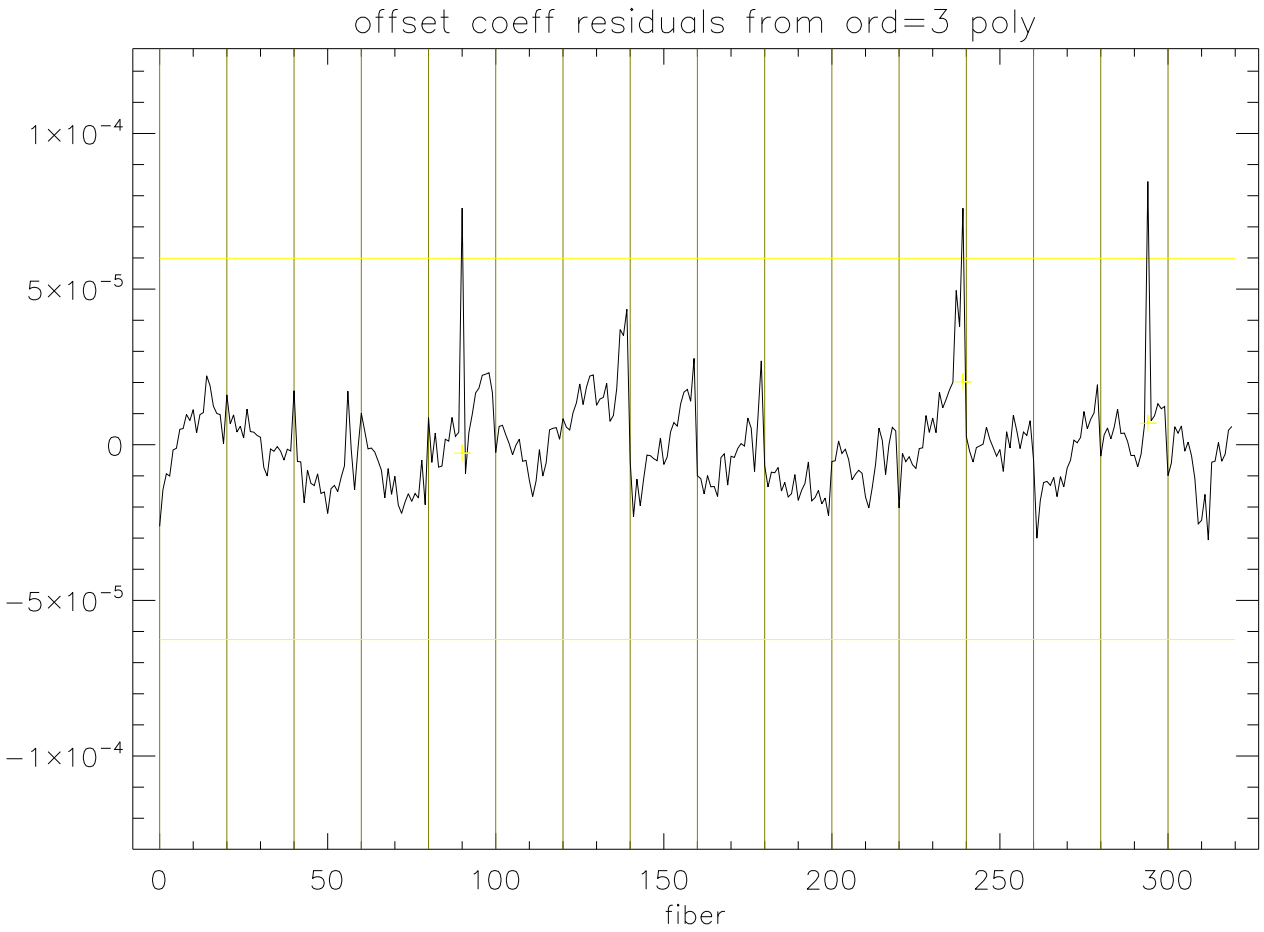
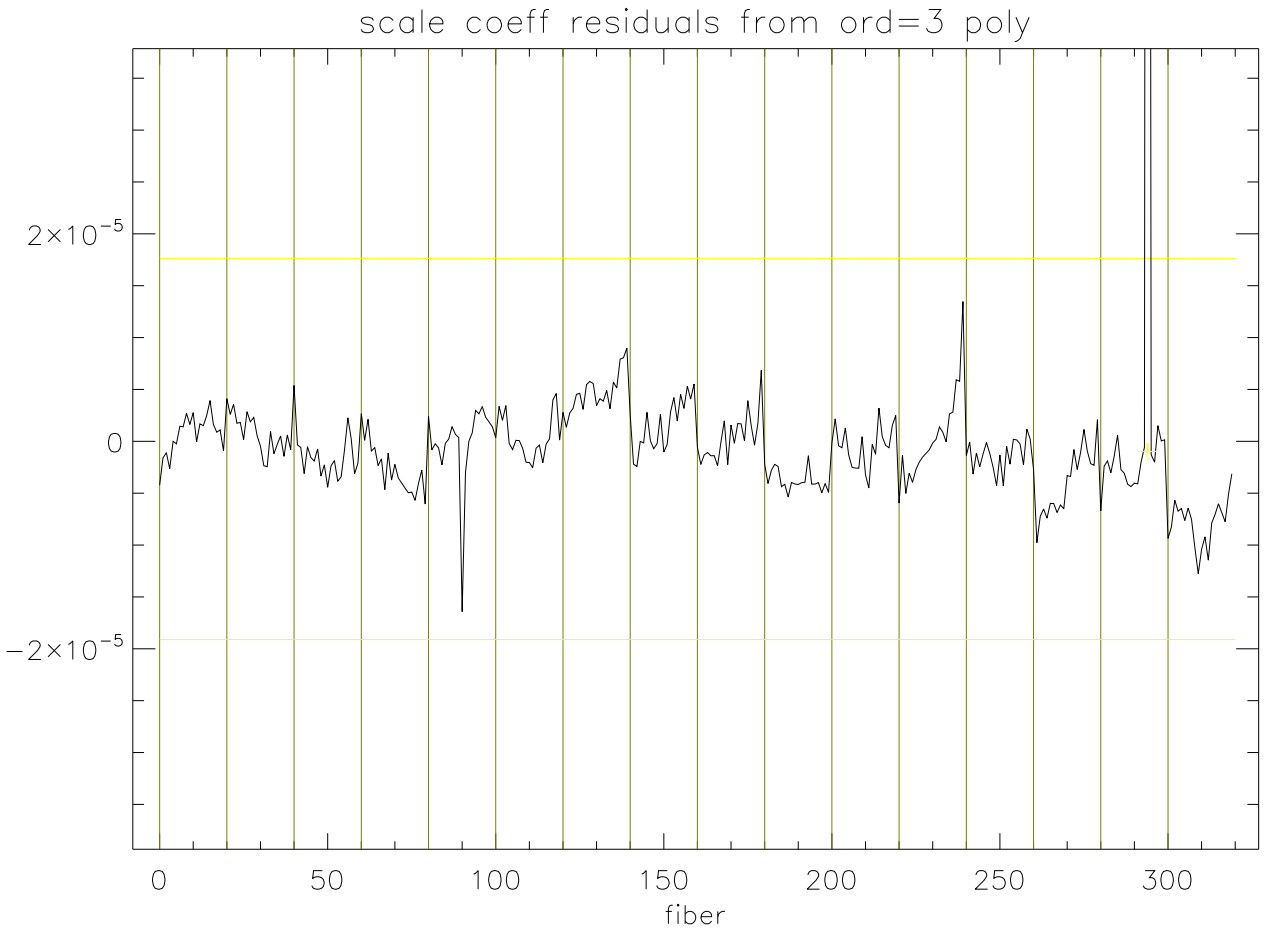
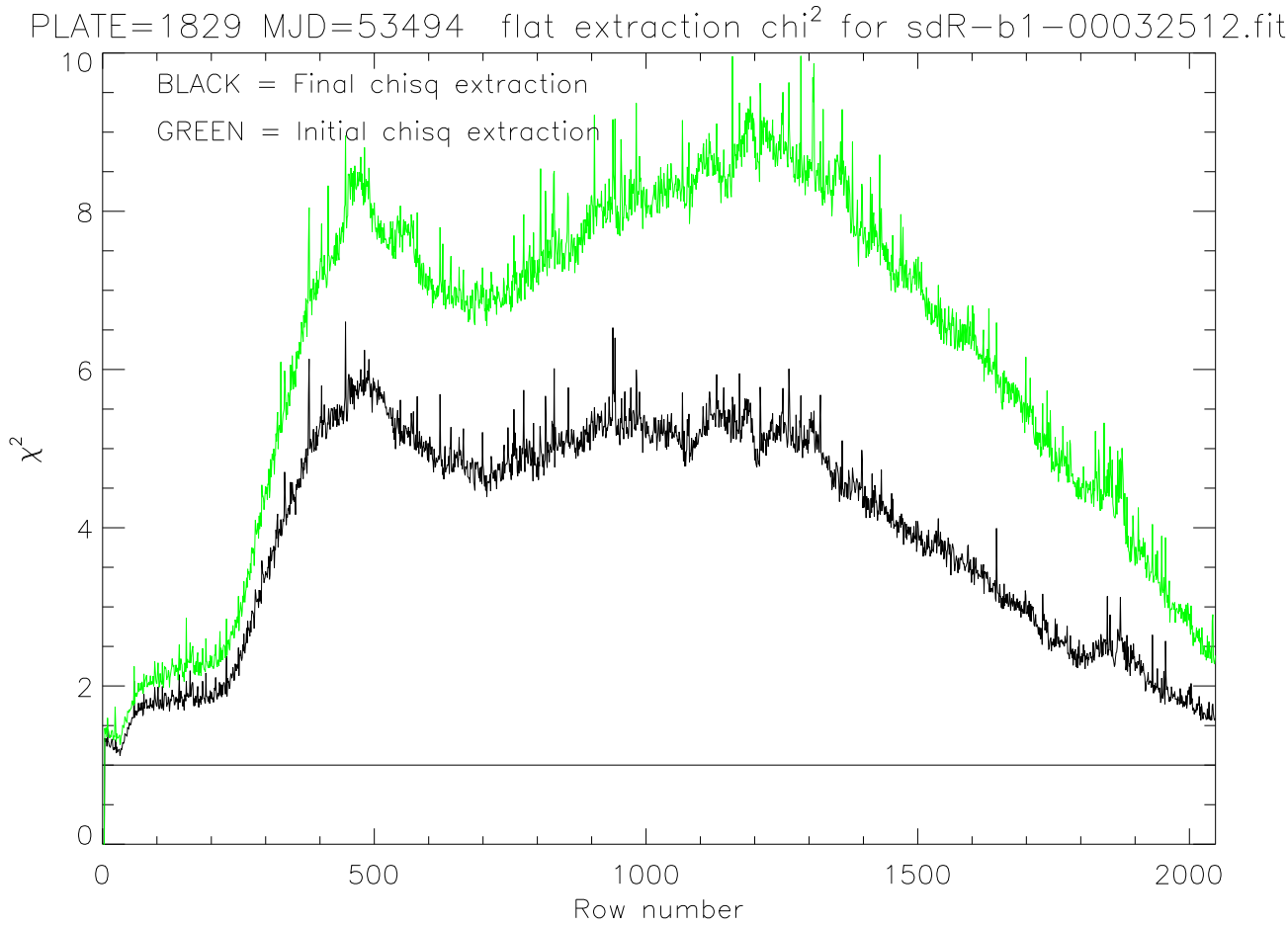
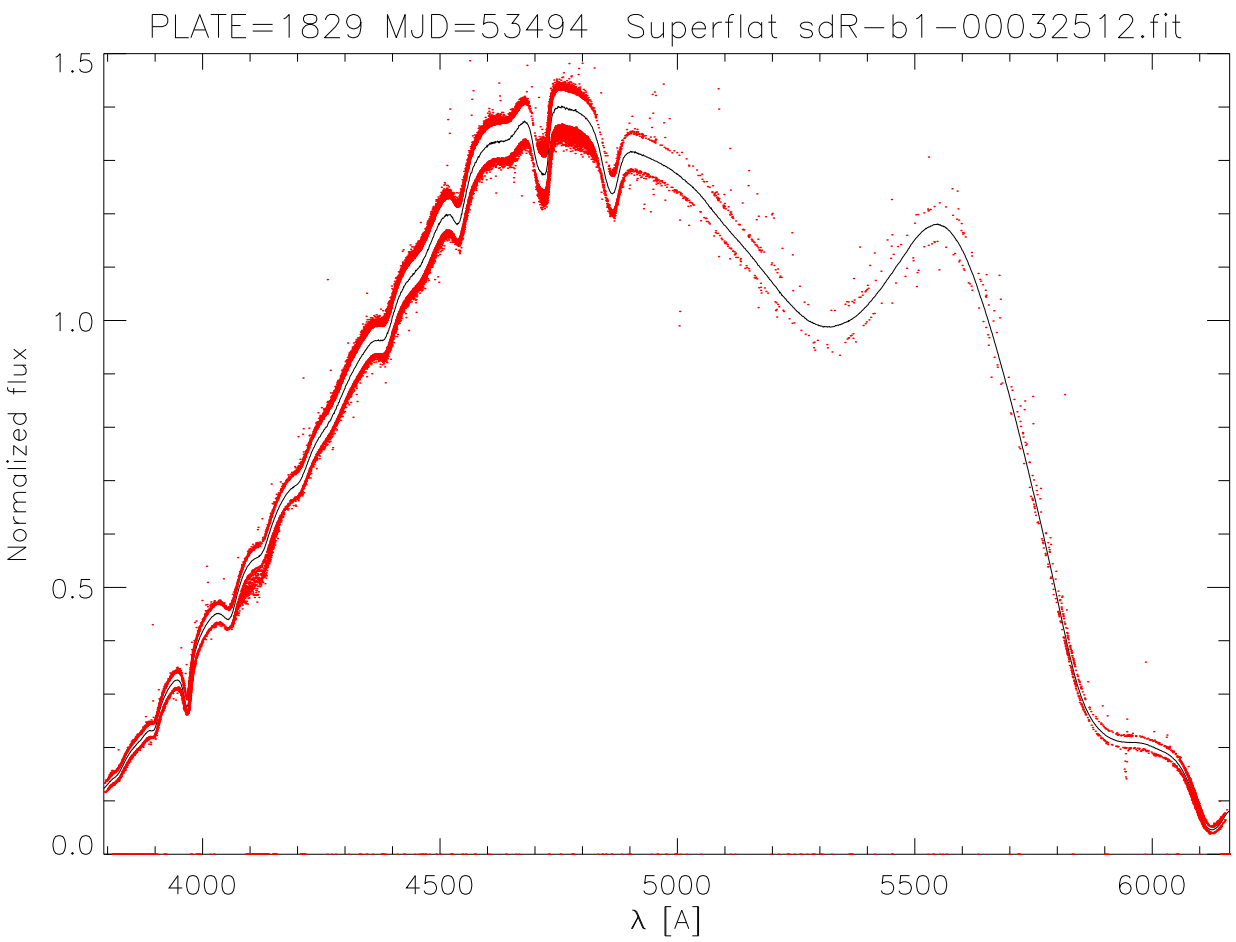
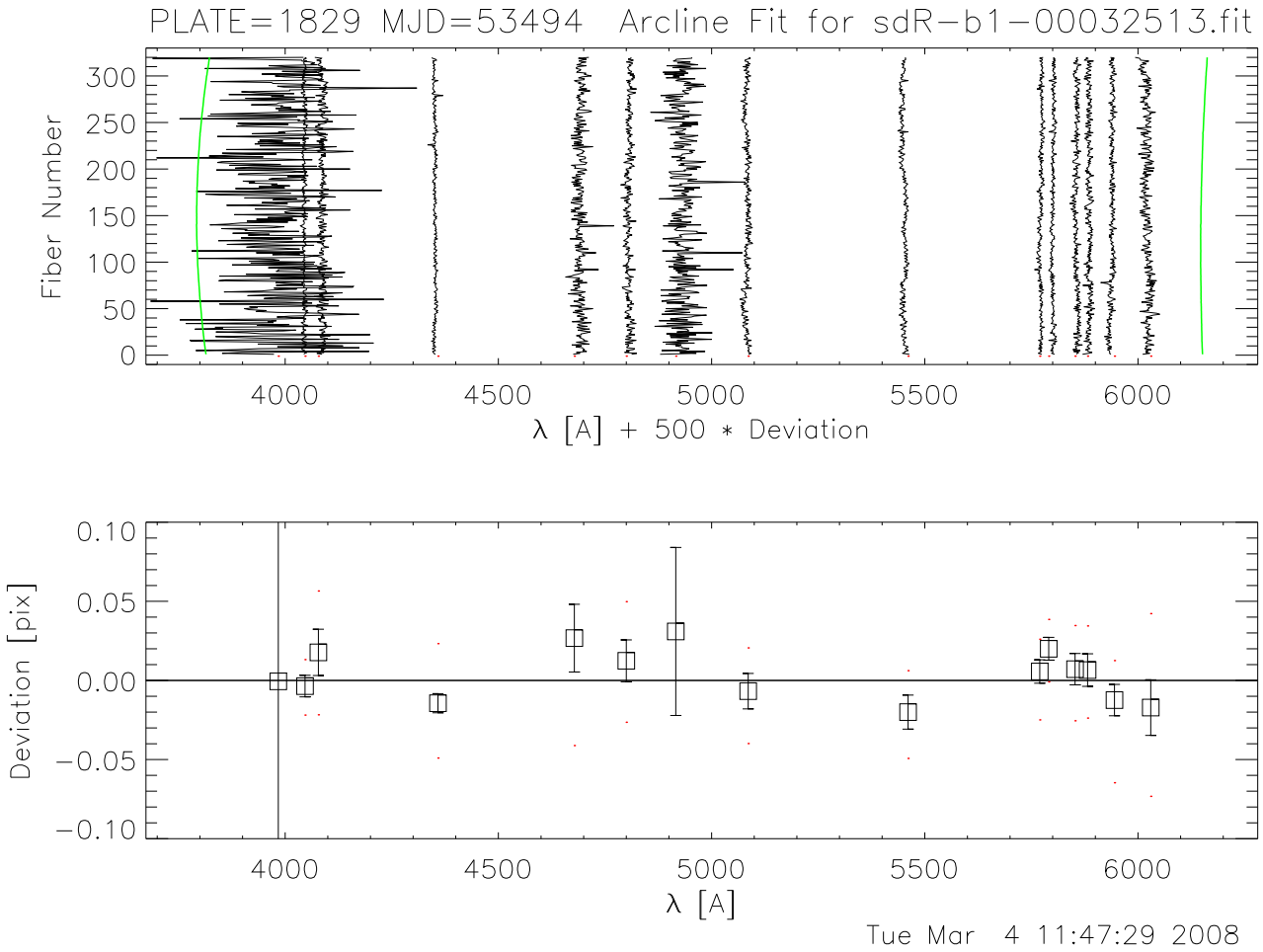
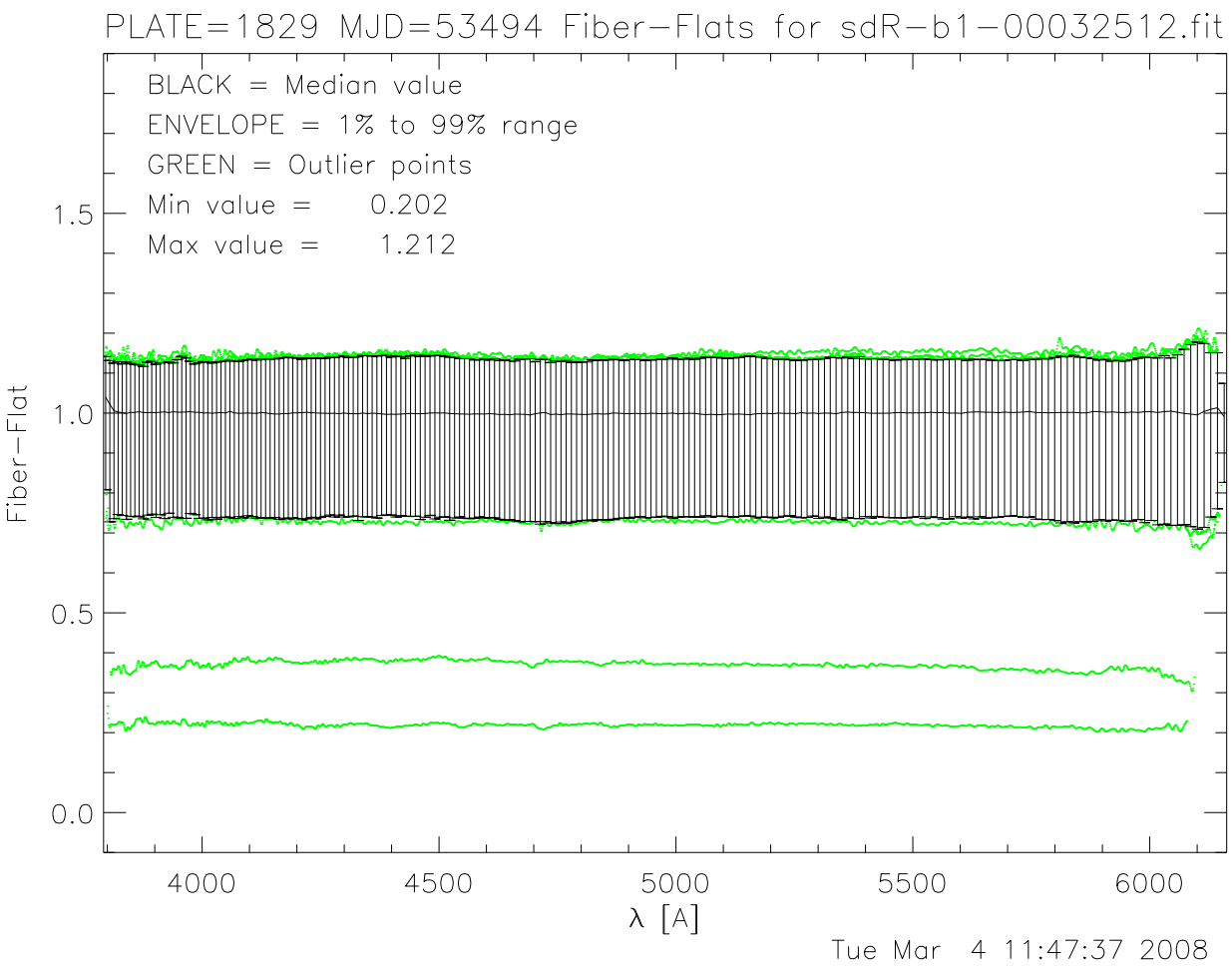

offset coeff residuals from ord=3 poly
1×10^-4
5×10^-5
0
−5×10^-5
−1×10^-4
0
50
100
150
200
250
300
fiber

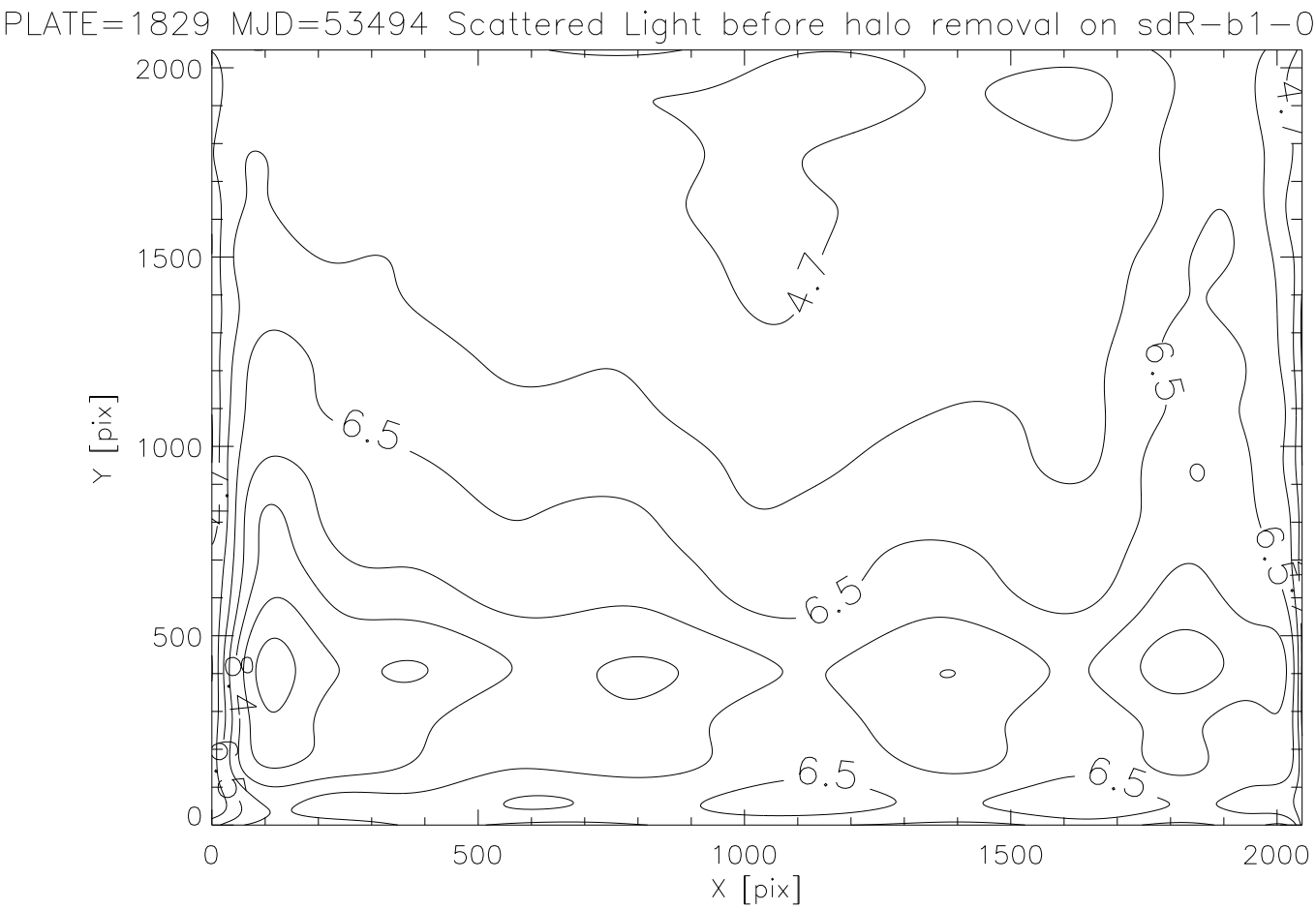

scale coeff residuals from ord=3 poly
2×10⁻⁵
0
−2×10⁻⁵
0
50
100
150
200
250
300
fiber

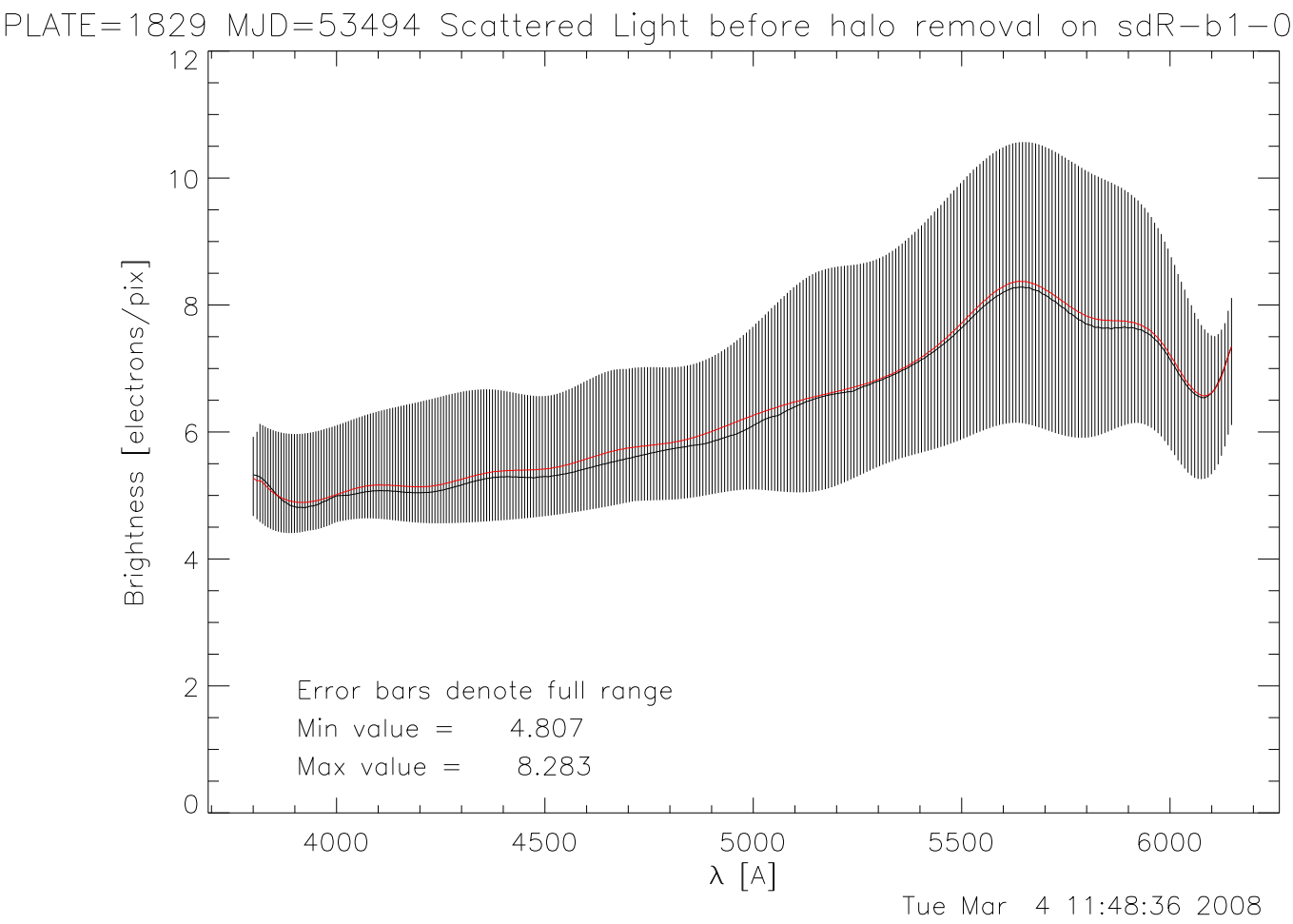

PLATE=1829 MJD=53494 flat extraction chi$^2$ for sdR−b1−00032512.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
$\chi^2$
Row number
0
2
4
6
8
10
0
500
1000
1500
2000

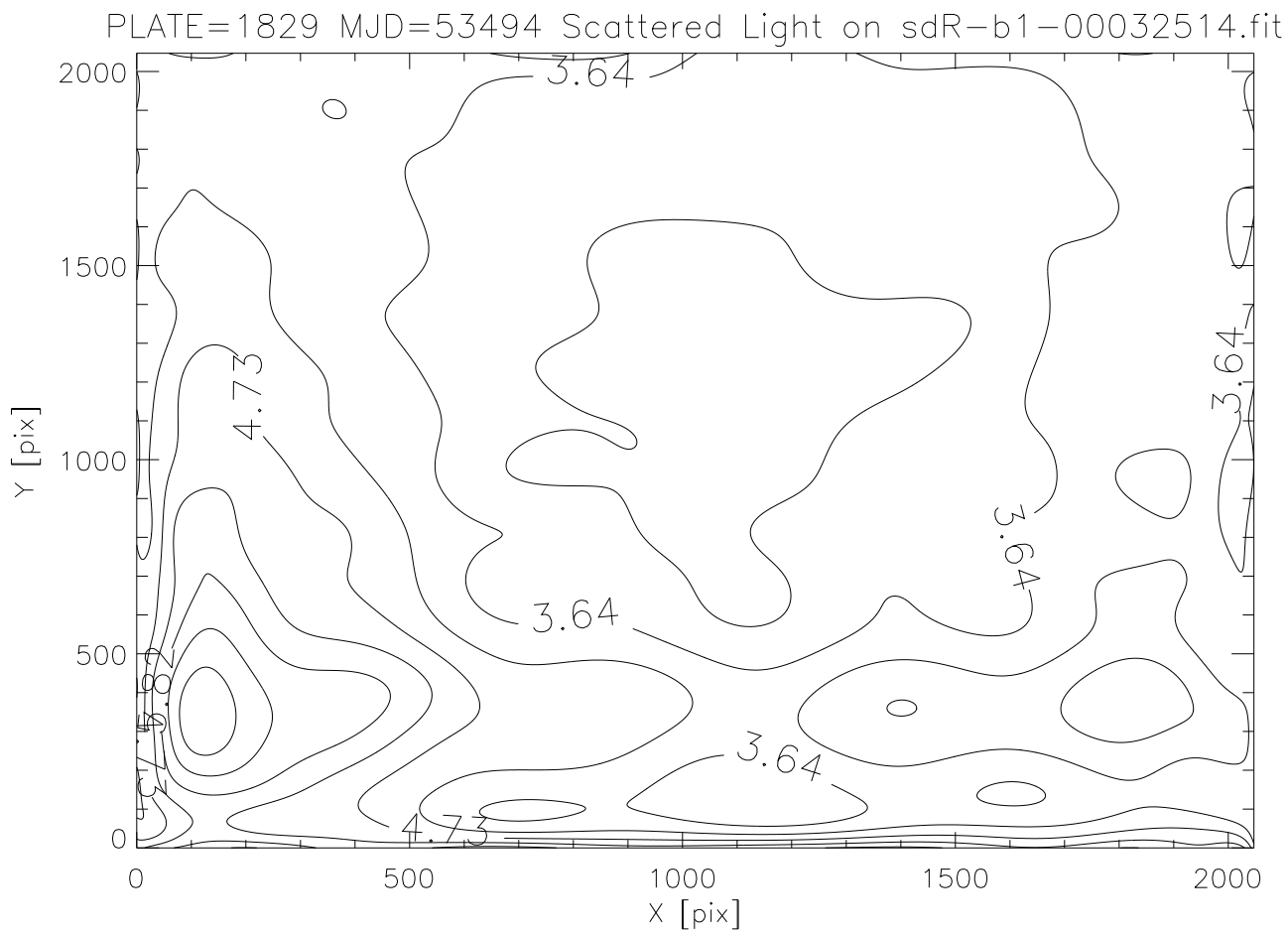

PLATE=1829 MJD=53494 Superflat sdR-b1-00032512.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

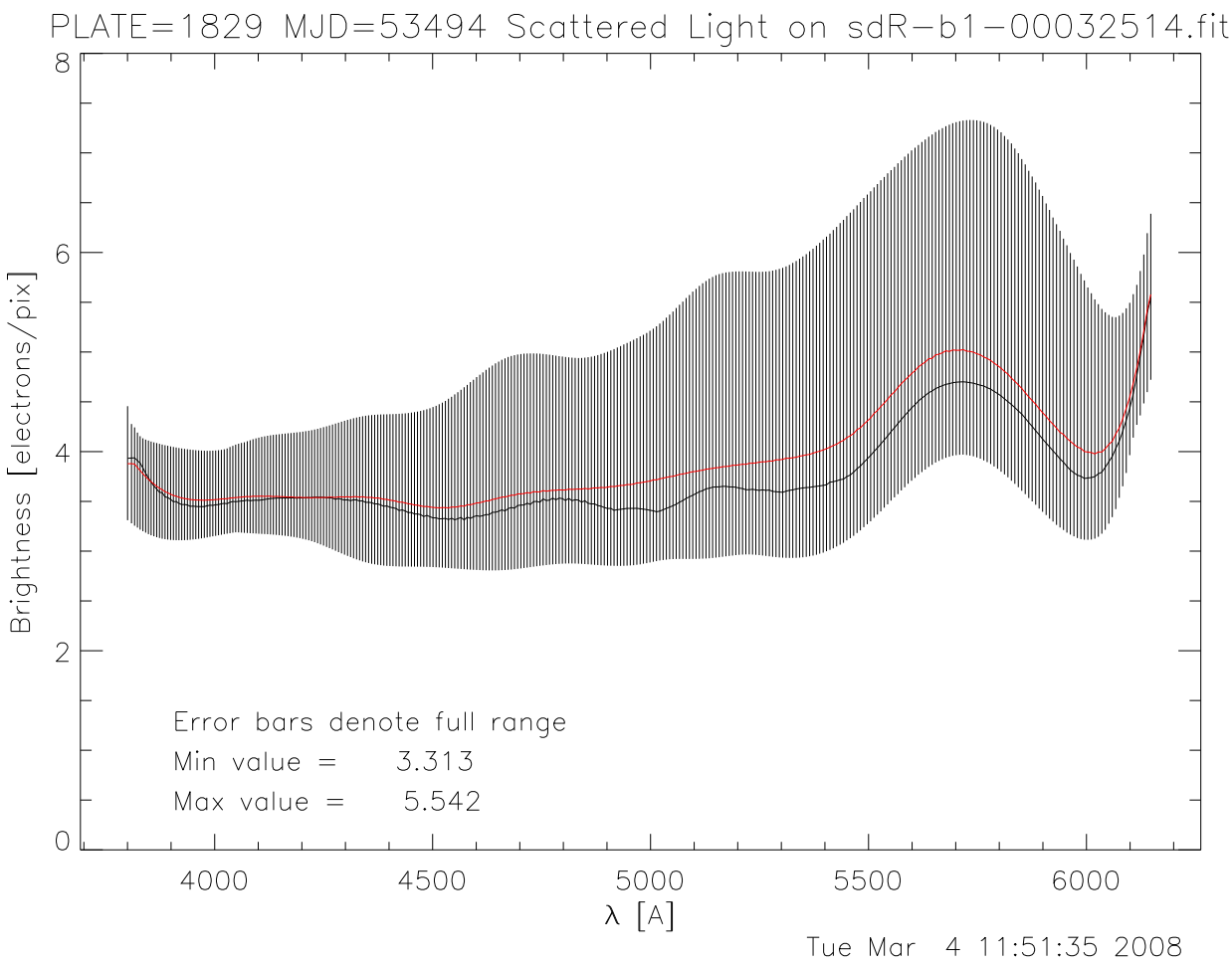

PLATE=1829 MJD=53494 Arcline Fit for sdR-b1-00032513.fit
Fiber Number
300
250
200
150
100
50
0
4000
4500
5000
5500
6000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
4000
4500
5000
5500
6000
λ [A]
Tue Mar 4 11:47:29 2008

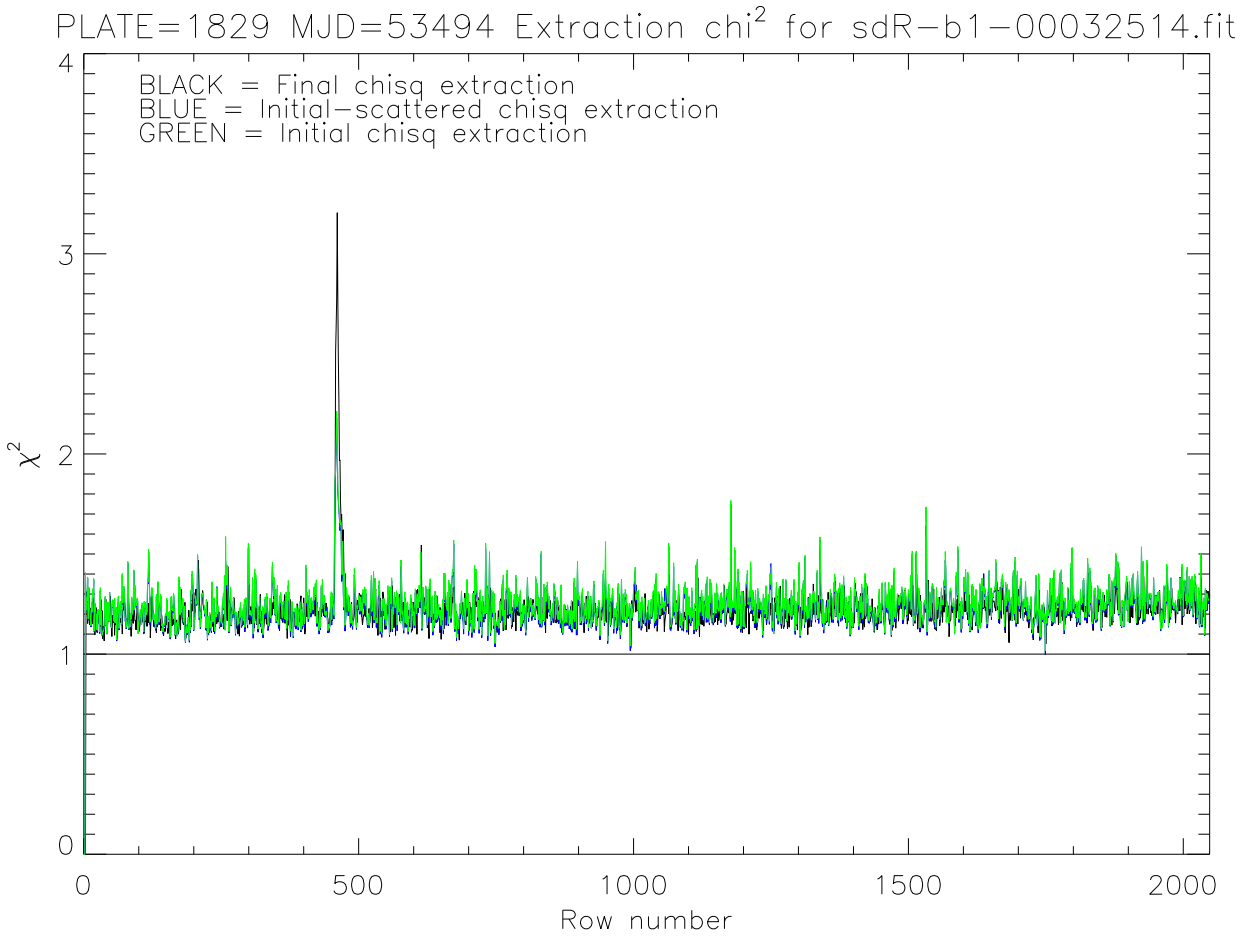

PLATE=1829 MJD=53494 Fiber−Flats for sdR−b1−00032512.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.202
Max value = 1.212
Fiber−Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Tue Mar 4 11:47:37 2008

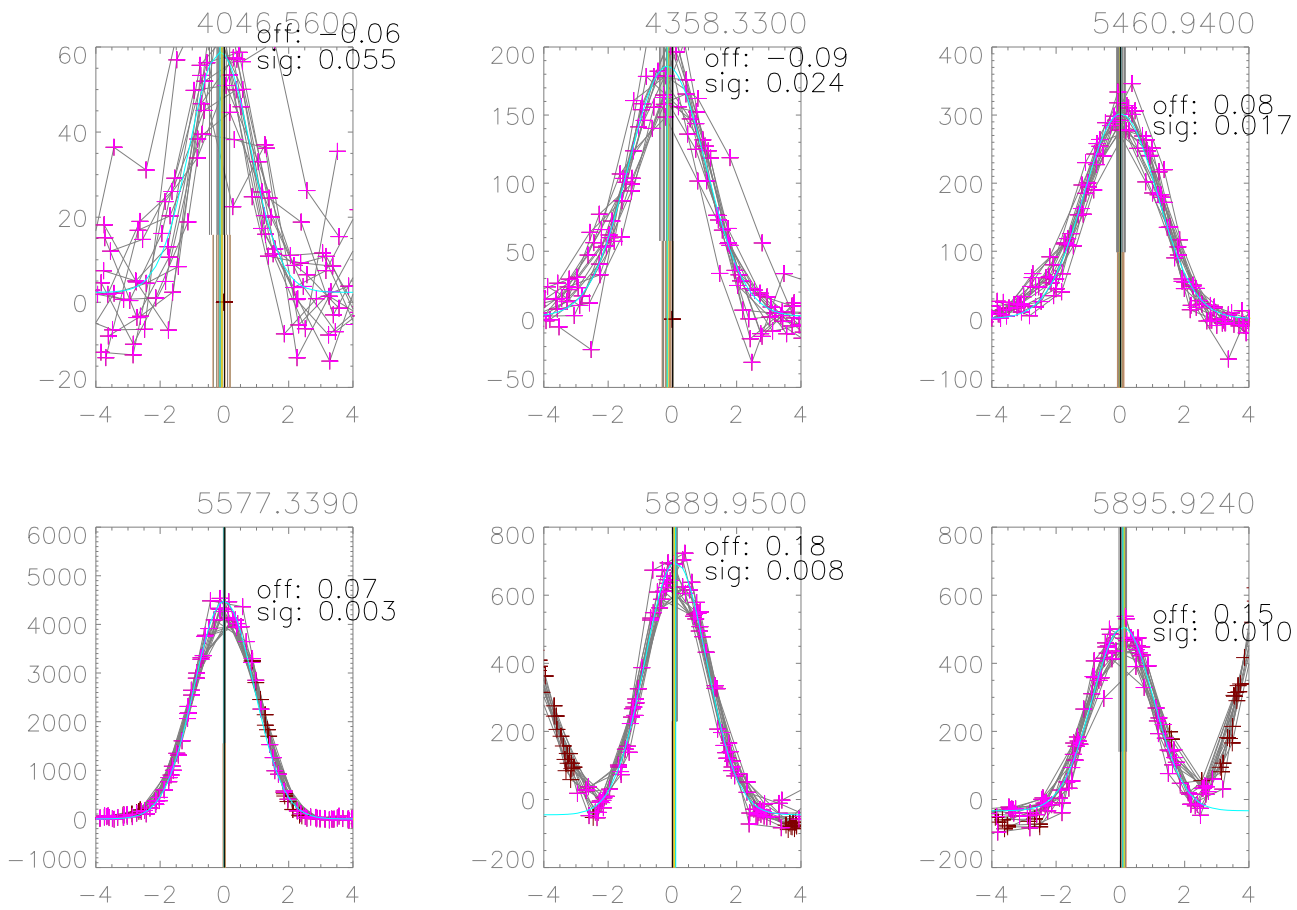

PLATE=1829 MJD=53494 Scattered Light before halo removal on sdR−b1−00032514.f
Y [pix]
X [pix]
0
500
1000
1500
2000
4.7
6.5

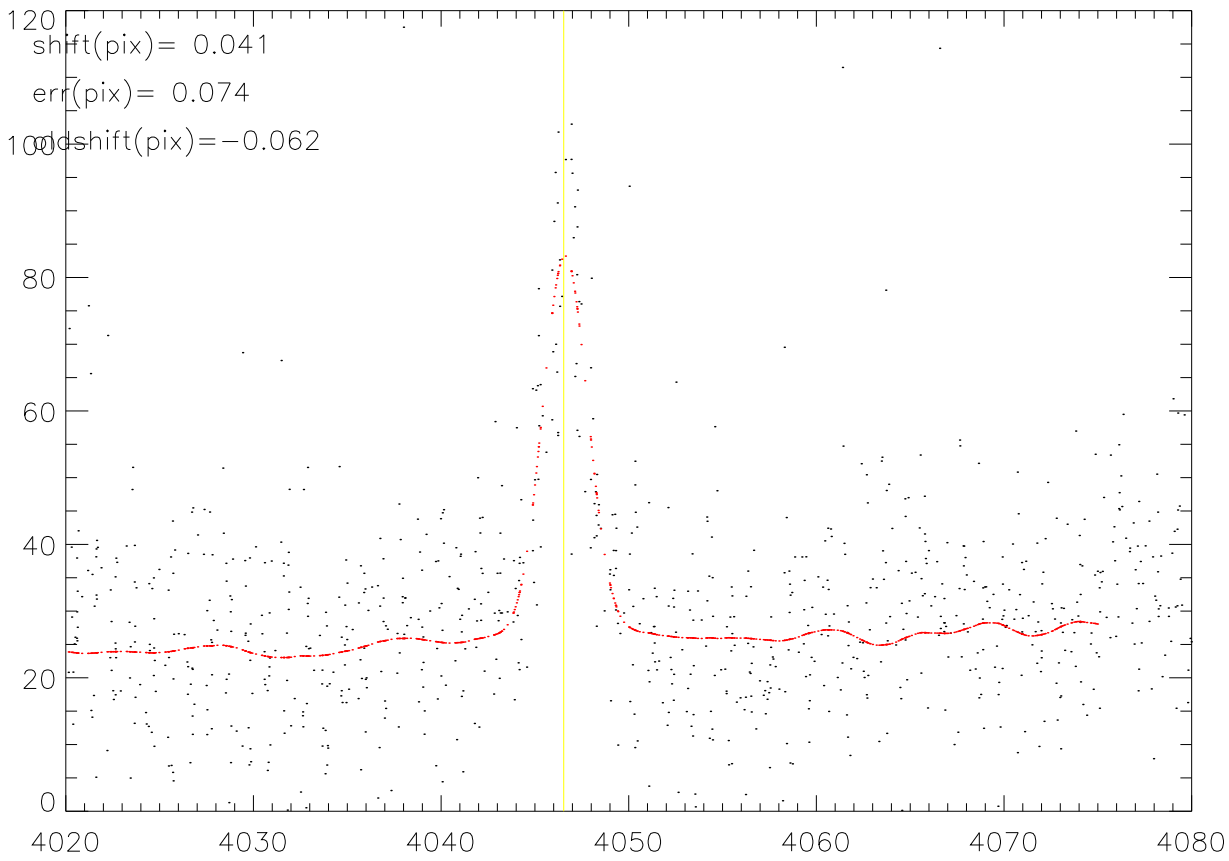

PLATE=1829 MJD=53494 Scattered Light before halo removal on sdR-b1-00032514.f
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 4.807
Max value = 8.283
Tue Mar 4 11:48:36 2008

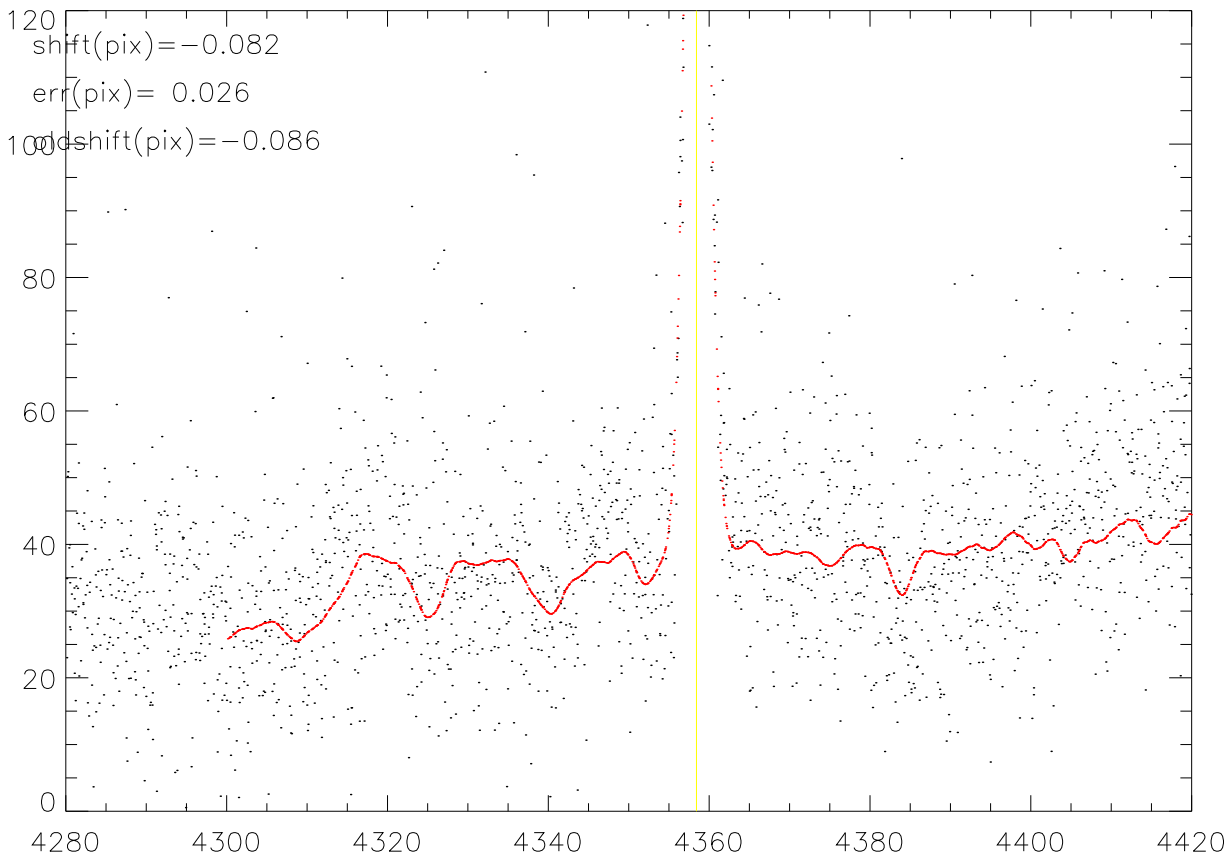

PLATE=1829 MJD=53494 Scattered Light on sdR-b1-00032514.fit
3.64
4.73
3.64
3.64
3.64
4.73
3.64
4.73
Y [pix]
X [pix]
0
500
1000
1500
2000

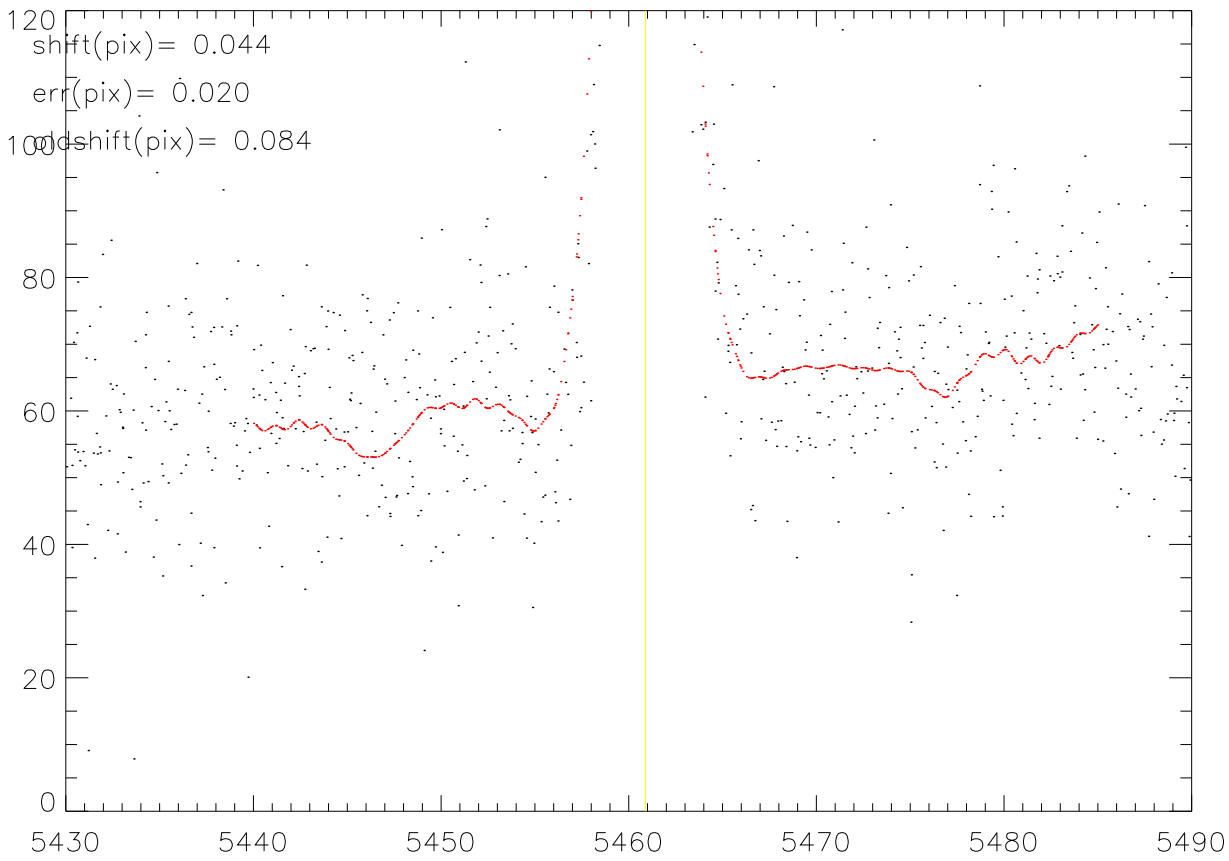

PLATE=1829 MJD=53494 Scattered Light on sdR-b1-00032514.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 3.313
Max value = 5.542
Tue Mar 4 11:51:35 2008

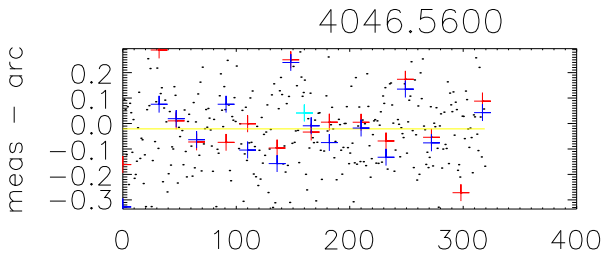

PLATE=1829 MJD=53494 Extraction chi$^2$ for sdR-b1-00032514.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
$\chi^2$
0
1
2
3
4
0
500
1000
1500
2000
Row number

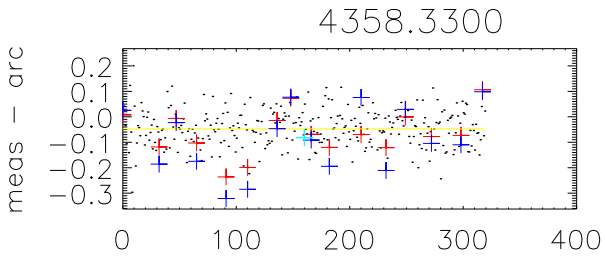

4046.5600
off: −0.06
sig: 0.055
4358.3300
off: −0.09
sig: 0.024
5460.9400
off: 0.08
sig: 0.017
5577.3390
off: 0.07
sig: 0.003
5889.9500
off: 0.18
sig: 0.008
5895.9240
off: 0.15
sig: 0.010

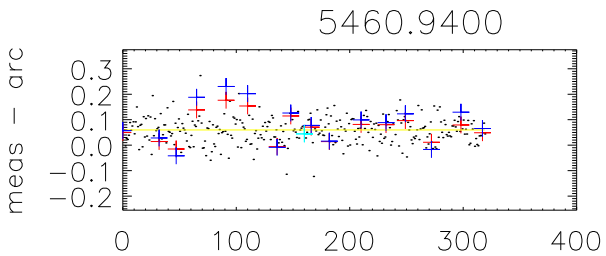

shift(pix)= 0.041
err(pix)= 0.074
oldshift(pix)=−0.062
120
100
80
60
40
20
0
4020
4030
4040
4050
4060
4070
4080

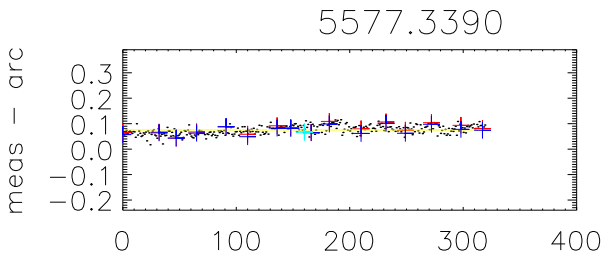

shift(pix)=−0.082
err(pix)= 0.026
oldshift(pix)=−0.086
120
100
80
60
40
20
0
4280
4300
4320
4340
4360
4380
4400
4420

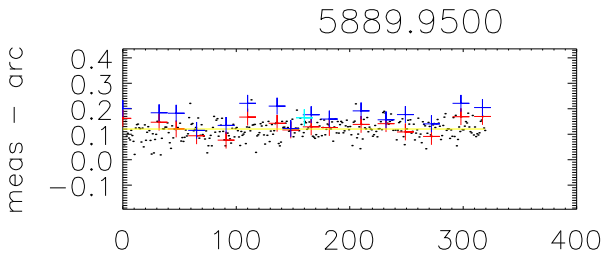

shift(pix)= 0.044
err(pix)= 0.020
oldshift(pix)= 0.084
120
100
80
60
40
20
0
5430
5440
5450
5460
5470
5480
5490

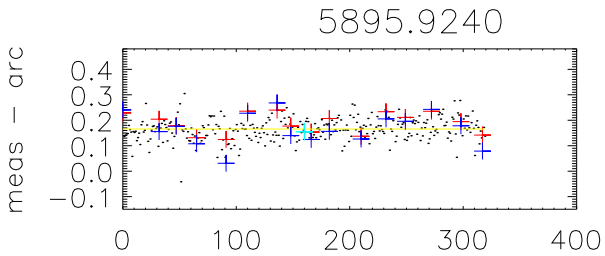

4046.5600
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

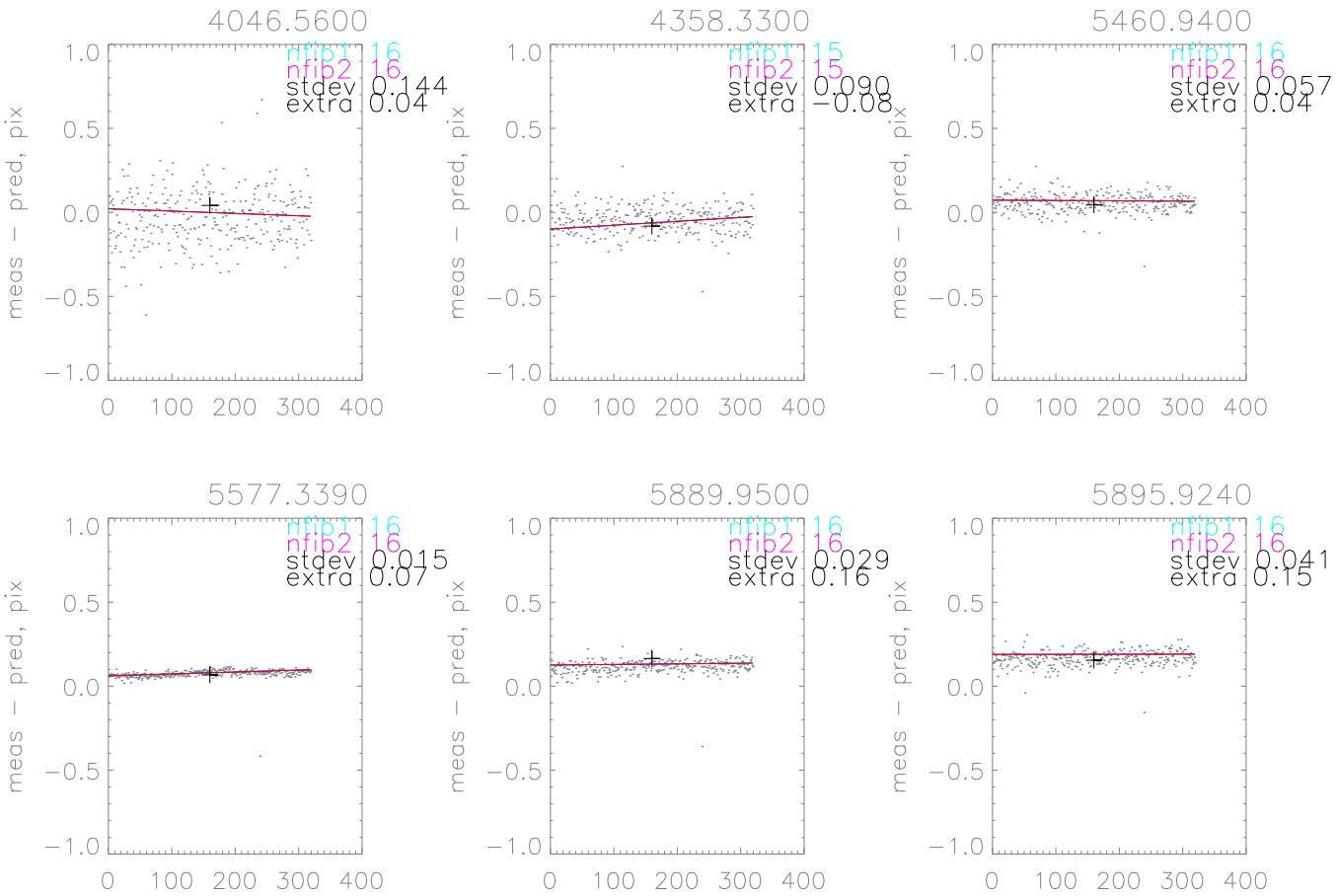

4358.3300
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

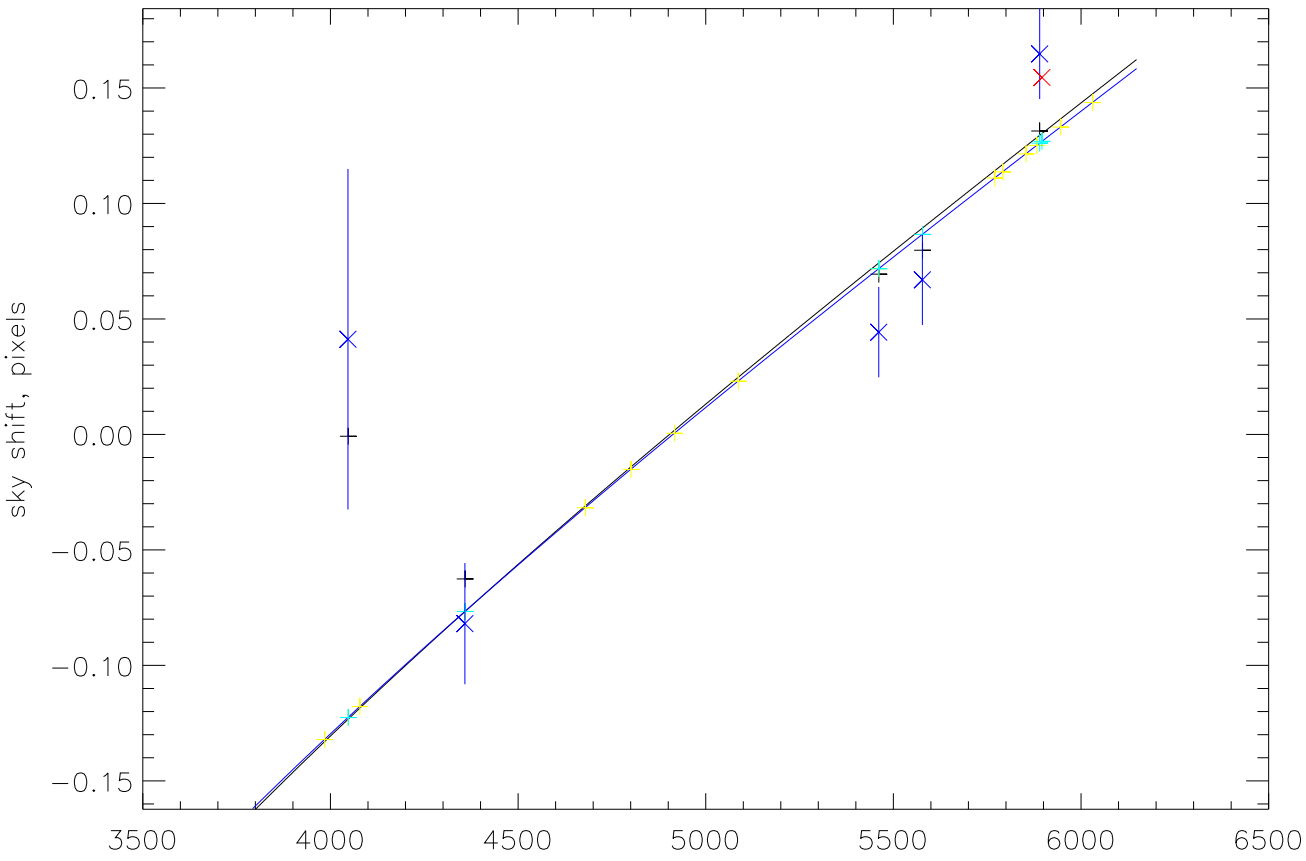

5460.9400
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400


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

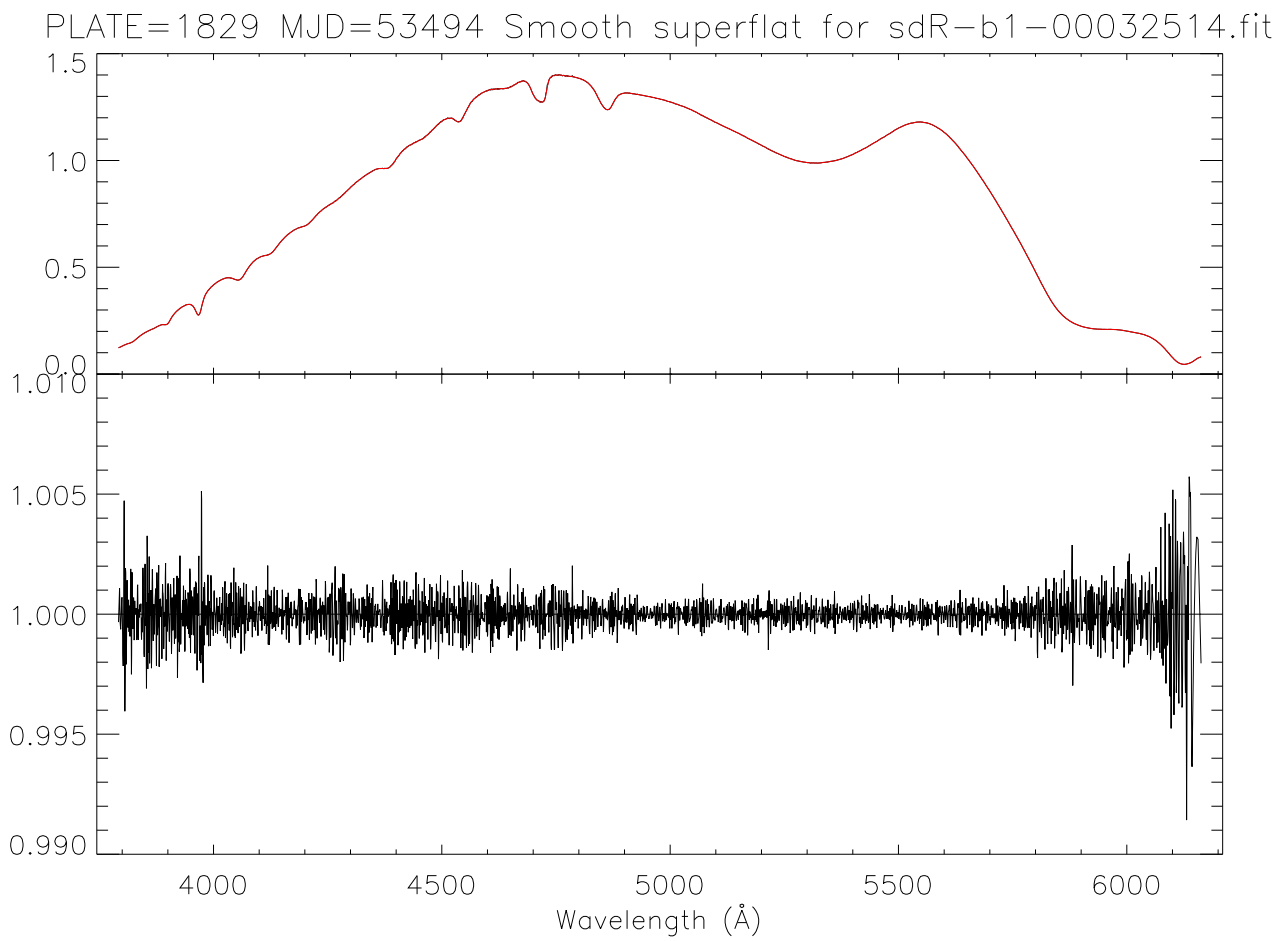

5889.9500
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

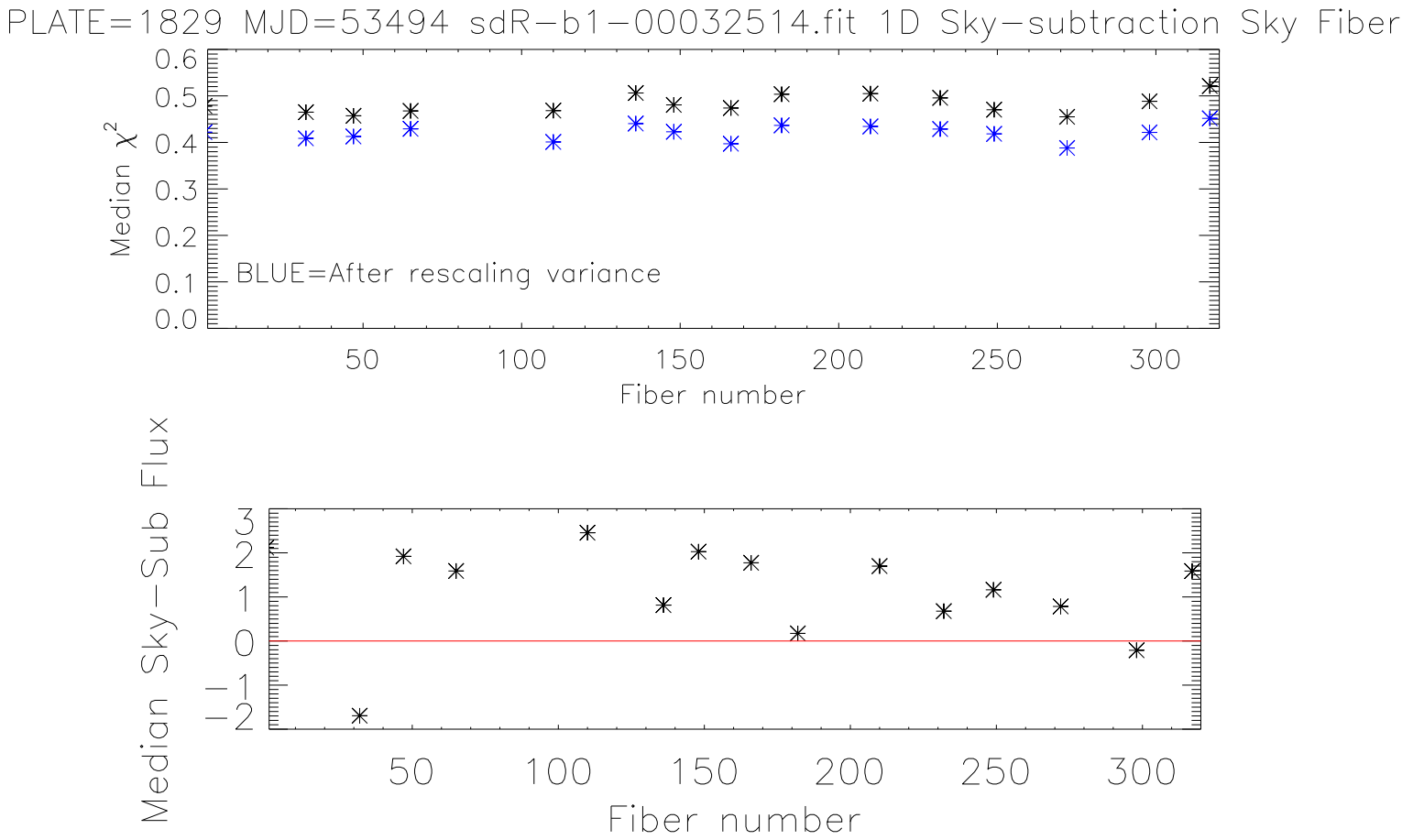

5895.9240
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

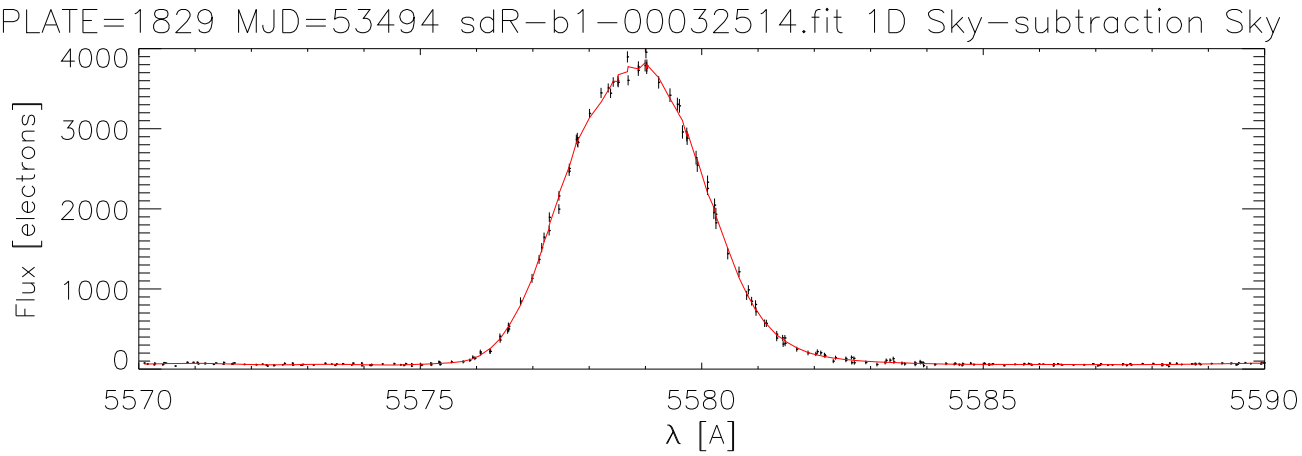

4046.5600
nfib1 16
nfib2 16
stdev 0.144
extra 0.04
4358.3300
nfib1 15
nfib2 15
stdev 0.090
extra −0.08
5460.9400
nfib1 16
nfib2 16
stdev 0.057
extra 0.04
5577.3390
nfib1 16
nfib2 16
stdev 0.015
extra 0.07
5889.9500
nfib1 16
nfib2 16
stdev 0.029
extra 0.16
5895.9240
nfib1 16
nfib2 16
stdev 0.041
extra 0.15
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

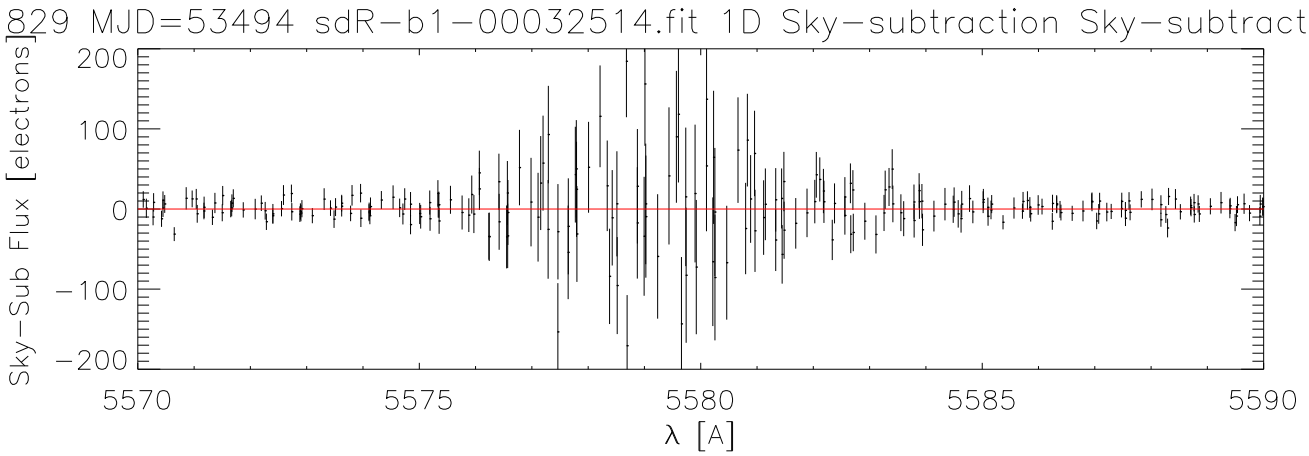

sky shift, pixels
0.15
0.10
0.05
0.00
−0.05
−0.10
−0.15
3500
4000
4500
5000
5500
6000
6500

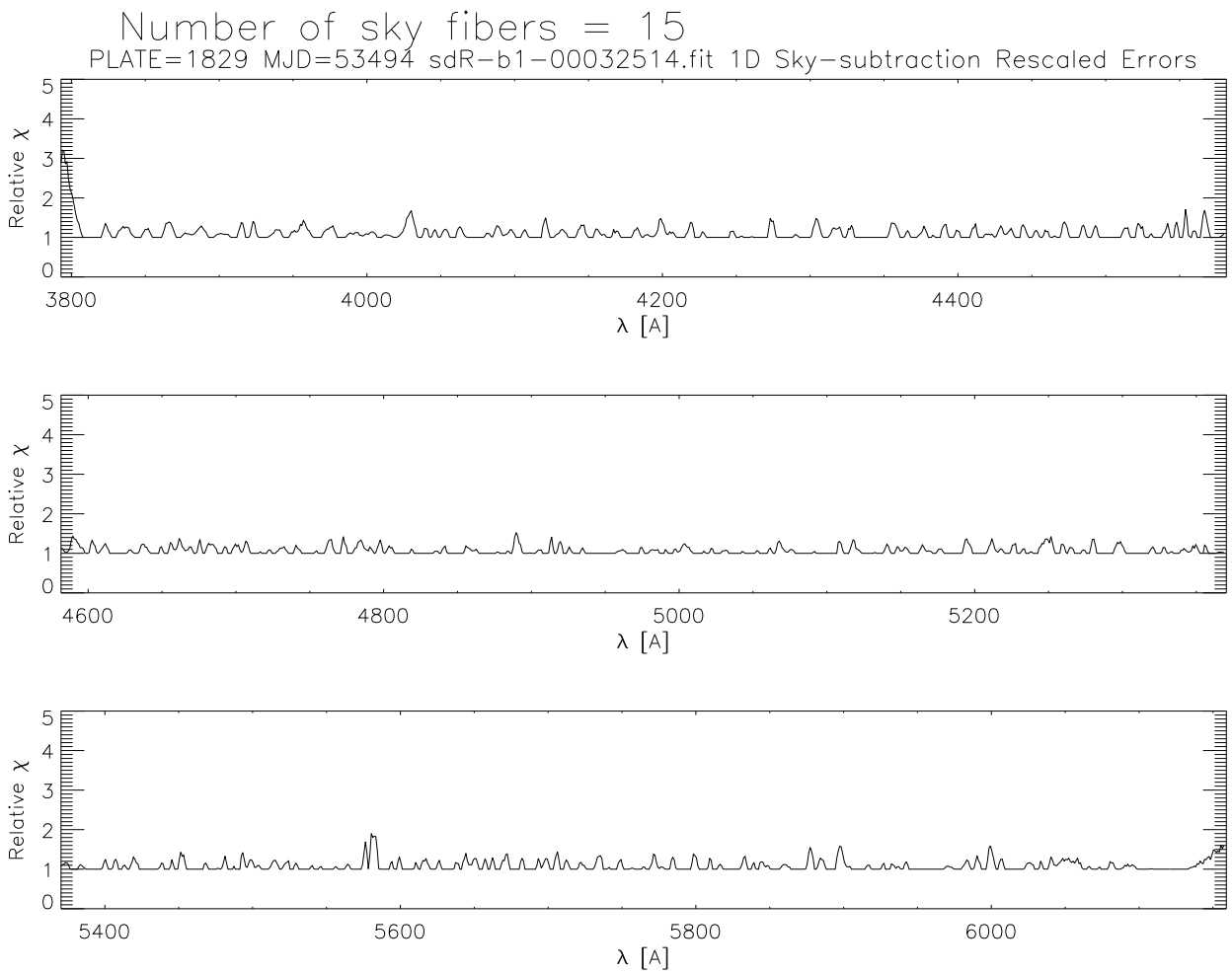
es= 0.0000

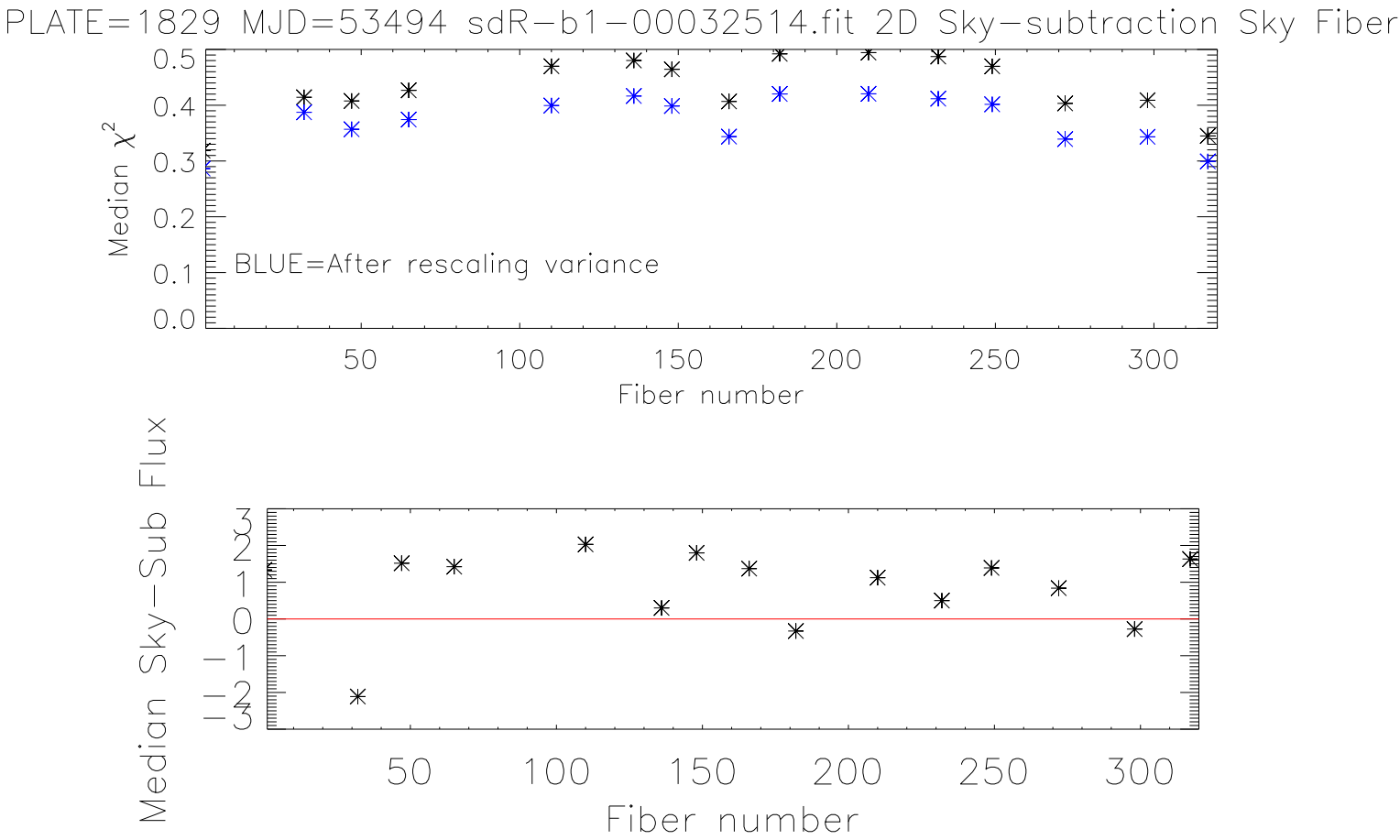

PLATE=1829 MJD=53494 Smooth superflat for sdR-b1-00032514.fit
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
4000
4500
5000
5500
6000
Wavelength (Å)

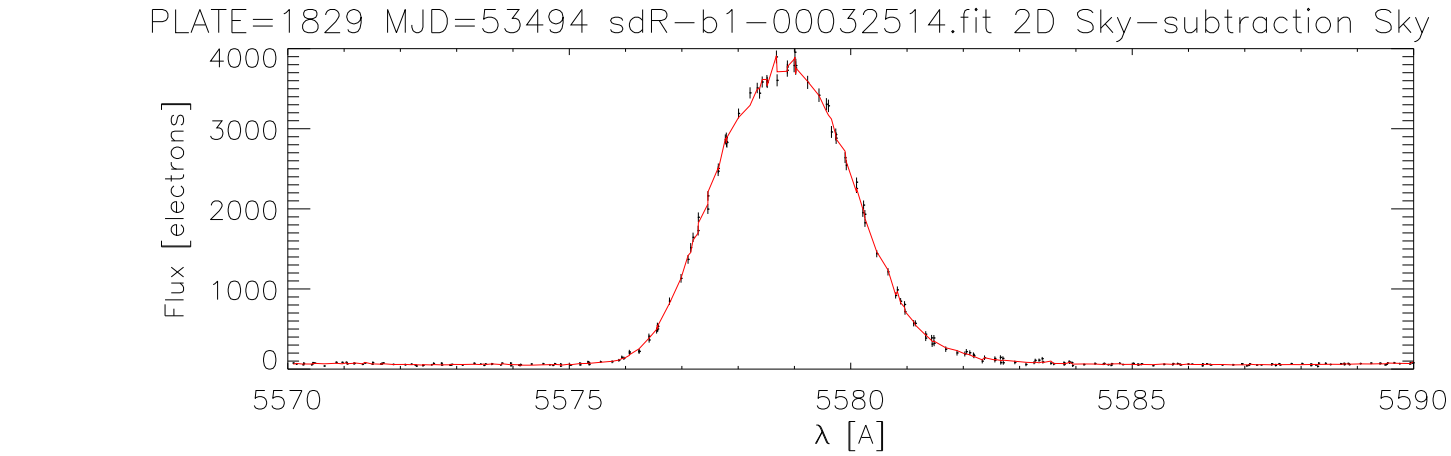

PLATE=1829 MJD=53494 sdR-b1-00032514.fit 1D Sky-subtraction Sky Fiber
Median $\chi^2$
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

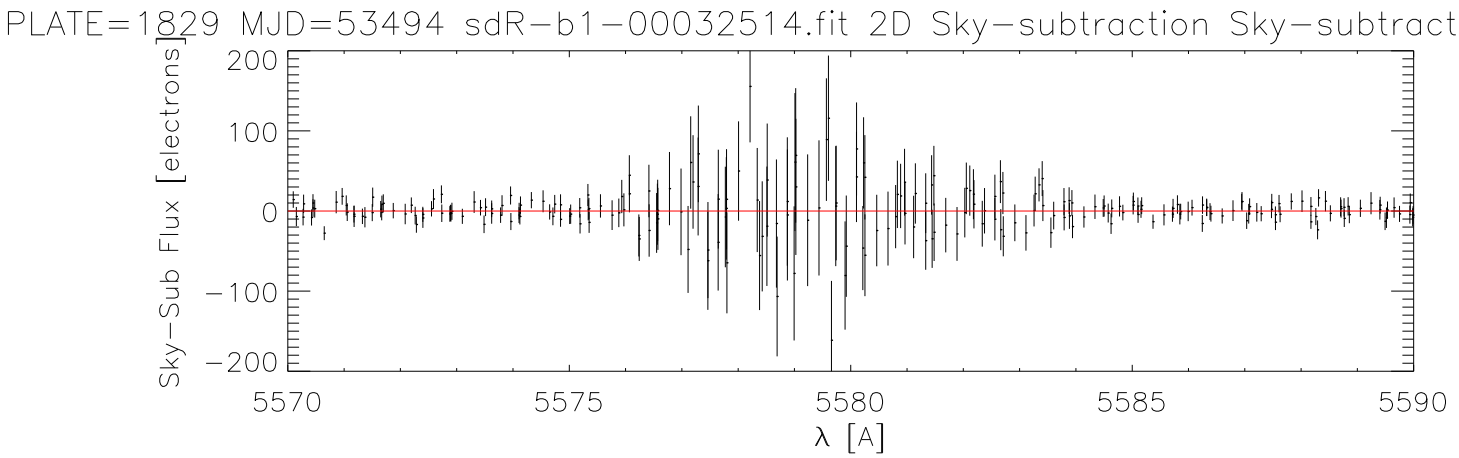

PLATE=1829 MJD=53494 sdR-b1-00032514.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

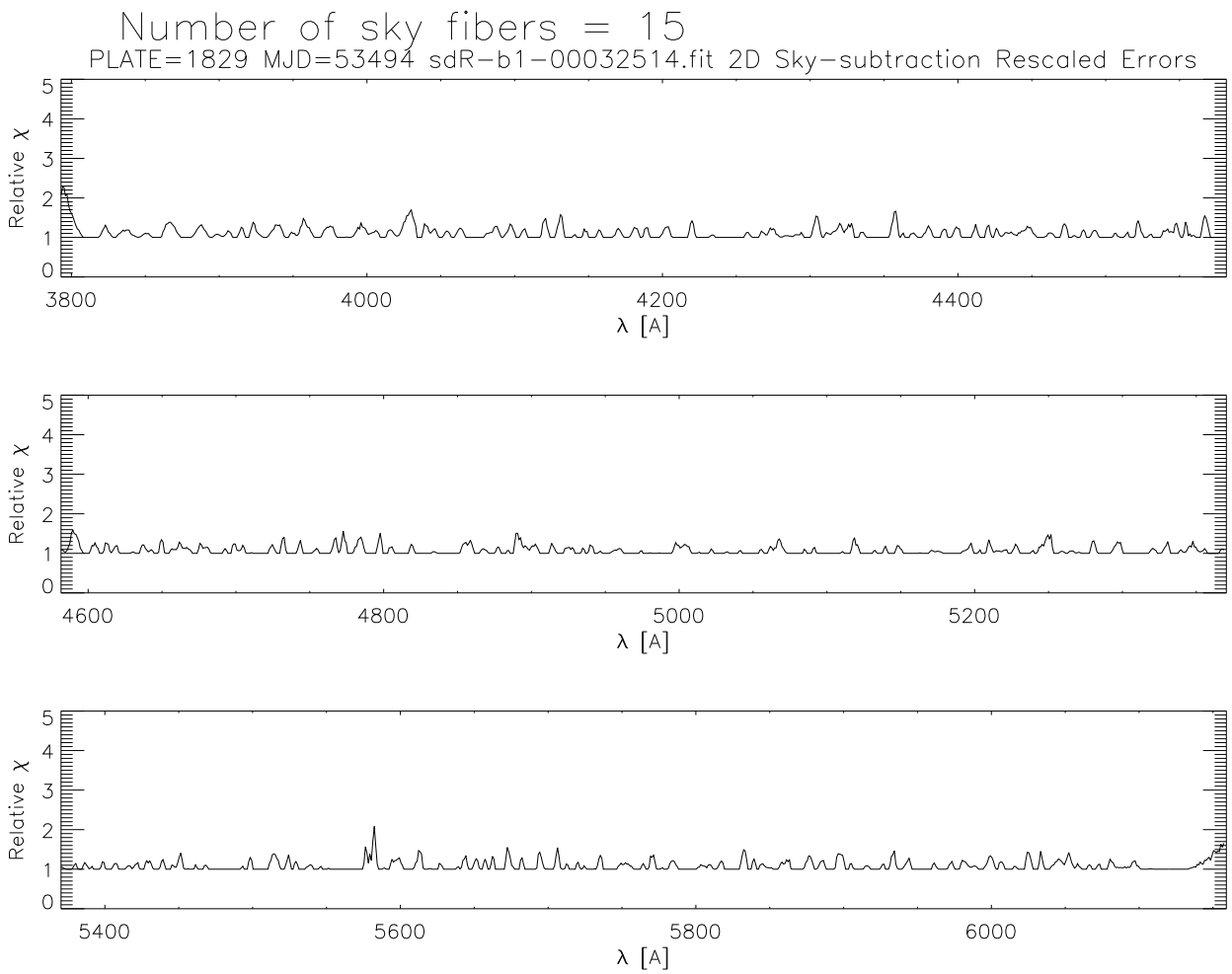

PLATE=1829 MJD=53494 sdR-b1-00032514.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
5570
5575
5580
5585
5590
λ [A]

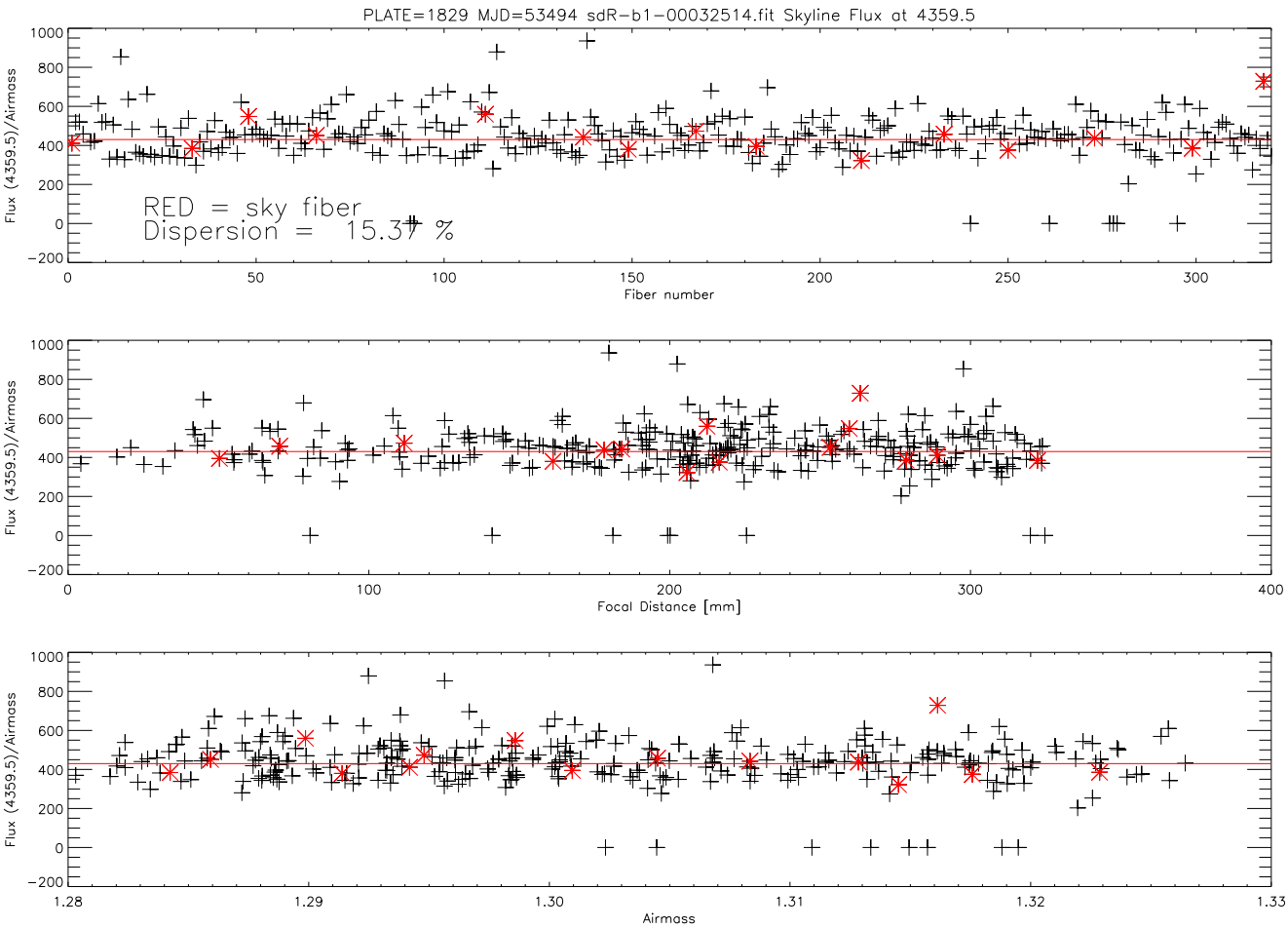

Number of sky fibers = 15
PLATE=1829 MJD=53494 sdR-b1-00032514.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

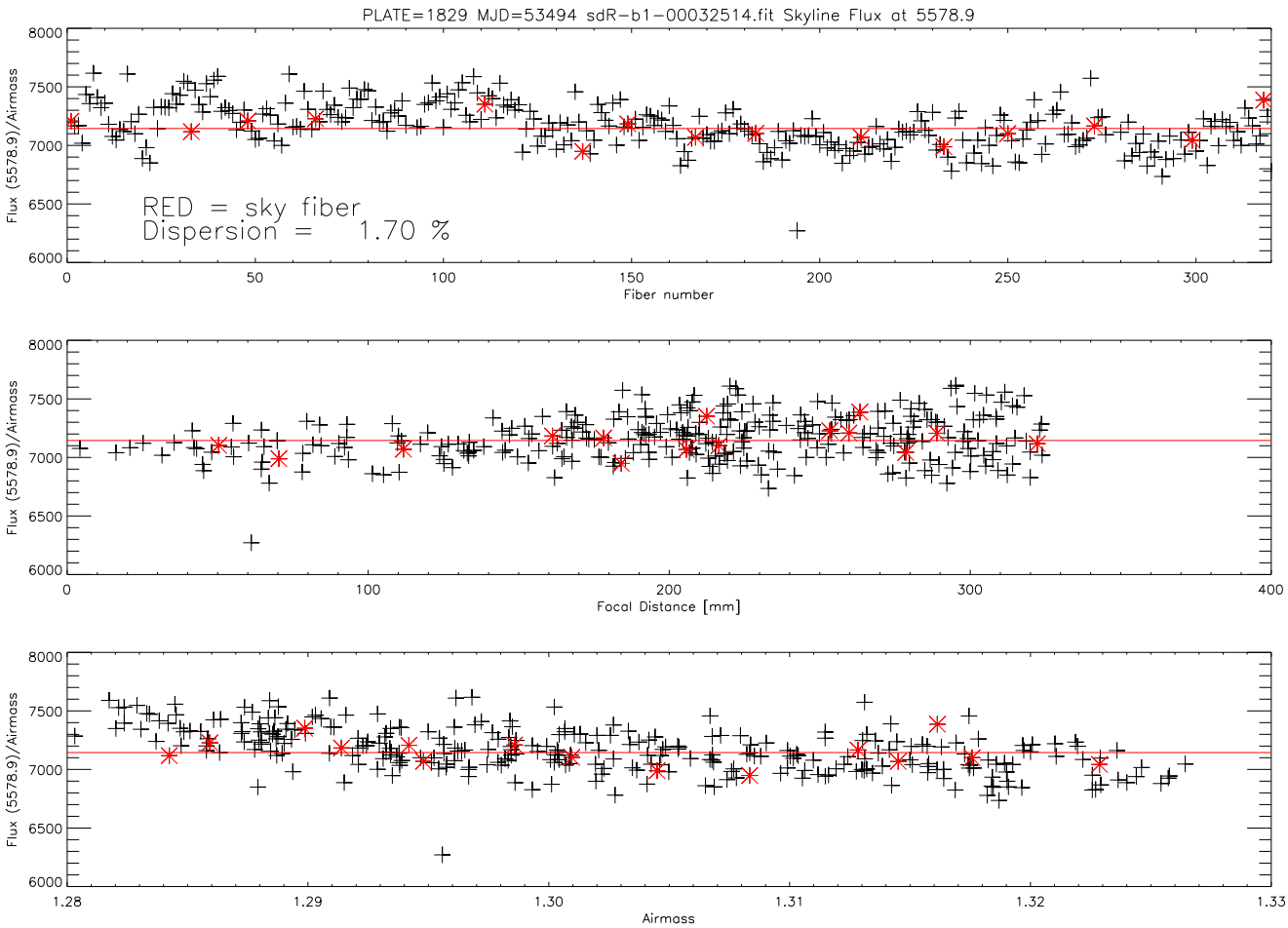

PLATE=1829 MJD=53494 sdR-b1-00032514.fit 2D Sky-subtraction Sky Fiber
Median $\chi^2$
0.0
0.1
0.2
0.3
0.4
0.5
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-3
-2
-1
0
1
2
3
50
100
150
200
250
300
Fiber number

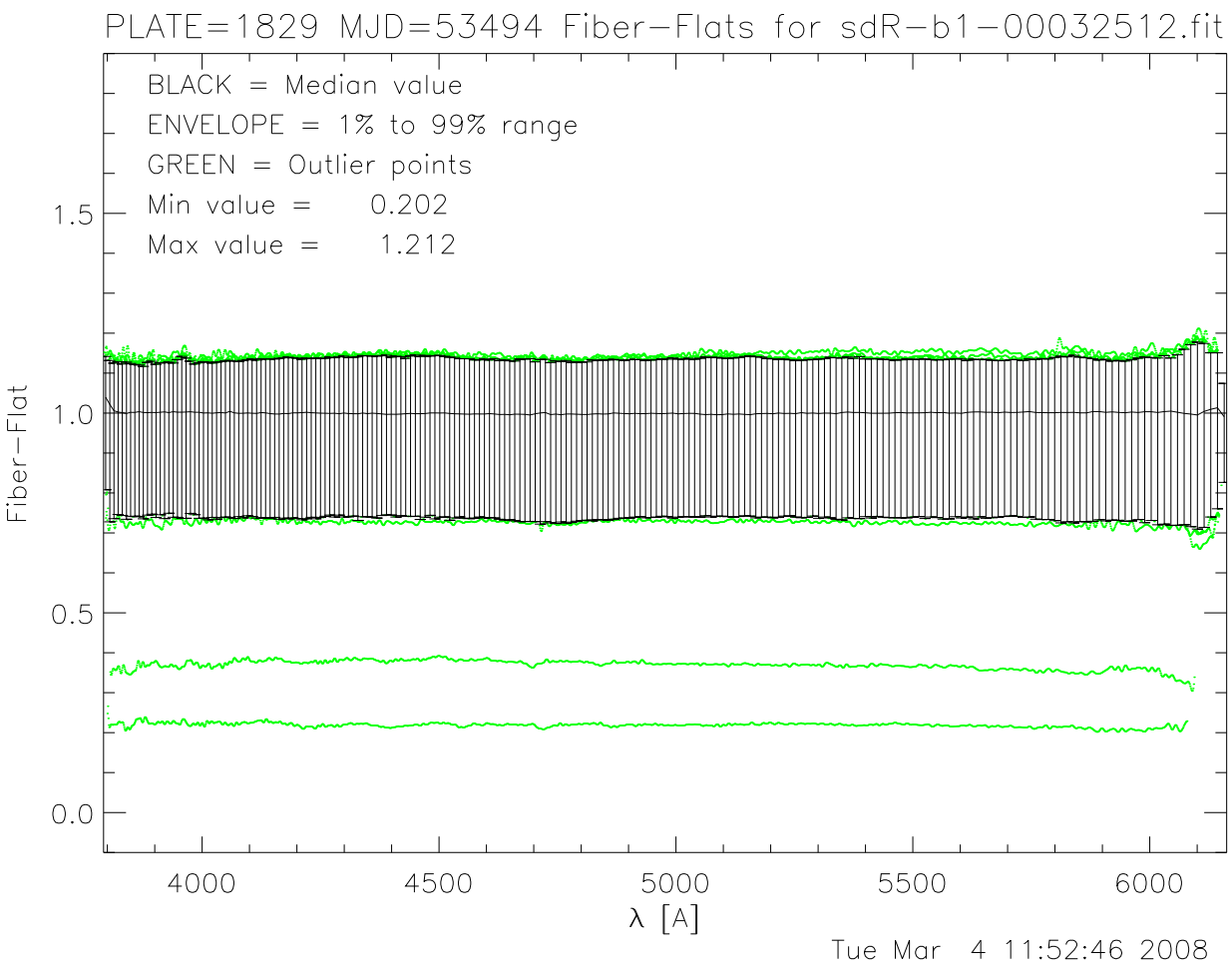

PLATE=1829 MJD=53494 sdR-b1-00032514.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

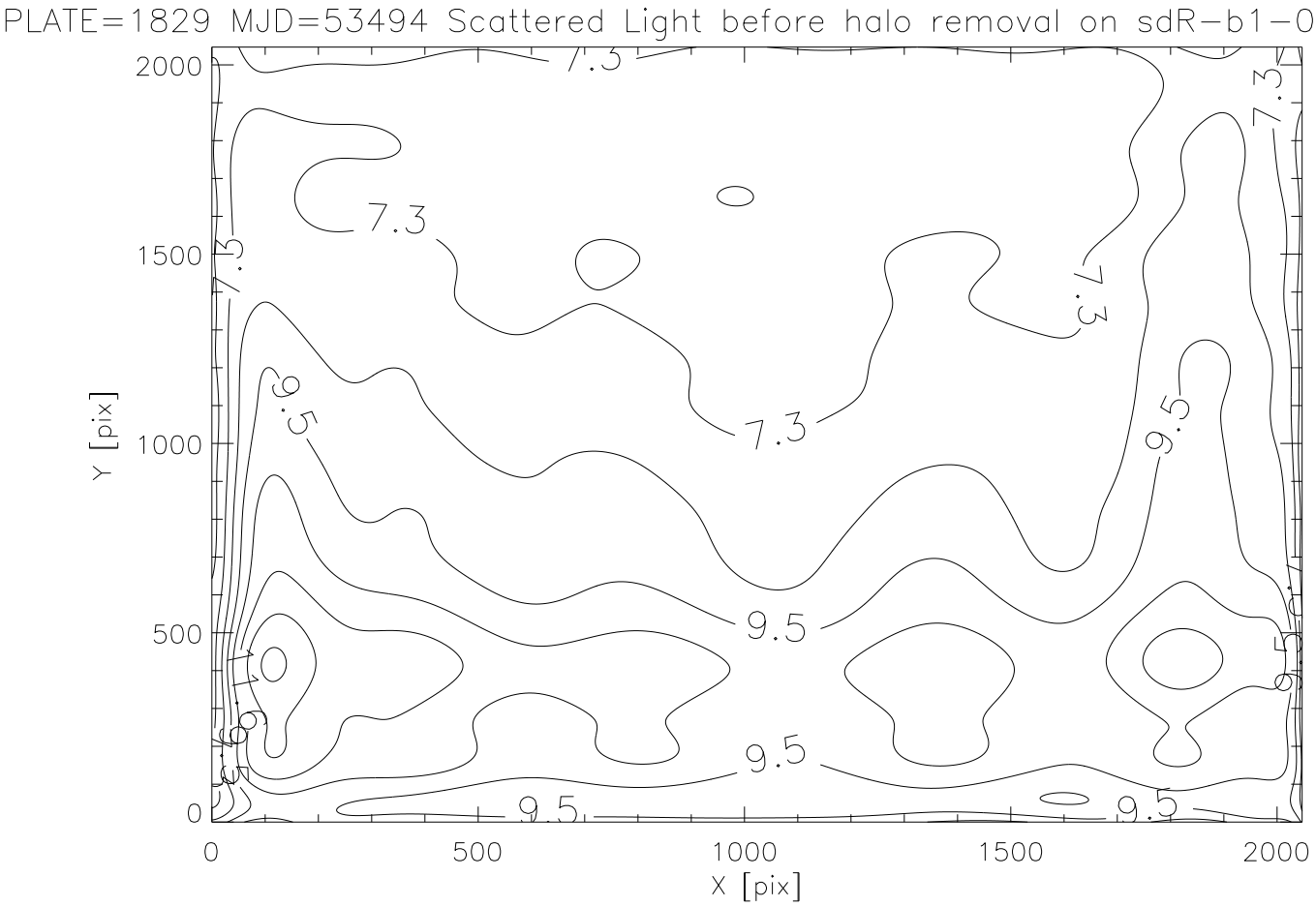

PLATE=1829 MJD=53494 sdR-b1-00032514.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
5570
5575
5580
5585
5590
λ [A]

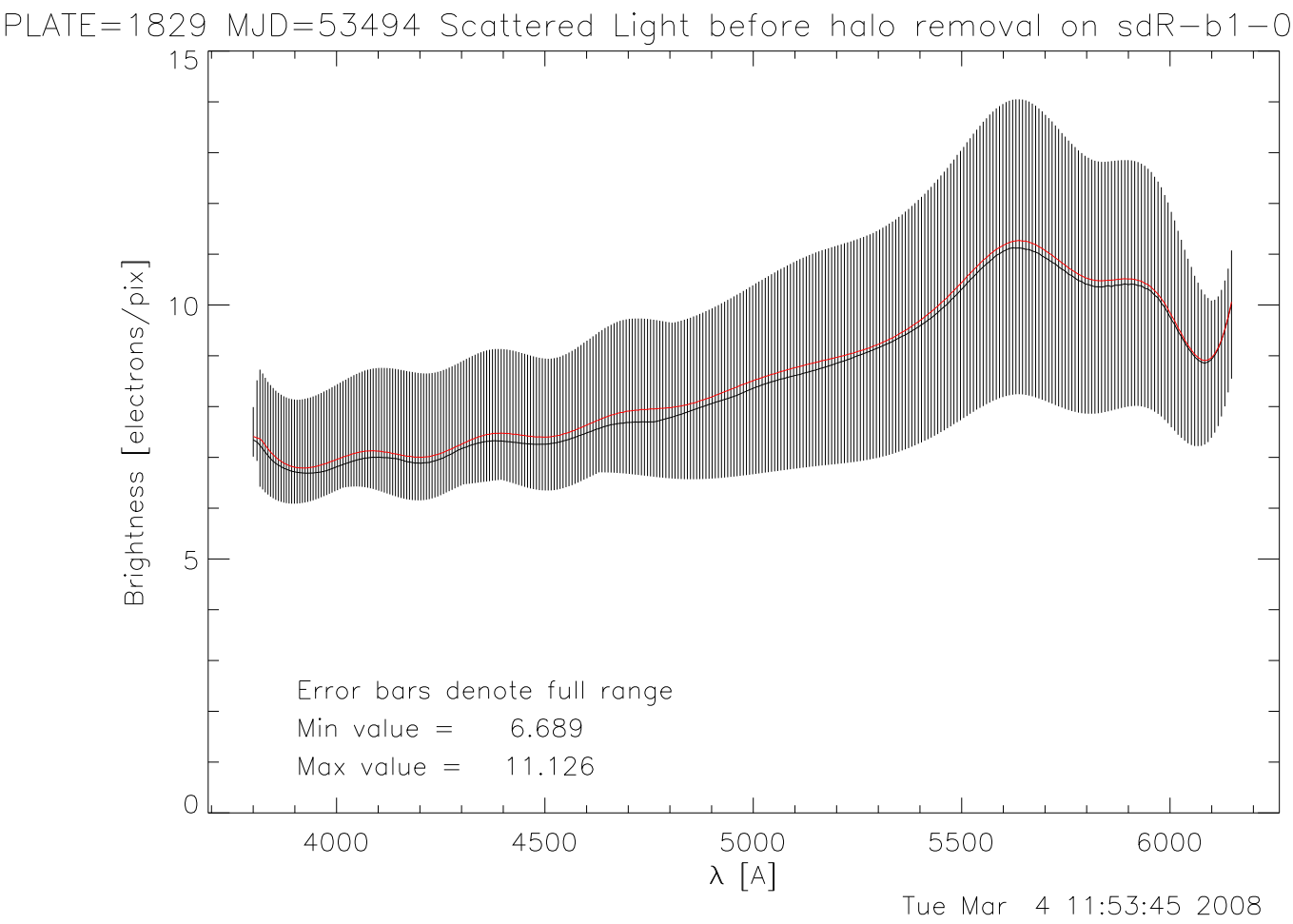

Number of sky fibers = 15
PLATE=1829 MJD=53494 sdR-b1-00032514.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

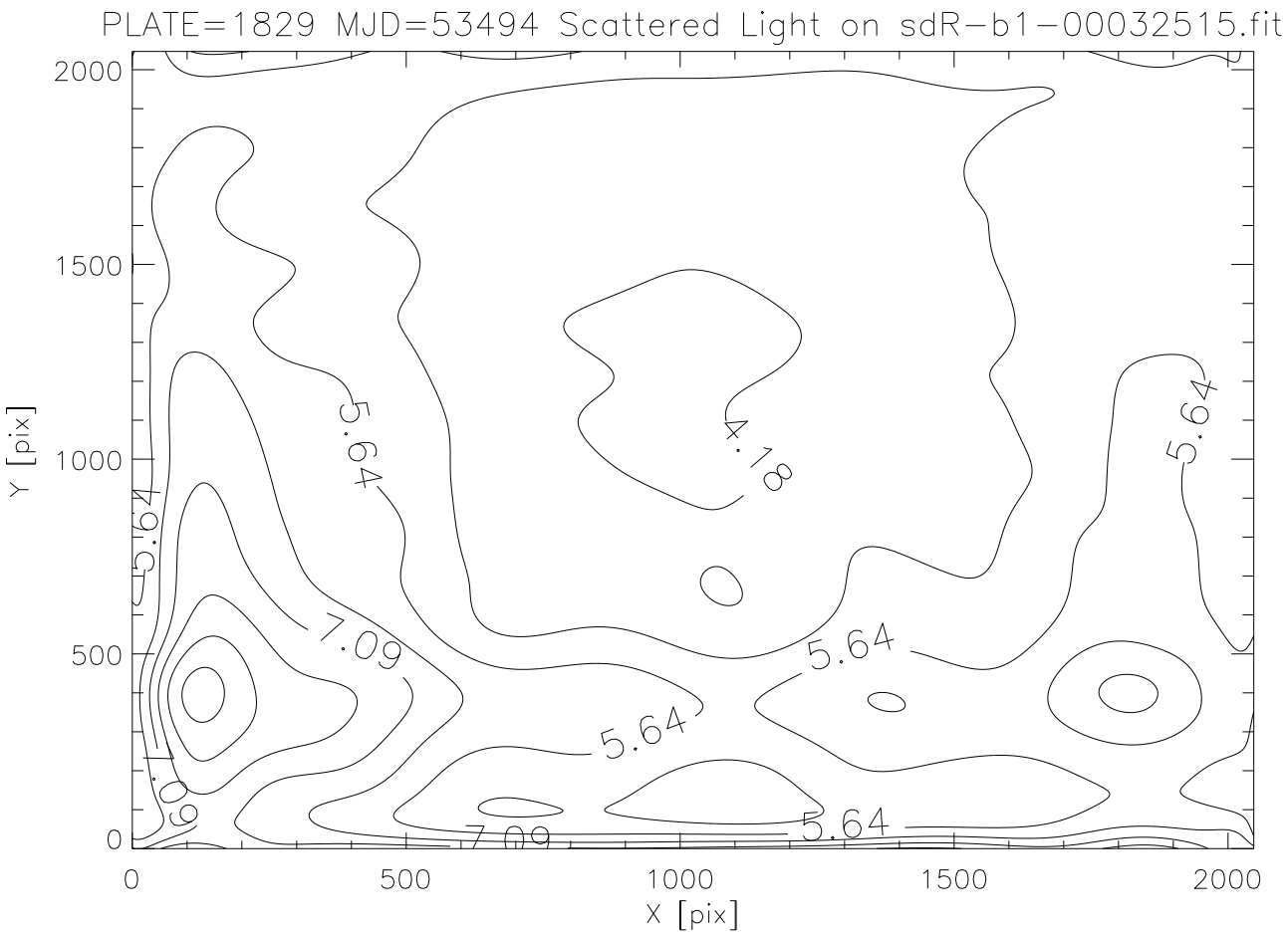

PLATE=1829 MJD=53494 sdR-b1-00032514.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 15.37 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

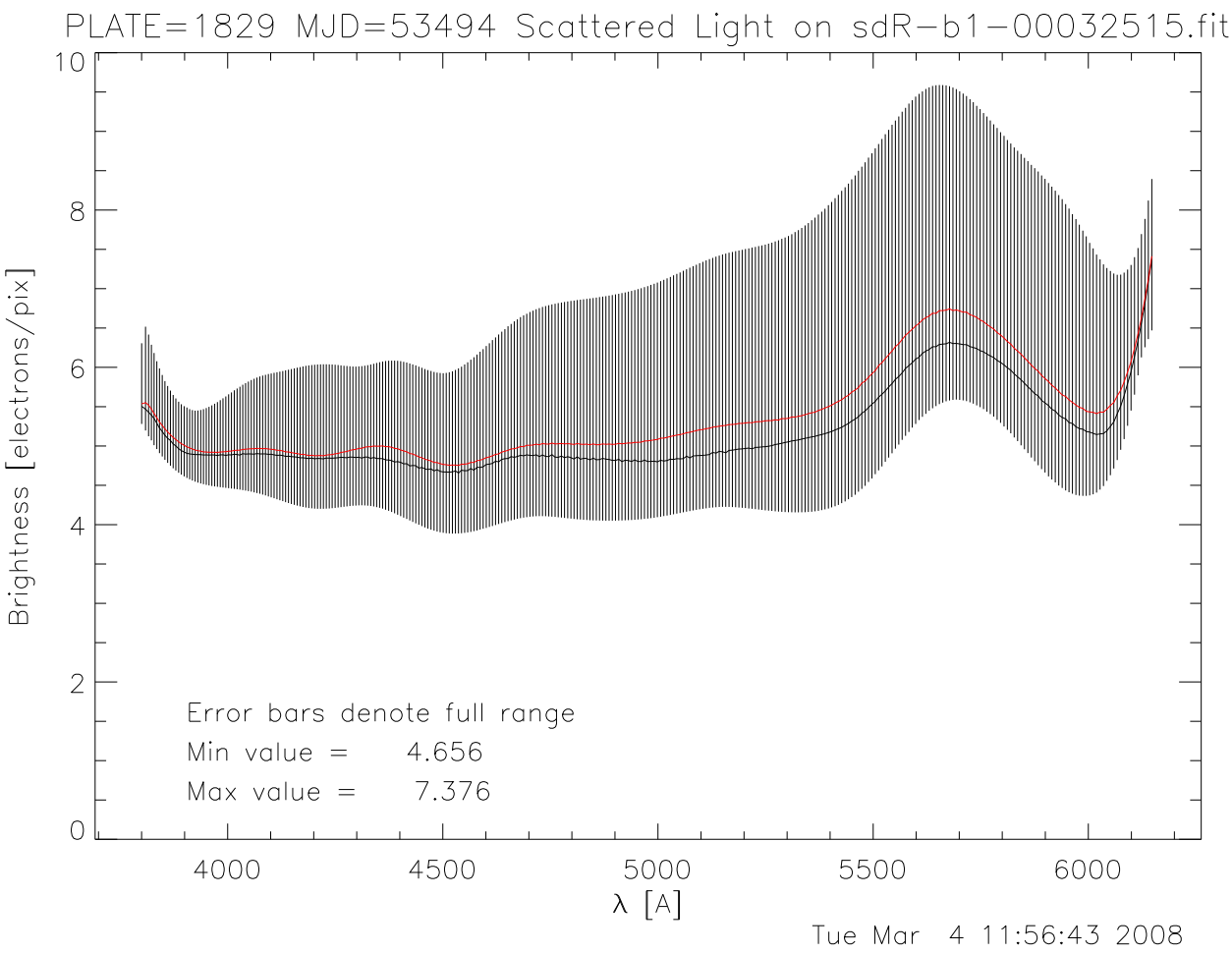

PLATE=1829 MJD=53494 sdR-b1-00032514.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 1.70 %
Fiber number
Flux (5578.9)/Airmass
Focal Distance [mm]
Flux (5578.9)/Airmass
Airmass

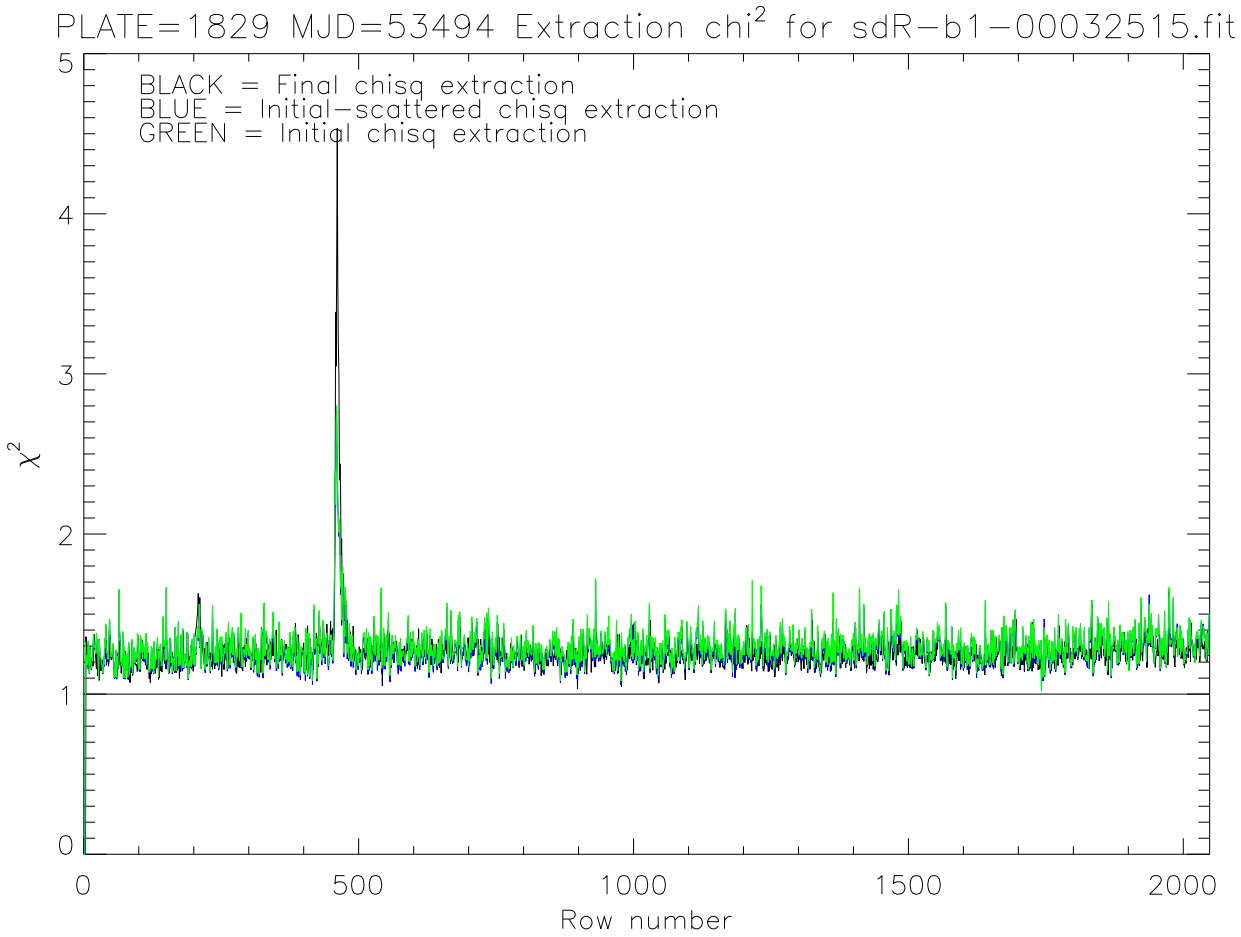

PLATE=1829 MJD=53494 Fiber−Flats for sdR−b1−00032512.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.202
Max value = 1.212
Fiber−Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Tue Mar 4 11:52:46 2008

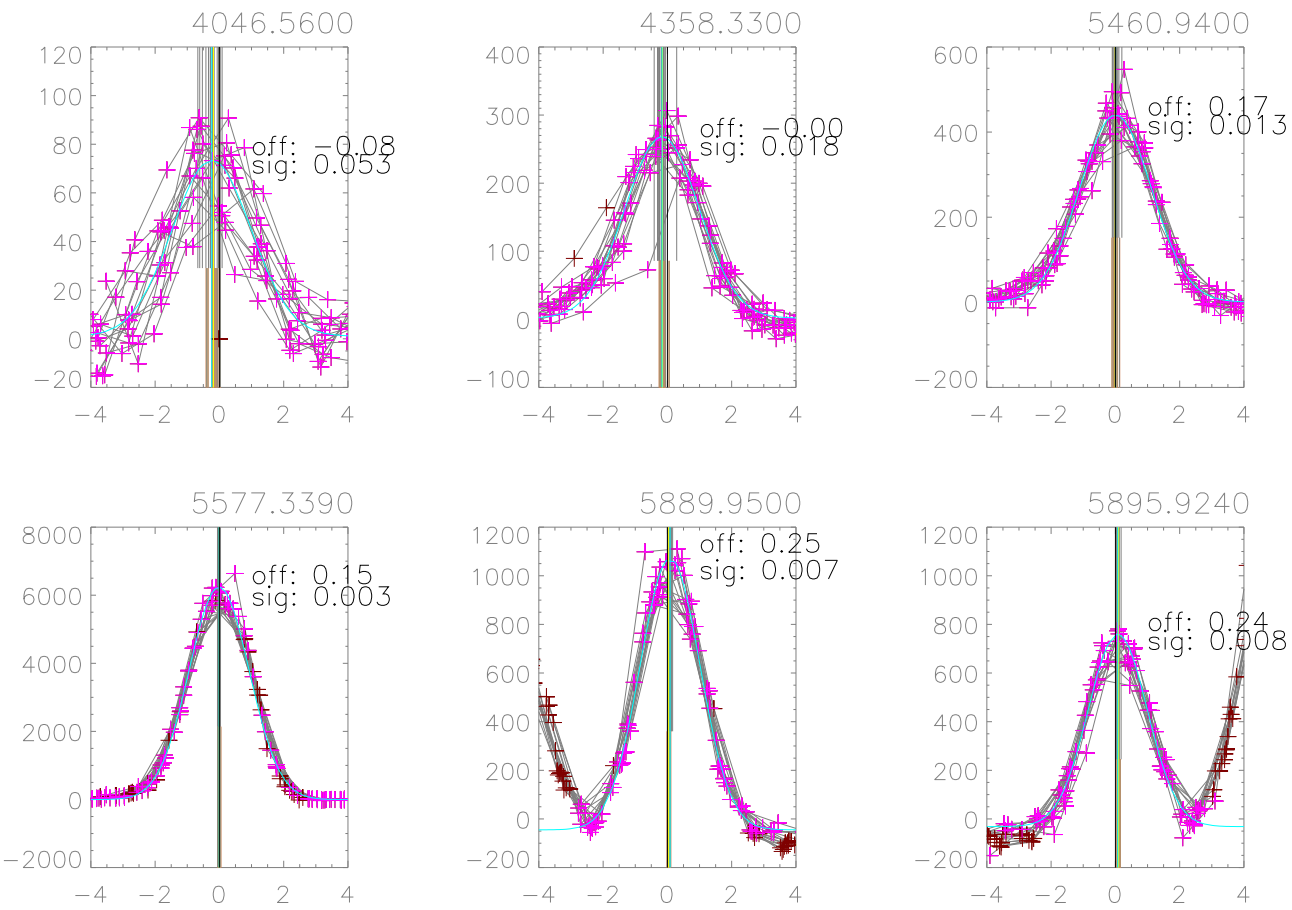

PLATE=1829 MJD=53494 Scattered Light before halo removal on sdR-b1-00032515.f
7.3
9.5
Y [pix]
X [pix]
0
500
1000
1500
2000

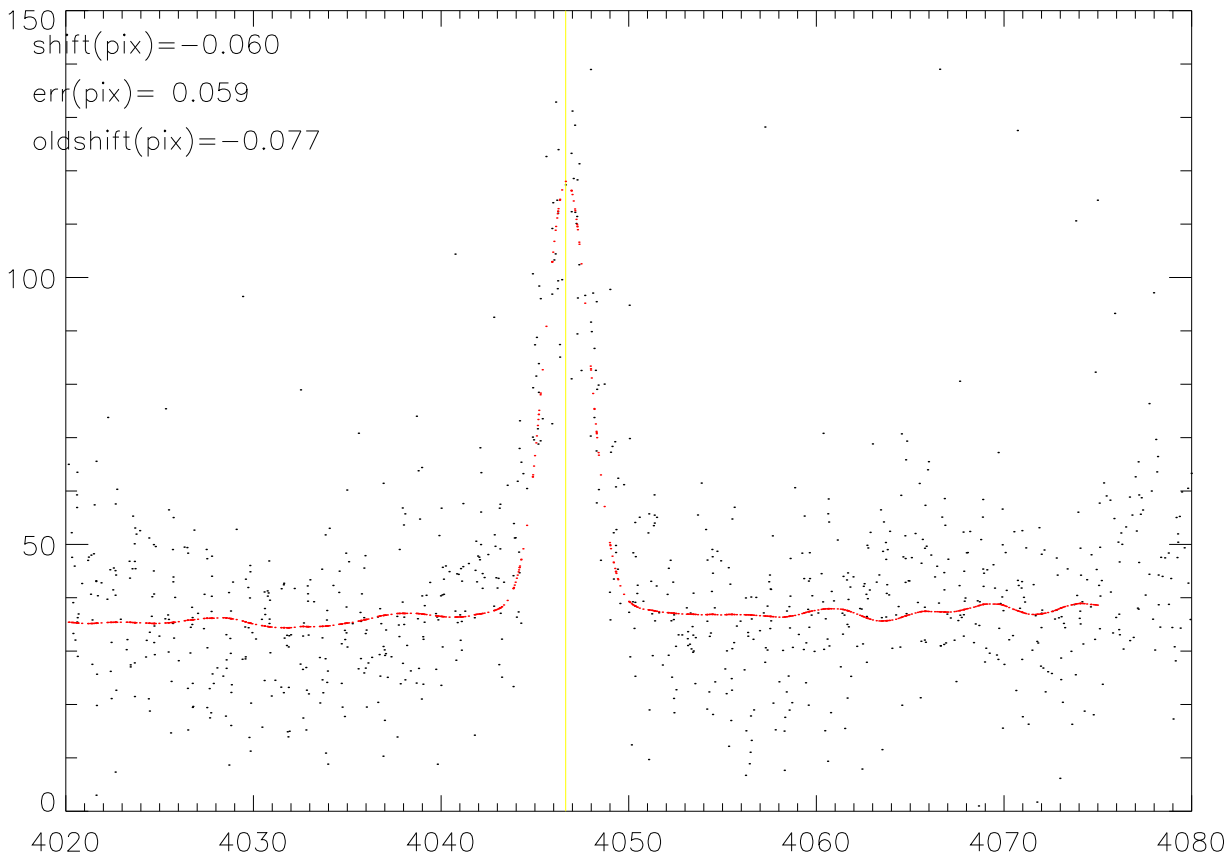

PLATE=1829 MJD=53494 Scattered Light before halo removal on sdR-b1-00032515.f
Brightness [electrons/pix]
15
10
5
0
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 6.689
Max value = 11.126
Tue Mar 4 11:53:45 2008

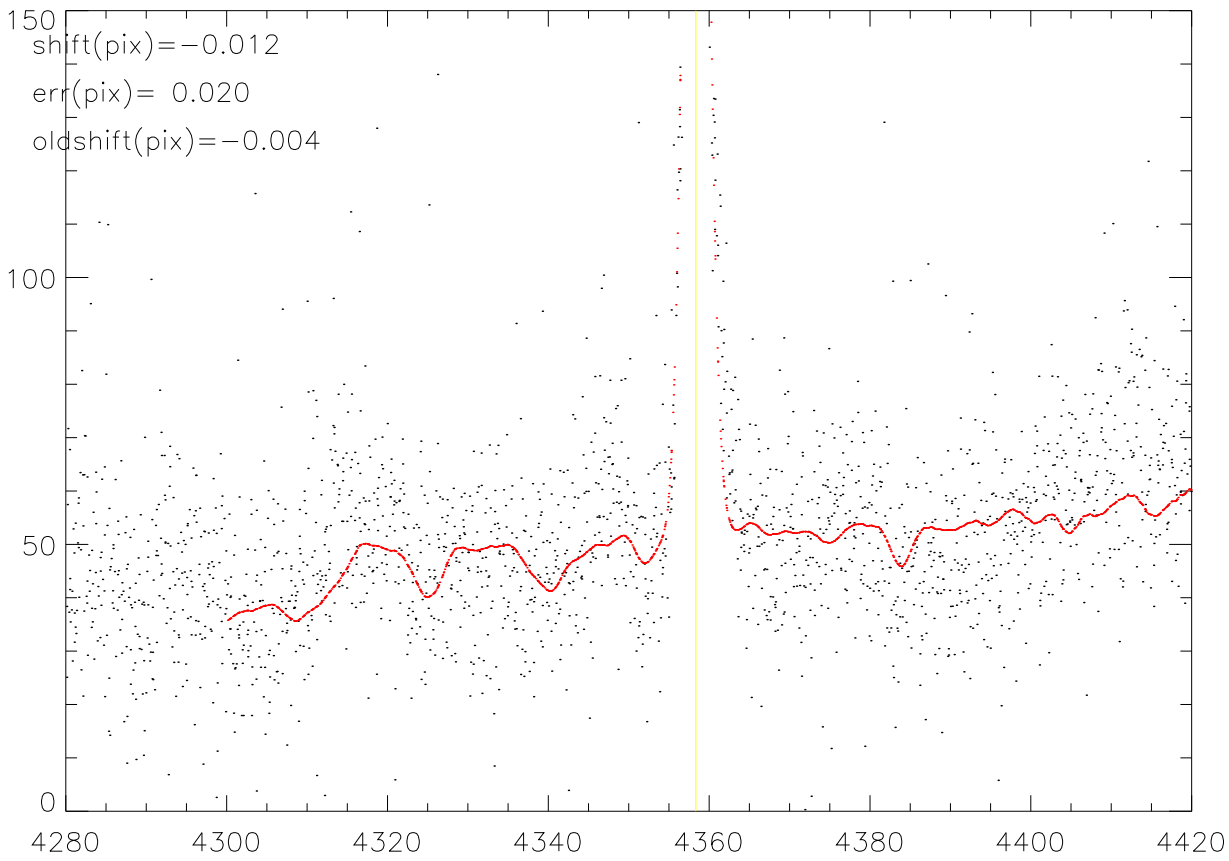

PLATE=1829 MJD=53494 Scattered Light on sdR-b1-00032515.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
5.64
4.18
7.09

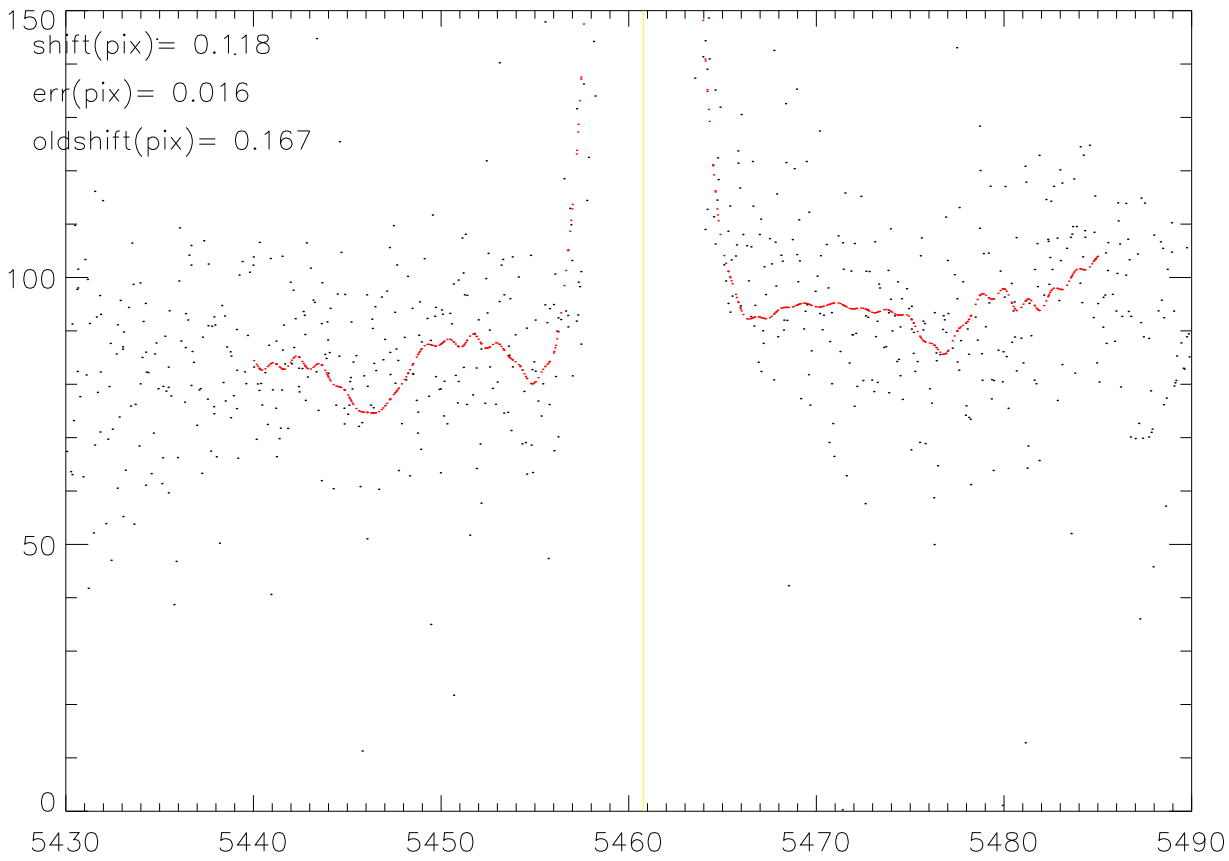

PLATE=1829 MJD=53494 Scattered Light on sdR-b1-00032515.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 4.656
Max value = 7.376
Tue Mar 4 11:56:43 2008

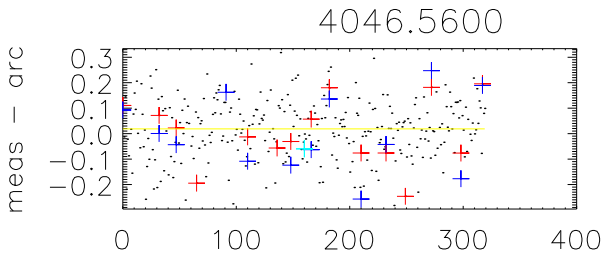

PLATE=1829 MJD=53494 Extraction chi$^2$ for sdR-b1-00032515.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
$\chi^2$
0
1
2
3
4
5
0
500
1000
1500
2000
Row number

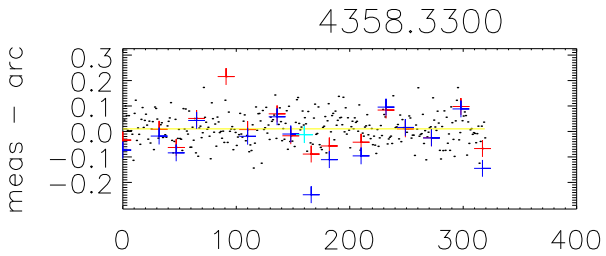

4046.5600
off: −0.08
sig: 0.053
4358.3300
off: −0.00
sig: 0.018
5460.9400
off: 0.17
sig: 0.013
5577.3390
off: 0.15
sig: 0.003
5889.9500
off: 0.25
sig: 0.007
5895.9240
off: 0.24
sig: 0.008

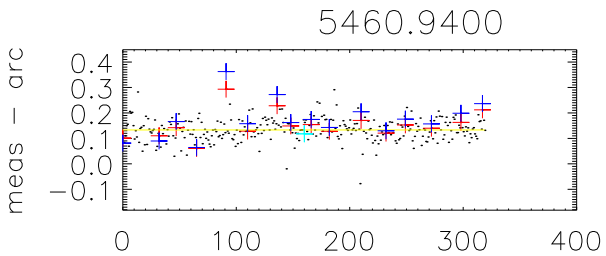

shift(pix)=−0.060
err(pix)= 0.059
oldshift(pix)=−0.077
150
100
50
0
4020
4030
4040
4050
4060
4070
4080

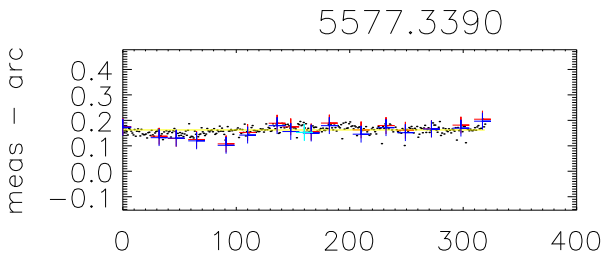

shift(pix)=−0.012
err(pix)= 0.020
oldshift(pix)=−0.004
150
100
50
0
4280
4300
4320
4340
4360
4380
4400
4420

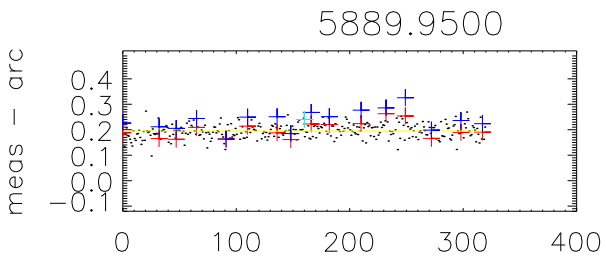

shift(pix)= 0.118
err(pix)= 0.016
oldshift(pix)= 0.167
150
100
50
0
5430
5440
5450
5460
5470
5480
5490

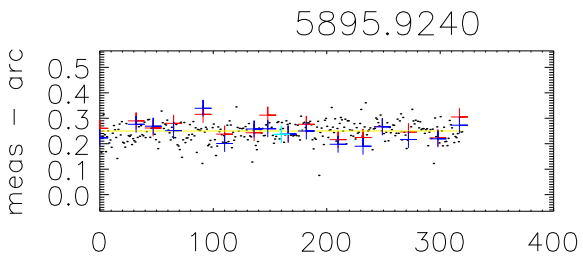

4046.5600
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

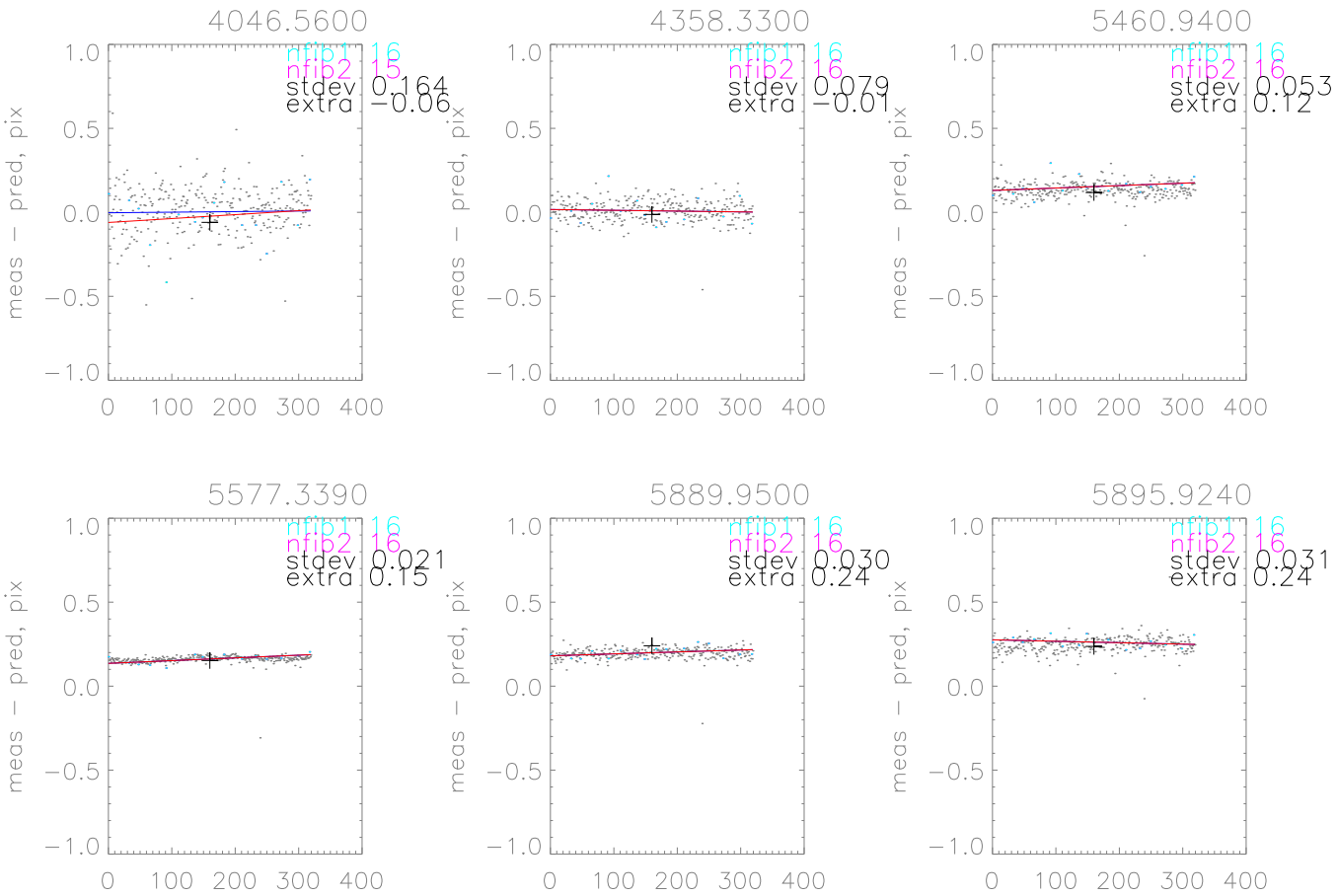

4358.3300
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

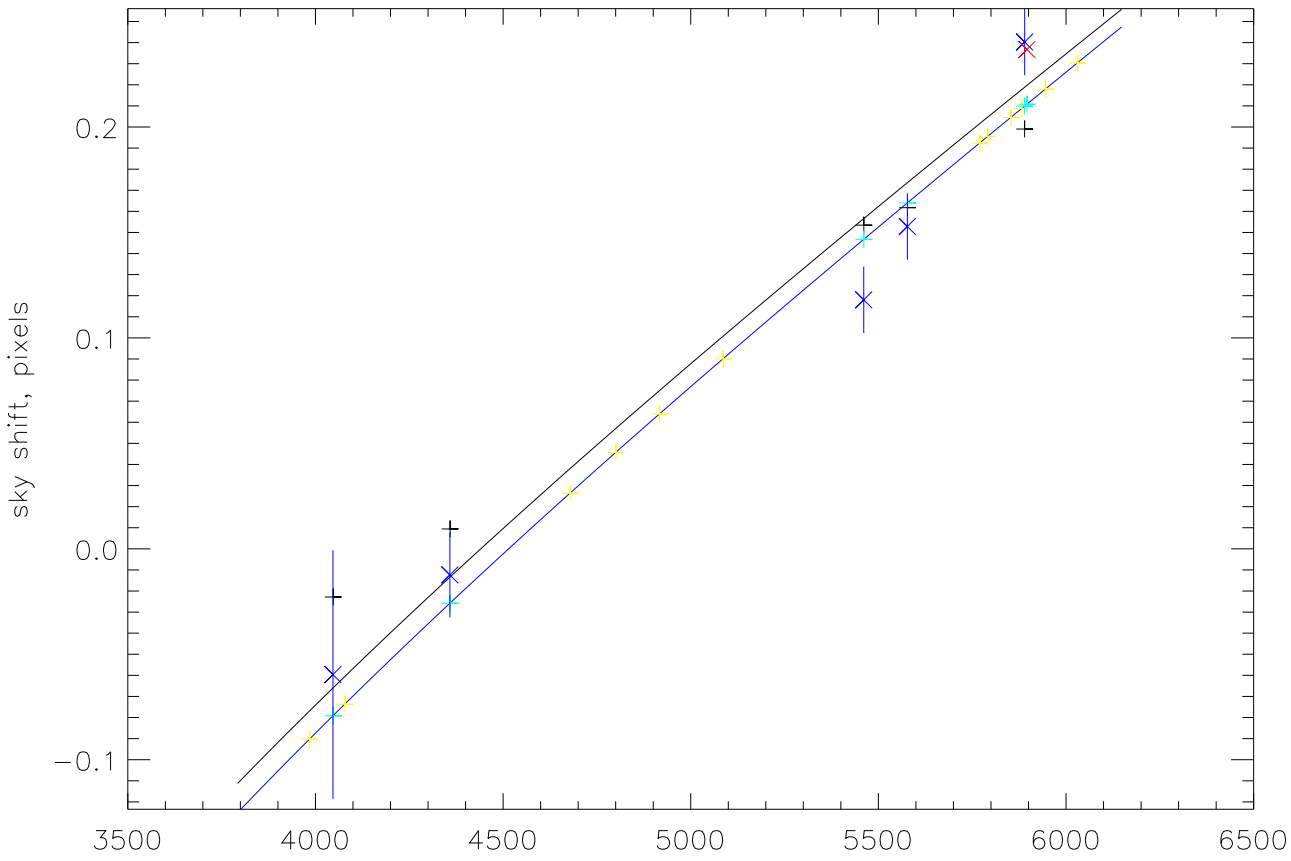

5460.9400
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400


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

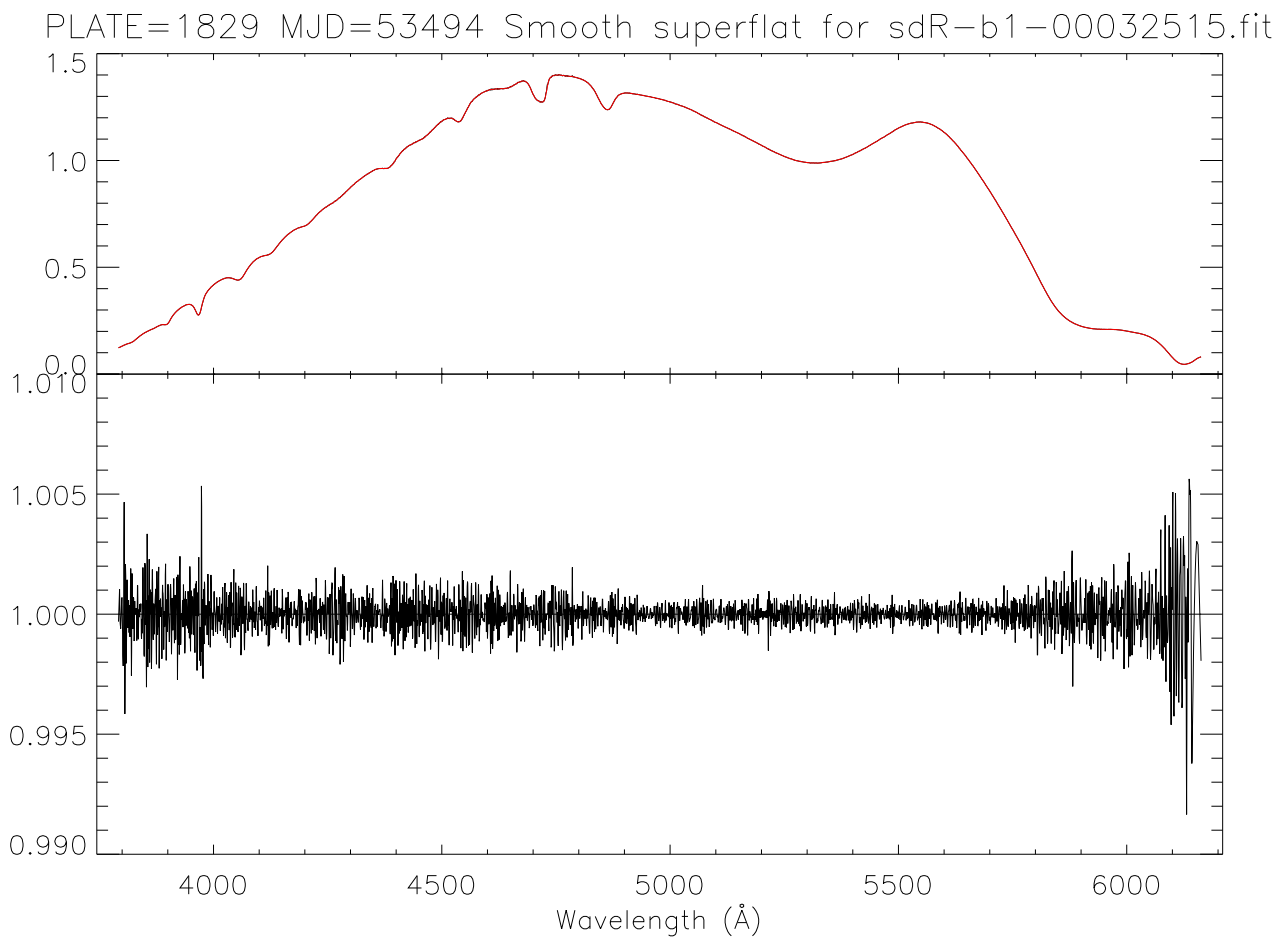

5889.9500
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

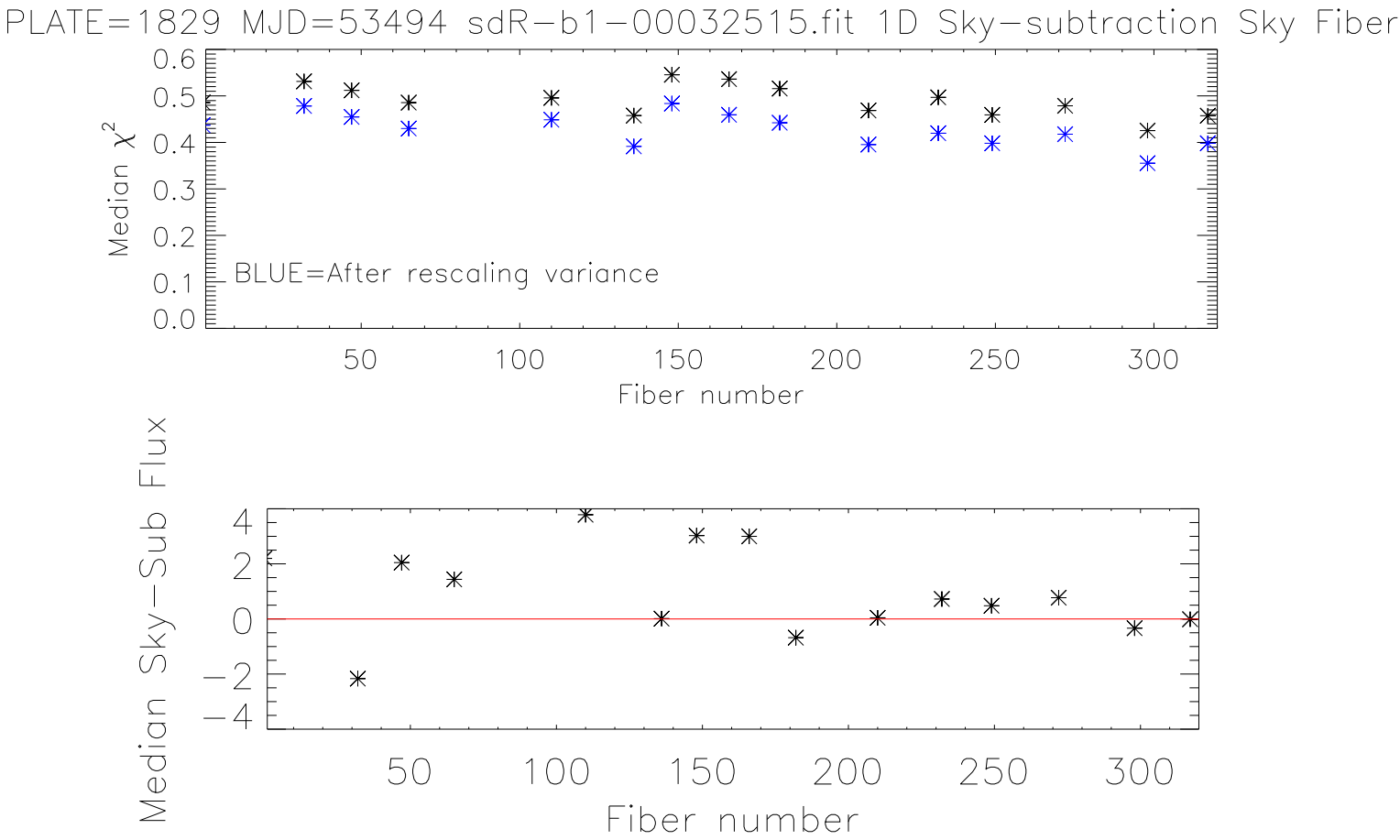

5895.9240
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

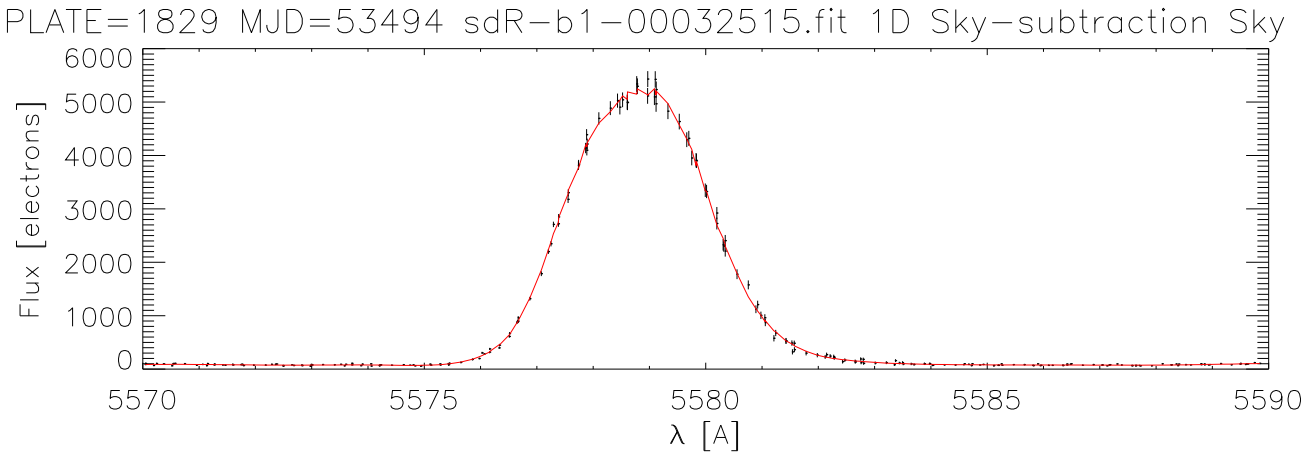

4046.5600
nfib1 16
nfib2 15
stdev 0.164
extra −0.06
4358.3300
nfib1 16
nfib2 16
stdev 0.079
extra −0.01
5460.9400
nfib1 16
nfib2 16
stdev 0.053
extra 0.12
5577.3390
nfib1 16
nfib2 16
stdev 0.021
extra 0.15
5889.9500
nfib1 16
nfib2 16
stdev 0.030
extra 0.24
5895.9240
nfib1 16
nfib2 16
stdev 0.031
extra 0.24
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

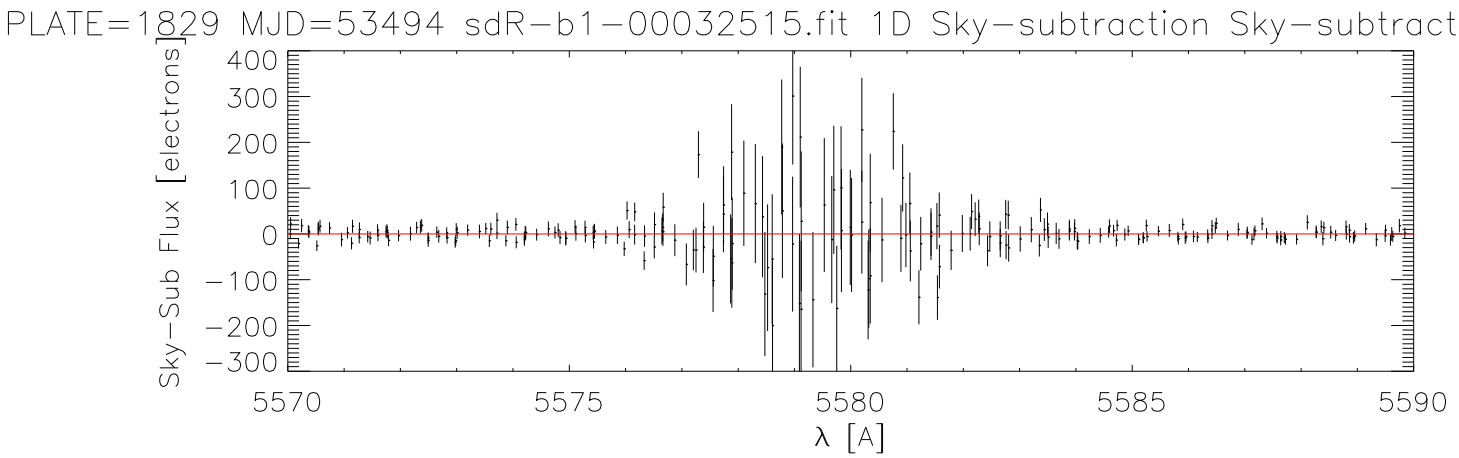

sky shift, pixels
0.2
0.1
0.0
−0.1
3500
4000
4500
5000
5500
6000
6500

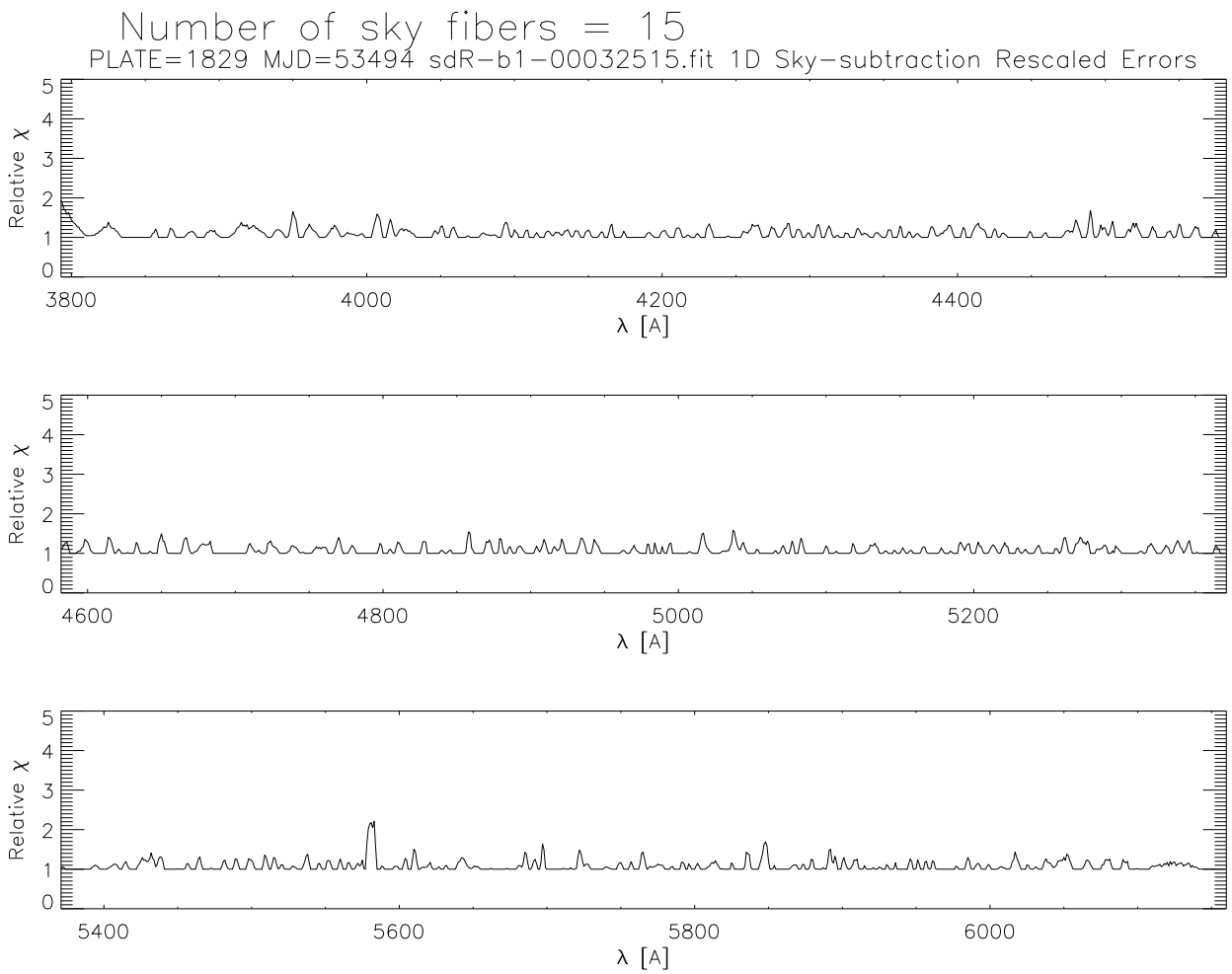
es= 0.0000

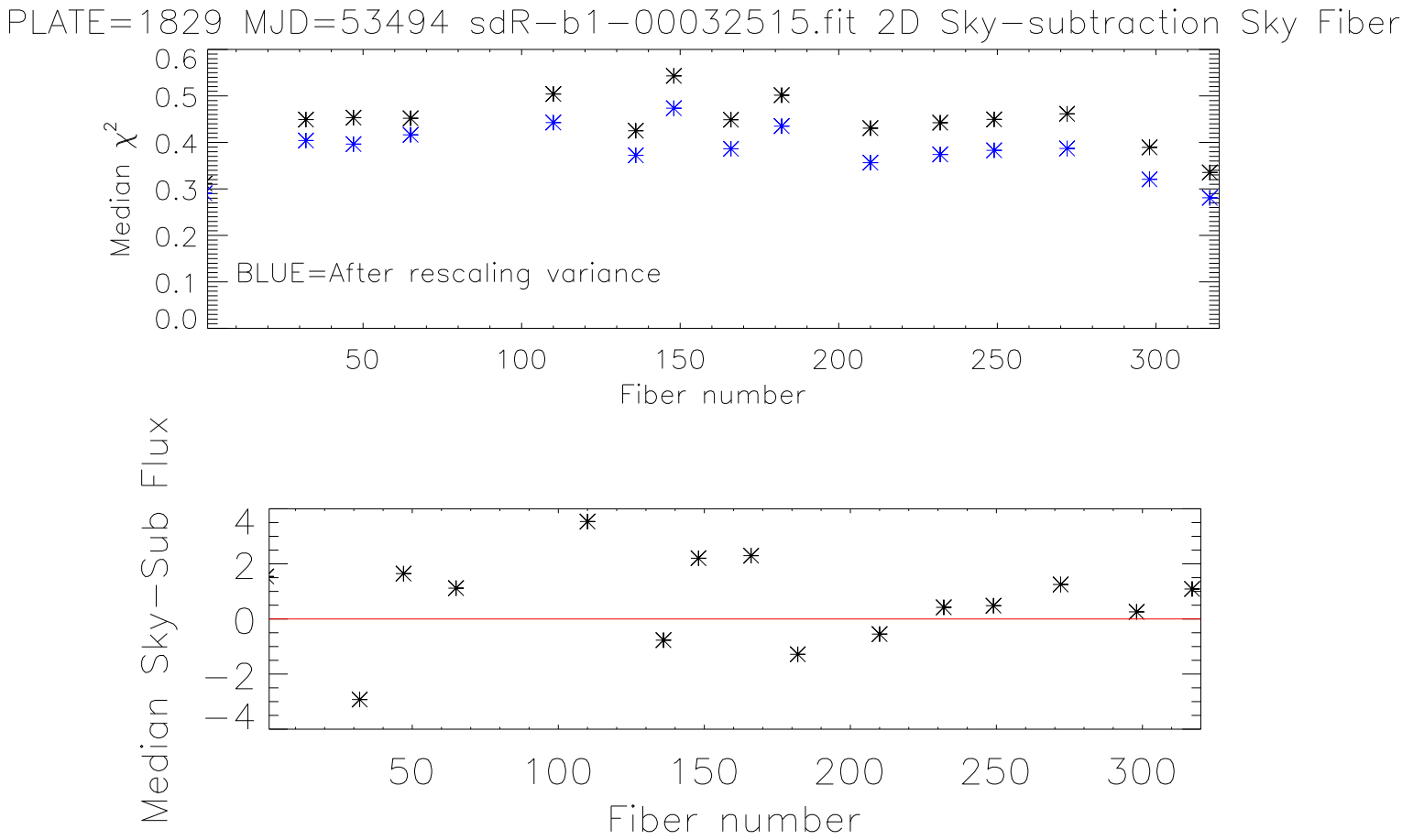

PLATE=1829 MJD=53494 Smooth superflat for sdR-b1-00032515.fit
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
4000
4500
5000
5500
6000
Wavelength (Å)

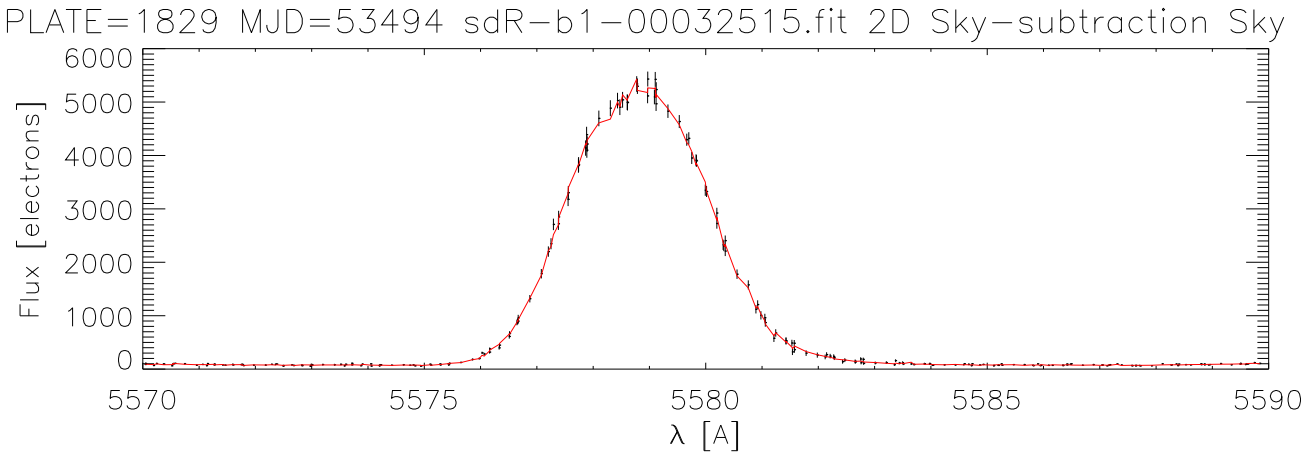

PLATE=1829 MJD=53494 sdR-b1-00032515.fit 1D Sky-subtraction Sky Fiber
Median $\chi^2$
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-4
-2
0
2
4
50
100
150
200
250
300
Fiber number

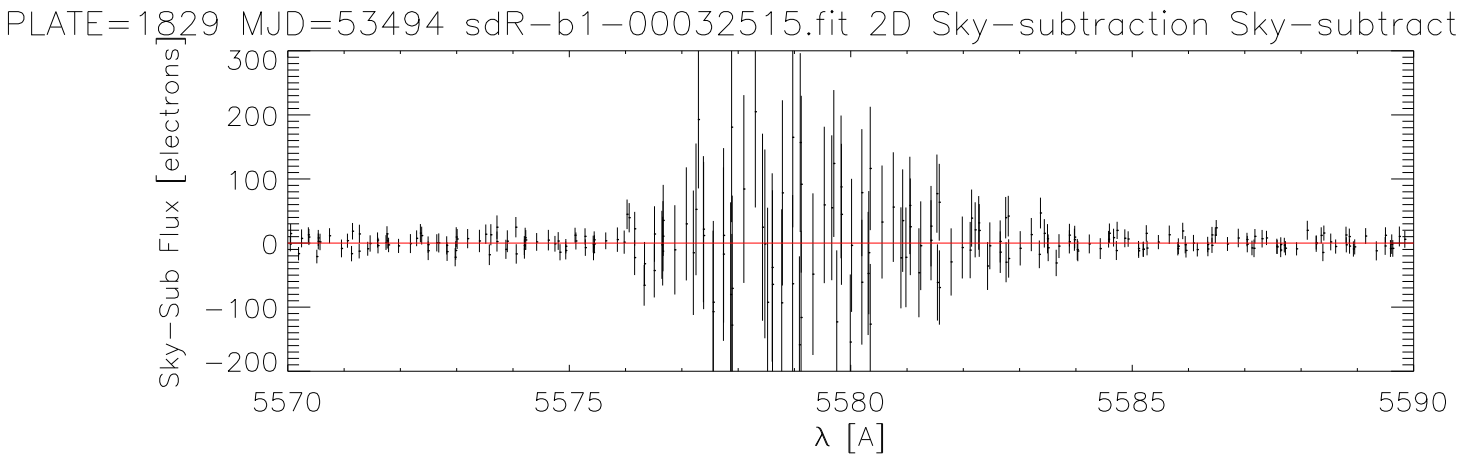

PLATE=1829 MJD=53494 sdR-b1-00032515.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
6000
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

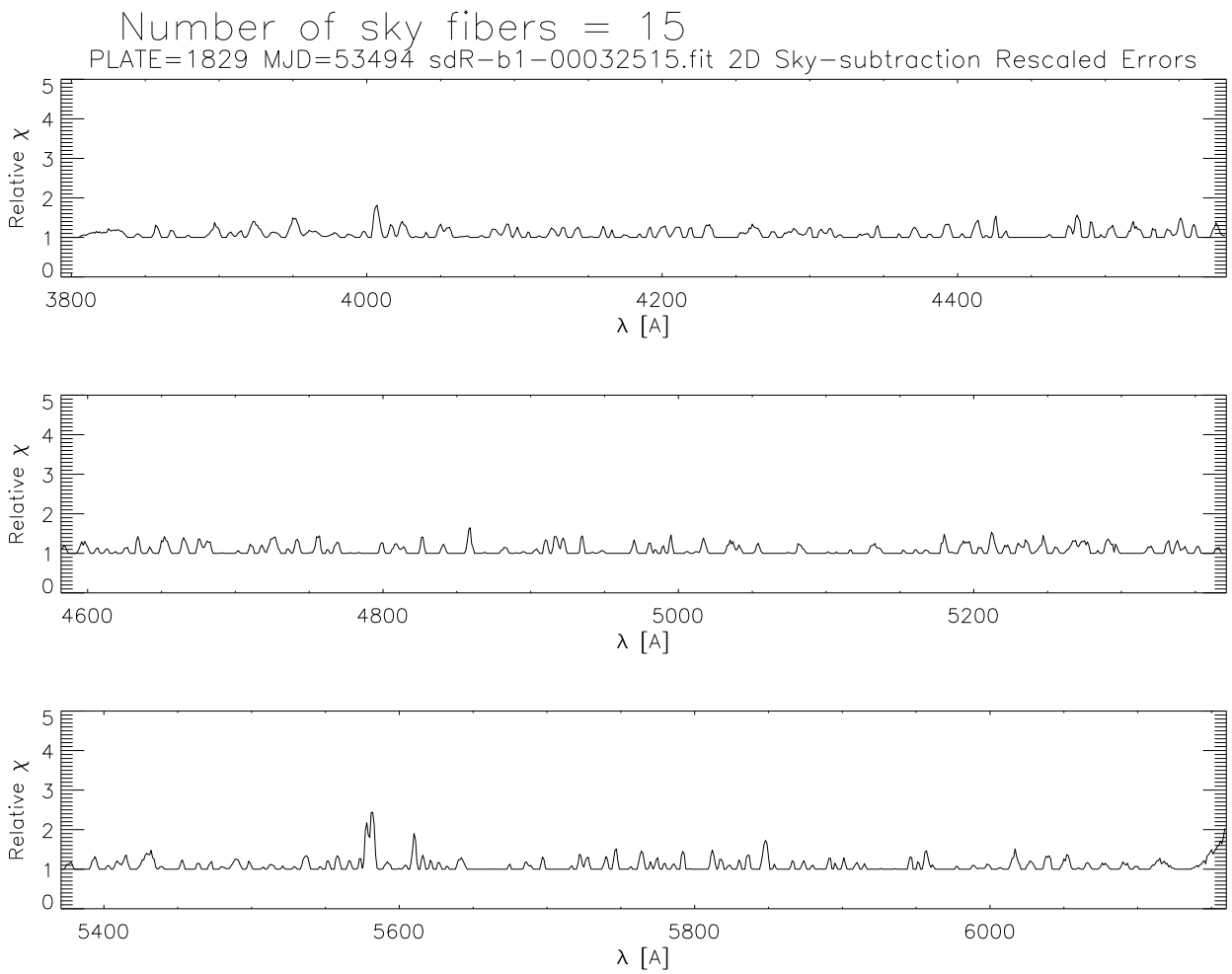

PLATE=1829 MJD=53494 sdR-b1-00032515.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
300
200
100
0
-100
-200
-300
5570
5575
5580
5585
5590
λ [A]

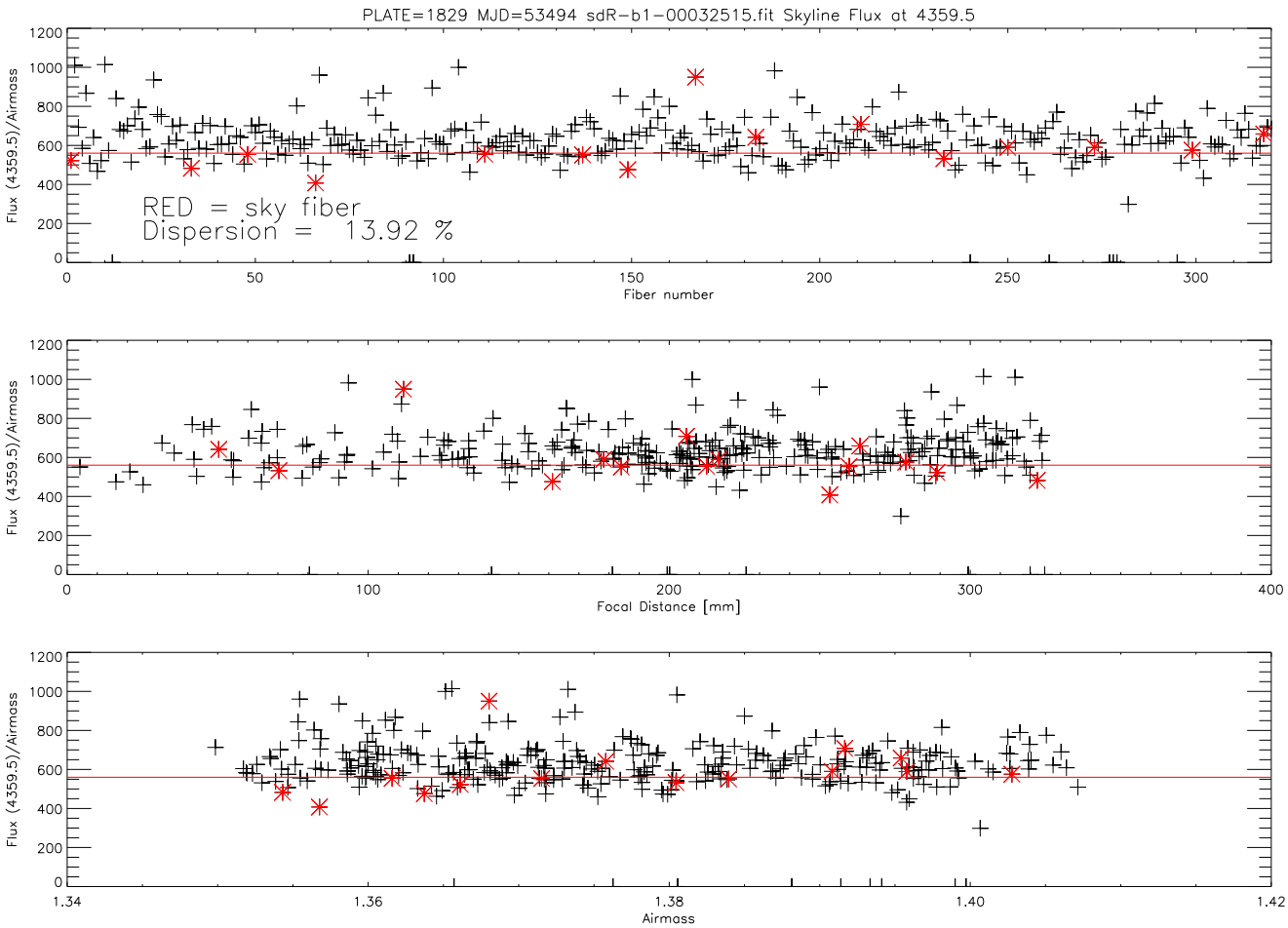

Number of sky fibers = 15
PLATE=1829 MJD=53494 sdR-b1-00032515.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

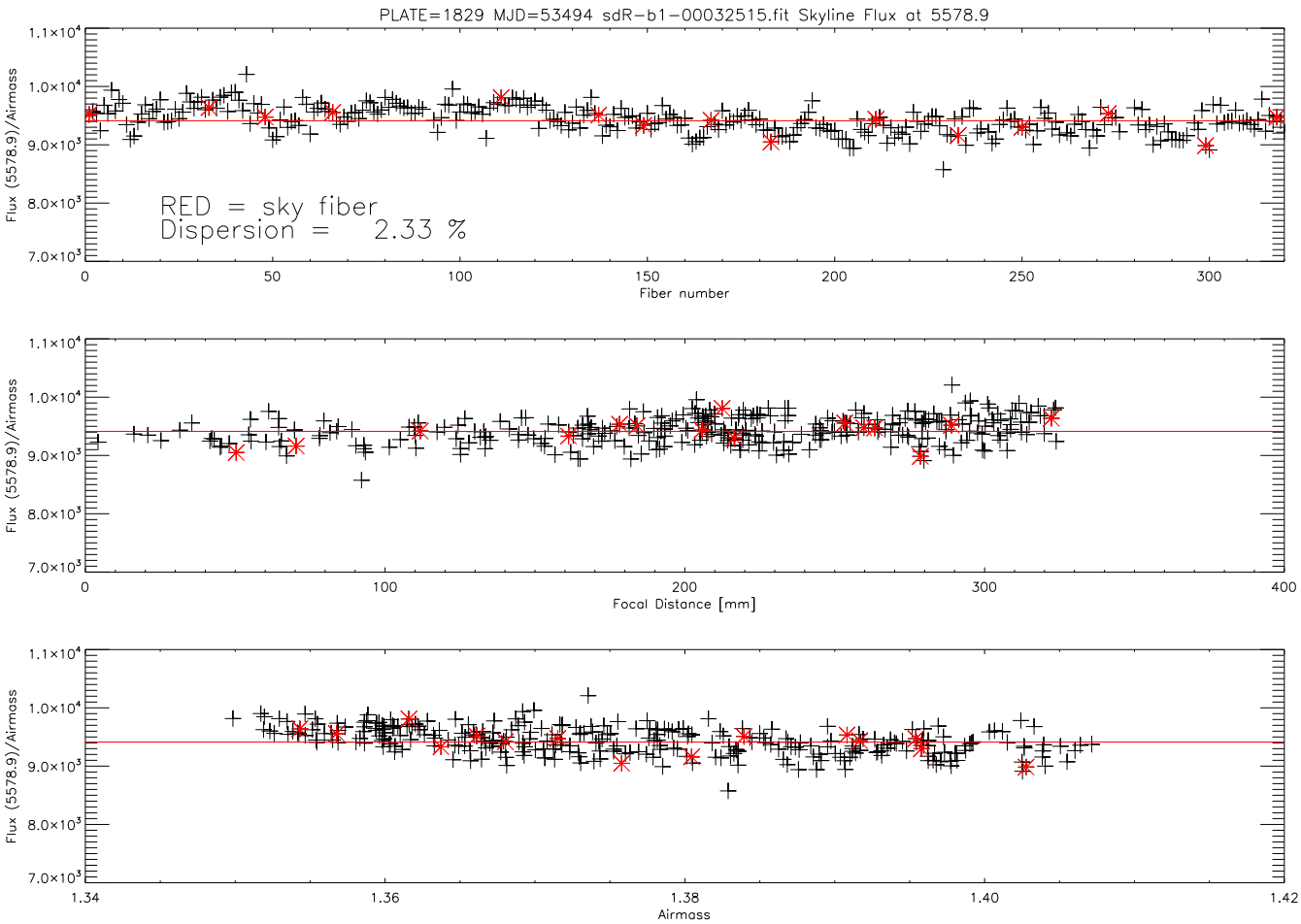

PLATE=1829 MJD=53494 sdR-b1-00032515.fit 2D Sky-subtraction Sky Fiber
Median $\chi^2$
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-4
-2
0
2
4
50
100
150
200
250
300
Fiber number

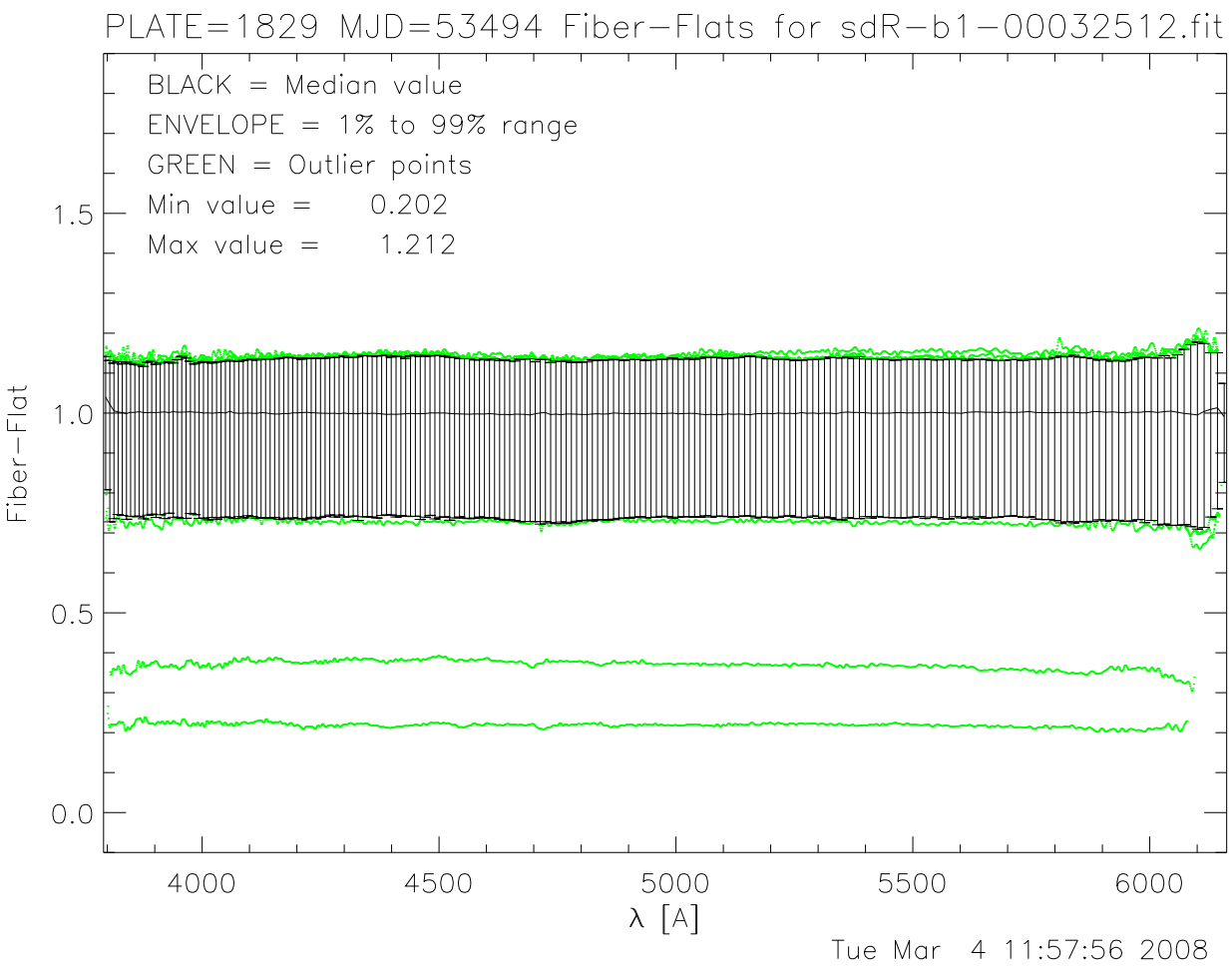

PLATE=1829 MJD=53494 sdR-b1-00032515.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
6000
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

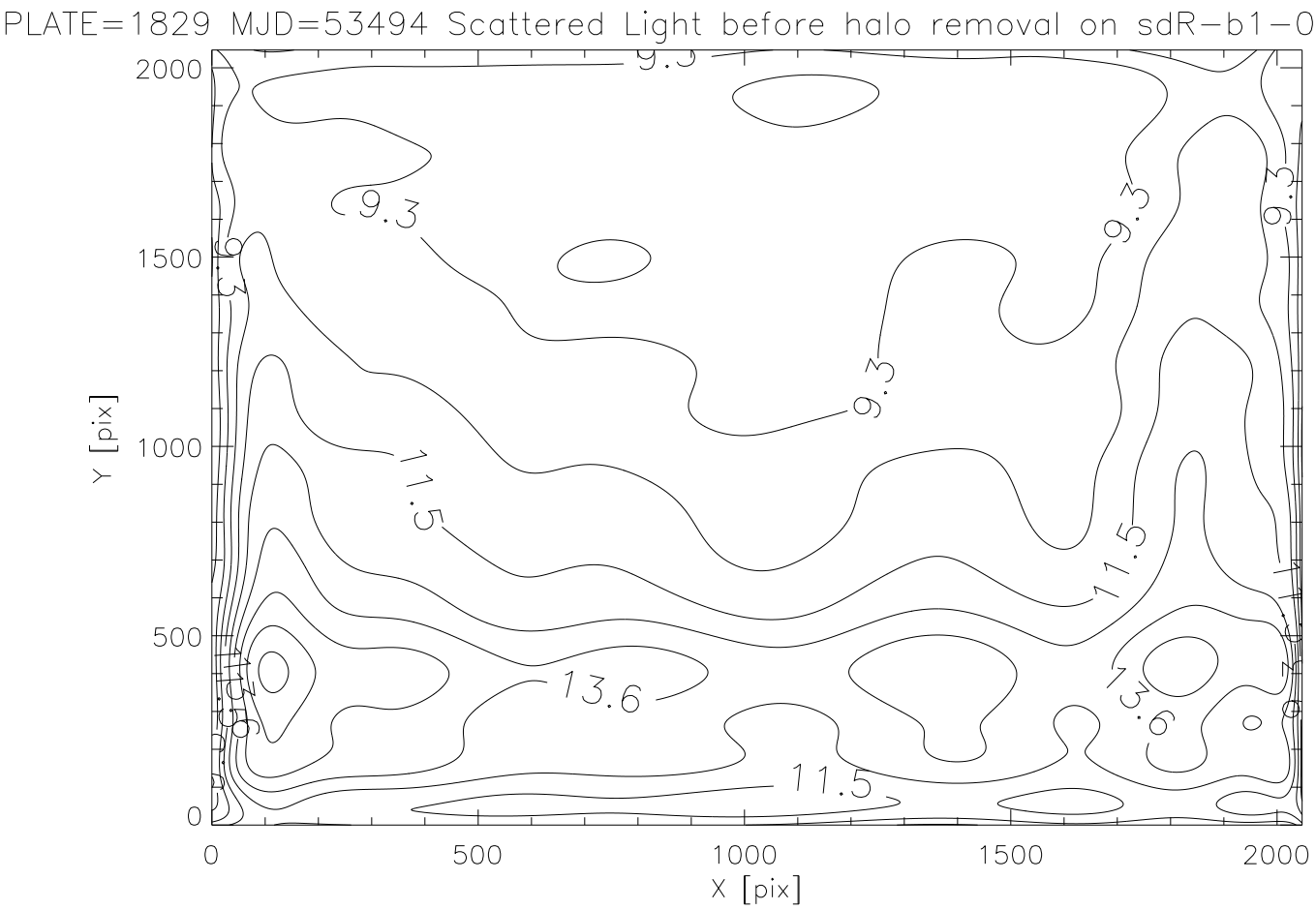

PLATE=1829 MJD=53494 sdR-b1-00032515.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
5570
5575
5580
5585
5590
λ [A]

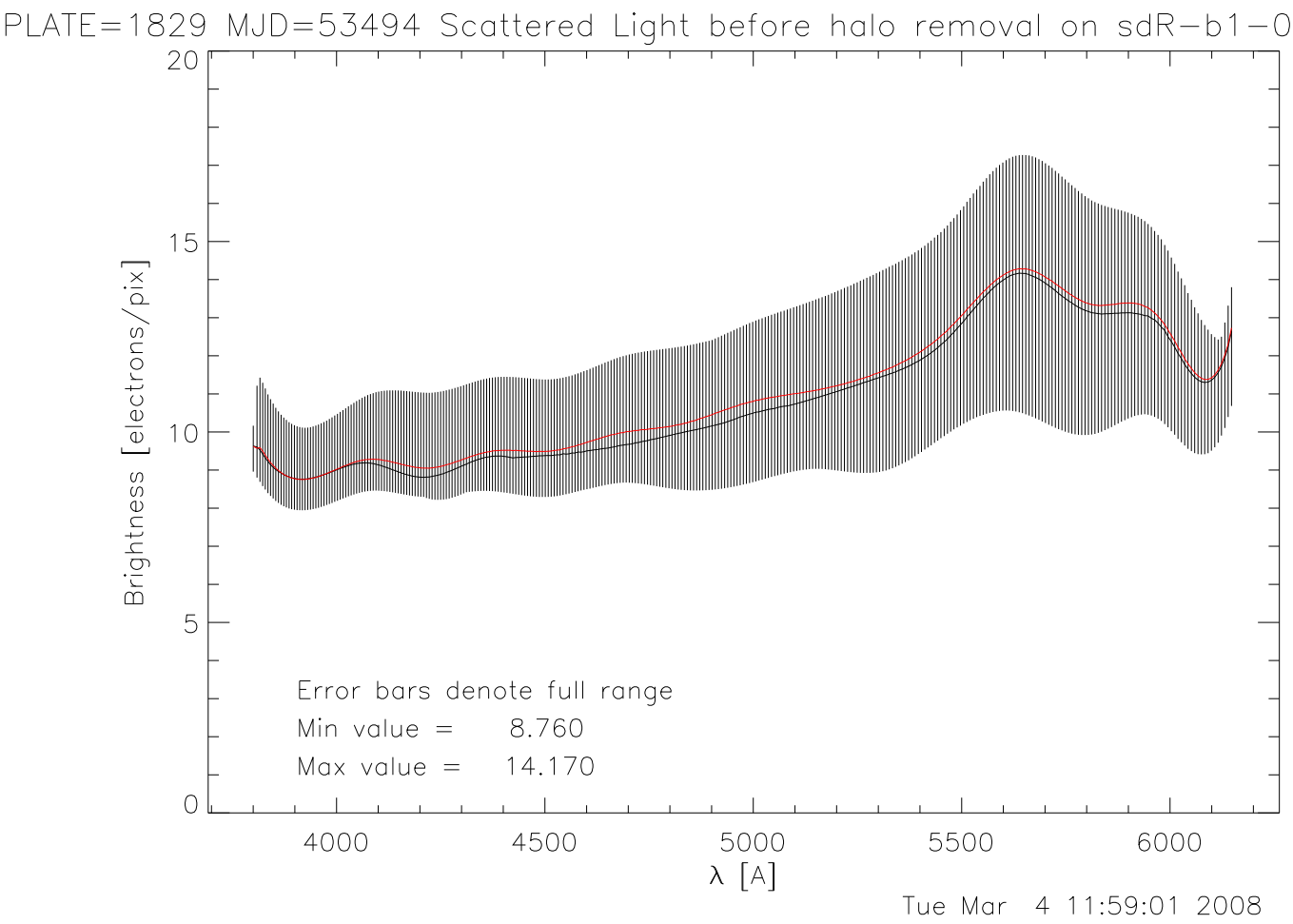

Number of sky fibers = 15
PLATE=1829 MJD=53494 sdR-b1-00032515.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

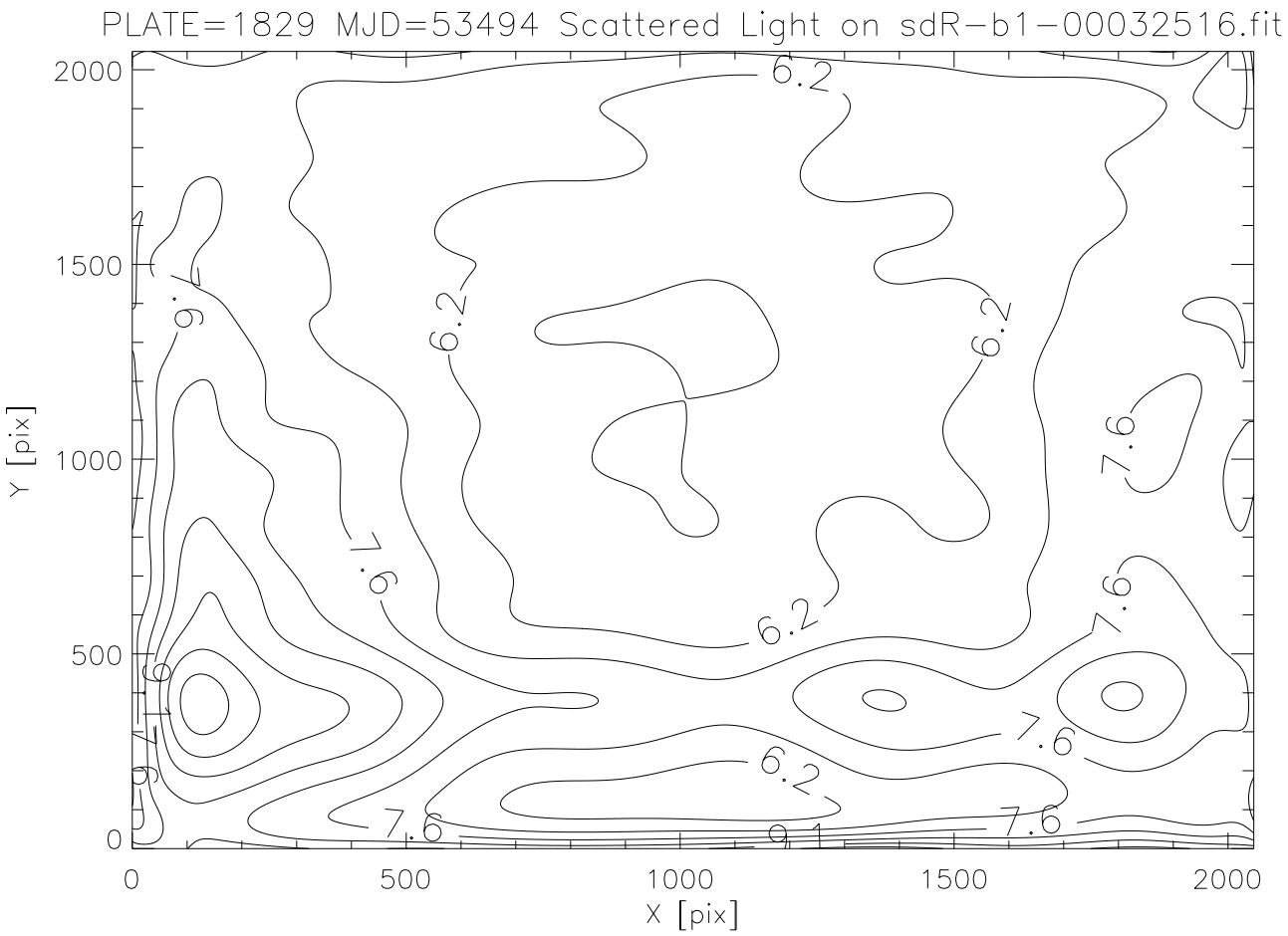

PLATE=1829 MJD=53494 sdR-b1-00032515.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 13.92 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

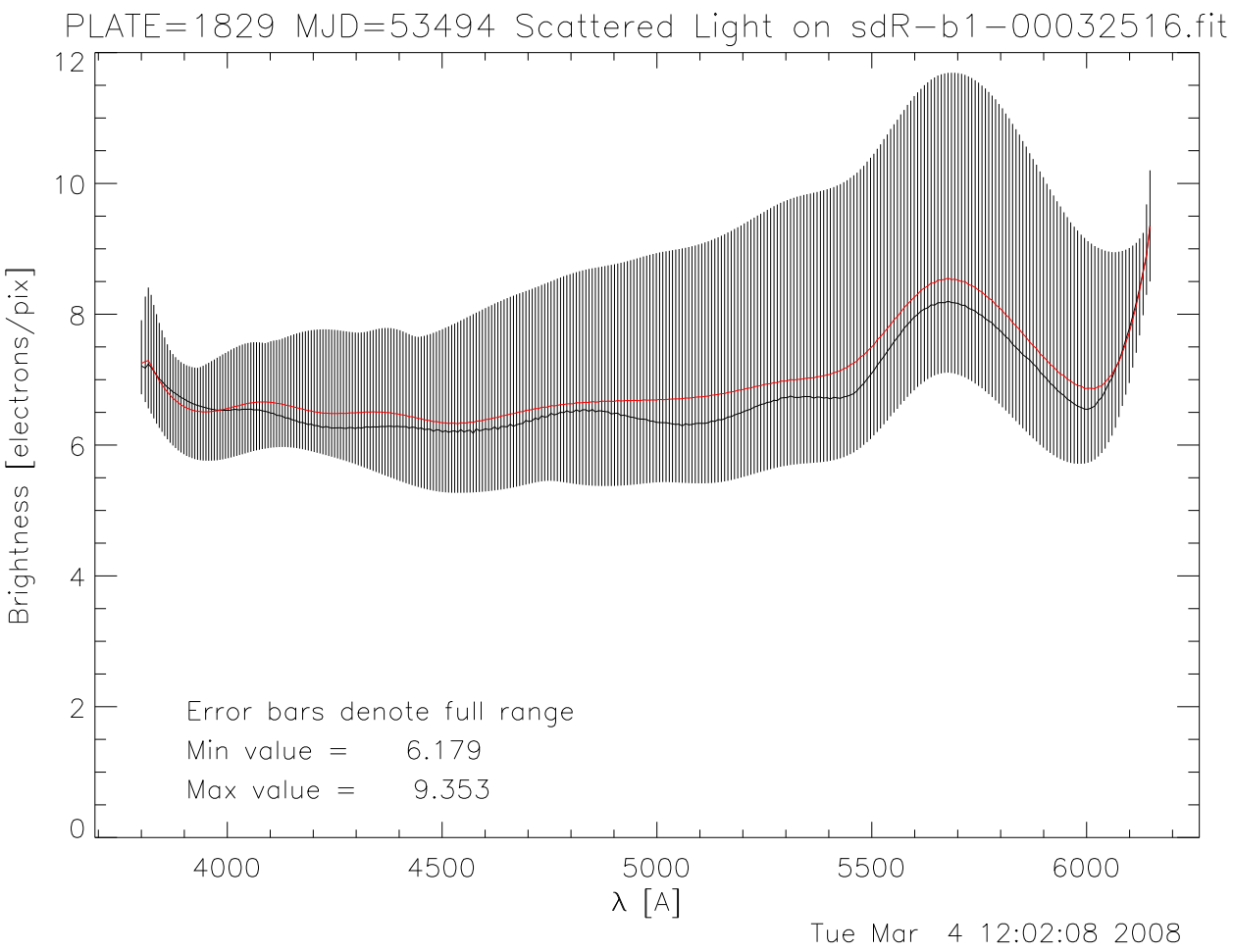

PLATE=1829 MJD=53494 sdR-b1-00032515.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 2.33 %
Fiber number
Focal Distance [mm]
Airmass

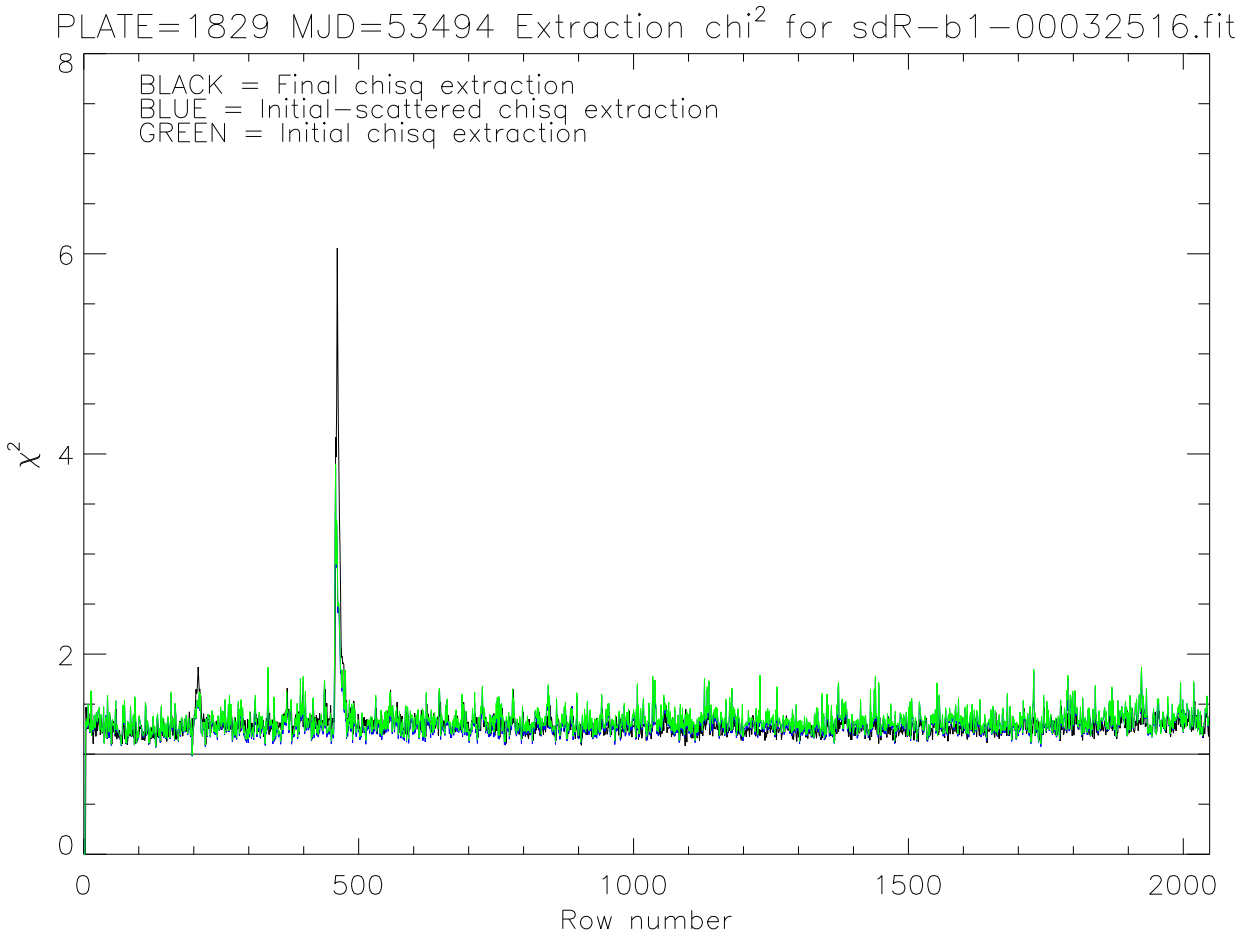

PLATE=1829 MJD=53494 Fiber-Flats for sdR-b1-00032512.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.202
Max value = 1.212
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Tue Mar 4 11:57:56 2008

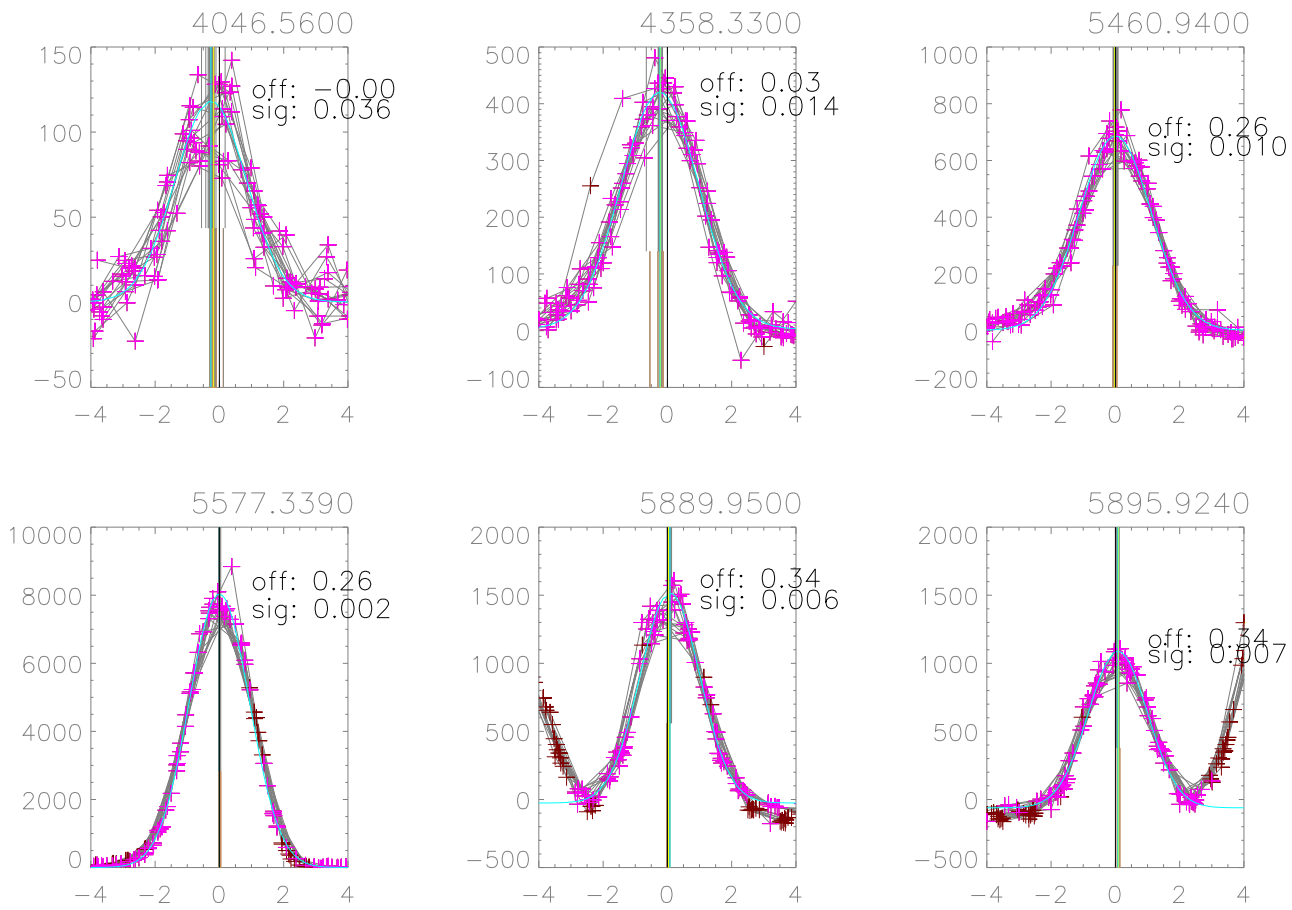

PLATE=1829 MJD=53494 Scattered Light before halo removal on sdR−b1−00032516.f
9.3
11.5
13.6
Y [pix]
X [pix]
0
500
1000
1500
2000

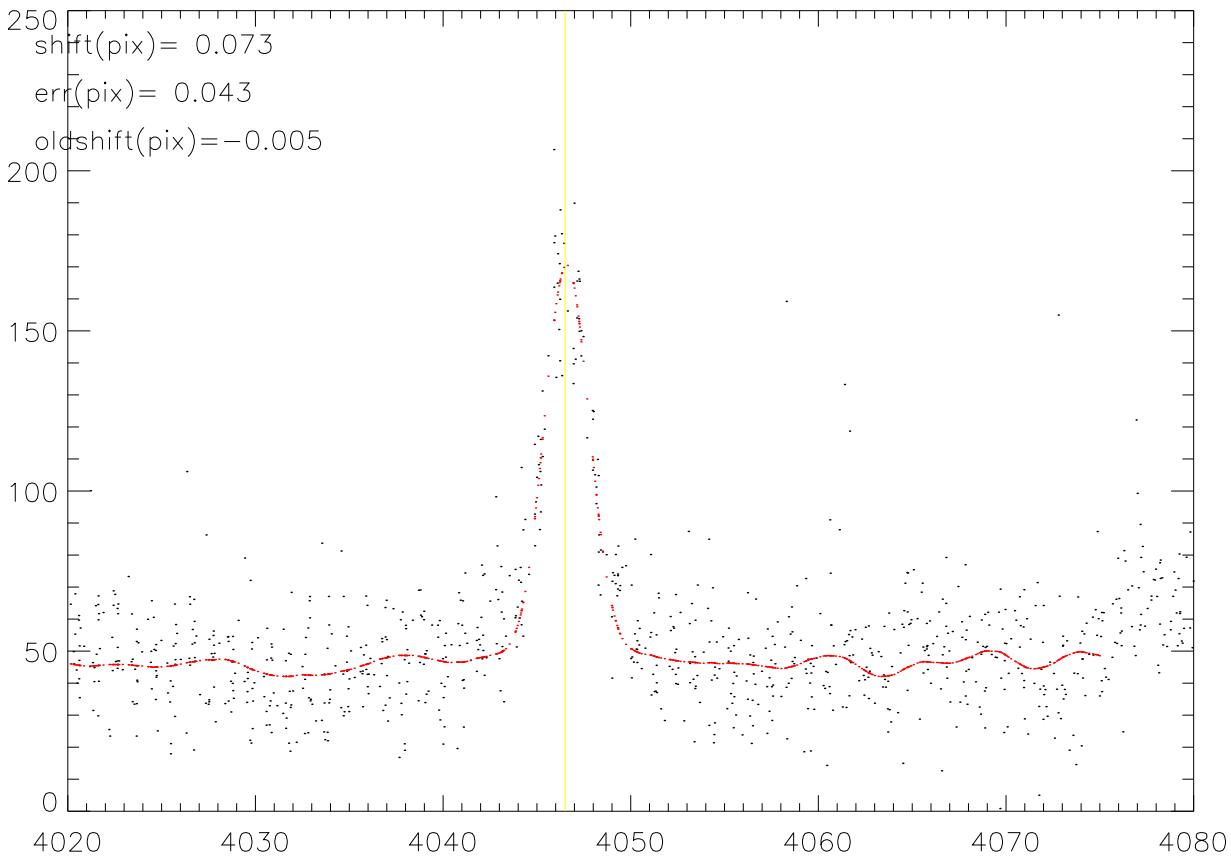

PLATE=1829 MJD=53494 Scattered Light before halo removal on sdR-b1-00032516.f
Brightness [electrons/pix]
20
15
10
5
0
Error bars denote full range
Min value = 8.760
Max value = 14.170
4000
4500
5000
5500
6000
λ [A]
Tue Mar 4 11:59:01 2008

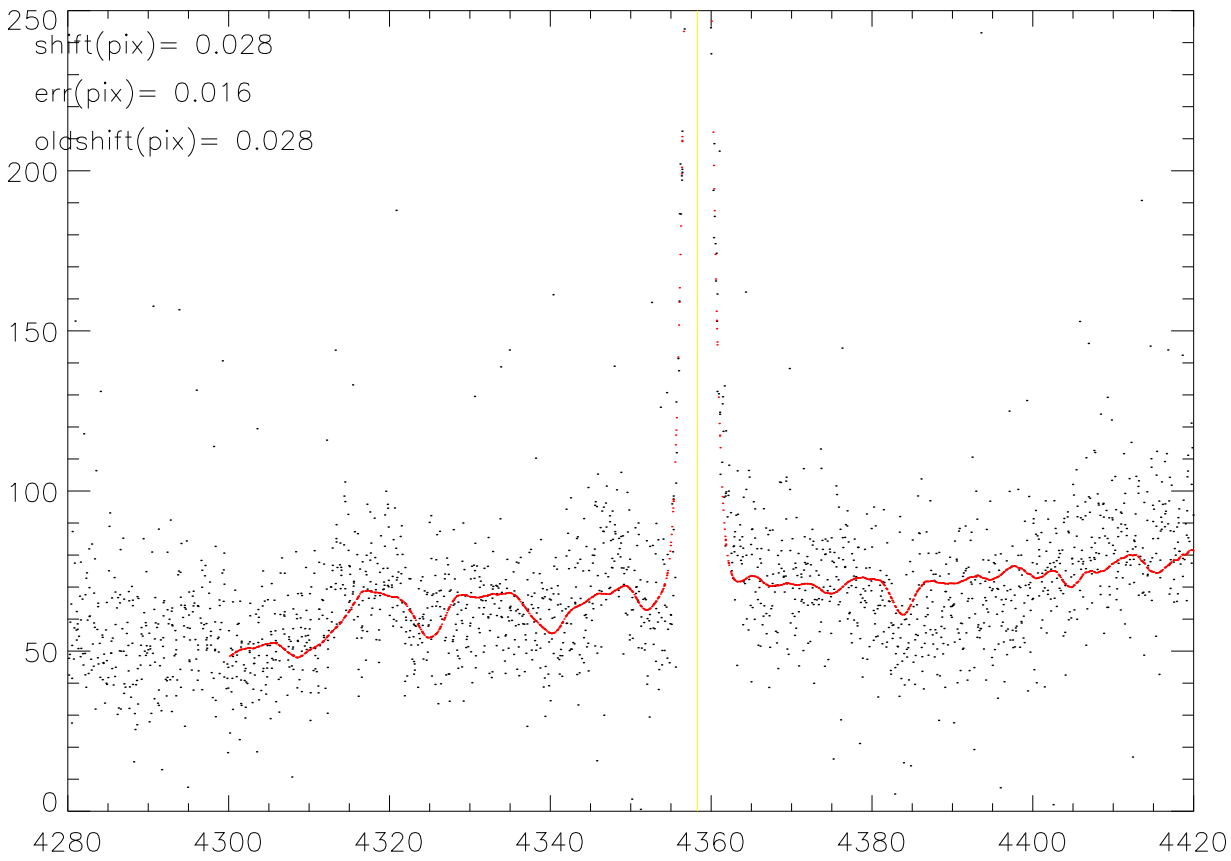

PLATE=1829 MJD=53494 Scattered Light on sdR-b1-00032516.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
6.2
7.6
9.1

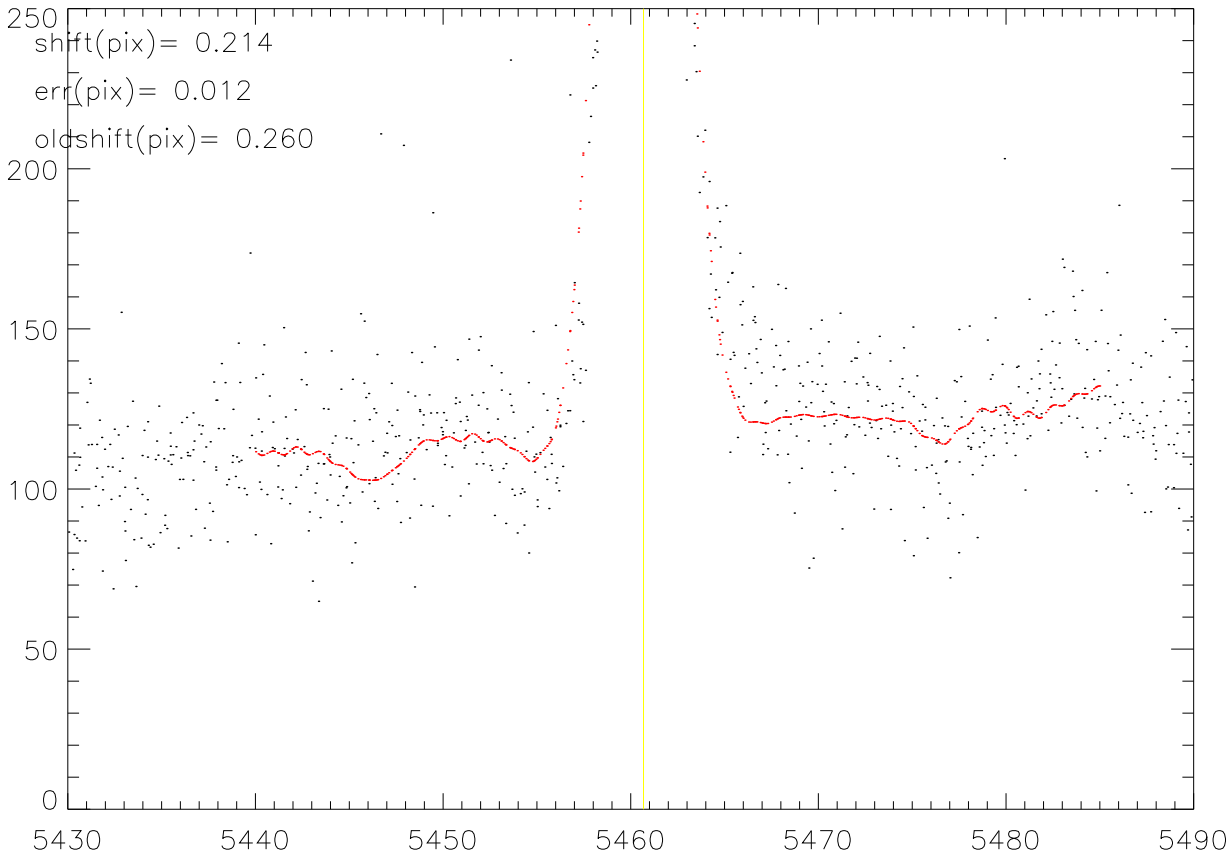

PLATE=1829 MJD=53494 Scattered Light on sdR-b1-00032516.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 6.179
Max value = 9.353
Tue Mar 4 12:02:08 2008

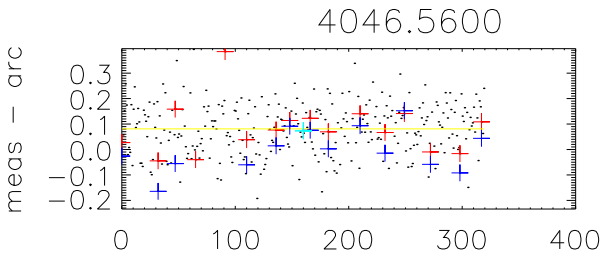

PLATE=1829 MJD=53494 Extraction chi$^2$ for sdR-b1-00032516.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
$\chi^2$
0
2
4
6
8
0
500
1000
1500
2000
Row number

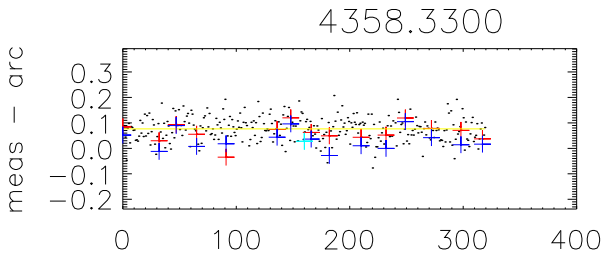

4046.5600
off: −0.00
sig: 0.036
4358.3300
off: 0.03
sig: 0.014
5460.9400
off: 0.26
sig: 0.010
5577.3390
off: 0.26
sig: 0.002
5889.9500
off: 0.34
sig: 0.006
5895.9240
off: 0.34
sig: 0.007

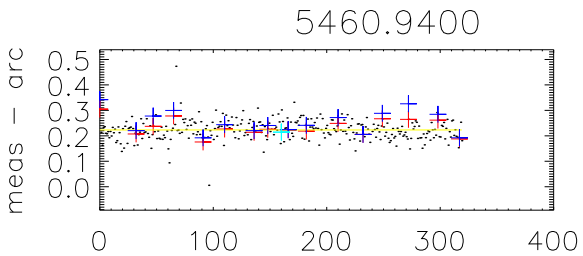

shift(pix)= 0.073
err(pix)= 0.043
oldshift(pix)=−0.005
250
200
150
100
50
0
4020
4030
4040
4050
4060
4070
4080

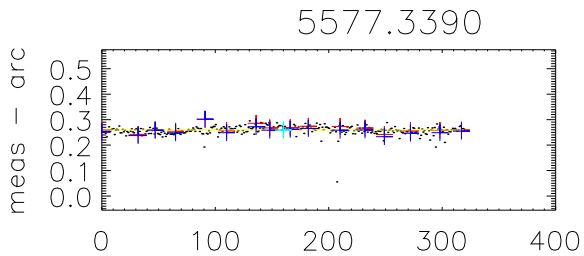

shift(pix)= 0.028
err(pix)= 0.016
oldshift(pix)= 0.028
250
200
150
100
50
0
4280
4300
4320
4340
4360
4380
4400
4420

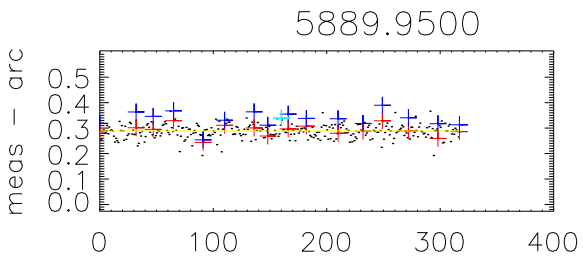

shift(pix)= 0.214
err(pix)= 0.012
oldshift(pix)= 0.260
250
200
150
100
50
0
5430
5440
5450
5460
5470
5480
5490

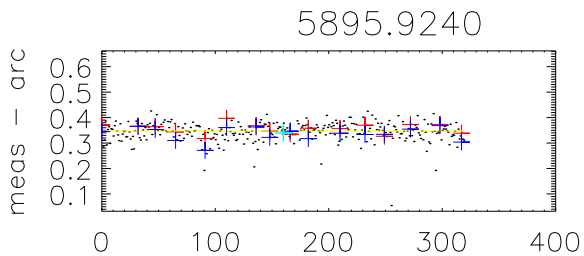

4046.5600
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

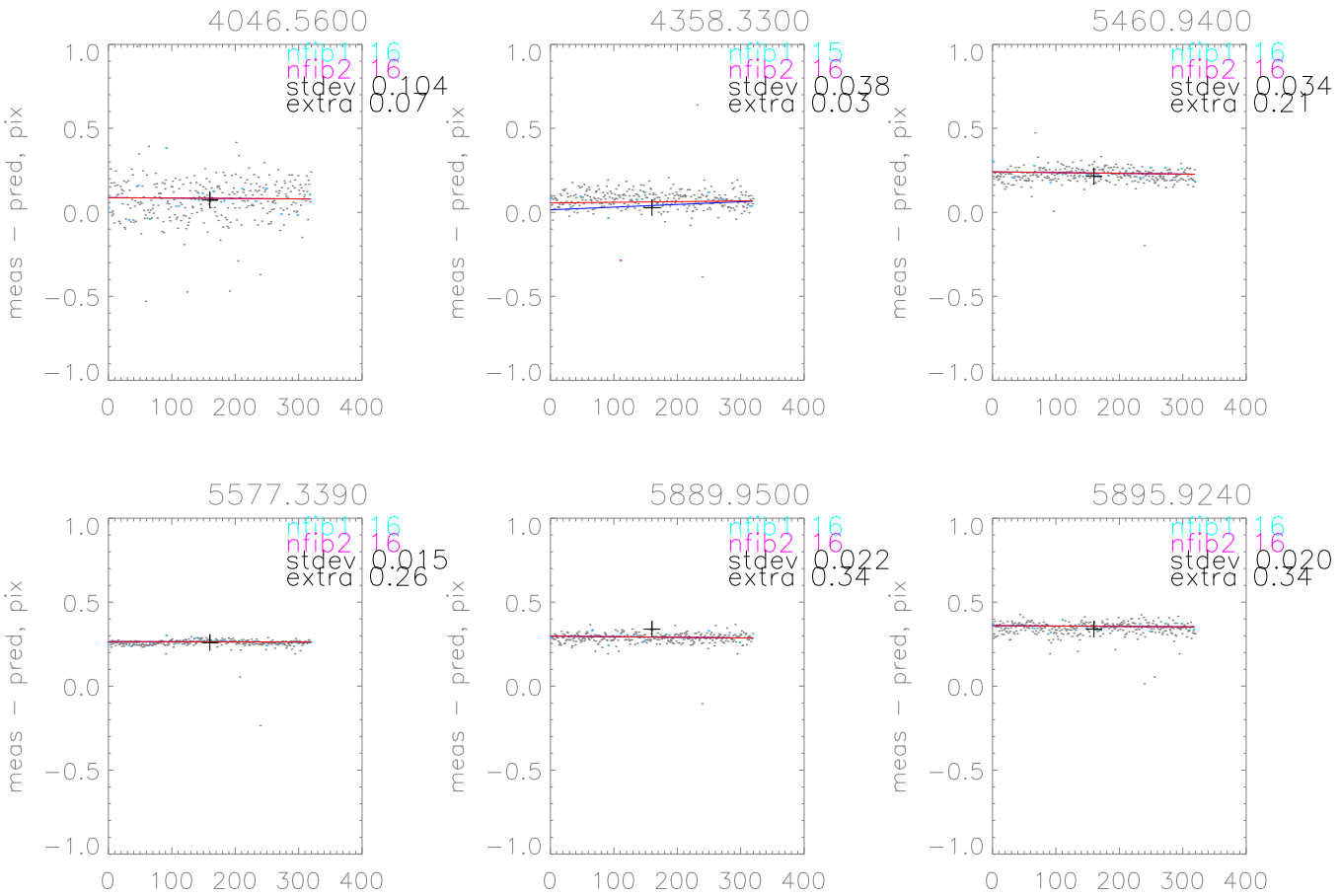

4358.3300
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

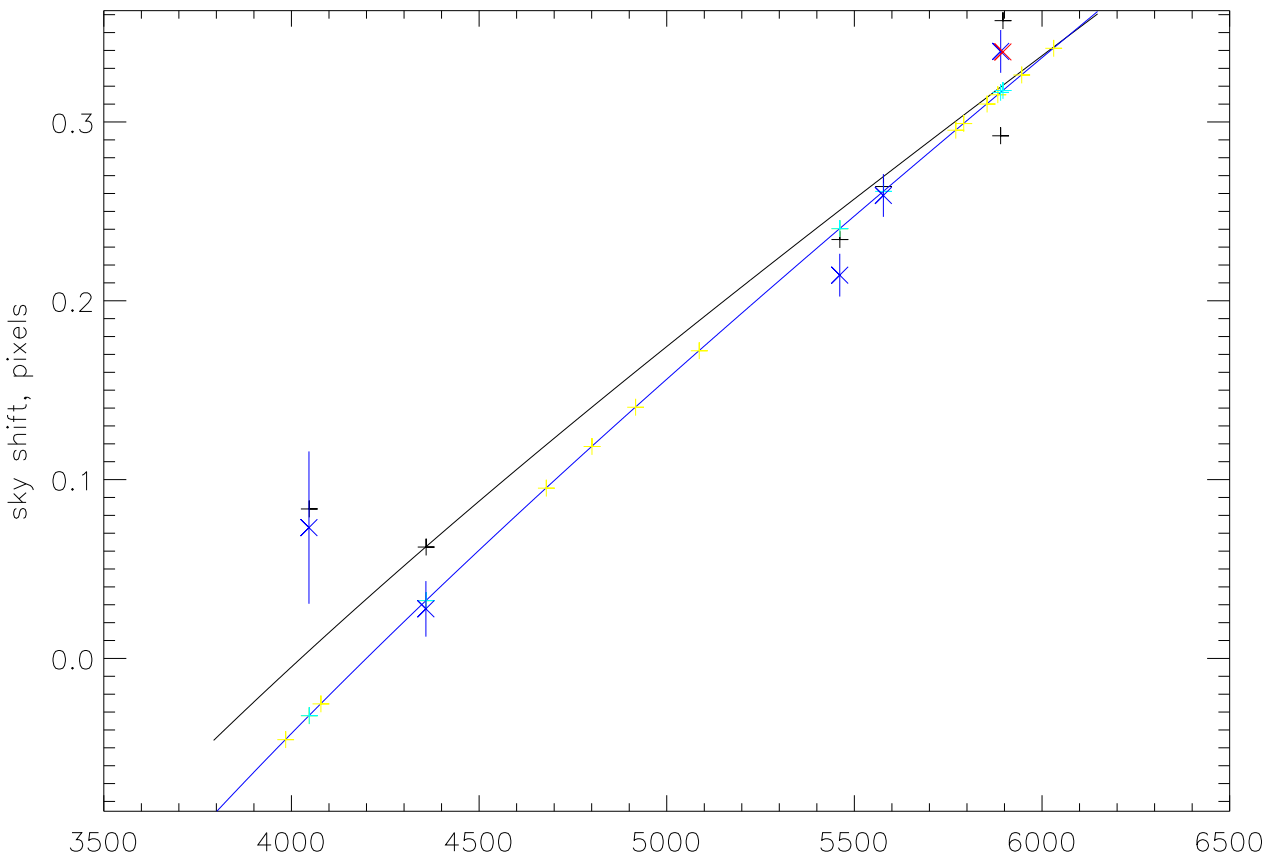

5460.9400
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400


5577.3390
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

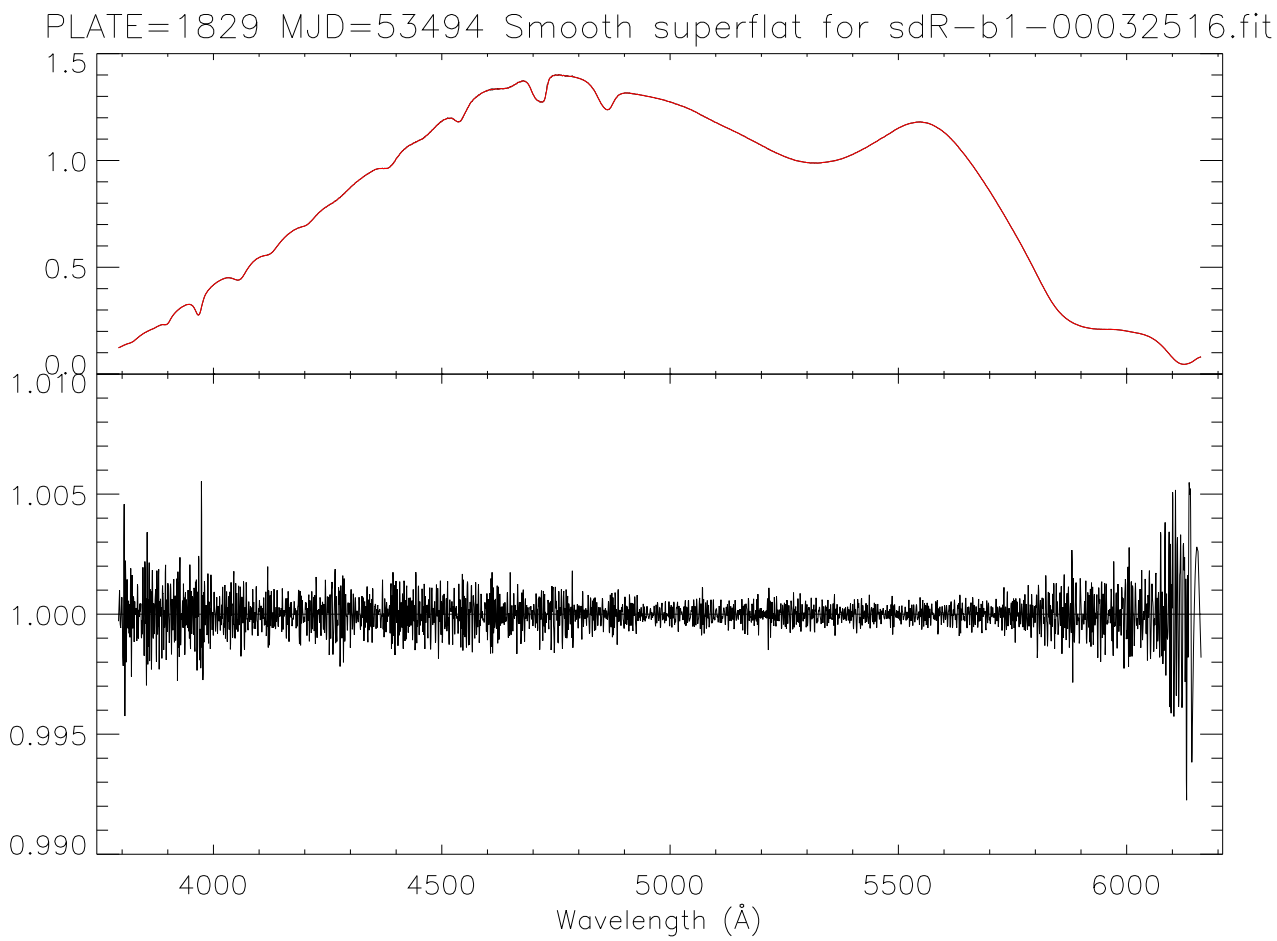

5889.9500
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

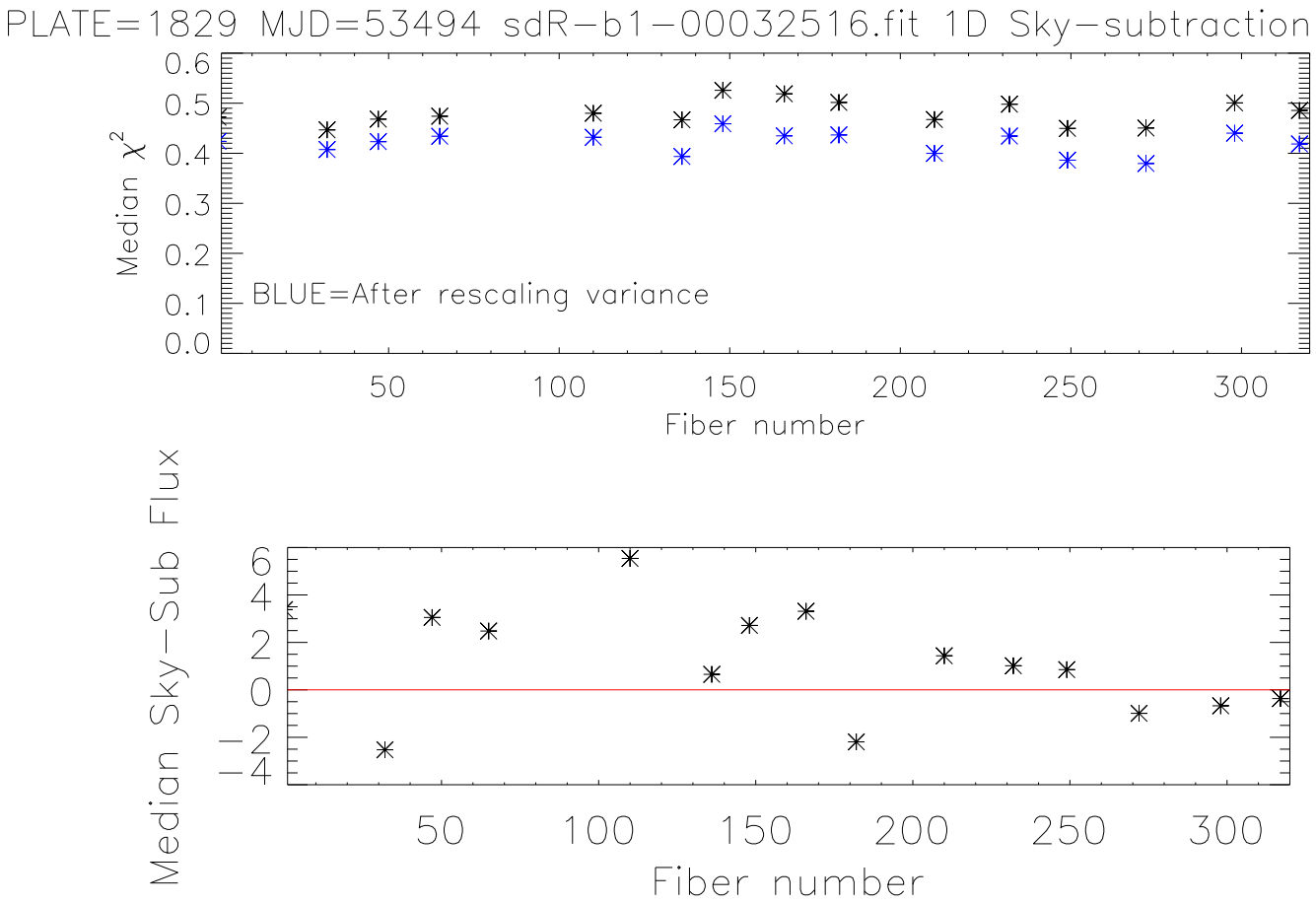

5895.9240
meas − arc
0.6
0.5
0.4
0.3
0.2
0.1
0
100
200
300
400

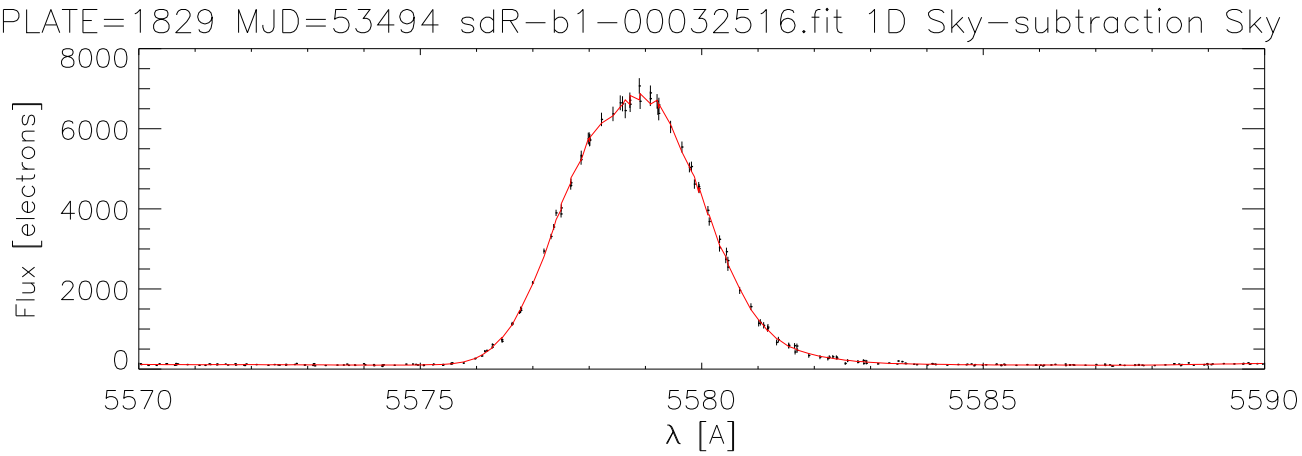

4046.5600
nfib1 16
nfib2 16
stdev 0.104
extra 0.07
4358.3300
nfib1 15
nfib2 16
stdev 0.038
extra 0.03
5460.9400
nfib1 16
nfib2 16
stdev 0.034
extra 0.21
5577.3390
nfib1 16
nfib2 16
stdev 0.015
extra 0.26
5889.9500
nfib1 16
nfib2 16
stdev 0.022
extra 0.34
5895.9240
nfib1 16
nfib2 16
stdev 0.020
extra 0.34
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

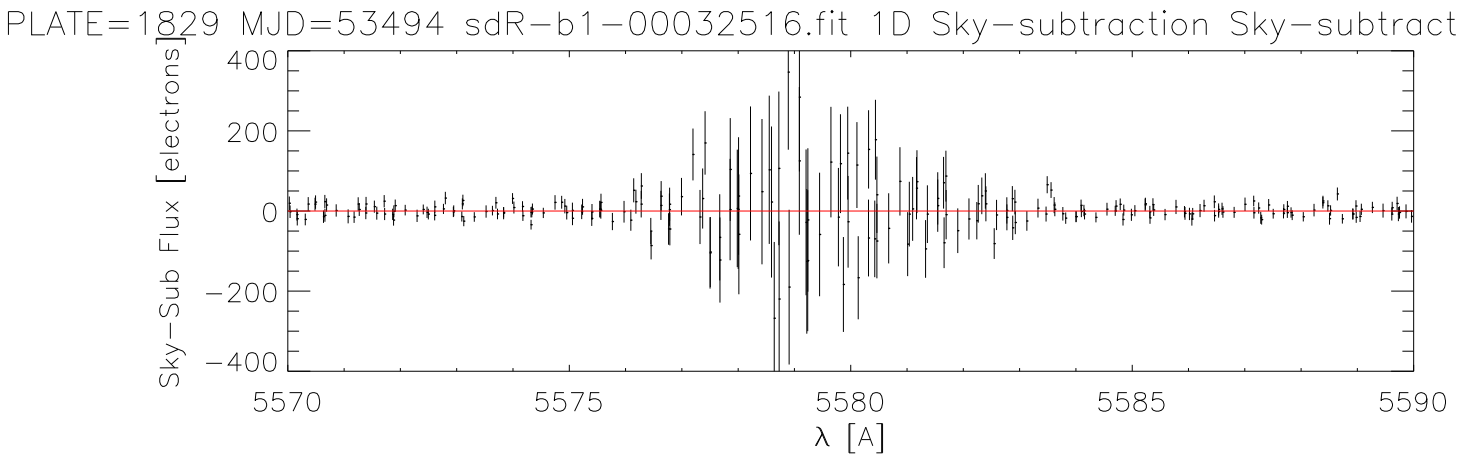

sky shift, pixels
0.3
0.2
0.1
0.0
3500
4000
4500
5000
5500
6000
6500

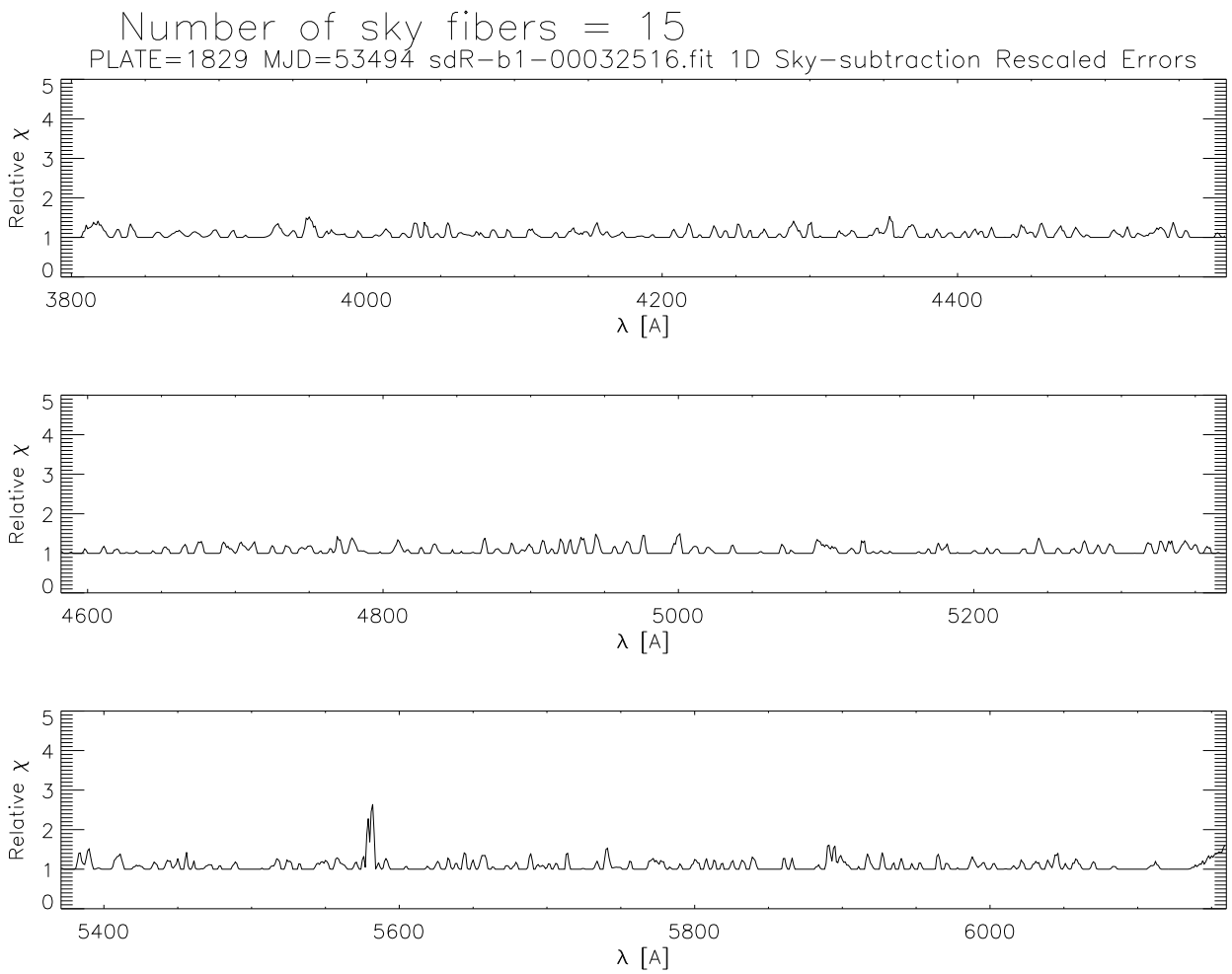
es= 0.0000

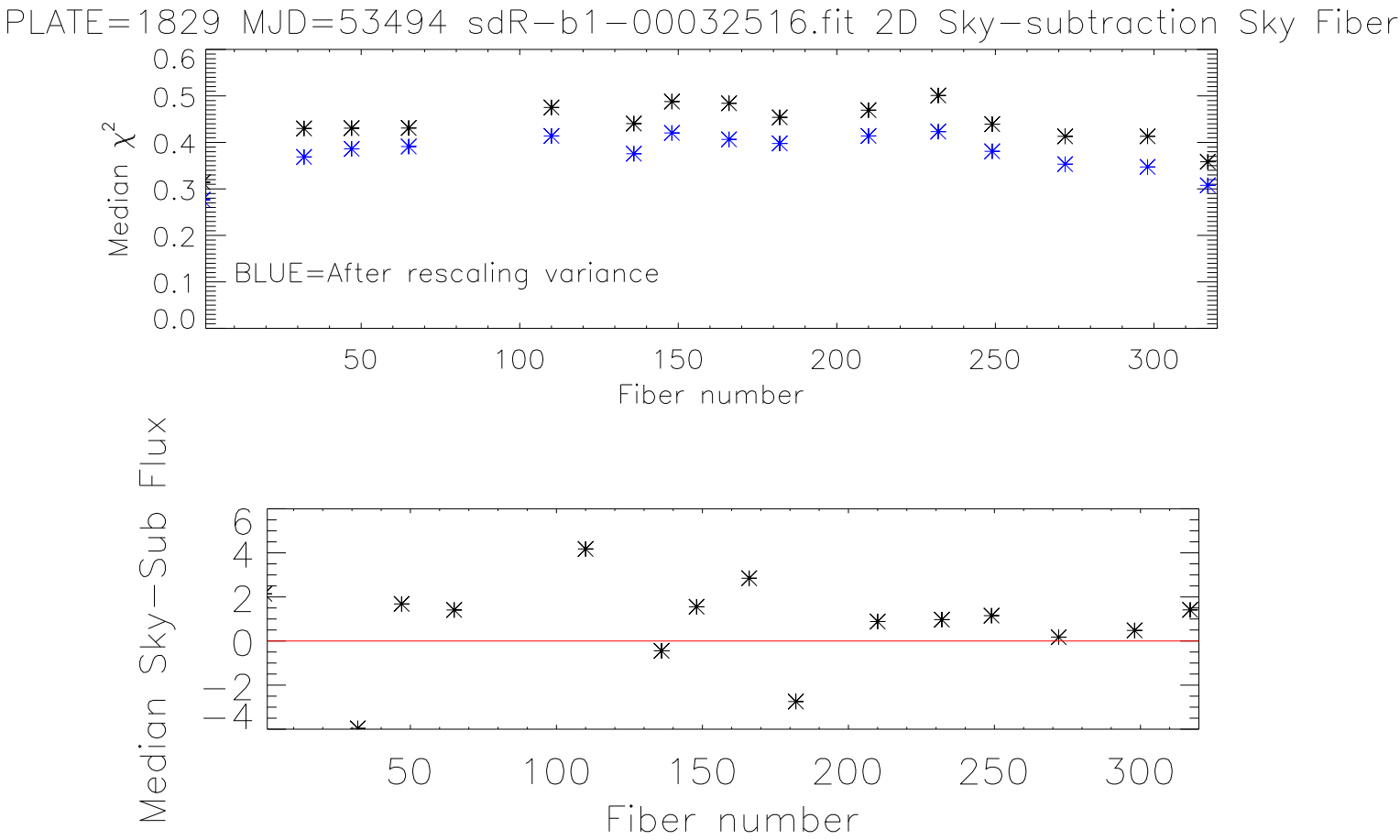

PLATE=1829 MJD=53494 Smooth superflat for sdR-b1-00032516.fit
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
4000
4500
5000
5500
6000
Wavelength (Å)

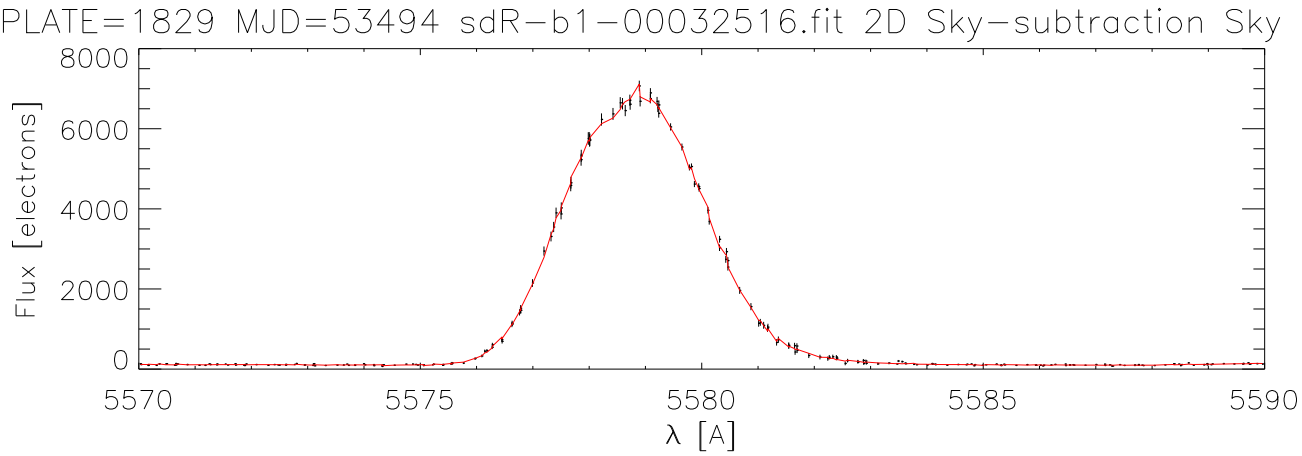

PLATE=1829 MJD=53494 sdR-b1-00032516.fit 1D Sky-subtraction Sky Fiber
Median $\chi^2$
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

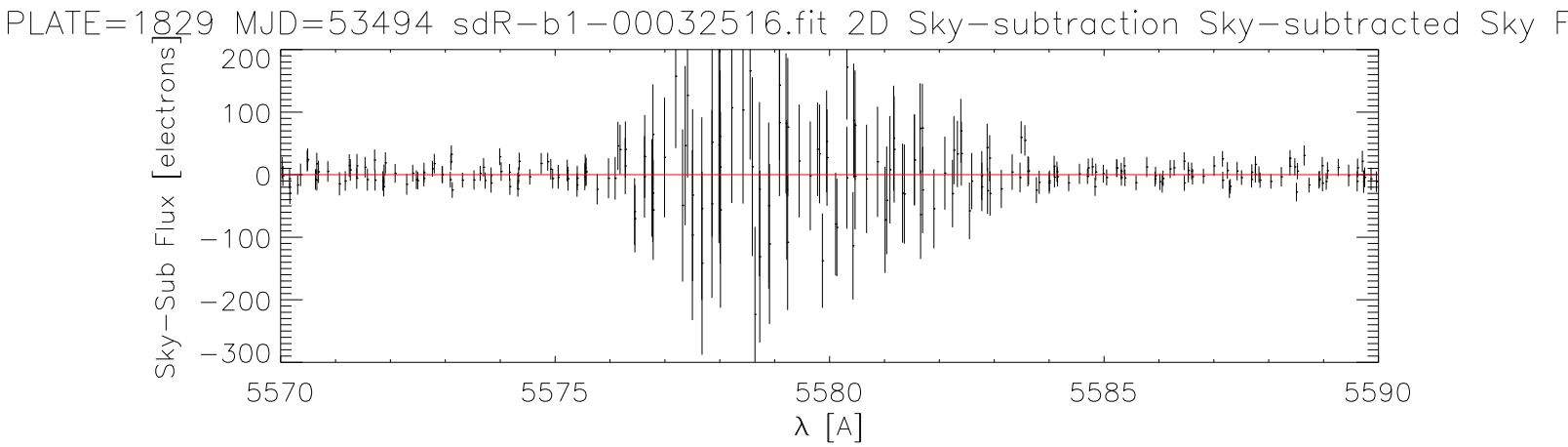

PLATE=1829 MJD=53494 sdR-b1-00032516.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

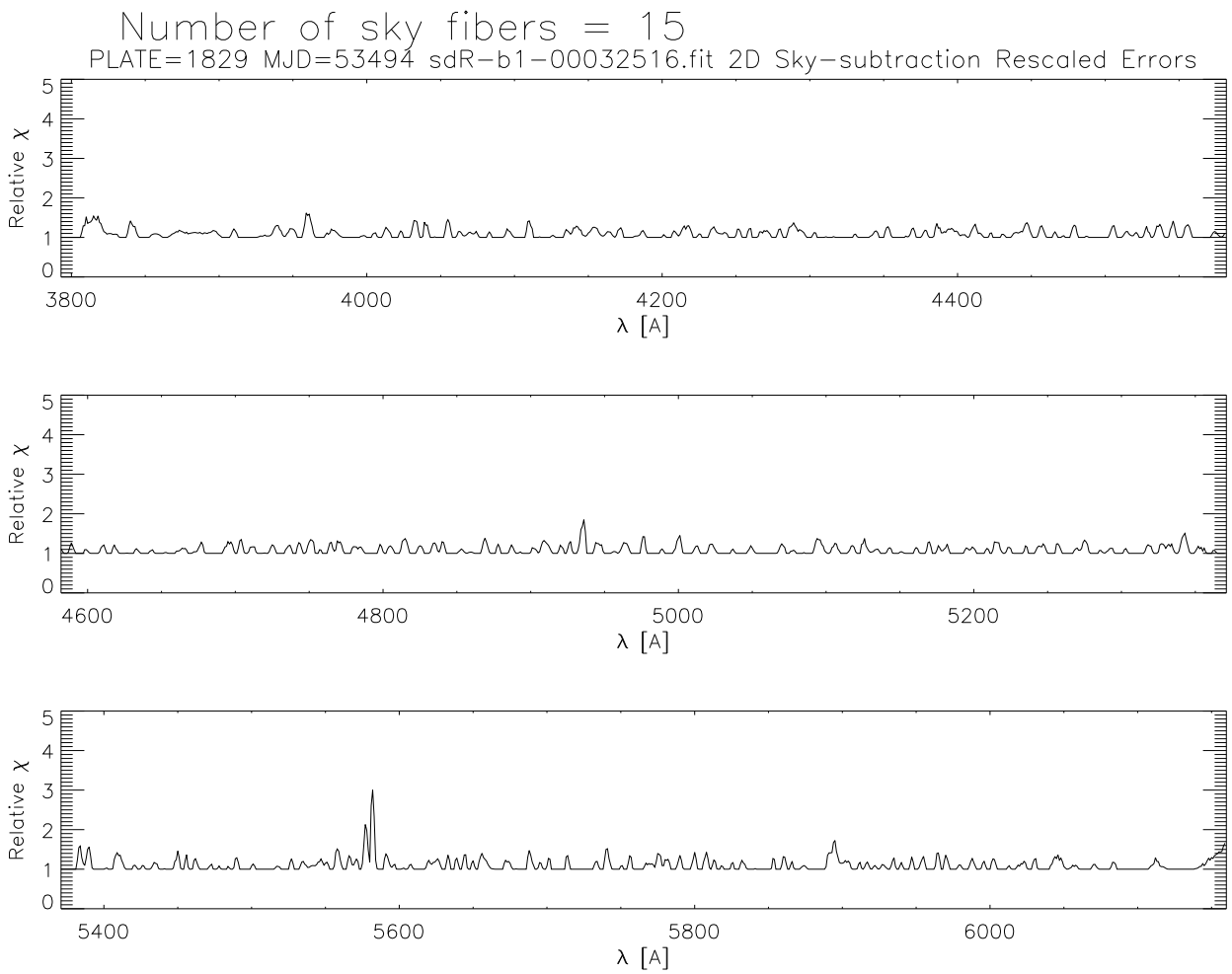

PLATE=1829 MJD=53494 sdR-b1-00032516.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
200
0
-200
-400
5570
5575
5580
5585
5590
λ [A]

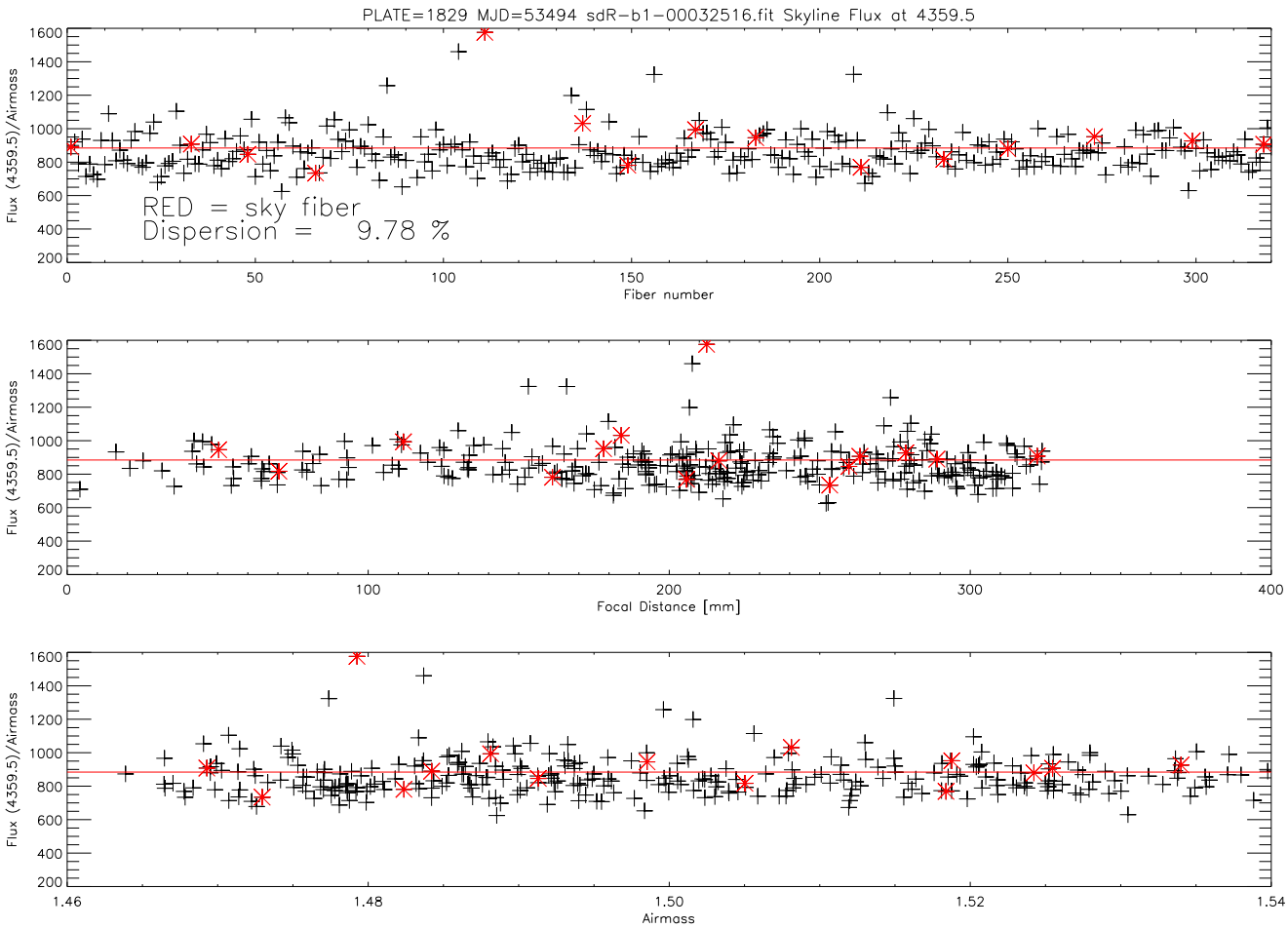

Number of sky fibers = 15
PLATE=1829 MJD=53494 sdR-b1-00032516.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

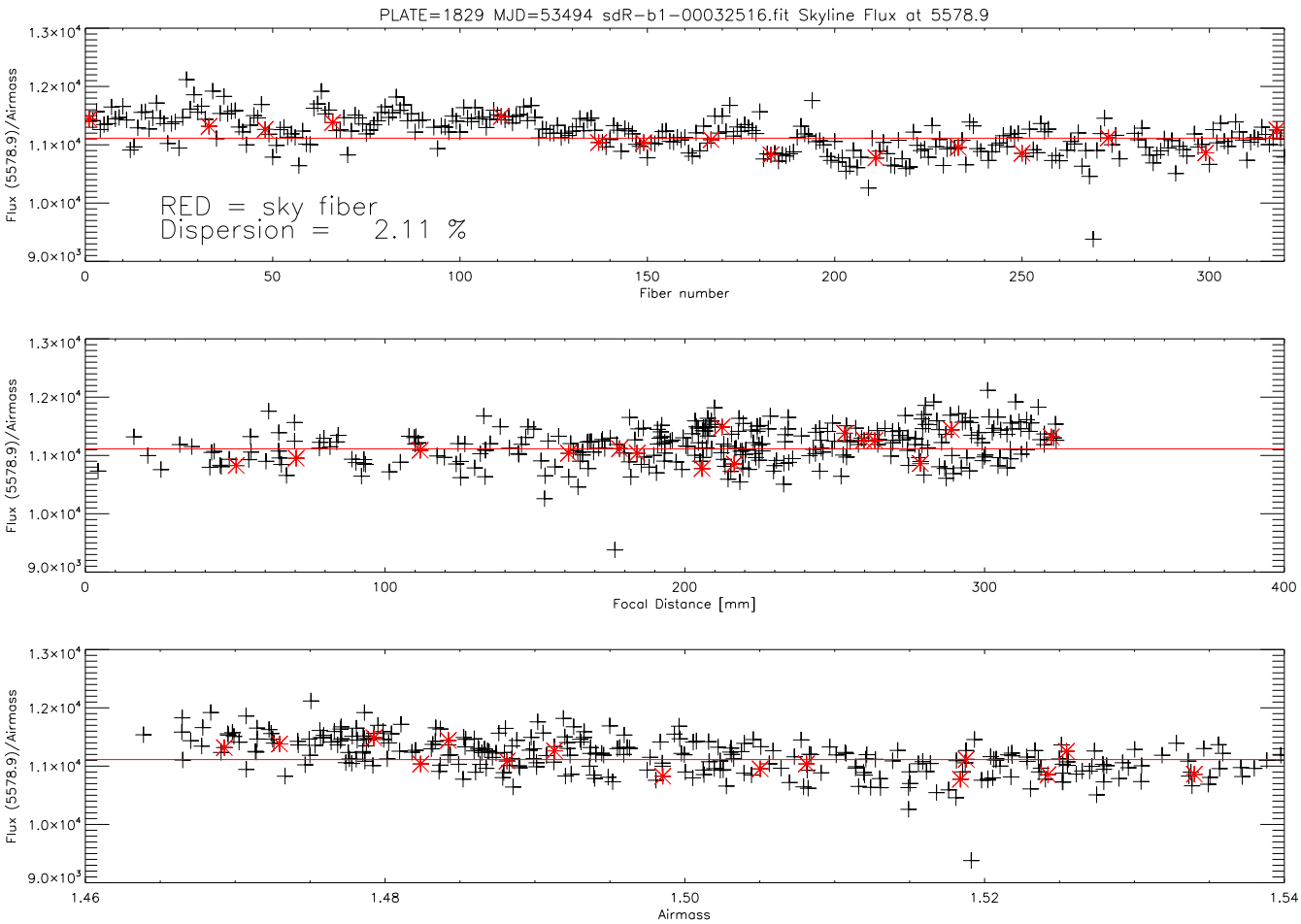

PLATE=1829 MJD=53494 sdR-b1-00032516.fit 2D Sky-subtraction Sky Fiber
Median $\chi^2$
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

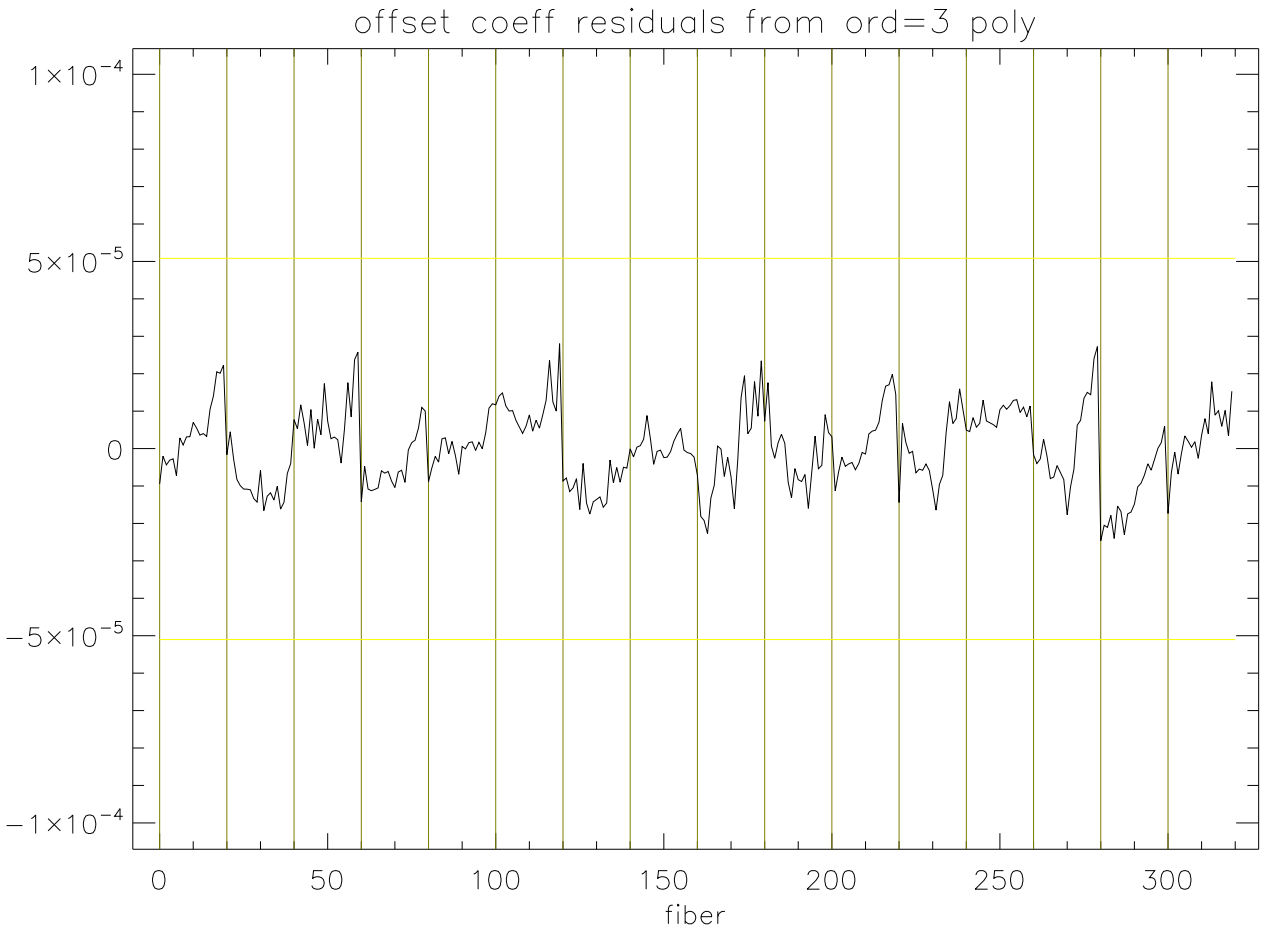

PLATE=1829 MJD=53494 sdR-b1-00032516.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

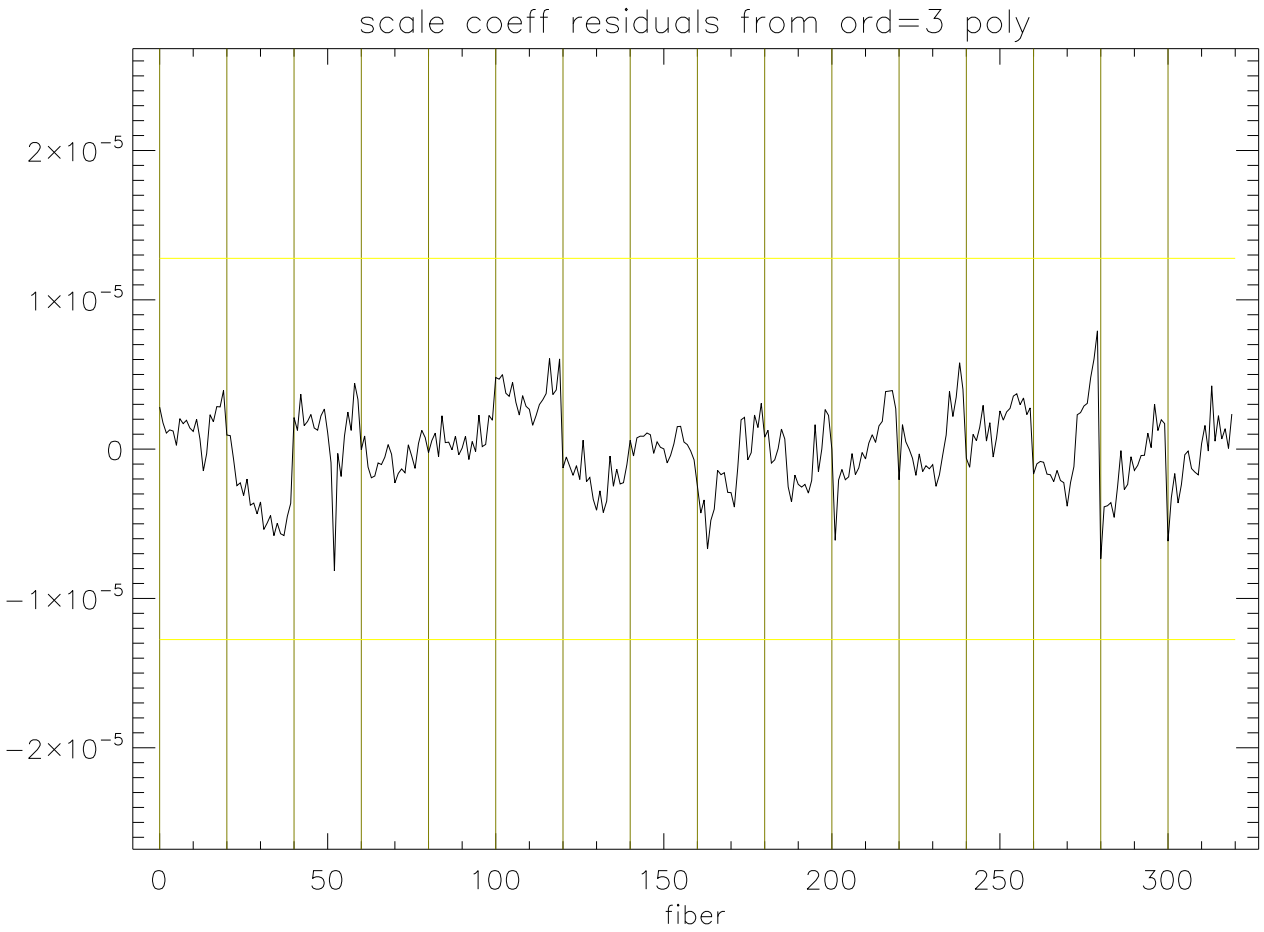

PLATE=1829 MJD=53494 sdR-b1-00032516.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
-300
5570
5575
5580
5585
5590
λ [A]

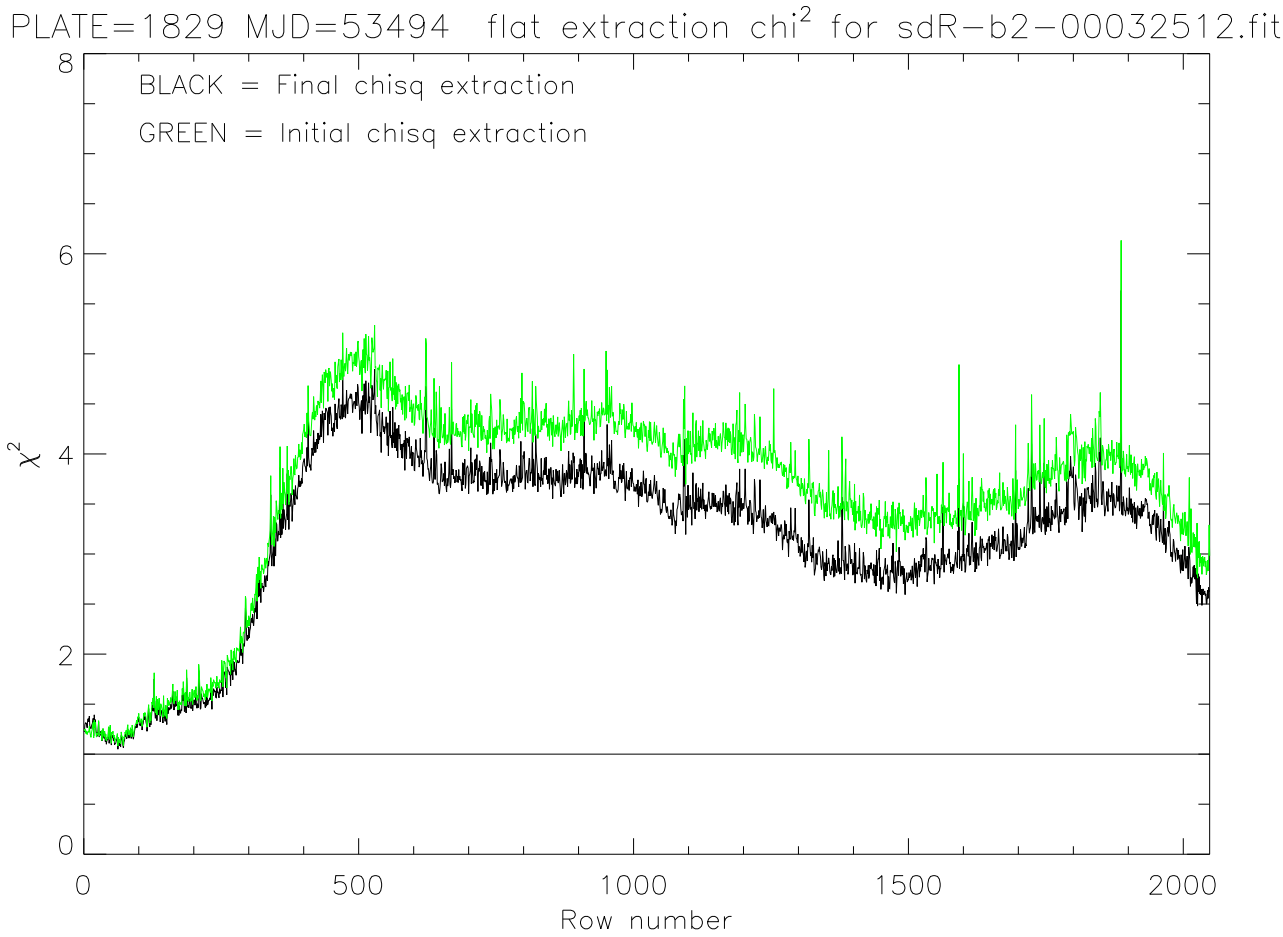

Number of sky fibers = 15
PLATE=1829 MJD=53494 sdR-b1-00032516.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

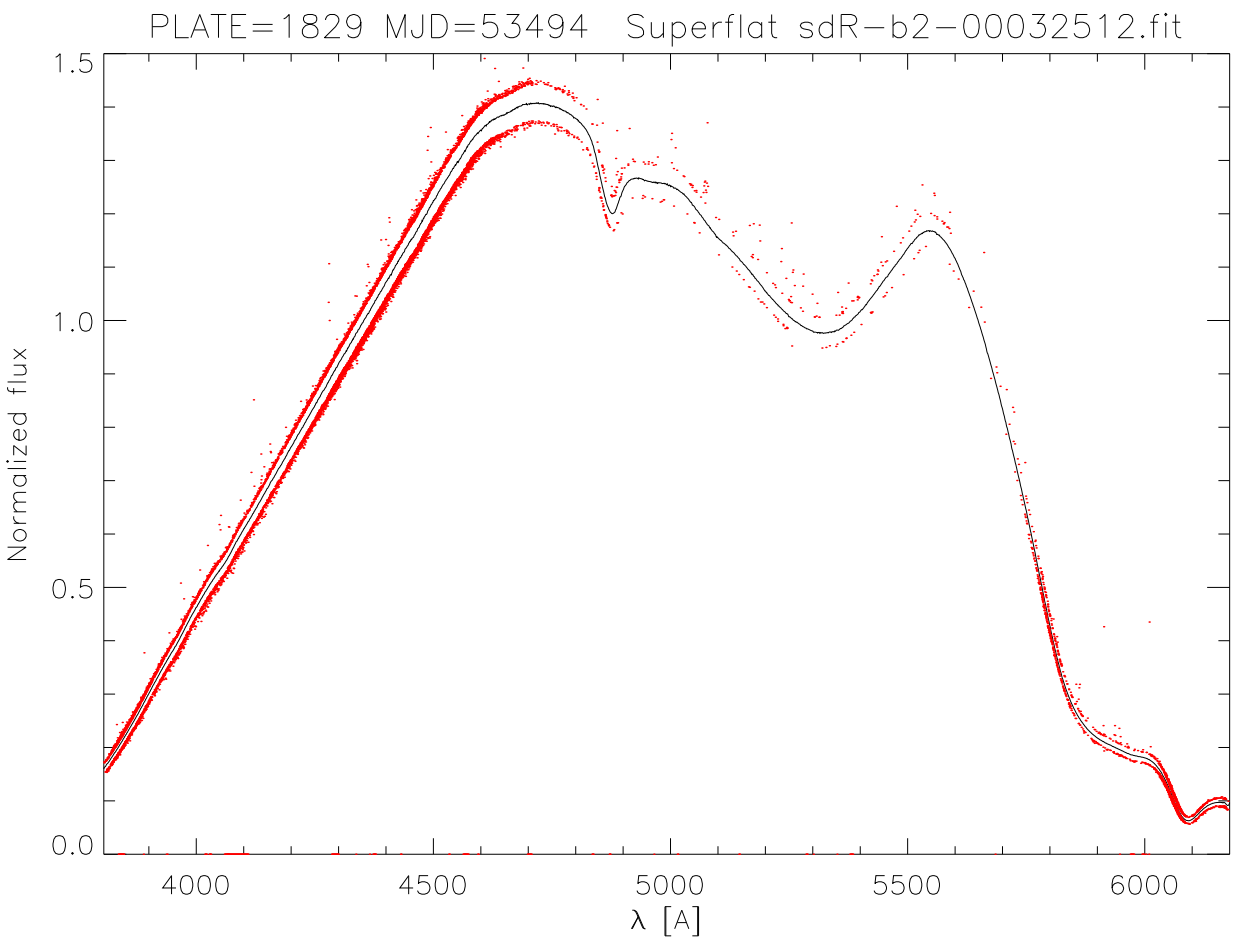

PLATE=1829 MJD=53494 sdR-b1-00032516.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
Fiber number
RED = sky fiber
Dispersion = 9.78 %
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

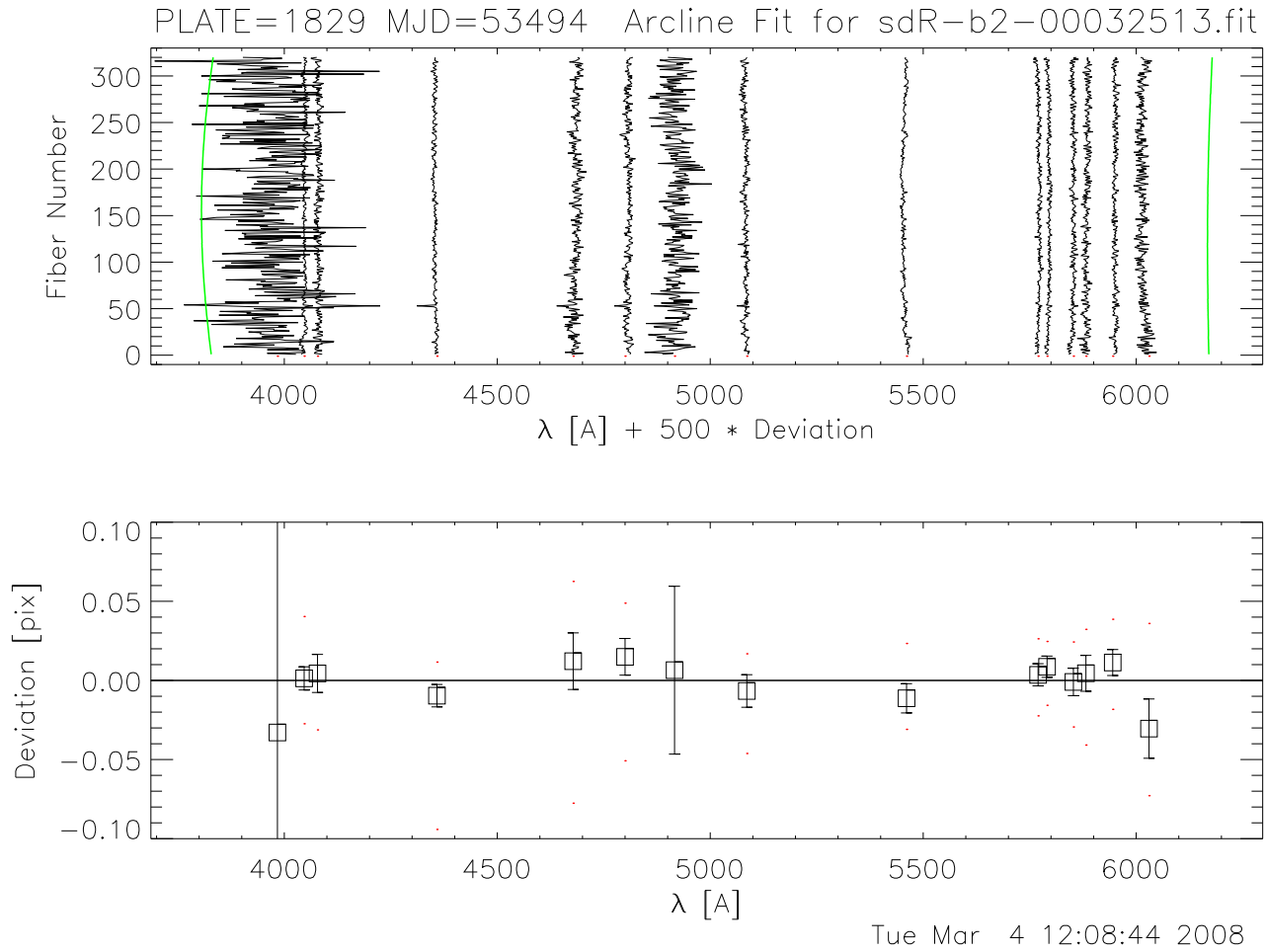

PLATE=1829 MJD=53494 sdR-b1-00032516.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 2.11 %
Fiber number
Focal Distance [mm]
Airmass

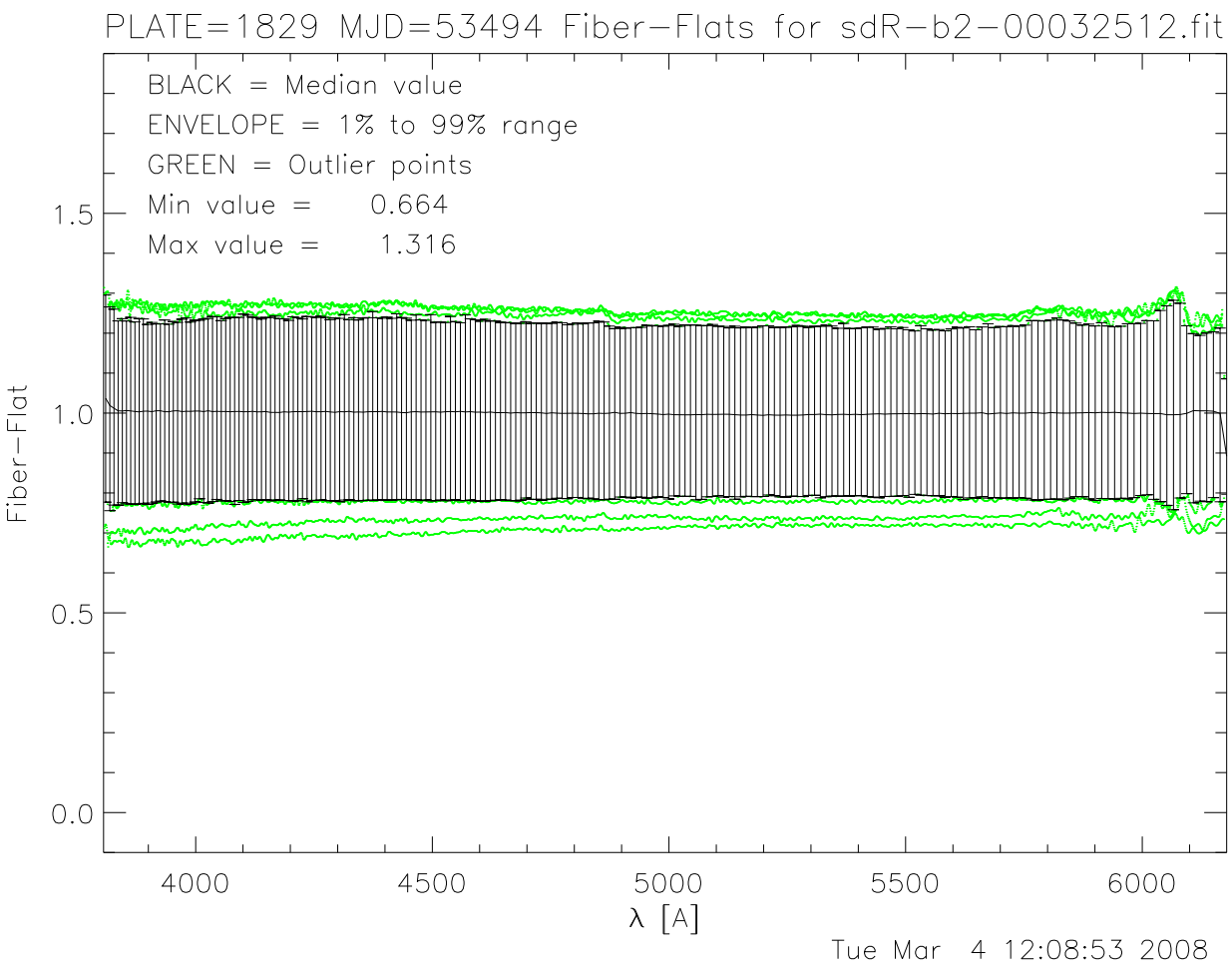

offset coeff residuals from ord=3 poly
1×10^-4
5×10^-5
0
−5×10^-5
−1×10^-4
0
50
100
150
200
250
300
fiber

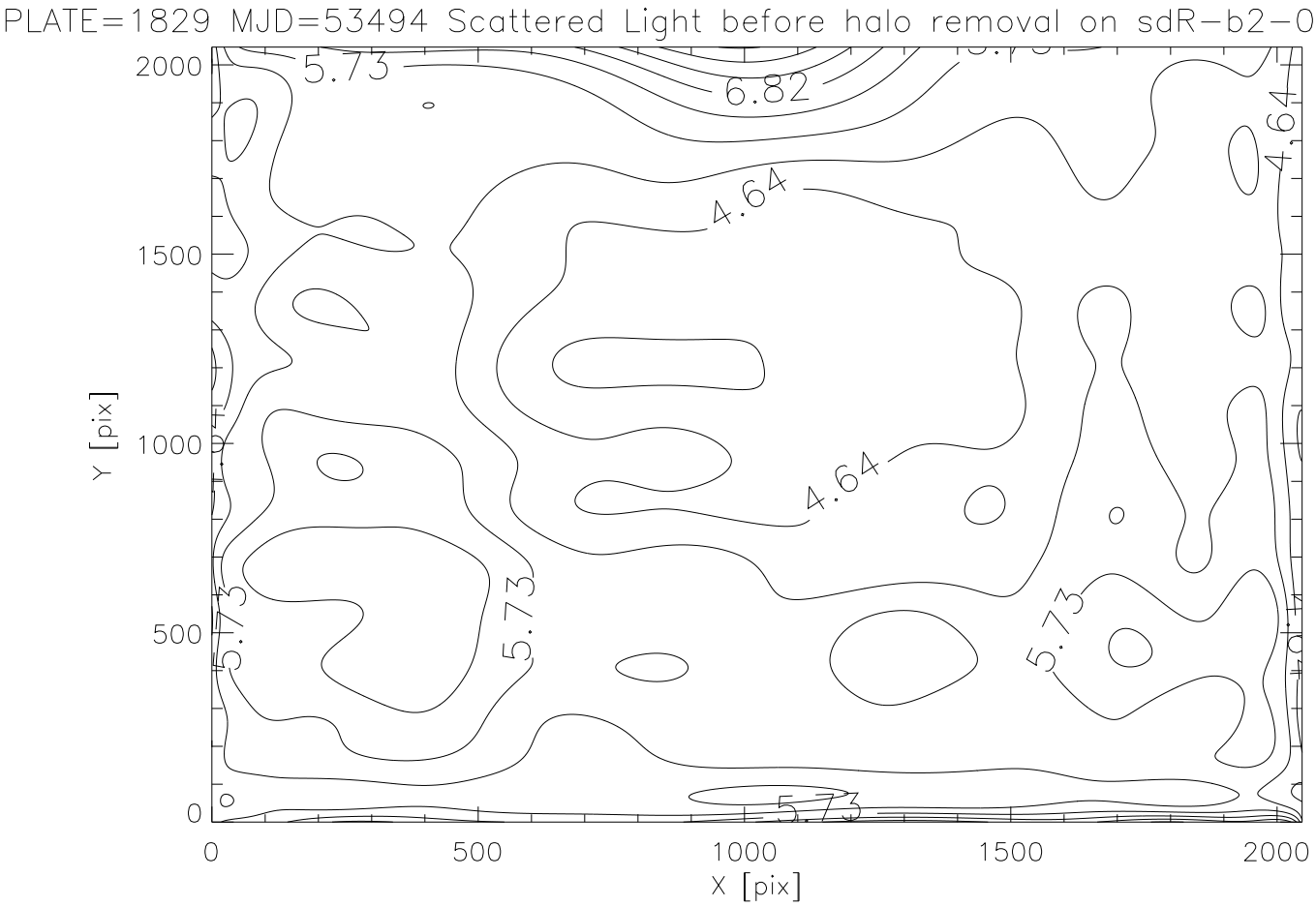

scale coeff residuals from ord=3 poly
2×10⁻⁵
1×10⁻⁵
0
−1×10⁻⁵
−2×10⁻⁵
0
50
100
150
200
250
300
fiber

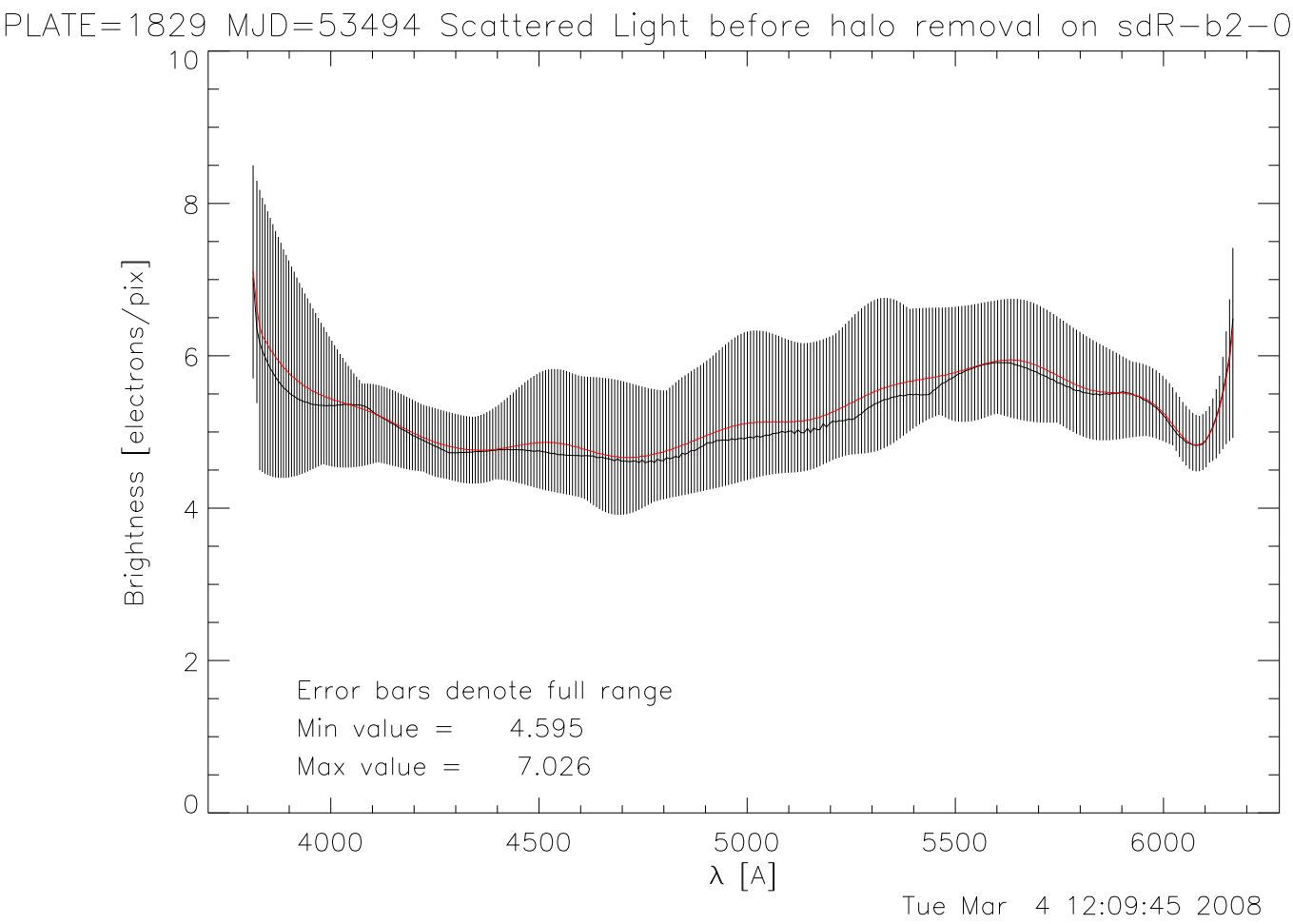

PLATE=1829 MJD=53494 flat extraction chi$^2$ for sdR−b2−00032512.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
$\chi^2$
0
2
4
6
8
0
500
1000
1500
2000
Row number

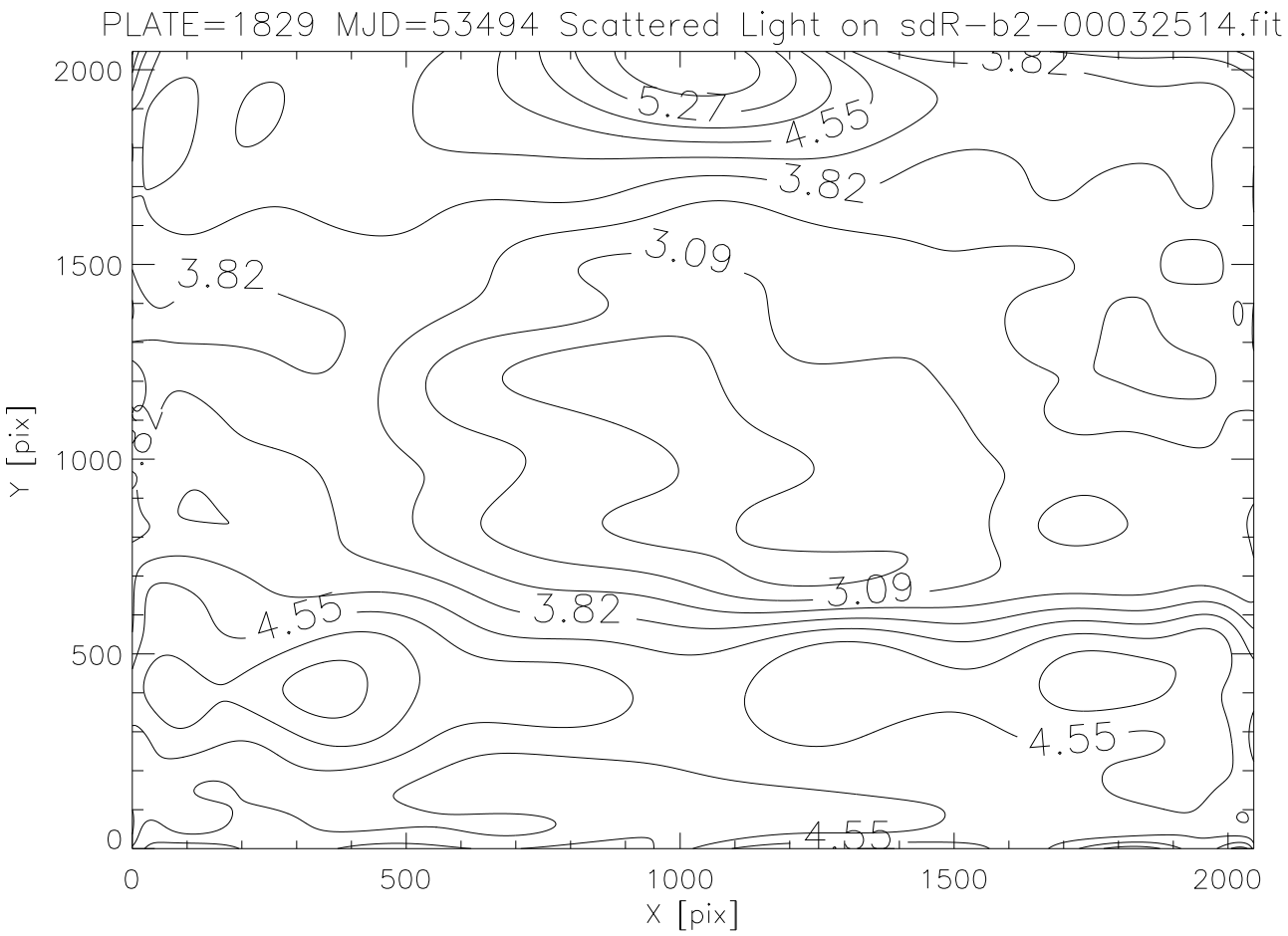

PLATE=1829 MJD=53494 Superflat sdR-b2-00032512.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

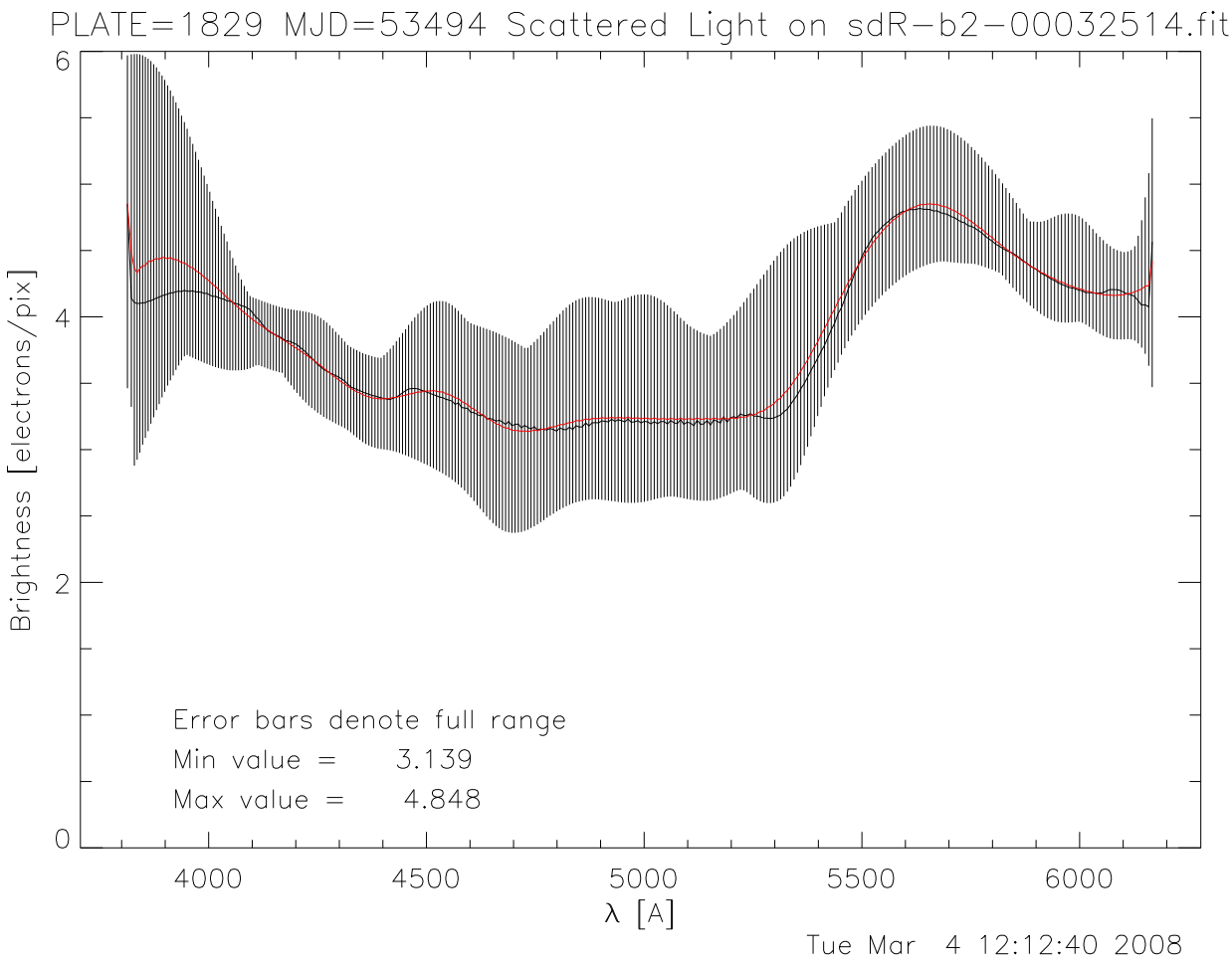

PLATE=1829 MJD=53494 Arcline Fit for sdR-b2-00032513.fit
Fiber Number
300
250
200
150
100
50
0
4000
4500
5000
5500
6000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
4000
4500
5000
5500
6000
λ [A]
Tue Mar 4 12:08:44 2008

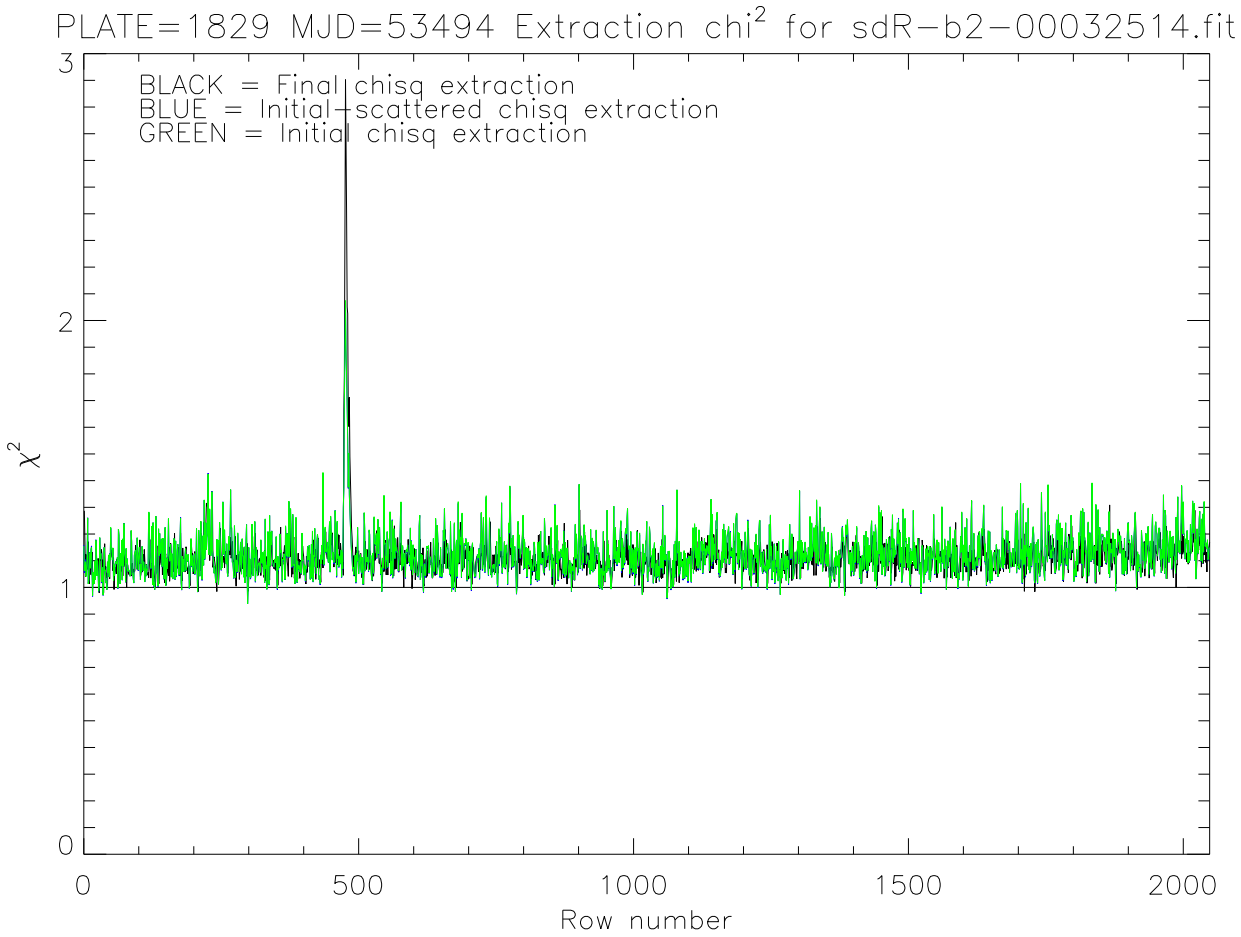

PLATE=1829 MJD=53494 Fiber-Flats for sdR-b2-00032512.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.664
Max value = 1.316
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Tue Mar 4 12:08:53 2008

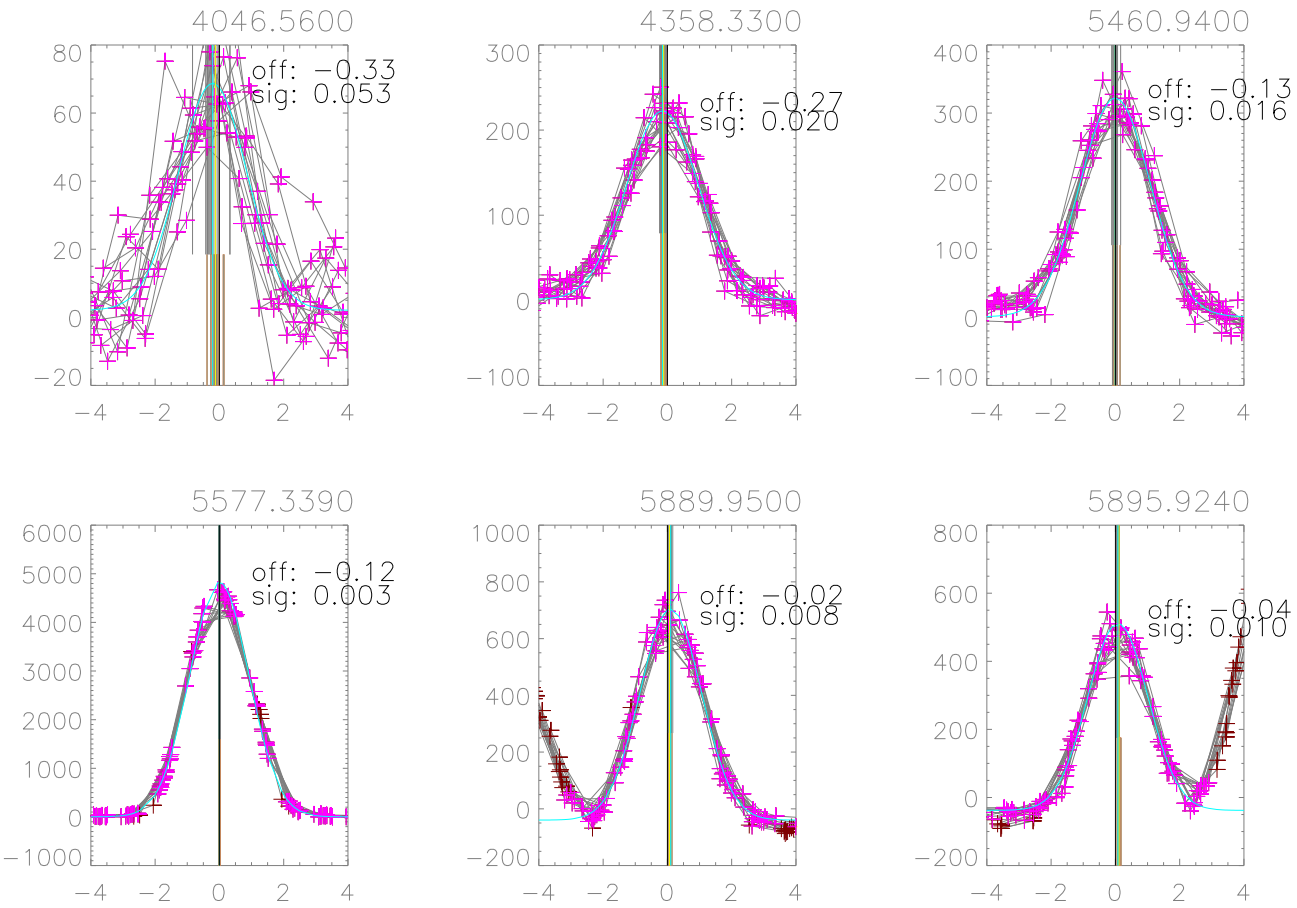

PLATE=1829 MJD=53494 Scattered Light before halo removal on sdR−b2−00032514.f
5.73
6.82
4.64
4.64
4.64
5.73
5.73
5.73
5.73
Y [pix]
X [pix]
0
500
1000
1500
2000

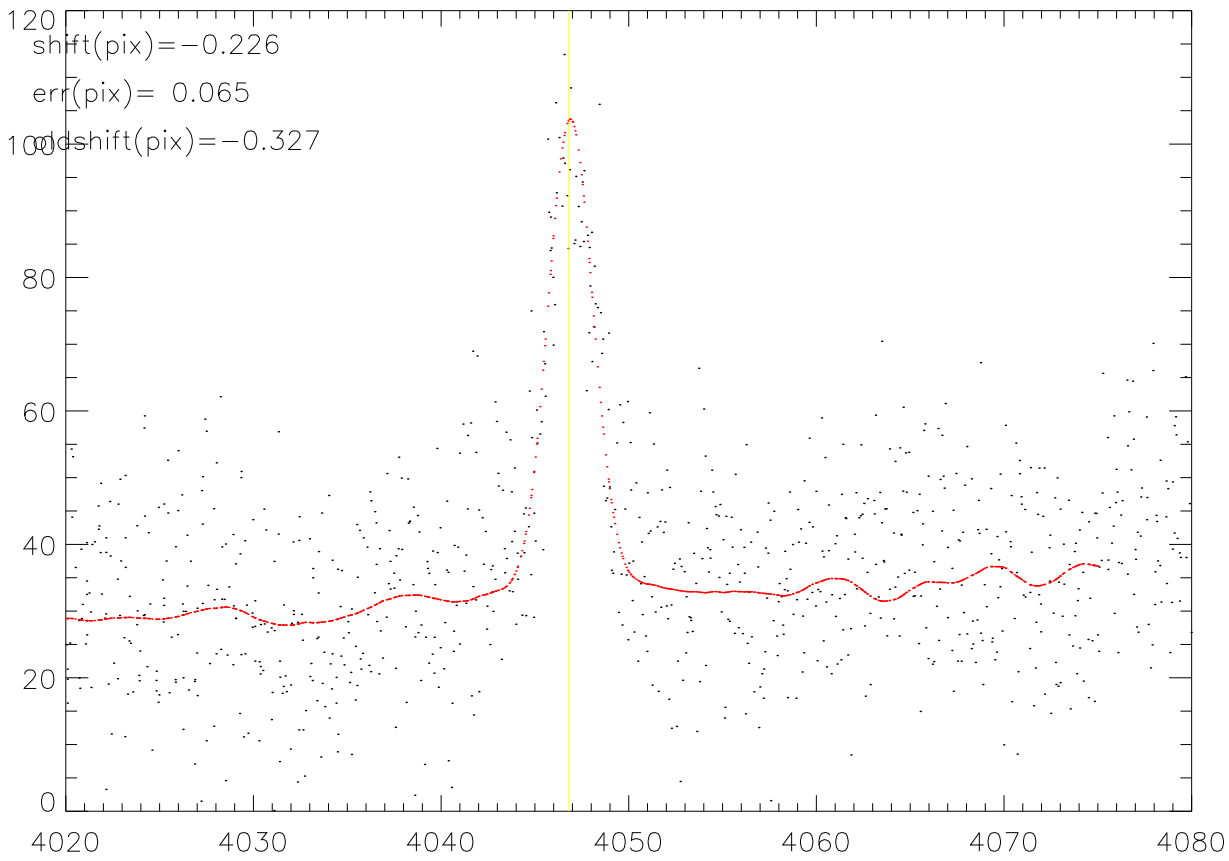

PLATE=1829 MJD=53494 Scattered Light before halo removal on sdR-b2-00032514.f
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 4.595
Max value = 7.026
Tue Mar 4 12:09:45 2008

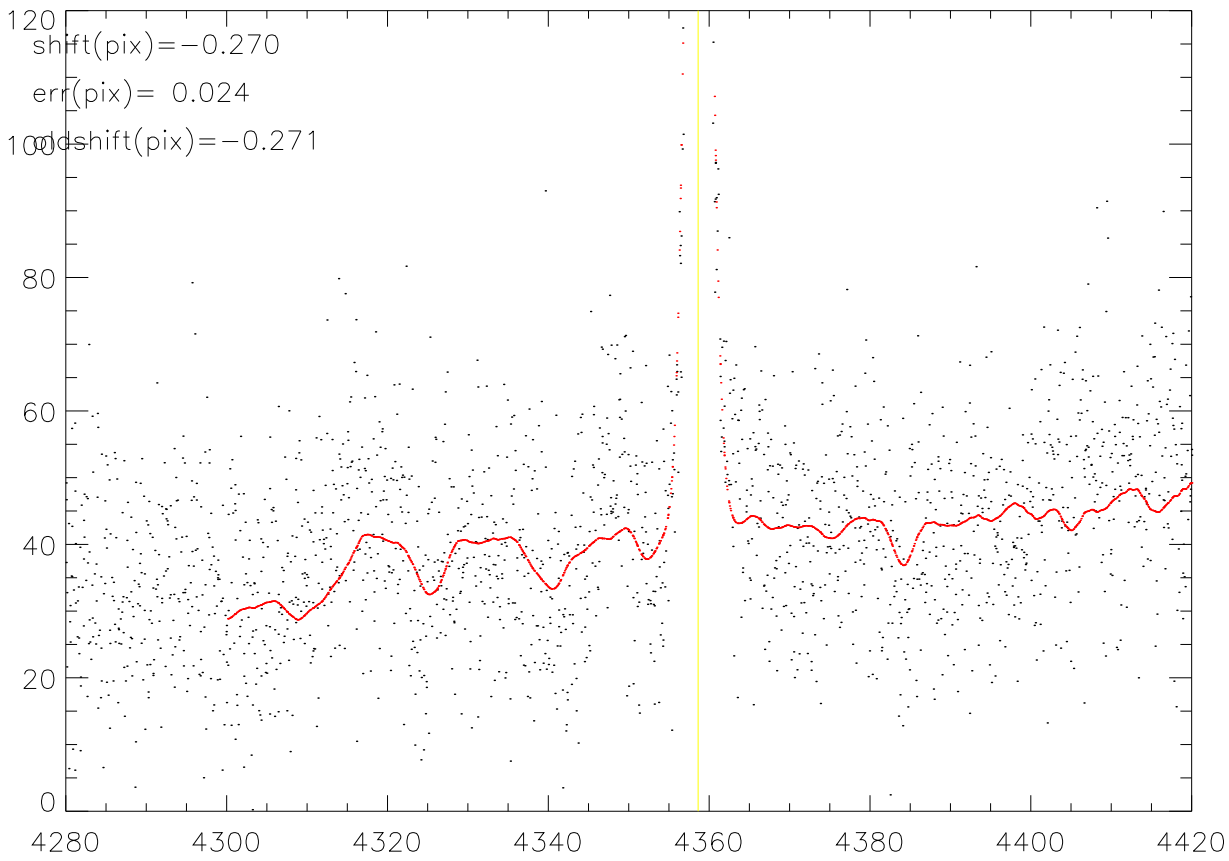

PLATE=1829 MJD=53494 Scattered Light on sdR-b2-00032514.fit
5.27
4.55
3.82
3.09
3.82
3.82
3.09
4.55
3.82
4.55
4.55
Y [pix]
X [pix]
0
500
1000
1500
2000

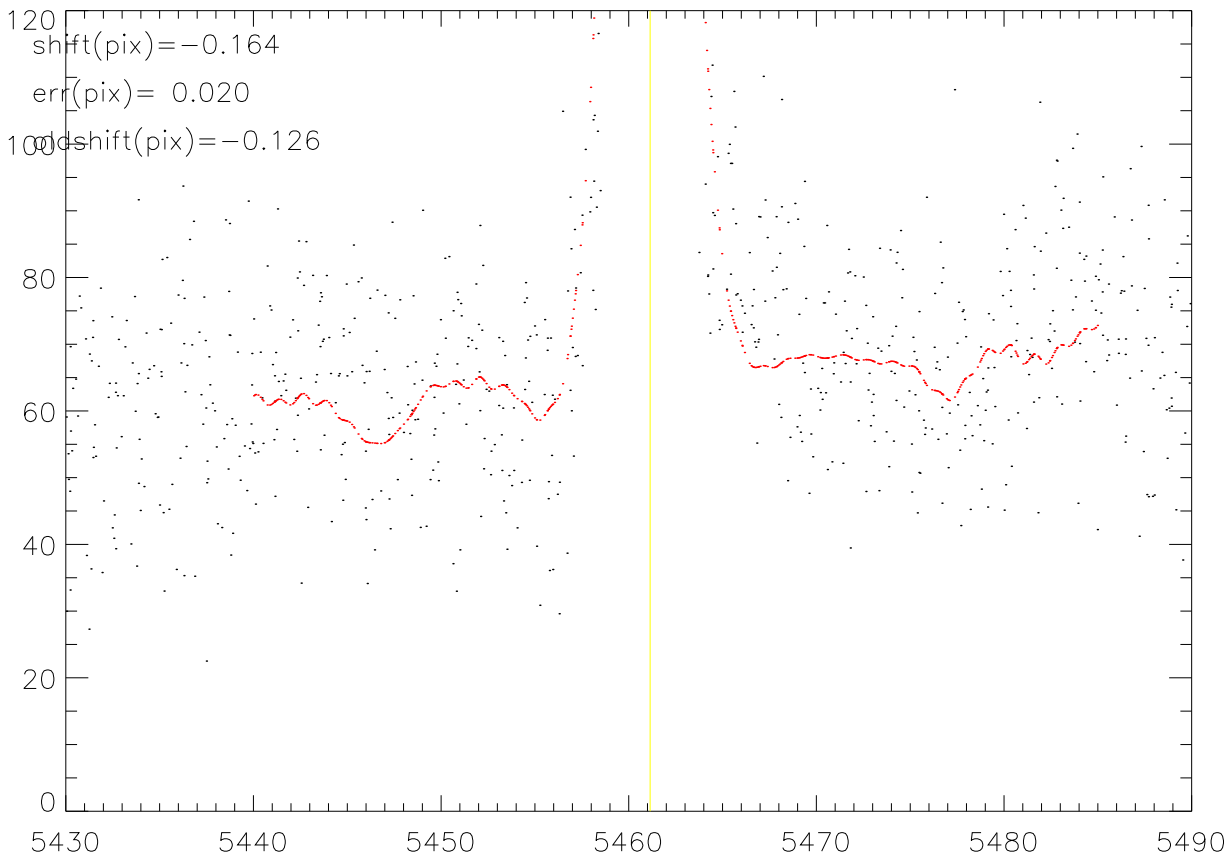

PLATE=1829 MJD=53494 Scattered Light on sdR-b2-00032514.fit
Brightness [electrons/pix]
6
4
2
0
Error bars denote full range
Min value = 3.139
Max value = 4.848
4000
4500
5000
5500
6000
λ [A]
Tue Mar 4 12:12:40 2008

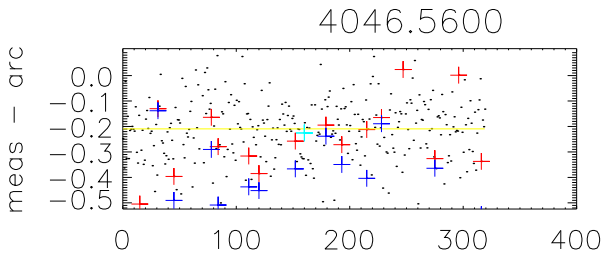

PLATE=1829 MJD=53494 Extraction chi$^2$ for sdR-b2-00032514.fit
BLACK = Final chisq extraction
BLUE = Initial+scattered chisq extraction
GREEN = Initial chisq extraction
$\chi^2$
0
1
2
3
0
500
1000
1500
2000
Row number

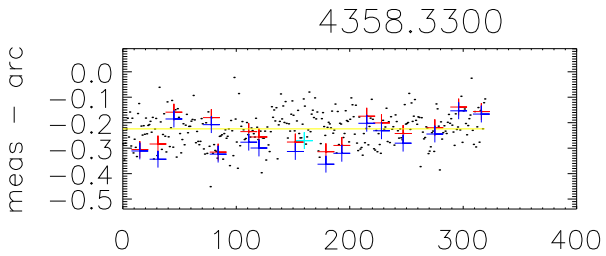

4046.5600
off: −0.33
sig: 0.053
4358.3300
off: −0.27
sig: 0.020
5460.9400
off: −0.13
sig: 0.016
5577.3390
off: −0.12
sig: 0.003
5889.9500
off: −0.02
sig: 0.008
5895.9240
off: −0.04
sig: 0.010

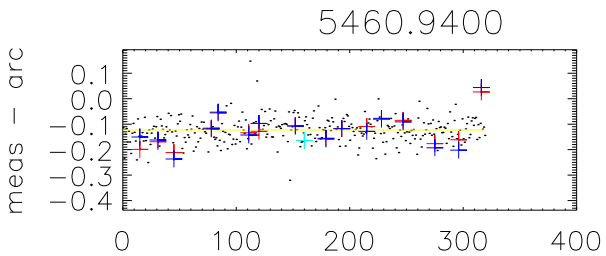

shift(pix)=−0.226
err(pix)= 0.065
oldshift(pix)=−0.327
120
100
80
60
40
20
0
4020
4030
4040
4050
4060
4070
4080

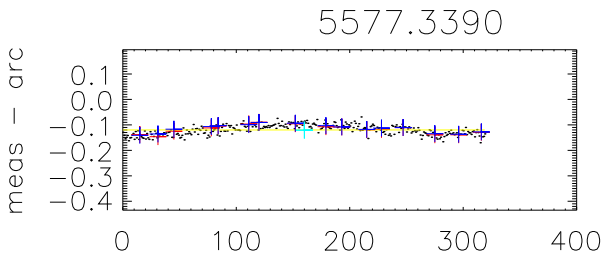

shift(pix)=−0.270
err(pix)= 0.024
oldshift(pix)=−0.271
120
100
80
60
40
20
0
4280
4300
4320
4340
4360
4380
4400
4420

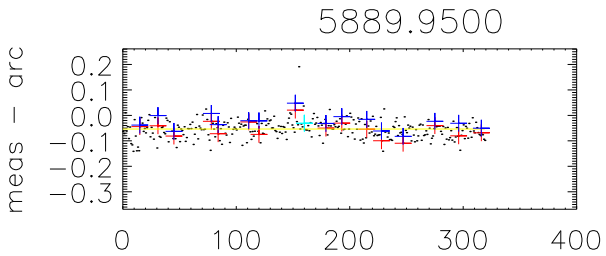

shift(pix)=−0.164
err(pix)= 0.020
oldshift(pix)=−0.126
120
100
80
60
40
20
0
5430
5440
5450
5460
5470
5480
5490

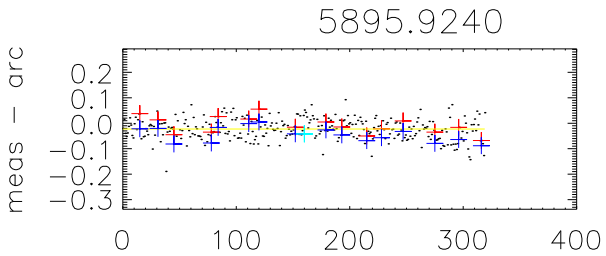

4046.5600
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

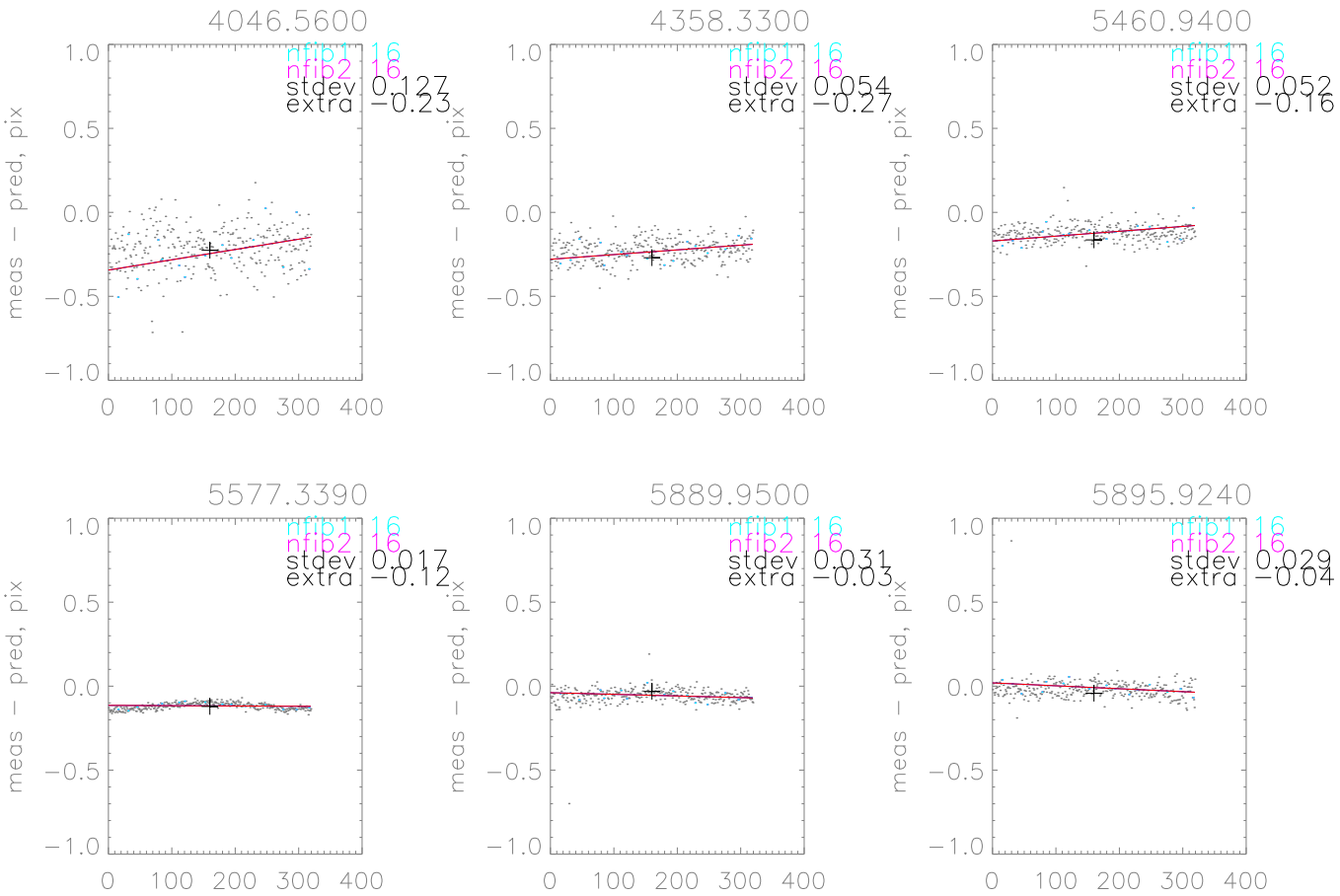

4358.3300
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

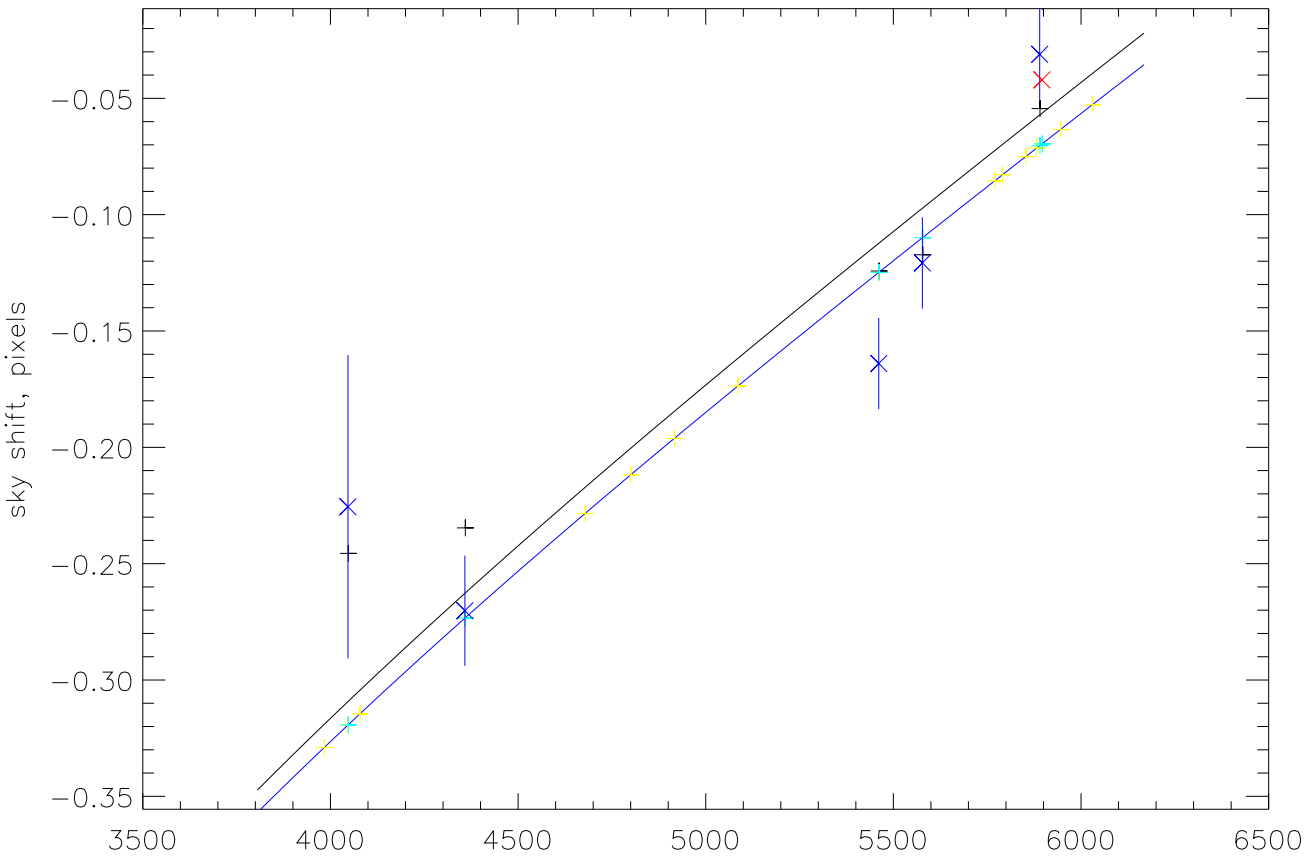

5460.9400
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

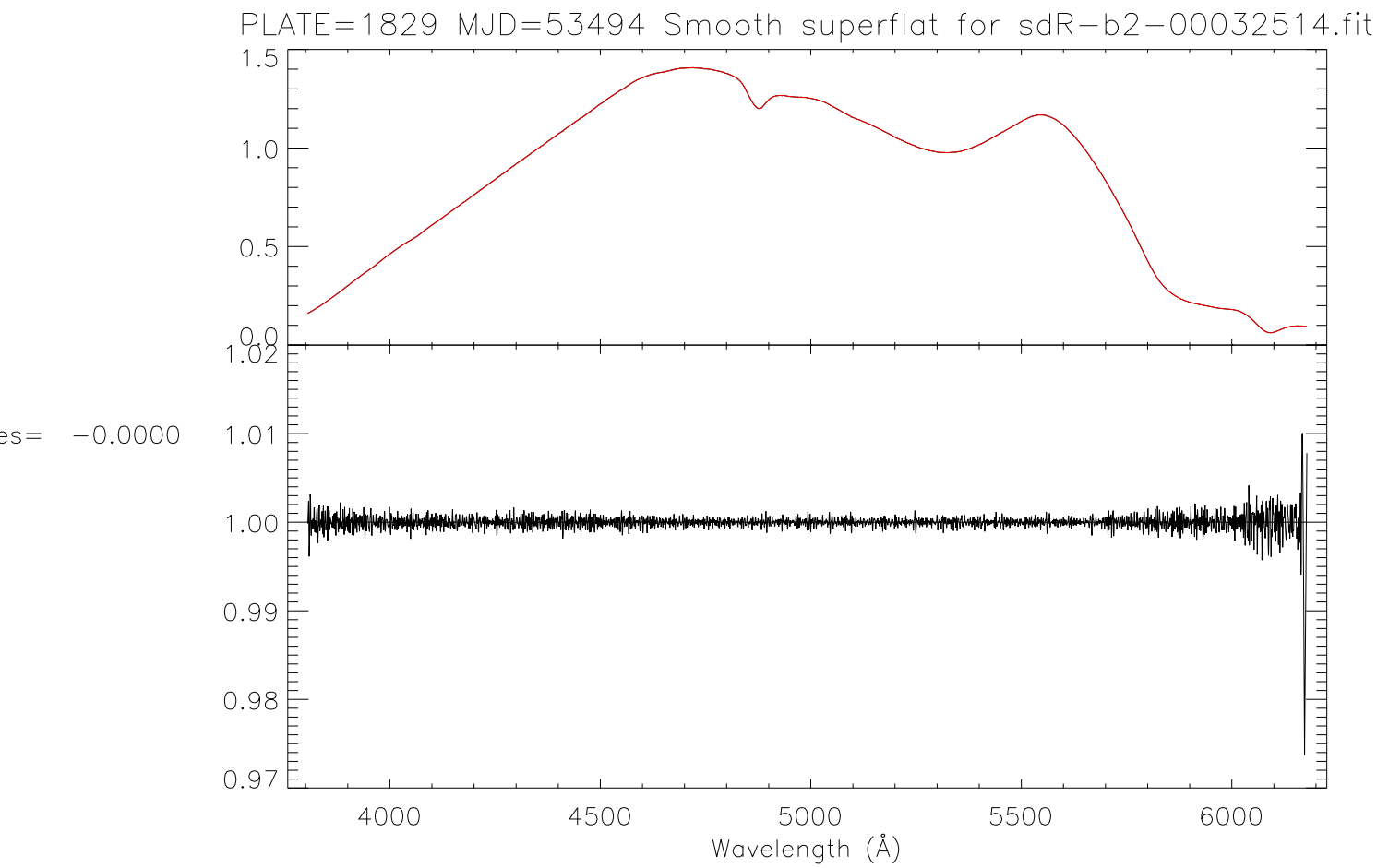

5577.3390
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400


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

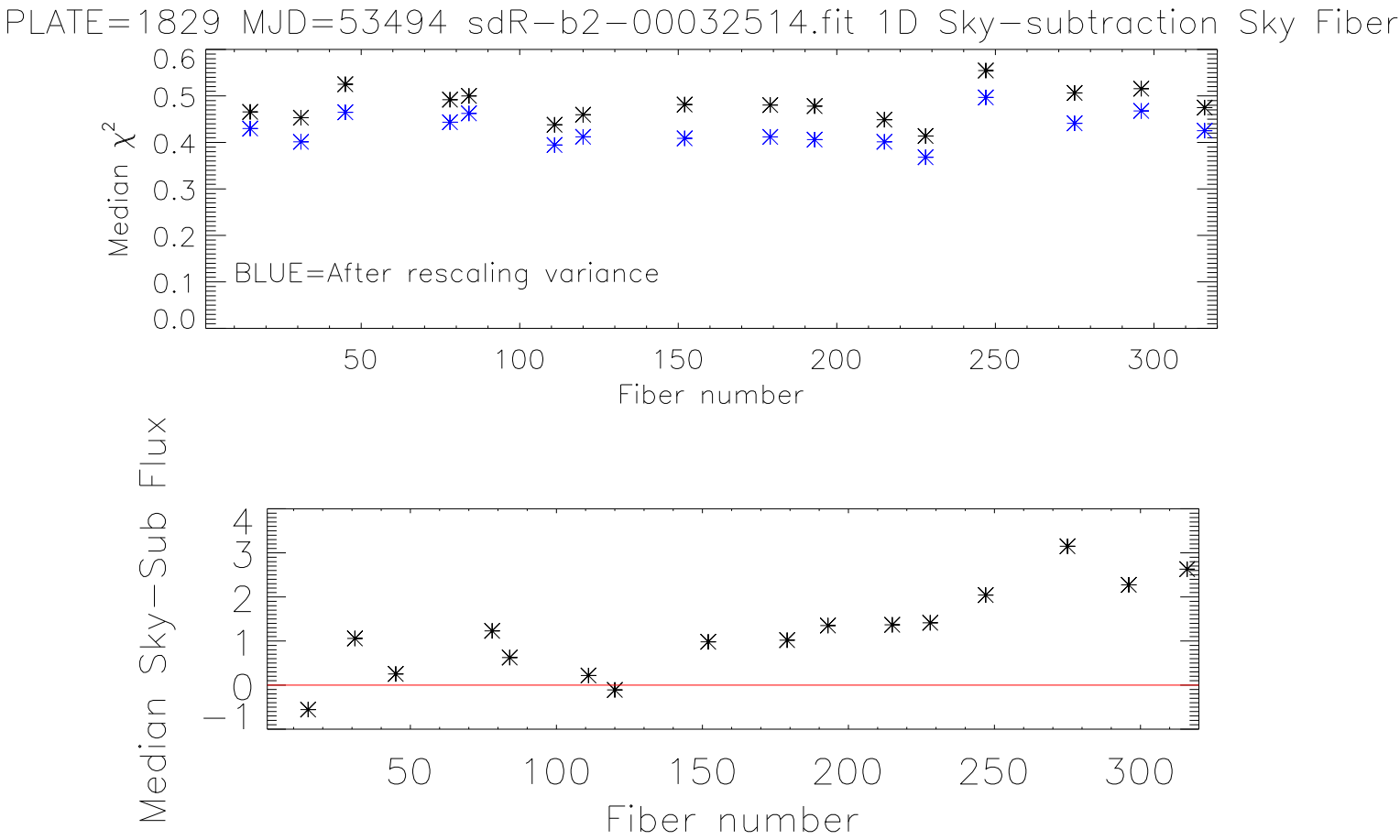

5895.9240
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

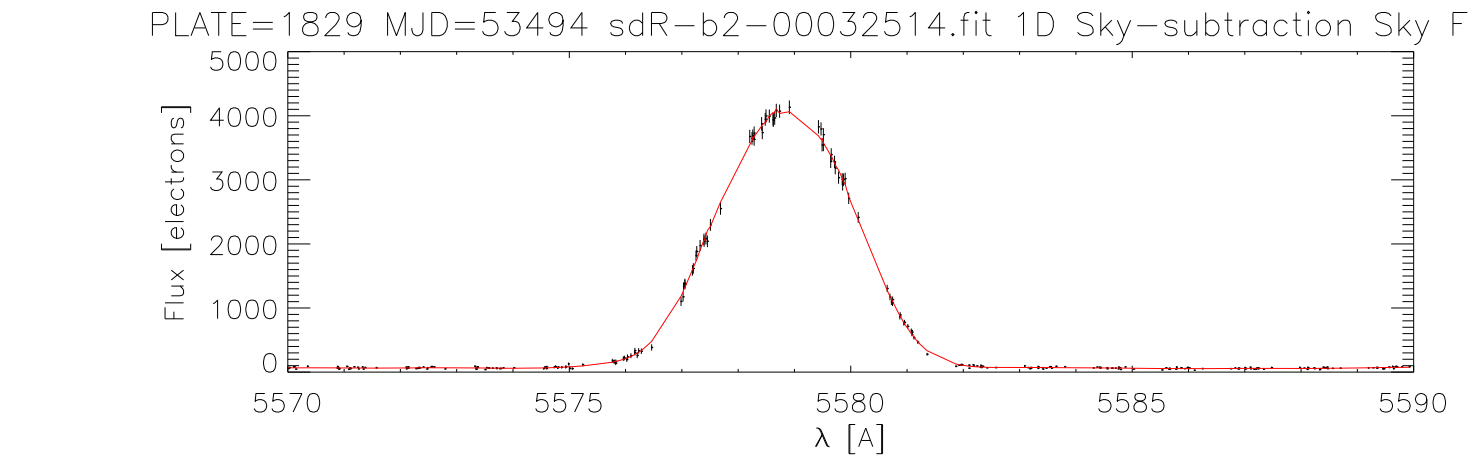

4046.5600
nfib1 16
nfib2 16
stdev 0.127
extra −0.23
4358.3300
nfib1 16
nfib2 16
stdev 0.054
extra −0.27
5460.9400
nfib1 16
nfib2 16
stdev 0.052
extra −0.16
5577.3390
nfib1 16
nfib2 16
stdev 0.017
extra −0.12
5889.9500
nfib1 16
nfib2 16
stdev 0.031
extra −0.03
5895.9240
nfib1 16
nfib2 16
stdev 0.029
extra −0.04
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

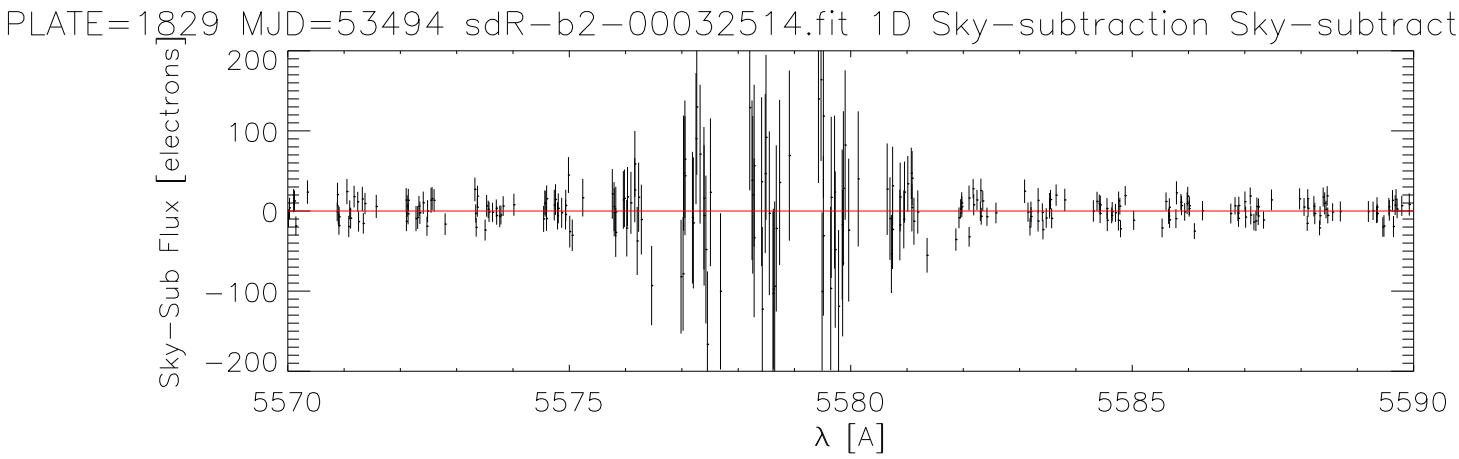

sky shift, pixels
−0.05
−0.10
−0.15
−0.20
−0.25
−0.30
−0.35
3500
4000
4500
5000
5500
6000
6500

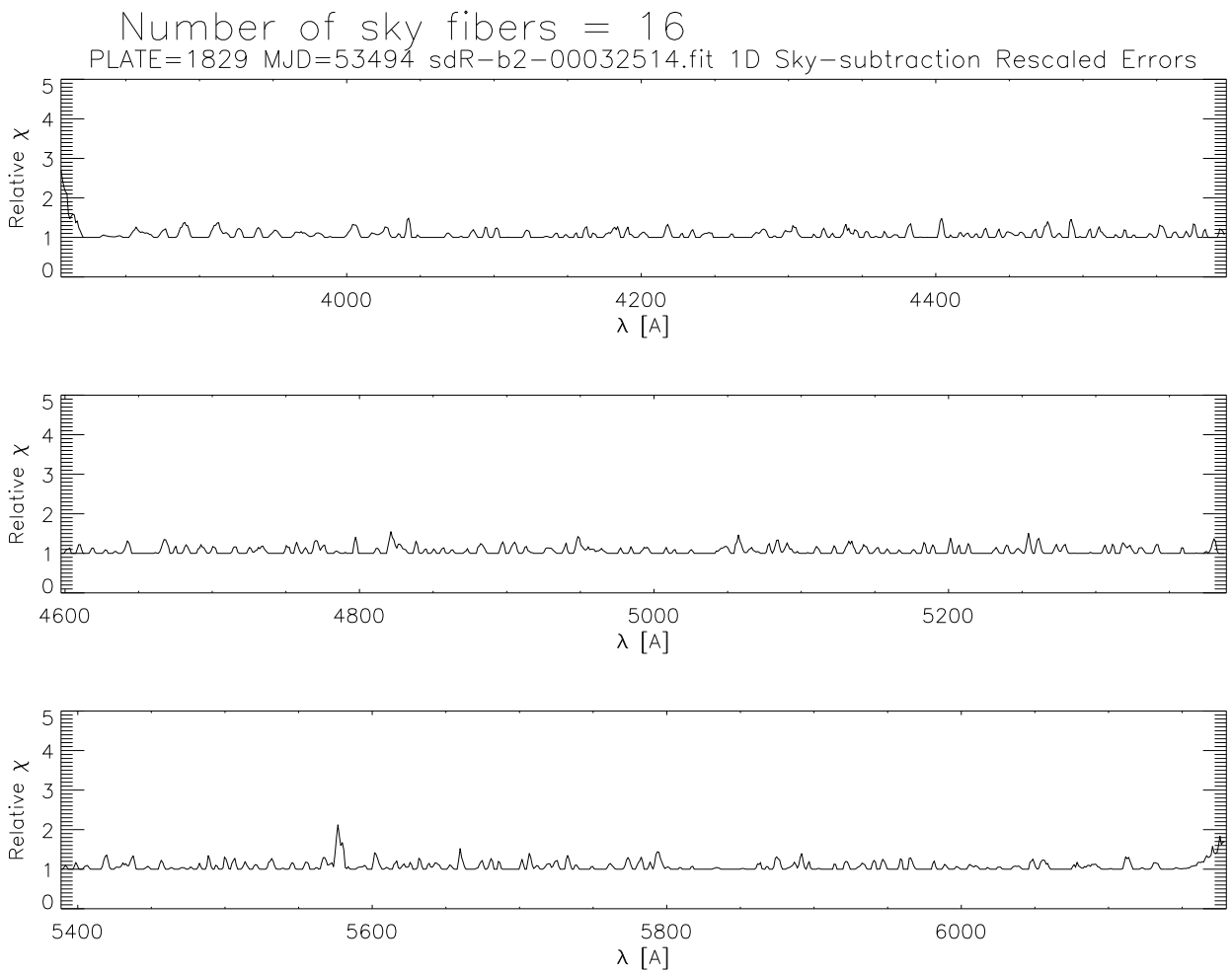

PLATE=1829 MJD=53494 Smooth superflat for sdR-b2-00032514.fit
1.5
1.0
0.5
0.0
1.02
1.01
1.00
0.99
0.98
0.97
4000
4500
5000
5500
6000
Wavelength (Å)

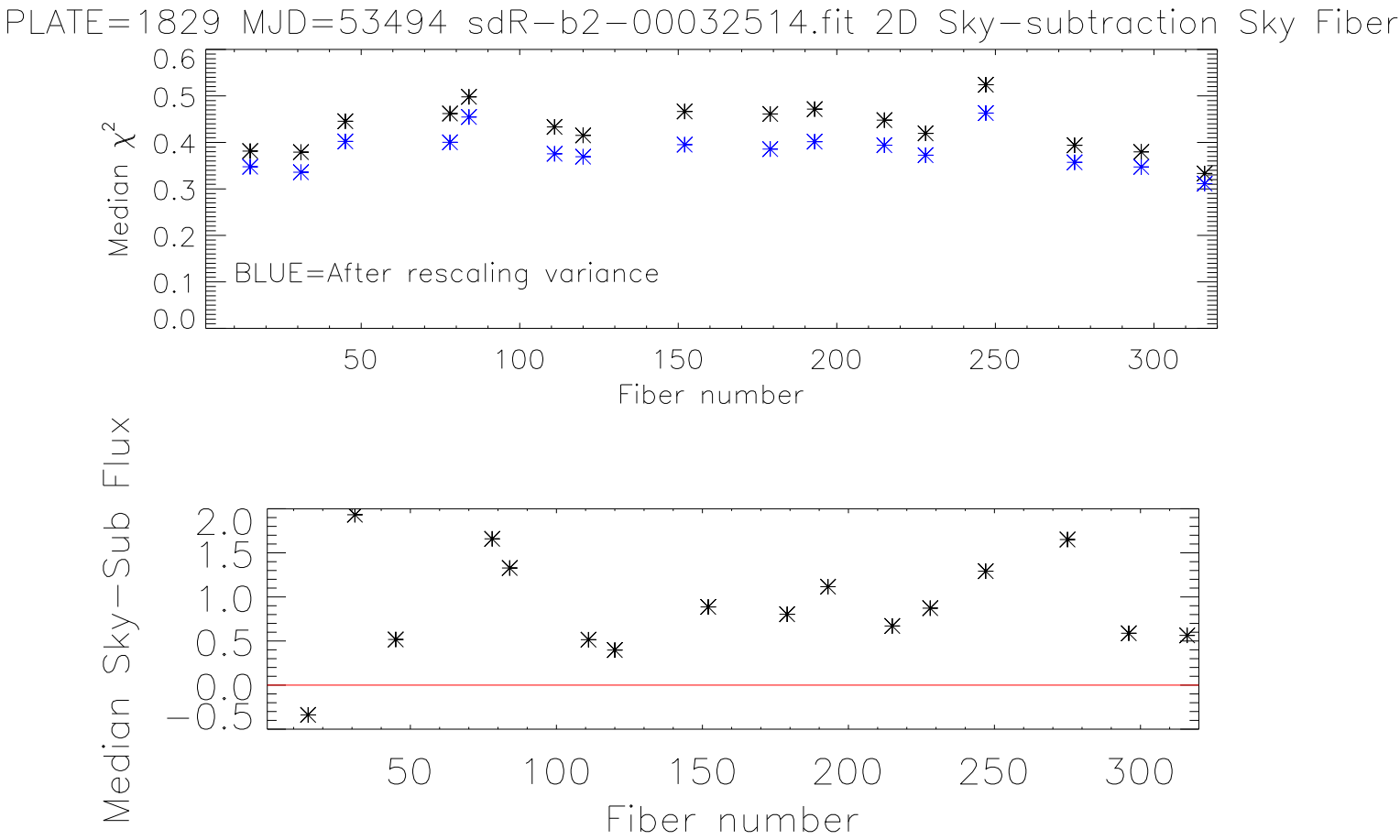
es= −0.0000

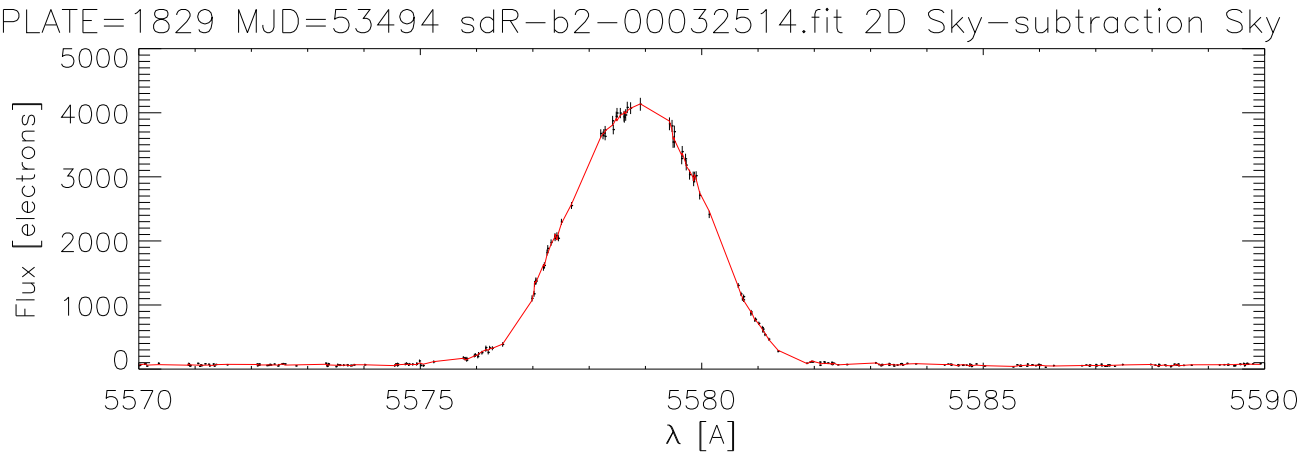

PLATE=1829 MJD=53494 sdR-b2-00032514.fit 1D Sky-subtraction Sky Fiber
Median $\chi^2$
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

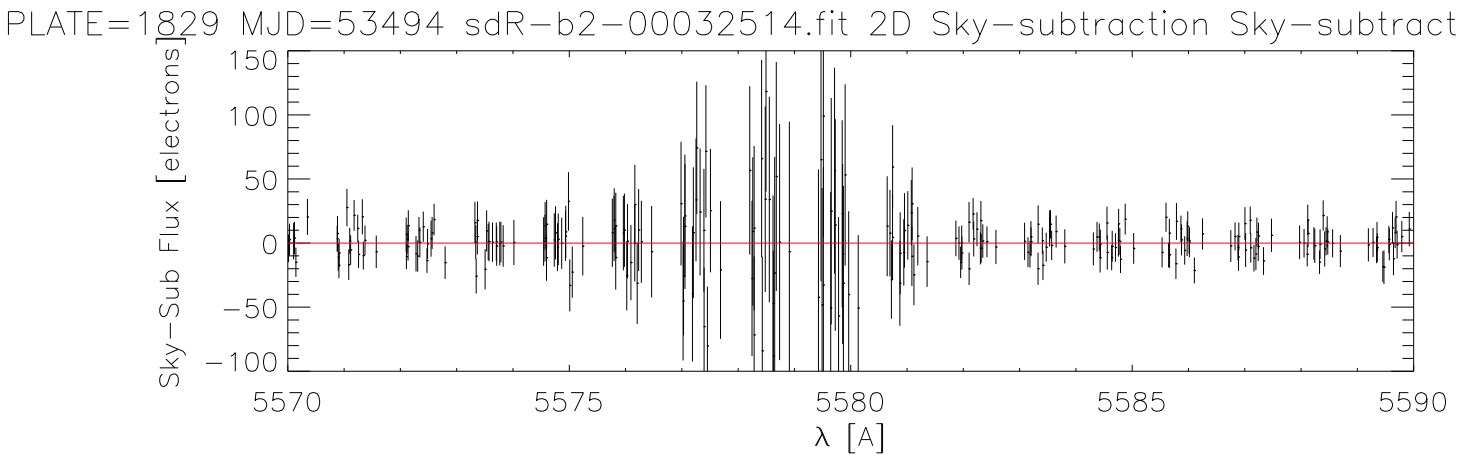

PLATE=1829 MJD=53494 sdR-b2-00032514.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

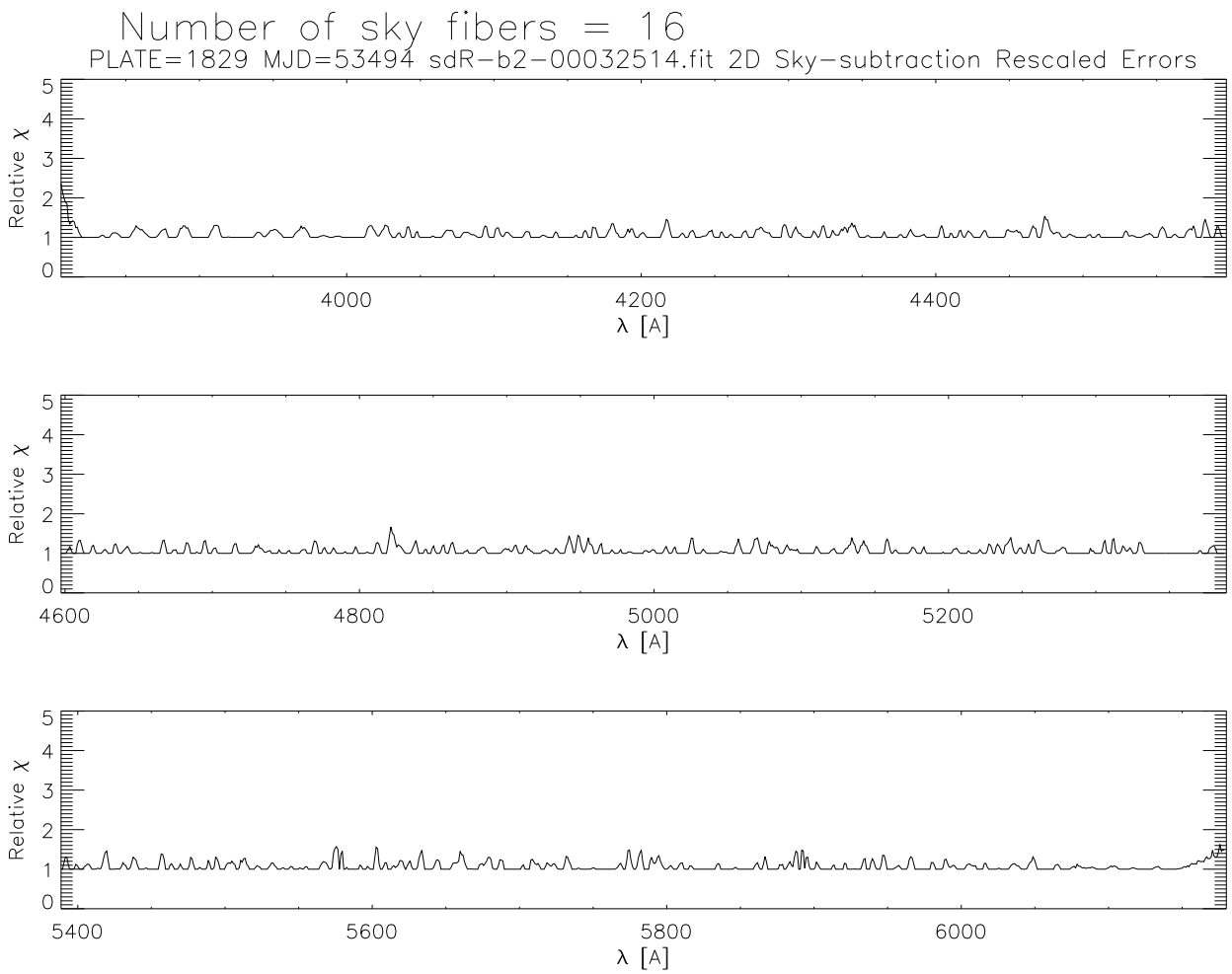

PLATE=1829 MJD=53494 sdR-b2-00032514.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
5570
5575
5580
5585
5590
λ [A]

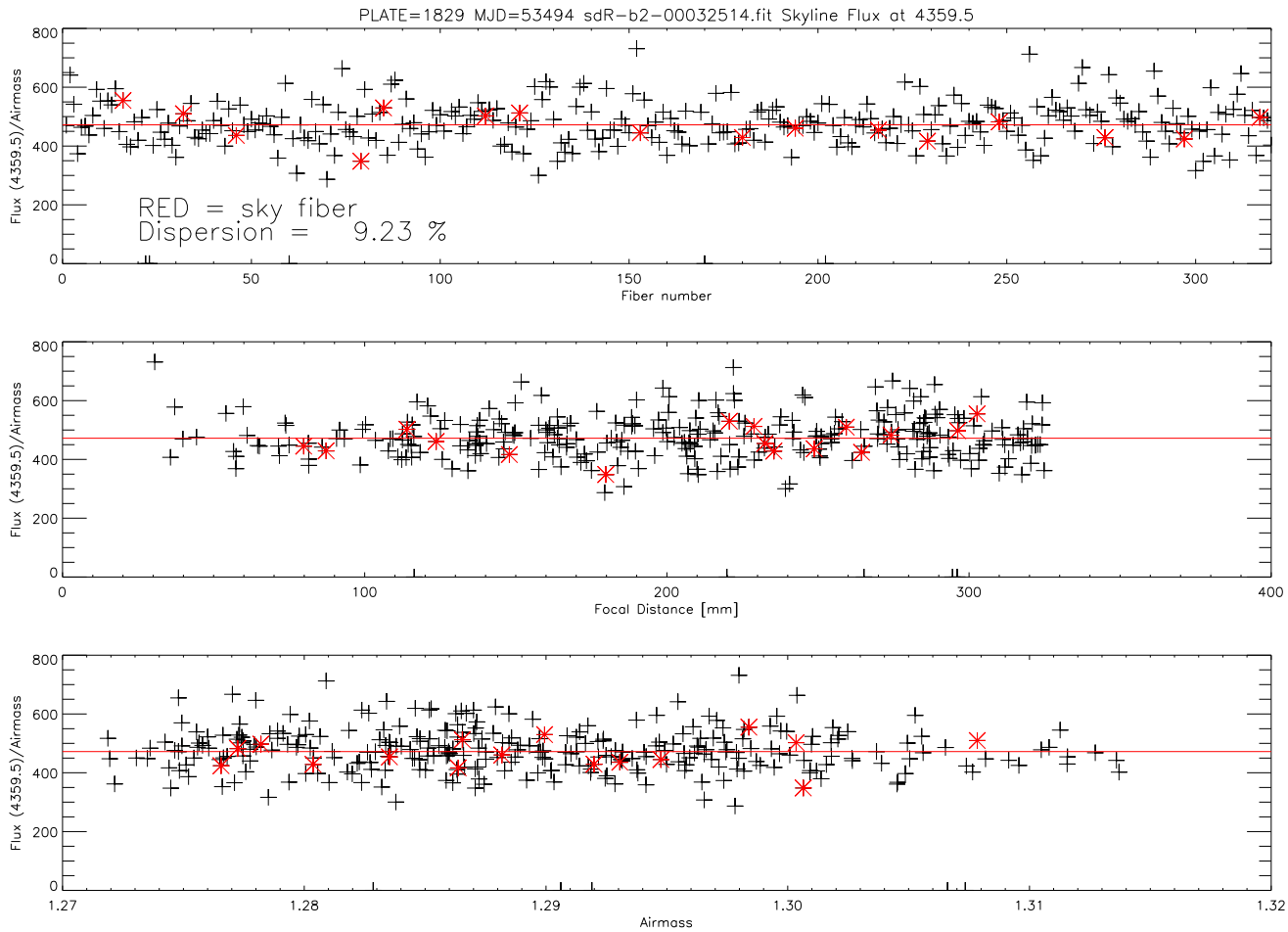

Number of sky fibers = 16
PLATE=1829 MJD=53494 sdR-b2-00032514.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

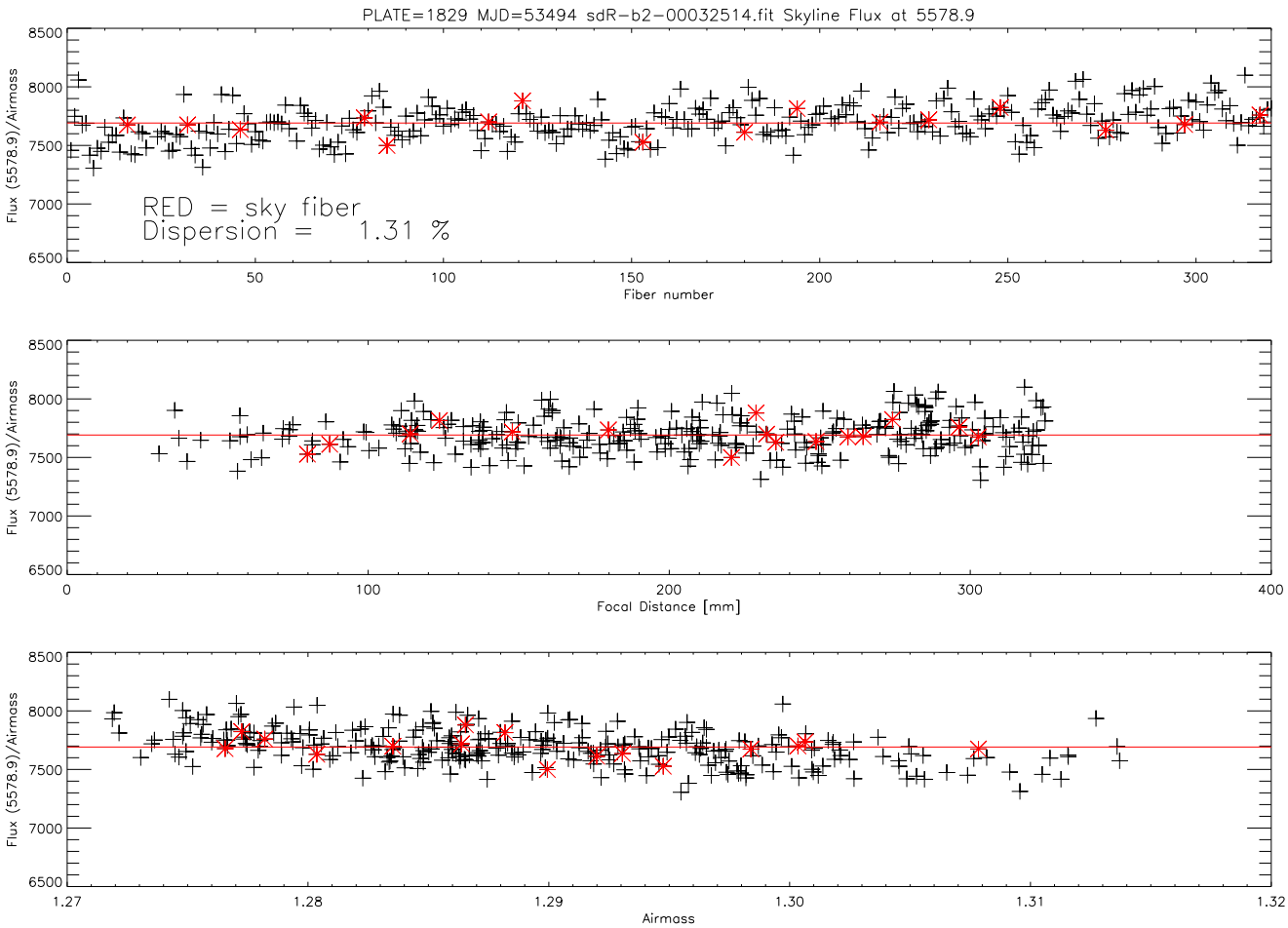

PLATE=1829 MJD=53494 sdR-b2-00032514.fit 2D Sky-subtraction Sky Fiber
Median $\chi^2$
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

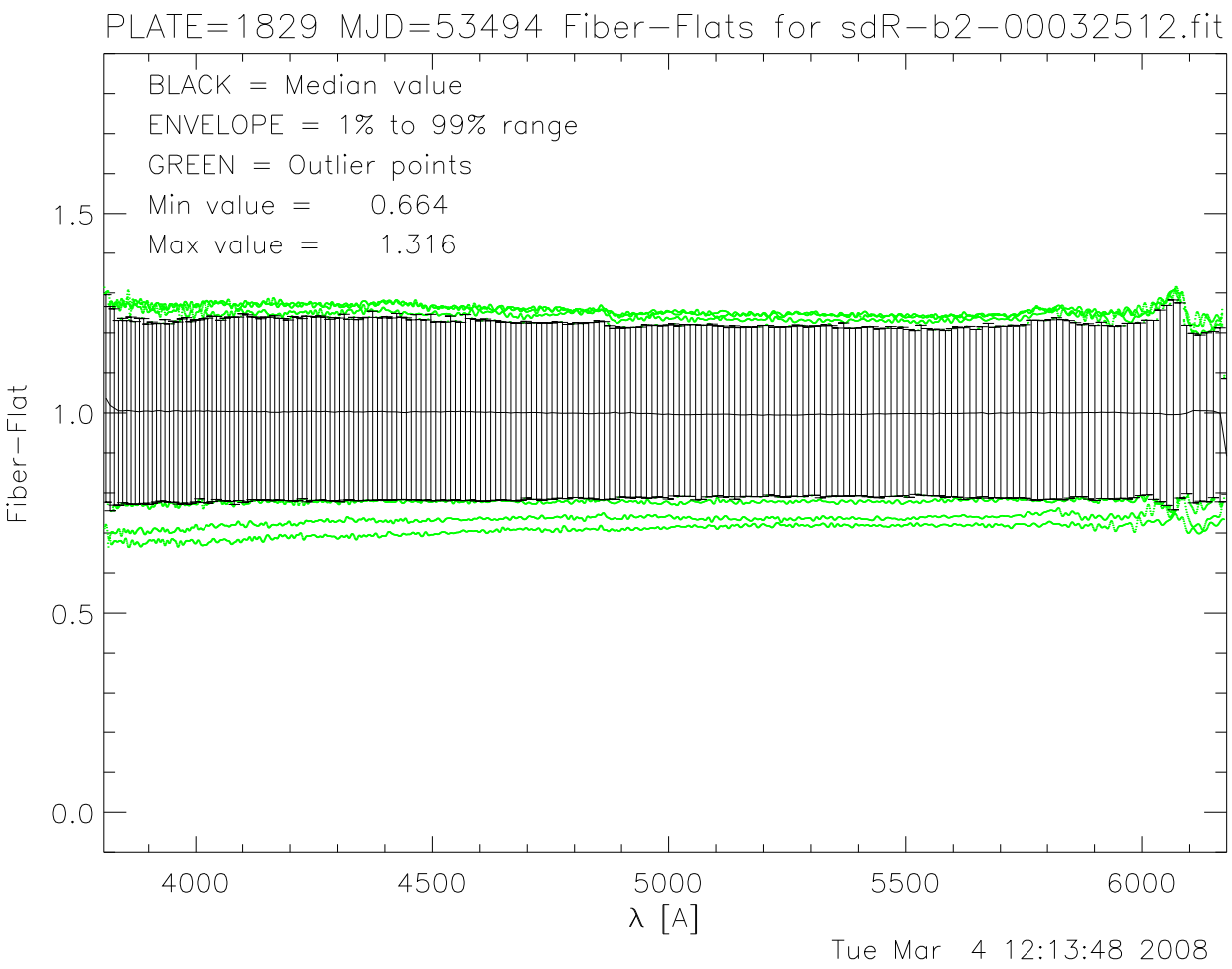

PLATE=1829 MJD=53494 sdR-b2-00032514.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

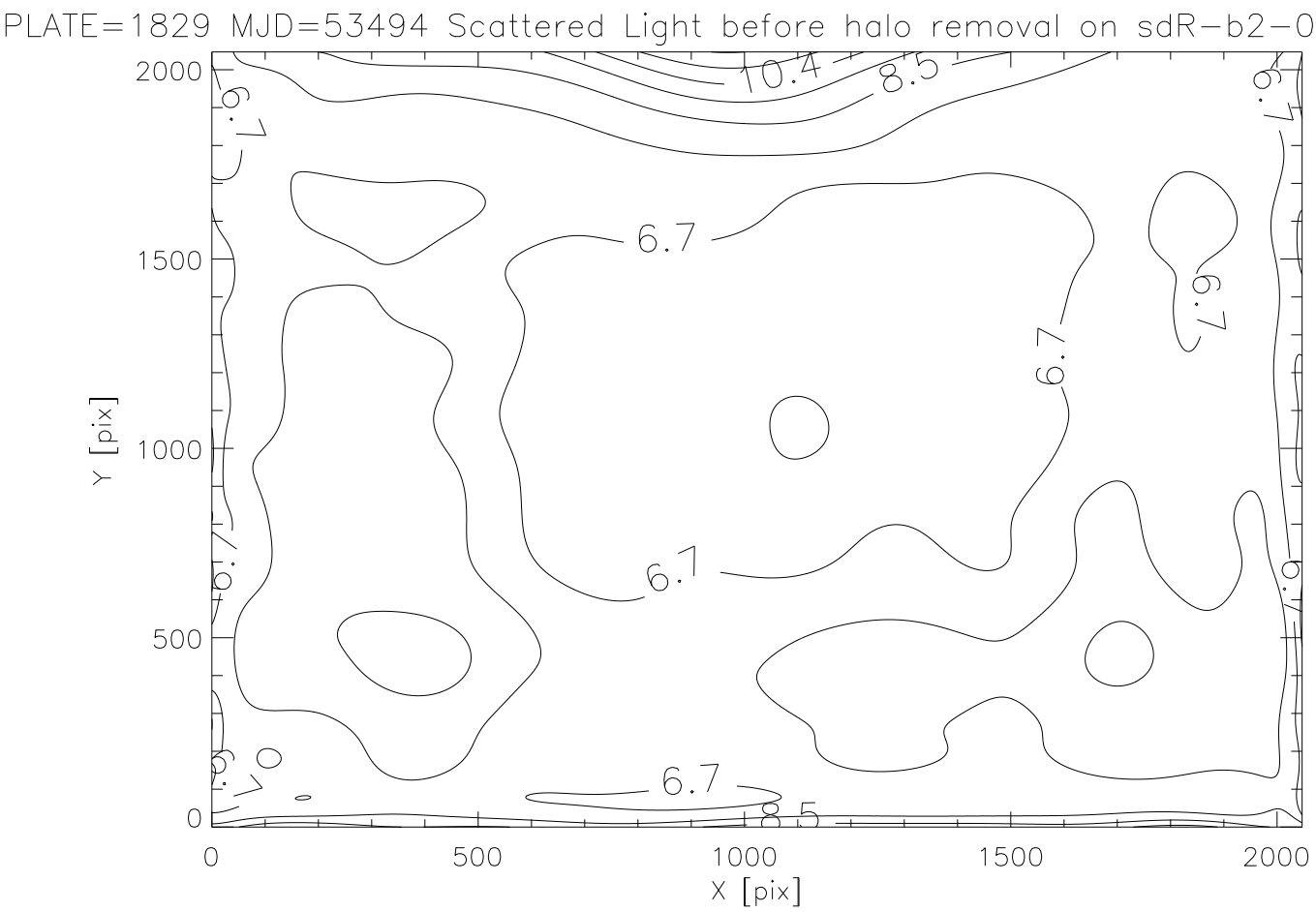

PLATE=1829 MJD=53494 sdR-b2-00032514.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
150
100
50
0
-50
-100
5570
5575
5580
5585
5590
λ [A]

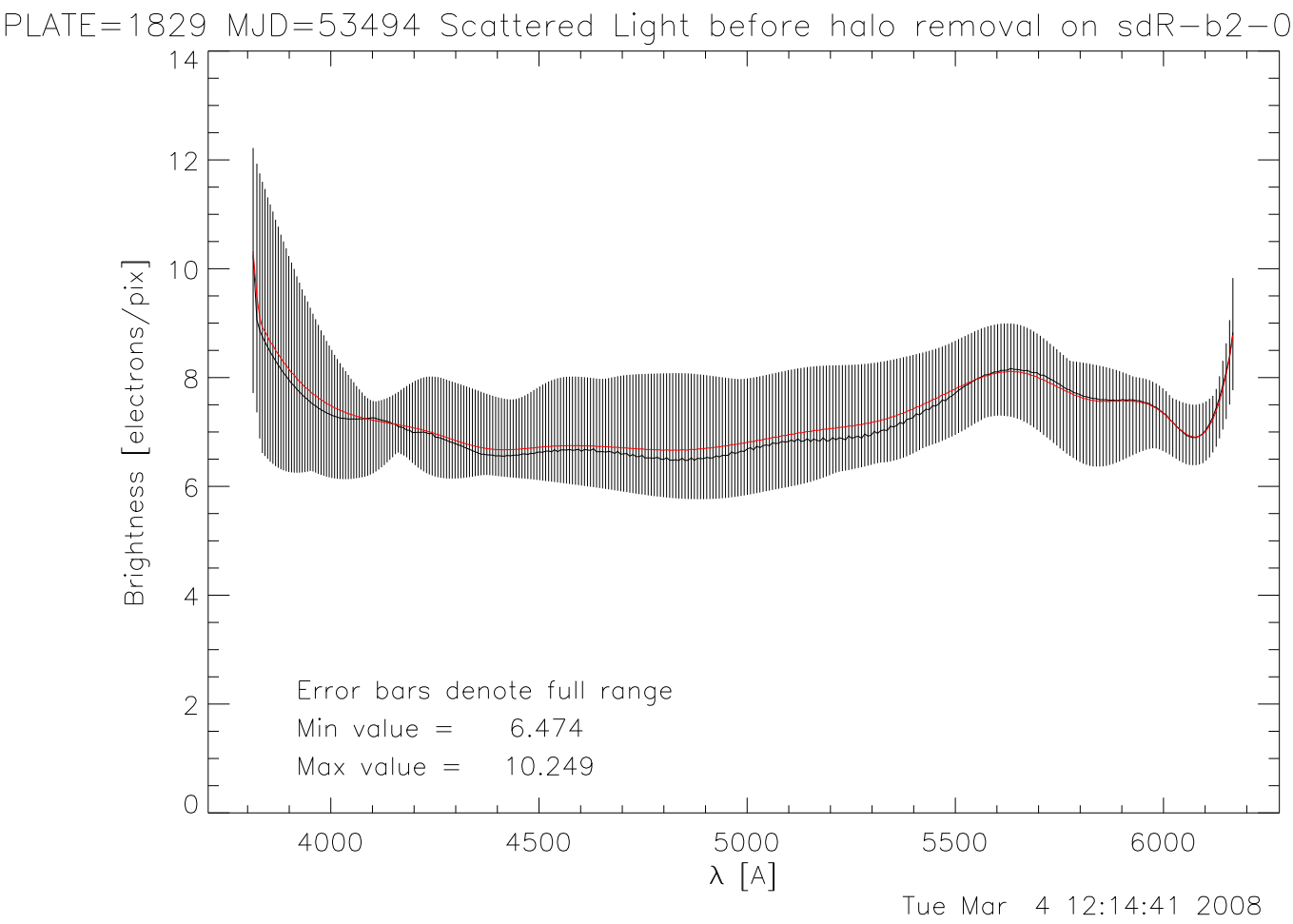

Number of sky fibers = 16
PLATE=1829 MJD=53494 sdR-b2-00032514.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

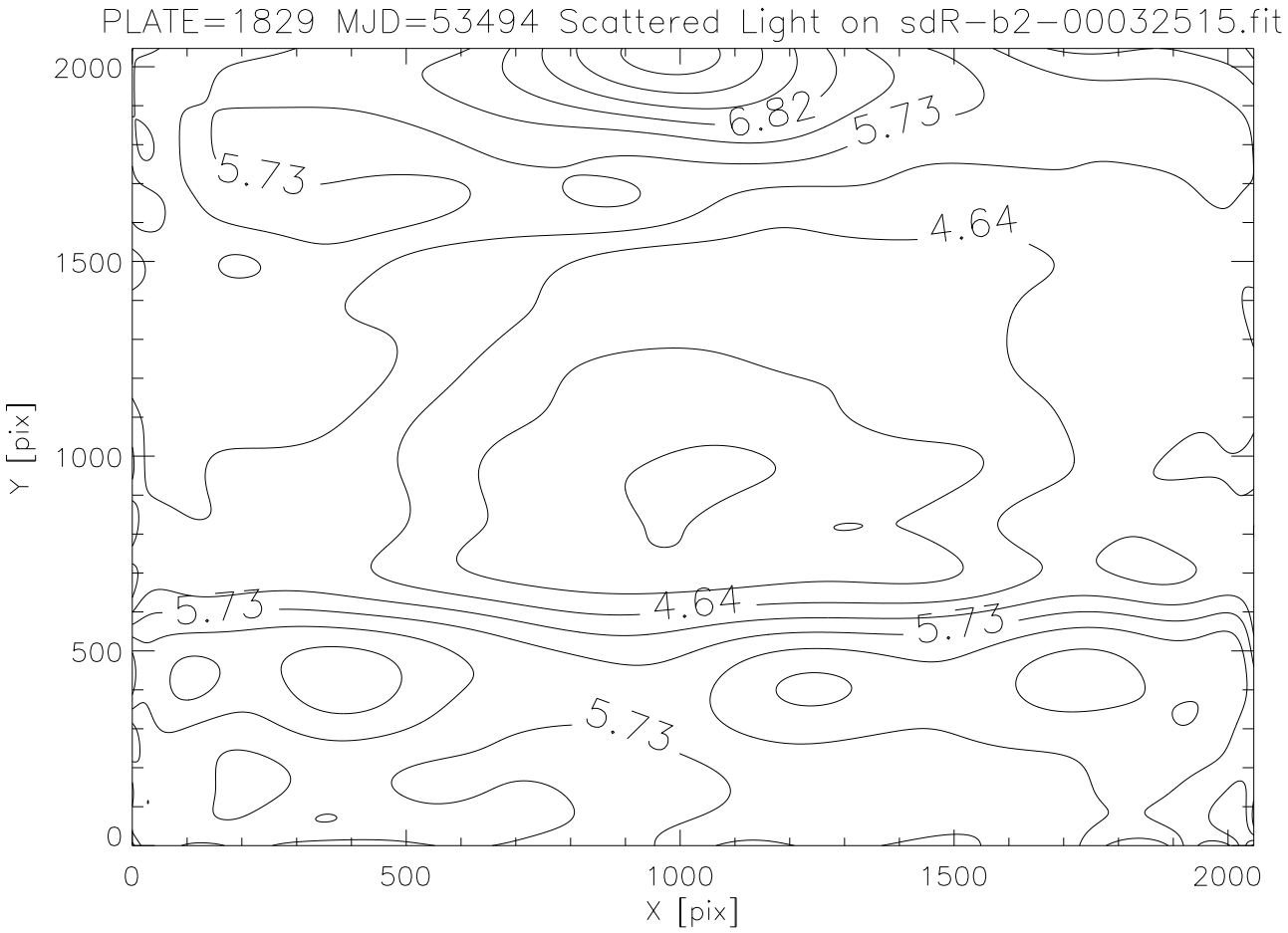

PLATE=1829 MJD=53494 sdR-b2-00032514.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 9.23 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

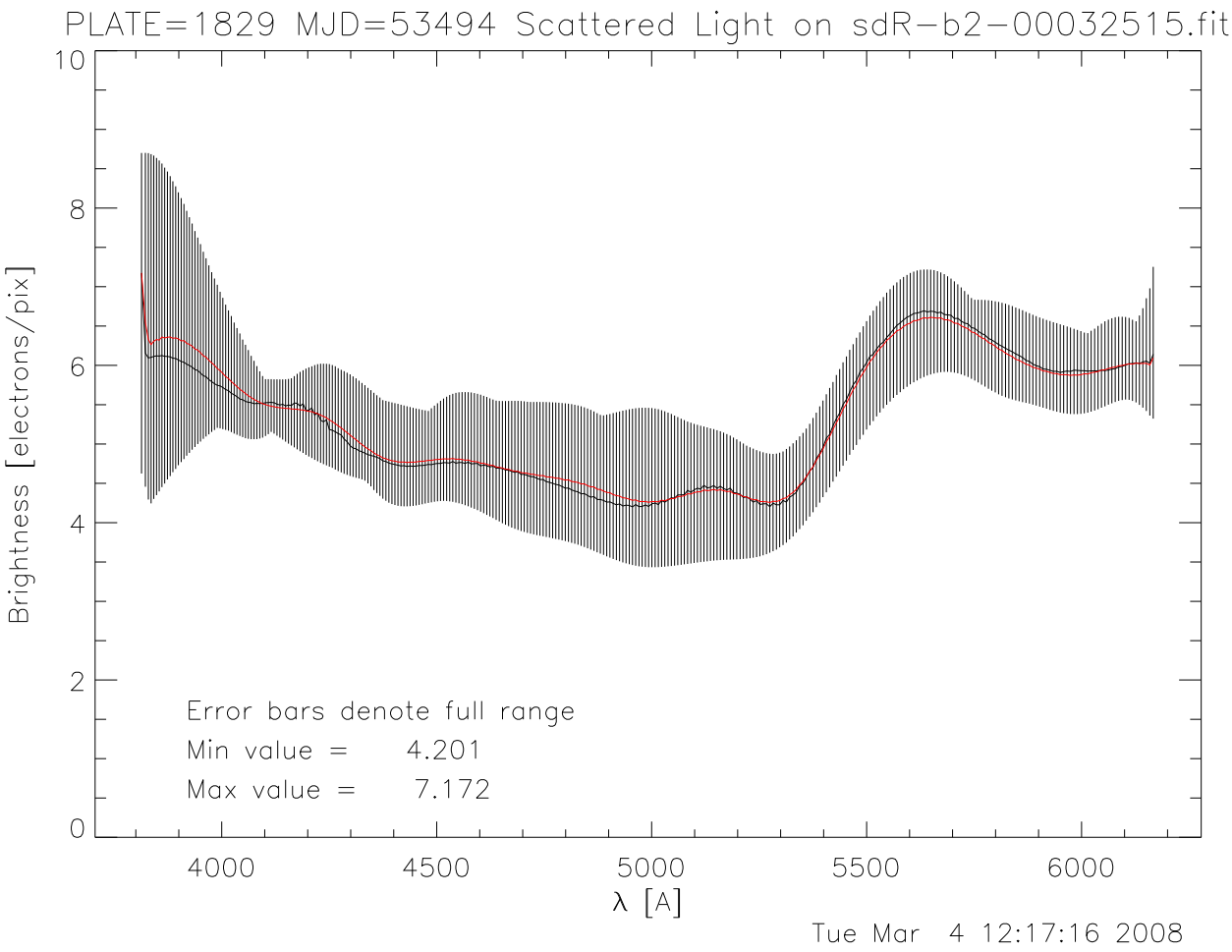

PLATE=1829 MJD=53494 sdR-b2-00032514.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 1.31 %
Fiber number
Focal Distance [mm]
Airmass

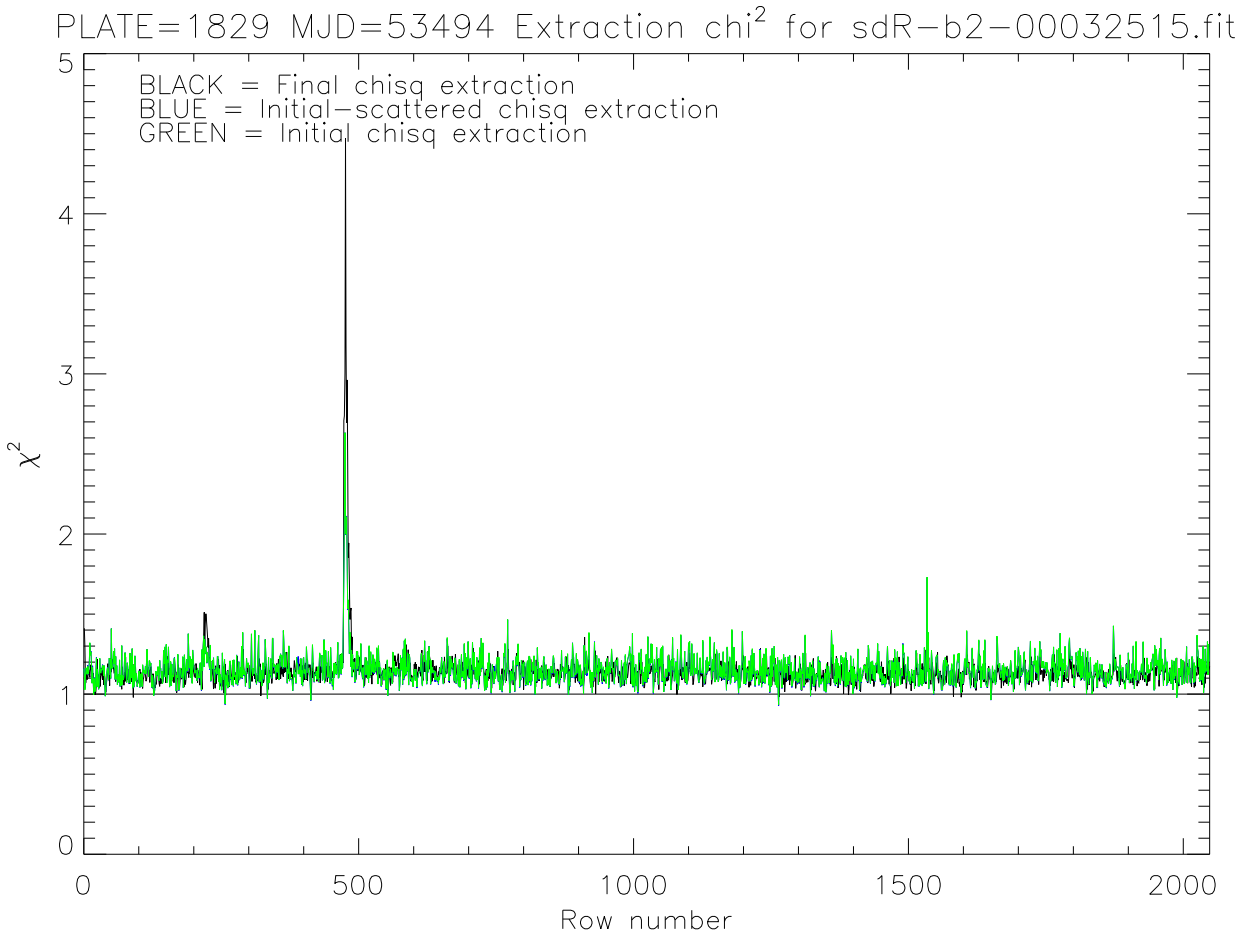

PLATE=1829 MJD=53494 Fiber-Flats for sdR-b2-00032512.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.664
Max value = 1.316
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Tue Mar 4 12:13:48 2008

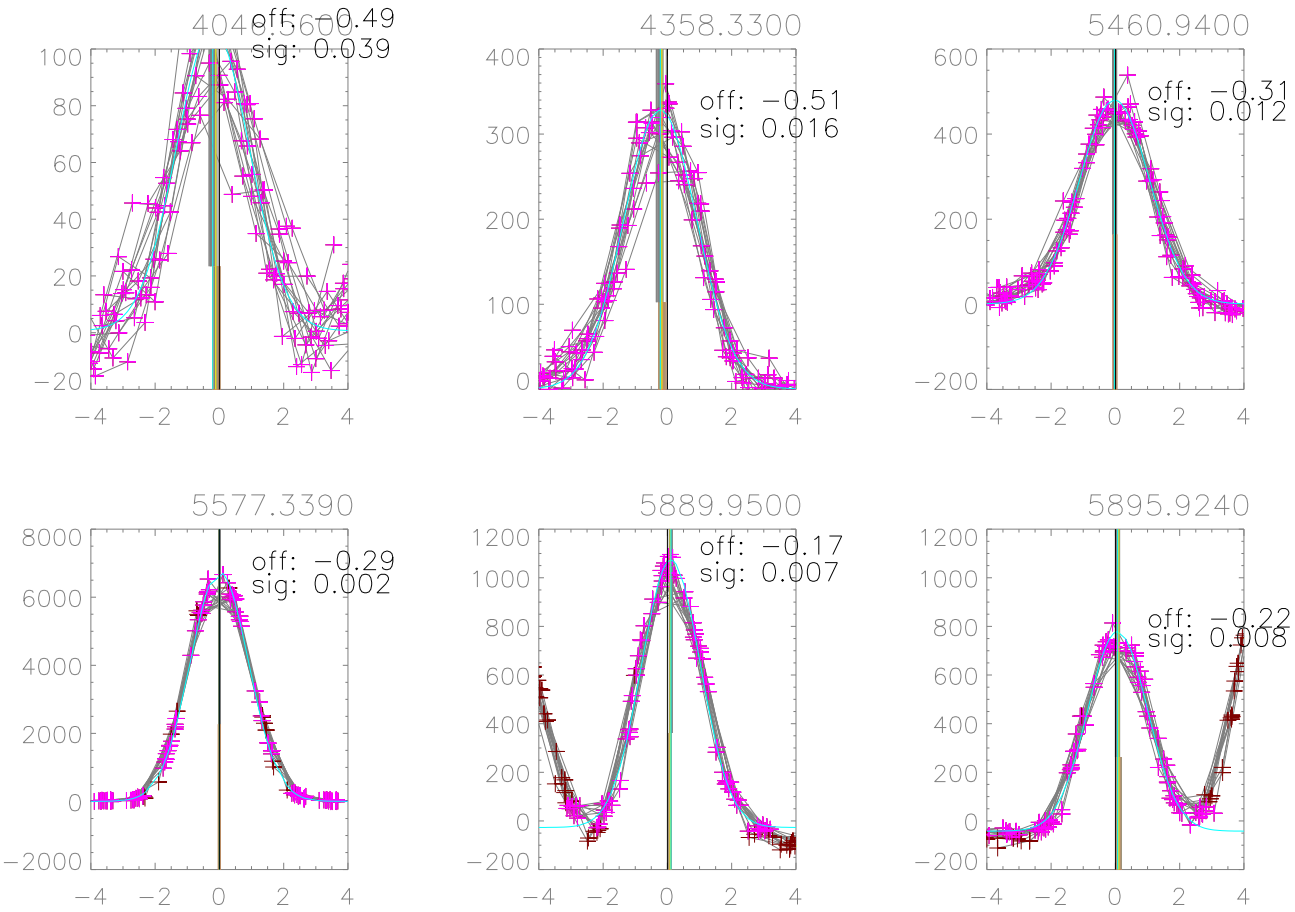

PLATE=1829 MJD=53494 Scattered Light before halo removal on sdR-b2-00032515.f
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
10.4
8.5
6.7
6.7
6.7

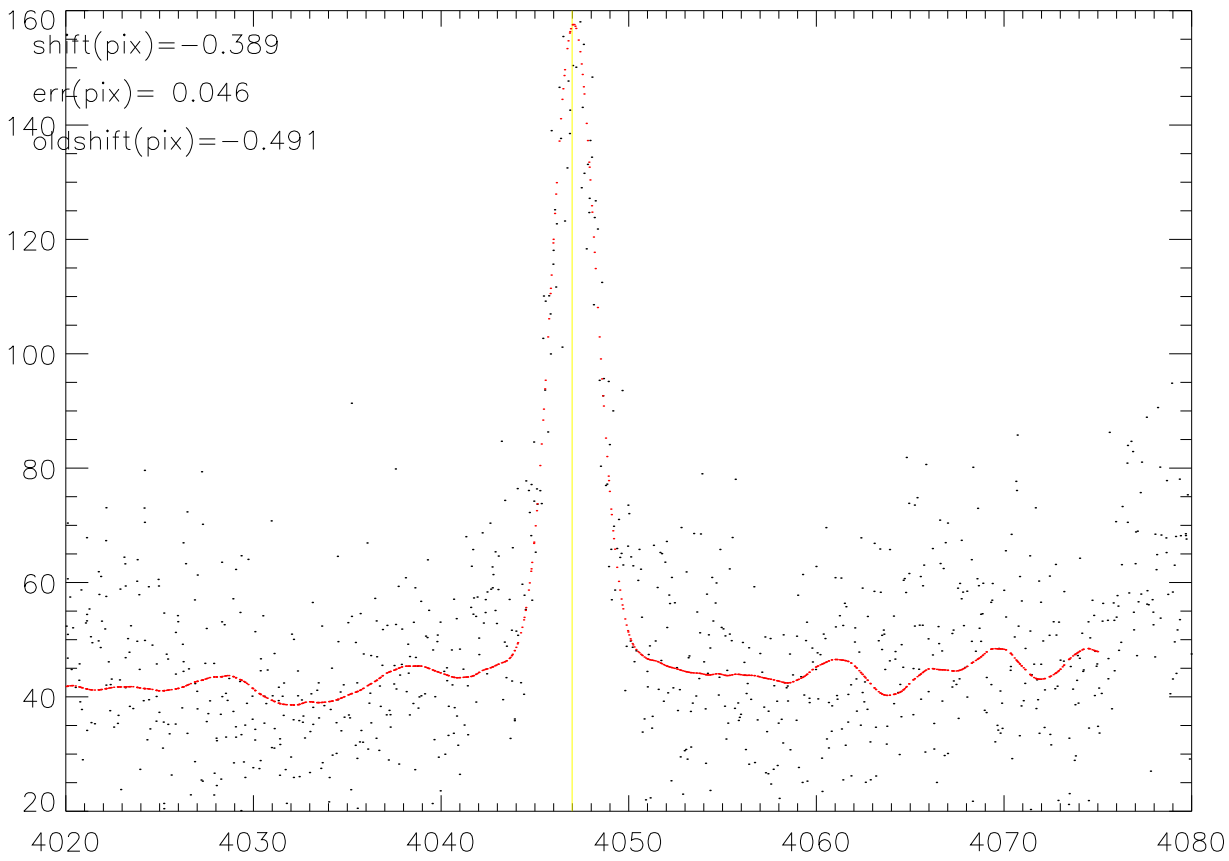

PLATE=1829 MJD=53494 Scattered Light before halo removal on sdR-b2-00032515.f
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 6.474
Max value = 10.249
Tue Mar 4 12:14:41 2008

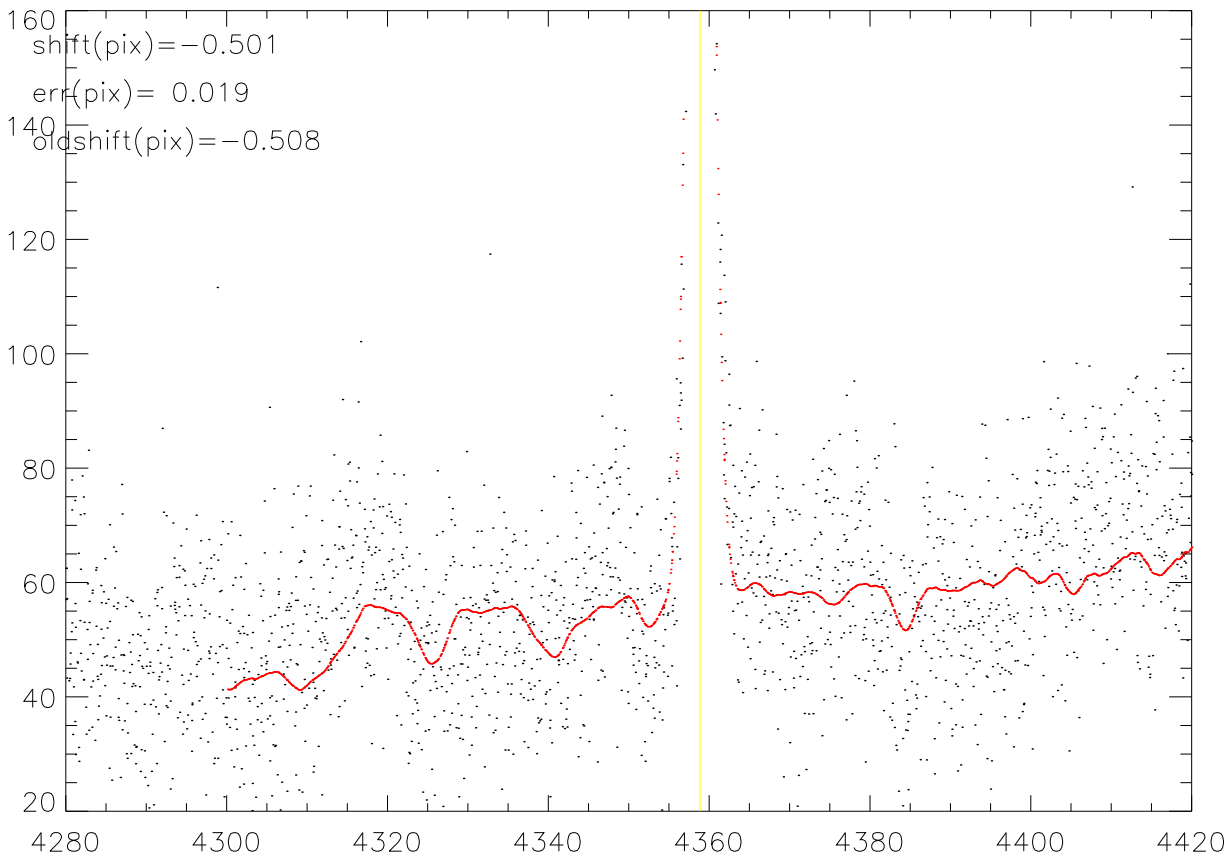

PLATE=1829 MJD=53494 Scattered Light on sdR-b2-00032515.fit
6.82
5.73
5.73
4.64
5.73
4.64
5.73
5.73
Y [pix]
X [pix]
0
500
1000
1500
2000

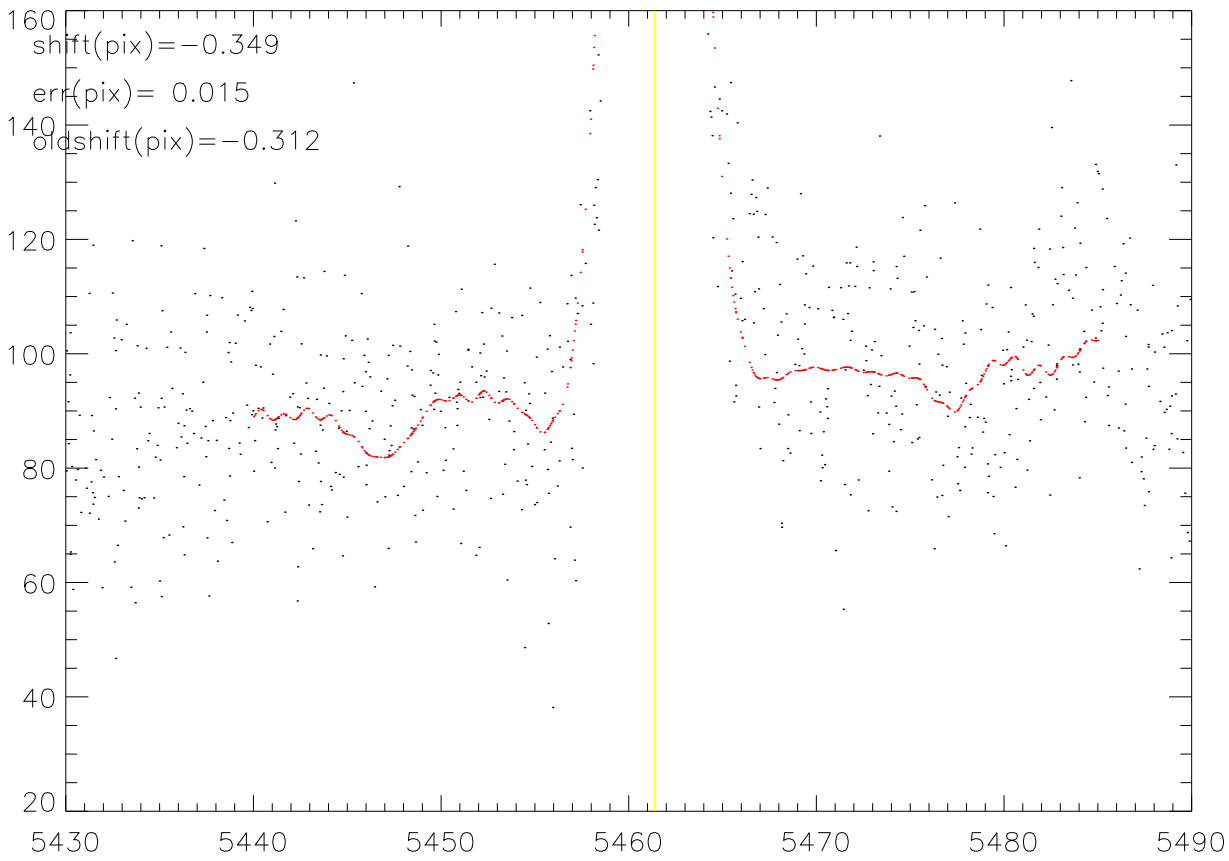

PLATE=1829 MJD=53494 Scattered Light on sdR-b2-00032515.fit
Brightness [electrons/pix]
10
8
6
4
2
0
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 4.201
Max value = 7.172
Tue Mar 4 12:17:16 2008

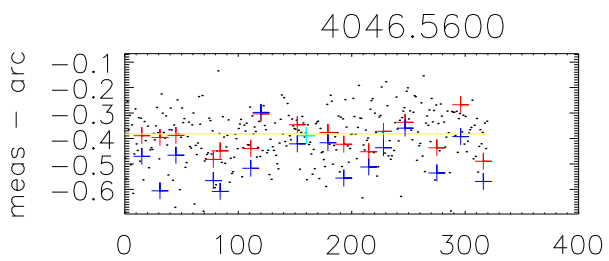

PLATE=1829 MJD=53494 Extraction chi$^2$ for sdR-b2-00032515.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
$\chi^2$
0
1
2
3
4
5
0
500
1000
1500
2000
Row number

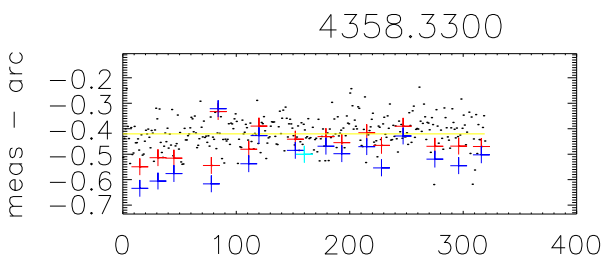

4046.5600
off: −0.49
sig: 0.039
4358.3300
off: −0.51
sig: 0.016
5460.9400
off: −0.31
sig: 0.012
5577.3390
off: −0.29
sig: 0.002
5889.9500
off: −0.17
sig: 0.007
5895.9240
off: −0.22
sig: 0.008

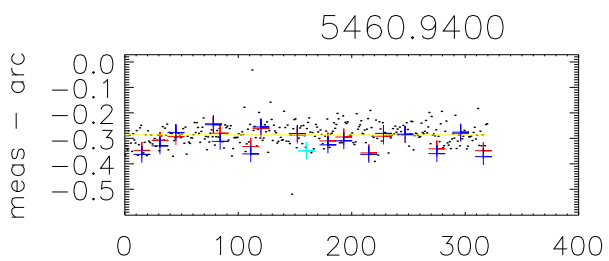

shift(pix)=−0.389
err(pix)= 0.046
oldshift(pix)=−0.491
160
140
120
100
80
60
40
20
4020
4030
4040
4050
4060
4070
4080

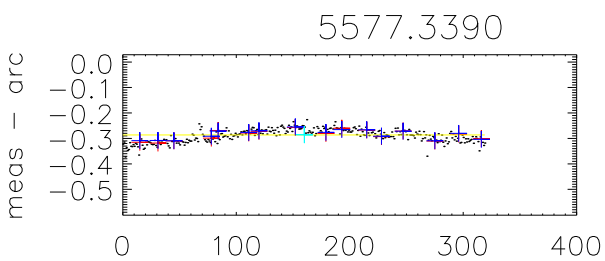

shift(pix)=−0.501
err(pix)= 0.019
oldshift(pix)=−0.508
160
140
120
100
80
60
40
20
4280
4300
4320
4340
4360
4380
4400
4420

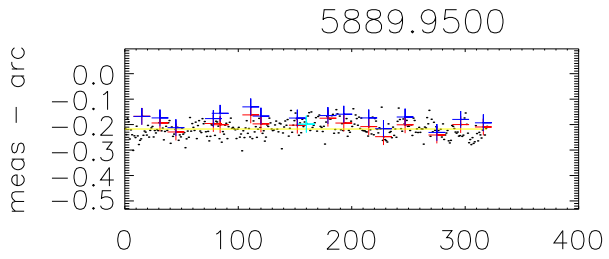

shift(pix)=−0.349
err(pix)= 0.015
oldshift(pix)=−0.312
160
140
120
100
80
60
40
20
5430
5440
5450
5460
5470
5480
5490

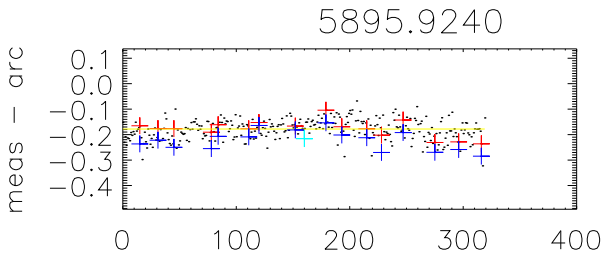

4046.5600
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

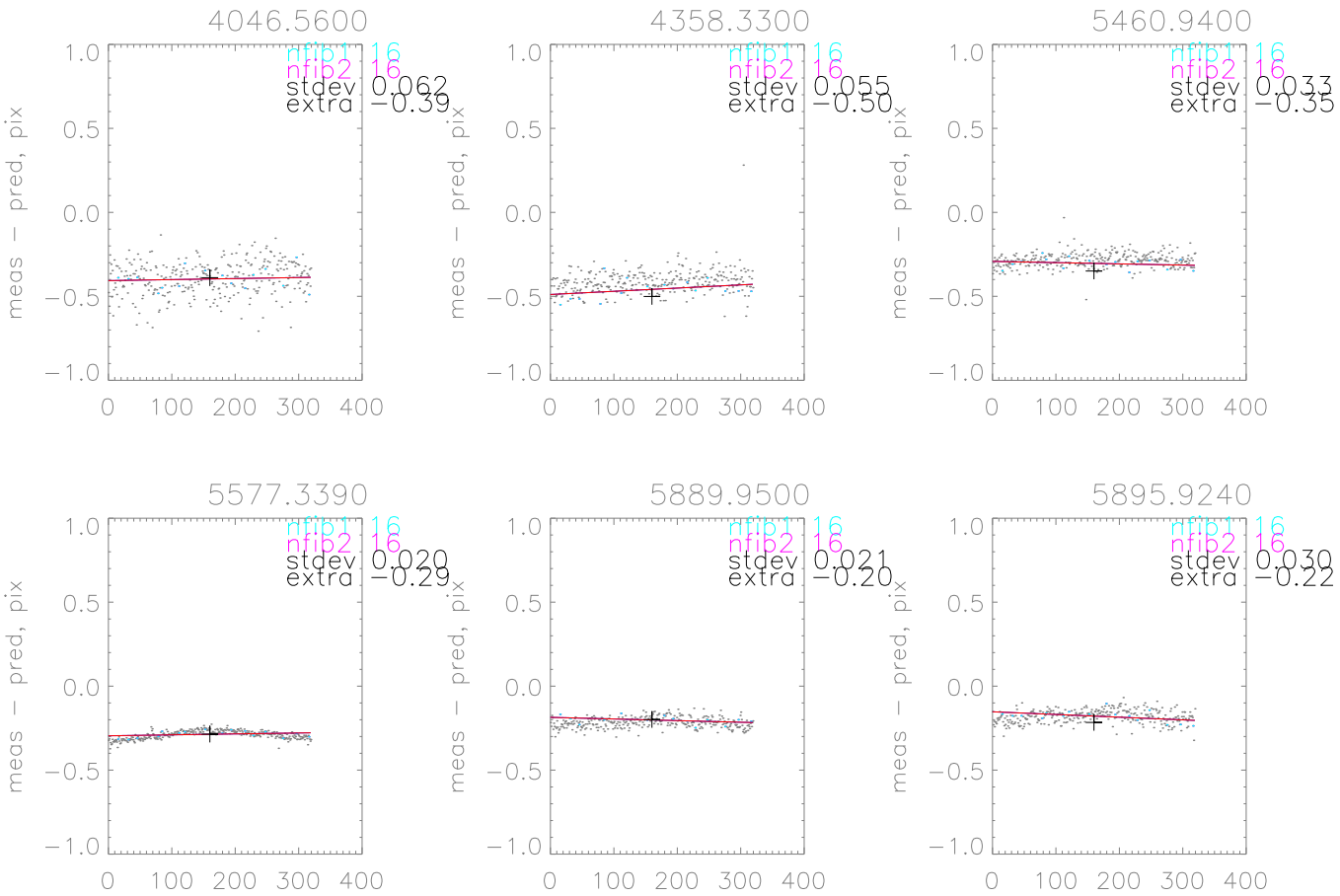

4358.3300
meas − arc
−0.2
−0.3
−0.4
−0.5
−0.6
−0.7
0
100
200
300
400

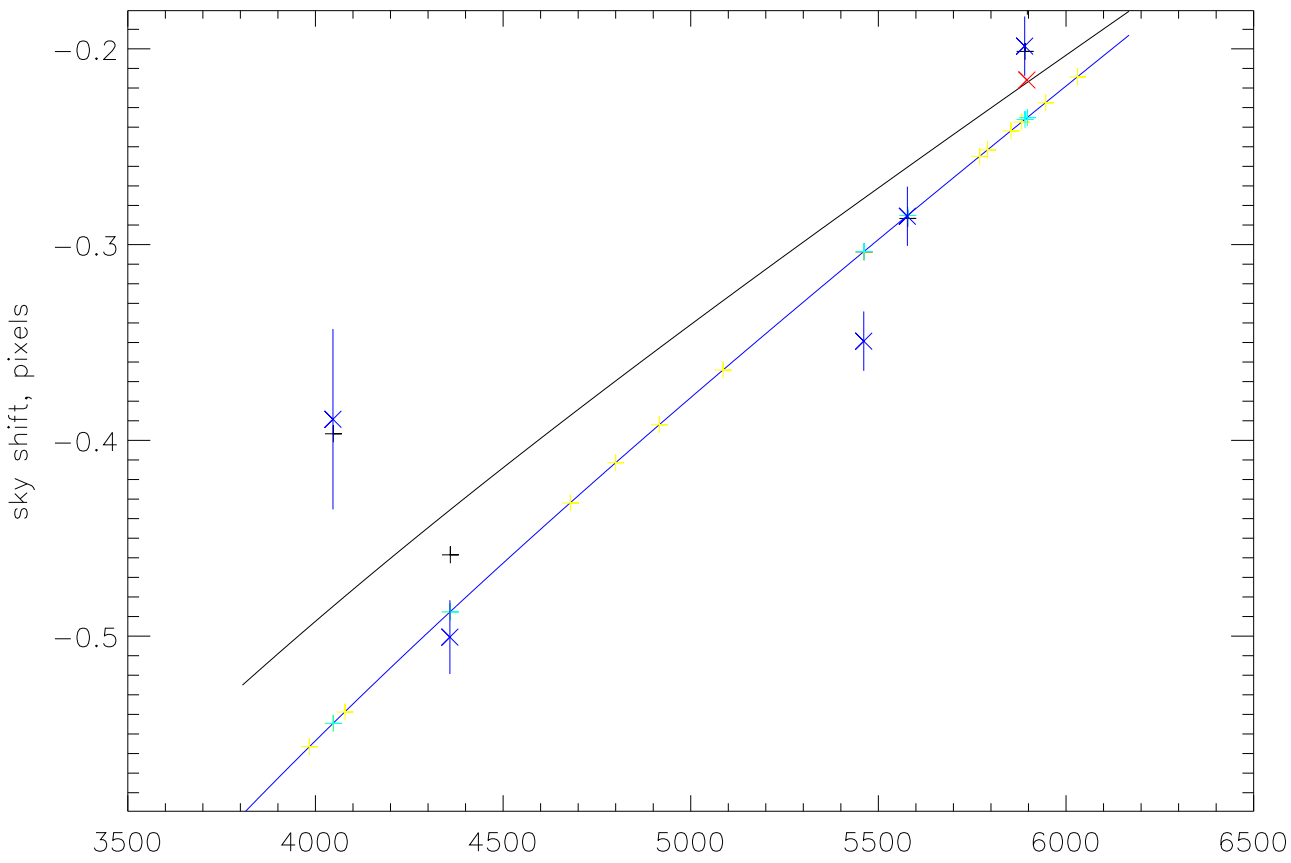

5460.9400
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

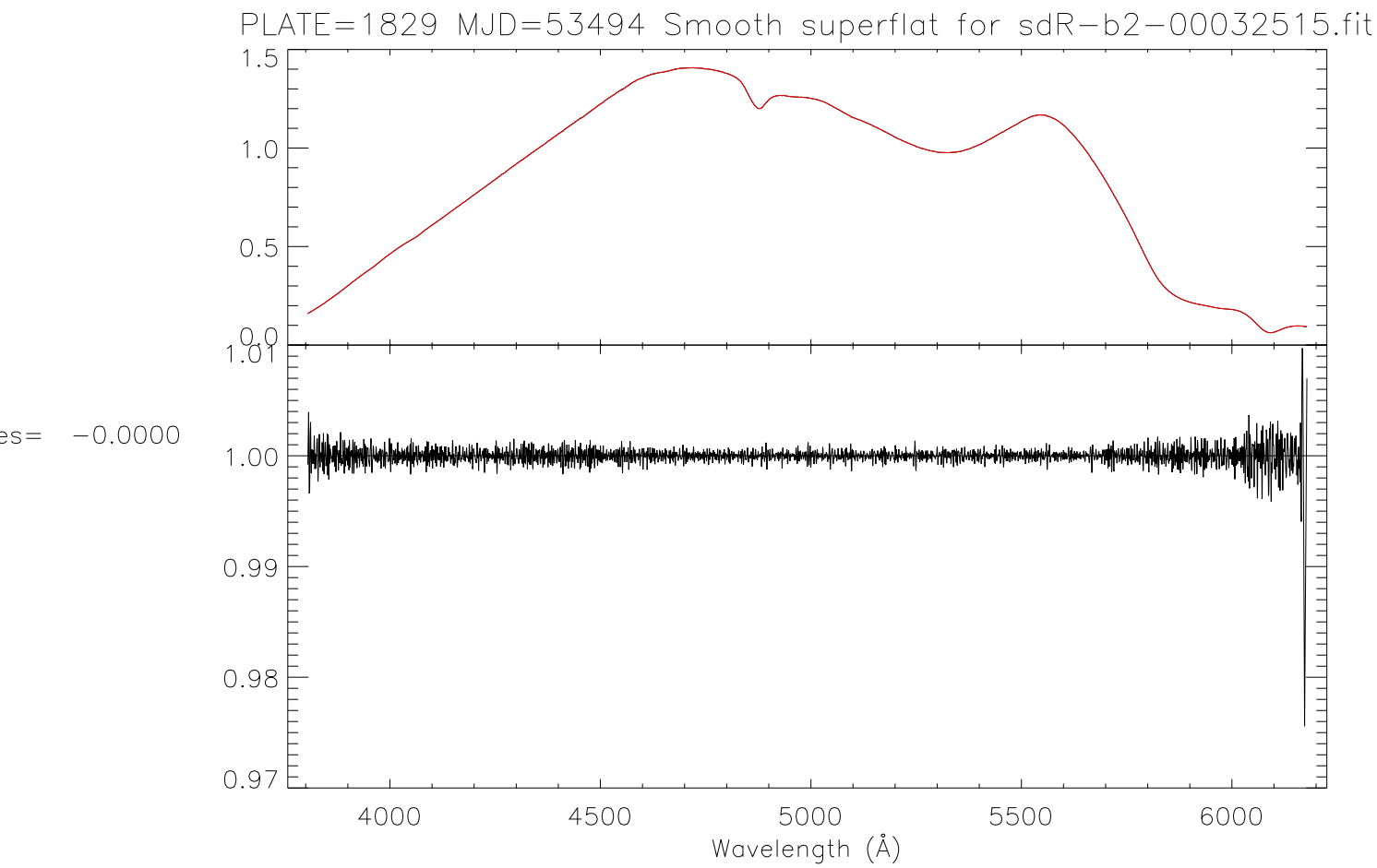

5577.3390
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400


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

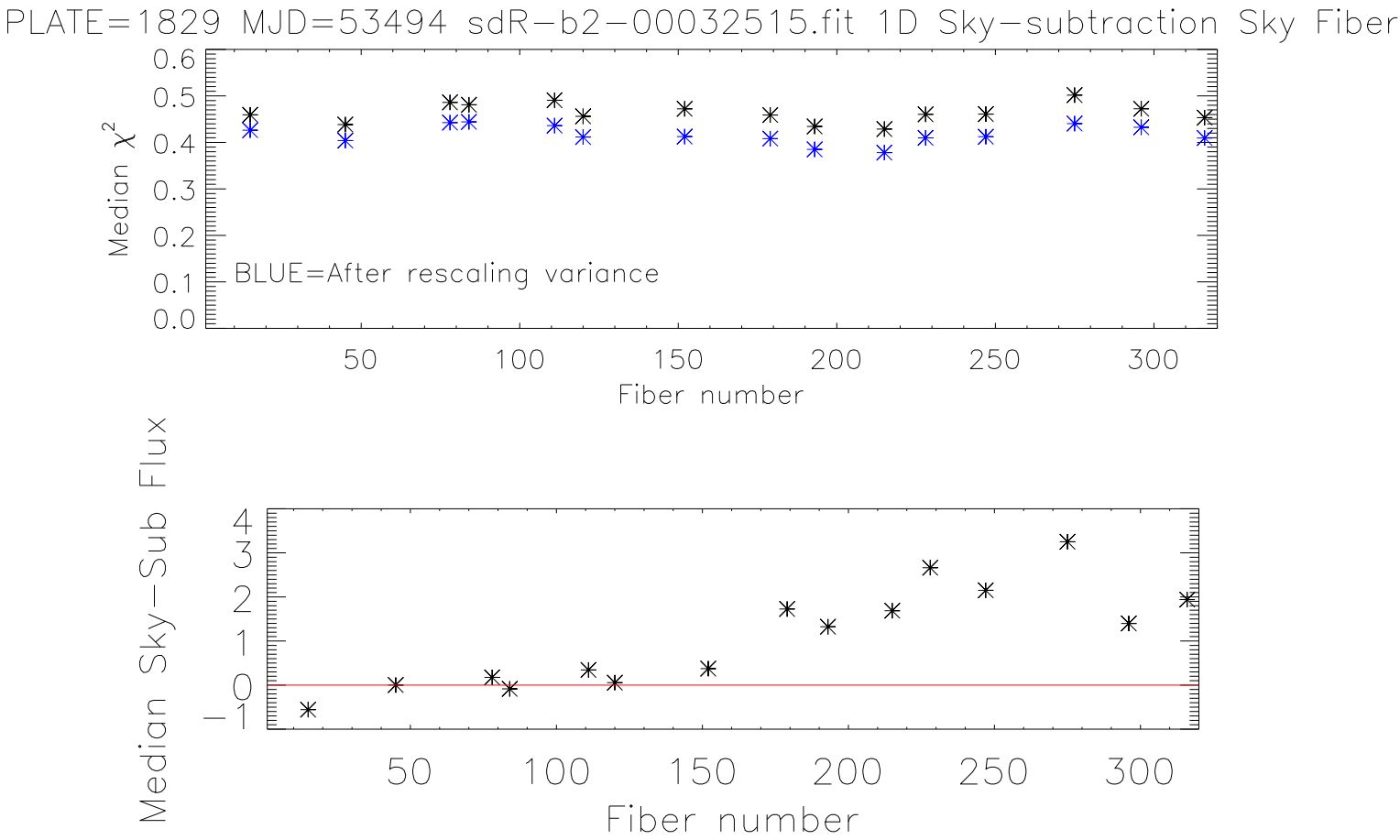

5895.9240
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

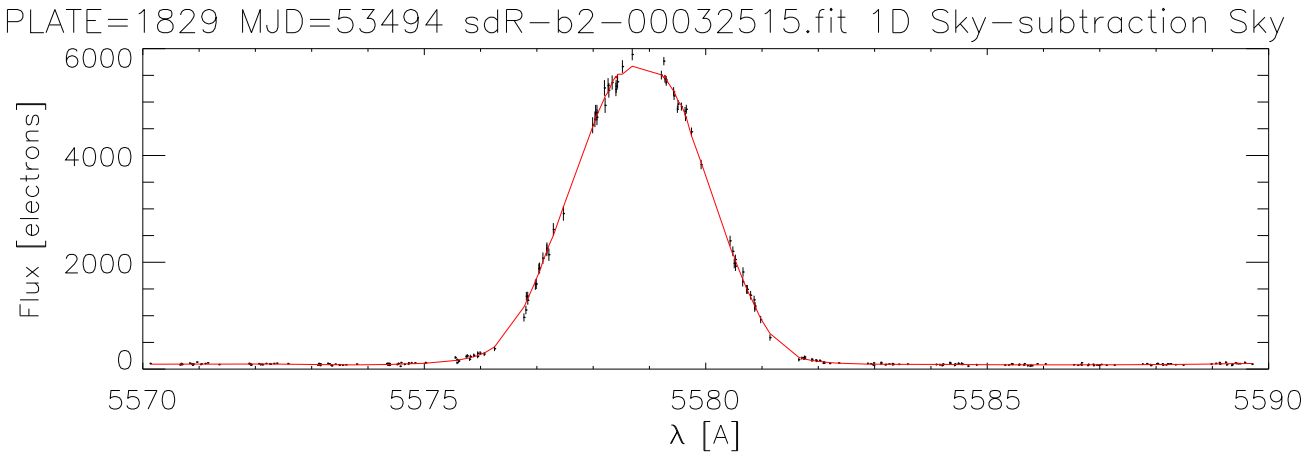

4046.5600
4358.3300
5460.9400
5577.3390
5889.9500
5895.9240
nfib1 16
nfib2 16
stdev 0.062
extra −0.39
stdev 0.055
extra −0.50
stdev 0.033
extra −0.35
stdev 0.020
extra −0.29
stdev 0.021
extra −0.20
stdev 0.030
extra −0.22
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

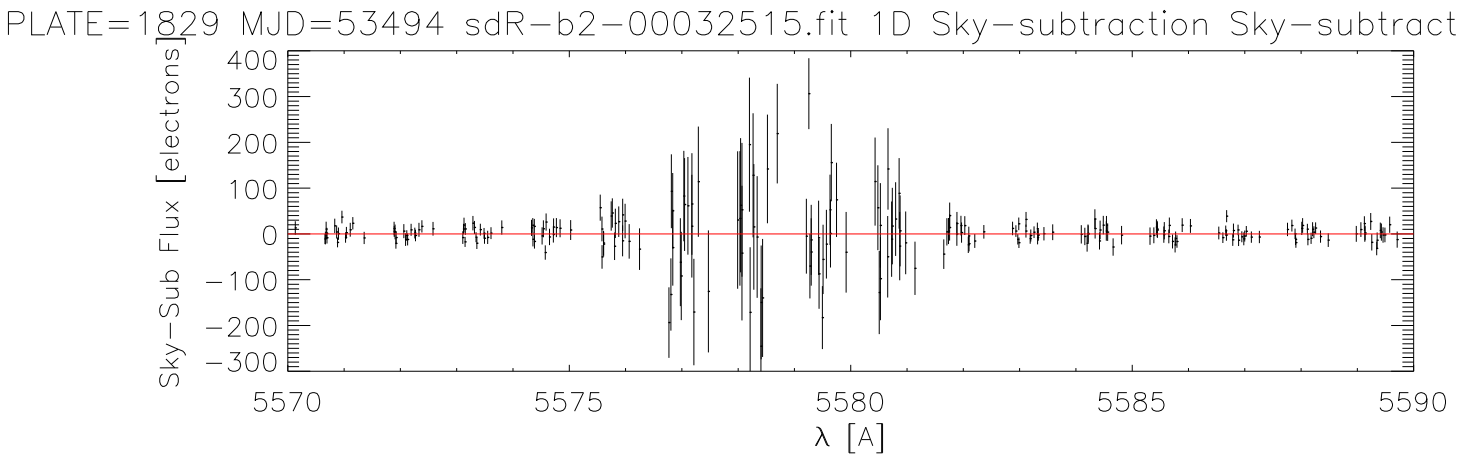

sky shift, pixels
−0.2
−0.3
−0.4
−0.5
3500
4000
4500
5000
5500
6000
6500

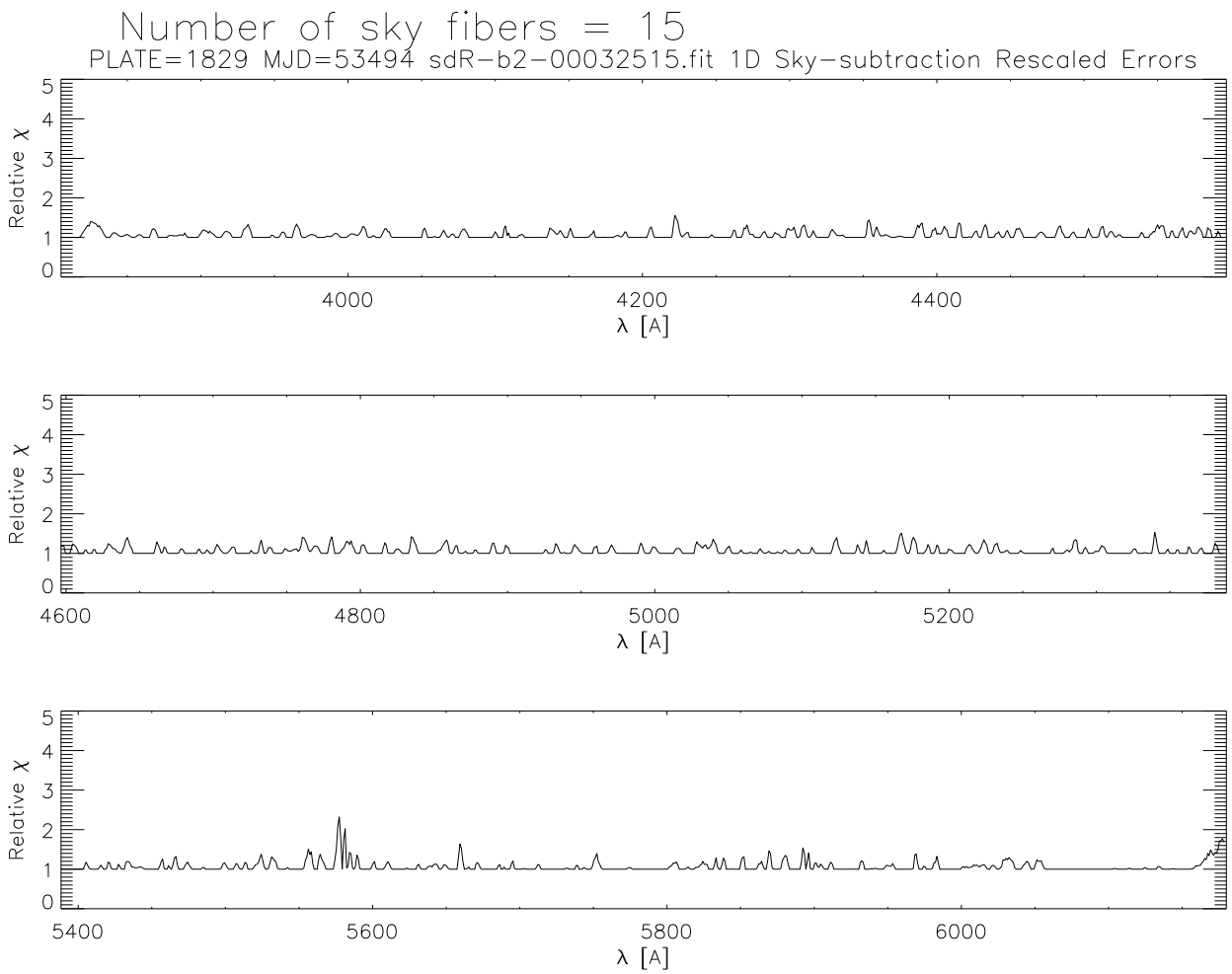

PLATE=1829 MJD=53494 Smooth superflat for sdR-b2-00032515.fit
1.5
1.0
0.5
0.0
1.01
1.00
0.99
0.98
0.97
4000
4500
5000
5500
6000
Wavelength (Å)

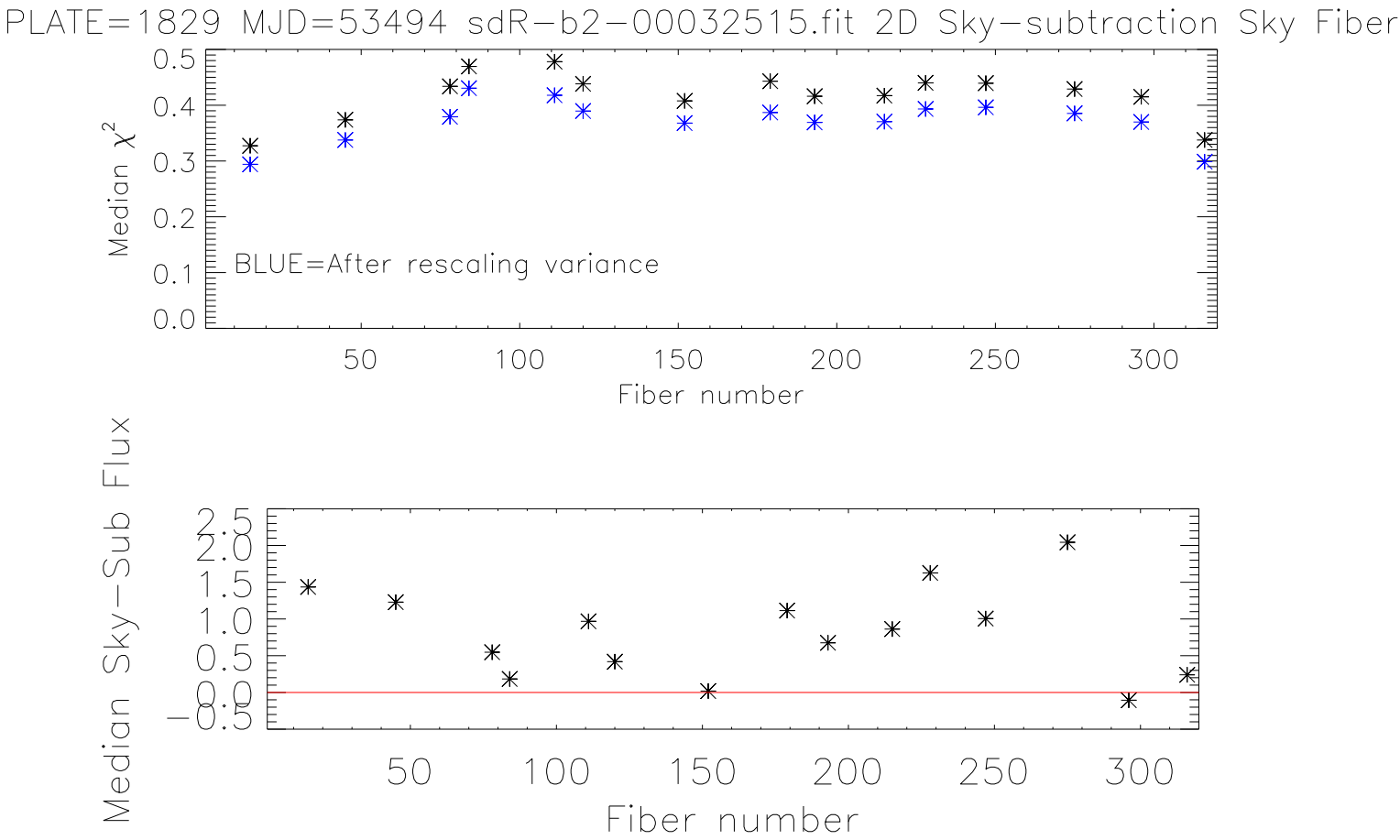
es= −0.0000

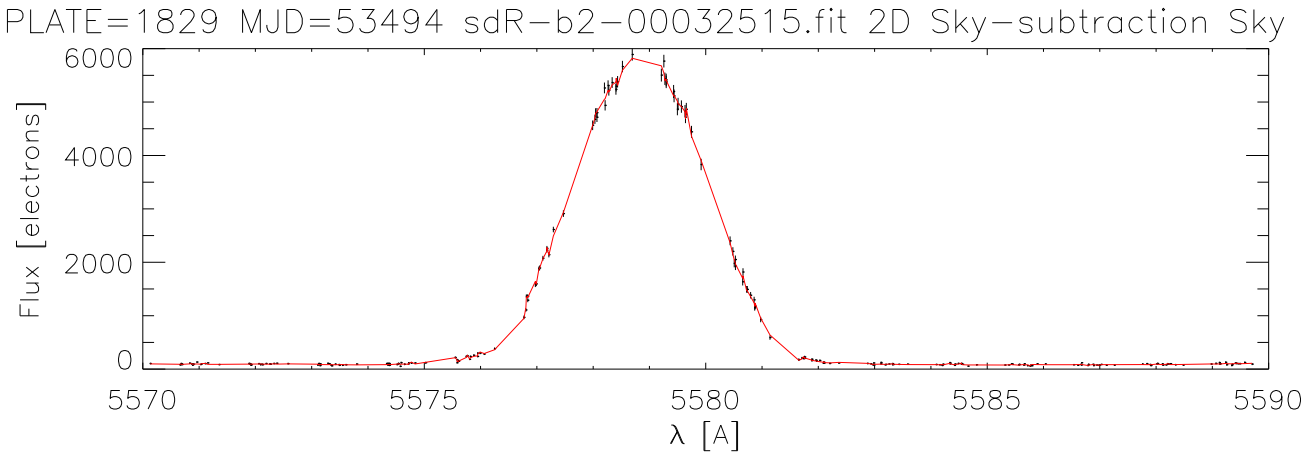

PLATE=1829 MJD=53494 sdR-b2-00032515.fit 1D Sky-subtraction Sky Fiber
Median $\chi^2$
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

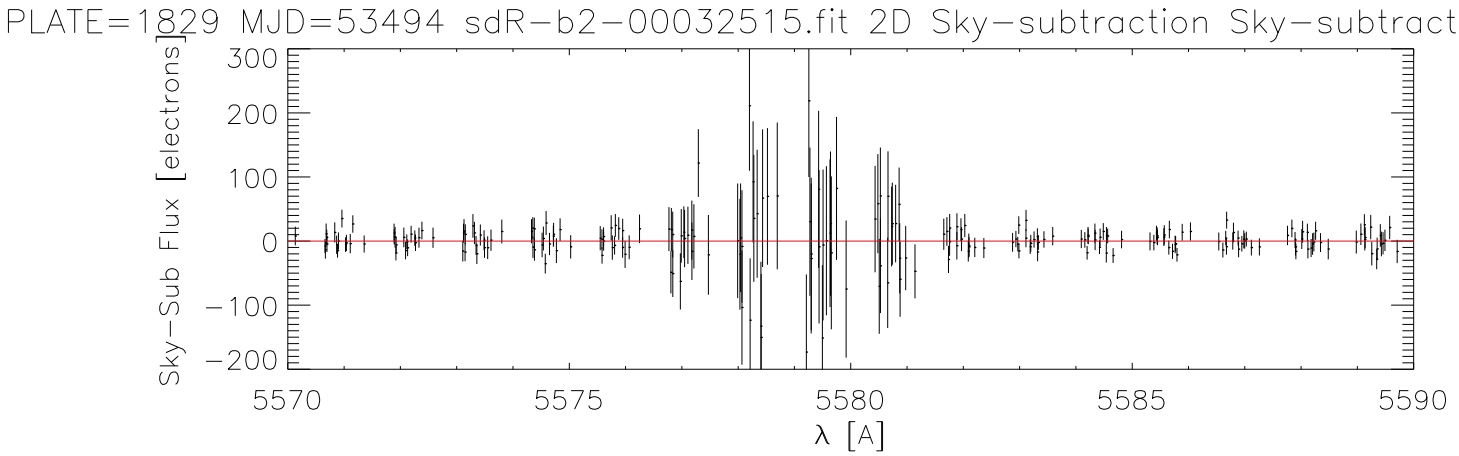

PLATE=1829 MJD=53494 sdR-b2-00032515.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

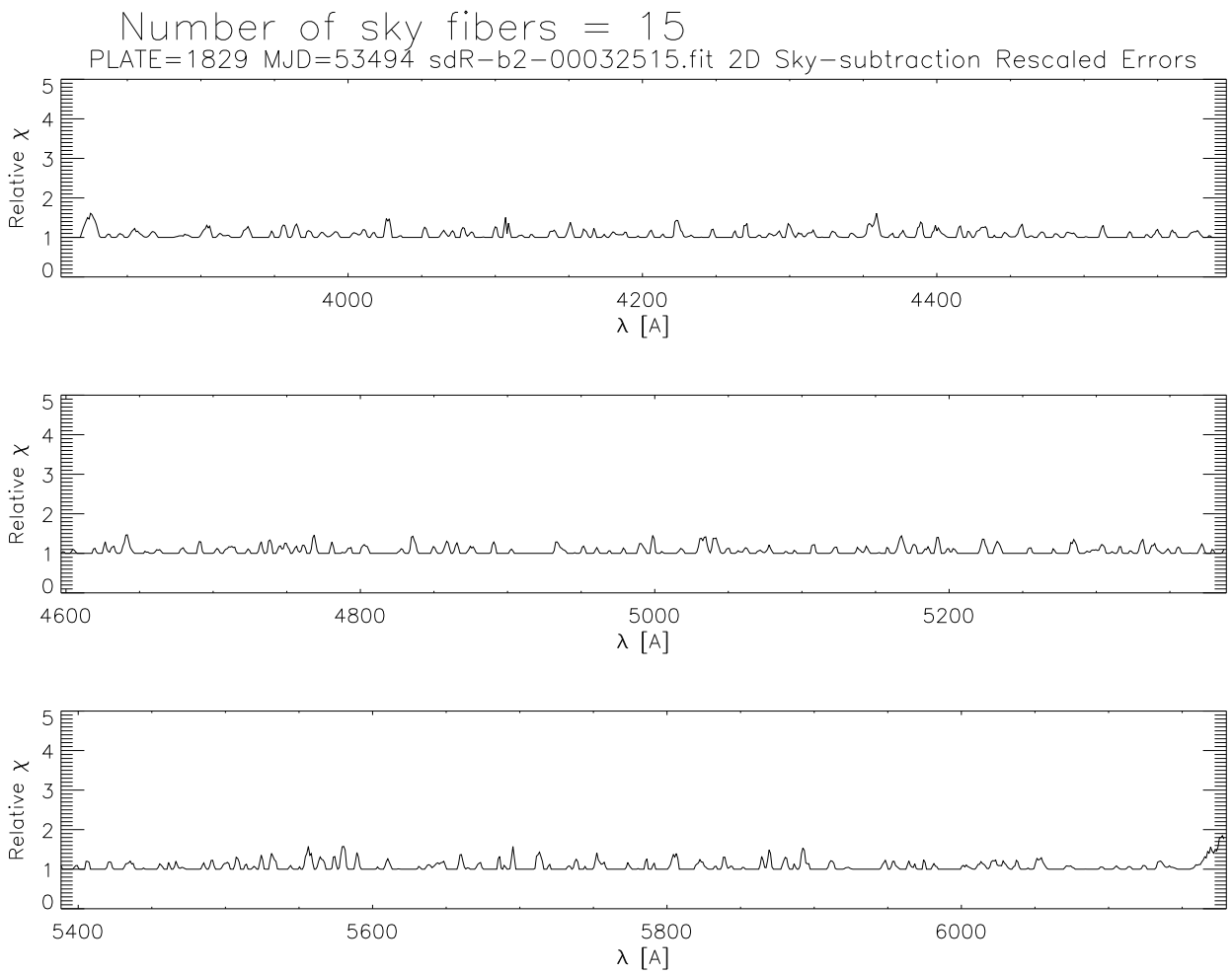

PLATE=1829 MJD=53494 sdR-b2-00032515.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
300
200
100
0
-100
-200
-300
5570
5575
5580
5585
5590
λ [A]

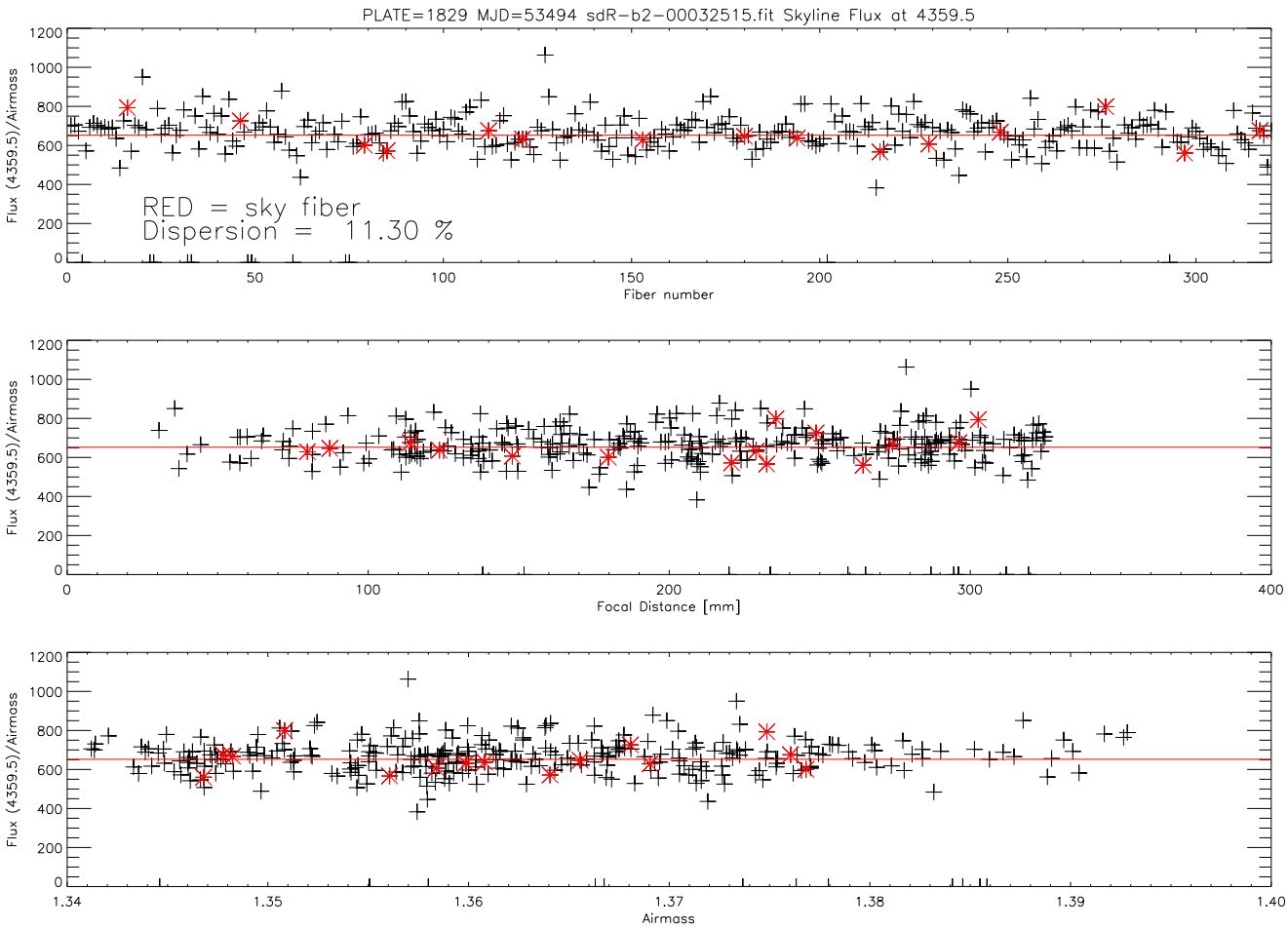

Number of sky fibers = 15
PLATE=1829 MJD=53494 sdR-b2-00032515.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

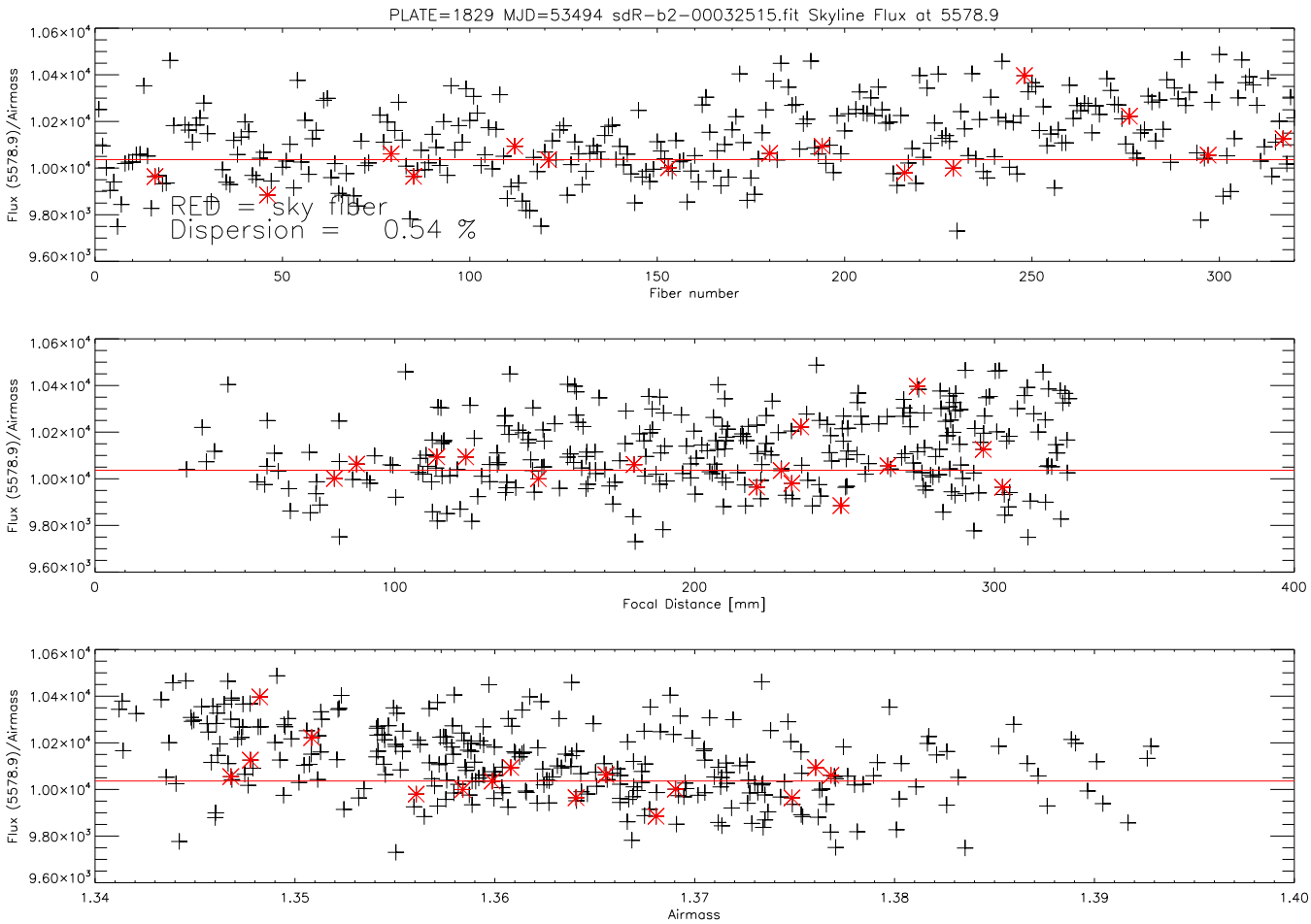

PLATE=1829 MJD=53494 sdR-b2-00032515.fit 2D Sky-subtraction Sky Fiber
Median $\chi^2$
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

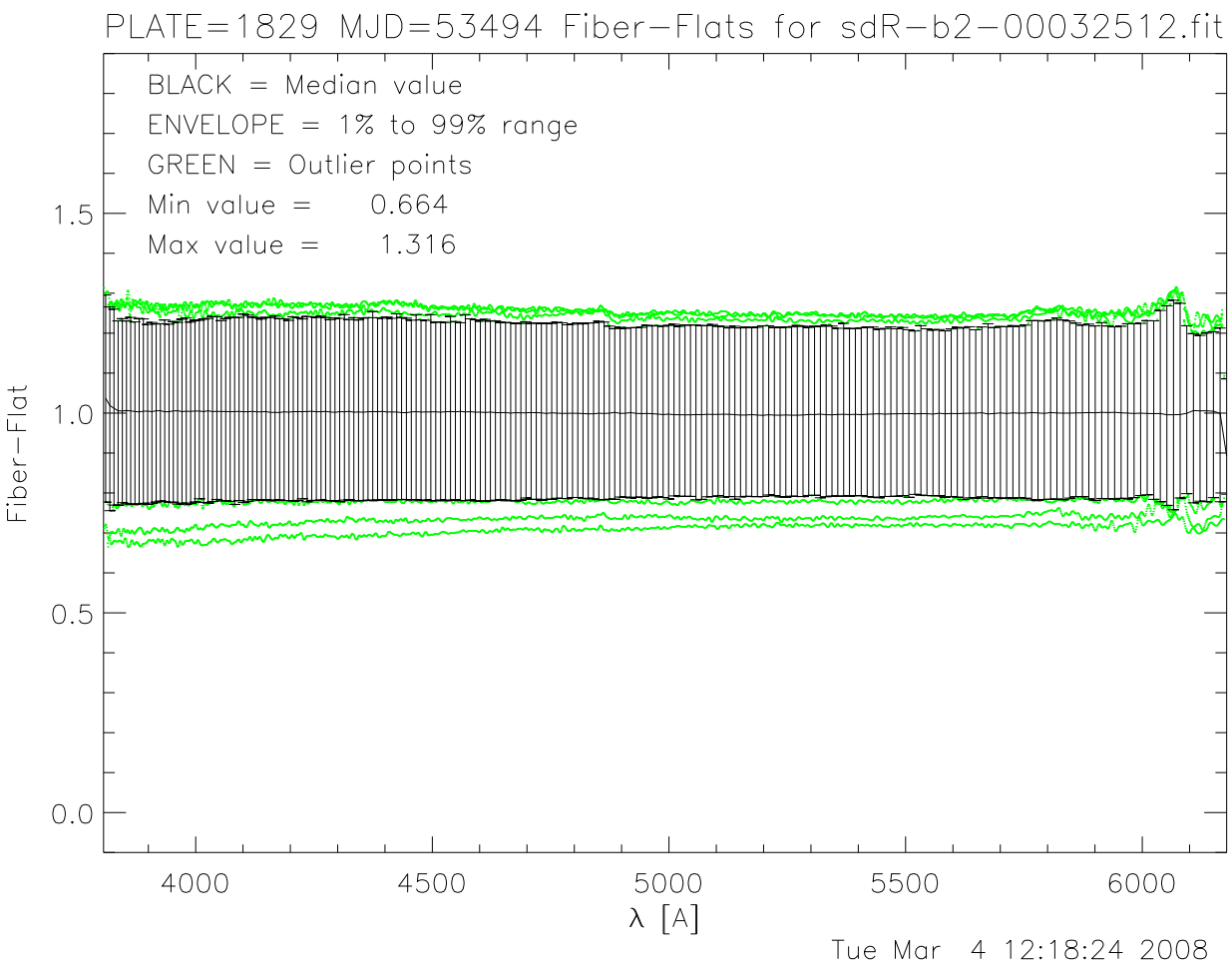

PLATE=1829 MJD=53494 sdR-b2-00032515.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

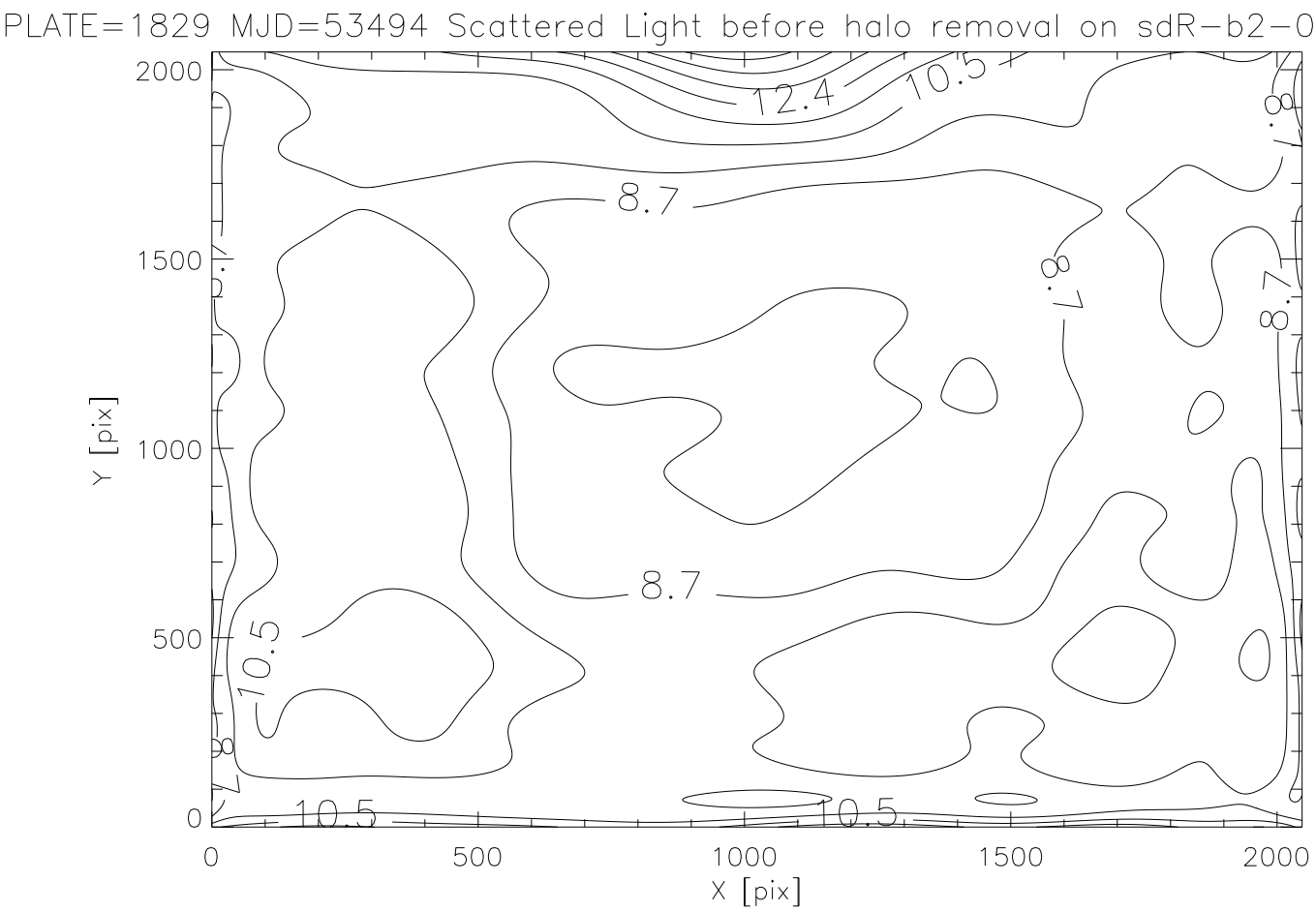

PLATE=1829 MJD=53494 sdR-b2-00032515.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
5570
5575
5580
5585
5590
λ [A]

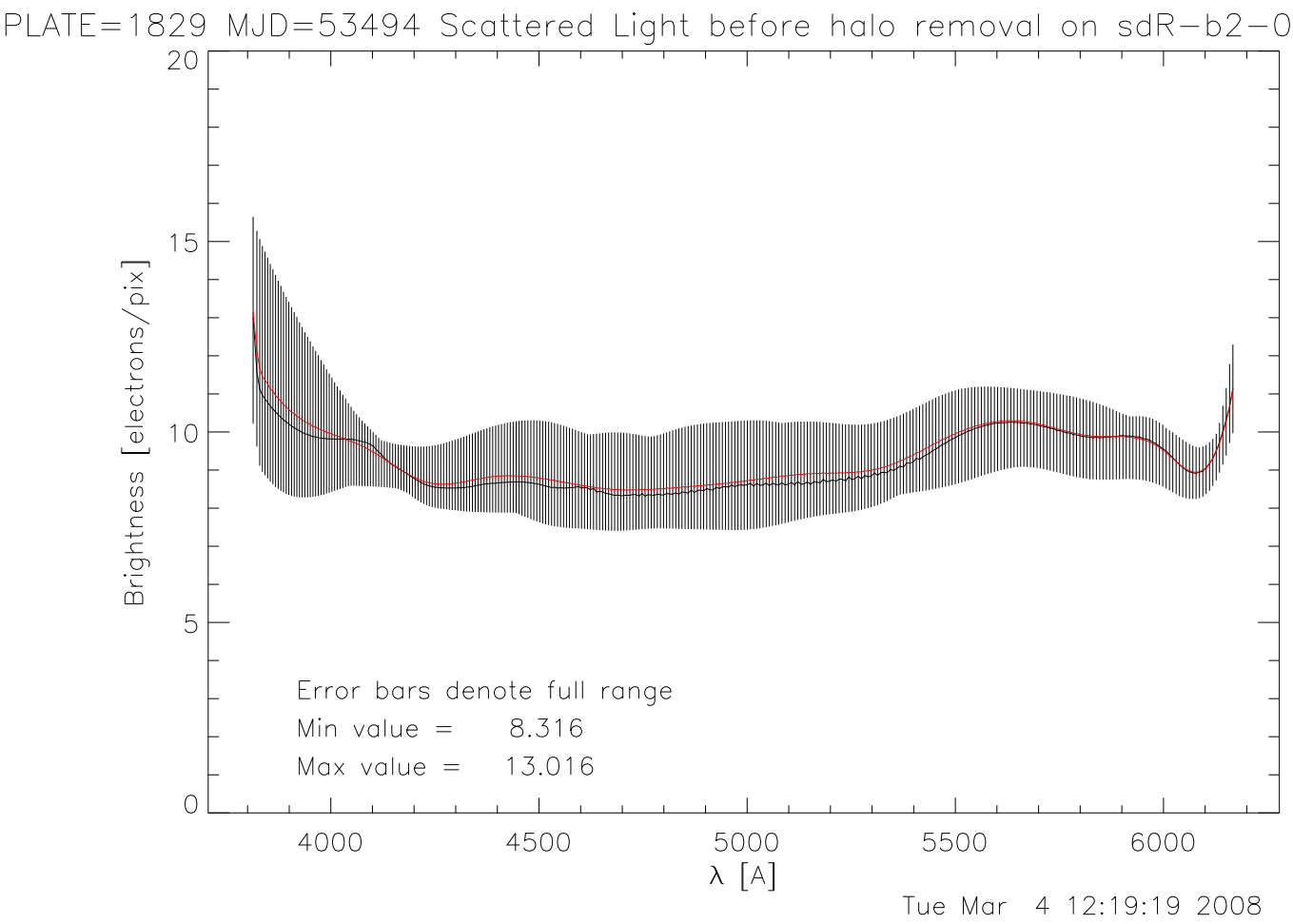

Number of sky fibers = 15
PLATE=1829 MJD=53494 sdR-b2-00032515.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

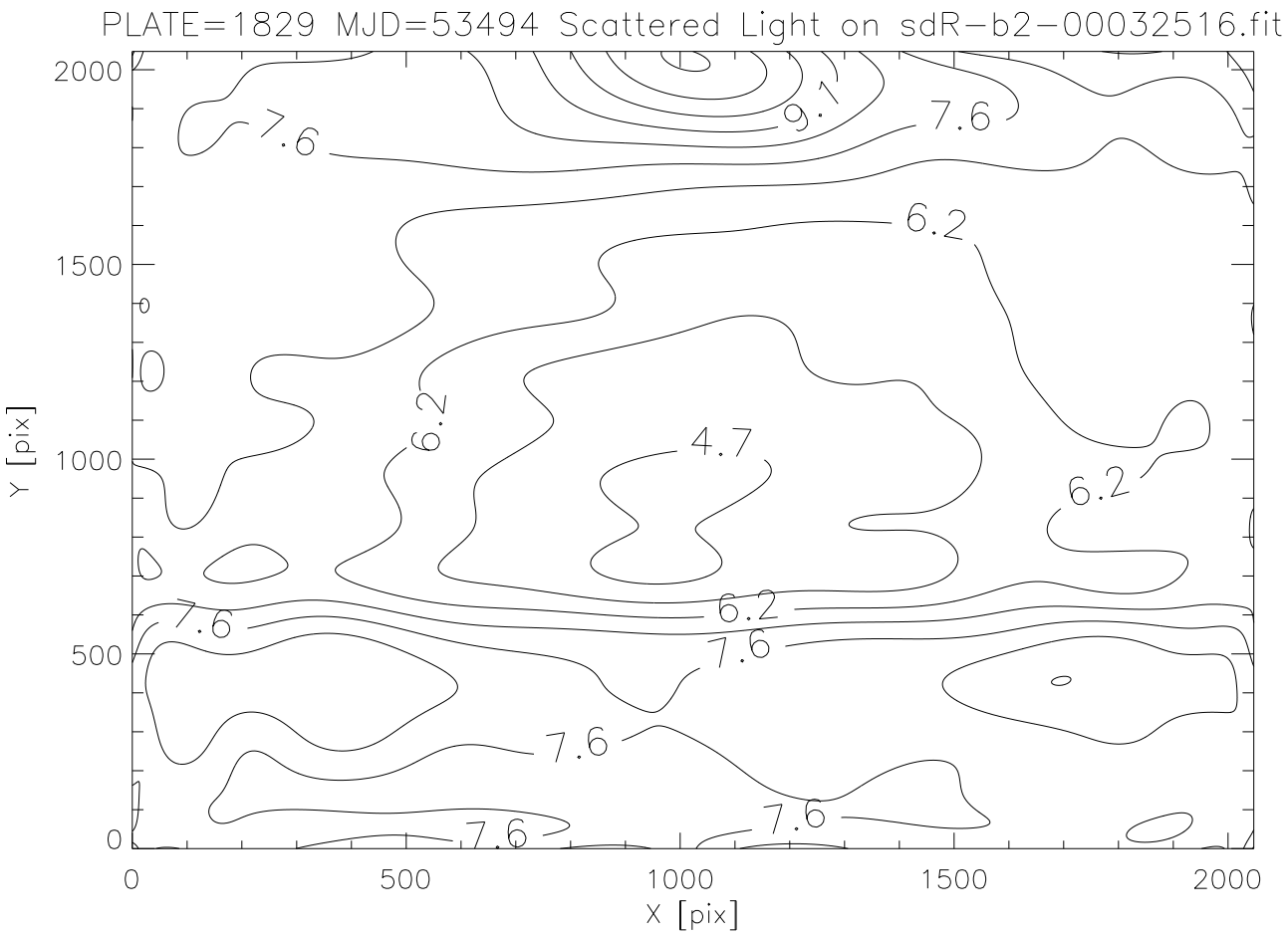

PLATE=1829 MJD=53494 sdR-b2-00032515.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 11.30 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

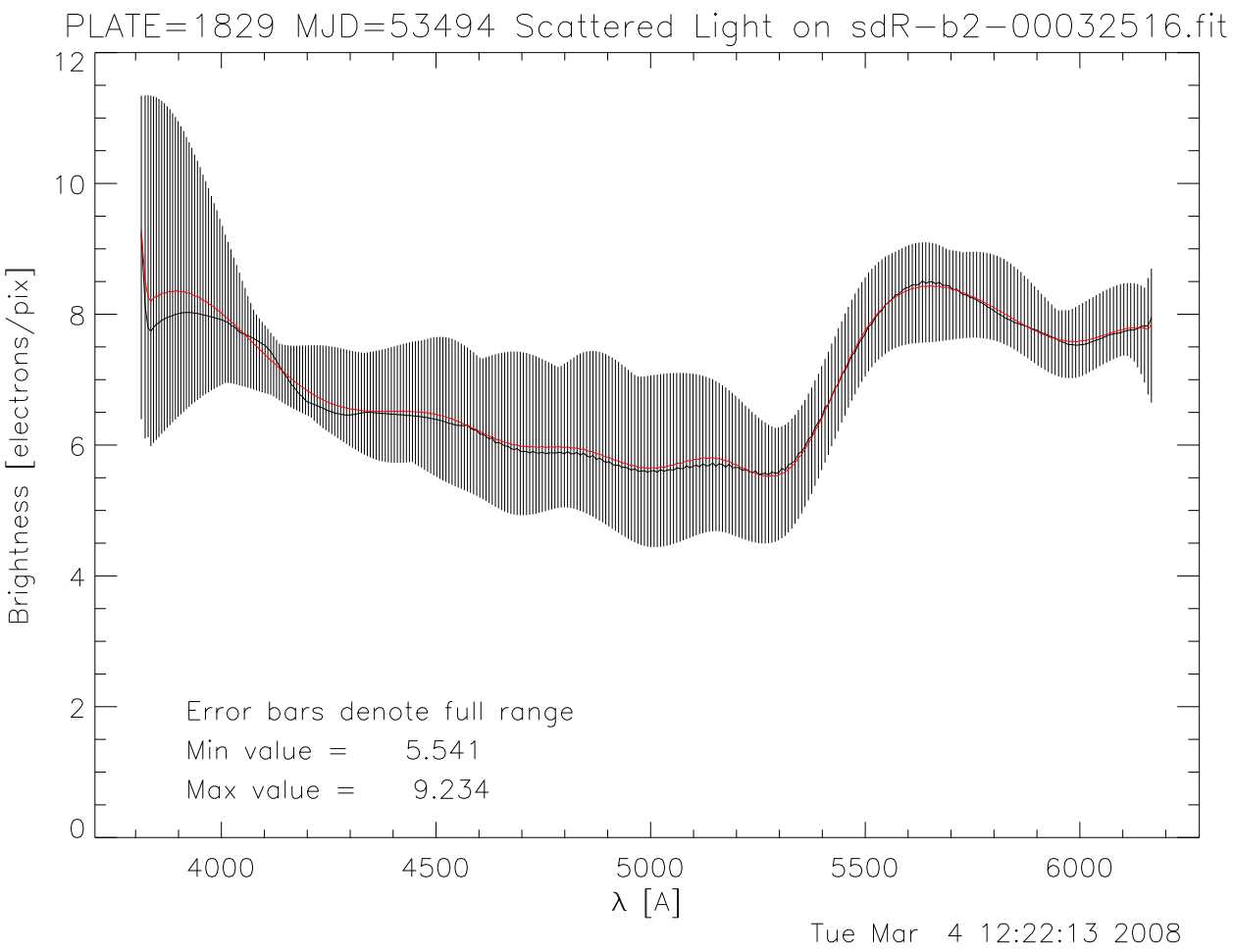

PLATE=1829 MJD=53494 sdR-b2-00032515.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
Fiber number
RED = sky fiber
Dispersion = 0.54 %
Flux (5578.9)/Airmass
Focal Distance [mm]
Flux (5578.9)/Airmass
Airmass

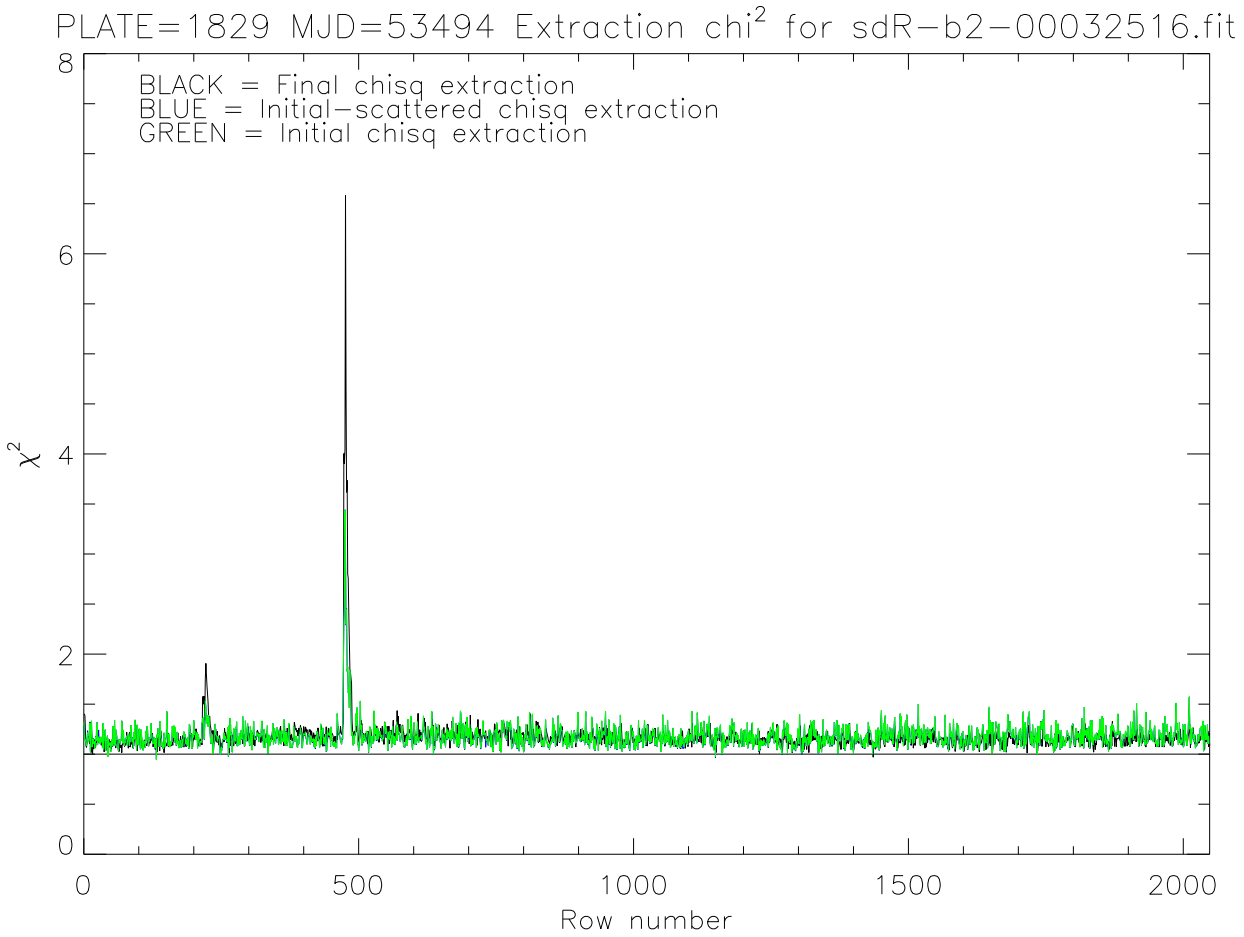

PLATE=1829 MJD=53494 Fiber-Flats for sdR-b2-00032512.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.664
Max value = 1.316
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Tue Mar 4 12:18:24 2008

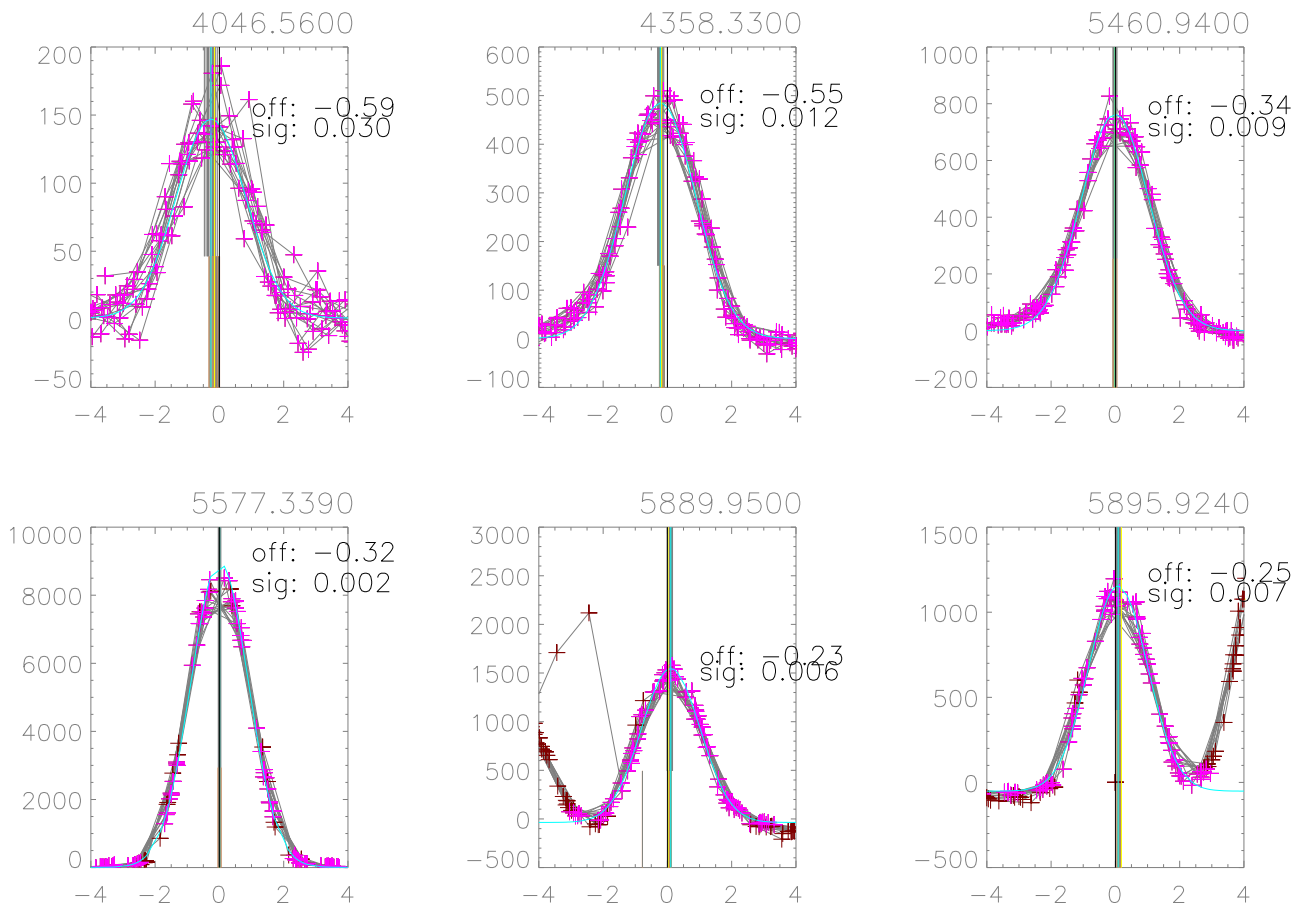

PLATE=1829 MJD=53494 Scattered Light before halo removal on sdR-b2-00032516.f
12.4
10.5
8.7
8.7
8.7
8.7
10.5
10.5
10.5
2000
1500
1000
500
0
0
500
1000
1500
2000
Y [pix]
X [pix]

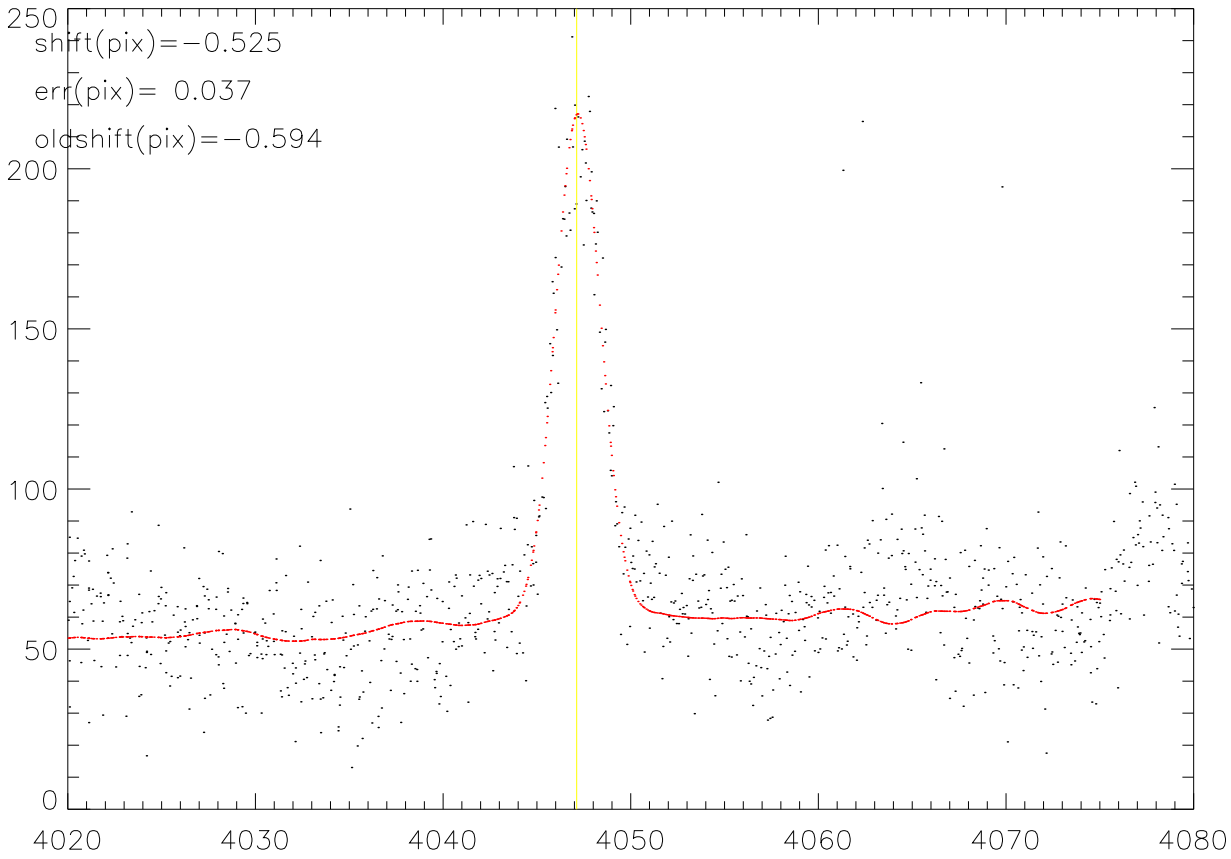

PLATE=1829 MJD=53494 Scattered Light before halo removal on sdR-b2-00032516.f
Brightness [electrons/pix]
20
15
10
5
0
Error bars denote full range
Min value = 8.316
Max value = 13.016
4000
4500
5000
5500
6000
λ [A]
Tue Mar 4 12:19:19 2008

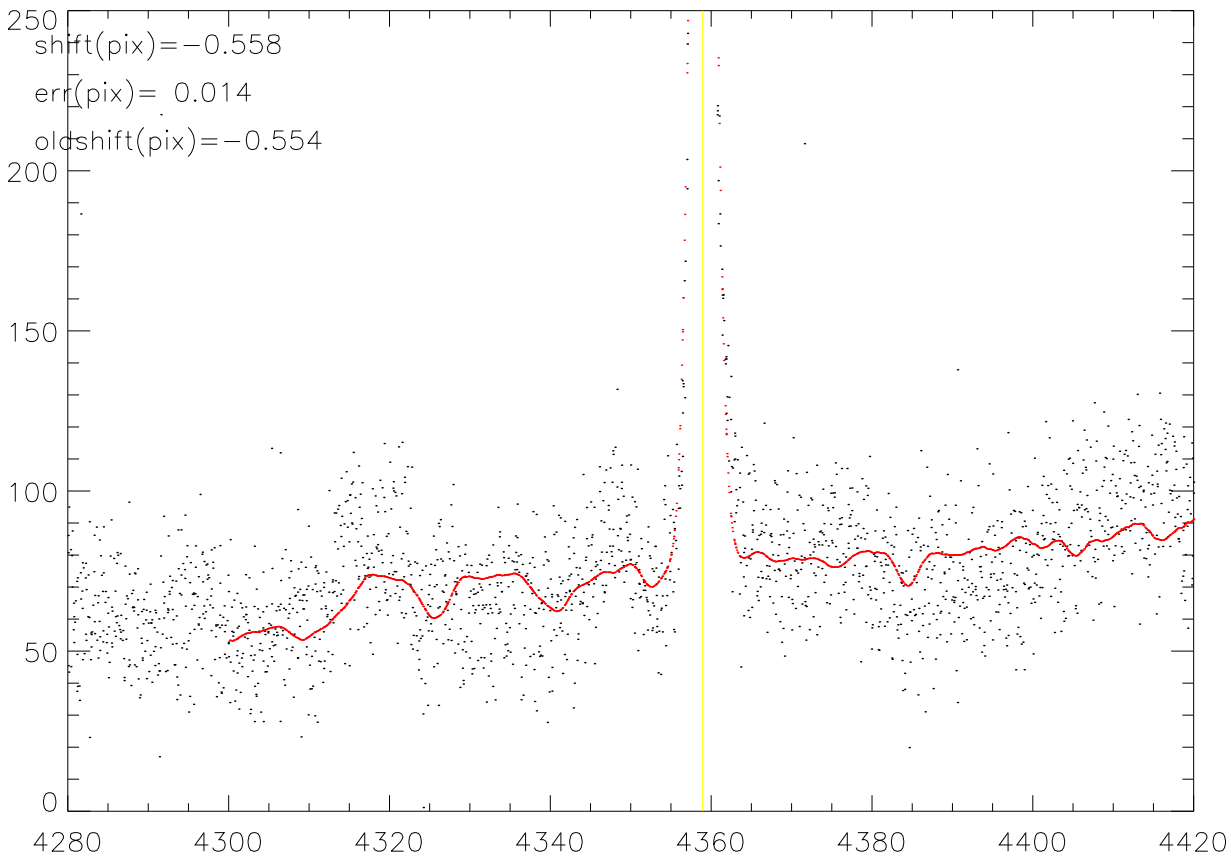

PLATE=1829 MJD=53494 Scattered Light on sdR-b2-00032516.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
9.1
7.6
6.2
4.7
7.6
6.2
6.2
7.6
7.6
7.6
7.6

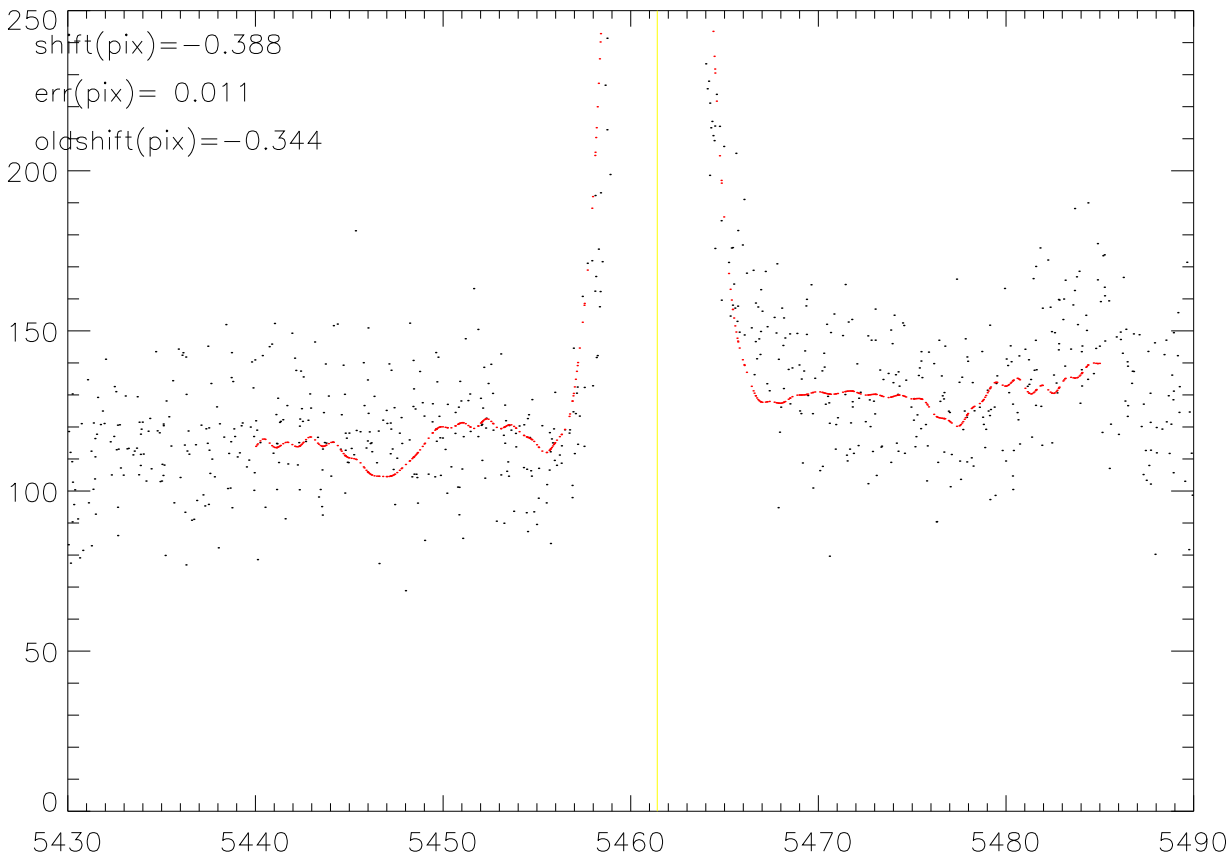

PLATE=1829 MJD=53494 Scattered Light on sdR-b2-00032516.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 5.541
Max value = 9.234
Tue Mar 4 12:22:13 2008

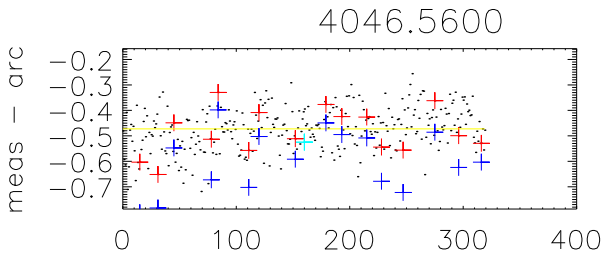

PLATE=1829 MJD=53494 Extraction chi$^2$ for sdR-b2-00032516.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
$\chi^2$
0
2
4
6
8
0
500
1000
1500
2000
Row number

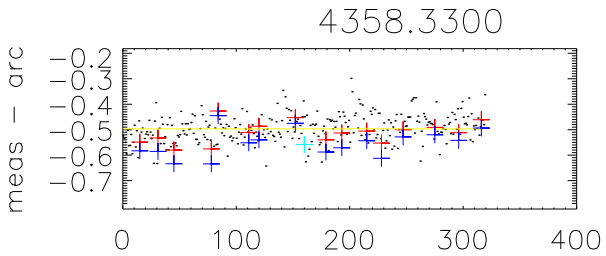

4046.5600
off: −0.59
sig: 0.030
4358.3300
off: −0.55
sig: 0.012
5460.9400
off: −0.34
sig: 0.009
5577.3390
off: −0.32
sig: 0.002
5889.9500
off: −0.23
sig: 0.006
5895.9240
off: −0.25
sig: 0.007

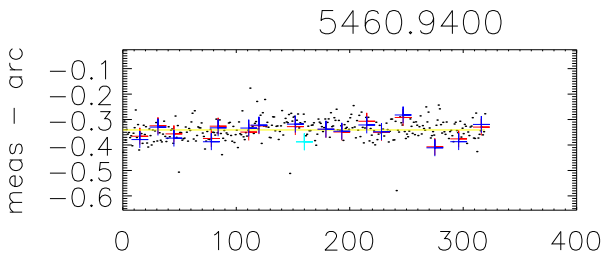

shift(pix)=−0.525
err(pix)= 0.037
oldshift(pix)=−0.594
250
200
150
100
50
0
4020
4030
4040
4050
4060
4070
4080

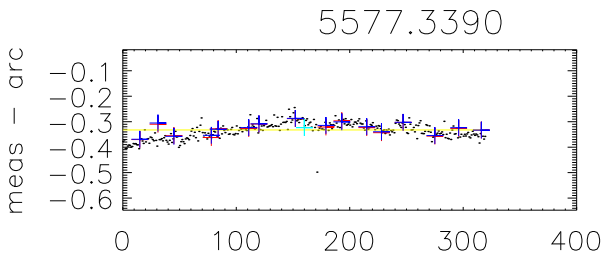

shift(pix)=−0.558
err(pix)= 0.014
oldshift(pix)=−0.554
250
200
150
100
50
0
4280
4300
4320
4340
4360
4380
4400
4420

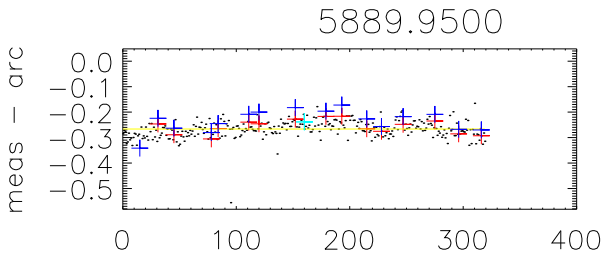

shift(pix)=−0.388
err(pix)= 0.011
oldshift(pix)=−0.344
250
200
150
100
50
0
5430
5440
5450
5460
5470
5480
5490

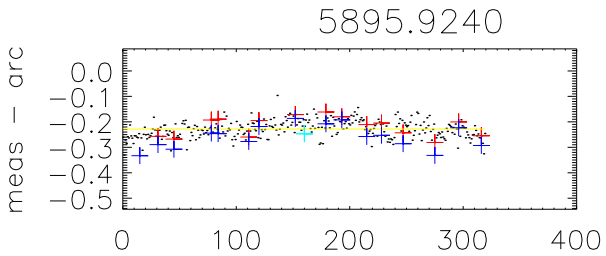

4046.5600
meas − arc
−0.2
−0.3
−0.4
−0.5
−0.6
−0.7
0
100
200
300
400

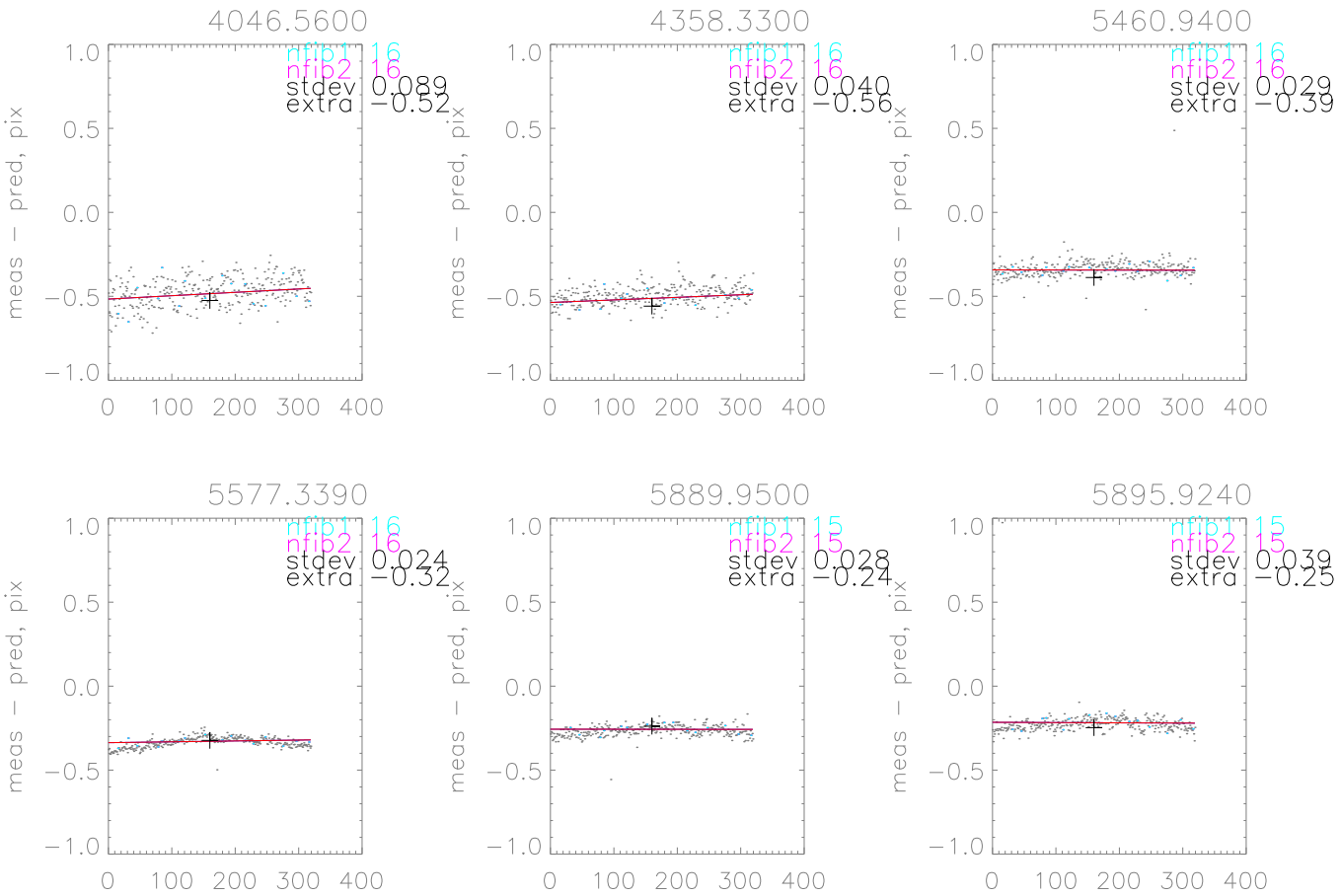

4358.3300
meas − arc
−0.2
−0.3
−0.4
−0.5
−0.6
−0.7
0
100
200
300
400

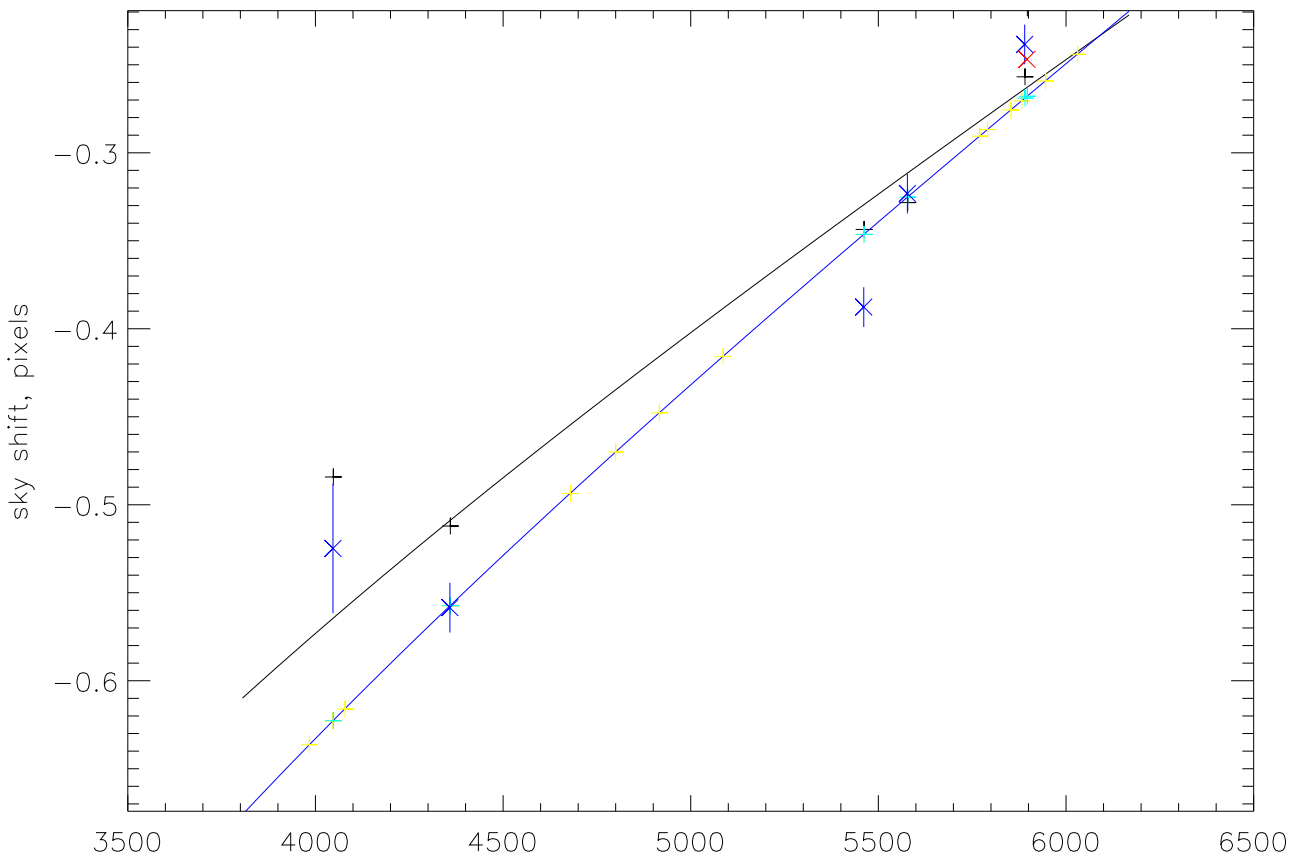

5460.9400
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

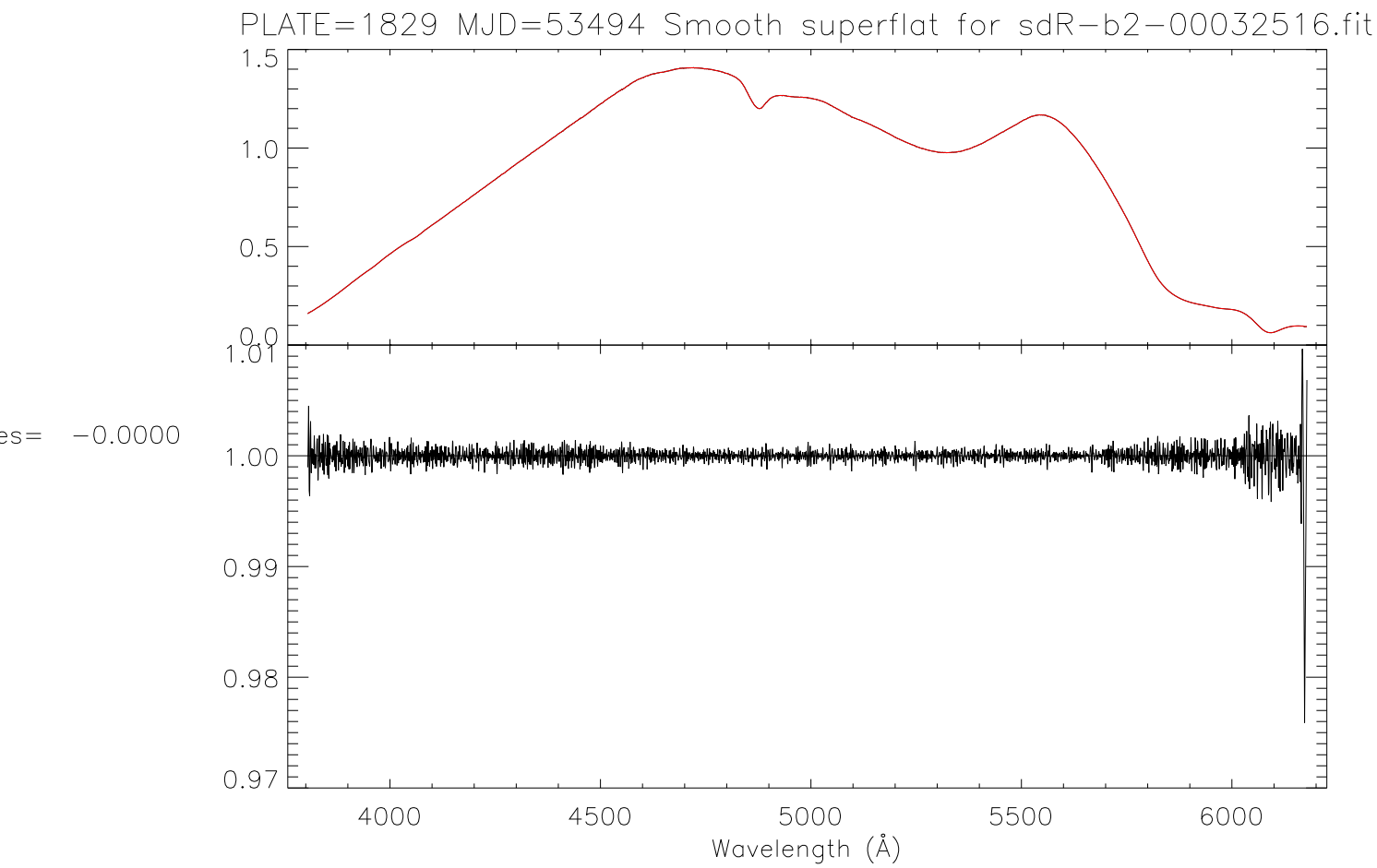

5577.3390
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400


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

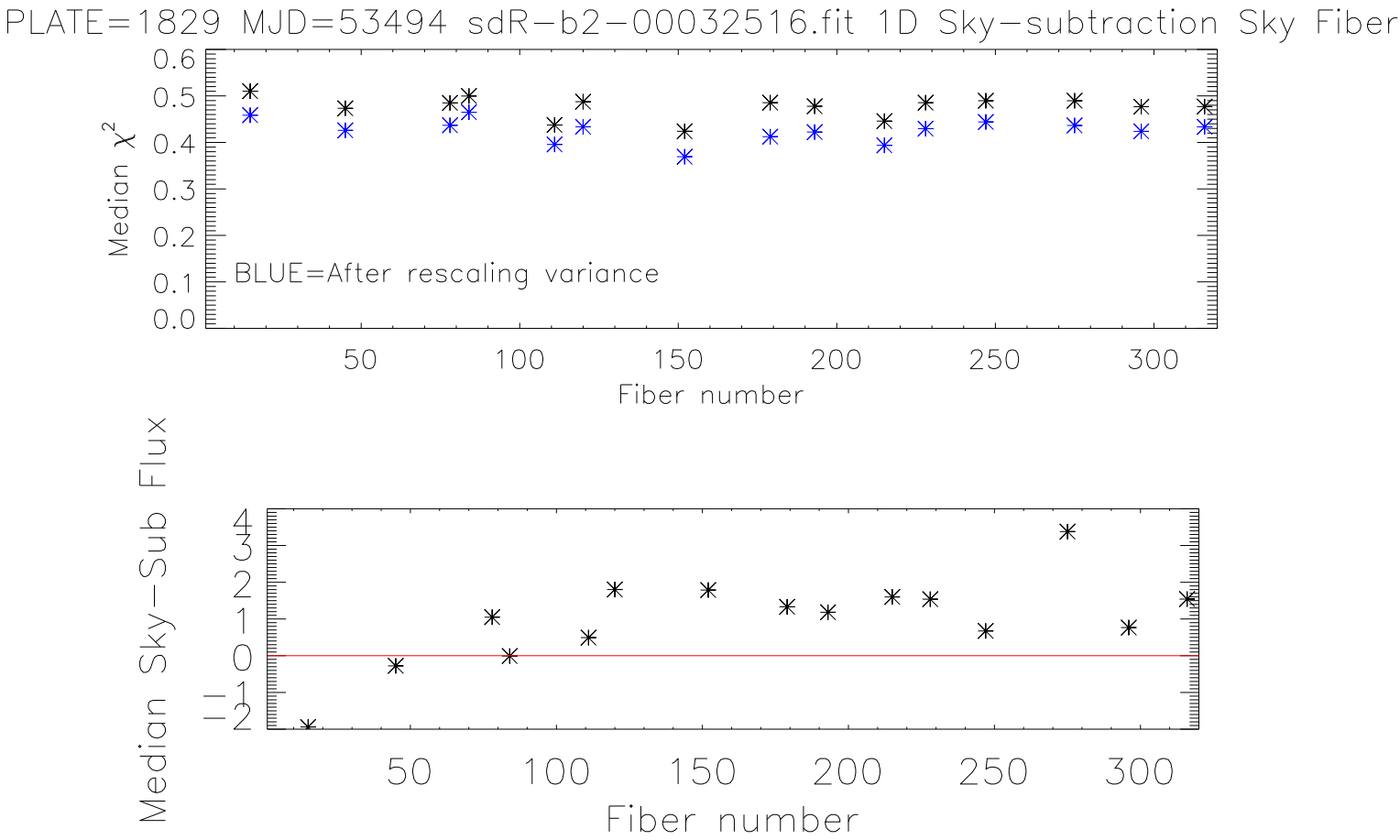

5895.9240
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

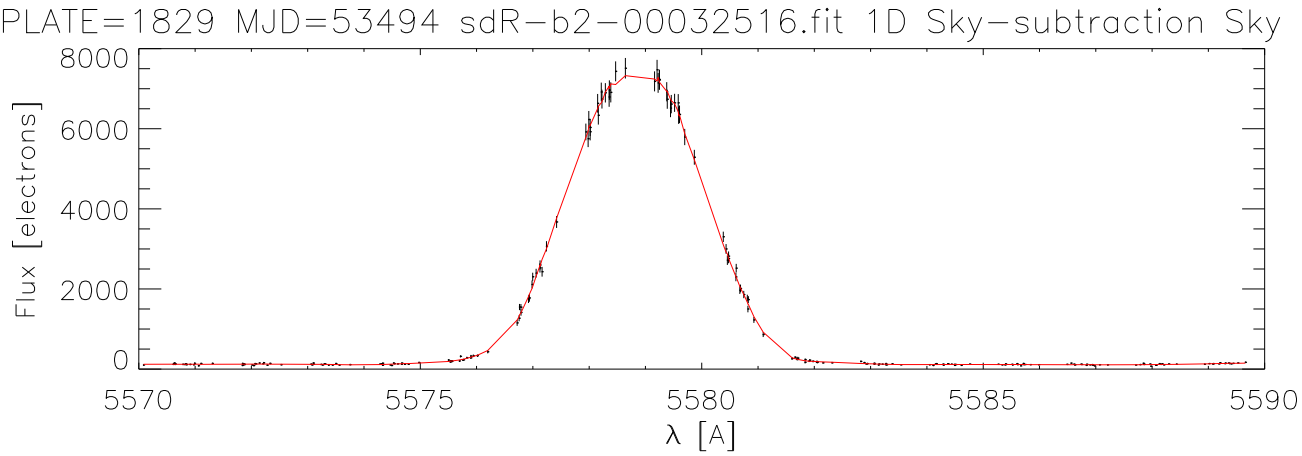

4046.5600
nfib1 16
nfib2 16
stdev 0.089
extra −0.52
4358.3300
nfib1 16
nfib2 16
stdev 0.040
extra −0.56
5460.9400
nfib1 16
nfib2 16
stdev 0.029
extra −0.39
5577.3390
nfib1 16
nfib2 16
stdev 0.024
extra −0.32
5889.9500
nfib1 15
nfib2 15
stdev 0.028
extra −0.24
5895.9240
nfib1 15
nfib2 15
stdev 0.039
extra −0.25
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

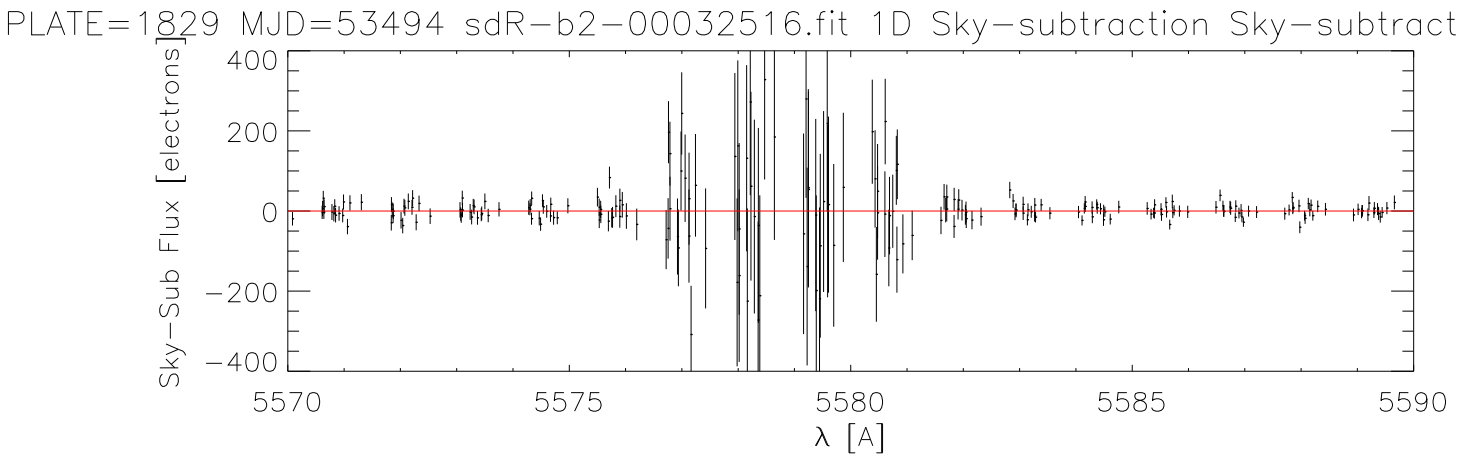

sky shift, pixels
−0.3
−0.4
−0.5
−0.6
3500
4000
4500
5000
5500
6000
6500

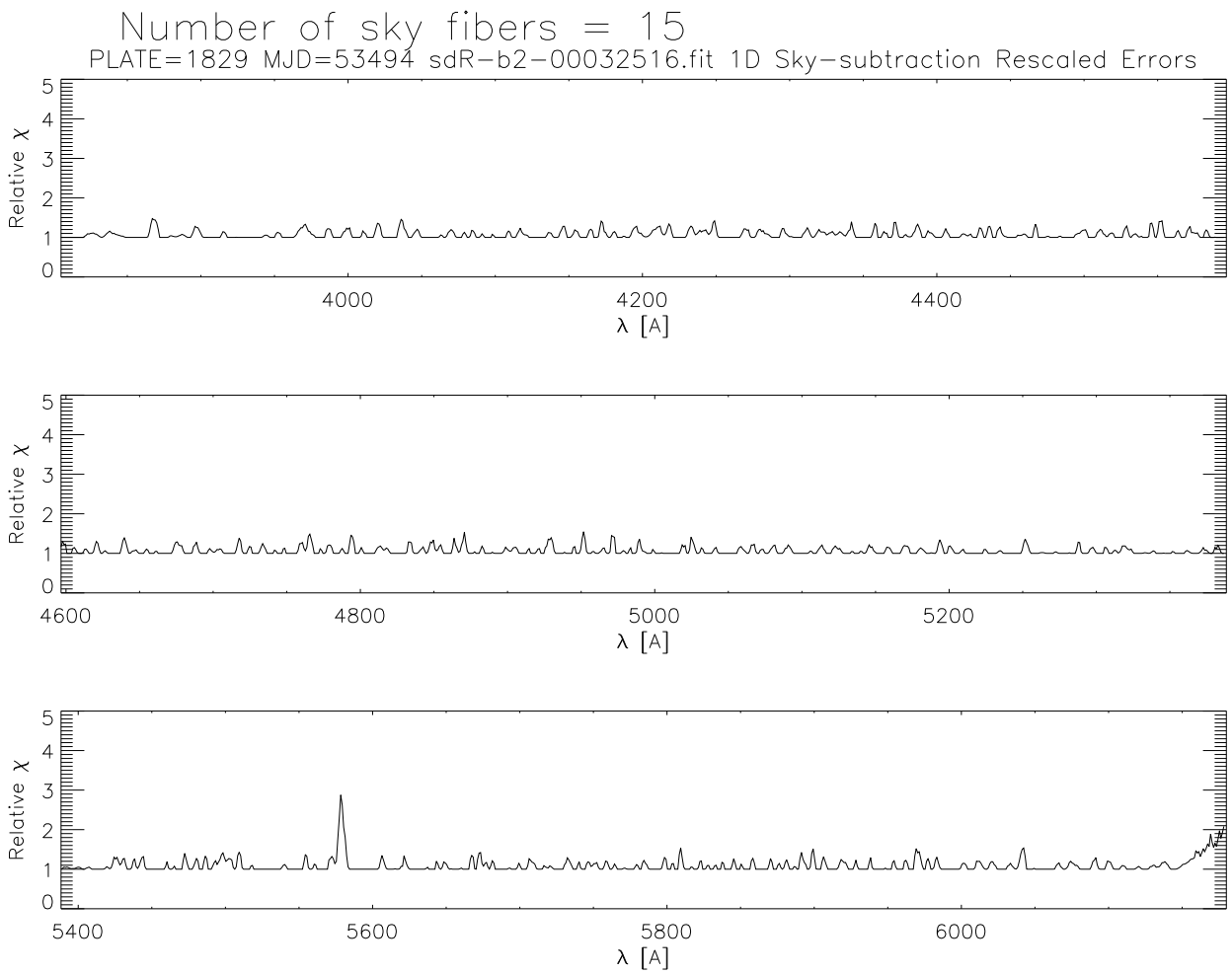

PLATE=1829 MJD=53494 Smooth superflat for sdR-b2-00032516.fit
1.5
1.0
0.5
0.0
1.01
1.00
0.99
0.98
0.97
4000
4500
5000
5500
6000
Wavelength (Å)

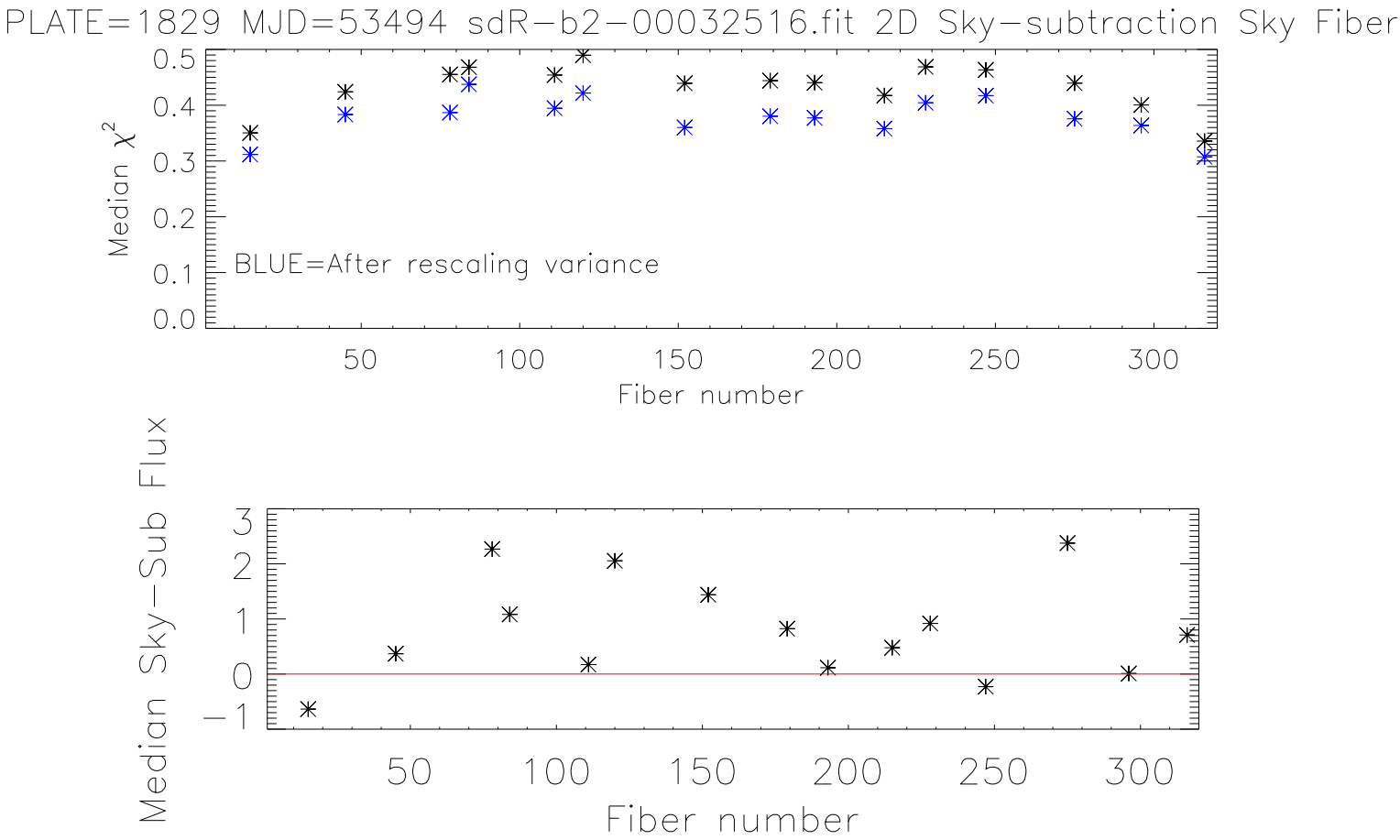
es= −0.0000

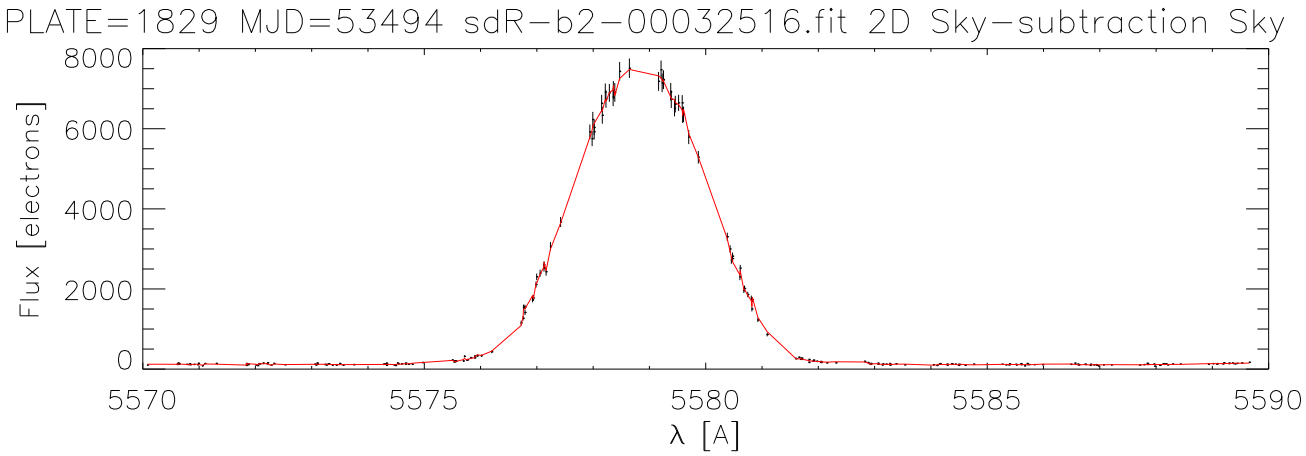

PLATE=1829 MJD=53494 sdR-b2-00032516.fit 1D Sky-subtraction Sky Fiber
Median $\chi^2$
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

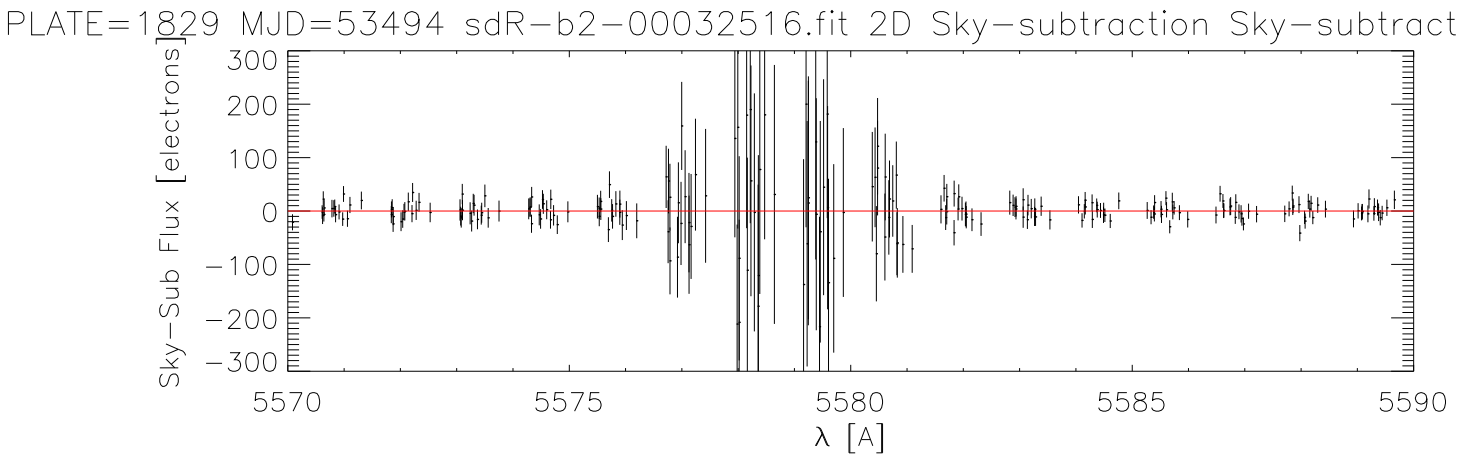

PLATE=1829 MJD=53494 sdR-b2-00032516.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

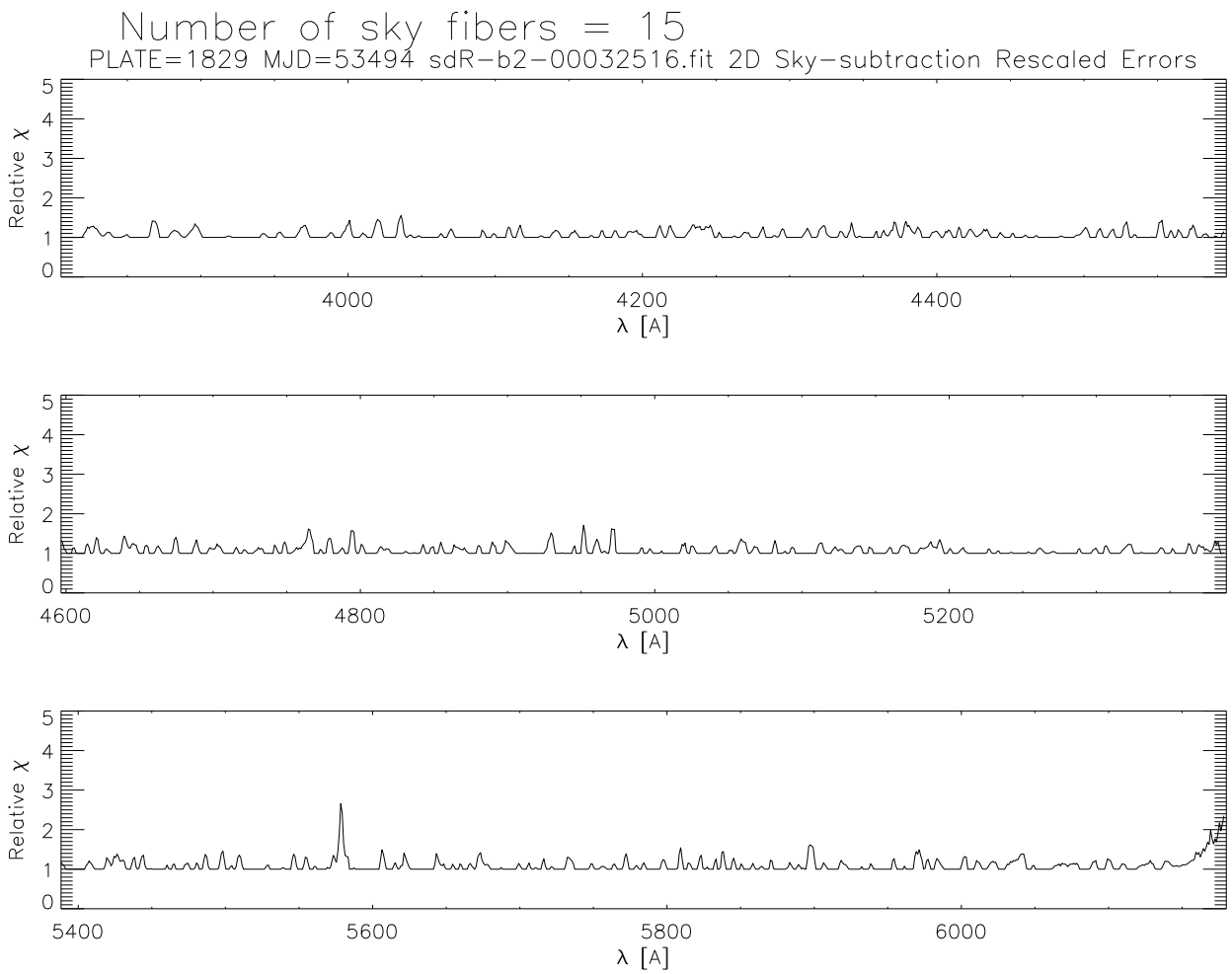

PLATE=1829 MJD=53494 sdR-b2-00032516.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
200
0
-200
-400
5570
5575
5580
5585
5590
λ [A]

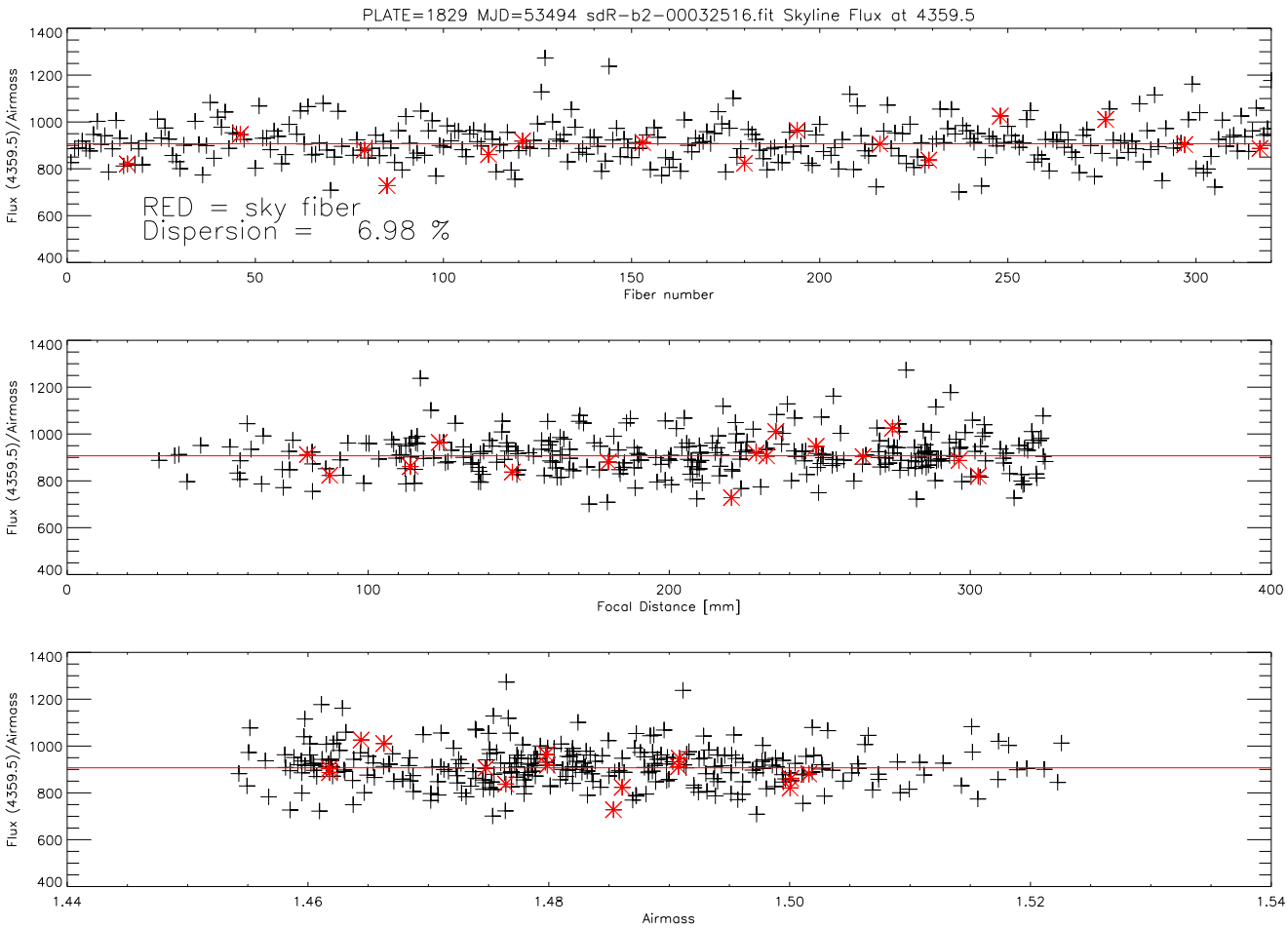

Number of sky fibers = 15
PLATE=1829 MJD=53494 sdR-b2-00032516.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

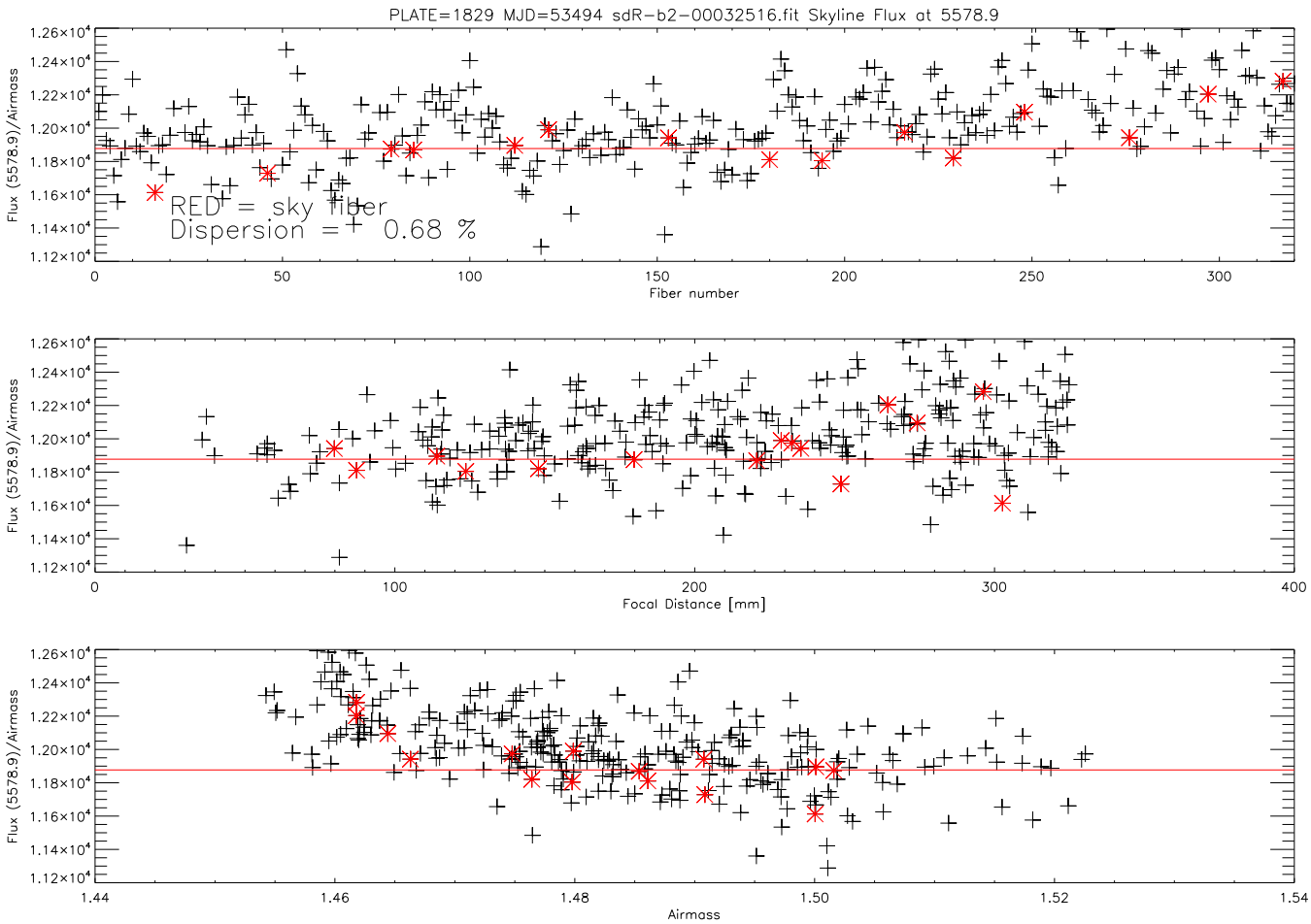

PLATE=1829 MJD=53494 sdR-b2-00032516.fit 2D Sky-subtraction Sky Fiber
Median $\chi^2$
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

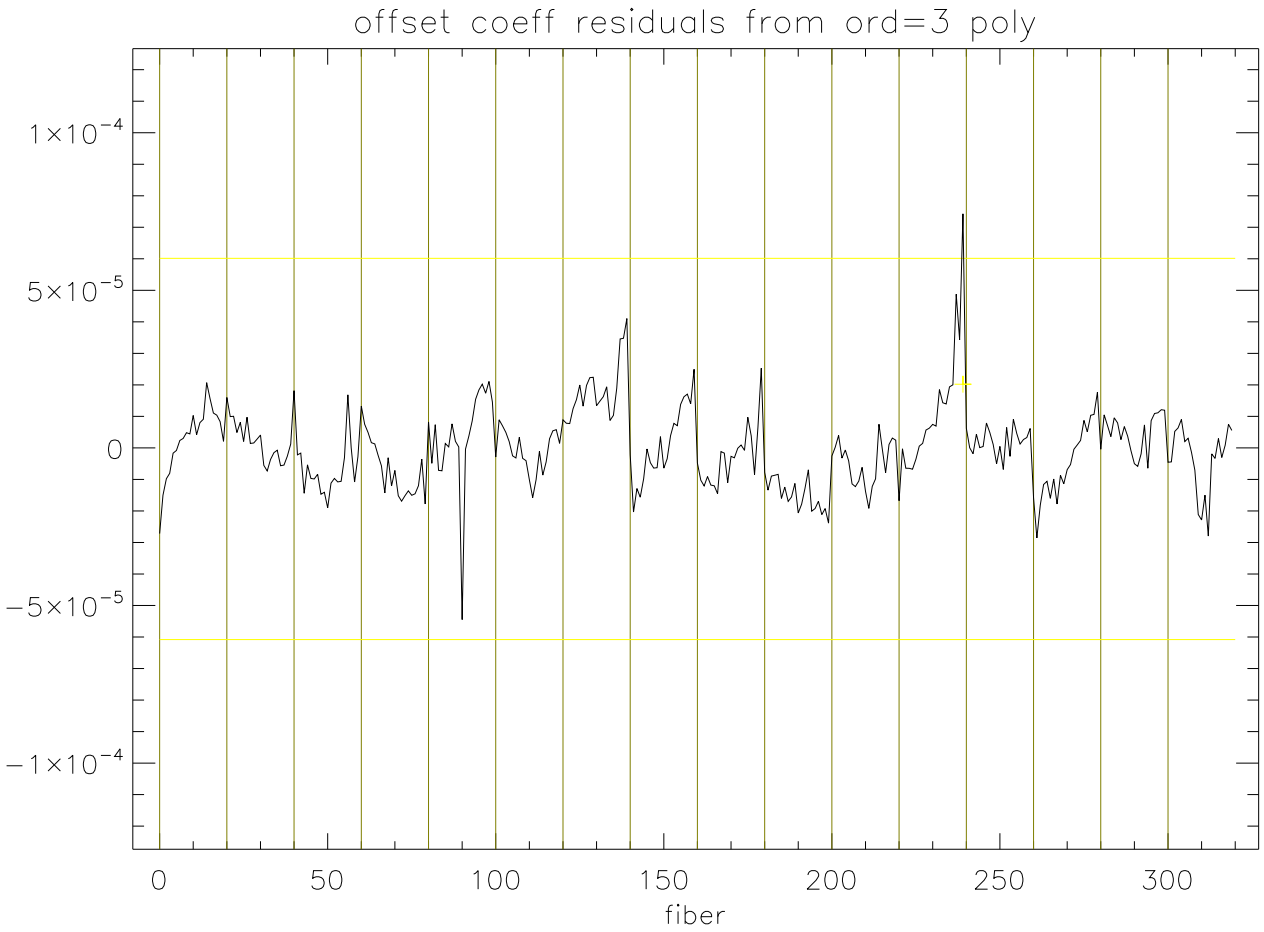

PLATE=1829 MJD=53494 sdR-b2-00032516.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

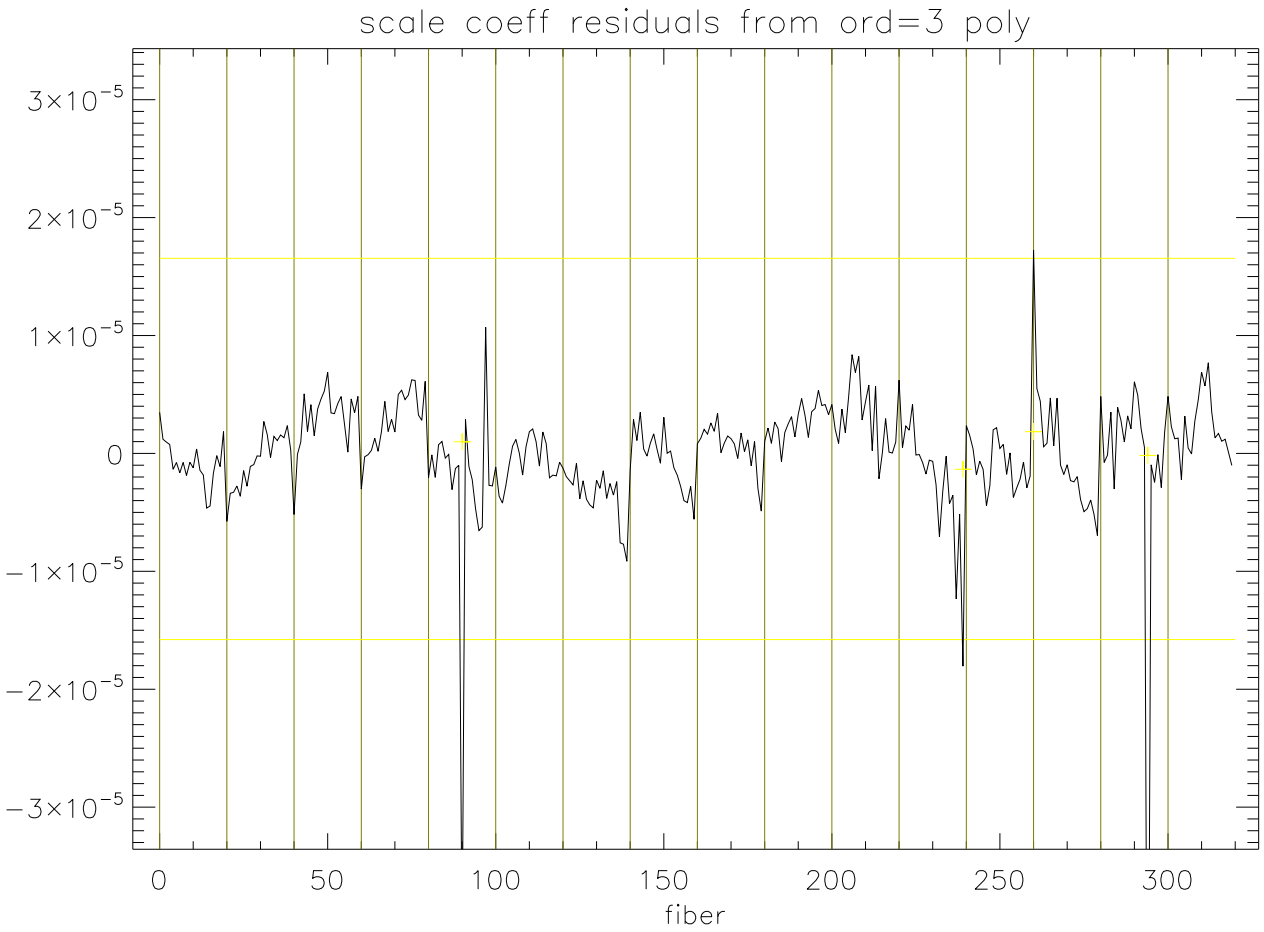

PLATE=1829 MJD=53494 sdR-b2-00032516.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
-300
5570
5575
5580
5585
5590
λ [A]

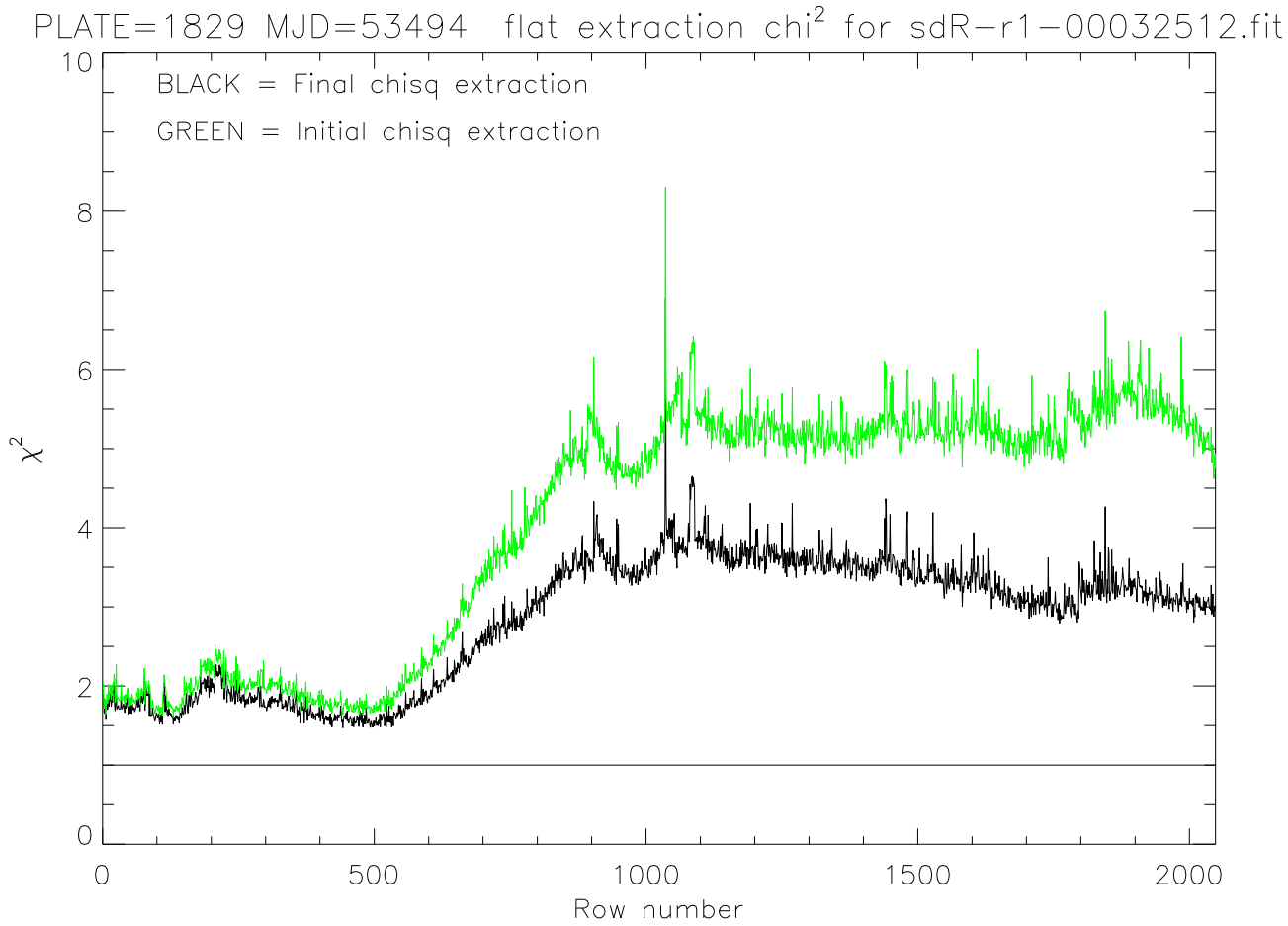

Number of sky fibers = 15
PLATE=1829 MJD=53494 sdR-b2-00032516.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

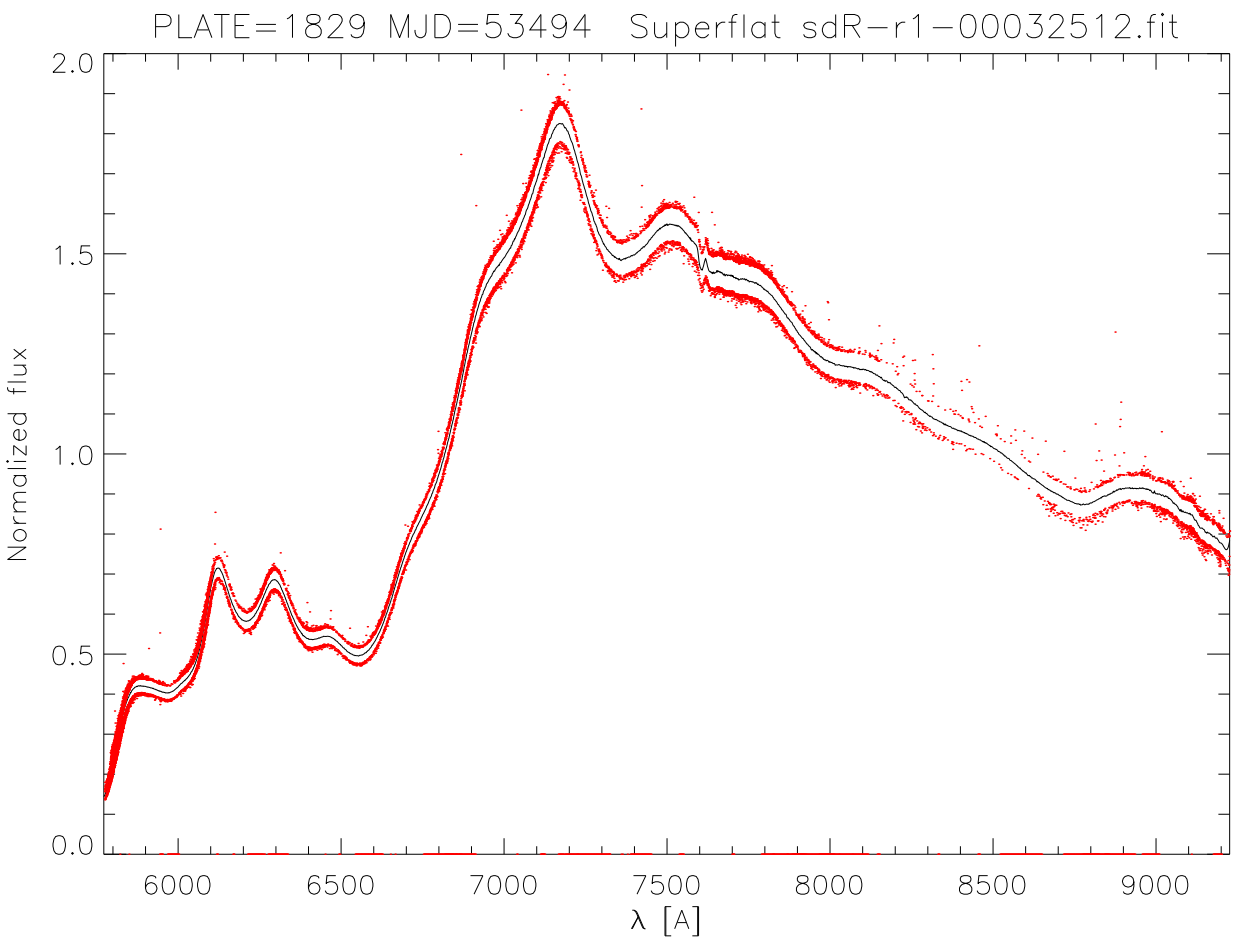

PLATE=1829 MJD=53494 sdR-b2-00032516.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 6.98 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

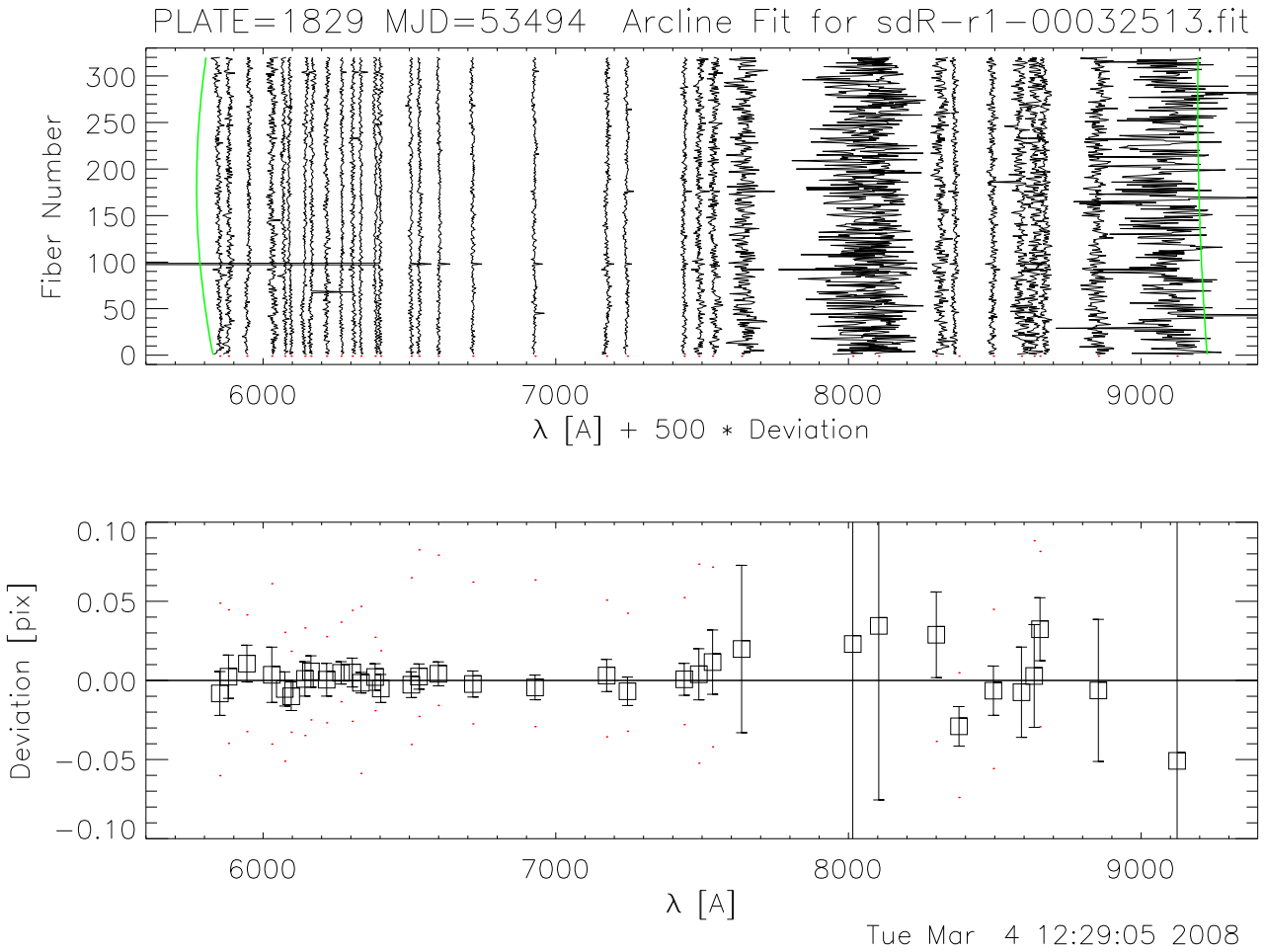

PLATE=1829 MJD=53494 sdR-b2-00032516.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
Fiber number
RED = sky fiber
Dispersion = 0.68 %
Focal Distance [mm]
Airmass

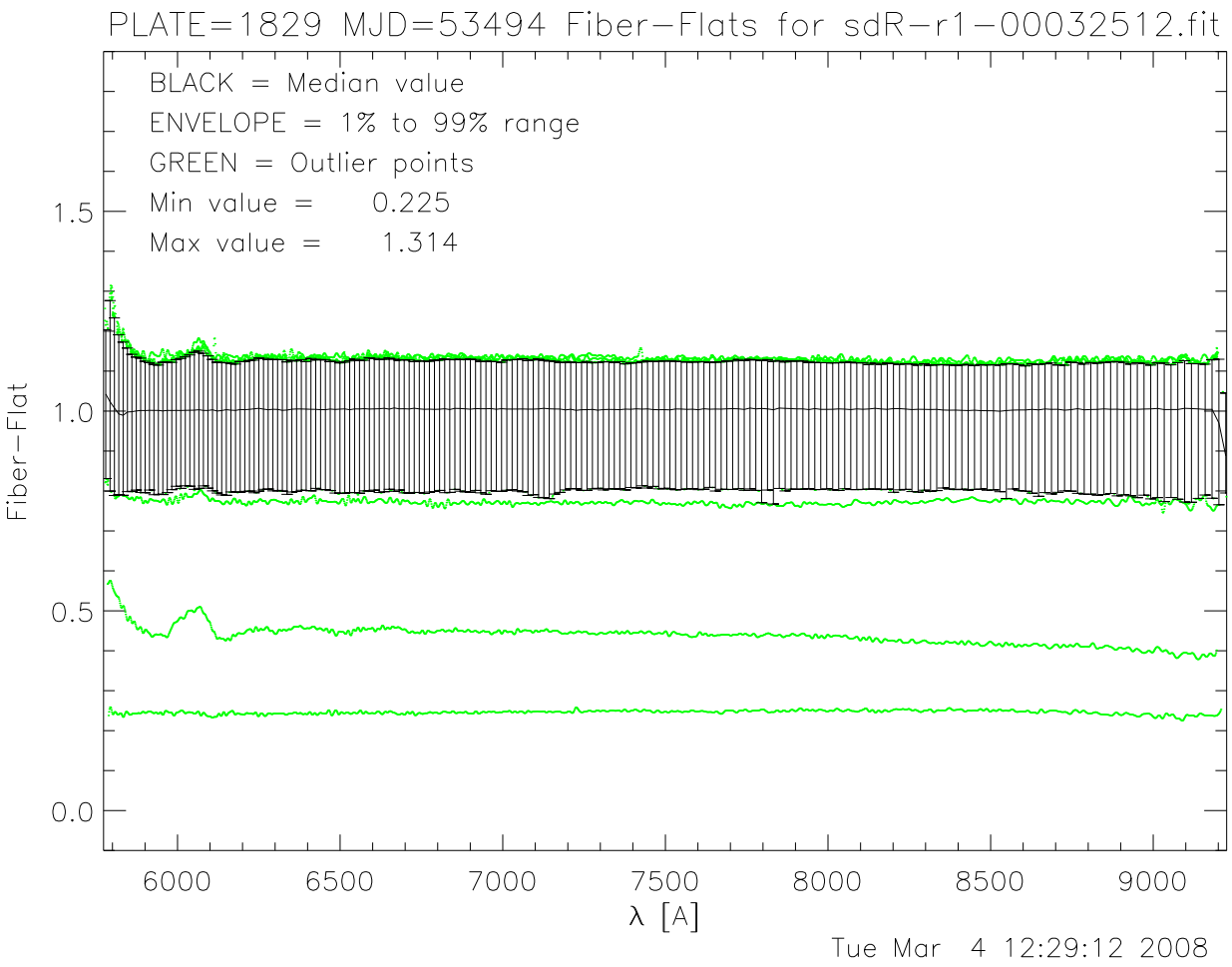

offset coeff residuals from ord=3 poly
1×10^-4
5×10^-5
0
−5×10^-5
−1×10^-4
0
50
100
150
200
250
300
fiber

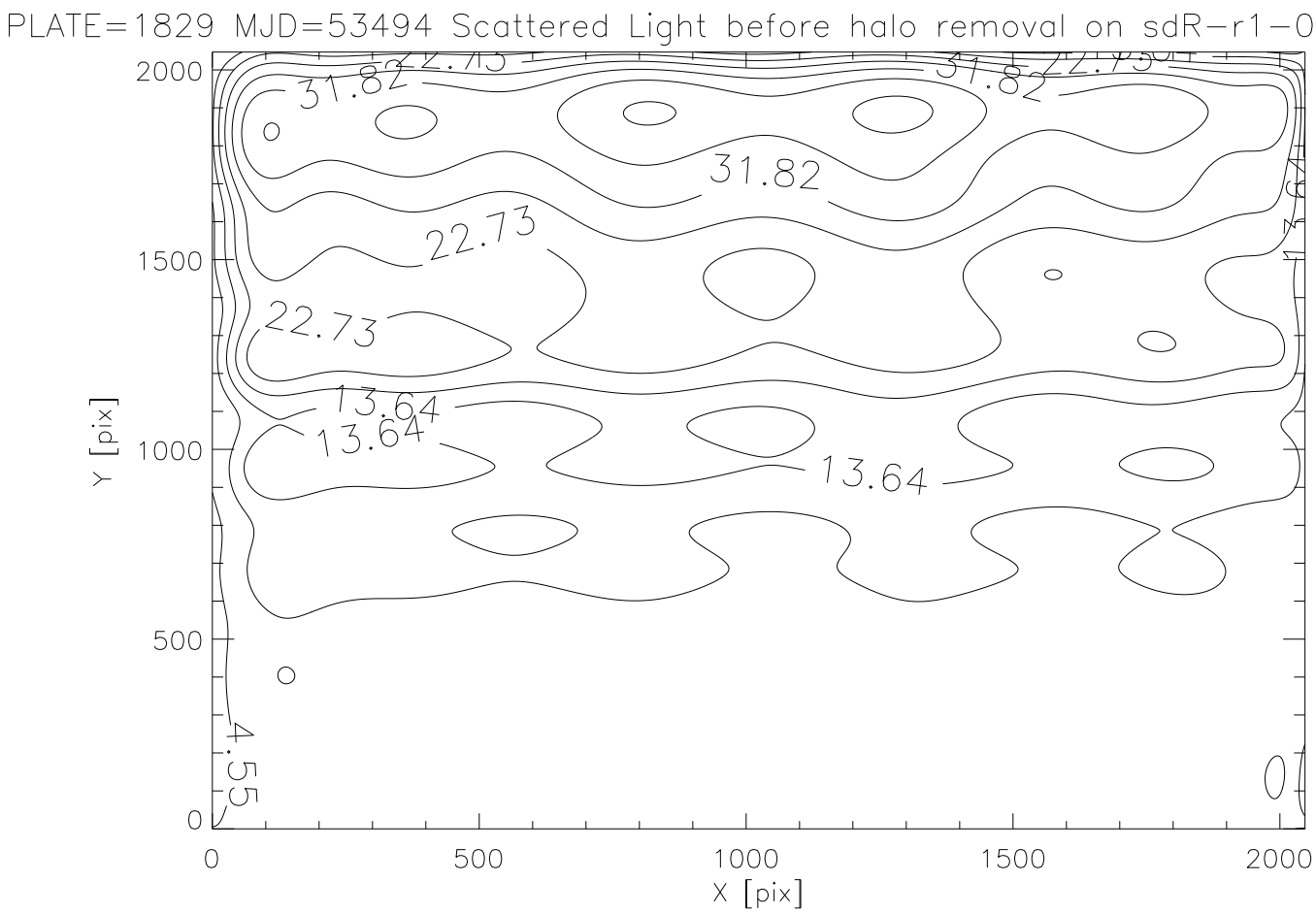

scale coeff residuals from ord=3 poly
3×10⁻⁵
2×10⁻⁵
1×10⁻⁵
0
−1×10⁻⁵
−2×10⁻⁵
−3×10⁻⁵
0
50
100
150
200
250
300
fiber

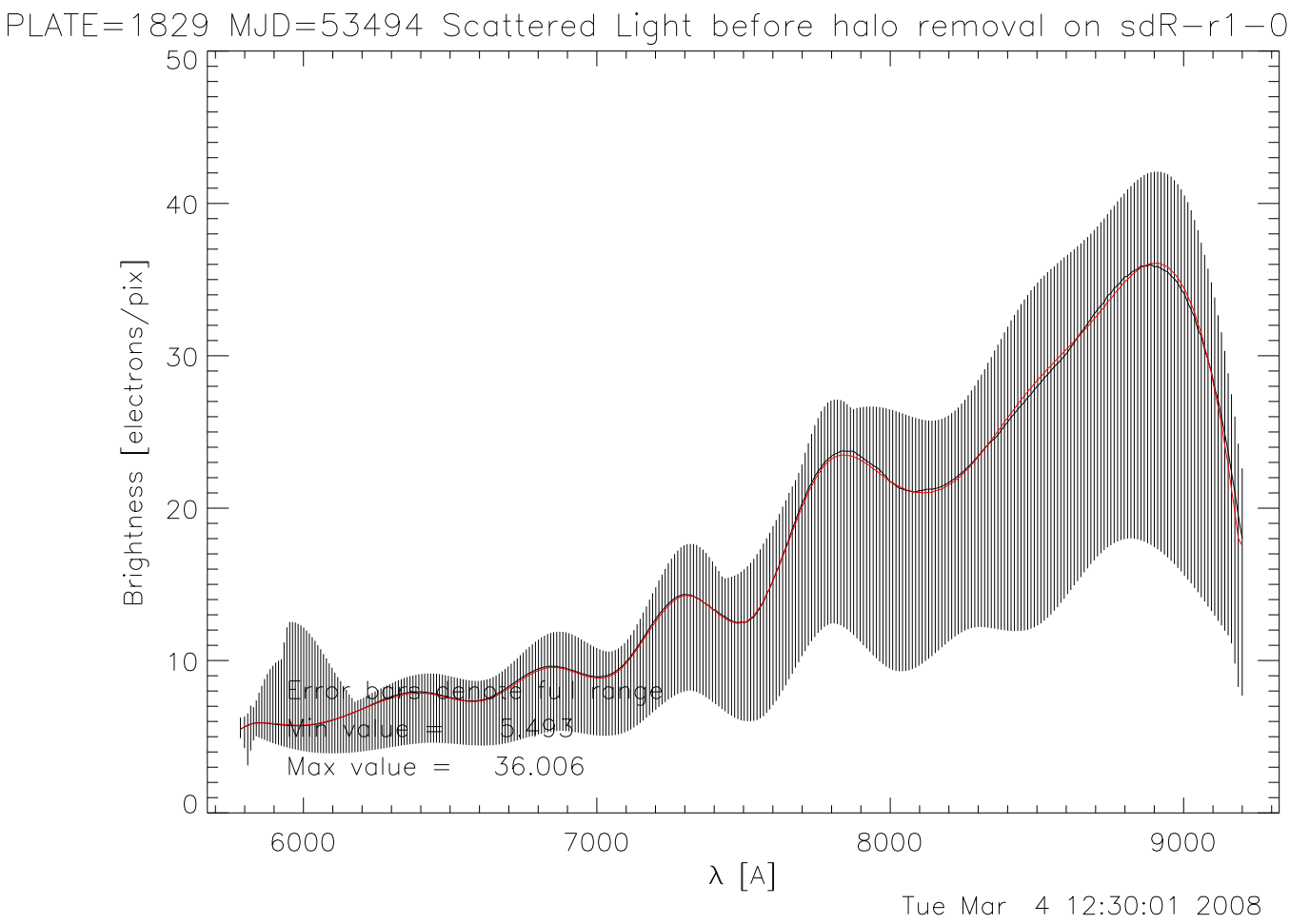

PLATE=1829 MJD=53494 flat extraction chi$^2$ for sdR−r1−00032512.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
$\chi^2$
0
2
4
6
8
10
0
500
1000
1500
2000
Row number

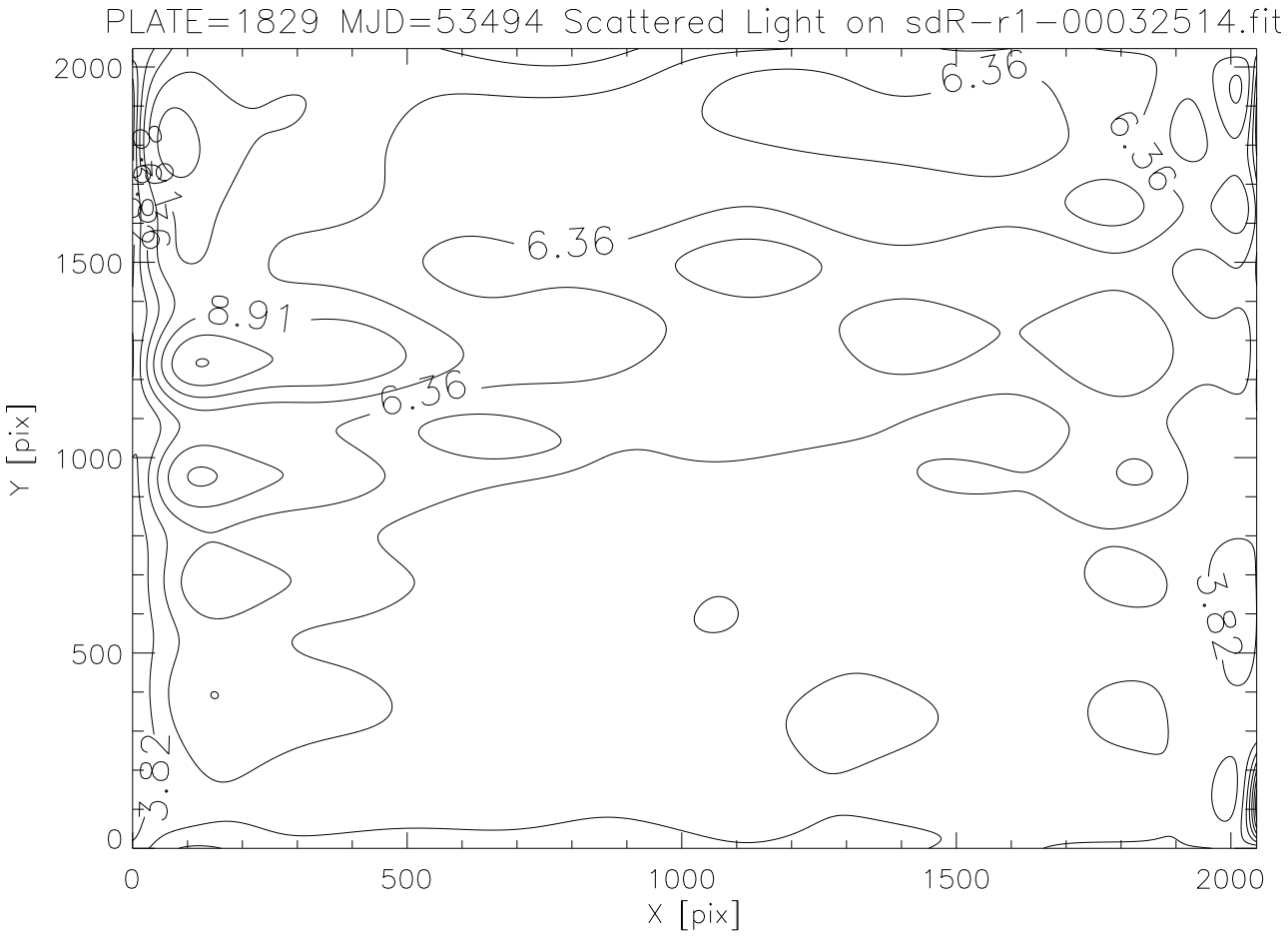

PLATE=1829 MJD=53494 Superflat sdR-r1-00032512.fit
Normalized flux
2.0
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

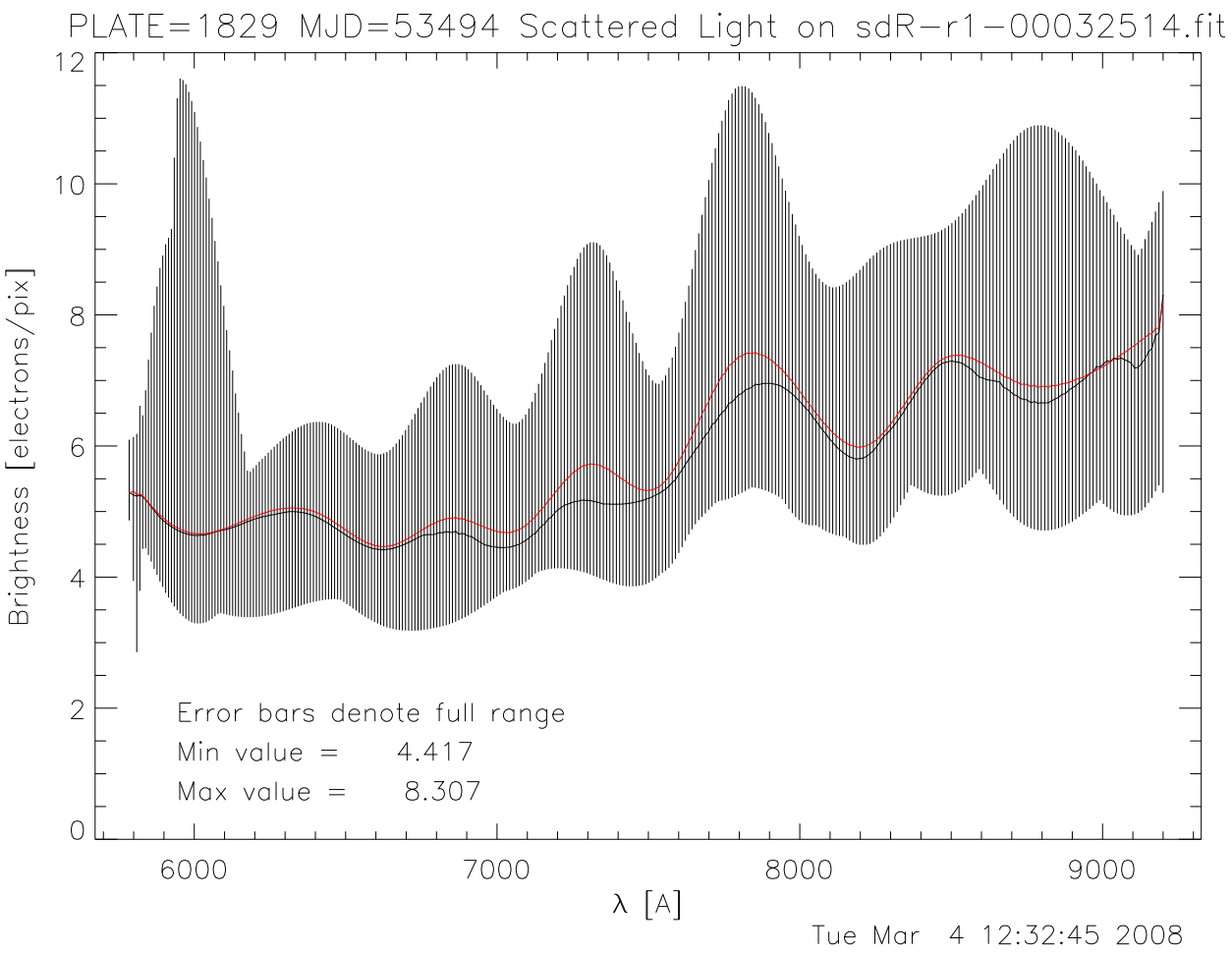

PLATE=1829 MJD=53494 Arcline Fit for sdR-r1-00032513.fit
Fiber Number
300
250
200
150
100
50
0
6000
7000
8000
9000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
6000
7000
8000
9000
λ [A]
Tue Mar 4 12:29:05 2008

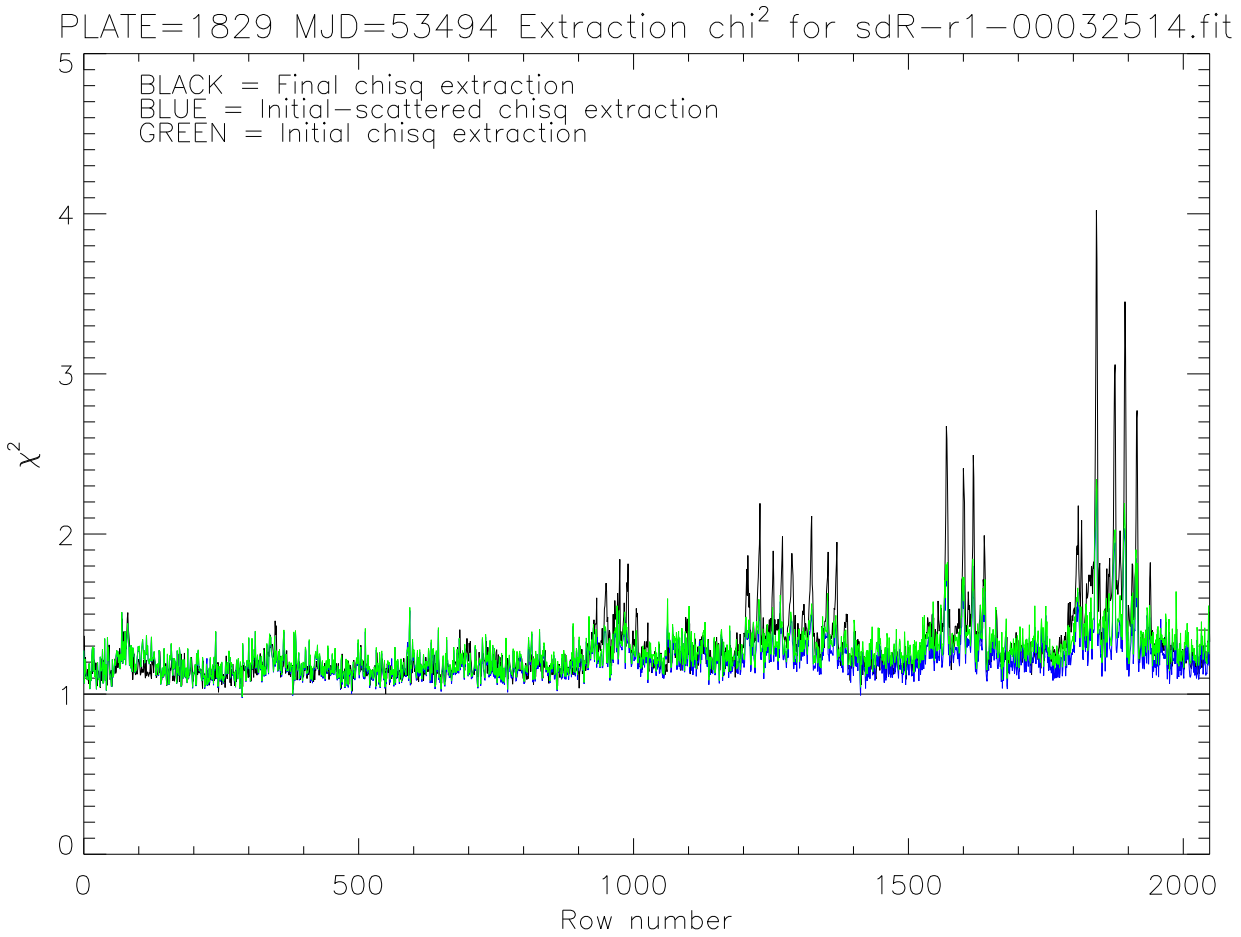

PLATE=1829 MJD=53494 Fiber−Flats for sdR−r1−00032512.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.225
Max value = 1.314
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Tue Mar 4 12:29:12 2008

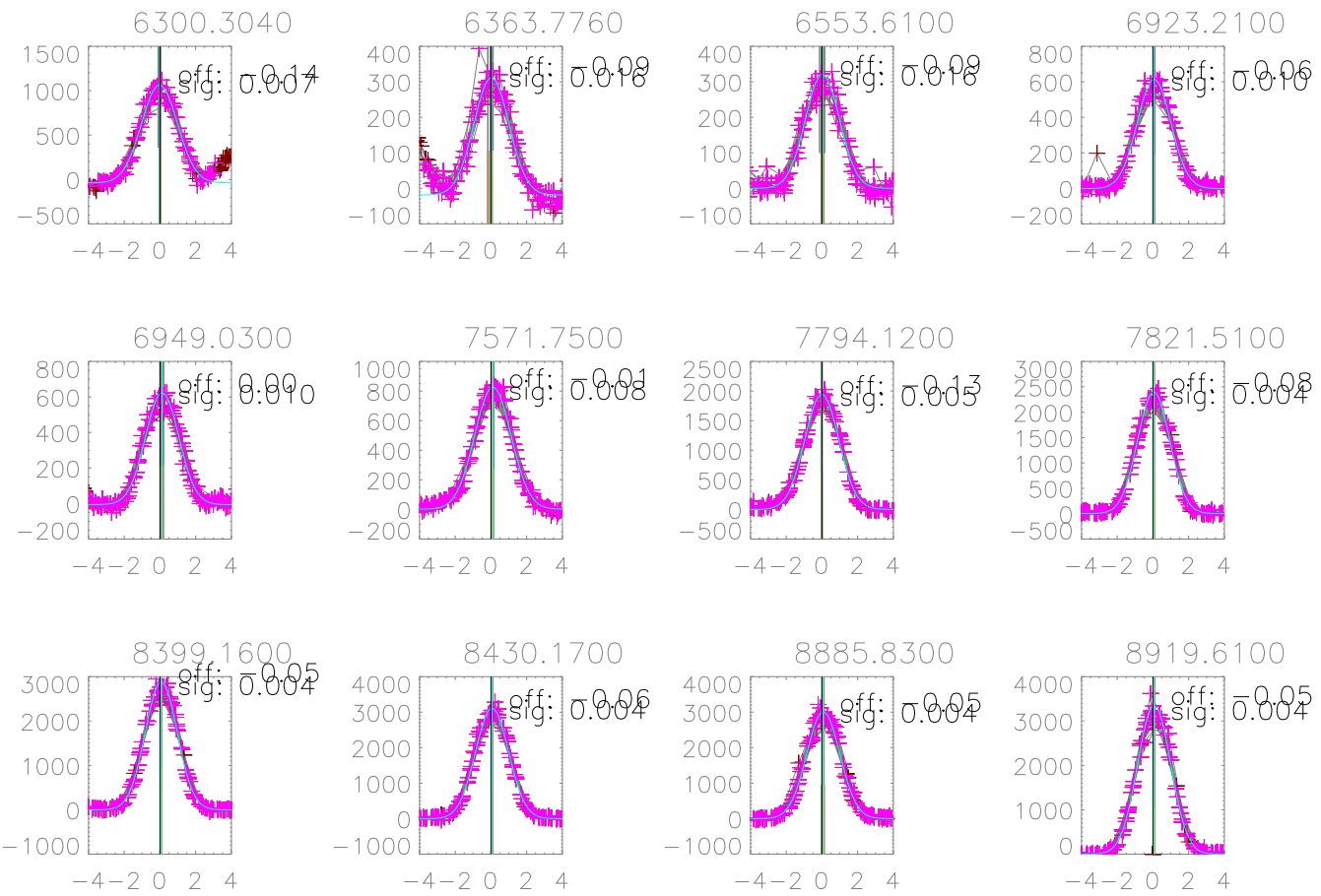

PLATE=1829 MJD=53494 Scattered Light before halo removal on sdR-r1-00032514.fi
31.82
22.73
13.64
4.55
0
Y [pix]
X [pix]
0
500
1000
1500
2000

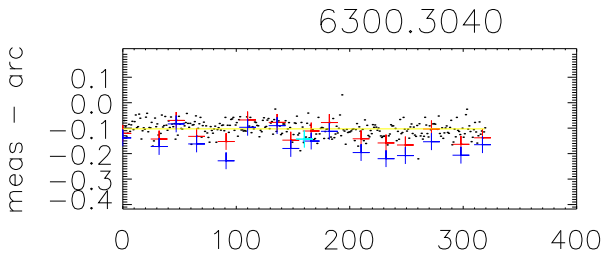

PLATE=1829 MJD=53494 Scattered Light before halo removal on sdR-r1-00032514.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 5.493
Max value = 36.006
Tue Mar 4 12:30:01 2008

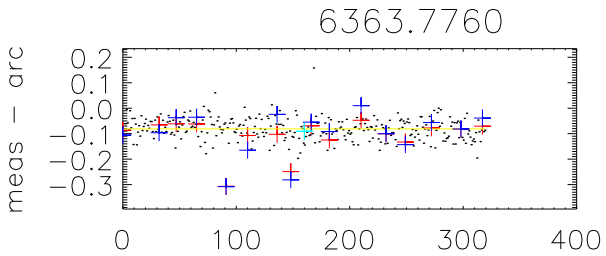

PLATE=1829 MJD=53494 Scattered Light on sdR-r1-00032514.fit
6.36
6.36
6.36
8.91
6.36
3.82
3.82
Y [pix]
X [pix]
0
500
1000
1500
2000

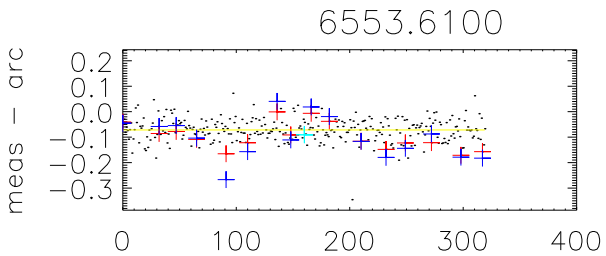

PLATE=1829 MJD=53494 Scattered Light on sdR-r1-00032514.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 4.417
Max value = 8.307
Tue Mar 4 12:32:45 2008

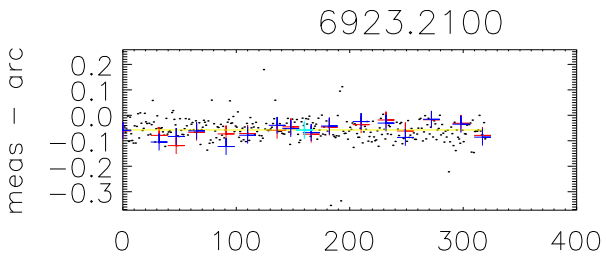

PLATE=1829 MJD=53494 Extraction chi$^2$ for sdR-r1-00032514.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
$\chi^2$
0
1
2
3
4
5
0
500
1000
1500
2000
Row number

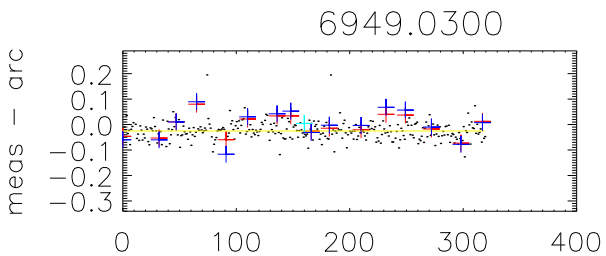

6300.3040
off: −0.14
sig: 0.007
6363.7760
off: −0.09
sig: 0.016
6553.6100
off: −0.09
sig: 0.016
6923.2100
off: −0.06
sig: 0.010
6949.0300
off: 0.00
sig: 0.010
7571.7500
off: −0.01
sig: 0.008
7794.1200
off: −0.13
sig: 0.005
7821.5100
off: −0.08
sig: 0.004
8399.1600
off: −0.05
sig: 0.004
8430.1700
off: −0.06
sig: 0.004
8885.8300
off: −0.05
sig: 0.004
8919.6100
off: −0.05
sig: 0.004

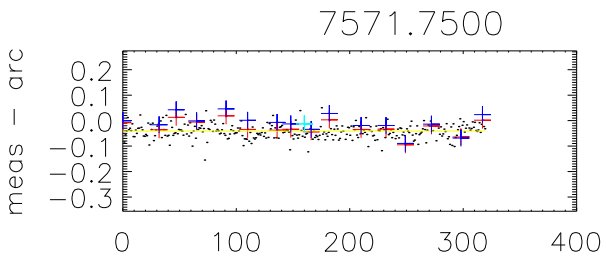

6300.3040
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

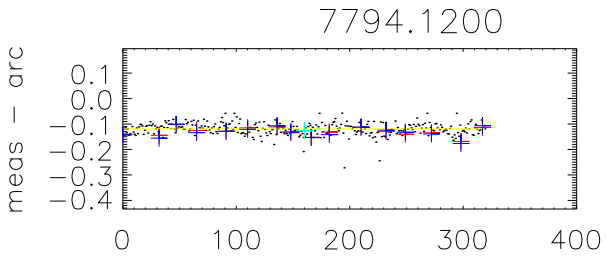

6363.7760
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

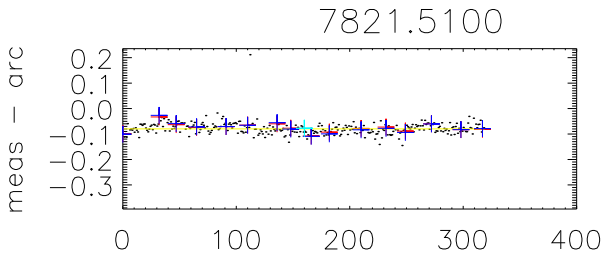

6553.6100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

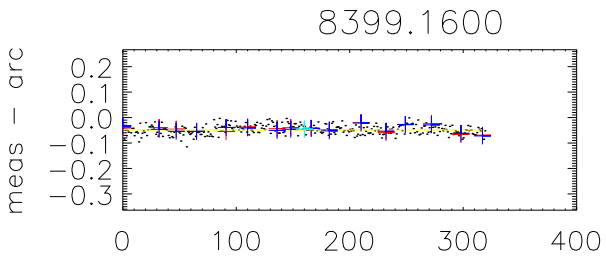

6923.2100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

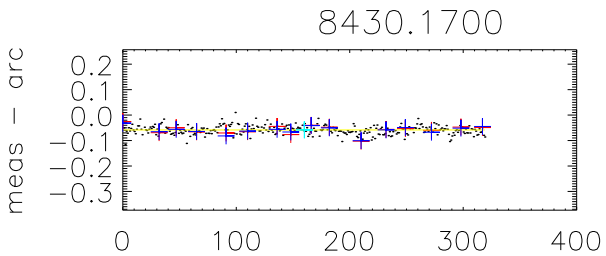

6949.0300
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

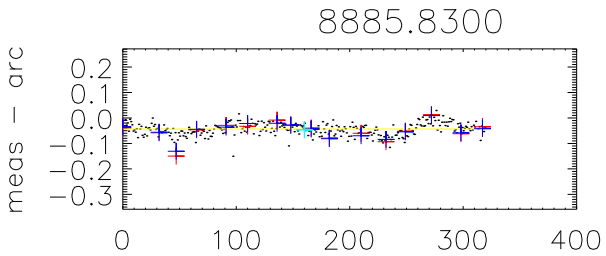

7571.7500
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

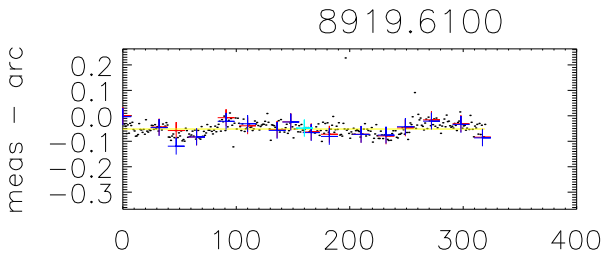

7794.1200
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

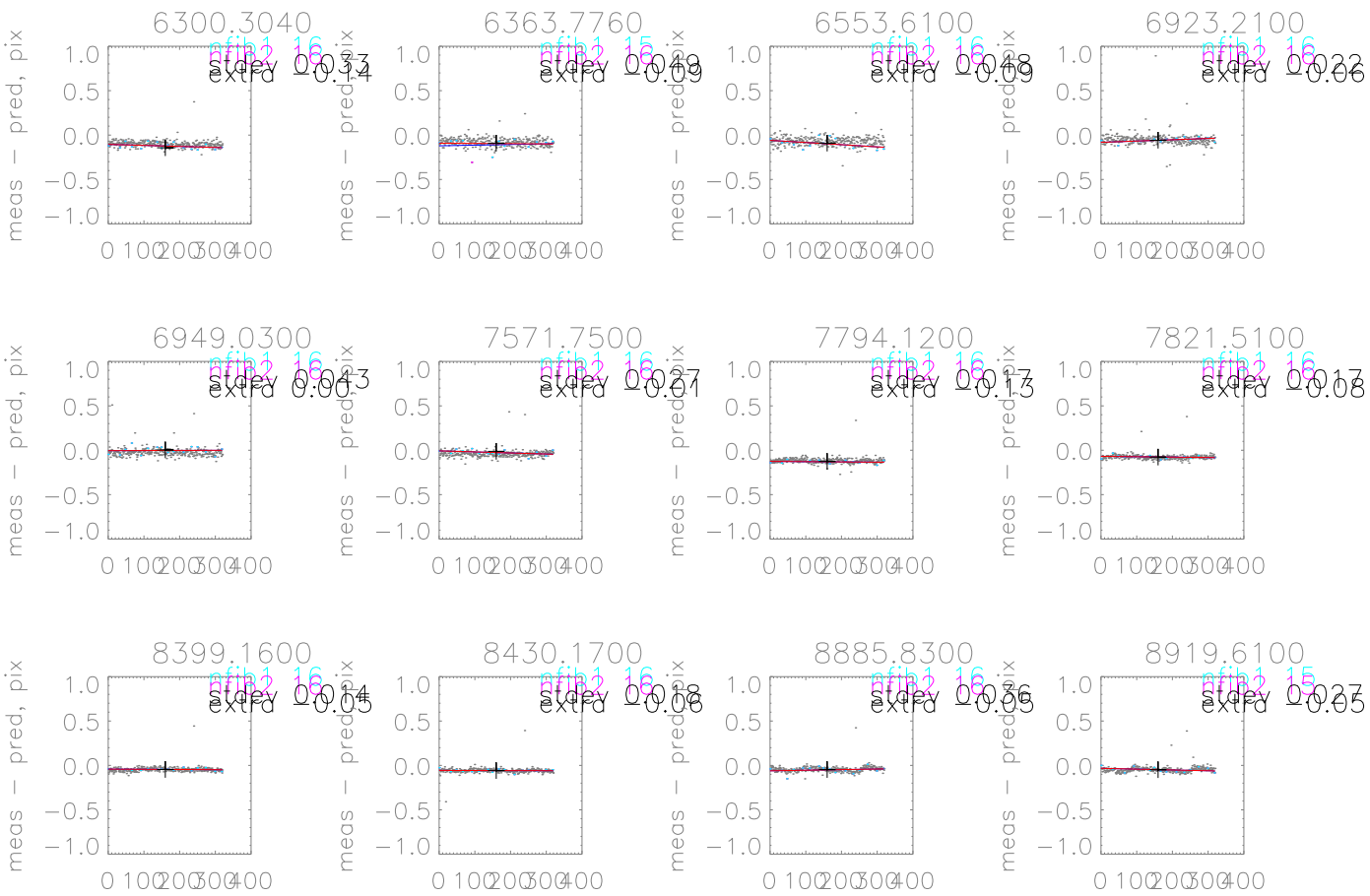

7821.5100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

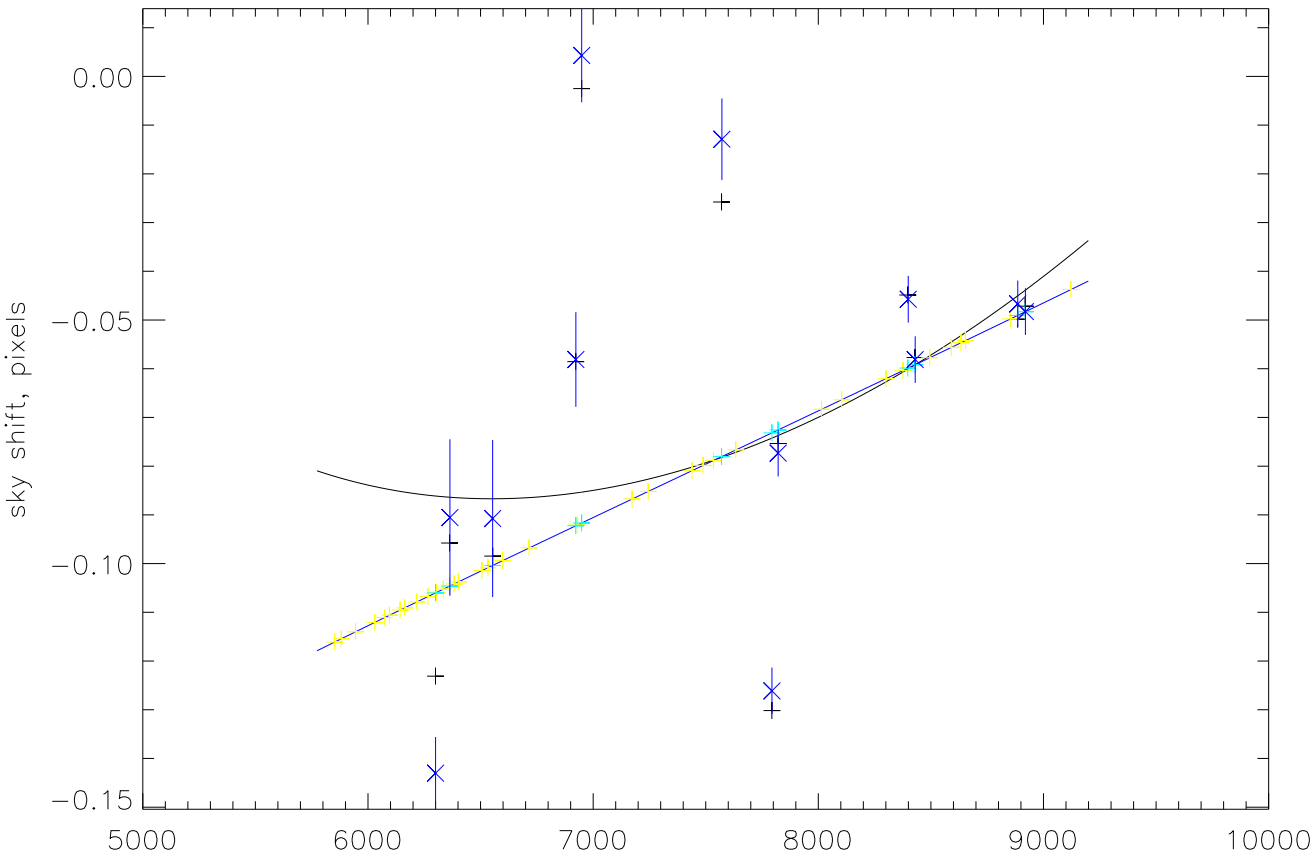

8399.1600
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400


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

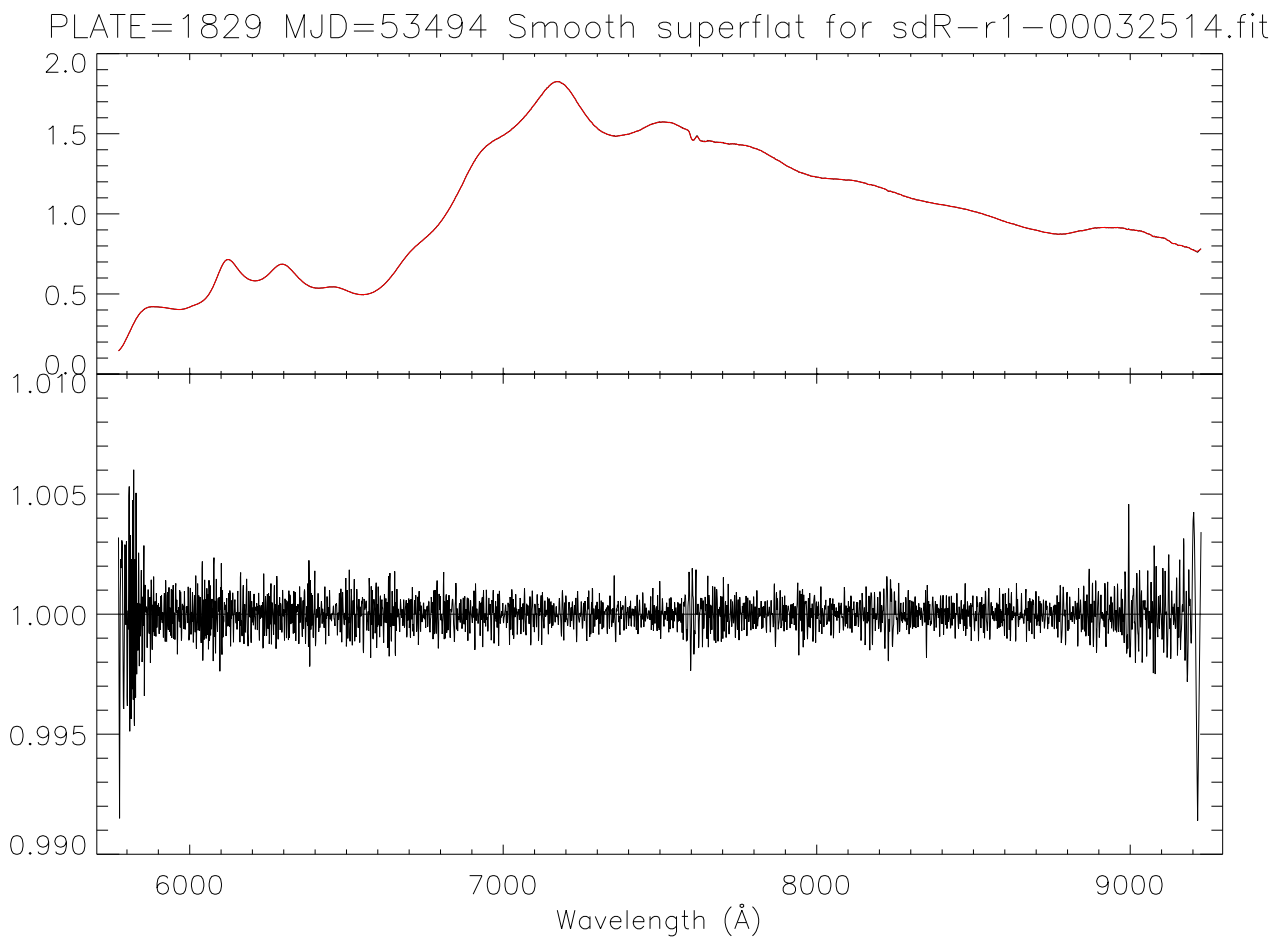

8885.8300
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

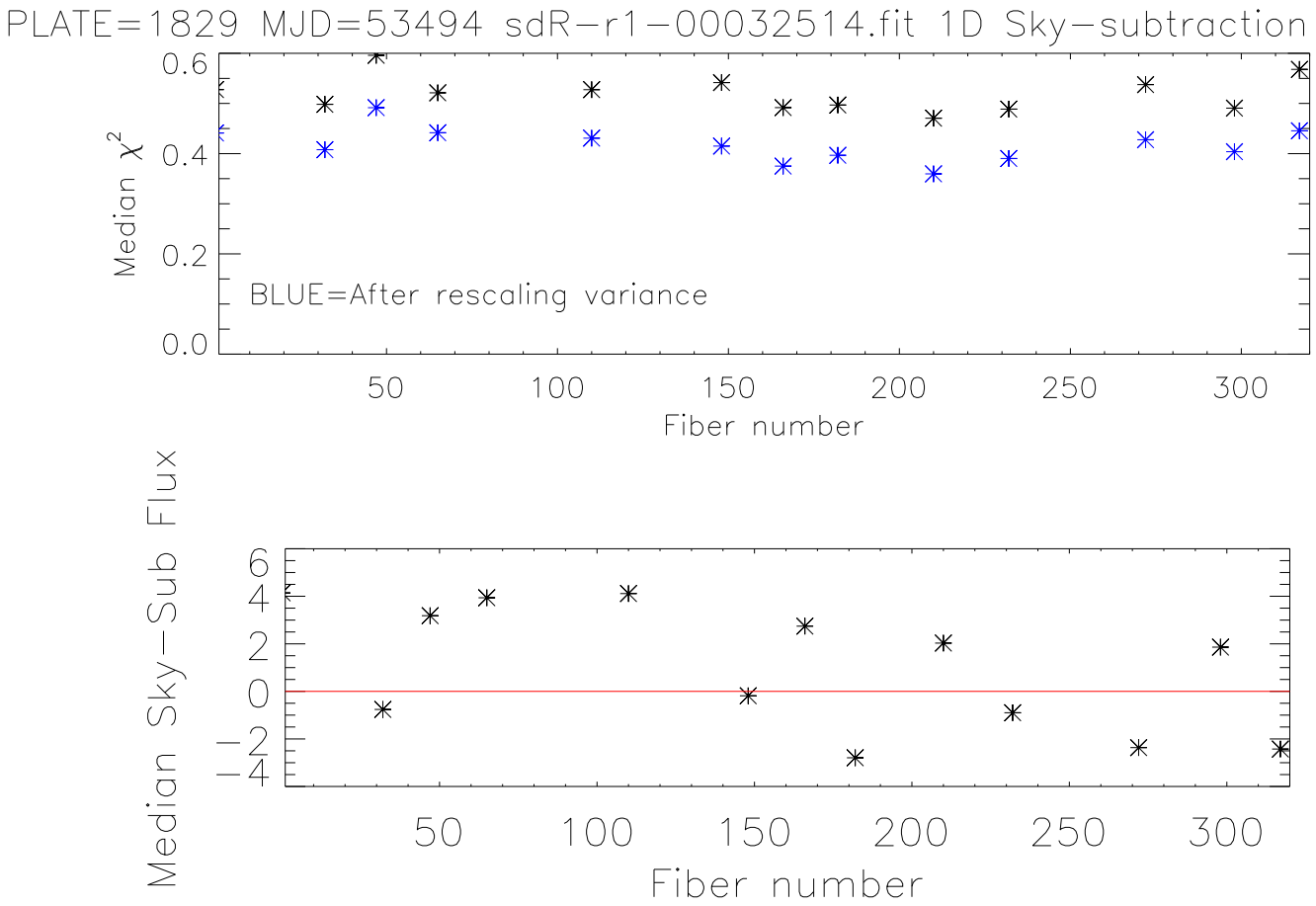

8919.6100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400


6300.3040
stdev 0.033
extra −0.014
6363.7760
stdev 0.049
extra −0.009
6553.6100
stdev 0.048
extra −0.009
6923.2100
stdev 0.022
extra −0.006
6949.0300
stdev 0.043
extra 0.000
7571.7500
stdev 0.027
extra −0.001
7794.1200
stdev 0.017
extra −0.013
7821.5100
stdev 0.017
extra −0.008
8399.1600
stdev 0.014
extra −0.005
8430.1700
stdev 0.018
extra −0.006
8885.8300
stdev 0.036
extra −0.005
8919.6100
stdev 0.027
extra −0.005
meas − pred, pix
mfib2 16
mfib1 16
mfib2 15
mfib1 15

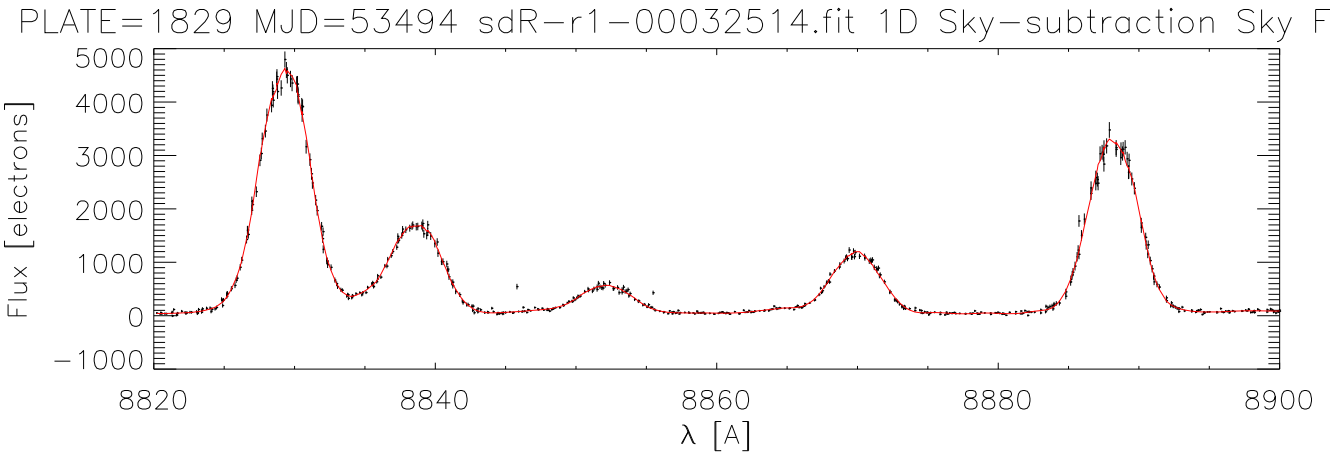

0.00
−0.05
−0.10
−0.15
sky shift, pixels
5000
6000
7000
8000
9000
10000

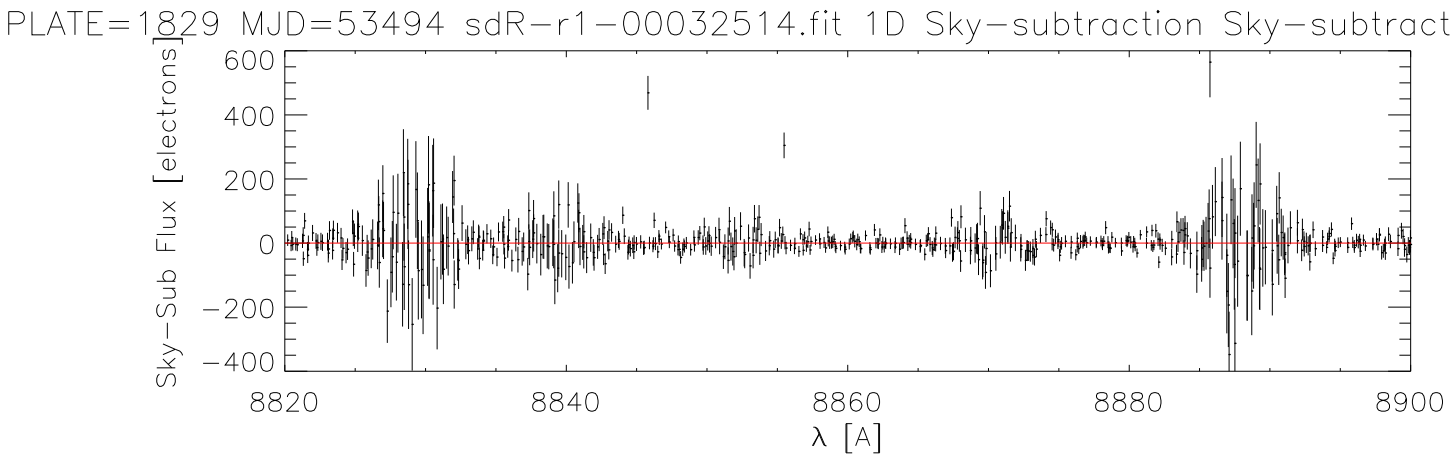
es= 0.0000

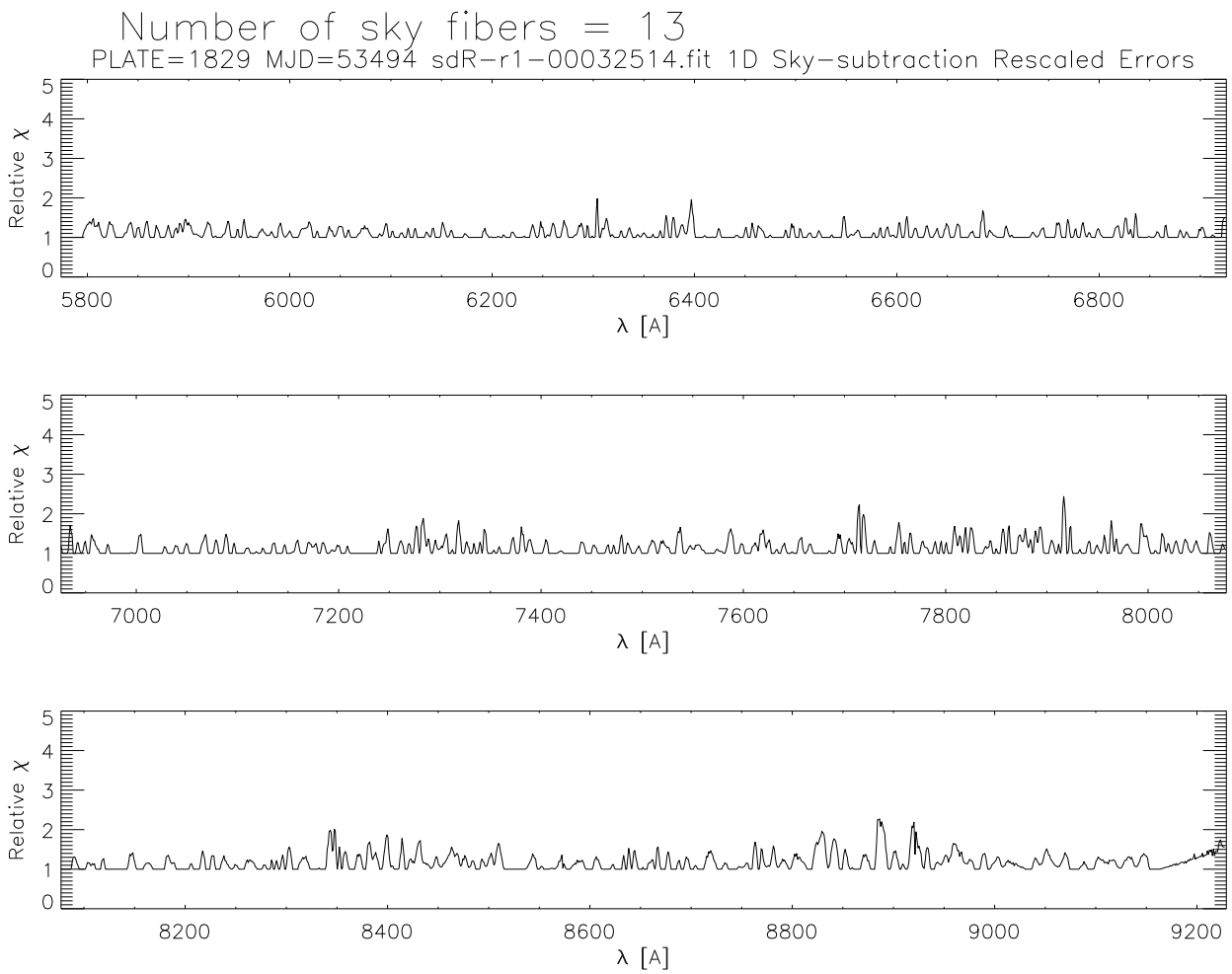

PLATE=1829 MJD=53494 Smooth superflat for sdR-r1-00032514.fit
2.0
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
6000
7000
8000
9000
Wavelength (Å)

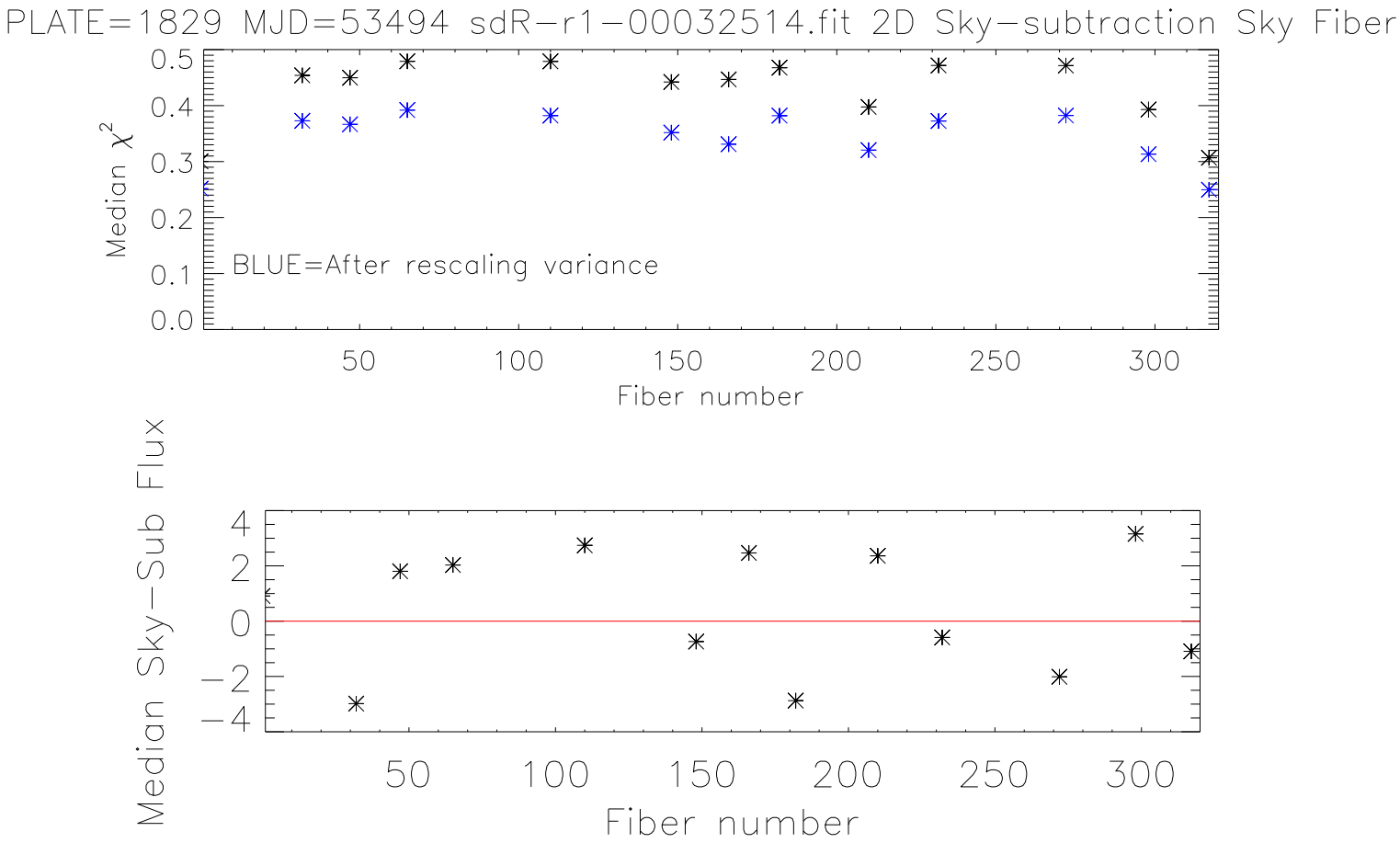

PLATE=1829 MJD=53494 sdR-r1-00032514.fit 1D Sky-subtraction Sky Fibers
Median $\chi^2$
0.0
0.2
0.4
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number

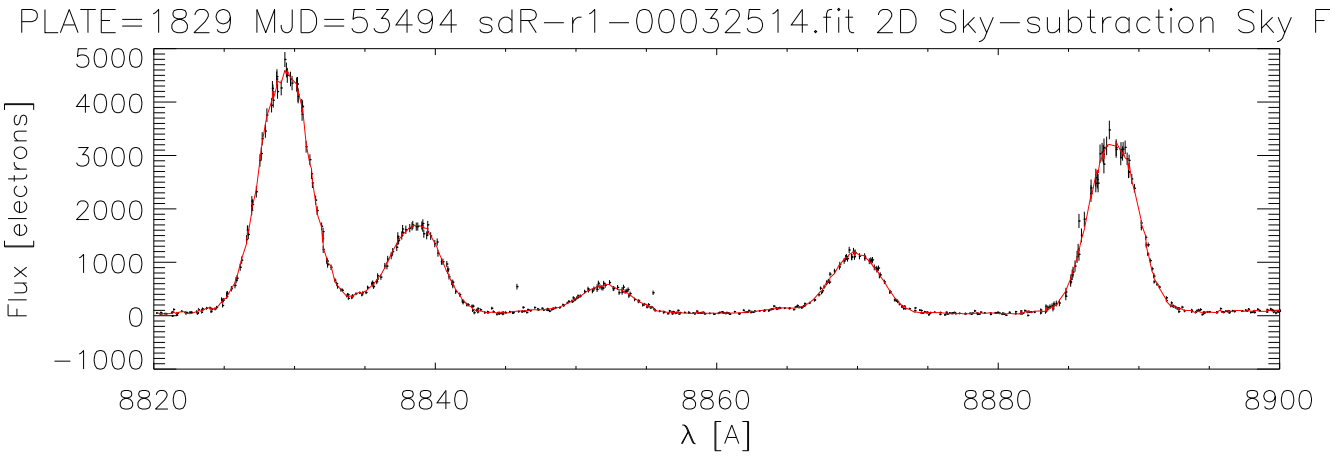

Median Sky-Sub Flux
-4
-2
0
2
4
6
50
100
150
200
250
300
Fiber number

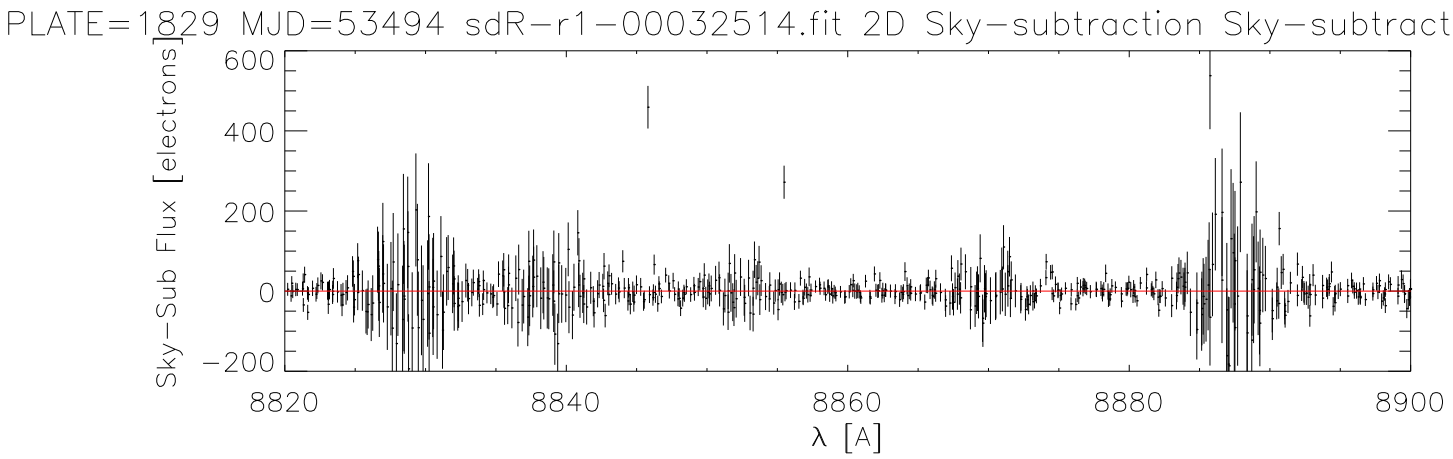

PLATE=1829 MJD=53494 sdR-r1-00032514.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
−1000
8820
8840
8860
8880
8900
λ [A]

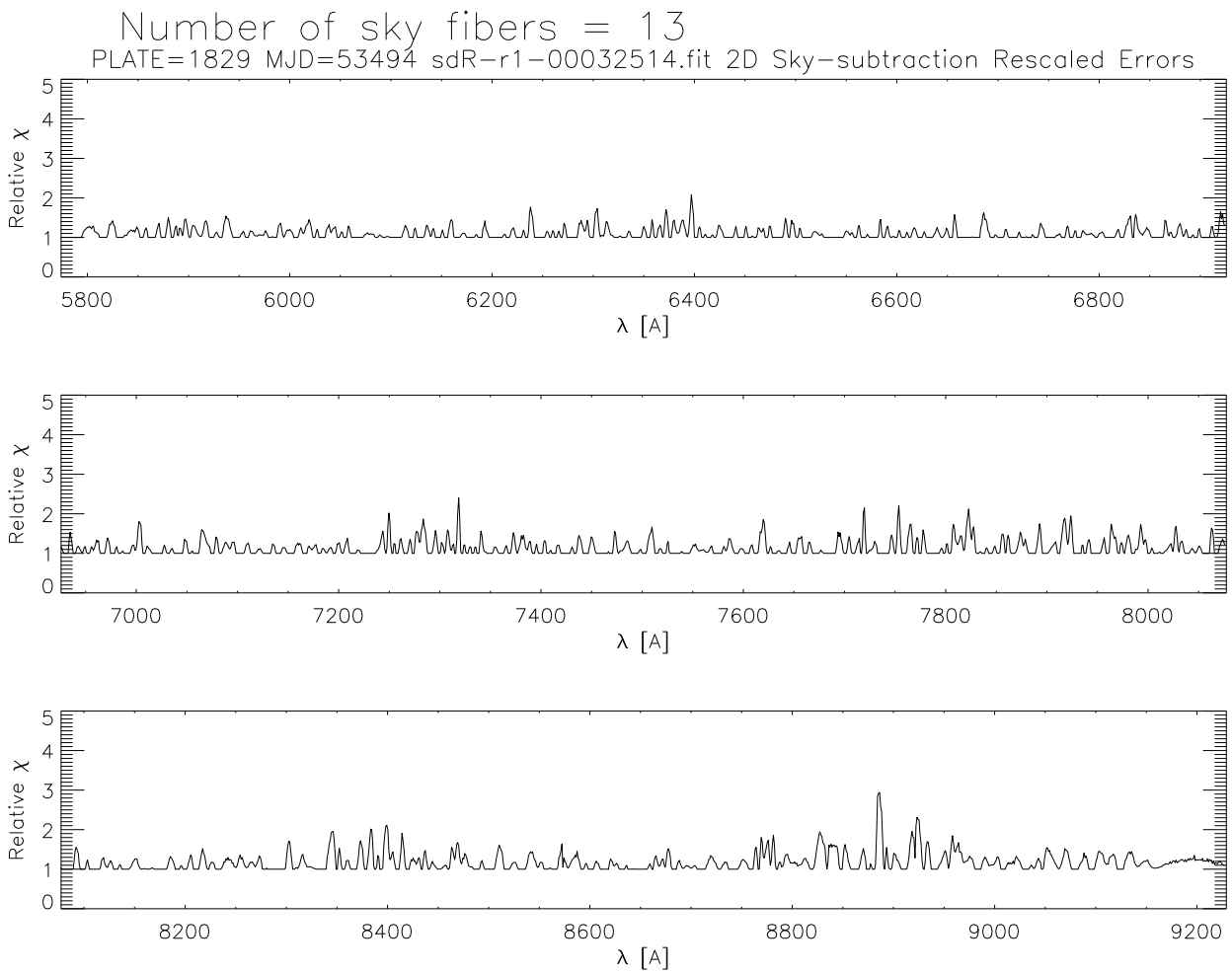

PLATE=1829 MJD=53494 sdR-r1-00032514.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
−200
−400
8820
8840
8860
8880
8900
λ [A]

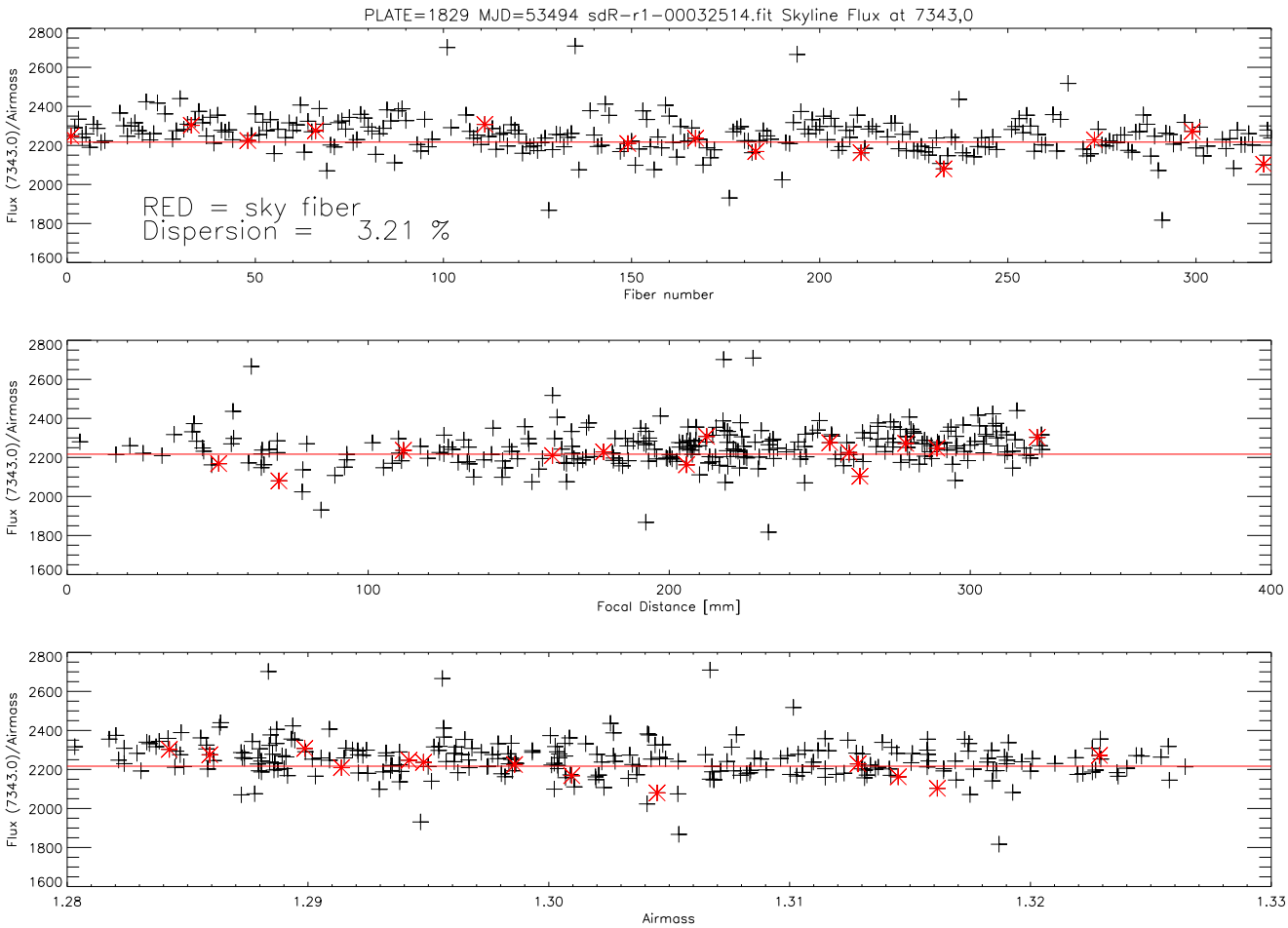

Number of sky fibers = 13
PLATE=1829 MJD=53494 sdR-r1-00032514.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

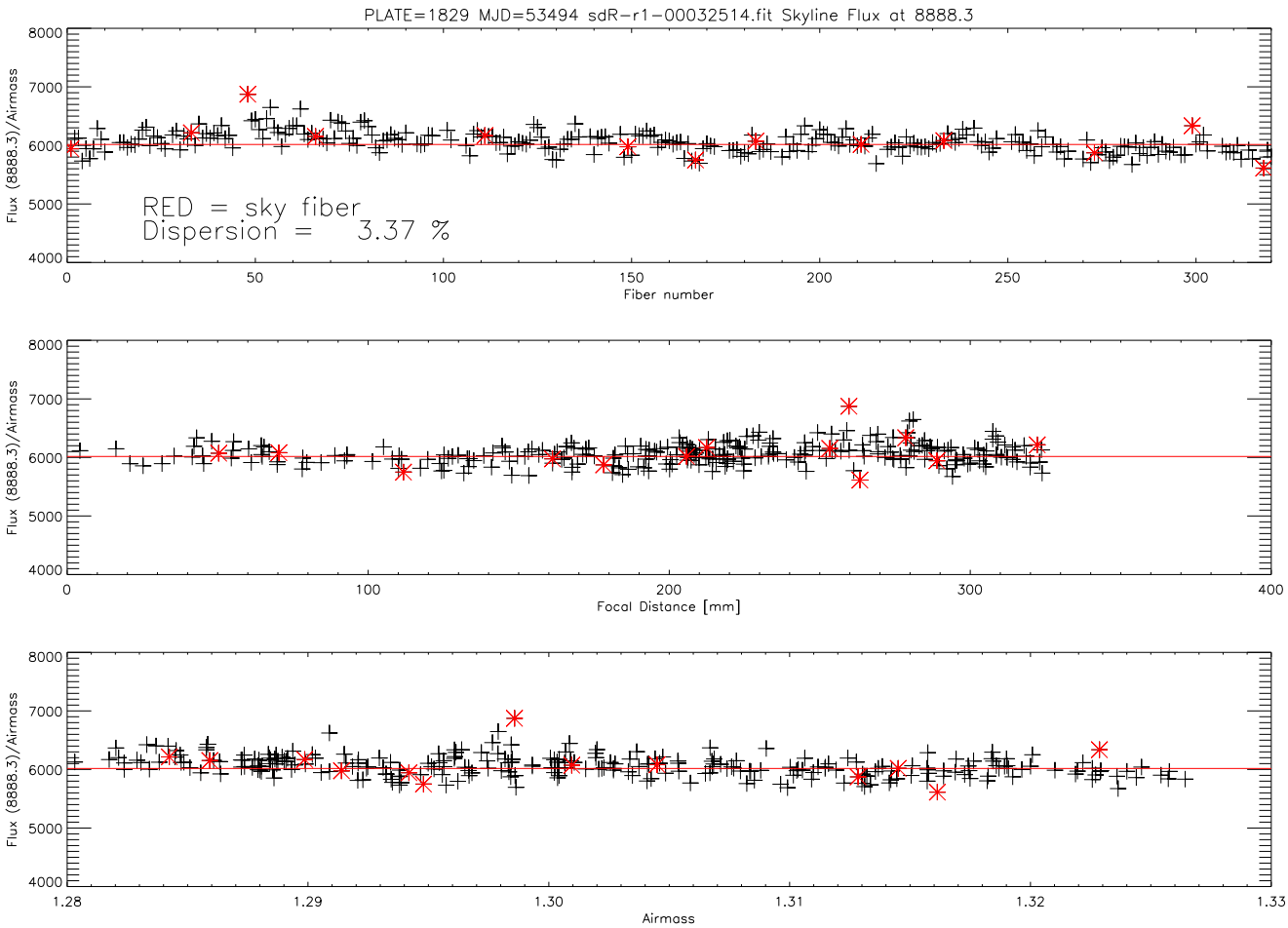

PLATE=1829 MJD=53494 sdR-r1-00032514.fit 2D Sky-subtraction Sky Fibers
Median $\chi^2$
0.0
0.1
0.2
0.3
0.4
0.5
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-4
-2
0
2
4
50
100
150
200
250
300
Fiber number

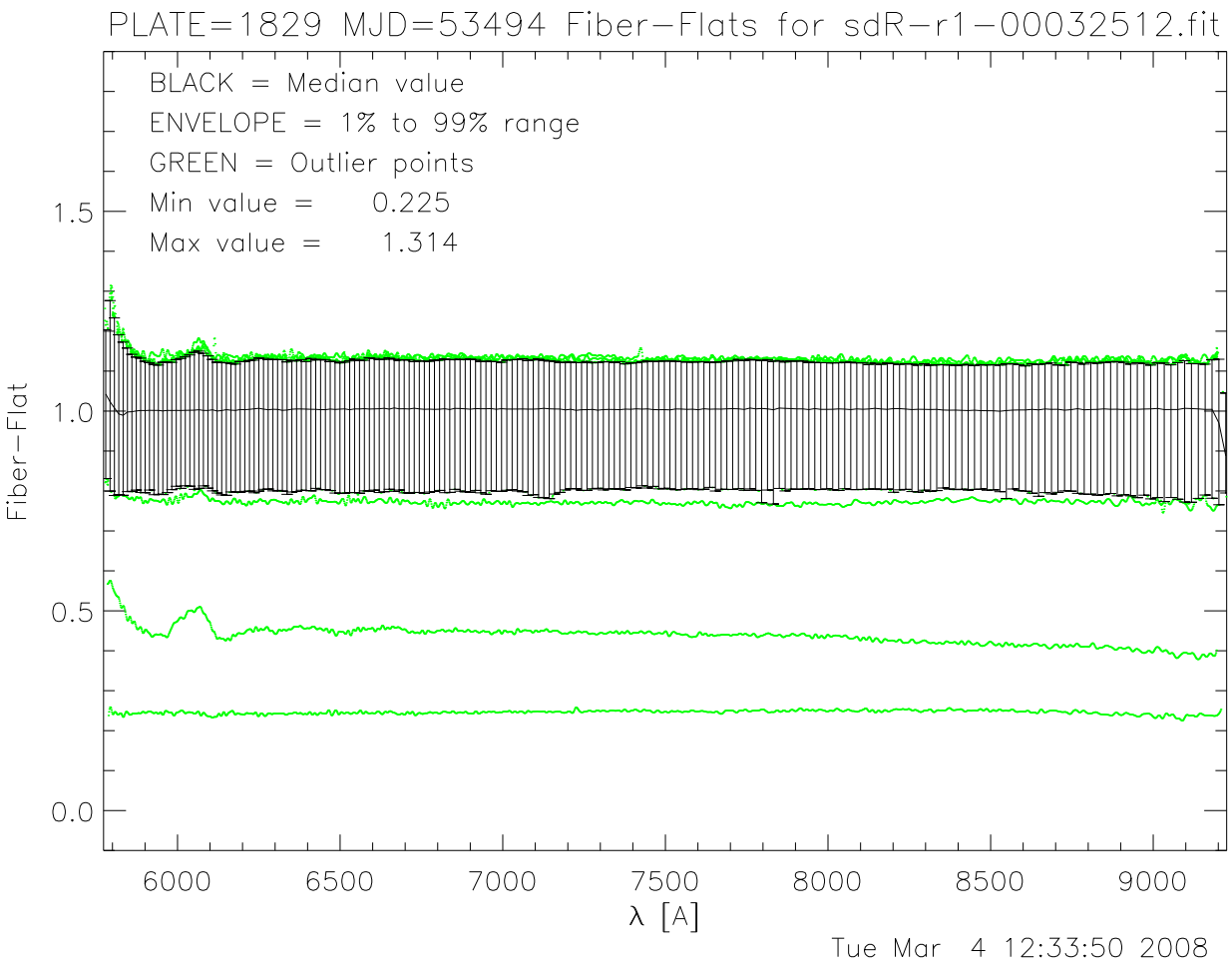

PLATE=1829 MJD=53494 sdR-r1-00032514.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
−1000
8820
8840
8860
8880
8900
λ [A]

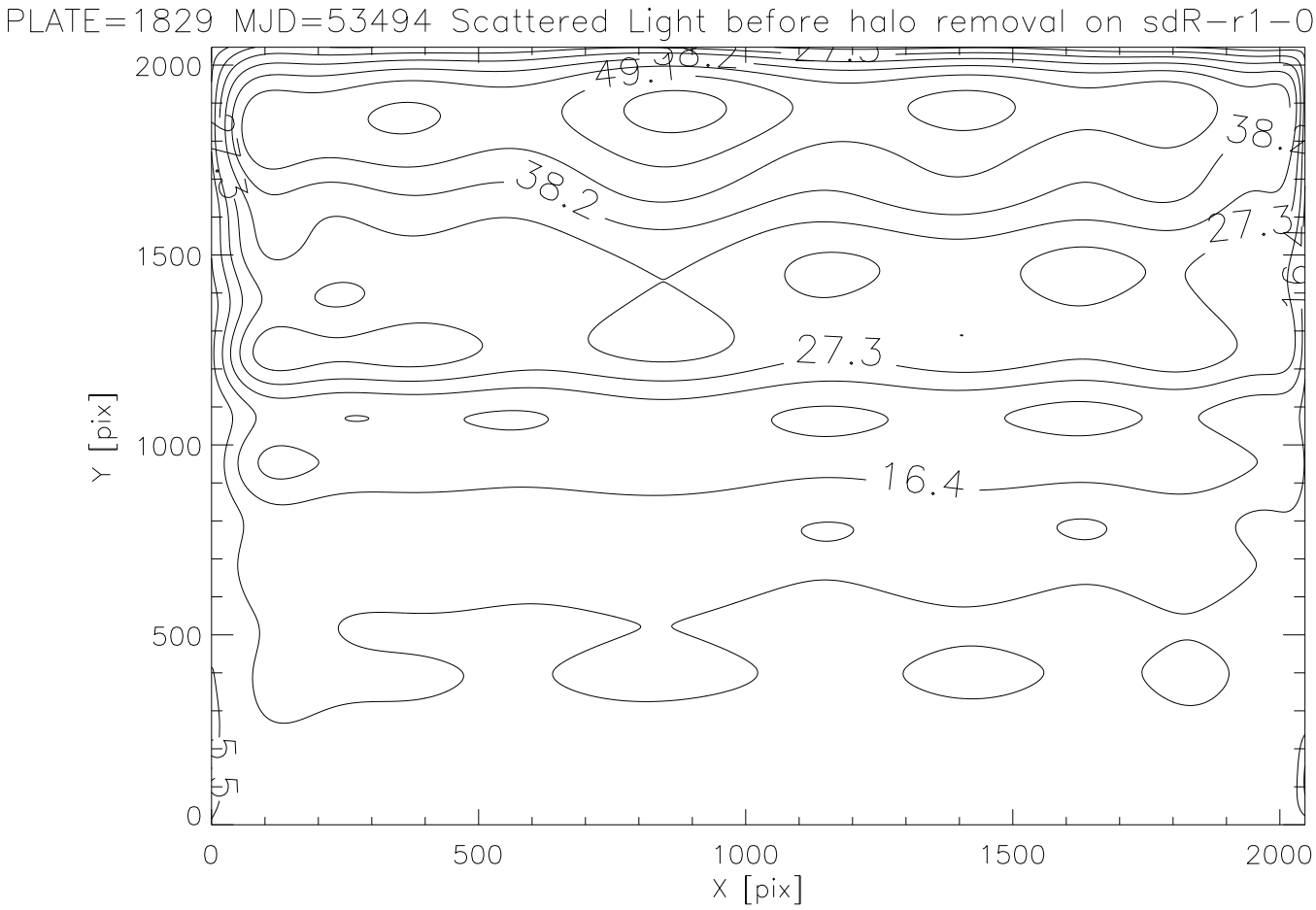

PLATE=1829 MJD=53494 sdR-r1-00032514.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
−200
8820
8840
8860
8880
8900
λ [A]

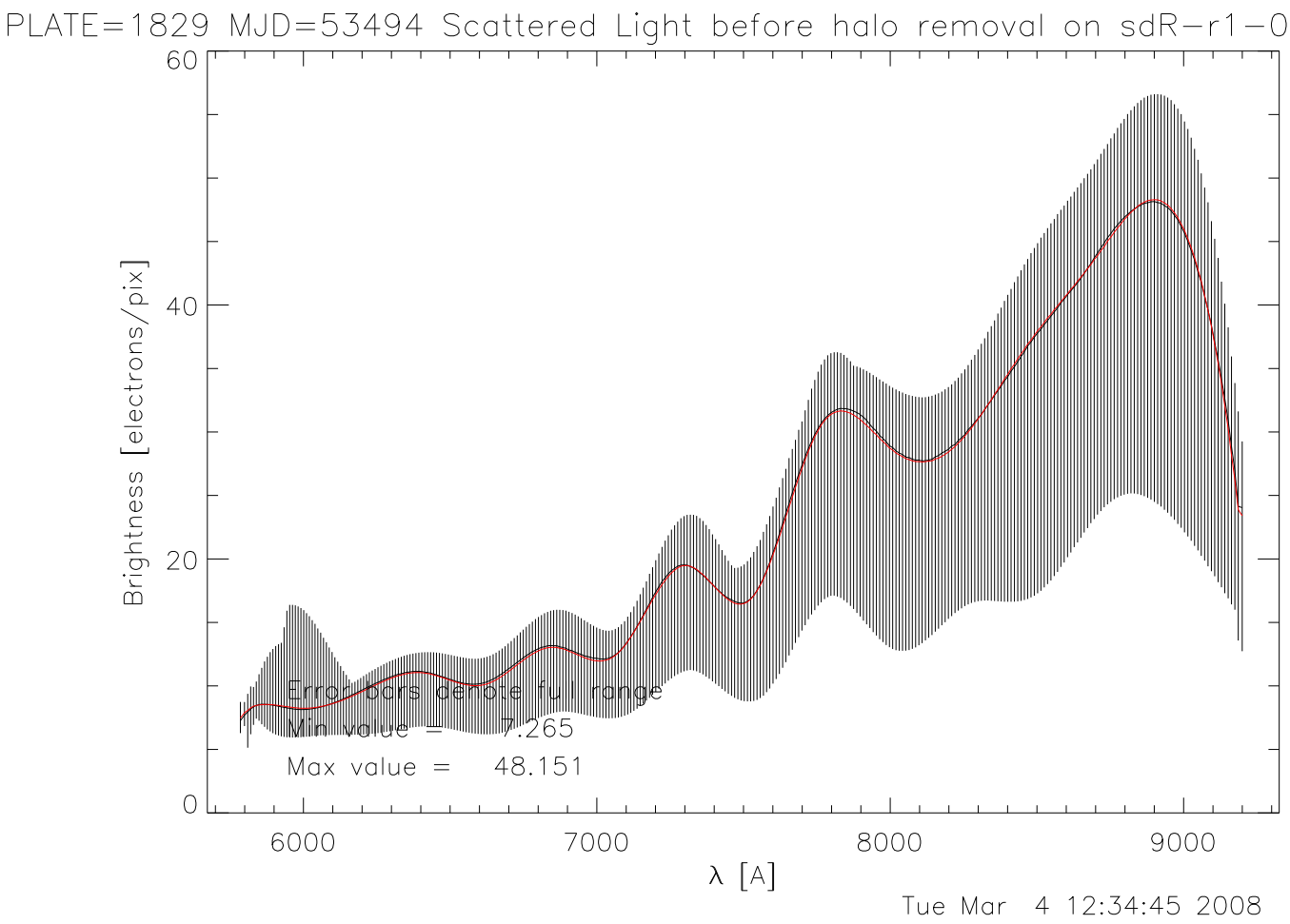

Number of sky fibers = 13
PLATE=1829 MJD=53494 sdR-r1-00032514.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

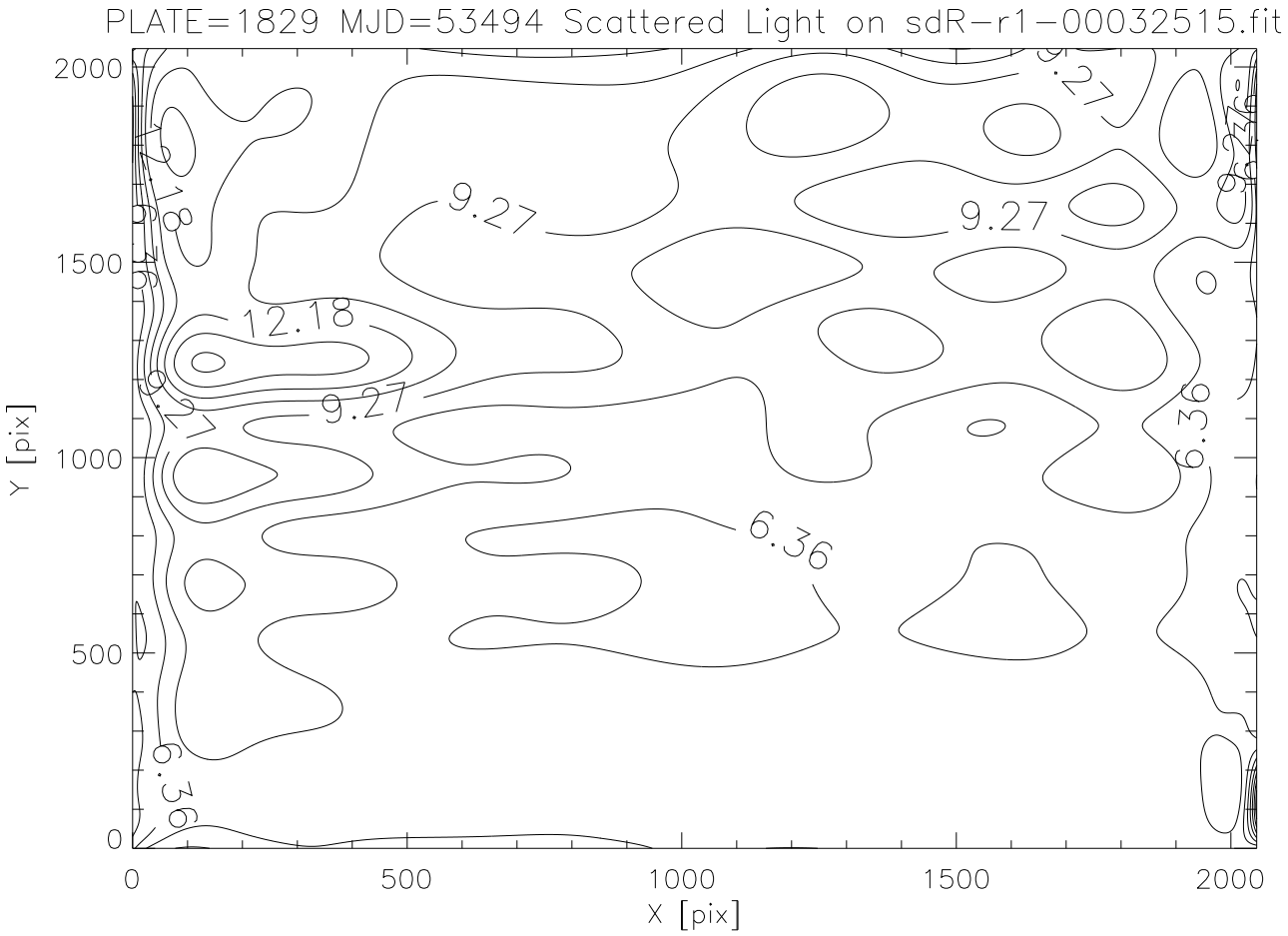

PLATE=1829 MJD=53494 sdR-r1-00032514.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 3.21 %
Fiber number
Focal Distance [mm]
Airmass

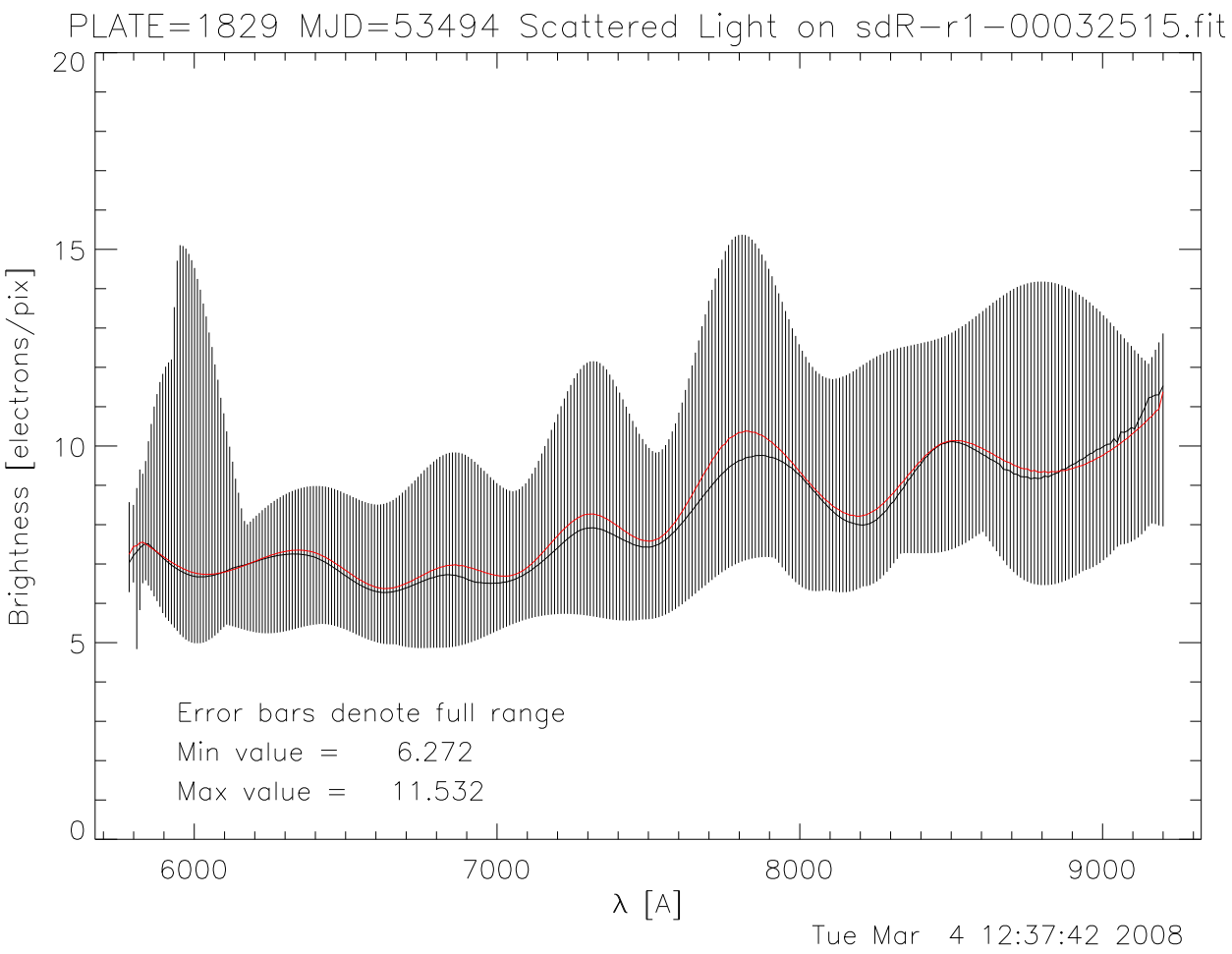

PLATE=1829 MJD=53494 sdR-r1-00032514.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 3.37 %
Fiber number
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass

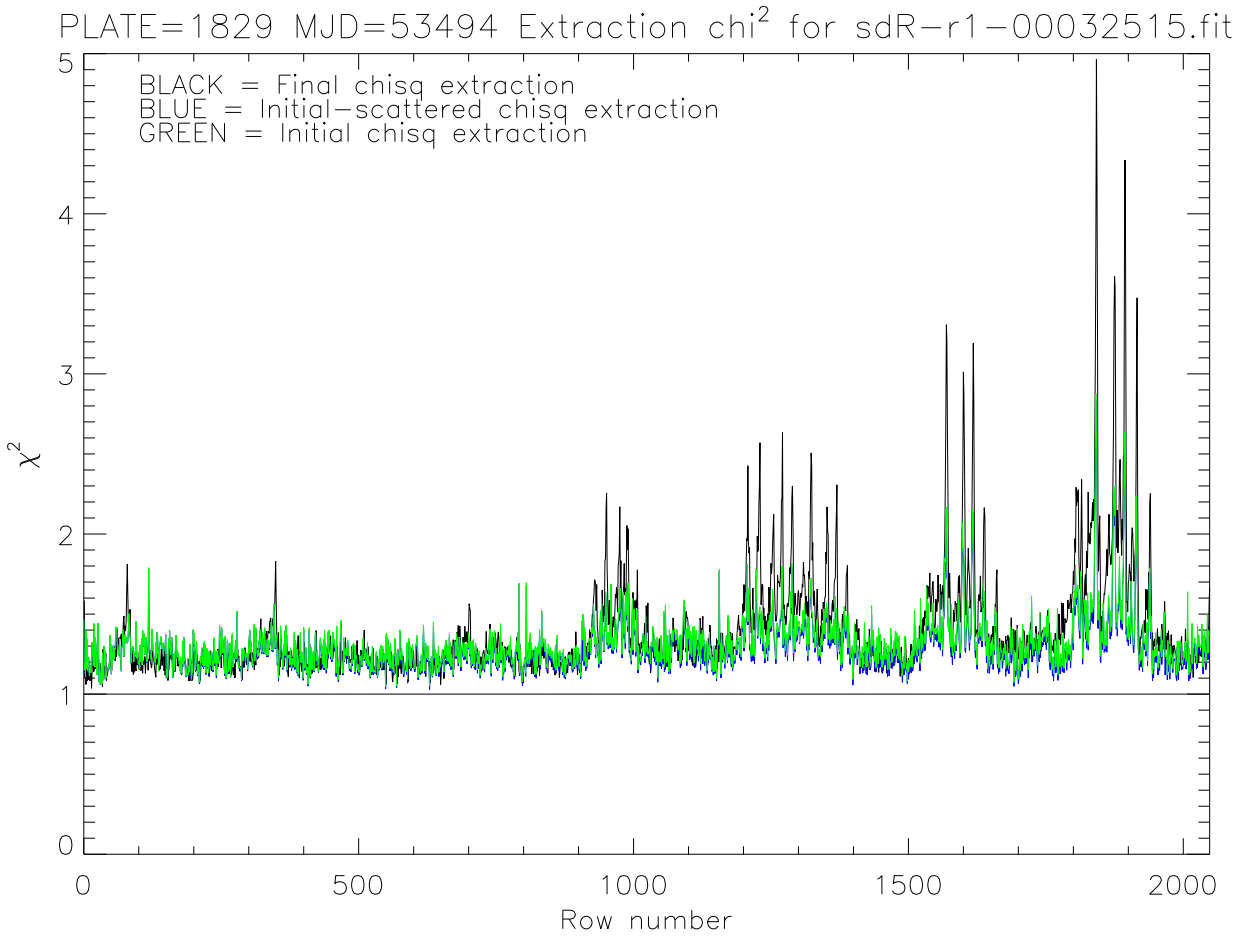

PLATE=1829 MJD=53494 Fiber−Flats for sdR−r1−00032512.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.225
Max value = 1.314
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Tue Mar 4 12:33:50 2008

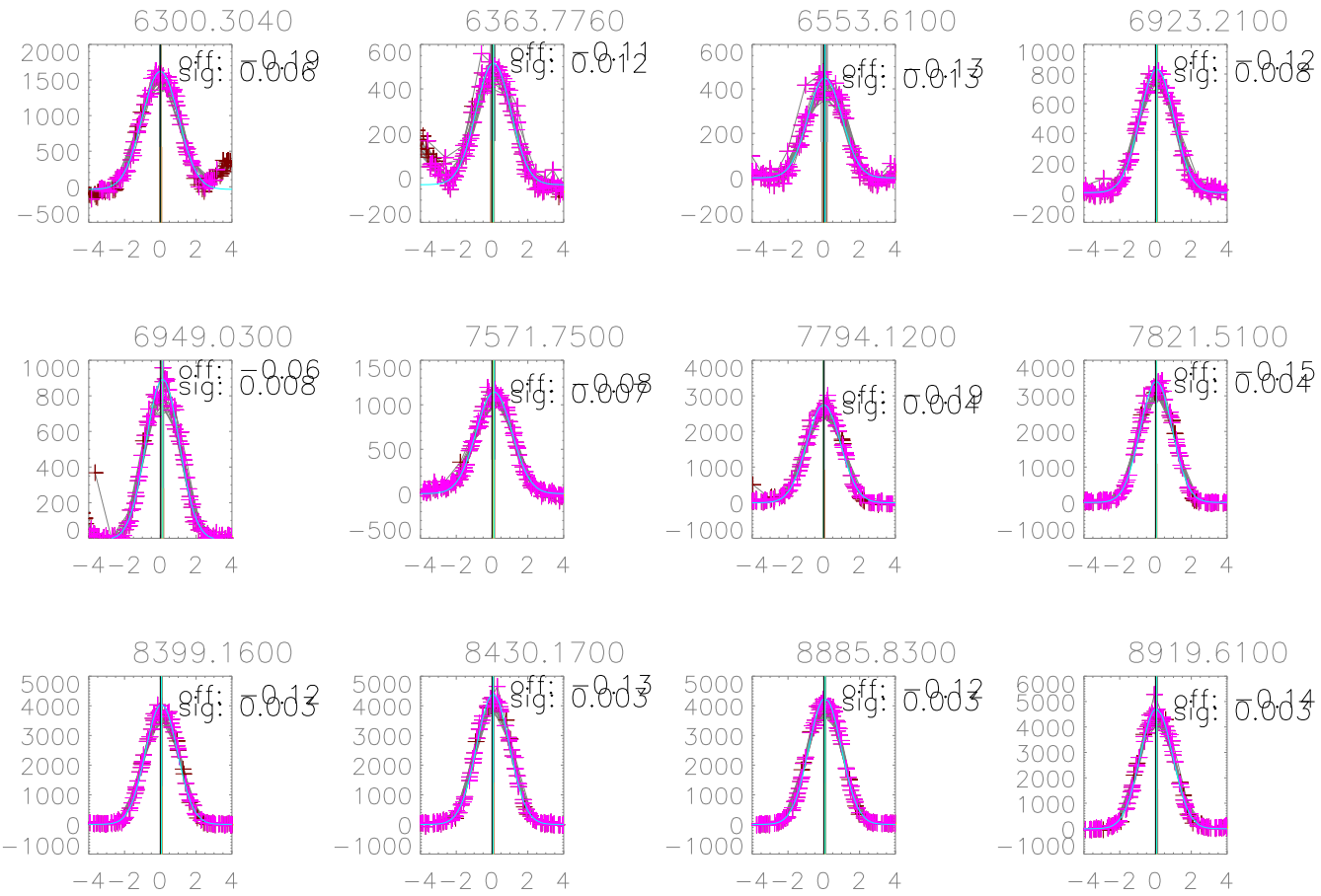

PLATE=1829 MJD=53494 Scattered Light before halo removal on sdR-r1-00032515.fi
49.1
38.2
27.3
16.4
5.5
Y [pix]
X [pix]
0
500
1000
1500
2000

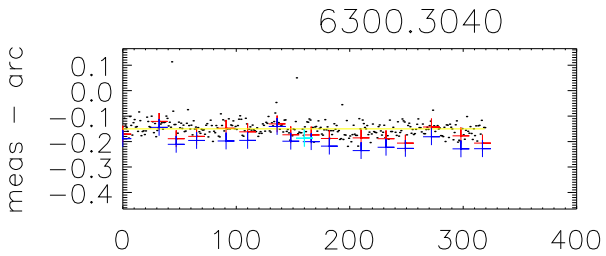

PLATE=1829 MJD=53494 Scattered Light before halo removal on sdR-r1-00032515.fi
Brightness [electrons/pix]
60
40
20
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 7.265
Max value = 48.151
Tue Mar 4 12:34:45 2008

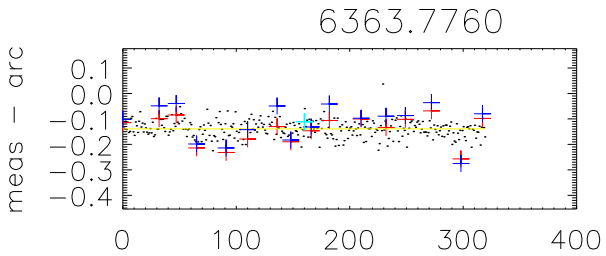

PLATE=1829 MJD=53494 Scattered Light on sdR-r1-00032515.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
12.18
9.27
6.36

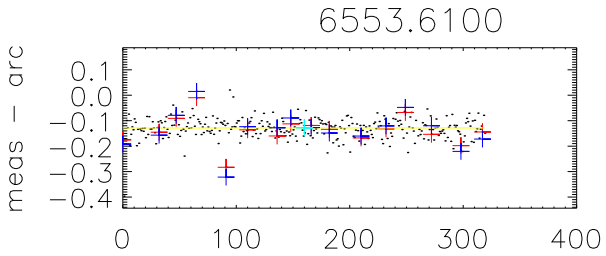

PLATE=1829 MJD=53494 Scattered Light on sdR-r1-00032515.fit
Brightness [electrons/pix]
20
15
10
5
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 6.272
Max value = 11.532
Tue Mar 4 12:37:42 2008

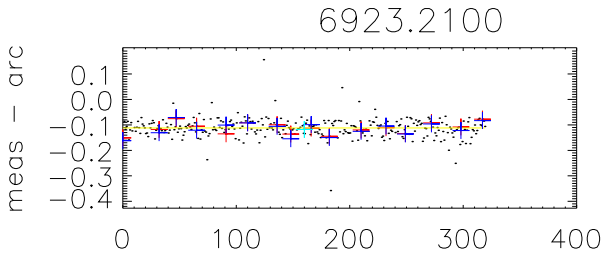

PLATE=1829 MJD=53494 Extraction chi$^2$ for sdR-r1-00032515.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
$\chi^2$
0
1
2
3
4
5
0
500
1000
1500
2000
Row number

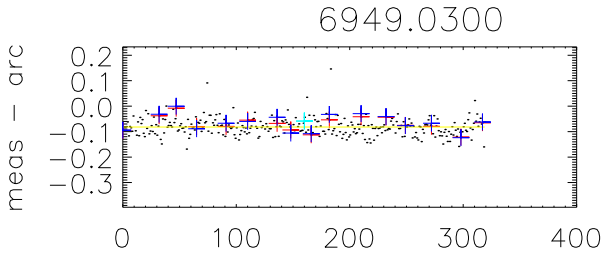

6300.3040
off: −0.18
sig: 0.008
6363.7760
off: −0.11
sig: 0.012
6553.6100
off: −0.13
sig: 0.013
6923.2100
off: −0.12
sig: 0.008
6949.0300
off: −0.06
sig: 0.008
7571.7500
off: −0.08
sig: 0.007
7794.1200
off: −0.19
sig: 0.004
7821.5100
off: −0.15
sig: 0.004
8399.1600
off: −0.12
sig: 0.003
8430.1700
off: −0.13
sig: 0.003
8885.8300
off: −0.12
sig: 0.003
8919.6100
off: −0.14
sig: 0.003

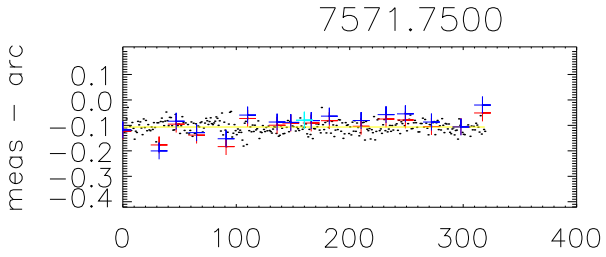

6300.3040
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

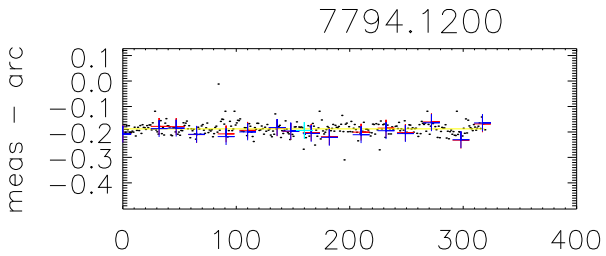

6363.7760
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

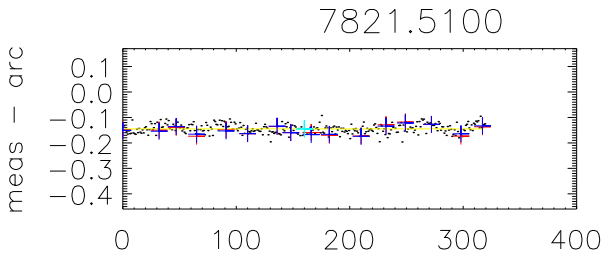

6553.6100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

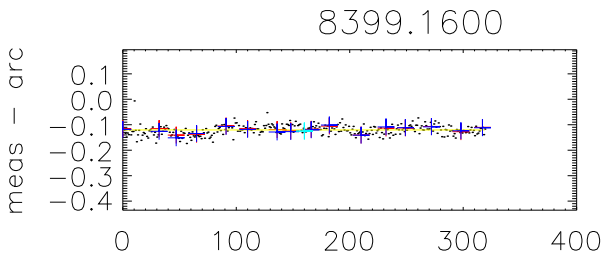

6923.2100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

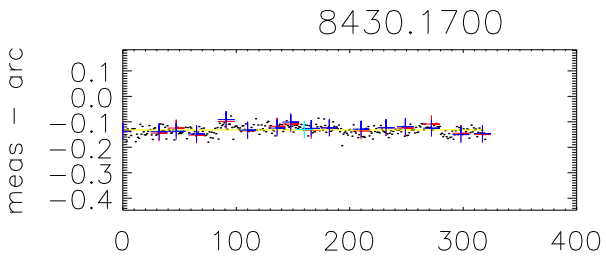

6949.0300
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

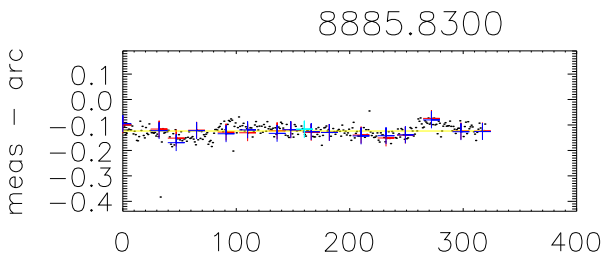

7571.7500
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

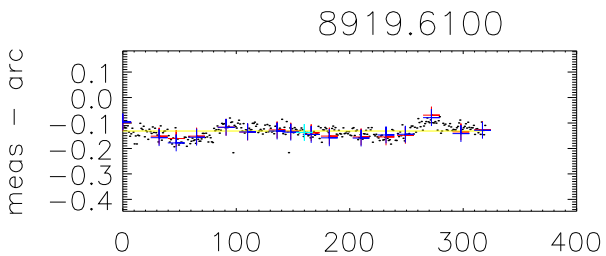

7794.1200
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

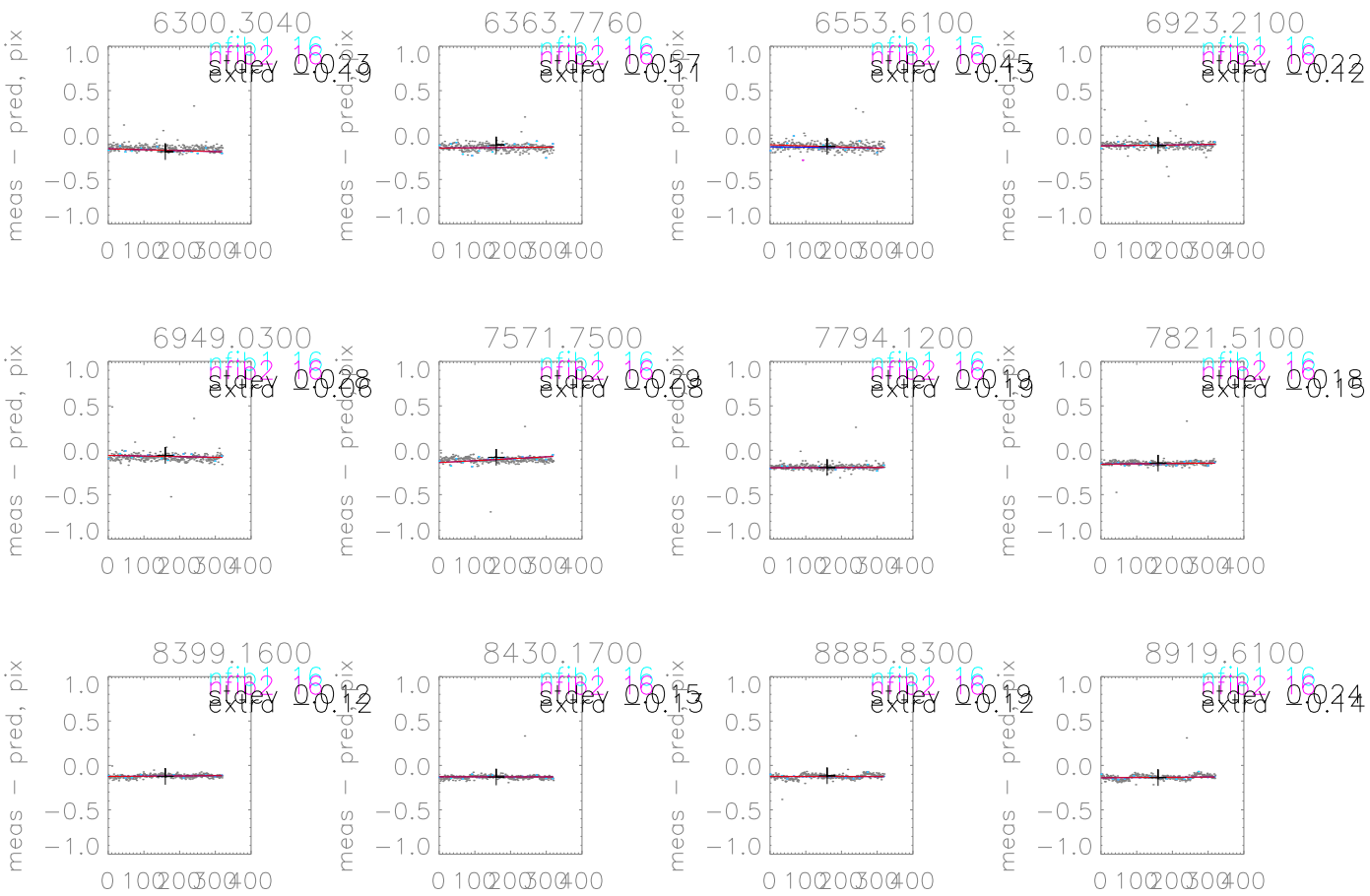

7821.5100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

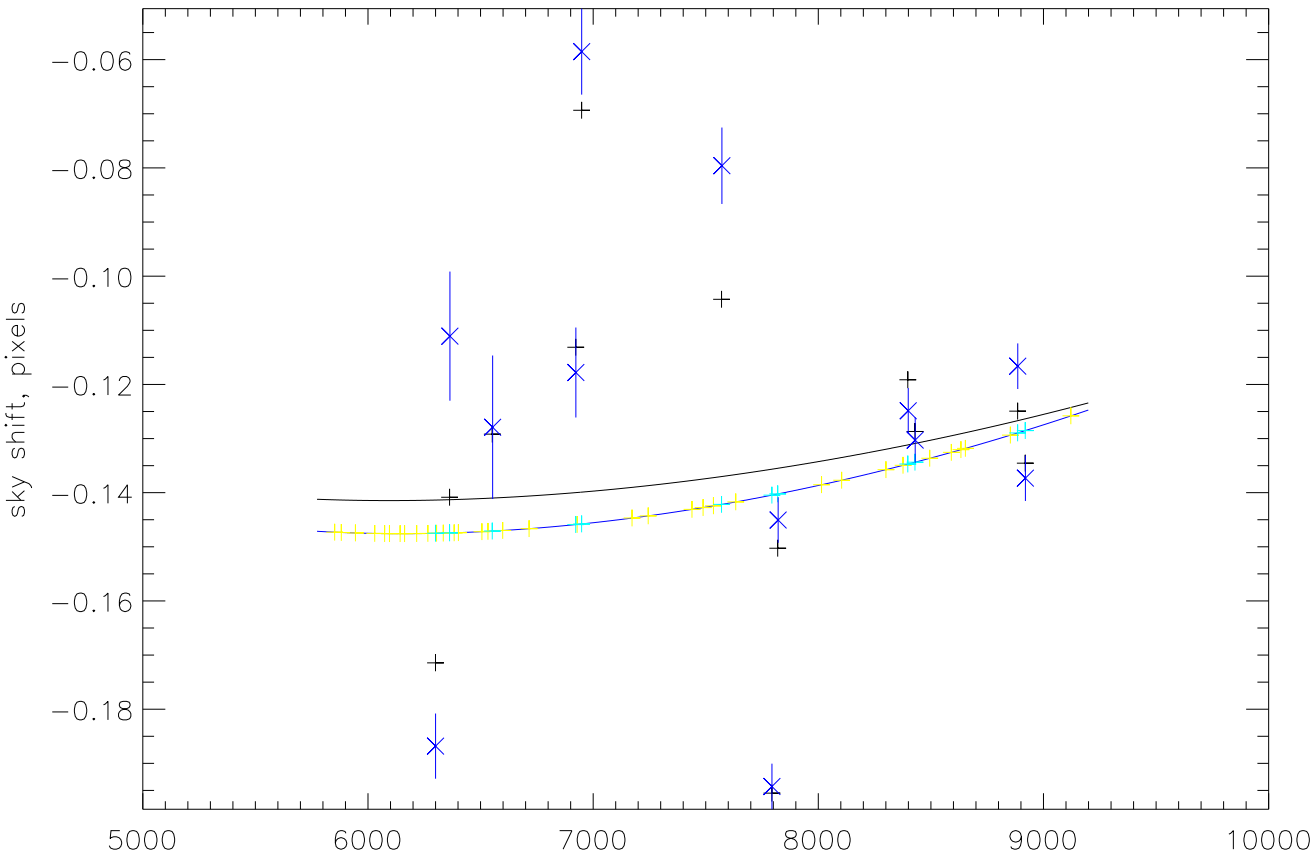

8399.1600
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400


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

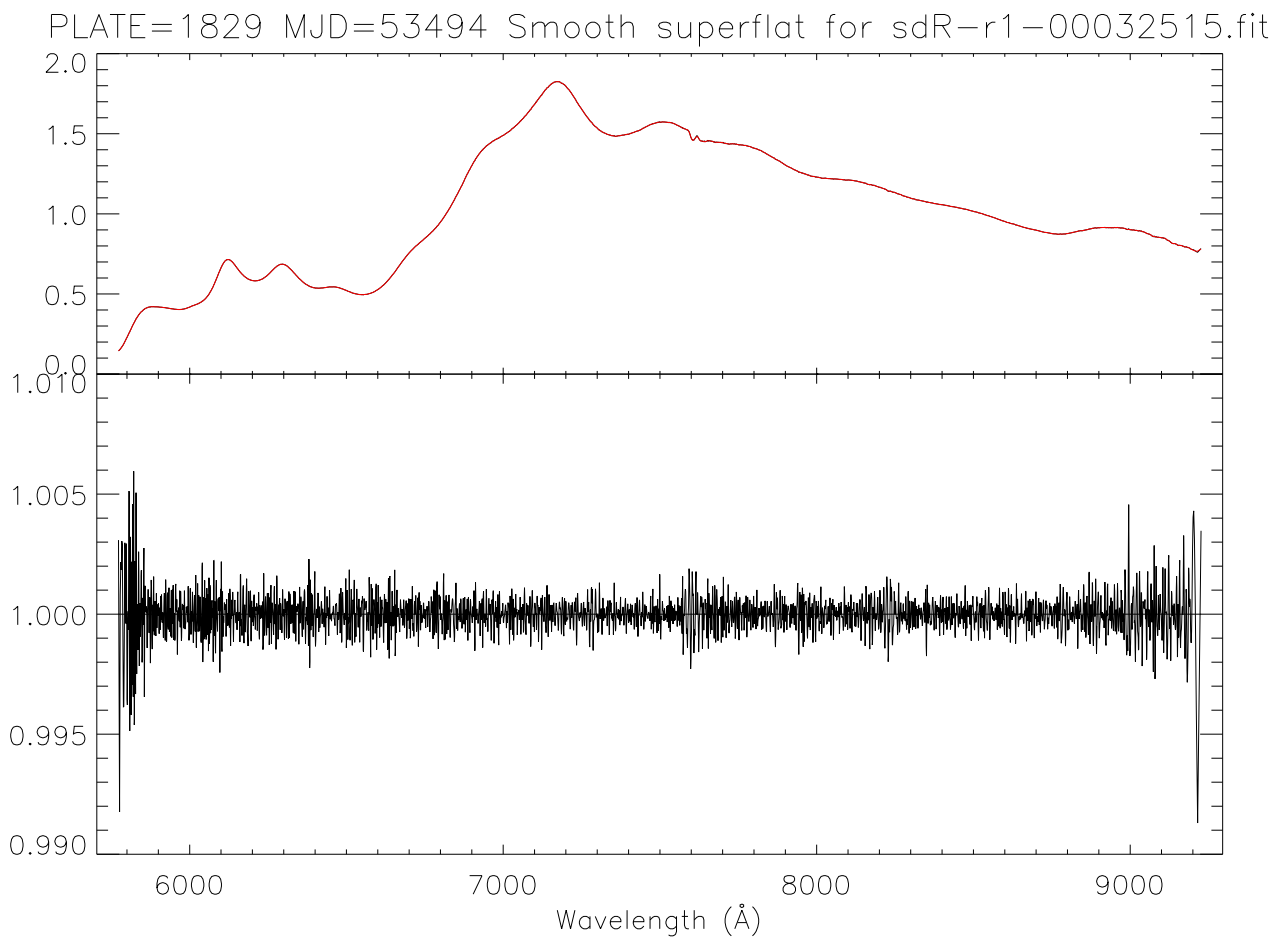

8885.8300
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

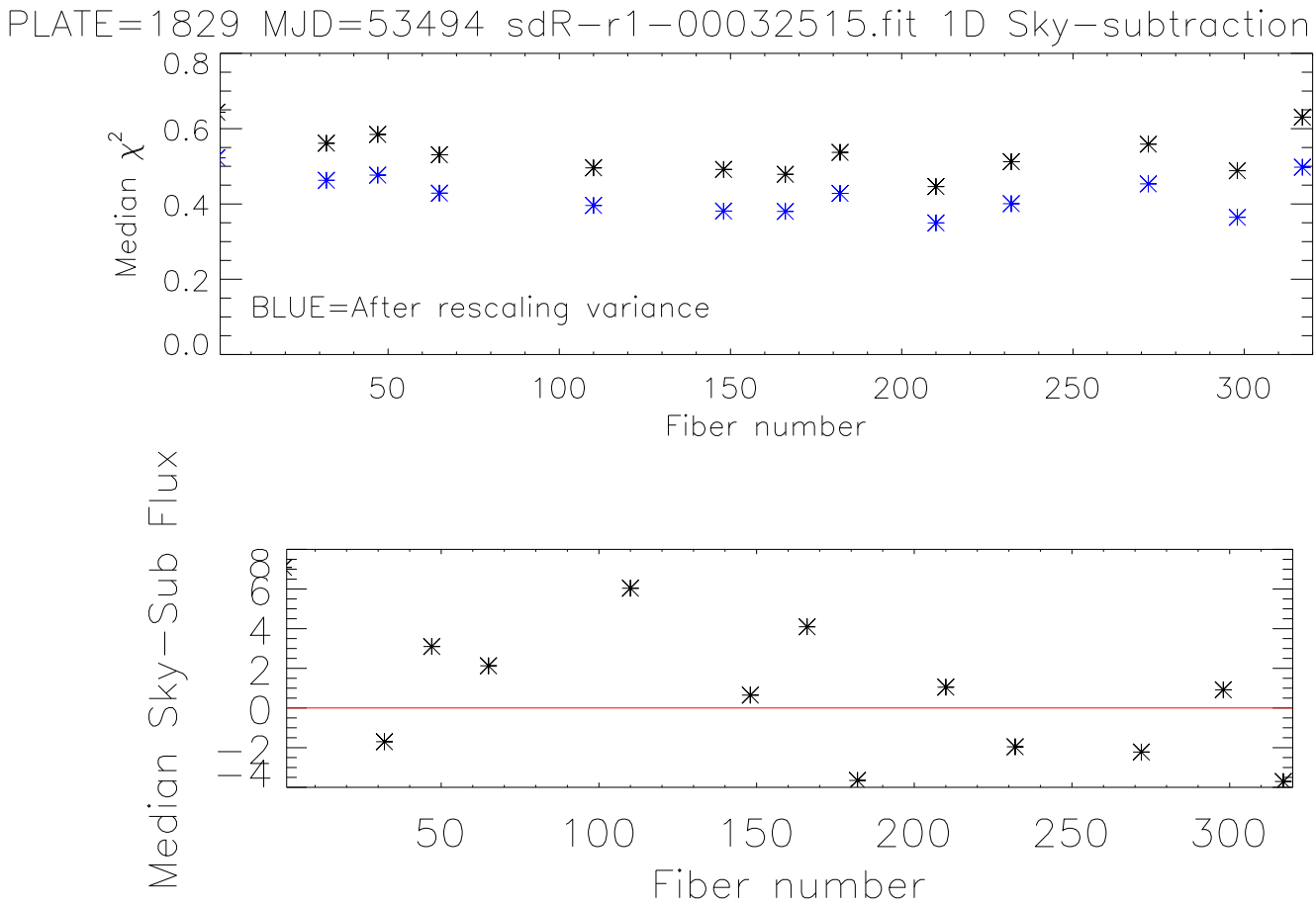

8919.6100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400


6300.3040
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
mfhs2 16
stdev 0.023
extrd 0.049
stdev 0.057
extrd 0.091
stdev 0.045
extrd 0.093
stdev 0.022
extrd 0.042
stdev 0.028
extrd 0.066
stdev 0.029
extrd 0.068
stdev 0.019
extrd 0.039
stdev 0.018
extrd 0.035
stdev 0.012
extrd 0.012
stdev 0.015
extrd 0.013
stdev 0.019
extrd 0.012
stdev 0.024
extrd 0.044

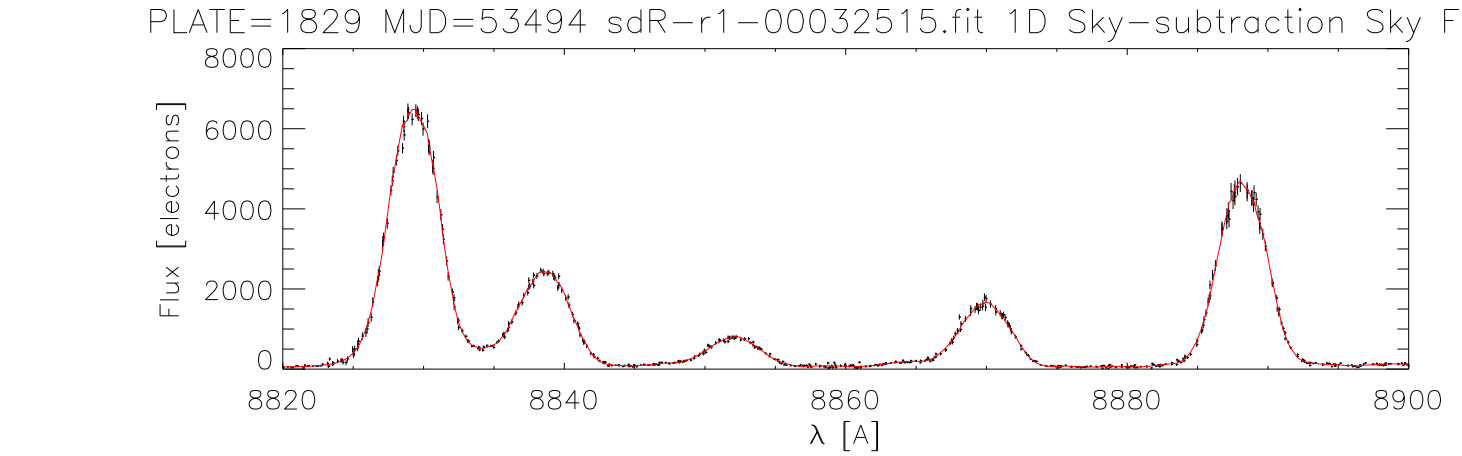

−0.06
−0.08
−0.10
−0.12
−0.14
−0.16
−0.18
sky shift, pixels
5000
6000
7000
8000
9000
10000

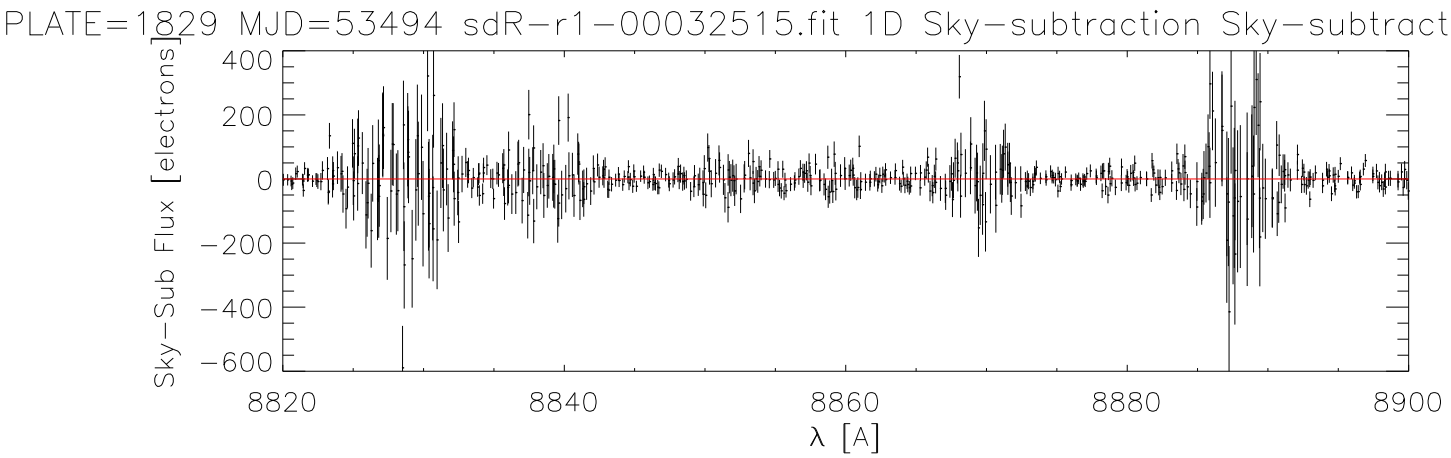
es= 0.0000

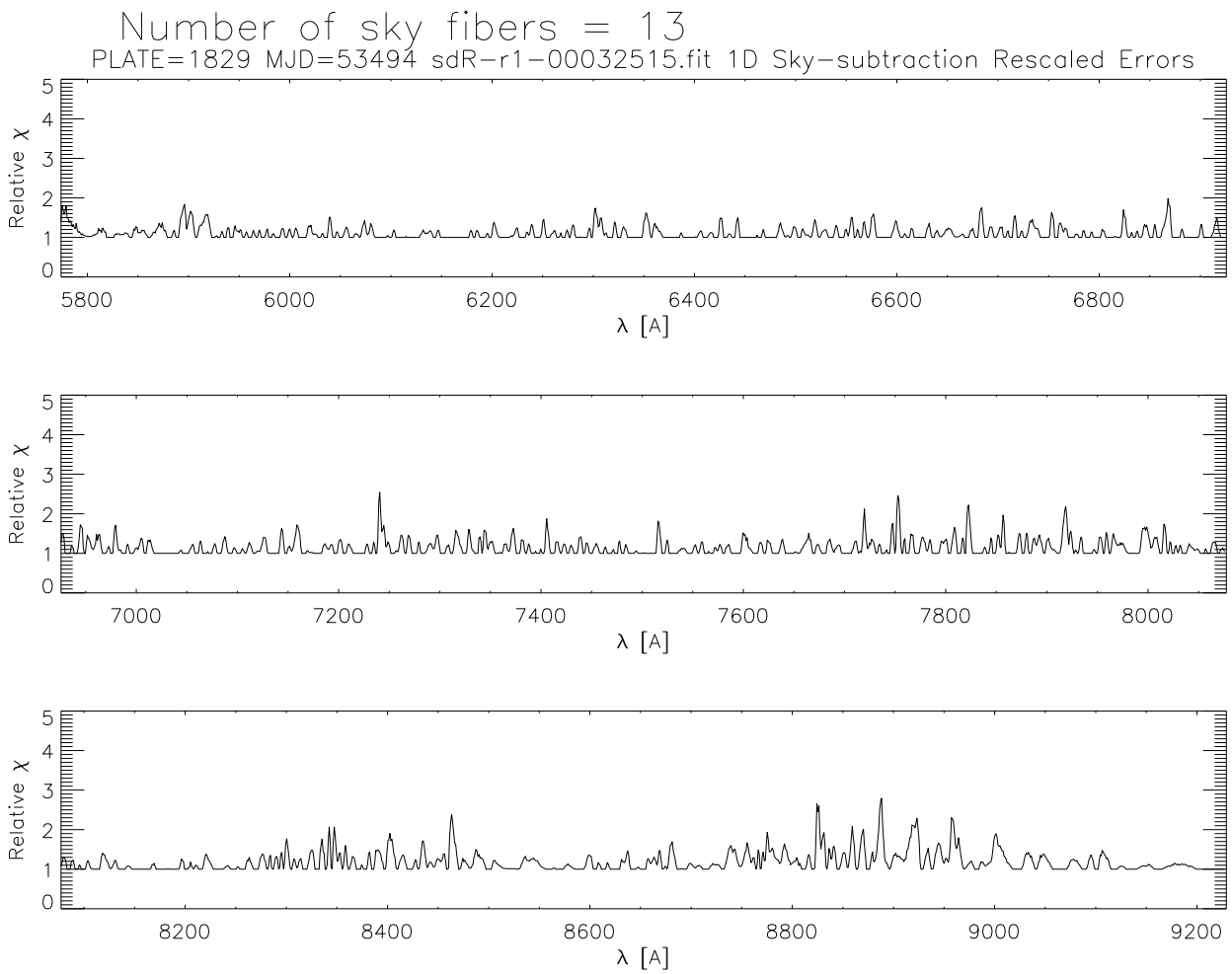

PLATE=1829 MJD=53494 Smooth superflat for sdR-r1-00032515.fit
2.0
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
6000
7000
8000
9000
Wavelength (Å)

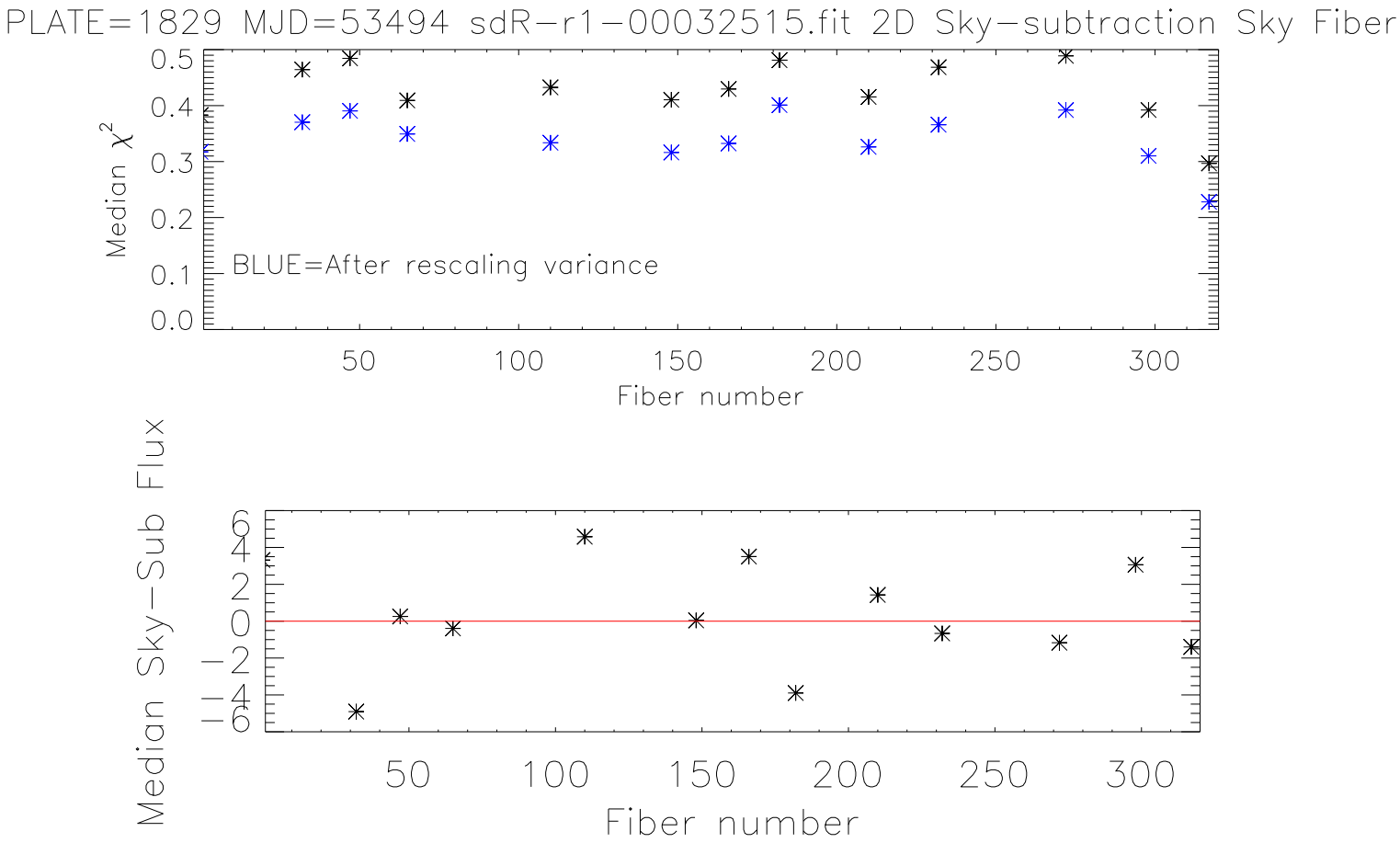

PLATE=1829 MJD=53494 sdR-r1-00032515.fit 1D Sky-subtraction Sky Fibers
Median $\chi^2$
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number

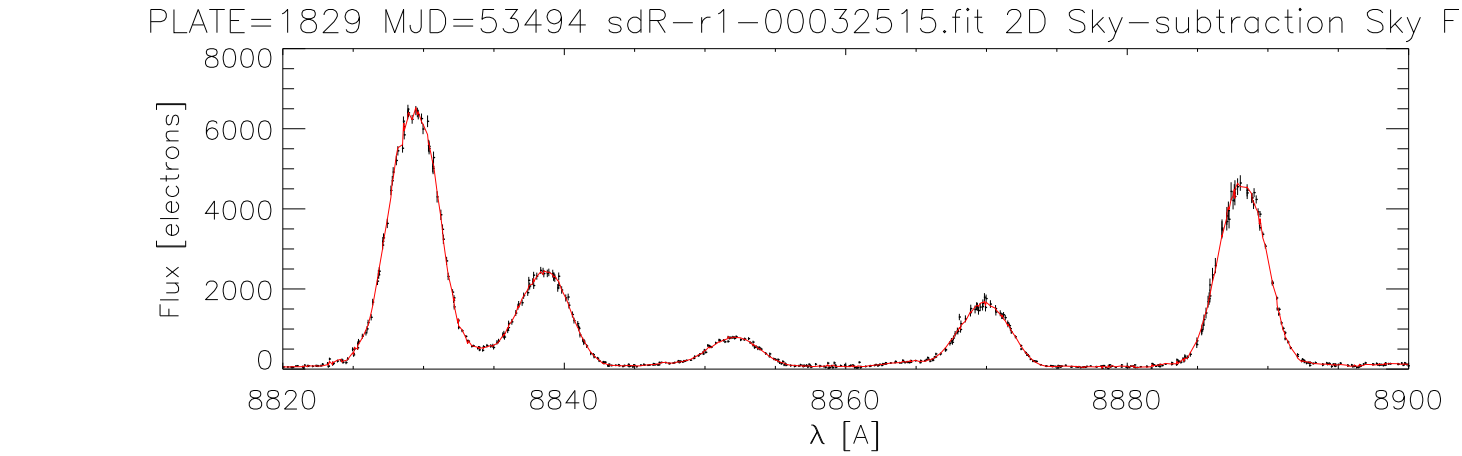

Median Sky-Sub Flux
-4
-2
0
2
4
6
8
50
100
150
200
250
300
Fiber number

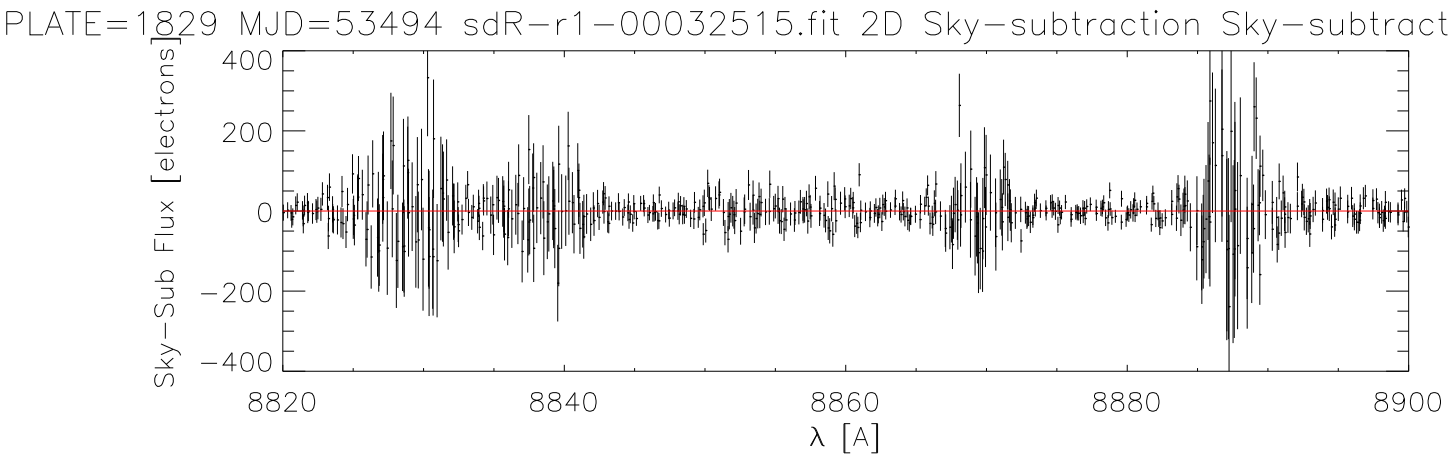

PLATE=1829 MJD=53494 sdR-r1-00032515.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
8820
8840
8860
8880
8900
λ [A]

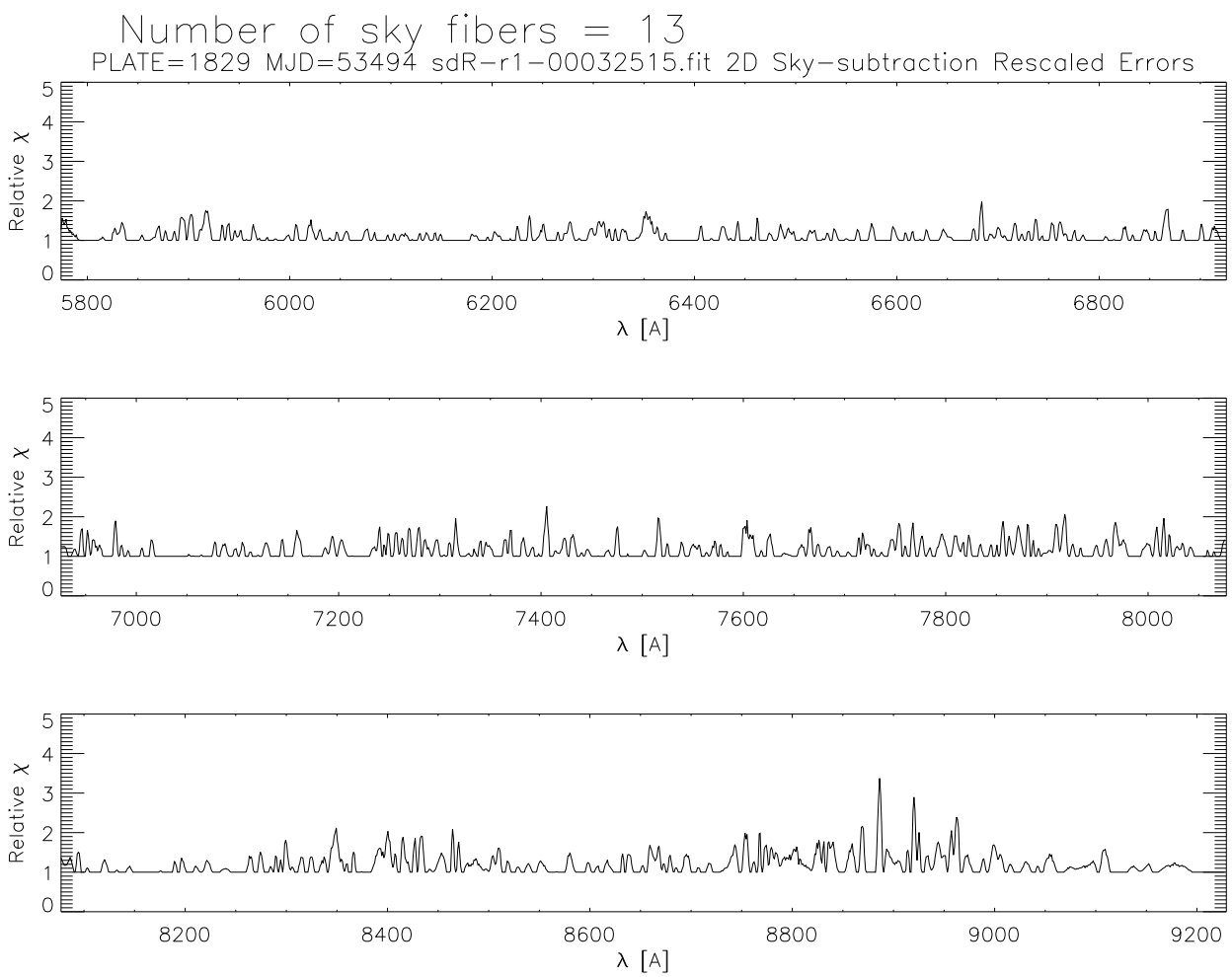

PLATE=1829 MJD=53494 sdR-r1-00032515.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
200
0
-200
-400
-600
8820
8840
8860
8880
8900
λ [A]

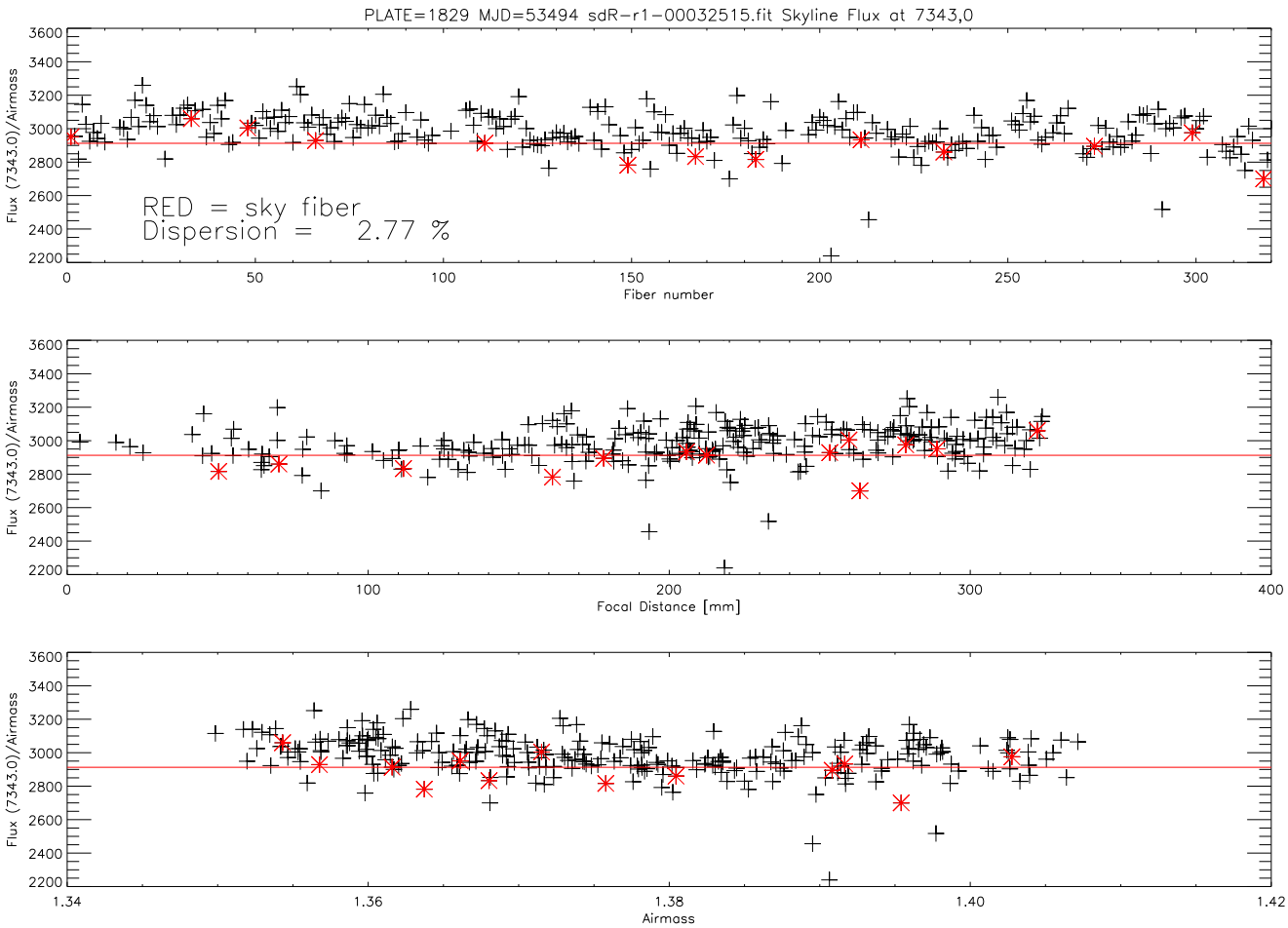

Number of sky fibers = 13
PLATE=1829 MJD=53494 sdR-r1-00032515.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

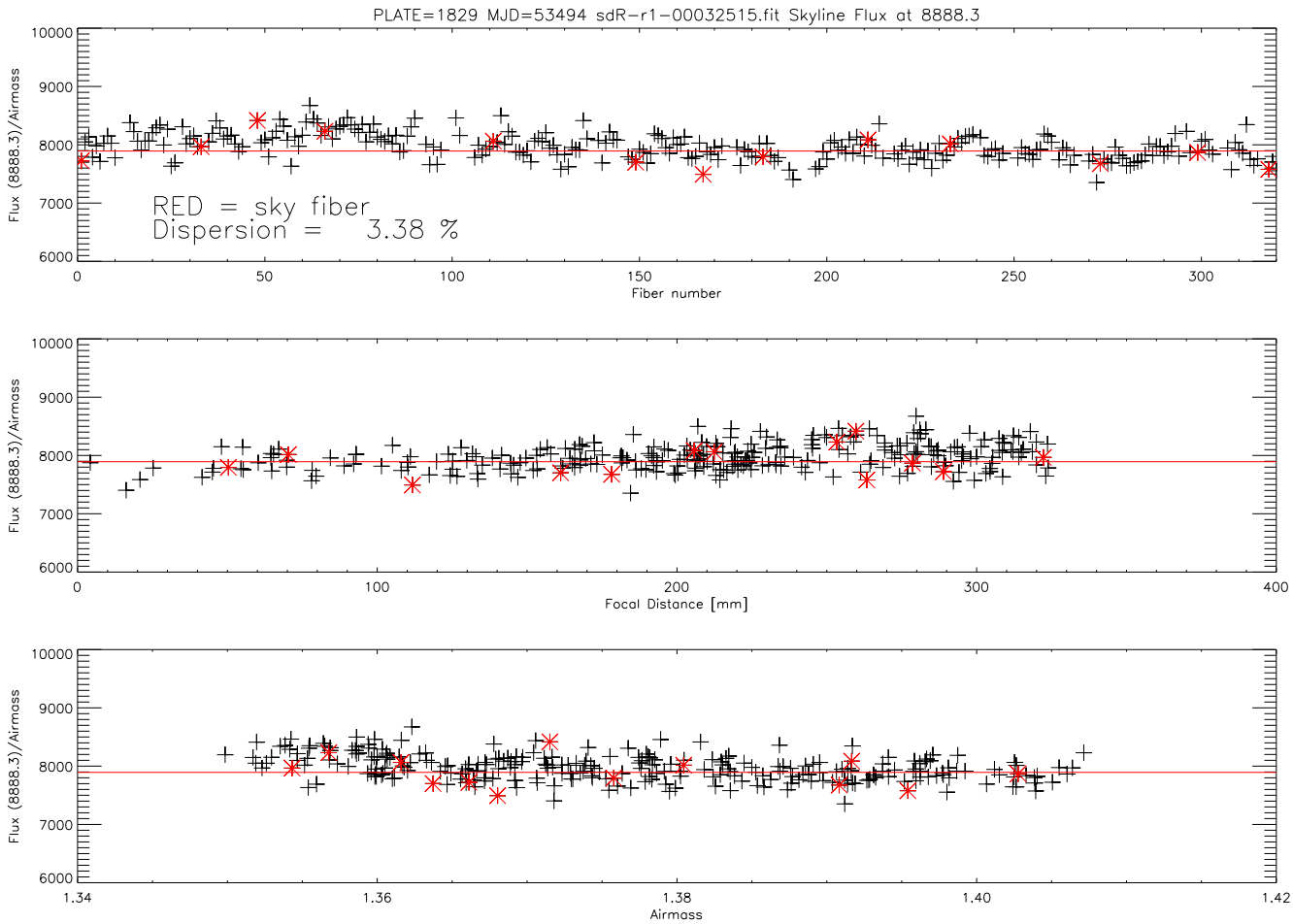

PLATE=1829 MJD=53494 sdR-r1-00032515.fit 2D Sky-subtraction Sky Fibers
Median $\chi^2$
0.0
0.1
0.2
0.3
0.4
0.5
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-6
-4
-2
0
2
4
6
50
100
150
200
250
300
Fiber number

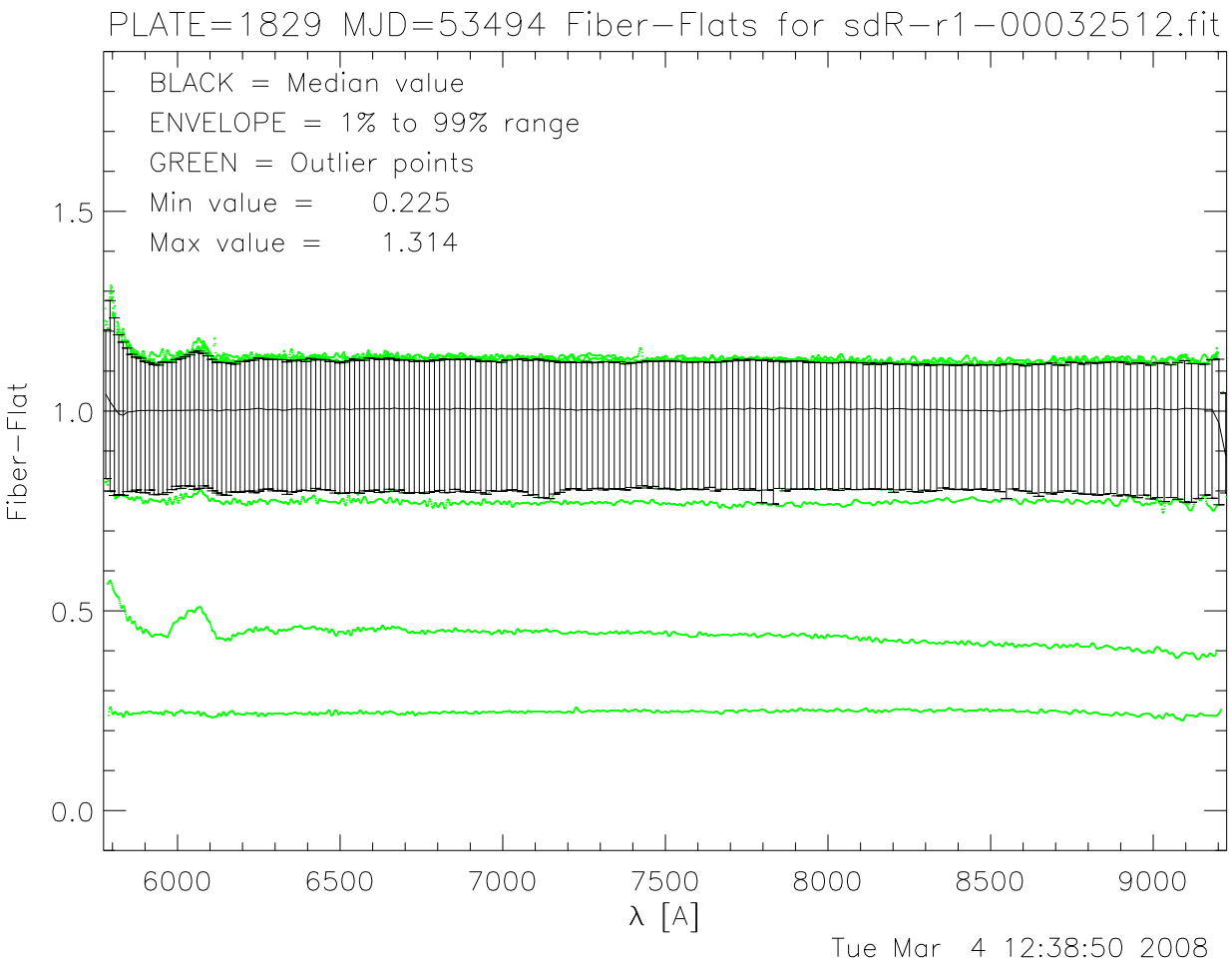

PLATE=1829 MJD=53494 sdR-r1-00032515.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
8820
8840
8860
8880
8900
λ [A]

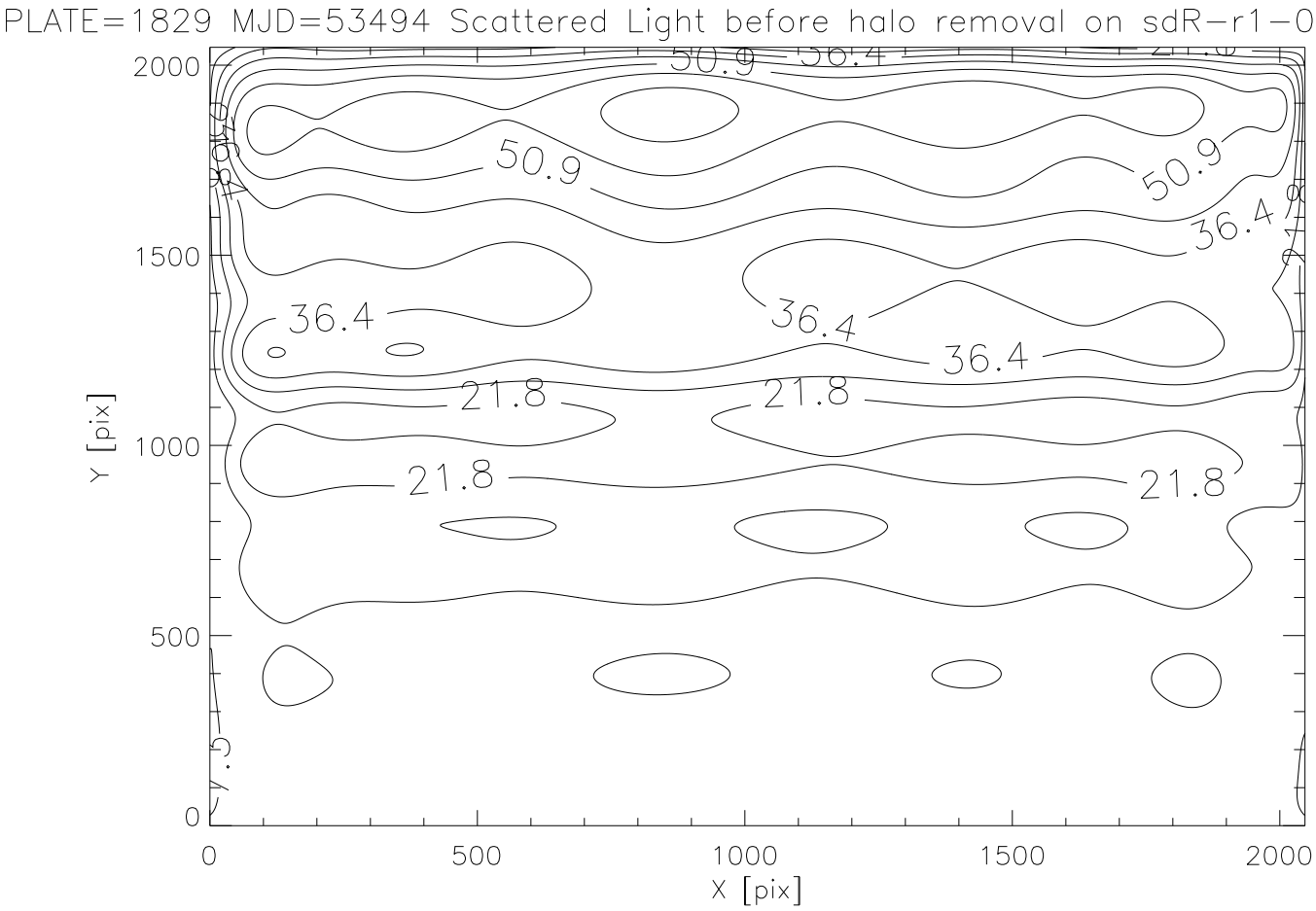

PLATE=1829 MJD=53494 sdR-r1-00032515.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
200
0
-200
-400
8820
8840
8860
8880
8900
λ [A]

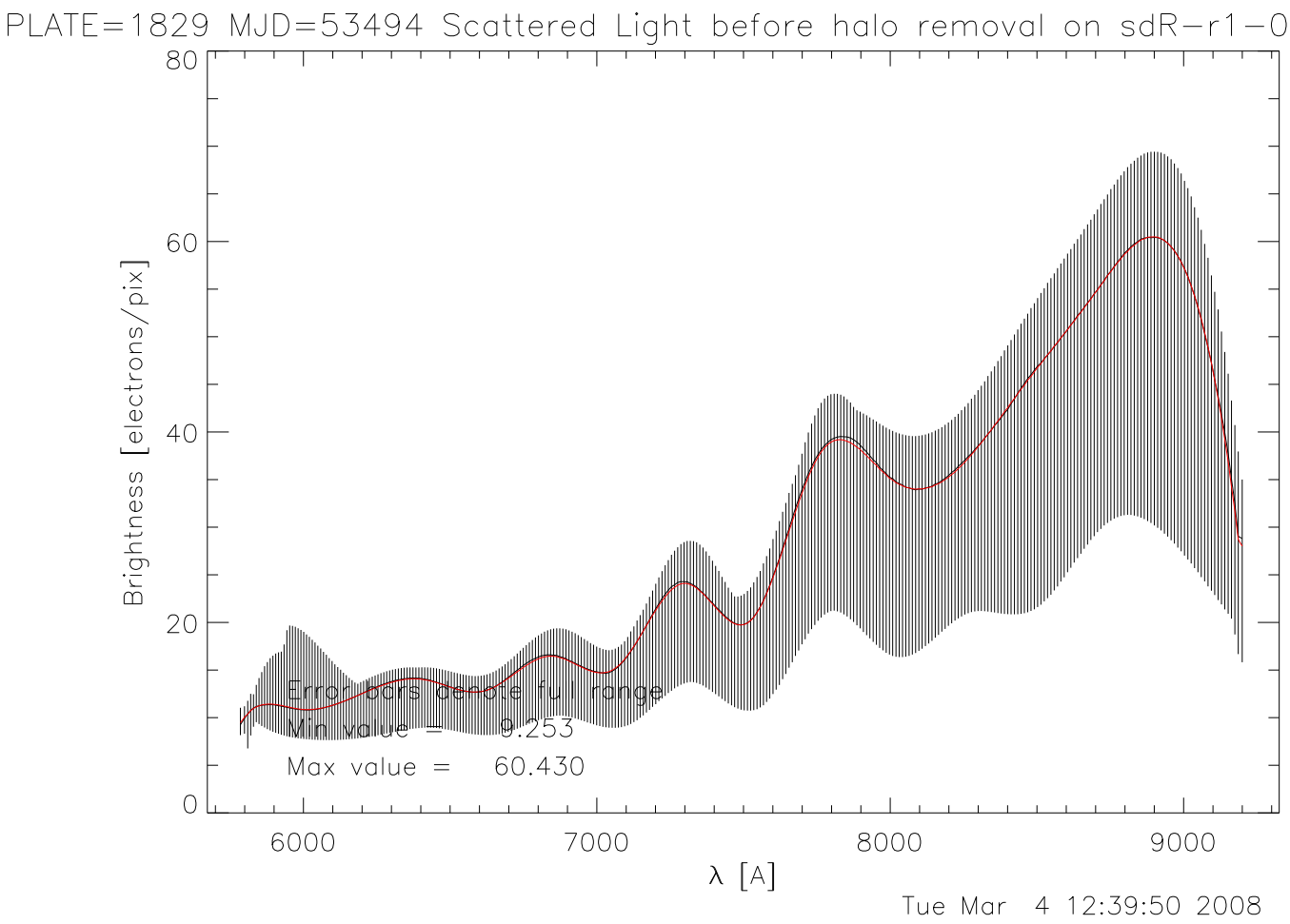

Number of sky fibers = 13
PLATE=1829 MJD=53494 sdR-r1-00032515.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

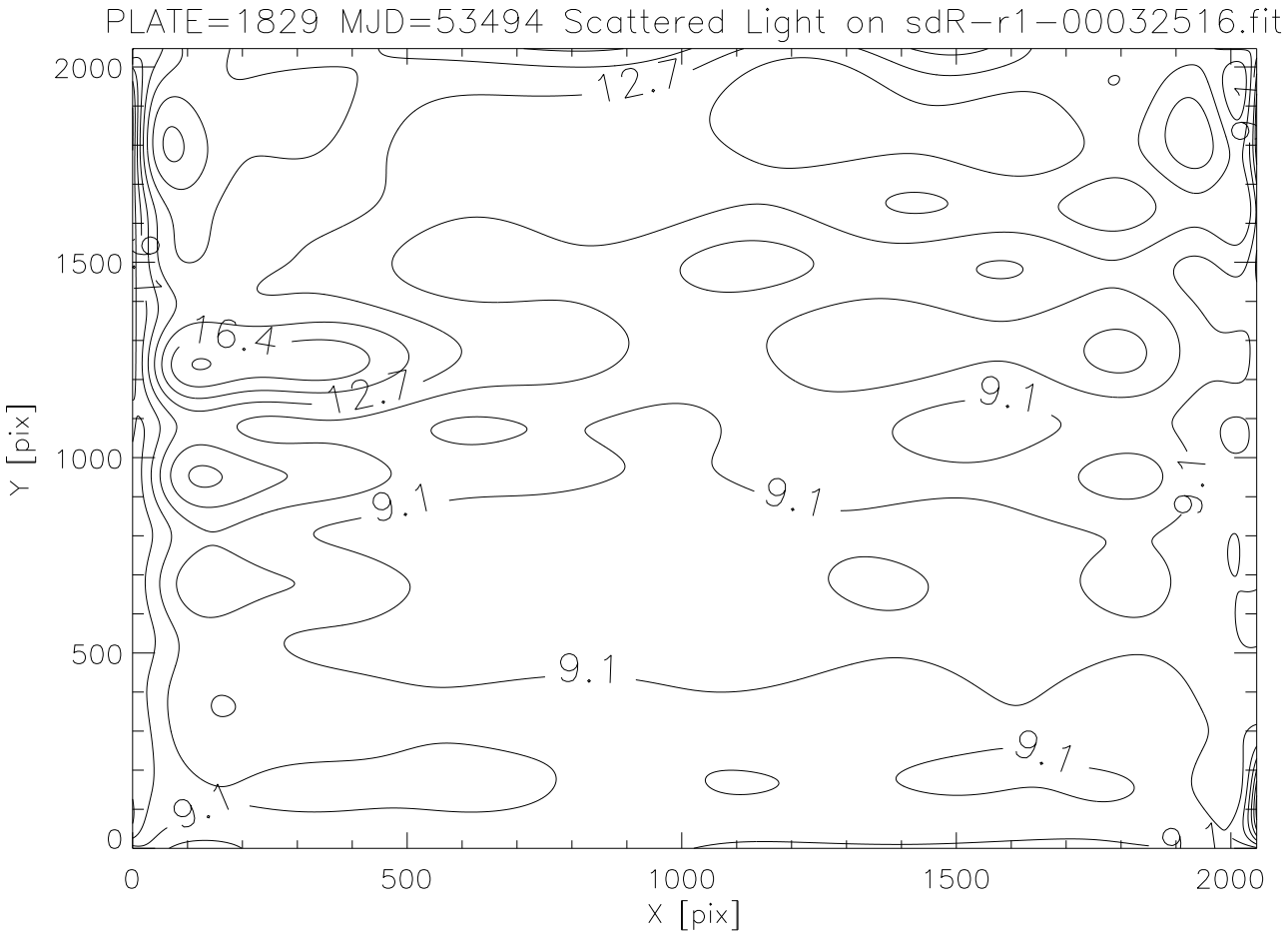

PLATE=1829 MJD=53494 sdR-r1-00032515.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 2.77 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

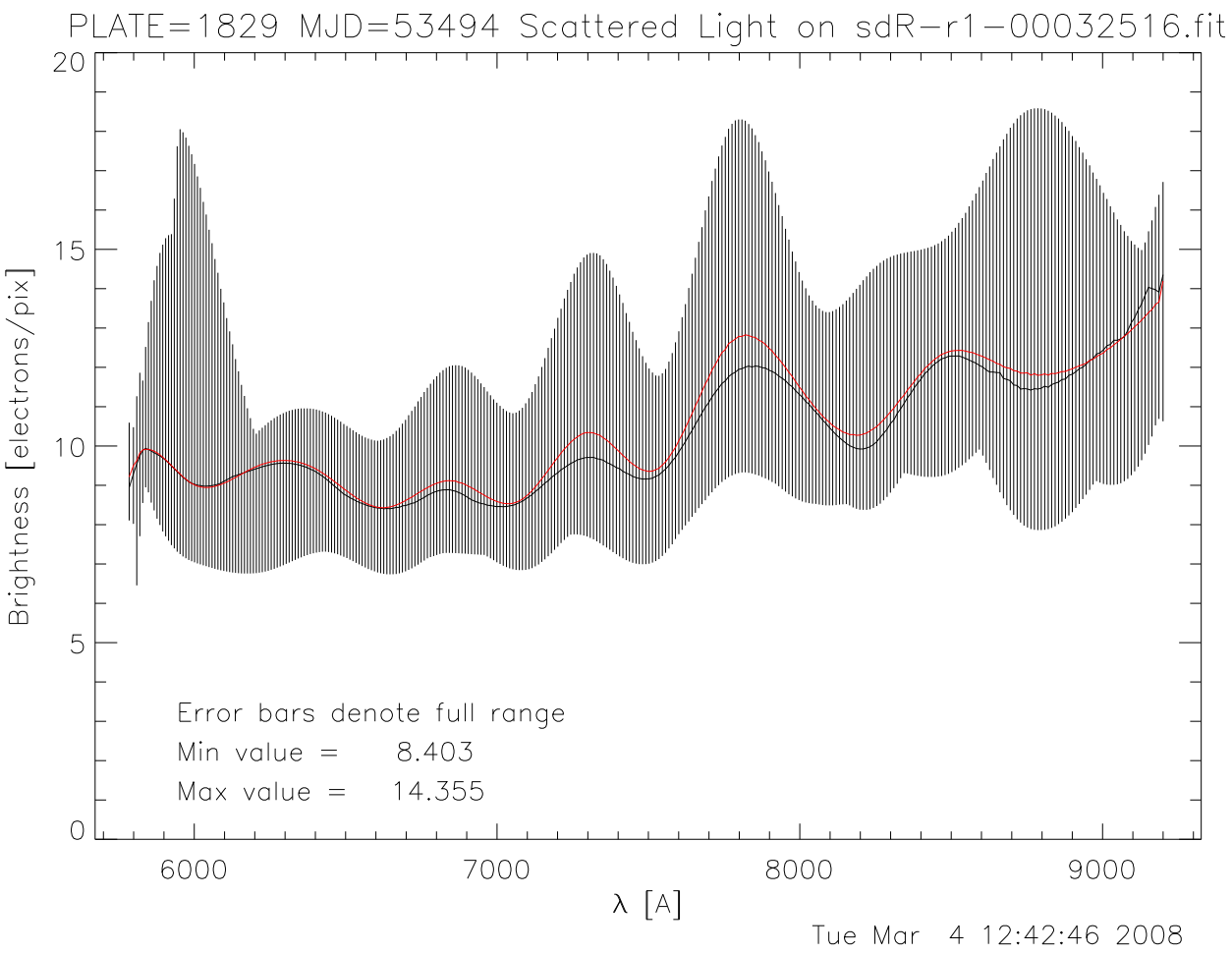

PLATE=1829 MJD=53494 sdR-r1-00032515.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 3.38 %
Fiber number
Focal Distance [mm]
Airmass

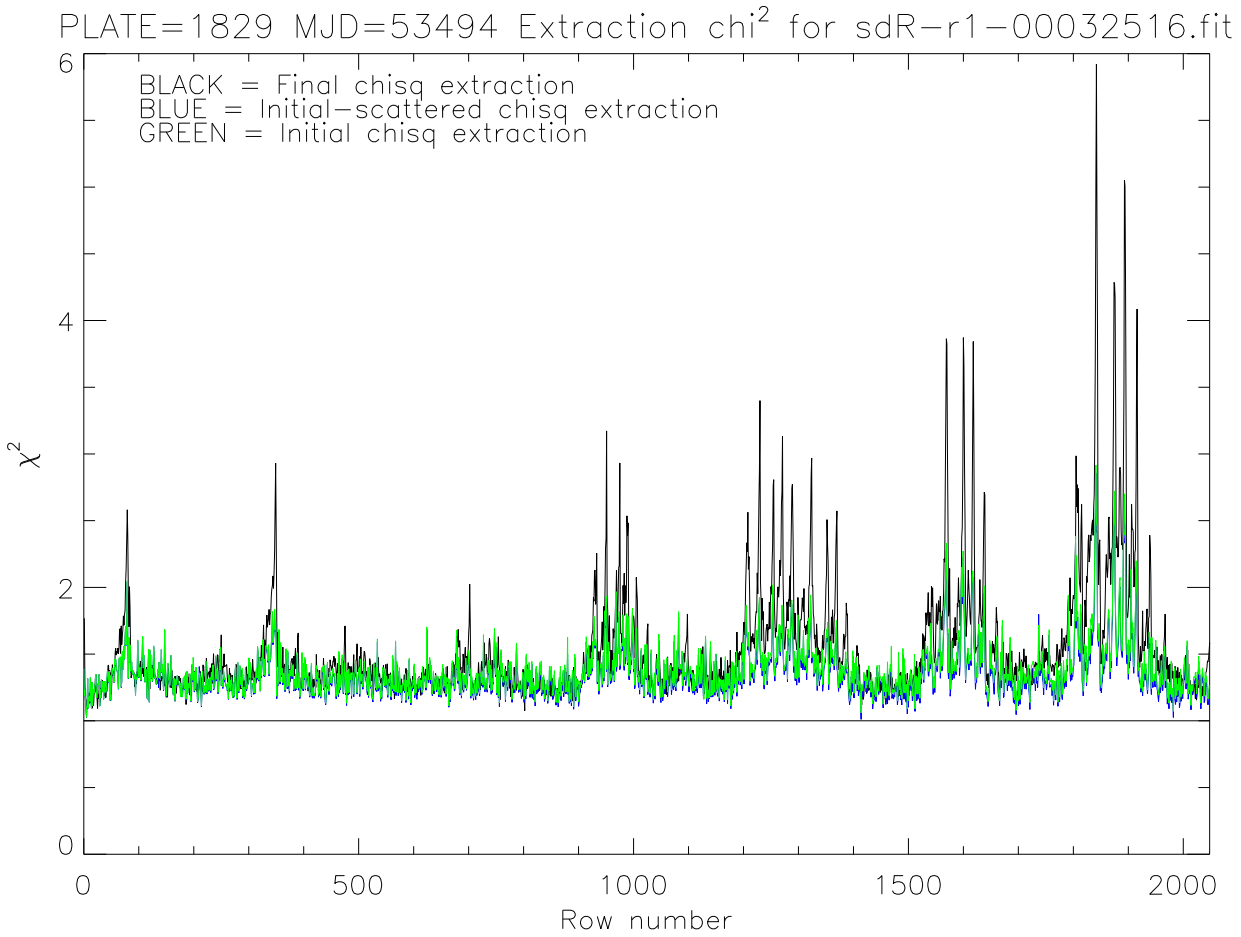

PLATE=1829 MJD=53494 Fiber−Flats for sdR−r1−00032512.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.225
Max value = 1.314
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Tue Mar 4 12:38:50 2008

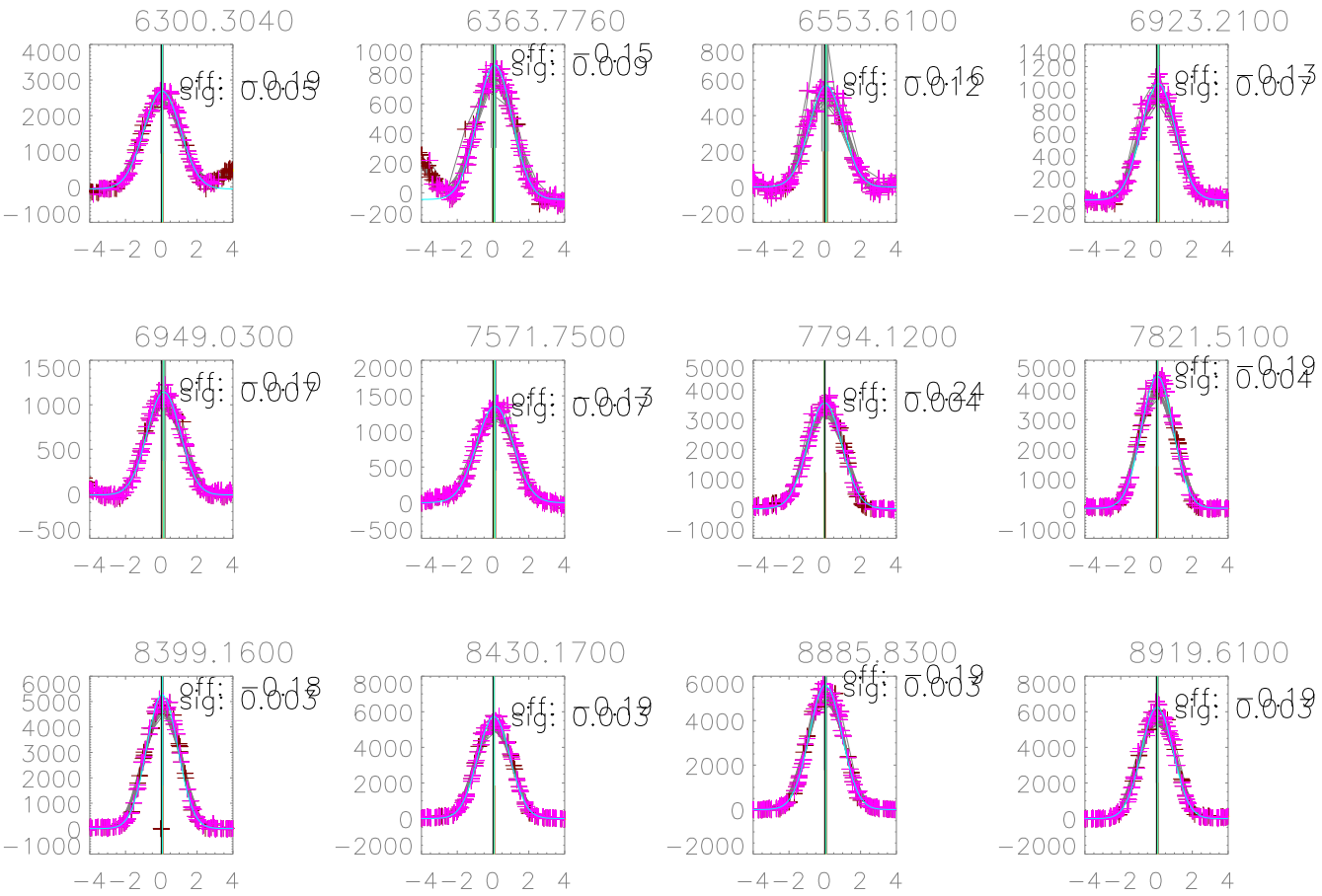

PLATE=1829 MJD=53494 Scattered Light before halo removal on sdR-r1-00032516.fi
50.9
36.4
21.8
Y [pix]
X [pix]
0
500
1000
1500
2000

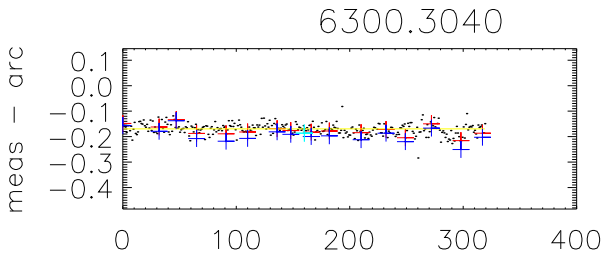

PLATE=1829 MJD=53494 Scattered Light before halo removal on sdR-r1-00032516.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 9.253
Max value = 60.430
Tue Mar 4 12:39:50 2008

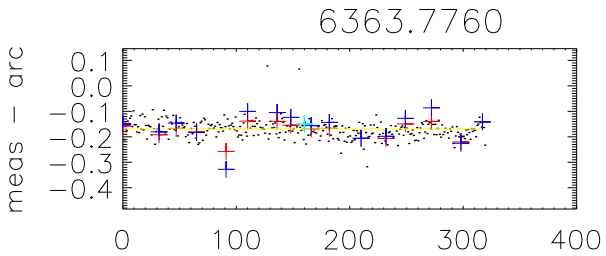

PLATE=1829 MJD=53494 Scattered Light on sdR-r1-00032516.fit
12.7
16.4
12.7
9.1
9.1
9.1

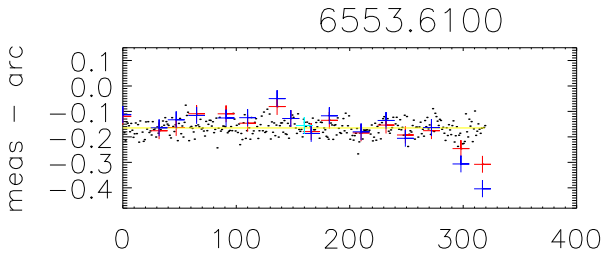

PLATE=1829 MJD=53494 Scattered Light on sdR-r1-00032516.fit
Brightness [electrons/pix]
20
15
10
5
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 8.403
Max value = 14.355
Tue Mar 4 12:42:46 2008

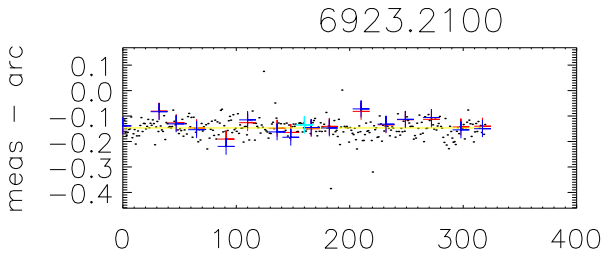

PLATE=1829 MJD=53494 Extraction chi$^2$ for sdR-r1-00032516.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
$\chi^2$
0
2
4
6
0
500
1000
1500
2000
Row number

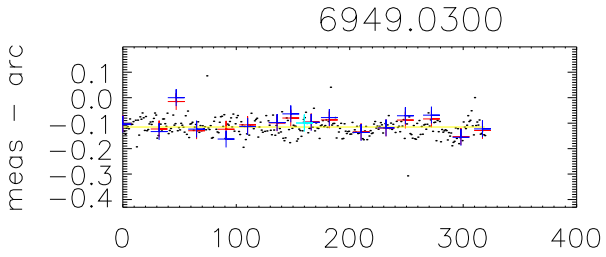

6300.3040
off: −0.19
sig: 0.005
6363.7760
off: −0.15
sig: 0.009
6553.6100
off: −0.16
sig: 0.012
6923.2100
off: −0.13
sig: 0.007
6949.0300
off: −0.19
sig: 0.007
7571.7500
off: −0.13
sig: 0.007
7794.1200
off: −0.24
sig: 0.004
7821.5100
off: −0.19
sig: 0.004
8399.1600
off: −0.18
sig: 0.003
8430.1700
off: −0.19
sig: 0.003
8885.8300
off: −0.19
sig: 0.003
8919.6100
off: −0.19
sig: 0.003

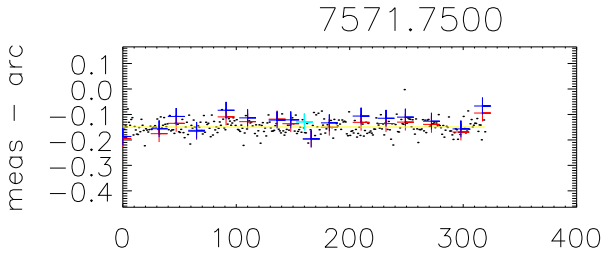

6300.3040
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

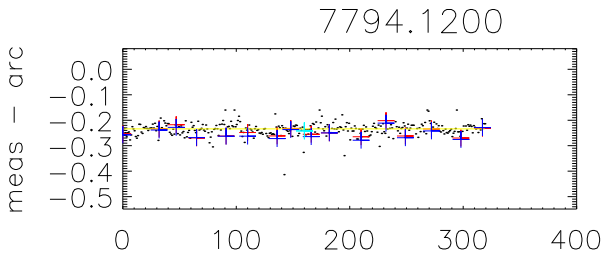

6363.7760
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

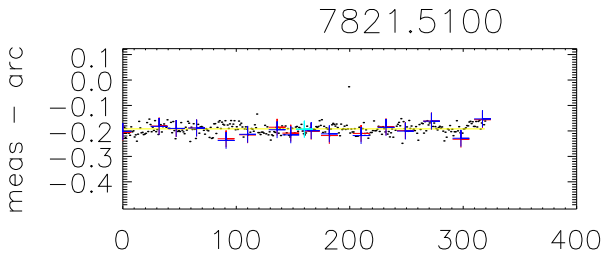

6553.6100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

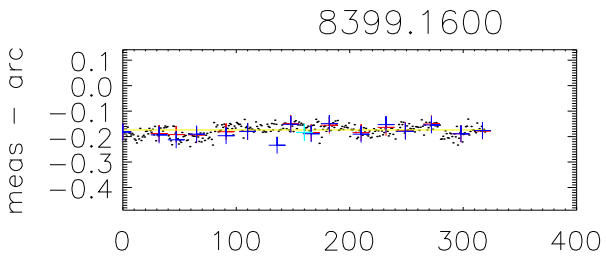

6923.2100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

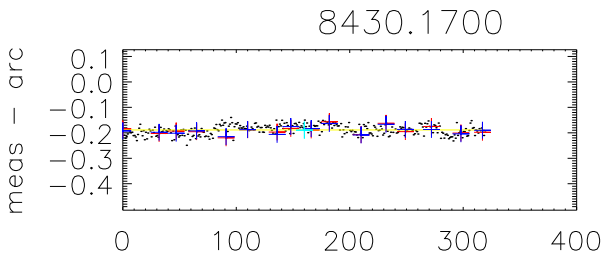

6949.0300
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

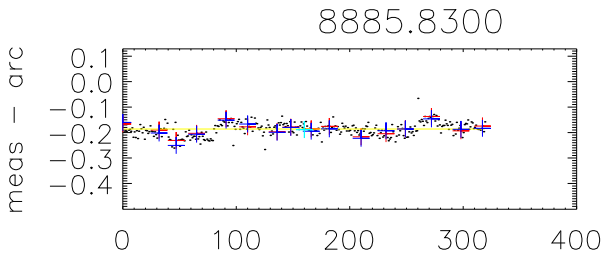

7571.7500
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

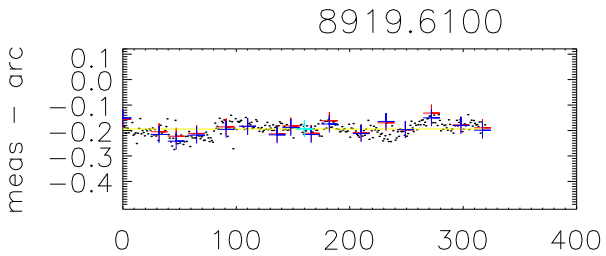

7794.1200
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

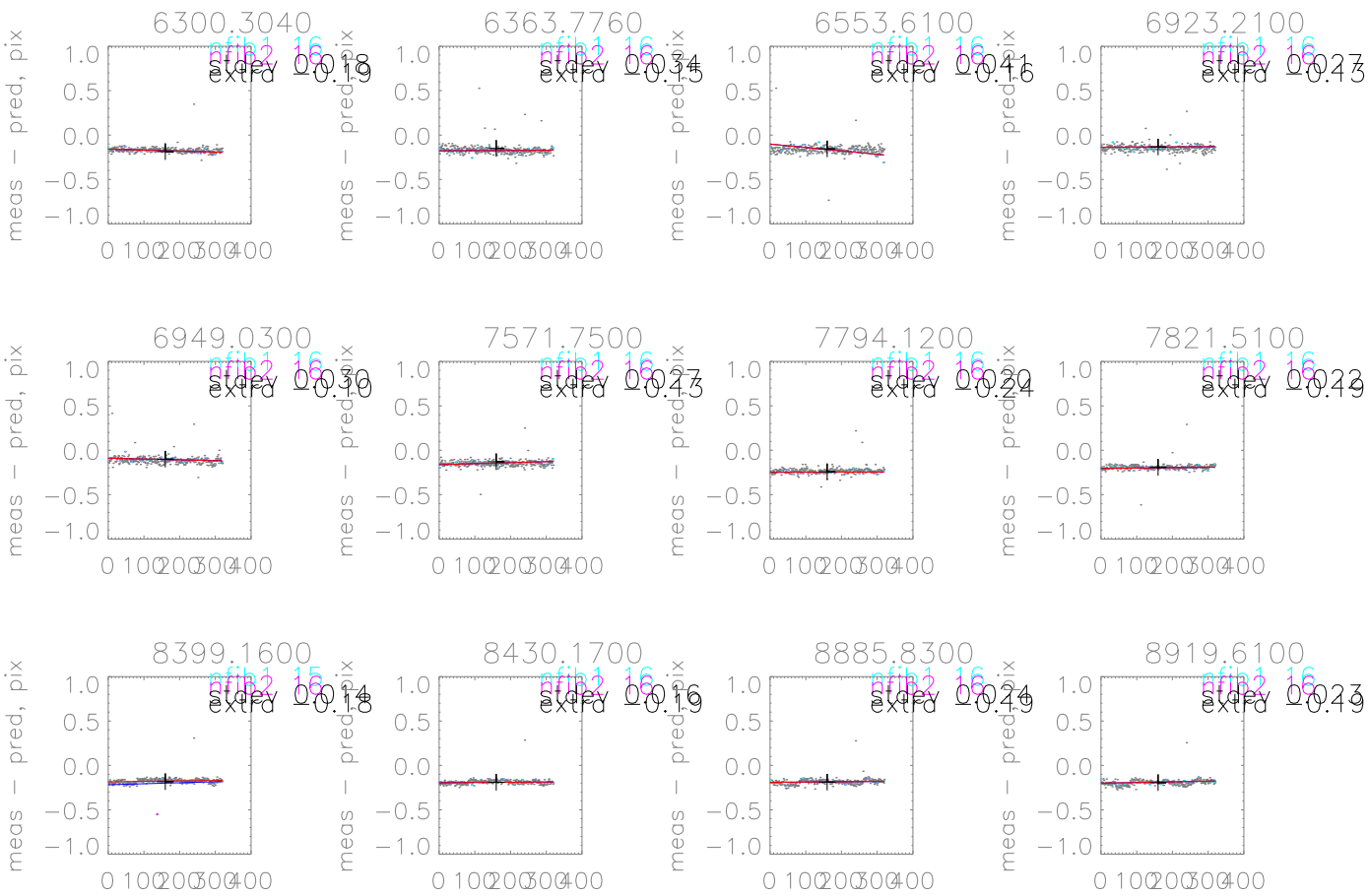

7821.5100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

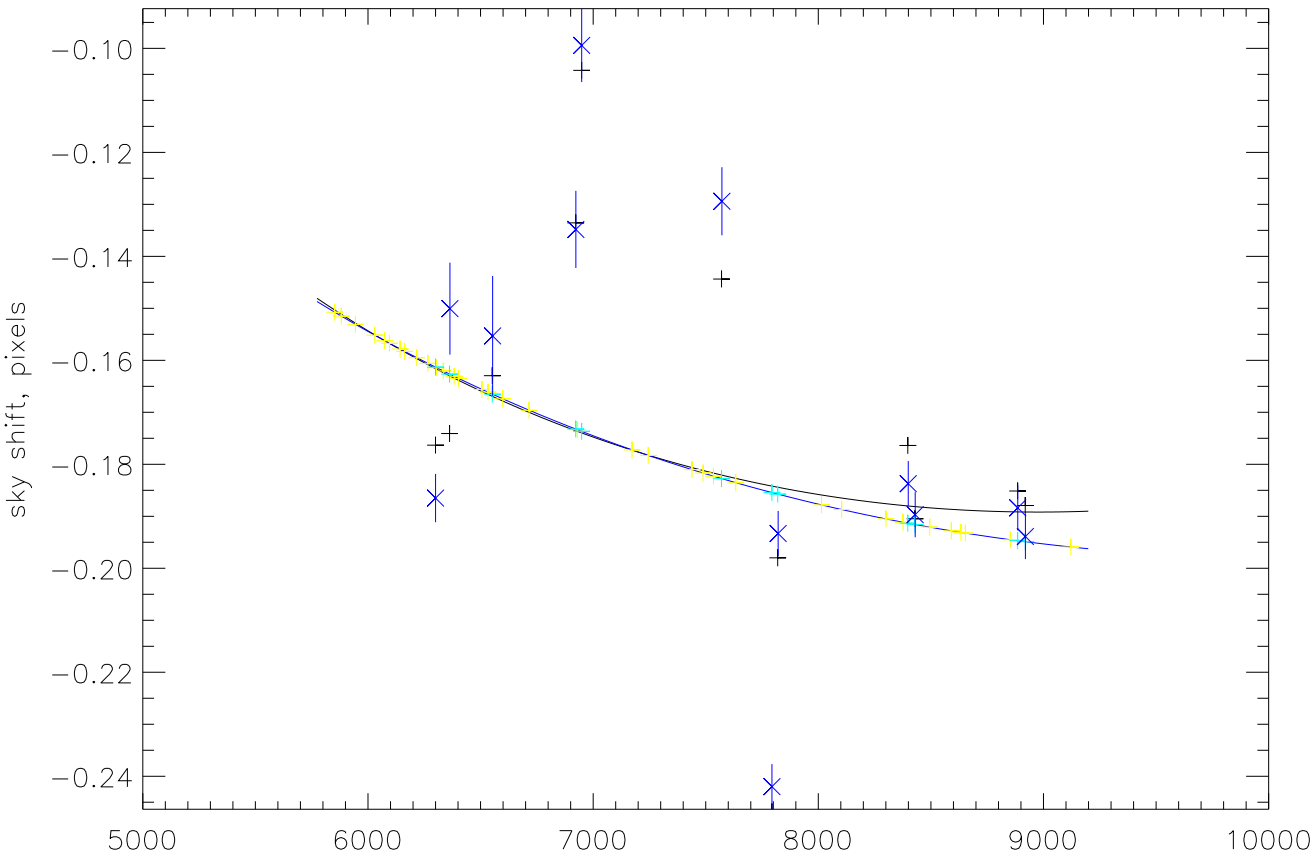

8399.1600
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400


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

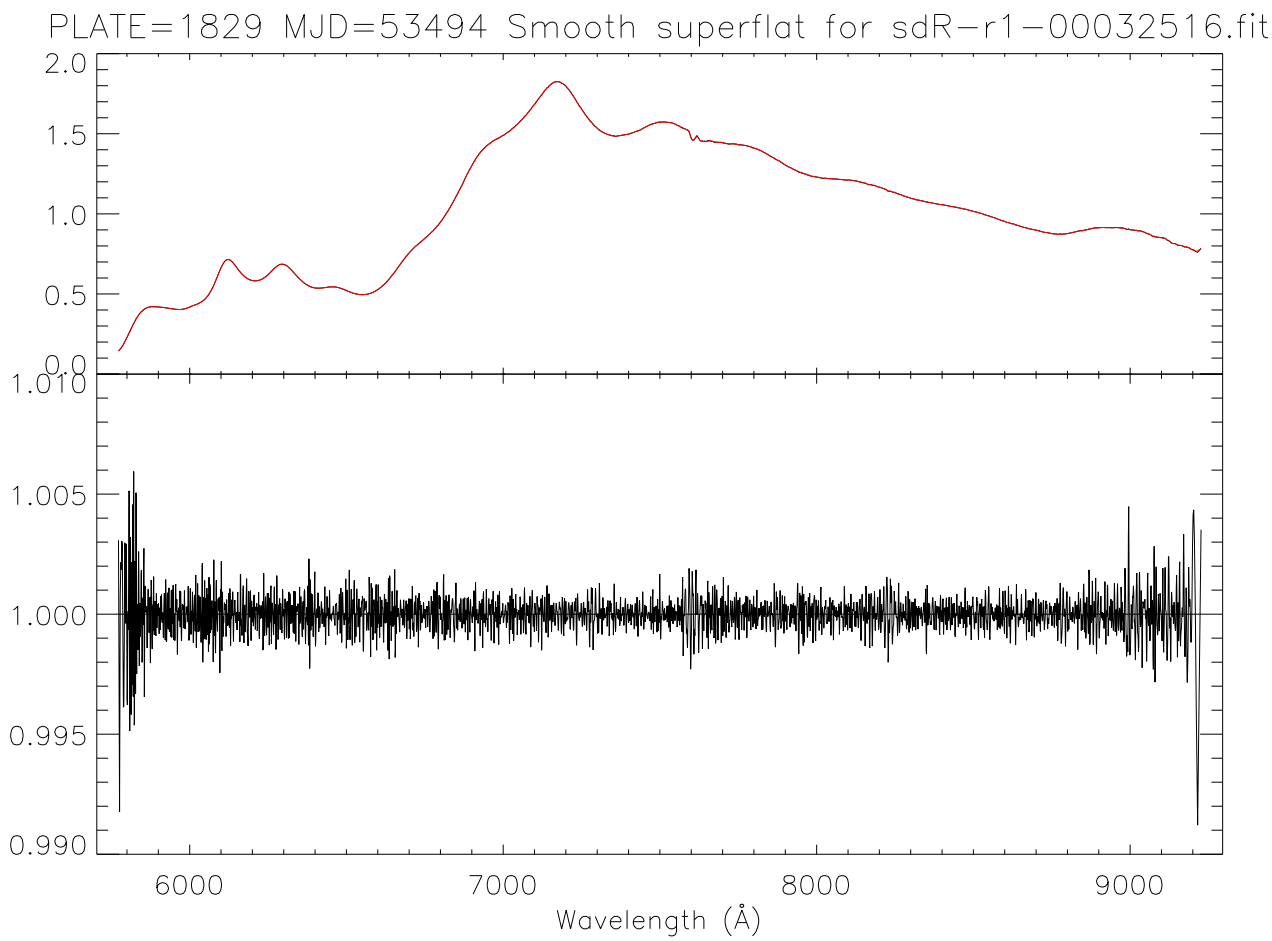

8885.8300
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

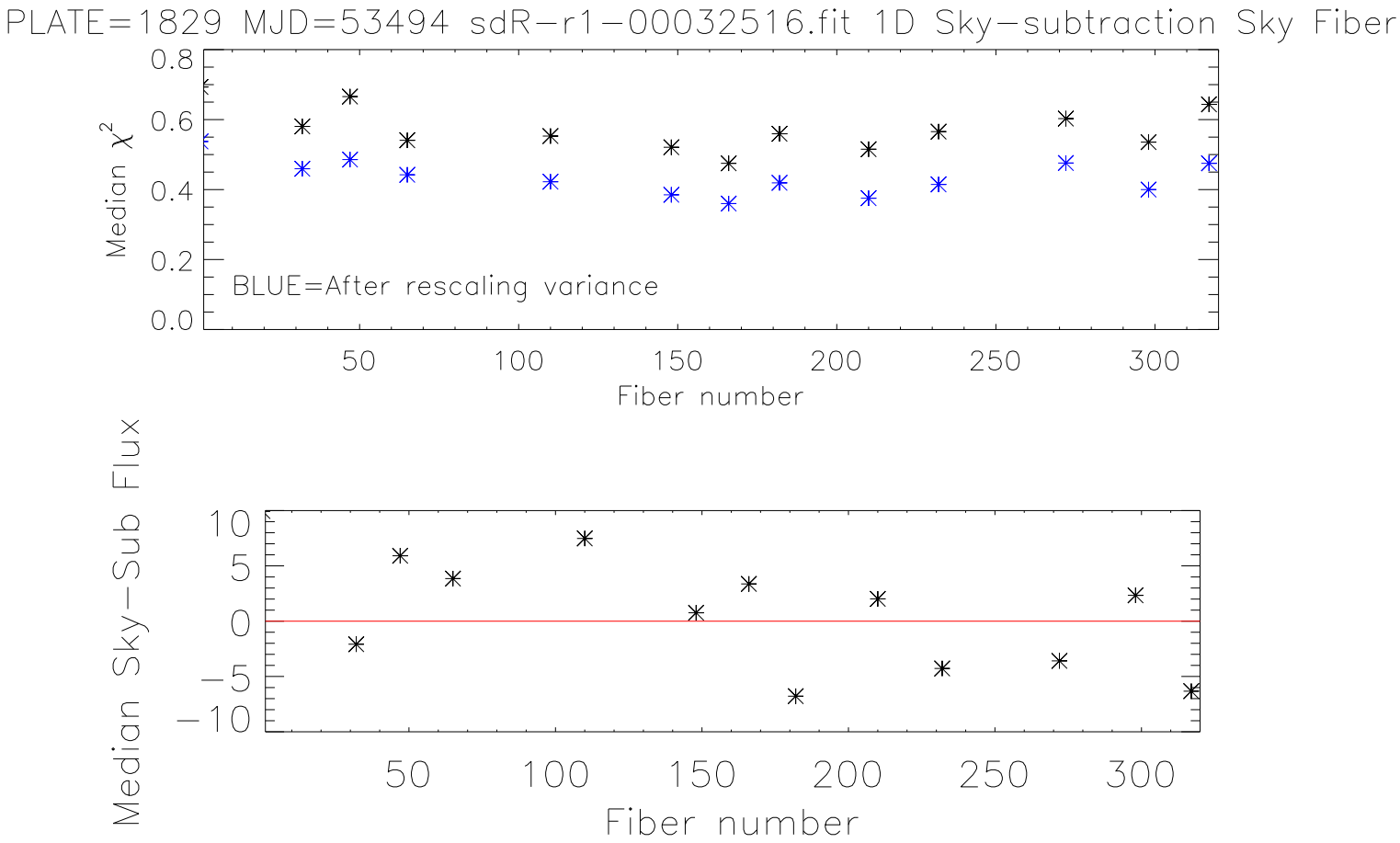

8919.6100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

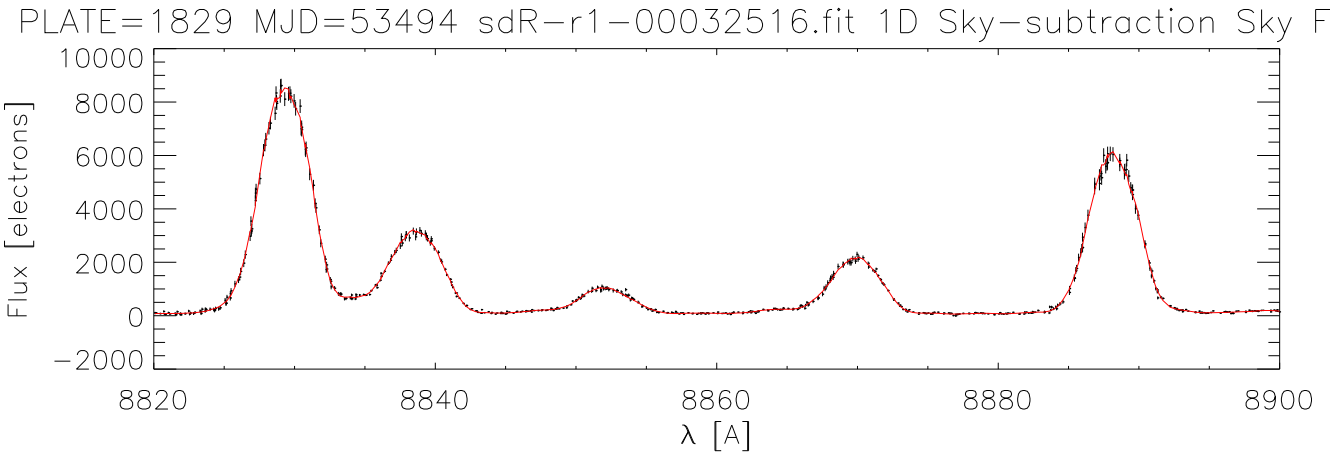

6300.3040
6363.7760
6553.6100
6923.2100
6949.0300
7571.7500
7794.1200
7821.5100
8399.1600
8430.1700
8885.8300
8919.6100
meas − pred, pix
mfib1 16
mfib2 16
stdev 0.18
extrd 0.19
stdev 0.34
extrd 0.35
stdev 0.41
extrd 0.16
stdev 0.27
extrd 0.43
stdev 0.30
extrd 0.10
stdev 0.27
extrd 0.43
stdev 0.20
extrd 0.24
stdev 0.22
extrd 0.49
mfib1 15
stdev 0.14
extrd 0.18
stdev 0.16
extrd 0.19
stdev 0.24
extrd 0.49
stdev 0.23
extrd 0.49

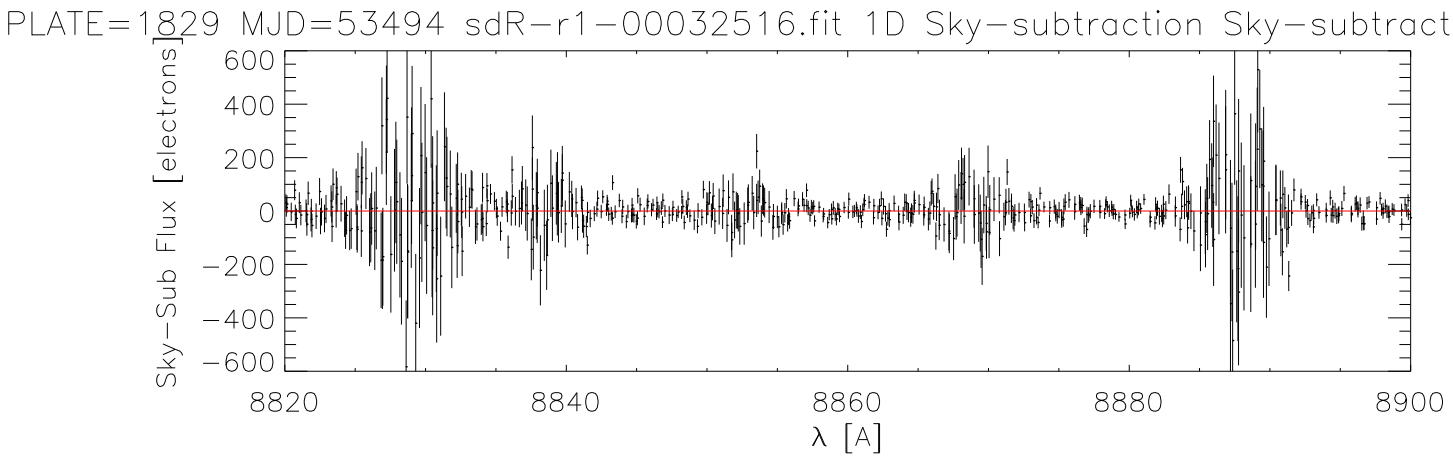

sky shift, pixels
−0.10
−0.12
−0.14
−0.16
−0.18
−0.20
−0.22
−0.24
5000
6000
7000
8000
9000
10000

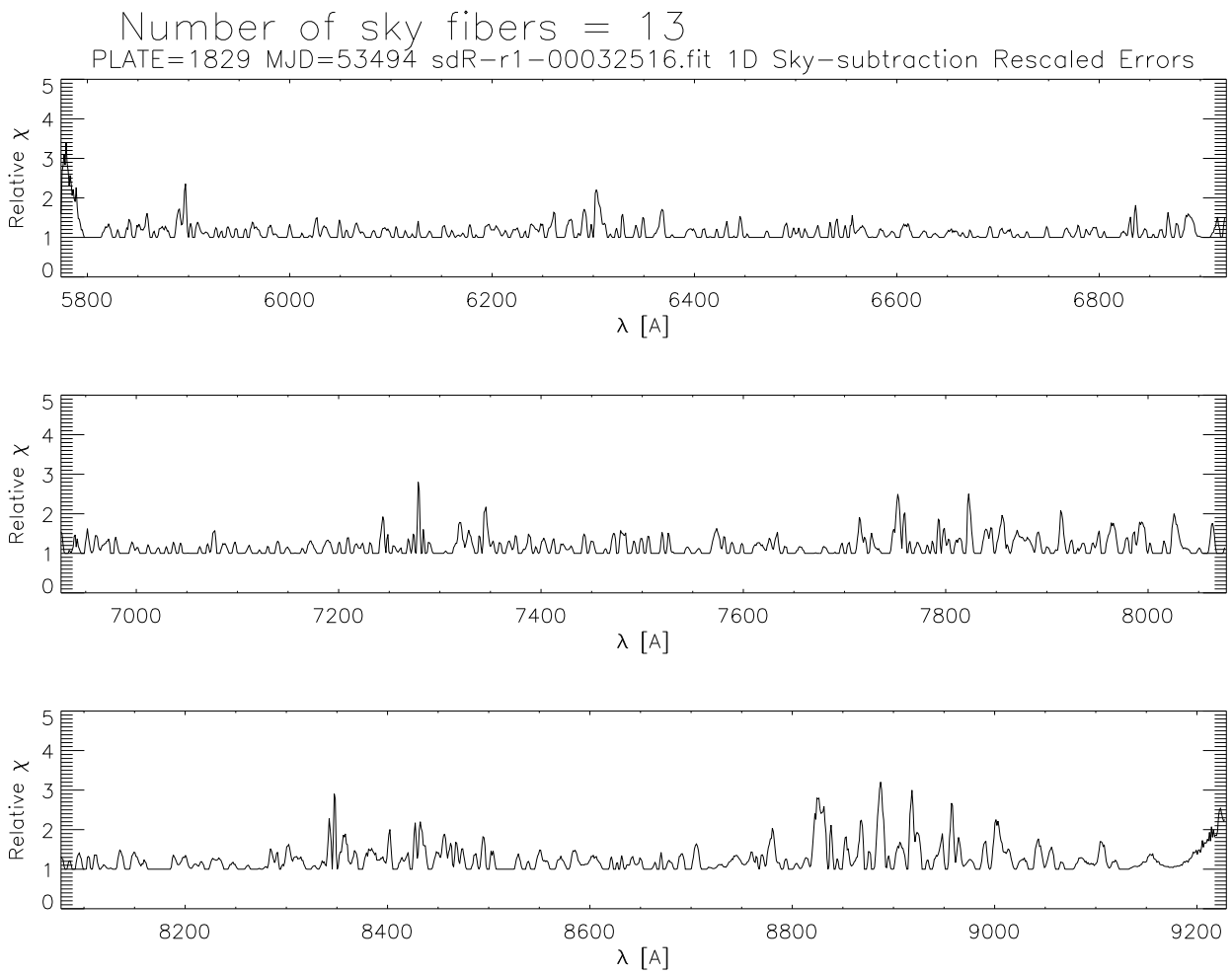
es= 0.0000

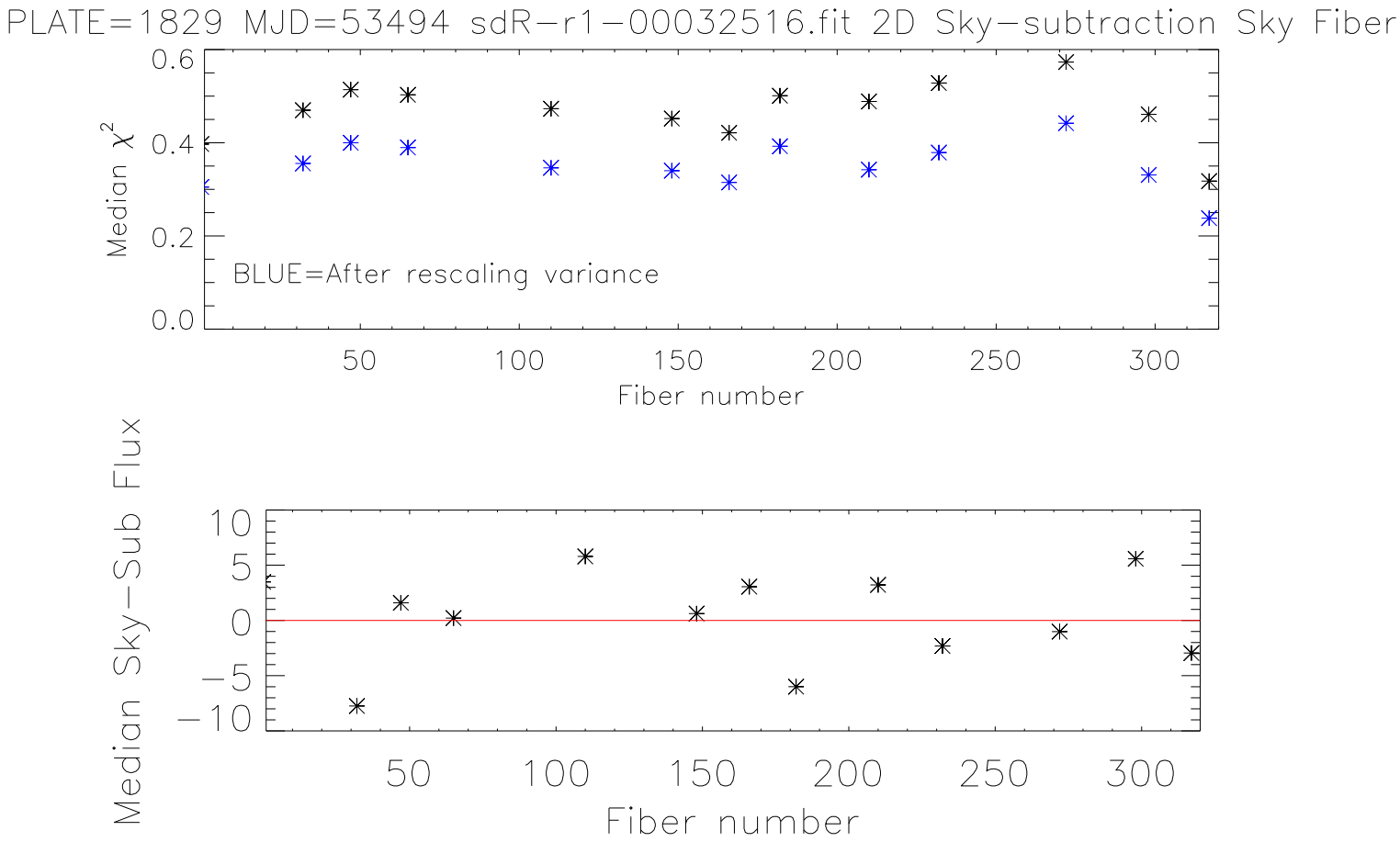

PLATE=1829 MJD=53494 Smooth superflat for sdR-r1-00032516.fit
2.0
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
6000
7000
8000
9000
Wavelength (Å)

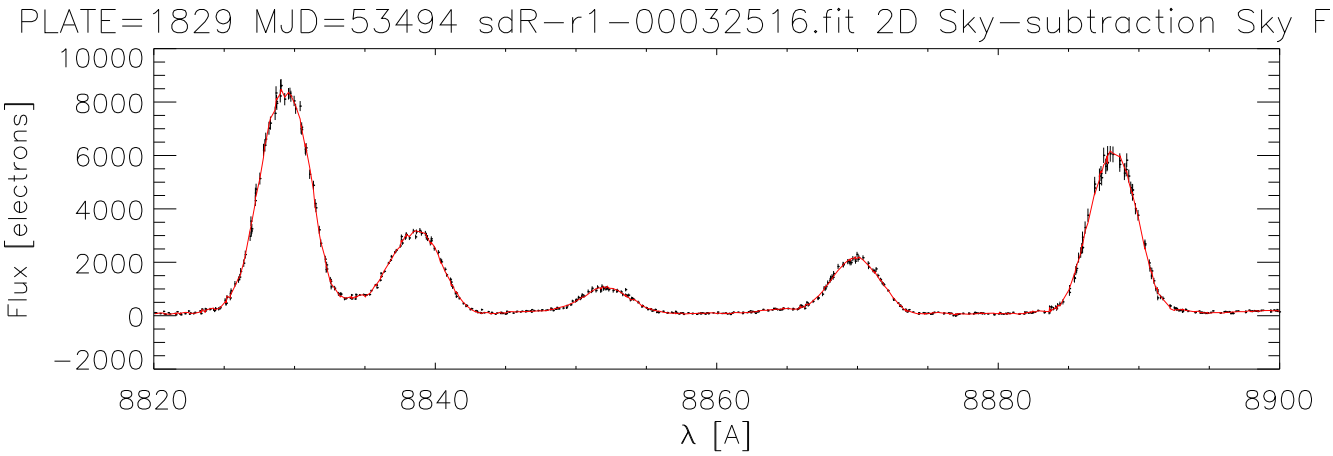

PLATE=1829 MJD=53494 sdR-r1-00032516.fit 1D Sky-subtraction Sky Fibers
Median $\chi^2$
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
−5
−10
50
100
150
200
250
300
Fiber number

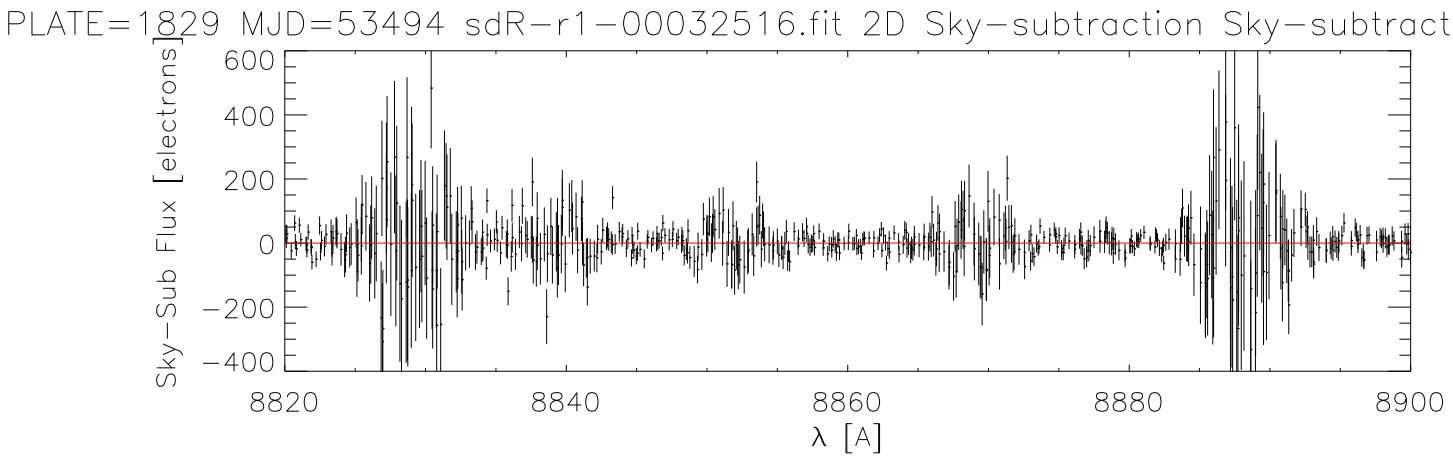

PLATE=1829 MJD=53494 sdR-r1-00032516.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
10000
8000
6000
4000
2000
0
-2000
8820
8840
8860
8880
8900
λ [A]

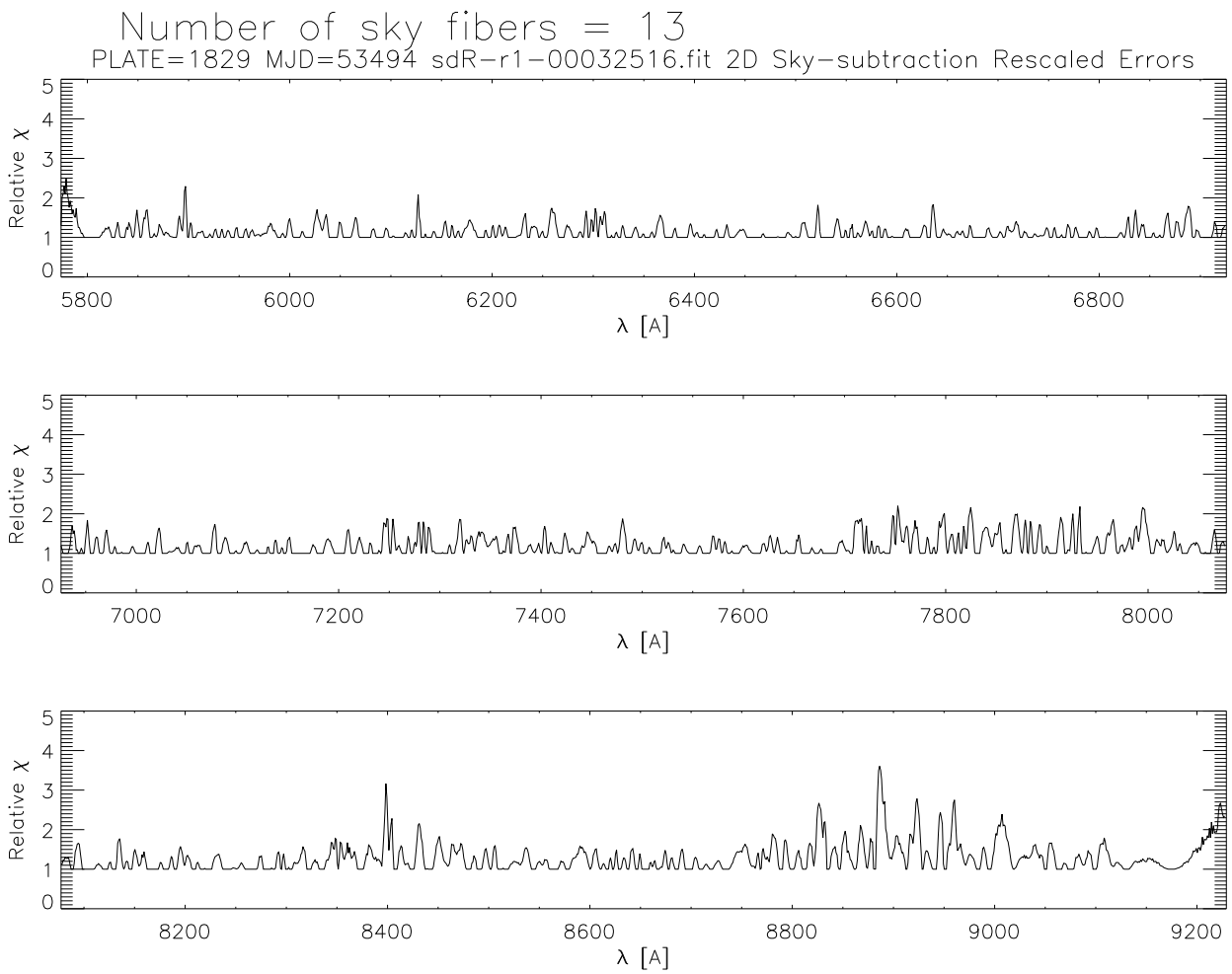

PLATE=1829 MJD=53494 sdR-r1-00032516.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
-200
-400
-600
8820
8840
8860
8880
8900
λ [A]

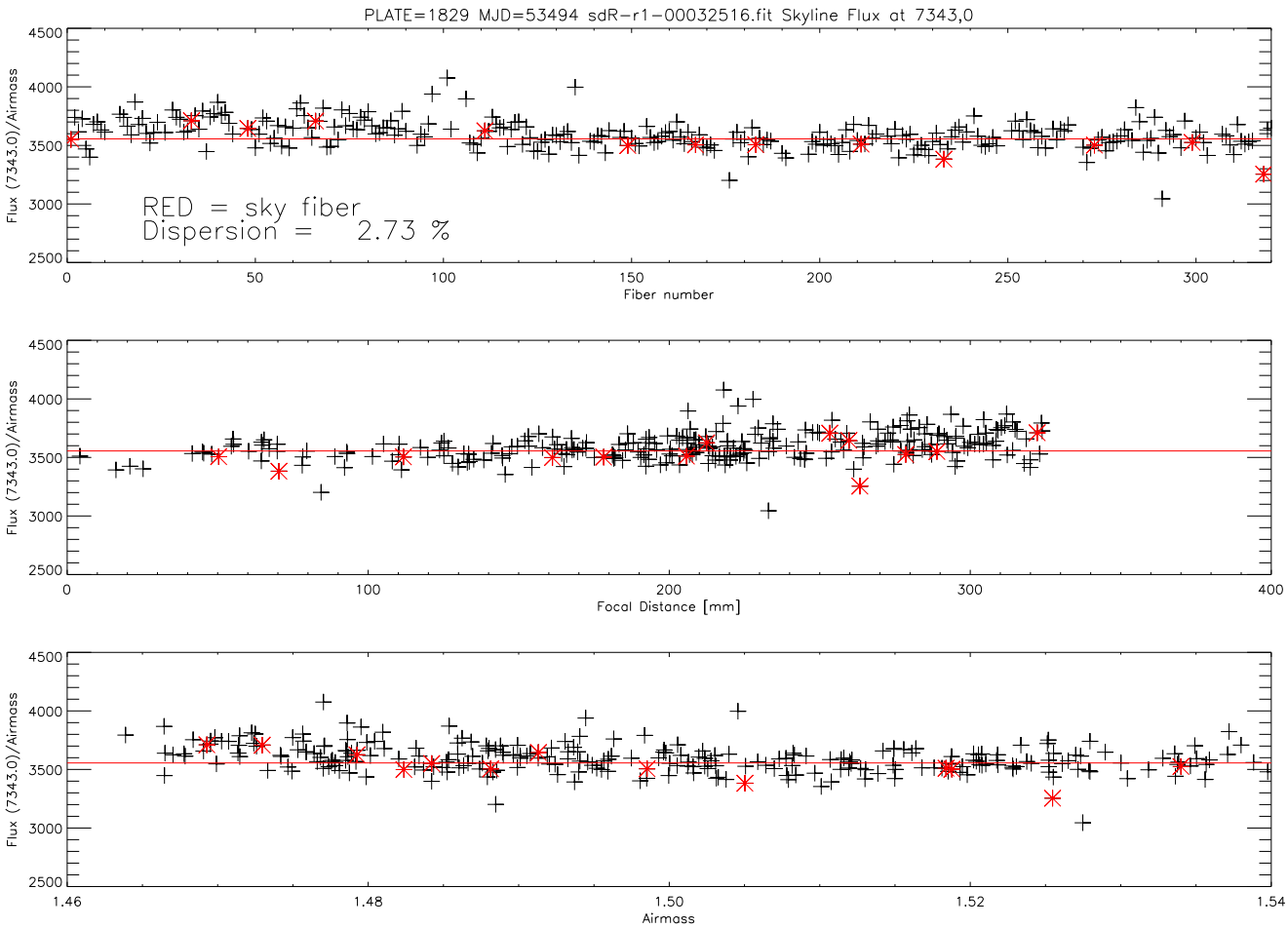

Number of sky fibers = 13
PLATE=1829 MJD=53494 sdR-r1-00032516.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

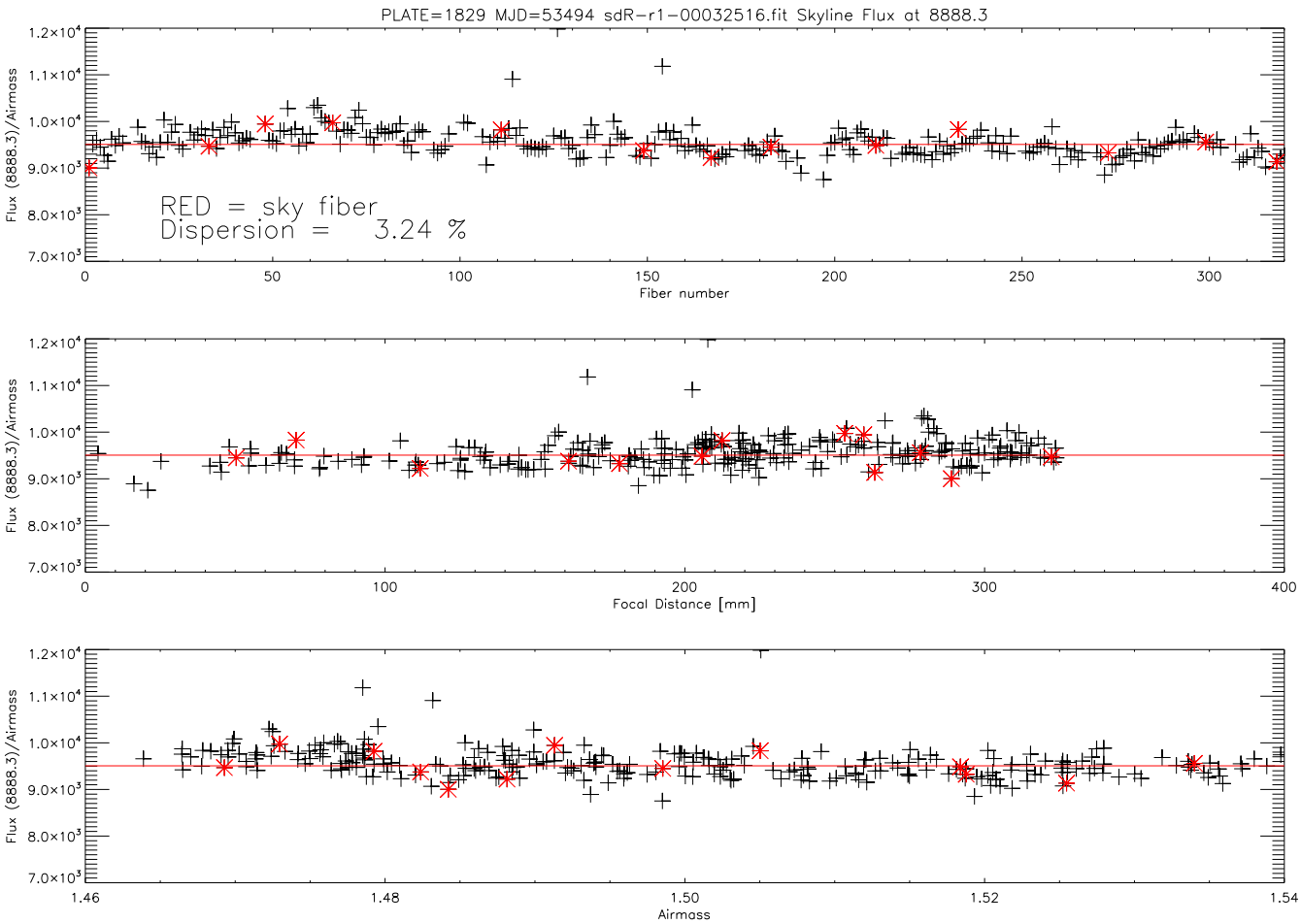

PLATE=1829 MJD=53494 sdR-r1-00032516.fit 2D Sky-subtraction Sky Fibers
Median $\chi^2$
0.0
0.2
0.4
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
−5
−10
50
100
150
200
250
300
Fiber number

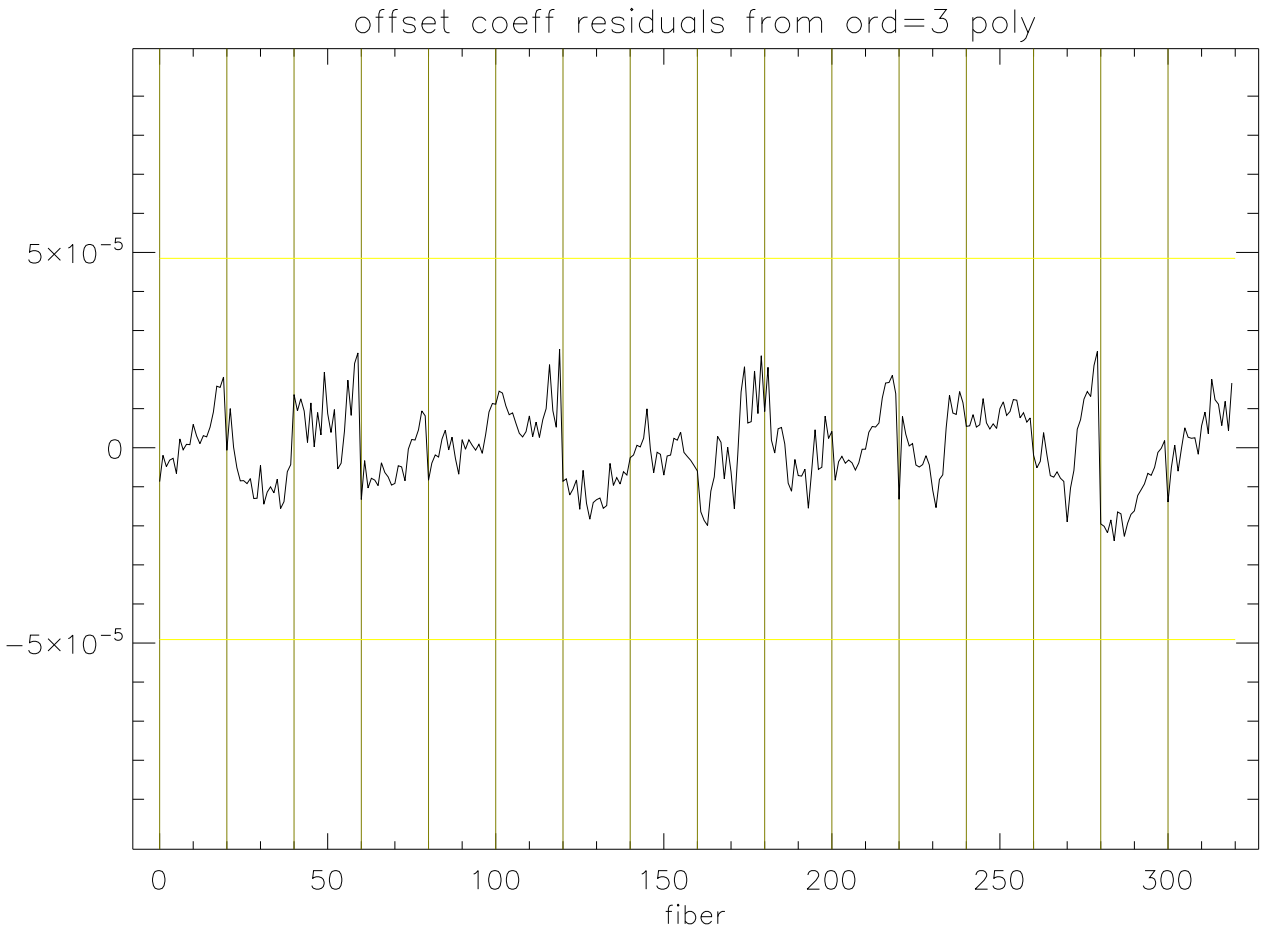

PLATE=1829 MJD=53494 sdR-r1-00032516.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
10000
8000
6000
4000
2000
0
-2000
8820
8840
8860
8880
8900
λ [A]

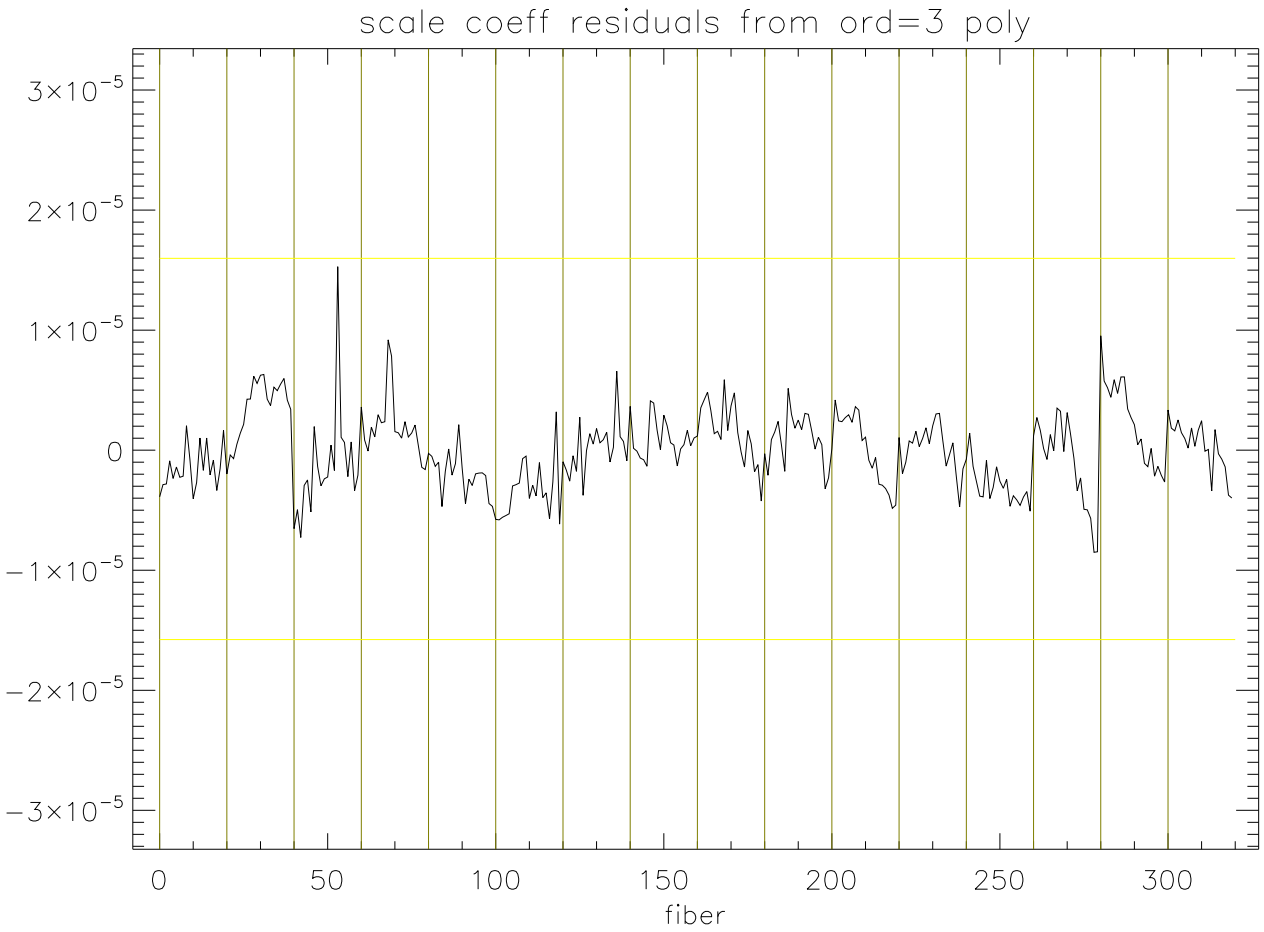

PLATE=1829 MJD=53494 sdR-r1-00032516.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
-200
-400
8820
8840
8860
8880
8900
λ [A]

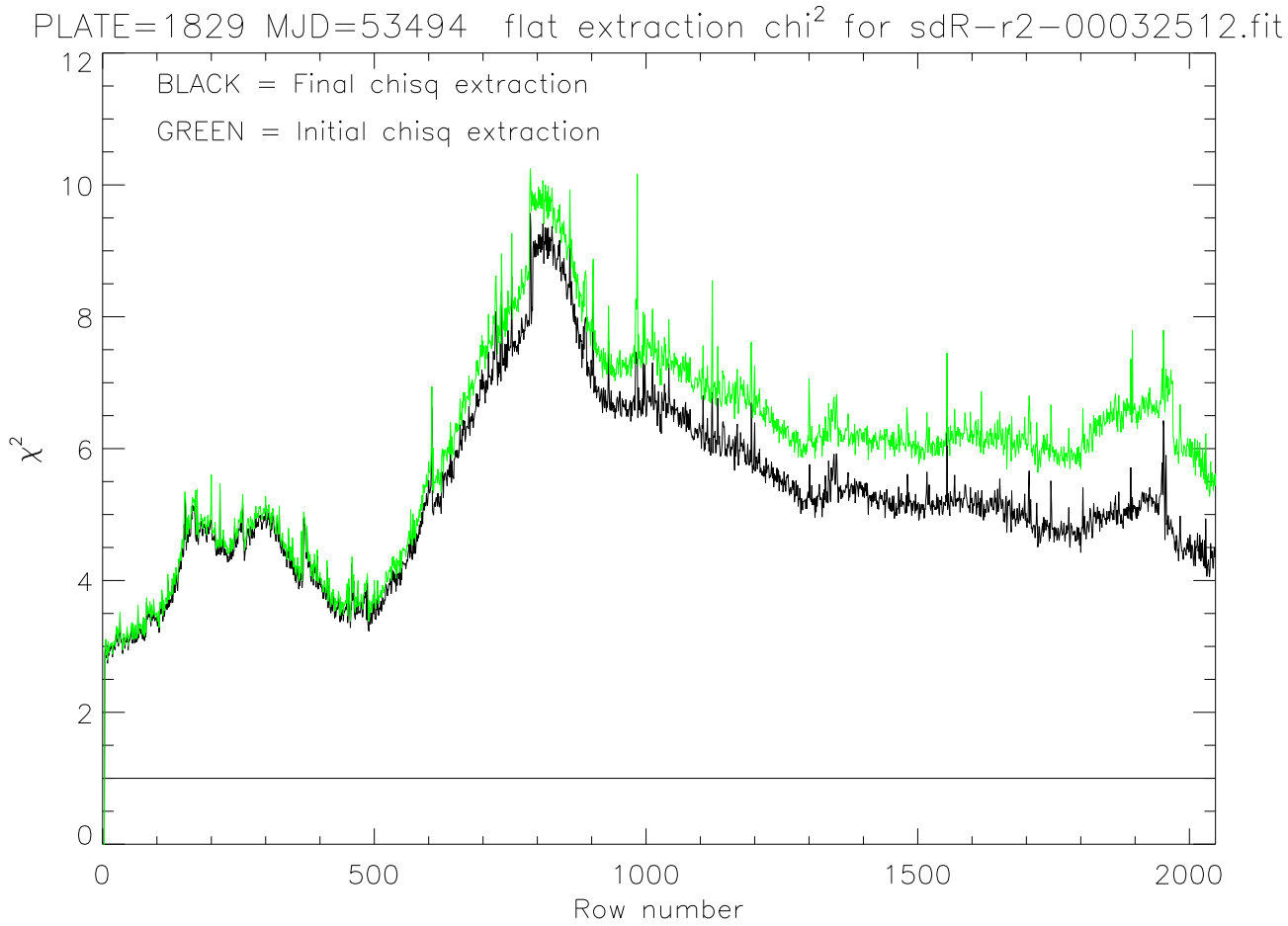

Number of sky fibers = 13
PLATE=1829 MJD=53494 sdR-r1-00032516.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

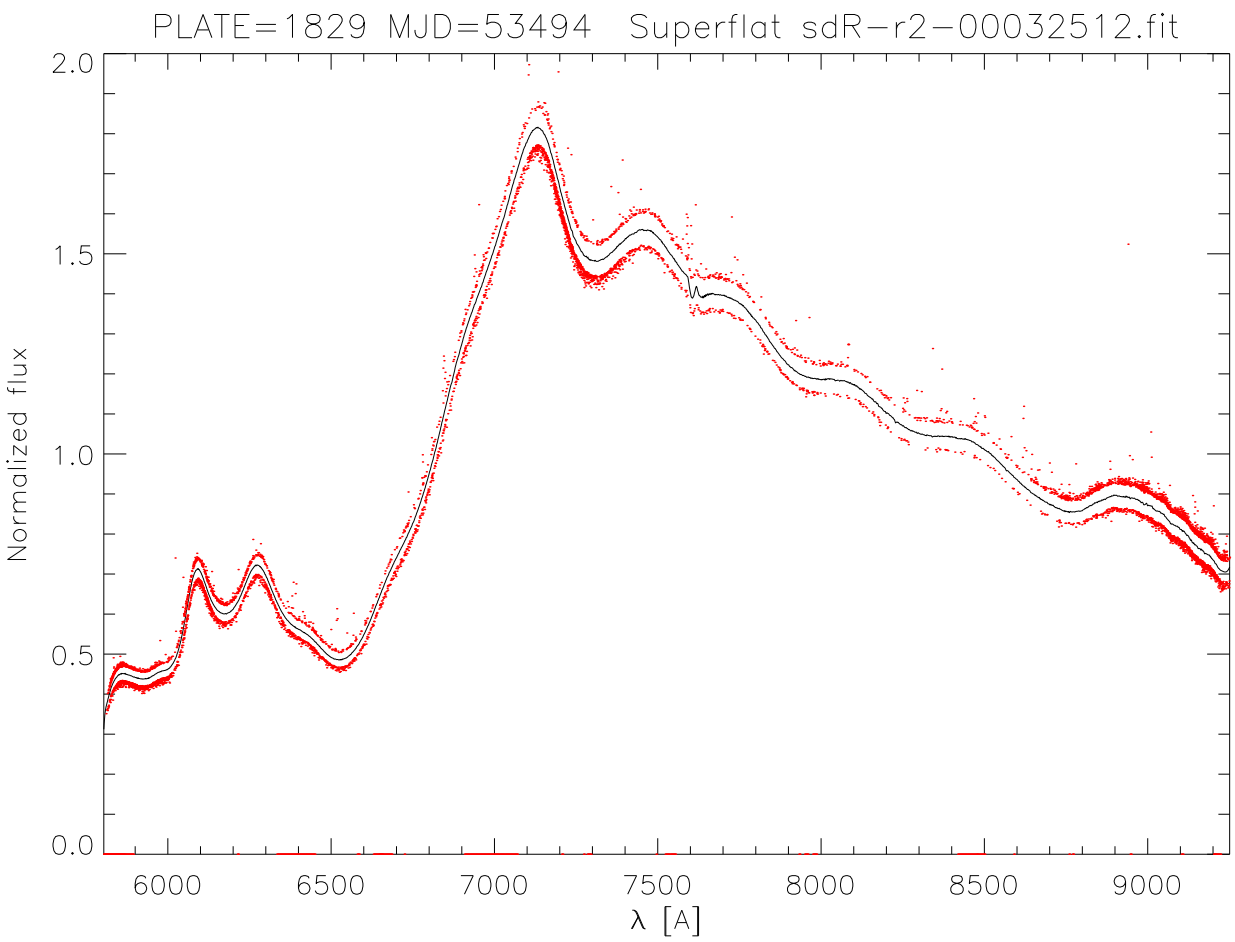

PLATE=1829 MJD=53494 sdR-r1-00032516.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 2.73 %
Fiber number
Focal Distance [mm]
Airmass

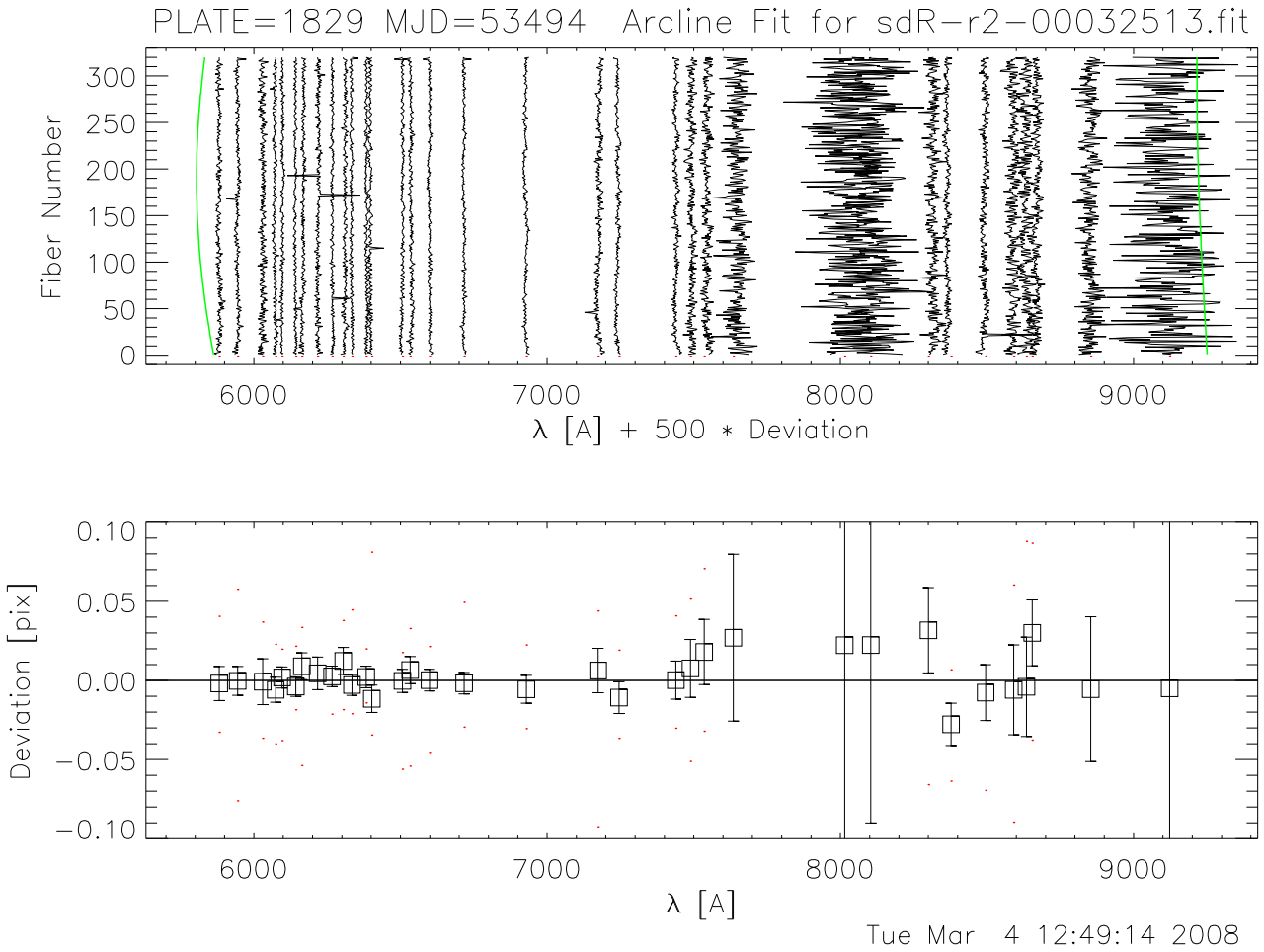

PLATE=1829 MJD=53494 sdR-r1-00032516.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 3.24 %
Fiber number
Focal Distance [mm]
Airmass

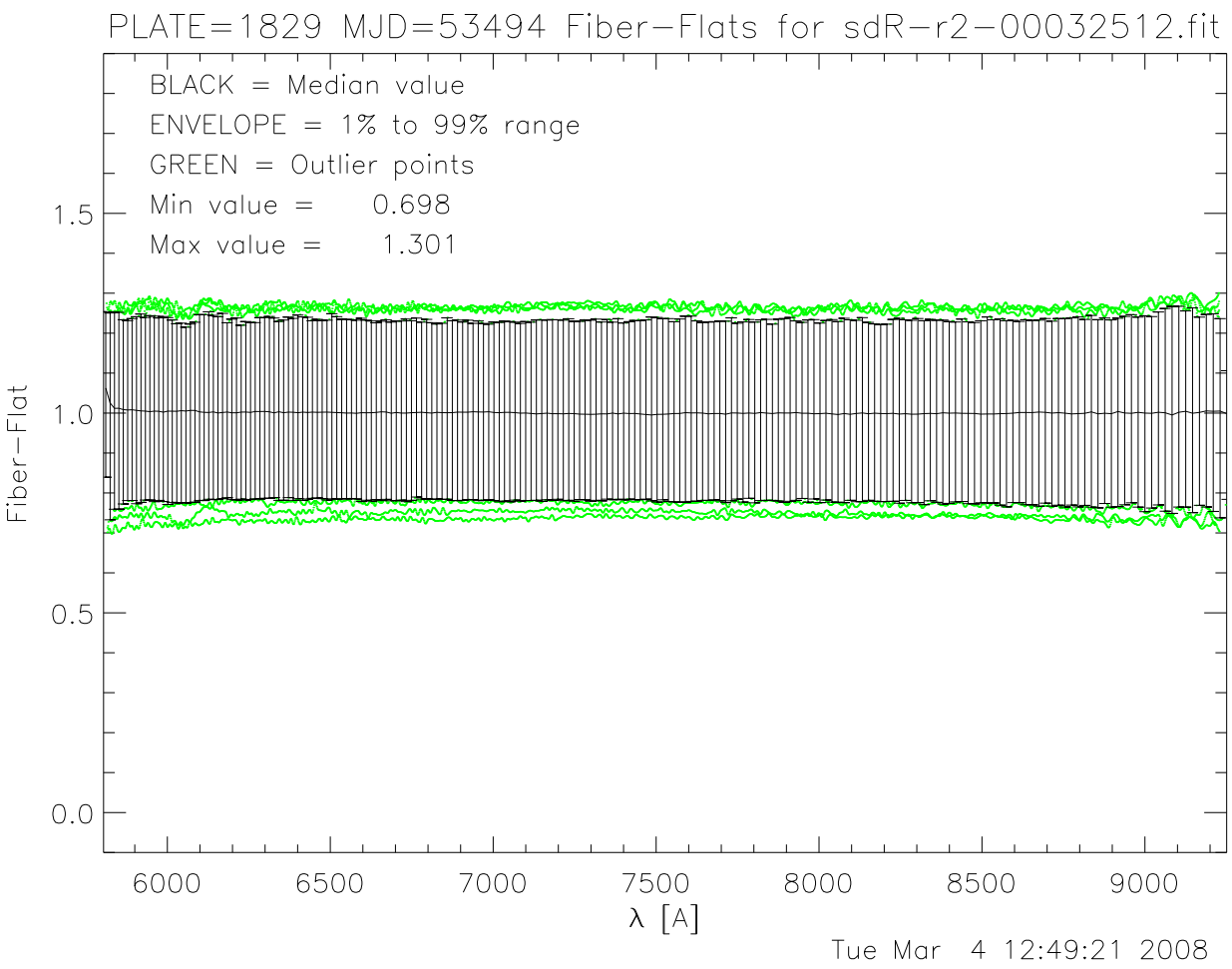

offset coeff residuals from ord=3 poly
5×10⁻⁵
0
−5×10⁻⁵
0
50
100
150
200
250
300
fiber

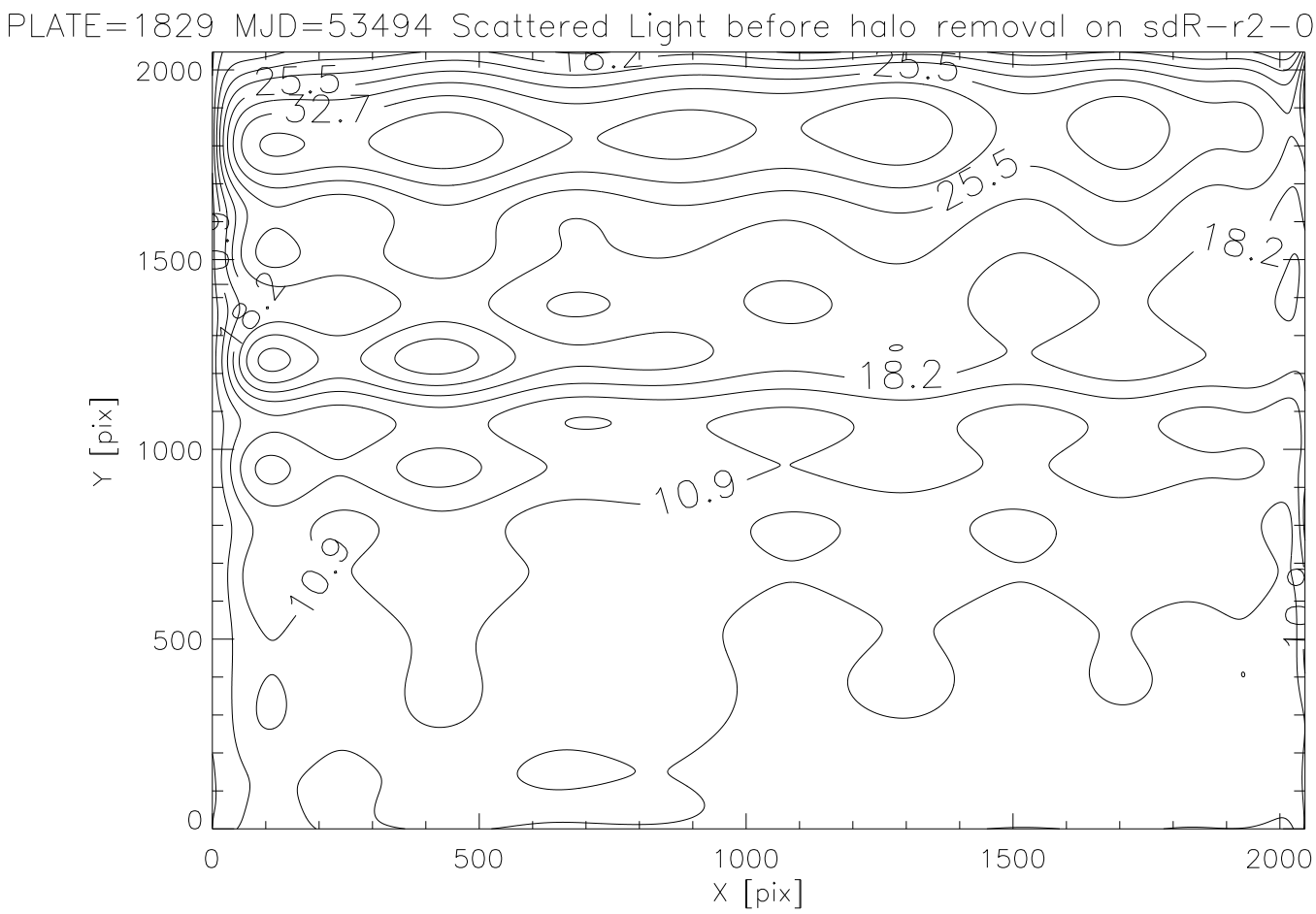

scale coeff residuals from ord=3 poly
3×10⁻⁵
2×10⁻⁵
1×10⁻⁵
0
−1×10⁻⁵
−2×10⁻⁵
−3×10⁻⁵
0
50
100
150
200
250
300
fiber

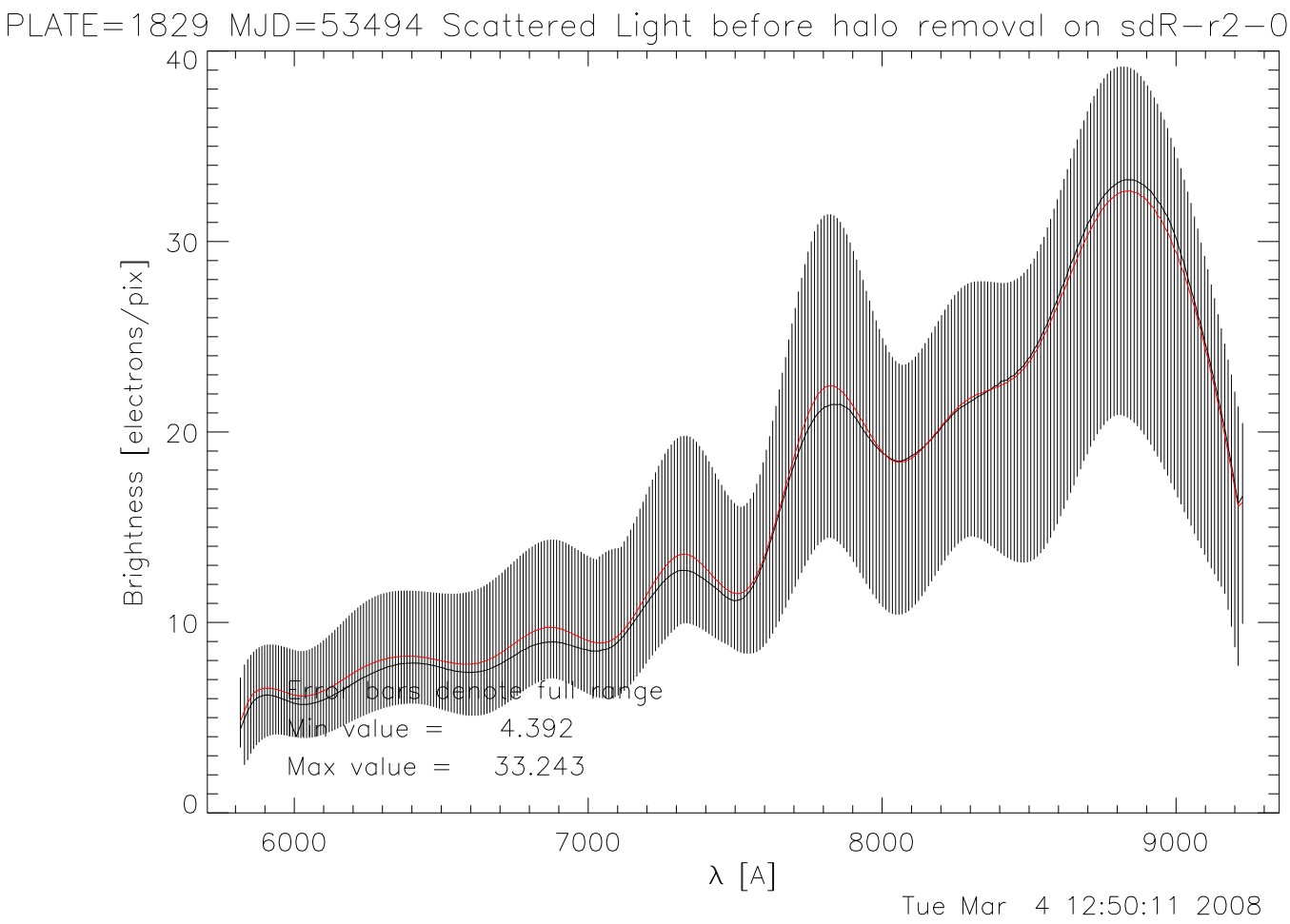

PLATE=1829 MJD=53494 flat extraction chi$^2$ for sdR−r2−00032512.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
$\chi^2$
Row number
0
2
4
6
8
10
12
0
500
1000
1500
2000

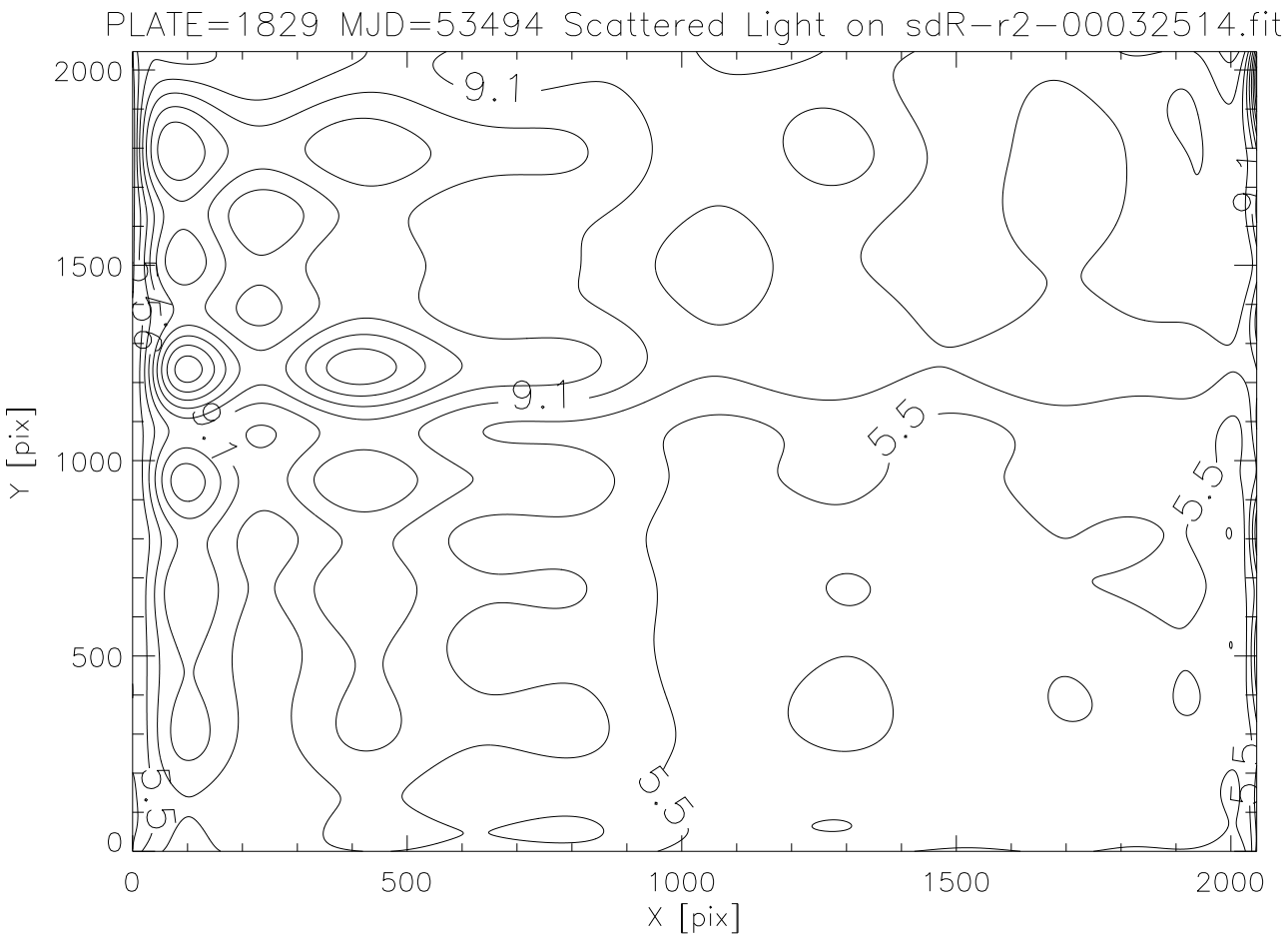

PLATE=1829 MJD=53494 Superflat sdR-r2-00032512.fit
Normalized flux
2.0
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

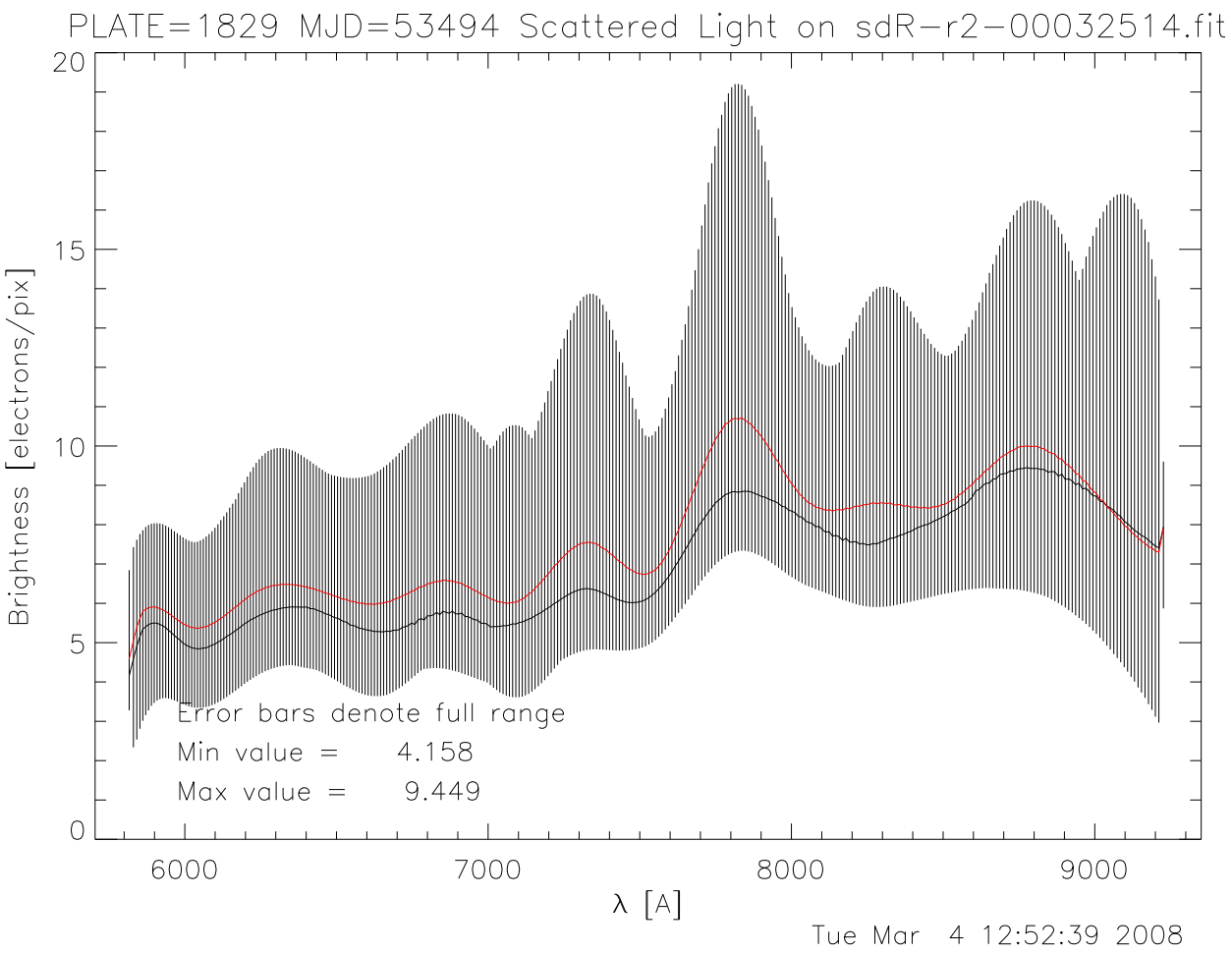

PLATE=1829 MJD=53494 Arcline Fit for sdR-r2-00032513.fit
Fiber Number
300
250
200
150
100
50
0
6000
7000
8000
9000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
6000
7000
8000
9000
λ [A]
Tue Mar 4 12:49:14 2008

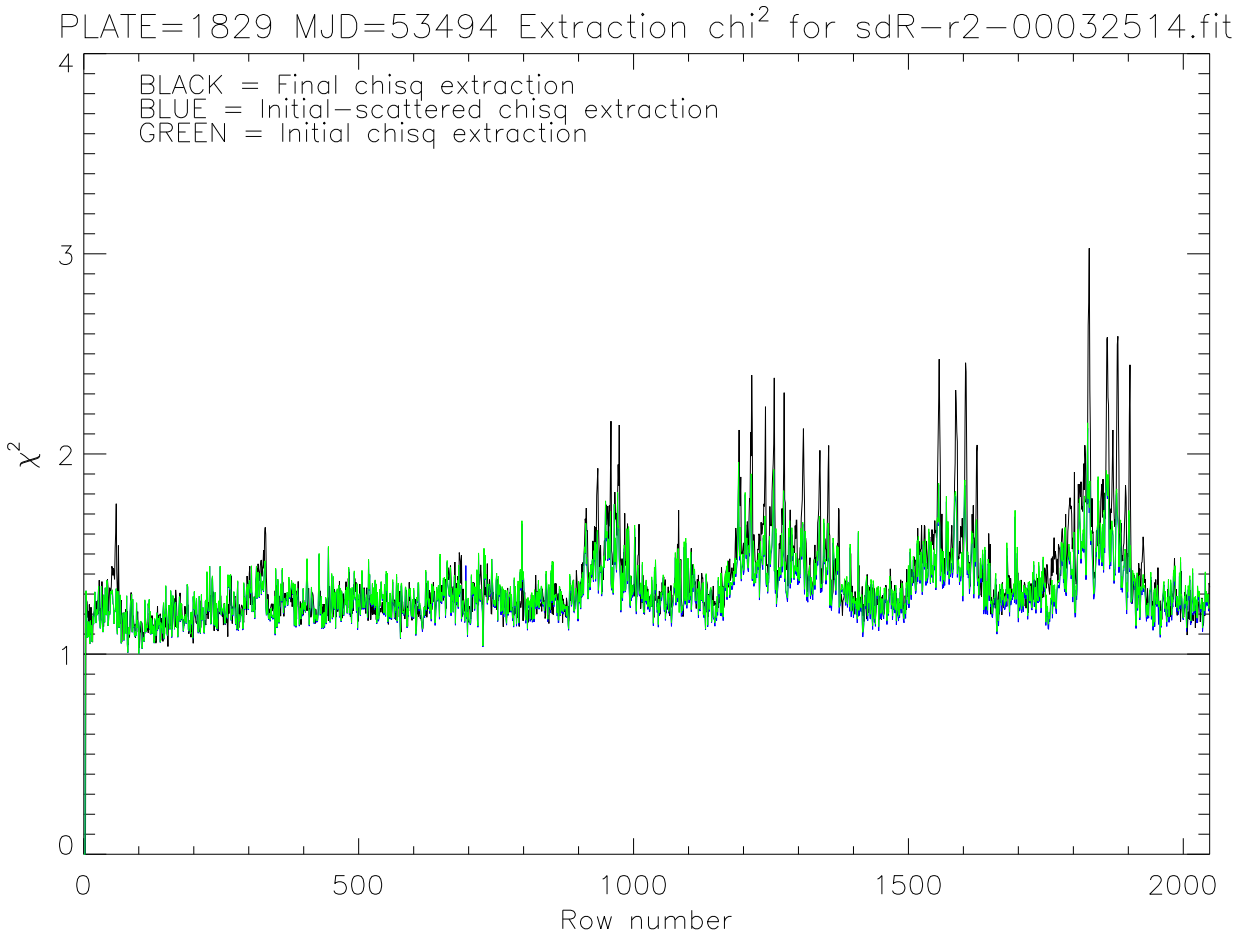

PLATE=1829 MJD=53494 Fiber−Flats for sdR−r2−00032512.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.698
Max value = 1.301
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Tue Mar 4 12:49:21 2008

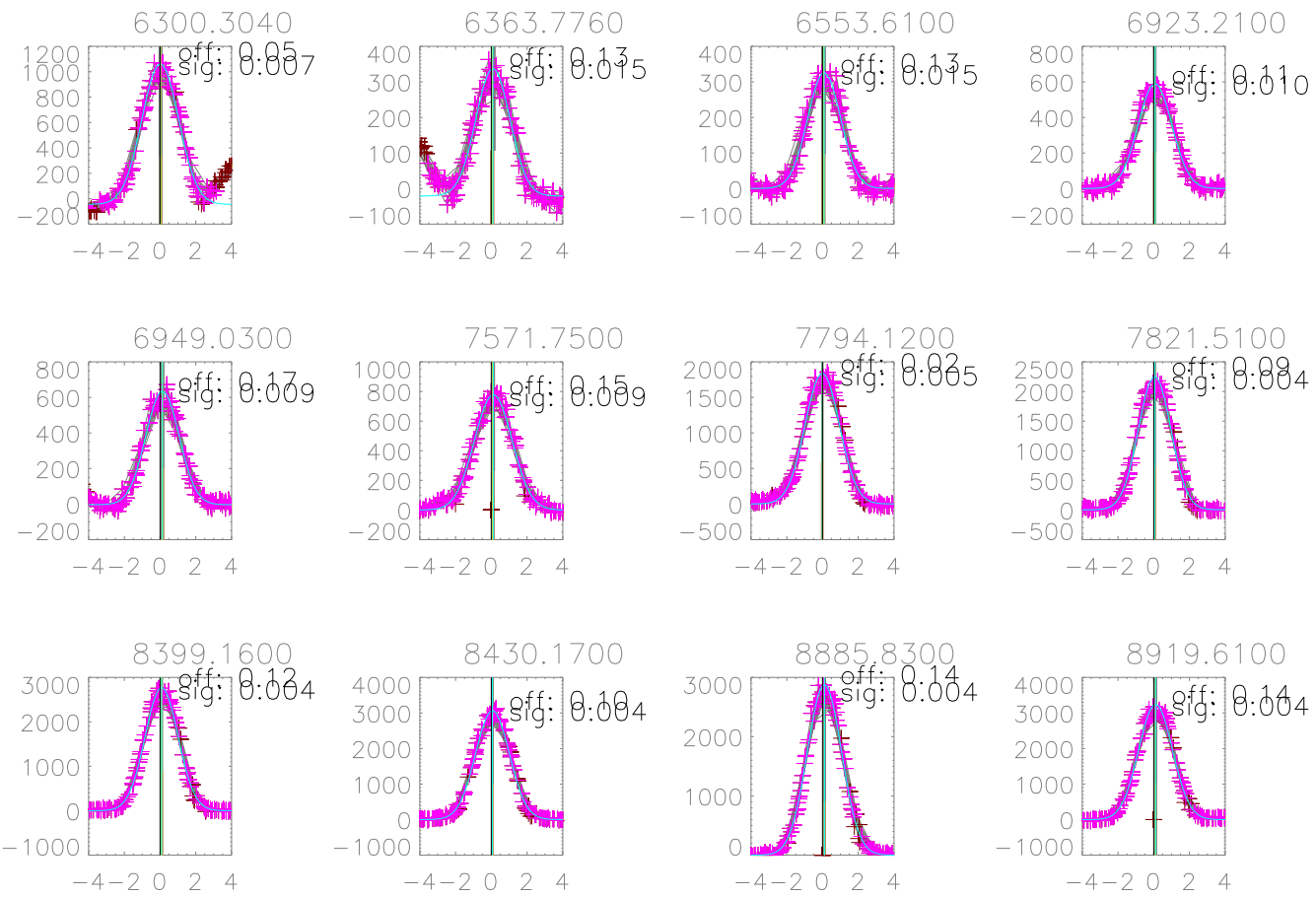

PLATE=1829 MJD=53494 Scattered Light before halo removal on sdR-r2-00032514.fi
18.2
25.5
32.7
25.5
18.2
18.2
10.9
10.9
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]

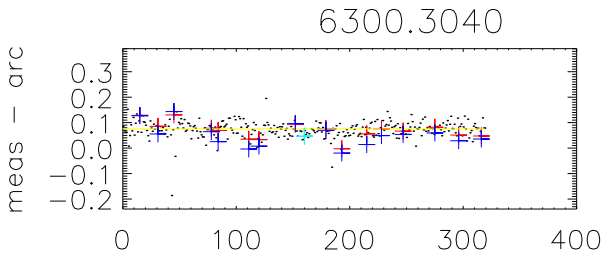

PLATE=1829 MJD=53494 Scattered Light before halo removal on sdR-r2-00032514.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 4.392
Max value = 33.243
Tue Mar 4 12:50:11 2008

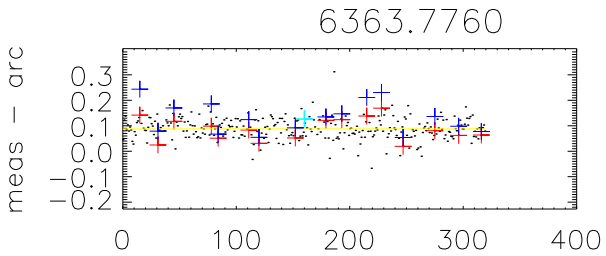

PLATE=1829 MJD=53494 Scattered Light on sdR-r2-00032514.fit
9.1
5.5
Y [pix]
X [pix]
0
500
1000
1500
2000

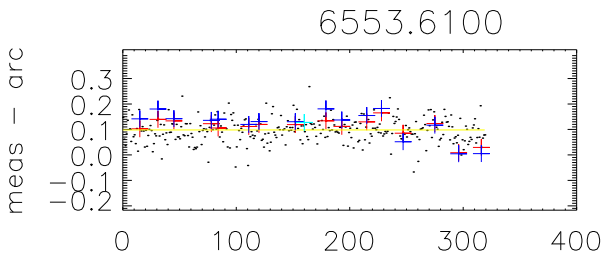

PLATE=1829 MJD=53494 Scattered Light on sdR-r2-00032514.fit
Brightness [electrons/pix]
20
15
10
5
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 4.158
Max value = 9.449
Tue Mar 4 12:52:39 2008

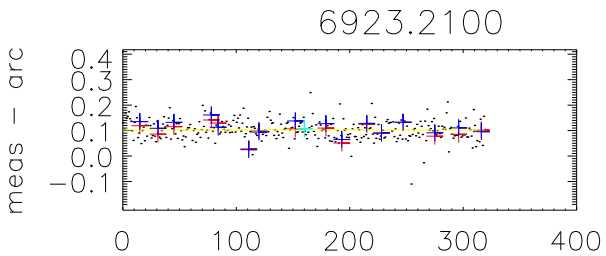

PLATE=1829 MJD=53494 Extraction chi$^2$ for sdR−r2−00032514.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
$\chi^2$
0
1
2
3
4
0
500
1000
1500
2000
Row number

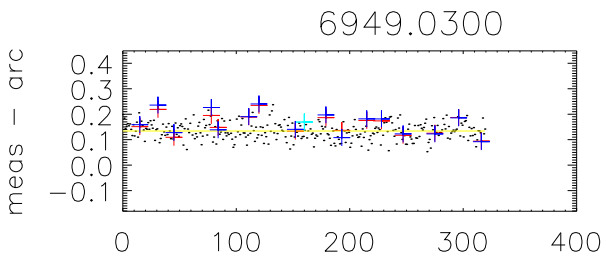

6300.3040
off: 0.05
sig: 0.007
6363.7760
off: 0.13
sig: 0.015
6553.6100
off: 0.13
sig: 0.015
6923.2100
off: 0.11
sig: 0.010
6949.0300
off: 0.17
sig: 0.009
7571.7500
off: 0.15
sig: 0.009
7794.1200
off: 0.02
sig: 0.005
7821.5100
off: 0.09
sig: 0.004
8399.1600
off: 0.12
sig: 0.004
8430.1700
off: 0.10
sig: 0.004
8885.8300
off: 0.14
sig: 0.004
8919.6100
off: 0.14
sig: 0.004

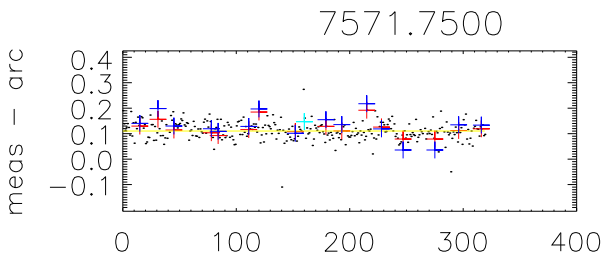

6300.3040
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

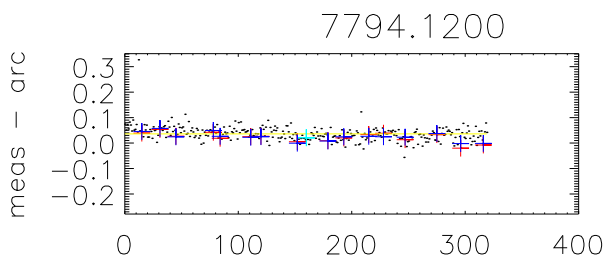

6363.7760
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

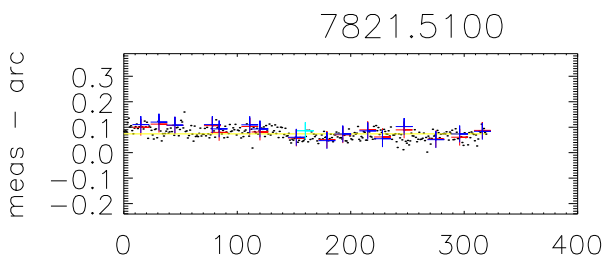

6553.6100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

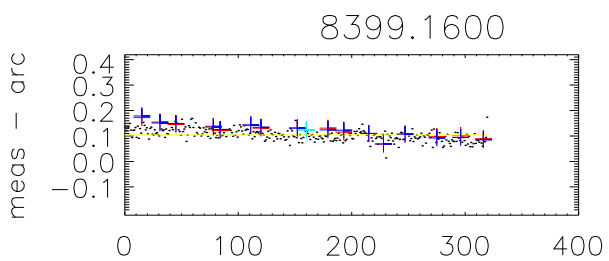

6923.2100
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

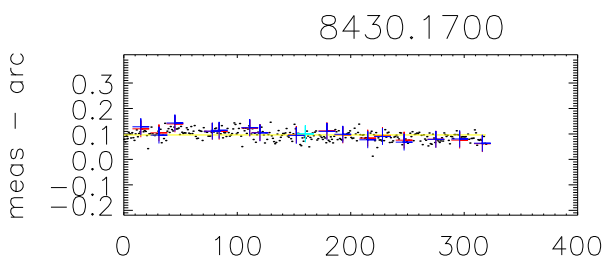

6949.0300
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

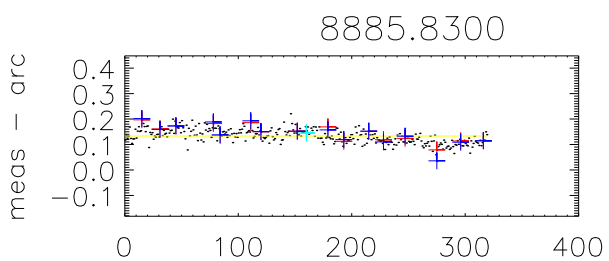

7571.7500
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

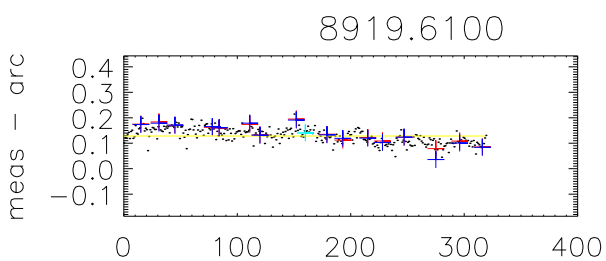

7794.1200
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

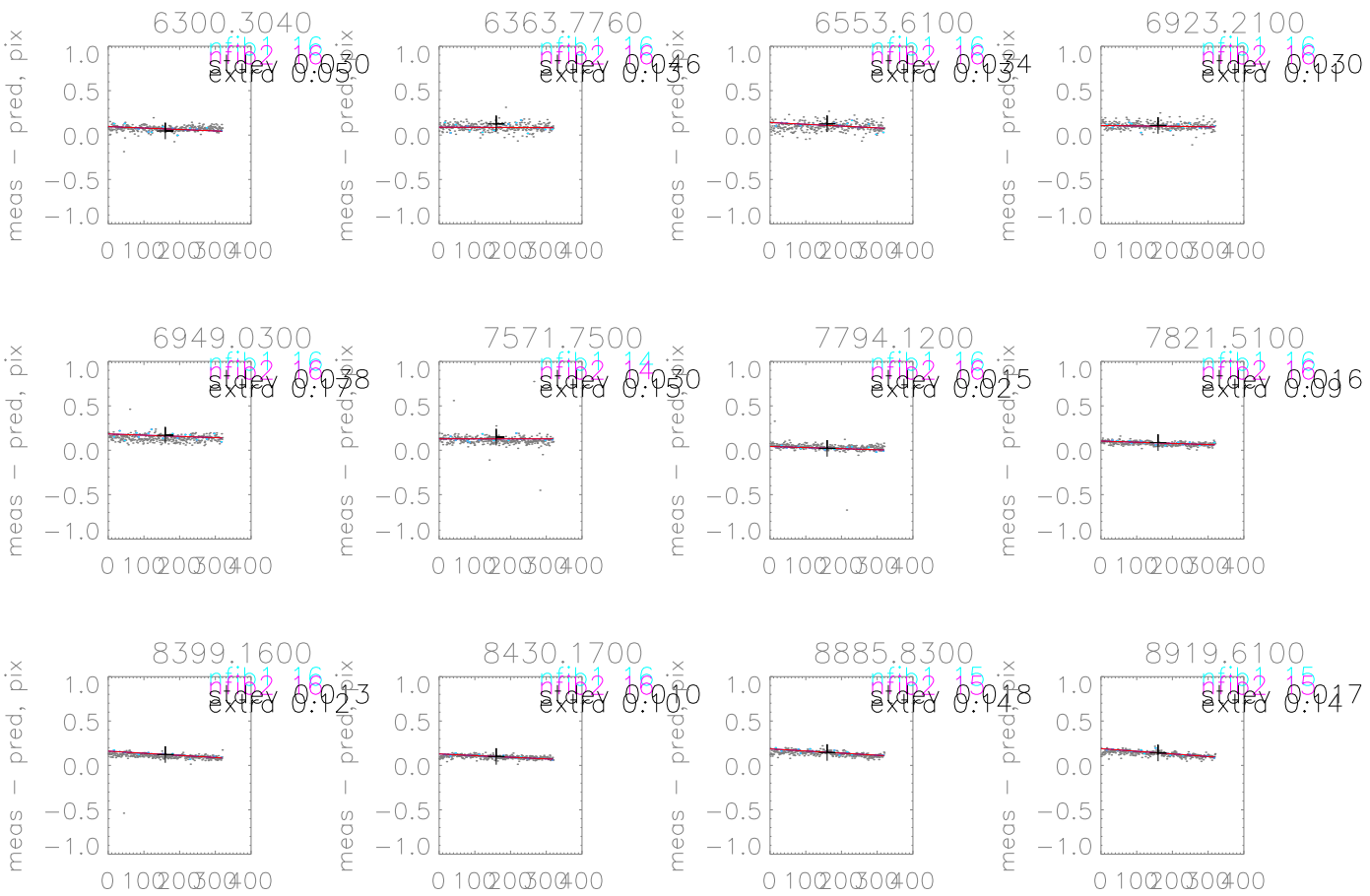

7821.5100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

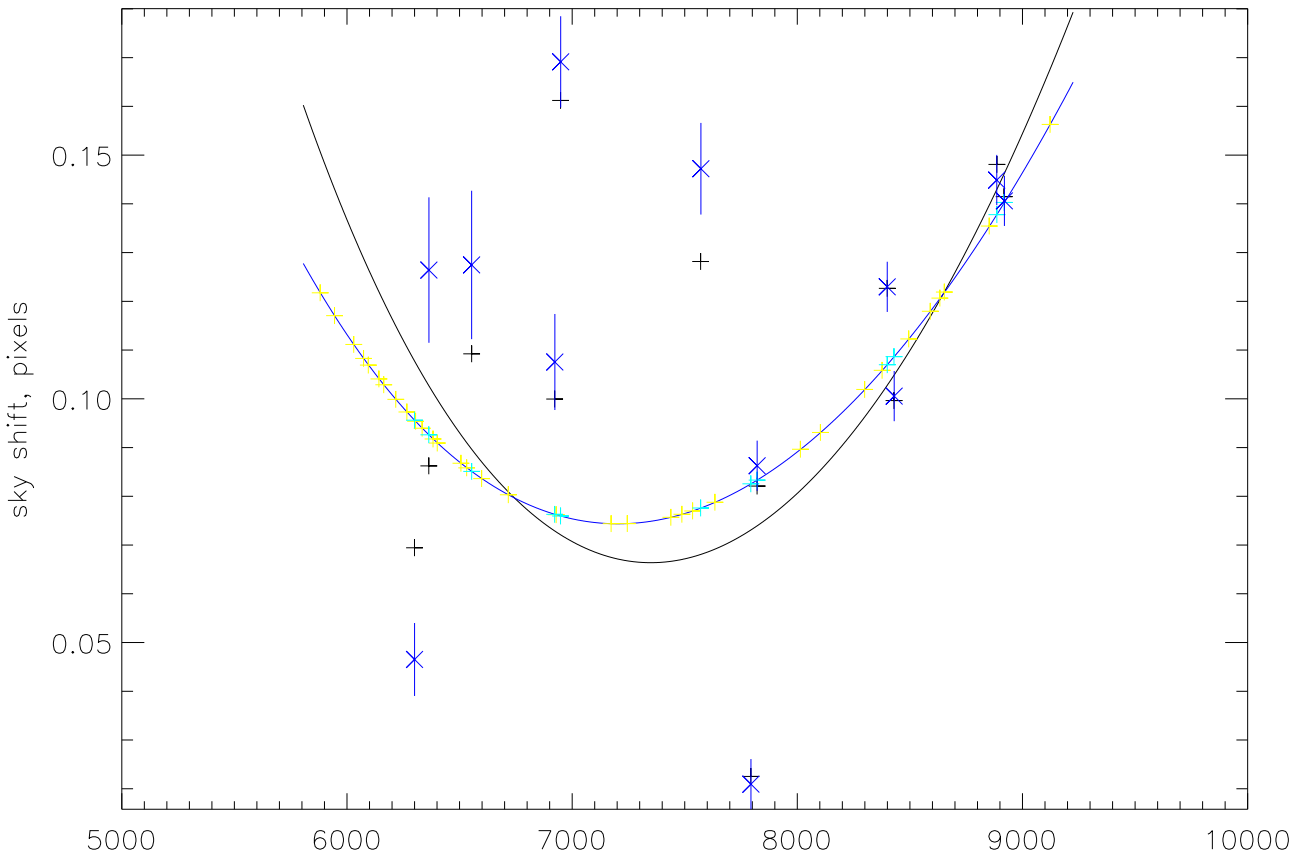

8399.1600
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400


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

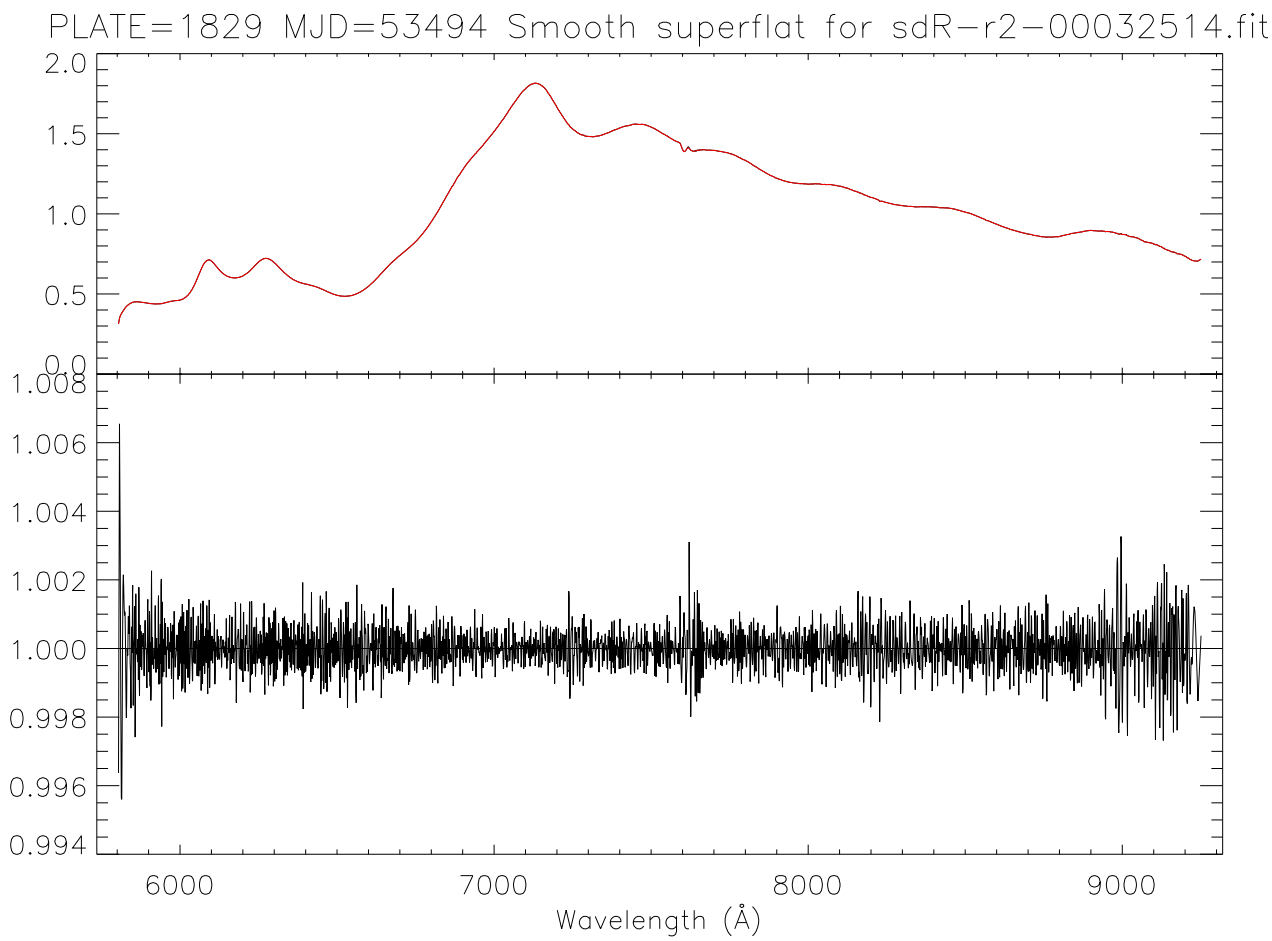

8885.8300
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

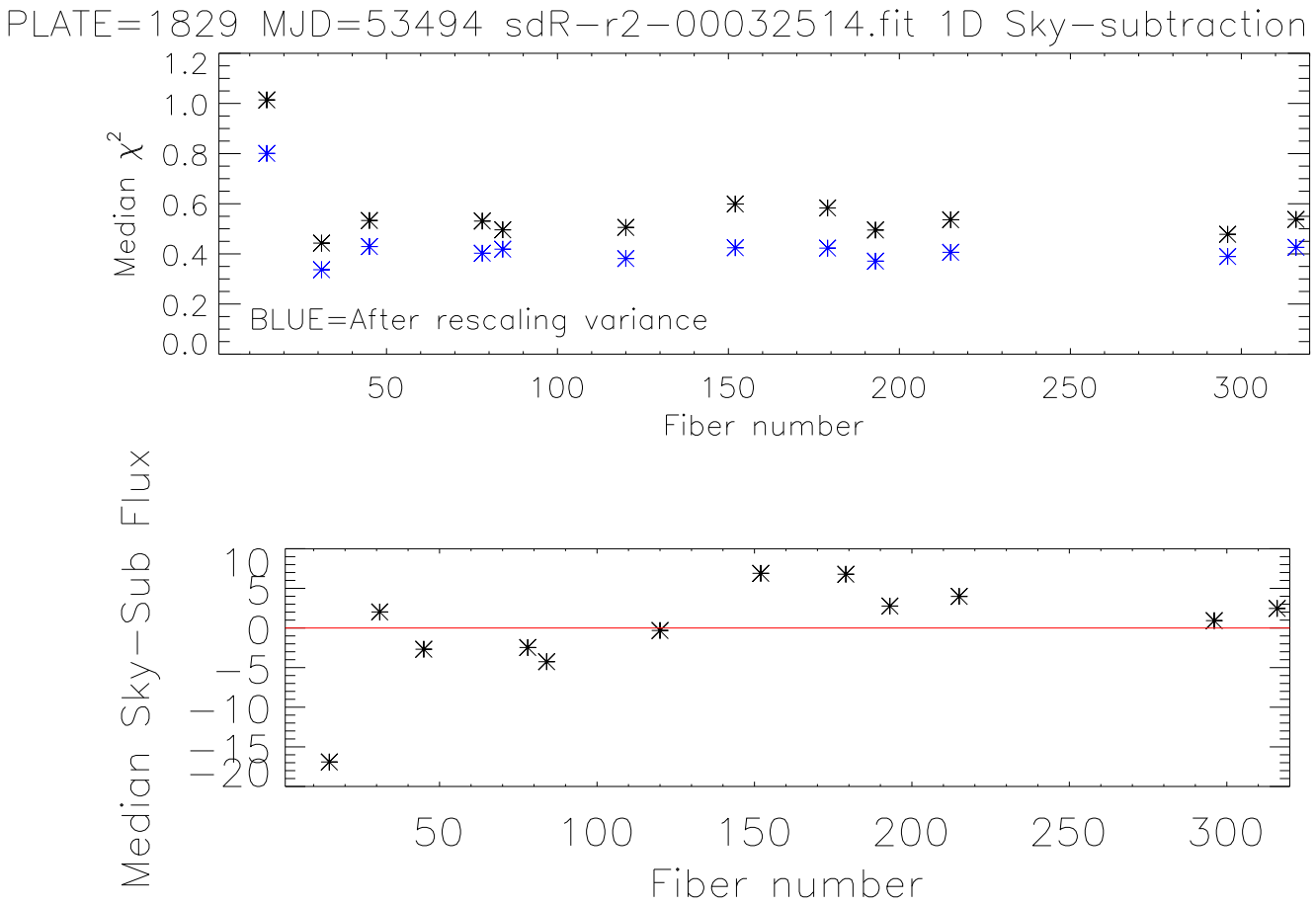

8919.6100
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

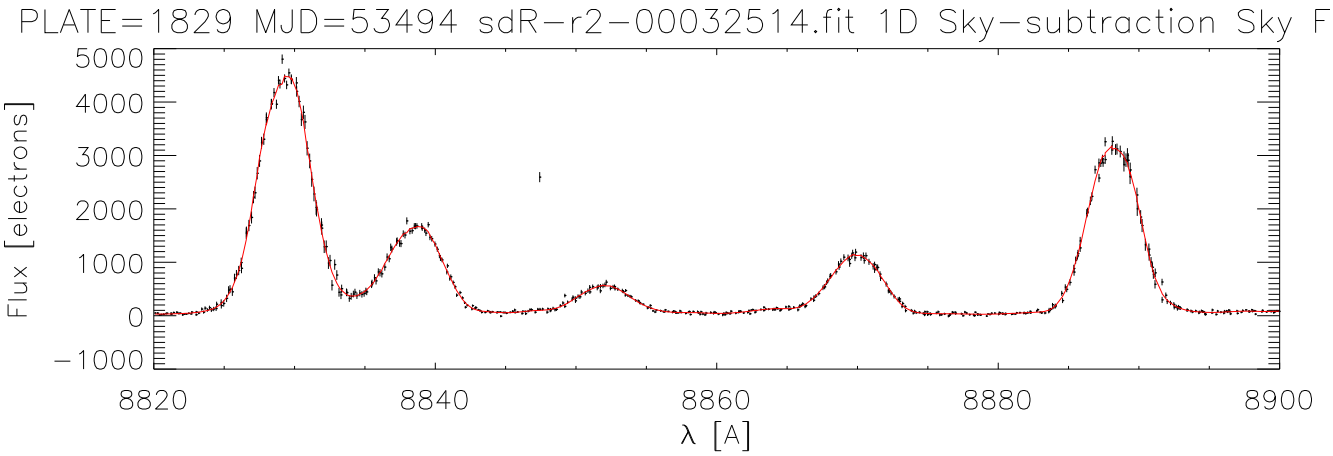

6300.3040
mfib1 16
mfib2 16
stdev 0.030
extra 0.050
6363.7760
mfib1 16
mfib2 16
stdev 0.046
extra 0.136
6553.6100
mfib1 16
mfib2 16
stdev 0.034
extra 0.134
6923.2100
mfib1 16
mfib2 16
stdev 0.030
extra 0.11
6949.0300
mfib1 16
mfib2 16
stdev 0.038
extra 0.178
7571.7500
mfib1 14
mfib2 16
stdev 0.030
extra 0.15
7794.1200
mfib1 16
mfib2 16
stdev 0.025
extra 0.02
7821.5100
mfib1 16
mfib2 16
stdev 0.016
extra 0.09
8399.1600
mfib1 16
mfib2 16
stdev 0.013
extra 0.12
8430.1700
mfib1 16
mfib2 16
stdev 0.010
extra 0.10
8885.8300
mfib1 15
mfib2 16
stdev 0.018
extra 0.14
8919.6100
mfib1 15
mfib2 16
stdev 0.017
extra 0.14
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400

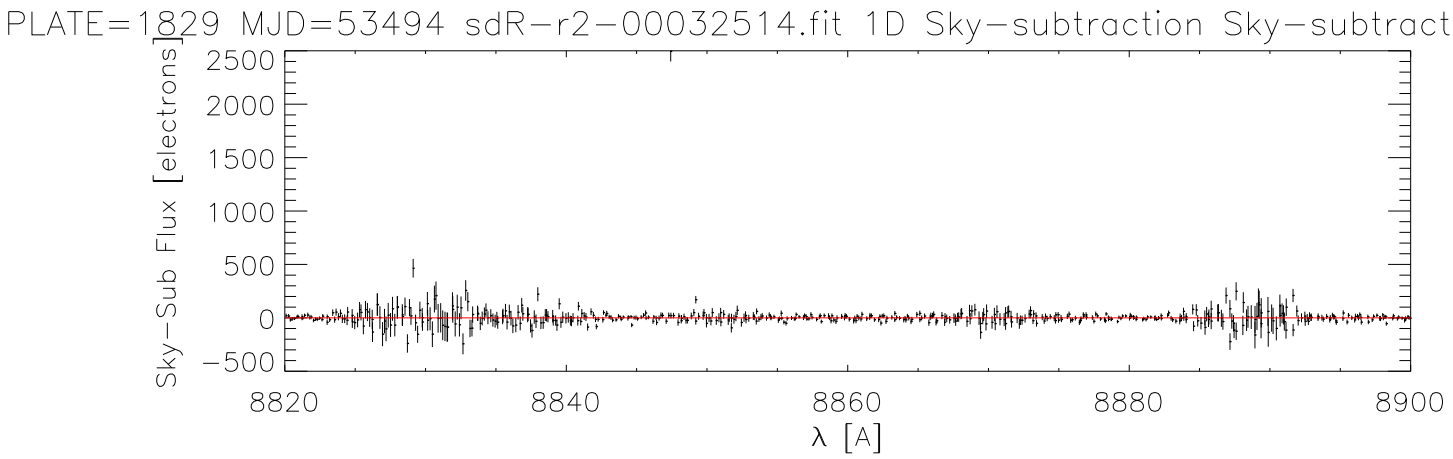

sky shift, pixels
0.15
0.10
0.05
5000
6000
7000
8000
9000
10000

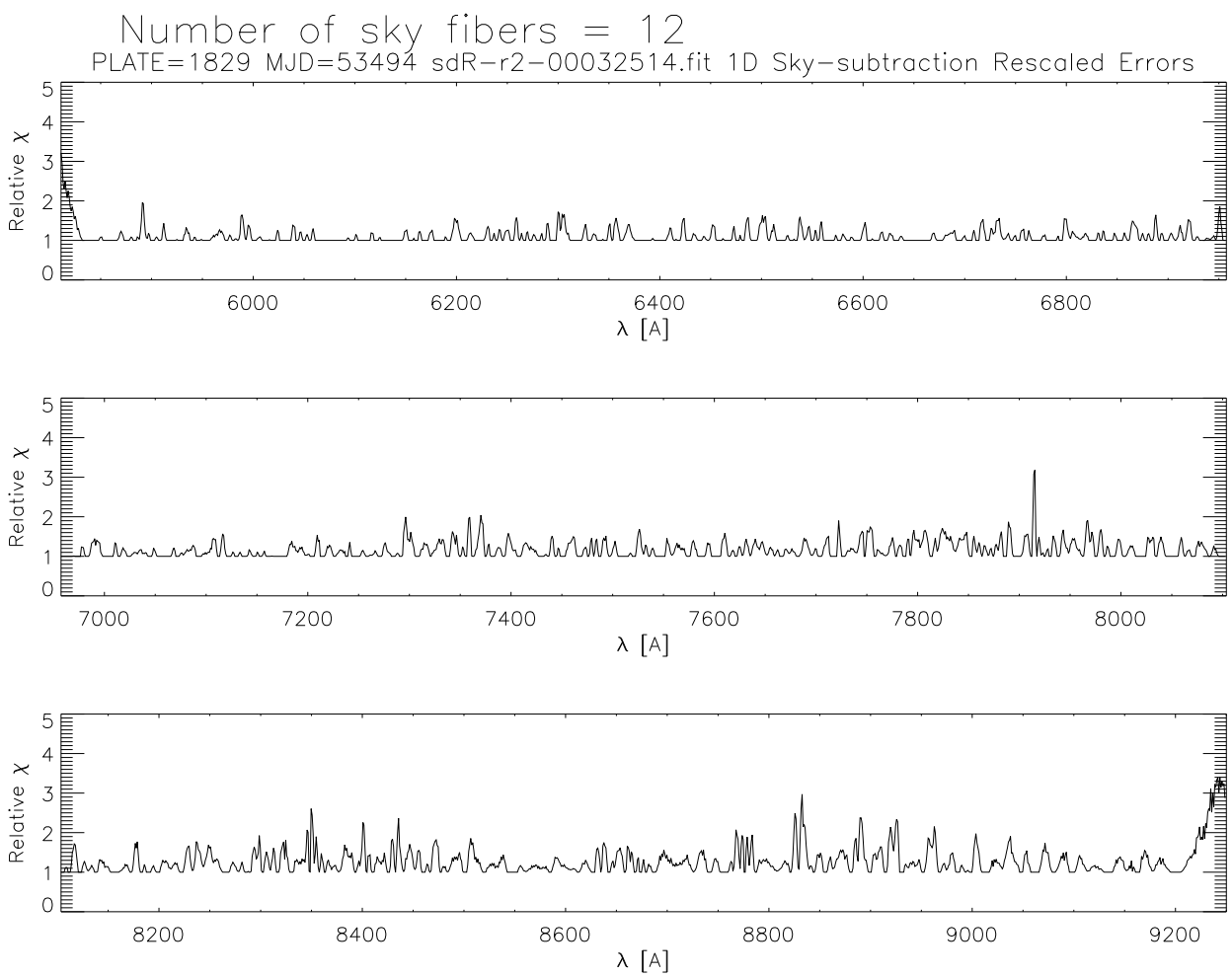
es= −0.0000

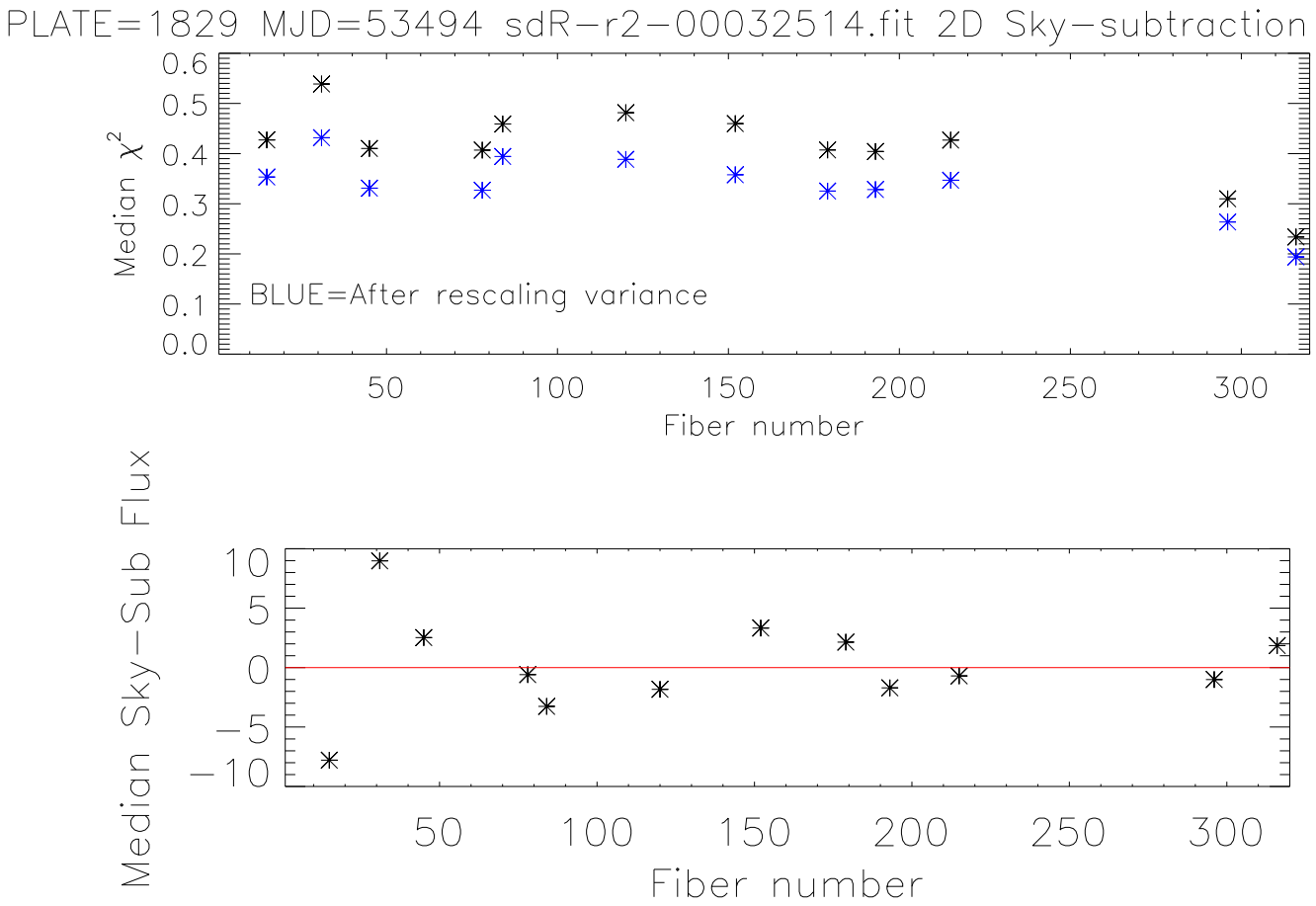

PLATE=1829 MJD=53494 Smooth superflat for sdR−r2−00032514.fit
2.0
1.5
1.0
0.5
0.0
1.008
1.006
1.004
1.002
1.000
0.998
0.996
0.994
6000
7000
8000
9000
Wavelength (Å)

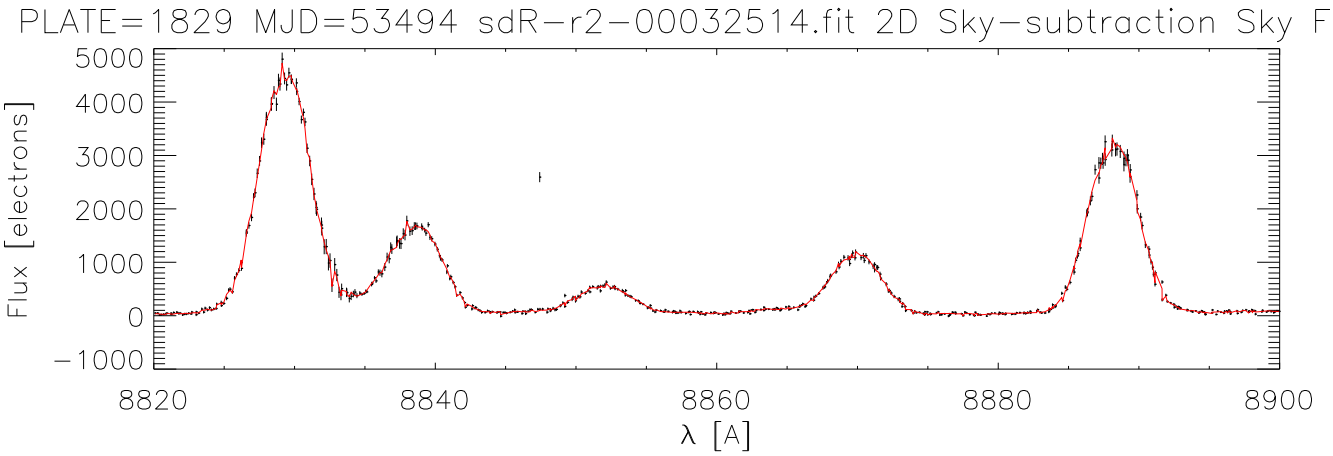

PLATE=1829 MJD=53494 sdR-r2-00032514.fit 1D Sky-subtraction Sky Fibers
Median $\chi^2$
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

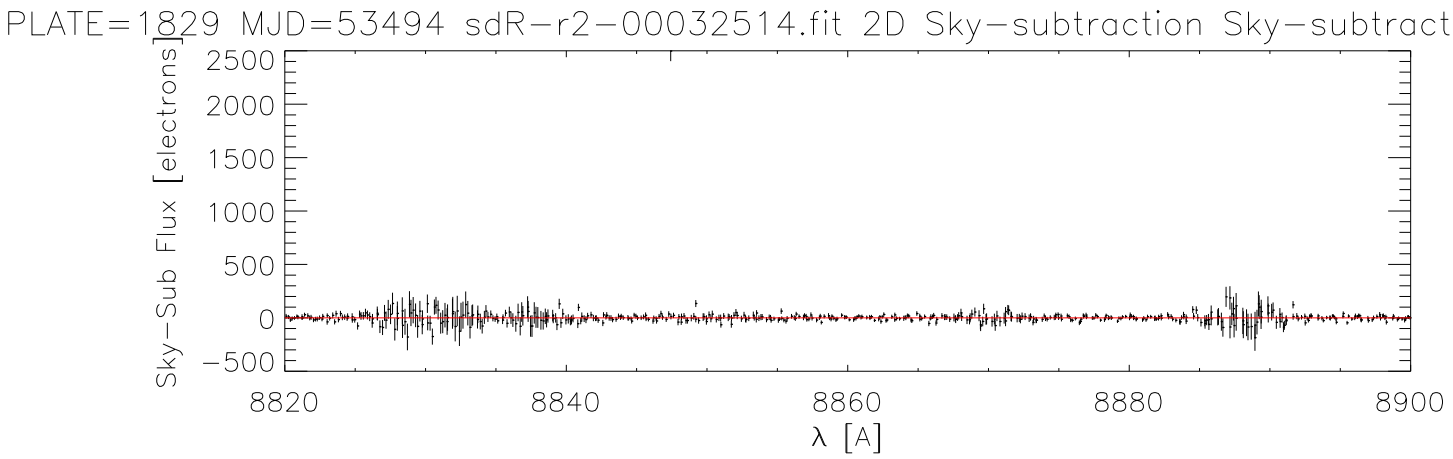

PLATE=1829 MJD=53494 sdR-r2-00032514.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
-1000
8820
8840
8860
8880
8900
λ [A]

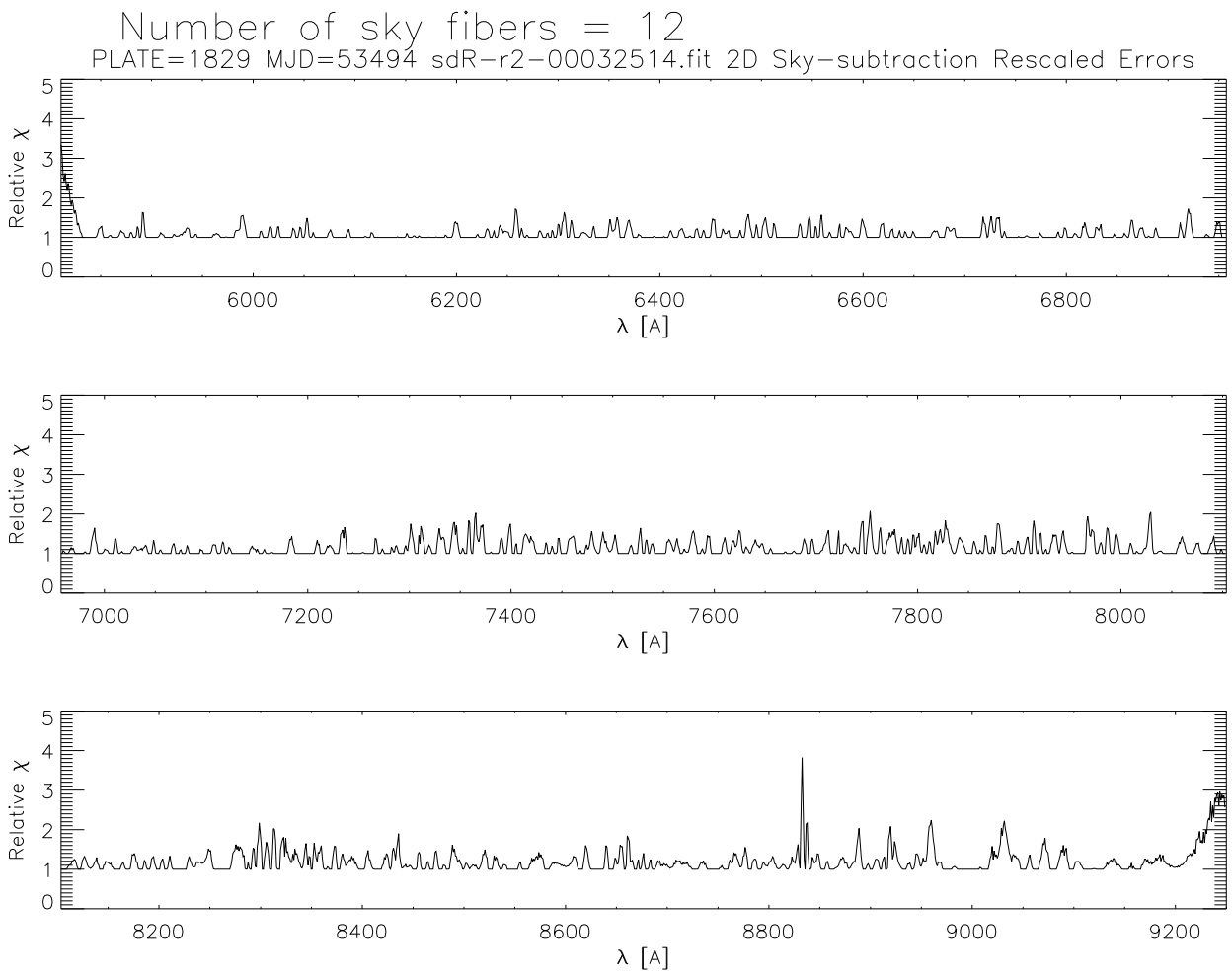

PLATE=1829 MJD=53494 sdR-r2-00032514.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
2500
2000
1500
1000
500
0
-500
8820
8840
8860
8880
8900
λ [A]

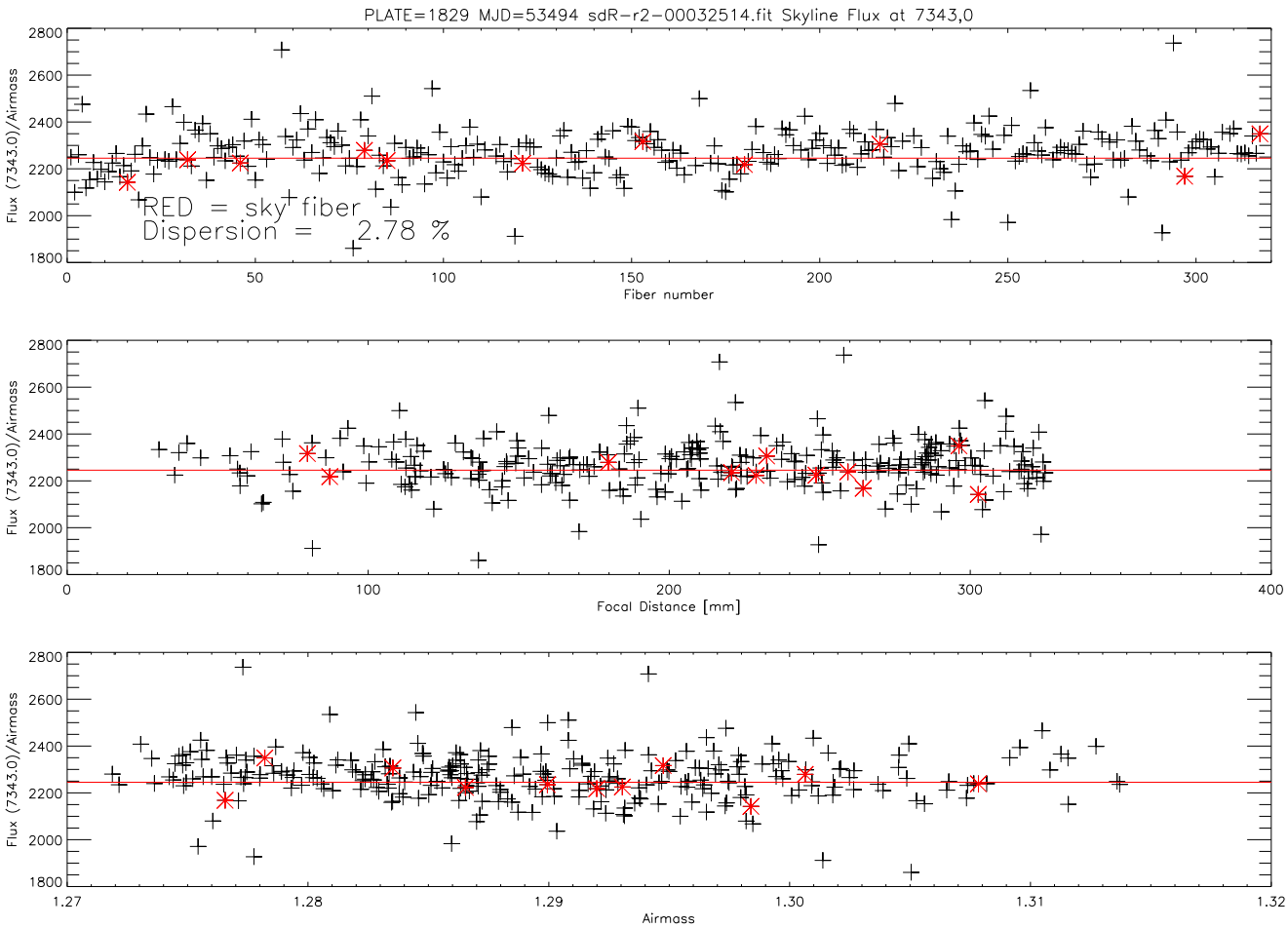

Number of sky fibers = 12
PLATE=1829 MJD=53494 sdR-r2-00032514.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

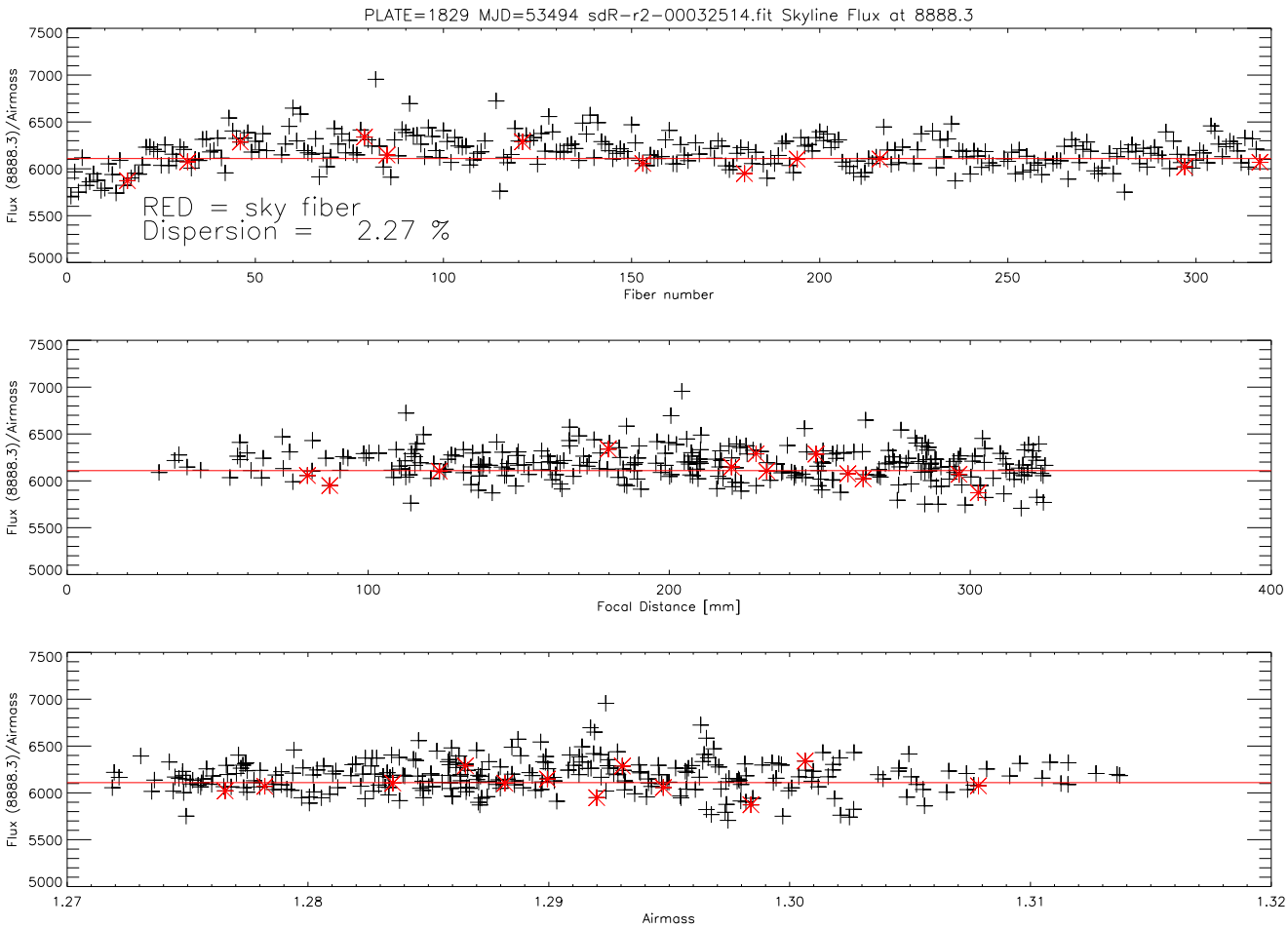

PLATE=1829 MJD=53494 sdR-r2-00032514.fit 2D Sky-subtraction Sky Fibers
Median $\chi^2$
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
−5
−10
50
100
150
200
250
300
Fiber number

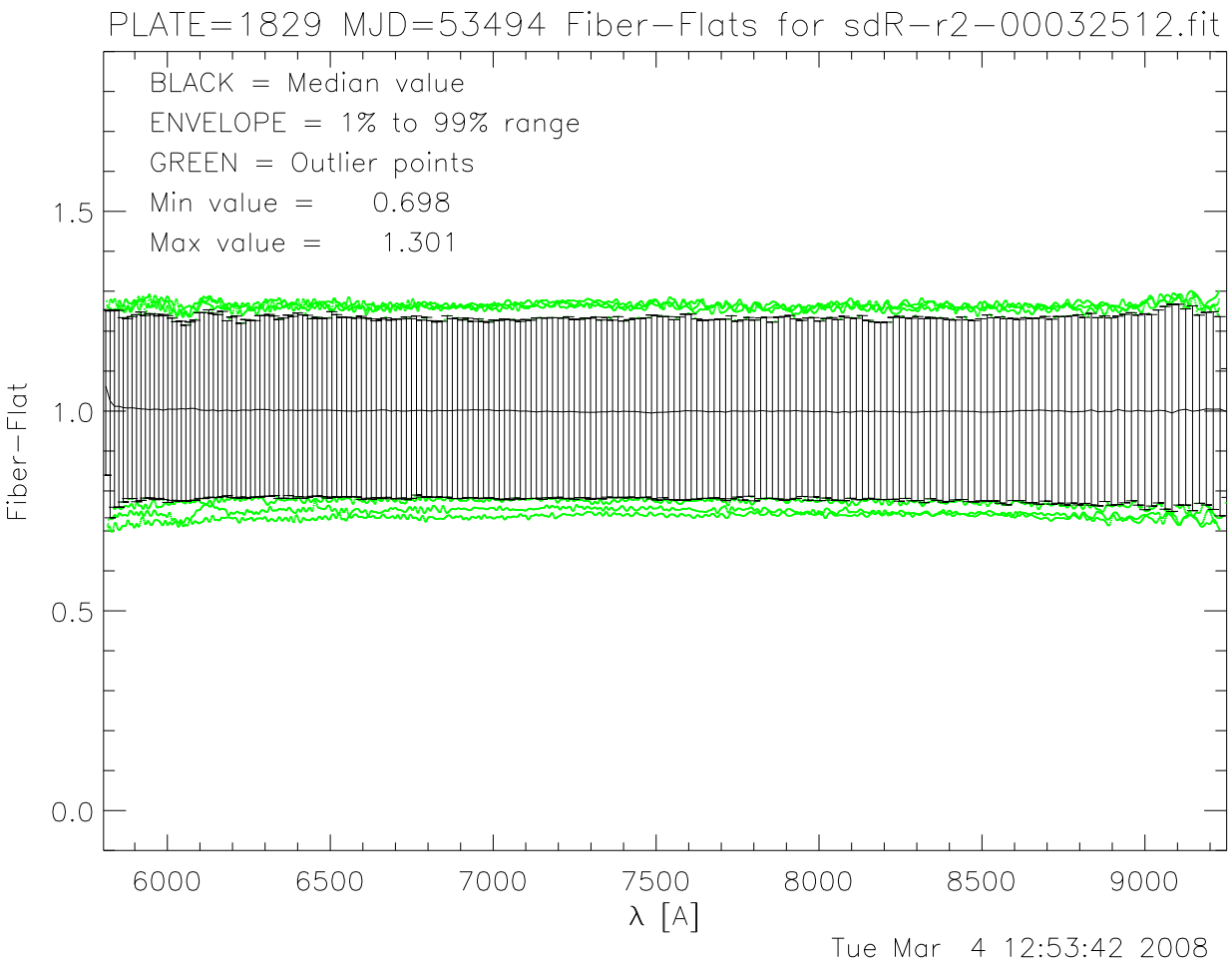

PLATE=1829 MJD=53494 sdR-r2-00032514.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
-1000
8820
8840
8860
8880
8900
λ [A]

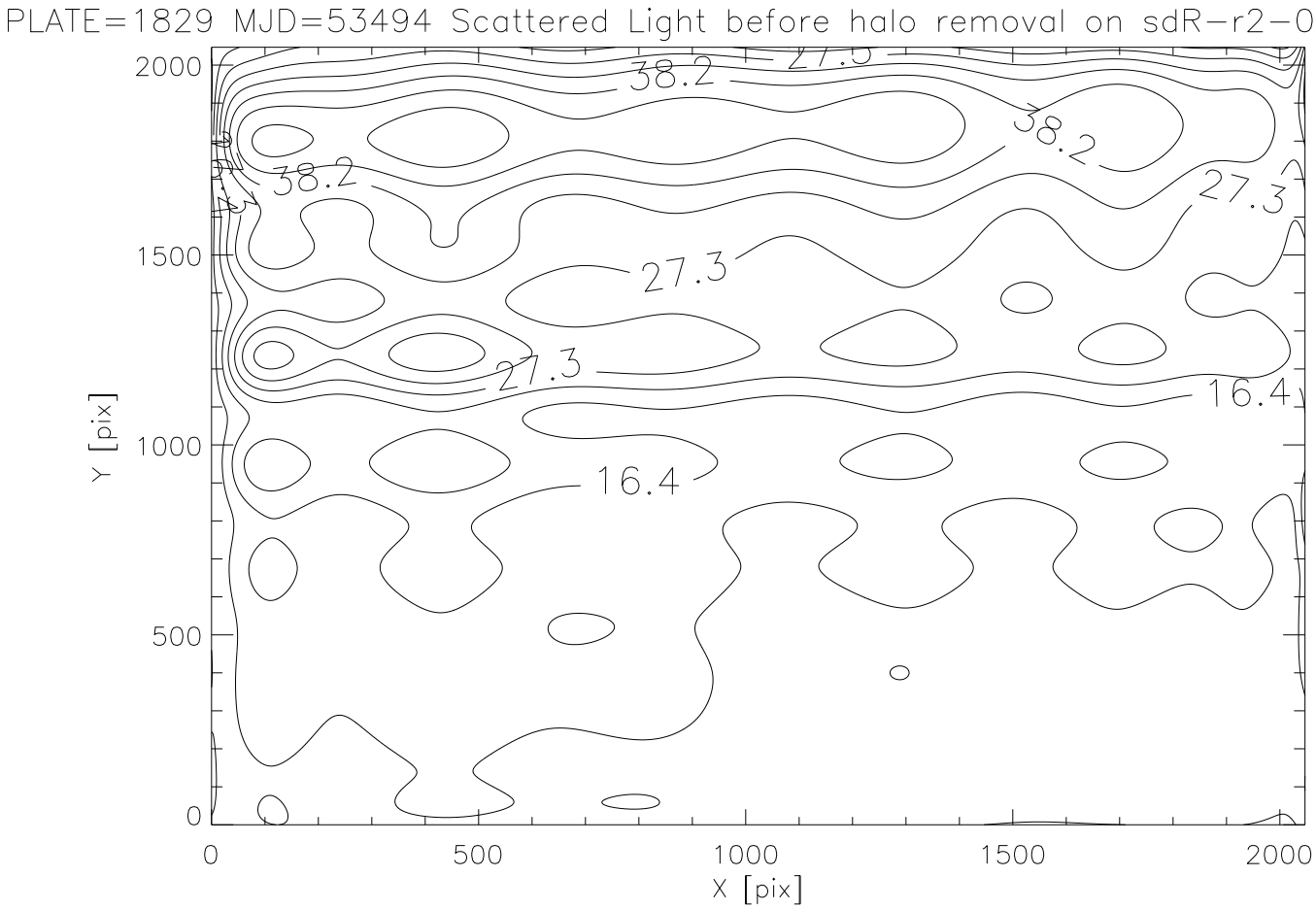

PLATE=1829 MJD=53494 sdR-r2-00032514.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
2500
2000
1500
1000
500
0
-500
8820
8840
8860
8880
8900
λ [A]

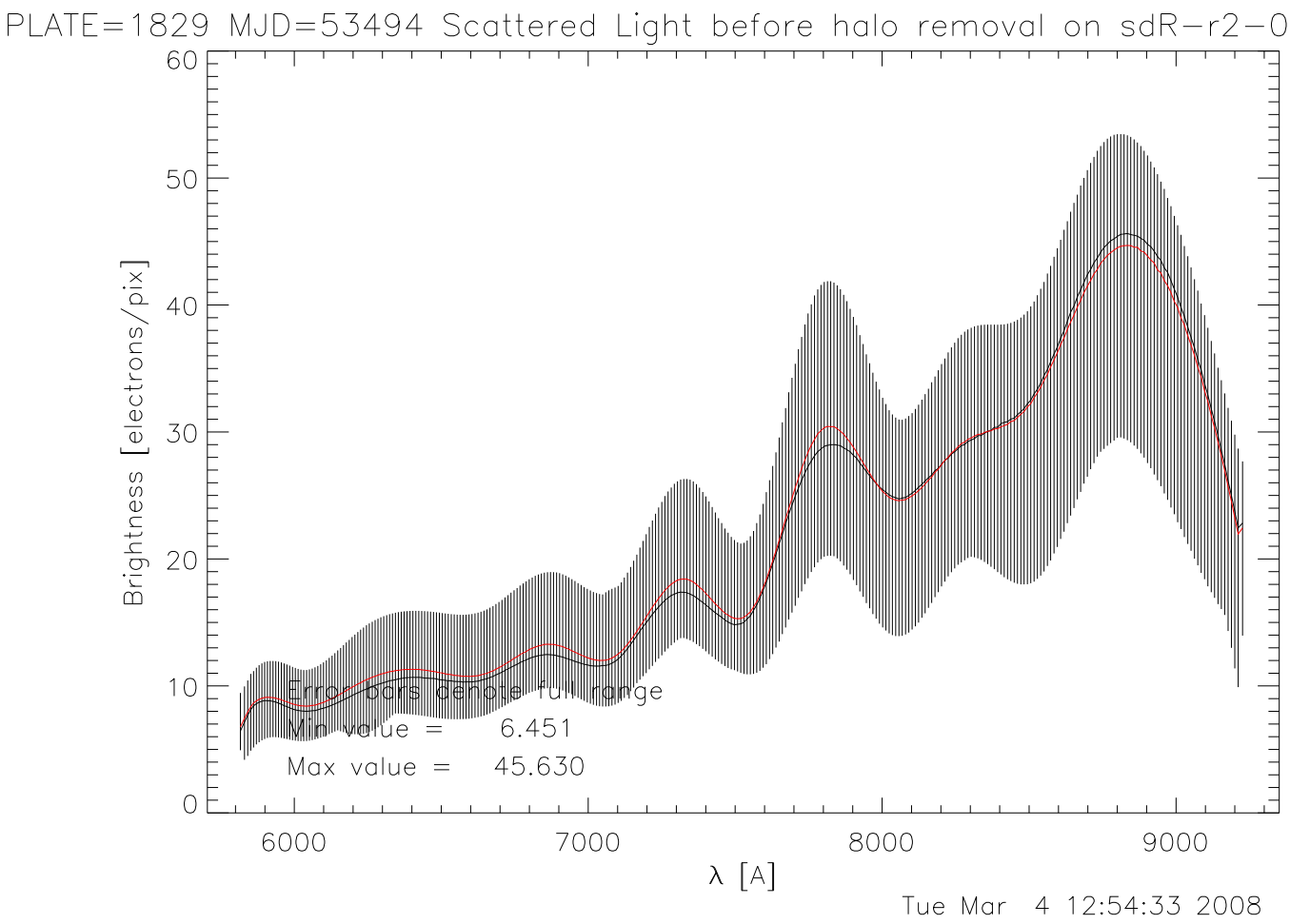

Number of sky fibers = 12
PLATE=1829 MJD=53494 sdR-r2-00032514.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

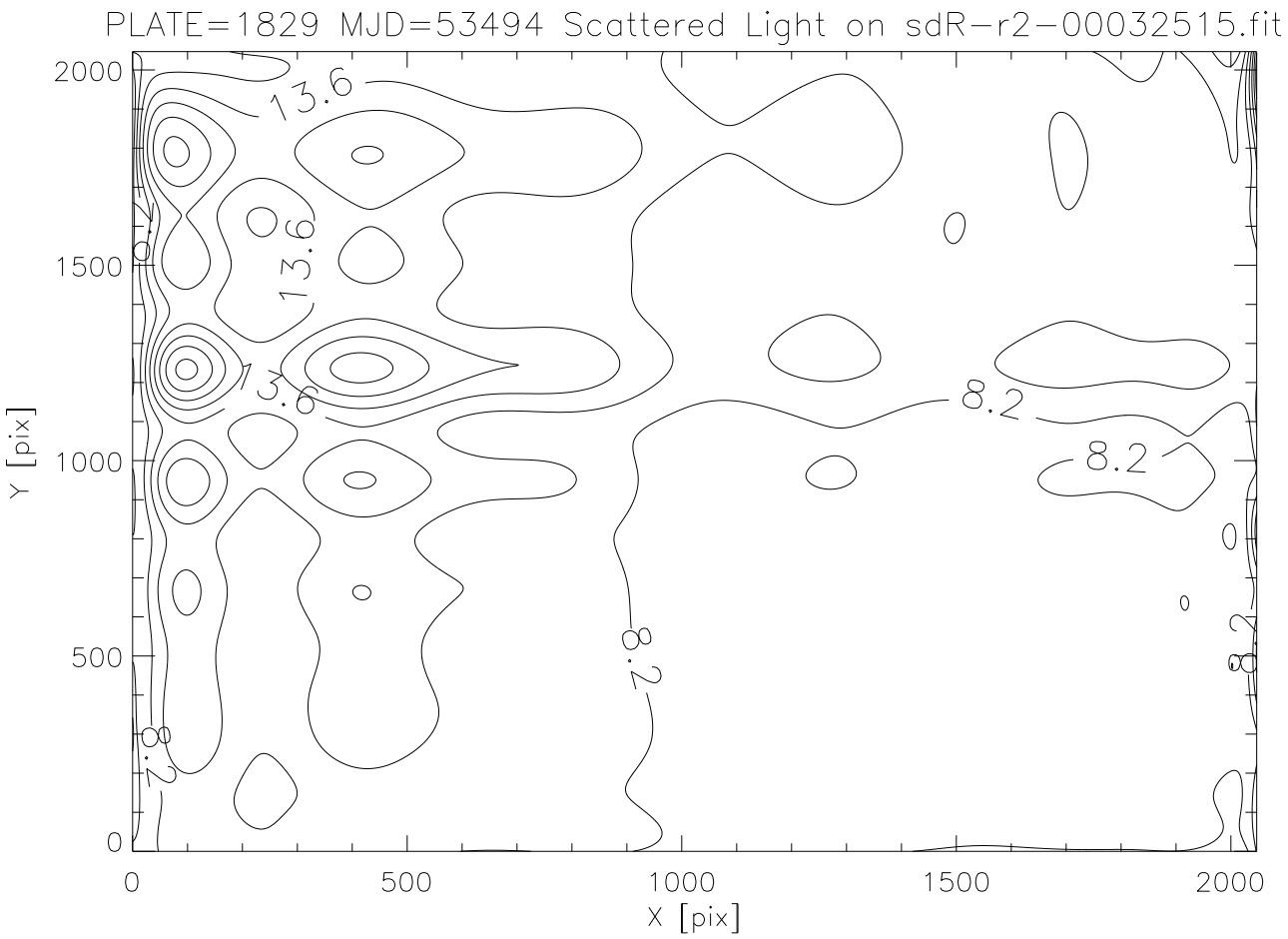

PLATE=1829 MJD=53494 sdR-r2-00032514.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 2.78 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

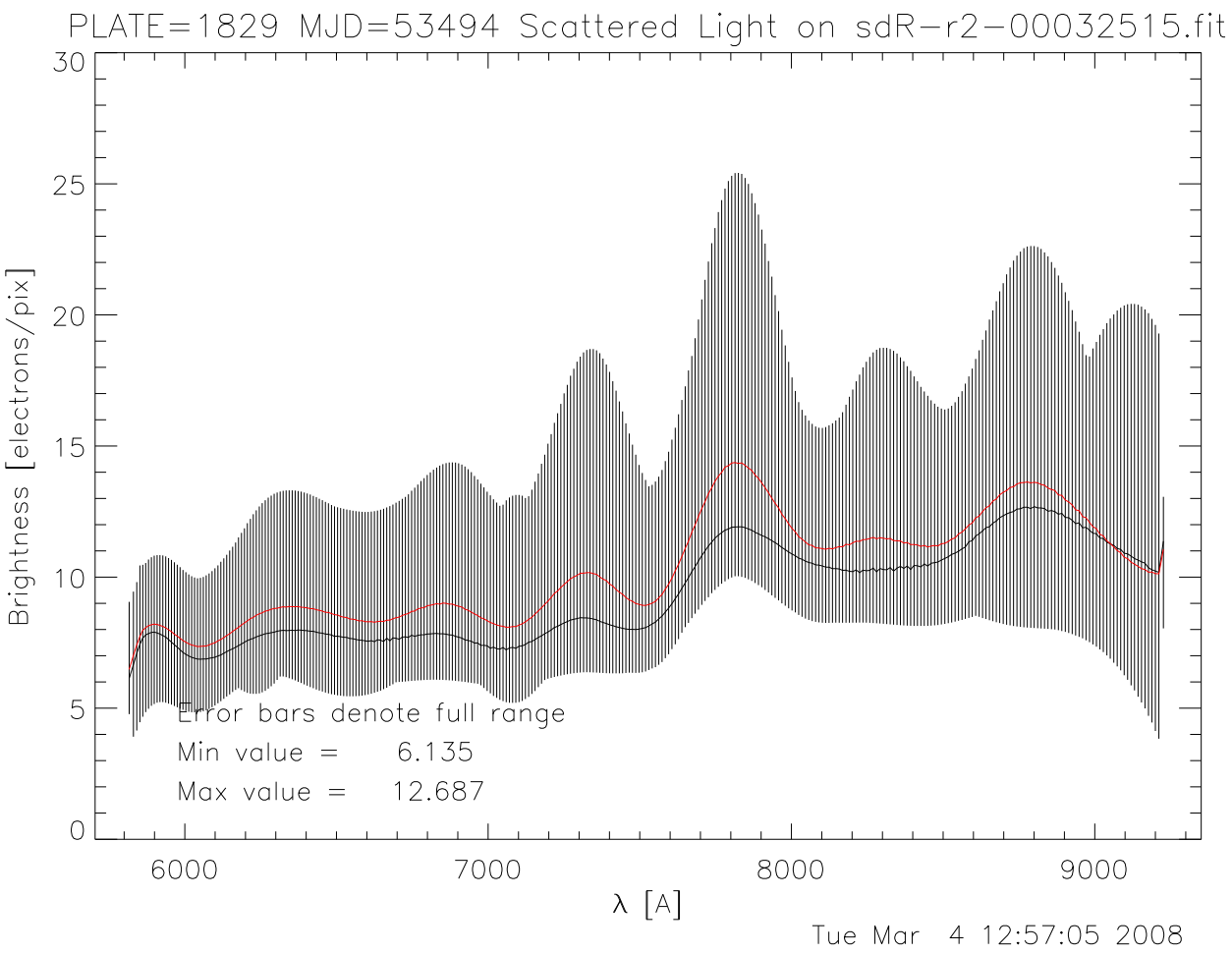

PLATE=1829 MJD=53494 sdR-r2-00032514.fit Skyline Flux at 8888.3
RED = sky fiber
Dispersion = 2.27 %
Flux (8888.3)/Airmass
Fiber number
Focal Distance [mm]
Airmass

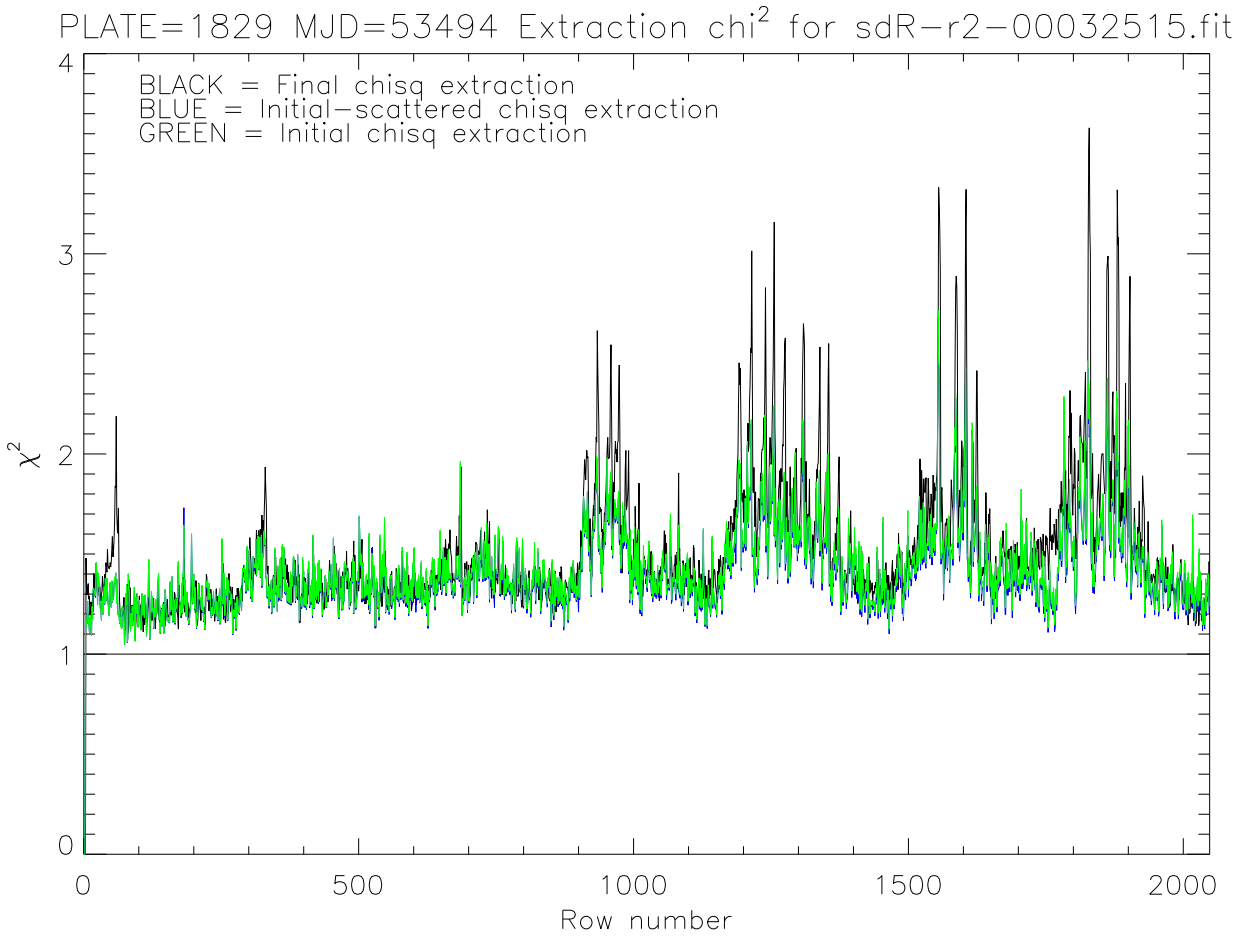

PLATE=1829 MJD=53494 Fiber−Flats for sdR−r2−00032512.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.698
Max value = 1.301
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Tue Mar 4 12:53:42 2008

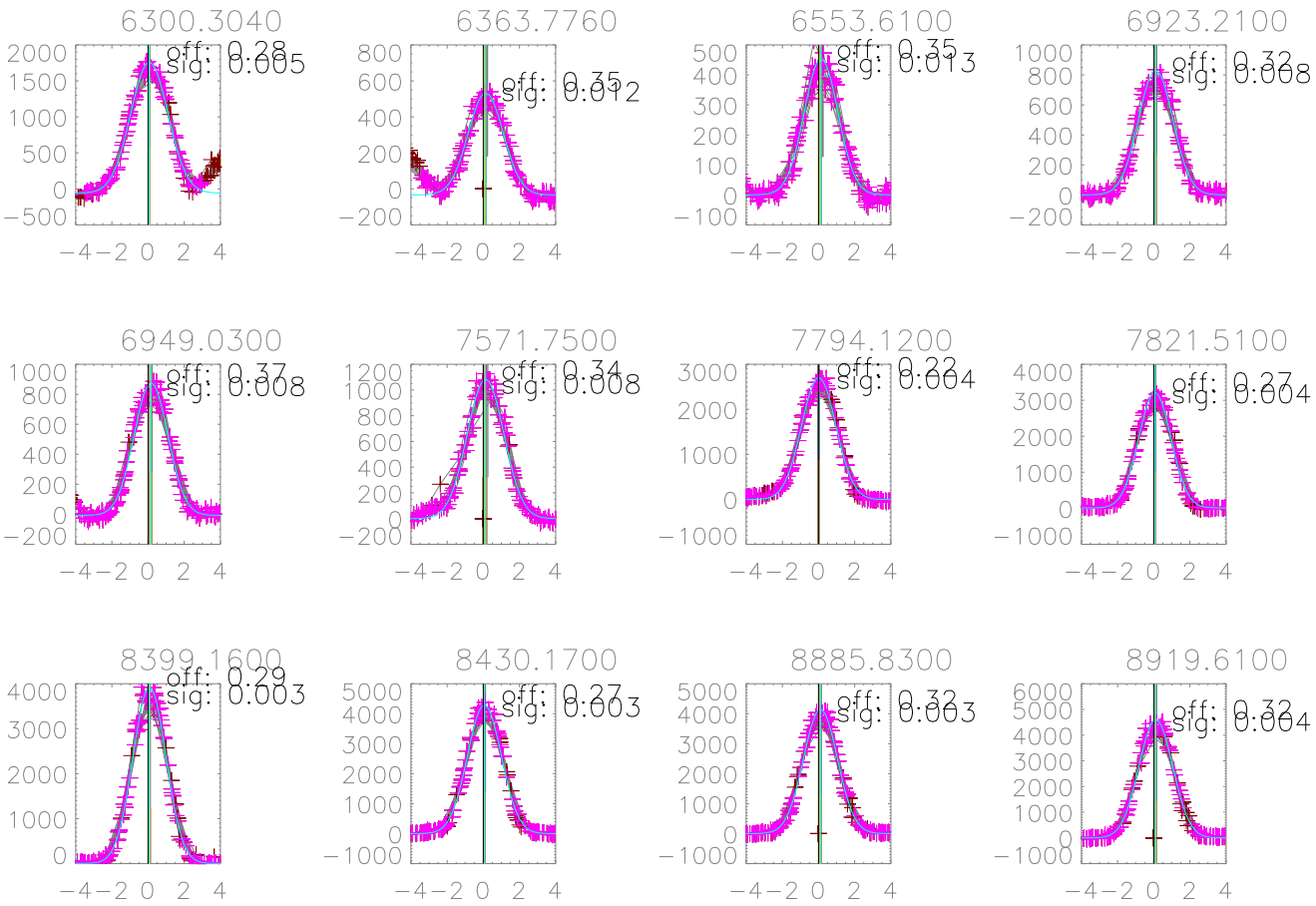

PLATE=1829 MJD=53494 Scattered Light before halo removal on sdR-r2-00032515.fi
38.2
27.3
16.4
Y [pix]
X [pix]
0
500
1000
1500
2000

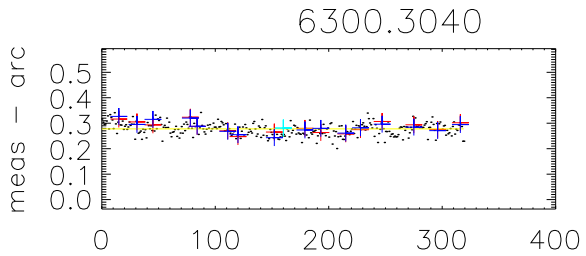

PLATE=1829 MJD=53494 Scattered Light before halo removal on sdR-r2-00032515.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 6.451
Max value = 45.630
Tue Mar 4 12:54:33 2008

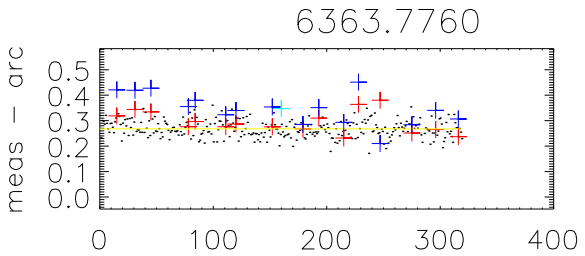

PLATE=1829 MJD=53494 Scattered Light on sdR-r2-00032515.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
13.6
8.2
0

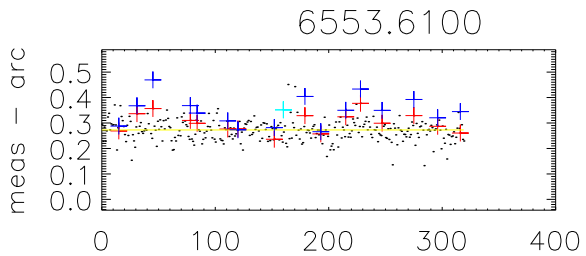

PLATE=1829 MJD=53494 Scattered Light on sdR-r2-00032515.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 6.135
Max value = 12.687
Tue Mar 4 12:57:05 2008

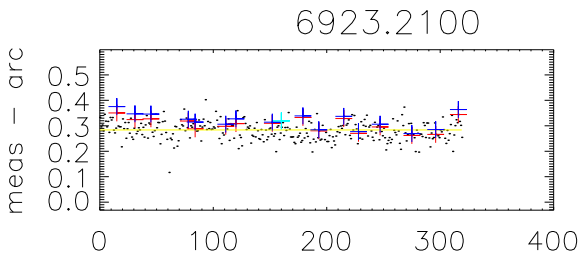

PLATE=1829 MJD=53494 Extraction chi$^2$ for sdR−r2−00032515.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
$\chi^2$
0
1
2
3
4
0
500
1000
1500
2000
Row number

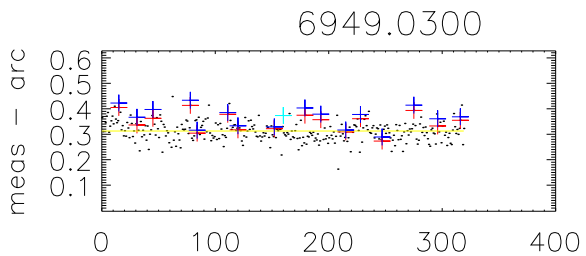

6300.3040
off: 0.28
sig: 0.005
6363.7760
off: 0.35
sig: 0.012
6553.6100
off: 0.35
sig: 0.013
6923.2100
off: 0.32
sig: 0.008
6949.0300
off: 0.37
sig: 0.008
7571.7500
off: 0.34
sig: 0.008
7794.1200
off: 0.22
sig: 0.004
7821.5100
off: 0.27
sig: 0.004
8399.1600
off: 0.29
sig: 0.003
8430.1700
off: 0.27
sig: 0.003
8885.8300
off: 0.32
sig: 0.003
8919.6100
off: 0.32
sig: 0.004

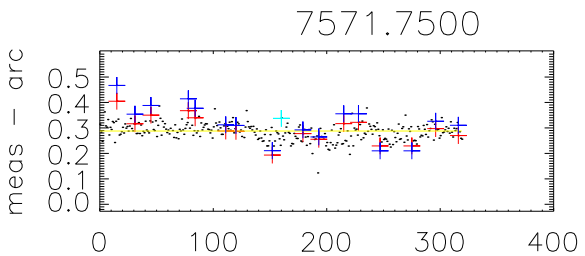

6300.3040
meas − arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400

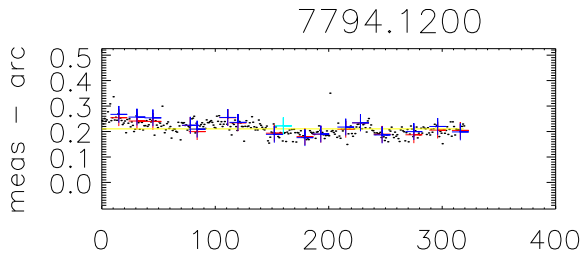

6363.7760
meas − arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400

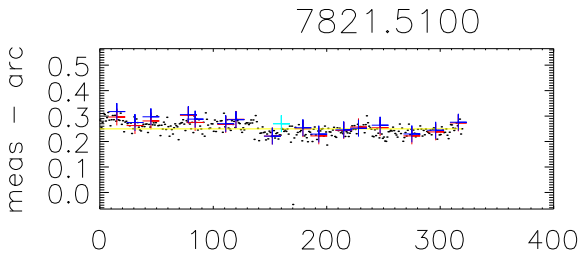

6553.6100
meas − arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400

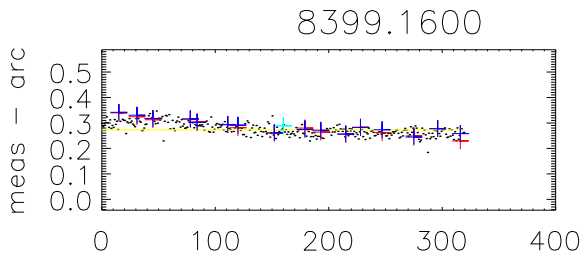

6923.2100
meas − arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400

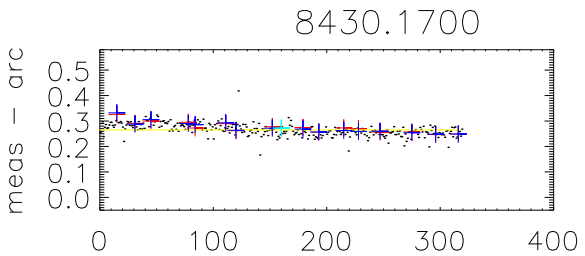

6949.0300
meas − arc
0.1
0.2
0.3
0.4
0.5
0.6
0
100
200
300
400

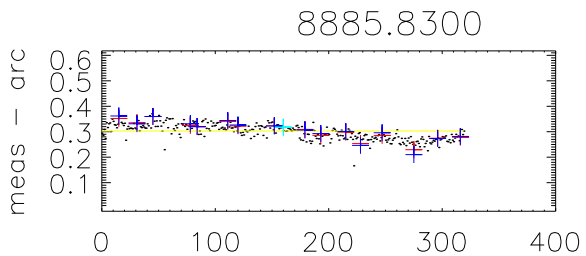

7571.7500
meas − arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400

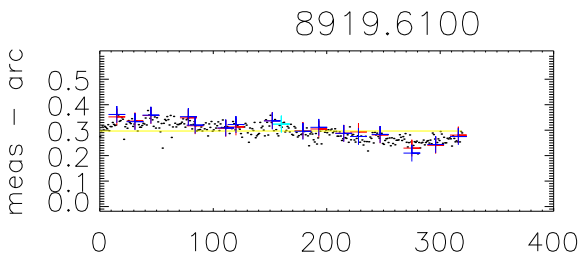

7794.1200
meas − arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400

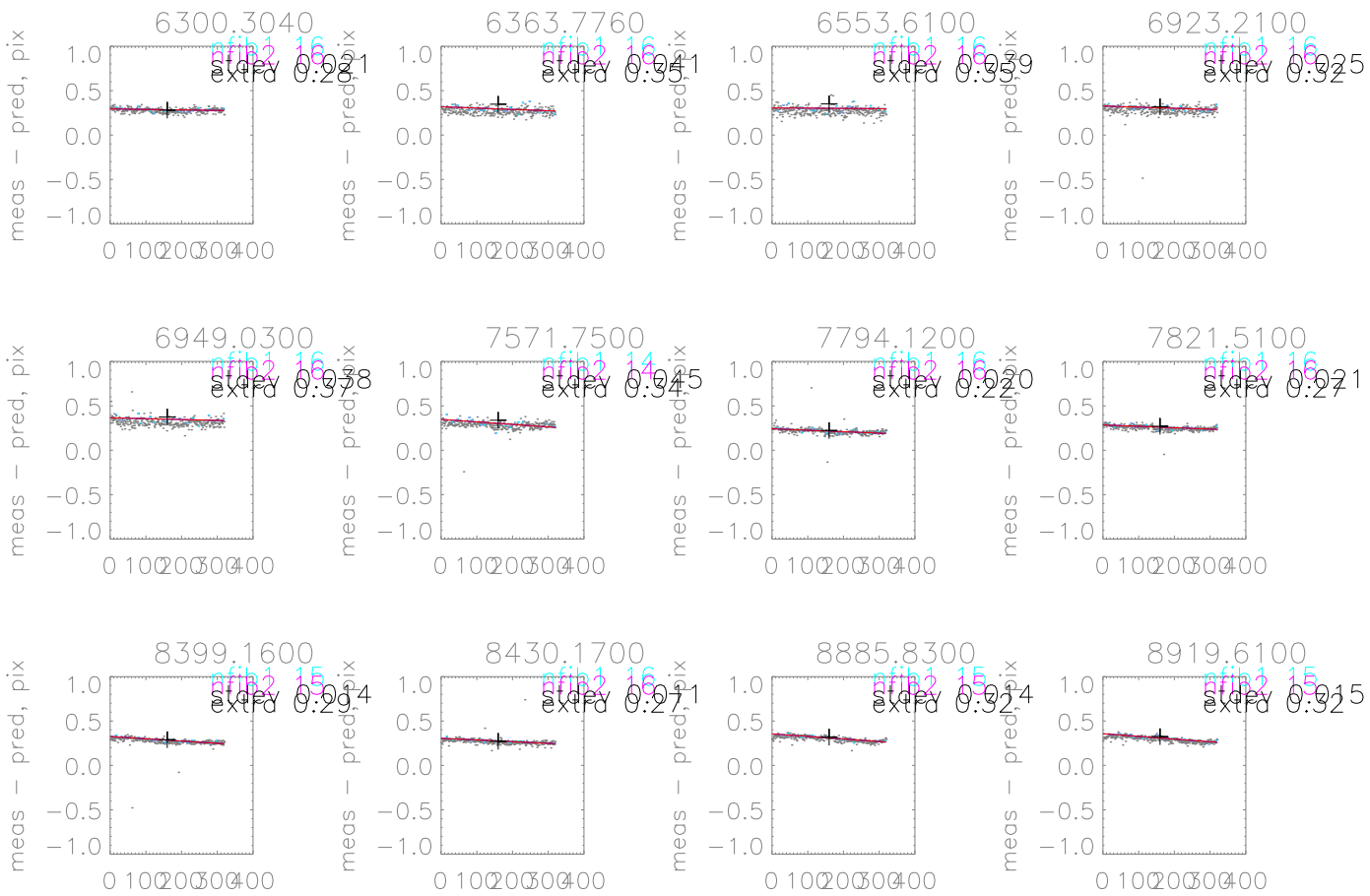

7821.5100
meas − arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400

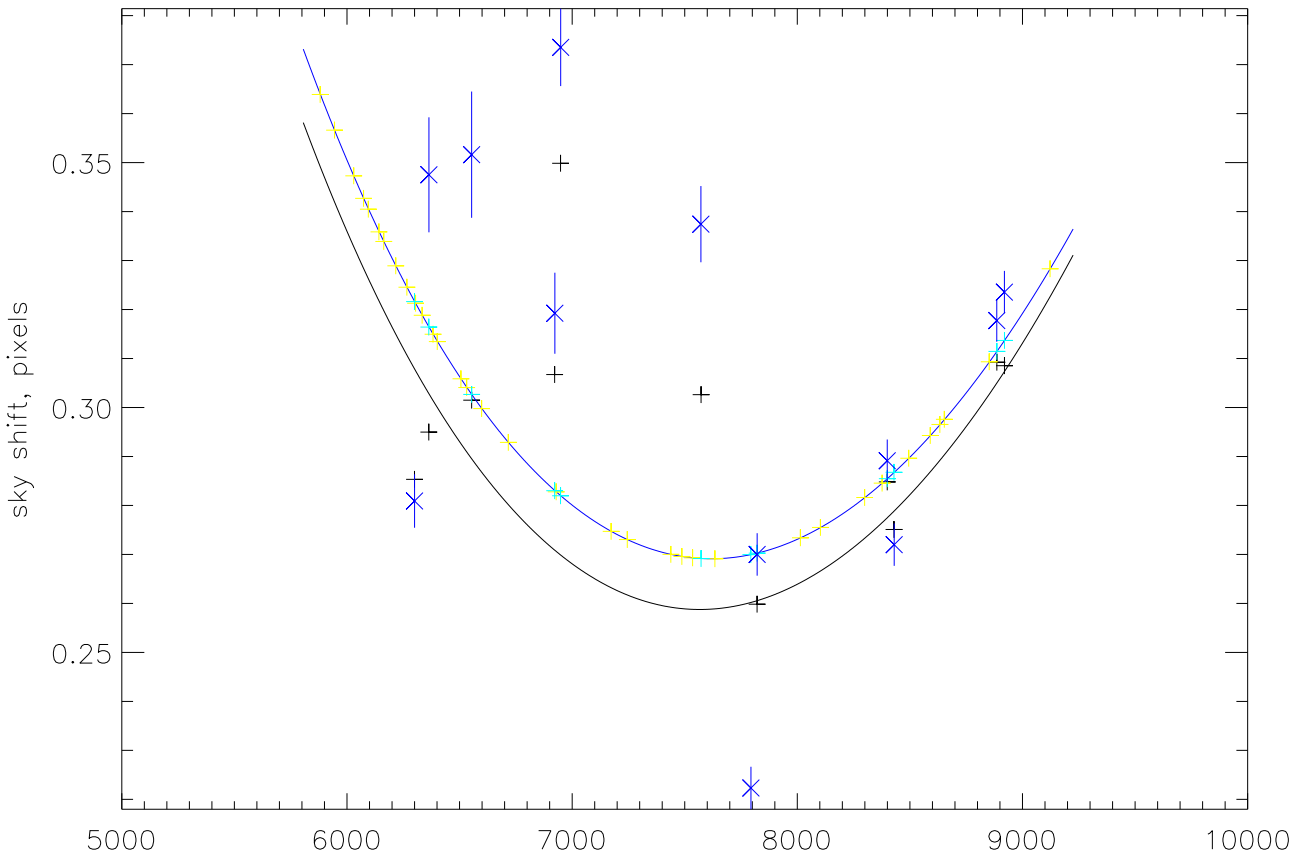

8399.1600
meas − arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400


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

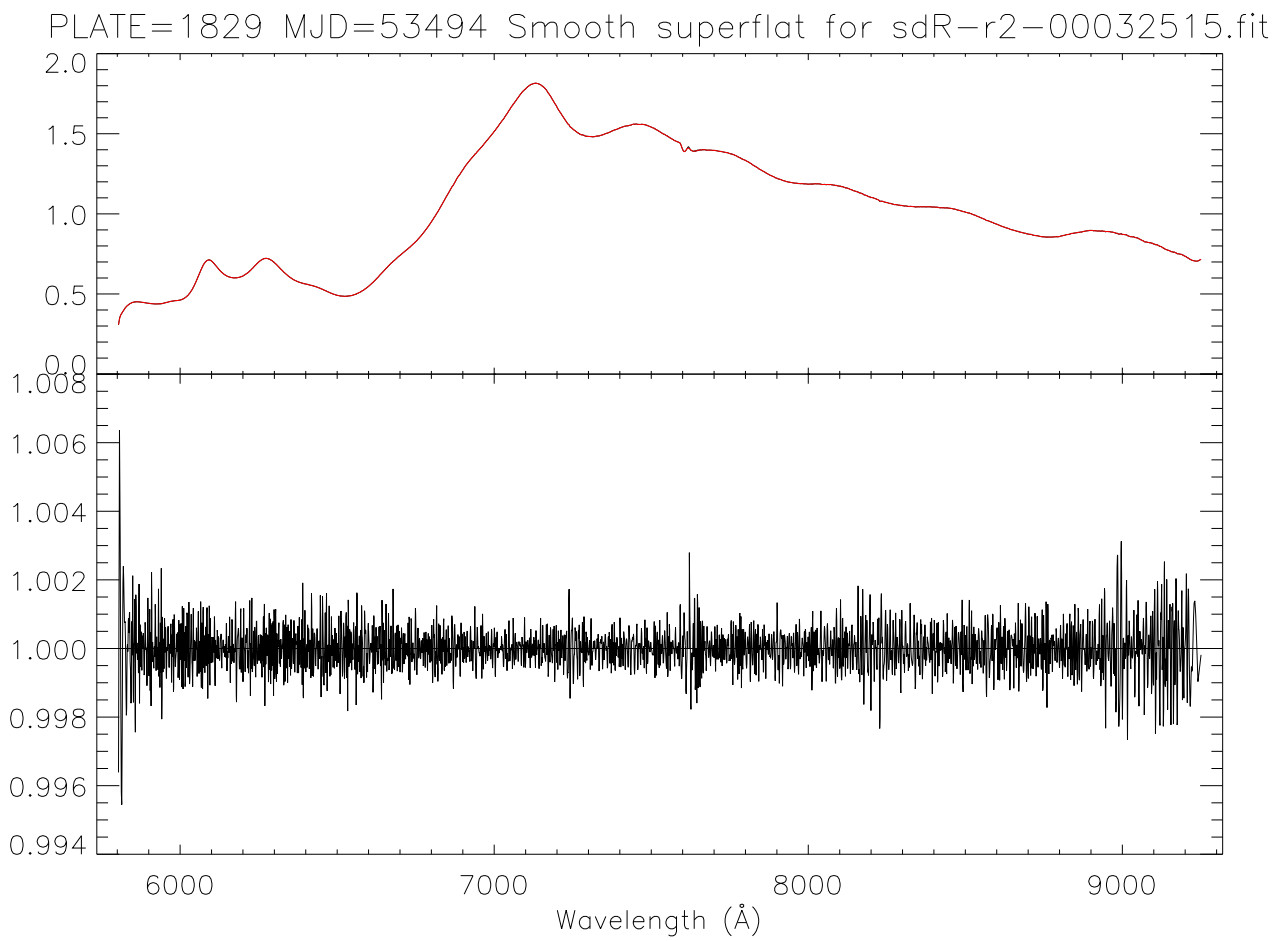

8885.8300
meas − arc
0.1
0.2
0.3
0.4
0.5
0.6
0
100
200
300
400

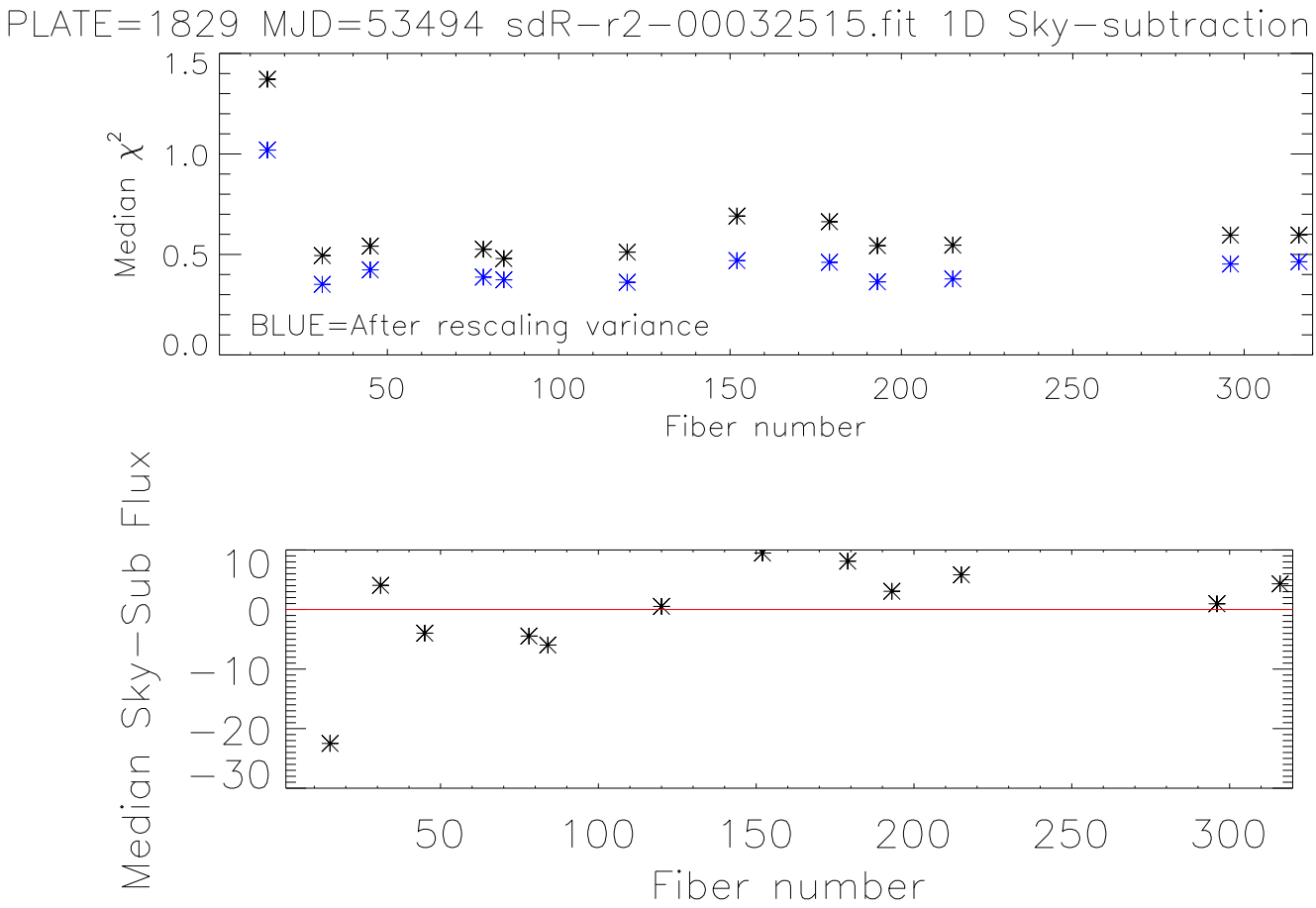

8919.6100
meas − arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400

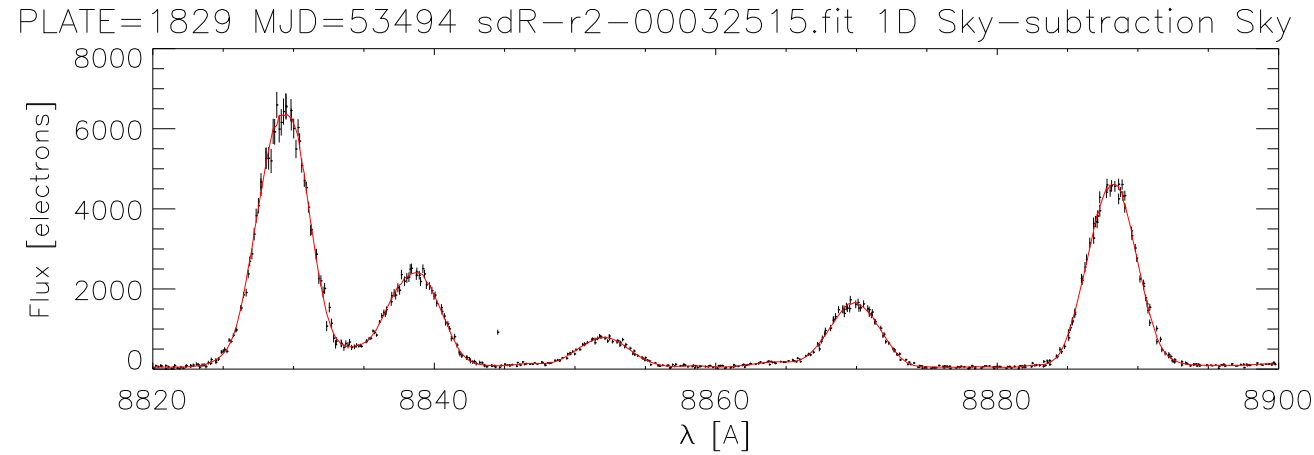

6300.3040
mfhd1 16
mfhd2 16
stdev 0.021
extra 0.28
6363.7760
mfhd1 16
mfhd2 16
stdev 0.041
extra 0.35
6553.6100
mfhd1 16
mfhd2 16
stdev 0.039
extra 0.359
6923.2100
mfhd1 16
mfhd2 16
stdev 0.025
extra 0.32
6949.0300
mfhd1 16
mfhd2 16
stdev 0.038
extra 0.378
7571.7500
mfhd1 14
mfhd2 16
stdev 0.045
extra 0.34
7794.1200
mfhd1 16
mfhd2 16
stdev 0.020
extra 0.22
7821.5100
mfhd1 16
mfhd2 16
stdev 0.021
extra 0.27
8399.1600
mfhd1 15
mfhd2 16
stdev 0.014
extra 0.29
8430.1700
mfhd1 16
mfhd2 16
stdev 0.011
extra 0.27
8885.8300
mfhd1 15
mfhd2 15
stdev 0.014
extra 0.32
8919.6100
mfhd1 15
mfhd2 15
stdev 0.015
extra 0.32
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400

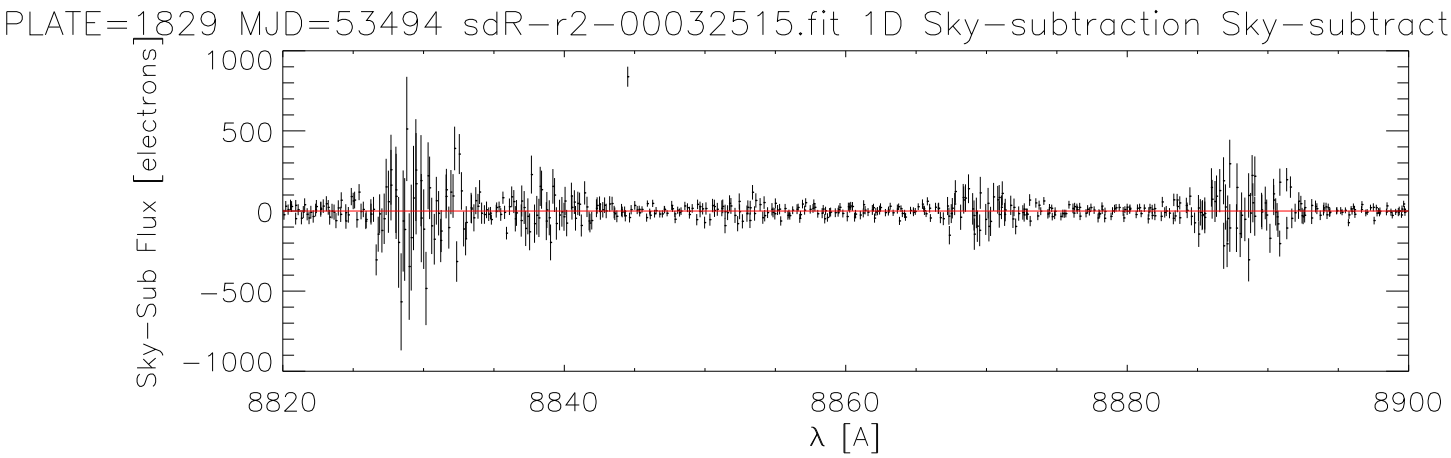

sky shift, pixels
0.35
0.30
0.25
5000
6000
7000
8000
9000
10000

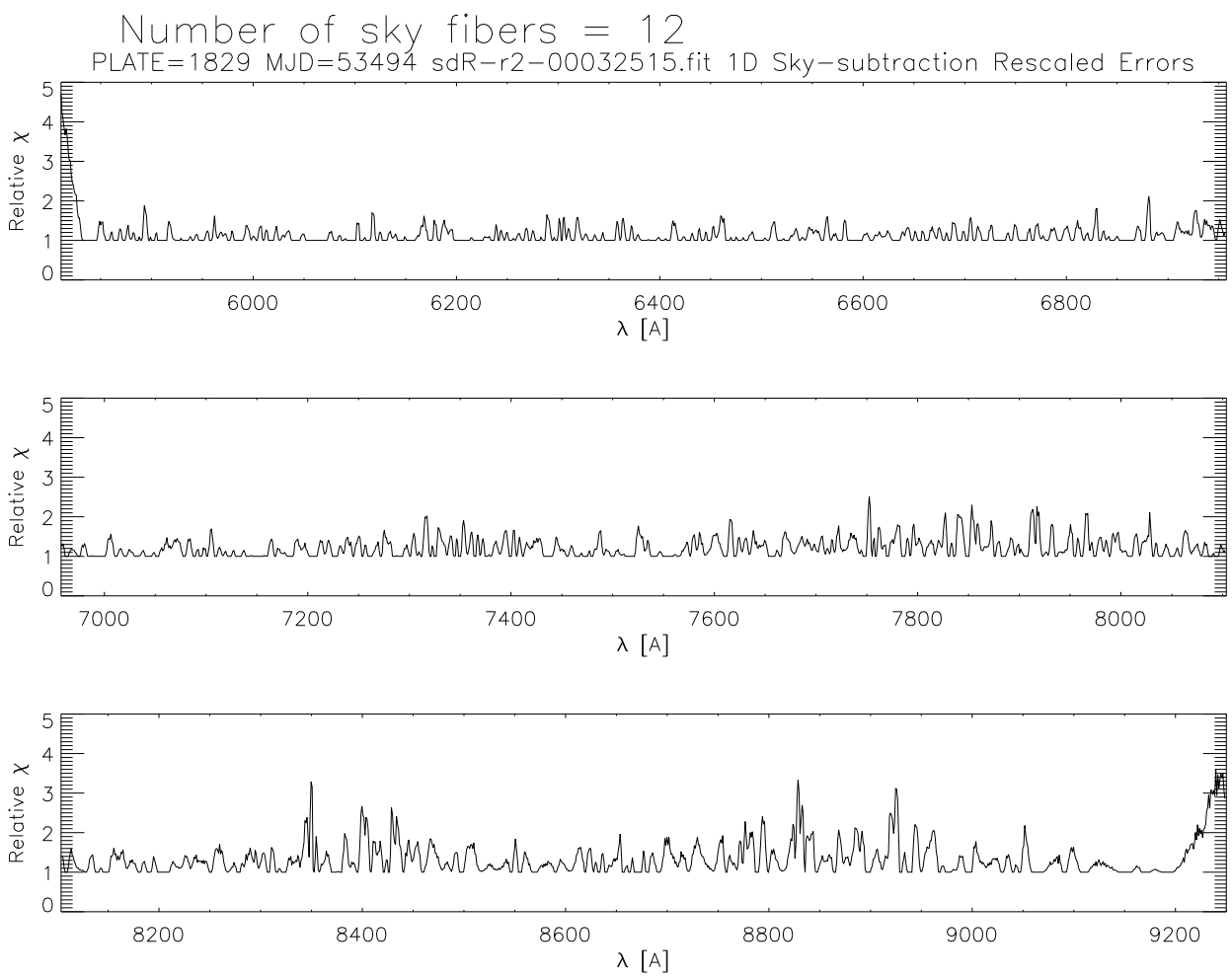
es= −0.0000

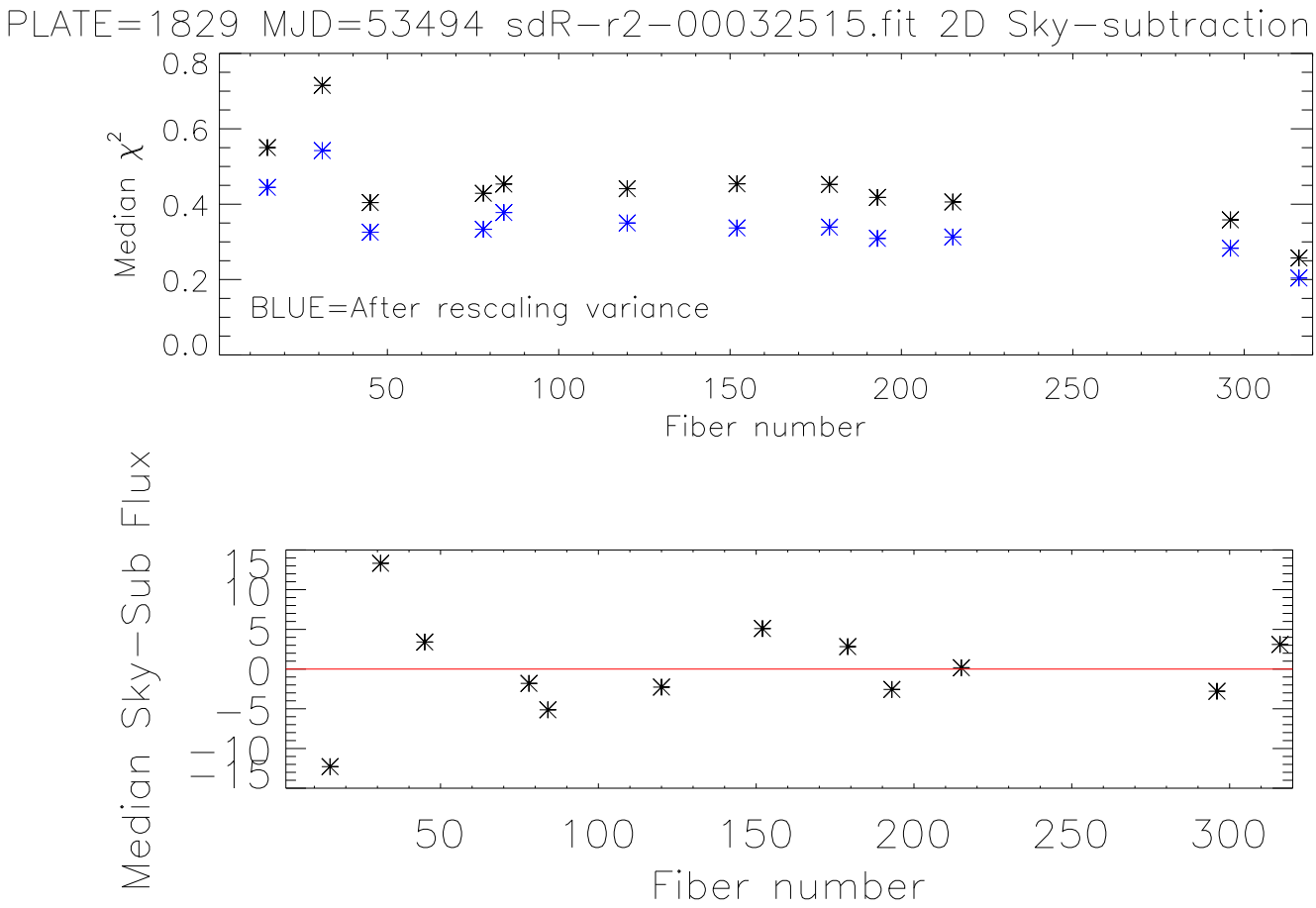

PLATE=1829 MJD=53494 Smooth superflat for sdR−r2−00032515.fit
2.0
1.5
1.0
0.5
0.0
1.008
1.006
1.004
1.002
1.000
0.998
0.996
0.994
6000
7000
8000
9000
Wavelength (Å)

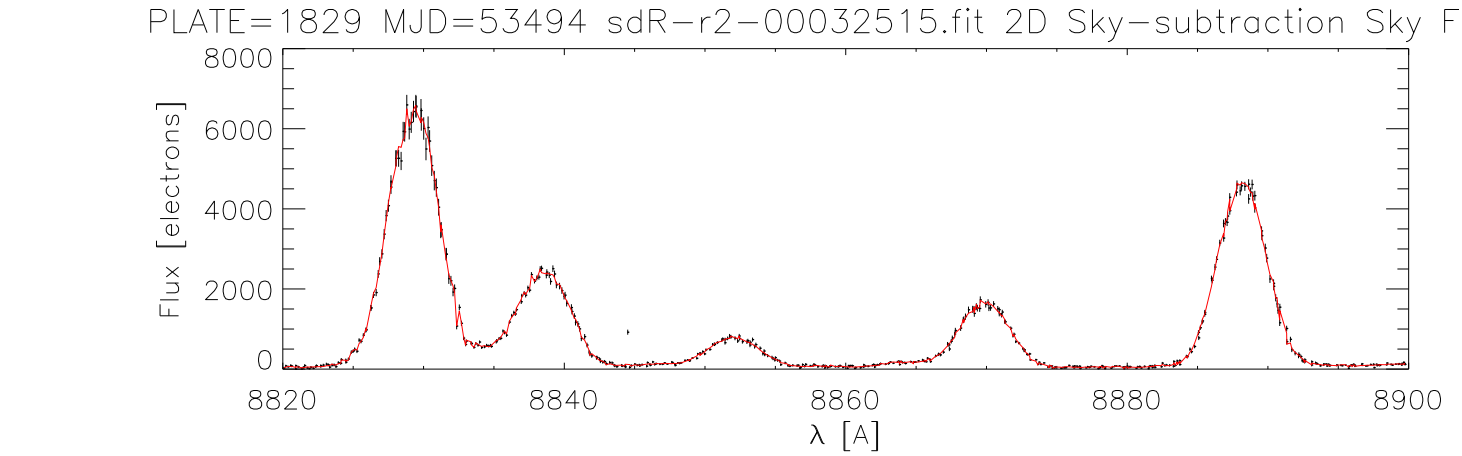

PLATE=1829 MJD=53494 sdR-r2-00032515.fit 1D Sky-subtraction Sky Fibers
Median $\chi^2$
1.5
1.0
0.5
0.0
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
0
-10
-20
-30
50
100
150
200
250
300
Fiber number

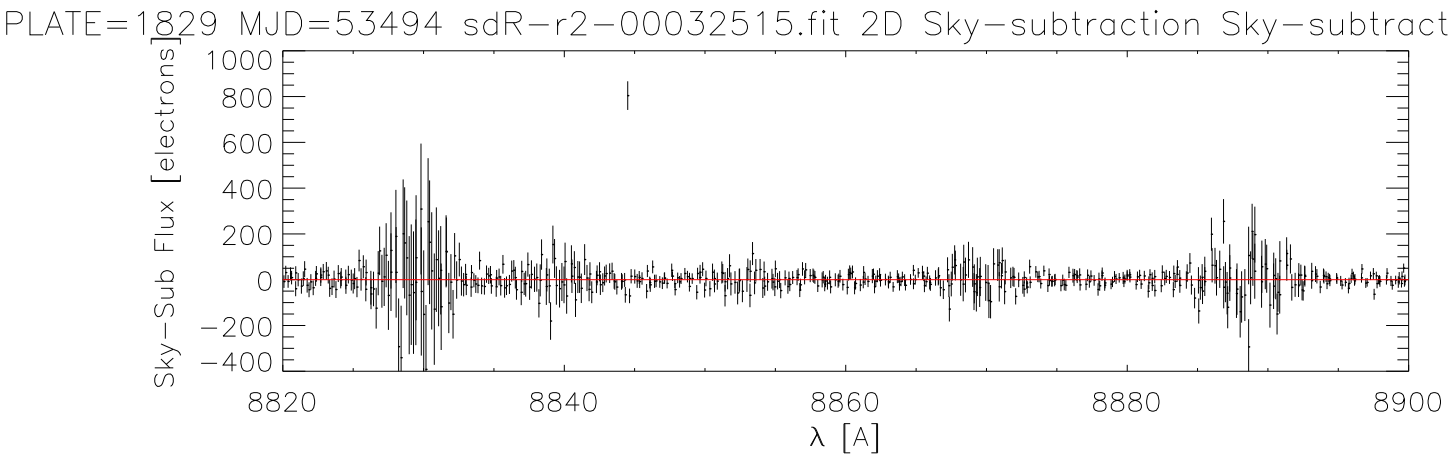

PLATE=1829 MJD=53494 sdR-r2-00032515.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
8820
8840
8860
8880
8900
λ [A]

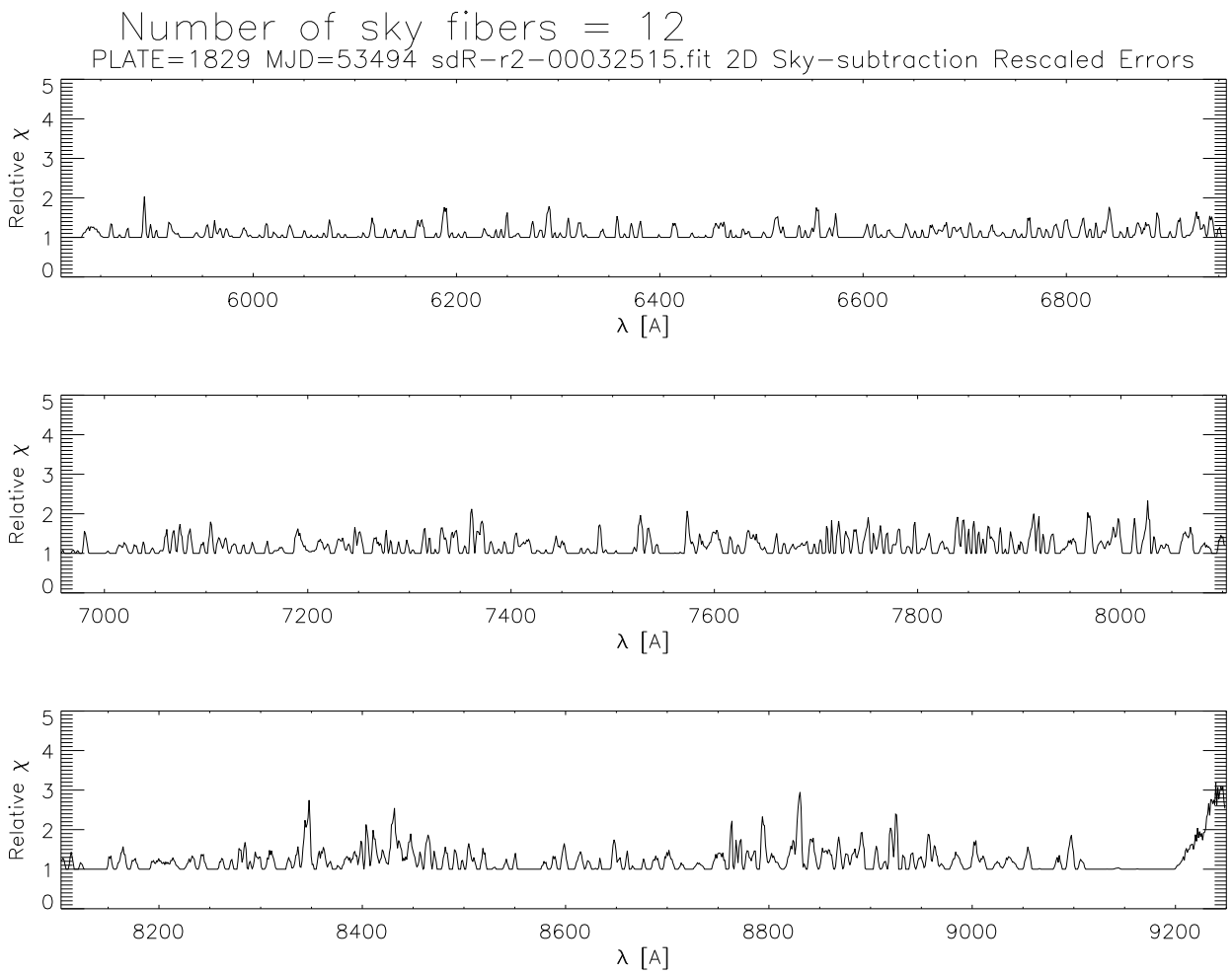

PLATE=1829 MJD=53494 sdR-r2-00032515.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
1000
500
0
-500
-1000
8820
8840
8860
8880
8900
λ [A]

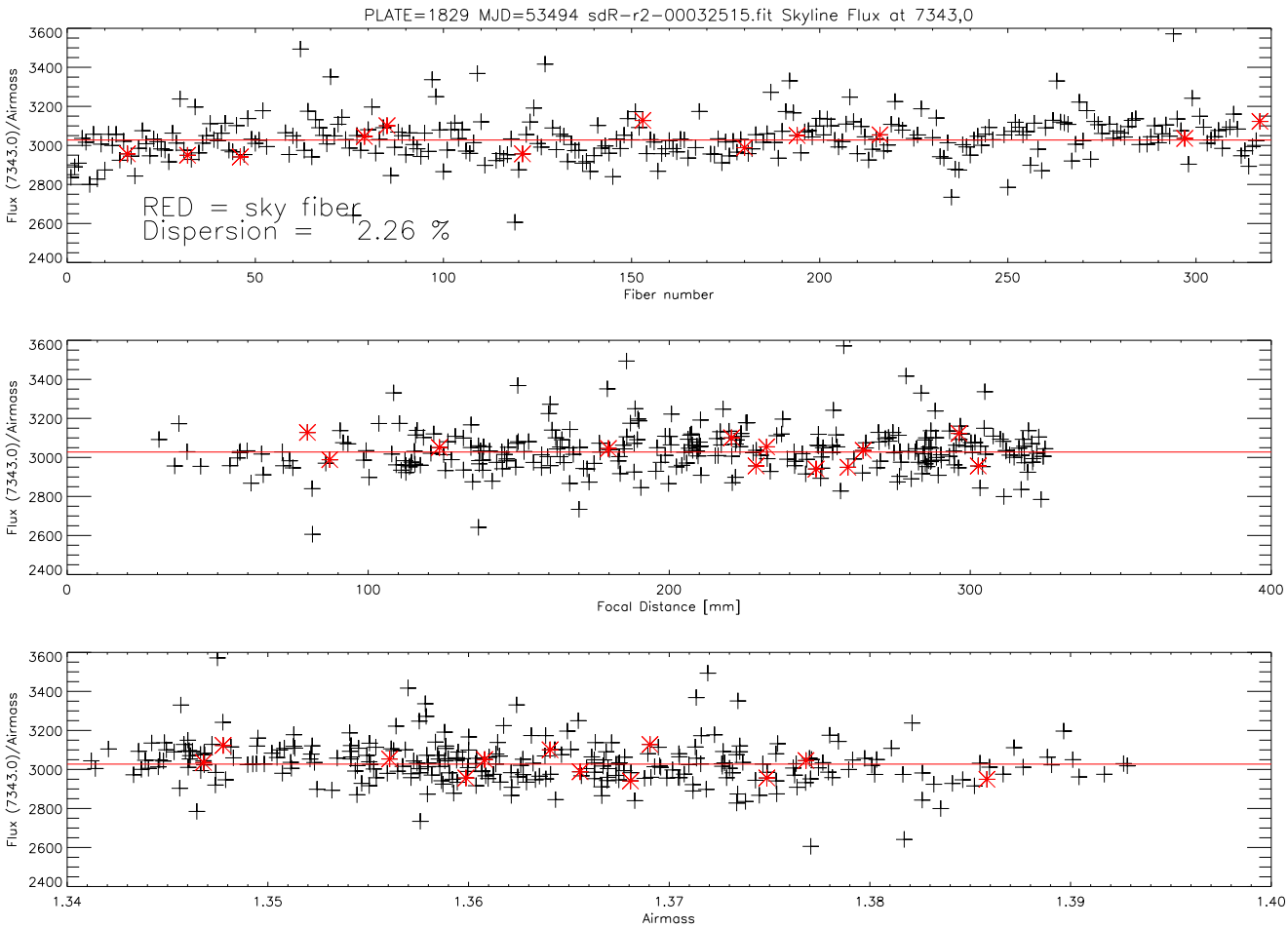

Number of sky fibers = 12
PLATE=1829 MJD=53494 sdR-r2-00032515.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

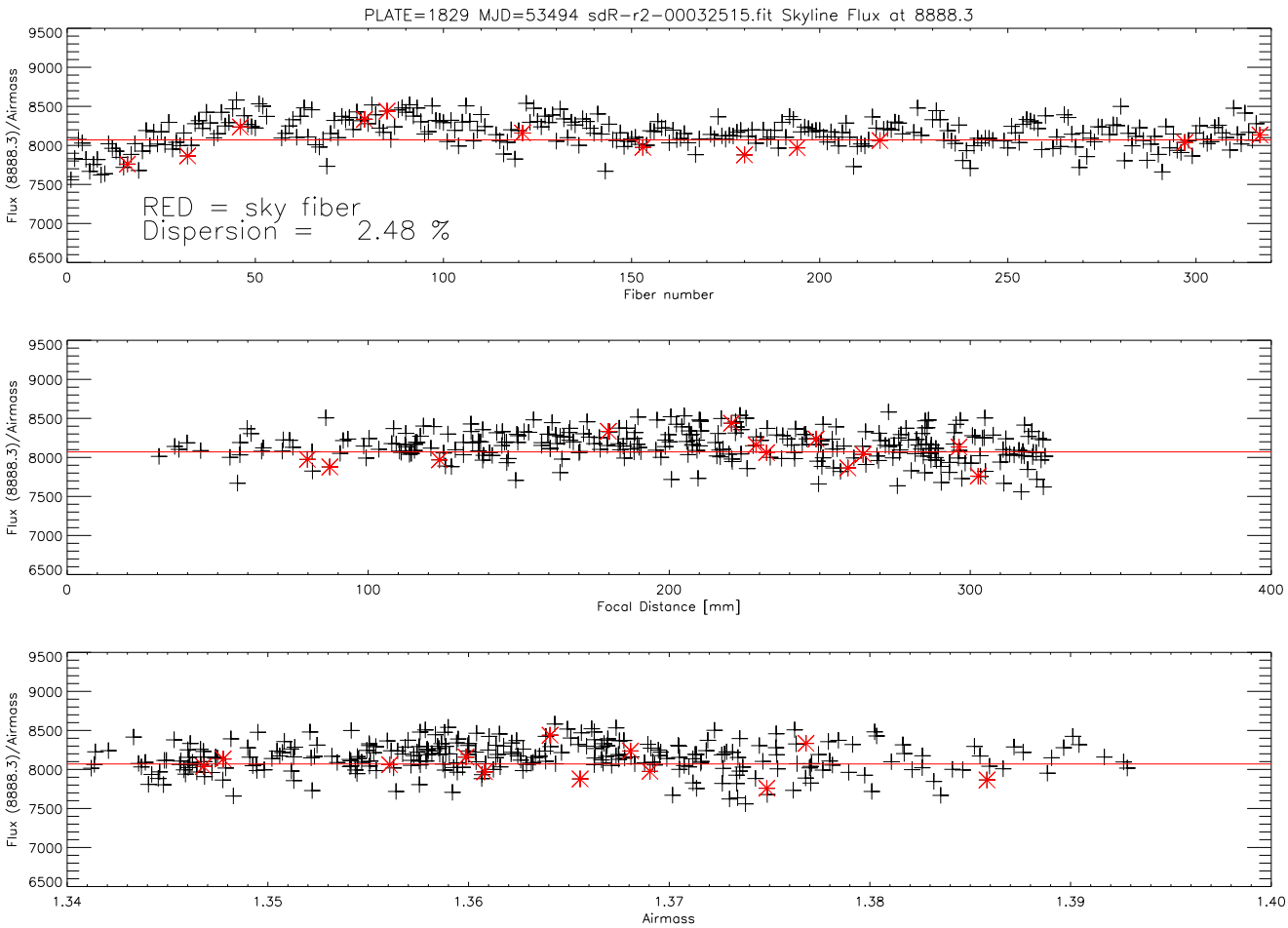

PLATE=1829 MJD=53494 sdR-r2-00032515.fit 2D Sky-subtraction Sky Fibers
Median $\chi^2$
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
15
10
5
0
-5
-10
-15
50
100
150
200
250
300
Fiber number

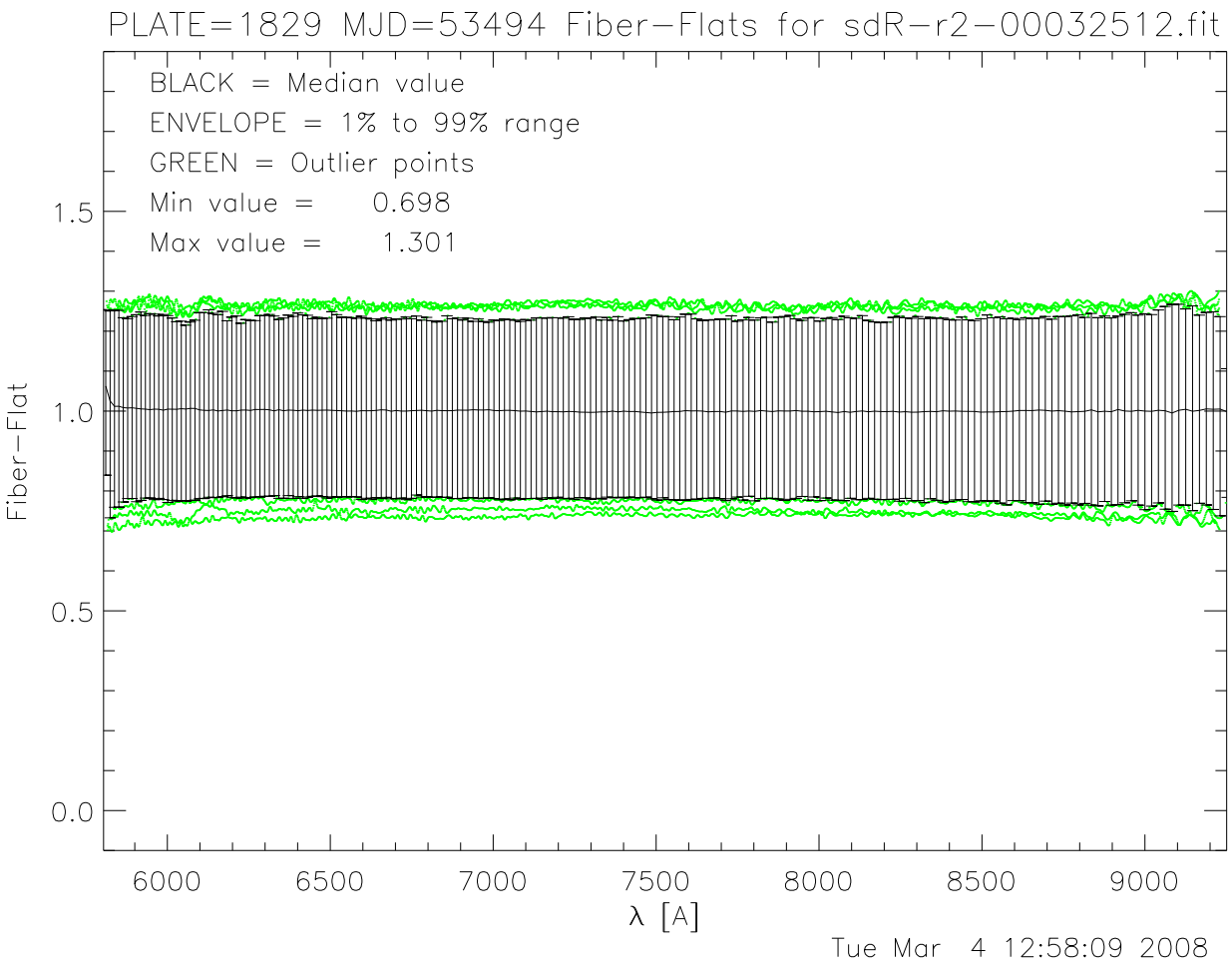

PLATE=1829 MJD=53494 sdR-r2-00032515.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
8820
8840
8860
8880
8900
λ [A]

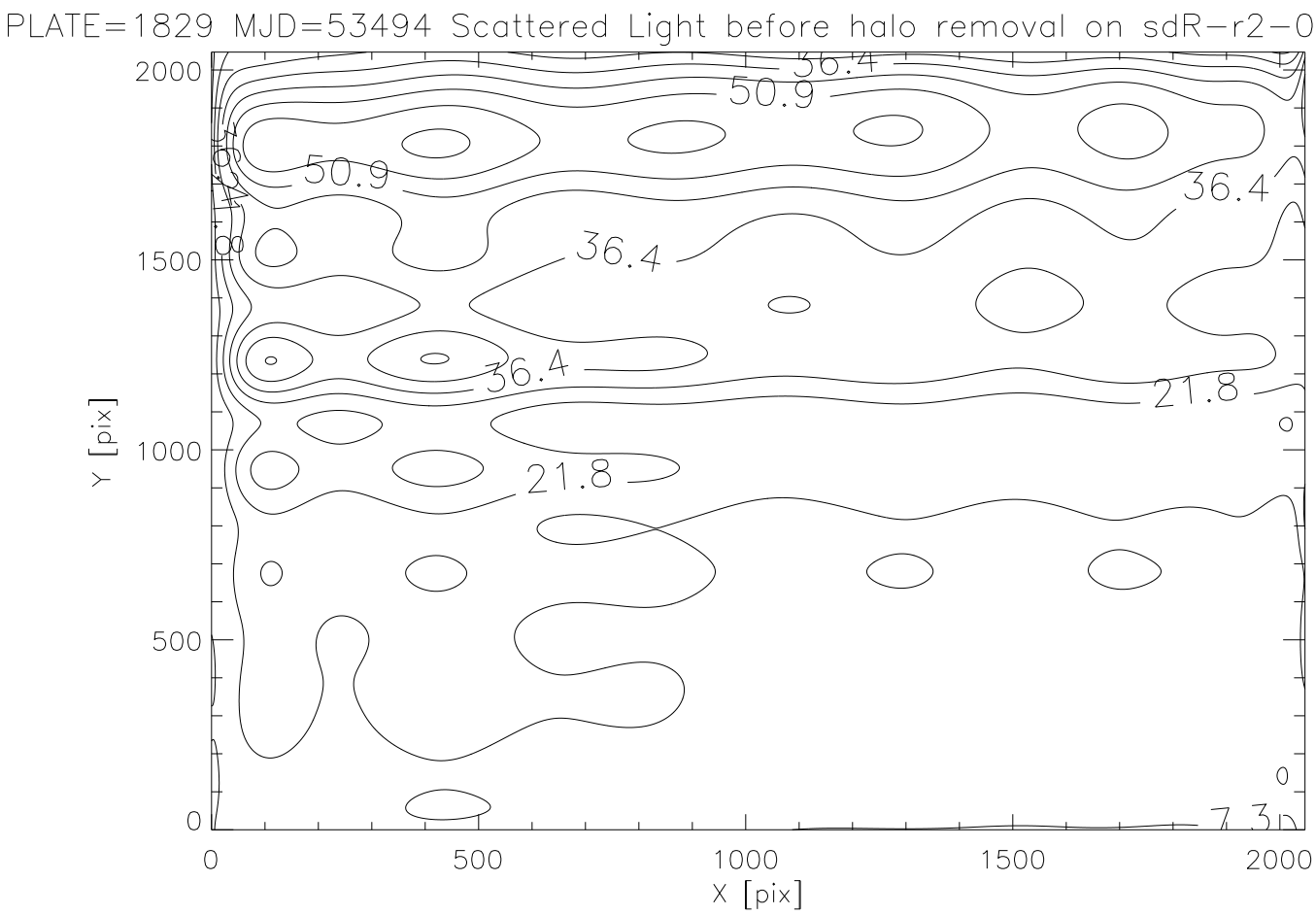

PLATE=1829 MJD=53494 sdR-r2-00032515.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
1000
800
600
400
200
0
-200
-400
8820
8840
8860
8880
8900
λ [A]

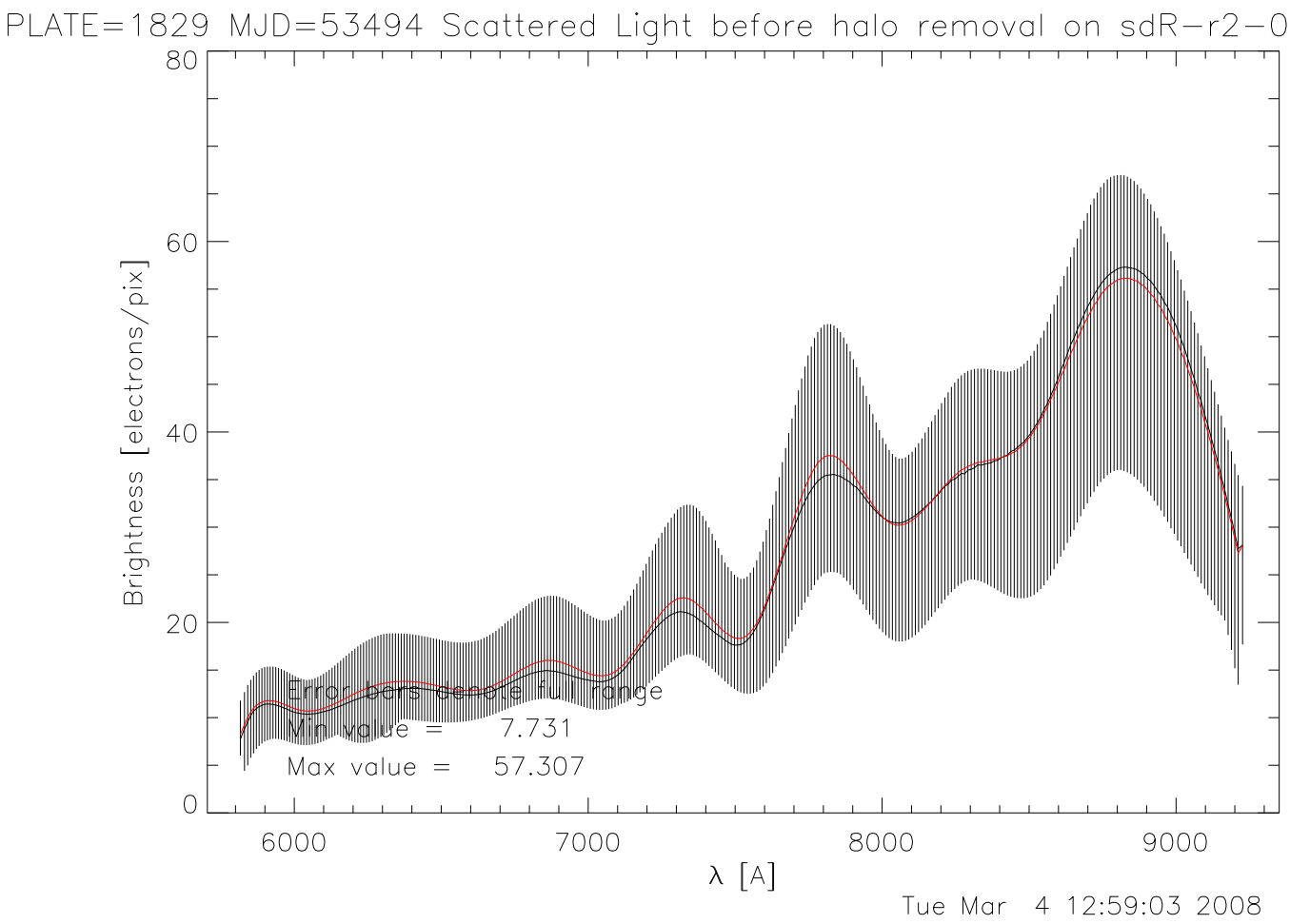

Number of sky fibers = 12
PLATE=1829 MJD=53494 sdR-r2-00032515.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

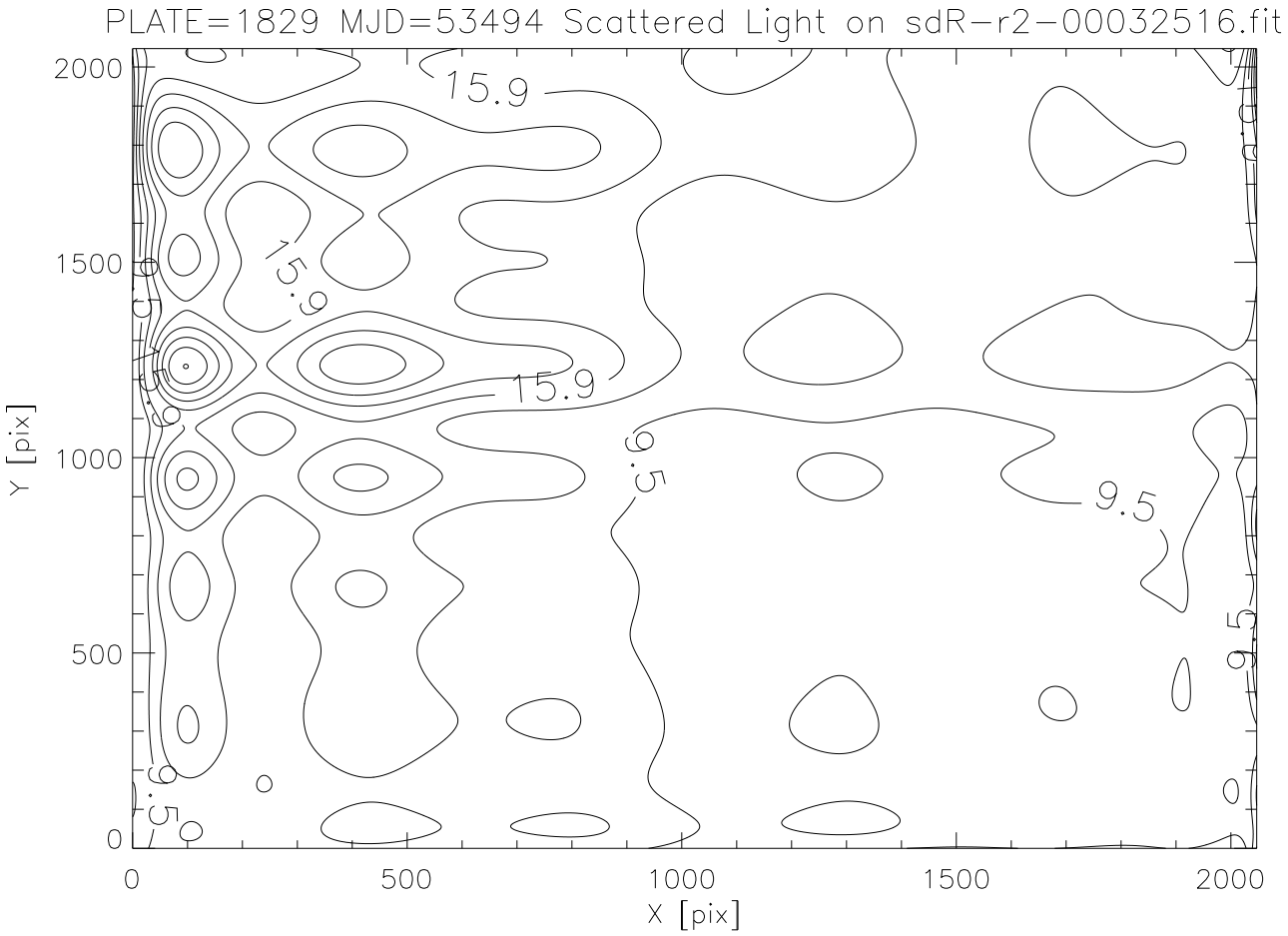

PLATE=1829 MJD=53494 sdR-r2-00032515.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 2.26 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

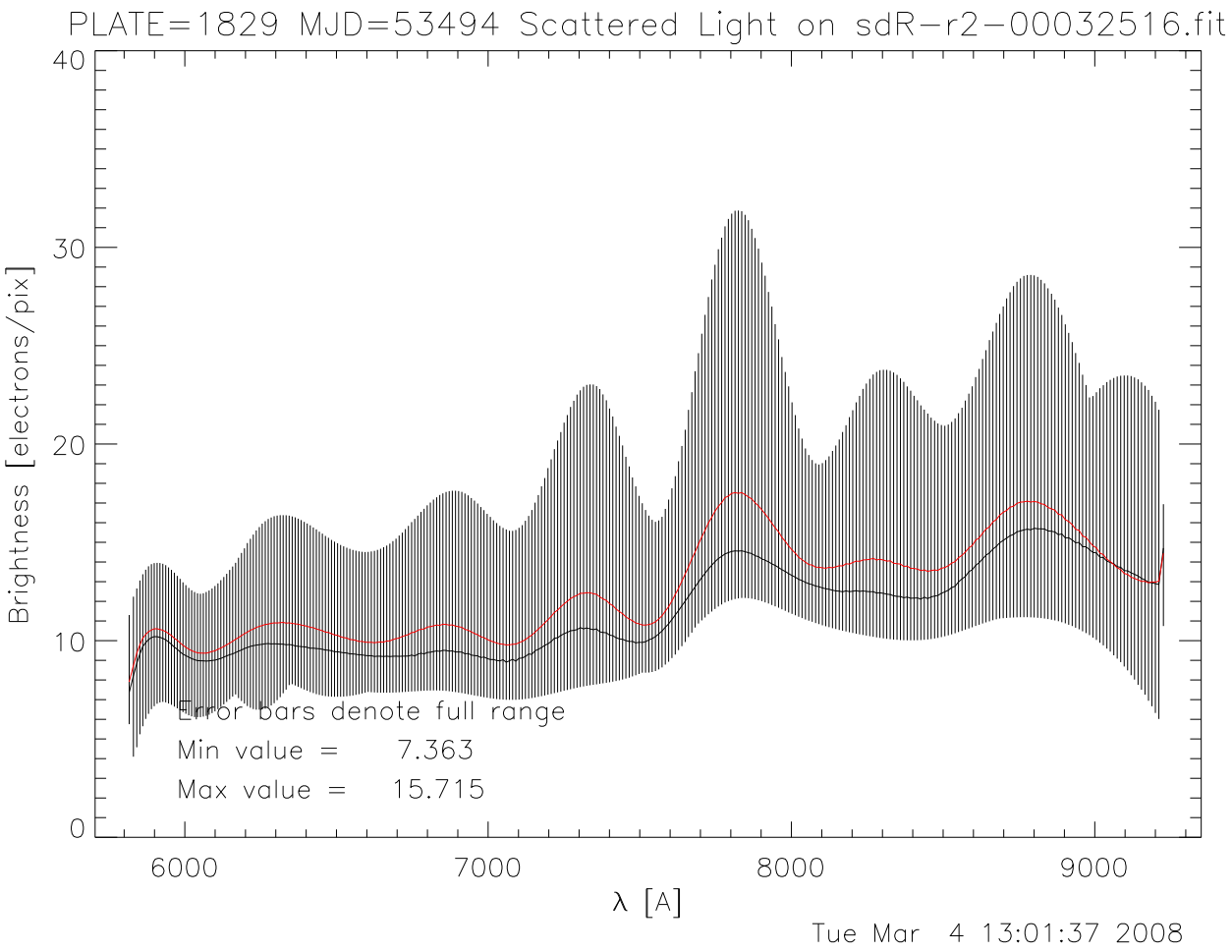

PLATE=1829 MJD=53494 sdR-r2-00032515.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 2.48 %
Fiber number
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass

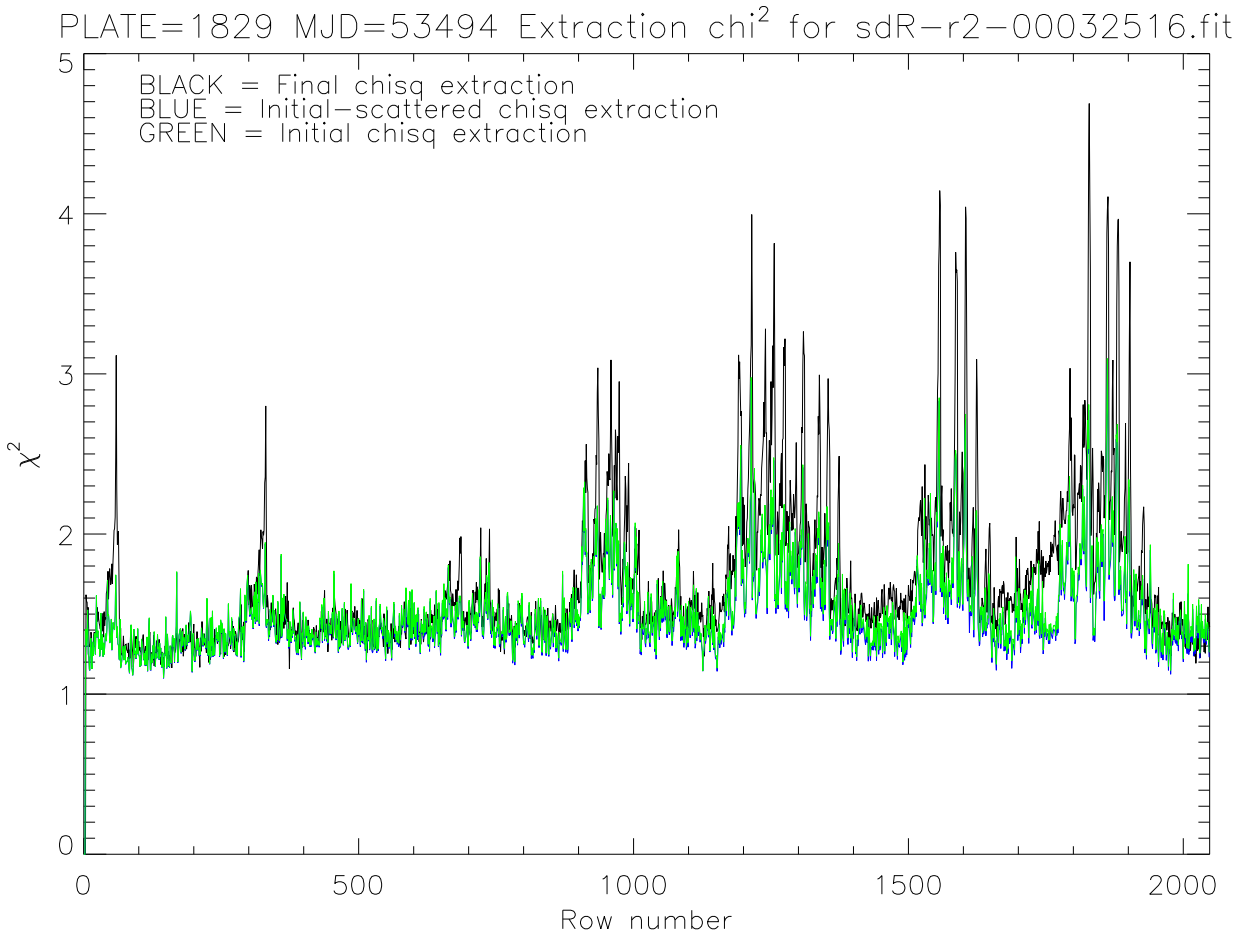

PLATE=1829 MJD=53494 Fiber−Flats for sdR−r2−00032512.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.698
Max value = 1.301
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Tue Mar 4 12:58:09 2008

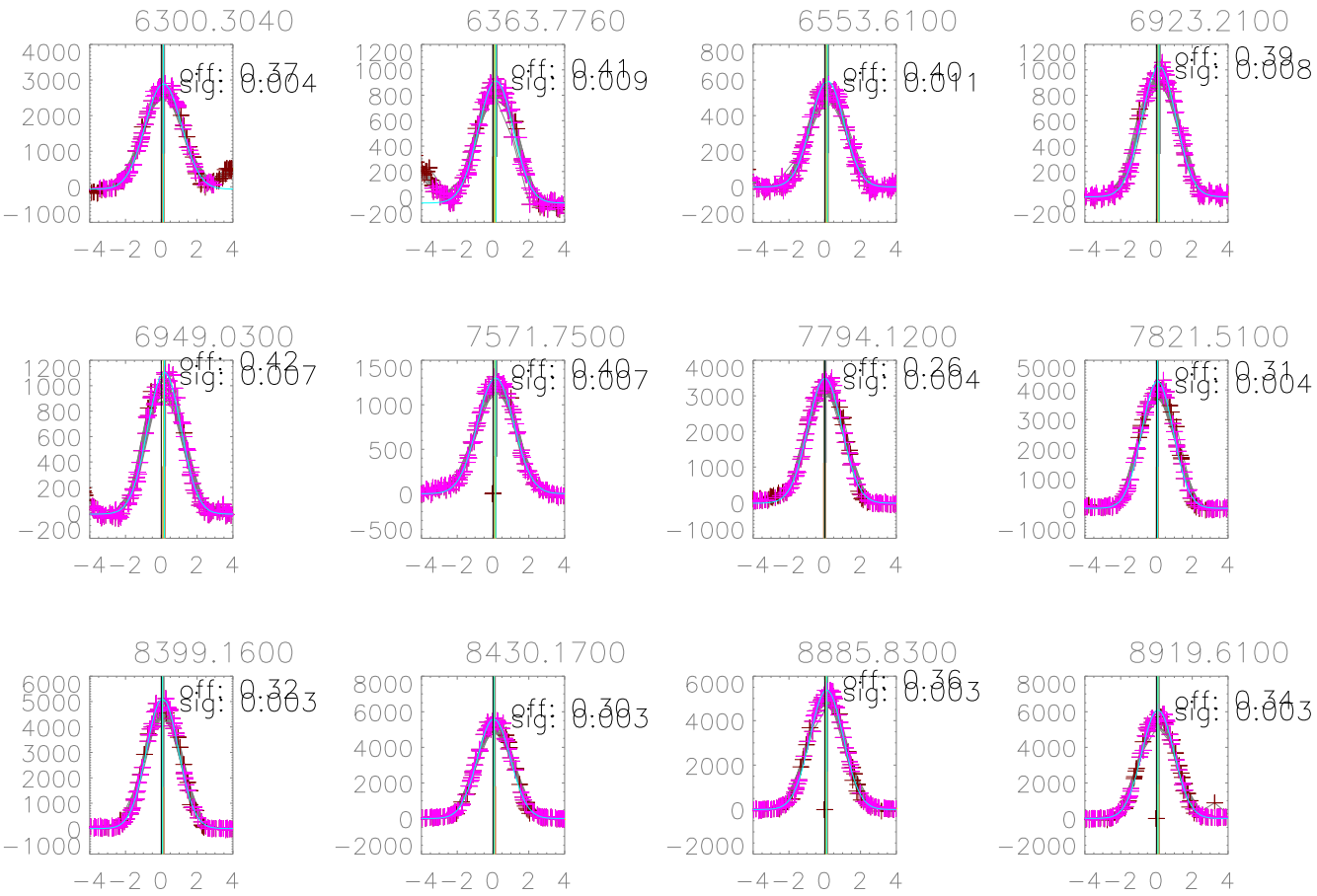

PLATE=1829 MJD=53494 Scattered Light before halo removal on sdR-r2-00032516.fi
36.4
50.9
50.9
36.4
36.4
36.4
21.8
21.8
7.3
2000
1500
1000
500
0
0
500
1000
1500
2000
Y [pix]
X [pix]

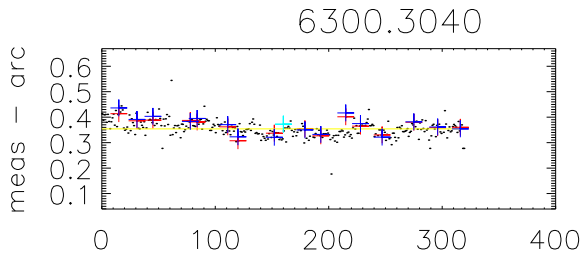

PLATE=1829 MJD=53494 Scattered Light before halo removal on sdR-r2-00032516.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 7.731
Max value = 57.307
Tue Mar 4 12:59:03 2008

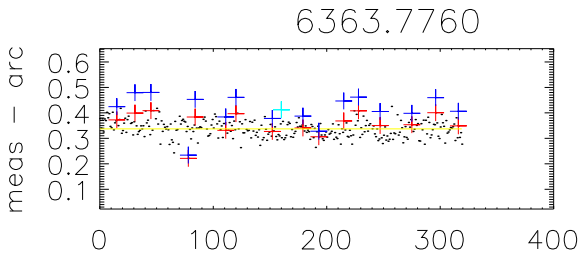

PLATE=1829 MJD=53494 Scattered Light on sdR-r2-00032516.fit
15.9
15.9
15.9
9.5
9.5
9.5
0
0
0
Y [pix]
X [pix]
2000
1500
1000
500
0
0
500
1000
1500
2000

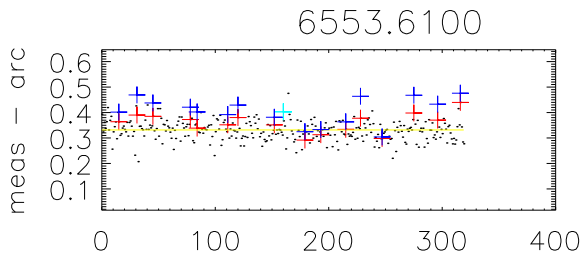

PLATE=1829 MJD=53494 Scattered Light on sdR-r2-00032516.fit
Brightness [electrons/pix]
40
30
20
10
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 7.363
Max value = 15.715
Tue Mar 4 13:01:37 2008

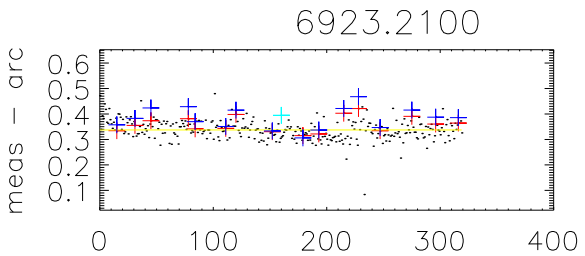

PLATE=1829 MJD=53494 Extraction chi$^2$ for sdR-r2-00032516.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
$\chi^2$
0
1
2
3
4
5
0
500
1000
1500
2000
Row number

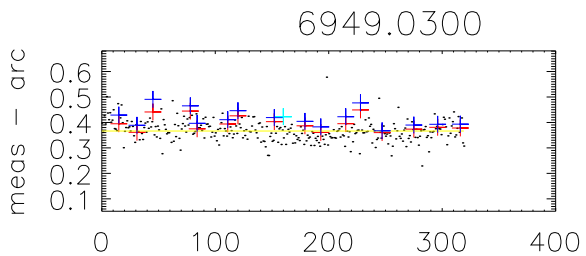

6300.3040
off: 0.37
sig: 0.004
6363.7760
off: 0.41
sig: 0.009
6553.6100
off: 0.40
sig: 0.011
6923.2100
off: 0.39
sig: 0.008
6949.0300
off: 0.42
sig: 0.007
7571.7500
off: 0.40
sig: 0.007
7794.1200
off: 0.26
sig: 0.004
7821.5100
off: 0.31
sig: 0.004
8399.1600
off: 0.32
sig: 0.003
8430.1700
off: 0.30
sig: 0.003
8885.8300
off: 0.36
sig: 0.003
8919.6100
off: 0.34
sig: 0.003

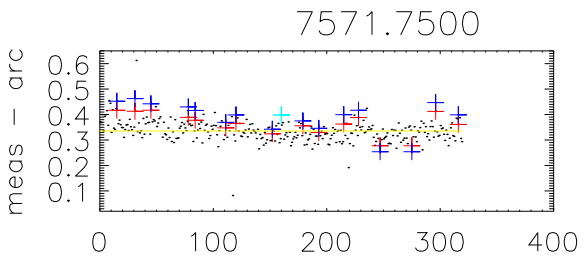

6300.3040
meas − arc
0.6
0.5
0.4
0.3
0.2
0.1
0
100
200
300
400

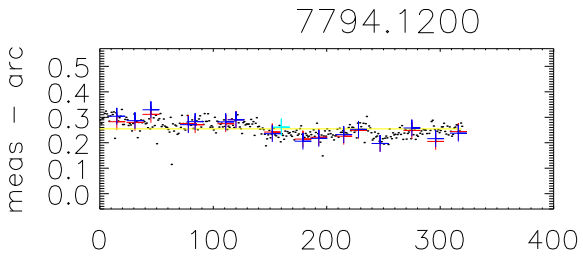

6363.7760
meas − arc
0.6
0.5
0.4
0.3
0.2
0.1
0
100
200
300
400

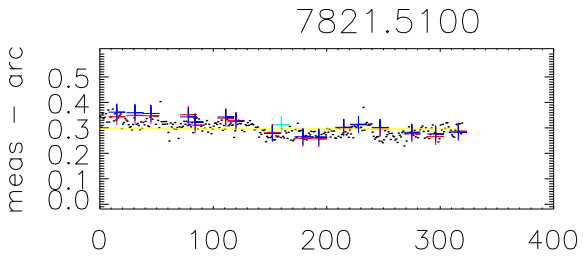

6553.6100
meas − arc
0.6
0.5
0.4
0.3
0.2
0.1
0
100
200
300
400

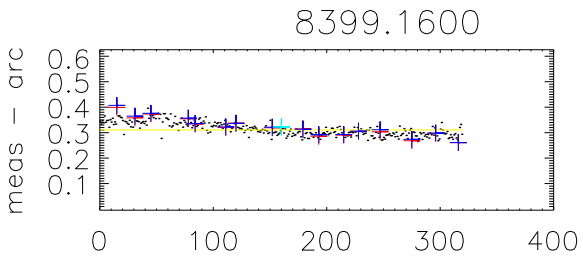

6923.2100
meas − arc
0.6
0.5
0.4
0.3
0.2
0.1
0
100
200
300
400

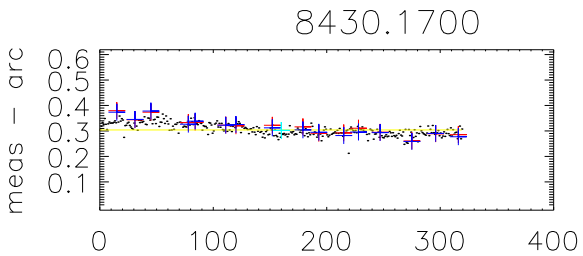

6949.0300
meas − arc
0.6
0.5
0.4
0.3
0.2
0.1
0
100
200
300
400

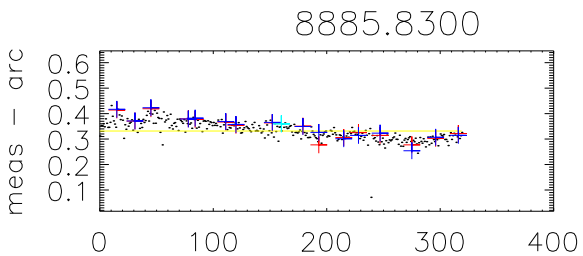

7571.7500
meas − arc
0.6
0.5
0.4
0.3
0.2
0.1
0
100
200
300
400

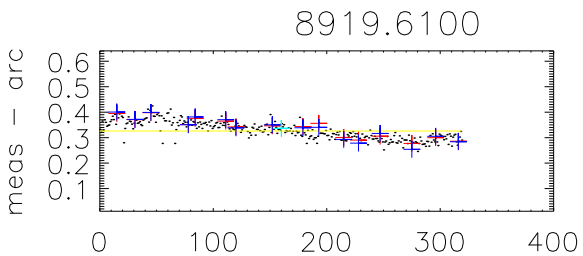

7794.1200
meas − arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400

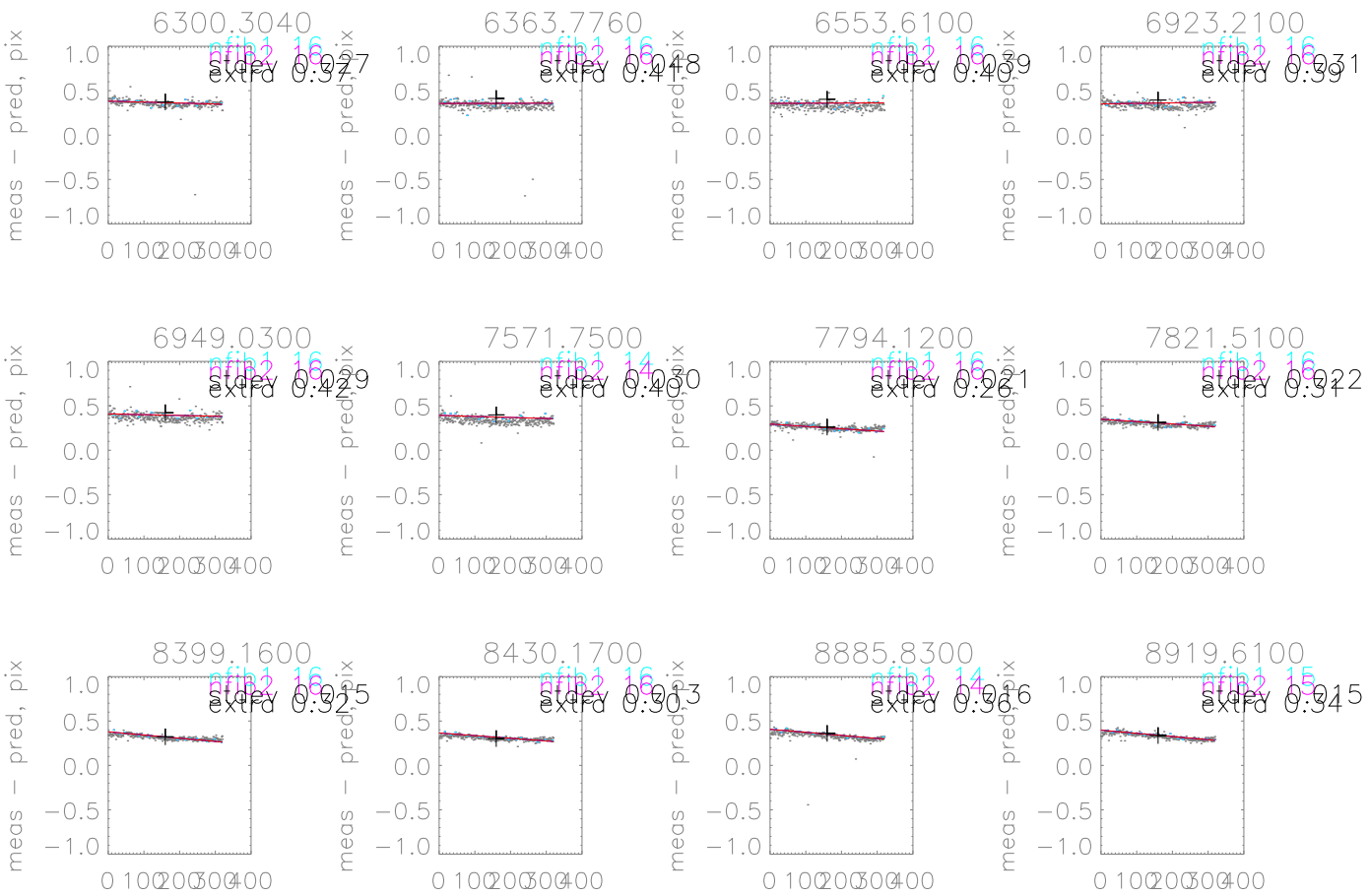

7821.5100
meas − arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400

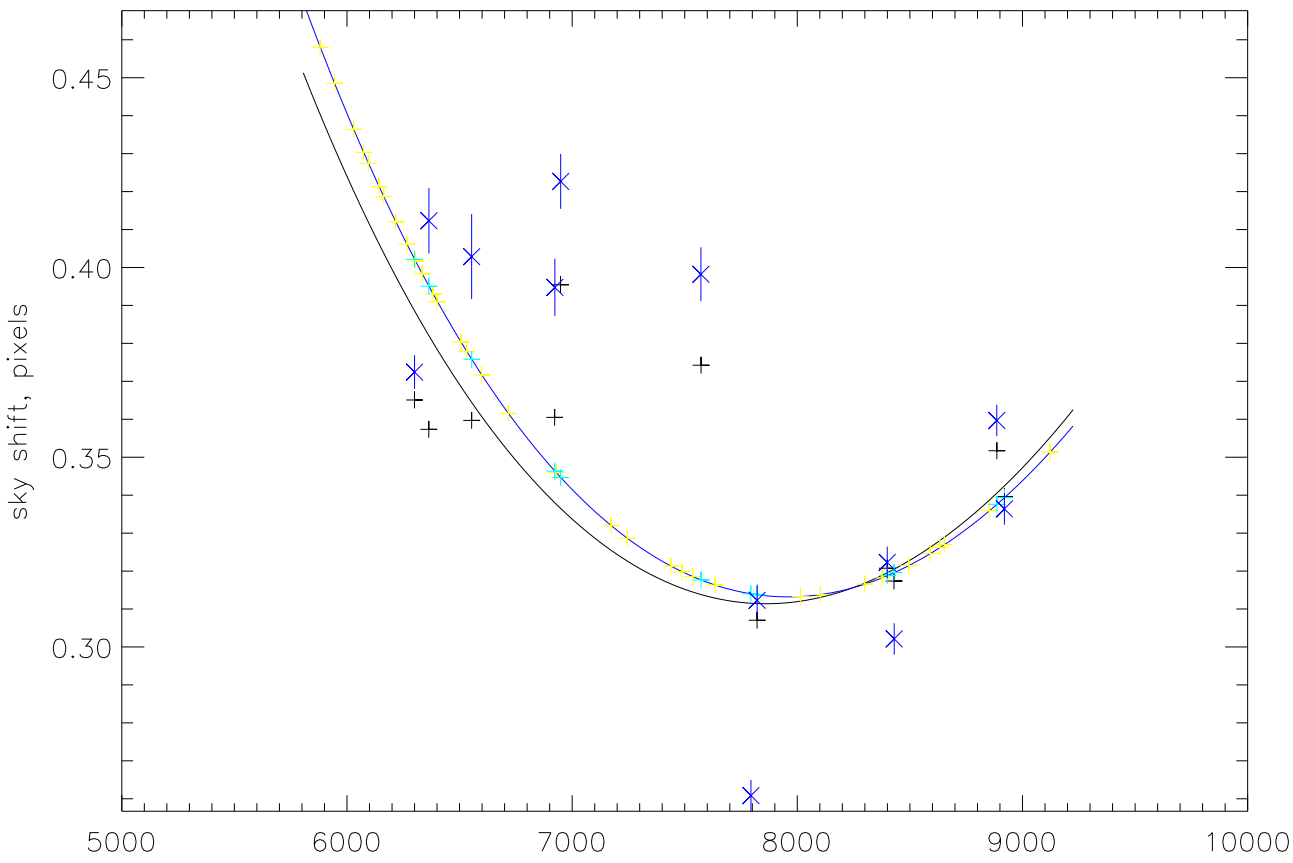

8399.1600
meas − arc
0.1
0.2
0.3
0.4
0.5
0.6
0
100
200
300
400

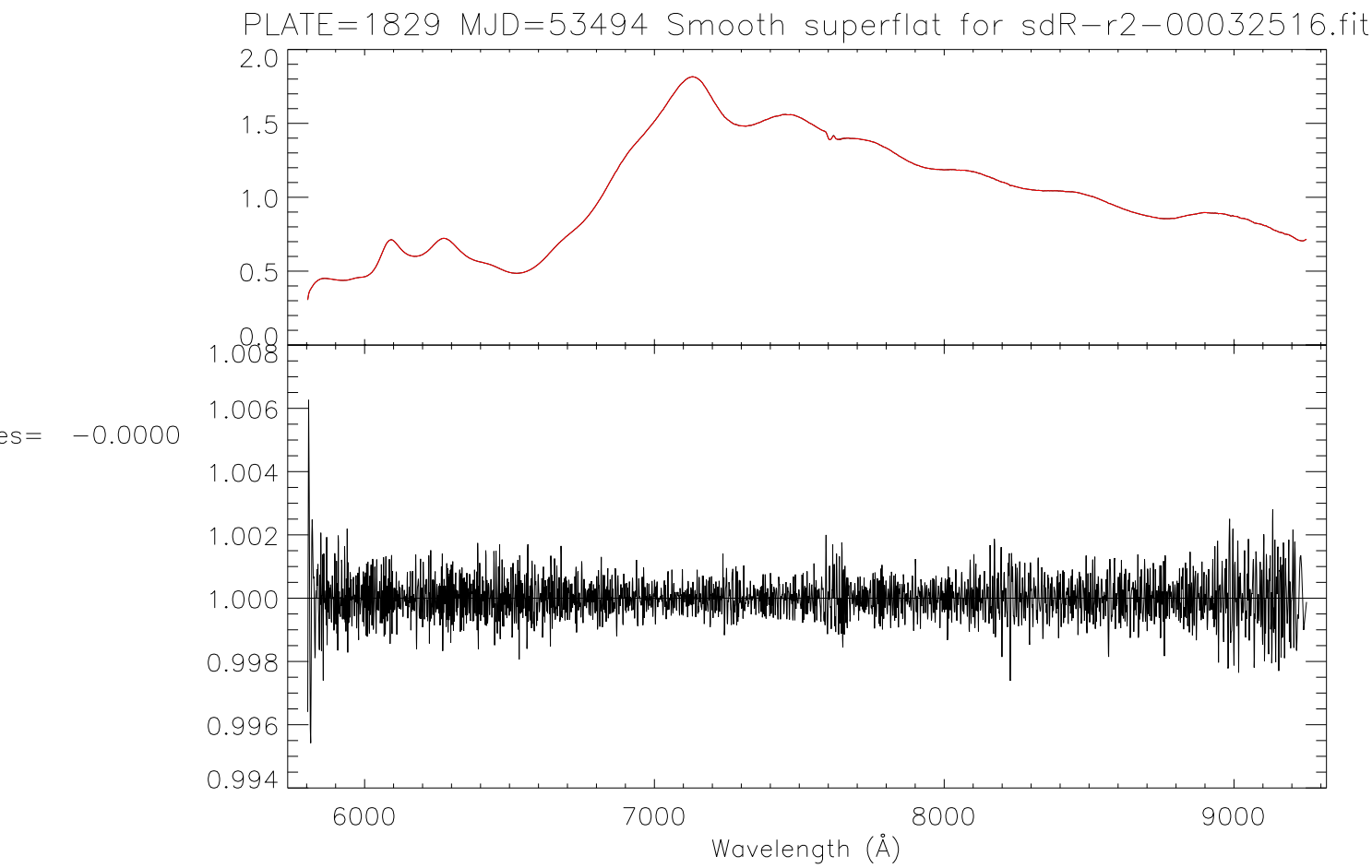

8430.1700
meas − arc
0.1
0.2
0.3
0.4
0.5
0.6
0
100
200
300
400


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

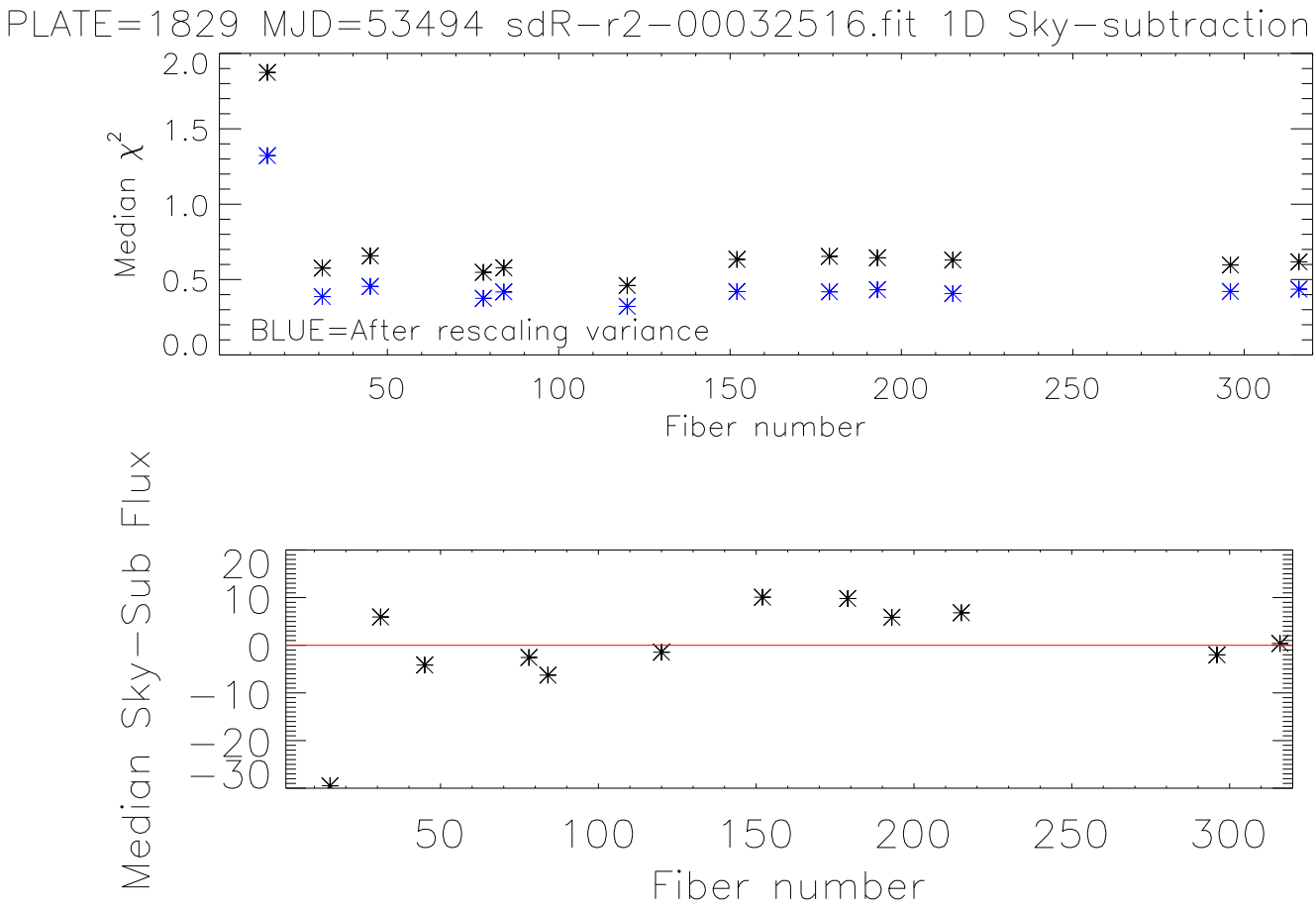

8919.6100
meas − arc
0.1
0.2
0.3
0.4
0.5
0.6
0
100
200
300
400

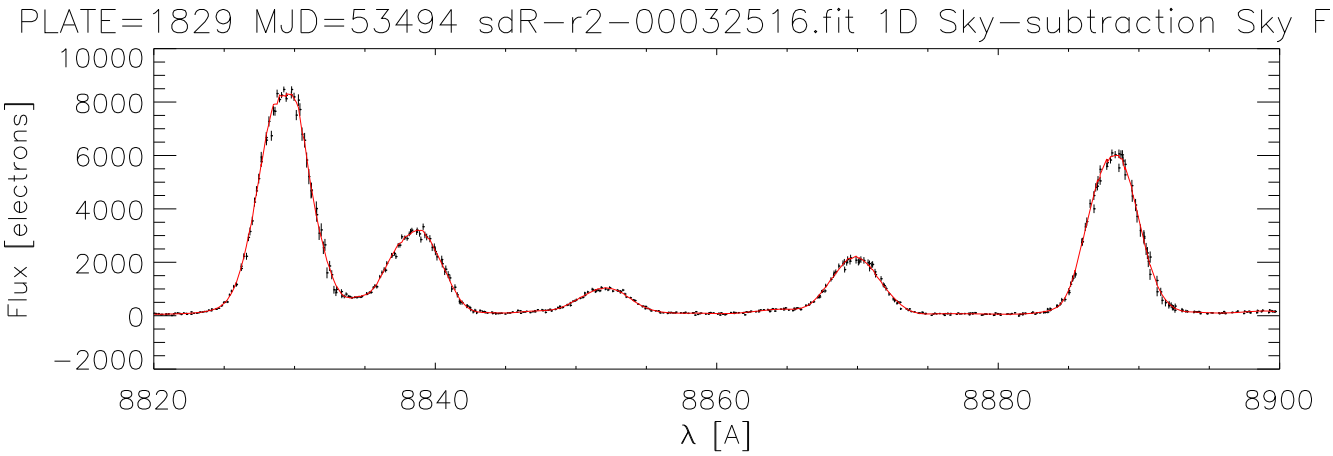

6300.3040
mfib1 16
mfib2 16
stdev 0.027
extra 0.37
6363.7760
mfib1 16
mfib2 16
stdev 0.028
extra 0.41
6553.6100
mfib1 16
mfib2 16
stdev 0.029
extra 0.40
6923.2100
mfib1 16
mfib2 16
stdev 0.031
extra 0.39
6949.0300
mfib1 16
mfib2 16
stdev 0.029
extra 0.42
7571.7500
mfib1 14
mfib2 16
stdev 0.030
extra 0.40
7794.1200
mfib1 16
mfib2 16
stdev 0.021
extra 0.26
7821.5100
mfib1 16
mfib2 16
stdev 0.022
extra 0.31
8399.1600
mfib1 16
mfib2 16
stdev 0.025
extra 0.32
8430.1700
mfib1 16
mfib2 16
stdev 0.023
extra 0.30
8885.8300
mfib1 14
mfib2 16
stdev 0.026
extra 0.36
8919.6100
mfib1 15
mfib2 16
stdev 0.025
extra 0.34
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400

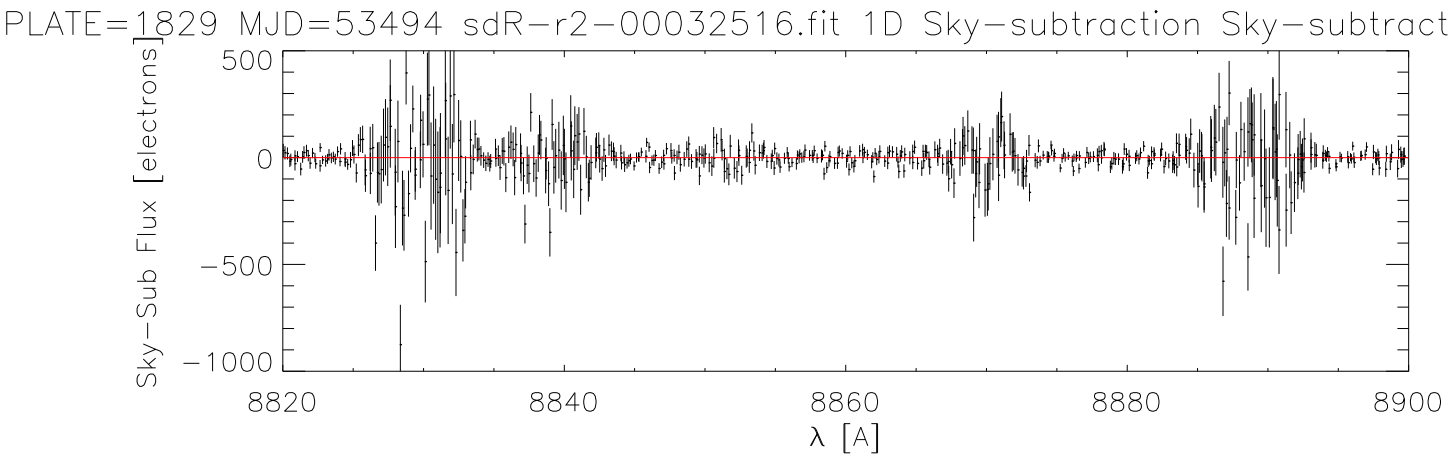

sky shift, pixels
0.45
0.40
0.35
0.30
5000
6000
7000
8000
9000
10000

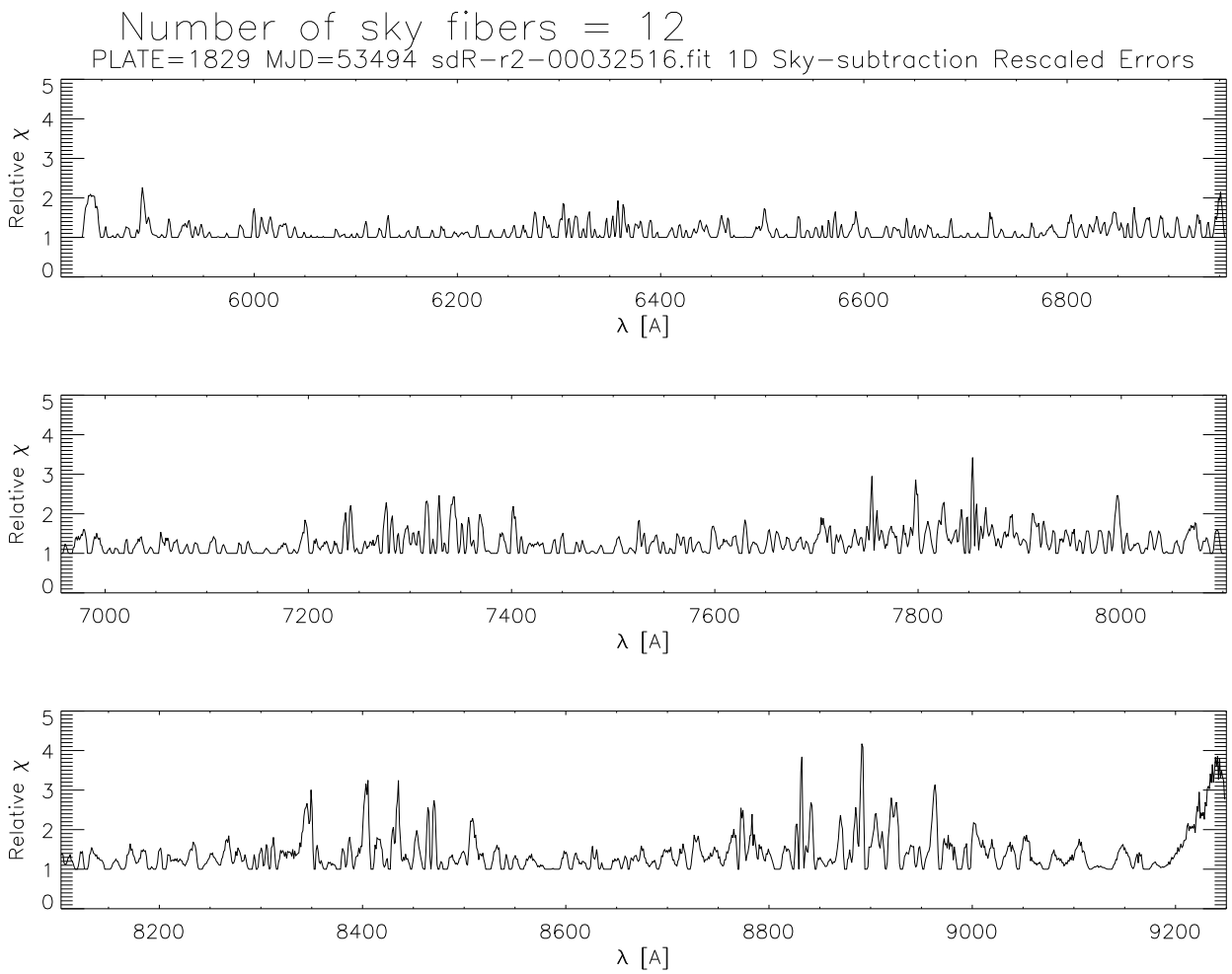

PLATE=1829 MJD=53494 Smooth superflat for sdR-r2-00032516.fit
2.0
1.5
1.0
0.5
0.0
1.008
1.006
1.004
1.002
1.000
0.998
0.996
0.994
6000
7000
8000
9000
Wavelength (Å)

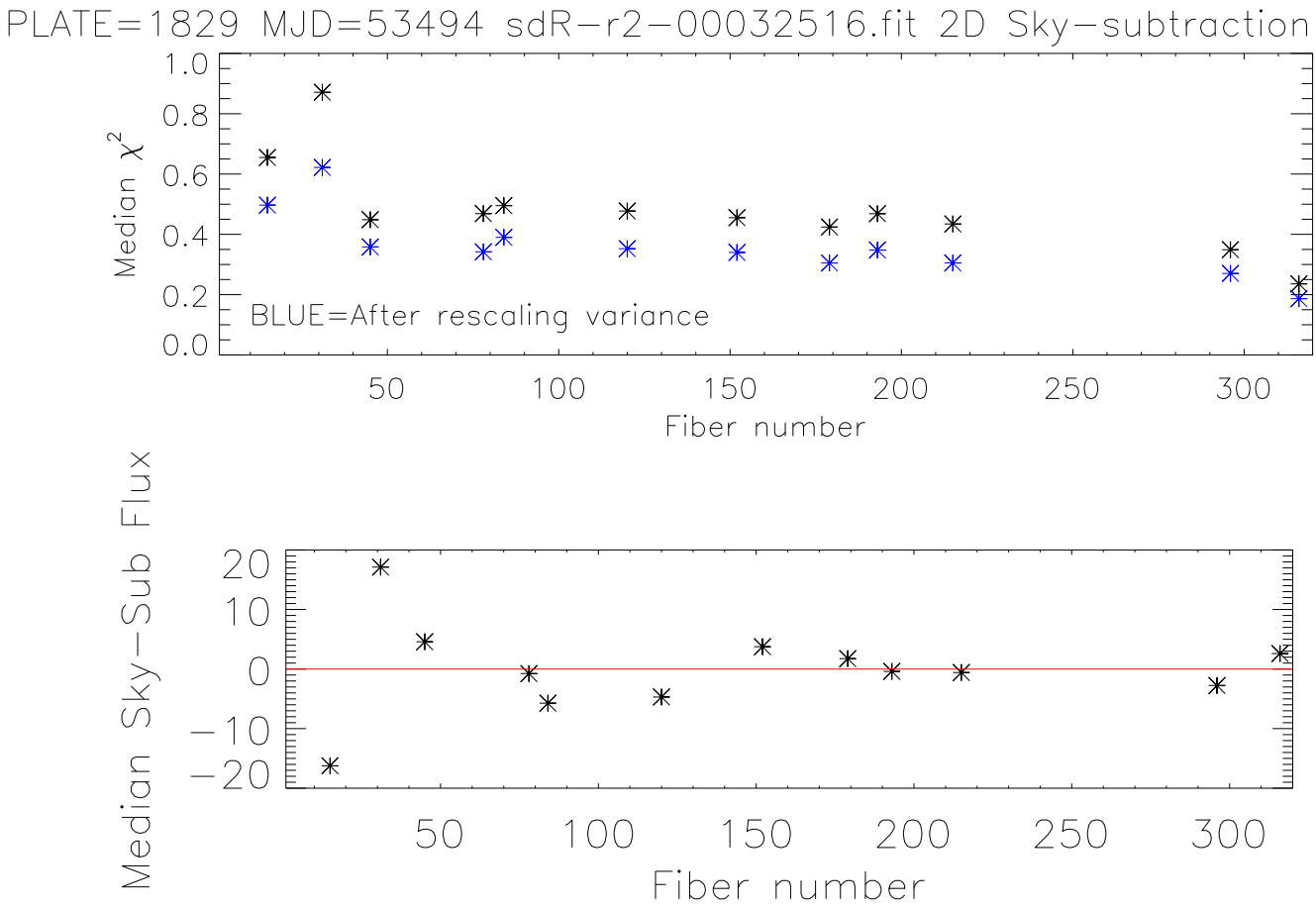
es= −0.0000

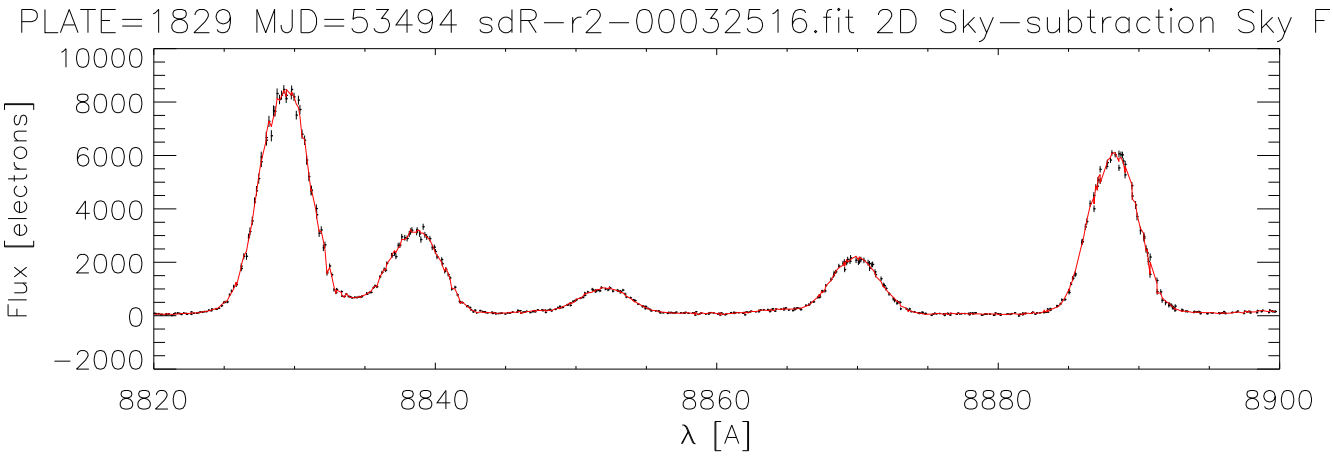

PLATE=1829 MJD=53494 sdR-r2-00032516.fit 1D Sky-subtraction Sky Fibers
Median $\chi^2$
2.0
1.5
1.0
0.5
0.0
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
20
10
0
-10
-20
-30
50
100
150
200
250
300
Fiber number

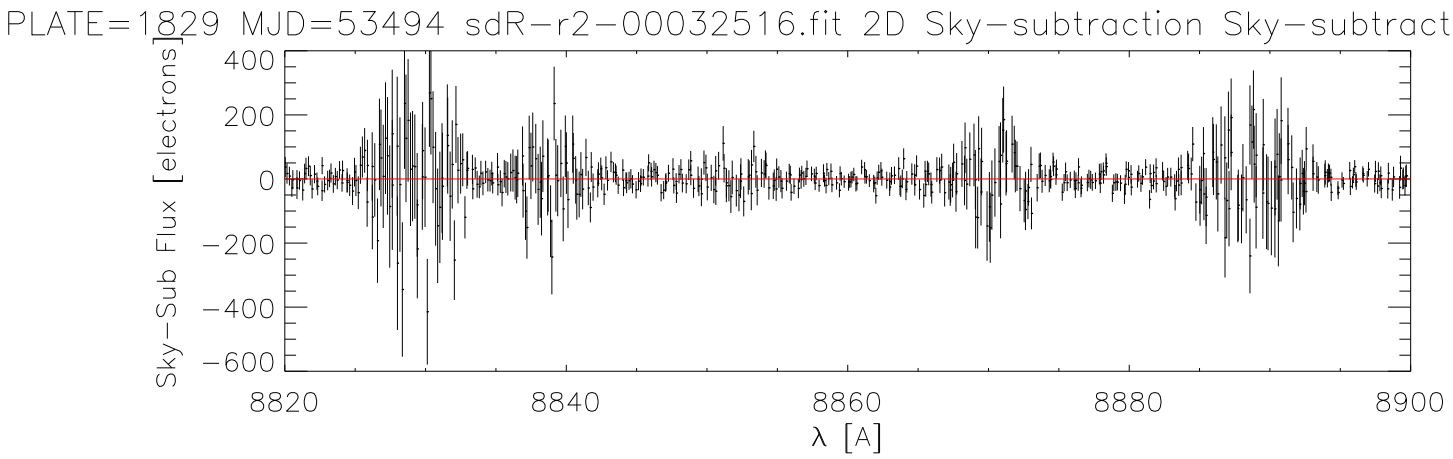

PLATE=1829 MJD=53494 sdR-r2-00032516.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
10000
8000
6000
4000
2000
0
-2000
8820
8840
8860
8880
8900
λ [A]

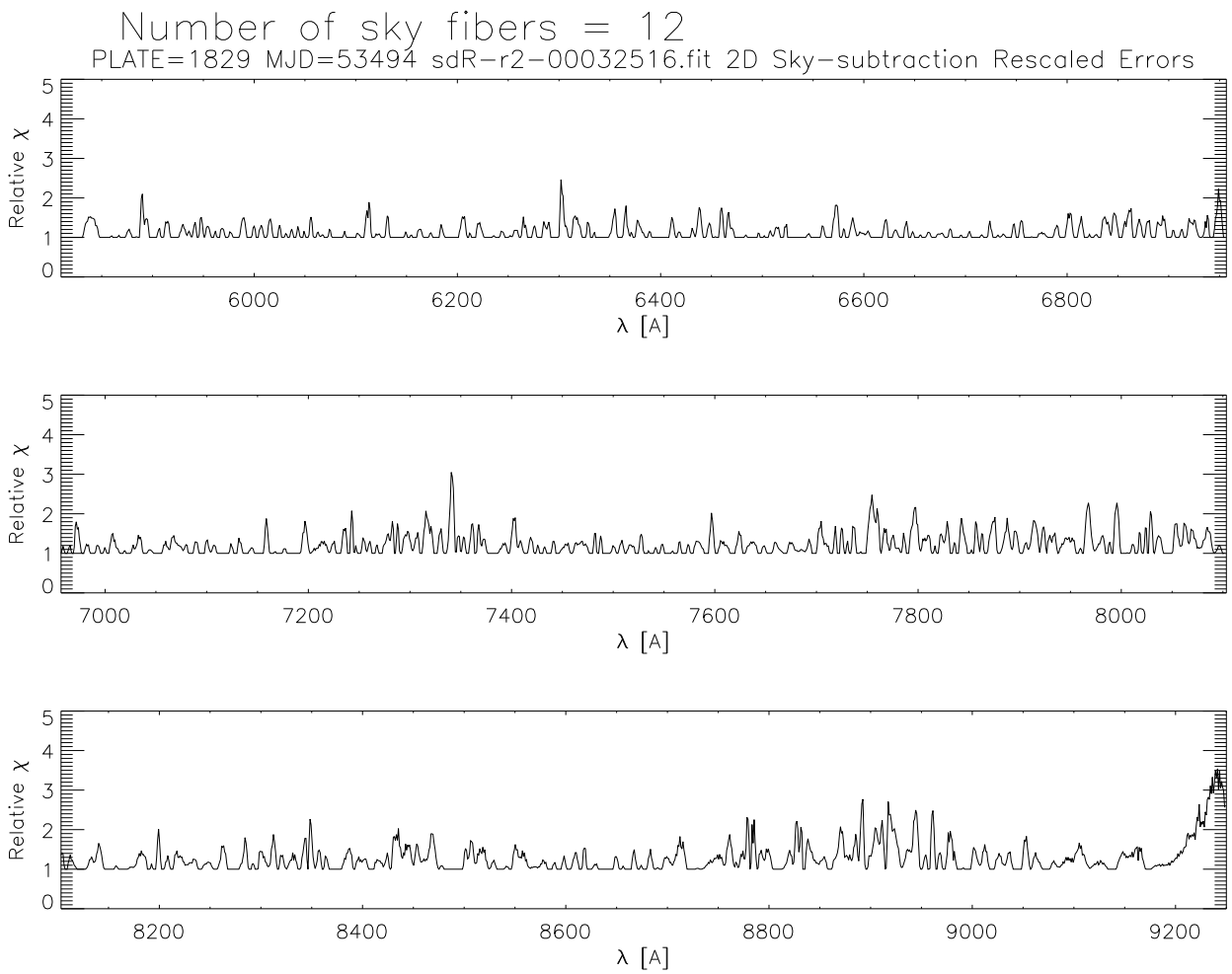

PLATE=1829 MJD=53494 sdR-r2-00032516.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
500
0
-500
-1000
8820
8840
8860
8880
8900
λ [A]

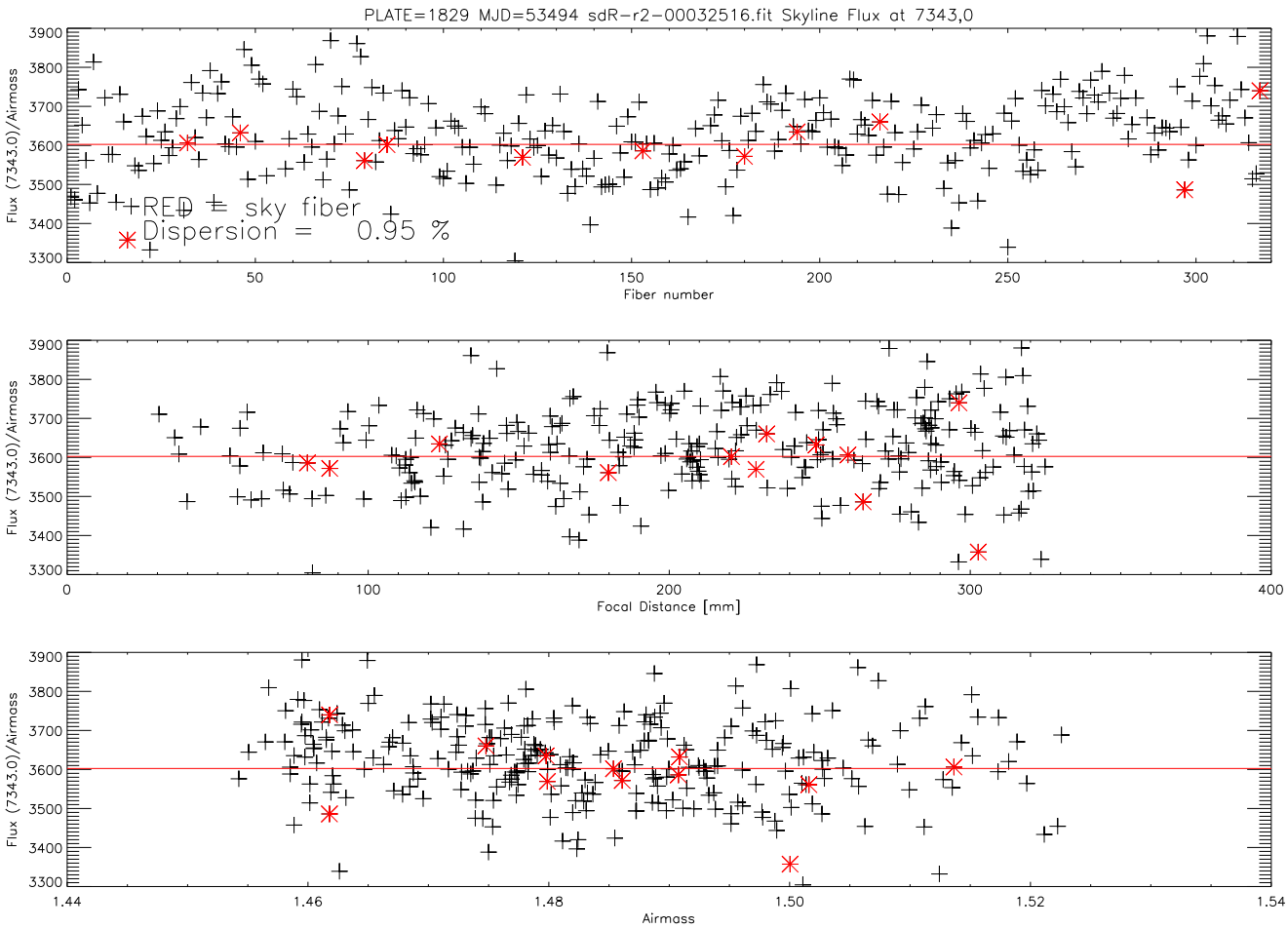

Number of sky fibers = 12
PLATE=1829 MJD=53494 sdR-r2-00032516.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

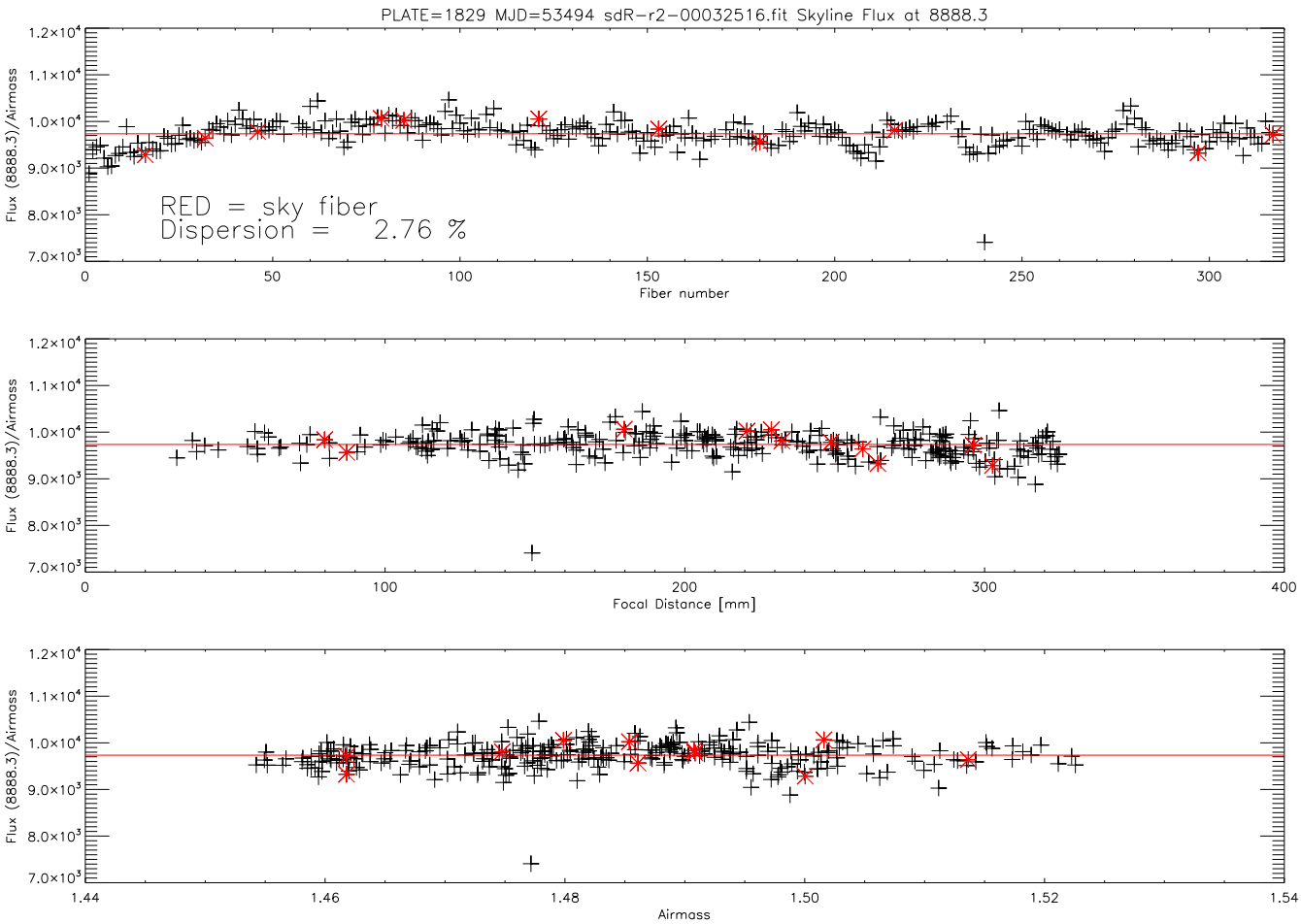

PLATE=1829 MJD=53494 sdR-r2-00032516.fit 2D Sky-subtraction Sky Fibers
Median $\chi^2$
1.0
0.8
0.6
0.4
0.2
0.0
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
20
10
0
-10
-20
50
100
150
200
250
300
Fiber number


PLATE=1829 MJD=53494 sdR-r2-00032516.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
10000
8000
6000
4000
2000
0
-2000
8820
8840
8860
8880
8900
λ [A]


PLATE=1829 MJD=53494 sdR-r2-00032516.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
200
0
-200
-400
-600
8820
8840
8860
8880
8900
λ [A]


Number of sky fibers = 12
PLATE=1829 MJD=53494 sdR-r2-00032516.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=1829 MJD=53494 sdR-r2-00032516.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
Fiber number
RED = sky fiber
Dispersion = 0.95 %
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass


PLATE=1829 MJD=53494 sdR-r2-00032516.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 2.76 %
Fiber number
Focal Distance [mm]
Airmass