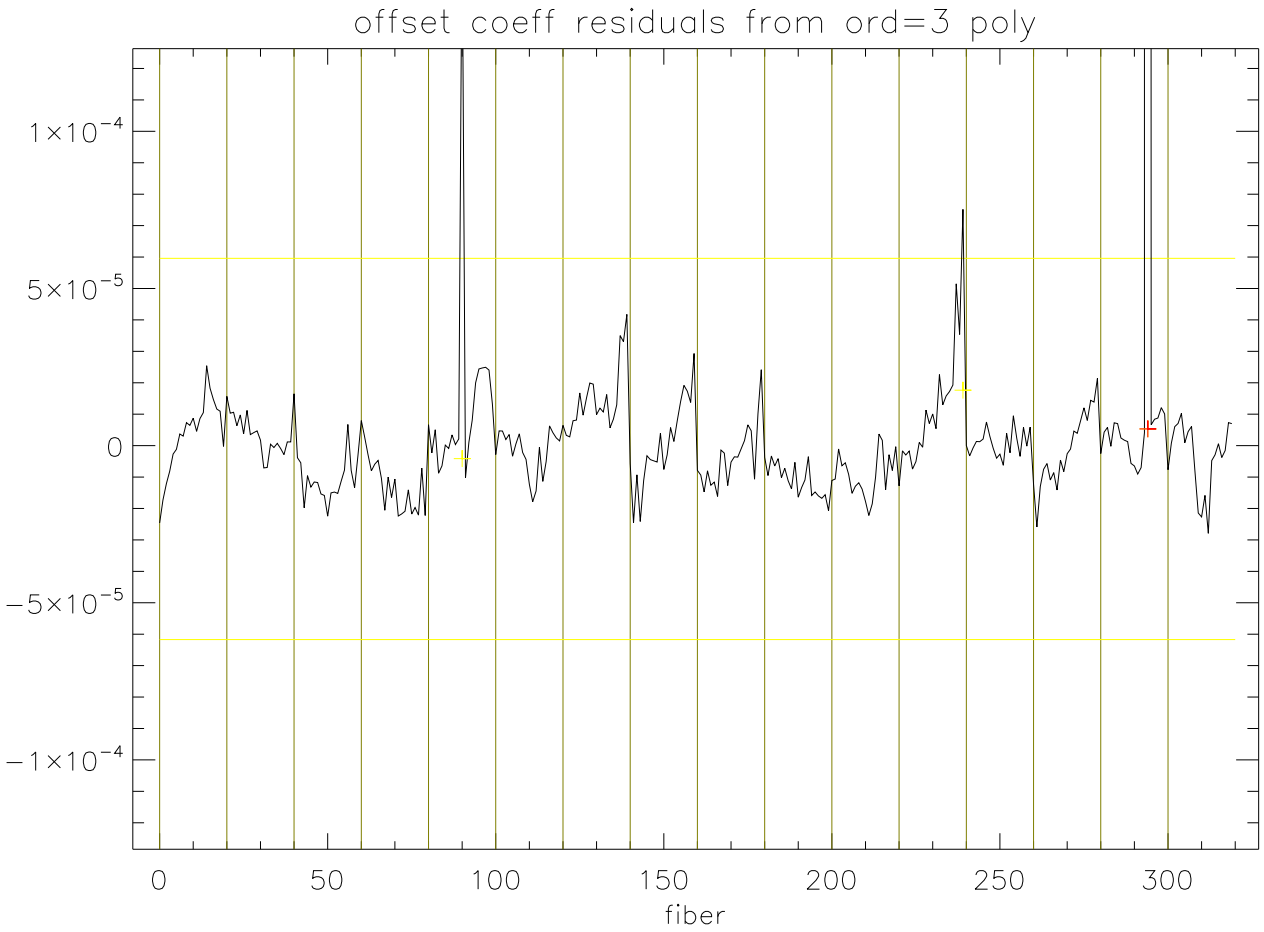
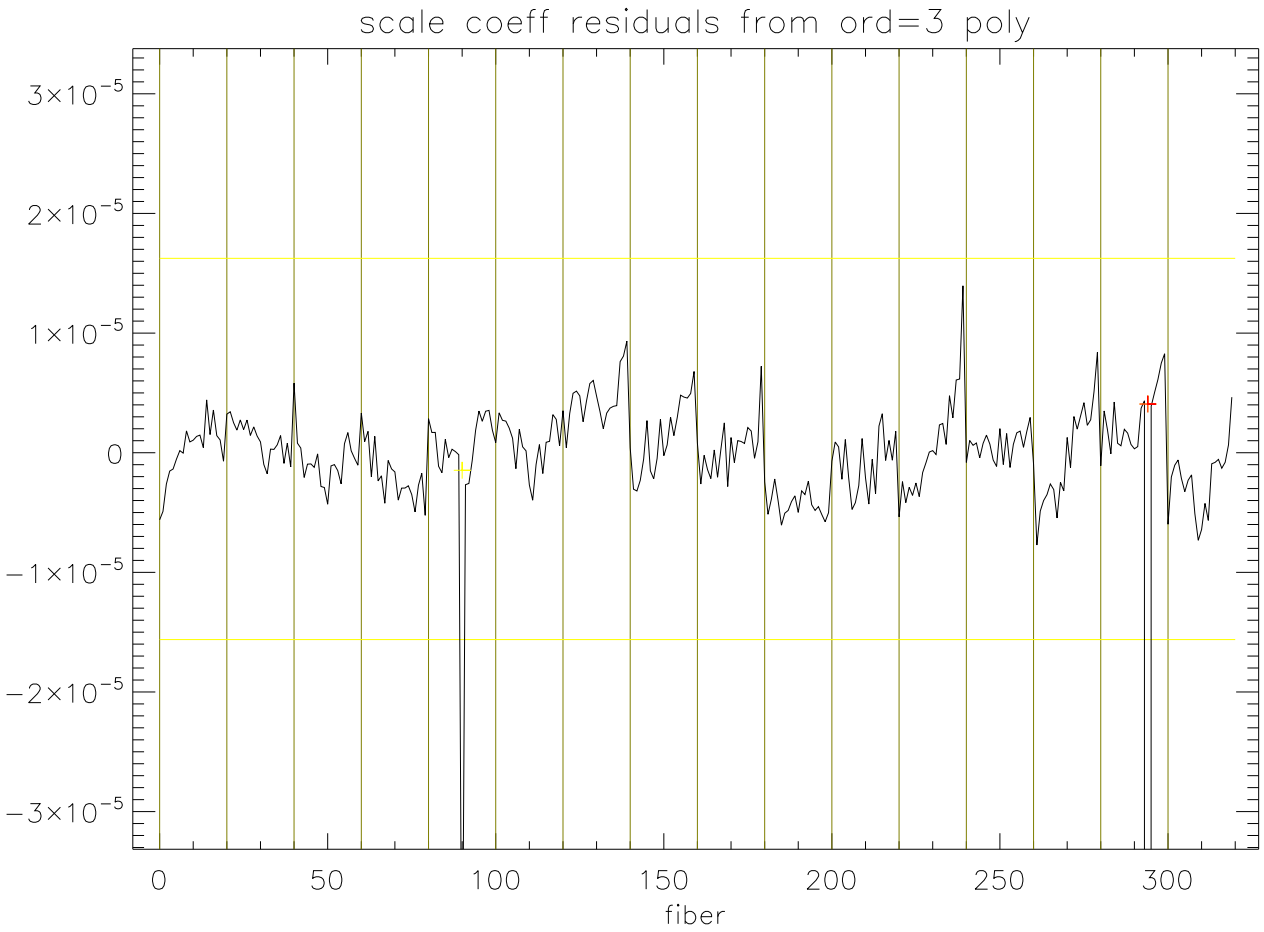
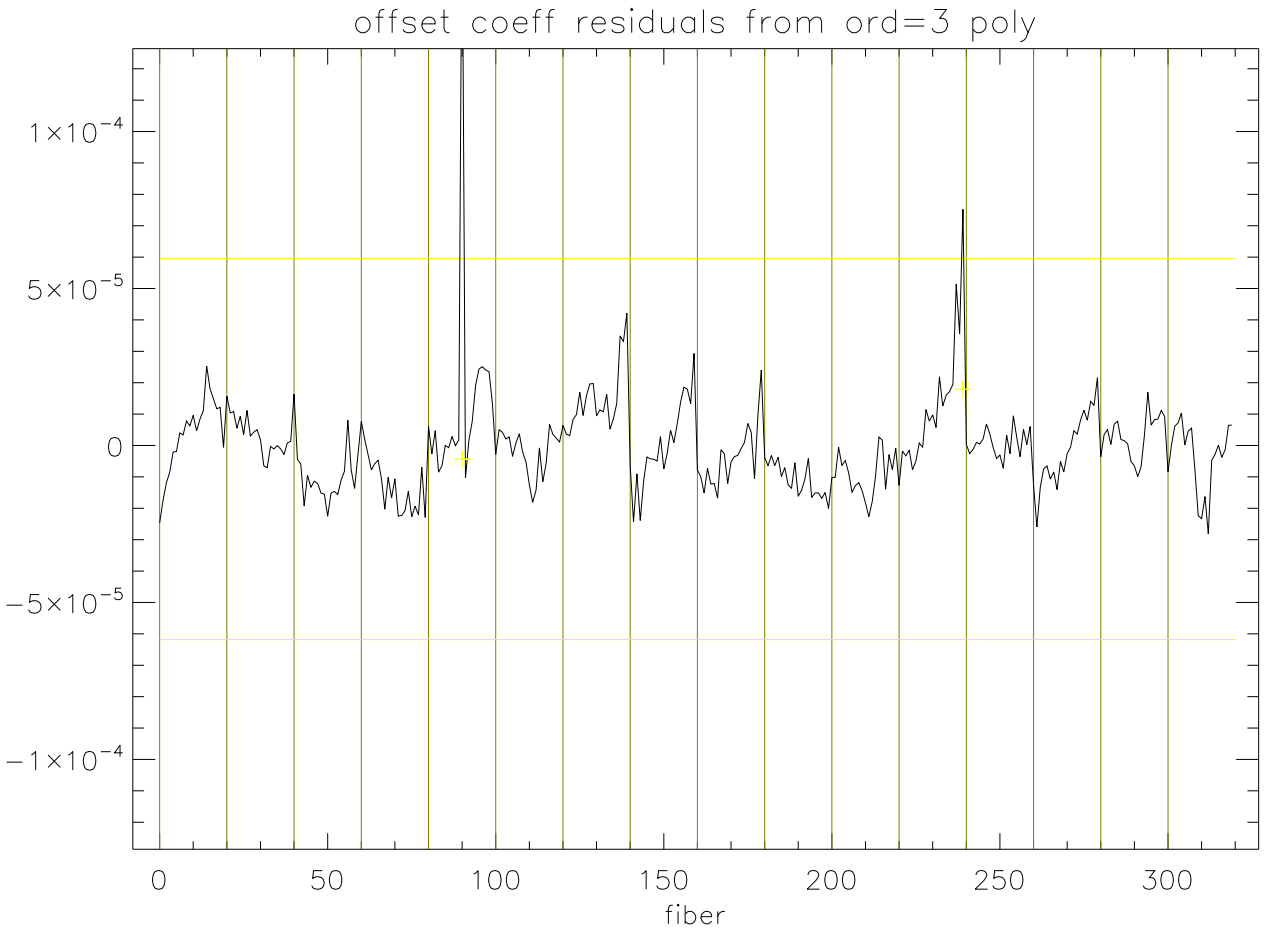
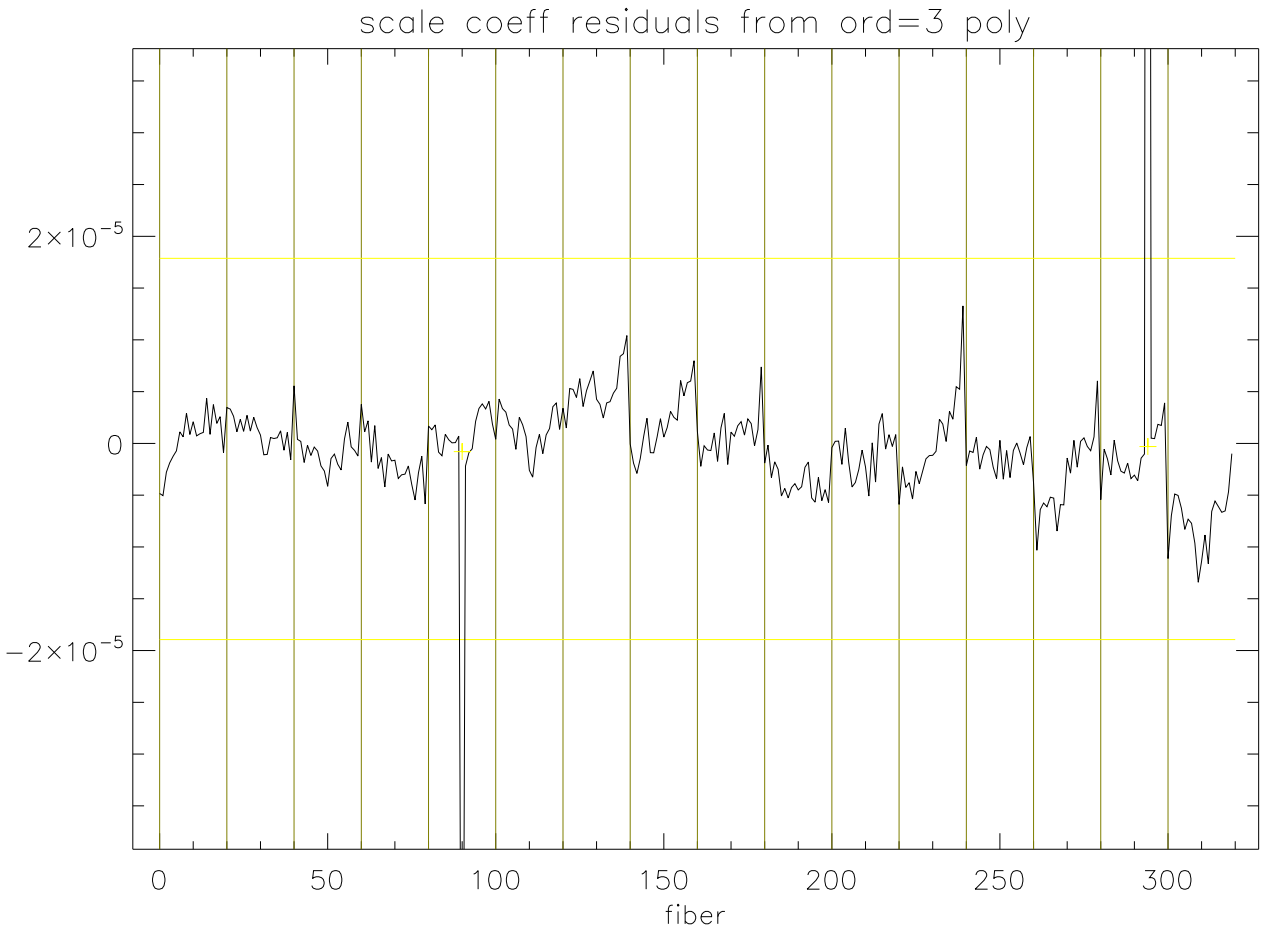
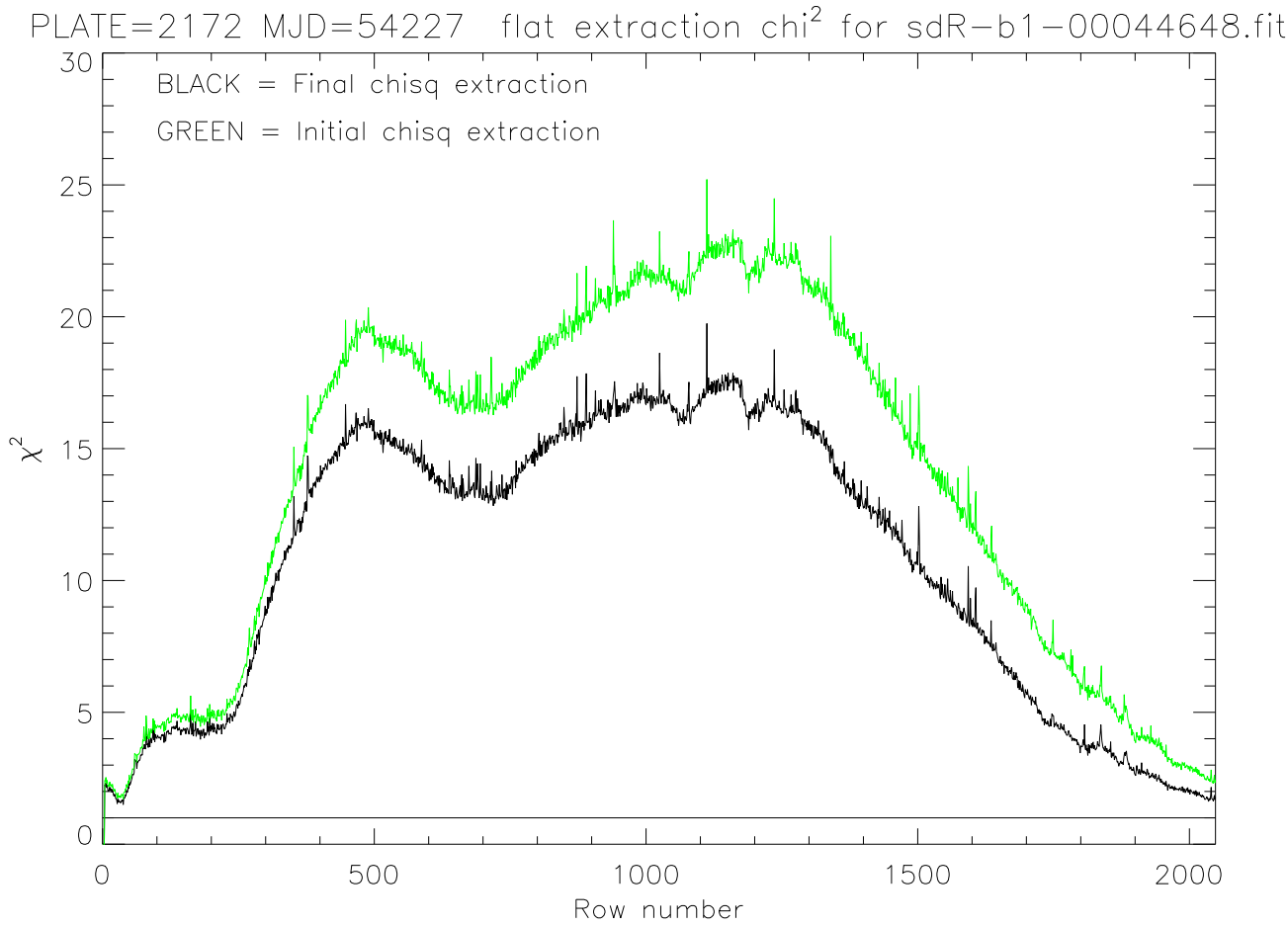
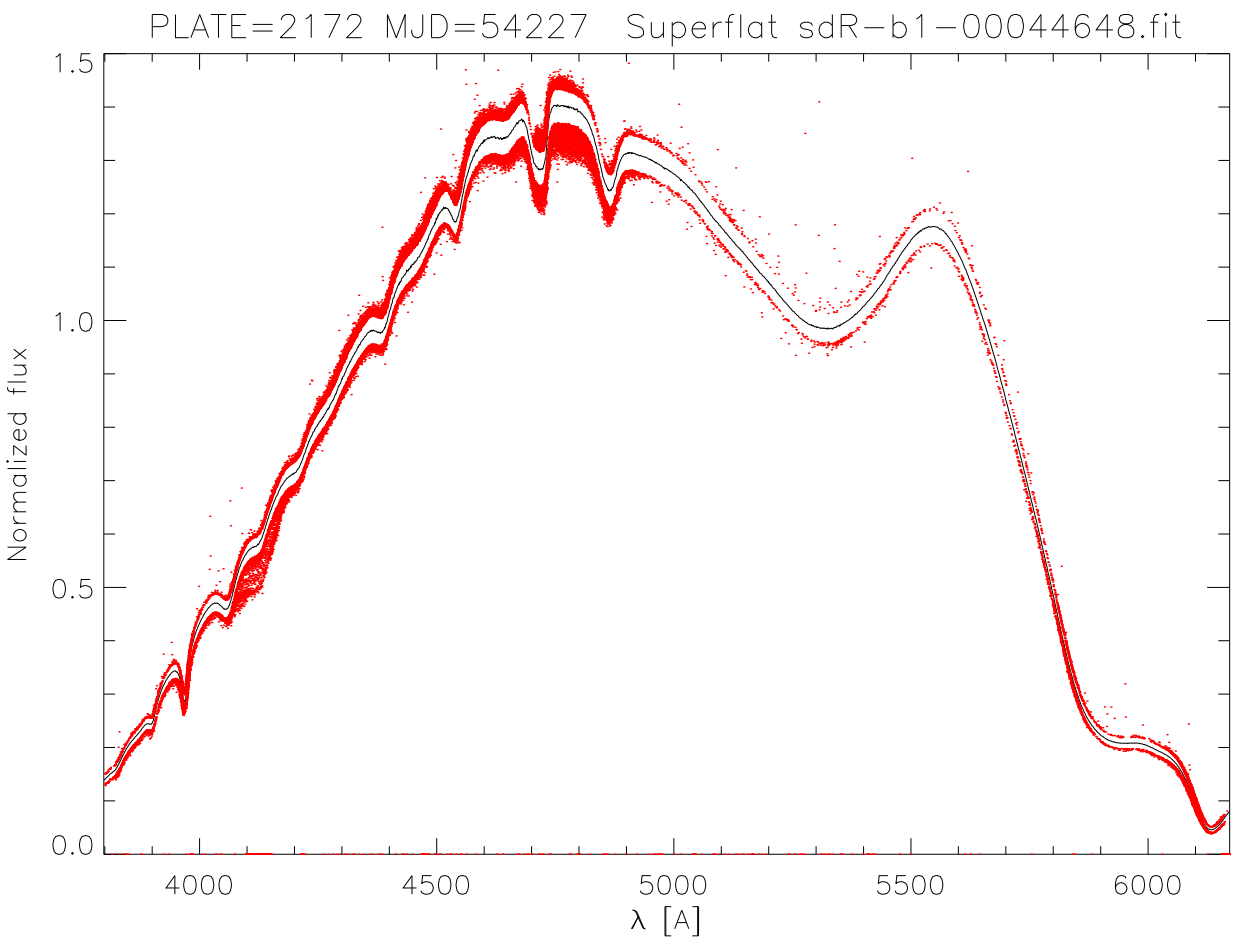

offset coeff residuals from ord=3 poly
1×10^-4
5×10^-5
0
−5×10^-5
−1×10^-4
0
50
100
150
200
250
300
fiber

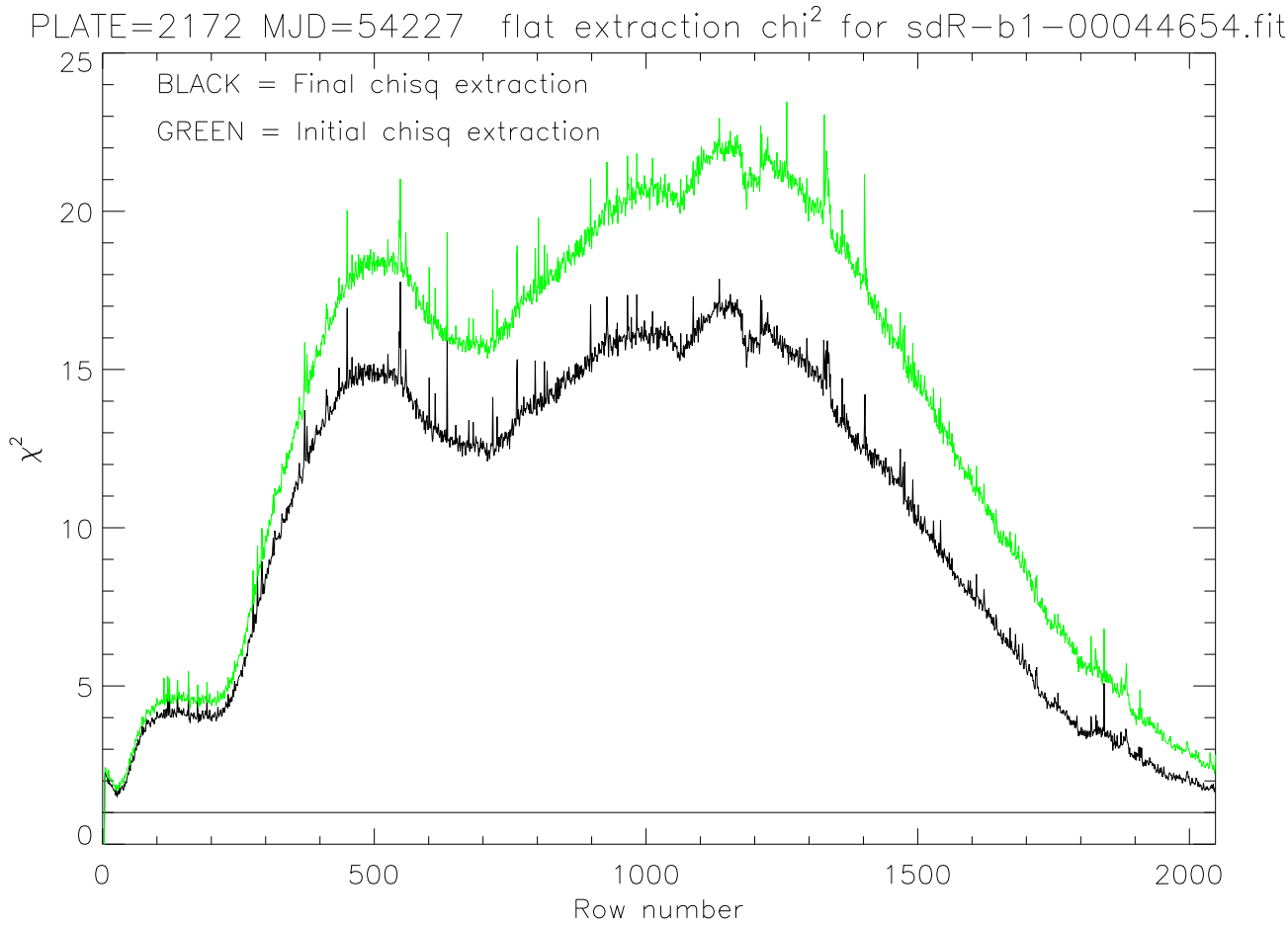

scale coeff residuals from ord=3 poly
3×10⁻⁵
2×10⁻⁵
1×10⁻⁵
0
−1×10⁻⁵
−2×10⁻⁵
−3×10⁻⁵
0
50
100
150
200
250
300
fiber

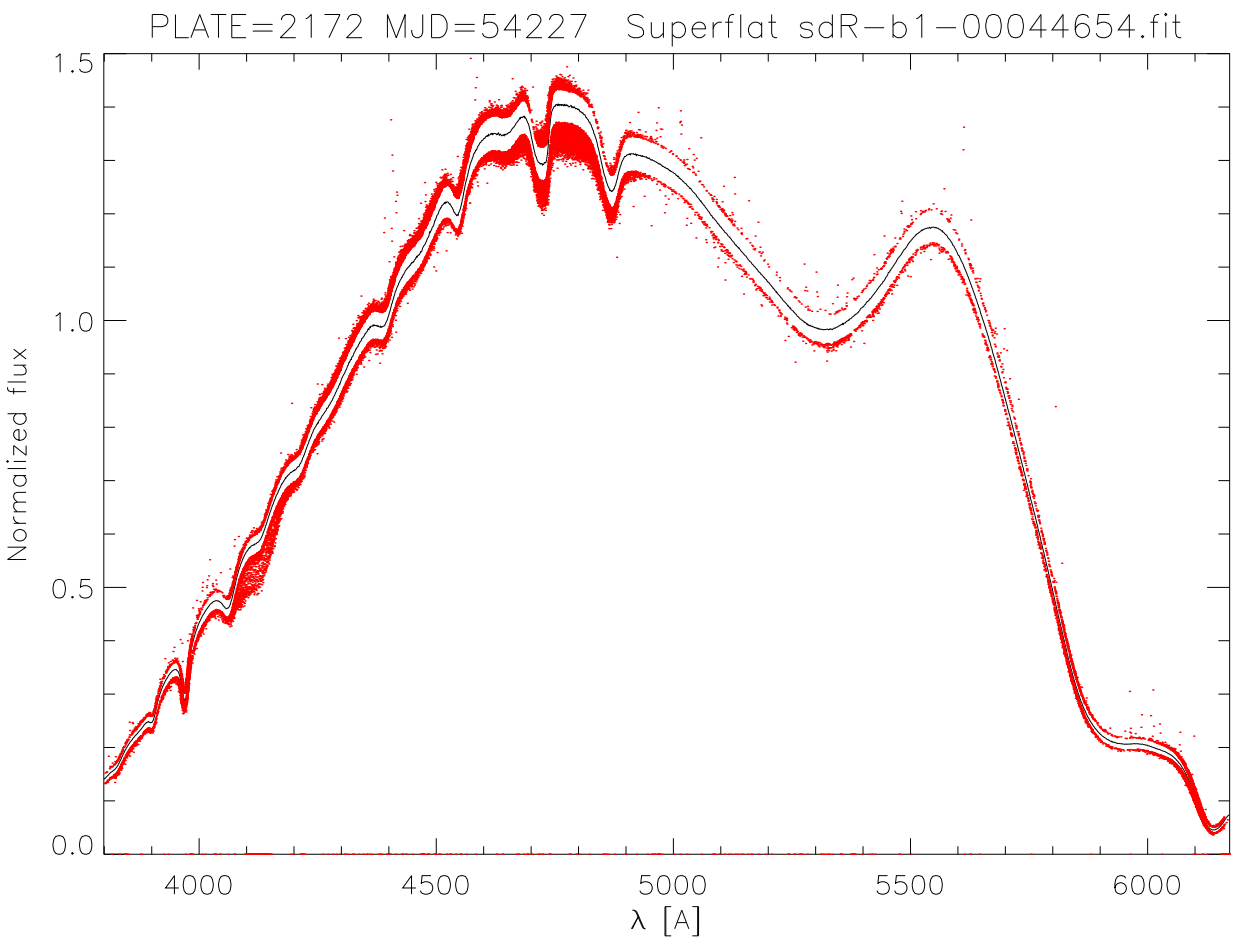

offset coeff residuals from ord=3 poly
1×10^-4
5×10^-5
0
−5×10^-5
−1×10^-4
0
50
100
150
200
250
300
fiber

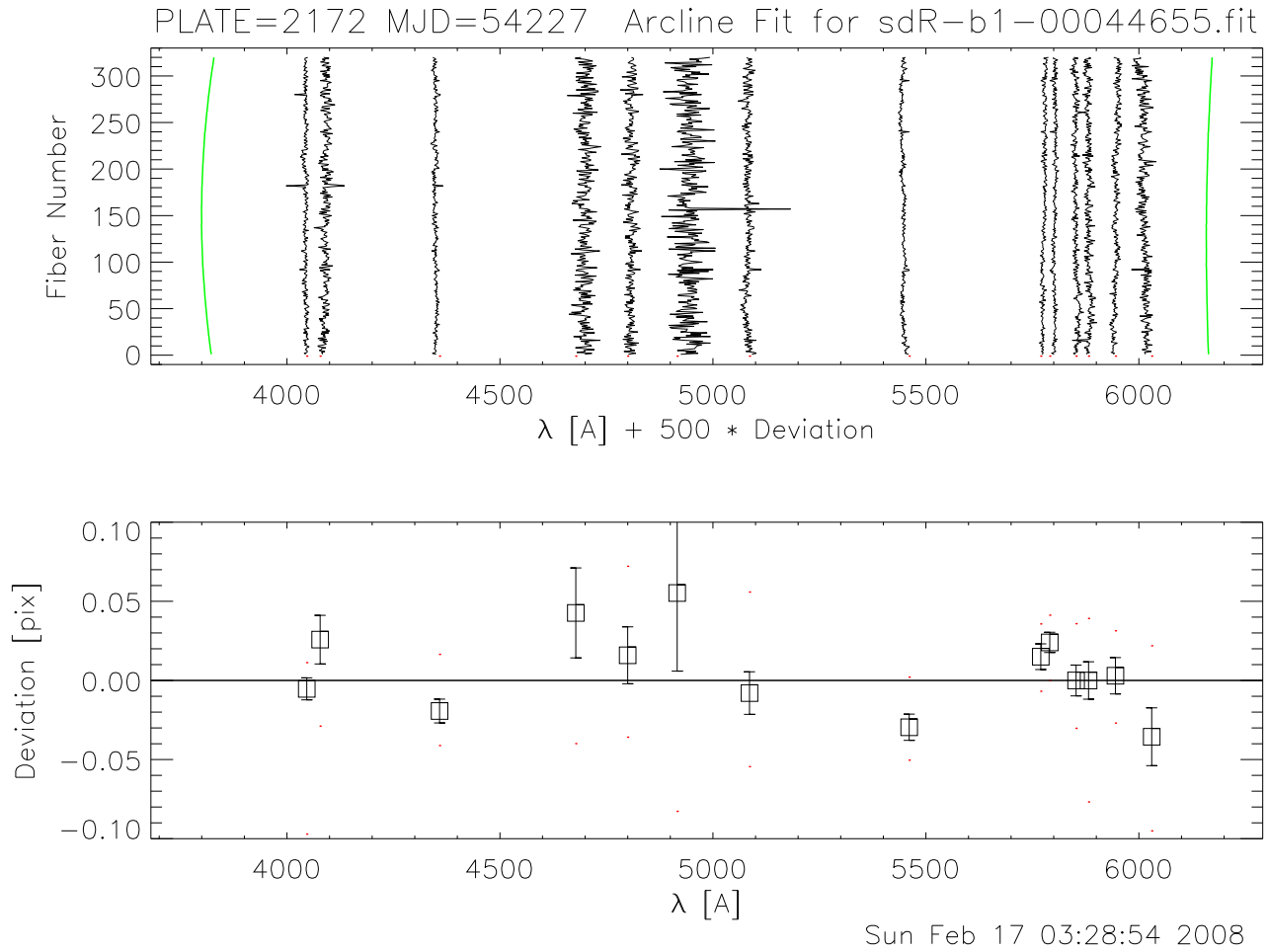

scale coeff residuals from ord=3 poly
2×10⁻⁵
0
−2×10⁻⁵
0
50
100
150
200
250
300
fiber

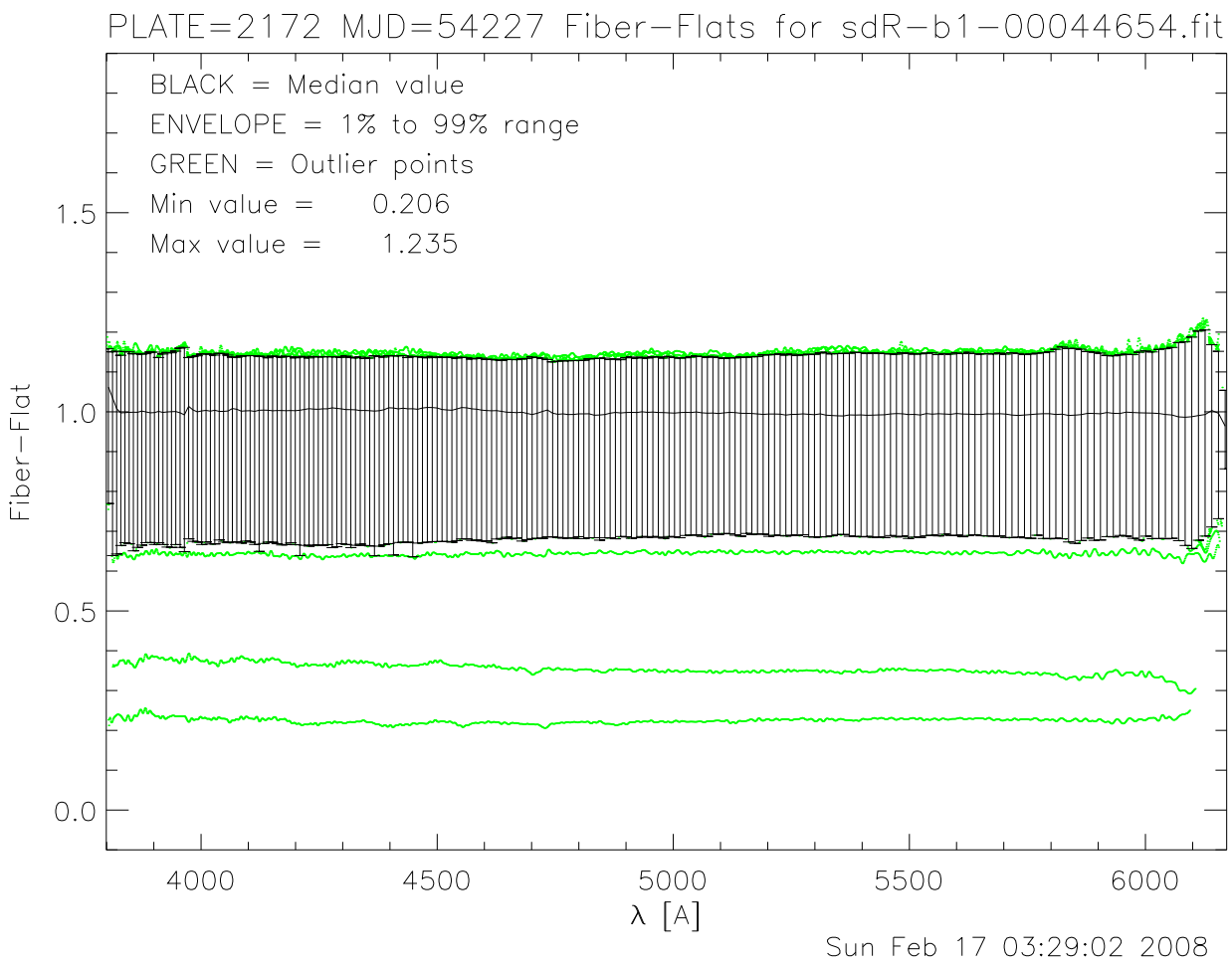

PLATE=2172 MJD=54227 flat extraction chi^2 for sdR−b1−00044648.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
5
10
15
20
25
30
0
500
1000
1500
2000

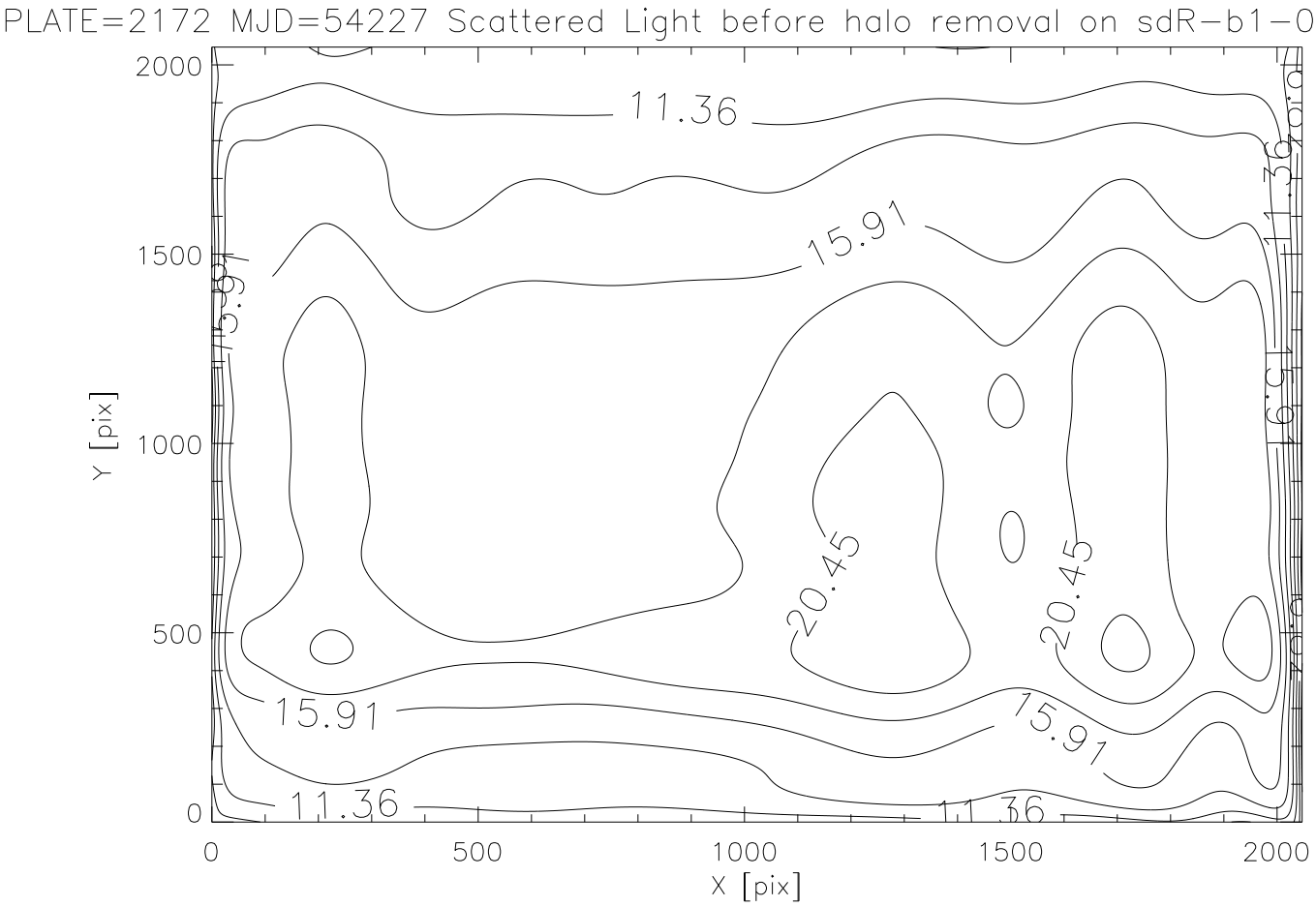

PLATE=2172 MJD=54227 Superflat sdR-b1-00044648.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

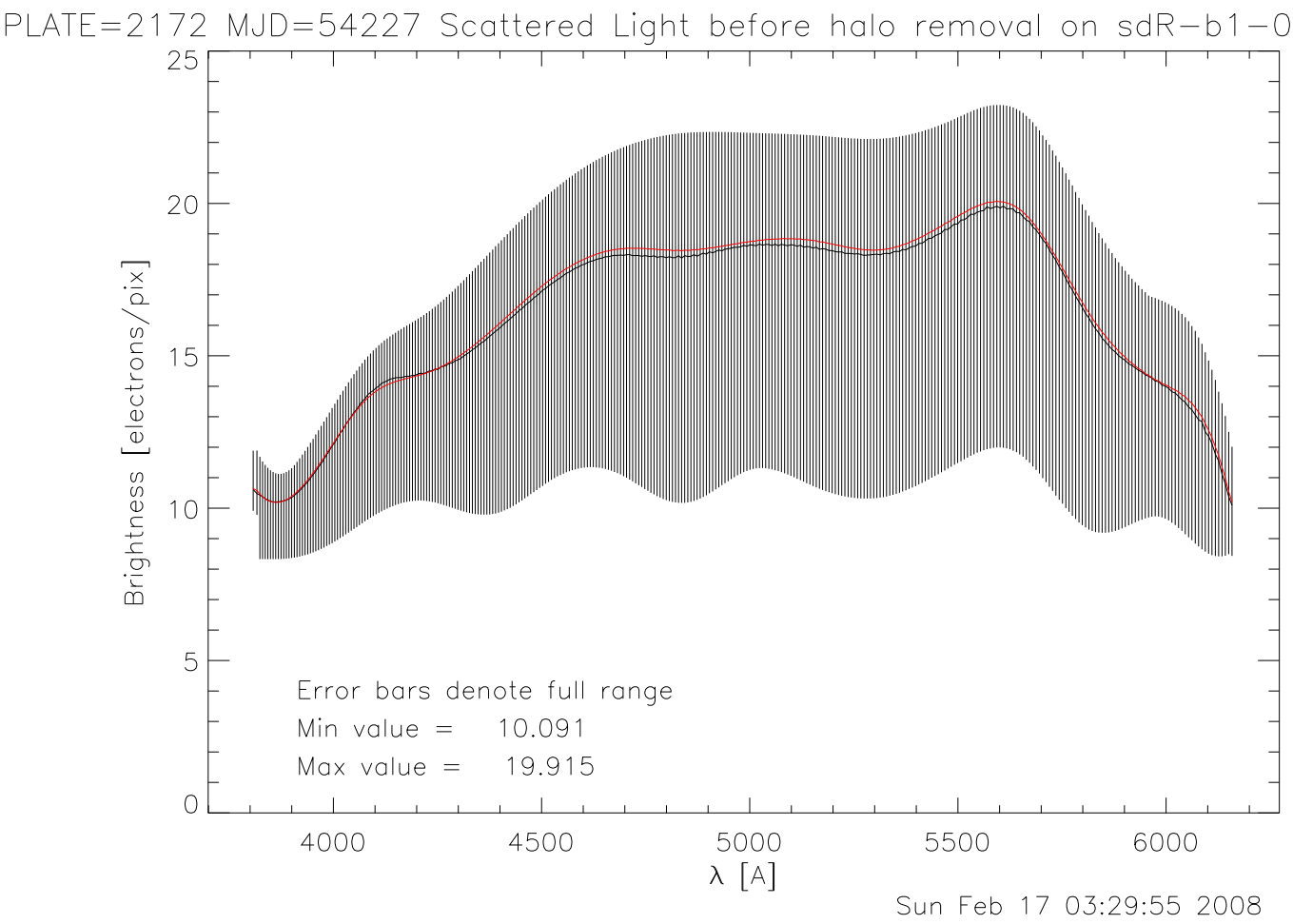

PLATE=2172 MJD=54227 flat extraction chi^2 for sdR−b1−00044654.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
5
10
15
20
25
0
500
1000
1500
2000

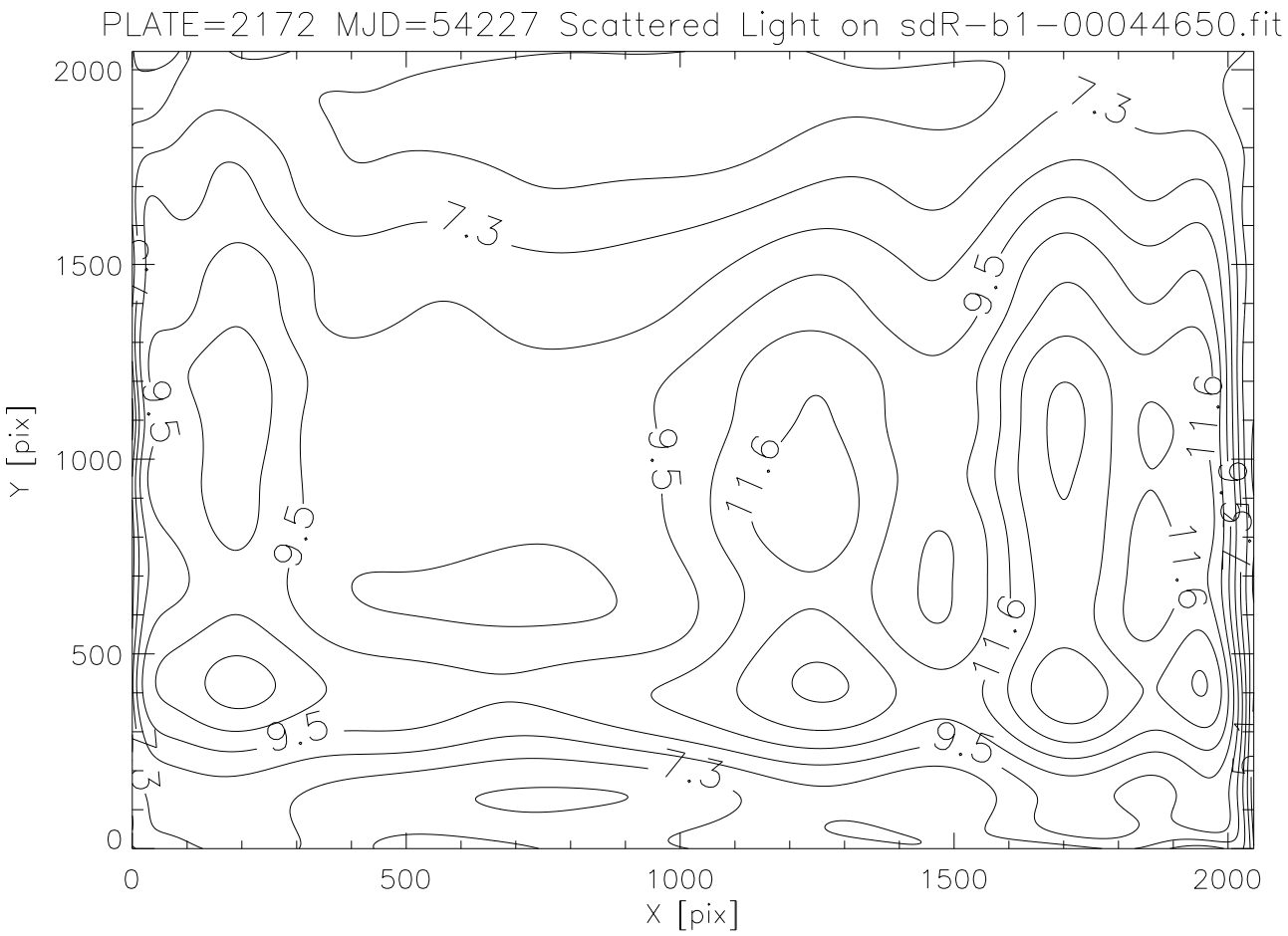

PLATE=2172 MJD=54227 Superflat sdR-b1-00044654.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

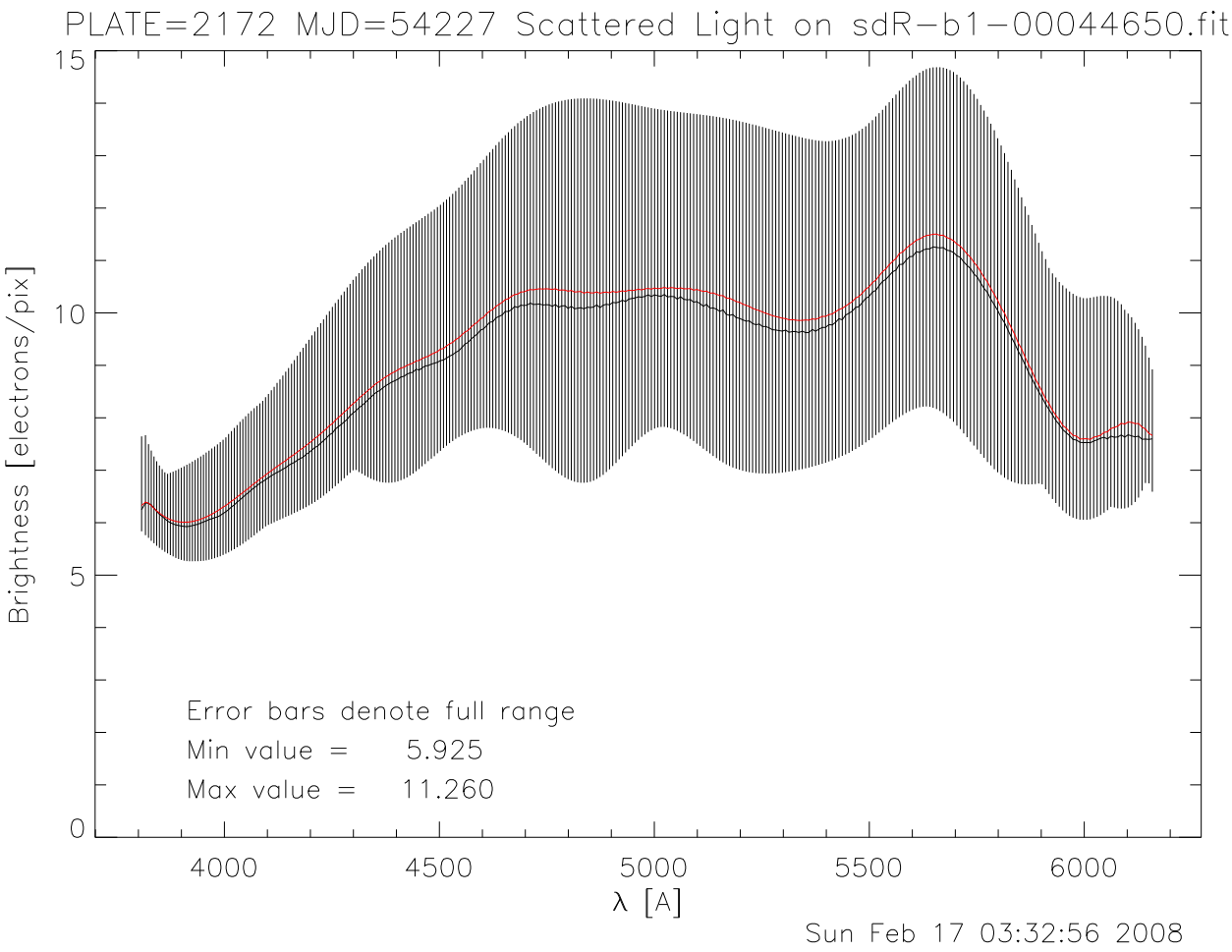

PLATE=2172 MJD=54227 Arcline Fit for sdR-b1-00044655.fit
Fiber Number
300
250
200
150
100
50
0
4000
4500
5000
5500
6000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
4000
4500
5000
5500
6000
λ [A]
Sun Feb 17 03:28:54 2008

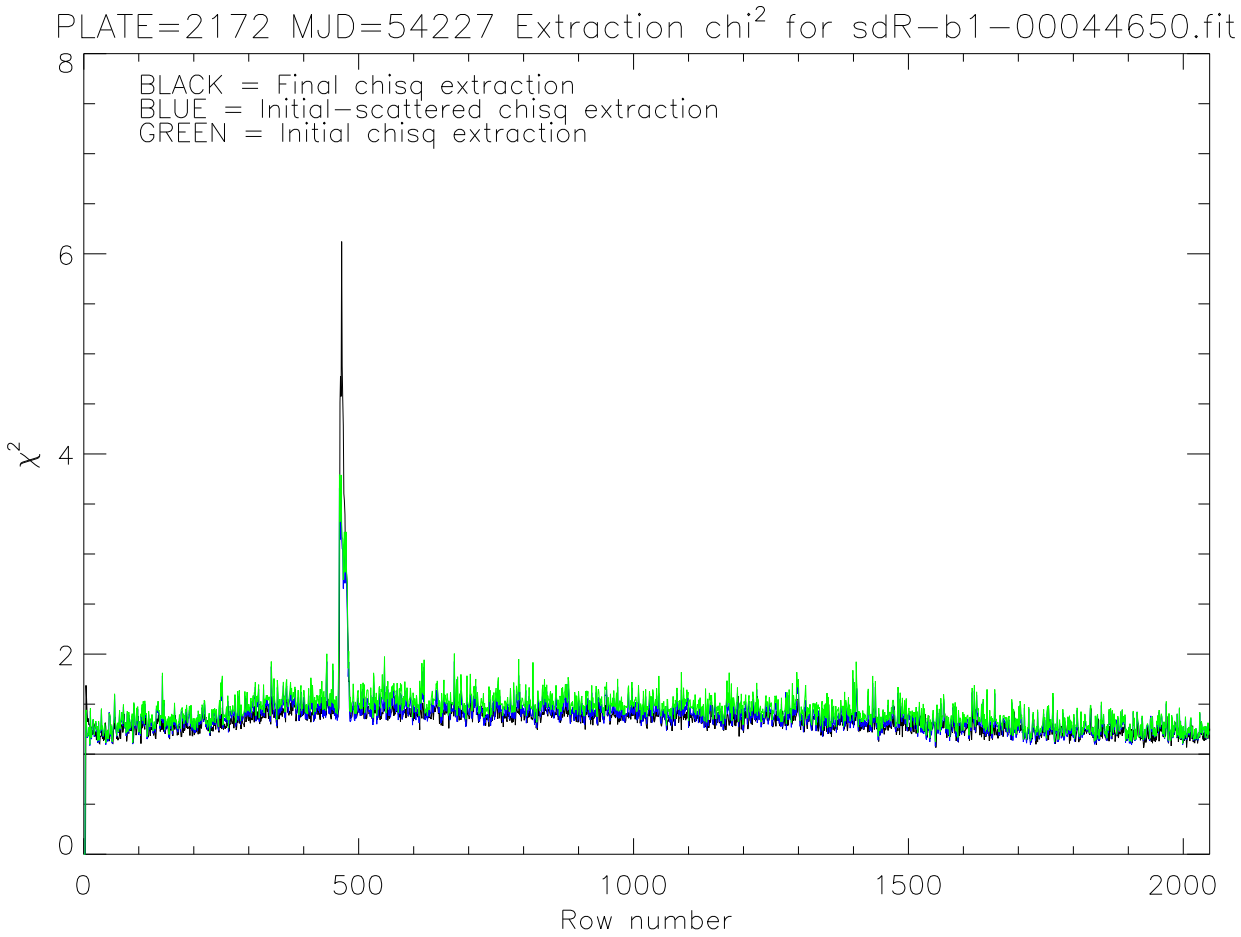

PLATE=2172 MJD=54227 Fiber-Flats for sdR-b1-00044654.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.206
Max value = 1.235
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Sun Feb 17 03:29:02 2008

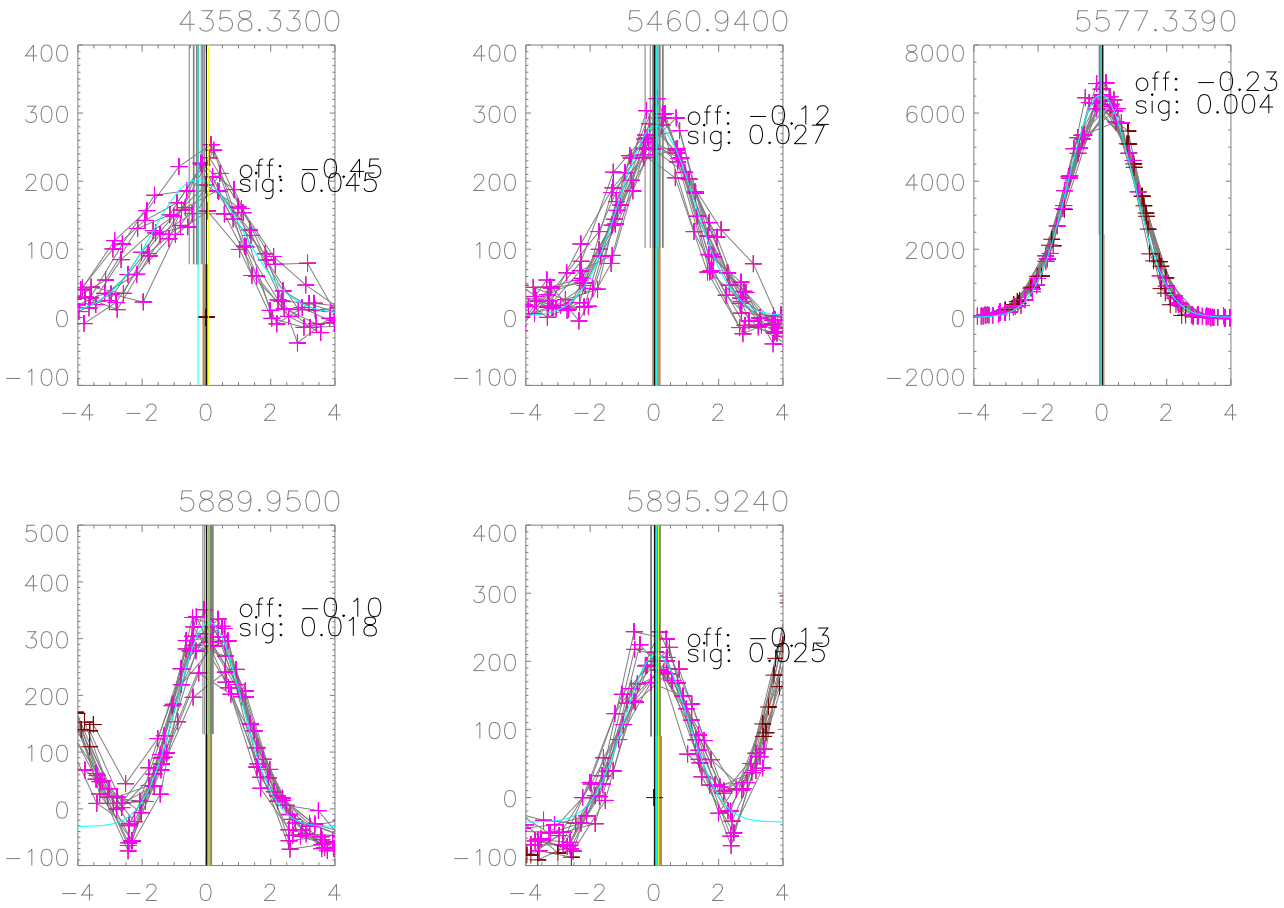

PLATE=2172 MJD=54227 Scattered Light before halo removal on sdR−b1−00044650.f
11.36
15.91
20.45
Y [pix]
X [pix]
0
500
1000
1500
2000

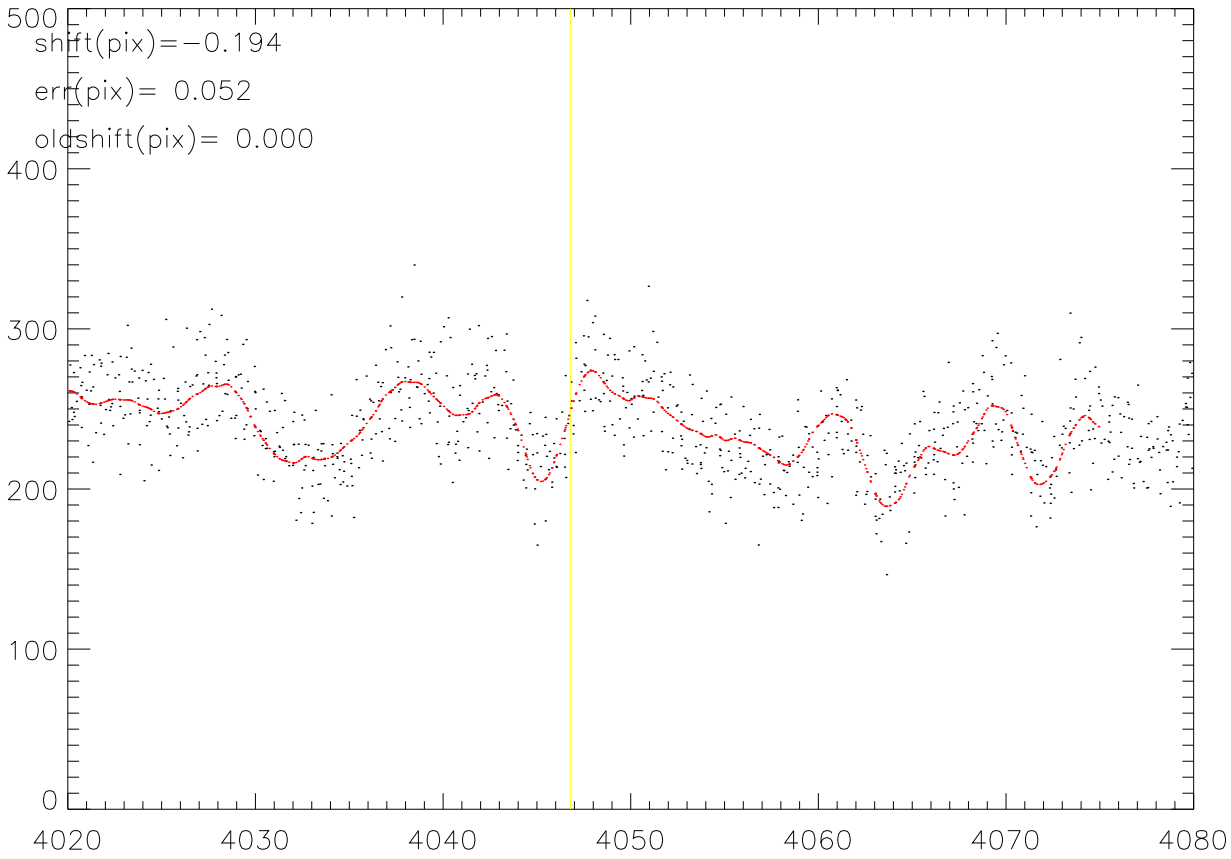

PLATE=2172 MJD=54227 Scattered Light before halo removal on sdR-b1-00044650.f
Brightness [electrons/pix]
25
20
15
10
5
0
Error bars denote full range
Min value = 10.091
Max value = 19.915
4000
4500
5000
5500
6000
λ [A]
Sun Feb 17 03:29:55 2008

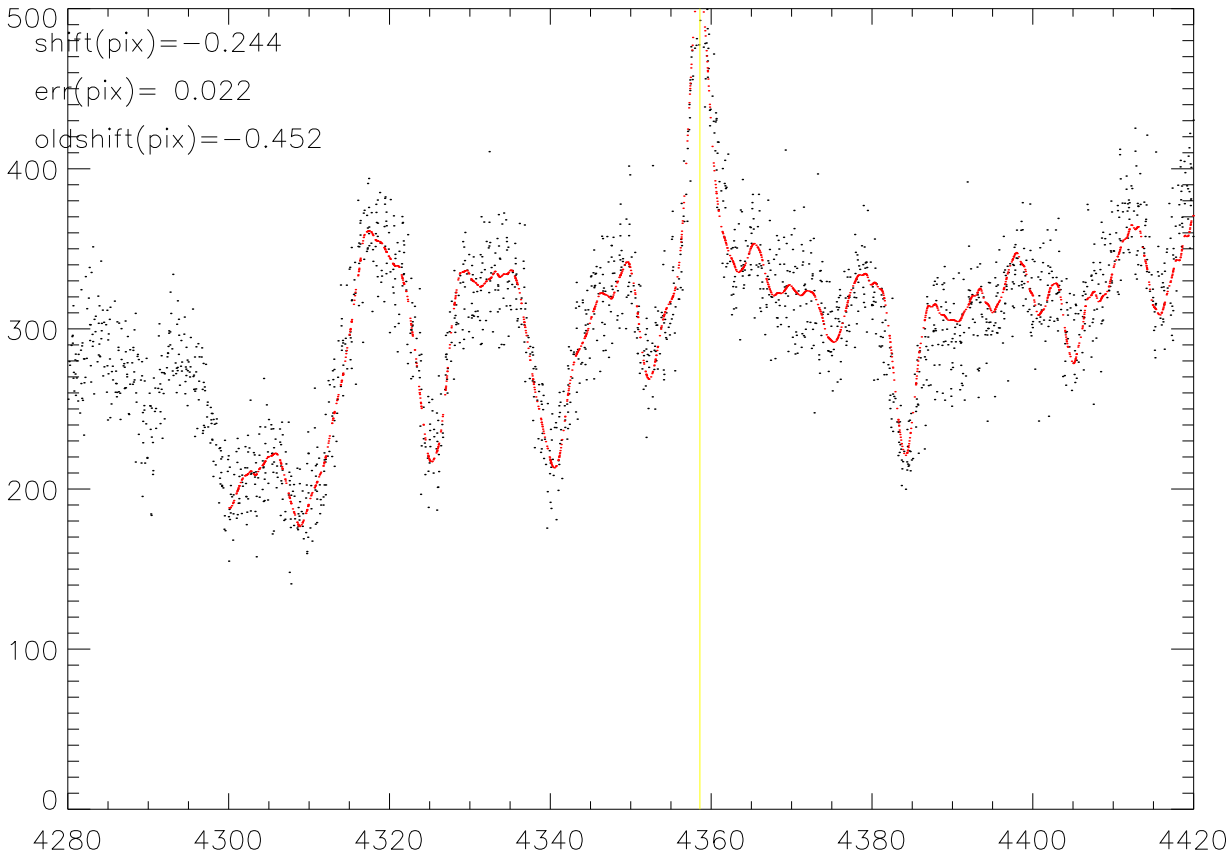

PLATE=2172 MJD=54227 Scattered Light on sdR-b1-00044650.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
7.3
9.5
11.6

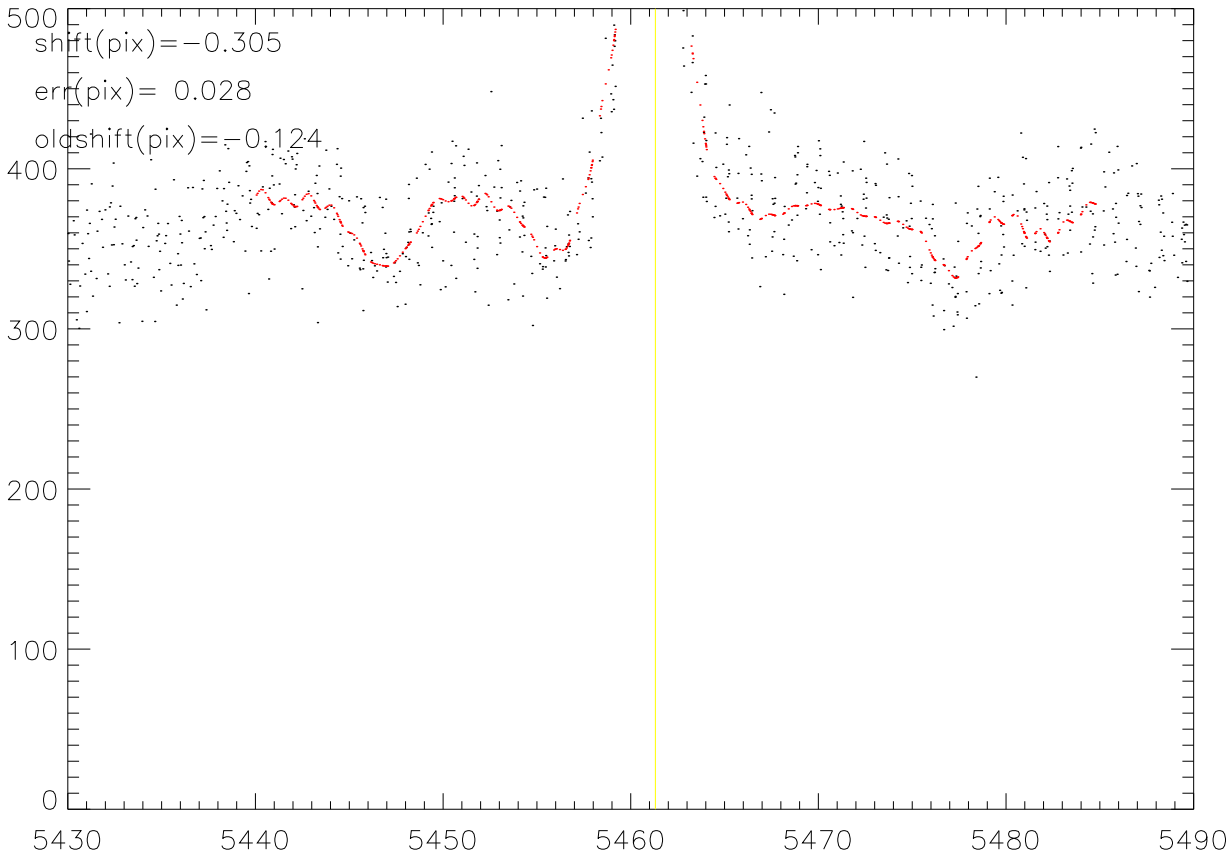

PLATE=2172 MJD=54227 Scattered Light on sdR-b1-00044650.fit
Brightness [electrons/pix]
15
10
5
0
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 5.925
Max value = 11.260
Sun Feb 17 03:32:56 2008

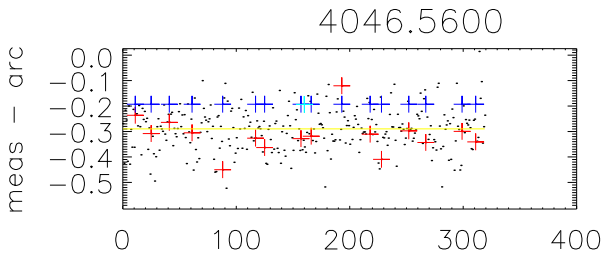

PLATE=2172 MJD=54227 Extraction chi^2 for sdR-b1-00044650.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
0
500
1000
1500
2000
Row number

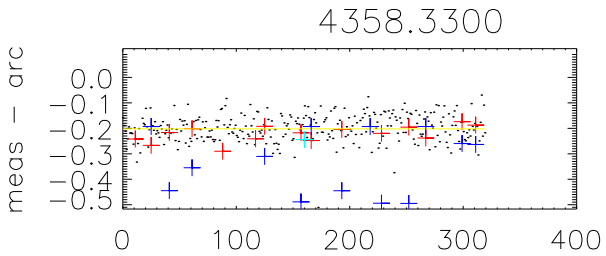

4358.3300
off: −0.45
sig: 0.045
5460.9400
off: −0.12
sig: 0.027
5577.3390
off: −0.23
sig: 0.004
5889.9500
off: −0.10
sig: 0.018
5895.9240
off: −0.13
sig: 0.025

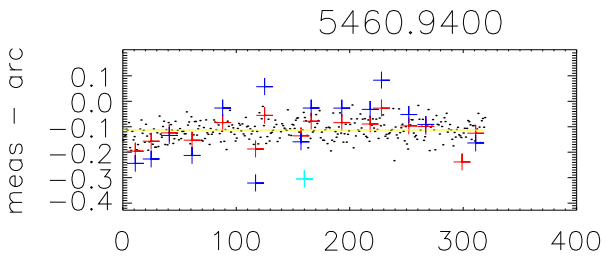

shift(pix)=−0.194
err(pix)= 0.052
oldshift(pix)= 0.000
500
400
300
200
100
0
4020
4030
4040
4050
4060
4070
4080

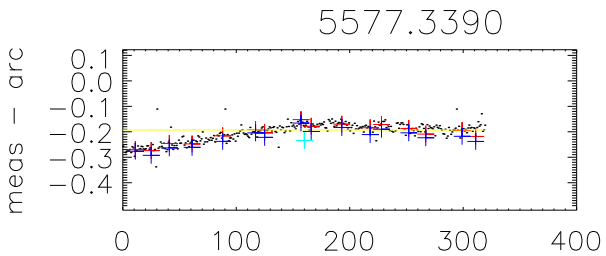

shift(pix)=−0.244
err(pix)= 0.022
oldshift(pix)=−0.452
500
400
300
200
100
0
4280
4300
4320
4340
4360
4380
4400
4420

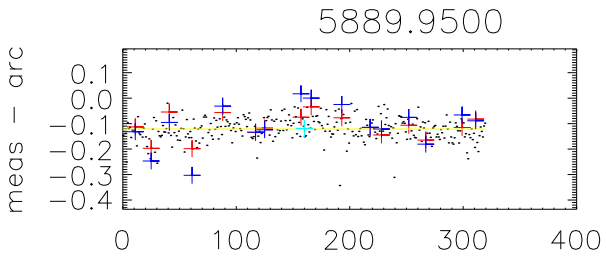

shift(pix)=−0.305
err(pix)= 0.028
oldshift(pix)=−0.124
500
400
300
200
100
0
5430
5440
5450
5460
5470
5480
5490

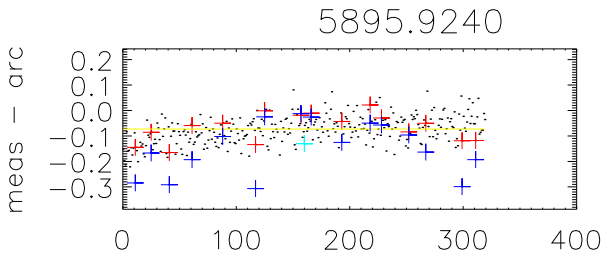

4046.5600
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

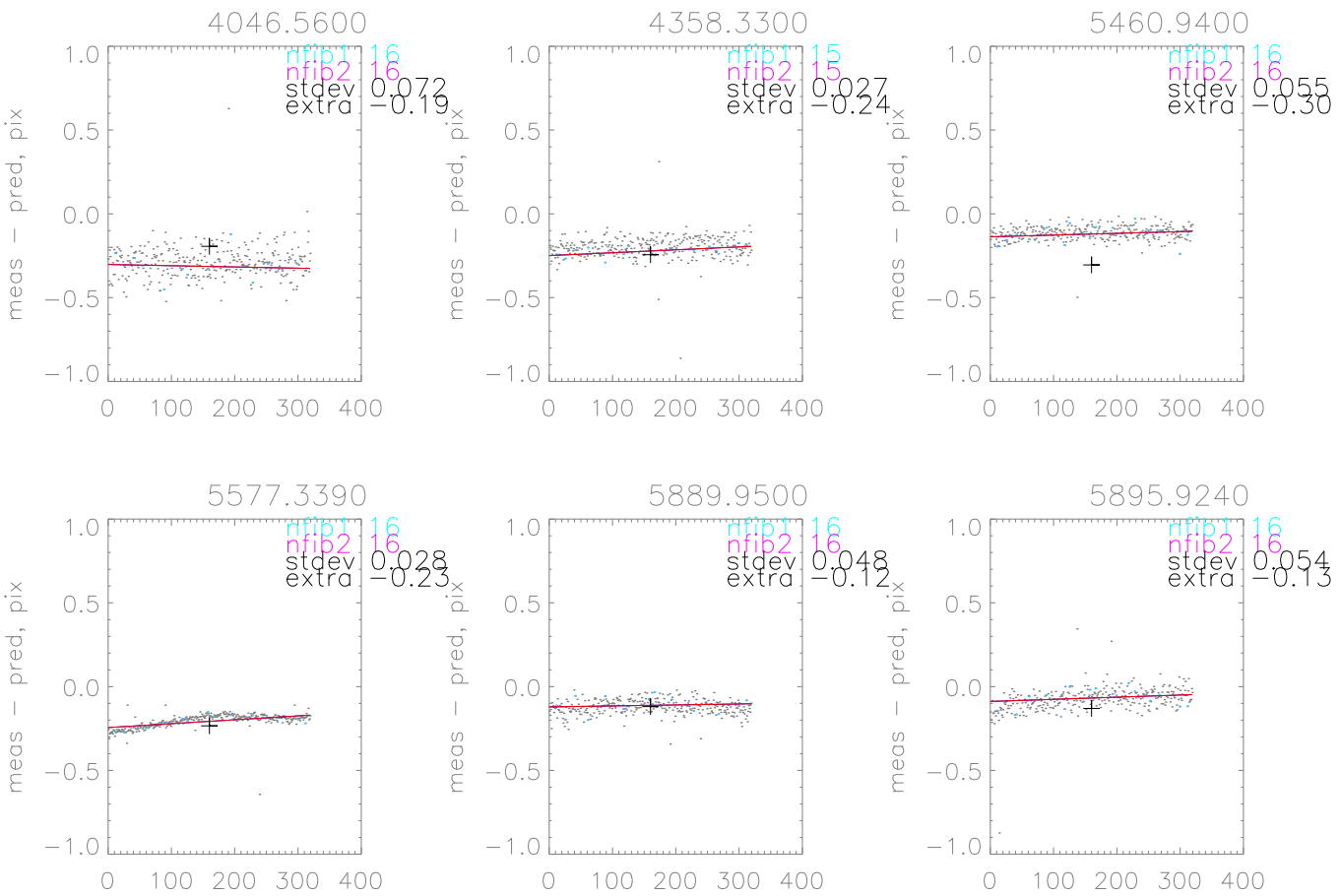

4358.3300
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

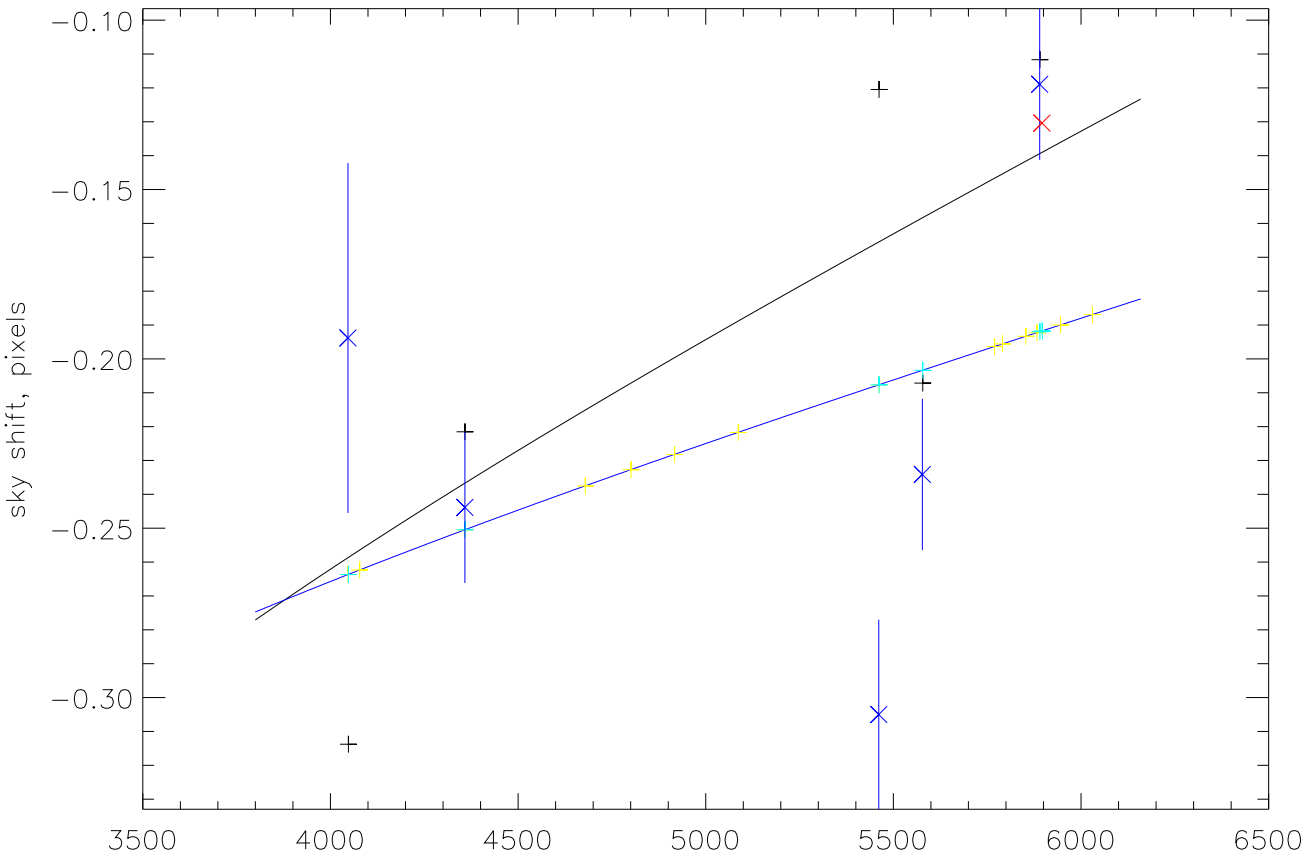

5460.9400
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

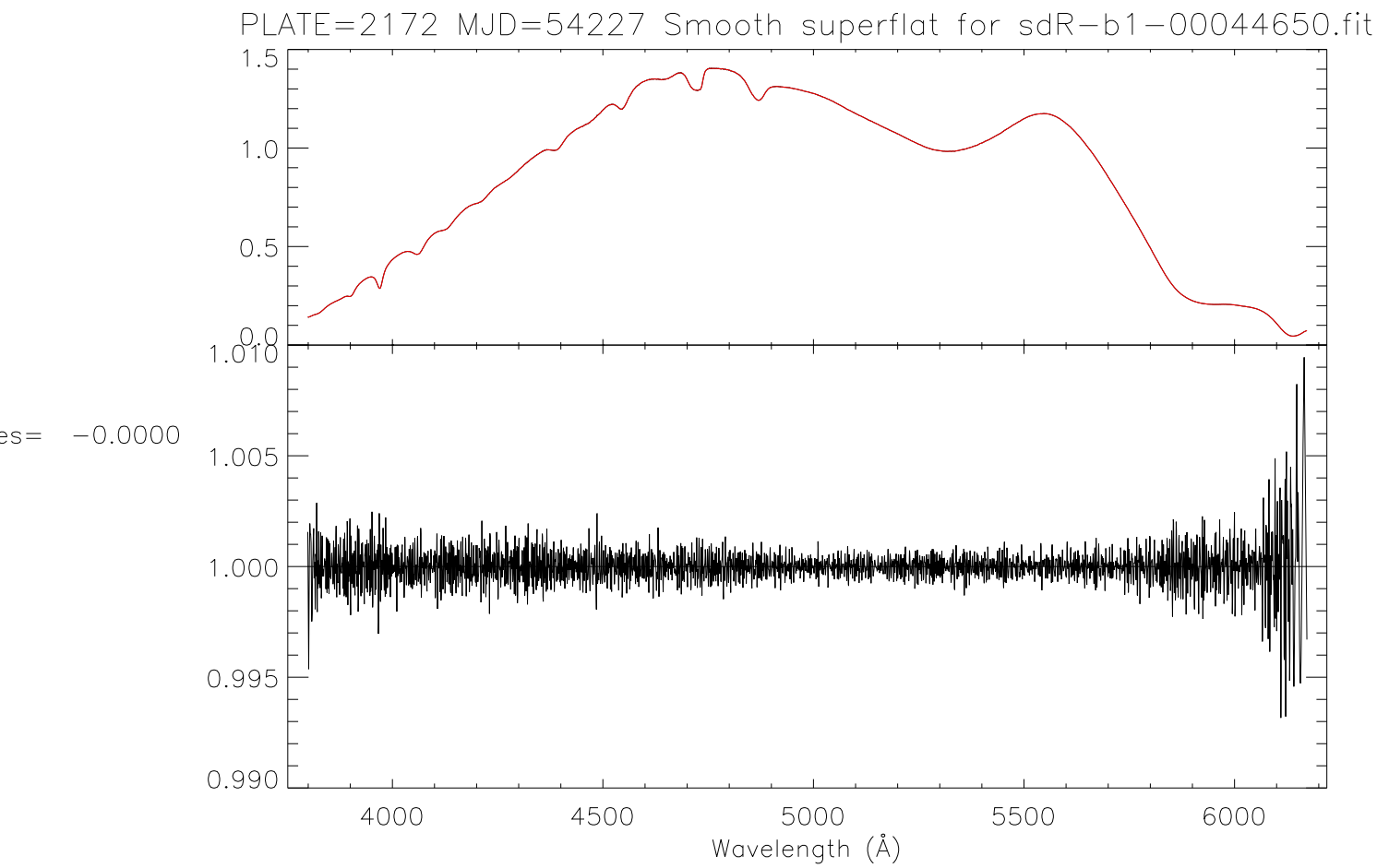

5577.3390
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400


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

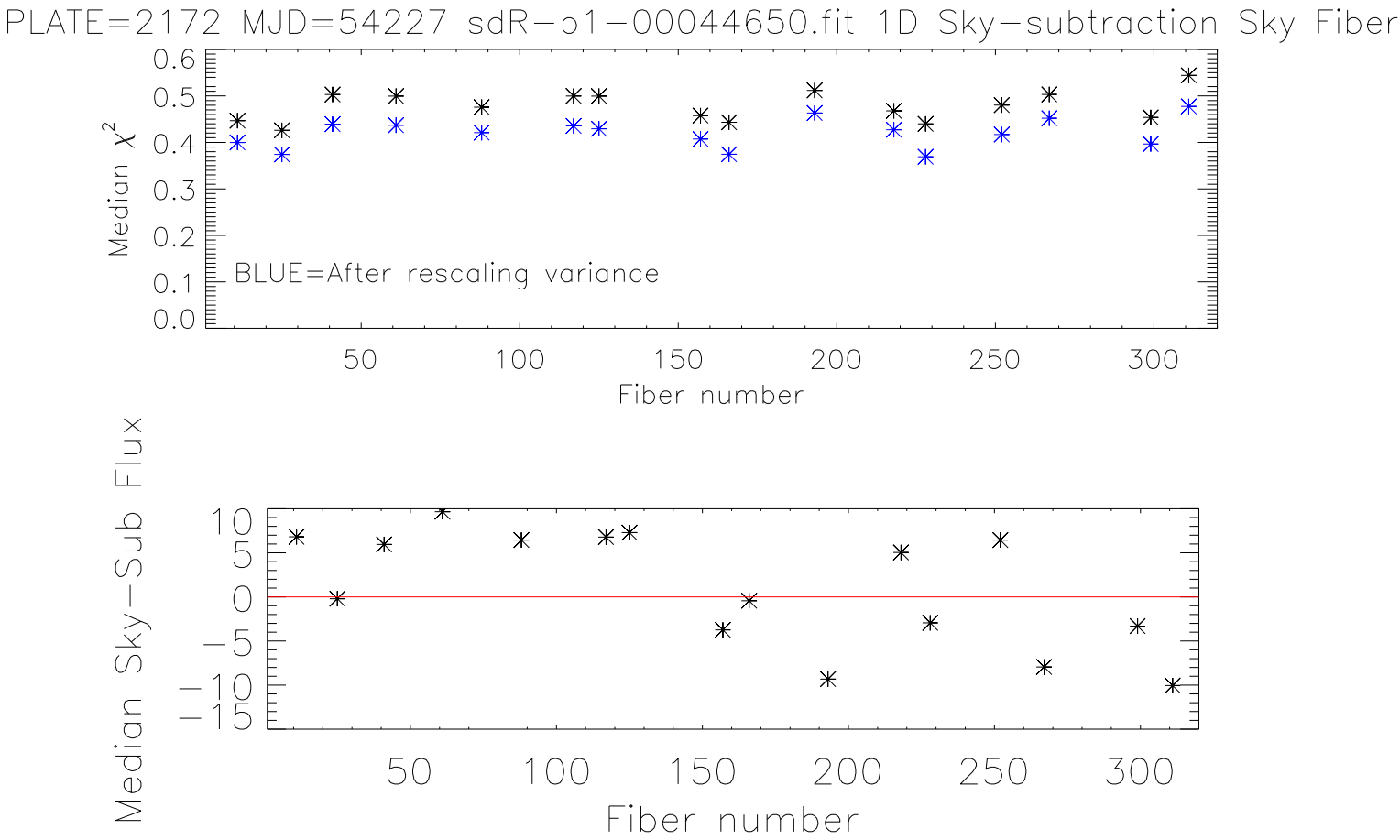

5895.9240
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

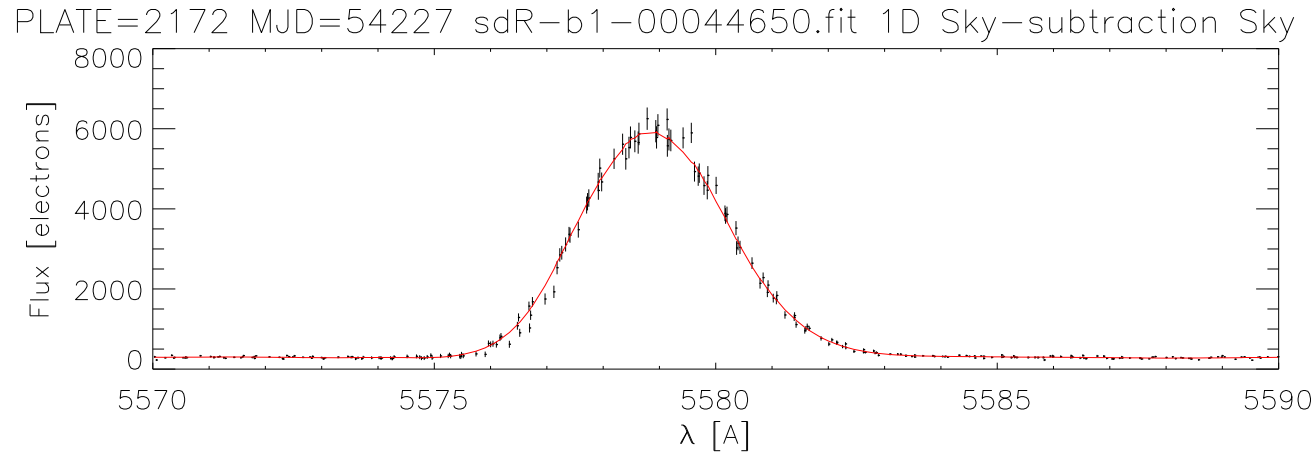

4046.5600
nfib1 16
nfib2 16
stdev 0.072
extra −0.19
4358.3300
nfib1 15
nfib2 15
stdev 0.027
extra −0.24
5460.9400
nfib1 16
nfib2 16
stdev 0.055
extra −0.30
5577.3390
nfib1 16
nfib2 16
stdev 0.028
extra −0.23
5889.9500
nfib1 16
nfib2 16
stdev 0.048
extra −0.12
5895.9240
nfib1 16
nfib2 16
stdev 0.054
extra −0.13
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

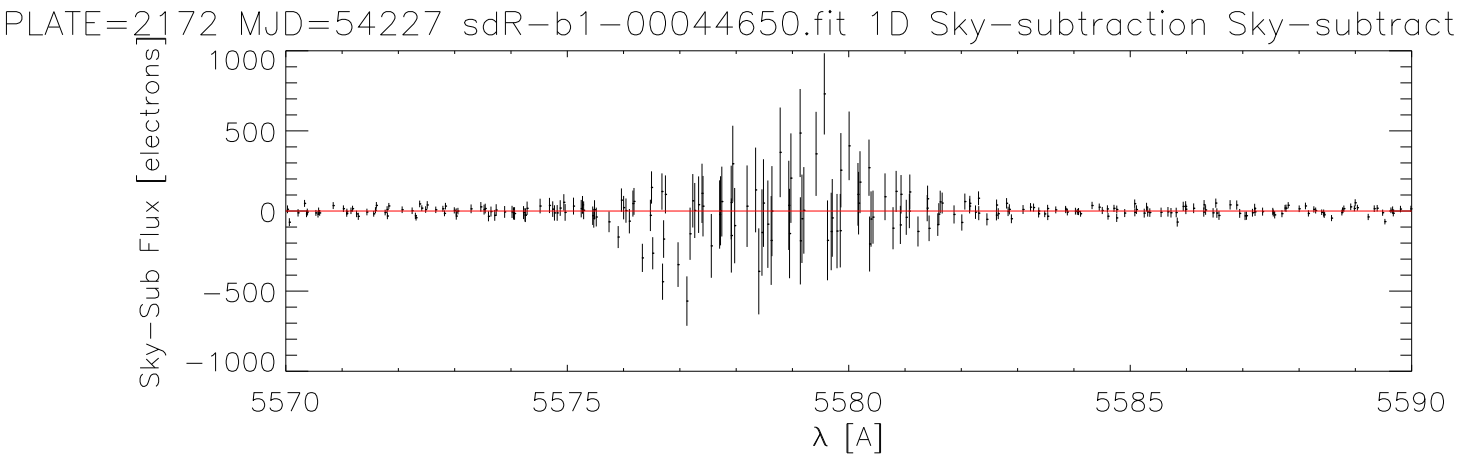

−0.10
−0.15
−0.20
−0.25
−0.30
sky shift, pixels
3500
4000
4500
5000
5500
6000
6500

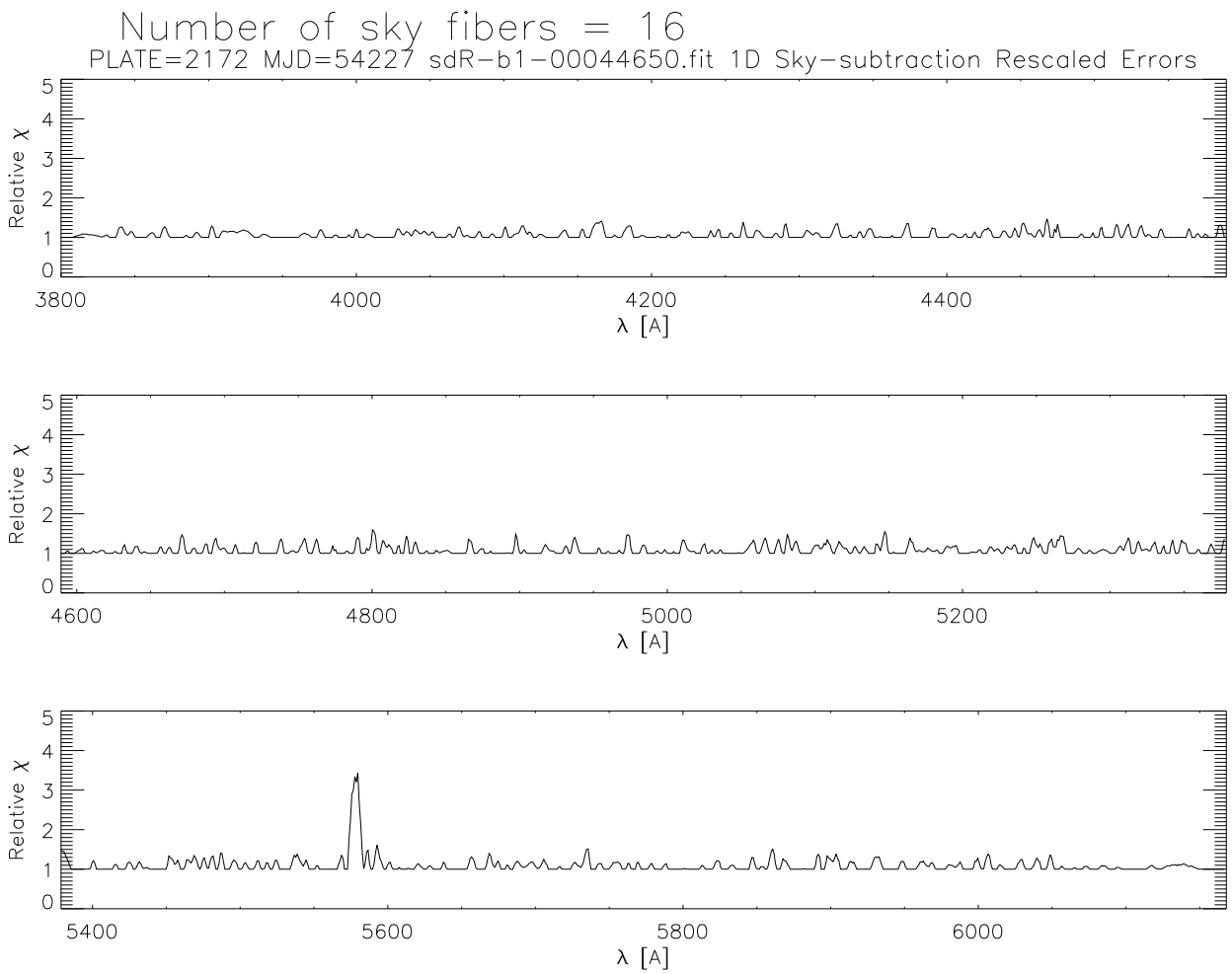

PLATE=2172 MJD=54227 Smooth superflat for sdR-b1-00044650.fit
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
4000
4500
5000
5500
6000
Wavelength (Å)

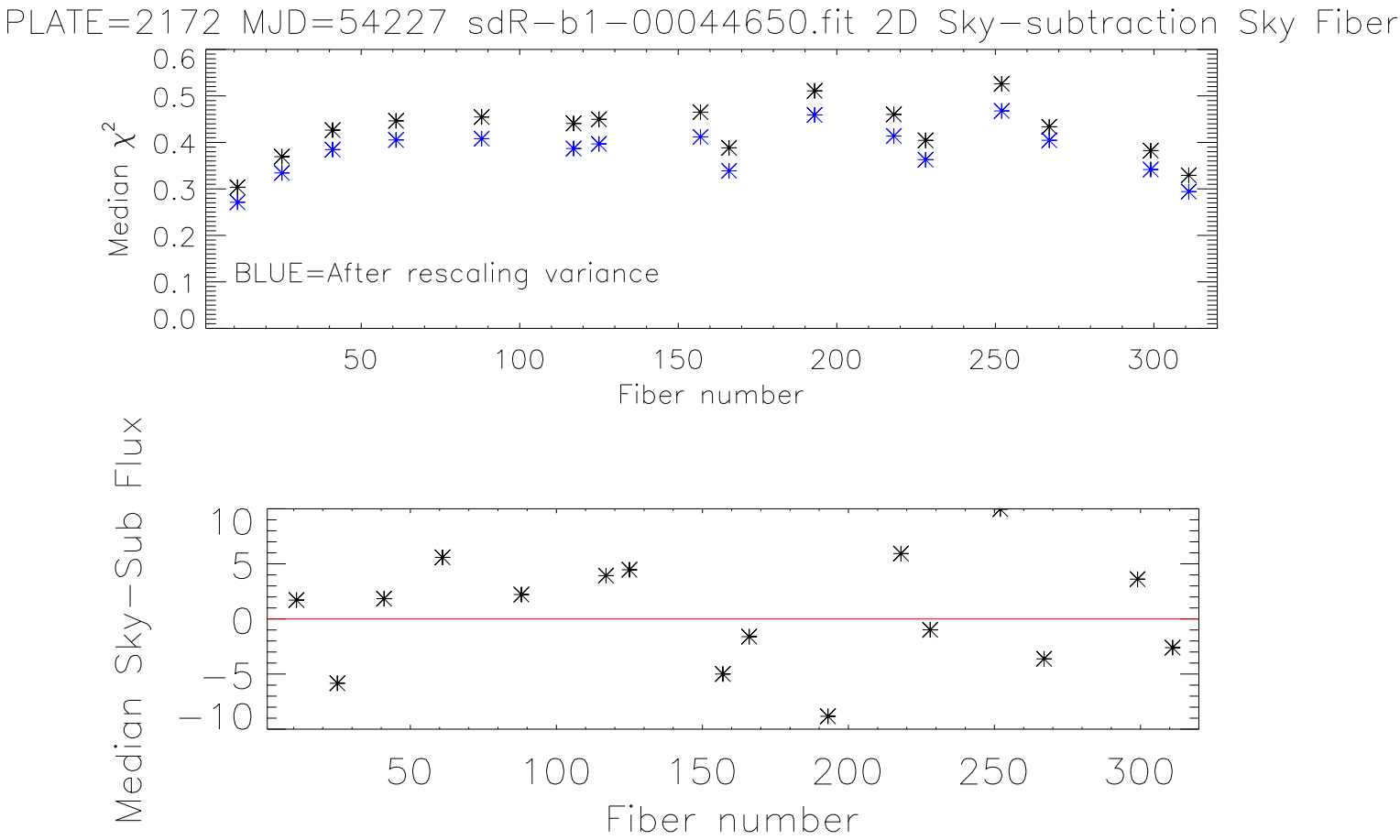
es= −0.0000

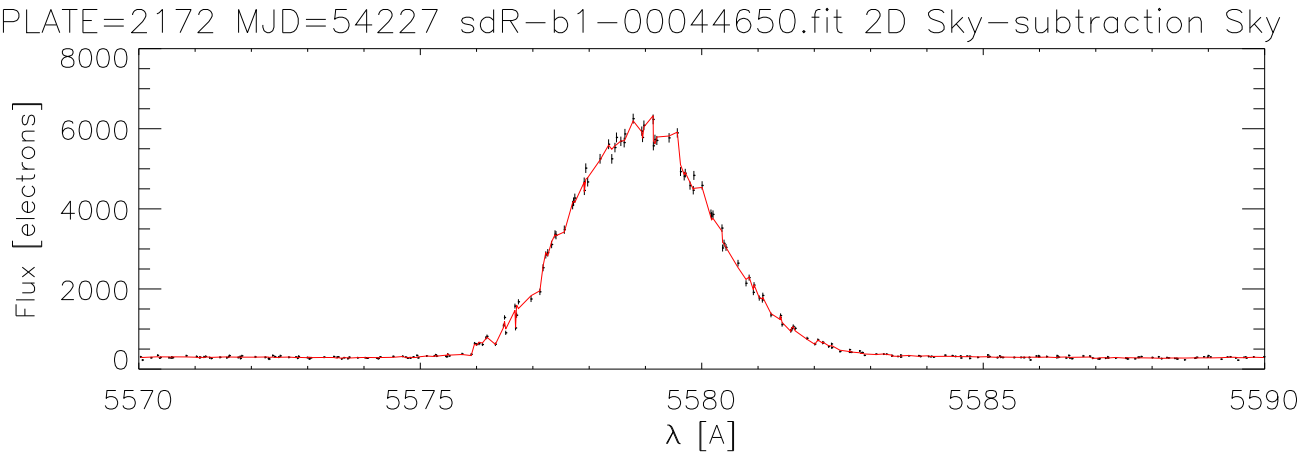

PLATE=2172 MJD=54227 sdR-b1-00044650.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
-5
-10
-15
50
100
150
200
250
300
Fiber number

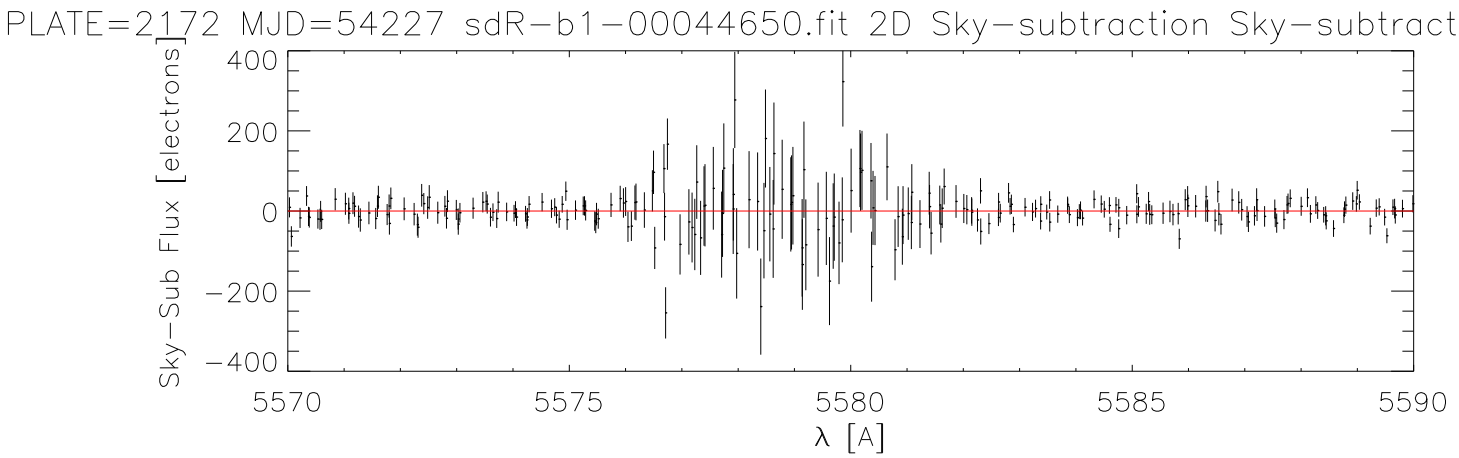

PLATE=2172 MJD=54227 sdR-b1-00044650.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

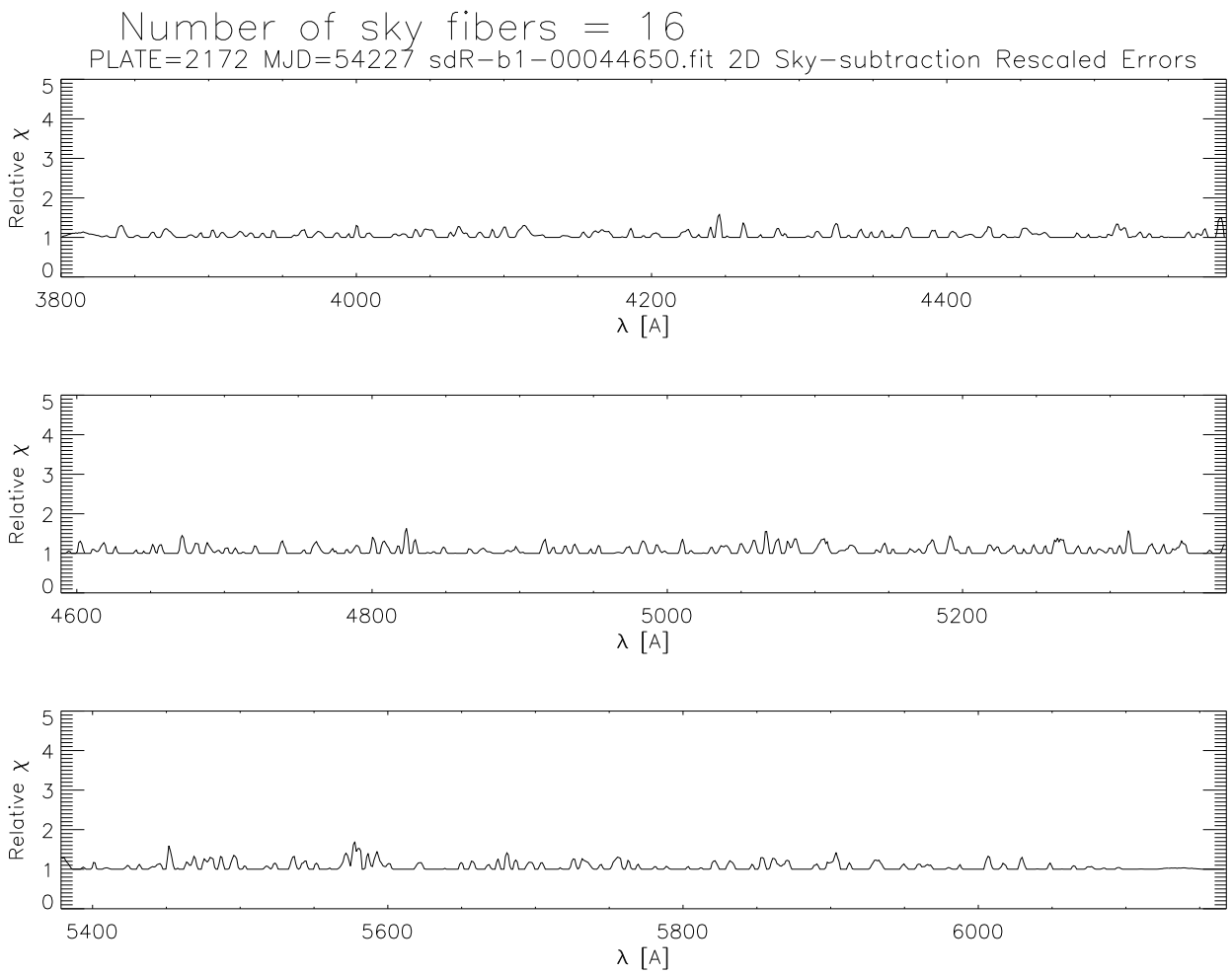

PLATE=2172 MJD=54227 sdR-b1-00044650.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
1000
500
0
-500
-1000
5570
5575
5580
5585
5590
λ [A]

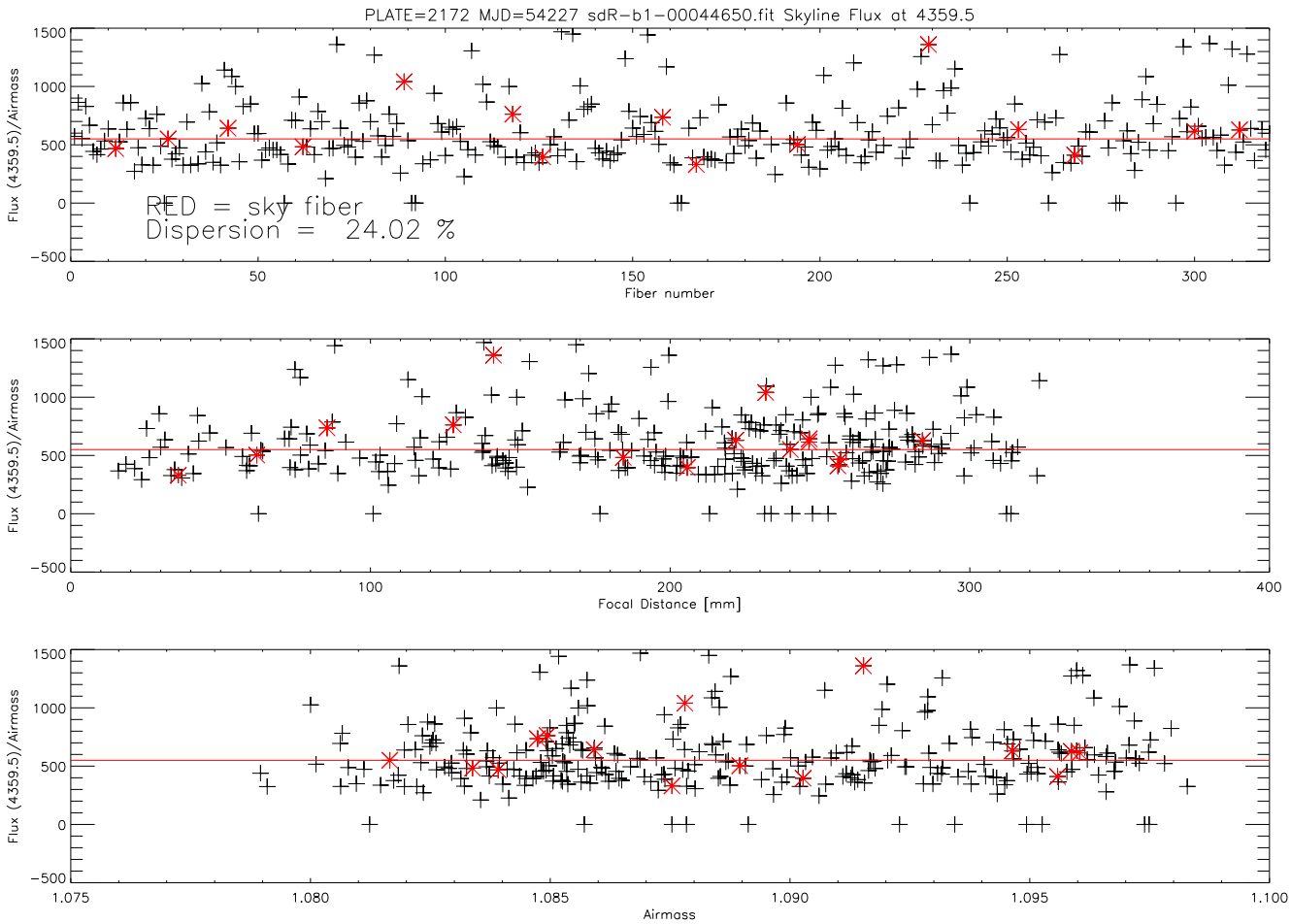

Number of sky fibers = 16
PLATE=2172 MJD=54227 sdR-b1-00044650.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

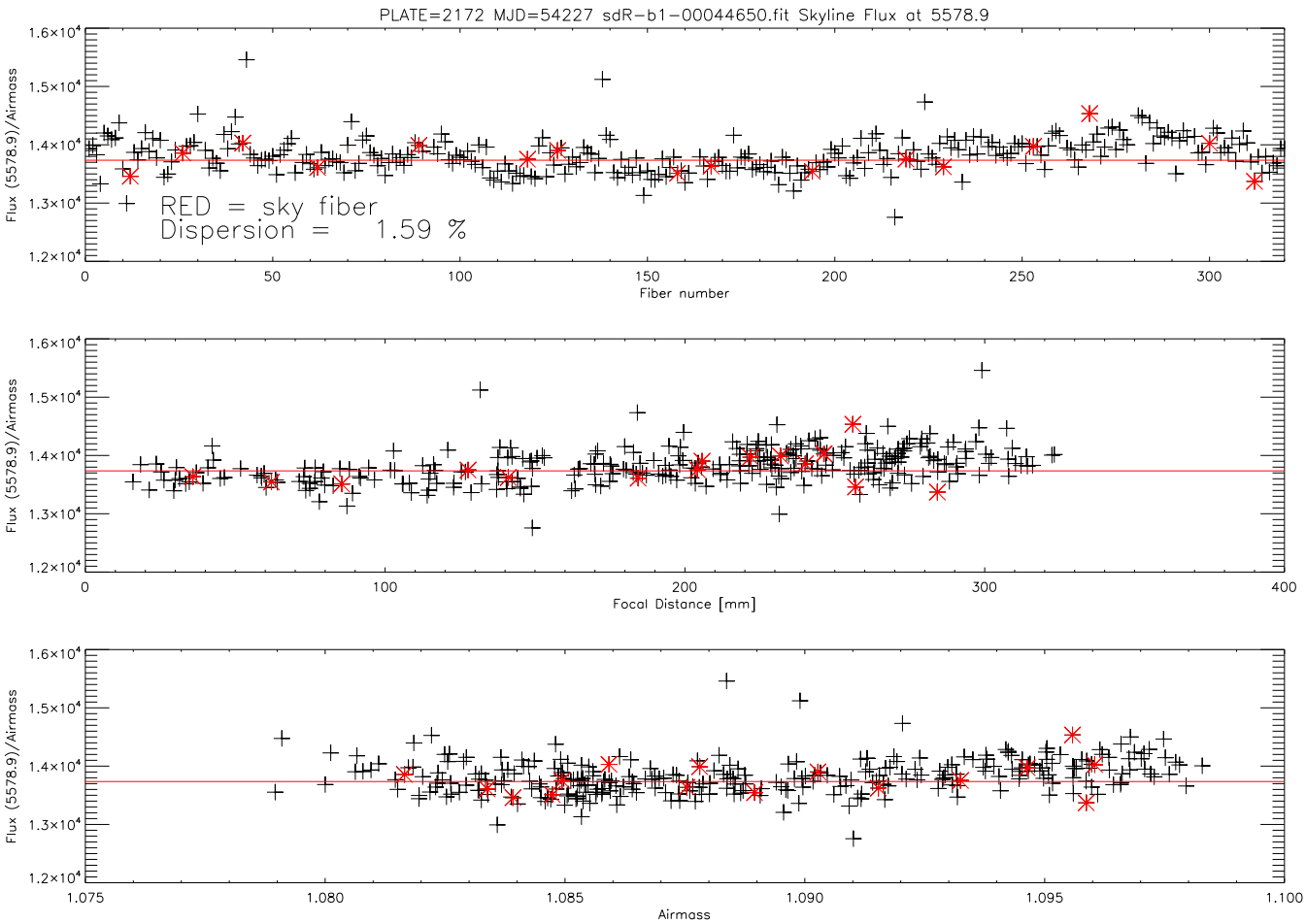

PLATE=2172 MJD=54227 sdR-b1-00044650.fit 2D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
−5
−10
50
100
150
200
250
300
Fiber number

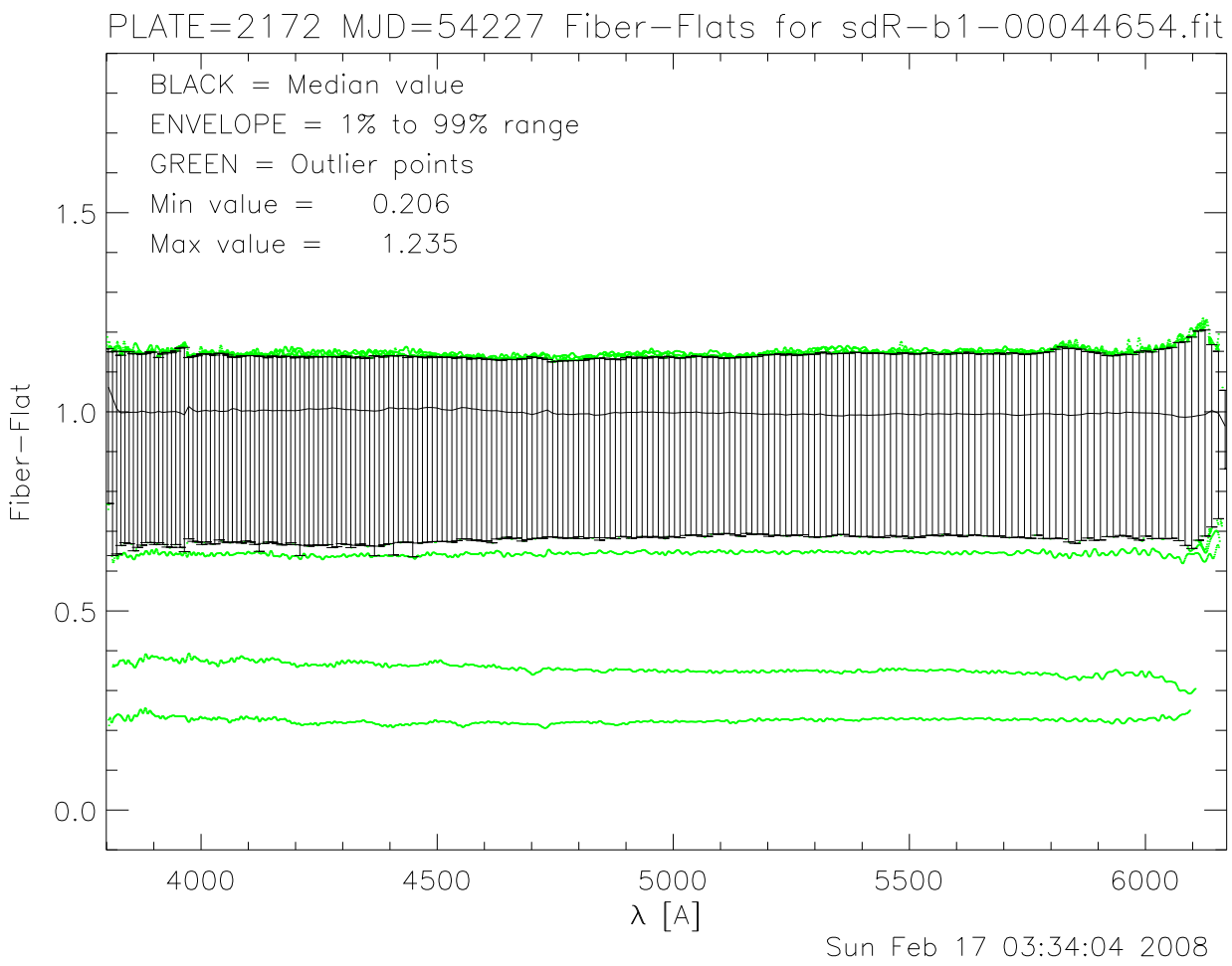

PLATE=2172 MJD=54227 sdR-b1-00044650.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

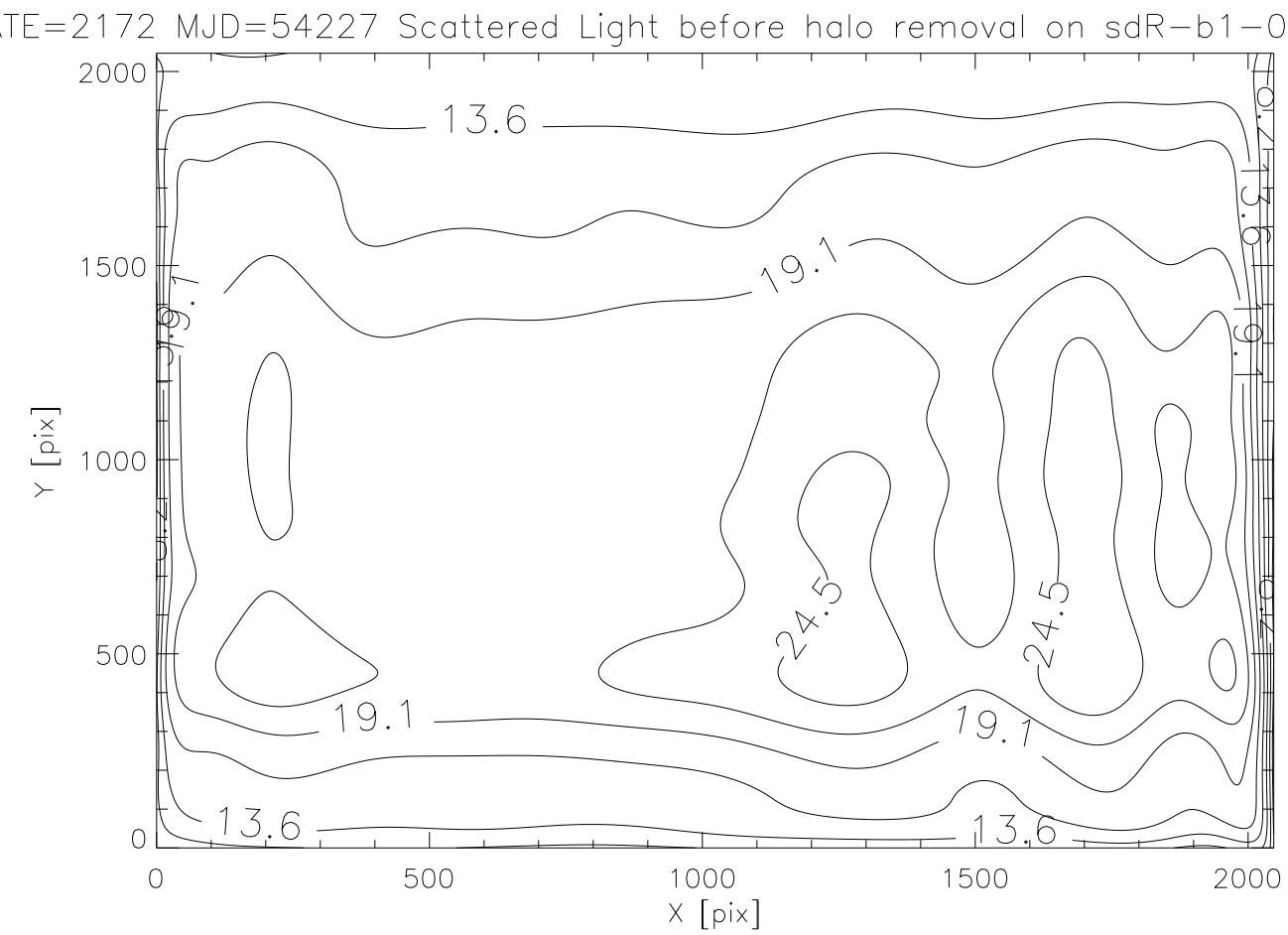

PLATE=2172 MJD=54227 sdR-b1-00044650.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
200
0
-200
-400
5570
5575
5580
5585
5590
λ [A]

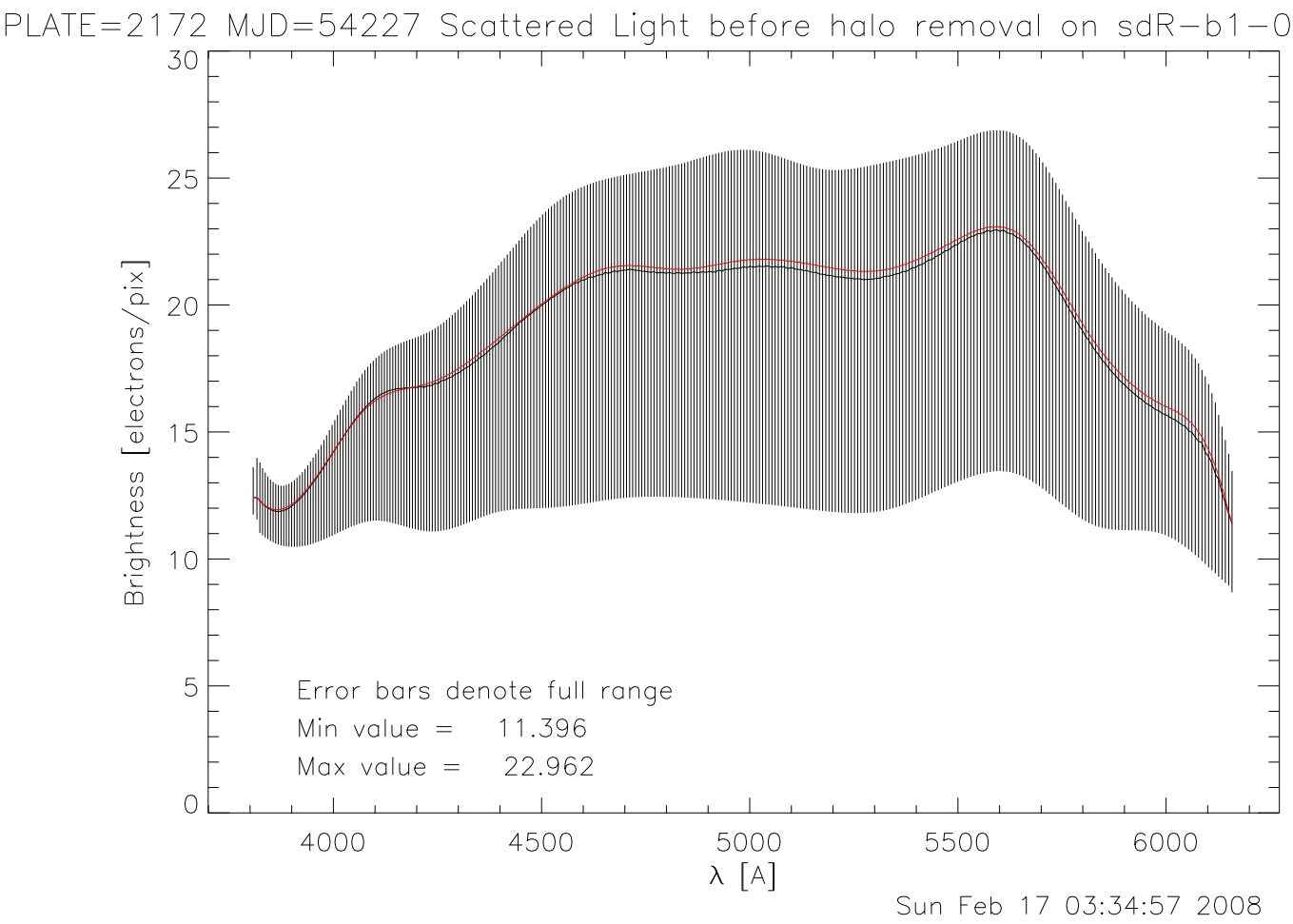

Number of sky fibers = 16
PLATE=2172 MJD=54227 sdR-b1-00044650.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

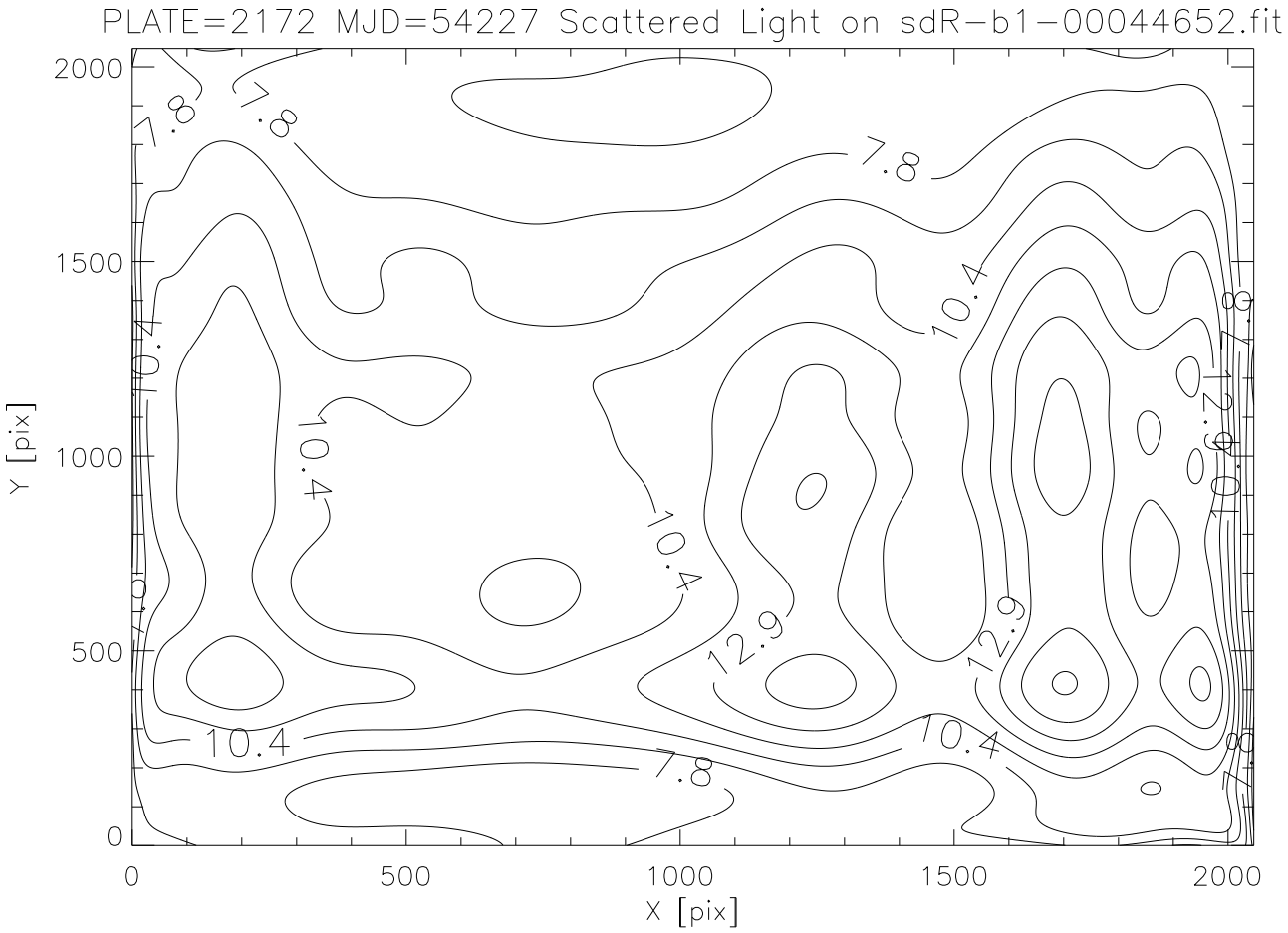

PLATE=2172 MJD=54227 sdR-b1-00044650.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 24.02 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

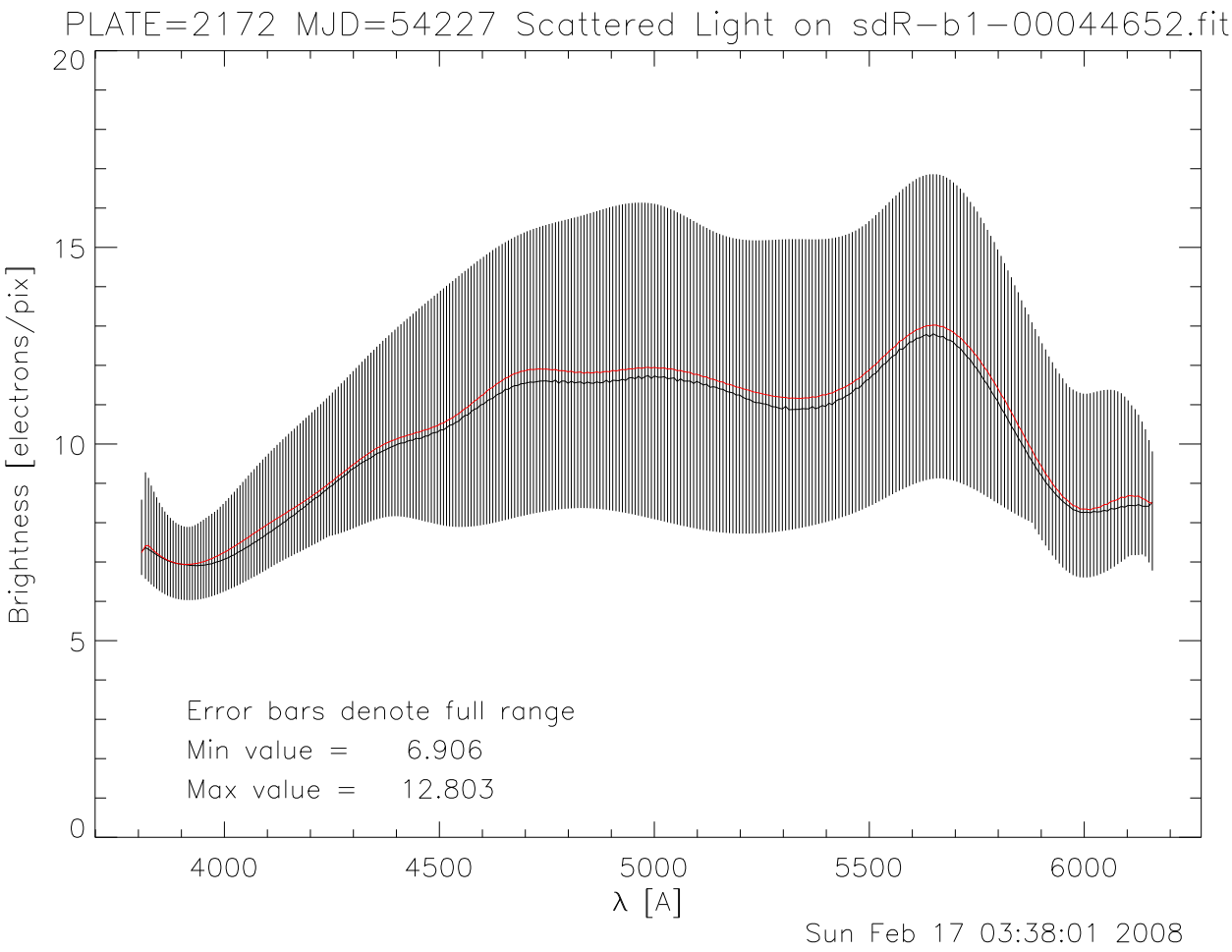

PLATE=2172 MJD=54227 sdR-b1-00044650.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
1.6×10^4
1.5×10^4
1.4×10^4
1.3×10^4
1.2×10^4
RED = sky fiber
Dispersion = 1.59 %
0
50
100
150
200
250
300
Fiber number
Flux (5578.9)/Airmass
1.6×10^4
1.5×10^4
1.4×10^4
1.3×10^4
1.2×10^4
0
100
200
300
400
Focal Distance [mm]
Flux (5578.9)/Airmass
1.6×10^4
1.5×10^4
1.4×10^4
1.3×10^4
1.2×10^4
1.075
1.080
1.085
1.090
1.095
1.100
Airmass

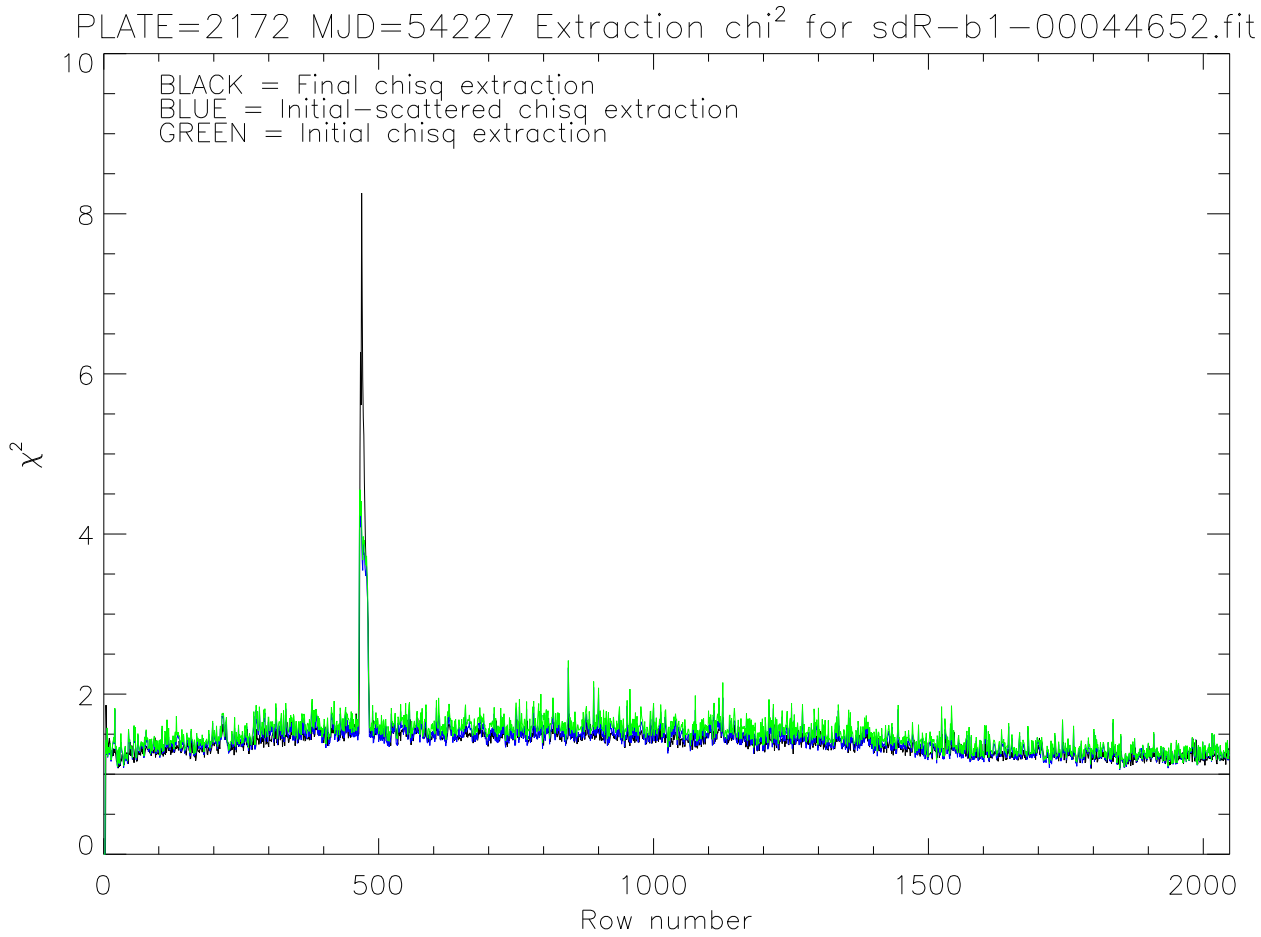

PLATE=2172 MJD=54227 Fiber-Flats for sdR-b1-00044654.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.206
Max value = 1.235
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Sun Feb 17 03:34:04 2008

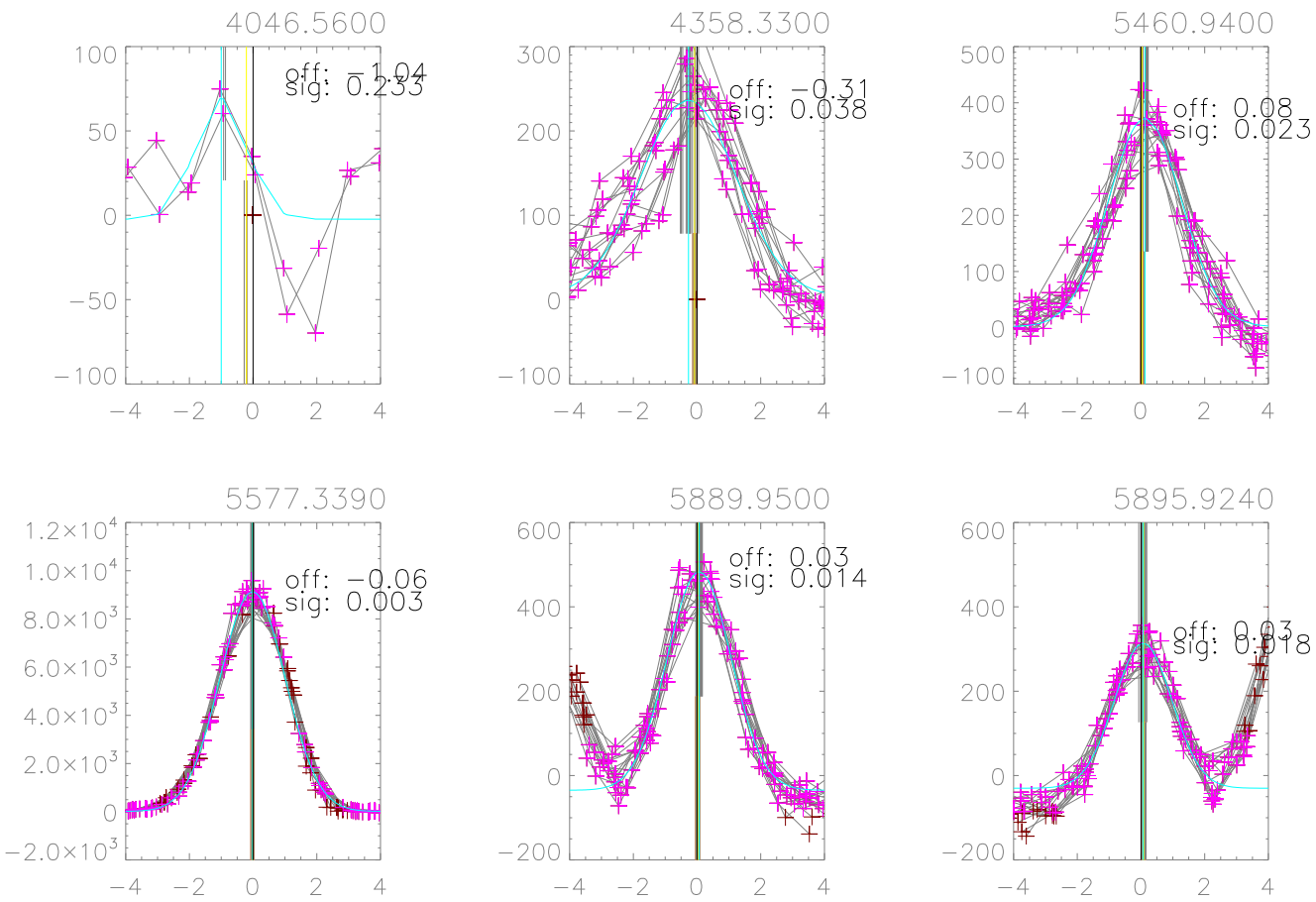

PLATE=2172 MJD=54227 Scattered Light before halo removal on sdR−b1−00044652.f
13.6
19.1
24.5
Y [pix]
X [pix]
0
500
1000
1500
2000

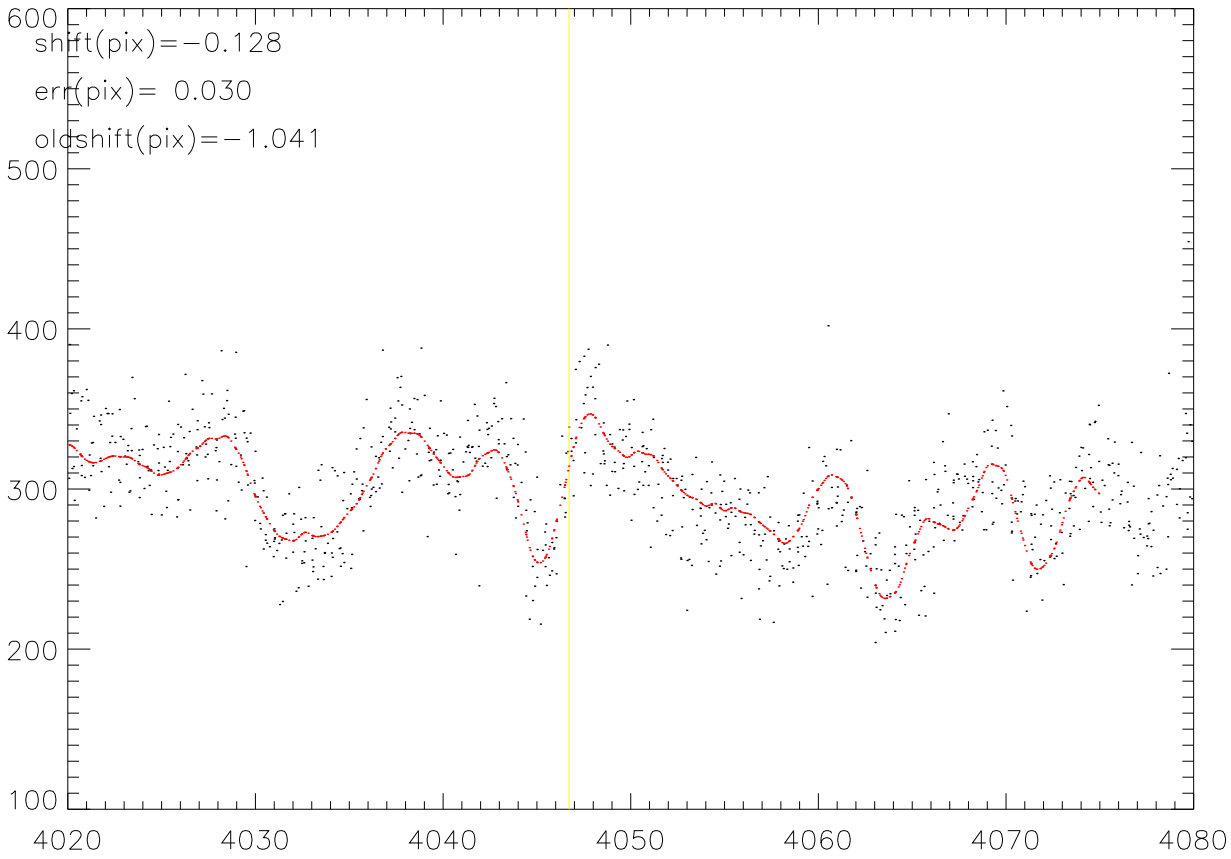

PLATE=2172 MJD=54227 Scattered Light before halo removal on sdR−b1−00044652.f
Brightness [electrons/pix]
30
25
20
15
10
5
0
Error bars denote full range
Min value = 11.396
Max value = 22.962
4000
4500
5000
5500
6000
λ [A]
Sun Feb 17 03:34:57 2008

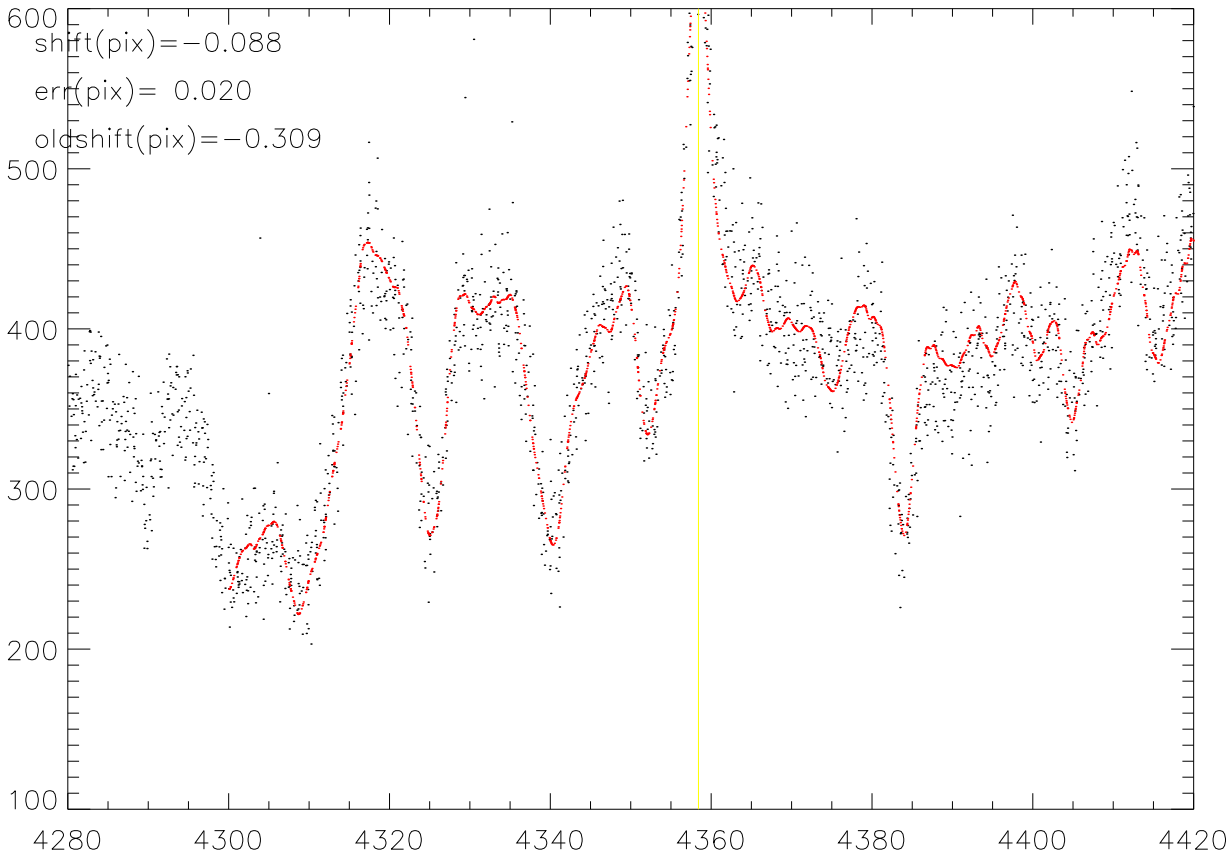

PLATE=2172 MJD=54227 Scattered Light on sdR-b1-00044652.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
7.8
10.4
12.9

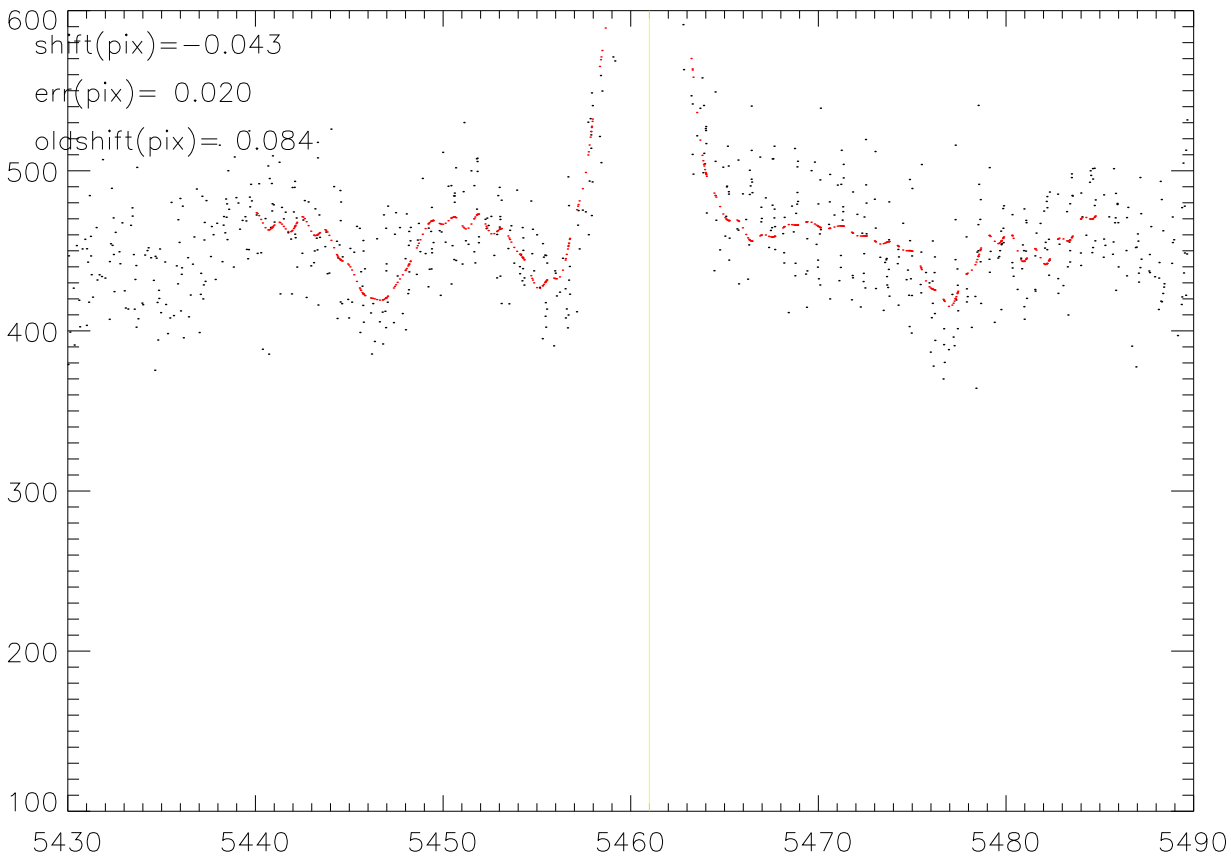

PLATE=2172 MJD=54227 Scattered Light on sdR-b1-00044652.fit
Brightness [electrons/pix]
20
15
10
5
0
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 6.906
Max value = 12.803
Sun Feb 17 03:38:01 2008

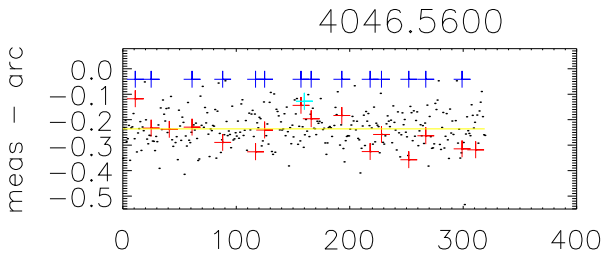

PLATE=2172 MJD=54227 Extraction chi^2 for sdR-b1-00044652.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
2
4
6
8
10
0
500
1000
1500
2000

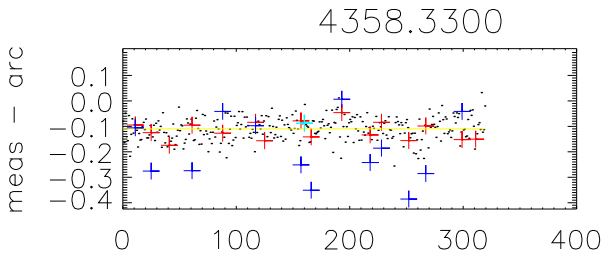

4046.5600
off: −1.04
sig: 0.233
4358.3300
off: −0.31
sig: 0.038
5460.9400
off: 0.08
sig: 0.023
5577.3390
off: −0.06
sig: 0.003
5889.9500
off: 0.03
sig: 0.014
5895.9240
off: 0.03
sig: 0.018

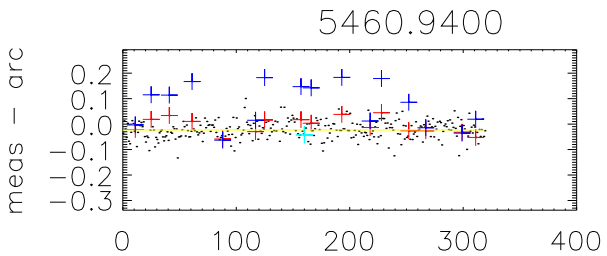

shift(pix)=−0.128
err(pix)= 0.030
oldshift(pix)=−1.041
600
500
400
300
200
100
4020
4030
4040
4050
4060
4070
4080

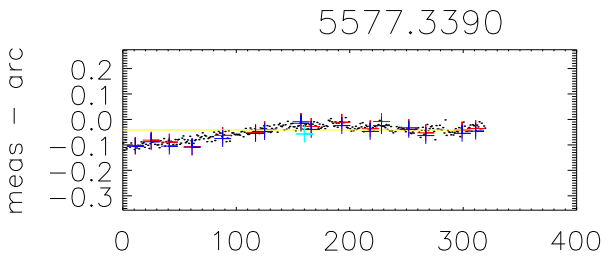

shift(pix)=−0.088
err(pix)= 0.020
oldshift(pix)=−0.309
600
500
400
300
200
100
4280
4300
4320
4340
4360
4380
4400
4420

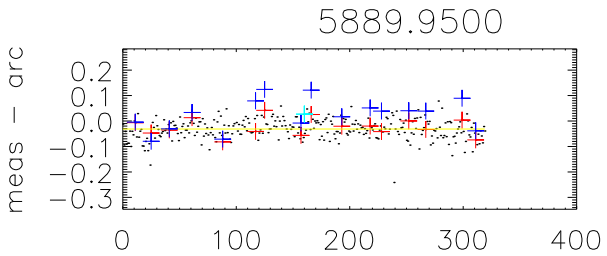

shift(pix)=−0.043
err(pix)= 0.020
oldshift(pix)= 0.084
600
500
400
300
200
100
5430
5440
5450
5460
5470
5480
5490

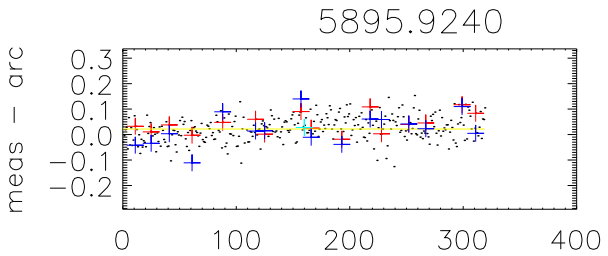

4046.5600
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

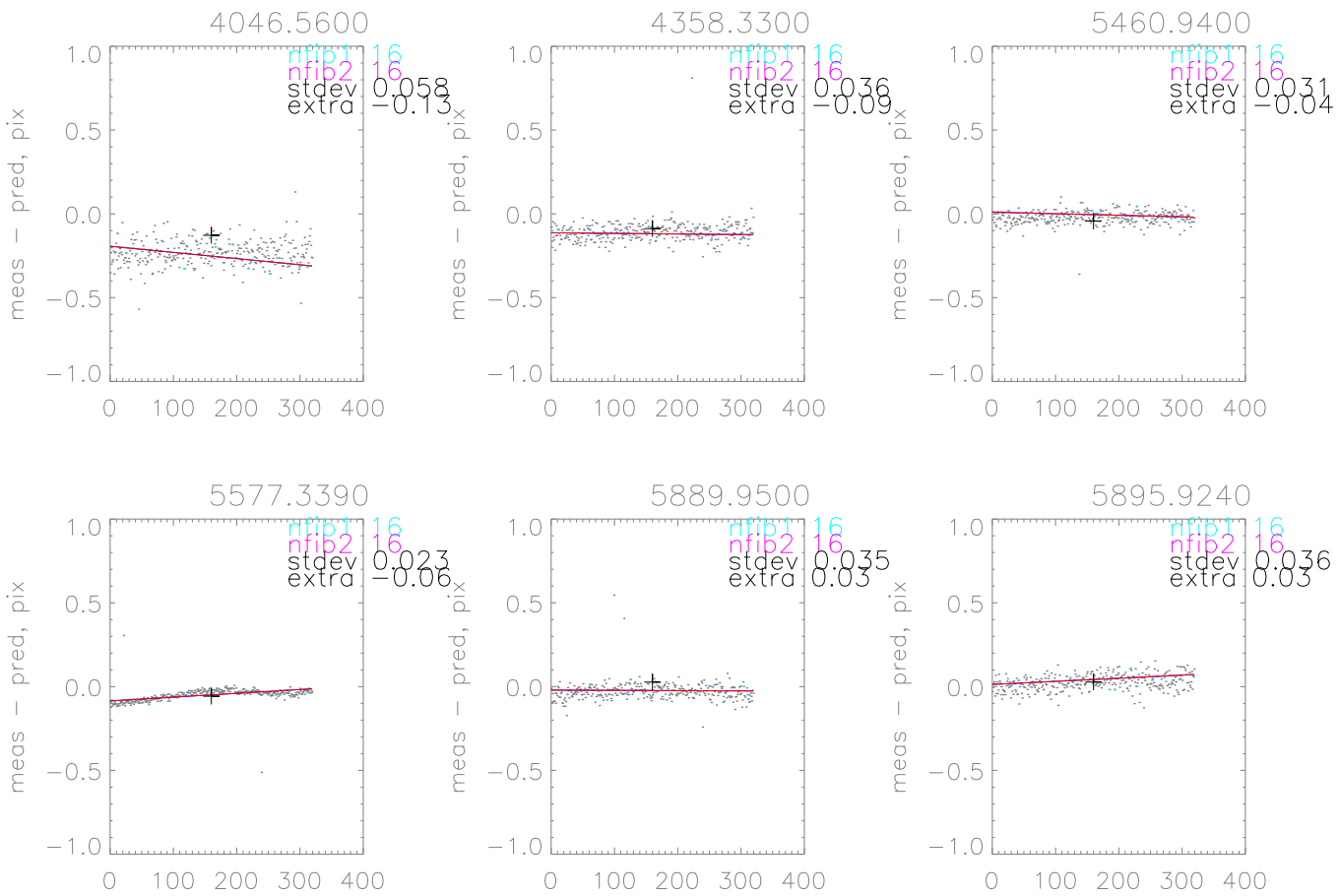

4358.3300
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

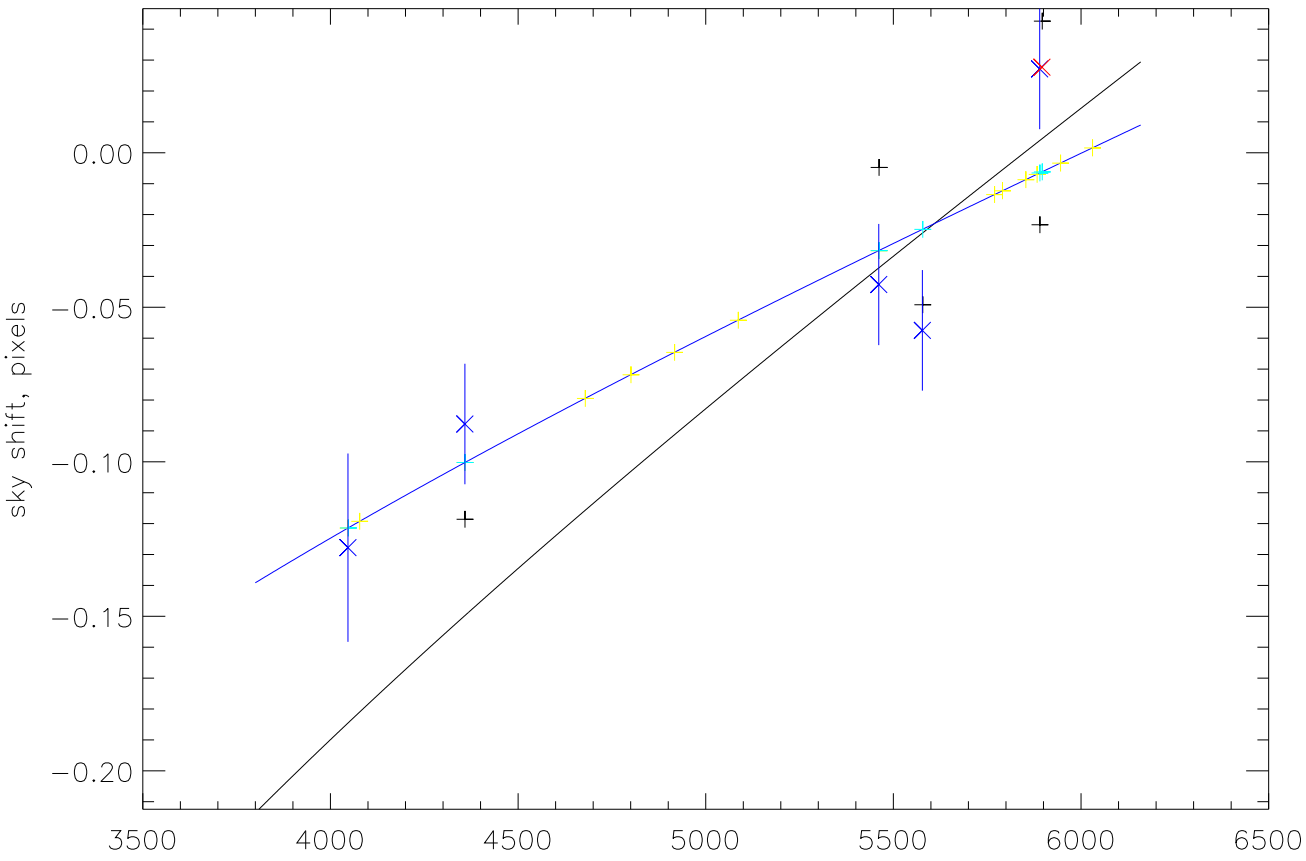

5460.9400
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400


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

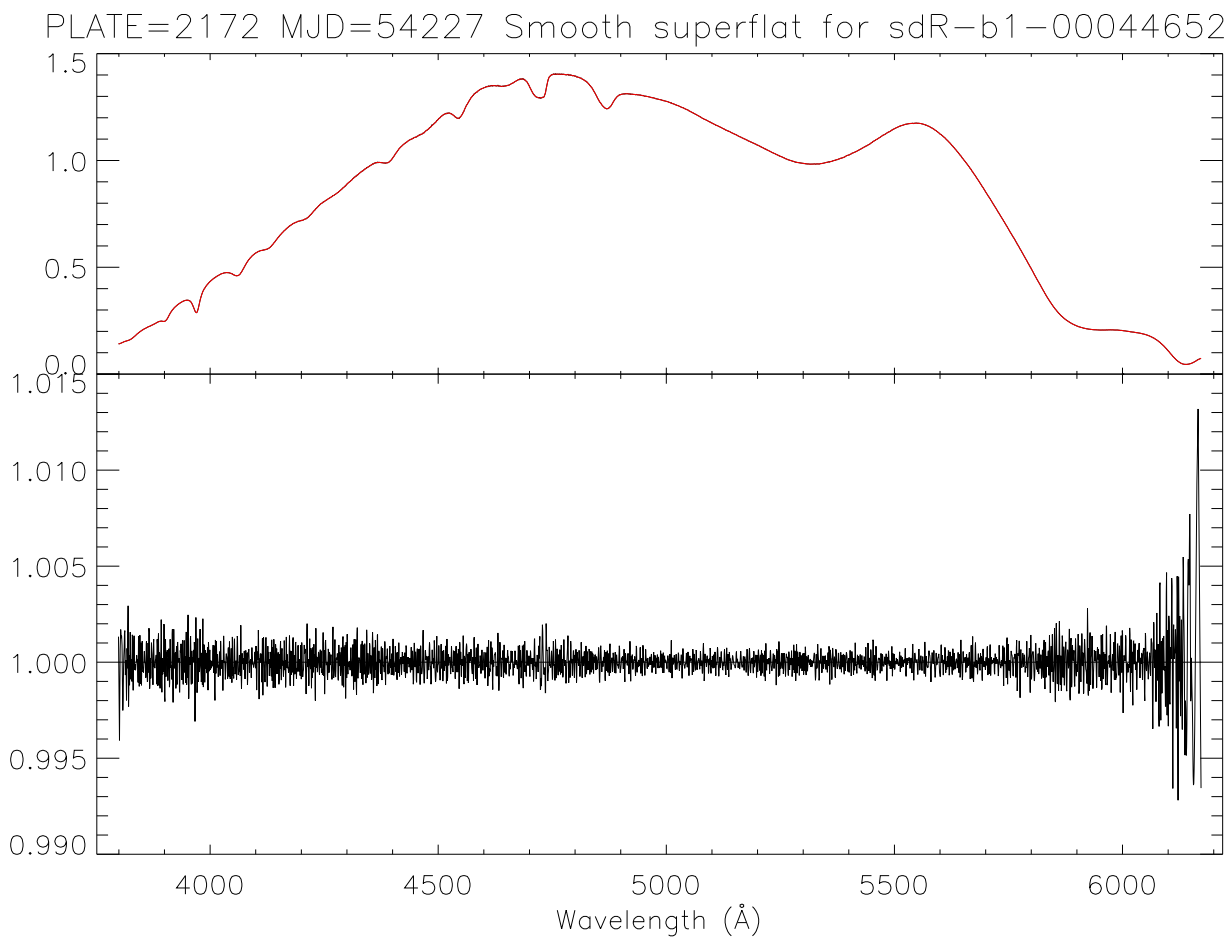

5889.9500
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

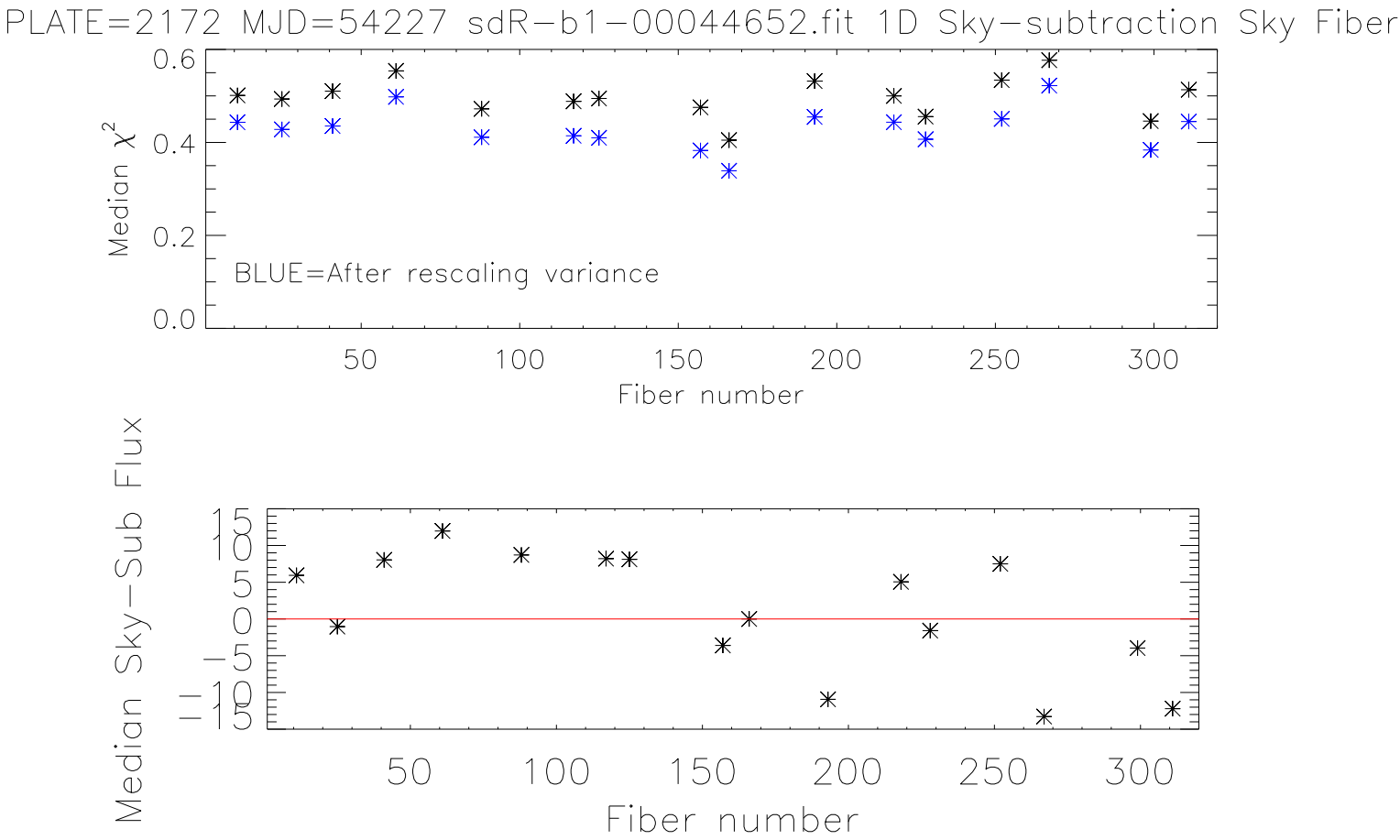

5895.9240
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

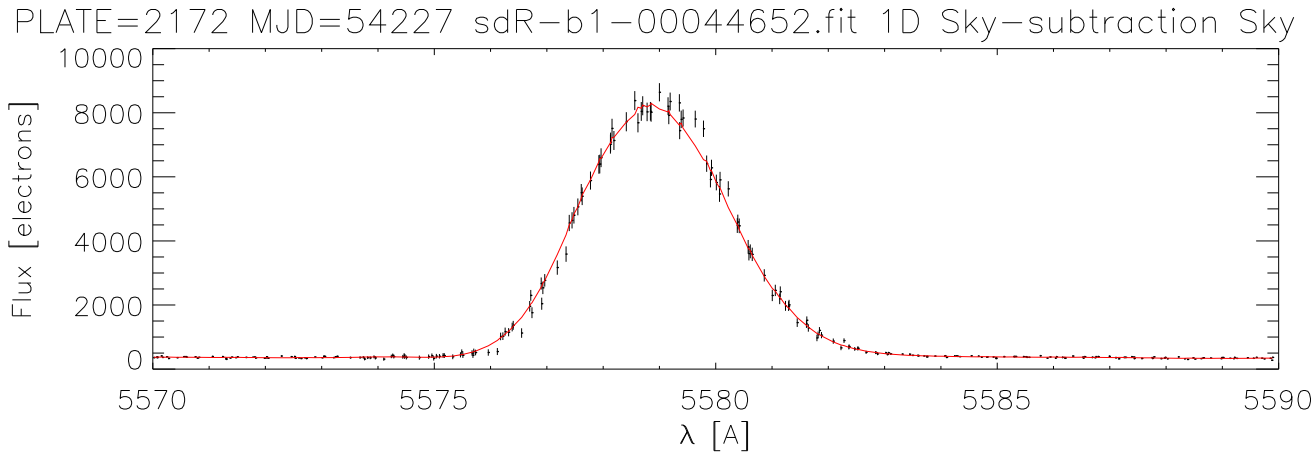

4046.5600
nfib1 16
nfib2 16
stdev 0.058
extra −0.13
4358.3300
nfib1 16
nfib2 16
stdev 0.036
extra −0.09
5460.9400
nfib1 16
nfib2 16
stdev 0.031
extra −0.04
5577.3390
nfib1 16
nfib2 16
stdev 0.023
extra −0.06
5889.9500
nfib1 16
nfib2 16
stdev 0.035
extra 0.03
5895.9240
nfib1 16
nfib2 16
stdev 0.036
extra 0.03
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

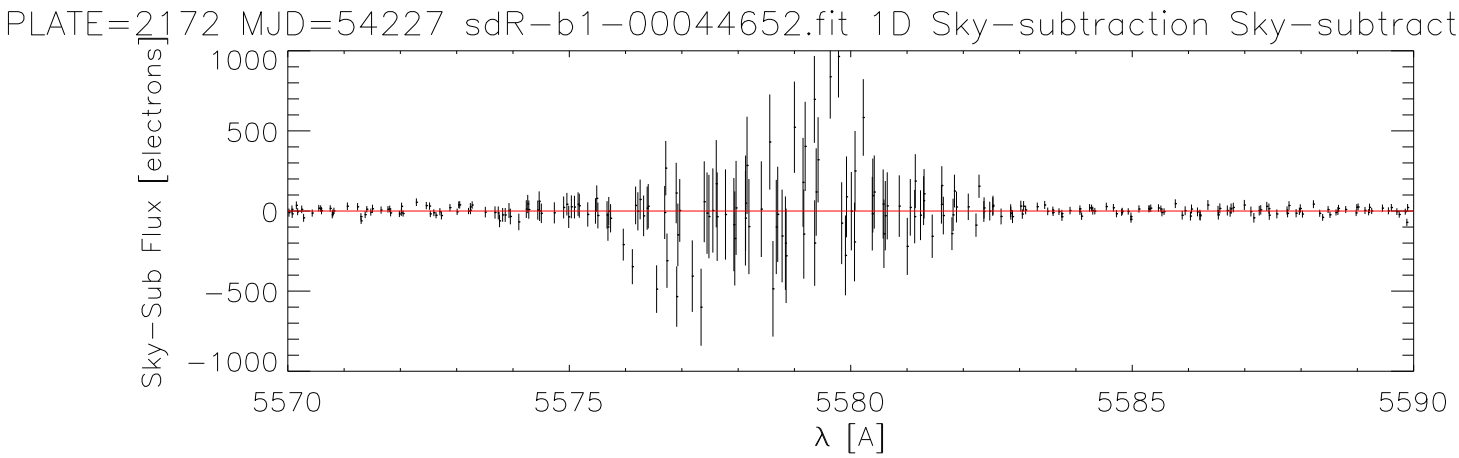

sky shift, pixels
0.00
−0.05
−0.10
−0.15
−0.20
3500
4000
4500
5000
5500
6000
6500

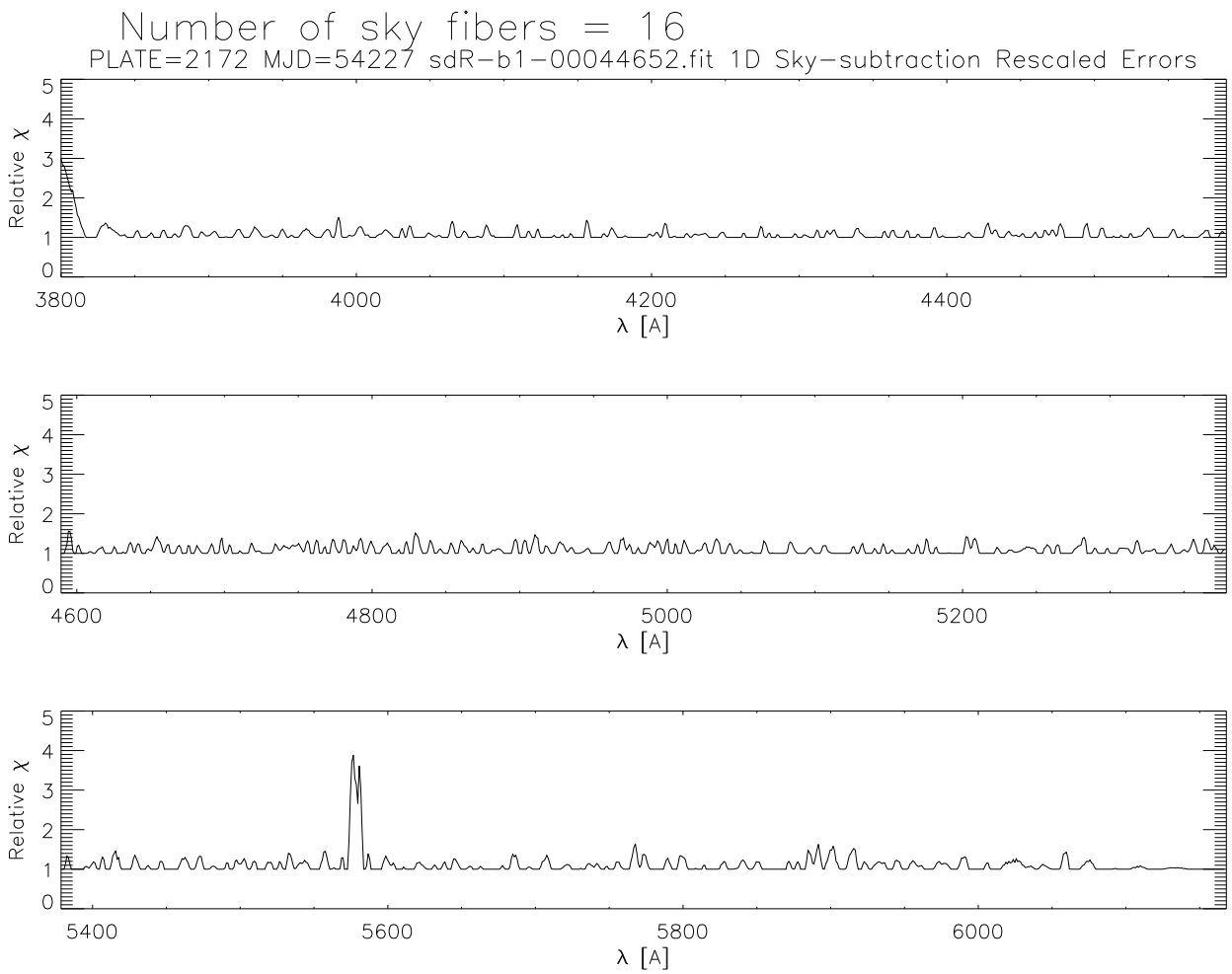
es= 0.0000

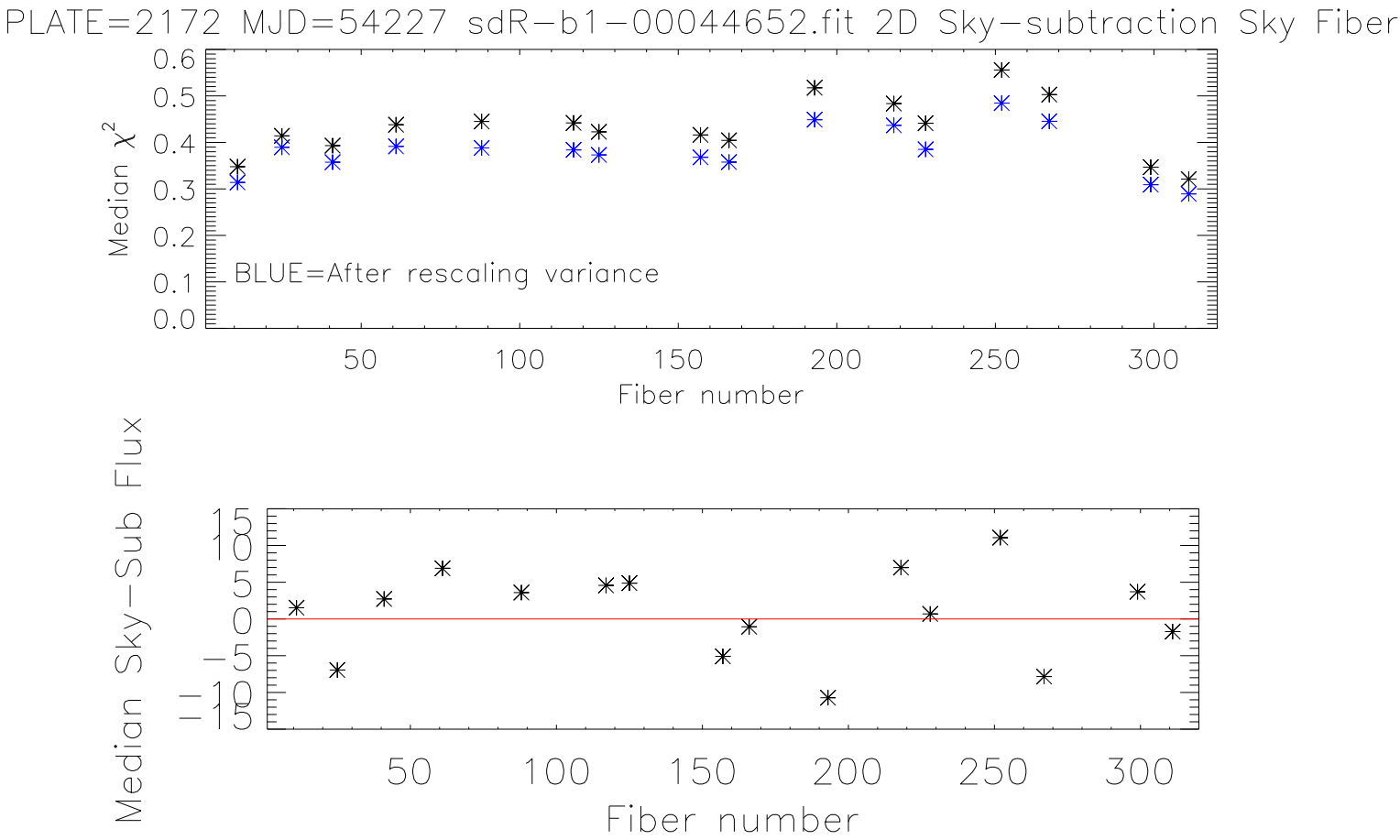

PLATE=2172 MJD=54227 Smooth superflat for sdR-b1-00044652.fit
1.5
1.0
0.5
0.0
1.015
1.010
1.005
1.000
0.995
0.990
4000
4500
5000
5500
6000
Wavelength (Å)

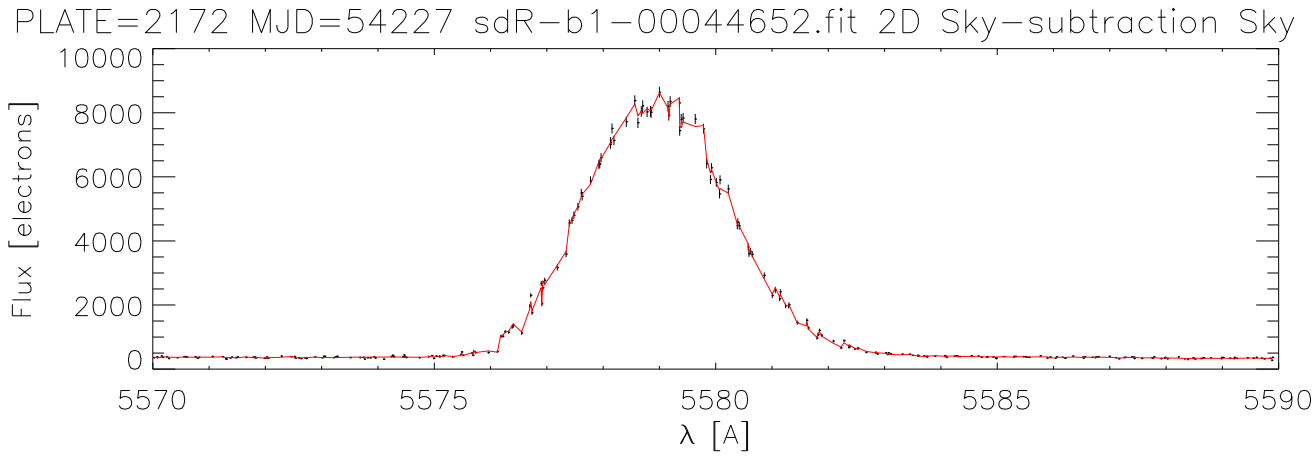

PLATE=2172 MJD=54227 sdR-b1-00044652.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.2
0.4
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
15
10
5
0
-5
-10
-15
50
100
150
200
250
300
Fiber number

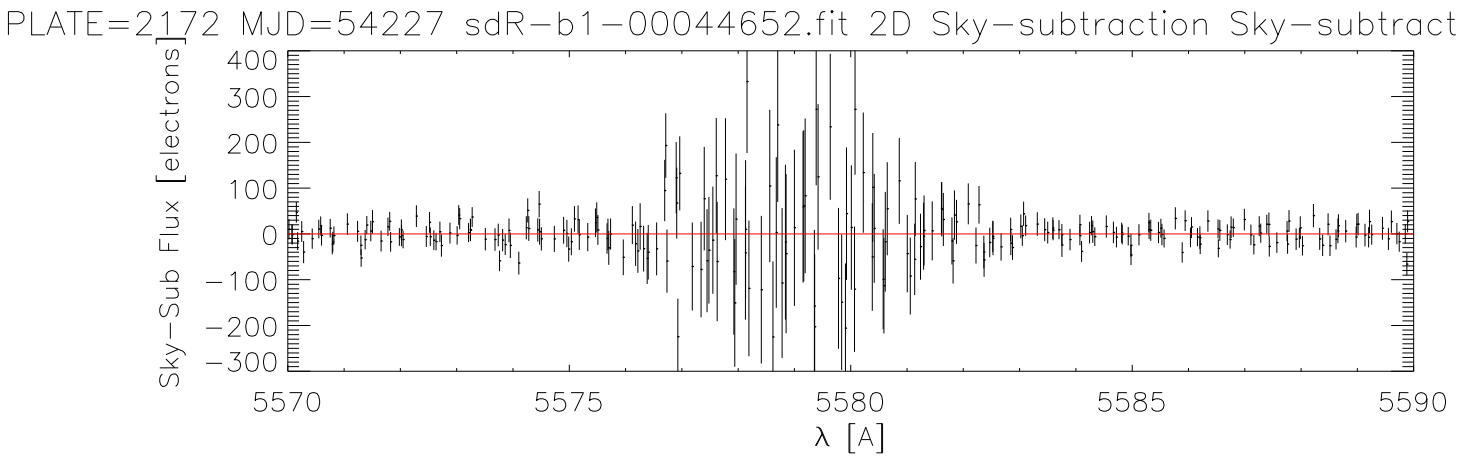

PLATE=2172 MJD=54227 sdR-b1-00044652.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
10000
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

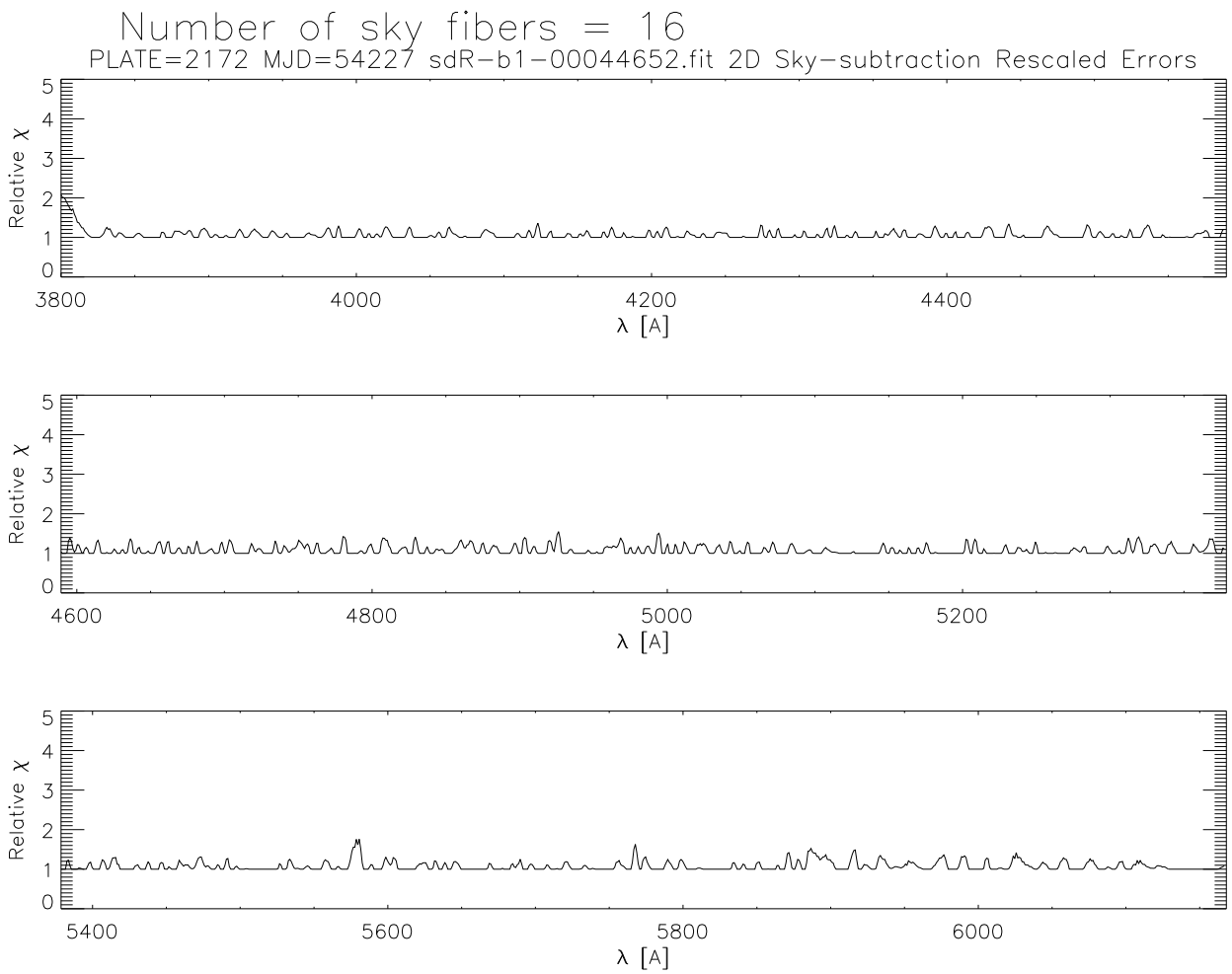

PLATE=2172 MJD=54227 sdR-b1-00044652.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
1000
500
0
-500
-1000
5570
5575
5580
5585
5590
λ [A]

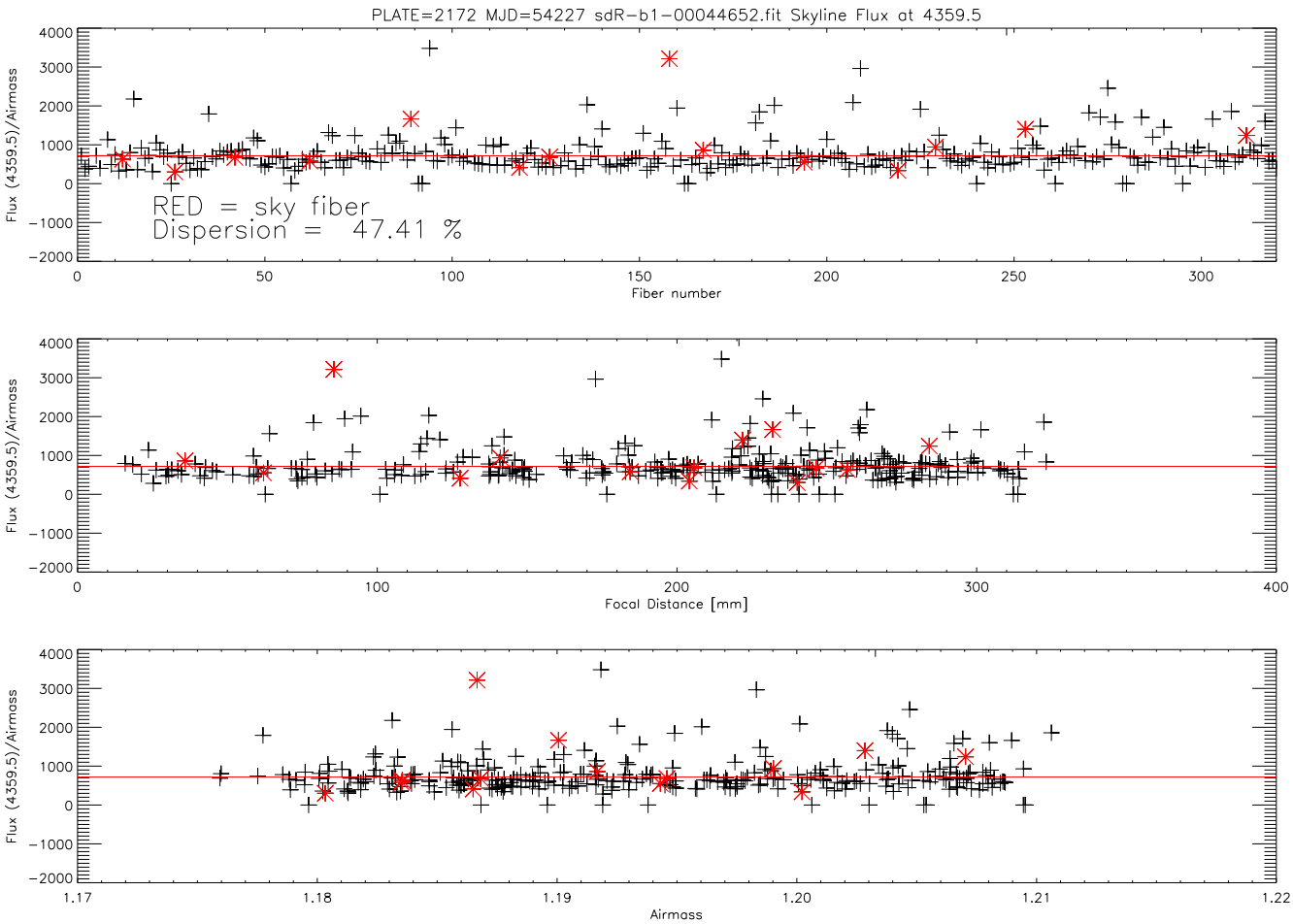

Number of sky fibers = 16
PLATE=2172 MJD=54227 sdR-b1-00044652.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

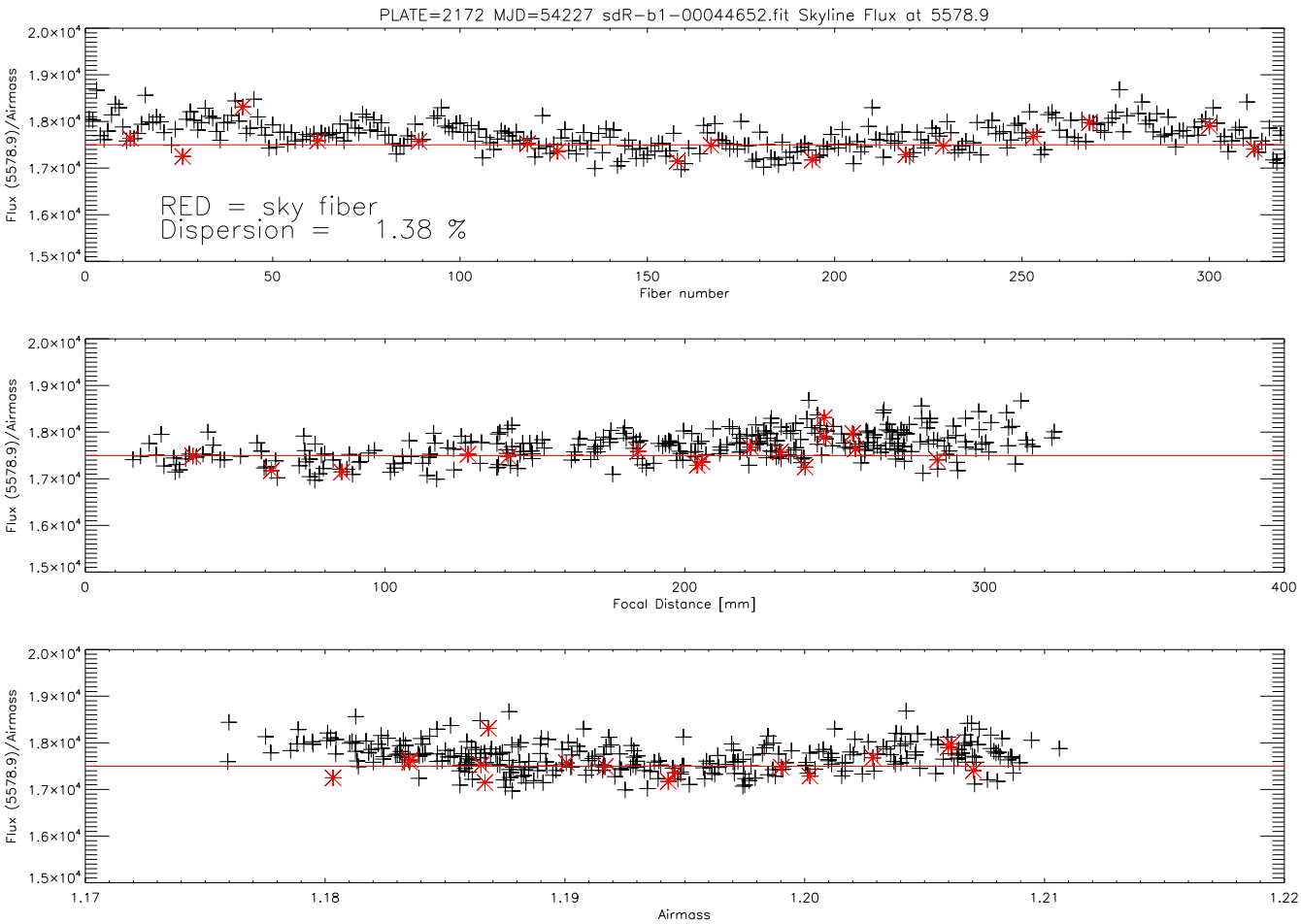

PLATE=2172 MJD=54227 sdR-b1-00044652.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

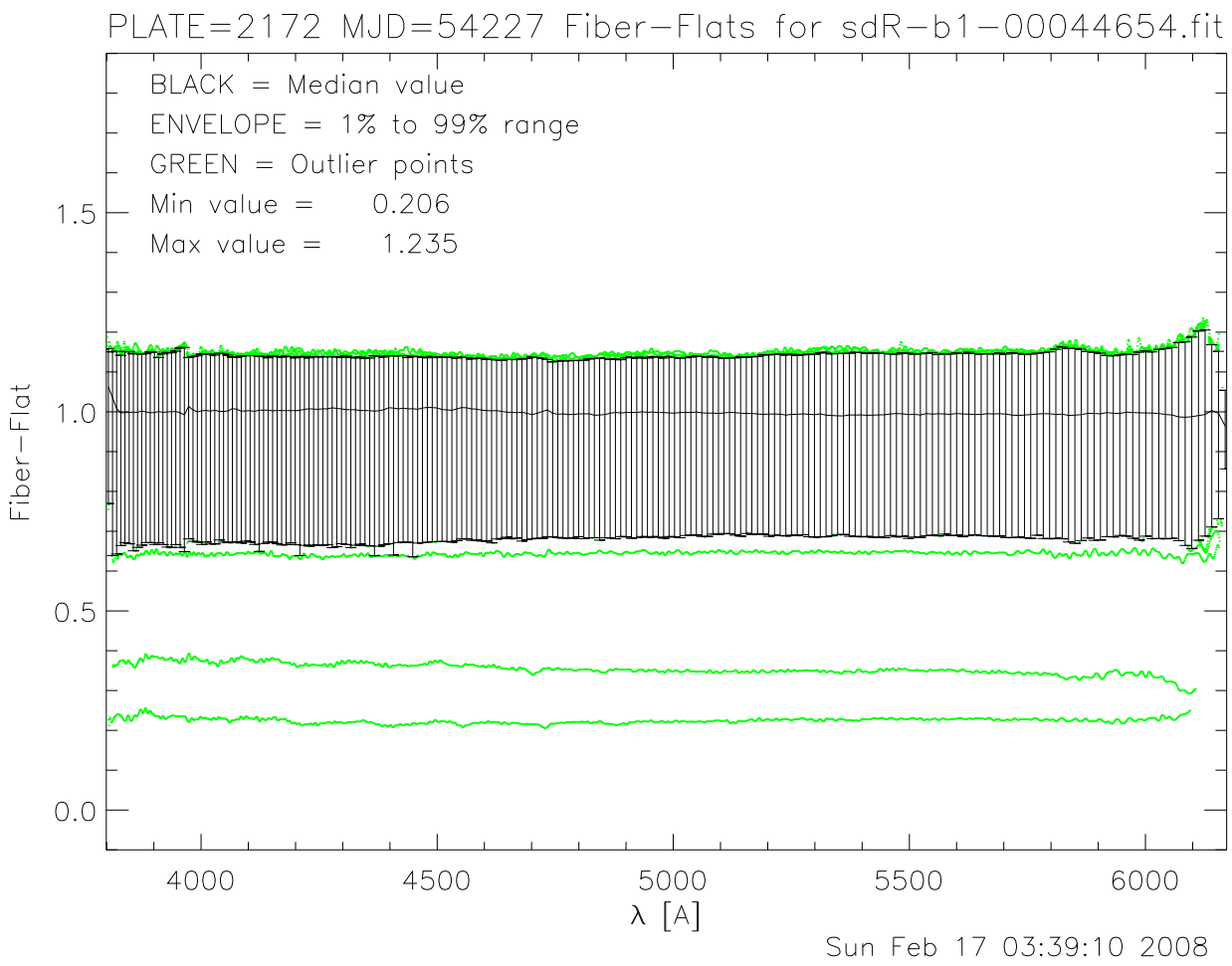

PLATE=2172 MJD=54227 sdR-b1-00044652.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
10000
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

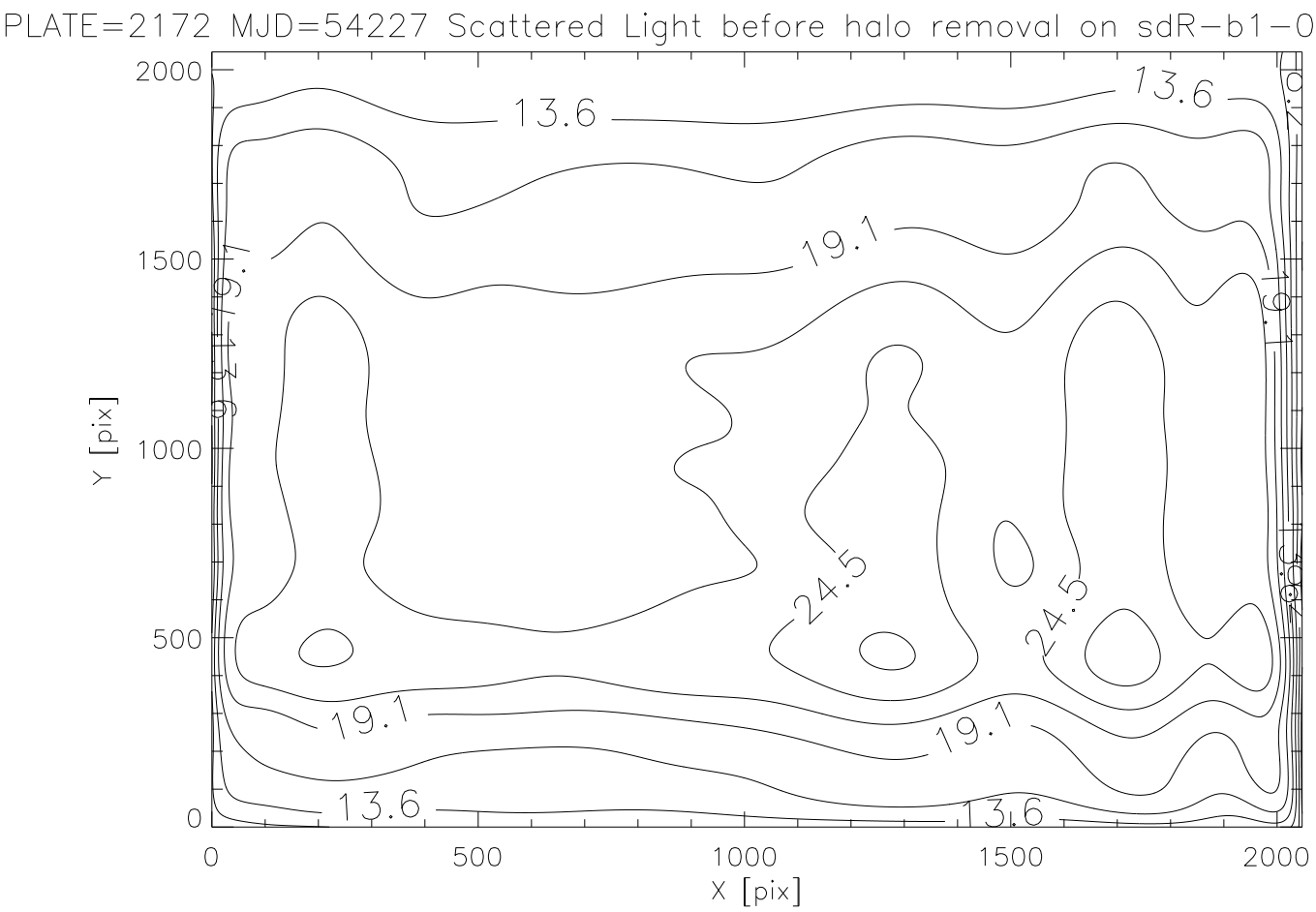

PLATE=2172 MJD=54227 sdR-b1-00044652.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
300
200
100
0
-100
-200
-300
5570
5575
5580
5585
5590
λ [A]

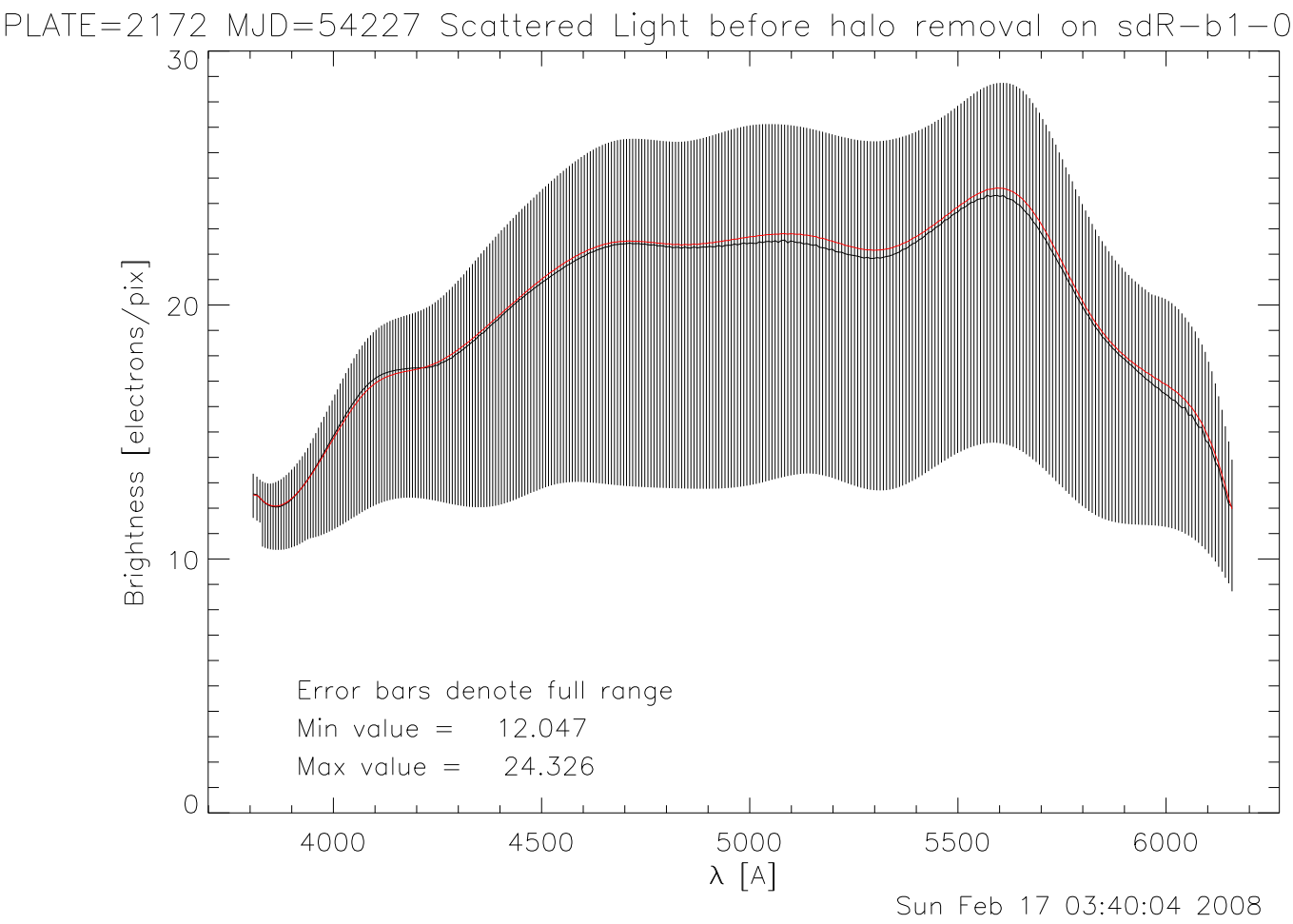

Number of sky fibers = 16
PLATE=2172 MJD=54227 sdR-b1-00044652.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

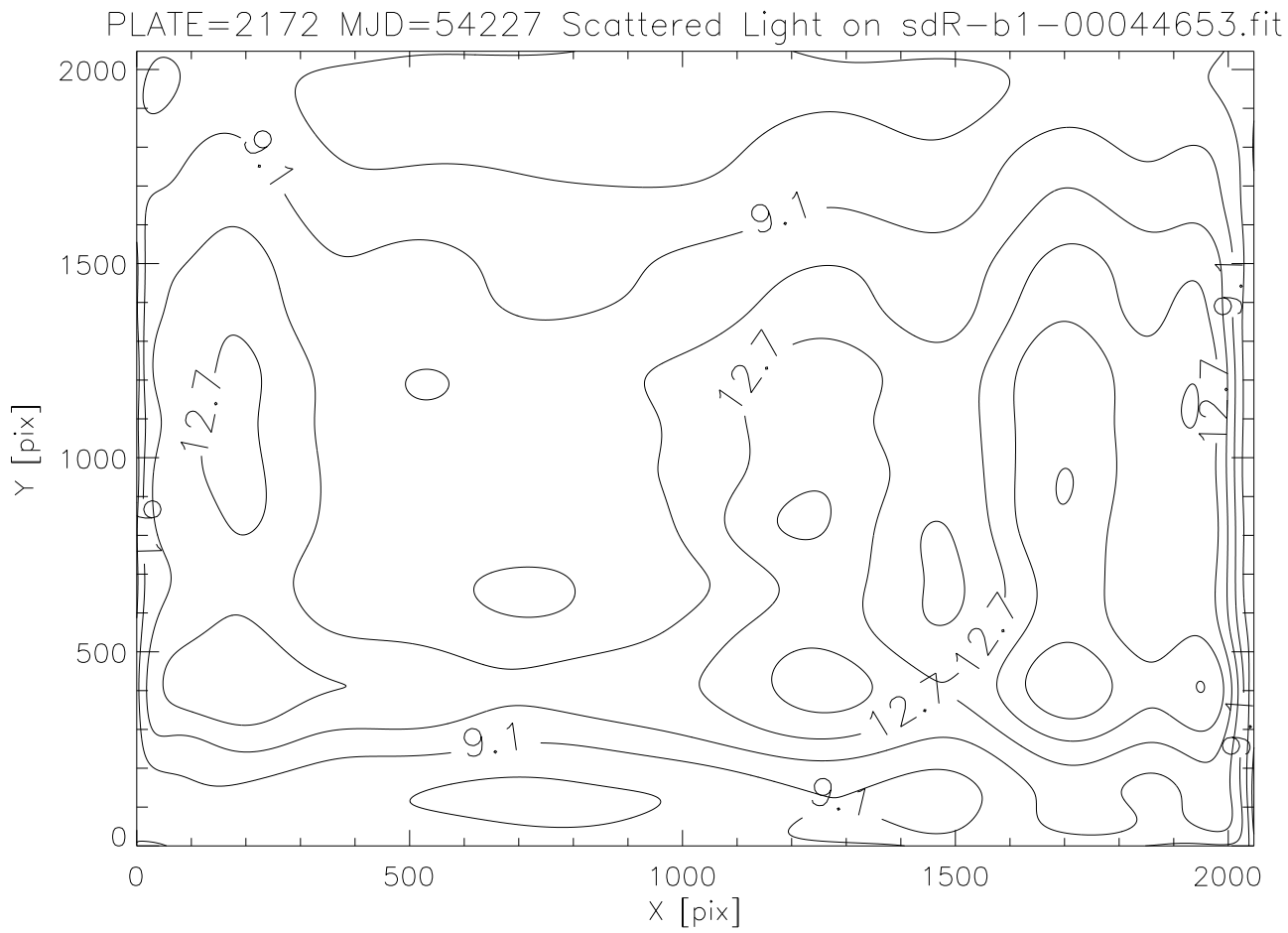

PLATE=2172 MJD=54227 sdR-b1-00044652.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 47.41 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

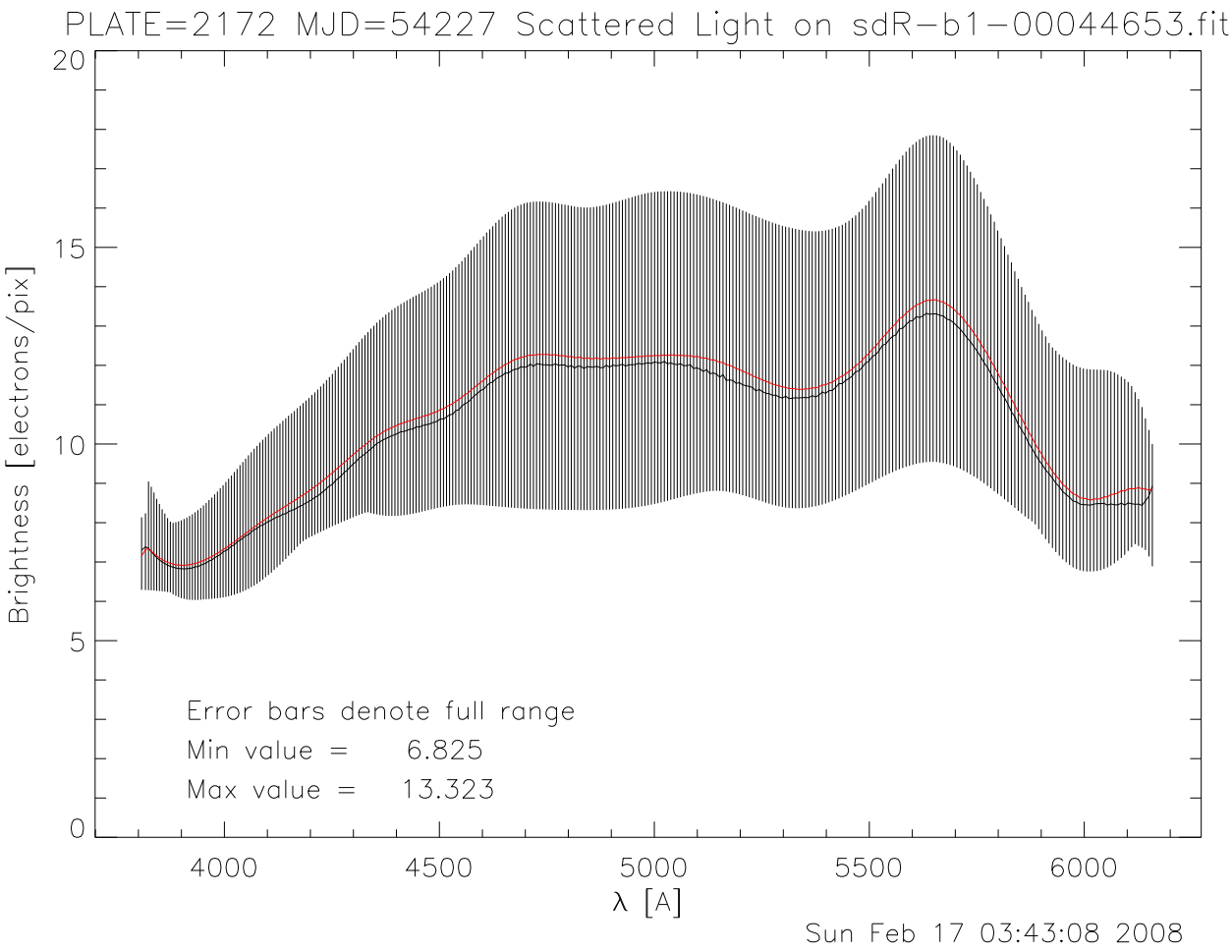

PLATE=2172 MJD=54227 sdR-b1-00044652.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 1.38 %
Fiber number
Focal Distance [mm]
Airmass

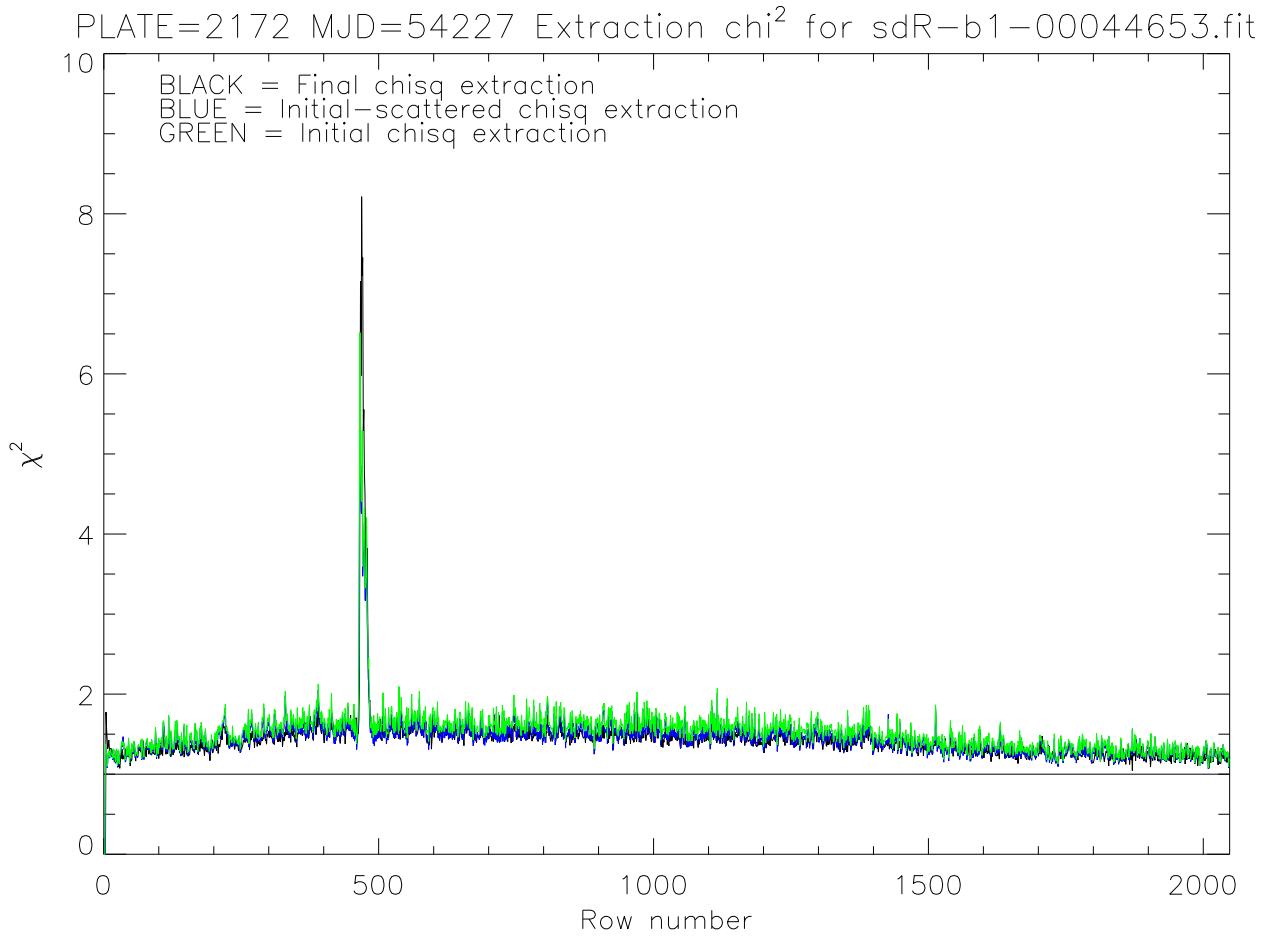

PLATE=2172 MJD=54227 Fiber-Flats for sdR-b1-00044654.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.206
Max value = 1.235
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Sun Feb 17 03:39:10 2008

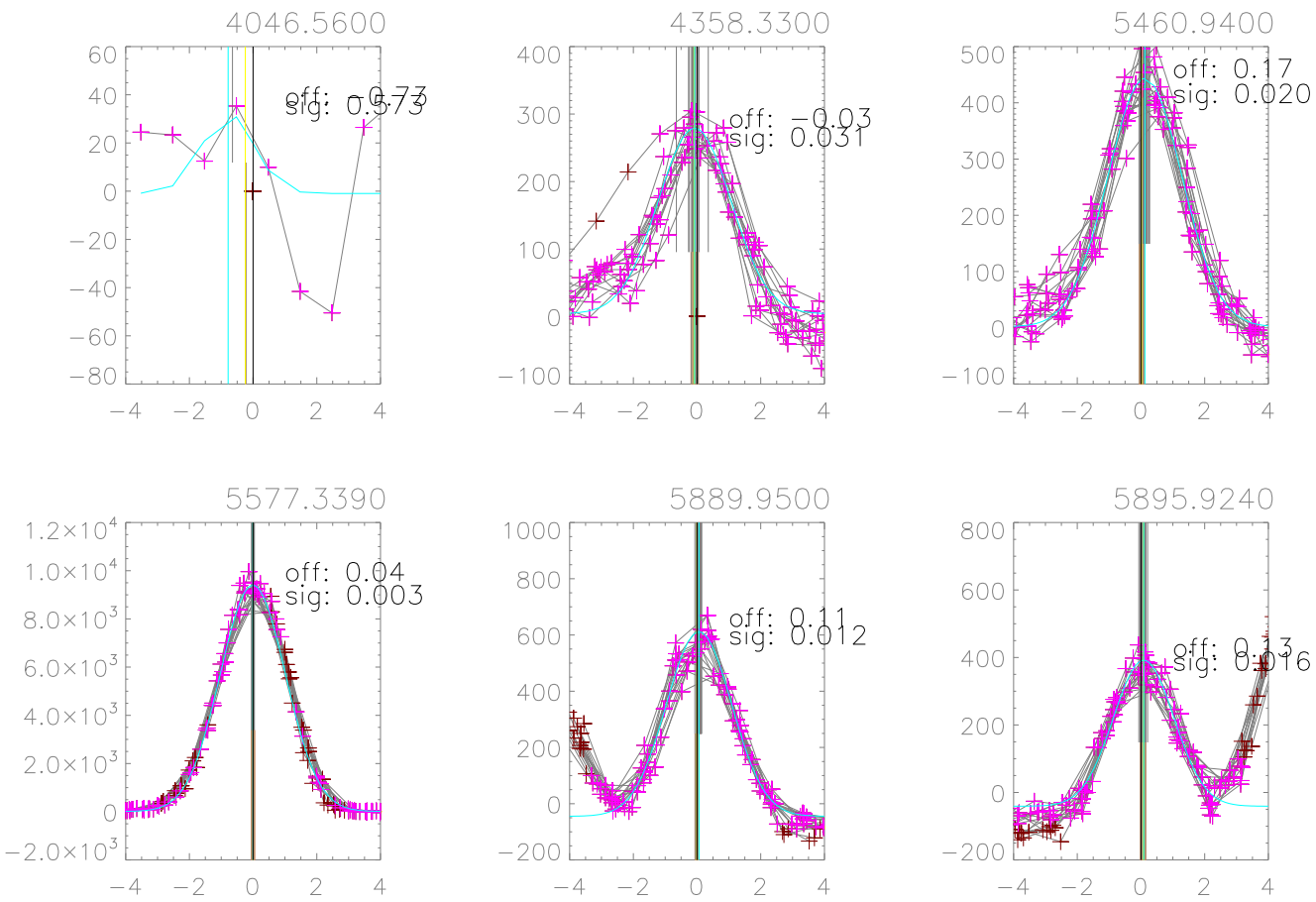

PLATE=2172 MJD=54227 Scattered Light before halo removal on sdR−b1−00044653.f
13.6
19.1
24.5
Y [pix]
X [pix]
0
500
1000
1500
2000

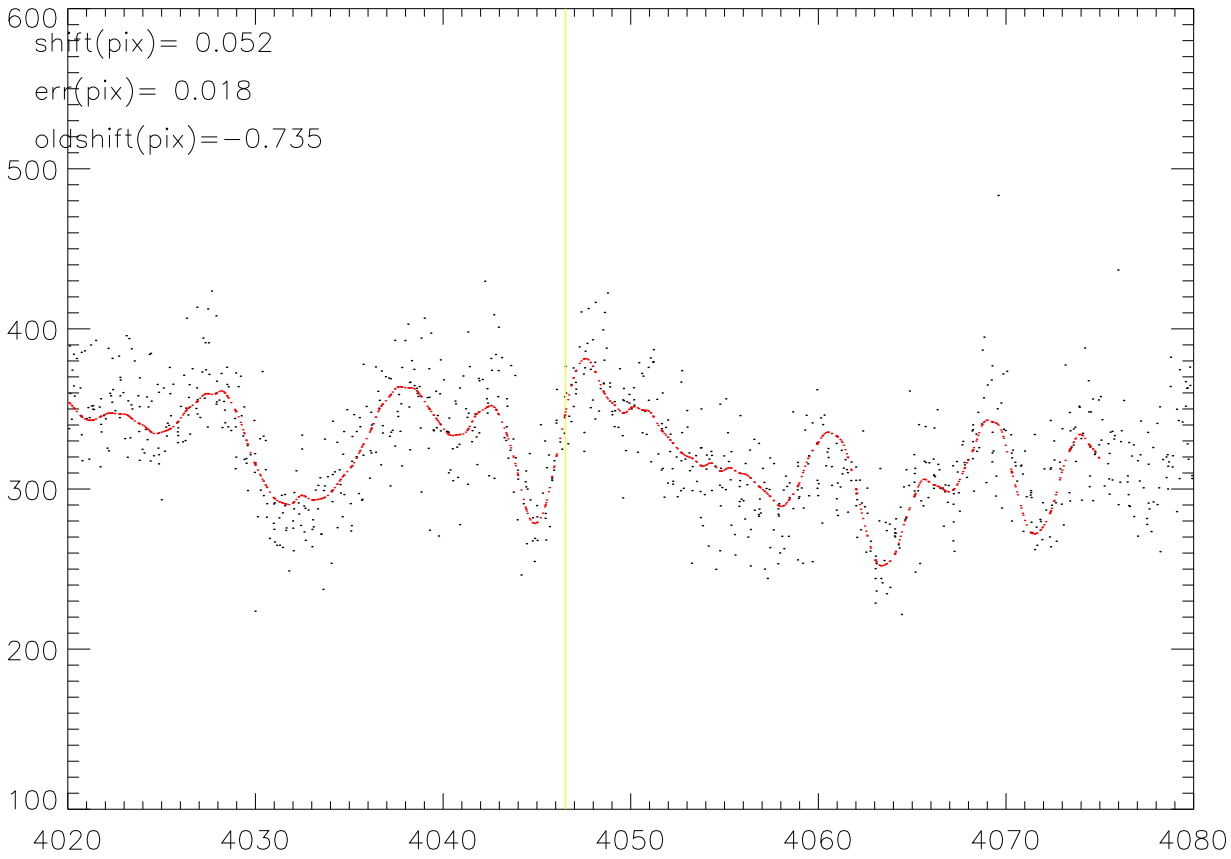

PLATE=2172 MJD=54227 Scattered Light before halo removal on sdR-b1-00044653.f
Brightness [electrons/pix]
30
20
10
0
Error bars denote full range
Min value = 12.047
Max value = 24.326
4000
4500
5000
5500
6000
λ [A]
Sun Feb 17 03:40:04 2008

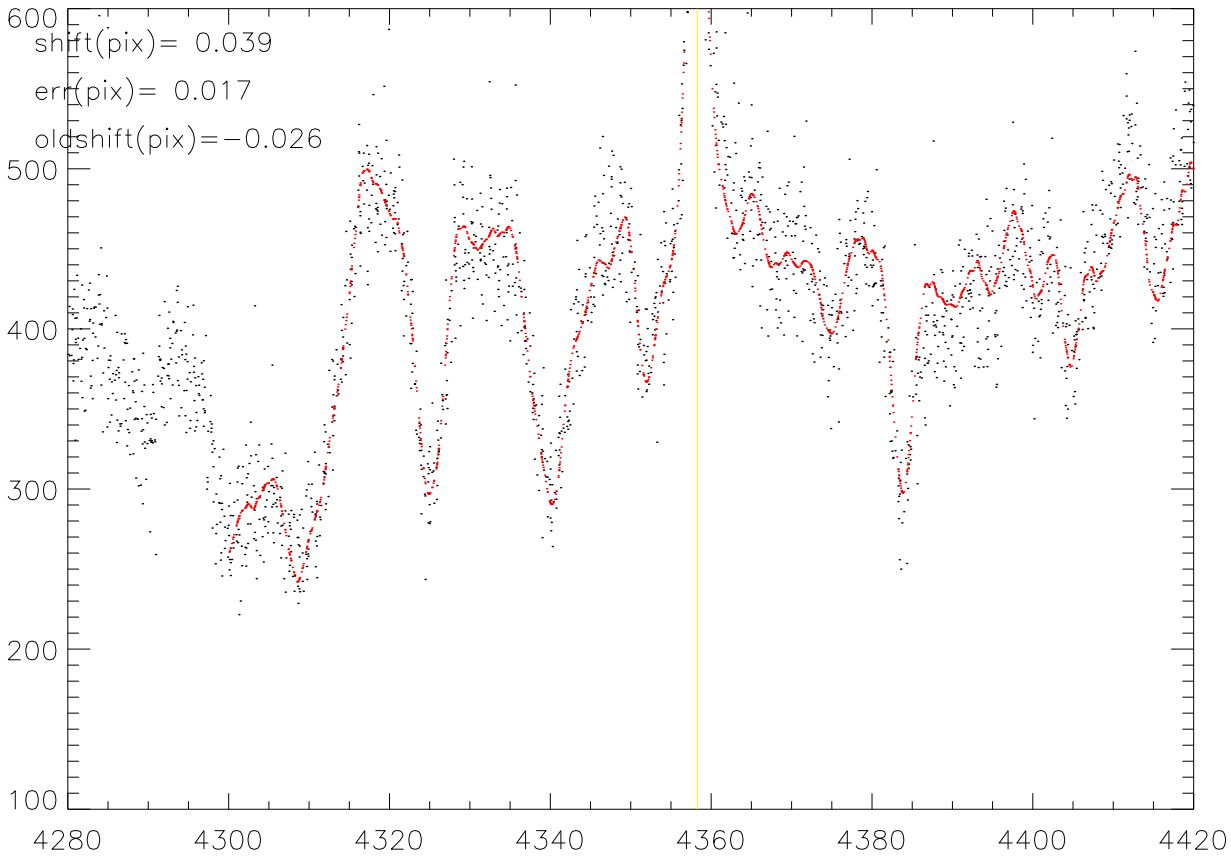

PLATE=2172 MJD=54227 Scattered Light on sdR-b1-00044653.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
9.1
12.7

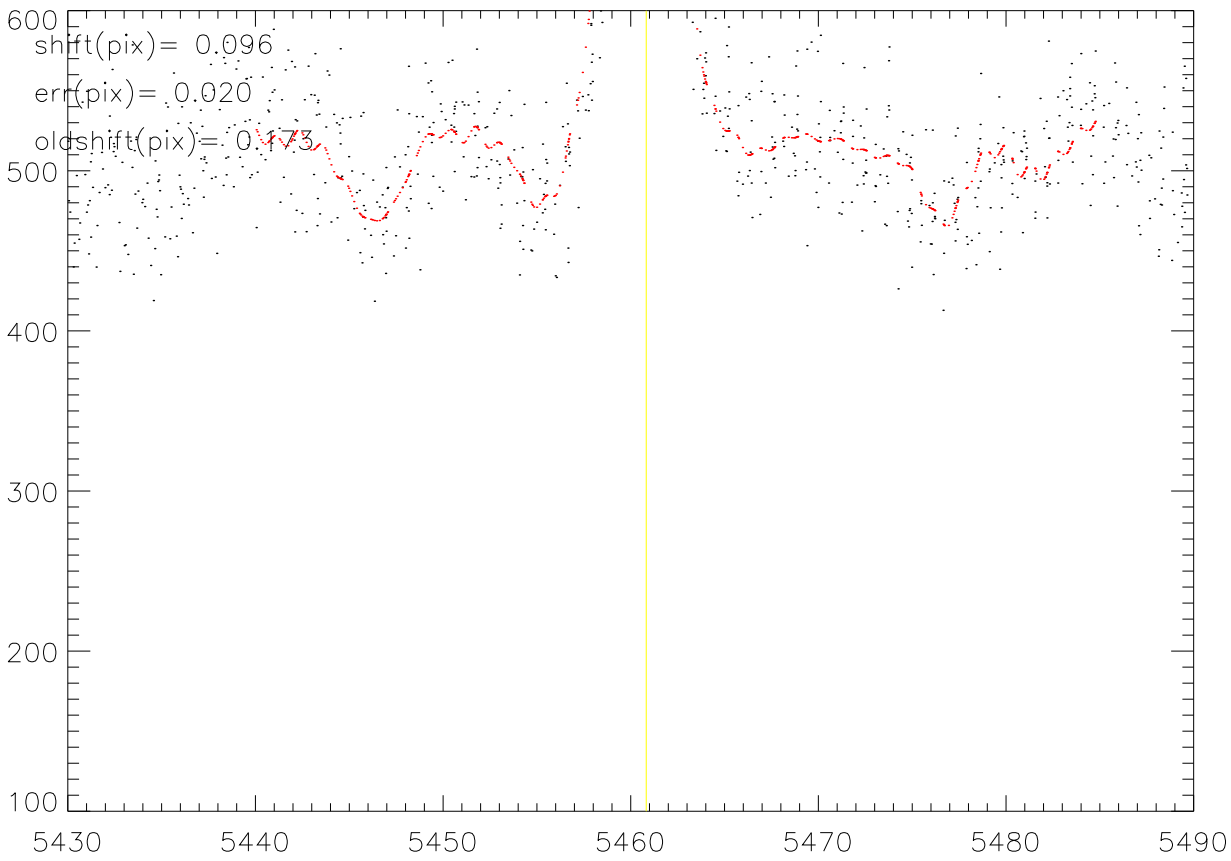

PLATE=2172 MJD=54227 Scattered Light on sdR-b1-00044653.fit
Brightness [electrons/pix]
20
15
10
5
0
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 6.825
Max value = 13.323
Sun Feb 17 03:43:08 2008

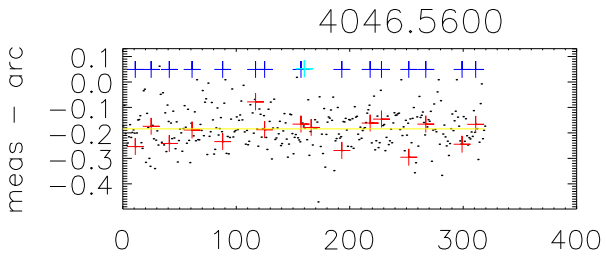

PLATE=2172 MJD=54227 Extraction chi^2 for sdR-b1-00044653.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
2
4
6
8
10
0
500
1000
1500
2000

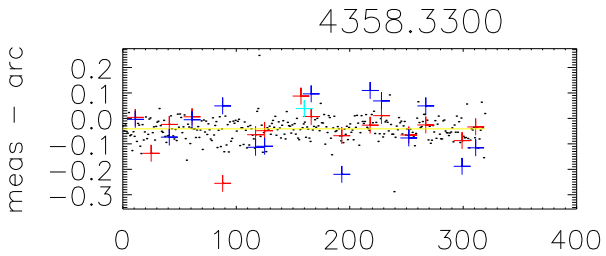

4046.5600
off: 0.73
sig: 0.573
4358.3300
off: −0.03
sig: 0.031
5460.9400
off: 0.17
sig: 0.020
5577.3390
off: 0.04
sig: 0.003
5889.9500
off: 0.11
sig: 0.012
5895.9240
off: 0.13
sig: 0.016

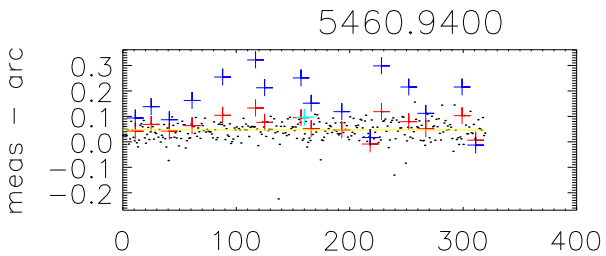

shift(pix)= 0.052
err(pix)= 0.018
oldshift(pix)=−0.735
600
500
400
300
200
100
4020
4030
4040
4050
4060
4070
4080

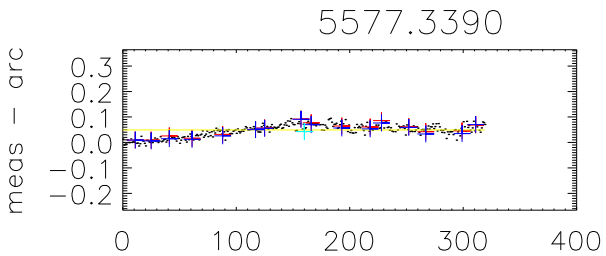

shift(pix)= 0.039
err(pix)= 0.017
oldshift(pix)=−0.026
600
500
400
300
200
100
4280
4300
4320
4340
4360
4380
4400
4420

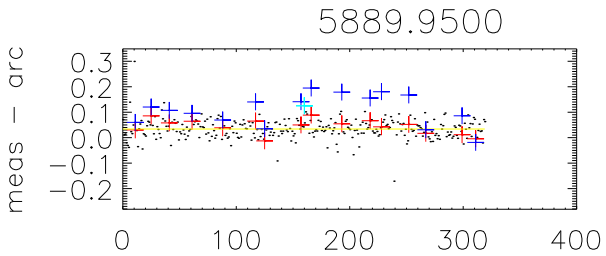

shift(pix)= 0.096
err(pix)= 0.020
oldshift(pix)= 0.173
600
500
400
300
200
100
5430
5440
5450
5460
5470
5480
5490

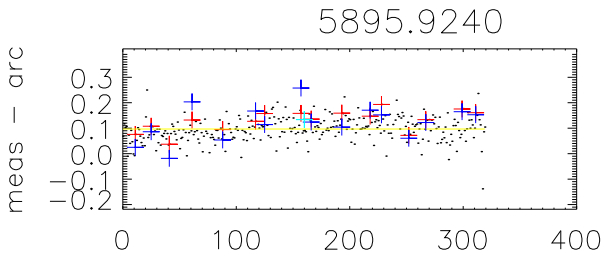

4046.5600
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

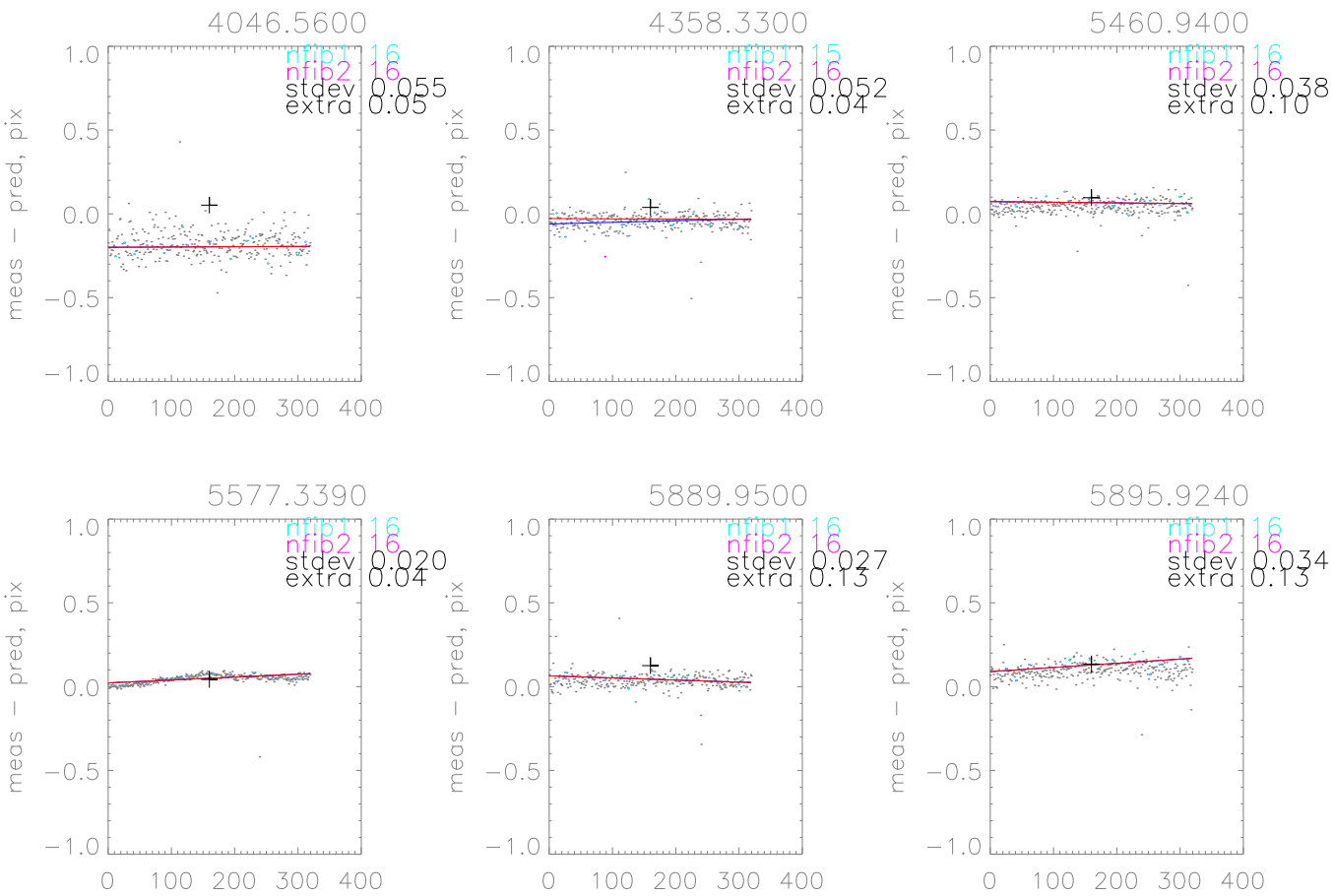

4358.3300
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

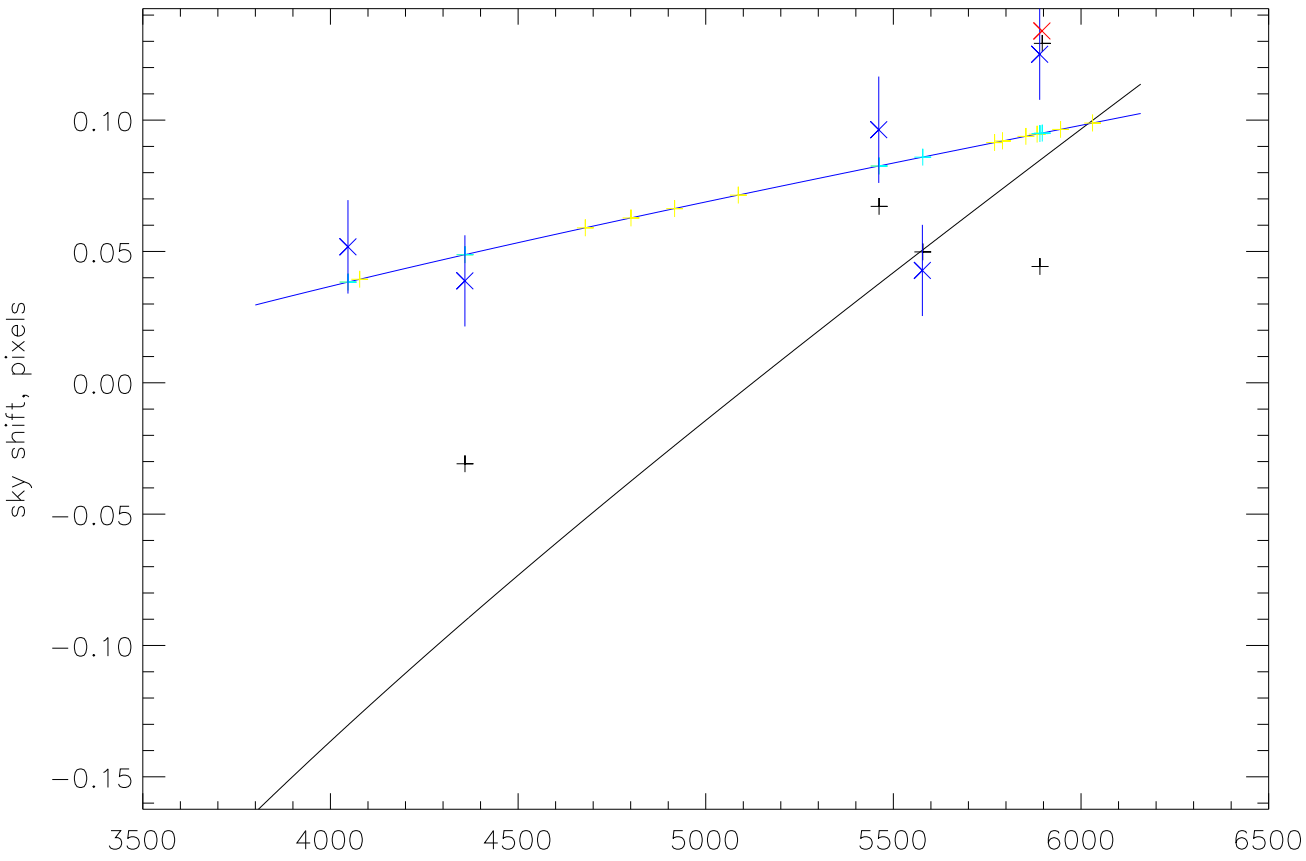

5460.9400
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

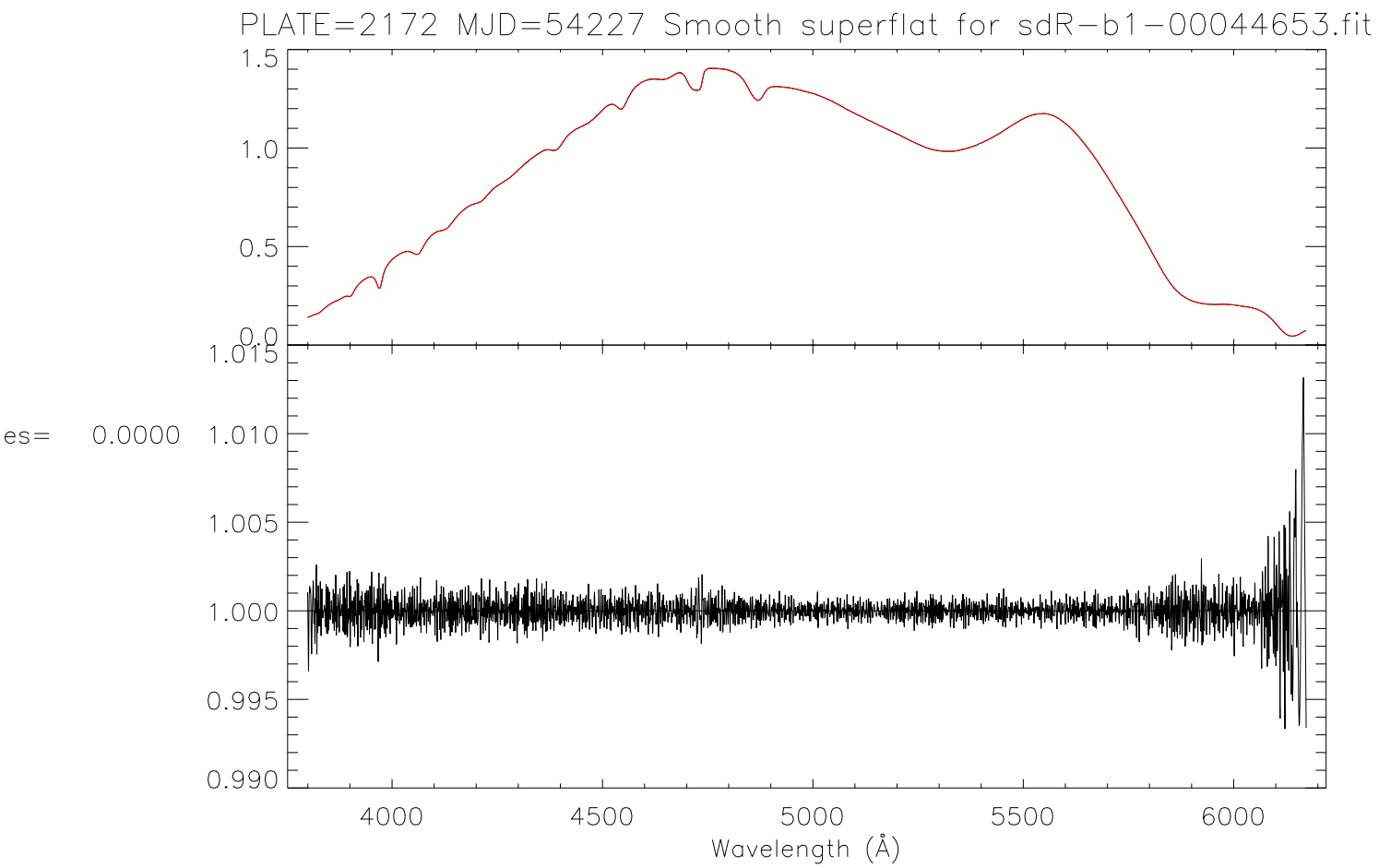

5577.3390
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400


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

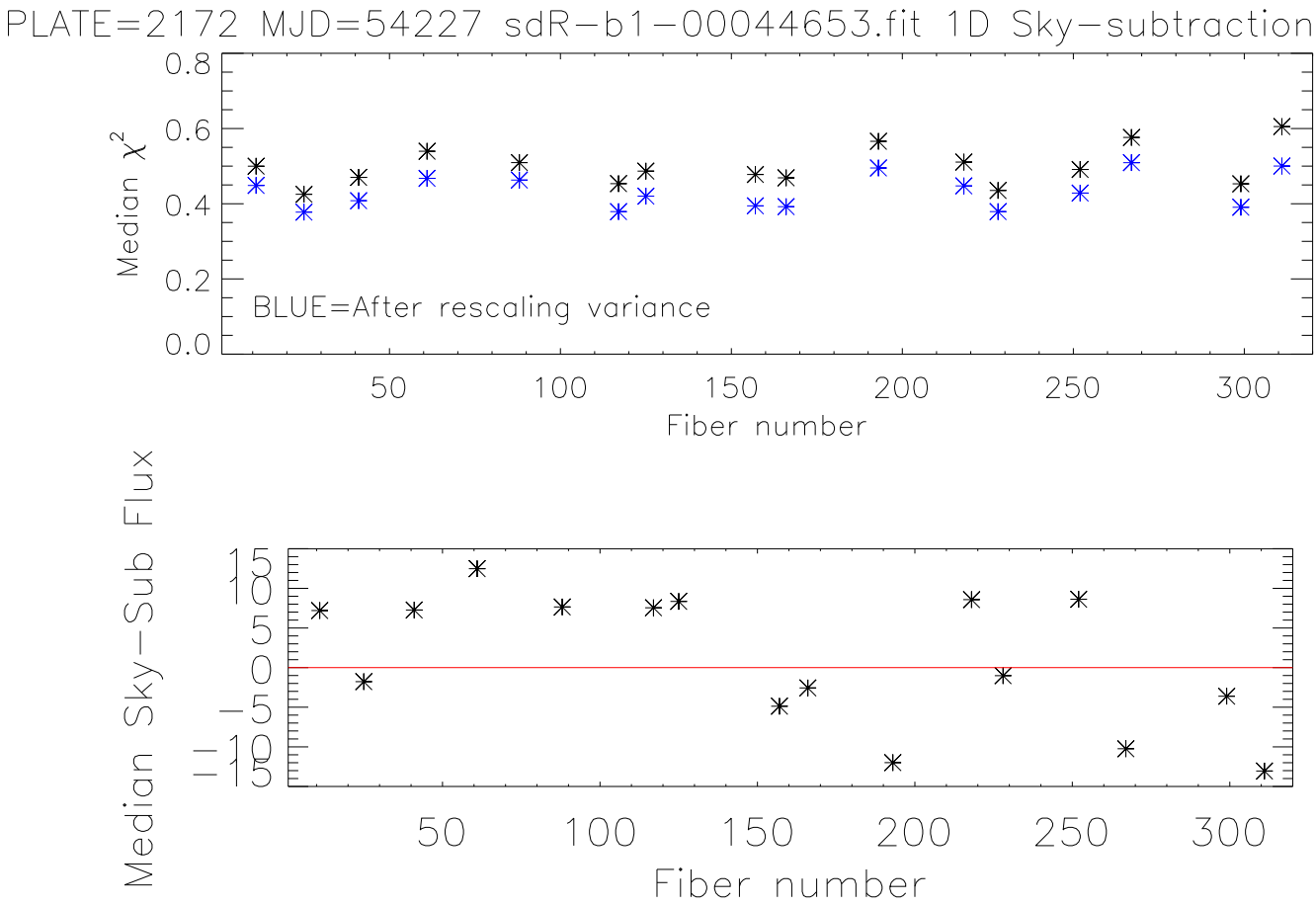

5895.9240
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

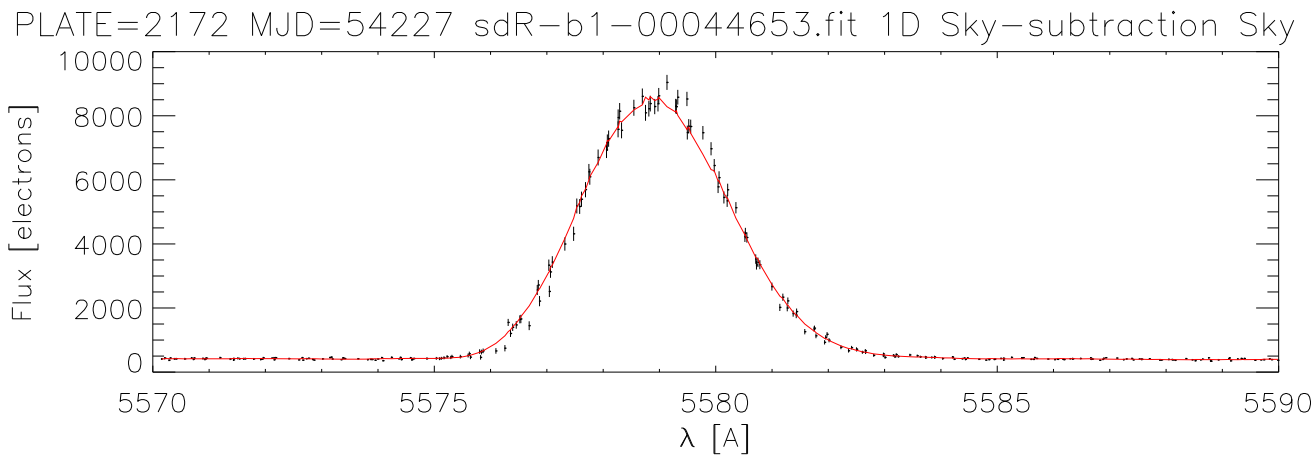

4046.5600
nfib1 16
nfib2 16
stdev 0.055
extra 0.05
4358.3300
nfib1 15
nfib2 16
stdev 0.052
extra 0.04
5460.9400
nfib1 16
nfib2 16
stdev 0.038
extra 0.10
5577.3390
nfib1 16
nfib2 16
stdev 0.020
extra 0.04
5889.9500
nfib1 16
nfib2 16
stdev 0.027
extra 0.13
5895.9240
nfib1 16
nfib2 16
stdev 0.034
extra 0.13
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

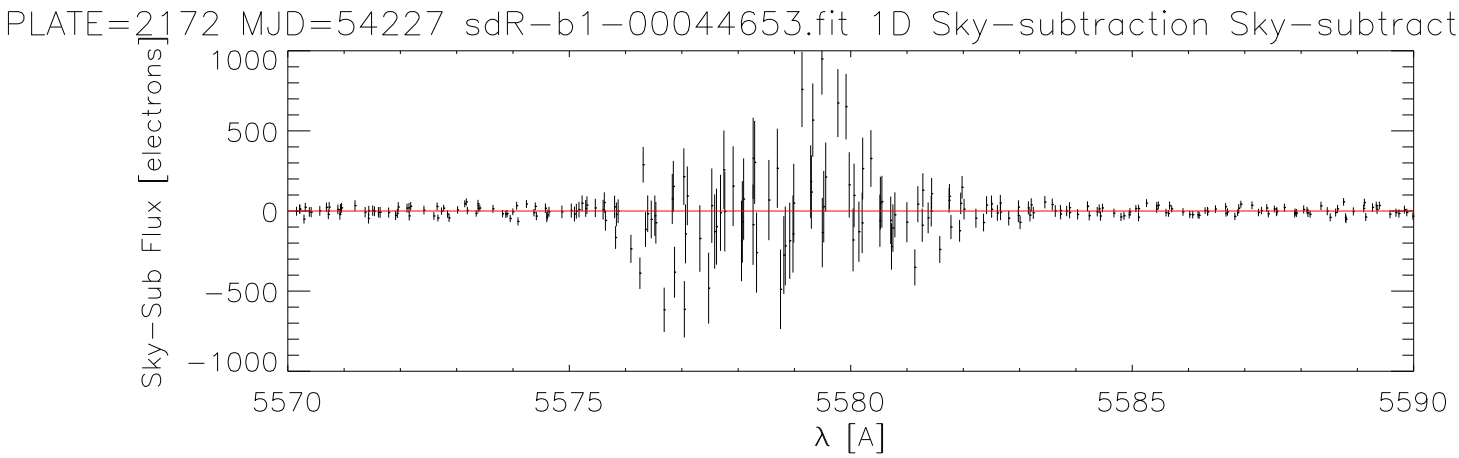

sky shift, pixels
0.10
0.05
0.00
−0.05
−0.10
−0.15
3500
4000
4500
5000
5500
6000
6500

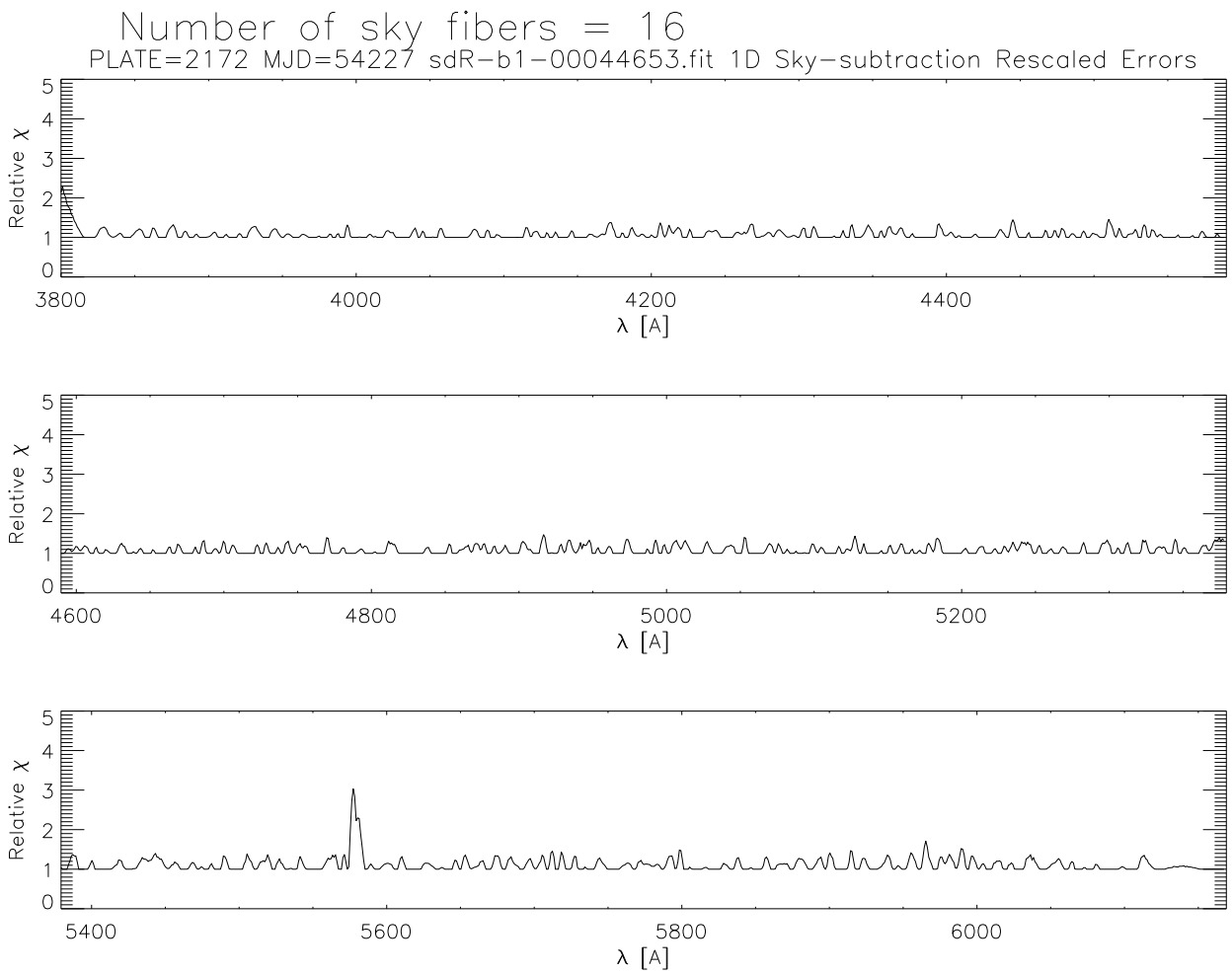

PLATE=2172 MJD=54227 Smooth superflat for sdR-b1-00044653.fit
1.5
1.0
0.5
0.0
1.015
1.010
1.005
1.000
0.995
0.990
4000
4500
5000
5500
6000
Wavelength (Å)

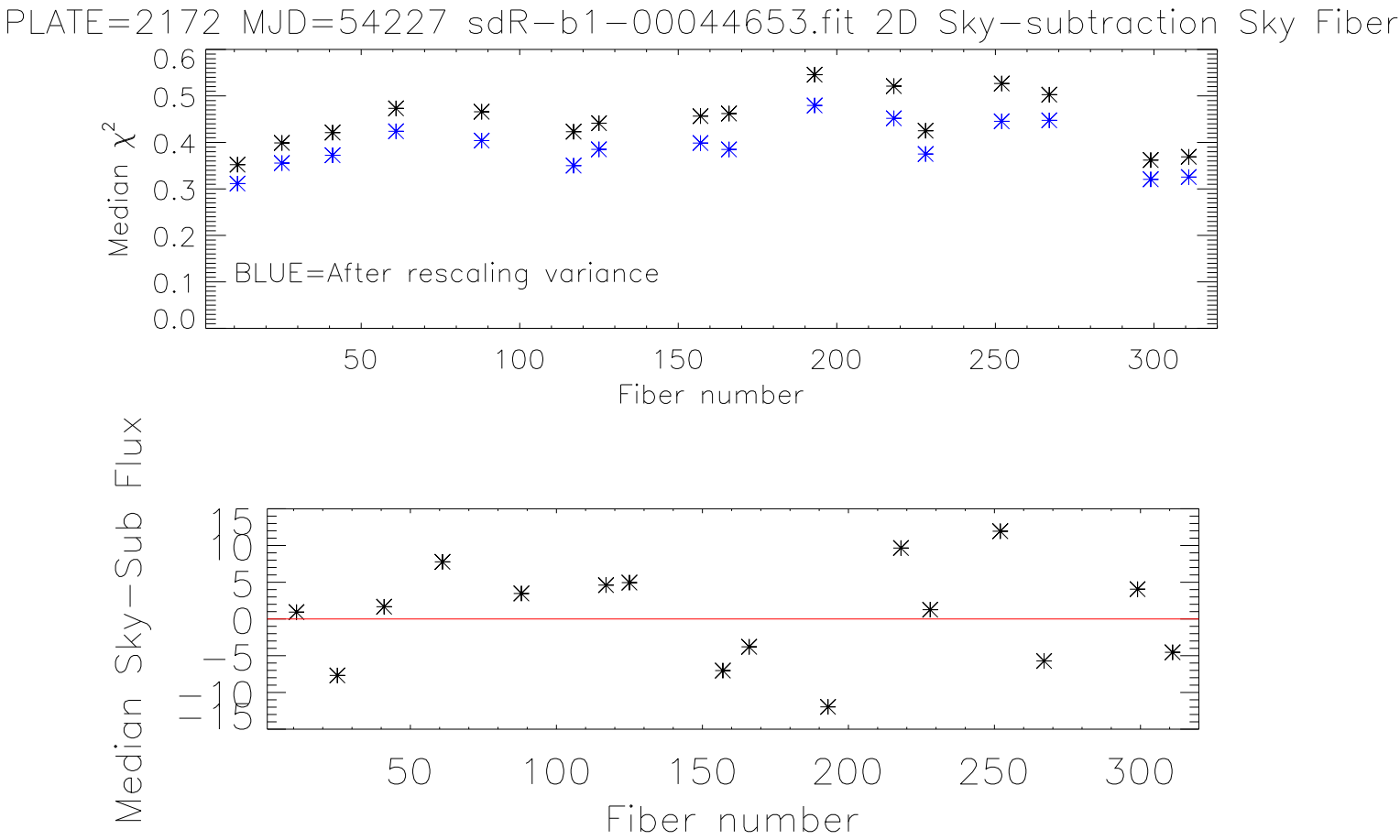
es= 0.0000

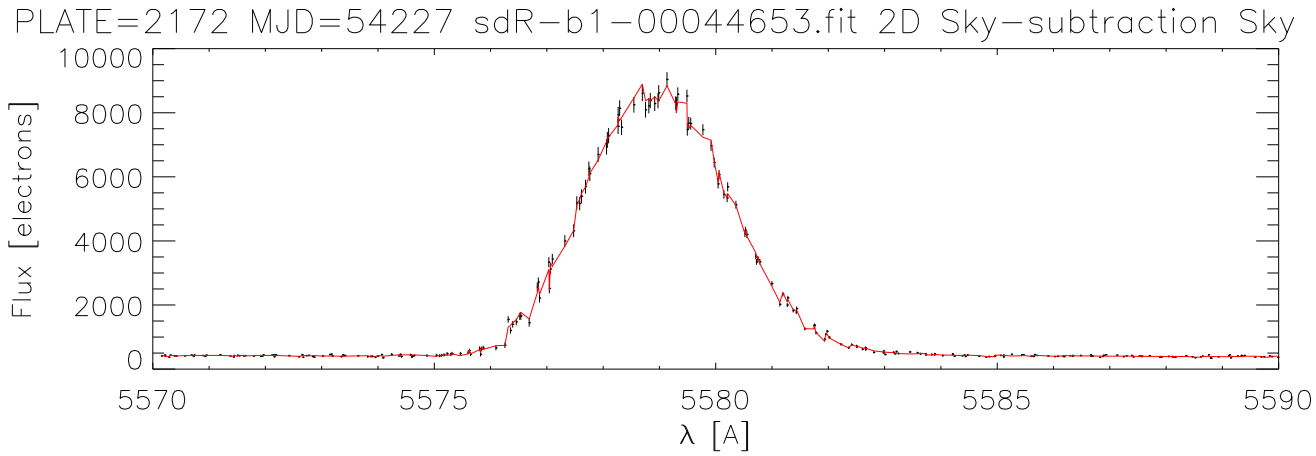

PLATE=2172 MJD=54227 sdR-b1-00044653.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
15
10
5
0
-5
-10
-15
50
100
150
200
250
300
Fiber number

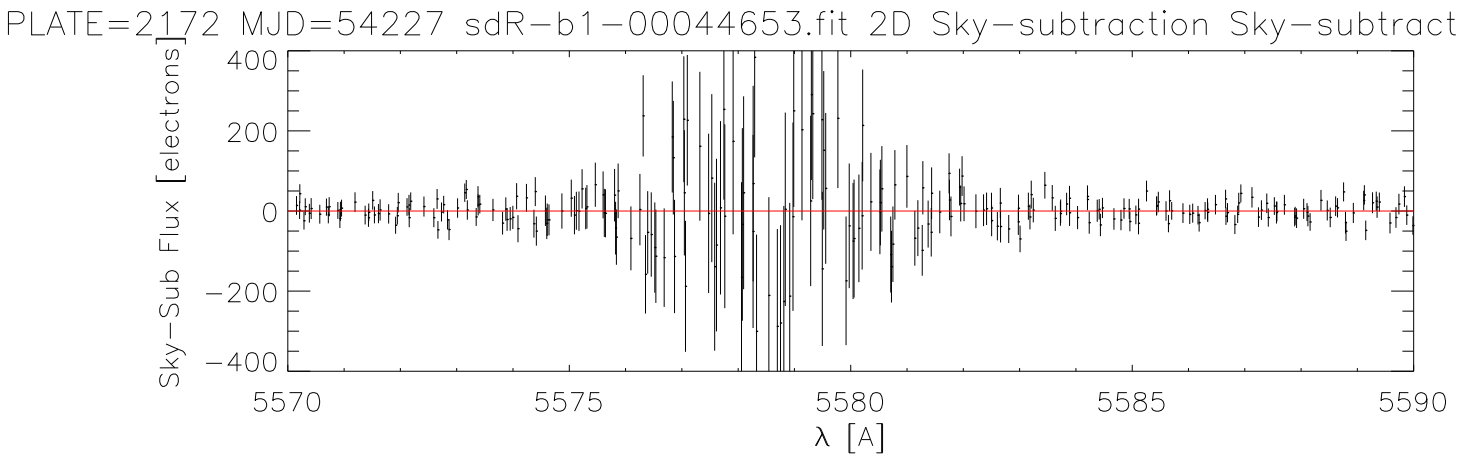

PLATE=2172 MJD=54227 sdR-b1-00044653.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
10000
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

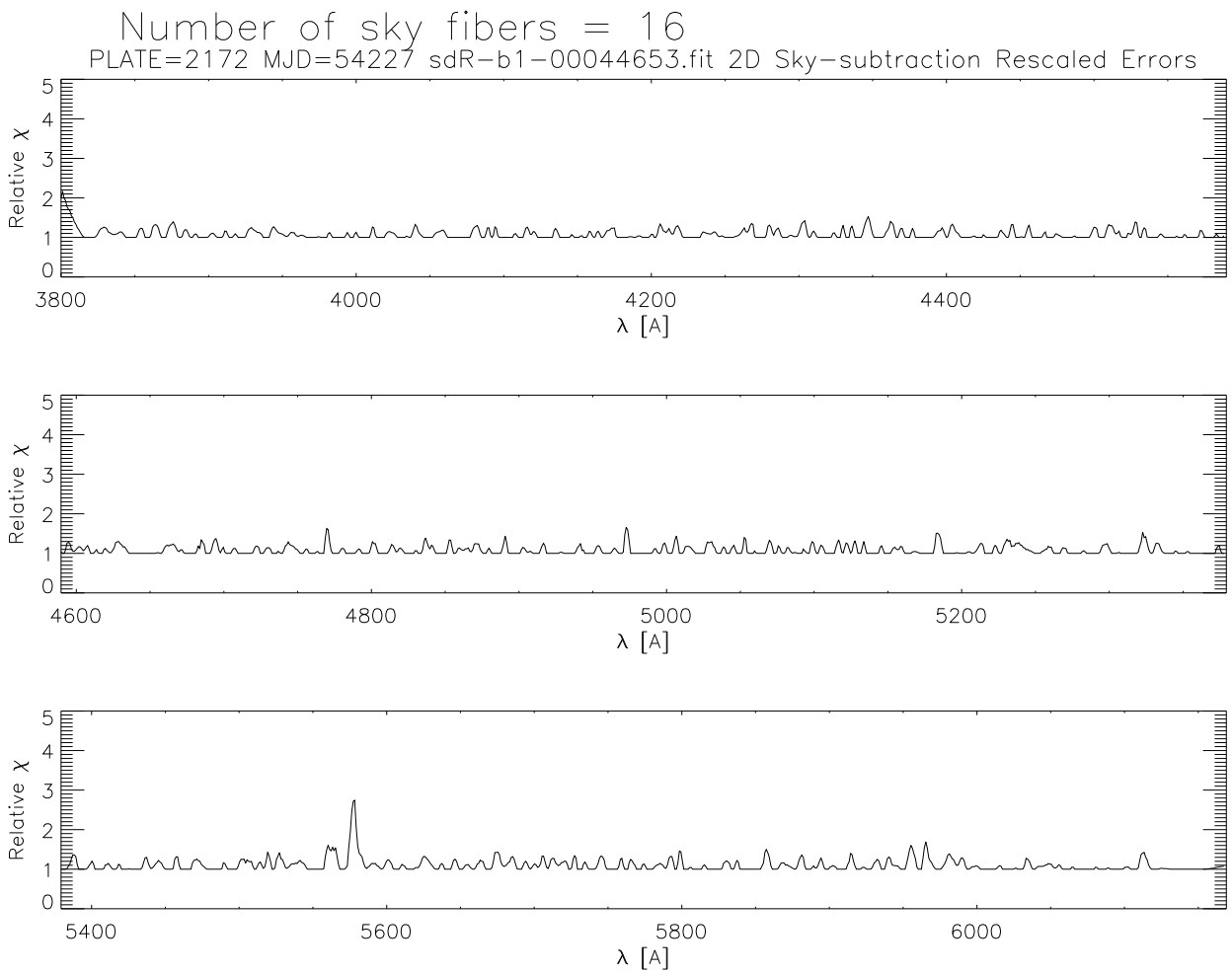

PLATE=2172 MJD=54227 sdR-b1-00044653.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
1000
500
0
-500
-1000
5570
5575
5580
5585
5590
λ [A]

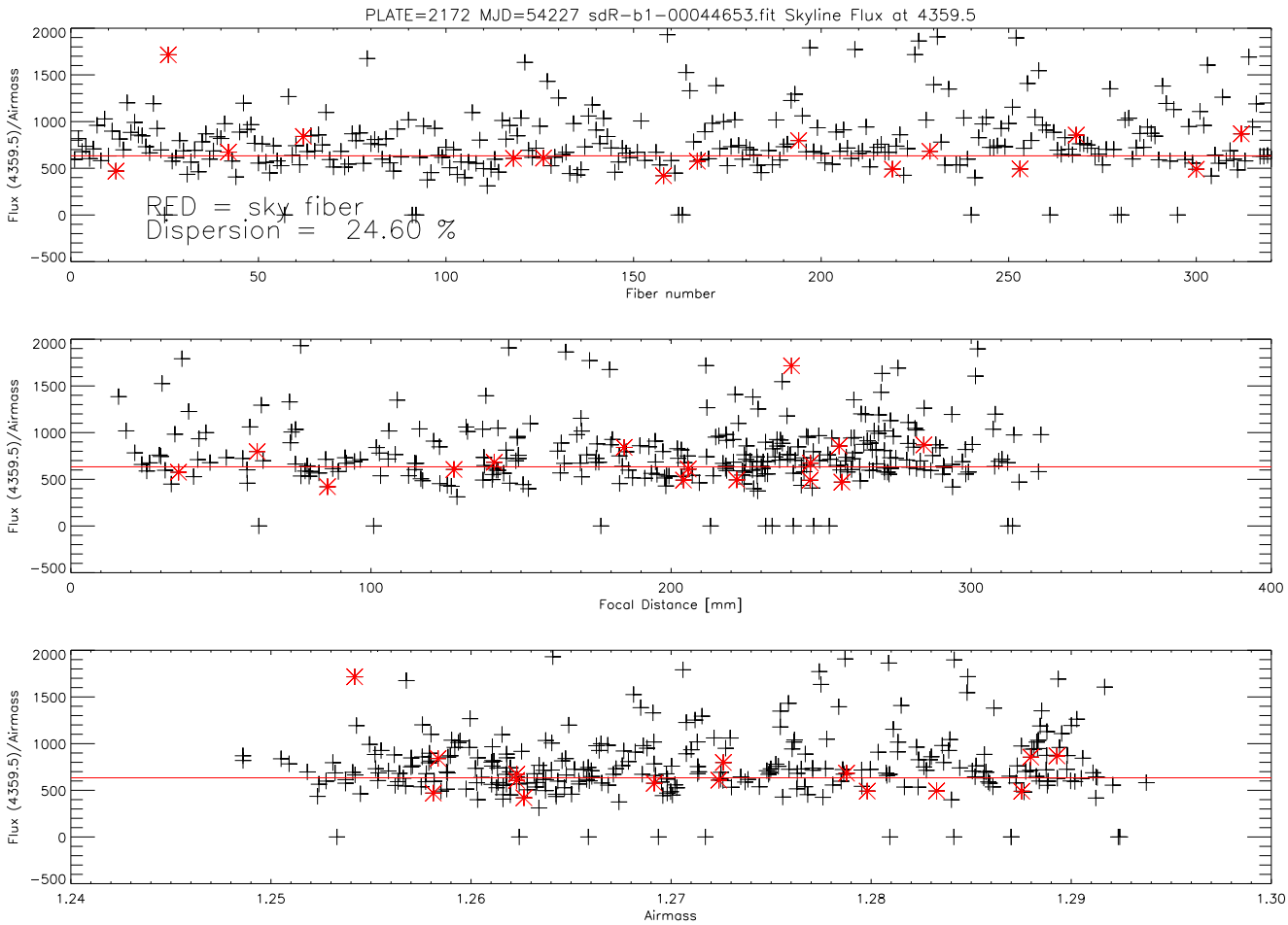

Number of sky fibers = 16
PLATE=2172 MJD=54227 sdR-b1-00044653.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

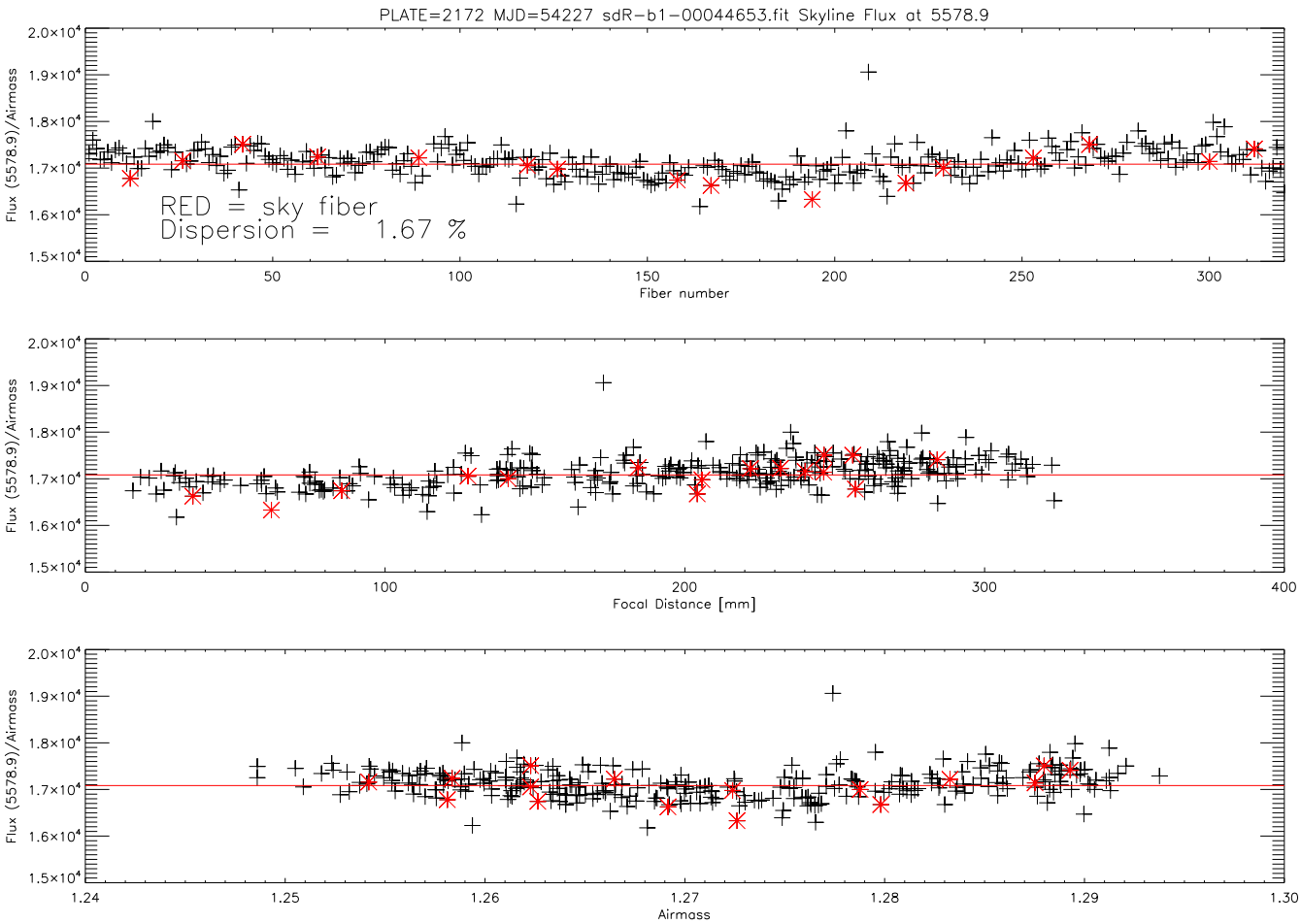

PLATE=2172 MJD=54227 sdR-b1-00044653.fit 2D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
15
10
5
0
-5
-10
-15
50
100
150
200
250
300
Fiber number

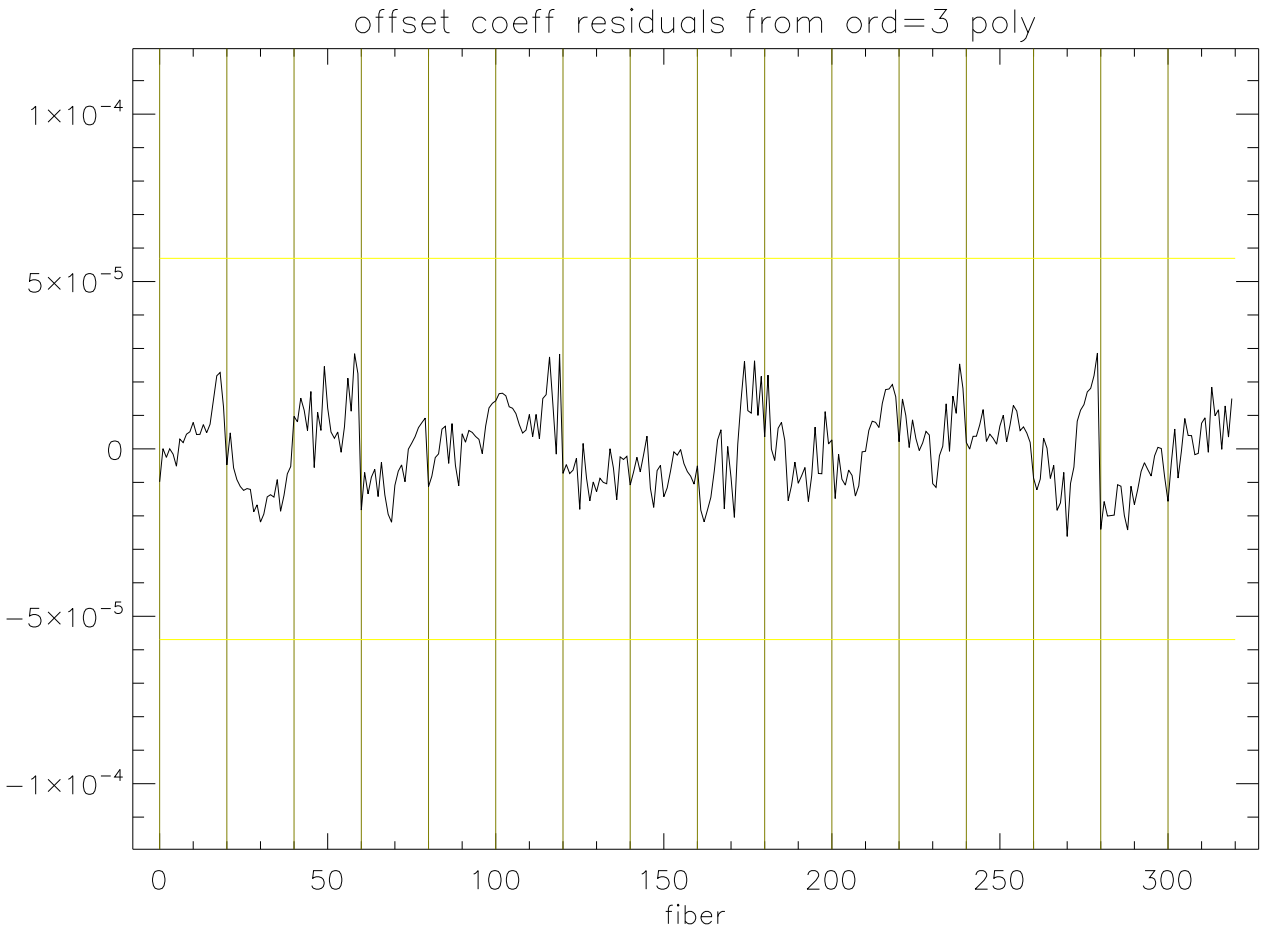

PLATE=2172 MJD=54227 sdR-b1-00044653.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
10000
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

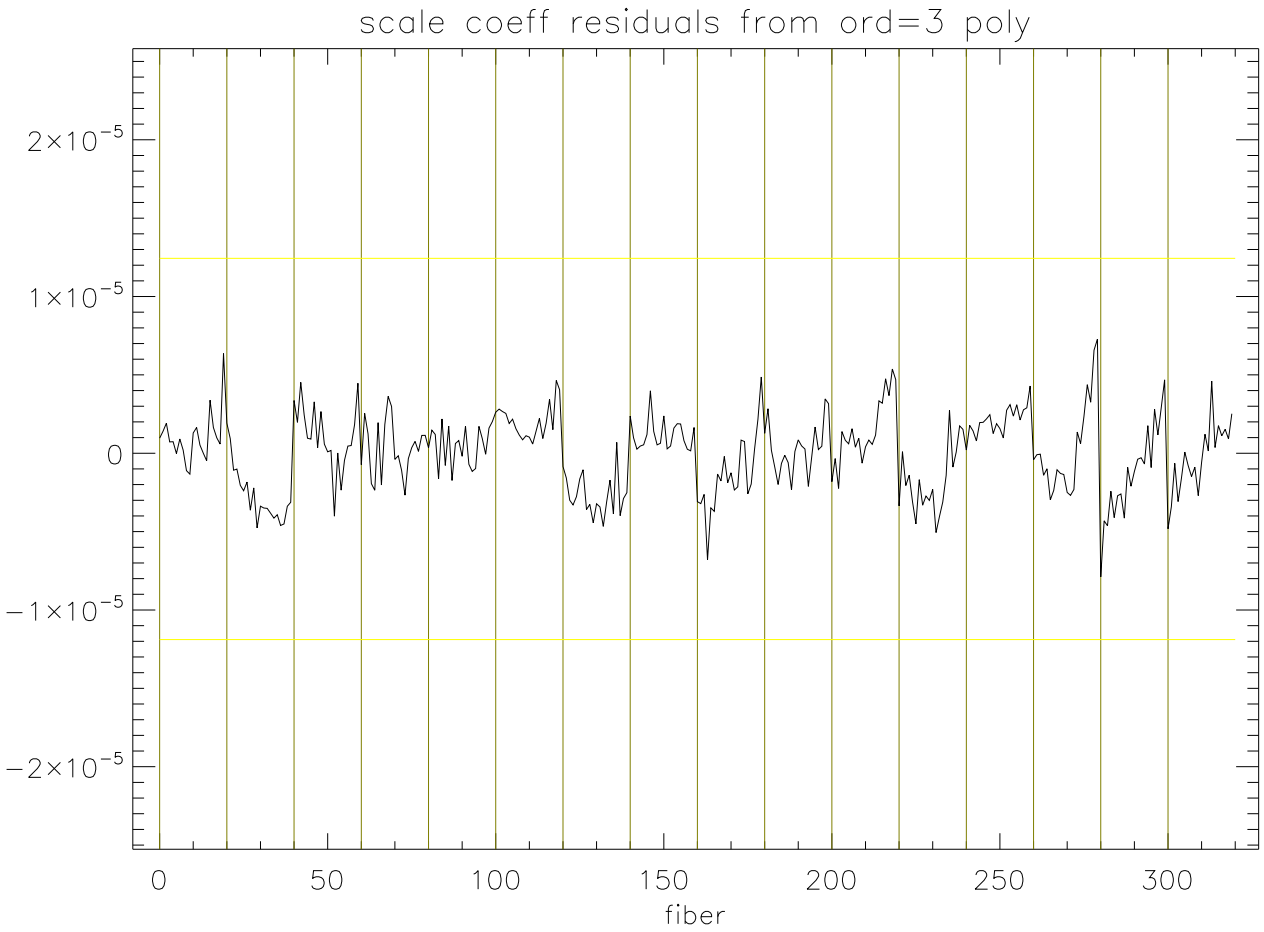

PLATE=2172 MJD=54227 sdR-b1-00044653.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
200
0
-200
-400
5570
5575
5580
5585
5590
λ [A]

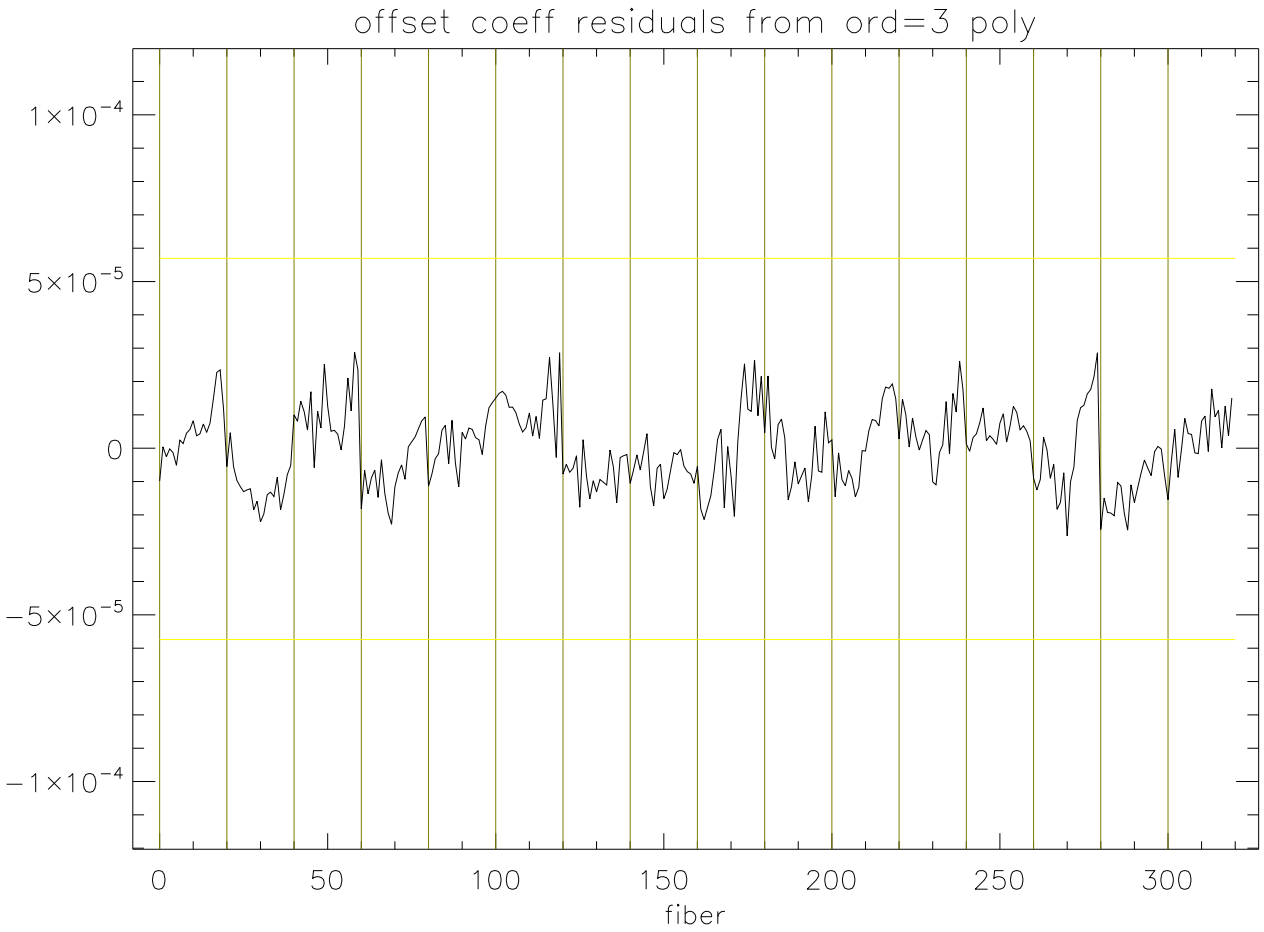

Number of sky fibers = 16
PLATE=2172 MJD=54227 sdR-b1-00044653.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

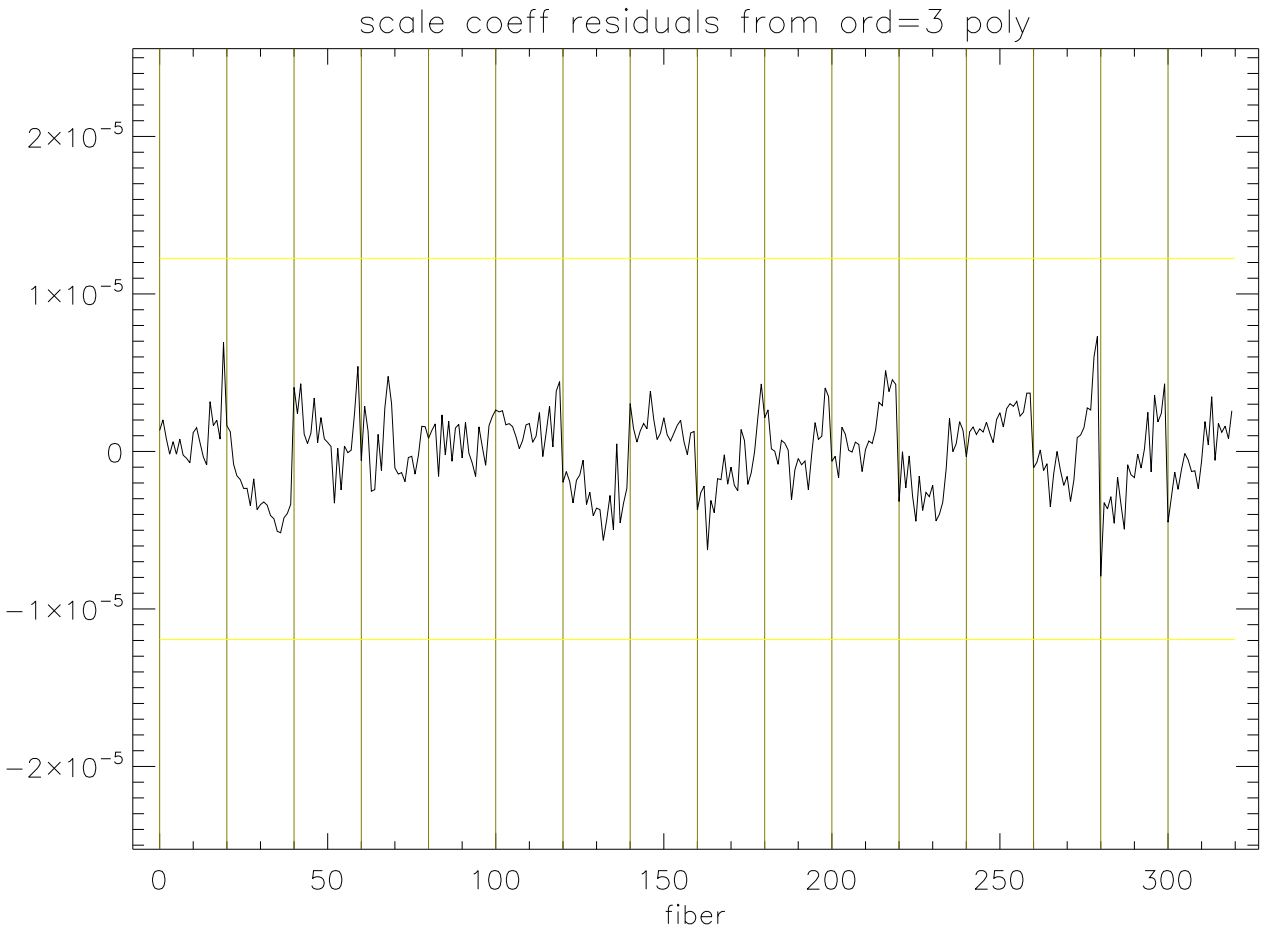

PLATE=2172 MJD=54227 sdR-b1-00044653.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 24.60 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

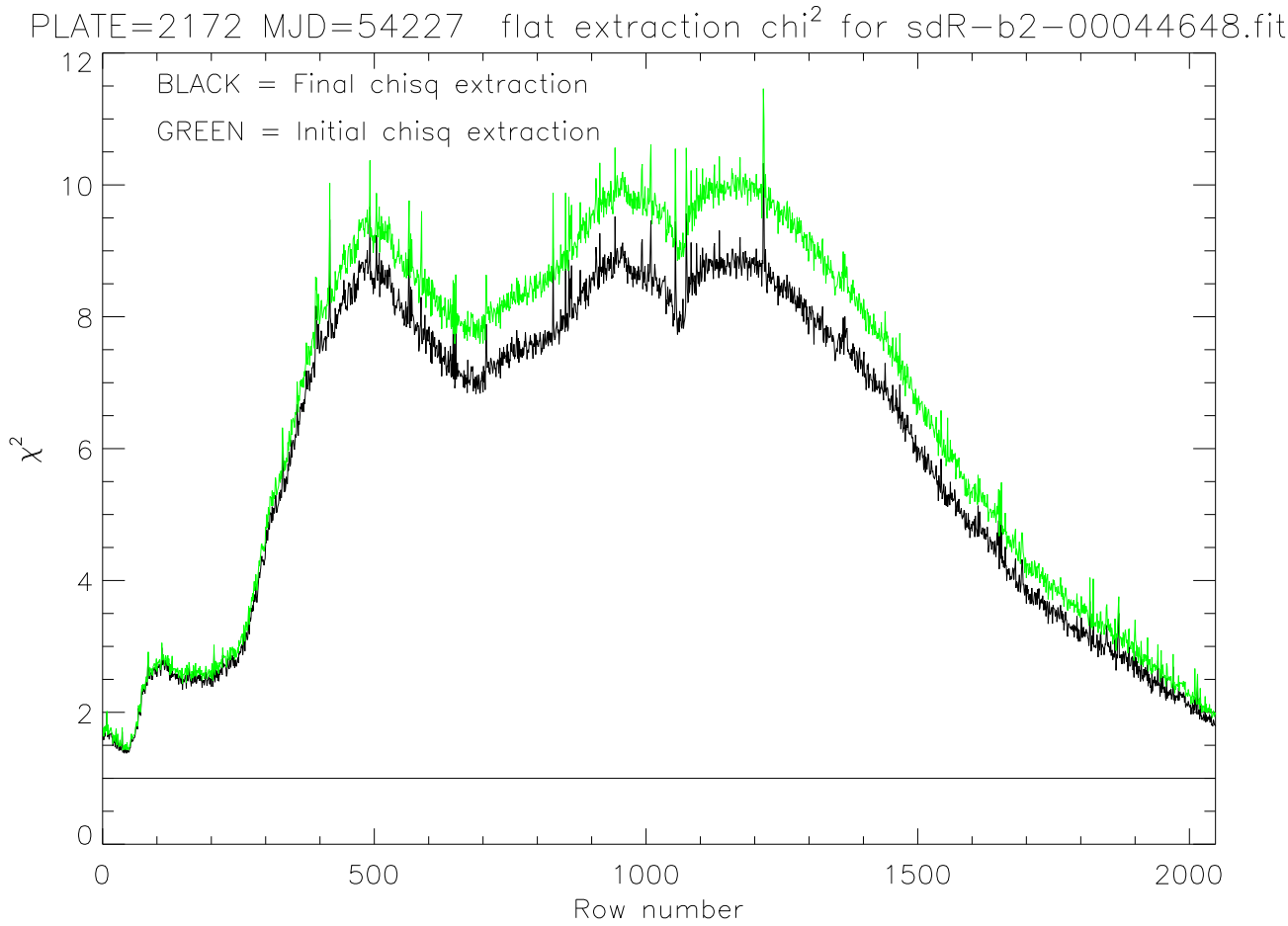

PLATE=2172 MJD=54227 sdR-b1-00044653.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 1.67 %
Fiber number
Flux (5578.9)/Airmass
Focal Distance [mm]
Flux (5578.9)/Airmass
Airmass

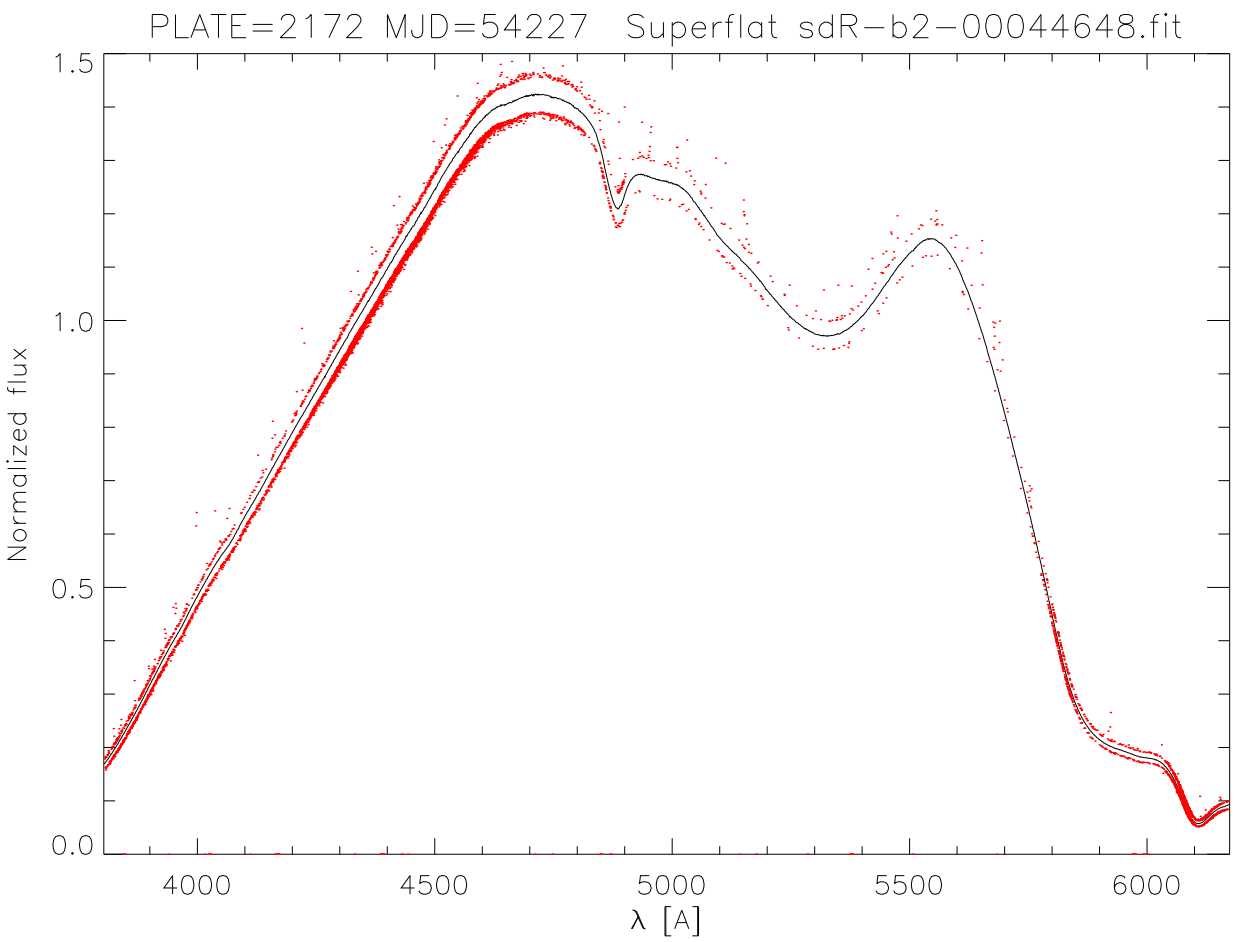

offset coeff residuals from ord=3 poly
1×10^-4
5×10^-5
0
−5×10^-5
−1×10^-4
0
50
100
150
200
250
300
fiber

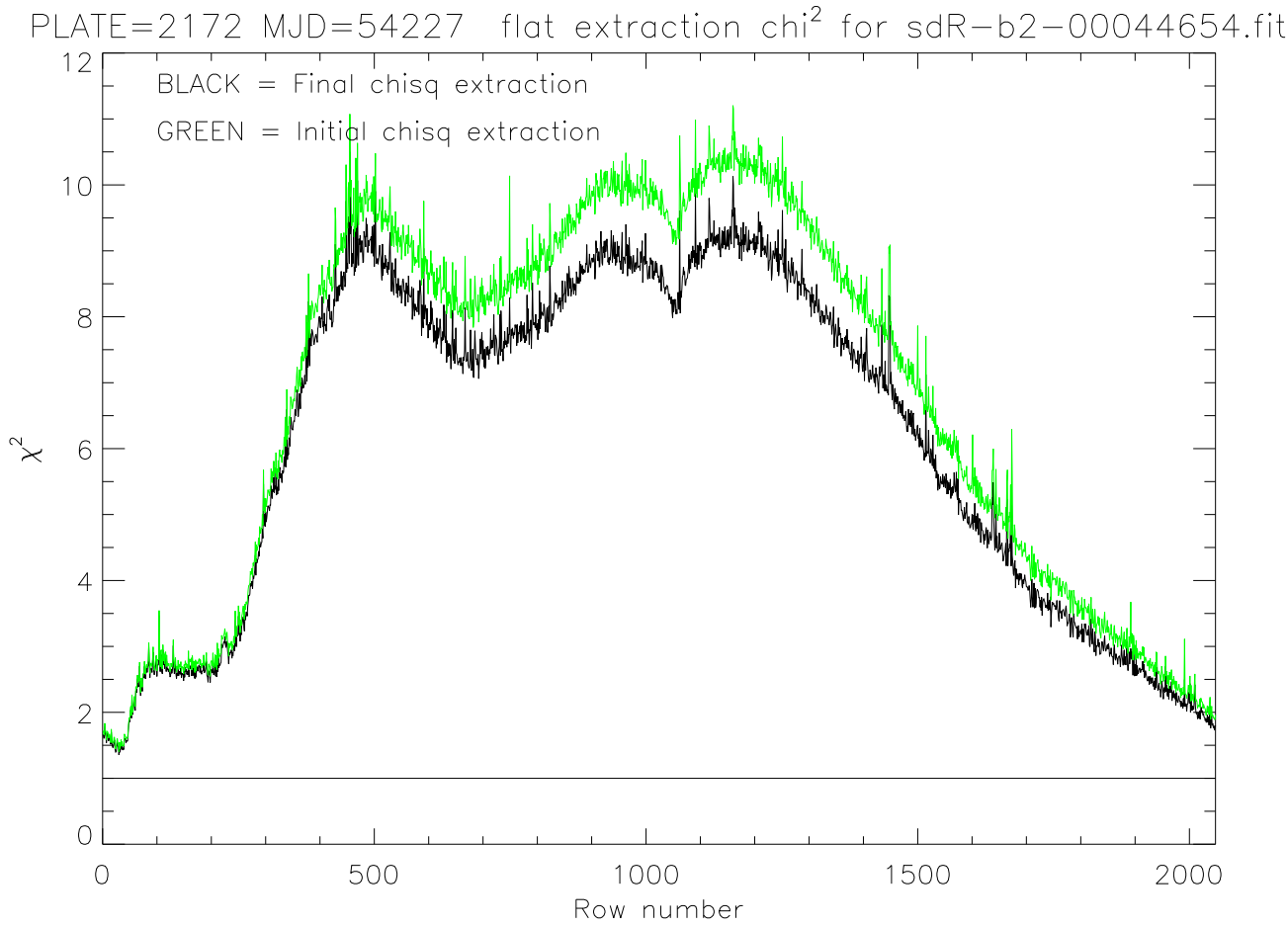

scale coeff residuals from ord=3 poly
2×10⁻⁵
1×10⁻⁵
0
−1×10⁻⁵
−2×10⁻⁵
0
50
100
150
200
250
300
fiber

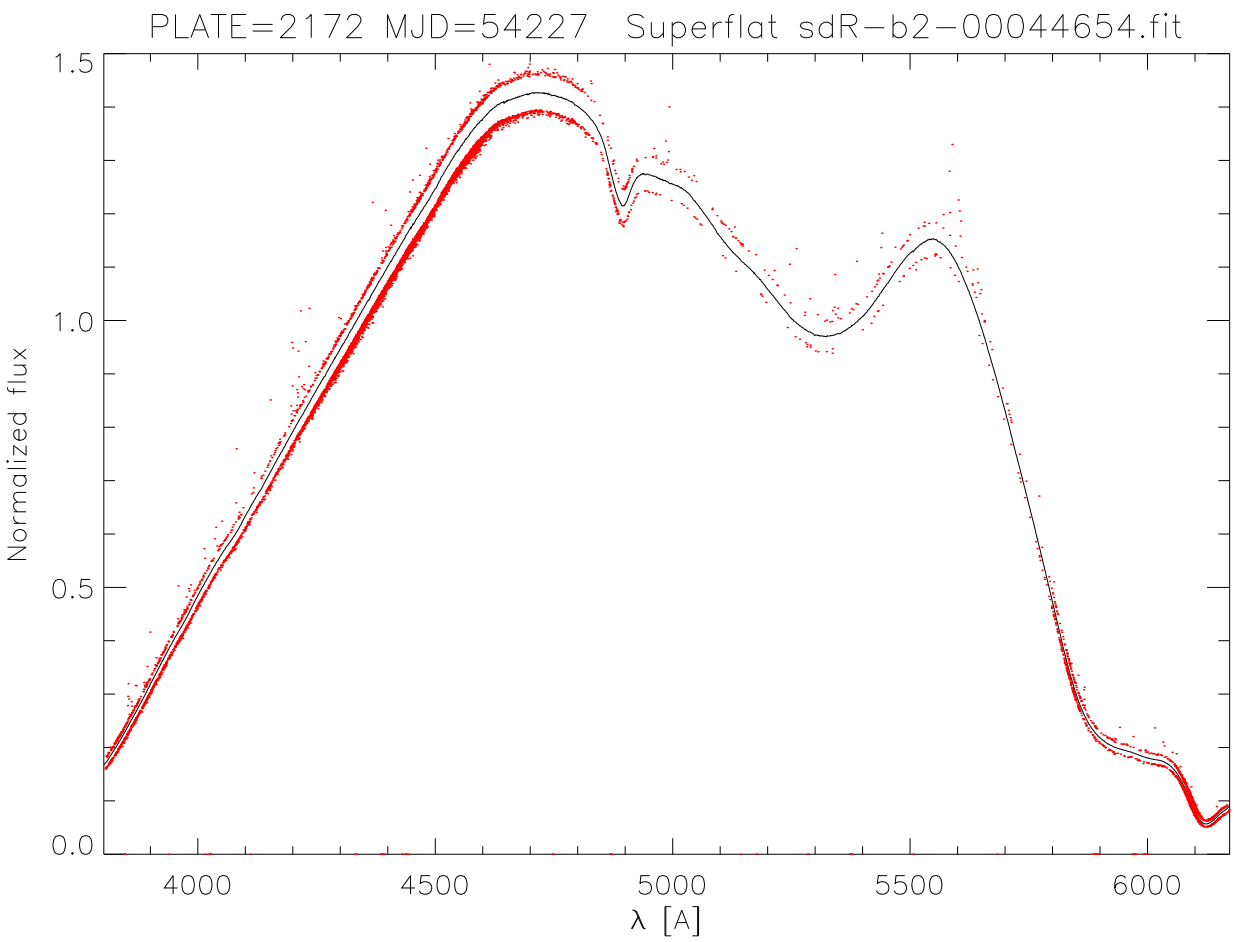

offset coeff residuals from ord=3 poly
1×10^-4
5×10^-5
0
−5×10^-5
−1×10^-4
0
50
100
150
200
250
300
fiber

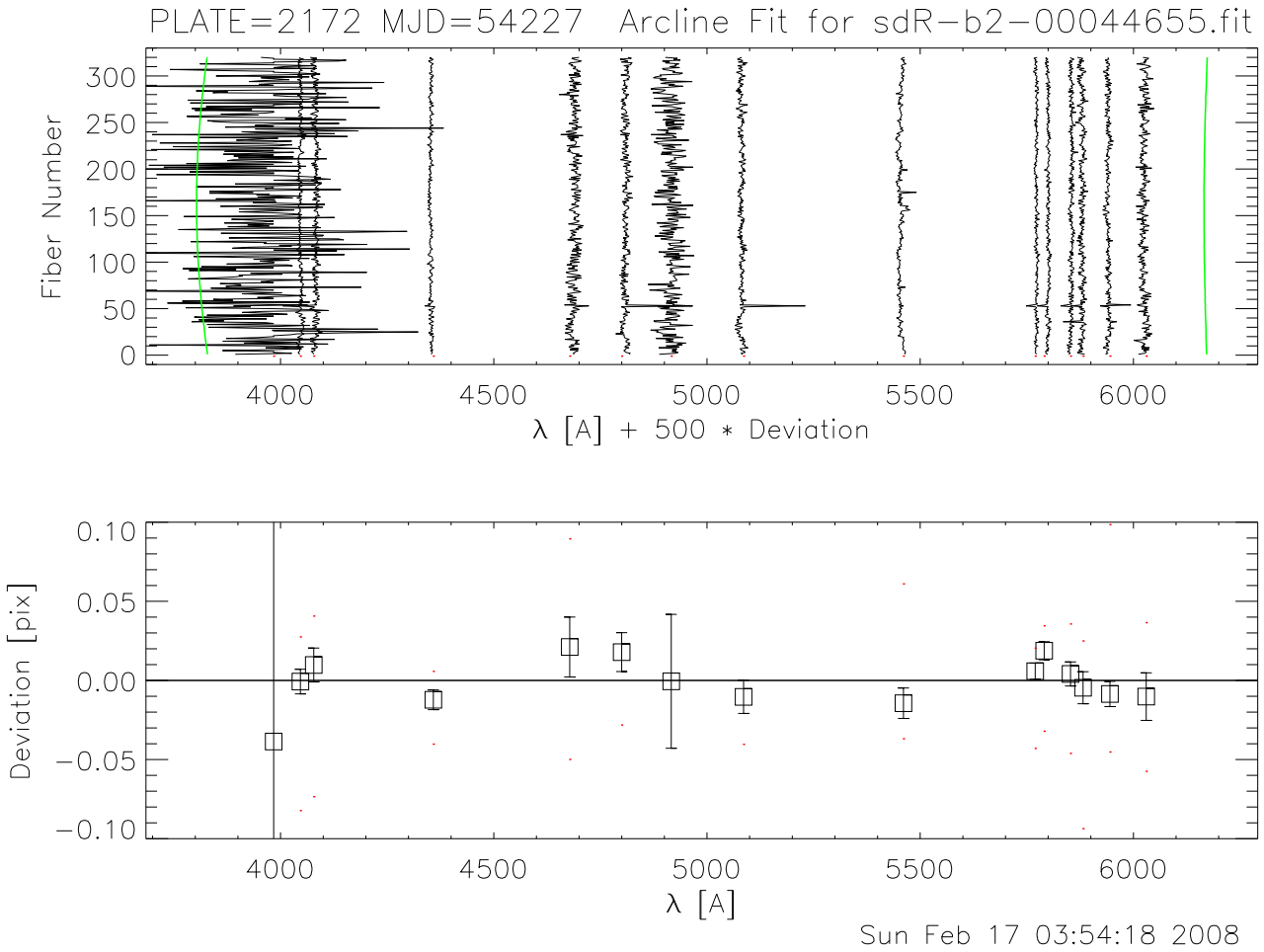

scale coeff residuals from ord=3 poly
2×10⁻⁵
1×10⁻⁵
0
−1×10⁻⁵
−2×10⁻⁵
0
50
100
150
200
250
300
fiber

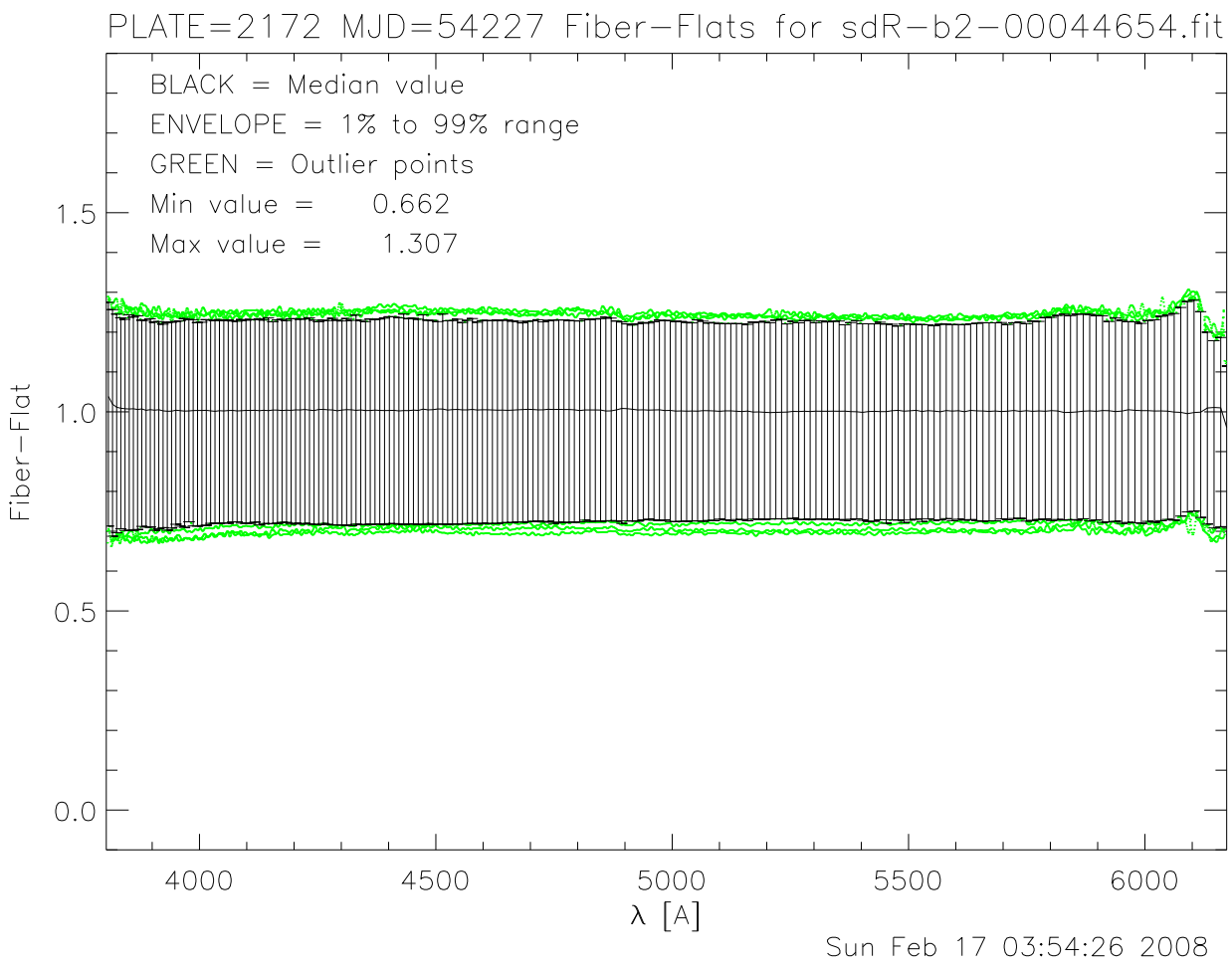

PLATE=2172 MJD=54227 flat extraction chi^2 for sdR−b2−00044648.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
2
4
6
8
10
12
0
500
1000
1500
2000

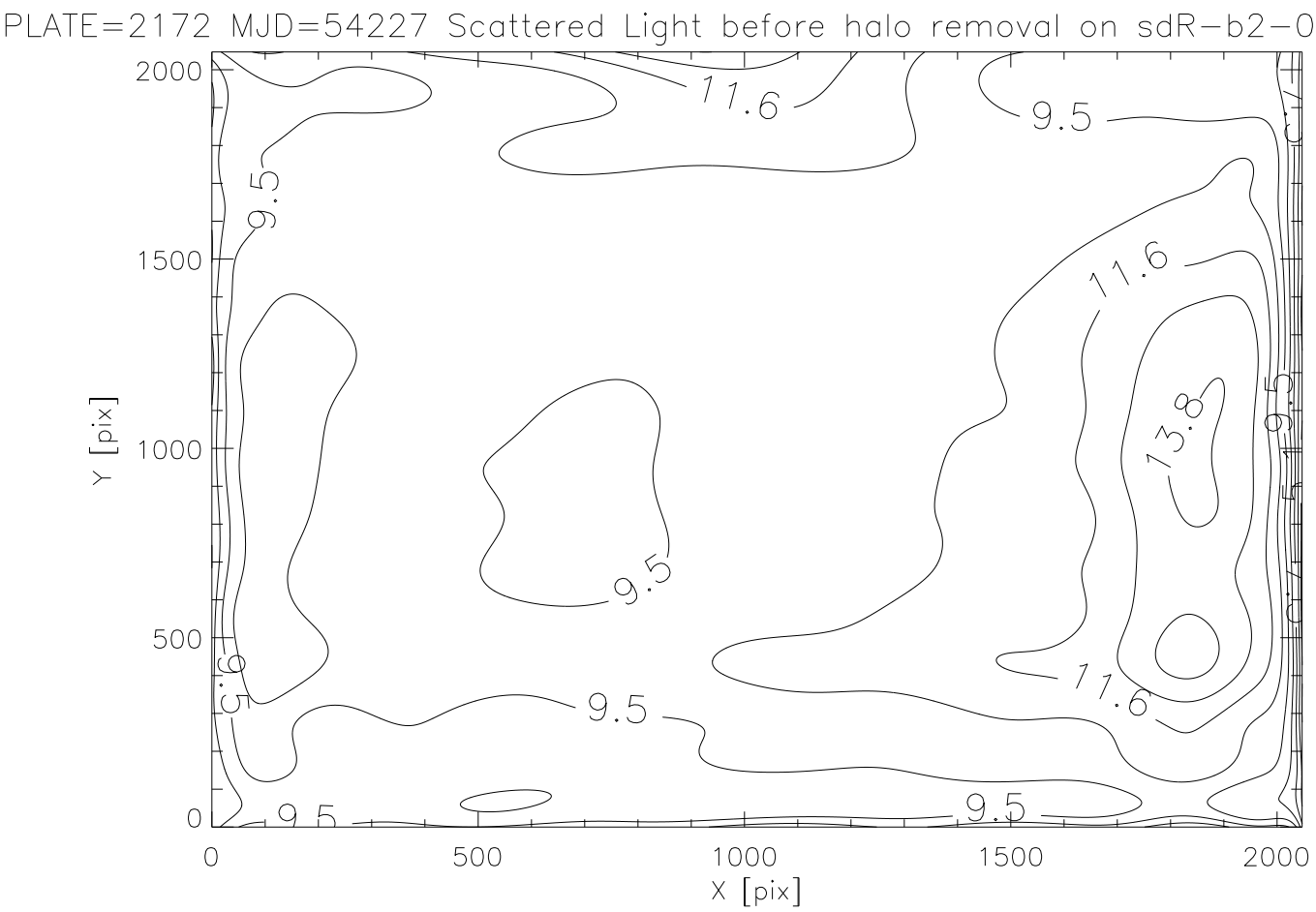

PLATE=2172 MJD=54227 Superflat sdR-b2-00044648.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

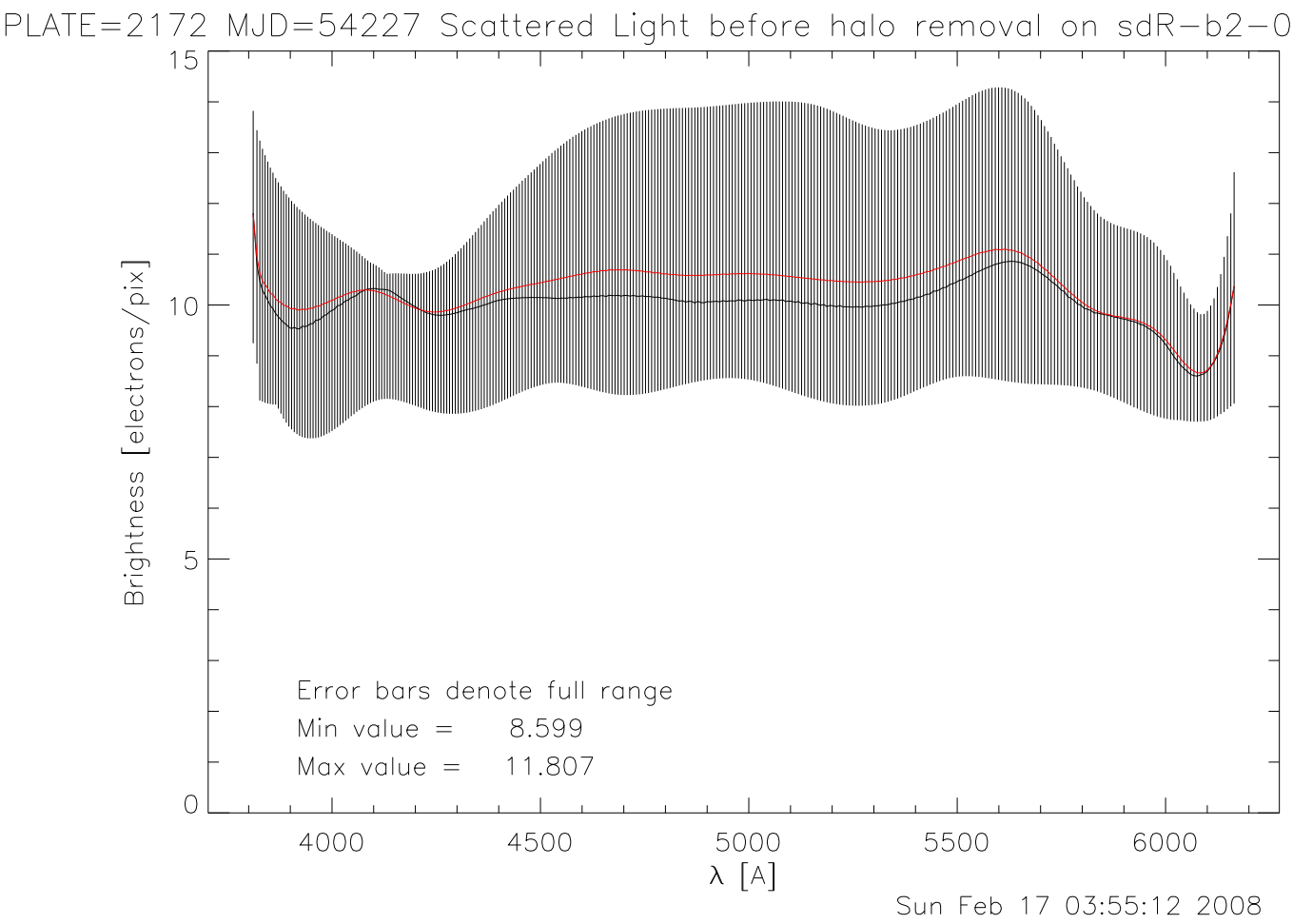

PLATE=2172 MJD=54227 flat extraction chi^2 for sdR−b2−00044654.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
2
4
6
8
10
12
0
500
1000
1500
2000

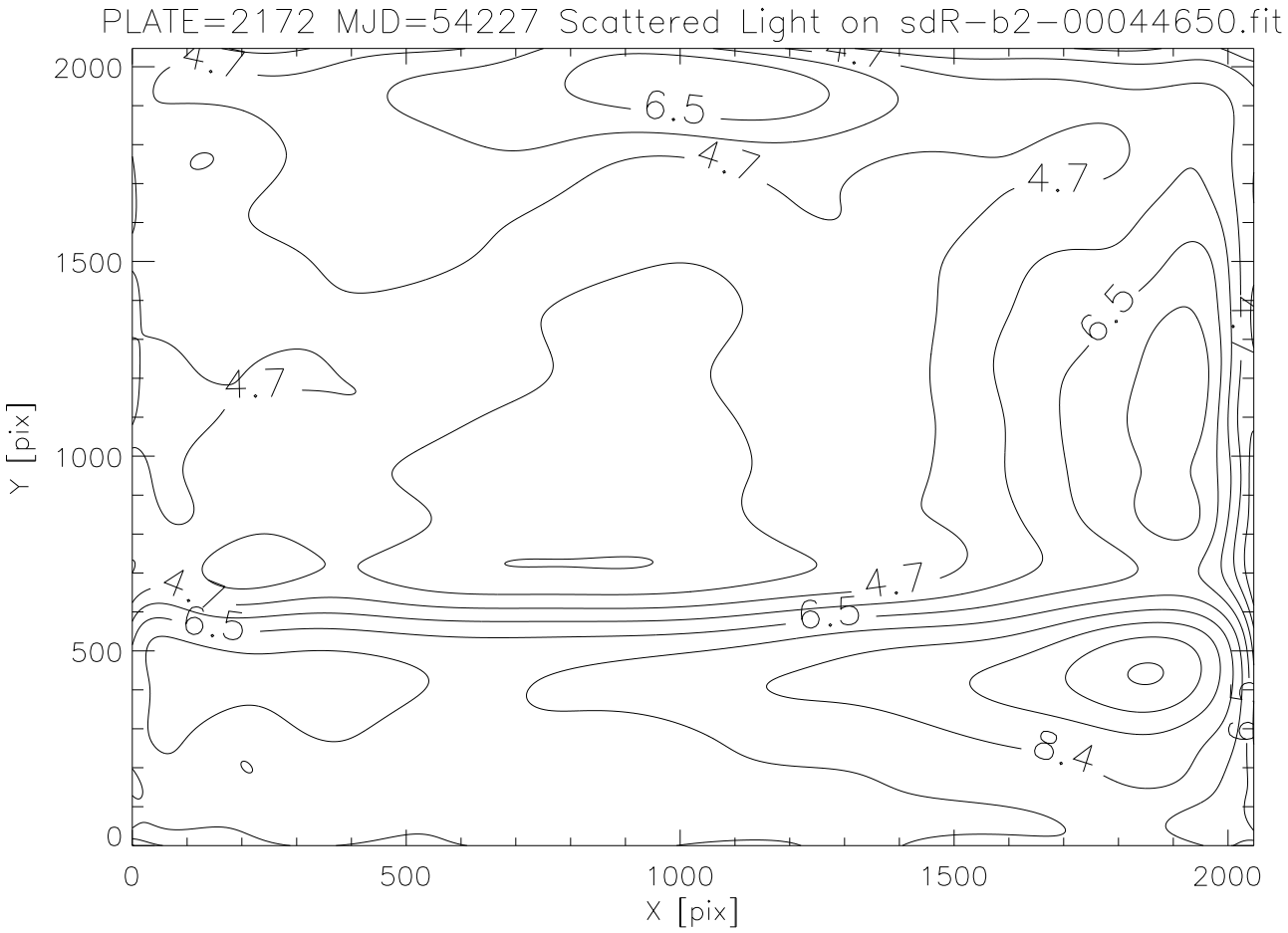

PLATE=2172 MJD=54227 Superflat sdR-b2-00044654.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

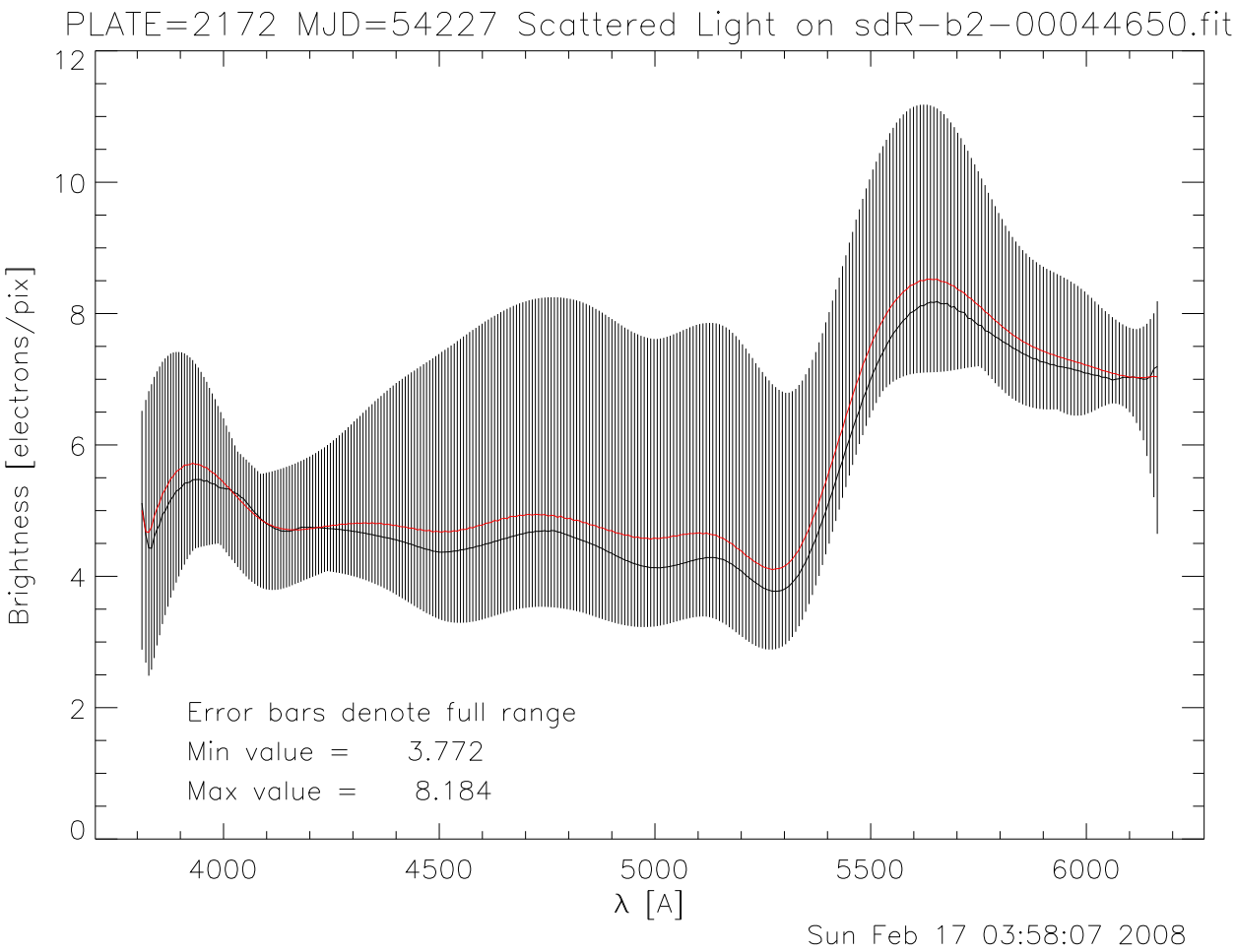

PLATE=2172 MJD=54227 Arcline Fit for sdR-b2-00044655.fit
Fiber Number
300
250
200
150
100
50
0
4000
4500
5000
5500
6000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
4000
4500
5000
5500
6000
λ [A]
Sun Feb 17 03:54:18 2008

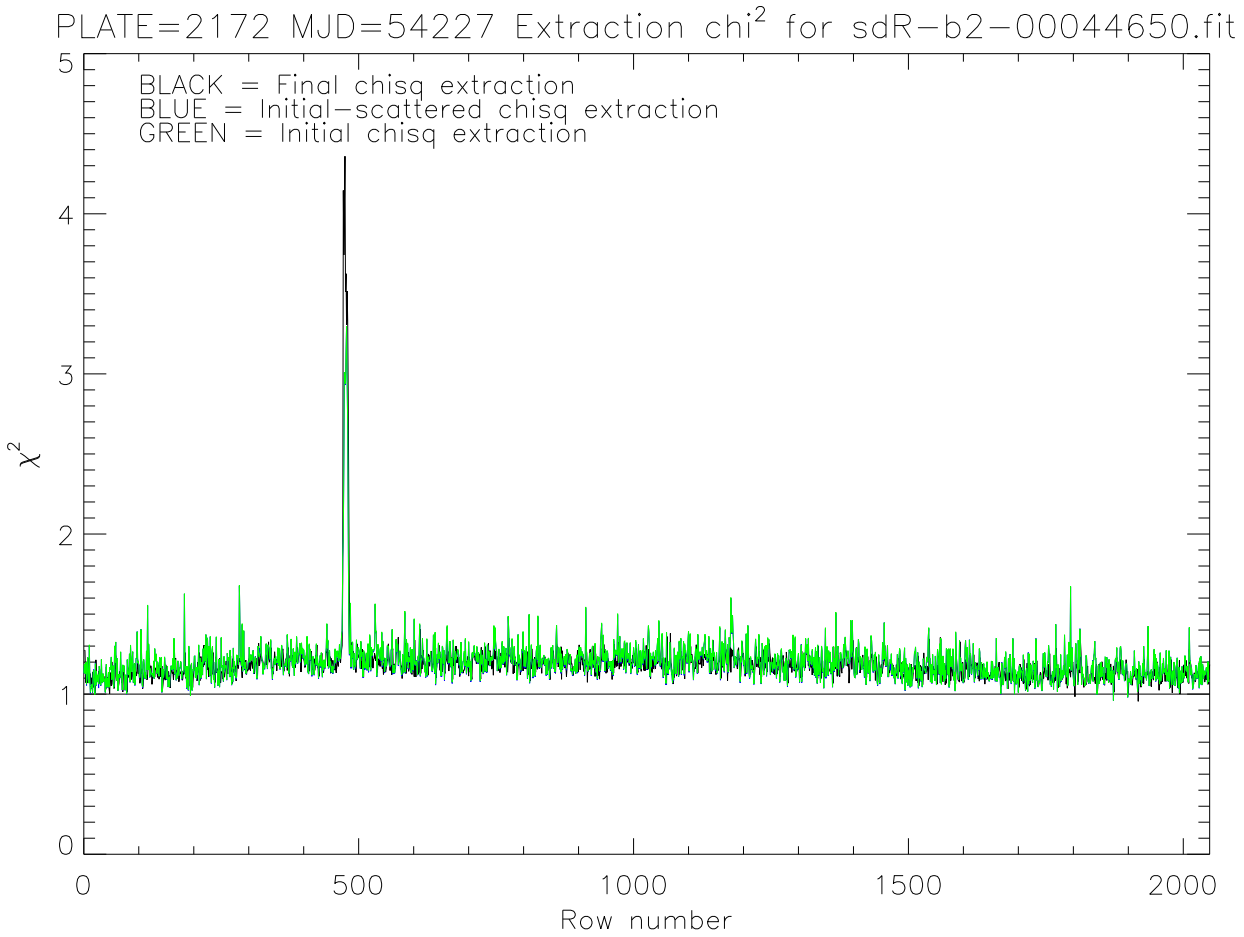

PLATE=2172 MJD=54227 Fiber-Flats for sdR-b2-00044654.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.662
Max value = 1.307
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Sun Feb 17 03:54:26 2008

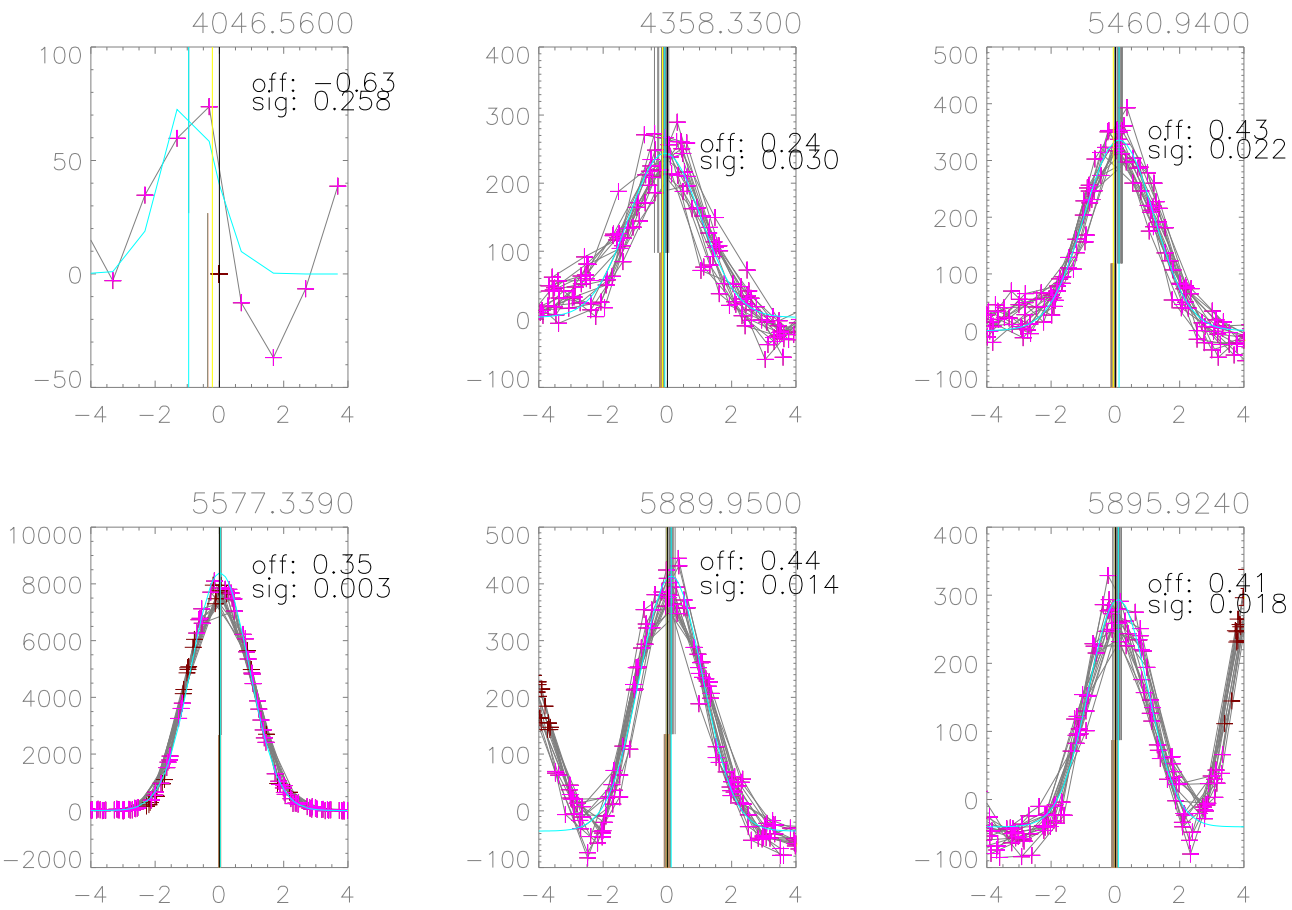

PLATE=2172 MJD=54227 Scattered Light before halo removal on sdR−b2−00044650.f
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
11.6
9.5
9.5
11.6
13.8
9.5
9.5
11.6
9.5
9.5

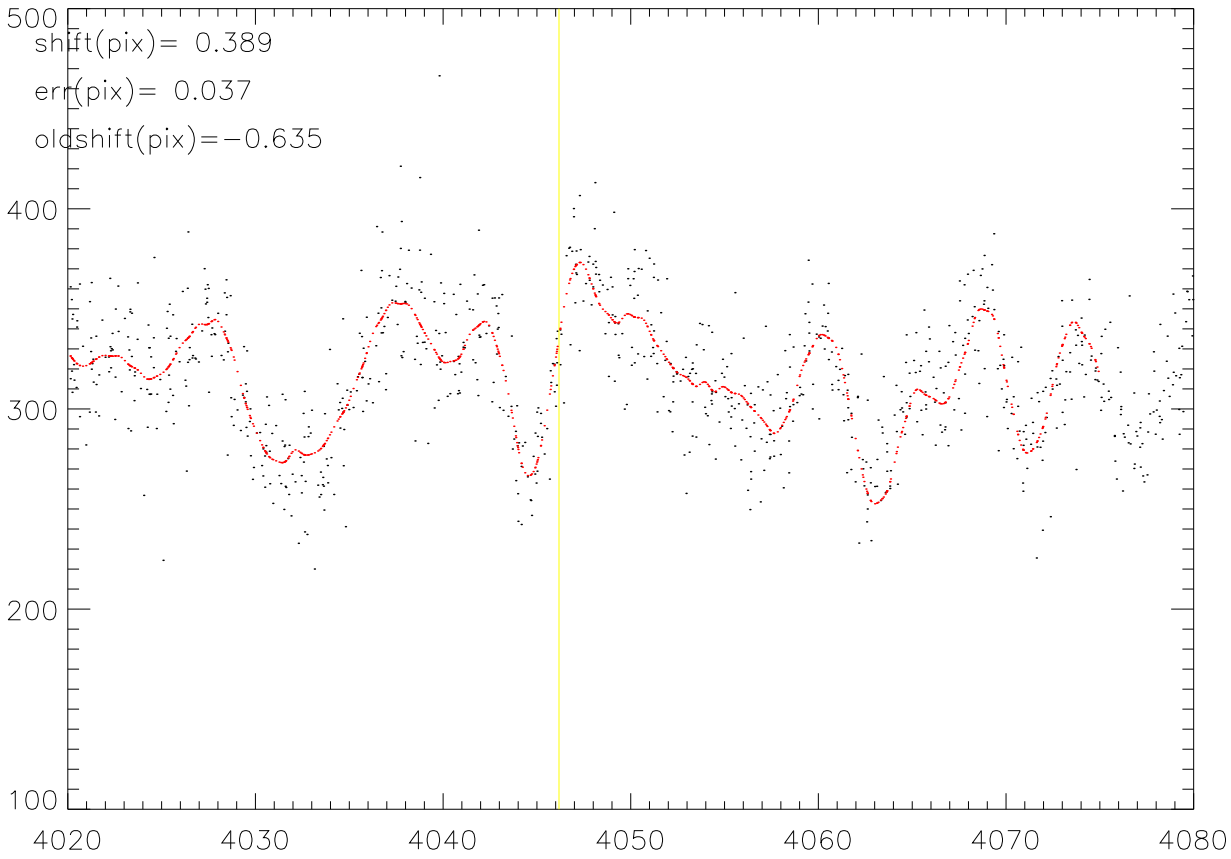

PLATE=2172 MJD=54227 Scattered Light before halo removal on sdR-b2-00044650.f
Brightness [electrons/pix]
15
10
5
0
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 8.599
Max value = 11.807
Sun Feb 17 03:55:12 2008

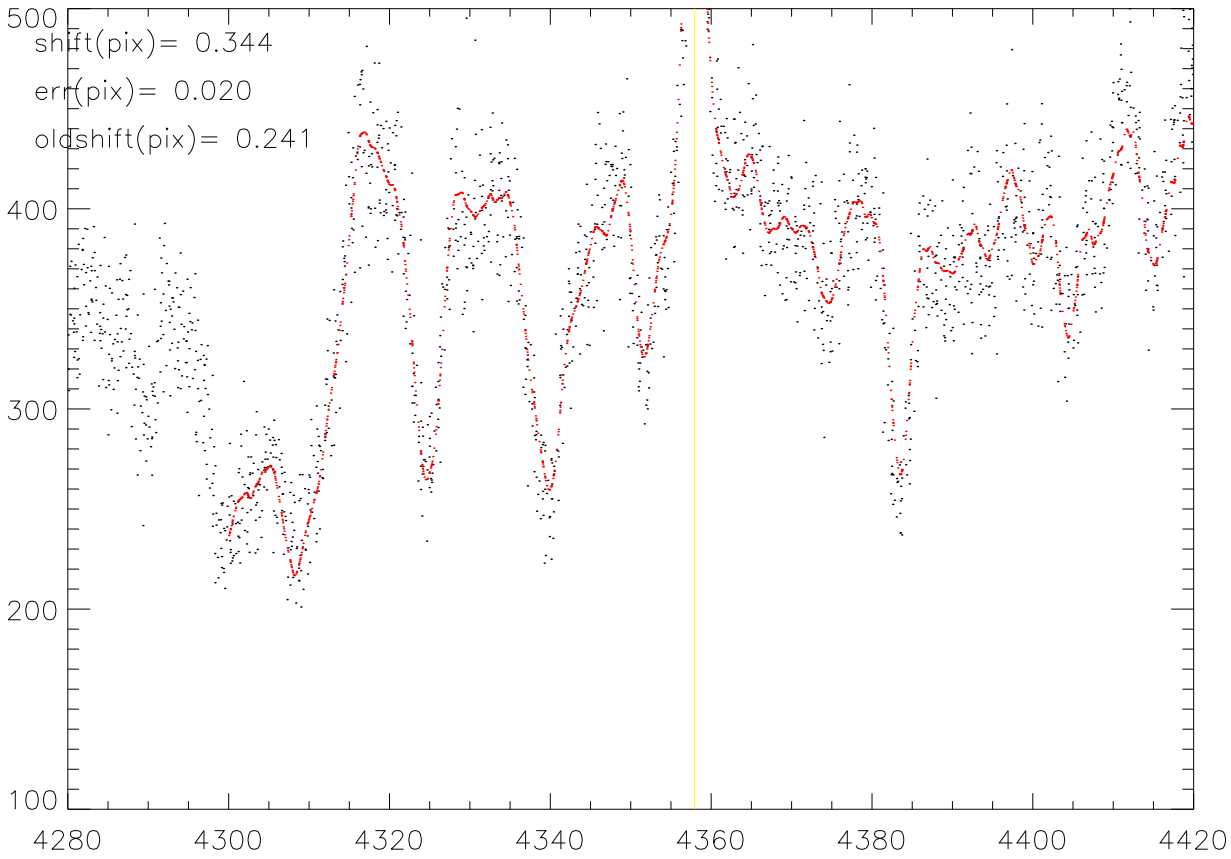

PLATE=2172 MJD=54227 Scattered Light on sdR-b2-00044650.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
4.7
6.5
8.4

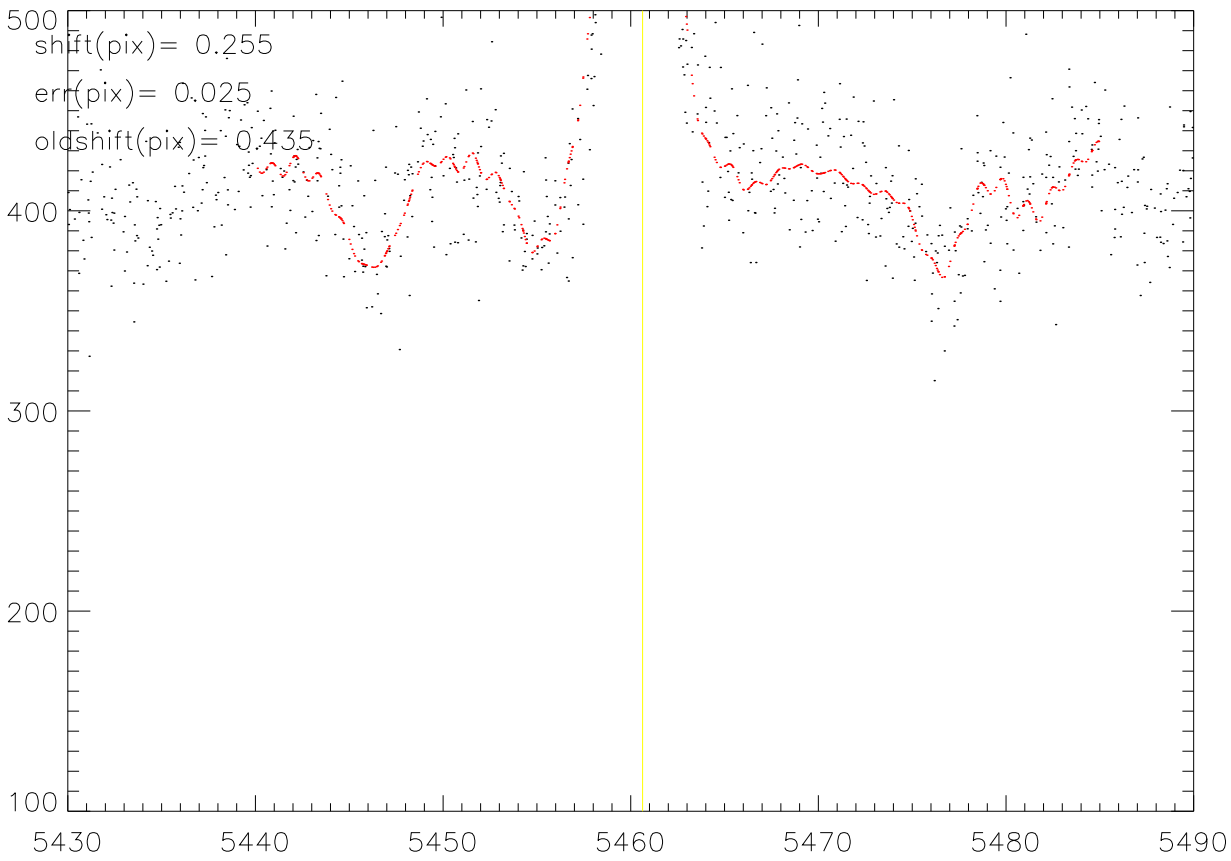

PLATE=2172 MJD=54227 Scattered Light on sdR-b2-00044650.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 3.772
Max value = 8.184
Sun Feb 17 03:58:07 2008

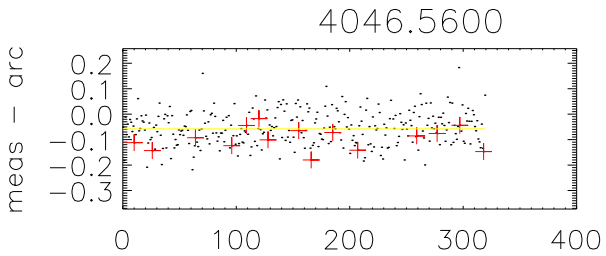

PLATE=2172 MJD=54227 Extraction chi^2 for sdR-b2-00044650.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
5
0
500
1000
1500
2000
Row number

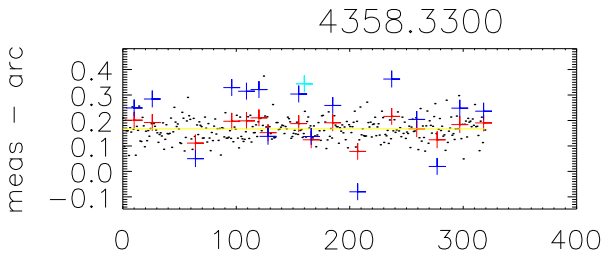

4046.5600
off: −0.63
sig: 0.258
4358.3300
off: 0.24
sig: 0.030
5460.9400
off: 0.43
sig: 0.022
5577.3390
off: 0.35
sig: 0.003
5889.9500
off: 0.44
sig: 0.014
5895.9240
off: 0.41
sig: 0.018

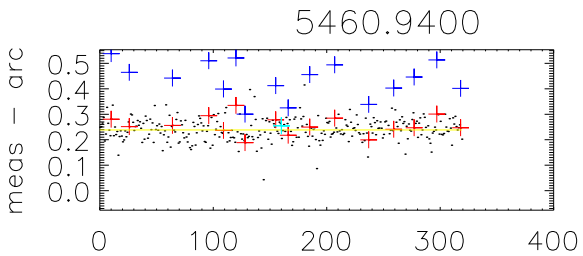

shift(pix)= 0.389
err(pix)= 0.037
oldshift(pix)=−0.635
500
400
300
200
100
4020
4030
4040
4050
4060
4070
4080

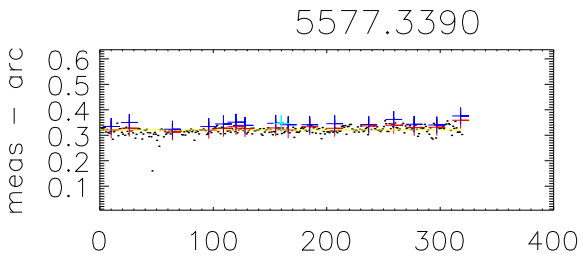

shift(pix)= 0.344
err(pix)= 0.020
oldshift(pix)= 0.241
500
400
300
200
100
4280
4300
4320
4340
4360
4380
4400
4420

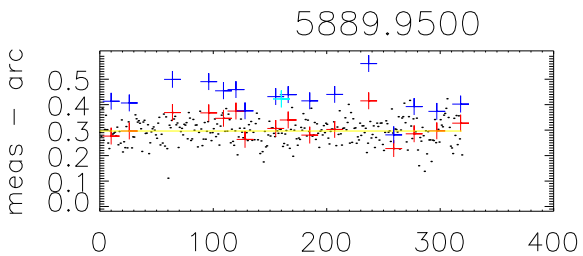

shift(pix)= 0.255
err(pix)= 0.025
oldshift(pix)= 0.435
500
400
300
200
100
5430
5440
5450
5460
5470
5480
5490

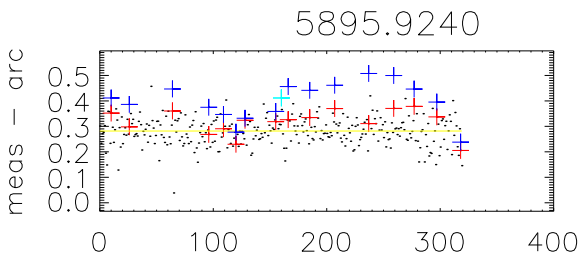

4046.5600
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

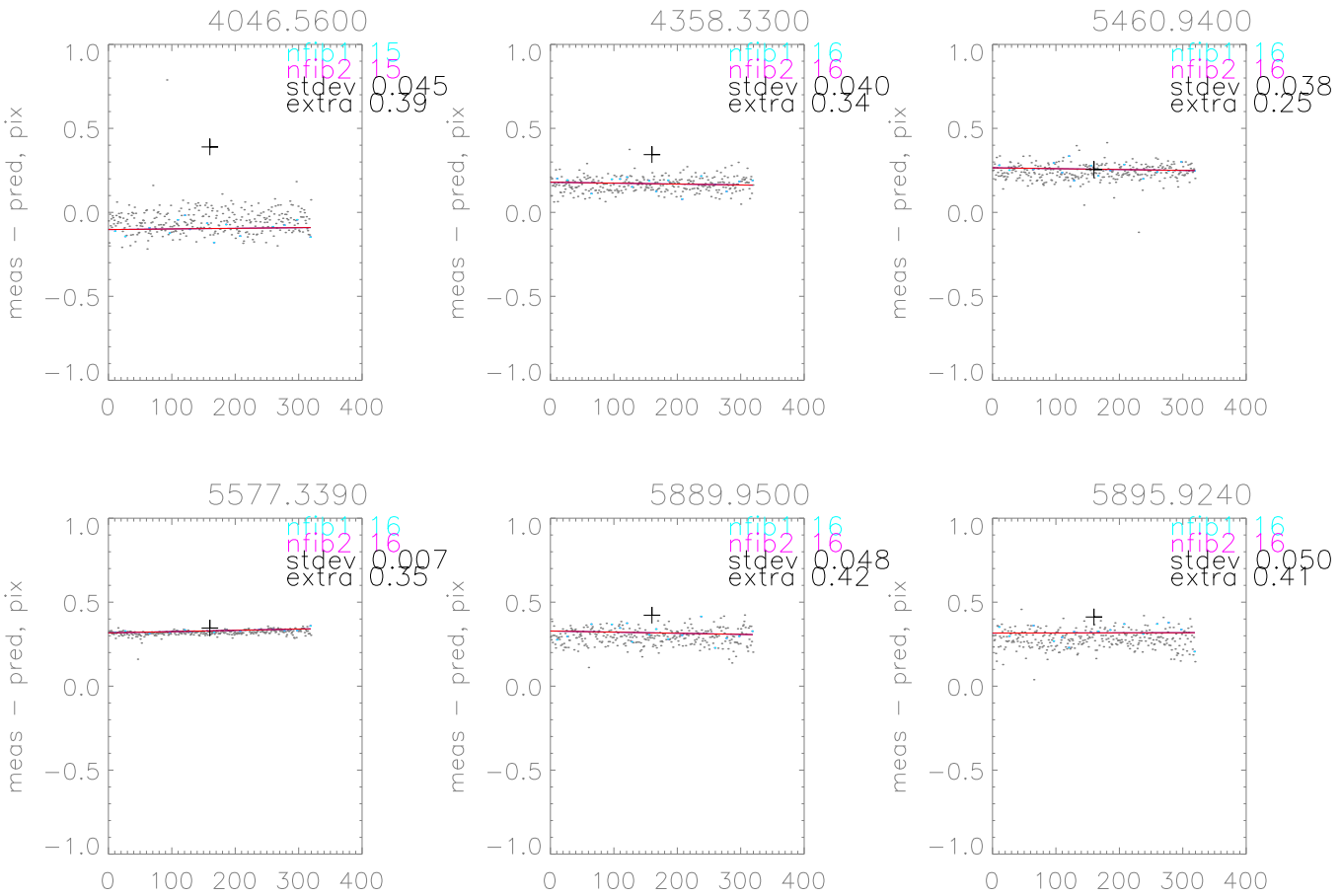

4358.3300
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

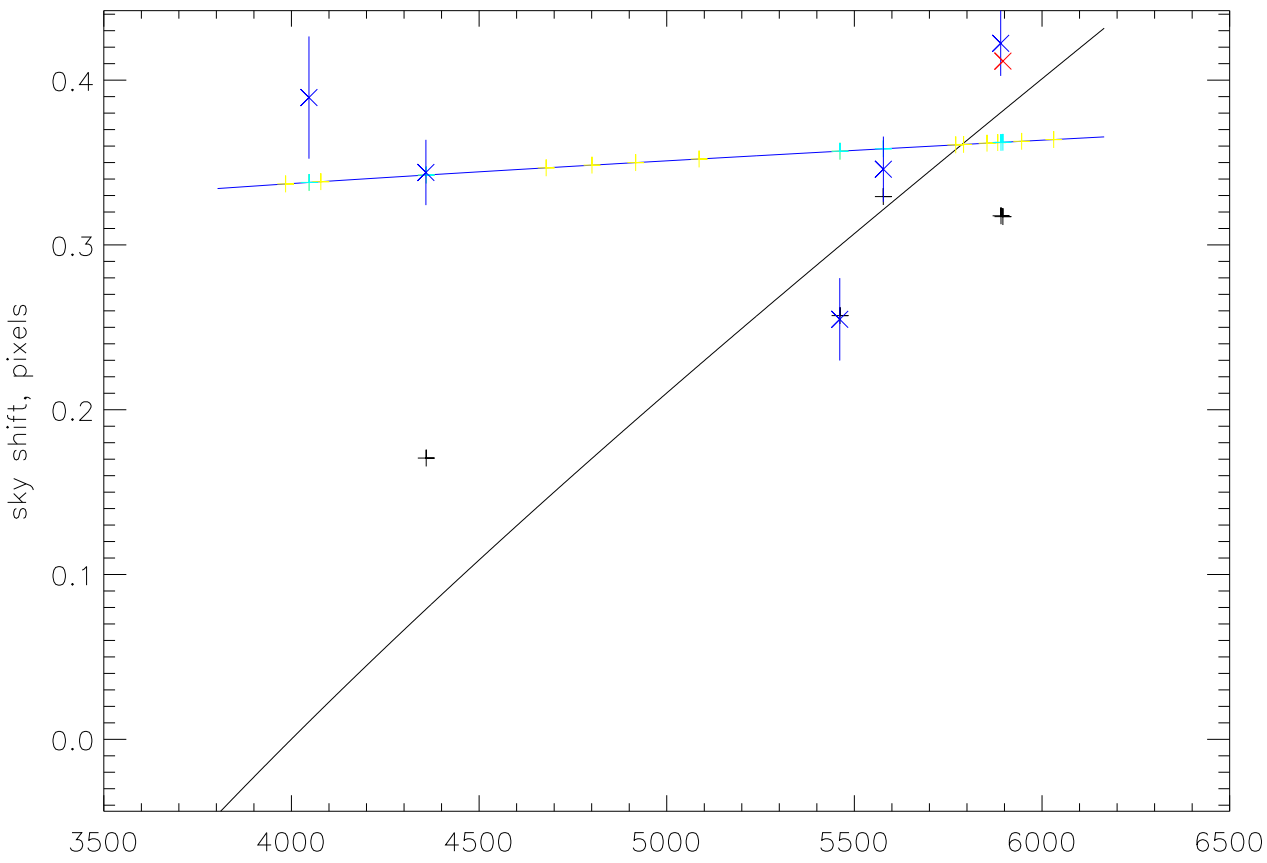

5460.9400
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

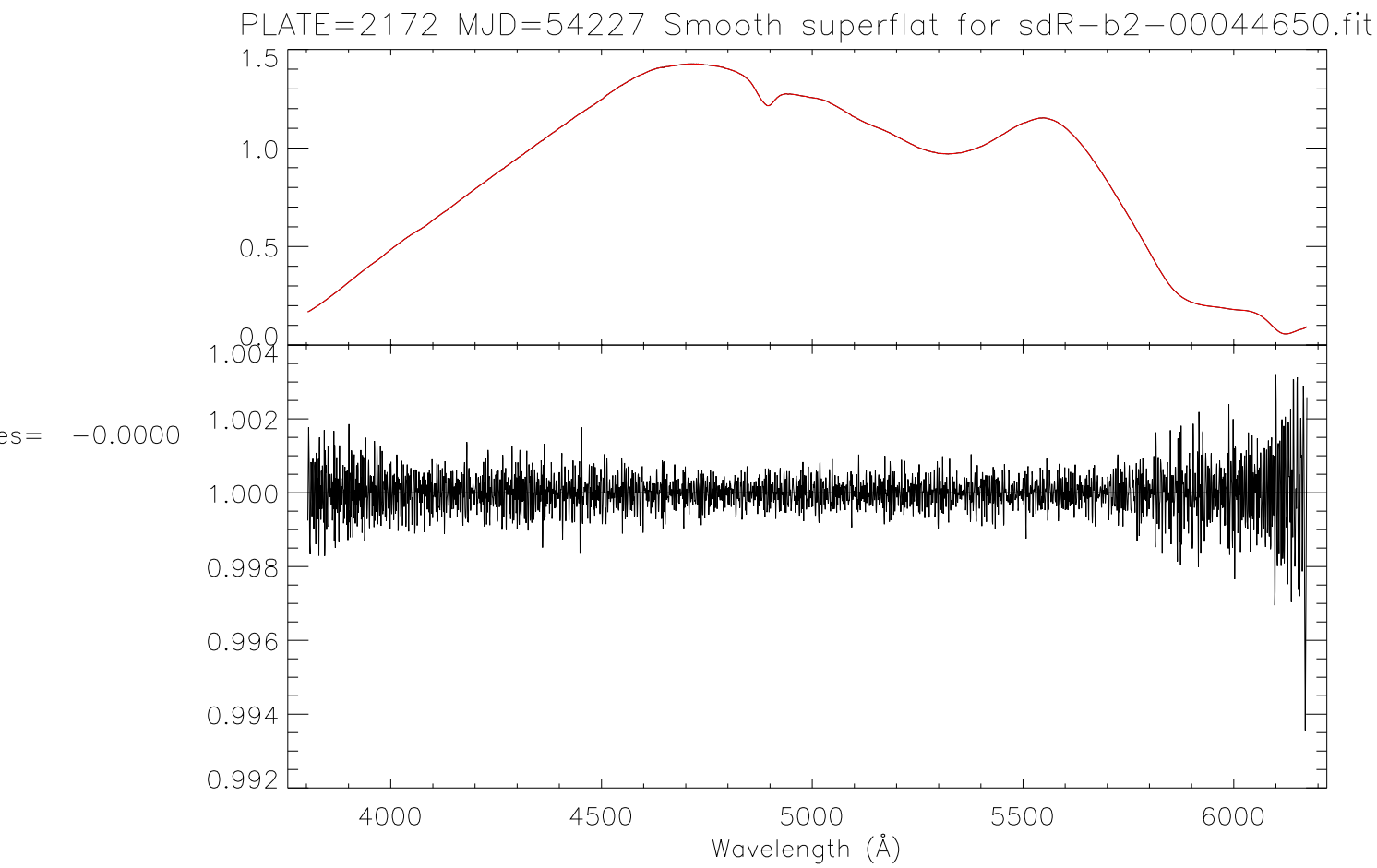

5577.3390
meas − arc
0.6
0.5
0.4
0.3
0.2
0.1
0
100
200
300
400


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

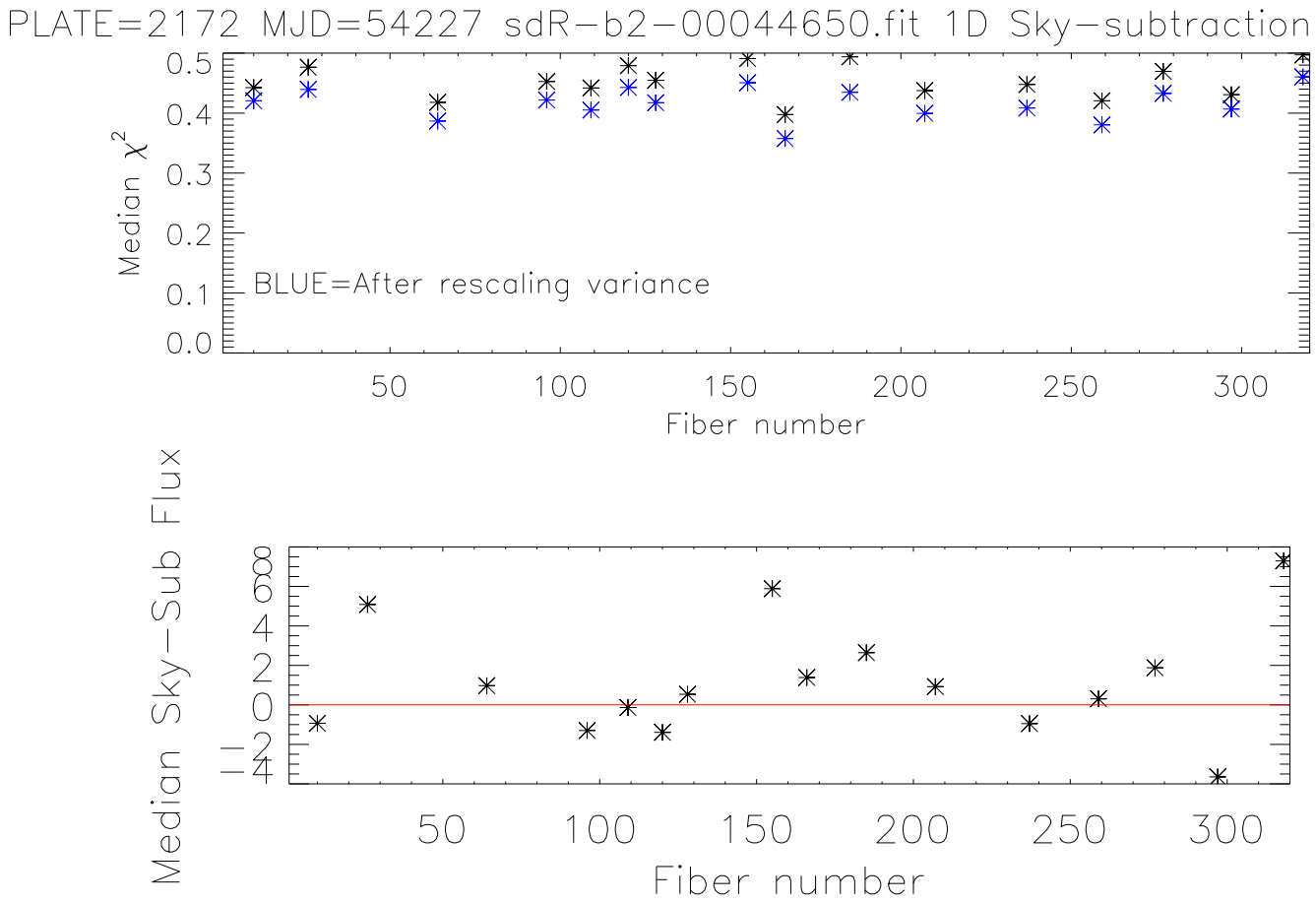

5895.9240
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

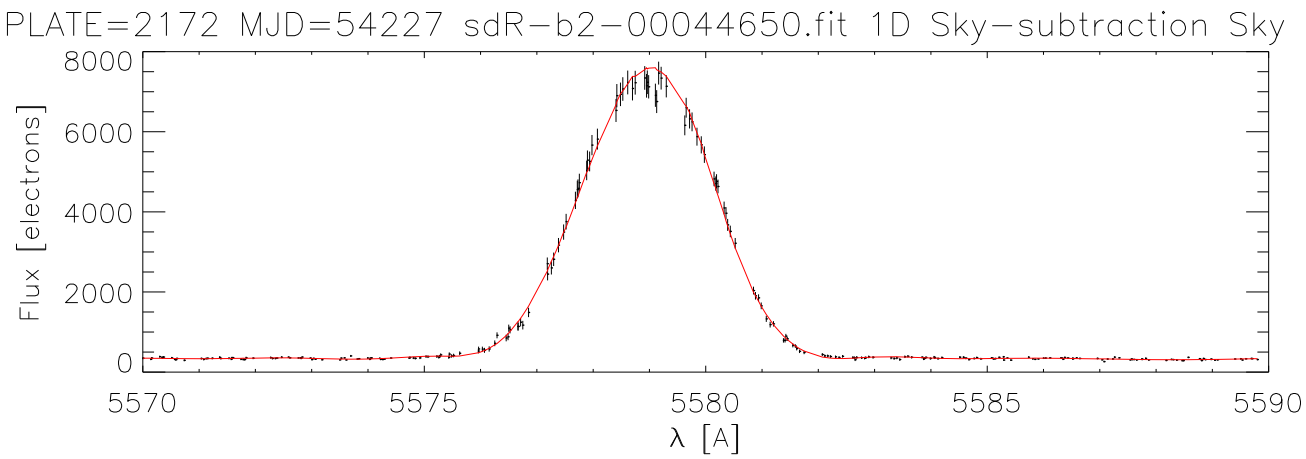

4046.5600
nfib1 15
nfib2 15
stdev 0.045
extra 0.39
4358.3300
nfib1 16
nfib2 16
stdev 0.040
extra 0.34
5460.9400
nfib1 16
nfib2 16
stdev 0.038
extra 0.25
5577.3390
nfib1 16
nfib2 16
stdev 0.007
extra 0.35
5889.9500
nfib1 16
nfib2 16
stdev 0.048
extra 0.42
5895.9240
nfib1 16
nfib2 16
stdev 0.050
extra 0.41
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

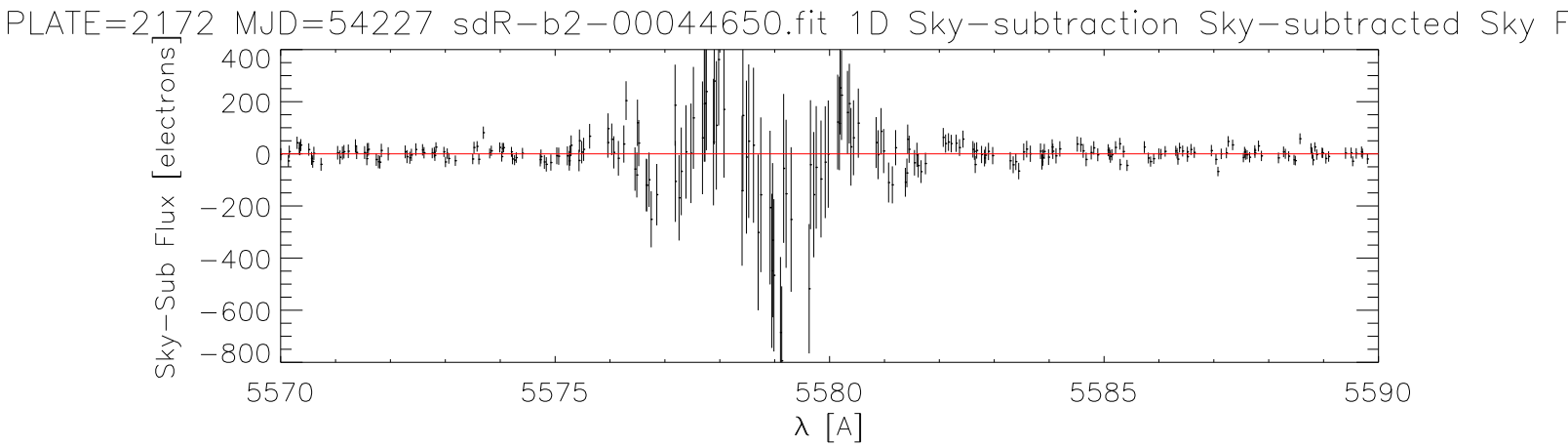

sky shift, pixels
0.0
0.1
0.2
0.3
0.4
3500
4000
4500
5000
5500
6000
6500

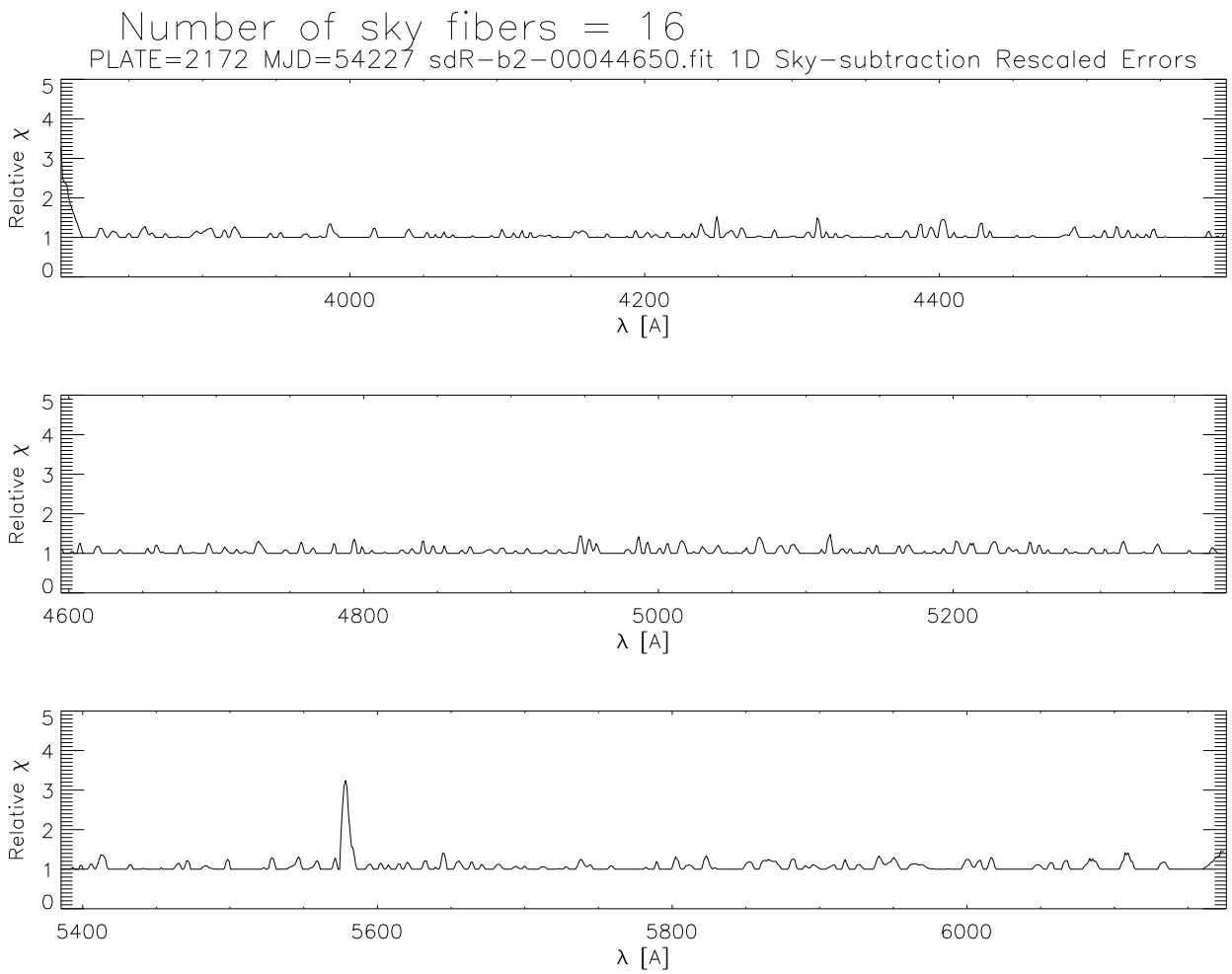

PLATE=2172 MJD=54227 Smooth superflat for sdR-b2-00044650.fit
1.5
1.0
0.5
0.0
1.004
1.002
1.000
0.998
0.996
0.994
0.992
4000
4500
5000
5500
6000
Wavelength (Å)

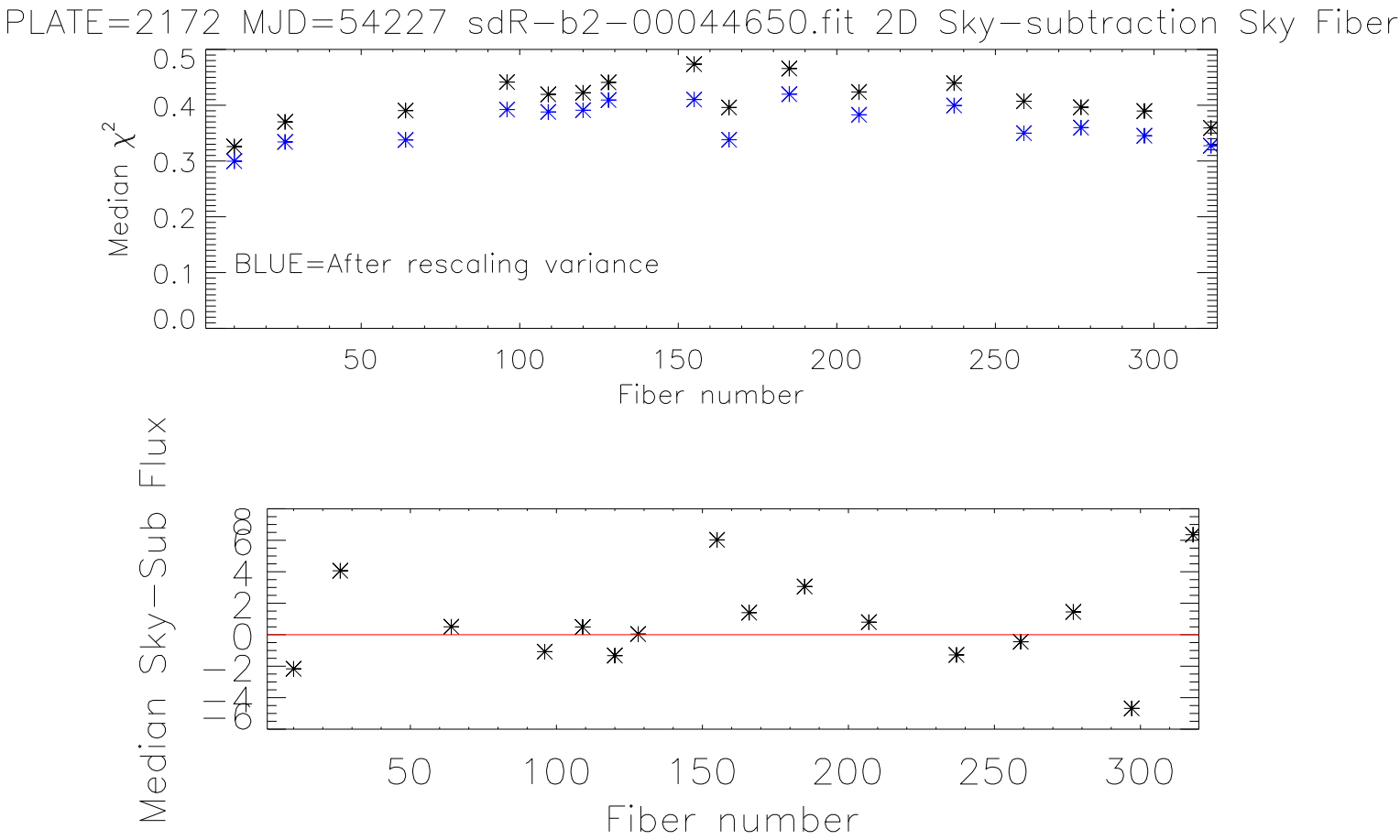
es= −0.0000

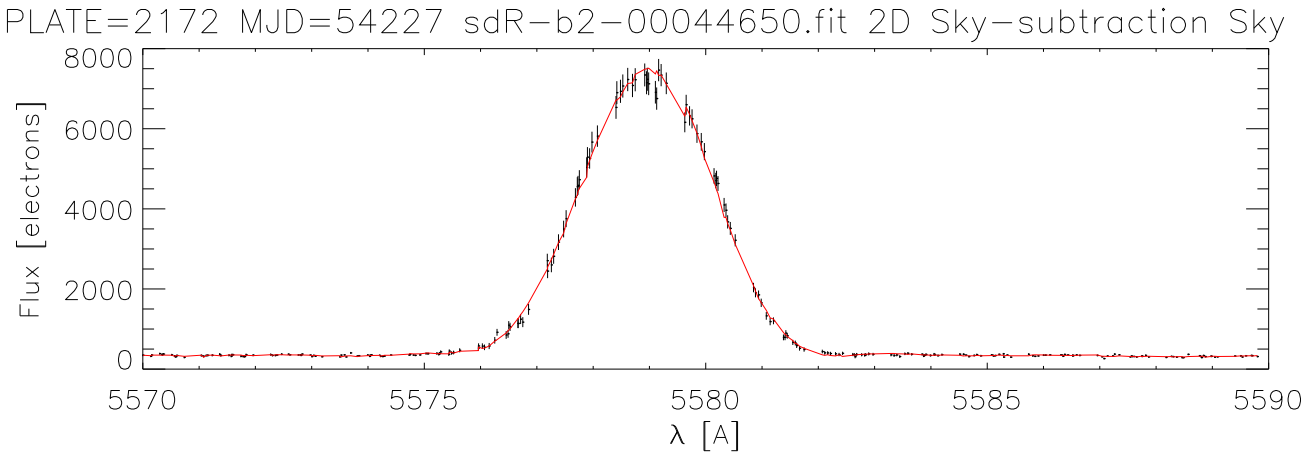

PLATE=2172 MJD=54227 sdR-b2-00044650.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-4
-2
0
2
4
6
8
50
100
150
200
250
300
Fiber number

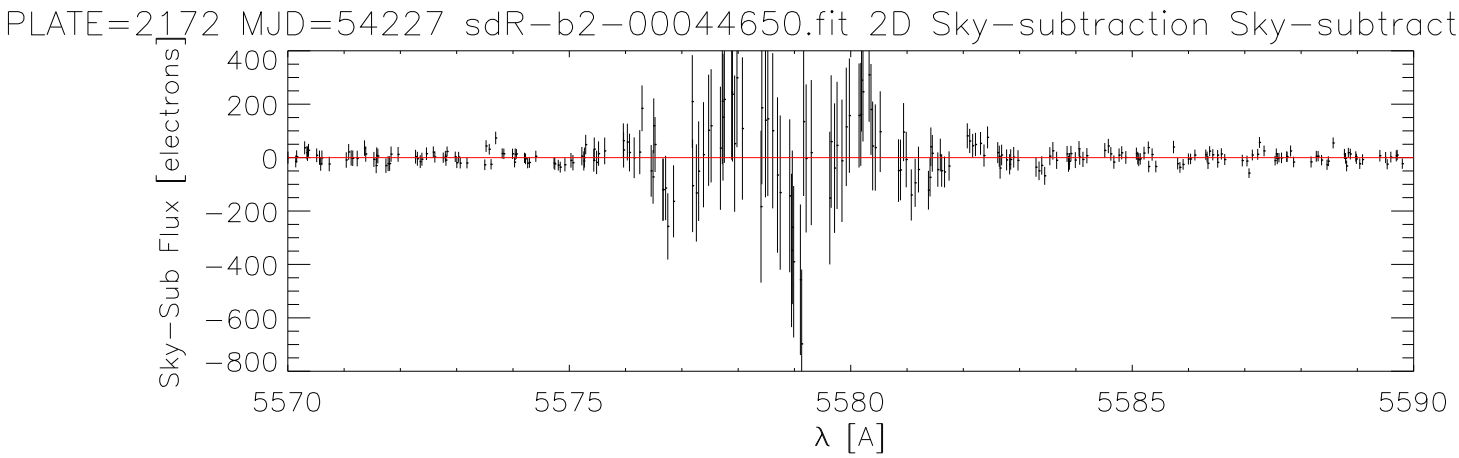

PLATE=2172 MJD=54227 sdR-b2-00044650.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

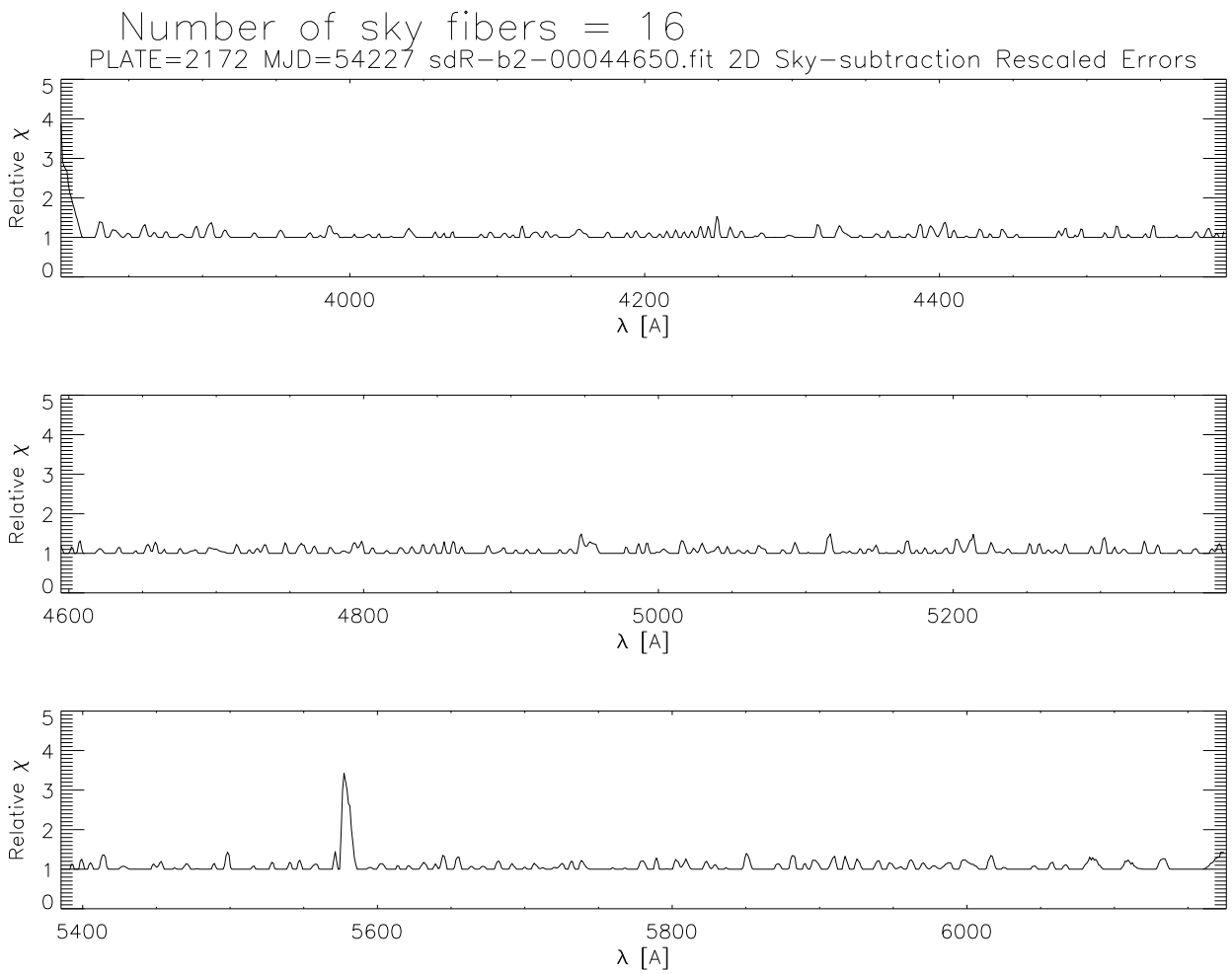

PLATE=2172 MJD=54227 sdR-b2-00044650.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
200
0
-200
-400
-600
-800
5570
5575
5580
5585
5590
λ [A]

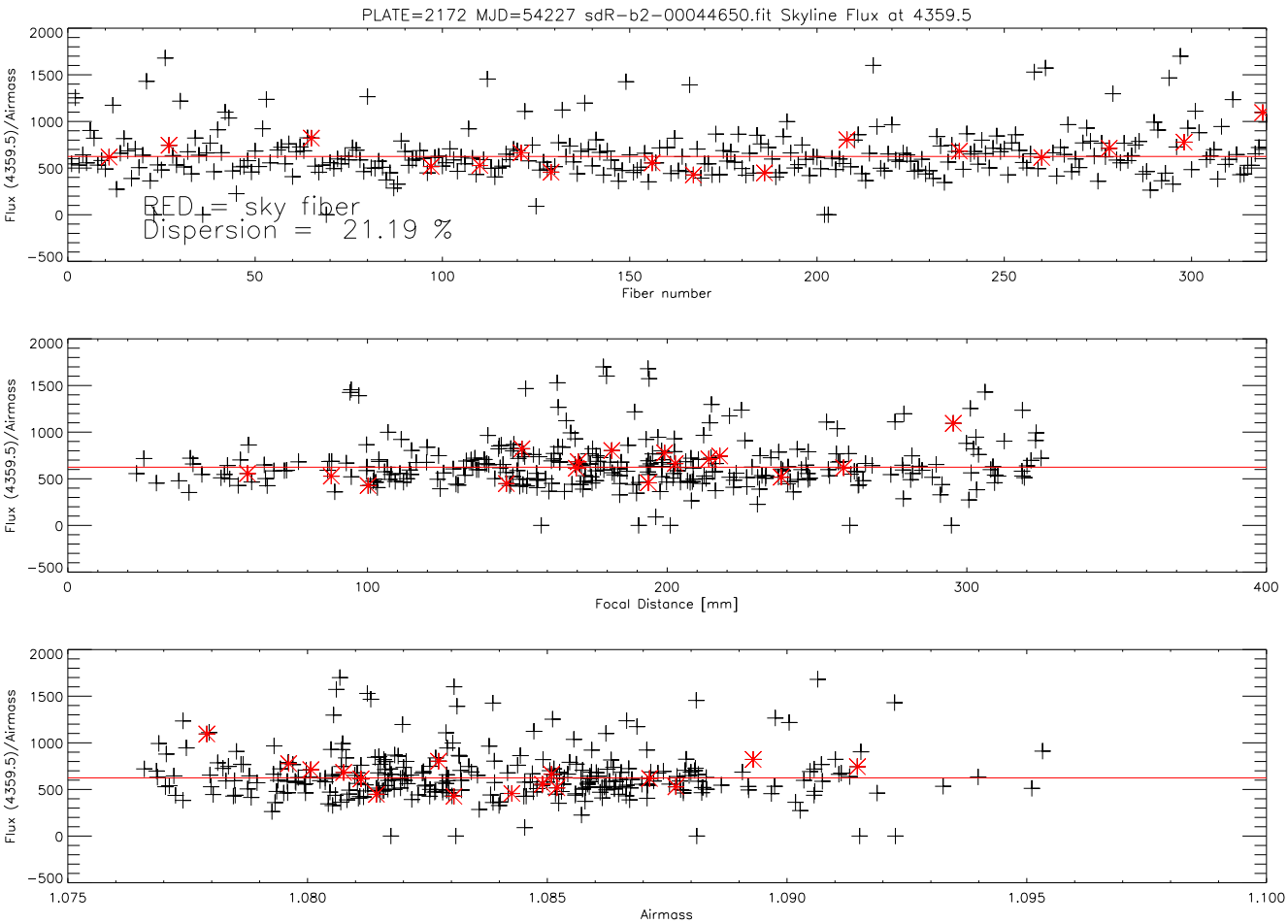

Number of sky fibers = 16
PLATE=2172 MJD=54227 sdR-b2-00044650.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

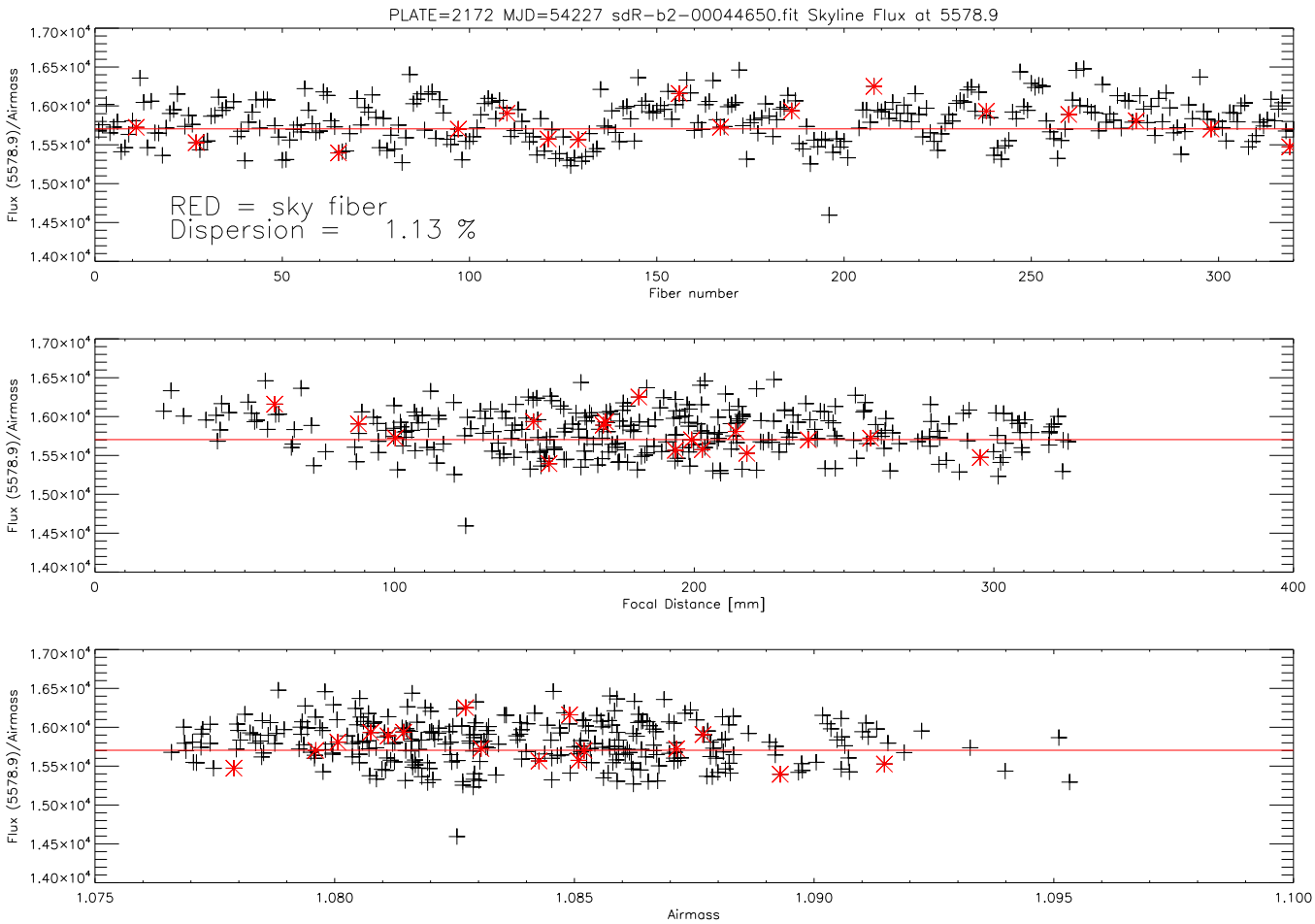

PLATE=2172 MJD=54227 sdR-b2-00044650.fit 2D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-11
-6
-4
-2
0
2
4
6
8
50
100
150
200
250
300
Fiber number

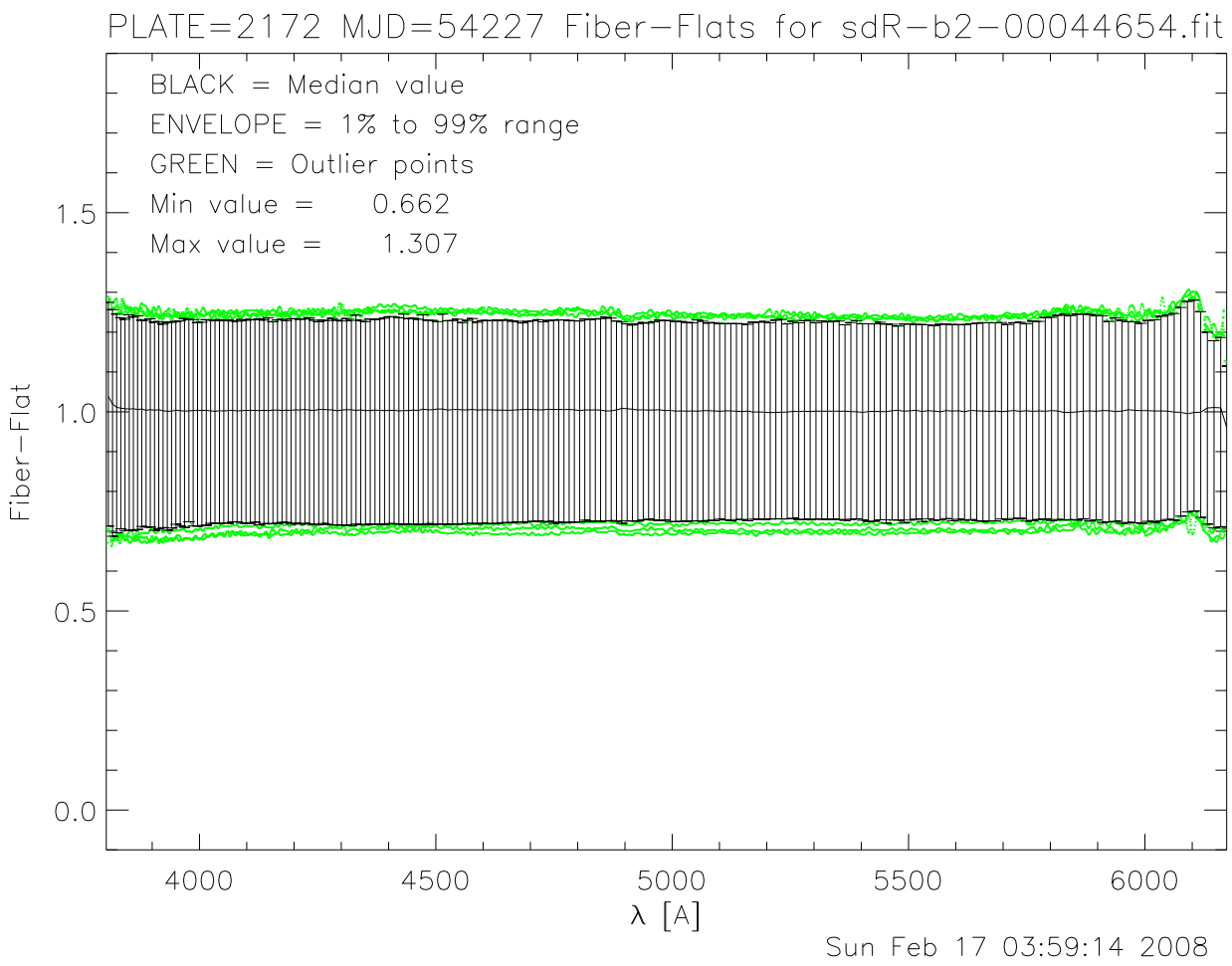

PLATE=2172 MJD=54227 sdR-b2-00044650.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

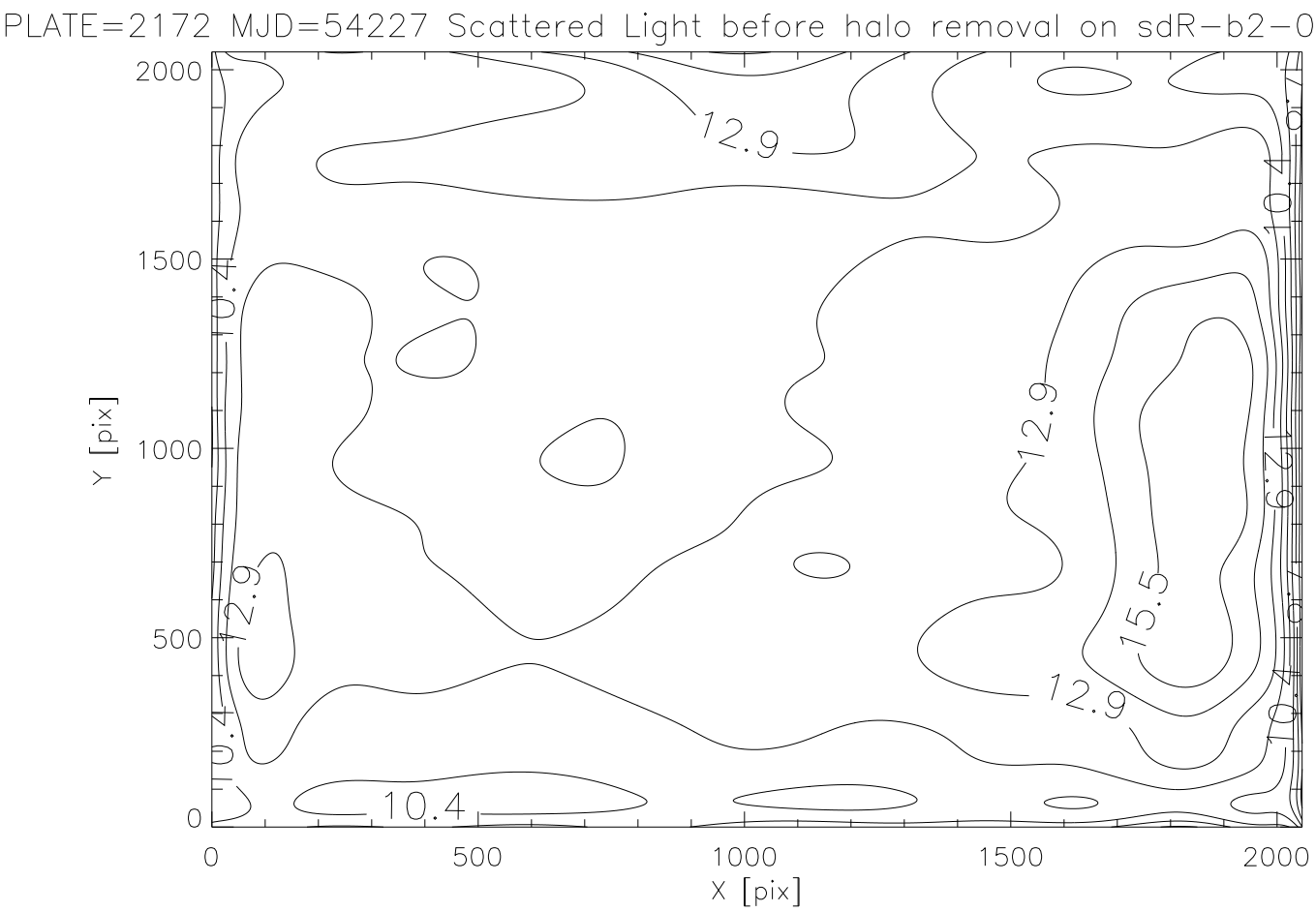

PLATE=2172 MJD=54227 sdR-b2-00044650.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
200
0
-200
-400
-600
-800
5570
5575
5580
5585
5590
λ [A]

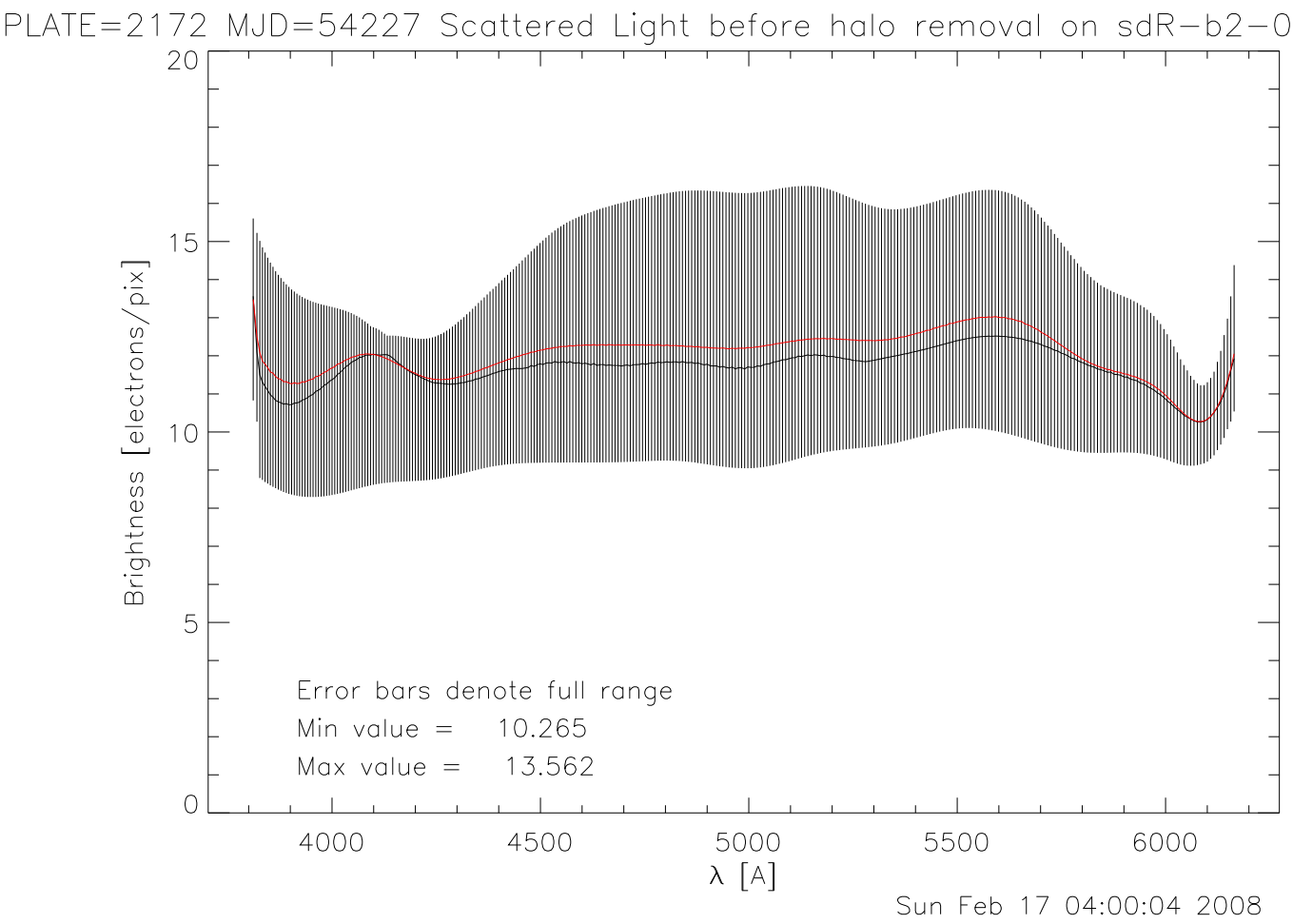

Number of sky fibers = 16
PLATE=2172 MJD=54227 sdR-b2-00044650.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

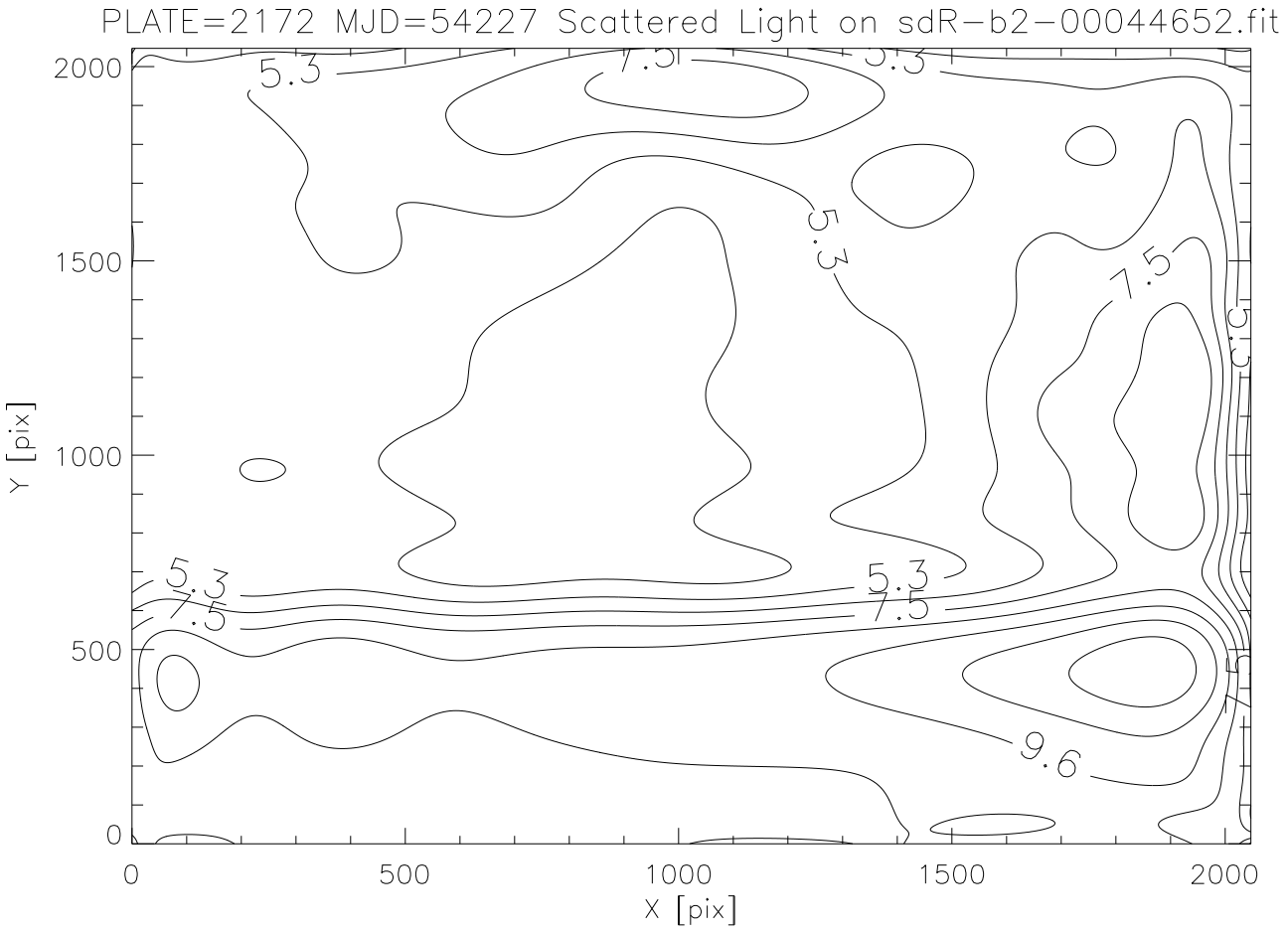

PLATE=2172 MJD=54227 sdR-b2-00044650.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
Fiber number
RED = sky fiber
Dispersion = 21.19 %
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

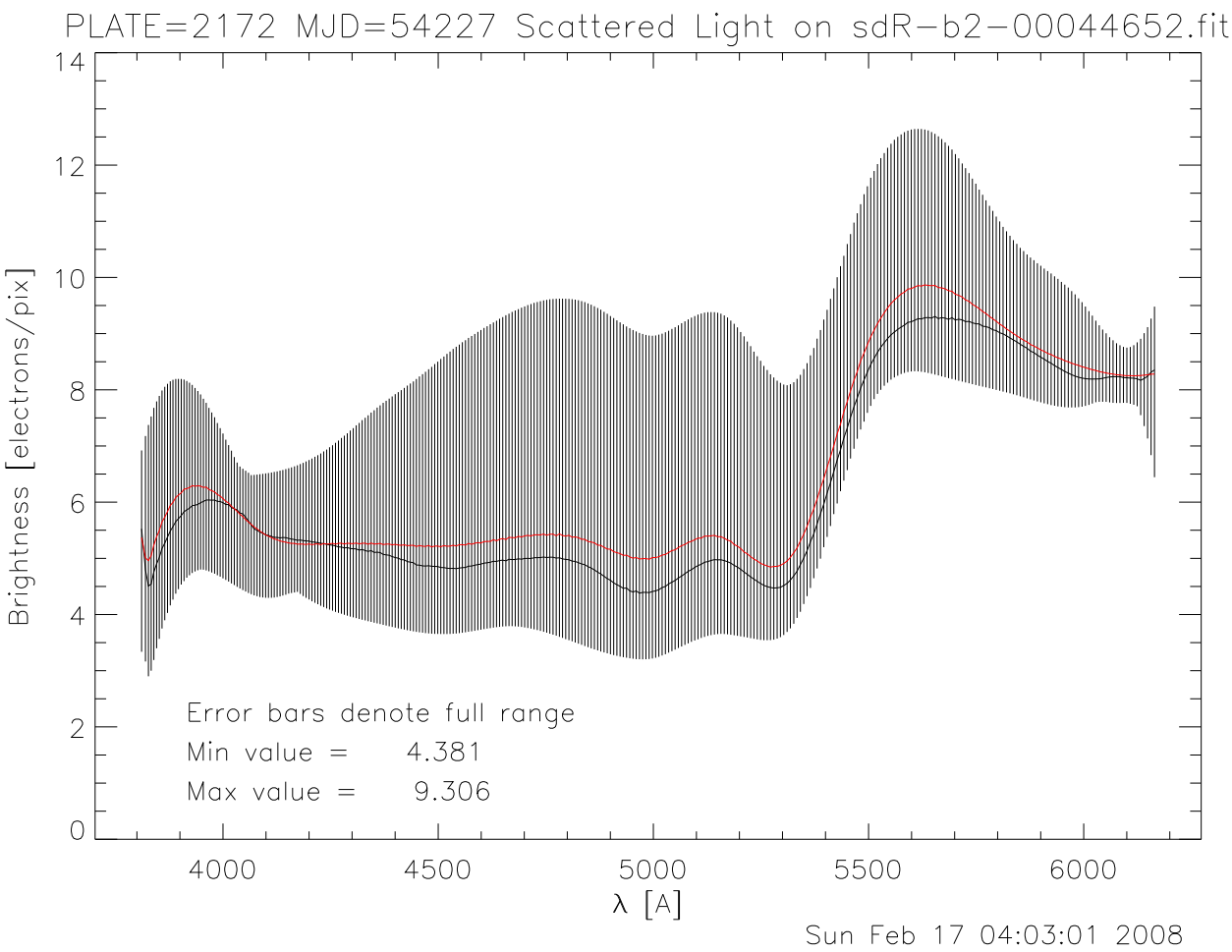

PLATE=2172 MJD=54227 sdR-b2-00044650.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 1.13 %
Fiber number
Focal Distance [mm]
Airmass

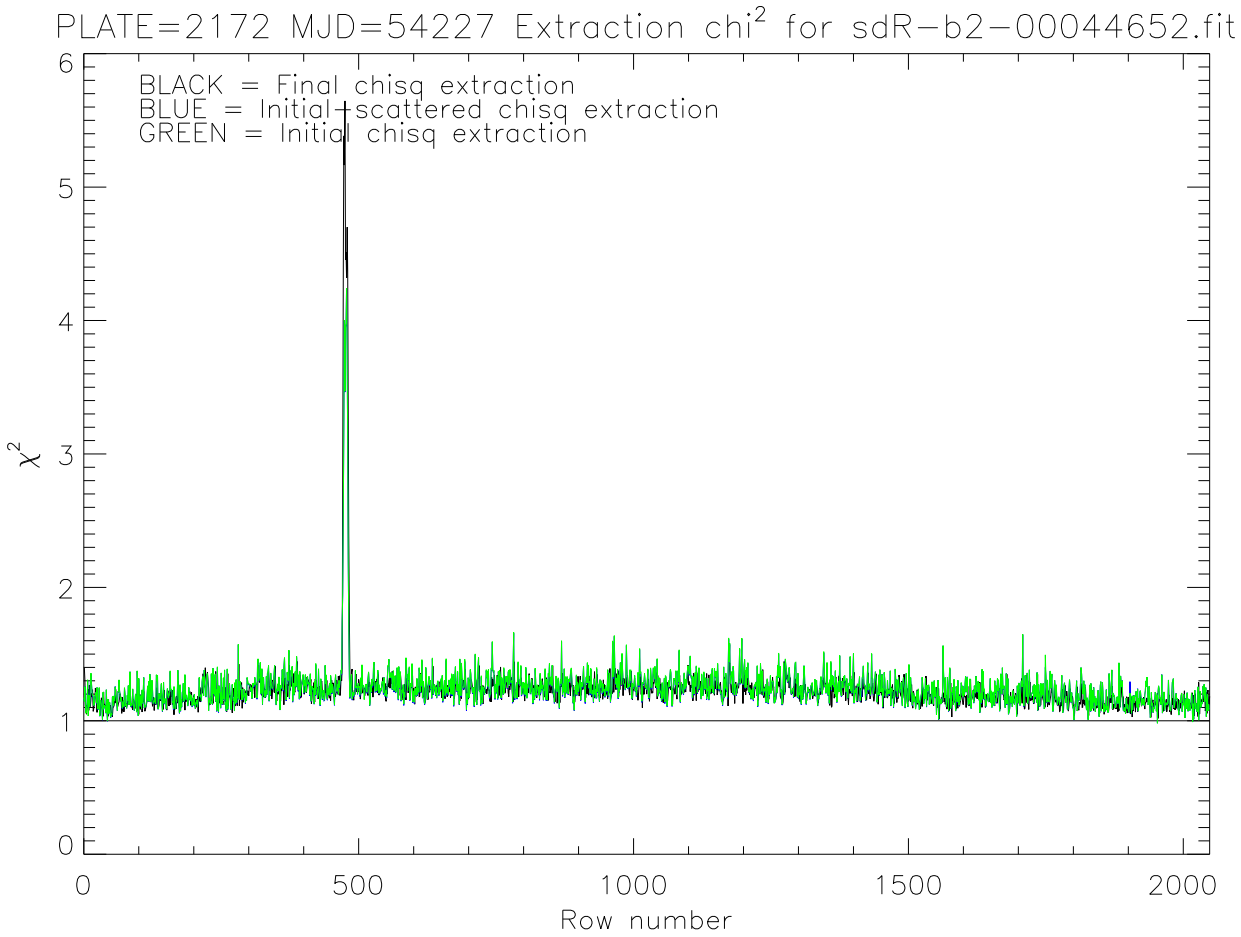

PLATE=2172 MJD=54227 Fiber−Flats for sdR−b2−00044654.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.662
Max value = 1.307
Fiber−Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Sun Feb 17 03:59:14 2008

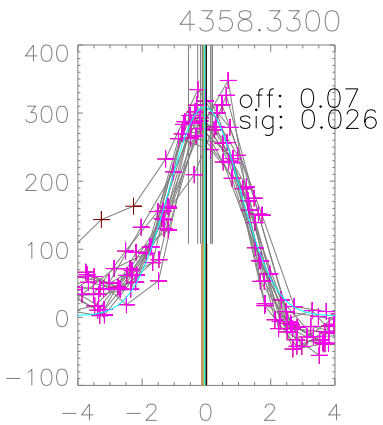

PLATE=2172 MJD=54227 Scattered Light before halo removal on sdR−b2−00044652.f
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
12.9
10.4
12.9
15.5
12.9
10.4
10.4
12.9
10.4
10.4

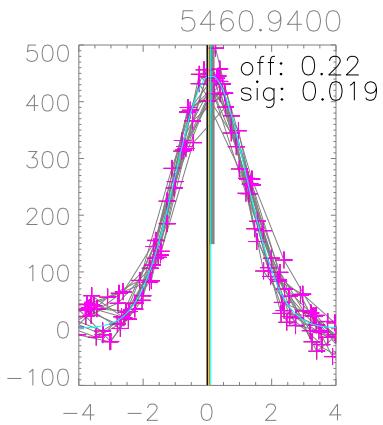

PLATE=2172 MJD=54227 Scattered Light before halo removal on sdR-b2-00044652.f
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 10.265
Max value = 13.562
Sun Feb 17 04:00:04 2008

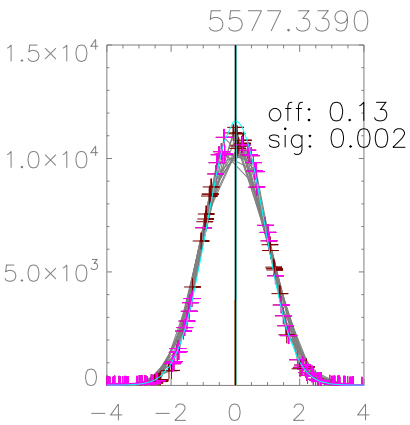

PLATE=2172 MJD=54227 Scattered Light on sdR-b2-00044652.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
5.3
7.5
9.6

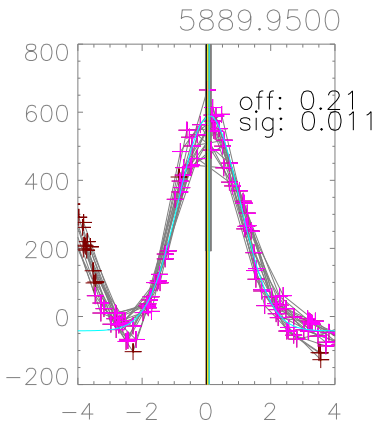

PLATE=2172 MJD=54227 Scattered Light on sdR-b2-00044652.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 4.381
Max value = 9.306
Sun Feb 17 04:03:01 2008

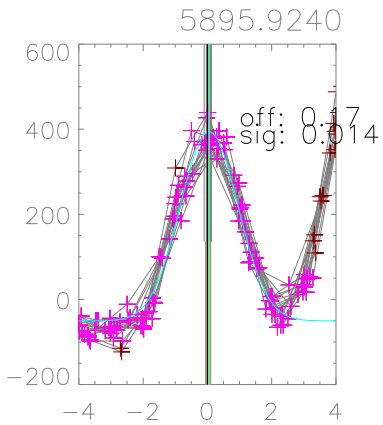

PLATE=2172 MJD=54227 Extraction chi^2 for sdR-b2-00044652.fit
BLACK = Final chisq extraction
BLUE = Initial+scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
5
6
0
500
1000
1500
2000
Row number

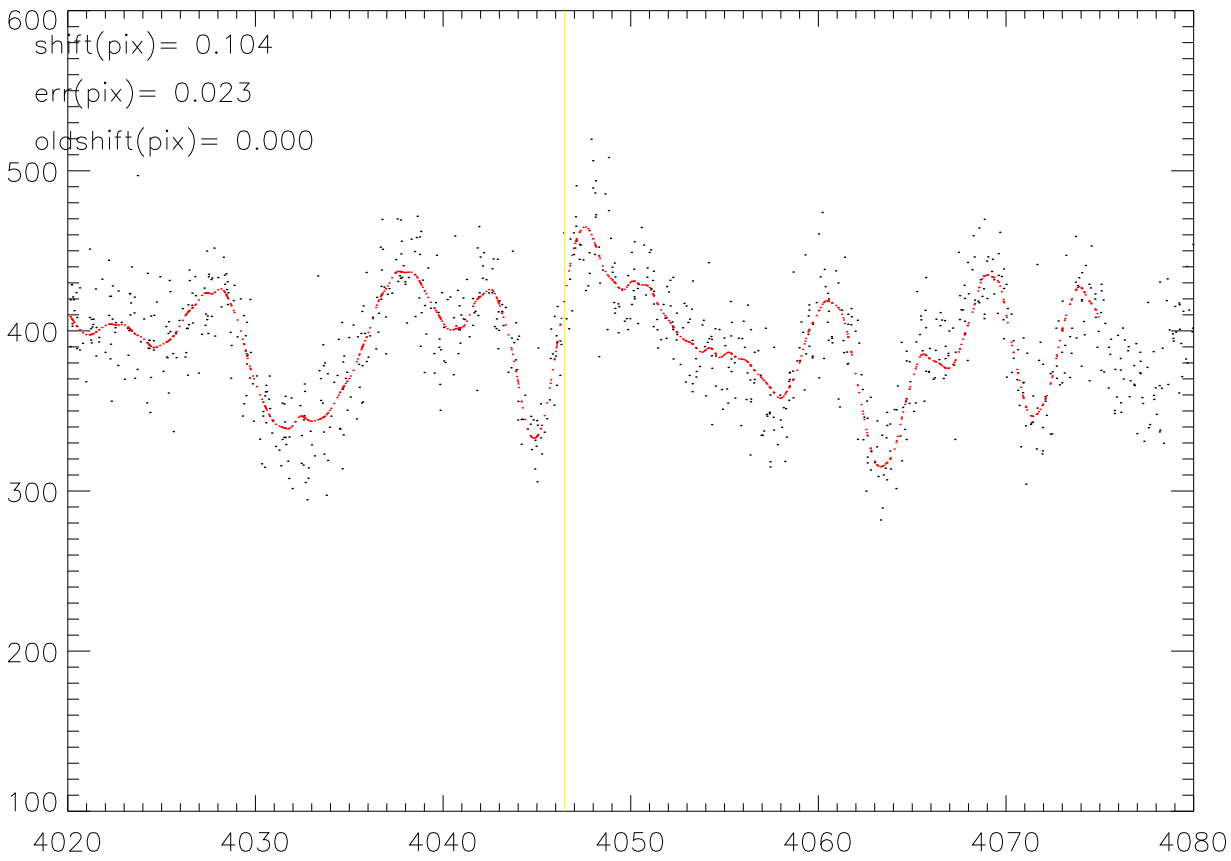

4358.3300
off: 0.07
sig: 0.026

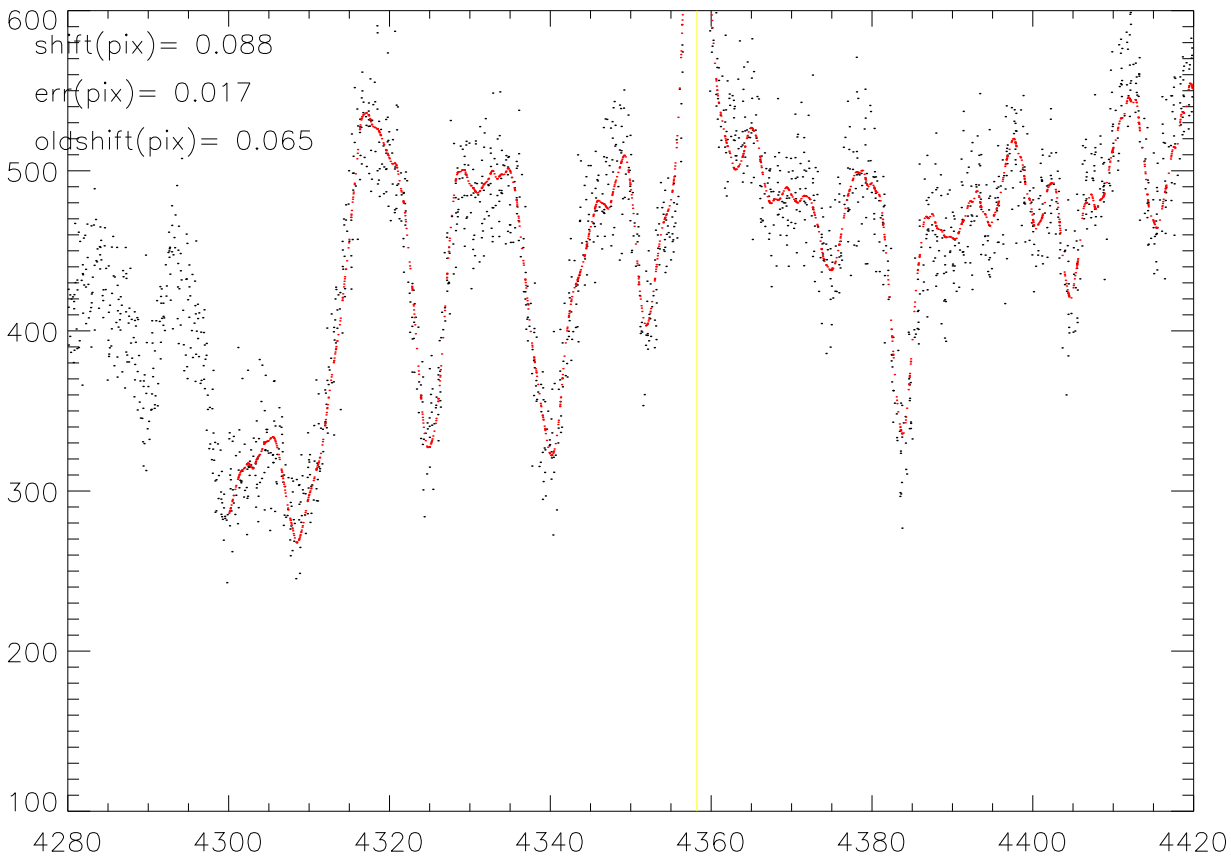

5460.9400
off: 0.22
sig: 0.019

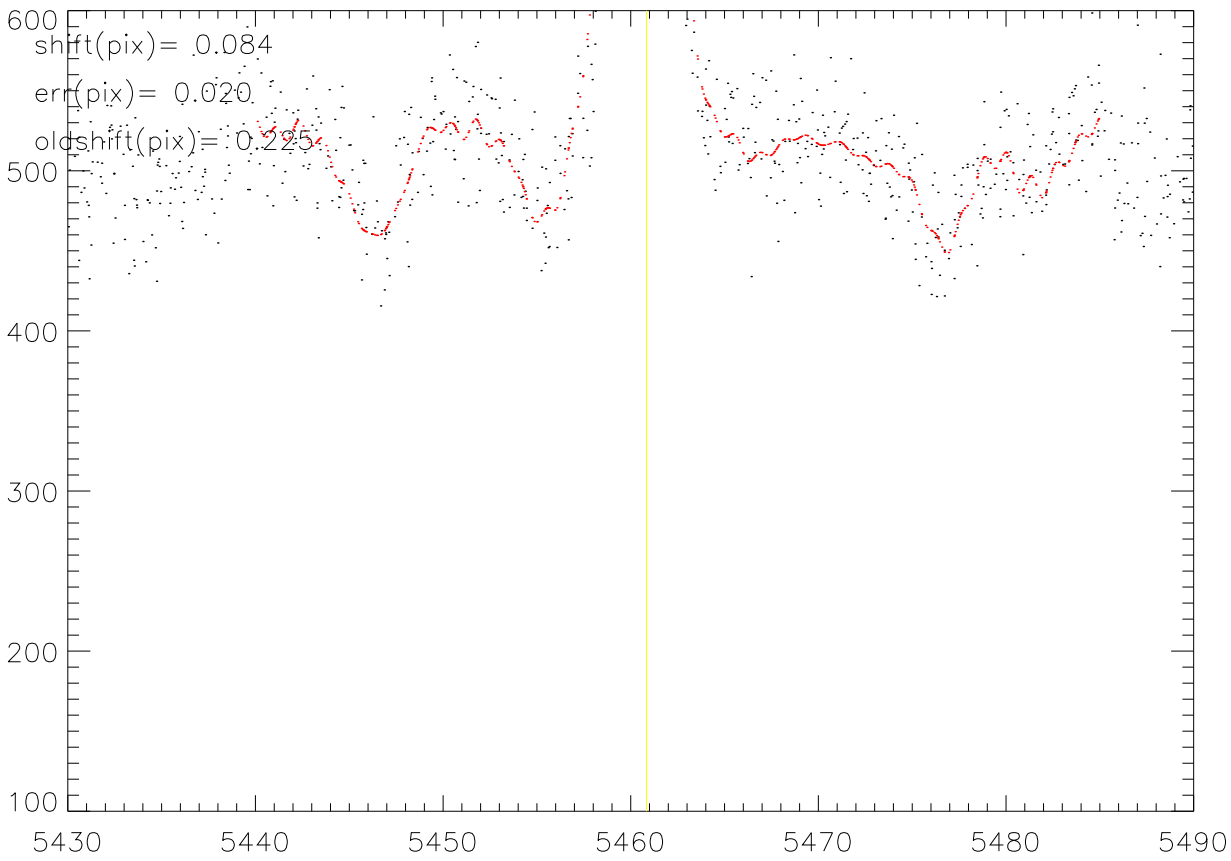

5577.3390
off: 0.13
sig: 0.002

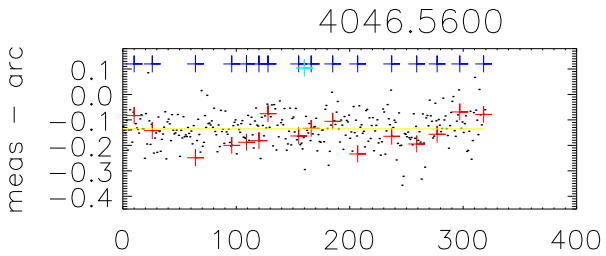

5889.9500
off: 0.21
sig: 0.011

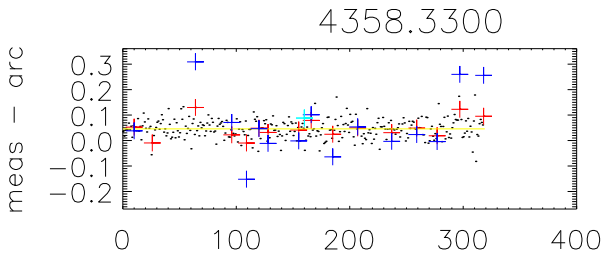

5895.9240
off: 0.17
sig: 0.014

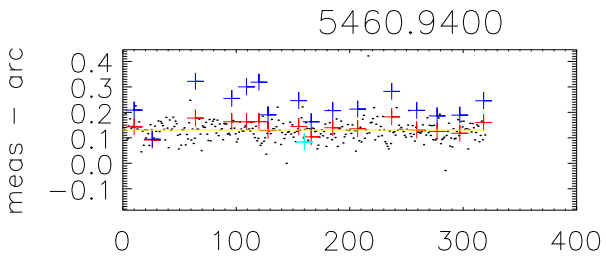

shift(pix)= 0.104
err(pix)= 0.023
oldshift(pix)= 0.000
600
500
400
300
200
100
4020
4030
4040
4050
4060
4070
4080

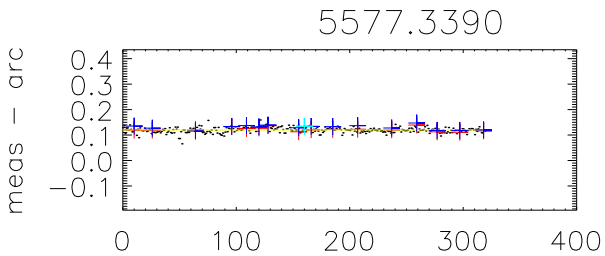

shift(pix)= 0.088
err(pix)= 0.017
oldshift(pix)= 0.065
600
500
400
300
200
100
4280
4300
4320
4340
4360
4380
4400
4420

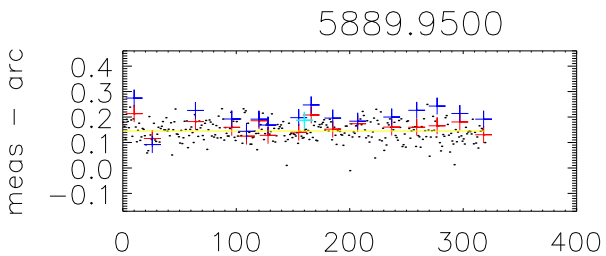

shift(pix)= 0.084
err(pix)= 0.020
oldshift(pix)= 0.225
600
500
400
300
200
100
5430
5440
5450
5460
5470
5480
5490

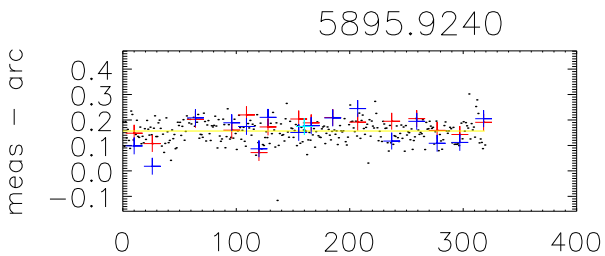

4046.5600
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

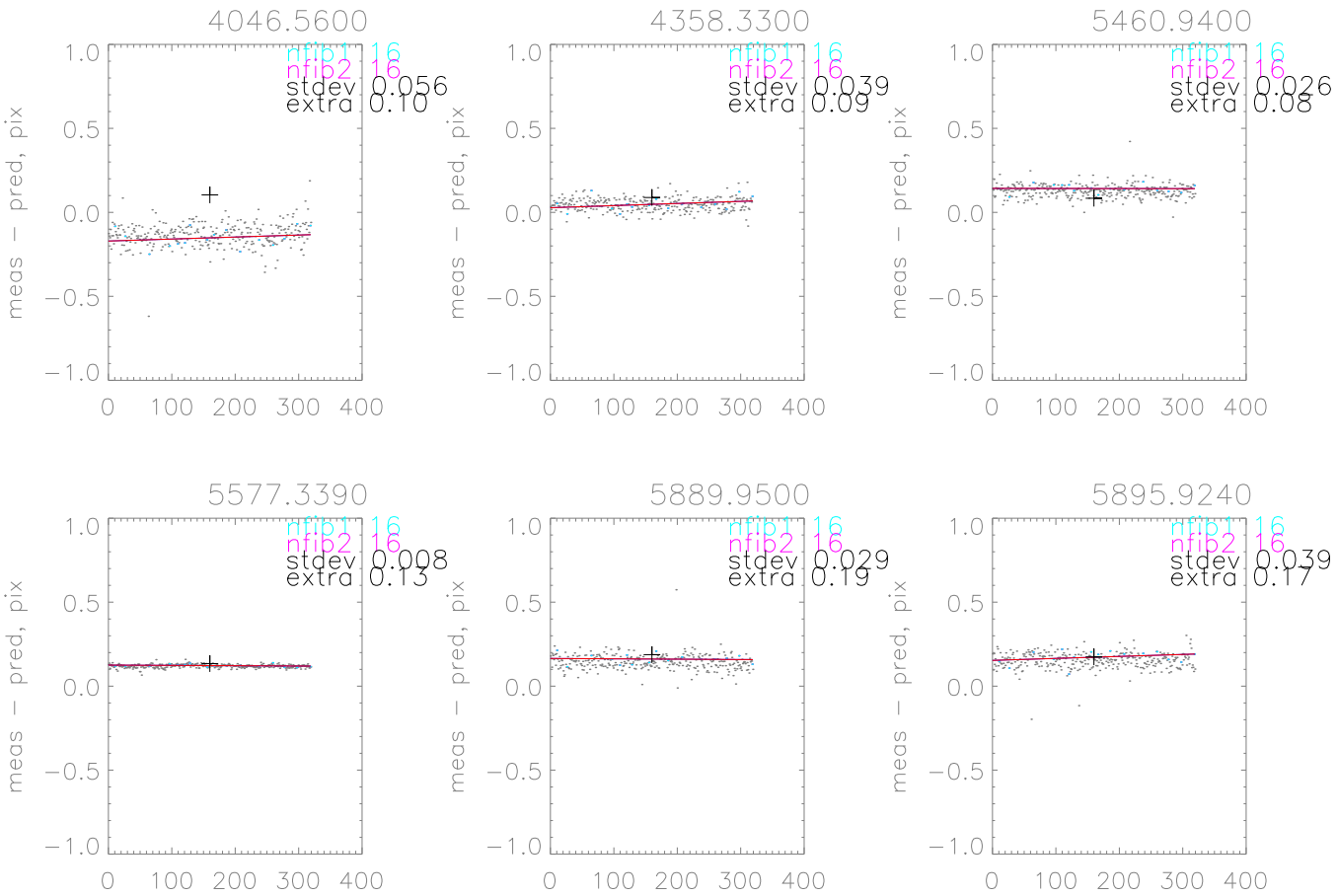

4358.3300
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

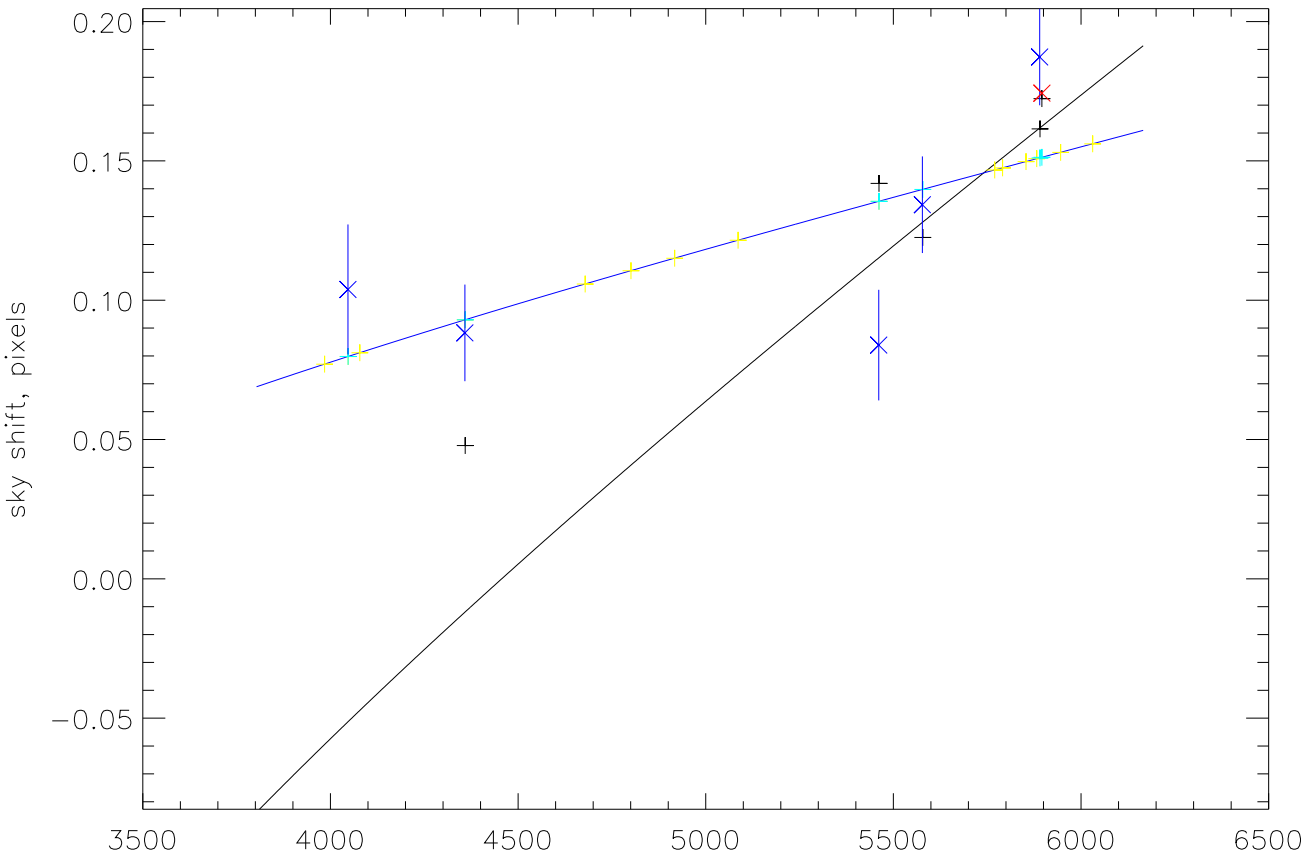

5460.9400
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

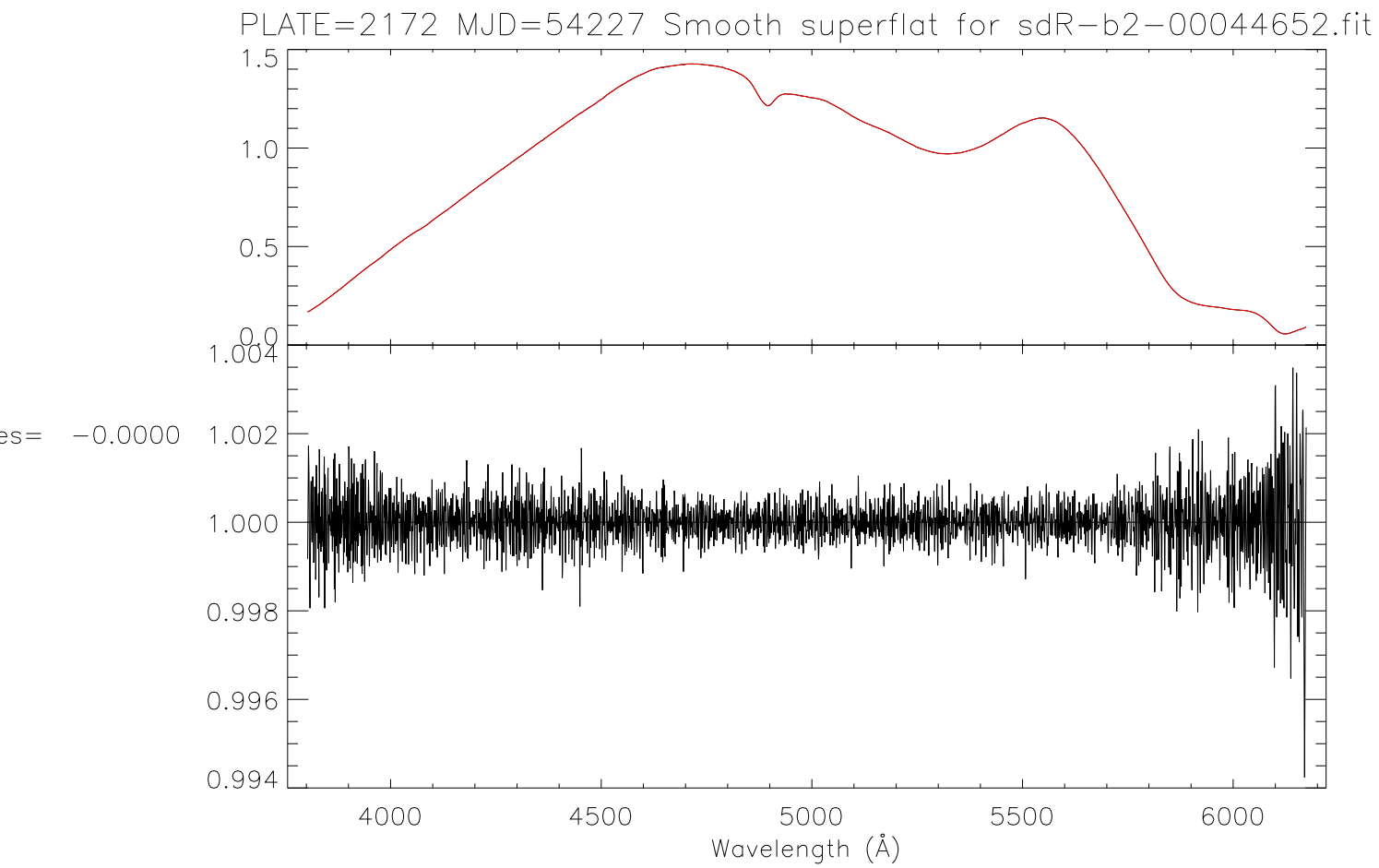

5577.3390
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

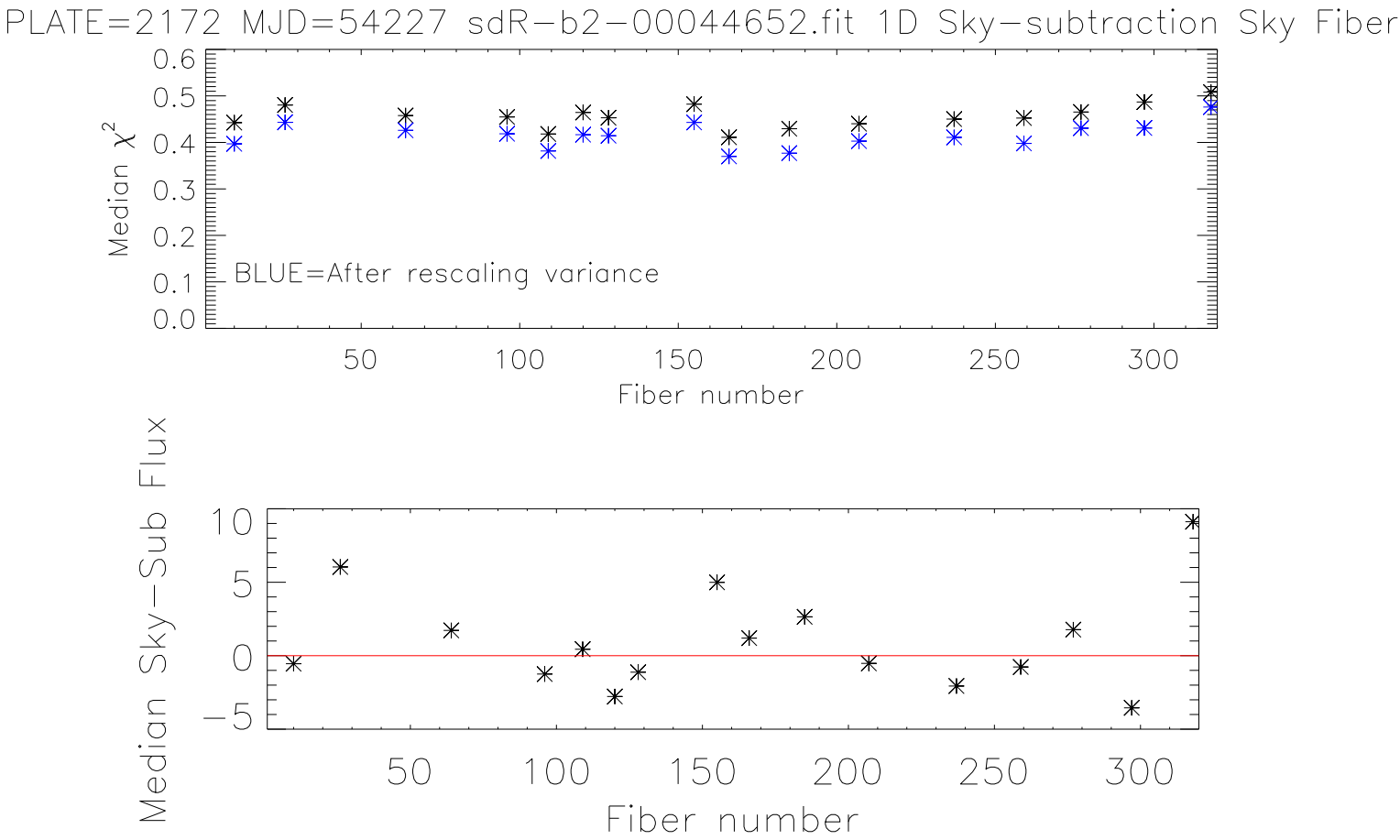

5889.9500
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

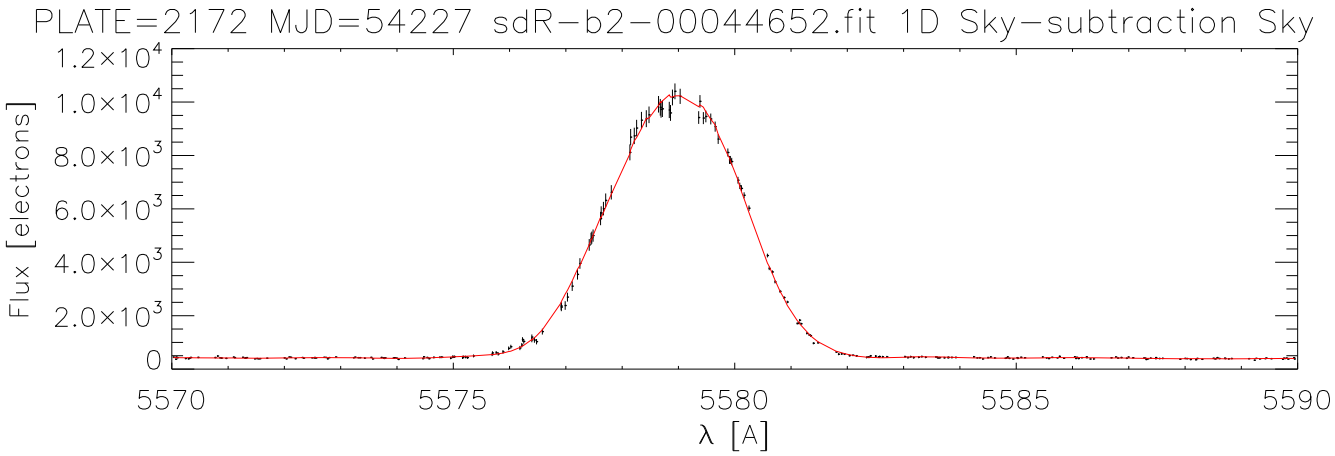

5895.9240
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

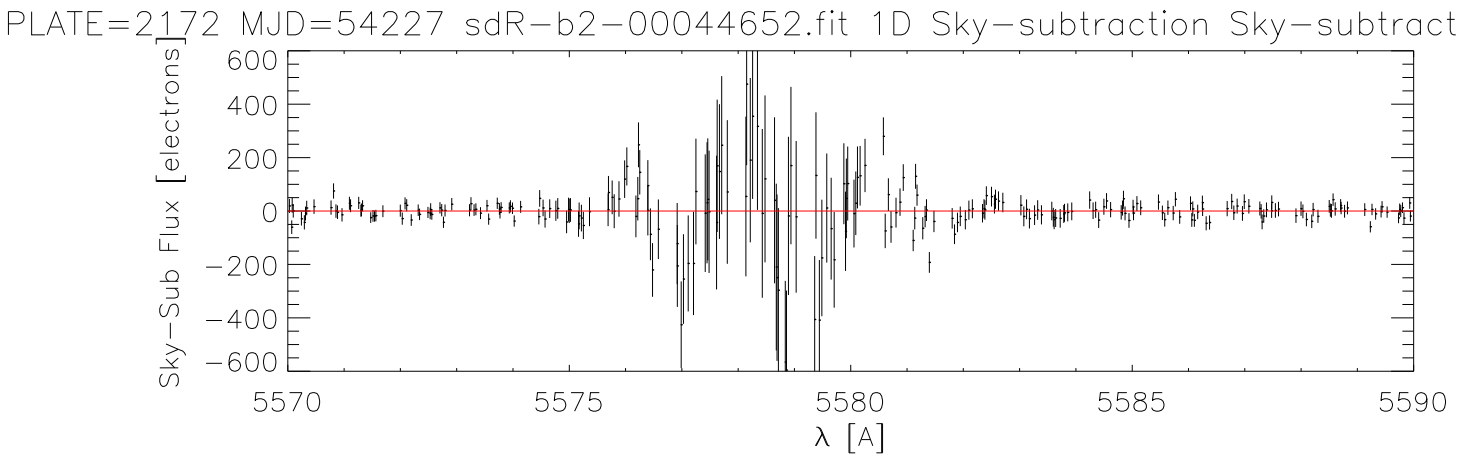

4046.5600
nfib1 16
nfib2 16
stdev 0.056
extra 0.10
4358.3300
nfib1 16
nfib2 16
stdev 0.039
extra 0.09
5460.9400
nfib1 16
nfib2 16
stdev 0.026
extra 0.08
5577.3390
nfib1 16
nfib2 16
stdev 0.008
extra 0.13
5889.9500
nfib1 16
nfib2 16
stdev 0.029
extra 0.19
5895.9240
nfib1 16
nfib2 16
stdev 0.039
extra 0.17
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

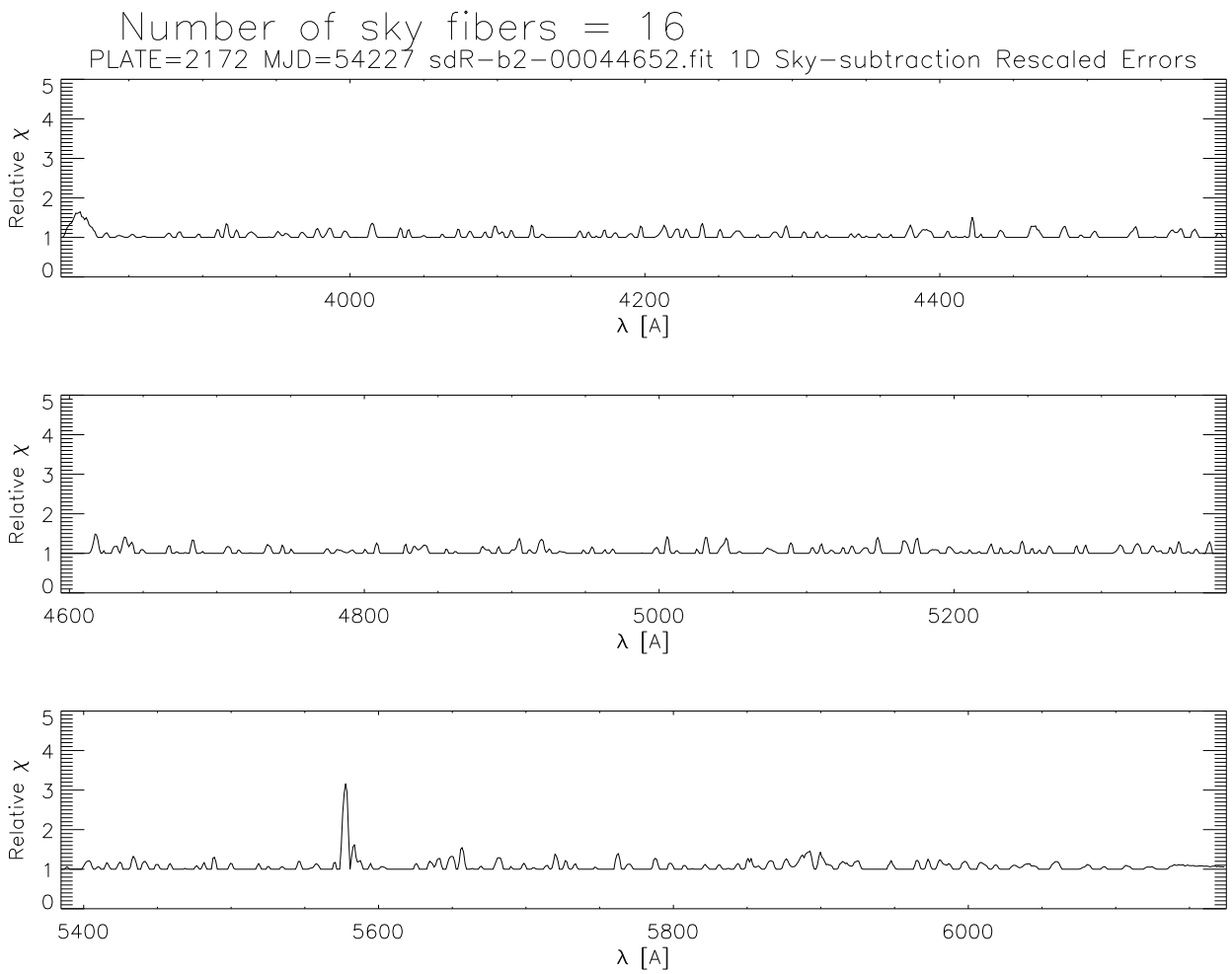

0.20
0.15
0.10
0.05
0.00
−0.05
sky shift, pixels
3500
4000
4500
5000
5500
6000
6500

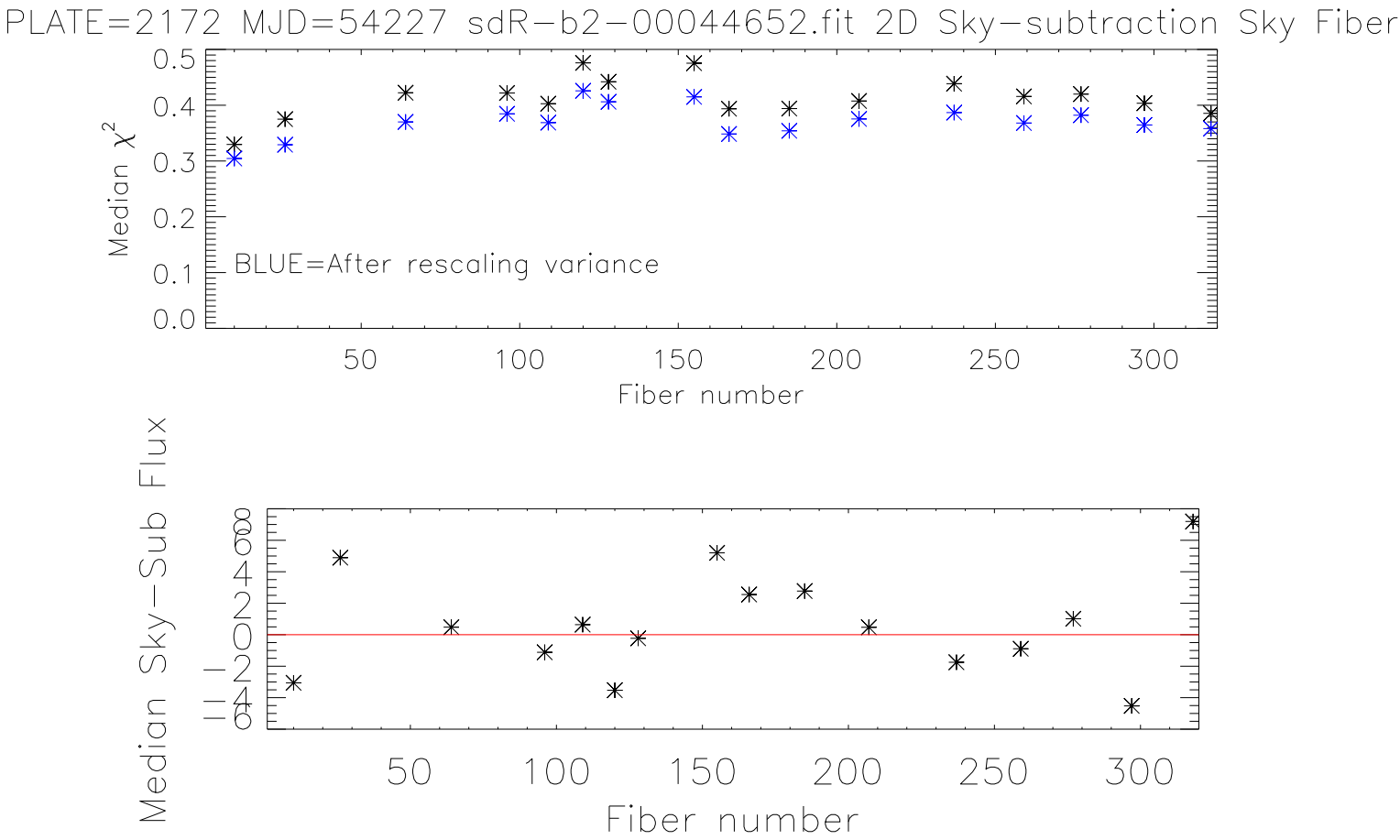

PLATE=2172 MJD=54227 Smooth superflat for sdR-b2-00044652.fit
1.5
1.0
0.5
0.0
1.004
1.002
1.000
0.998
0.996
0.994
es= −0.0000
4000
4500
5000
5500
6000
Wavelength (Å)

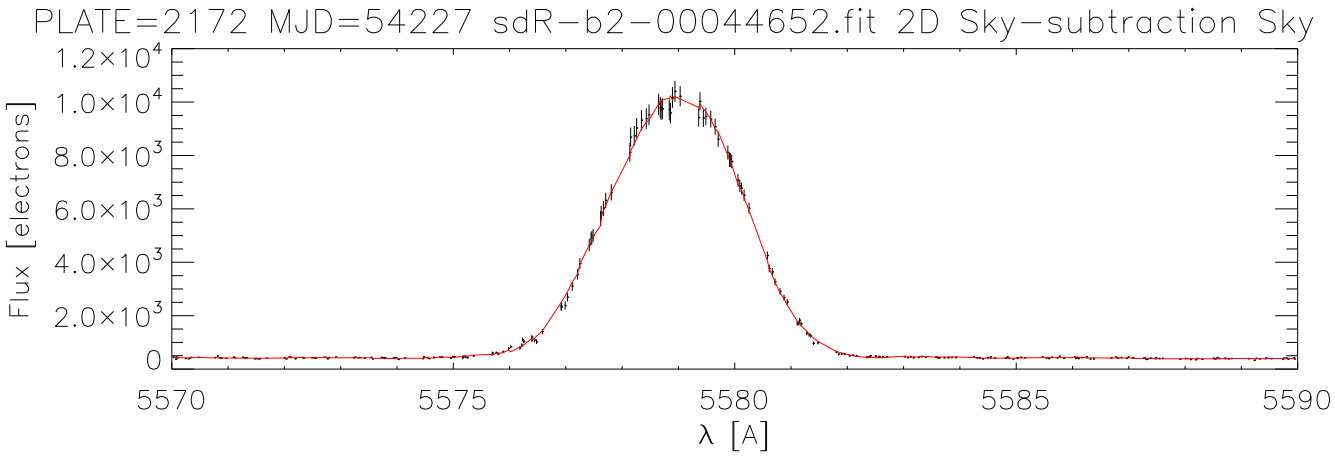

PLATE=2172 MJD=54227 sdR-b2-00044652.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
-5
50
100
150
200
250
300
Fiber number

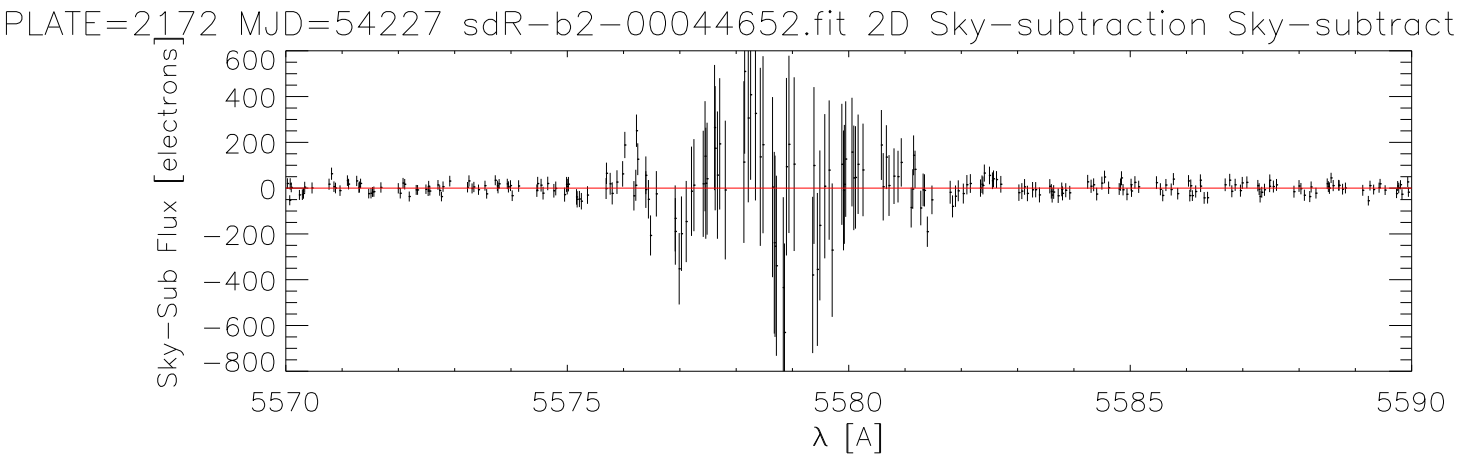

PLATE=2172 MJD=54227 sdR-b2-00044652.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
1.2×10^4
1.0×10^4
8.0×10^3
6.0×10^3
4.0×10^3
2.0×10^3
0
5570
5575
5580
5585
5590
λ [A]

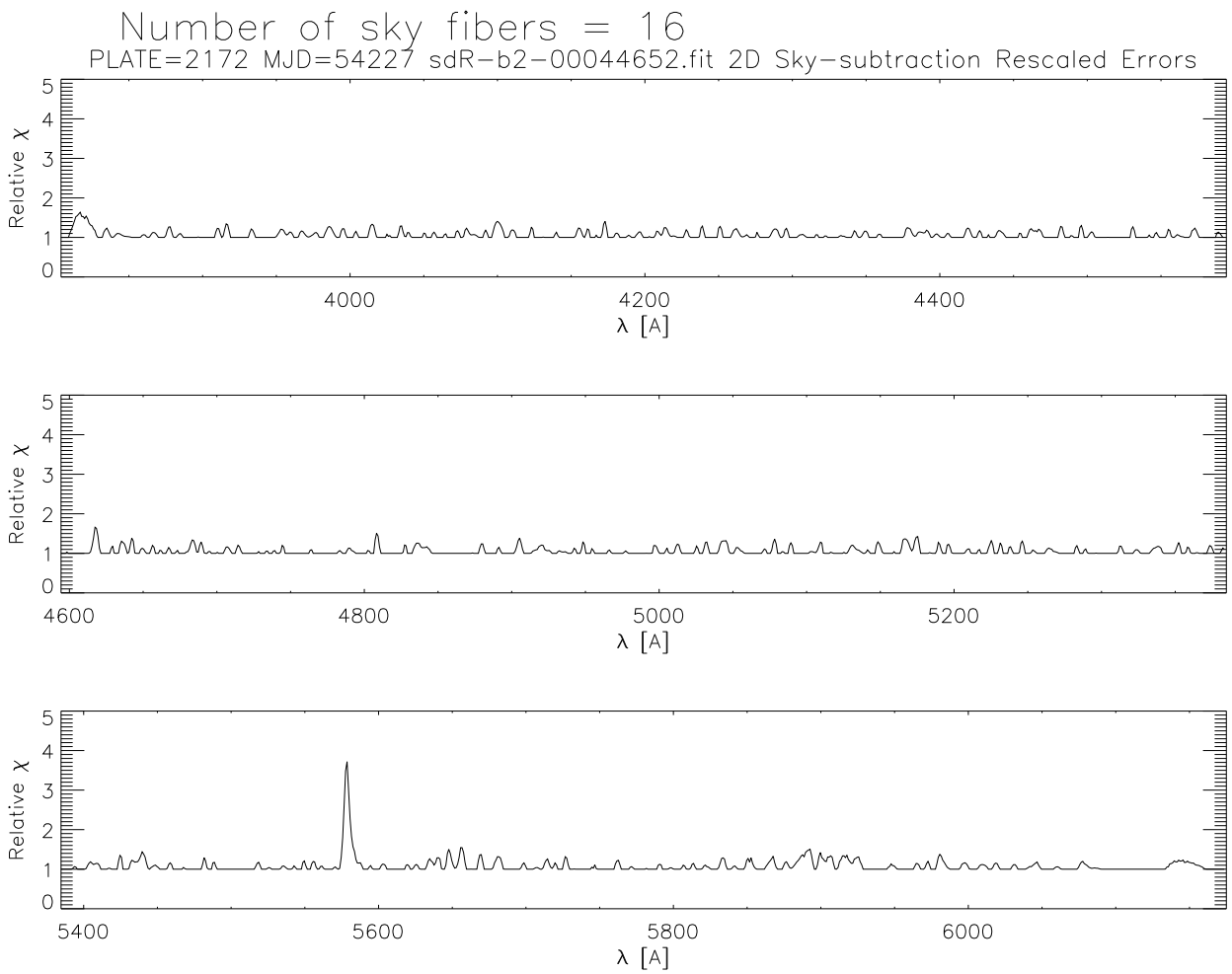

PLATE=2172 MJD=54227 sdR-b2-00044652.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
−200
−400
−600
5570
5575
5580
5585
5590
λ [A]

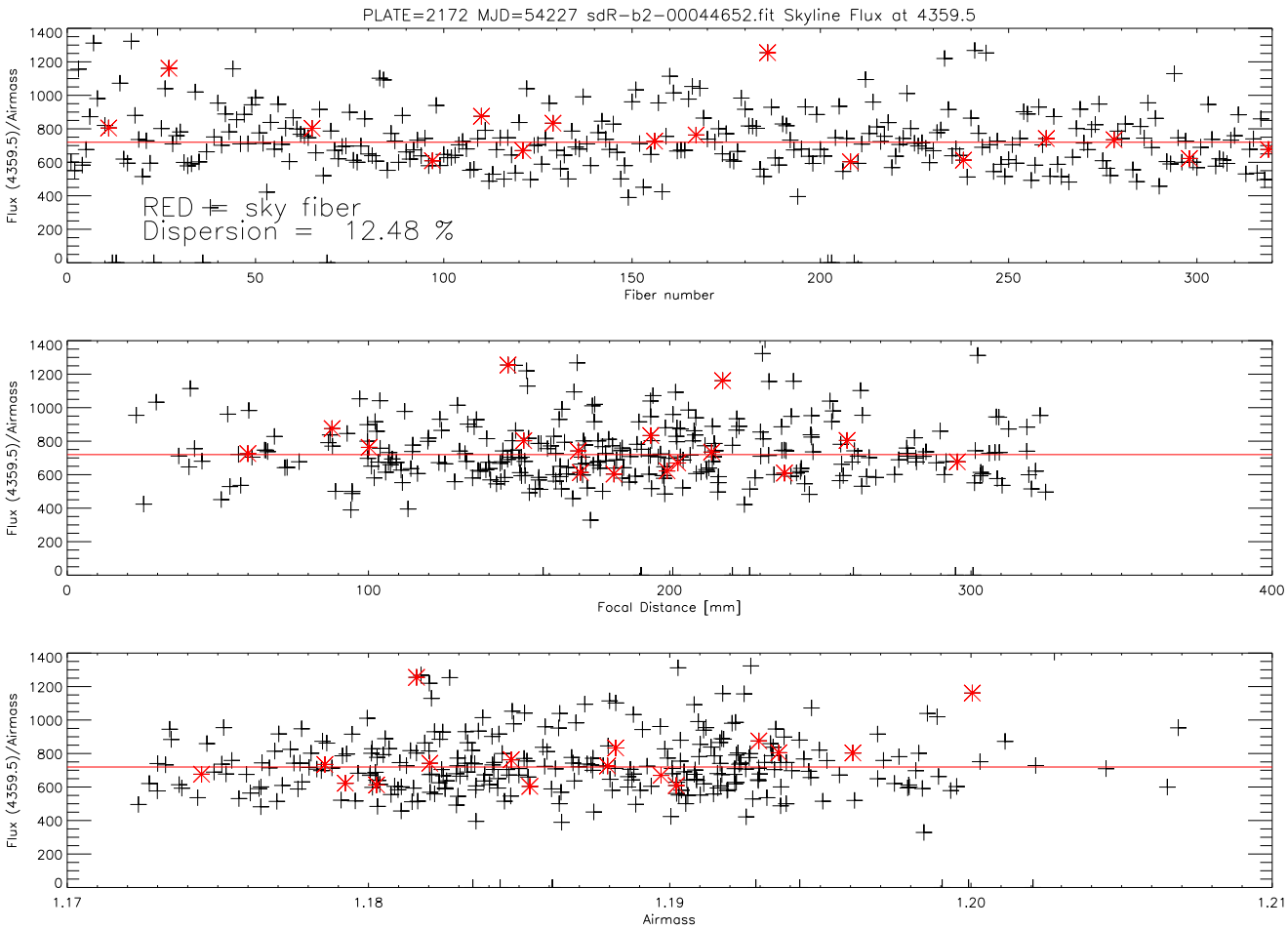

Number of sky fibers = 16
PLATE=2172 MJD=54227 sdR-b2-00044652.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

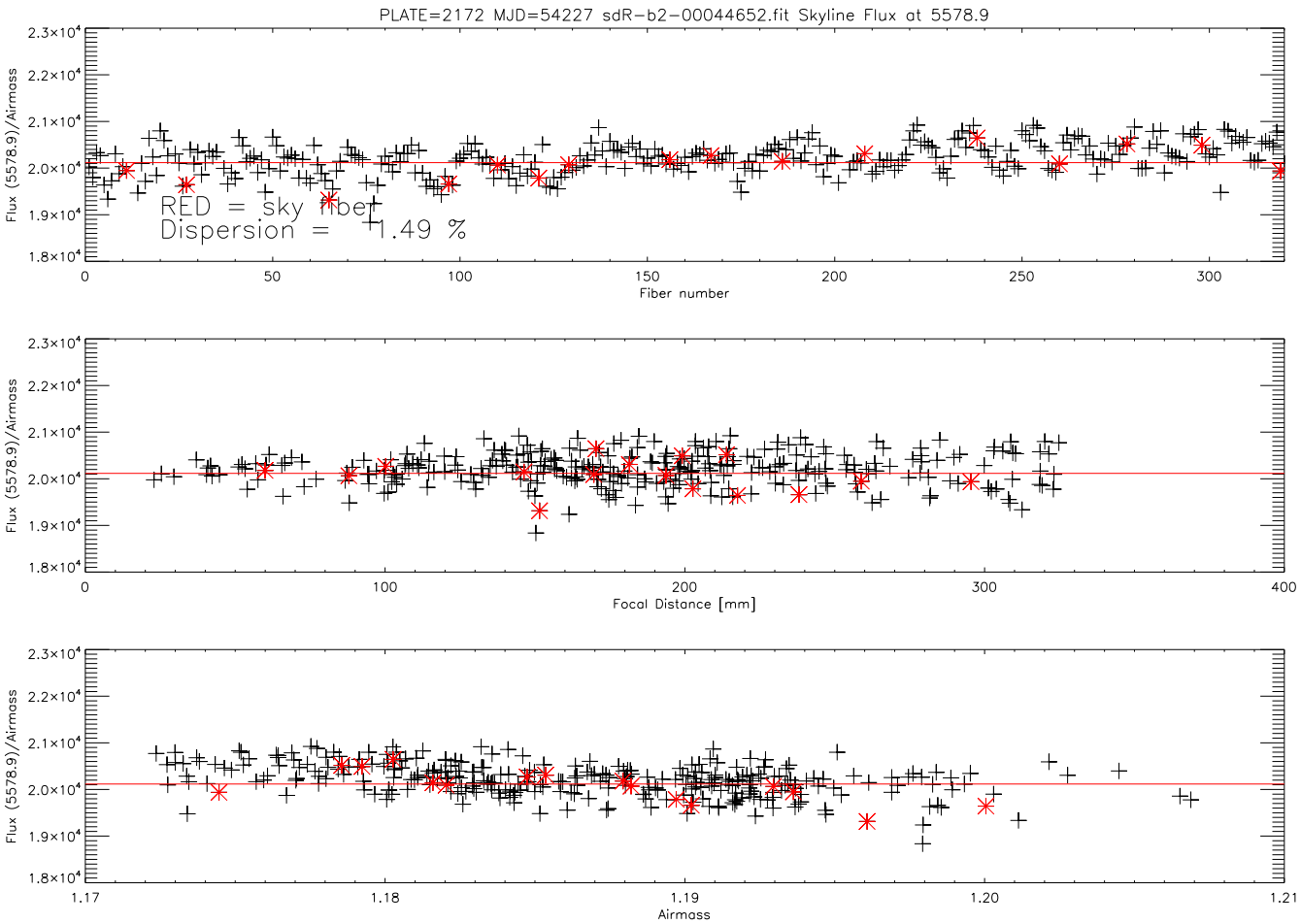

PLATE=2172 MJD=54227 sdR-b2-00044652.fit 2D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-6
-4
-2
0
2
4
6
8
50
100
150
200
250
300
Fiber number

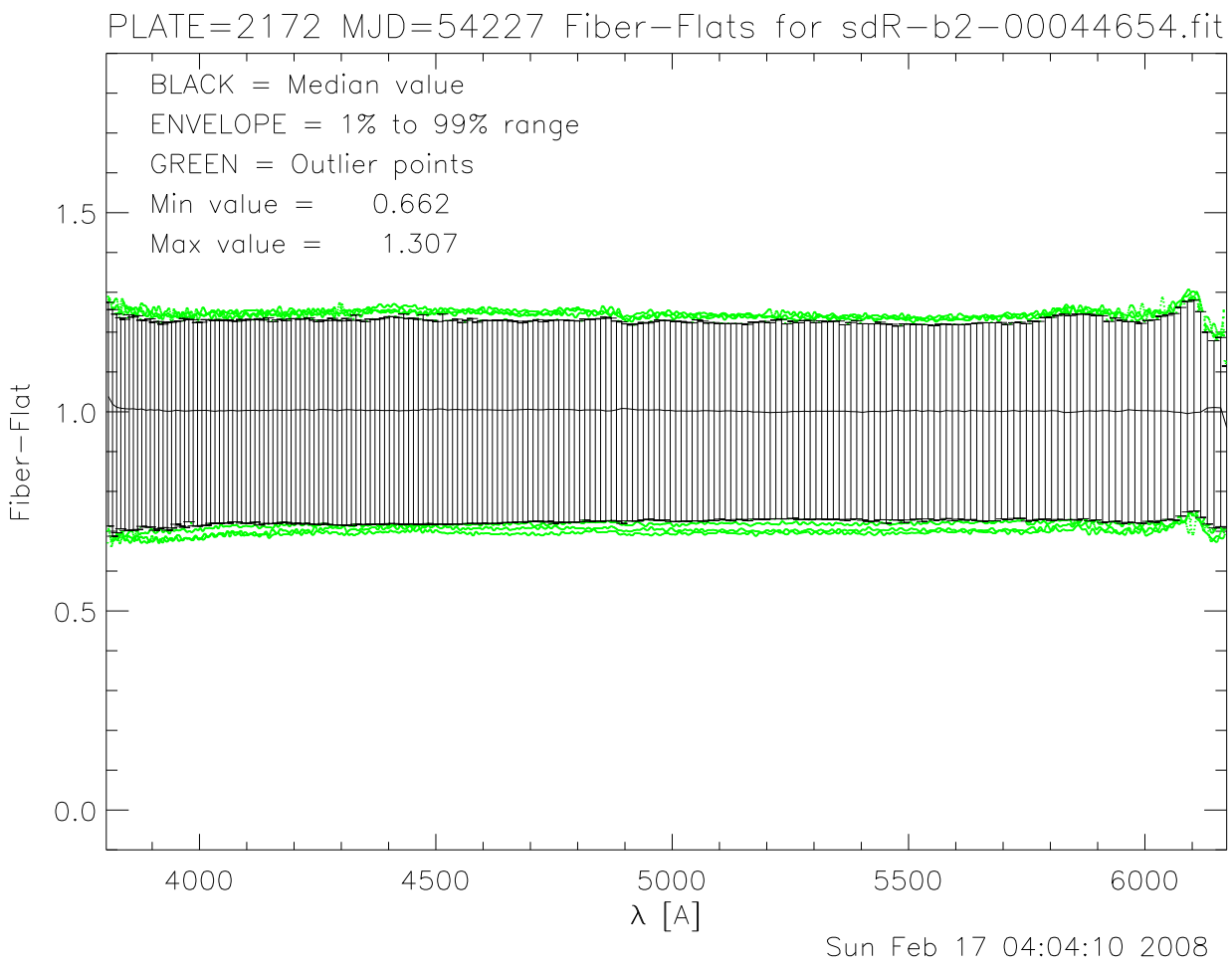

PLATE=2172 MJD=54227 sdR-b2-00044652.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
1.2×10^4
1.0×10^4
8.0×10^3
6.0×10^3
4.0×10^3
2.0×10^3
0
5570
5575
5580
5585
5590
λ [A]

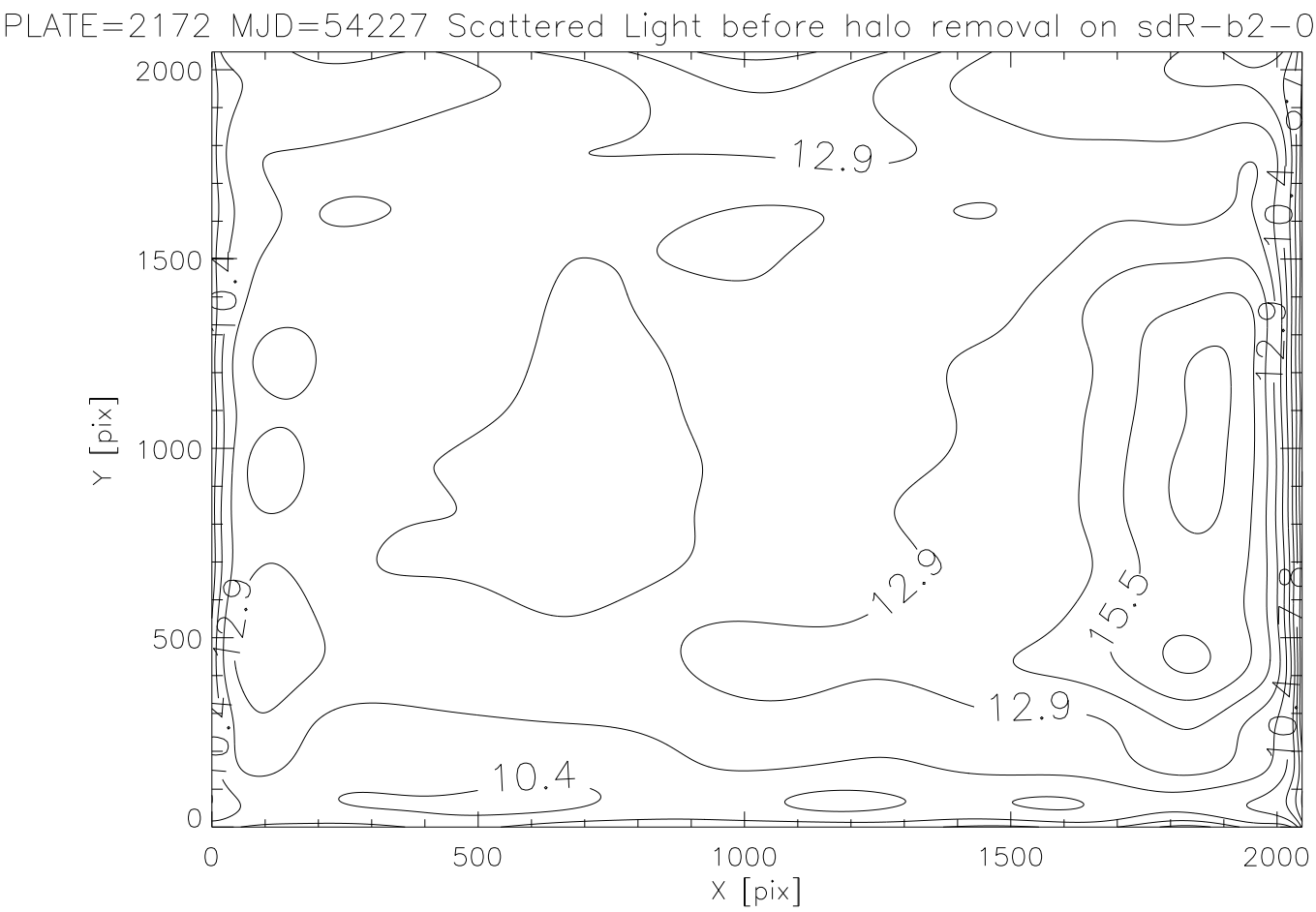

PLATE=2172 MJD=54227 sdR-b2-00044652.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
−200
−400
−600
−800
5570
5575
5580
5585
5590
λ [A]

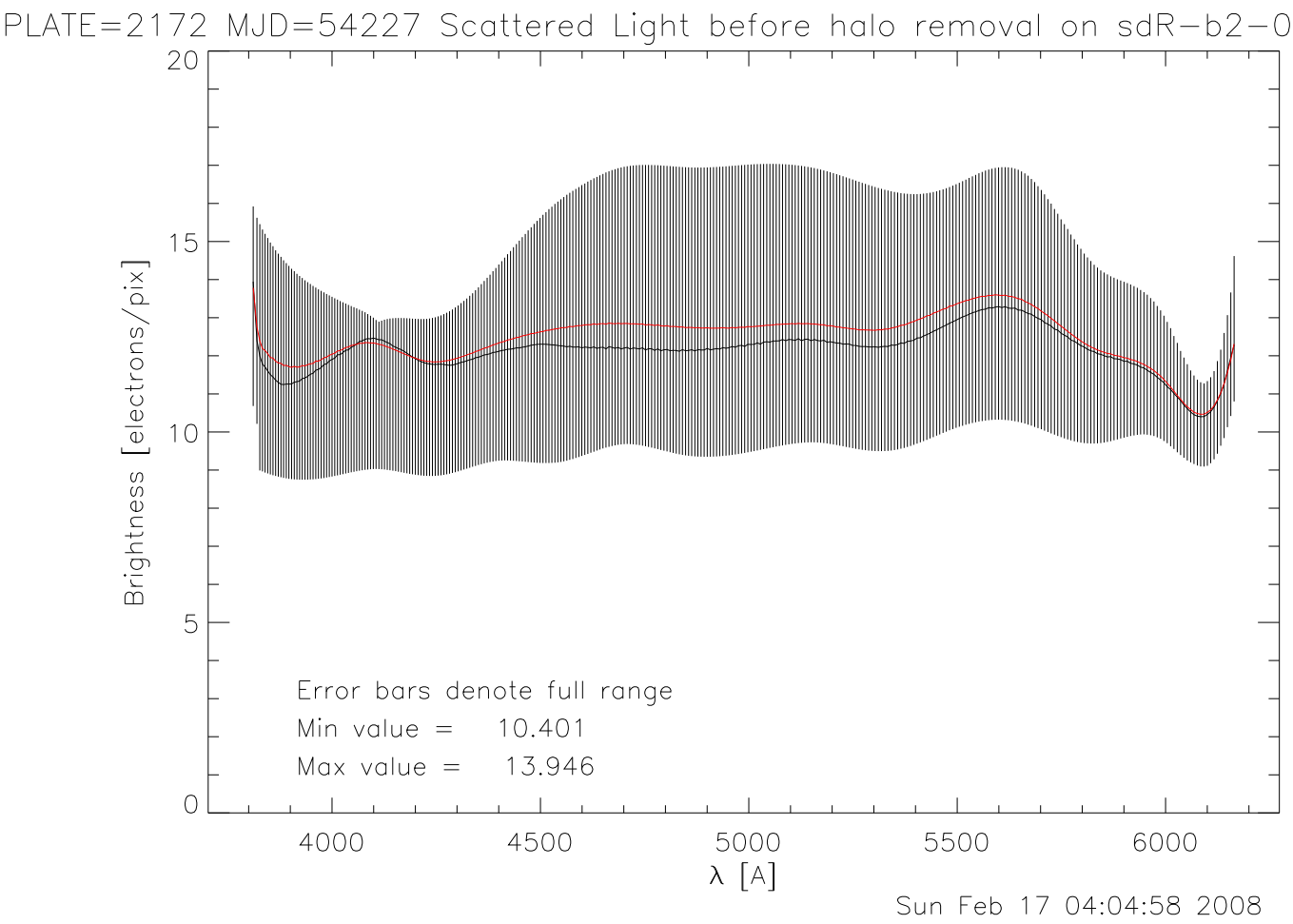

Number of sky fibers = 16
PLATE=2172 MJD=54227 sdR-b2-00044652.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

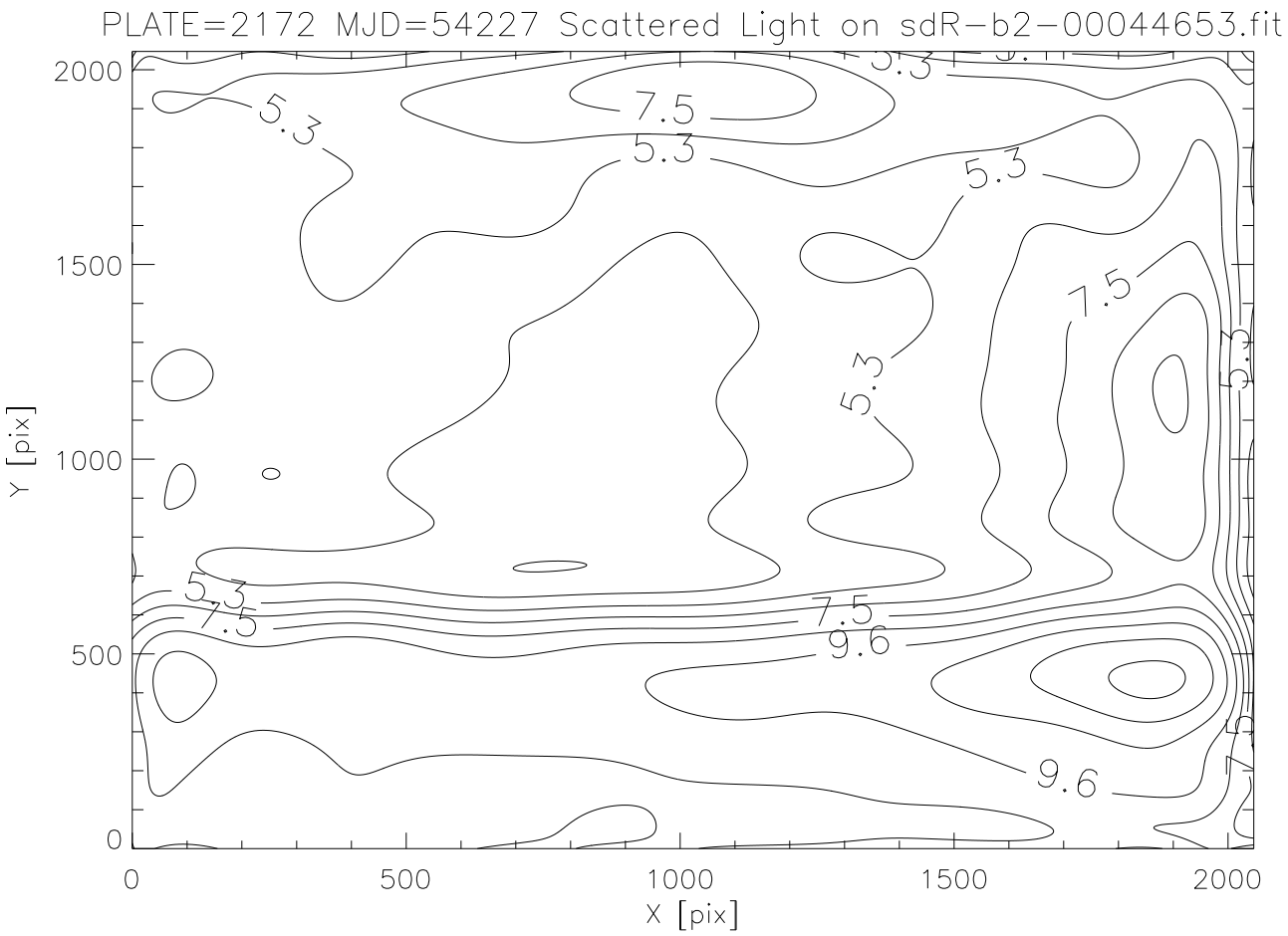

PLATE=2172 MJD=54227 sdR-b2-00044652.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 12.48 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

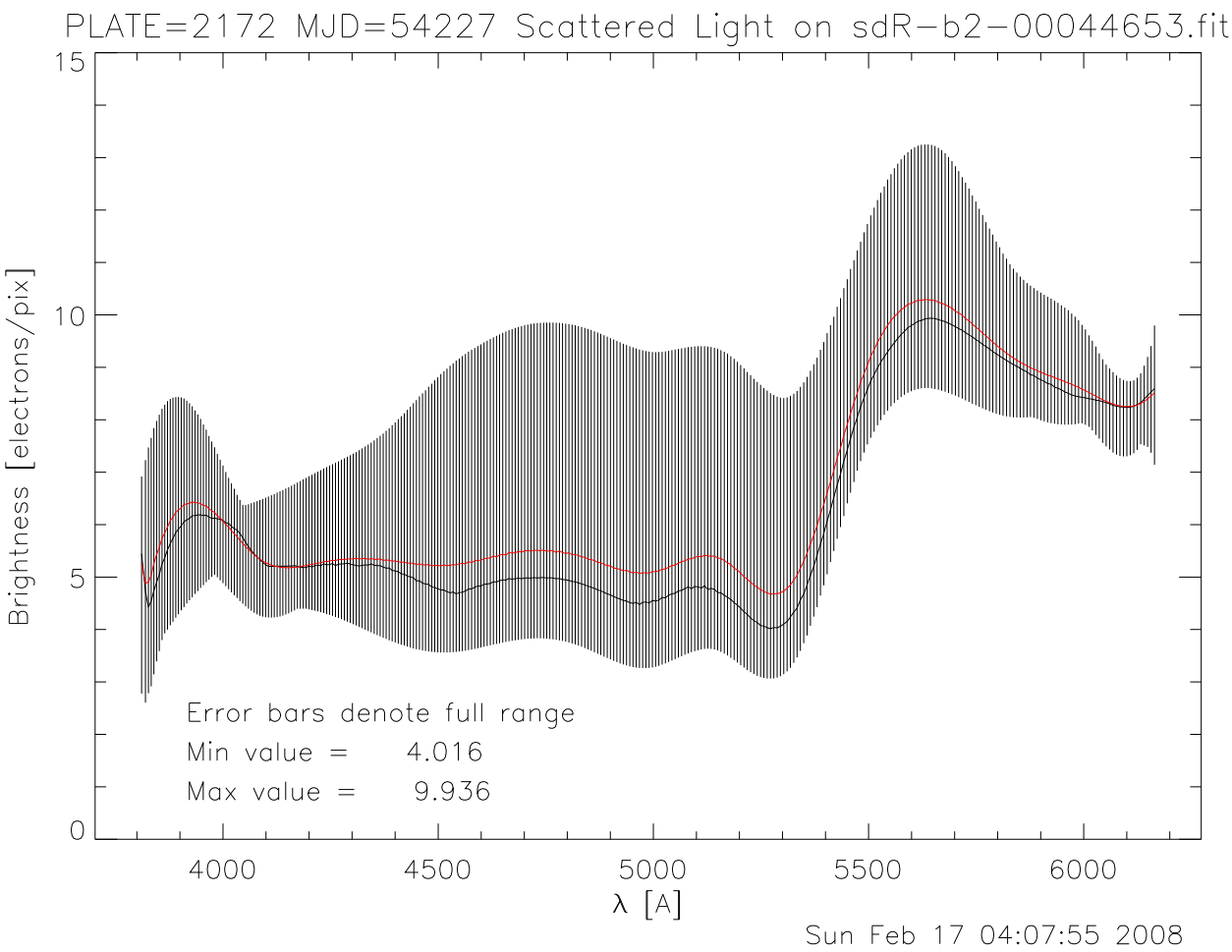

PLATE=2172 MJD=54227 sdR-b2-00044652.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 1.49 %
Fiber number
Focal Distance [mm]
Airmass

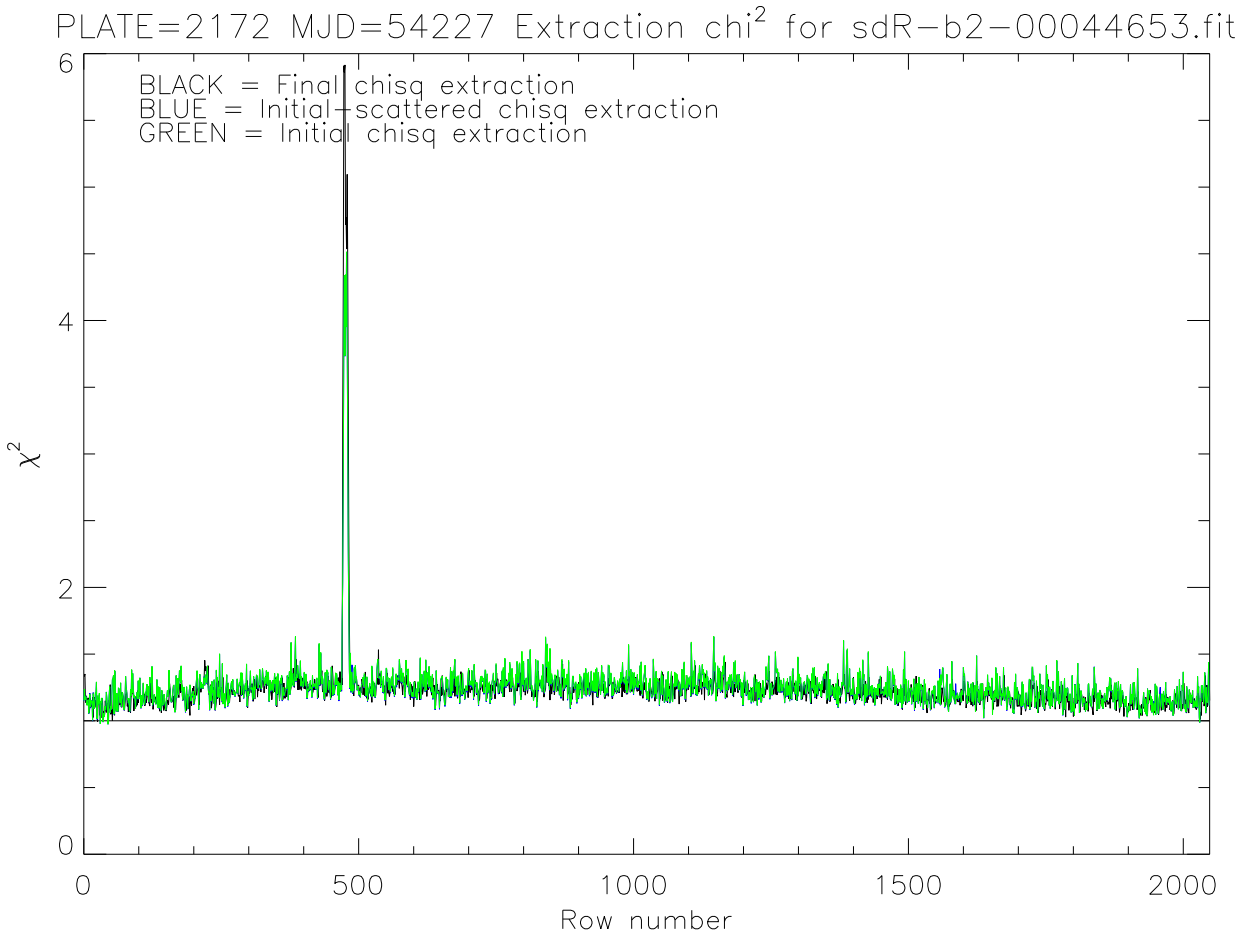

PLATE=2172 MJD=54227 Fiber-Flats for sdR-b2-00044654.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.662
Max value = 1.307
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Sun Feb 17 04:04:10 2008

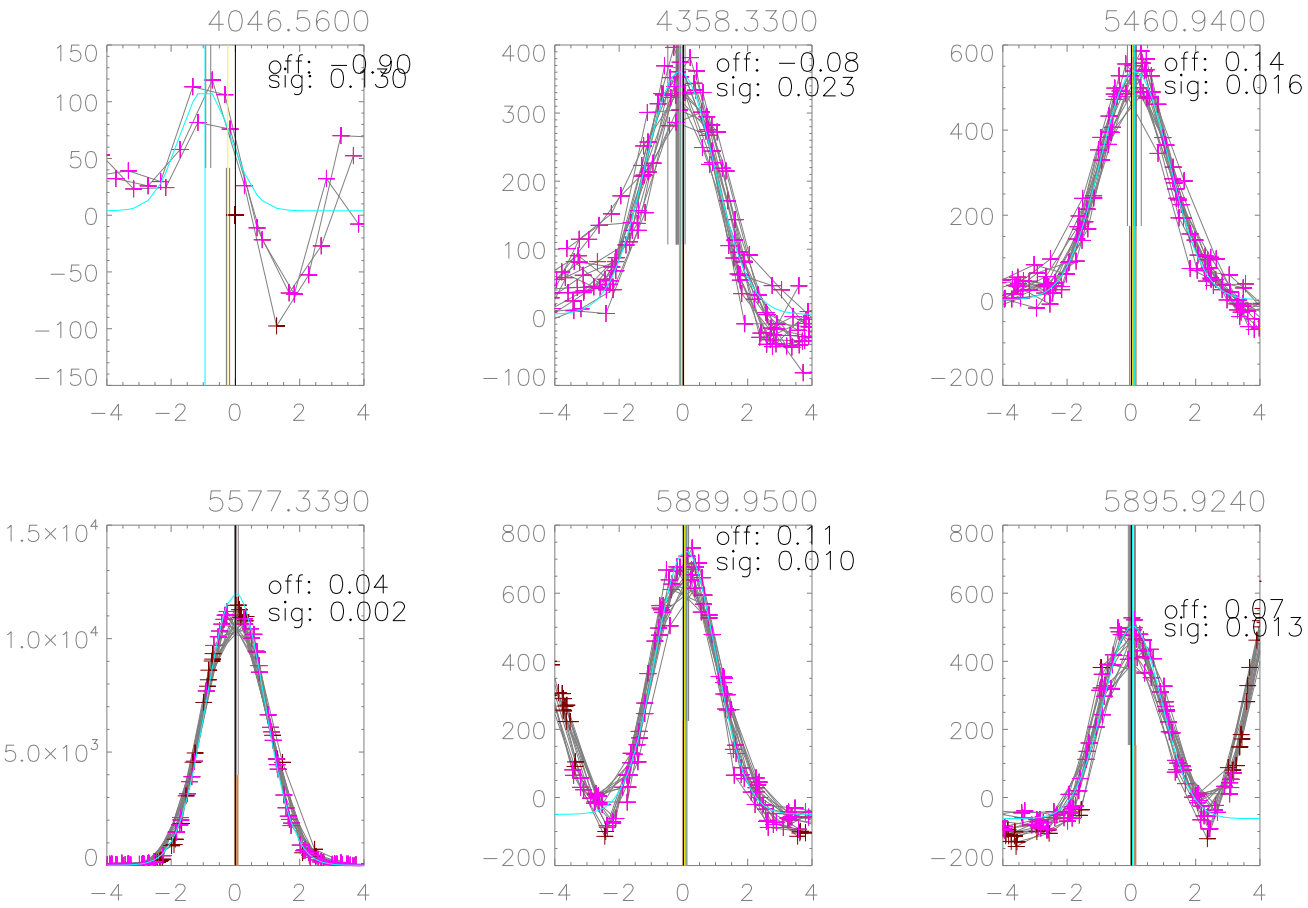

PLATE=2172 MJD=54227 Scattered Light before halo removal on sdR-b2-00044653.f
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
12.9
10.4
12.9
12.9
15.5
12.9
10.4

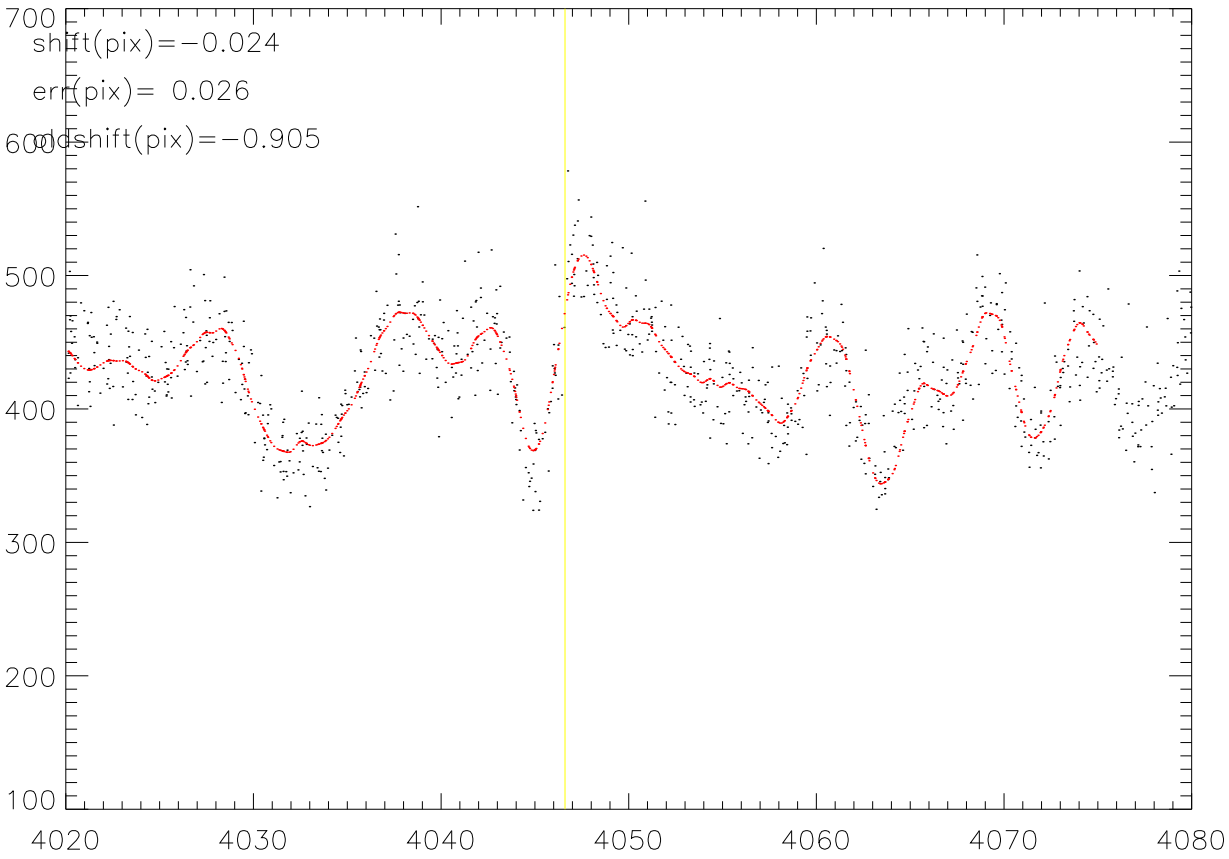

PLATE=2172 MJD=54227 Scattered Light before halo removal on sdR−b2−00044653.f
Brightness [electrons/pix]
20
15
10
5
0
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 10.401
Max value = 13.946
Sun Feb 17 04:04:58 2008

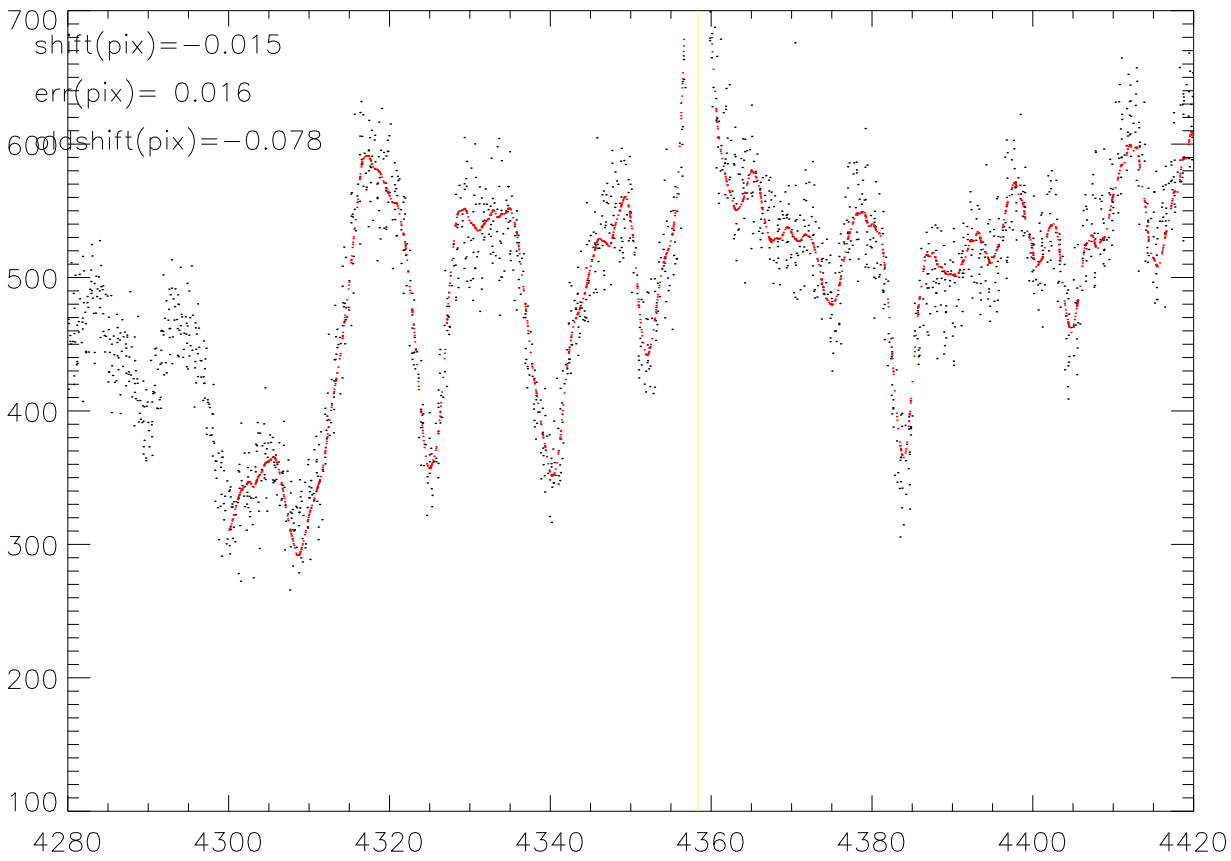

PLATE=2172 MJD=54227 Scattered Light on sdR-b2-00044653.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
5.3
7.5
9.6

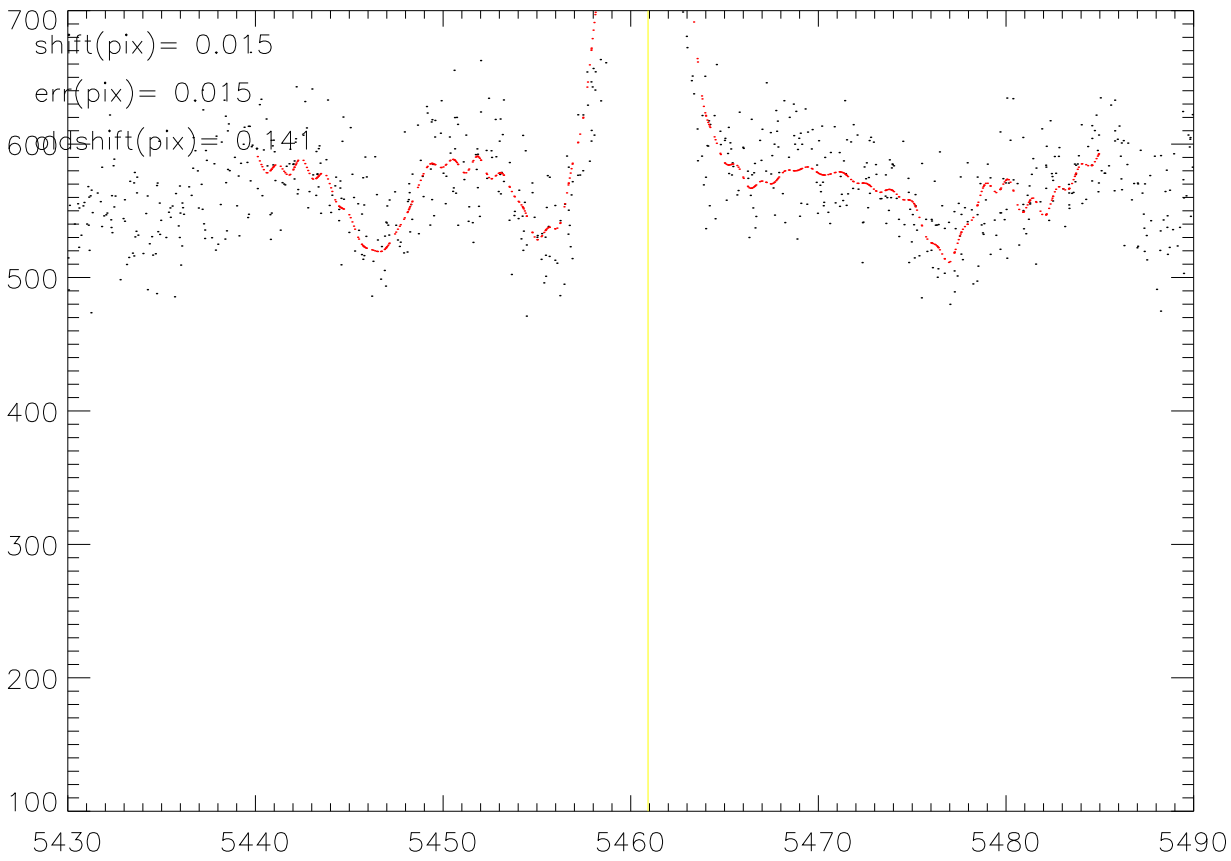

PLATE=2172 MJD=54227 Scattered Light on sdR-b2-00044653.fit
Brightness [electrons/pix]
15
10
5
0
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 4.016
Max value = 9.936
Sun Feb 17 04:07:55 2008

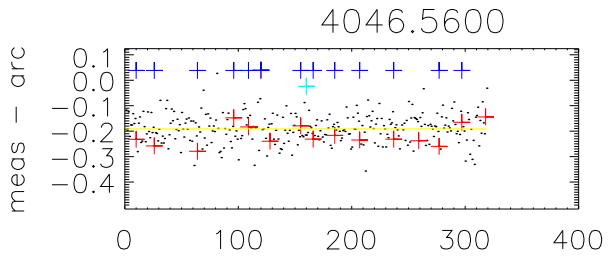

PLATE=2172 MJD=54227 Extraction chi^2 for sdR-b2-00044653.fit
BLACK = Final chisq extraction
BLUE = Initial+scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
0
500
1000
1500
2000
Row number

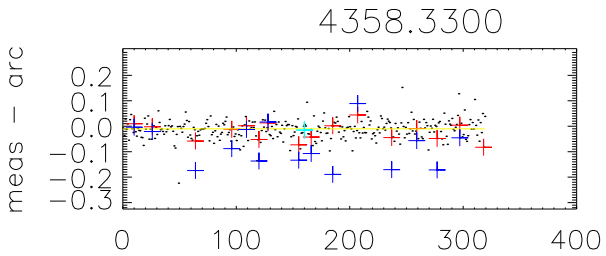

4046.5600
off: −0.90
sig: 0.130
4358.3300
off: −0.08
sig: 0.023
5460.9400
off: 0.14
sig: 0.016
5577.3390
off: 0.04
sig: 0.002
5889.9500
off: 0.11
sig: 0.010
5895.9240
off: 0.07
sig: 0.013

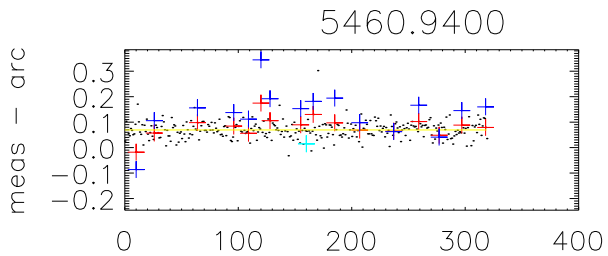

shift(pix)=−0.024
err(pix)= 0.026
oldshift(pix)=−0.905
700
600
500
400
300
200
100
4020
4030
4040
4050
4060
4070
4080

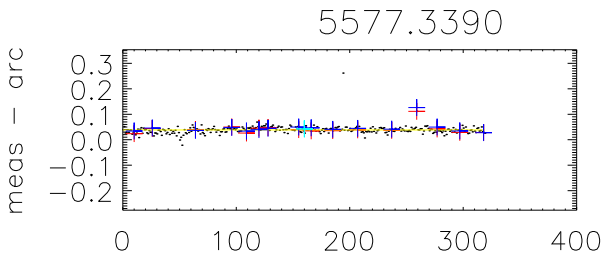

shift(pix)=−0.015
err(pix)= 0.016
oldshift(pix)=−0.078
700
600
500
400
300
200
100
4280
4300
4320
4340
4360
4380
4400
4420

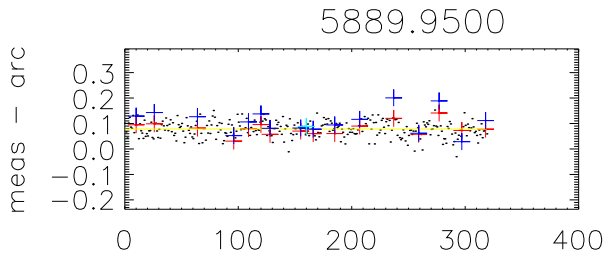

shift(pix)= 0.015
err(pix)= 0.015
oldshift(pix)= 0.141
700
600
500
400
300
200
100
5430
5440
5450
5460
5470
5480
5490

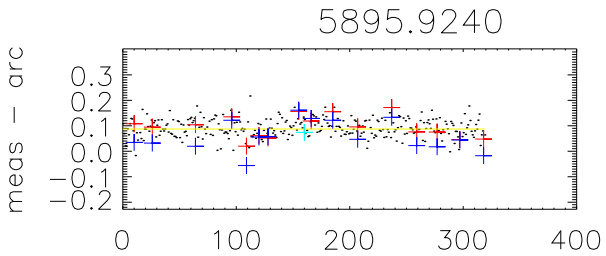

4046.5600
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

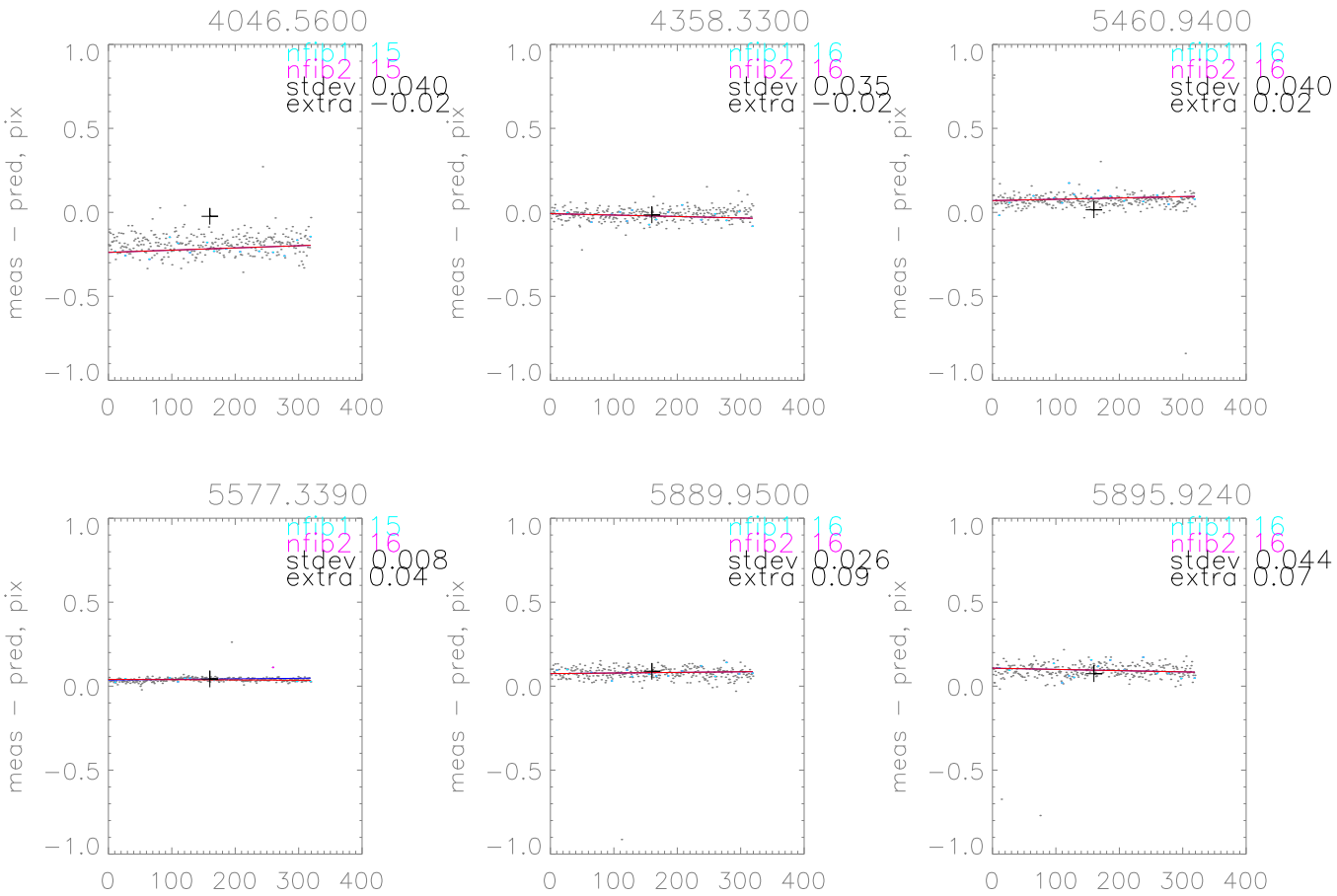

4358.3300
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

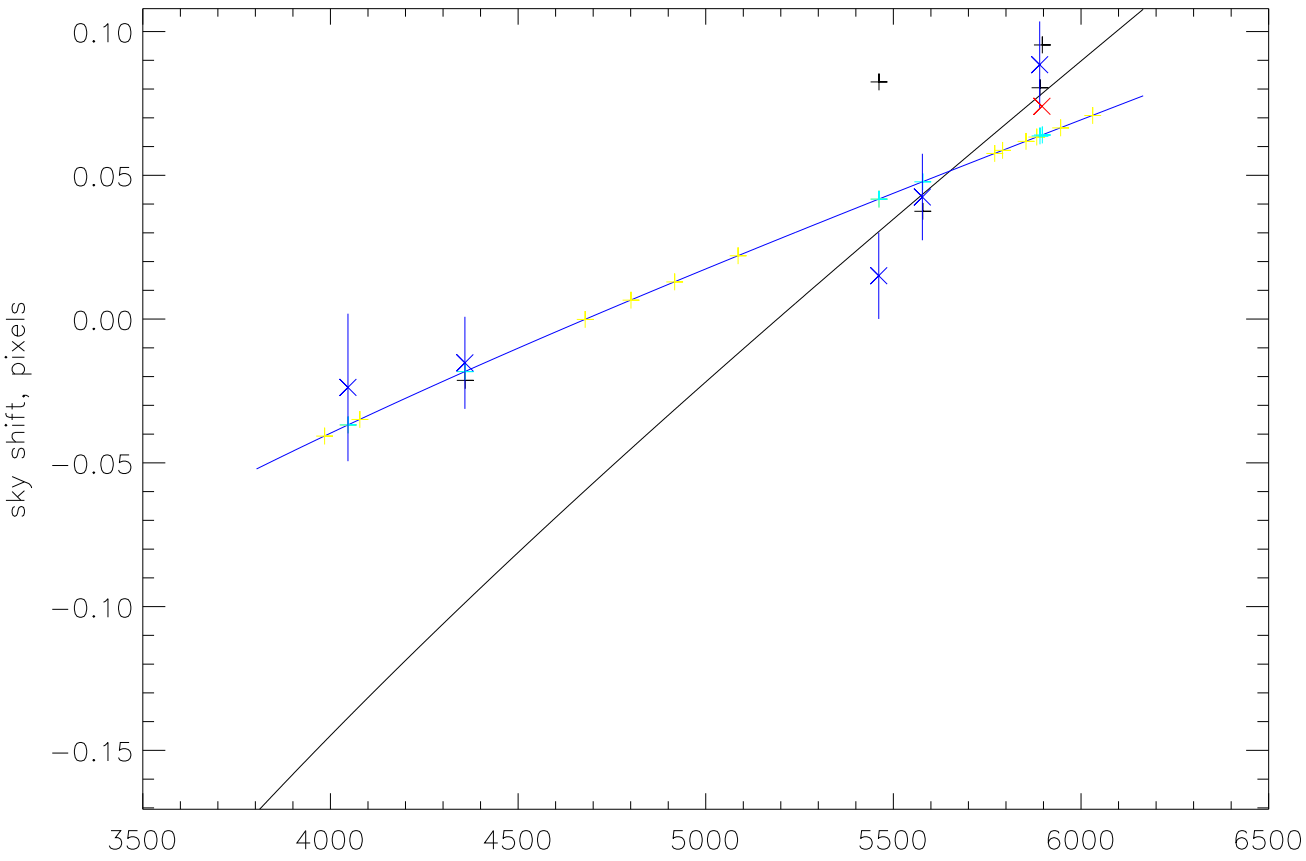

5460.9400
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

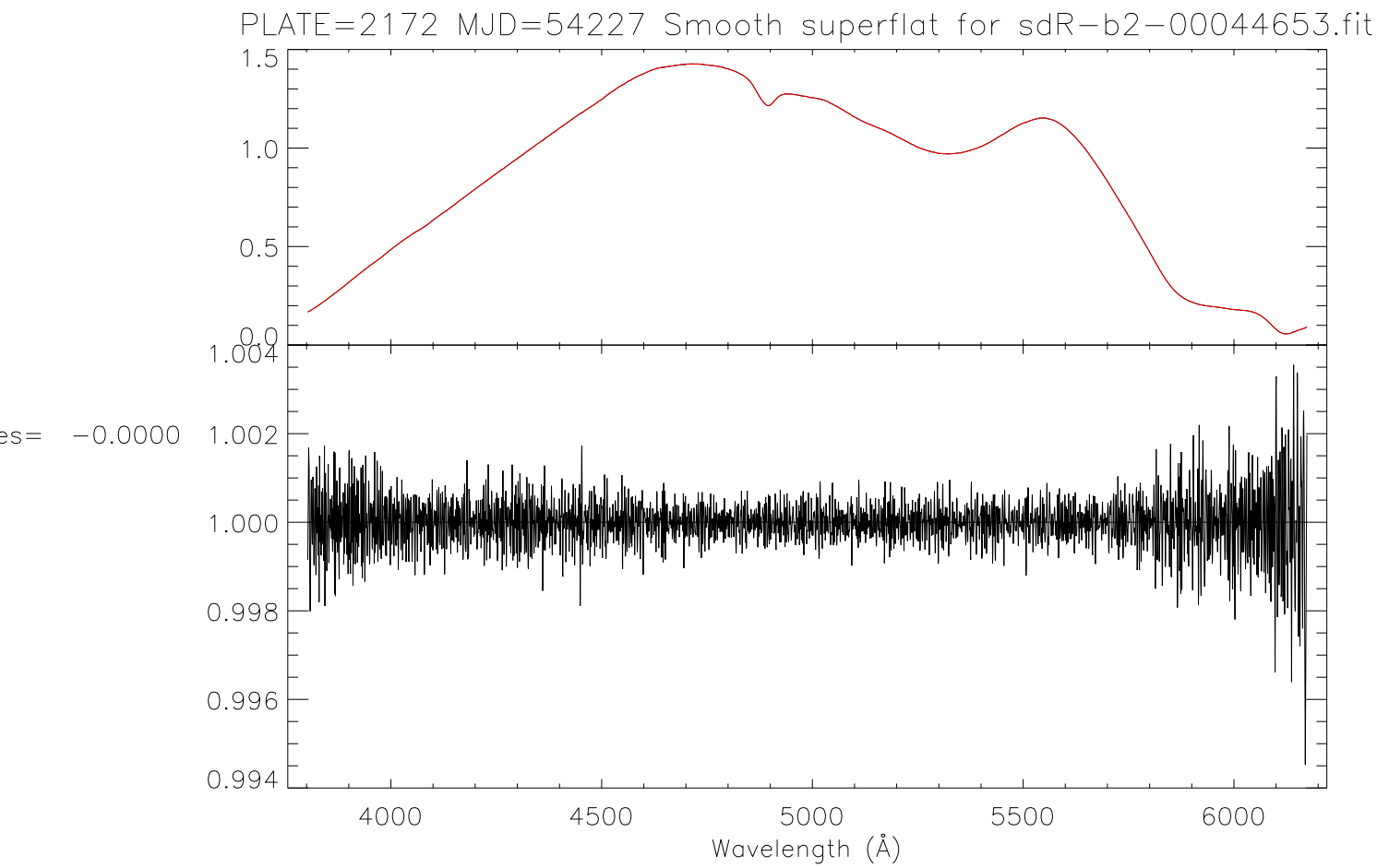

5577.3390
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

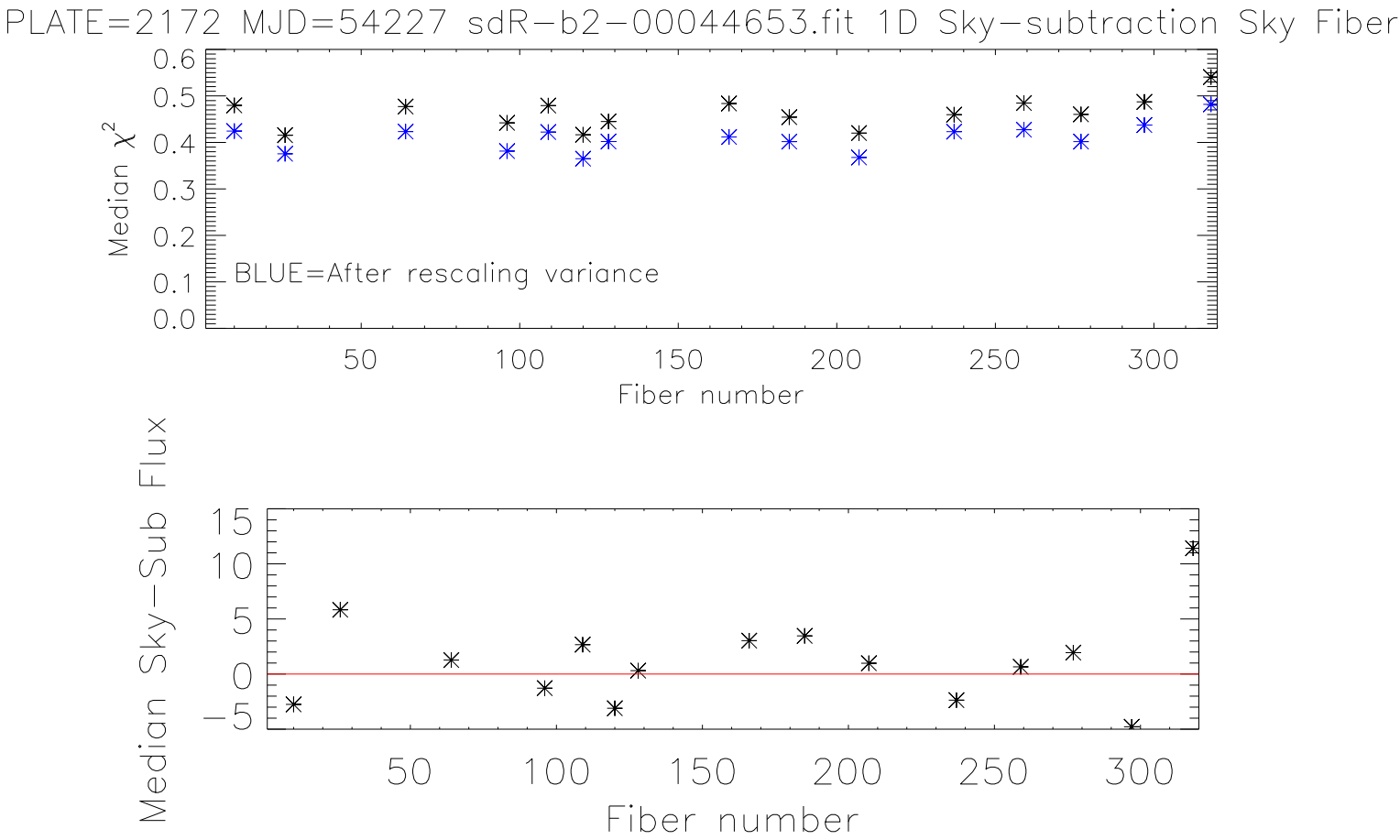

5889.9500
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

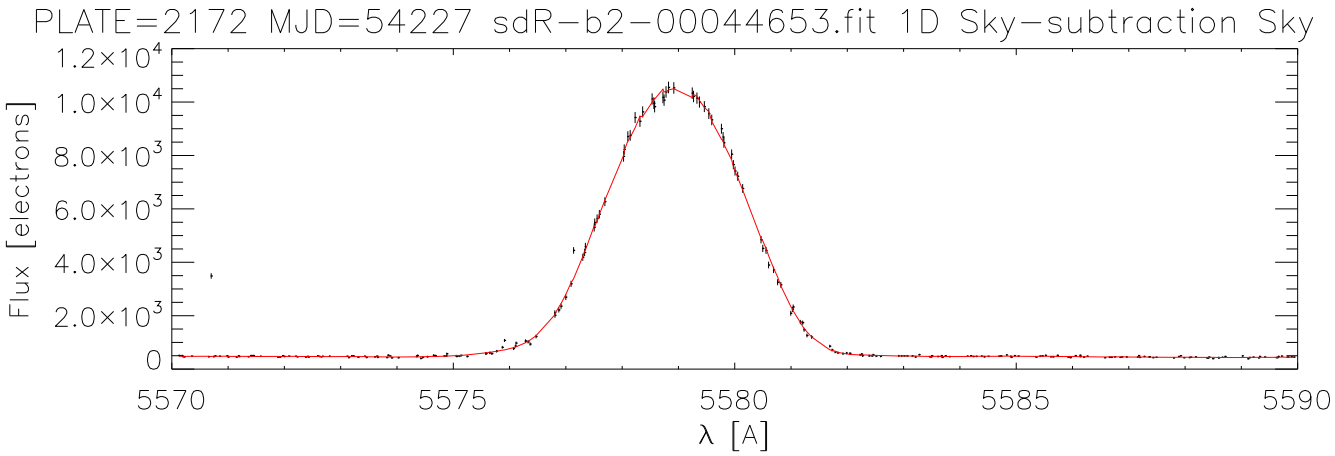

5895.9240
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

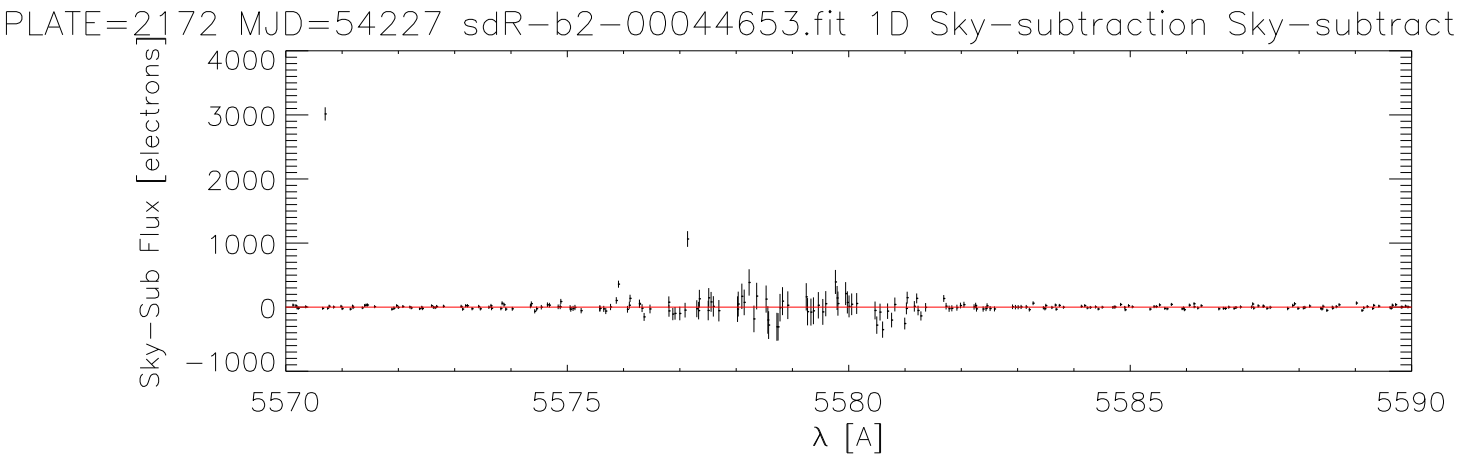

4046.5600
nfib1 15
nfib2 15
stdev 0.040
extra −0.02
4358.3300
nfib1 16
nfib2 16
stdev 0.035
extra −0.02
5460.9400
nfib1 16
nfib2 16
stdev 0.040
extra 0.02
5577.3390
nfib1 15
nfib2 16
stdev 0.008
extra 0.04
5889.9500
nfib1 16
nfib2 16
stdev 0.026
extra 0.09
5895.9240
nfib1 16
nfib2 16
stdev 0.044
extra 0.07
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

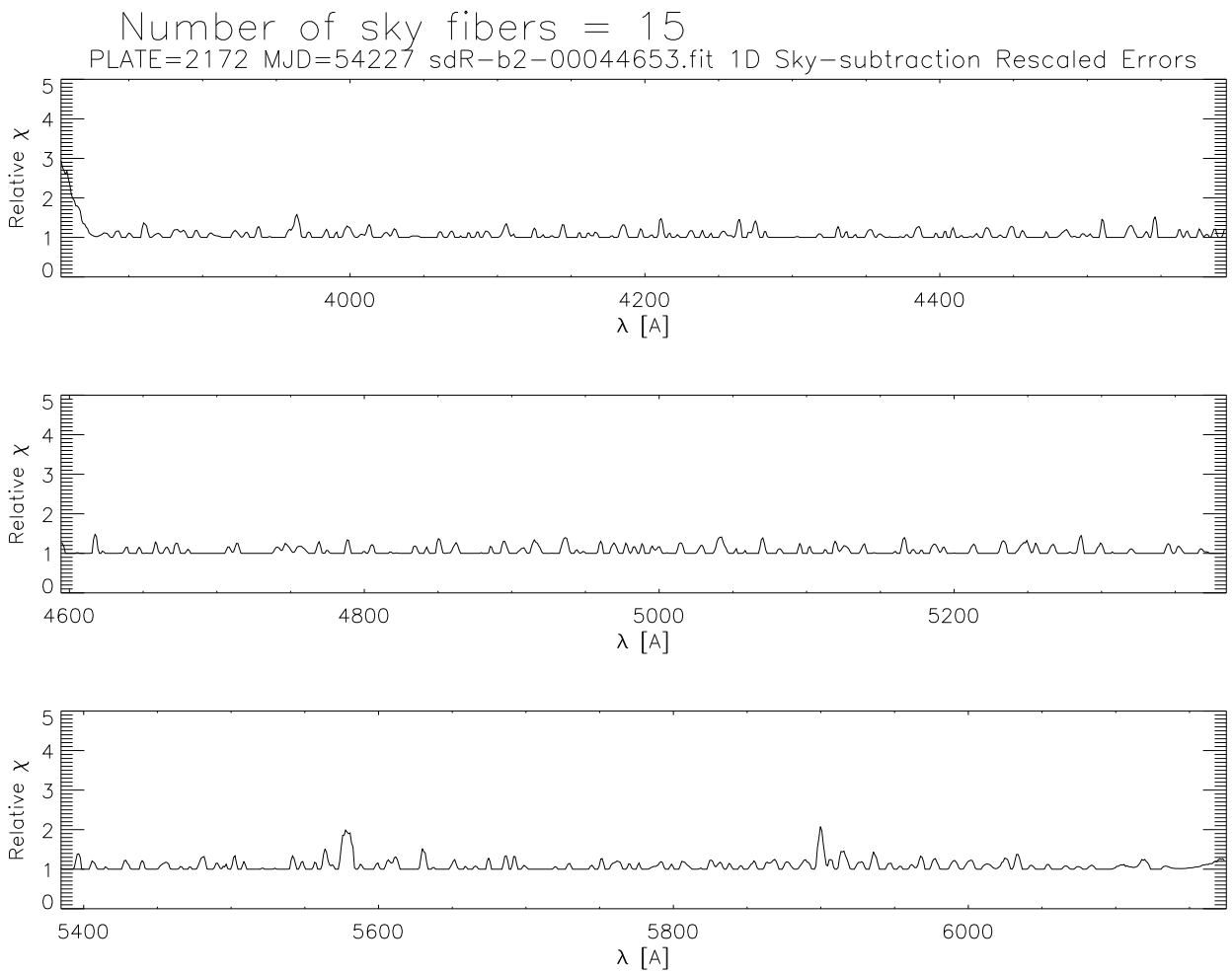

0.10
0.05
0.00
−0.05
−0.10
−0.15
sky shift, pixels
3500
4000
4500
5000
5500
6000
6500

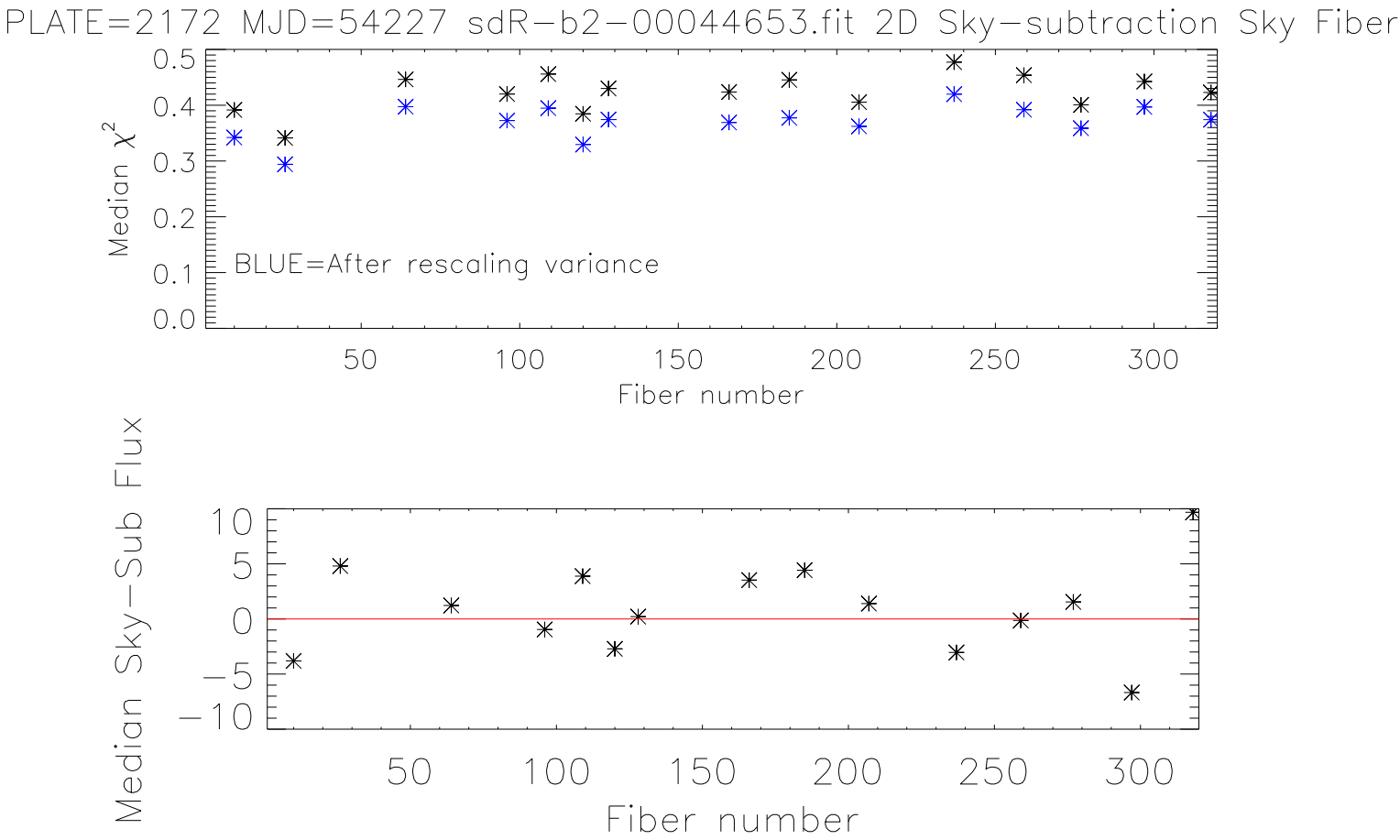

PLATE=2172 MJD=54227 Smooth superflat for sdR-b2-00044653.fit
1.5
1.0
0.5
0.0
1.004
1.002
1.000
0.998
0.996
0.994
es= −0.0000
4000
4500
5000
5500
6000
Wavelength (Å)

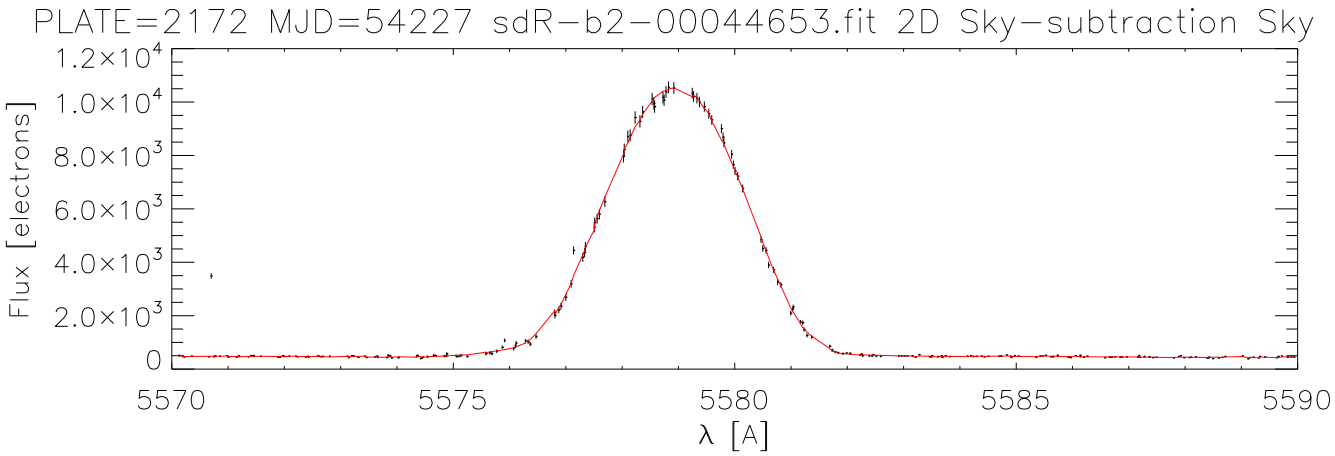

PLATE=2172 MJD=54227 sdR-b2-00044653.fit 1D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

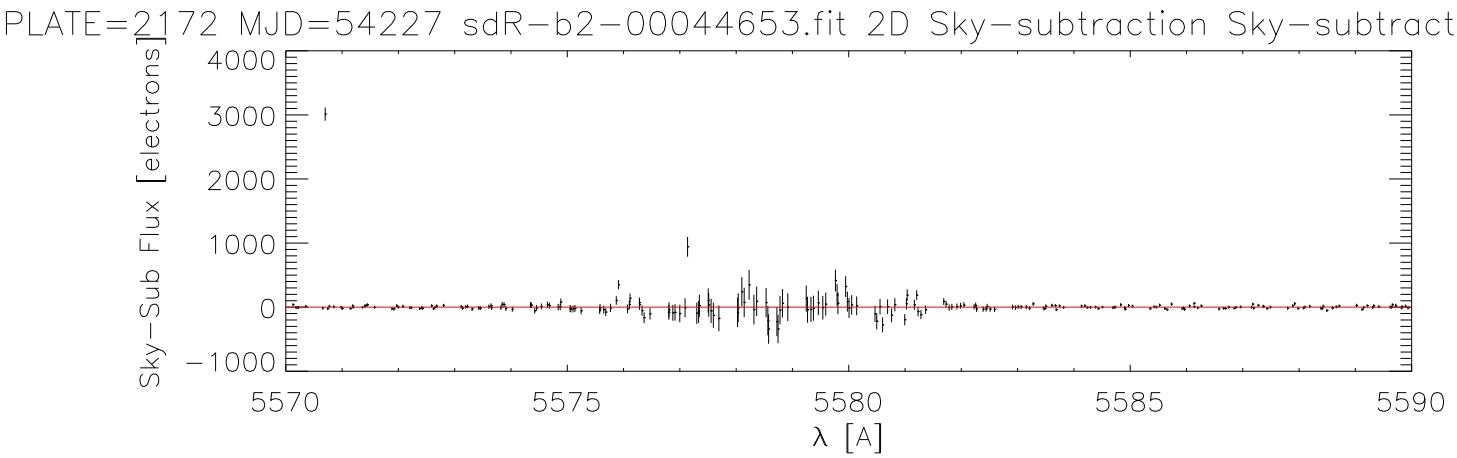

PLATE=2172 MJD=54227 sdR-b2-00044653.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
1.2×10^4
1.0×10^4
8.0×10^3
6.0×10^3
4.0×10^3
2.0×10^3
0
5570
5575
5580
5585
5590
λ [A]

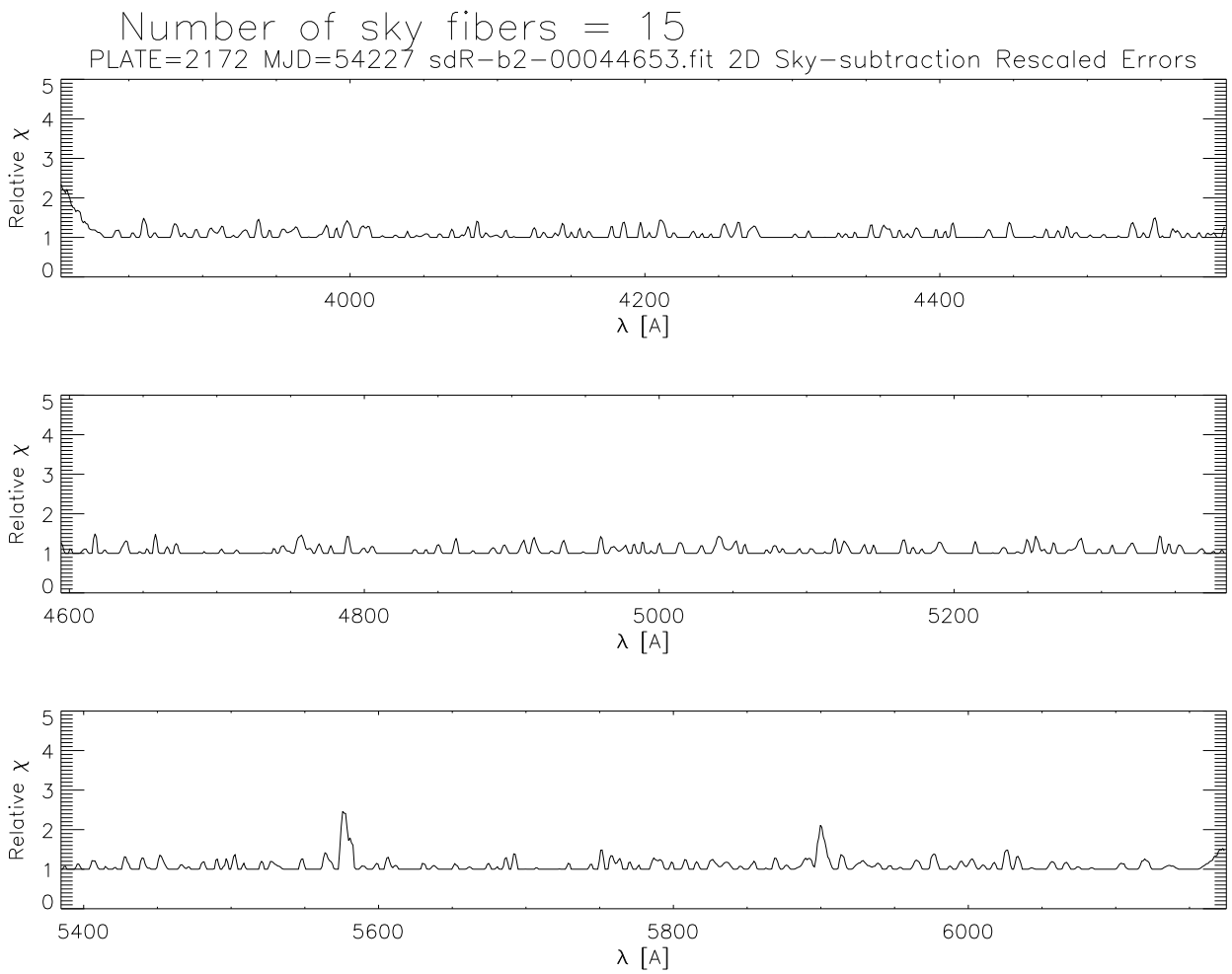

PLATE=2172 MJD=54227 sdR-b2-00044653.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
4000
3000
2000
1000
0
−1000
5570
5575
5580
5585
5590
λ [A]

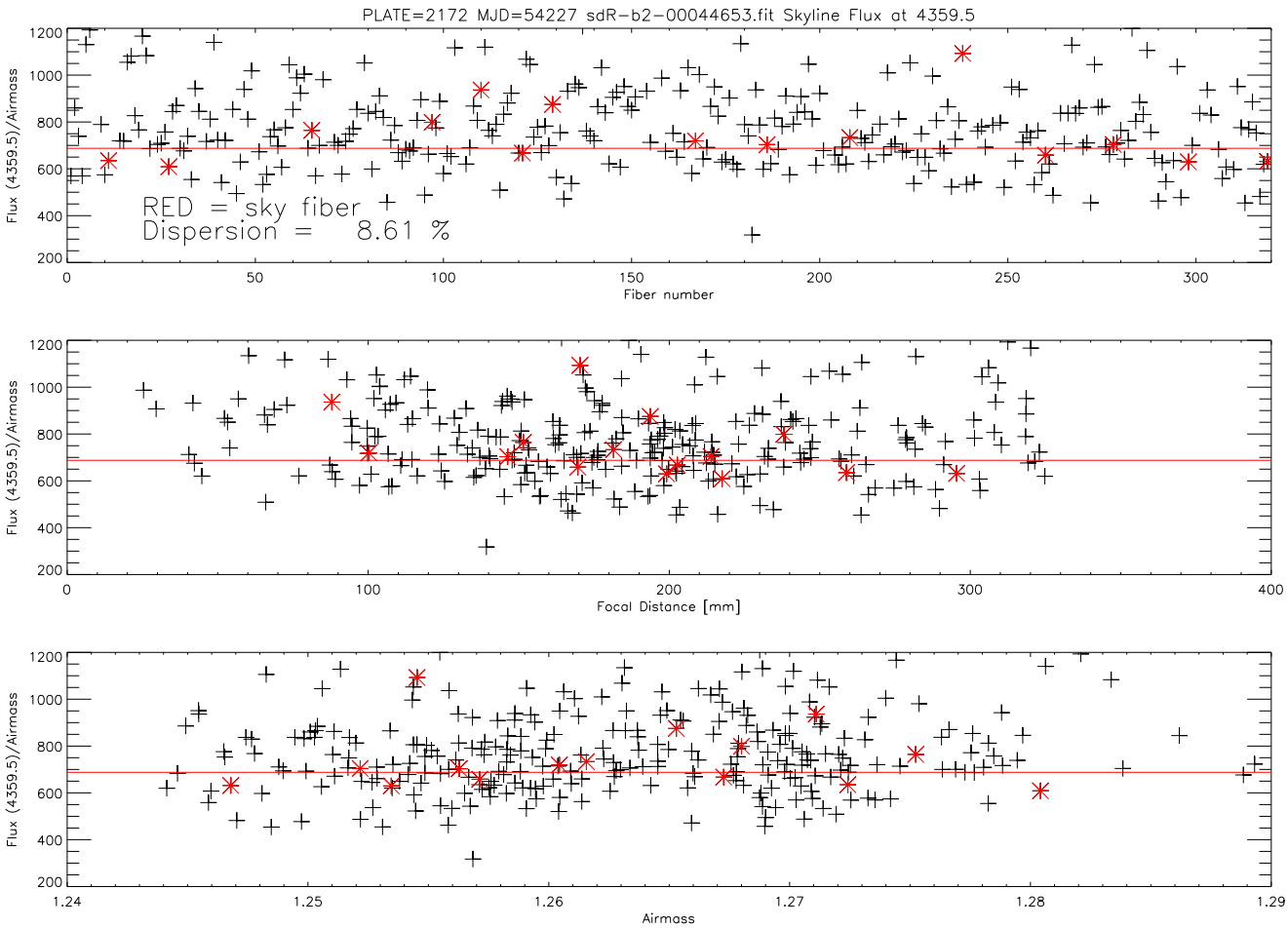

Number of sky fibers = 15
PLATE=2172 MJD=54227 sdR-b2-00044653.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

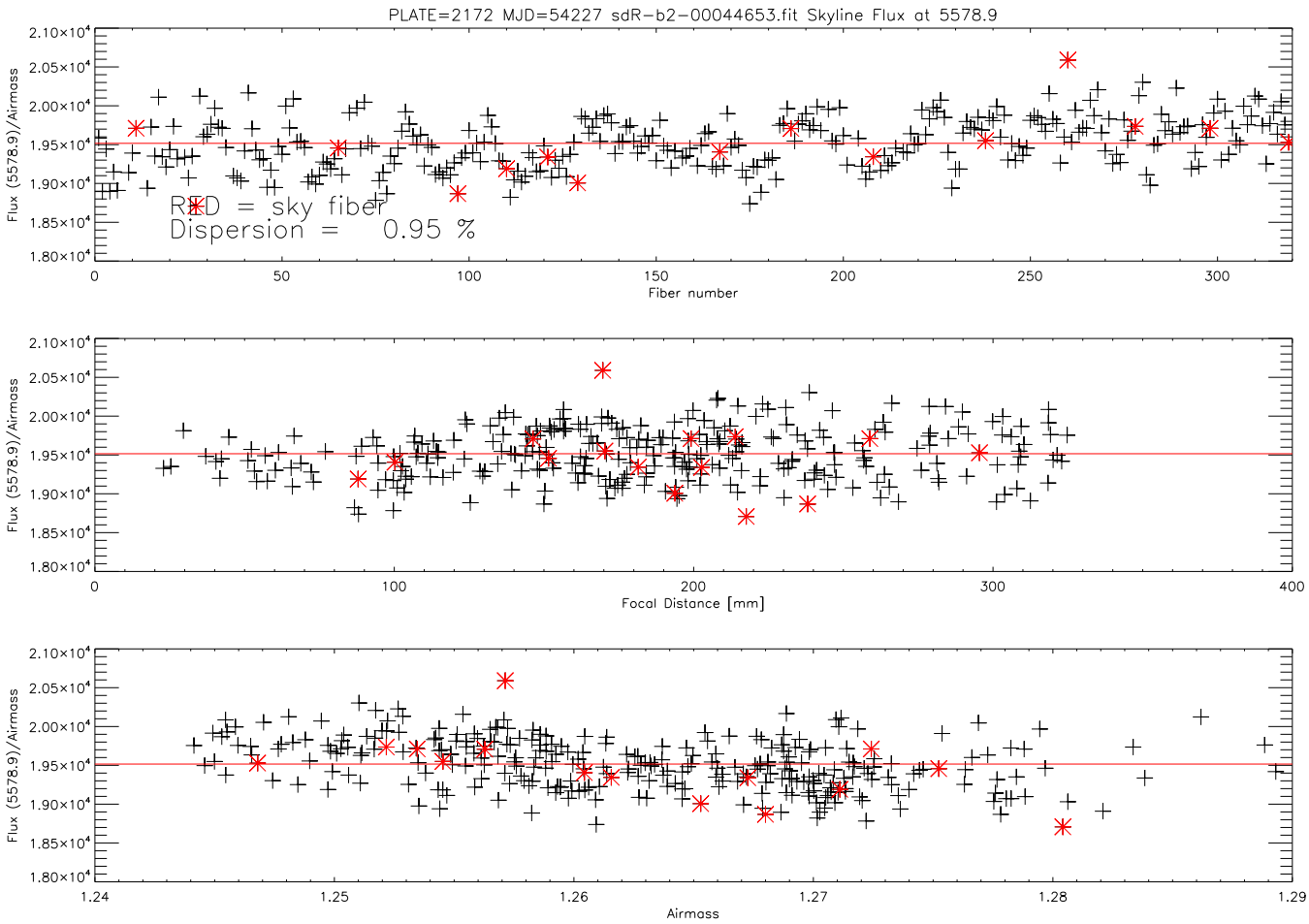

PLATE=2172 MJD=54227 sdR-b2-00044653.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

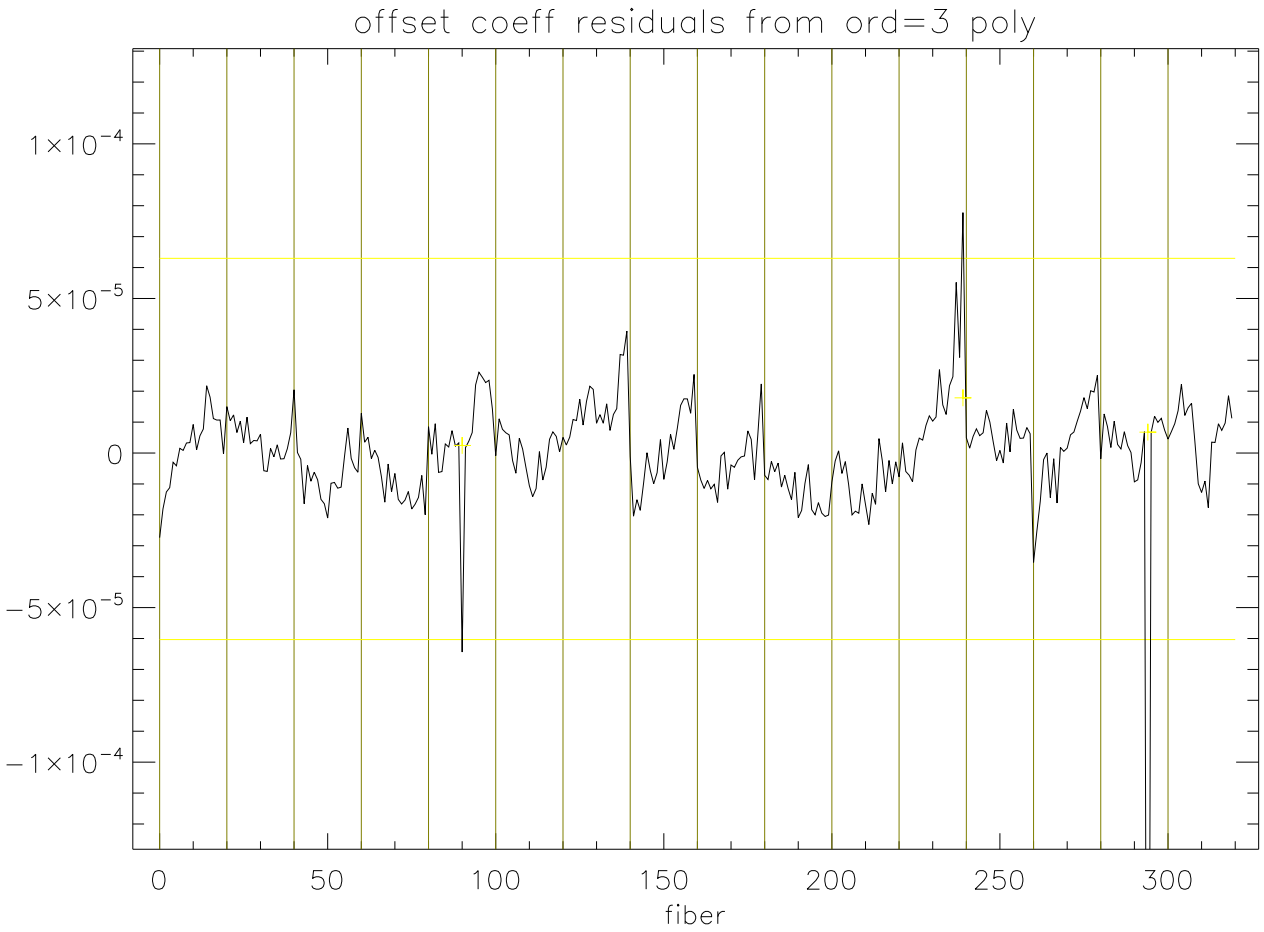

PLATE=2172 MJD=54227 sdR-b2-00044653.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
1.2×10^4
1.0×10^4
8.0×10^3
6.0×10^3
4.0×10^3
2.0×10^3
0
5570
5575
5580
5585
5590
λ [A]

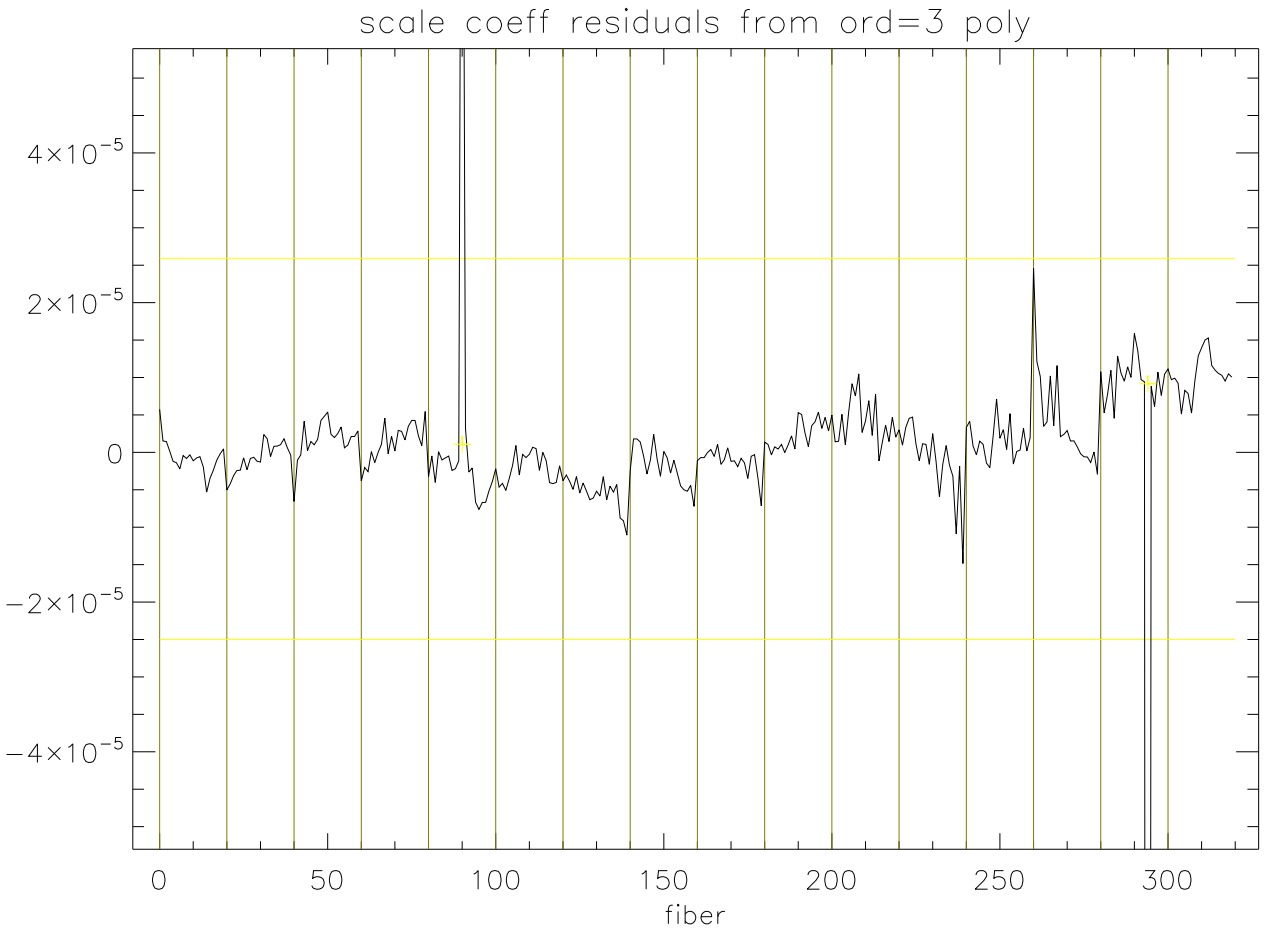

PLATE=2172 MJD=54227 sdR-b2-00044653.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
4000
3000
2000
1000
0
−1000
5570
5575
5580
5585
5590
λ [A]

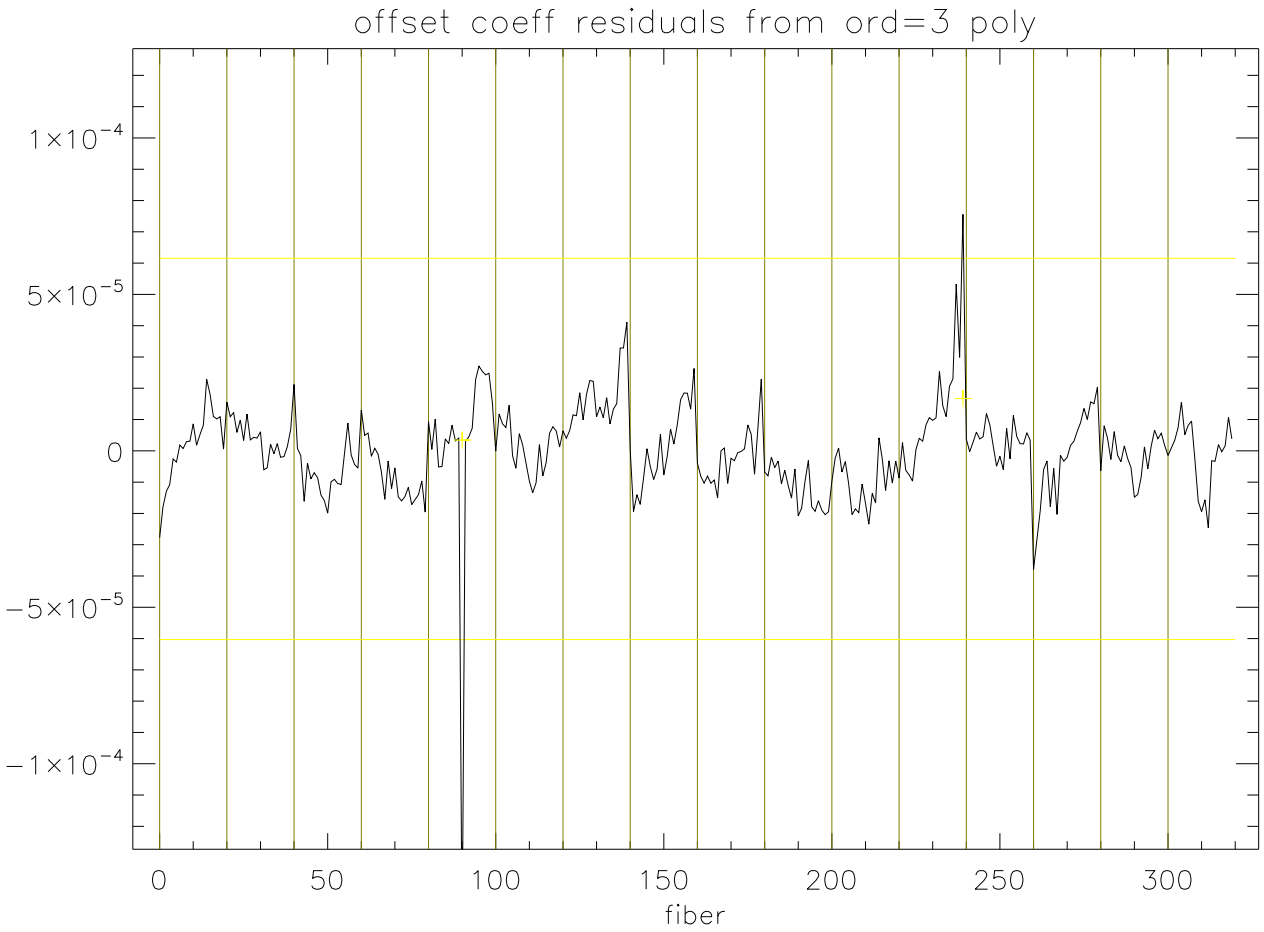

Number of sky fibers = 15
PLATE=2172 MJD=54227 sdR-b2-00044653.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

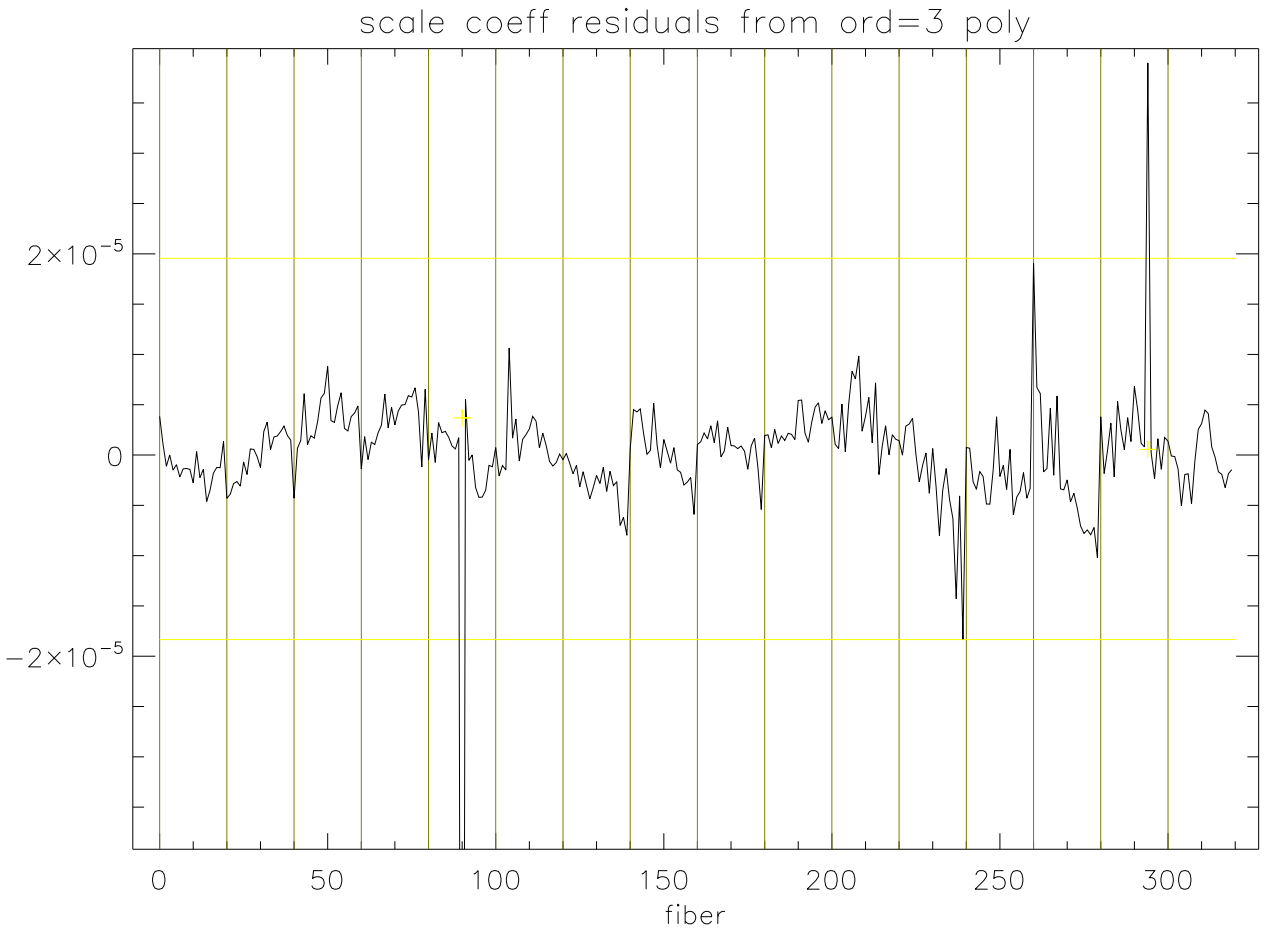

PLATE=2172 MJD=54227 sdR-b2-00044653.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
Fiber number
RED = sky fiber
Dispersion = 8.61 %
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

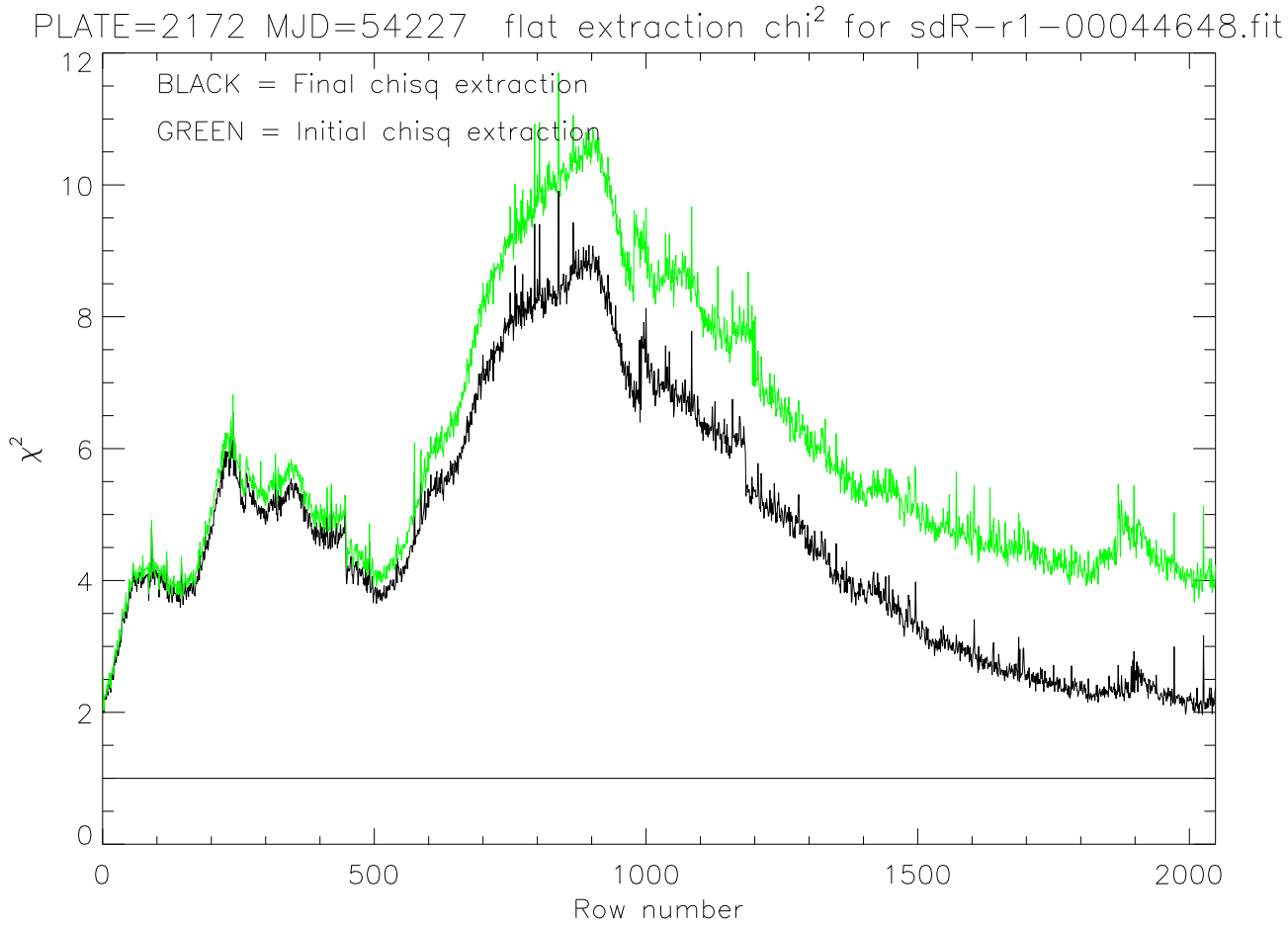

PLATE=2172 MJD=54227 sdR-b2-00044653.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
2.10×10⁴
2.05×10⁴
2.00×10⁴
1.95×10⁴
1.90×10⁴
1.85×10⁴
1.80×10⁴
RED = sky fiber
Dispersion = 0.95 %
0
50
100
150
200
250
300
Fiber number
Flux (5578.9)/Airmass
2.10×10⁴
2.05×10⁴
2.00×10⁴
1.95×10⁴
1.90×10⁴
1.85×10⁴
1.80×10⁴
0
100
200
300
400
Focal Distance [mm]
Flux (5578.9)/Airmass
2.10×10⁴
2.05×10⁴
2.00×10⁴
1.95×10⁴
1.90×10⁴
1.85×10⁴
1.80×10⁴
1.24
1.25
1.26
1.27
1.28
1.29
Airmass

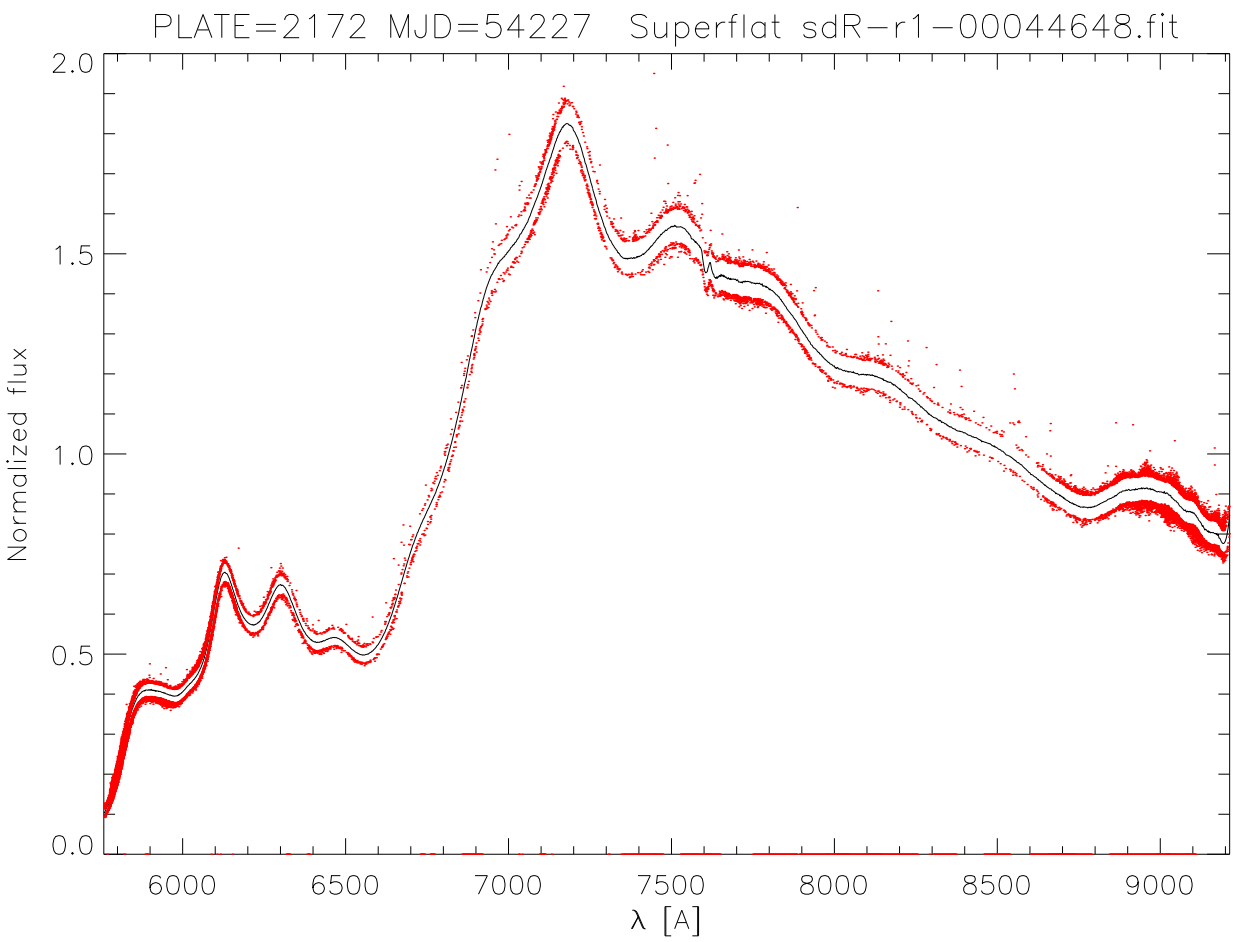

offset coeff residuals from ord=3 poly
1×10^-4
5×10^-5
0
−5×10^-5
−1×10^-4
0
50
100
150
200
250
300
fiber

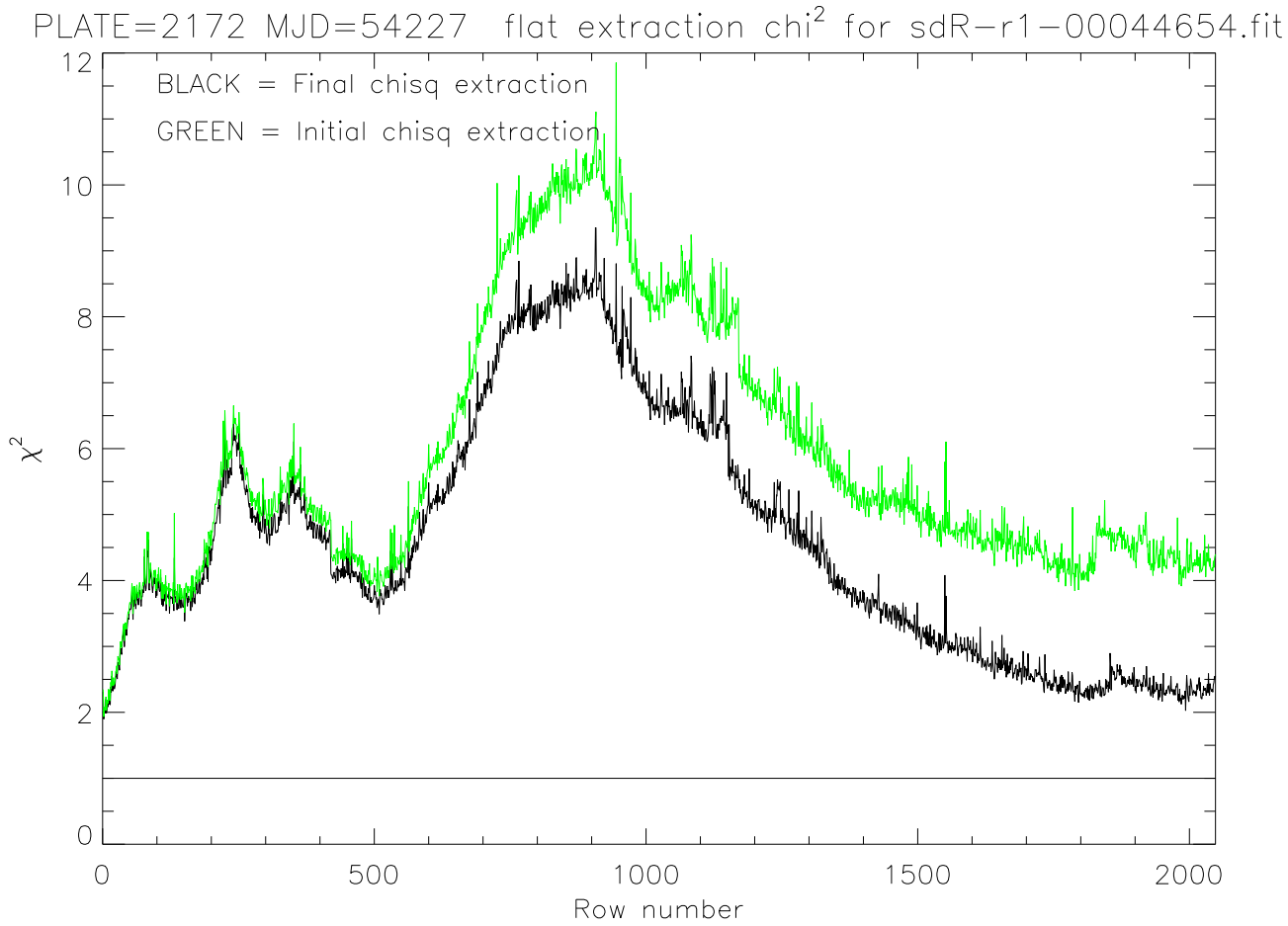

scale coeff residuals from ord=3 poly
4×10⁻⁵
2×10⁻⁵
0
−2×10⁻⁵
−4×10⁻⁵
0
50
100
150
200
250
300
fiber

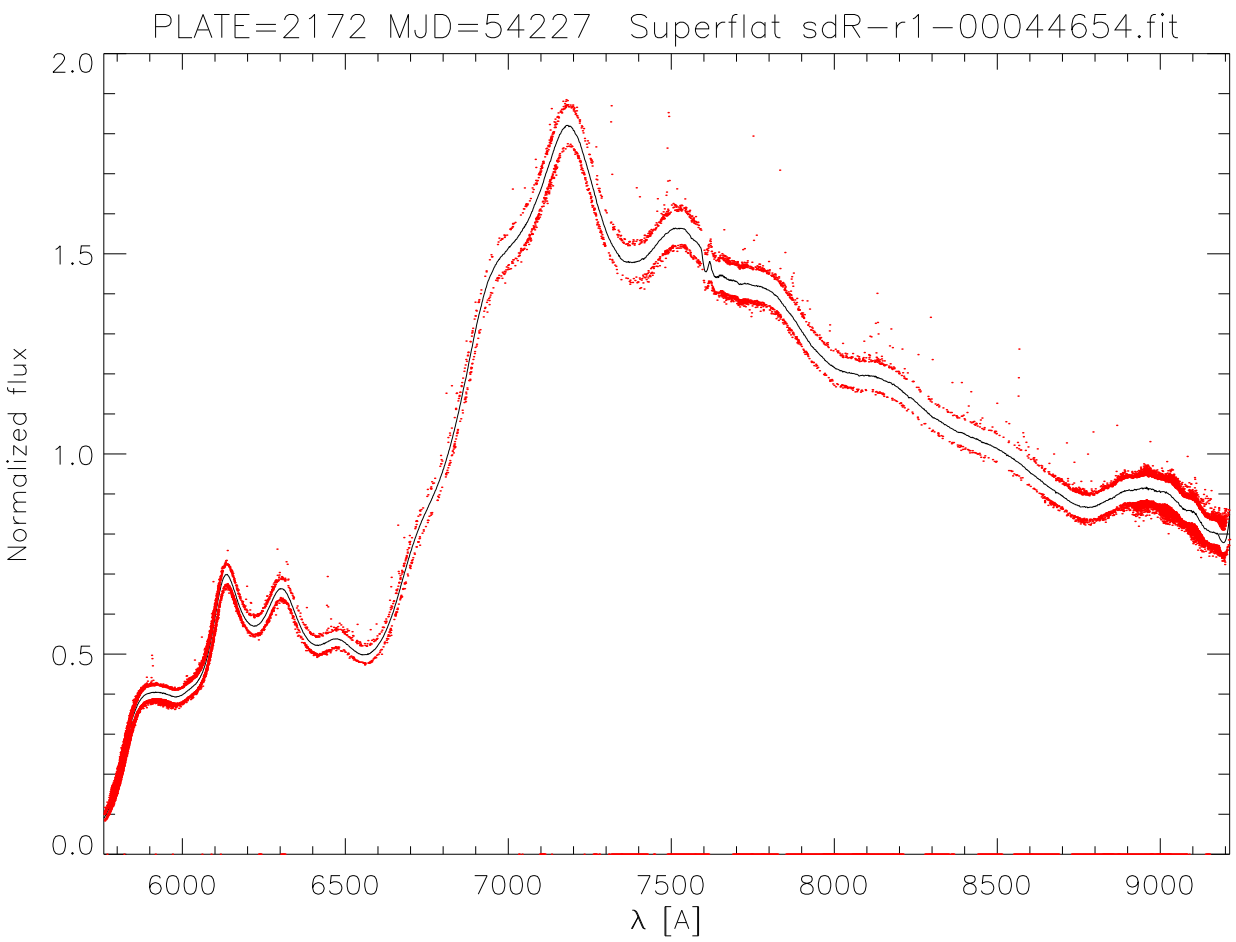

offset coeff residuals from ord=3 poly
1×10^-4
5×10^-5
0
−5×10^-5
−1×10^-4
0
50
100
150
200
250
300
fiber

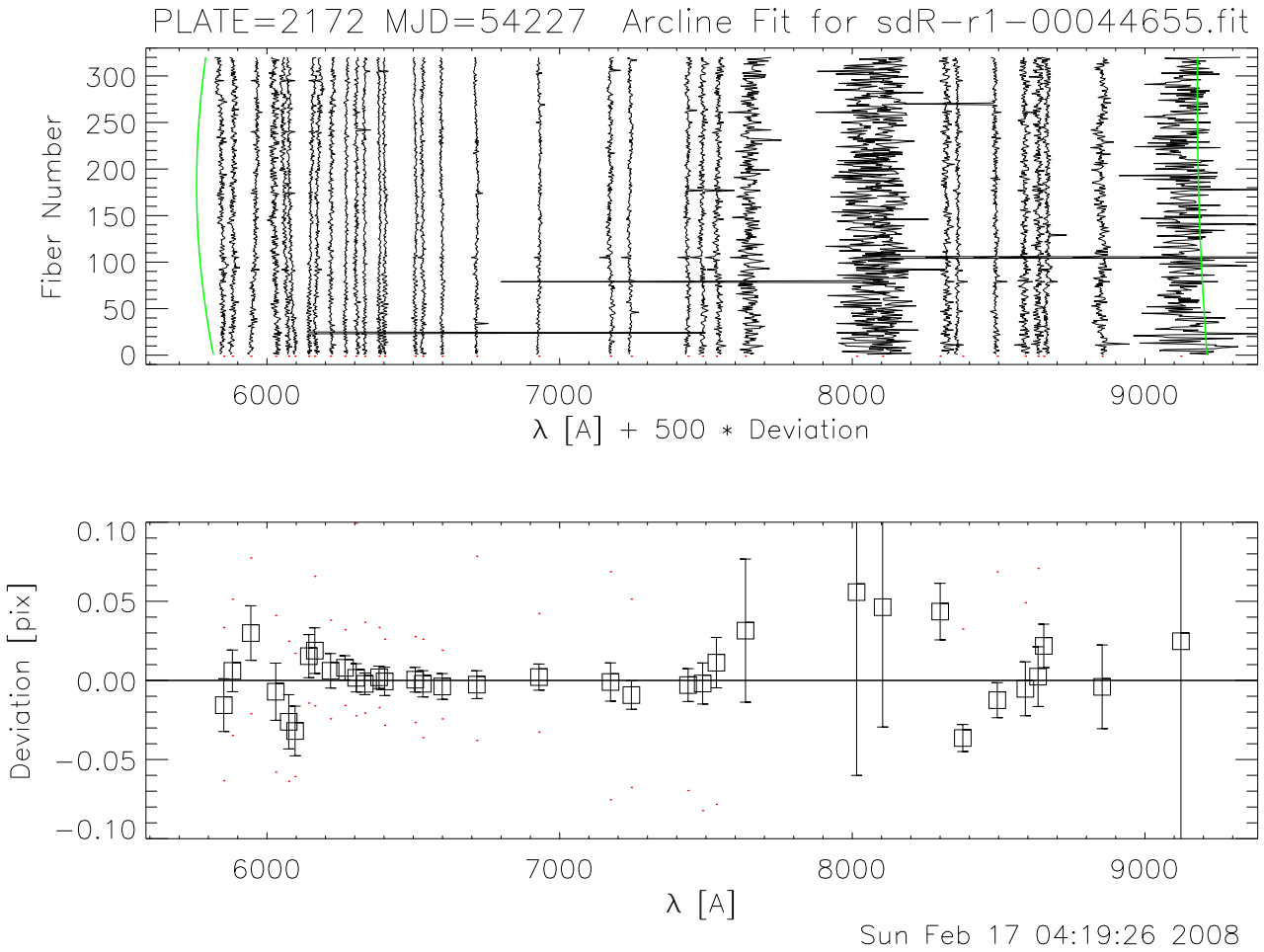

scale coeff residuals from ord=3 poly
2×10⁻⁵
0
−2×10⁻⁵
0
50
100
150
200
250
300
fiber

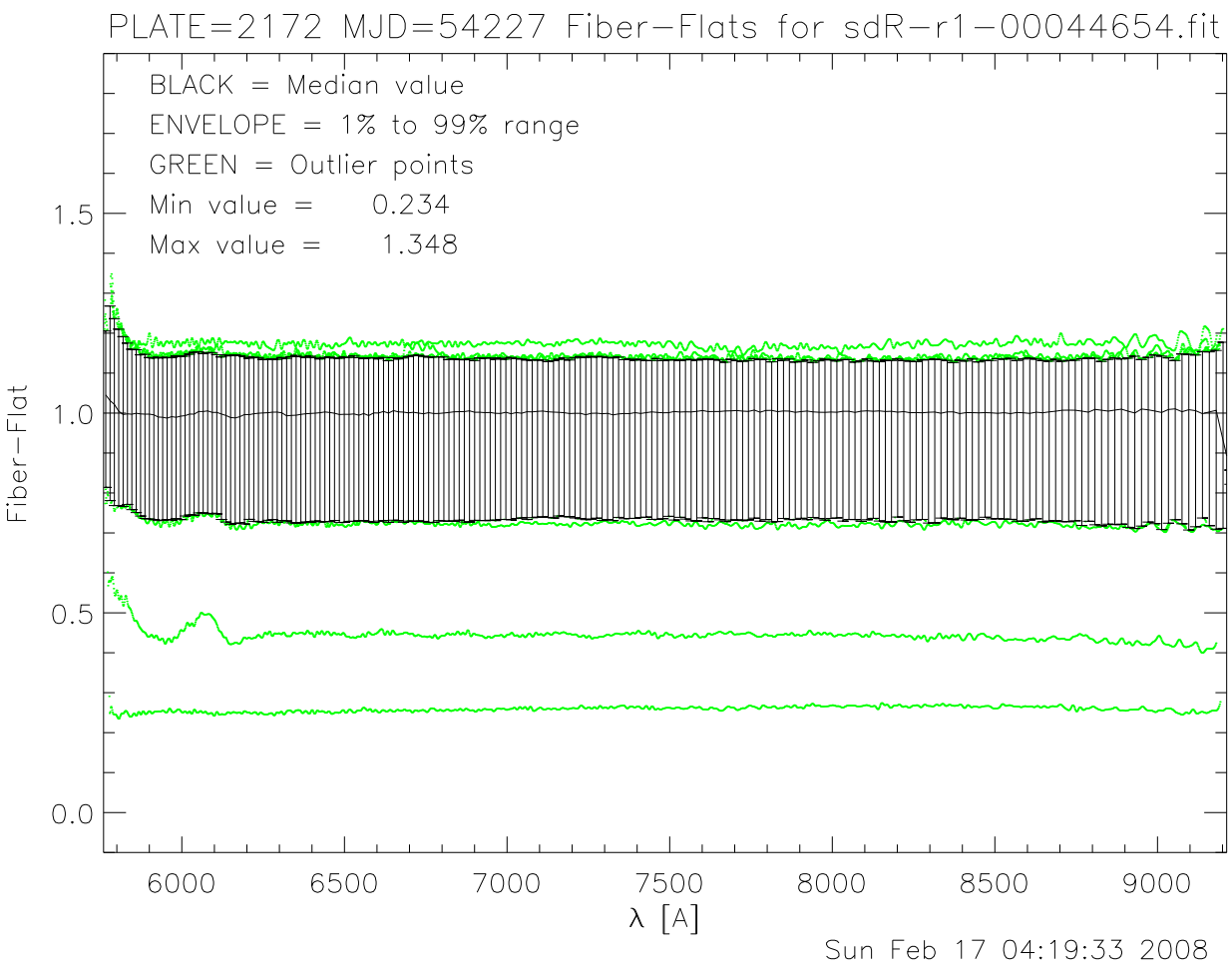

PLATE=2172 MJD=54227 flat extraction chi^2 for sdR−r1−00044648.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
2
4
6
8
10
12
0
500
1000
1500
2000

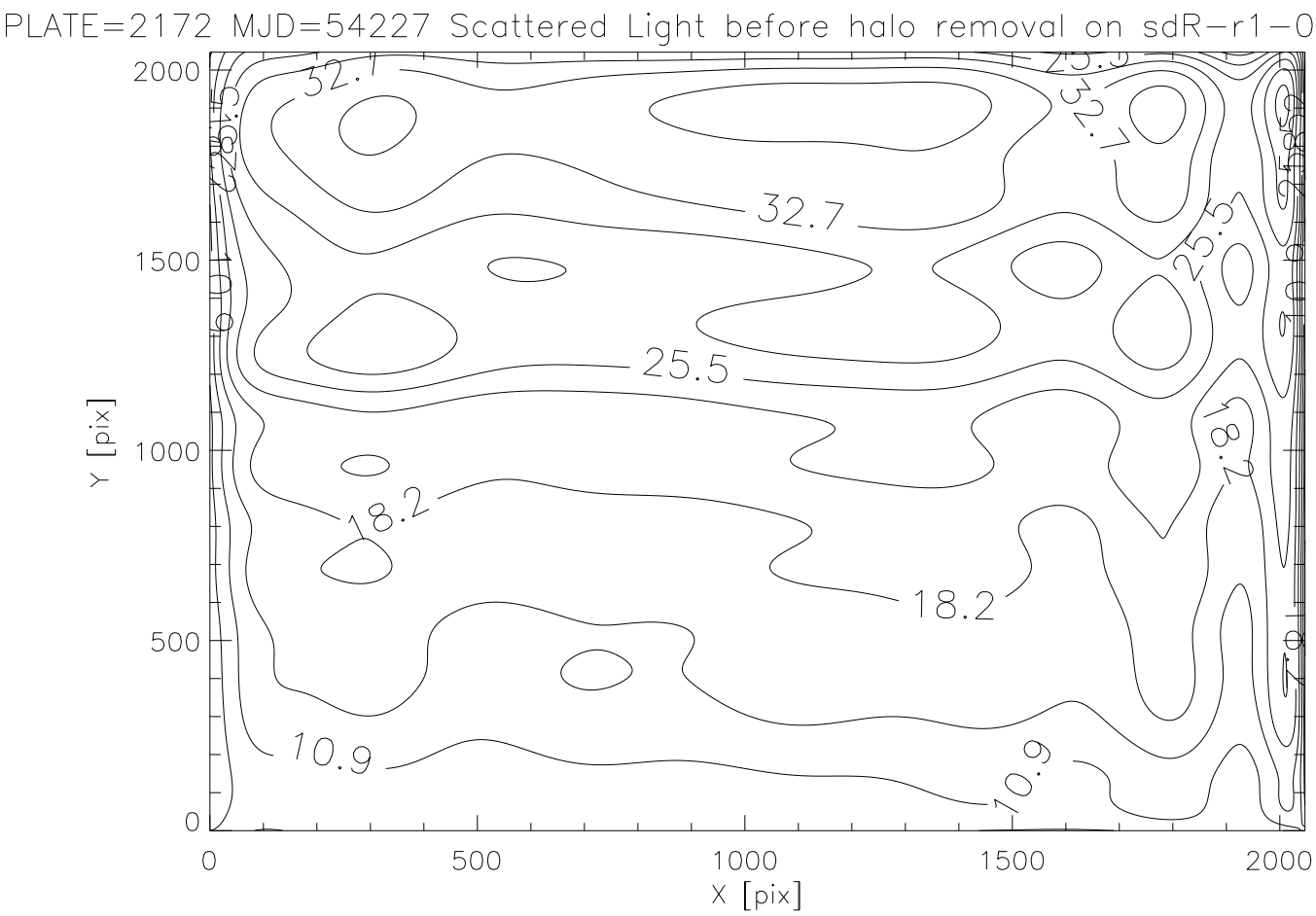

PLATE=2172 MJD=54227 Superflat sdR-r1-00044648.fit
Normalized flux
2.0
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

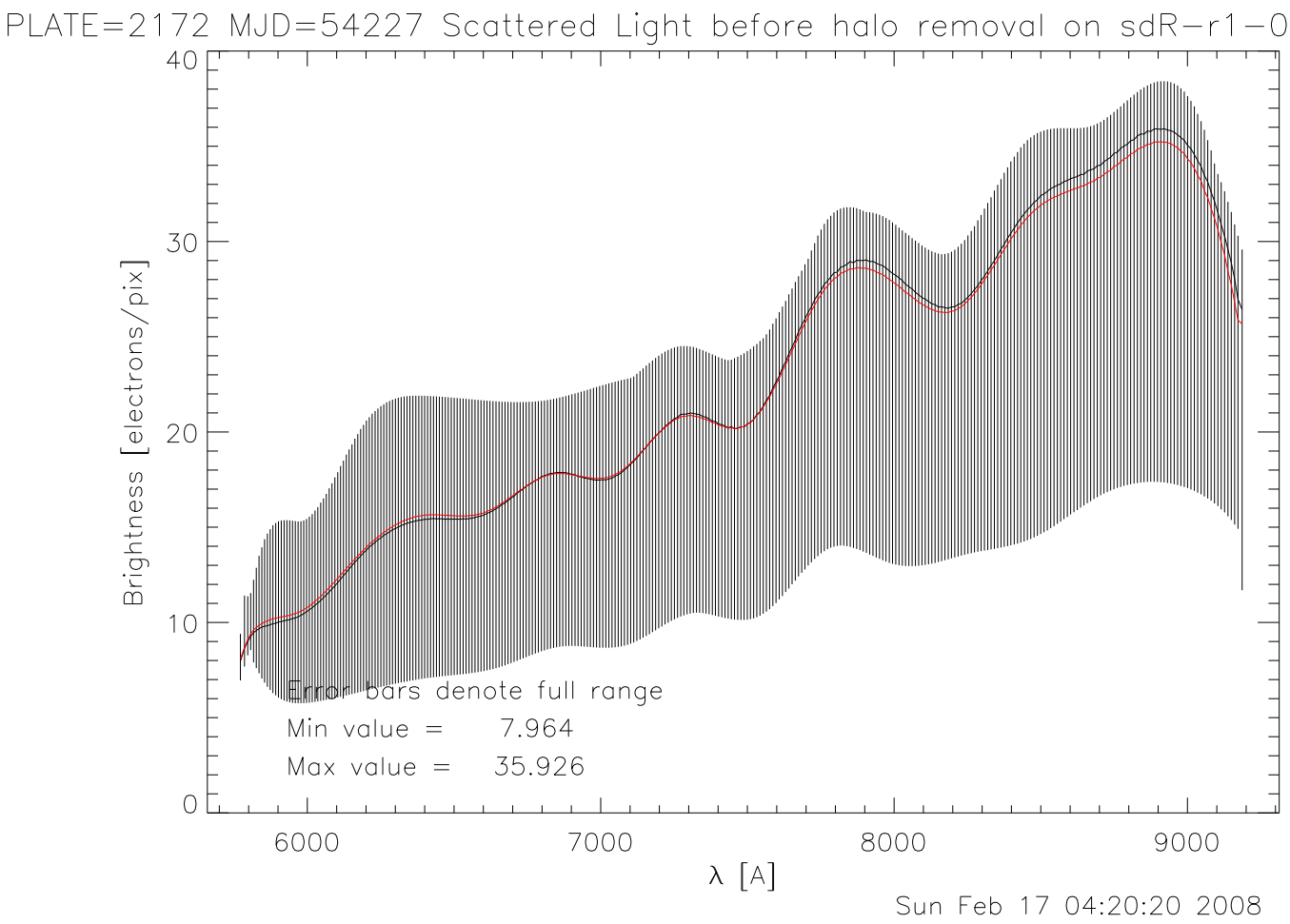

PLATE=2172 MJD=54227 flat extraction chi^2 for sdR−r1−00044654.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
2
4
6
8
10
12
0
500
1000
1500
2000

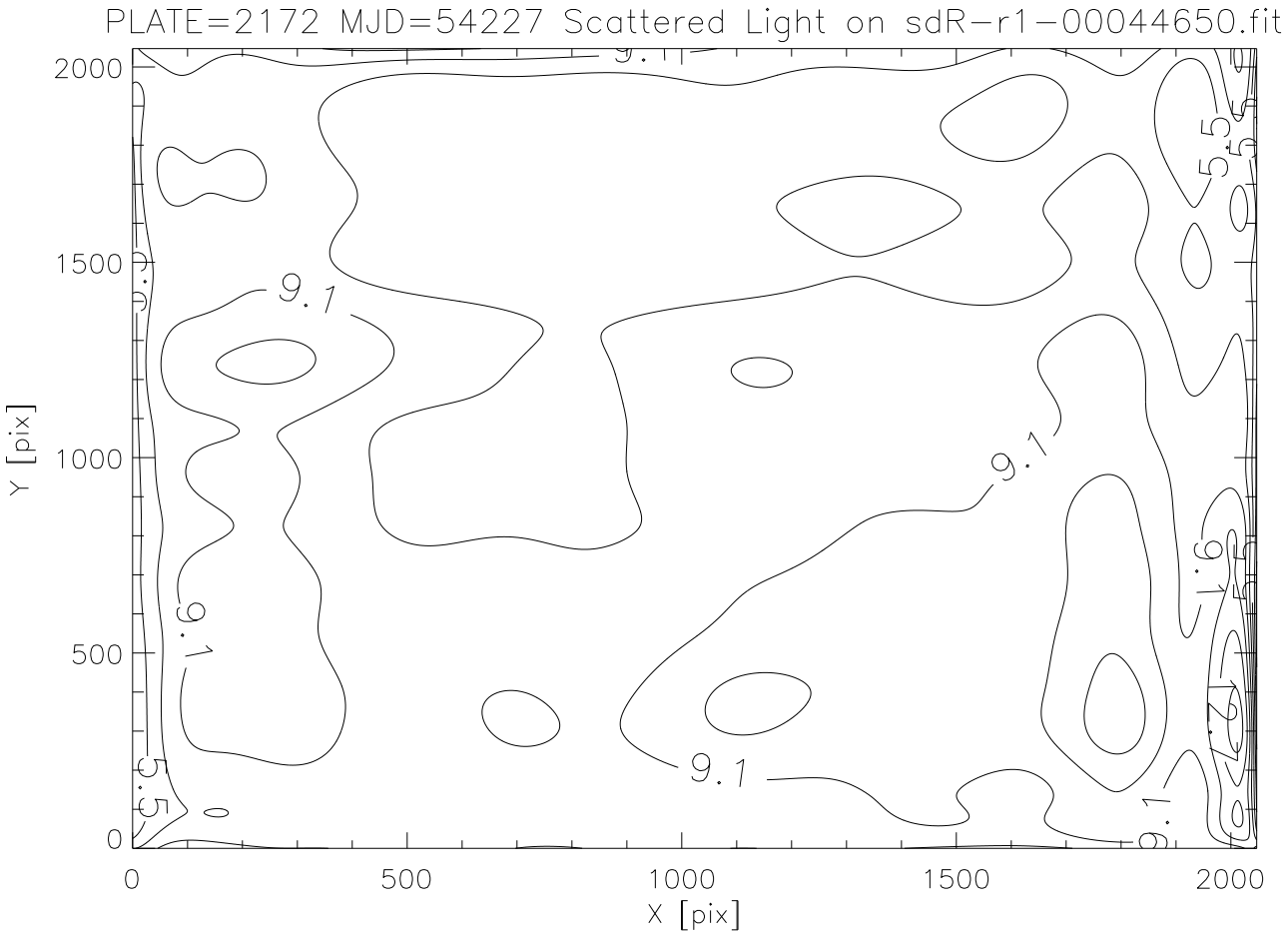

PLATE=2172 MJD=54227 Superflat sdR-r1-00044654.fit
Normalized flux
2.0
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

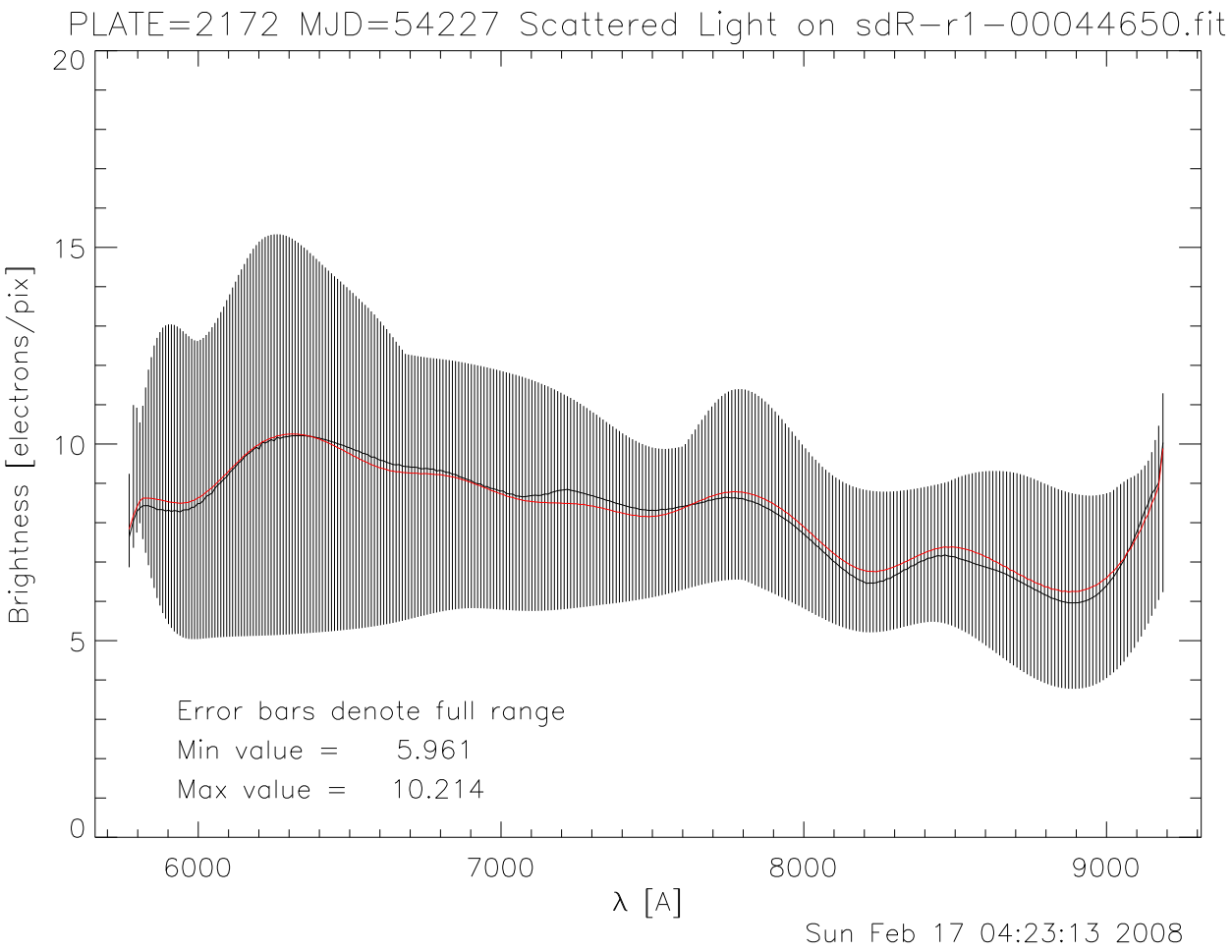

PLATE=2172 MJD=54227 Arcline Fit for sdR-r1-00044655.fit
Fiber Number
300
250
200
150
100
50
0
6000
7000
8000
9000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
6000
7000
8000
9000
λ [A]
Sun Feb 17 04:19:26 2008

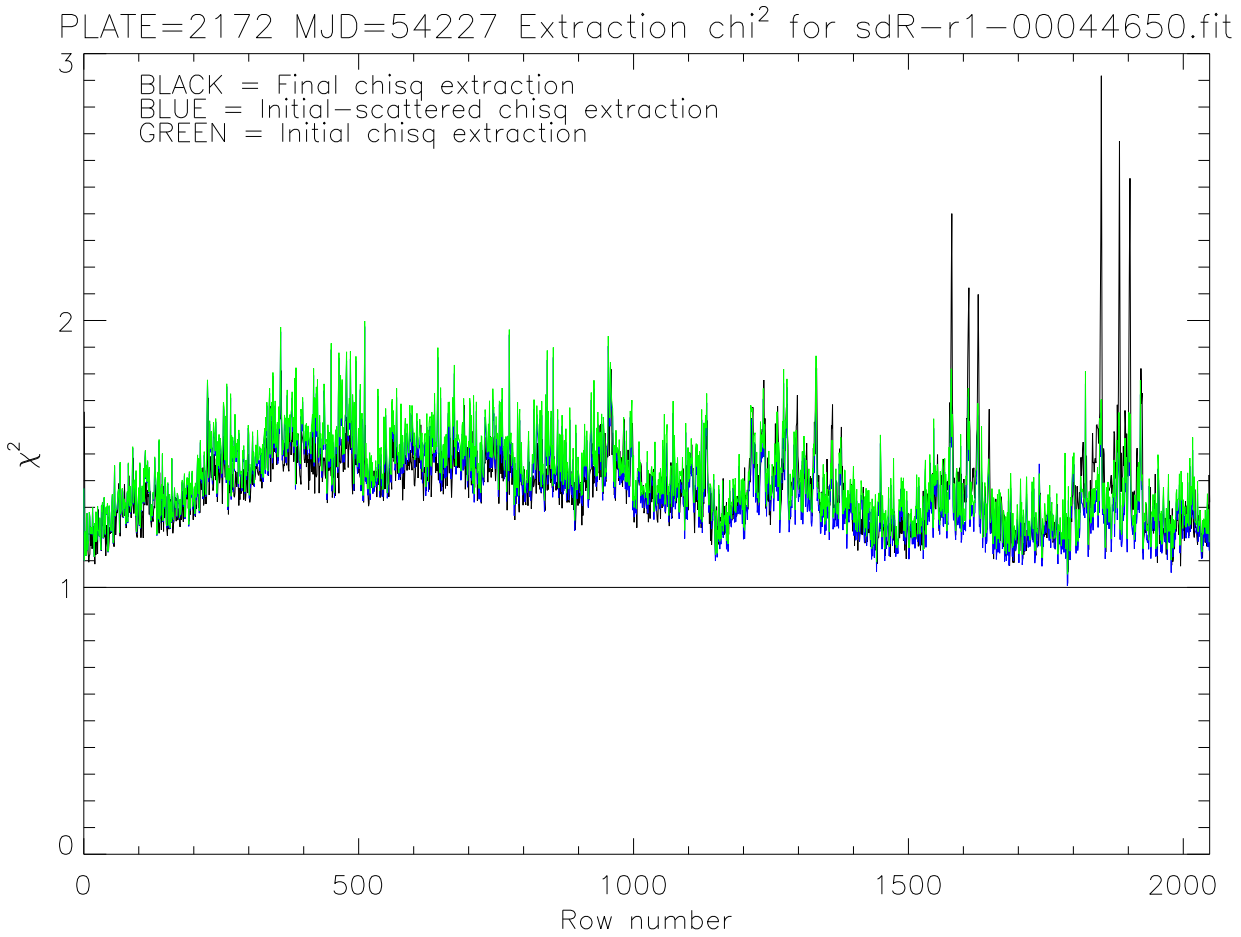

PLATE=2172 MJD=54227 Fiber−Flats for sdR−r1−00044654.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.234
Max value = 1.348
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sun Feb 17 04:19:33 2008

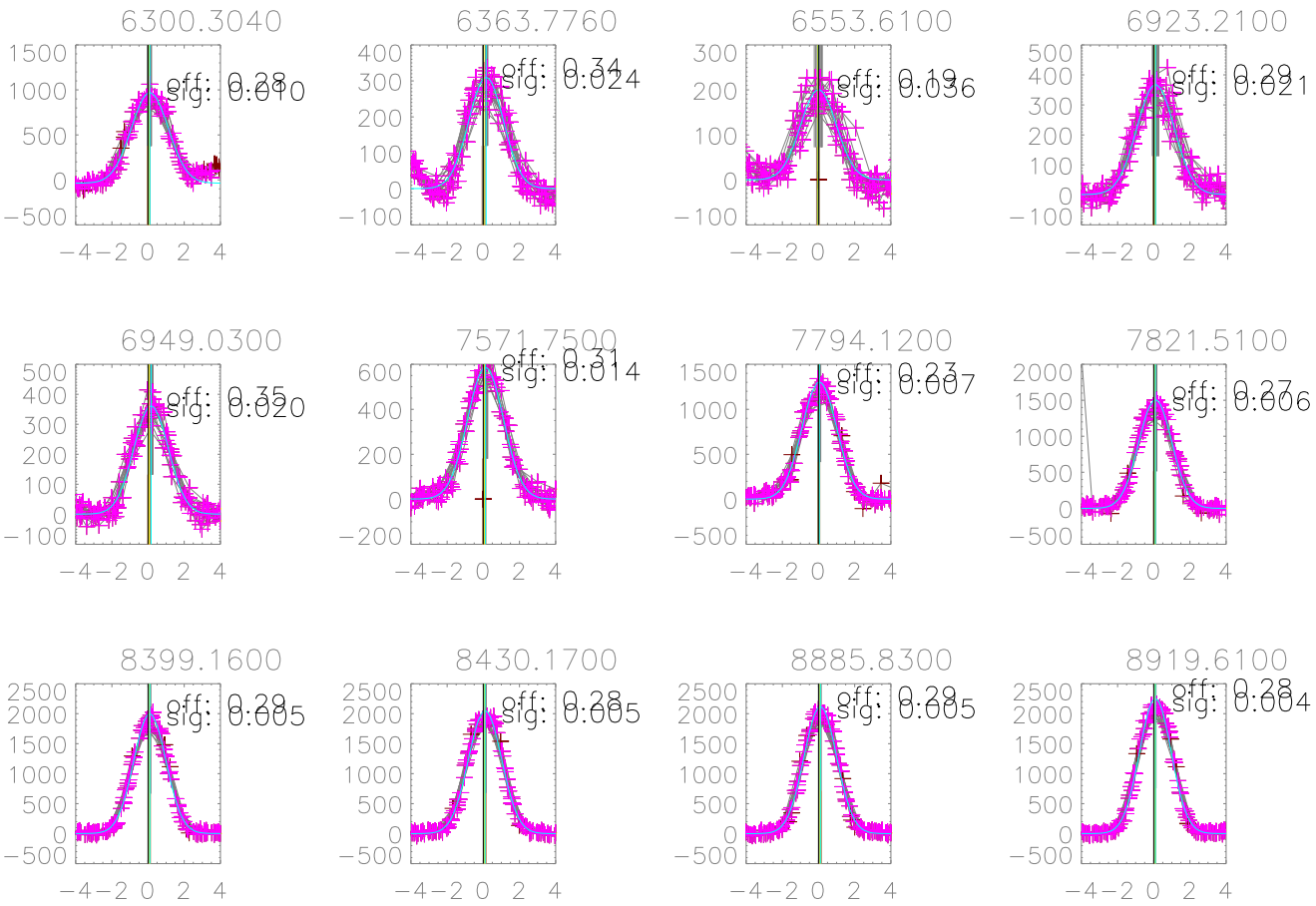

PLATE=2172 MJD=54227 Scattered Light before halo removal on sdR-r1-00044650.fi
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
52.7
32.7
25.5
18.2
10.9

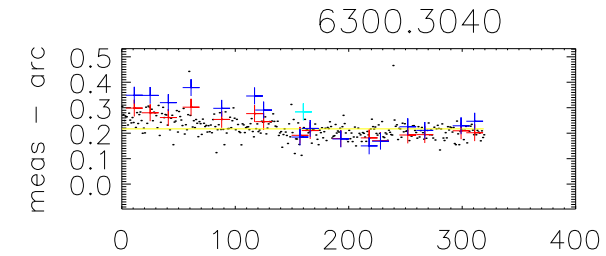

PLATE=2172 MJD=54227 Scattered Light before halo removal on sdR-r1-00044650.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 7.964
Max value = 35.926
Sun Feb 17 04:20:20 2008

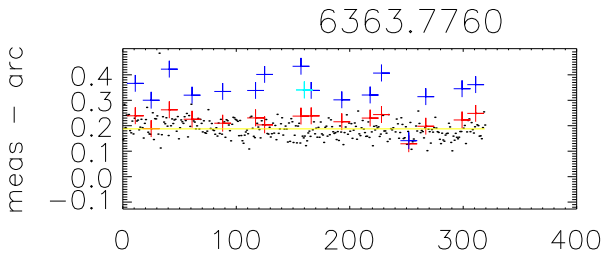

PLATE=2172 MJD=54227 Scattered Light on sdR-r1-00044650.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
9.1
5.5
1.6

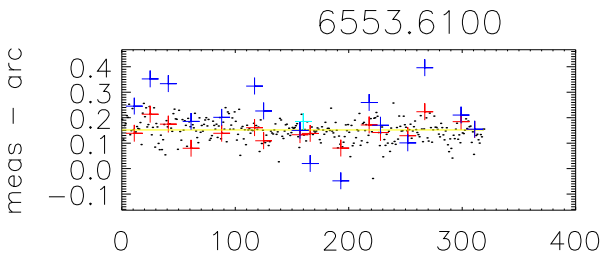

PLATE=2172 MJD=54227 Scattered Light on sdR-r1-00044650.fit
Brightness [electrons/pix]
20
15
10
5
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 5.961
Max value = 10.214
Sun Feb 17 04:23:13 2008

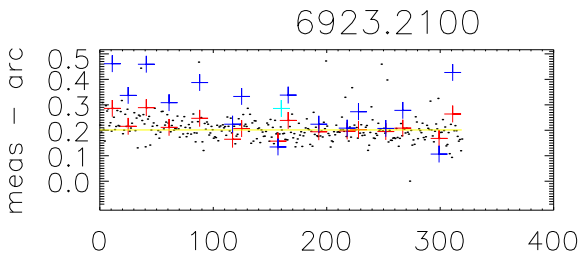

PLATE=2172 MJD=54227 Extraction chi^2 for sdR−r1−00044650.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
0
500
1000
1500
2000
Row number

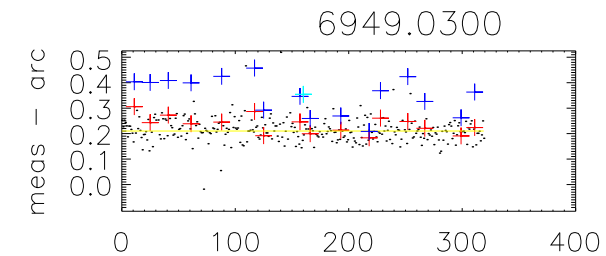

6300.3040
off: 0.28
sig: 0.010
6363.7760
off: 0.34
sig: 0.024
6553.6100
off: 0.19
sig: 0.036
6923.2100
off: 0.29
sig: 0.021
6949.0300
off: 0.35
sig: 0.020
7571.7500
off: 0.31
sig: 0.014
7794.1200
off: 0.23
sig: 0.007
7821.5100
off: 0.27
sig: 0.006
8399.1600
off: 0.28
sig: 0.005
8430.1700
off: 0.28
sig: 0.005
8885.8300
off: 0.29
sig: 0.005
8919.6100
off: 0.28
sig: 0.004

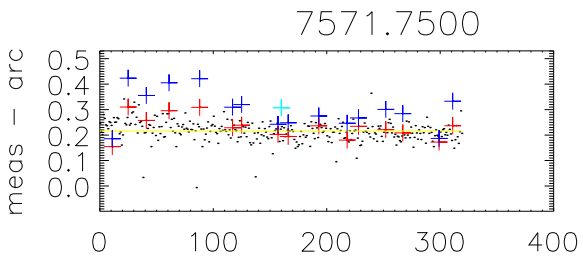

6300.3040
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

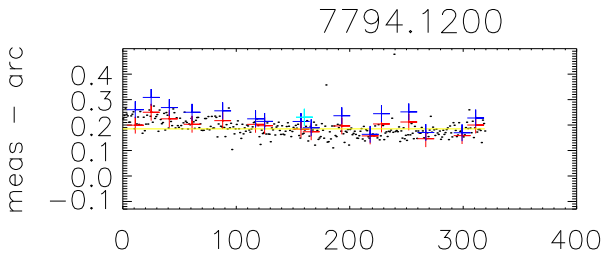

6363.7760
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

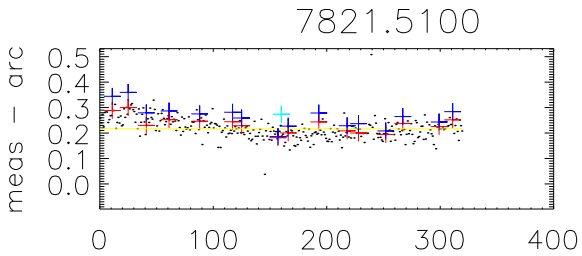

6553.6100
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

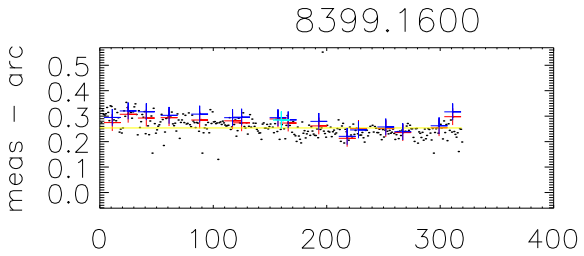

6923.2100
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

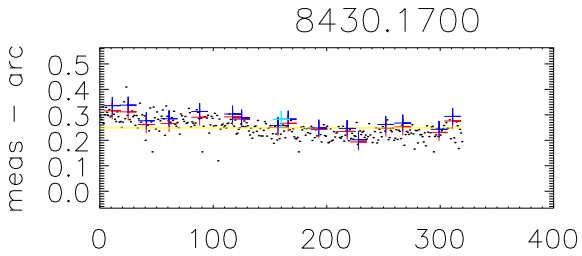

6949.0300
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

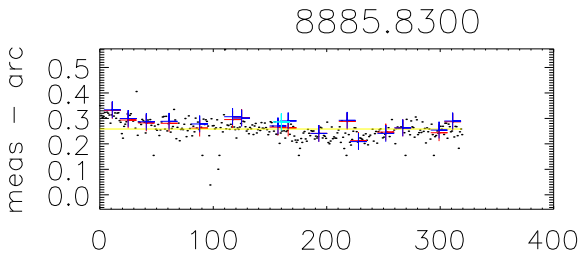

7571.7500
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

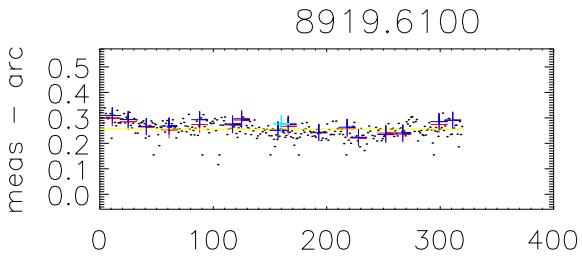

7794.1200
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

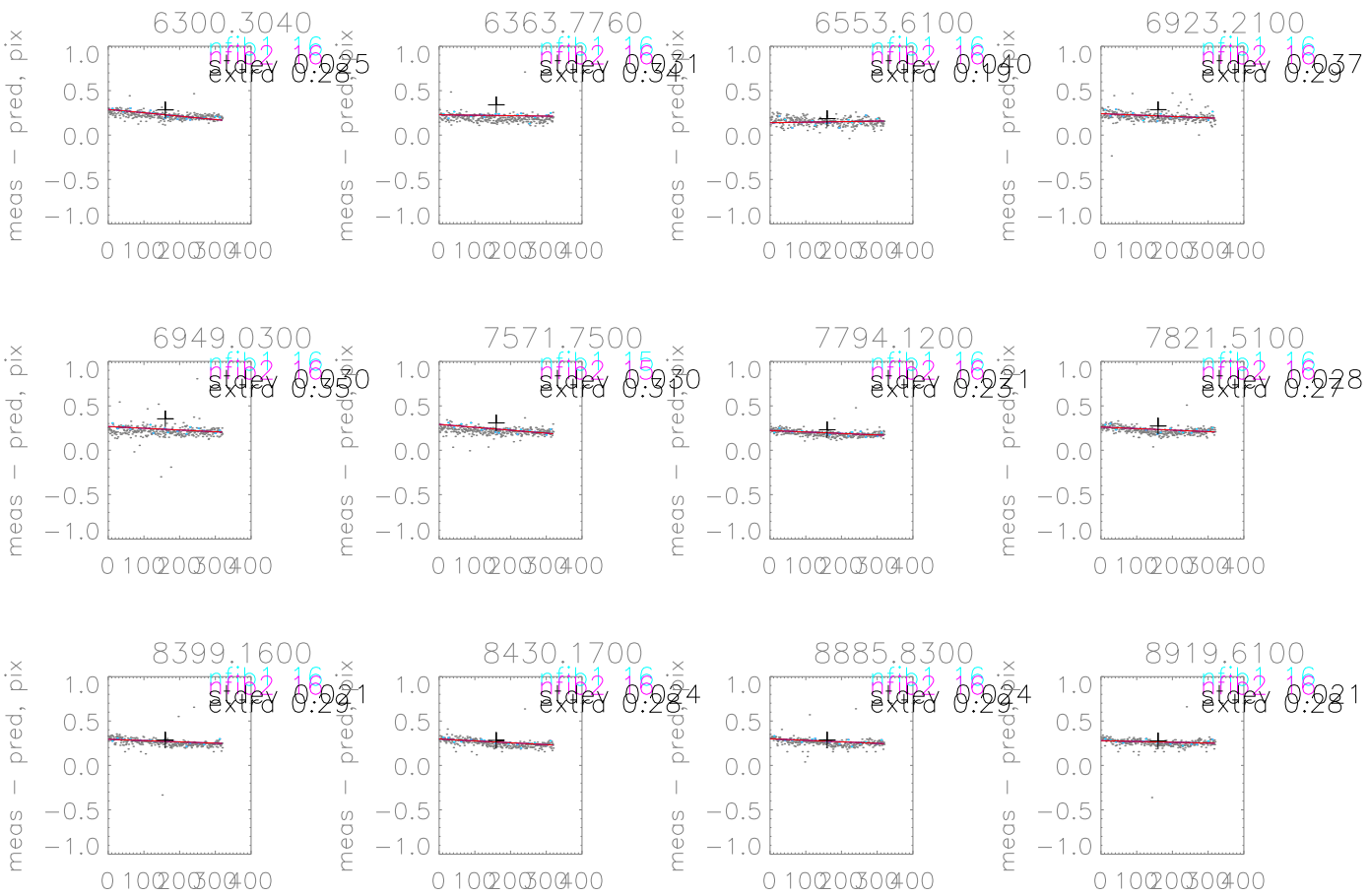

7821.5100
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

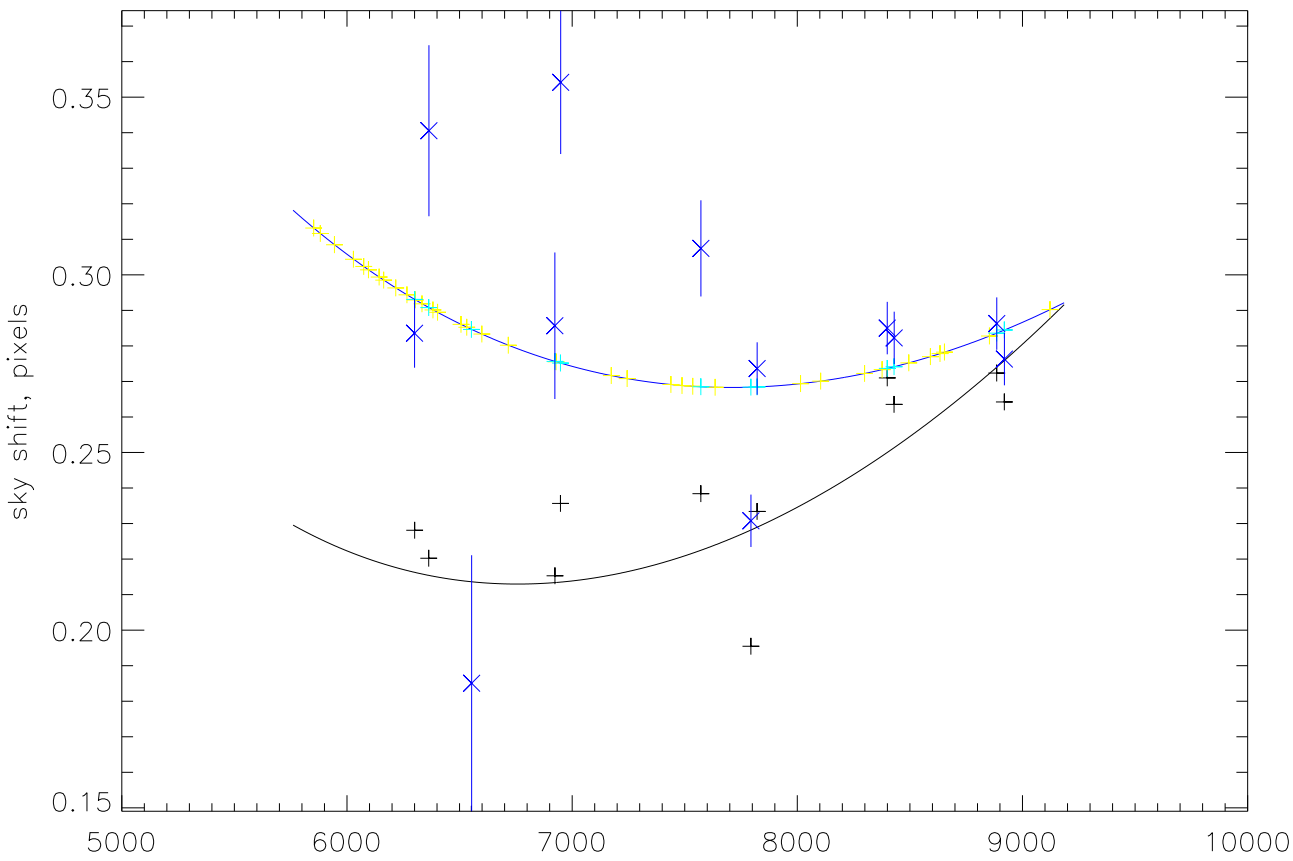

8399.1600
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400


8430.1700
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

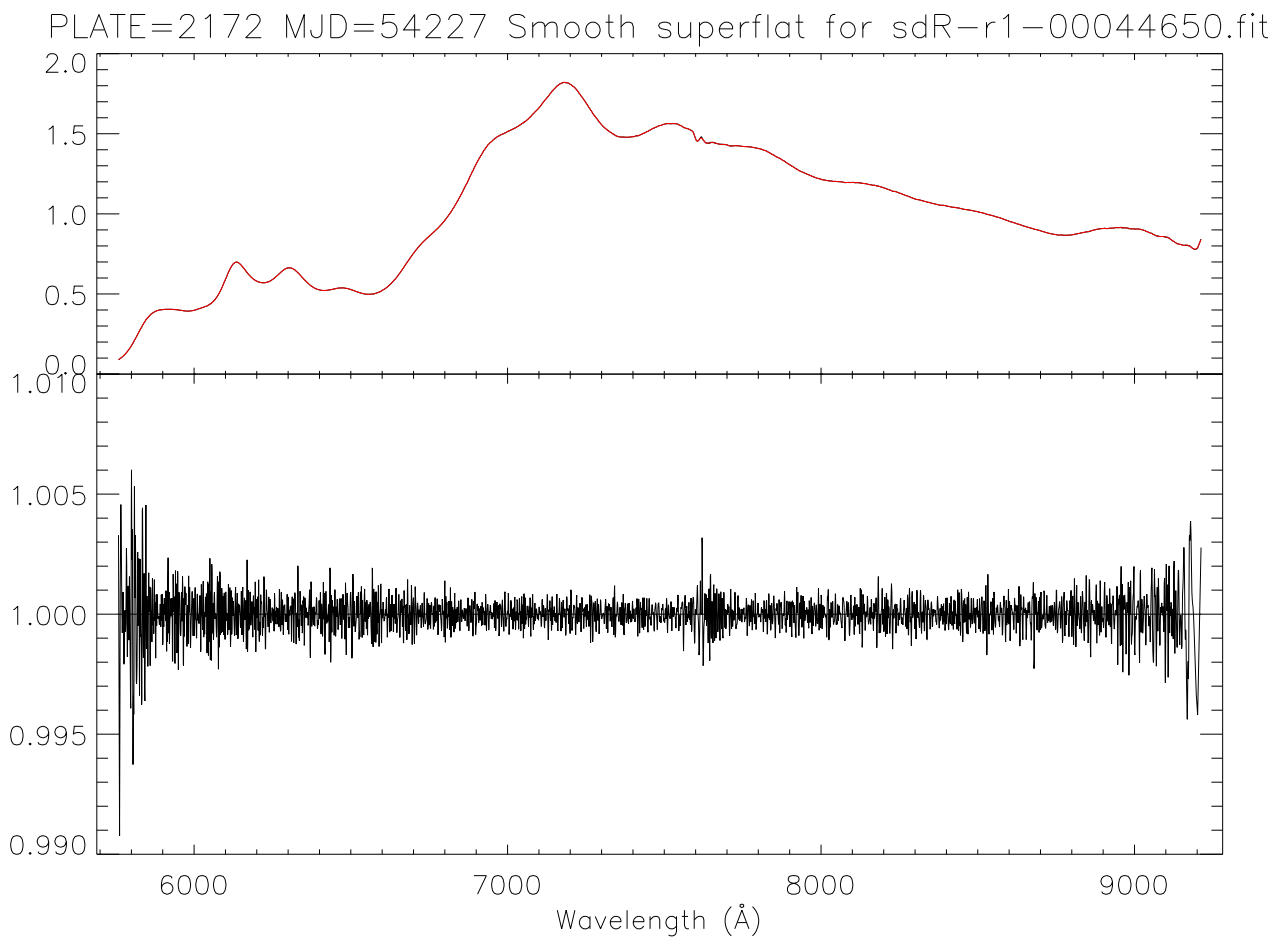

8885.8300
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

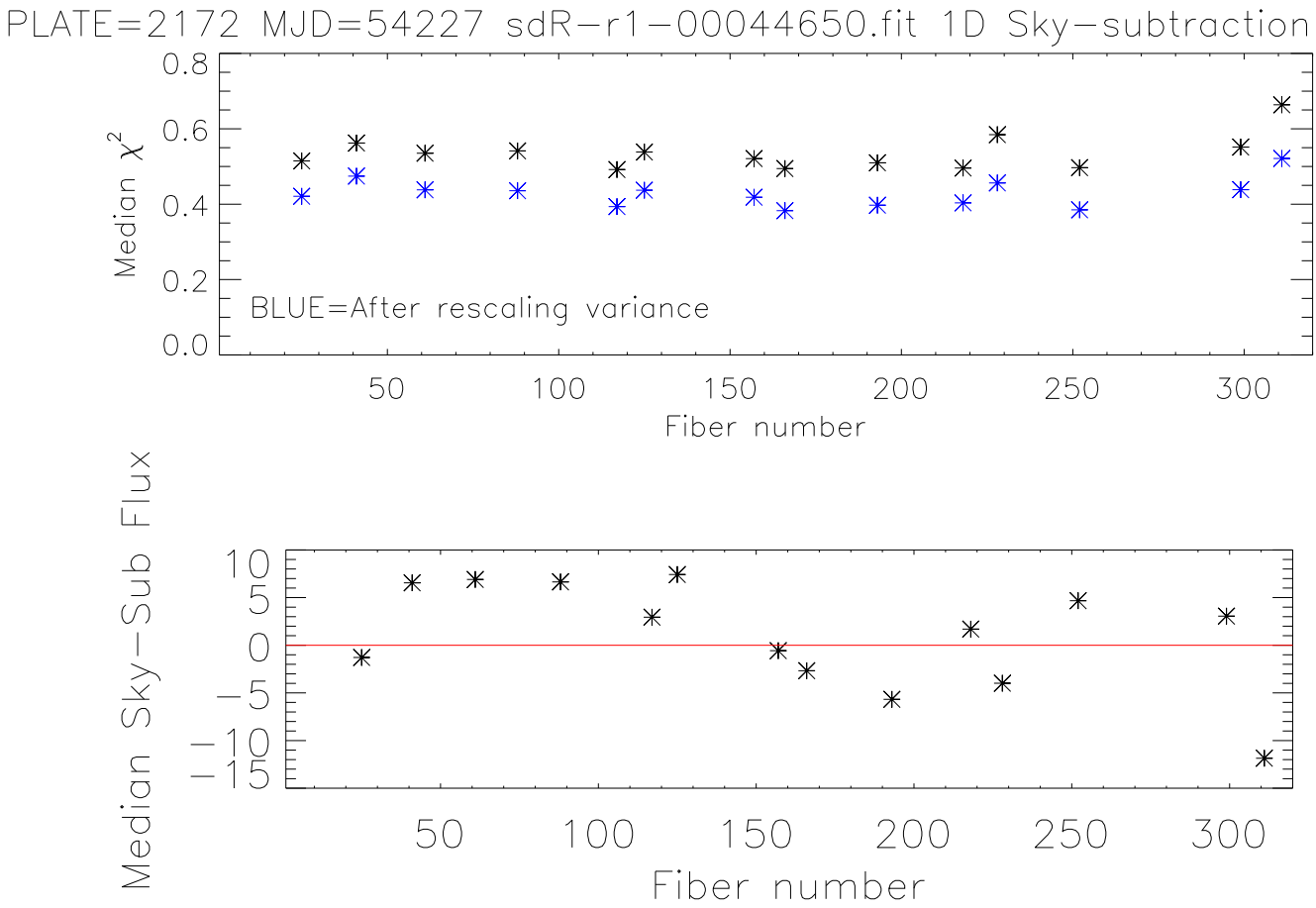

8919.6100
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

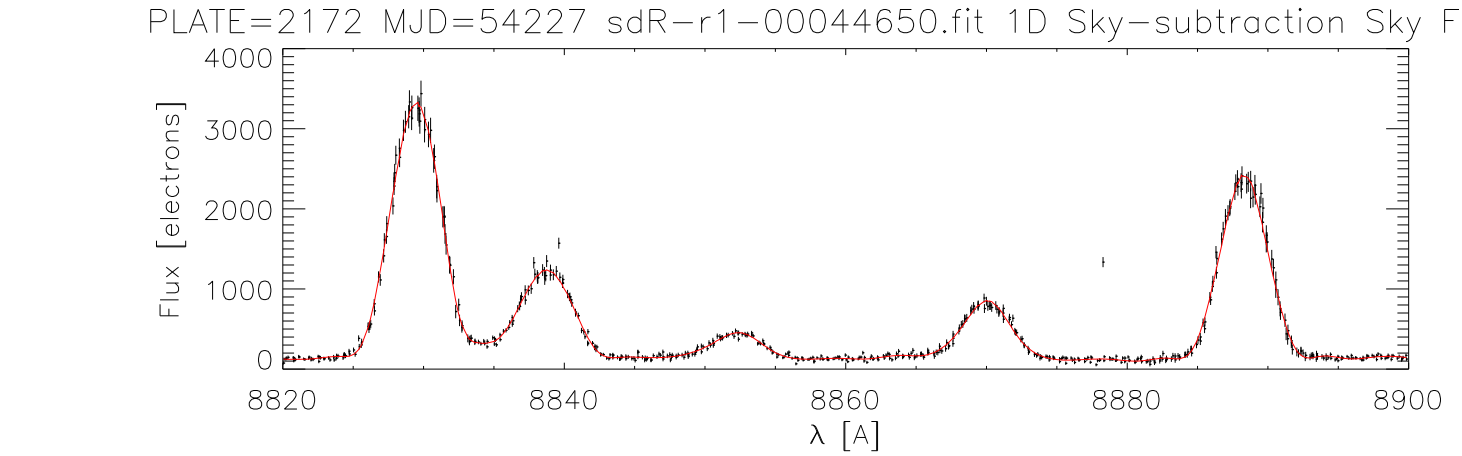

6300.3040
stdev 0.28
extra 0.025
6363.7760
stdev 0.34
extra 0.021
6553.6100
stdev 0.19
extra 0.040
6923.2100
stdev 0.29
extra 0.037
6949.0300
stdev 0.35
extra 0.030
7571.7500
stdev 0.31
extra 0.030
7794.1200
stdev 0.23
extra 0.021
7821.5100
stdev 0.27
extra 0.028
8399.1600
stdev 0.29
extra 0.021
8430.1700
stdev 0.28
extra 0.024
8885.8300
stdev 0.29
extra 0.024
8919.6100
stdev 0.28
extra 0.021
meas − pred, pix

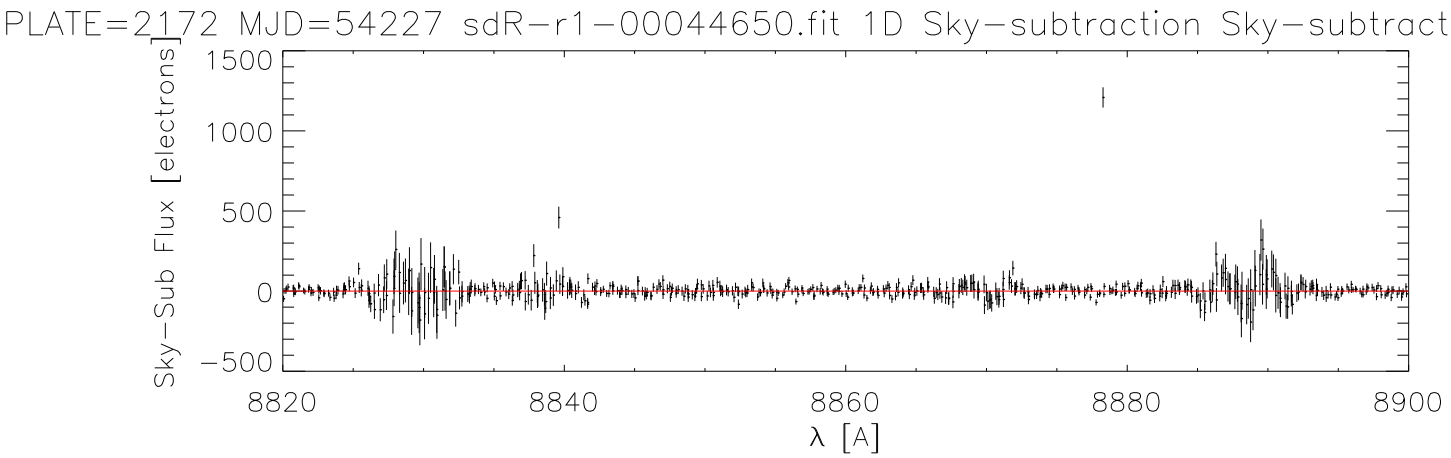

sky shift, pixels
0.35
0.30
0.25
0.20
0.15
5000
6000
7000
8000
9000
10000

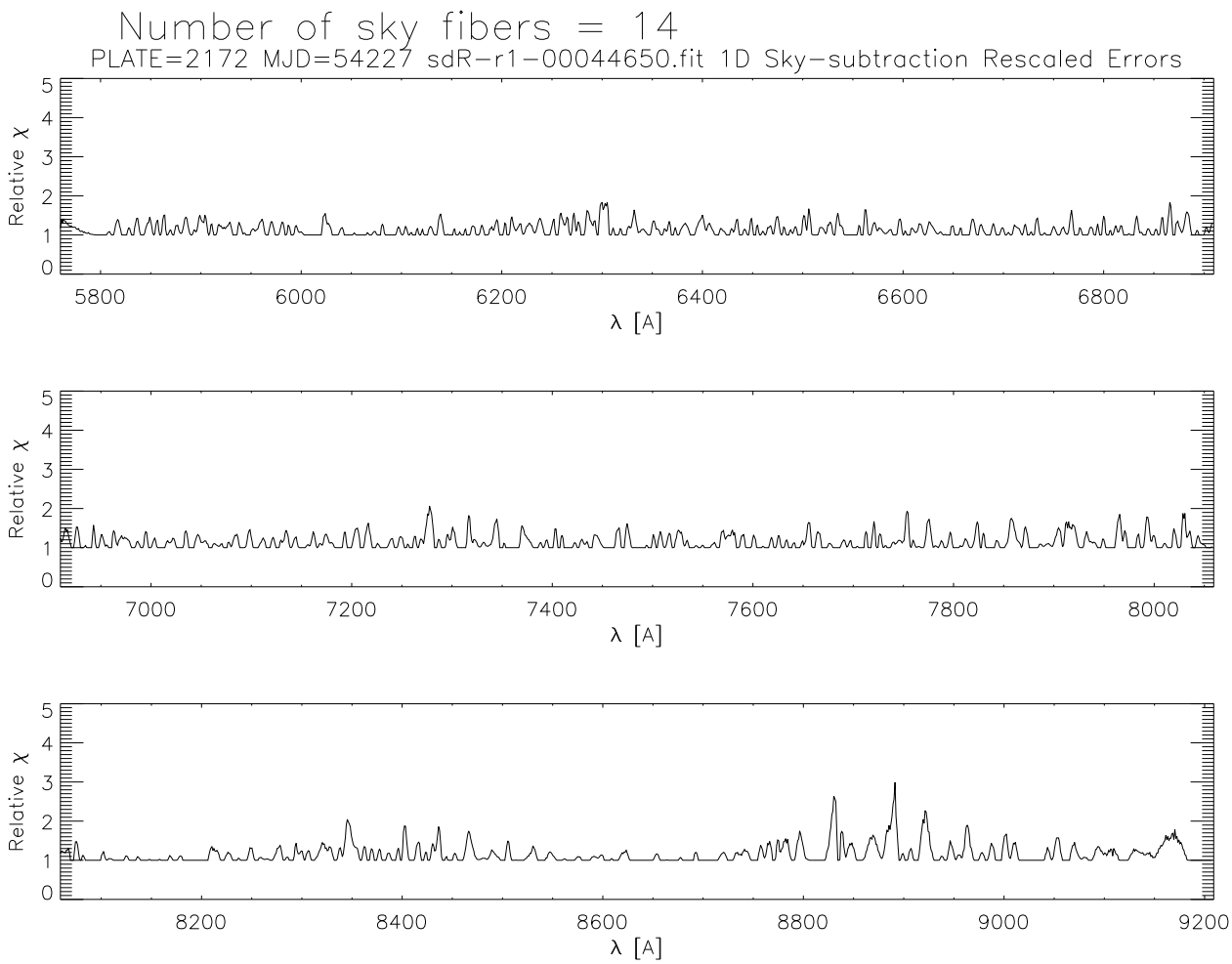
es= 0.0000

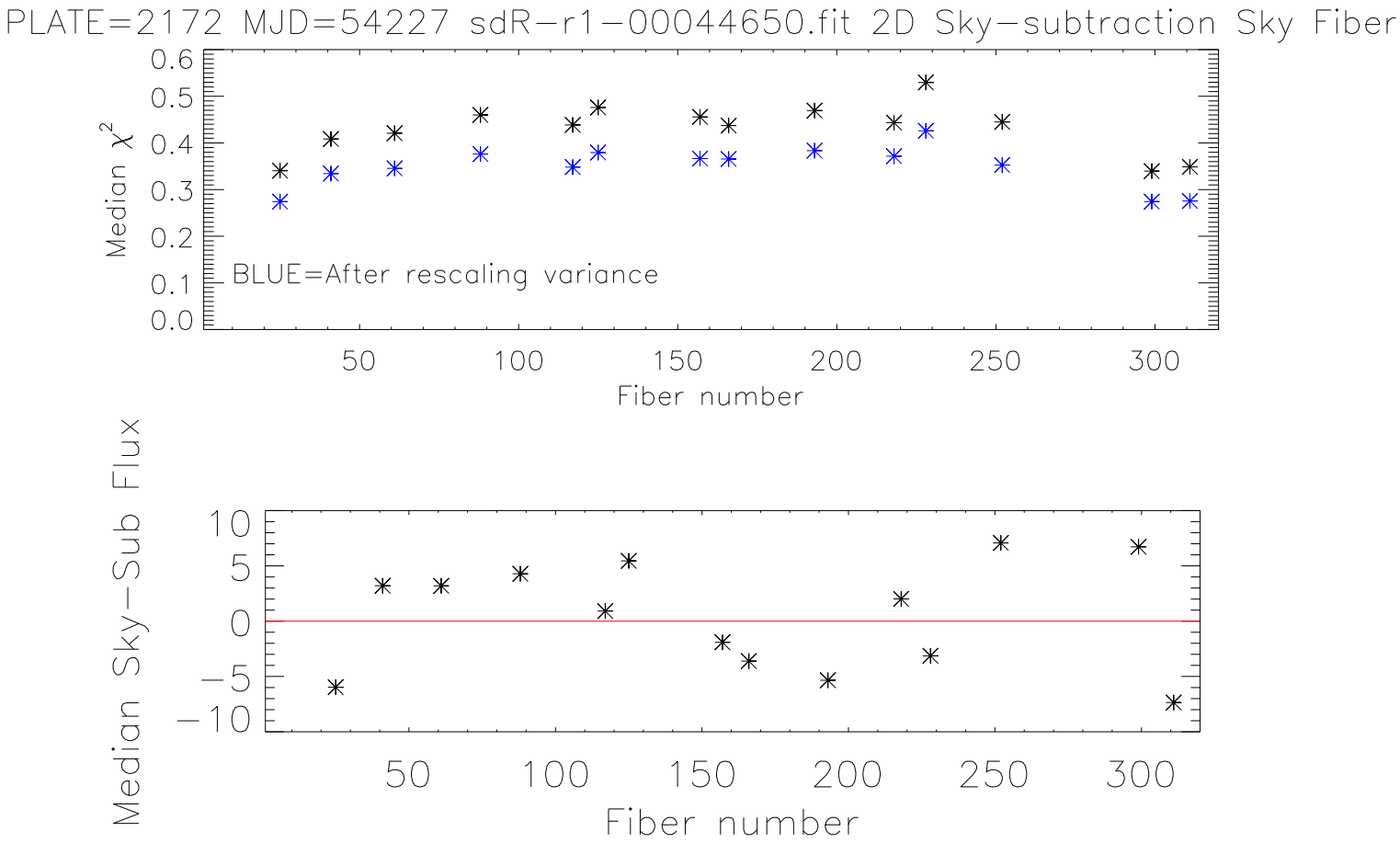

PLATE=2172 MJD=54227 Smooth superflat for sdR-r1-00044650.fit
2.0
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
6000
7000
8000
9000
Wavelength (Å)

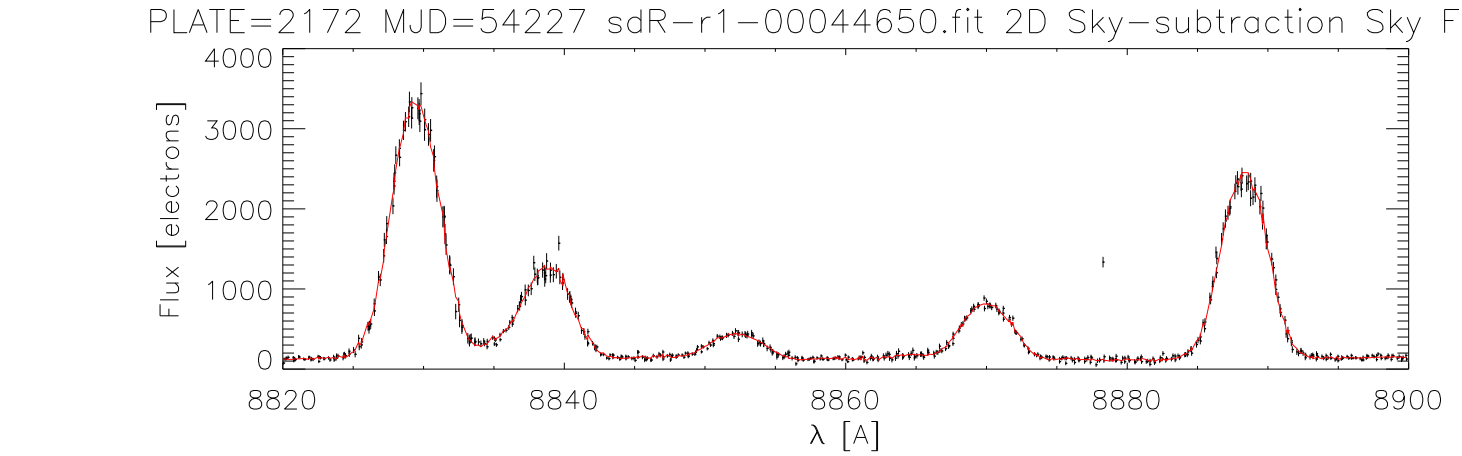

PLATE=2172 MJD=54227 sdR-r1-00044650.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
-5
-10
-15
50
100
150
200
250
300
Fiber number

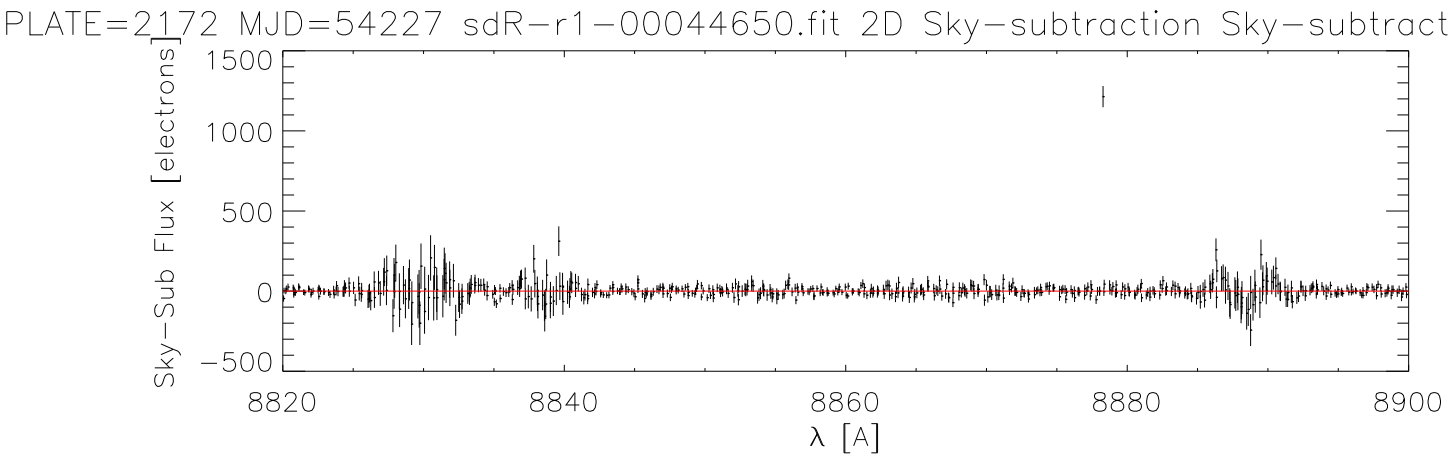

PLATE=2172 MJD=54227 sdR-r1-00044650.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

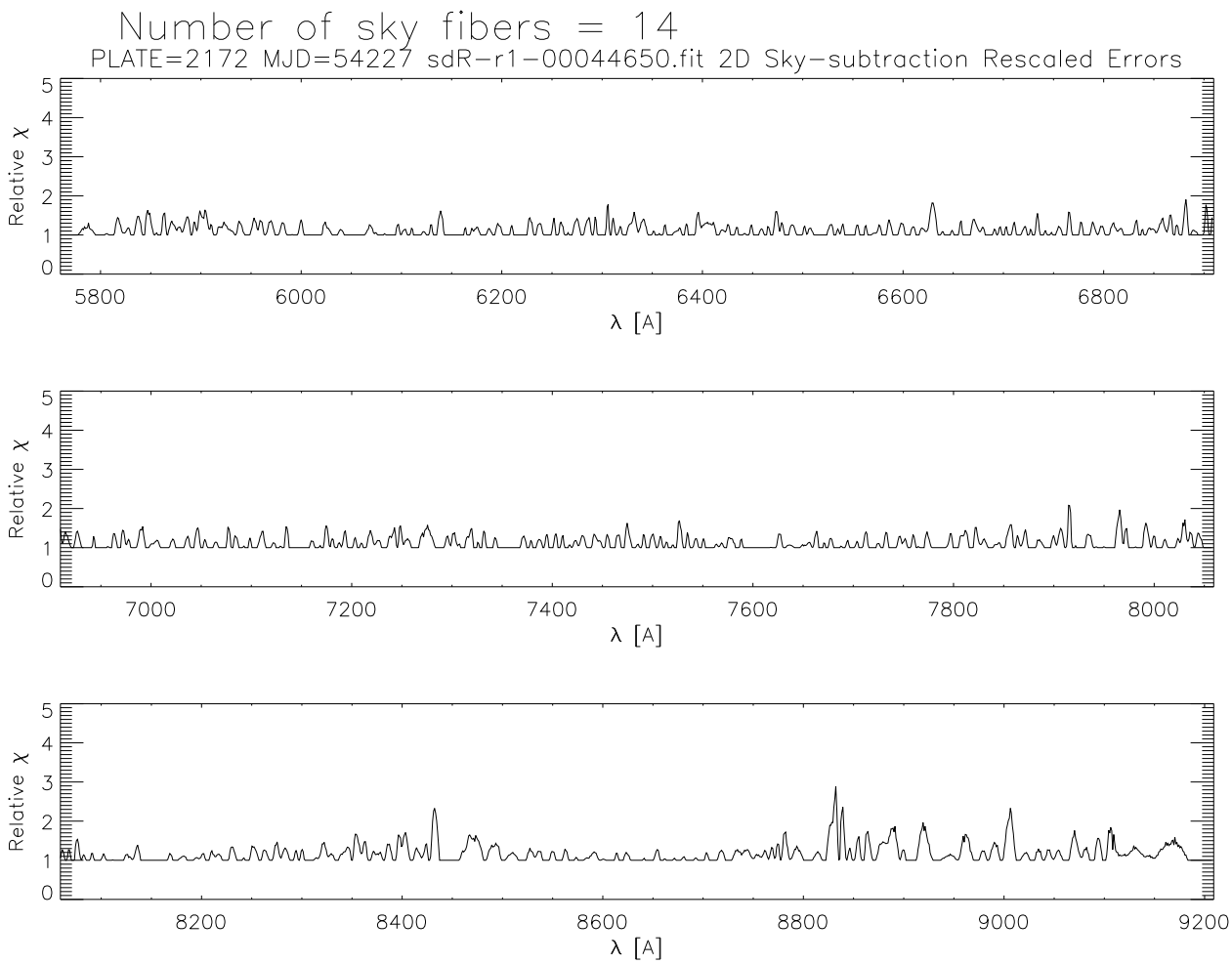

PLATE=2172 MJD=54227 sdR-r1-00044650.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
1500
1000
500
0
-500
8820
8840
8860
8880
8900
λ [A]

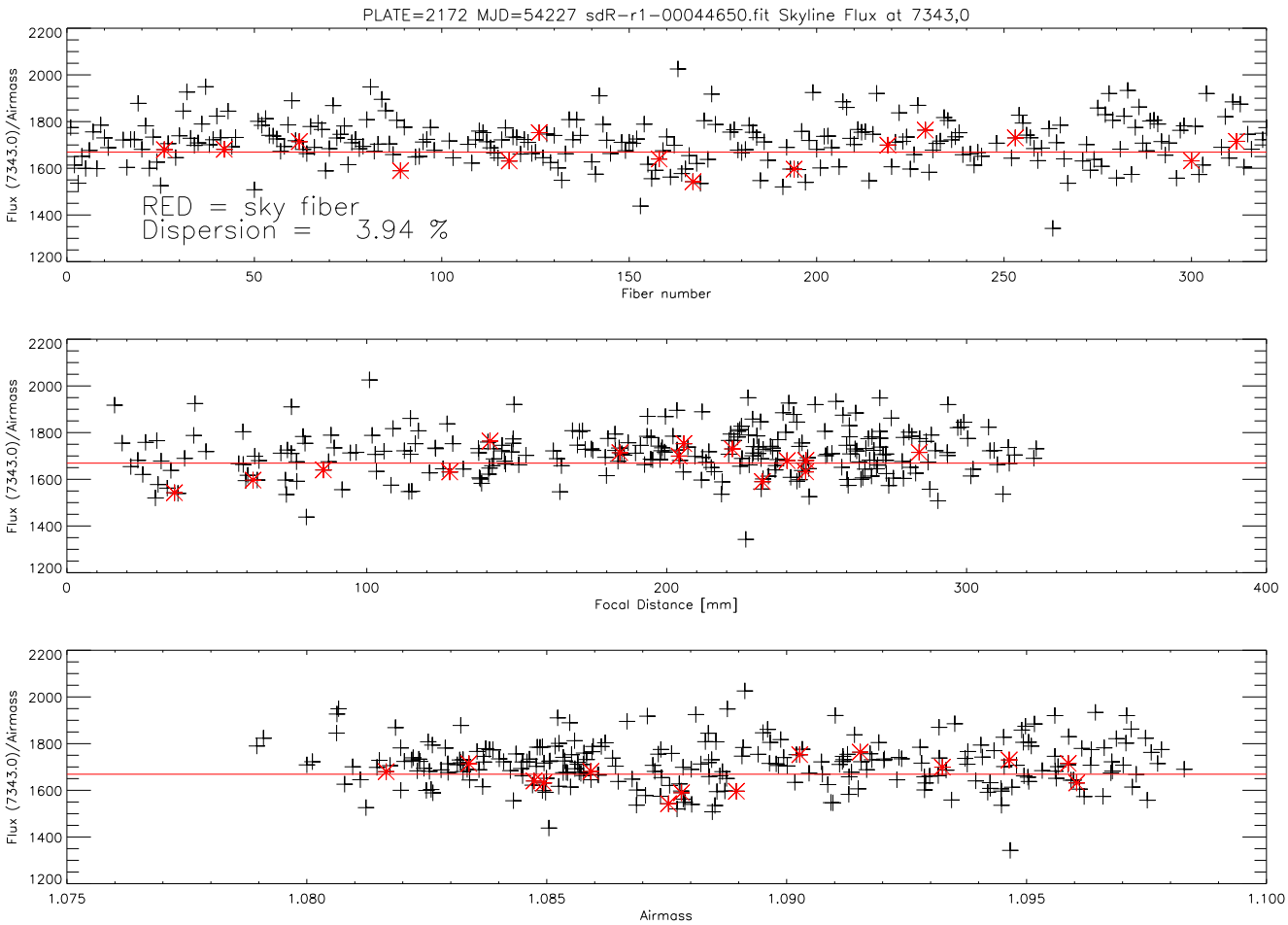

Number of sky fibers = 14
PLATE=2172 MJD=54227 sdR-r1-00044650.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

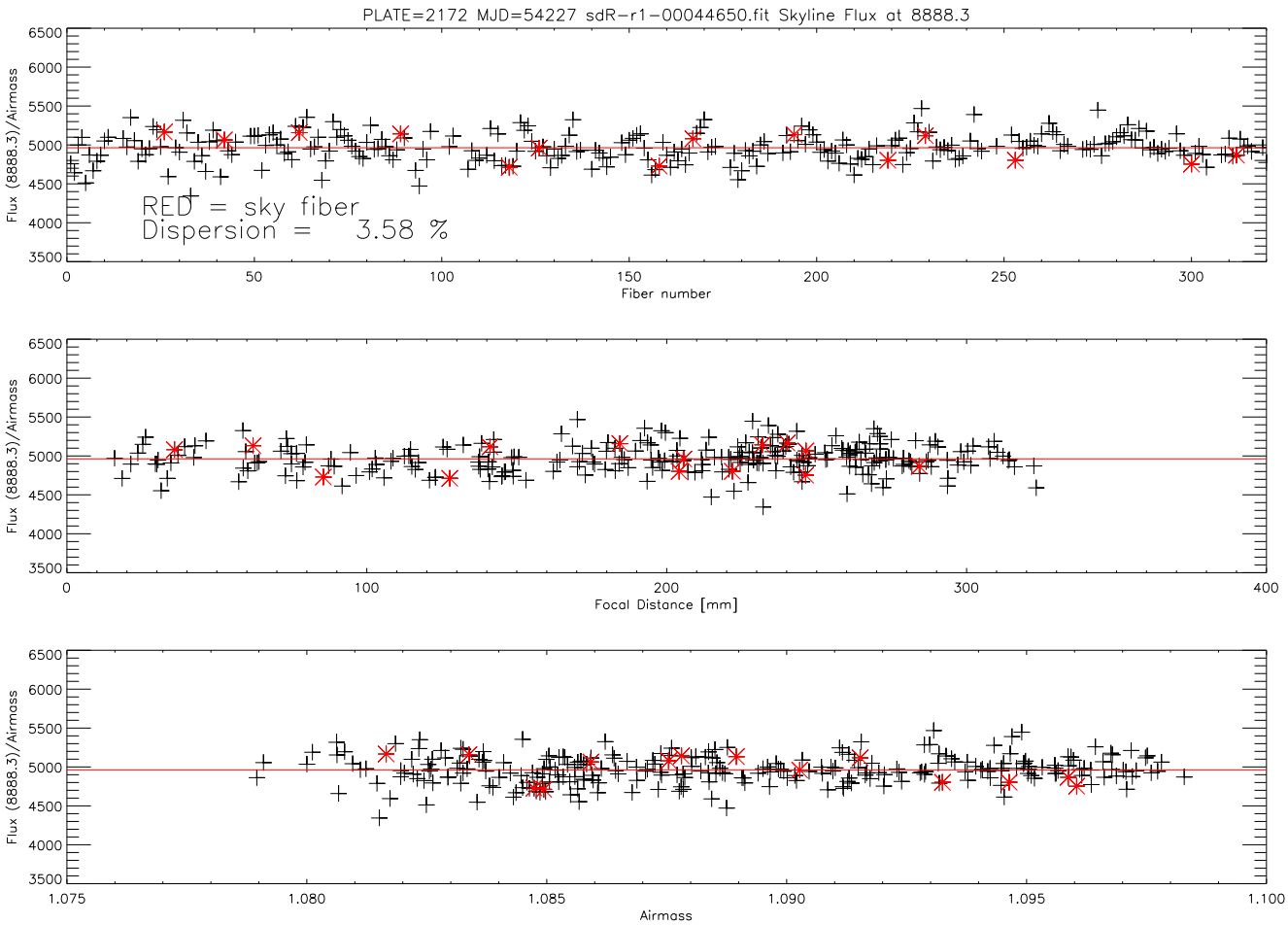

PLATE=2172 MJD=54227 sdR-r1-00044650.fit 2D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
−5
−10
50
100
150
200
250
300
Fiber number

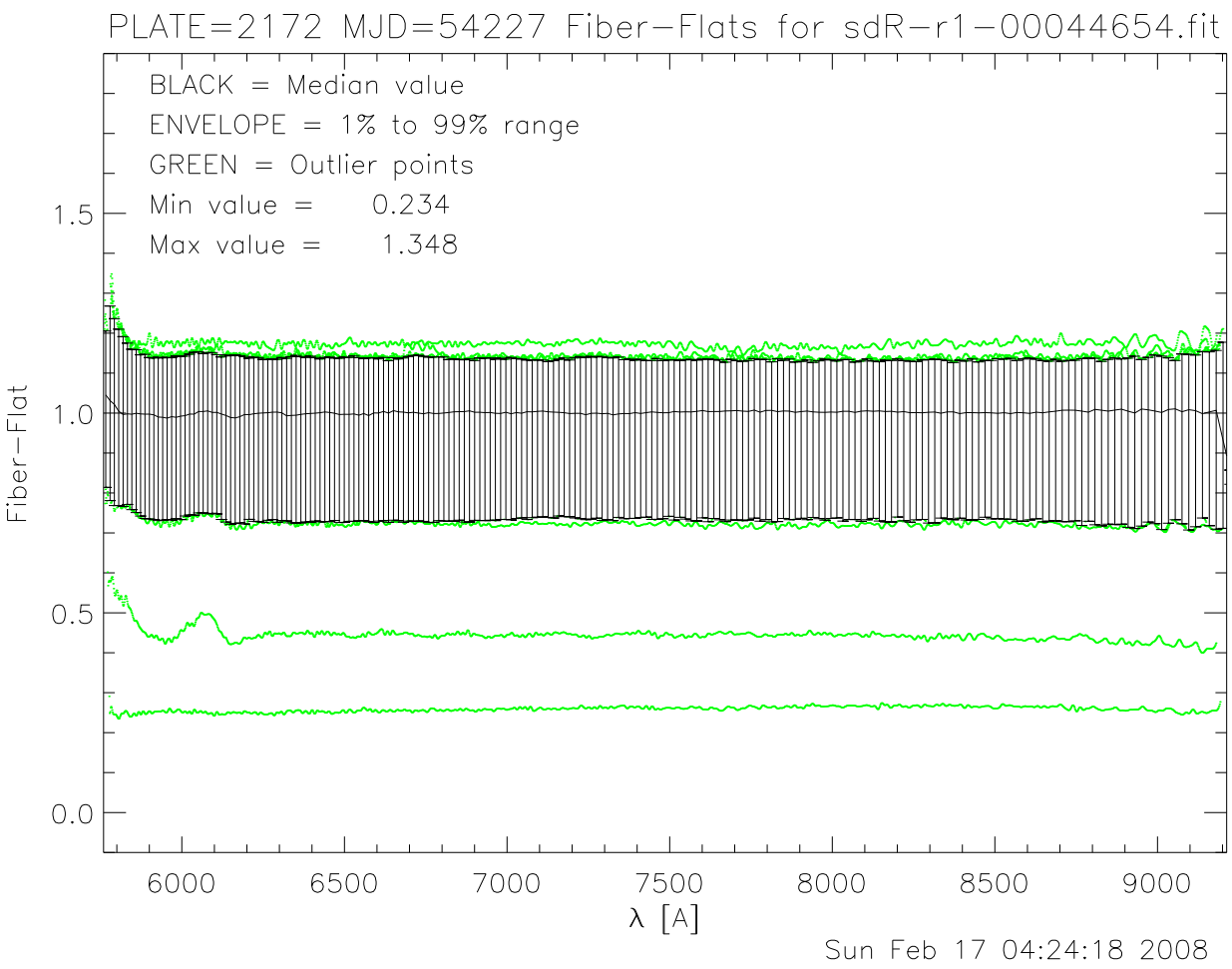

PLATE=2172 MJD=54227 sdR-r1-00044650.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

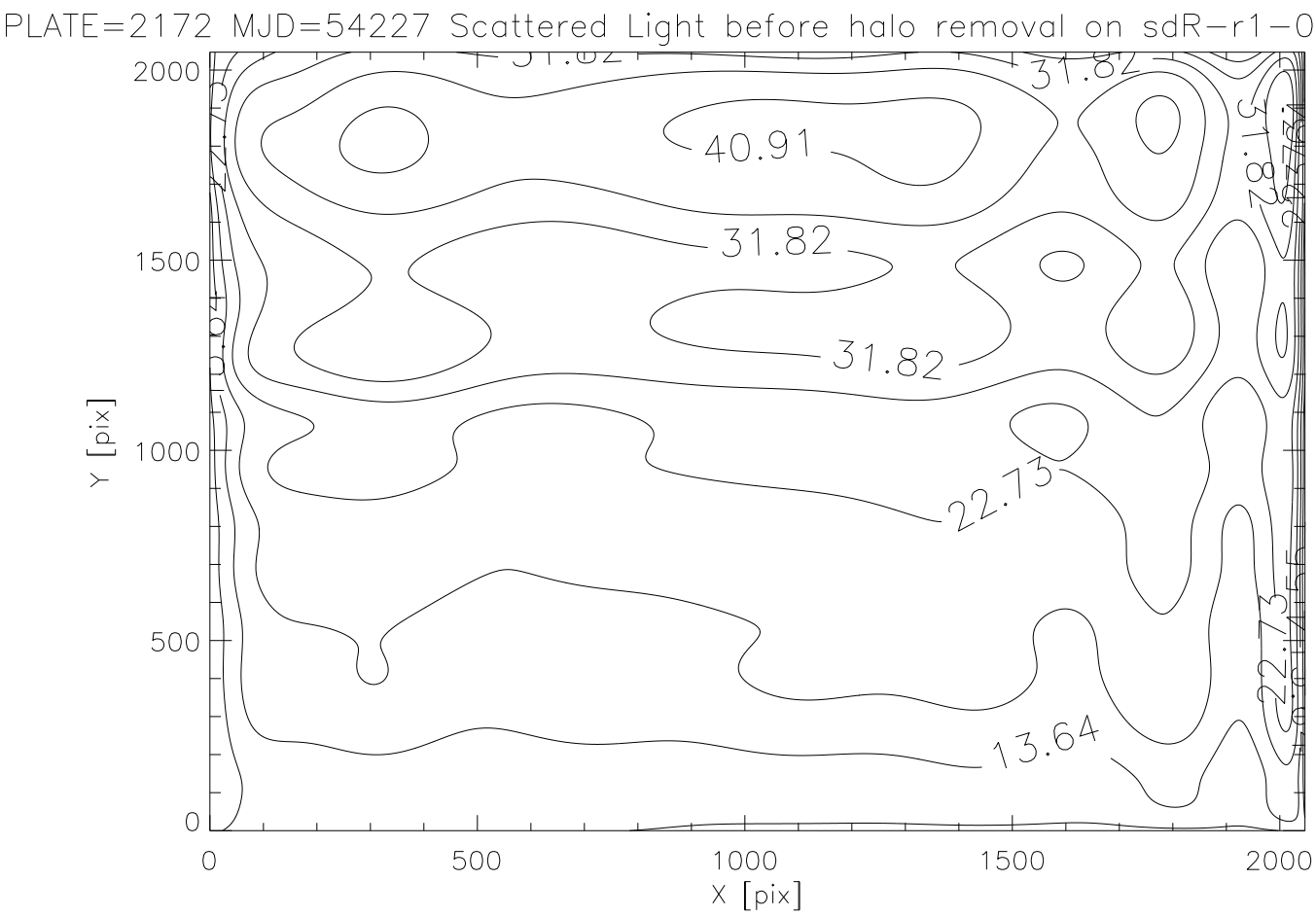

PLATE=2172 MJD=54227 sdR-r1-00044650.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
1500
1000
500
0
-500
8820
8840
8860
8880
8900
λ [A]

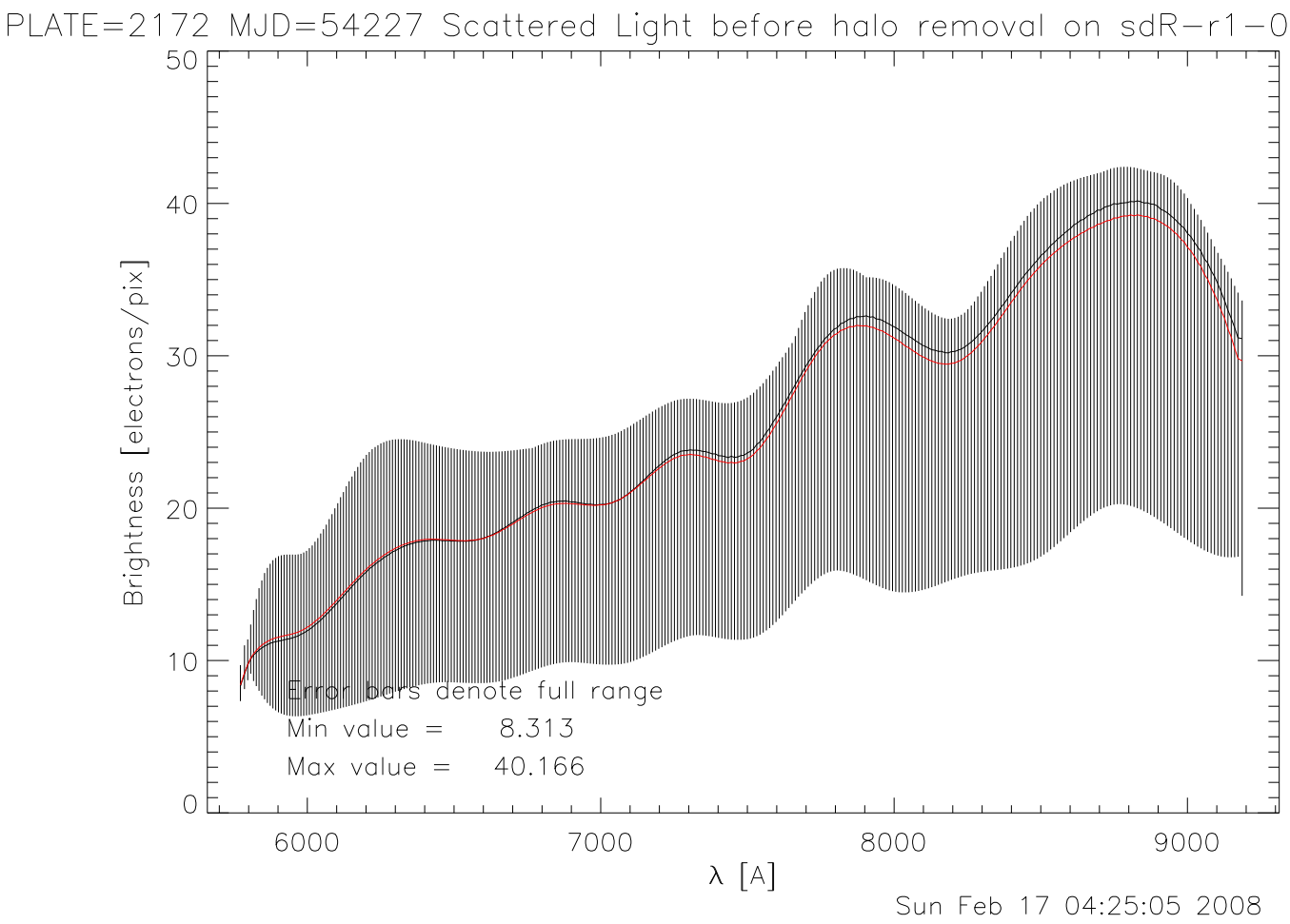

Number of sky fibers = 14
PLATE=2172 MJD=54227 sdR-r1-00044650.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

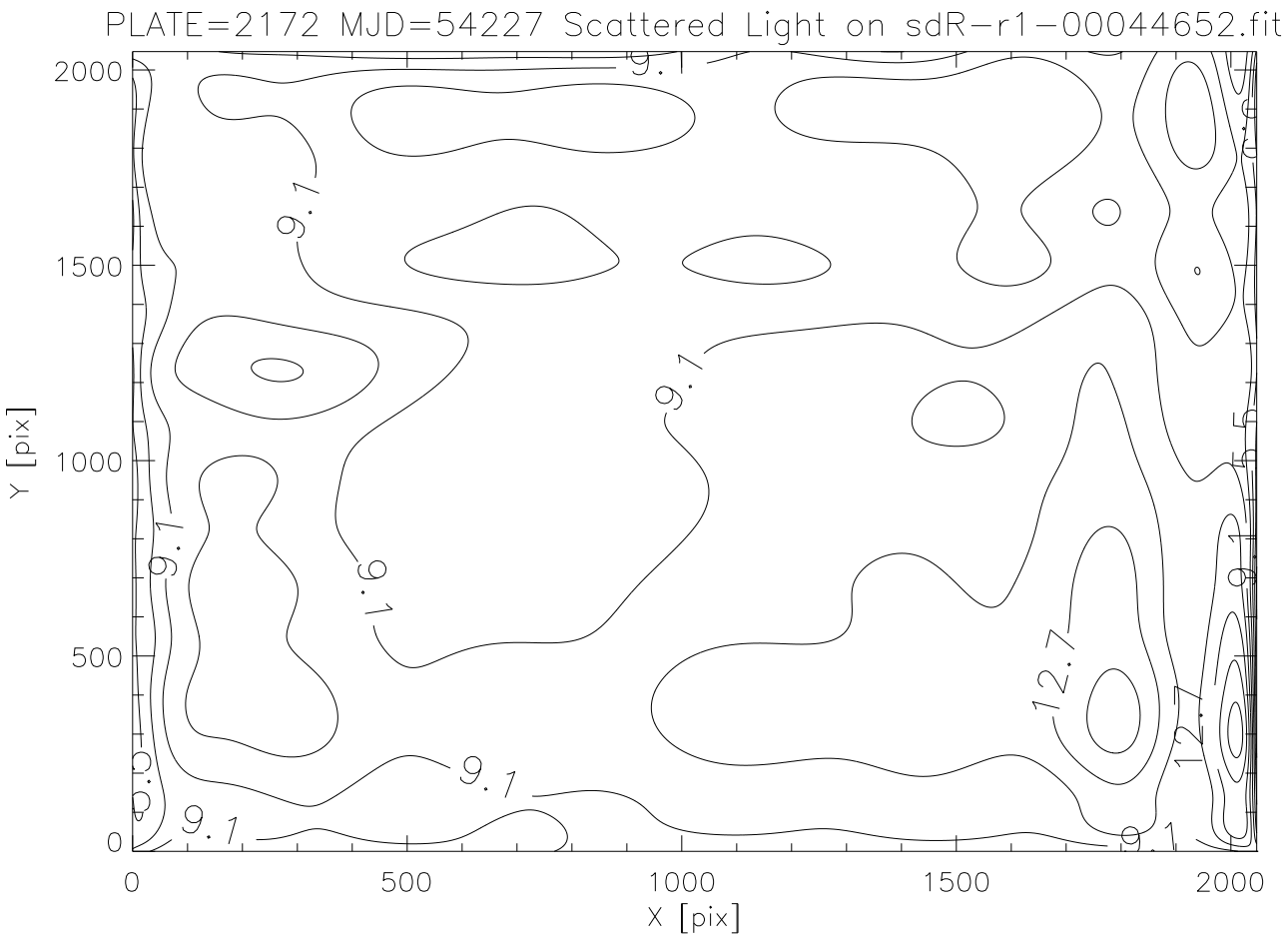

PLATE=2172 MJD=54227 sdR-r1-00044650.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 3.94 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

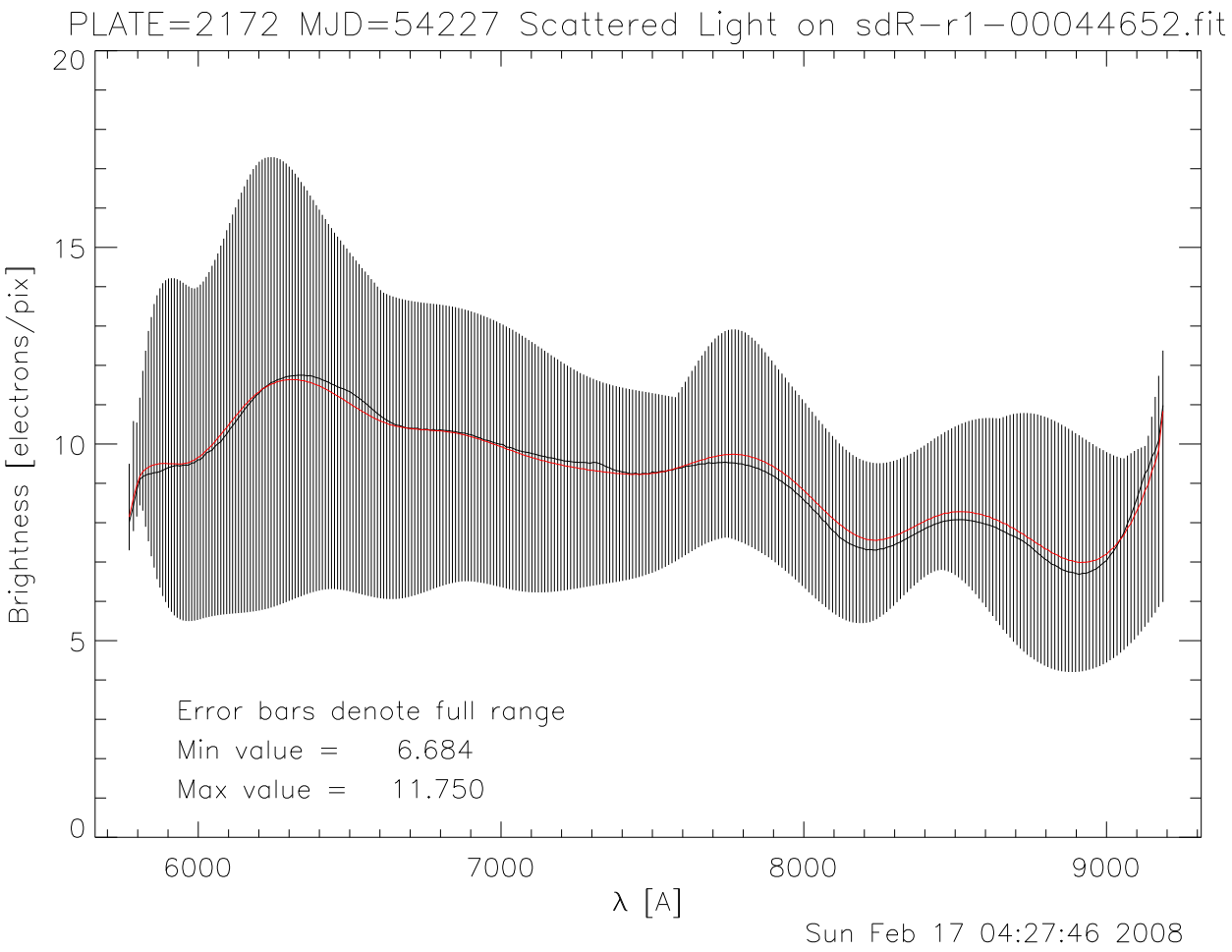

PLATE=2172 MJD=54227 sdR-r1-00044650.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 3.58 %
Fiber number
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass

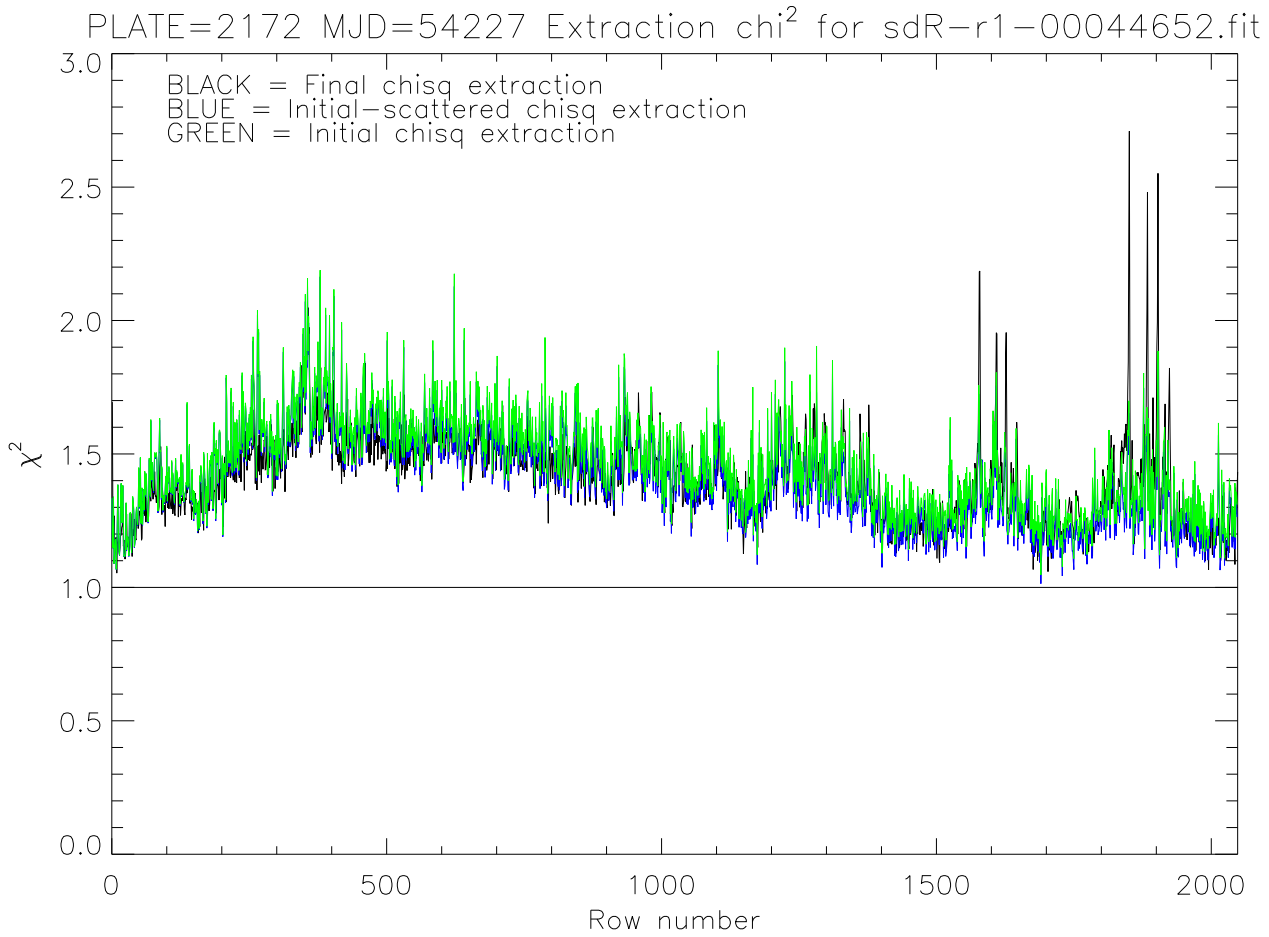

PLATE=2172 MJD=54227 Fiber−Flats for sdR−r1−00044654.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.234
Max value = 1.348
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sun Feb 17 04:24:18 2008

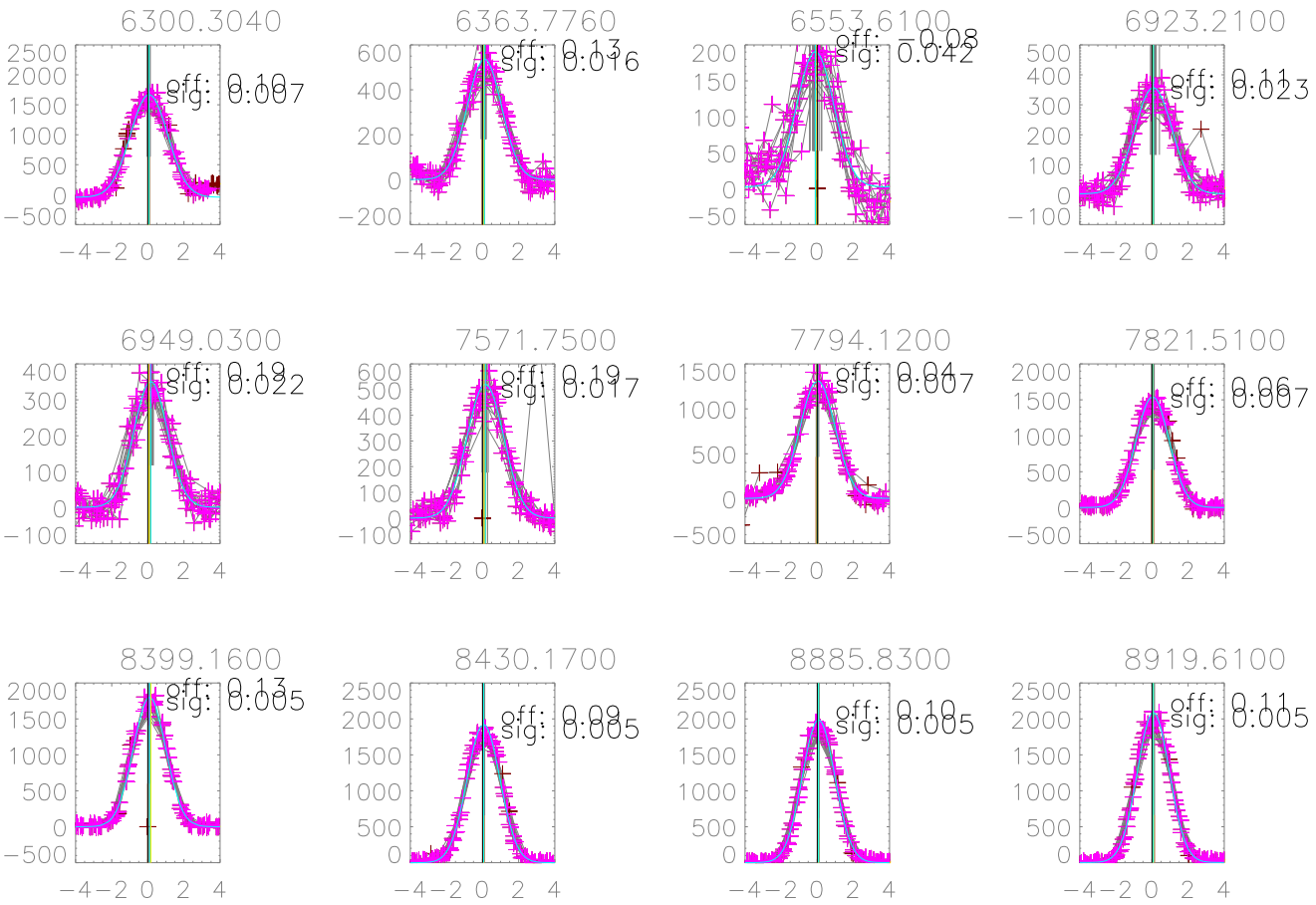

PLATE=2172 MJD=54227 Scattered Light before halo removal on sdR-r1-00044652.fi
40.91
31.82
31.82
31.82
22.73
22.73
13.64
Y [pix]
X [pix]
0
500
1000
1500
2000

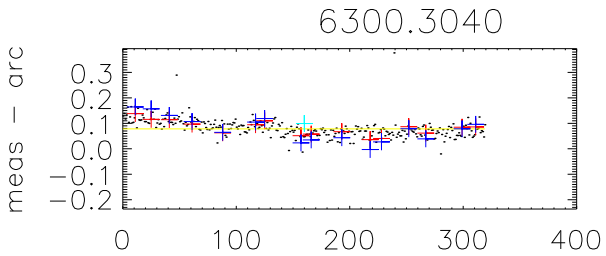

PLATE=2172 MJD=54227 Scattered Light before halo removal on sdR-r1-00044652.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 8.313
Max value = 40.166
Sun Feb 17 04:25:05 2008

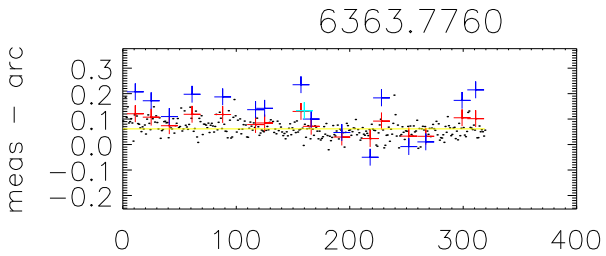

PLATE=2172 MJD=54227 Scattered Light on sdR-r1-00044652.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
9.1
12.7

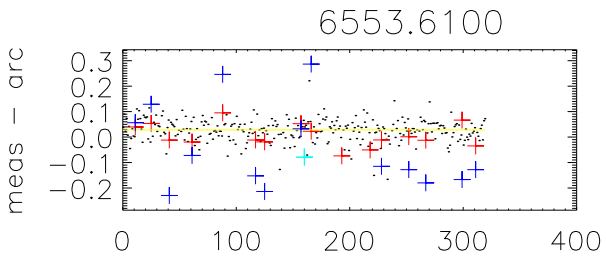

PLATE=2172 MJD=54227 Scattered Light on sdR-r1-00044652.fit
Brightness [electrons/pix]
20
15
10
5
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 6.684
Max value = 11.750
Sun Feb 17 04:27:46 2008

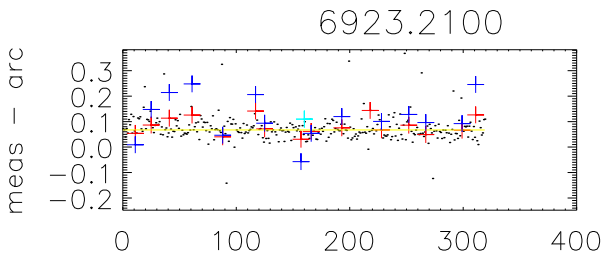

PLATE=2172 MJD=54227 Extraction chi^2 for sdR−r1−00044652.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
500
1000
1500
2000
Row number

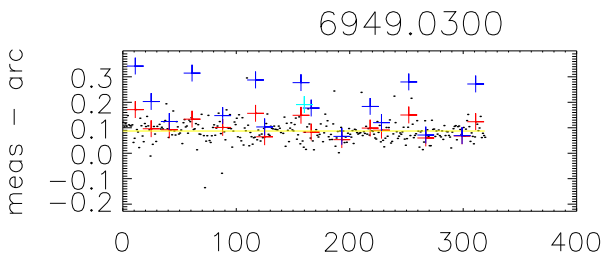

6300.3040
off: 0.10
sig: 0.007
6363.7760
off: 0.13
sig: 0.016
6553.6100
off: −0.08
sig: 0.042
6923.2100
off: 0.11
sig: 0.023
6949.0300
off: 0.19
sig: 0.022
7571.7500
off: 0.19
sig: 0.017
7794.1200
off: 0.04
sig: 0.007
7821.5100
off: 0.06
sig: 0.007
8399.1600
off: 0.13
sig: 0.005
8430.1700
off: 0.09
sig: 0.005
8885.8300
off: 0.10
sig: 0.005
8919.6100
off: 0.11
sig: 0.005

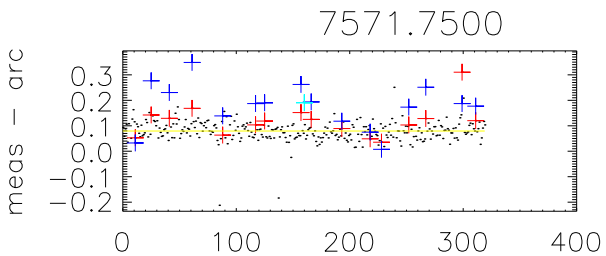

6300.3040
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

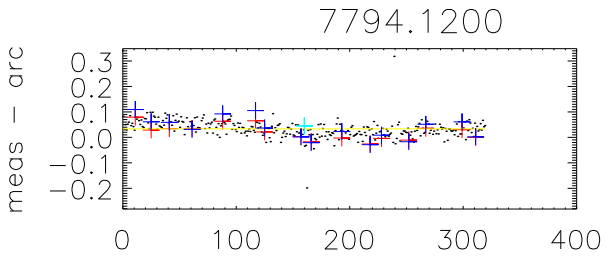

6363.7760
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

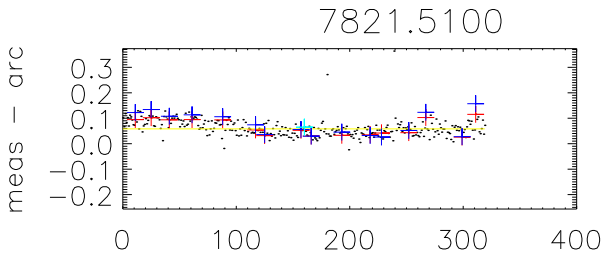

6553.6100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

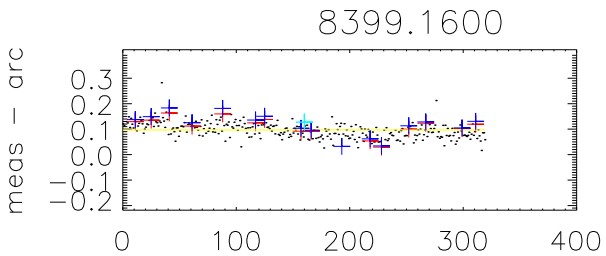

6923.2100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

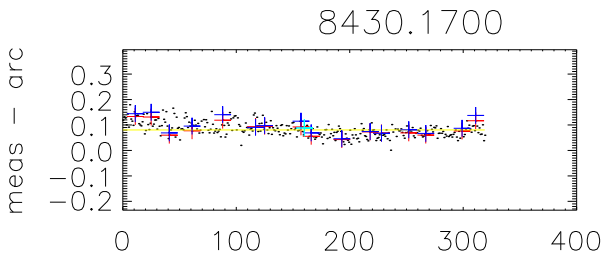

6949.0300
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

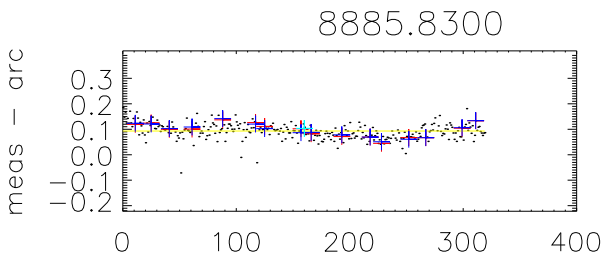

7571.7500
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

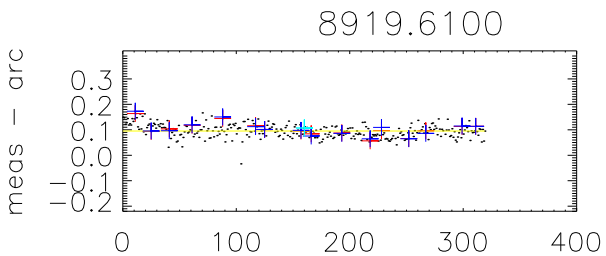

7794.1200
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

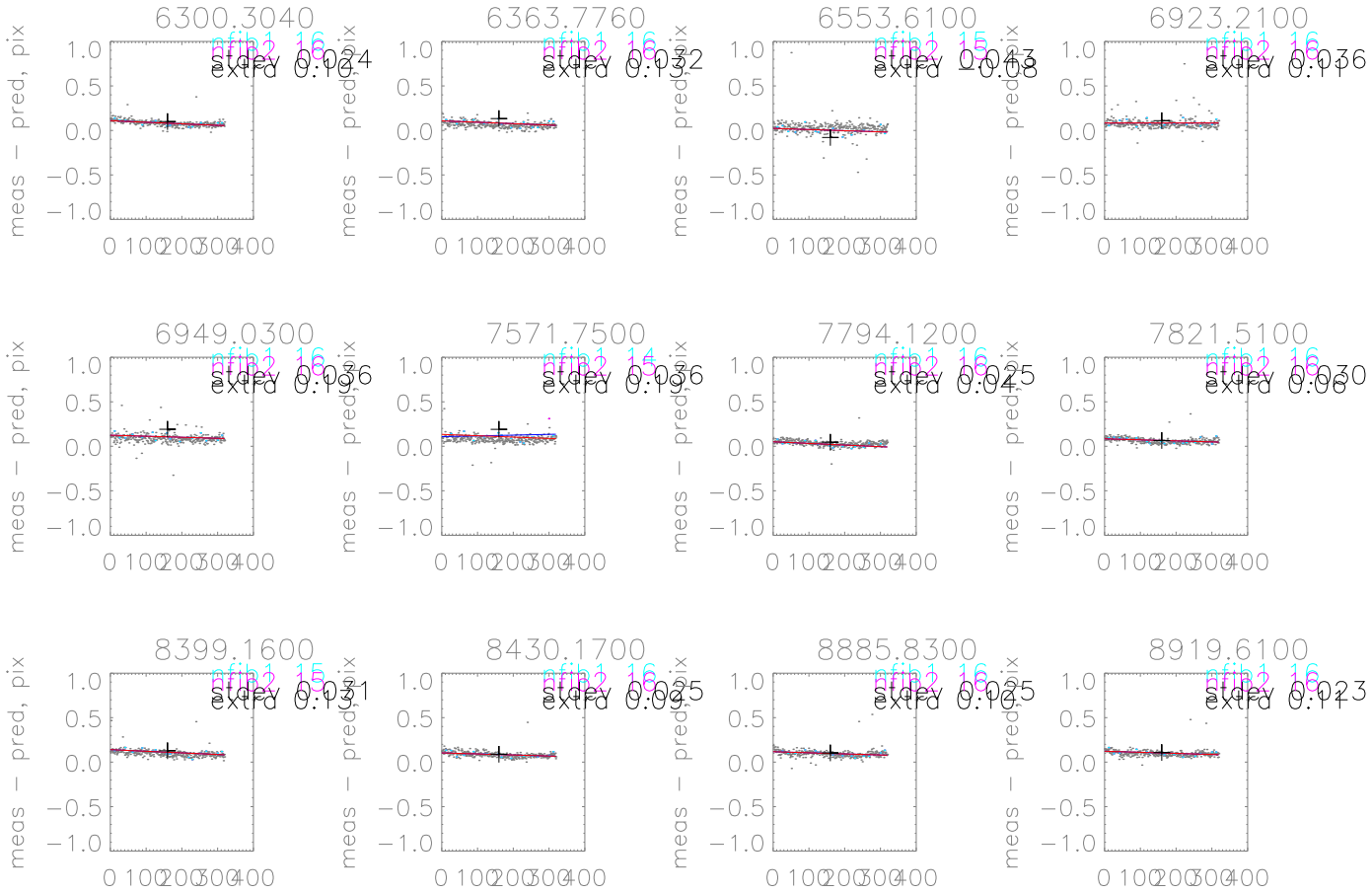

7821.5100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

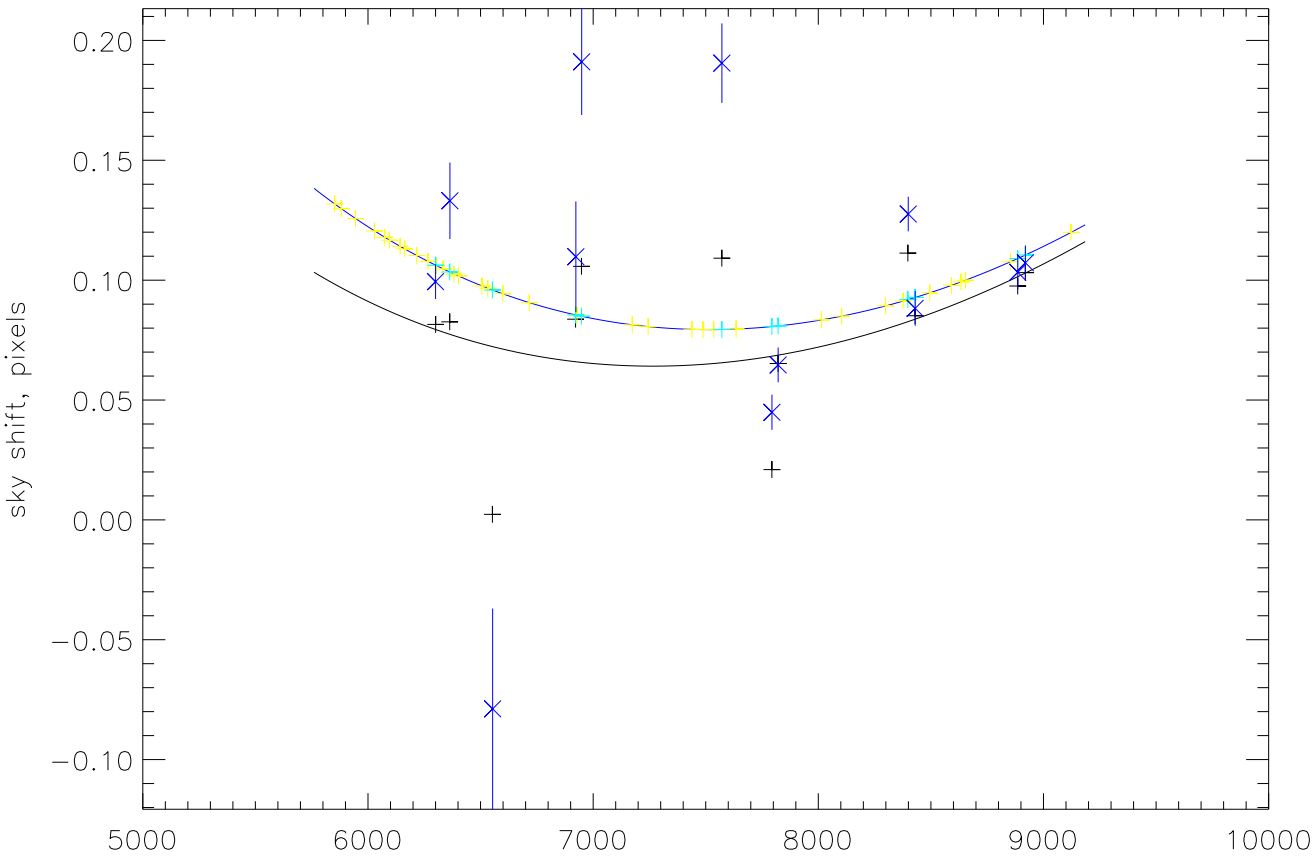

8399.1600
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400


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

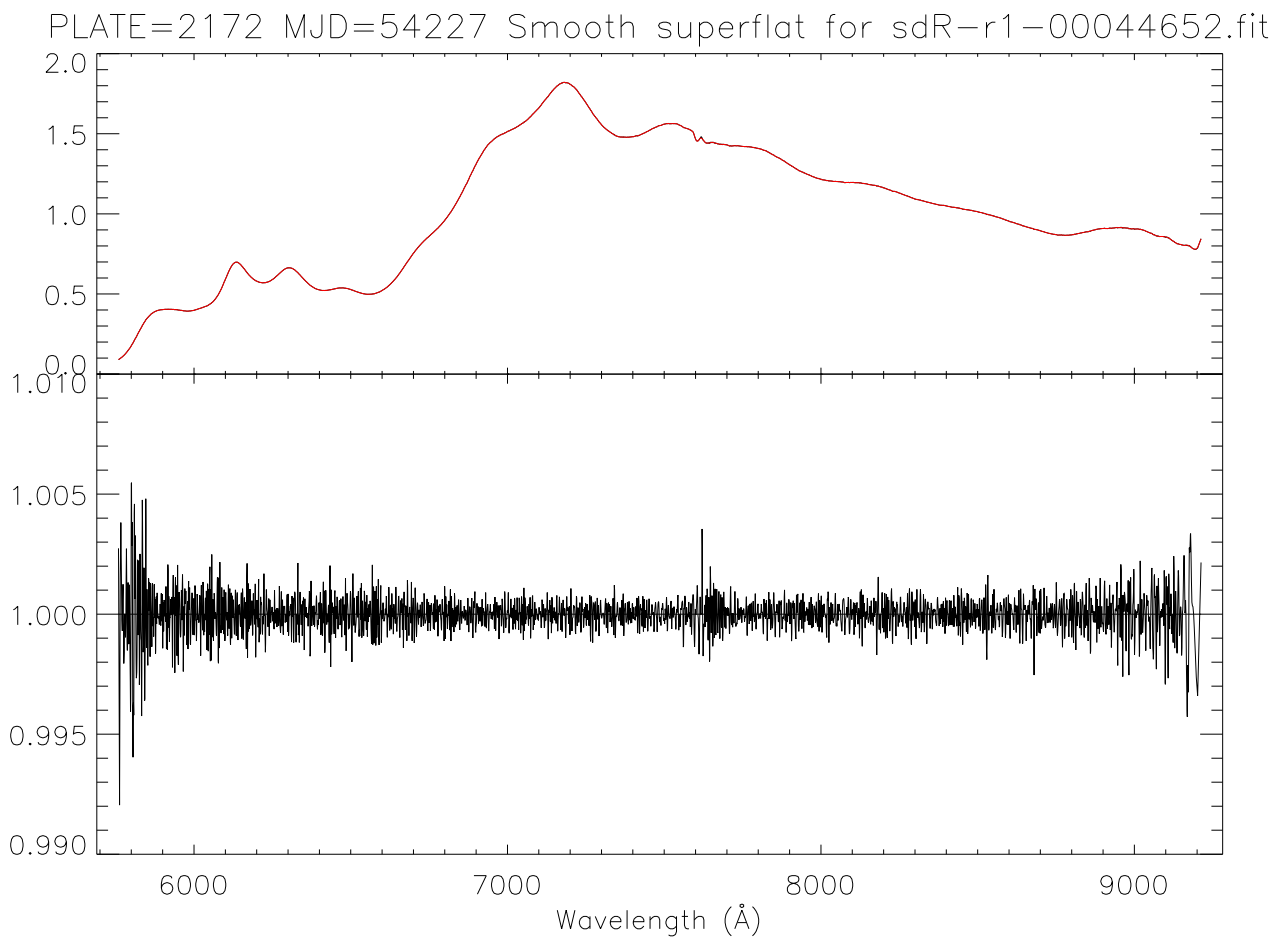

8885.8300
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

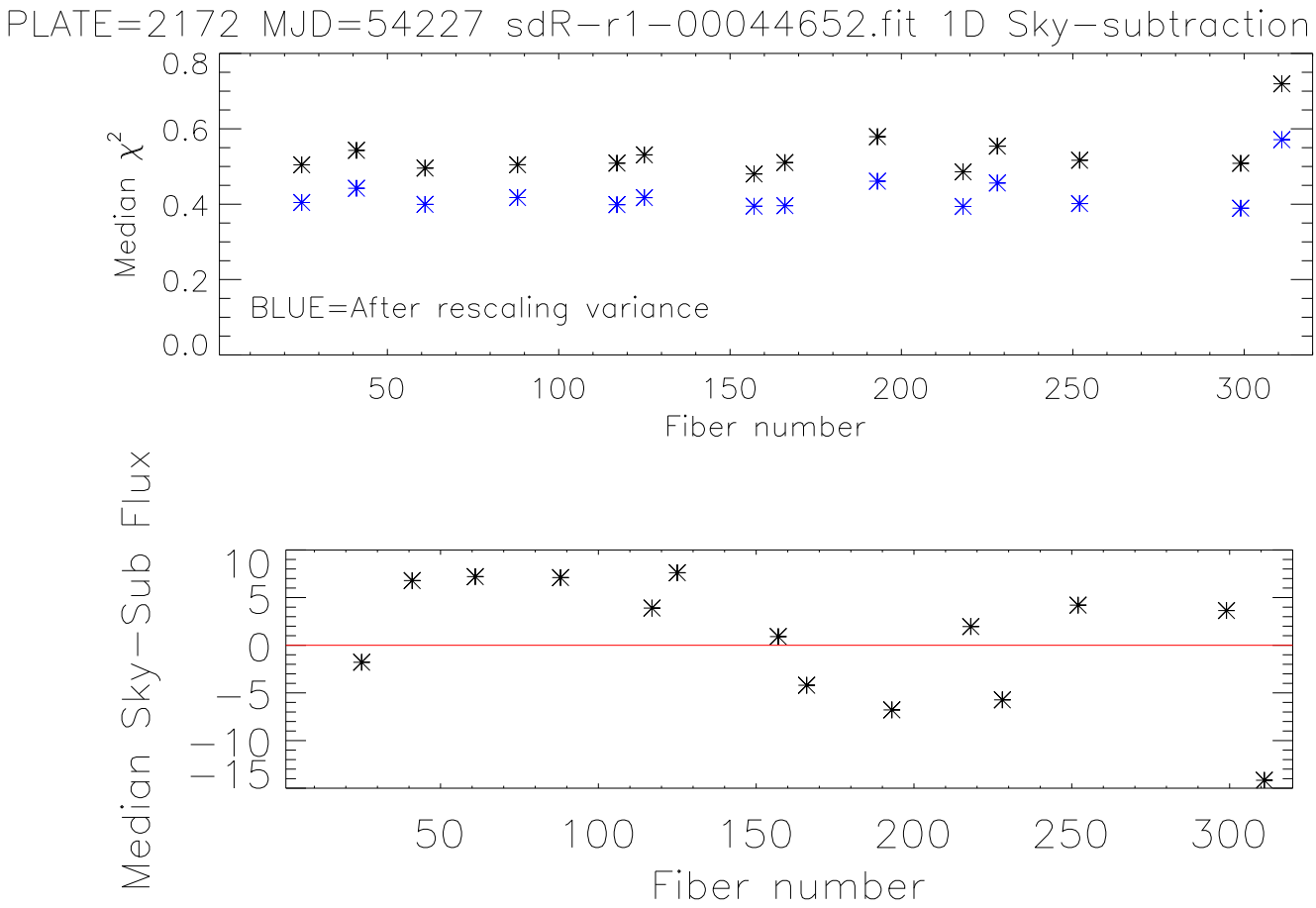

8919.6100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

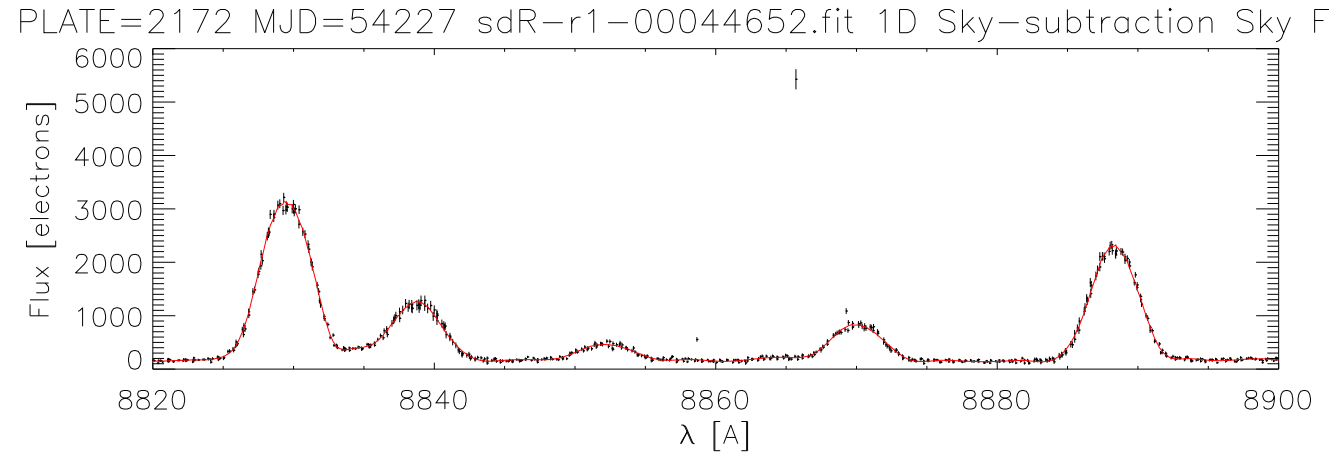

6300.3040
mfib1 16
mfib2 16
stdev 0.024
extra 0.16
6363.7760
mfib1 16
mfib2 16
stdev 0.032
extra 0.132
6553.6100
mfib1 15
mfib2 16
stdev 0.043
extra −0.08
6923.2100
mfib1 16
mfib2 16
stdev 0.036
extra 0.11
6949.0300
mfib1 16
mfib2 16
stdev 0.036
extra 0.196
7571.7500
mfib1 14
mfib2 16
stdev 0.036
extra 0.196
7794.1200
mfib1 16
mfib2 16
stdev 0.025
extra 0.04
7821.5100
mfib1 16
mfib2 16
stdev 0.030
extra 0.06
8399.1600
mfib1 15
mfib2 15
stdev 0.031
extra 0.13
8430.1700
mfib1 16
mfib2 16
stdev 0.025
extra 0.09
8885.8300
mfib1 16
mfib2 16
stdev 0.025
extra 0.16
8919.6100
mfib1 16
mfib2 16
stdev 0.023
extra 0.11
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400

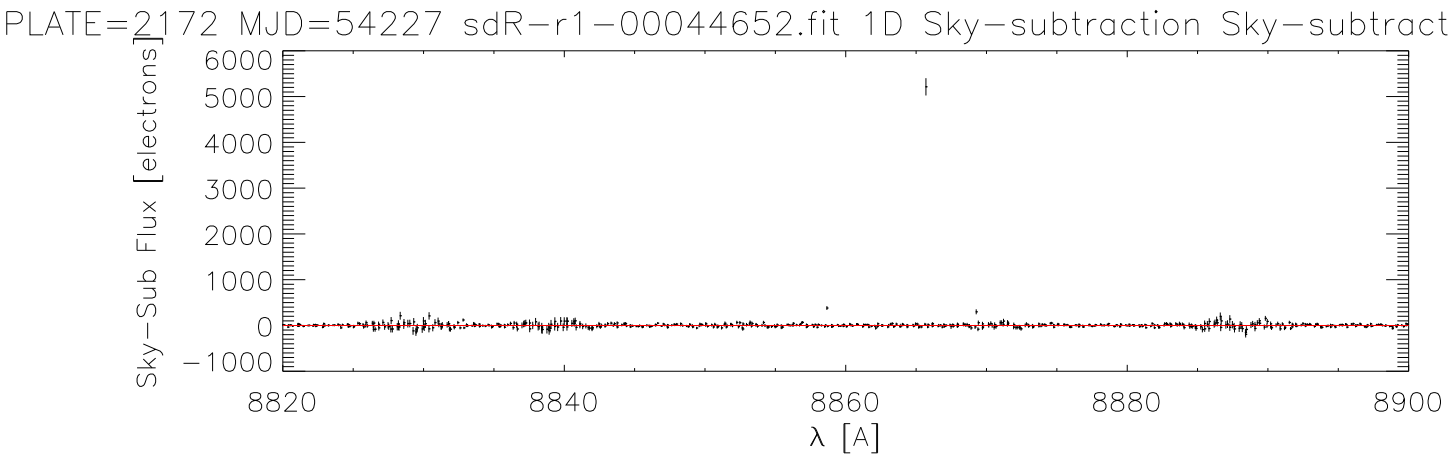

sky shift, pixels
0.20
0.15
0.10
0.05
0.00
−0.05
−0.10
5000
6000
7000
8000
9000
10000

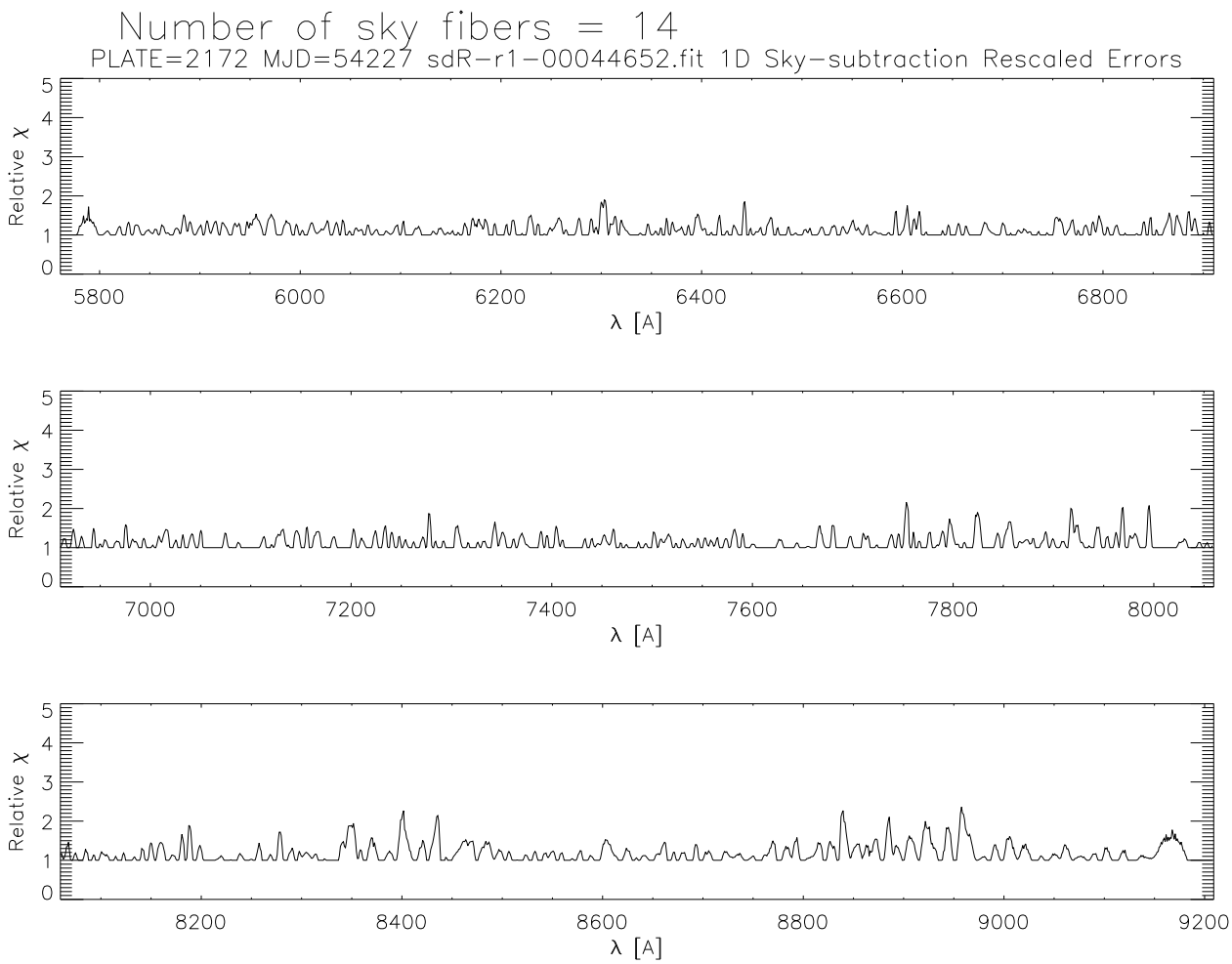
es= 0.0000

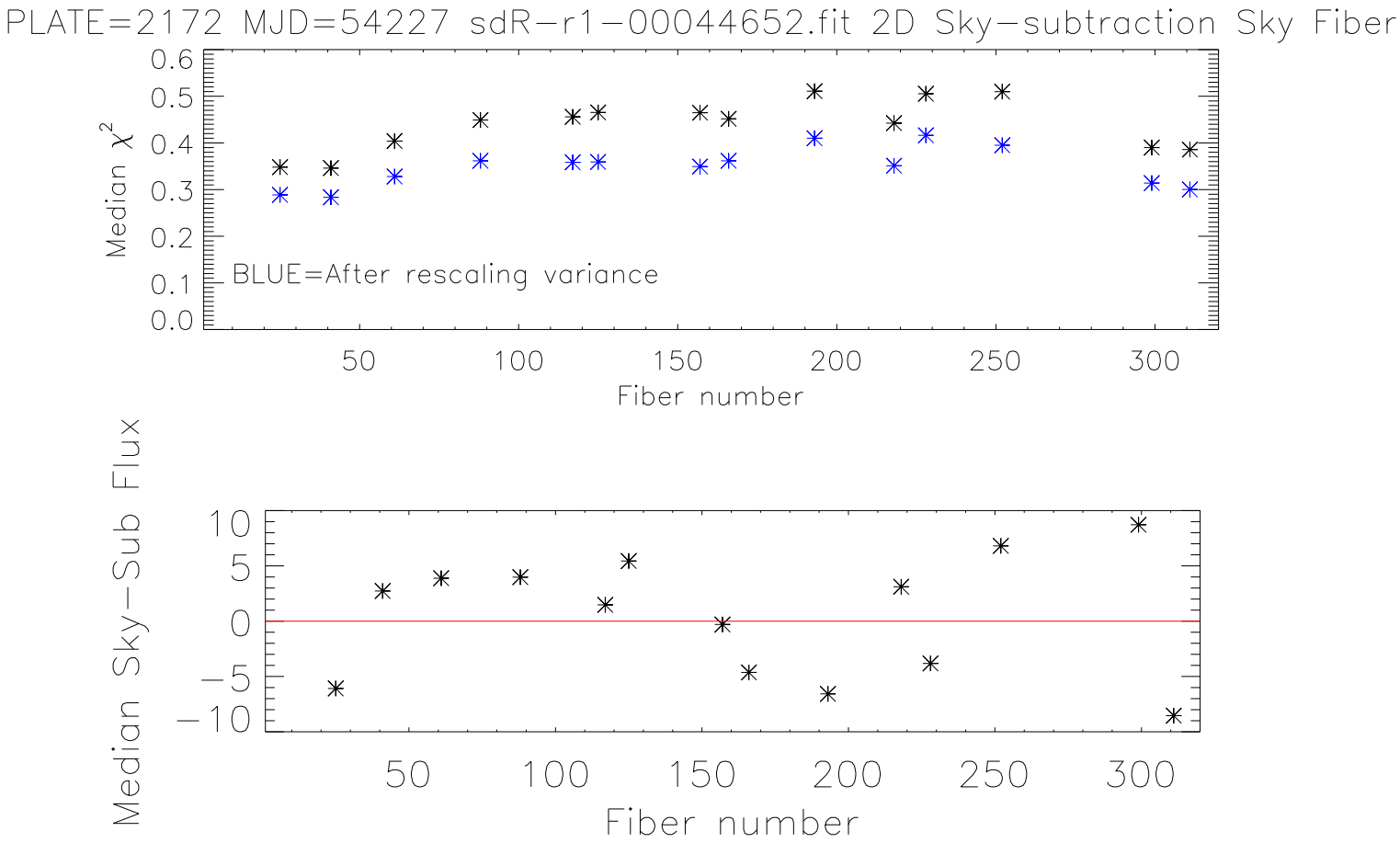

PLATE=2172 MJD=54227 Smooth superflat for sdR-r1-00044652.fit
2.0
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
6000
7000
8000
9000
Wavelength (Å)

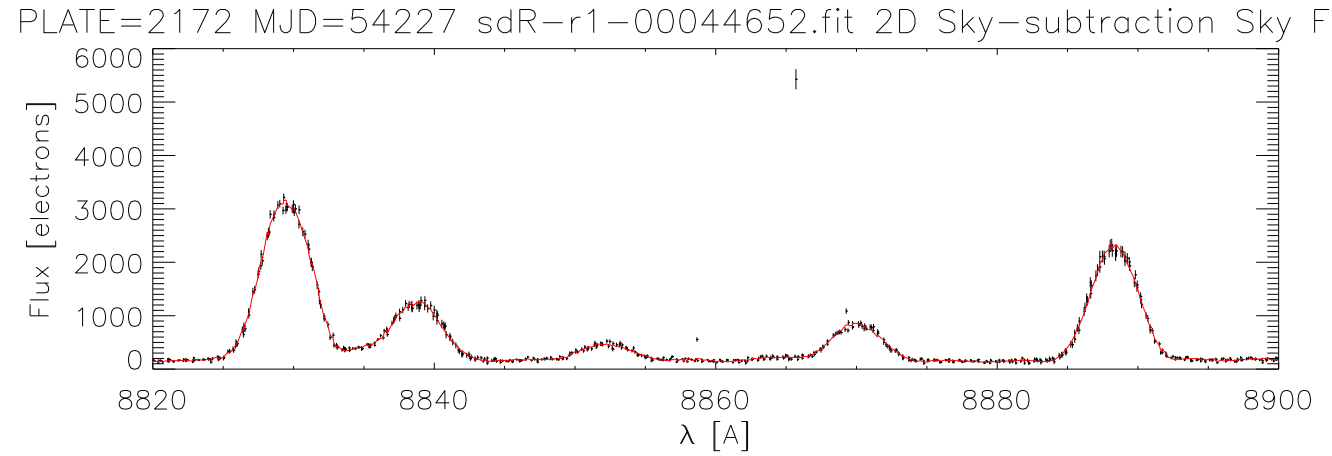

PLATE=2172 MJD=54227 sdR-r1-00044652.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
-5
-10
-15
50
100
150
200
250
300
Fiber number

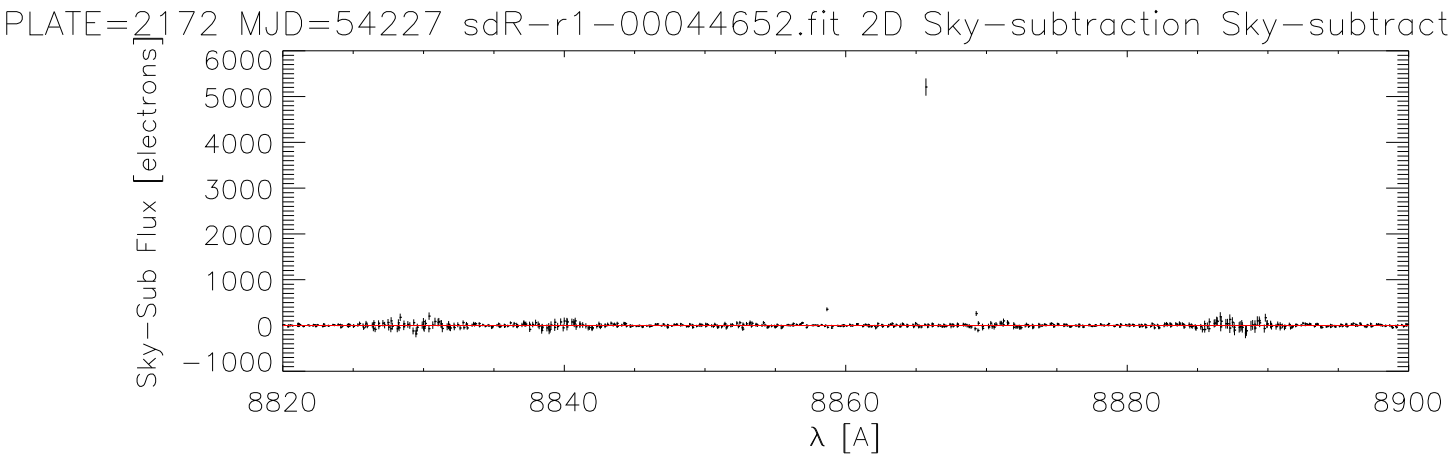

PLATE=2172 MJD=54227 sdR-r1-00044652.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
6000
5000
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

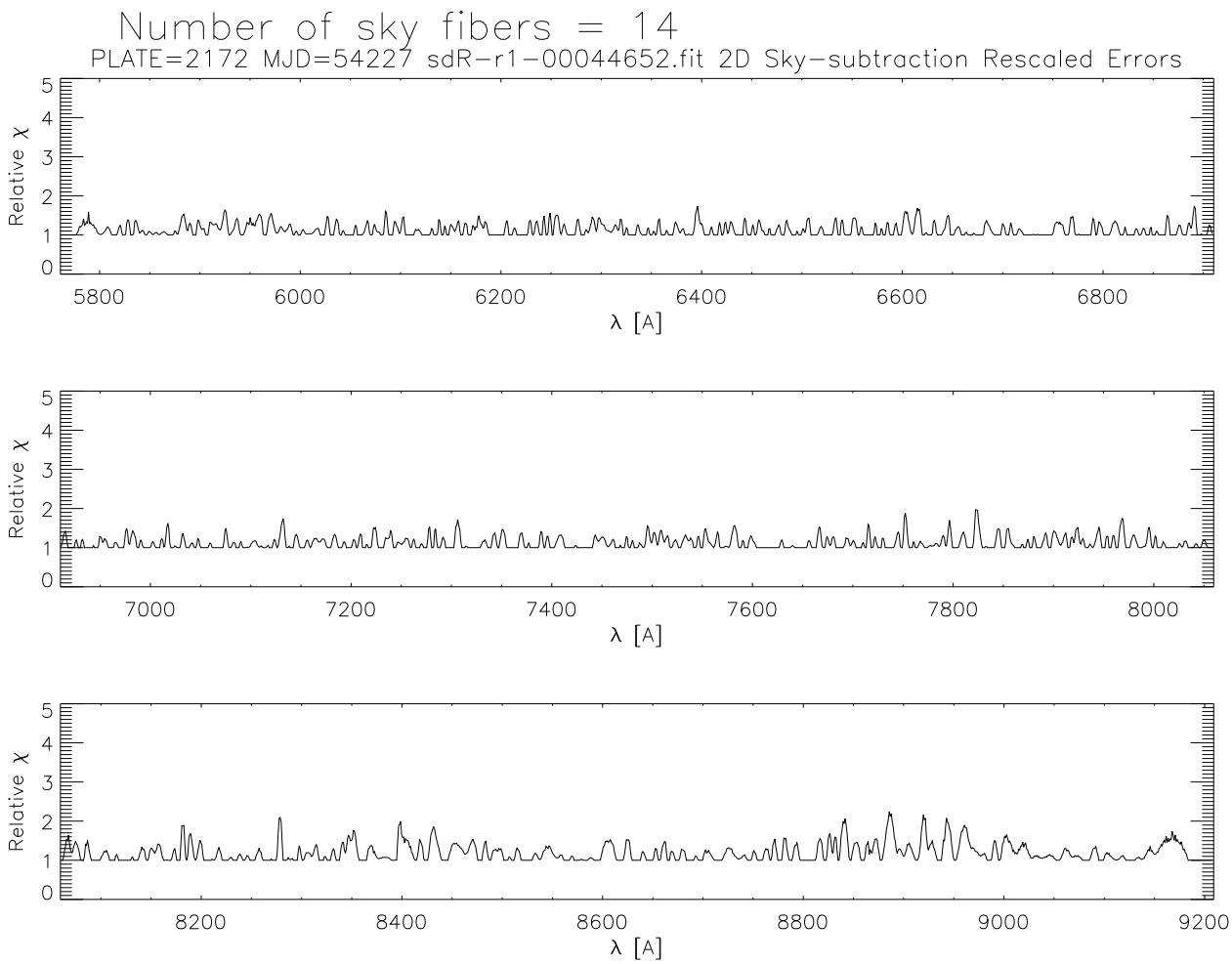

PLATE=2172 MJD=54227 sdR-r1-00044652.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
6000
5000
4000
3000
2000
1000
0
-1000
8820
8840
8860
8880
8900
λ [A]

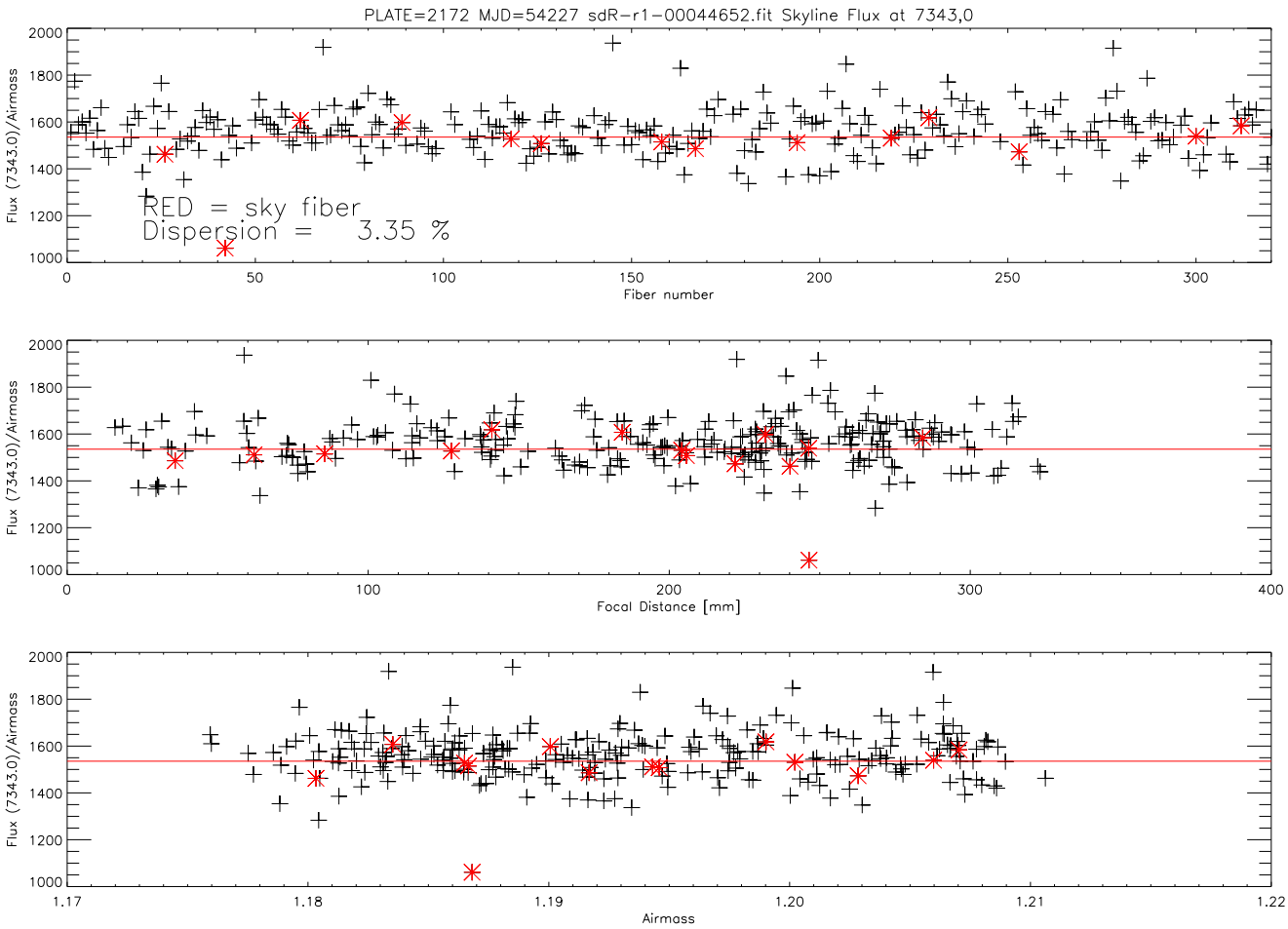

Number of sky fibers = 14
PLATE=2172 MJD=54227 sdR-r1-00044652.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

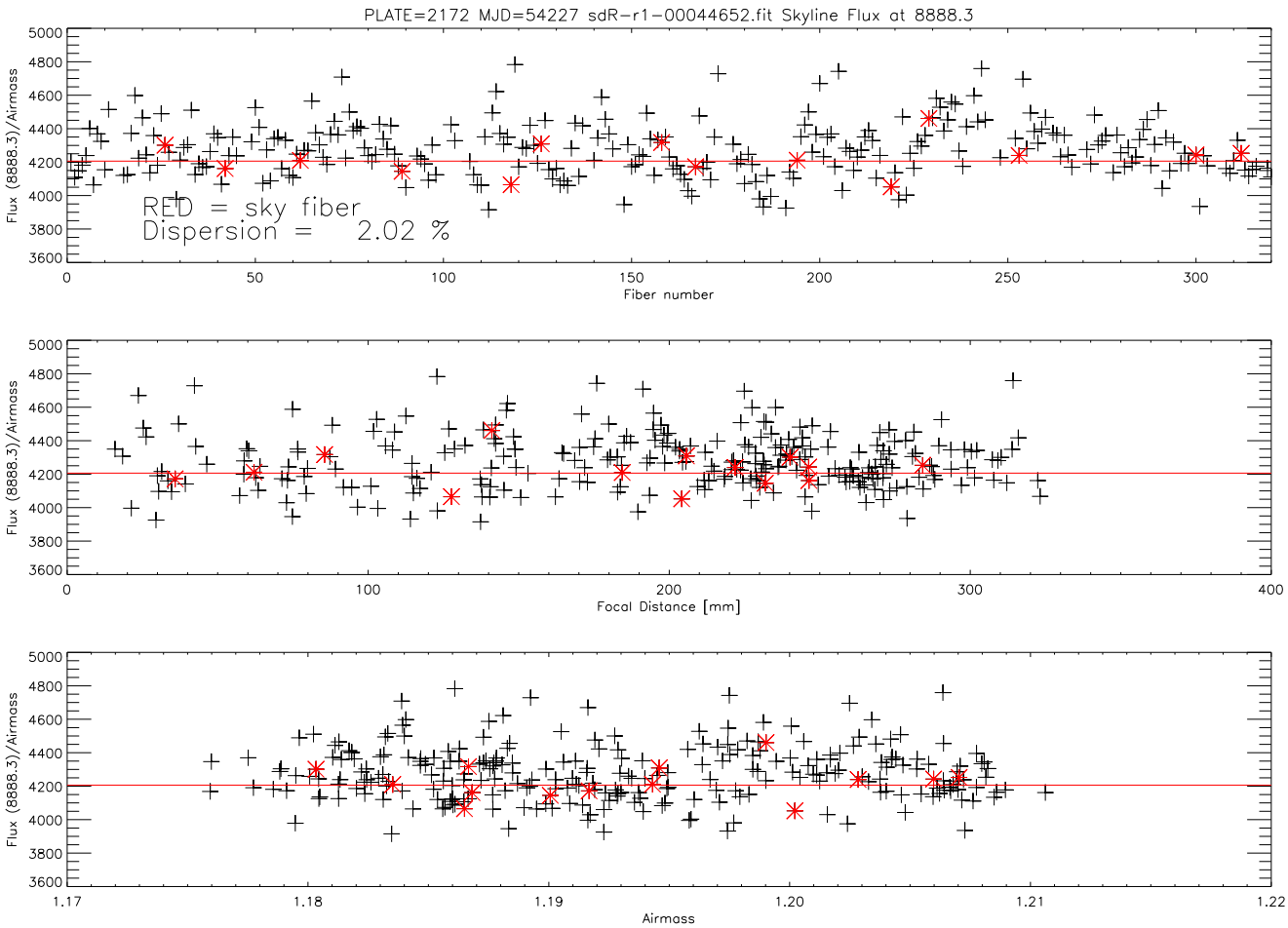

PLATE=2172 MJD=54227 sdR-r1-00044652.fit 2D Sky-subtraction Sky Fibers
Median χ^2
0.6
0.5
0.4
0.3
0.2
0.1
0.0
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
−5
−10
50
100
150
200
250
300
Fiber number

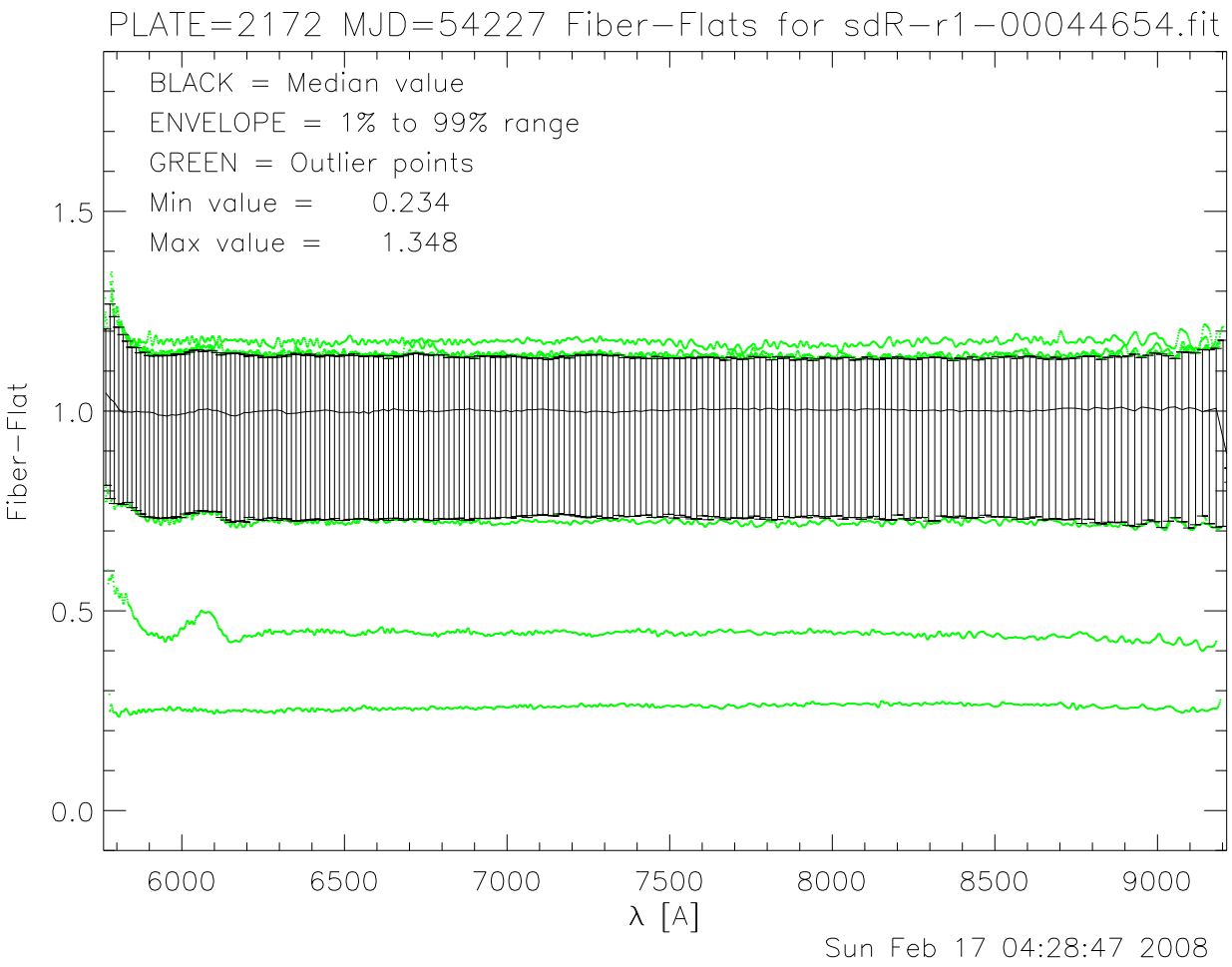

PLATE=2172 MJD=54227 sdR-r1-00044652.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
6000
5000
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

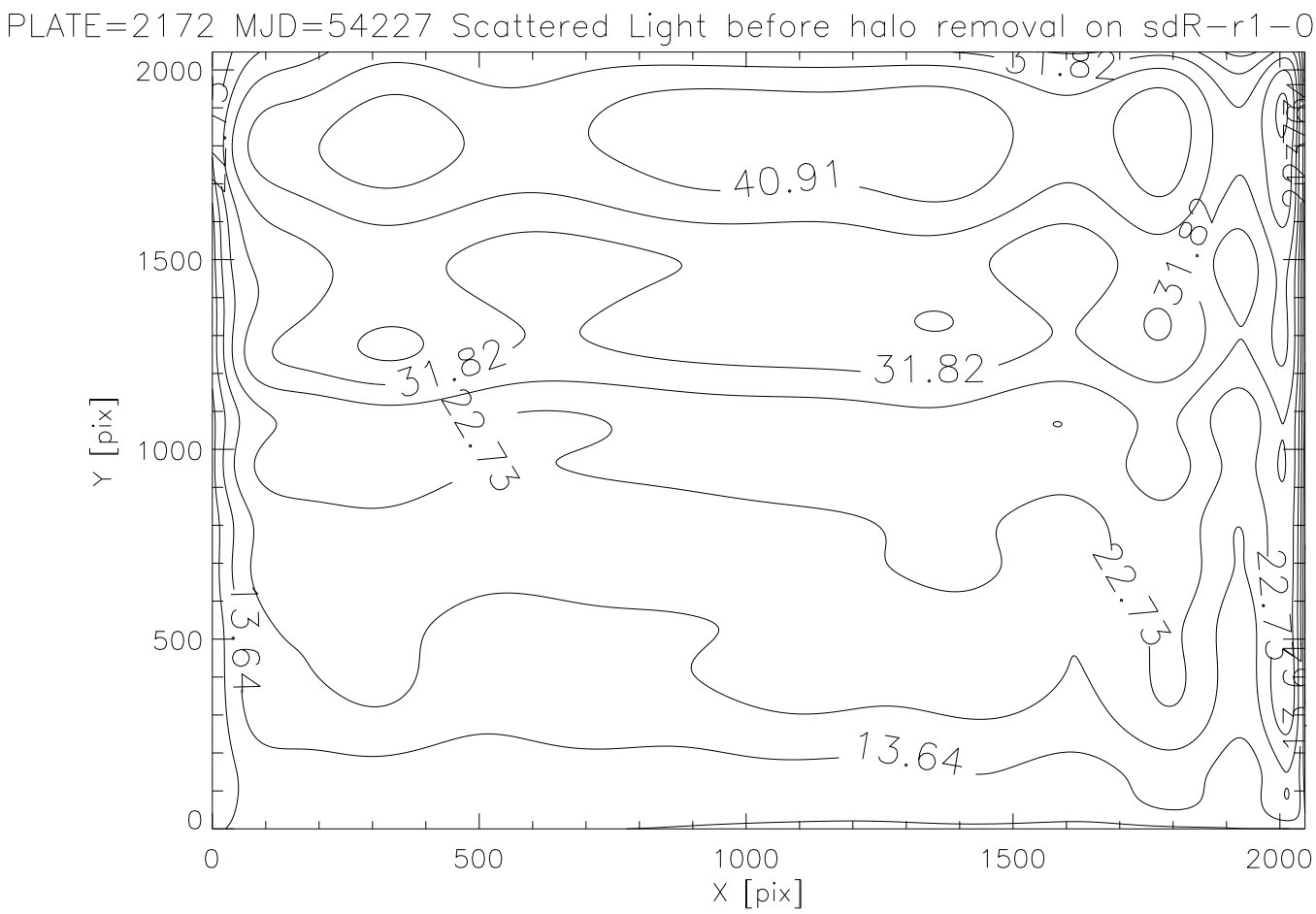

PLATE=2172 MJD=54227 sdR-r1-00044652.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
6000
5000
4000
3000
2000
1000
0
-1000
8820
8840
8860
8880
8900
λ [A]

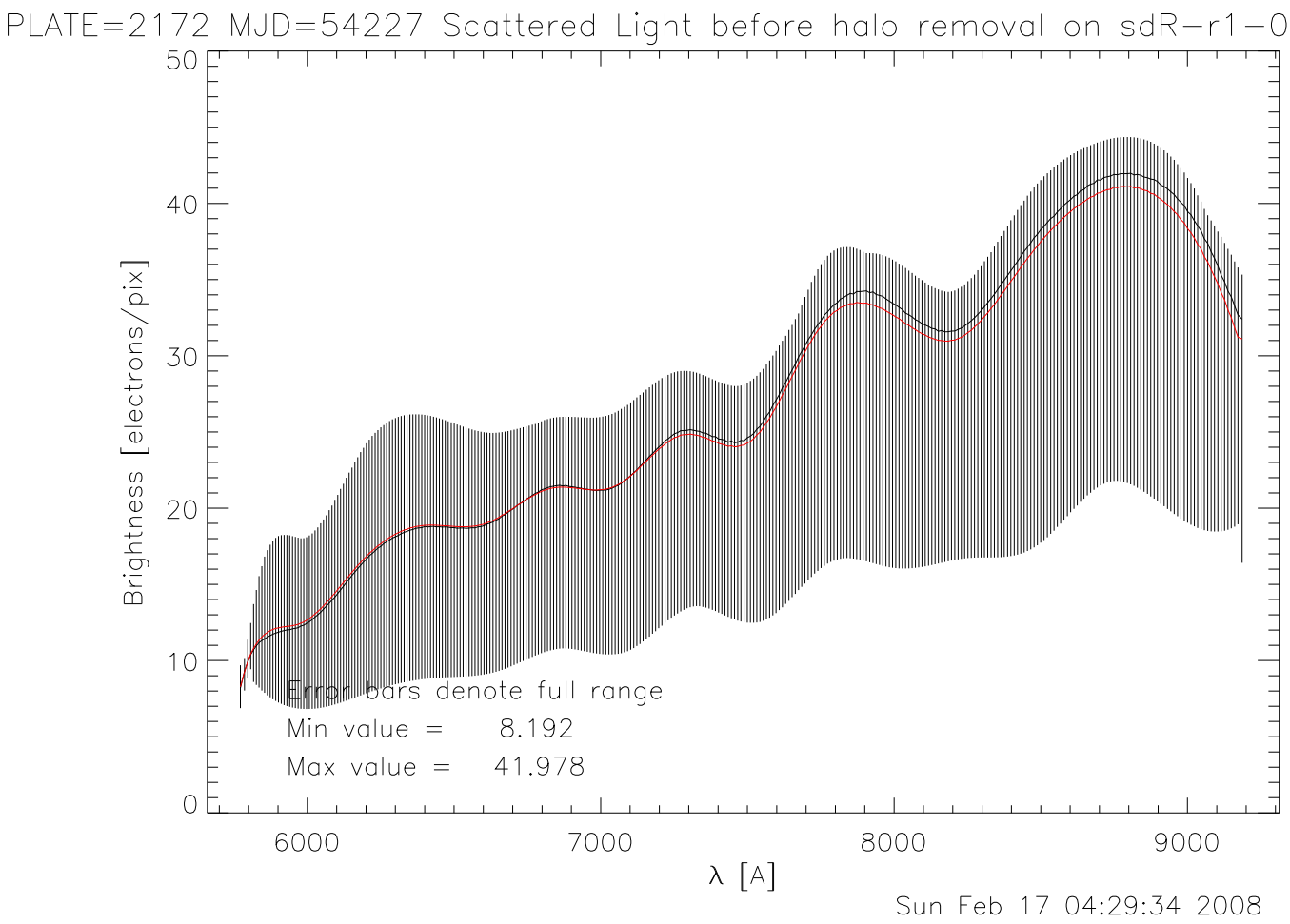

Number of sky fibers = 14
PLATE=2172 MJD=54227 sdR-r1-00044652.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

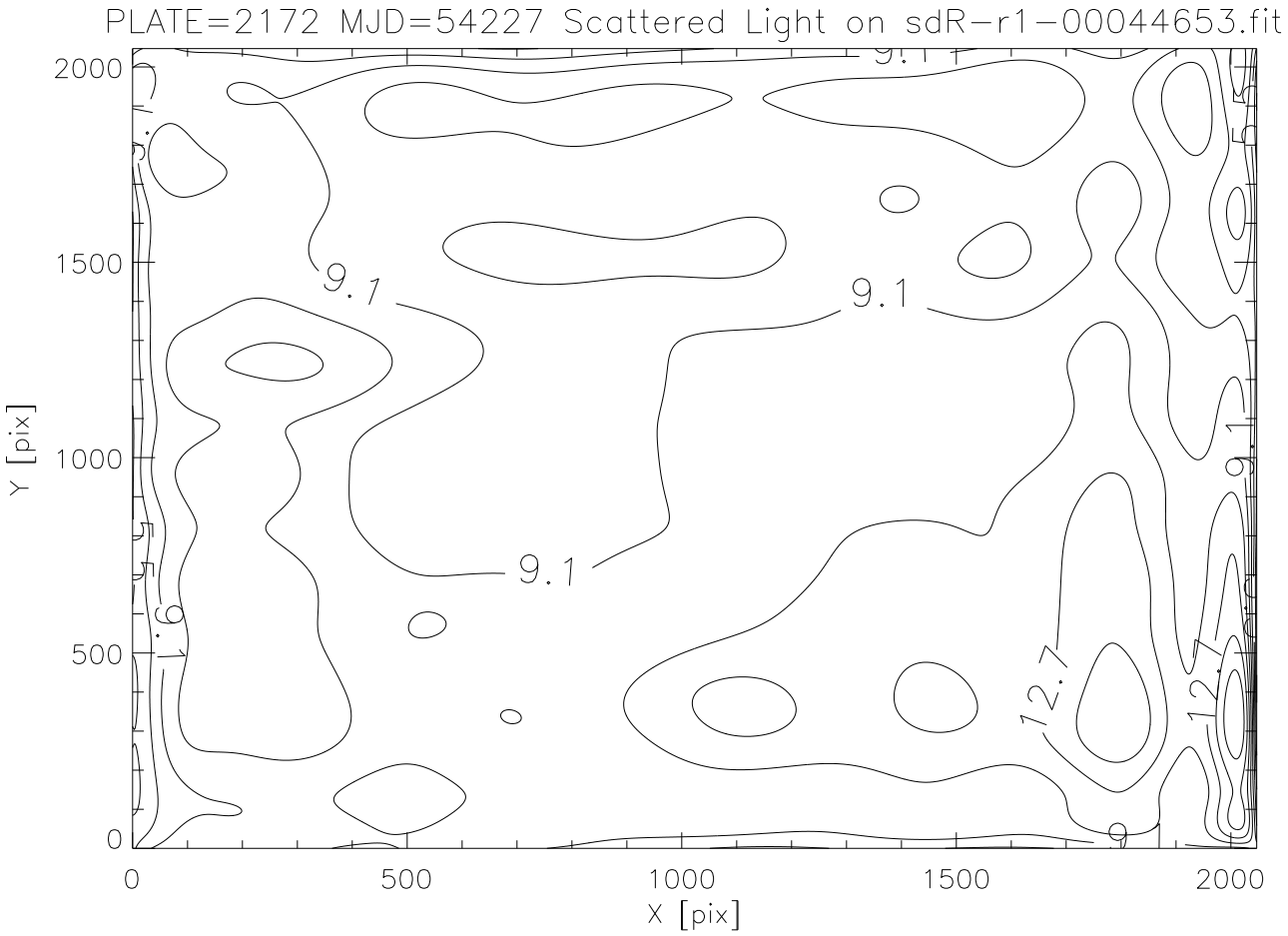

PLATE=2172 MJD=54227 sdR-r1-00044652.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 3.35 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

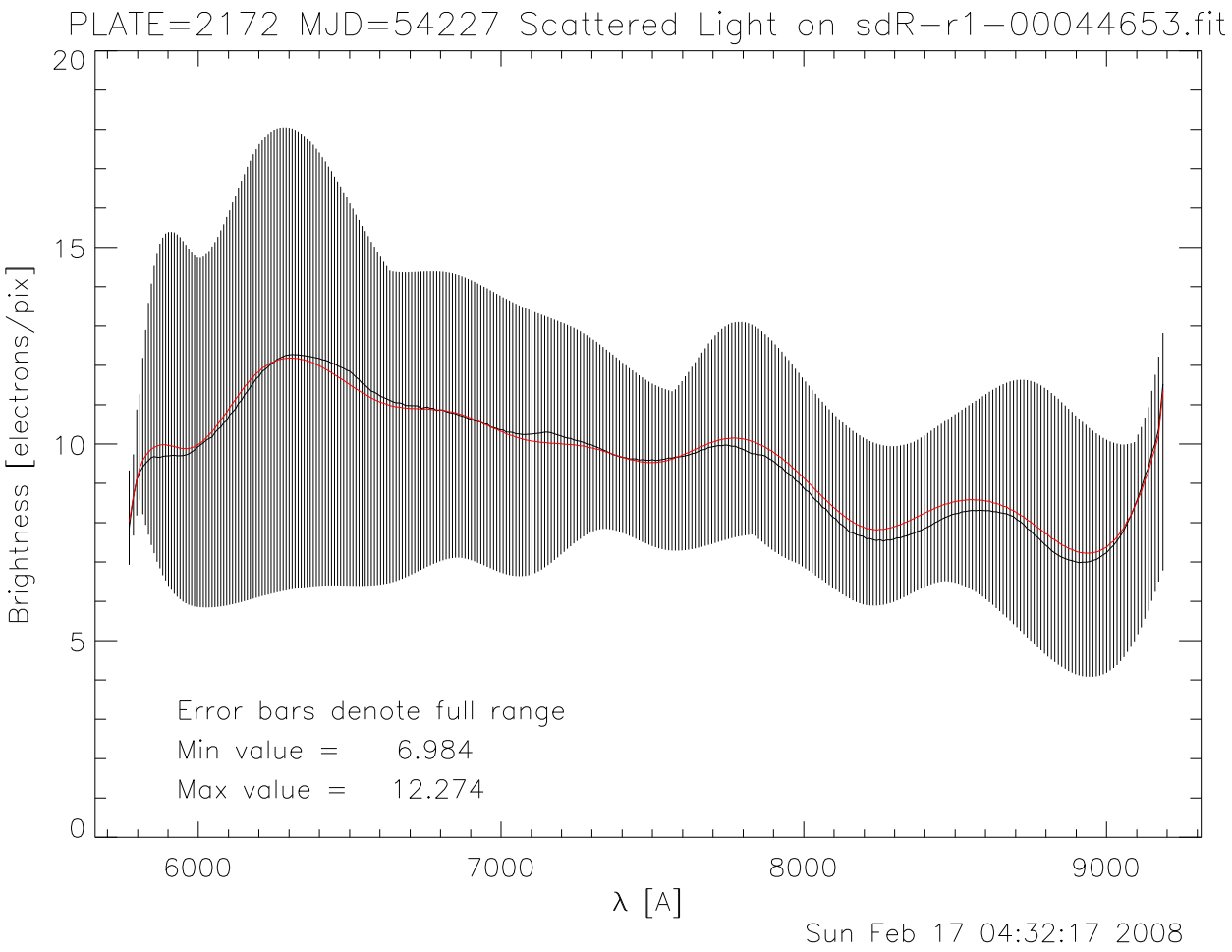

PLATE=2172 MJD=54227 sdR-r1-00044652.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 2.02 %
Fiber number
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass

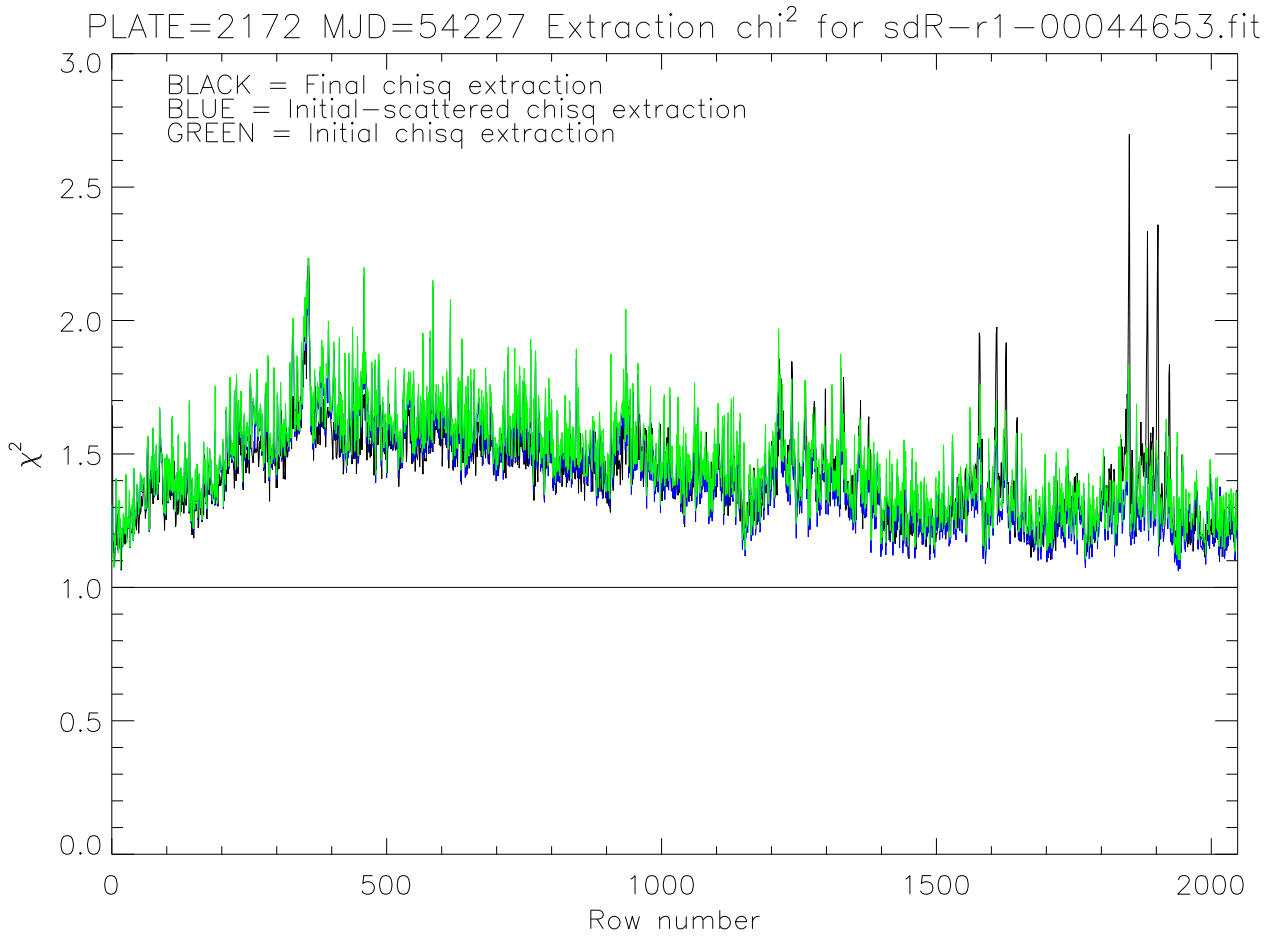

PLATE=2172 MJD=54227 Fiber−Flats for sdR−r1−00044654.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.234
Max value = 1.348
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sun Feb 17 04:28:47 2008

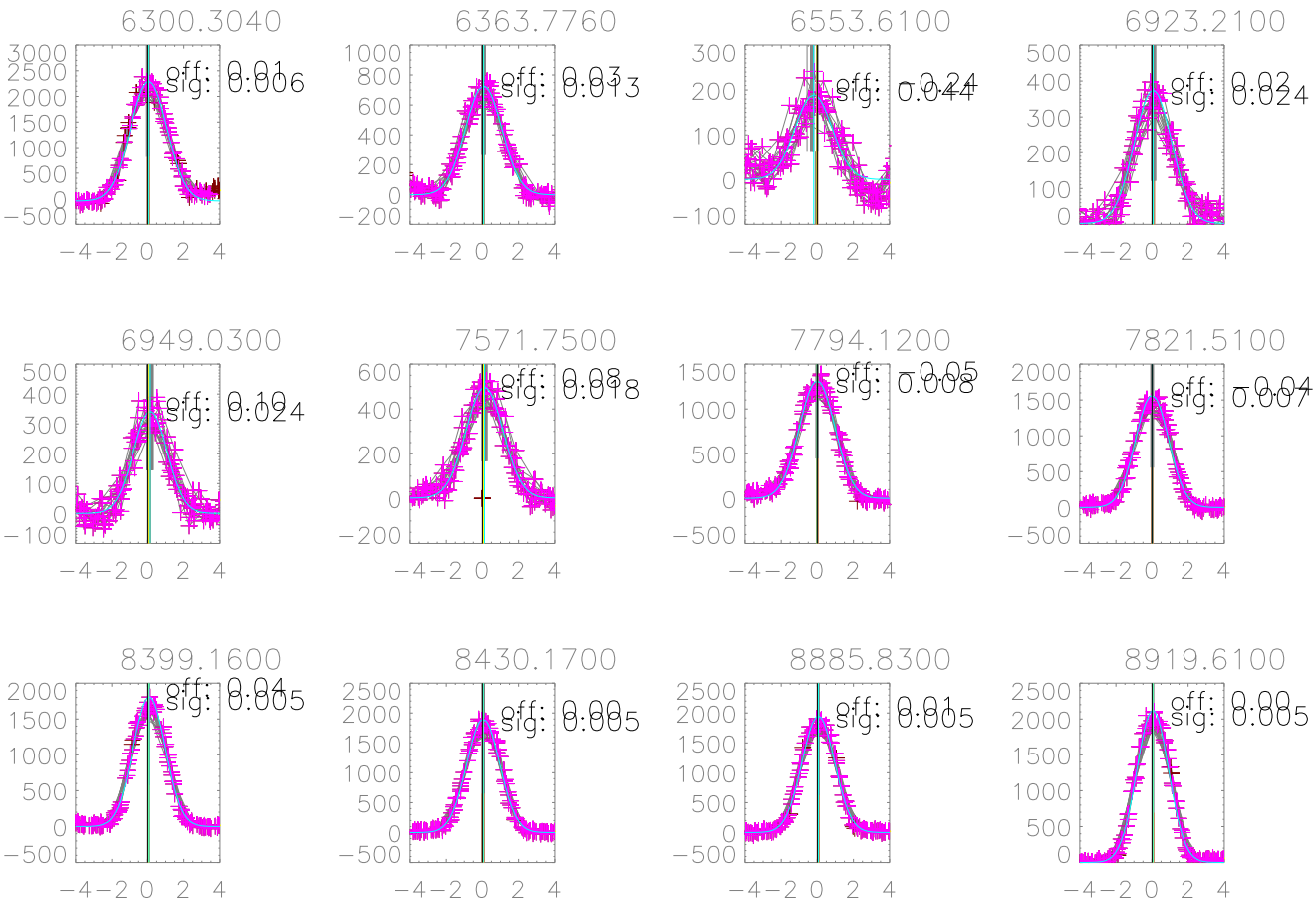

PLATE=2172 MJD=54227 Scattered Light before halo removal on sdR−r1−00044653.fi
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
40.91
31.82
31.82
31.82
31.82
22.73
22.73
22.73
13.64
13.64

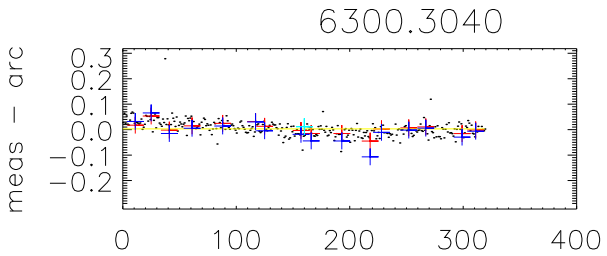

PLATE=2172 MJD=54227 Scattered Light before halo removal on sdR-r1-00044653.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 8.192
Max value = 41.978
Sun Feb 17 04:29:34 2008

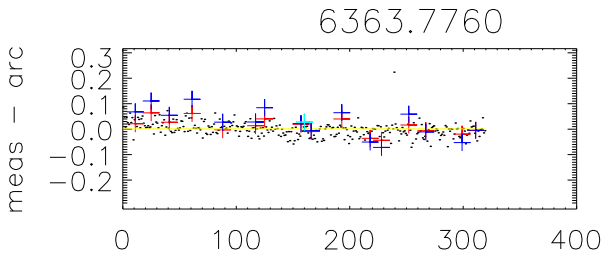

PLATE=2172 MJD=54227 Scattered Light on sdR−r1−00044653.fit
9.1
9.1
9.1
9.1
12.7
12.7
9
0
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]

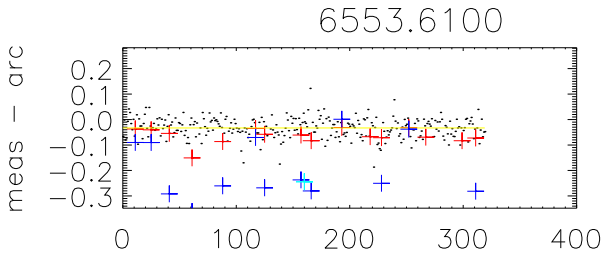

PLATE=2172 MJD=54227 Scattered Light on sdR-r1-00044653.fit
Brightness [electrons/pix]
20
15
10
5
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 6.984
Max value = 12.274
Sun Feb 17 04:32:17 2008

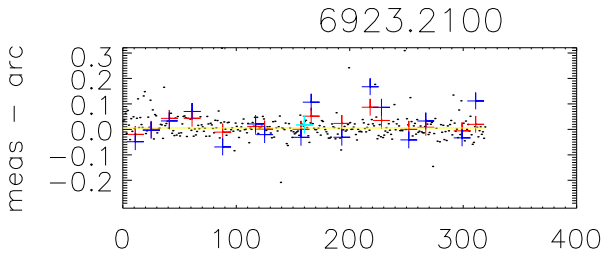

PLATE=2172 MJD=54227 Extraction chi^2 for sdR−r1−00044653.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
500
1000
1500
2000
Row number

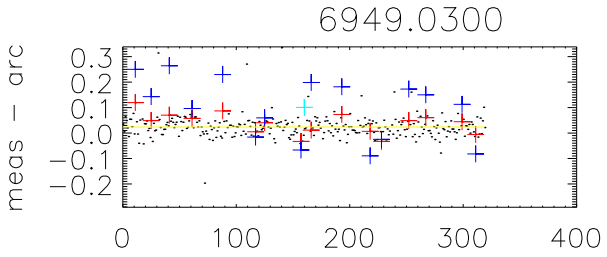

6300.3040
off: 0.01
sig: 0.006
6363.7760
off: 0.03
sig: 0.013
6553.6100
off: -0.24
sig: 0.044
6923.2100
off: 0.02
sig: 0.024
6949.0300
off: 0.10
sig: 0.024
7571.7500
off: 0.08
sig: 0.018
7794.1200
off: -0.05
sig: 0.008
7821.5100
off: -0.04
sig: 0.007
8399.1600
off: 0.04
sig: 0.005
8430.1700
off: 0.00
sig: 0.005
8885.8300
off: 0.01
sig: 0.005
8919.6100
off: 0.00
sig: 0.005

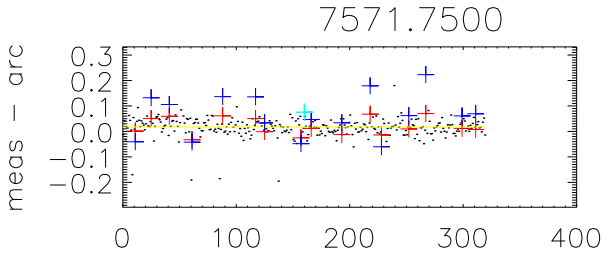

6300.3040
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

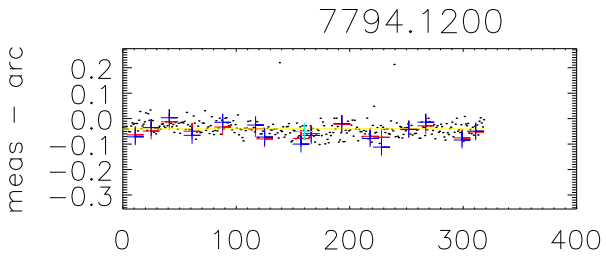

6363.7760
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

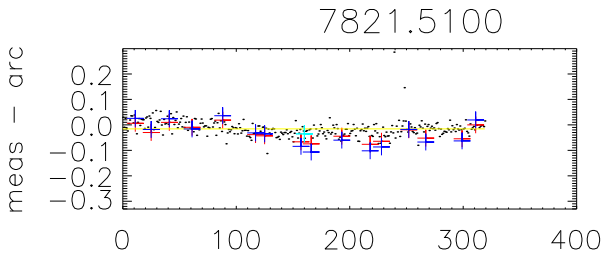

6553.6100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

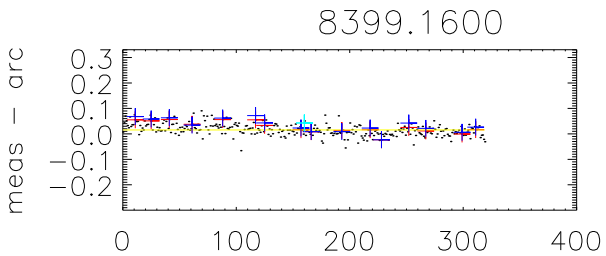

6923.2100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

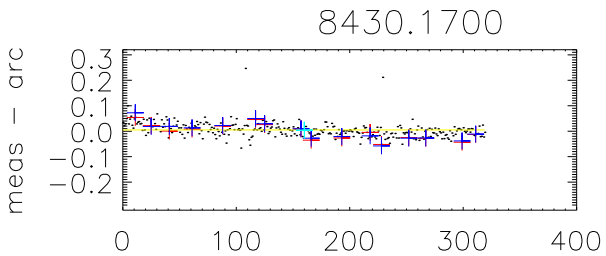

6949.0300
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

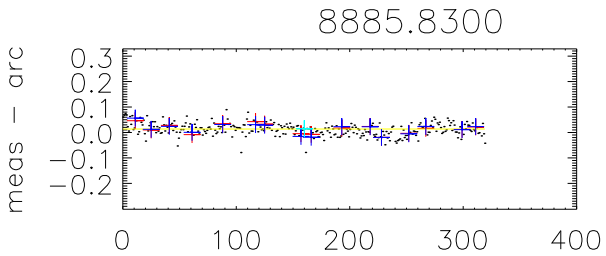

7571.7500
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

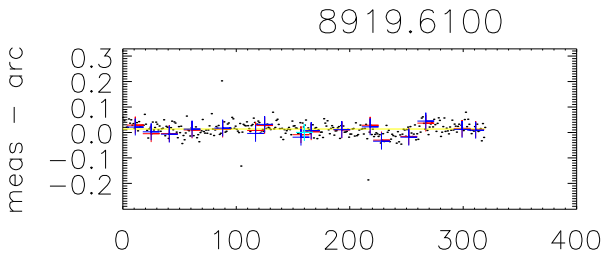

7794.1200
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

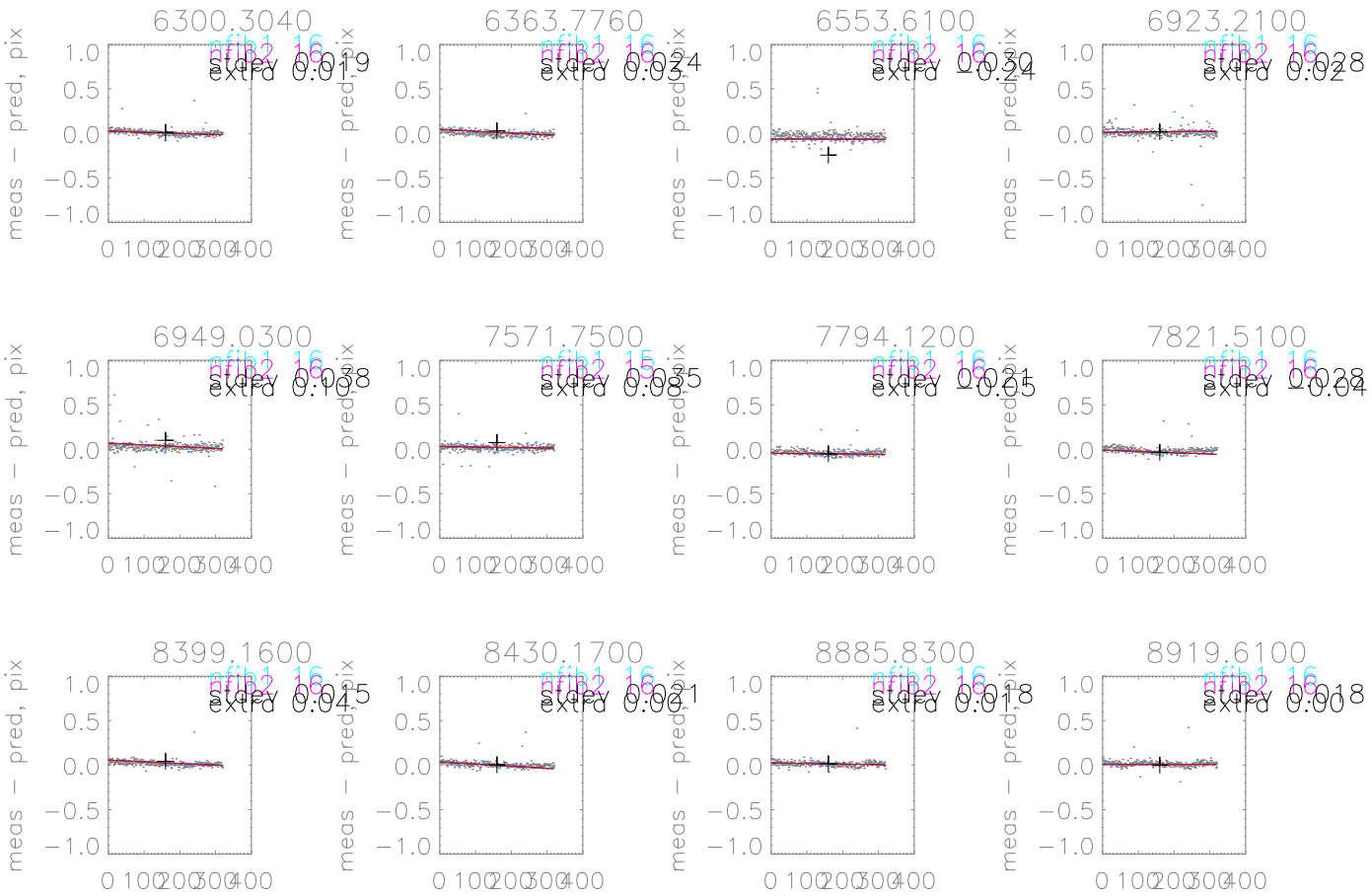

7821.5100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

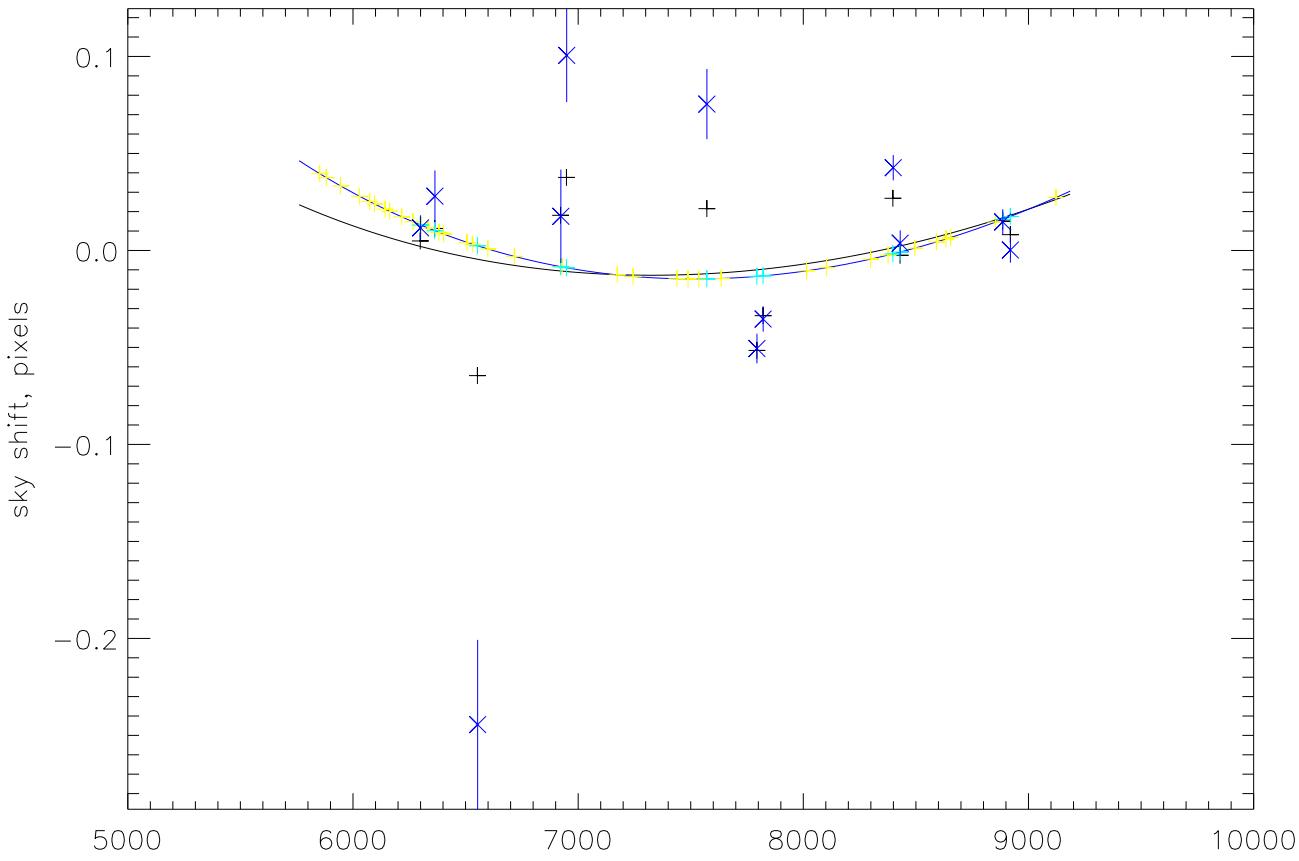

8399.1600
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400


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

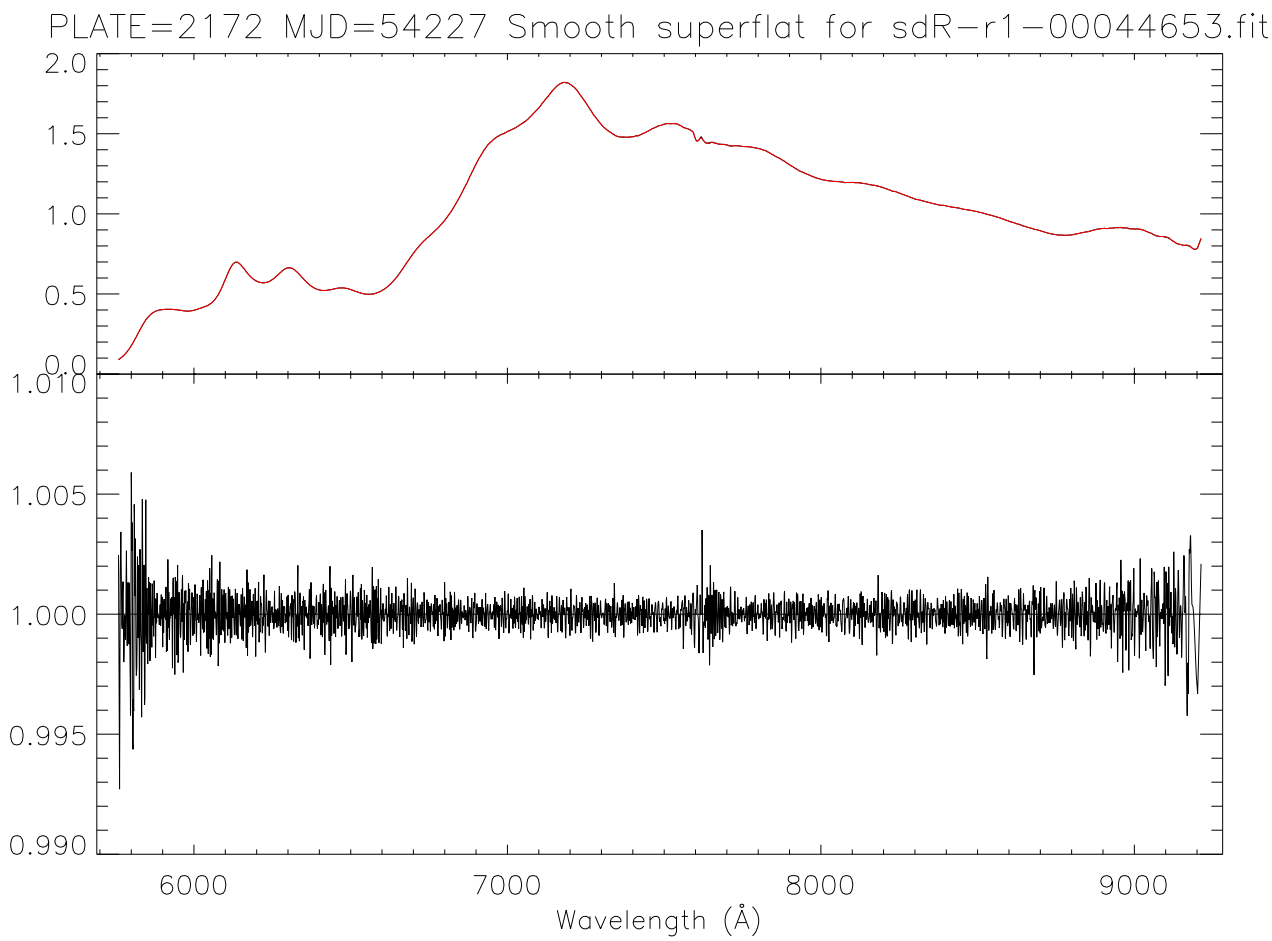

8885.8300
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

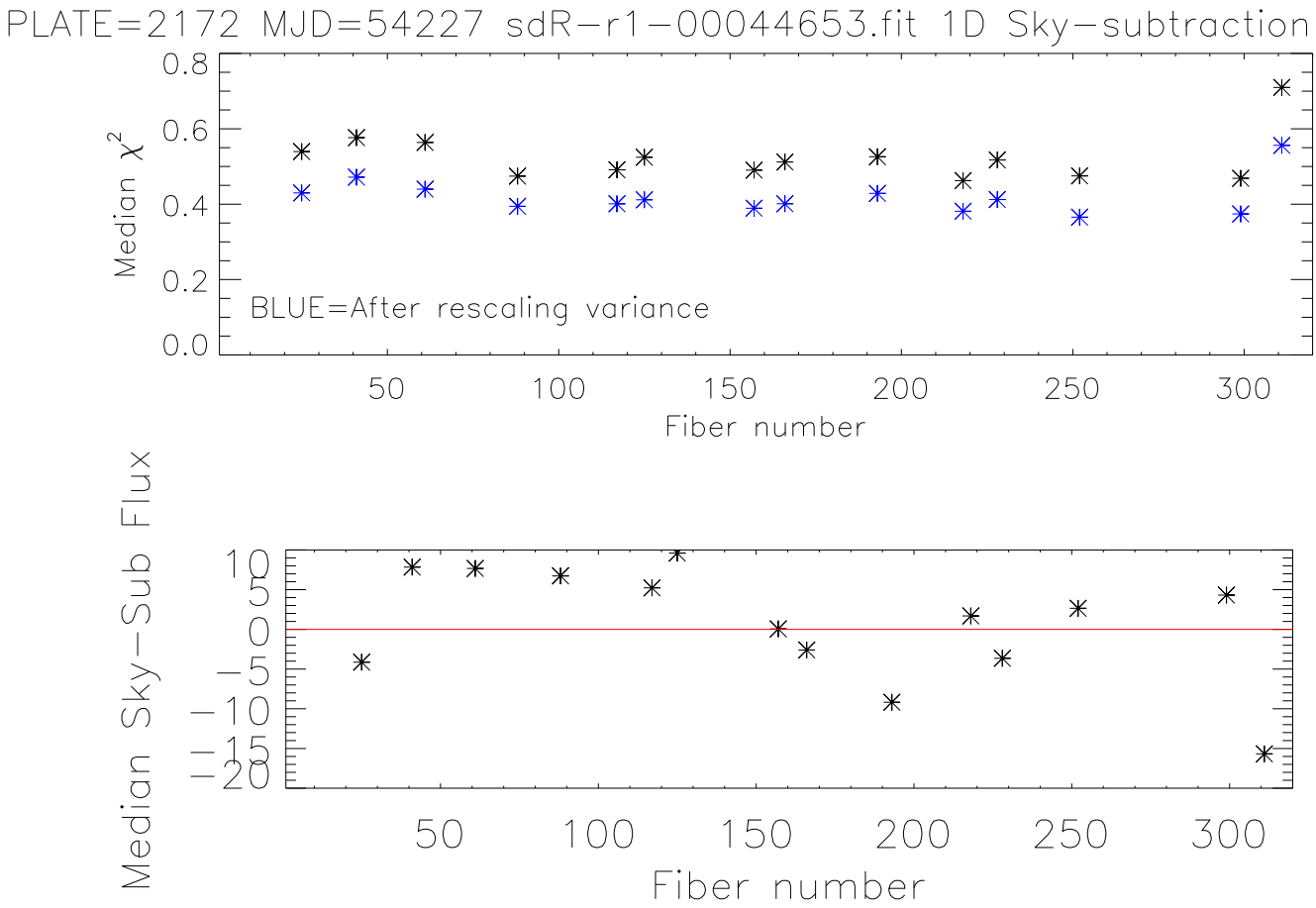

8919.6100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

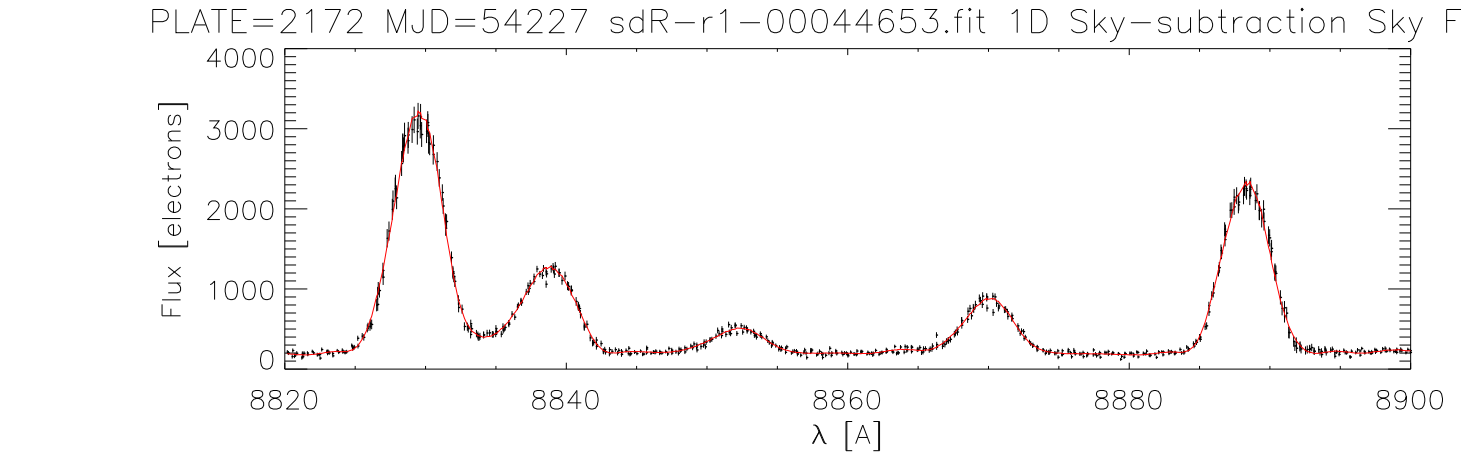

6300.3040
stdev 0.019
extrd 0.01
6363.7760
stdev 0.024
extrd 0.03
6553.6100
stdev 0.030
extrd −0.24
6923.2100
stdev 0.028
extrd 0.02
6949.0300
stdev 0.038
extrd 0.10
7571.7500
stdev 0.035
extrd 0.08
7794.1200
stdev 0.021
extrd −0.05
7821.5100
stdev 0.028
extrd −0.04
8399.1600
stdev 0.015
extrd 0.04
8430.1700
stdev 0.021
extrd 0.06
8885.8300
stdev 0.018
extrd 0.01
8919.6100
stdev 0.018
extrd 0.00
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400

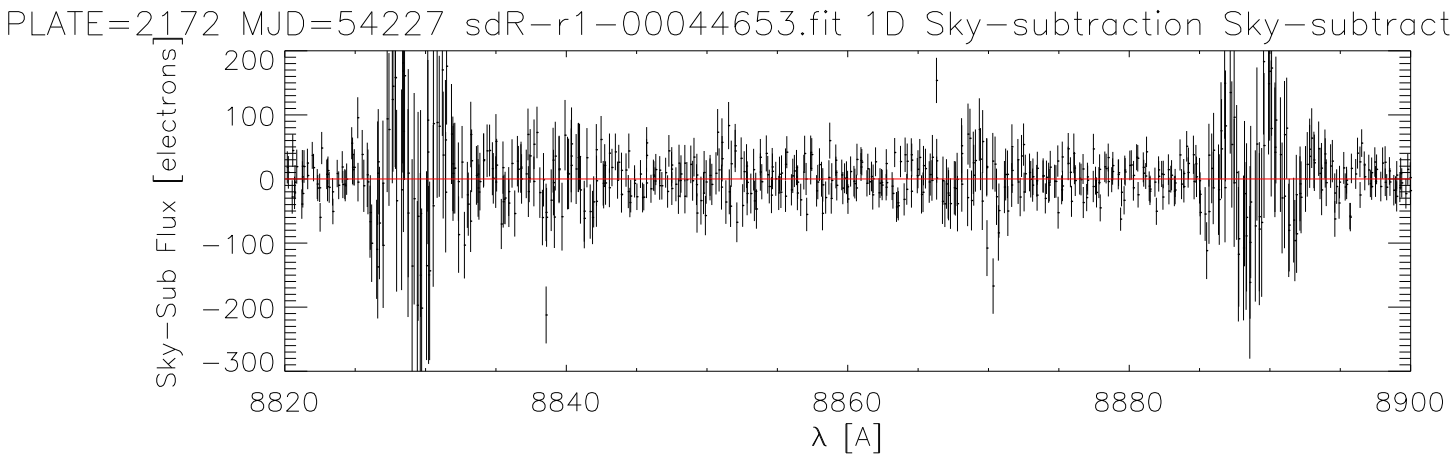

0.1
0.0
−0.1
−0.2
sky shift, pixels
5000
6000
7000
8000
9000
10000

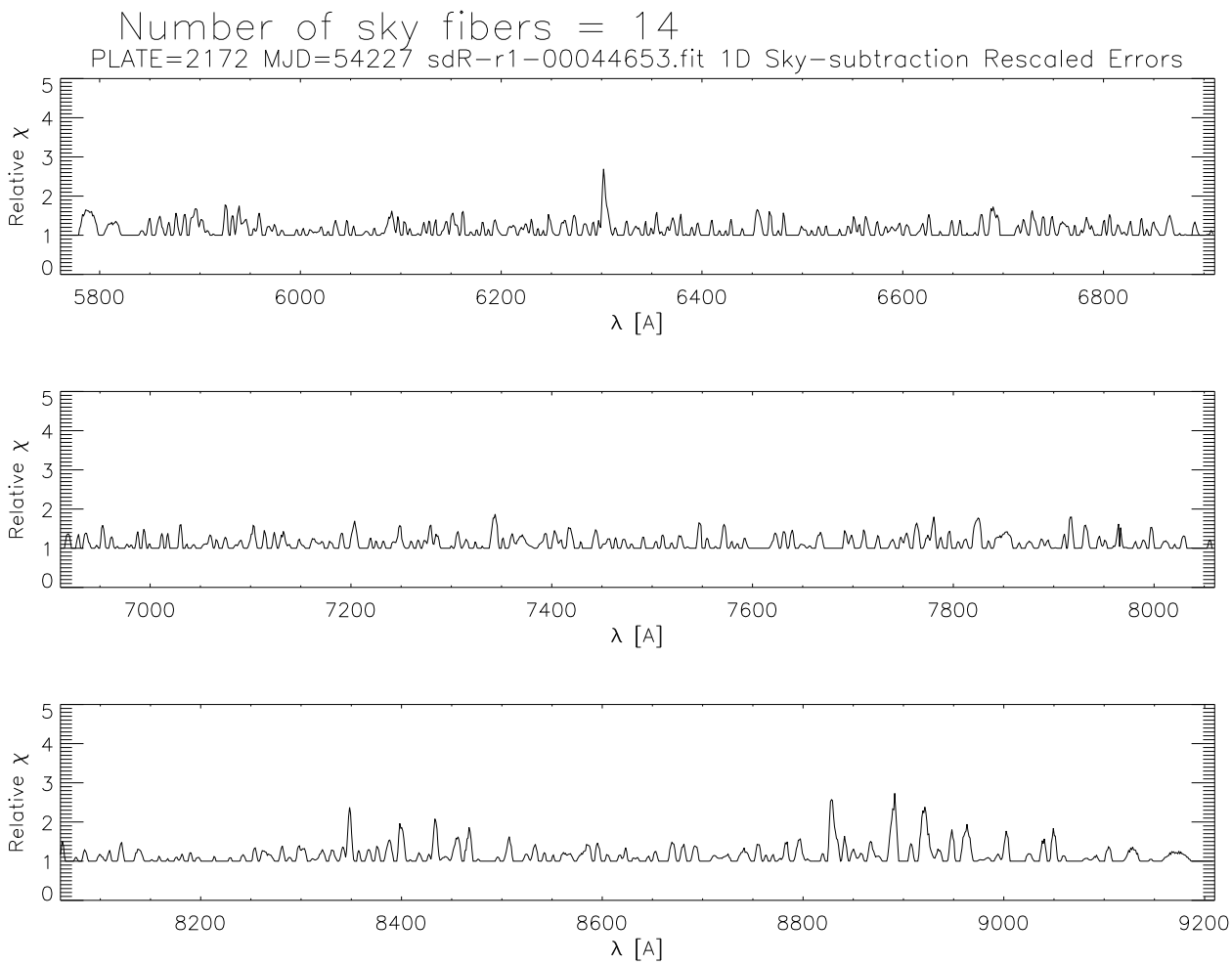
es= 0.0000

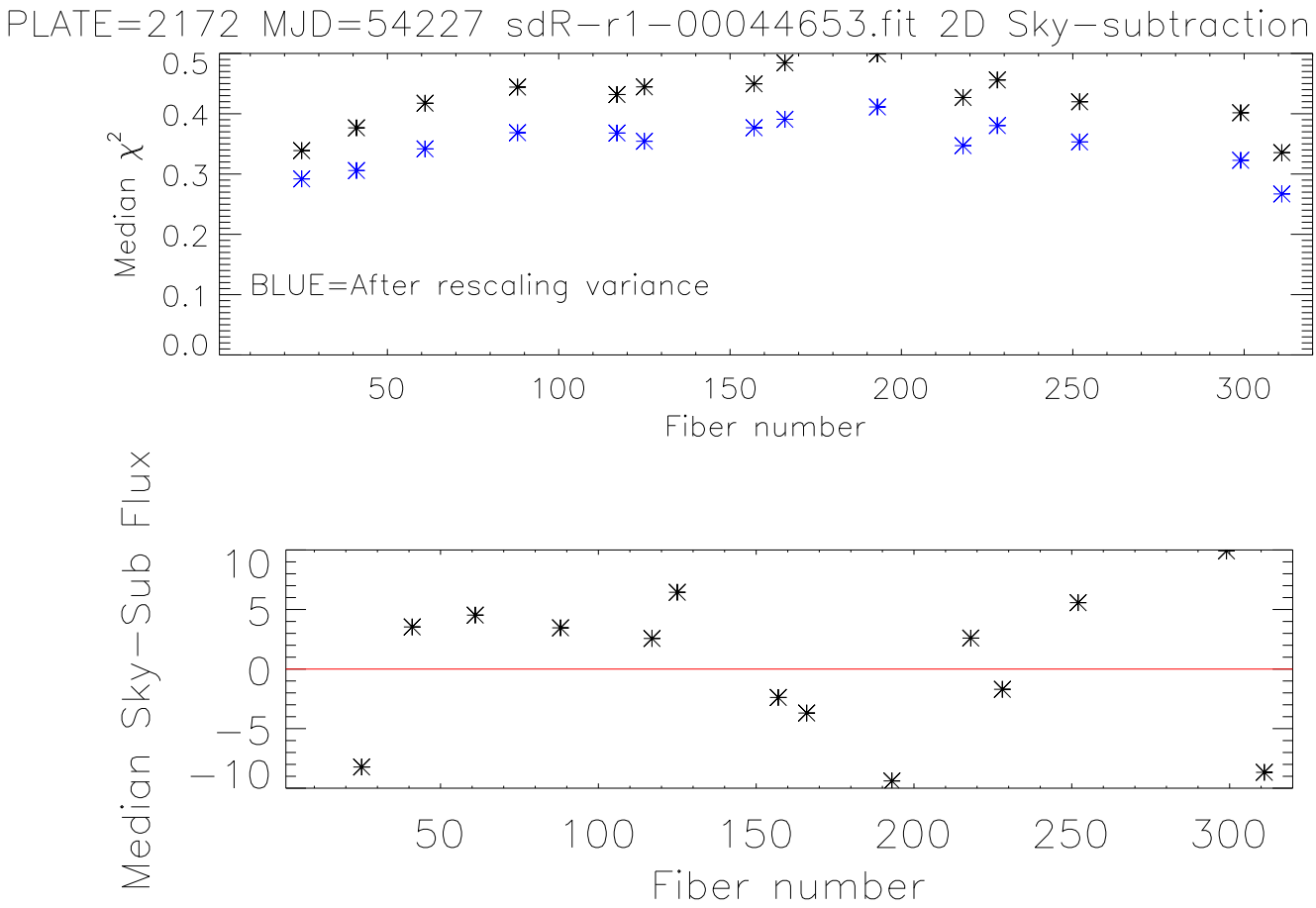

PLATE=2172 MJD=54227 Smooth superflat for sdR-r1-00044653.fit
2.0
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
6000
7000
8000
9000
Wavelength (Å)

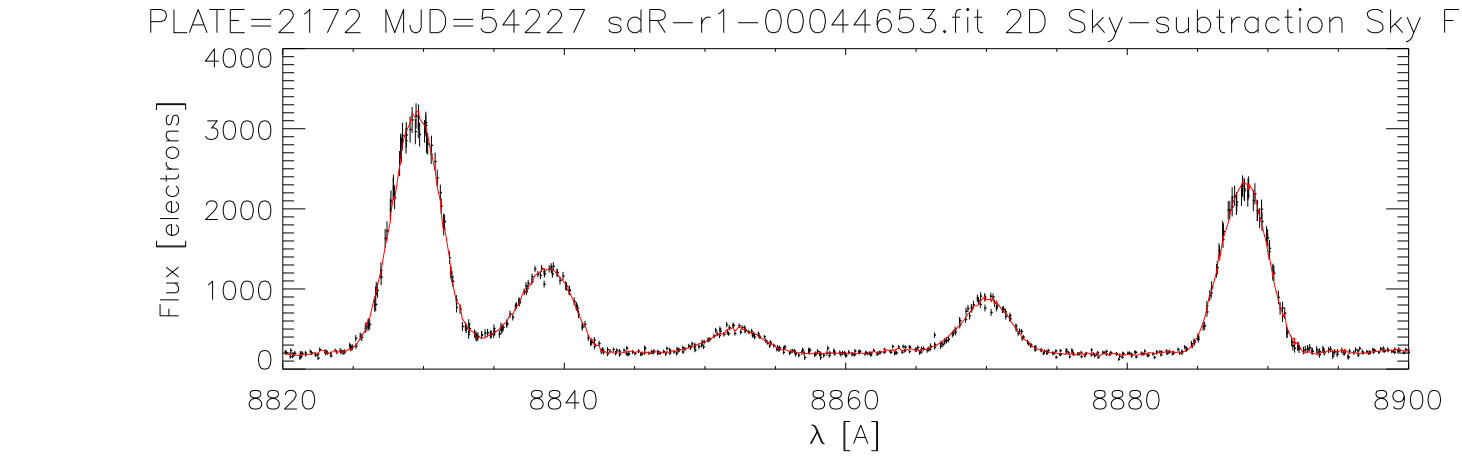

PLATE=2172 MJD=54227 sdR-r1-00044653.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
-5
-10
-15
-20
50
100
150
200
250
300
Fiber number

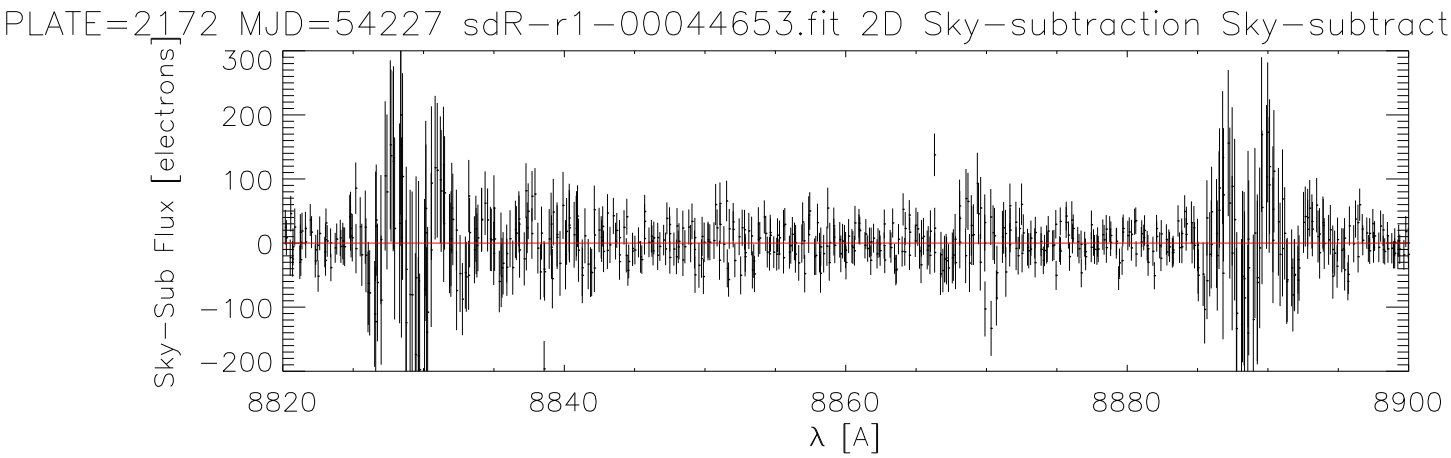

PLATE=2172 MJD=54227 sdR-r1-00044653.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

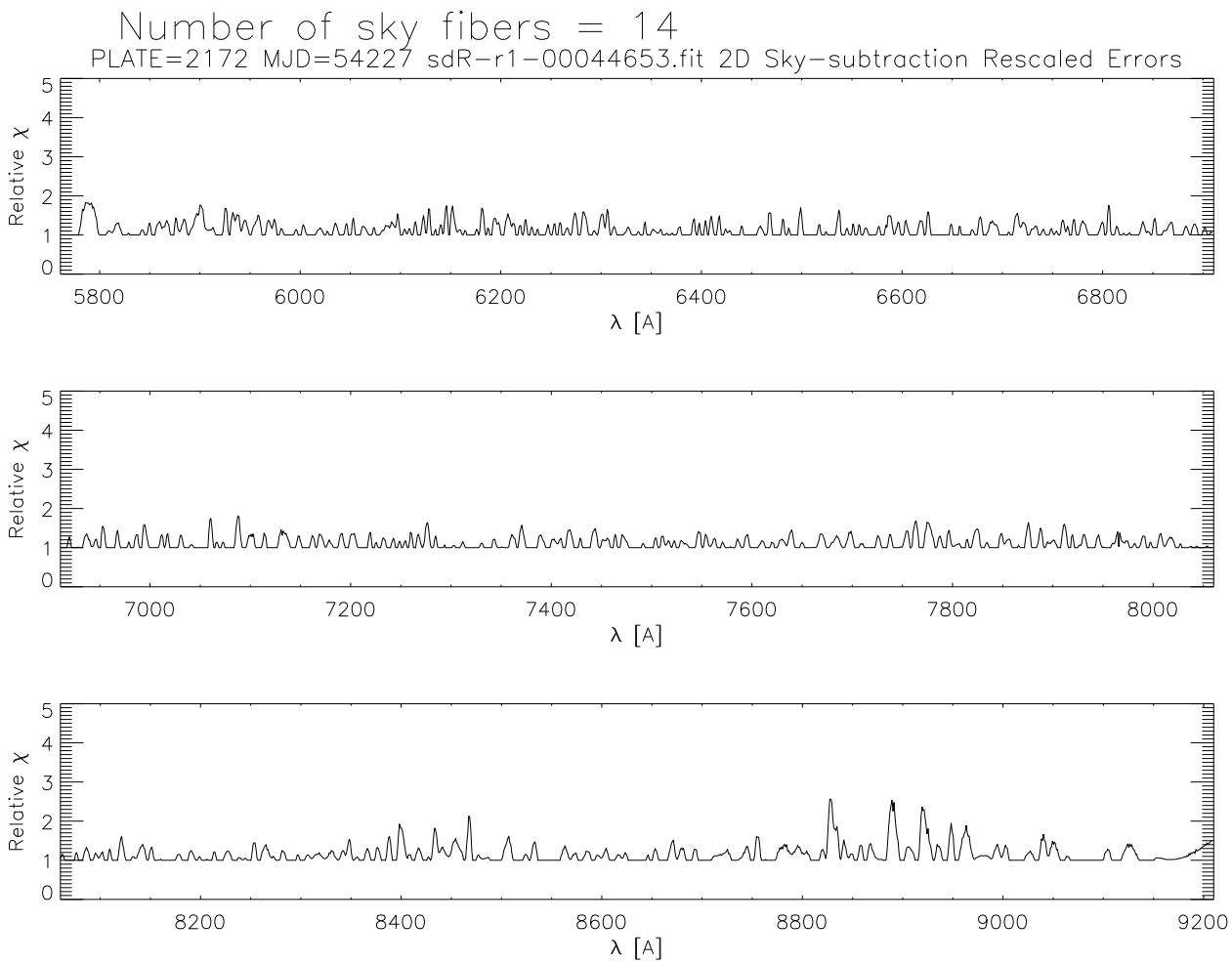

PLATE=2172 MJD=54227 sdR-r1-00044653.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
-300
8820
8840
8860
8880
8900
λ [A]

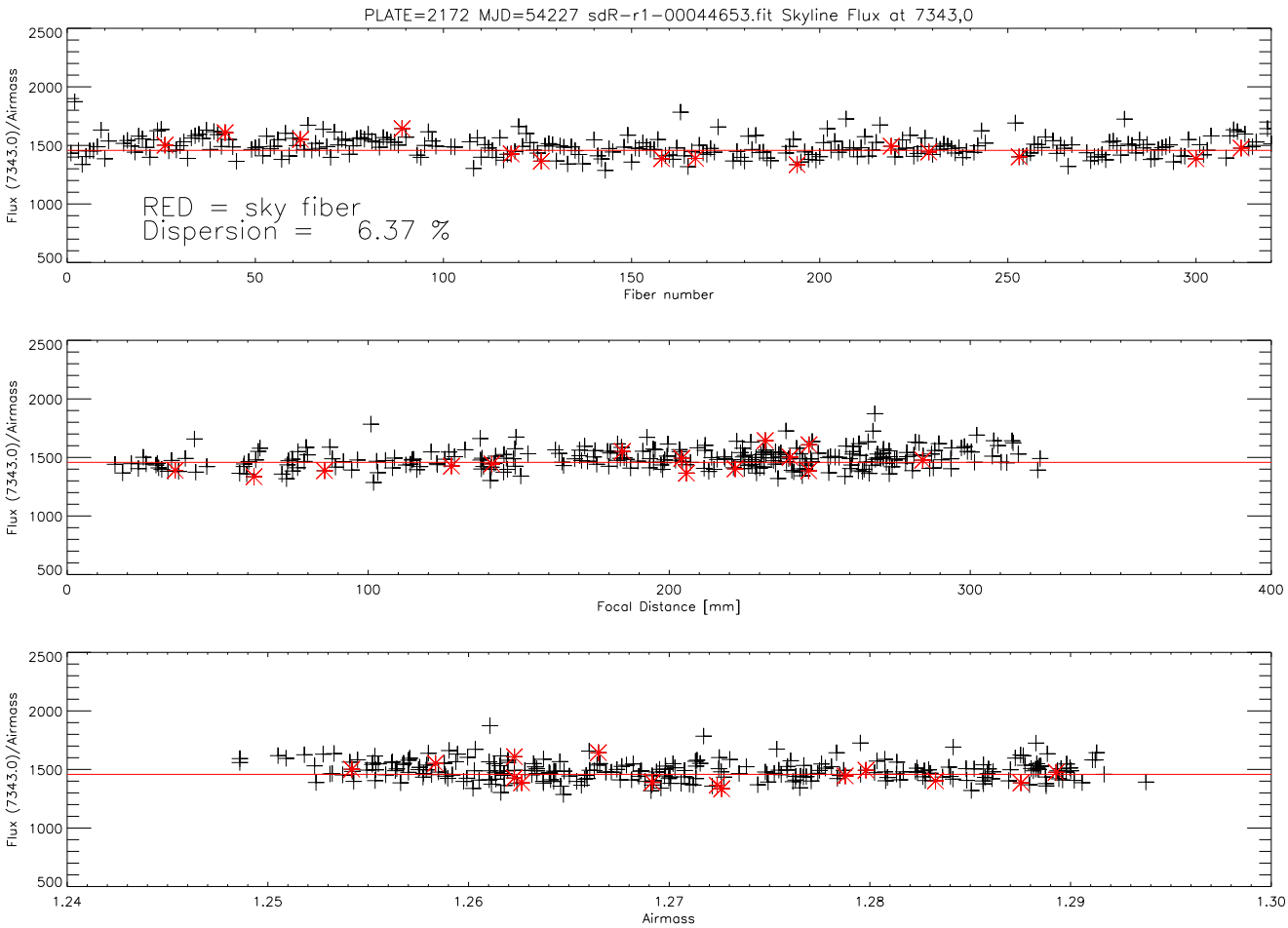

Number of sky fibers = 14
PLATE=2172 MJD=54227 sdR-r1-00044653.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

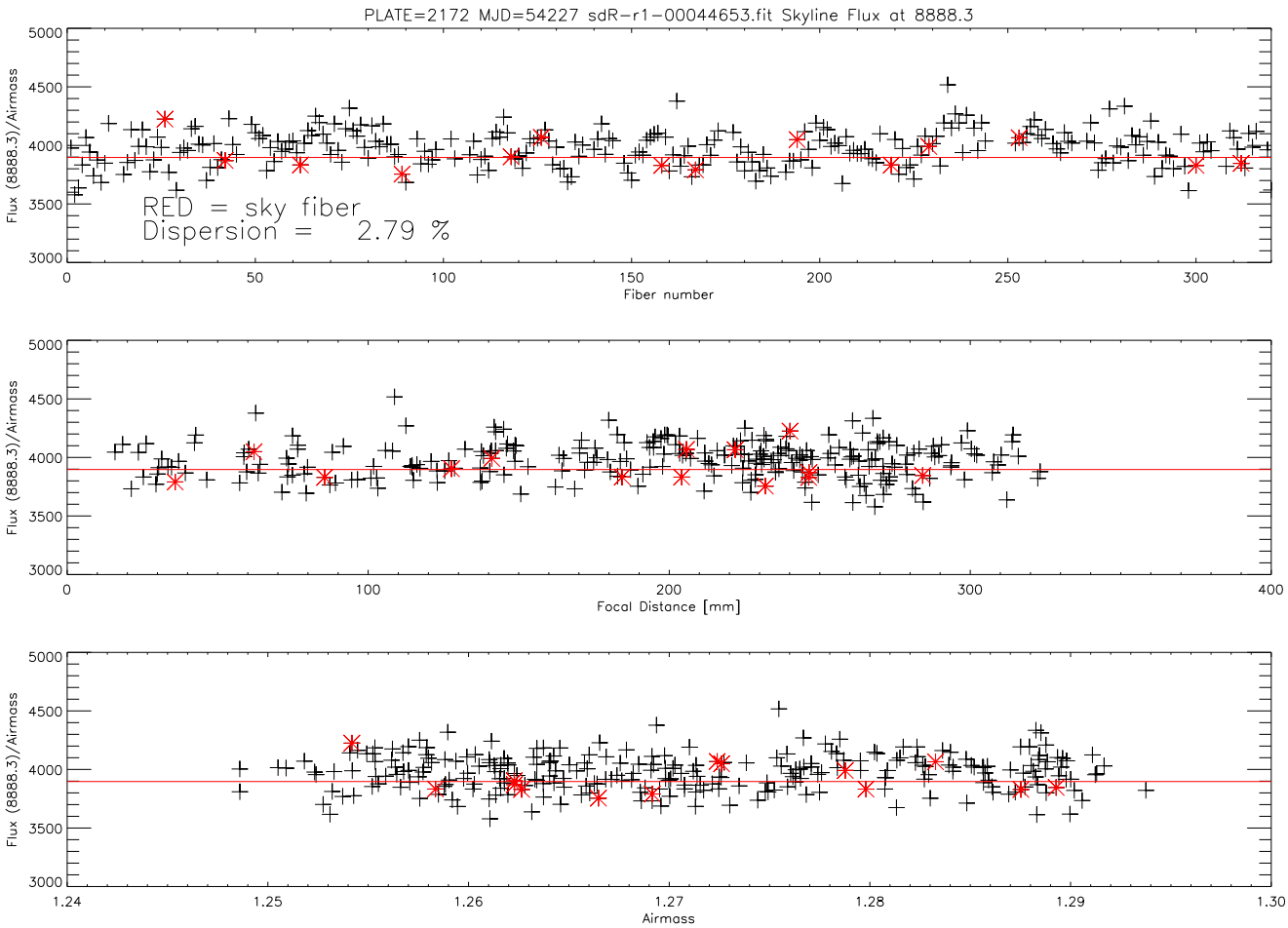

PLATE=2172 MJD=54227 sdR-r1-00044653.fit 2D Sky-subtraction Sky Fibers
Median χ^2
0.5
0.4
0.3
0.2
0.1
0.0
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
−5
−10
50
100
150
200
250
300
Fiber number

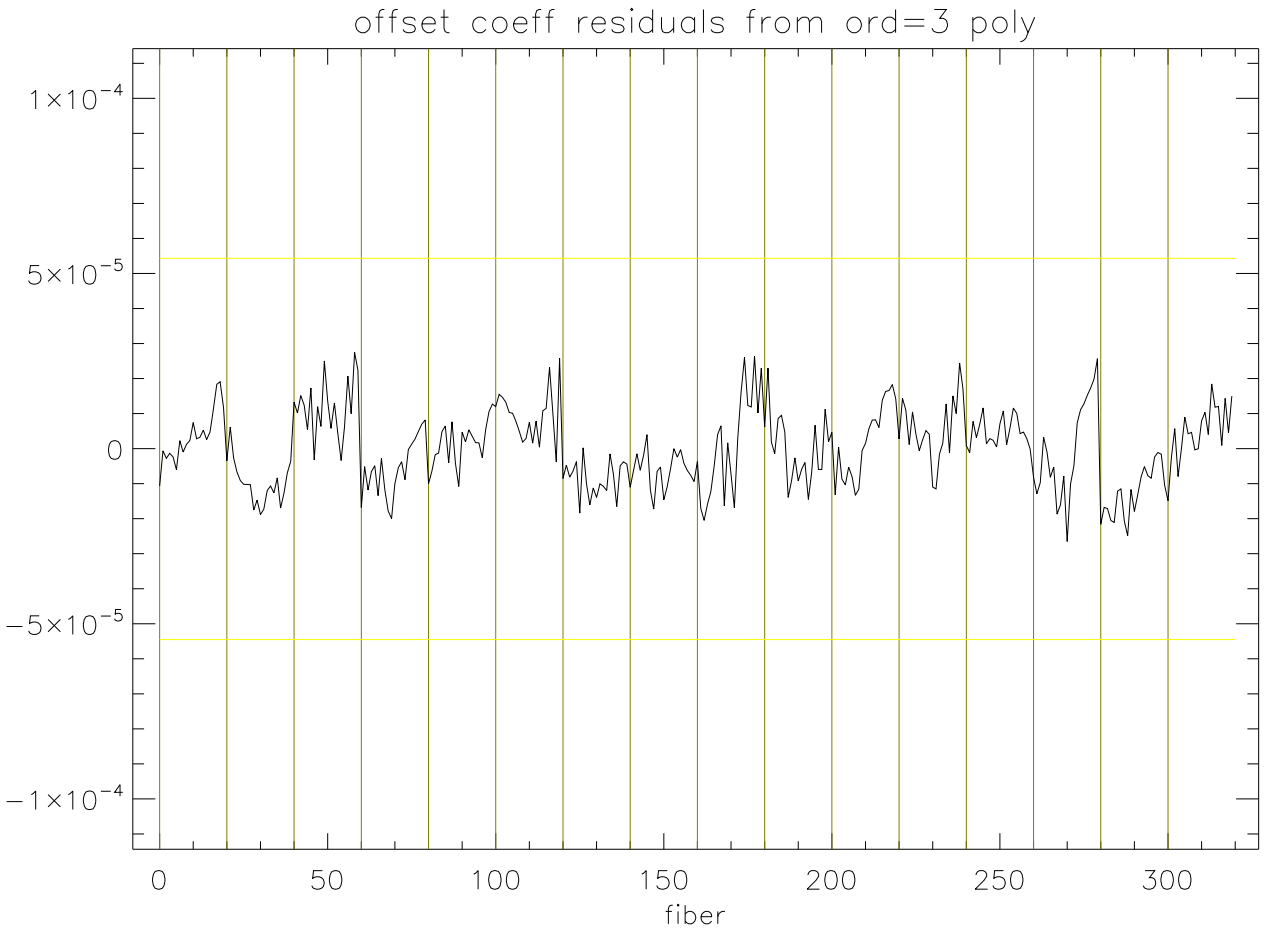

PLATE=2172 MJD=54227 sdR-r1-00044653.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

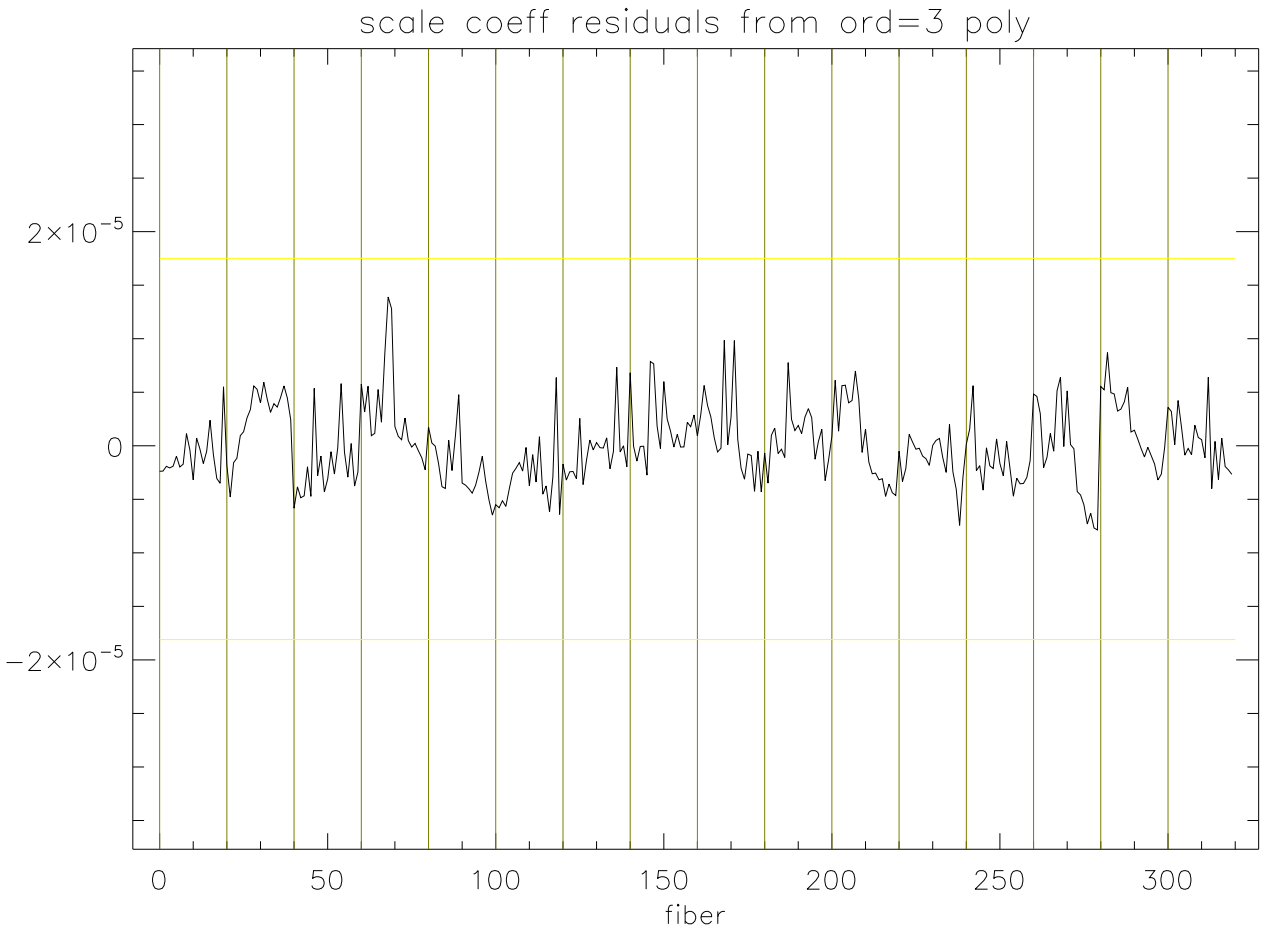

PLATE=2172 MJD=54227 sdR-r1-00044653.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
8820
8840
8860
8880
8900
λ [A]

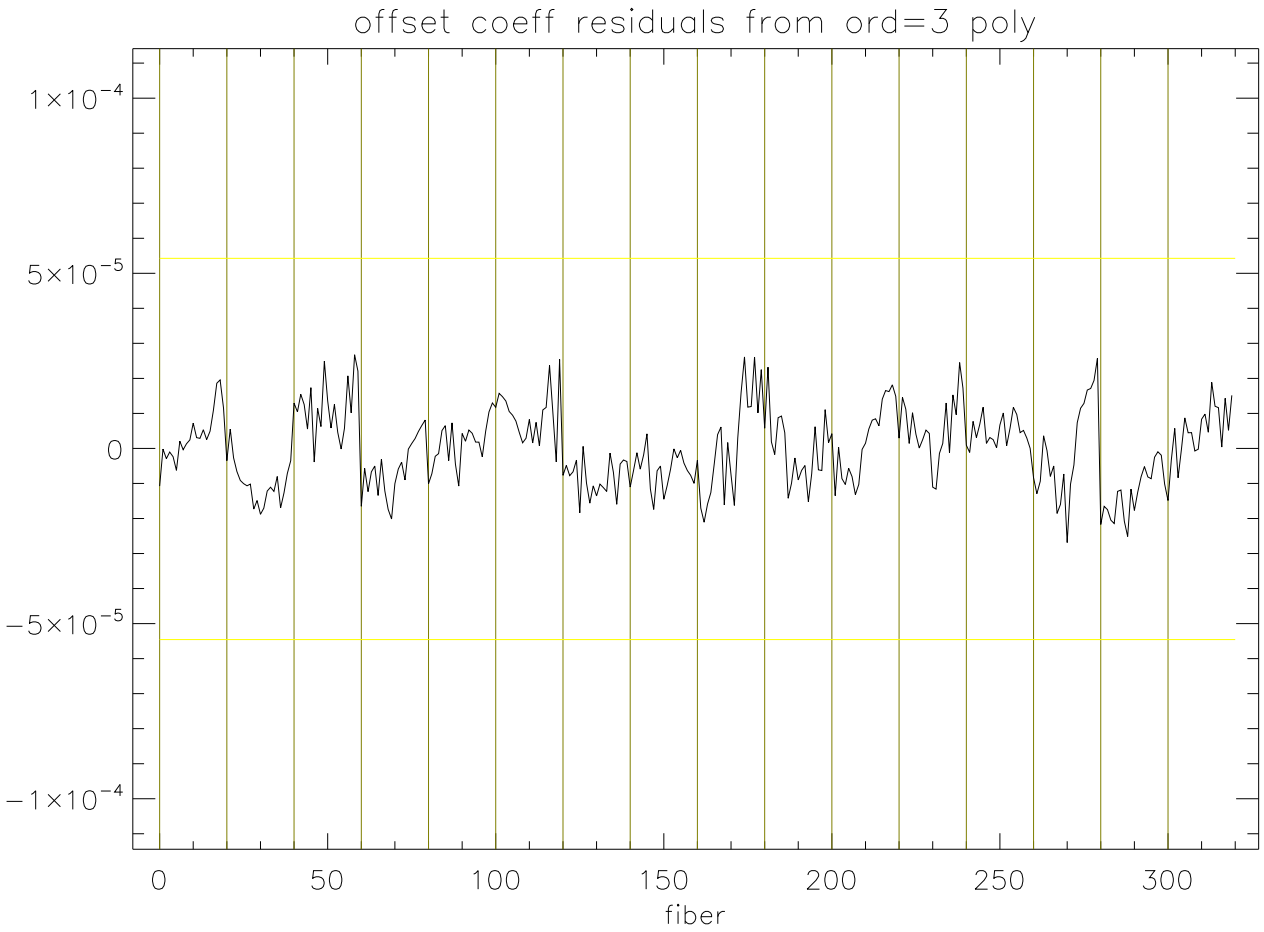

Number of sky fibers = 14
PLATE=2172 MJD=54227 sdR-r1-00044653.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

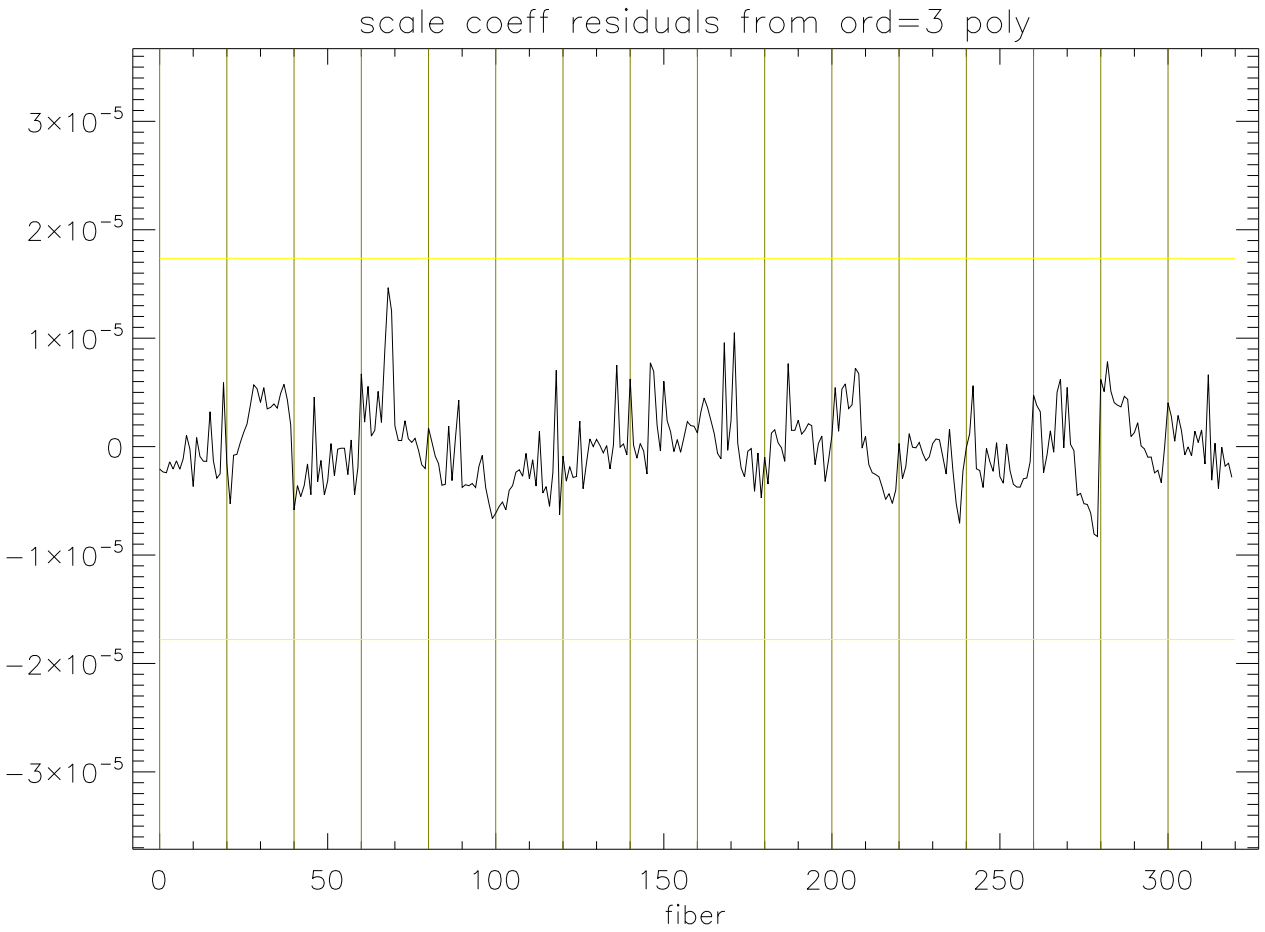

PLATE=2172 MJD=54227 sdR-r1-00044653.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 6.37 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

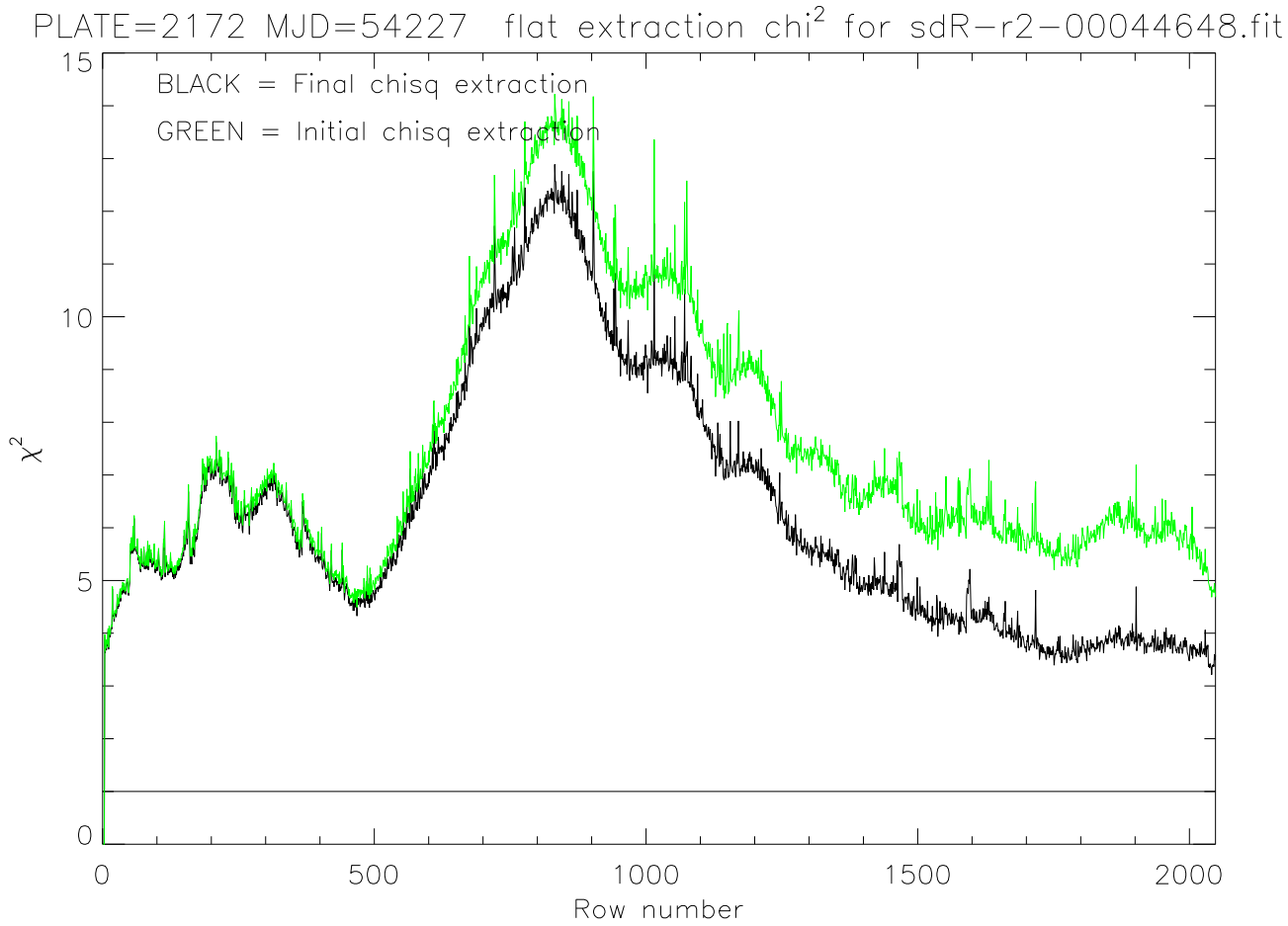

PLATE=2172 MJD=54227 sdR-r1-00044653.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 2.79 %
Fiber number
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass

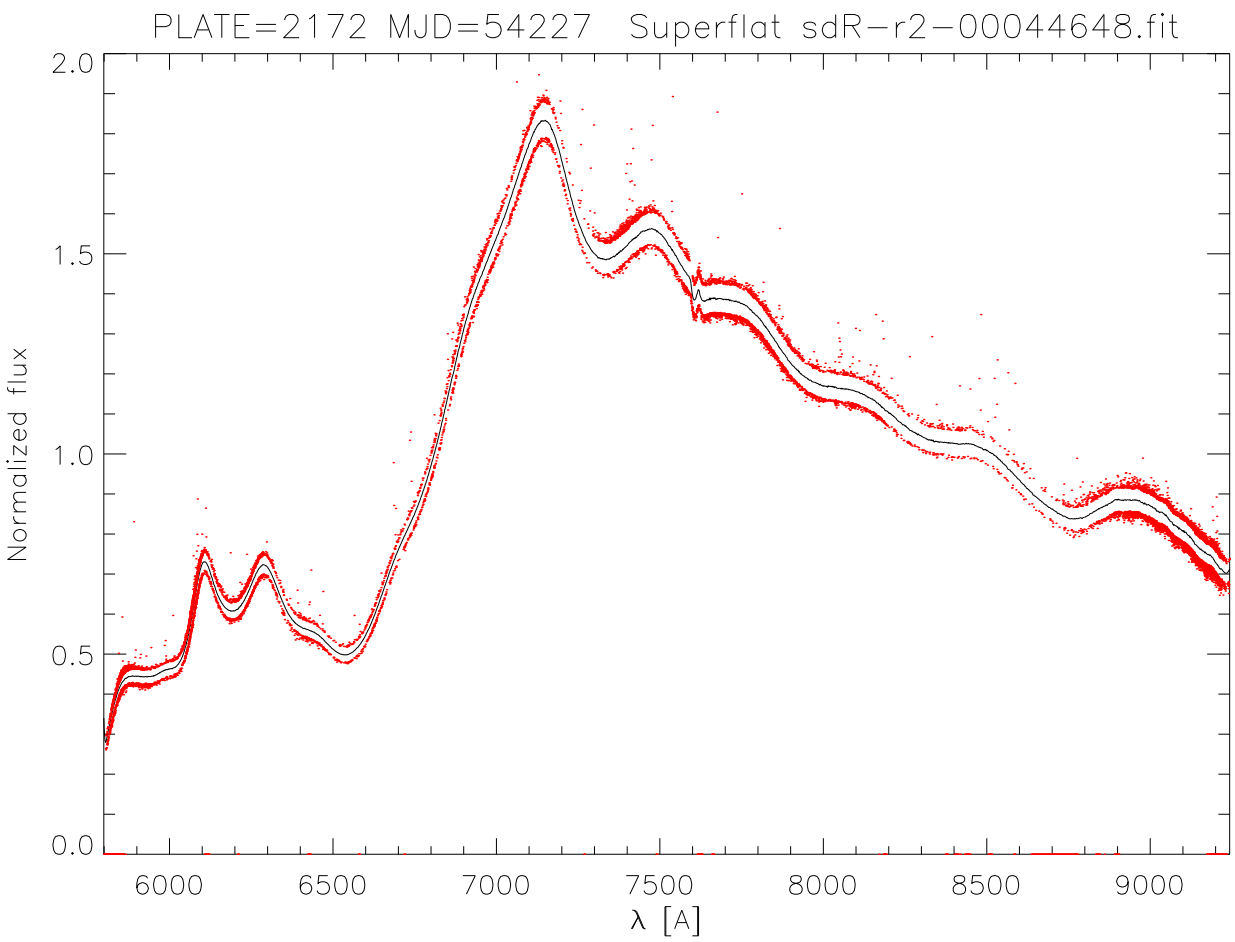

offset coeff residuals from ord=3 poly
1×10^-4
5×10^-5
0
−5×10^-5
−1×10^-4
0
50
100
150
200
250
300
fiber

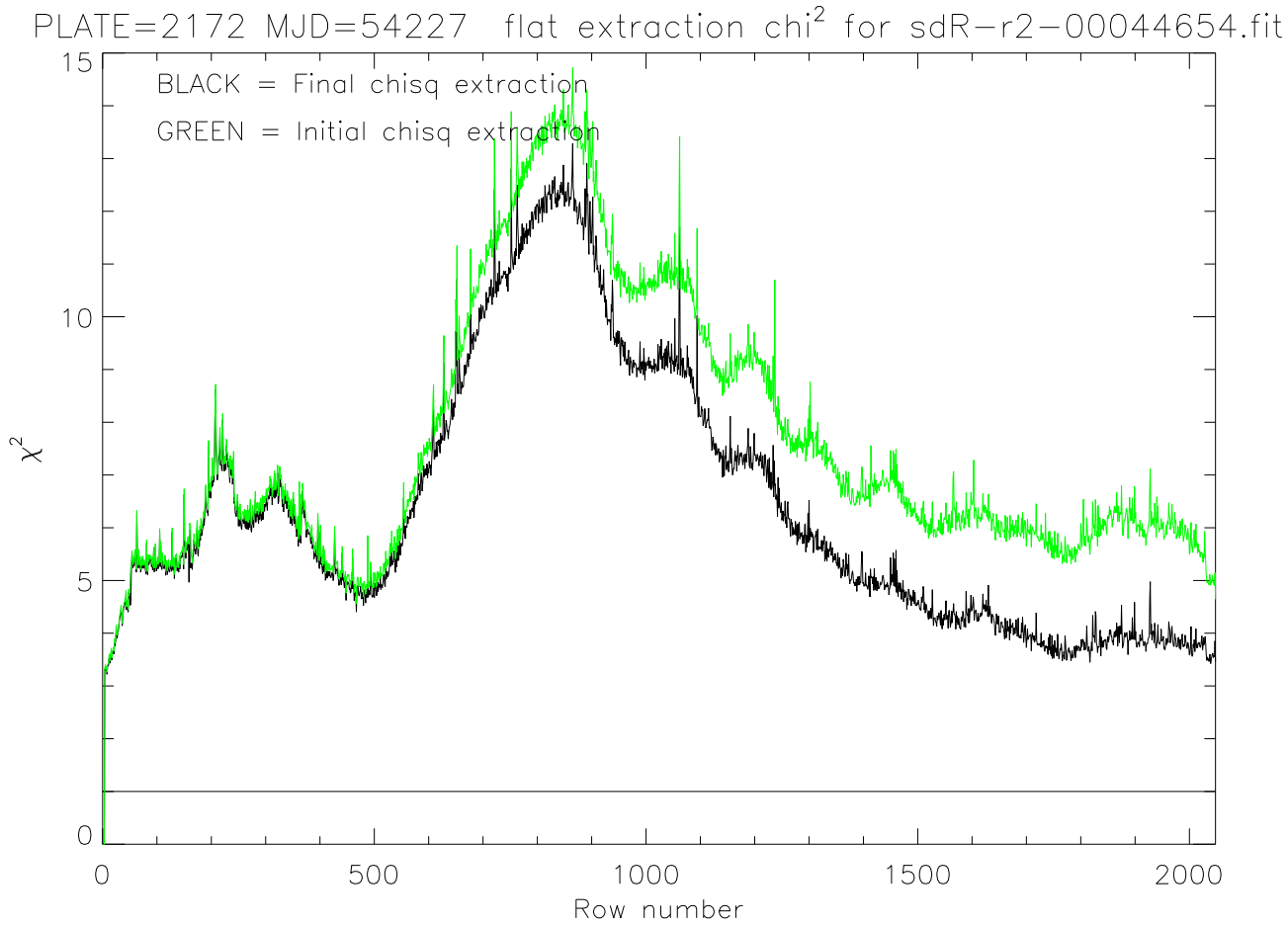

scale coeff residuals from ord=3 poly
2×10⁻⁵
0
−2×10⁻⁵
0
50
100
150
200
250
300
fiber

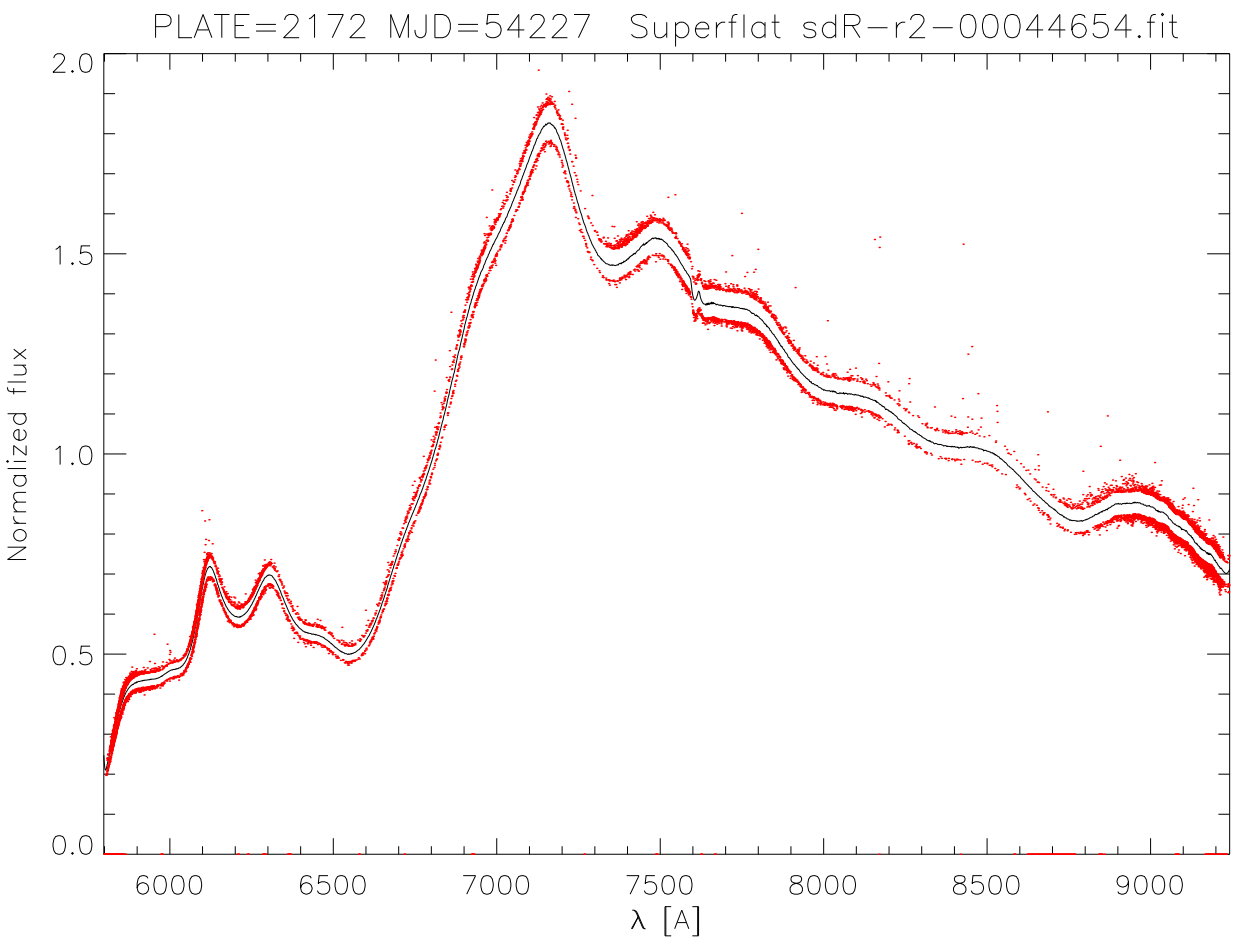

offset coeff residuals from ord=3 poly
1×10^-4
5×10^-5
0
−5×10^-5
−1×10^-4
0
50
100
150
200
250
300
fiber

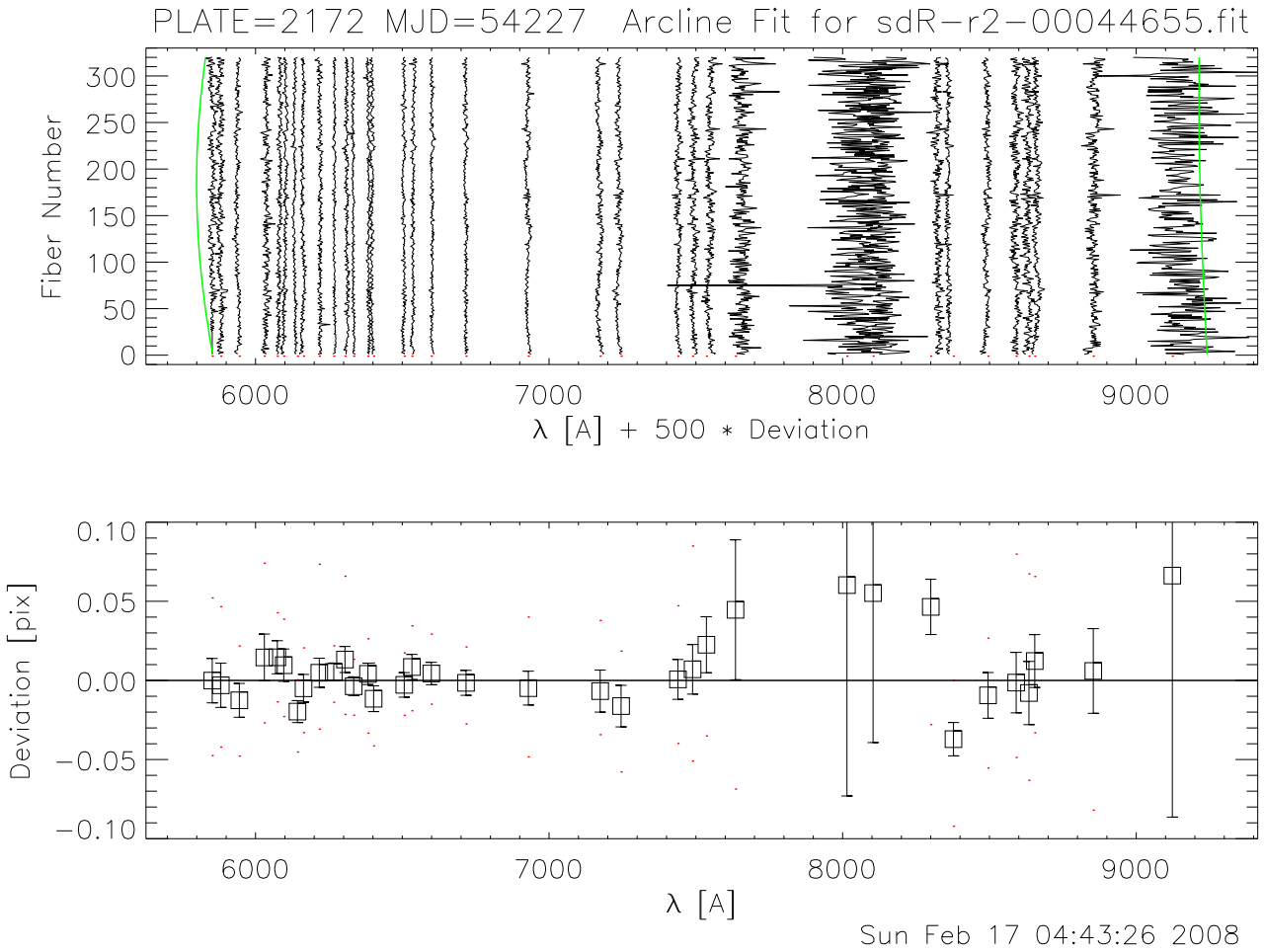

scale coeff residuals from ord=3 poly
3×10⁻⁵
2×10⁻⁵
1×10⁻⁵
0
−1×10⁻⁵
−2×10⁻⁵
−3×10⁻⁵
0
50
100
150
200
250
300
fiber

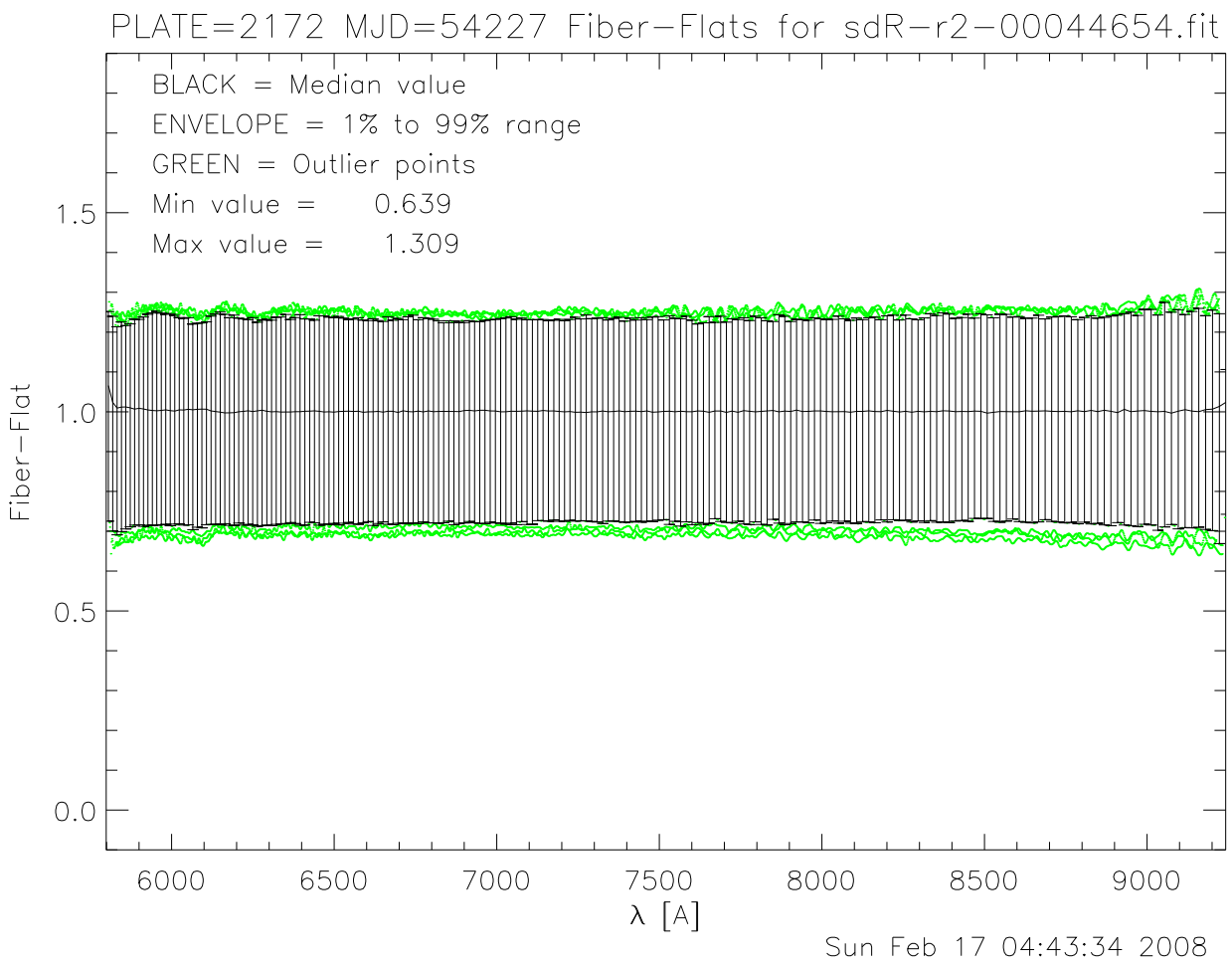

PLATE=2172 MJD=54227 flat extraction chi^2 for sdR−r2−00044648.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
5
10
15
0
500
1000
1500
2000

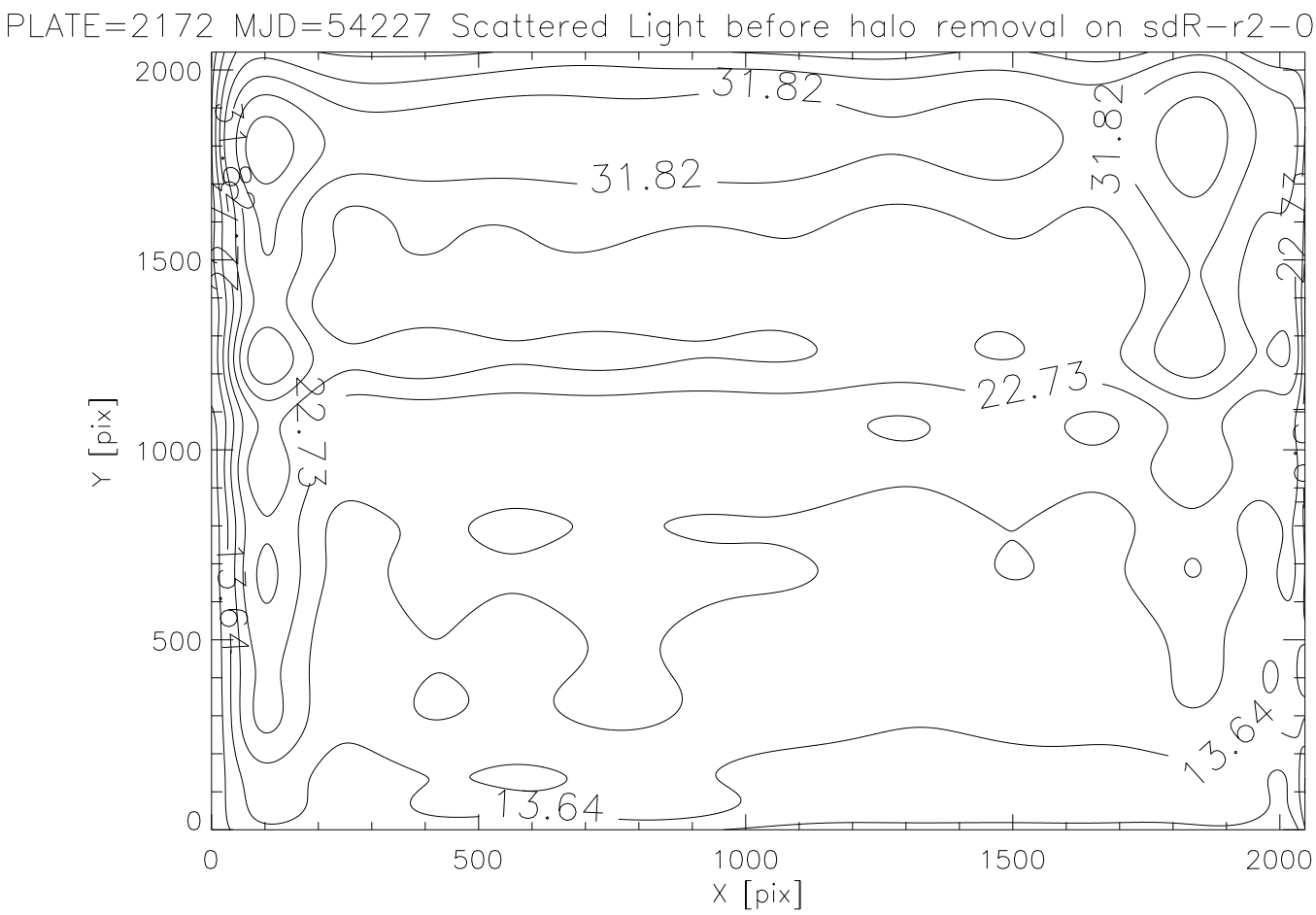

PLATE=2172 MJD=54227 Superflat sdR-r2-00044648.fit
Normalized flux
2.0
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

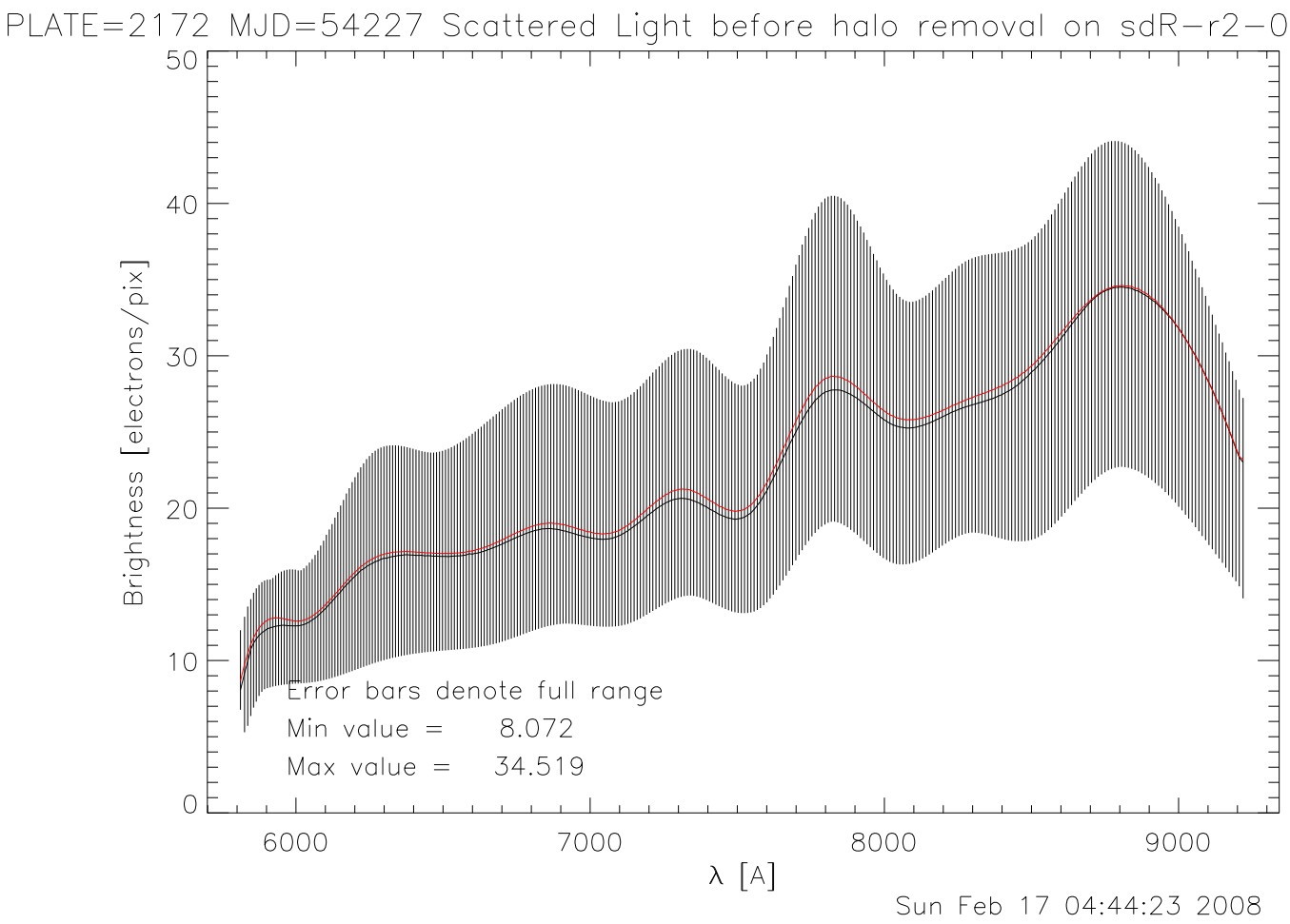

PLATE=2172 MJD=54227 flat extraction chi^2 for sdR−r2−00044654.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
5
10
15
0
500
1000
1500
2000

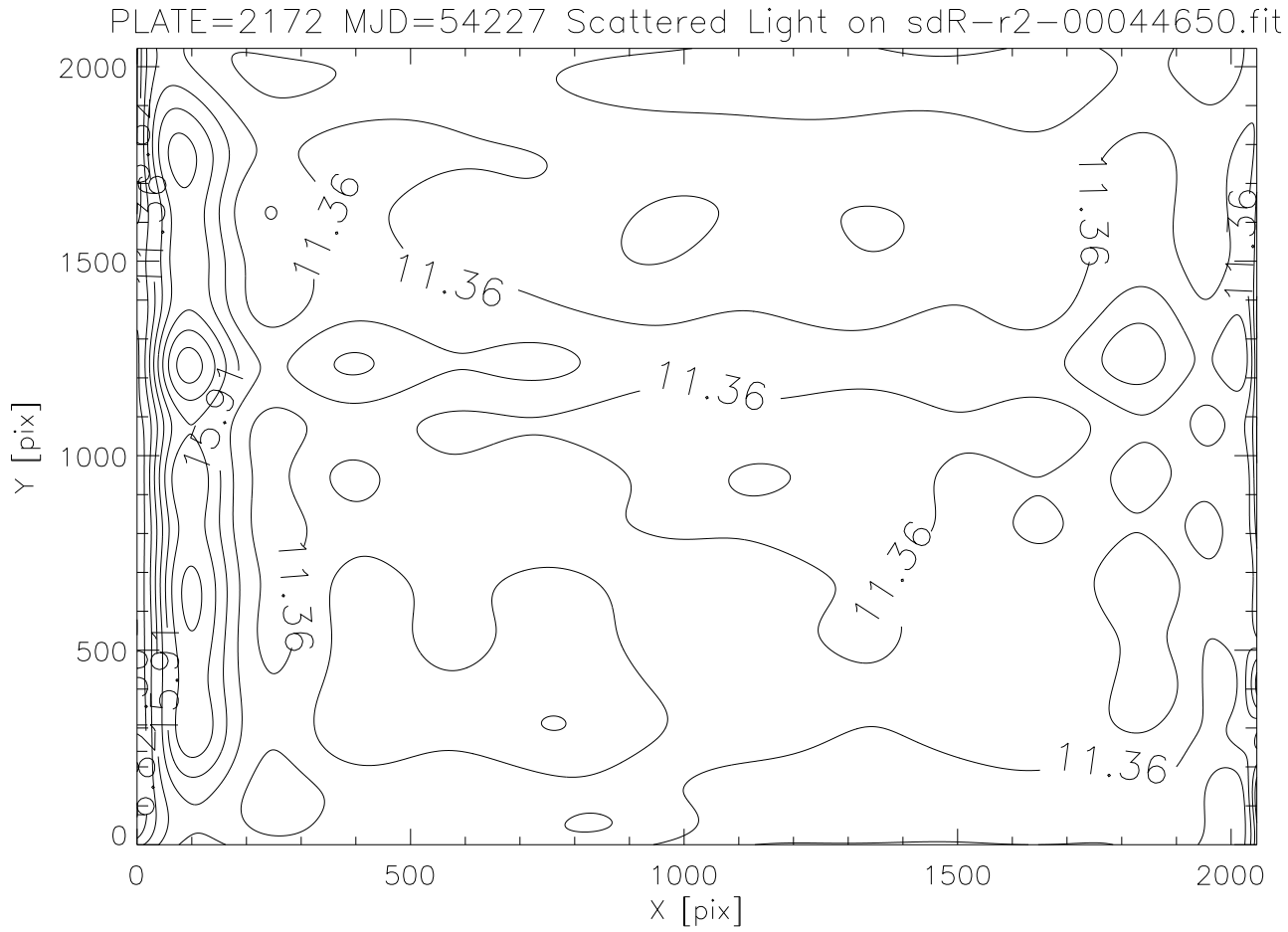

PLATE=2172 MJD=54227 Superflat sdR-r2-00044654.fit
Normalized flux
λ [A]
0.0
0.5
1.0
1.5
2.0
6000
6500
7000
7500
8000
8500
9000

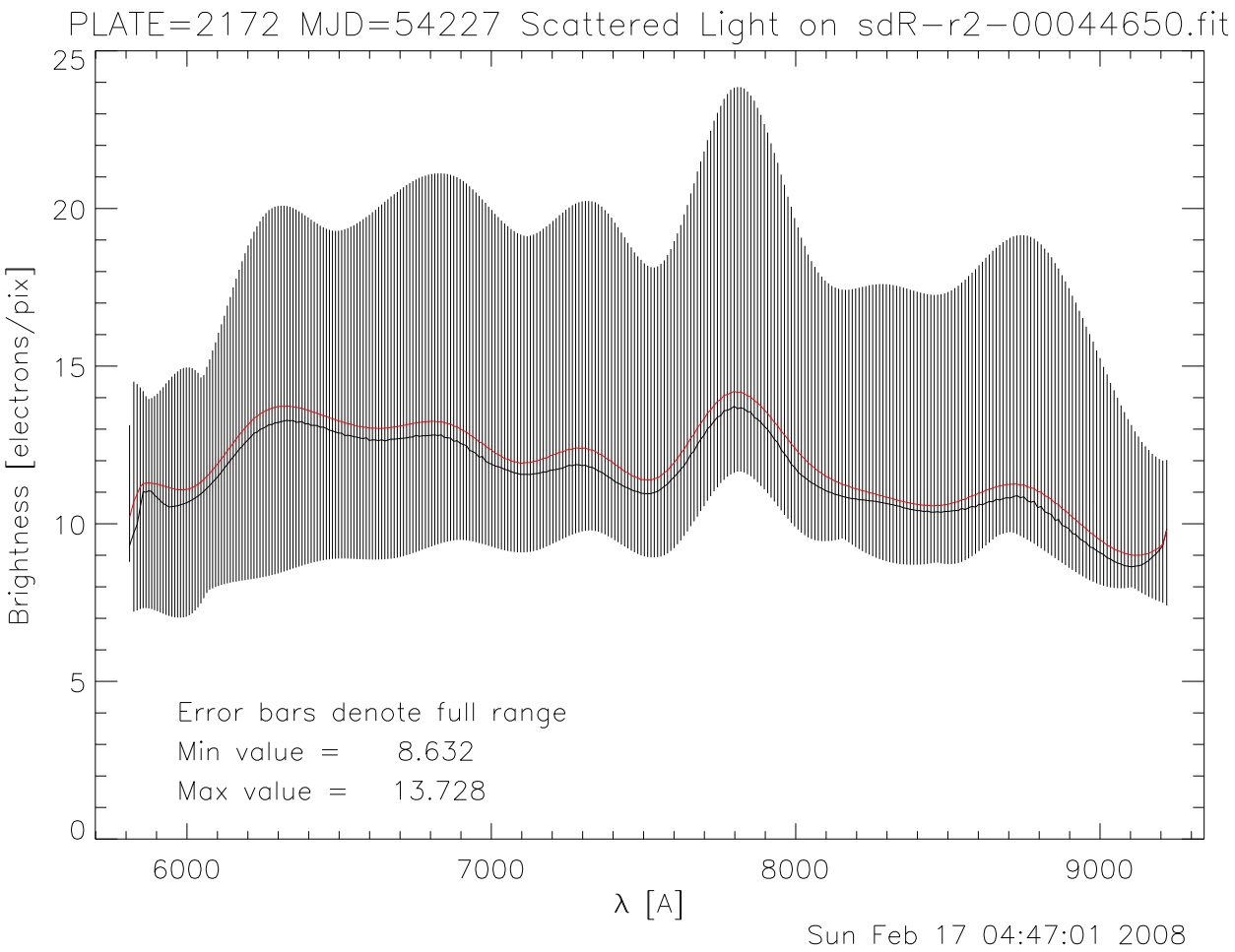

PLATE=2172 MJD=54227 Arcline Fit for sdR-r2-00044655.fit
Fiber Number
300
250
200
150
100
50
0
6000
7000
8000
9000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
6000
7000
8000
9000
λ [A]
Sun Feb 17 04:43:26 2008

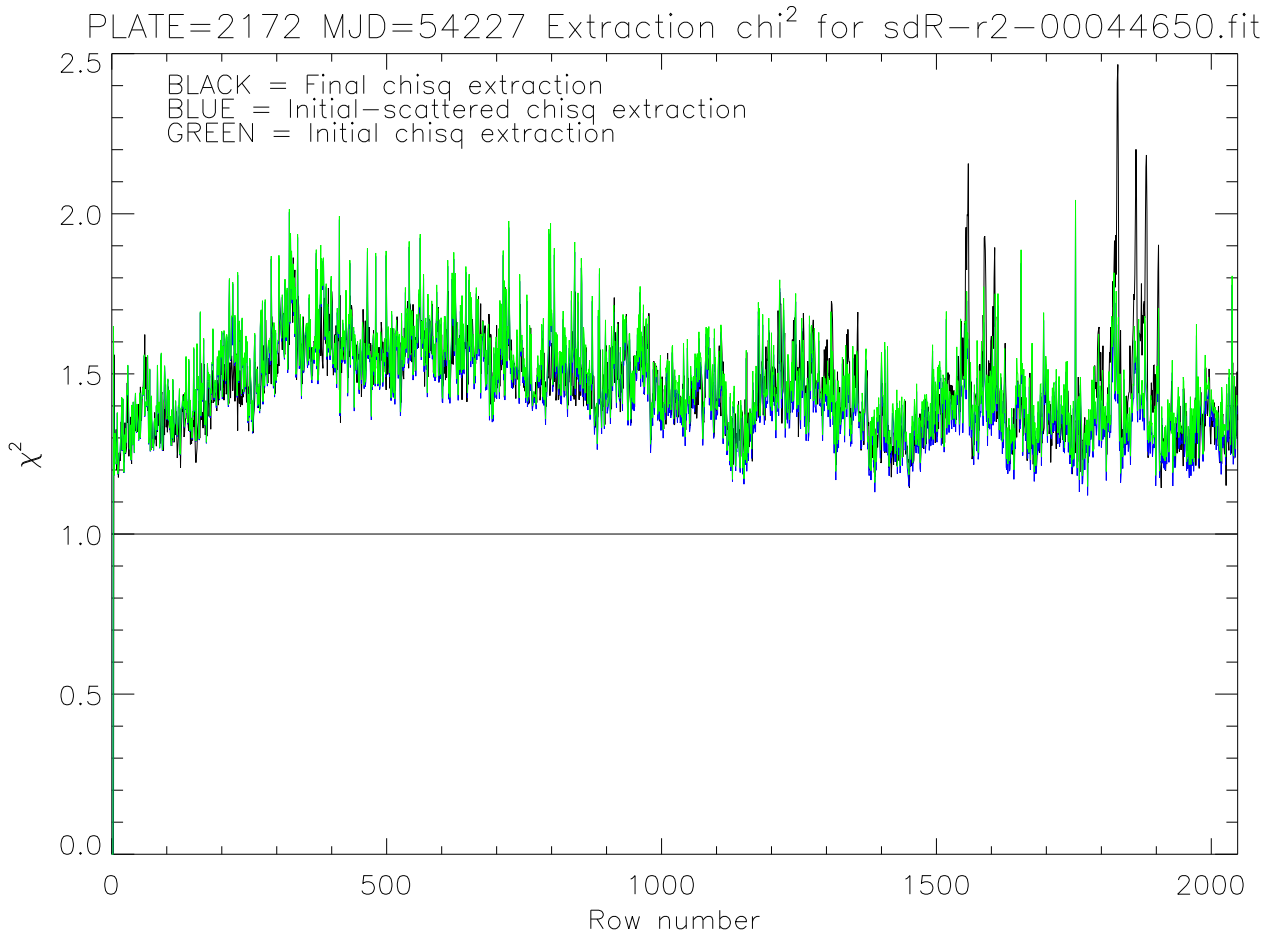

PLATE=2172 MJD=54227 Fiber-Flats for sdR-r2-00044654.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.639
Max value = 1.309
Fiber-Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sun Feb 17 04:43:34 2008

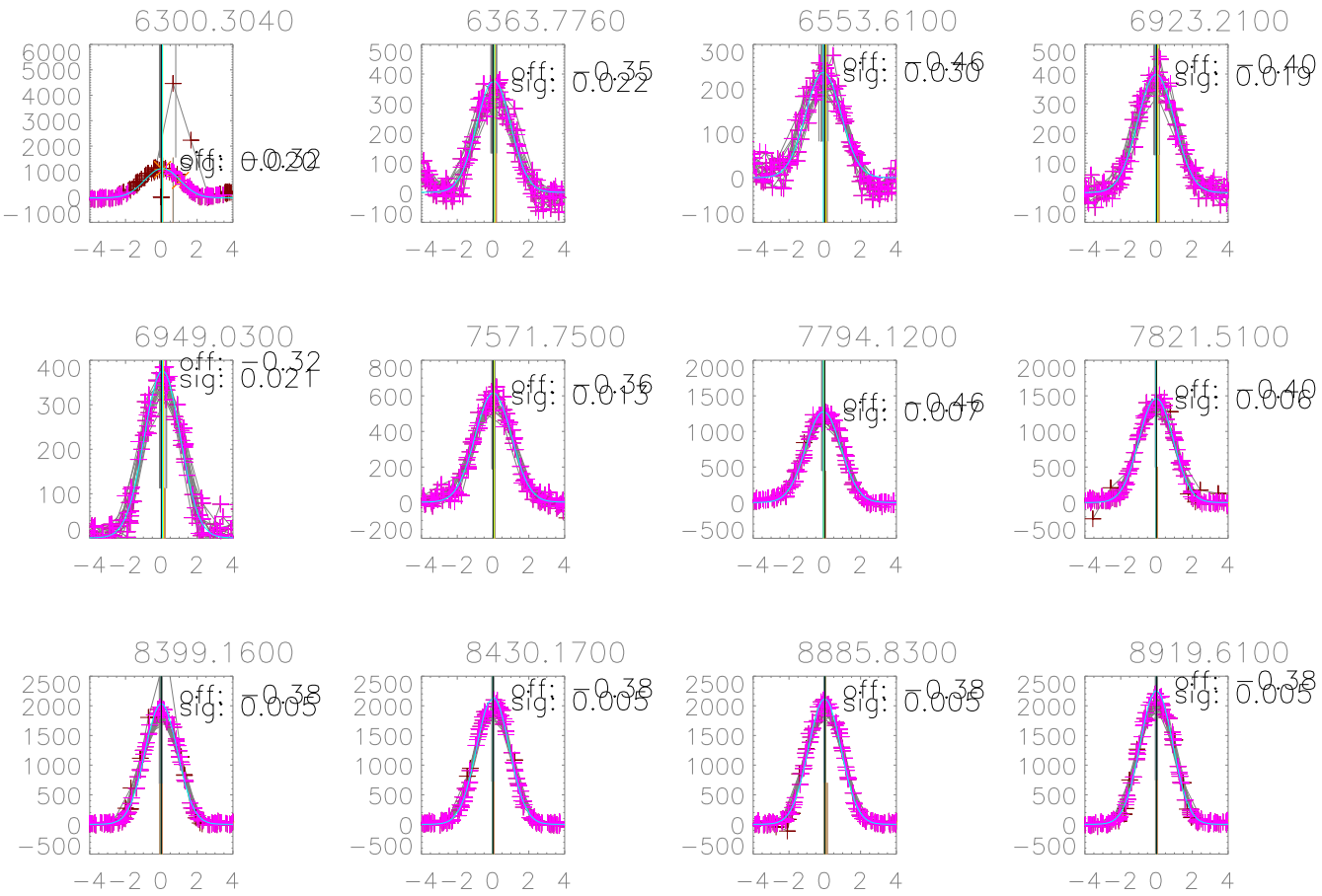

PLATE=2172 MJD=54227 Scattered Light before halo removal on sdR-r2-00044650.fi
31.82
31.82
31.82
22.73
22.73
22.73
13.64
13.64
13.64
Y [pix]
X [pix]
0
500
1000
1500
2000

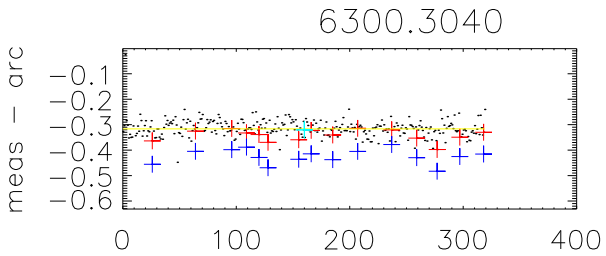

PLATE=2172 MJD=54227 Scattered Light before halo removal on sdR-r2-00044650.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 8.072
Max value = 34.519
Sun Feb 17 04:44:23 2008

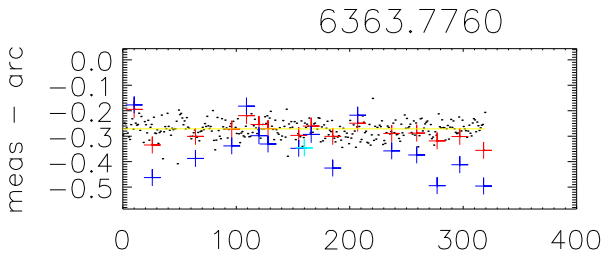

PLATE=2172 MJD=54227 Scattered Light on sdR−r2−00044650.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
11.36
11.36
11.36

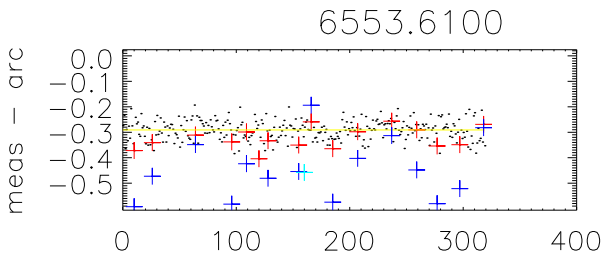

PLATE=2172 MJD=54227 Scattered Light on sdR-r2-00044650.fit
Brightness [electrons/pix]
25
20
15
10
5
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 8.632
Max value = 13.728
Sun Feb 17 04:47:01 2008

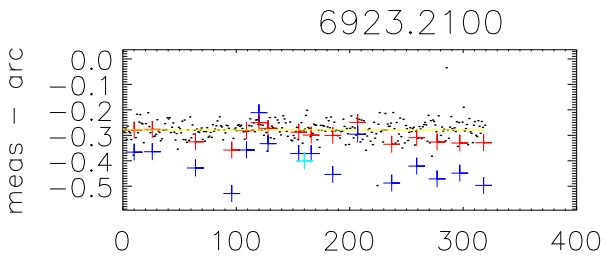

PLATE=2172 MJD=54227 Extraction chi^2 for sdR−r2−00044650.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
2.5
2.0
1.5
1.0
0.5
0.0
0
500
1000
1500
2000
Row number

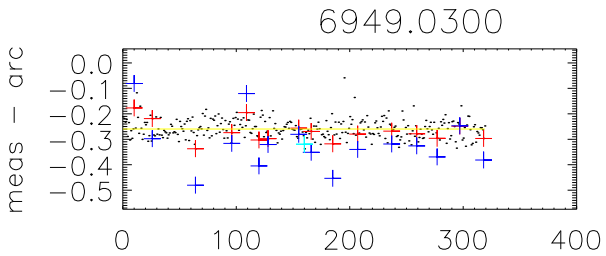

6300.3040
off: −0.32
sig: 0.022
6363.7760
off: −0.35
sig: 0.022
6553.6100
off: −0.46
sig: 0.030
6923.2100
off: −0.40
sig: 0.019
6949.0300
off: −0.32
sig: 0.021
7571.7500
off: −0.36
sig: 0.013
7794.1200
off: −0.46
sig: 0.007
7821.5100
off: −0.40
sig: 0.006
8399.1600
off: −0.38
sig: 0.005
8430.1700
off: −0.38
sig: 0.005
8885.8300
off: −0.38
sig: 0.005
8919.6100
off: −0.38
sig: 0.005

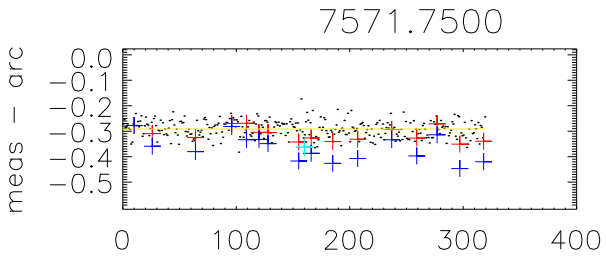

6300.3040
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

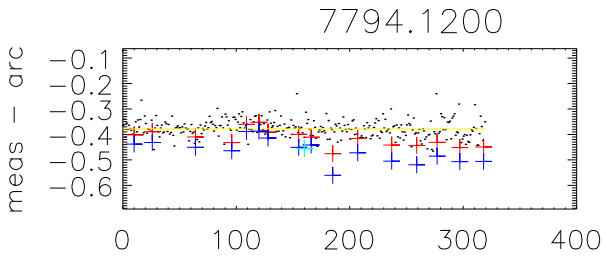

6363.7760
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

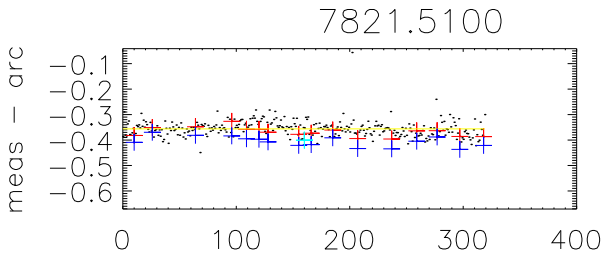

6553.6100
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

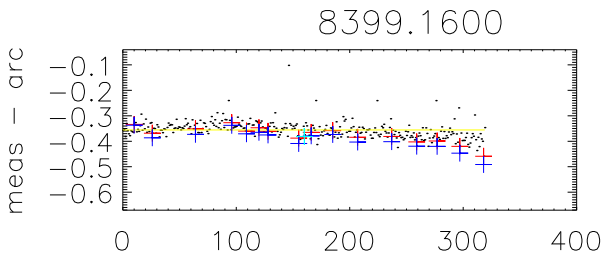

6923.2100
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

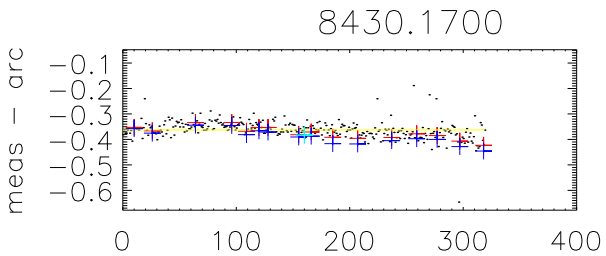

6949.0300
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

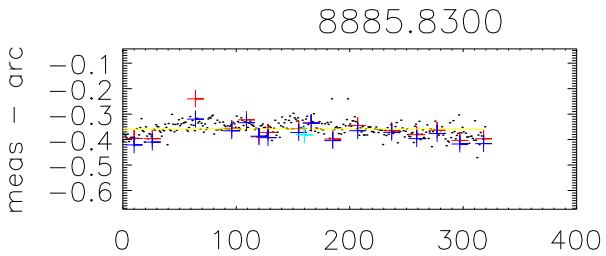

7571.7500
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

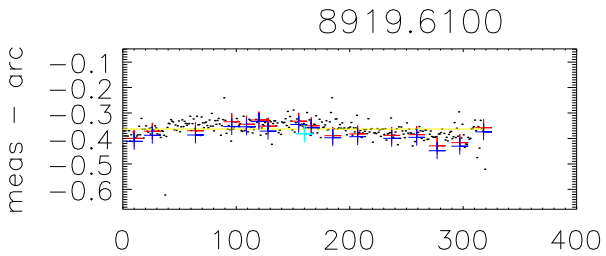

7794.1200
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

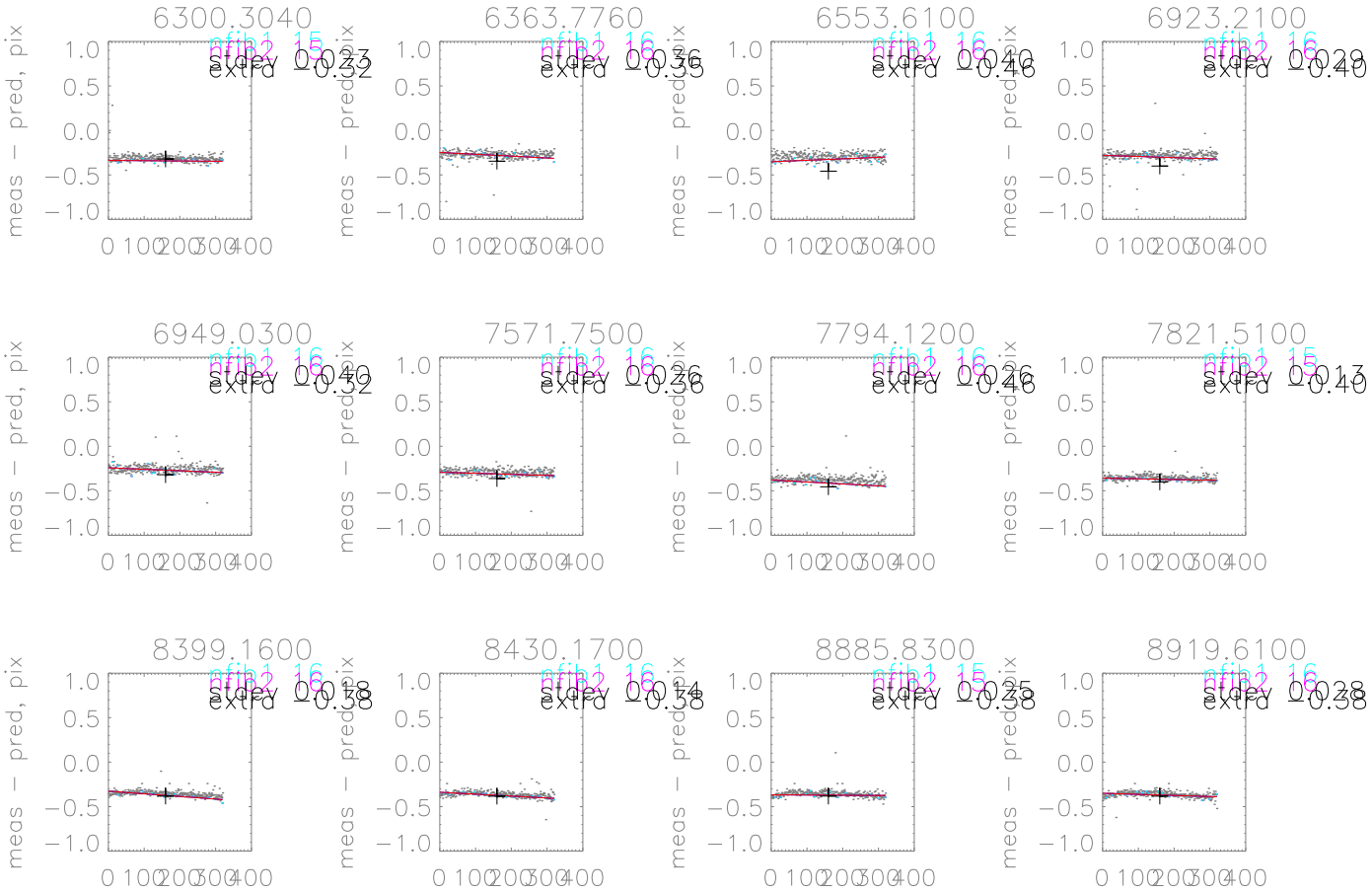

7821.5100
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

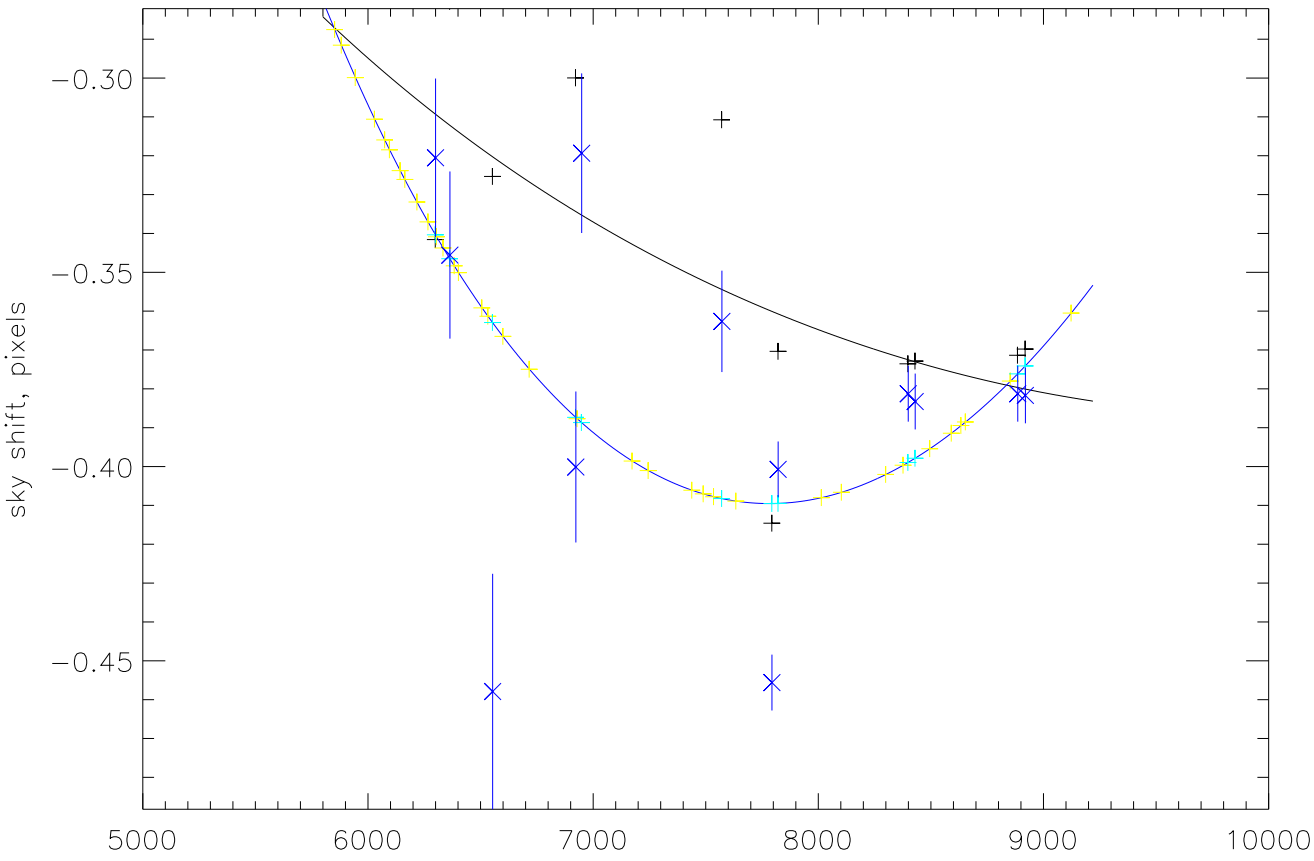

8399.1600
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400


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

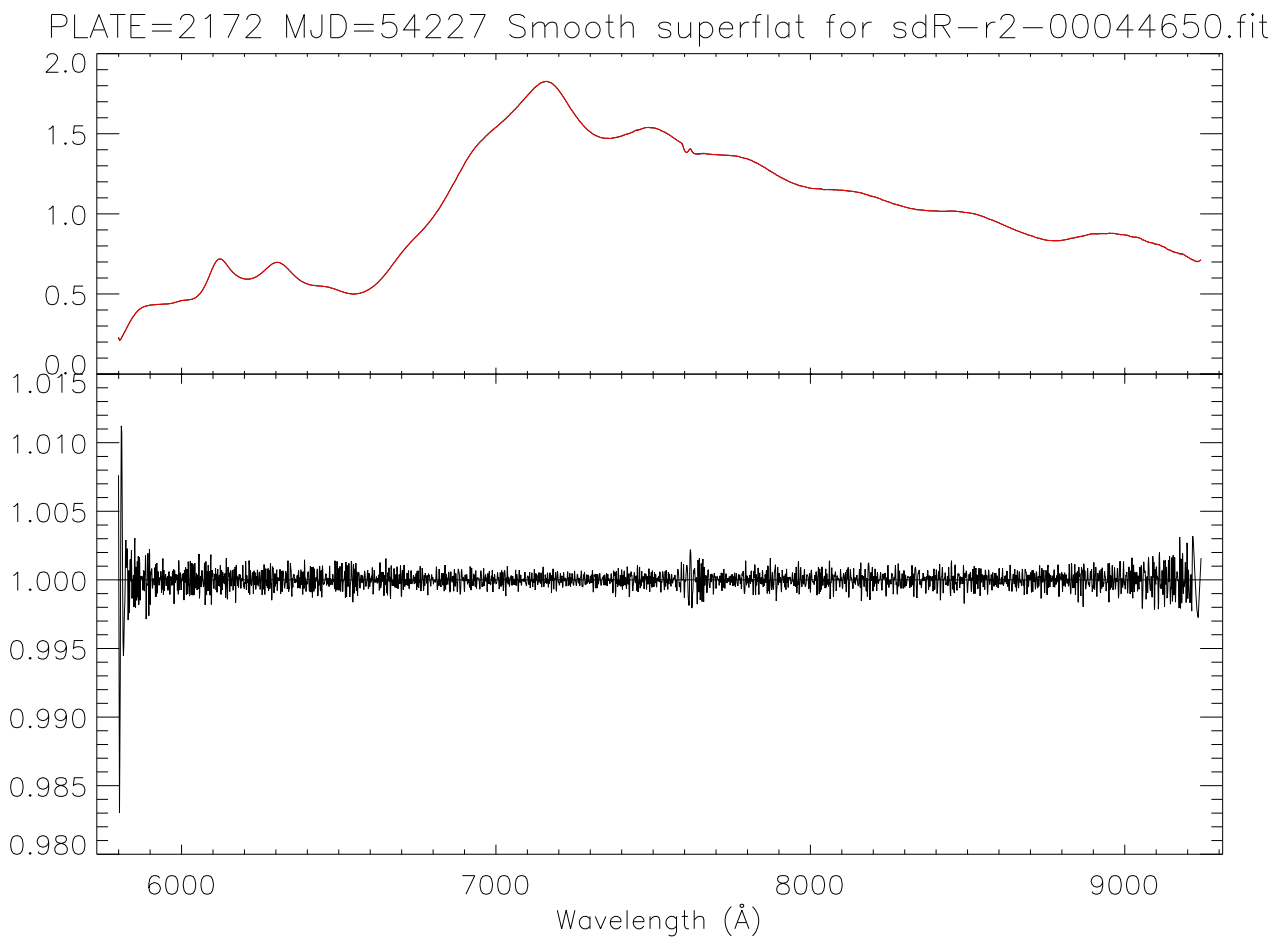

8885.8300
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

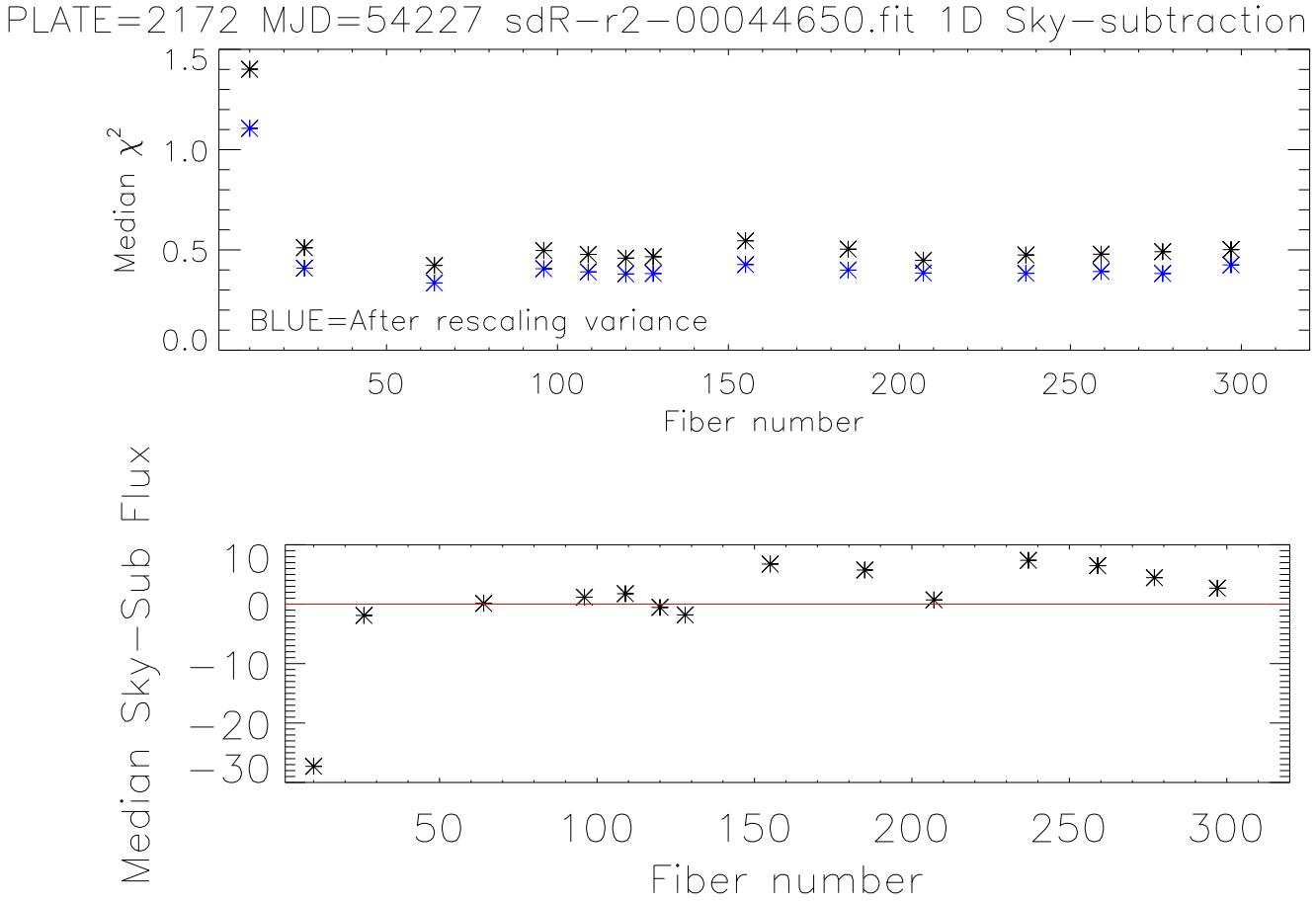

8919.6100
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

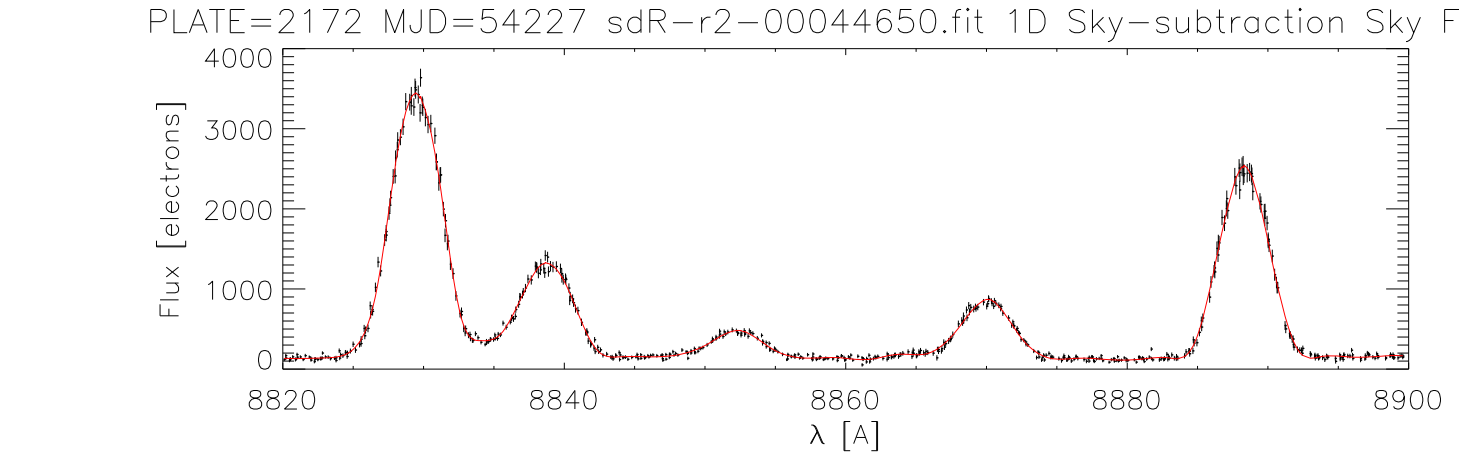

6300.3040
6363.7760
6553.6100
6923.2100
6949.0300
7571.7500
7794.1200
7821.5100
8399.1600
8430.1700
8885.8300
8919.6100
meas − pred, pix
mfhi2 15
mfhi1 16
stdev 0.23
extrd 0.32
stdev 0.36
extrd 0.36
stdev 0.40
extrd 0.46
stdev 0.29
extrd 0.40
stdev 0.40
extrd 0.32
stdev 0.26
extrd 0.36
stdev 0.26
extrd 0.46
stdev 0.13
extrd 0.40
stdev 0.18
extrd 0.38
stdev 0.14
extrd 0.38
stdev 0.25
extrd 0.38
stdev 0.28
extrd 0.38

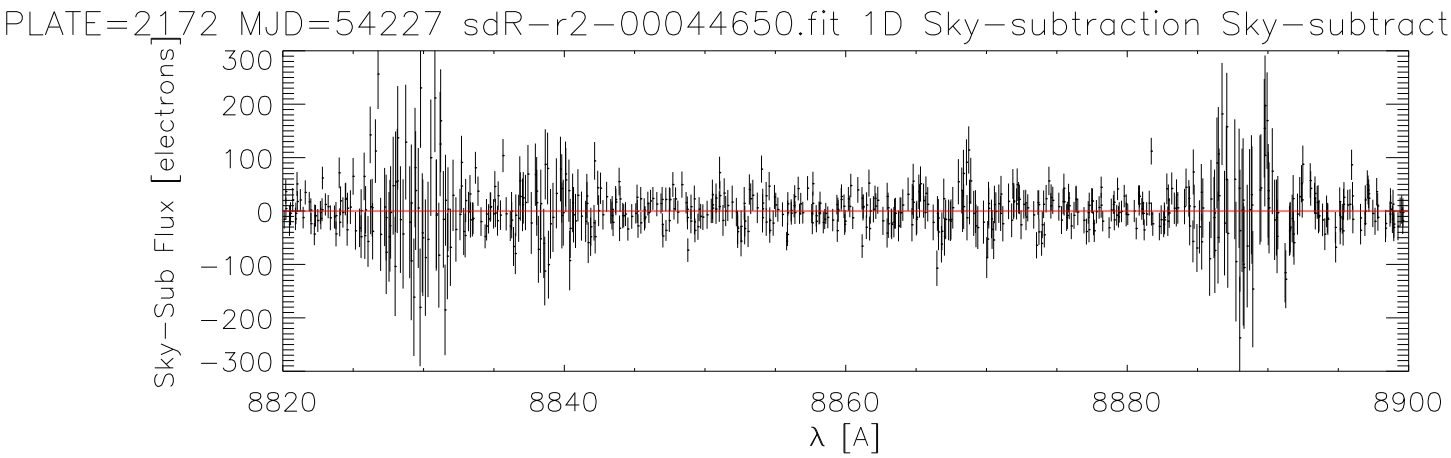

−0.30
−0.35
−0.40
−0.45
sky shift, pixels
5000
6000
7000
8000
9000
10000

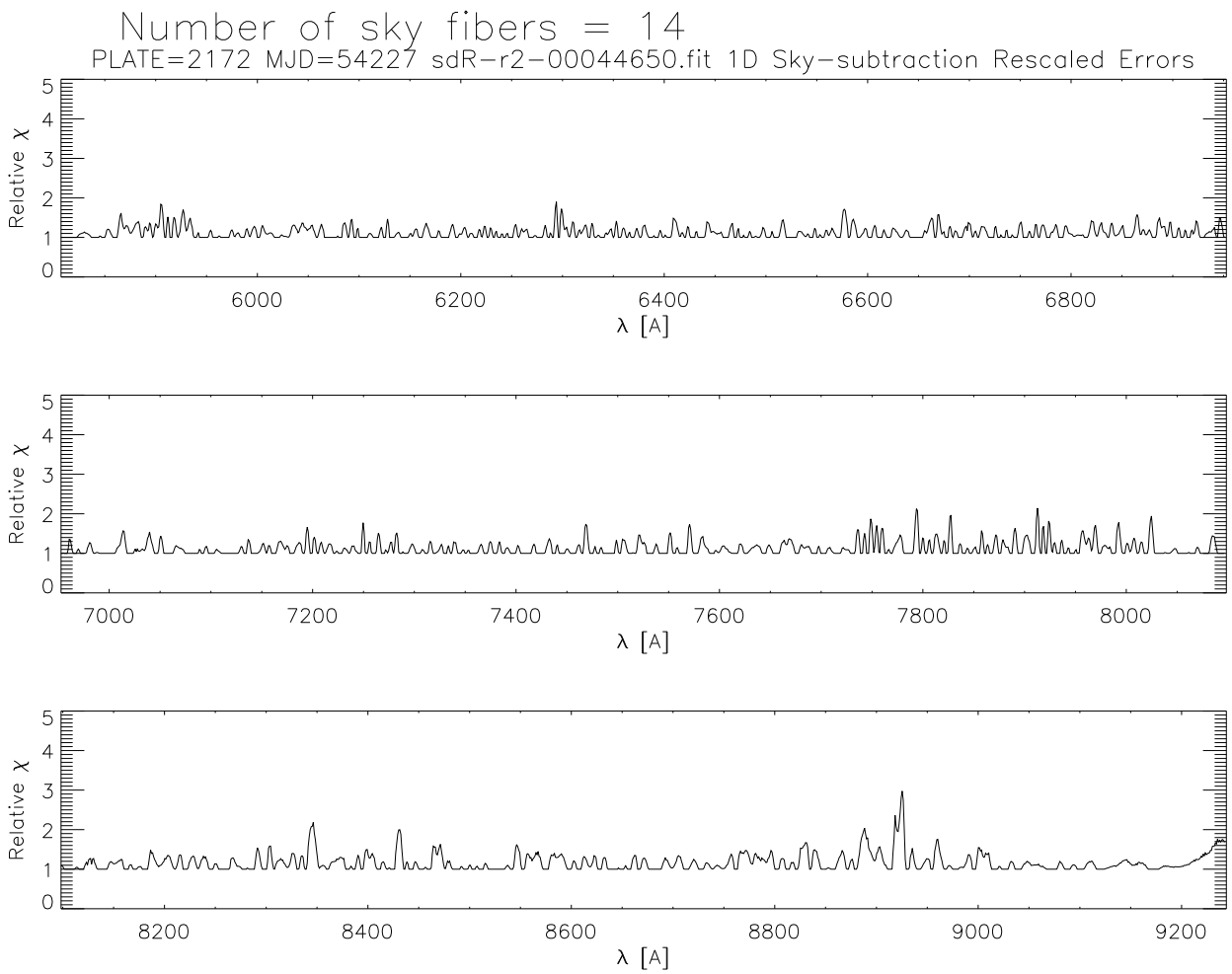
es= −0.0000

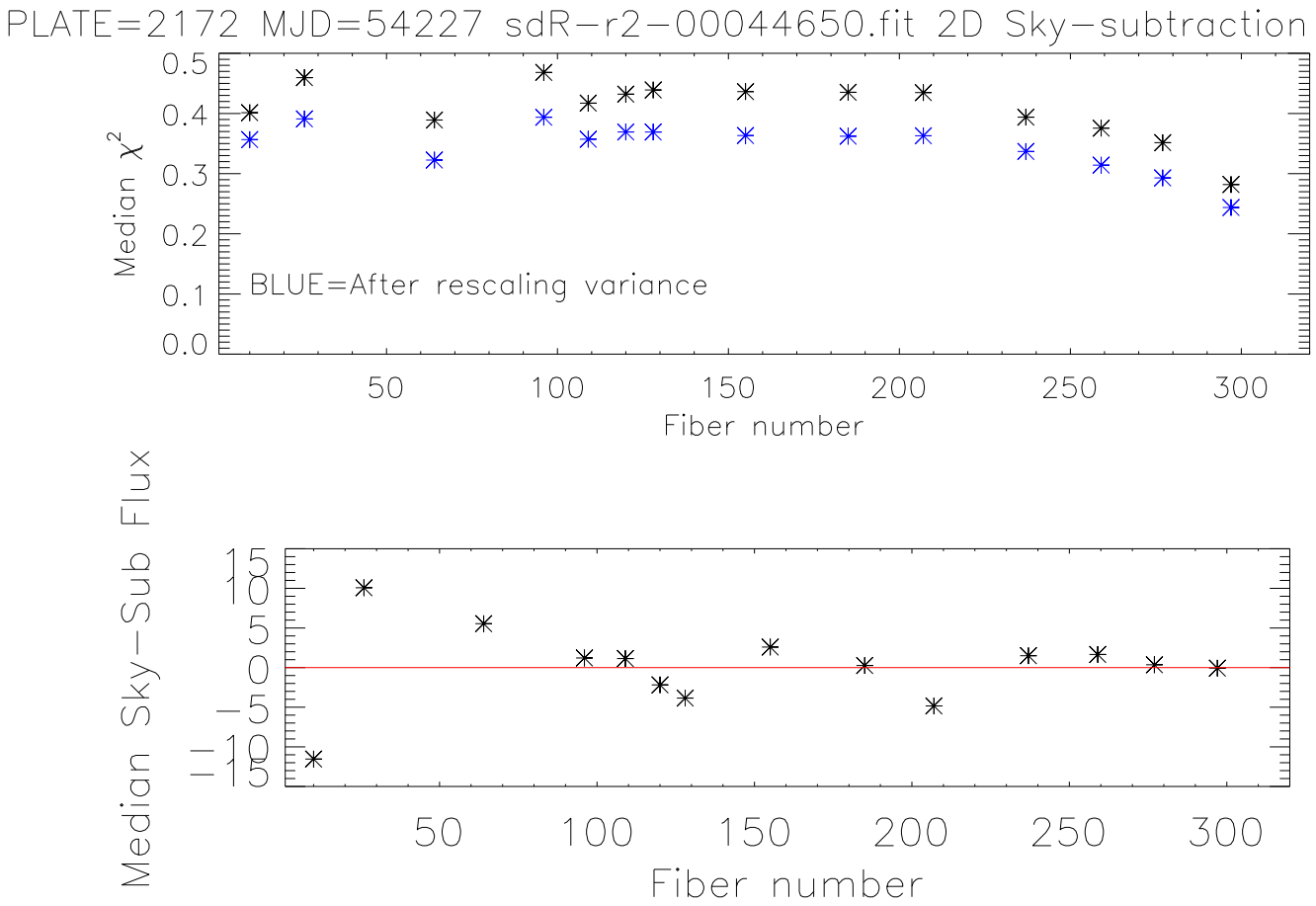

PLATE=2172 MJD=54227 Smooth superflat for sdR−r2−00044650.fit
2.0
1.5
1.0
0.5
0.0
1.015
1.010
1.005
1.000
0.995
0.990
0.985
0.980
6000
7000
8000
9000
Wavelength (Å)

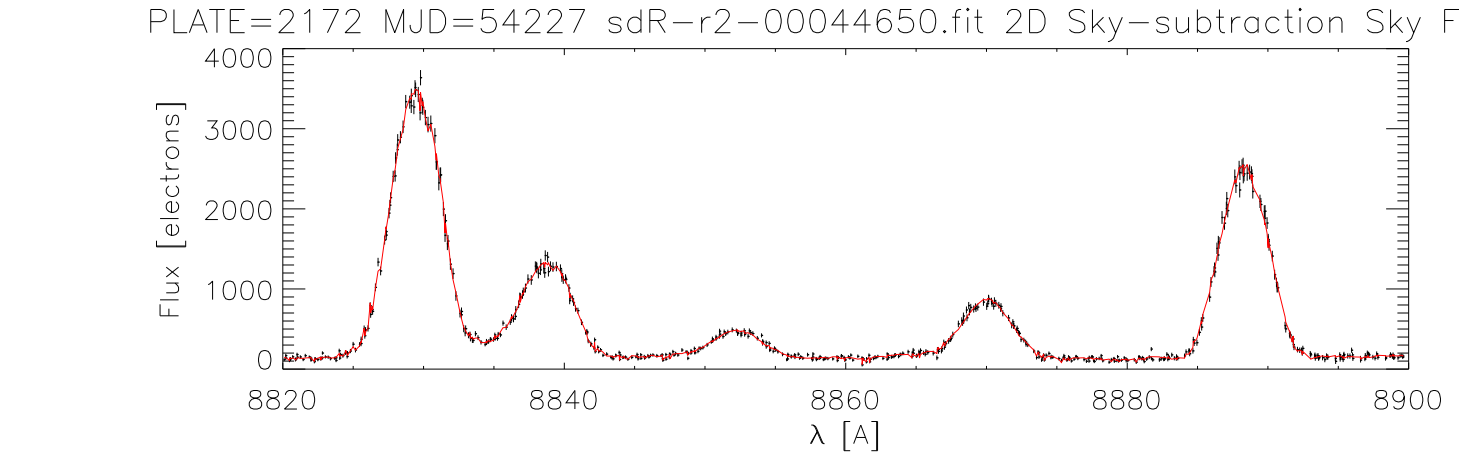

PLATE=2172 MJD=54227 sdR-r2-00044650.fit 1D Sky-subtraction Sky Fibers
Median χ^2
1.5
1.0
0.5
0.0
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
0
-10
-20
-30
50
100
150
200
250
300
Fiber number

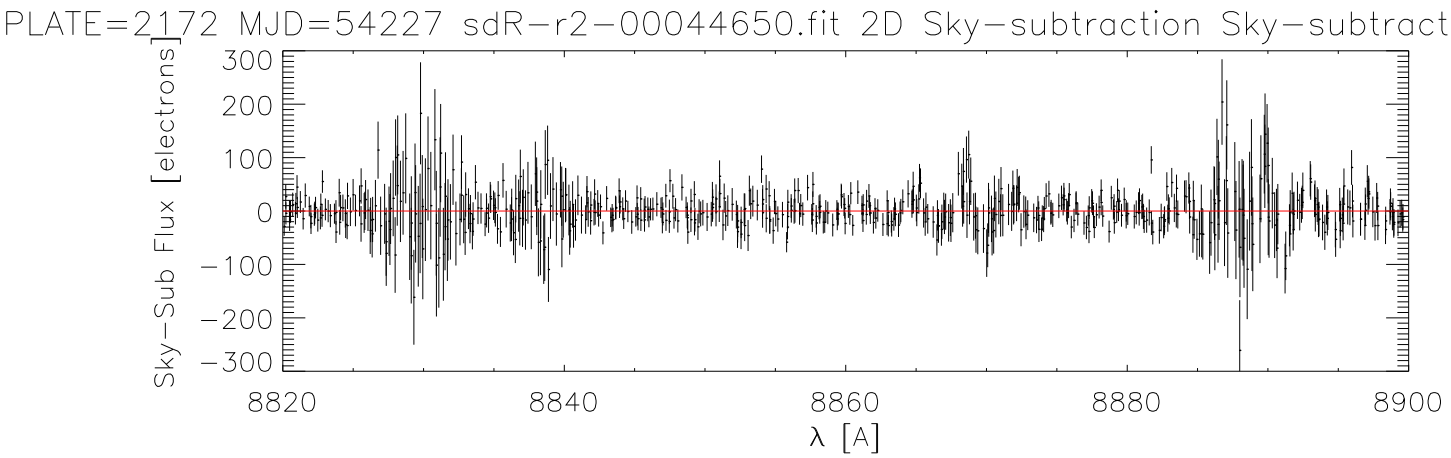

PLATE=2172 MJD=54227 sdR-r2-00044650.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

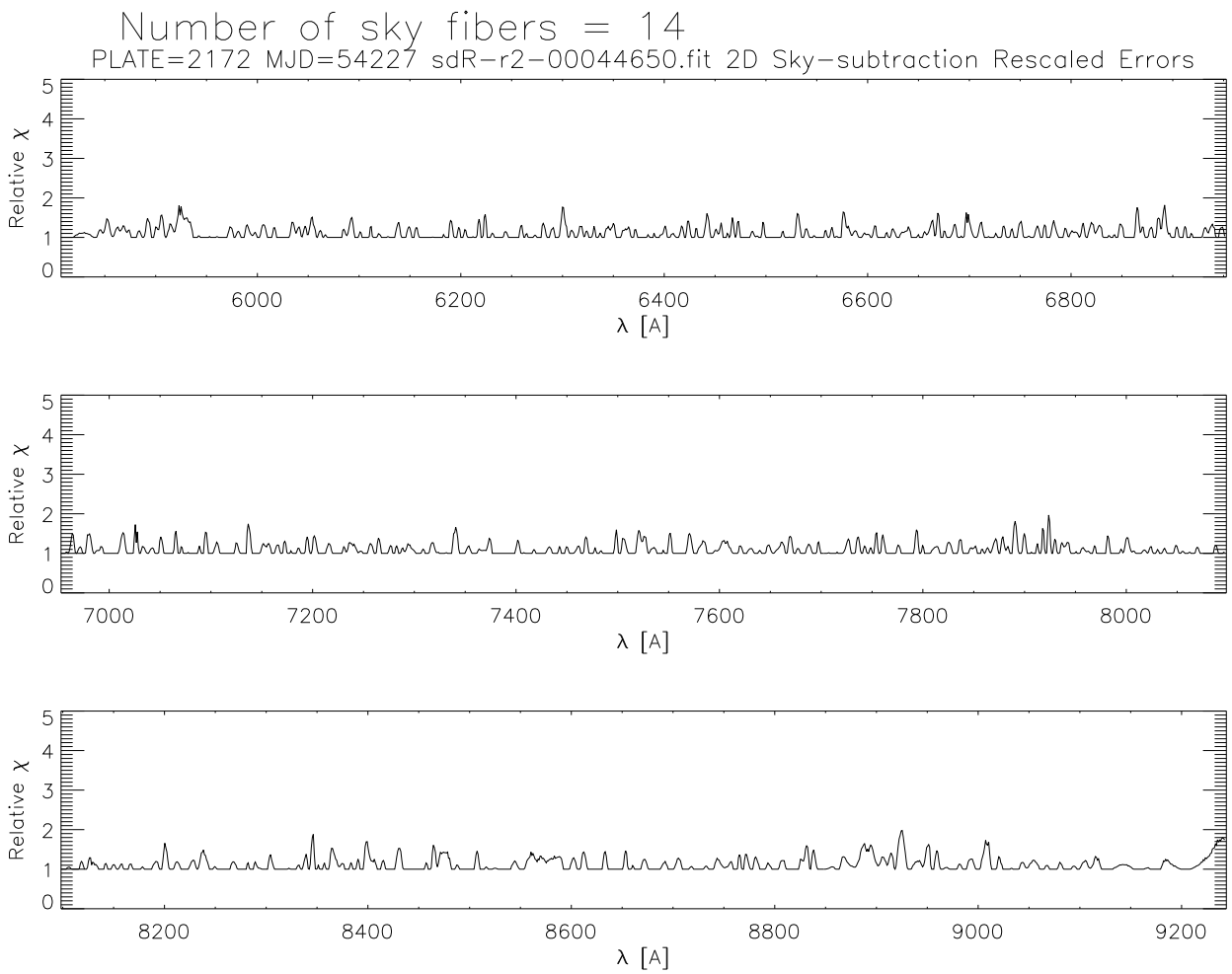

PLATE=2172 MJD=54227 sdR-r2-00044650.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
-300
8820
8840
8860
8880
8900
λ [A]

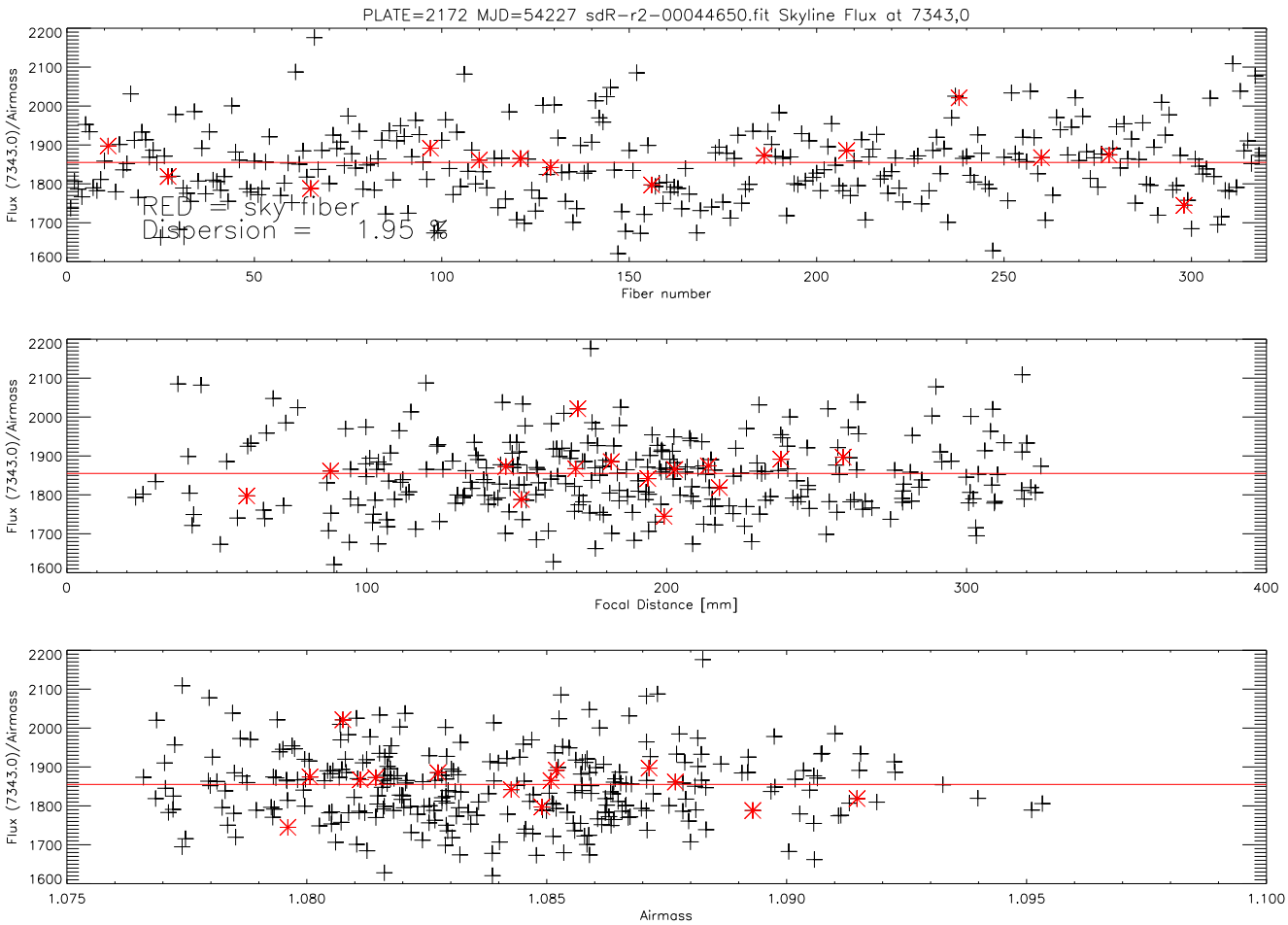

Number of sky fibers = 14
PLATE=2172 MJD=54227 sdR-r2-00044650.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

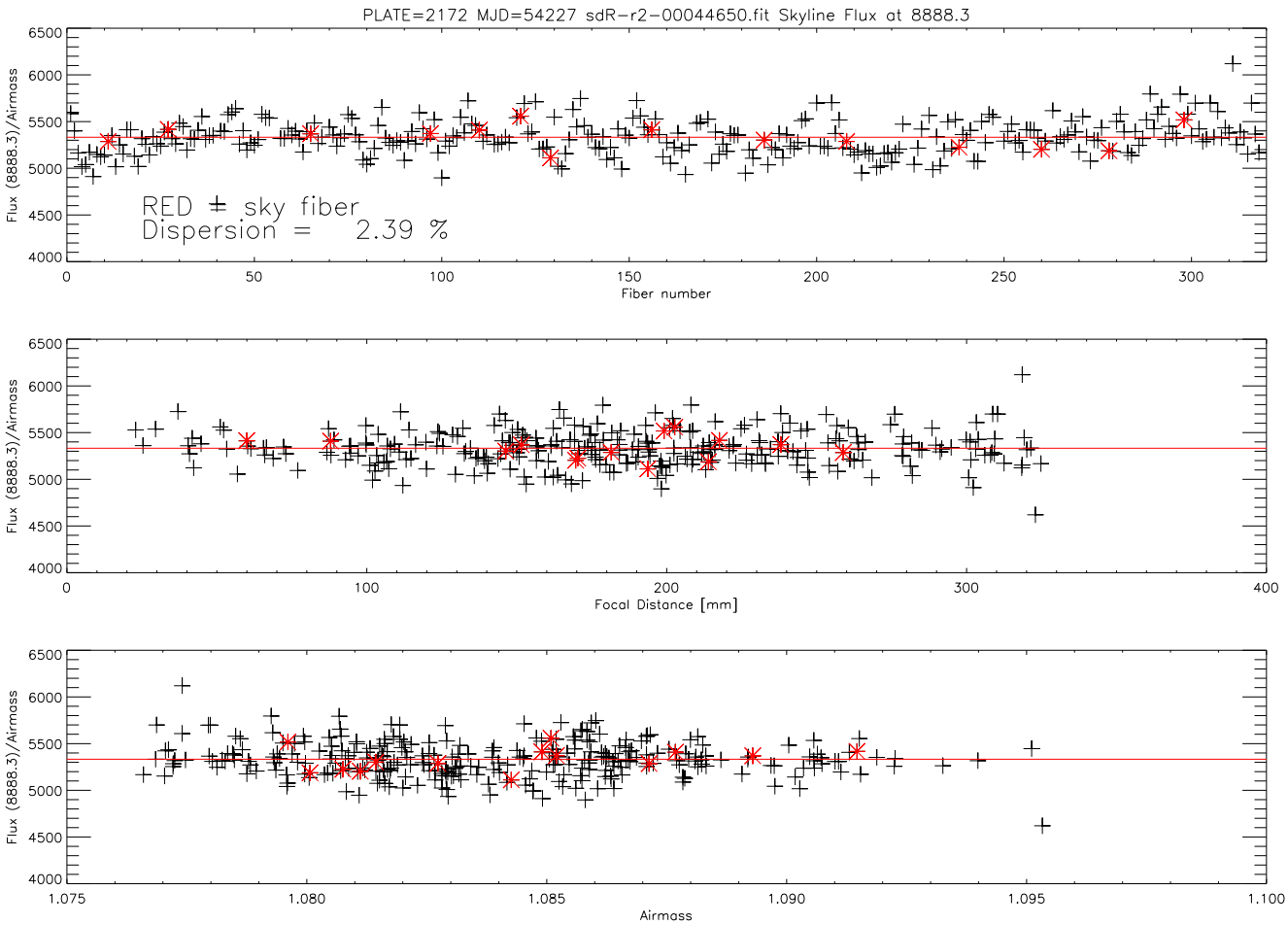

PLATE=2172 MJD=54227 sdR-r2-00044650.fit 2D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

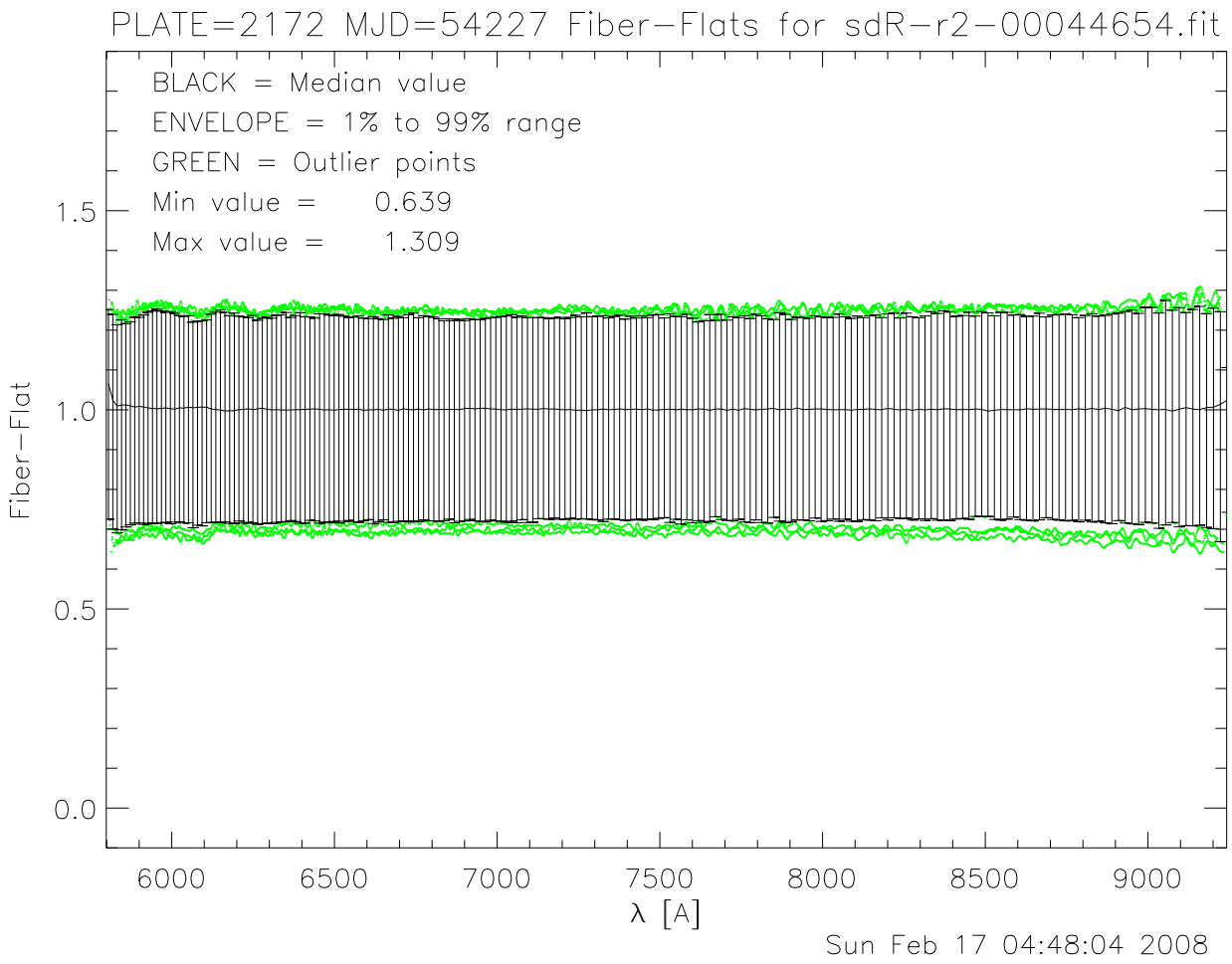

PLATE=2172 MJD=54227 sdR-r2-00044650.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

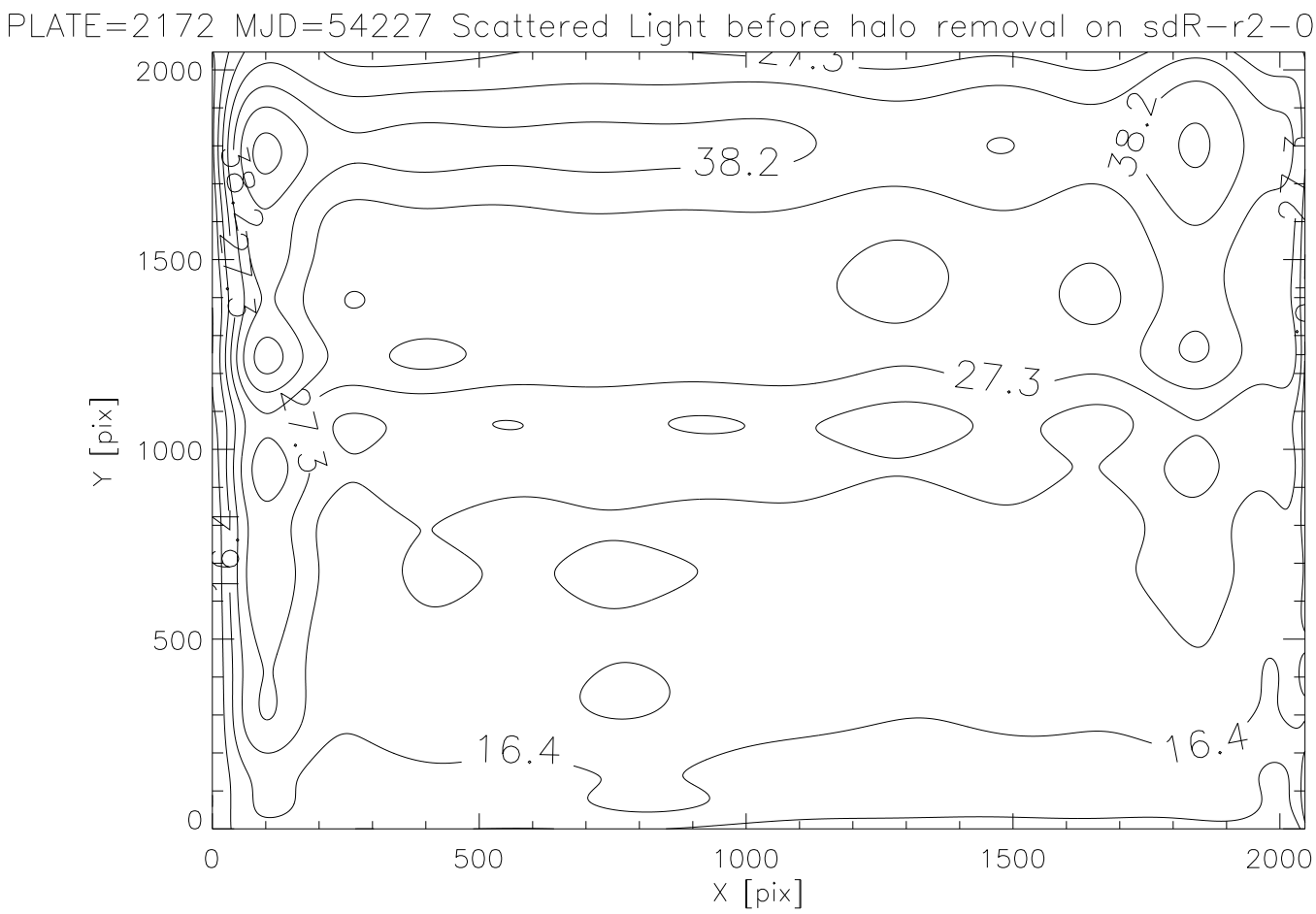

PLATE=2172 MJD=54227 sdR-r2-00044650.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
-300
8820
8840
8860
8880
8900
λ [A]

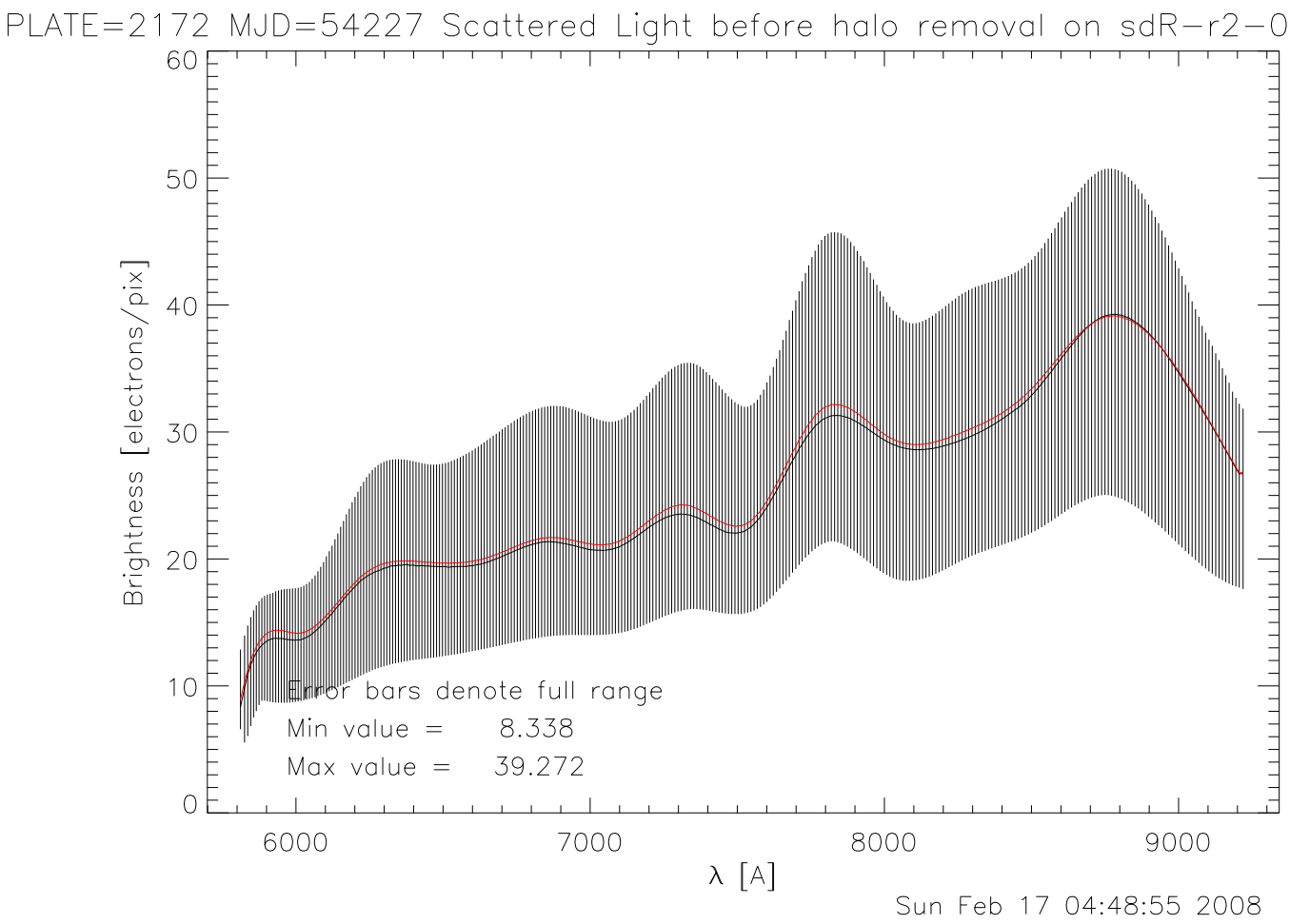

Number of sky fibers = 14
PLATE=2172 MJD=54227 sdR-r2-00044650.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

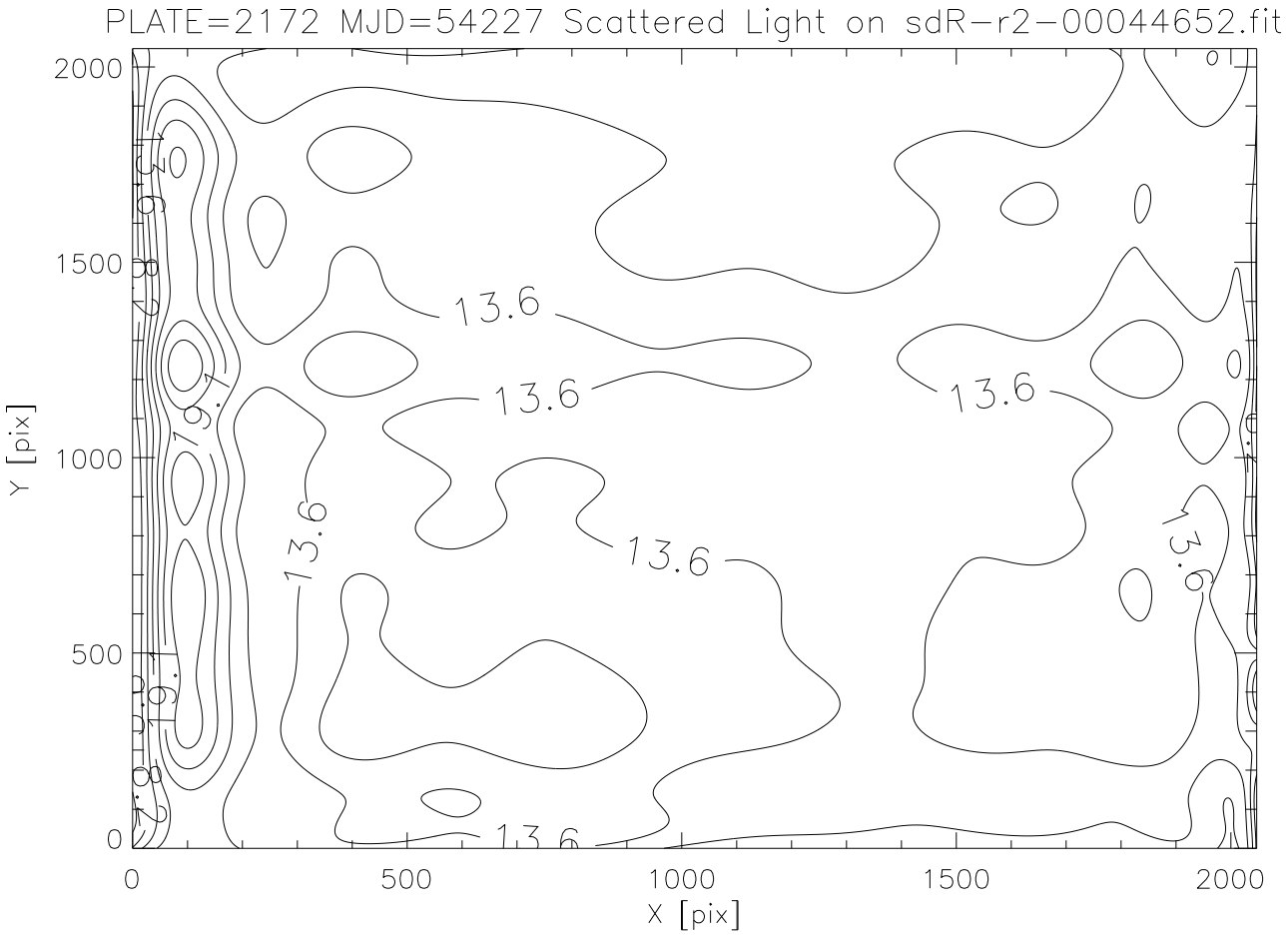

PLATE=2172 MJD=54227 sdR-r2-00044650.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
Fiber number
RED = skyfiber
Dispersion = 1.95 %
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

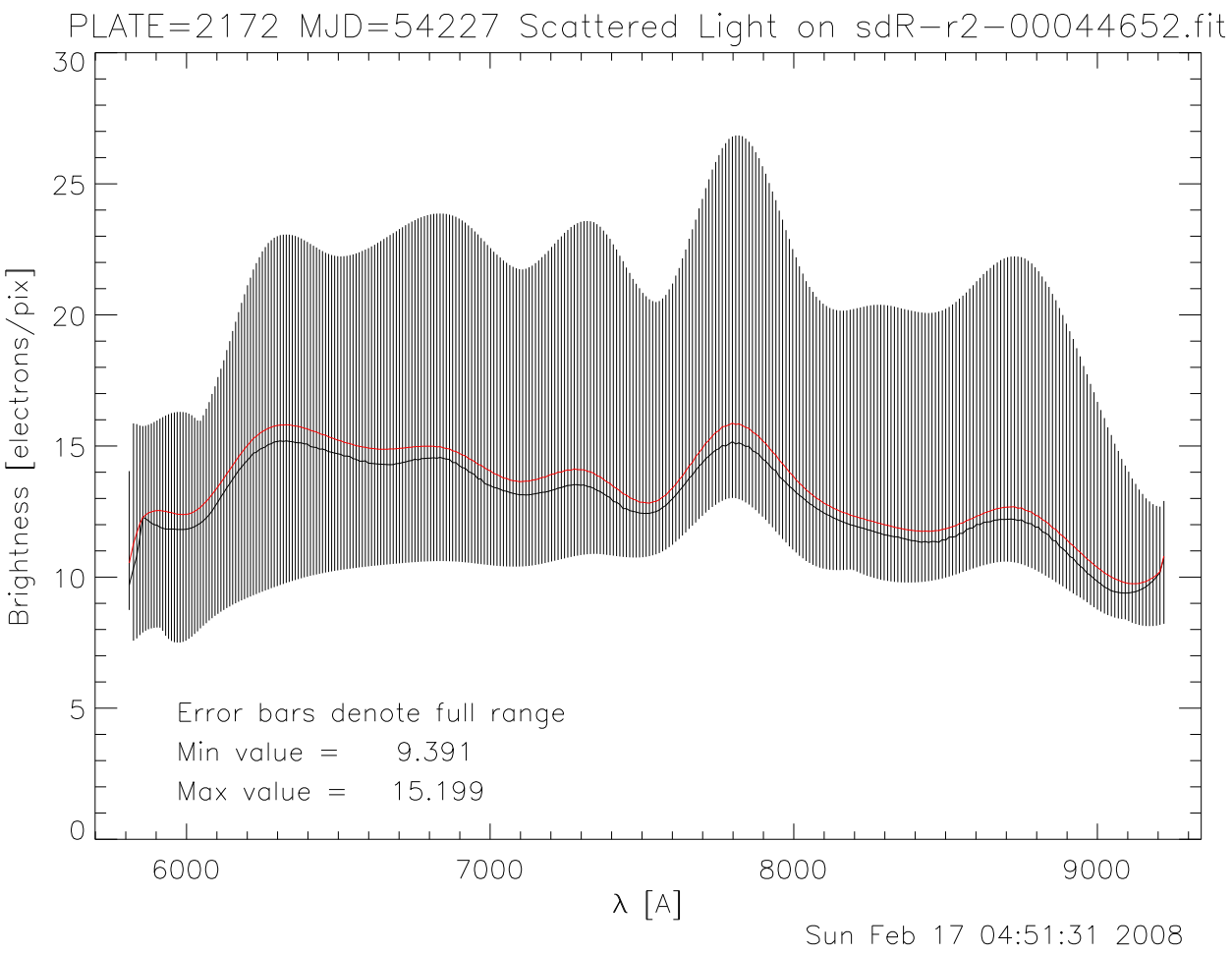

PLATE=2172 MJD=54227 sdR-r2-00044650.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 2.39 %
Fiber number
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass

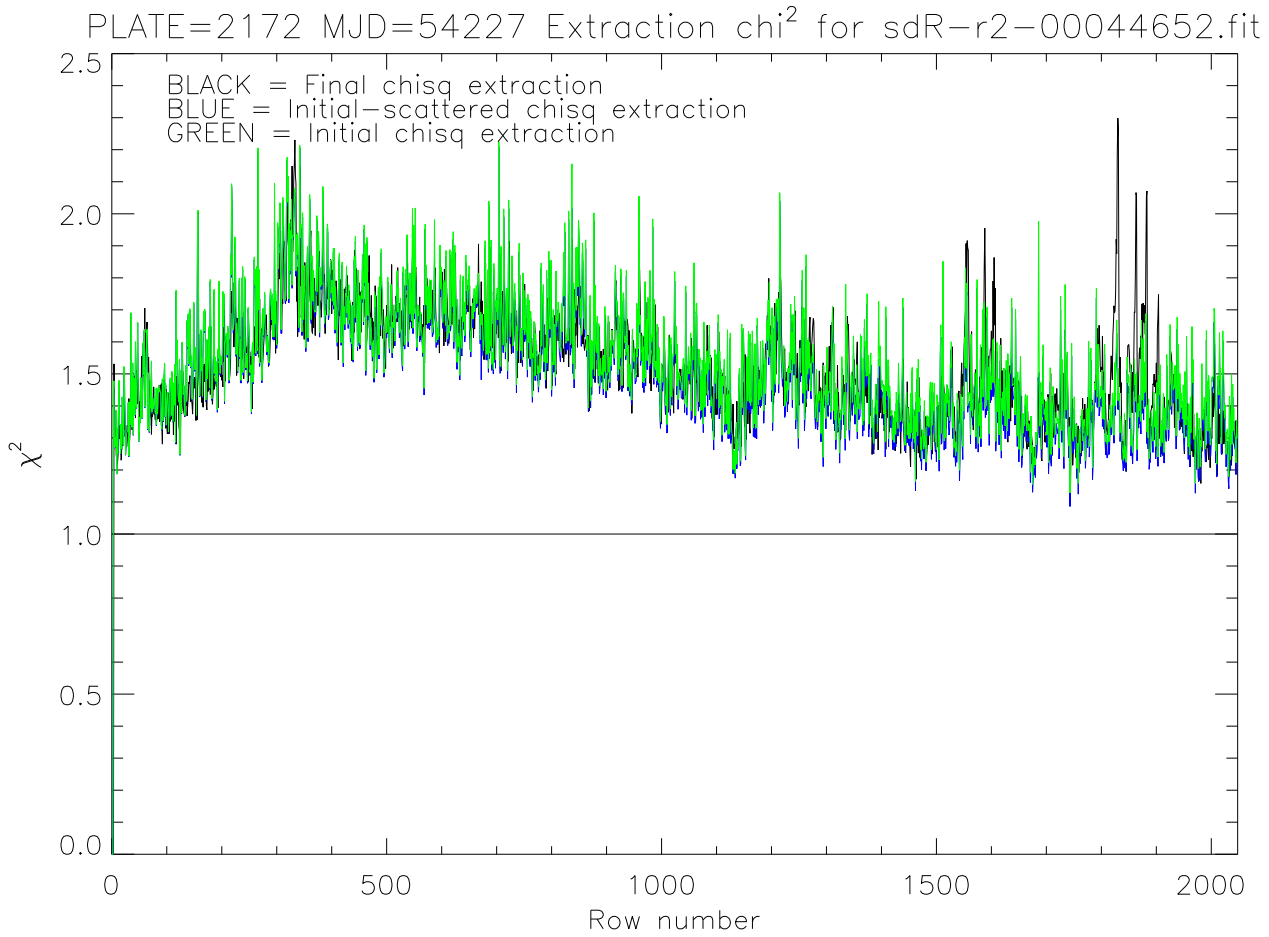

PLATE=2172 MJD=54227 Fiber-Flats for sdR-r2-00044654.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.639
Max value = 1.309
Fiber-Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sun Feb 17 04:48:04 2008

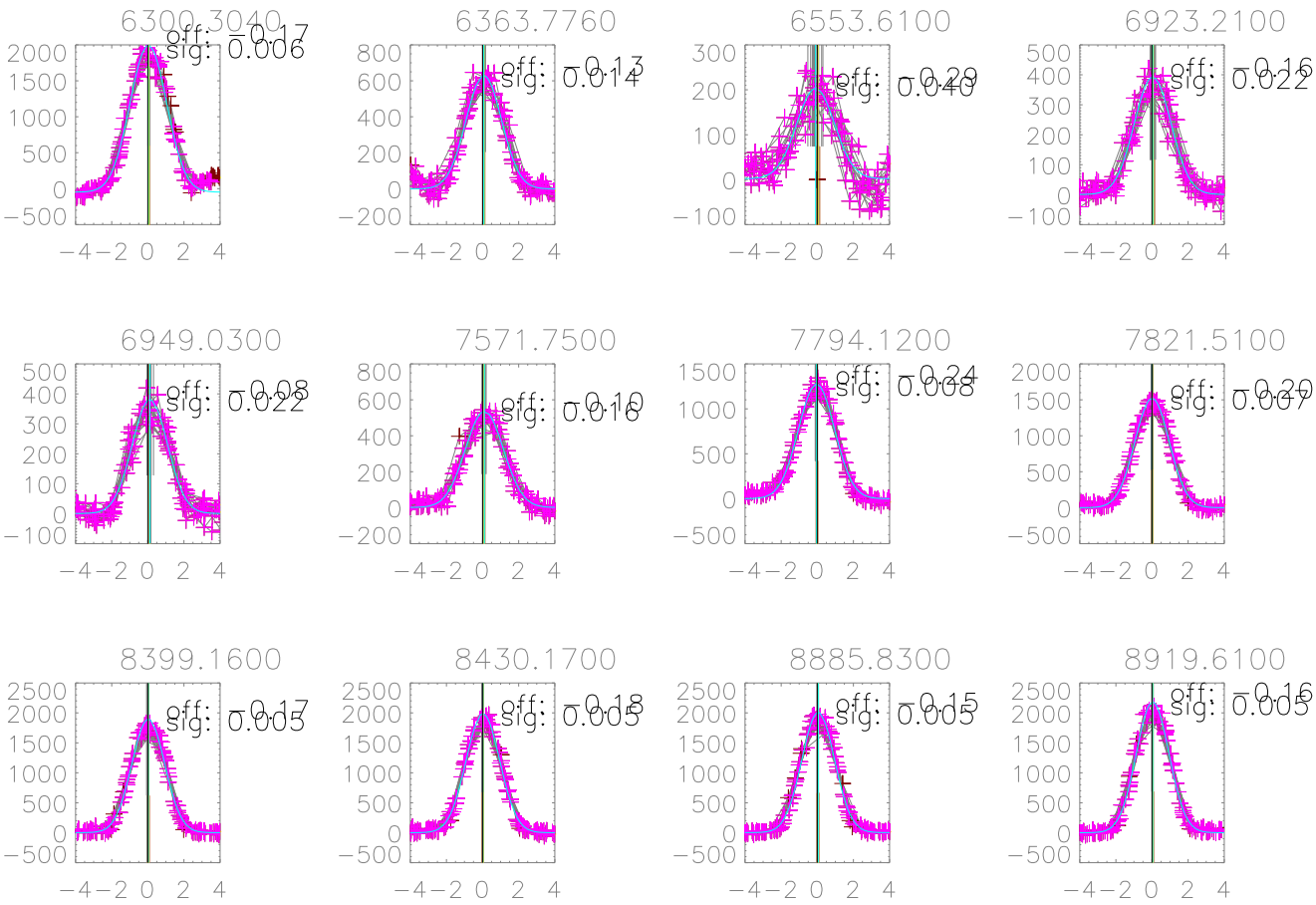

PLATE=2172 MJD=54227 Scattered Light before halo removal on sdR-r2-00044652.fi
38.2
27.3
16.4
Y [pix]
X [pix]
0
500
1000
1500
2000

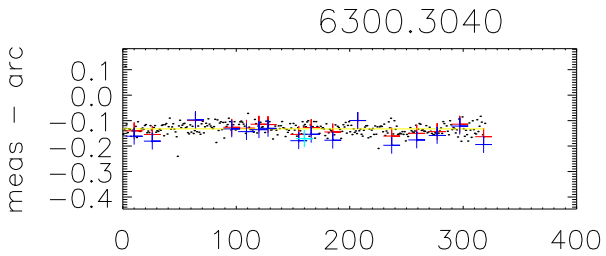

PLATE=2172 MJD=54227 Scattered Light before halo removal on sdR-r2-00044652.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 8.338
Max value = 39.272
Sun Feb 17 04:48:55 2008

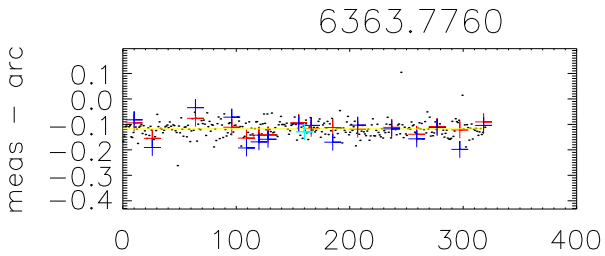

PLATE=2172 MJD=54227 Scattered Light on sdR-r2-00044652.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
13.6
13.6
13.6
13.6
13.6
13.6
13.6
0
0
0

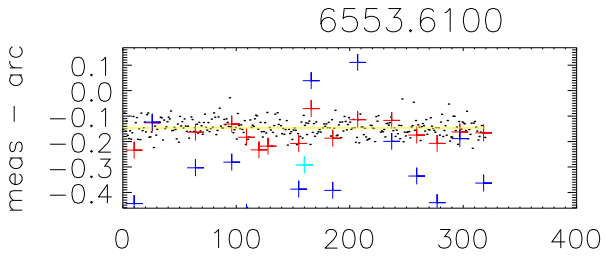

PLATE=2172 MJD=54227 Scattered Light on sdR-r2-00044652.fit
Brightness [electrons/pix]
30
25
20
15
10
5
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 9.391
Max value = 15.199
Sun Feb 17 04:51:31 2008

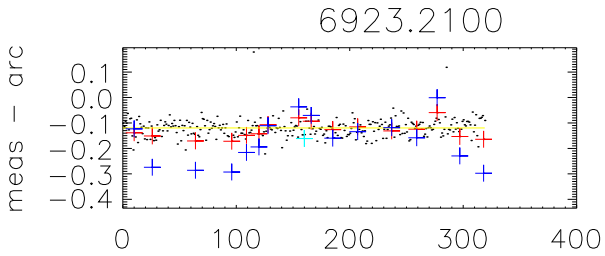

PLATE=2172 MJD=54227 Extraction chi^2 for sdR−r2−00044652.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
2.5
2.0
1.5
1.0
0.5
0.0
0
500
1000
1500
2000
Row number

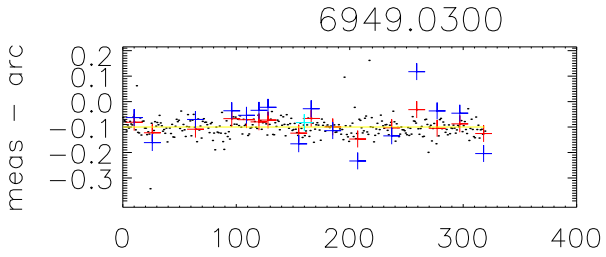

6300.3040
off: −0.17
sig: 0.006
6363.7760
off: −0.13
sig: 0.014
6553.6100
off: −0.29
sig: 0.040
6923.2100
off: −0.16
sig: 0.022
6949.0300
off: −0.08
sig: 0.022
7571.7500
off: −0.10
sig: 0.018
7794.1200
off: −0.24
sig: 0.008
7821.5100
off: −0.20
sig: 0.007
8399.1600
off: −0.17
sig: 0.005
8430.1700
off: −0.18
sig: 0.005
8885.8300
off: −0.15
sig: 0.005
8919.6100
off: −0.16
sig: 0.005

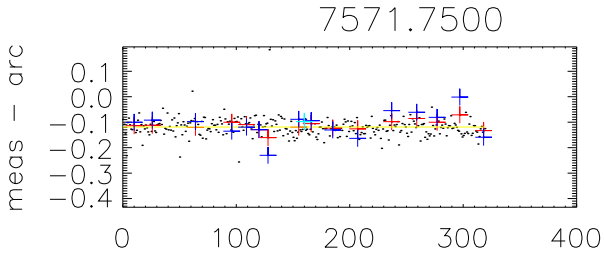

6300.3040
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

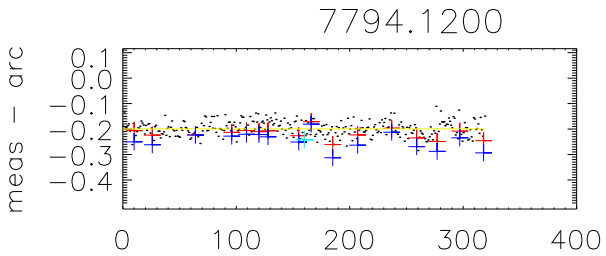

6363.7760
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

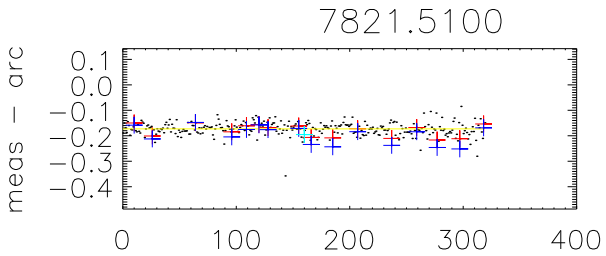

6553.6100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

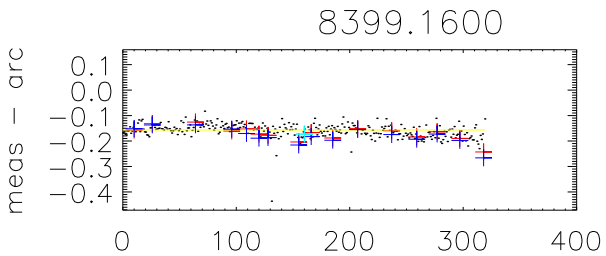

6923.2100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

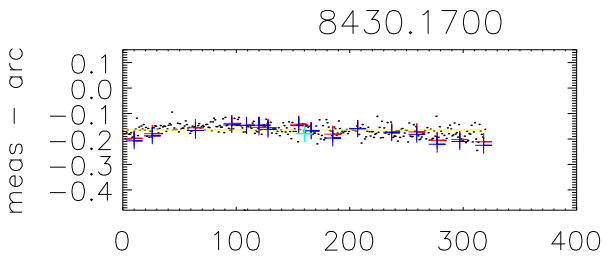

6949.0300
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

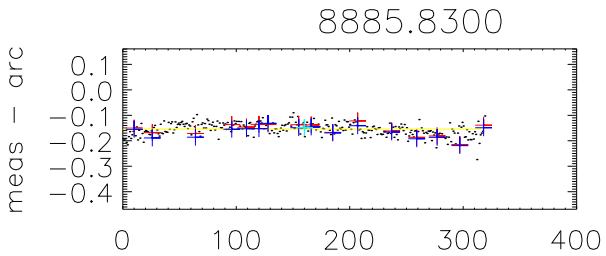

7571.7500
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

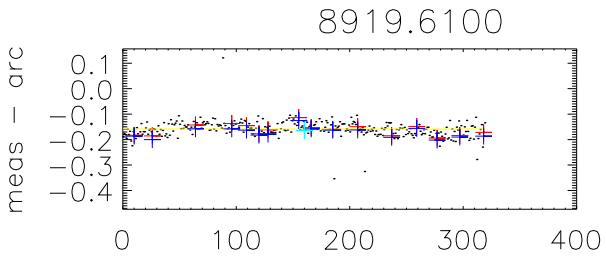

7794.1200
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

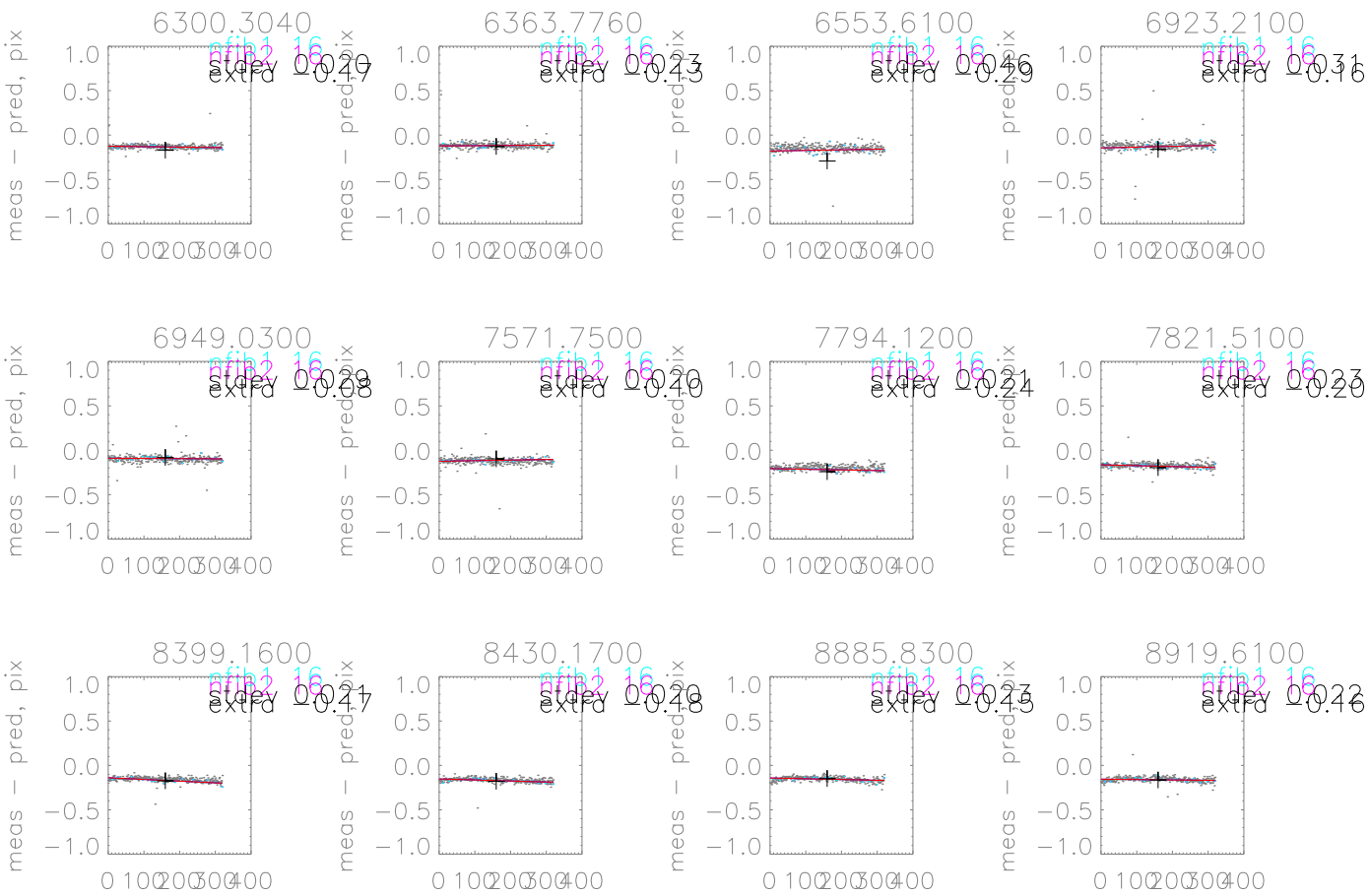

7821.5100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

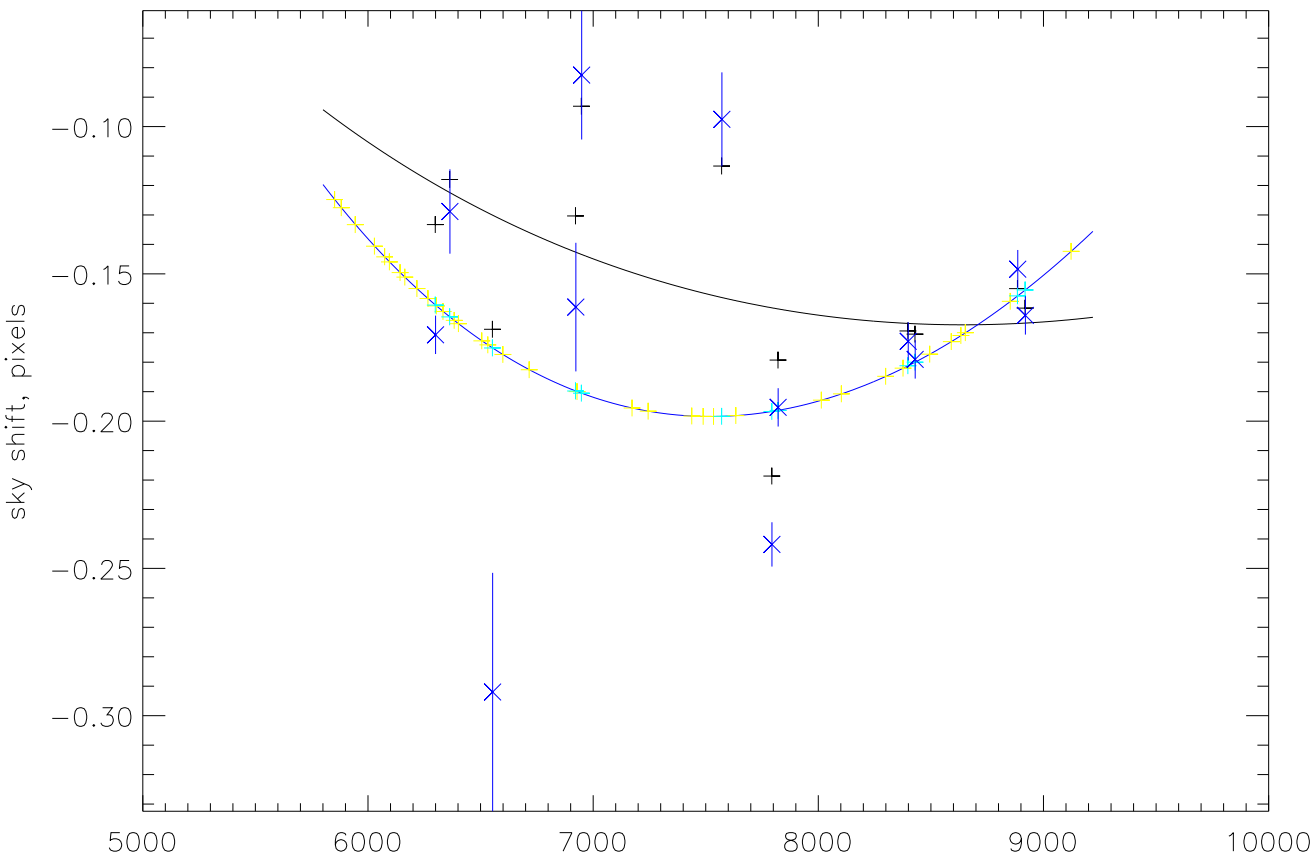

8399.1600
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

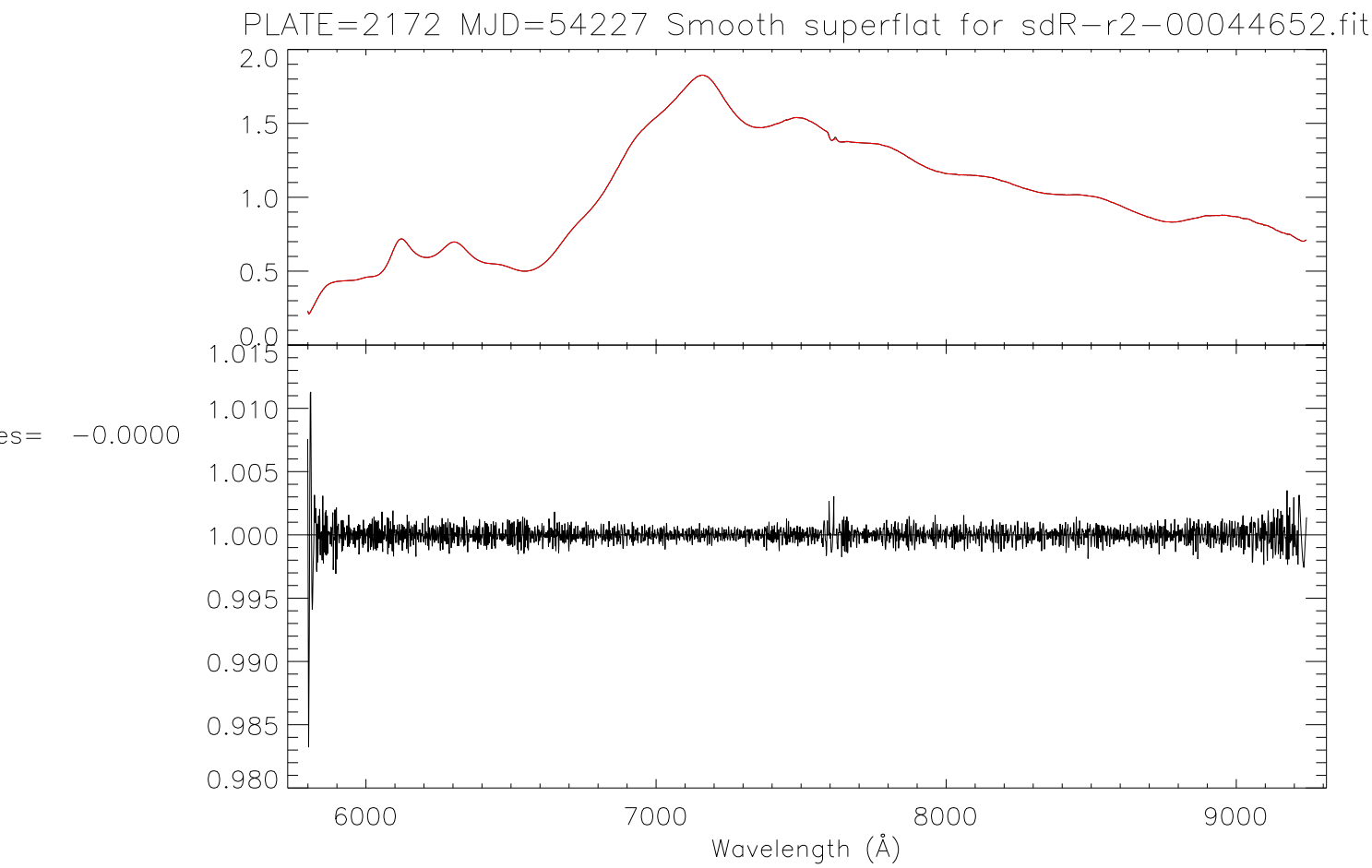

8430.1700
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400


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

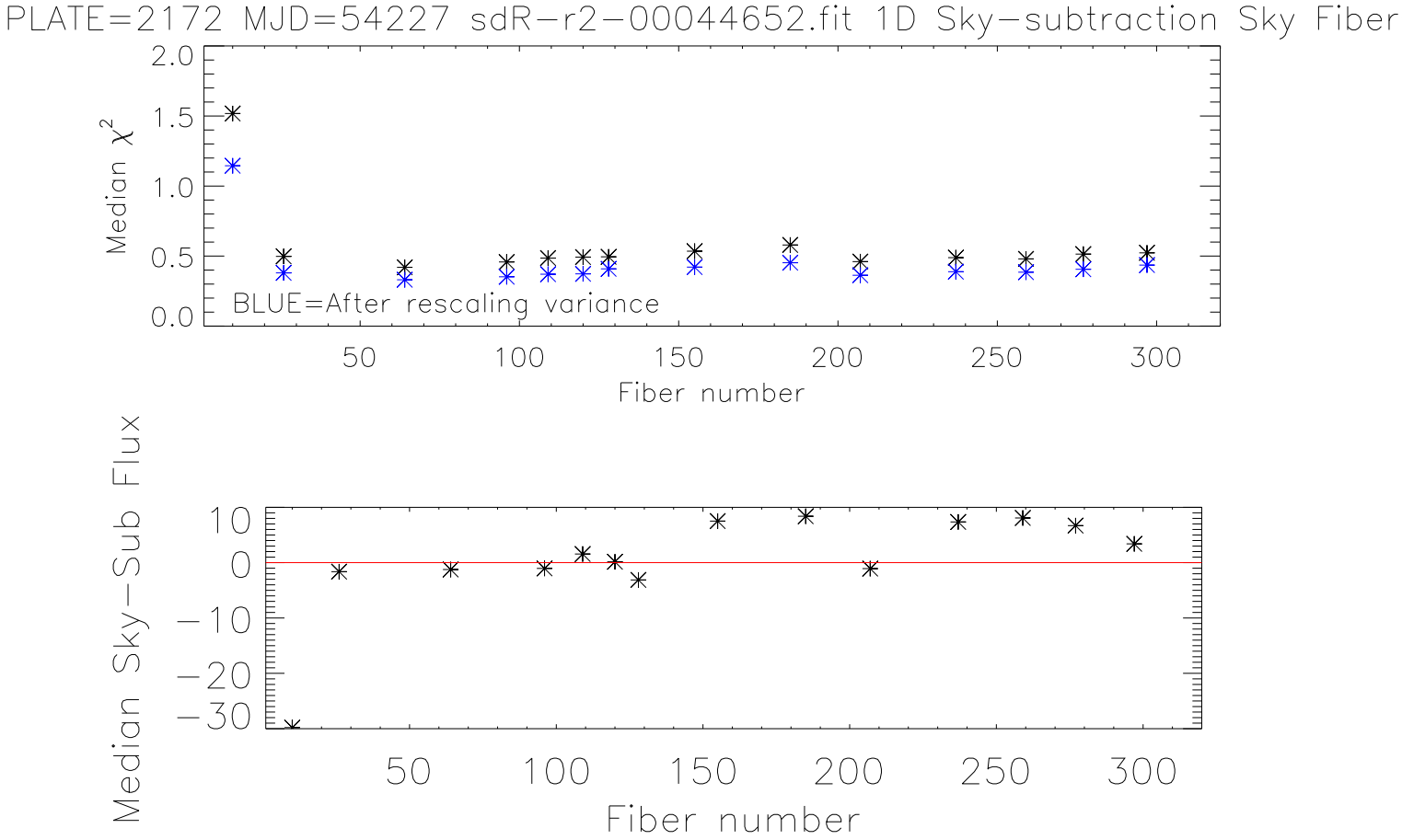

8919.6100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

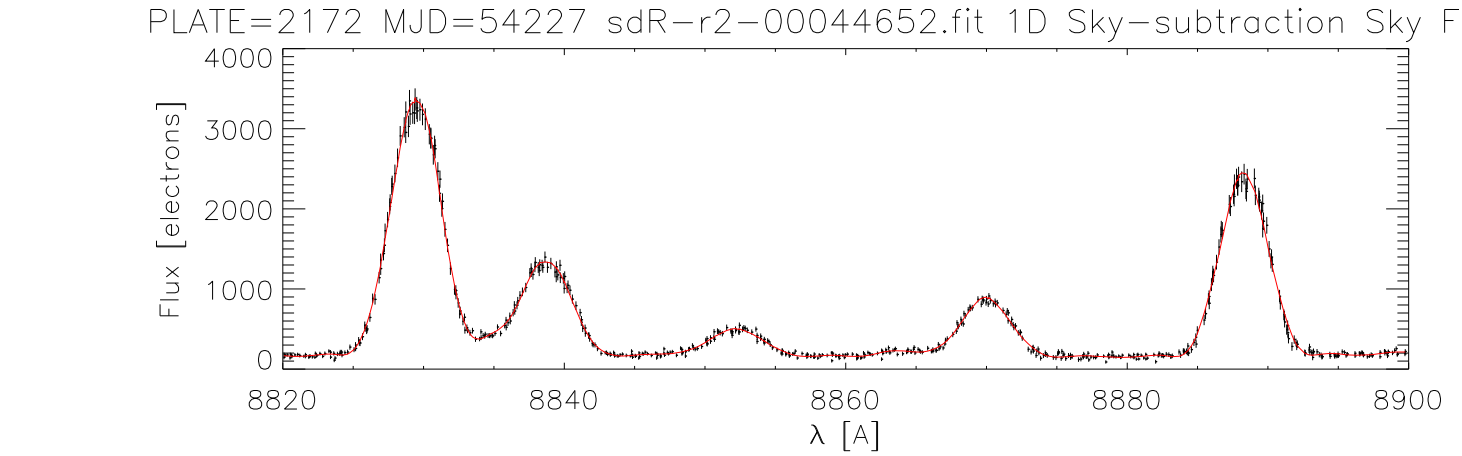

6300.3040
stdev 0.020
extra 0.47
6363.7760
stdev 0.023
extra 0.43
6553.6100
stdev 0.046
extra 0.29
6923.2100
stdev 0.031
extra 0.16
6949.0300
stdev 0.029
extra 0.08
7571.7500
stdev 0.020
extra 0.40
7794.1200
stdev 0.021
extra 0.24
7821.5100
stdev 0.023
extra 0.20
8399.1600
stdev 0.021
extra 0.47
8430.1700
stdev 0.020
extra 0.48
8885.8300
stdev 0.023
extra 0.45
8919.6100
stdev 0.022
extra 0.46
meas − pred, pix
mfib2 16

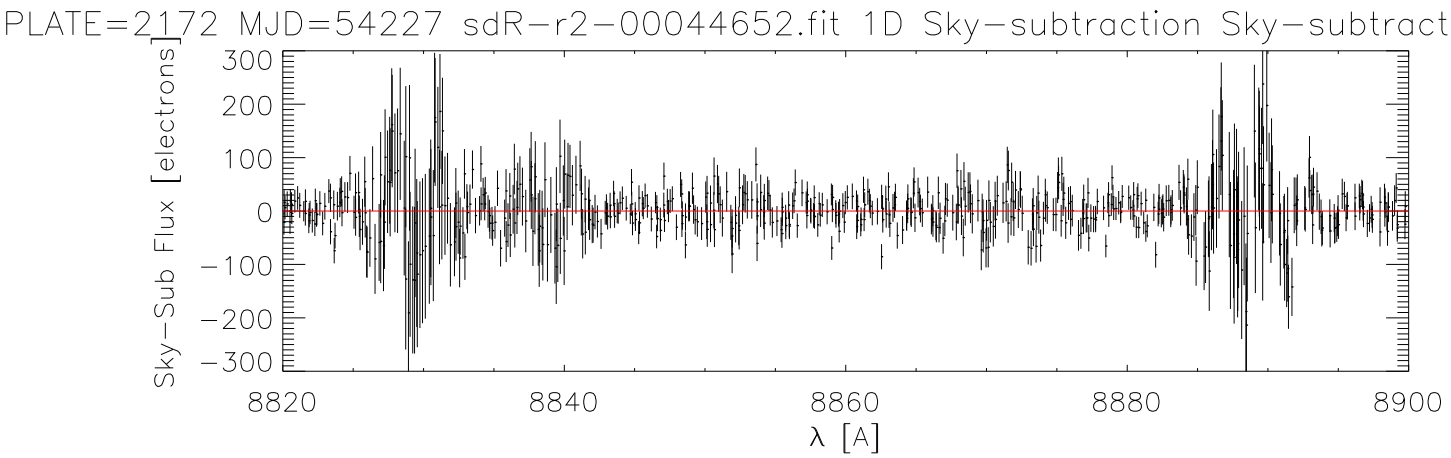

sky shift, pixels
−0.10
−0.15
−0.20
−0.25
−0.30
5000
6000
7000
8000
9000
10000

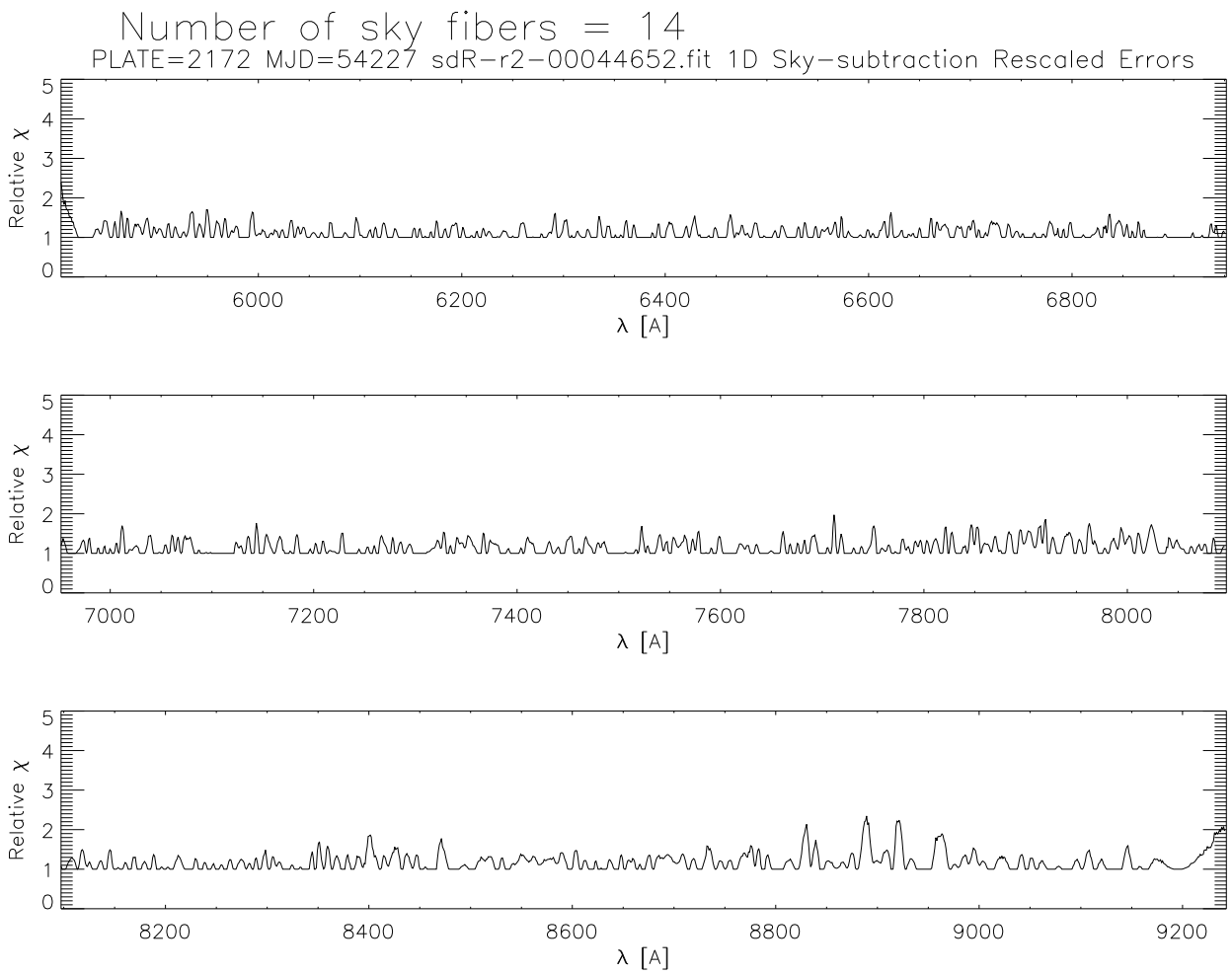

PLATE=2172 MJD=54227 Smooth superflat for sdR-r2-00044652.fit
2.0
1.5
1.0
0.5
0.0
1.015
1.010
1.005
1.000
0.995
0.990
0.985
0.980
6000
7000
8000
9000
Wavelength (Å)

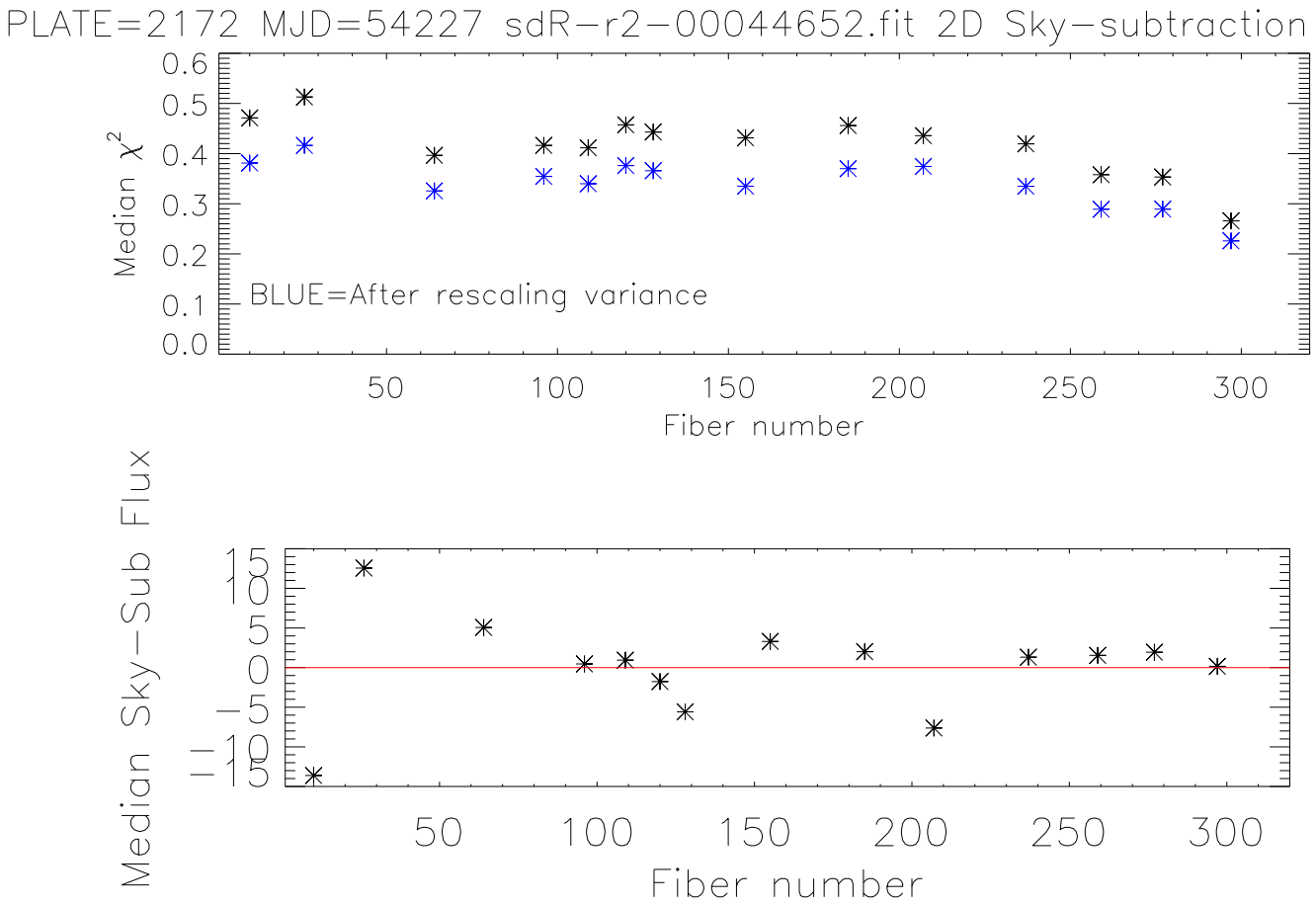
es= −0.0000

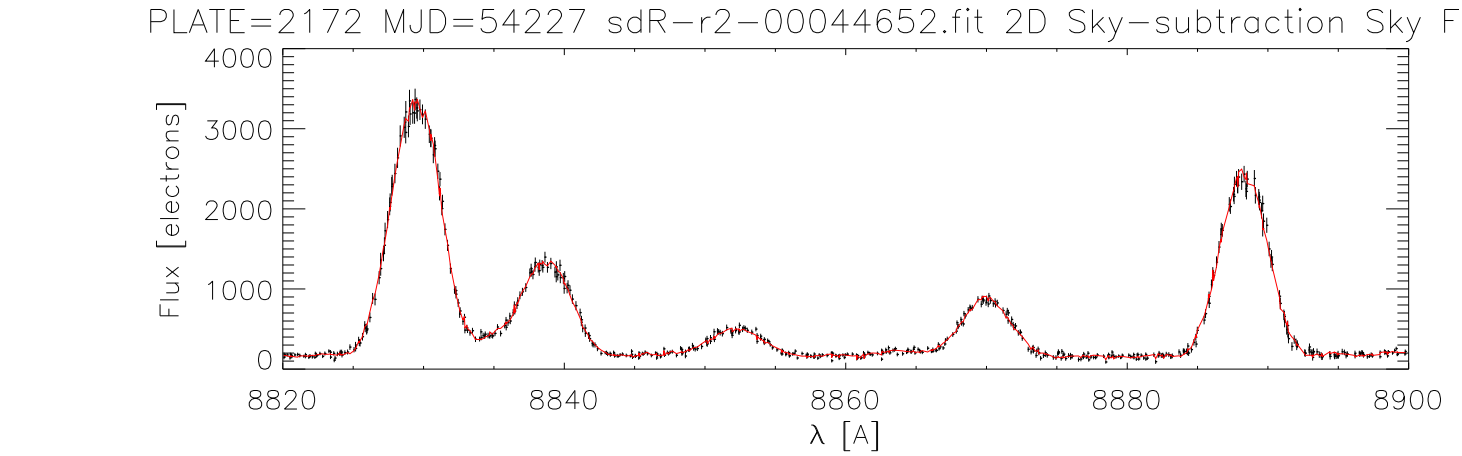

PLATE=2172 MJD=54227 sdR-r2-00044652.fit 1D Sky-subtraction Sky Fibers
Median χ^2
2.0
1.5
1.0
0.5
0.0
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
0
-10
-20
-30
50
100
150
200
250
300
Fiber number

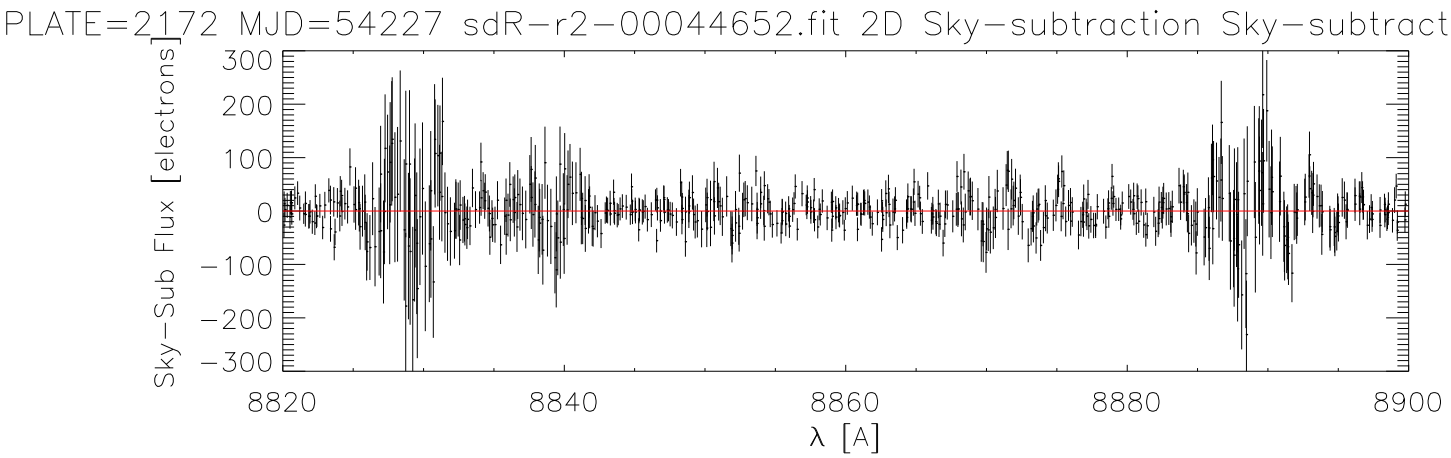

PLATE=2172 MJD=54227 sdR-r2-00044652.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

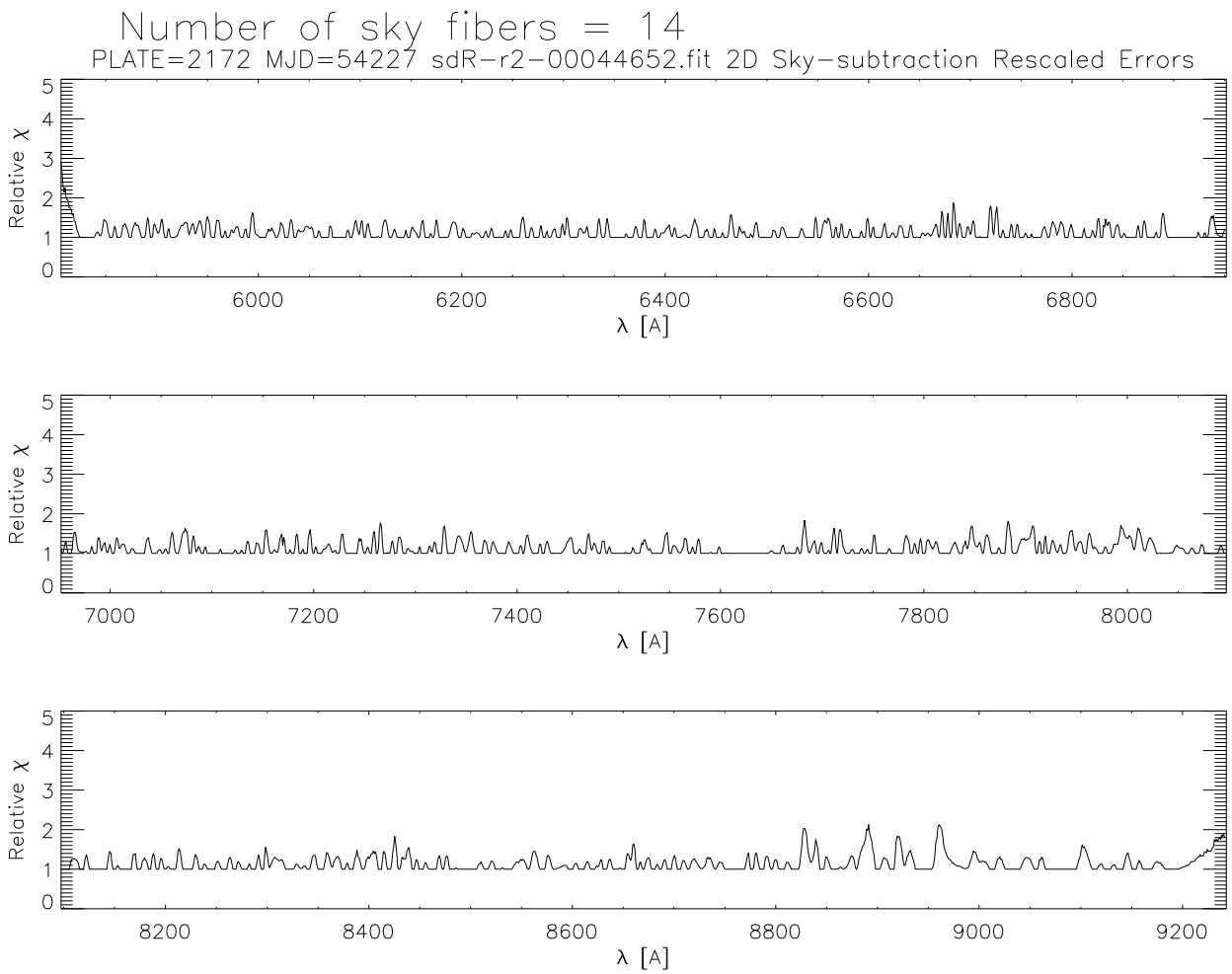

PLATE=2172 MJD=54227 sdR-r2-00044652.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
-300
8820
8840
8860
8880
8900
λ [A]

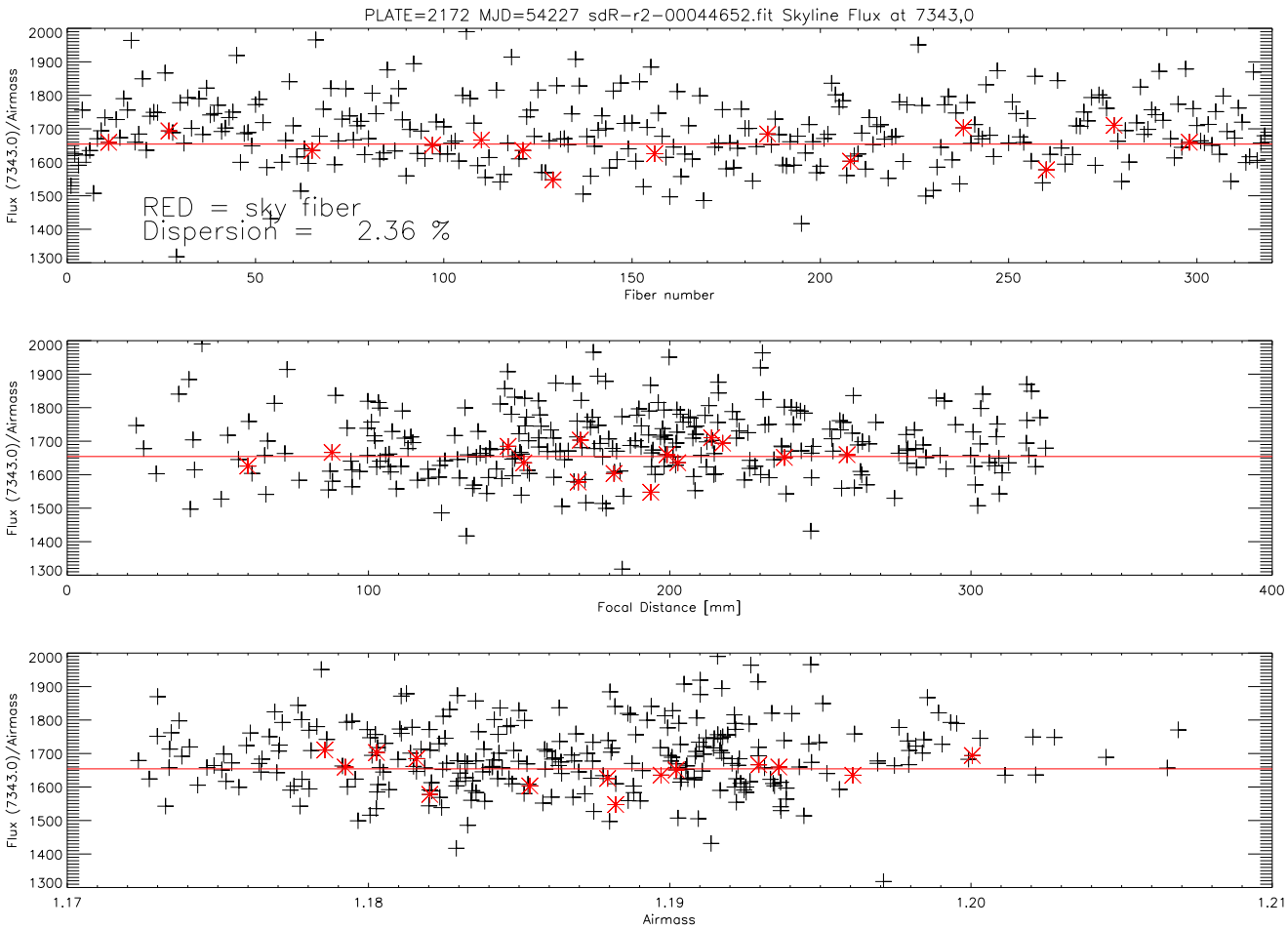

Number of sky fibers = 14
PLATE=2172 MJD=54227 sdR-r2-00044652.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

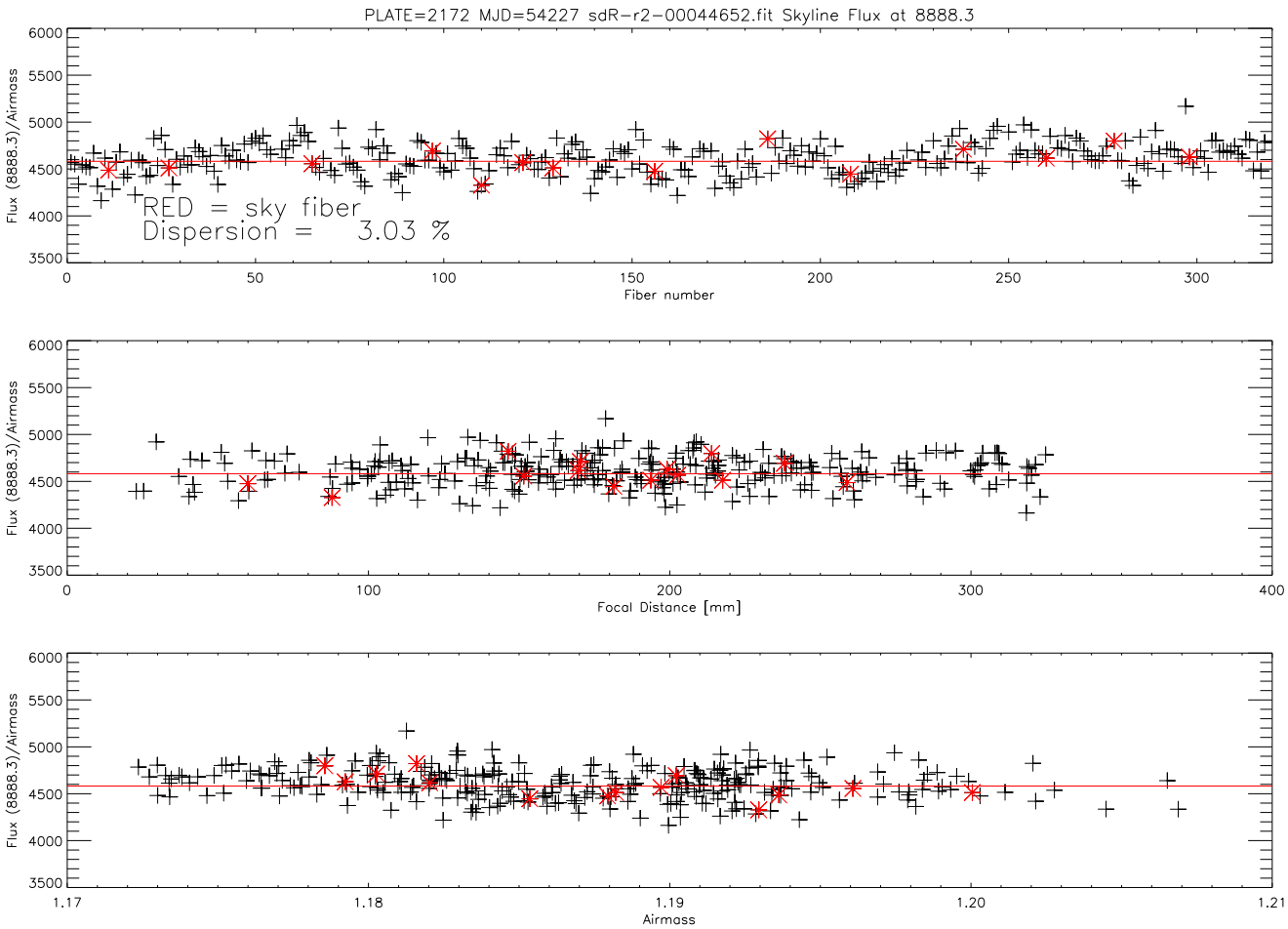

PLATE=2172 MJD=54227 sdR-r2-00044652.fit 2D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

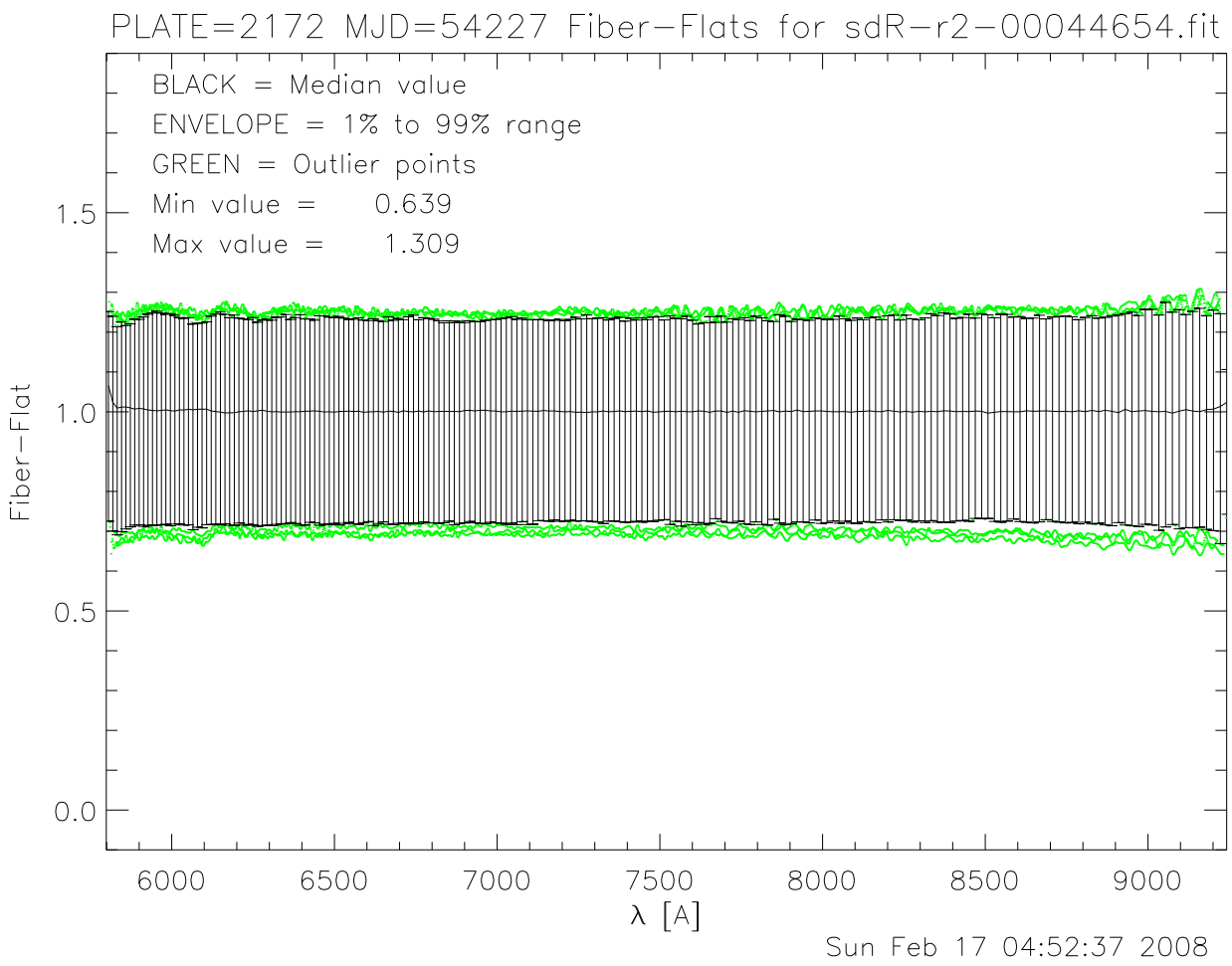

PLATE=2172 MJD=54227 sdR-r2-00044652.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

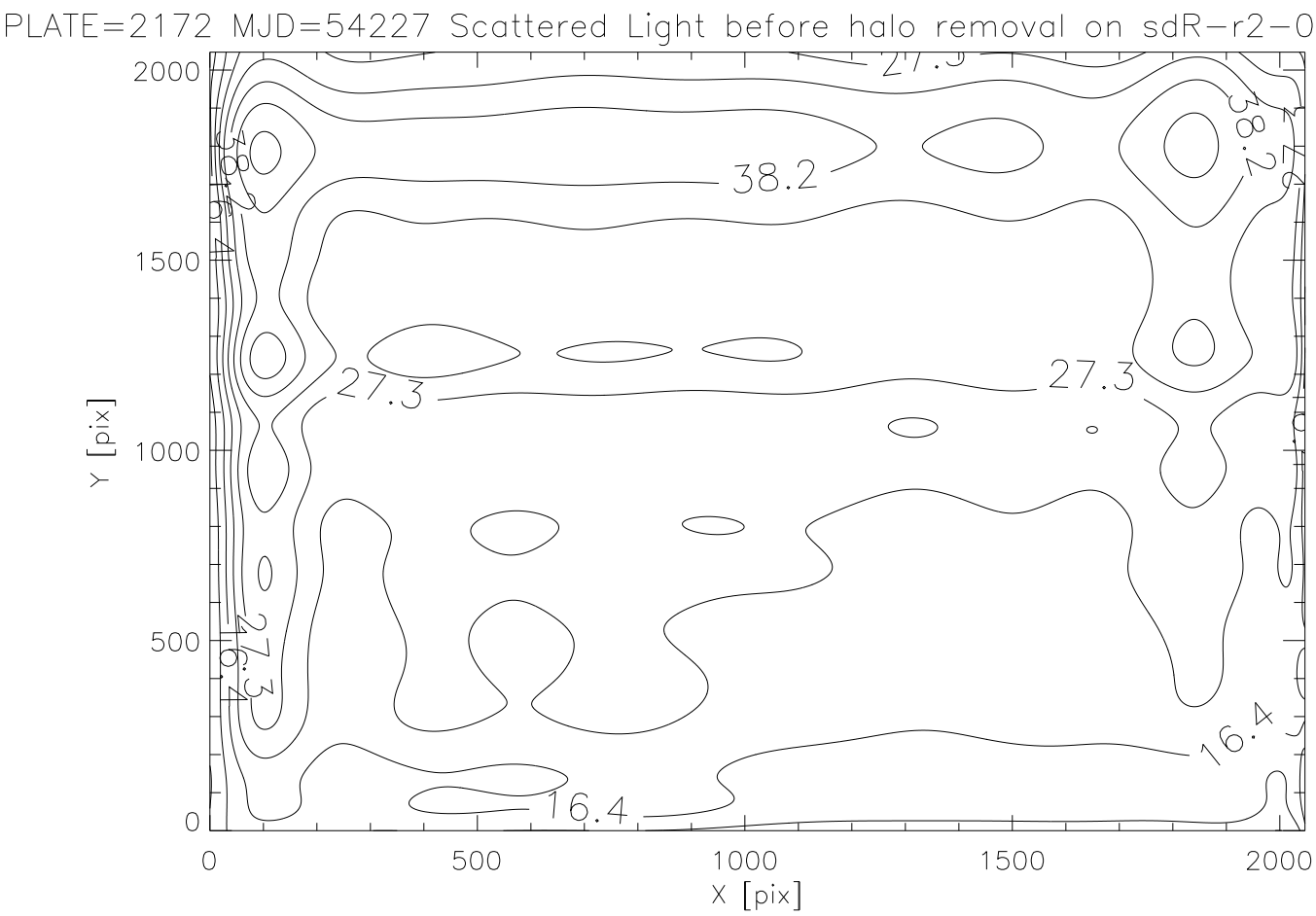

PLATE=2172 MJD=54227 sdR-r2-00044652.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
-300
8820
8840
8860
8880
8900
λ [A]

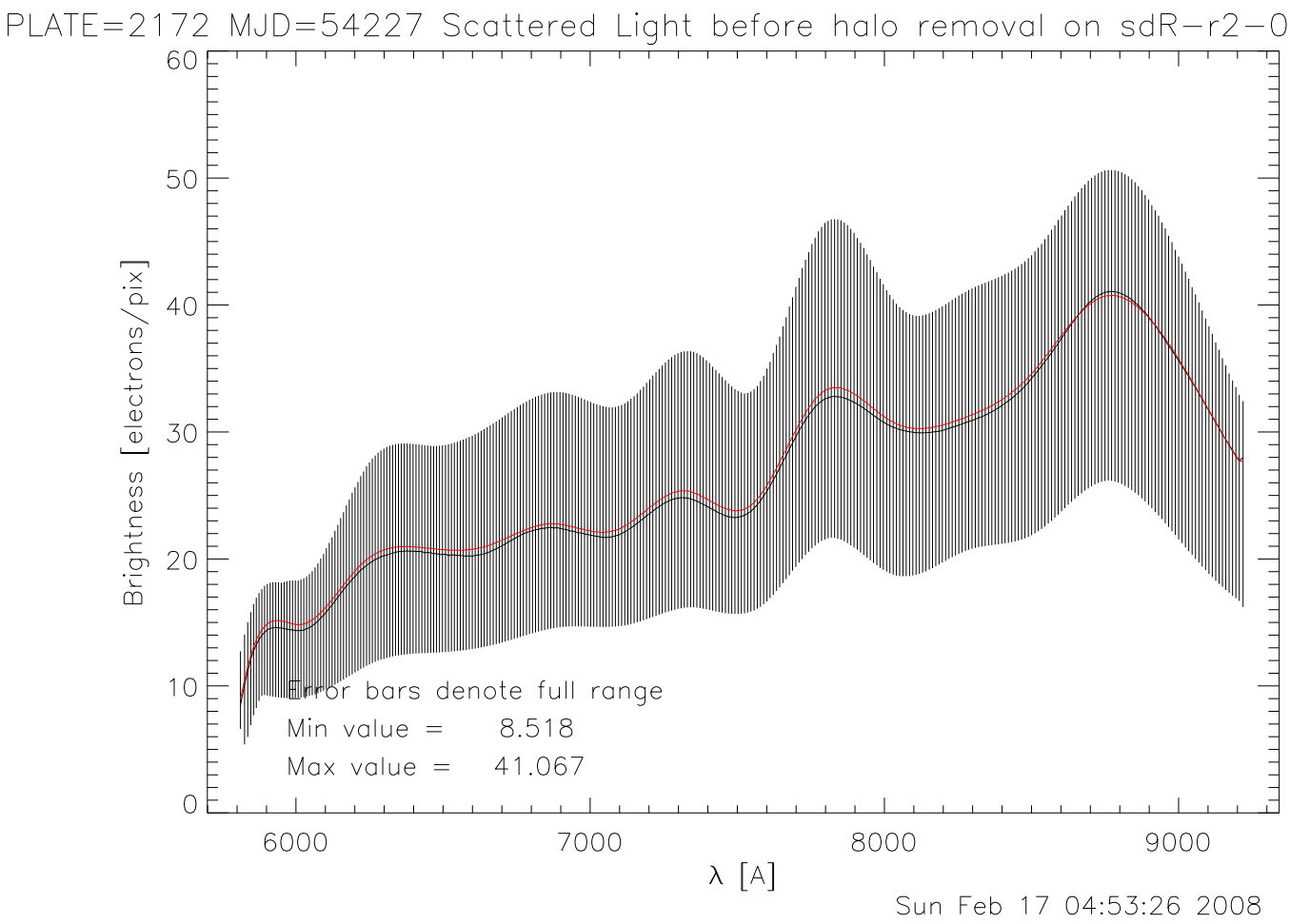

Number of sky fibers = 14
PLATE=2172 MJD=54227 sdR-r2-00044652.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

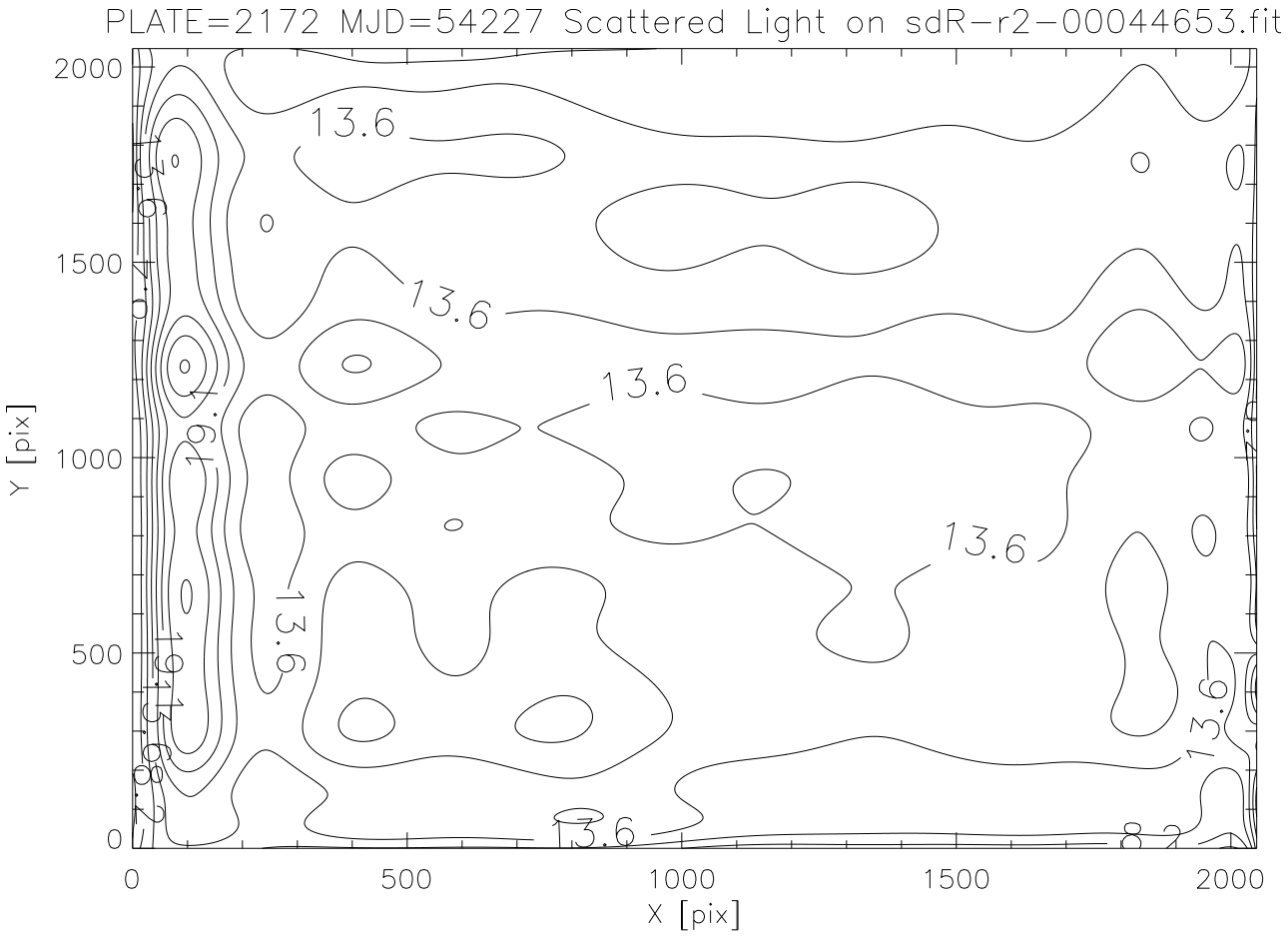

PLATE=2172 MJD=54227 sdR-r2-00044652.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
Fiber number
RED = sky fiber
Dispersion = 2.36 %
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

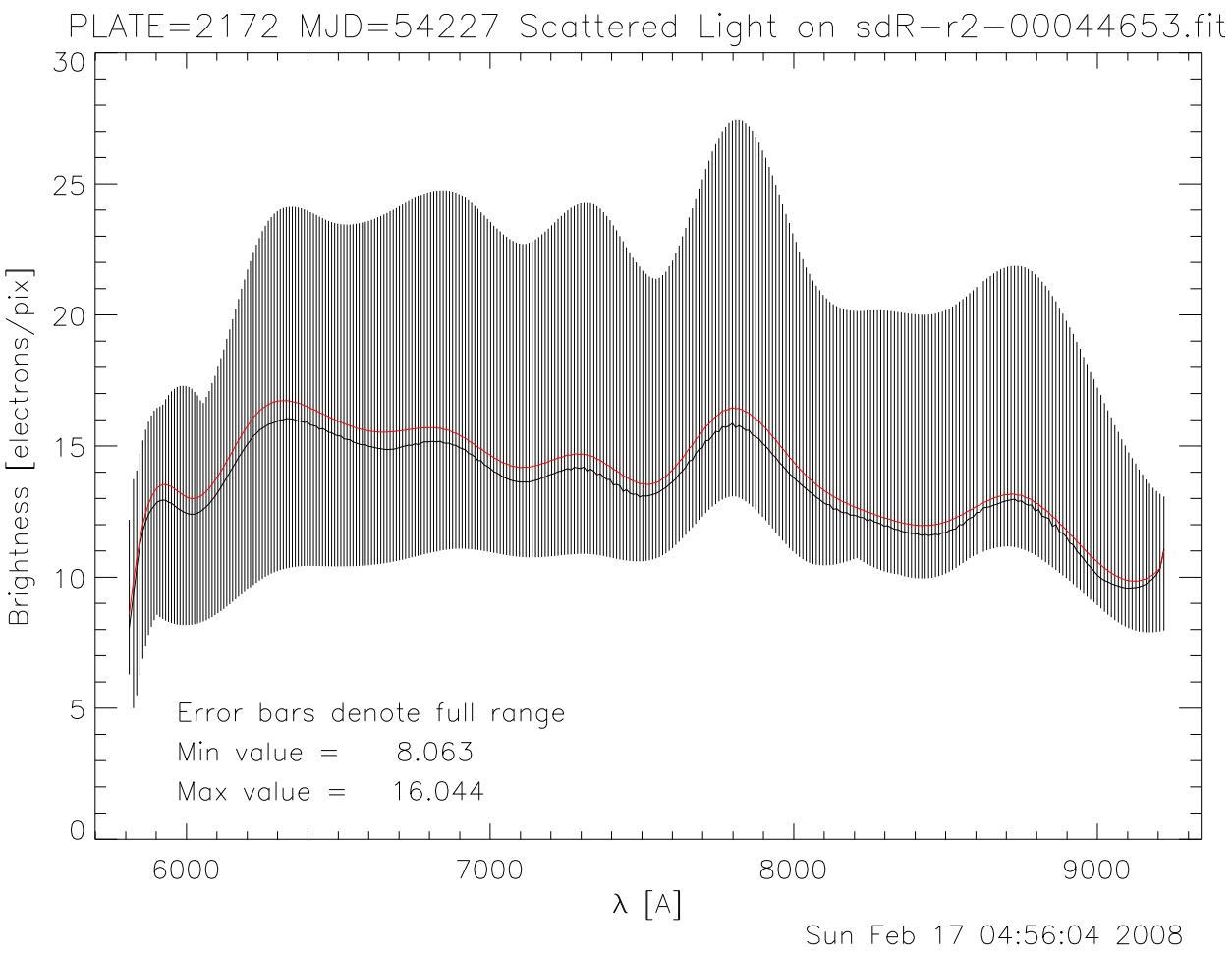

PLATE=2172 MJD=54227 sdR-r2-00044652.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 3.03 %
Fiber number
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass

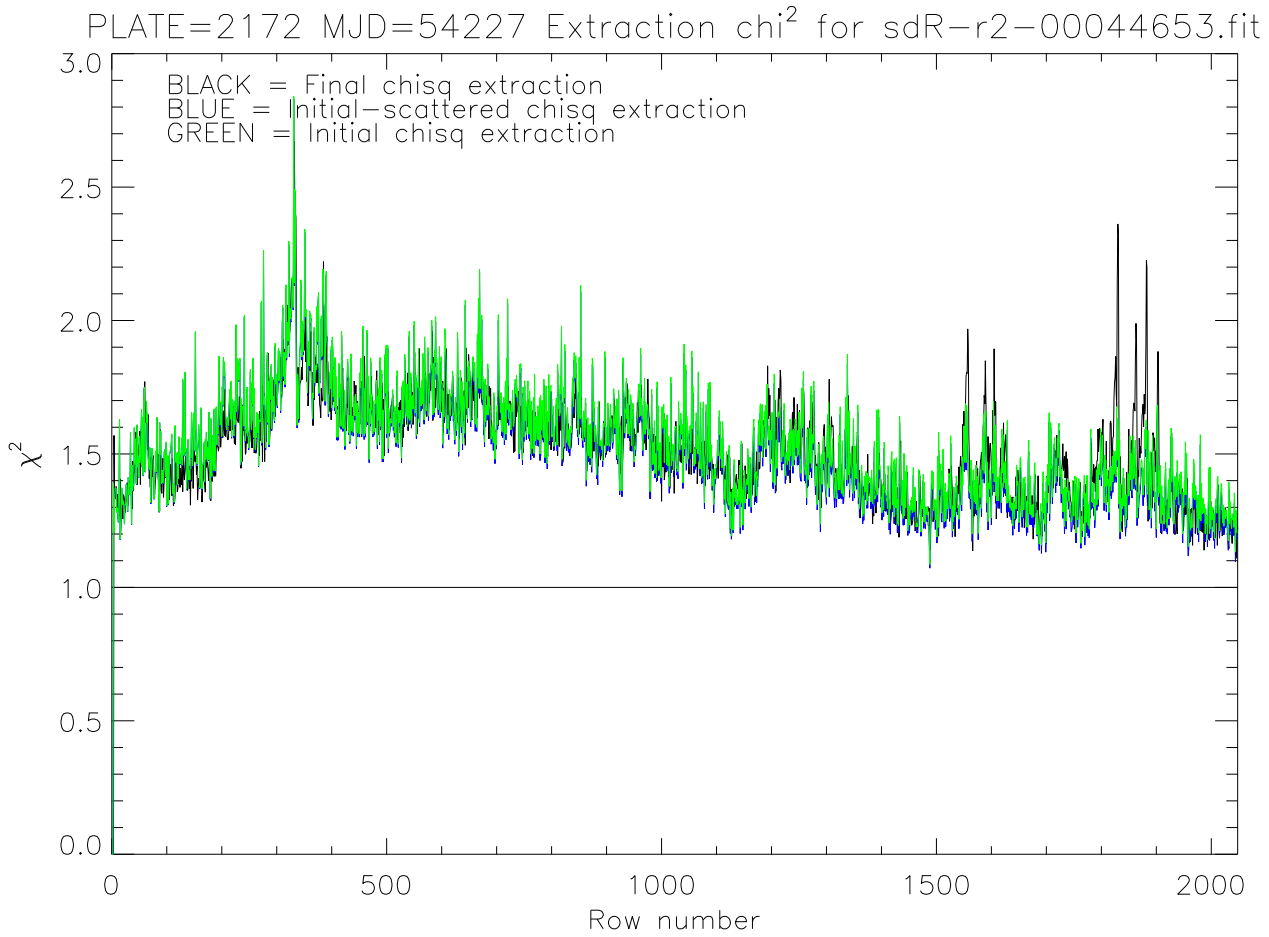

PLATE=2172 MJD=54227 Fiber-Flats for sdR-r2-00044654.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.639
Max value = 1.309
Fiber-Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sun Feb 17 04:52:37 2008

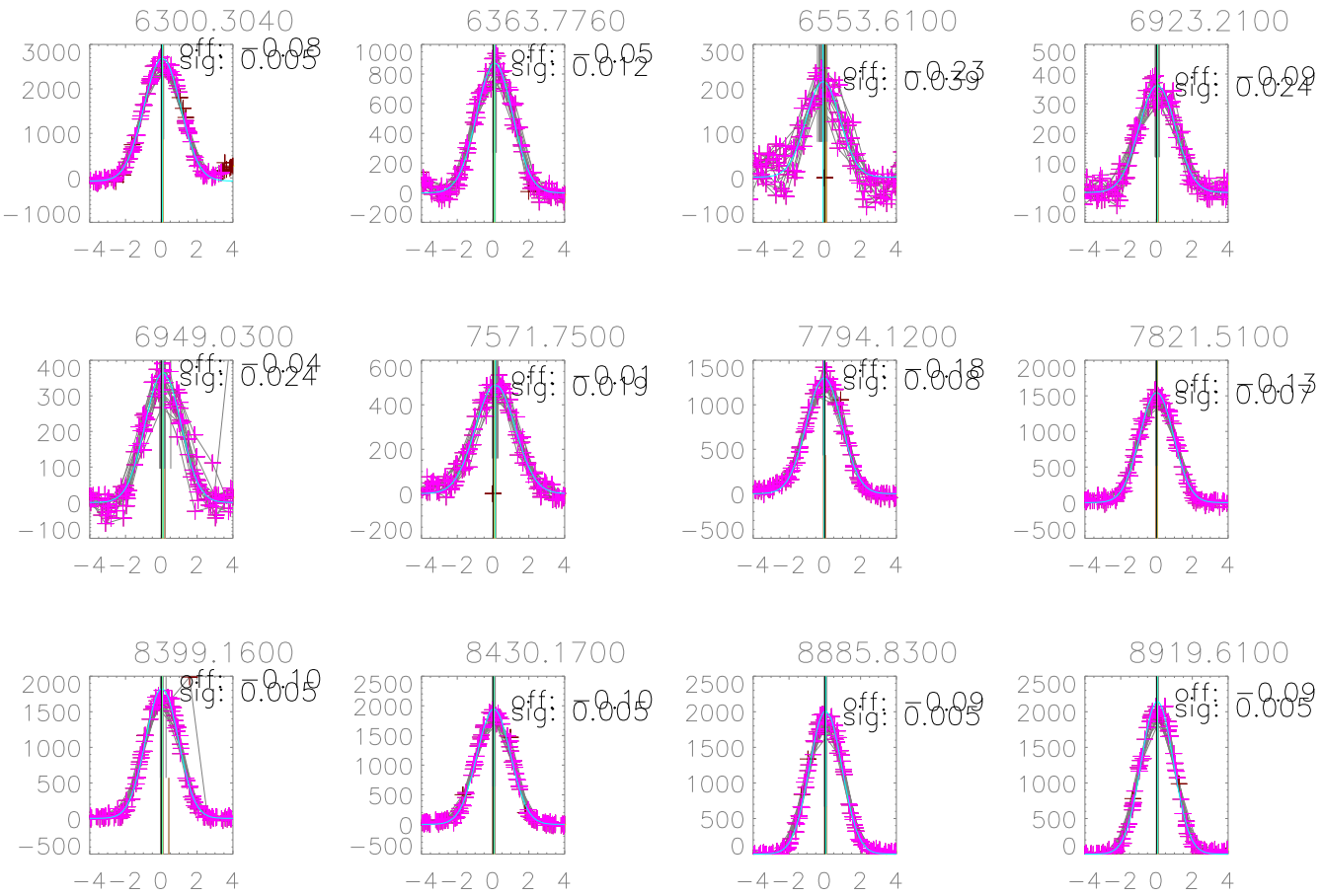

PLATE=2172 MJD=54227 Scattered Light before halo removal on sdR-r2-00044653.fi
38.2
27.3
16.4
Y [pix]
X [pix]
0
500
1000
1500
2000

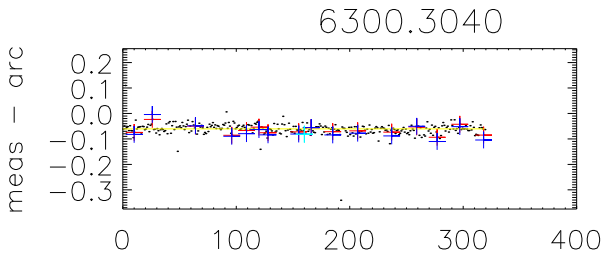

PLATE=2172 MJD=54227 Scattered Light before halo removal on sdR-r2-00044653.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 8.518
Max value = 41.067
Sun Feb 17 04:53:26 2008

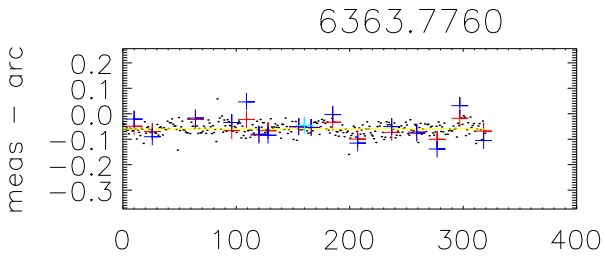

PLATE=2172 MJD=54227 Scattered Light on sdR-r2-00044653.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
13.6
13.6
13.6

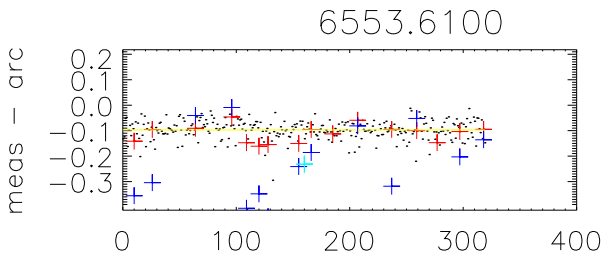

PLATE=2172 MJD=54227 Scattered Light on sdR-r2-00044653.fit
Brightness [electrons/pix]
30
25
20
15
10
5
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 8.063
Max value = 16.044
Sun Feb 17 04:56:04 2008

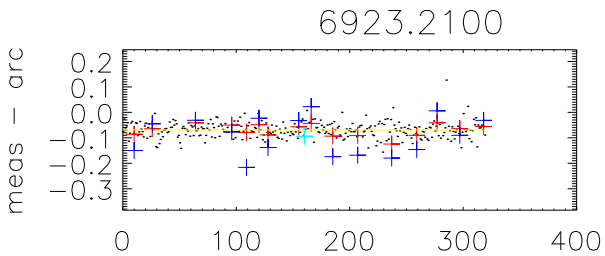

PLATE=2172 MJD=54227 Extraction chi^2 for sdR−r2−00044653.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
500
1000
1500
2000
Row number

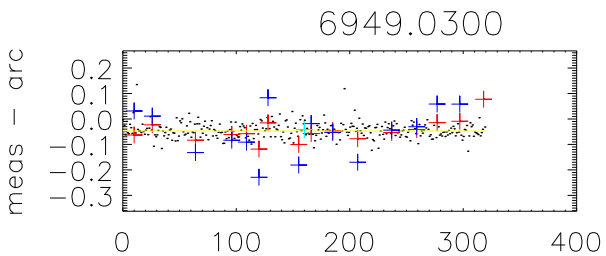

6300.3040
off: −0.08
sig: 0.005
6363.7760
off: −0.05
sig: 0.012
6553.6100
off: −0.23
sig: 0.039
6923.2100
off: −0.09
sig: 0.024
6949.0300
off: −0.04
sig: 0.024
7571.7500
off: −0.01
sig: 0.019
7794.1200
off: −0.18
sig: 0.008
7821.5100
off: −0.13
sig: 0.007
8399.1600
off: −0.10
sig: 0.005
8430.1700
off: −0.10
sig: 0.005
8885.8300
off: −0.09
sig: 0.005
8919.6100
off: −0.09
sig: 0.005

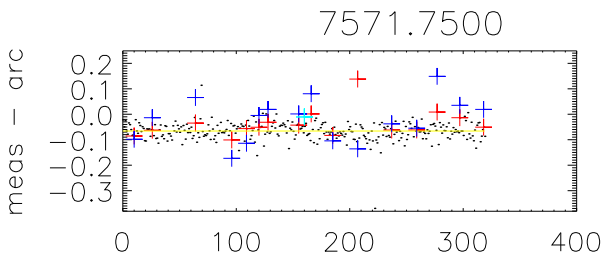

6300.3040
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

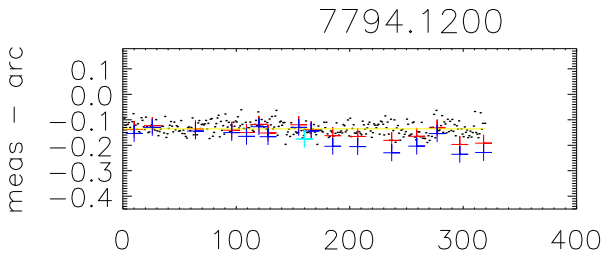

6363.7760
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

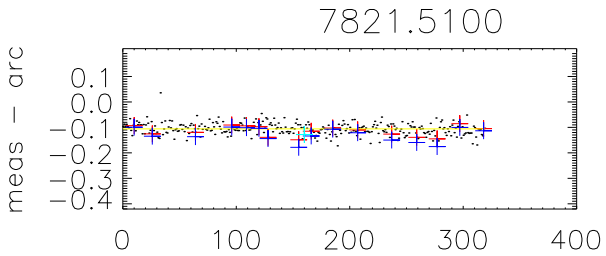

6553.6100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

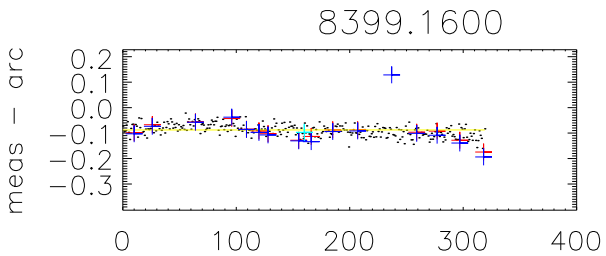

6923.2100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

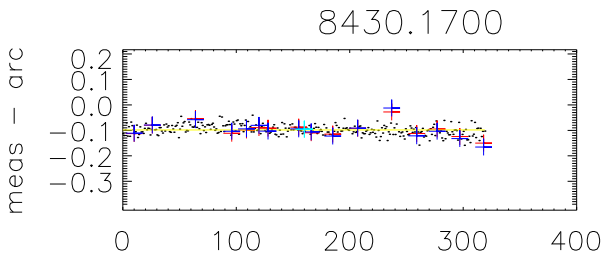

6949.0300
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

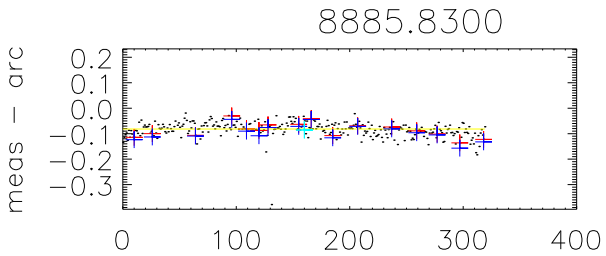

7571.7500
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

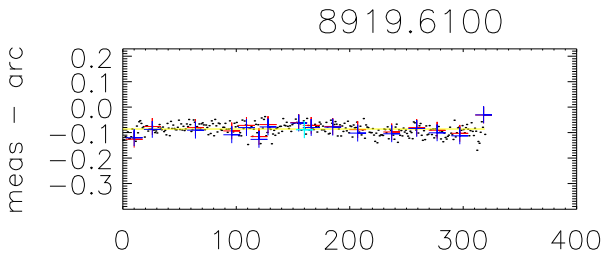

7794.1200
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

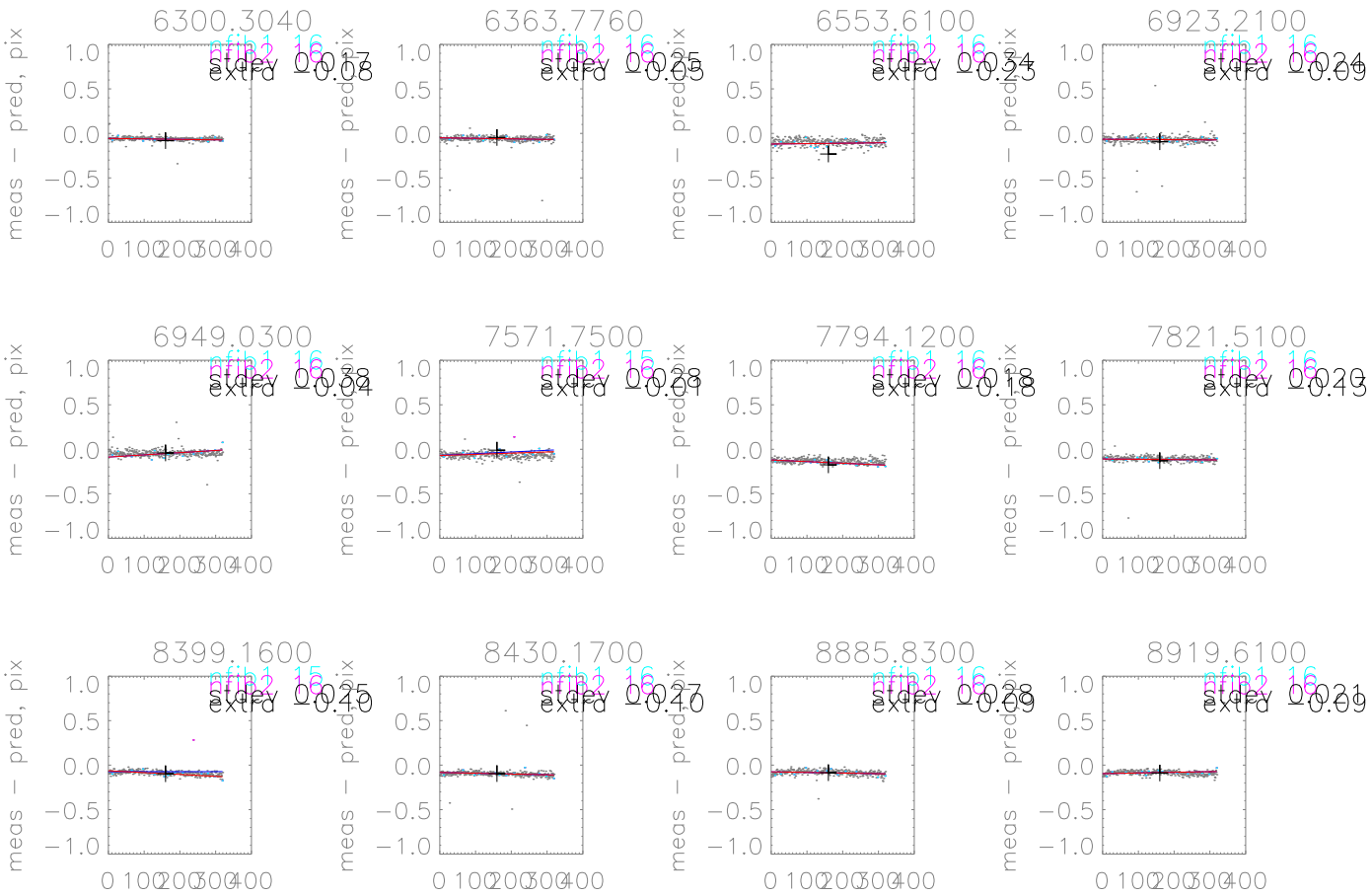

7821.5100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

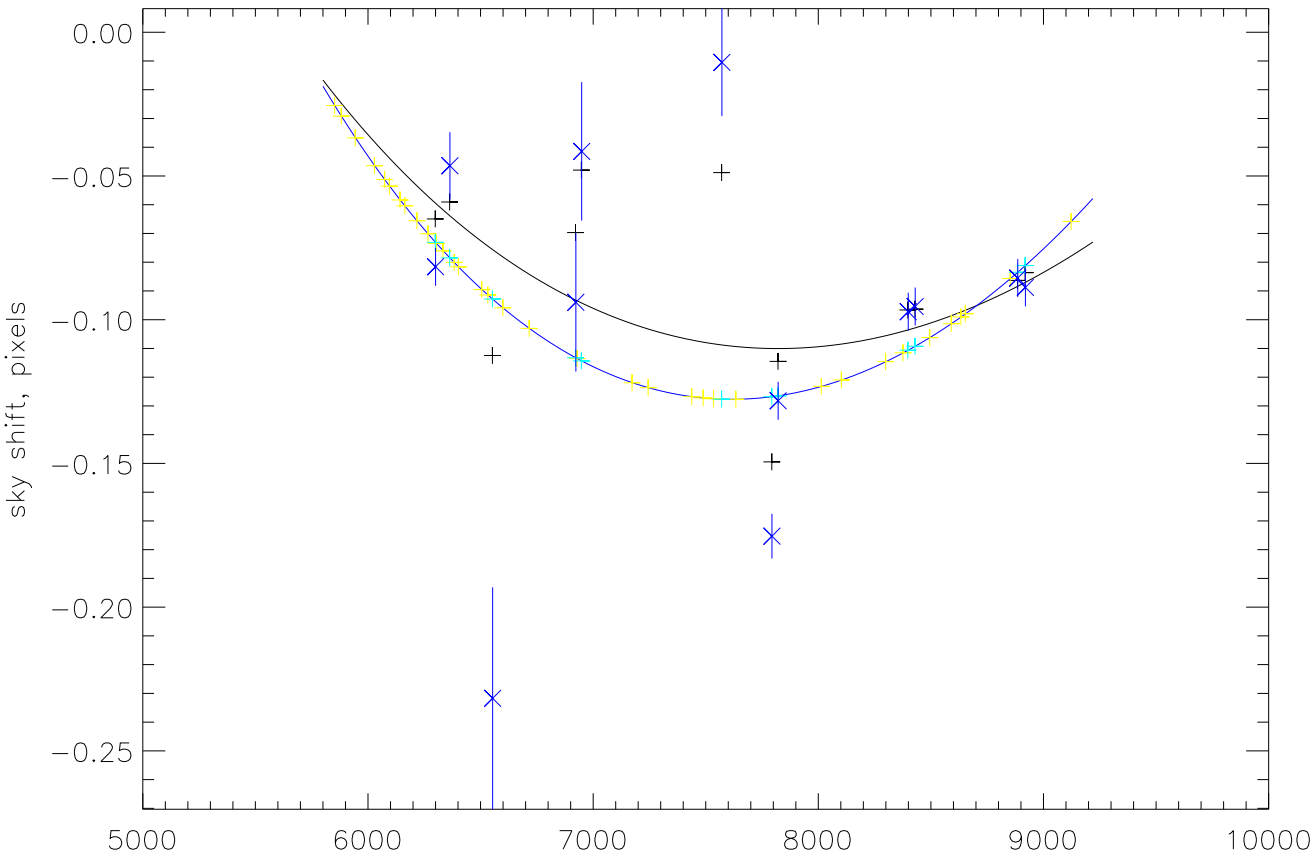

8399.1600
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400


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

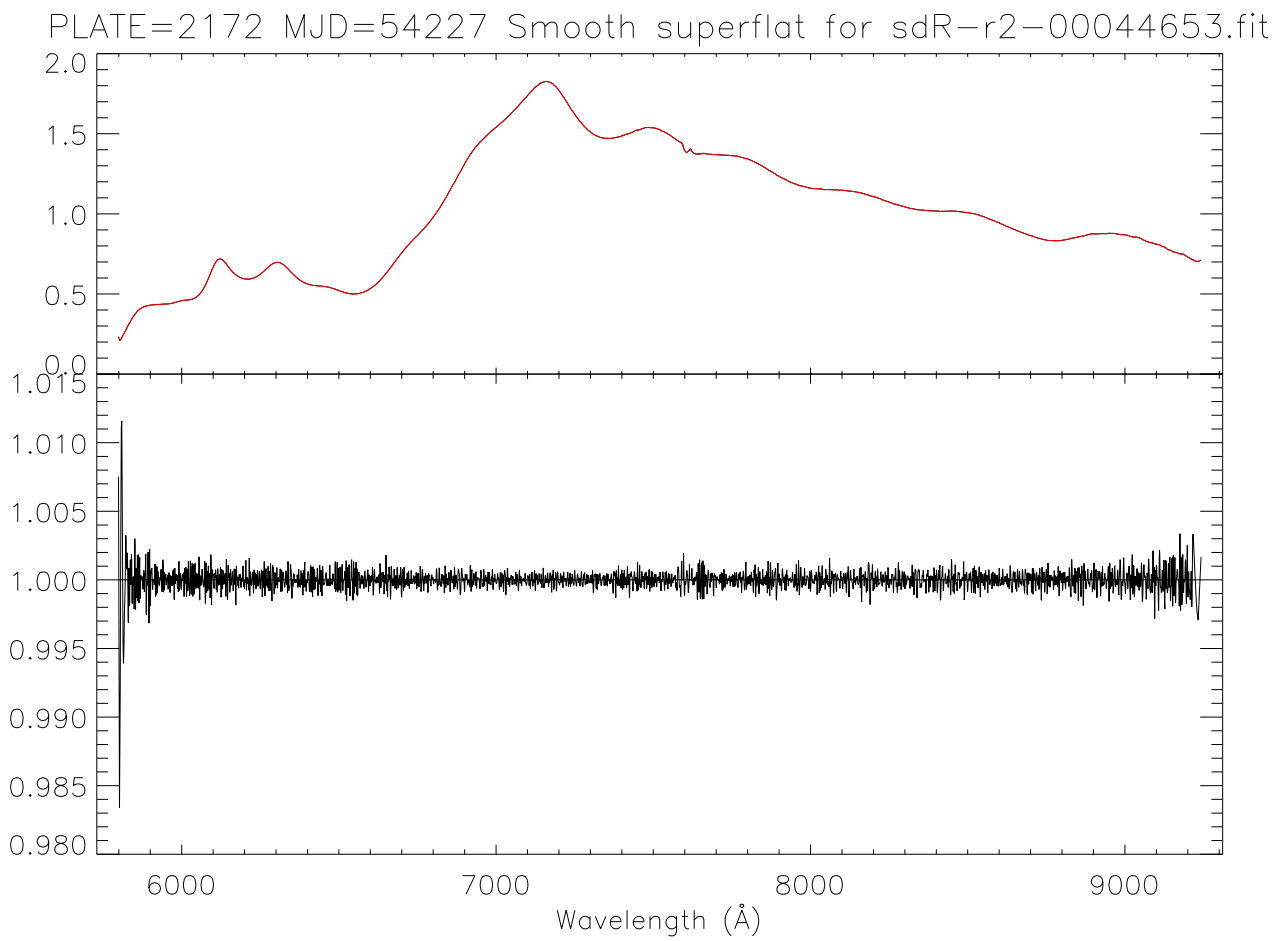

8885.8300
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

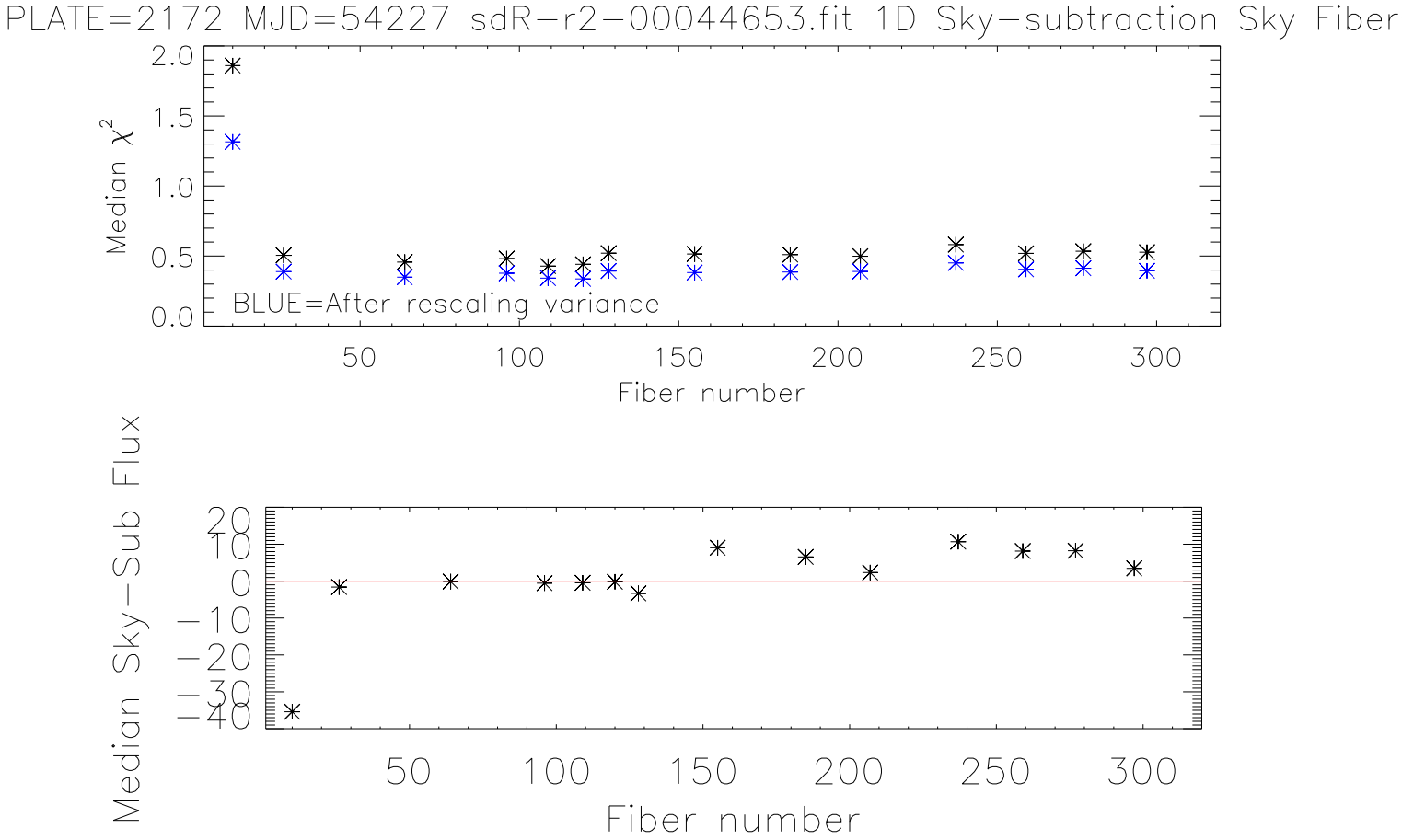

8919.6100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

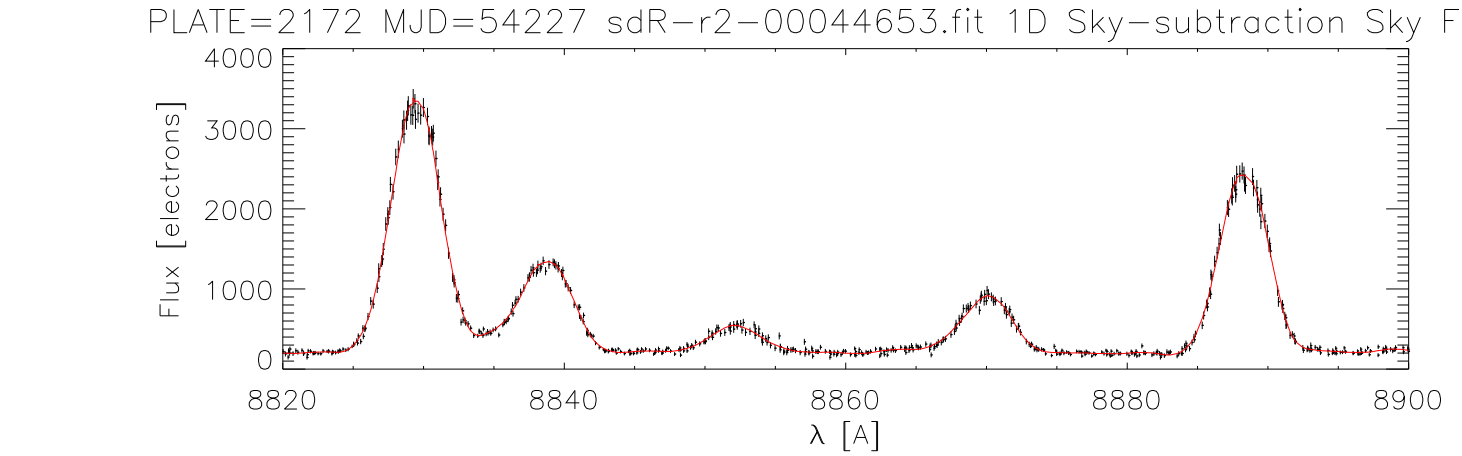

6300.3040
stdev 0.027
extra 0.08
6363.7760
stdev 0.025
extra 0.05
6553.6100
stdev 0.034
extra 0.23
6923.2100
stdev 0.024
extra 0.09
6949.0300
stdev 0.038
extra 0.04
7571.7500
stdev 0.028
extra 0.04
7794.1200
stdev 0.018
extra 0.18
7821.5100
stdev 0.020
extra 0.43
8399.1600
stdev 0.025
extra 0.40
8430.1700
stdev 0.027
extra 0.40
8885.8300
stdev 0.028
extra 0.09
8919.6100
stdev 0.021
extra 0.09
meas − pred, pix

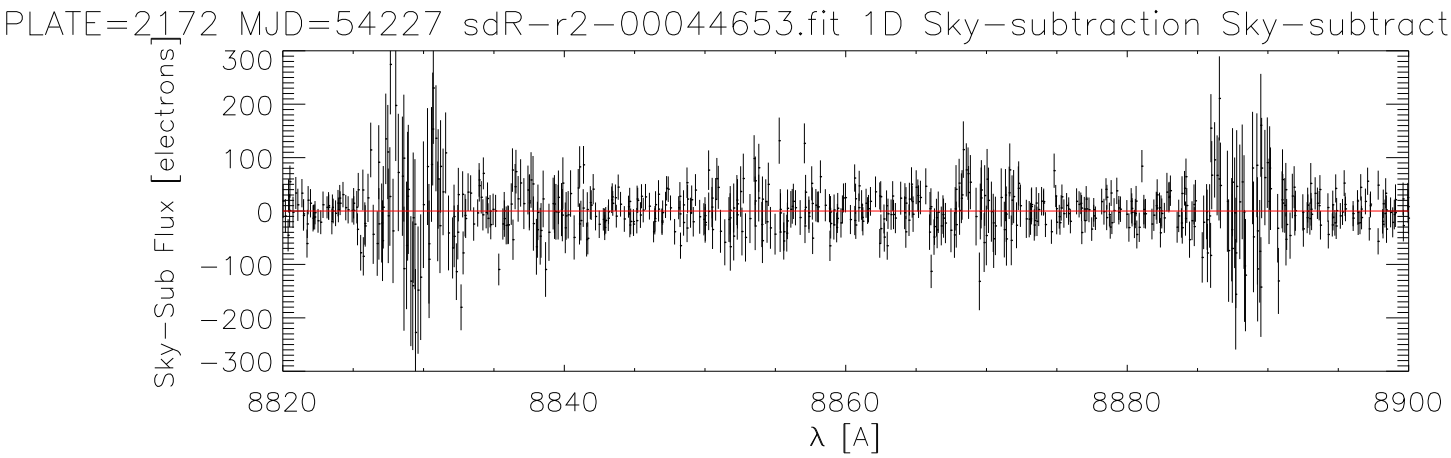

0.00
−0.05
−0.10
−0.15
−0.20
−0.25
sky shift, pixels
5000
6000
7000
8000
9000
10000

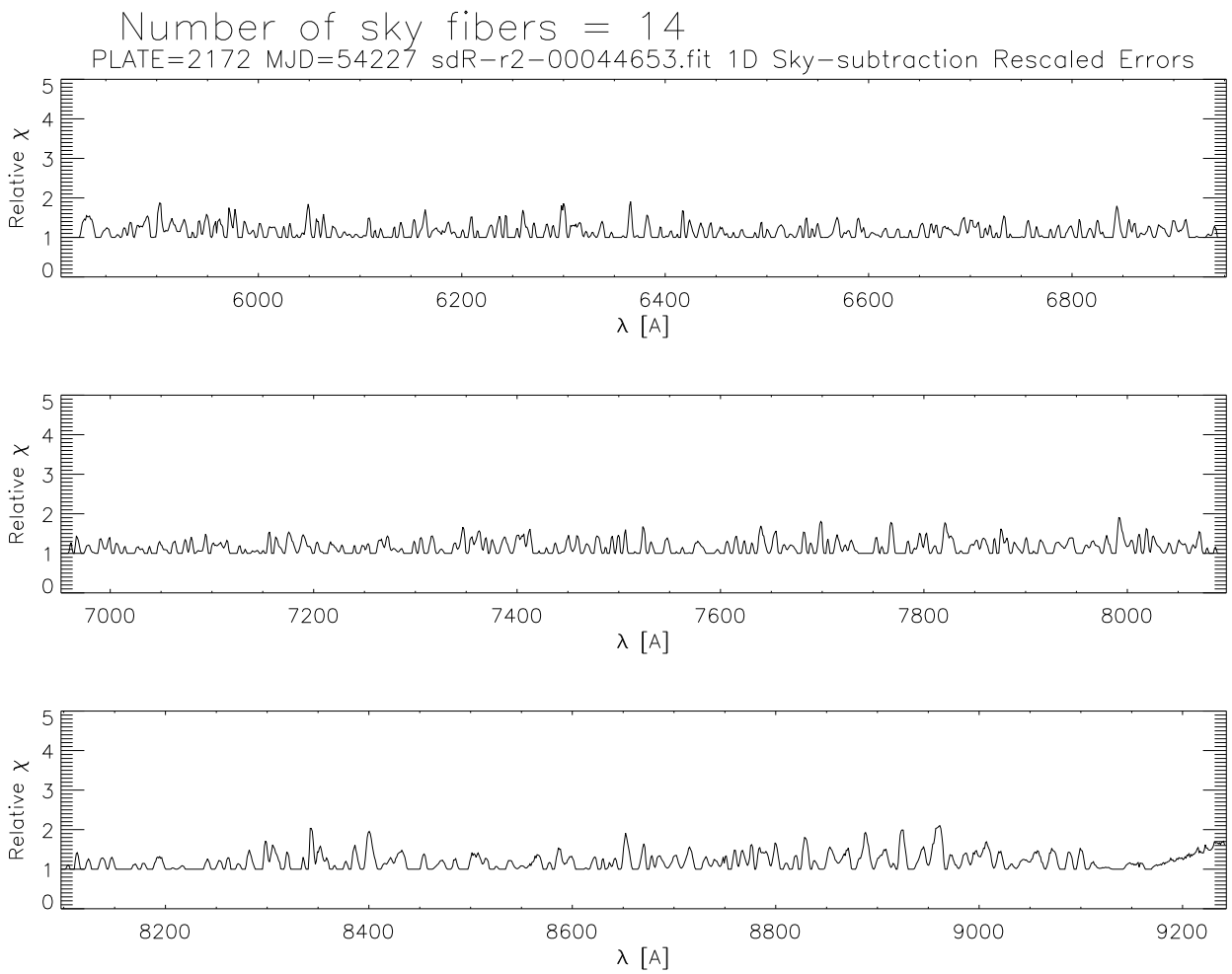
es= −0.0000

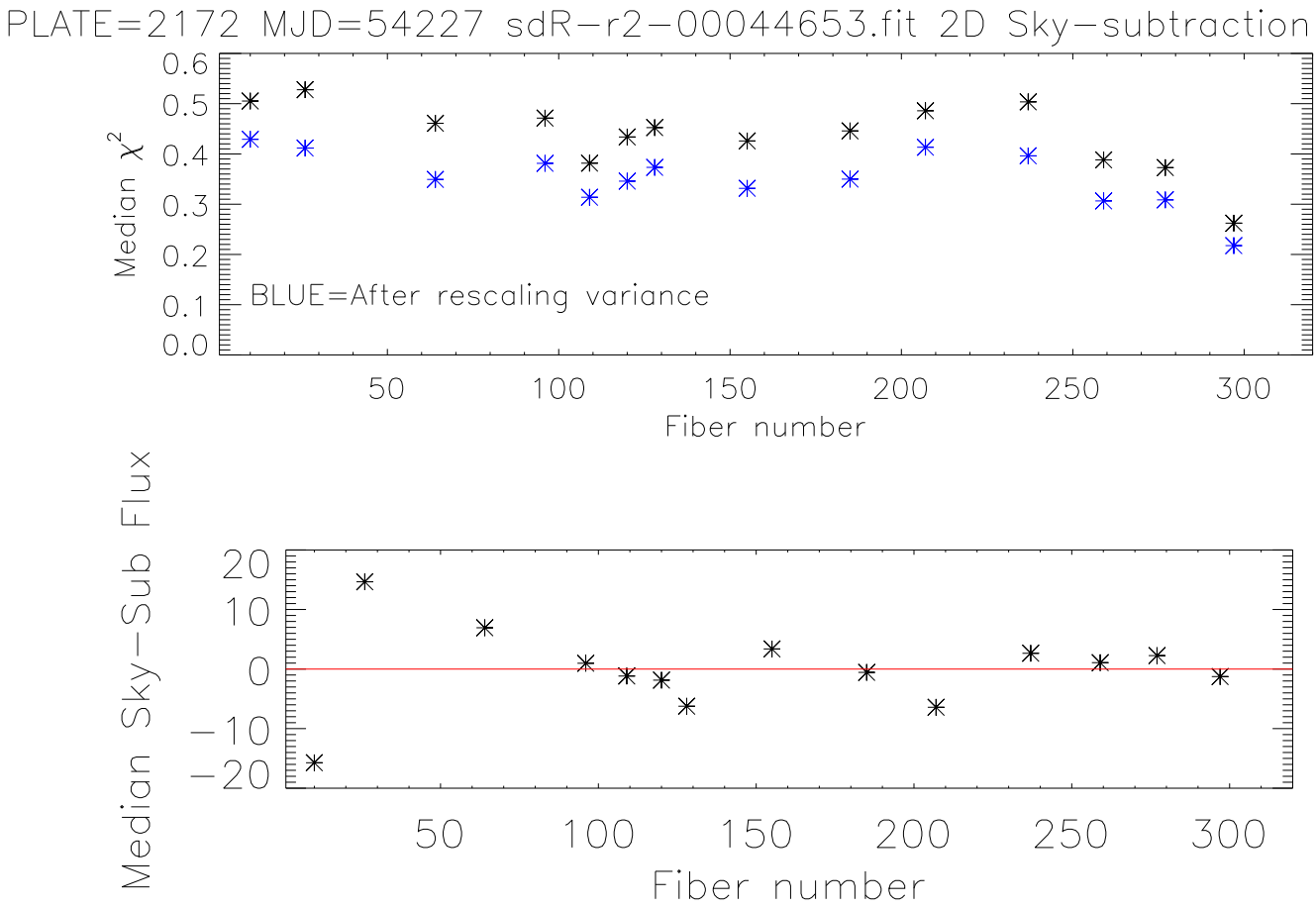

PLATE=2172 MJD=54227 Smooth superflat for sdR−r2−00044653.fit
2.0
1.5
1.0
0.5
0.0
1.015
1.010
1.005
1.000
0.995
0.990
0.985
0.980
6000
7000
8000
9000
Wavelength (Å)

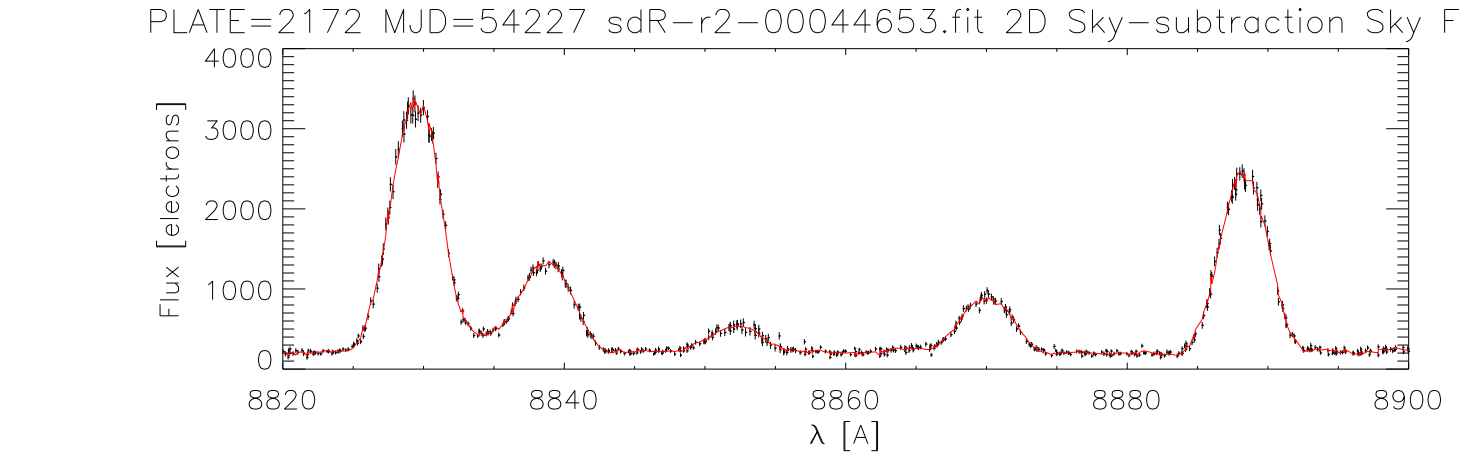

PLATE=2172 MJD=54227 sdR-r2-00044653.fit 1D Sky-subtraction Sky Fibers
Median χ^2
2.0
1.5
1.0
0.5
0.0
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
20
10
0
-10
-20
-30
-40
50
100
150
200
250
300
Fiber number

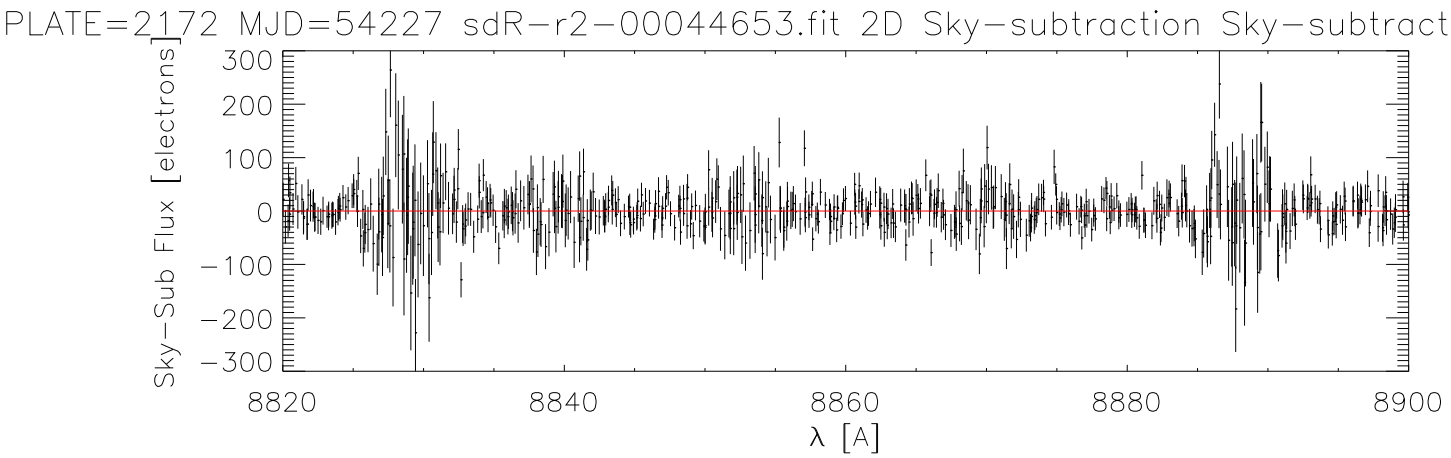

PLATE=2172 MJD=54227 sdR-r2-00044653.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

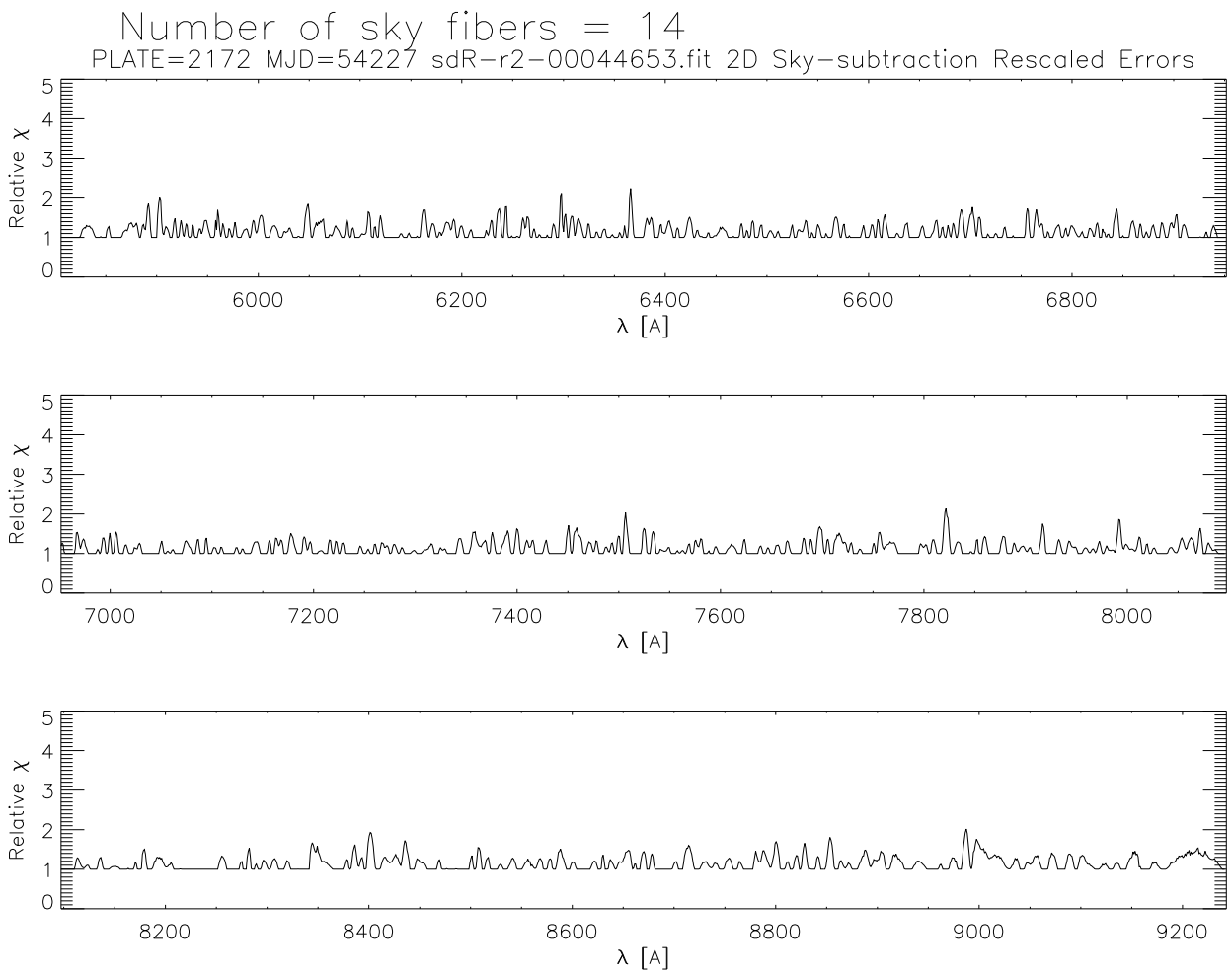

PLATE=2172 MJD=54227 sdR-r2-00044653.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
-300
8820
8840
8860
8880
8900
λ [A]

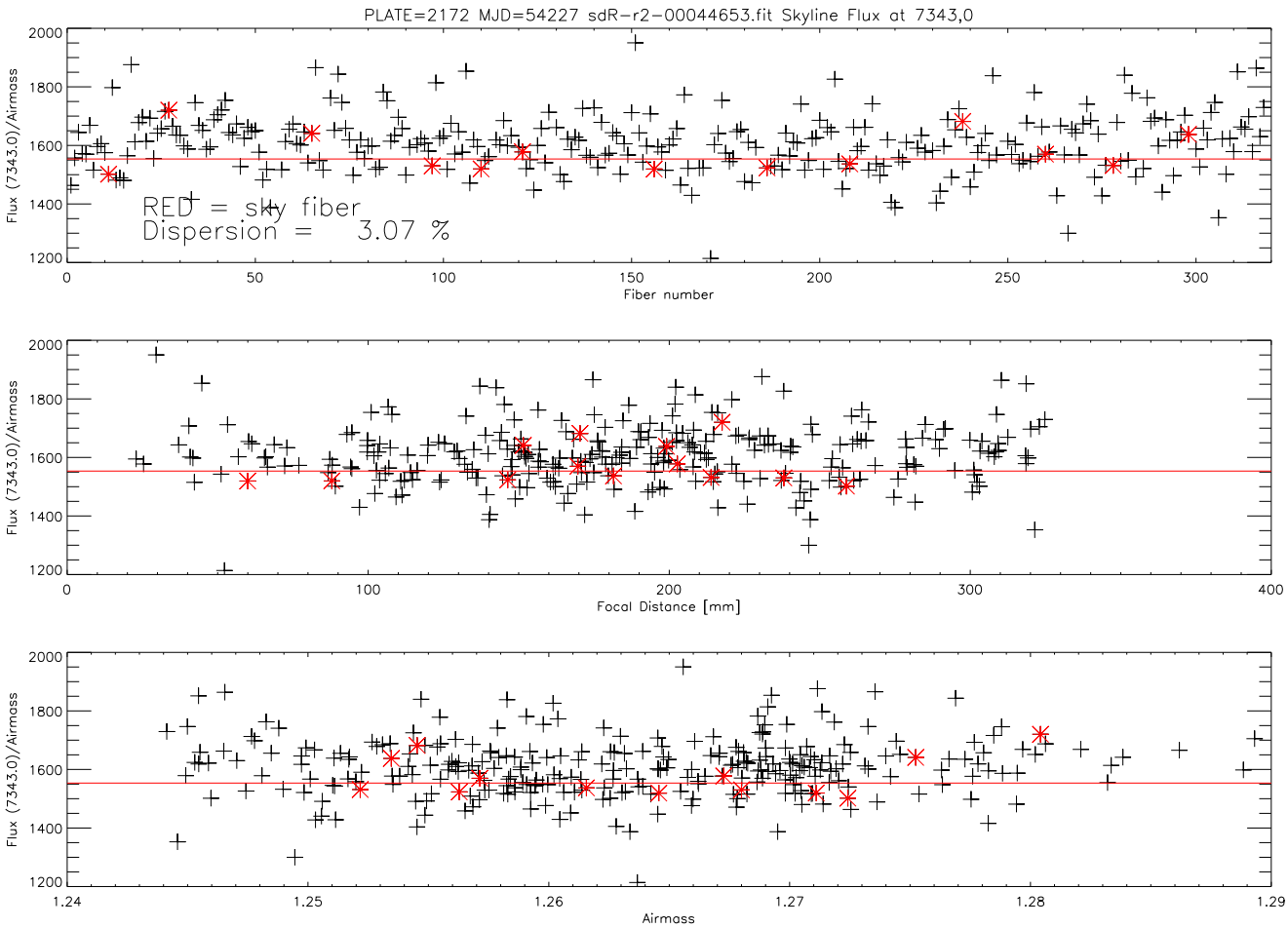

Number of sky fibers = 14
PLATE=2172 MJD=54227 sdR-r2-00044653.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

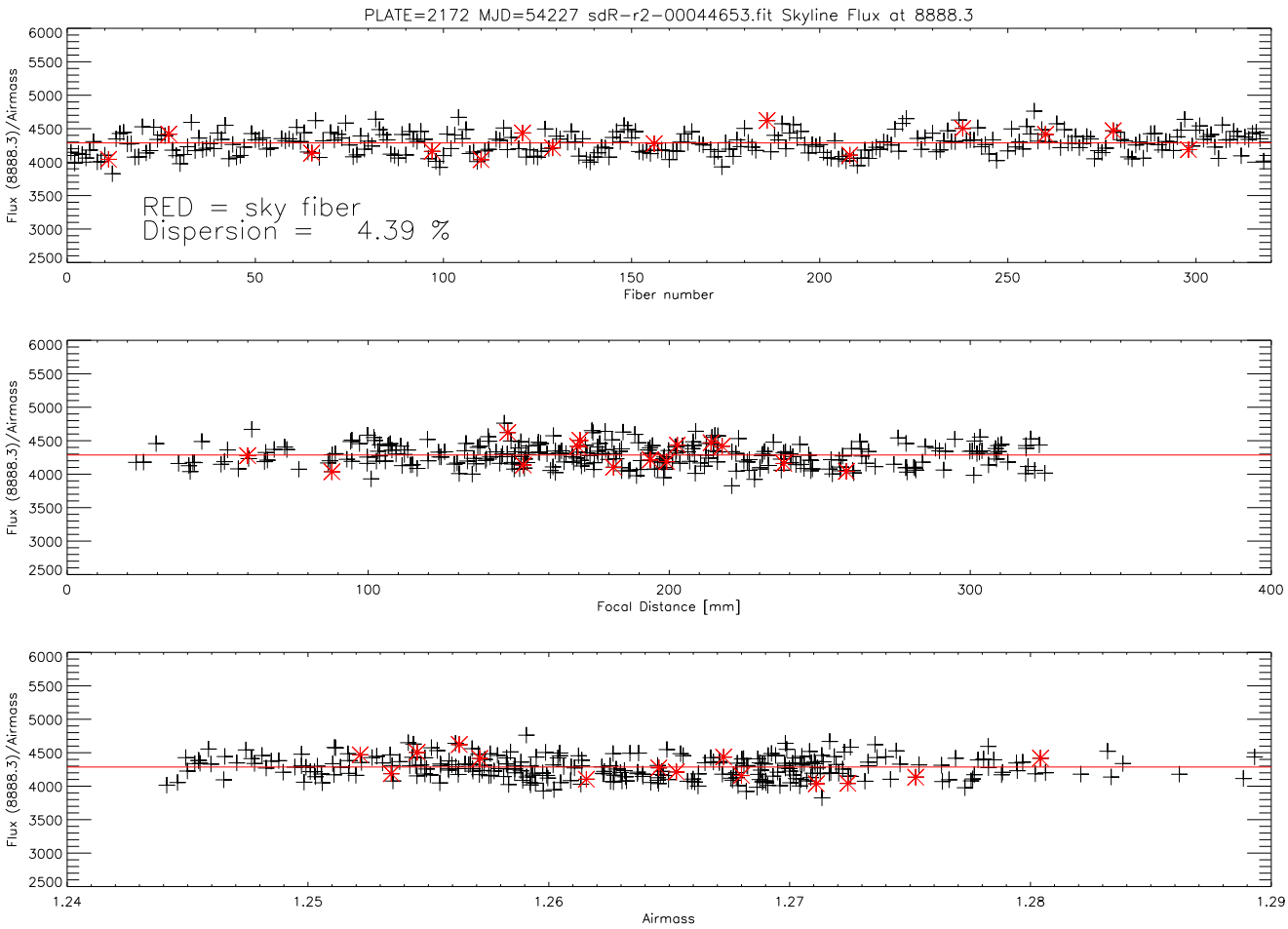

PLATE=2172 MJD=54227 sdR-r2-00044653.fit 2D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number


PLATE=2172 MJD=54227 sdR-r2-00044653.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]


PLATE=2172 MJD=54227 sdR-r2-00044653.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
-300
8820
8840
8860
8880
8900
λ [A]


Number of sky fibers = 14
PLATE=2172 MJD=54227 sdR-r2-00044653.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=2172 MJD=54227 sdR-r2-00044653.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 3.07 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass


PLATE=2172 MJD=54227 sdR-r2-00044653.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 4.39 %
Fiber number
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass