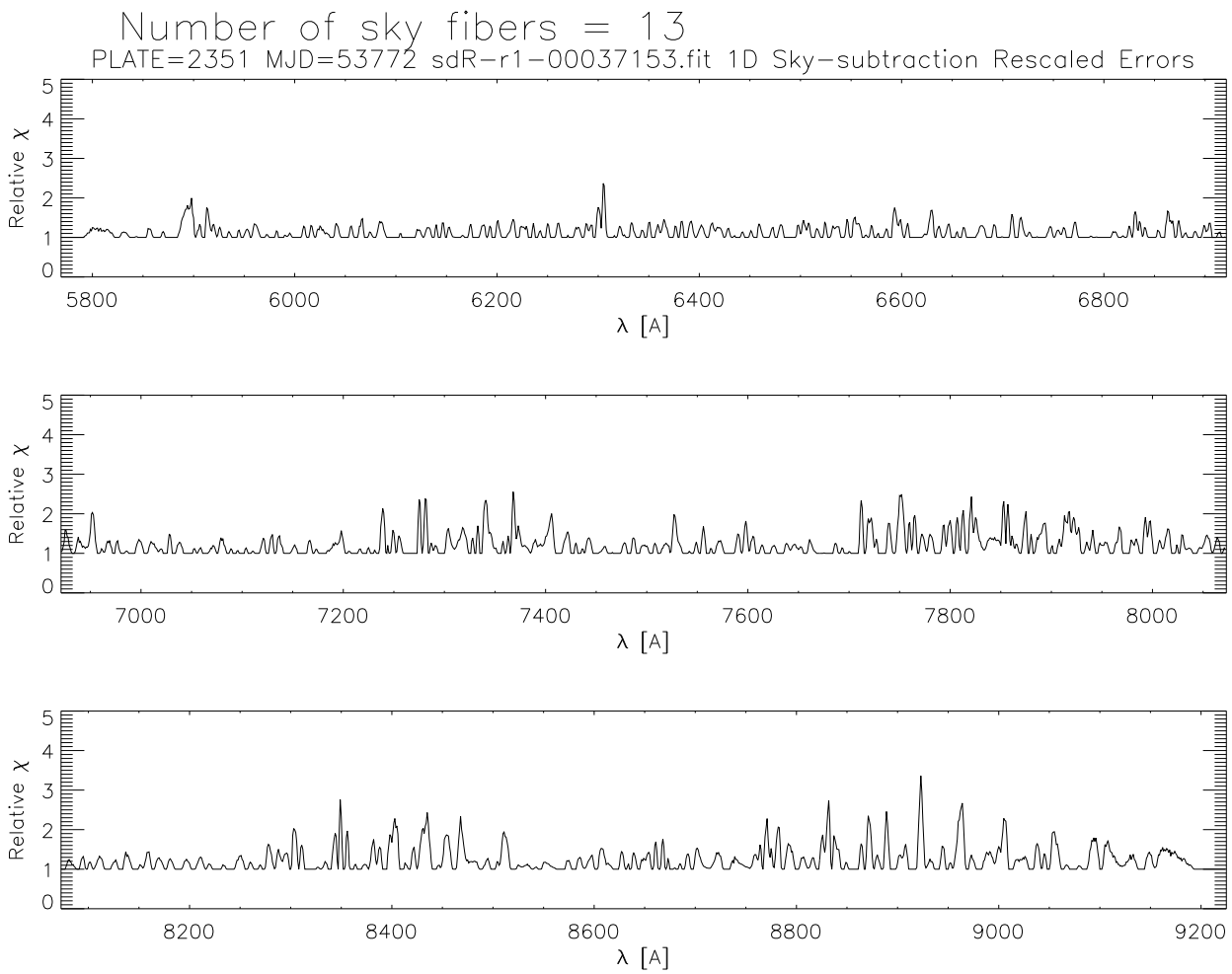

PLATE=2351 MJD=53772 Smooth superflat for sdR-r1-00037153.fit
2.0
1.5
1.0
0.5
0.0
1.006
1.004
1.002
1.000
0.998
0.996
0.994
6000
7000
8000
9000
Wavelength (Å)

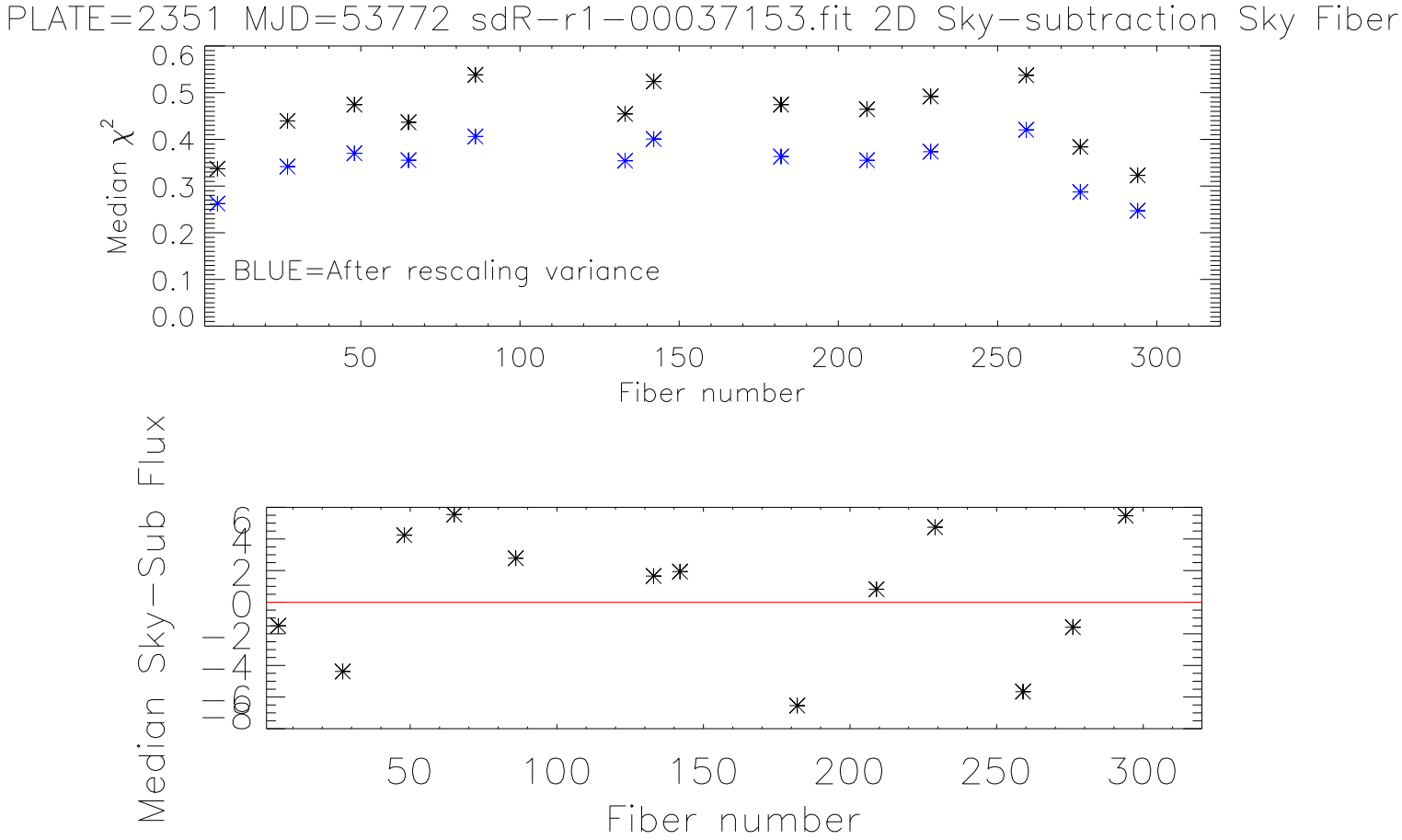
es= −0.0000

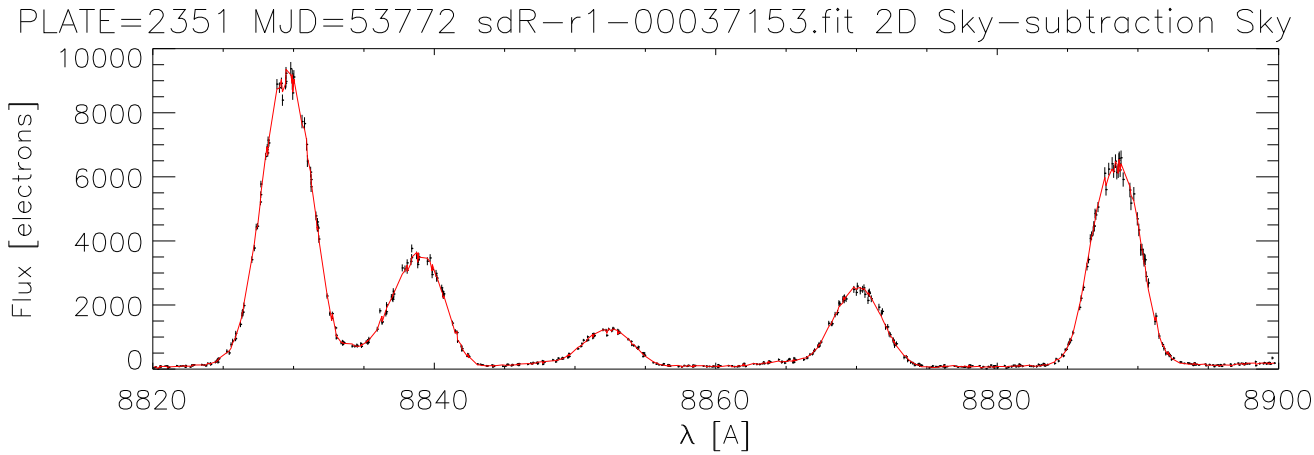

PLATE=2351 MJD=53772 sdR-r1-00037153.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
−5
−10
50
100
150
200
250
300
Fiber number

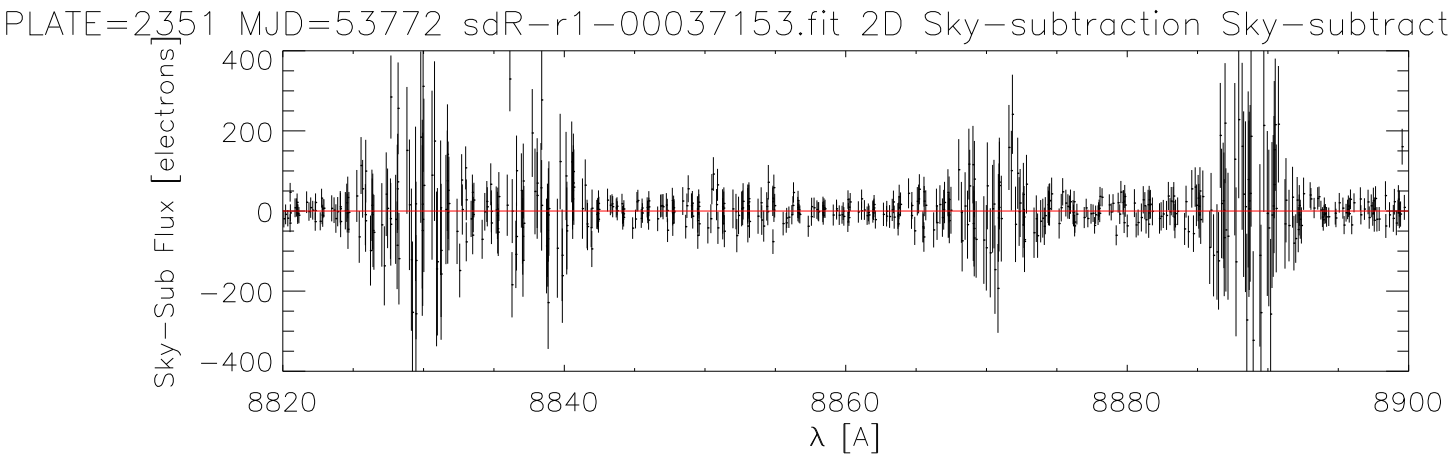

PLATE=2351 MJD=53772 sdR-r1-00037153.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
10000
8000
6000
4000
2000
0
8820
8840
8860
8880
8900
λ [A]

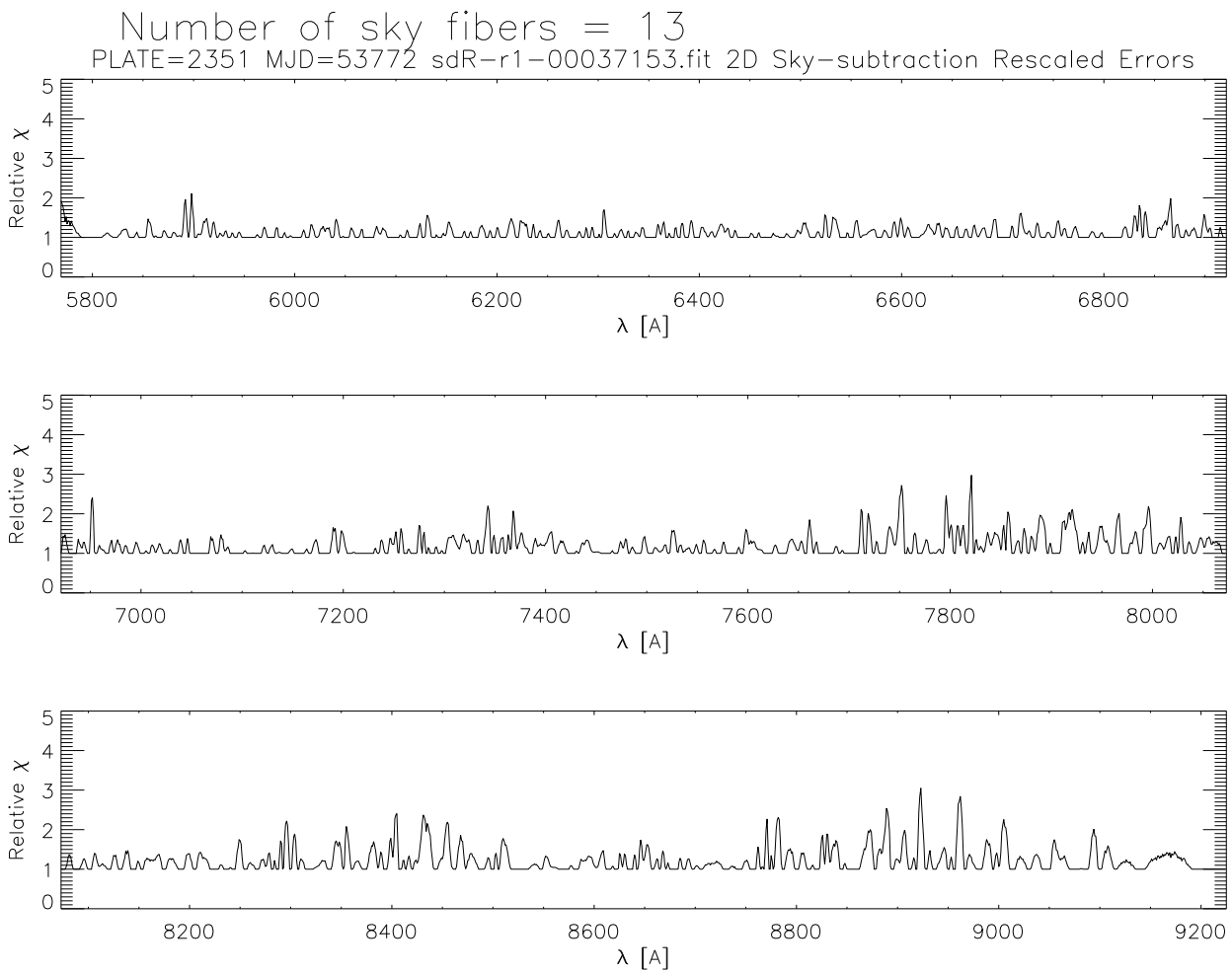

PLATE=2351 MJD=53772 sdR-r1-00037153.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
-200
-400
-600
-800
8820
8840
8860
8880
8900
λ [A]

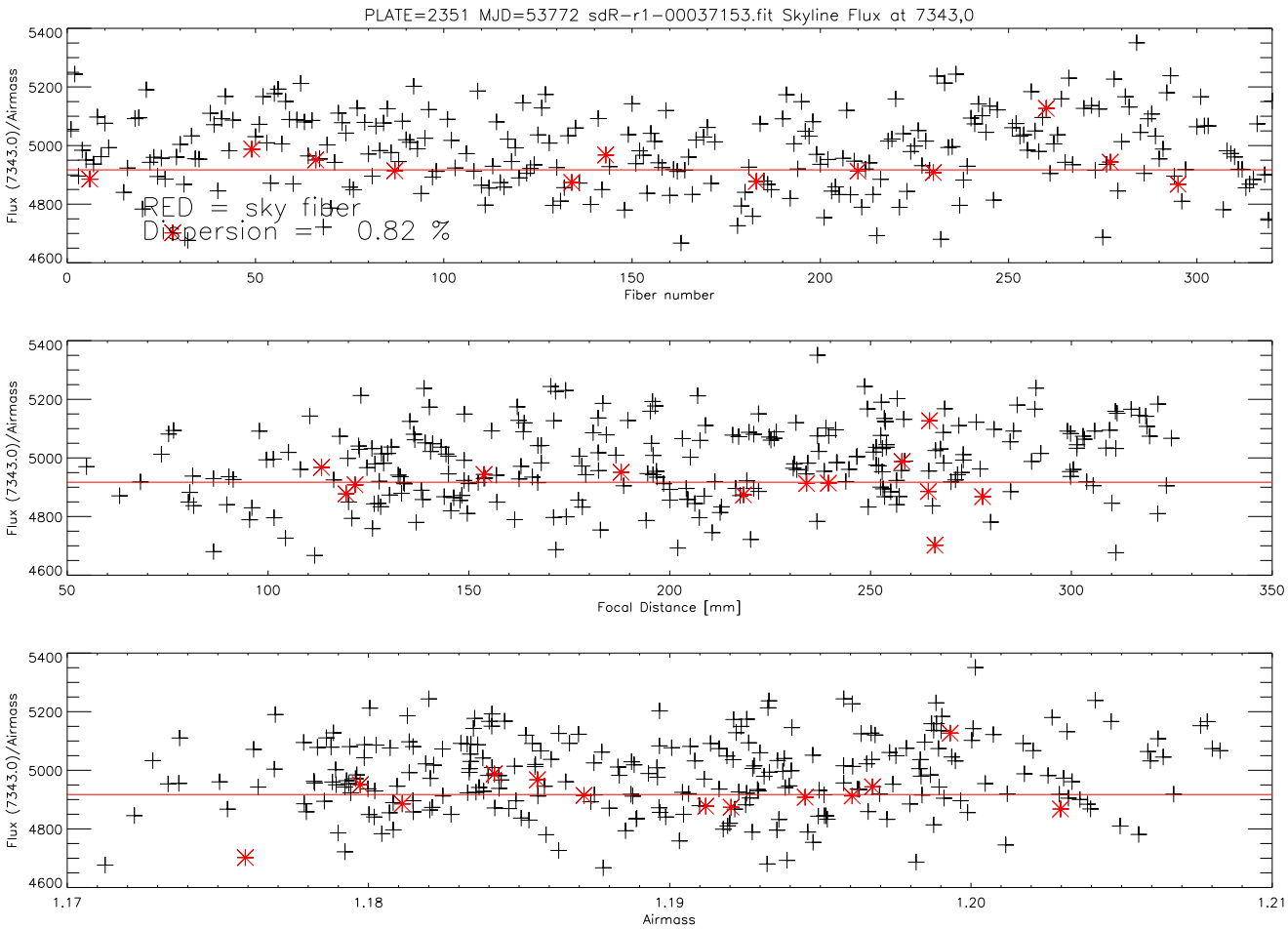

Number of sky fibers = 13
PLATE=2351 MJD=53772 sdR-r1-00037153.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

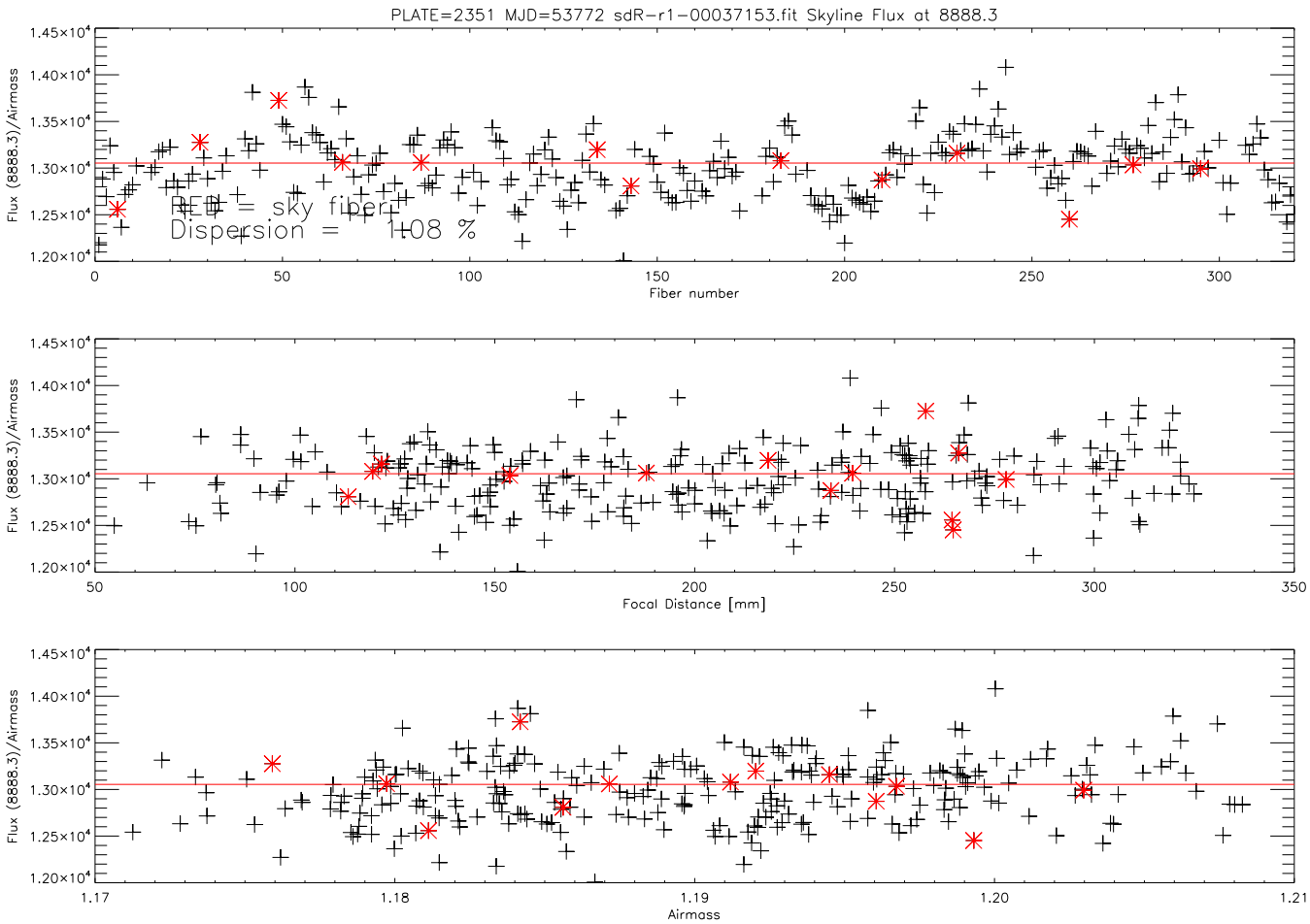

PLATE=2351 MJD=53772 sdR-r1-00037153.fit 2D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-1.1e-06
-1e-06
-9e-07
-8e-07
-7e-07
-6e-07
-5e-07
-4e-07
-3e-07
-2e-07
-1e-07
0
1e-07
2e-07
3e-07
4e-07
5e-07
6e-07
50
100
150
200
250
300
Fiber number

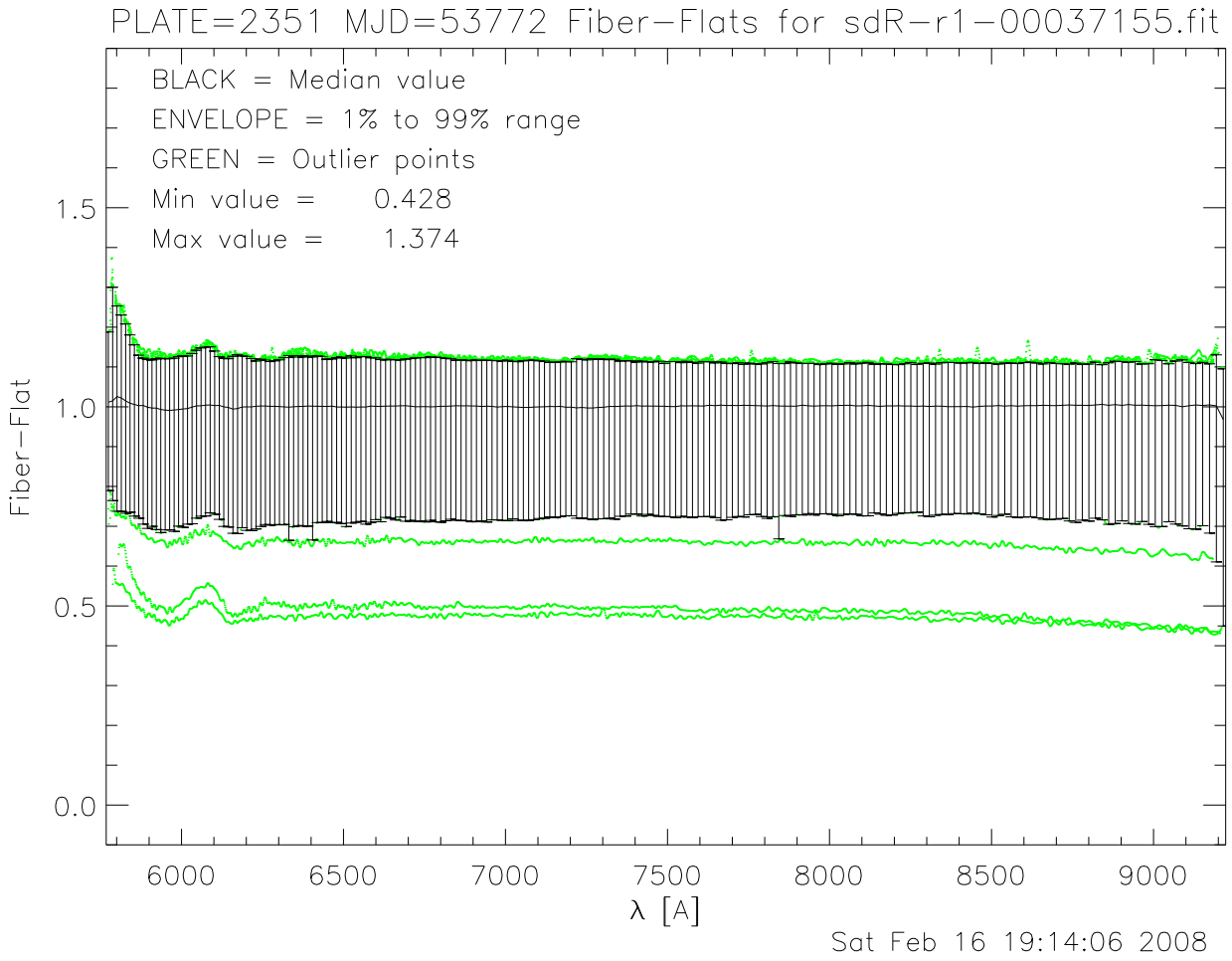

PLATE=2351 MJD=53772 sdR-r1-00037153.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
10000
8000
6000
4000
2000
0
8820
8840
8860
8880
8900
λ [A]

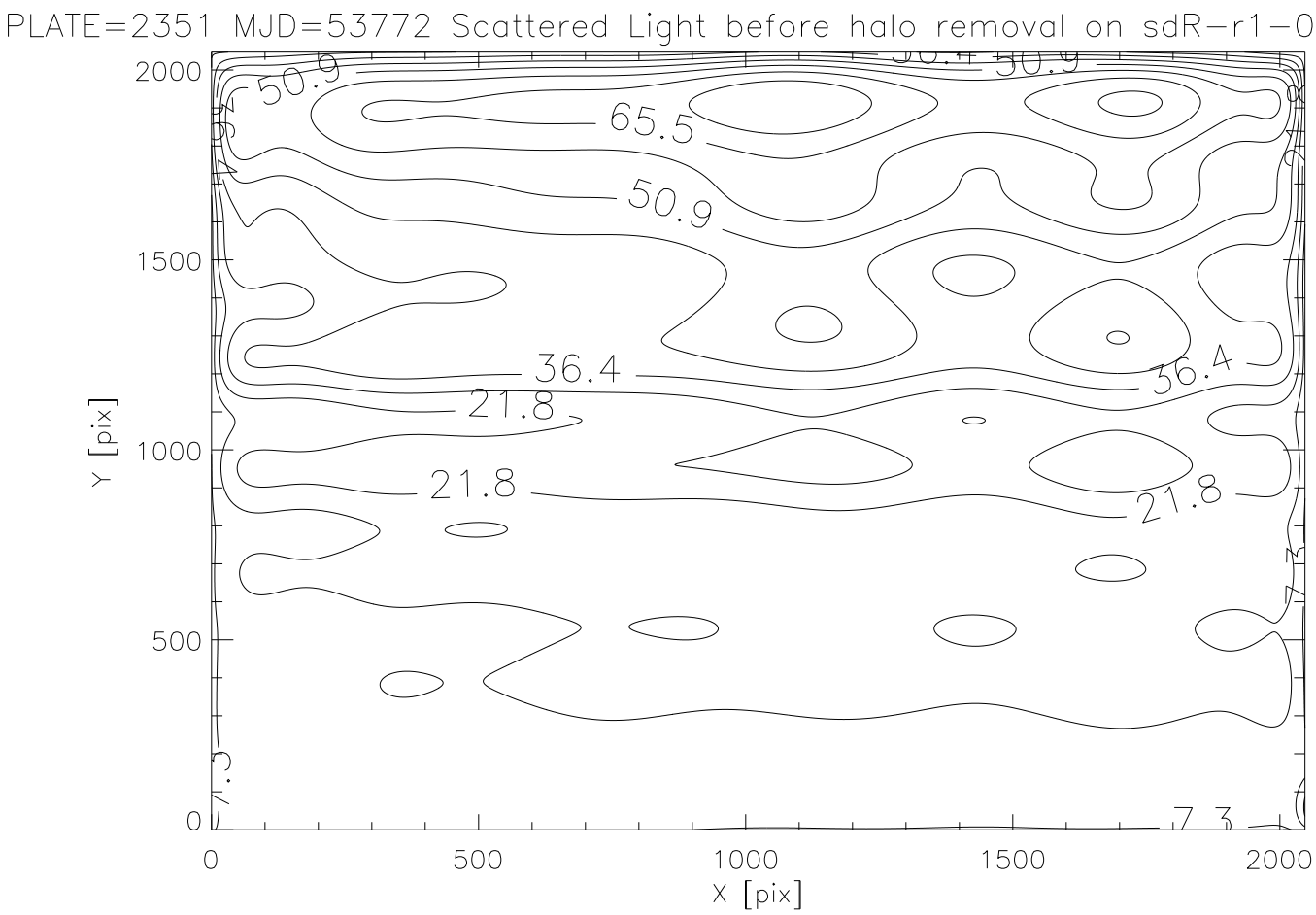

PLATE=2351 MJD=53772 sdR-r1-00037153.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
200
0
-200
-400
8820
8840
8860
8880
8900
λ [A]

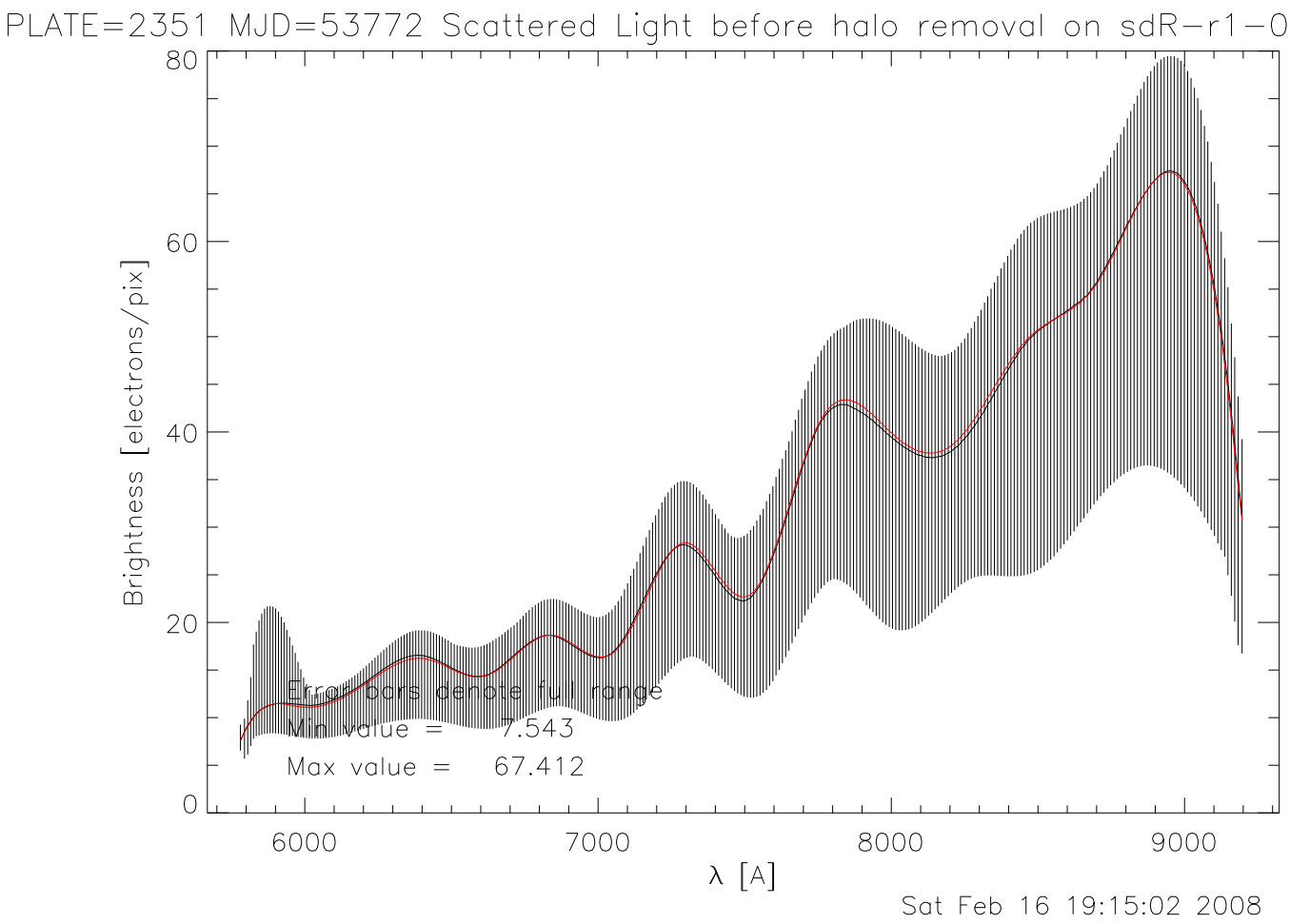

Number of sky fibers = 13
PLATE=2351 MJD=53772 sdR-r1-00037153.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

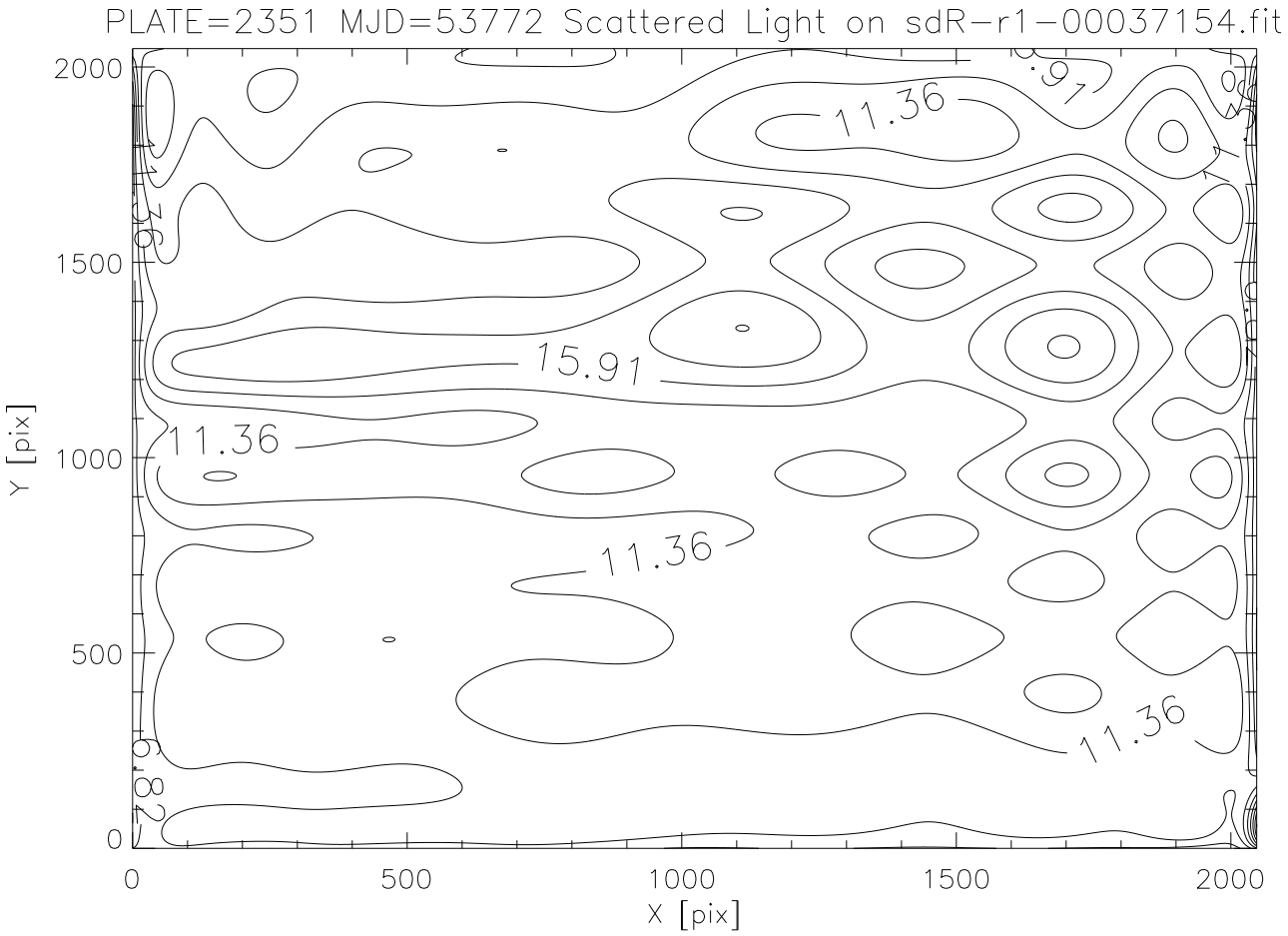

PLATE=2351 MJD=53772 sdR-r1-00037153.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
Fiber number
RED = sky fiber
Dispersion =+ 0.82 %
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

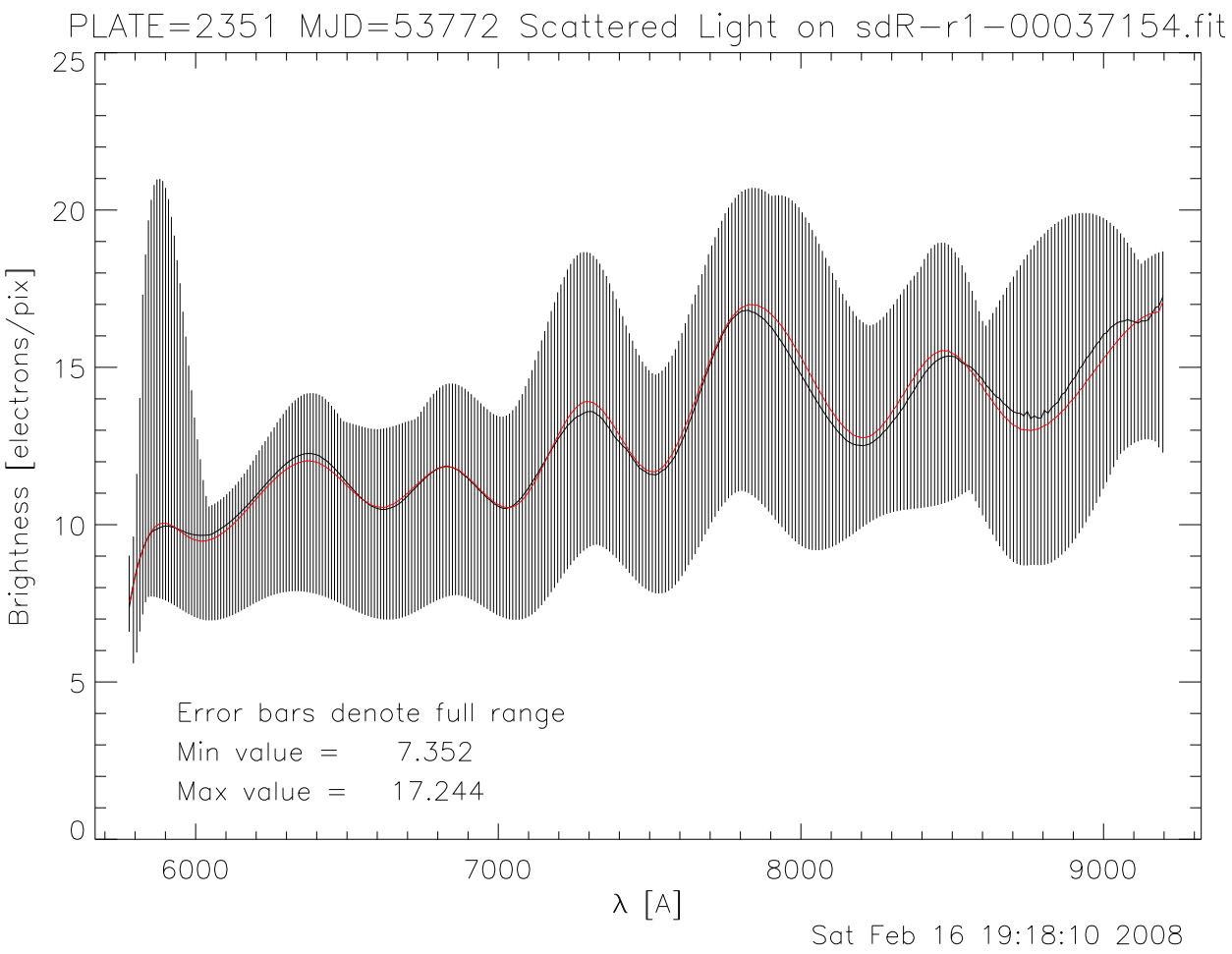

PLATE=2351 MJD=53772 sdR-r1-00037153.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
Fiber number
Focal Distance [mm]
Airmass
red = sky fiber
Dispersion = 1.08 %

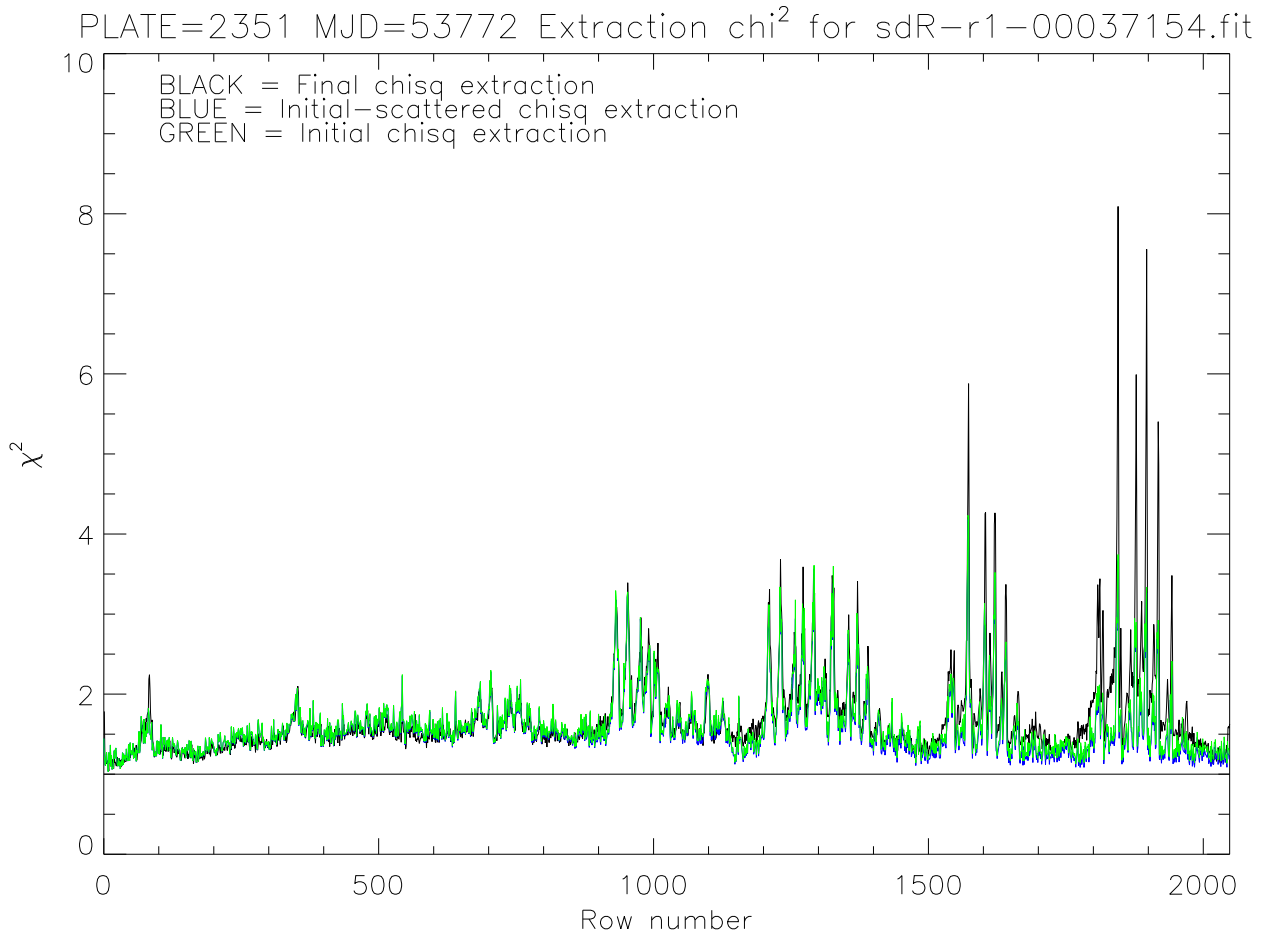

PLATE=2351 MJD=53772 Fiber−Flats for sdR−r1−00037155.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.428
Max value = 1.374
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sat Feb 16 19:14:06 2008

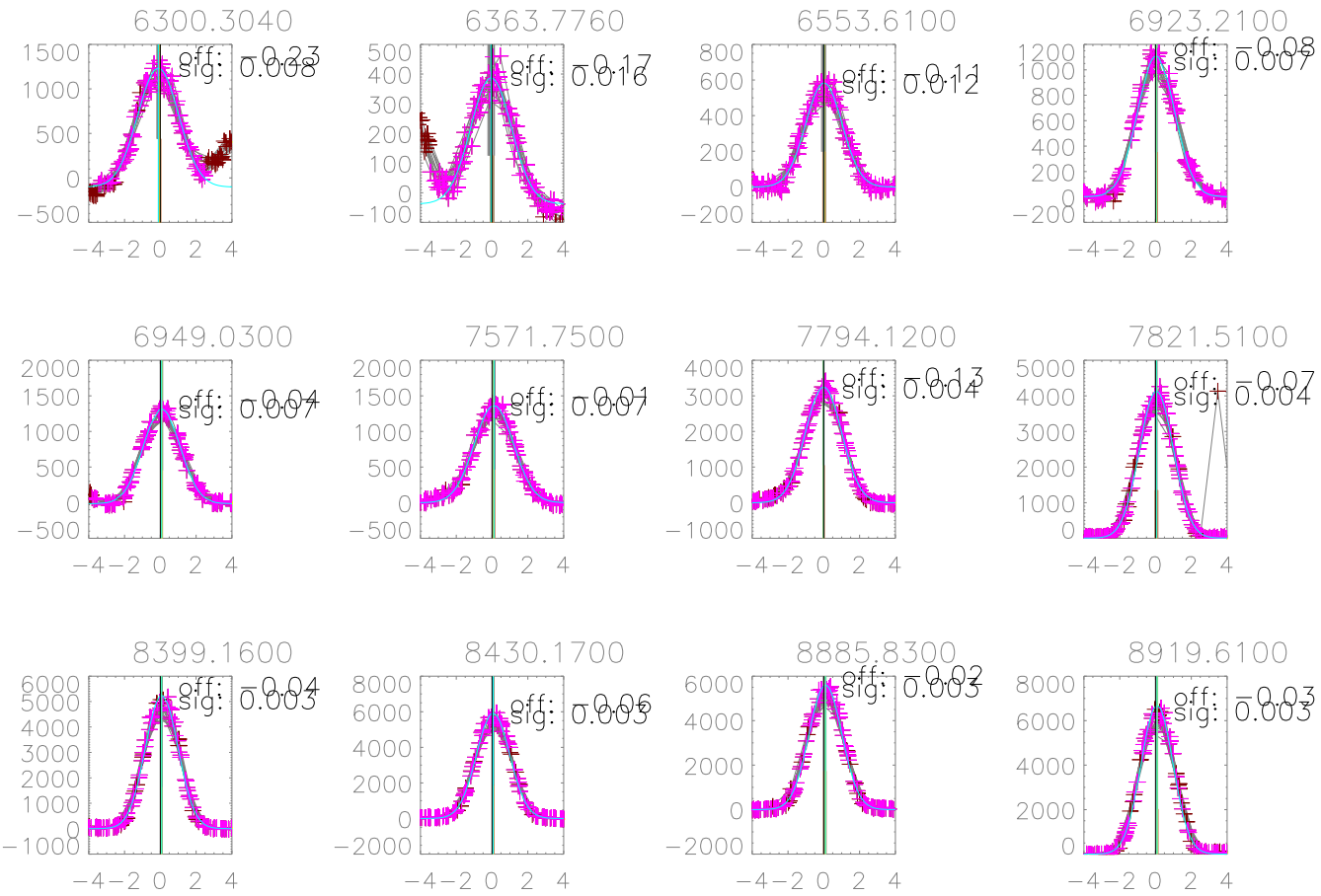

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR-r1-00037154.fi
65.5
50.9
36.4
21.8
7.3
Y [pix]
X [pix]
0
500
1000
1500
2000

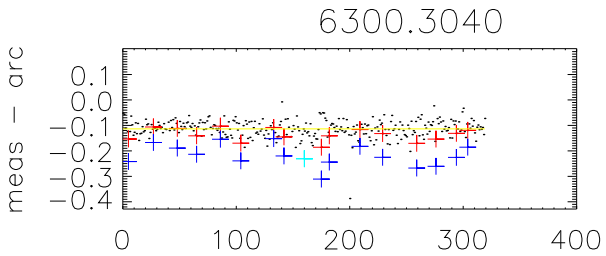

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR-r1-00037154.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 7.543
Max value = 67.412
Sat Feb 16 19:15:02 2008

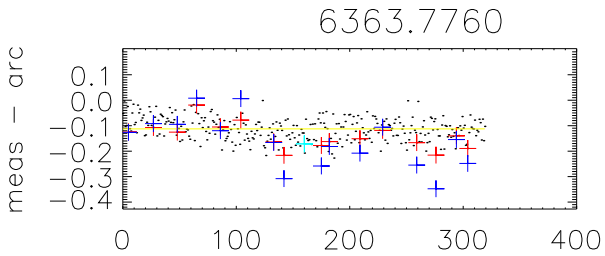

PLATE=2351 MJD=53772 Scattered Light on sdR-r1-00037154.fit
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
11.36
15.91
11.36
11.36
11.36
6.82

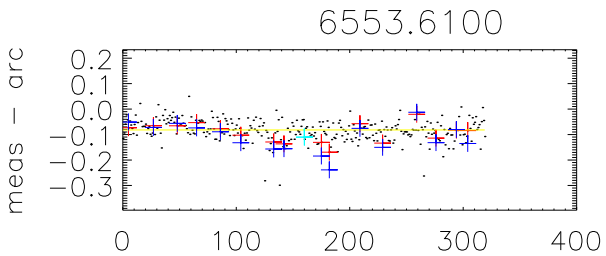

PLATE=2351 MJD=53772 Scattered Light on sdR-r1-00037154.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 7.352
Max value = 17.244
Sat Feb 16 19:18:10 2008

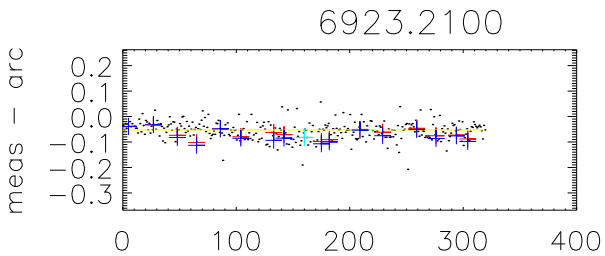

PLATE=2351 MJD=53772 Extraction chi^2 for sdR-r1-00037154.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
2
4
6
8
10
0
500
1000
1500
2000

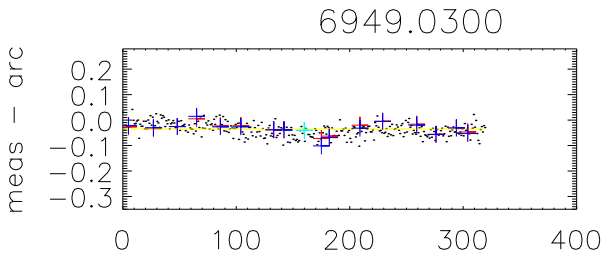

6300.3040
off: −0.23
sig: 0.008
6363.7760
off: −0.17
sig: 0.016
6553.6100
off: −0.11
sig: 0.012
6923.2100
off: −0.08
sig: 0.007
6949.0300
off: −0.04
sig: 0.007
7571.7500
off: −0.01
sig: 0.007
7794.1200
off: −0.13
sig: 0.004
7821.5100
off: −0.07
sig: 0.004
8399.1600
off: −0.04
sig: 0.003
8430.1700
off: −0.06
sig: 0.003
8885.8300
off: −0.02
sig: 0.003
8919.6100
off: −0.03
sig: 0.003

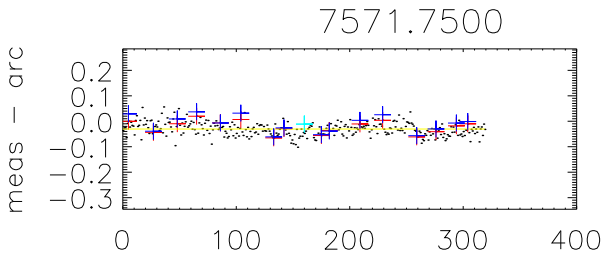

6300.3040
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

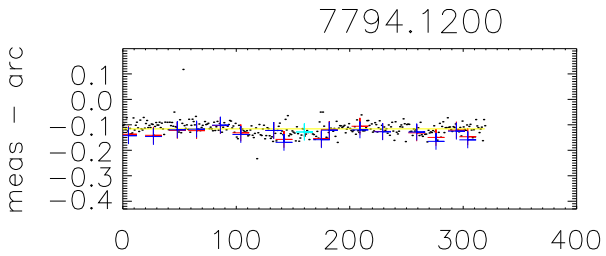

6363.7760
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

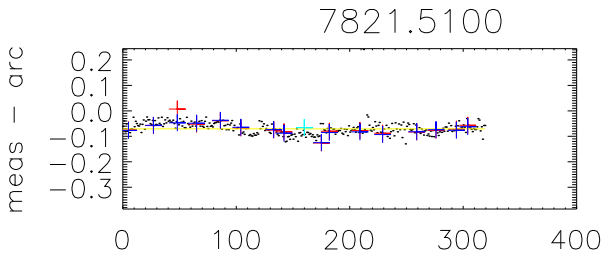

6553.6100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

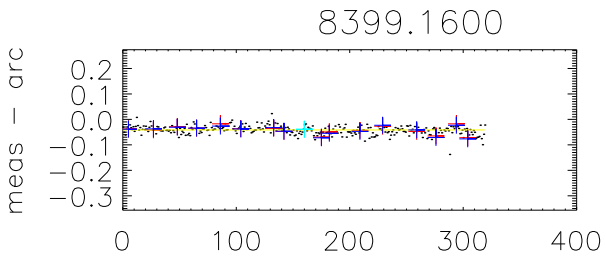

6923.2100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

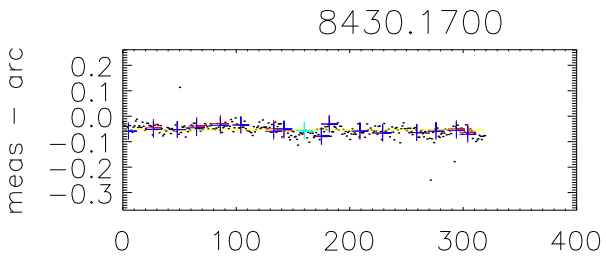

6949.0300
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

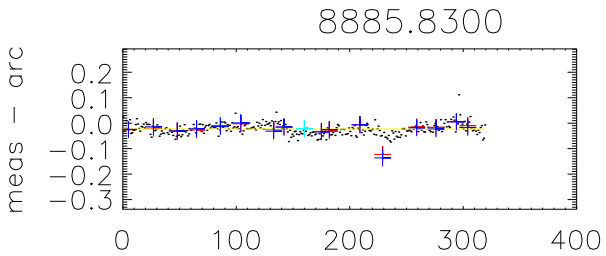

7571.7500
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

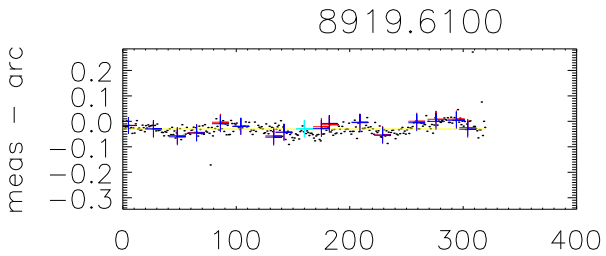

7794.1200
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

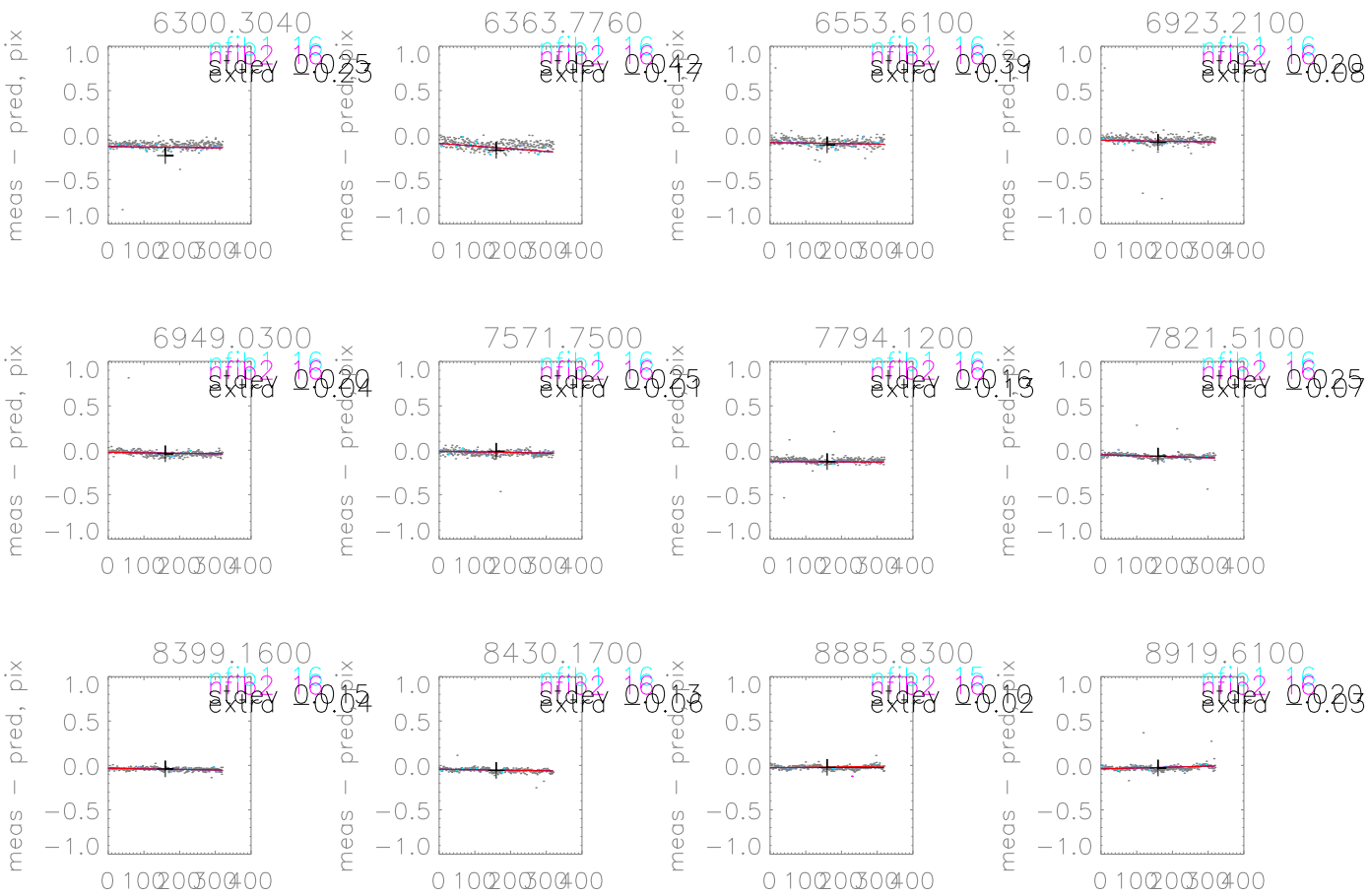

7821.5100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

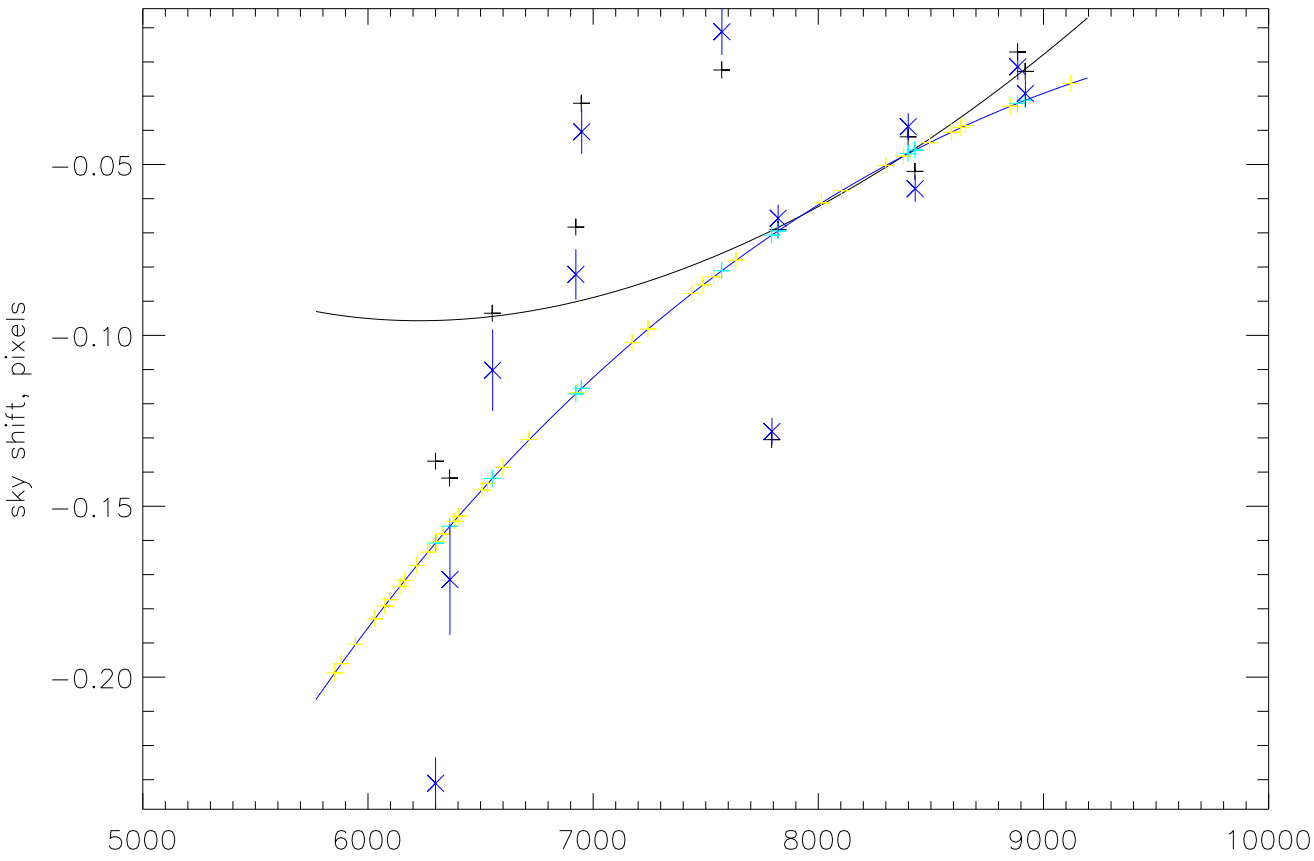

8399.1600
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

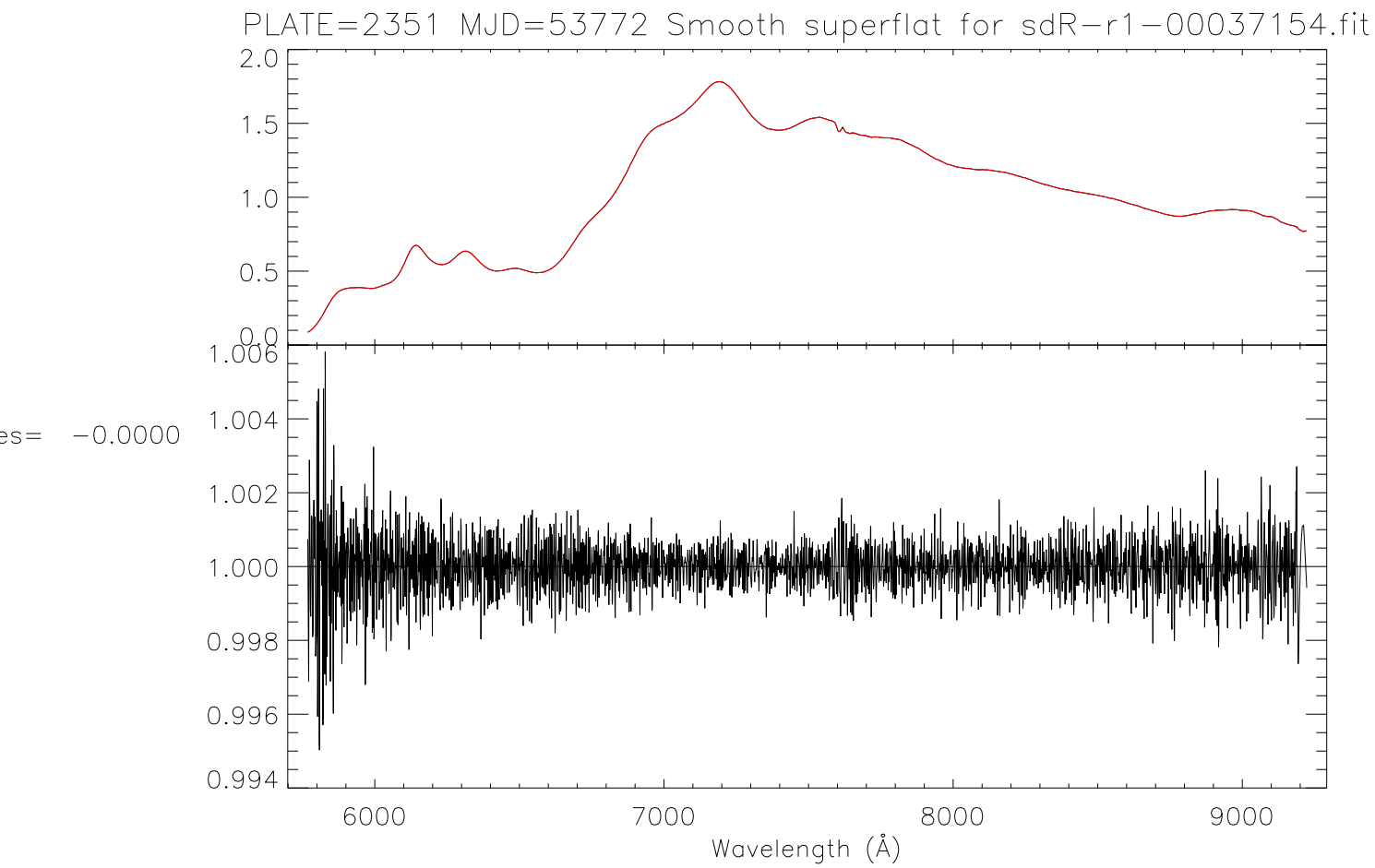

8430.1700
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400


8885.8300
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

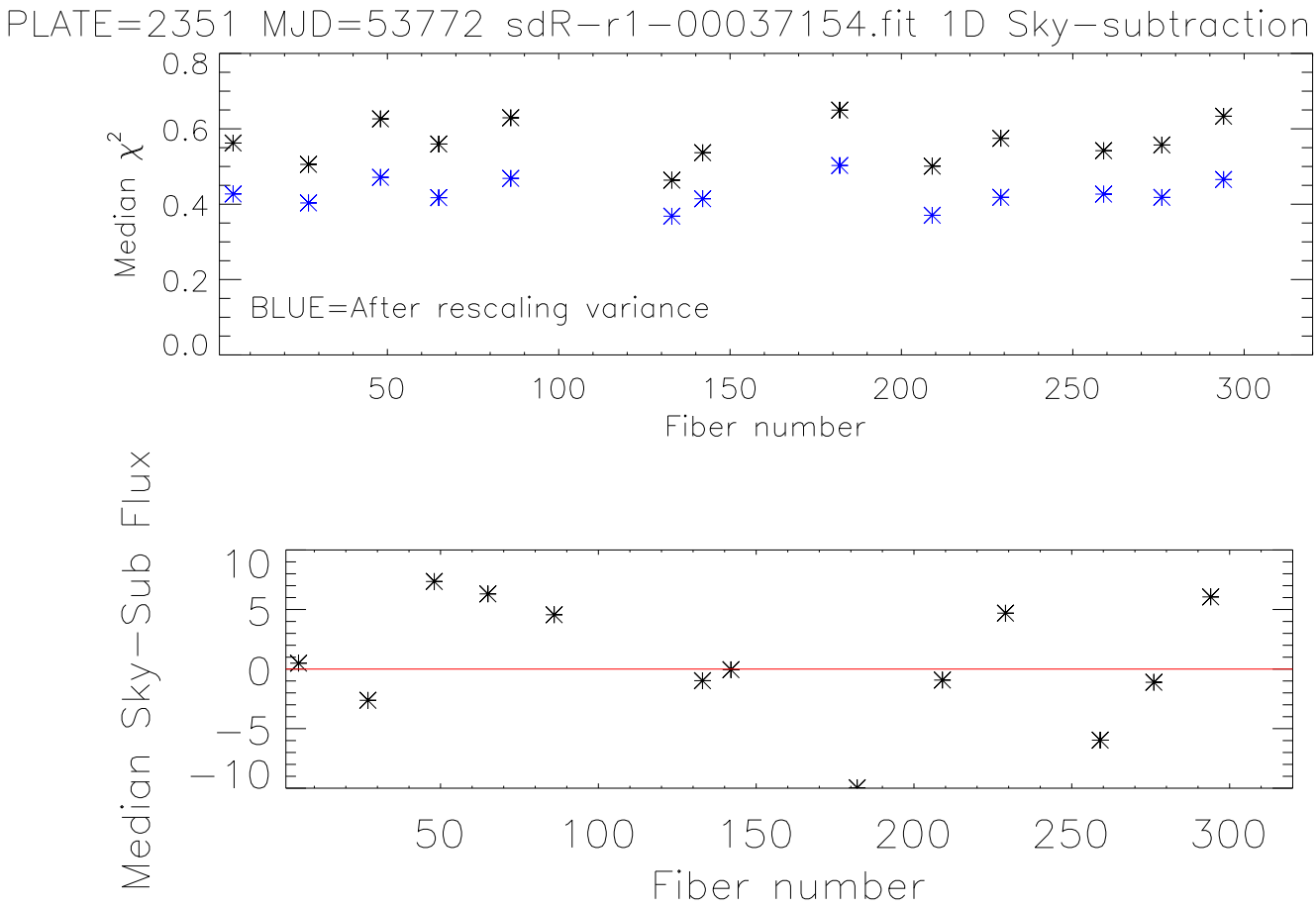

8919.6100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

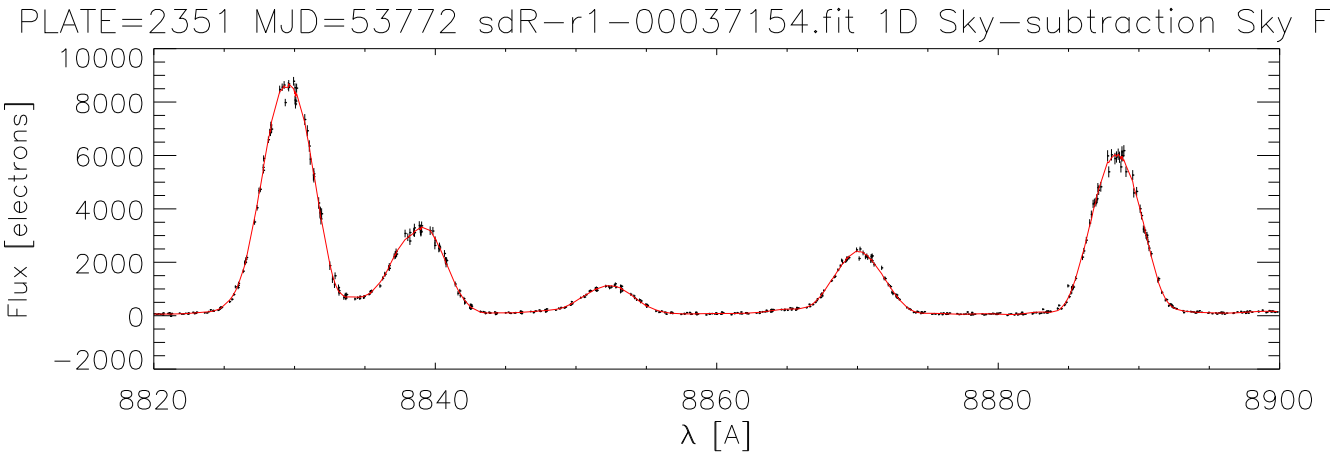

6300.3040
mfib1 16
mfib2 16
stdev 0.025
extrd 0.23
6363.7760
mfib1 16
mfib2 16
stdev 0.042
extrd 0.17
6553.6100
mfib1 16
mfib2 16
stdev 0.039
extrd 0.11
6923.2100
mfib1 16
mfib2 16
stdev 0.020
extrd 0.08
6949.0300
mfib1 16
mfib2 16
stdev 0.020
extrd 0.04
7571.7500
mfib1 16
mfib2 16
stdev 0.025
extrd 0.01
7794.1200
mfib1 16
mfib2 16
stdev 0.016
extrd 0.13
7821.5100
mfib1 16
mfib2 16
stdev 0.025
extrd 0.07
8399.1600
mfib1 16
mfib2 16
stdev 0.015
extrd 0.04
8430.1700
mfib1 16
mfib2 16
stdev 0.013
extrd 0.06
8885.8300
mfib1 15
mfib2 16
stdev 0.010
extrd 0.02
8919.6100
mfib1 16
mfib2 16
stdev 0.020
extrd 0.03
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400

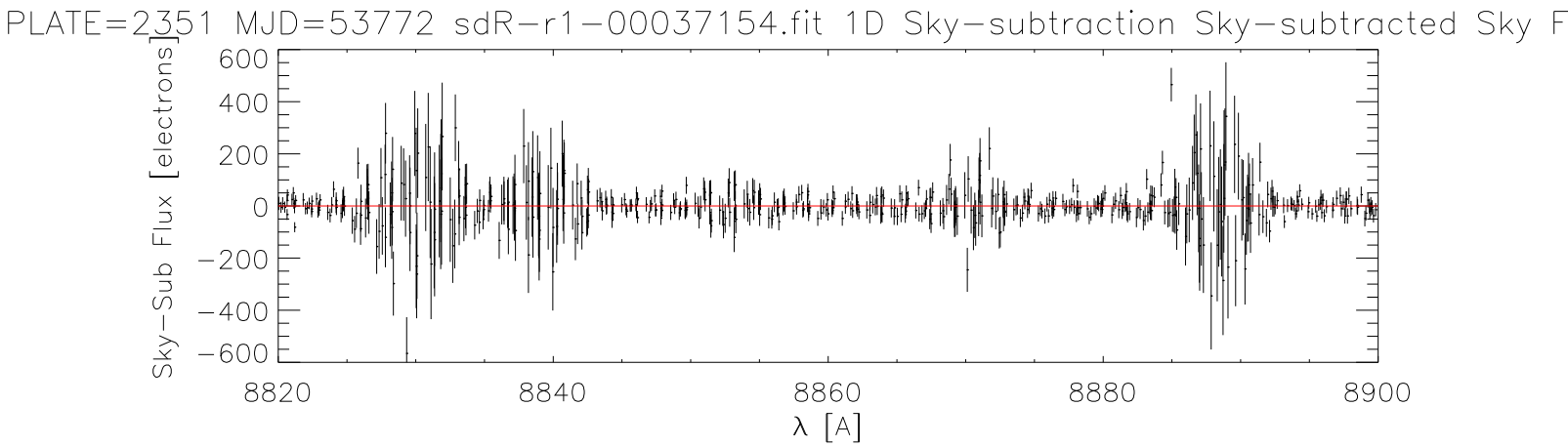

sky shift, pixels
−0.05
−0.10
−0.15
−0.20
5000
6000
7000
8000
9000
10000

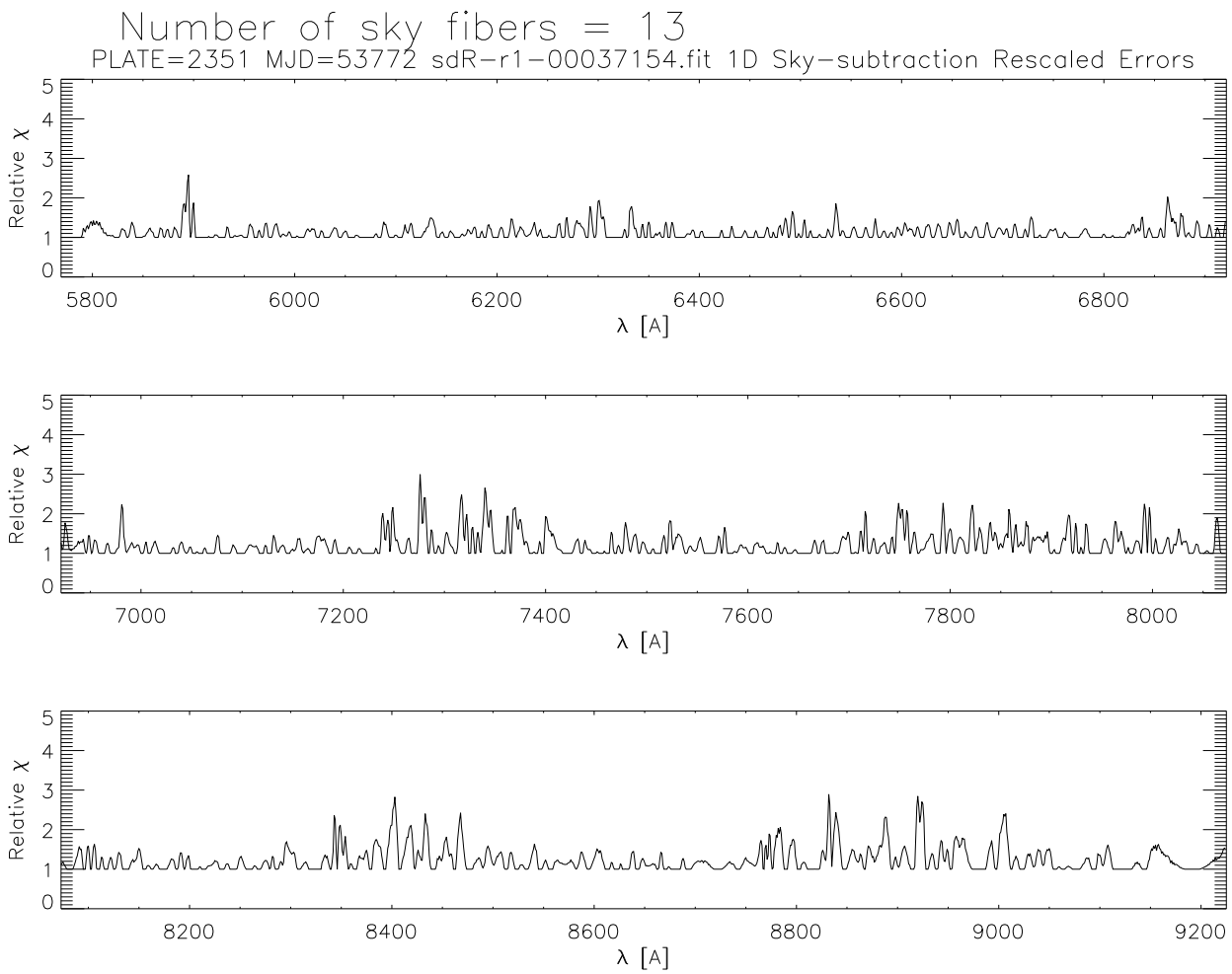

PLATE=2351 MJD=53772 Smooth superflat for sdR-r1-00037154.fit
2.0
1.5
1.0
0.5
0.0
1.006
1.004
1.002
1.000
0.998
0.996
0.994
6000
7000
8000
9000
Wavelength (Å)

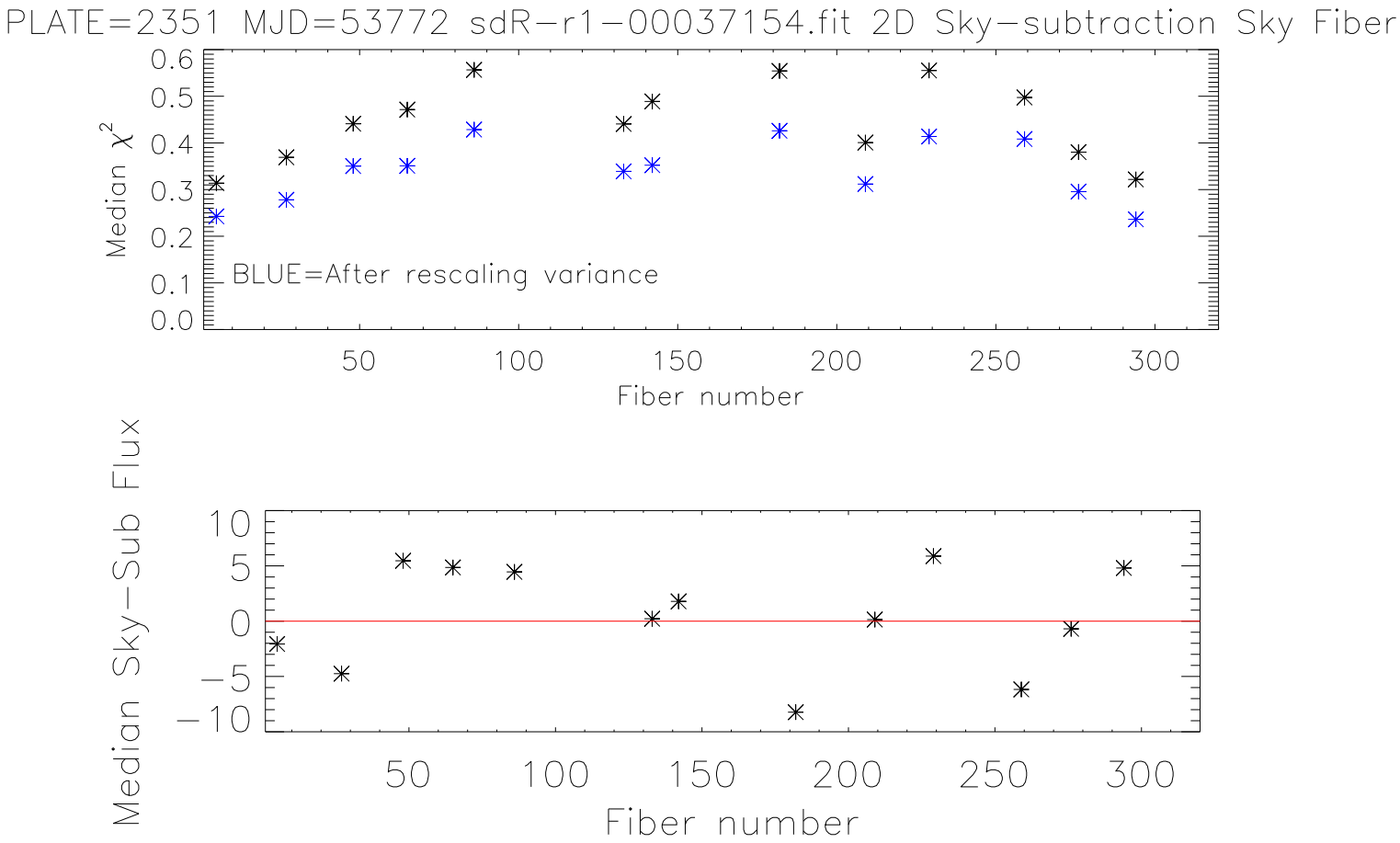
es= −0.0000

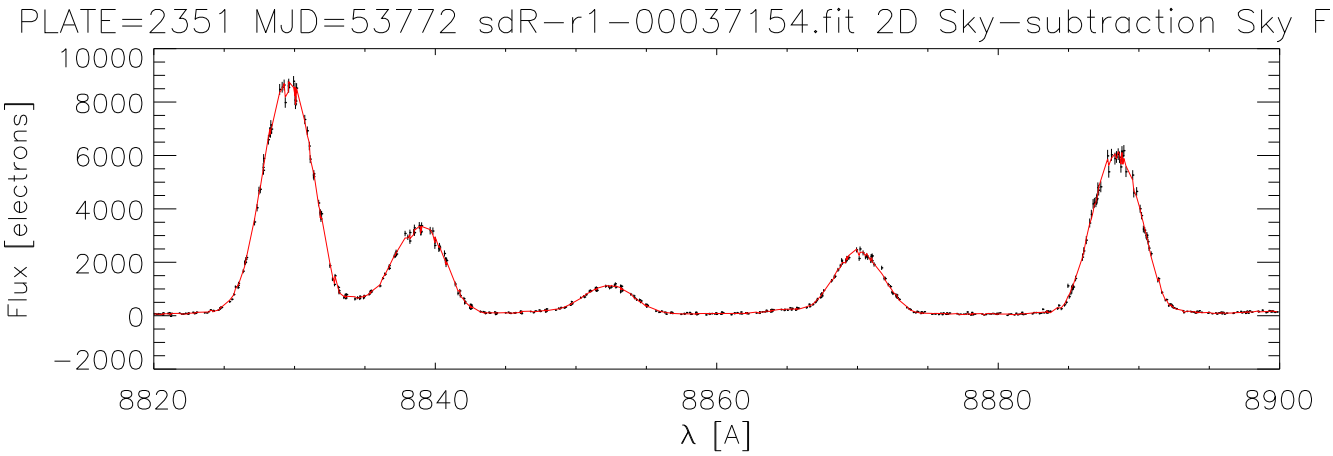

PLATE=2351 MJD=53772 sdR-r1-00037154.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
−5
−10
50
100
150
200
250
300
Fiber number

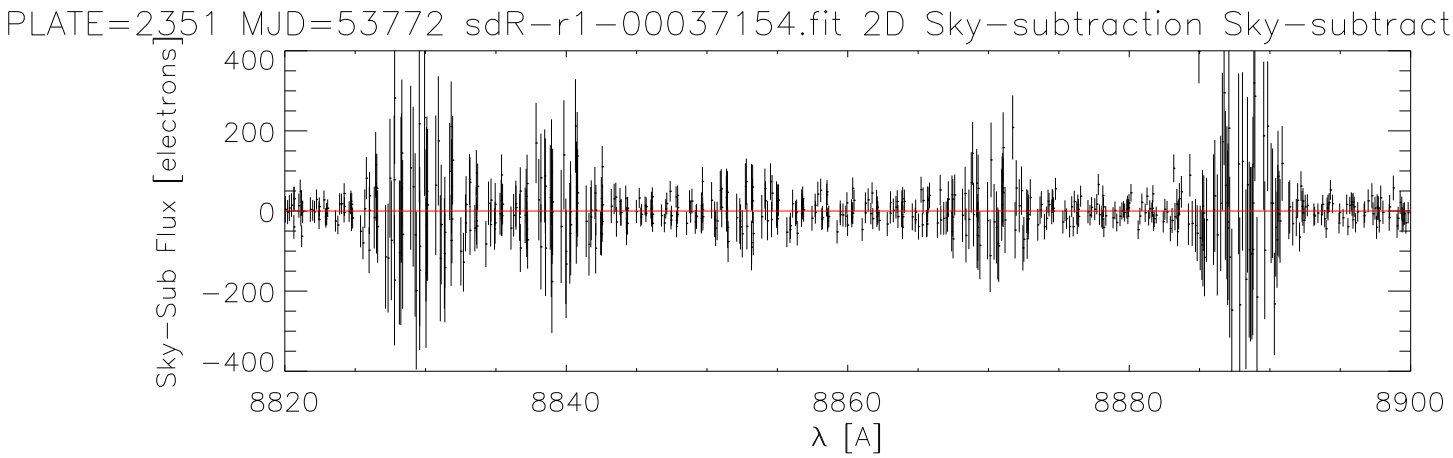

PLATE=2351 MJD=53772 sdR-r1-00037154.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
10000
8000
6000
4000
2000
0
-2000
8820
8840
8860
8880
8900
λ [A]

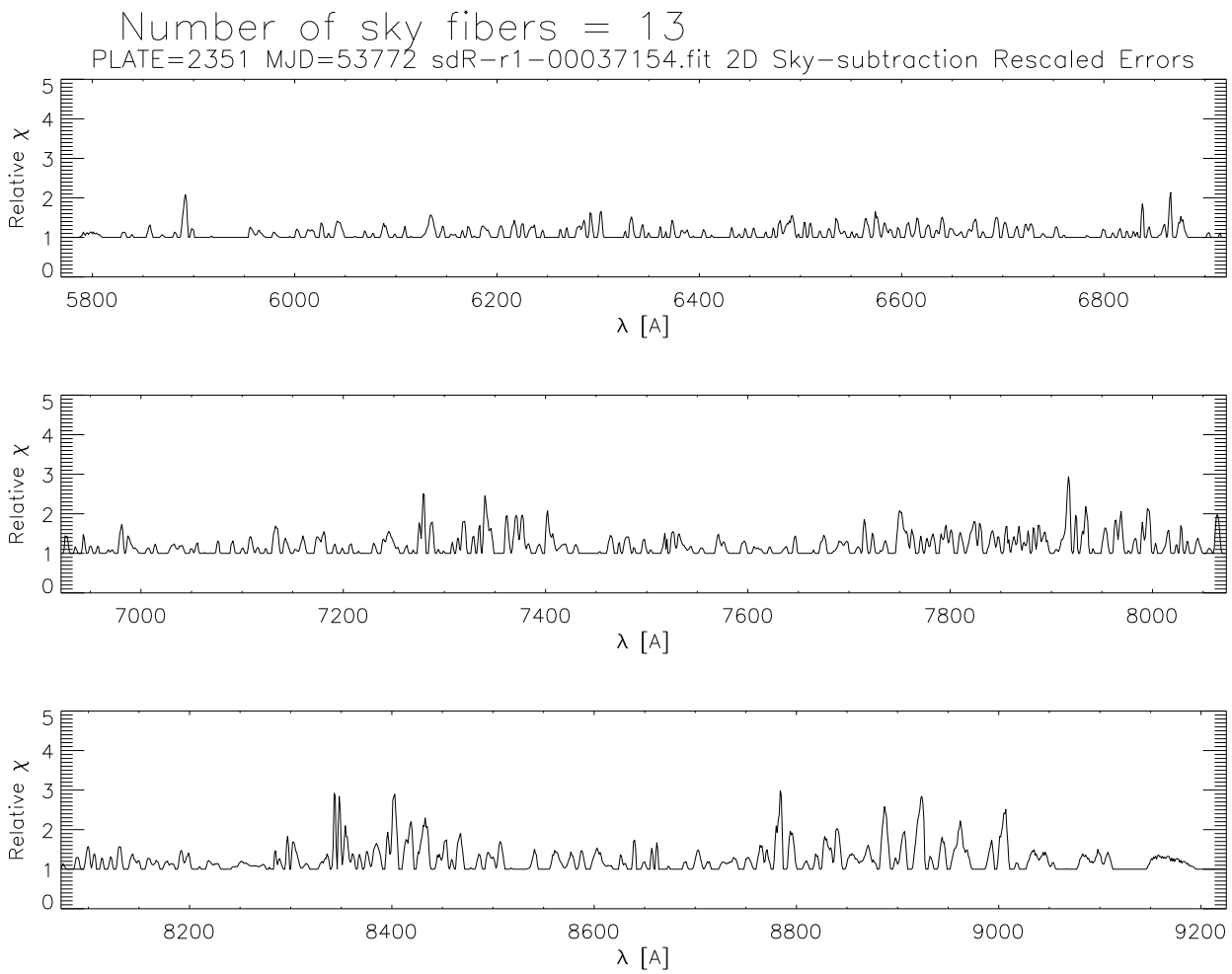

PLATE=2351 MJD=53772 sdR-r1-00037154.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
-200
-400
-600
8820
8840
8860
8880
8900
λ [A]

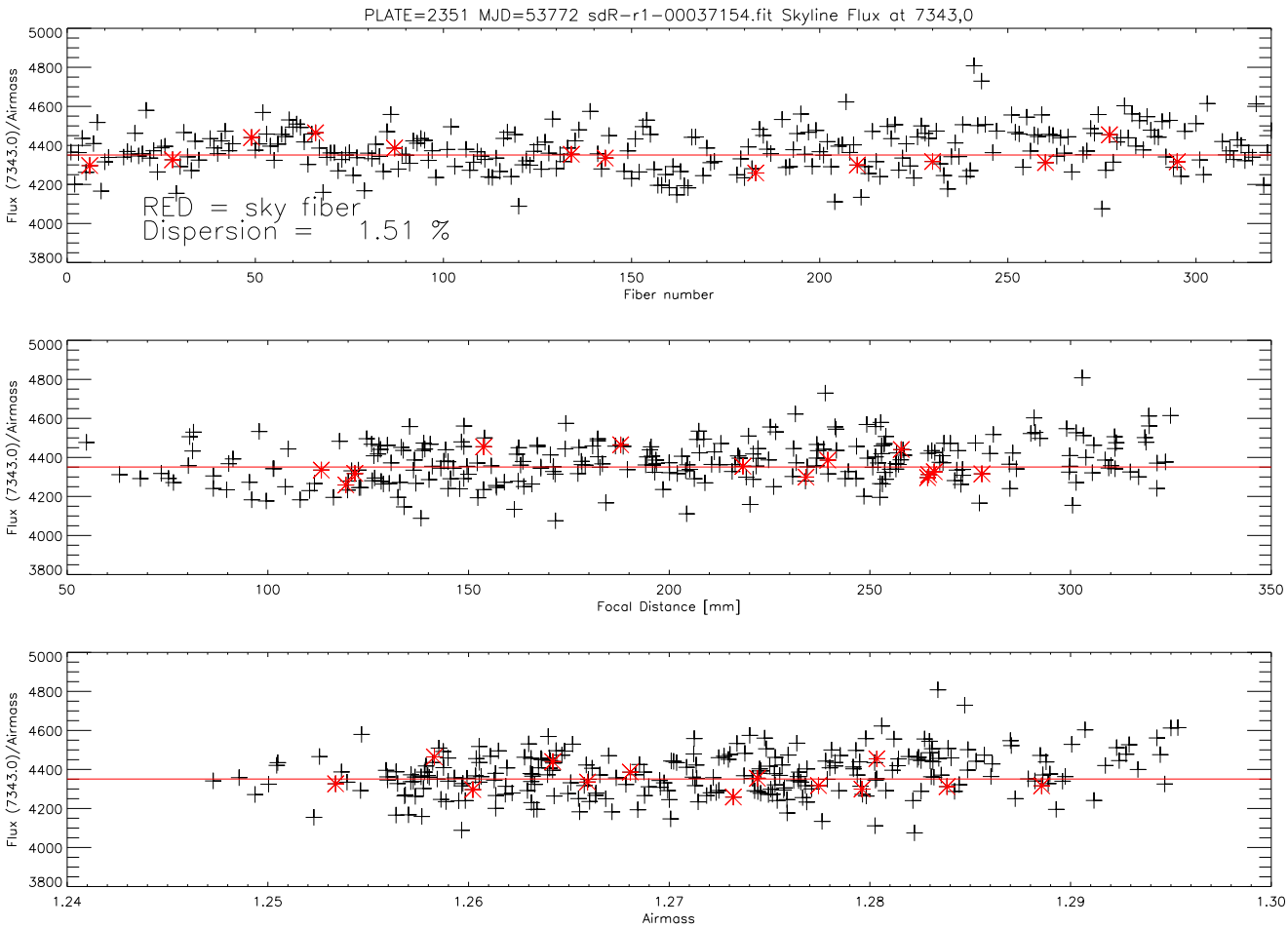

Number of sky fibers = 13
PLATE=2351 MJD=53772 sdR-r1-00037154.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

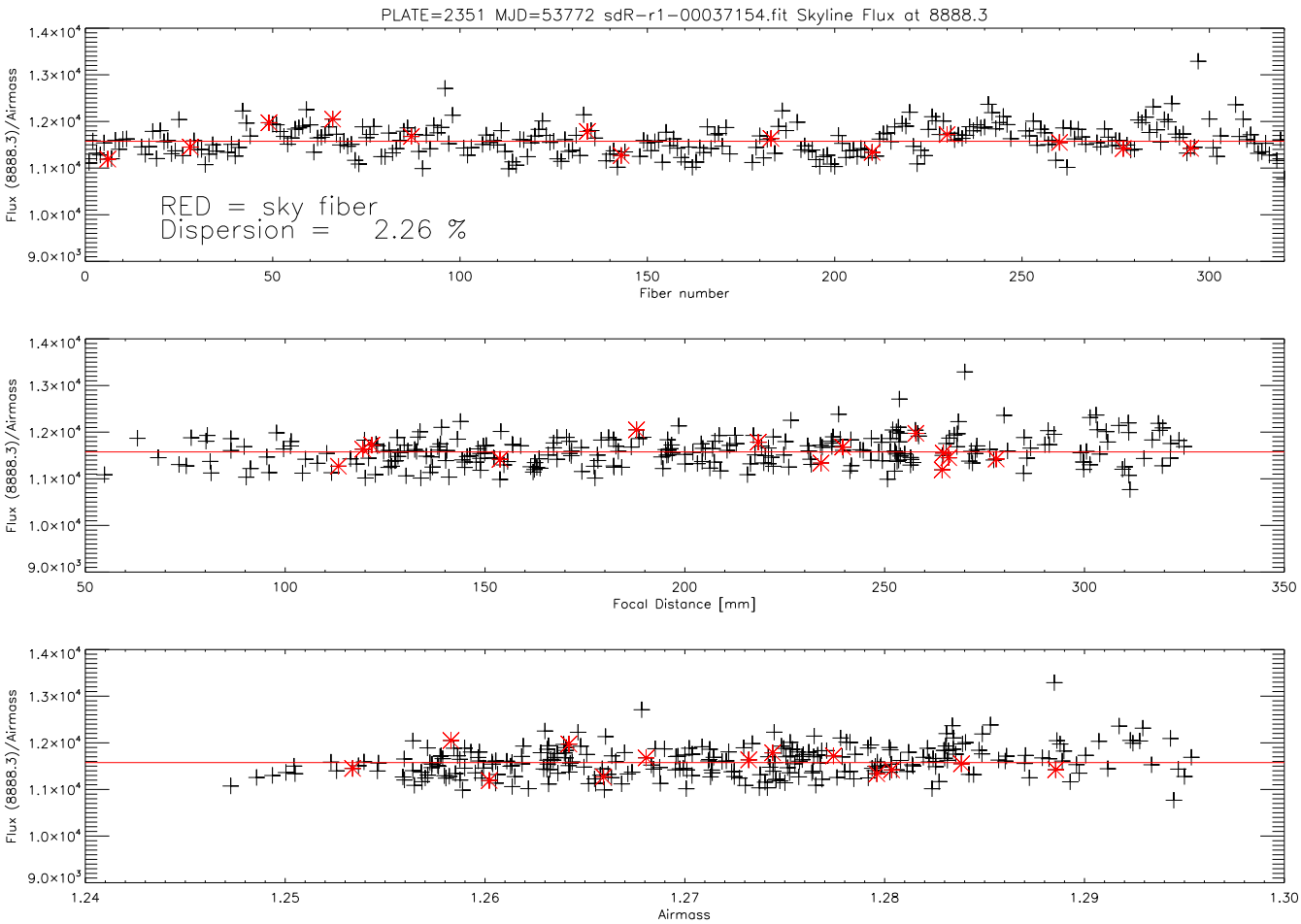

PLATE=2351 MJD=53772 sdR-r1-00037154.fit 2D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
−5
−10
50
100
150
200
250
300
Fiber number

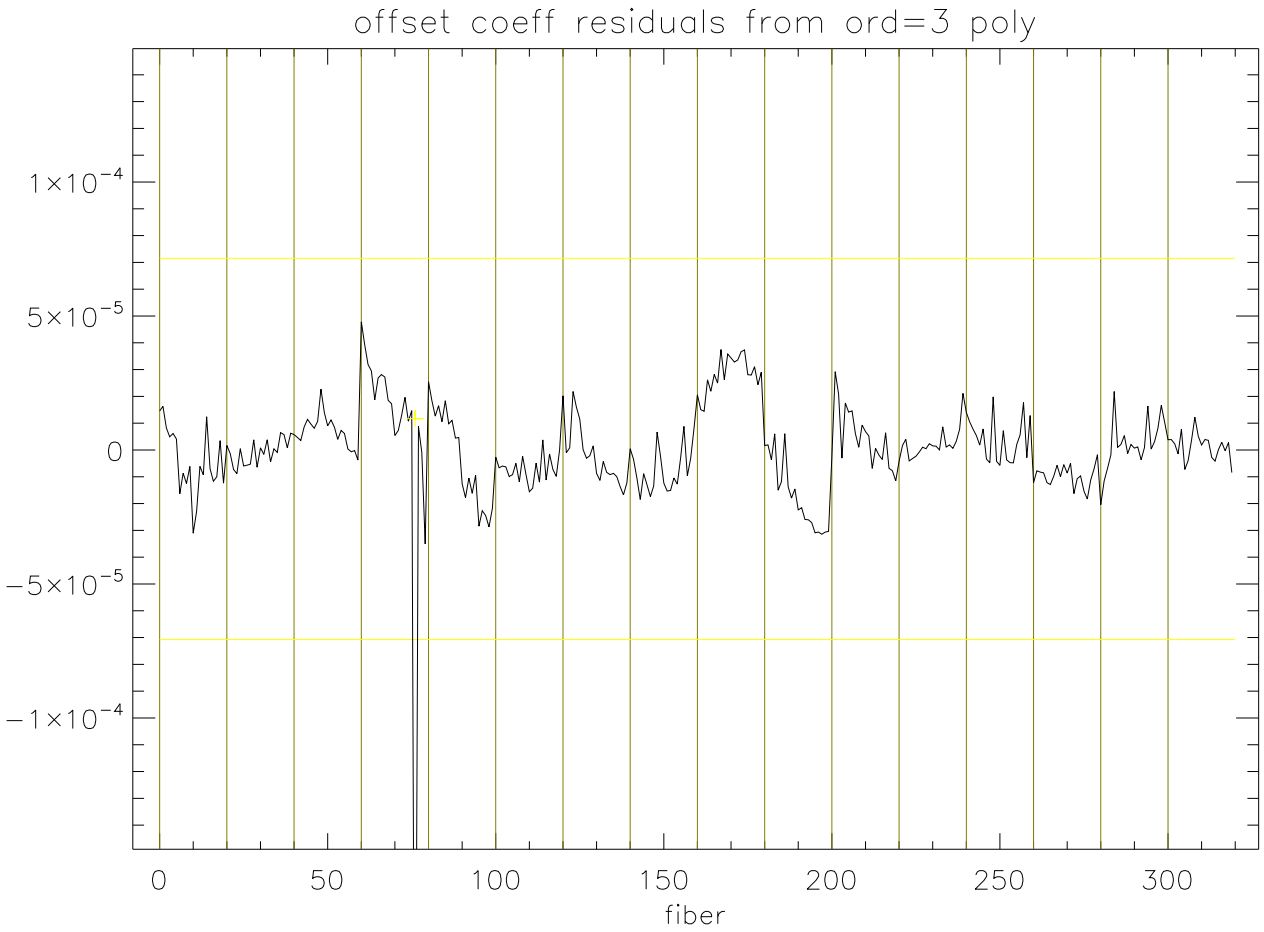

PLATE=2351 MJD=53772 sdR-r1-00037154.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
10000
8000
6000
4000
2000
0
-2000
8820
8840
8860
8880
8900
λ [A]

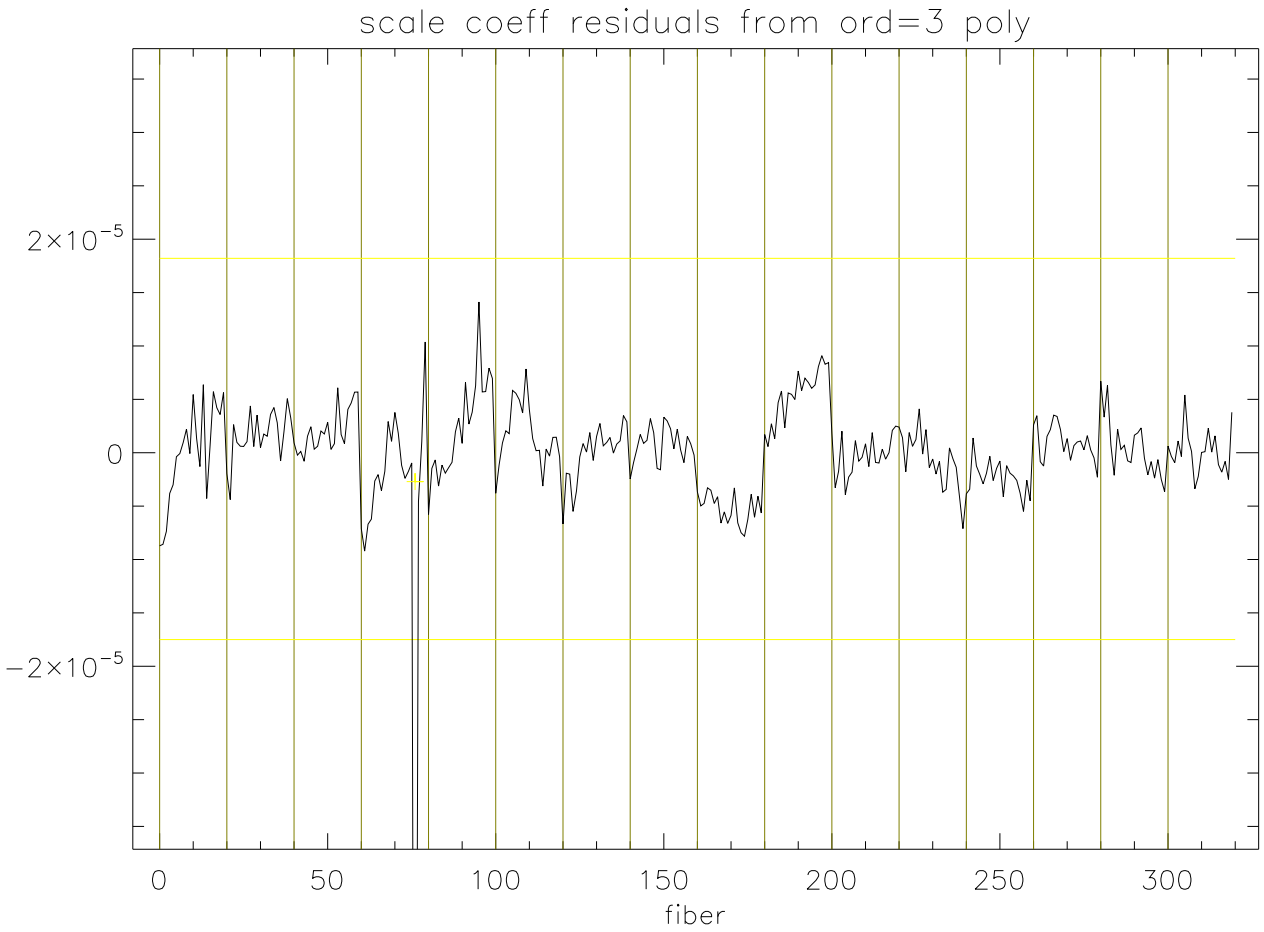

PLATE=2351 MJD=53772 sdR-r1-00037154.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
200
0
-200
-400
8820
8840
8860
8880
8900
λ [A]

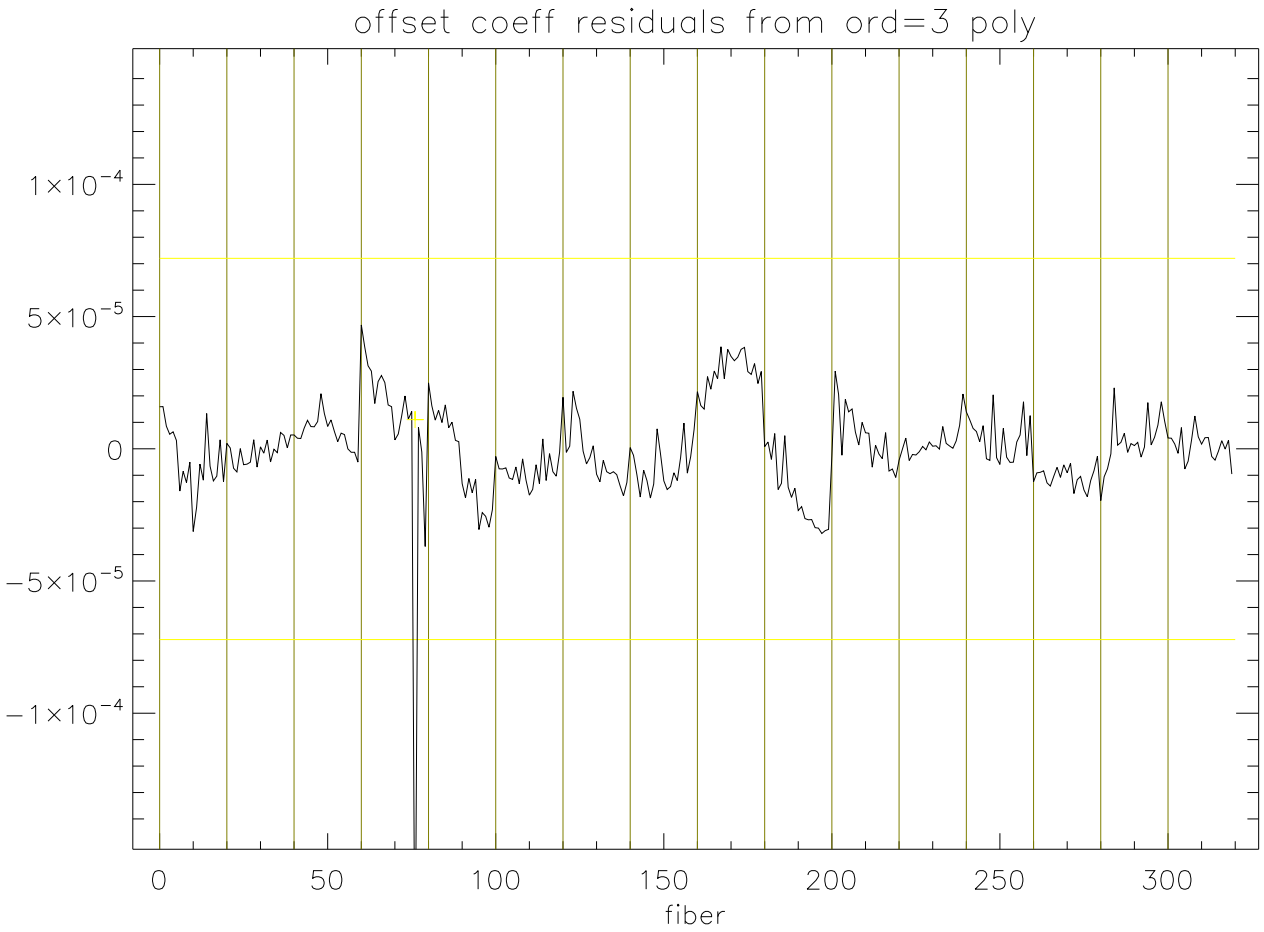

Number of sky fibers = 13
PLATE=2351 MJD=53772 sdR-r1-00037154.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

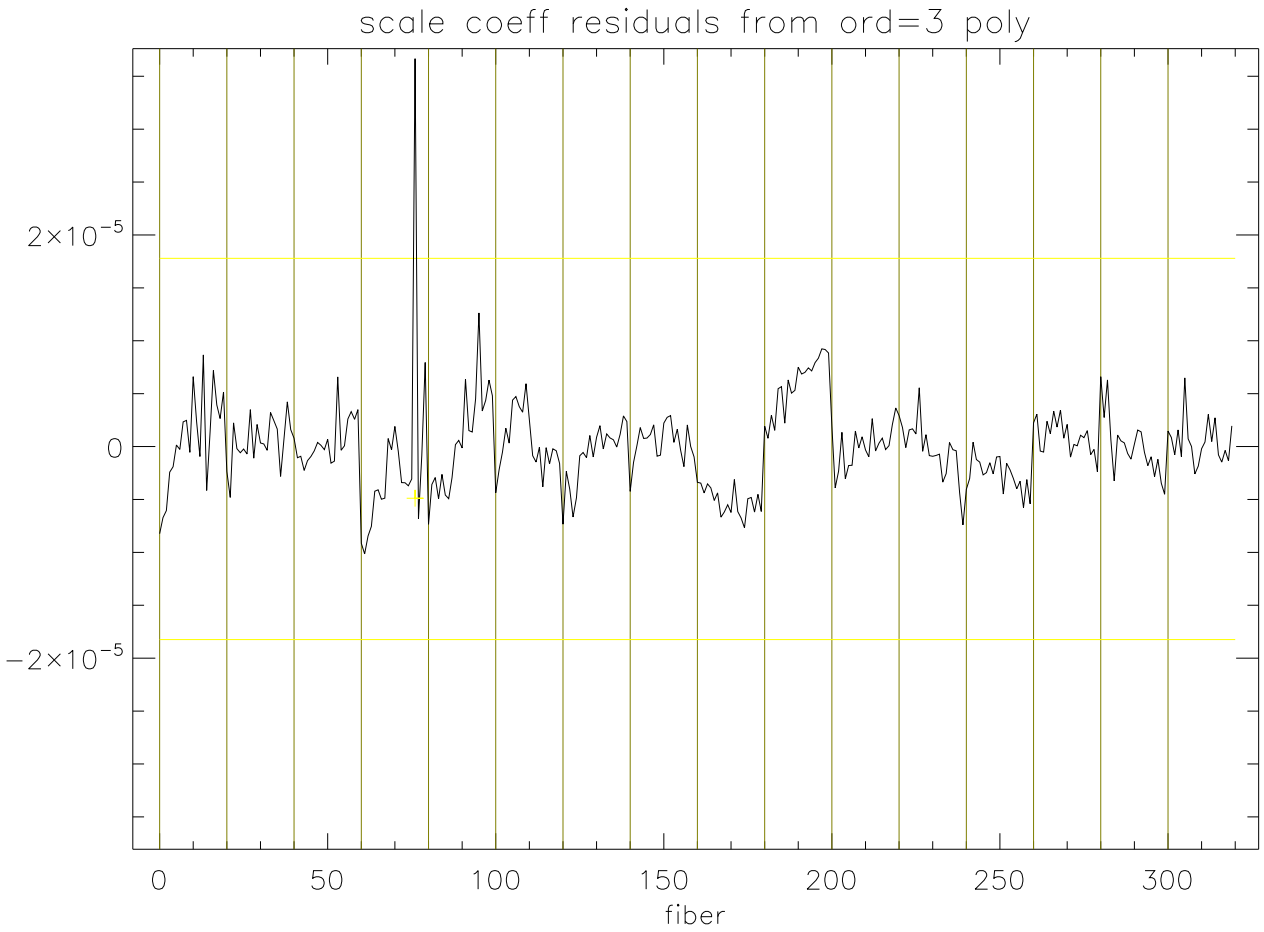

PLATE=2351 MJD=53772 sdR-r1-00037154.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 1.51 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

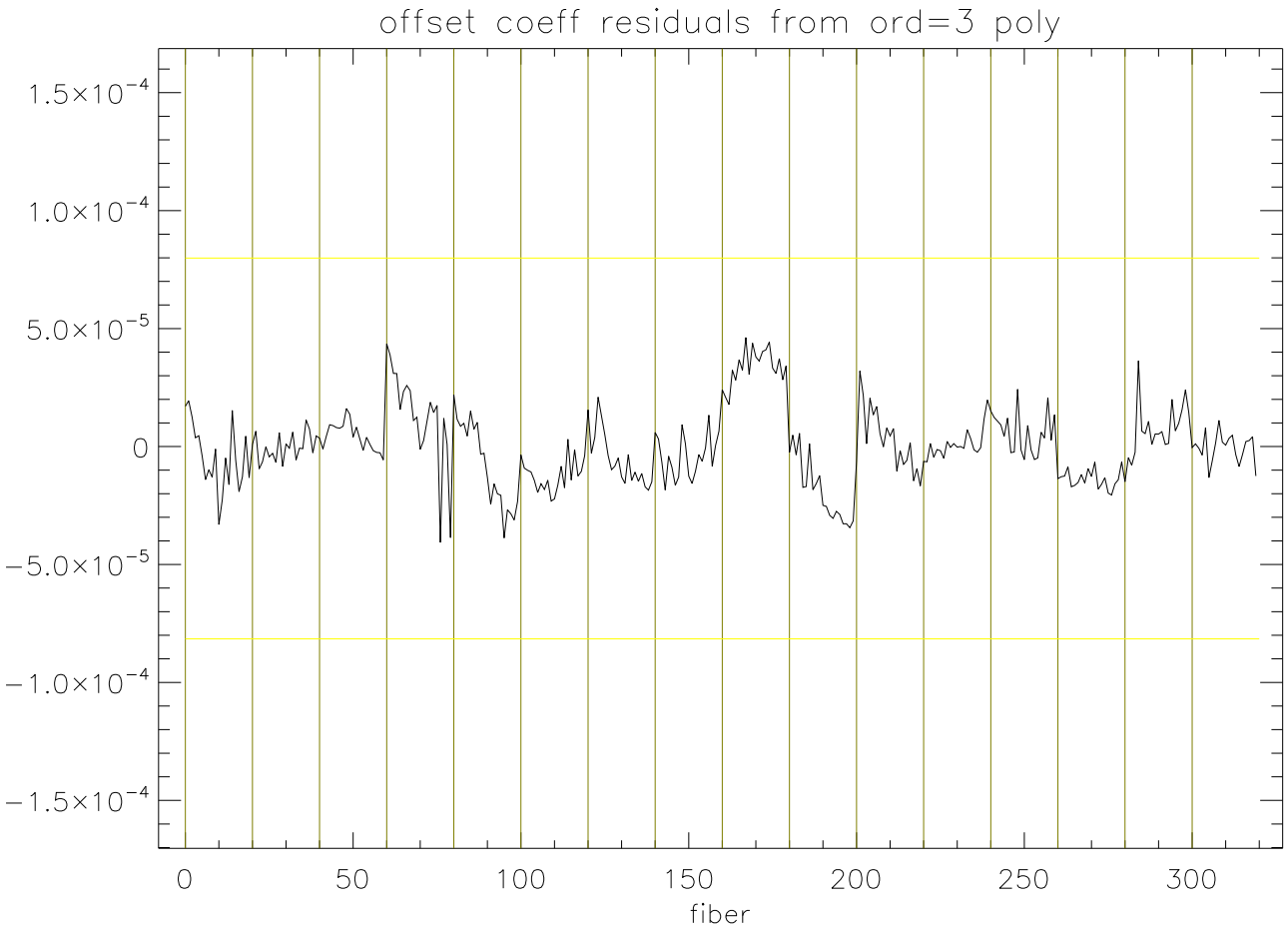

PLATE=2351 MJD=53772 sdR-r1-00037154.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 2.26 %
Fiber number
Focal Distance [mm]
Airmass

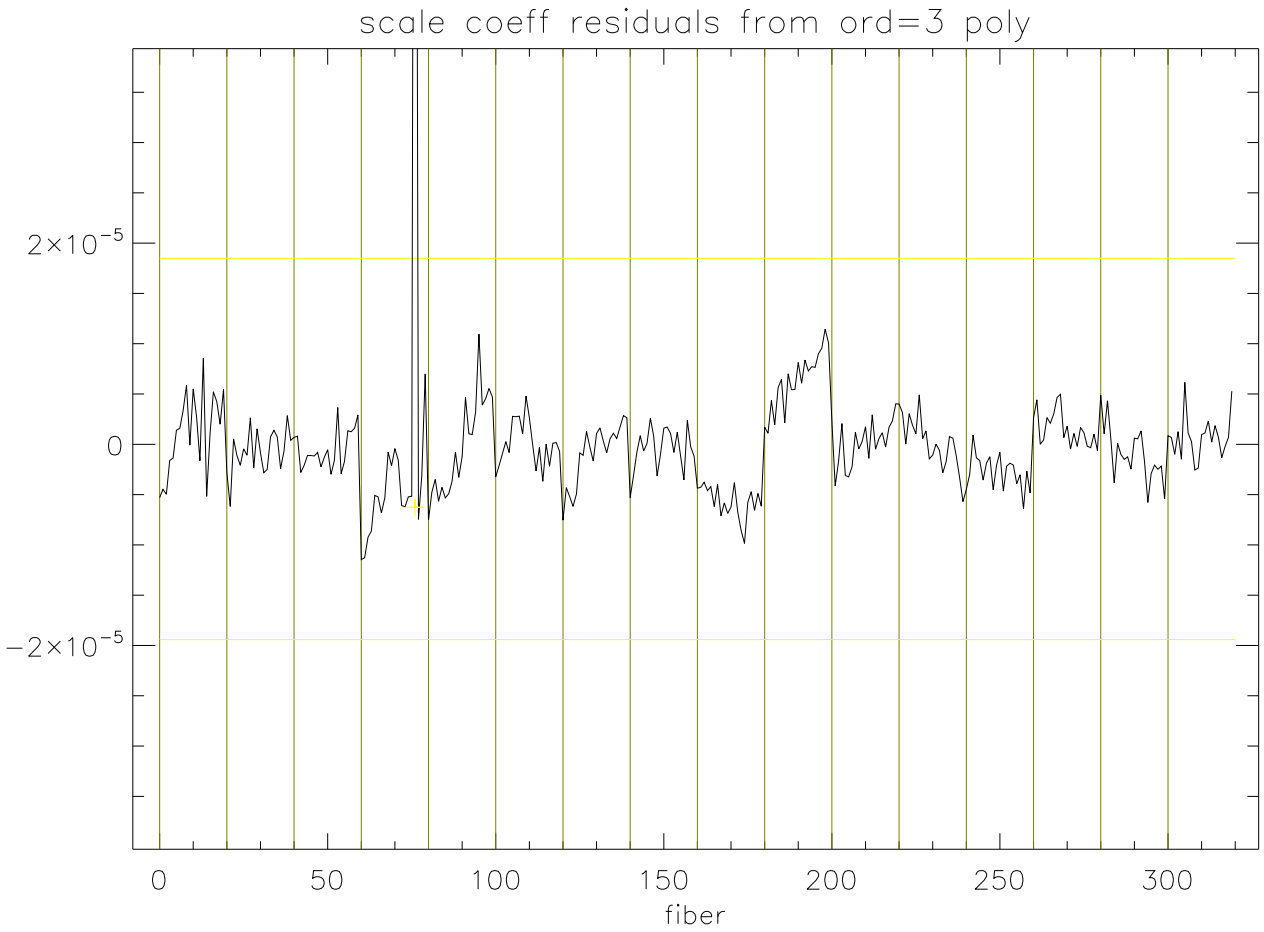

offset coeff residuals from ord=3 poly
1×10^-4
5×10^-5
0
−5×10^-5
−1×10^-4
0
50
100
150
200
250
300
fiber

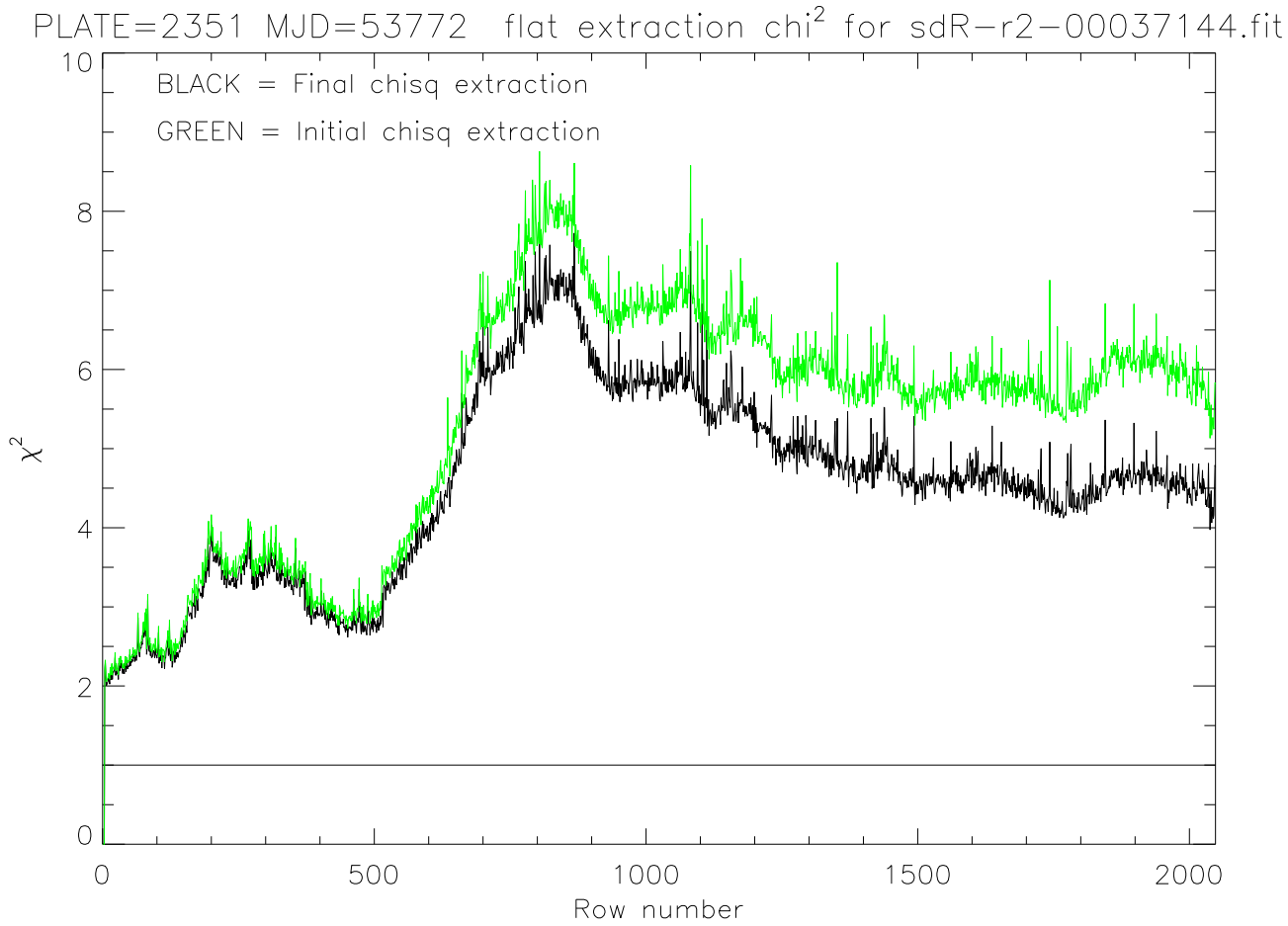

scale coeff residuals from ord=3 poly
2×10⁻⁵
0
−2×10⁻⁵
0
50
100
150
200
250
300
fiber

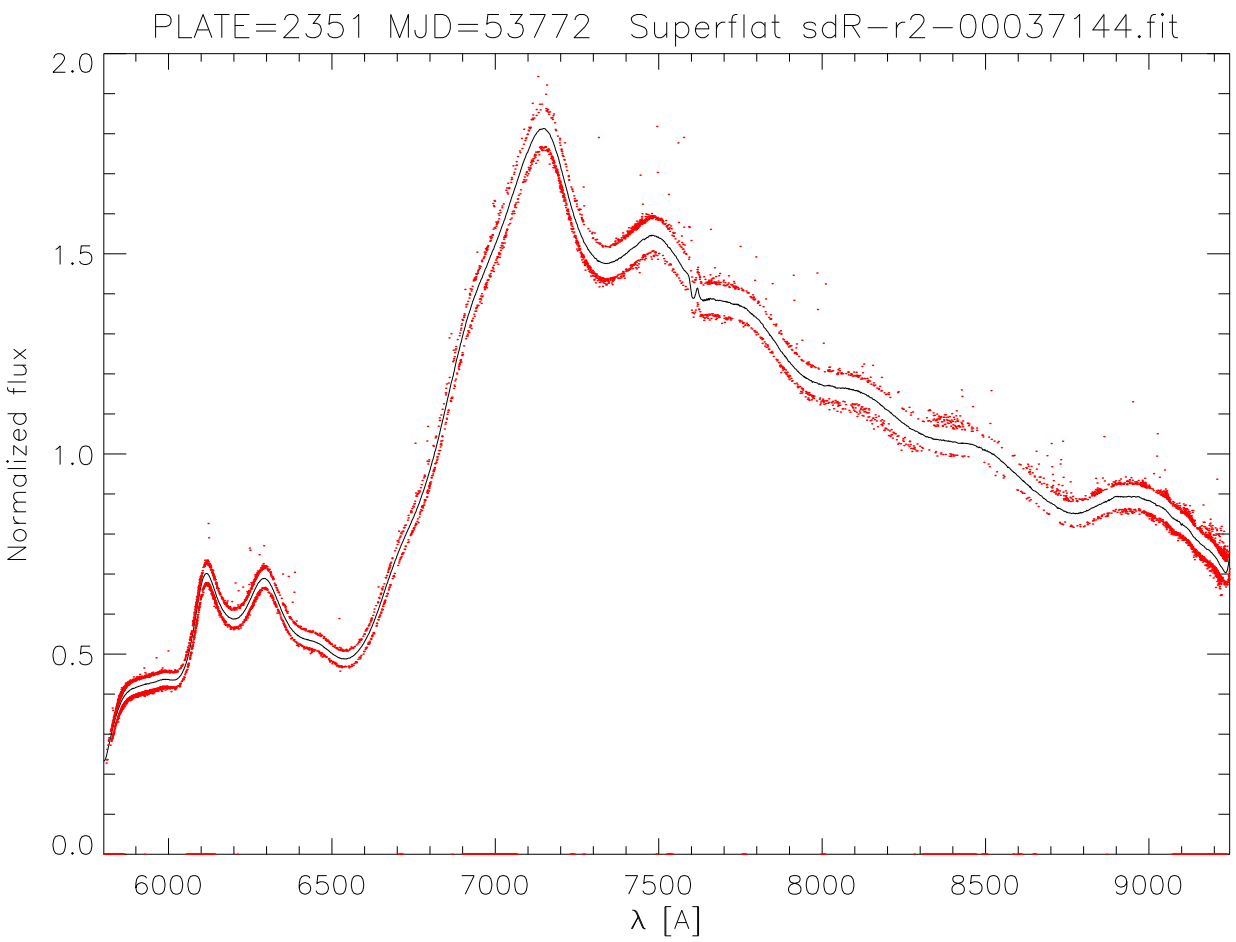

offset coeff residuals from ord=3 poly
1×10^-4
5×10^-5
0
−5×10^-5
−1×10^-4
0
50
100
150
200
250
300
fiber

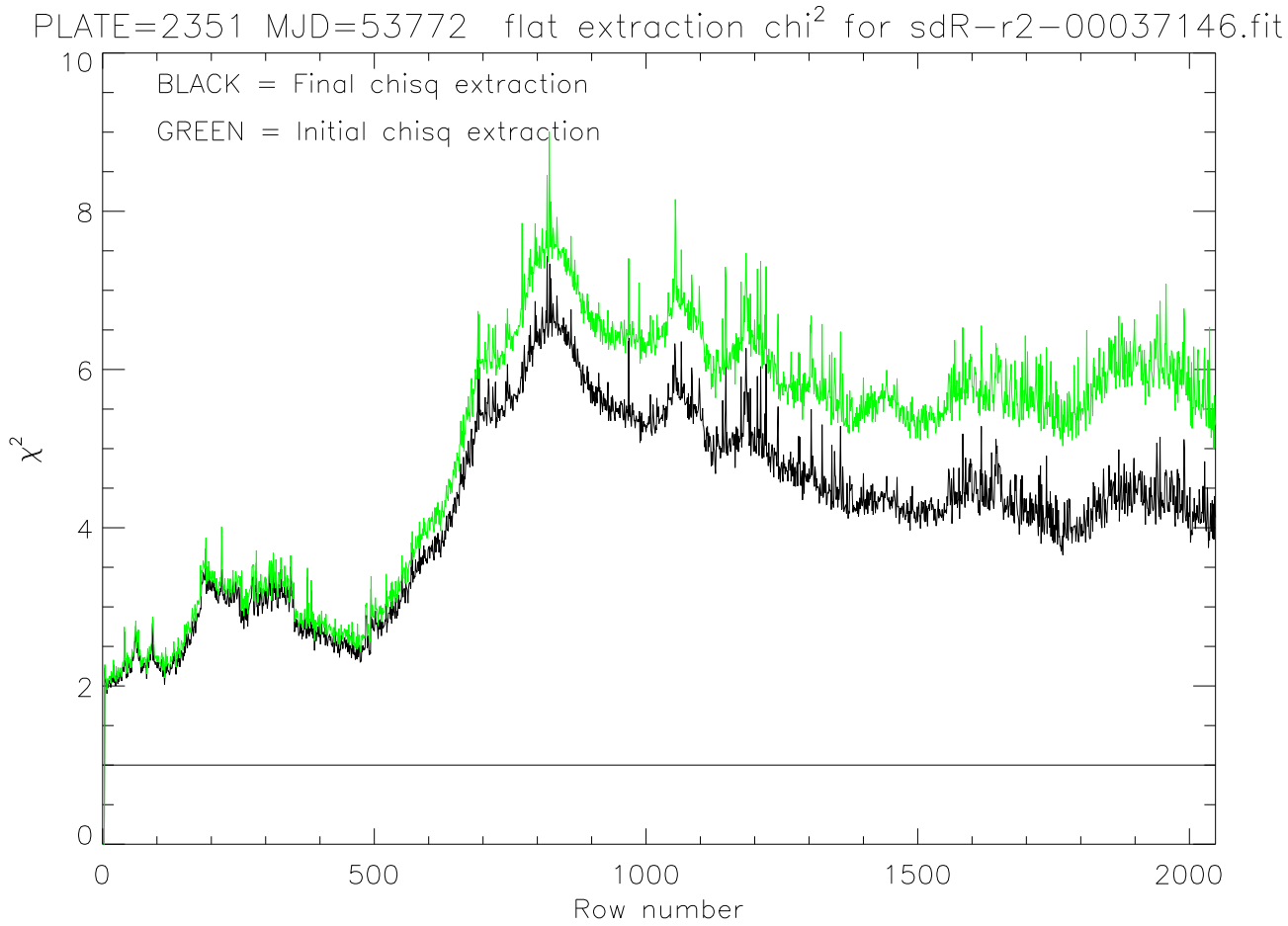

scale coeff residuals from ord=3 poly
2×10^-5
0
−2×10^-5
0
50
100
150
200
250
300
fiber

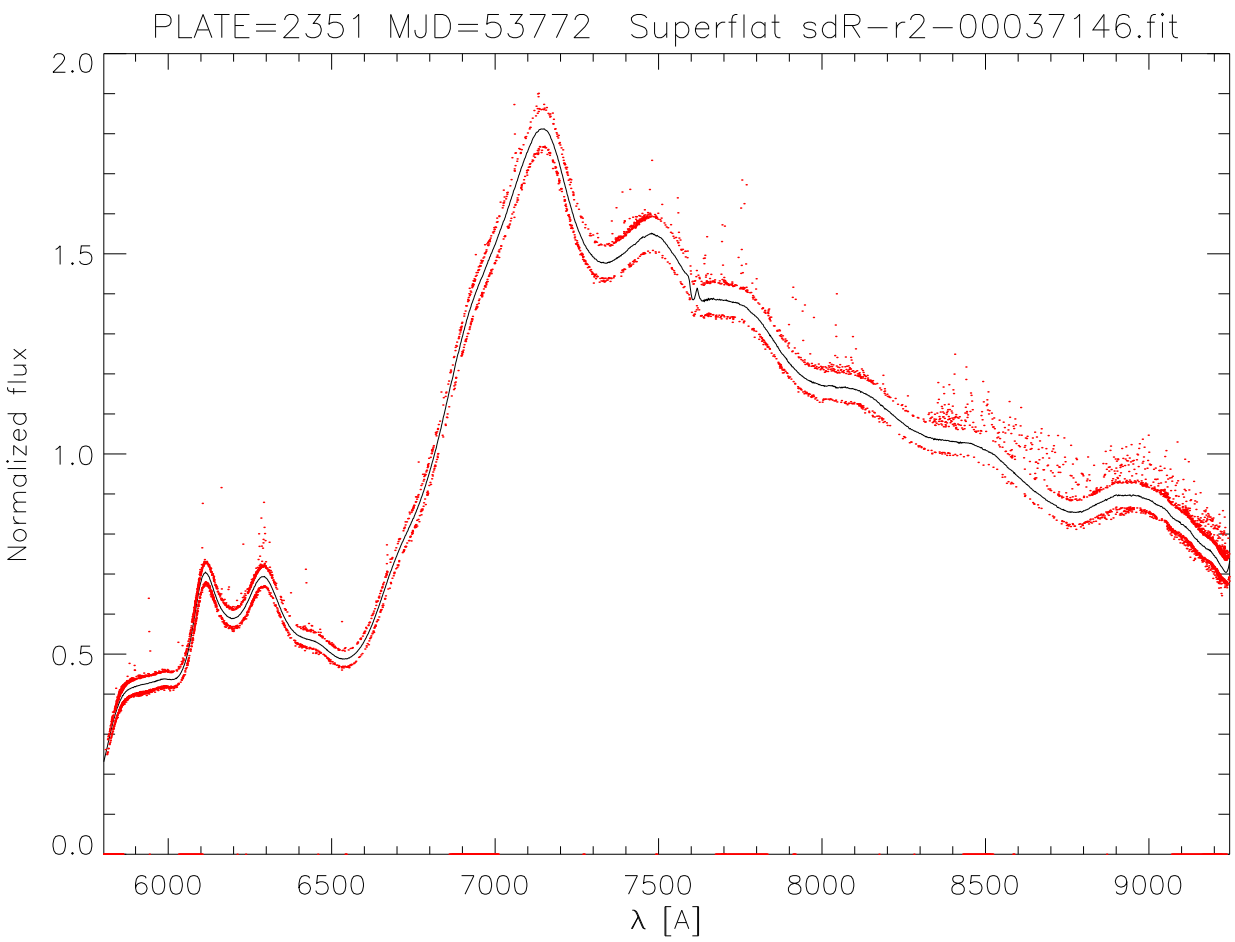

offset coeff residuals from ord=3 poly
1.5×10⁻⁴
1.0×10⁻⁴
5.0×10⁻⁵
0
−5.0×10⁻⁵
−1.0×10⁻⁴
−1.5×10⁻⁴
0
50
100
150
200
250
300
fiber

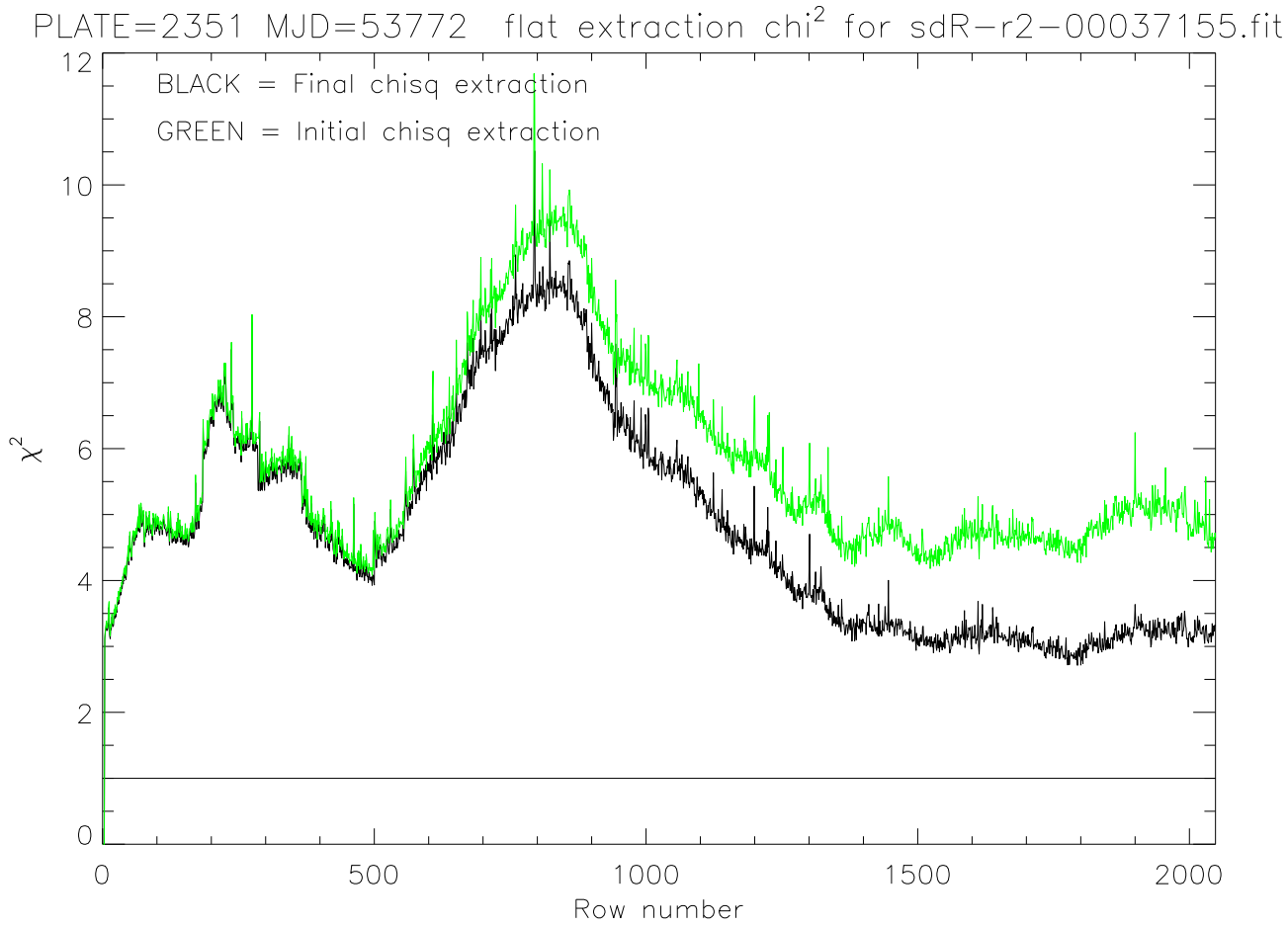

scale coeff residuals from ord=3 poly
2×10⁻⁵
0
−2×10⁻⁵
0
50
100
150
200
250
300
fiber

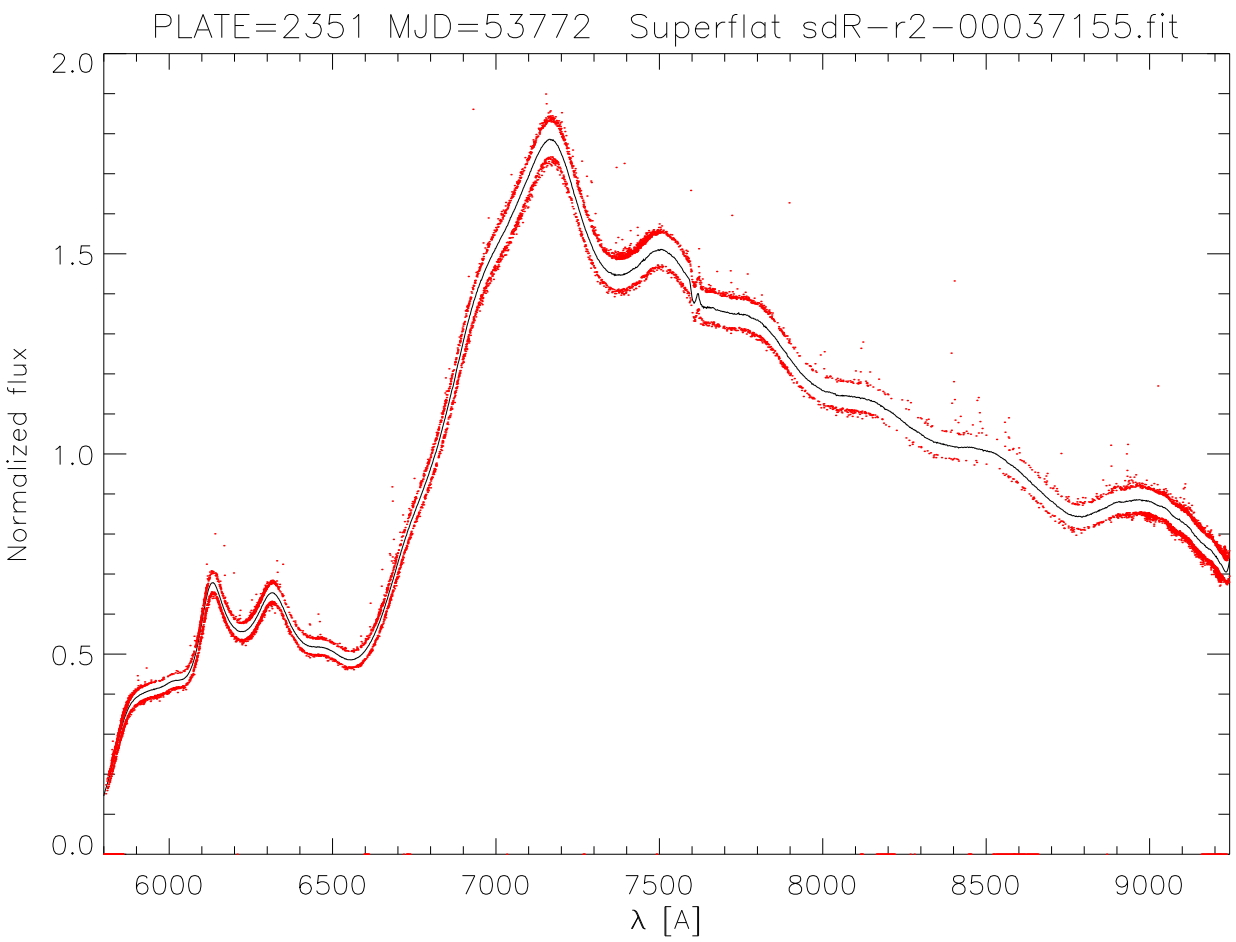

PLATE=2351 MJD=53772 flat extraction chi^2 for sdR−r2−00037144.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
2
4
6
8
10
0
500
1000
1500
2000

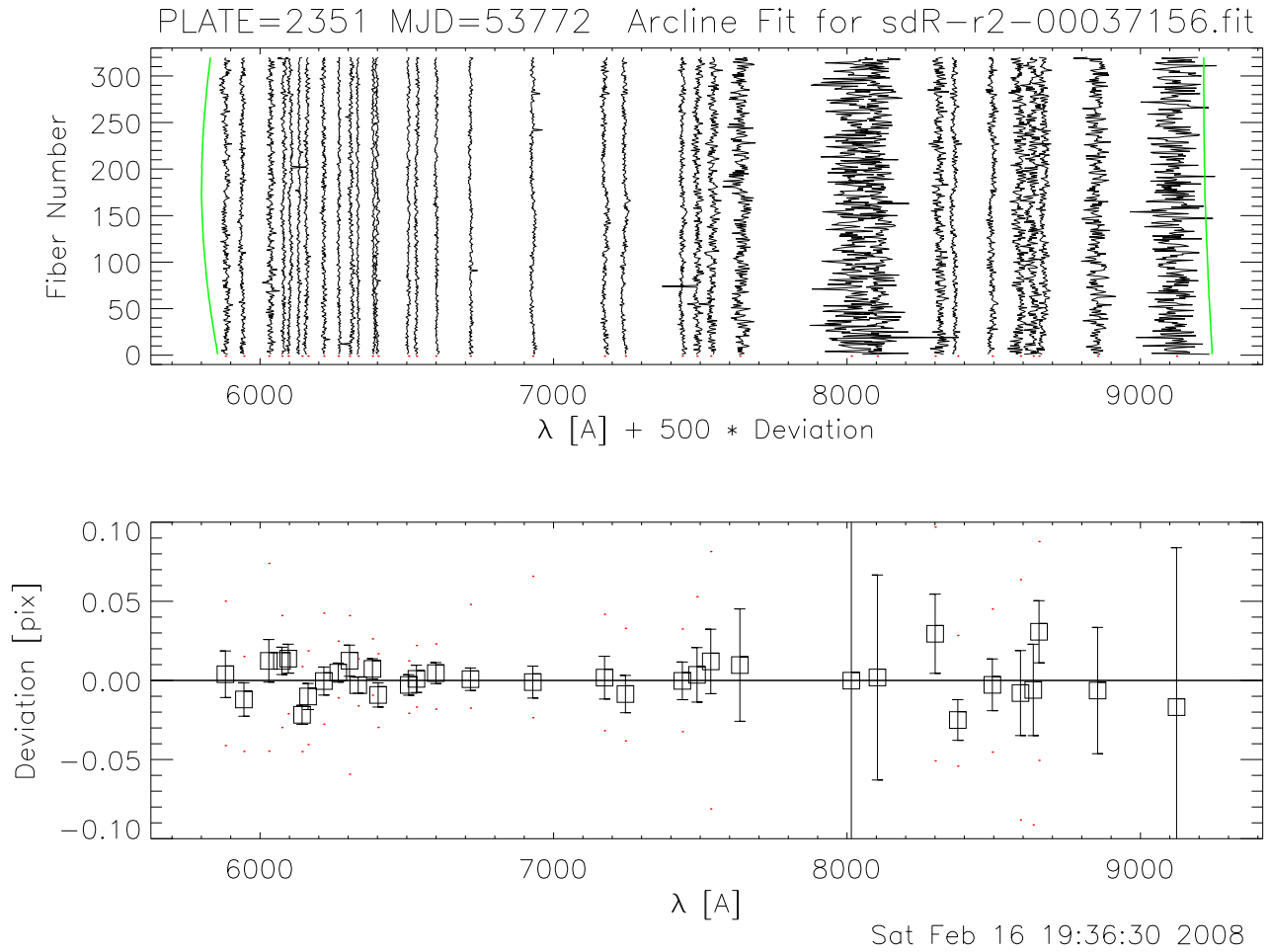

PLATE=2351 MJD=53772 Superflat sdR-r2-00037144.fit
Normalized flux
2.0
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

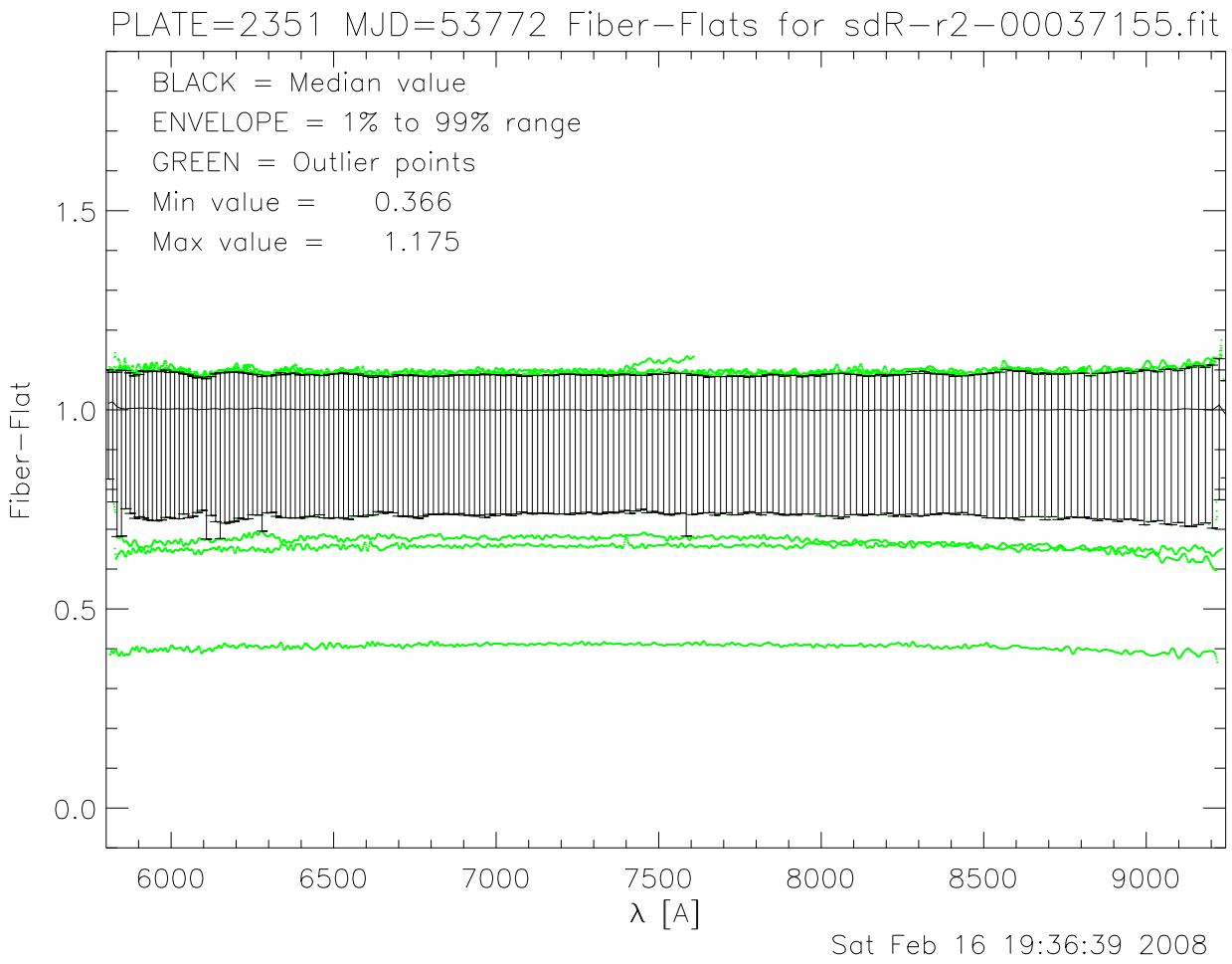

PLATE=2351 MJD=53772 flat extraction chi^2 for sdR−r2−00037146.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
2
4
6
8
10
0
500
1000
1500
2000

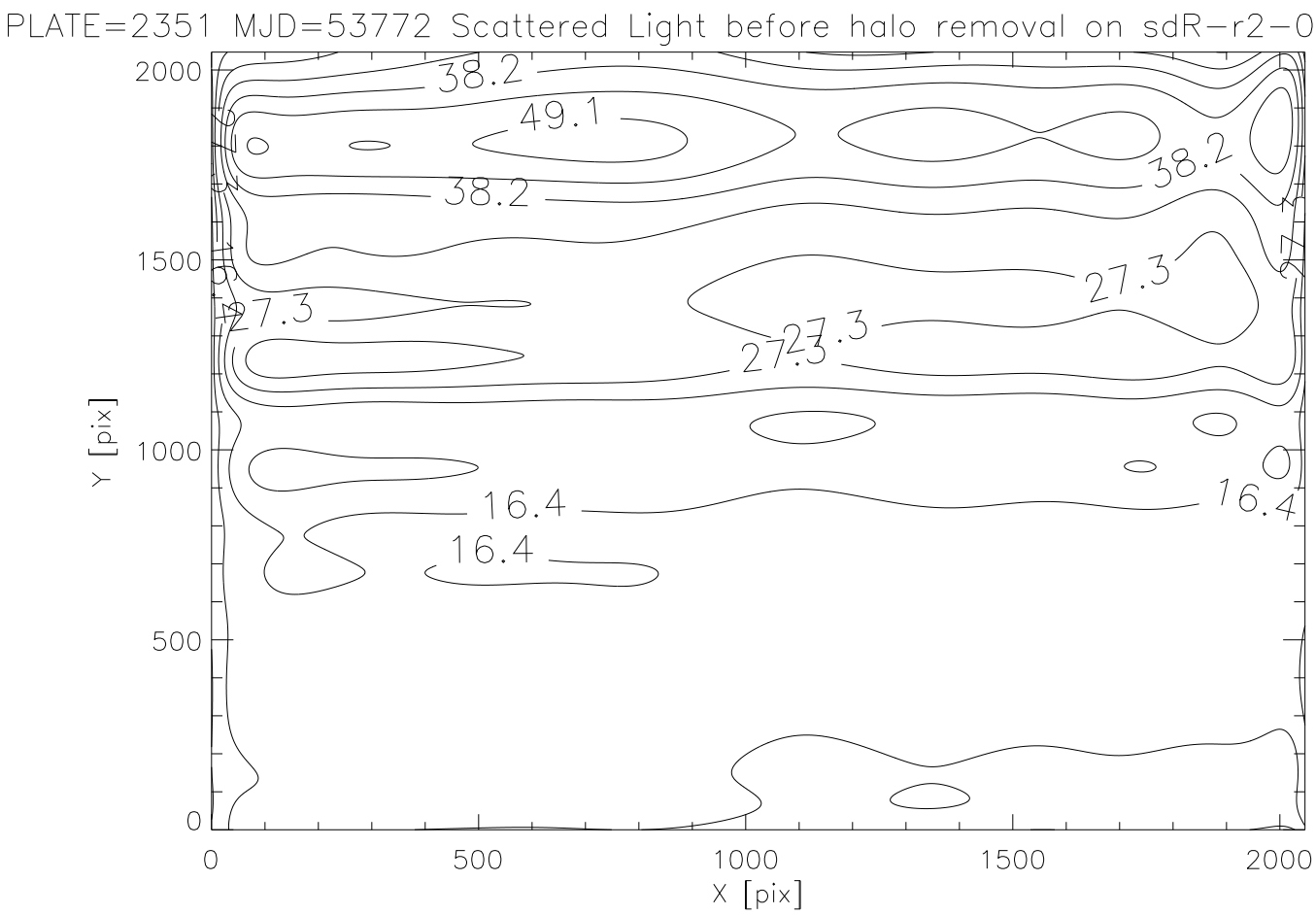

PLATE=2351 MJD=53772 Superflat sdR-r2-00037146.fit
Normalized flux
2.0
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

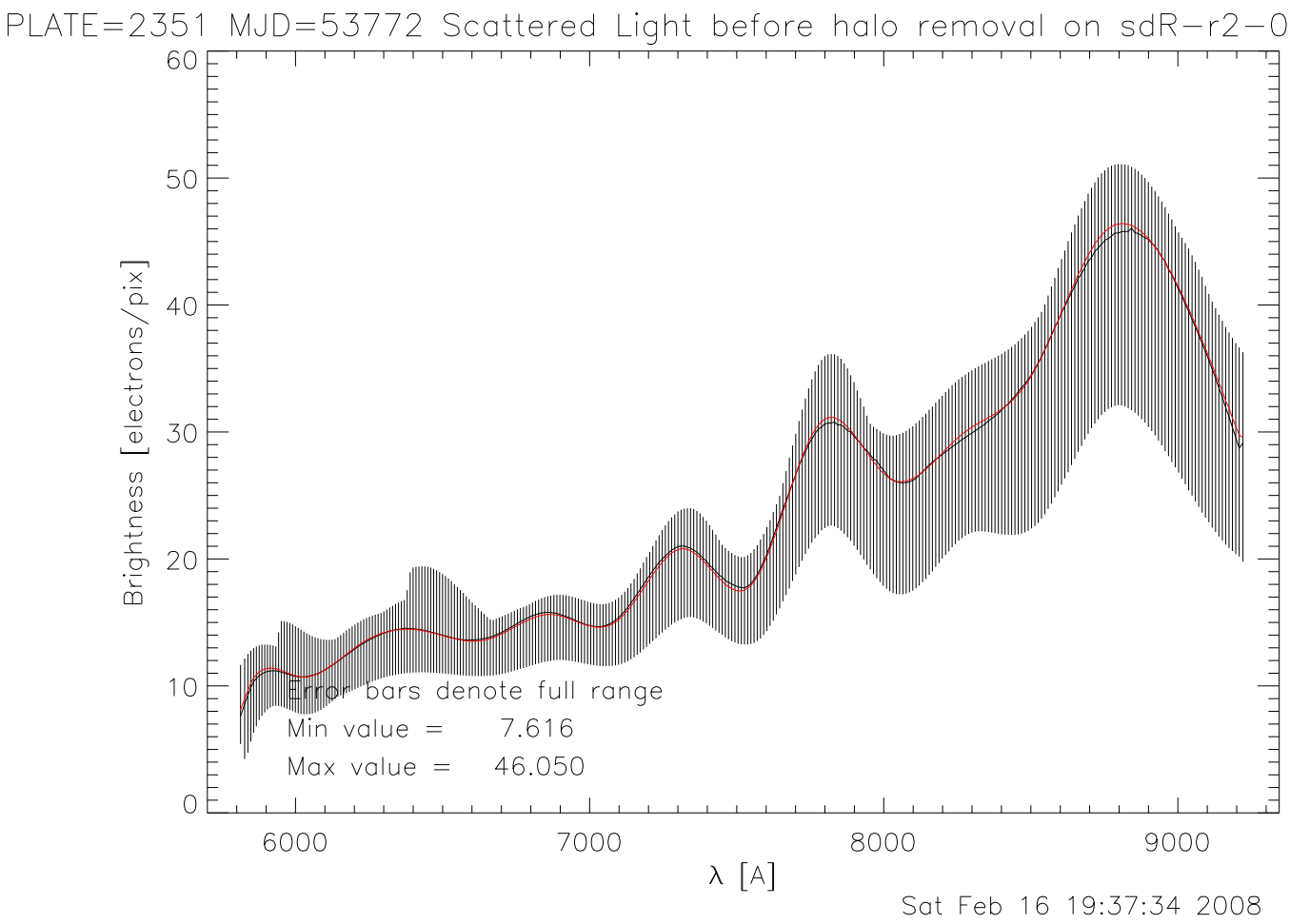

PLATE=2351 MJD=53772 flat extraction chi^2 for sdR−r2−00037155.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
2
4
6
8
10
12
0
500
1000
1500
2000

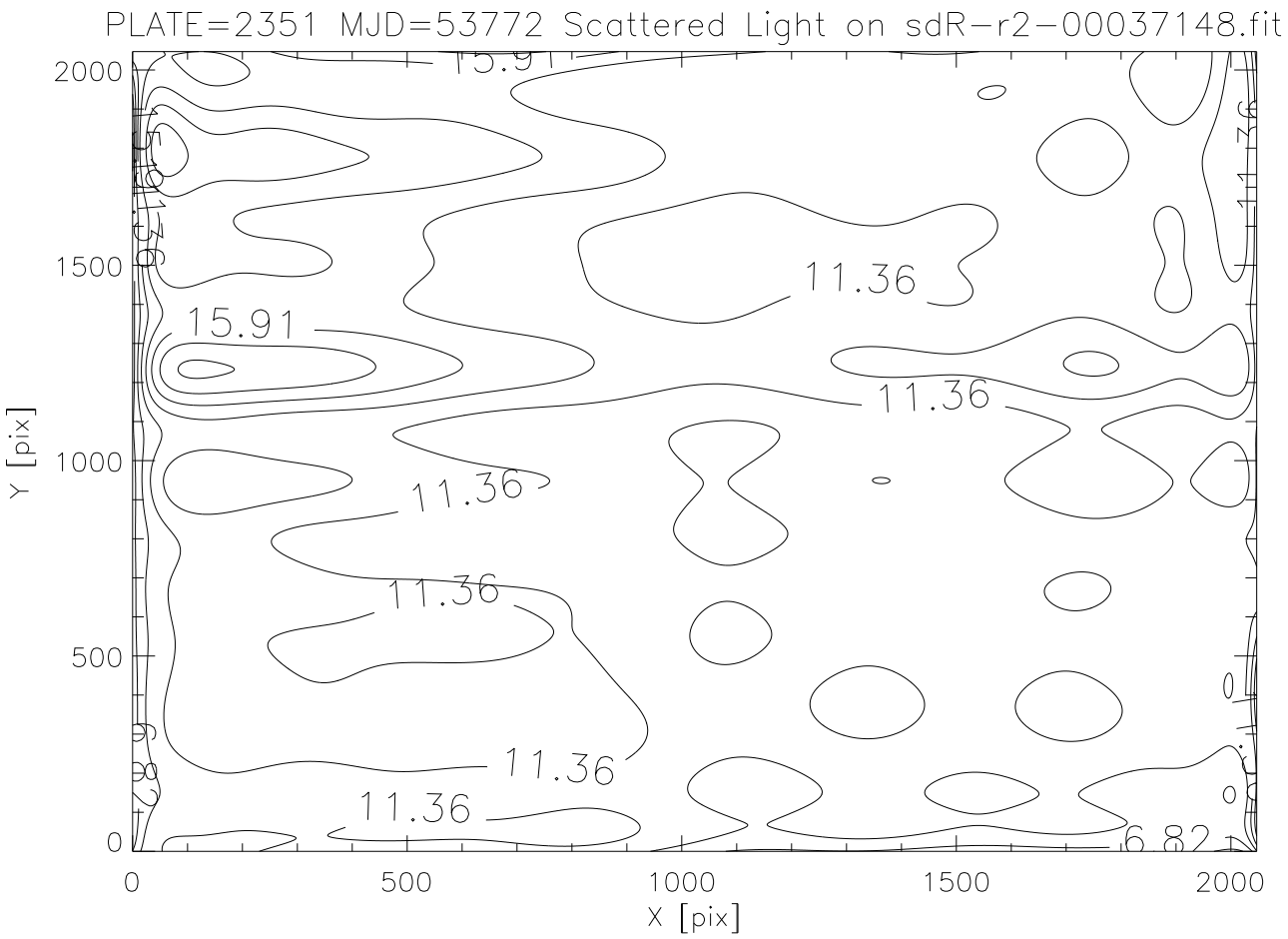

PLATE=2351 MJD=53772 Superflat sdR-r2-00037155.fit
Normalized flux
2.0
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

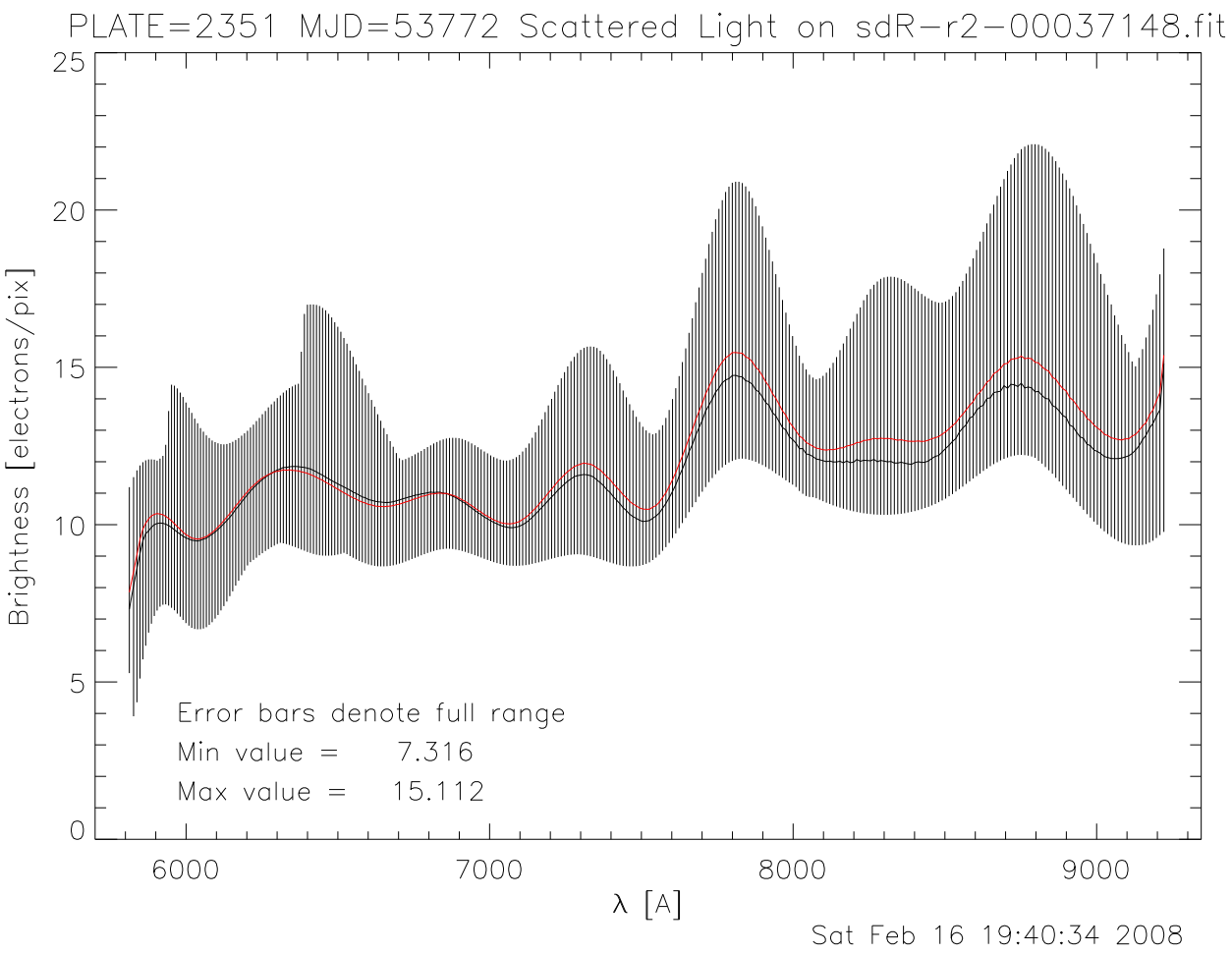

PLATE=2351 MJD=53772 Arcline Fit for sdR-r2-00037156.fit
Fiber Number
300
250
200
150
100
50
0
6000
7000
8000
9000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
6000
7000
8000
9000
λ [A]
Sat Feb 16 19:36:30 2008

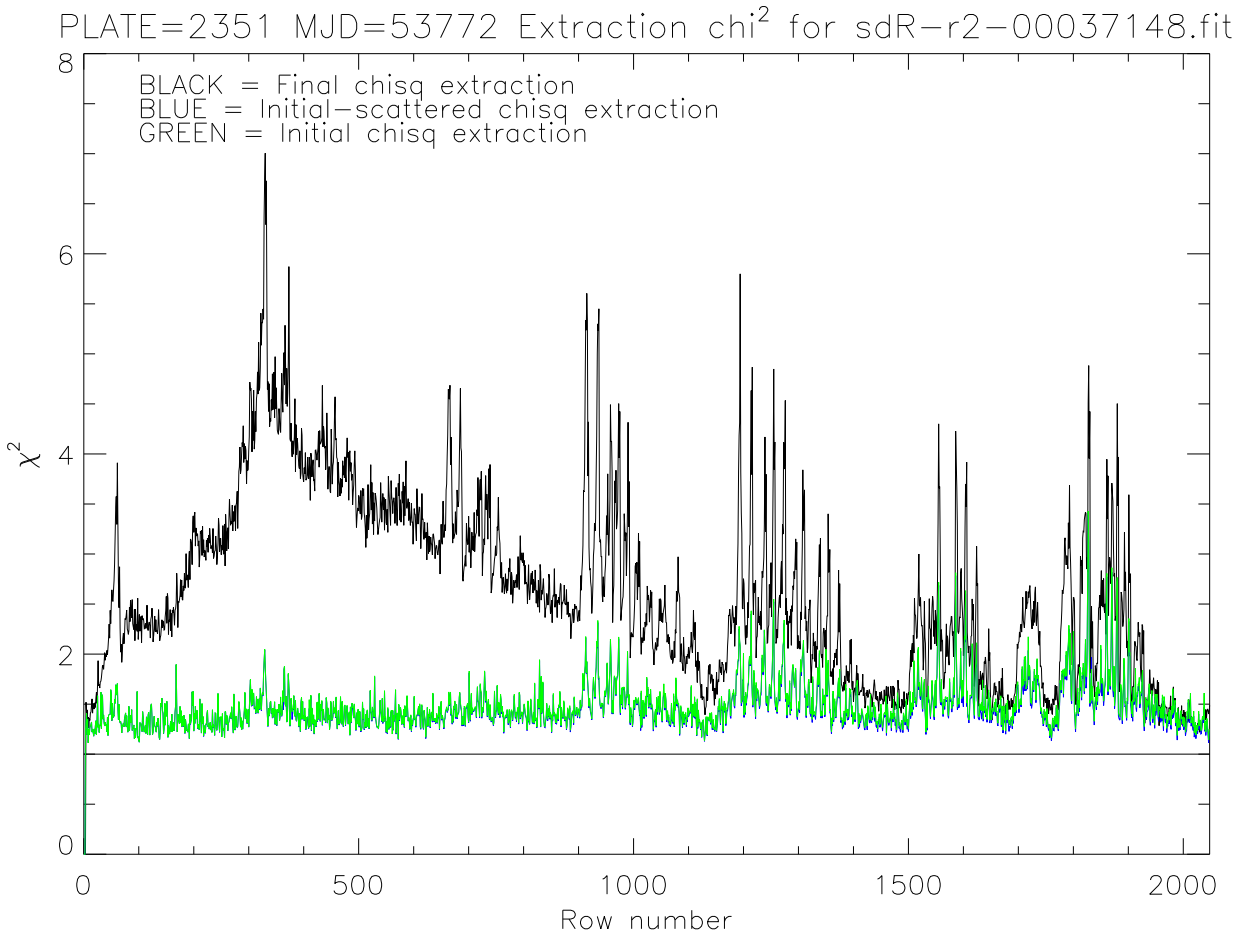

PLATE=2351 MJD=53772 Fiber−Flats for sdR−r2−00037155.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.366
Max value = 1.175
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sat Feb 16 19:36:39 2008

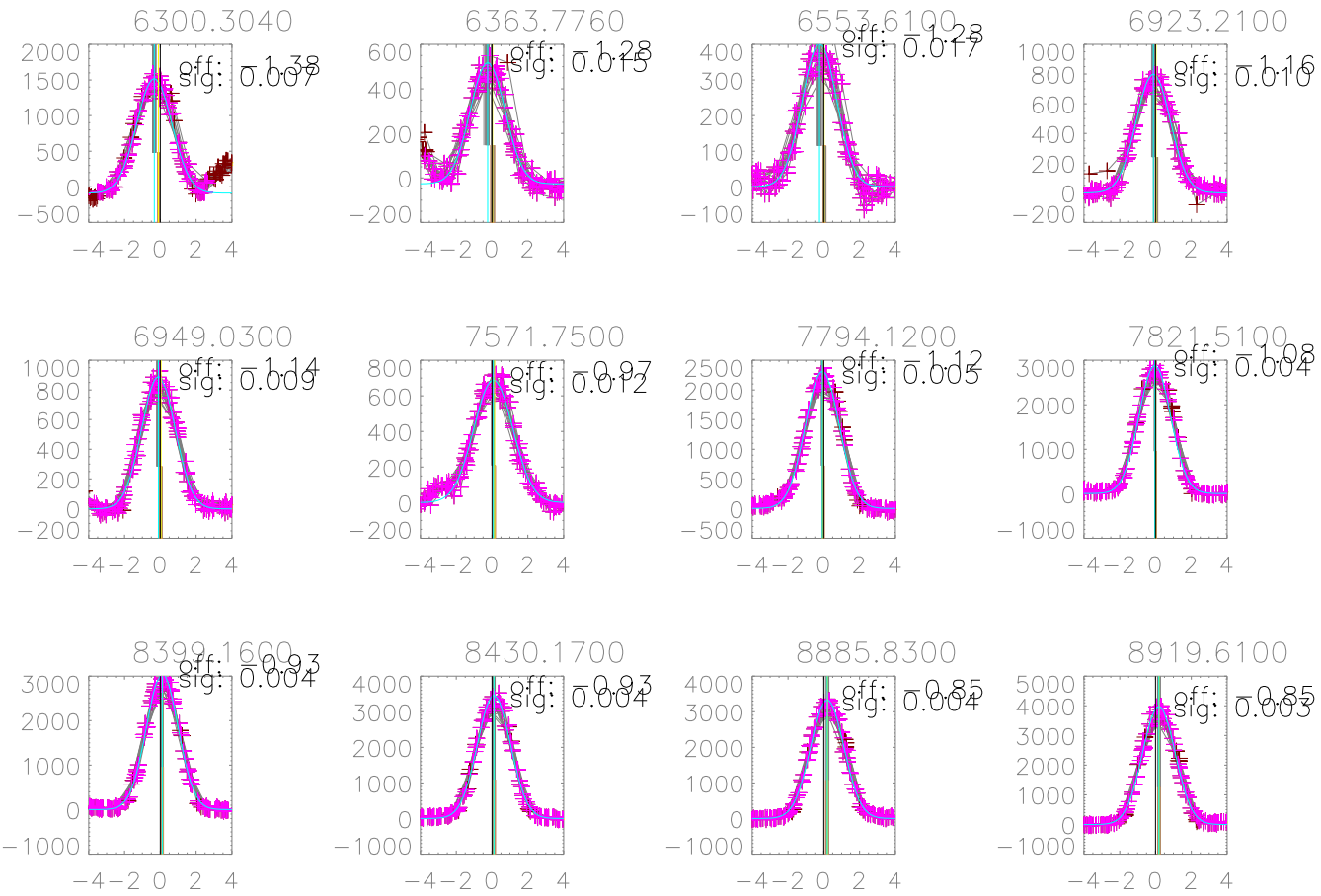

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR-r2-00037148.fi
38.2
49.1
38.2
38.2
27.3
27.3
27.3
27.3
16.4
16.4
16.4
Y [pix]
X [pix]
0
500
1000
1500
2000

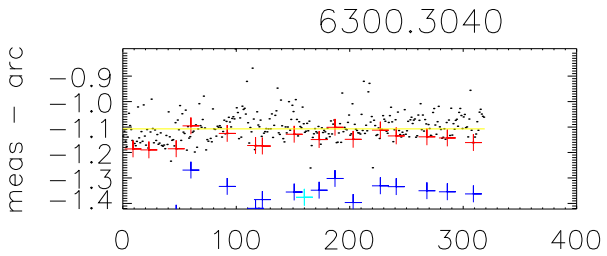

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR-r2-00037148.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 7.616
Max value = 46.050
Sat Feb 16 19:37:34 2008

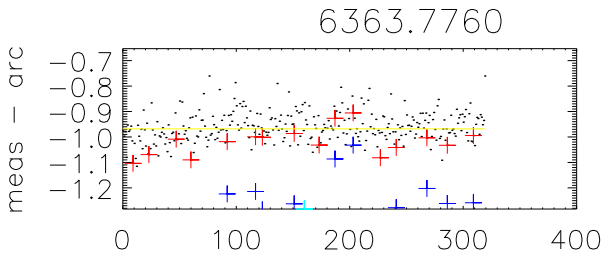

PLATE=2351 MJD=53772 Scattered Light on sdR-r2-00037148.fit
15.91
11.36
11.36
15.91
11.36
11.36
11.36
11.36
6.82
Y [pix]
X [pix]
0
500
1000
1500
2000

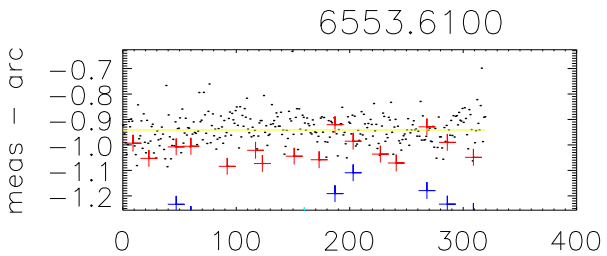

PLATE=2351 MJD=53772 Scattered Light on sdR-r2-00037148.fit
Brightness [electrons/pix]
25
20
15
10
5
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 7.316
Max value = 15.112
Sat Feb 16 19:40:34 2008

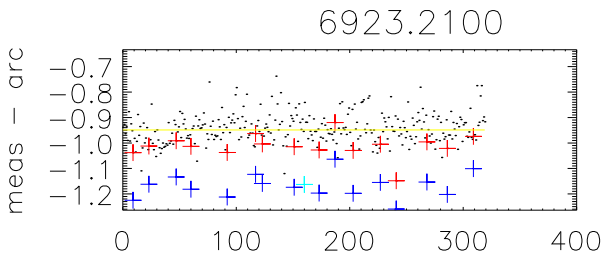

PLATE=2351 MJD=53772 Extraction chi^2 for sdR−r2−00037148.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
0
500
1000
1500
2000
Row number

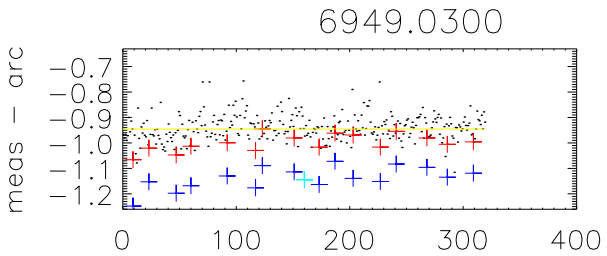

6300.3040
off: -1.38
sig: 0.007
6363.7760
off: -1.28
sig: 0.015
6553.6100
off: -1.28
sig: 0.017
6923.2100
off: -1.16
sig: 0.010
6949.0300
off: -1.14
sig: 0.009
7571.7500
off: -0.97
sig: 0.012
7794.1200
off: -1.12
sig: 0.005
7821.5100
off: -1.08
sig: 0.004
8399.1600
off: -0.93
sig: 0.004
8430.1700
off: -0.93
sig: 0.004
8885.8300
off: -0.85
sig: 0.004
8919.6100
off: -0.85
sig: 0.003

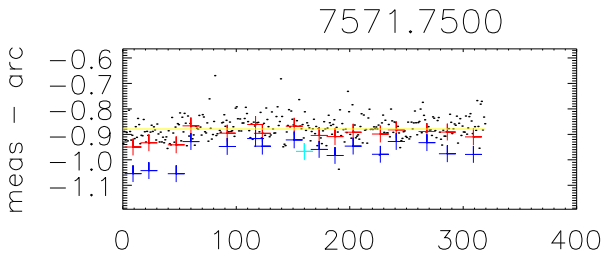

6300.3040
meas − arc
−0.9
−1.0
−1.1
−1.2
−1.3
−1.4
0
100
200
300
400

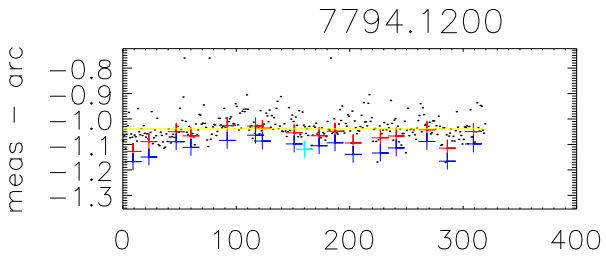

6363.7760
meas − arc
−0.7
−0.8
−0.9
−1.0
−1.1
−1.2
0
100
200
300
400

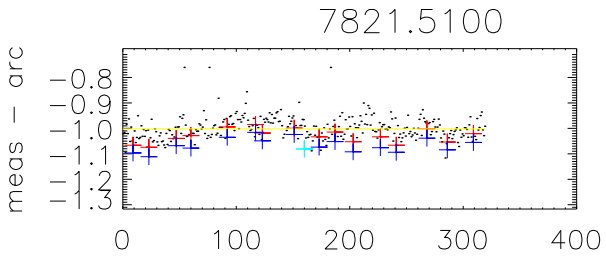

6553.6100
meas − arc
−0.7
−0.8
−0.9
−1.0
−1.1
−1.2
0
100
200
300
400

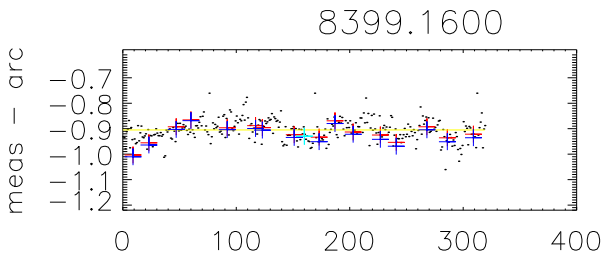

6923.2100
meas − arc
−0.7
−0.8
−0.9
−1.0
−1.1
−1.2
0
100
200
300
400

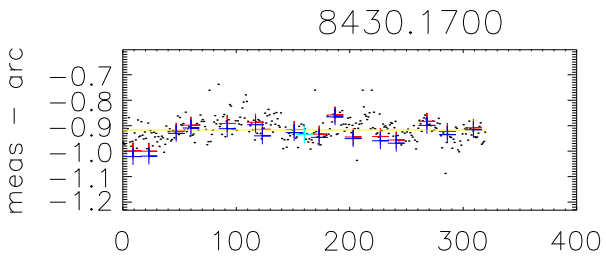

6949.0300
meas − arc
−0.7
−0.8
−0.9
−1.0
−1.1
−1.2
0
100
200
300
400

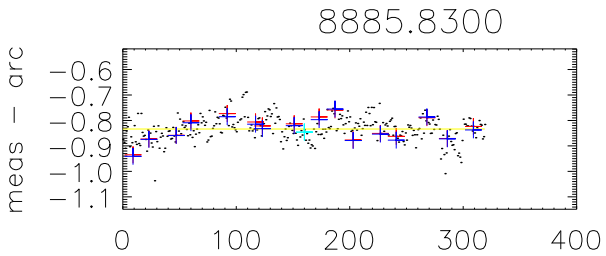

7571.7500
meas − arc
−0.6
−0.7
−0.8
−0.9
−1.0
−1.1
0
100
200
300
400

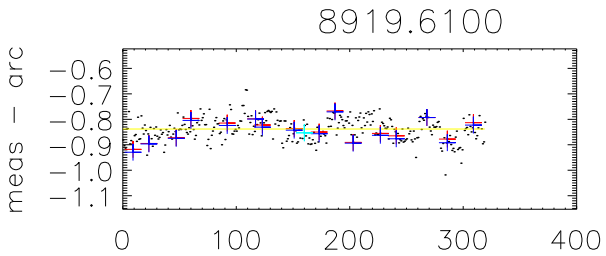

7794.1200
meas − arc
−0.8
−0.9
−1.0
−1.1
−1.2
−1.3
0
100
200
300
400

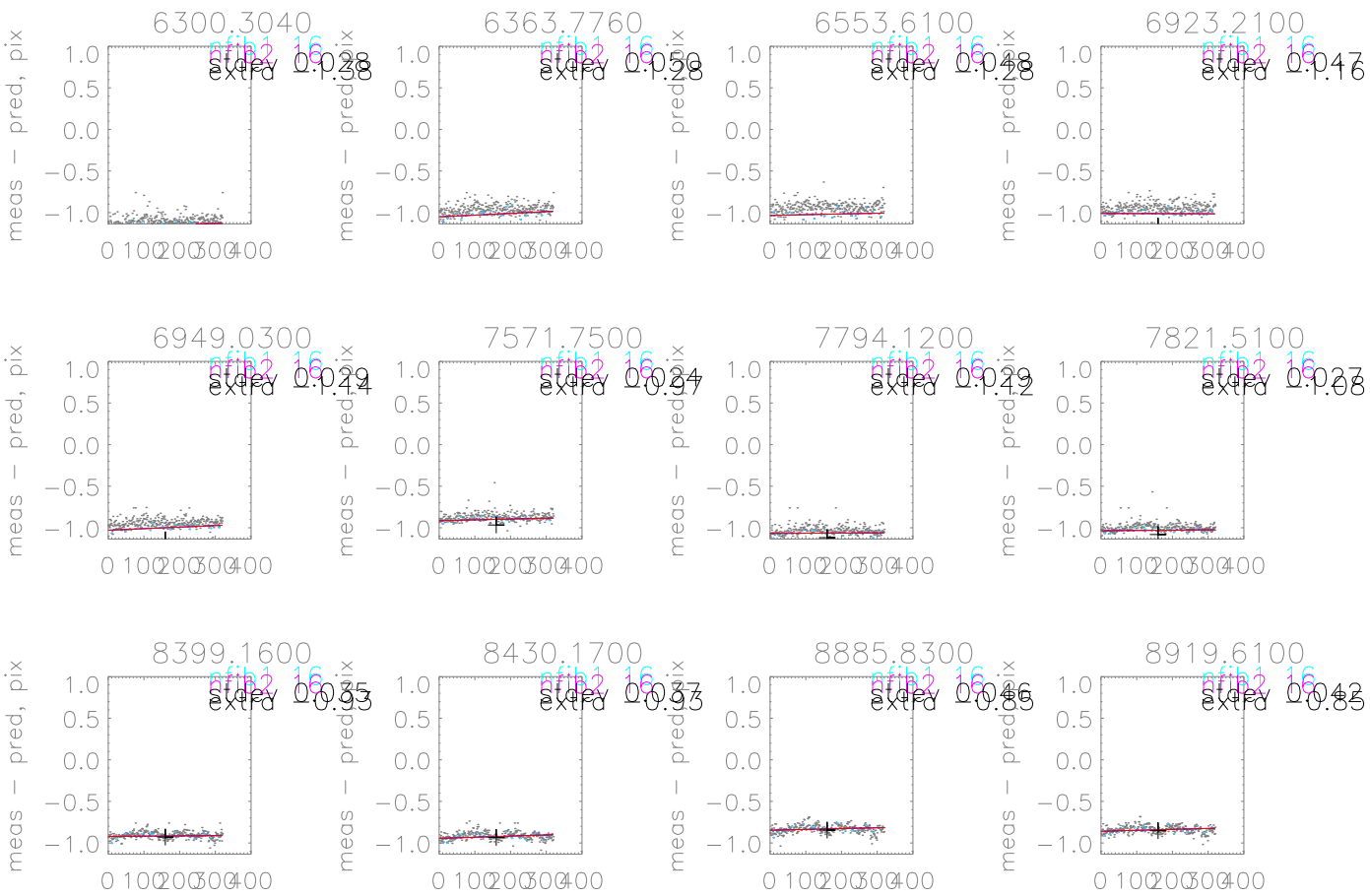

7821.5100
meas − arc
−0.8
−0.9
−1.0
−1.1
−1.2
−1.3
0
100
200
300
400

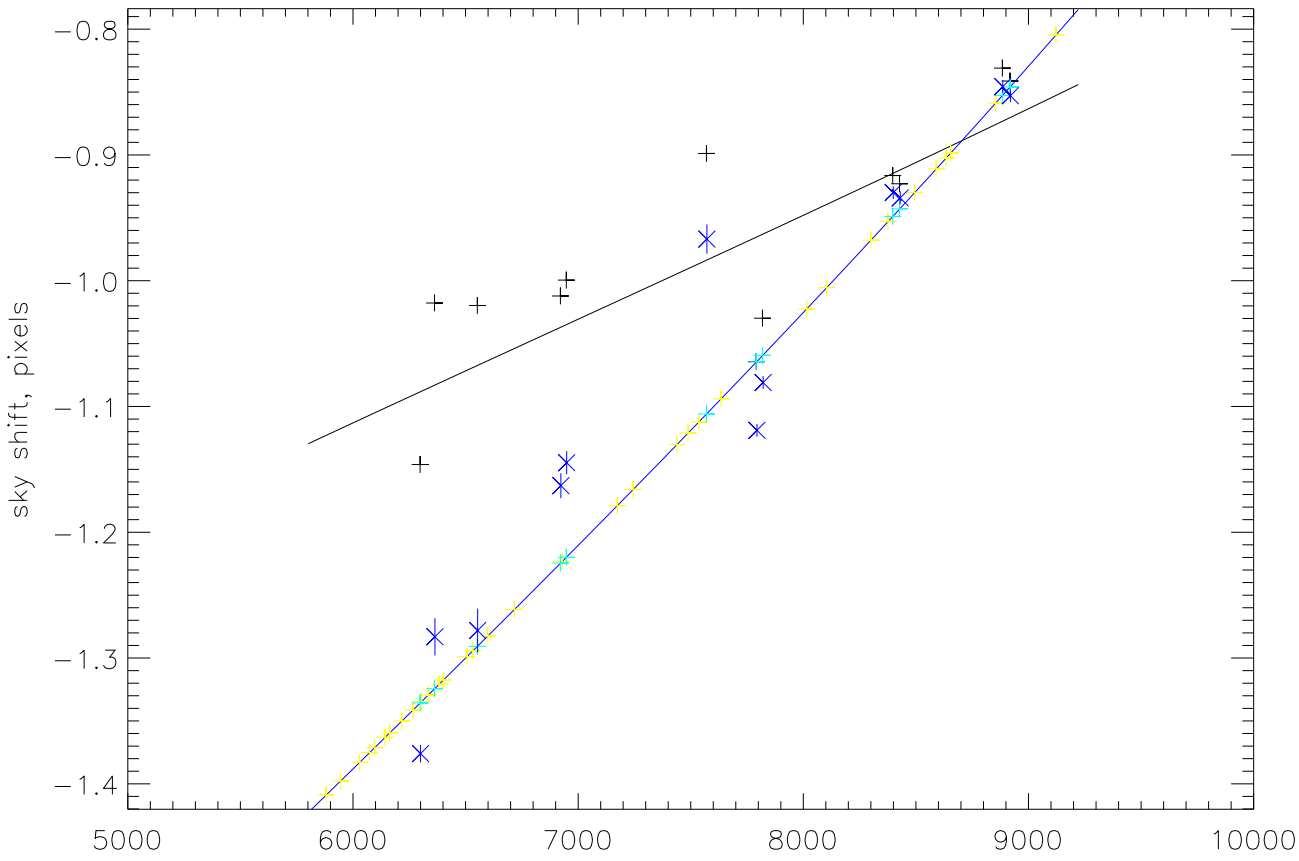

8399.1600
meas − arc
−0.7
−0.8
−0.9
−1.0
−1.1
−1.2
0
100
200
300
400

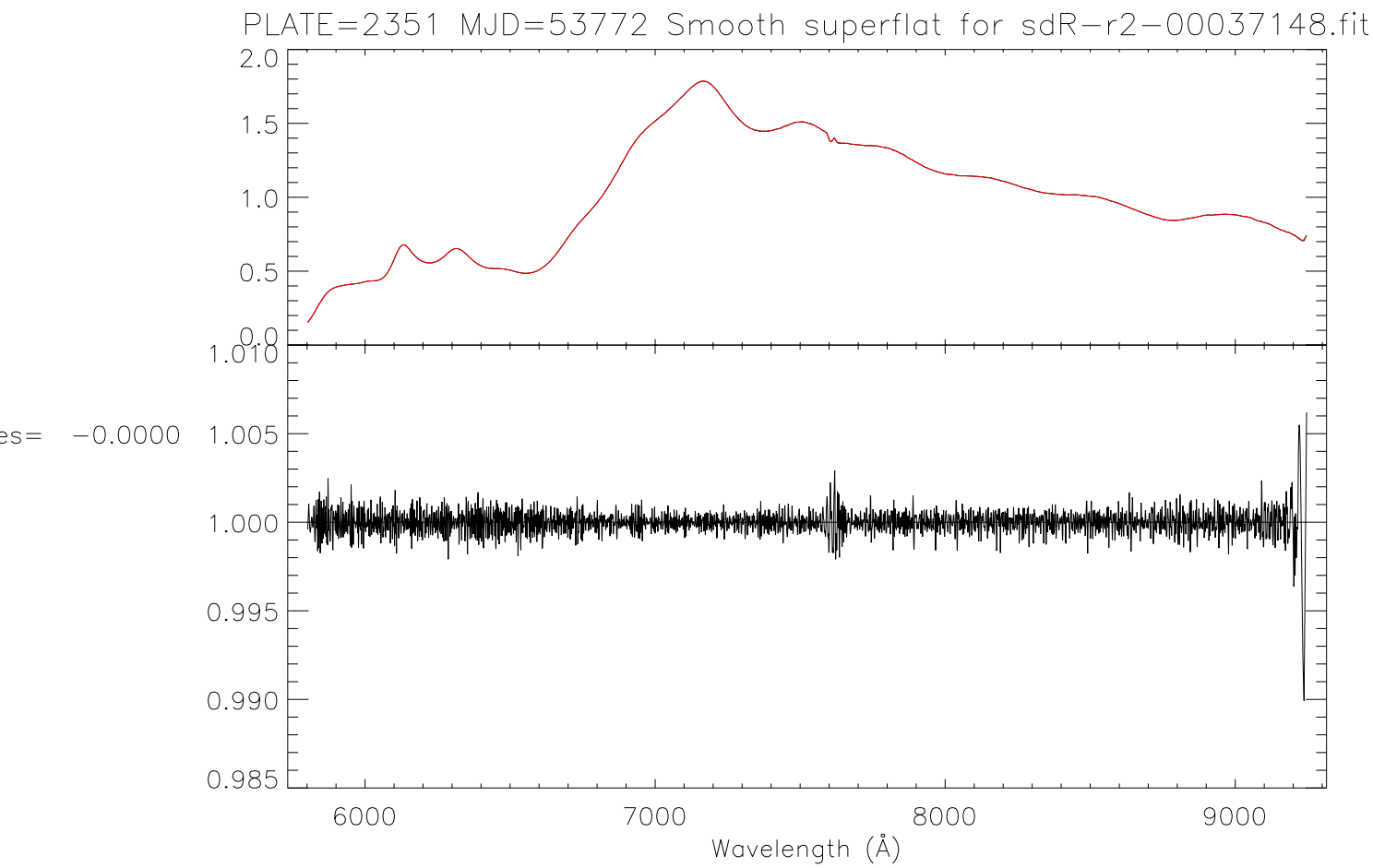

8430.1700
meas − arc
−0.7
−0.8
−0.9
−1.0
−1.1
−1.2
0
100
200
300
400

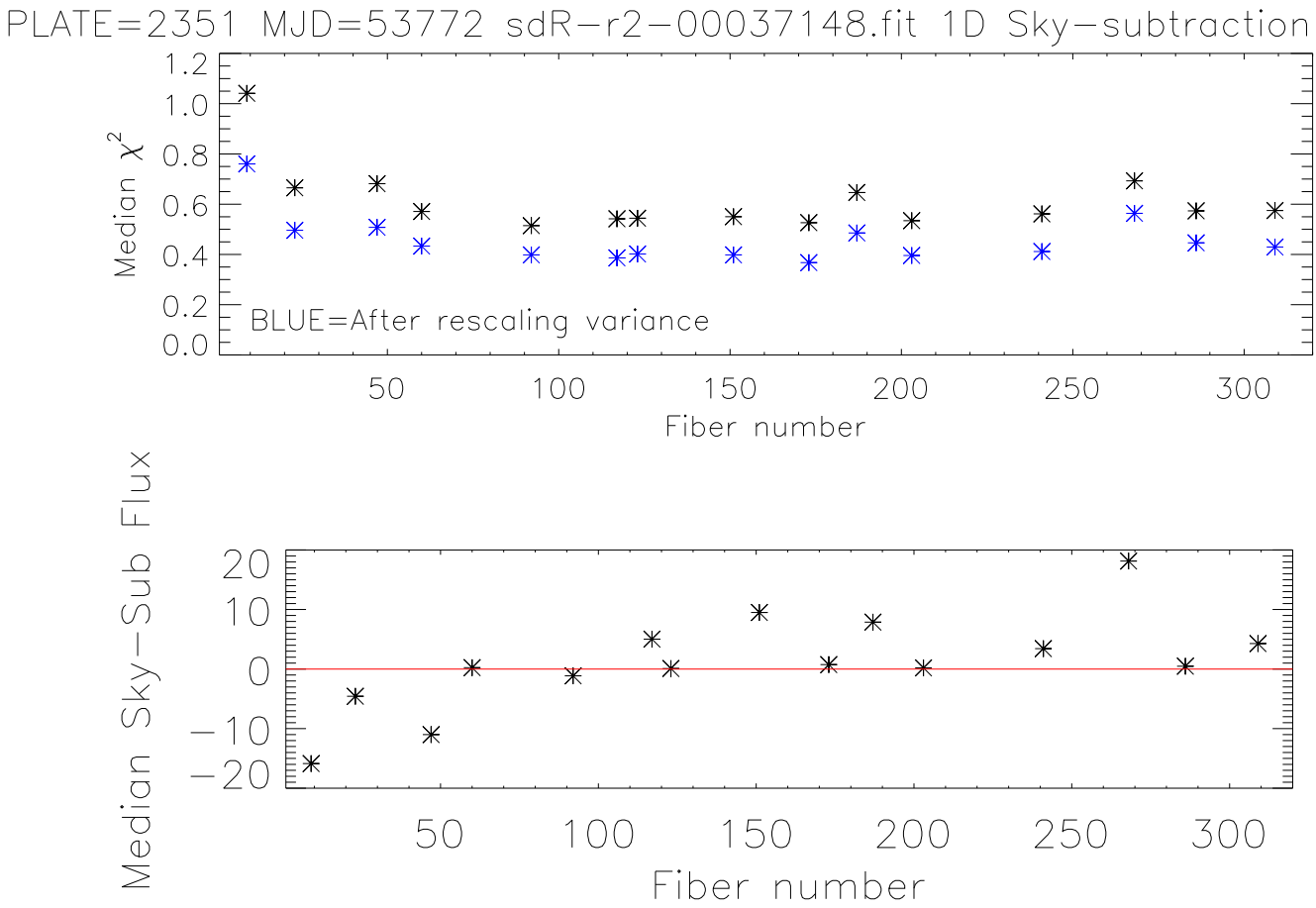

8885.8300
meas − arc
−0.6
−0.7
−0.8
−0.9
−1.0
−1.1
0
100
200
300
400

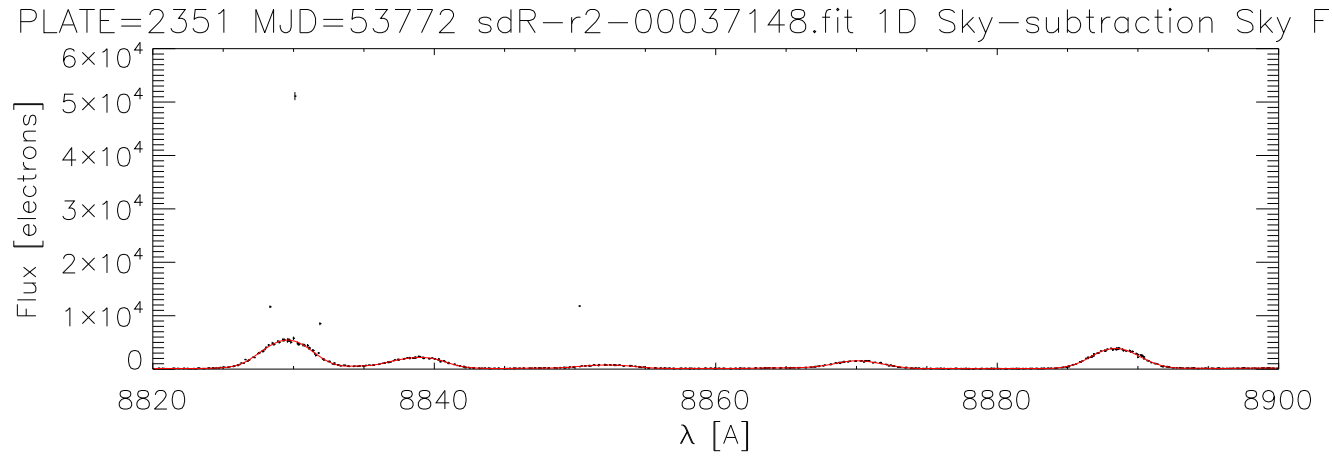

8919.6100
meas − arc
−0.6
−0.7
−0.8
−0.9
−1.0
−1.1
0
100
200
300
400

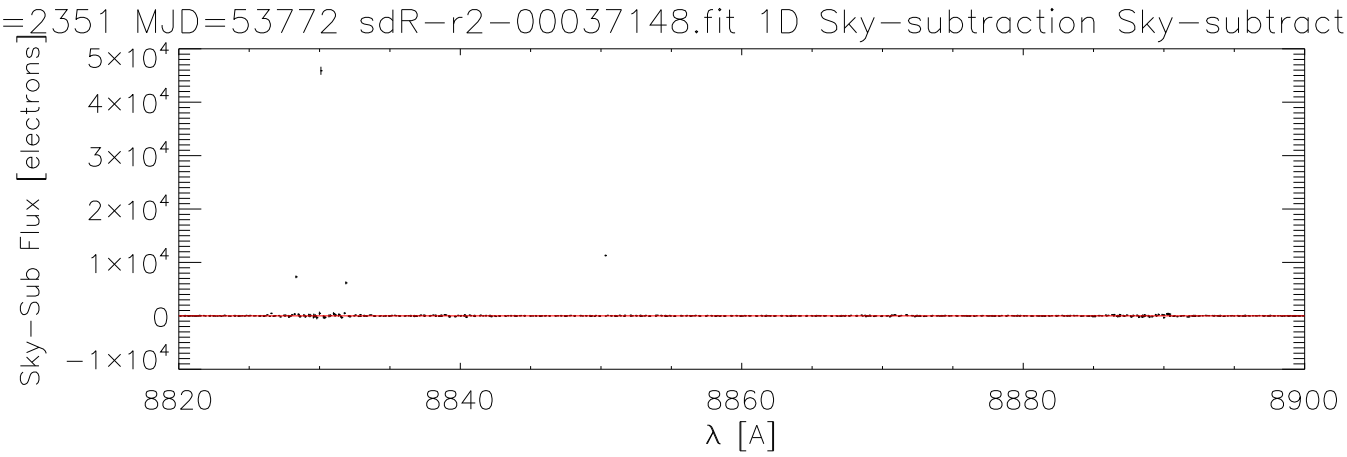

6300.3040
6363.7760
6553.6100
6923.2100
6949.0300
7571.7500
7794.1200
7821.5100
8399.1600
8430.1700
8885.8300
8919.6100
meas − pred, pix
mfib2 16
mfib1 16
stdev 0.028
extra 0.38
stdev 0.050
extra 0.28
stdev 0.048
extra 0.28
stdev 0.047
extra 0.16
stdev 0.029
extra 0.44
stdev 0.024
extra 0.97
stdev 0.029
extra 0.42
stdev 0.027
extra 0.68
stdev 0.035
extra 0.93
stdev 0.037
extra 0.93
stdev 0.046
extra 0.85
stdev 0.042
extra 0.85

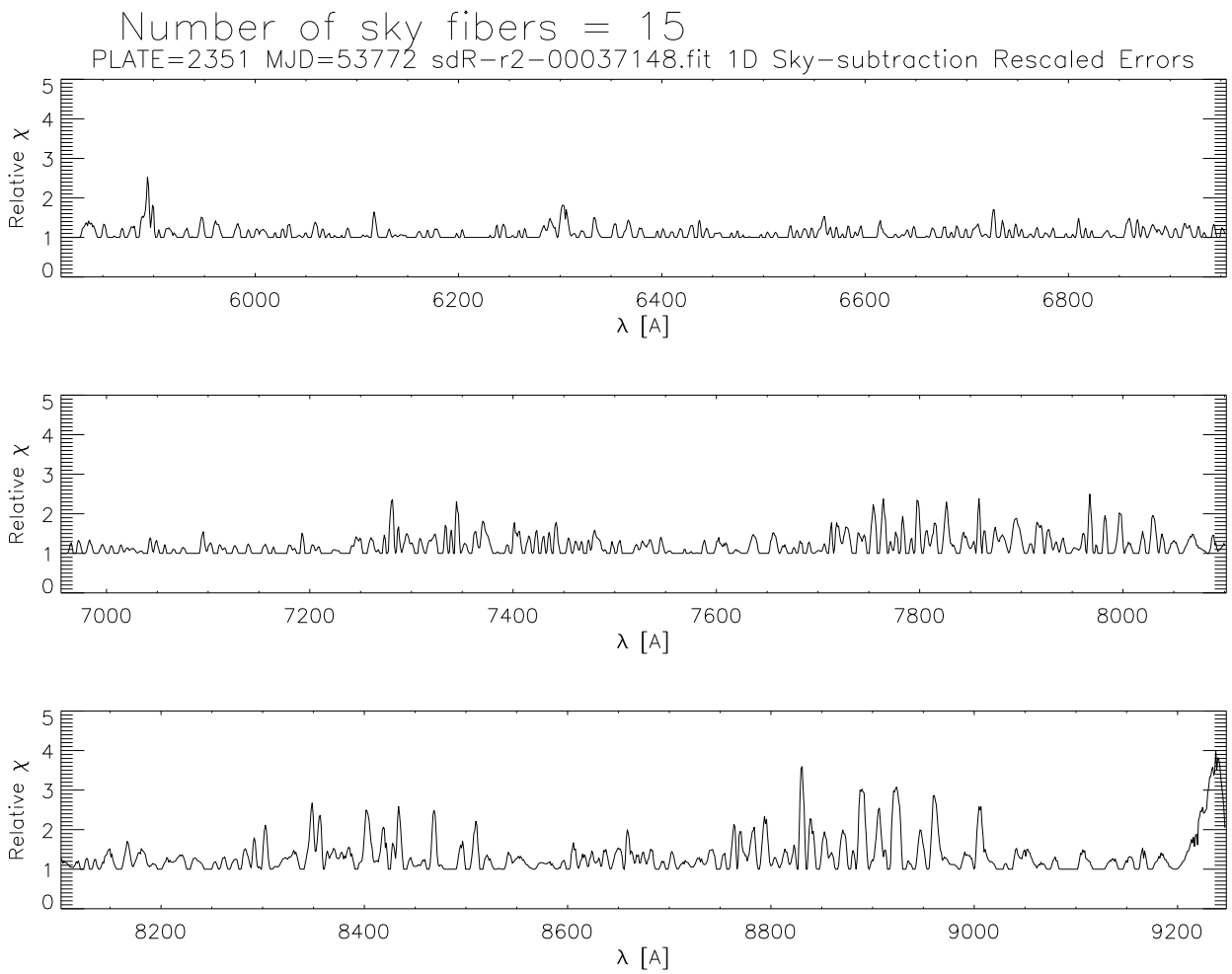

−0.8
−0.9
−1.0
−1.1
−1.2
−1.3
−1.4
sky shift, pixels
5000
6000
7000
8000
9000
10000

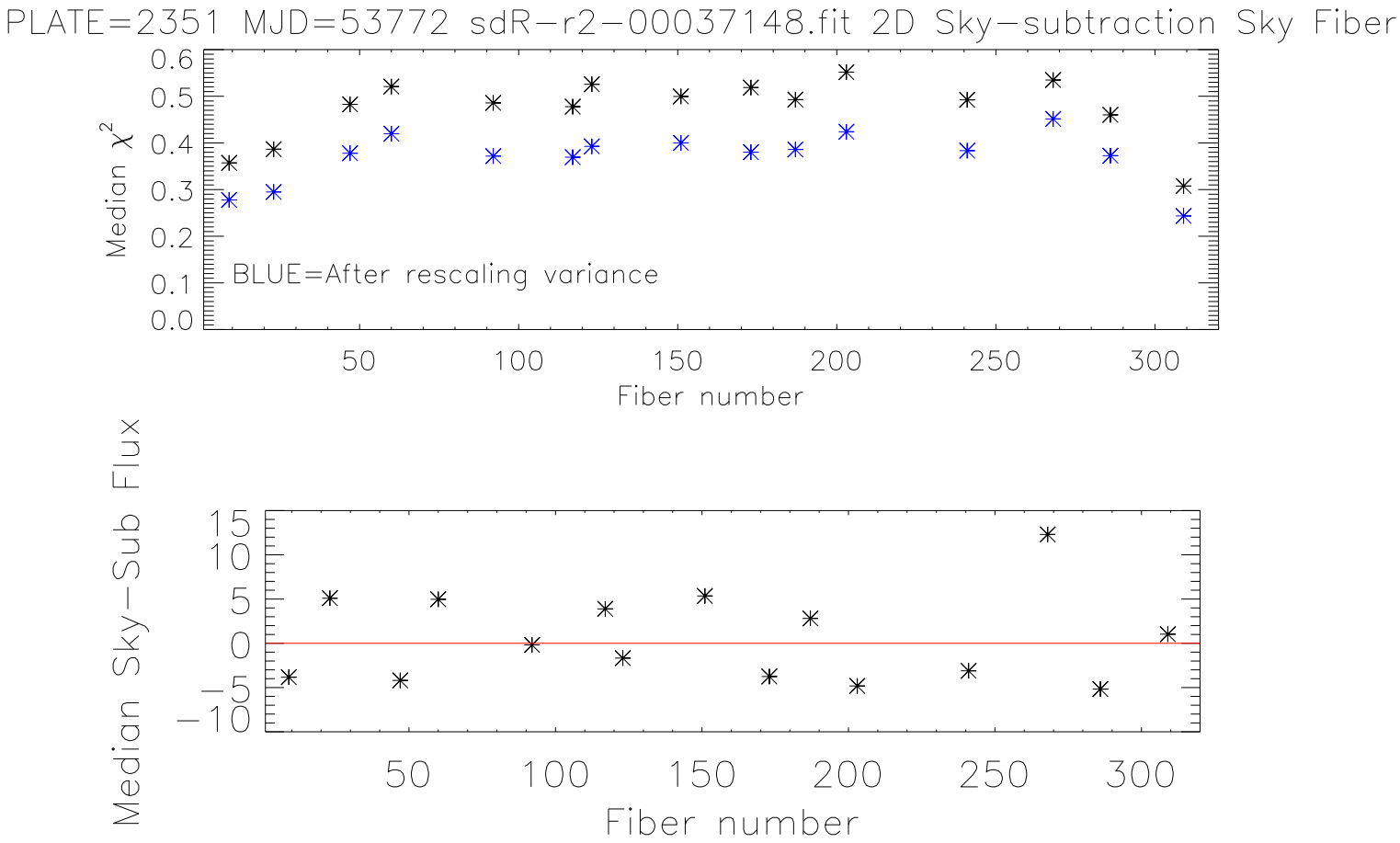

PLATE=2351 MJD=53772 Smooth superflat for sdR-r2-00037148.fit
2.0
1.5
1.0
0.5
0.0
es= −0.0000
1.010
1.005
1.000
0.995
0.990
0.985
6000
7000
8000
9000
Wavelength (Å)

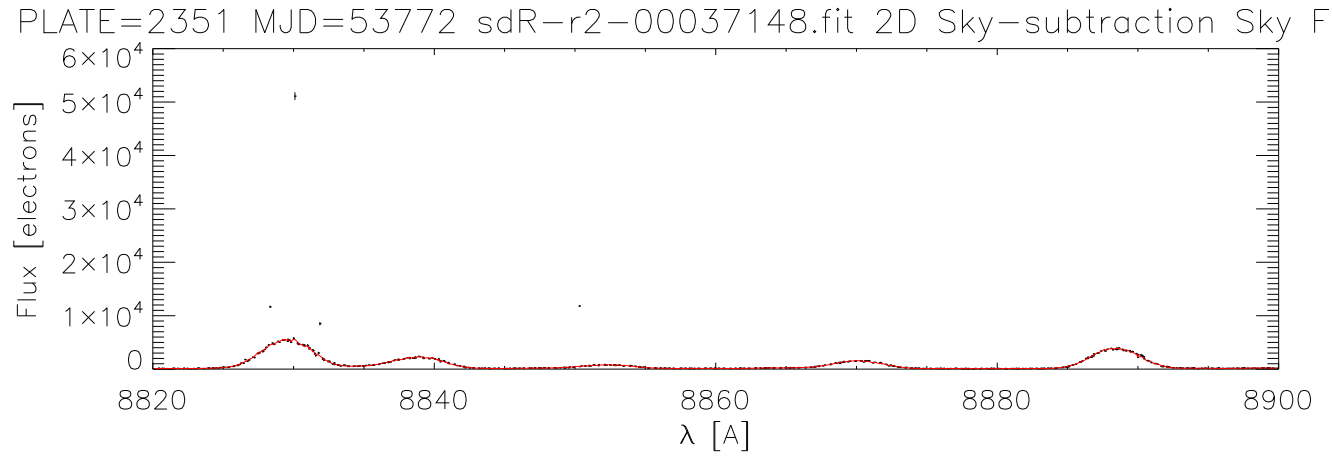

PLATE=2351 MJD=53772 sdR-r2-00037148.fit 1D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

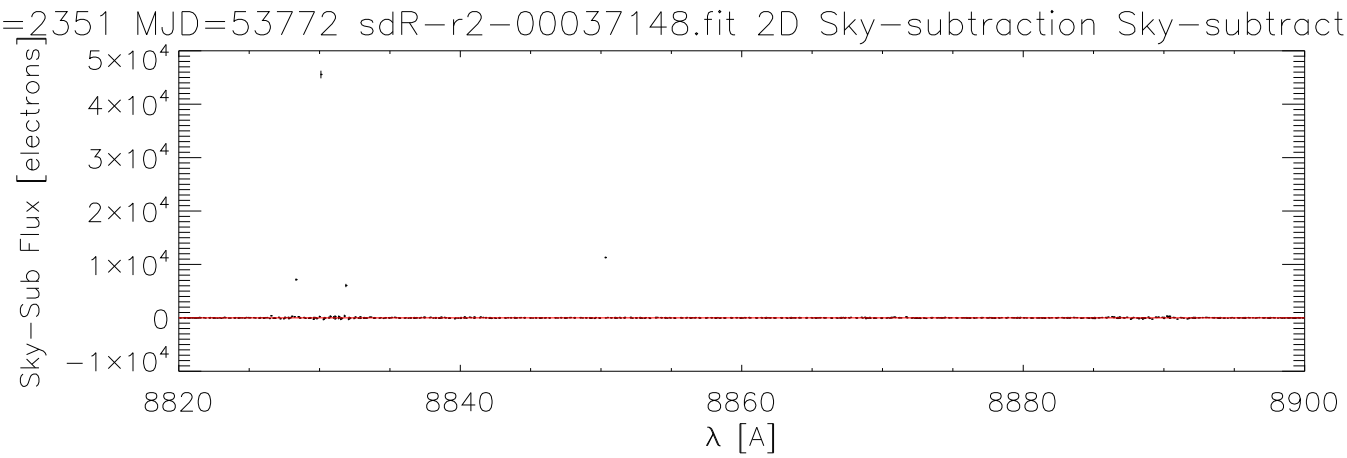

PLATE=2351 MJD=53772 sdR-r2-00037148.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
6×10^4
5×10^4
4×10^4
3×10^4
2×10^4
1×10^4
0
8820
8840
8860
8880
8900
λ [A]

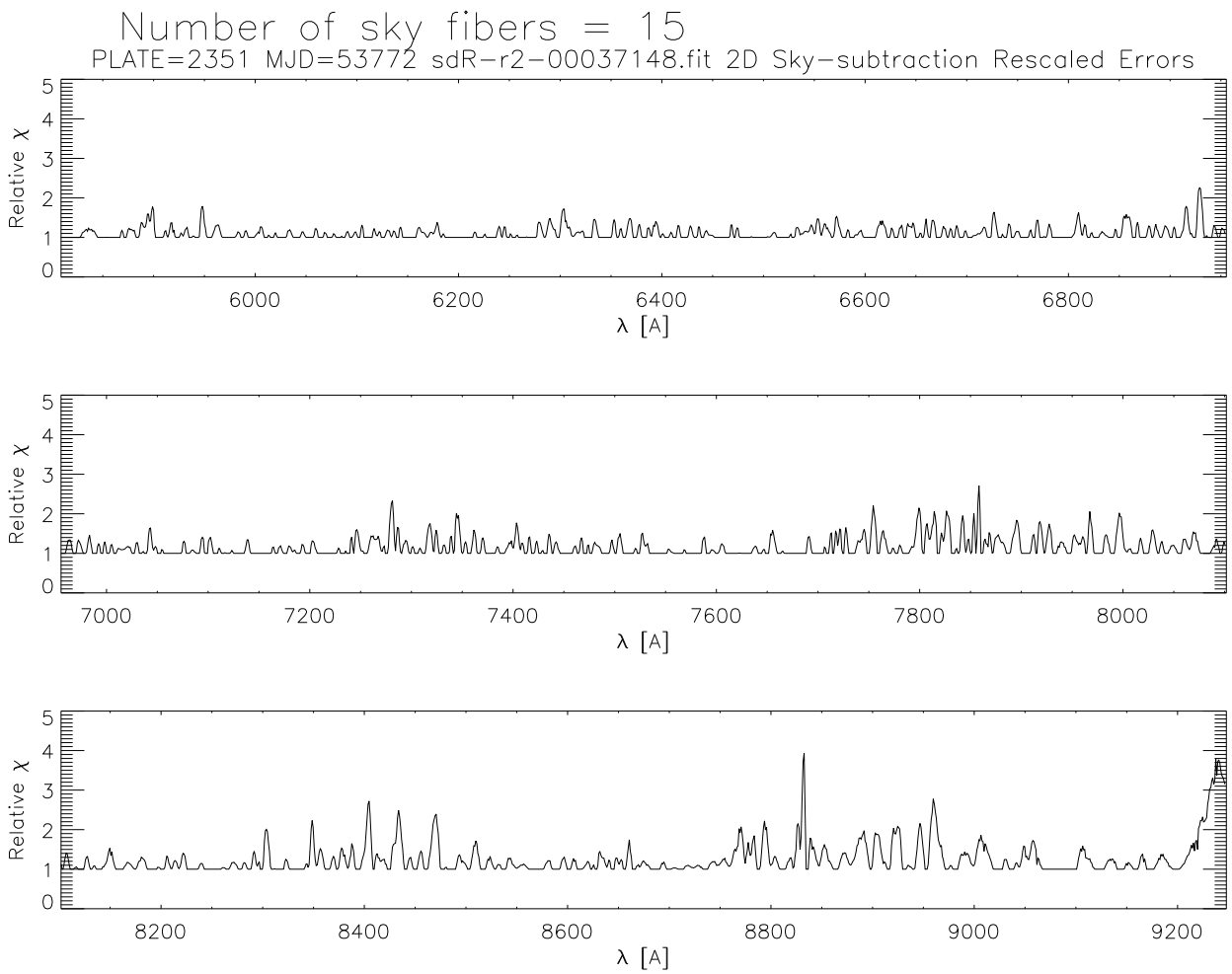

PLATE=2351 MJD=53772 sdR-r2-00037148.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
5×10^4
4×10^4
3×10^4
2×10^4
1×10^4
0
-1×10^4
8820
8840
8860
8880
8900
λ [A]

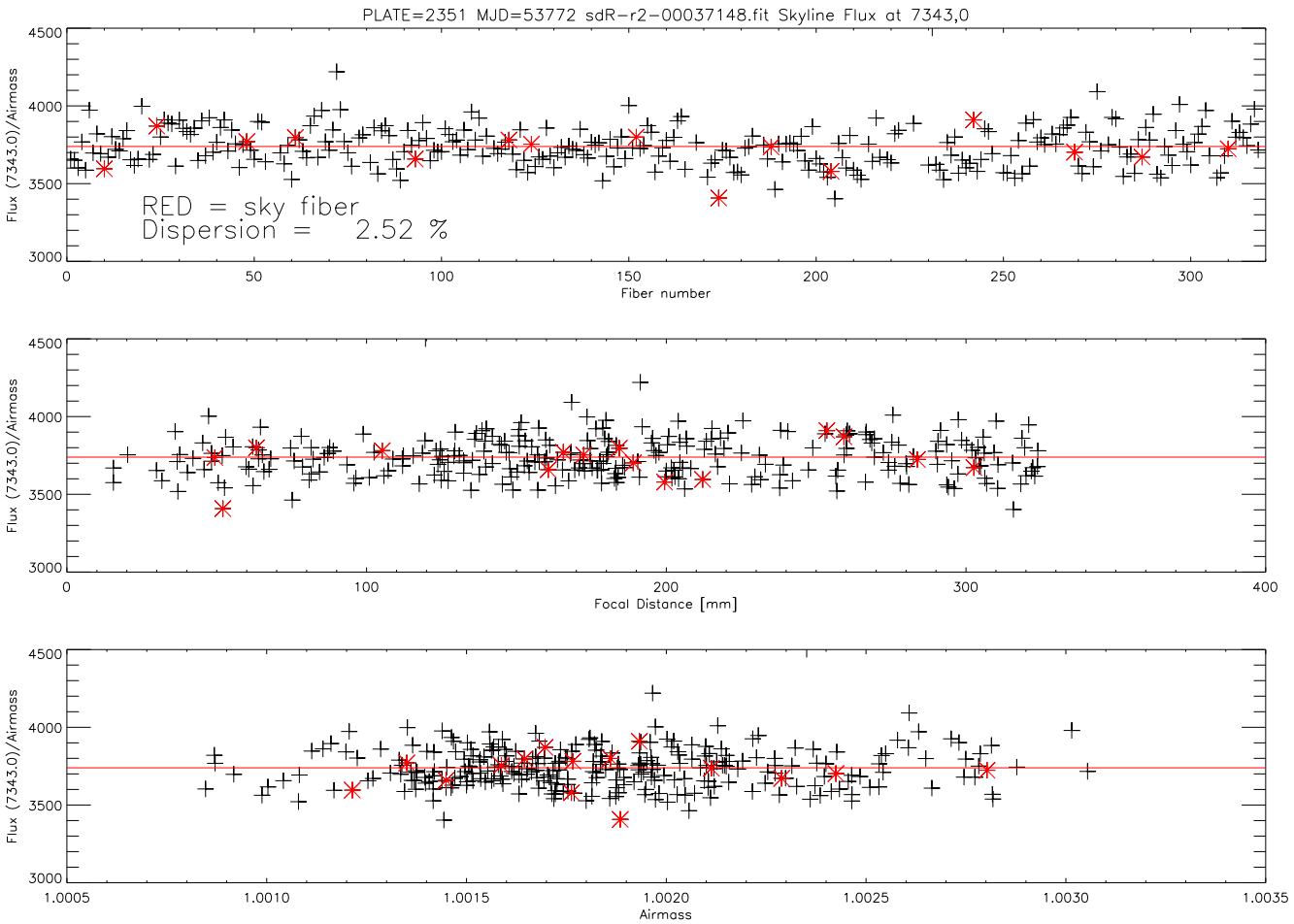

Number of sky fibers = 15
PLATE=2351 MJD=53772 sdR-r2-00037148.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

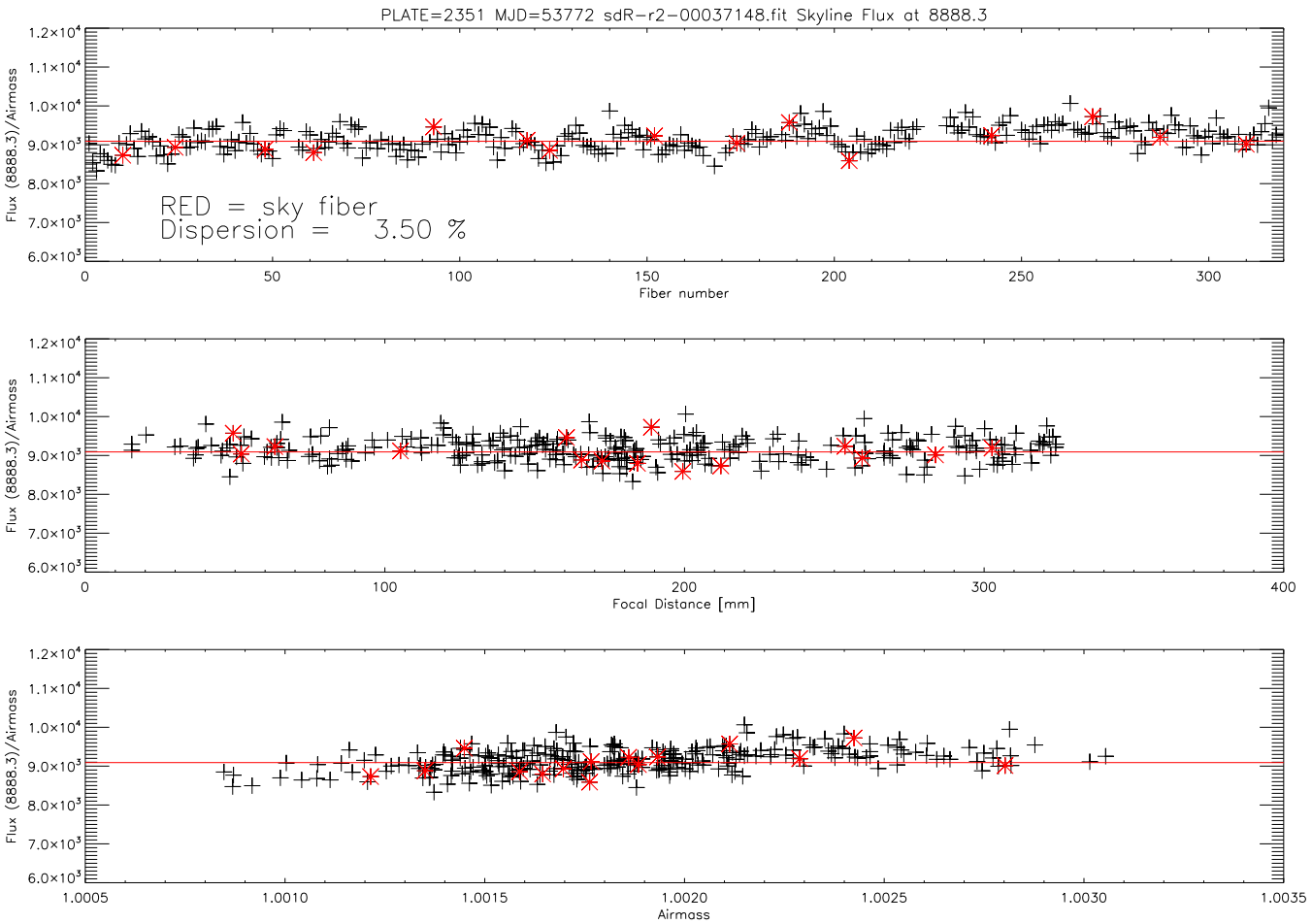

PLATE=2351 MJD=53772 sdR-r2-00037148.fit 2D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

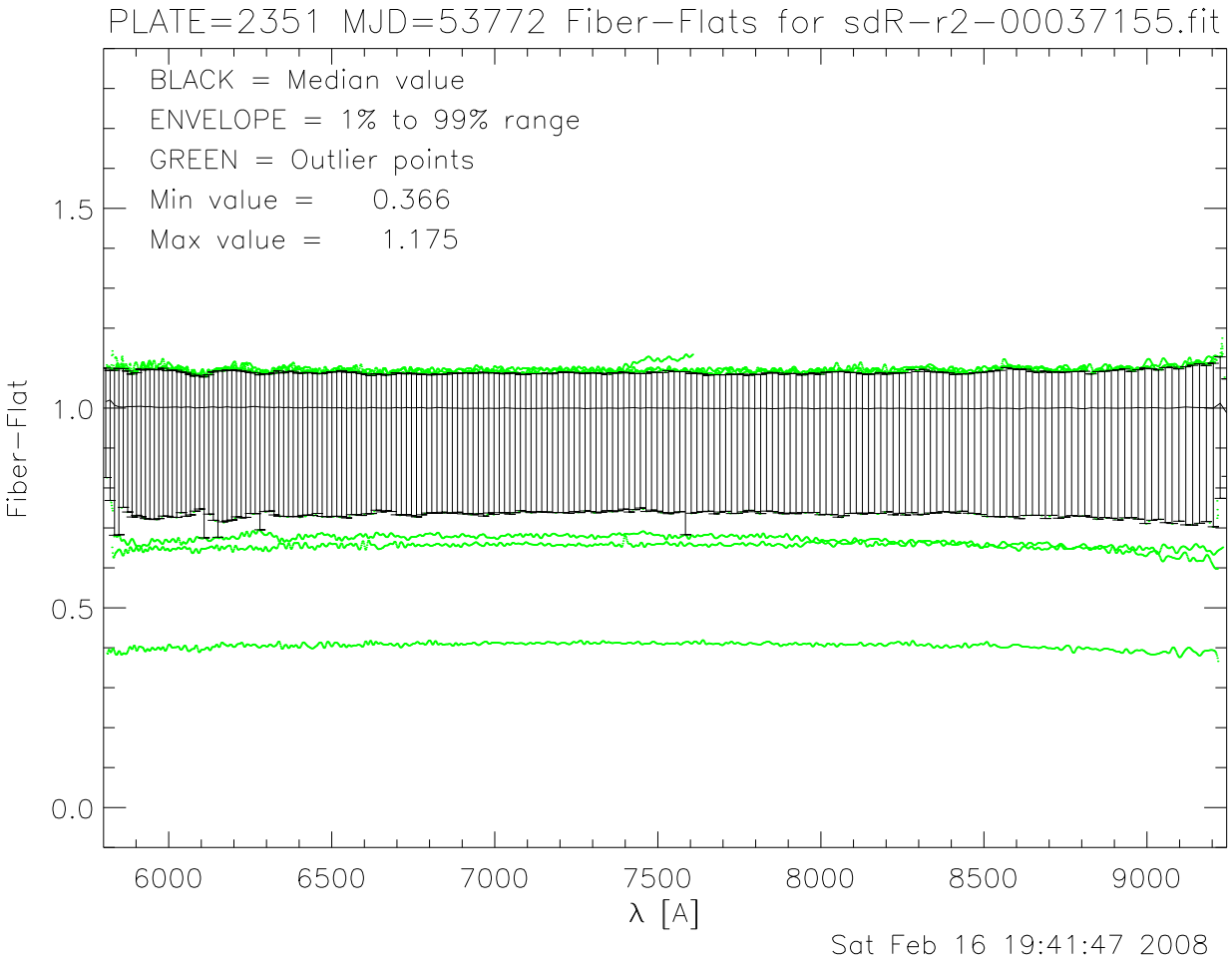

PLATE=2351 MJD=53772 sdR-r2-00037148.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
6×10^4
5×10^4
4×10^4
3×10^4
2×10^4
1×10^4
0
8820
8840
8860
8880
8900
λ [A]

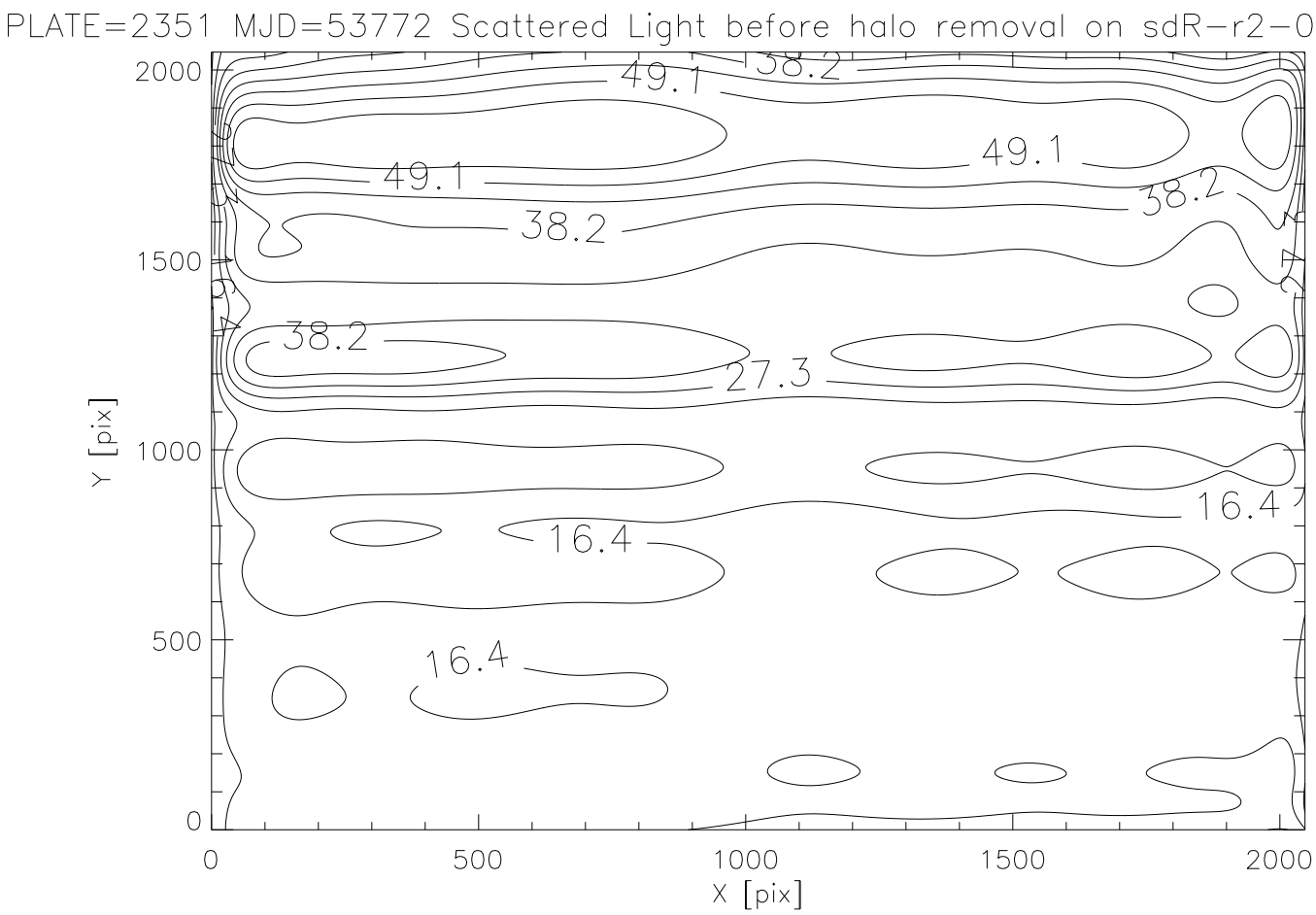

PLATE=2351 MJD=53772 sdR-r2-00037148.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
5×10^4
4×10^4
3×10^4
2×10^4
1×10^4
0
-1×10^4
8820
8840
8860
8880
8900
λ [A]

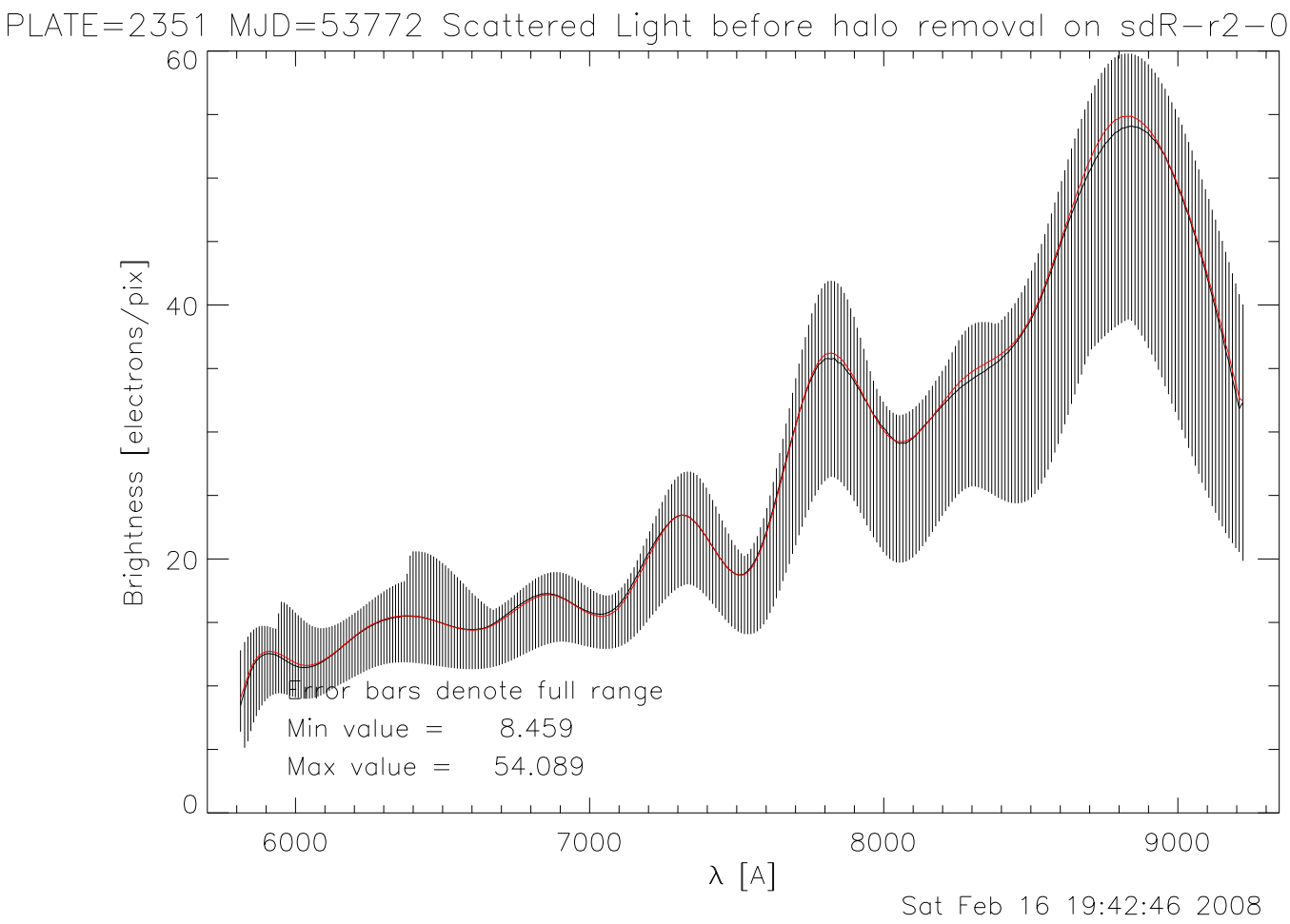

Number of sky fibers = 15
PLATE=2351 MJD=53772 sdR-r2-00037148.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

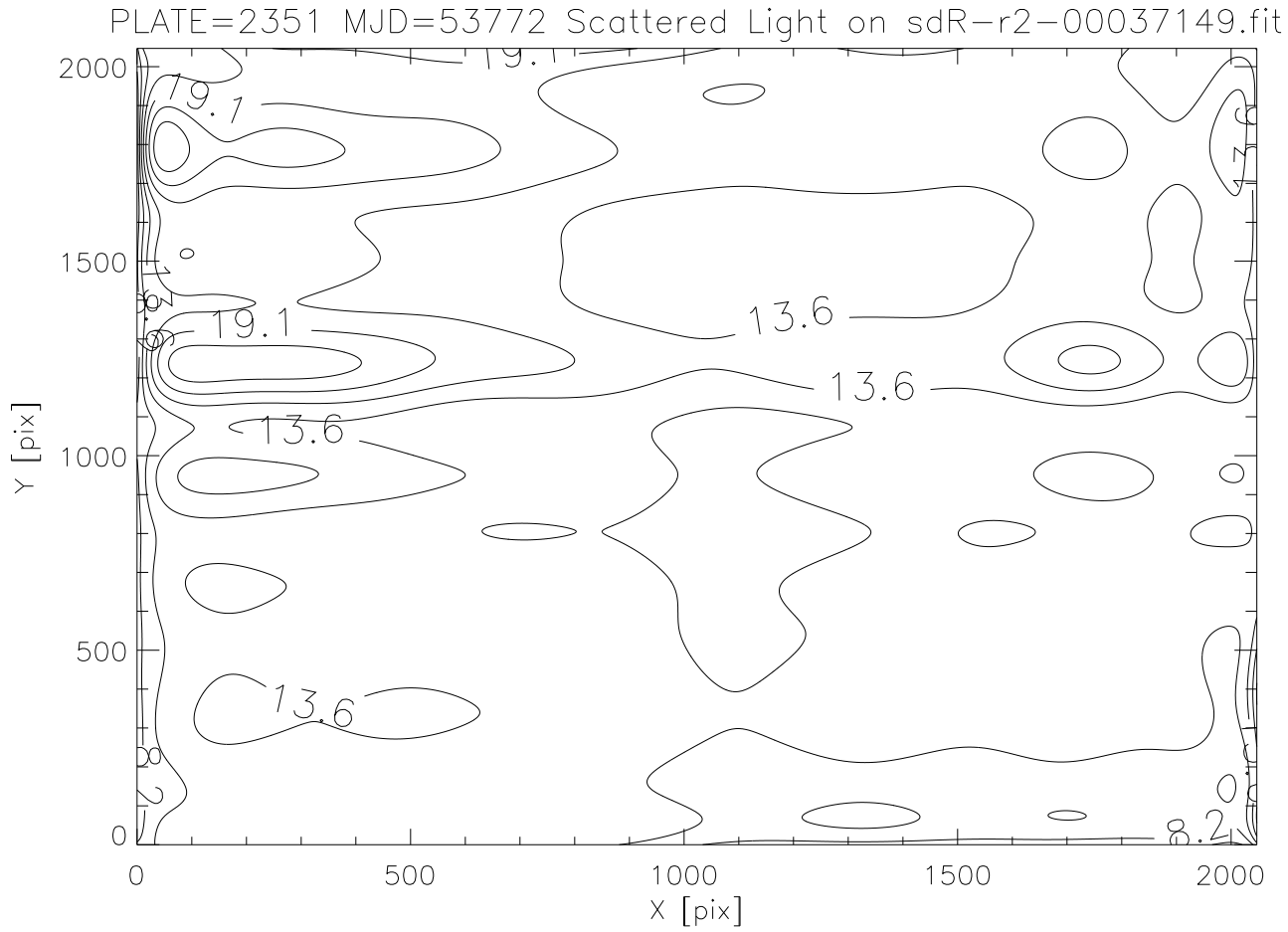

PLATE=2351 MJD=53772 sdR-r2-00037148.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 2.52 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

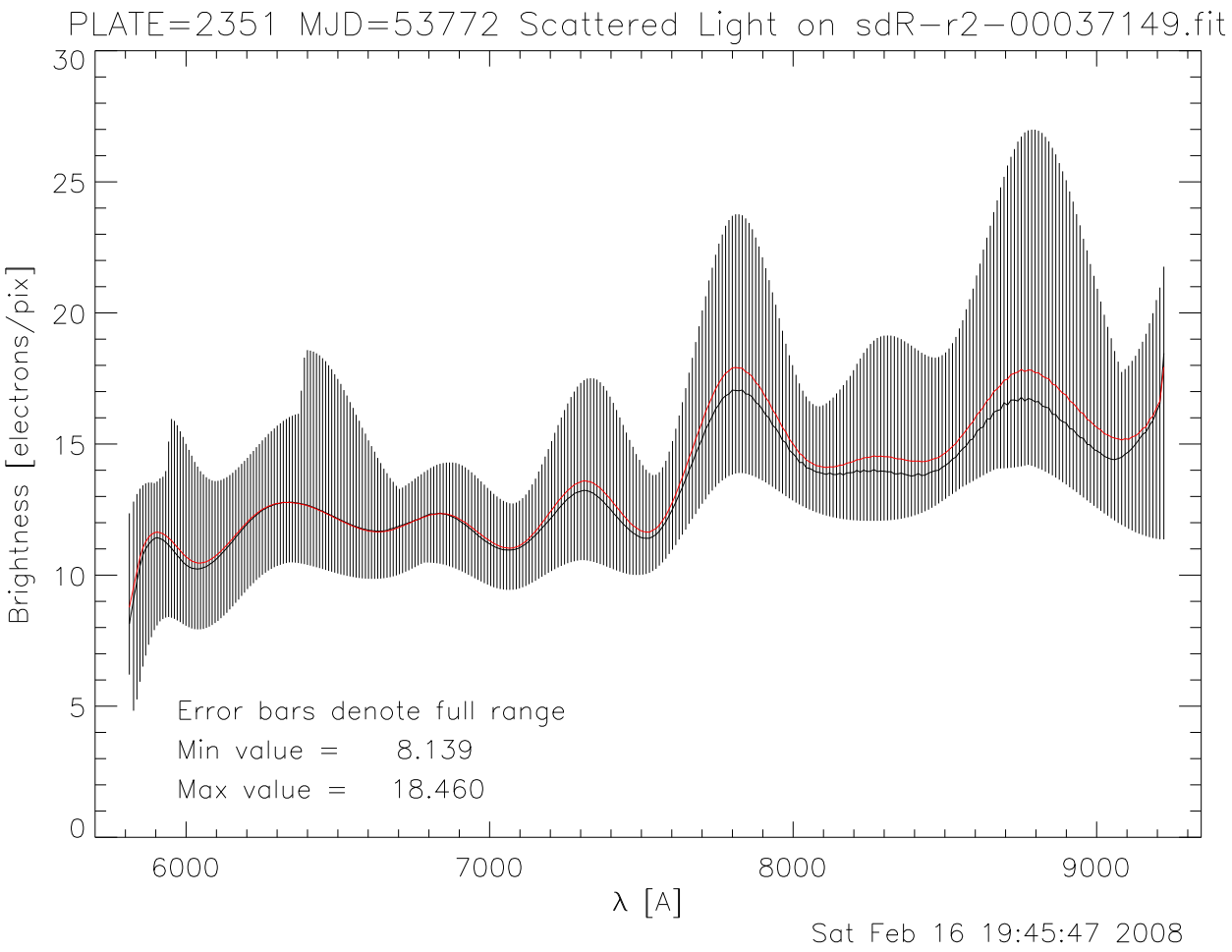

PLATE=2351 MJD=53772 sdR-r2-00037148.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 3.50 %
Fiber number
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass


PLATE=2351 MJD=53772 Fiber−Flats for sdR−r2−00037155.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.366
Max value = 1.175
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sat Feb 16 19:41:47 2008


PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR-r2-00037149.fi
49.1
38.2
49.1
49.1
38.2
38.2
38.2
27.3
16.4
16.4
16.4
Y [pix]
X [pix]
0
500
1000
1500
2000


PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR-r2-00037149.fi
Brightness [electrons/pix]
60
40
20
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 8.459
Max value = 54.089
Sat Feb 16 19:42:46 2008


PLATE=2351 MJD=53772 Scattered Light on sdR-r2-00037149.fit
19.1
13.6
8.2
Y [pix]
X [pix]
0
500
1000
1500
2000


PLATE=2351 MJD=53772 Scattered Light on sdR-r2-00037149.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 8.139
Max value = 18.460
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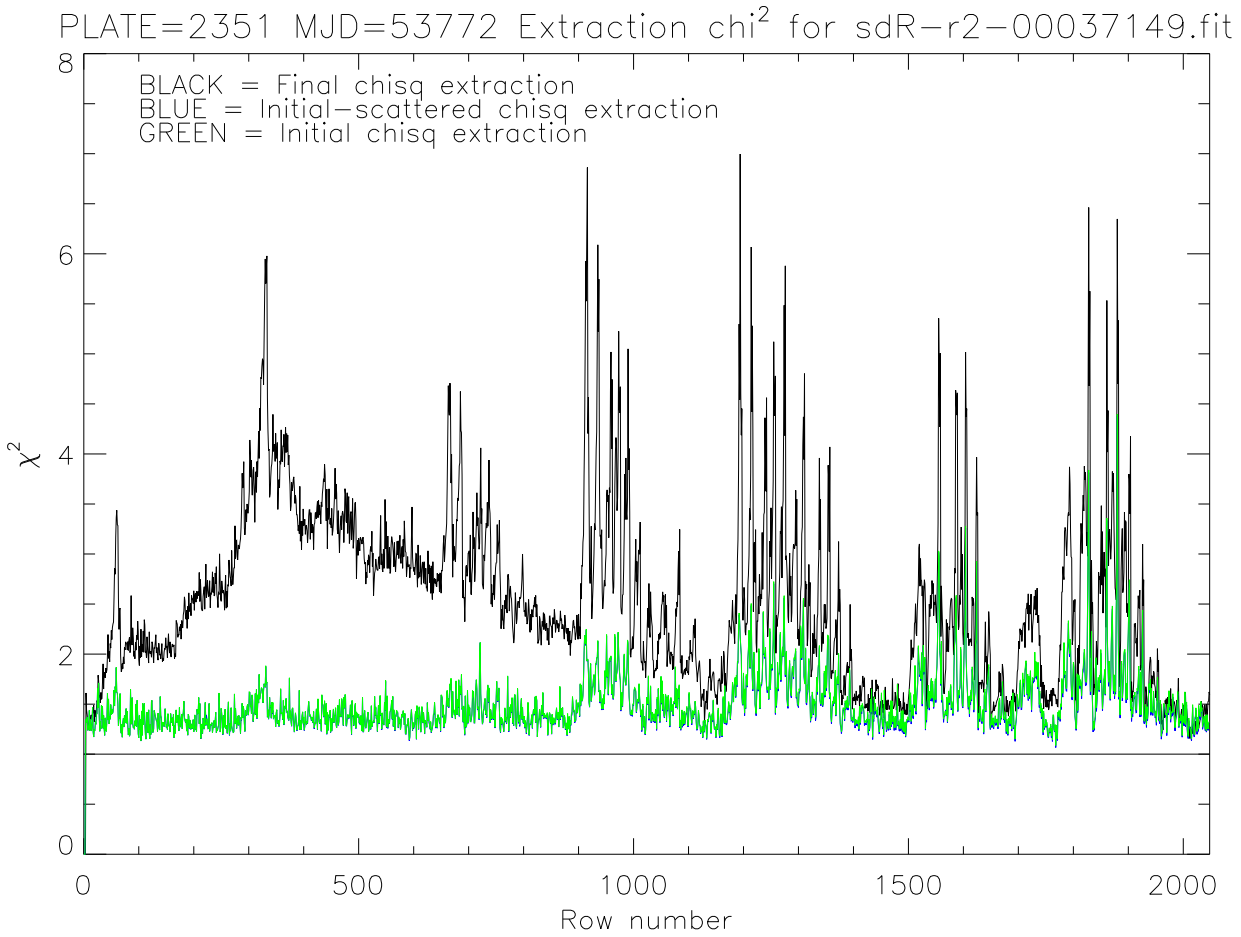
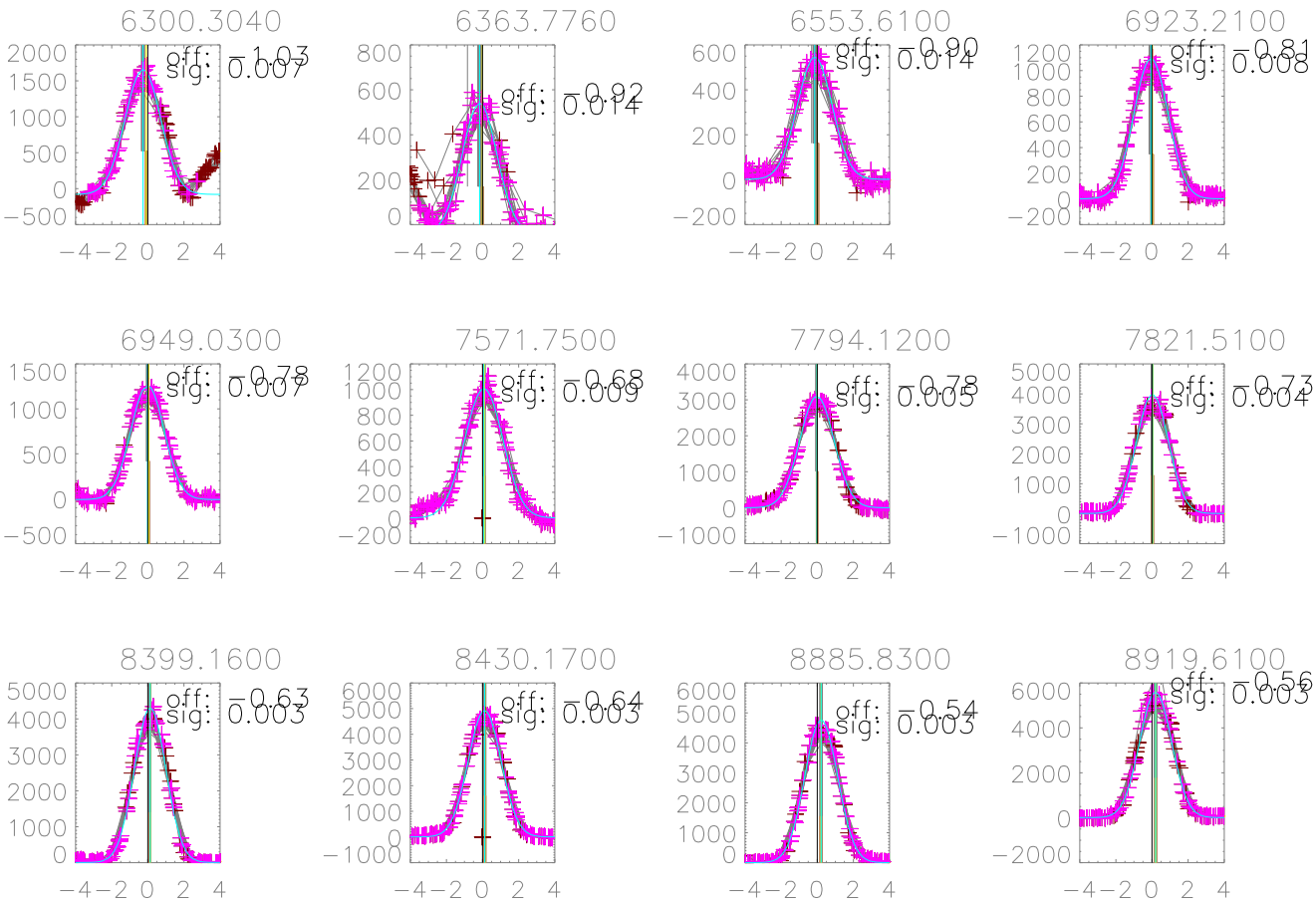
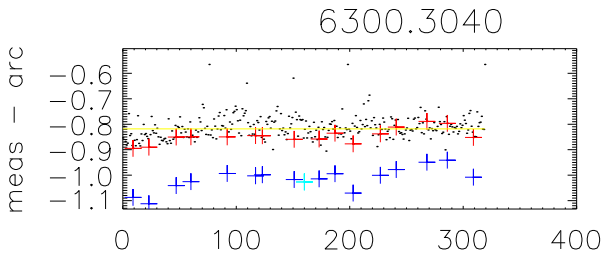
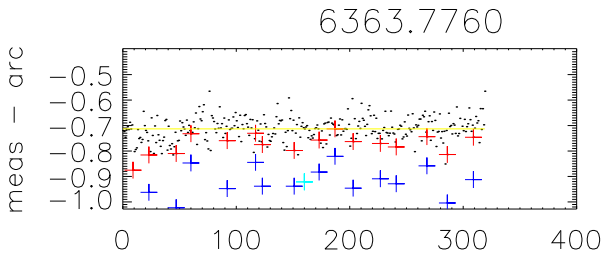
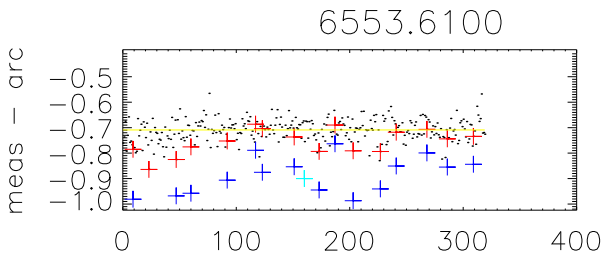
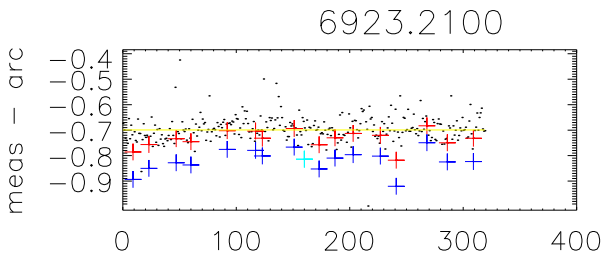

PLATE=2351 MJD=53772 Extraction chi^2 for sdR−r2−00037149.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
0
500
1000
1500
2000
Row number

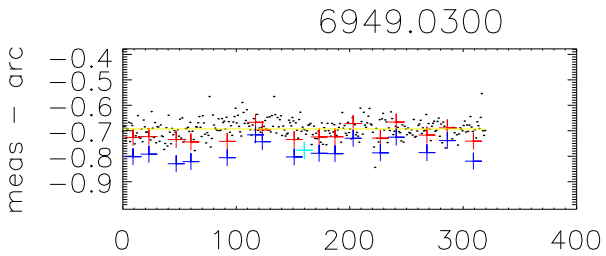

6300.3040
off: −1.03
sig: 0.007
6363.7760
off: −0.92
sig: 0.014
6553.6100
off: −0.90
sig: 0.014
6923.2100
off: −0.81
sig: 0.008
6949.0300
off: −0.78
sig: 0.007
7571.7500
off: −0.68
sig: 0.009
7794.1200
off: −0.78
sig: 0.005
7821.5100
off: −0.73
sig: 0.004
8399.1600
off: −0.63
sig: 0.003
8430.1700
off: −0.64
sig: 0.003
8885.8300
off: −0.54
sig: 0.003
8919.6100
off: −0.56
sig: 0.003

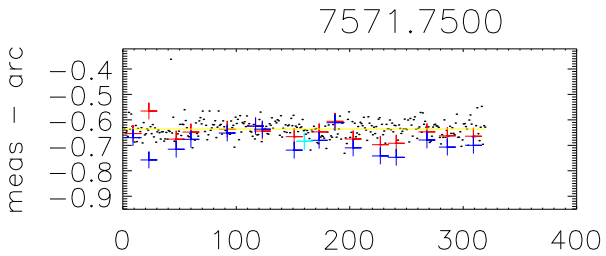

6300.3040
meas − arc
−0.6
−0.7
−0.8
−0.9
−1.0
−1.1
0
100
200
300
400

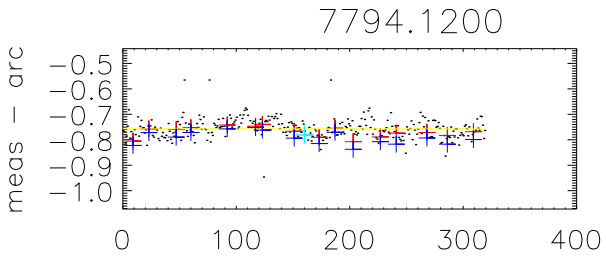

6363.7760
meas − arc
−0.5
−0.6
−0.7
−0.8
−0.9
−1.0
0
100
200
300
400

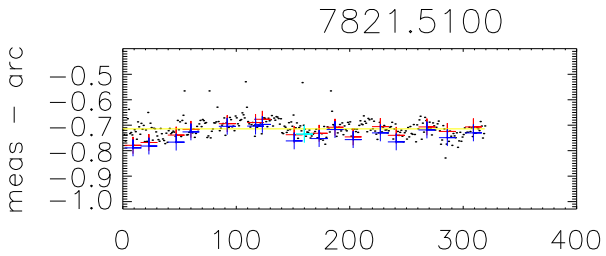

6553.6100
meas − arc
−0.5
−0.6
−0.7
−0.8
−0.9
−1.0
0
100
200
300
400

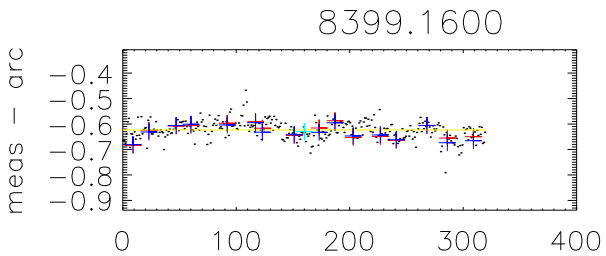

6923.2100
meas − arc
−0.4
−0.5
−0.6
−0.7
−0.8
−0.9
0
100
200
300
400

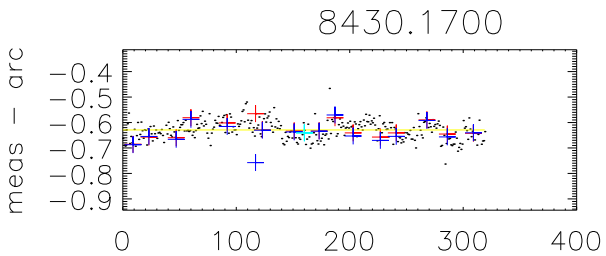

6949.0300
meas − arc
−0.4
−0.5
−0.6
−0.7
−0.8
−0.9
0
100
200
300
400

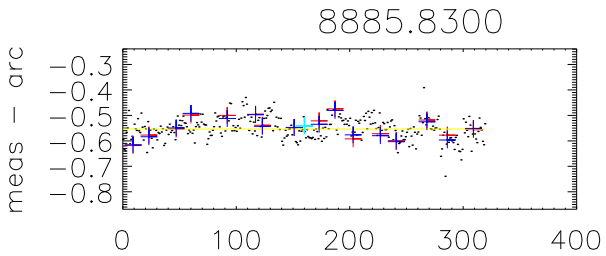

7571.7500
meas − arc
−0.4
−0.5
−0.6
−0.7
−0.8
−0.9
0
100
200
300
400

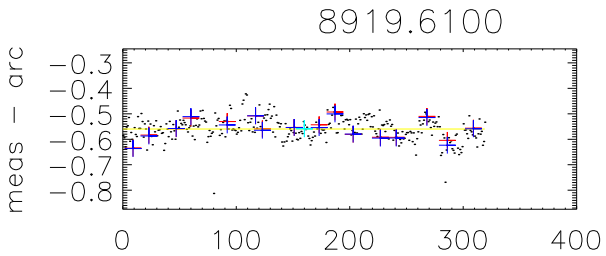

7794.1200
meas − arc
−0.5
−0.6
−0.7
−0.8
−0.9
−1.0
0
100
200
300
400

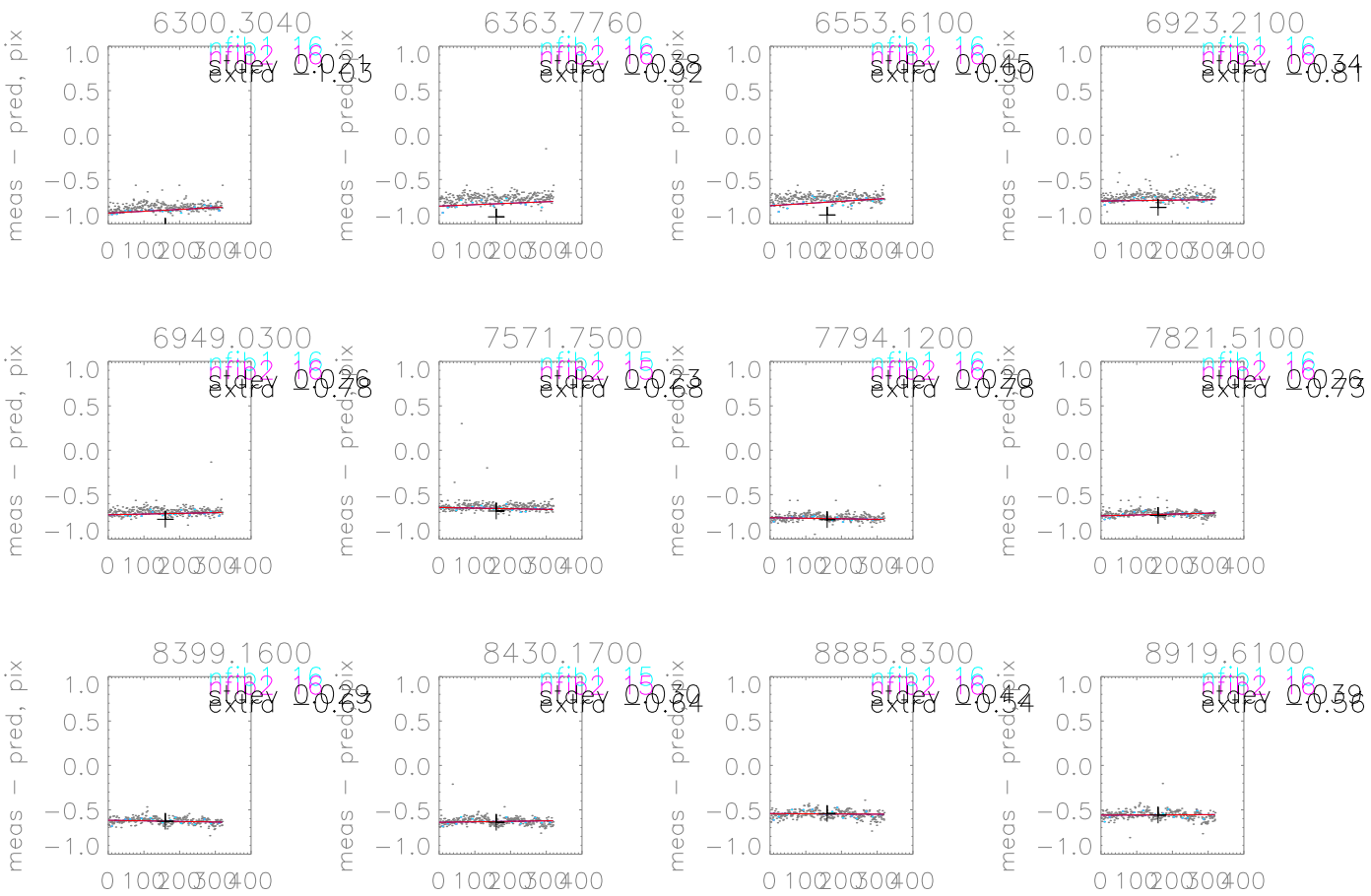

7821.5100
meas − arc
−0.5
−0.6
−0.7
−0.8
−0.9
−1.0
0
100
200
300
400

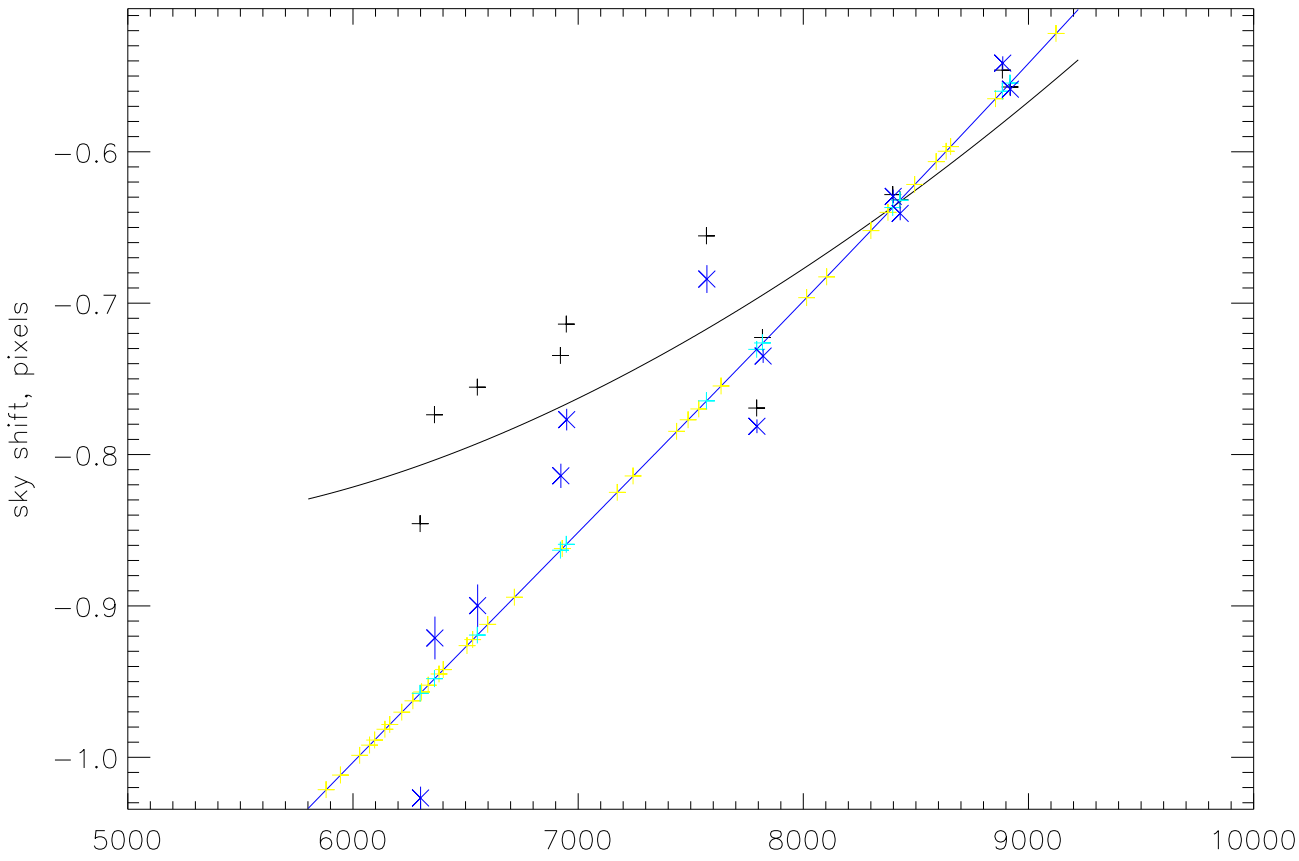

8399.1600
meas − arc
−0.4
−0.5
−0.6
−0.7
−0.8
−0.9
0
100
200
300
400

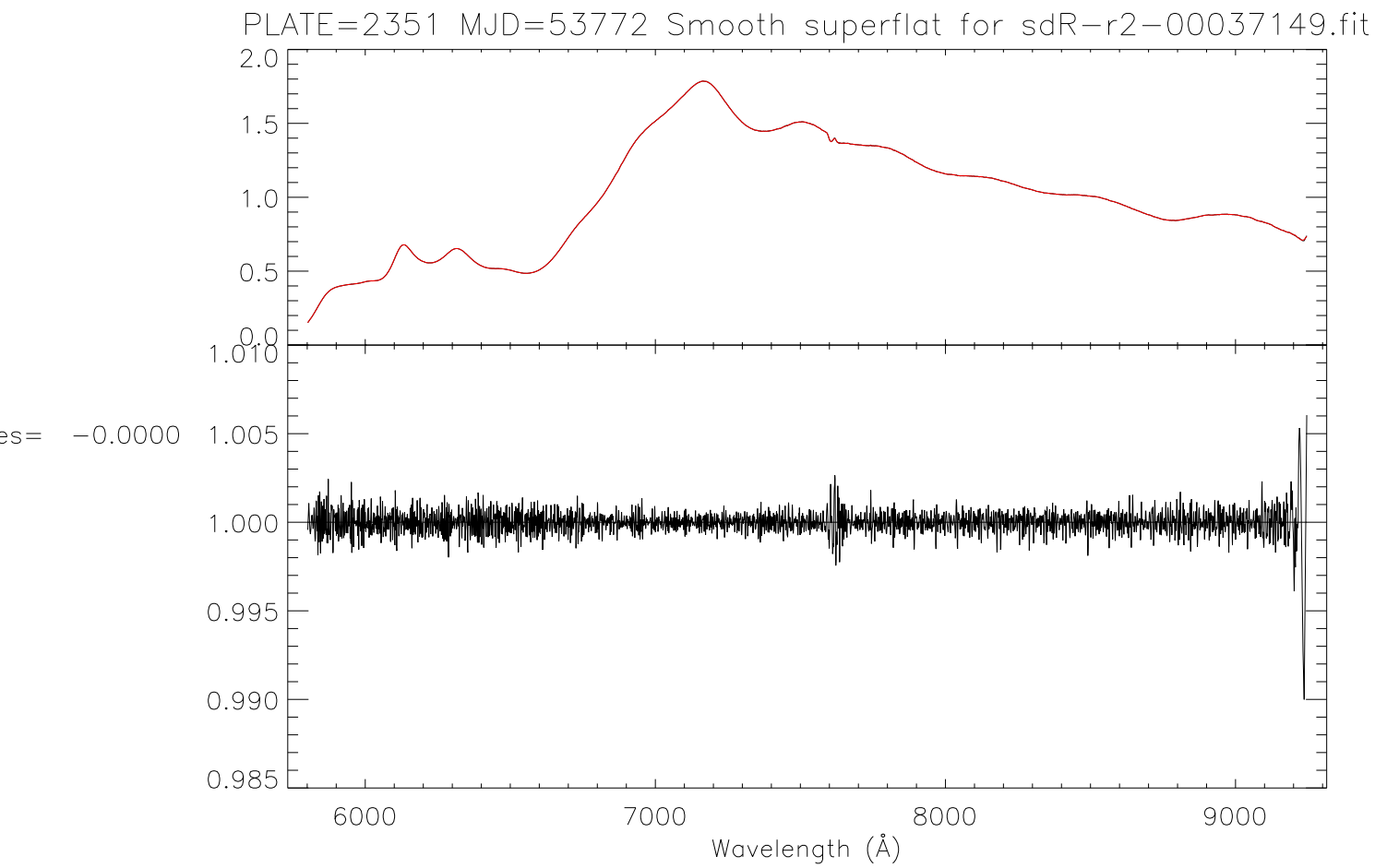

8430.1700
meas − arc
−0.4
−0.5
−0.6
−0.7
−0.8
−0.9
0
100
200
300
400

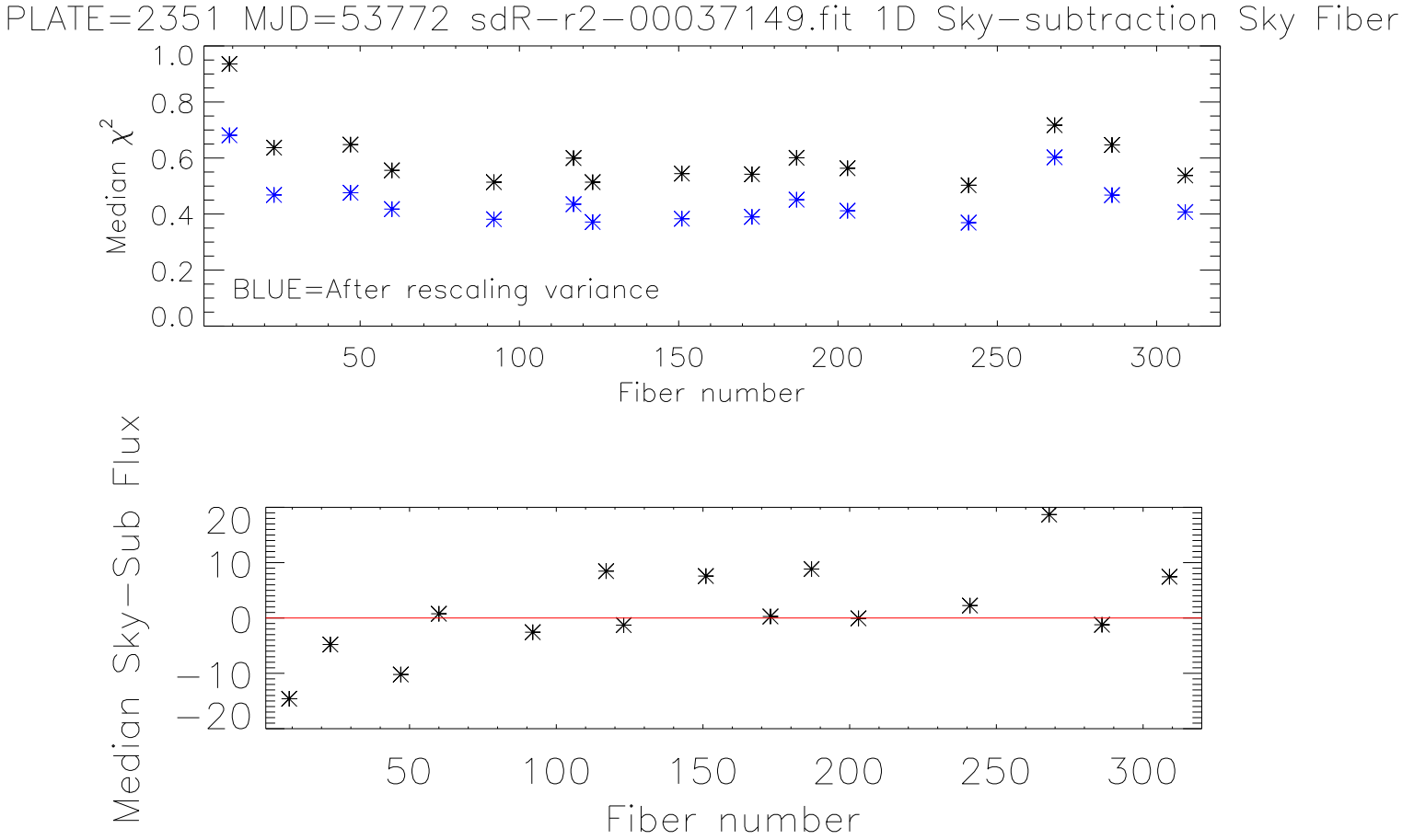

8885.8300
meas − arc
−0.3
−0.4
−0.5
−0.6
−0.7
−0.8
0
100
200
300
400

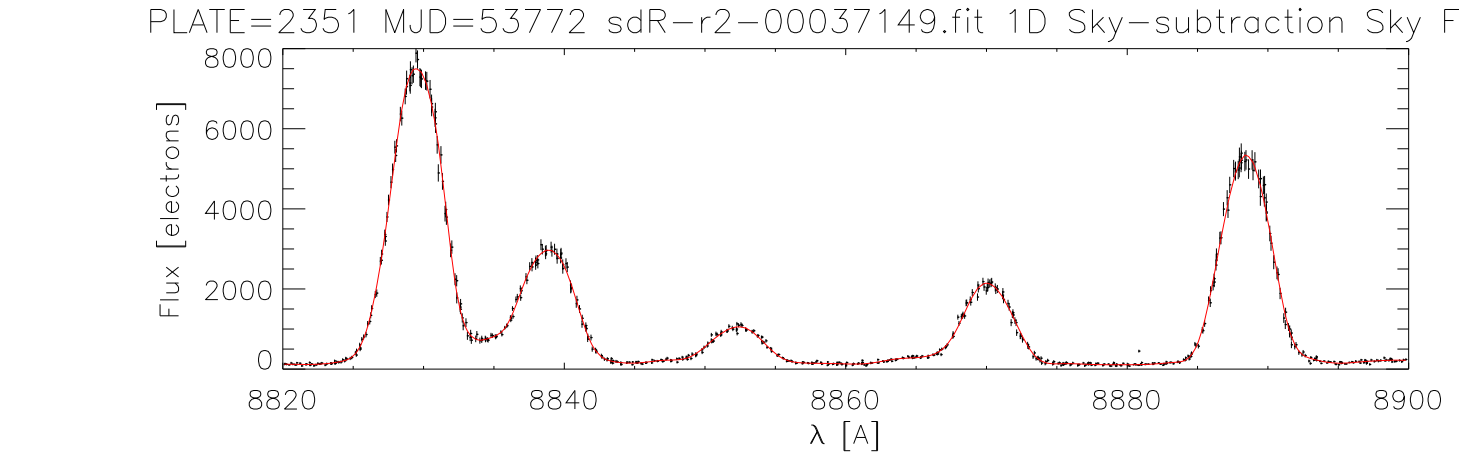

8919.6100
meas − arc
−0.3
−0.4
−0.5
−0.6
−0.7
−0.8
0
100
200
300
400

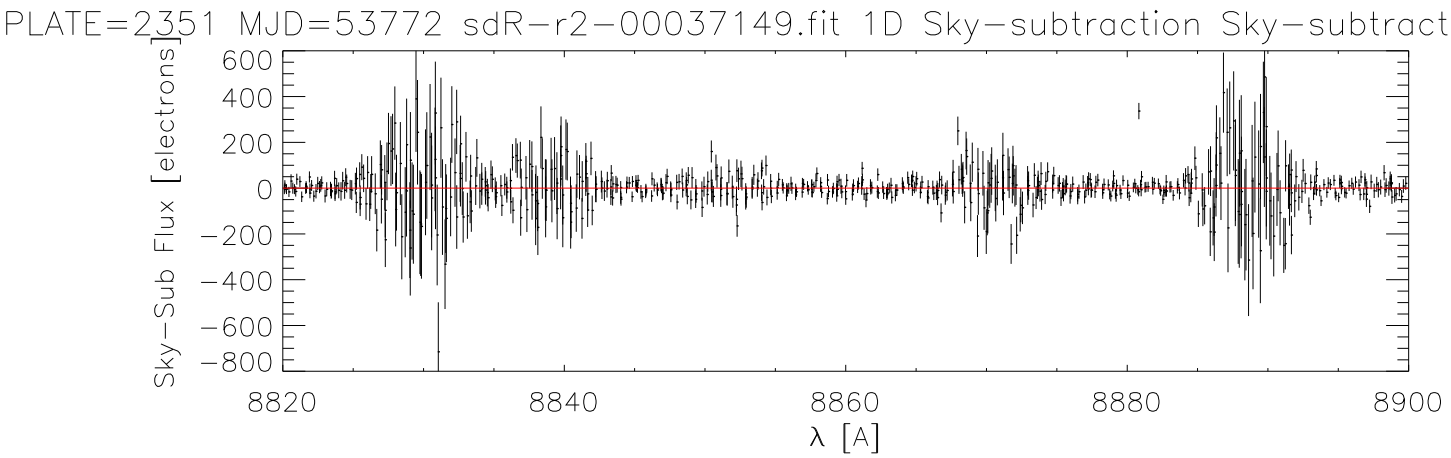

6300.3040
6363.7760
6553.6100
6923.2100
6949.0300
7571.7500
7794.1200
7821.5100
8399.1600
8430.1700
8885.8300
8919.6100
meas − pred, pix
mfhi2 16
stdev 0.21
extrd 1.03
stdev 0.38
extrd 0.92
stdev 0.45
extrd 0.90
stdev 0.34
extrd 0.81
mfhi1 16
stdev 0.26
extrd 0.78
mfhi1 15
stdev 0.23
extrd 0.68
mfhi2 16
stdev 0.20
extrd 0.78
mfhi1 16
stdev 0.26
extrd 0.73
mfhi2 16
stdev 0.29
extrd 0.63
mfhi1 15
stdev 0.30
extrd 0.64
mfhi2 16
stdev 0.42
extrd 0.54
mfhi1 16
stdev 0.39
extrd 0.56
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400

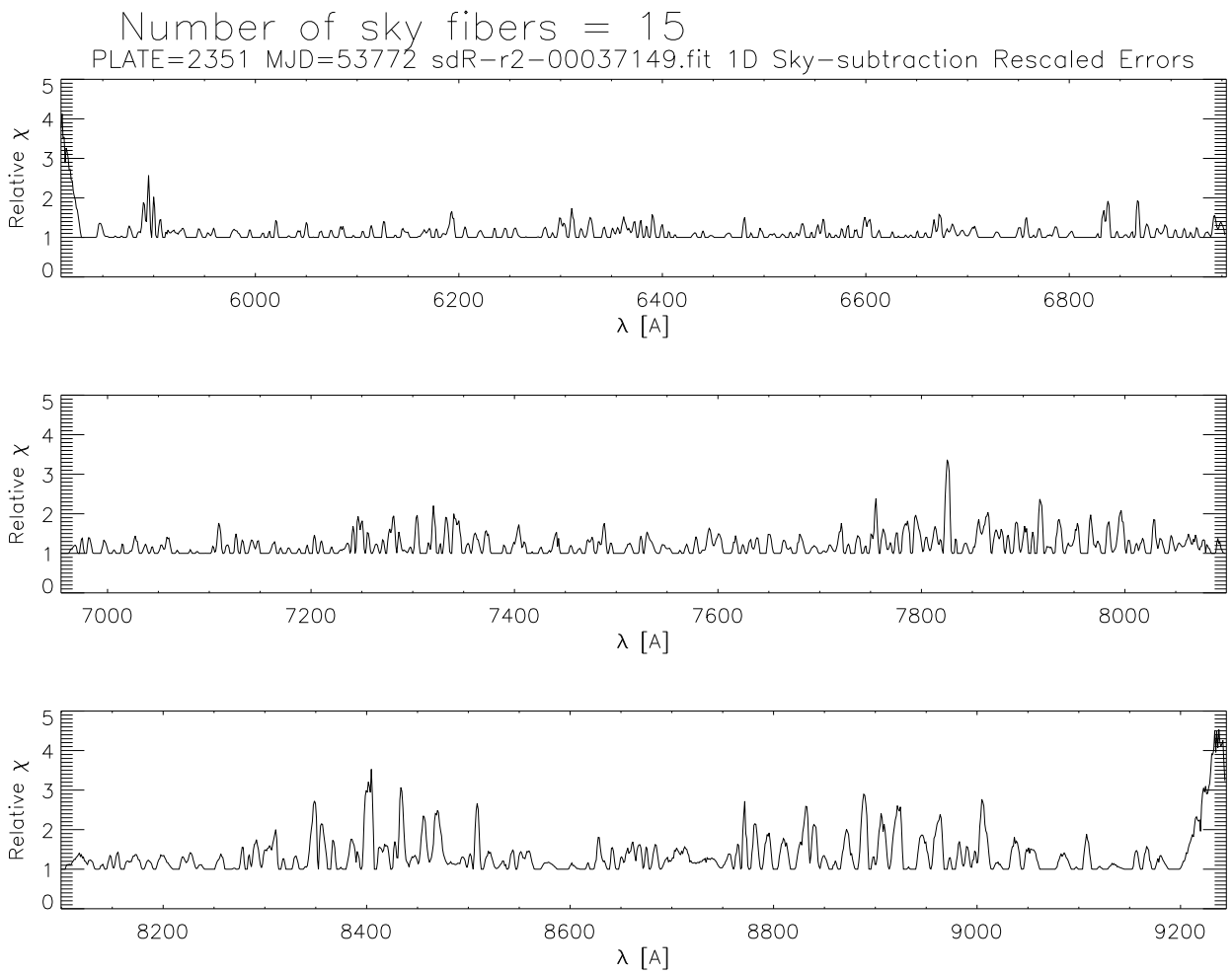

sky shift, pixels
−0.6
−0.7
−0.8
−0.9
−1.0
5000
6000
7000
8000
9000
10000

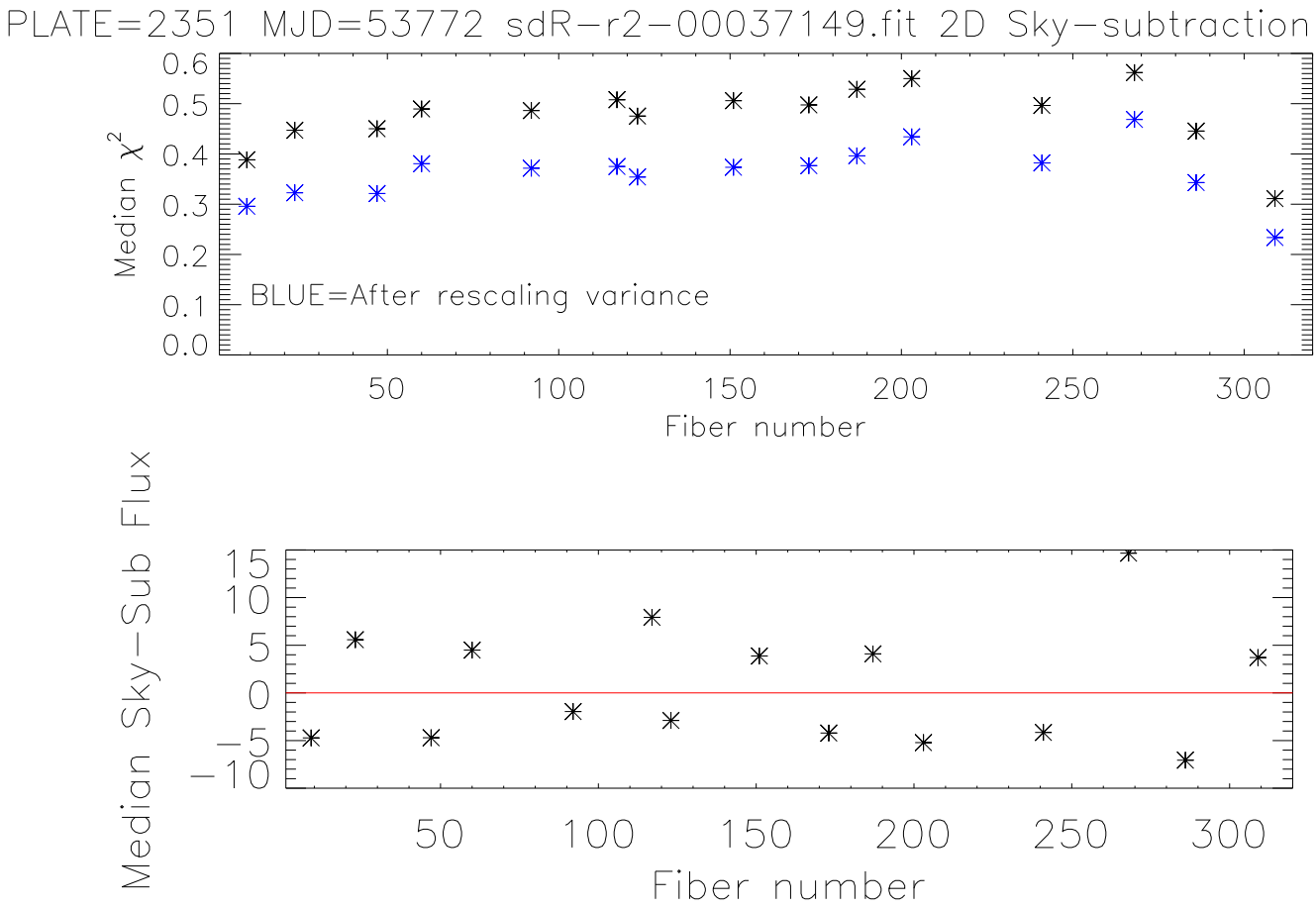

PLATE=2351 MJD=53772 Smooth superflat for sdR-r2-00037149.fit
2.0
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
0.985
es= -0.0000
6000
7000
8000
9000
Wavelength (Å)

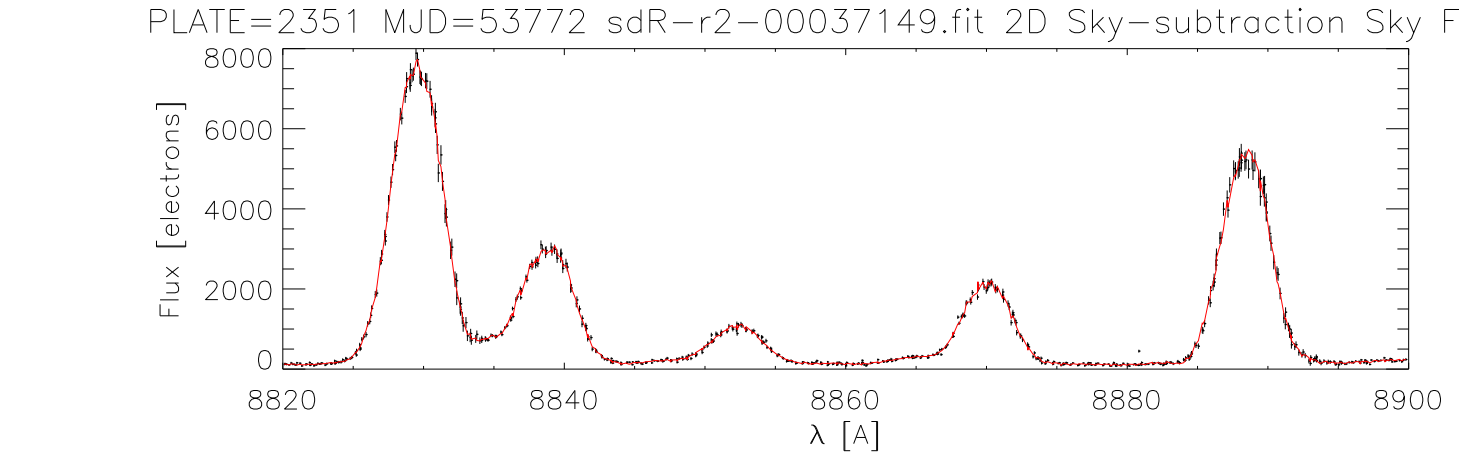

PLATE=2351 MJD=53772 sdR-r2-00037149.fit 1D Sky-subtraction Sky Fibers
Median χ^2
1.0
0.8
0.6
0.4
0.2
0.0
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
20
10
0
-10
-20
50
100
150
200
250
300
Fiber number

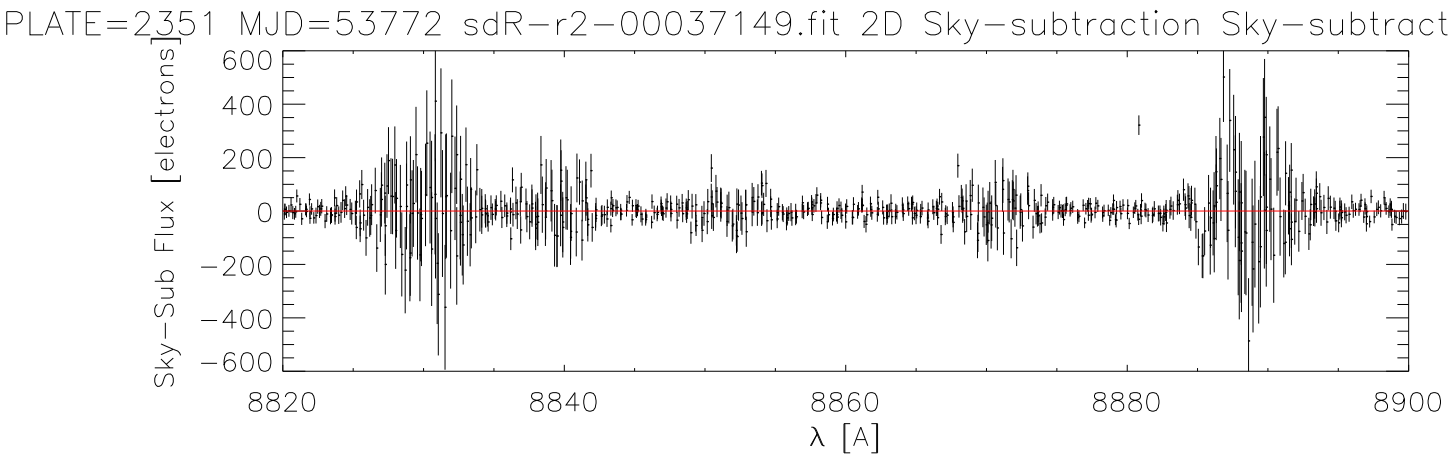

PLATE=2351 MJD=53772 sdR-r2-00037149.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
8820
8840
8860
8880
8900
λ [A]

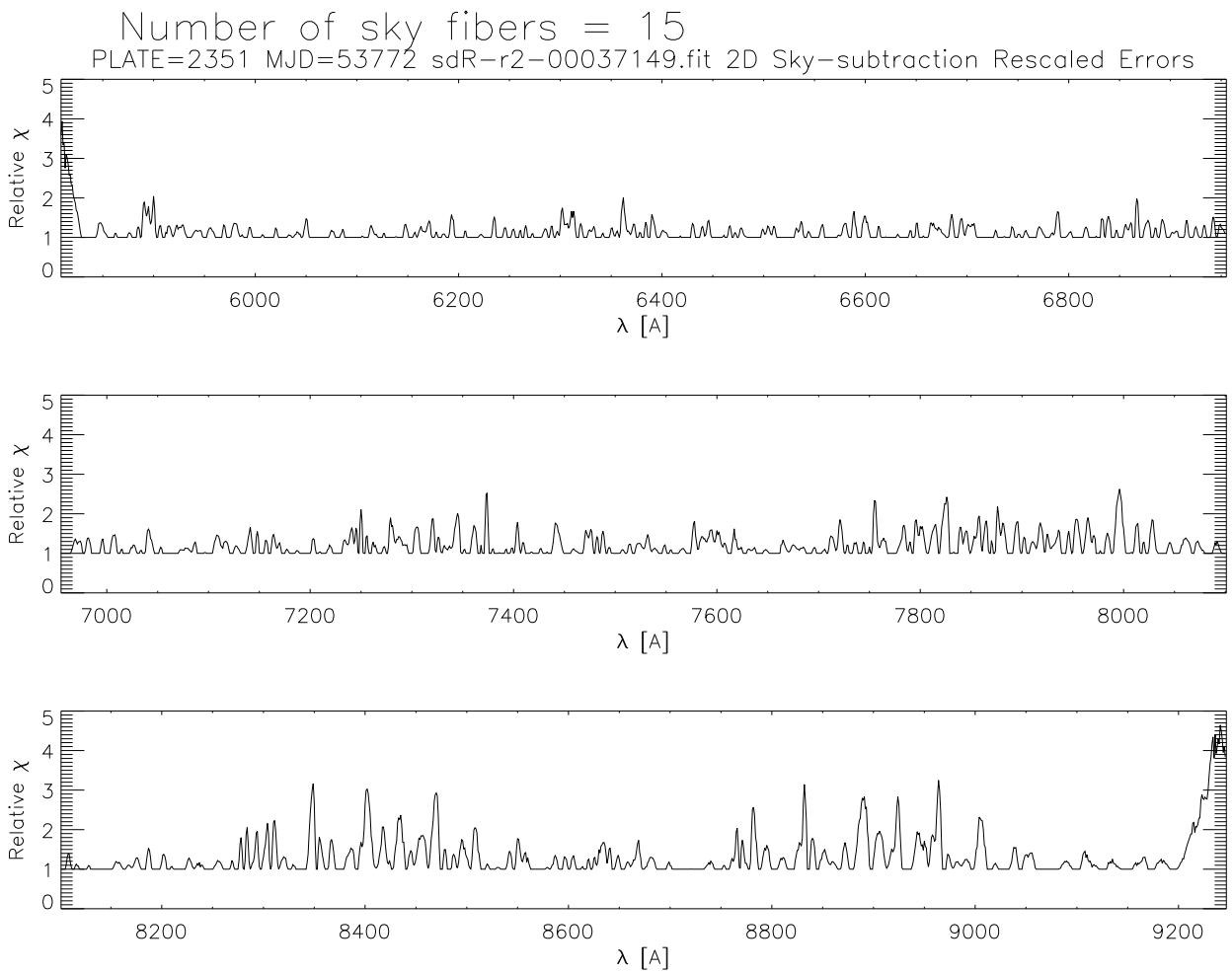

PLATE=2351 MJD=53772 sdR-r2-00037149.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
-200
-400
-600
-800
8820
8840
8860
8880
8900
λ [A]

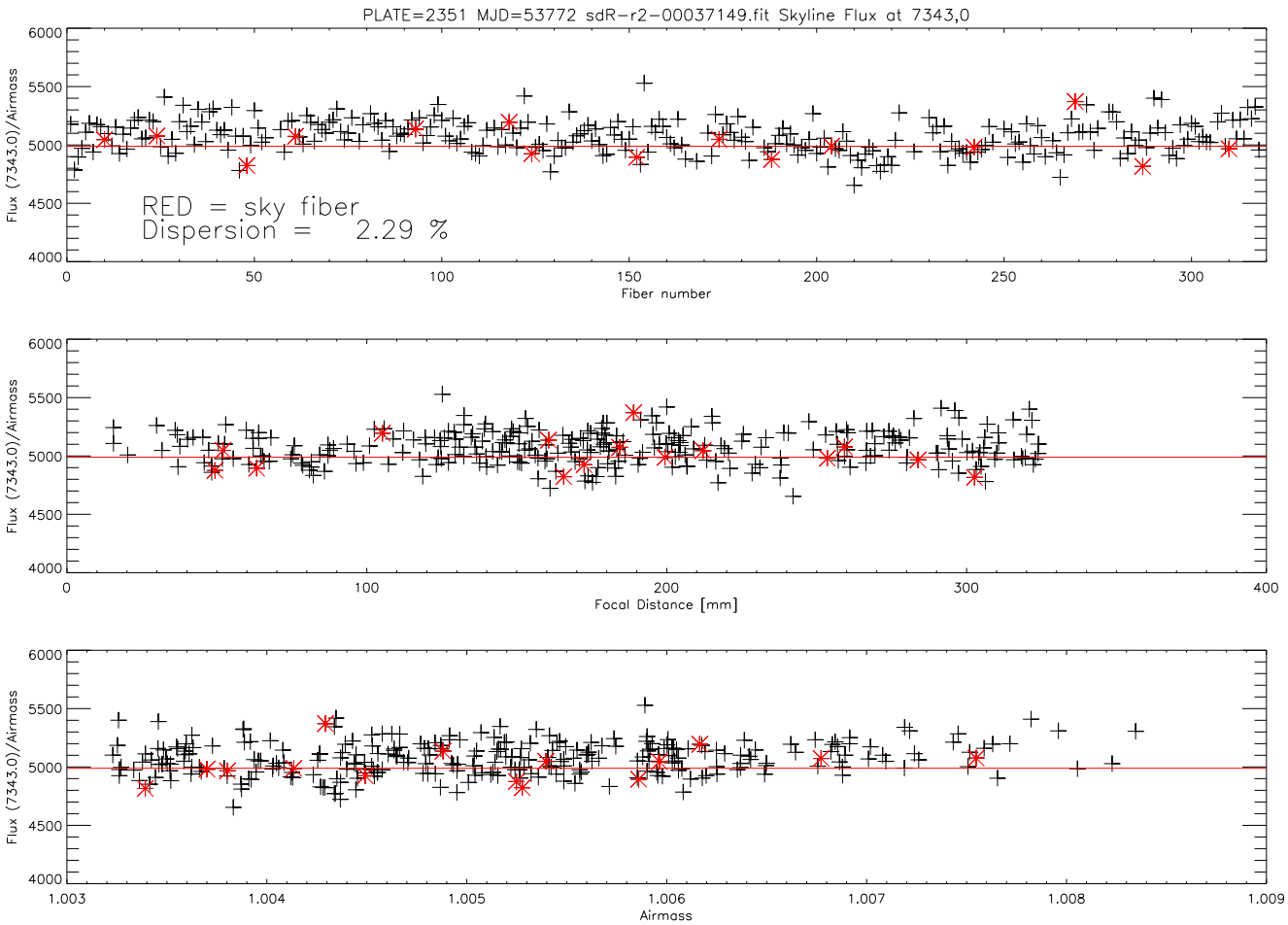

Number of sky fibers = 15
PLATE=2351 MJD=53772 sdR-r2-00037149.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

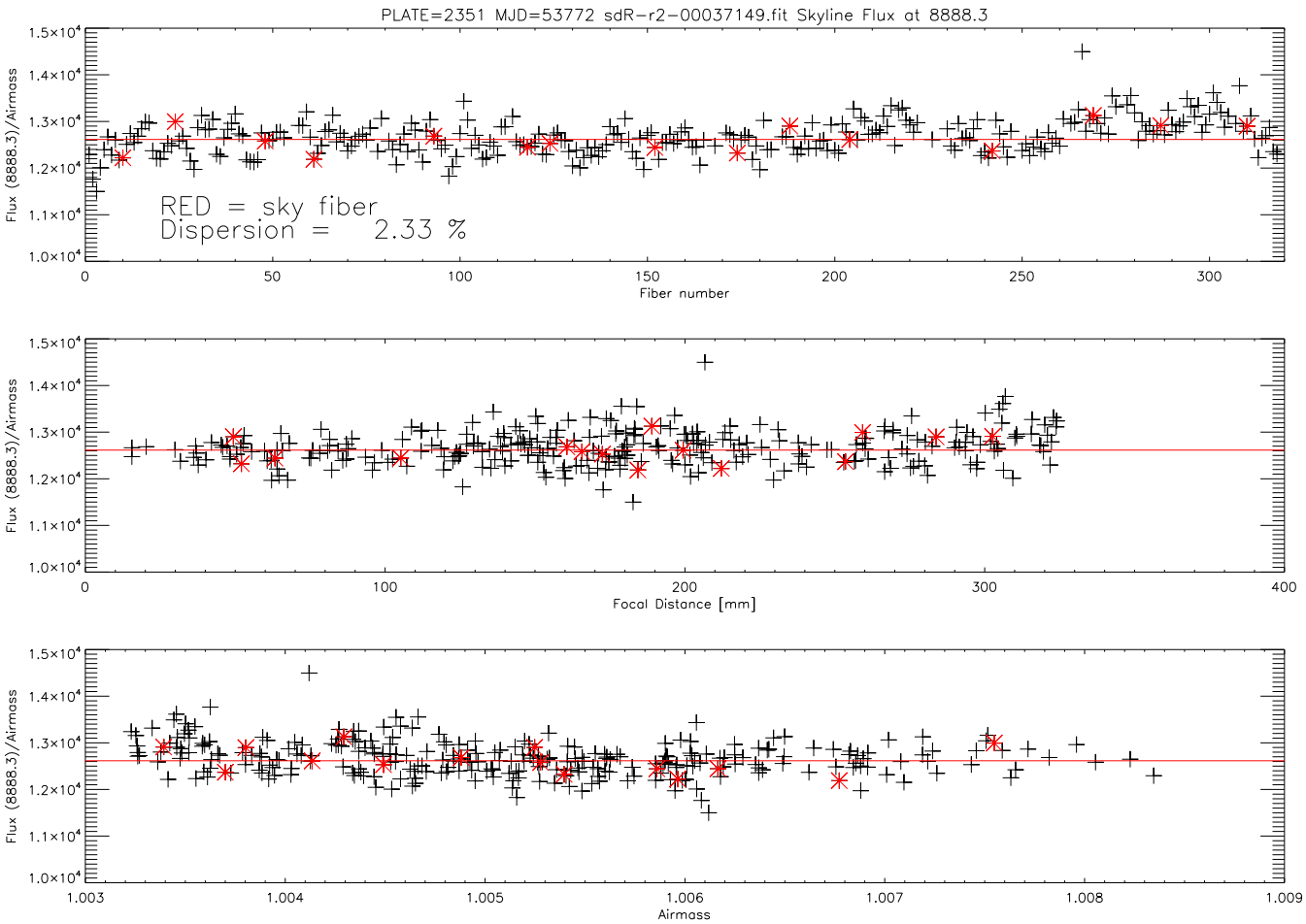

PLATE=2351 MJD=53772 sdR-r2-00037149.fit 2D Sky-subtraction Sky Fibers
Median χ^2
0.6
0.5
0.4
0.3
0.2
0.1
0.0
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
15
10
5
0
-5
-10
50
100
150
200
250
300
Fiber number

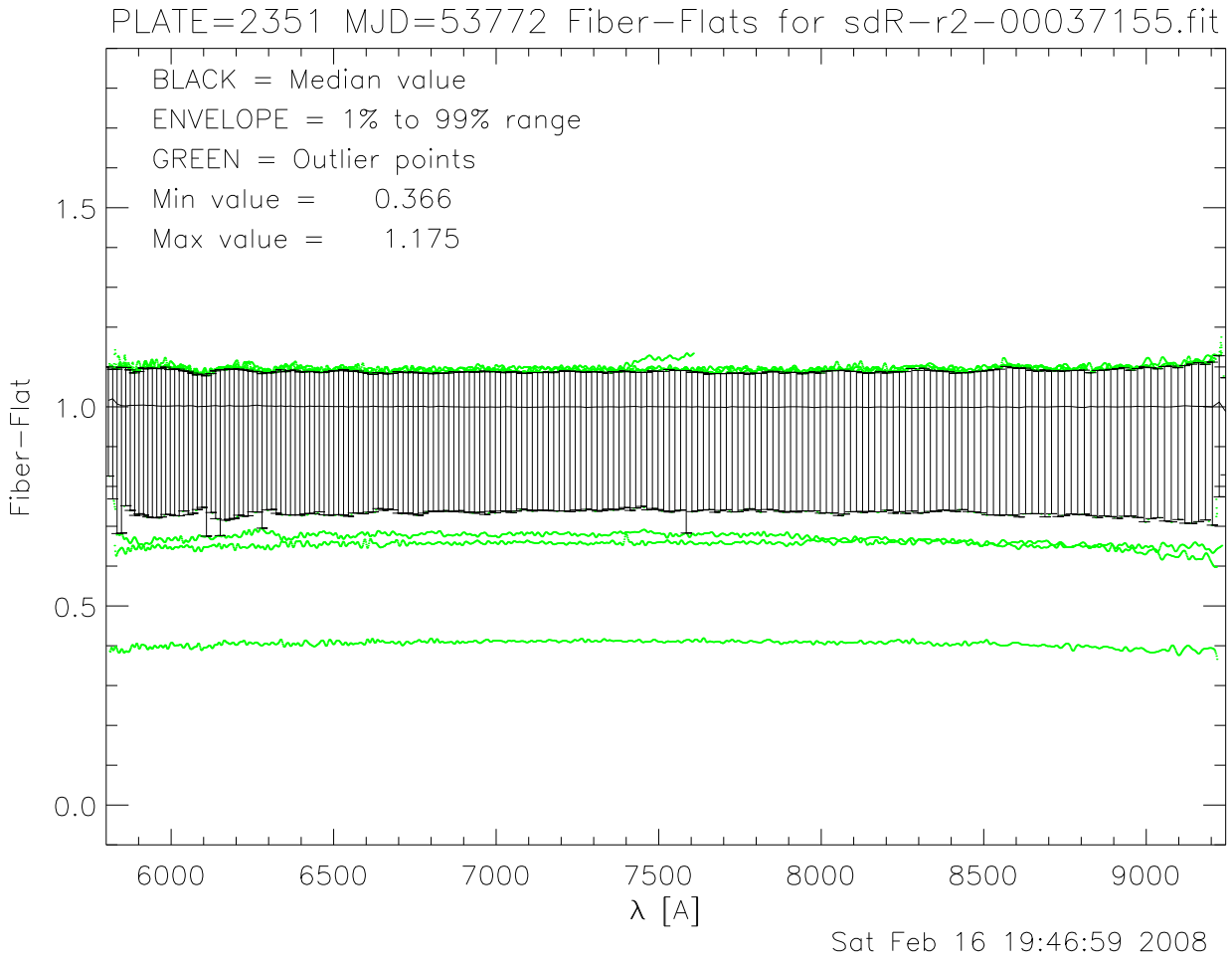

PLATE=2351 MJD=53772 sdR-r2-00037149.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
8820
8840
8860
8880
8900
λ [A]

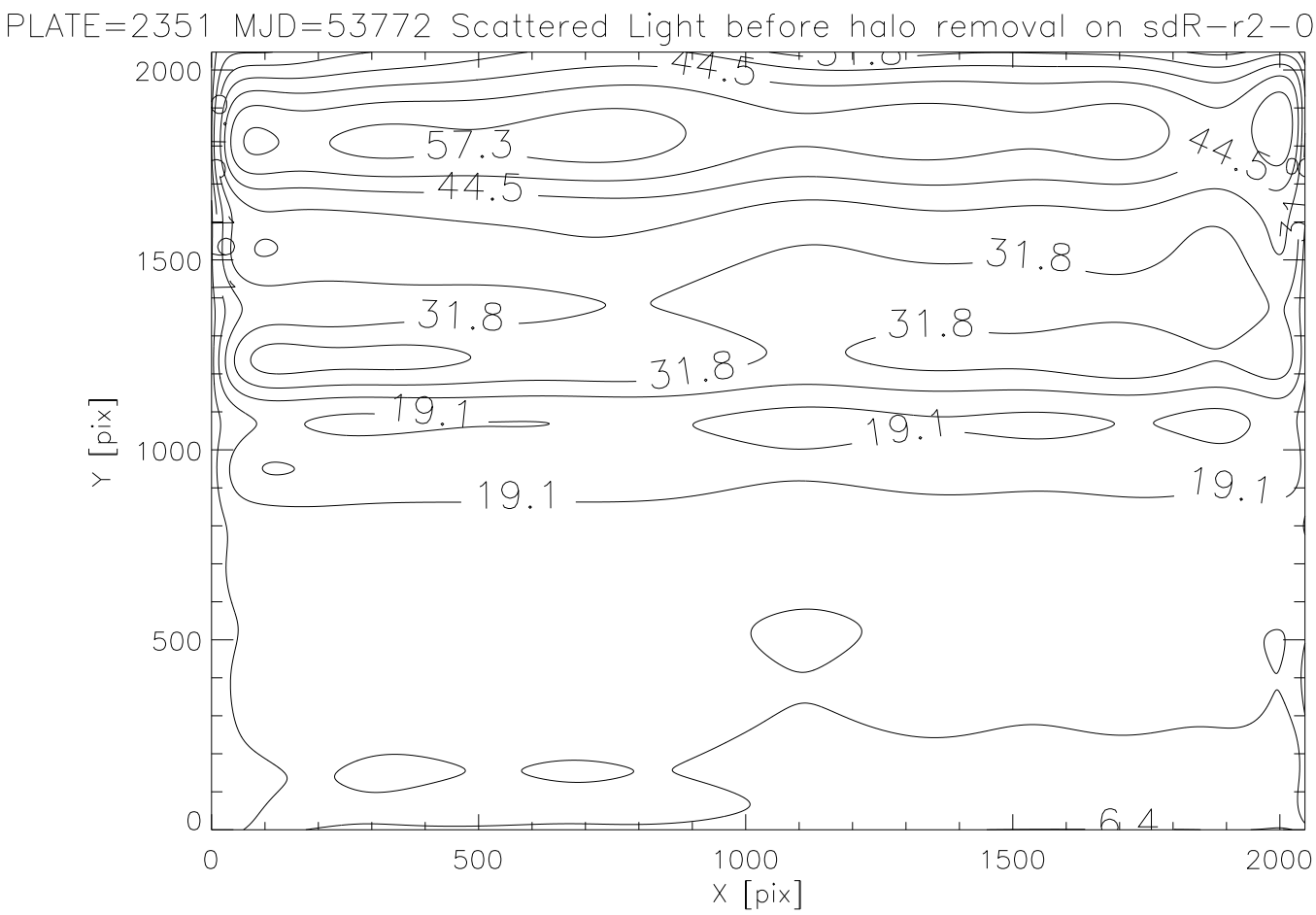

PLATE=2351 MJD=53772 sdR-r2-00037149.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
-200
-400
-600
8820
8840
8860
8880
8900
λ [A]

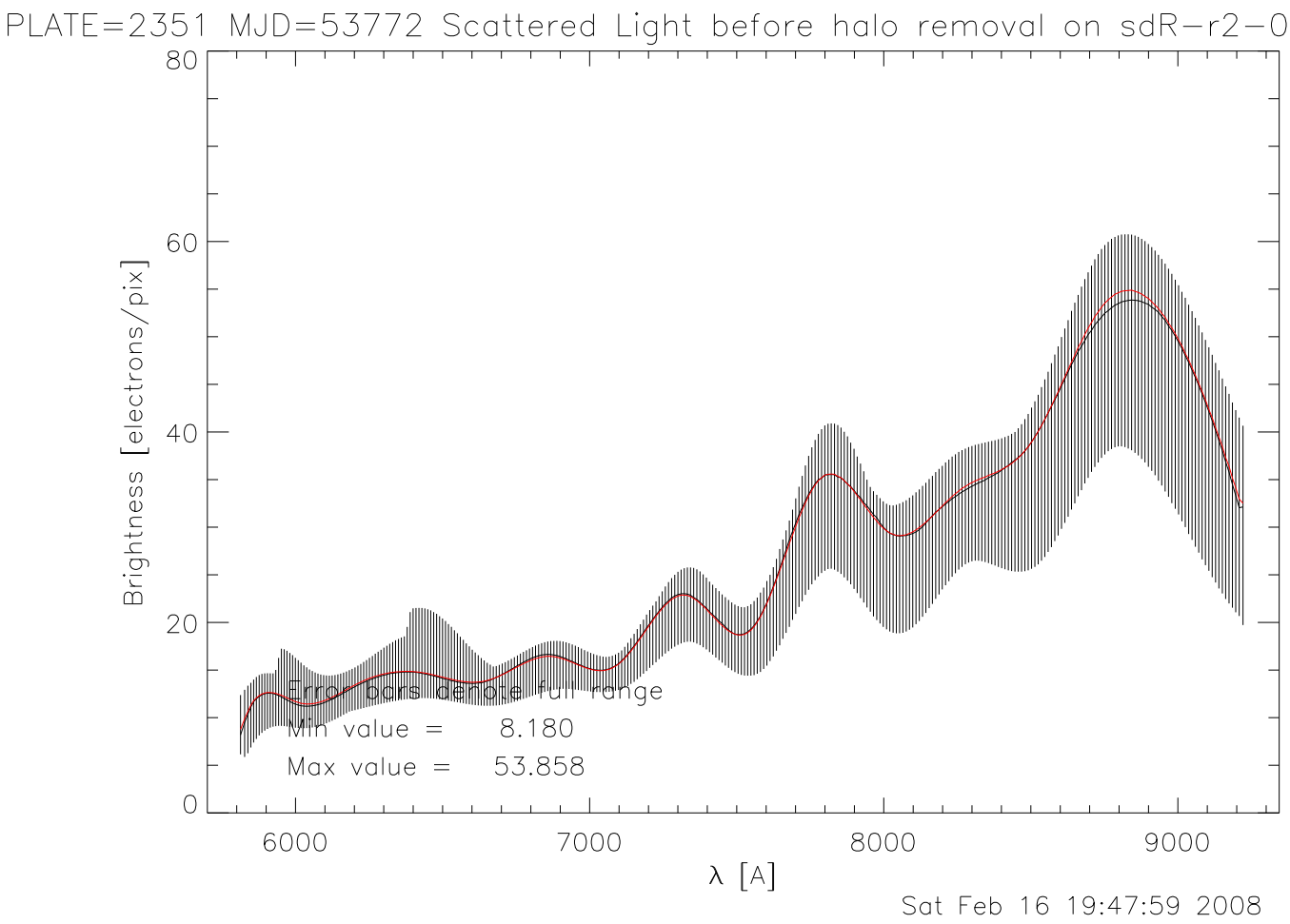

Number of sky fibers = 15
PLATE=2351 MJD=53772 sdR-r2-00037149.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

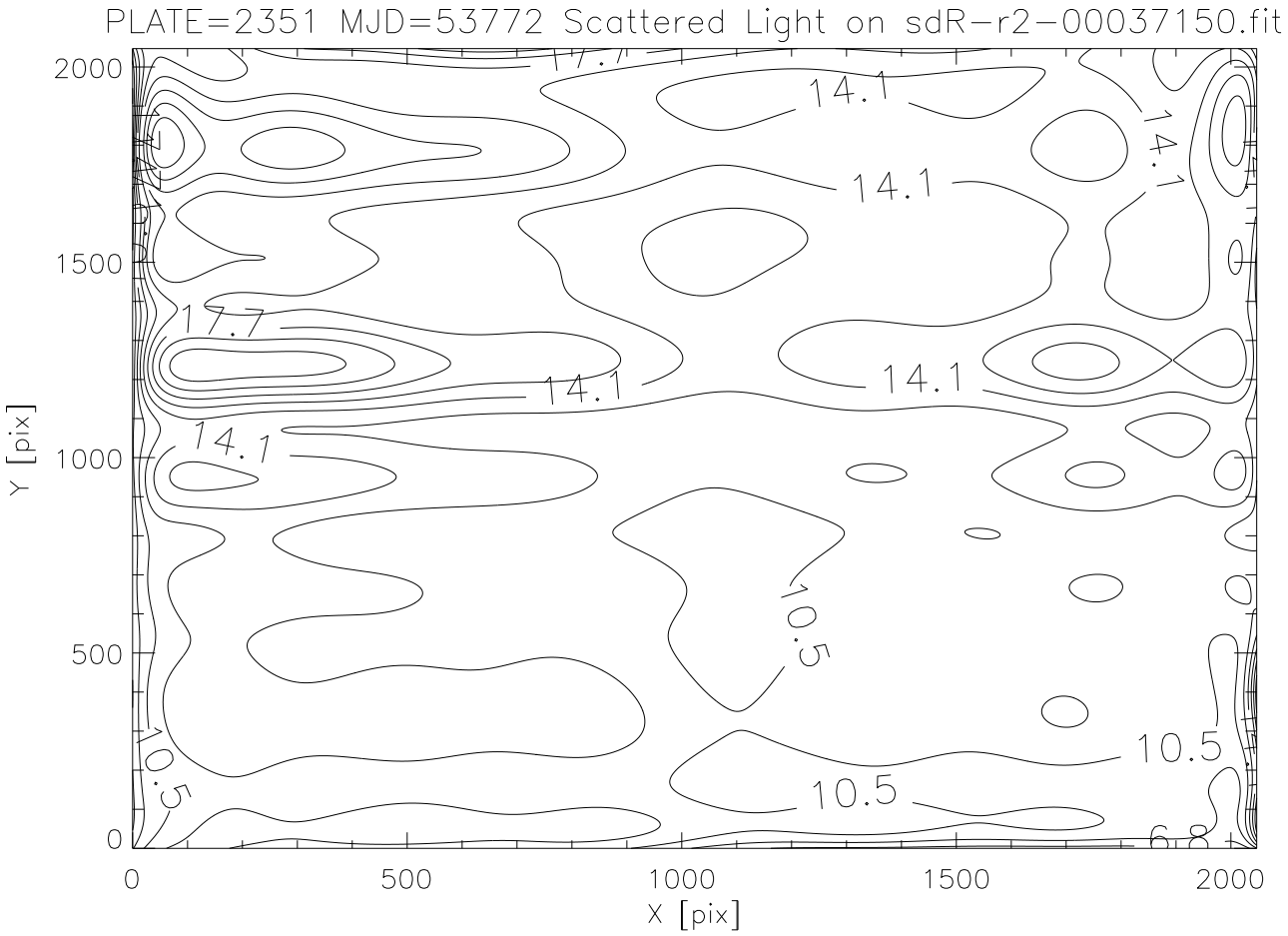

PLATE=2351 MJD=53772 sdR-r2-00037149.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 2.29 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

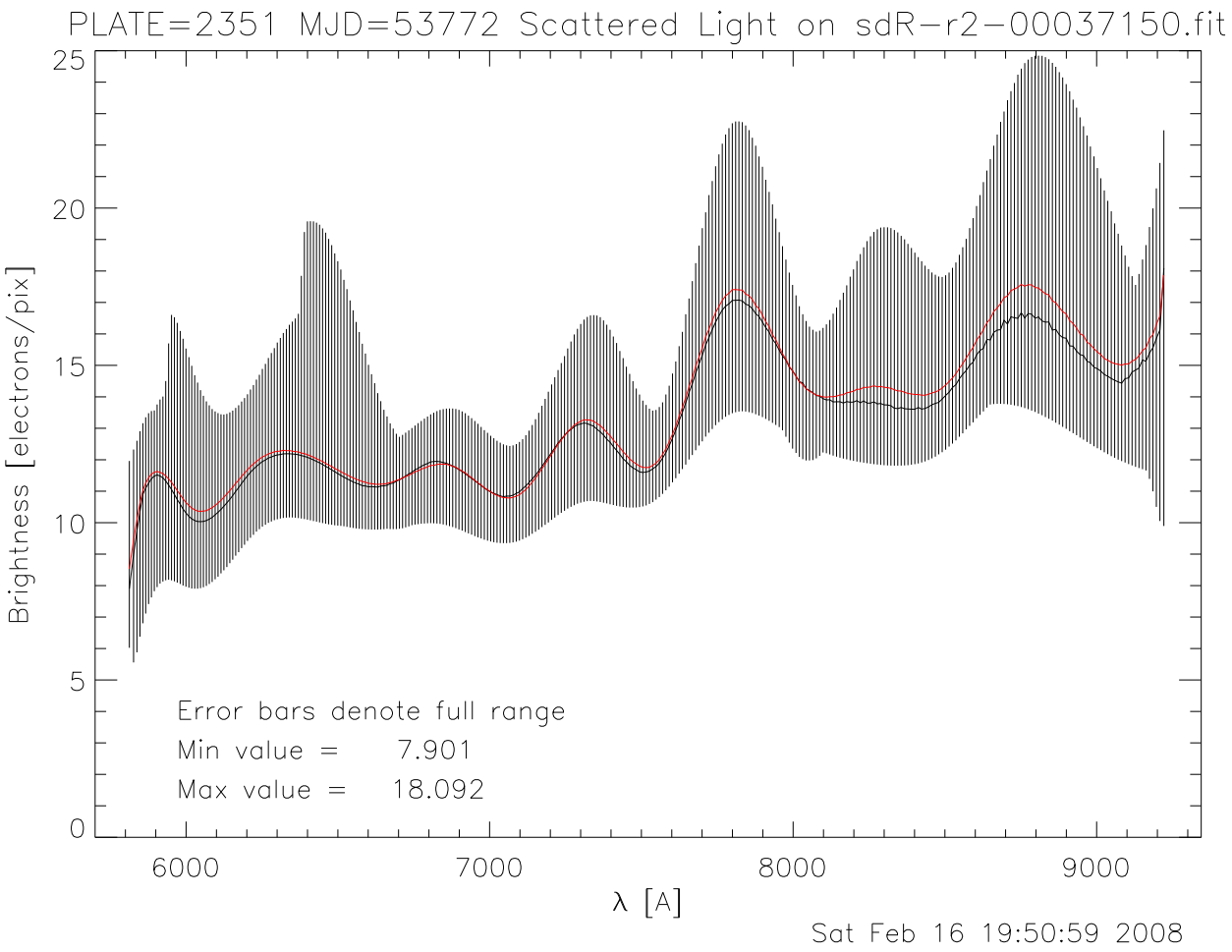

PLATE=2351 MJD=53772 sdR-r2-00037149.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 2.33 %
Fiber number
Focal Distance [mm]
Airmass

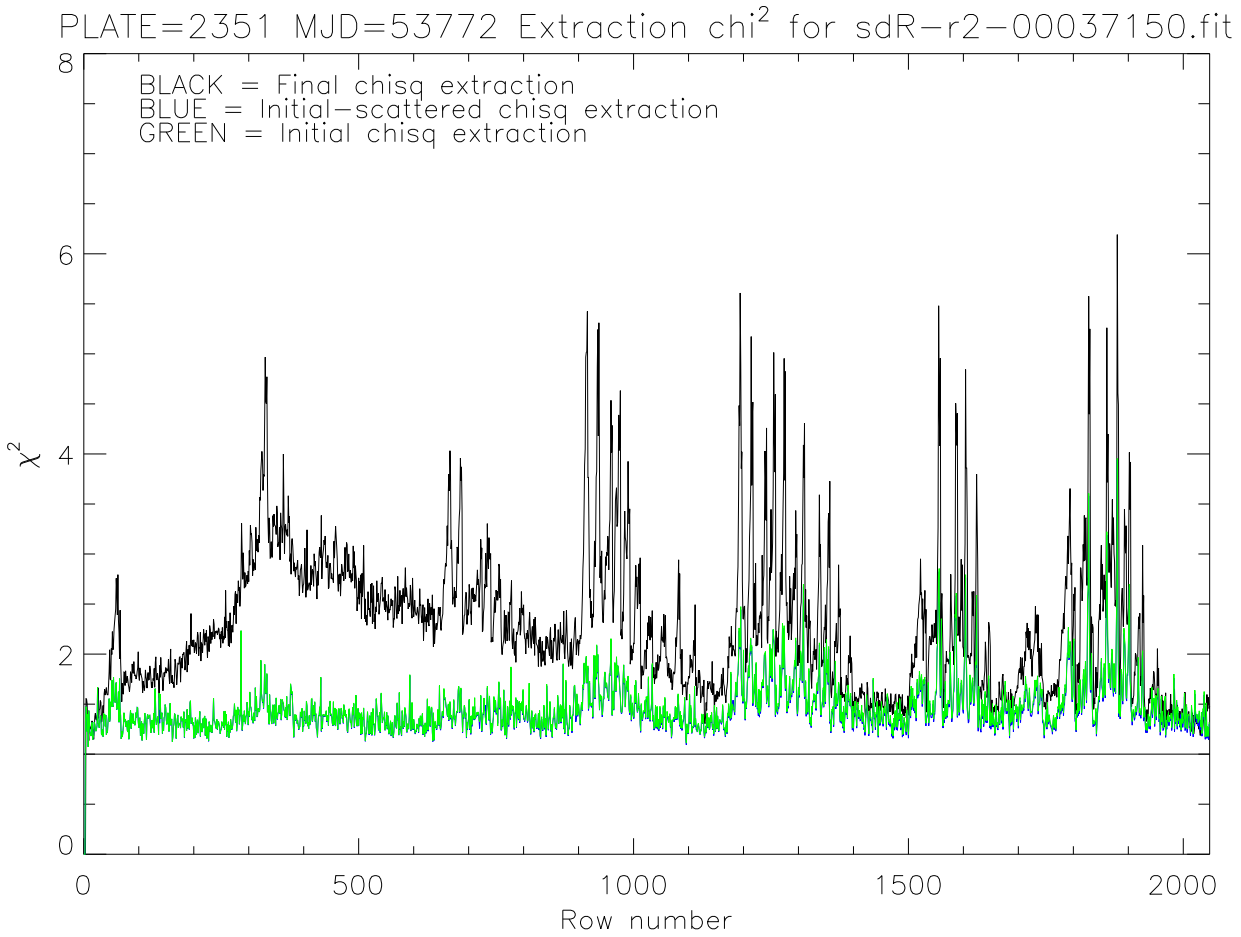

PLATE=2351 MJD=53772 Fiber−Flats for sdR−r2−00037155.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.366
Max value = 1.175
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sat Feb 16 19:46:59 2008

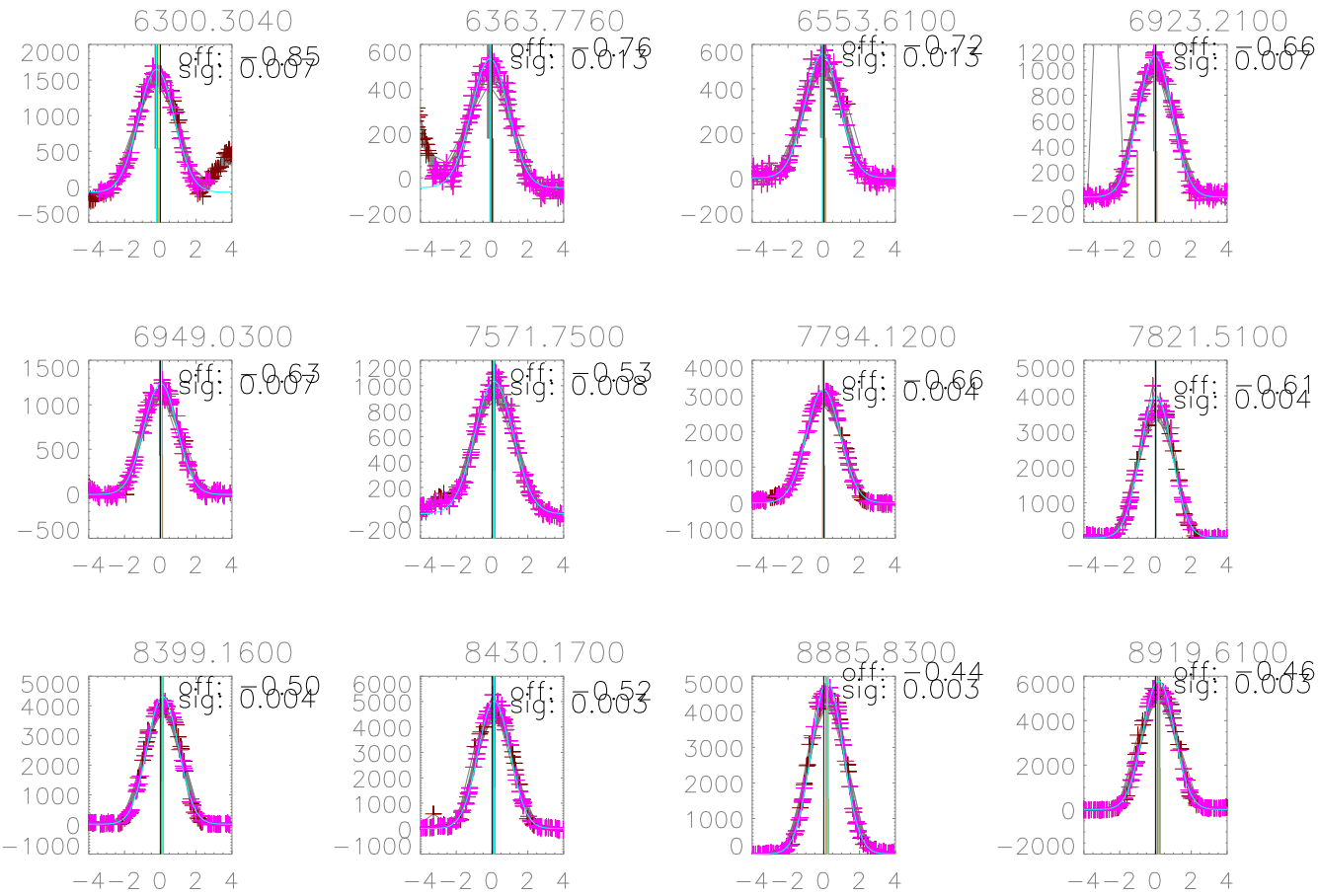

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR-r2-00037150.fi
44.5
57.3
44.5
31.8
31.8
31.8
31.8
19.1
19.1
19.1
19.1
6.4
Y [pix]
X [pix]
0
500
1000
1500
2000

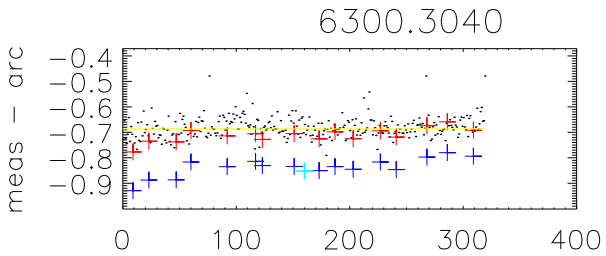

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR-r2-00037150.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 8.180
Max value = 53.858
Sat Feb 16 19:47:59 2008

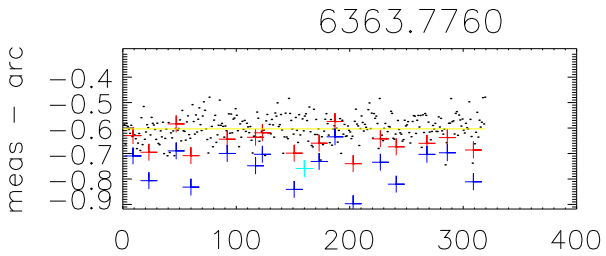

PLATE=2351 MJD=53772 Scattered Light on sdR-r2-00037150.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
17.7
14.1
10.5
6.8

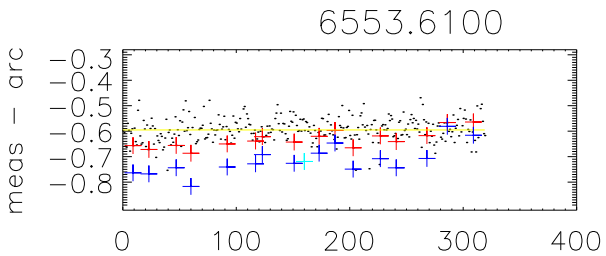

PLATE=2351 MJD=53772 Scattered Light on sdR-r2-00037150.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 7.901
Max value = 18.092
Sat Feb 16 19:50:59 2008

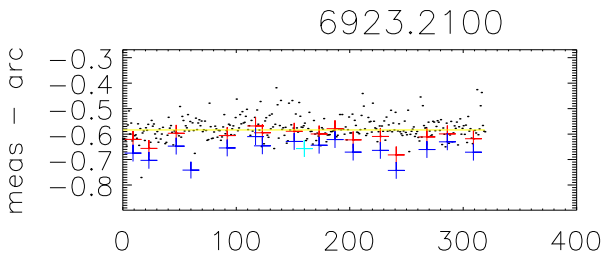

PLATE=2351 MJD=53772 Extraction chi^2 for sdR−r2−00037150.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
0
500
1000
1500
2000
Row number

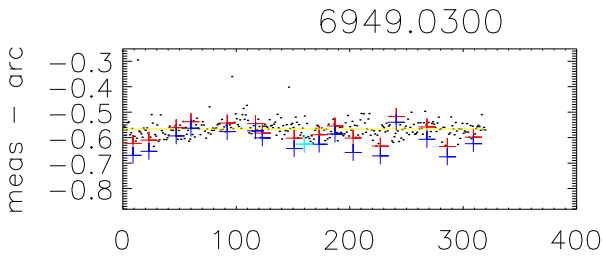

6300.3040
off: −0.85
sig: 0.007
6363.7760
off: −0.76
sig: 0.013
6553.6100
off: −0.72
sig: 0.013
6923.2100
off: −0.66
sig: 0.007
6949.0300
off: −0.63
sig: 0.007
7571.7500
off: −0.53
sig: 0.008
7794.1200
off: −0.66
sig: 0.004
7821.5100
off: −0.61
sig: 0.004
8399.1600
off: −0.50
sig: 0.004
8430.1700
off: −0.52
sig: 0.003
8885.8300
off: −0.44
sig: 0.003
8919.6100
off: −0.46
sig: 0.003

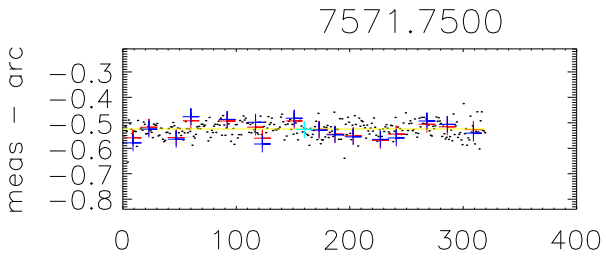

6300.3040
meas − arc
−0.4
−0.5
−0.6
−0.7
−0.8
−0.9
0
100
200
300
400

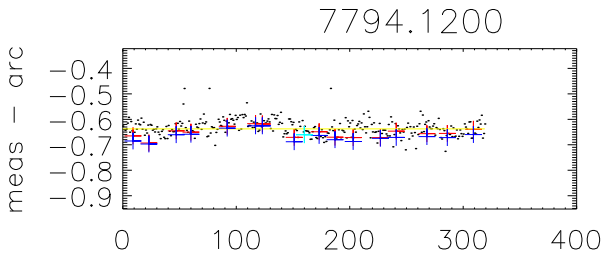

6363.7760
meas − arc
−0.4
−0.5
−0.6
−0.7
−0.8
−0.9
0
100
200
300
400

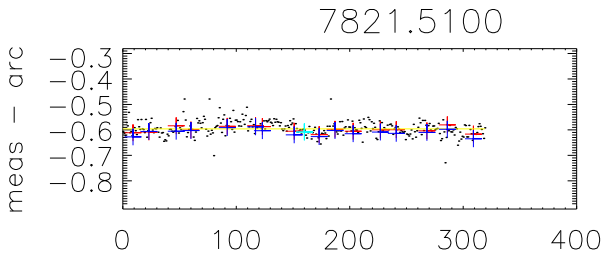

6553.6100
meas − arc
−0.3
−0.4
−0.5
−0.6
−0.7
−0.8
0
100
200
300
400

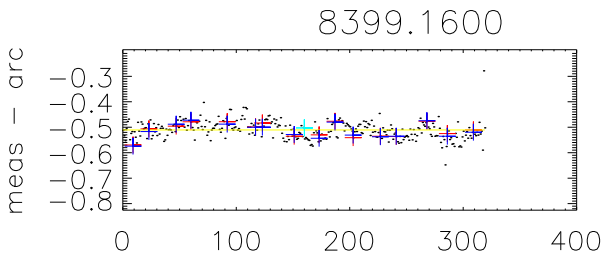

6923.2100
meas − arc
−0.3
−0.4
−0.5
−0.6
−0.7
−0.8
0
100
200
300
400

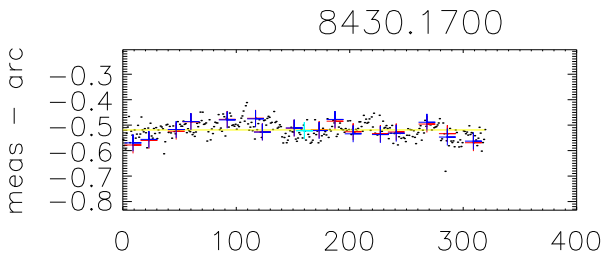

6949.0300
meas − arc
−0.3
−0.4
−0.5
−0.6
−0.7
−0.8
0
100
200
300
400

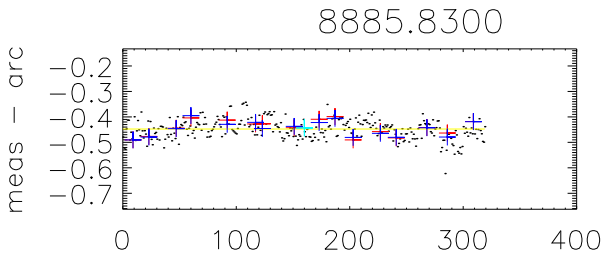

7571.7500
meas − arc
−0.3
−0.4
−0.5
−0.6
−0.7
−0.8
0
100
200
300
400

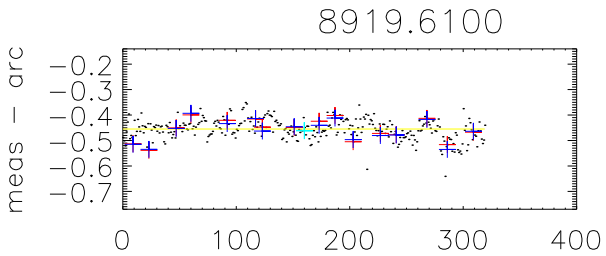

7794.1200
meas − arc
−0.4
−0.5
−0.6
−0.7
−0.8
−0.9
0
100
200
300
400

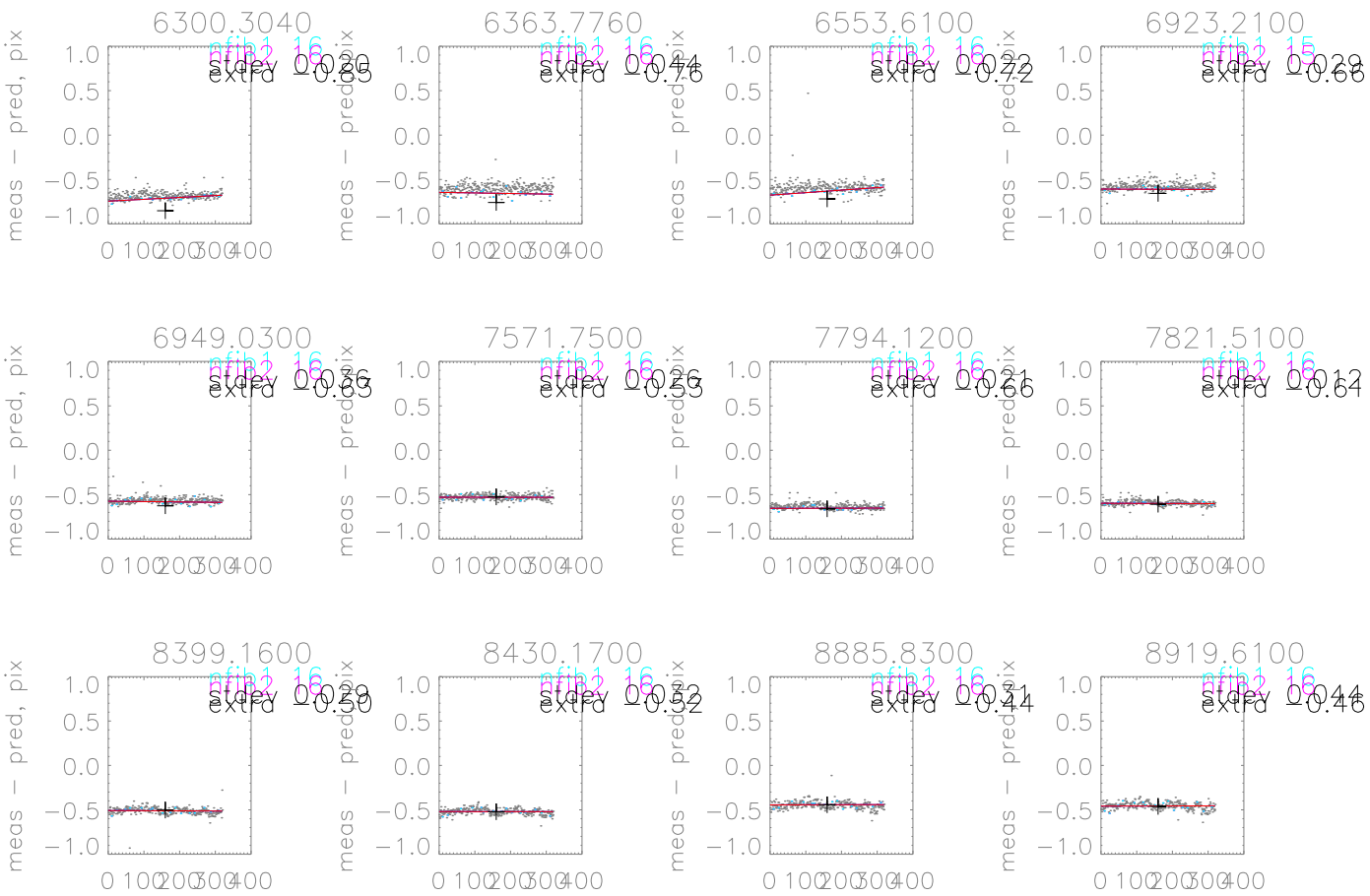

7821.5100
meas − arc
−0.3
−0.4
−0.5
−0.6
−0.7
−0.8
0
100
200
300
400

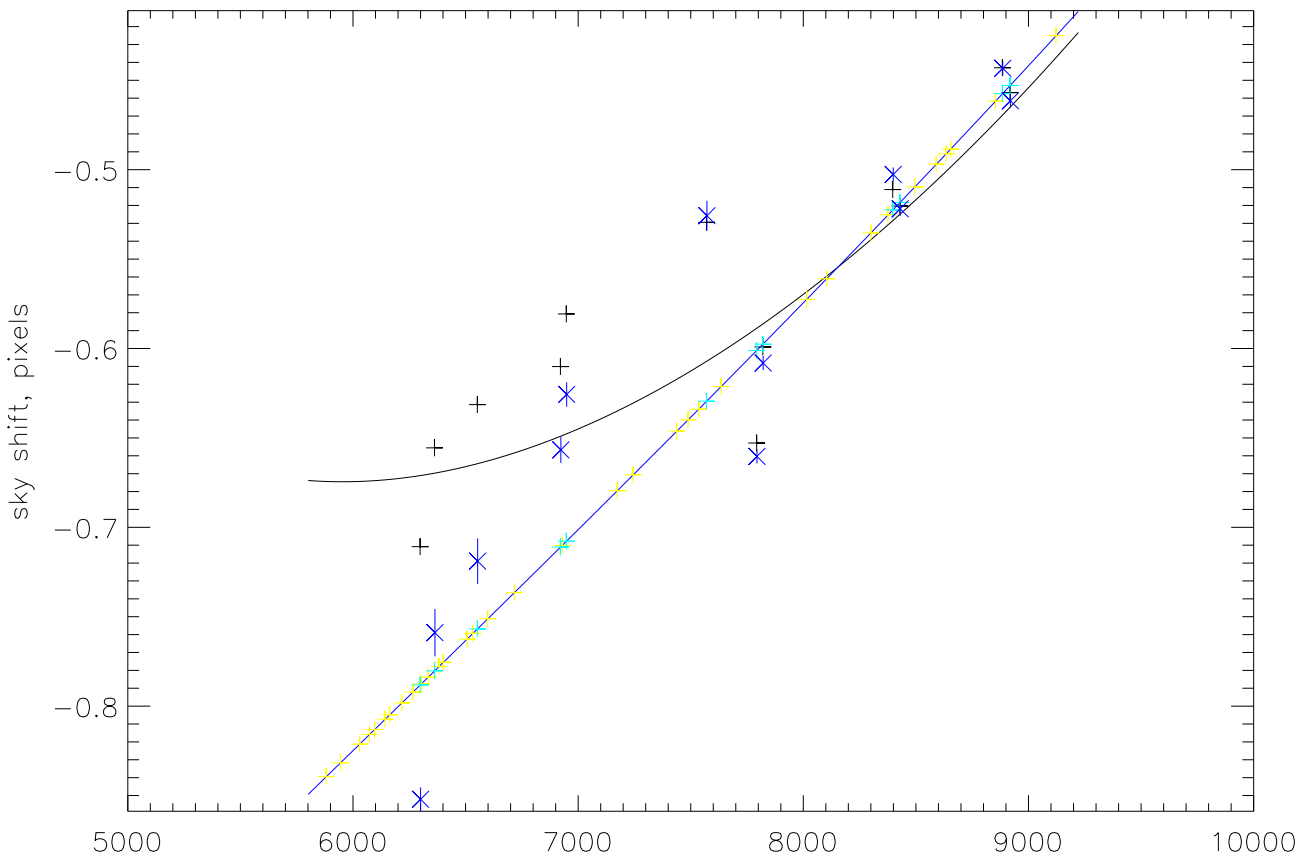

8399.1600
meas − arc
−0.3
−0.4
−0.5
−0.6
−0.7
−0.8
0
100
200
300
400

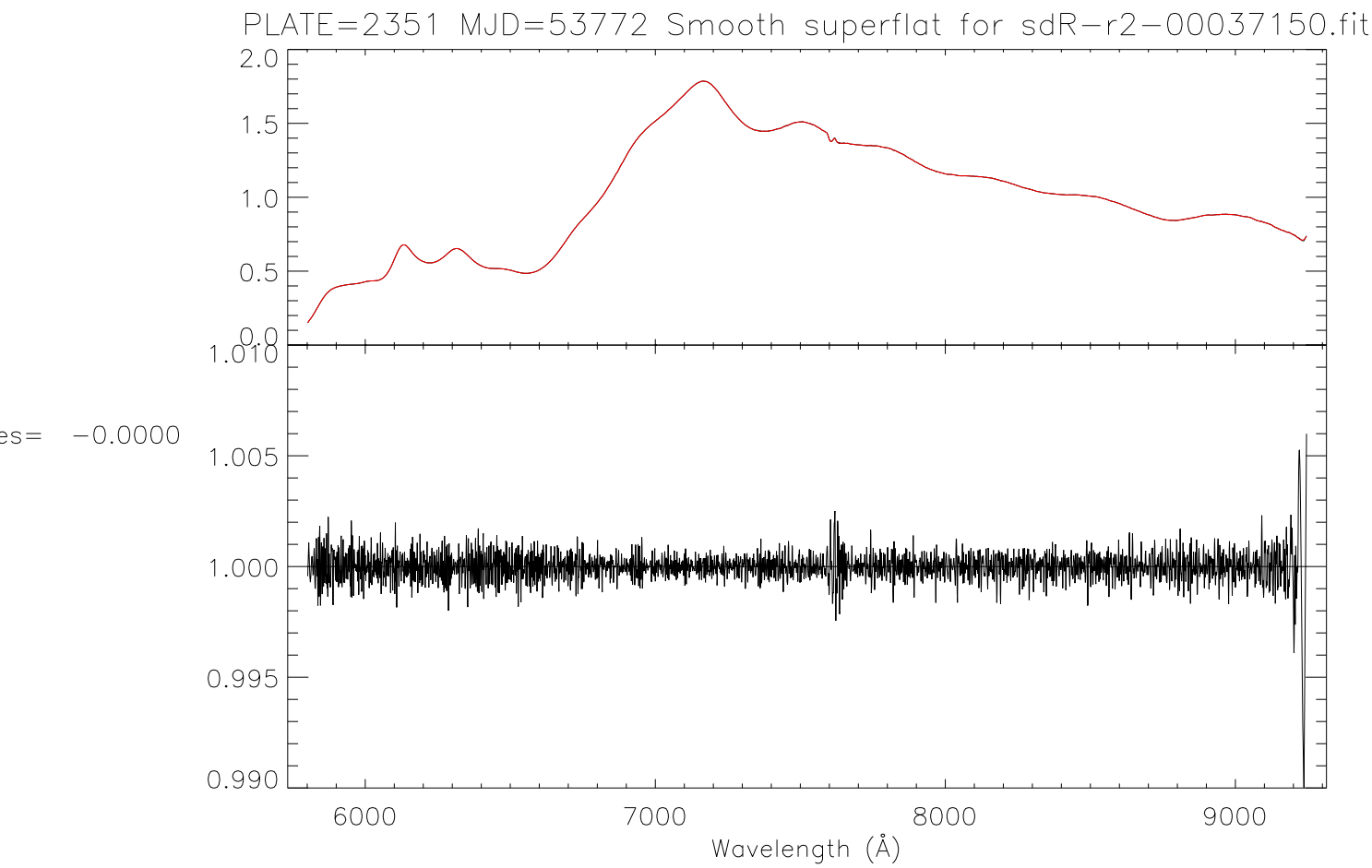

8430.1700
meas − arc
−0.3
−0.4
−0.5
−0.6
−0.7
−0.8
0
100
200
300
400


8885.8300
meas − arc
−0.2
−0.3
−0.4
−0.5
−0.6
−0.7
0
100
200
300
400

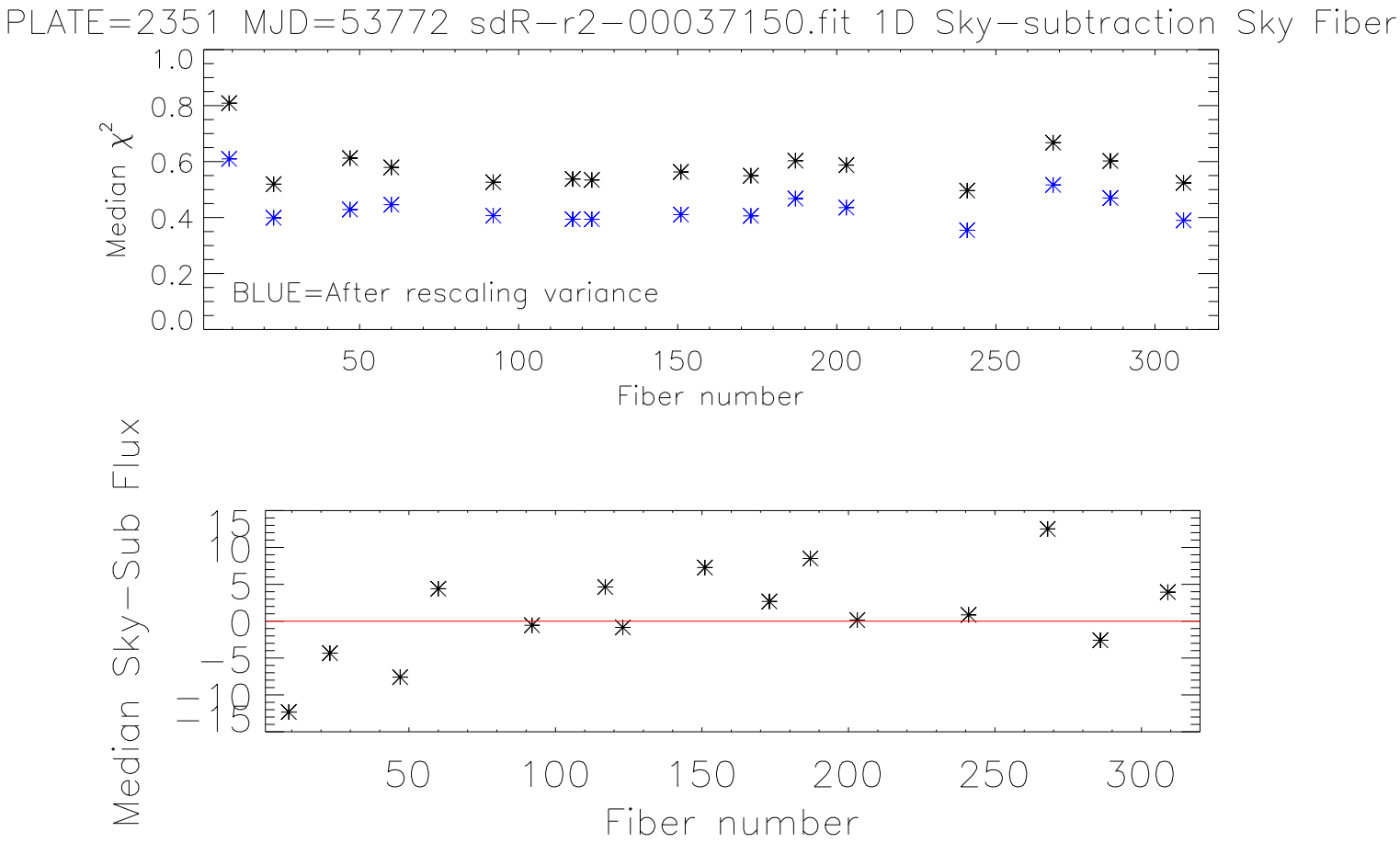

8919.6100
meas − arc
−0.2
−0.3
−0.4
−0.5
−0.6
−0.7
0
100
200
300
400

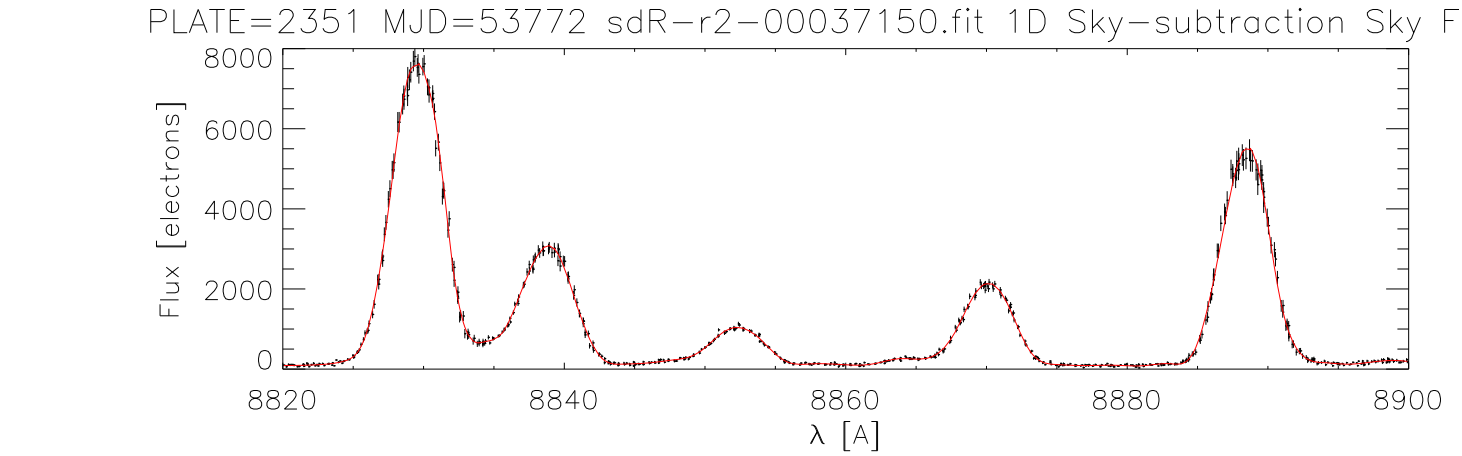

6300.3040
6363.7760
6553.6100
6923.2100
6949.0300
7571.7500
7794.1200
7821.5100
8399.1600
8430.1700
8885.8300
8919.6100
meas − pred, pix
mfib1 16
mfib2 16
stdev 0.030
extra −0.65
stdev 0.044
extra −0.76
stdev 0.022
extra −0.72
stdev 0.029
extra −0.68
stdev 0.036
extra −0.63
stdev 0.026
extra −0.53
stdev 0.021
extra −0.66
stdev 0.012
extra −0.64
stdev 0.029
extra −0.50
stdev 0.032
extra −0.52
stdev 0.031
extra −0.44
stdev 0.044
extra −0.46

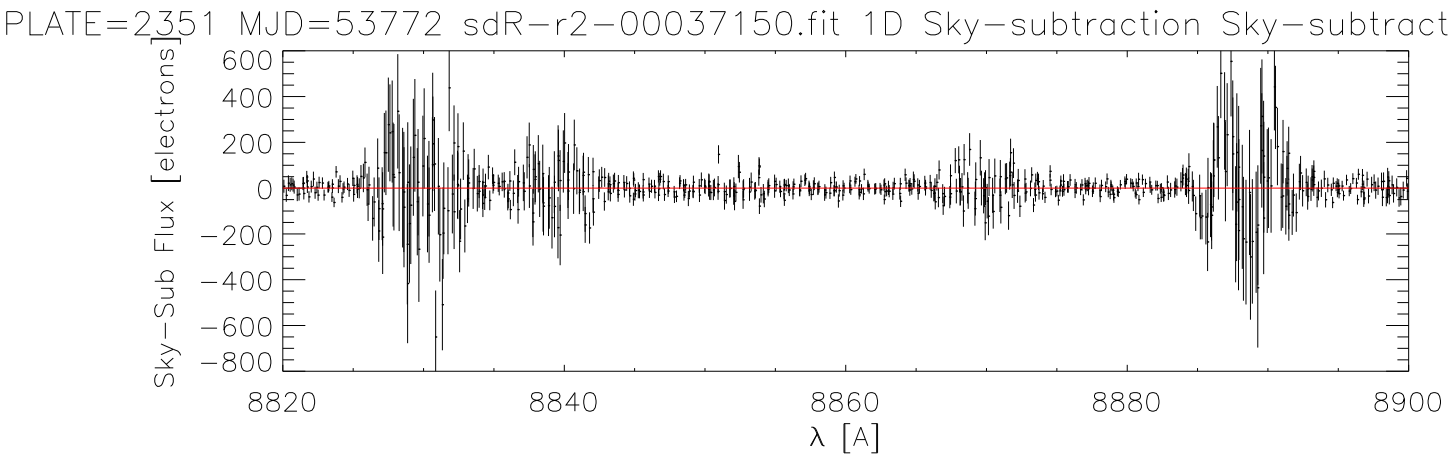

sky shift, pixels
−0.5
−0.6
−0.7
−0.8
5000
6000
7000
8000
9000
10000

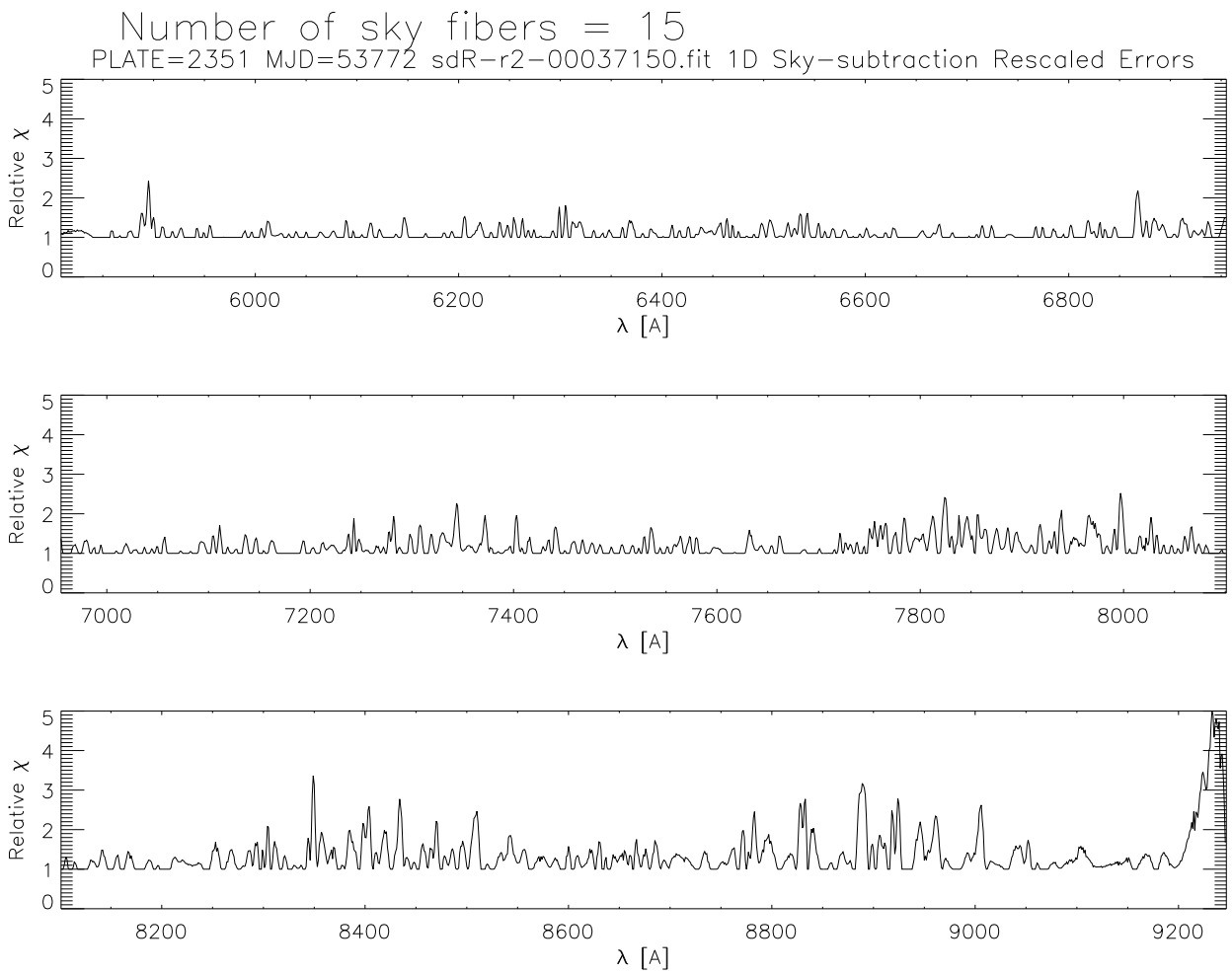

PLATE=2351 MJD=53772 Smooth superflat for sdR-r2-00037150.fit
2.0
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
6000
7000
8000
9000
Wavelength (Å)

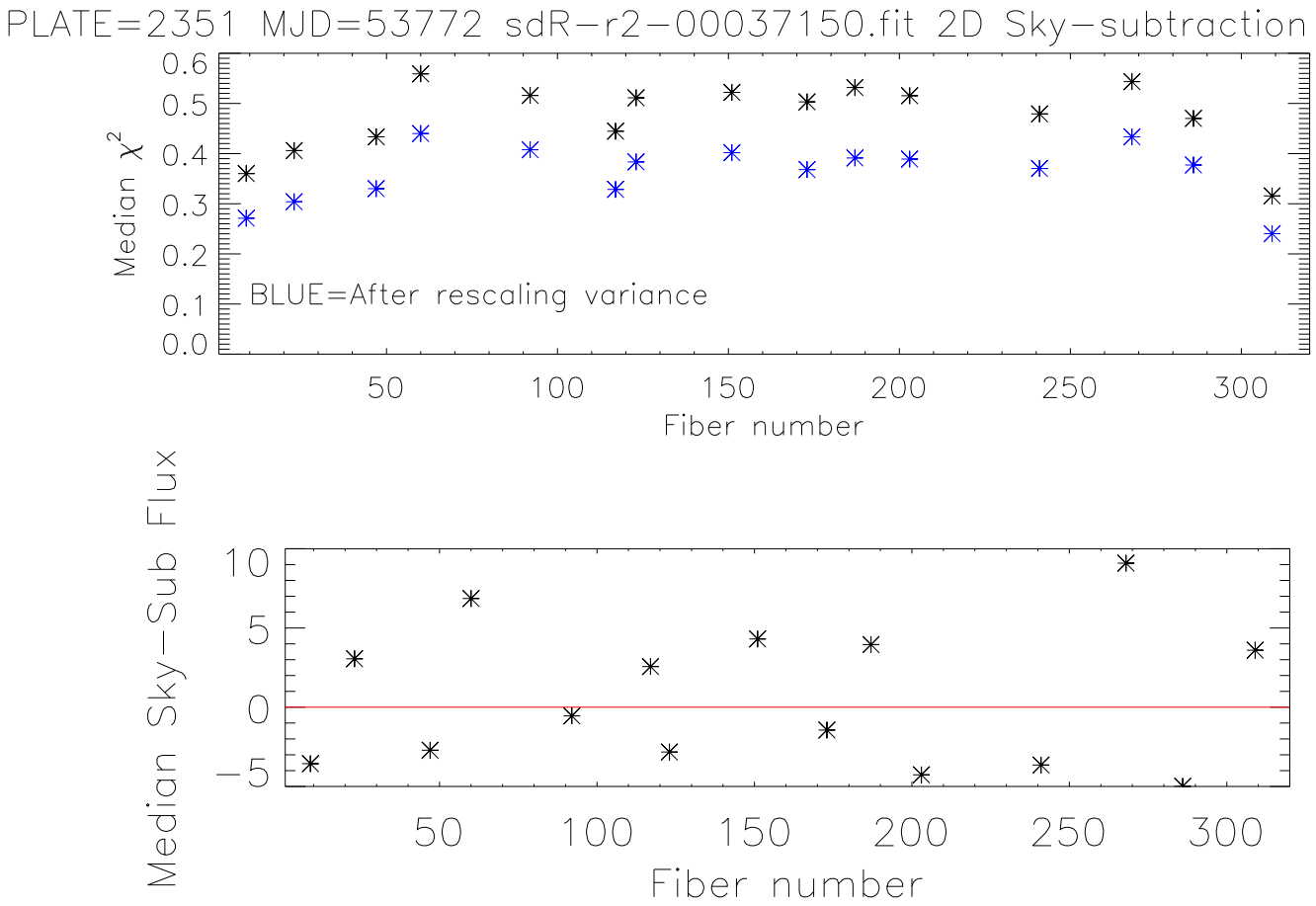
es= −0.0000

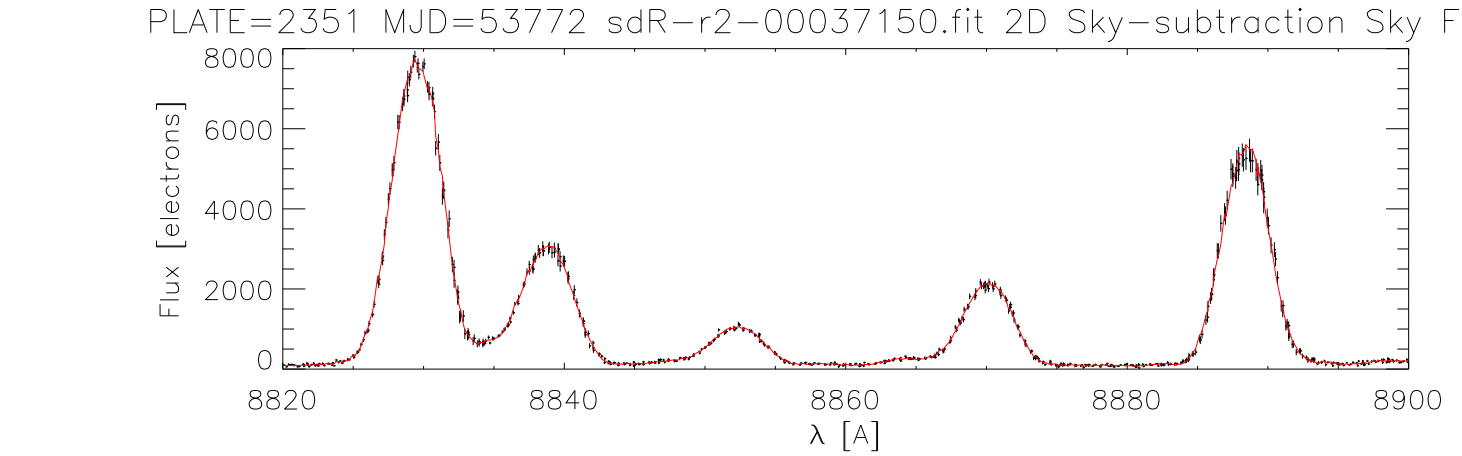

PLATE=2351 MJD=53772 sdR-r2-00037150.fit 1D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

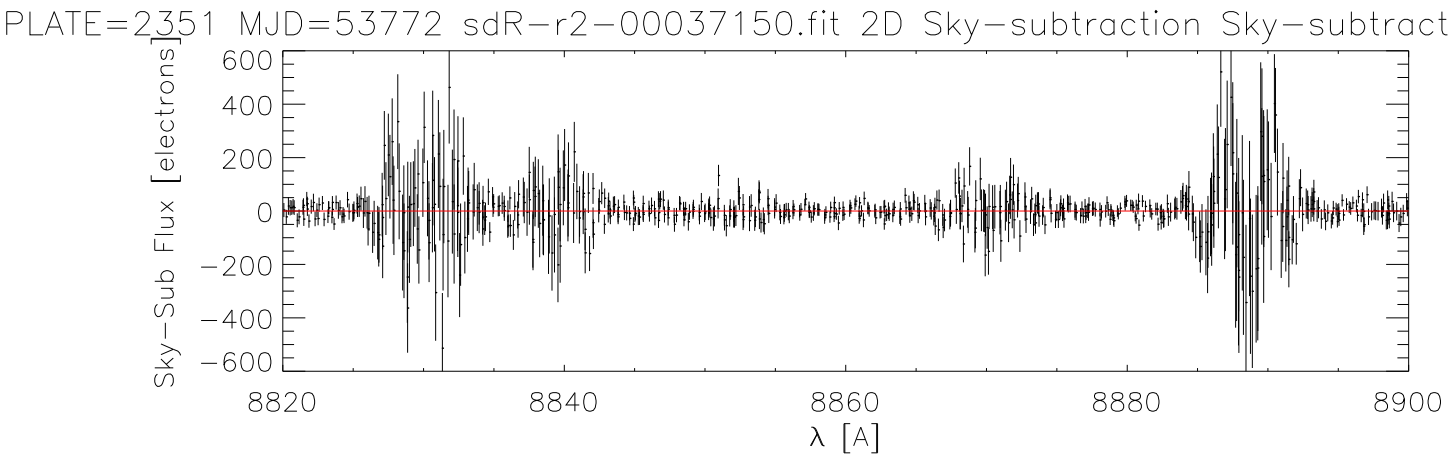

PLATE=2351 MJD=53772 sdR-r2-00037150.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
8820
8840
8860
8880
8900
λ [A]

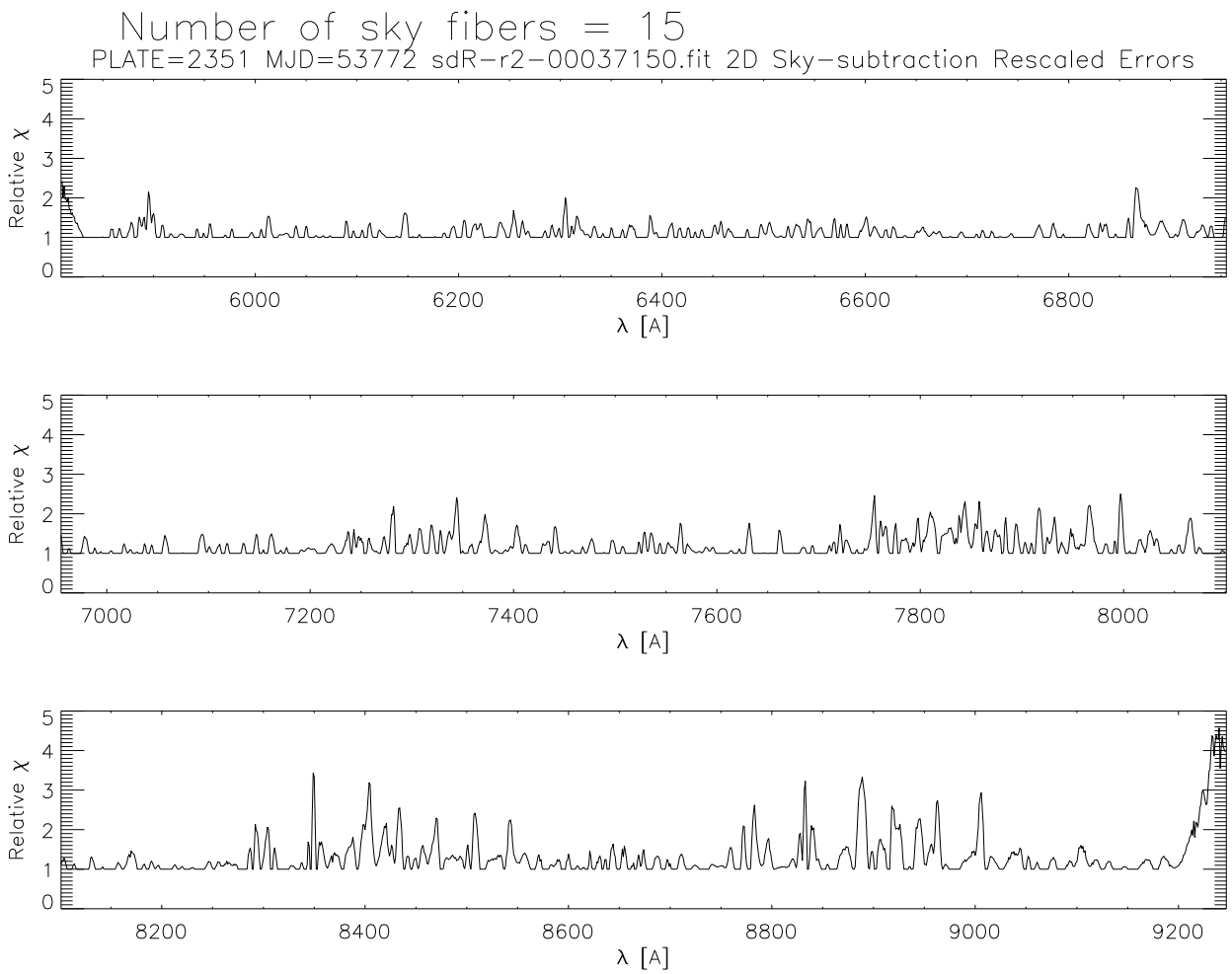

PLATE=2351 MJD=53772 sdR-r2-00037150.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
-200
-400
-600
-800
8820
8840
8860
8880
8900
λ [A]

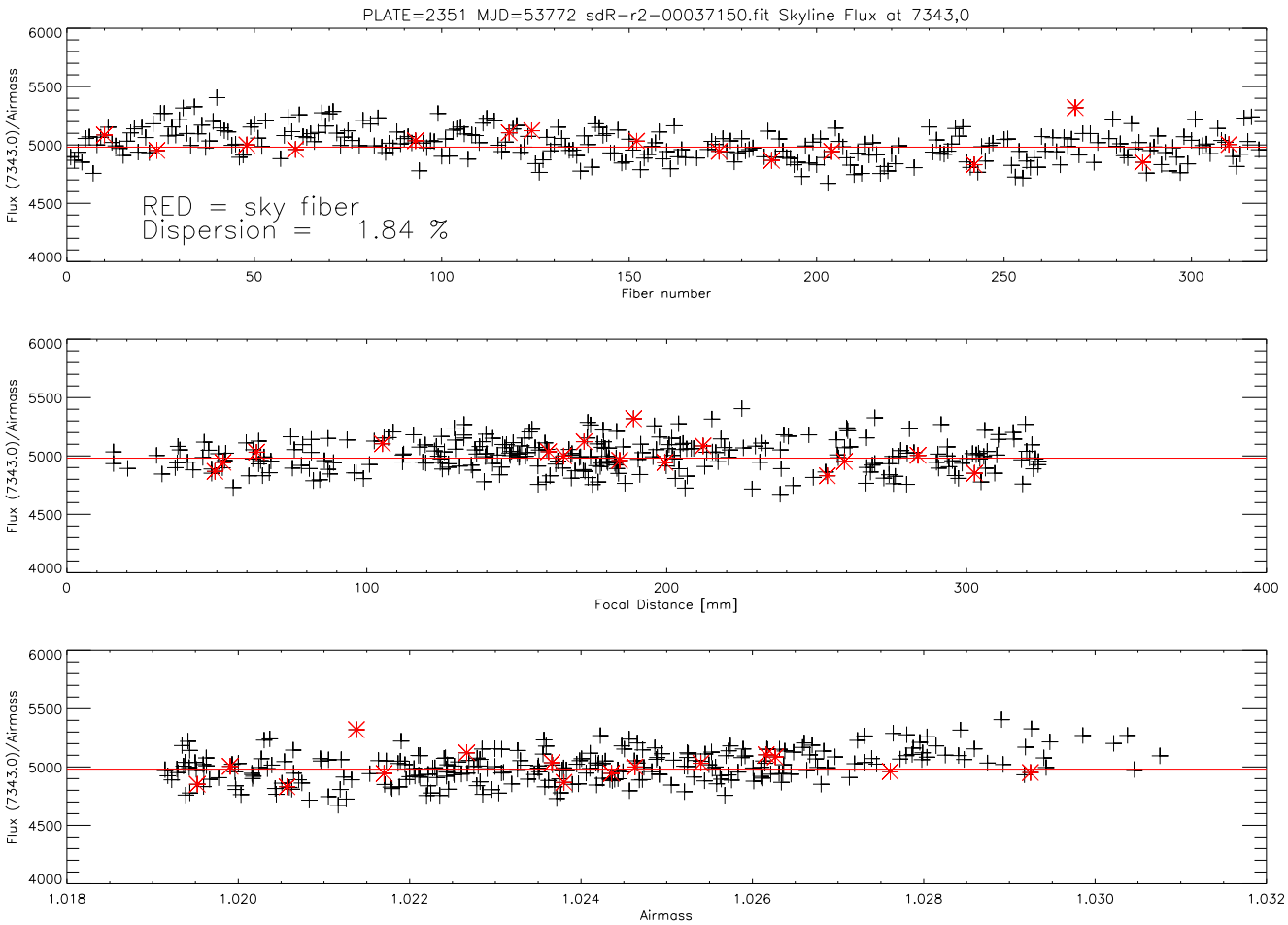

Number of sky fibers = 15
PLATE=2351 MJD=53772 sdR-r2-00037150.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

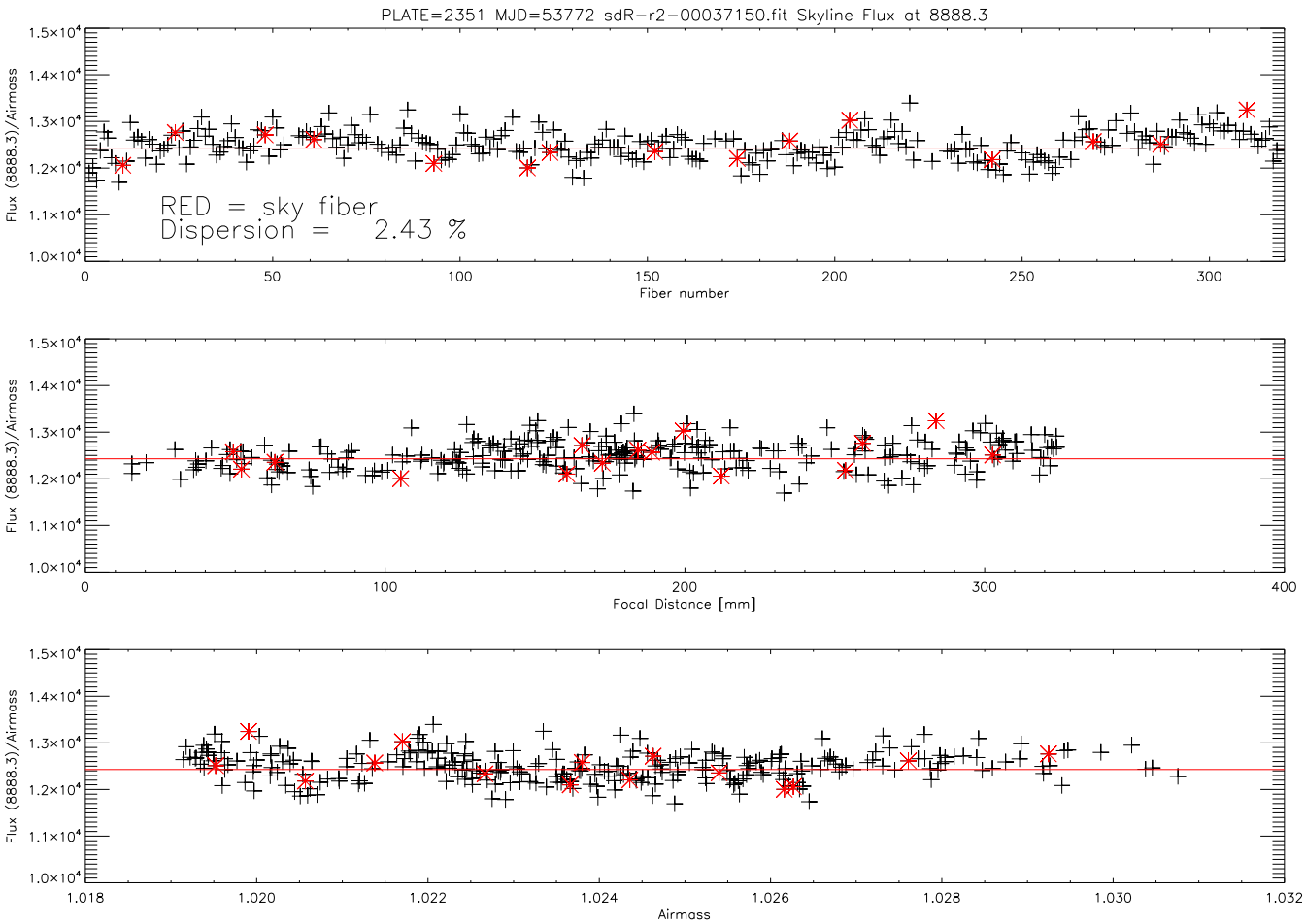

PLATE=2351 MJD=53772 sdR-r2-00037150.fit 2D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

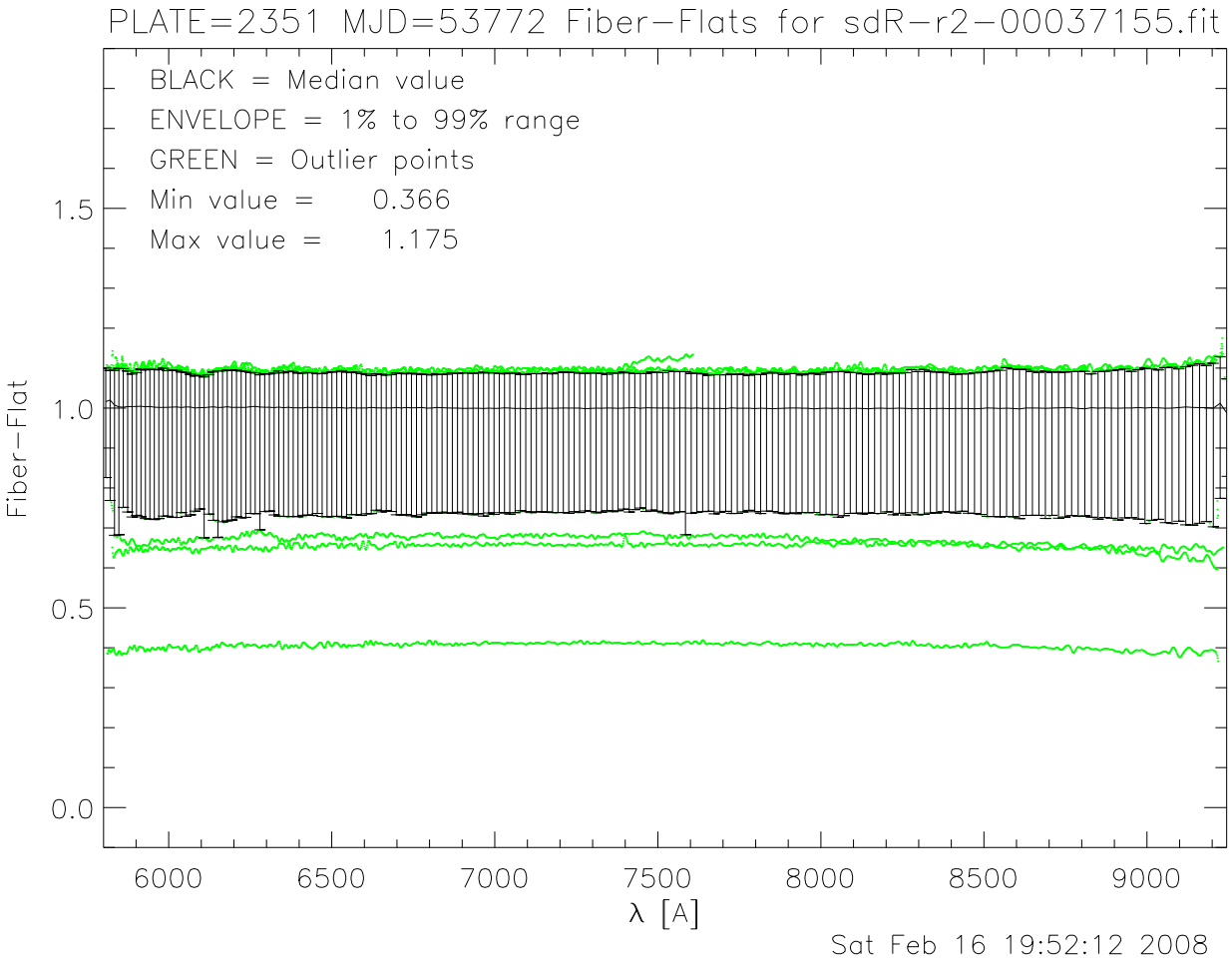

PLATE=2351 MJD=53772 sdR-r2-00037150.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
8820
8840
8860
8880
8900
λ [A]

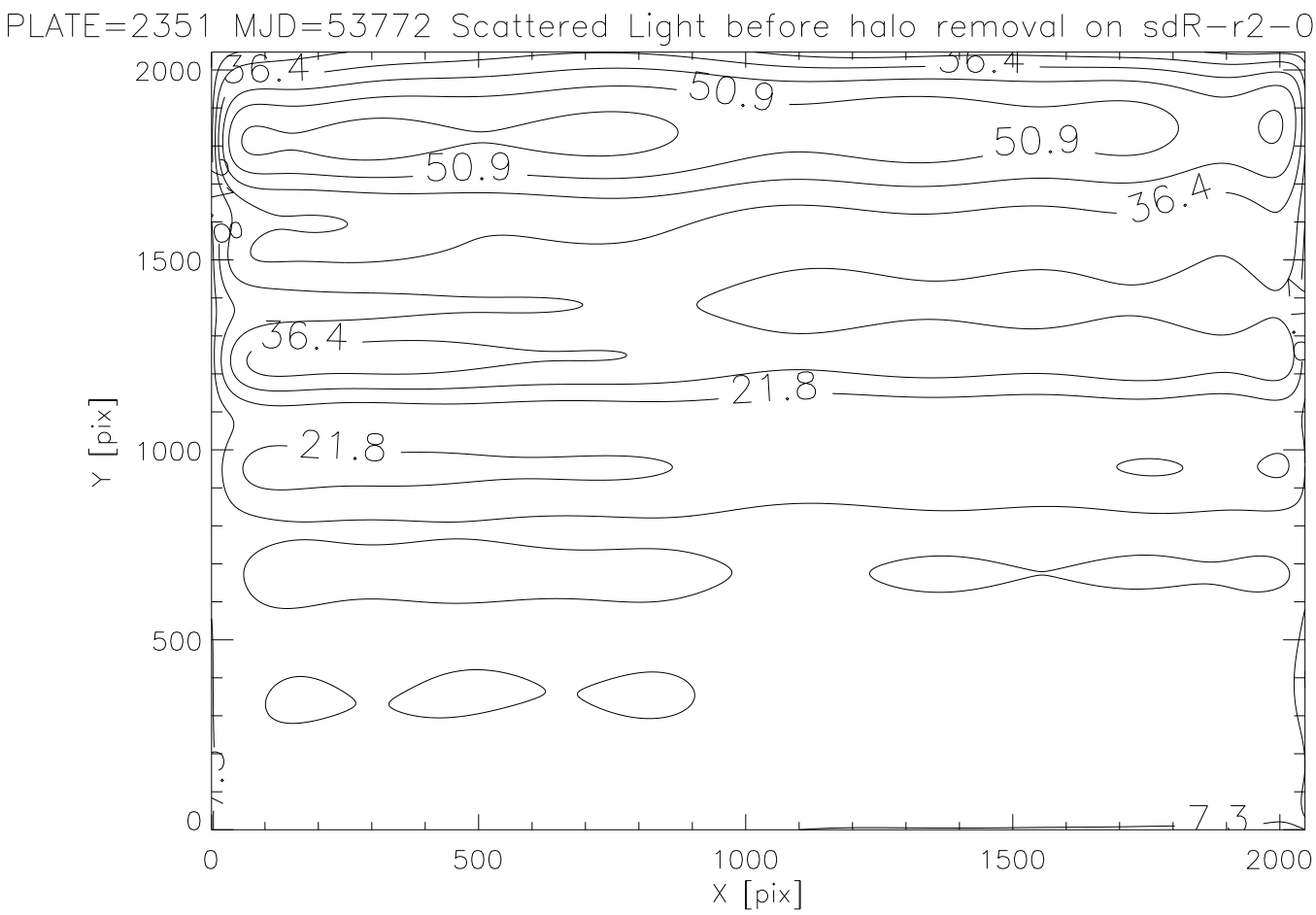

PLATE=2351 MJD=53772 sdR-r2-00037150.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
-200
-400
-600
8820
8840
8860
8880
8900
λ [A]

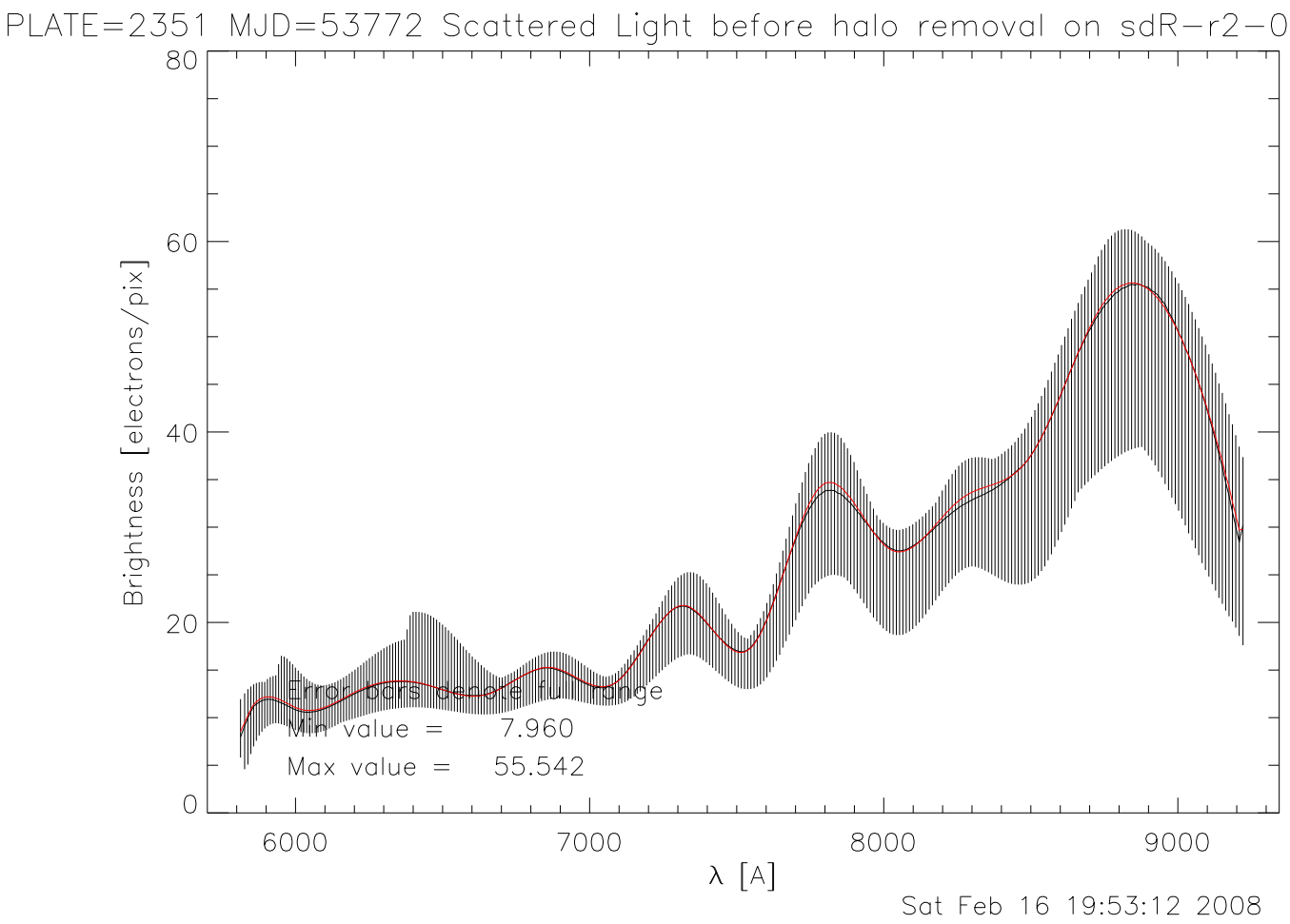

Number of sky fibers = 15
PLATE=2351 MJD=53772 sdR-r2-00037150.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

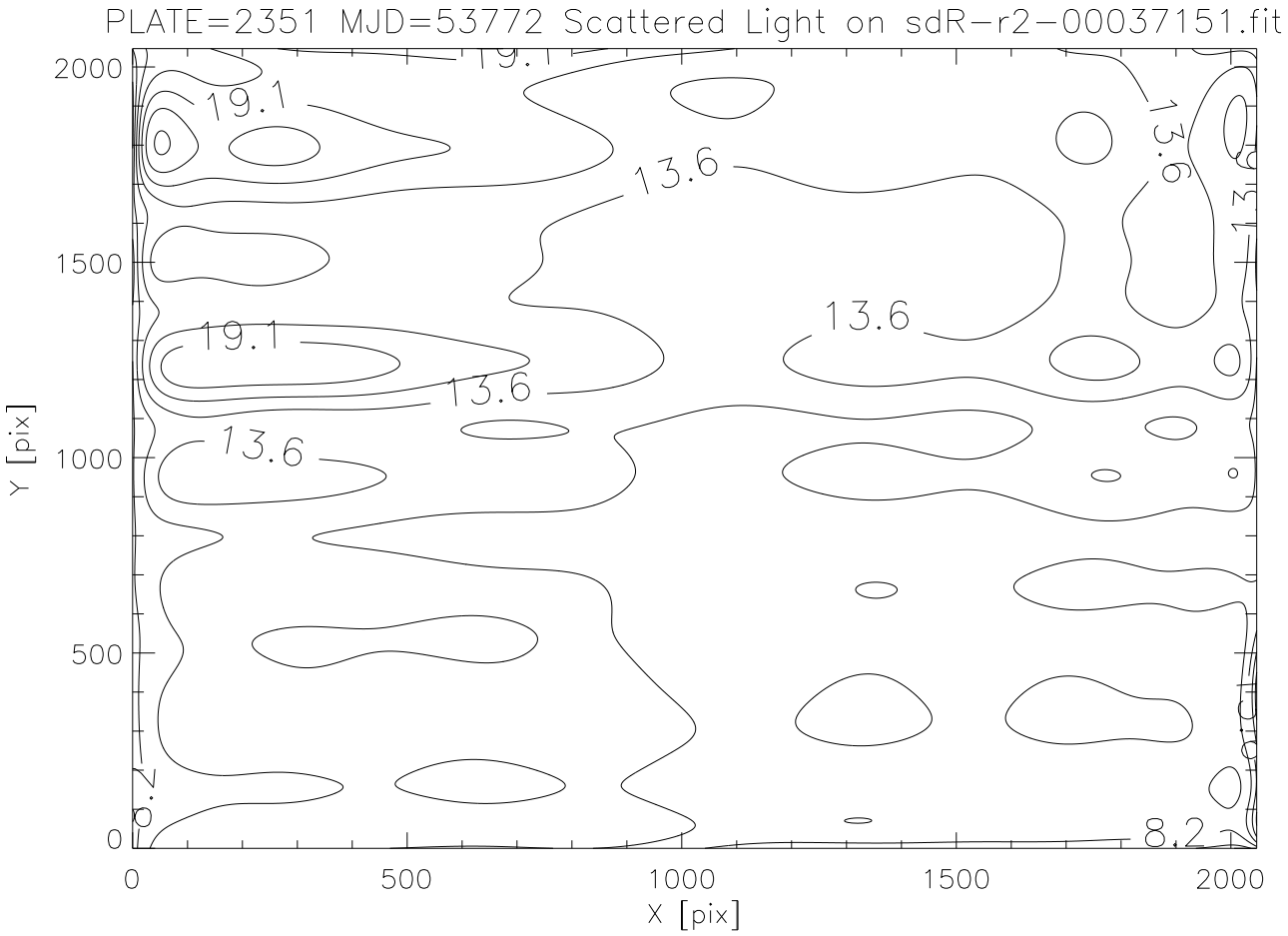

PLATE=2351 MJD=53772 sdR-r2-00037150.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 1.84 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

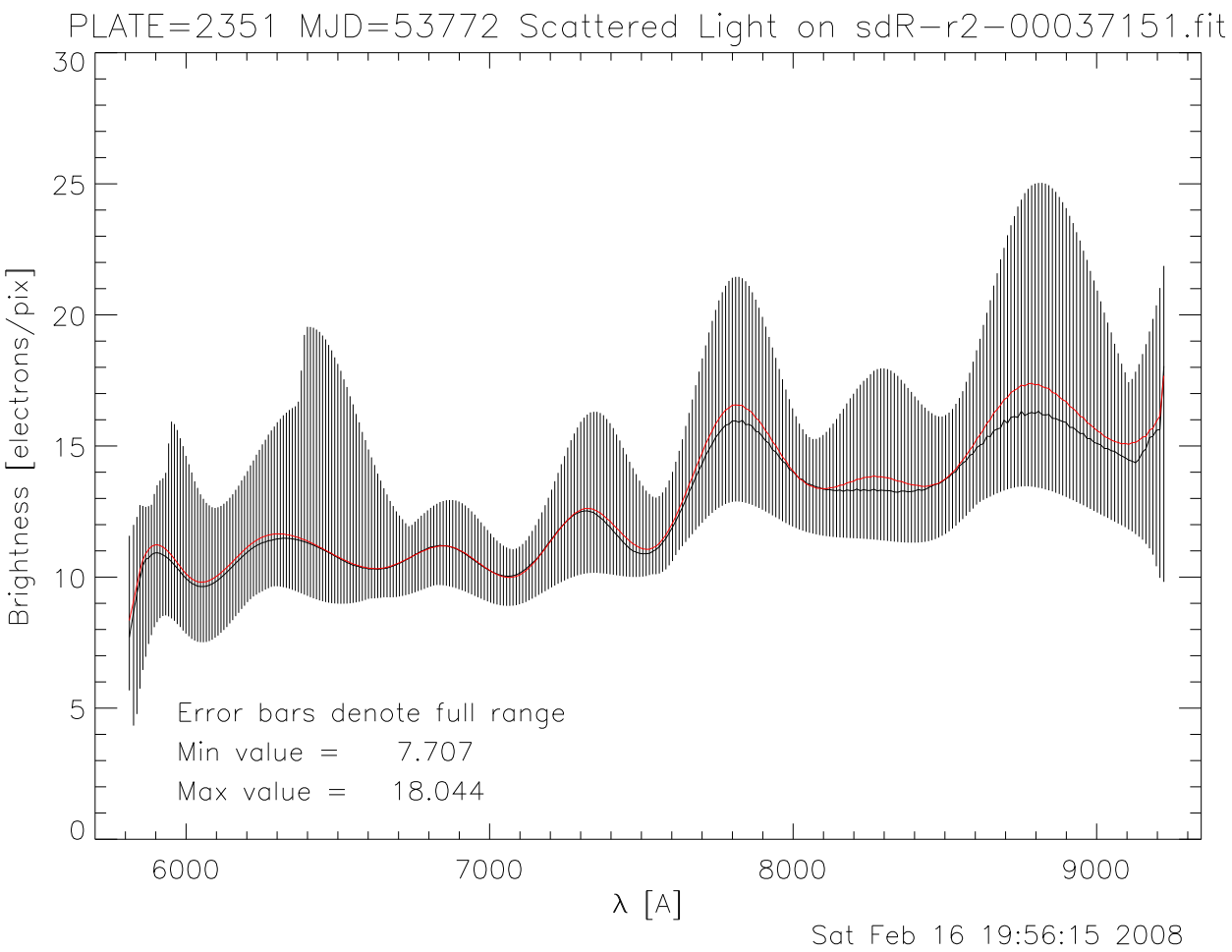

PLATE=2351 MJD=53772 sdR-r2-00037150.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 2.43 %
Fiber number
Focal Distance [mm]
Airmass

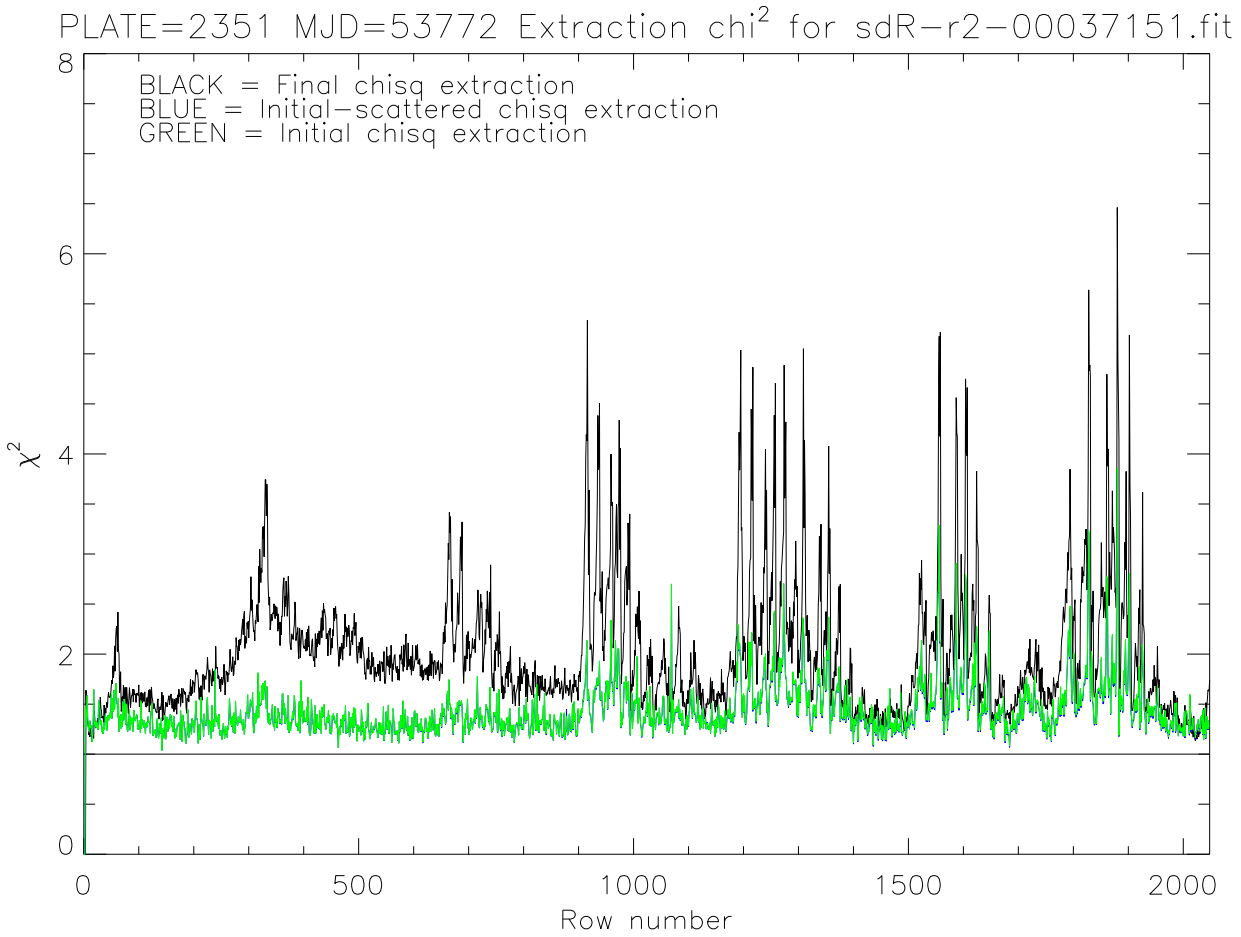

PLATE=2351 MJD=53772 Fiber−Flats for sdR−r2−00037155.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.366
Max value = 1.175
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sat Feb 16 19:52:12 2008

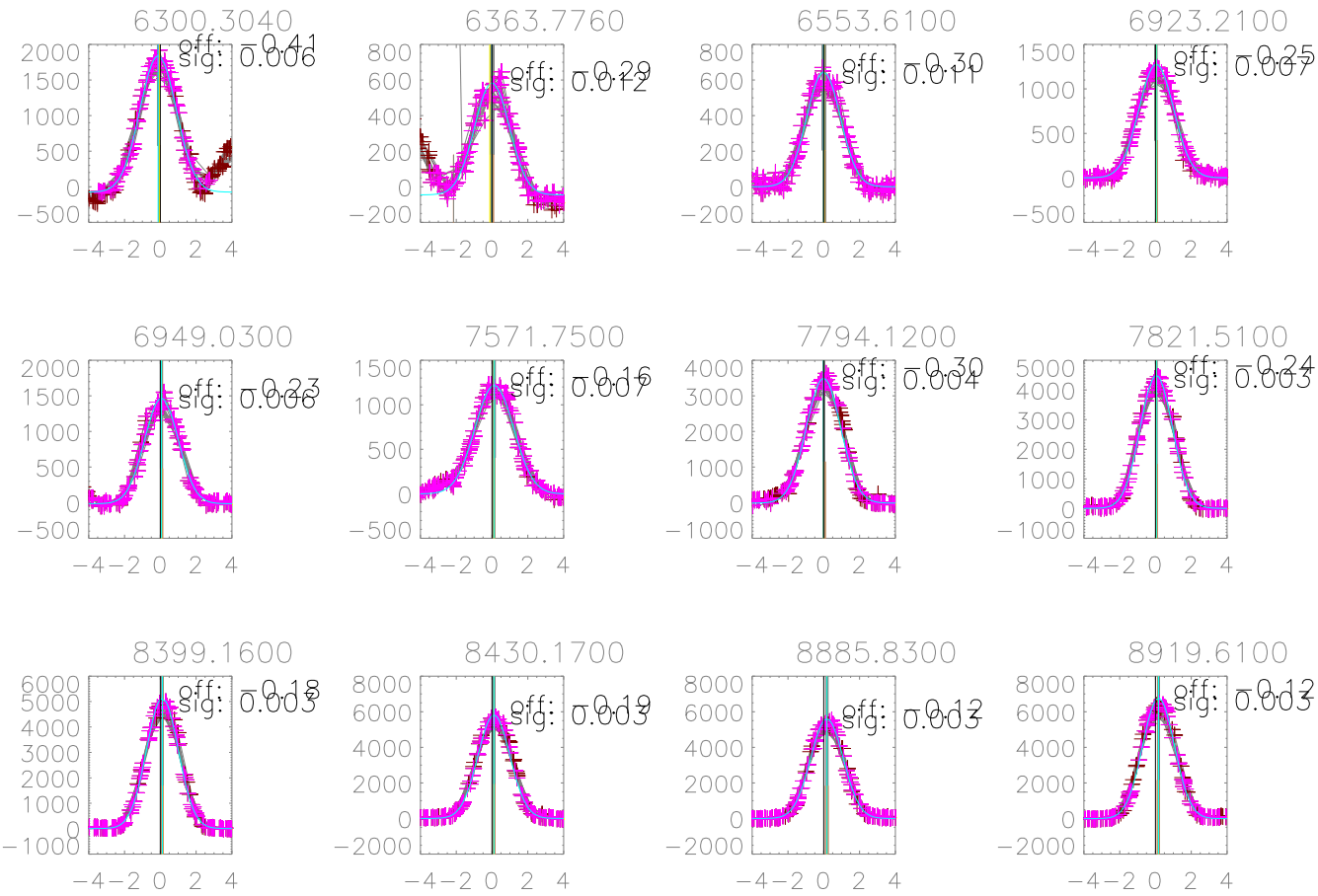

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR-r2-00037151.fi
36.4
50.9
50.9
36.4
36.4
21.8
21.8
7.3
Y [pix]
X [pix]
0
500
1000
1500
2000

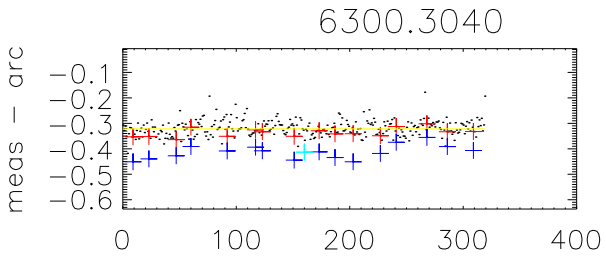

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR-r2-00037151.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 7.960
Max value = 55.542
Sat Feb 16 19:53:12 2008

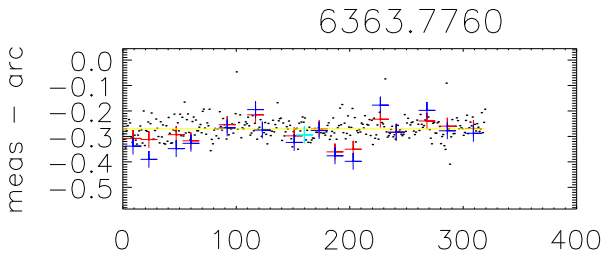

PLATE=2351 MJD=53772 Scattered Light on sdR-r2-00037151.fit
19.1
13.6
8.2
Y [pix]
X [pix]
0
500
1000
1500
2000

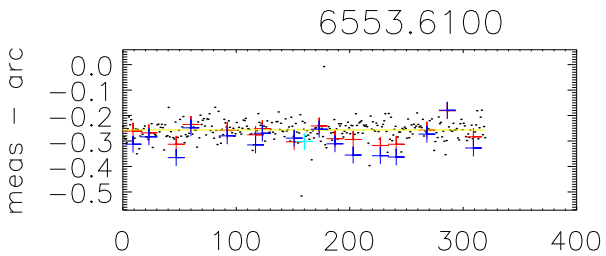

PLATE=2351 MJD=53772 Scattered Light on sdR-r2-00037151.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 7.707
Max value = 18.044
Sat Feb 16 19:56:15 2008

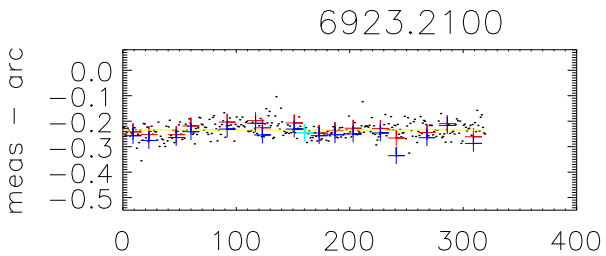

PLATE=2351 MJD=53772 Extraction chi^2 for sdR−r2−00037151.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
0
500
1000
1500
2000
Row number

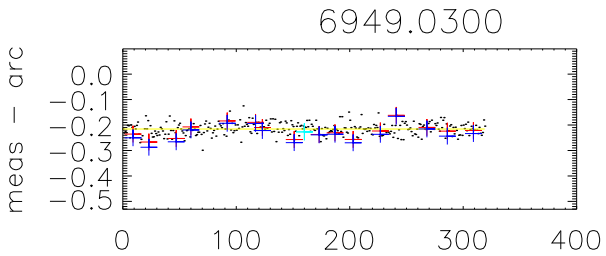

6300.3040
off: −0.41
sig: 0.006
6363.7760
off: −0.29
sig: 0.012
6553.6100
off: −0.30
sig: 0.011
6923.2100
off: −0.25
sig: 0.007
6949.0300
off: −0.23
sig: 0.006
7571.7500
off: −0.16
sig: 0.007
7794.1200
off: −0.30
sig: 0.004
7821.5100
off: −0.24
sig: 0.003
8399.1600
off: −0.18
sig: 0.003
8430.1700
off: −0.19
sig: 0.003
8885.8300
off: −0.12
sig: 0.003
8919.6100
off: −0.12
sig: 0.003

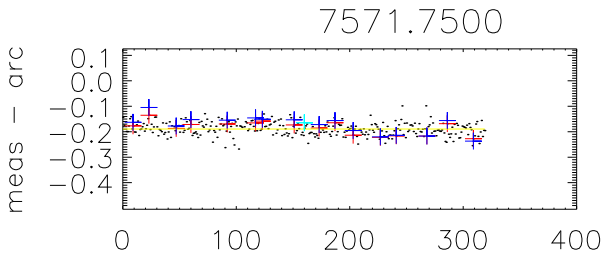

6300.3040
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

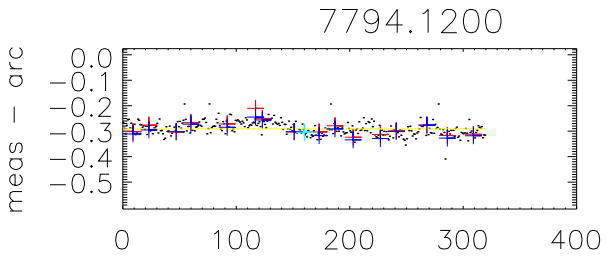

6363.7760
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

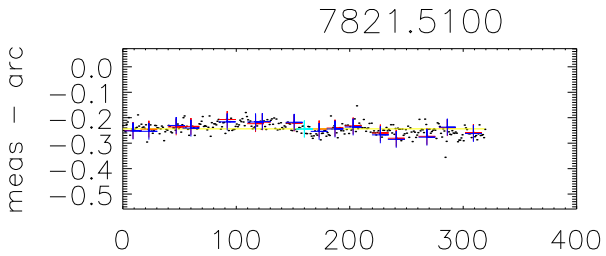

6553.6100
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

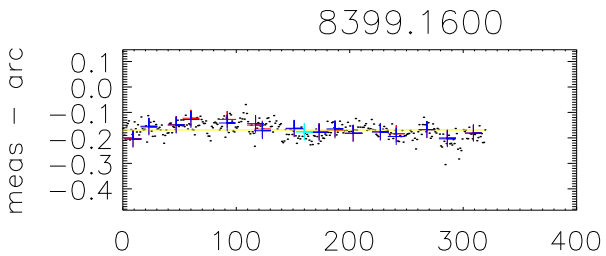

6923.2100
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

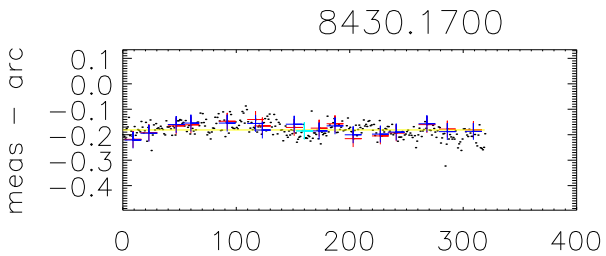

6949.0300
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

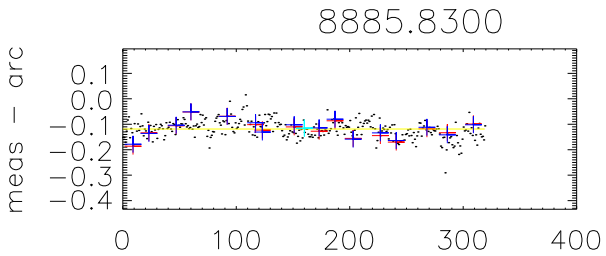

7571.7500
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

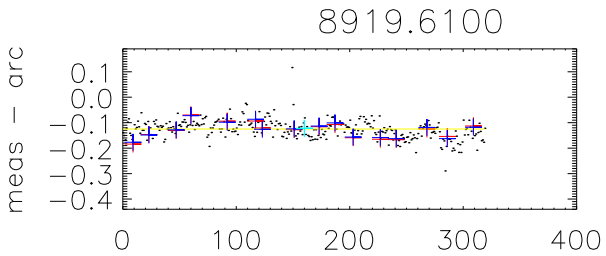

7794.1200
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

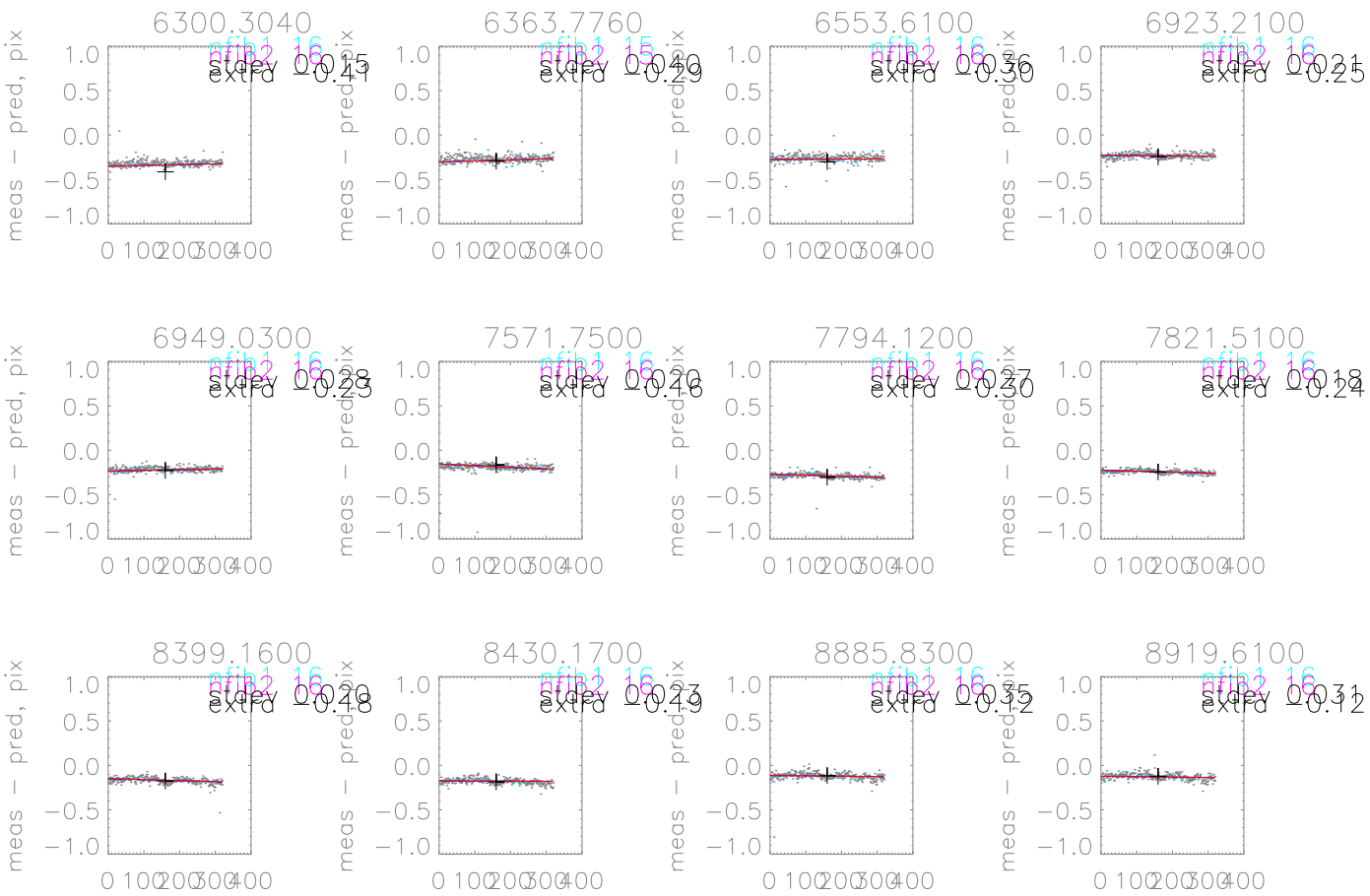

7821.5100
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

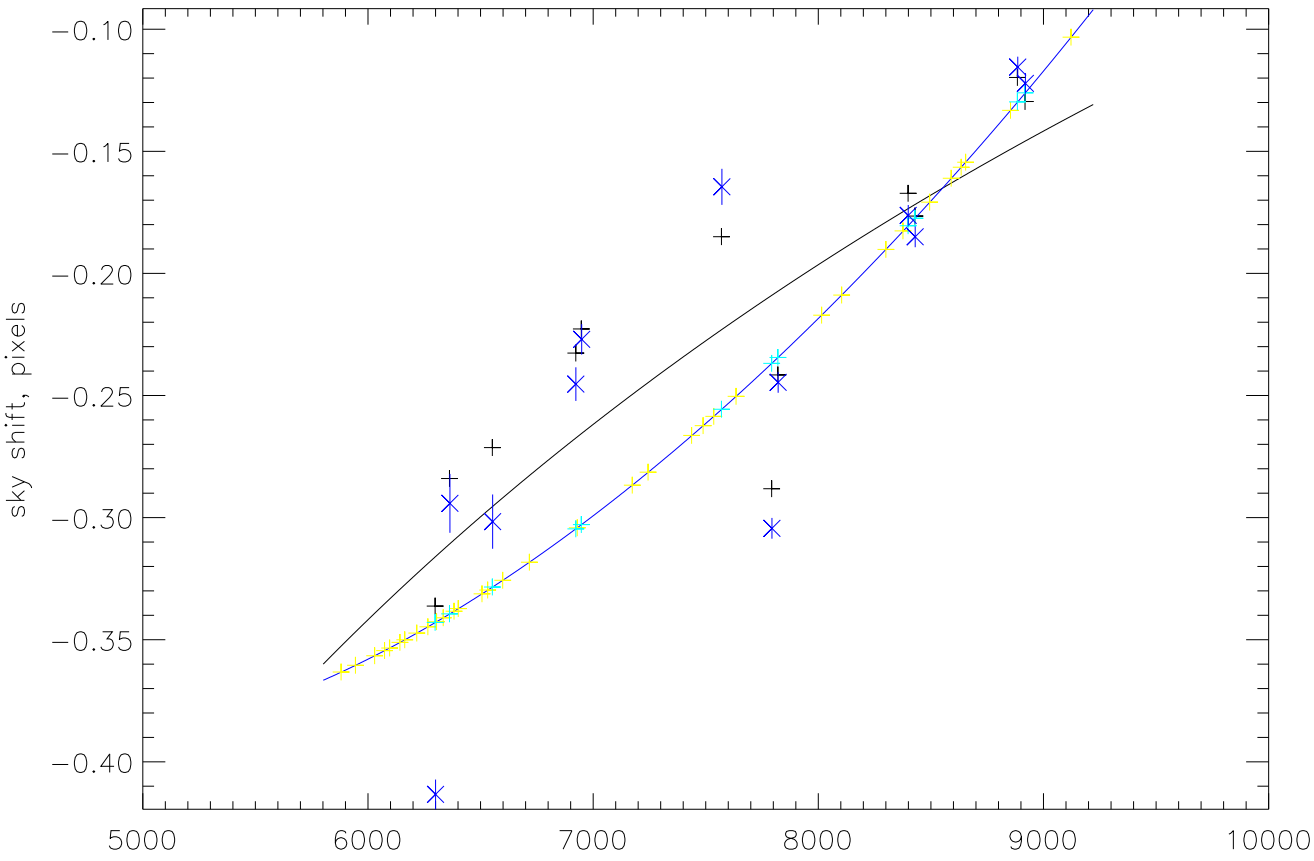

8399.1600
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

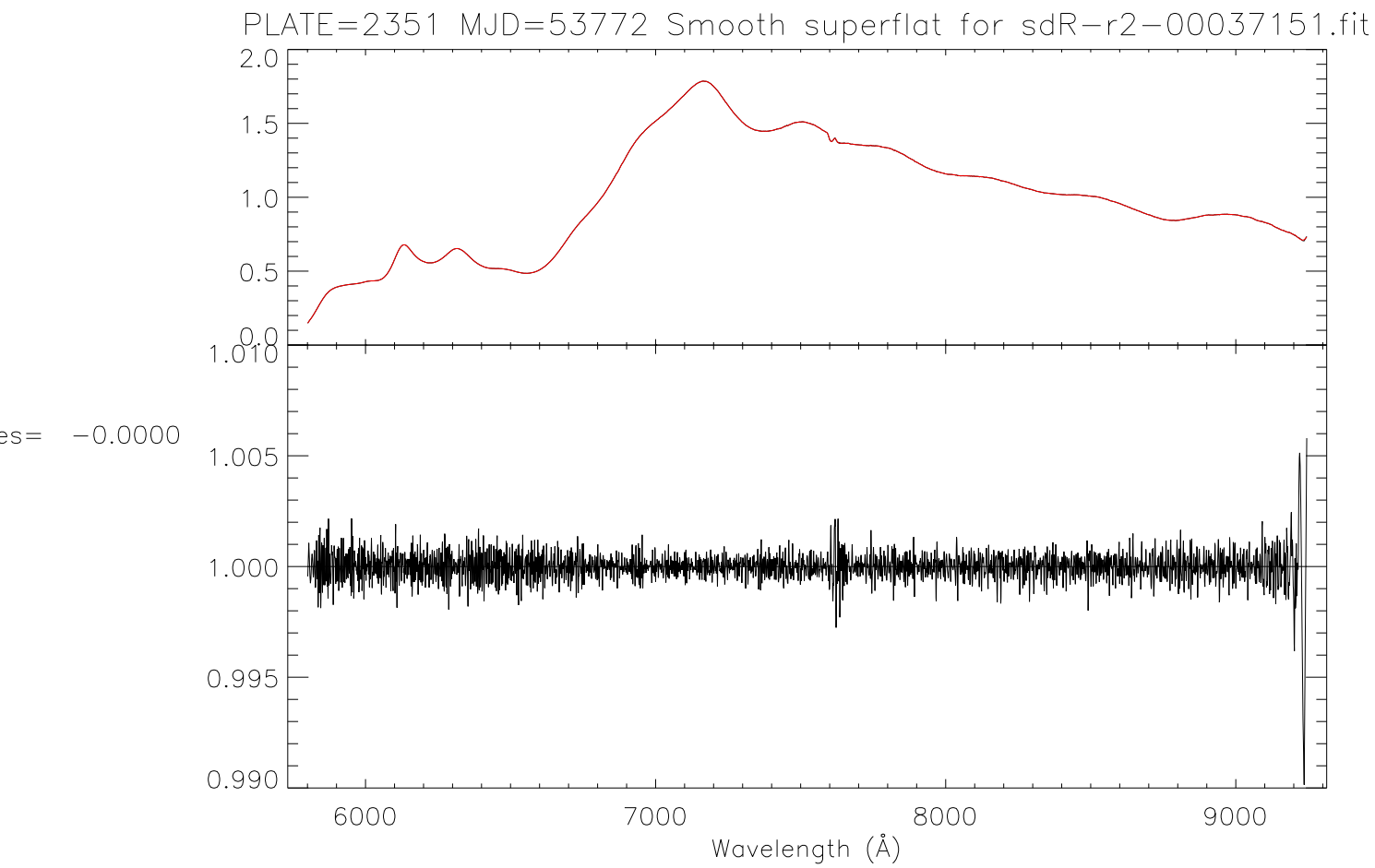

8430.1700
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400


8885.8300
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

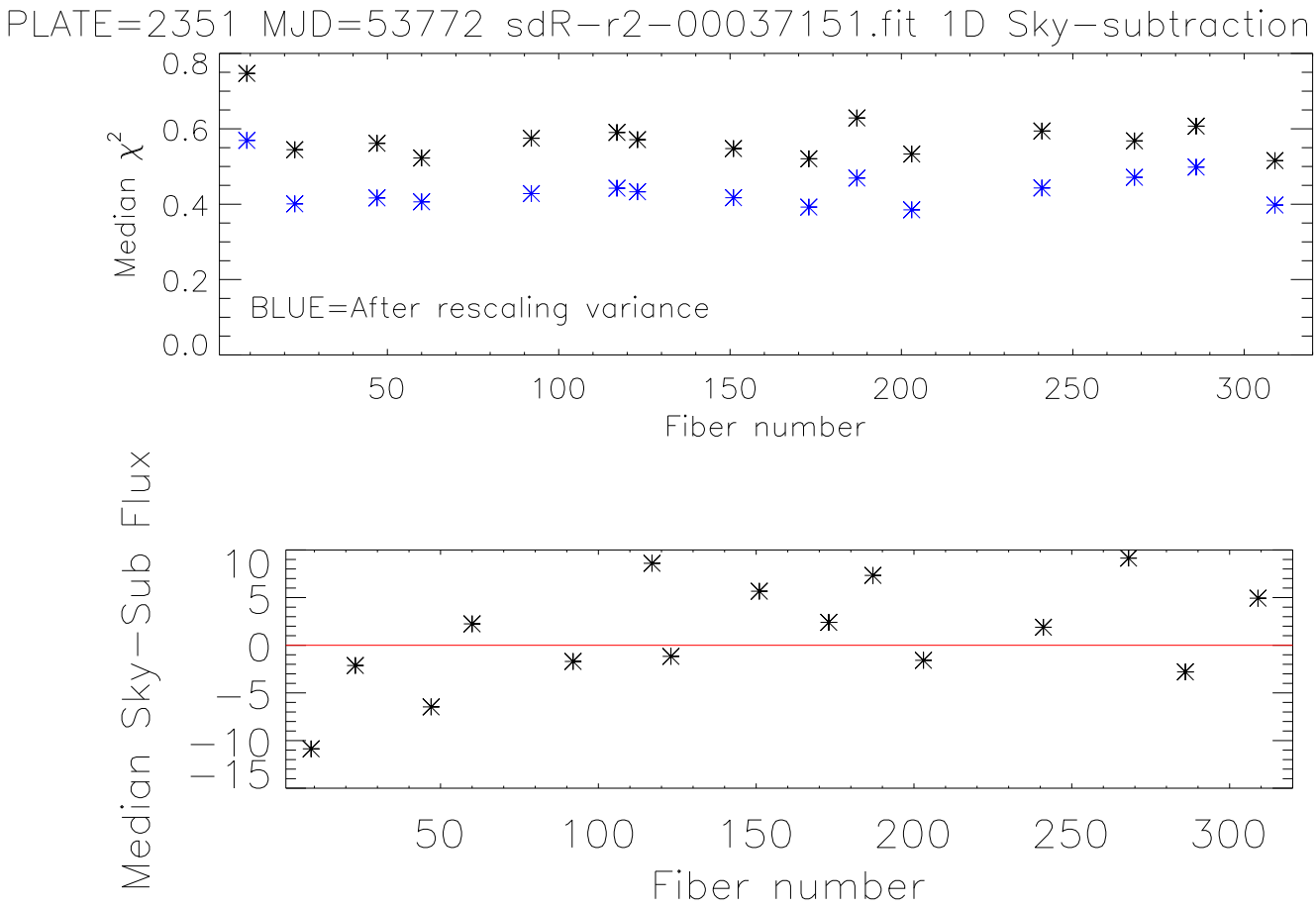

8919.6100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

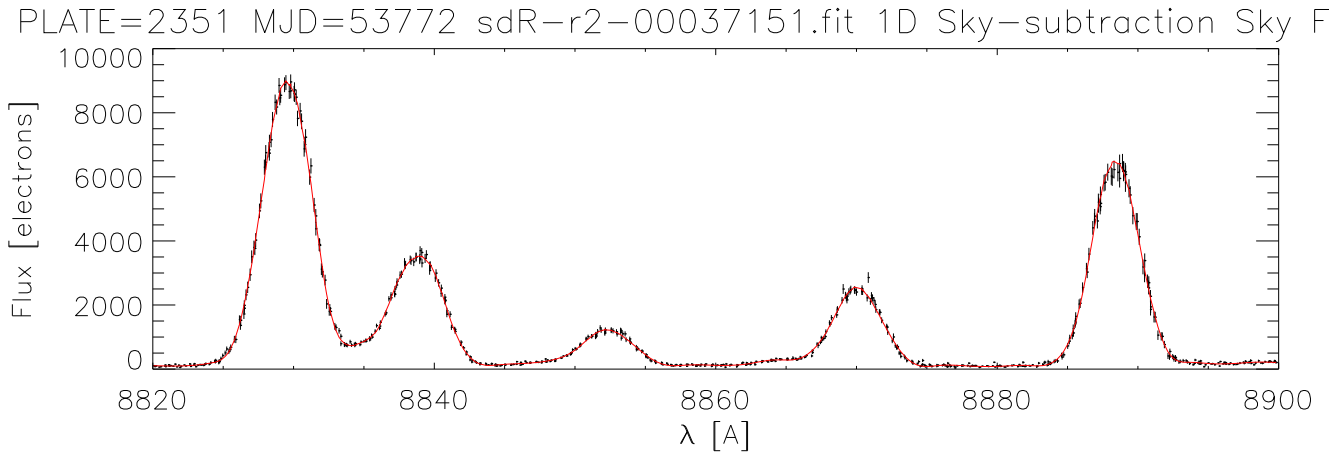

6300.3040
mfhi2 16
stdev 0.015
extra -0.41
6363.7760
mfhi2 15
stdev 0.040
extra -0.29
6553.6100
mfhi2 16
stdev 0.036
extra -0.30
6923.2100
mfhi2 16
stdev 0.021
extra -0.25
6949.0300
mfhi2 16
stdev 0.028
extra -0.23
7571.7500
mfhi2 16
stdev 0.020
extra -0.46
7794.1200
mfhi2 16
stdev 0.027
extra -0.30
7821.5100
mfhi2 16
stdev 0.018
extra -0.24
8399.1600
mfhi2 16
stdev 0.020
extra -0.48
8430.1700
mfhi2 16
stdev 0.023
extra -0.49
8885.8300
mfhi2 16
stdev 0.035
extra -0.12
8919.6100
mfhi2 16
stdev 0.031
extra -0.12
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400

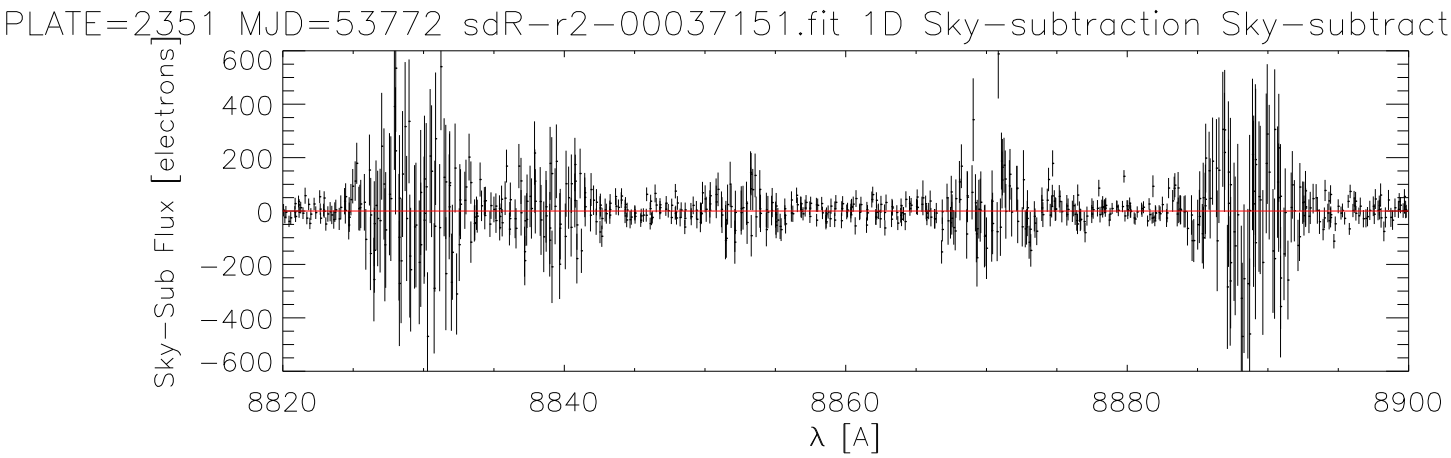

−0.10
−0.15
−0.20
−0.25
−0.30
−0.35
−0.40
sky shift, pixels
5000
6000
7000
8000
9000
10000

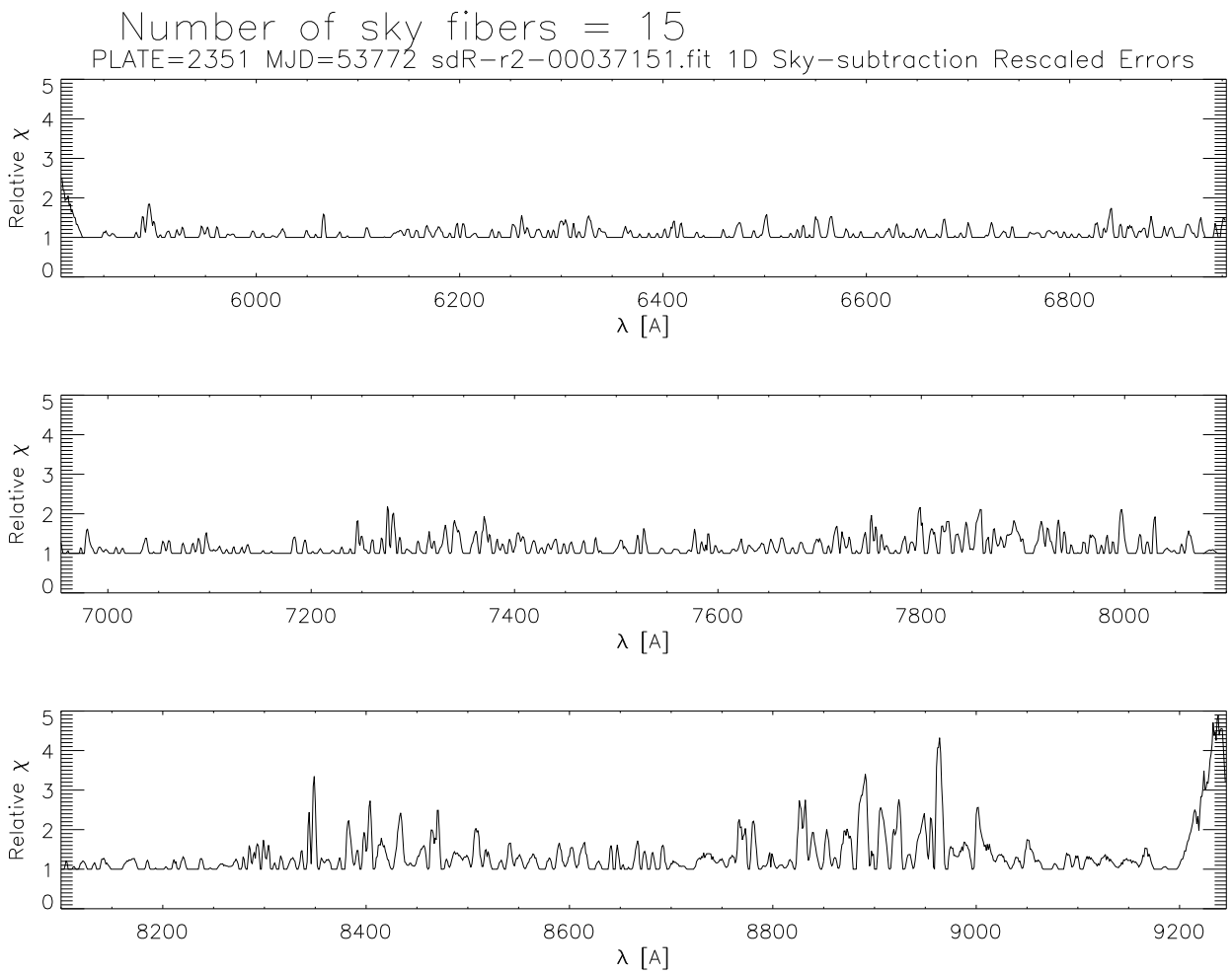

PLATE=2351 MJD=53772 Smooth superflat for sdR-r2-00037151.fit
2.0
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
6000
7000
8000
9000
Wavelength (Å)

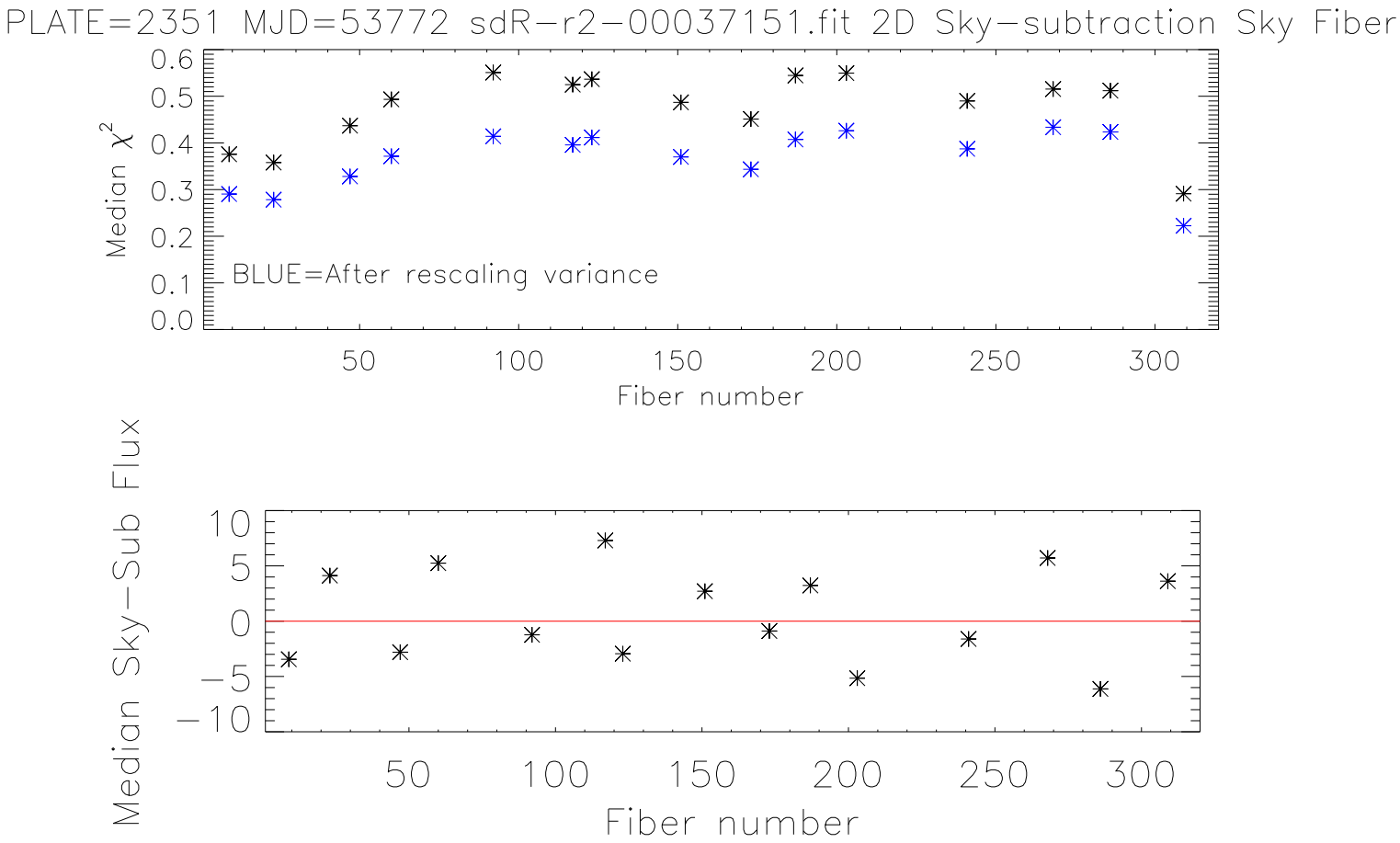
es= −0.0000

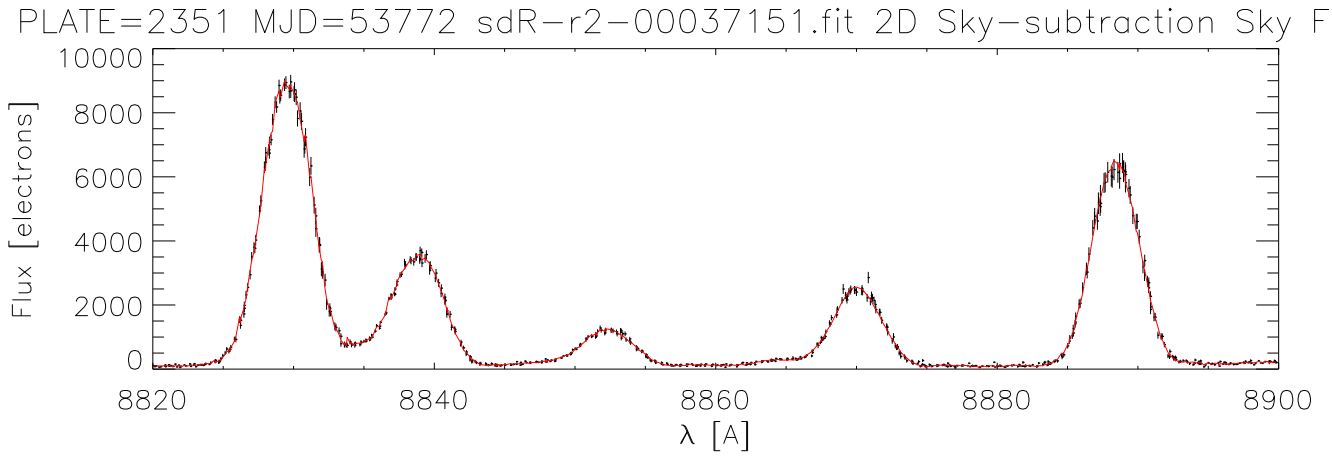

PLATE=2351 MJD=53772 sdR-r2-00037151.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
-5
-10
-15
50
100
150
200
250
300
Fiber number

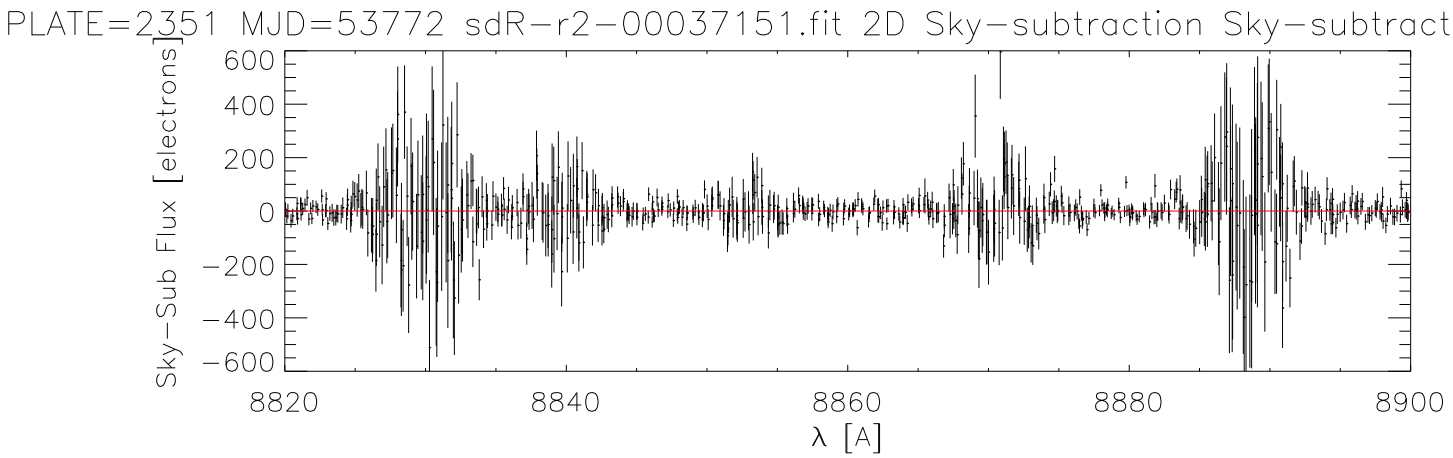

PLATE=2351 MJD=53772 sdR-r2-00037151.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
10000
8000
6000
4000
2000
0
8820
8840
8860
8880
8900
λ [A]

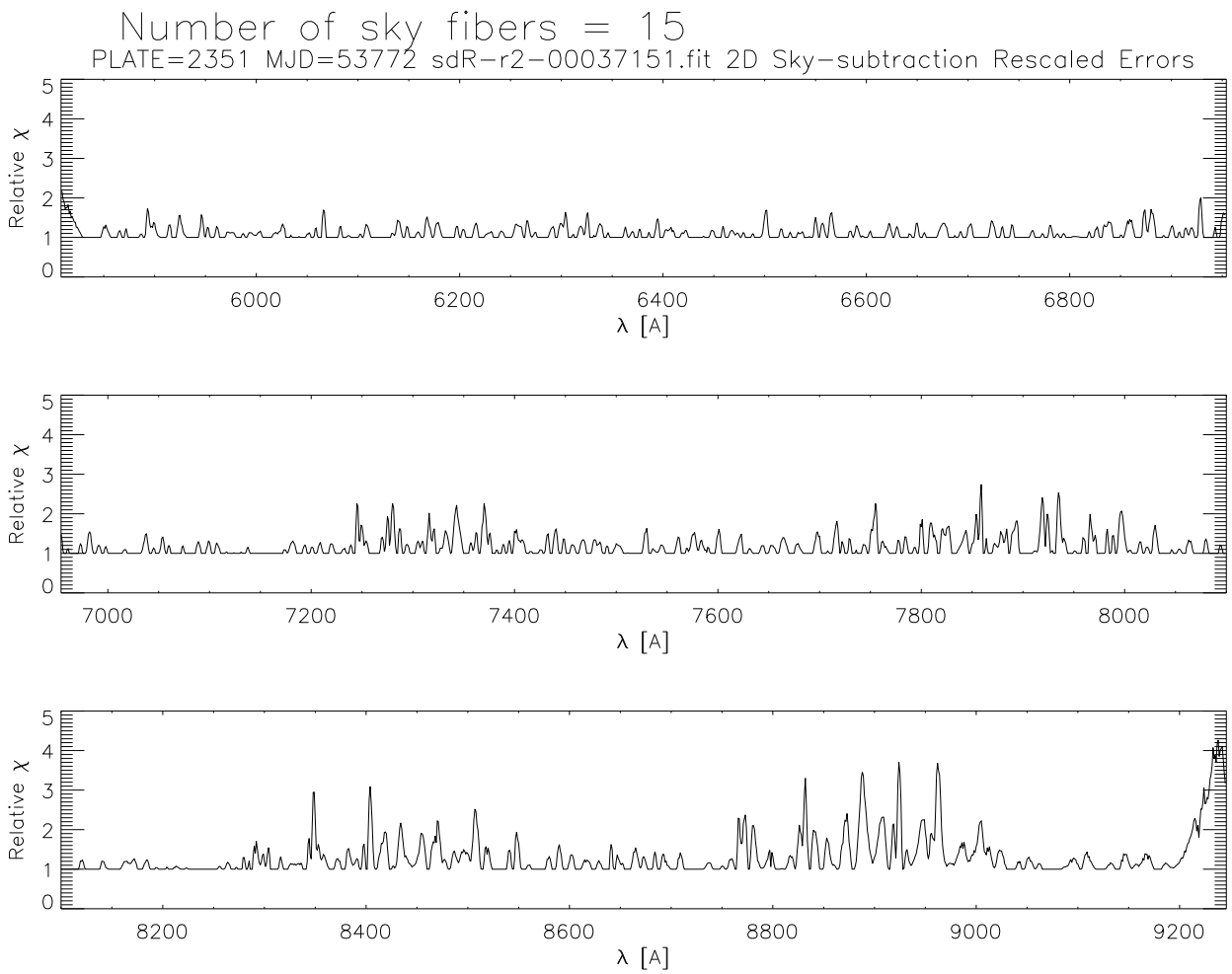

PLATE=2351 MJD=53772 sdR-r2-00037151.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
-200
-400
-600
8820
8840
8860
8880
8900
λ [A]

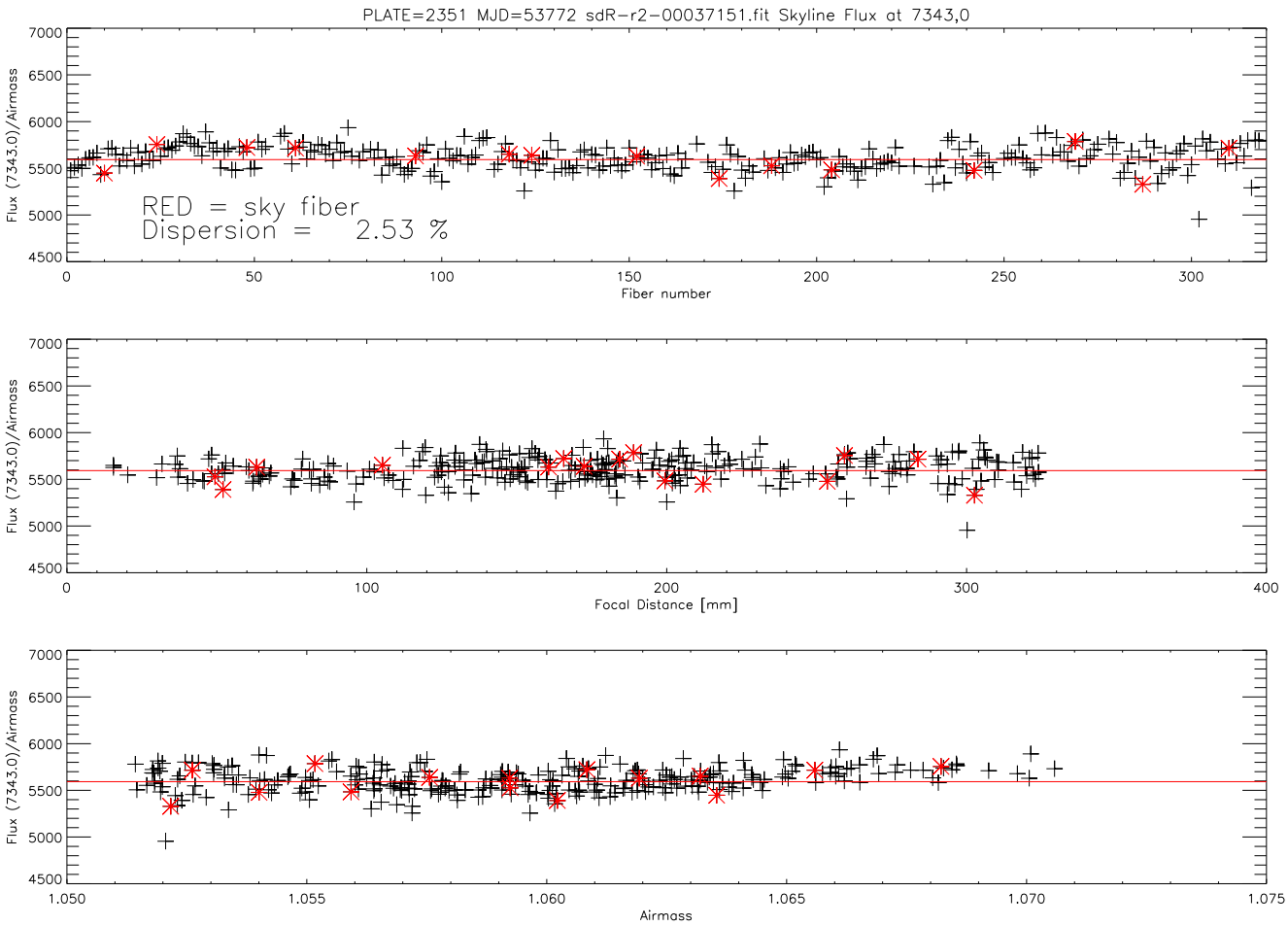

Number of sky fibers = 15
PLATE=2351 MJD=53772 sdR-r2-00037151.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

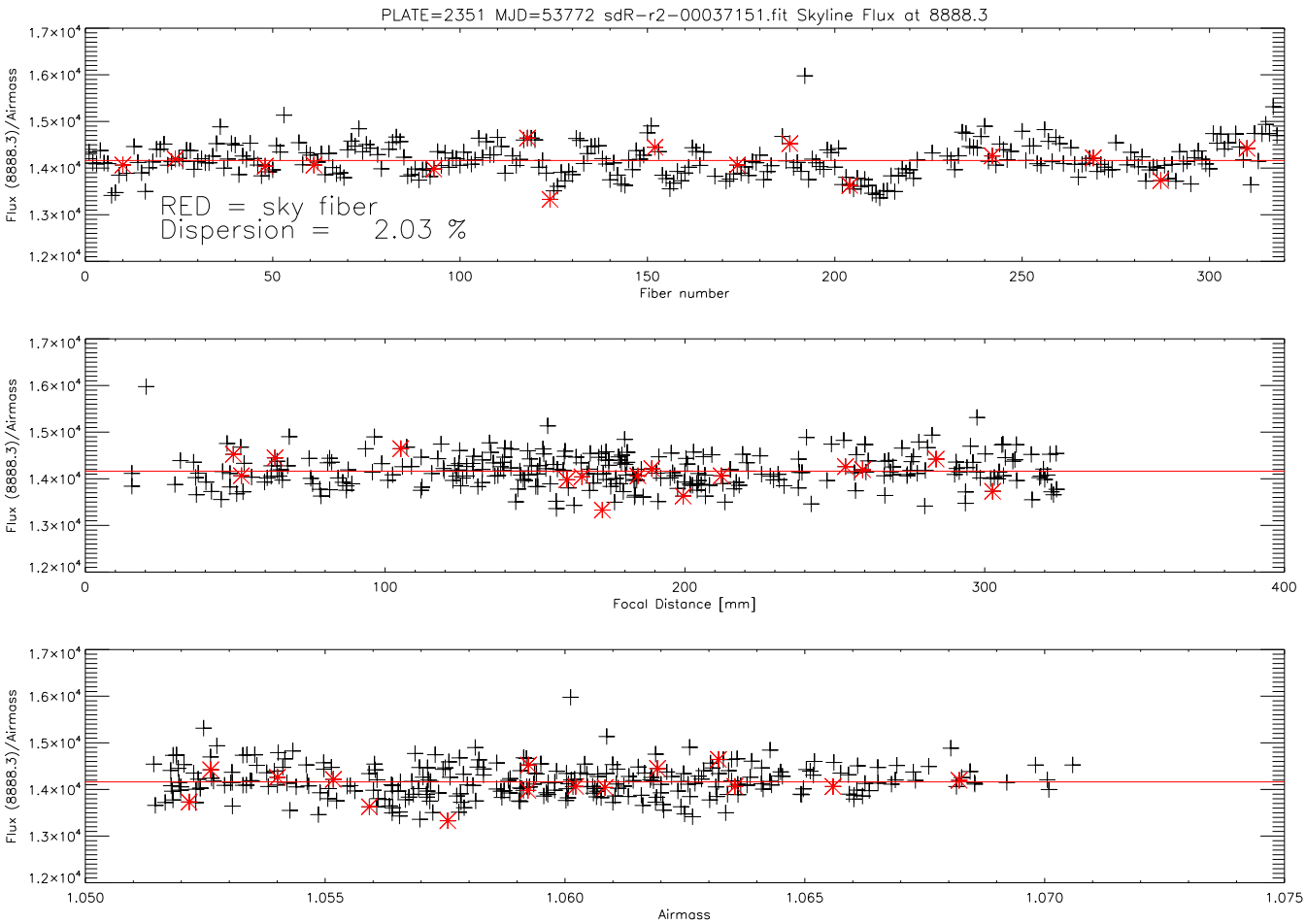

PLATE=2351 MJD=53772 sdR-r2-00037151.fit 2D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

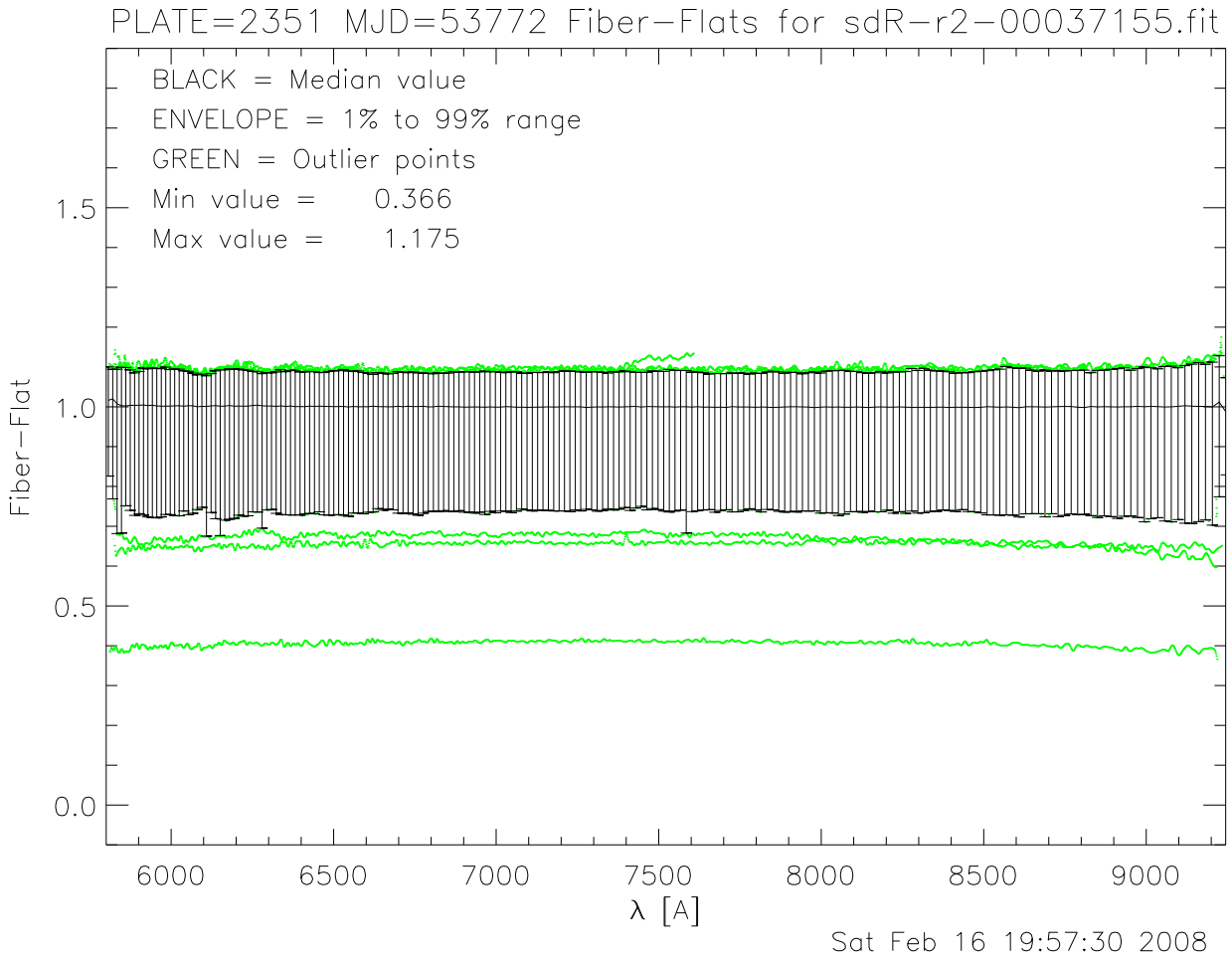

PLATE=2351 MJD=53772 sdR-r2-00037151.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
10000
8000
6000
4000
2000
0
8820
8840
8860
8880
8900
λ [A]

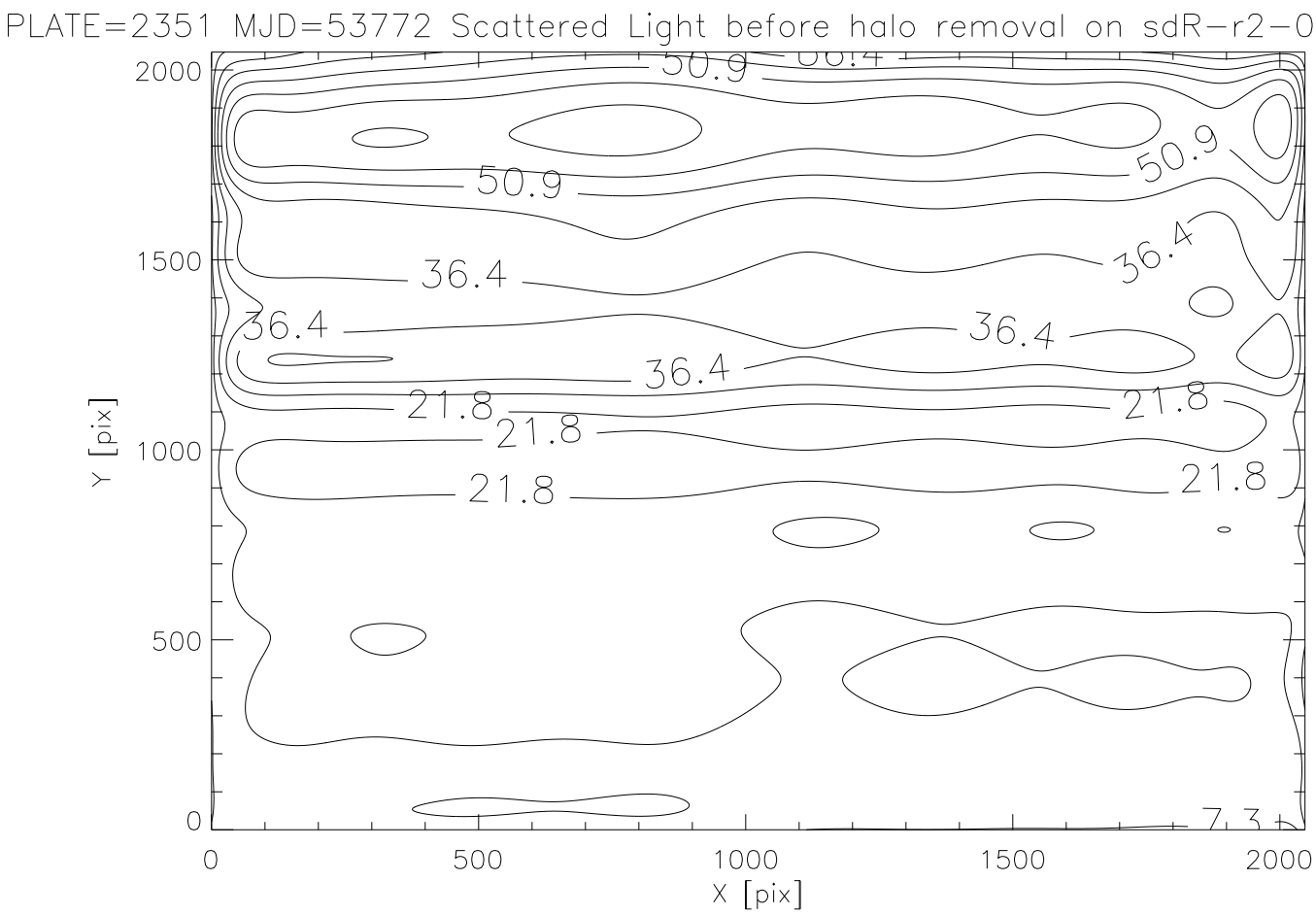

PLATE=2351 MJD=53772 sdR-r2-00037151.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
-200
-400
-600
8820
8840
8860
8880
8900
λ [A]

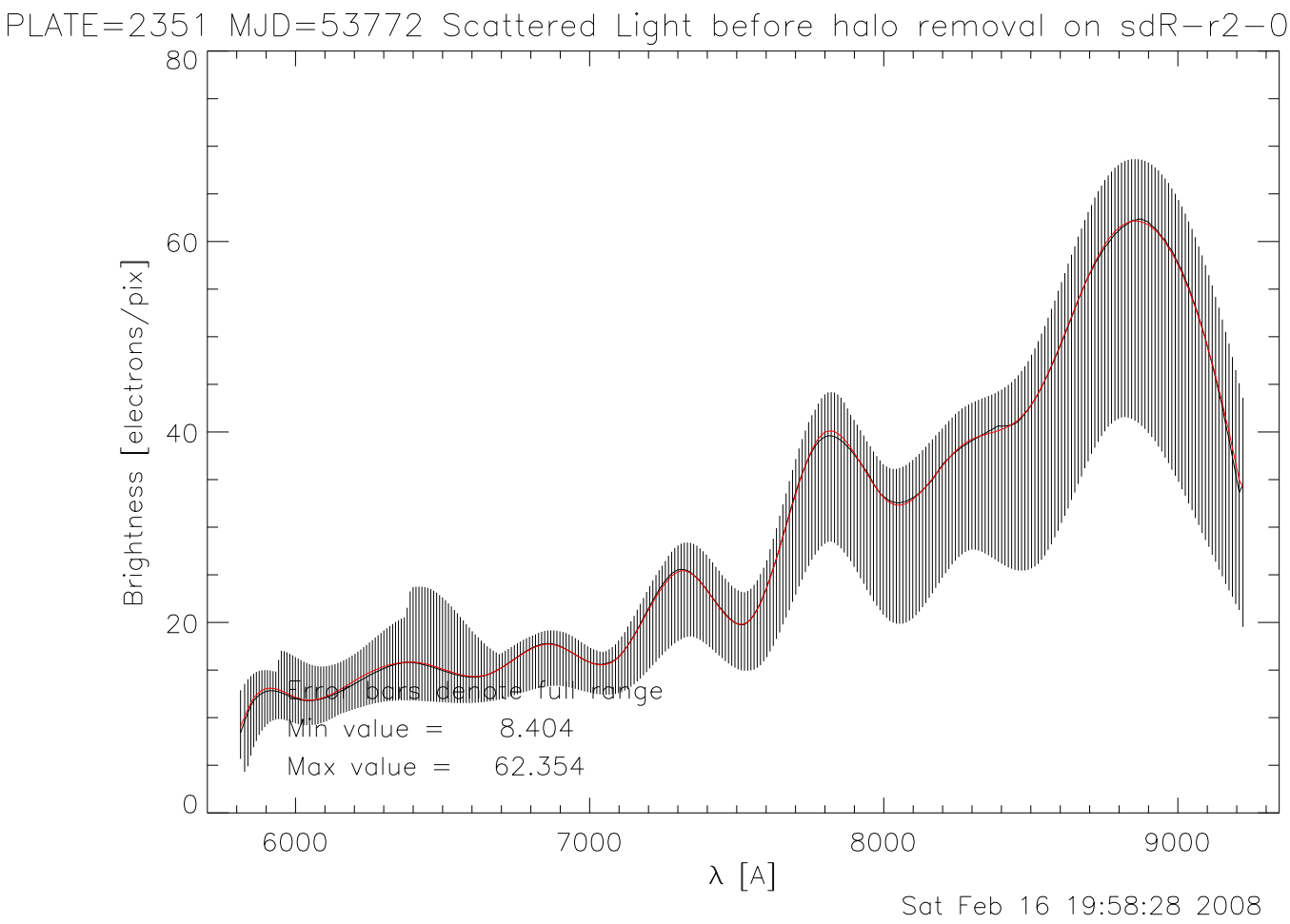

Number of sky fibers = 15
PLATE=2351 MJD=53772 sdR-r2-00037151.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

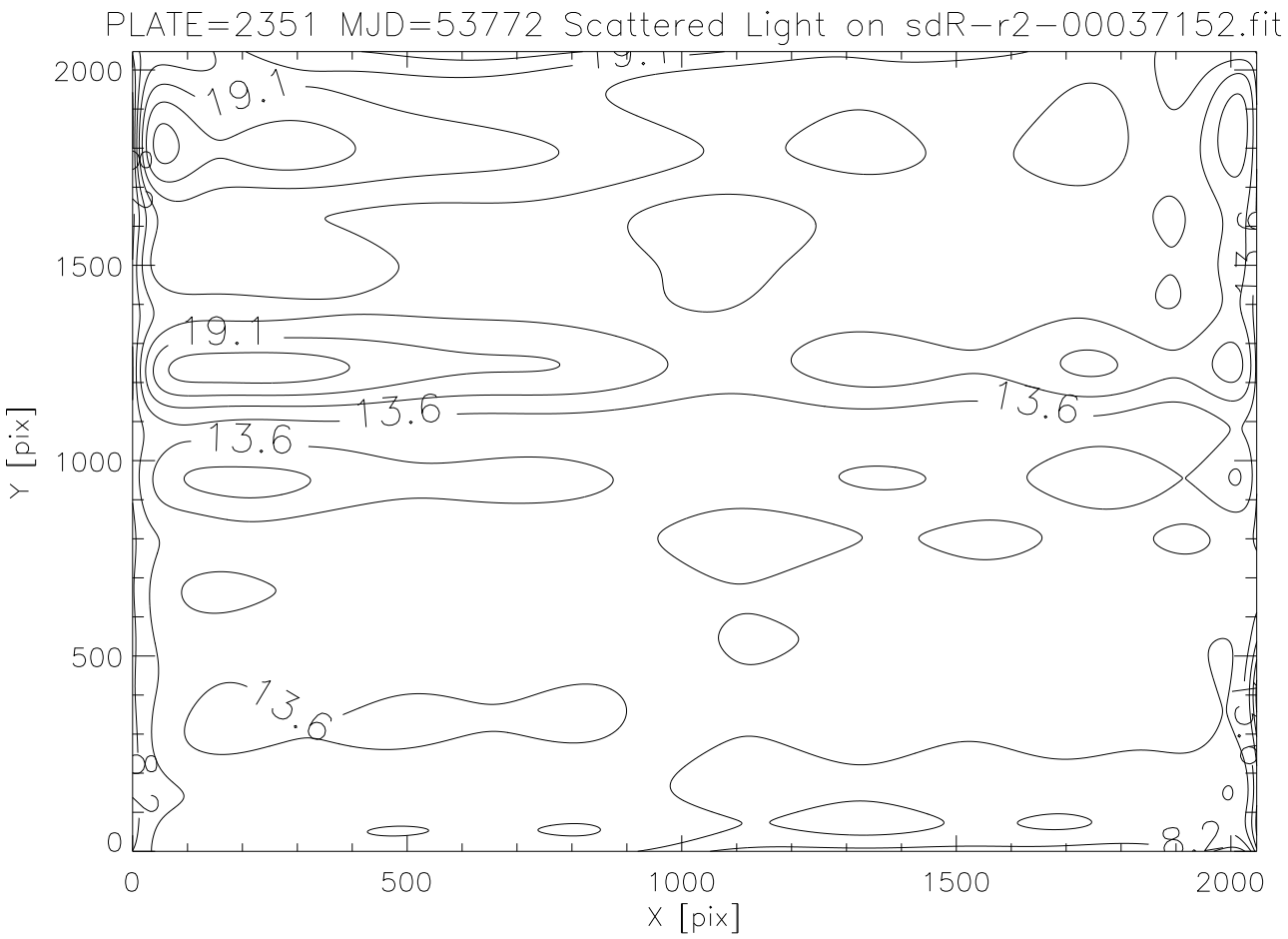

PLATE=2351 MJD=53772 sdR-r2-00037151.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 2.53 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

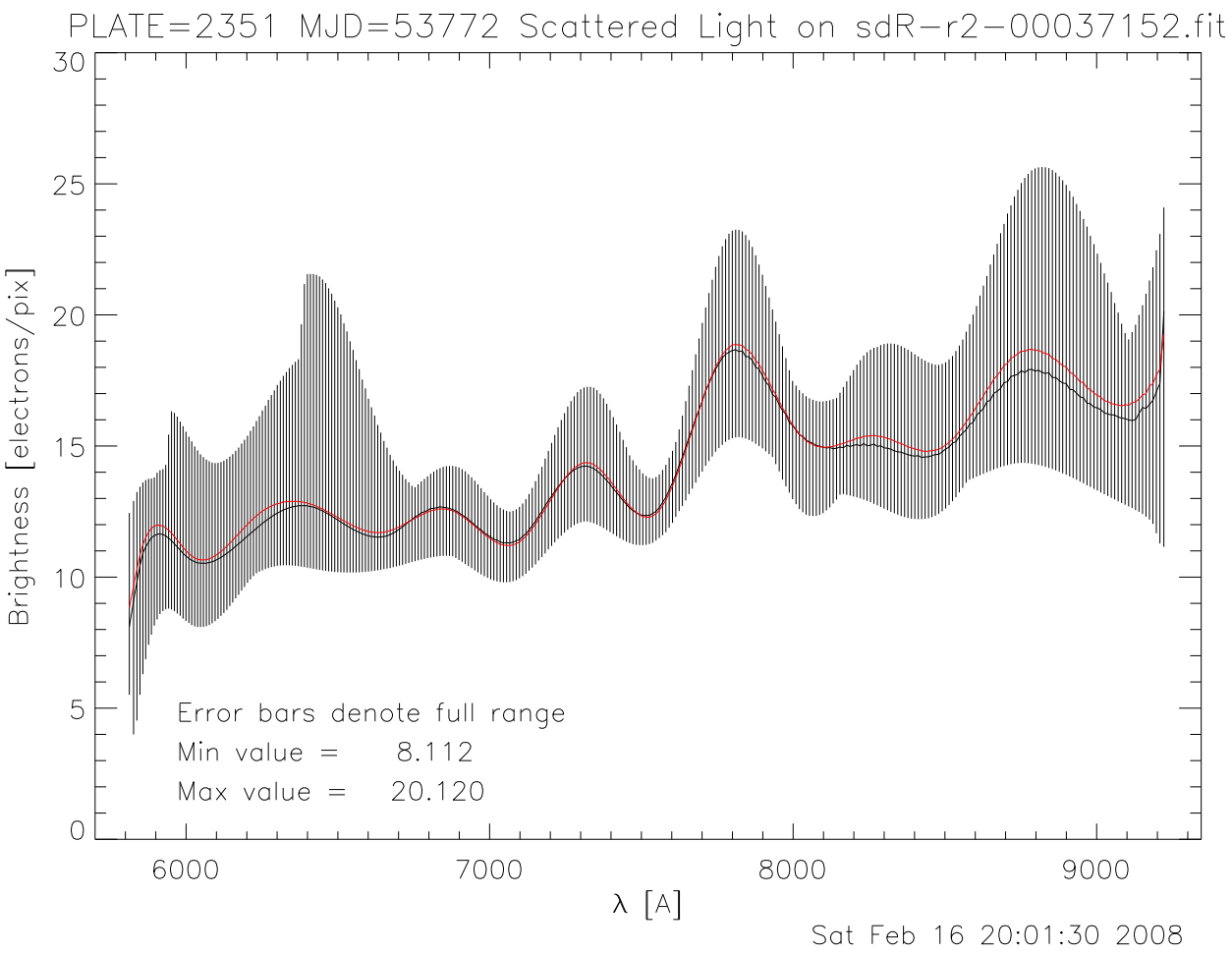

PLATE=2351 MJD=53772 sdR-r2-00037151.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
1.7×10^4
1.6×10^4
1.5×10^4
1.4×10^4
1.3×10^4
1.2×10^4
RED = sky fiber
Dispersion = 2.03 %
0
50
100
150
200
250
300
Fiber number
Flux (8888.3)/Airmass
1.7×10^4
1.6×10^4
1.5×10^4
1.4×10^4
1.3×10^4
1.2×10^4
0
100
200
300
400
Focal Distance [mm]
Flux (8888.3)/Airmass
1.7×10^4
1.6×10^4
1.5×10^4
1.4×10^4
1.3×10^4
1.2×10^4
1.050
1.055
1.060
1.065
1.070
1.075
Airmass

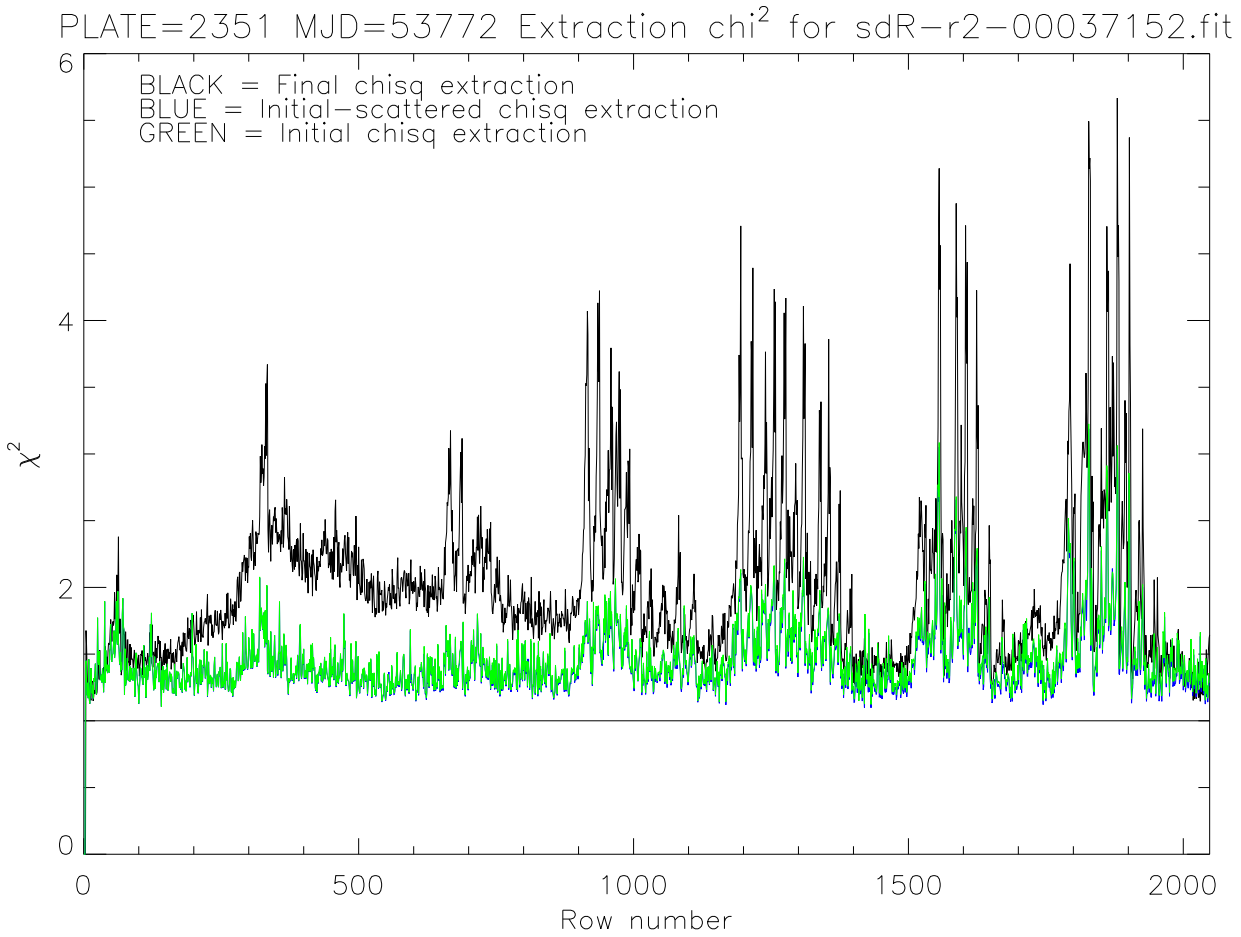

PLATE=2351 MJD=53772 Fiber−Flats for sdR−r2−00037155.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.366
Max value = 1.175
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sat Feb 16 19:57:30 2008

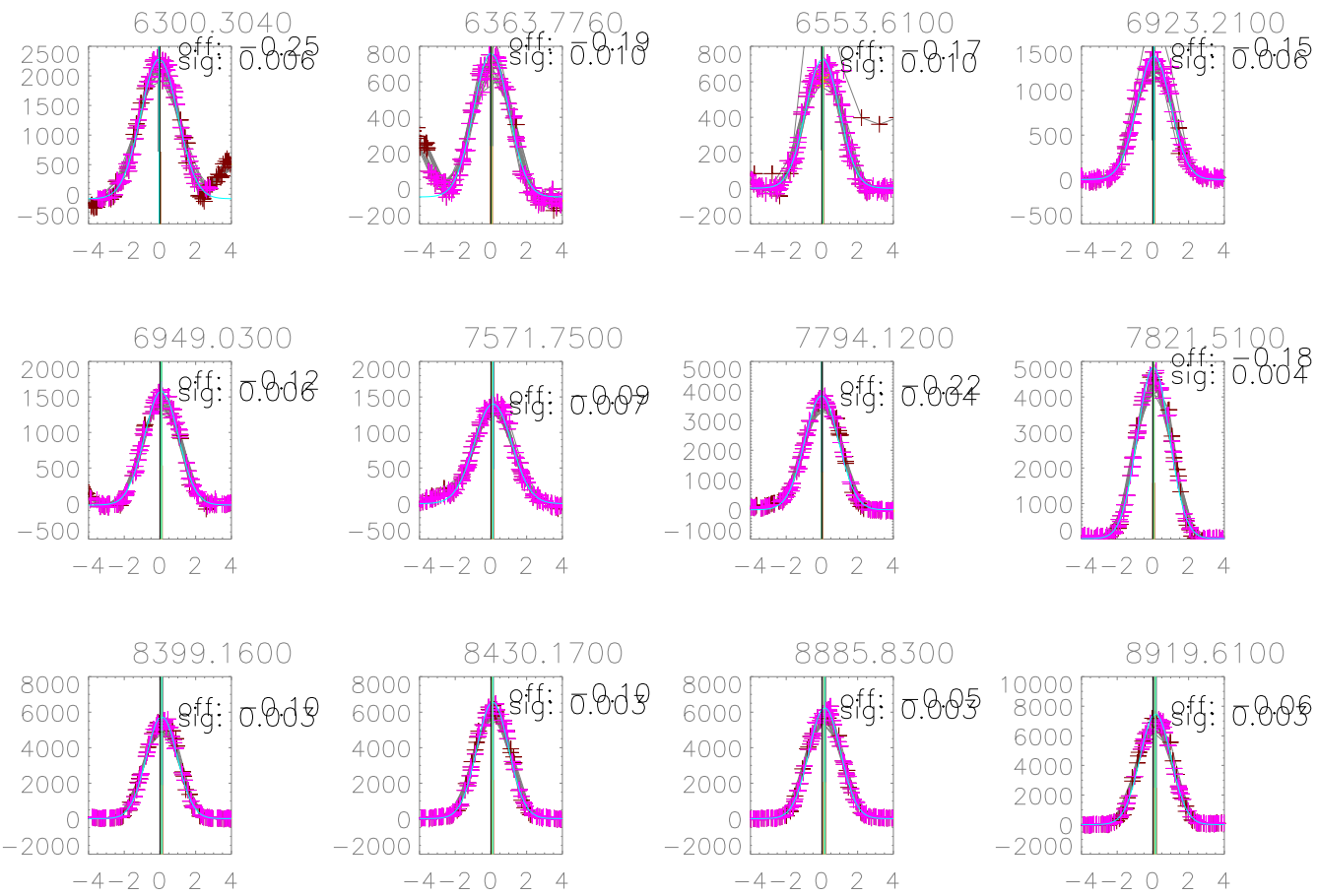

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR-r2-00037152.fi
50.9
50.9
50.9
36.4
36.4
36.4
36.4
36.4
21.8
21.8
21.8
21.8
21.8
7.3
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]

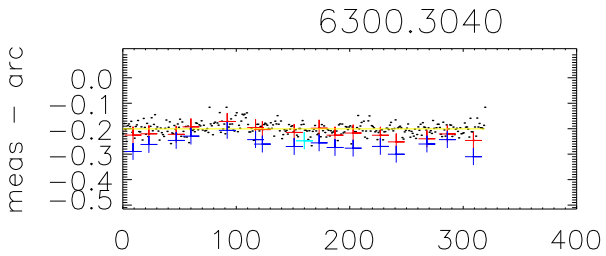

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR-r2-00037152.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 8.404
Max value = 62.354
Sat Feb 16 19:58:28 2008

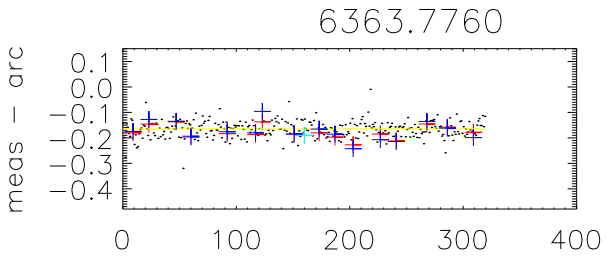

PLATE=2351 MJD=53772 Scattered Light on sdR-r2-00037152.fit
19.1
13.6
8.2
Y [pix]
X [pix]
0
500
1000
1500
2000

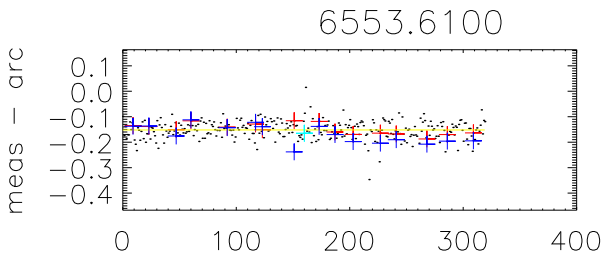

PLATE=2351 MJD=53772 Scattered Light on sdR-r2-00037152.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 8.112
Max value = 20.120
Sat Feb 16 20:01:30 2008

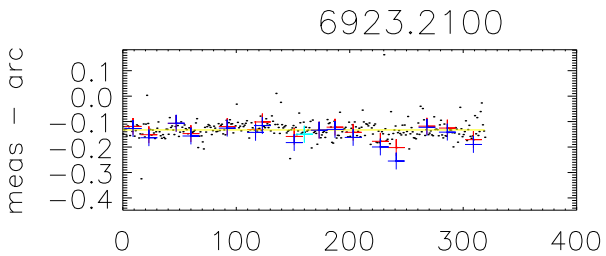

PLATE=2351 MJD=53772 Extraction chi^2 for sdR−r2−00037152.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
0
500
1000
1500
2000
Row number

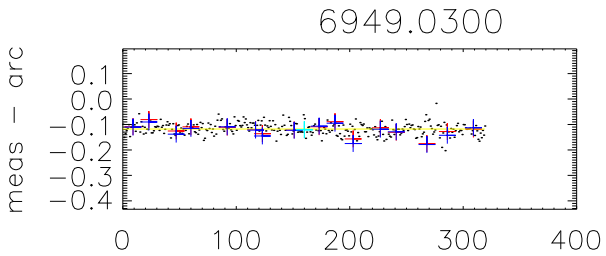

6300.3040
off: −0.25
sig: 0.006
6363.7760
off: −0.19
sig: 0.010
6553.6100
off: −0.17
sig: 0.010
6923.2100
off: −0.15
sig: 0.006
6949.0300
off: −0.12
sig: 0.006
7571.7500
off: −0.09
sig: 0.007
7794.1200
off: −0.22
sig: 0.004
7821.5100
off: −0.18
sig: 0.004
8399.1600
off: −0.10
sig: 0.003
8430.1700
off: −0.10
sig: 0.003
8885.8300
off: −0.05
sig: 0.003
8919.6100
off: −0.06
sig: 0.003

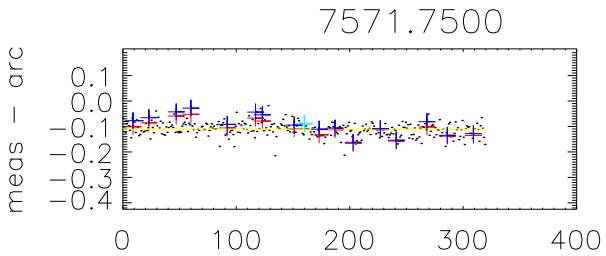

6300.3040
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

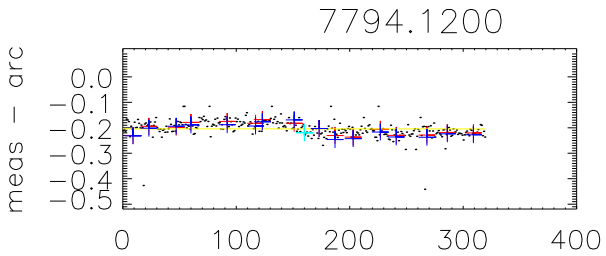

6363.7760
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

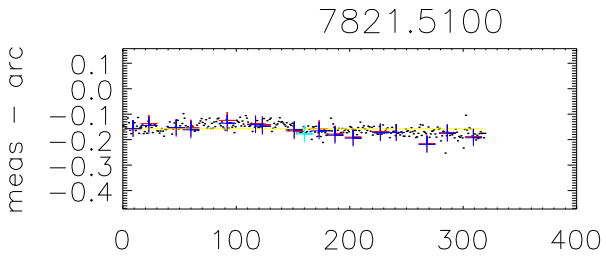

6553.6100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

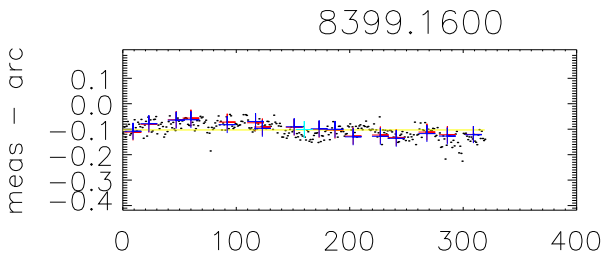

6923.2100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

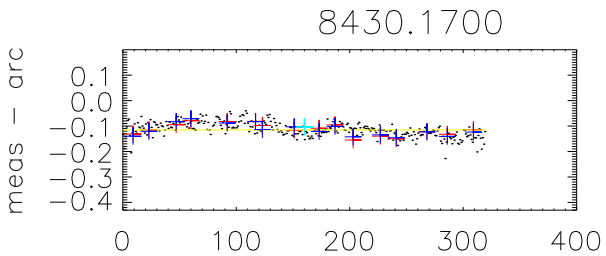

6949.0300
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

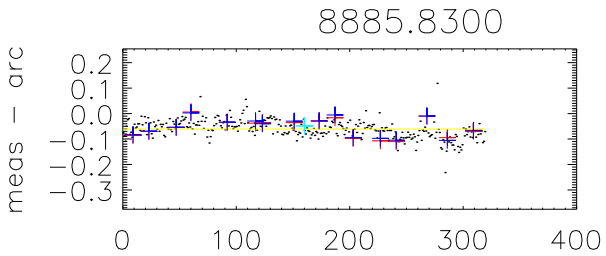

7571.7500
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

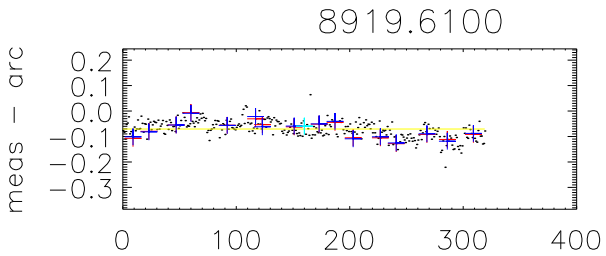

7794.1200
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

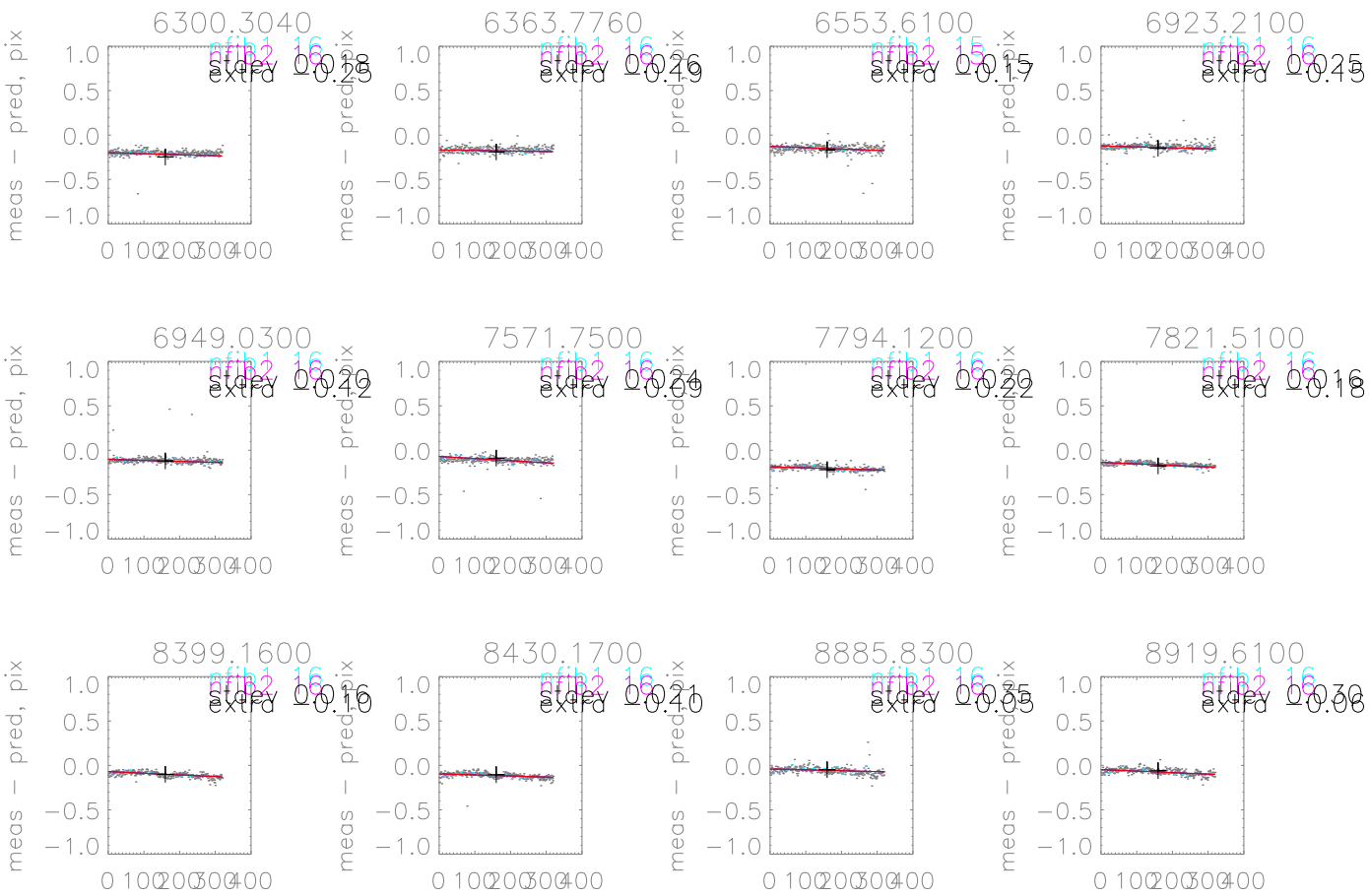

7821.5100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

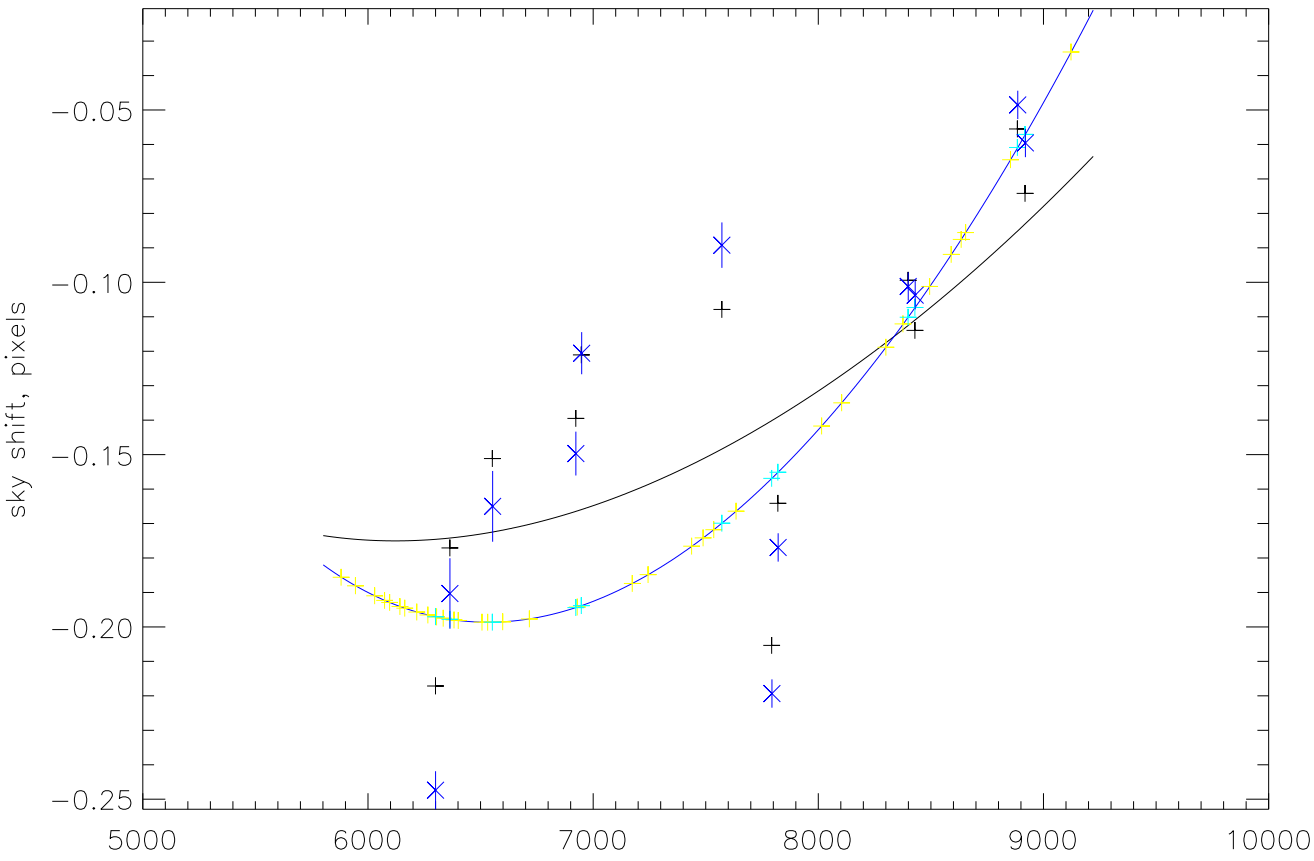

8399.1600
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

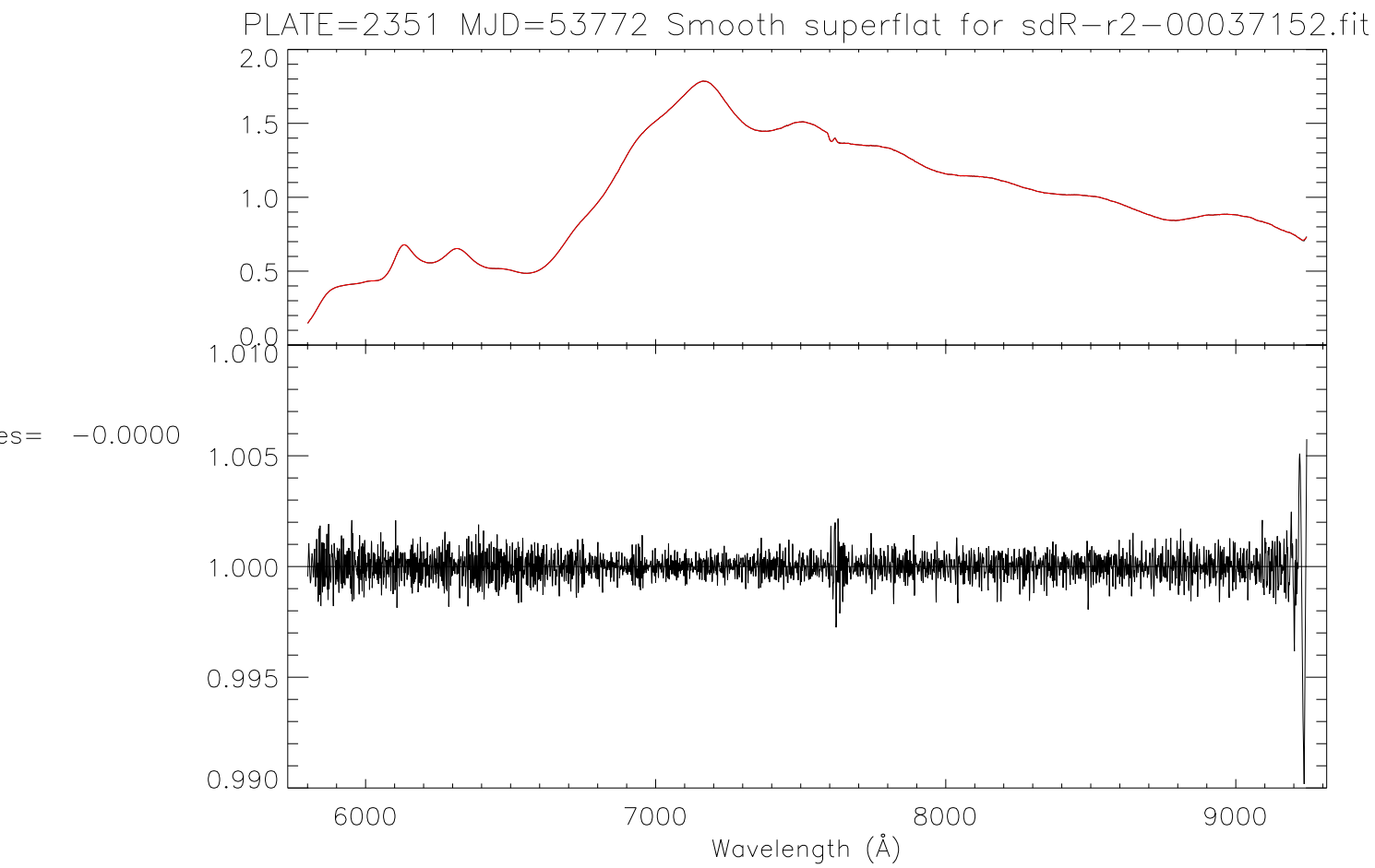

8430.1700
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400


8885.8300
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

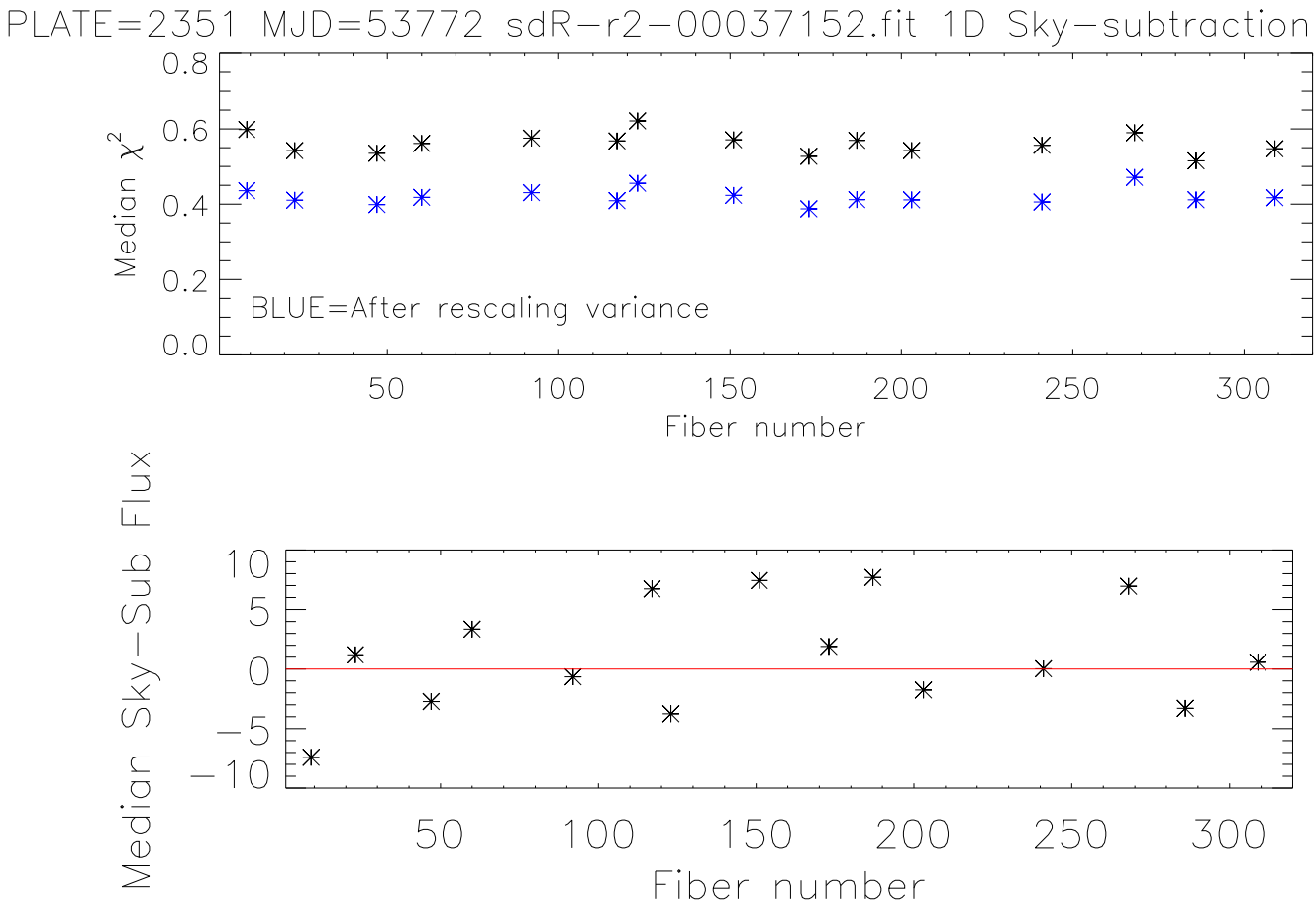

8919.6100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

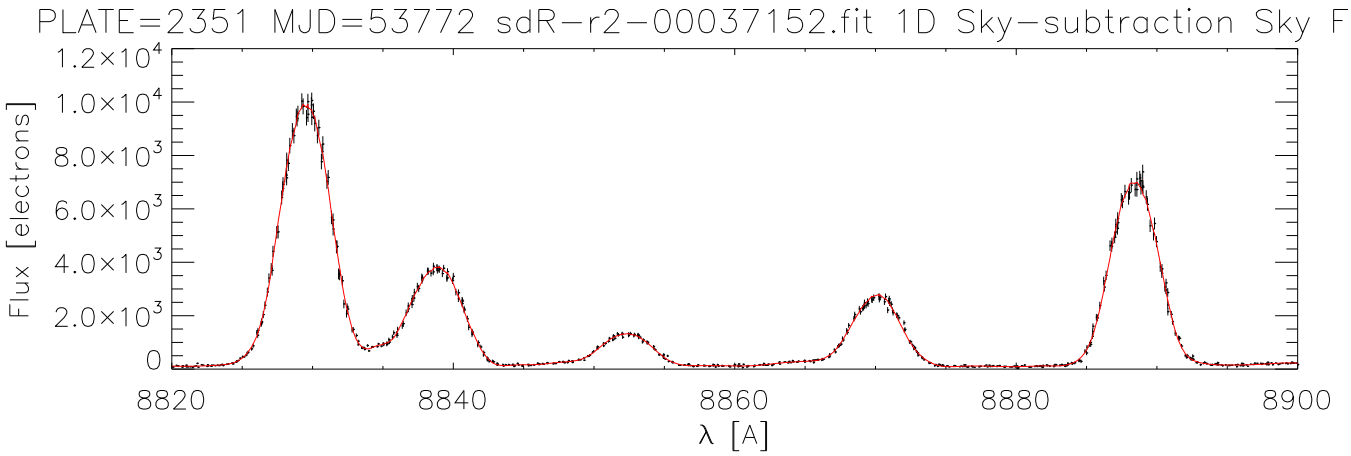

6300.3040
mfhi2 16
stdev 0.028
extra -0.25
6363.7760
mfhi2 16
stdev 0.026
extra -0.49
6553.6100
mfhi2 15
stdev 0.015
extra -0.17
6923.2100
mfhi2 16
stdev 0.025
extra -0.45
6949.0300
mfhi2 16
stdev 0.020
extra -0.42
7571.7500
mfhi2 16
stdev 0.024
extra -0.09
7794.1200
mfhi2 16
stdev 0.020
extra -0.22
7821.5100
mfhi2 16
stdev 0.016
extra -0.18
8399.1600
mfhi2 16
stdev 0.016
extra -0.10
8430.1700
mfhi2 16
stdev 0.021
extra -0.40
8885.8300
mfhi2 16
stdev 0.035
extra -0.05
8919.6100
mfhi2 16
stdev 0.030
extra -0.06
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400

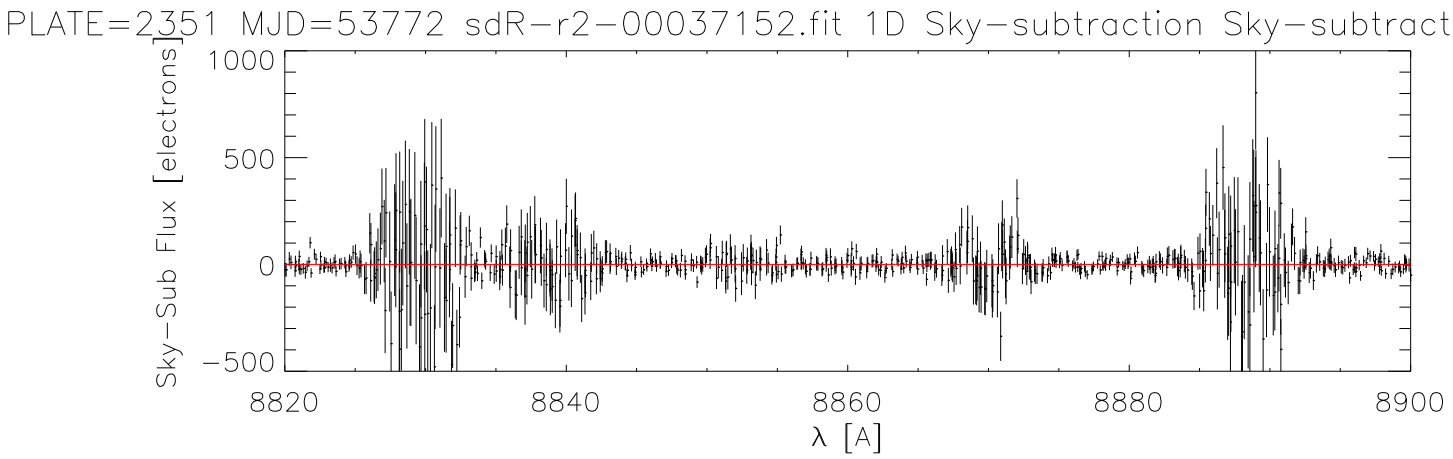

sky shift, pixels
−0.05
−0.10
−0.15
−0.20
−0.25
5000
6000
7000
8000
9000
10000

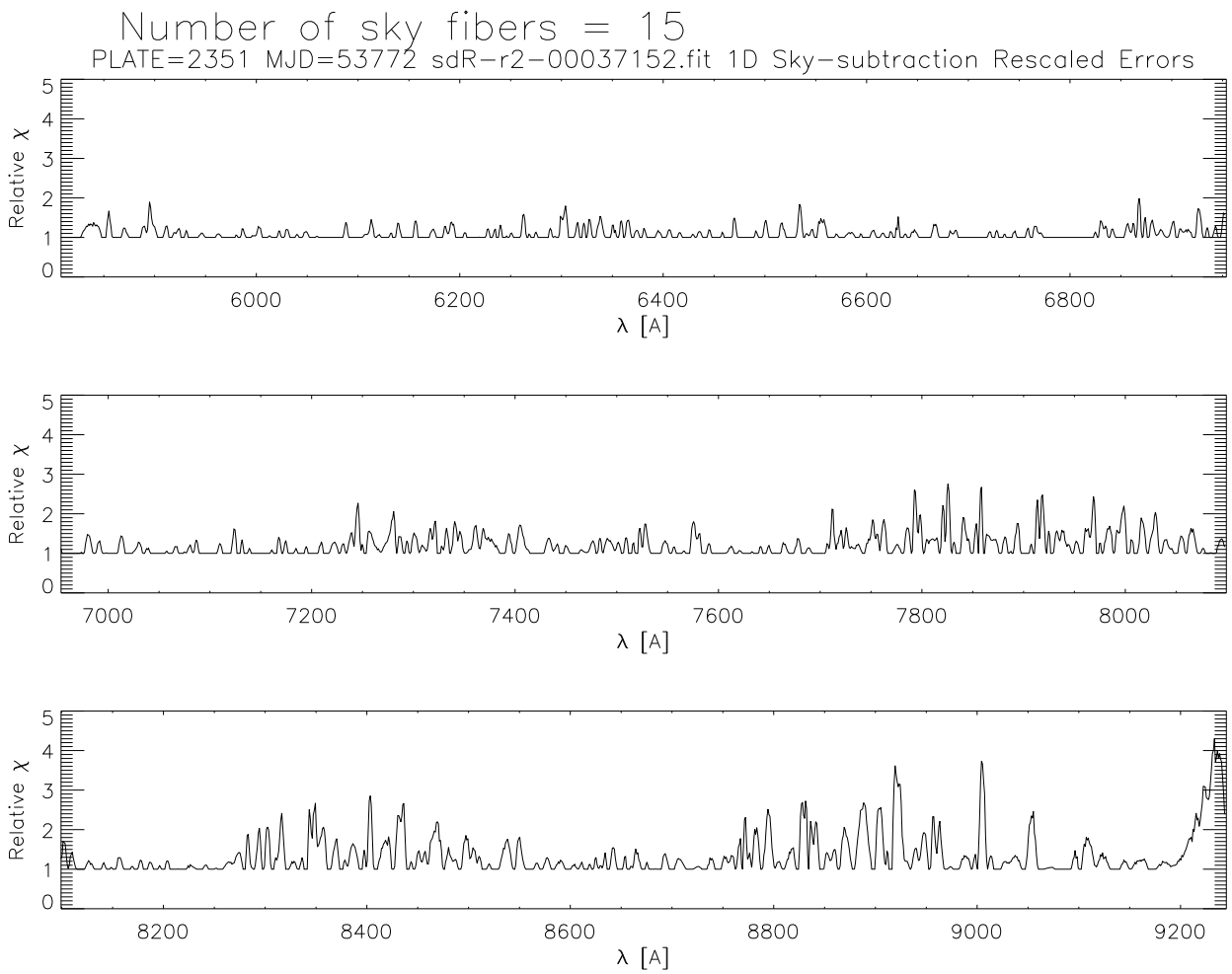

PLATE=2351 MJD=53772 Smooth superflat for sdR-r2-00037152.fit
2.0
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
6000
7000
8000
9000
Wavelength (Å)

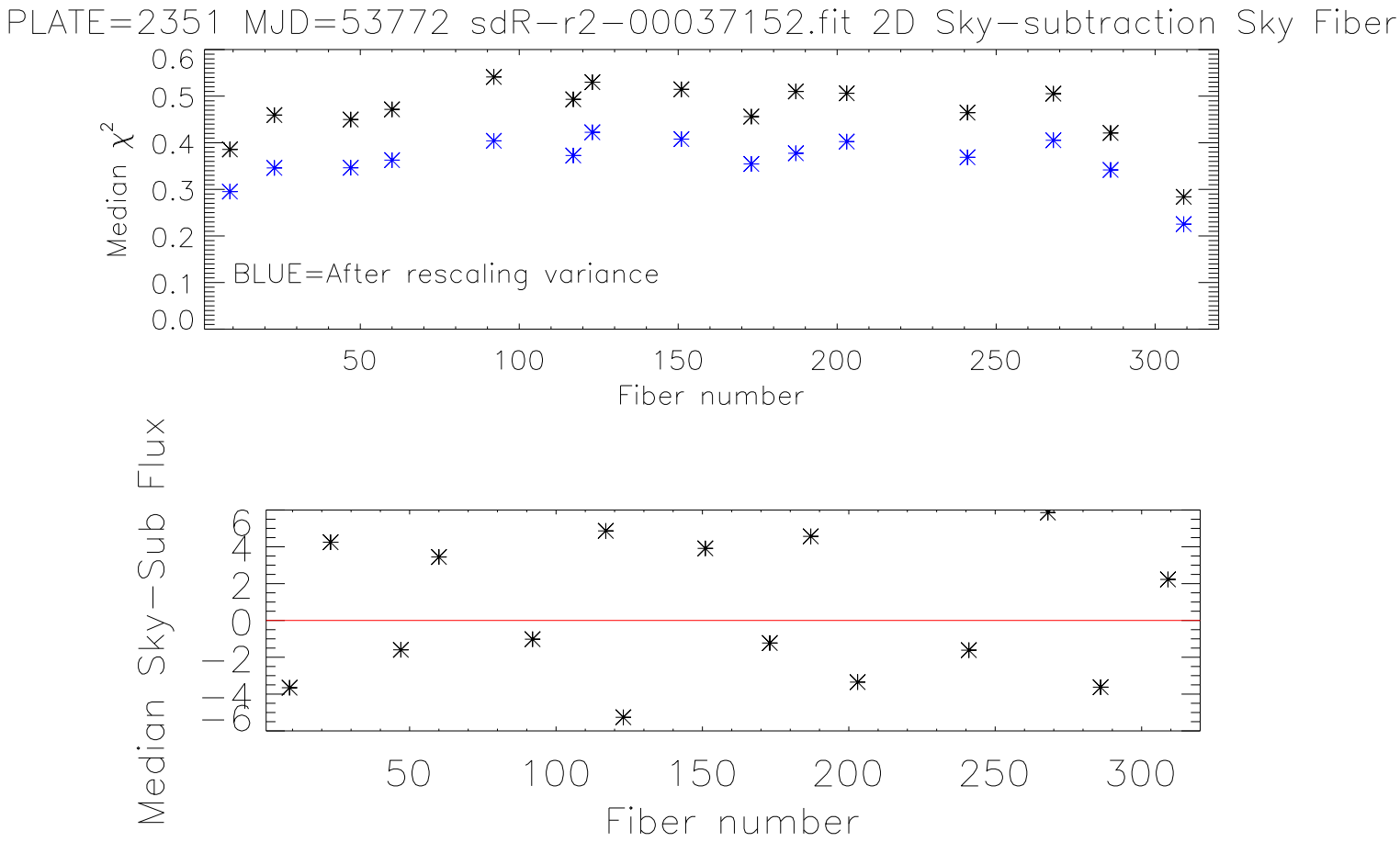
es= −0.0000

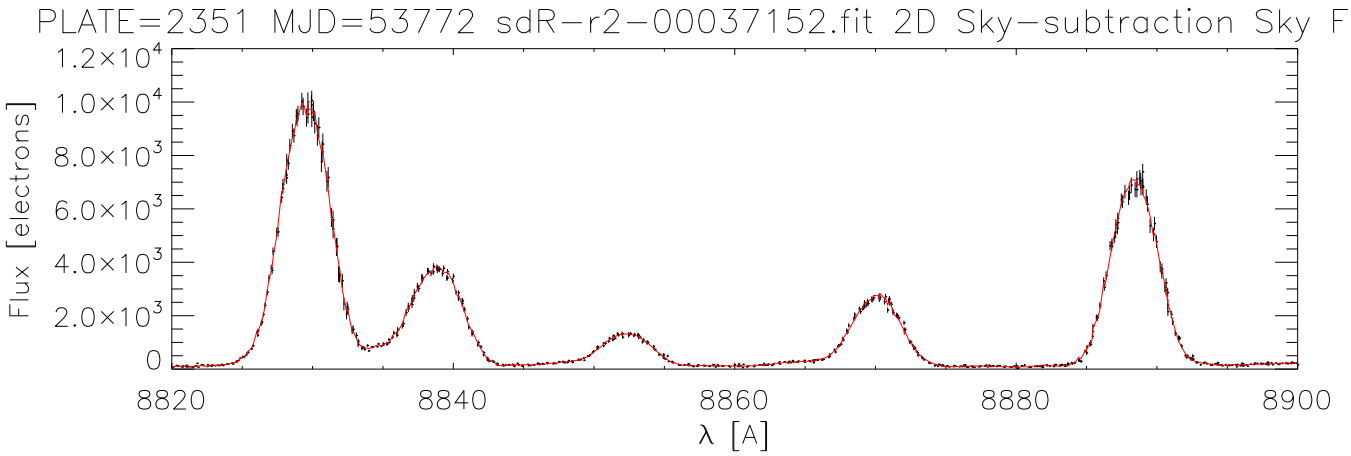

PLATE=2351 MJD=53772 sdR-r2-00037152.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.8
0.6
0.4
0.2
0.0
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
−5
−10
50
100
150
200
250
300
Fiber number

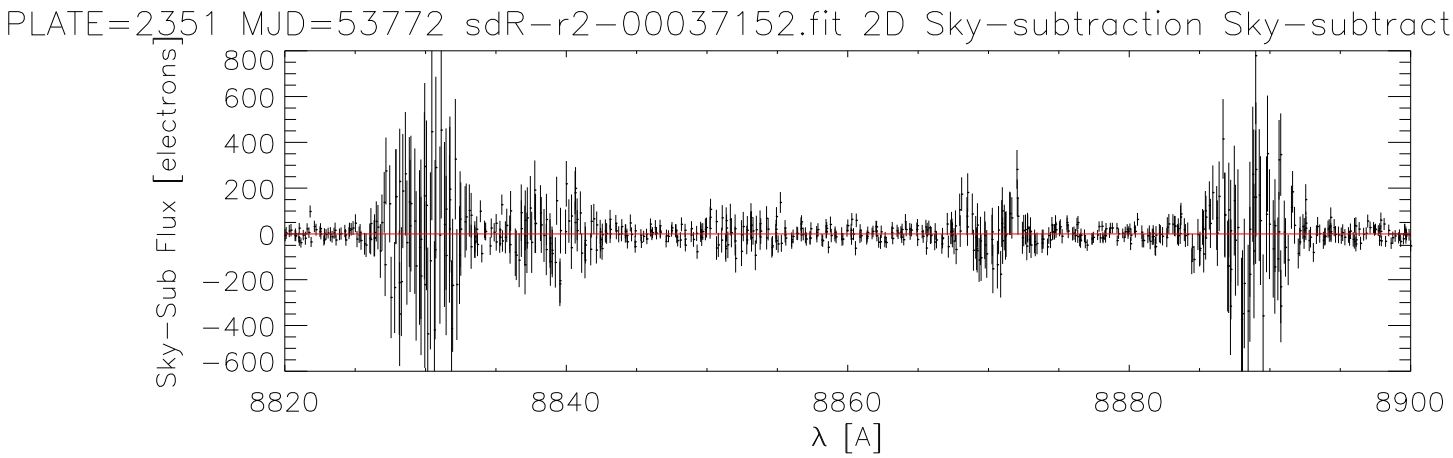

PLATE=2351 MJD=53772 sdR-r2-00037152.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
1.2×10^4
1.0×10^4
8.0×10^3
6.0×10^3
4.0×10^3
2.0×10^3
0
8820
8840
8860
8880
8900
λ [A]

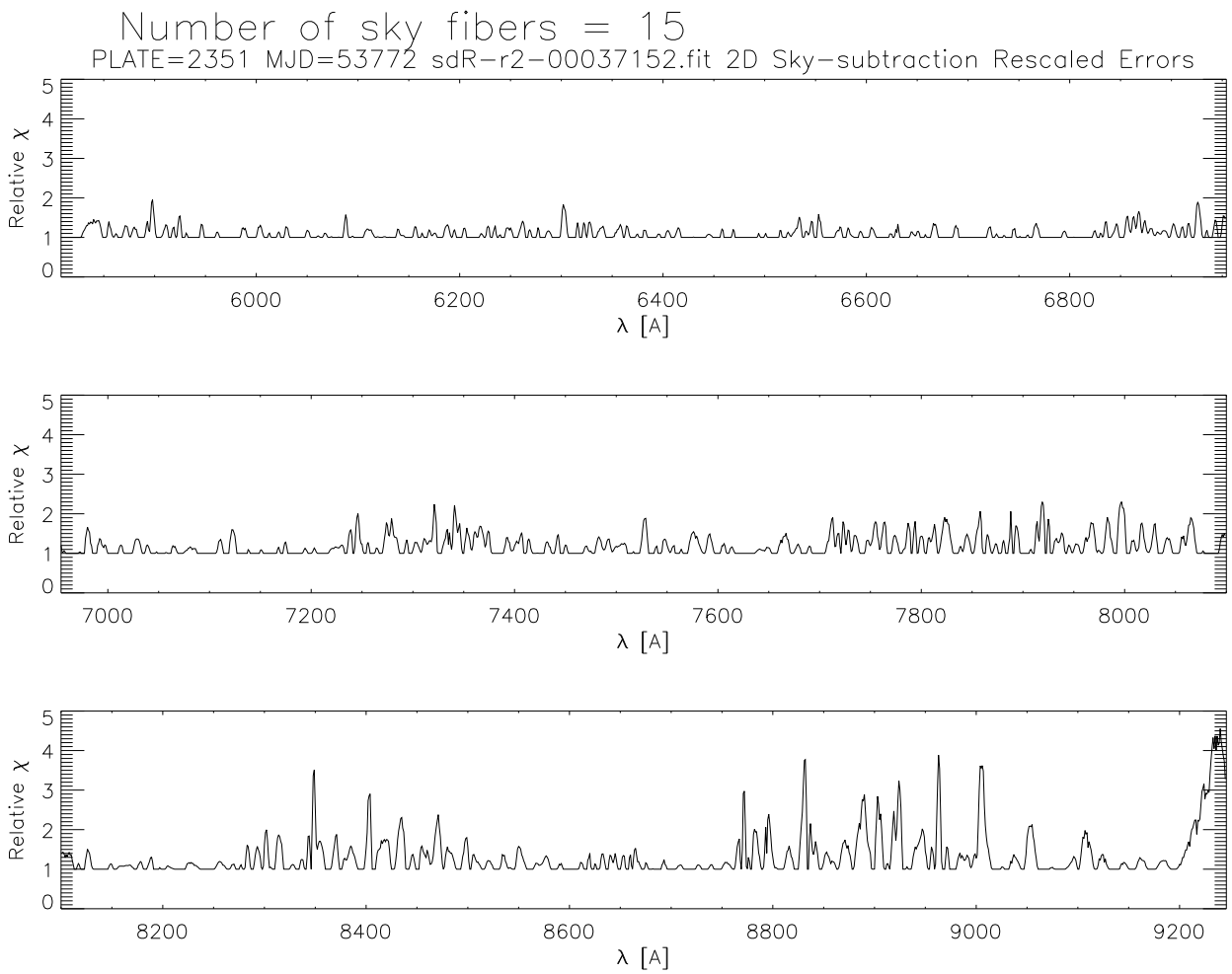

PLATE=2351 MJD=53772 sdR-r2-00037152.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
1000
500
0
−500
8820
8840
8860
8880
8900
λ [A]

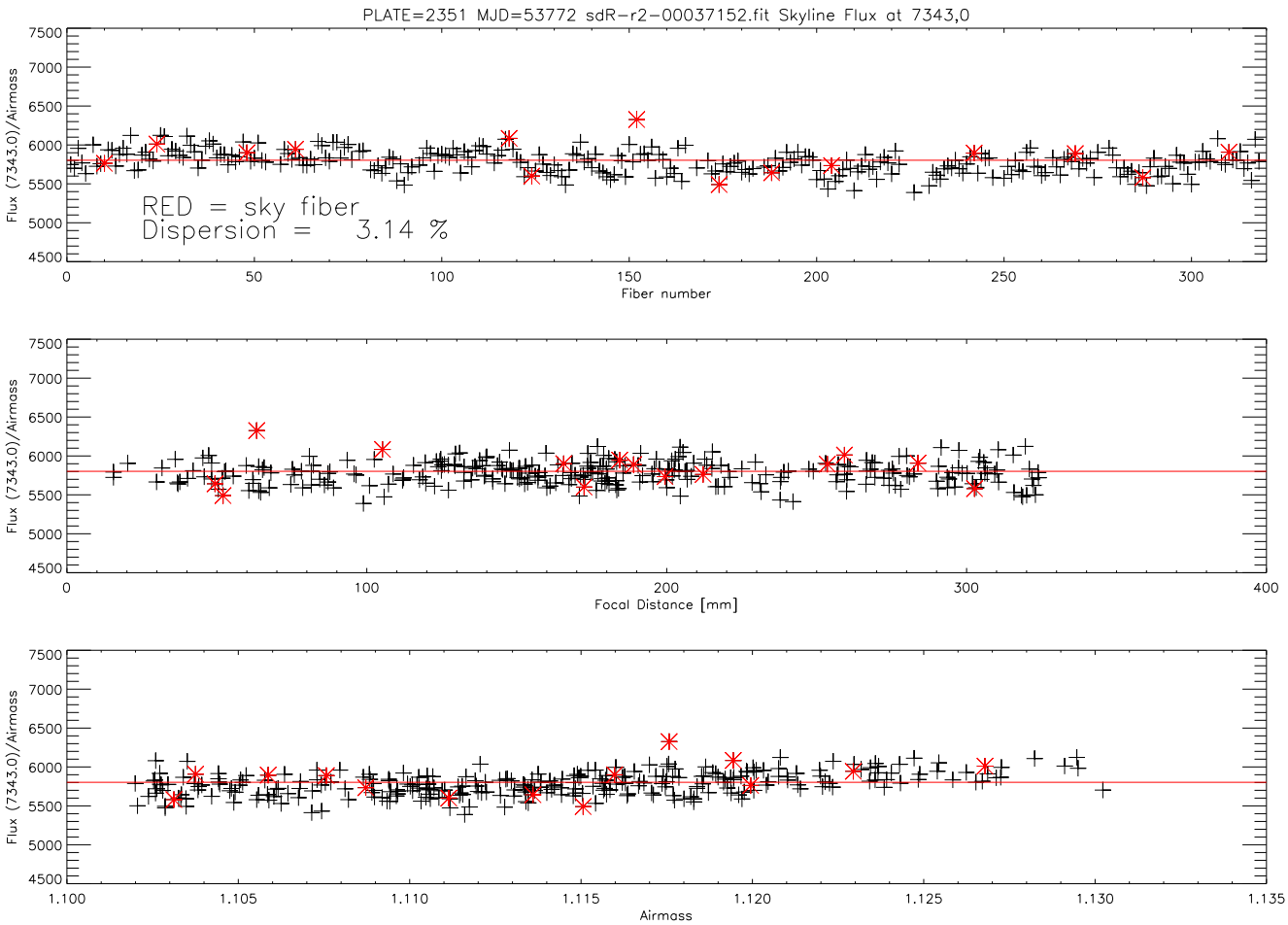

Number of sky fibers = 15
PLATE=2351 MJD=53772 sdR-r2-00037152.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

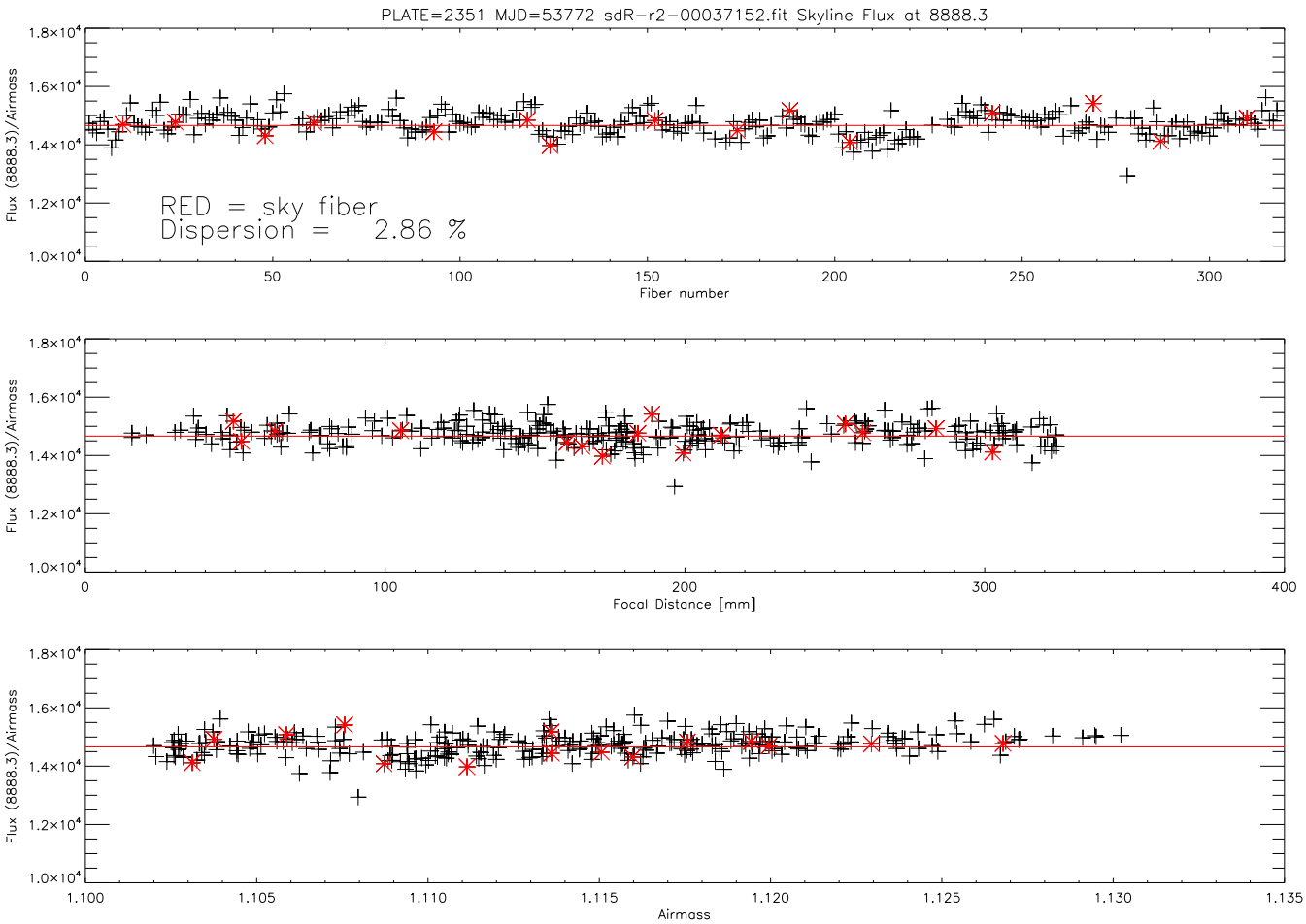

PLATE=2351 MJD=53772 sdR-r2-00037152.fit 2D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-6
-4
-2
0
2
4
6
50
100
150
200
250
300
Fiber number

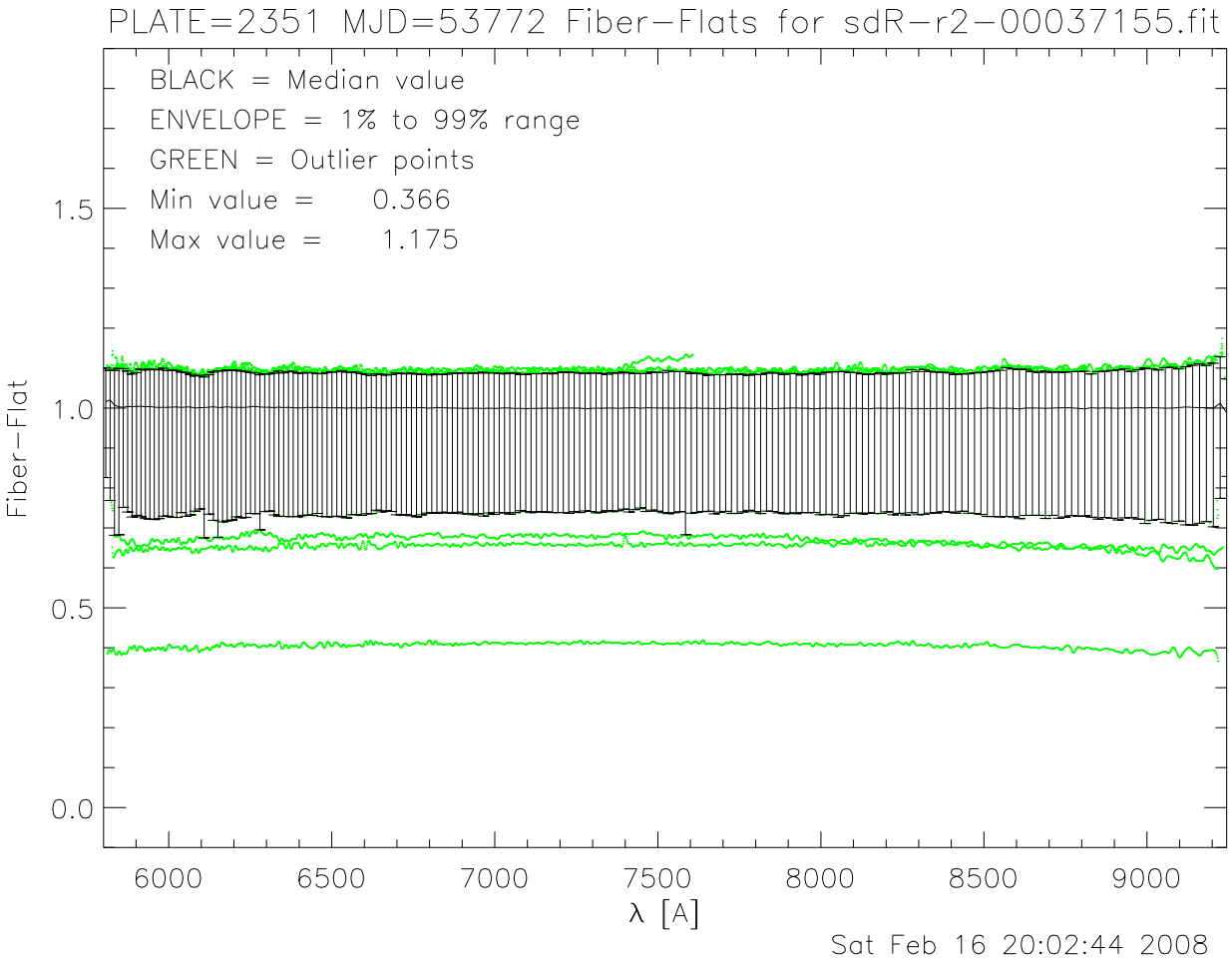

PLATE=2351 MJD=53772 sdR-r2-00037152.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
1.2×10^4
1.0×10^4
8.0×10^3
6.0×10^3
4.0×10^3
2.0×10^3
0
8820
8840
8860
8880
8900
λ [A]

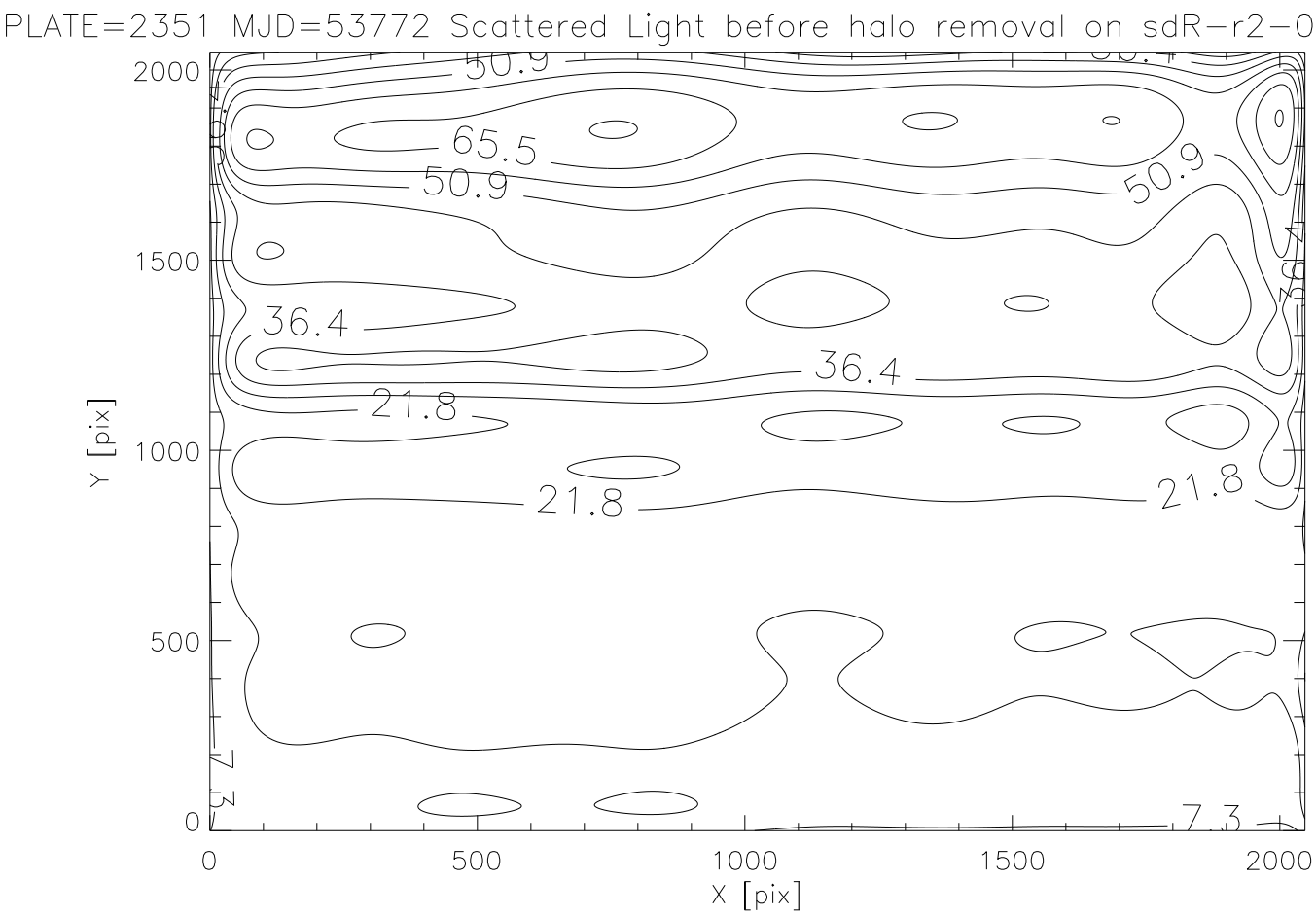

PLATE=2351 MJD=53772 sdR-r2-00037152.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
800
600
400
200
0
-200
-400
-600
8820
8840
8860
8880
8900
λ [A]

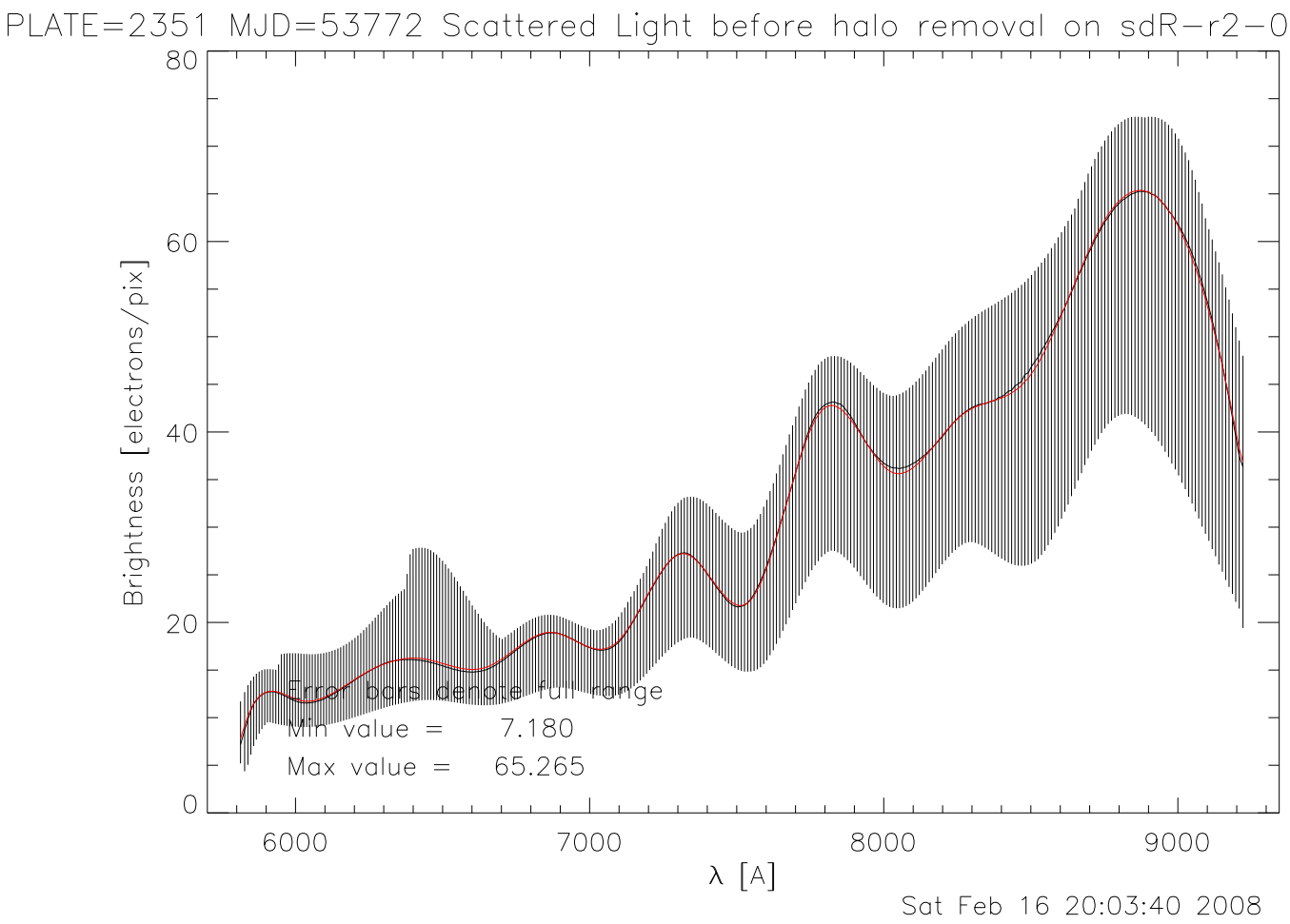

Number of sky fibers = 15
PLATE=2351 MJD=53772 sdR-r2-00037152.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

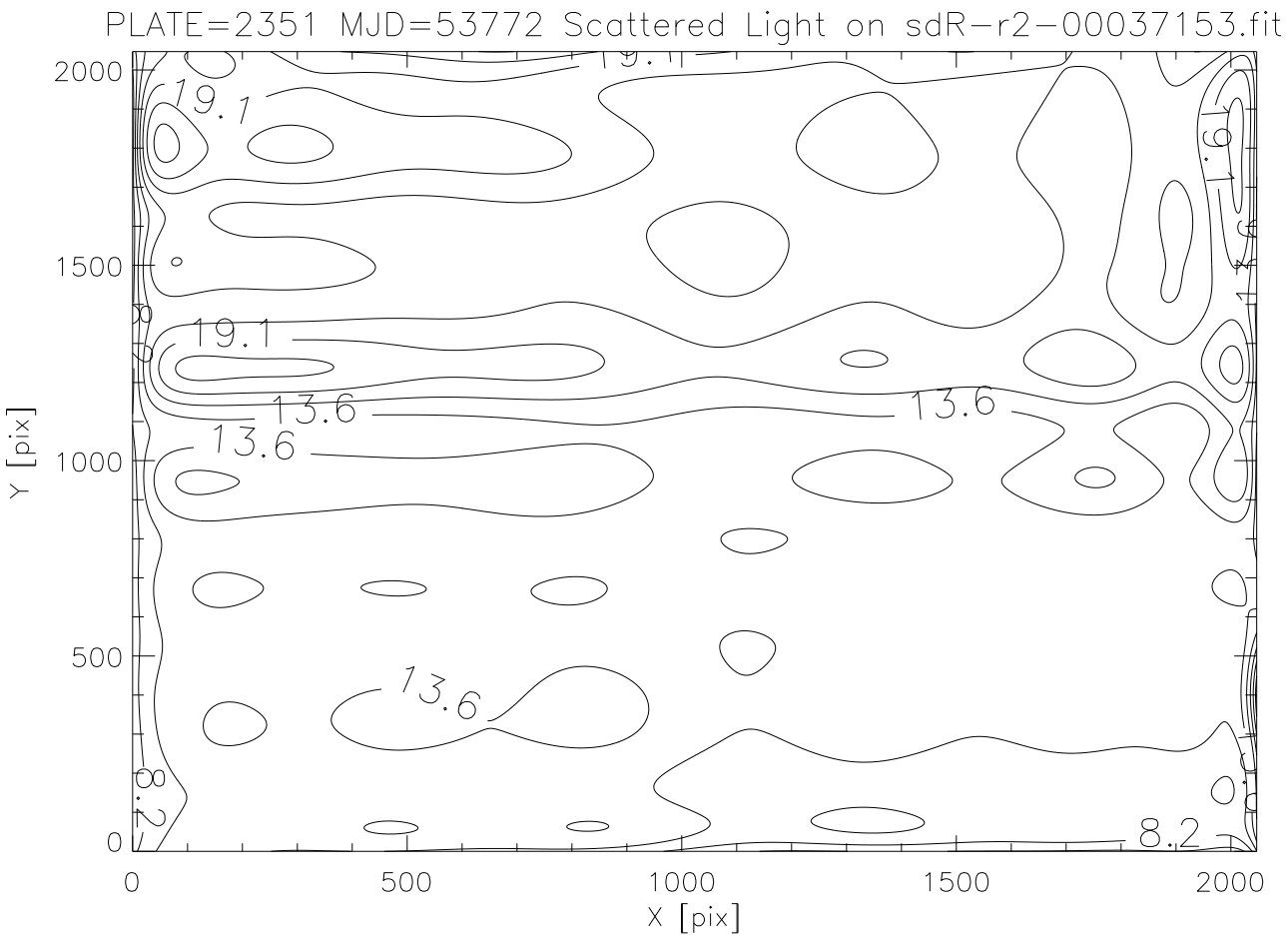

PLATE=2351 MJD=53772 sdR-r2-00037152.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 3.14 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

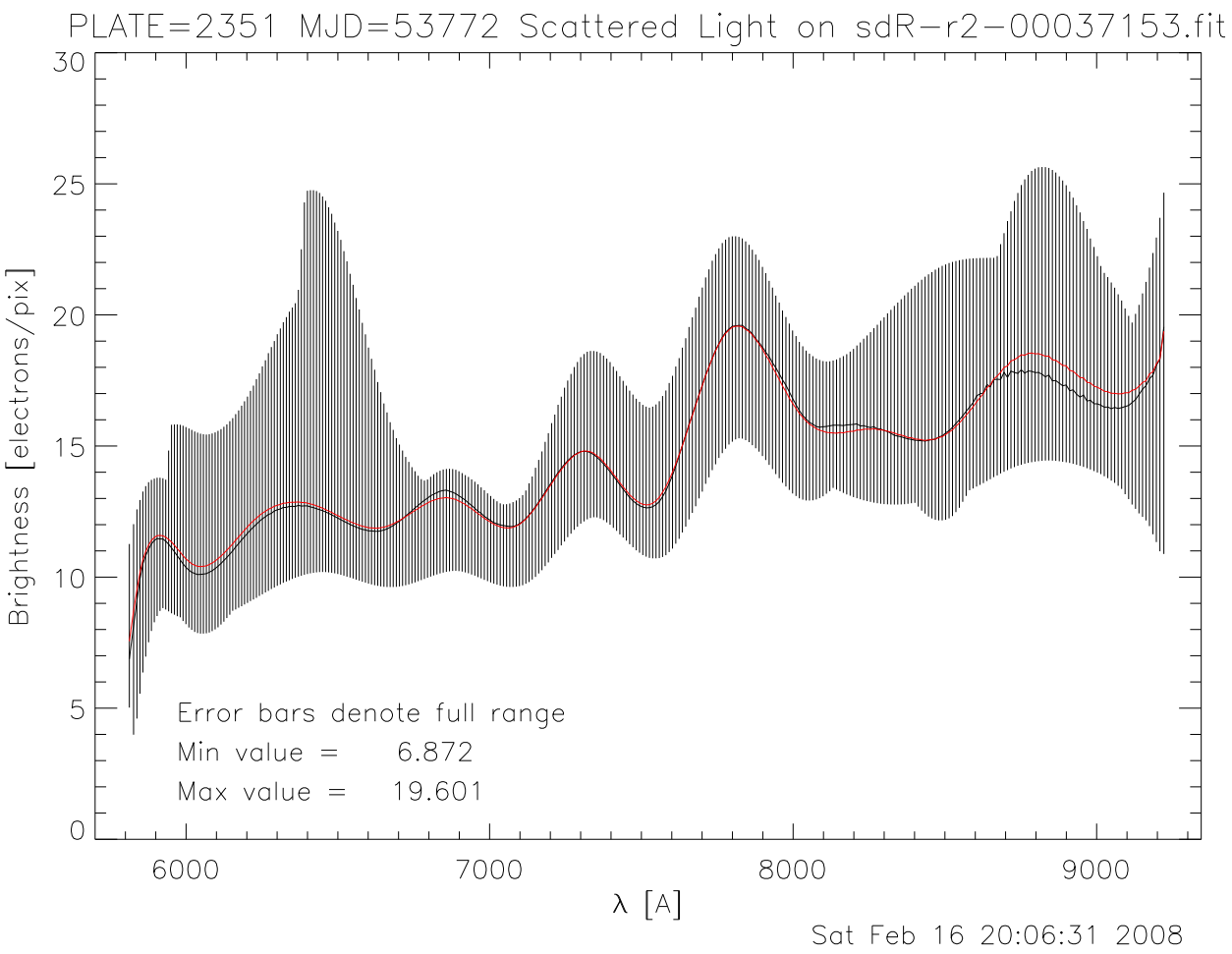

PLATE=2351 MJD=53772 sdR-r2-00037152.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 2.86 %
Fiber number
Focal Distance [mm]
Airmass

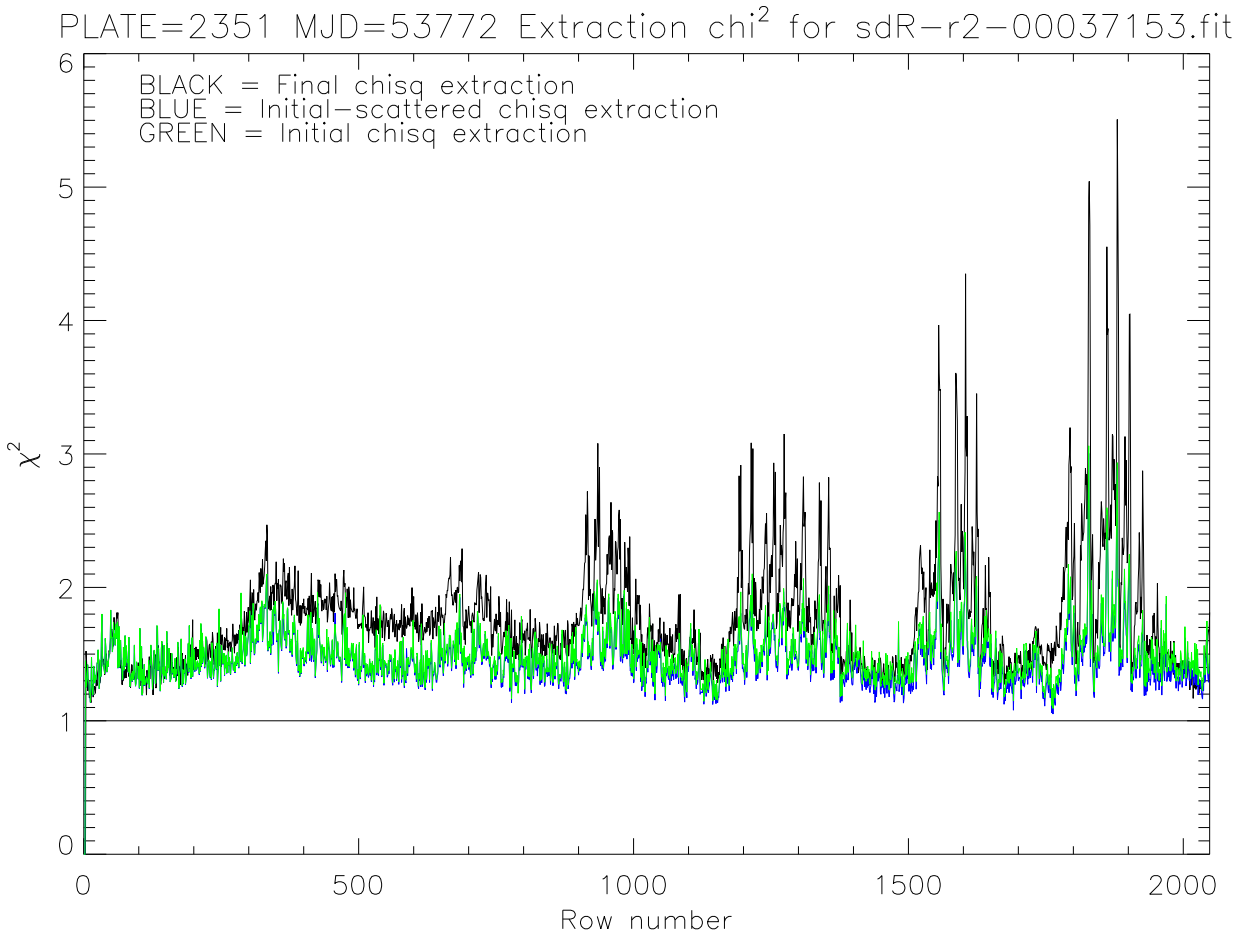

PLATE=2351 MJD=53772 Fiber−Flats for sdR−r2−00037155.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.366
Max value = 1.175
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sat Feb 16 20:02:44 2008

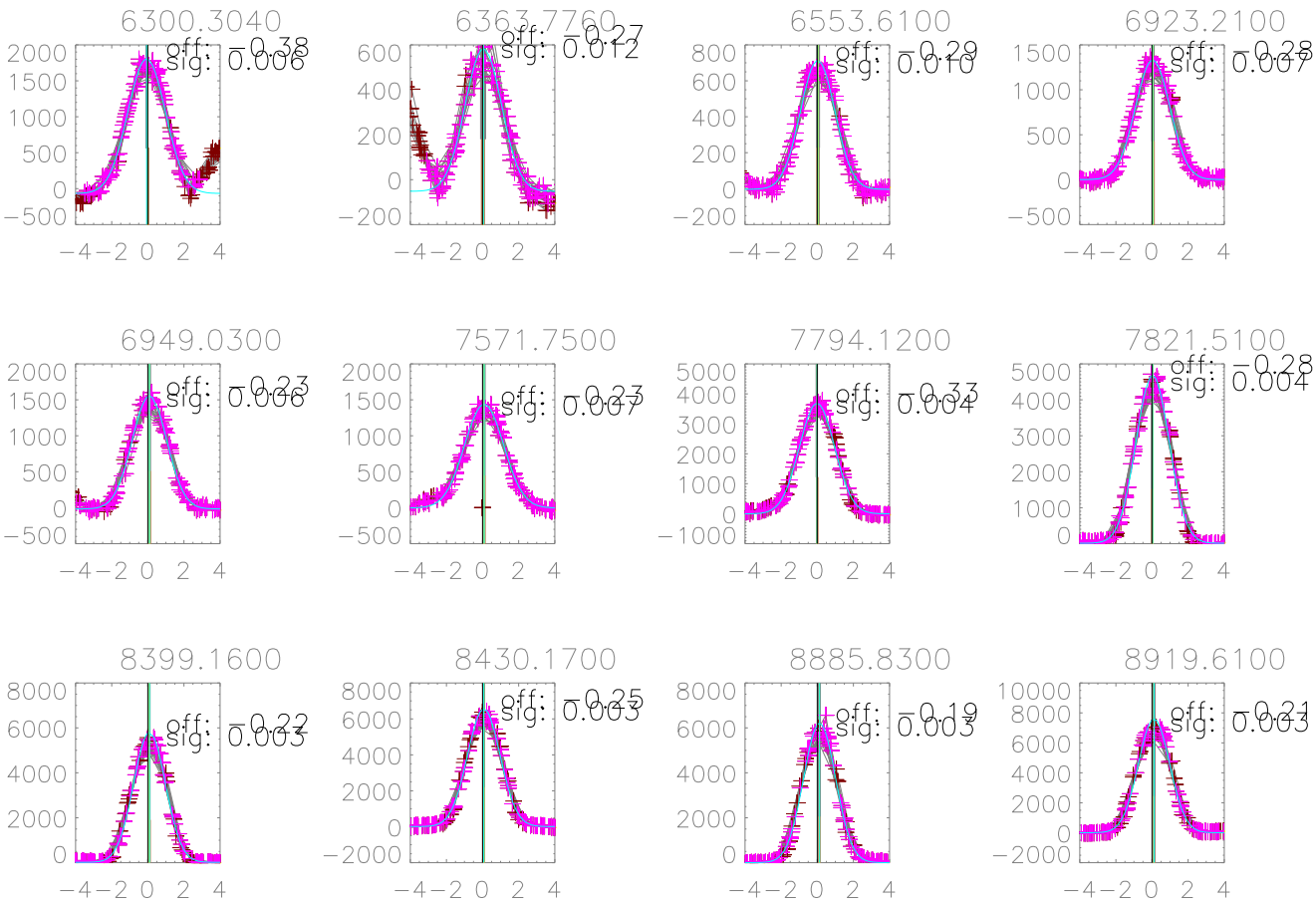

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR−r2−00037153.fi
65.5
50.9
50.9
36.4
36.4
21.8
21.8
21.8
7.3
Y [pix]
X [pix]
0
500
1000
1500
2000

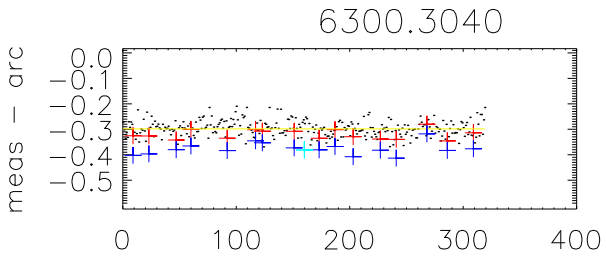

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR-r2-00037153.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 7.180
Max value = 65.265
Sat Feb 16 20:03:40 2008

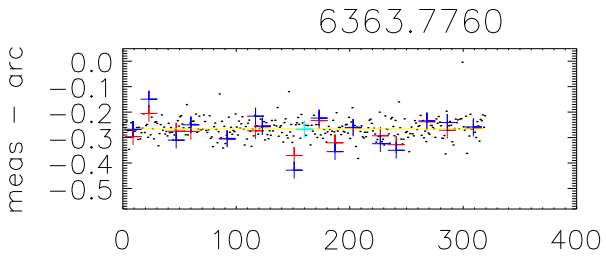

PLATE=2351 MJD=53772 Scattered Light on sdR-r2-00037153.fit
19.1
13.6
8.2
Y [pix]
X [pix]
0
500
1000
1500
2000

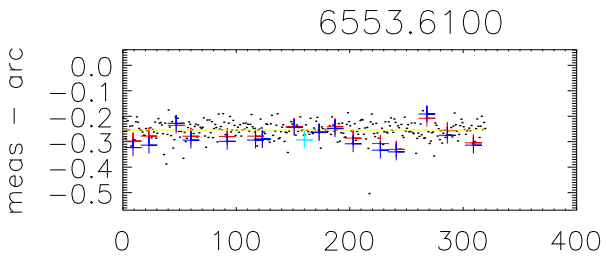

PLATE=2351 MJD=53772 Scattered Light on sdR-r2-00037153.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 6.872
Max value = 19.601
Sat Feb 16 20:06:31 2008

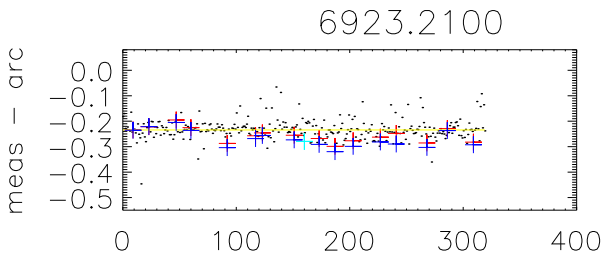

PLATE=2351 MJD=53772 Extraction chi^2 for sdR−r2−00037153.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
5
6
0
500
1000
1500
2000
Row number

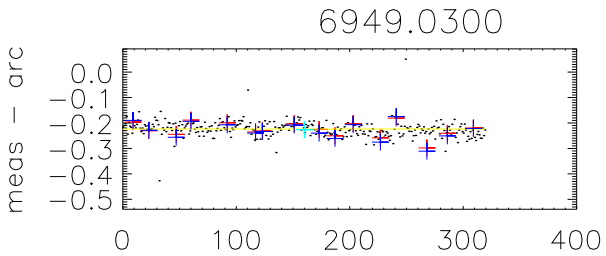

6300.3040
off: −0.38
sig: 0.006
6363.7760
off: −0.27
sig: 0.012
6553.6100
off: −0.29
sig: 0.010
6923.2100
off: −0.28
sig: 0.007
6949.0300
off: −0.23
sig: 0.006
7571.7500
off: −0.23
sig: 0.007
7794.1200
off: −0.33
sig: 0.004
7821.5100
off: −0.28
sig: 0.004
8399.1600
off: −0.22
sig: 0.003
8430.1700
off: −0.25
sig: 0.003
8885.8300
off: −0.19
sig: 0.003
8919.6100
off: −0.21
sig: 0.003

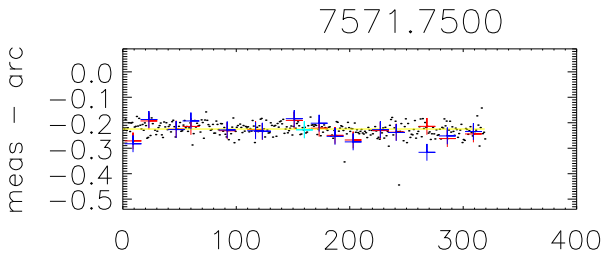

6300.3040
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

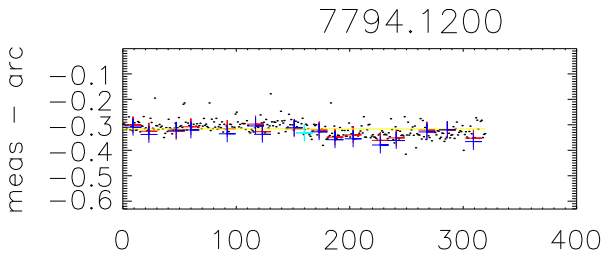

6363.7760
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

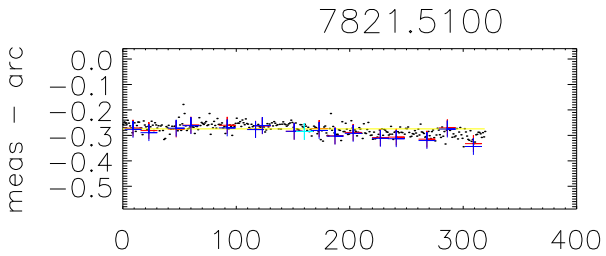

6553.6100
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

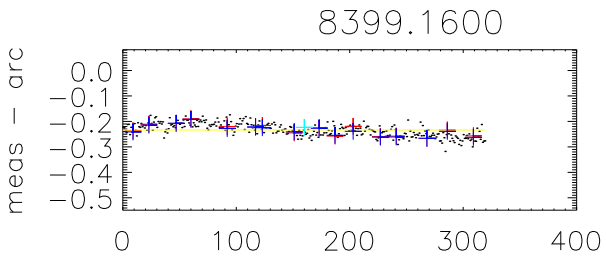

6923.2100
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

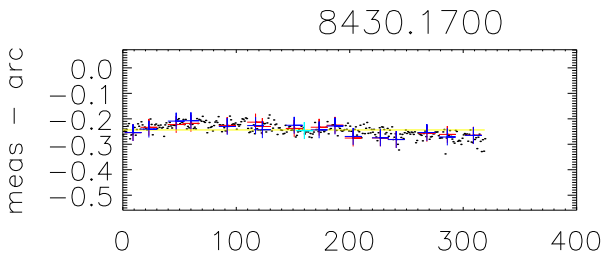

6949.0300
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

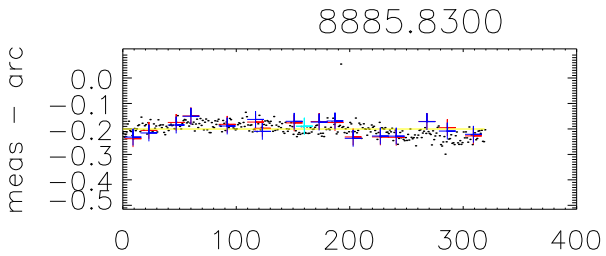

7571.7500
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

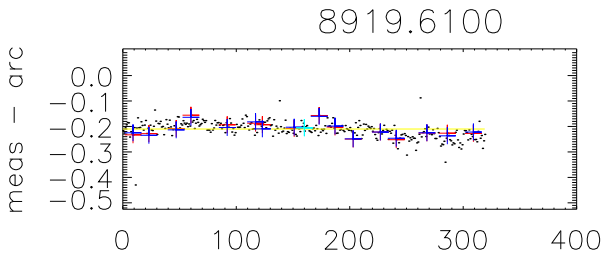

7794.1200
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

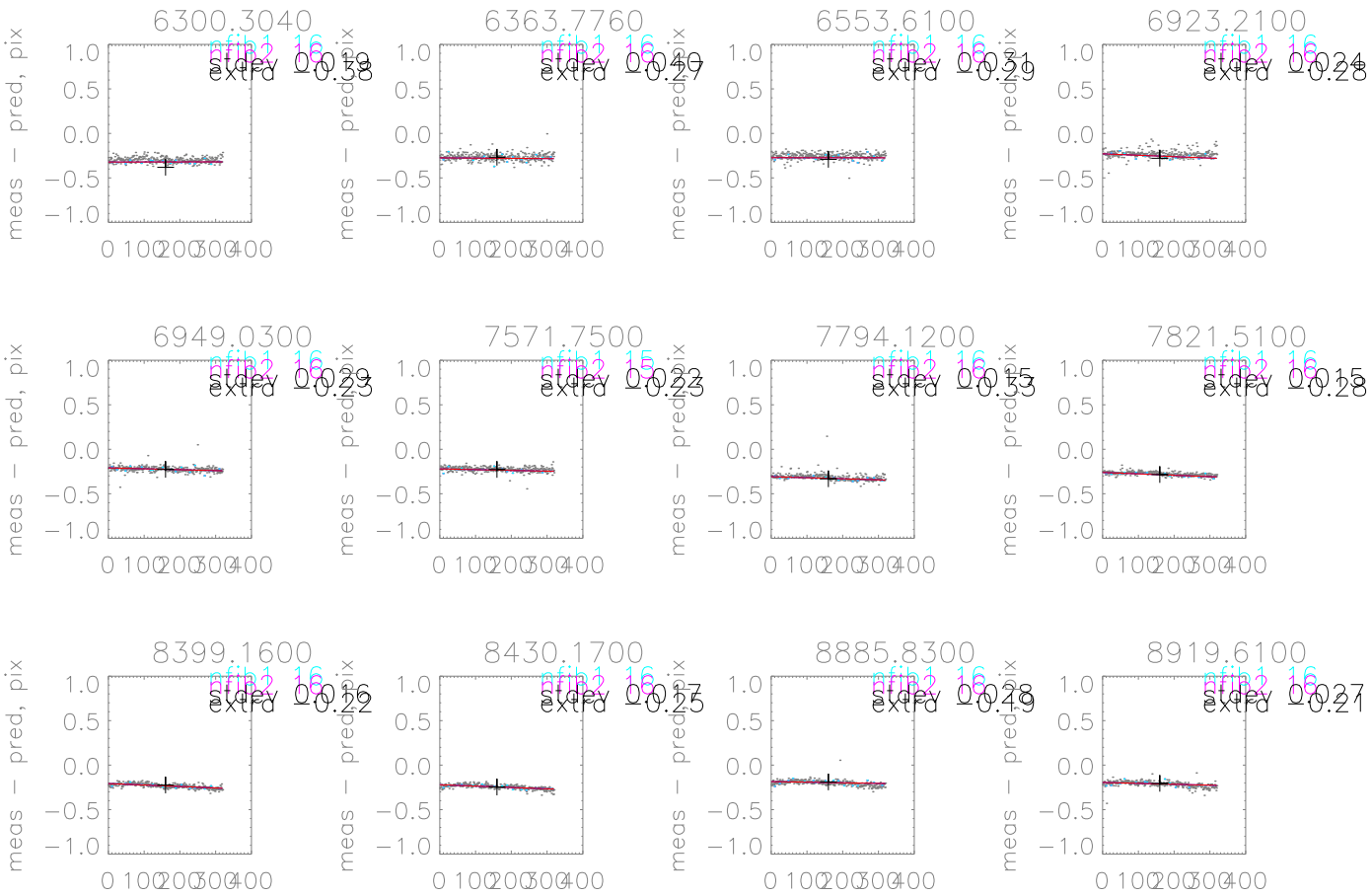

7821.5100
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

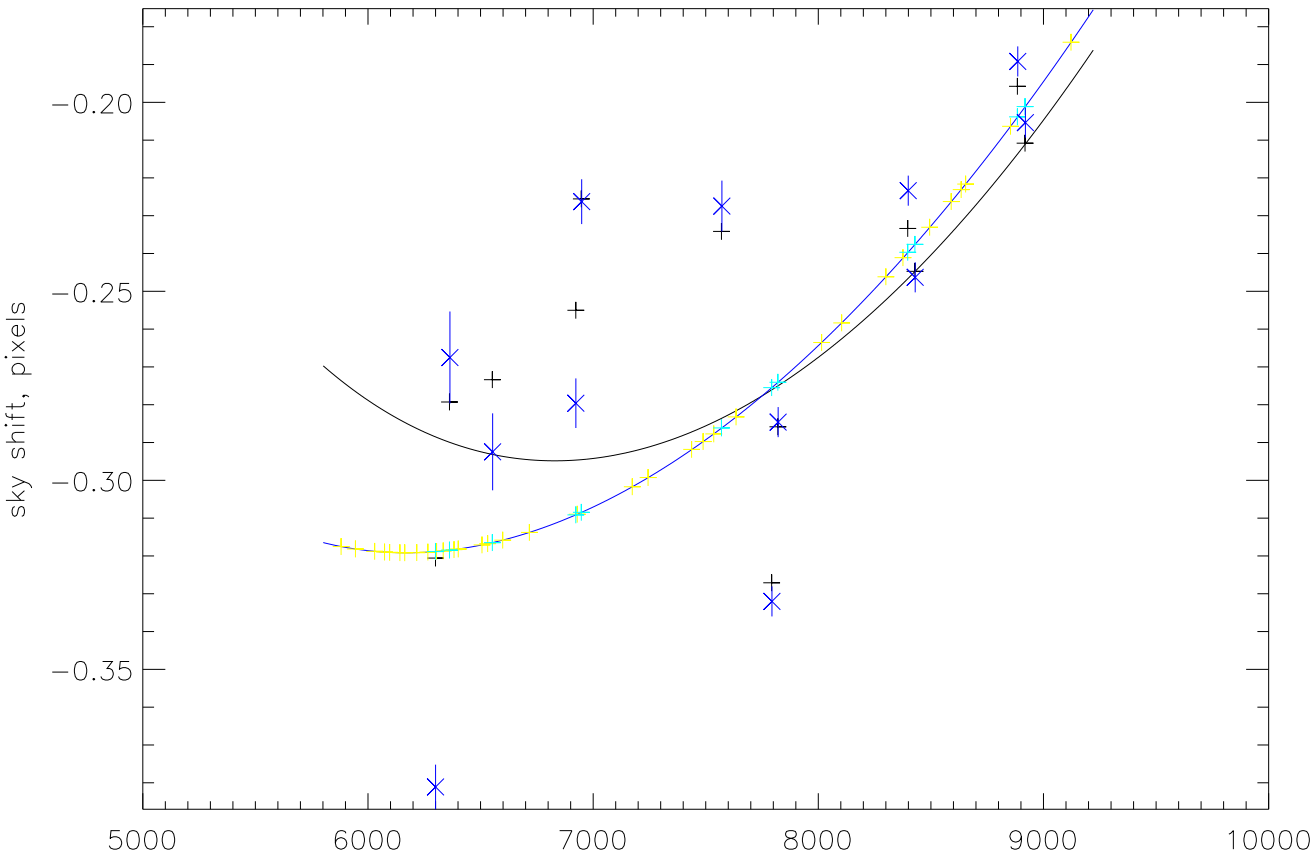

8399.1600
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

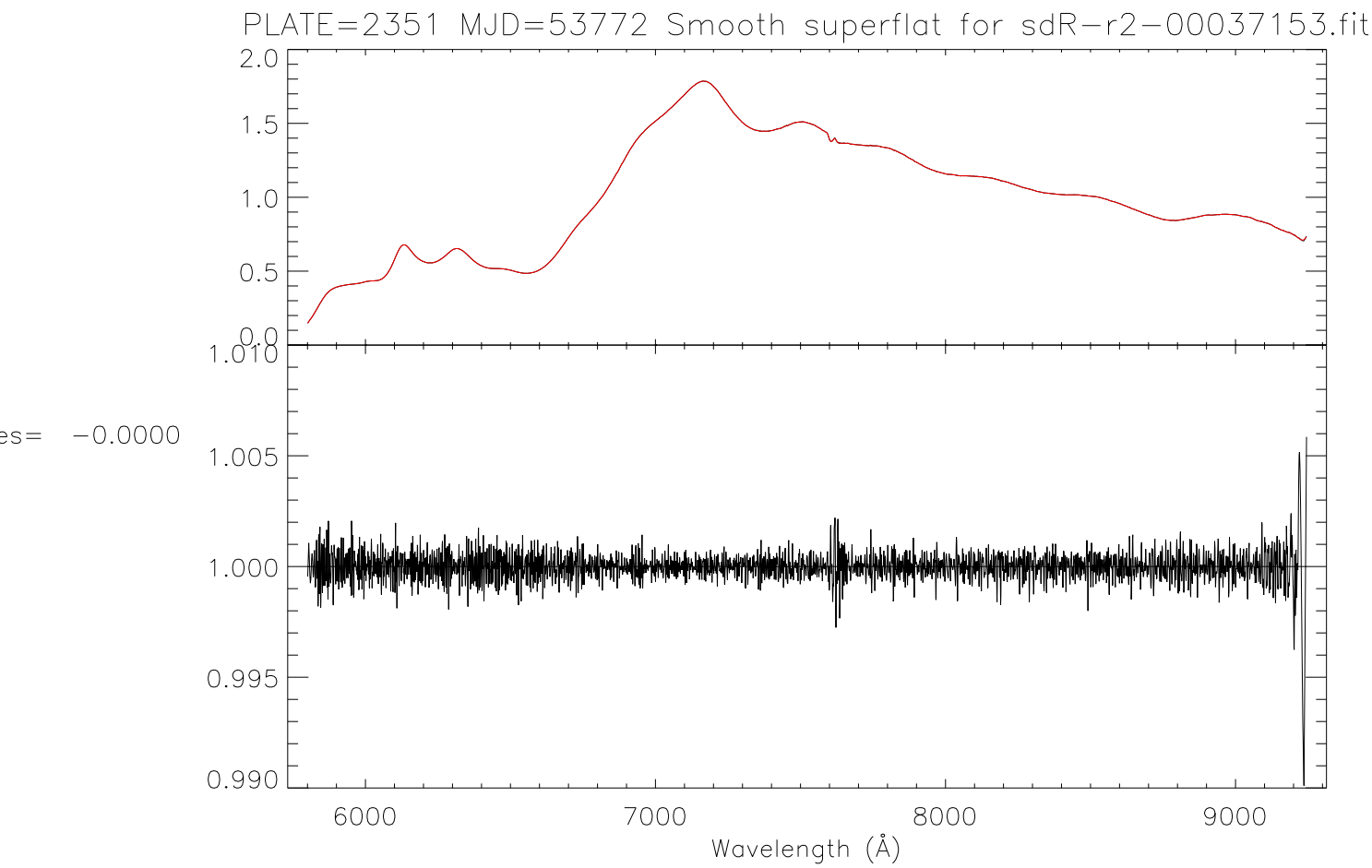

8430.1700
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400


8885.8300
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

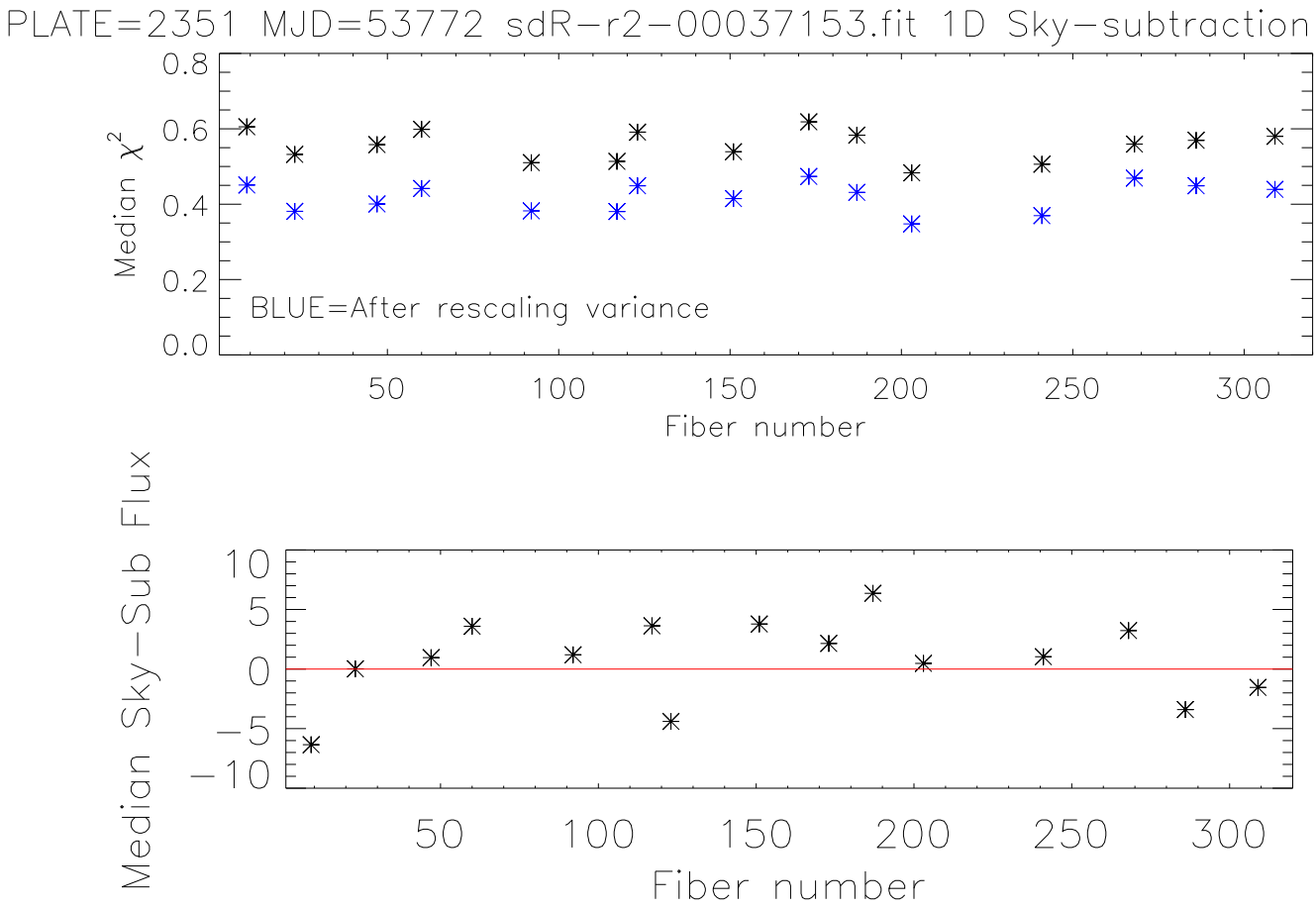

8919.6100
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

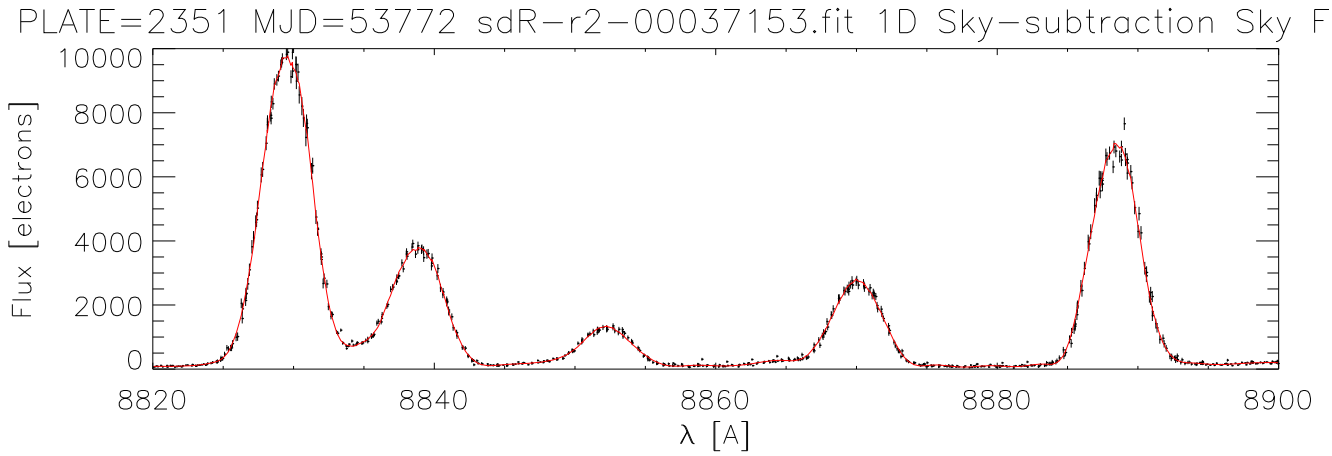

6300.3040
mfhd1 16
mfhd2 16
stdev 0.19
extra 0.38
6363.7760
mfhd1 16
mfhd2 16
stdev 0.40
extra 0.27
6553.6100
mfhd1 16
mfhd2 16
stdev 0.31
extra 0.29
6923.2100
mfhd1 16
mfhd2 16
stdev 0.24
extra 0.28
6949.0300
mfhd1 16
mfhd2 16
stdev 0.29
extra 0.23
7571.7500
mfhd1 15
mfhd2 16
stdev 0.22
extra 0.23
7794.1200
mfhd1 16
mfhd2 16
stdev 0.15
extra 0.33
7821.5100
mfhd1 16
mfhd2 16
stdev 0.15
extra 0.28
8399.1600
mfhd1 16
mfhd2 16
stdev 0.16
extra 0.22
8430.1700
mfhd1 16
mfhd2 16
stdev 0.17
extra 0.25
8885.8300
mfhd1 16
mfhd2 16
stdev 0.28
extra 0.49
8919.6100
mfhd1 16
mfhd2 16
stdev 0.27
extra 0.21
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

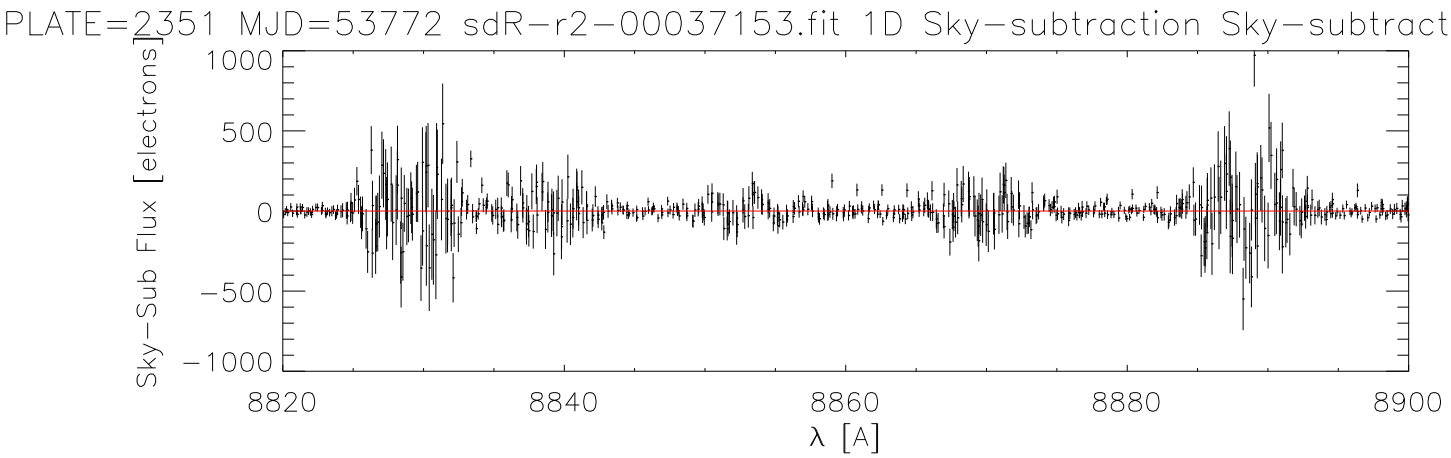

sky shift, pixels
−0.20
−0.25
−0.30
−0.35
5000
6000
7000
8000
9000
10000

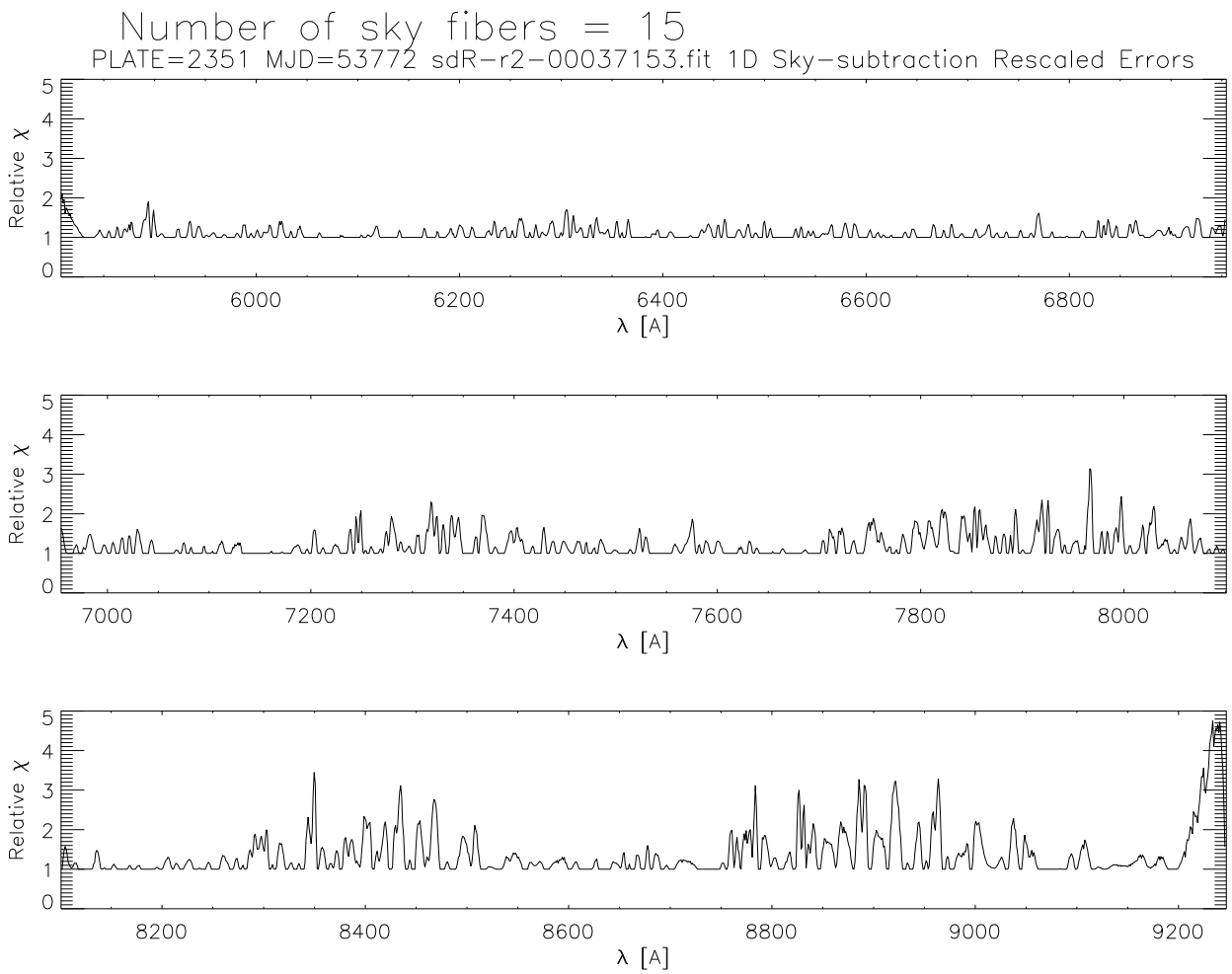

PLATE=2351 MJD=53772 Smooth superflat for sdR-r2-00037153.fit
2.0
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
6000
7000
8000
9000
Wavelength (Å)

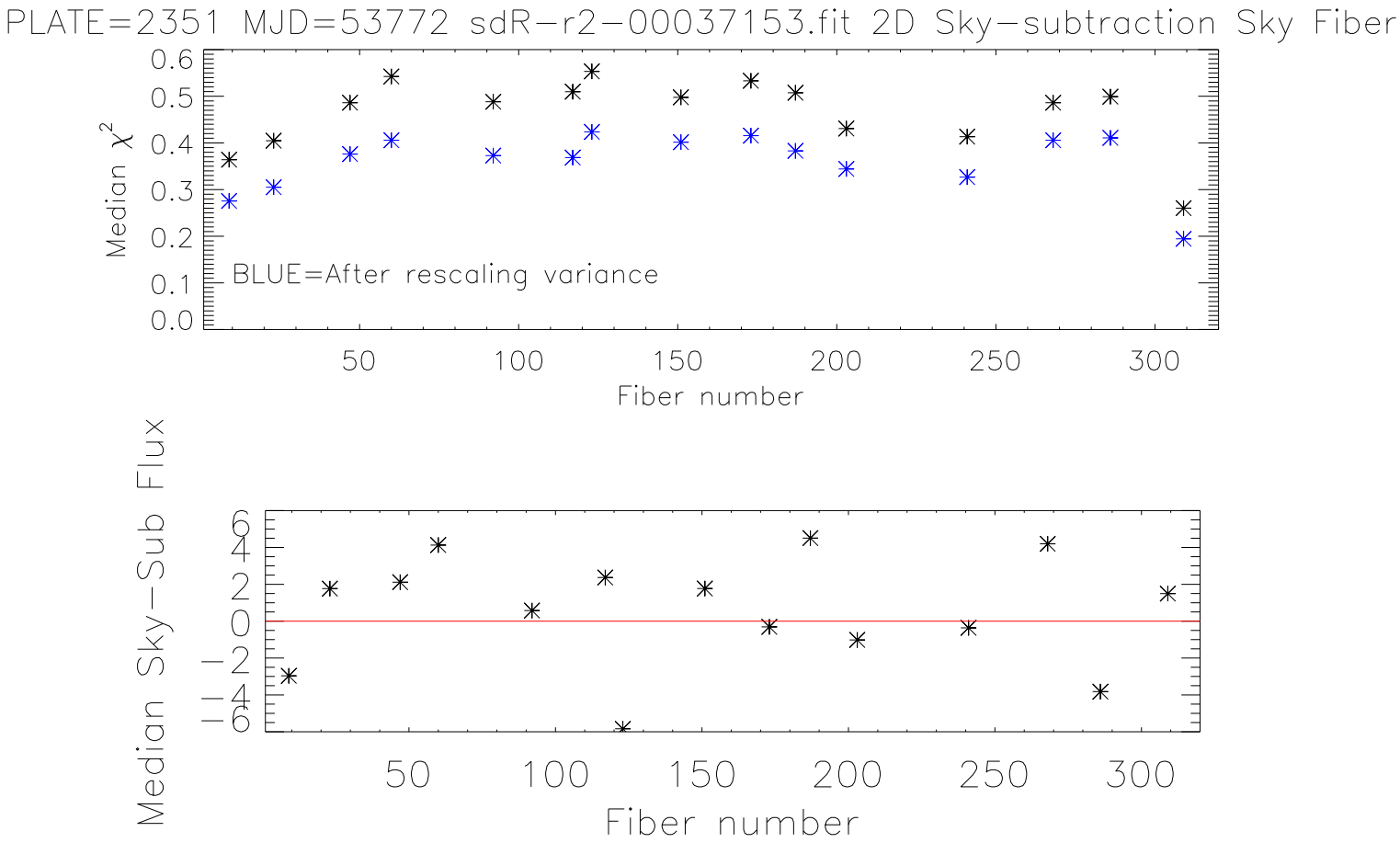
es= −0.0000

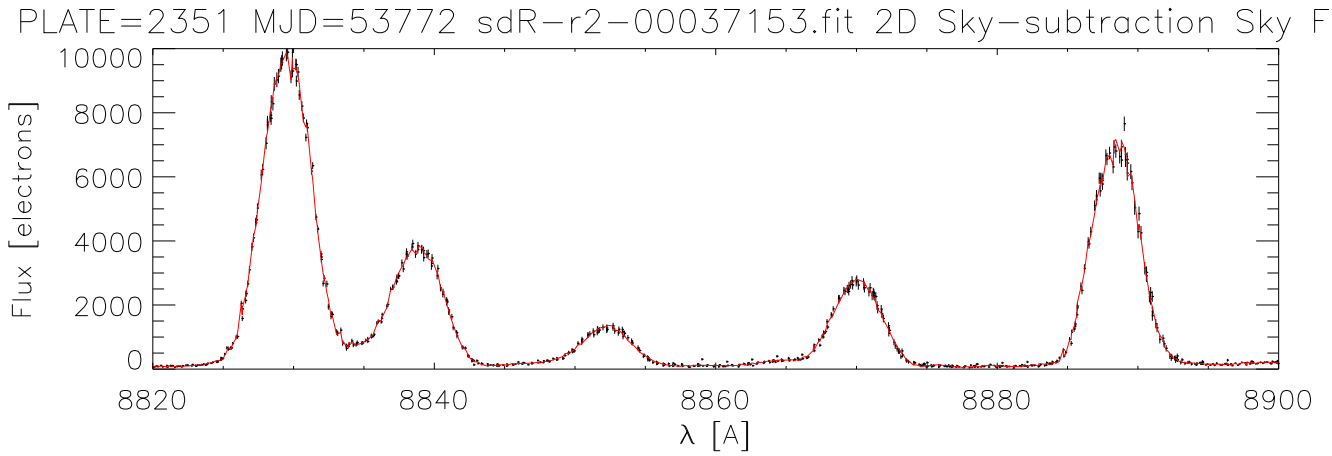

PLATE=2351 MJD=53772 sdR-r2-00037153.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.8
0.6
0.4
0.2
0.0
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
−5
−10
50
100
150
200
250
300
Fiber number

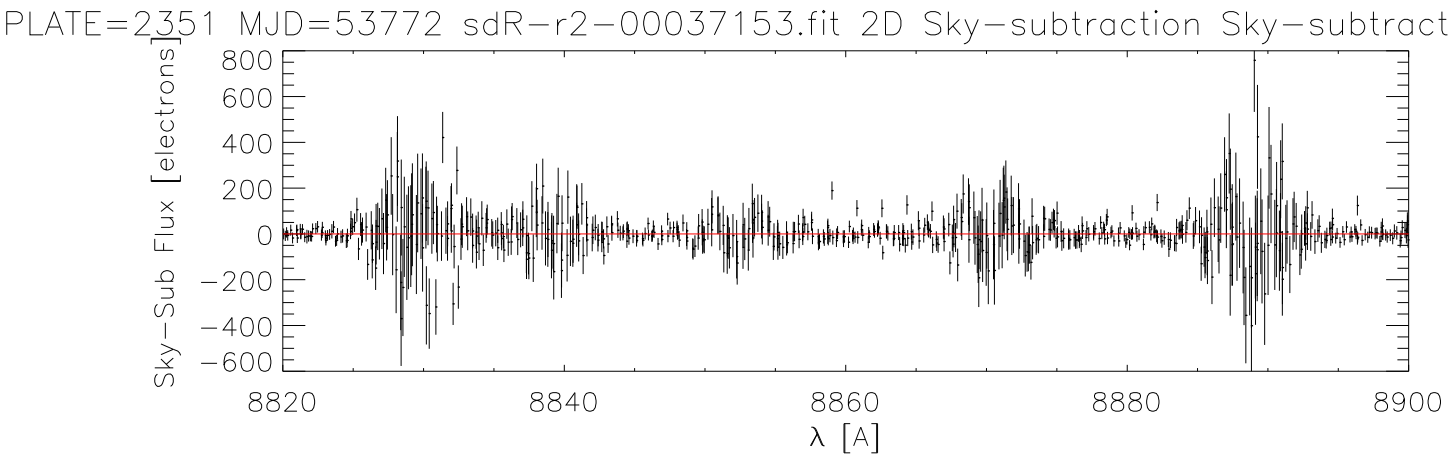

PLATE=2351 MJD=53772 sdR-r2-00037153.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
10000
8000
6000
4000
2000
0
8820
8840
8860
8880
8900
λ [A]

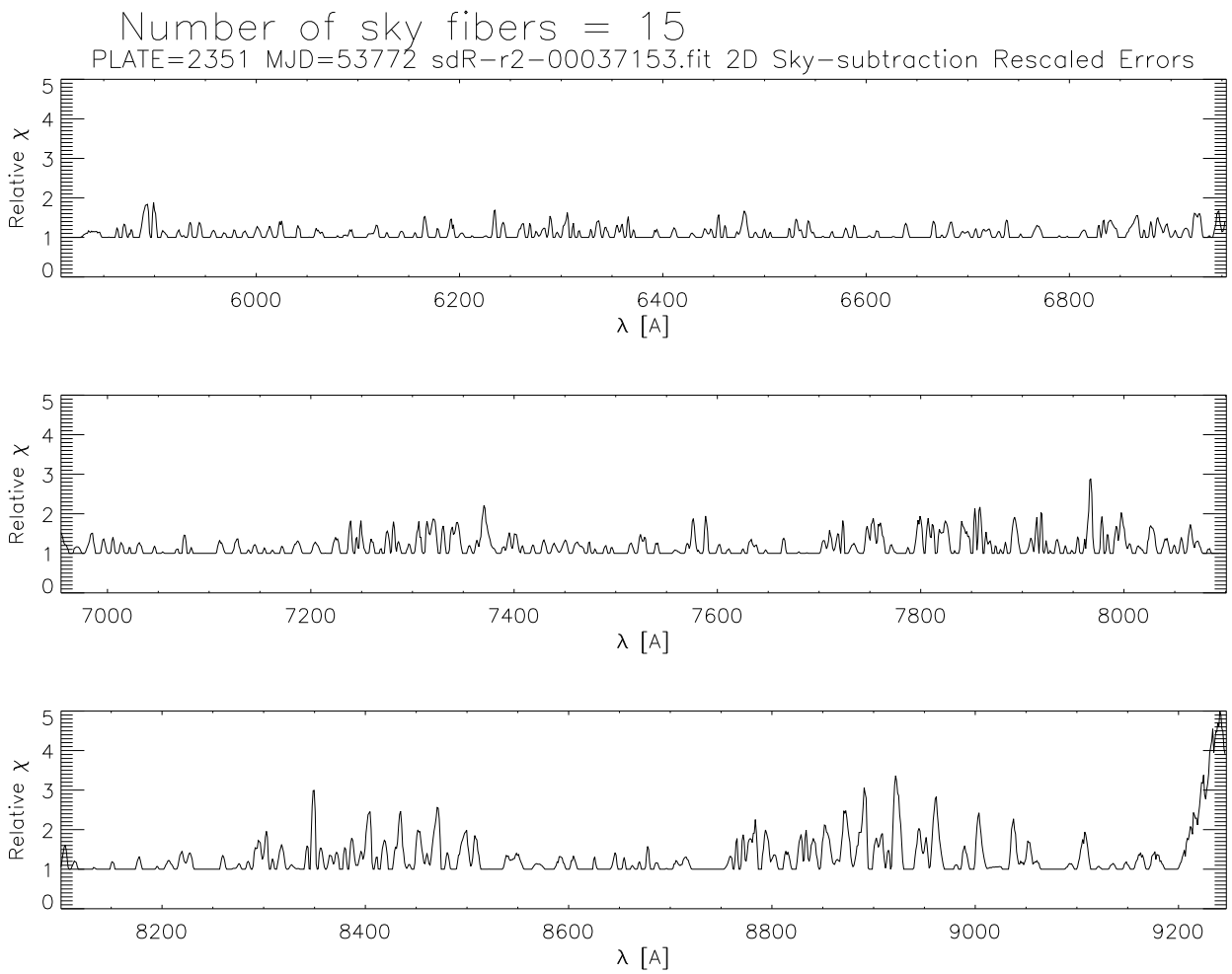

PLATE=2351 MJD=53772 sdR-r2-00037153.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
1000
500
0
-500
-1000
8820
8840
8860
8880
8900
λ [A]

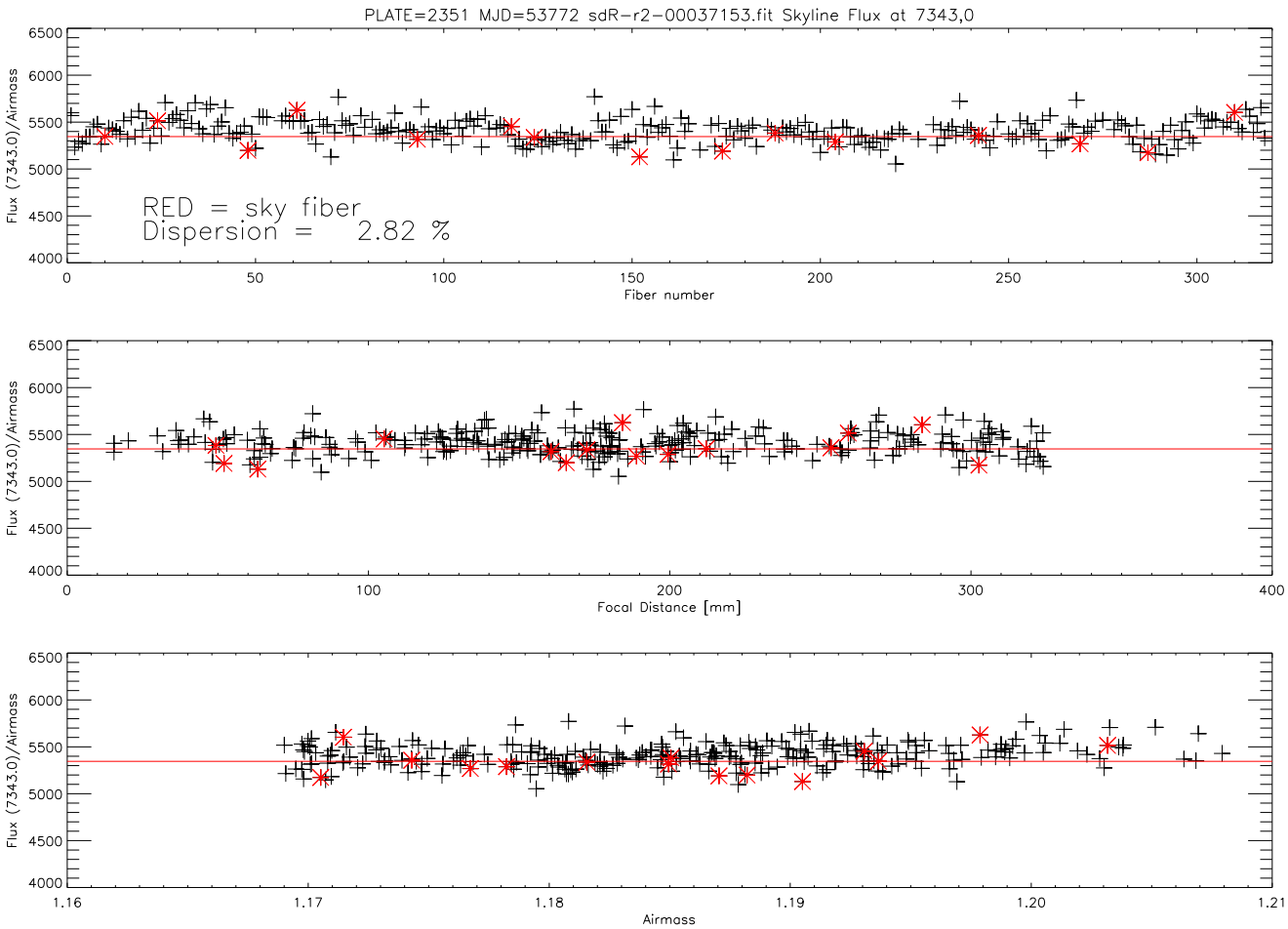

Number of sky fibers = 15
PLATE=2351 MJD=53772 sdR-r2-00037153.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

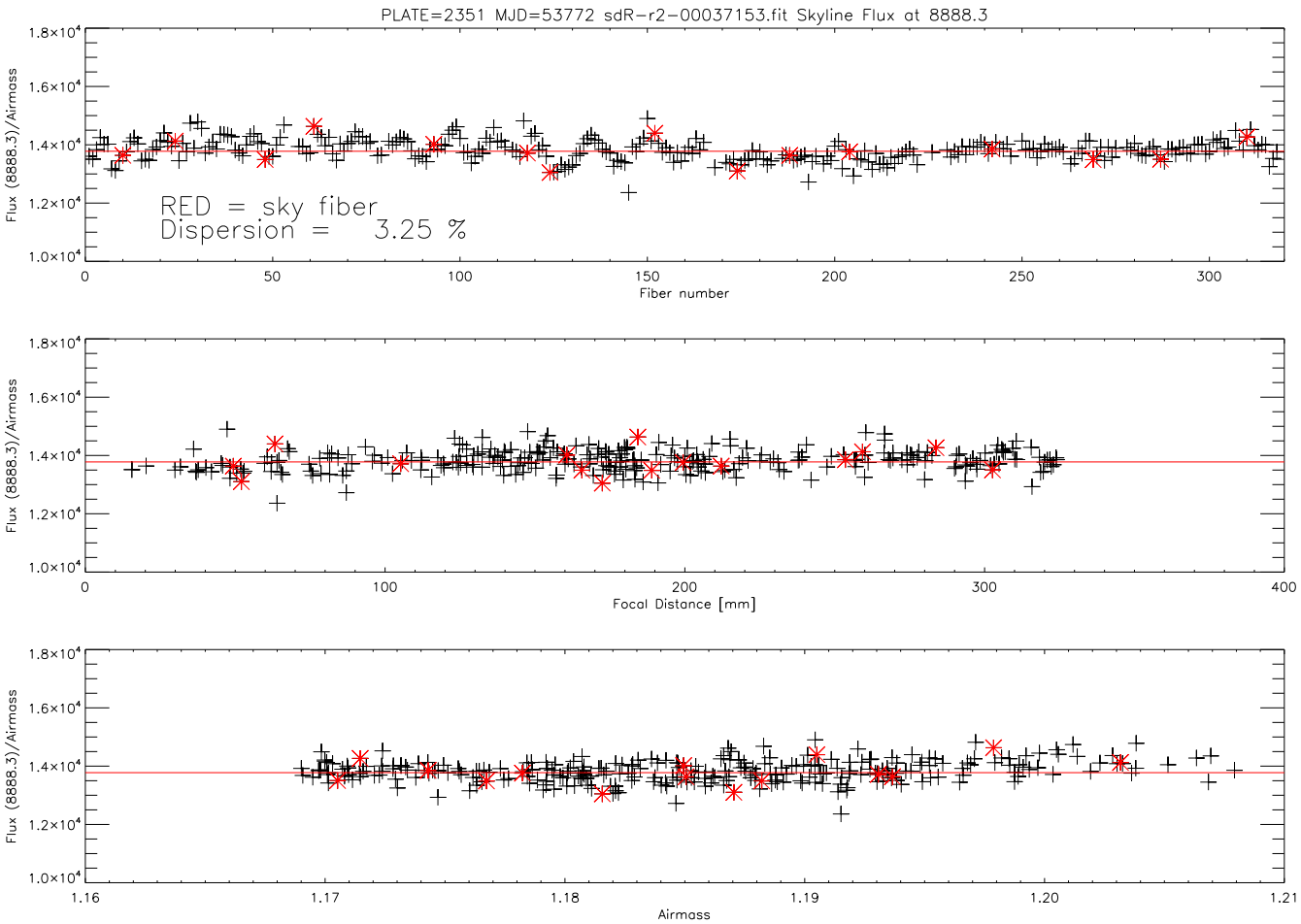

PLATE=2351 MJD=53772 sdR-r2-00037153.fit 2D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-6
-4
-2
0
2
4
6
50
100
150
200
250
300
Fiber number

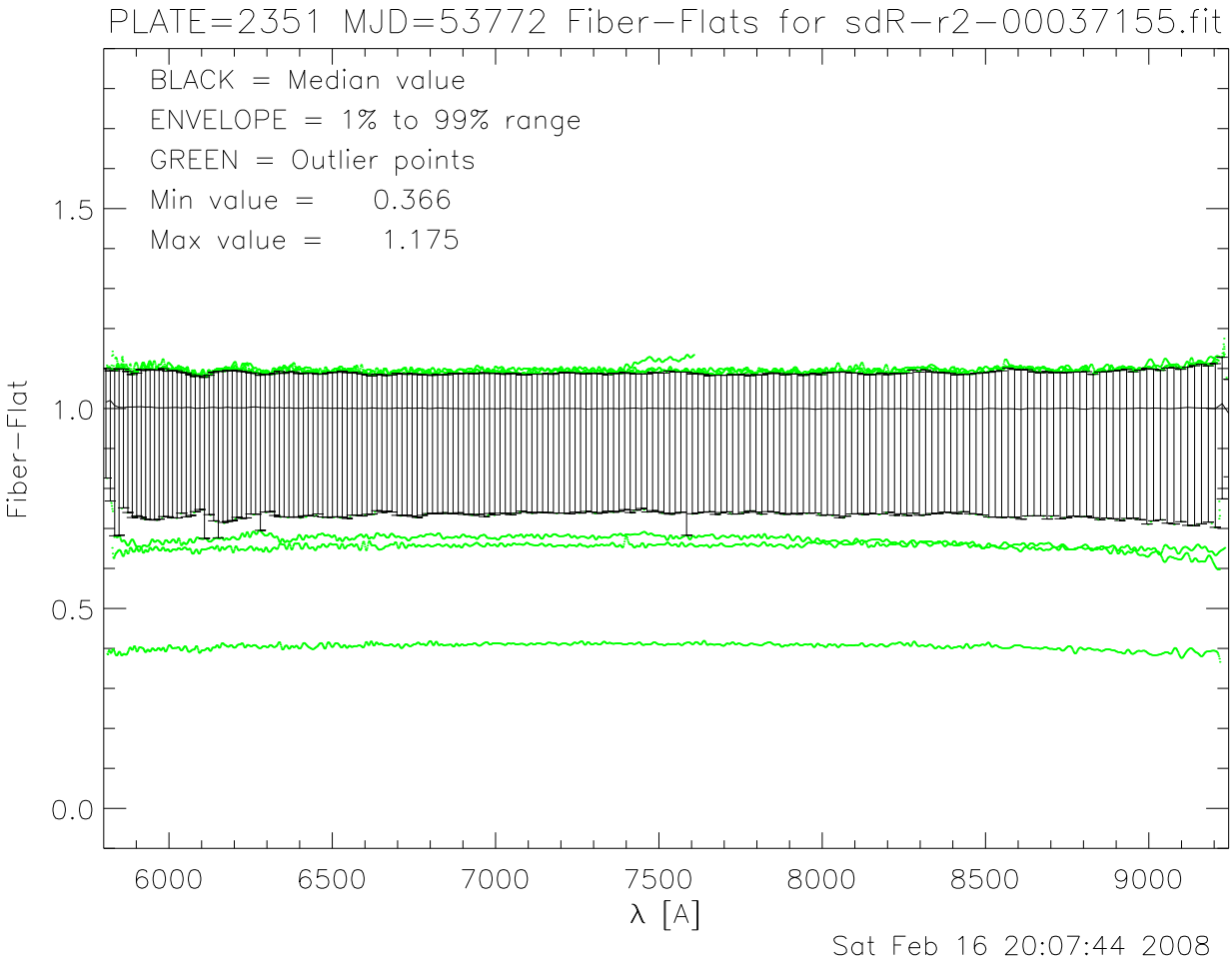

PLATE=2351 MJD=53772 sdR-r2-00037153.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
10000
8000
6000
4000
2000
0
8820
8840
8860
8880
8900
λ [A]

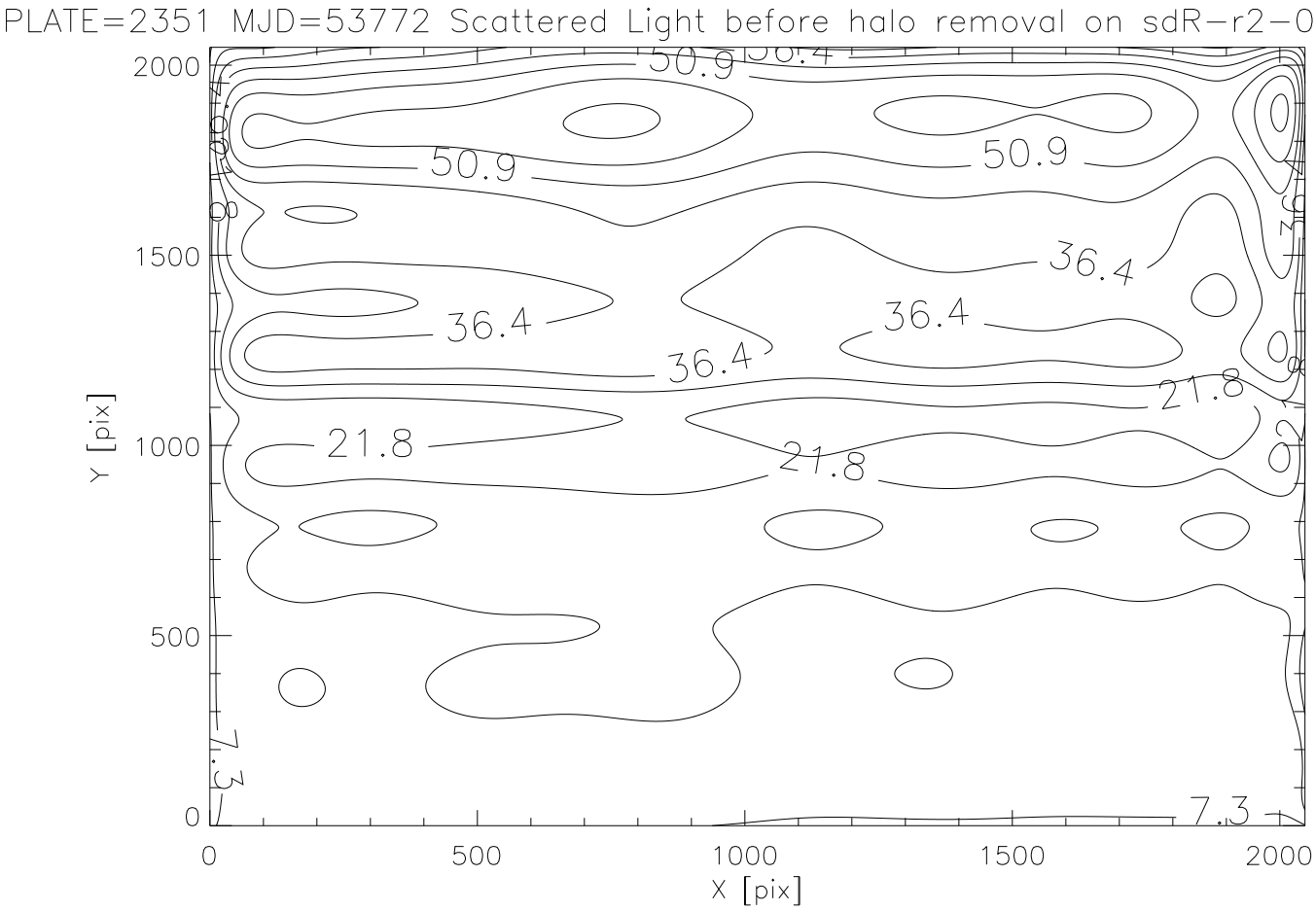

PLATE=2351 MJD=53772 sdR-r2-00037153.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
800
600
400
200
0
-200
-400
-600
8820
8840
8860
8880
8900
λ [A]

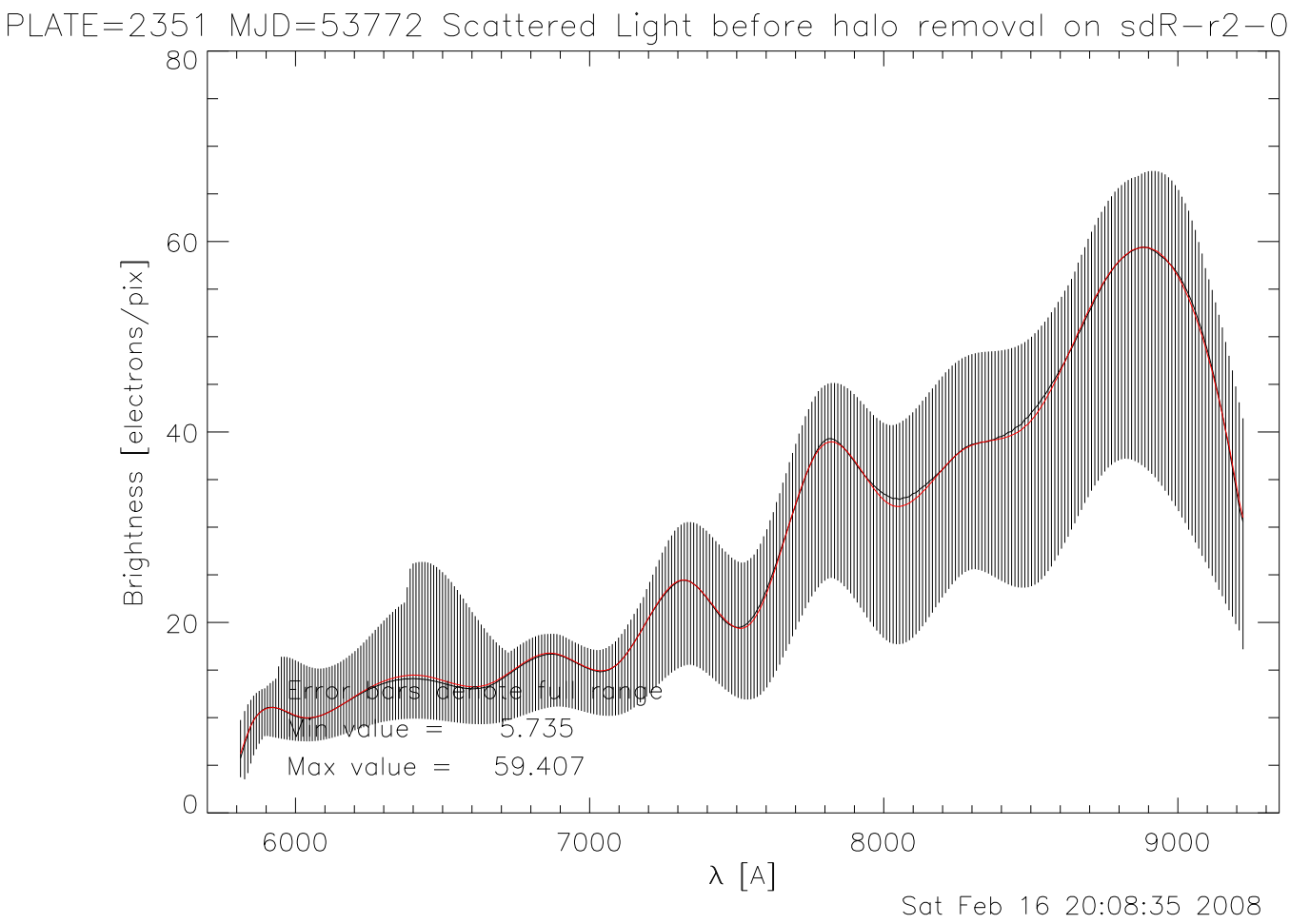

Number of sky fibers = 15
PLATE=2351 MJD=53772 sdR-r2-00037153.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

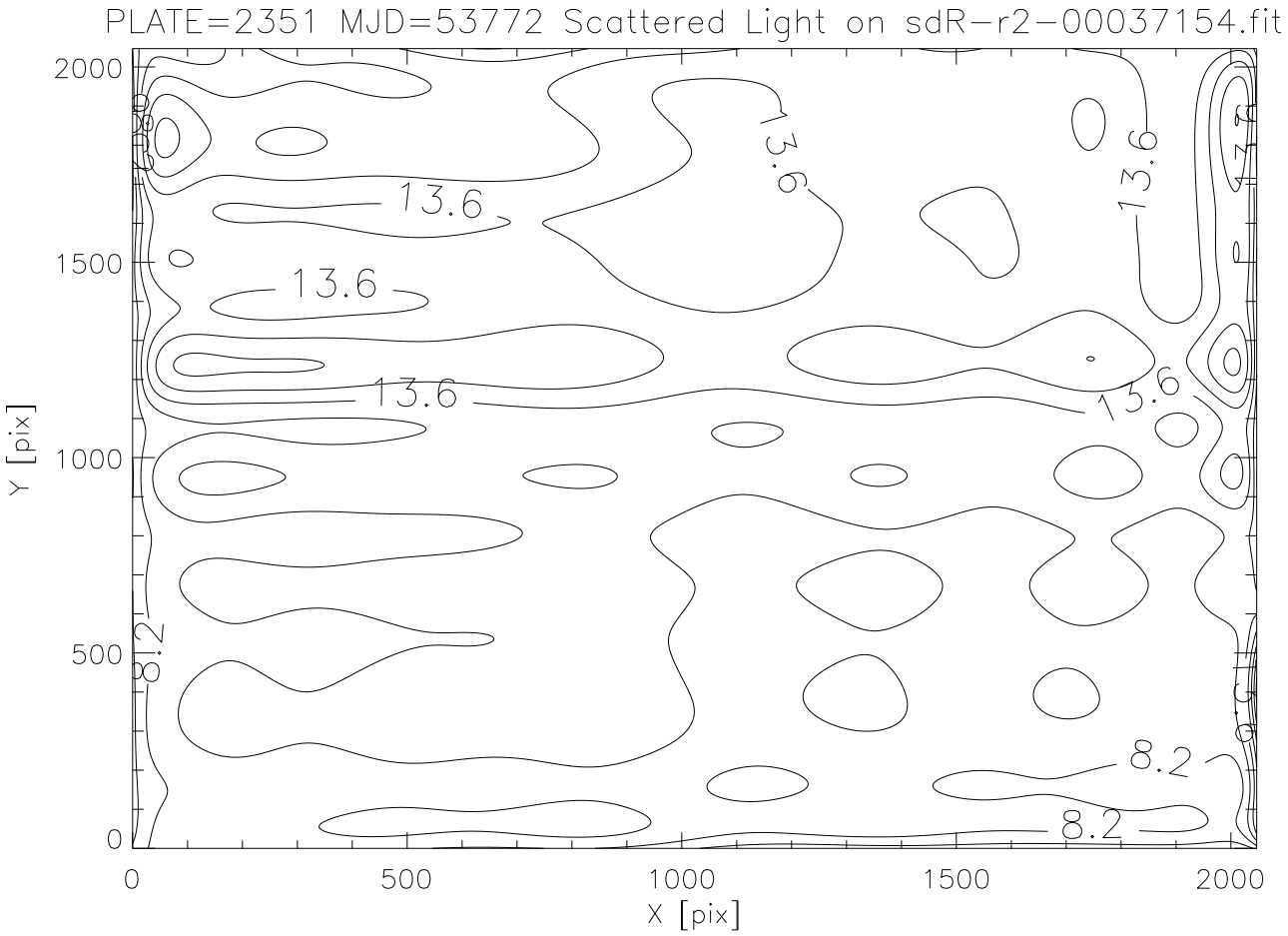

PLATE=2351 MJD=53772 sdR-r2-00037153.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 2.82 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

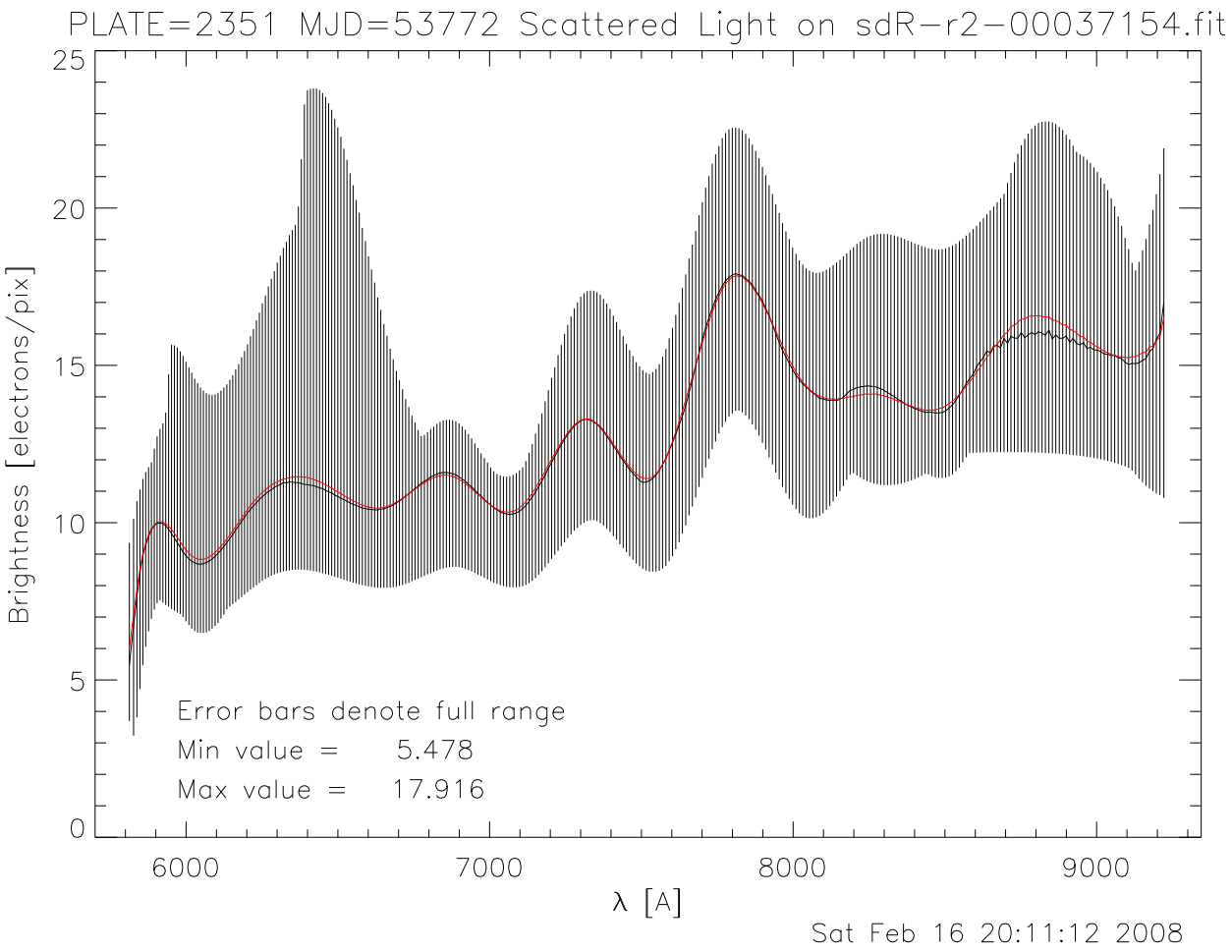

PLATE=2351 MJD=53772 sdR-r2-00037153.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 3.25 %
Fiber number
Focal Distance [mm]
Airmass

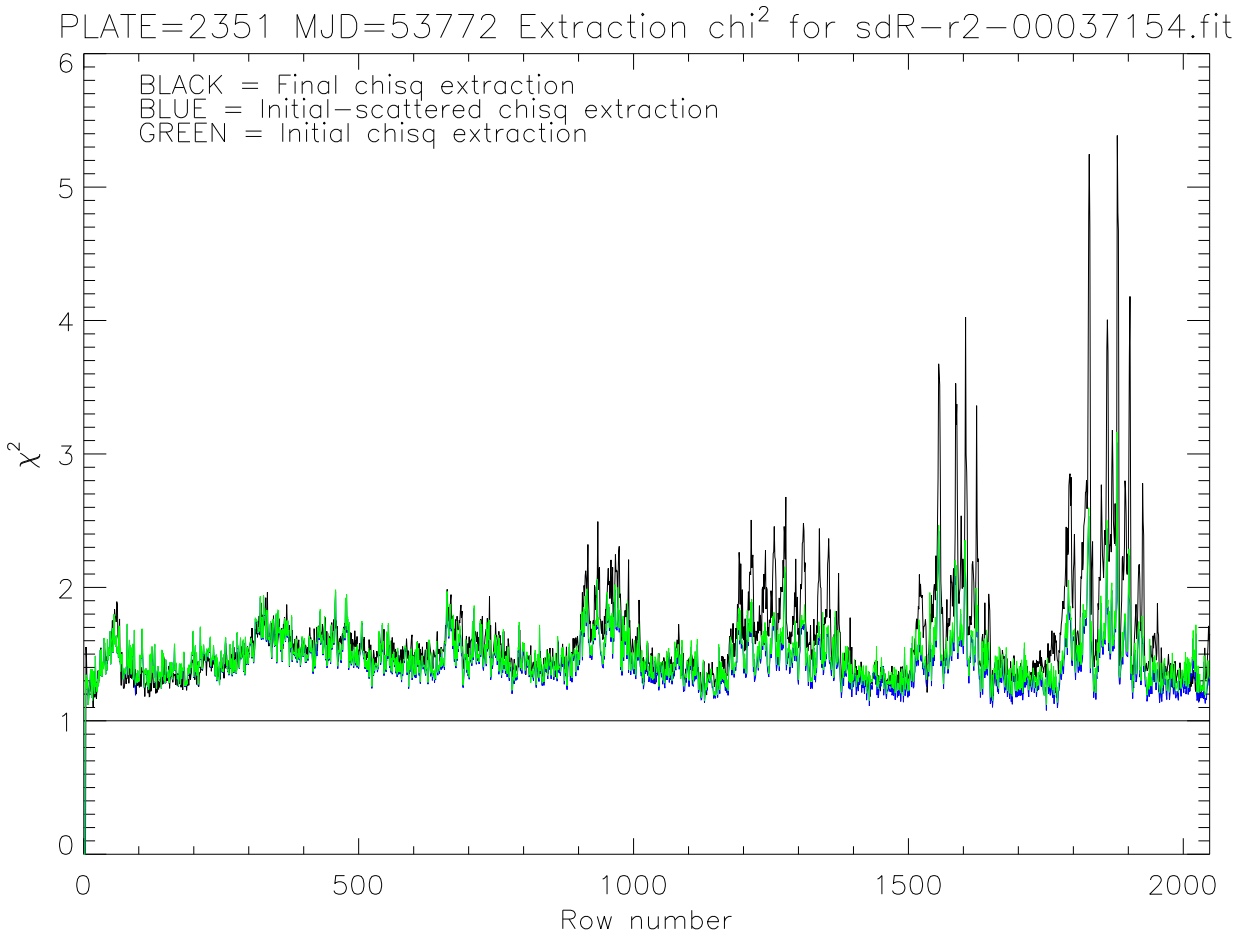

PLATE=2351 MJD=53772 Fiber−Flats for sdR−r2−00037155.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.366
Max value = 1.175
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sat Feb 16 20:07:44 2008

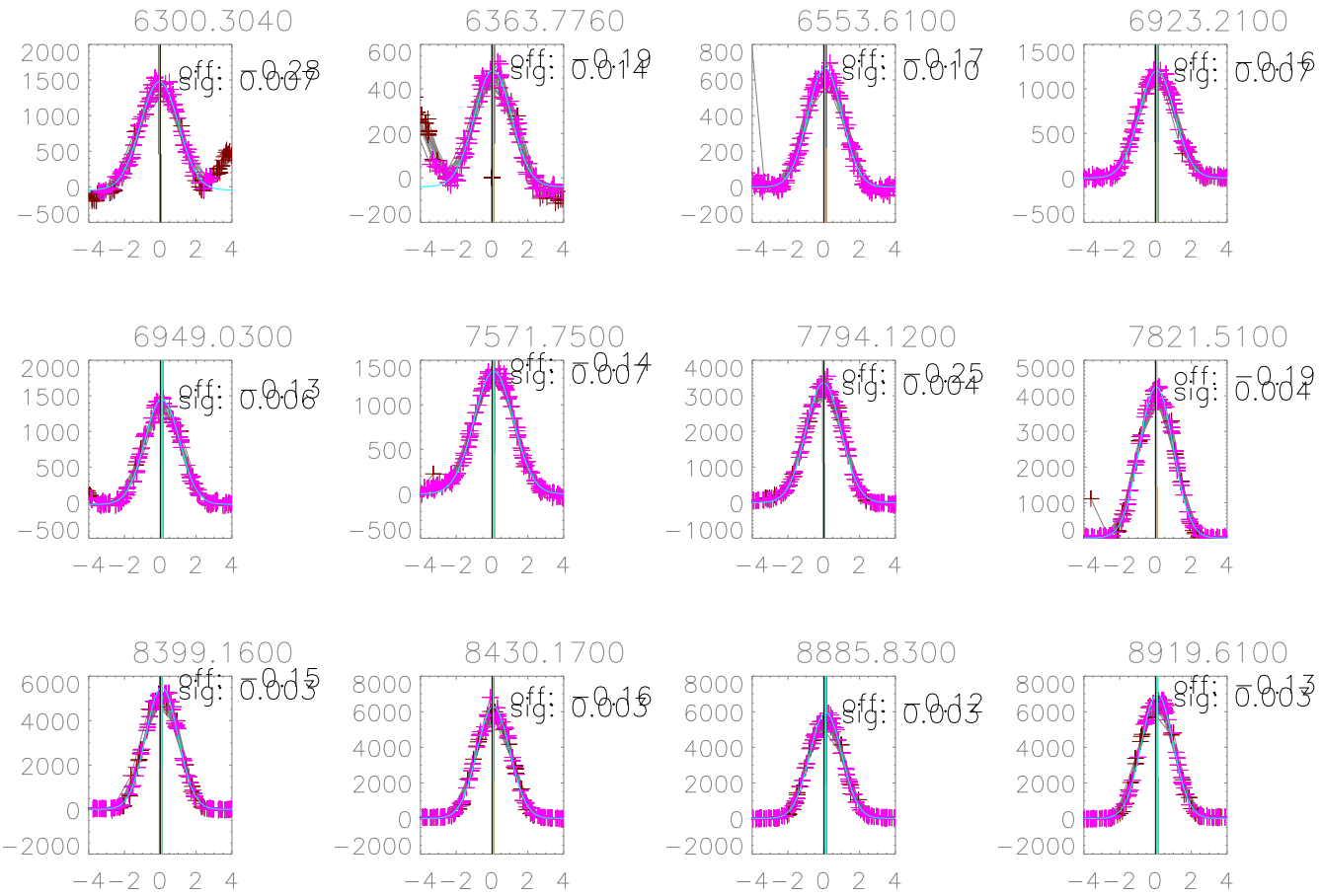

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR-r2-00037154.fi
50.9
50.9
50.9
36.4
36.4
36.4
36.4
21.8
21.8
21.8
7.3
7.3
Y [pix]
X [pix]
0
500
1000
1500
2000

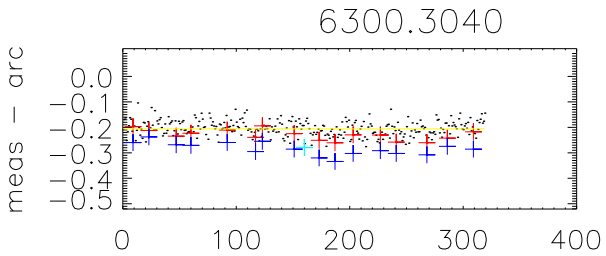

PLATE=2351 MJD=53772 Scattered Light before halo removal on sdR-r2-00037154.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 5.735
Max value = 59.407
Sat Feb 16 20:08:35 2008

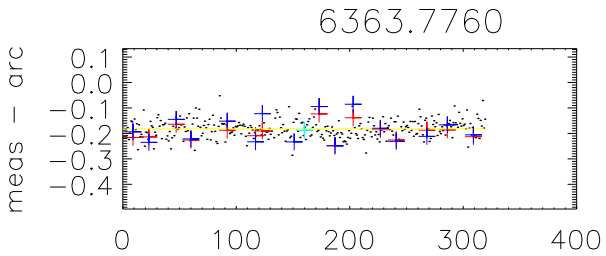

PLATE=2351 MJD=53772 Scattered Light on sdR-r2-00037154.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
13.6
8.2

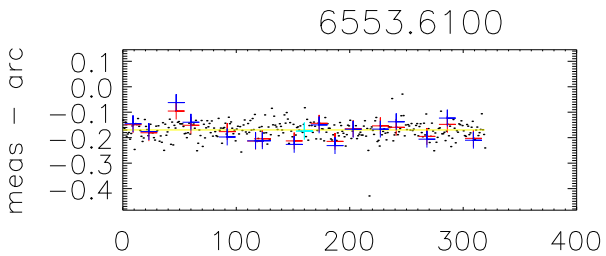

PLATE=2351 MJD=53772 Scattered Light on sdR-r2-00037154.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 5.478
Max value = 17.916
Sat Feb 16 20:11:12 2008

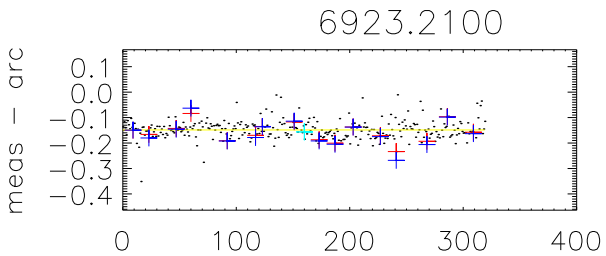

PLATE=2351 MJD=53772 Extraction chi^2 for sdR−r2−00037154.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
5
6
0
500
1000
1500
2000
Row number

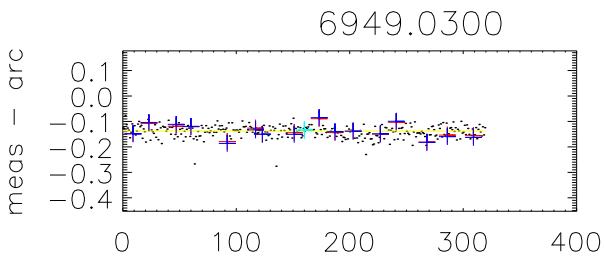

6300.3040
off: −0.28
sig: 0.007
6363.7760
off: −0.19
sig: 0.014
6553.6100
off: −0.17
sig: 0.010
6923.2100
off: −0.16
sig: 0.007
6949.0300
off: −0.13
sig: 0.006
7571.7500
off: −0.14
sig: 0.007
7794.1200
off: −0.25
sig: 0.004
7821.5100
off: −0.19
sig: 0.004
8399.1600
off: −0.15
sig: 0.003
8430.1700
off: −0.16
sig: 0.003
8885.8300
off: −0.12
sig: 0.003
8919.6100
off: −0.13
sig: 0.003

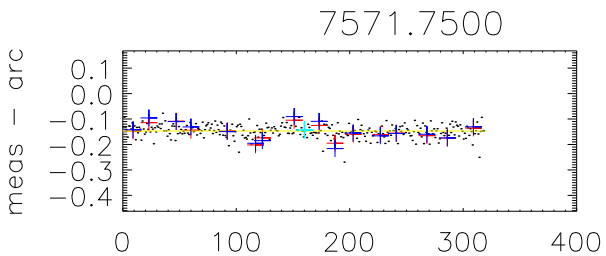

6300.3040
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

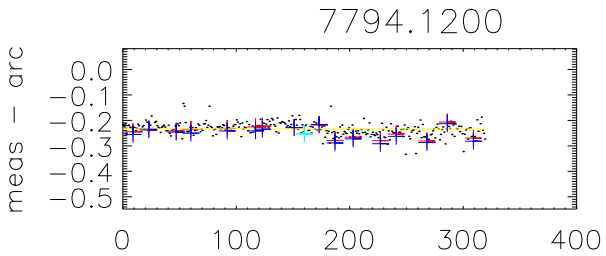

6363.7760
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

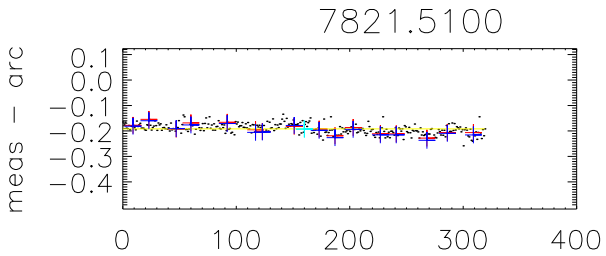

6553.6100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

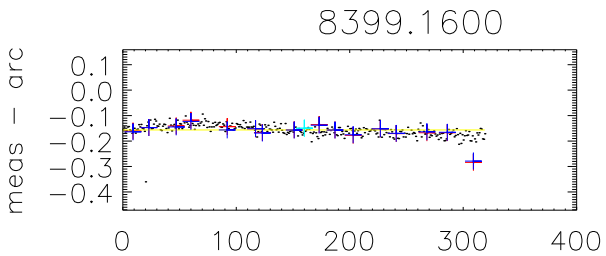

6923.2100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

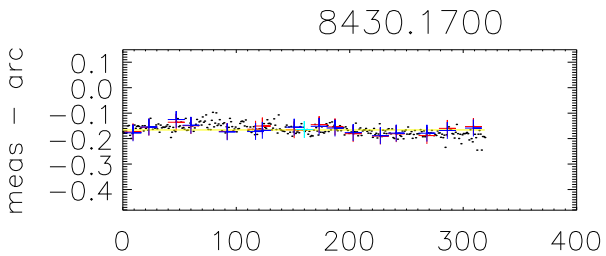

6949.0300
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

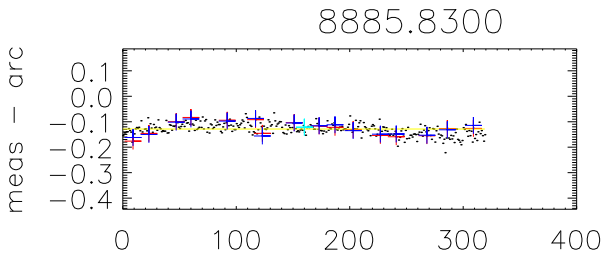

7571.7500
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

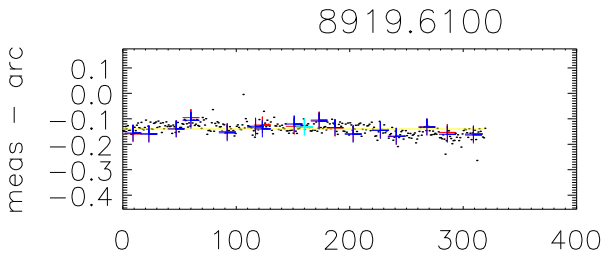

7794.1200
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

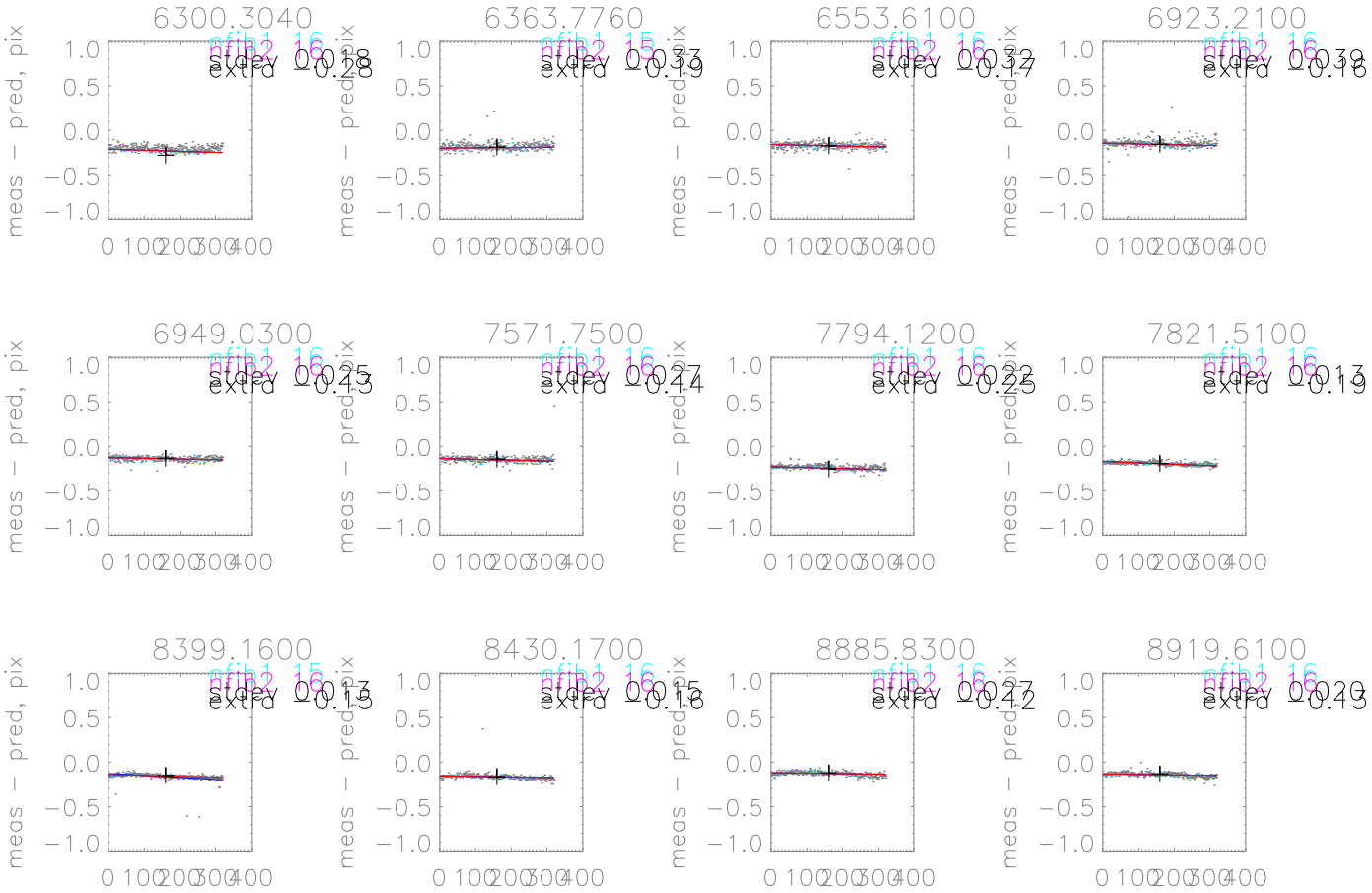

7821.5100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

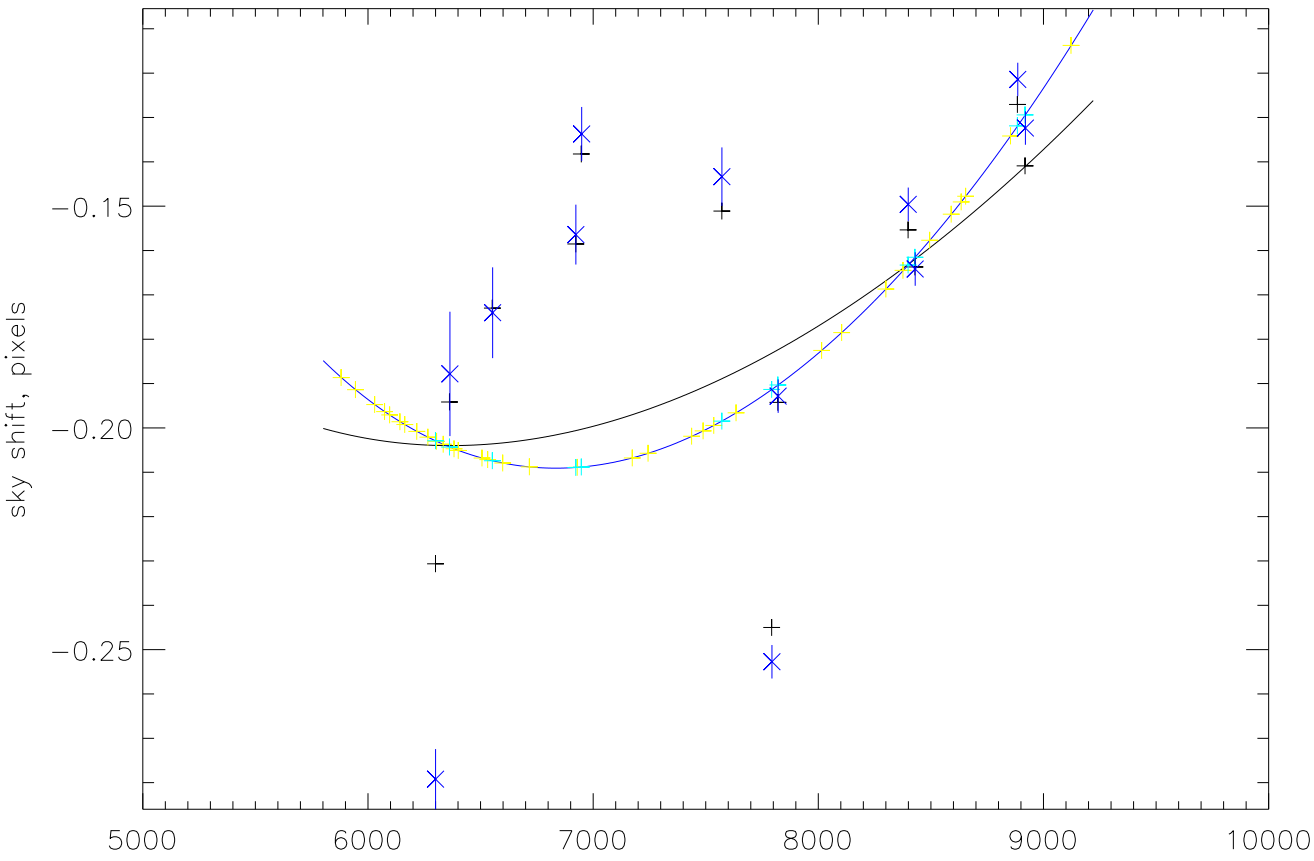

8399.1600
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

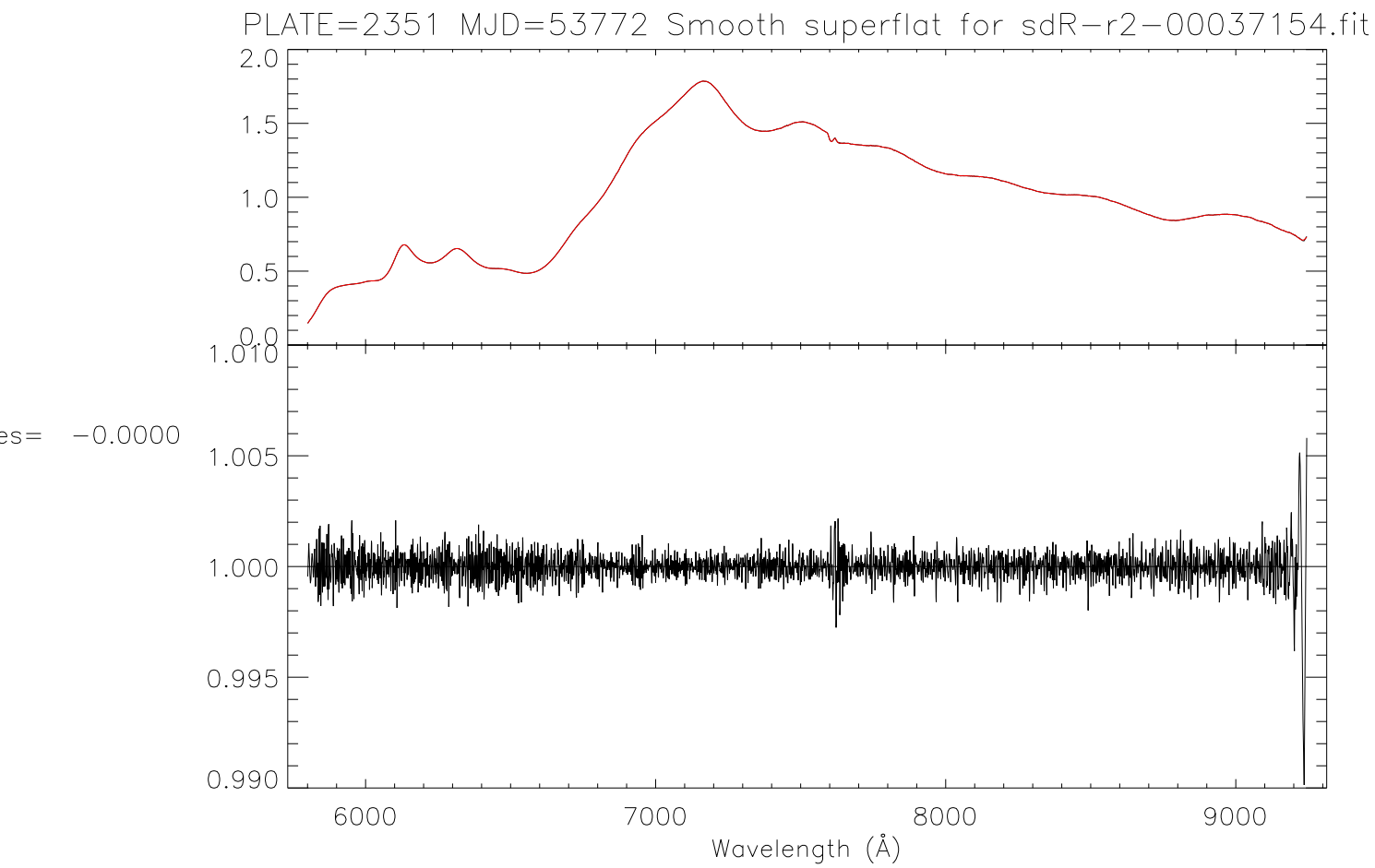

8430.1700
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400


8885.8300
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

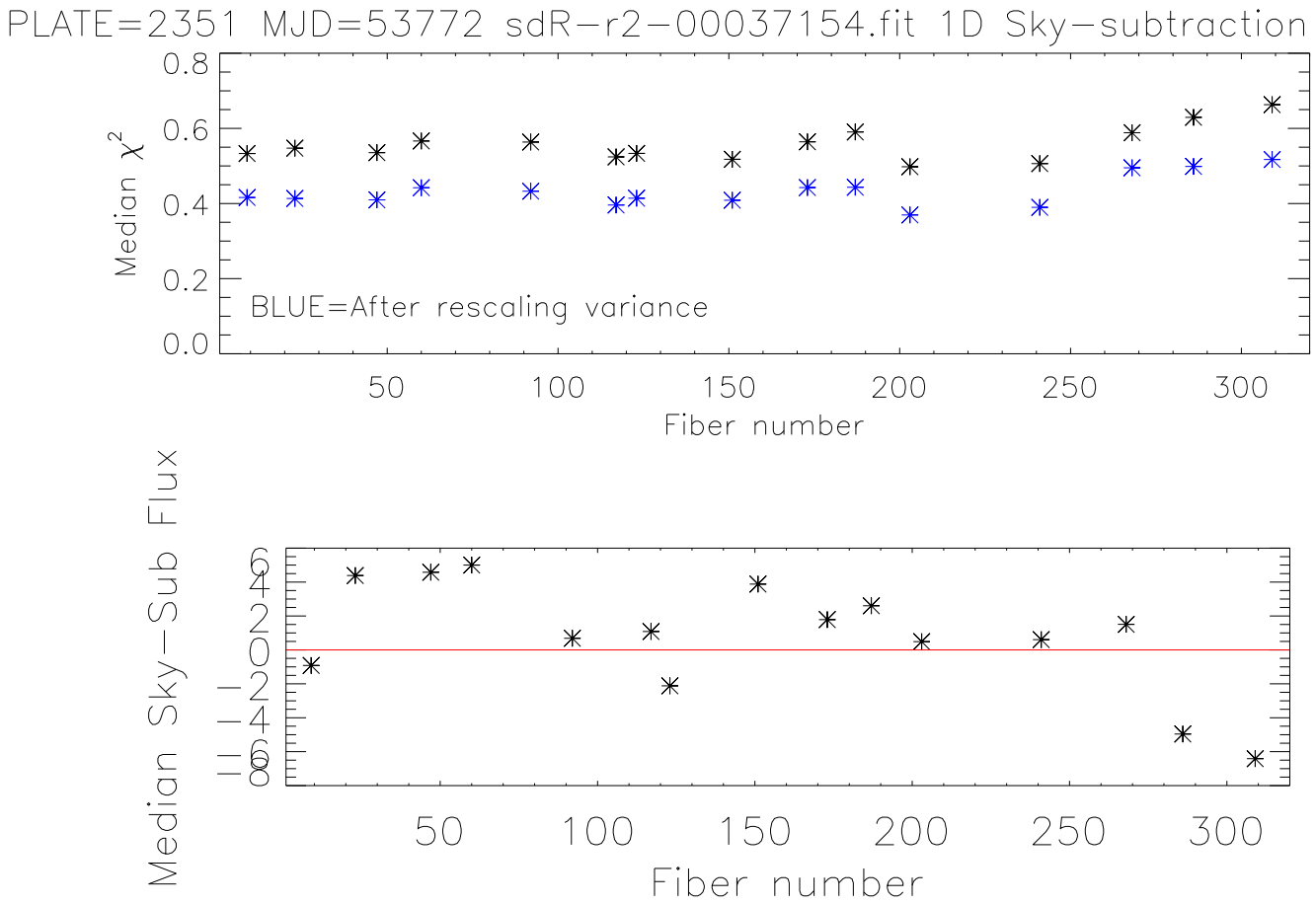

8919.6100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400


6300.3040
mfhd1 16
mfhd2 16
stdev 0.018
extra 0.28
6363.7760
mfhd1 15
mfhd2 16
stdev 0.033
extra 0.39
6553.6100
mfhd1 16
mfhd2 16
stdev 0.032
extra 0.37
6923.2100
mfhd1 16
mfhd2 16
stdev 0.039
extra 0.18
6949.0300
mfhd1 16
mfhd2 16
stdev 0.025
extra 0.43
7571.7500
mfhd1 16
mfhd2 16
stdev 0.027
extra 0.44
7794.1200
mfhd1 16
mfhd2 16
stdev 0.022
extra 0.25
7821.5100
mfhd1 16
mfhd2 16
stdev 0.013
extra 0.19
8399.1600
mfhd1 15
mfhd2 16
stdev 0.013
extra 0.15
8430.1700
mfhd1 16
mfhd2 16
stdev 0.015
extra 0.18
8885.8300
mfhd1 16
mfhd2 16
stdev 0.037
extra 0.42
8919.6100
mfhd1 16
mfhd2 16
stdev 0.020
extra 0.43
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400

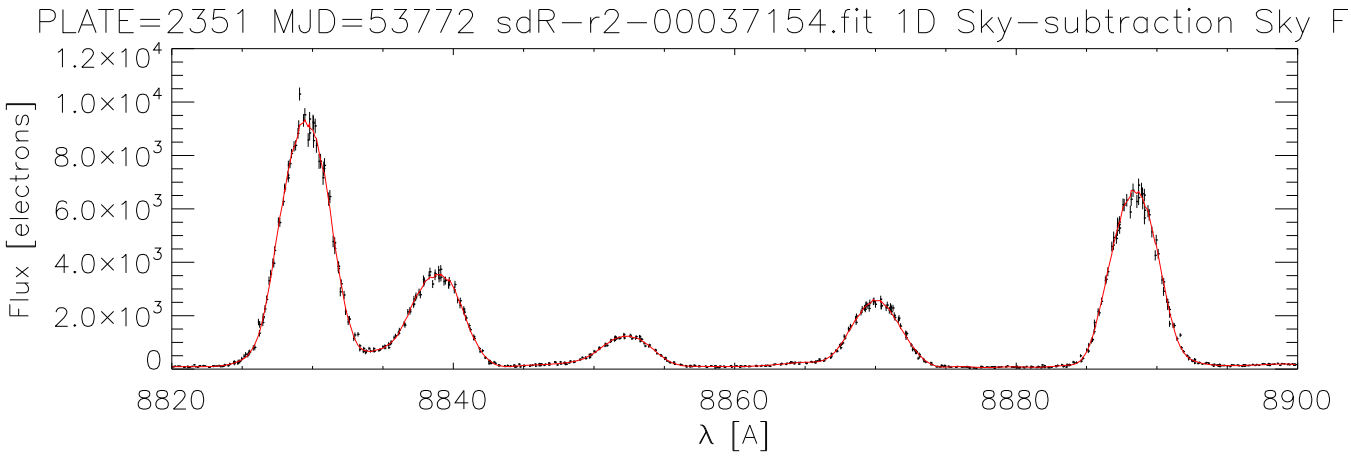

sky shift, pixels
−0.15
−0.20
−0.25
5000
6000
7000
8000
9000
10000

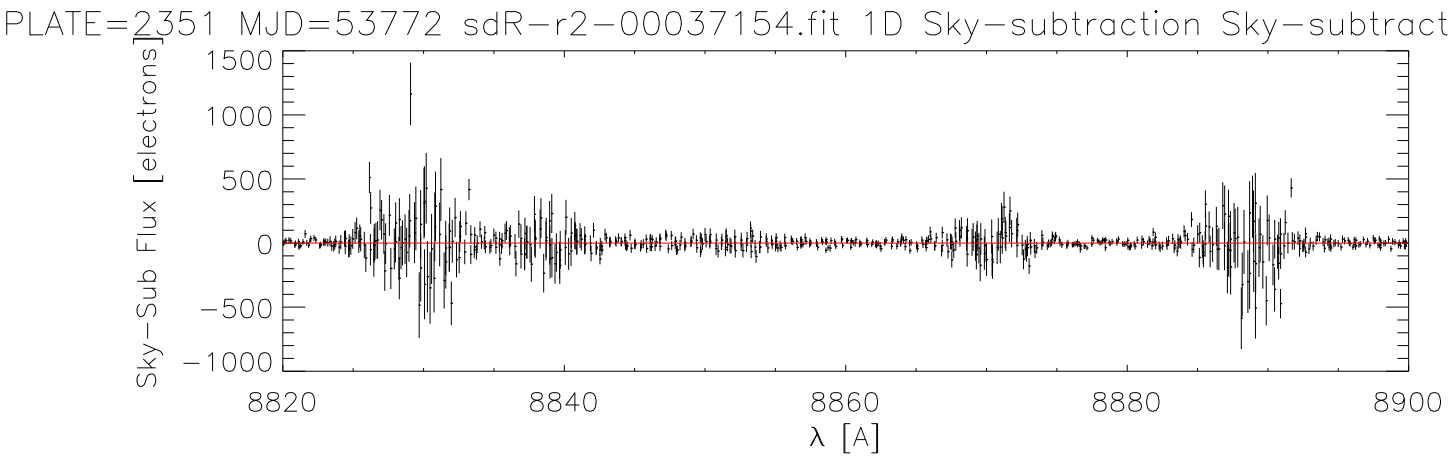

PLATE=2351 MJD=53772 Smooth superflat for sdR-r2-00037154.fit
2.0
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
6000
7000
8000
9000
Wavelength (Å)

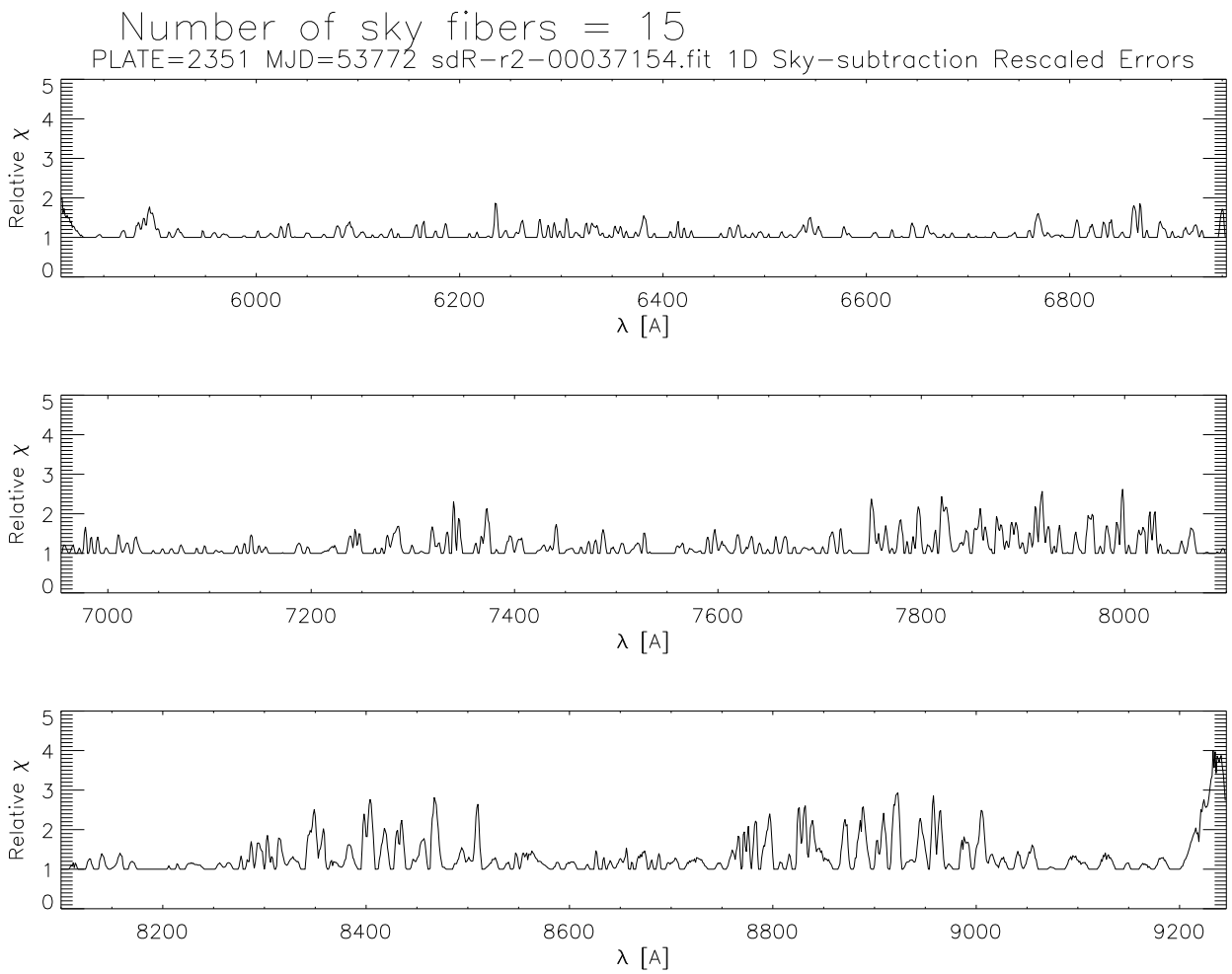
es= −0.0000

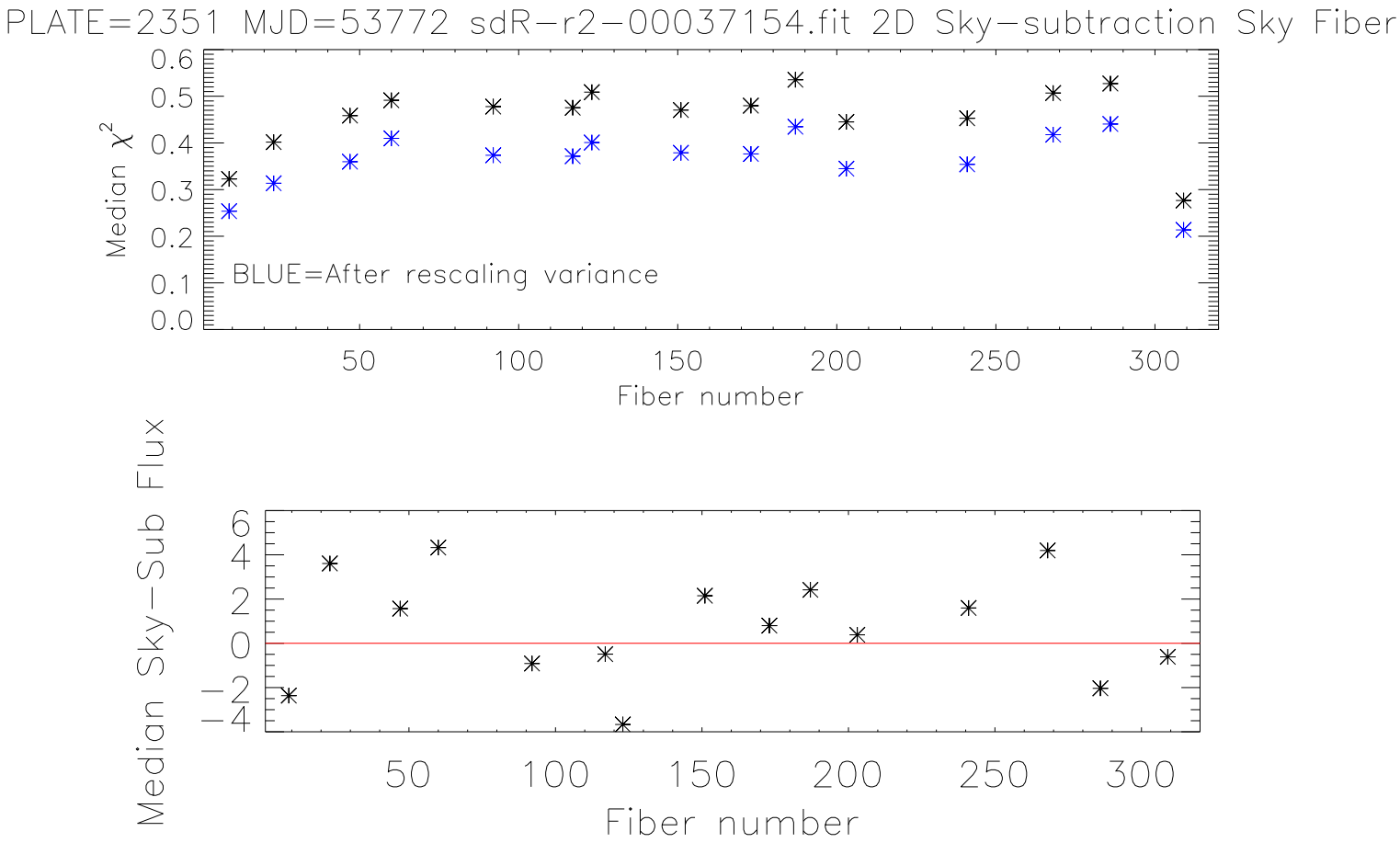

PLATE=2351 MJD=53772 sdR-r2-00037154.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number

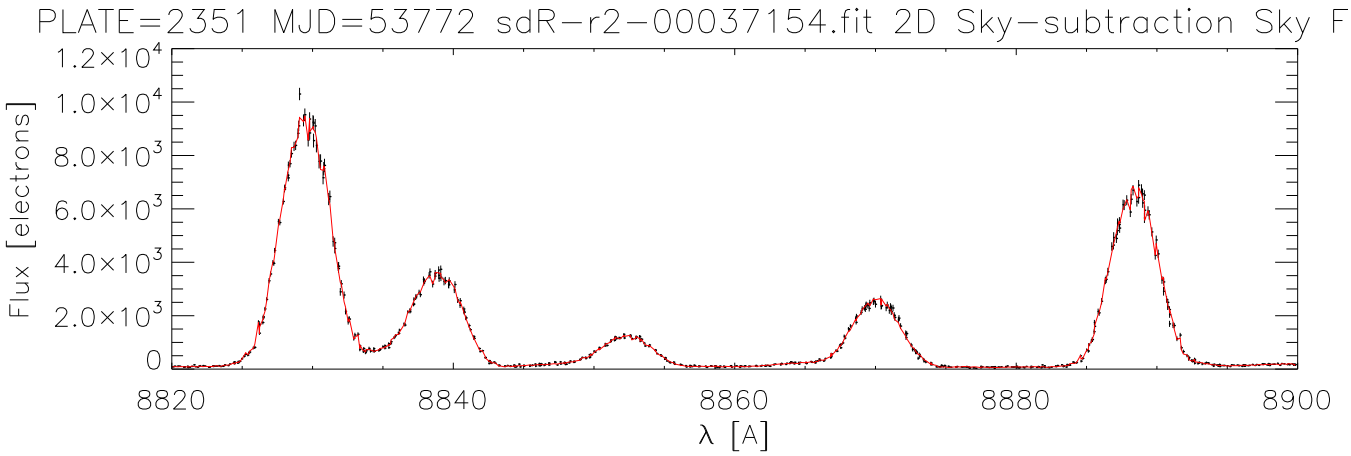
Median Sky-Sub Flux
-6
-4
-2
0
2
4
6
50
100
150
200
250
300
Fiber number

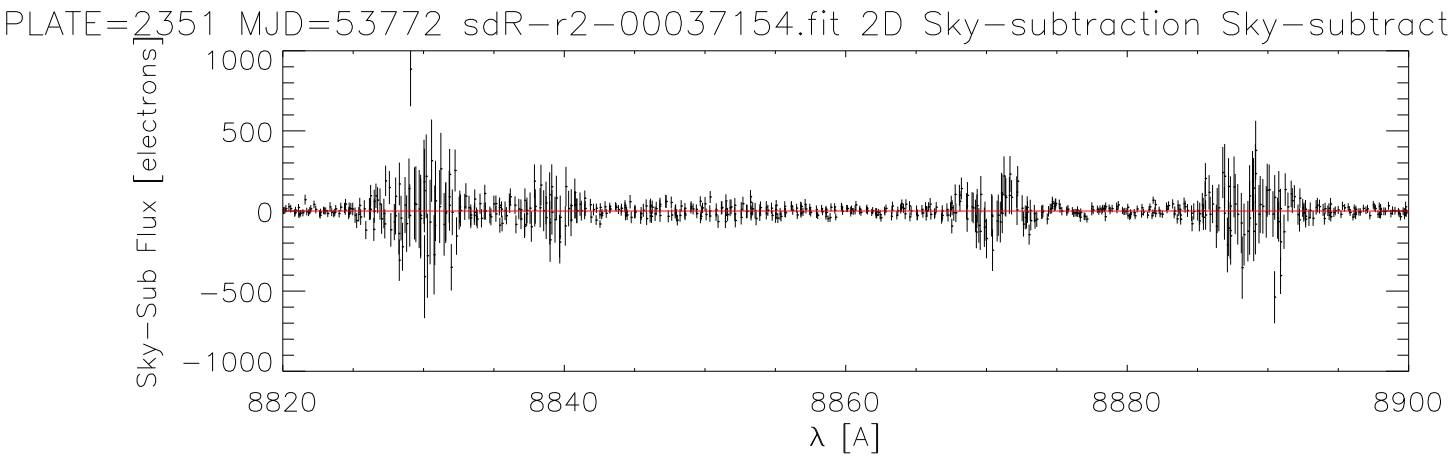

PLATE=2351 MJD=53772 sdR-r2-00037154.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
1.2×10^4
1.0×10^4
8.0×10^3
6.0×10^3
4.0×10^3
2.0×10^3
0
8820
8840
8860
8880
8900
λ [A]

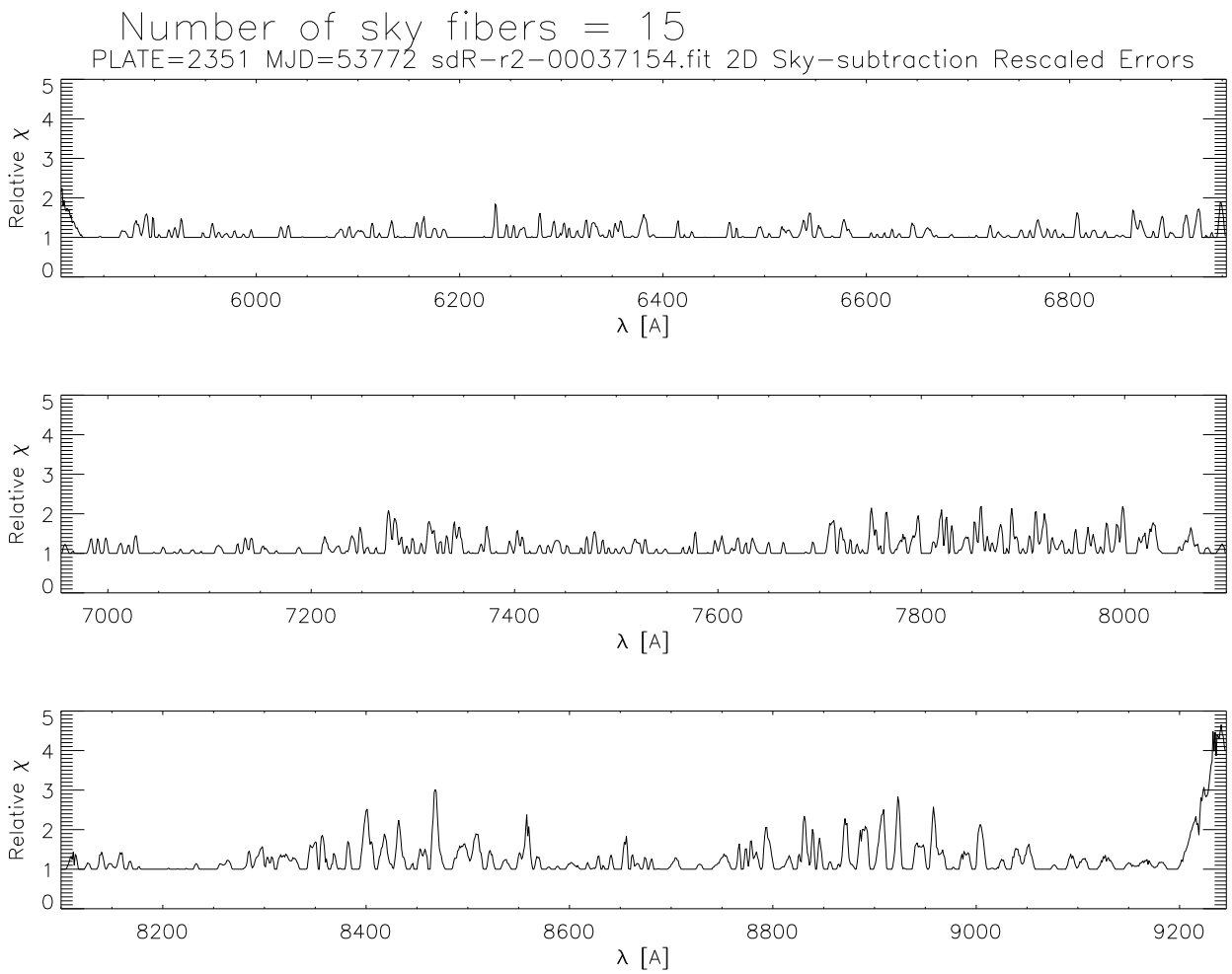

PLATE=2351 MJD=53772 sdR-r2-00037154.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
1500
1000
500
0
−500
−1000
8820
8840
8860
8880
8900
λ [A]

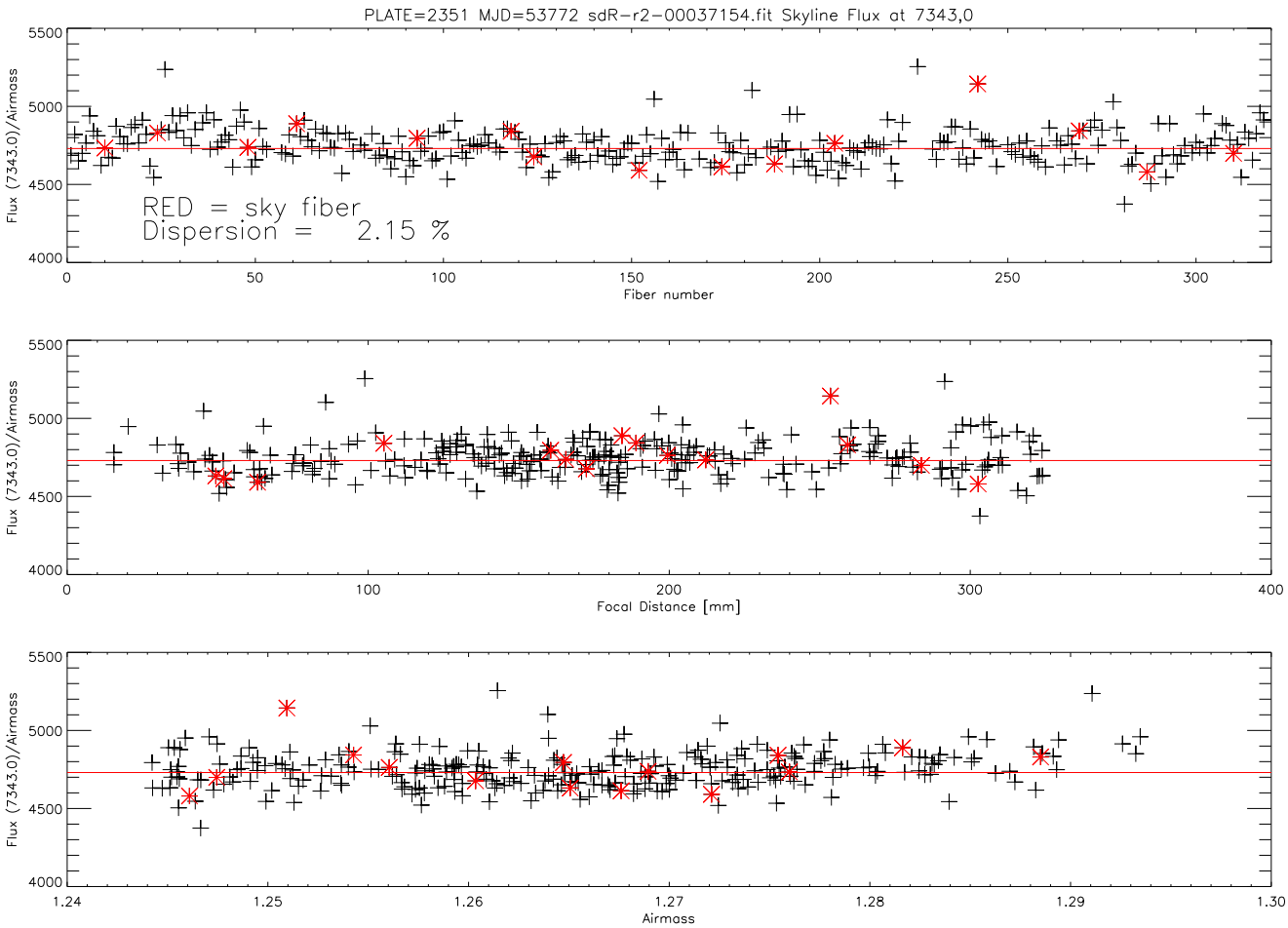

Number of sky fibers = 15
PLATE=2351 MJD=53772 sdR-r2-00037154.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

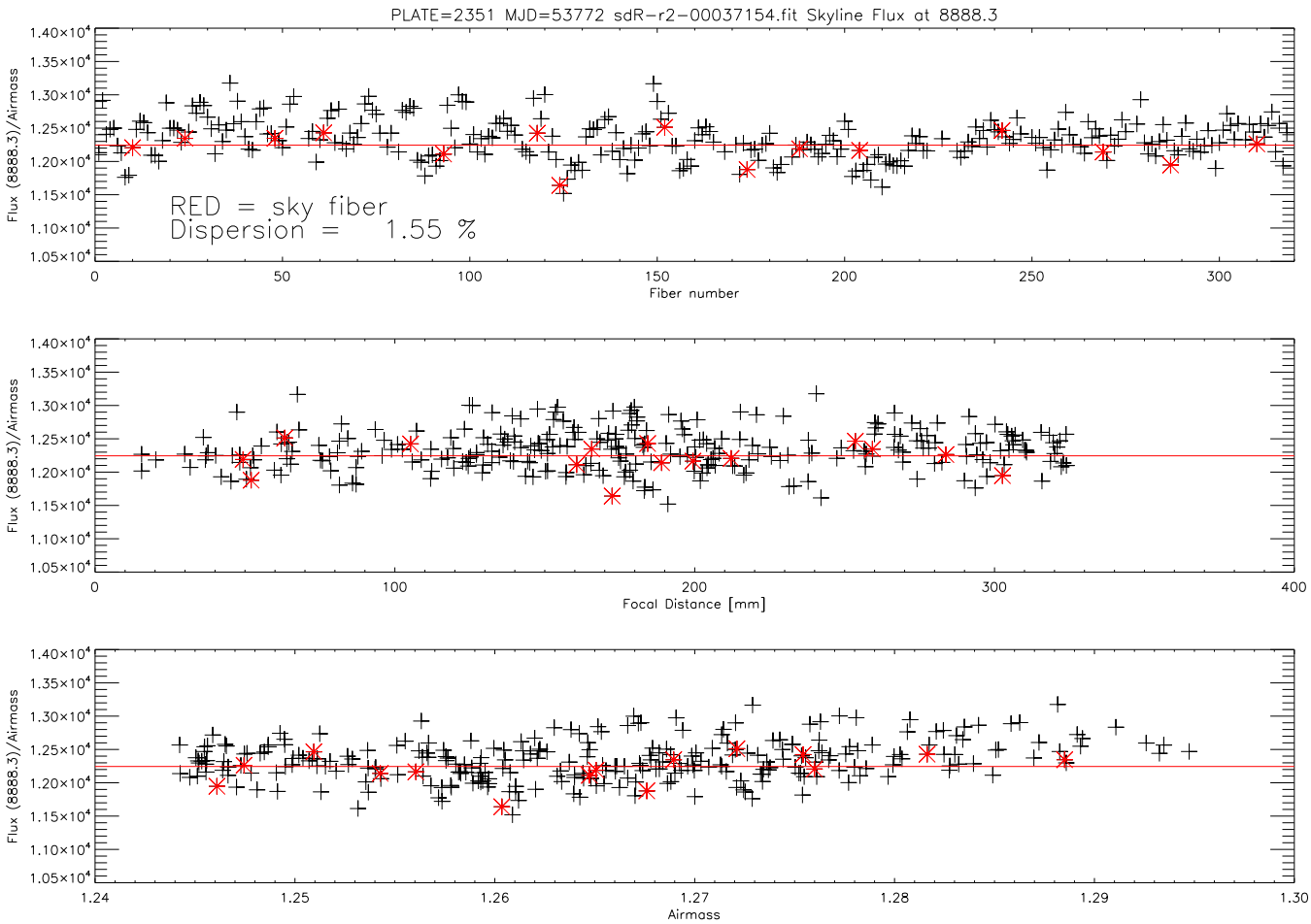

PLATE=2351 MJD=53772 sdR-r2-00037154.fit 2D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-4
-2
0
2
4
6
50
100
150
200
250
300
Fiber number


PLATE=2351 MJD=53772 sdR-r2-00037154.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
1.2×10^4
1.0×10^4
8.0×10^3
6.0×10^3
4.0×10^3
2.0×10^3
0
8820
8840
8860
8880
8900
λ [A]


PLATE=2351 MJD=53772 sdR-r2-00037154.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
1000
500
0
−500
−1000
8820
8840
8860
8880
8900
λ [A]


Number of sky fibers = 15
PLATE=2351 MJD=53772 sdR-r2-00037154.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5


PLATE=2351 MJD=53772 sdR-r2-00037154.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 2.15 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass


PLATE=2351 MJD=53772 sdR-r2-00037154.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 1.55 %
Fiber number
Focal Distance [mm]
Airmass