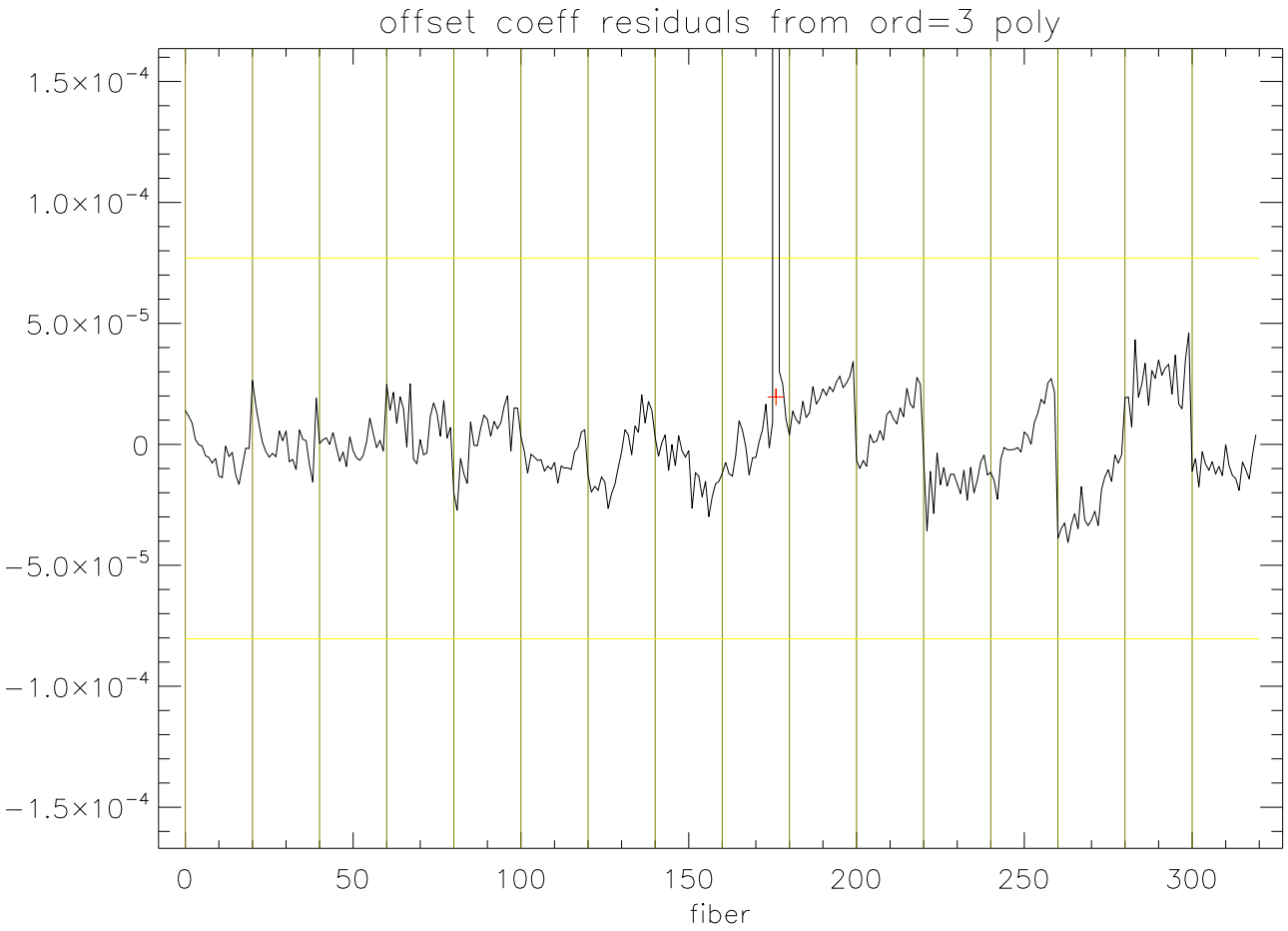
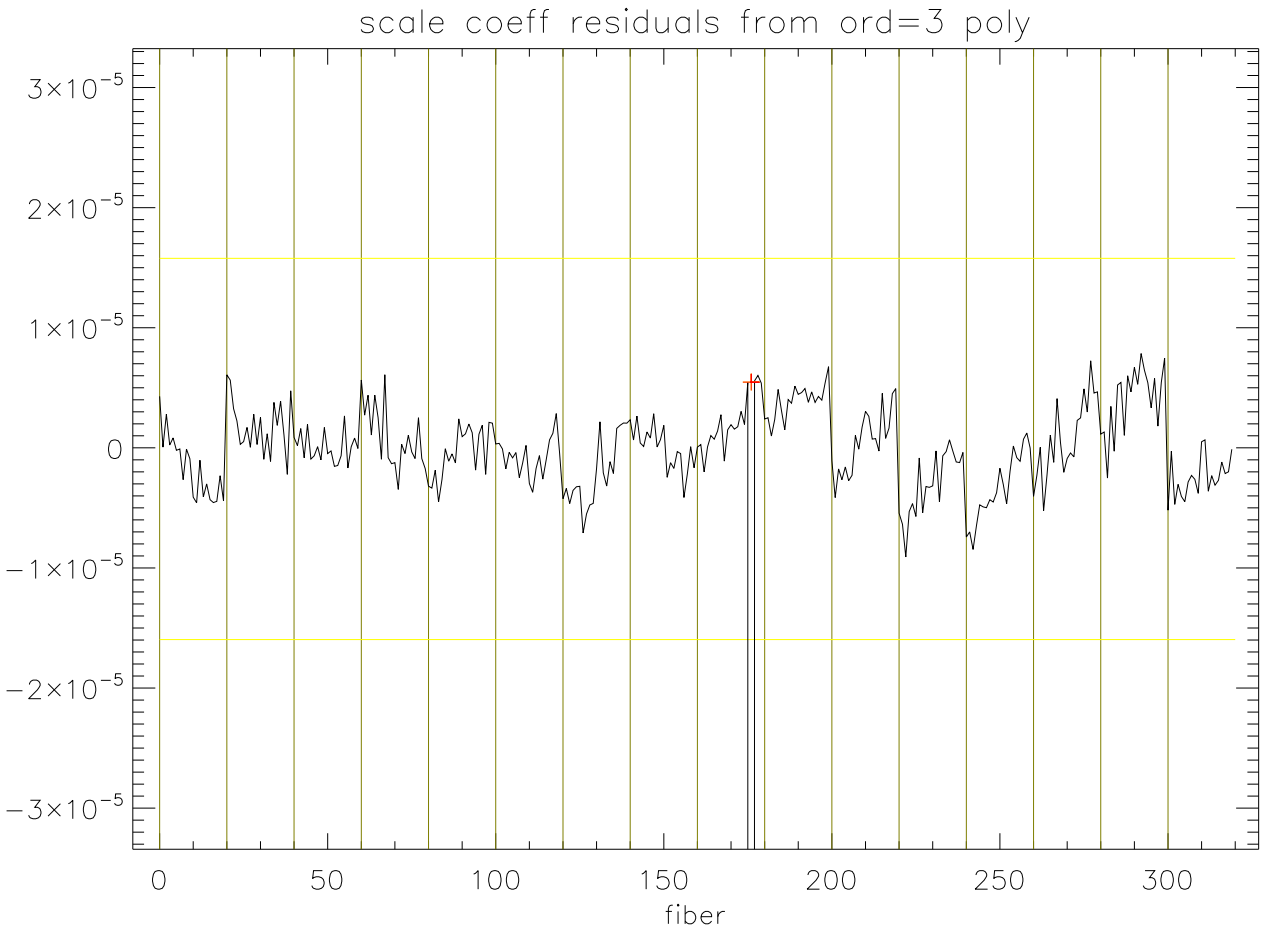
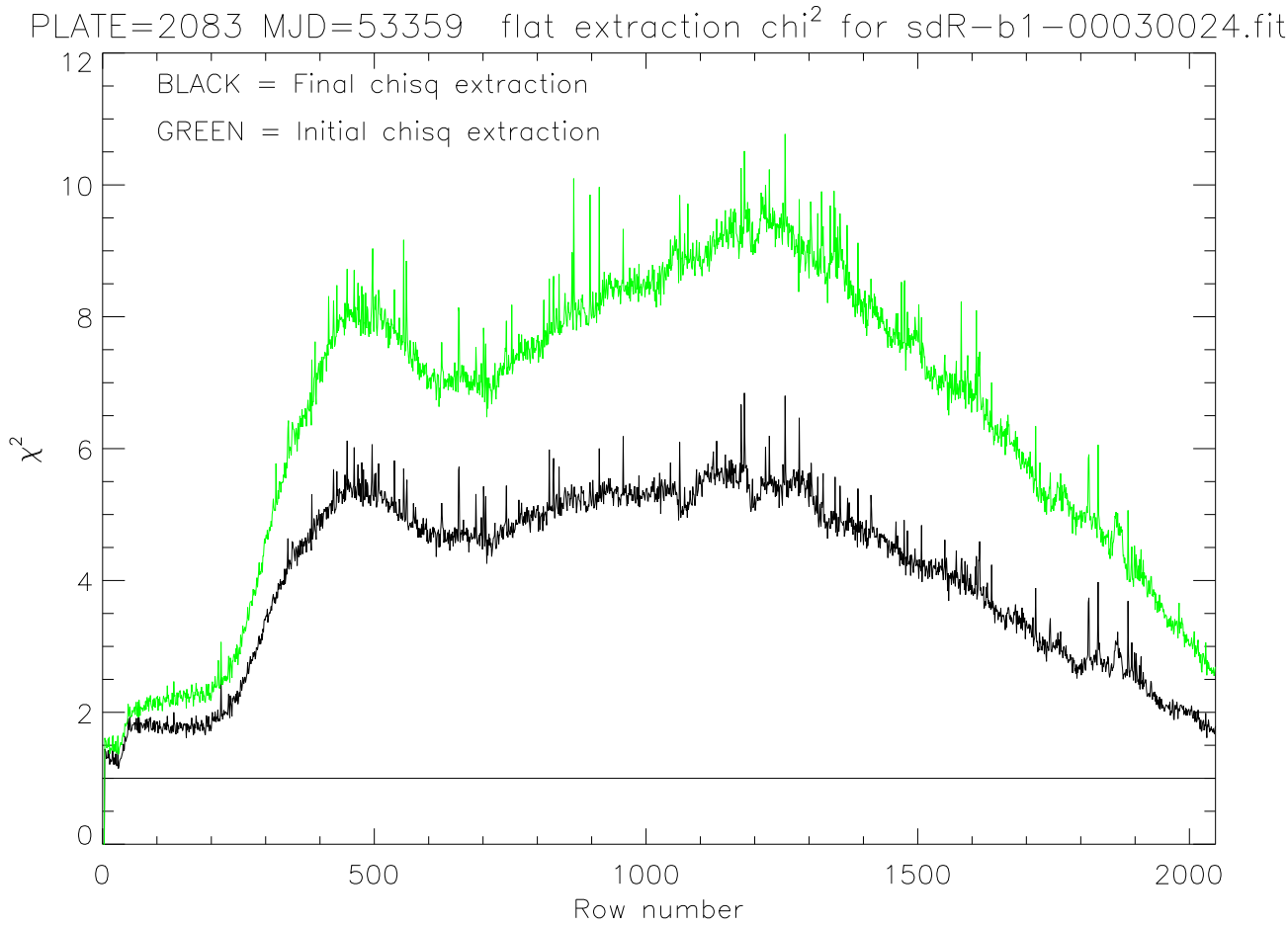
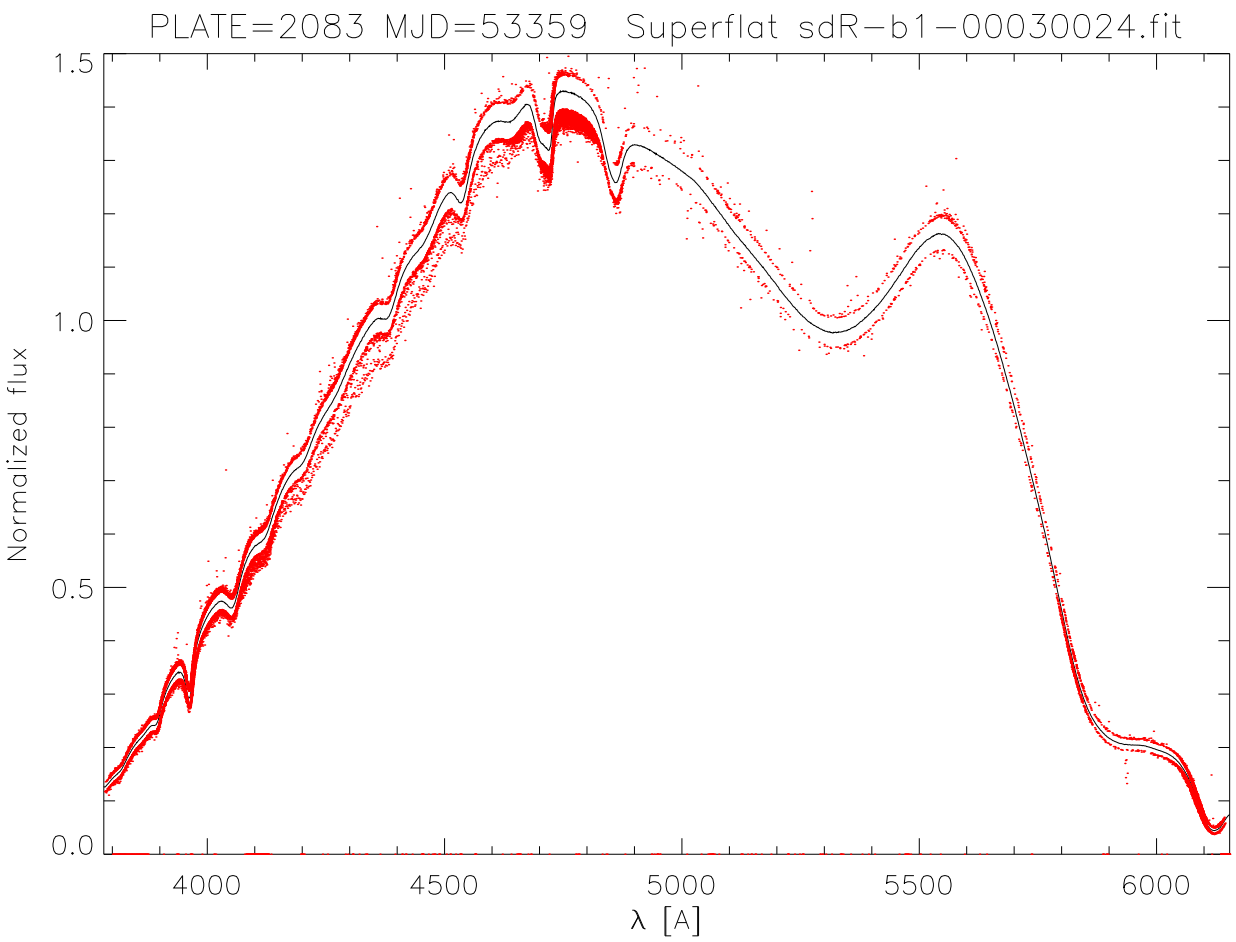
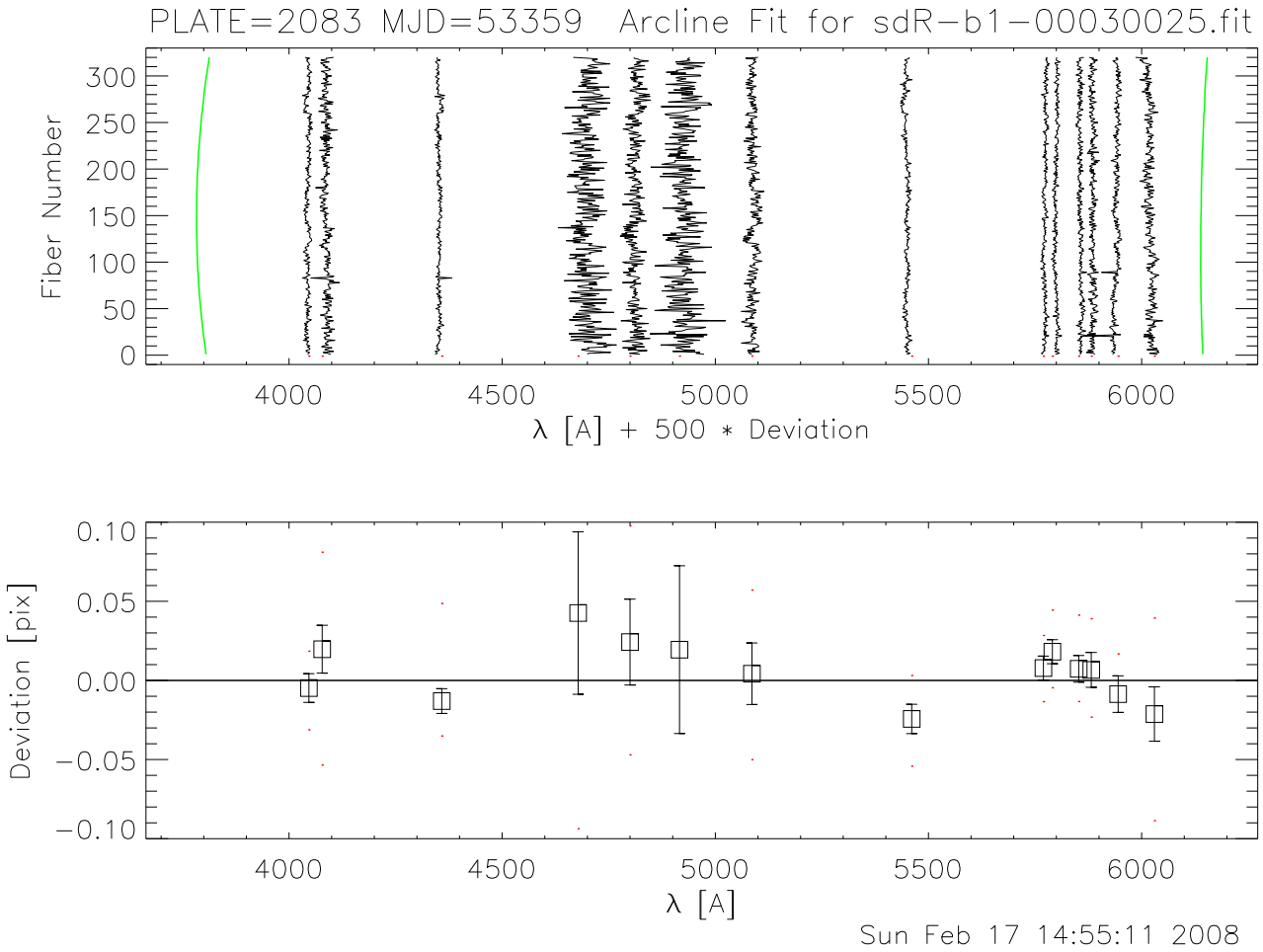
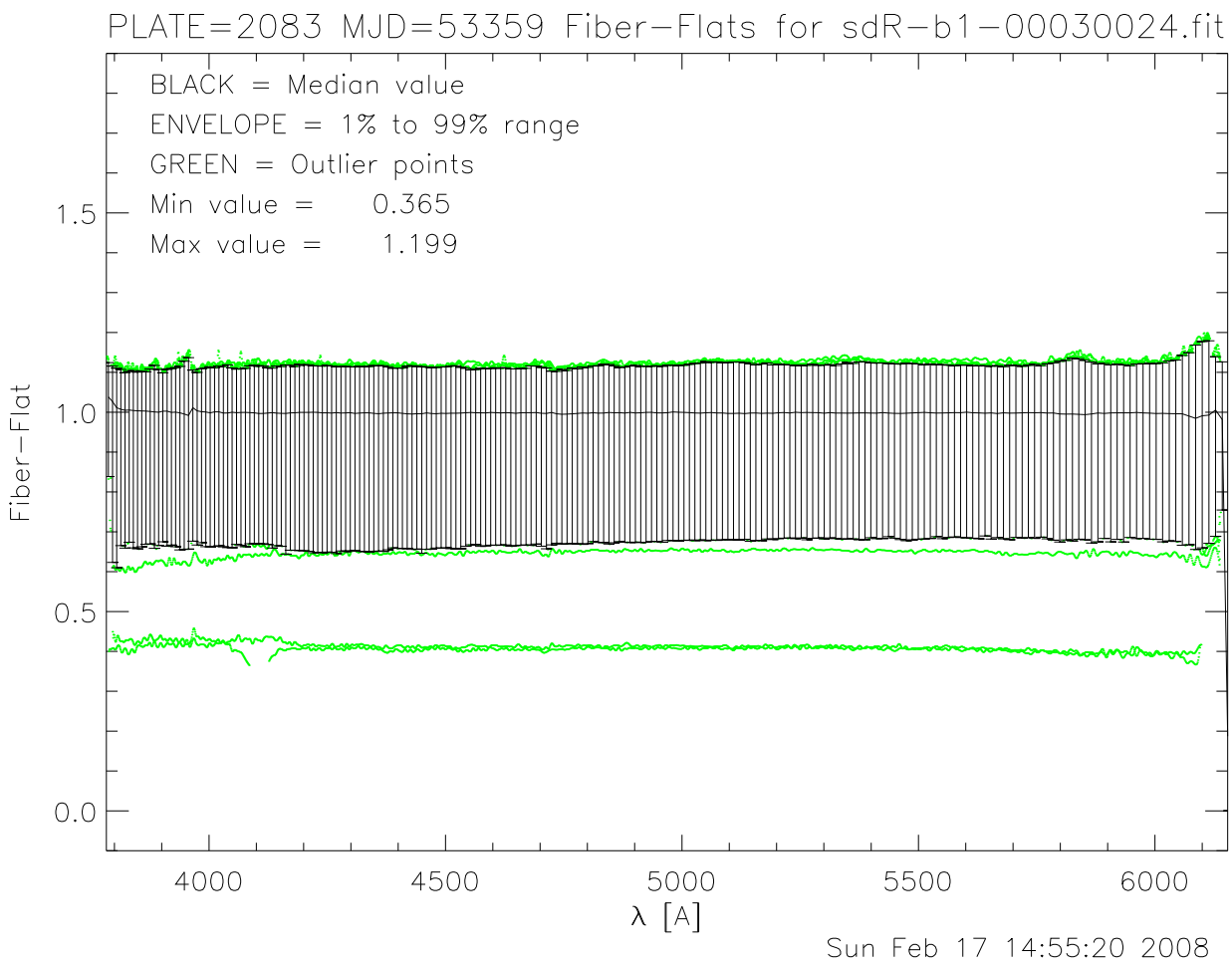

offset coeff residuals from ord=3 poly
1.5×10^-4
1.0×10^-4
5.0×10^-5
0
−5.0×10^-5
−1.0×10^-4
−1.5×10^-4
0
50
100
150
200
250
300
fiber

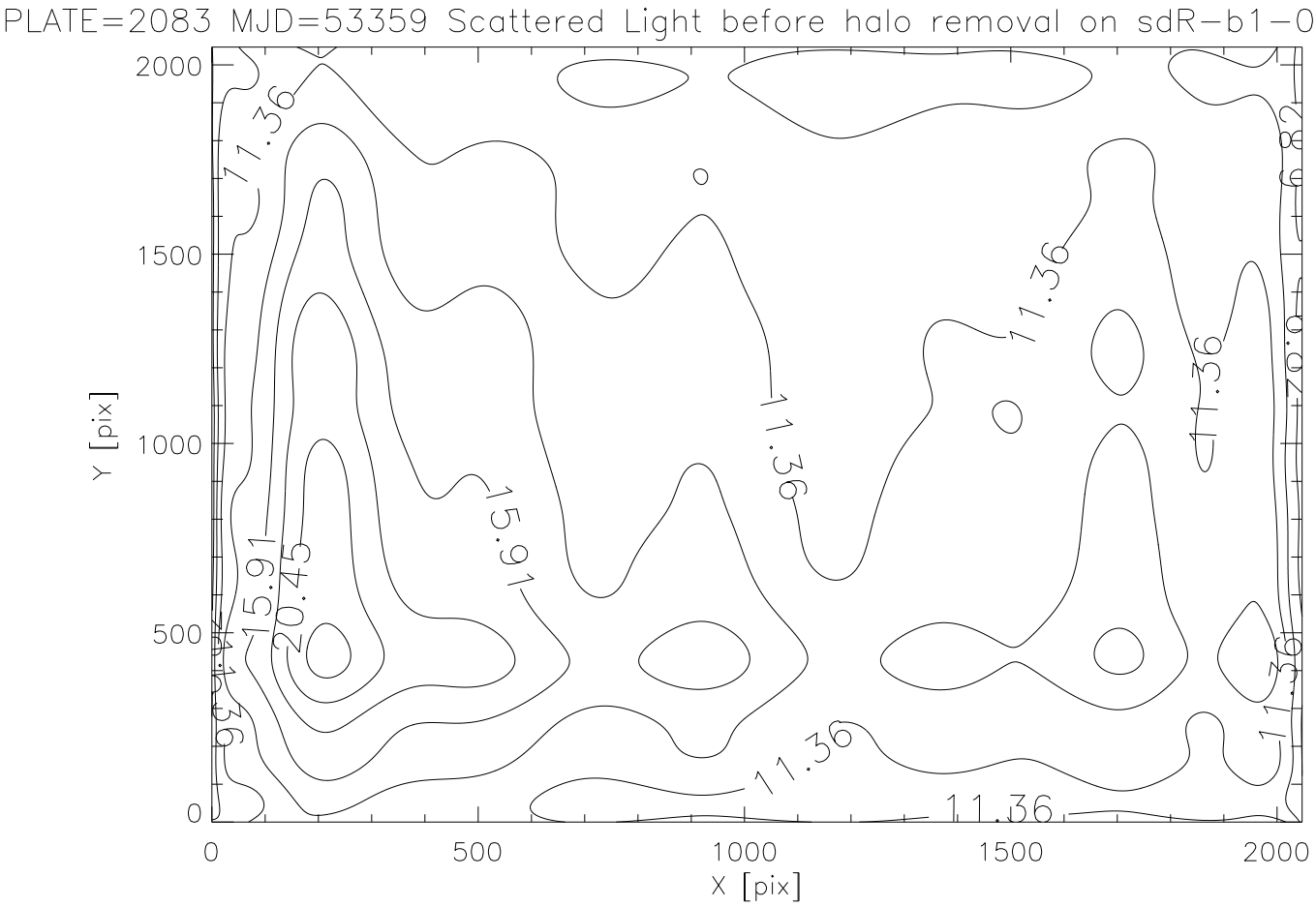

scale coeff residuals from ord=3 poly
3×10^-5
2×10^-5
1×10^-5
0
−1×10^-5
−2×10^-5
−3×10^-5
0
50
100
150
200
250
300
fiber

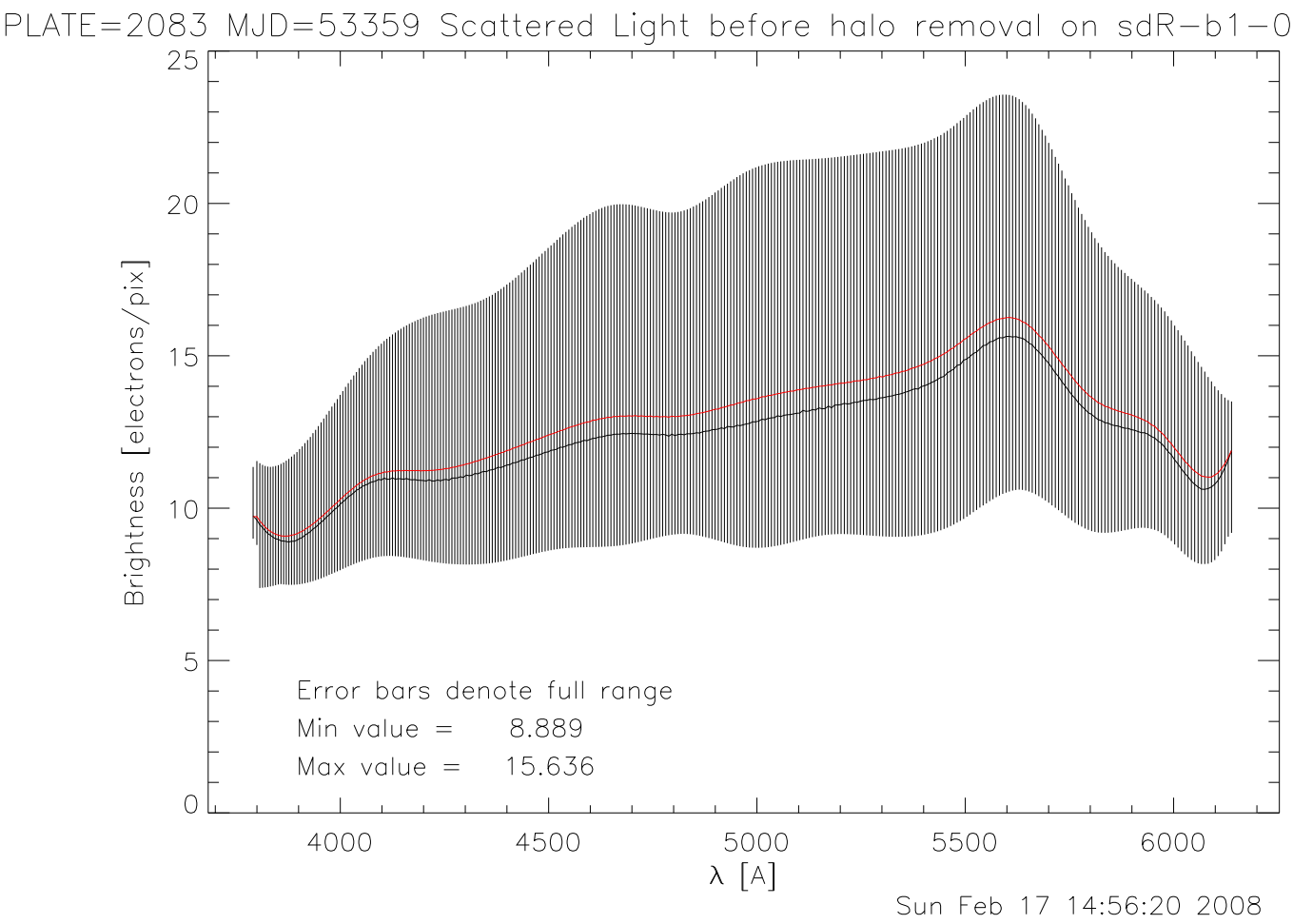

PLATE=2083 MJD=53359 flat extraction chi$^2$ for sdR−b1−00030024.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
$\chi^2$
Row number
0
2
4
6
8
10
12
0
500
1000
1500
2000

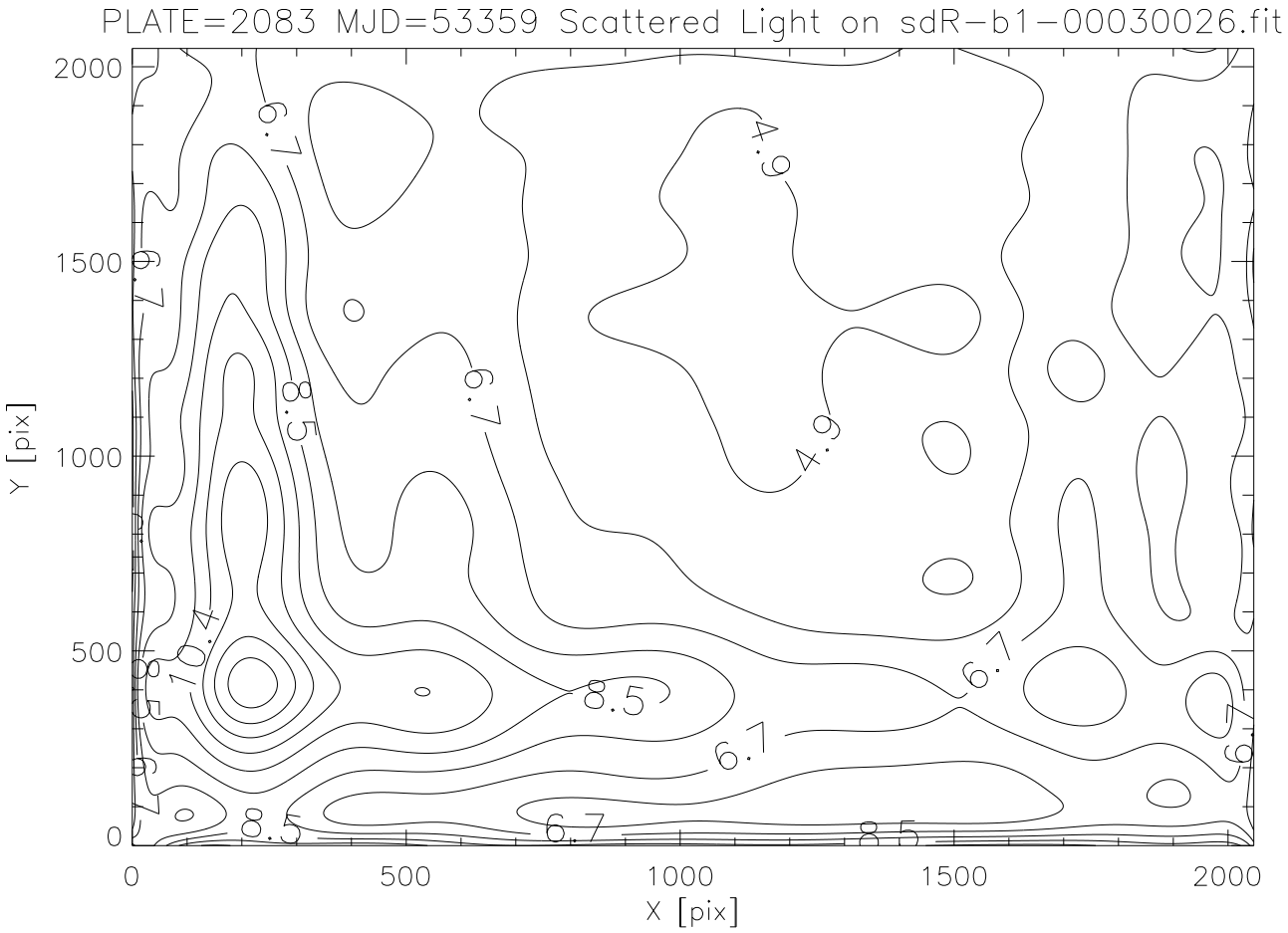

PLATE=2083 MJD=53359 Superflat sdR-b1-00030024.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

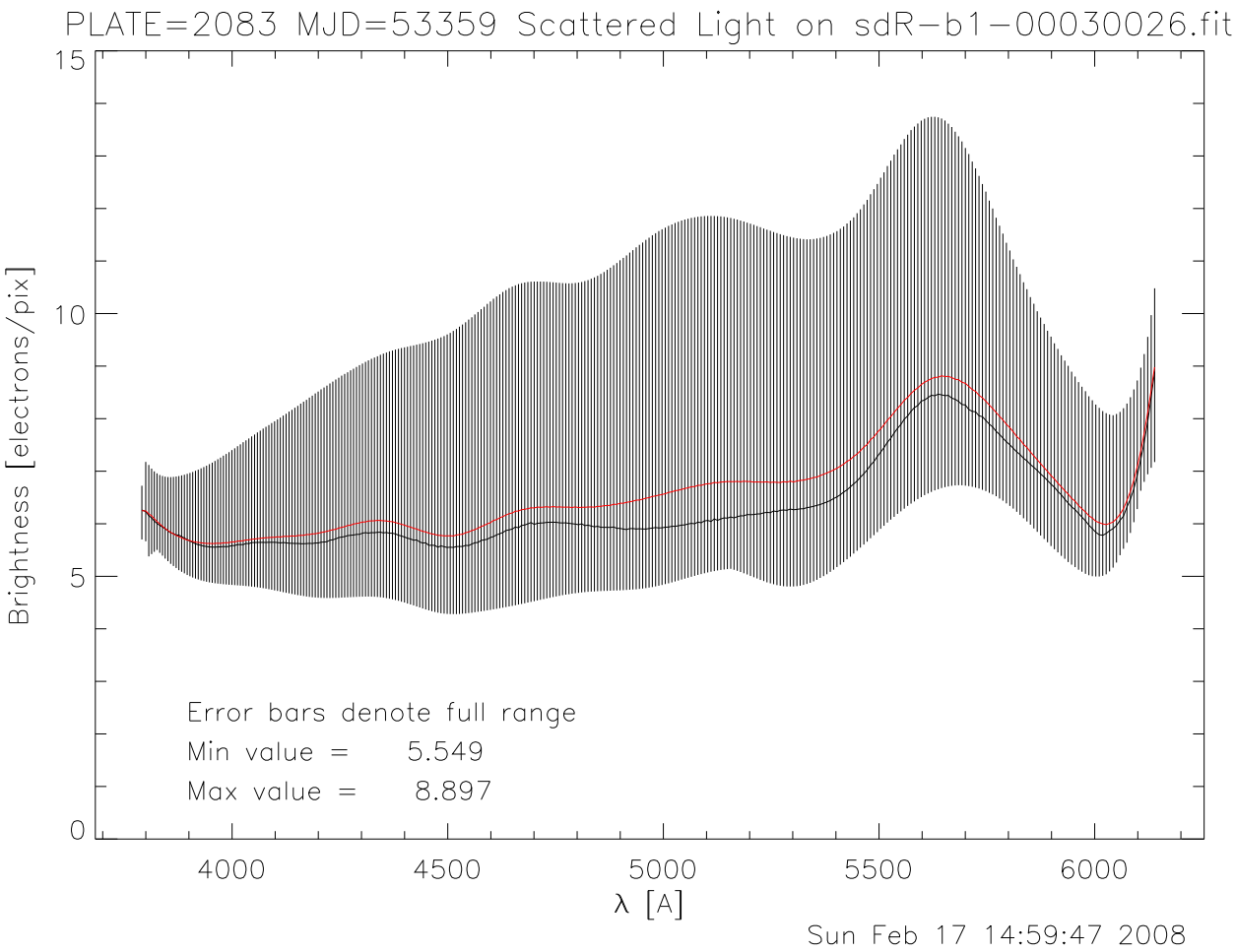

PLATE=2083 MJD=53359 Arcline Fit for sdR-b1-00030025.fit
Fiber Number
300
250
200
150
100
50
0
4000
4500
5000
5500
6000
λ [A] + 500 * Deviation
0.10
0.05
0.00
−0.05
−0.10
Deviation [pix]
4000
4500
5000
5500
6000
λ [A]
Sun Feb 17 14:55:11 2008

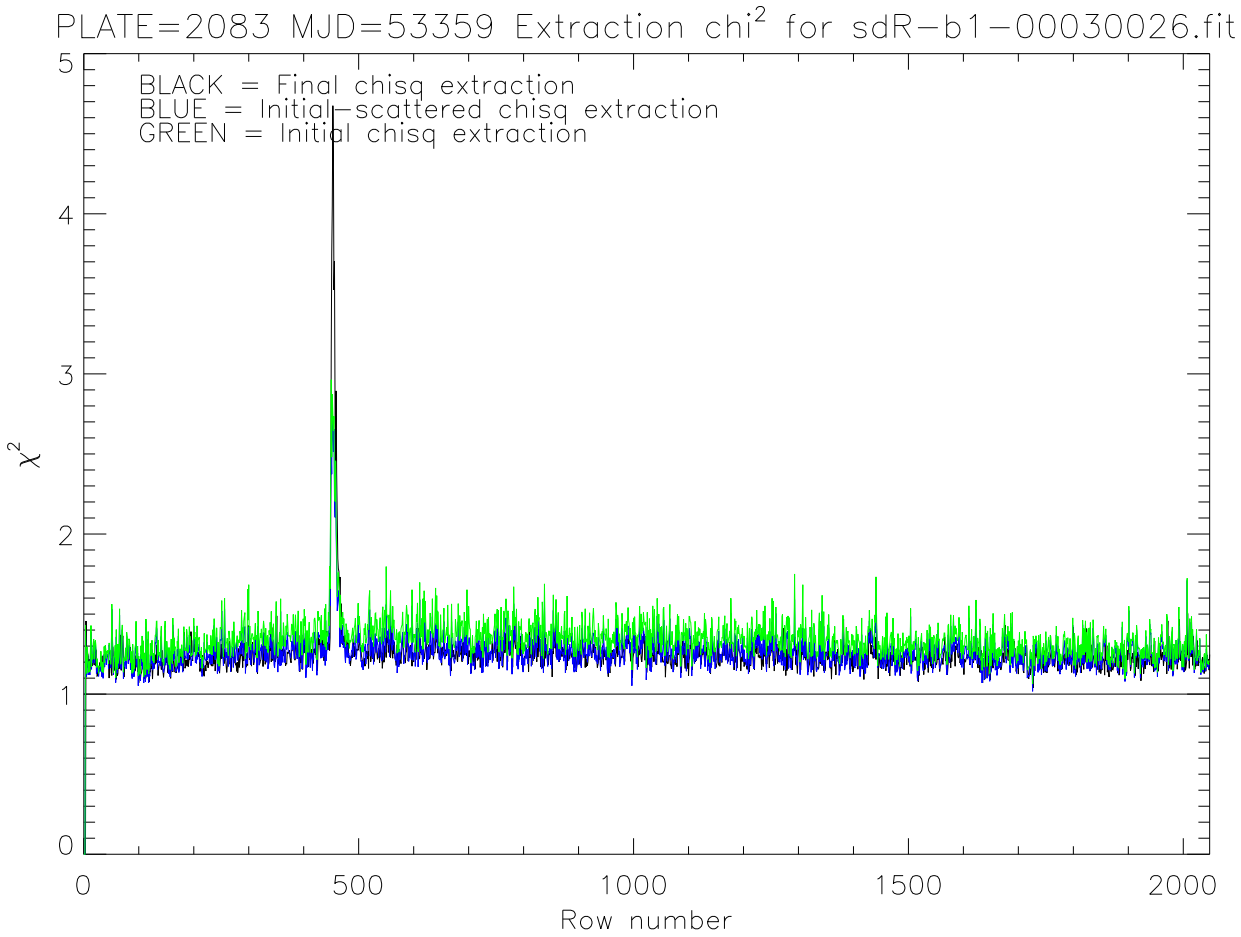

PLATE=2083 MJD=53359 Fiber−Flats for sdR−b1−00030024.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.365
Max value = 1.199
Fiber−Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Sun Feb 17 14:55:20 2008

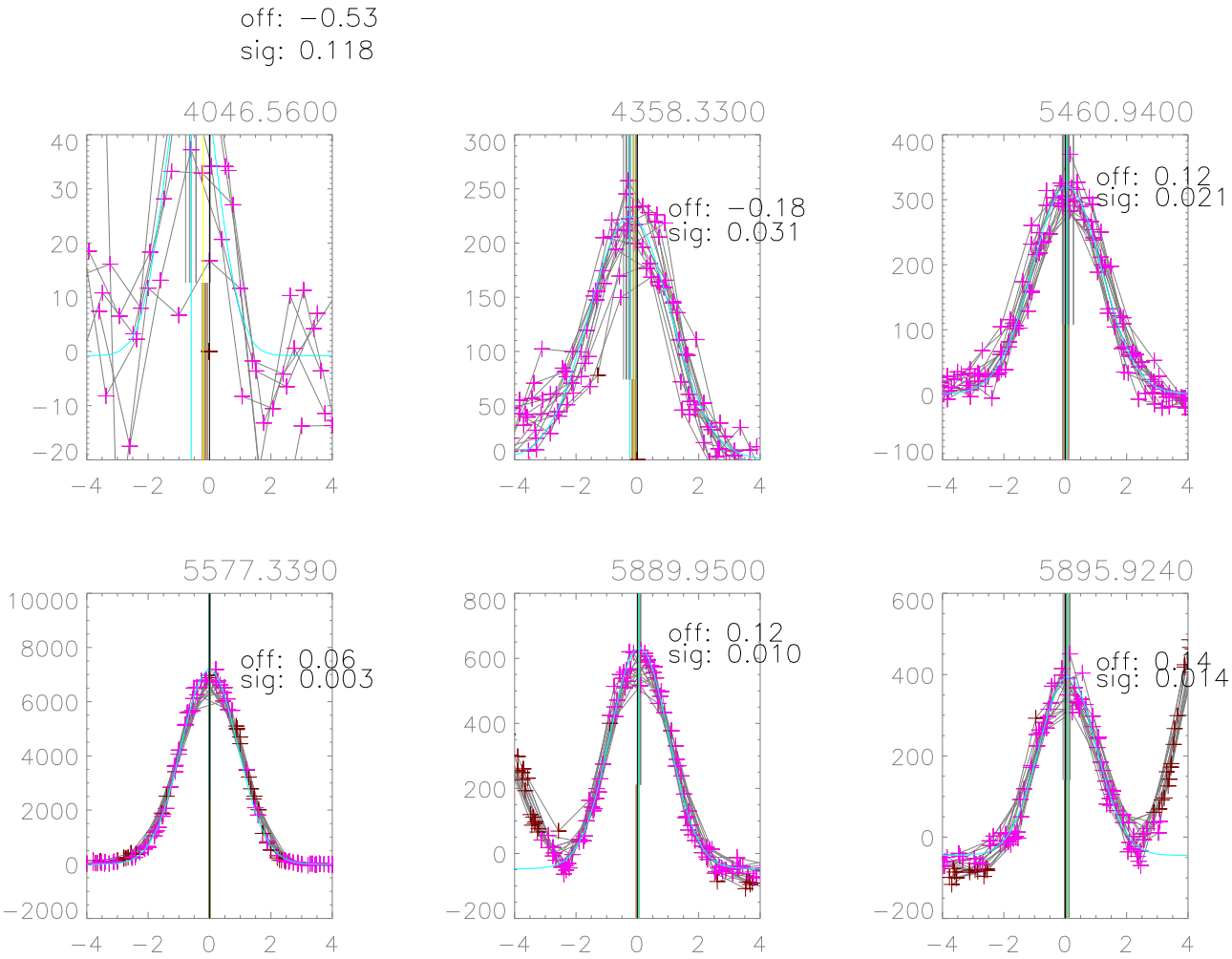

PLATE=2083 MJD=53359 Scattered Light before halo removal on sdR−b1−00030026.f
Y [pix]
X [pix]
0
500
1000
1500
2000
11.36
15.91
20.45
0

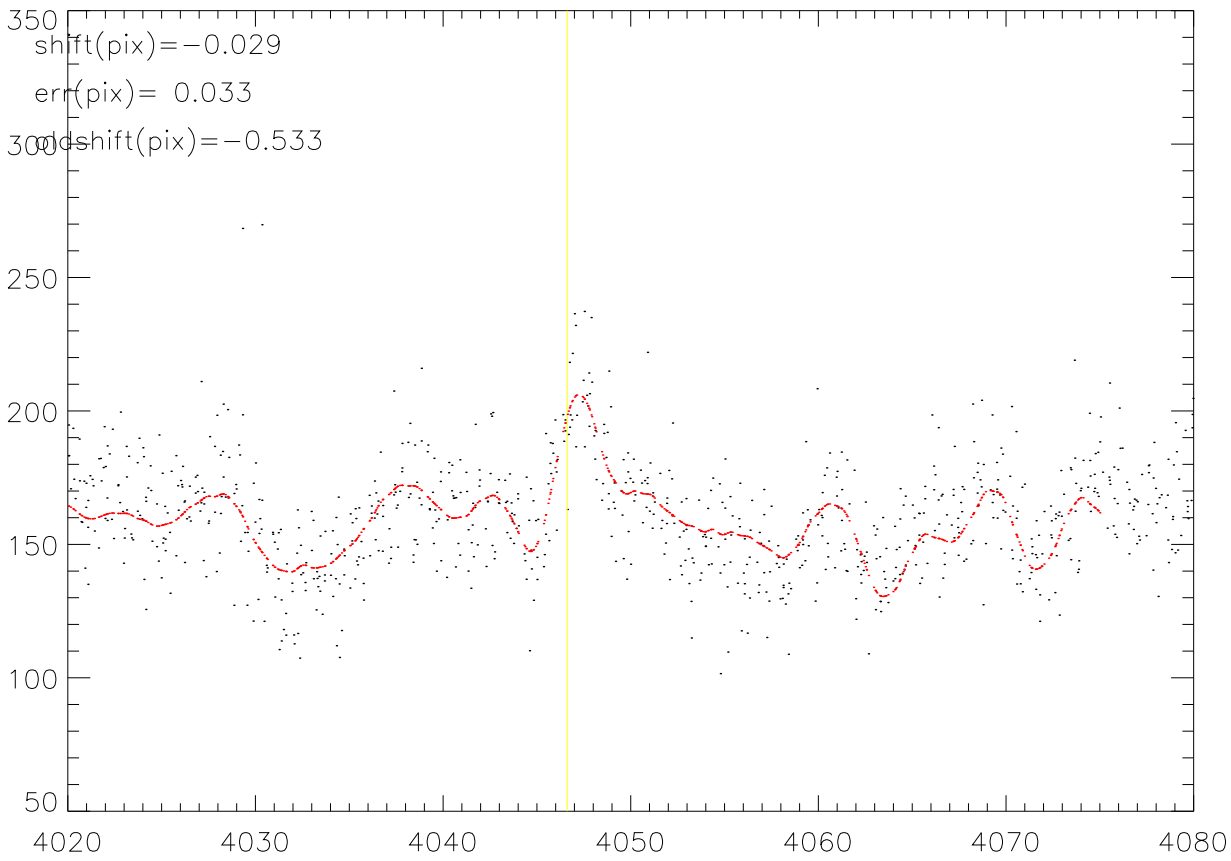

PLATE=2083 MJD=53359 Scattered Light before halo removal on sdR-b1-00030026.f
Brightness [electrons/pix]
25
20
15
10
5
0
Error bars denote full range
Min value = 8.889
Max value = 15.636
4000
4500
5000
5500
6000
λ [A]
Sun Feb 17 14:56:20 2008

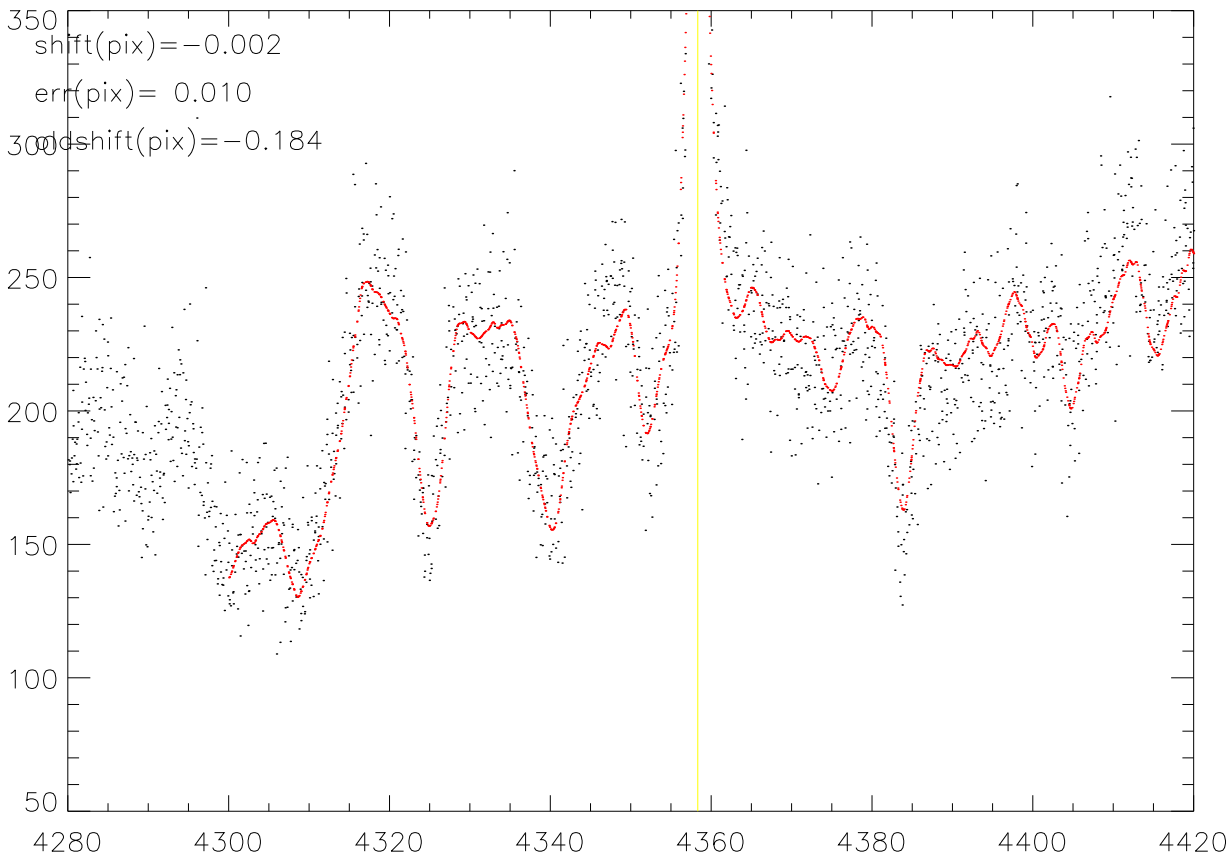

PLATE=2083 MJD=53359 Scattered Light on sdR-b1-00030026.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
6.7
4.9
8.5
10.4

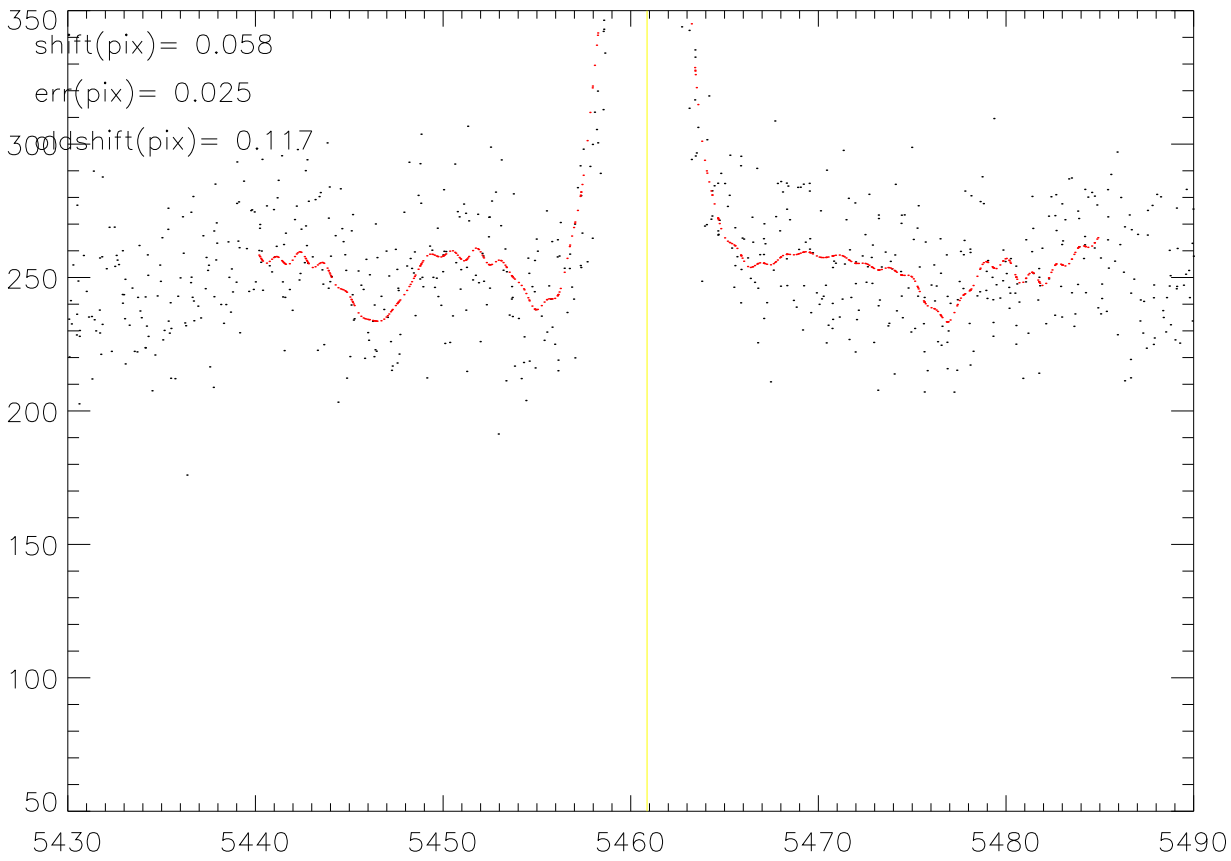

PLATE=2083 MJD=53359 Scattered Light on sdR-b1-00030026.fit
Brightness [electrons/pix]
15
10
5
0
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 5.549
Max value = 8.897
Sun Feb 17 14:59:47 2008

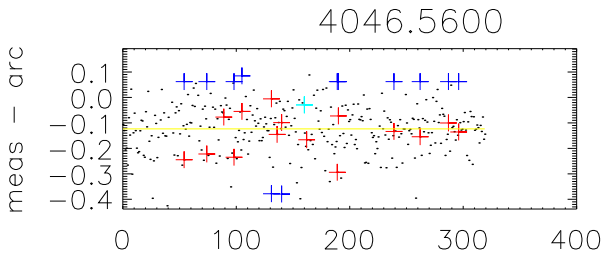

PLATE=2083 MJD=53359 Extraction chi$^2$ for sdR-b1-00030026.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
$\chi^2$
Row number
0
500
1000
1500
2000
1
2
3
4
5

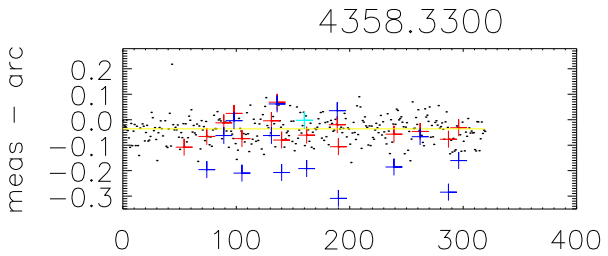

off: −0.53
sig: 0.118
4046.5600
4358.3300
off: −0.18
sig: 0.031
5460.9400
off: 0.12
sig: 0.021
5577.3390
off: 0.06
sig: 0.003
5889.9500
off: 0.12
sig: 0.010
5895.9240
off: 0.14
sig: 0.014

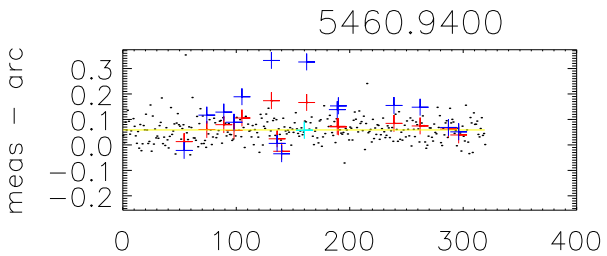

shift(pix)=−0.029
err(pix)= 0.033
oldshift(pix)=−0.533
350
300
250
200
150
100
50
4020
4030
4040
4050
4060
4070
4080

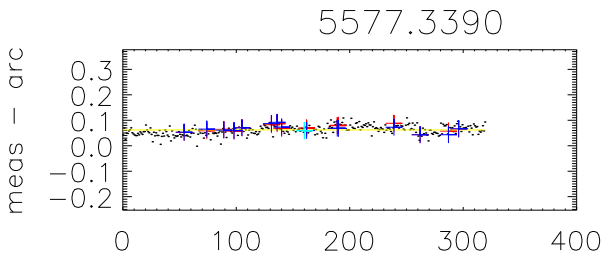

shift(pix)=−0.002
err(pix)= 0.010
oldshift(pix)=−0.184
350
300
250
200
150
100
50
4280
4300
4320
4340
4360
4380
4400
4420

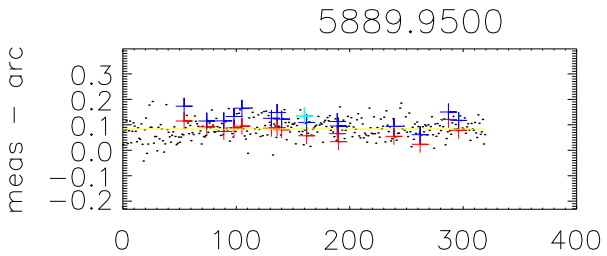

shift(pix)= 0.058
err(pix)= 0.025
oldshift(pix)= 0.117
350
300
250
200
150
100
50
5430
5440
5450
5460
5470
5480
5490

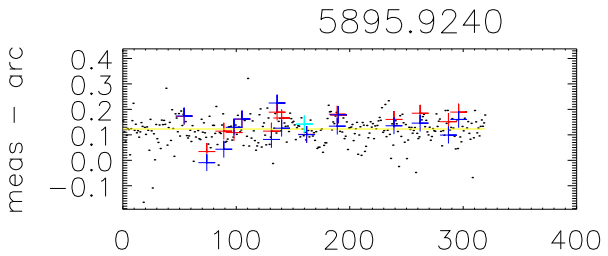

4046.5600
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

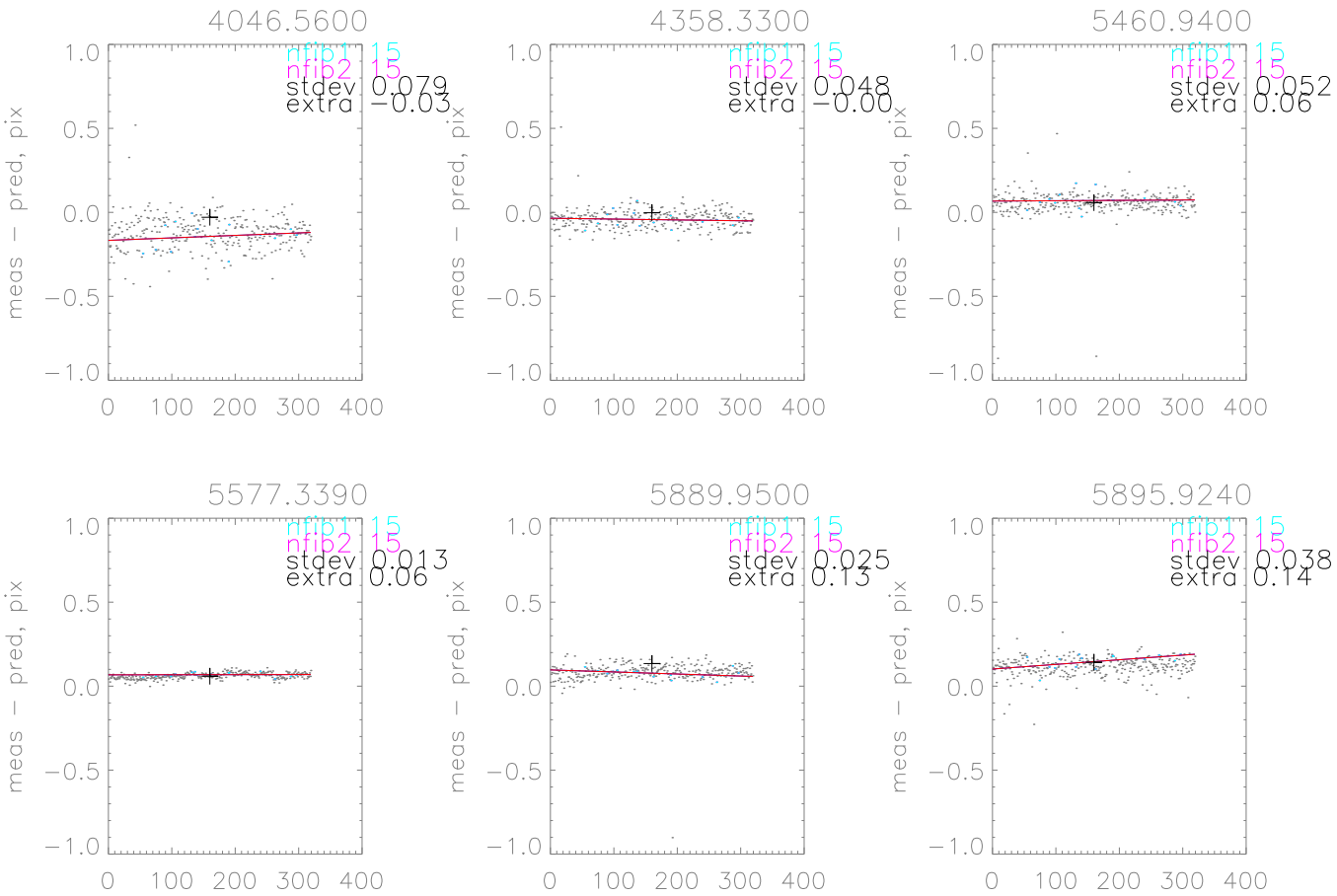

4358.3300
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

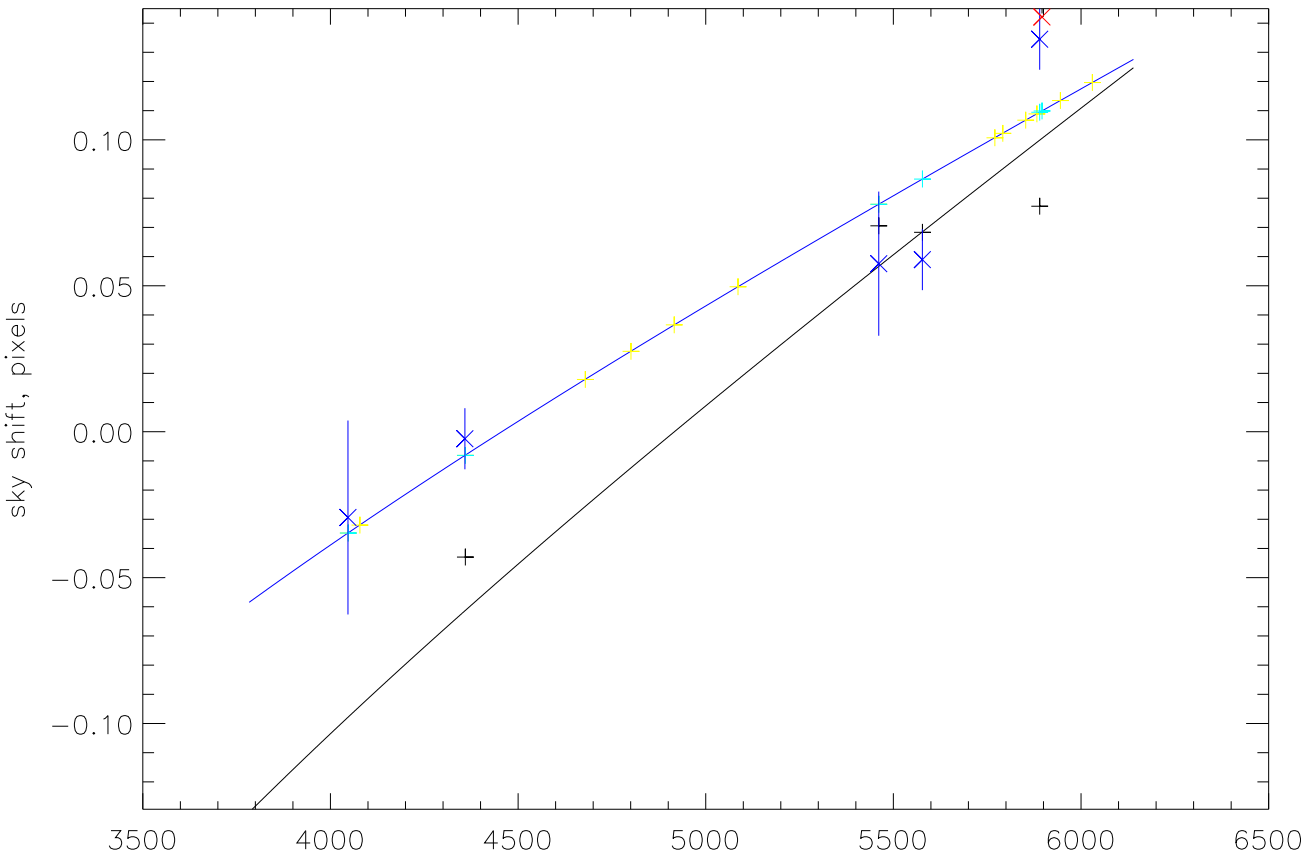

5460.9400
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400


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

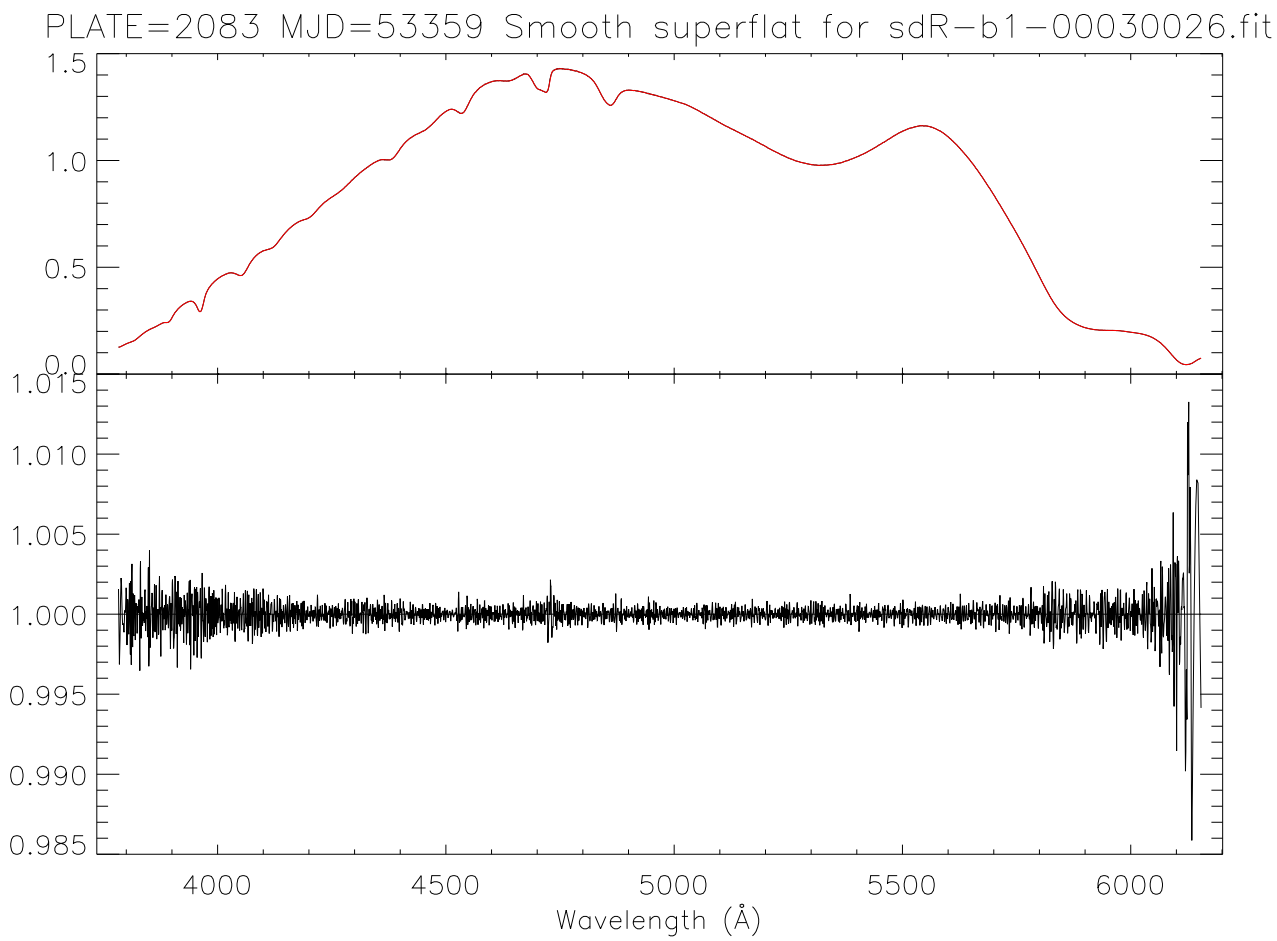

5889.9500
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

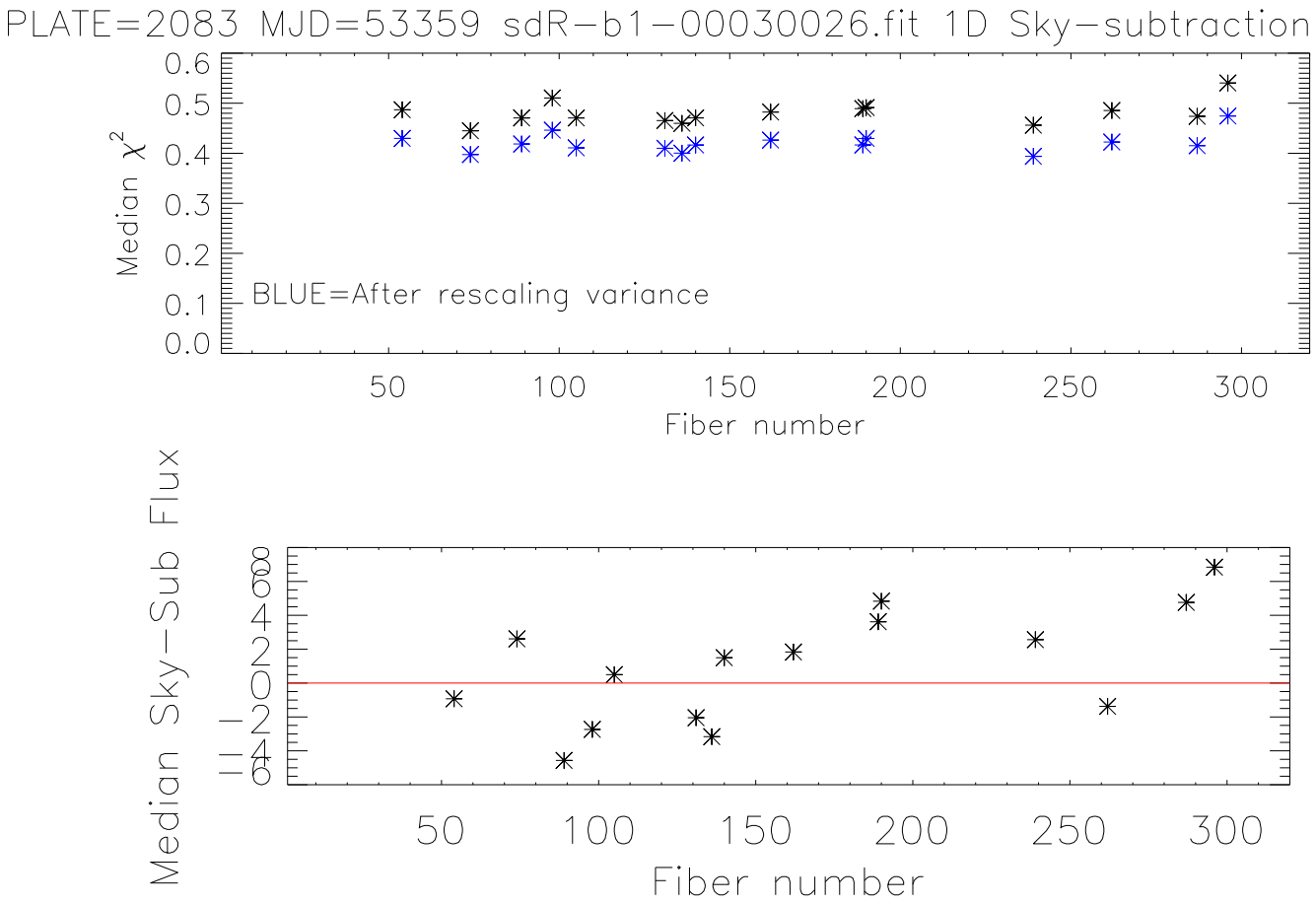

5895.9240
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

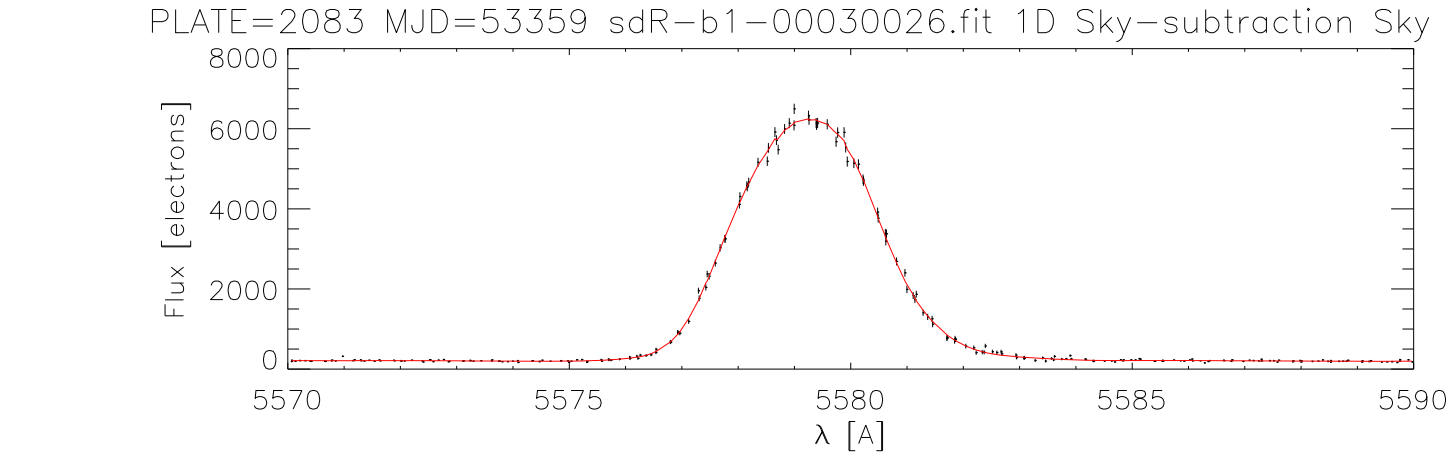

4046.5600
nfib1 15
nfib2 15
stdev 0.079
extra −0.03
4358.3300
nfib1 15
nfib2 15
stdev 0.048
extra −0.00
5460.9400
nfib1 15
nfib2 15
stdev 0.052
extra 0.06
5577.3390
nfib1 15
nfib2 15
stdev 0.013
extra 0.06
5889.9500
nfib1 15
nfib2 15
stdev 0.025
extra 0.13
5895.9240
nfib1 15
nfib2 15
stdev 0.038
extra 0.14
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

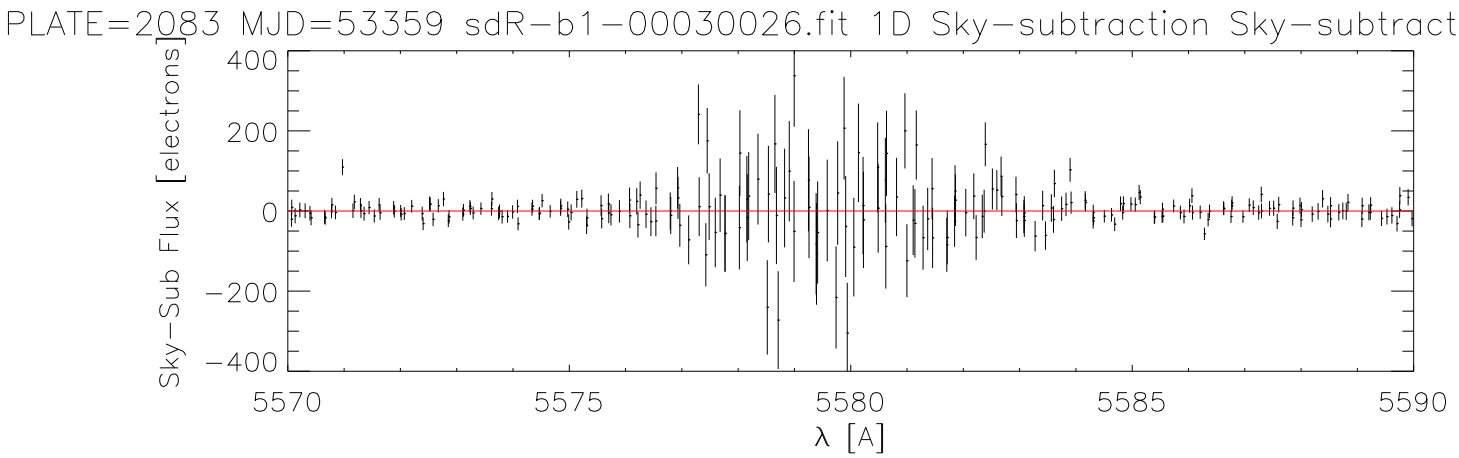

sky shift, pixels
0.10
0.05
0.00
−0.05
−0.10
3500
4000
4500
5000
5500
6000
6500

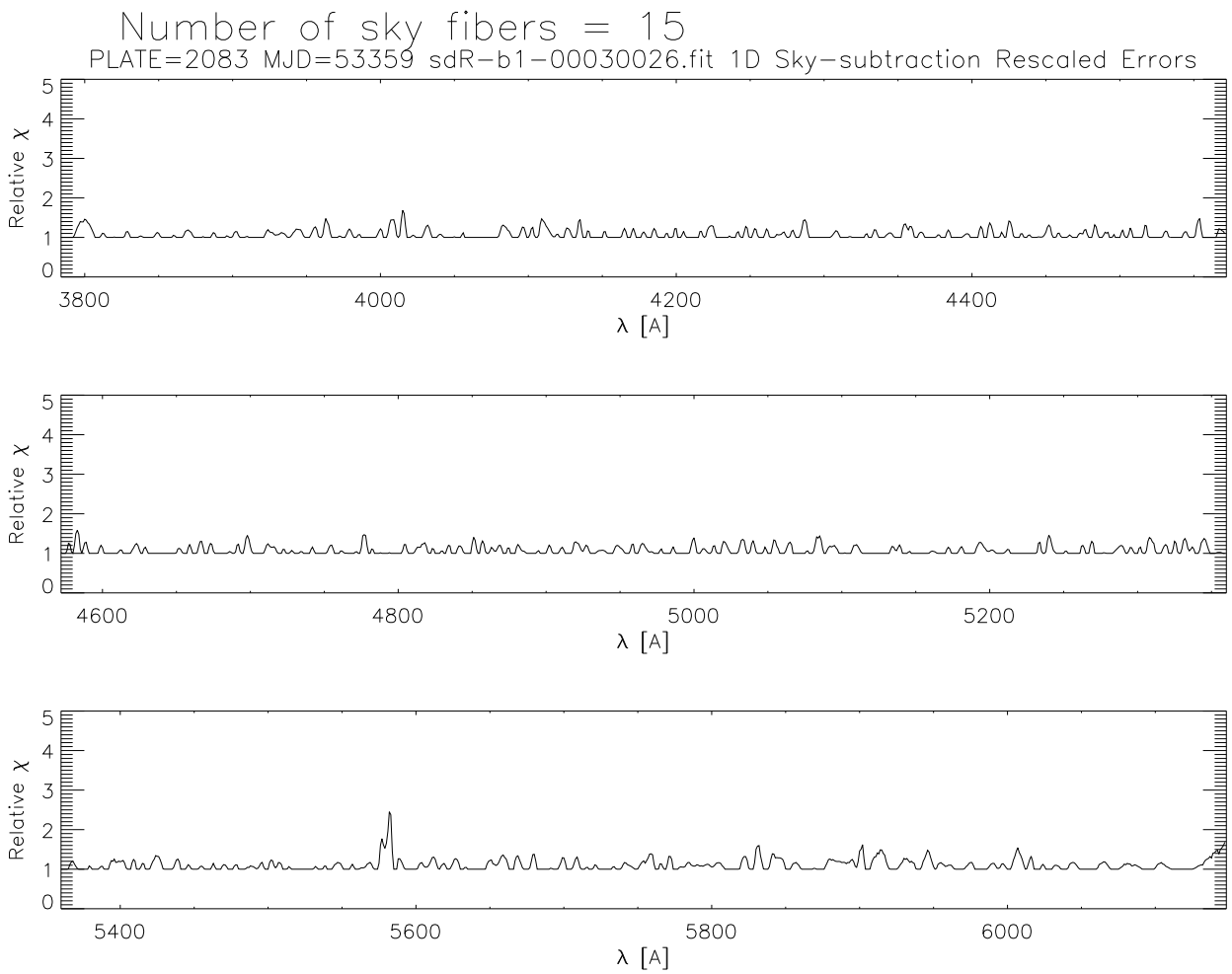
es= 0.0000

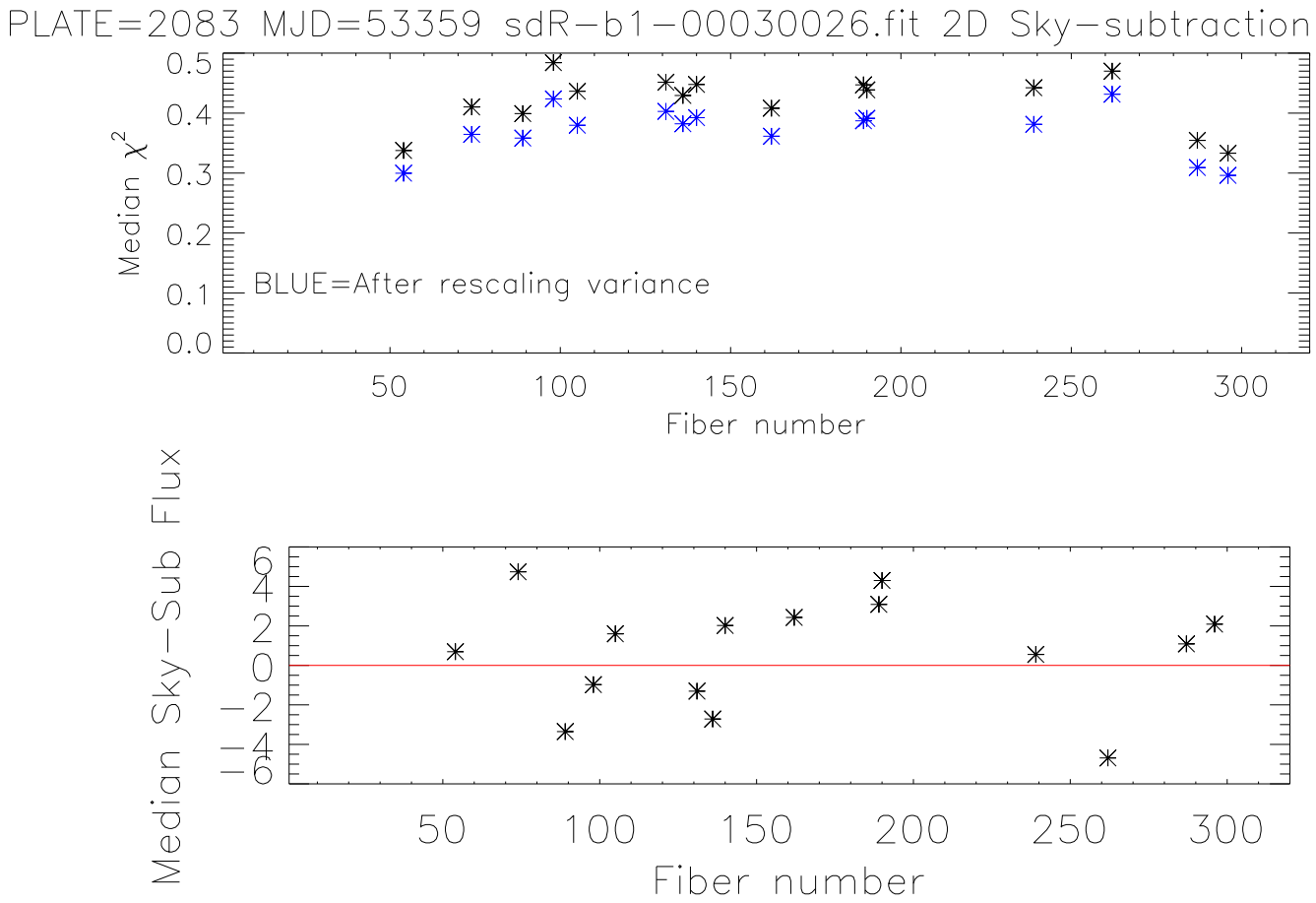

PLATE=2083 MJD=53359 Smooth superflat for sdR-b1-00030026.fit
1.5
1.0
0.5
0.0
1.015
1.010
1.005
1.000
0.995
0.990
0.985
4000
4500
5000
5500
6000
Wavelength (Å)

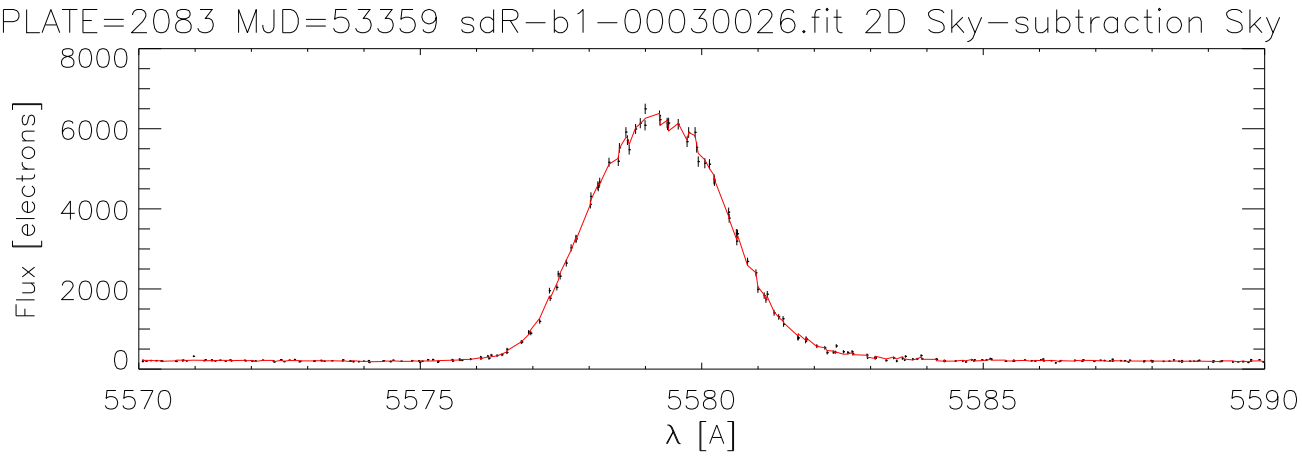

PLATE=2083 MJD=53359 sdR-b1-00030026.fit 1D Sky-subtraction Sky Fiber
Median $\chi^2$
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-6
-4
-2
0
2
4
6
8
50
100
150
200
250
300
Fiber number

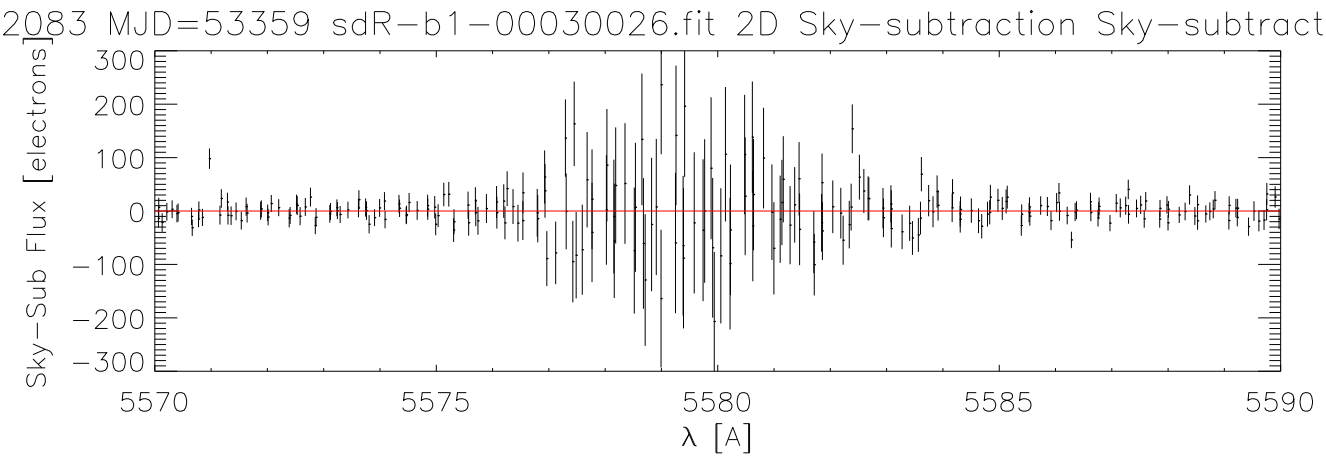

PLATE=2083 MJD=53359 sdR-b1-00030026.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

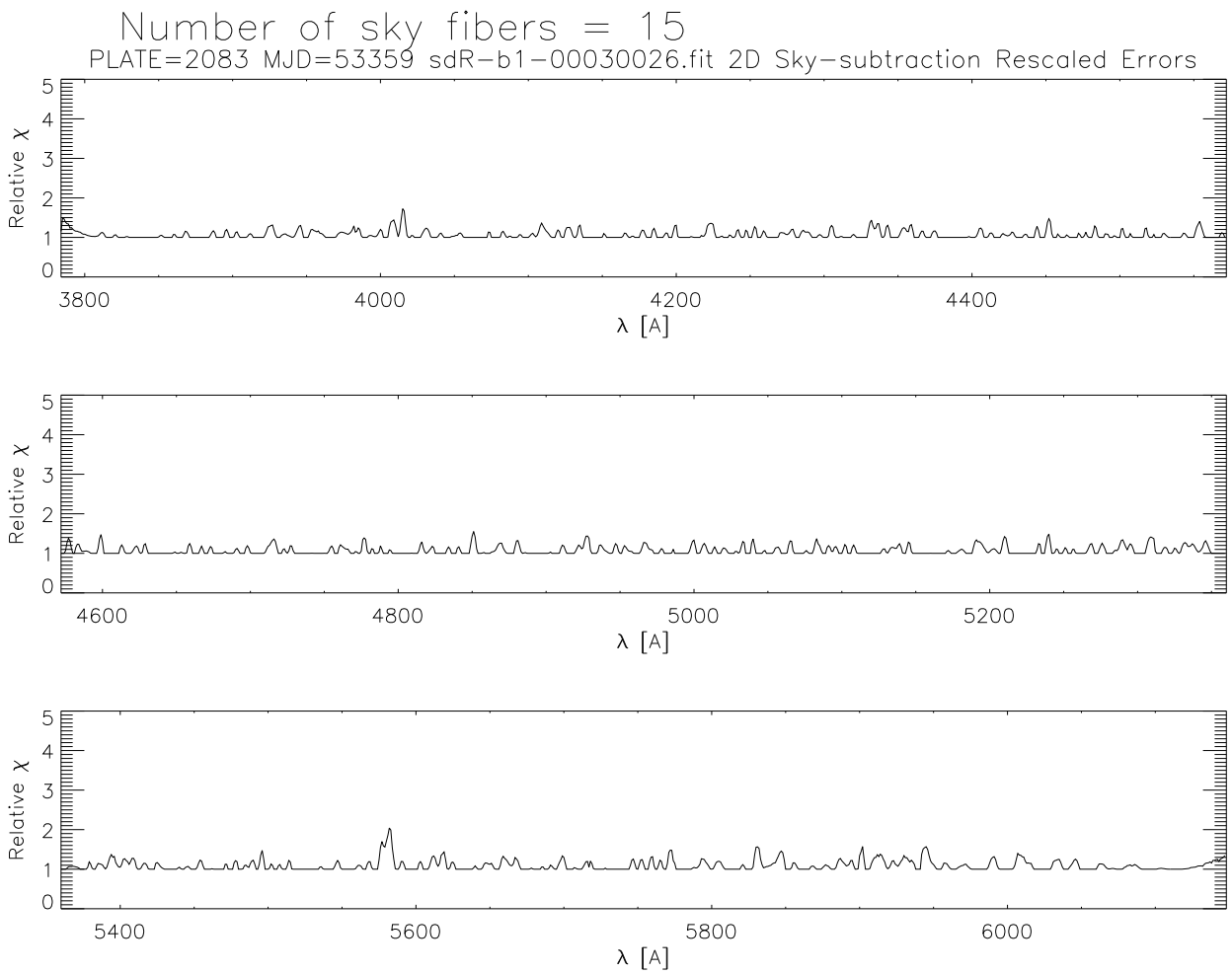

PLATE=2083 MJD=53359 sdR-b1-00030026.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
200
0
-200
-400
5570
5575
5580
5585
5590
λ [A]

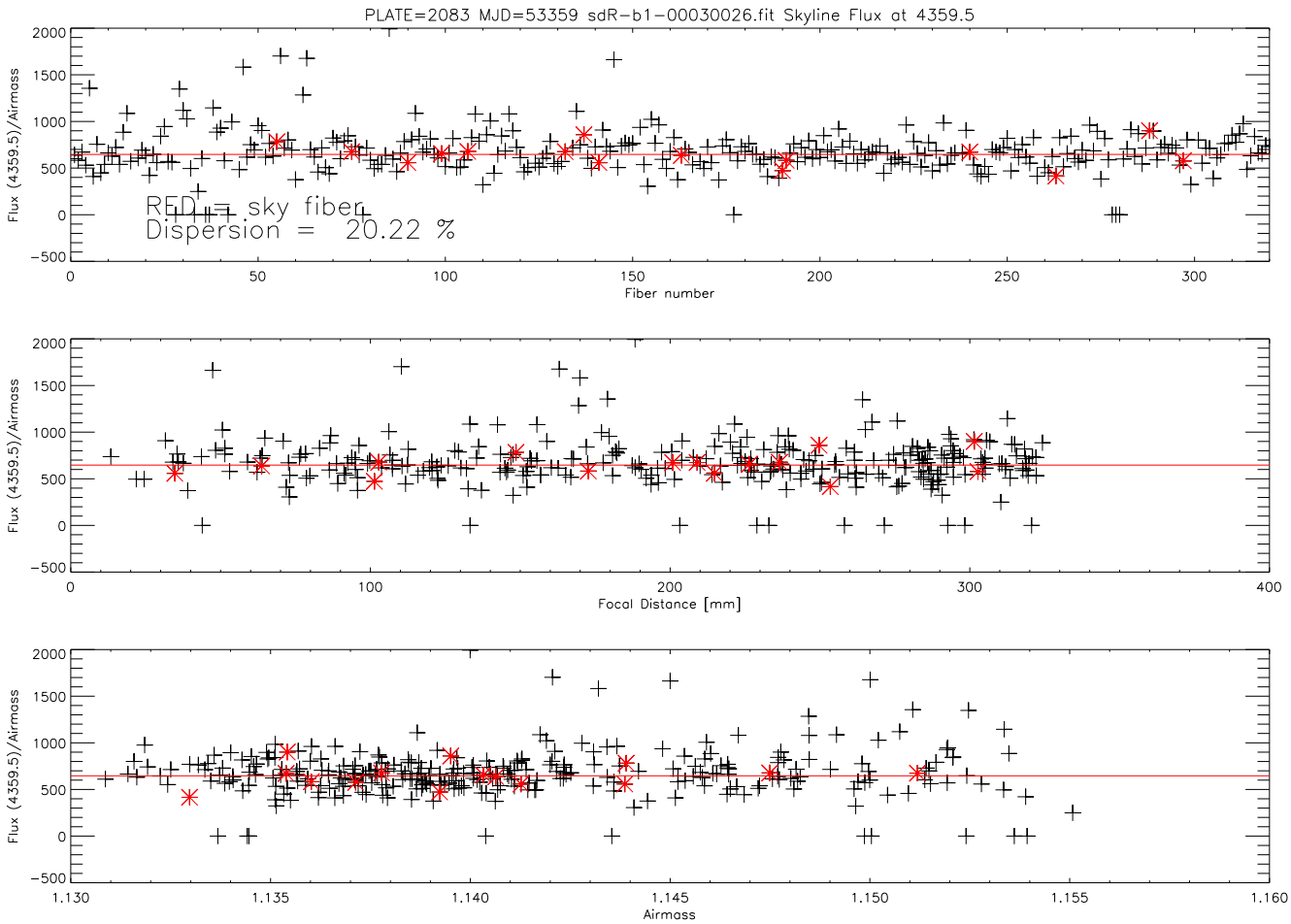

Number of sky fibers = 15
PLATE=2083 MJD=53359 sdR-b1-00030026.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

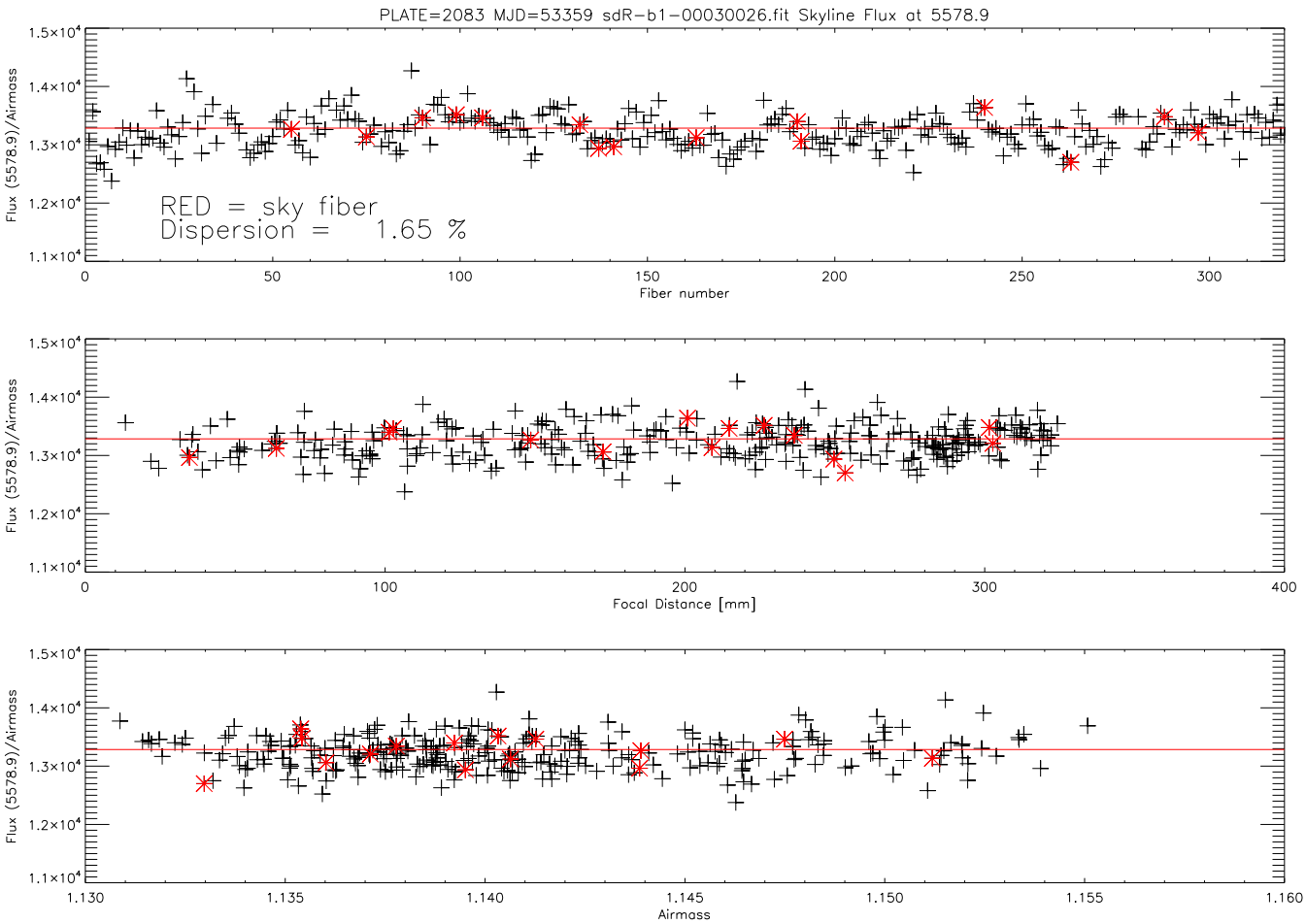

PLATE=2083 MJD=53359 sdR-b1-00030026.fit 2D Sky-subtraction Sky Fiber
Median $\chi^2$
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

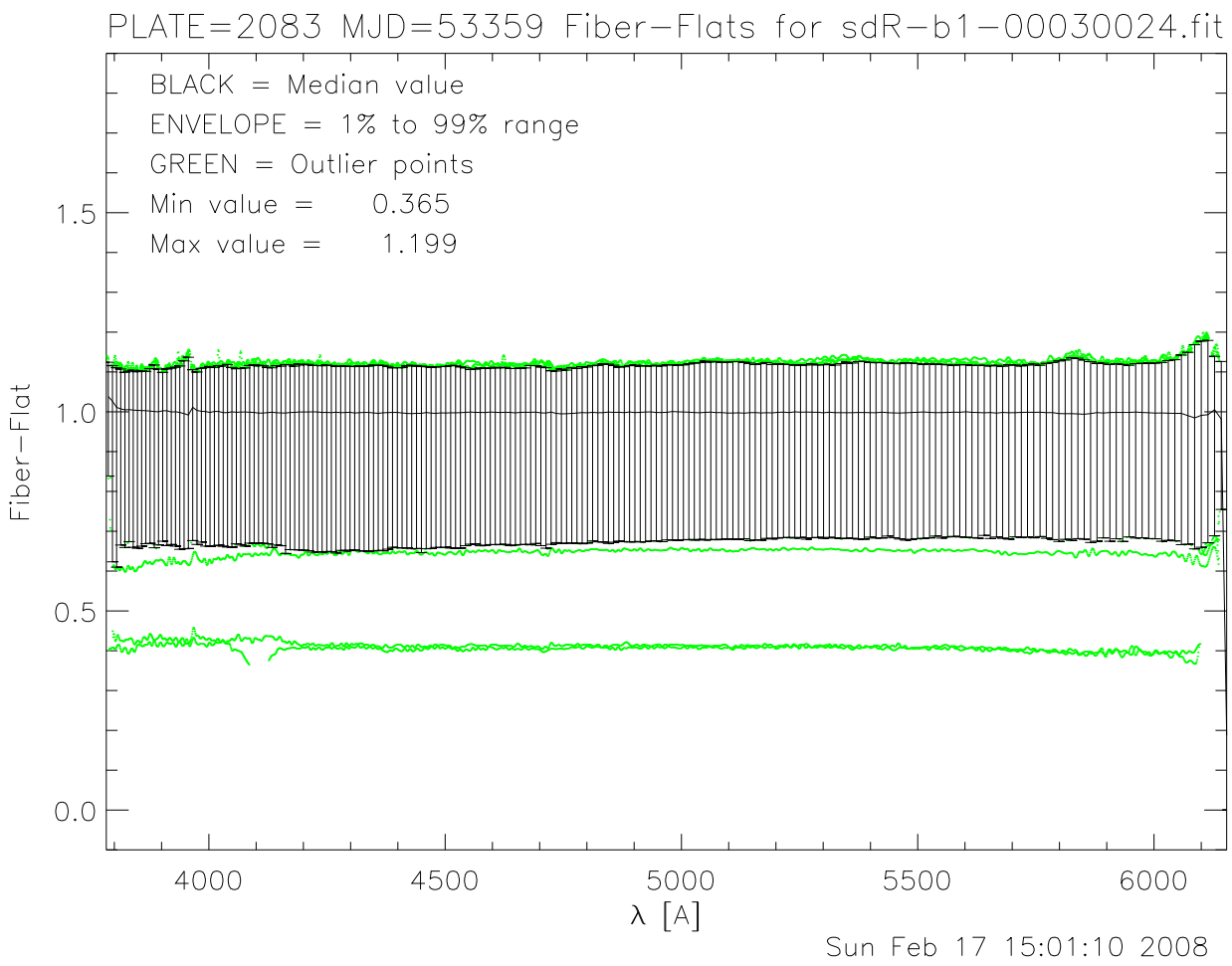

PLATE=2083 MJD=53359 sdR-b1-00030026.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

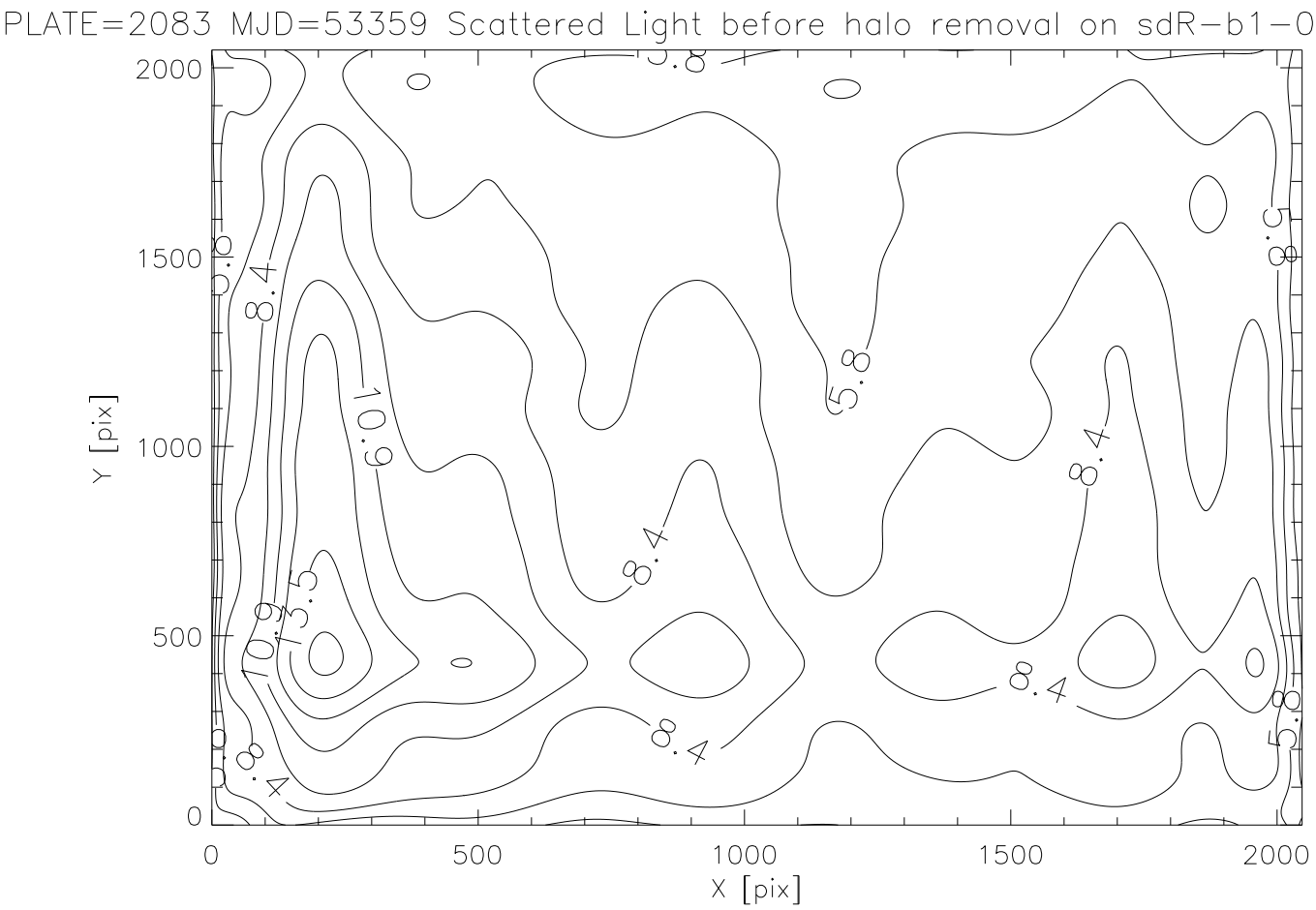

PLATE=2083 MJD=53359 sdR-b1-00030026.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
-300
5570
5575
5580
5585
5590
λ [A]

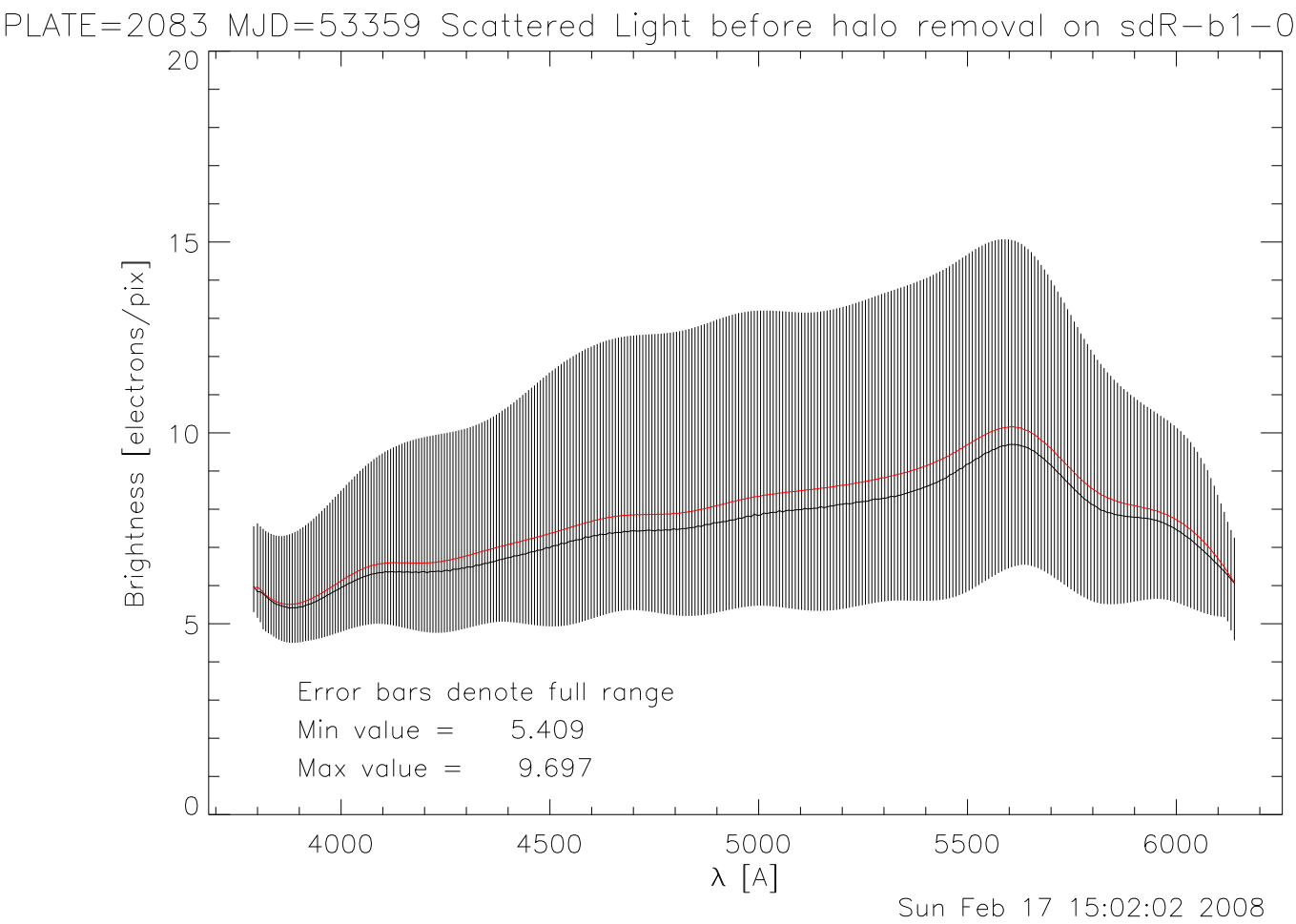

Number of sky fibers = 15
PLATE=2083 MJD=53359 sdR-b1-00030026.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

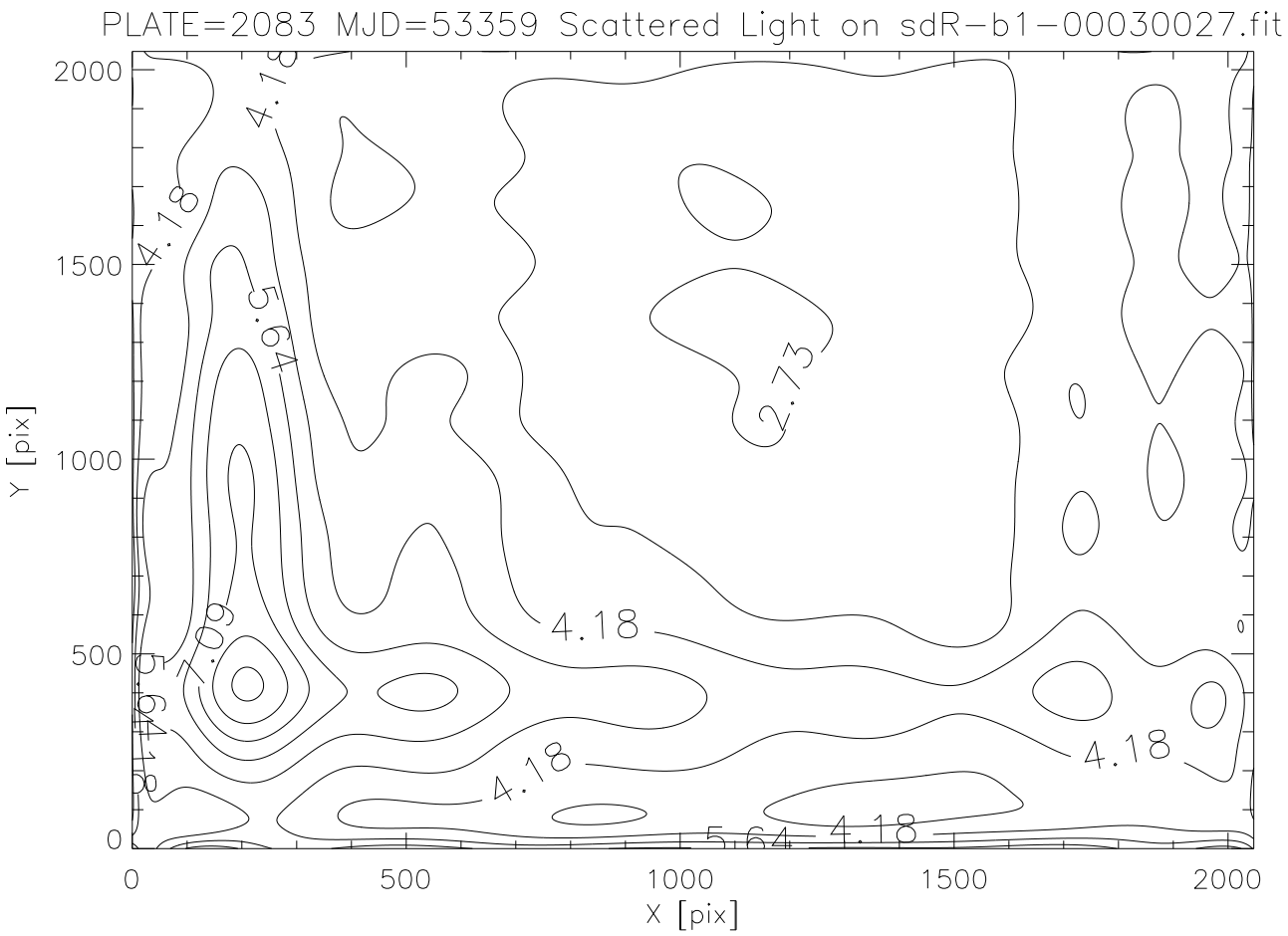

PLATE=2083 MJD=53359 sdR-b1-00030026.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
Fiber number
RED = sky fiber
Dispersion = 20.22 %
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

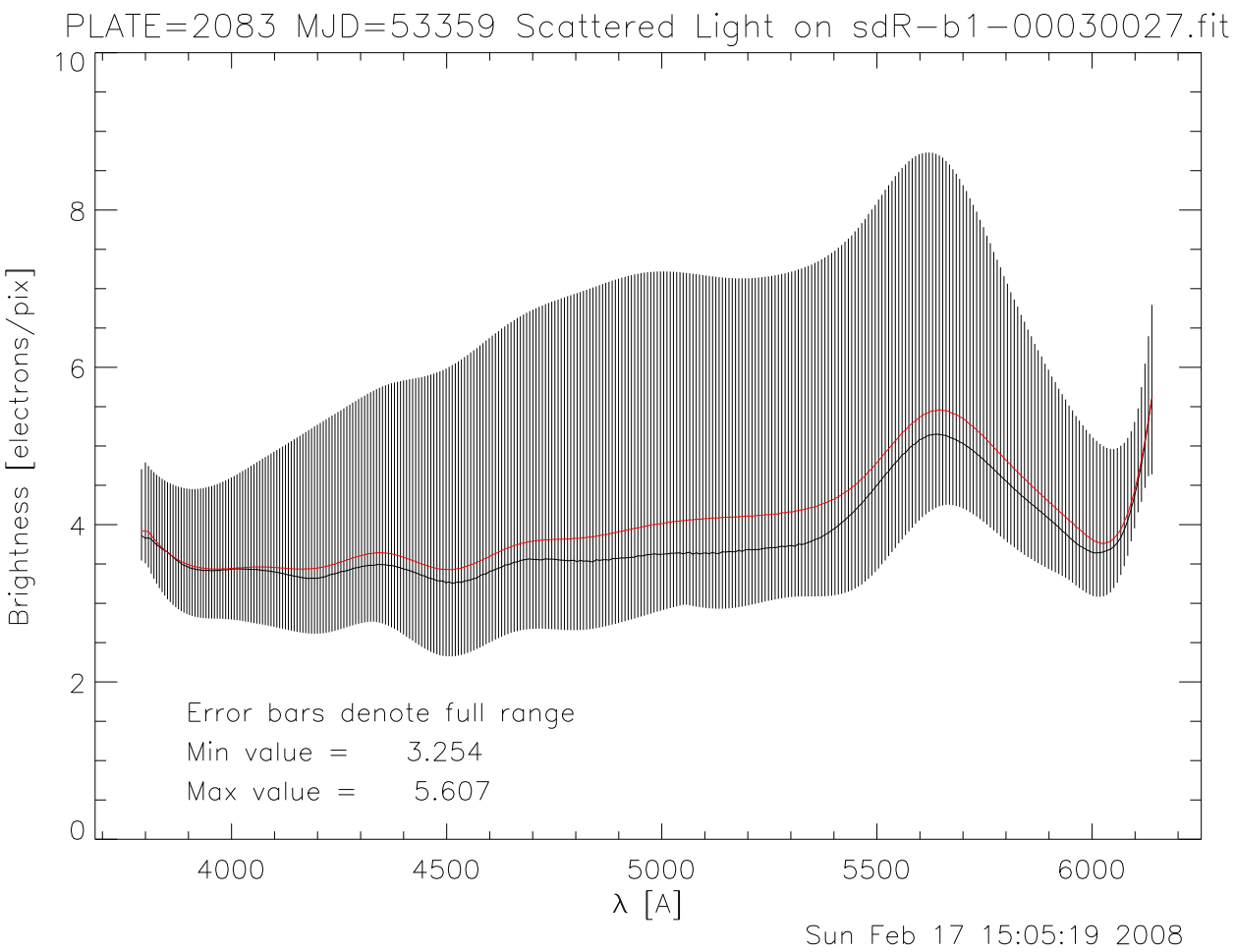

PLATE=2083 MJD=53359 sdR-b1-00030026.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 1.65 %
Fiber number
Focal Distance [mm]
Airmass

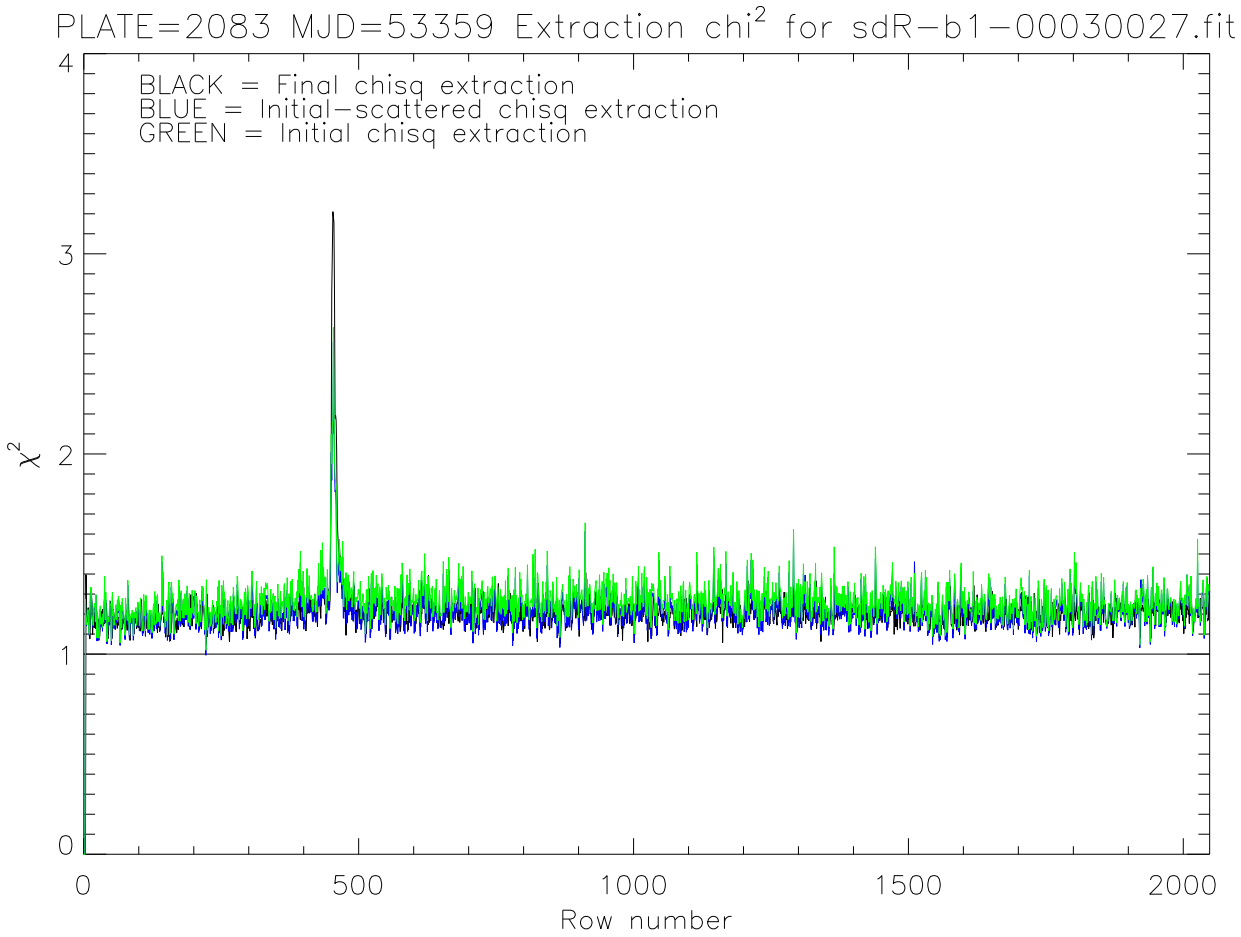

PLATE=2083 MJD=53359 Fiber−Flats for sdR−b1−00030024.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.365
Max value = 1.199
Fiber−Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Sun Feb 17 15:01:10 2008


PLATE=2083 MJD=53359 Scattered Light before halo removal on sdR−b1−00030027.f
Y [pix]
X [pix]
0
500
1000
1500
2000
5.8
8.4
10.9
13.5

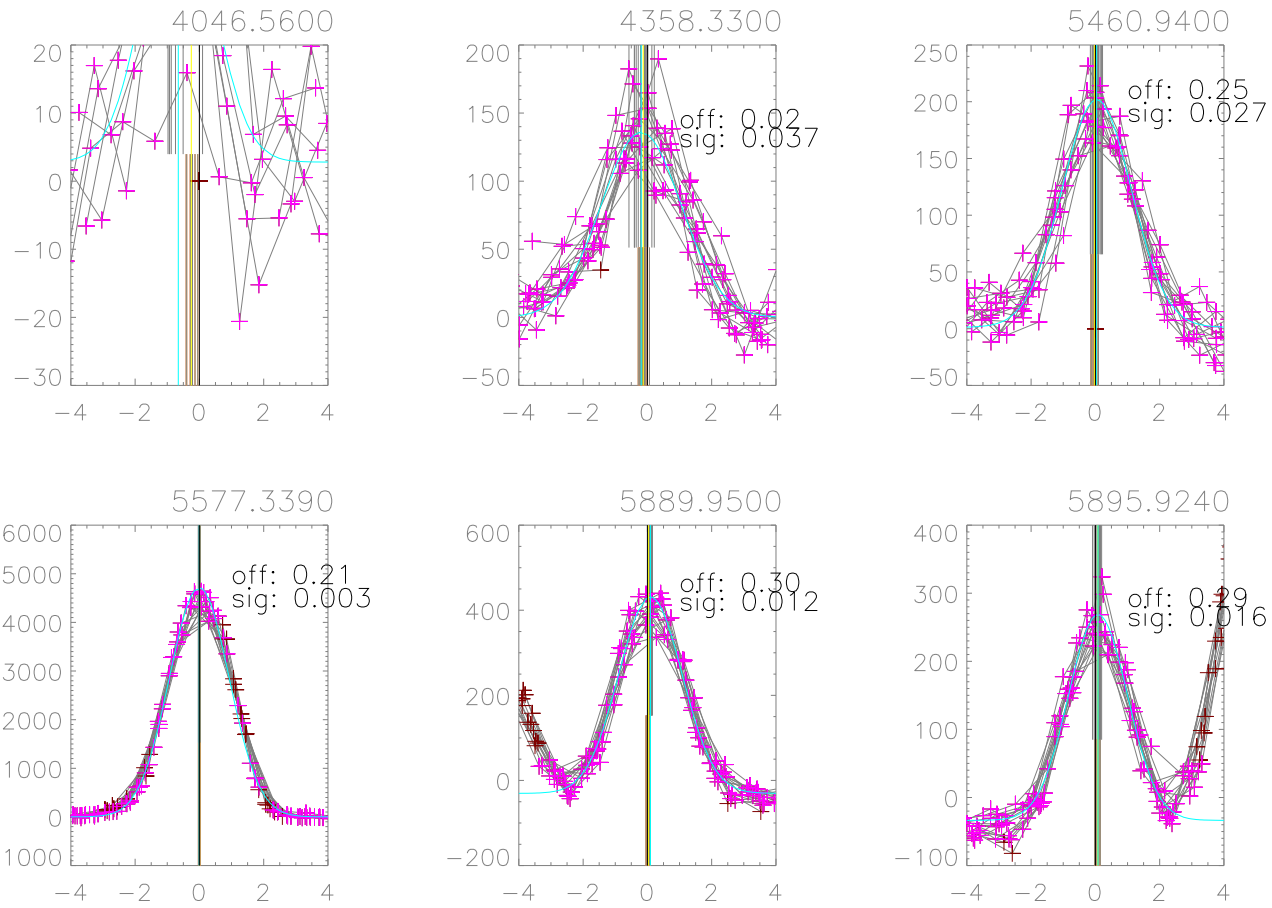

PLATE=2083 MJD=53359 Scattered Light before halo removal on sdR-b1-00030027.f
Brightness [electrons/pix]
20
15
10
5
0
Error bars denote full range
Min value = 5.409
Max value = 9.697
4000
4500
5000
5500
6000
λ [A]
Sun Feb 17 15:02:02 2008

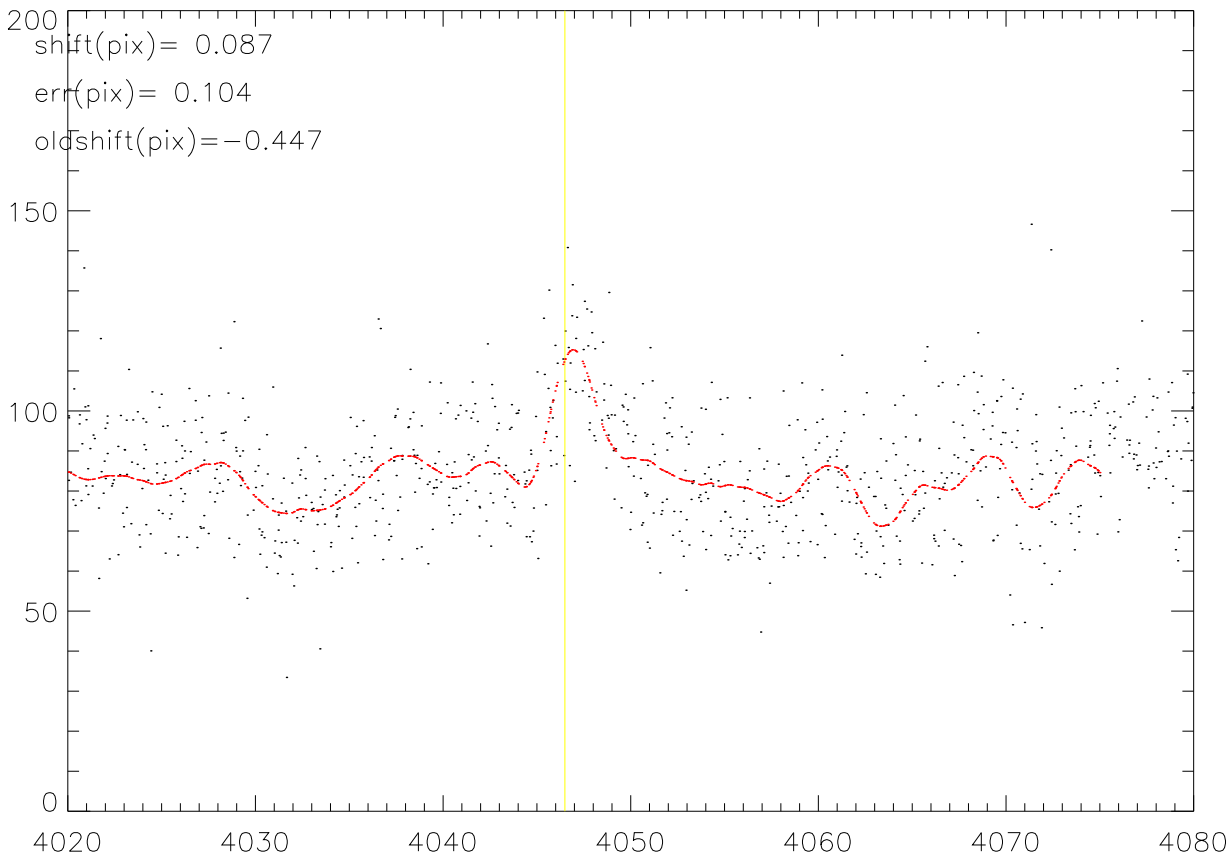

PLATE=2083 MJD=53359 Scattered Light on sdR-b1-00030027.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
4.18
5.64
2.73
0

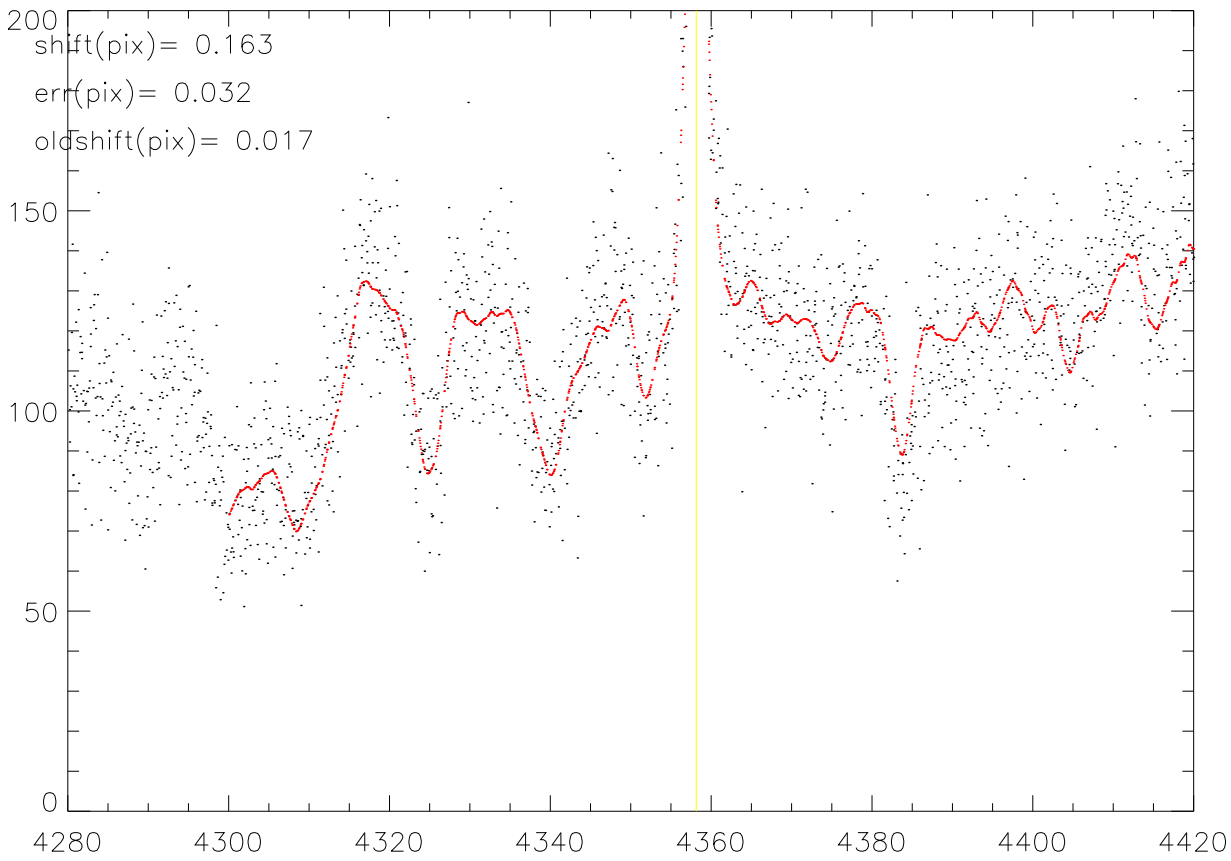

PLATE=2083 MJD=53359 Scattered Light on sdR-b1-00030027.fit
Brightness [electrons/pix]
10
8
6
4
2
0
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 3.254
Max value = 5.607
Sun Feb 17 15:05:19 2008

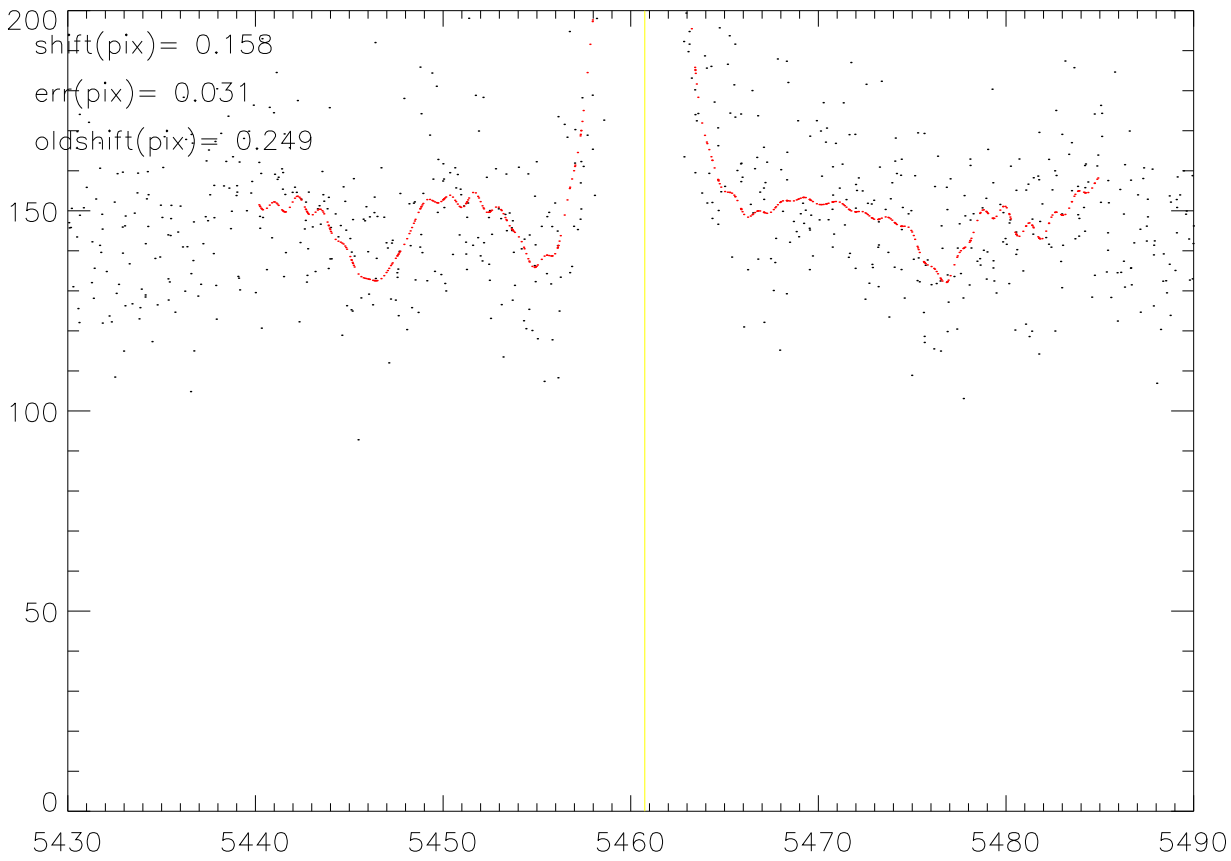

PLATE=2083 MJD=53359 Extraction chi$^2$ for sdR−b1−00030027.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
$\chi^2$
0
1
2
3
4
0
500
1000
1500
2000
Row number

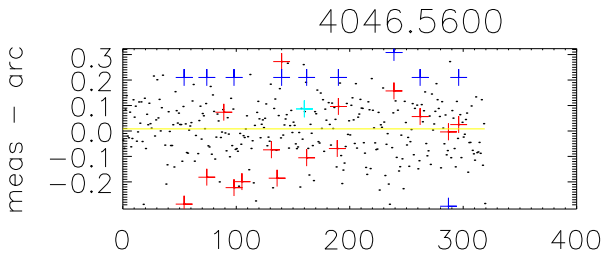
off: −0.45
sig: 0.134

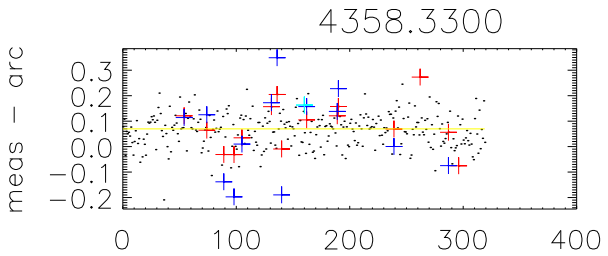


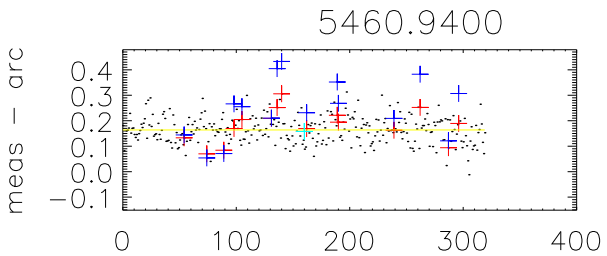

shift(pix)= 0.087
err(pix)= 0.104
oldshift(pix)=-0.447
200
150
100
50
0
4020
4030
4040
4050
4060
4070
4080

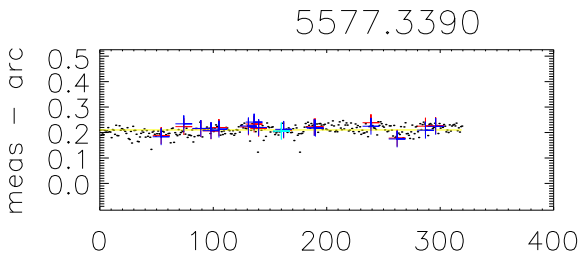

shift(pix)= 0.163
err(pix)= 0.032
oldshift(pix)= 0.017
200
150
100
50
0
4280
4300
4320
4340
4360
4380
4400
4420

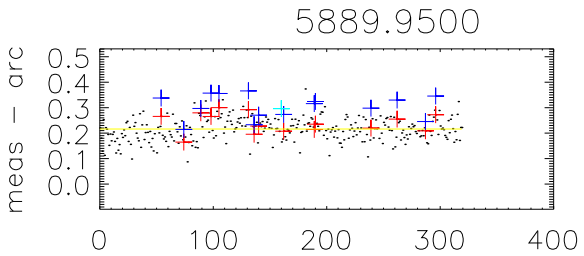

shift(pix)= 0.158
err(pix)= 0.031
oldshift(pix)= 0.249
200
150
100
50
0
5430
5440
5450
5460
5470
5480
5490

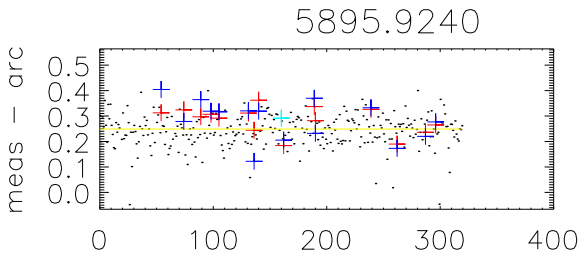

4046.5600
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

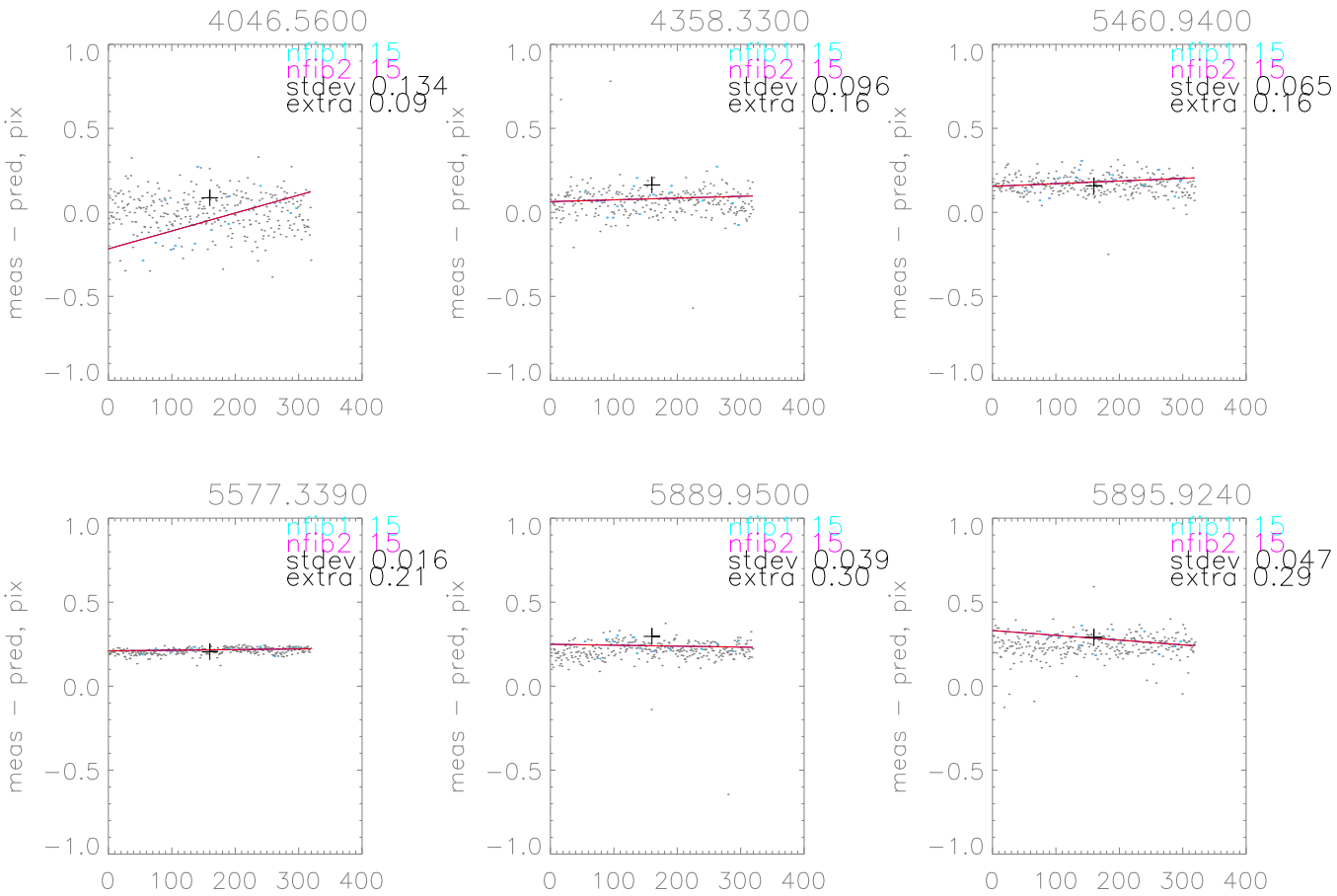

4358.3300
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

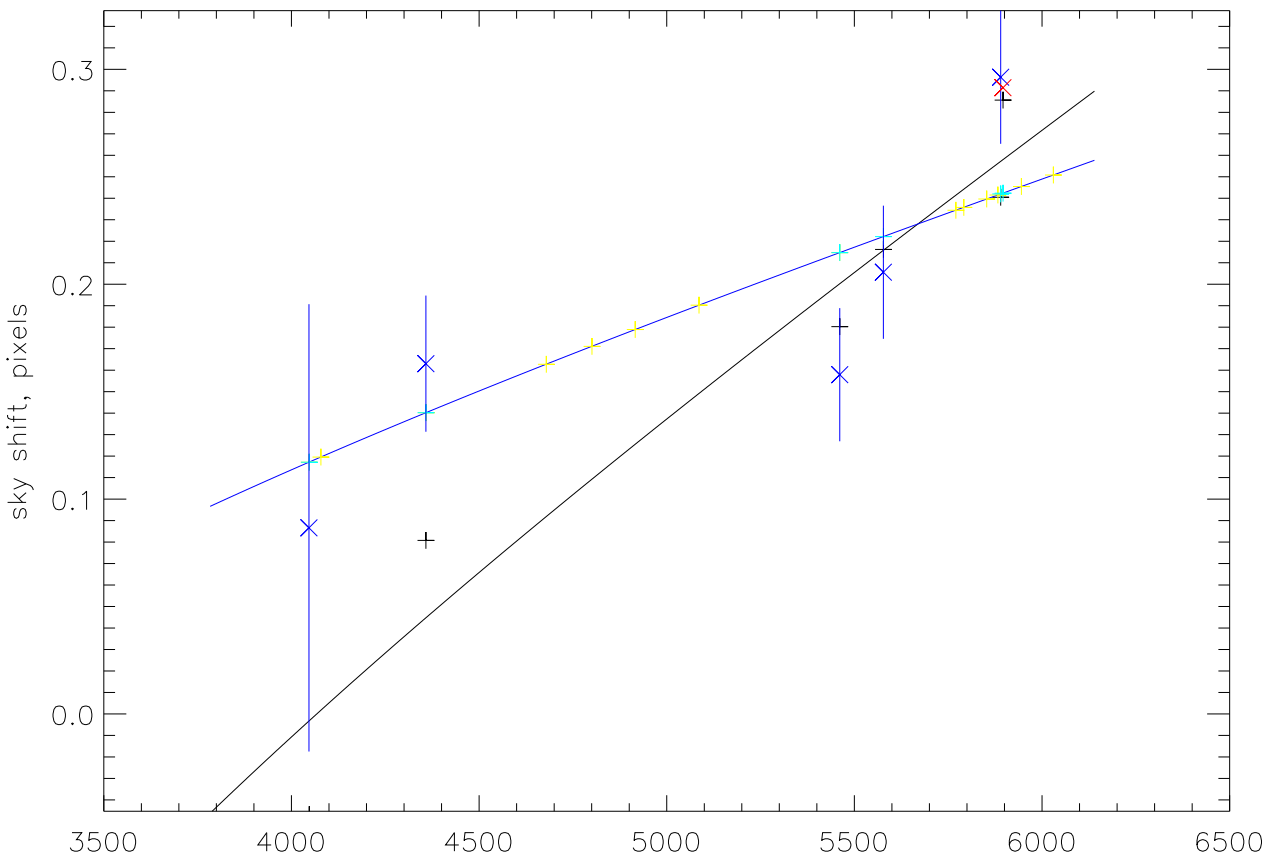

5460.9400
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400


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

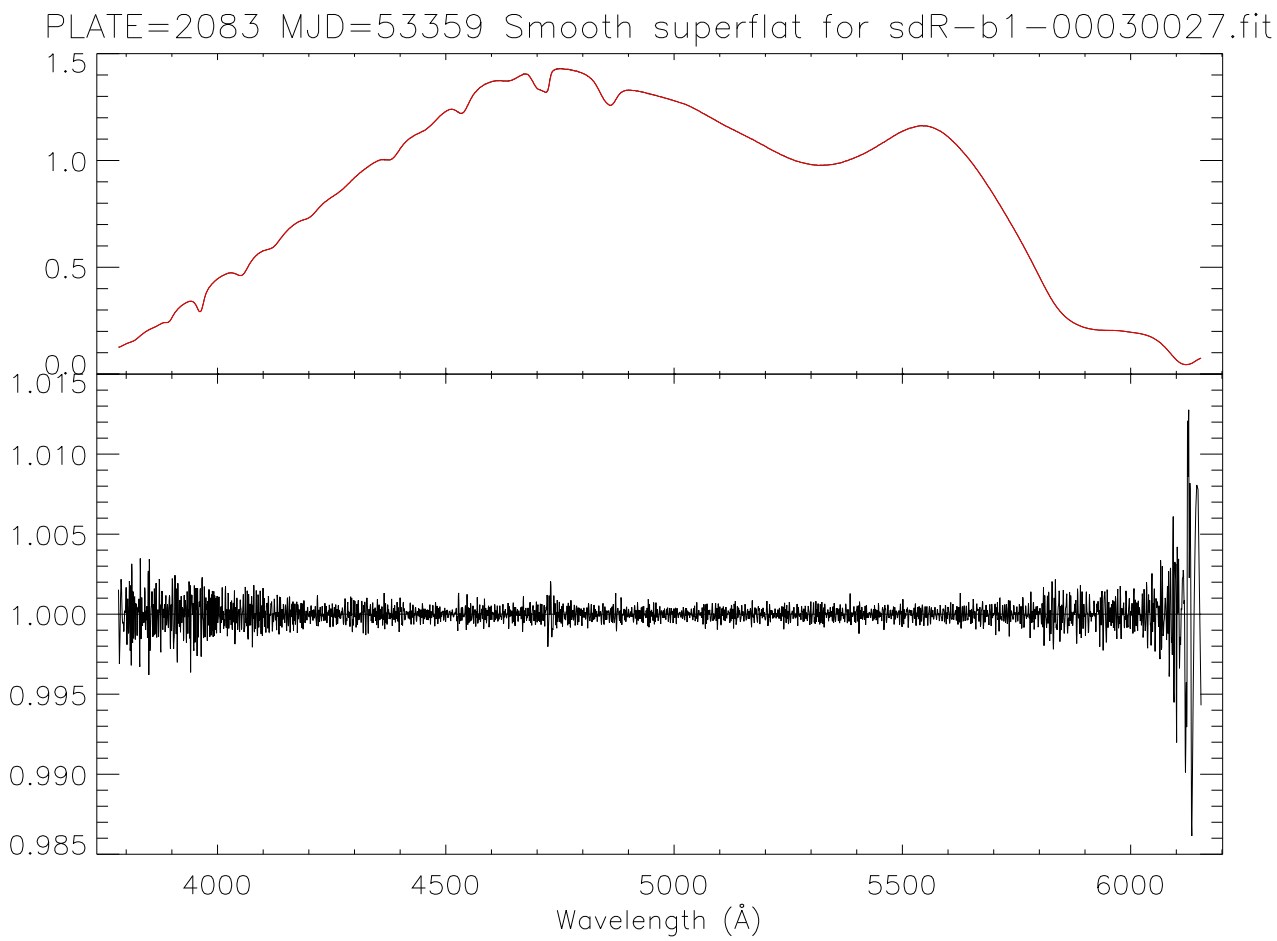

5889.9500
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

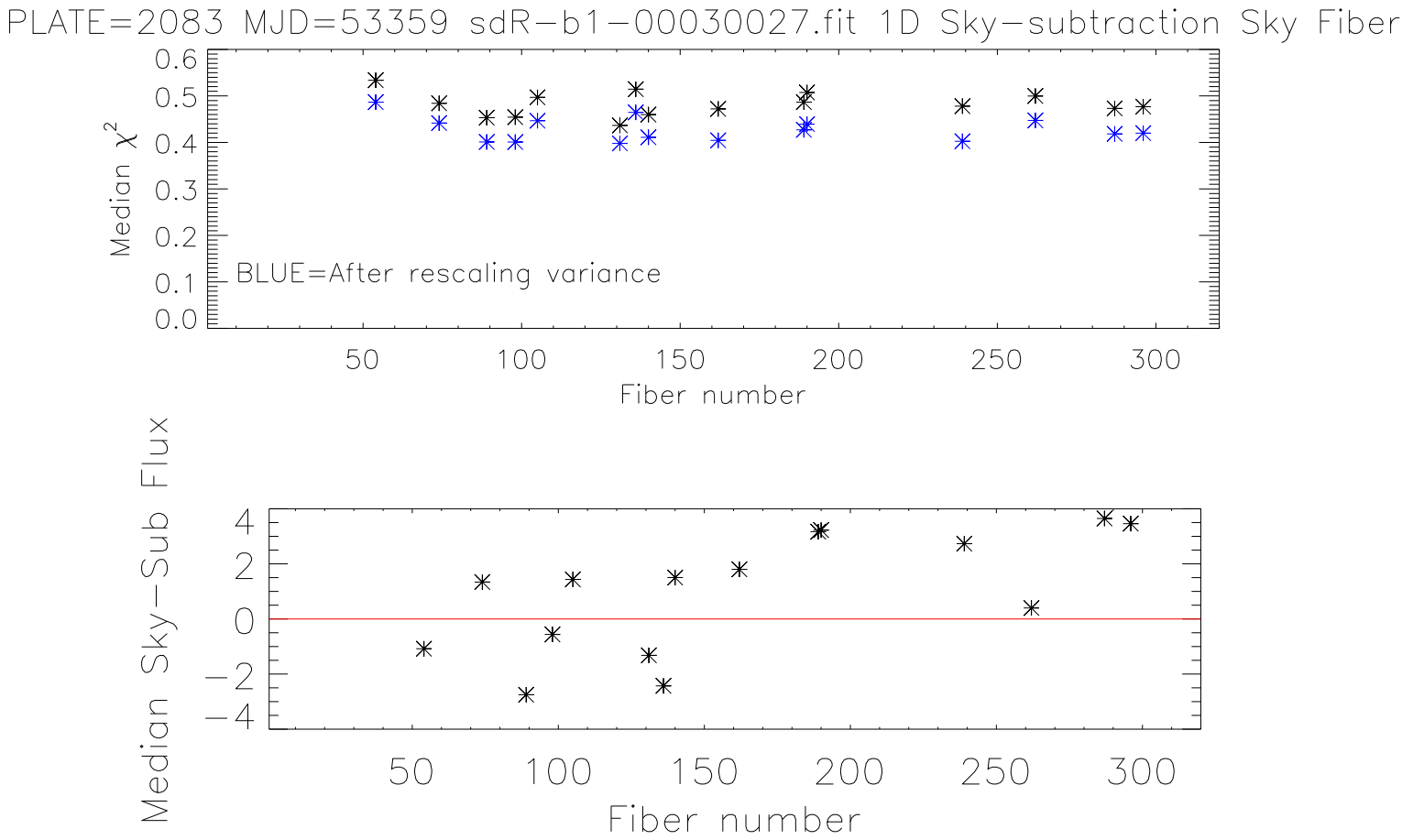

5895.9240
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

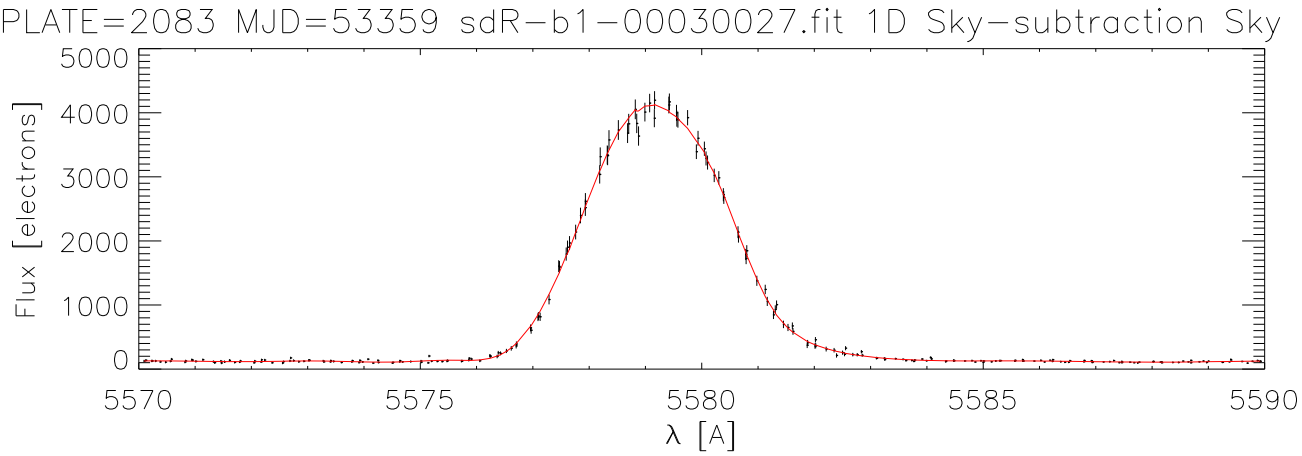

4046.5600
nfib1 15
nfib2 15
stdev 0.134
extra 0.09
4358.3300
nfib1 15
nfib2 15
stdev 0.096
extra 0.16
5460.9400
nfib1 15
nfib2 15
stdev 0.065
extra 0.16
5577.3390
nfib1 15
nfib2 15
stdev 0.016
extra 0.21
5889.9500
nfib1 15
nfib2 15
stdev 0.039
extra 0.30
5895.9240
nfib1 15
nfib2 15
stdev 0.047
extra 0.29
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

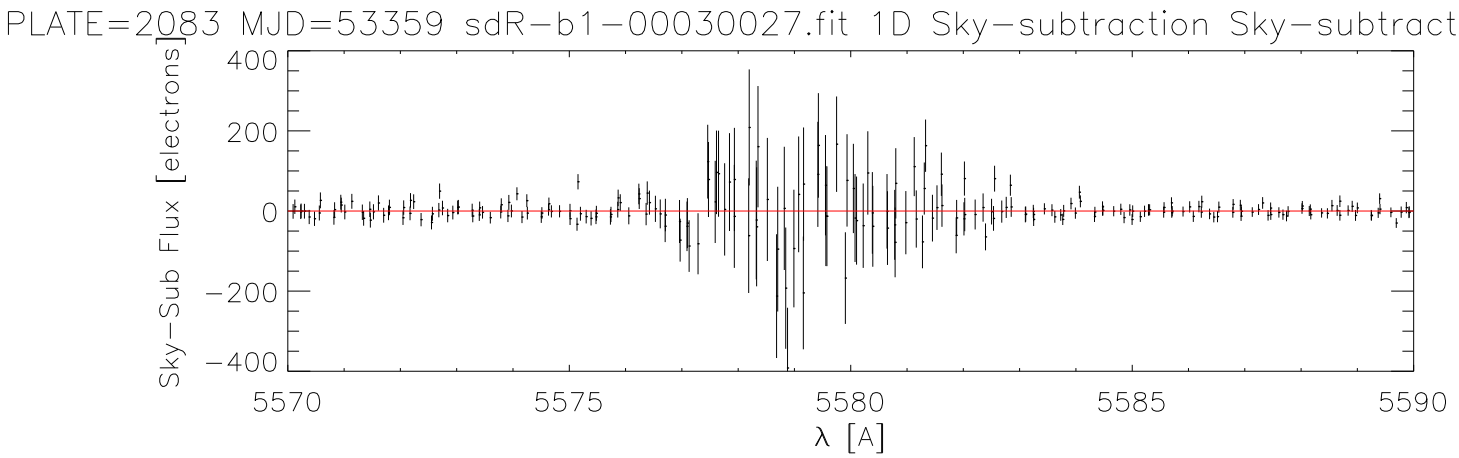

0.3
0.2
0.1
0.0
sky shift, pixels
3500
4000
4500
5000
5500
6000
6500

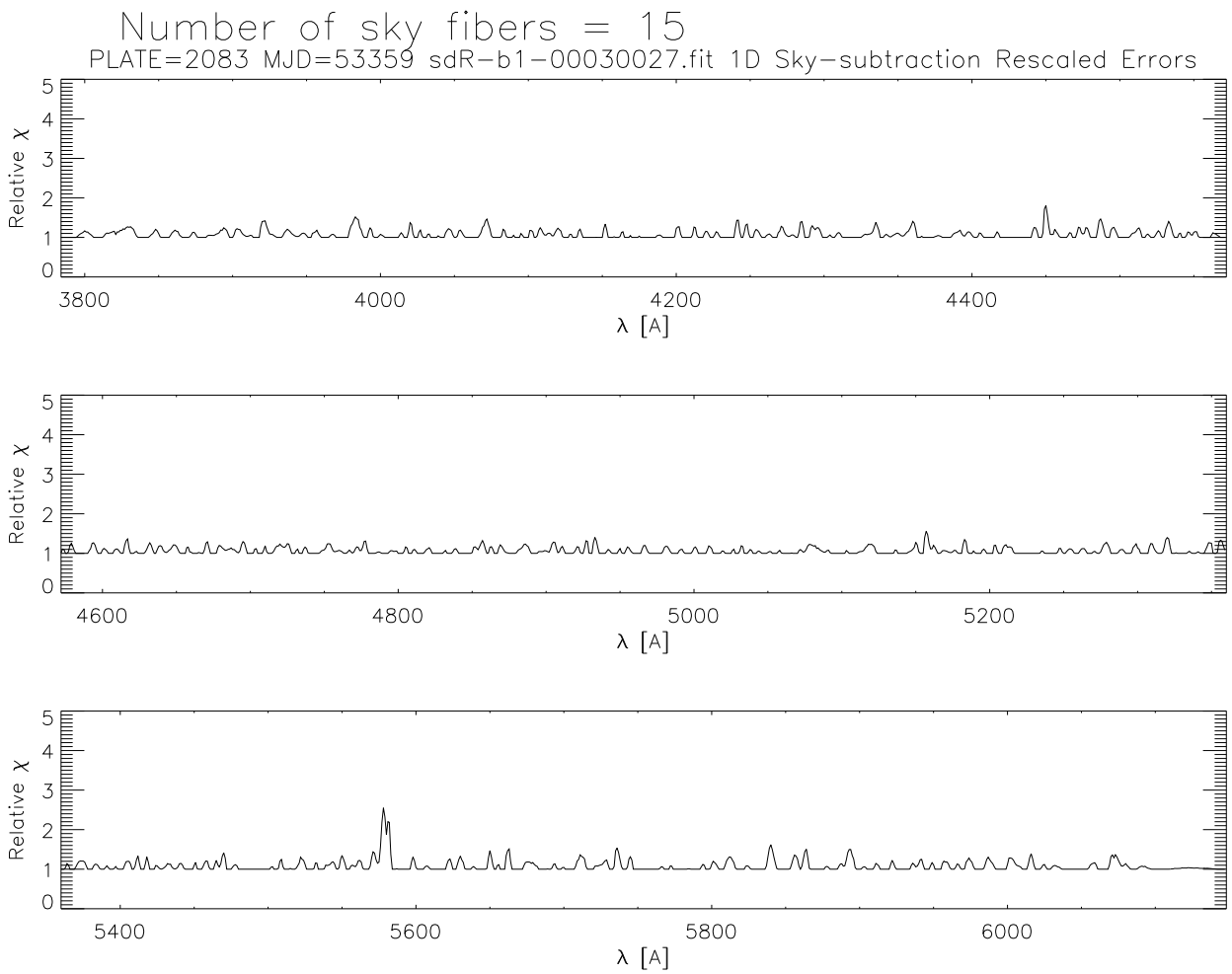
es= 0.0000

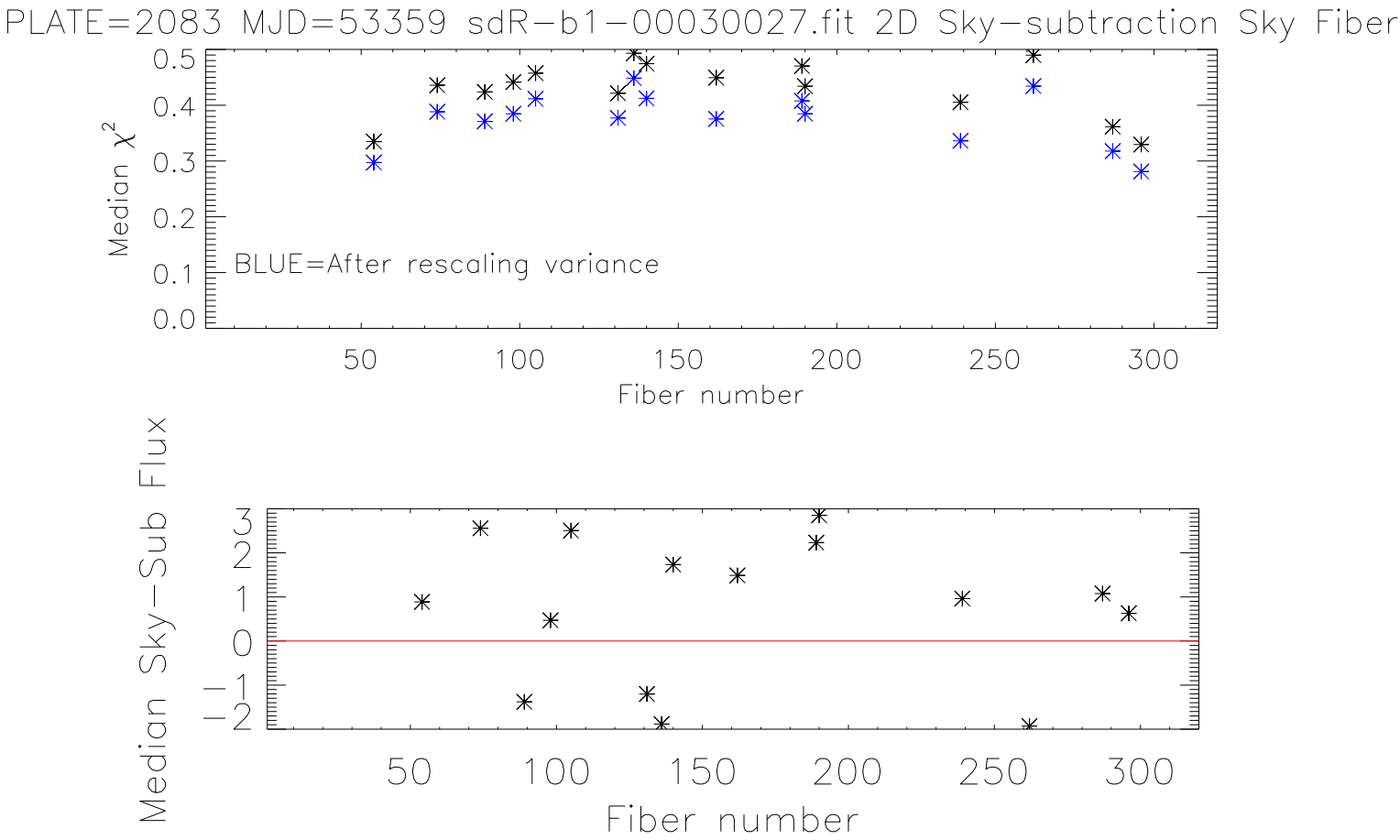

PLATE=2083 MJD=53359 Smooth superflat for sdR-b1-00030027.fit
1.5
1.0
0.5
0.0
1.015
1.010
1.005
1.000
0.995
0.990
0.985
4000
4500
5000
5500
6000
Wavelength (Å)

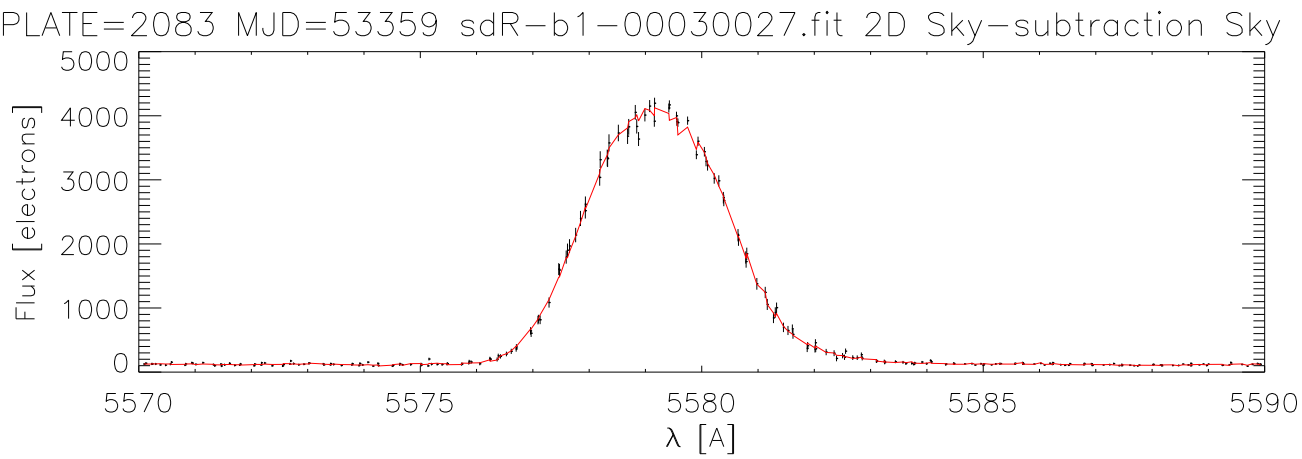

PLATE=2083 MJD=53359 sdR-b1-00030027.fit 1D Sky-subtraction Sky Fiber
Median $\chi^2$
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

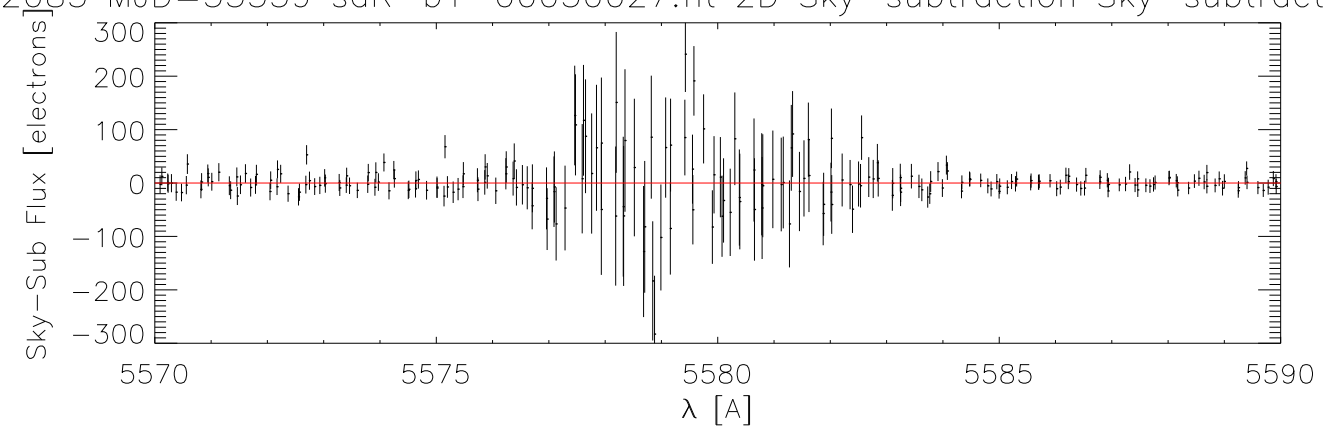

PLATE=2083 MJD=53359 sdR-b1-00030027.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

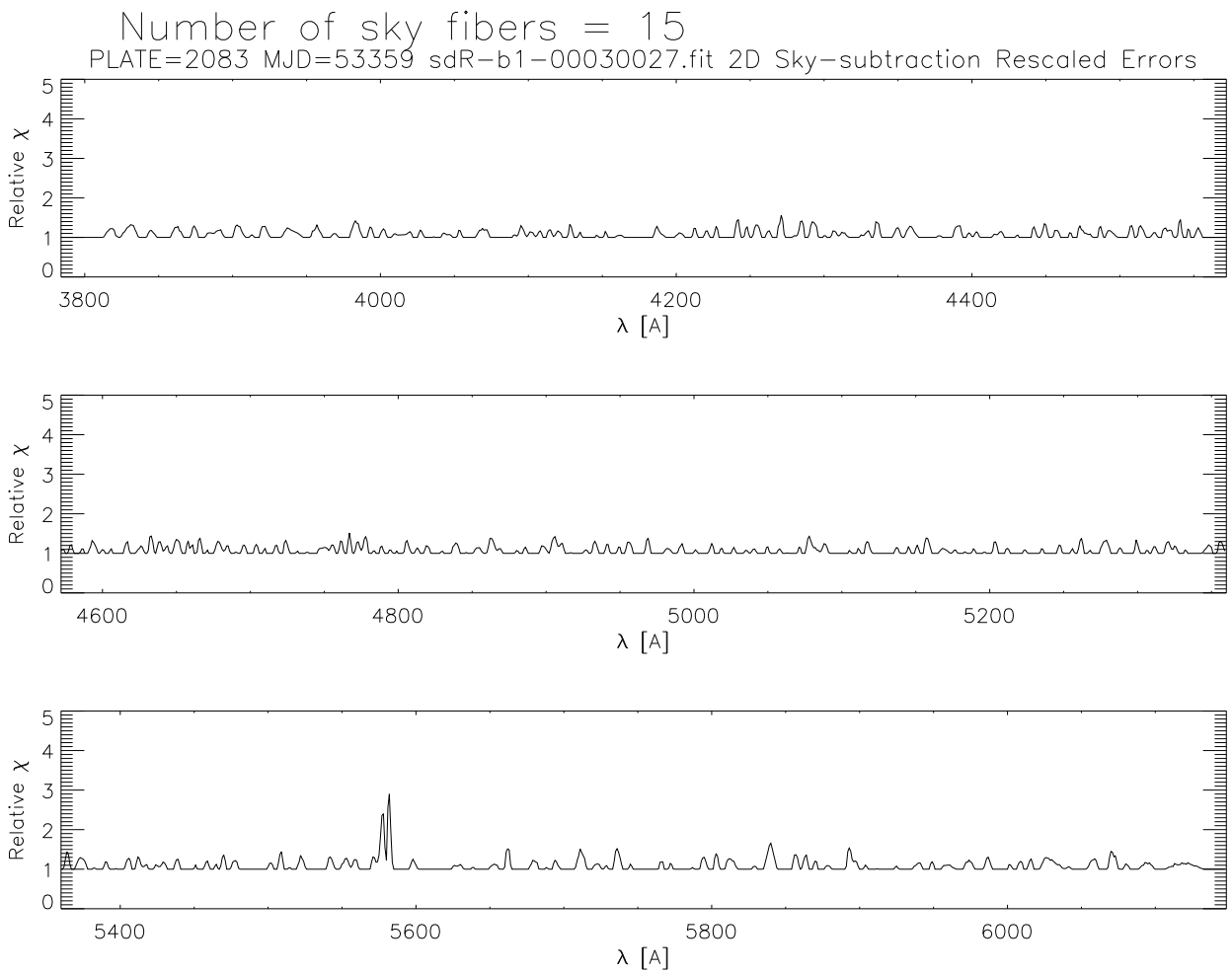

PLATE=2083 MJD=53359 sdR-b1-00030027.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
200
0
-200
-400
5570
5575
5580
5585
5590
λ [A]

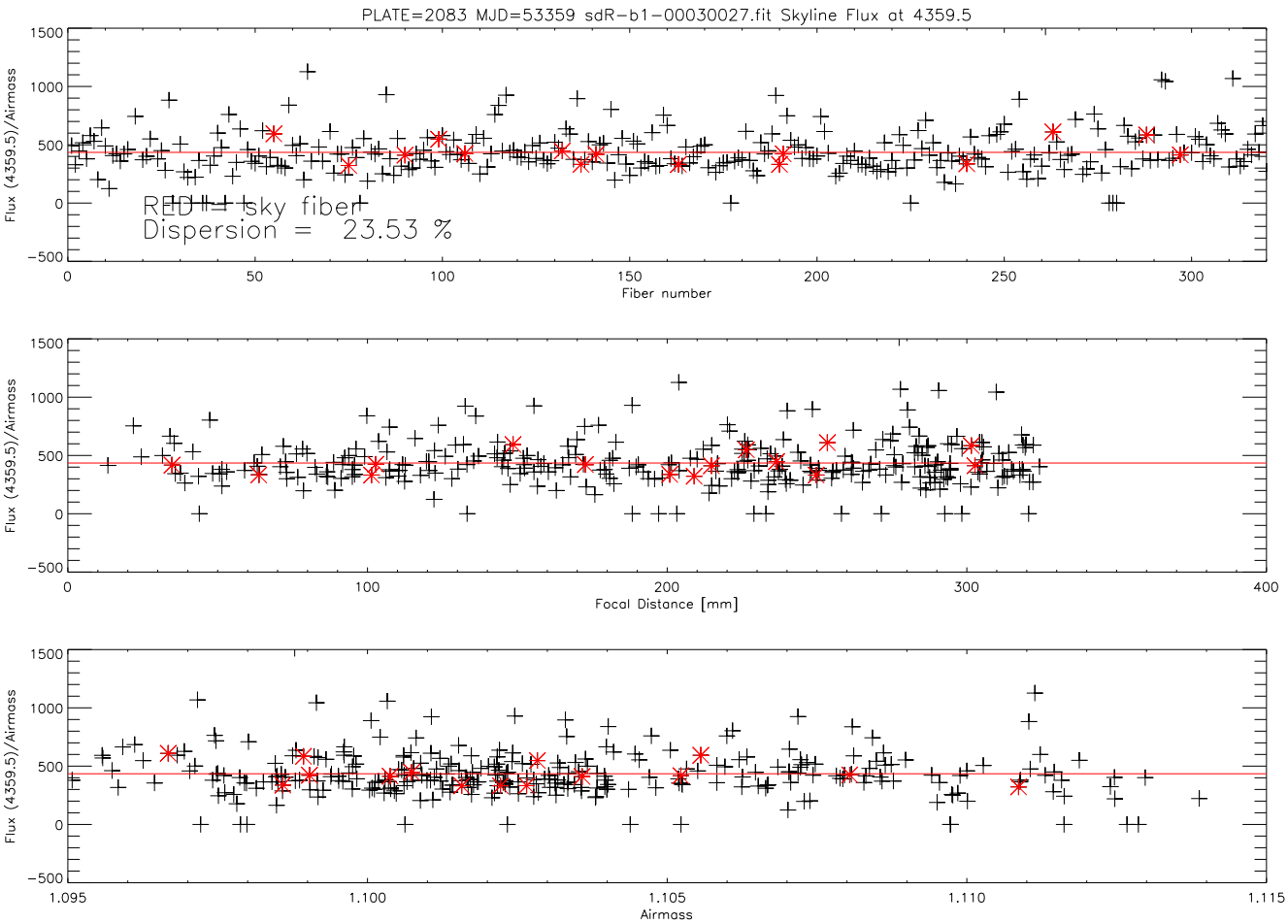

Number of sky fibers = 15
PLATE=2083 MJD=53359 sdR-b1-00030027.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

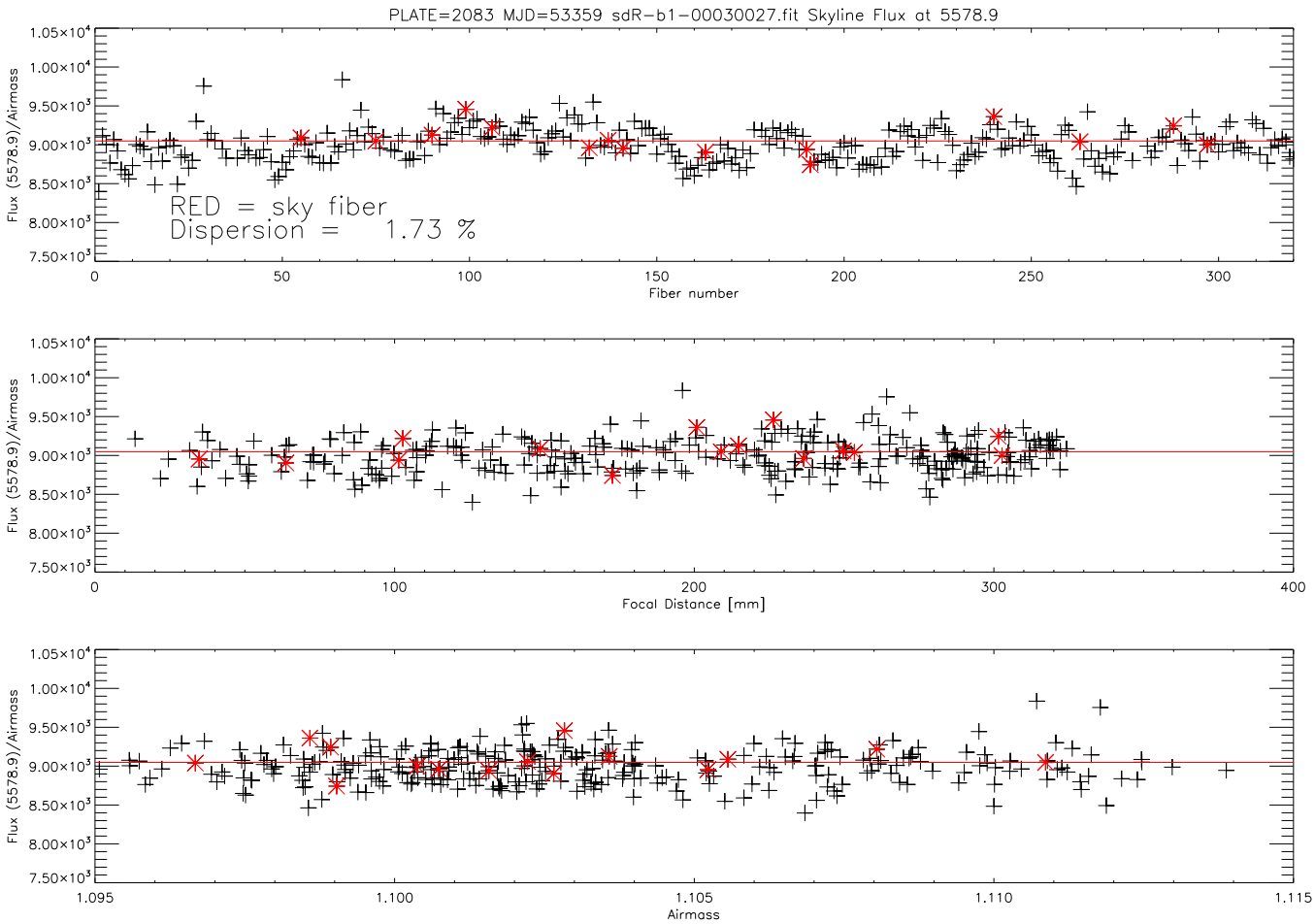

PLATE=2083 MJD=53359 sdR-b1-00030027.fit 2D Sky-subtraction Sky Fiber
Median $\chi^2$
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

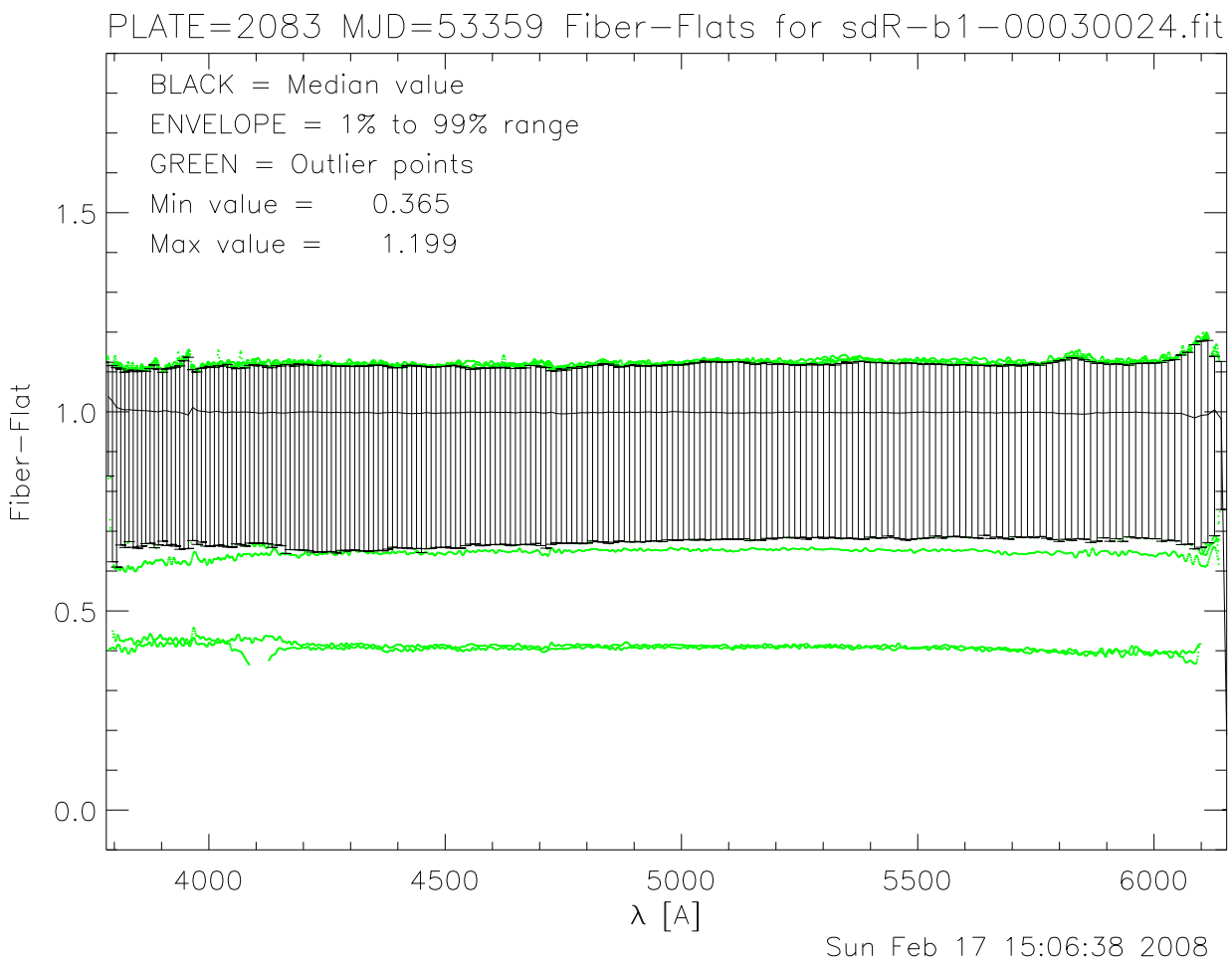

PLATE=2083 MJD=53359 sdR-b1-00030027.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

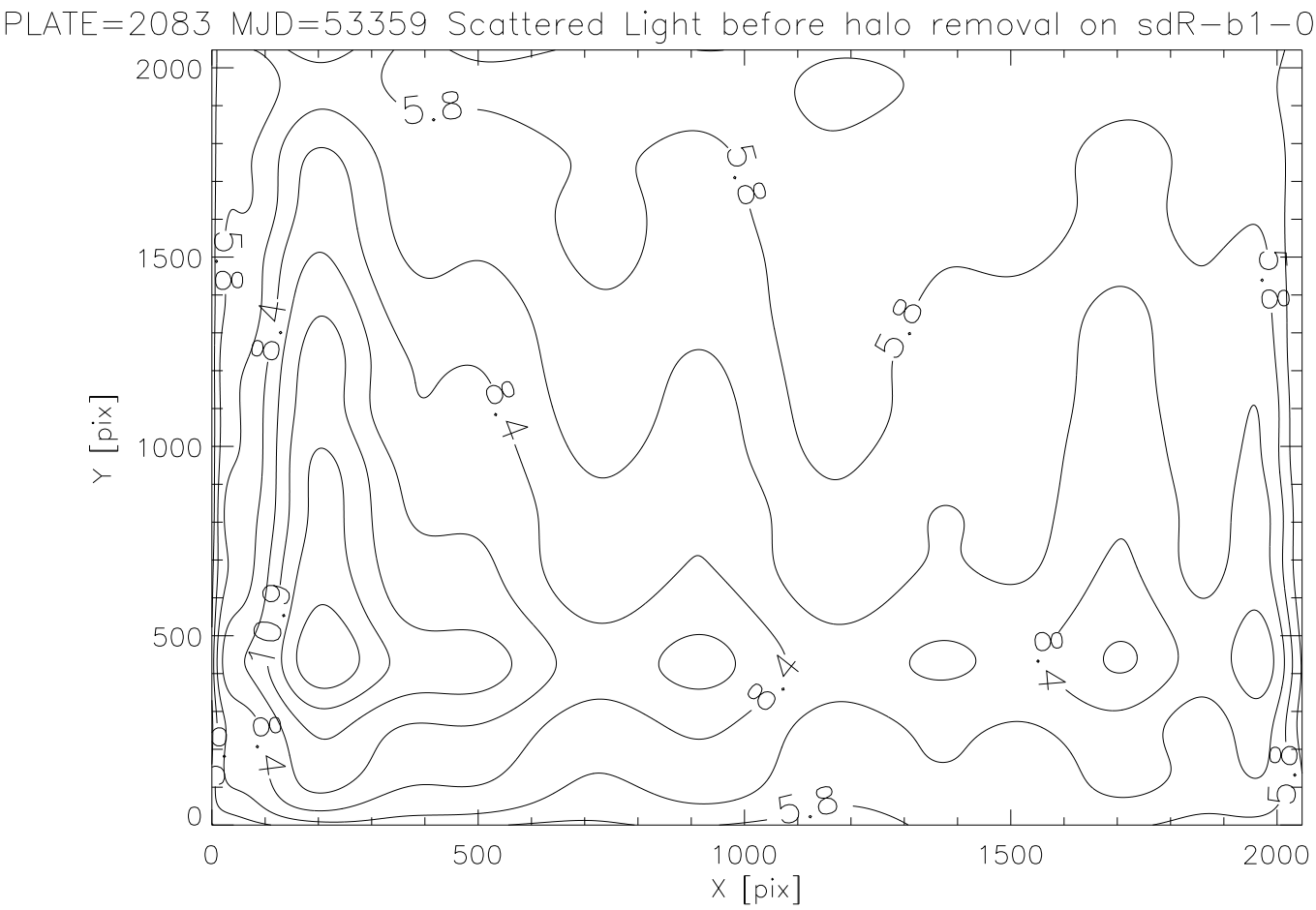

PLATE=2083 MJD=53359 sdR-b1-00030027.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
-300
5570
5575
5580
5585
5590
λ [A]

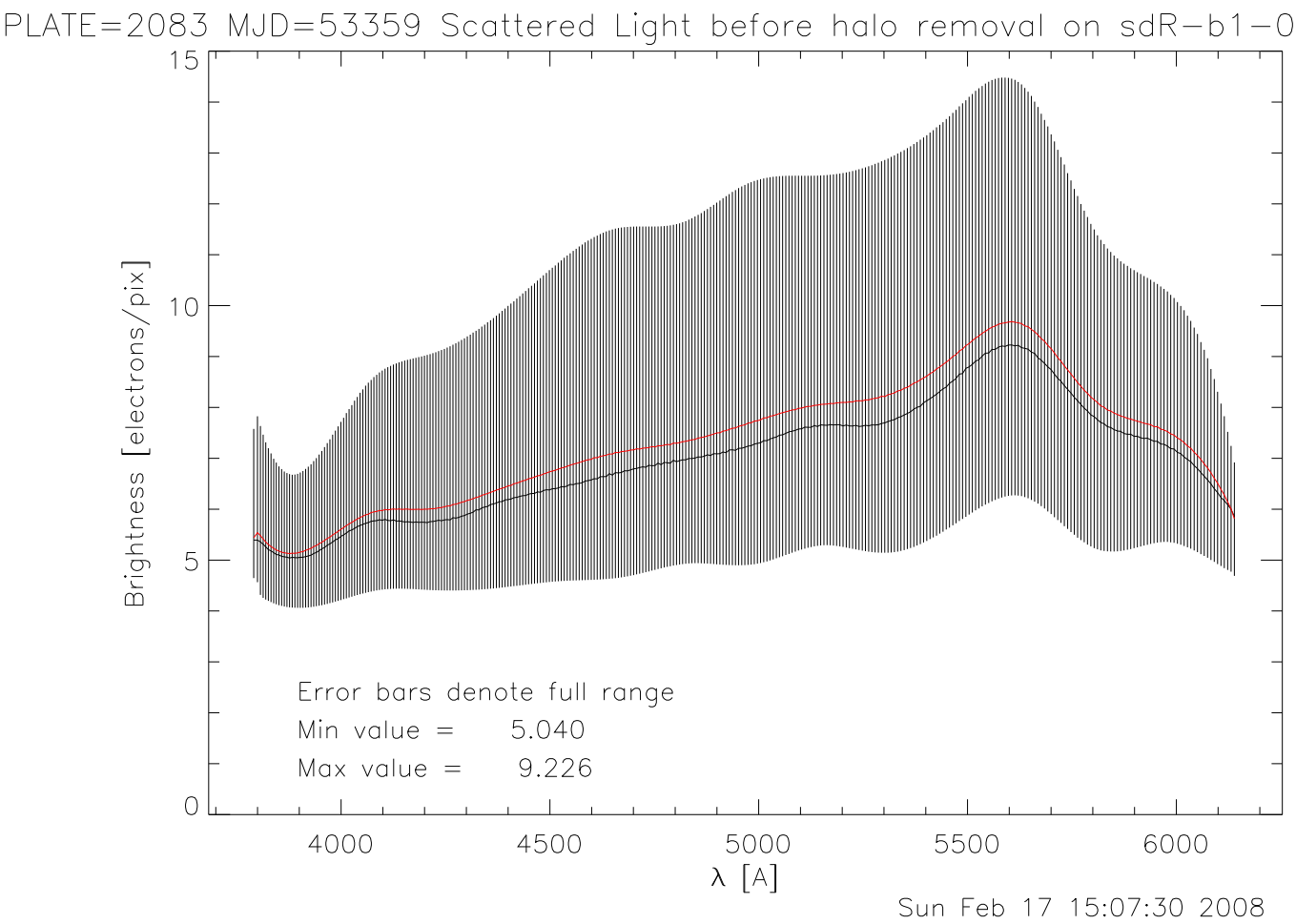

Number of sky fibers = 15
PLATE=2083 MJD=53359 sdR-b1-00030027.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

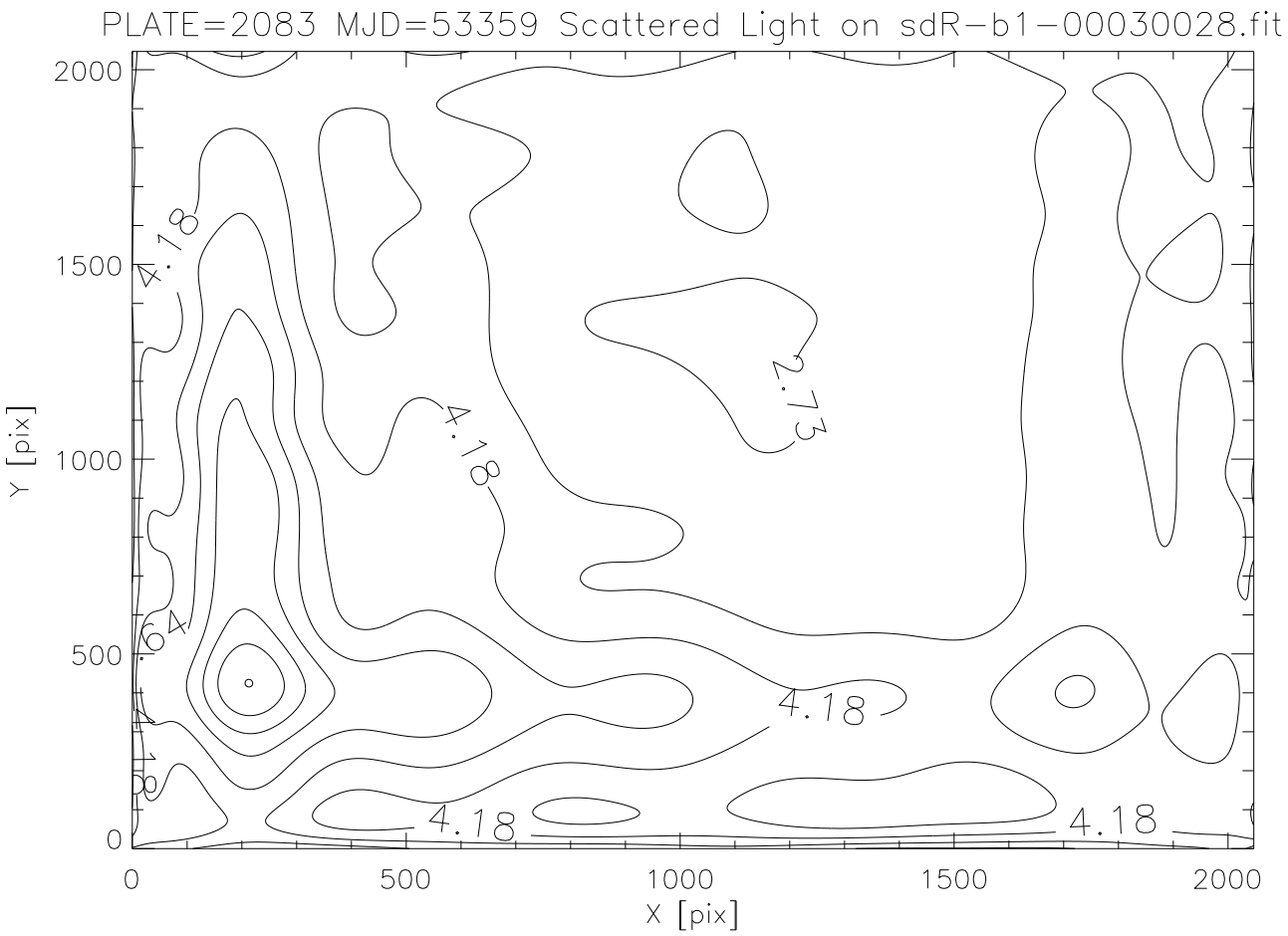

PLATE=2083 MJD=53359 sdR-b1-00030027.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
Fiber number
Red = sky fiber
Dispersion = 23.53 %
Focal Distance [mm]
Airmass

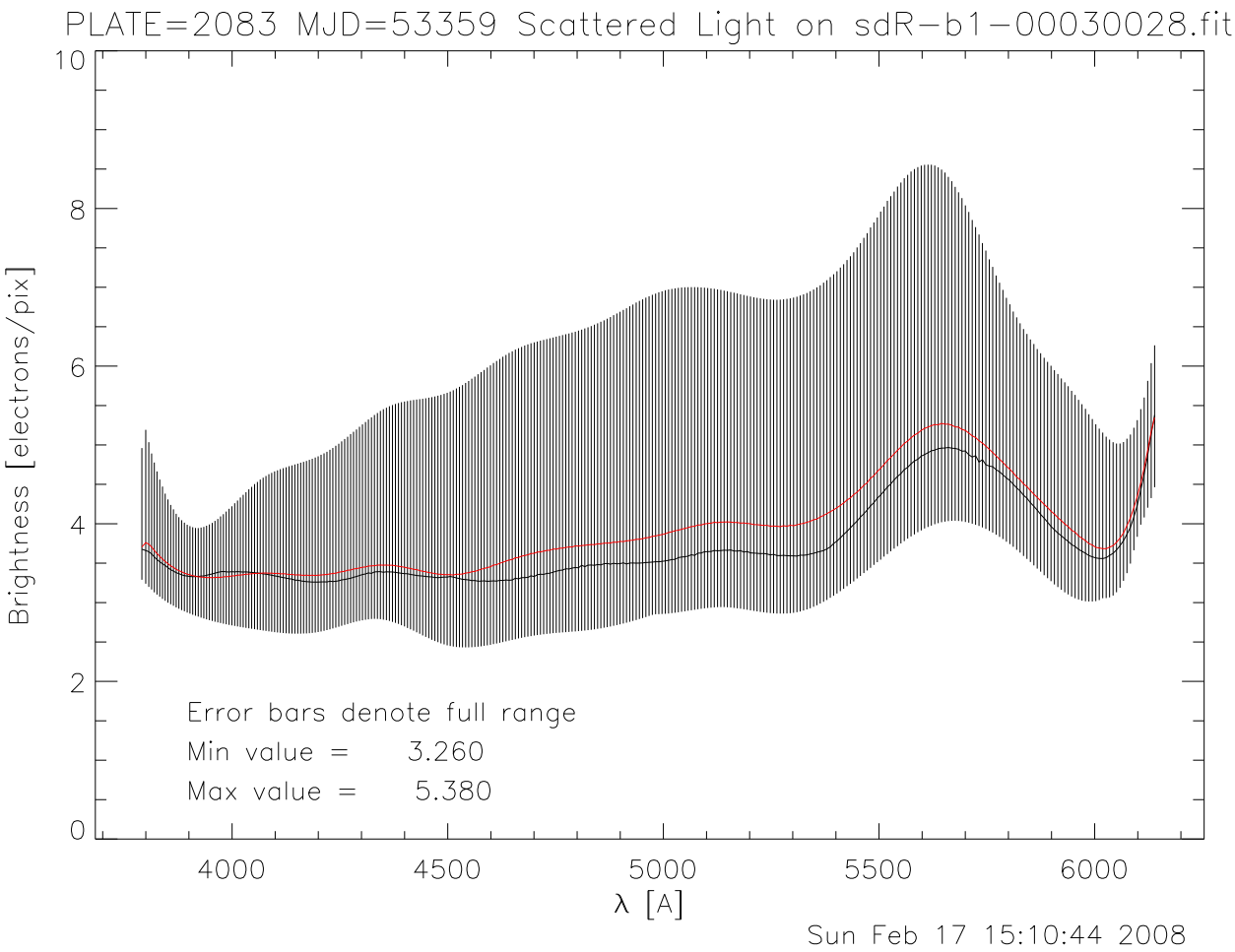

PLATE=2083 MJD=53359 sdR-b1-00030027.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 1.73 %
Fiber number
Focal Distance [mm]
Airmass

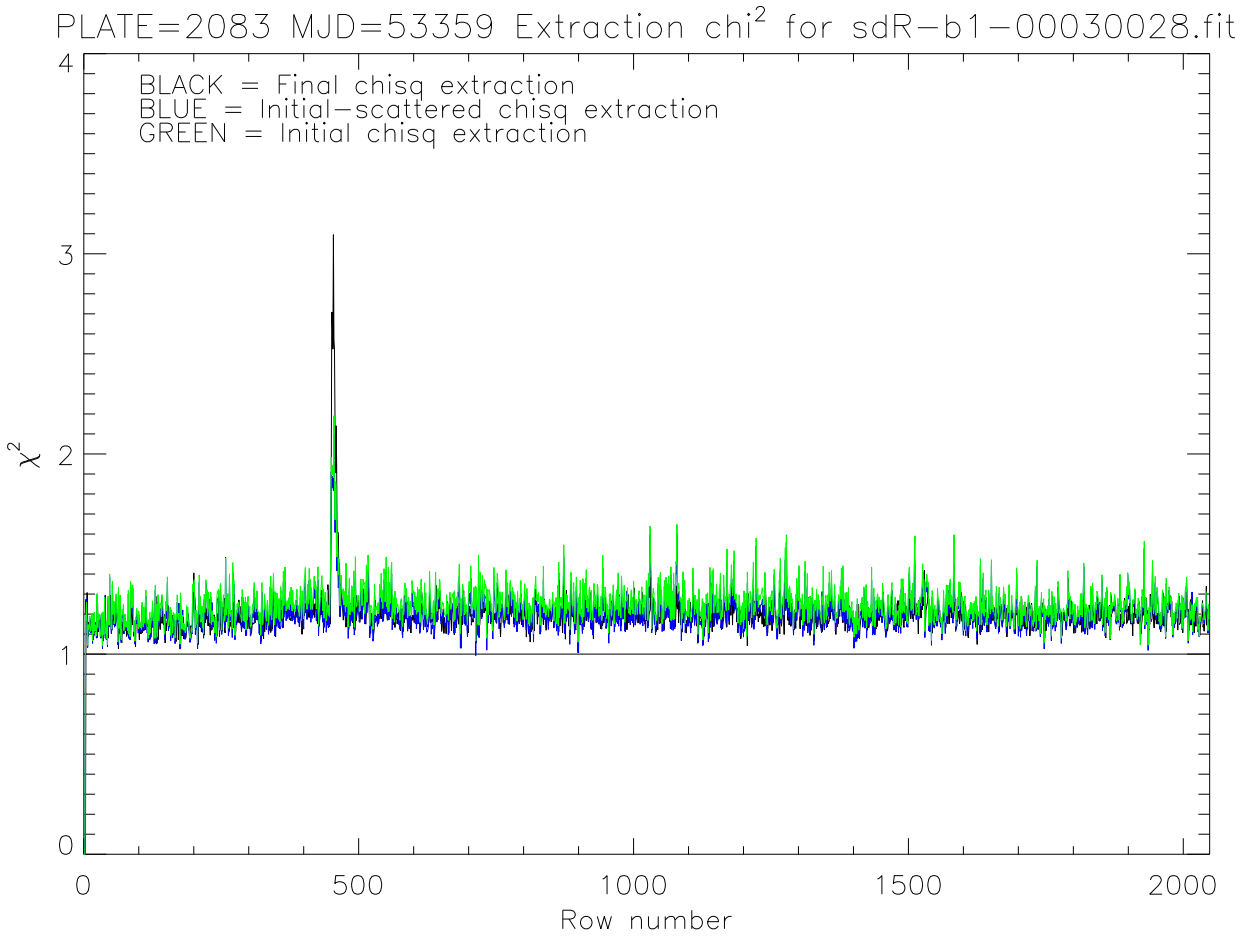

PLATE=2083 MJD=53359 Fiber−Flats for sdR−b1−00030024.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.365
Max value = 1.199
Fiber−Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Sun Feb 17 15:06:38 2008

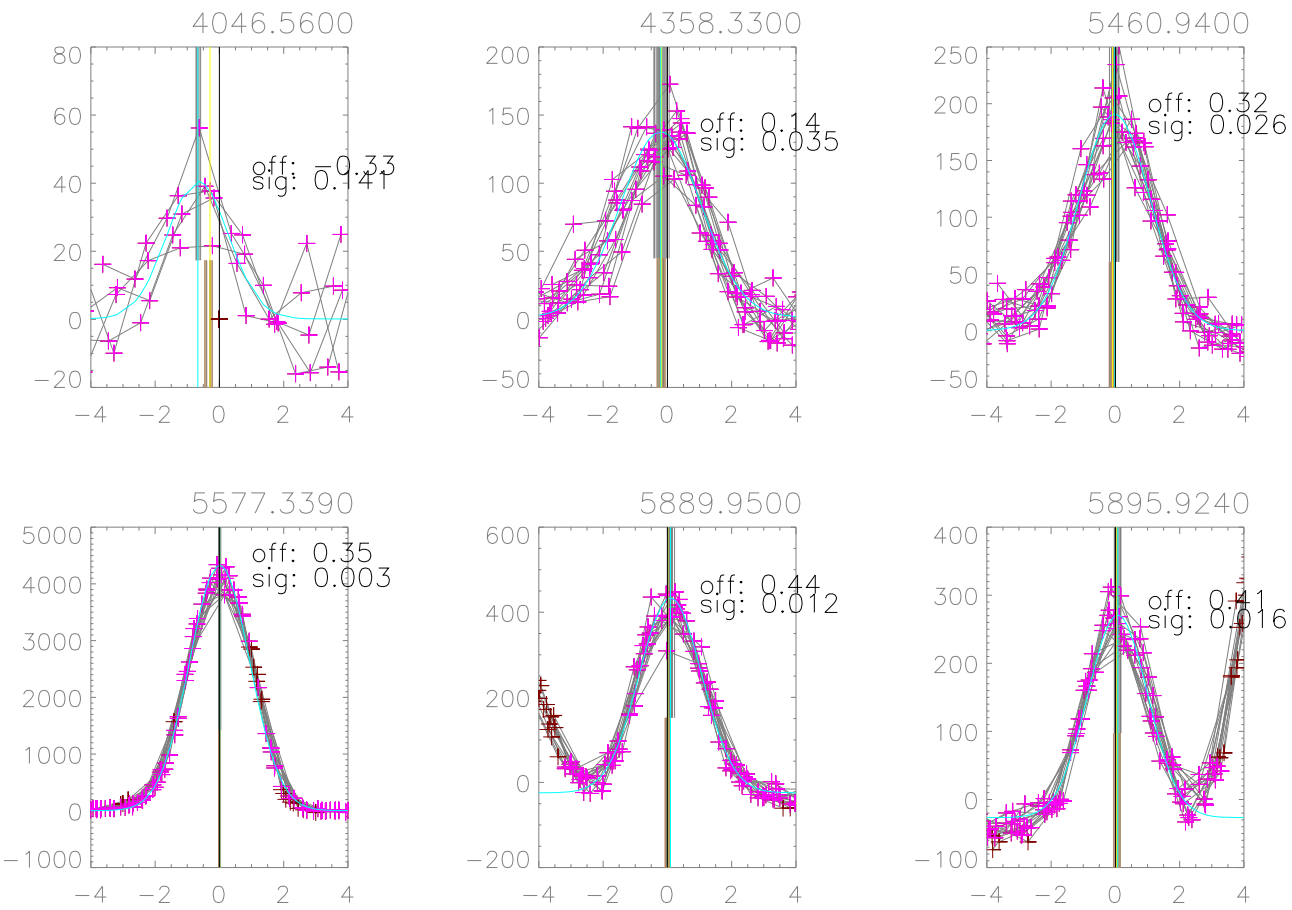

PLATE=2083 MJD=53359 Scattered Light before halo removal on sdR−b1−00030028.f
Y [pix]
X [pix]
0
500
1000
1500
2000
5.8
8.4
10.9

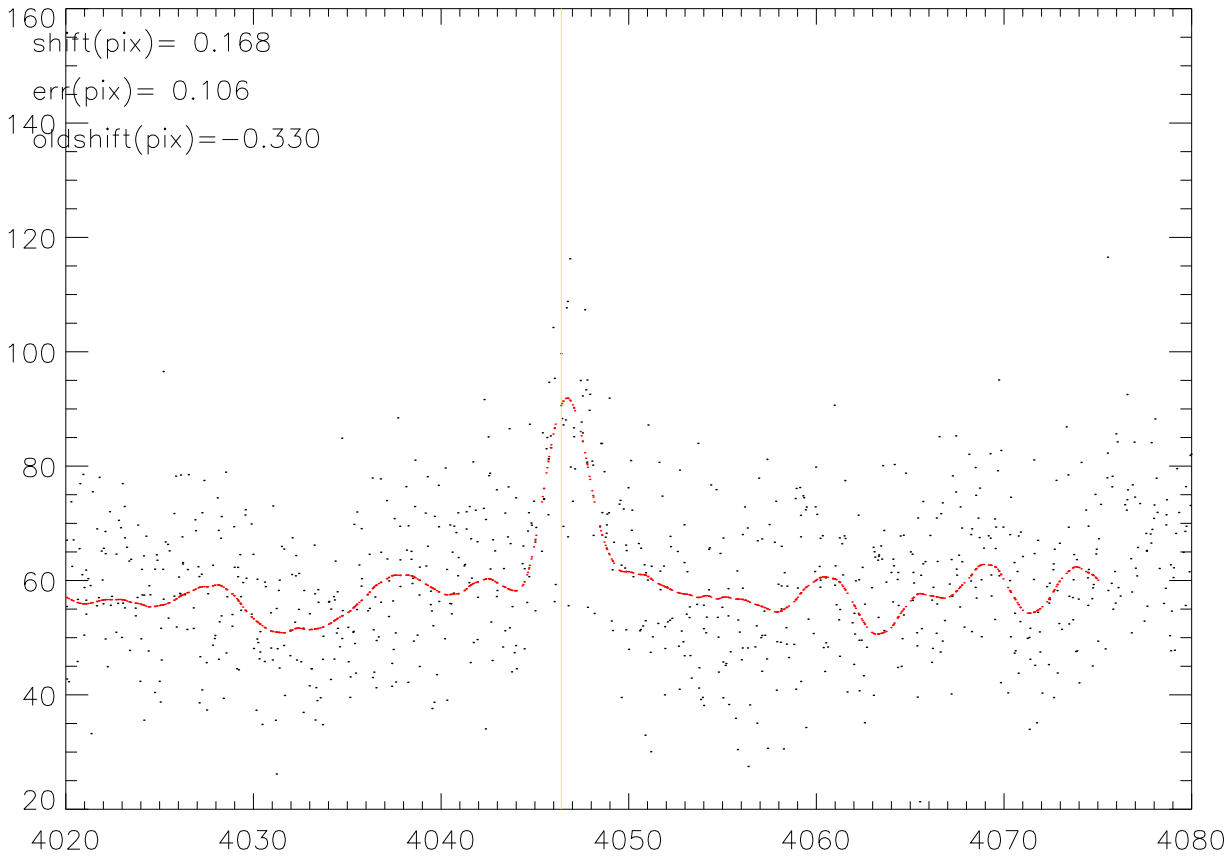

PLATE=2083 MJD=53359 Scattered Light before halo removal on sdR−b1−00030028.f
Brightness [electrons/pix]
15
10
5
0
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 5.040
Max value = 9.226
Sun Feb 17 15:07:30 2008

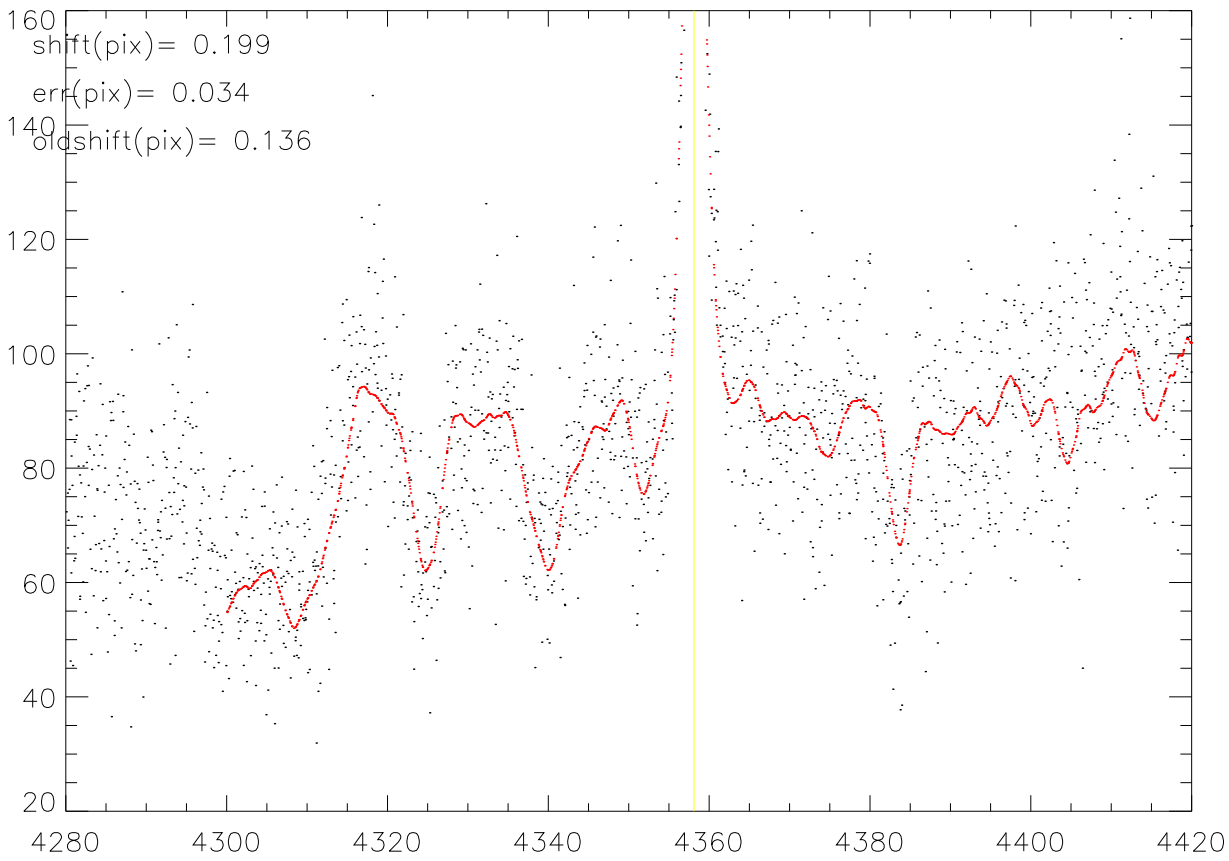

PLATE=2083 MJD=53359 Scattered Light on sdR-b1-00030028.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
4.18
4.18
2.73
4.18
4.18
4.18
4.64

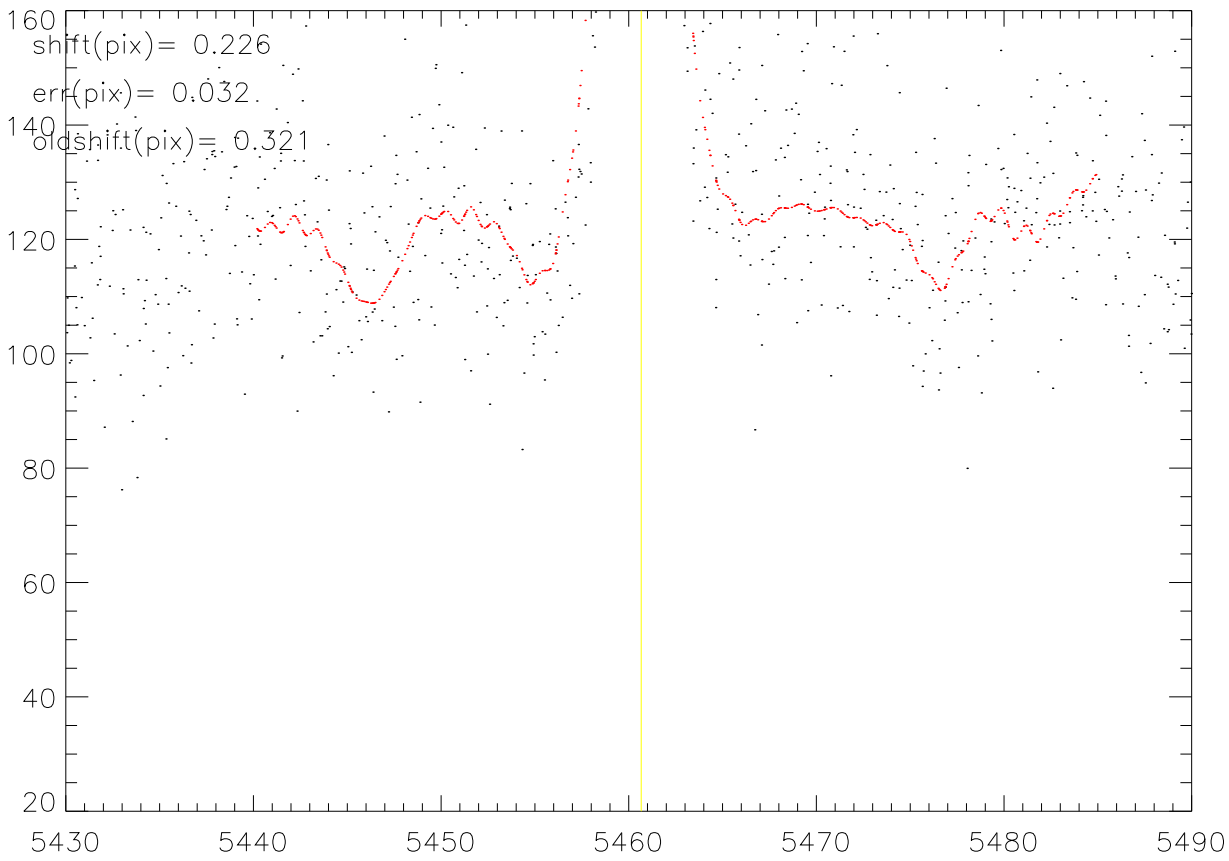

PLATE=2083 MJD=53359 Scattered Light on sdR-b1-00030028.fit
Brightness [electrons/pix]
10
8
6
4
2
0
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 3.260
Max value = 5.380
Sun Feb 17 15:10:44 2008

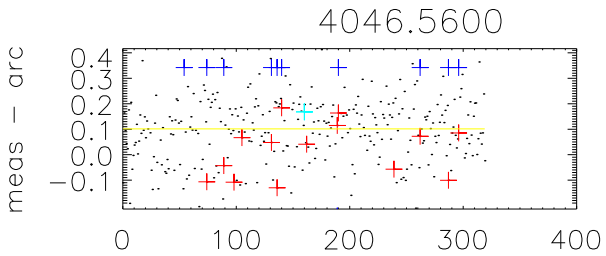

PLATE=2083 MJD=53359 Extraction chi$^2$ for sdR-b1-00030028.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
$\chi^2$
0
1
2
3
4
0
500
1000
1500
2000
Row number

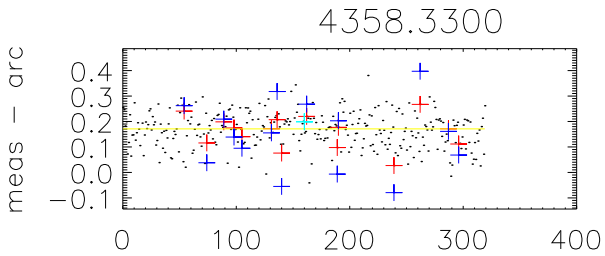

4046.5600
off: −0.33
sig: 0.141
4358.3300
off: 0.14
sig: 0.035
5460.9400
off: 0.32
sig: 0.026
5577.3390
off: 0.35
sig: 0.003
5889.9500
off: 0.44
sig: 0.012
5895.9240
off: 0.41
sig: 0.016

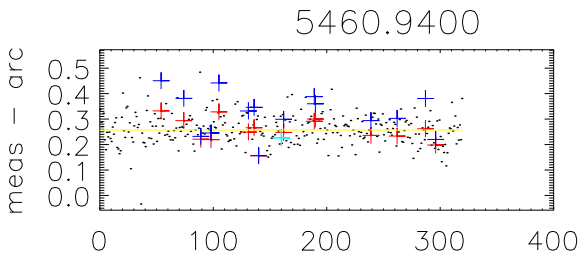

shift(pix)= 0.168
err(pix)= 0.106
oldshift(pix)=−0.330
160
140
120
100
80
60
40
20
4020
4030
4040
4050
4060
4070
4080

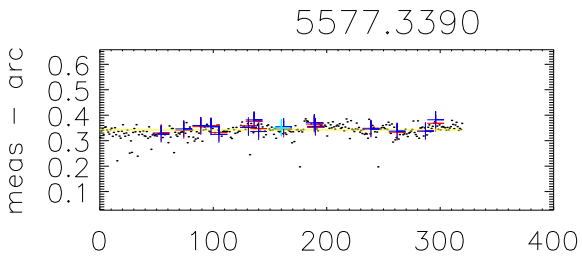

shift(pix)= 0.199
err(pix)= 0.034
oldshift(pix)= 0.136
160
140
120
100
80
60
40
20
4280
4300
4320
4340
4360
4380
4400
4420

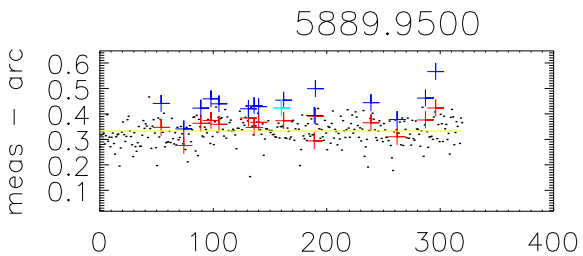

shift(pix)= 0.226
err(pix)= 0.032
oldshift(pix)= 0.321
160
140
120
100
80
60
40
20
5430
5440
5450
5460
5470
5480
5490

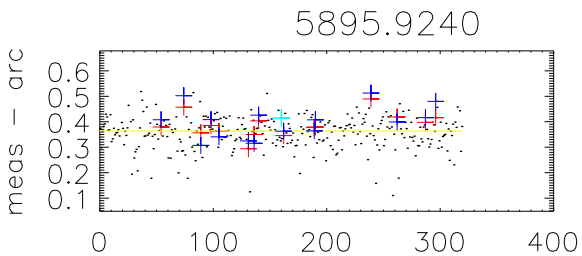

4046.5600
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

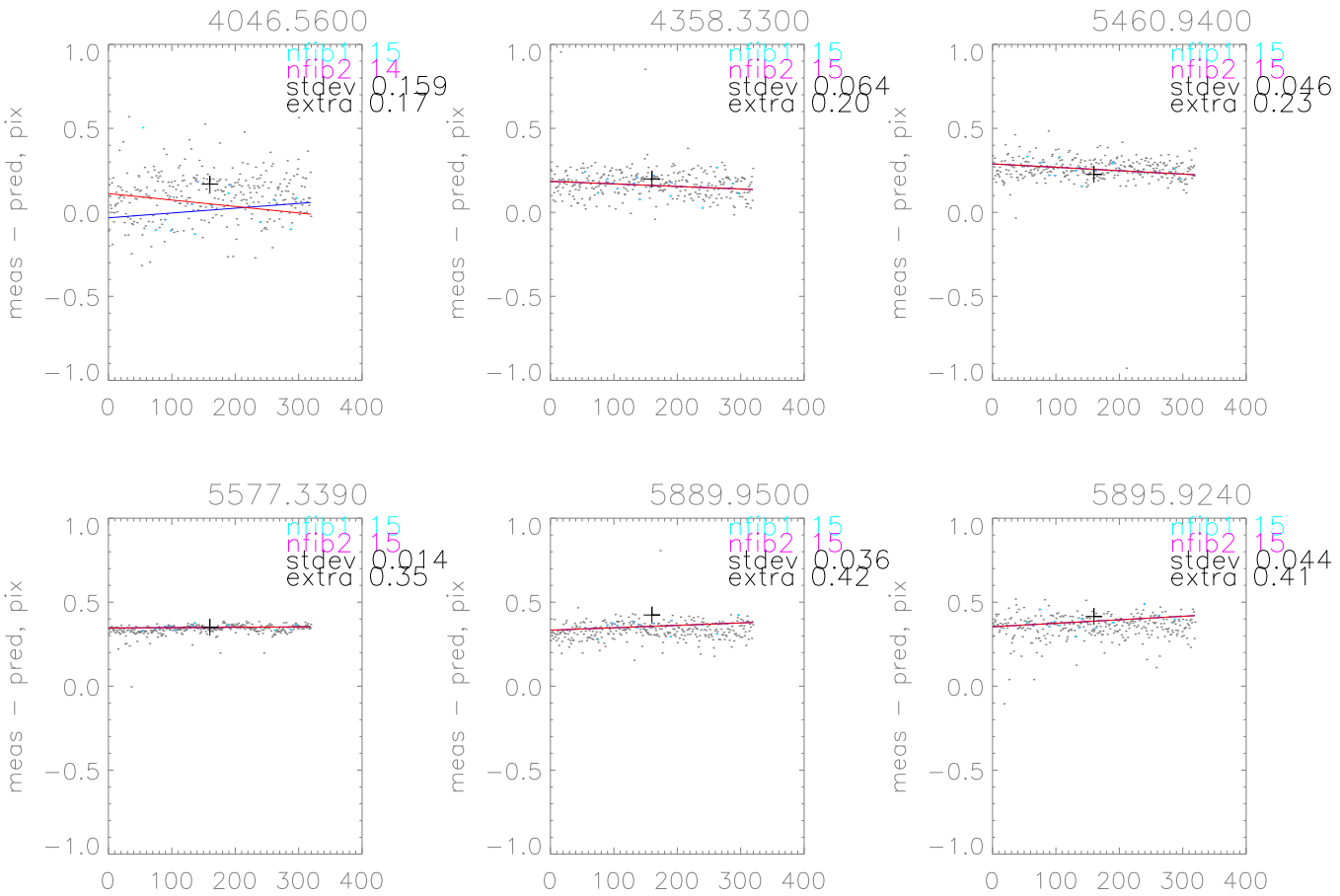

4358.3300
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

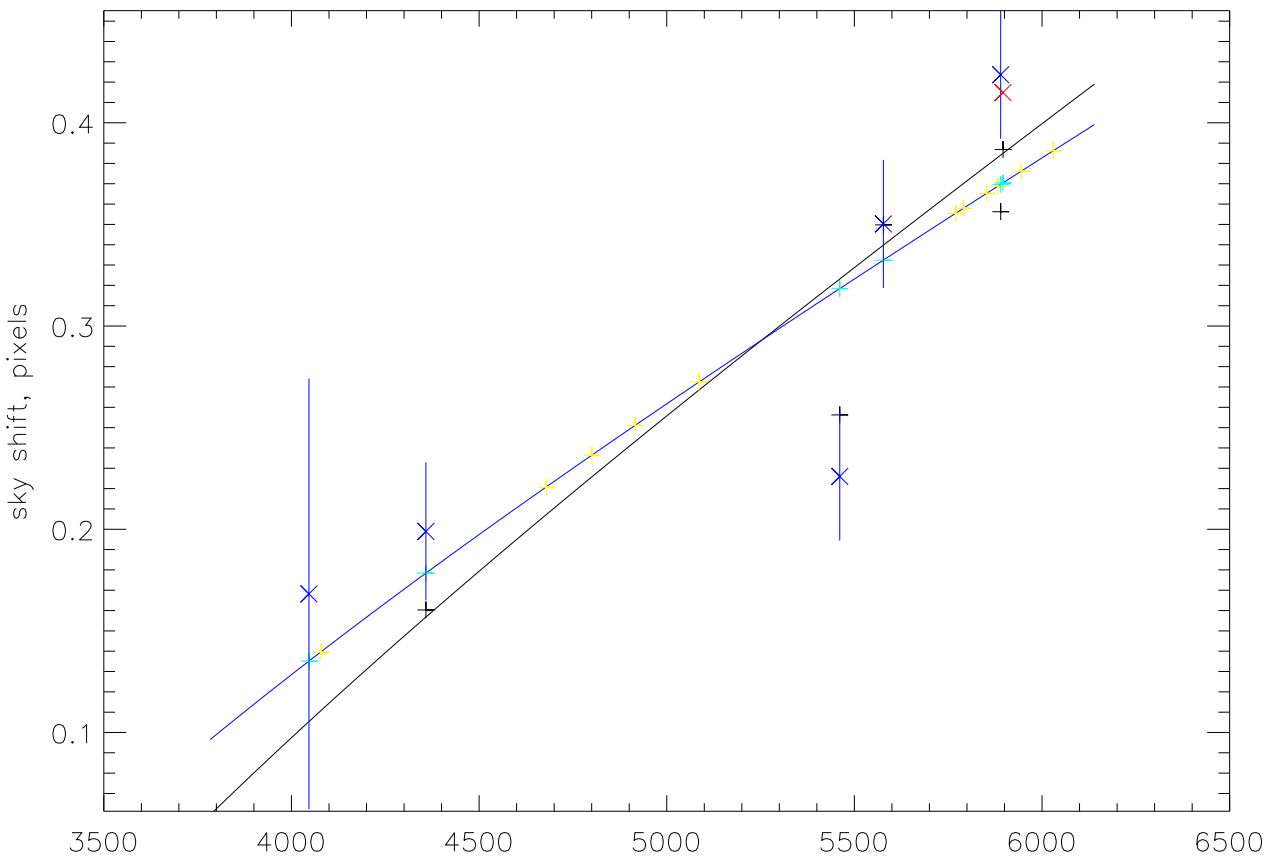

5460.9400
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400


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

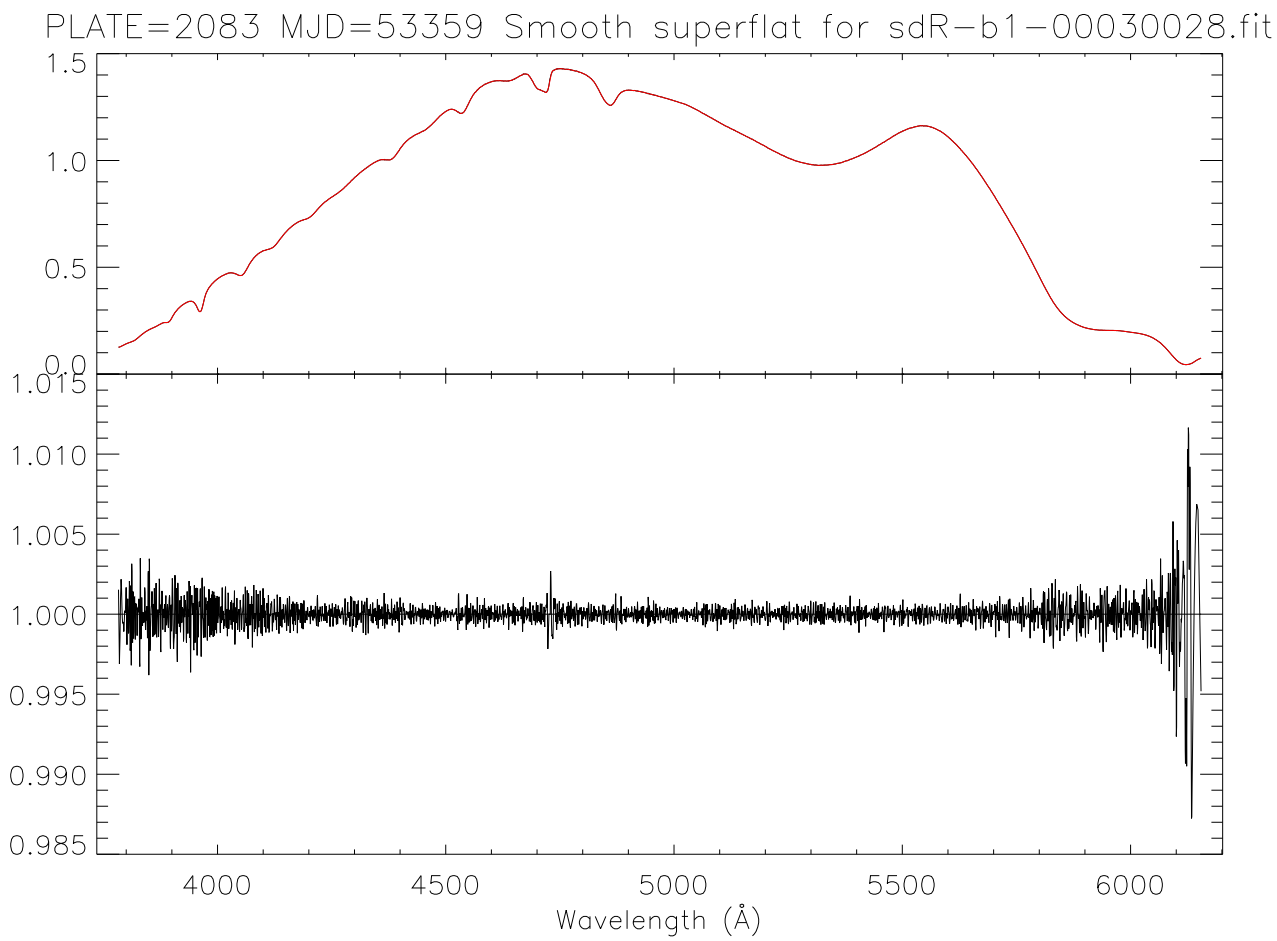

5889.9500
meas − arc
0.6
0.5
0.4
0.3
0.2
0.1
0
100
200
300
400

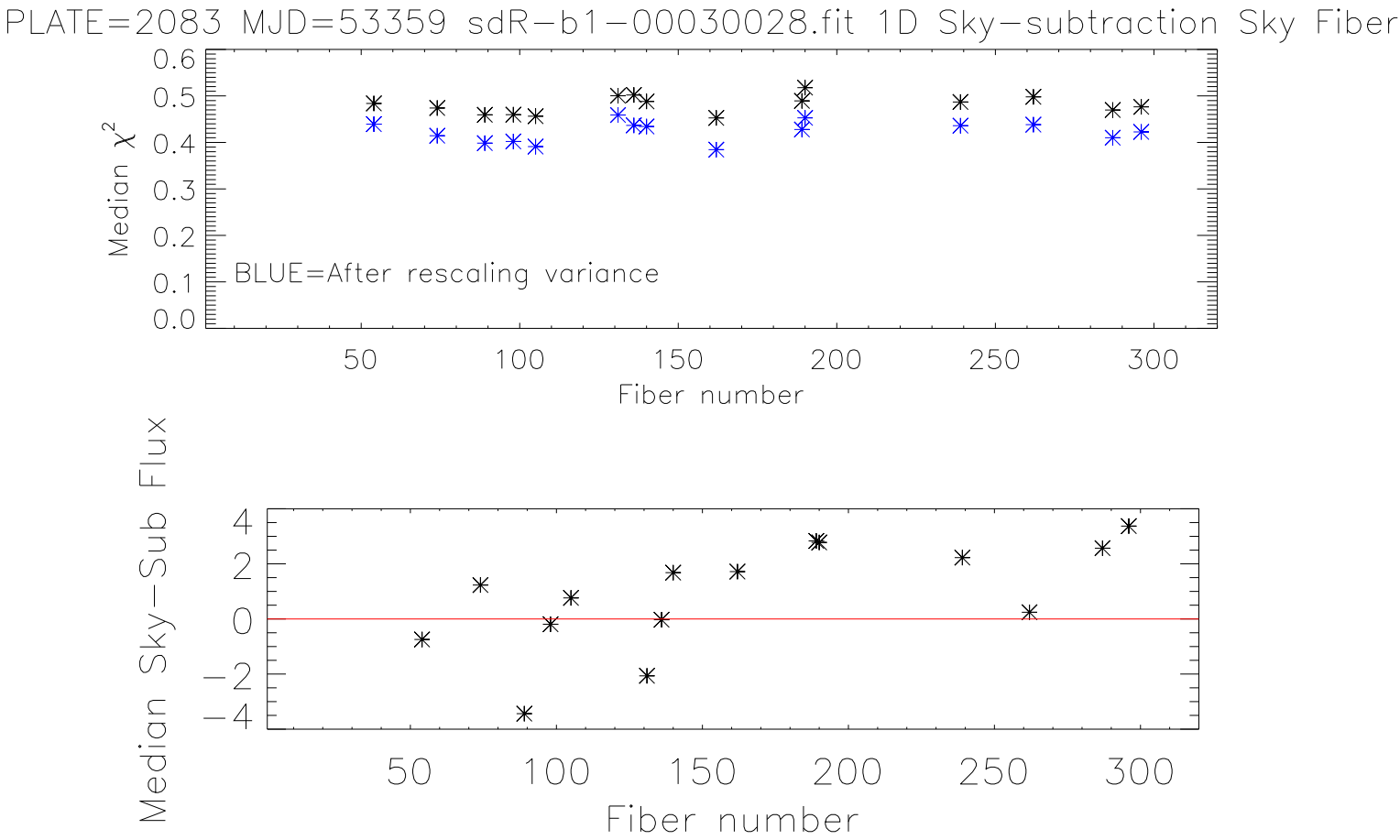

5895.9240
meas − arc
0.6
0.5
0.4
0.3
0.2
0.1
0
100
200
300
400

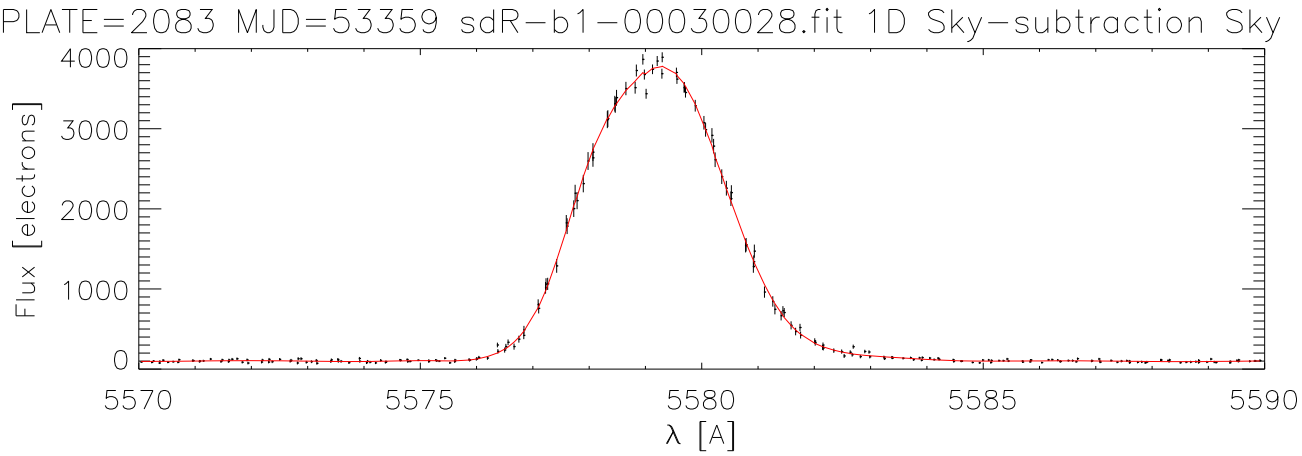

4046.5600
nfib1 15
nfib2 14
stdev 0.159
extra 0.17
4358.3300
nfib1 15
nfib2 15
stdev 0.064
extra 0.20
5460.9400
nfib1 15
nfib2 15
stdev 0.046
extra 0.23
5577.3390
nfib1 15
nfib2 15
stdev 0.014
extra 0.35
5889.9500
nfib1 15
nfib2 15
stdev 0.036
extra 0.42
5895.9240
nfib1 15
nfib2 15
stdev 0.044
extra 0.41
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

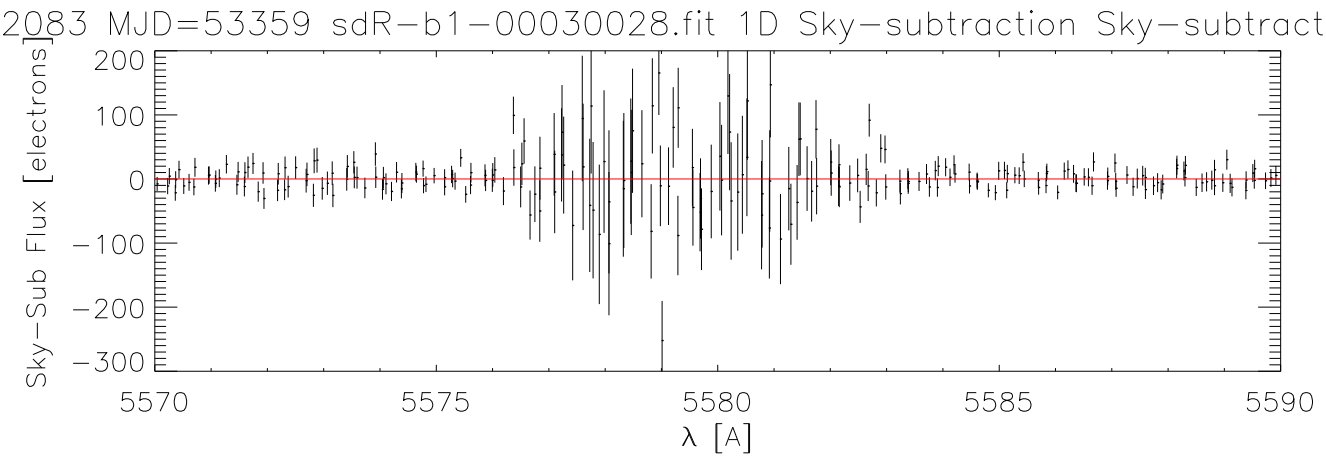

sky shift, pixels
0.1
0.2
0.3
0.4
3500
4000
4500
5000
5500
6000
6500

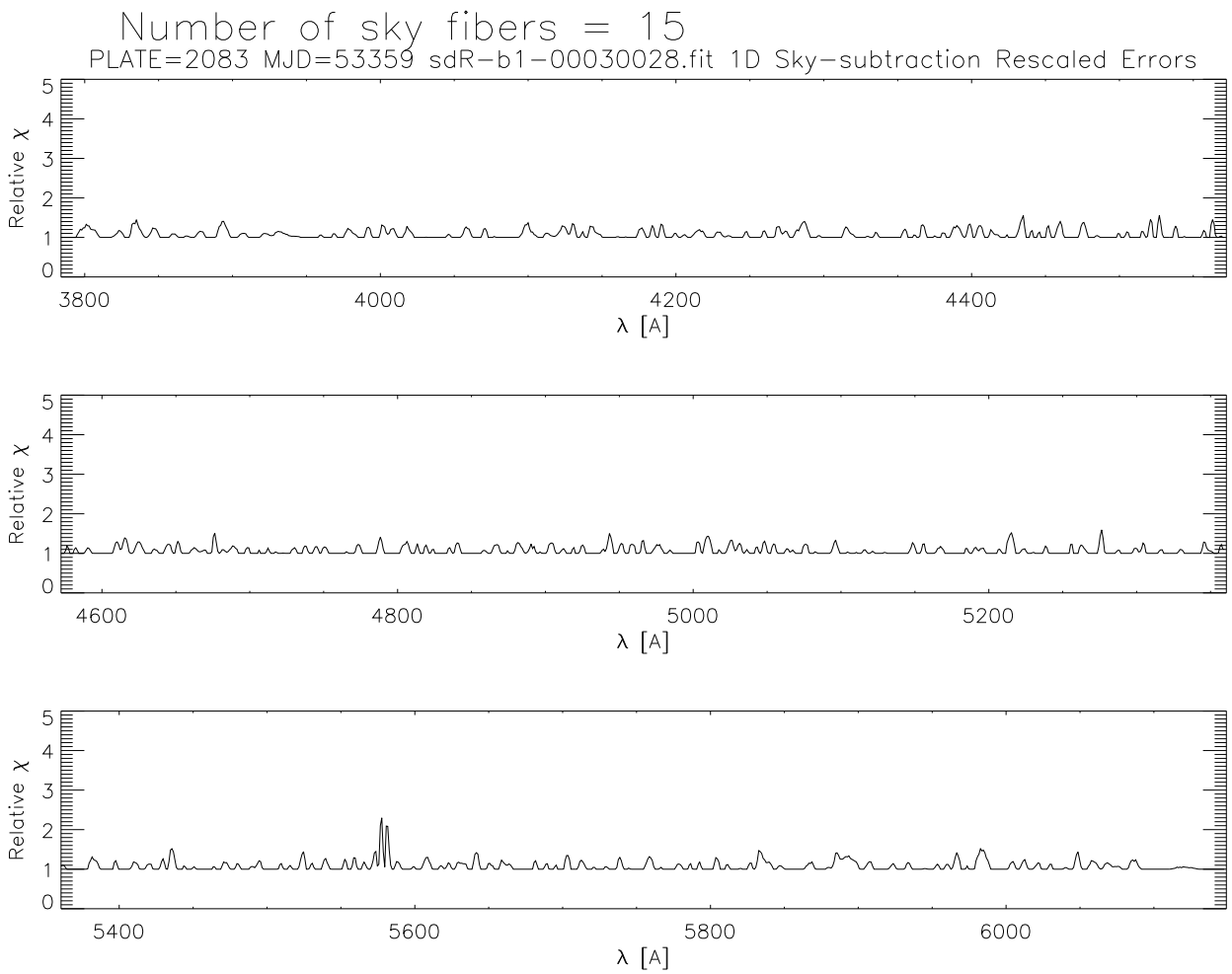
es= 0.0000

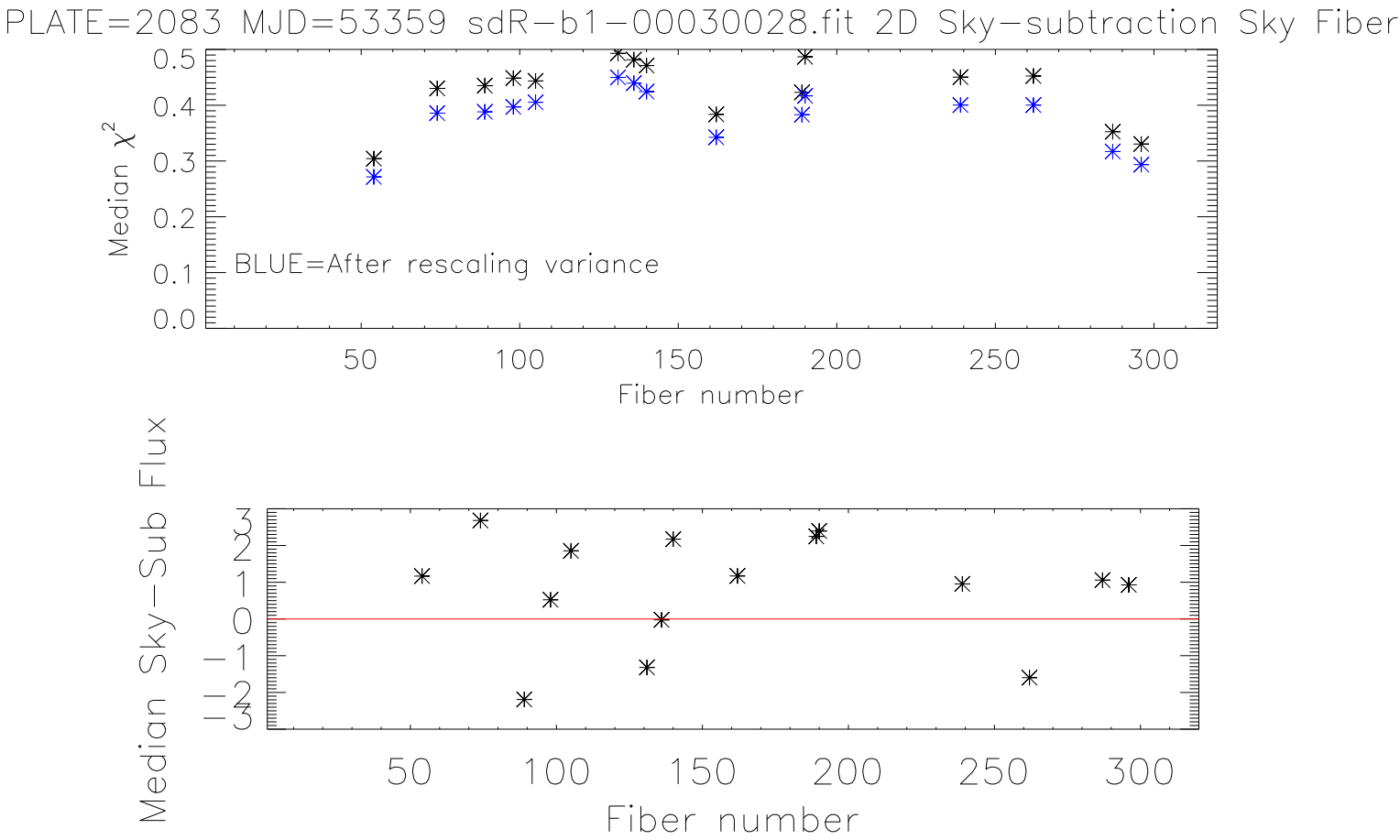

PLATE=2083 MJD=53359 Smooth superflat for sdR-b1-00030028.fit
1.5
1.0
0.5
0.0
1.015
1.010
1.005
1.000
0.995
0.990
0.985
4000
4500
5000
5500
6000
Wavelength (Å)

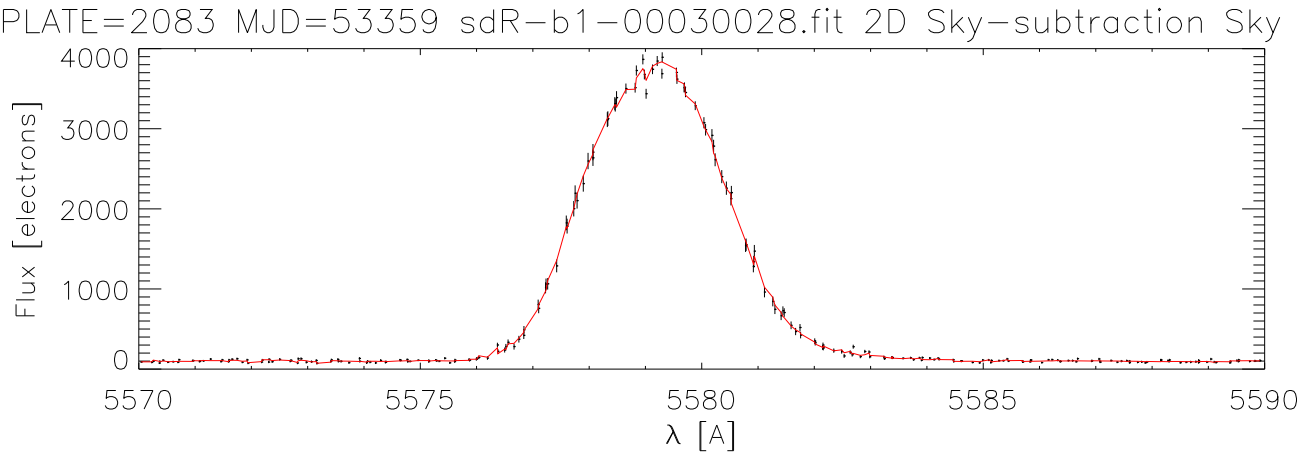

PLATE=2083 MJD=53359 sdR-b1-00030028.fit 1D Sky-subtraction Sky Fiber
Median $\chi^2$
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

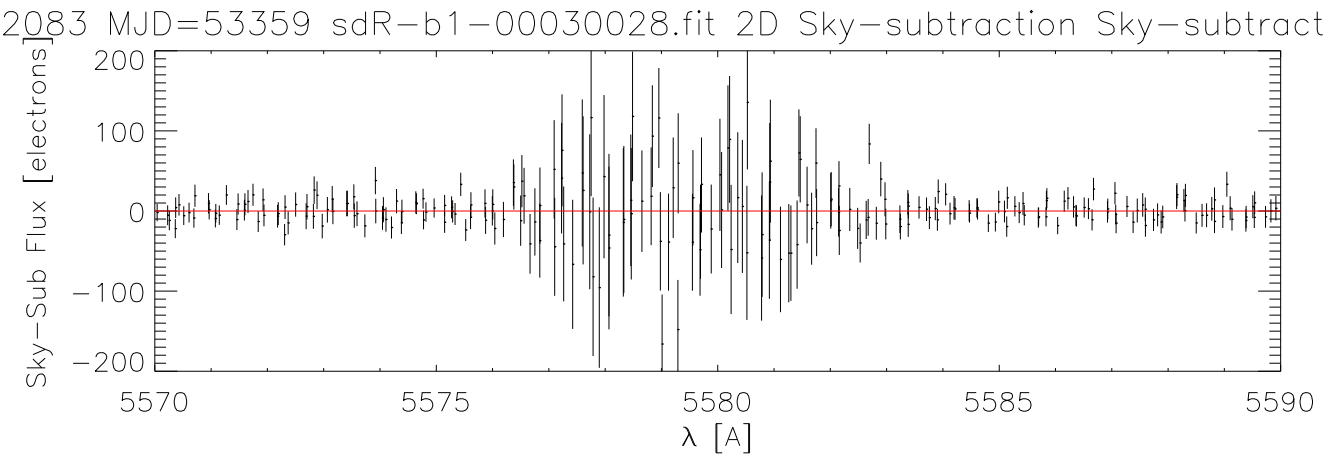

PLATE=2083 MJD=53359 sdR-b1-00030028.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

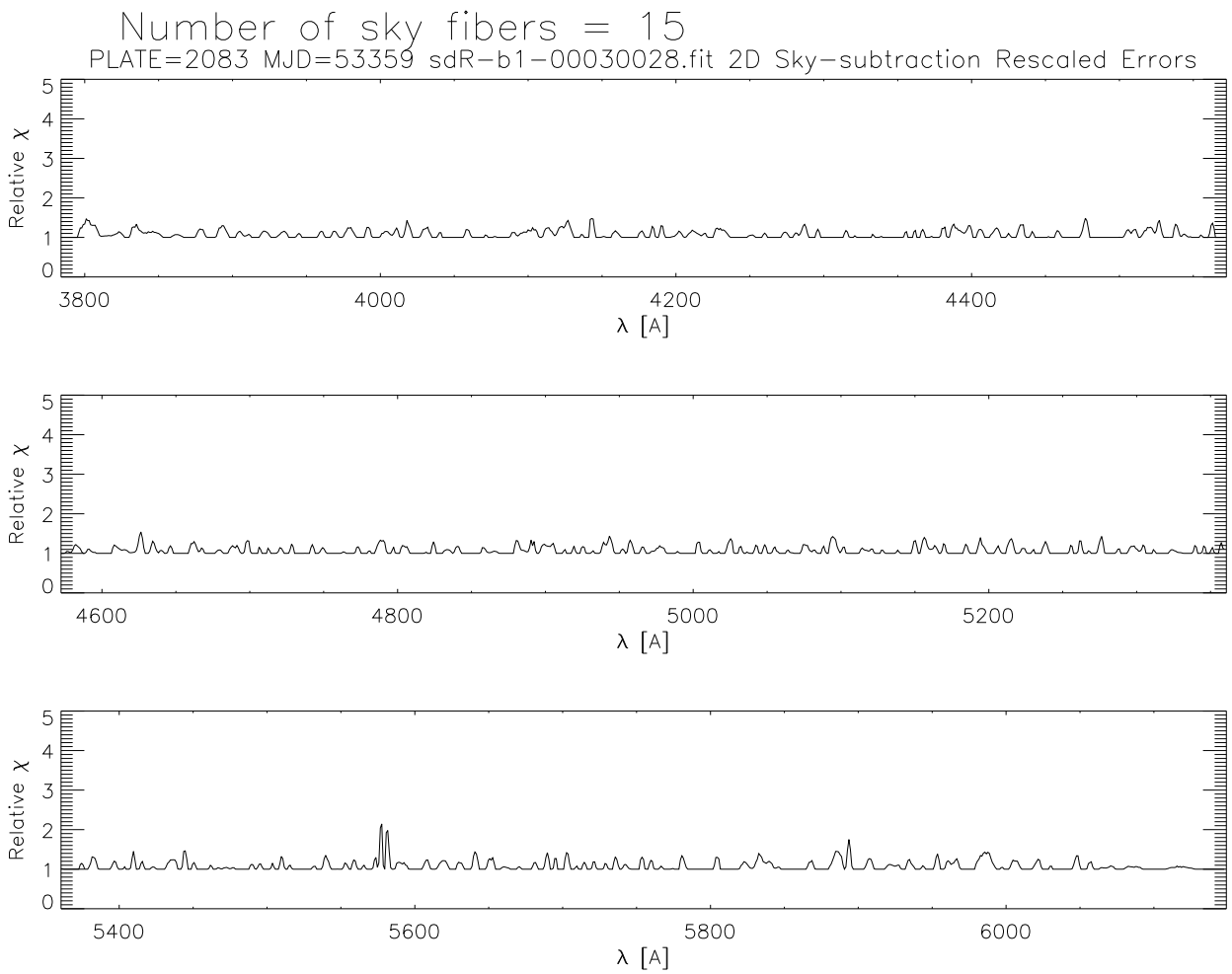

PLATE=2083 MJD=53359 sdR-b1-00030028.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
-300
5570
5575
5580
5585
5590
λ [A]

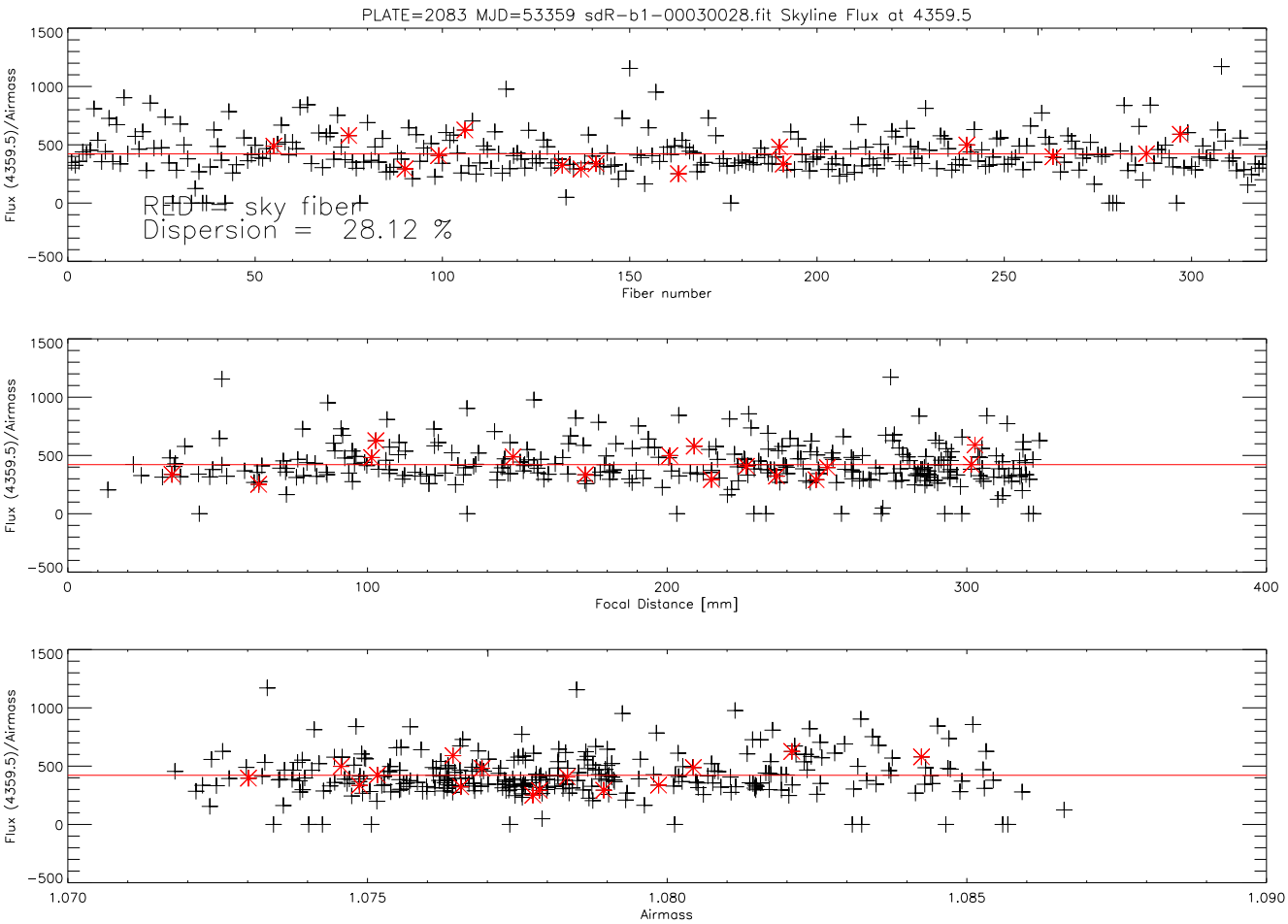

Number of sky fibers = 15
PLATE=2083 MJD=53359 sdR-b1-00030028.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

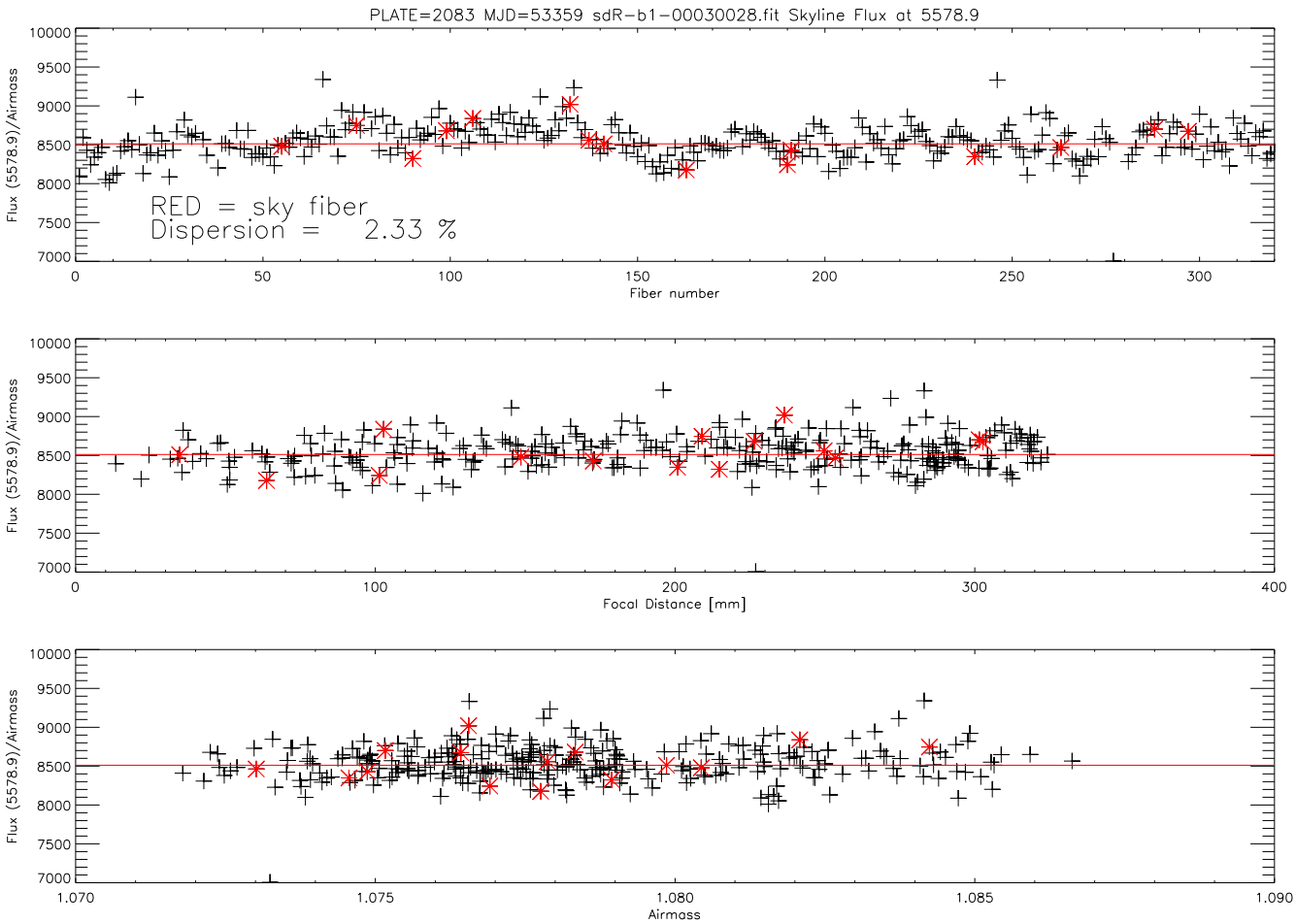

PLATE=2083 MJD=53359 sdR-b1-00030028.fit 2D Sky-subtraction Sky Fiber
Median $\chi^2$
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

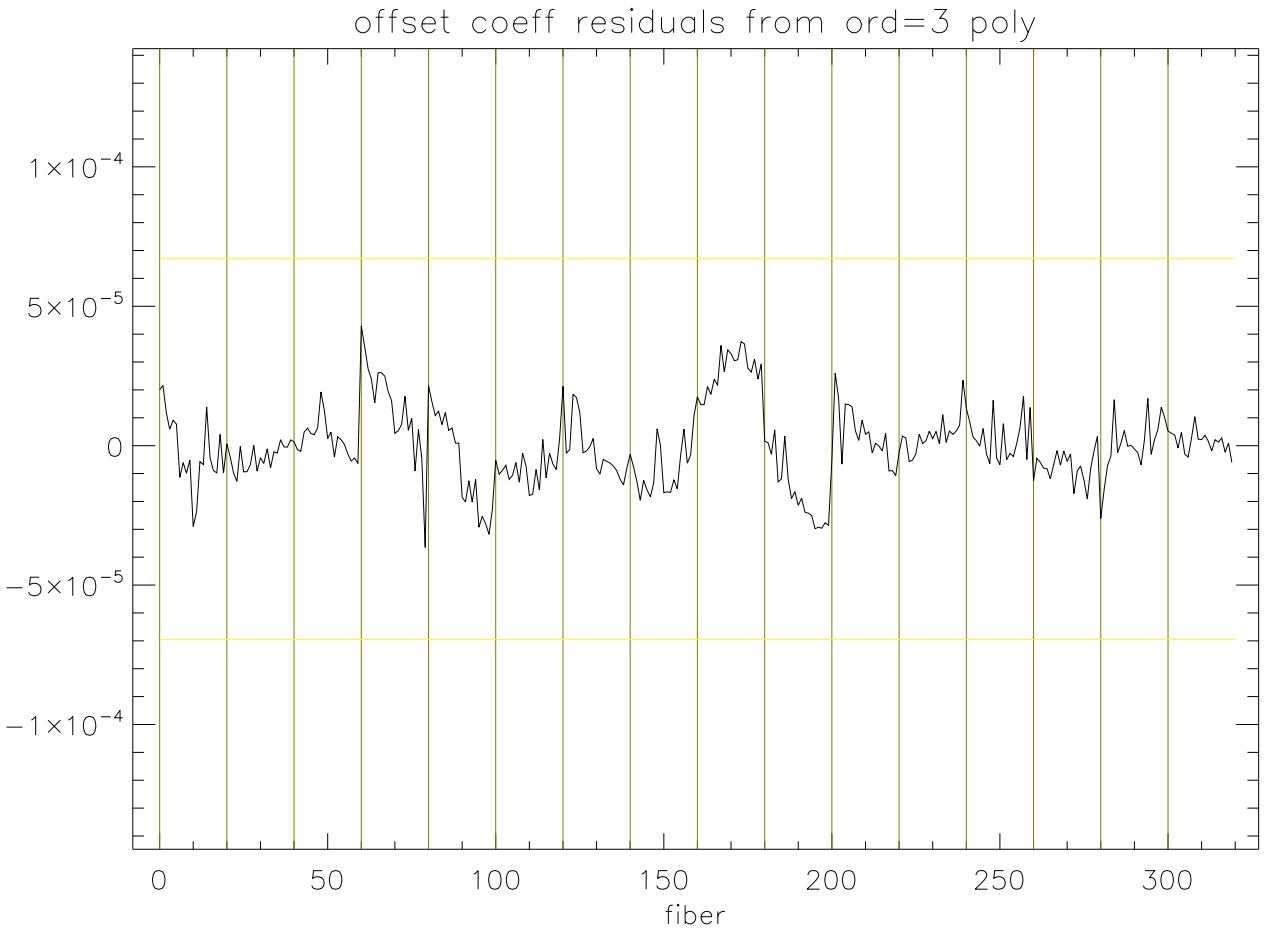

PLATE=2083 MJD=53359 sdR-b1-00030028.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

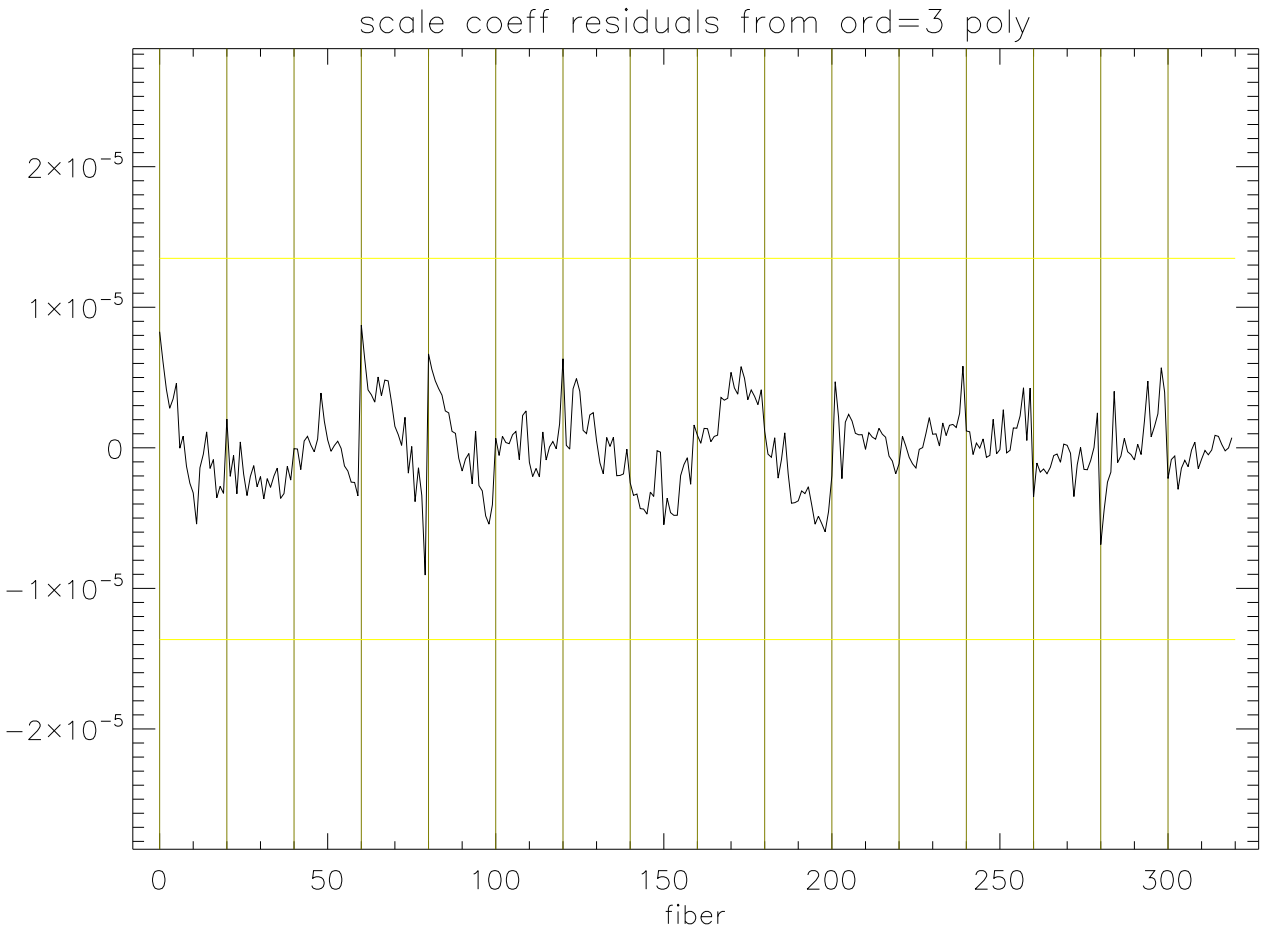

PLATE=2083 MJD=53359 sdR-b1-00030028.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
5570
5575
5580
5585
5590
λ [A]

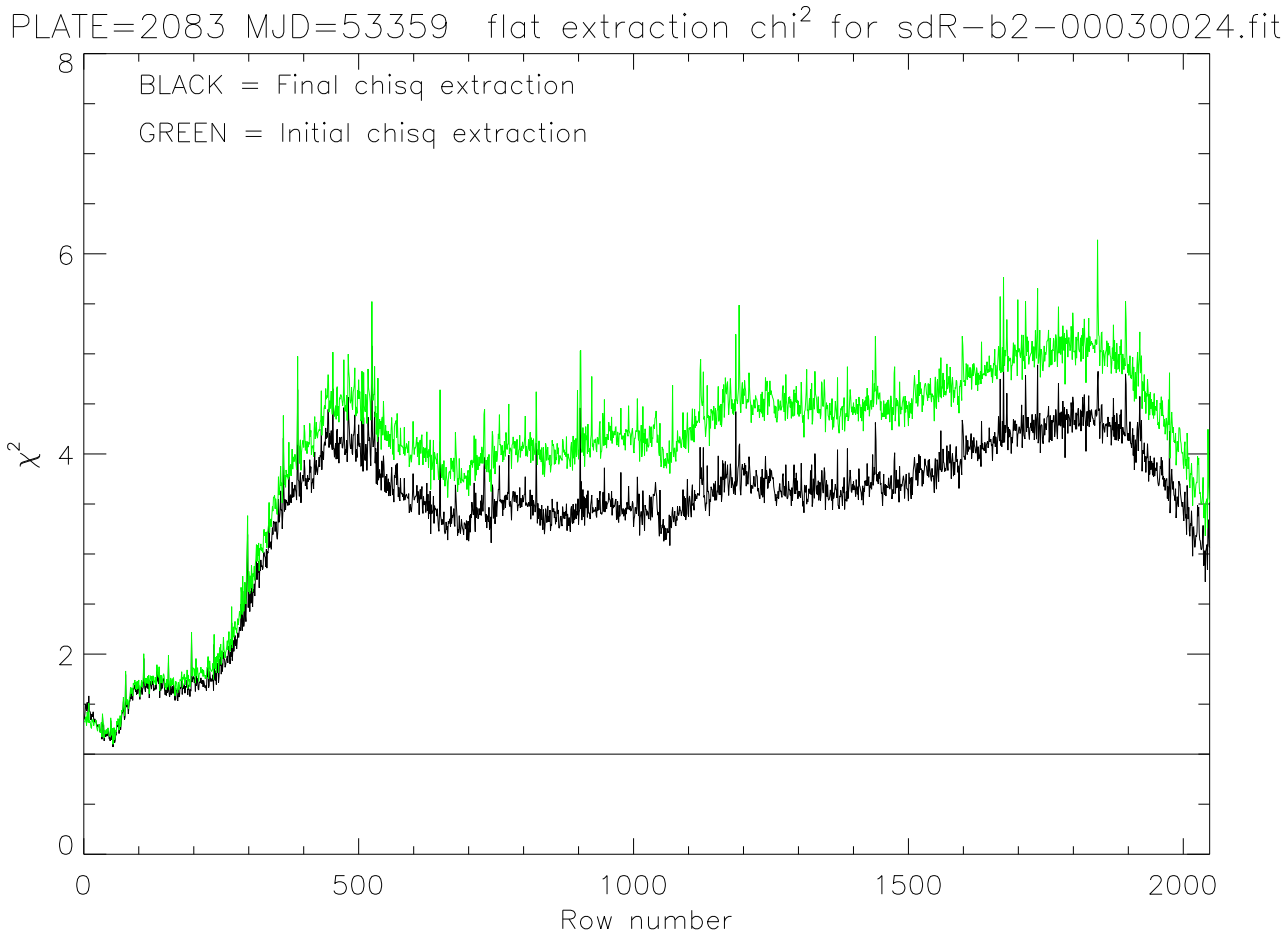

Number of sky fibers = 15
PLATE=2083 MJD=53359 sdR-b1-00030028.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

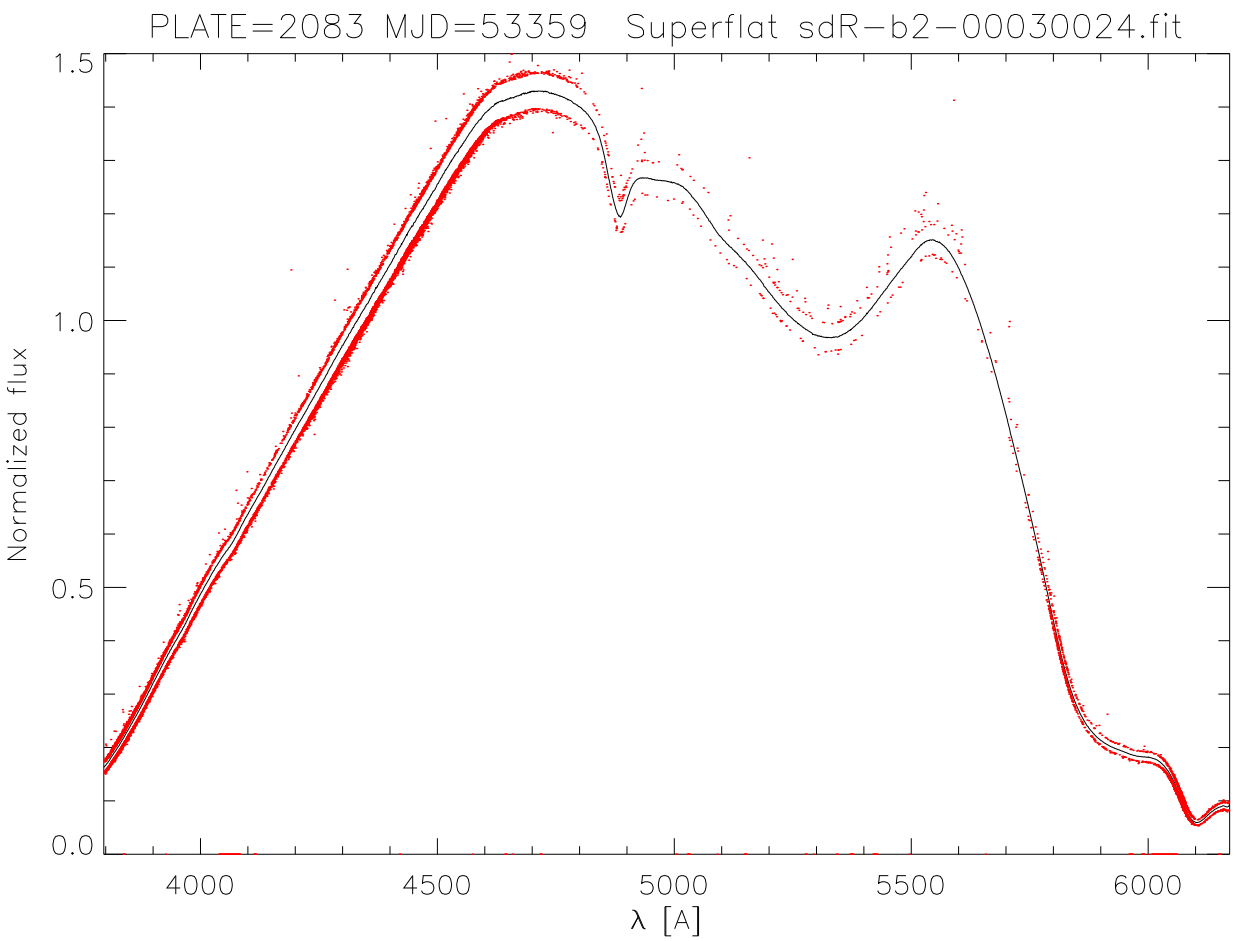

PLATE=2083 MJD=53359 sdR-b1-00030028.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
Fiber number
RED sky fiber
Dispersion = 28.12 %
Focal Distance [mm]
Airmass

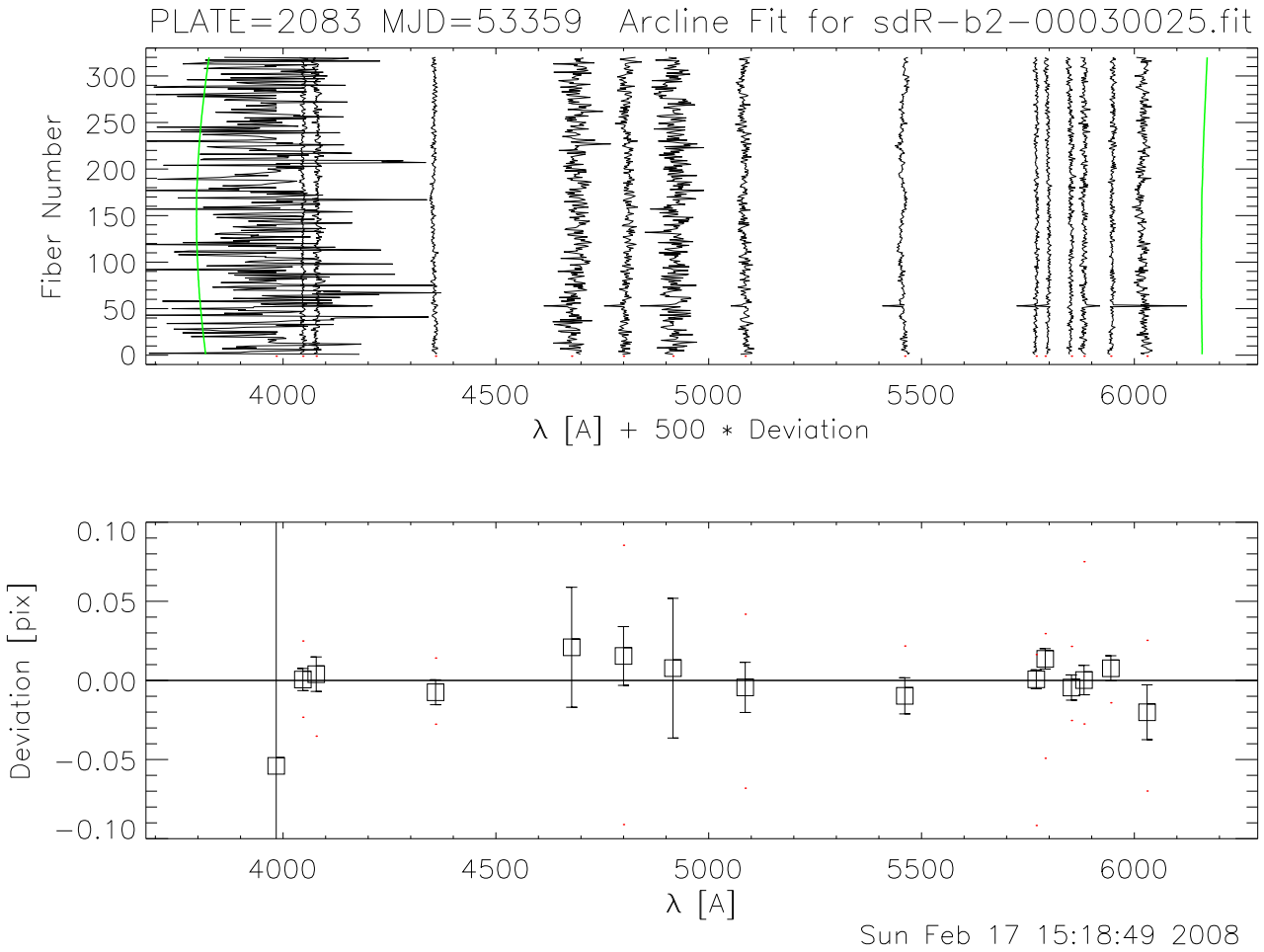

PLATE=2083 MJD=53359 sdR-b1-00030028.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 2.33 %
Fiber number
Flux (5578.9)/Airmass
Focal Distance [mm]
Flux (5578.9)/Airmass
Airmass

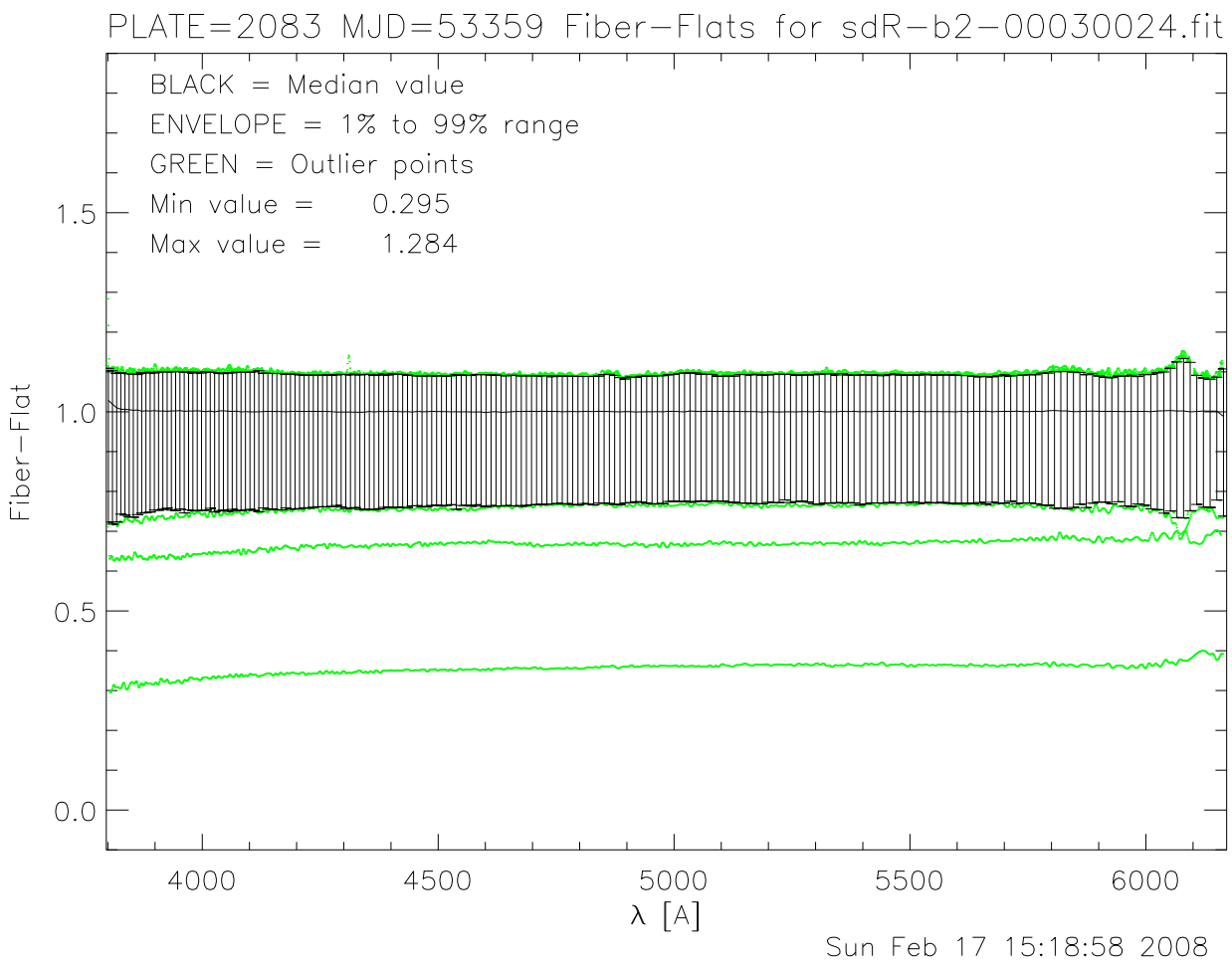

offset coeff residuals from ord=3 poly
1×10^-4
5×10^-5
0
−5×10^-5
−1×10^-4
0
50
100
150
200
250
300
fiber

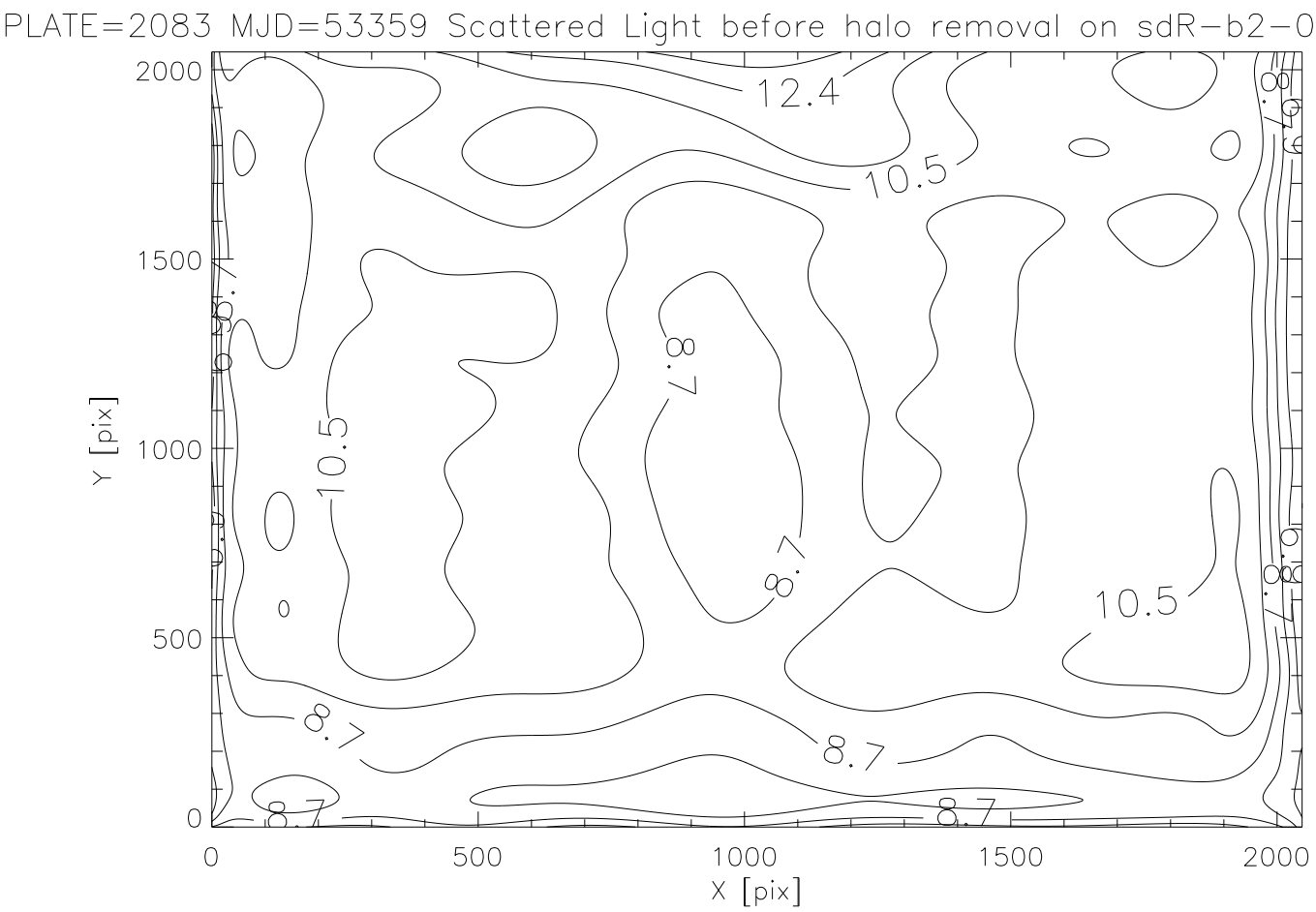

scale coeff residuals from ord=3 poly
2×10⁻⁵
1×10⁻⁵
0
−1×10⁻⁵
−2×10⁻⁵
0
50
100
150
200
250
300
fiber

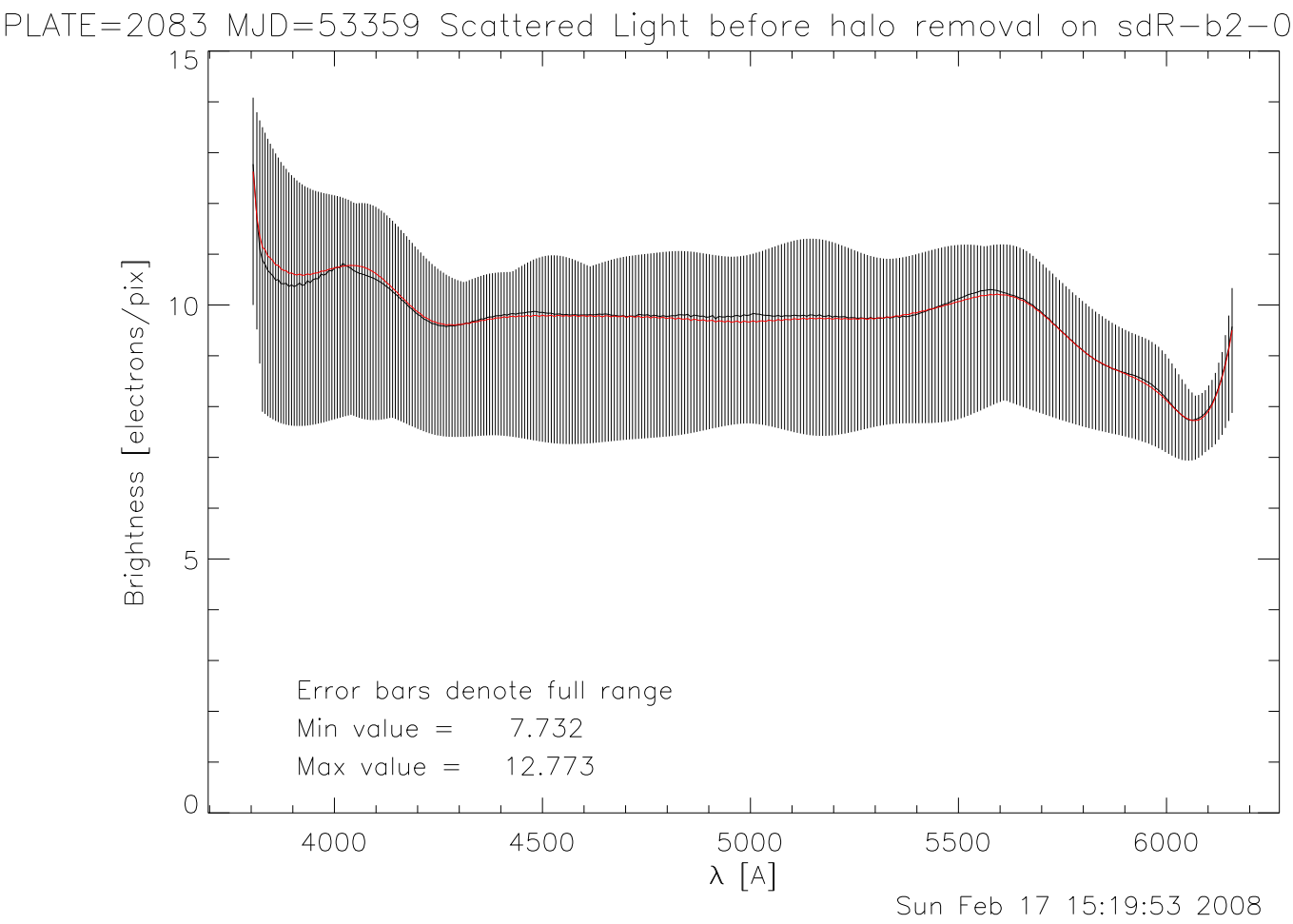

PLATE=2083 MJD=53359 flat extraction chi$^2$ for sdR−b2−00030024.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
$\chi^2$
0
2
4
6
8
0
500
1000
1500
2000
Row number

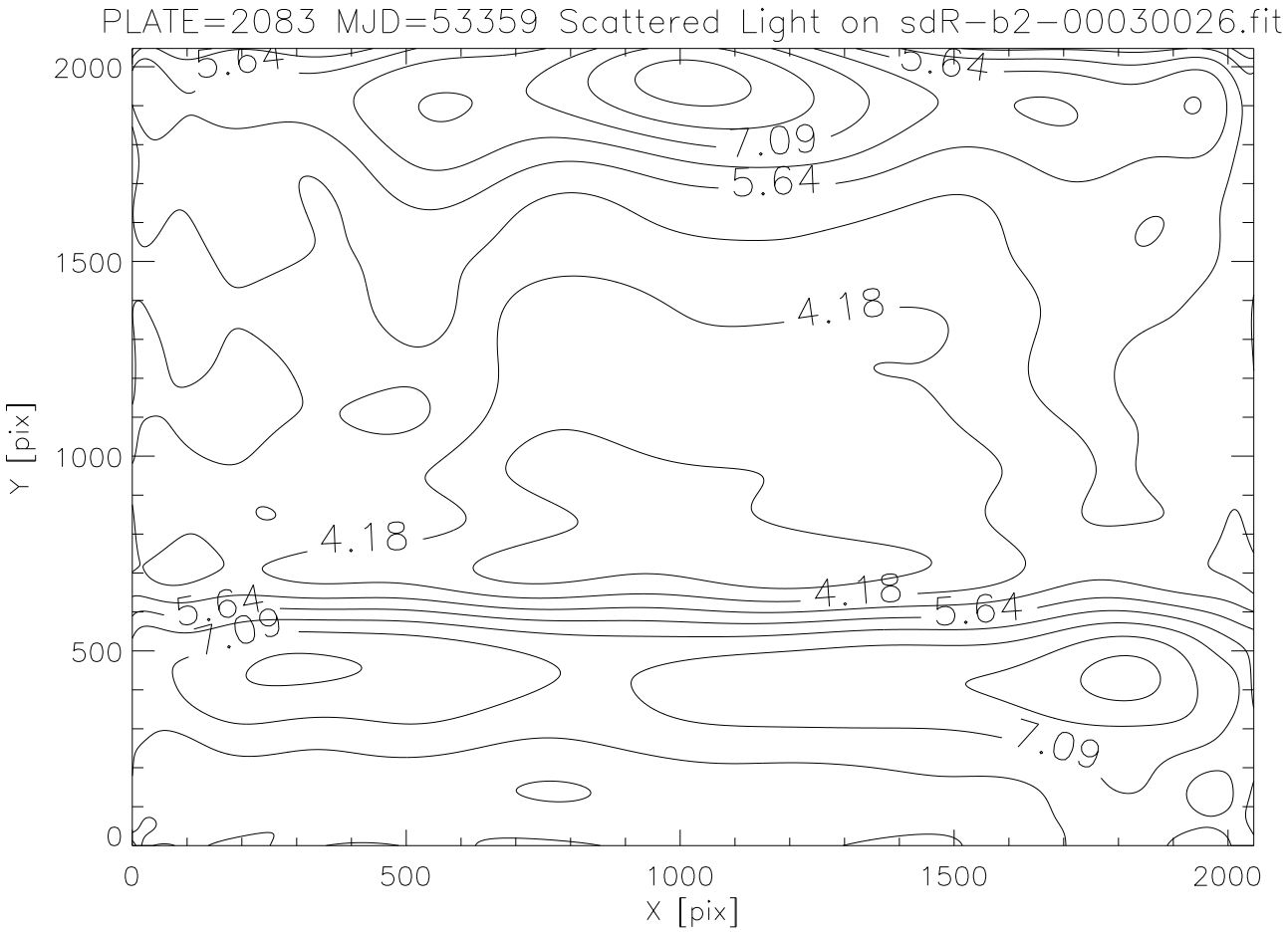

PLATE=2083 MJD=53359 Superflat sdR-b2-00030024.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

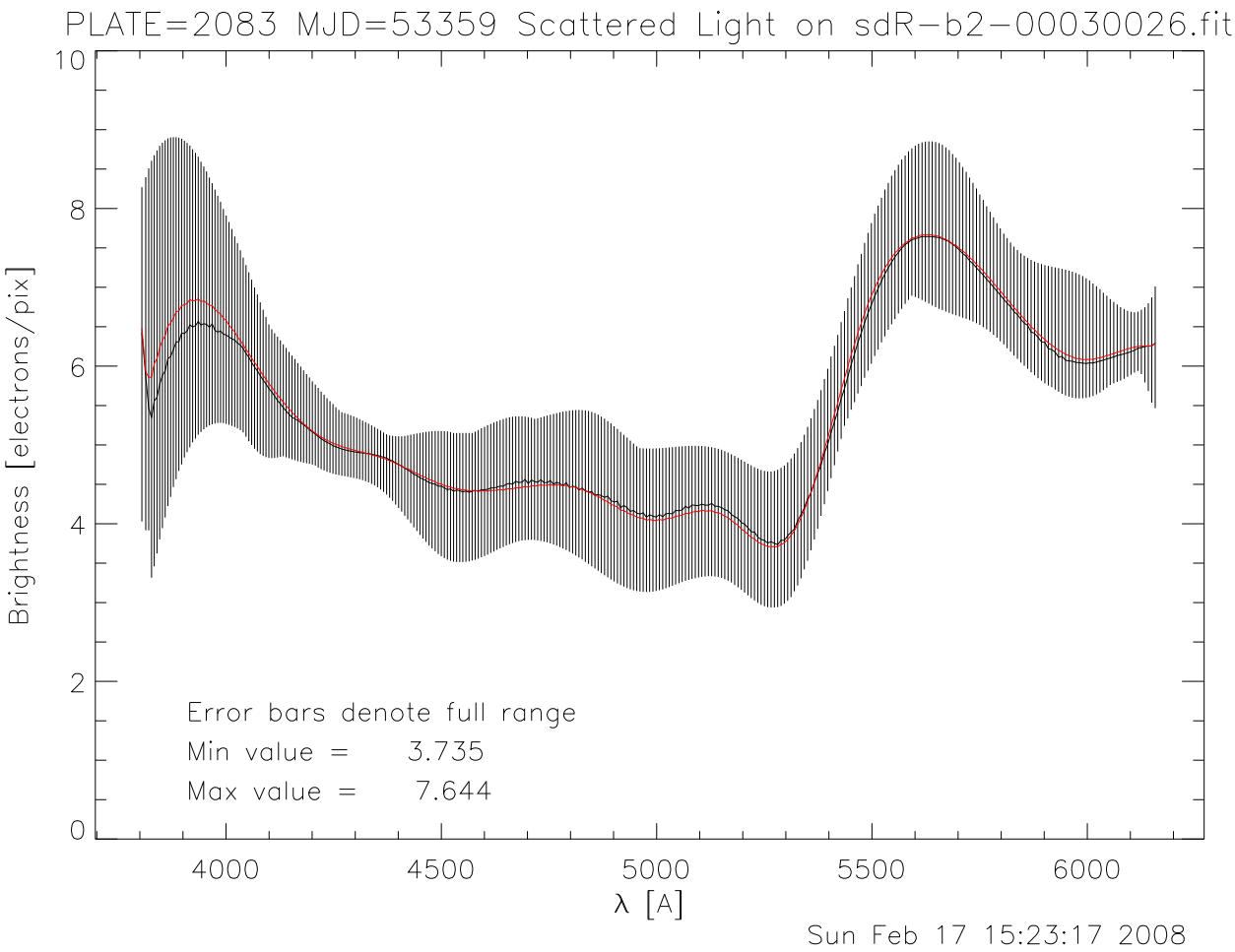

PLATE=2083 MJD=53359 Arcline Fit for sdR-b2-00030025.fit
Fiber Number
300
250
200
150
100
50
0
4000
4500
5000
5500
6000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
4000
4500
5000
5500
6000
λ [A]
Sun Feb 17 15:18:49 2008

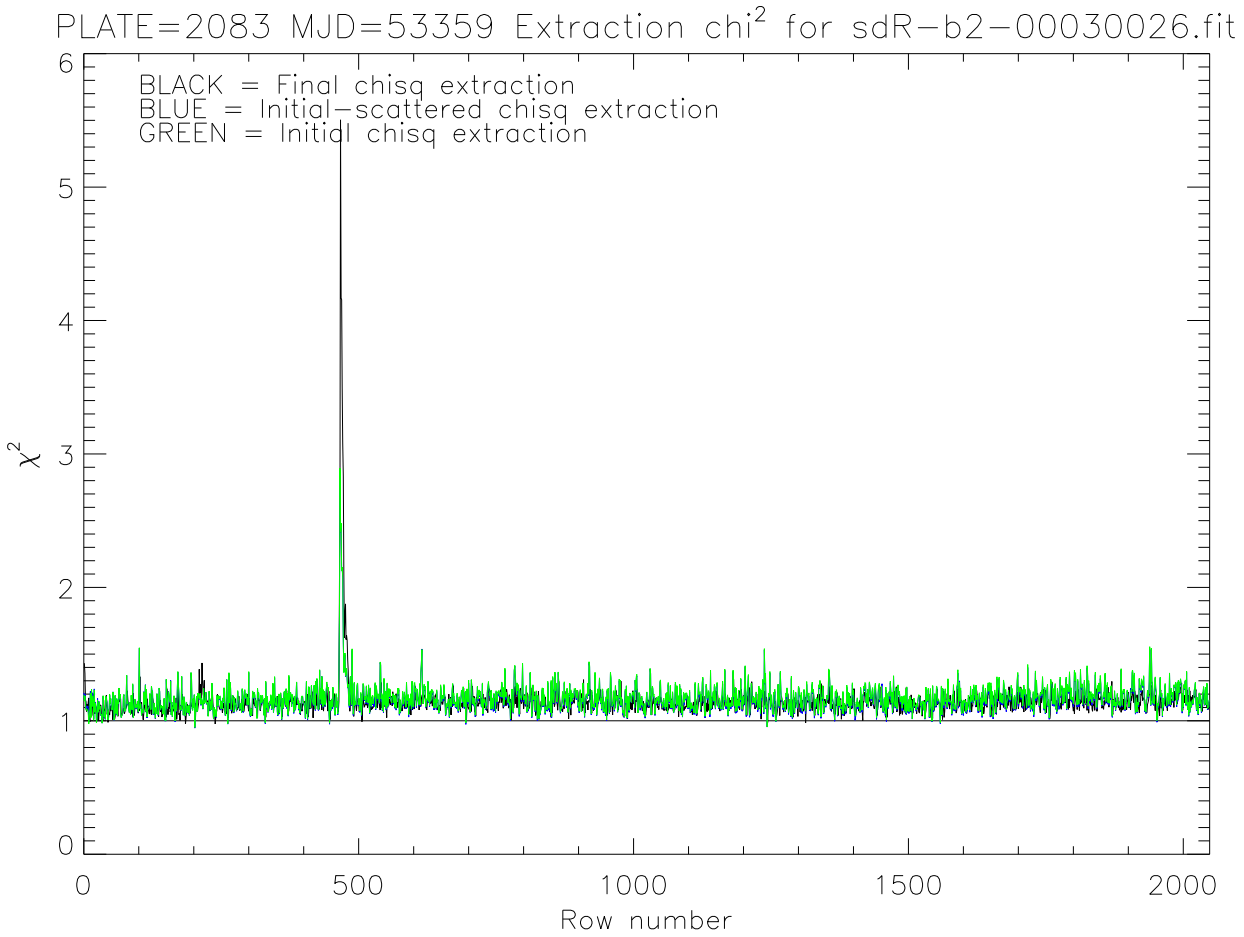

PLATE=2083 MJD=53359 Fiber−Flats for sdR−b2−00030024.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.295
Max value = 1.284
Fiber−Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Sun Feb 17 15:18:58 2008

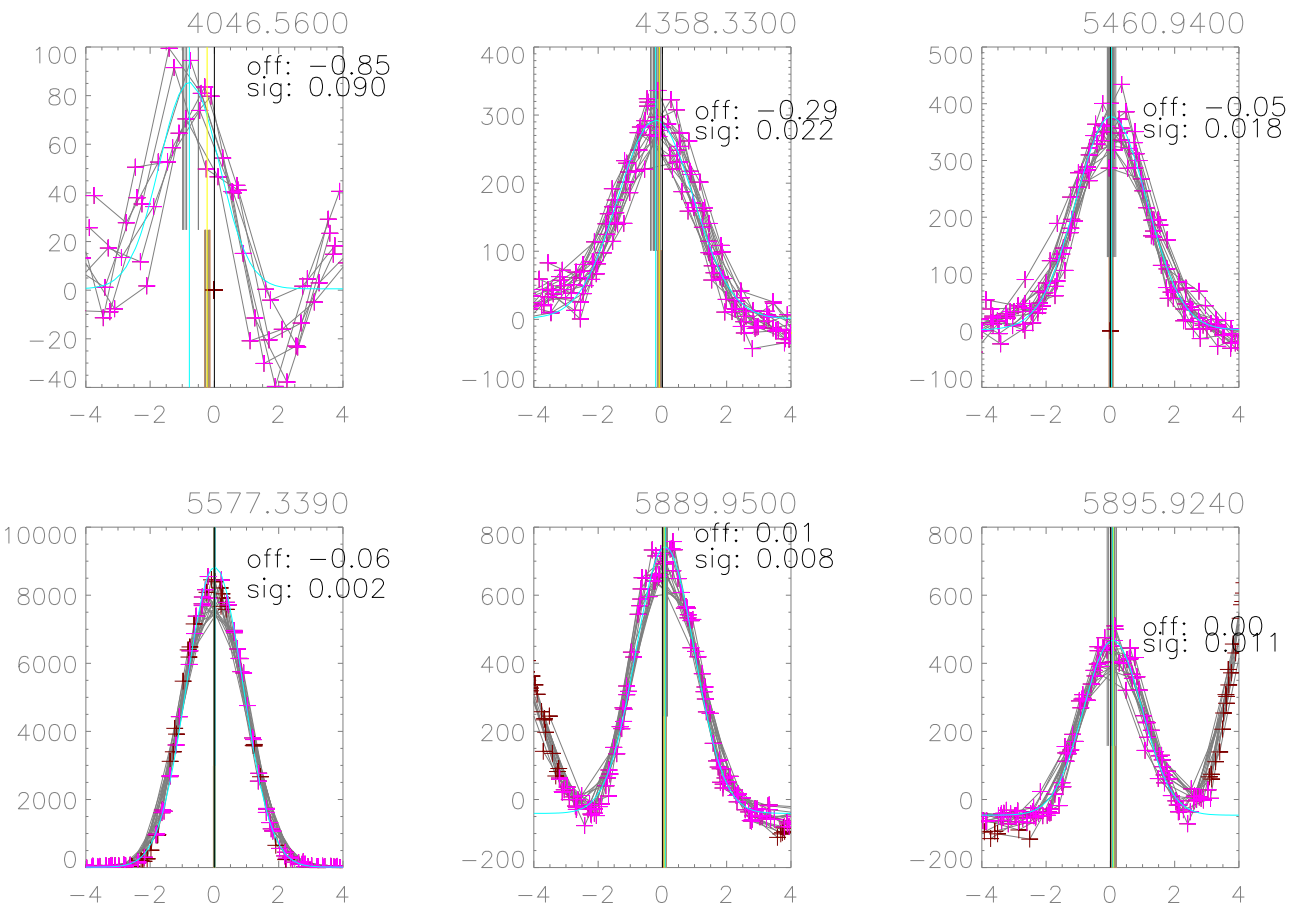

PLATE=2083 MJD=53359 Scattered Light before halo removal on sdR−b2−00030026.f
12.4
10.5
8.7
0
Y [pix]
X [pix]
0
500
1000
1500
2000

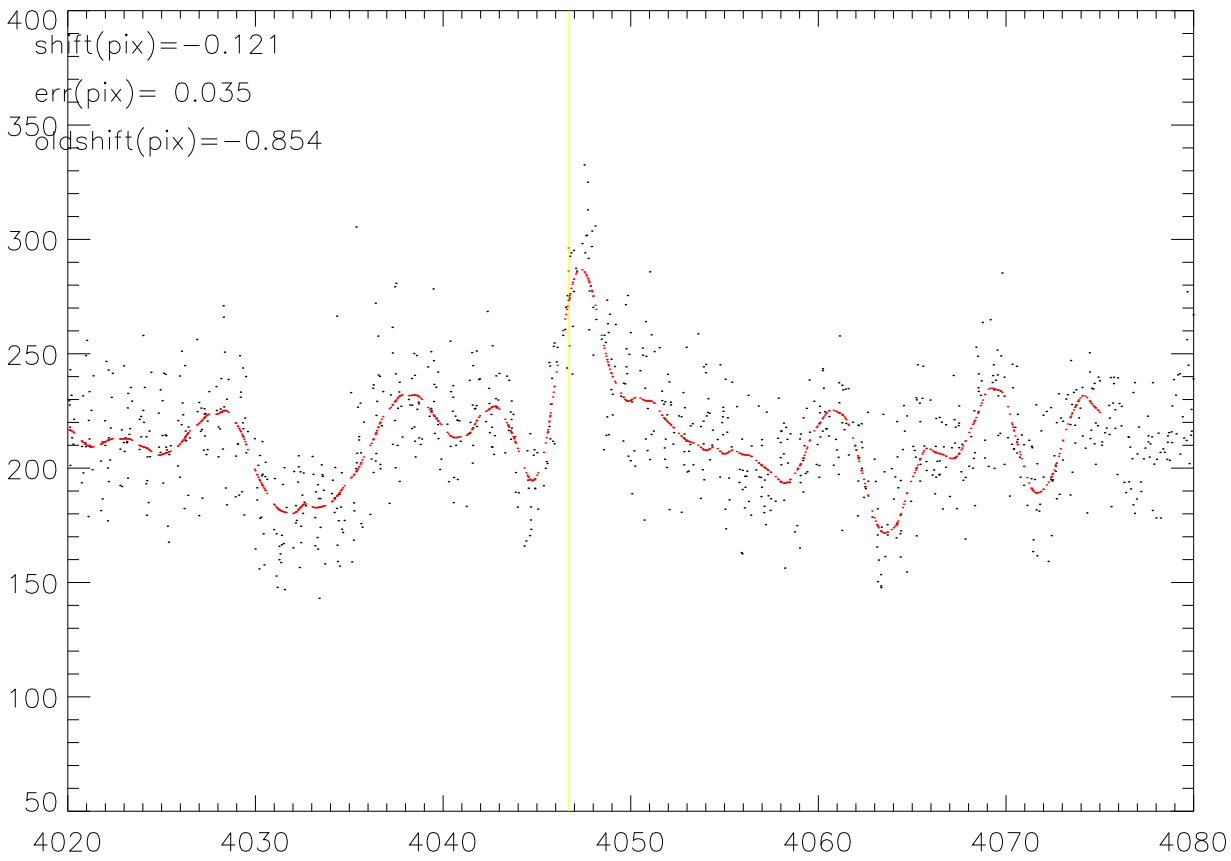

PLATE=2083 MJD=53359 Scattered Light before halo removal on sdR-b2-00030026.f
Brightness [electrons/pix]
15
10
5
0
Error bars denote full range
Min value = 7.732
Max value = 12.773
4000
4500
5000
5500
6000
λ [A]
Sun Feb 17 15:19:53 2008

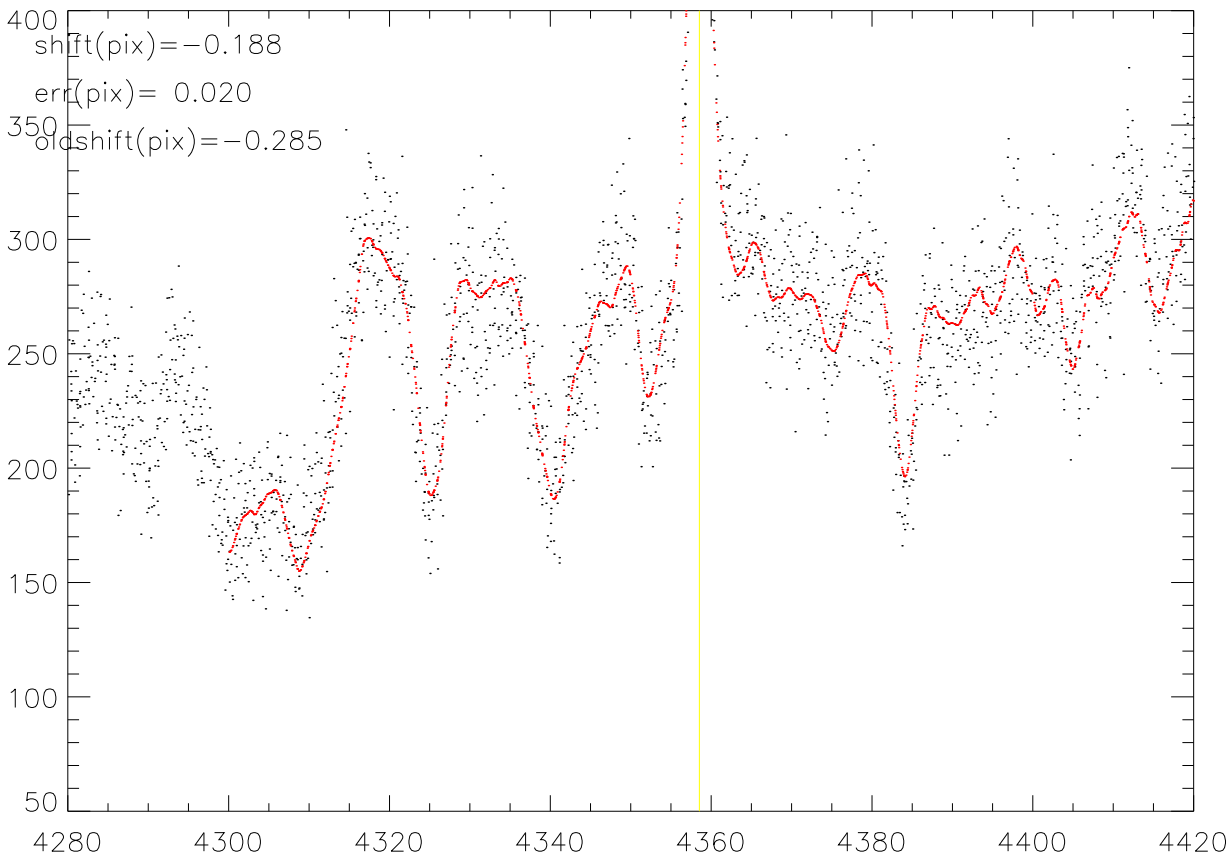

PLATE=2083 MJD=53359 Scattered Light on sdR-b2-00030026.fit
5.64
5.64
7.09
5.64
4.18
4.18
4.18
5.64
5.64
7.09
7.09
2000
1500
1000
500
0
0
500
1000
1500
2000
Y [pix]
X [pix]

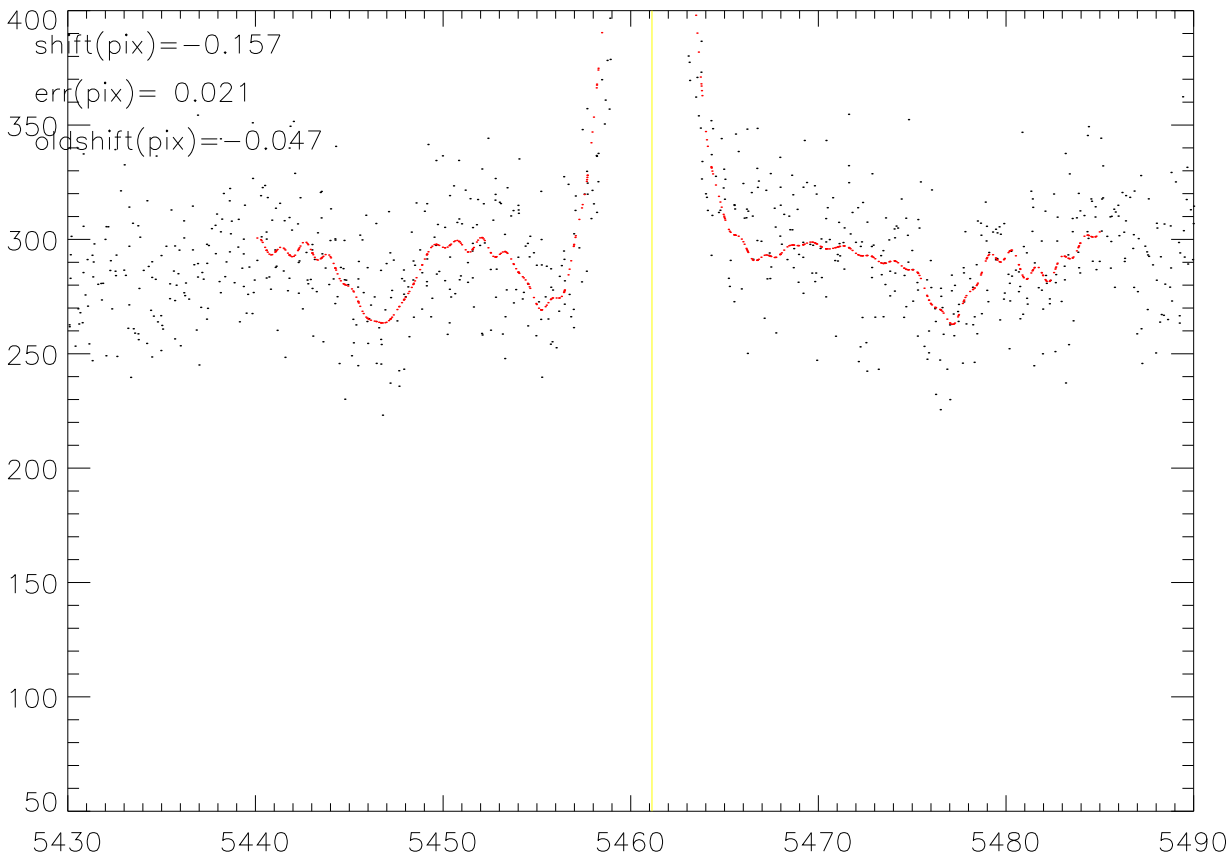

PLATE=2083 MJD=53359 Scattered Light on sdR-b2-00030026.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 3.735
Max value = 7.644
Sun Feb 17 15:23:17 2008

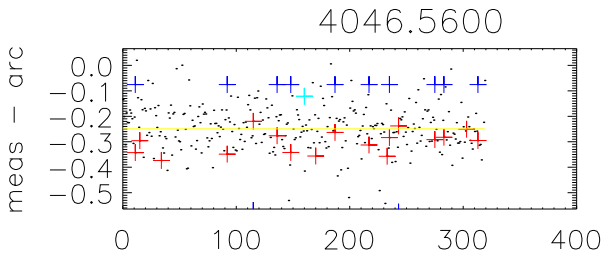

PLATE=2083 MJD=53359 Extraction chi$^2$ for sdR-b2-00030026.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
$\chi^2$
0
1
2
3
4
5
6
0
500
1000
1500
2000
Row number

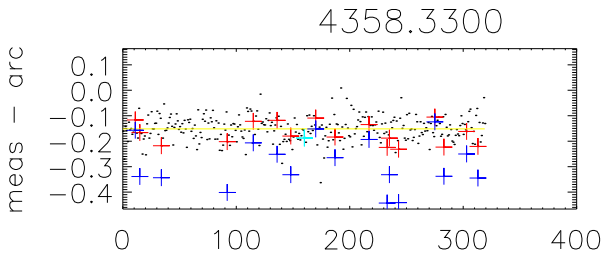

4046.5600
off: −0.85
sig: 0.090
4358.3300
off: −0.29
sig: 0.022
5460.9400
off: −0.05
sig: 0.018
5577.3390
off: −0.06
sig: 0.002
5889.9500
off: 0.01
sig: 0.008
5895.9240
off: 0.00
sig: 0.011

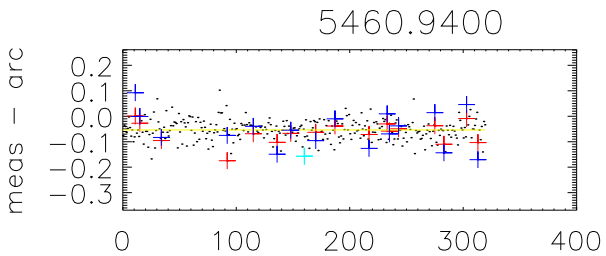

shift(pix)=−0.121
err(pix)= 0.035
oldshift(pix)=−0.854
400
350
300
250
200
150
100
50
4020
4030
4040
4050
4060
4070
4080

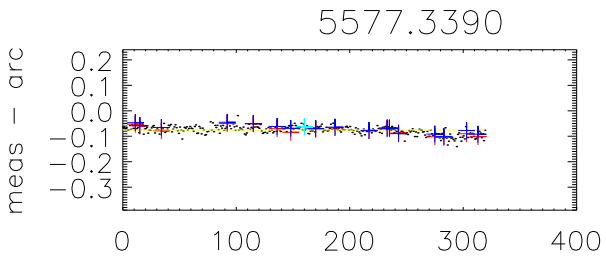

shift(pix)=−0.188
err(pix)= 0.020
oldshift(pix)=−0.285
400
350
300
250
200
150
100
50
4280
4300
4320
4340
4360
4380
4400
4420

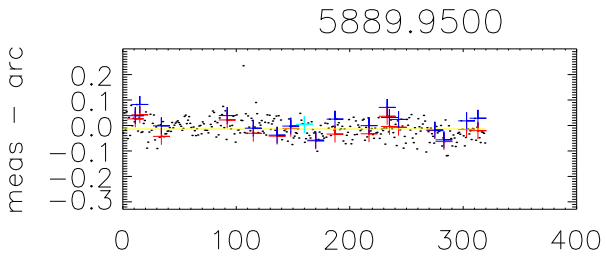

shift(pix)=−0.157
err(pix)= 0.021
oldshift(pix)=−0.047
400
350
300
250
200
150
100
50
5430
5440
5450
5460
5470
5480
5490

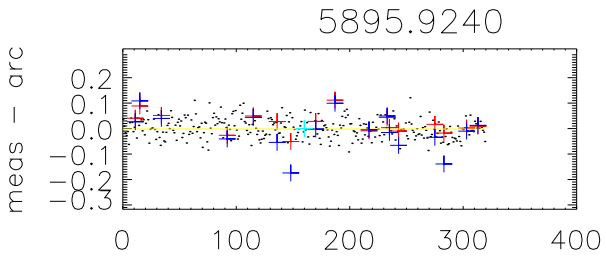

4046.5600
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

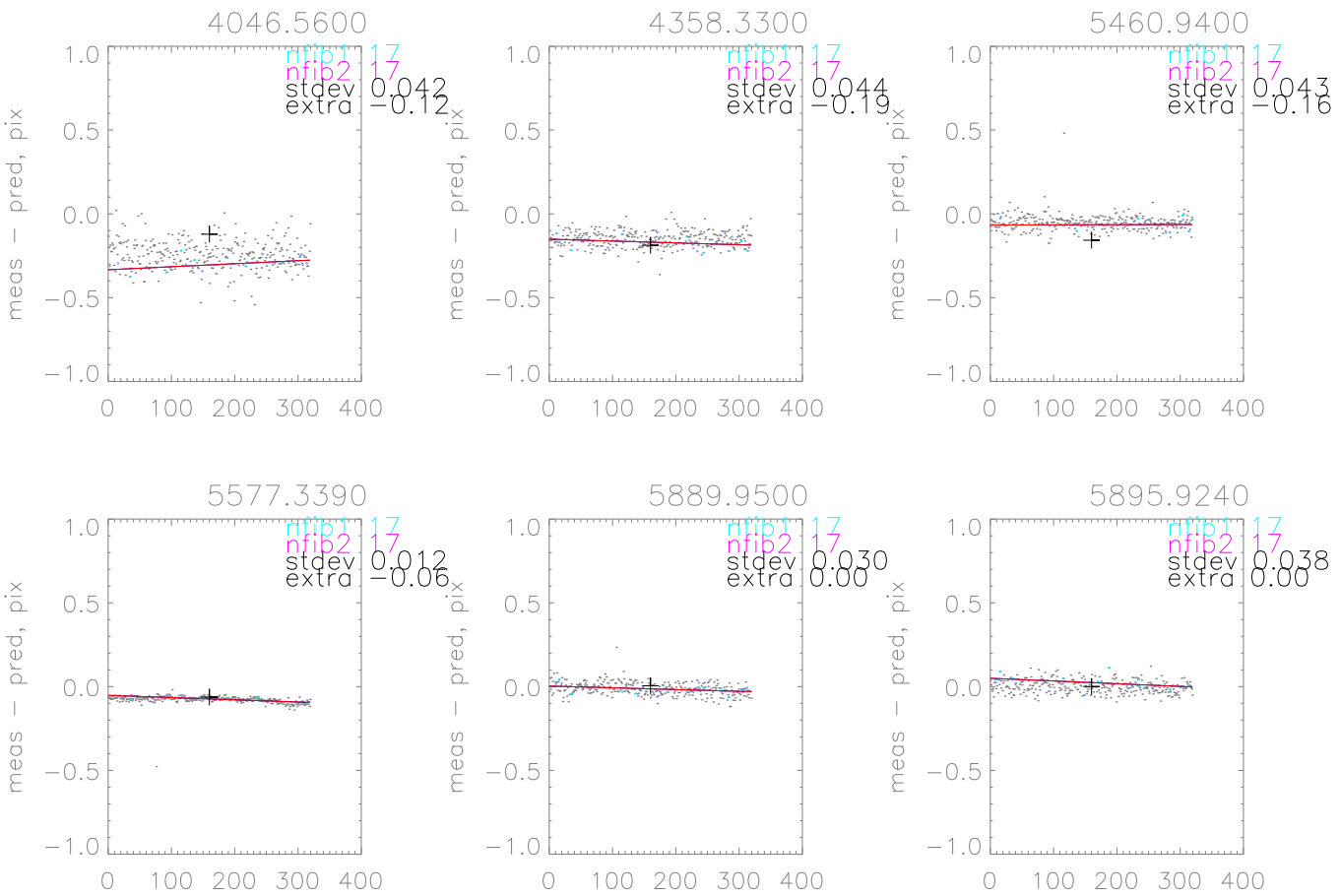

4358.3300
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

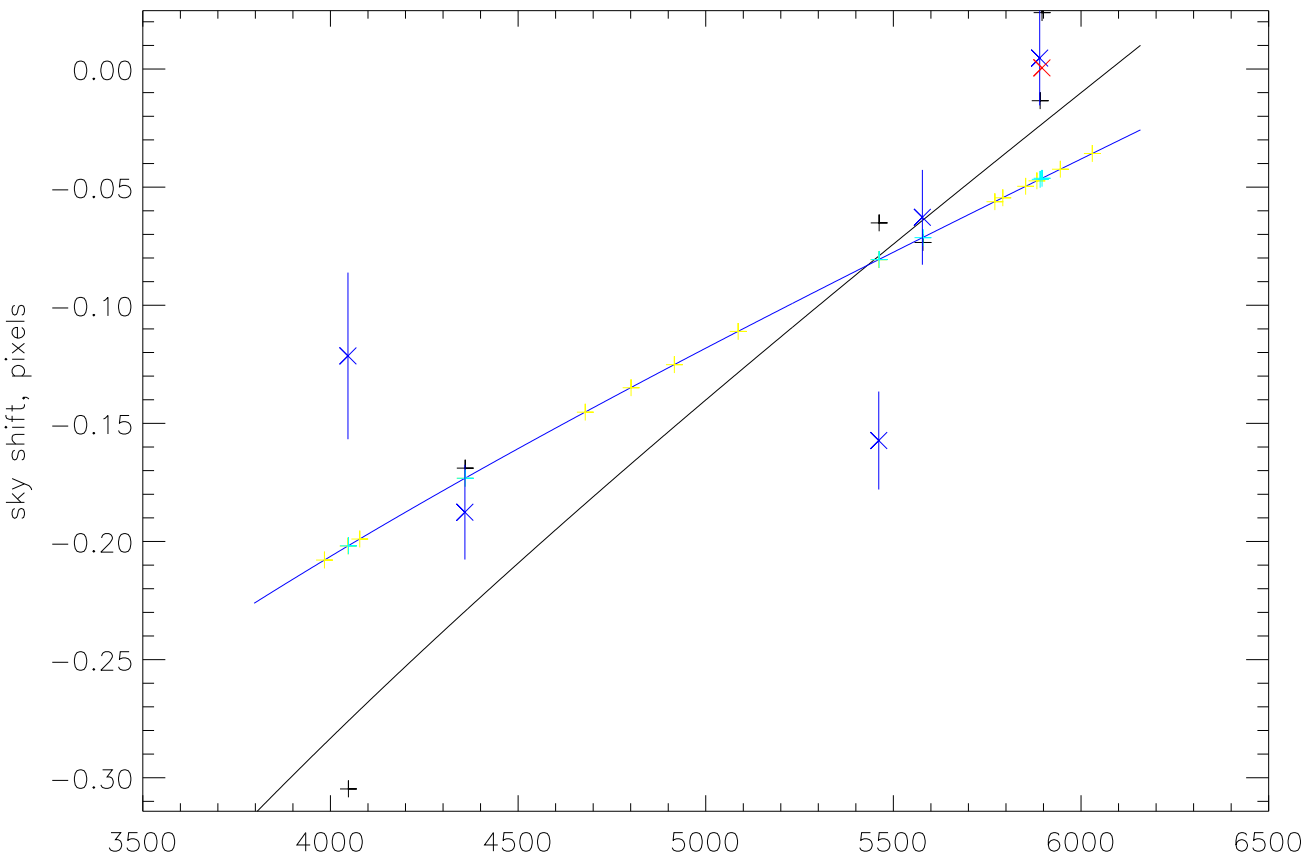

5460.9400
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

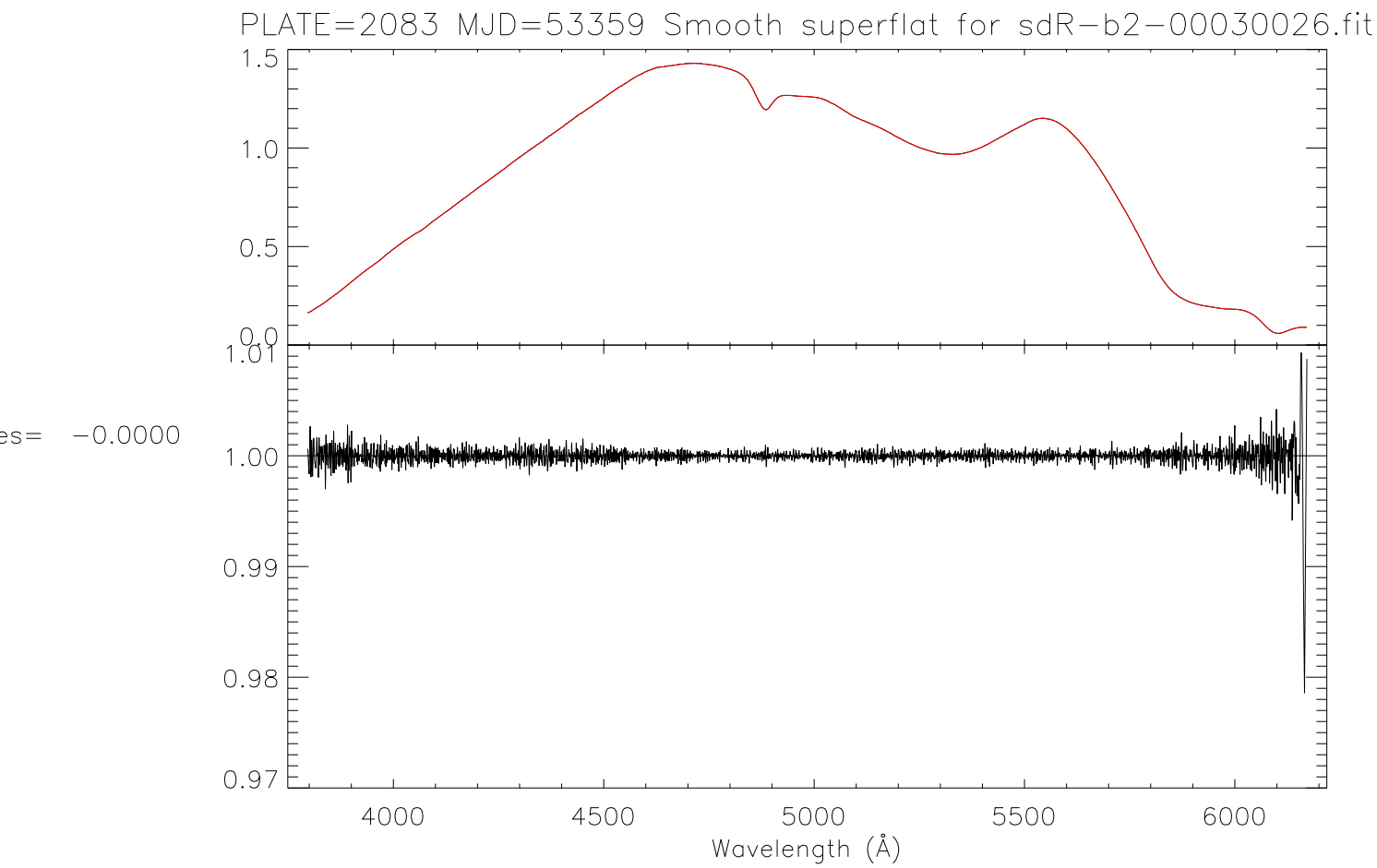

5577.3390
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400


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

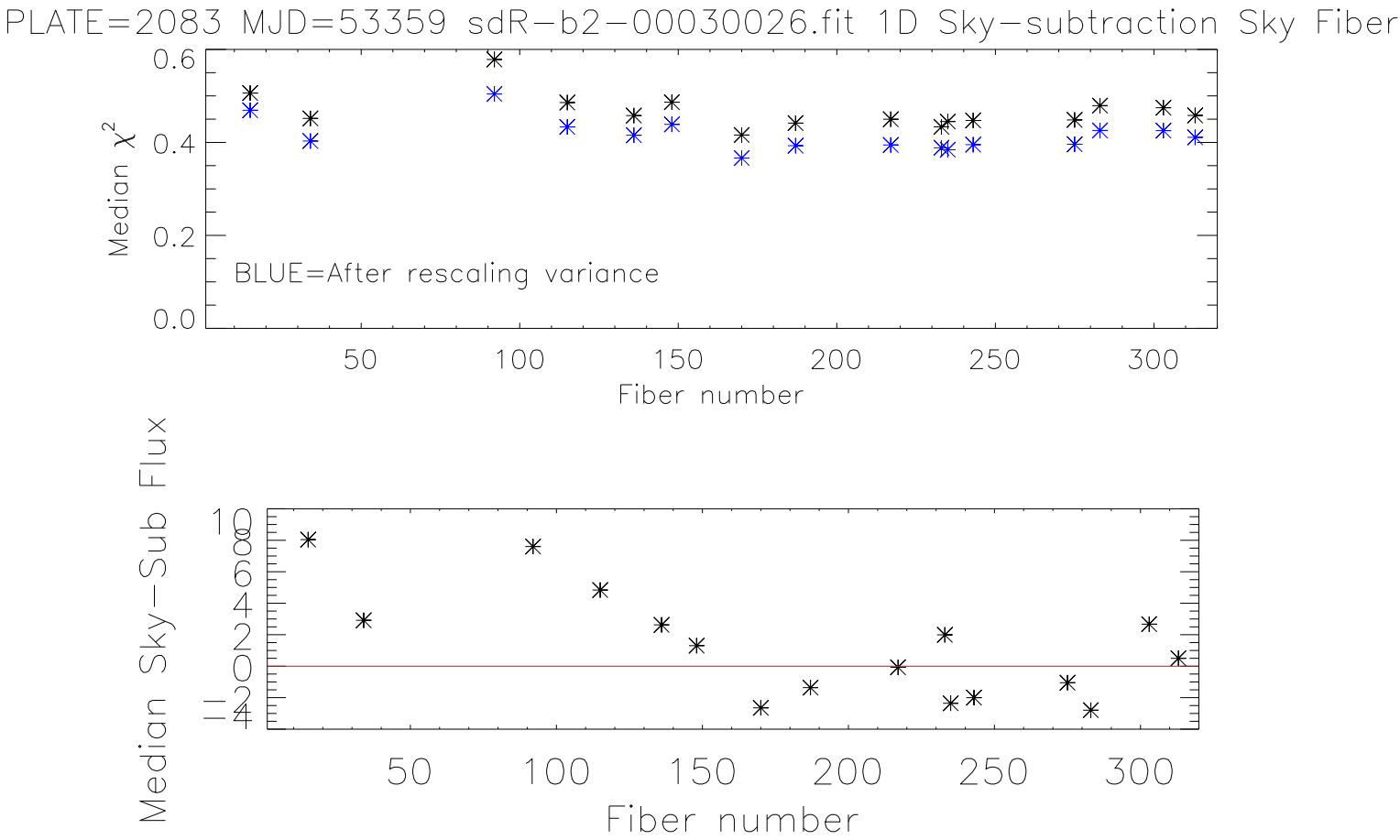

5895.9240
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

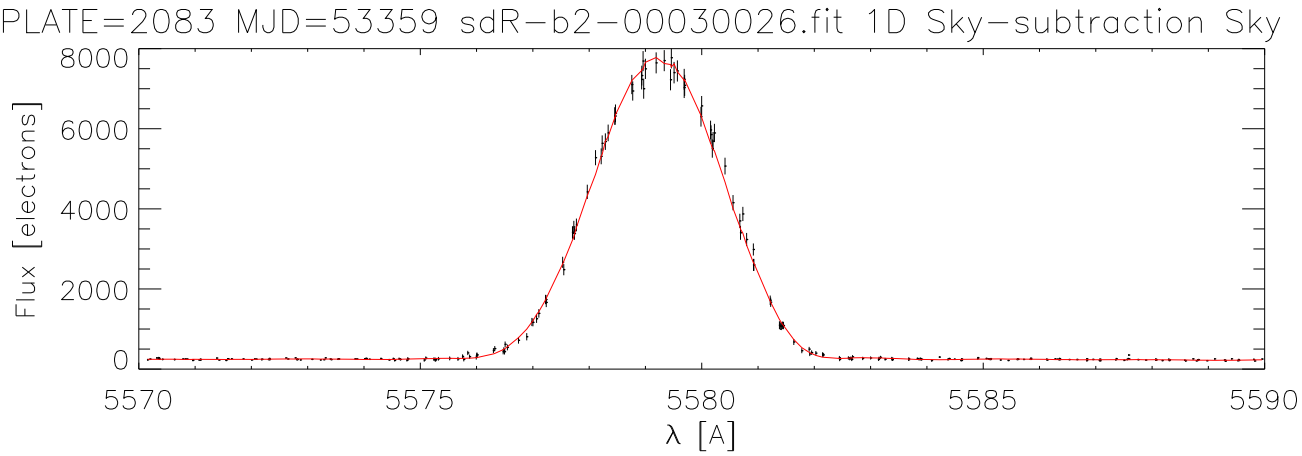

4046.5600
nfib1 17
nfib2 17
stdev 0.042
extra −0.12
4358.3300
nfib1 17
nfib2 17
stdev 0.044
extra −0.19
5460.9400
nfib1 17
nfib2 17
stdev 0.043
extra −0.16
5577.3390
nfib1 17
nfib2 17
stdev 0.012
extra −0.06
5889.9500
nfib1 17
nfib2 17
stdev 0.030
extra 0.00
5895.9240
nfib1 17
nfib2 17
stdev 0.038
extra 0.00
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

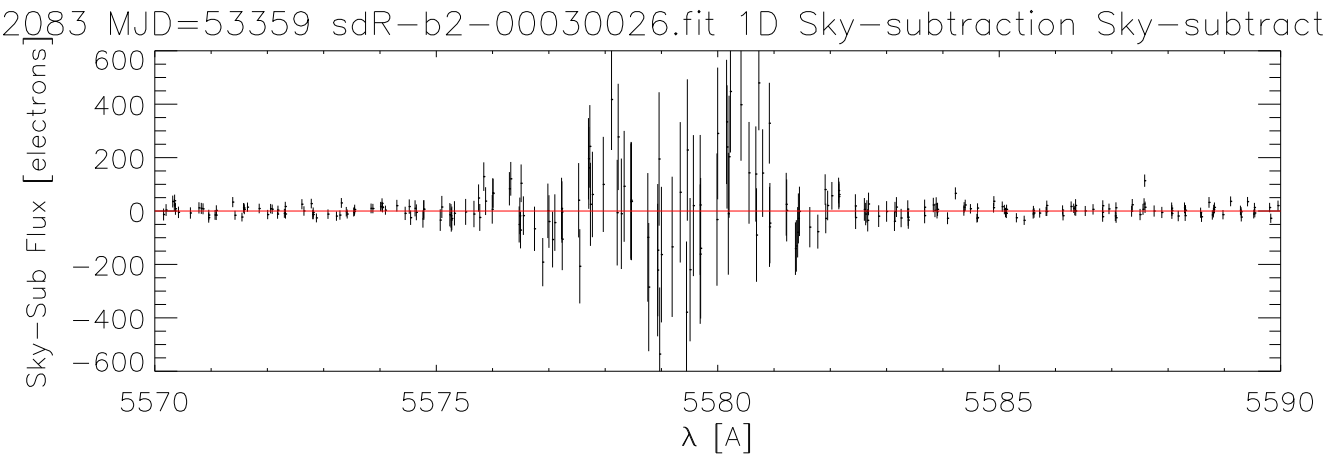

0.00
−0.05
−0.10
−0.15
−0.20
−0.25
−0.30
sky shift, pixels
3500
4000
4500
5000
5500
6000
6500

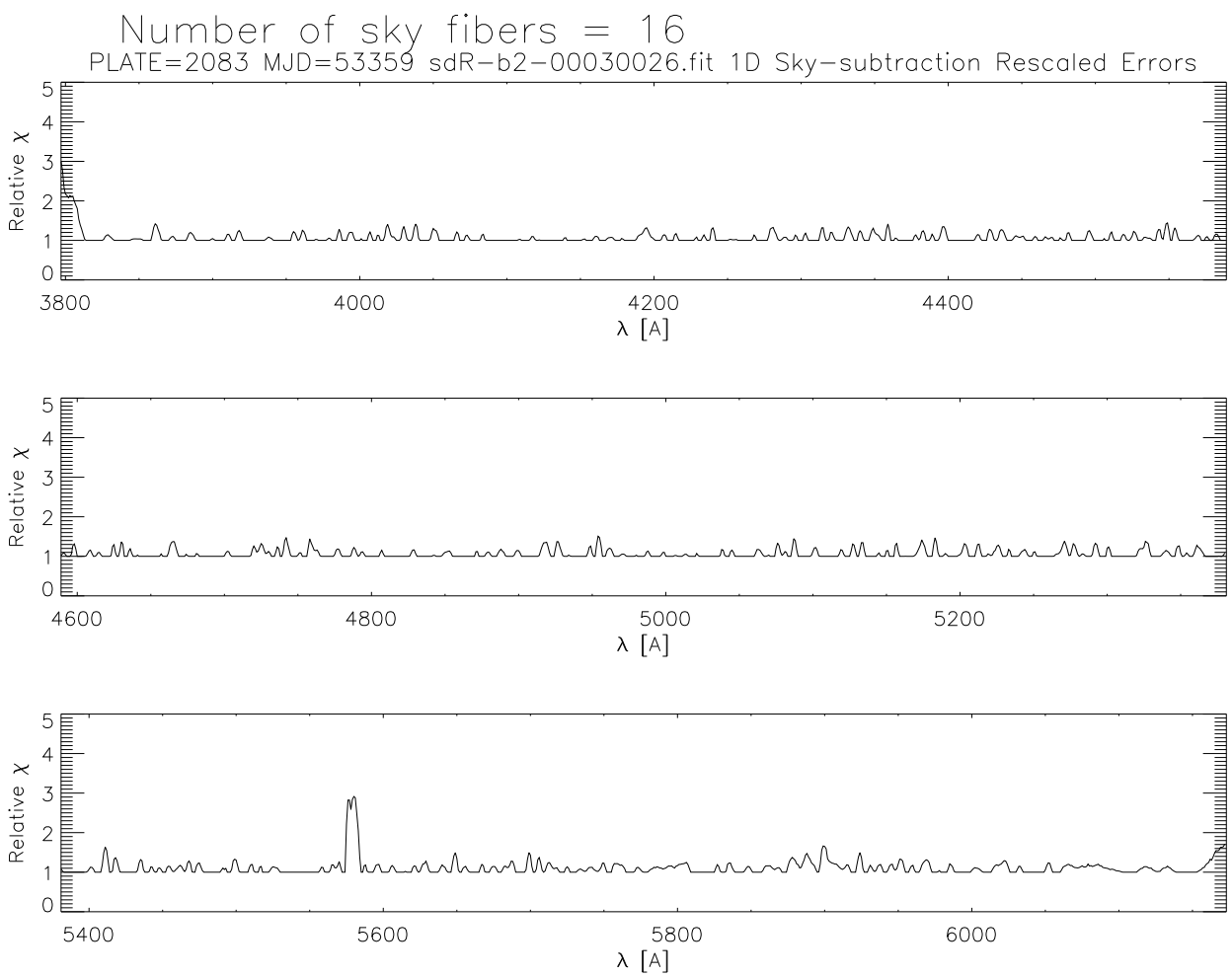

PLATE=2083 MJD=53359 Smooth superflat for sdR-b2-00030026.fit
1.5
1.0
0.5
0.0
1.01
1.00
0.99
0.98
0.97
4000
4500
5000
5500
6000
Wavelength (Å)

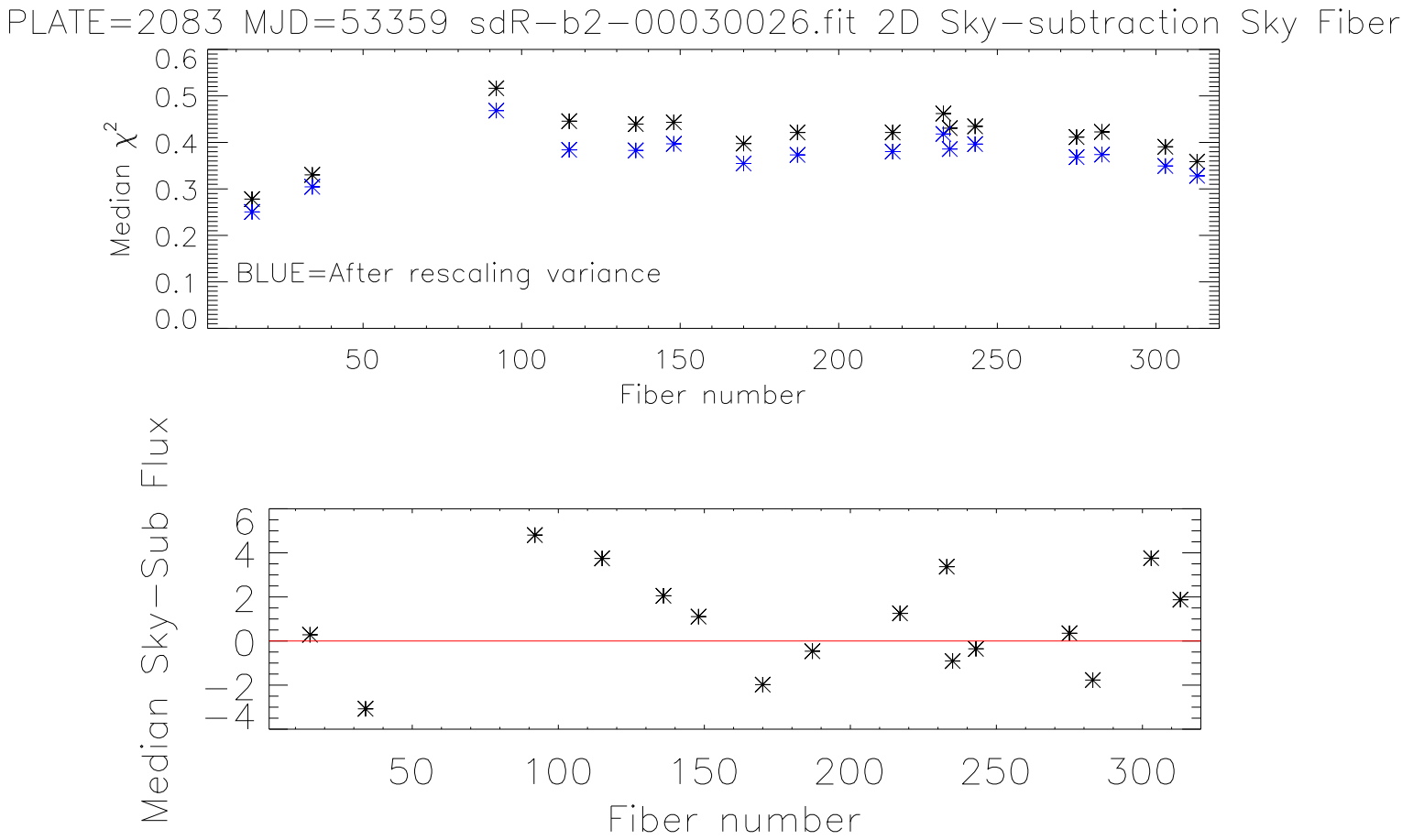
es= −0.0000

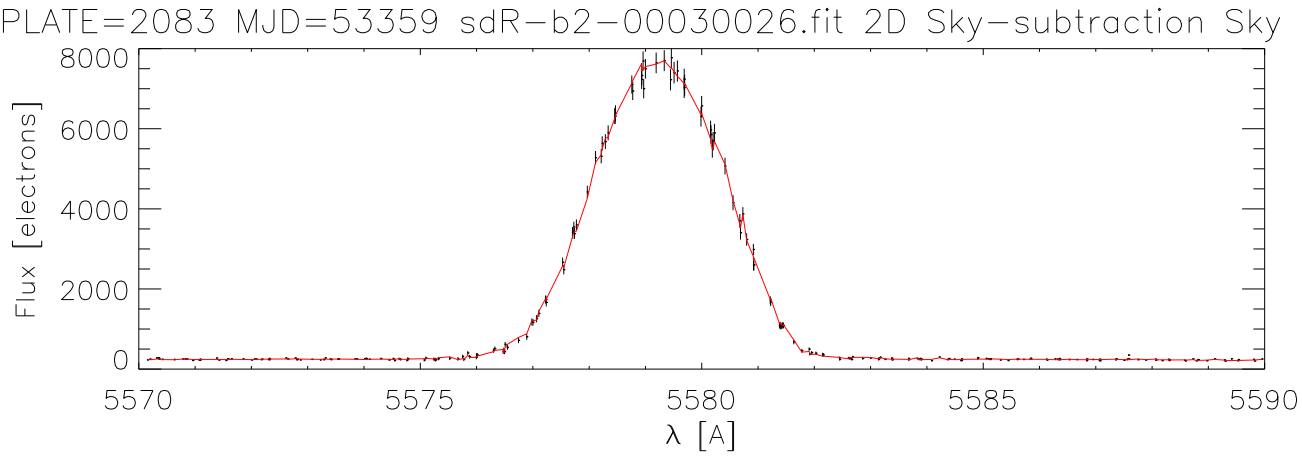

PLATE=2083 MJD=53359 sdR-b2-00030026.fit 1D Sky-subtraction Sky Fiber
Median $\chi^2$
0.0
0.2
0.4
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-10
-8
-6
-4
-2
0
2
4
6
8
10
50
100
150
200
250
300
Fiber number

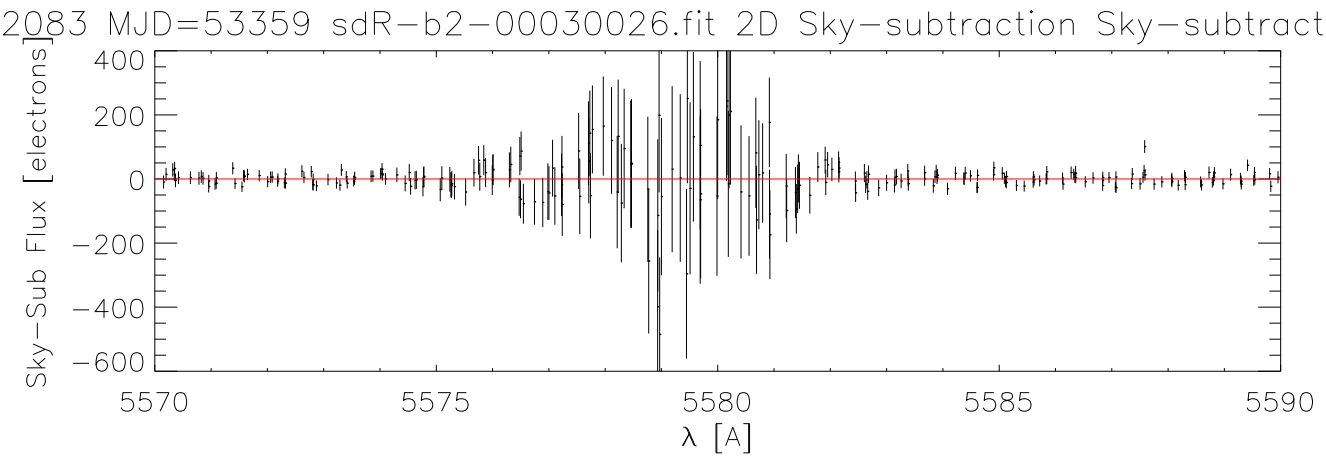

PLATE=2083 MJD=53359 sdR-b2-00030026.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

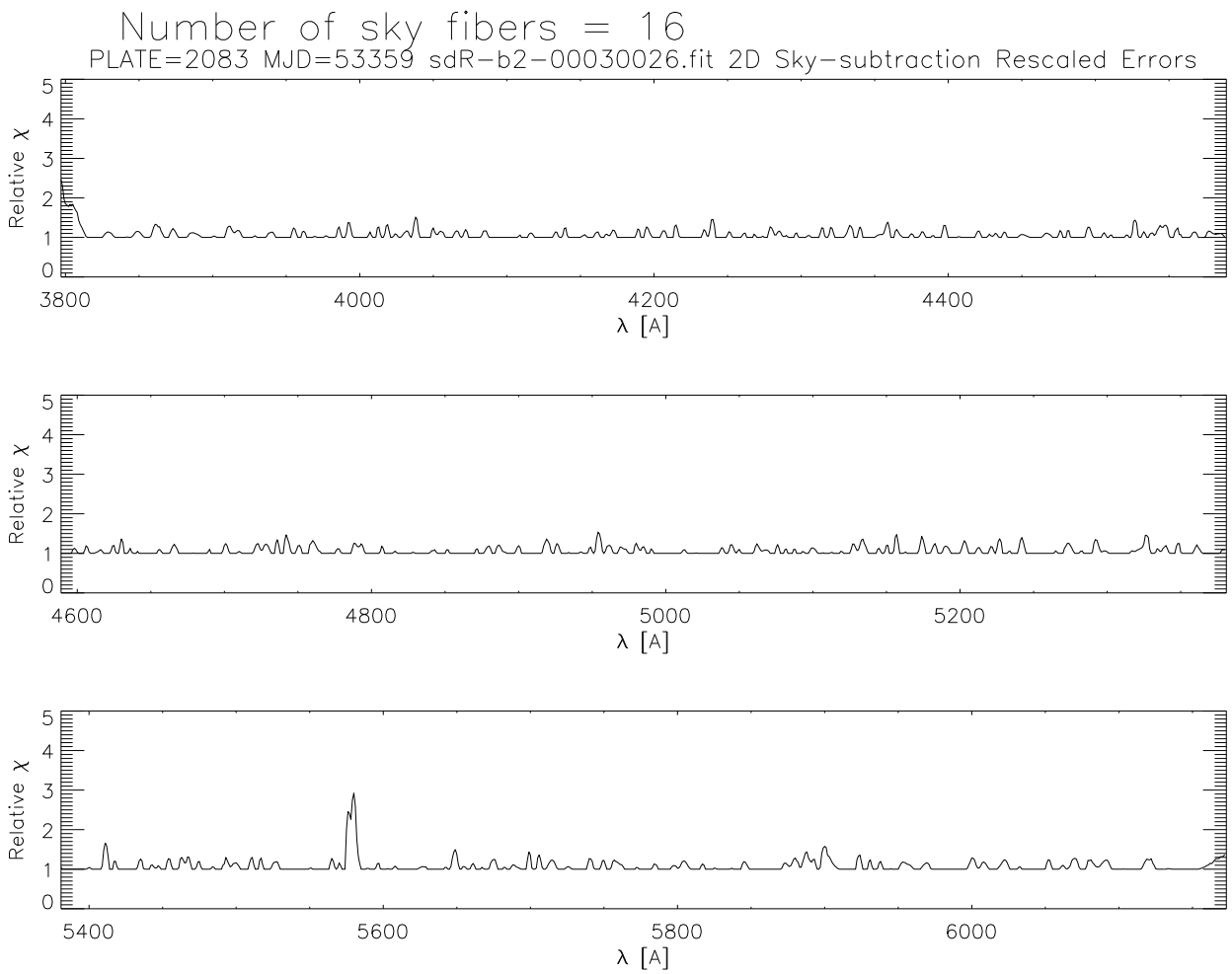

PLATE=2083 MJD=53359 sdR-b2-00030026.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
-200
-400
-600
5570
5575
5580
5585
5590
λ [A]

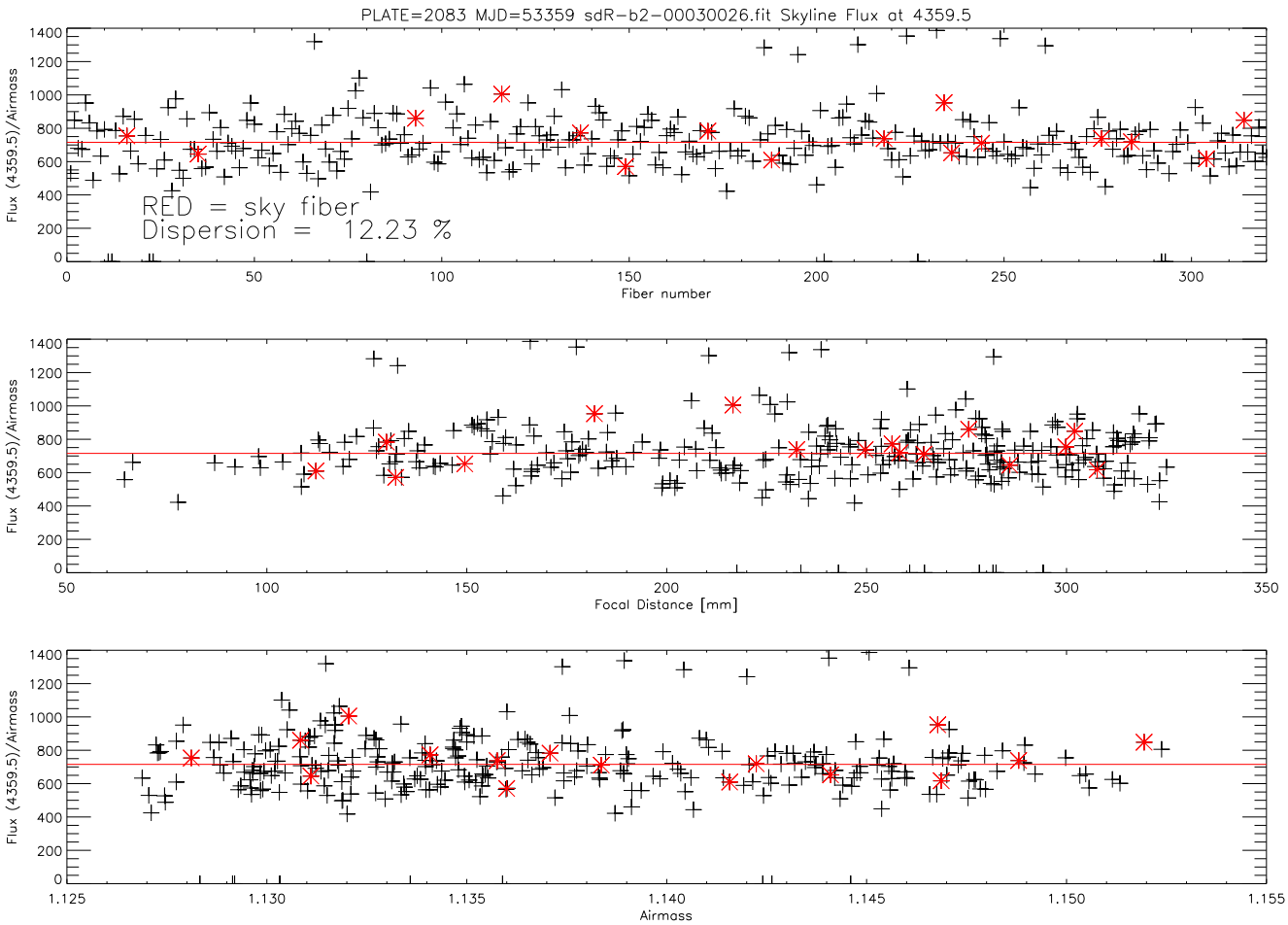

Number of sky fibers = 16
PLATE=2083 MJD=53359 sdR-b2-00030026.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

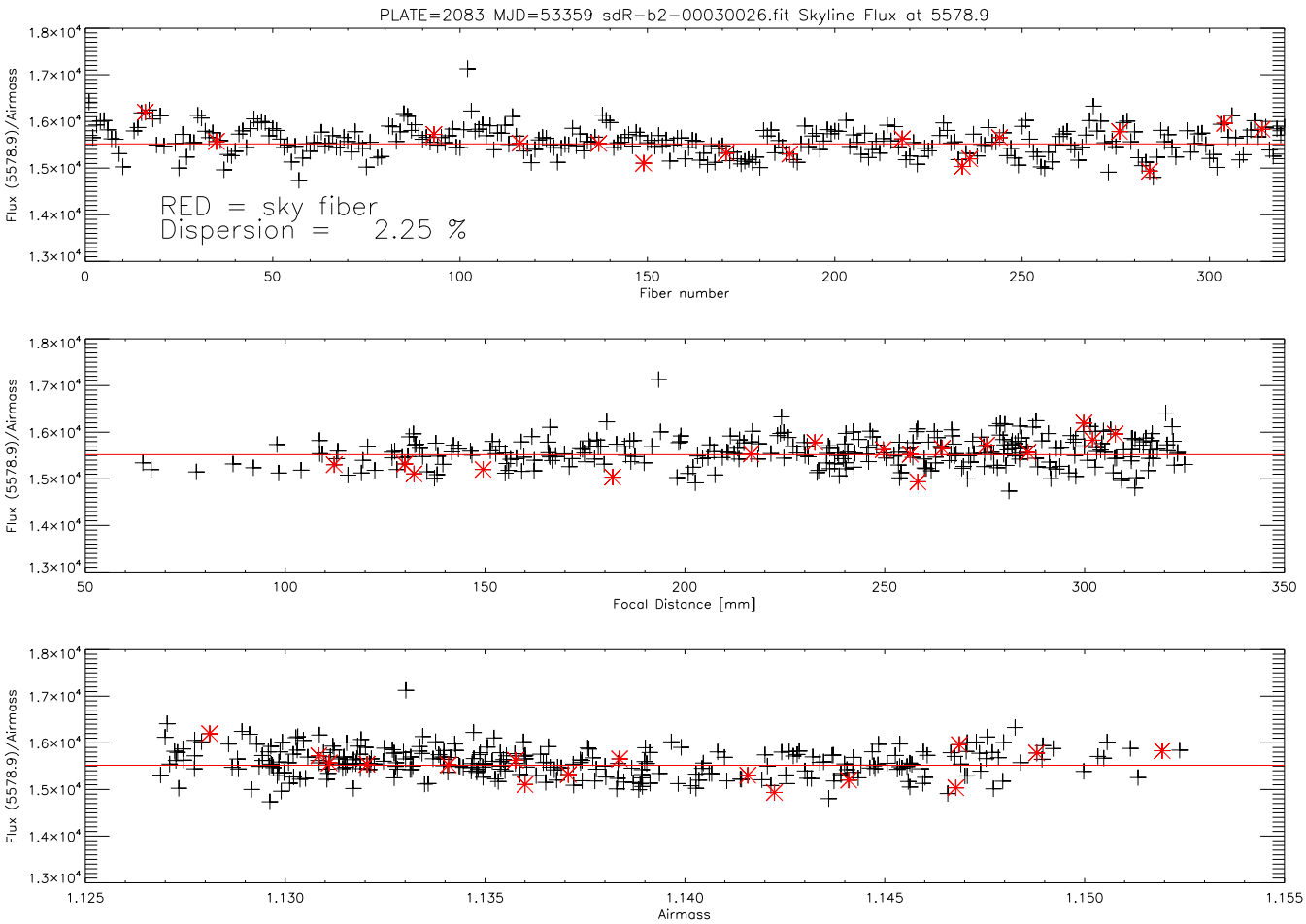

PLATE=2083 MJD=53359 sdR-b2-00030026.fit 2D Sky-subtraction Sky Fiber
Median $\chi^2$
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

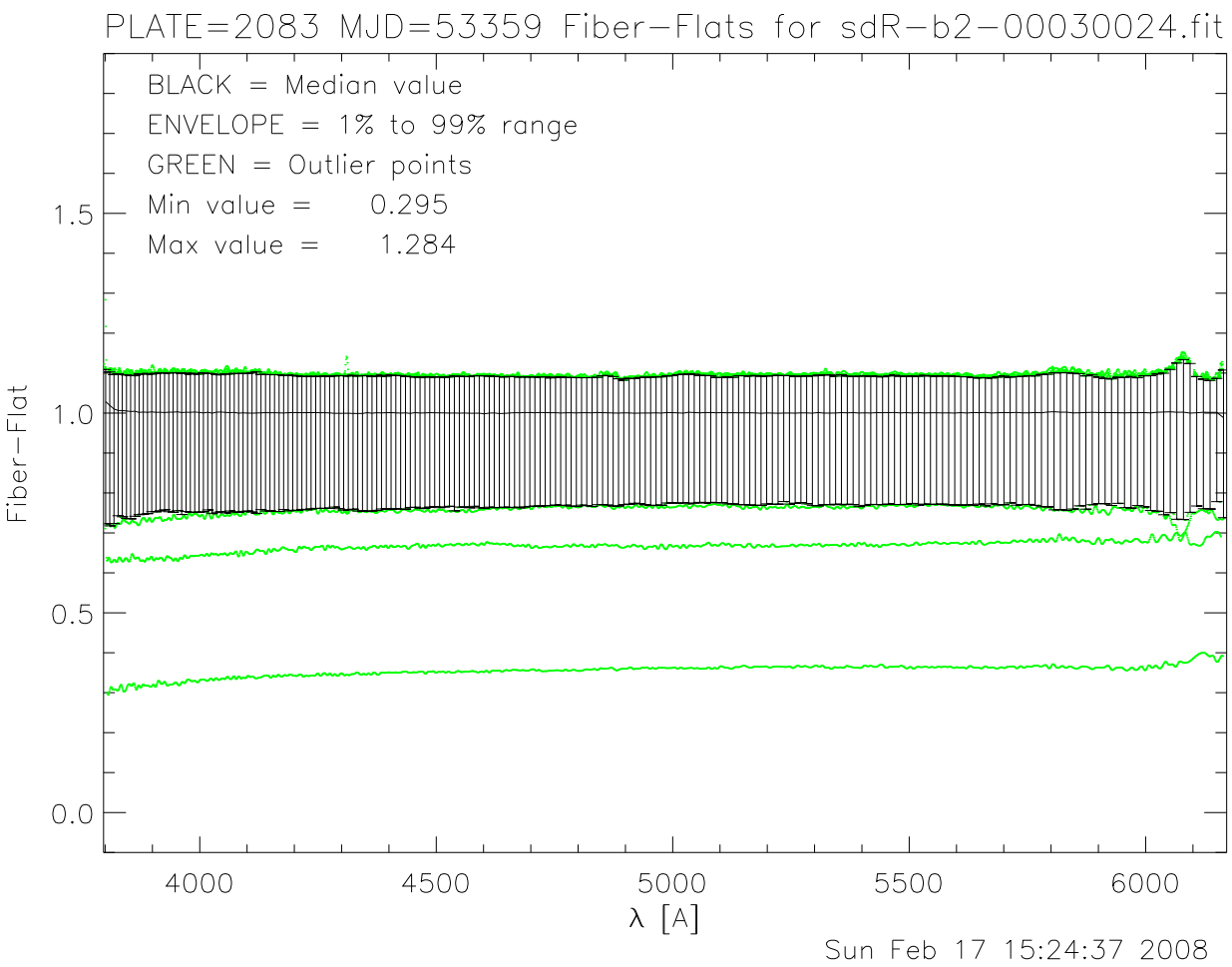

PLATE=2083 MJD=53359 sdR-b2-00030026.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

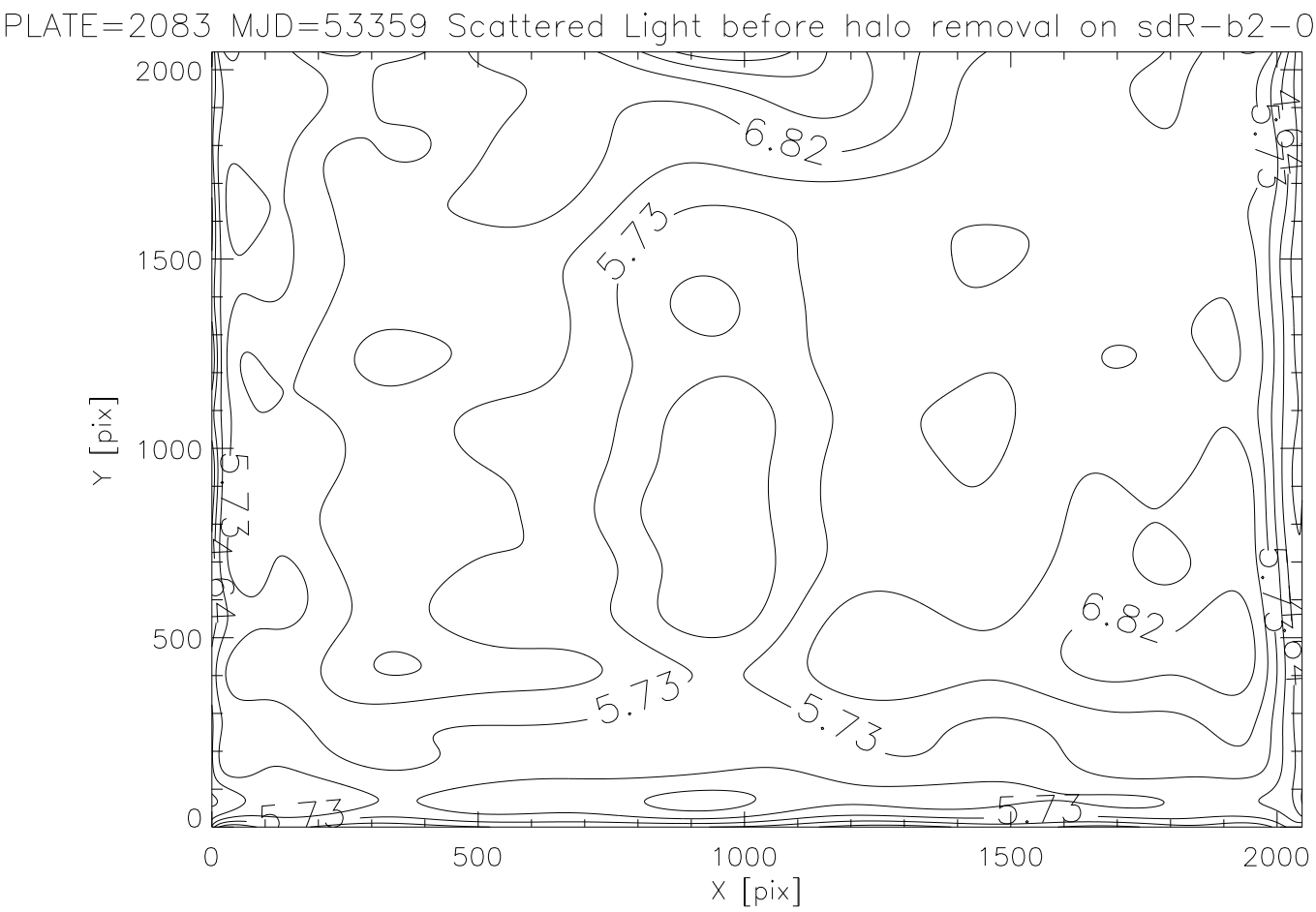

PLATE=2083 MJD=53359 sdR-b2-00030026.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
200
0
-200
-400
-600
5570
5575
5580
5585
5590
λ [A]

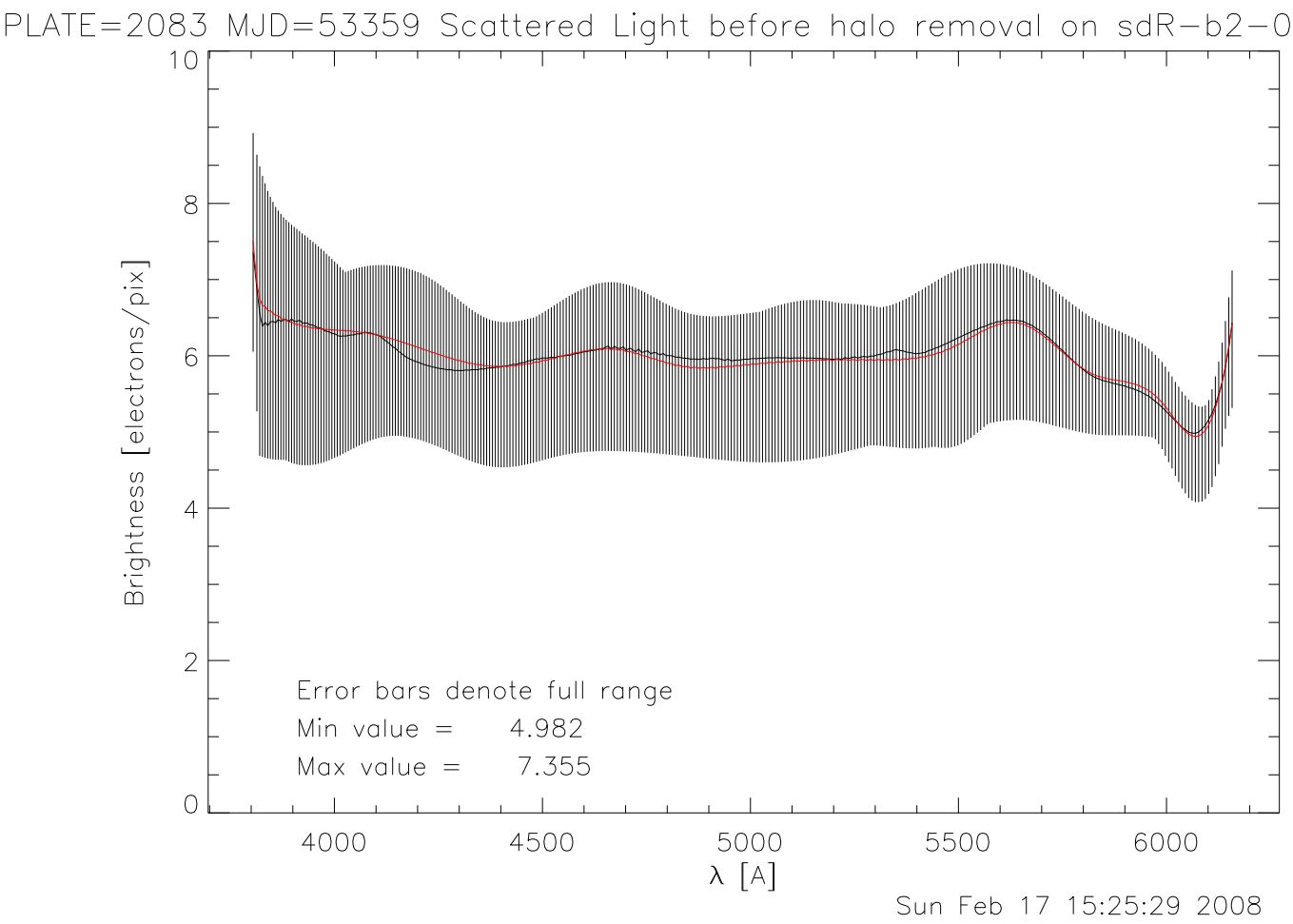

Number of sky fibers = 16
PLATE=2083 MJD=53359 sdR-b2-00030026.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

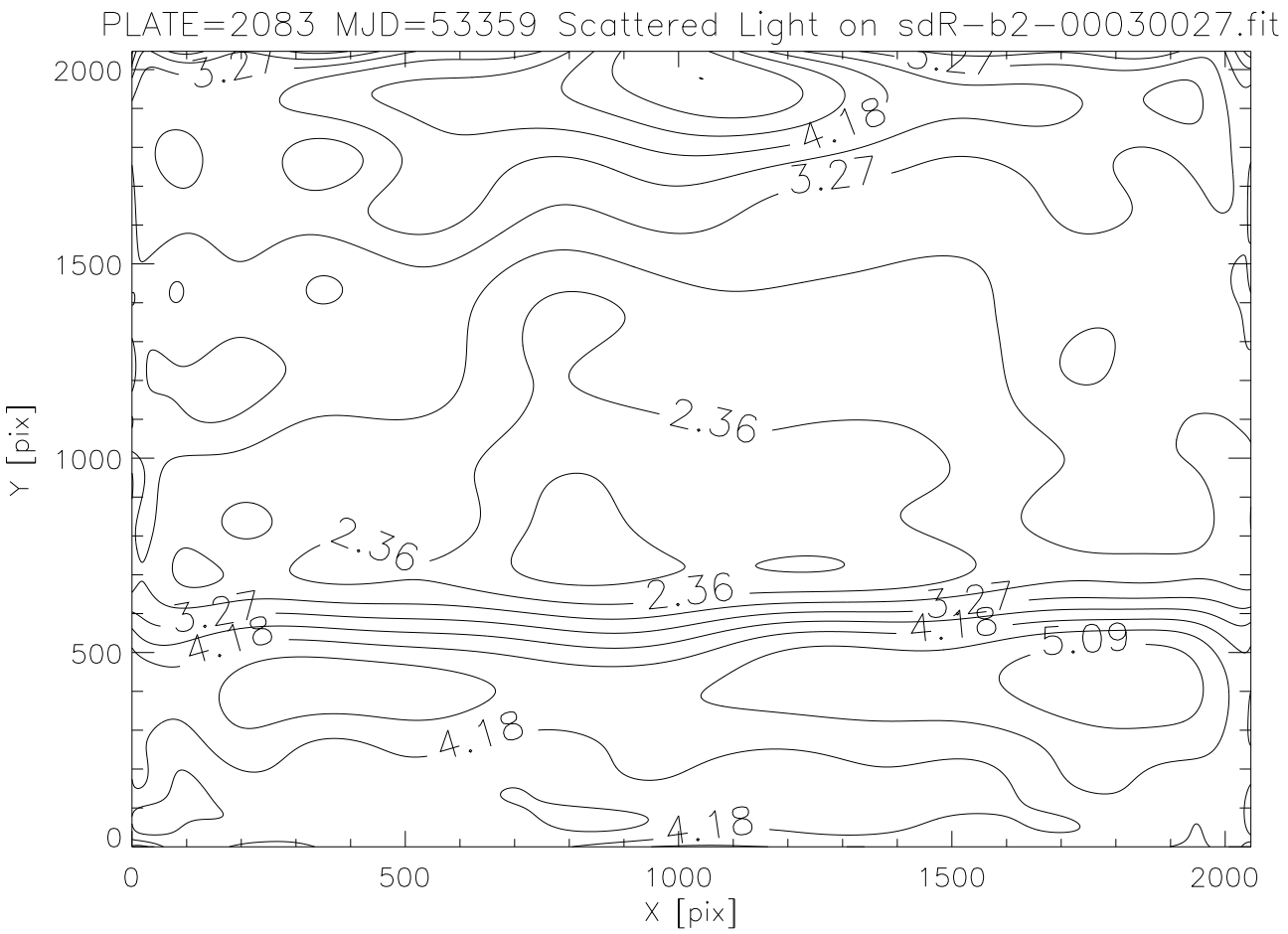

PLATE=2083 MJD=53359 sdR-b2-00030026.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 12.23 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

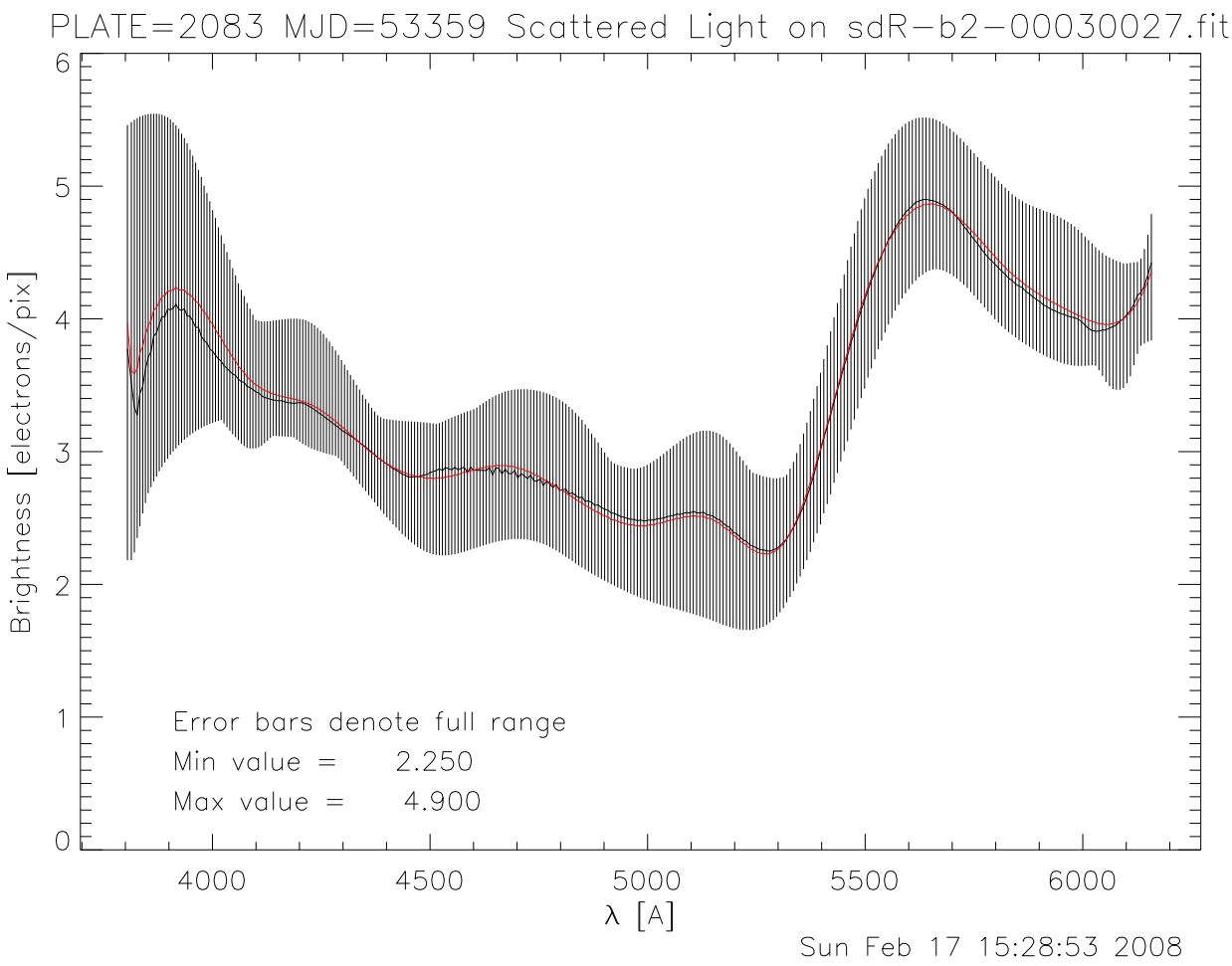

PLATE=2083 MJD=53359 sdR-b2-00030026.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 2.25 %
Fiber number
Focal Distance [mm]
Airmass

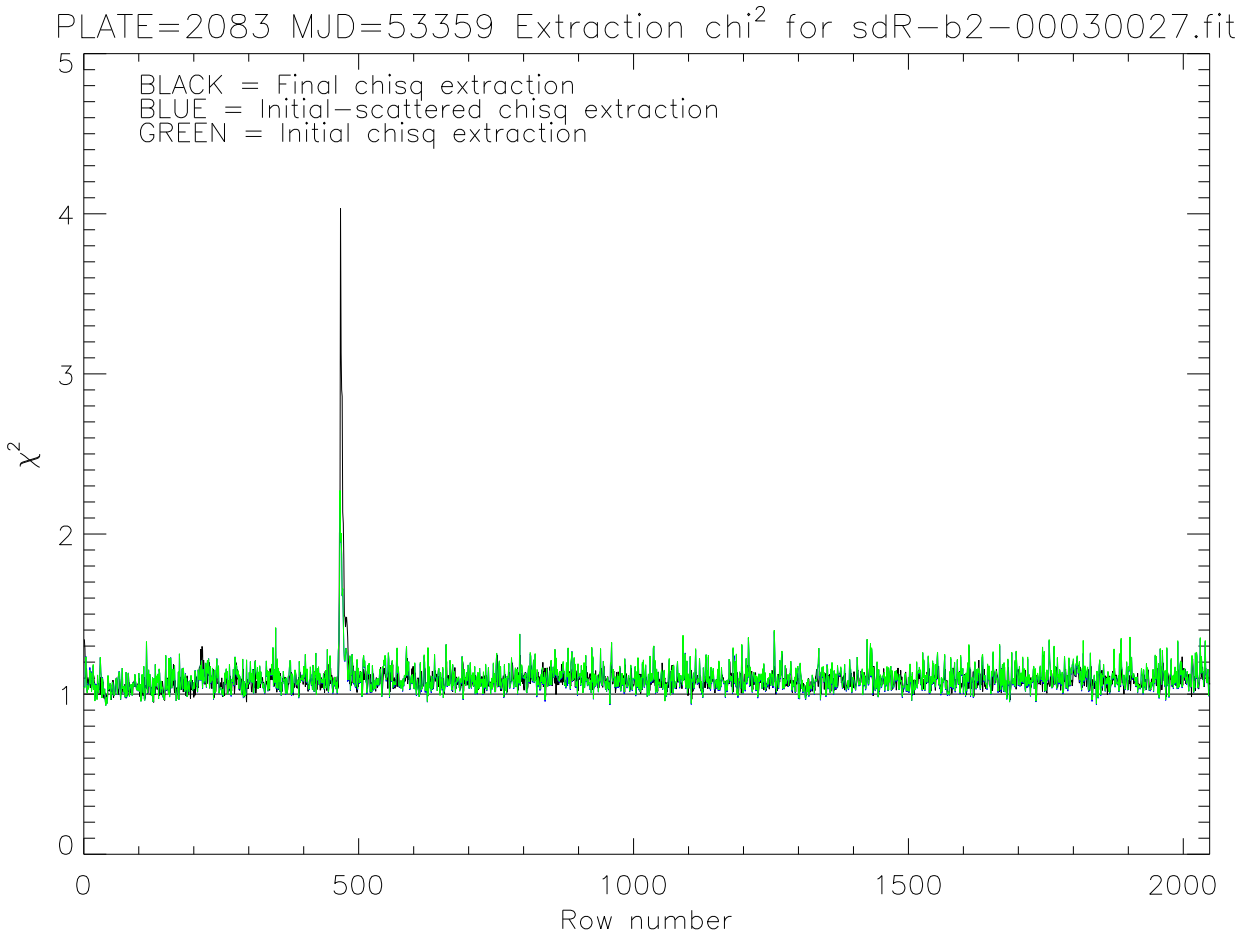

PLATE=2083 MJD=53359 Fiber−Flats for sdR−b2−00030024.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.295
Max value = 1.284
Fiber−Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Sun Feb 17 15:24:37 2008

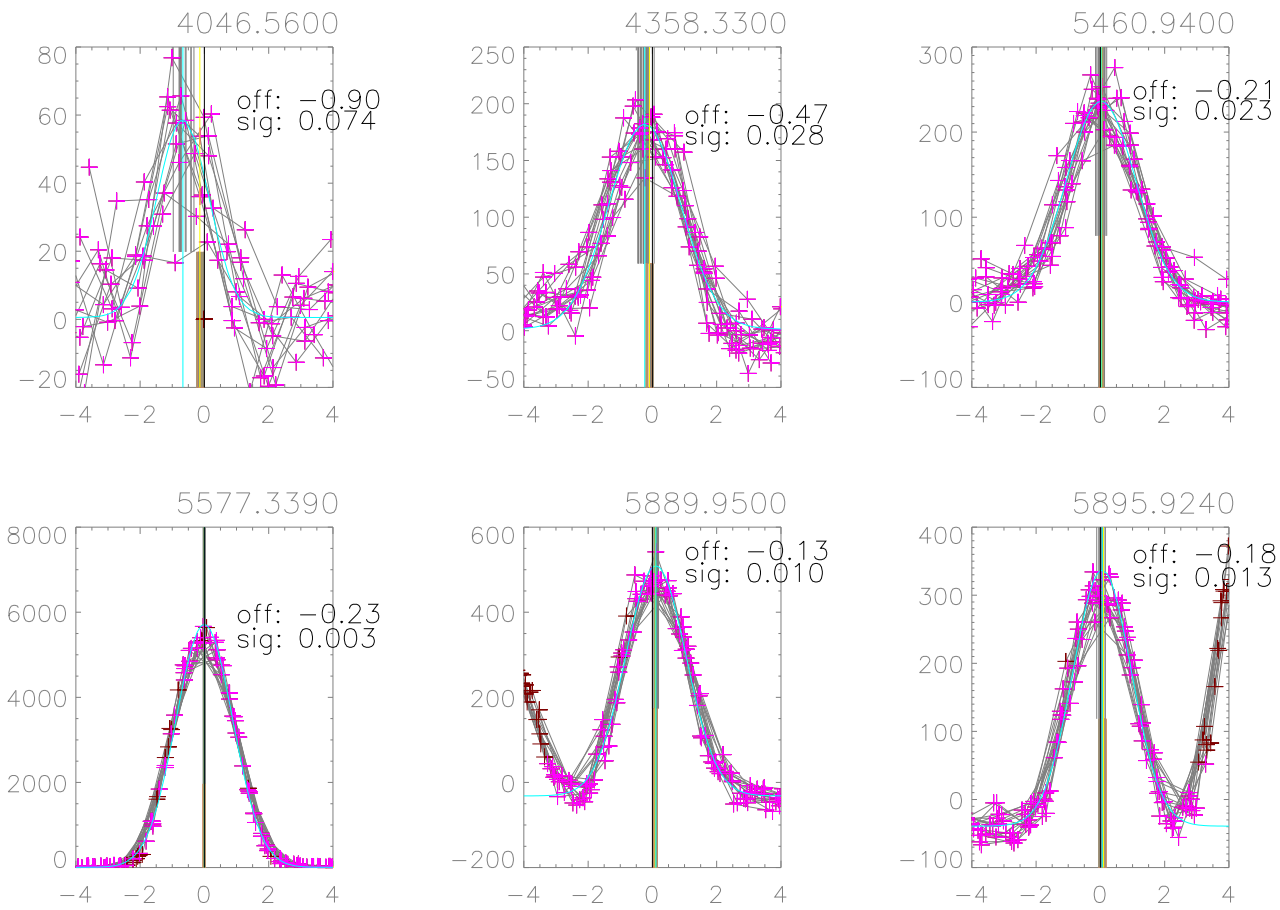

PLATE=2083 MJD=53359 Scattered Light before halo removal on sdR-b2-00030027.f
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
6.82
5.73
5.73
5.73
5.73
5.73
6.82
5.73
5.73
5.73
5.73

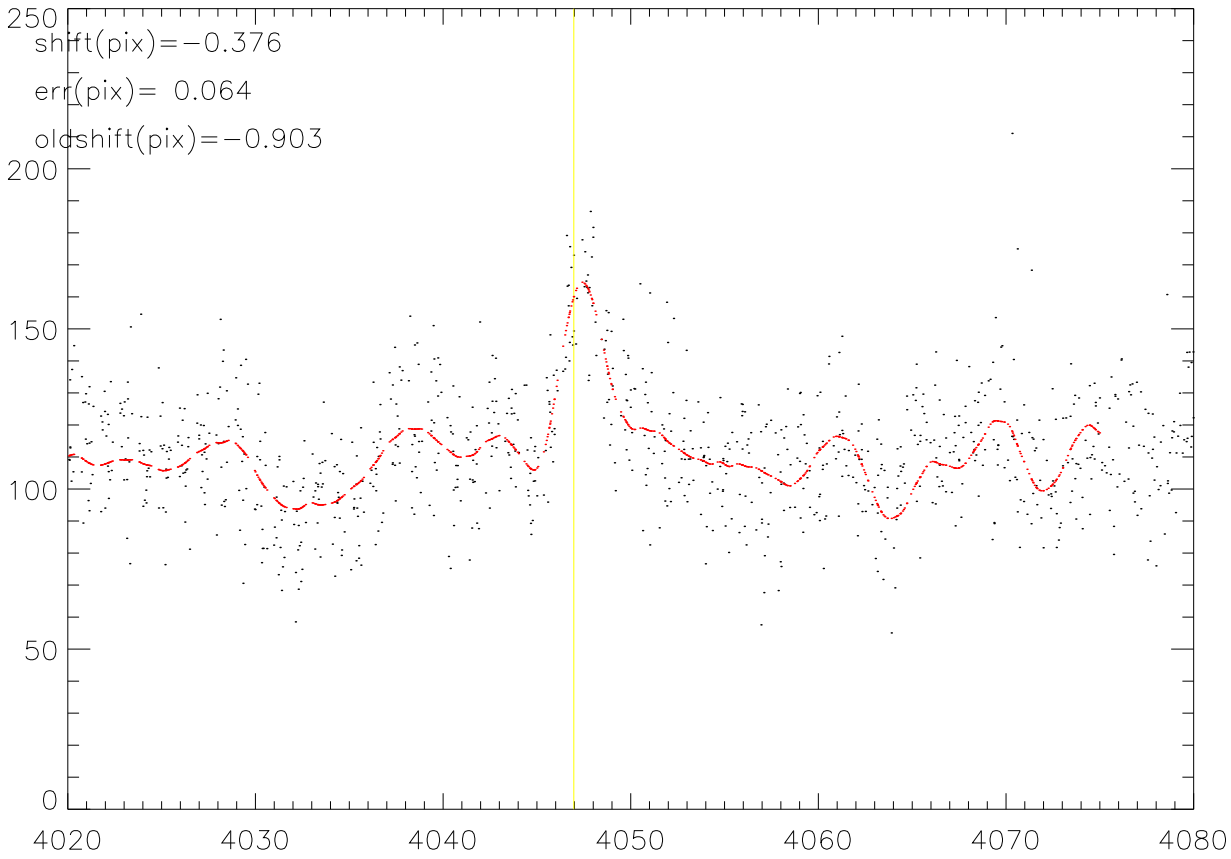

PLATE=2083 MJD=53359 Scattered Light before halo removal on sdR-b2-00030027.f
Brightness [electrons/pix]
10
8
6
4
2
0
Error bars denote full range
Min value = 4.982
Max value = 7.355
4000
4500
5000
5500
6000
λ [A]
Sun Feb 17 15:25:29 2008

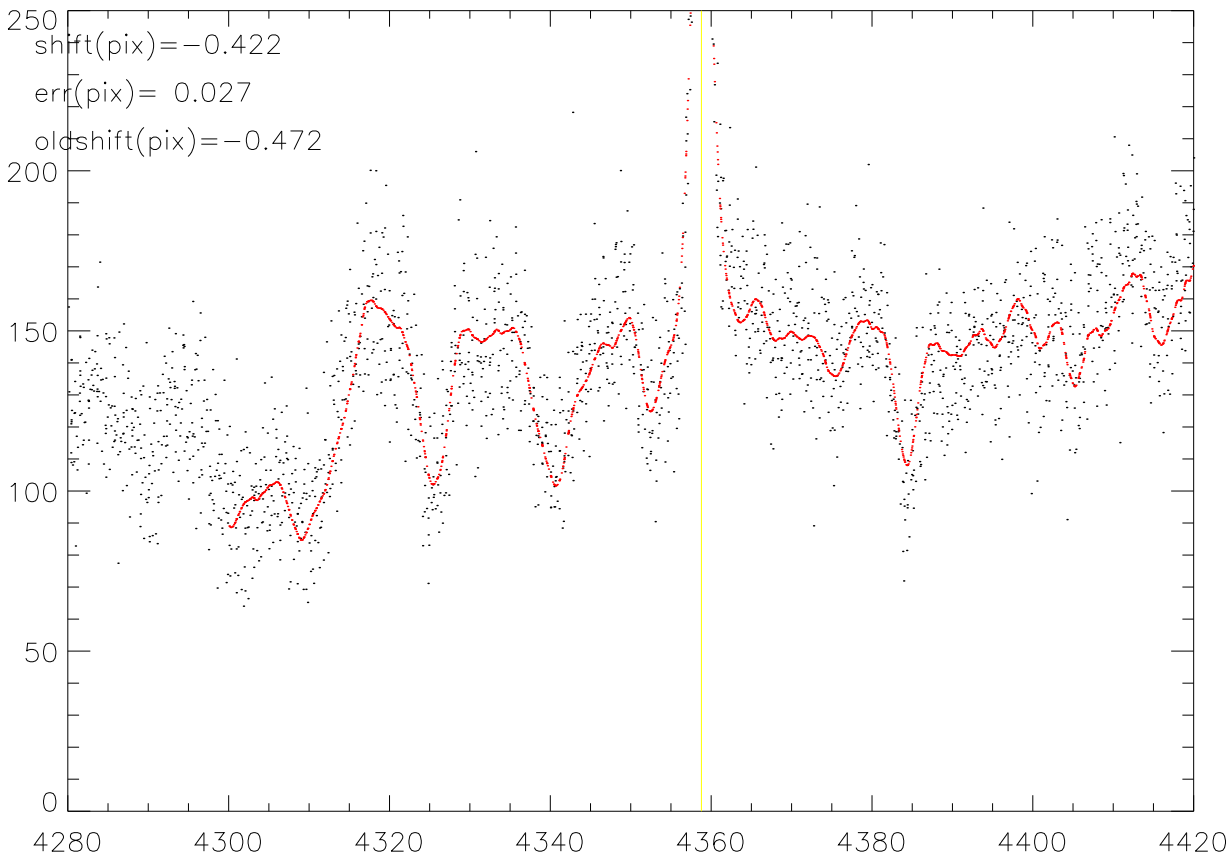

PLATE=2083 MJD=53359 Scattered Light on sdR-b2-00030027.fit
3.27
4.18
3.27
0
2.36
2.36
2.36
3.27
4.18
3.27
4.18
5.09
4.18
4.18
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]

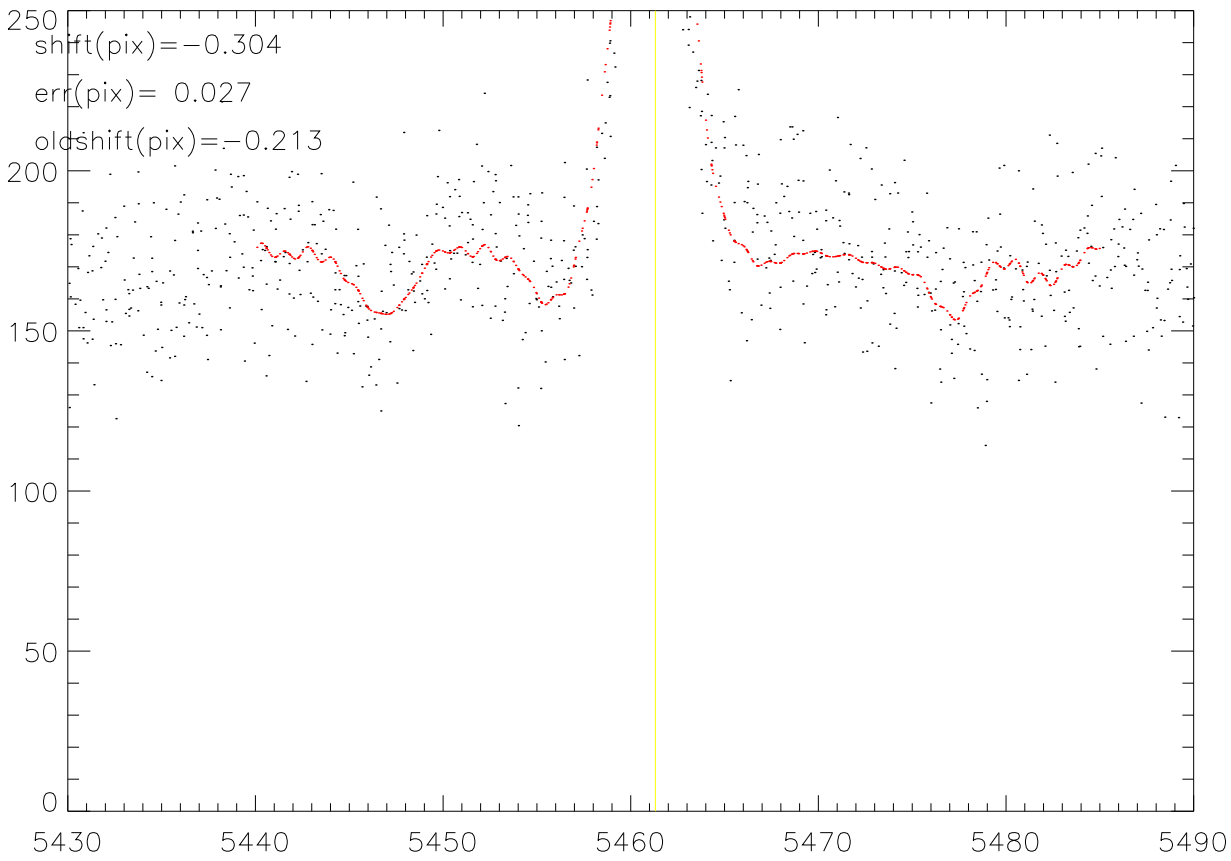

PLATE=2083 MJD=53359 Scattered Light on sdR-b2-00030027.fit
Brightness [electrons/pix]
0
1
2
3
4
5
6
Error bars denote full range
Min value = 2.250
Max value = 4.900
4000
4500
5000
5500
6000
λ [A]
Sun Feb 17 15:28:53 2008

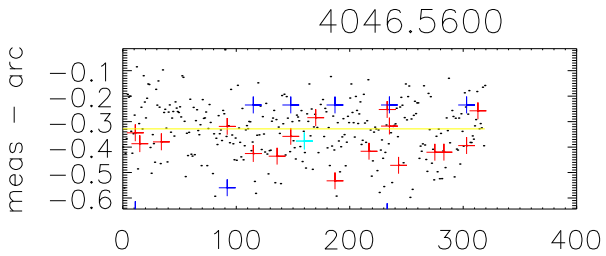

PLATE=2083 MJD=53359 Extraction chi$^2$ for sdR-b2-00030027.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
$\chi^2$
0
1
2
3
4
5
0
500
1000
1500
2000
Row number

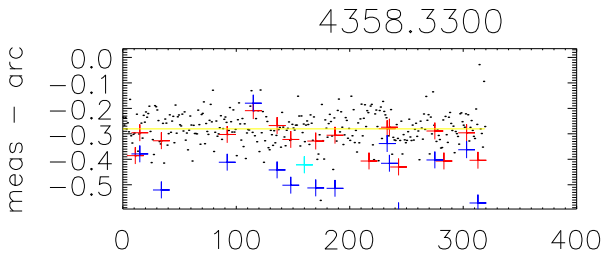

4046.5600
off: −0.90
sig: 0.074
4358.3300
off: −0.47
sig: 0.028
5460.9400
off: −0.21
sig: 0.023
5577.3390
off: −0.23
sig: 0.003
5889.9500
off: −0.13
sig: 0.010
5895.9240
off: −0.18
sig: 0.013

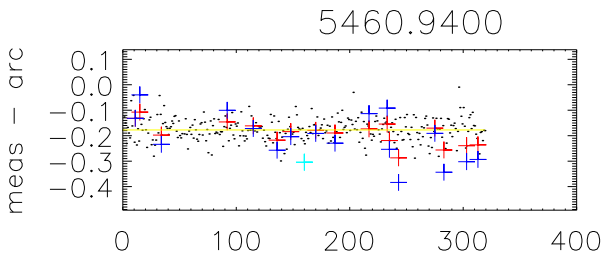

shift(pix)=−0.376
err(pix)= 0.064
oldshift(pix)=−0.903
250
200
150
100
50
0
4020
4030
4040
4050
4060
4070
4080

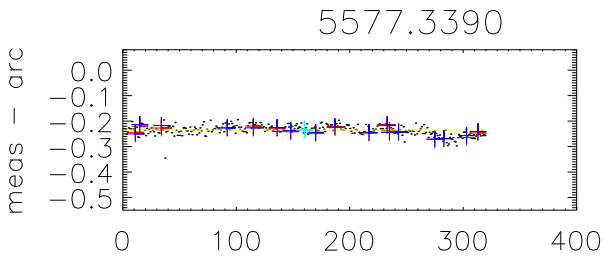

shift(pix)=−0.422
err(pix)= 0.027
oldshift(pix)=−0.472
250
200
150
100
50
0
4280
4300
4320
4340
4360
4380
4400
4420

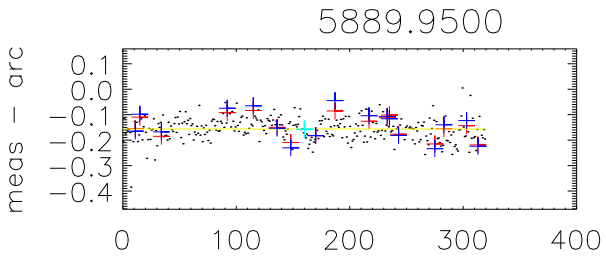

shift(pix)=−0.304
err(pix)= 0.027
oldshift(pix)=−0.213
250
200
150
100
50
0
5430
5440
5450
5460
5470
5480
5490

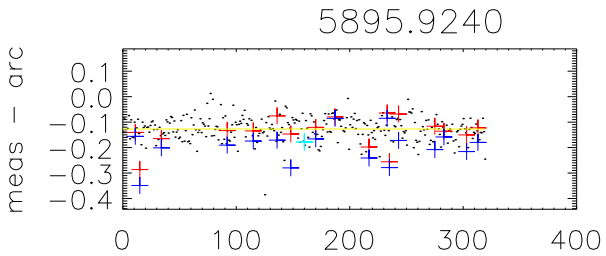

4046.5600
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

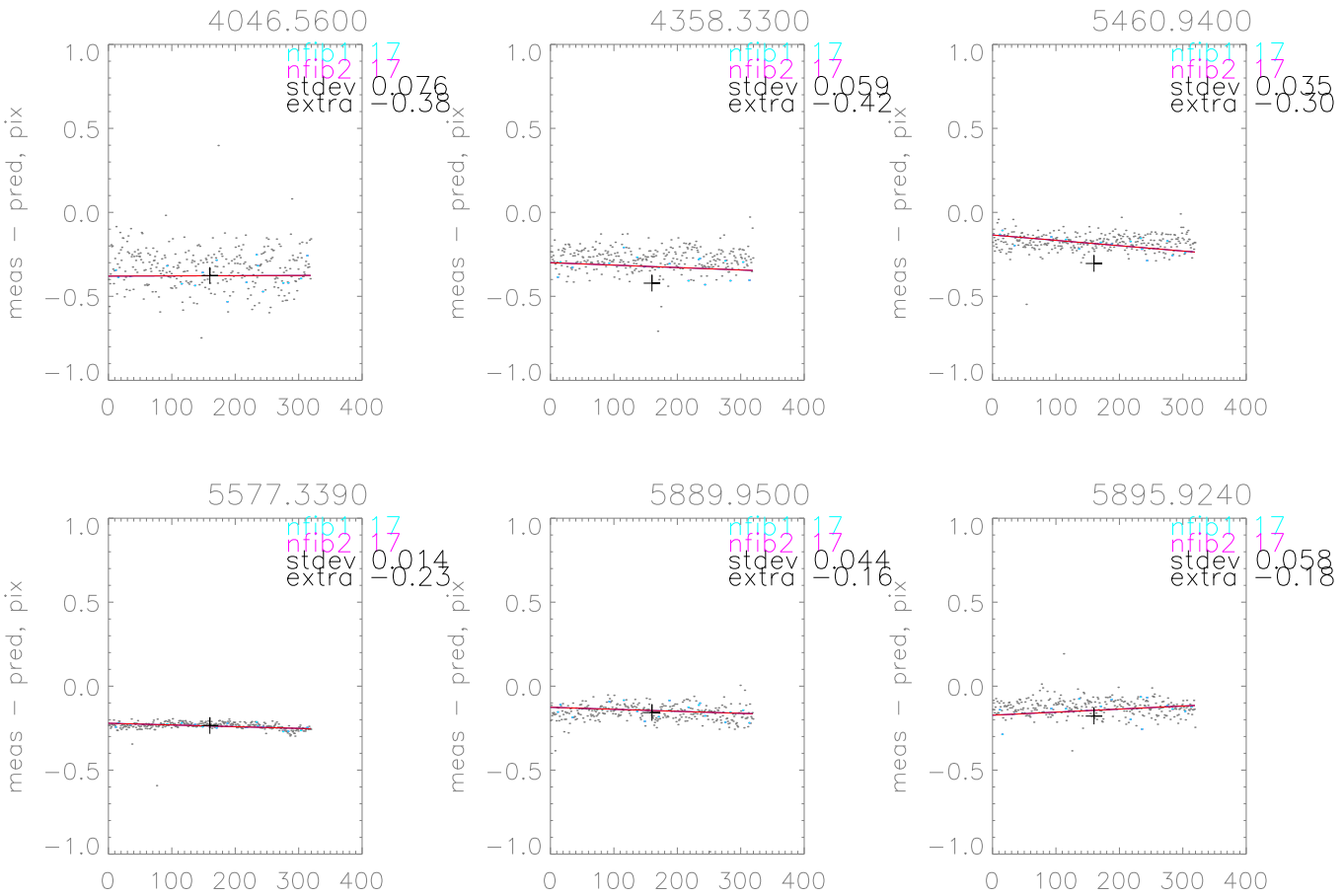

4358.3300
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

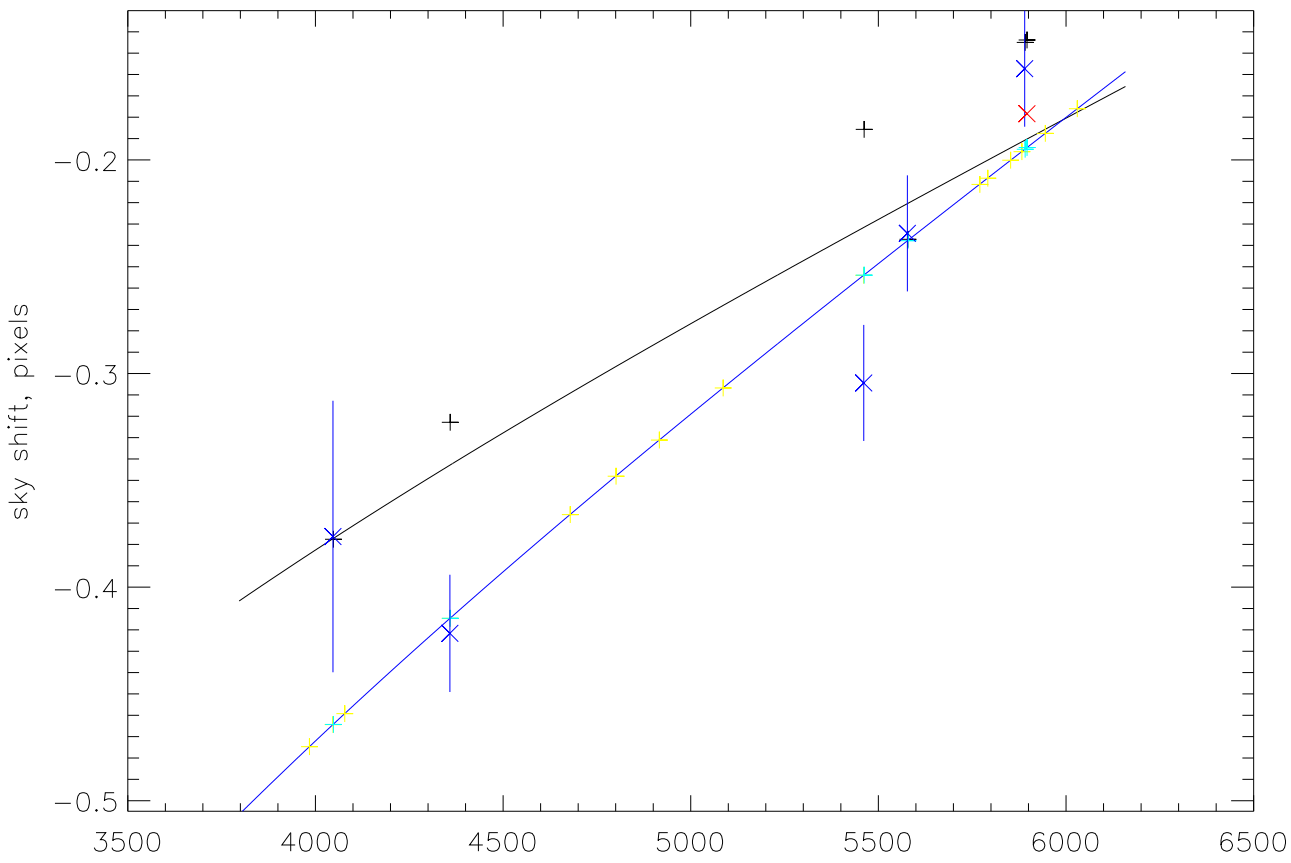

5460.9400
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

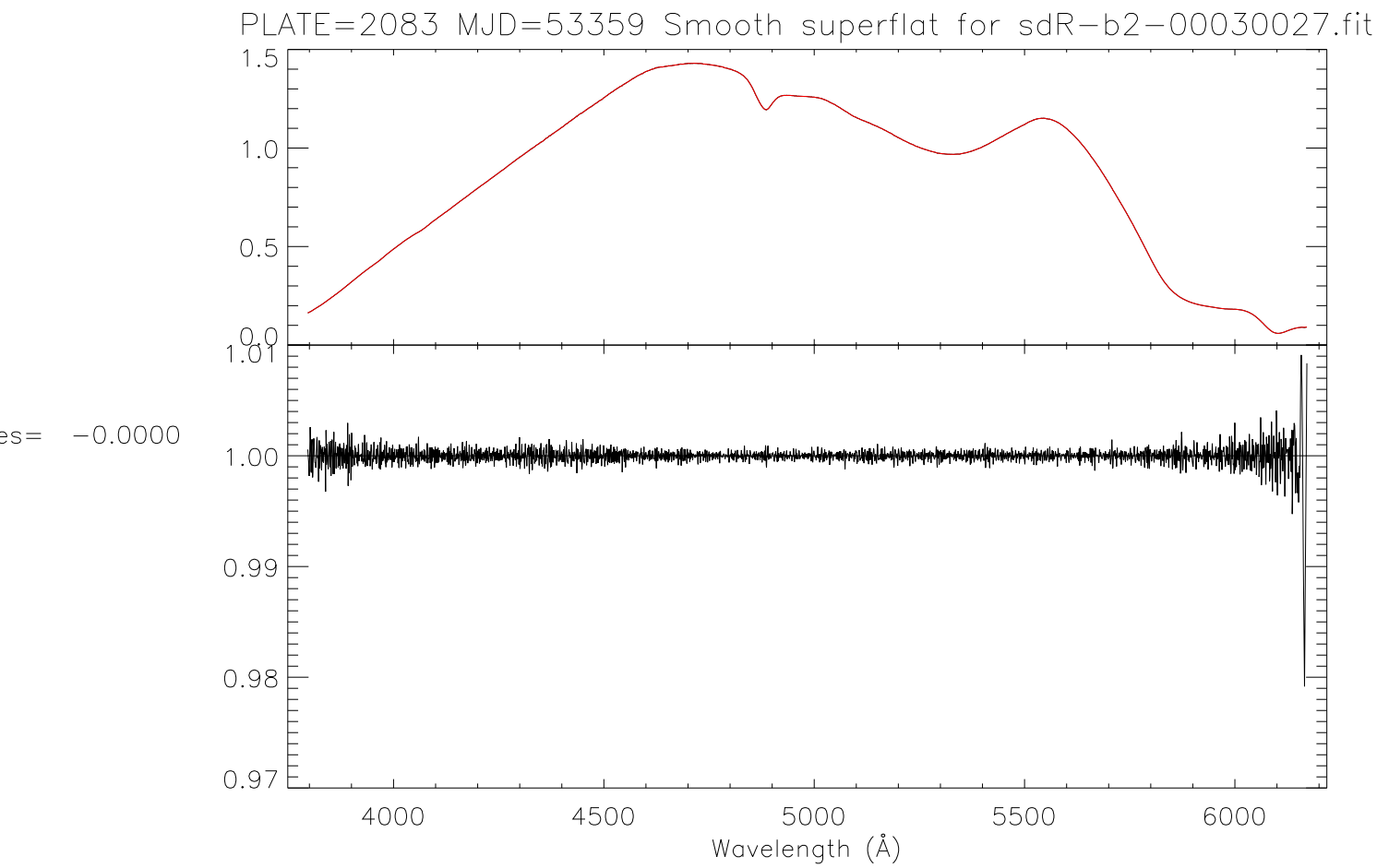

5577.3390
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400


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

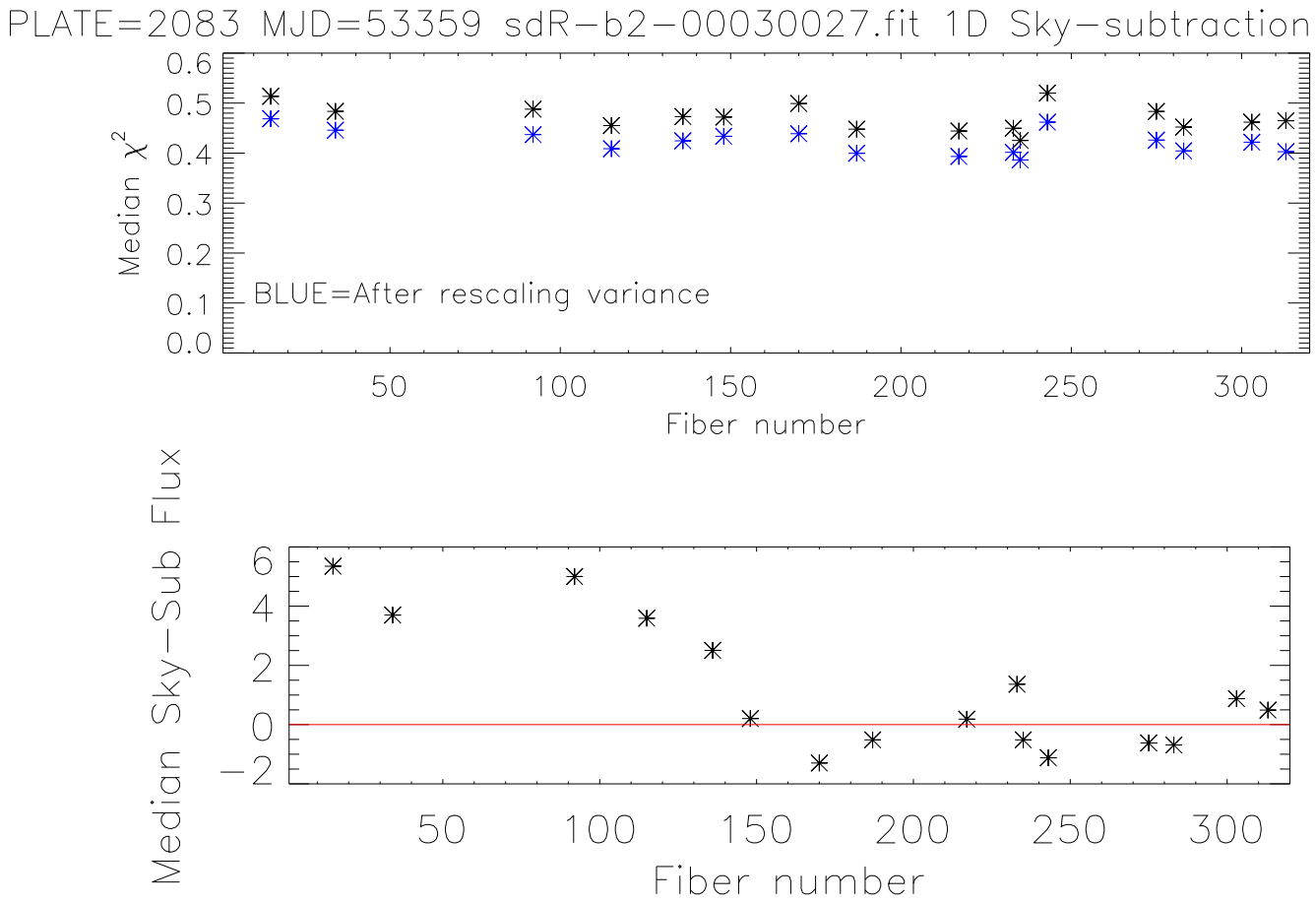

5895.9240
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

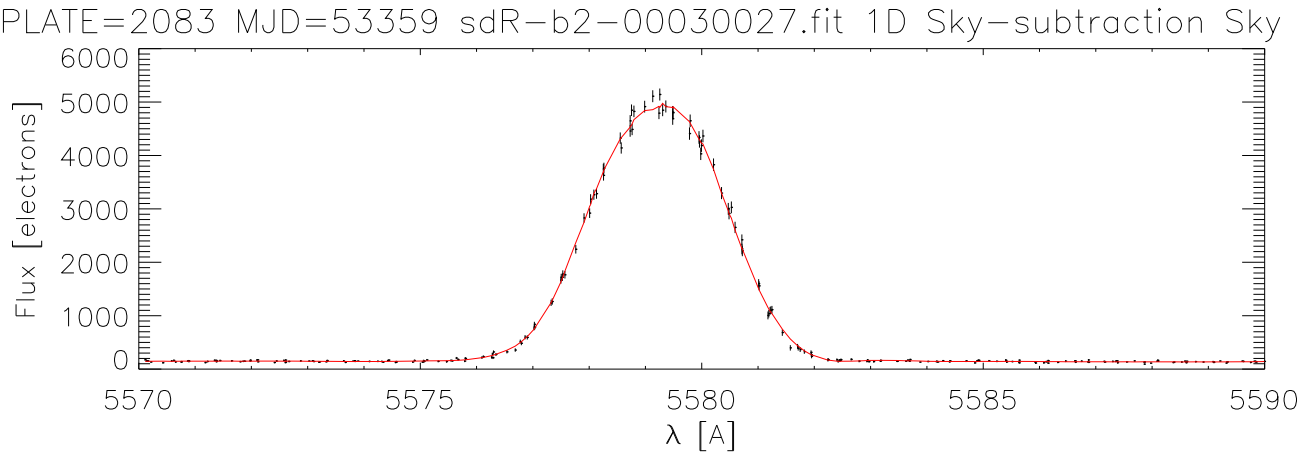

4046.5600
nfib1 17
nfib2 17
stdev 0.076
extra −0.38
4358.3300
nfib1 17
nfib2 17
stdev 0.059
extra −0.42
5460.9400
nfib1 17
nfib2 17
stdev 0.035
extra −0.30
5577.3390
nfib1 17
nfib2 17
stdev 0.014
extra −0.23
5889.9500
nfib1 17
nfib2 17
stdev 0.044
extra −0.16
5895.9240
nfib1 17
nfib2 17
stdev 0.058
extra −0.18
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

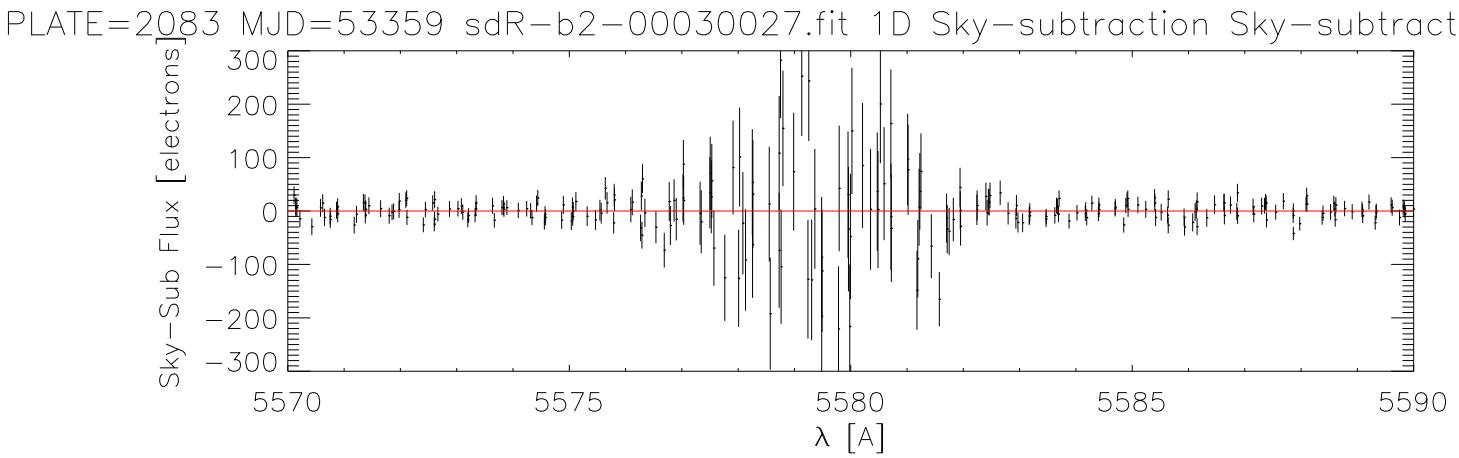

sky shift, pixels
−0.2
−0.3
−0.4
−0.5
3500
4000
4500
5000
5500
6000
6500

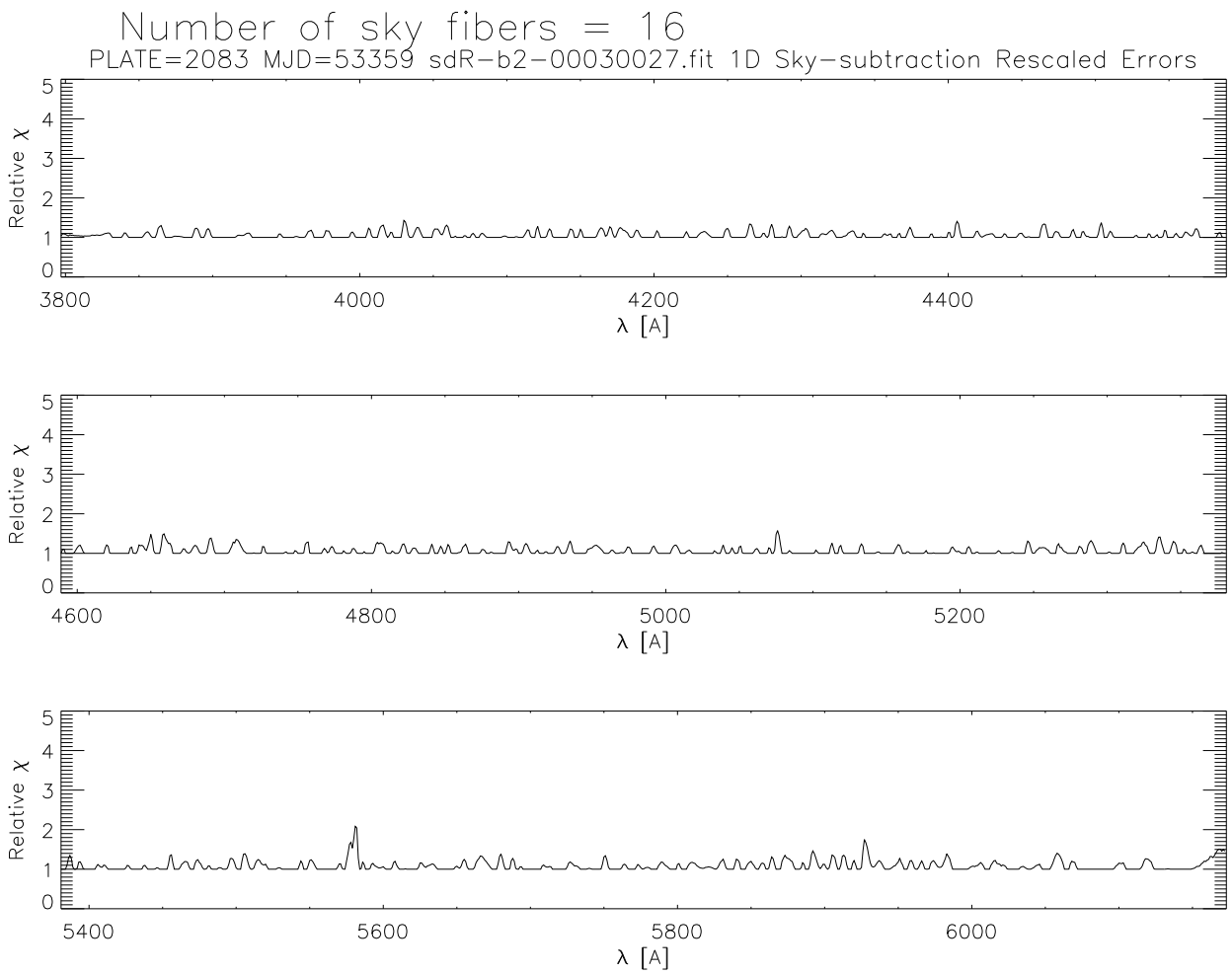

PLATE=2083 MJD=53359 Smooth superflat for sdR-b2-00030027.fit
1.5
1.0
0.5
0.0
1.01
1.00
0.99
0.98
0.97
4000
4500
5000
5500
6000
Wavelength (Å)

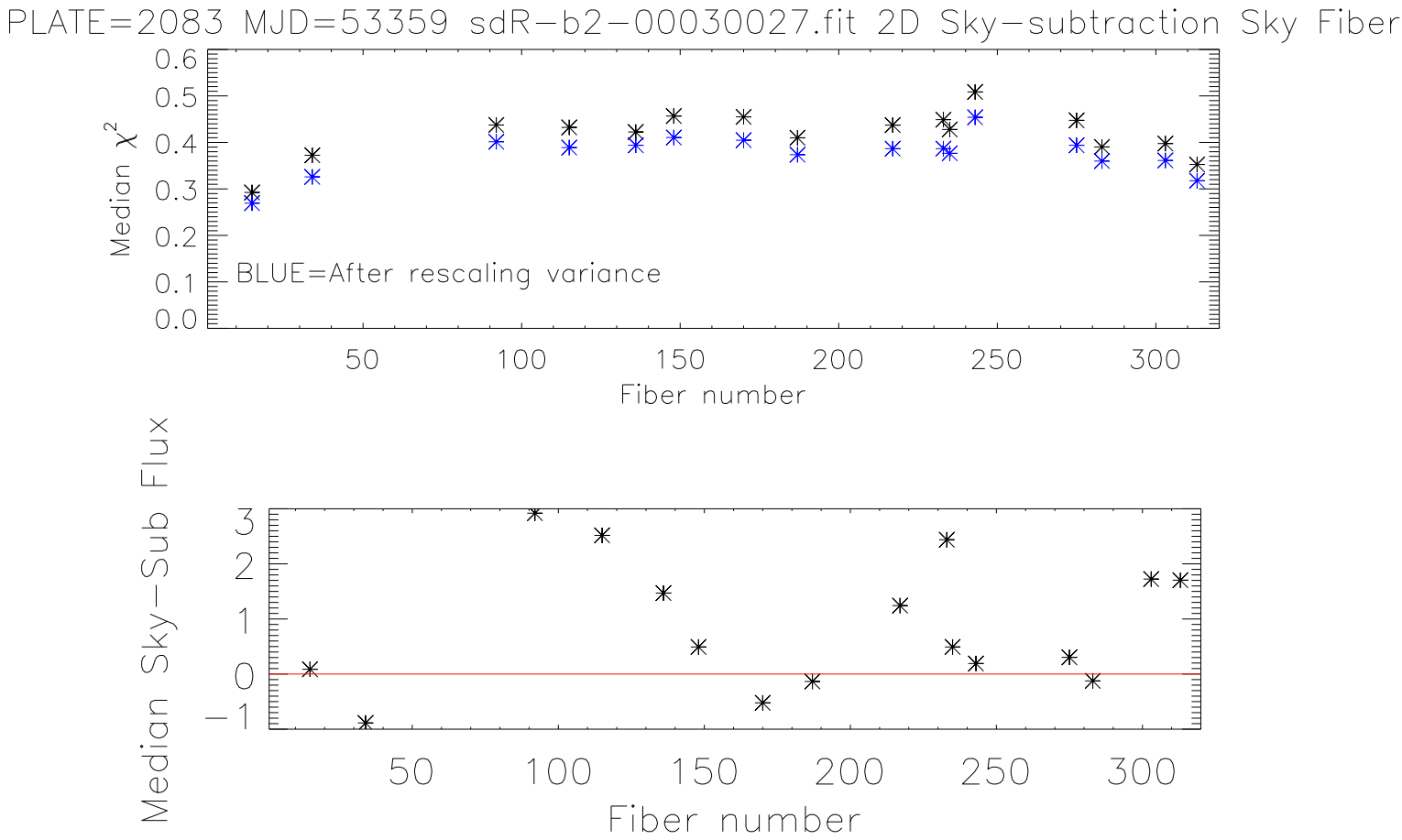
es= −0.0000

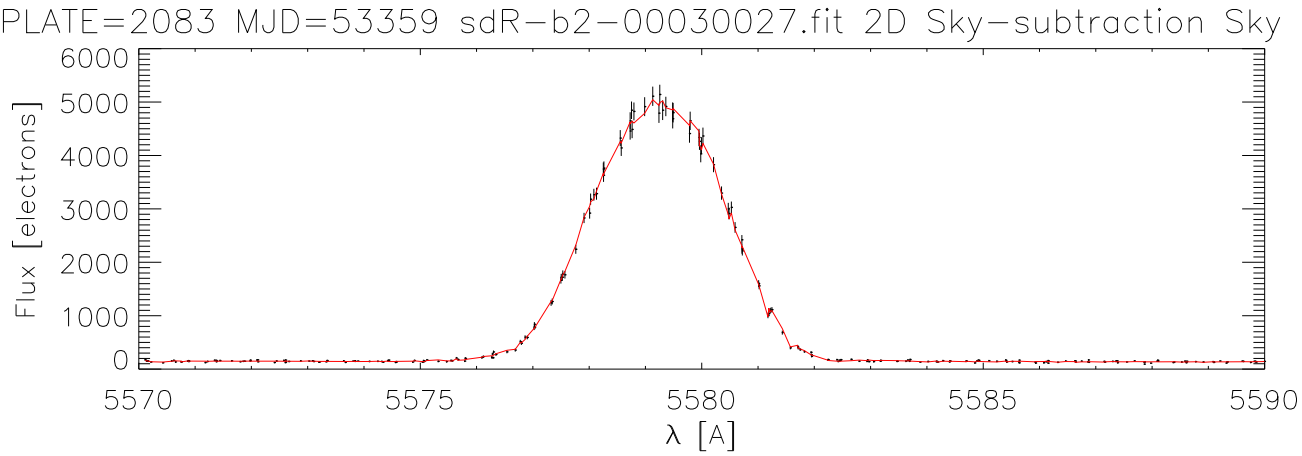

PLATE=2083 MJD=53359 sdR-b2-00030027.fit 1D Sky-subtraction Sky Fiber
Median $\chi^2$
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

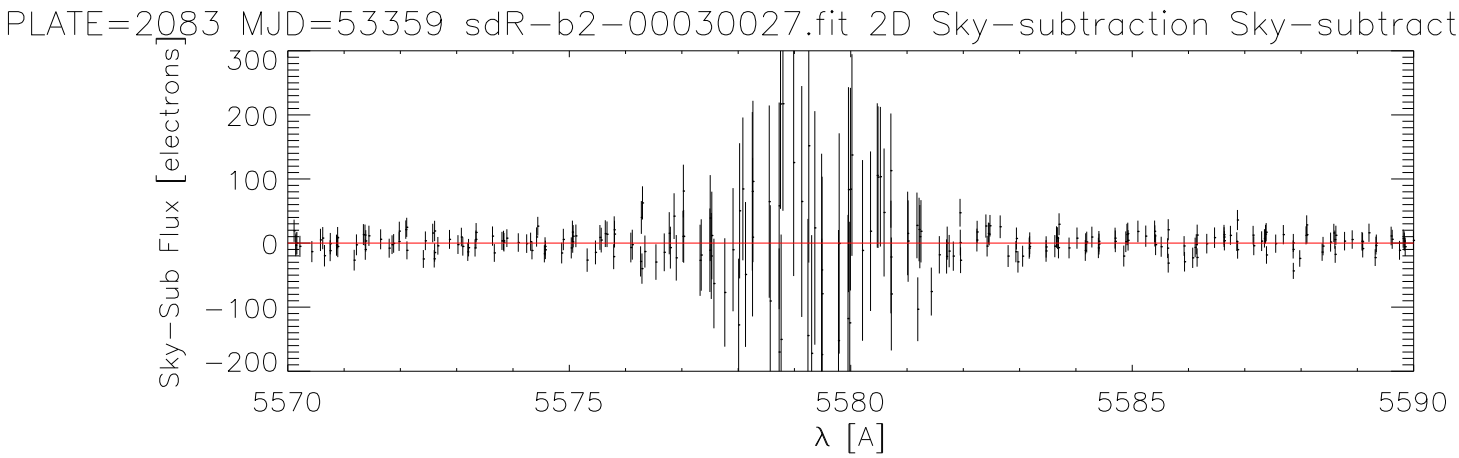

PLATE=2083 MJD=53359 sdR-b2-00030027.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
6000
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

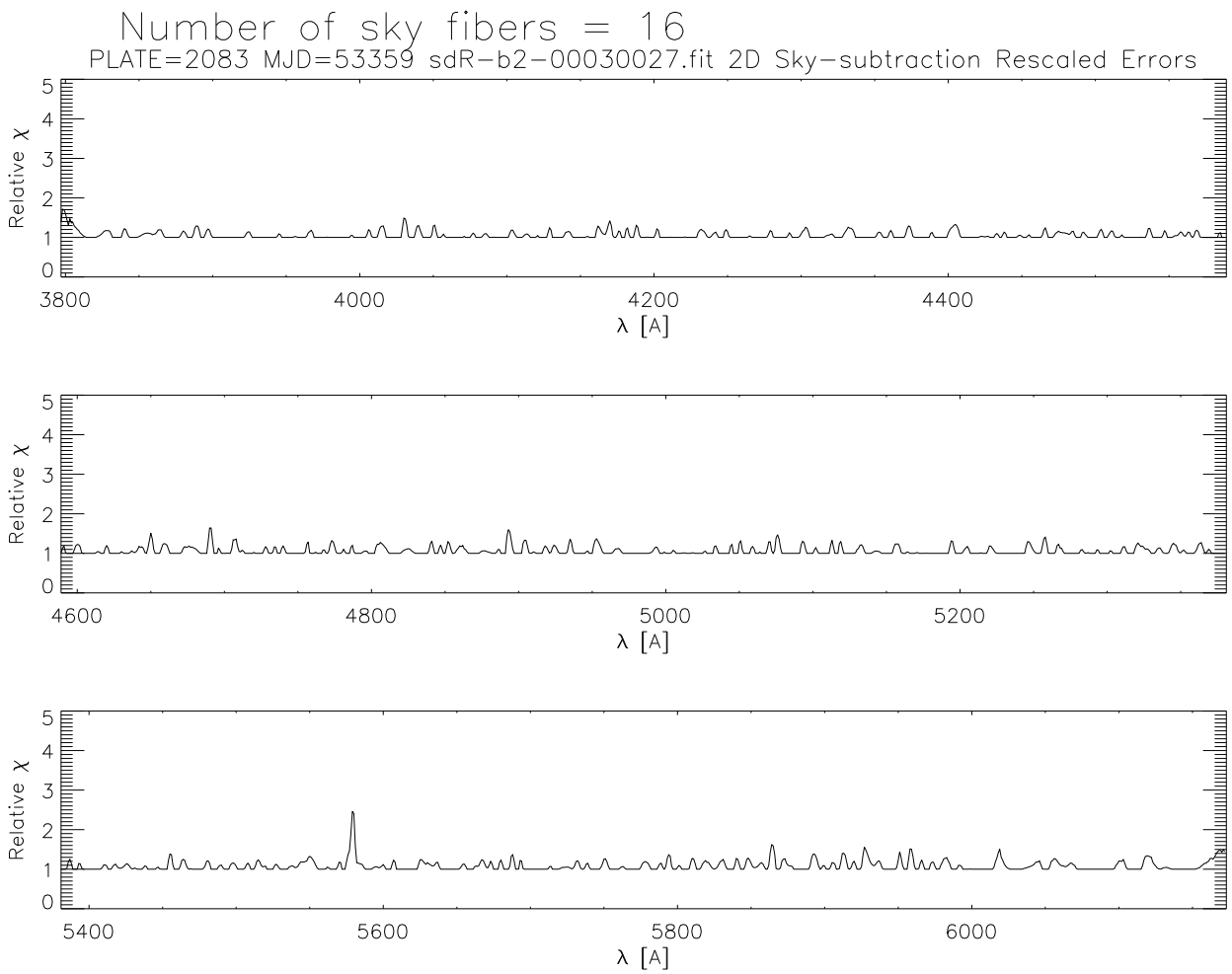

PLATE=2083 MJD=53359 sdR-b2-00030027.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
-300
5570
5575
5580
5585
5590
λ [A]

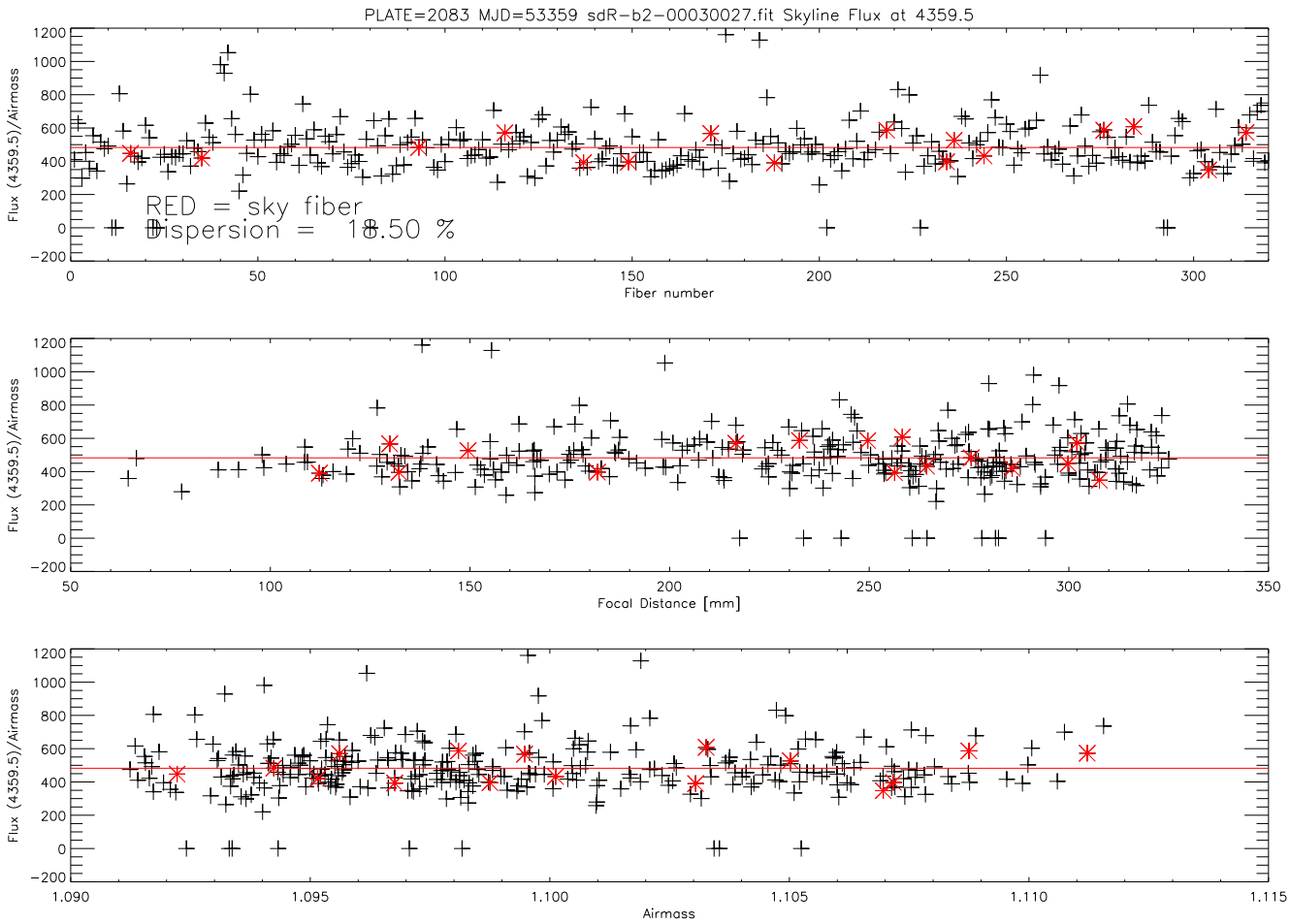

Number of sky fibers = 16
PLATE=2083 MJD=53359 sdR-b2-00030027.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

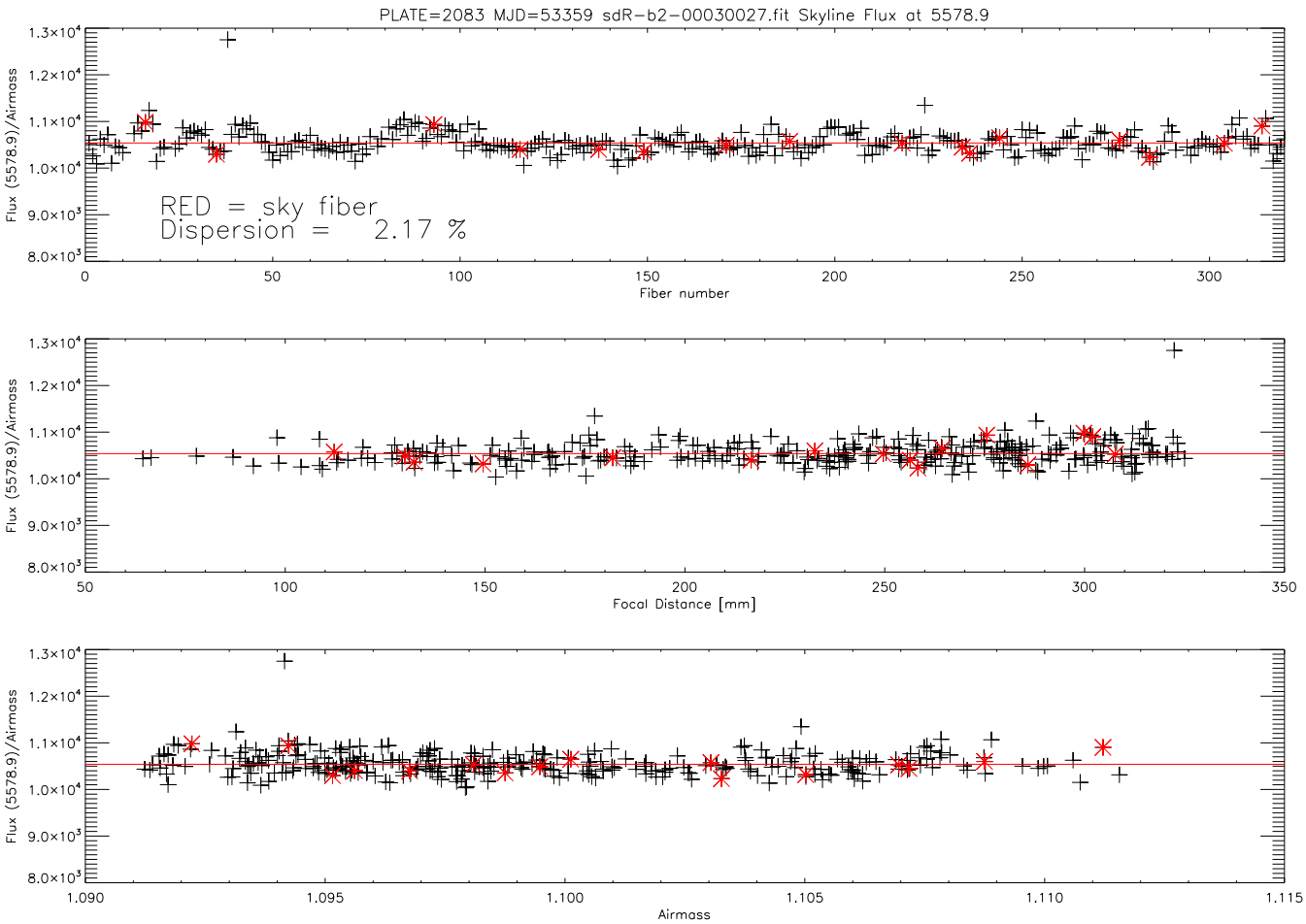

PLATE=2083 MJD=53359 sdR-b2-00030027.fit 2D Sky-subtraction Sky Fiber
Median $\chi^2$
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

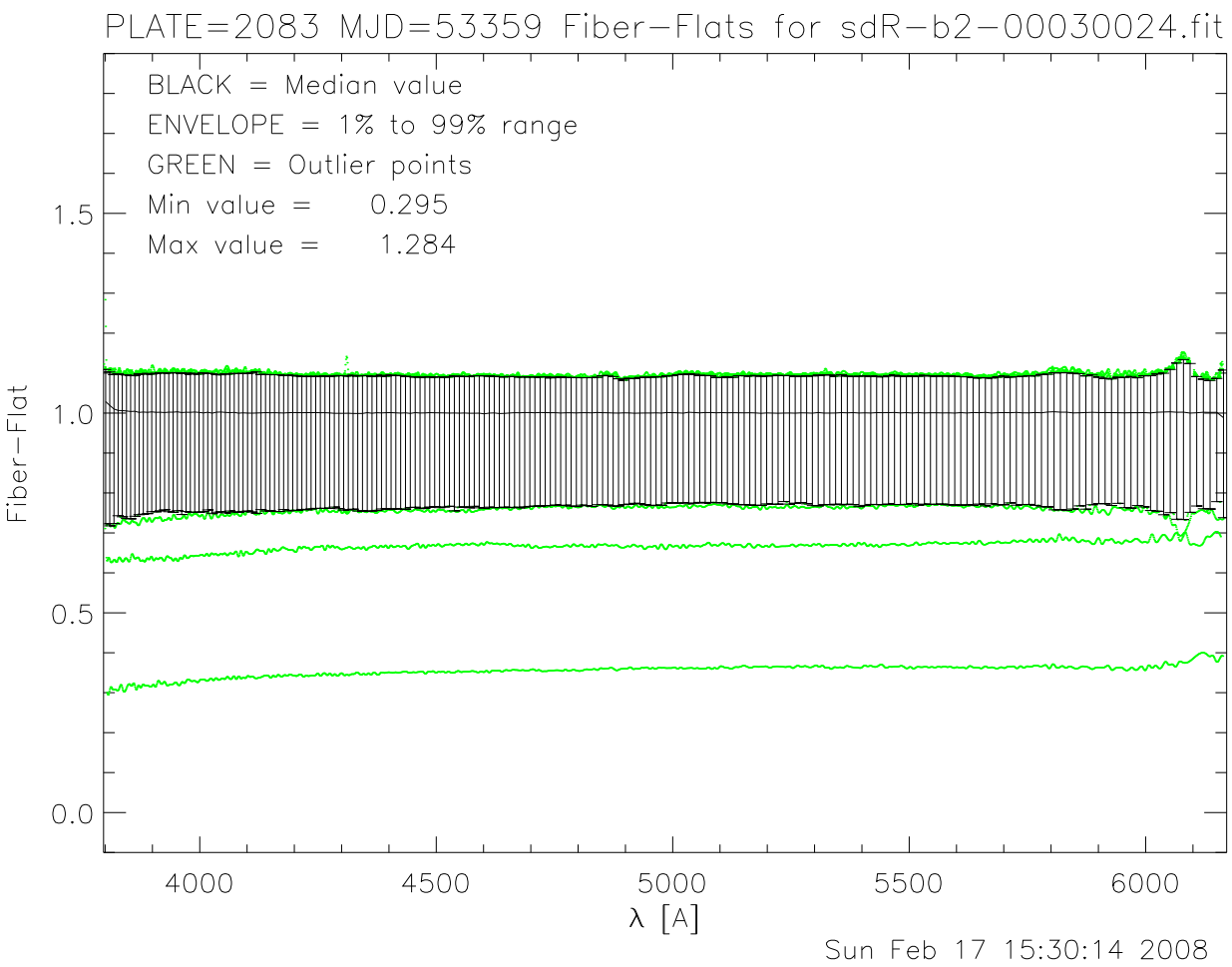

PLATE=2083 MJD=53359 sdR-b2-00030027.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
6000
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

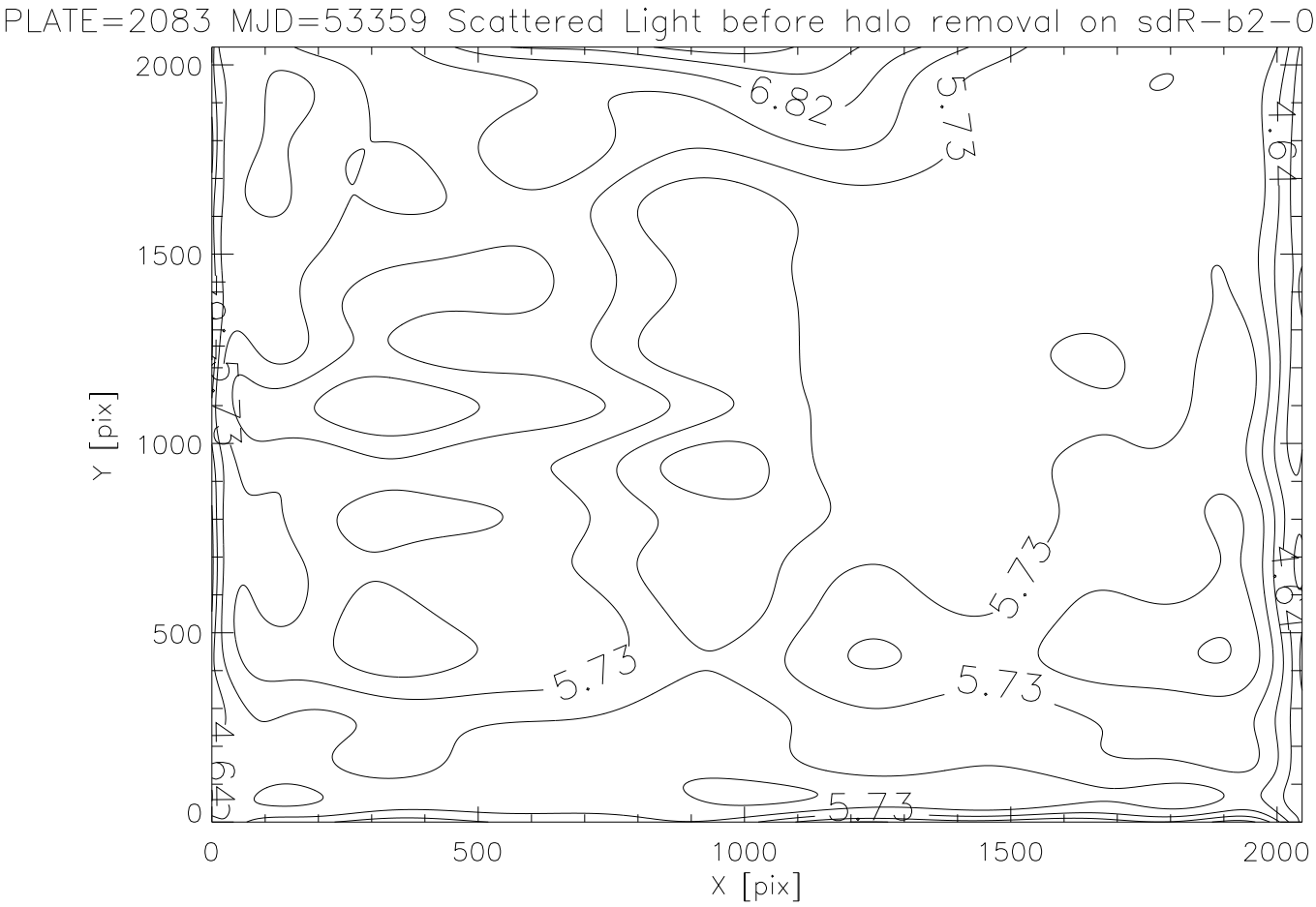

PLATE=2083 MJD=53359 sdR-b2-00030027.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
5570
5575
5580
5585
5590
λ [A]

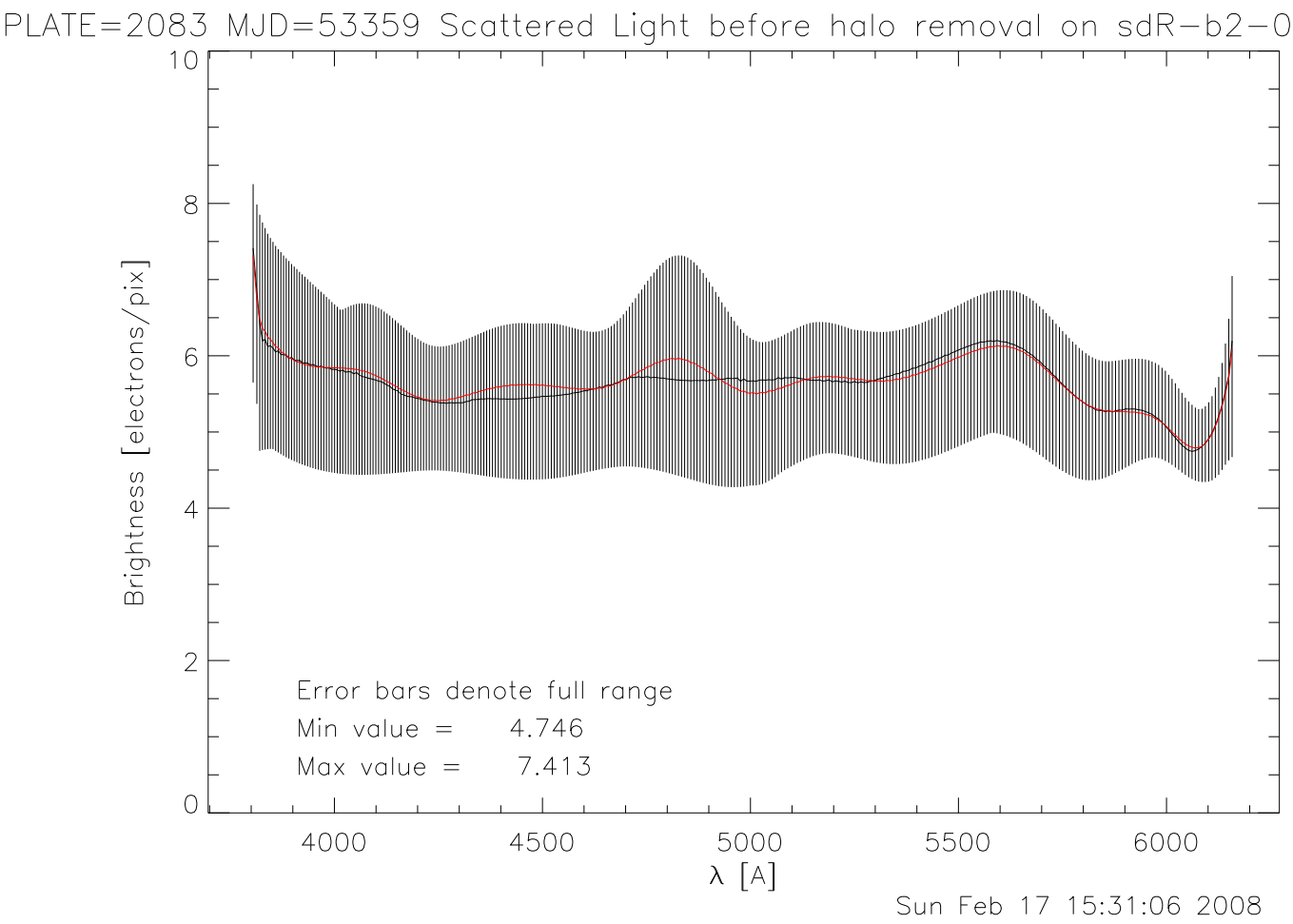

Number of sky fibers = 16
PLATE=2083 MJD=53359 sdR-b2-00030027.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

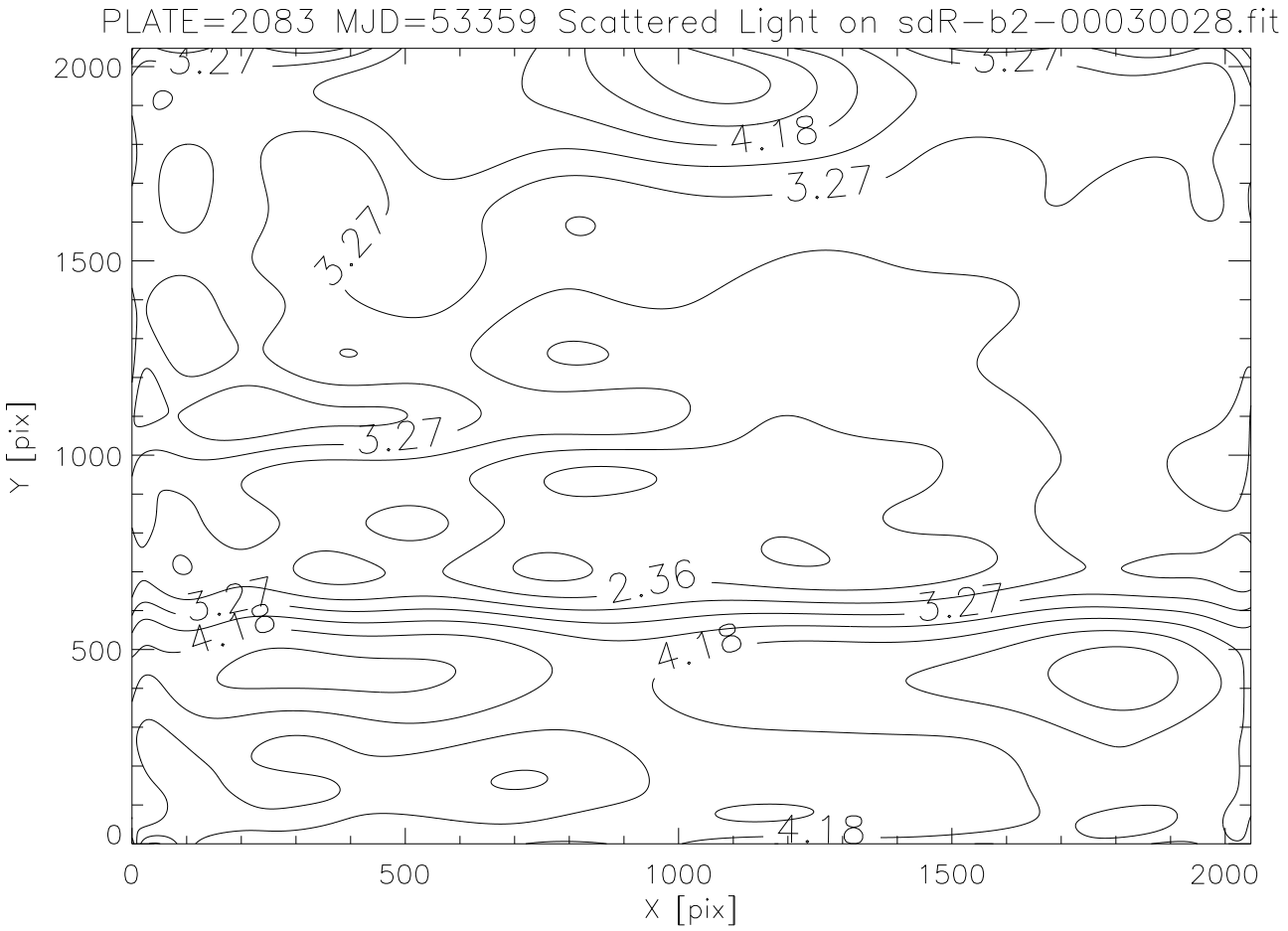

PLATE=2083 MJD=53359 sdR-b2-00030027.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
Fiber number
RED = sky fiber
Dispersion = 18.50 %
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

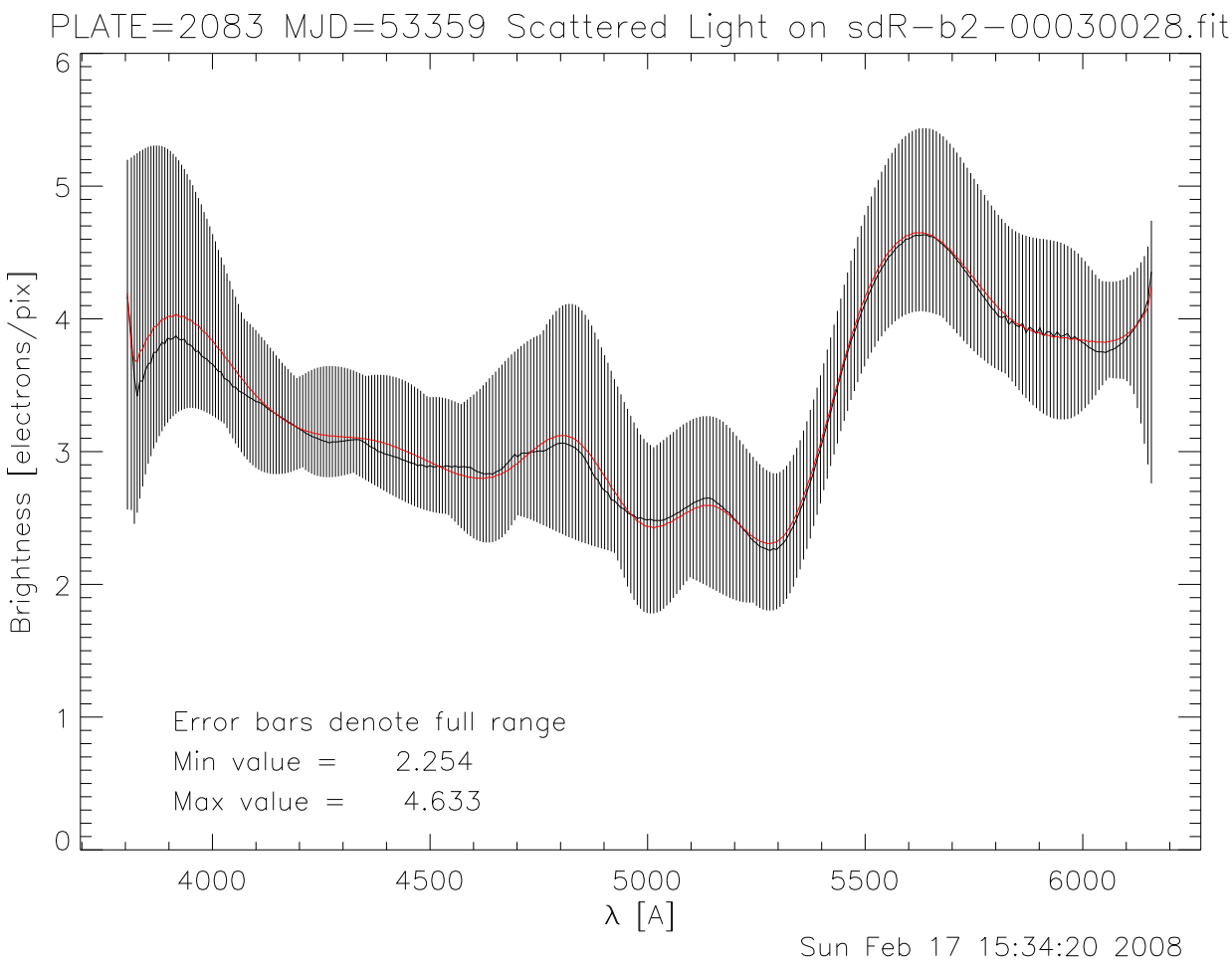

PLATE=2083 MJD=53359 sdR-b2-00030027.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 2.17 %
Fiber number
Focal Distance [mm]
Airmass

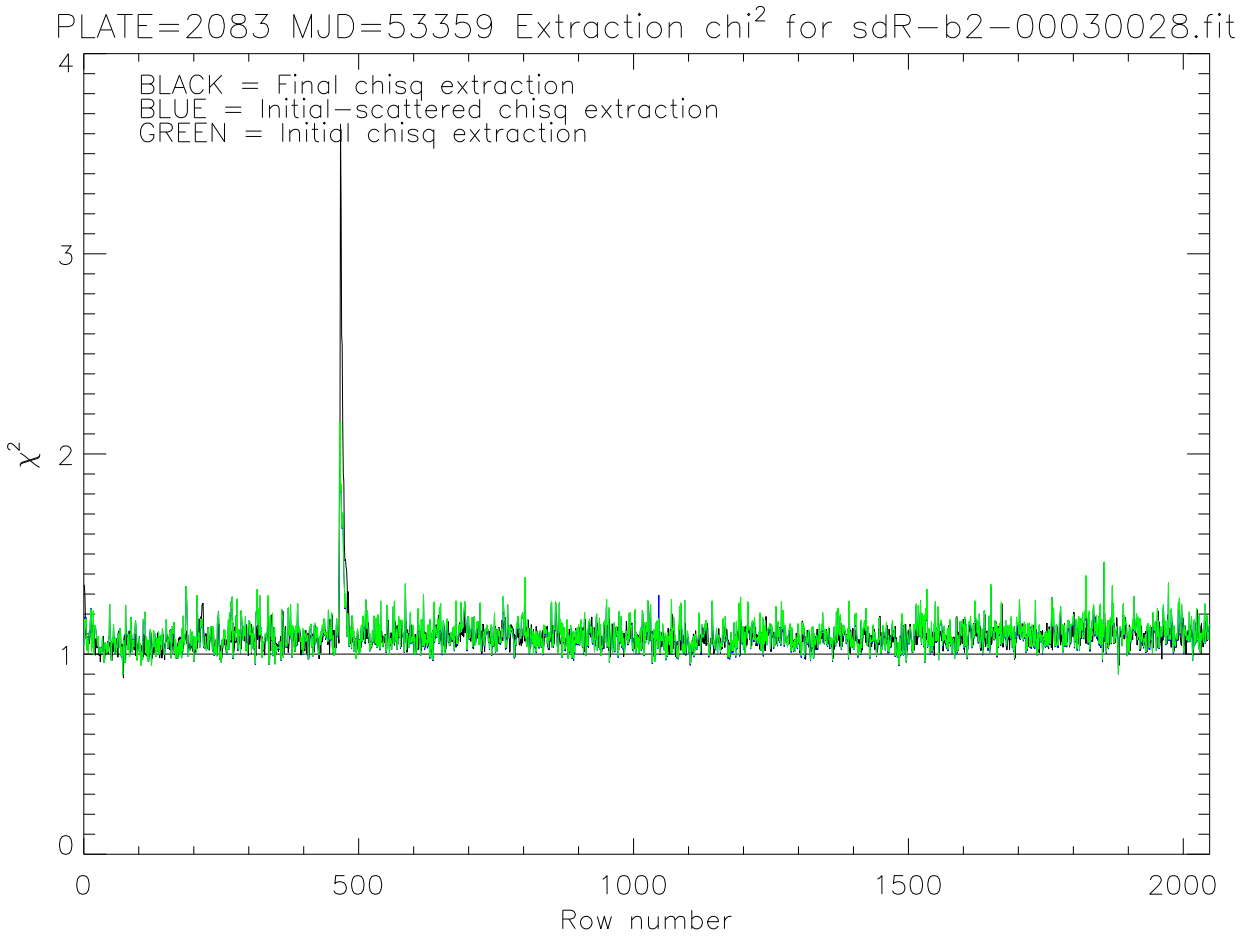

PLATE=2083 MJD=53359 Fiber−Flats for sdR−b2−00030024.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.295
Max value = 1.284
Fiber−Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Sun Feb 17 15:30:14 2008

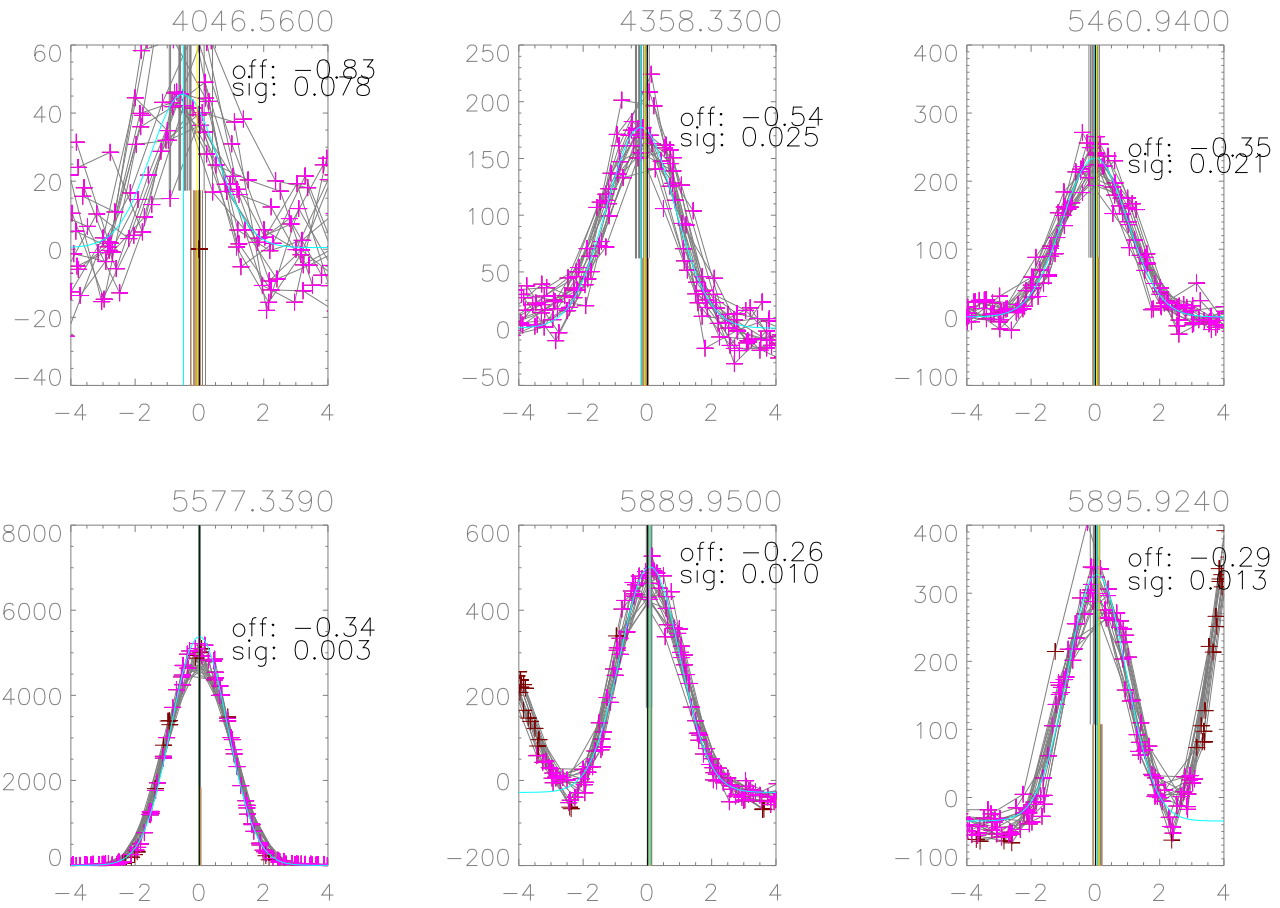

PLATE=2083 MJD=53359 Scattered Light before halo removal on sdR−b2−00030028.f
6.82
5.73
4.64
0
Y [pix]
X [pix]
0
500
1000
1500
2000

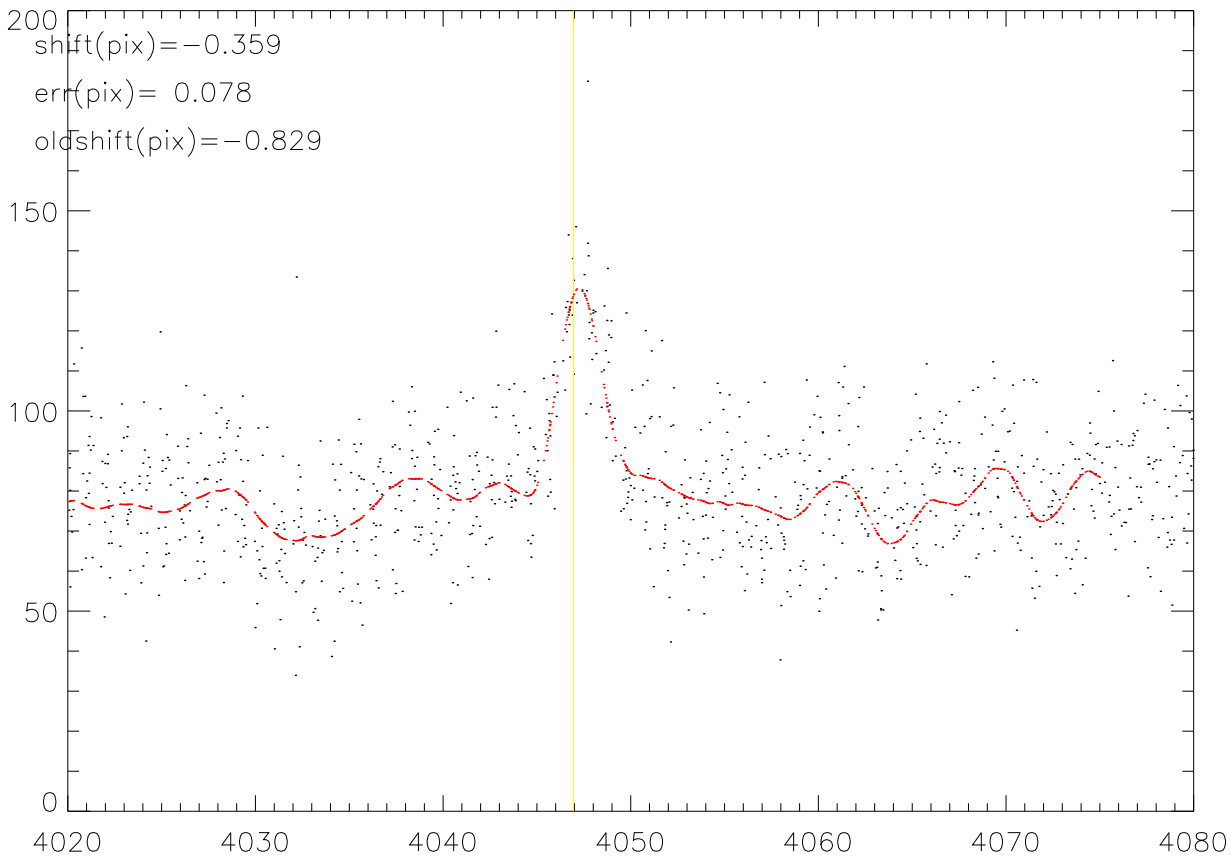

PLATE=2083 MJD=53359 Scattered Light before halo removal on sdR-b2-00030028.f
Brightness [electrons/pix]
10
8
6
4
2
0
Error bars denote full range
Min value = 4.746
Max value = 7.413
4000
4500
5000
5500
6000
λ [A]
Sun Feb 17 15:31:06 2008

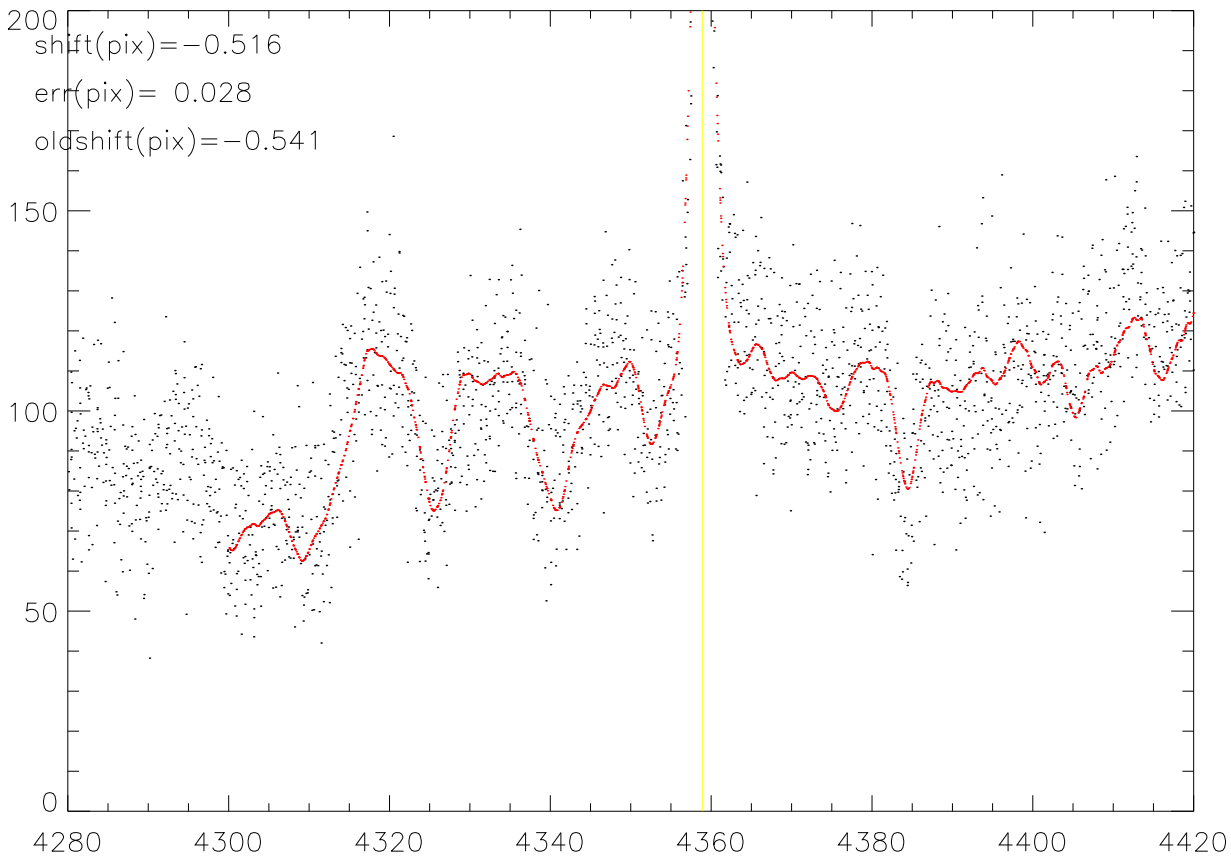

PLATE=2083 MJD=53359 Scattered Light on sdR-b2-00030028.fit
3.27
4.18
3.27
3.27
3.27
2.36
3.27
3.27
4.18
4.18
4.18
Y [pix]
X [pix]
0
500
1000
1500
2000

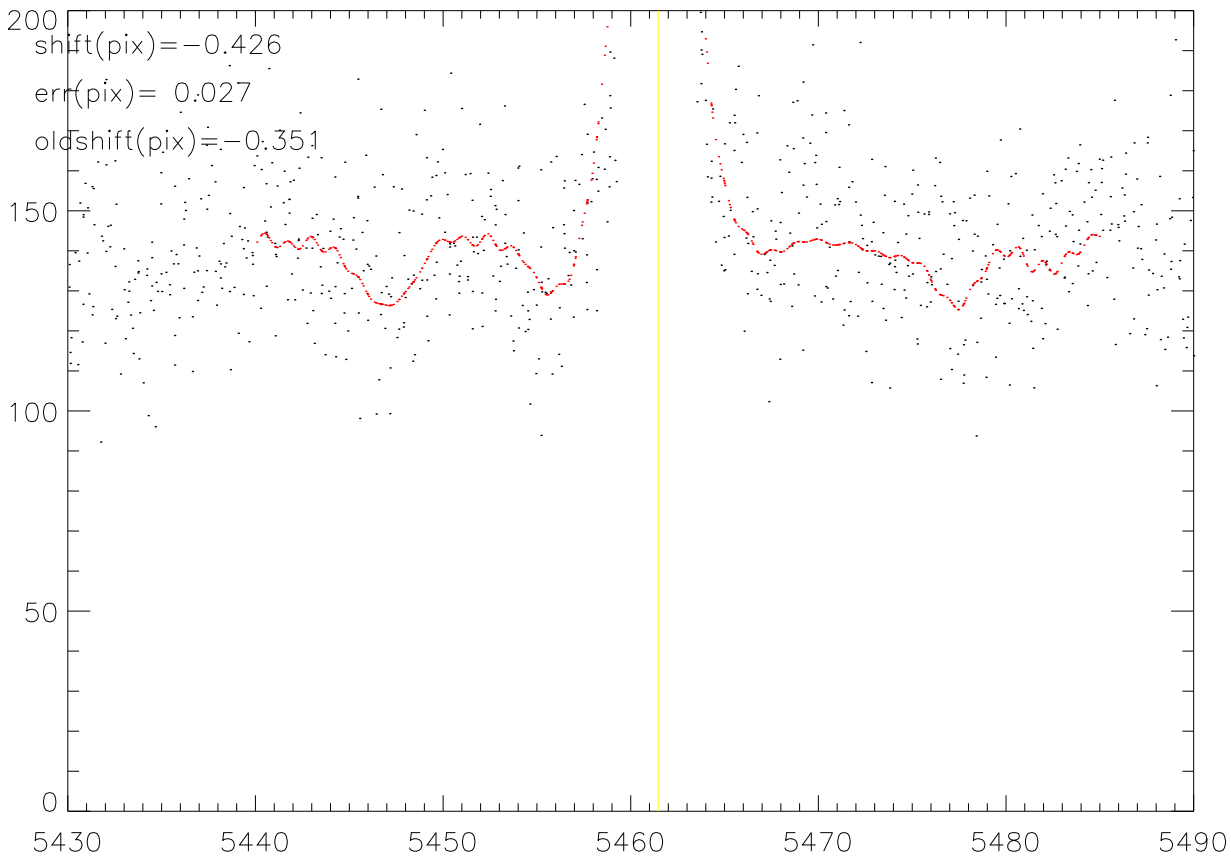

PLATE=2083 MJD=53359 Scattered Light on sdR-b2-00030028.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 2.254
Max value = 4.633
Sun Feb 17 15:34:20 2008

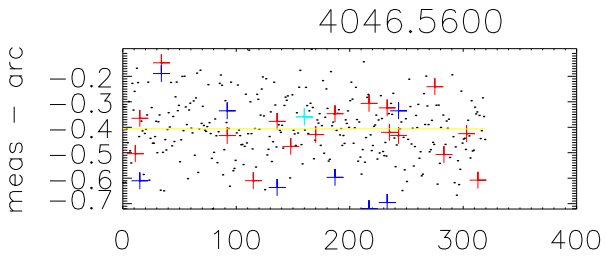

PLATE=2083 MJD=53359 Extraction chi$^2$ for sdR-b2-00030028.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
$\chi^2$
0
1
2
3
4
0
500
1000
1500
2000
Row number

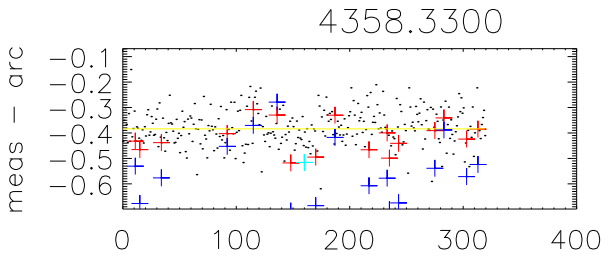

4046.5600
off: −0.83
sig: 0.078
4358.3300
off: −0.54
sig: 0.025
5460.9400
off: −0.35
sig: 0.021
5577.3390
off: −0.34
sig: 0.003
5889.9500
off: −0.26
sig: 0.010
5895.9240
off: −0.29
sig: 0.013

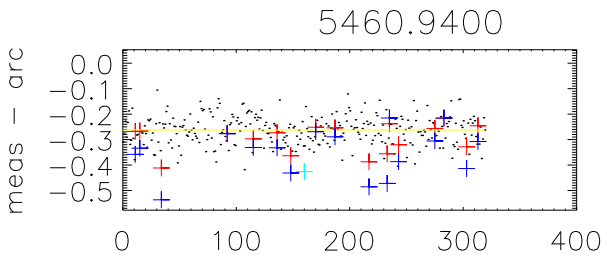

shift(pix)=−0.359
err(pix)= 0.078
oldshift(pix)=−0.829
200
150
100
50
0
4020
4030
4040
4050
4060
4070
4080

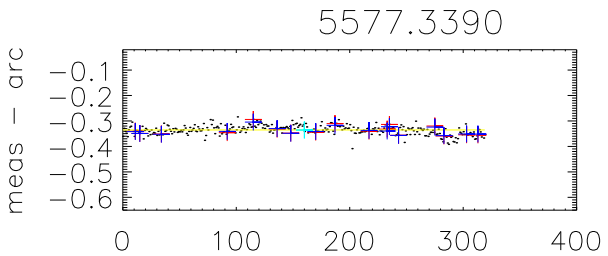

shift(pix)=−0.516
err(pix)= 0.028
oldshift(pix)=−0.541
200
150
100
50
0
4280
4300
4320
4340
4360
4380
4400
4420

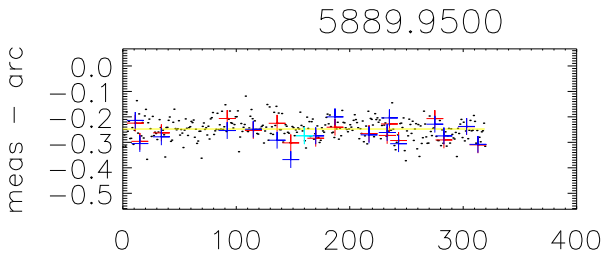

shift(pix)=−0.426
err(pix)= 0.027
oldshift(pix)=−0.351
200
150
100
50
0
5430
5440
5450
5460
5470
5480
5490

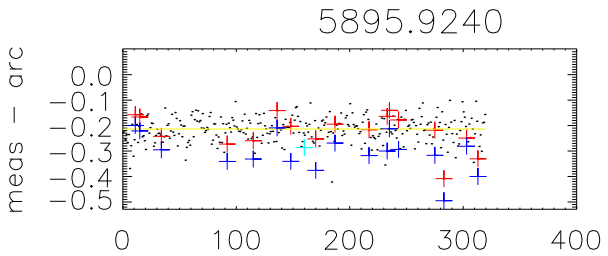

4046.5600
meas − arc
−0.2
−0.3
−0.4
−0.5
−0.6
−0.7
0
100
200
300
400

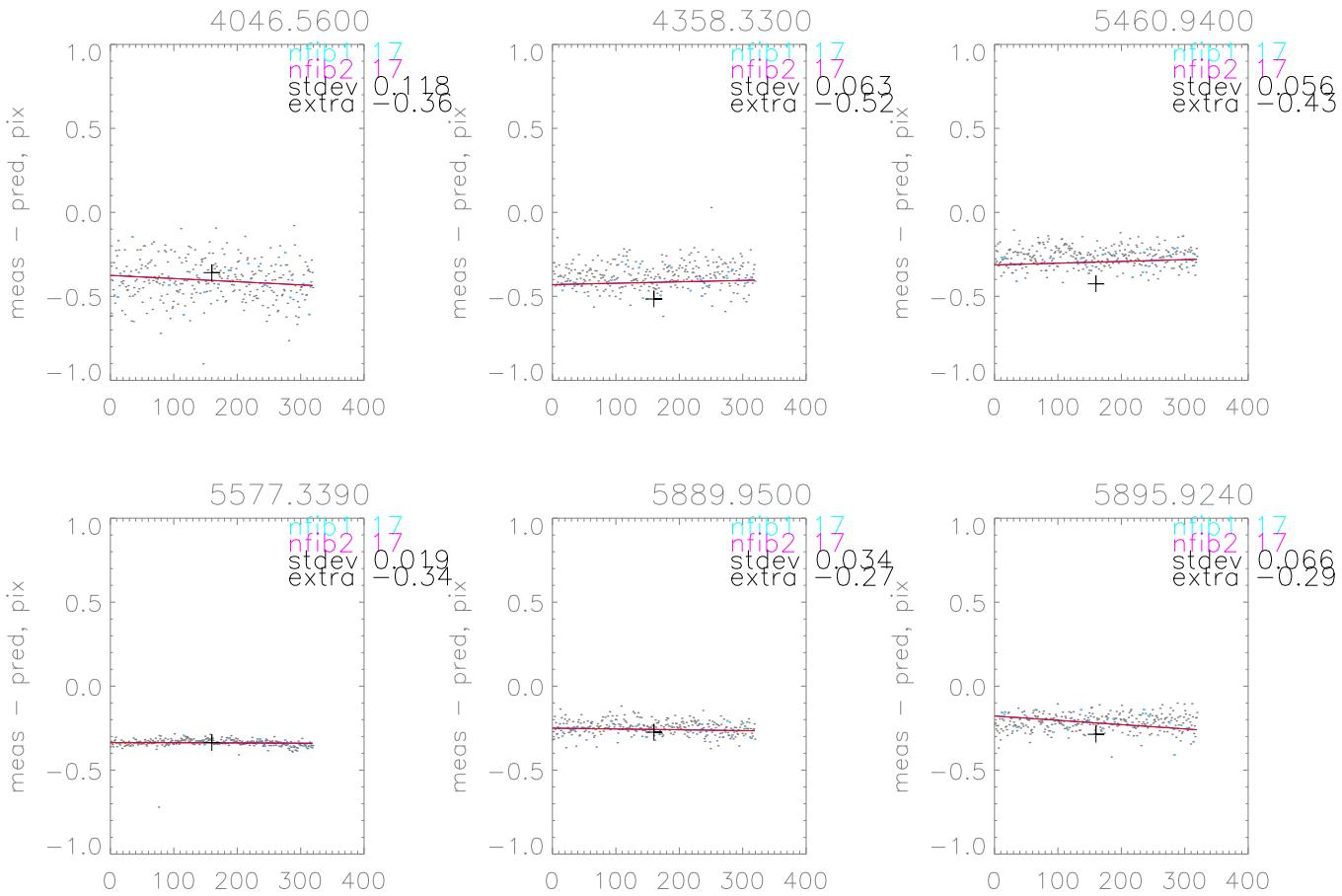

4358.3300
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

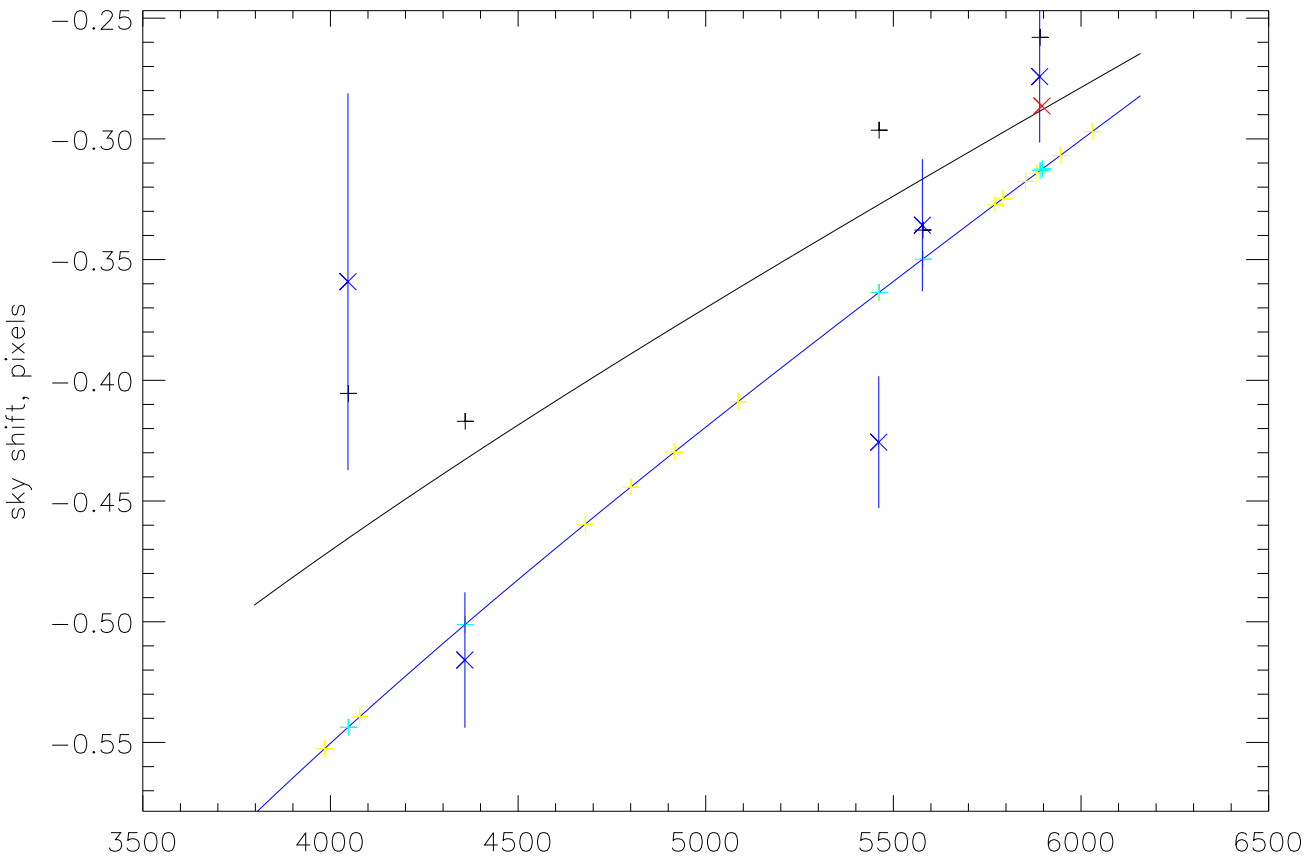

5460.9400
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

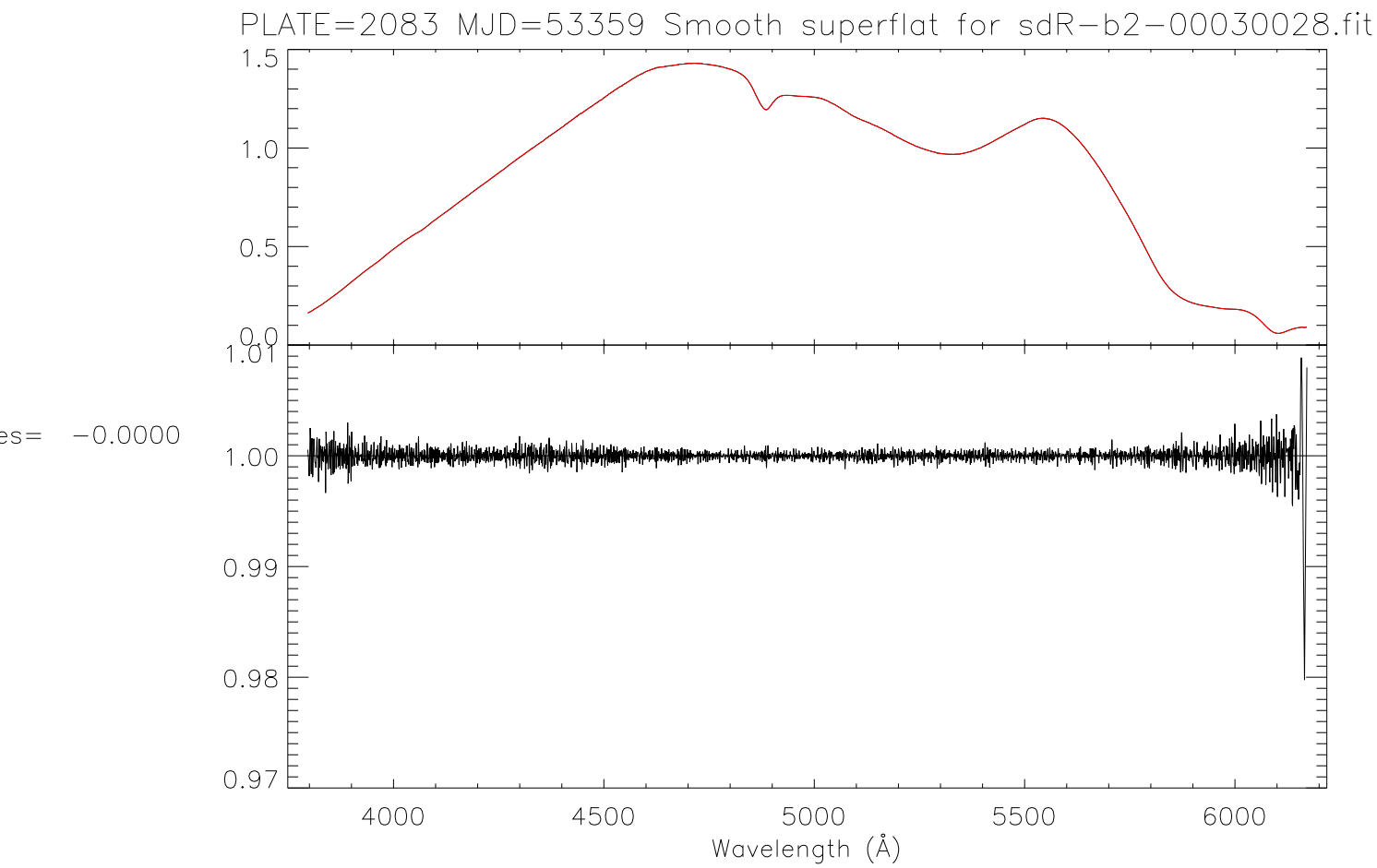

5577.3390
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400


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

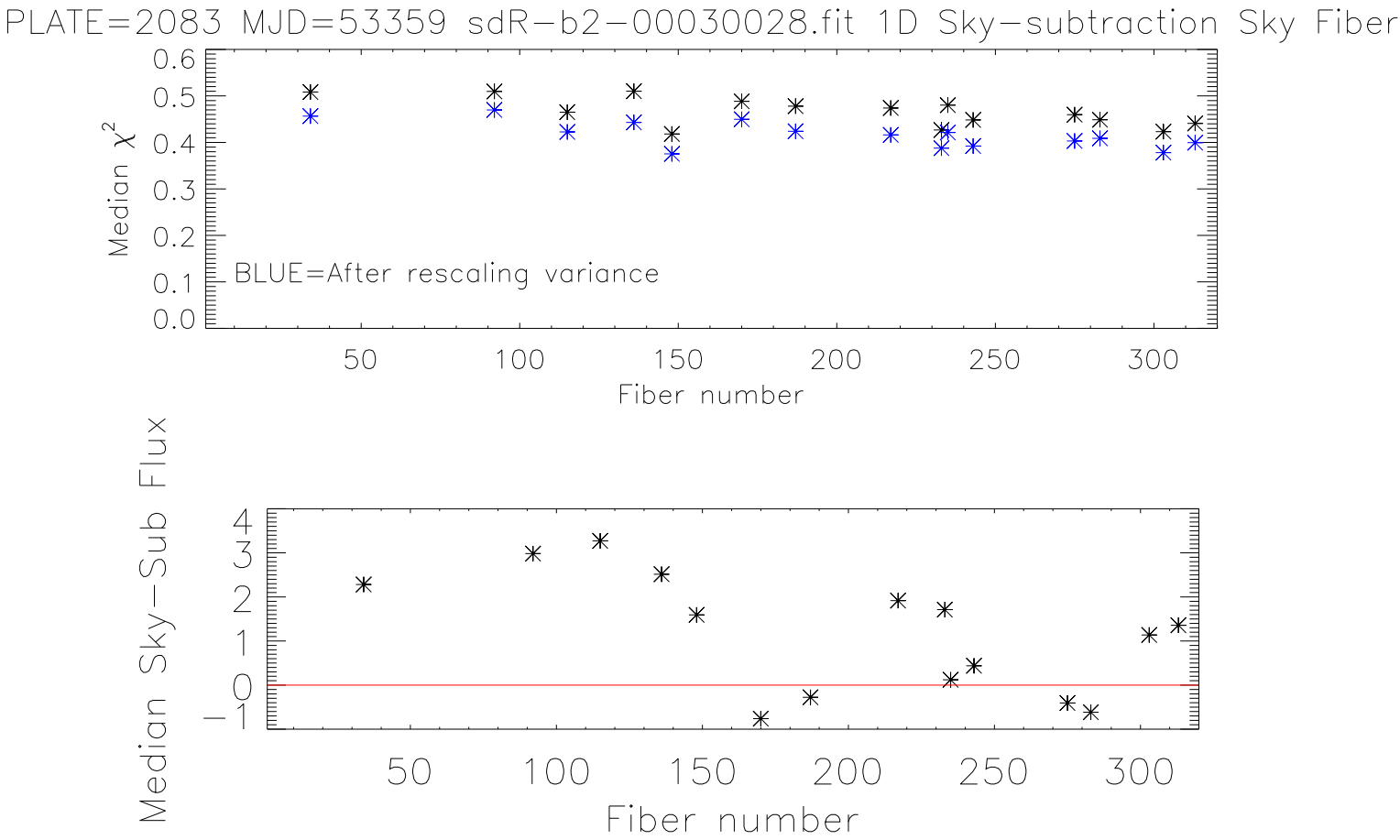

5895.9240
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

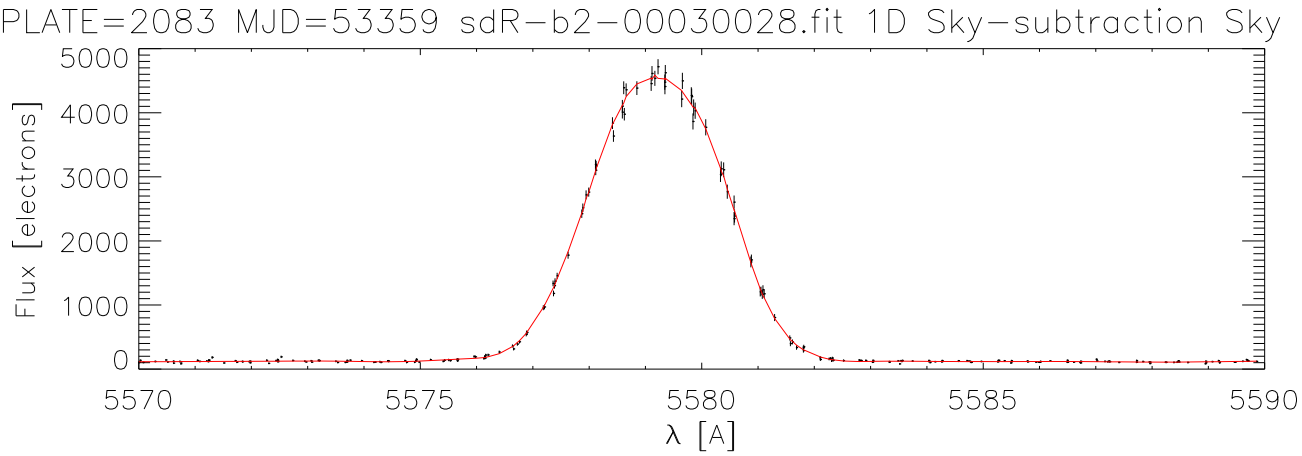

4046.5600
nfib1 17
nfib2 17
stdev 0.118
extra −0.36
4358.3300
nfib1 17
nfib2 17
stdev 0.063
extra −0.52
5460.9400
nfib1 17
nfib2 17
stdev 0.056
extra −0.43
5577.3390
nfib1 17
nfib2 17
stdev 0.019
extra −0.34
5889.9500
nfib1 17
nfib2 17
stdev 0.034
extra −0.27
5895.9240
nfib1 17
nfib2 17
stdev 0.066
extra −0.29
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

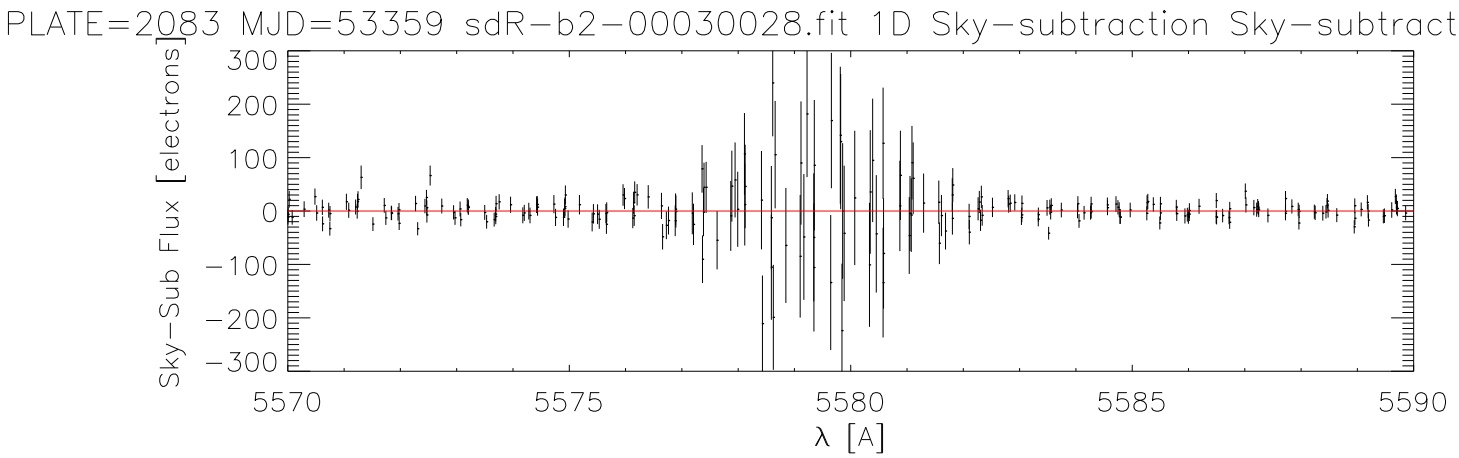

−0.25
−0.30
−0.35
−0.40
−0.45
−0.50
−0.55
sky shift, pixels
3500
4000
4500
5000
5500
6000
6500

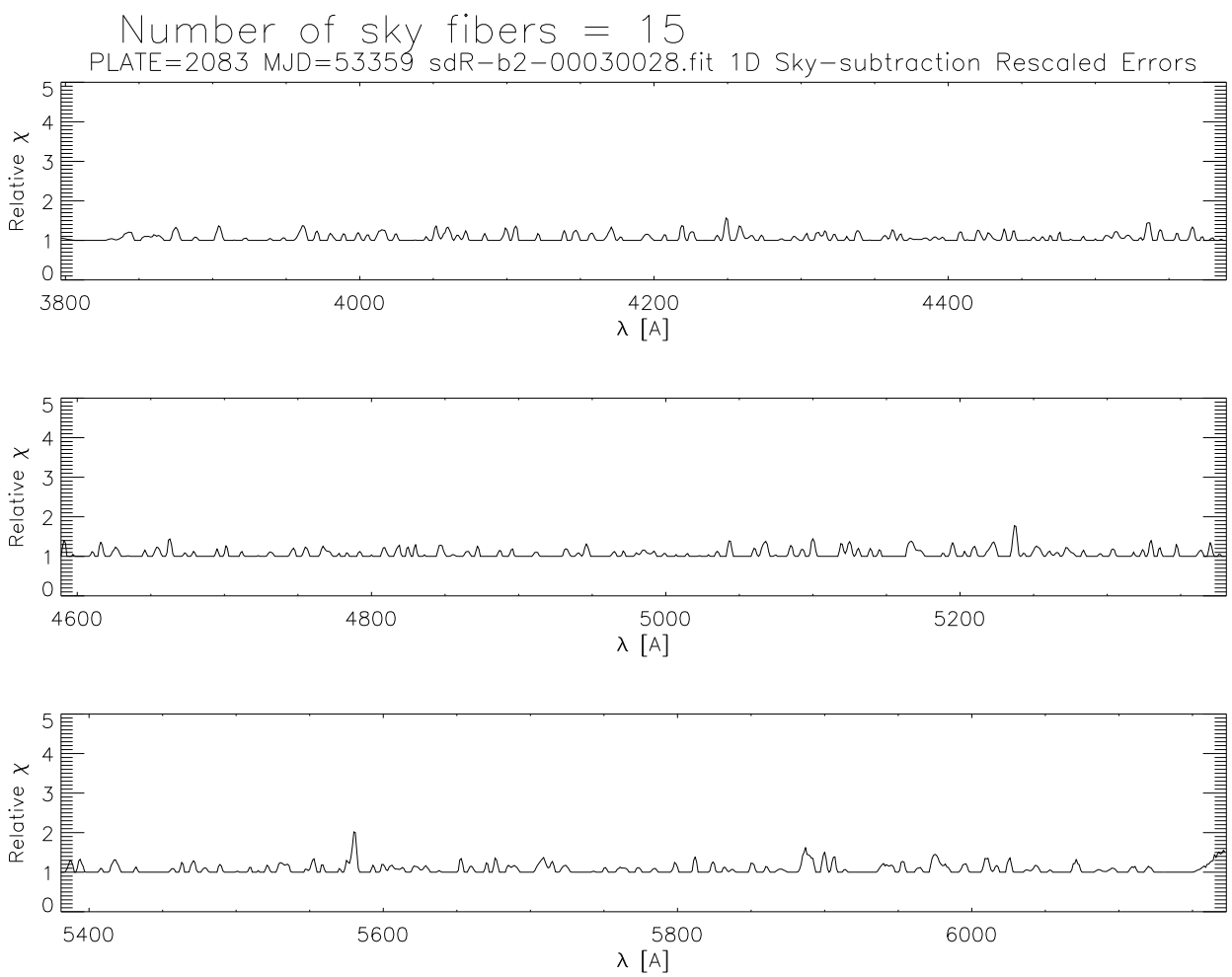

PLATE=2083 MJD=53359 Smooth superflat for sdR-b2-00030028.fit
1.5
1.0
0.5
0.0
1.01
1.00
0.99
0.98
0.97
4000
4500
5000
5500
6000
Wavelength (Å)

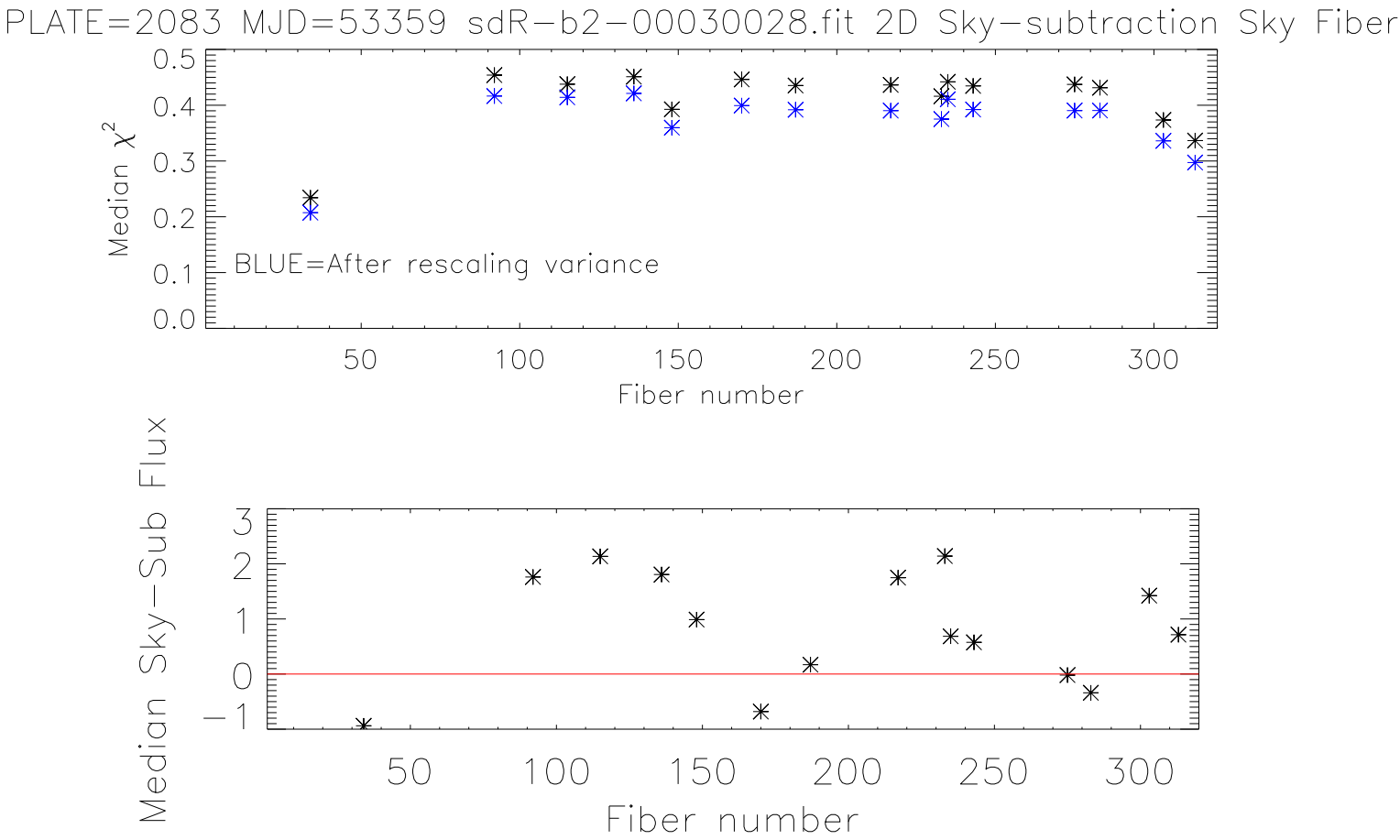
es= −0.0000

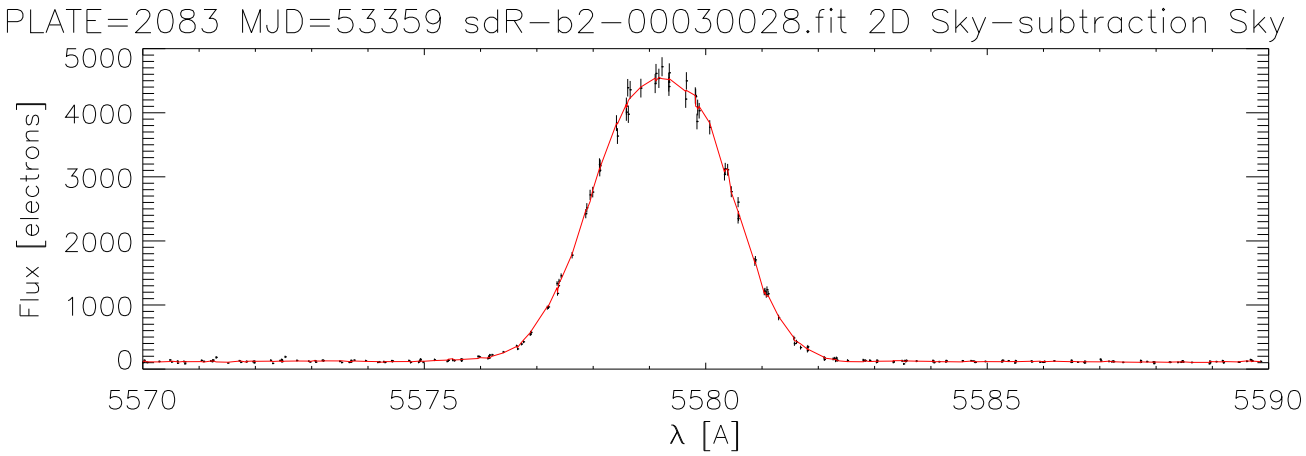

PLATE=2083 MJD=53359 sdR-b2-00030028.fit 1D Sky-subtraction Sky Fiber
Median $\chi^2$
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

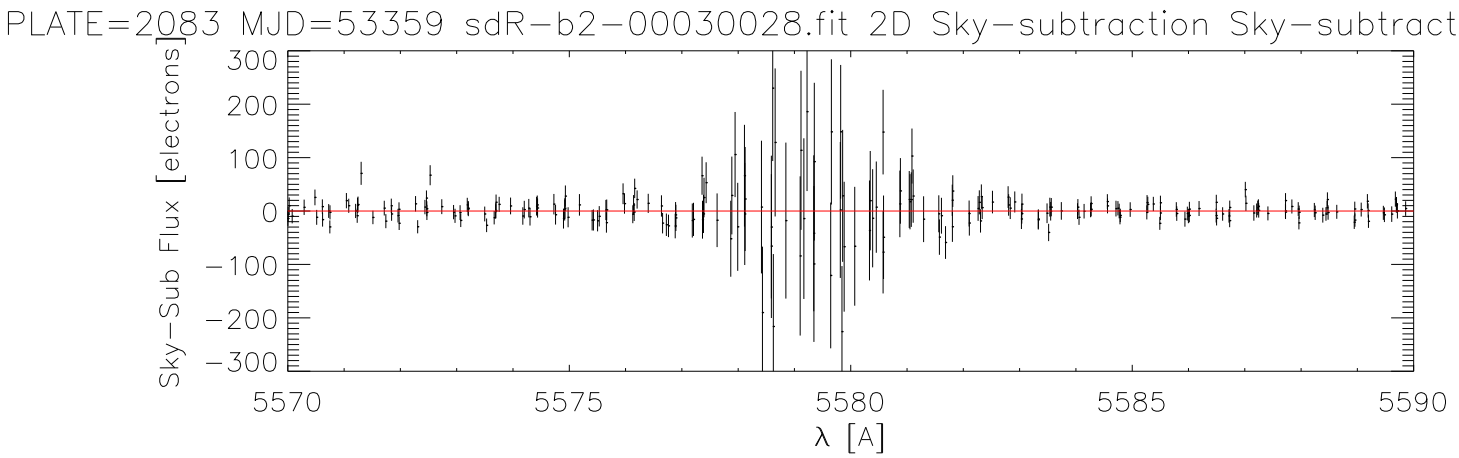

PLATE=2083 MJD=53359 sdR-b2-00030028.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

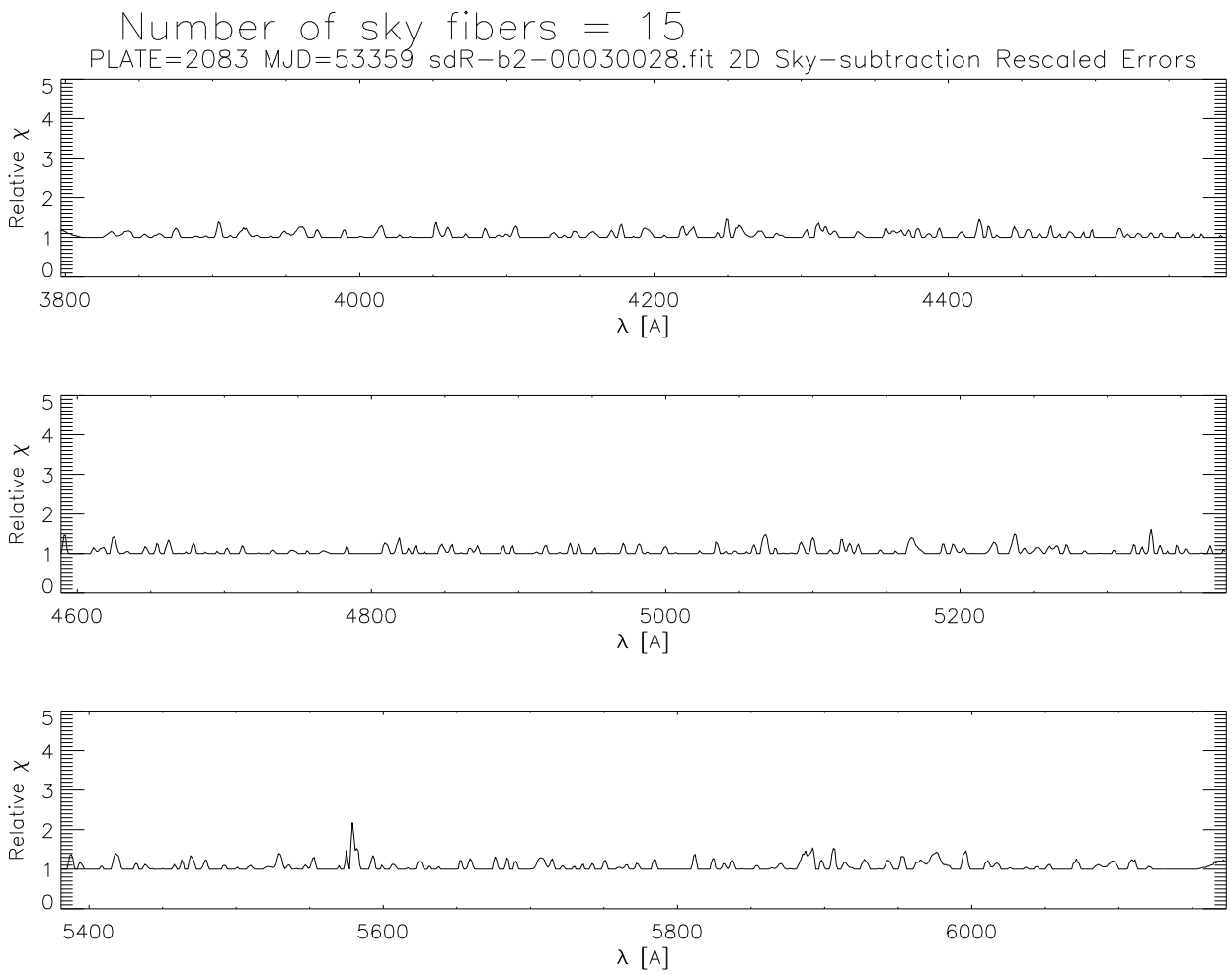

PLATE=2083 MJD=53359 sdR-b2-00030028.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
-300
5570
5575
5580
5585
5590
λ [A]

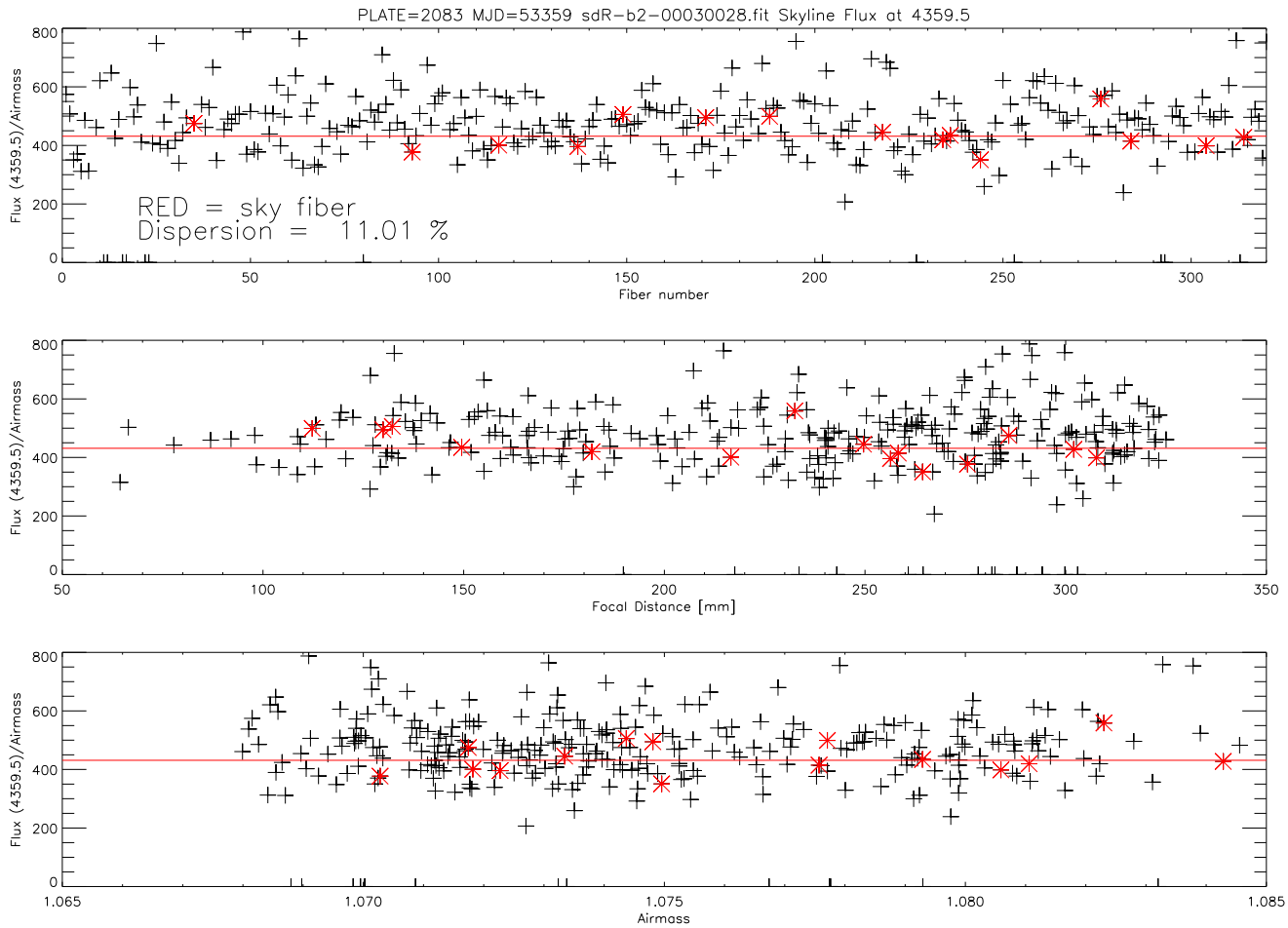

Number of sky fibers = 15
PLATE=2083 MJD=53359 sdR-b2-00030028.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

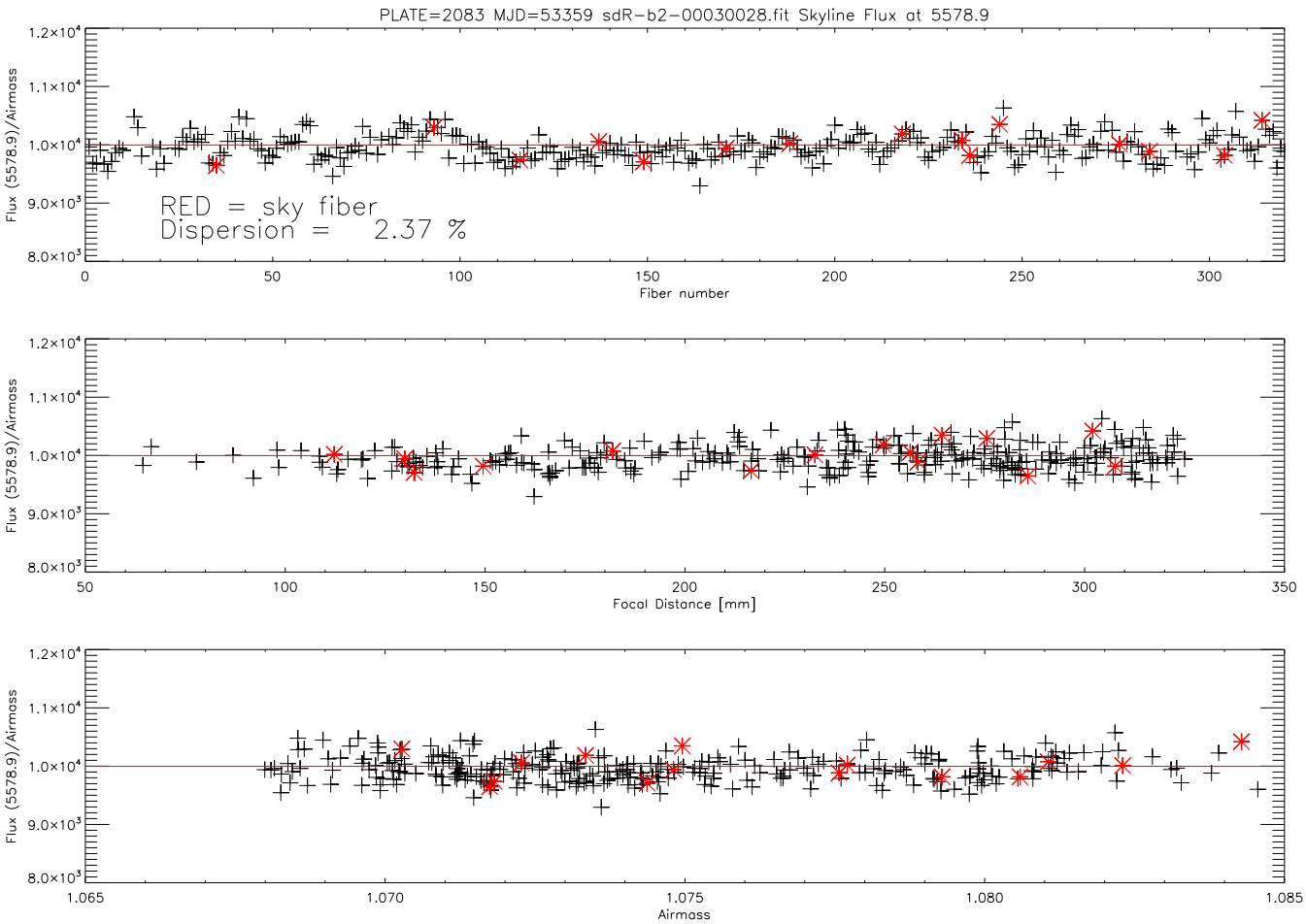

PLATE=2083 MJD=53359 sdR-b2-00030028.fit 2D Sky-subtraction Sky Fiber
Median $\chi^2$
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

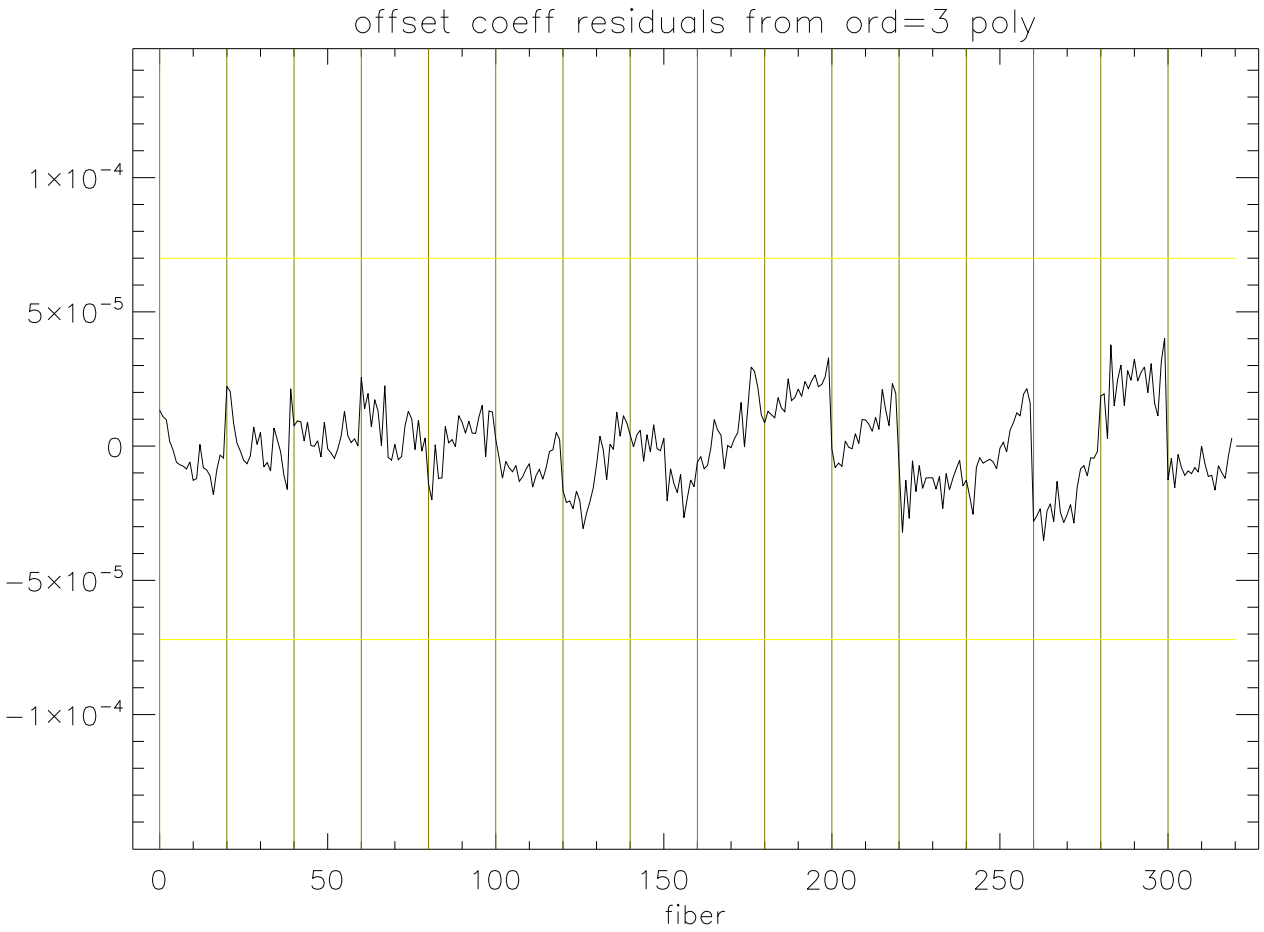

PLATE=2083 MJD=53359 sdR-b2-00030028.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

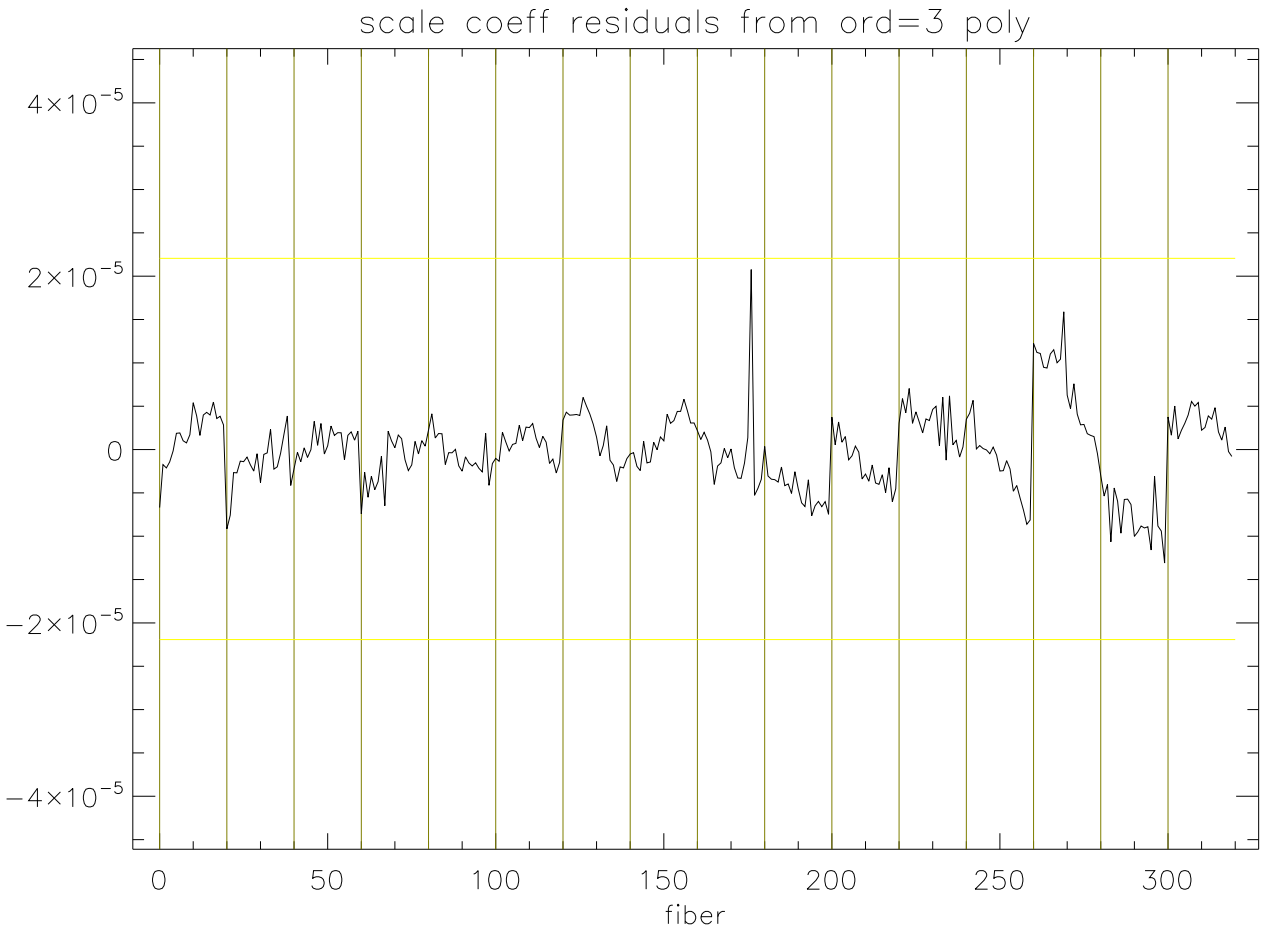

PLATE=2083 MJD=53359 sdR-b2-00030028.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
-300
5570
5575
5580
5585
5590
λ [A]

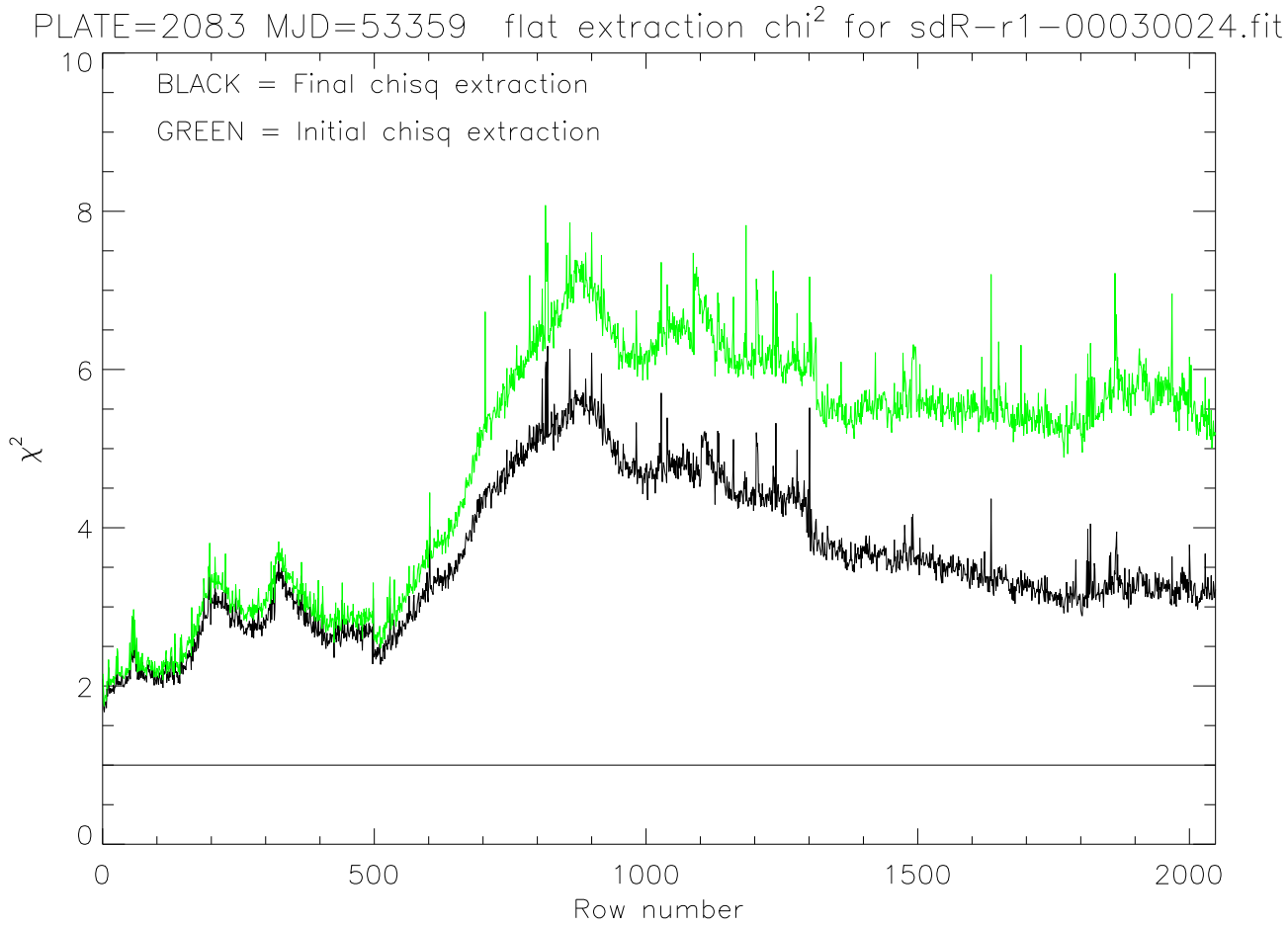

Number of sky fibers = 15
PLATE=2083 MJD=53359 sdR-b2-00030028.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

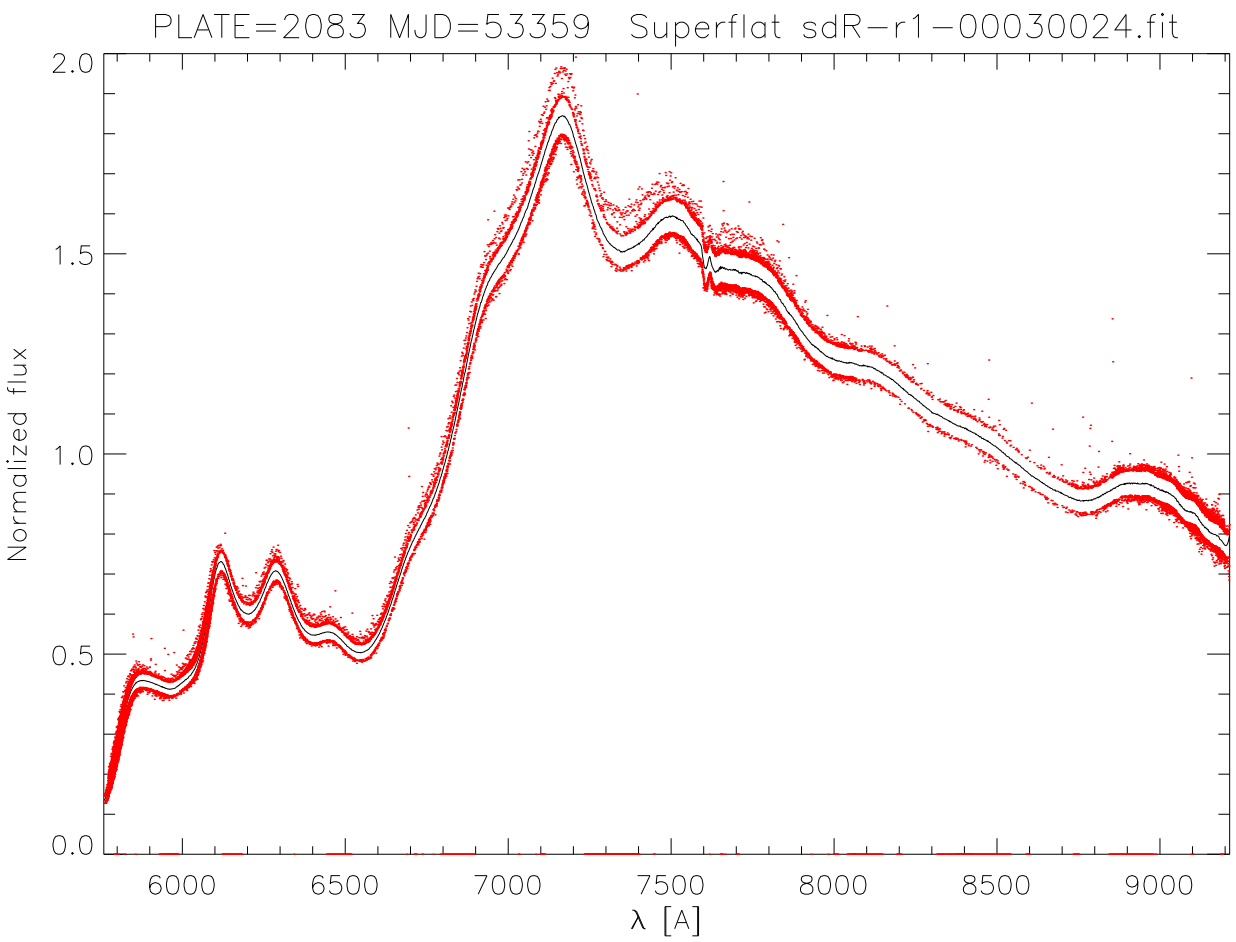

PLATE=2083 MJD=53359 sdR-b2-00030028.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 11.01 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

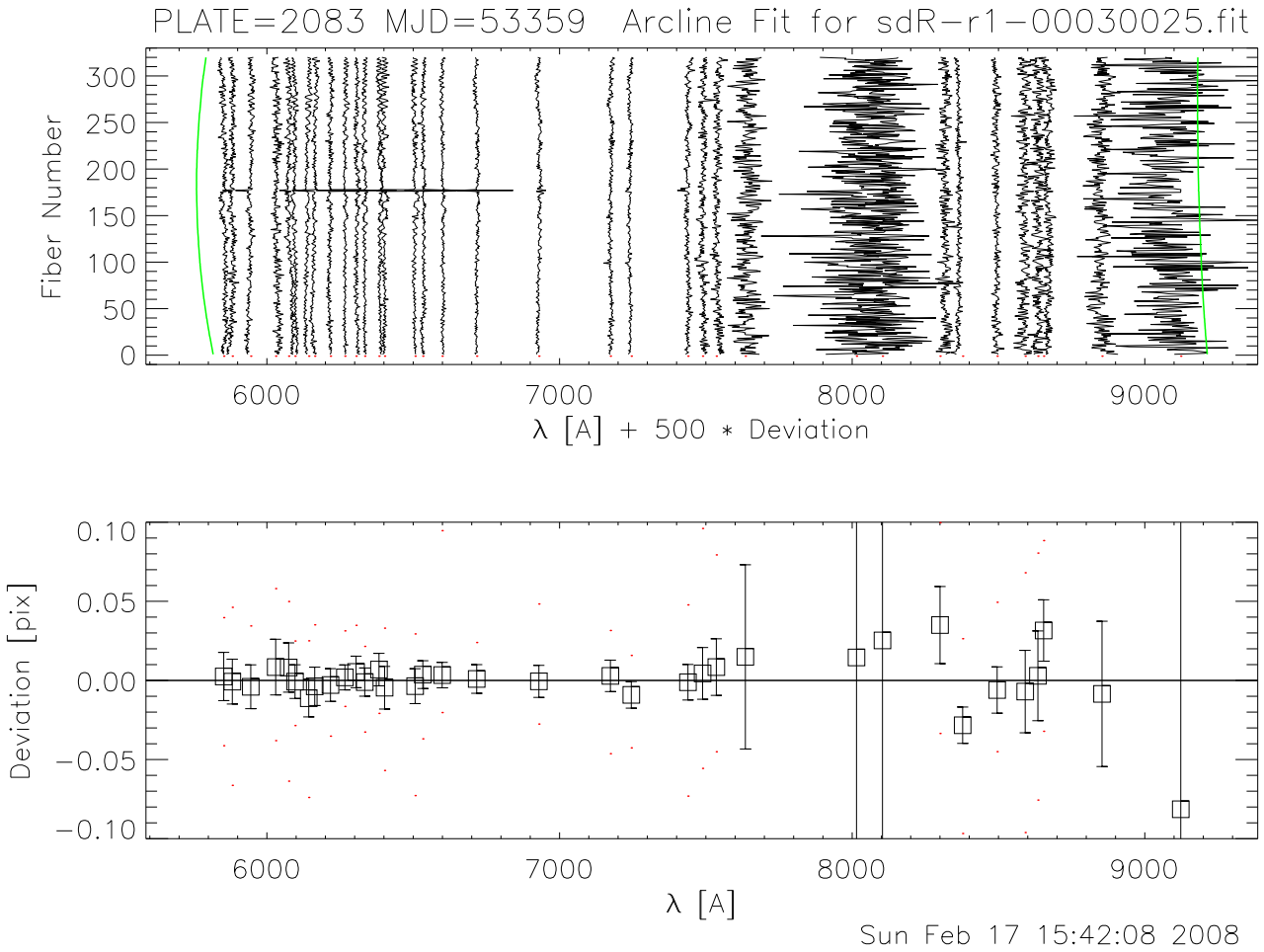

PLATE=2083 MJD=53359 sdR-b2-00030028.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 2.37 %
Fiber number
Flux (5578.9)/Airmass
Focal Distance [mm]
Flux (5578.9)/Airmass
Airmass

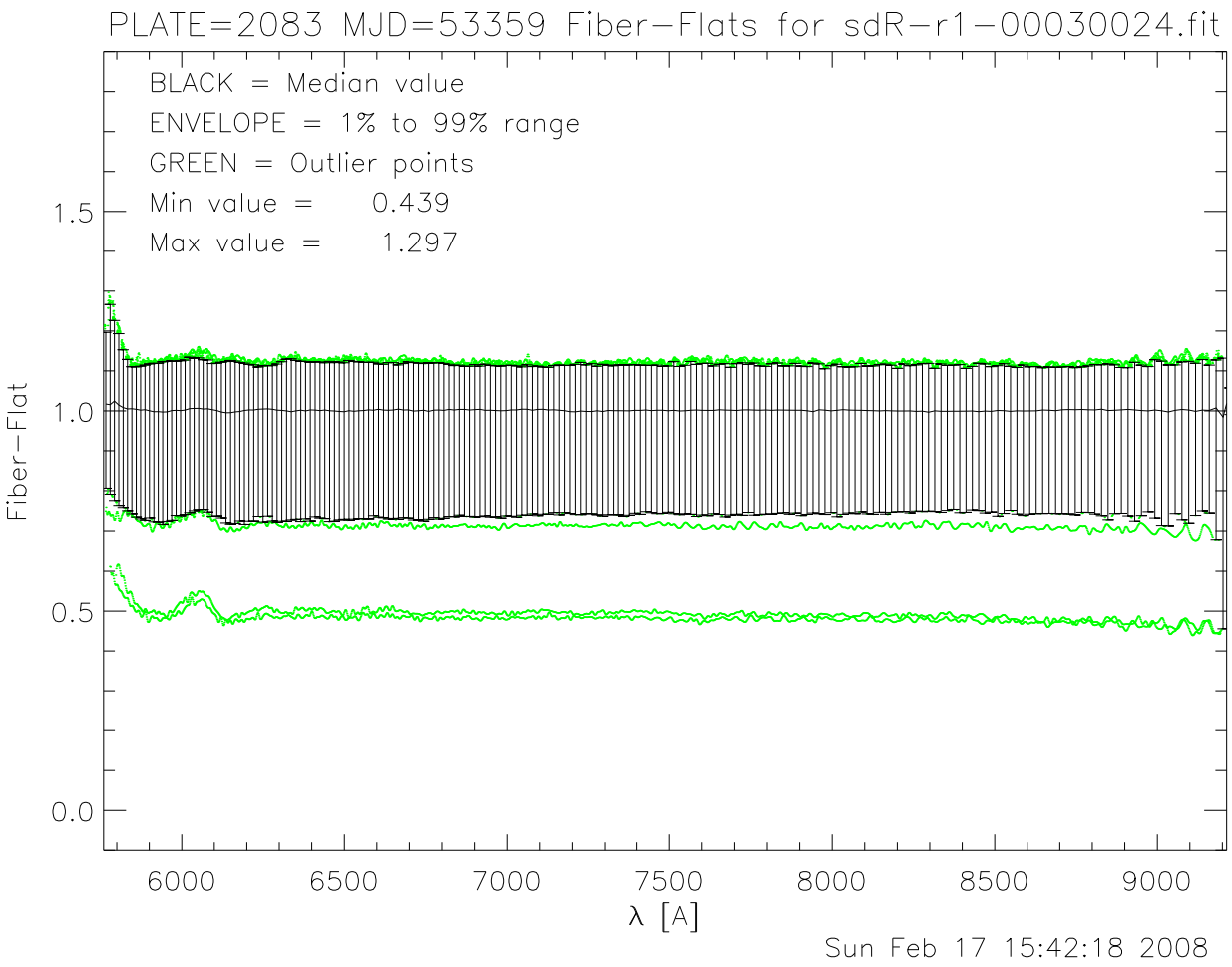

offset coeff residuals from ord=3 poly
1×10^-4
5×10^-5
0
−5×10^-5
−1×10^-4
0
50
100
150
200
250
300
fiber

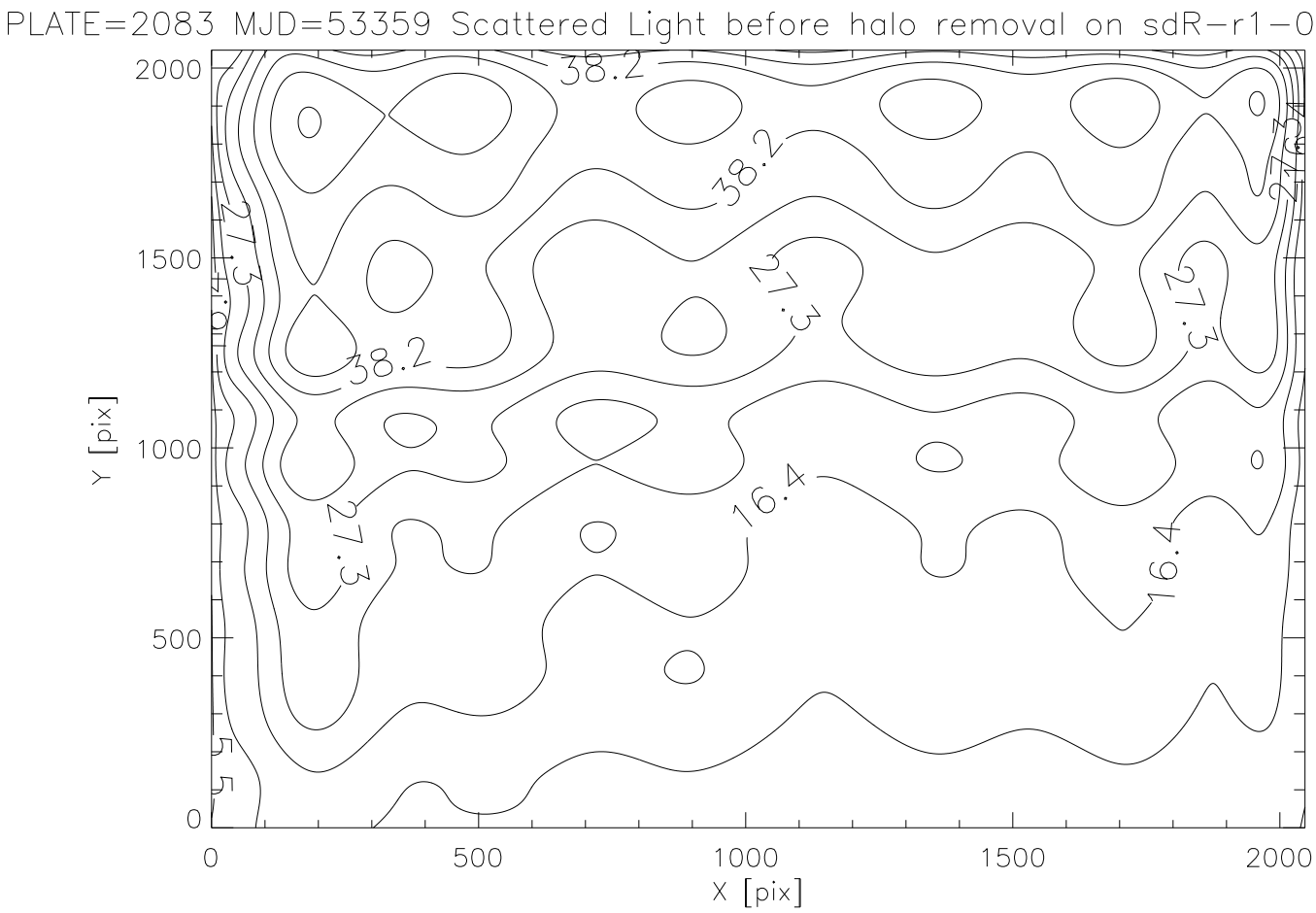

scale coeff residuals from ord=3 poly
4×10⁻⁵
2×10⁻⁵
0
−2×10⁻⁵
−4×10⁻⁵
0
50
100
150
200
250
300
fiber

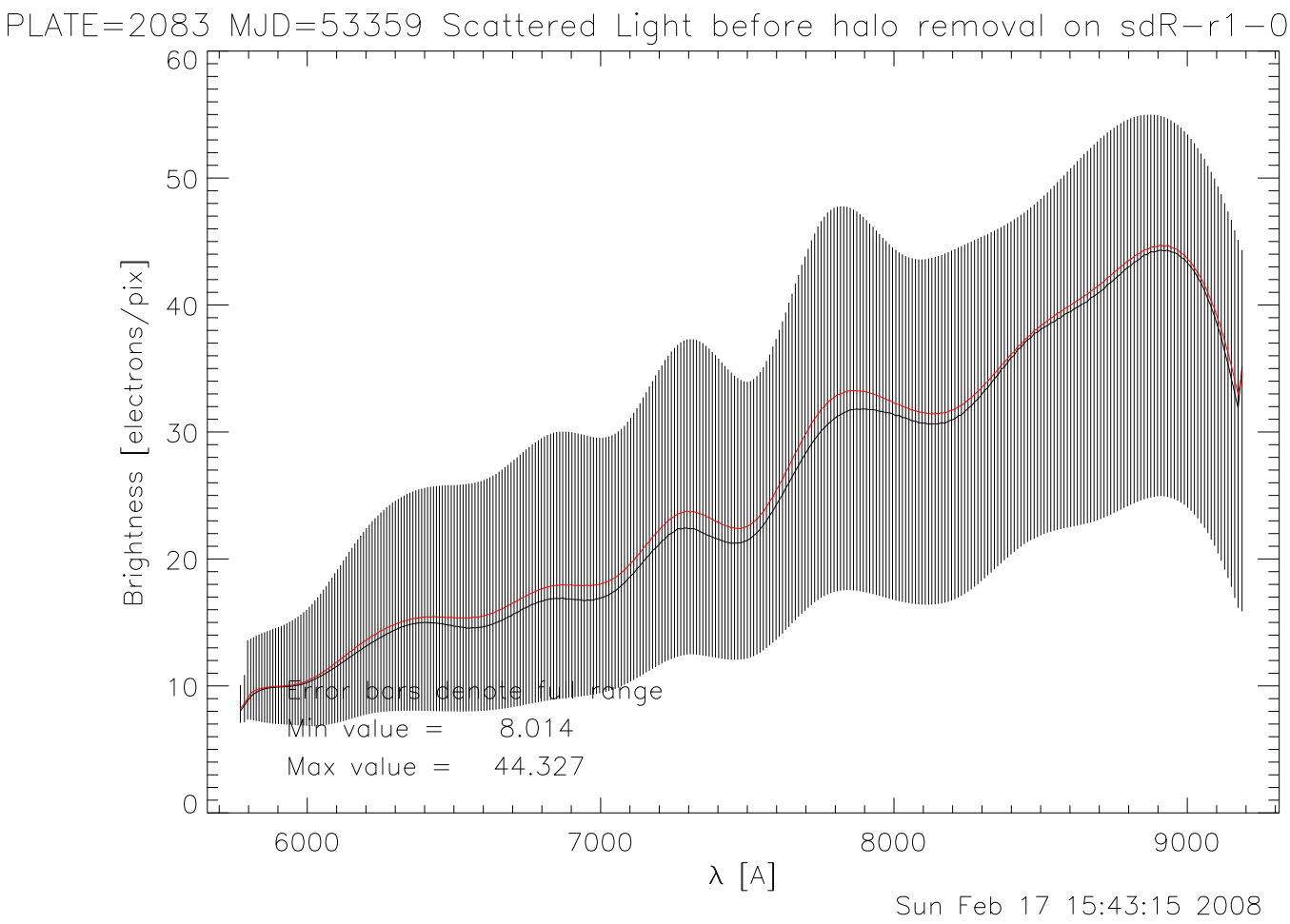

PLATE=2083 MJD=53359 flat extraction chi$^2$ for sdR−r1−00030024.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
$\chi^2$
Row number
0
2
4
6
8
10
0
500
1000
1500
2000

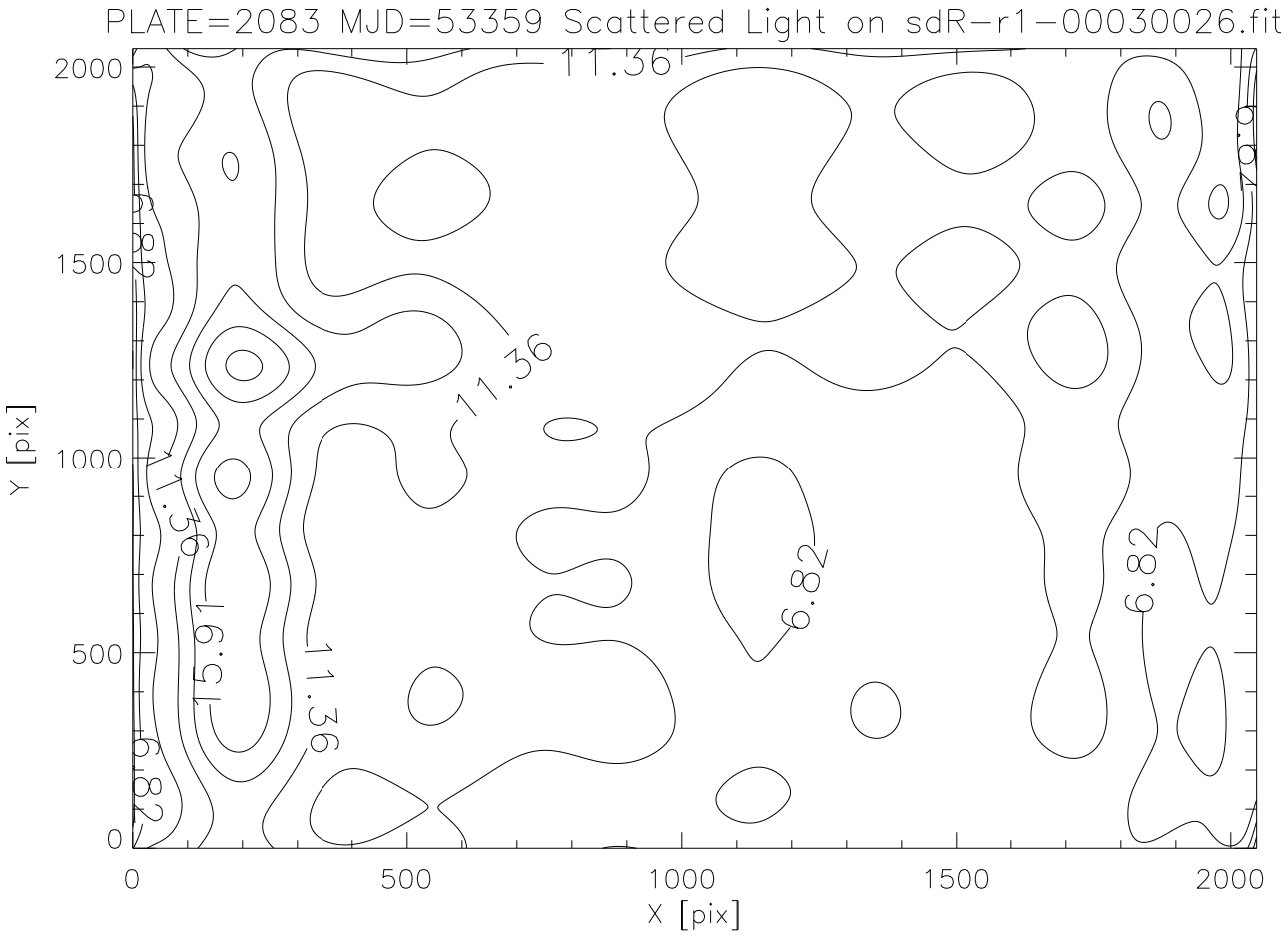

PLATE=2083 MJD=53359 Superflat sdR-r1-00030024.fit
Normalized flux
2.0
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

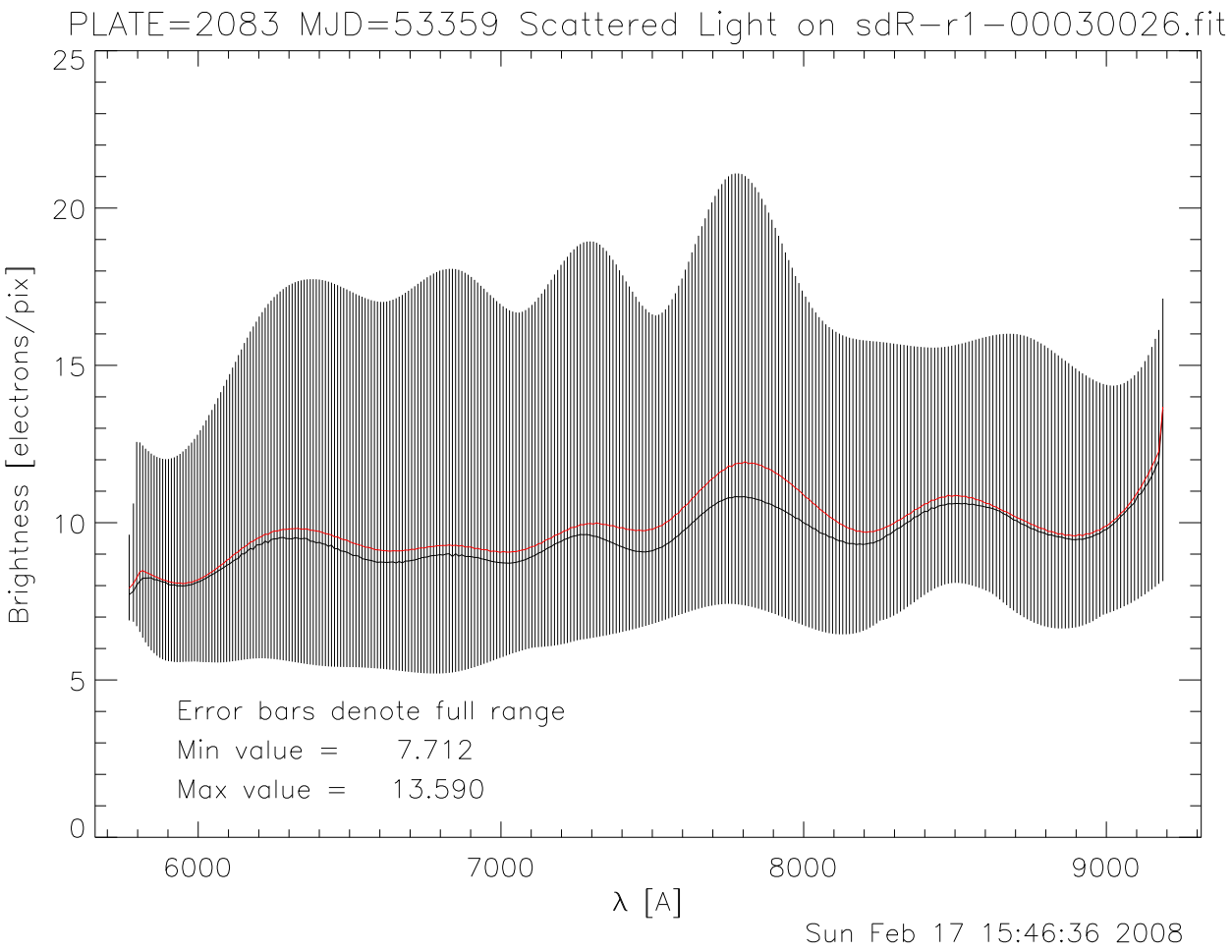

PLATE=2083 MJD=53359 Arcline Fit for sdR-r1-00030025.fit
Fiber Number
300
250
200
150
100
50
0
6000
7000
8000
9000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
6000
7000
8000
9000
λ [A]
Sun Feb 17 15:42:08 2008

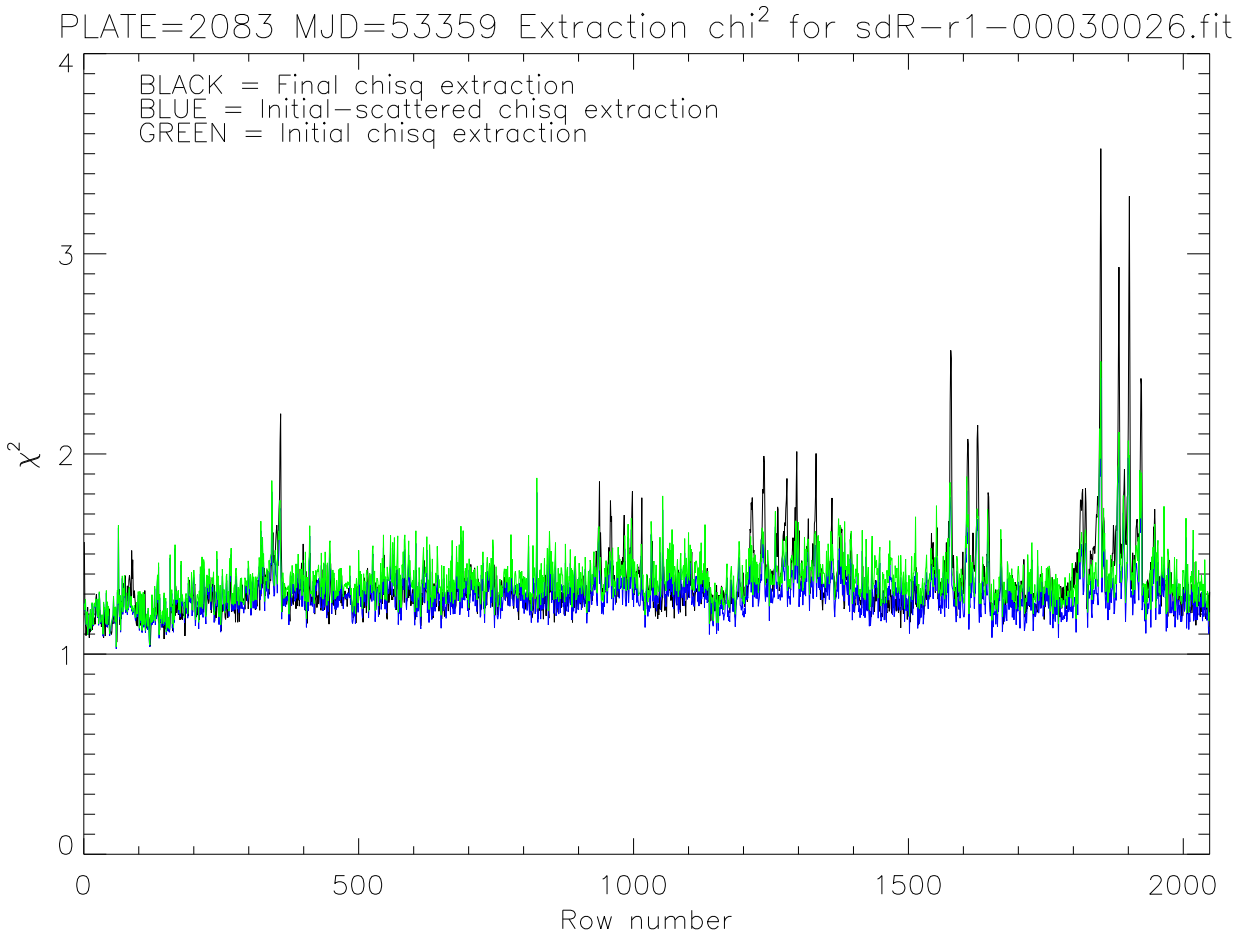

PLATE=2083 MJD=53359 Fiber−Flats for sdR−r1−00030024.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.439
Max value = 1.297
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sun Feb 17 15:42:18 2008

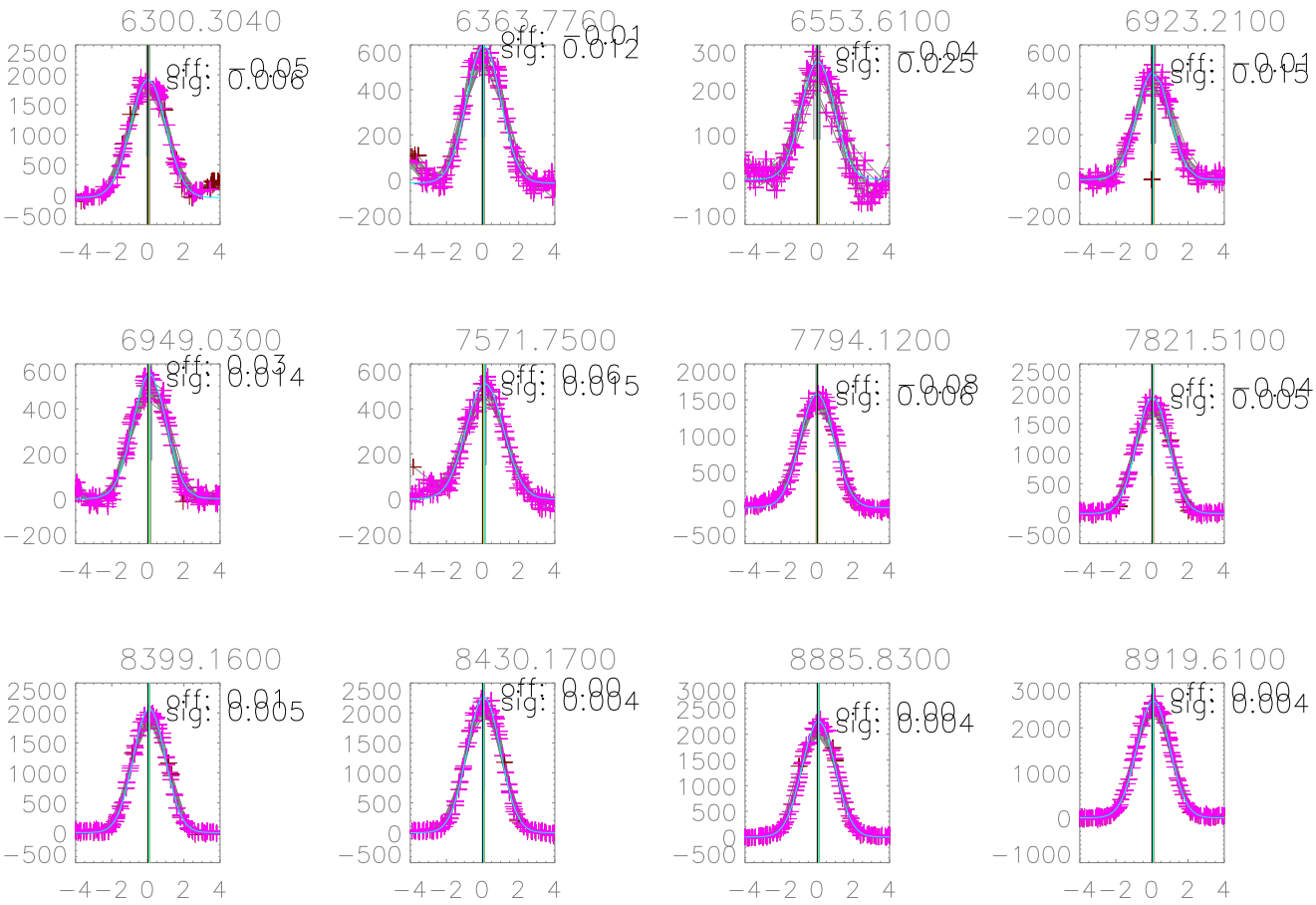

PLATE=2083 MJD=53359 Scattered Light before halo removal on sdR-r1-00030026.fi
38.2
38.2
38.2
27.3
27.3
27.3
27.3
16.4
16.4
0
0
0
0
5.5
Y [pix]
X [pix]
0
500
1000
1500
2000

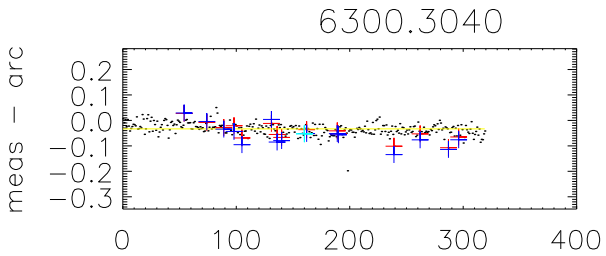

PLATE=2083 MJD=53359 Scattered Light before halo removal on sdR-r1-00030026.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 8.014
Max value = 44.327
Sun Feb 17 15:43:15 2008

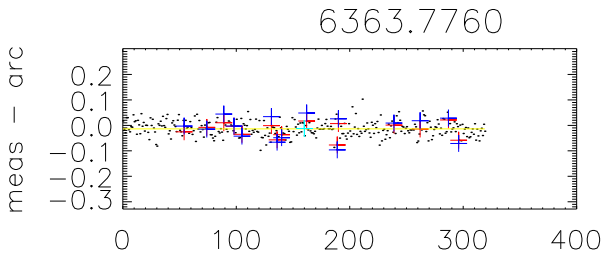

PLATE=2083 MJD=53359 Scattered Light on sdR-r1-00030026.fit
11.36
6.82
0
15.91
Y [pix]
X [pix]
0
500
1000
1500
2000

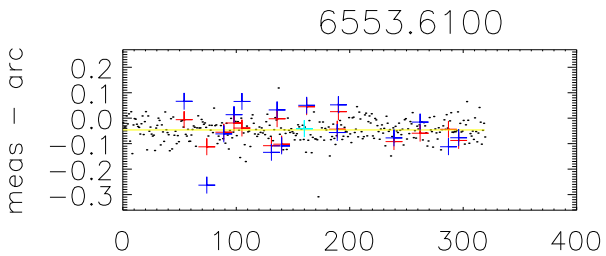

PLATE=2083 MJD=53359 Scattered Light on sdR-r1-00030026.fit
Brightness [electrons/pix]
25
20
15
10
5
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 7.712
Max value = 13.590
Sun Feb 17 15:46:36 2008

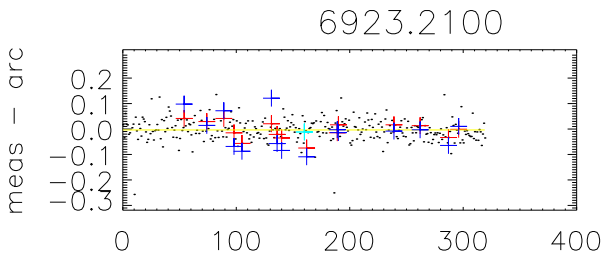

PLATE=2083 MJD=53359 Extraction chi$^2$ for sdR−r1−00030026.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
$\chi^2$
0
1
2
3
4
0
500
1000
1500
2000
Row number

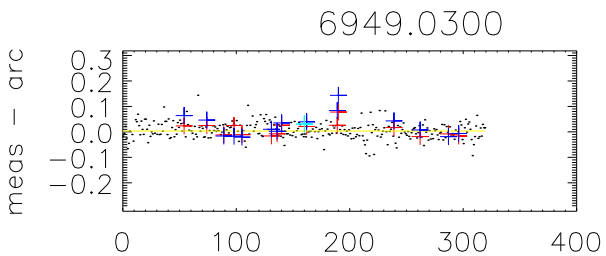

6300.3040
off: −0.05
sig: 0.006
6363.7760
off: −0.01
sig: 0.012
6553.6100
off: −0.04
sig: 0.025
6923.2100
off: −0.01
sig: 0.015
6949.0300
off: 0.03
sig: 0.014
7571.7500
off: 0.06
sig: 0.015
7794.1200
off: −0.08
sig: 0.006
7821.5100
off: −0.04
sig: 0.005
8399.1600
off: 0.01
sig: 0.005
8430.1700
off: 0.00
sig: 0.004
8885.8300
off: 0.00
sig: 0.004
8919.6100
off: 0.00
sig: 0.004

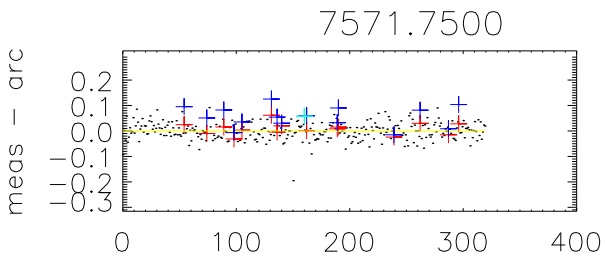

6300.3040
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

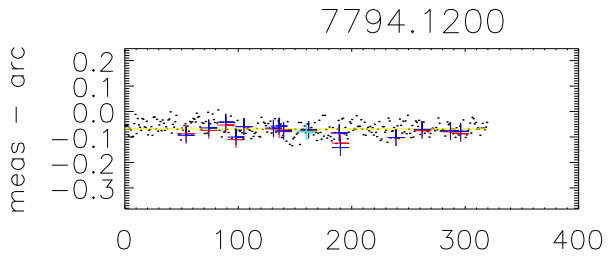

6363.7760
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

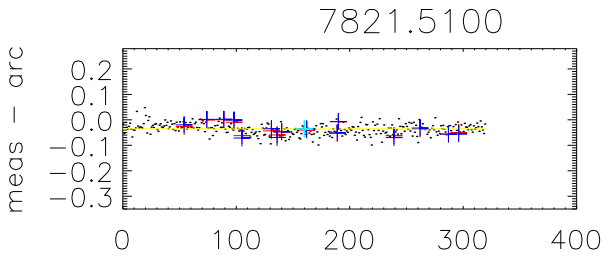

6553.6100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

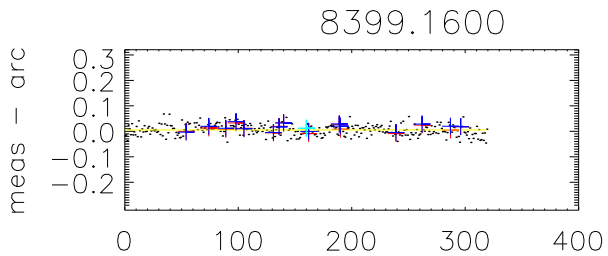

6923.2100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

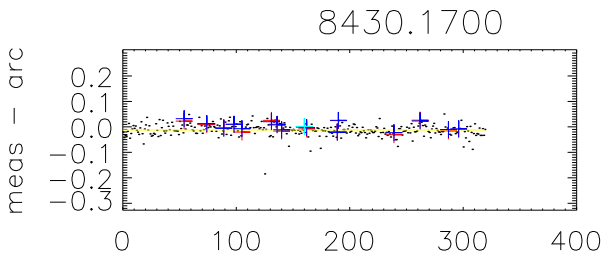

6949.0300
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

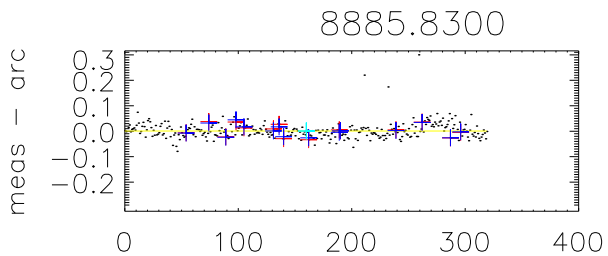

7571.7500
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

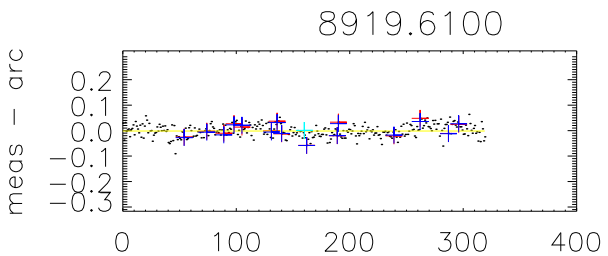

7794.1200
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

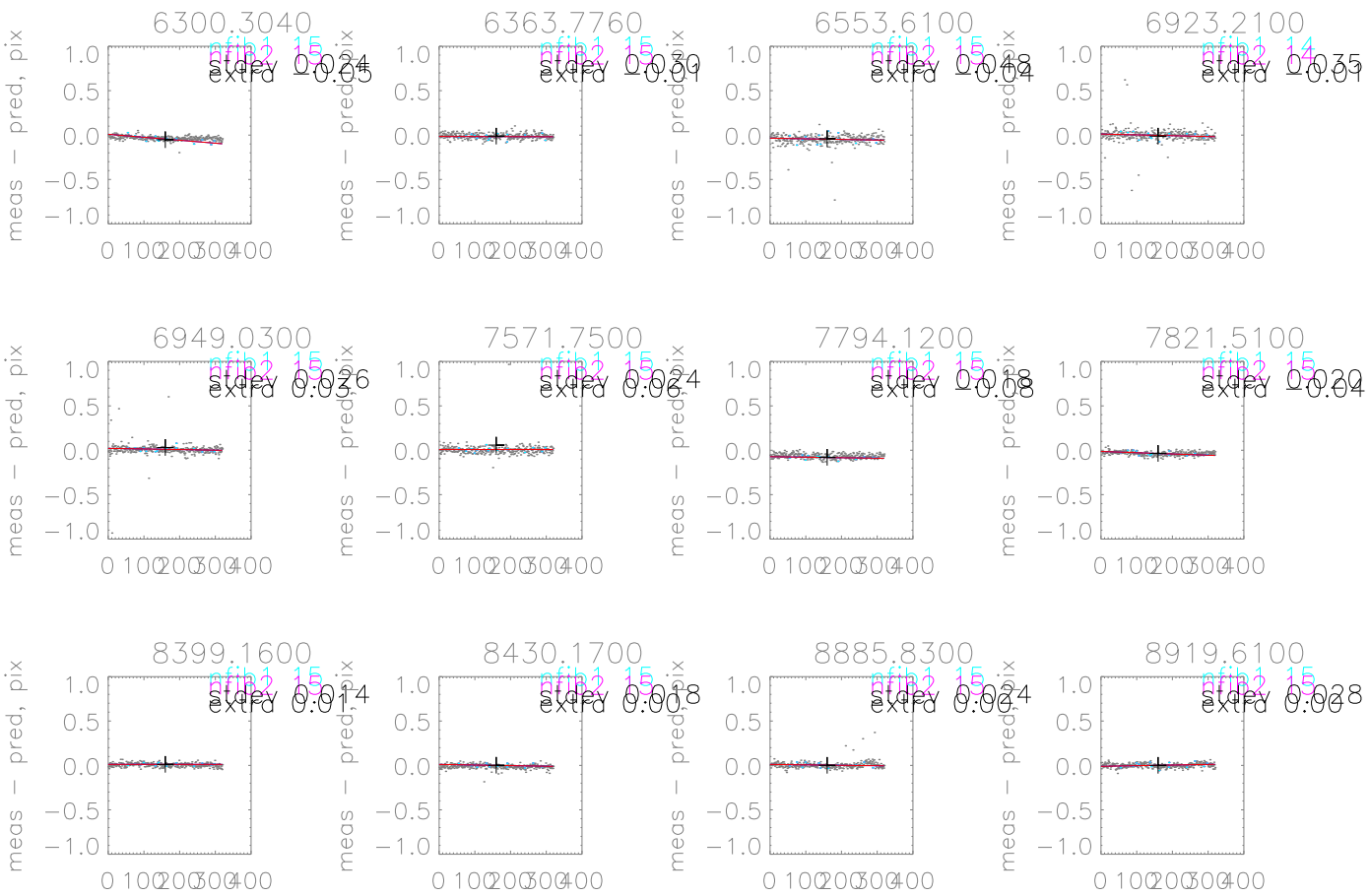

7821.5100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

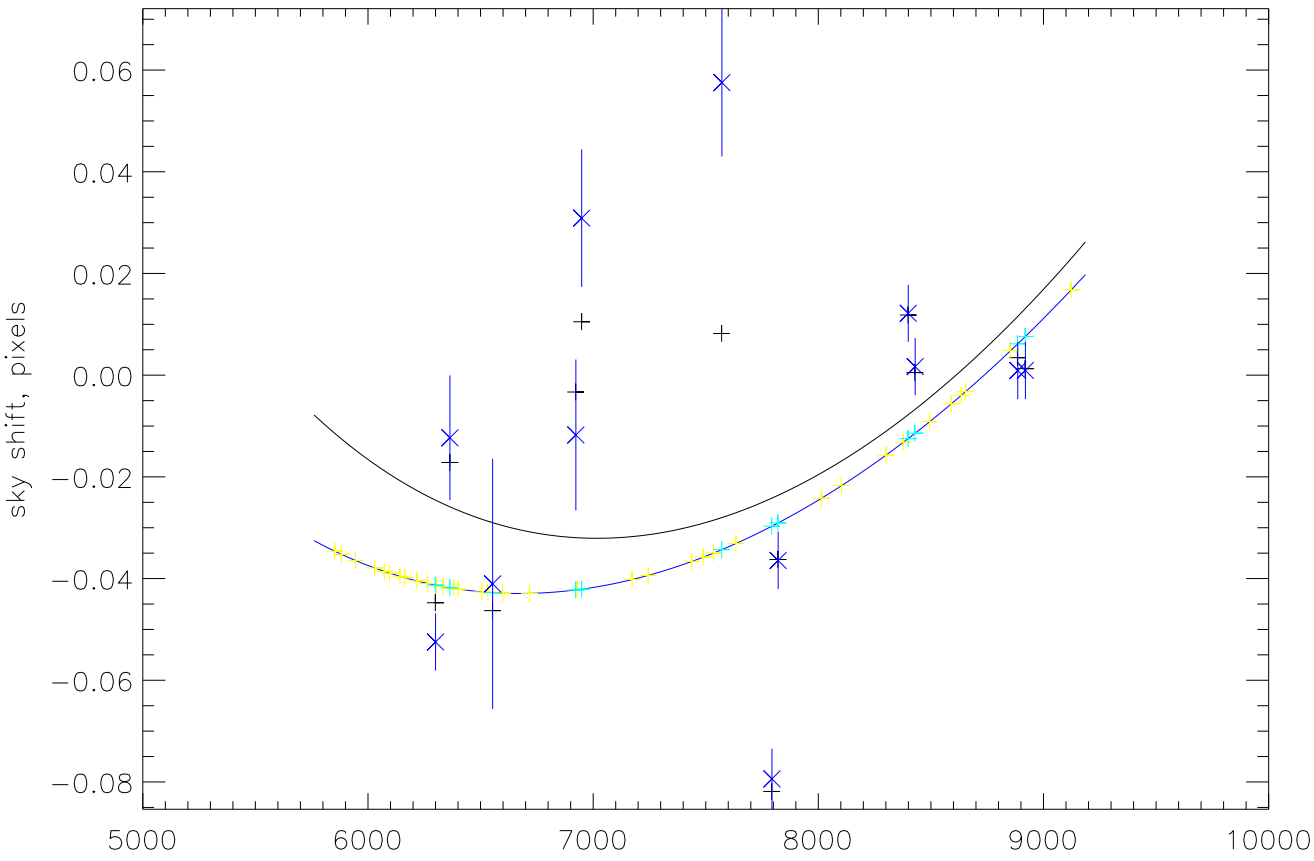

8399.1600
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

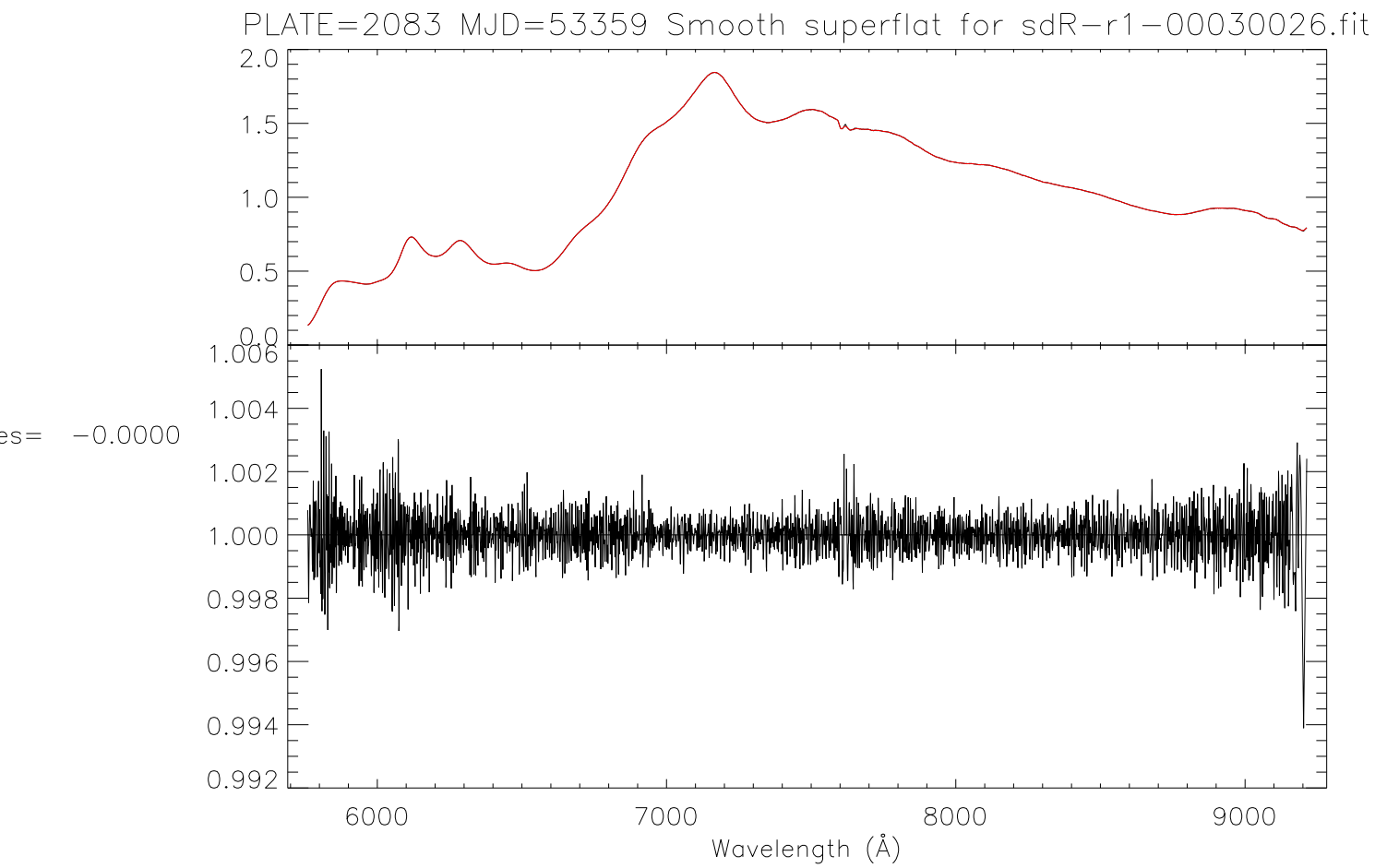

8430.1700
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400


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

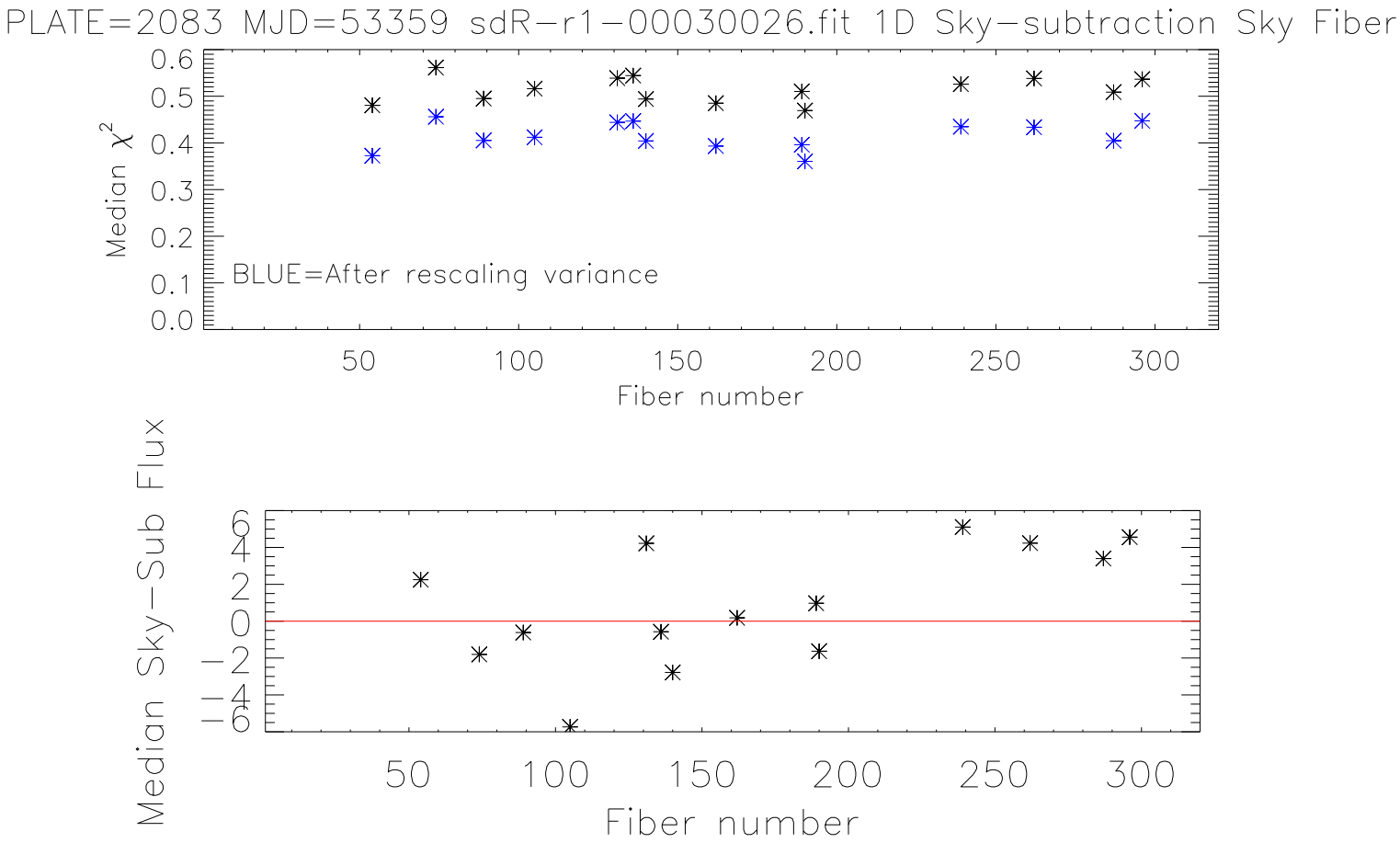

8919.6100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

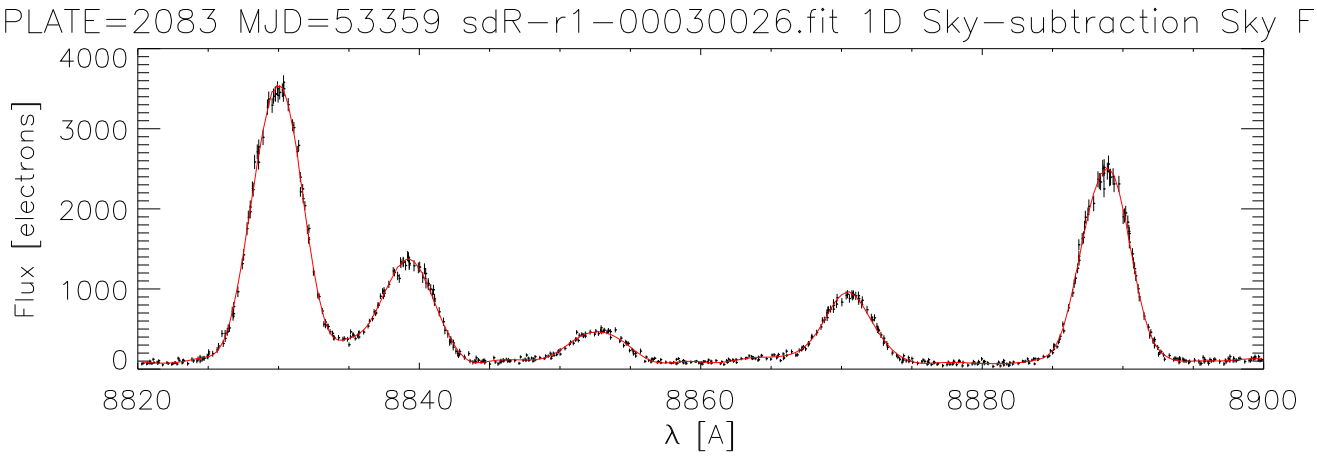

6300.3040
stdev 0.024
extra −0.05
6363.7760
stdev 0.030
extra −0.01
6553.6100
stdev 0.048
extra −0.04
6923.2100
stdev 0.035
extra −0.01
6949.0300
stdev 0.026
extra 0.03
7571.7500
stdev 0.024
extra 0.06
7794.1200
stdev 0.018
extra −0.08
7821.5100
stdev 0.020
extra −0.04
8399.1600
stdev 0.014
extra 0.01
8430.1700
stdev 0.018
extra 0.00
8885.8300
stdev 0.024
extra 0.02
8919.6100
stdev 0.028
extra 0.00
meas − pred, pix

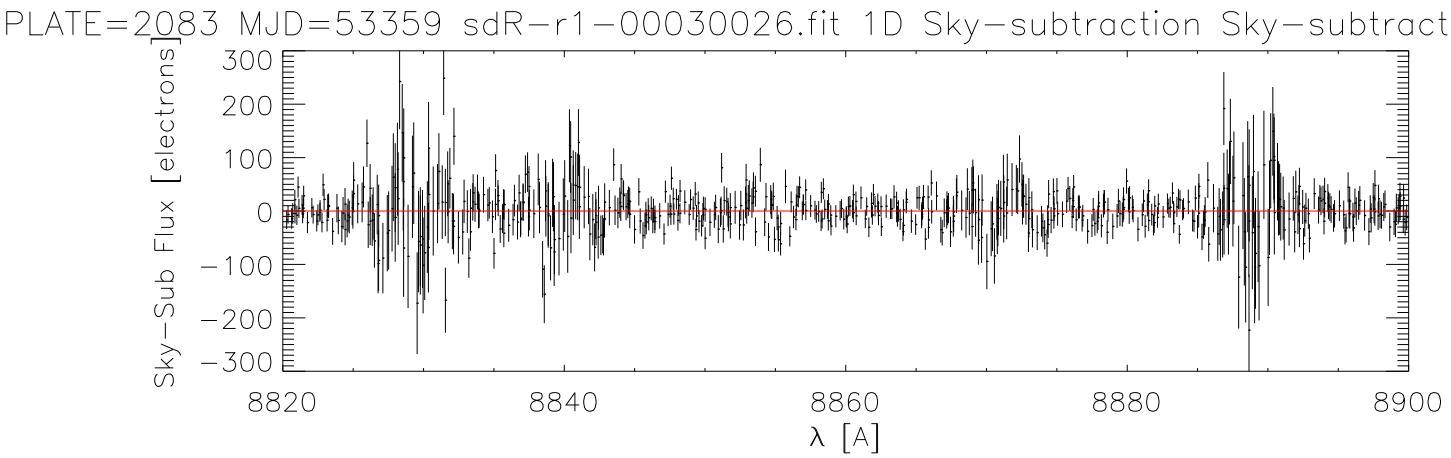

sky shift, pixels
0.06
0.04
0.02
0.00
−0.02
−0.04
−0.06
−0.08
5000
6000
7000
8000
9000
10000

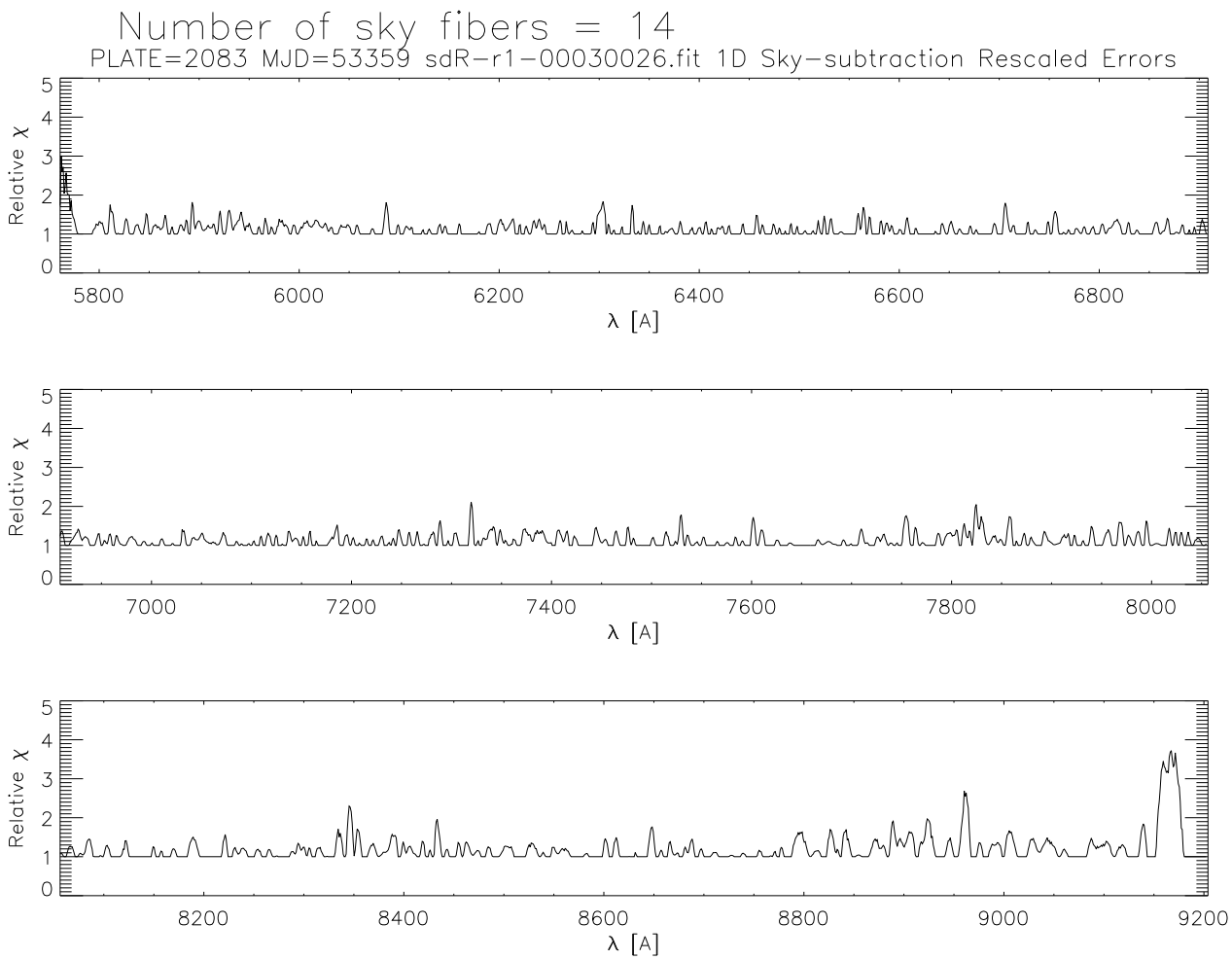

PLATE=2083 MJD=53359 Smooth superflat for sdR-r1-00030026.fit
2.0
1.5
1.0
0.5
0.0
1.006
1.004
1.002
1.000
0.998
0.996
0.994
0.992
6000
7000
8000
9000
Wavelength (Å)

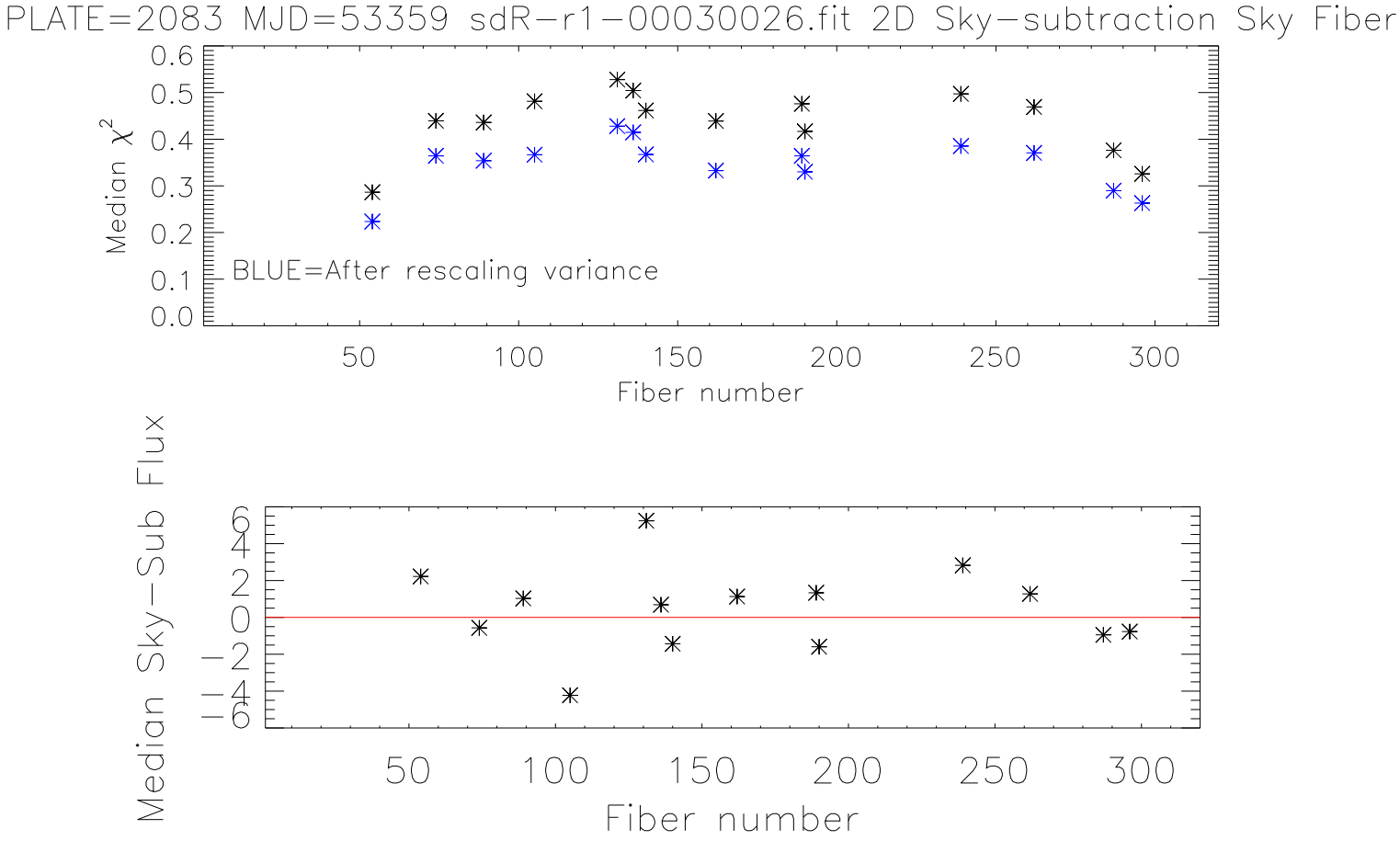
es= −0.0000

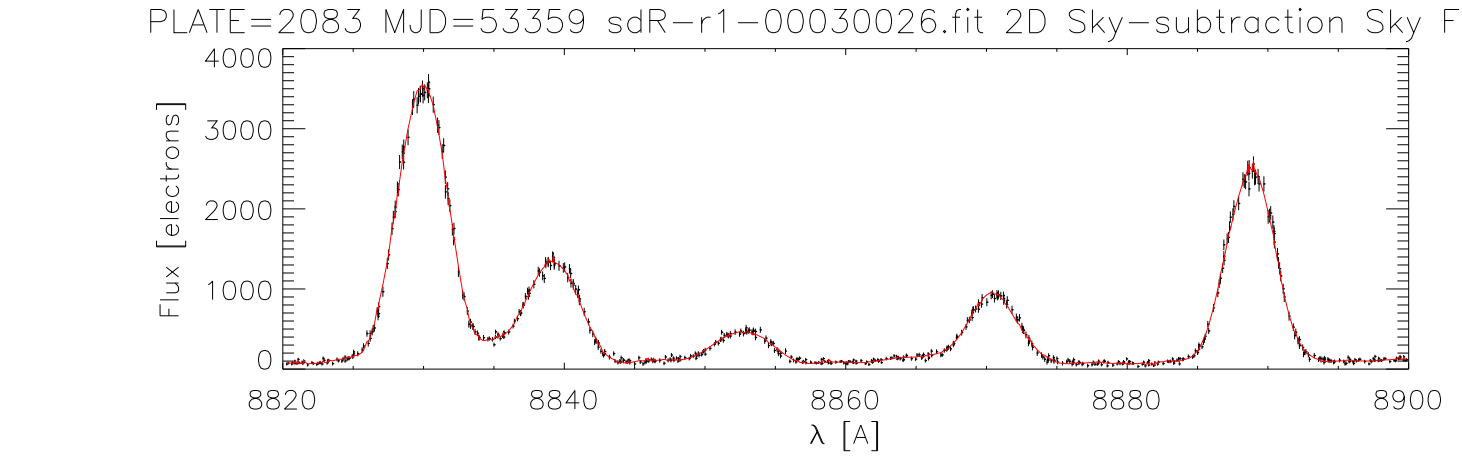

PLATE=2083 MJD=53359 sdR-r1-00030026.fit 1D Sky-subtraction Sky Fibers
Median $\chi^2$
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-6
-4
-2
0
2
4
6
50
100
150
200
250
300
Fiber number

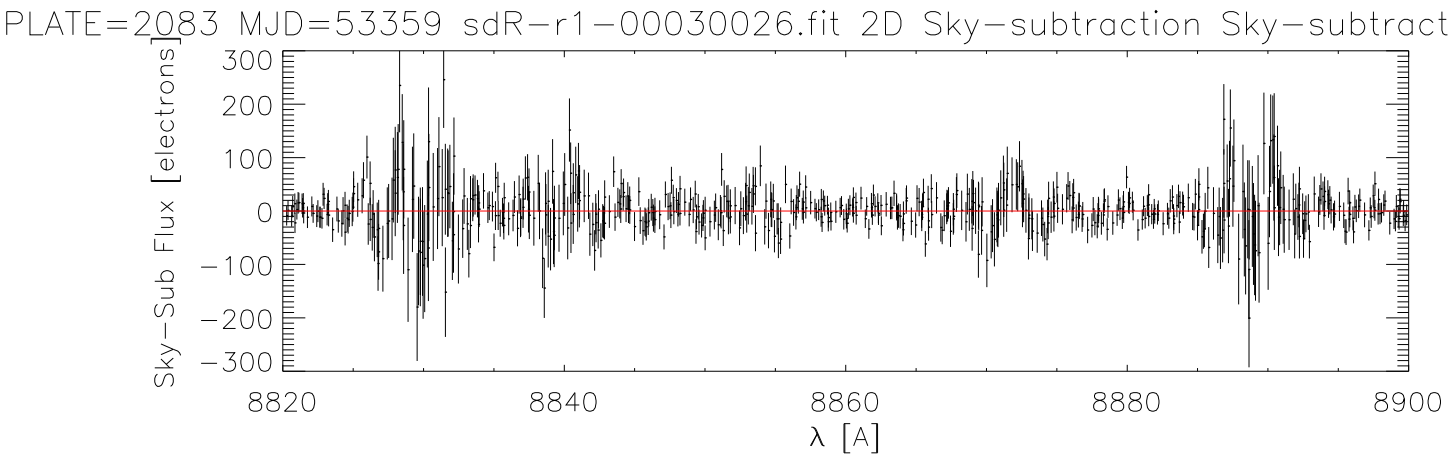

PLATE=2083 MJD=53359 sdR-r1-00030026.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

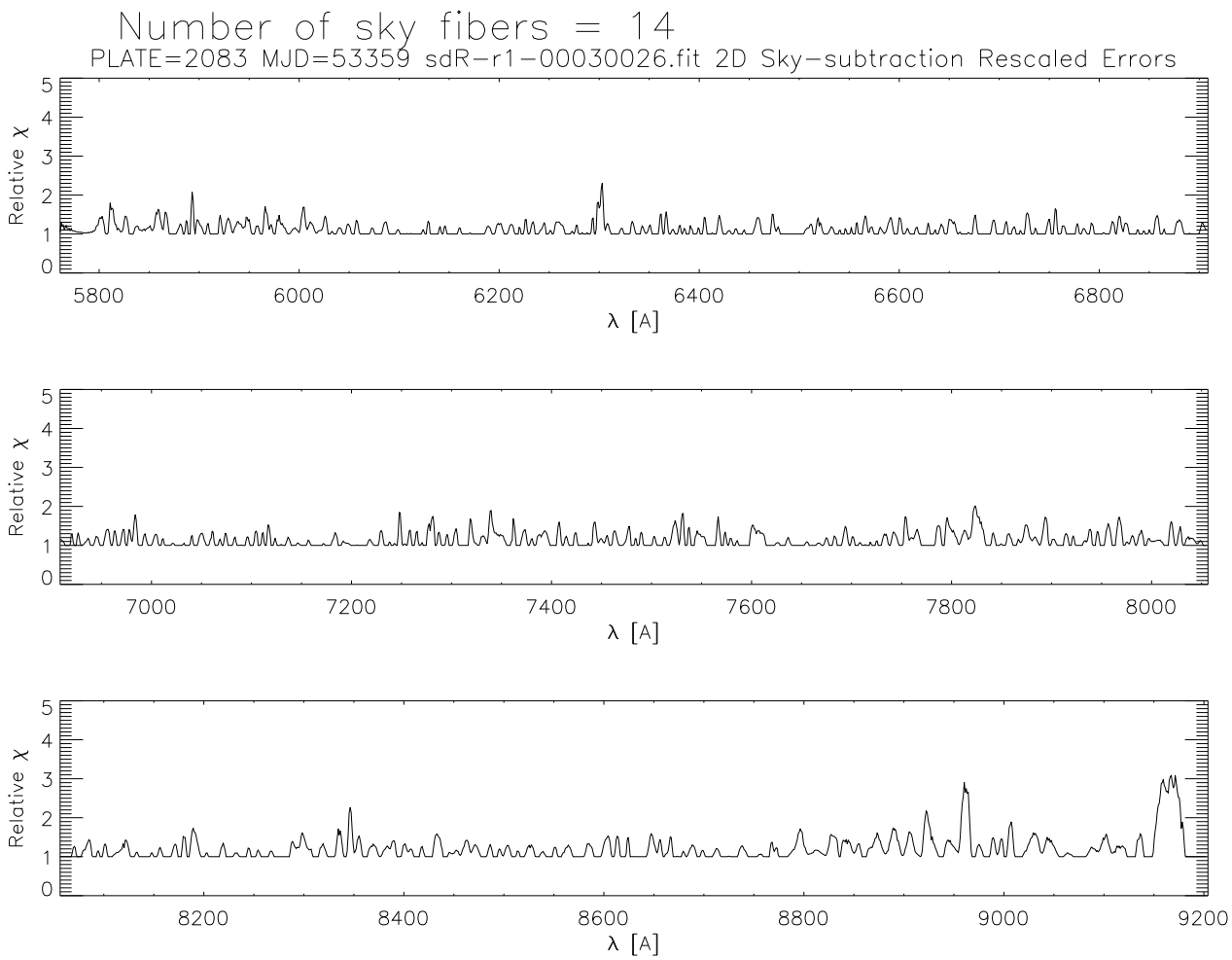

PLATE=2083 MJD=53359 sdR-r1-00030026.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
-300
8820
8840
8860
8880
8900
λ [A]

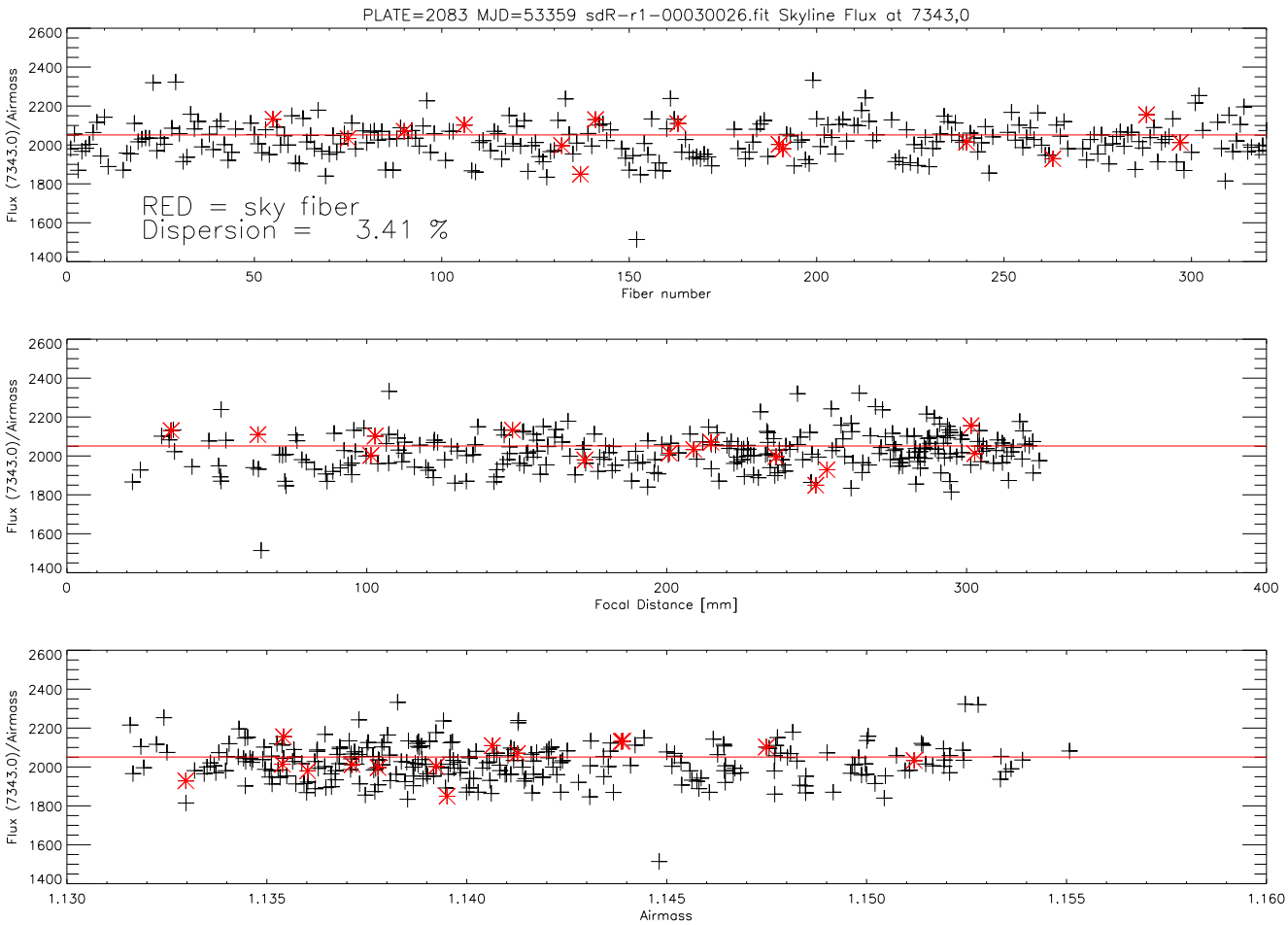

Number of sky fibers = 14
PLATE=2083 MJD=53359 sdR-r1-00030026.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

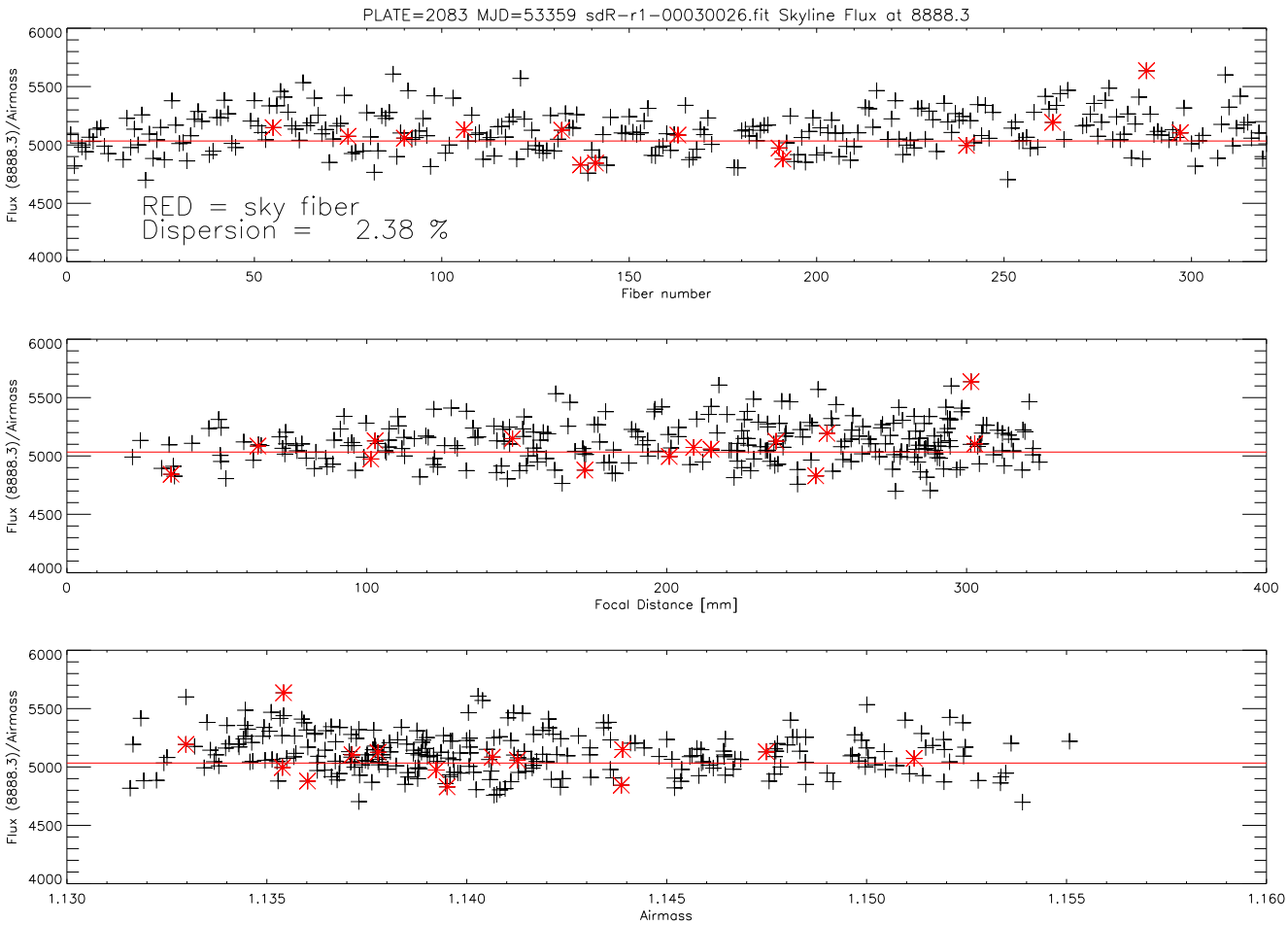

PLATE=2083 MJD=53359 sdR-r1-00030026.fit 2D Sky-subtraction Sky Fibers
Median $\chi^2$
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

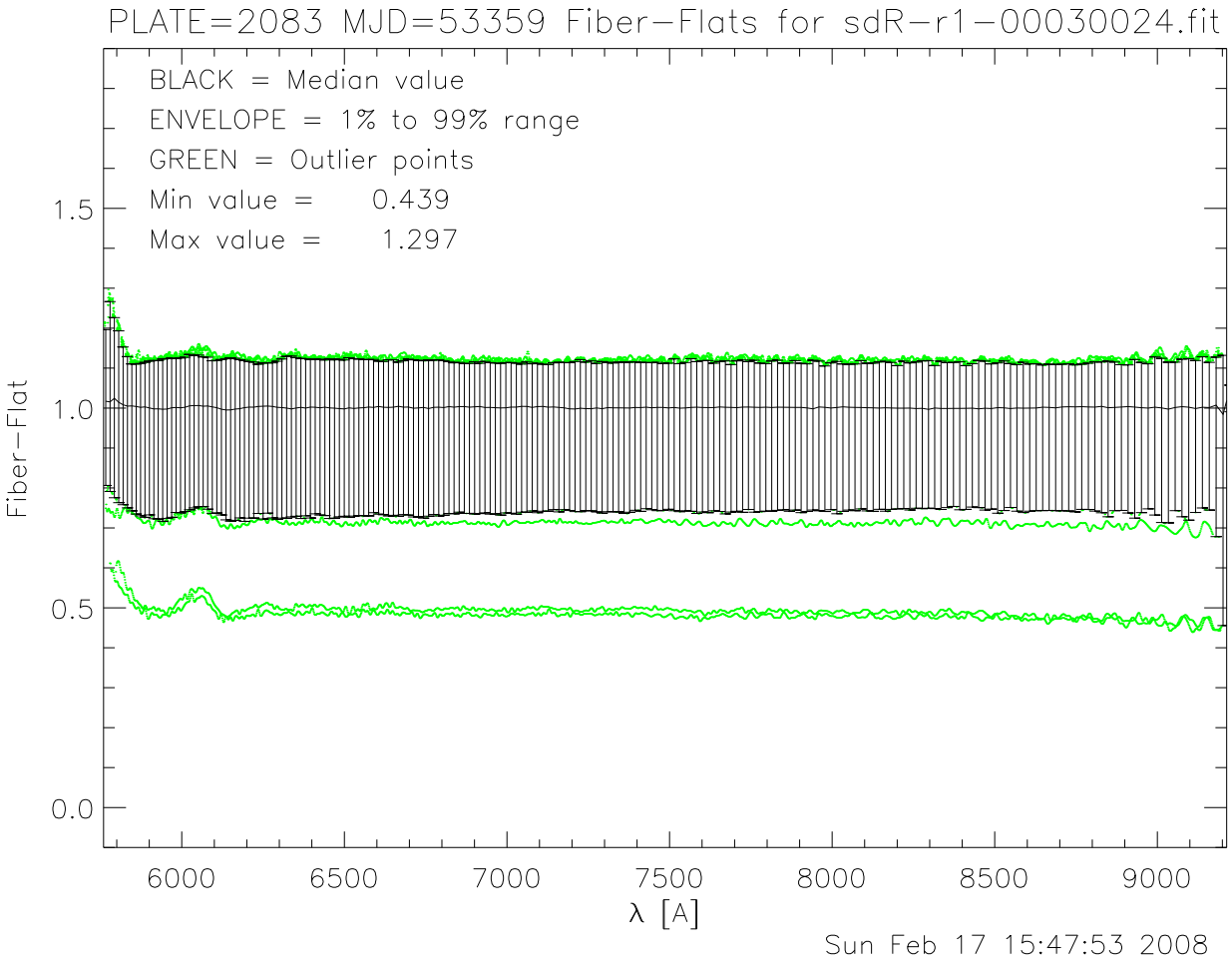

PLATE=2083 MJD=53359 sdR-r1-00030026.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

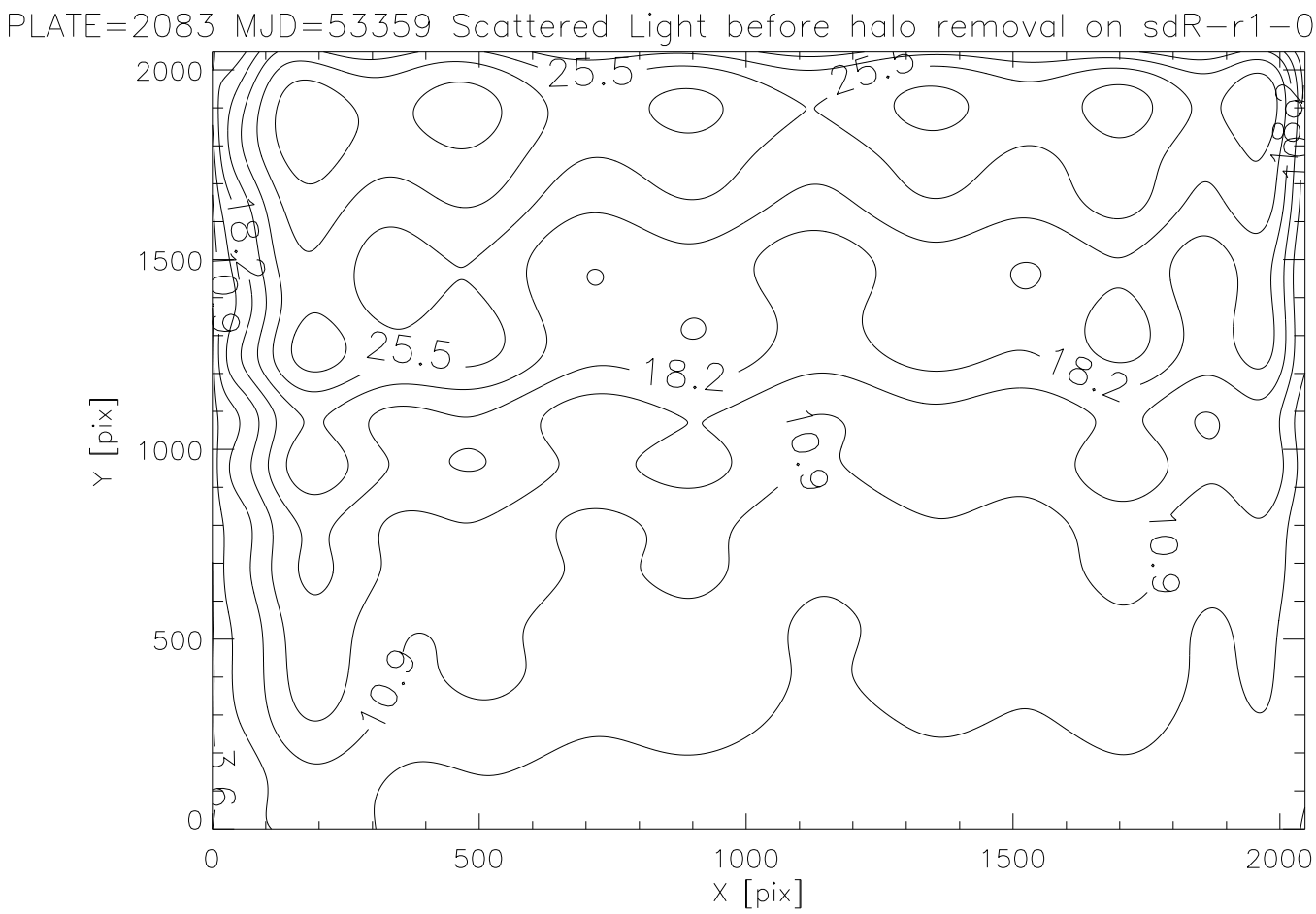

PLATE=2083 MJD=53359 sdR-r1-00030026.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
-300
8820
8840
8860
8880
8900
λ [A]

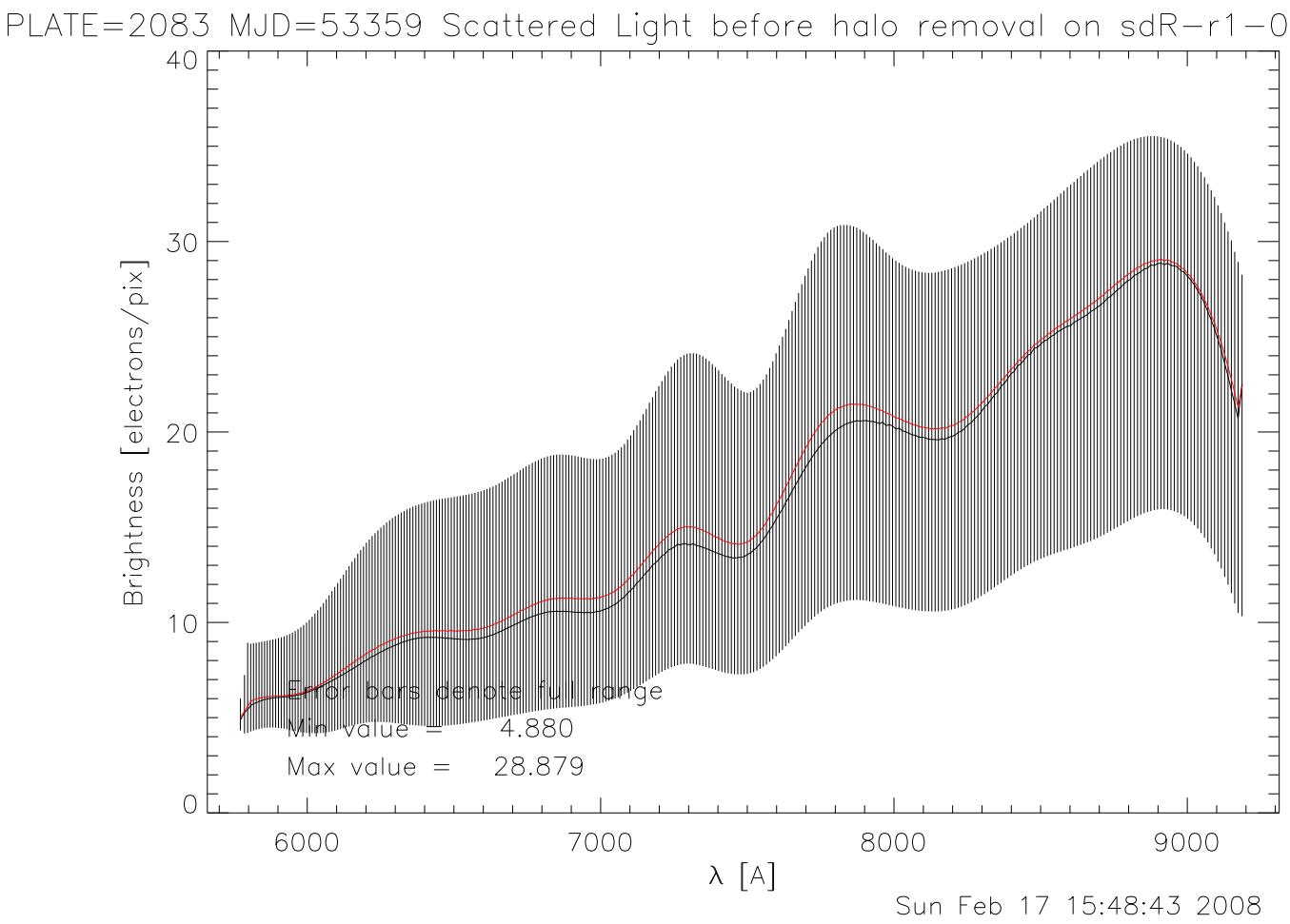

Number of sky fibers = 14
PLATE=2083 MJD=53359 sdR-r1-00030026.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

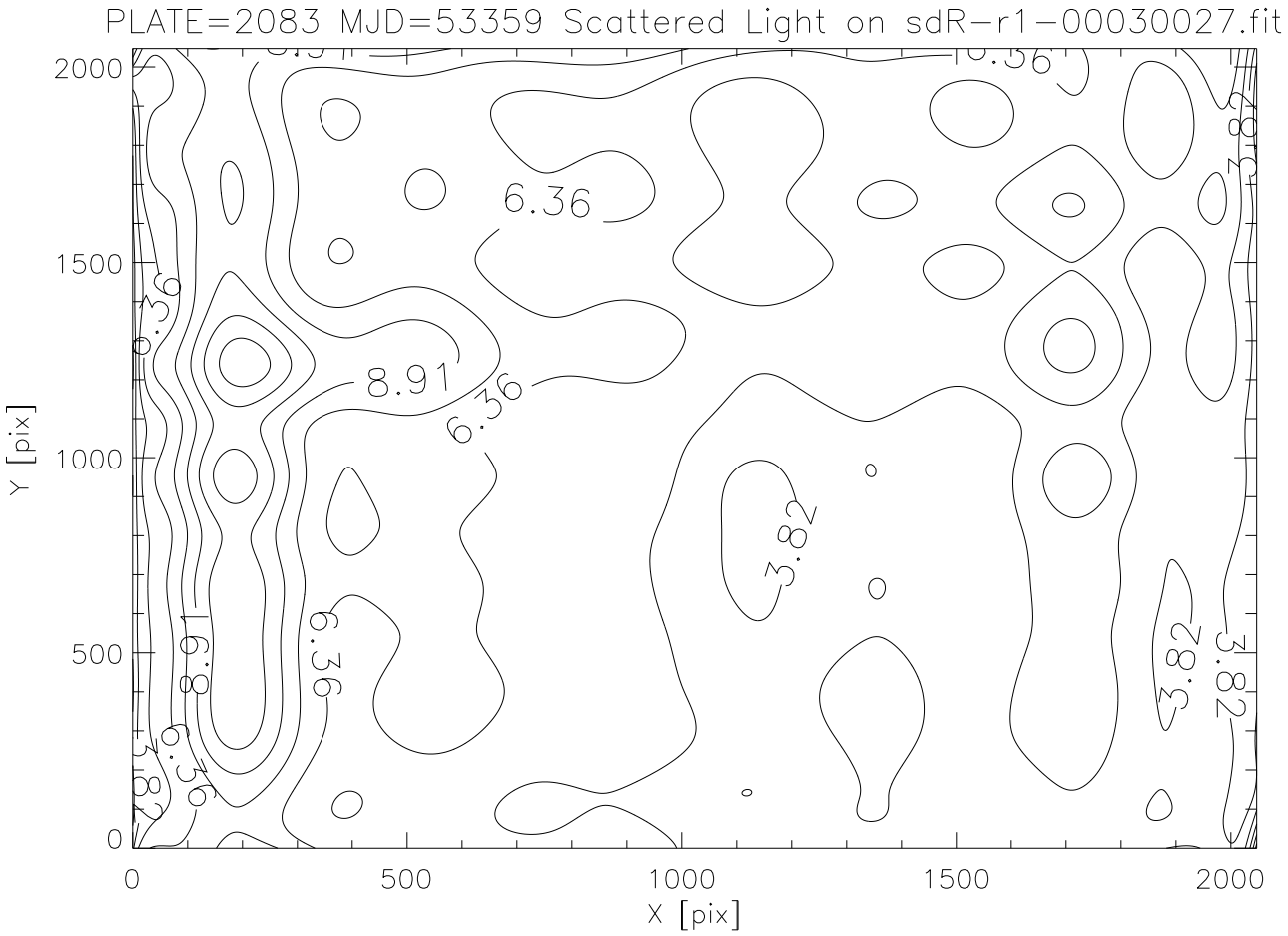

PLATE=2083 MJD=53359 sdR-r1-00030026.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 3.41 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

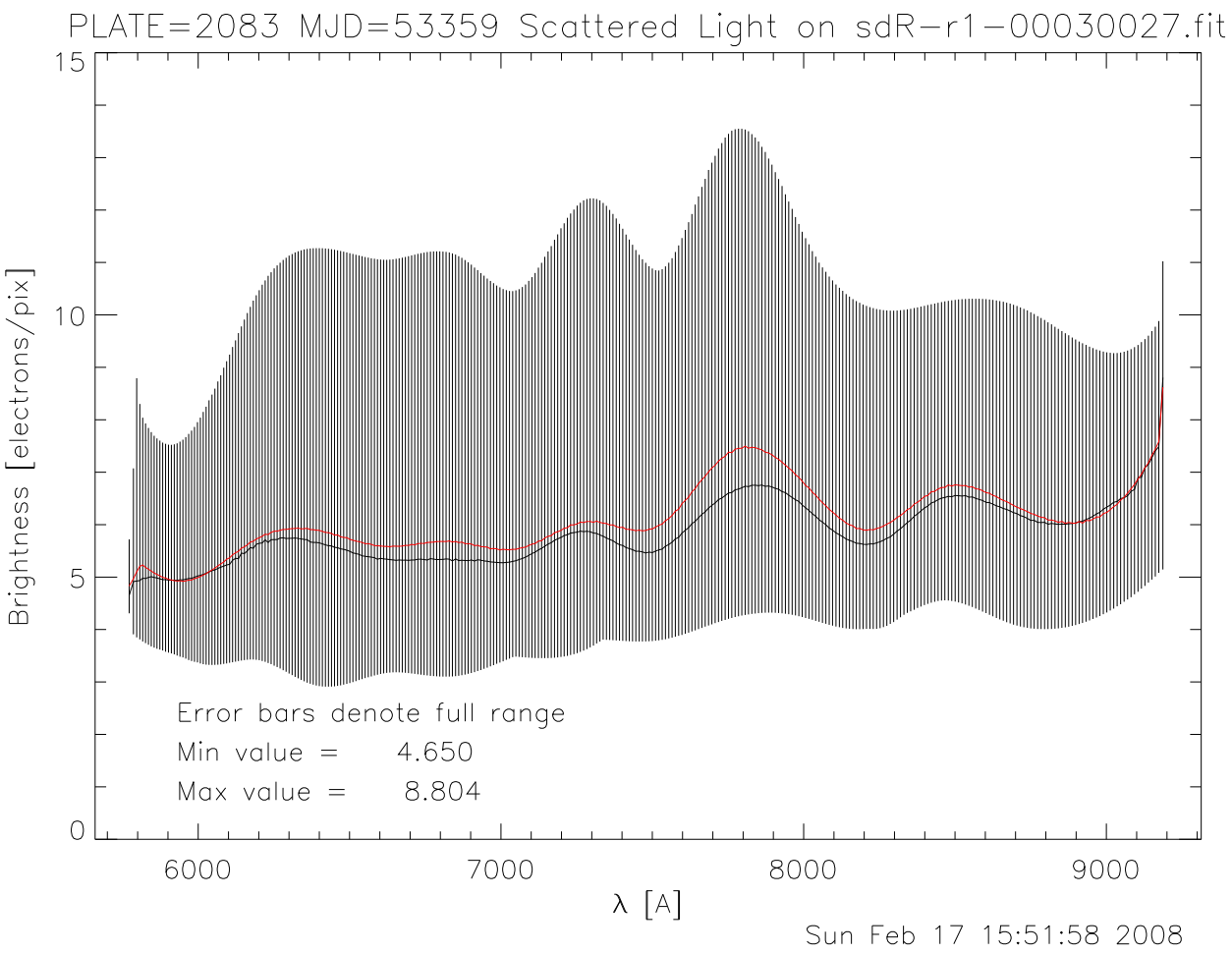

PLATE=2083 MJD=53359 sdR-r1-00030026.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 2.38 %
Fiber number
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass

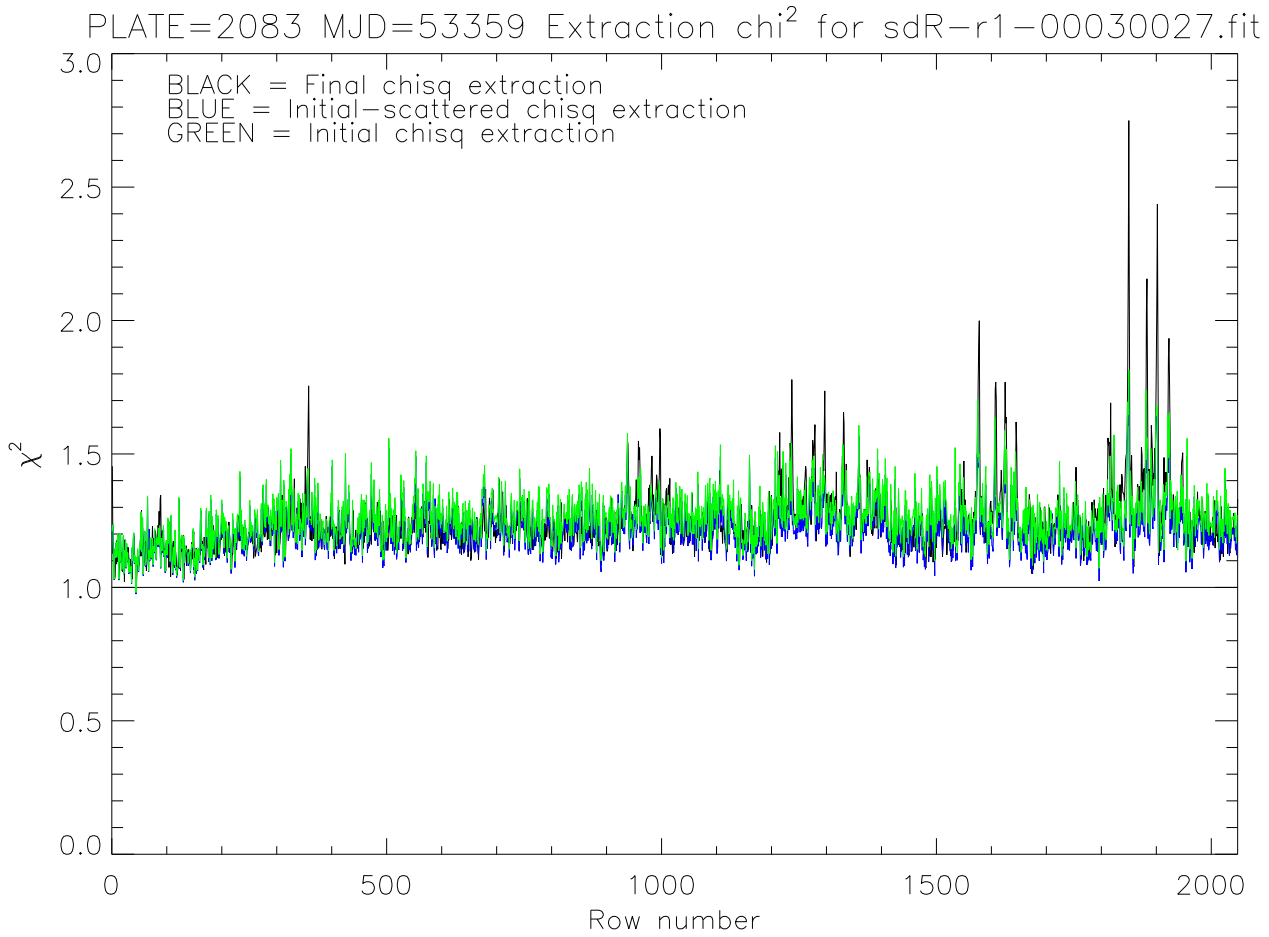

PLATE=2083 MJD=53359 Fiber−Flats for sdR−r1−00030024.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.439
Max value = 1.297
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sun Feb 17 15:47:53 2008

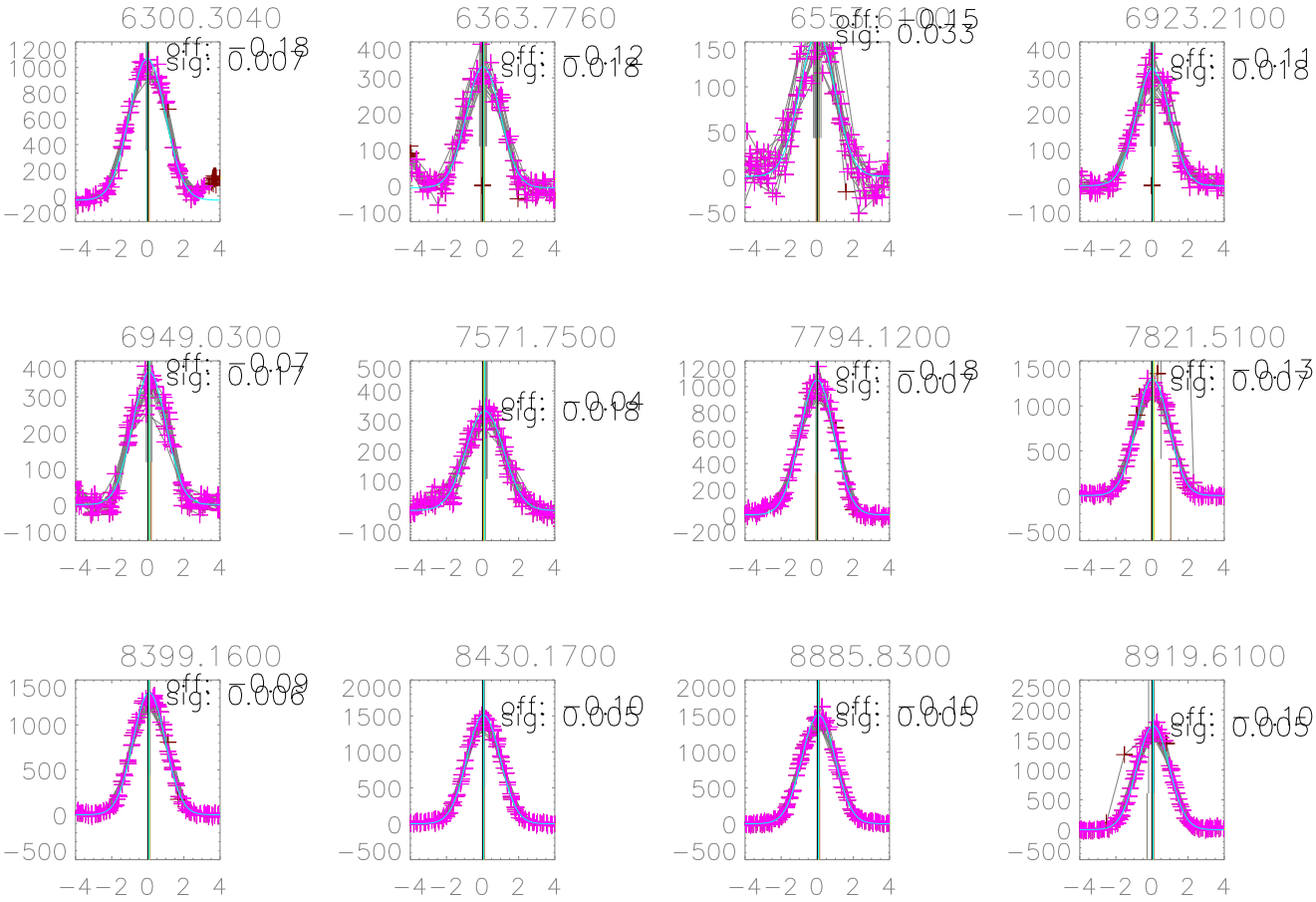

PLATE=2083 MJD=53359 Scattered Light before halo removal on sdR-r1-00030027.fi
25.5
25.5
18.2
10.9
25.5
18.2
18.2
10.9
10.9
10.9
5.6
Y [pix]
X [pix]
0
500
1000
1500
2000

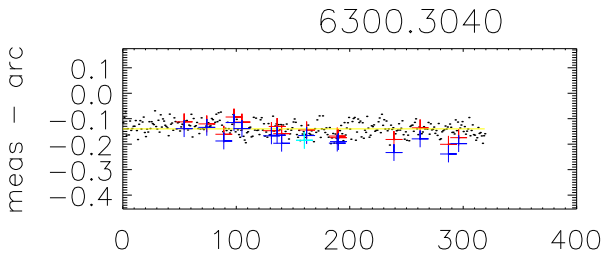

PLATE=2083 MJD=53359 Scattered Light before halo removal on sdR-r1-00030027.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 4.880
Max value = 28.879
Sun Feb 17 15:48:43 2008

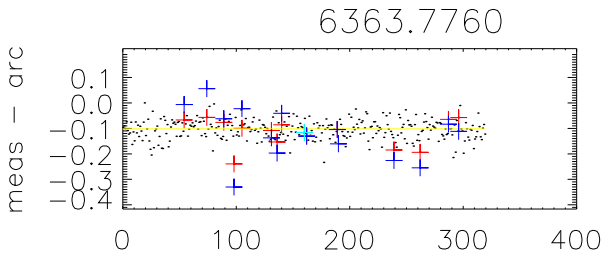

PLATE=2083 MJD=53359 Scattered Light on sdR-r1-00030027.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
6.36
8.91
3.82

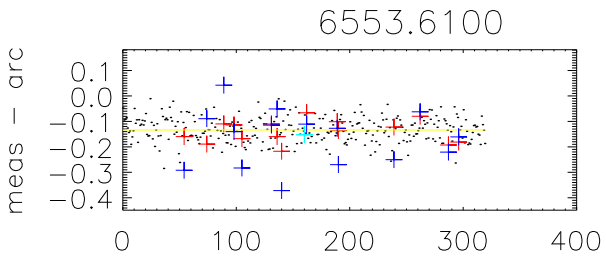

PLATE=2083 MJD=53359 Scattered Light on sdR-r1-00030027.fit
Brightness [electrons/pix]
15
10
5
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 4.650
Max value = 8.804
Sun Feb 17 15:51:58 2008

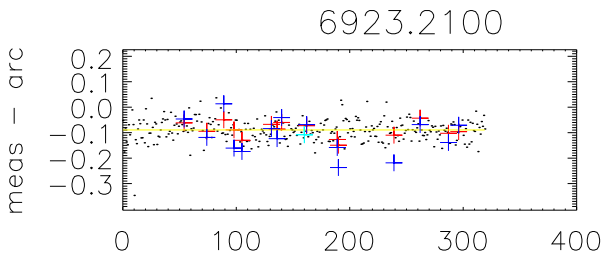

PLATE=2083 MJD=53359 Extraction chi$^2$ for sdR−r1−00030027.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
$\chi^2$
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
500
1000
1500
2000
Row number

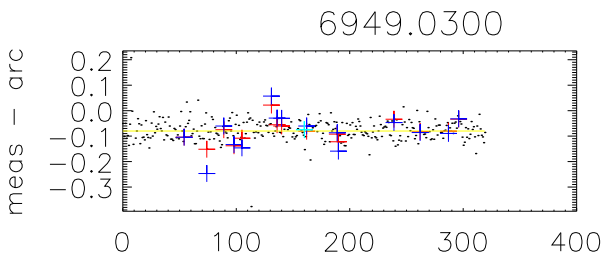

6300.3040
off: −0.18
sig: 0.007
6363.7760
off: −0.12
sig: 0.018
6557.6100
off: −0.03
sig: 0.033
6923.2100
off: −0.11
sig: 0.018
6949.0300
off: −0.07
sig: 0.017
7571.7500
off: −0.04
sig: 0.018
7794.1200
off: −0.18
sig: 0.007
7821.5100
off: −0.13
sig: 0.007
8399.1600
off: −0.08
sig: 0.008
8430.1700
off: −0.10
sig: 0.005
8885.8300
off: −0.10
sig: 0.005
8919.6100
off: −0.10
sig: 0.005

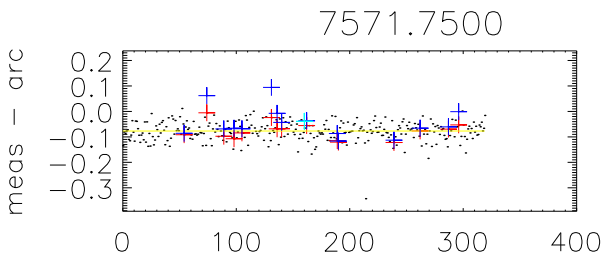

6300.3040
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

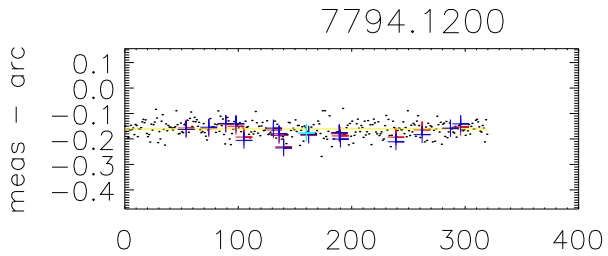

6363.7760
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

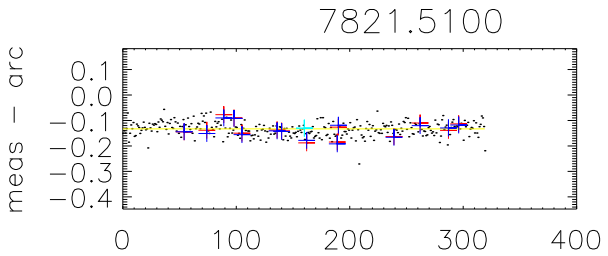

6553.6100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

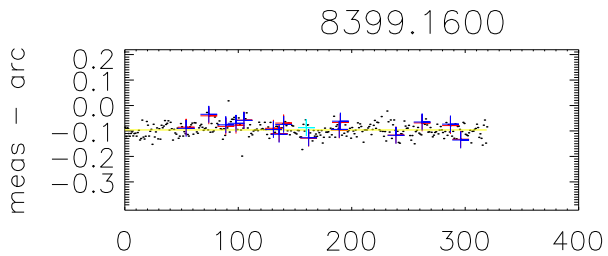

6923.2100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

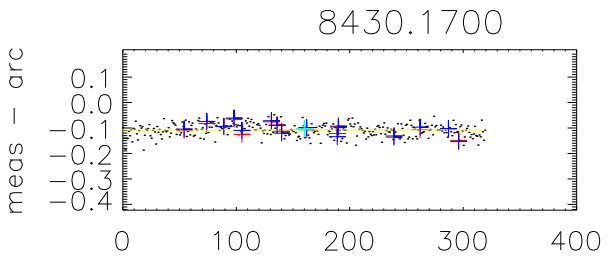

6949.0300
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

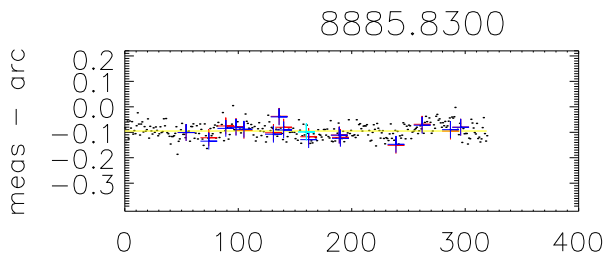

7571.7500
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

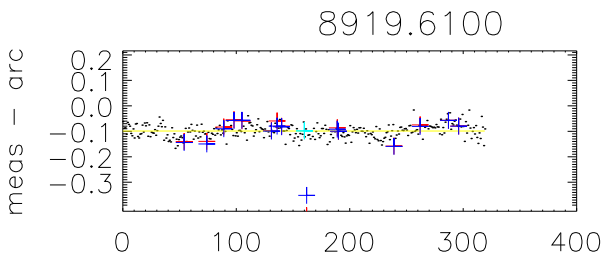

7794.1200
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

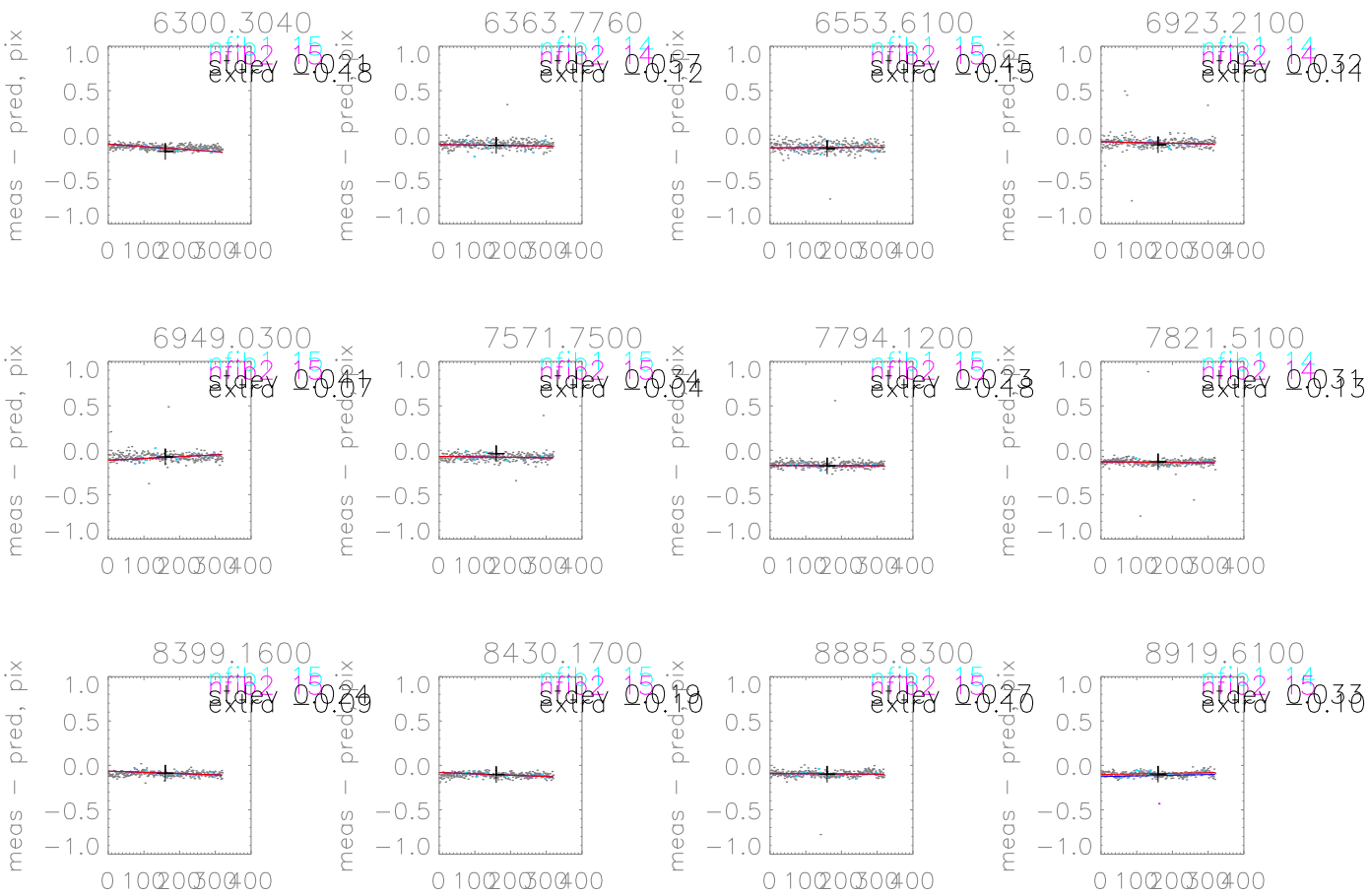

7821.5100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

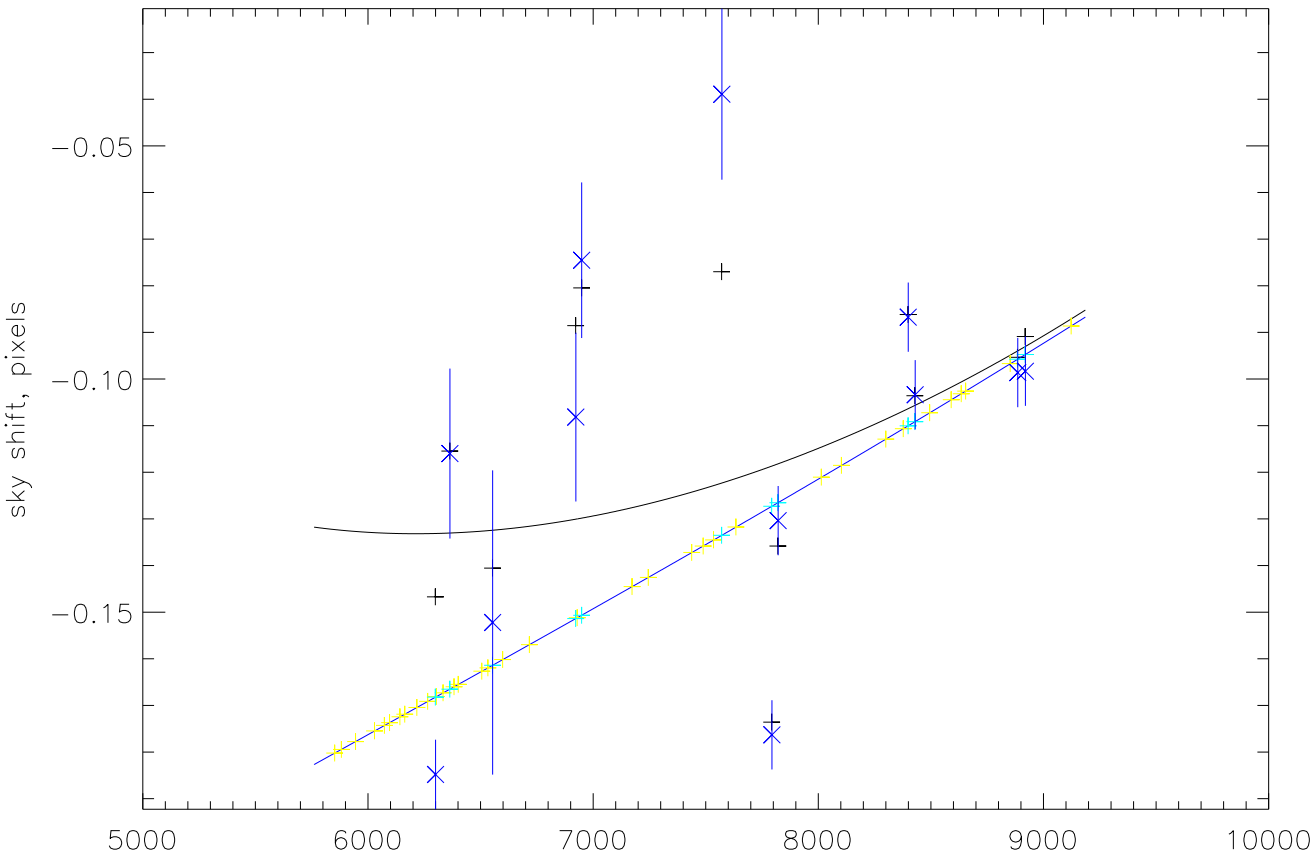

8399.1600
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

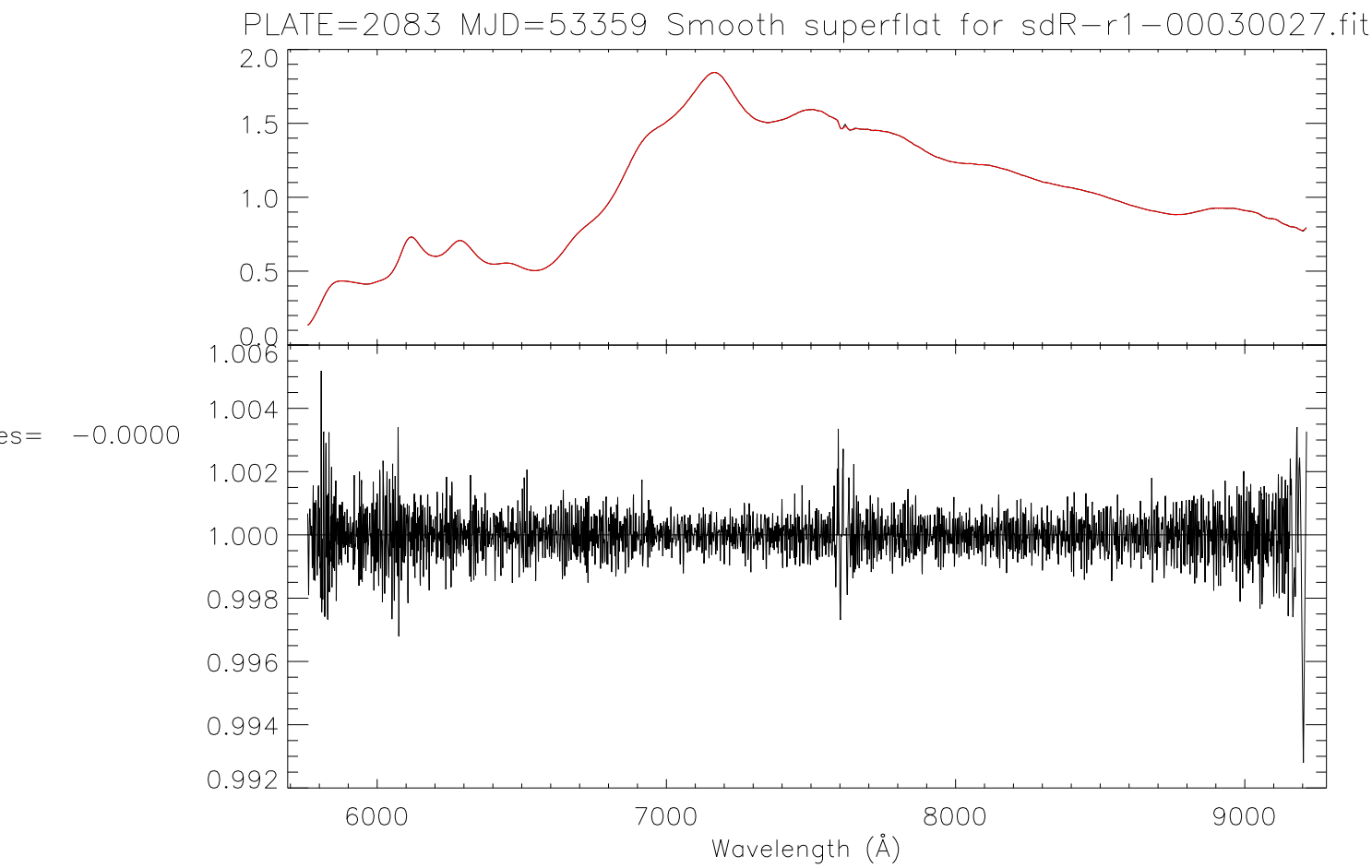

8430.1700
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400


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

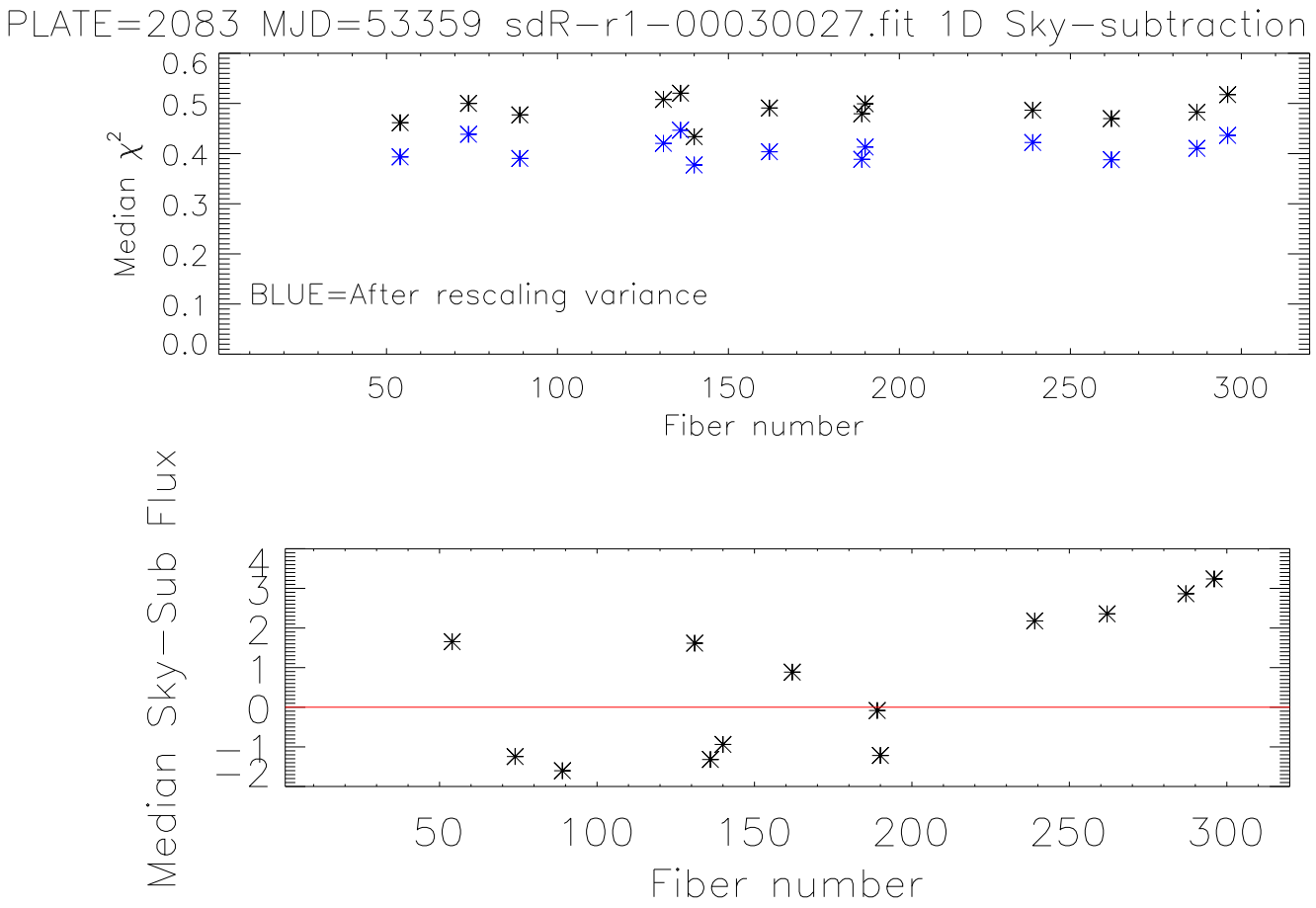

8919.6100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

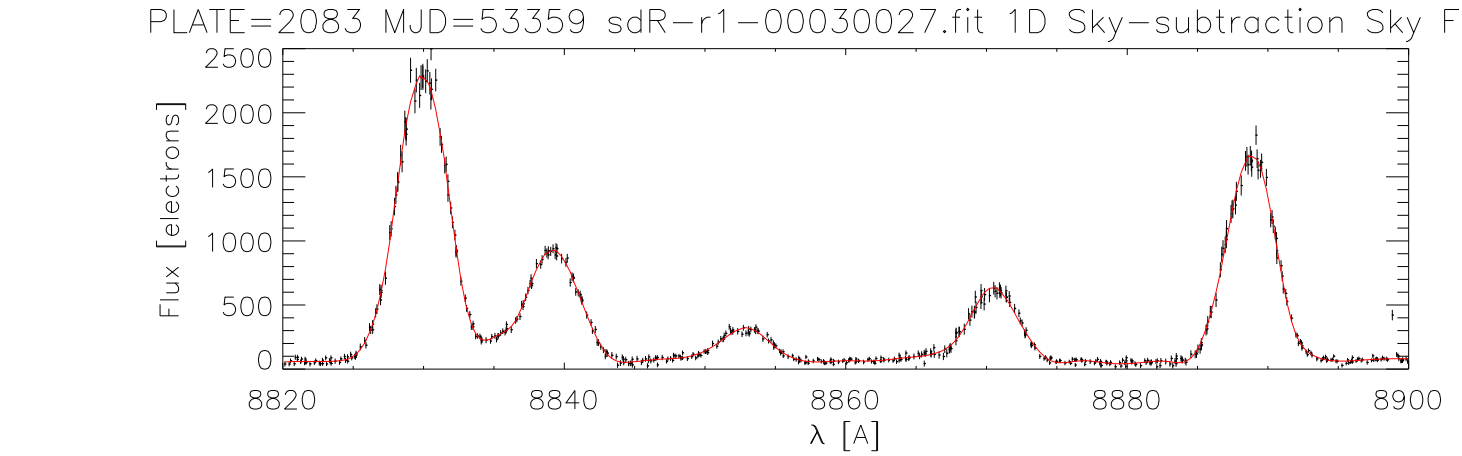

6300.3040
mfib1 15
mfib2 15
stdev 0.021
extra 0.48
6363.7760
mfib1 15
mfib2 14
stdev 0.037
extra 0.32
6553.6100
mfib1 15
mfib2 15
stdev 0.045
extra 0.15
6923.2100
mfib1 15
mfib2 14
stdev 0.032
extra 0.14
6949.0300
mfib1 15
mfib2 15
stdev 0.041
extra 0.07
7571.7500
mfib1 15
mfib2 15
stdev 0.034
extra 0.04
7794.1200
mfib1 15
mfib2 15
stdev 0.023
extra 0.48
7821.5100
mfib1 15
mfib2 14
stdev 0.031
extra 0.13
8399.1600
mfib1 15
mfib2 15
stdev 0.024
extra 0.09
8430.1700
mfib1 15
mfib2 15
stdev 0.019
extra 0.10
8885.8300
mfib1 15
mfib2 15
stdev 0.027
extra 0.40
8919.6100
mfib1 15
mfib2 14
stdev 0.033
extra 0.10
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400

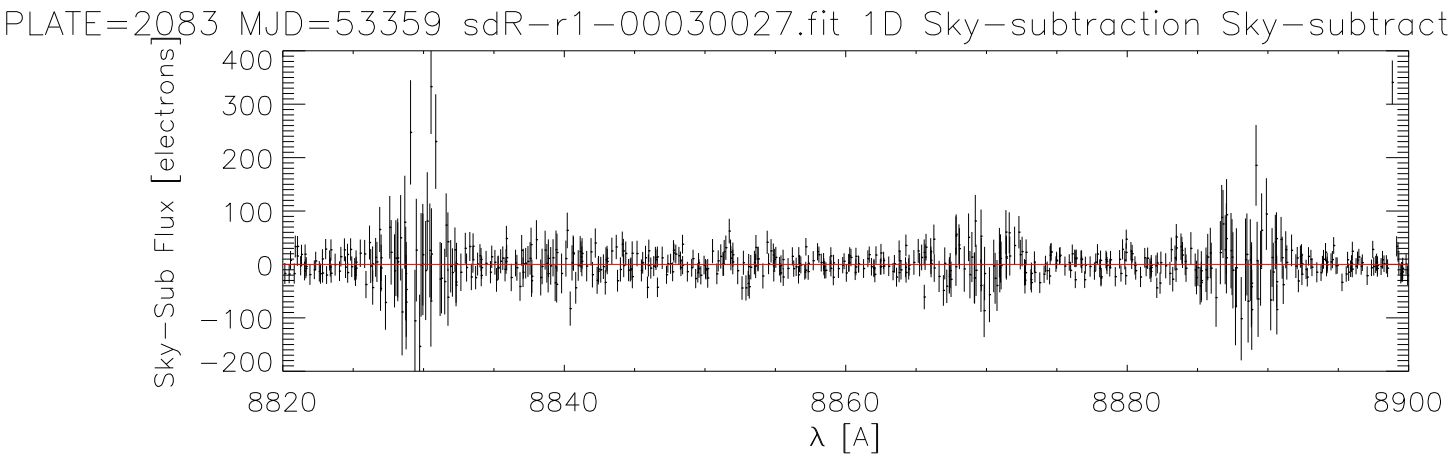

sky shift, pixels
−0.05
−0.10
−0.15
5000
6000
7000
8000
9000
10000

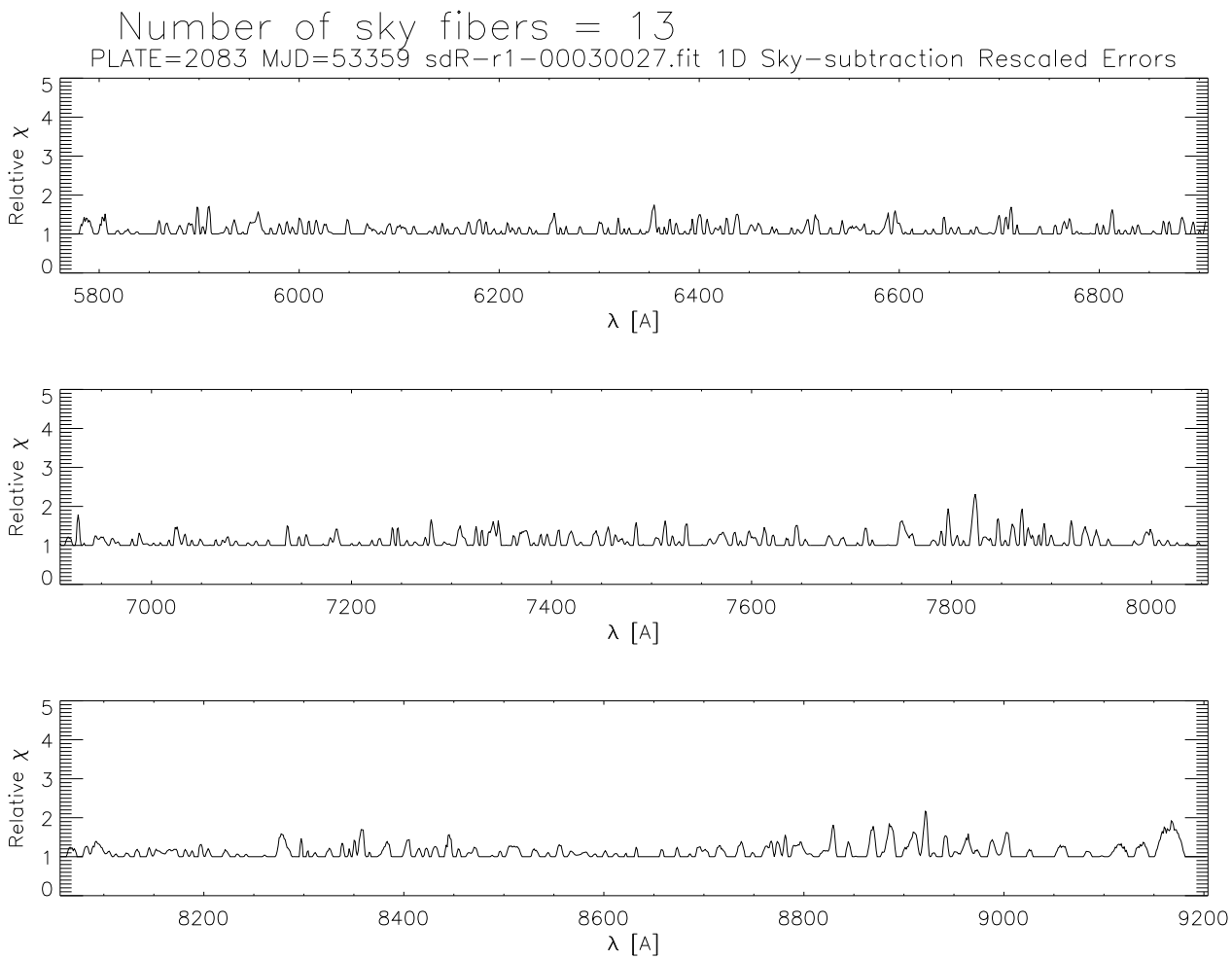

PLATE=2083 MJD=53359 Smooth superflat for sdR-r1-00030027.fit
2.0
1.5
1.0
0.5
0.0
1.006
1.004
1.002
1.000
0.998
0.996
0.994
0.992
6000
7000
8000
9000
Wavelength (Å)

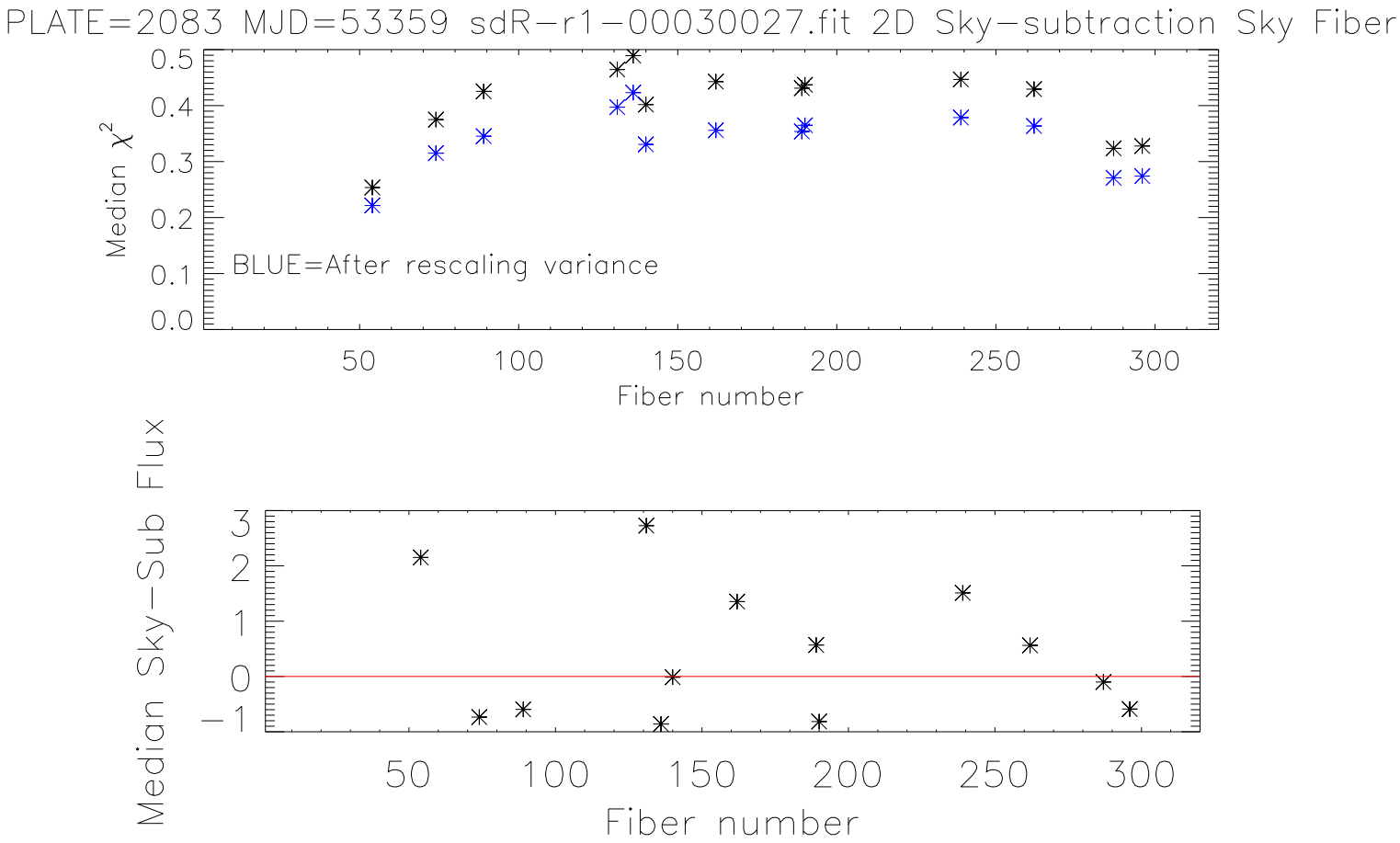
es= −0.0000

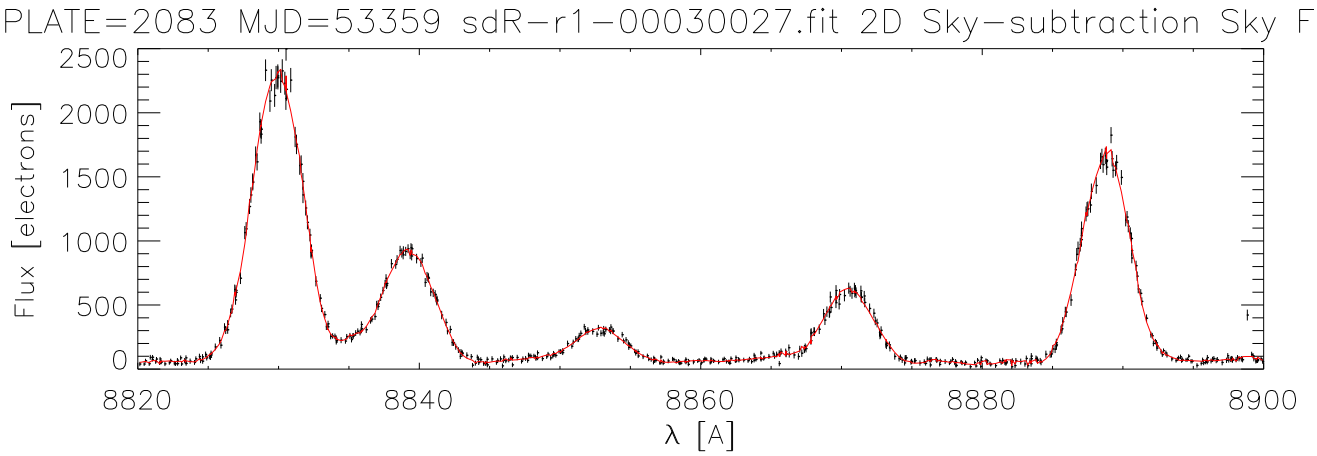

PLATE=2083 MJD=53359 sdR-r1-00030027.fit 1D Sky-subtraction Sky Fibers
Median $\chi^2$
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

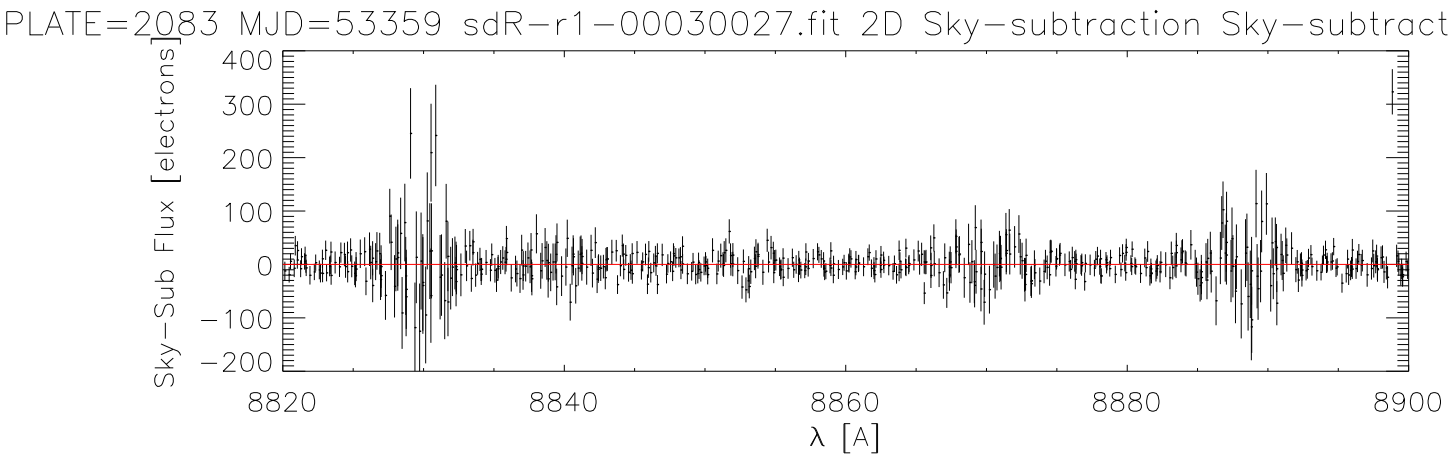

PLATE=2083 MJD=53359 sdR-r1-00030027.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
2500
2000
1500
1000
500
0
8820
8840
8860
8880
8900
λ [A]

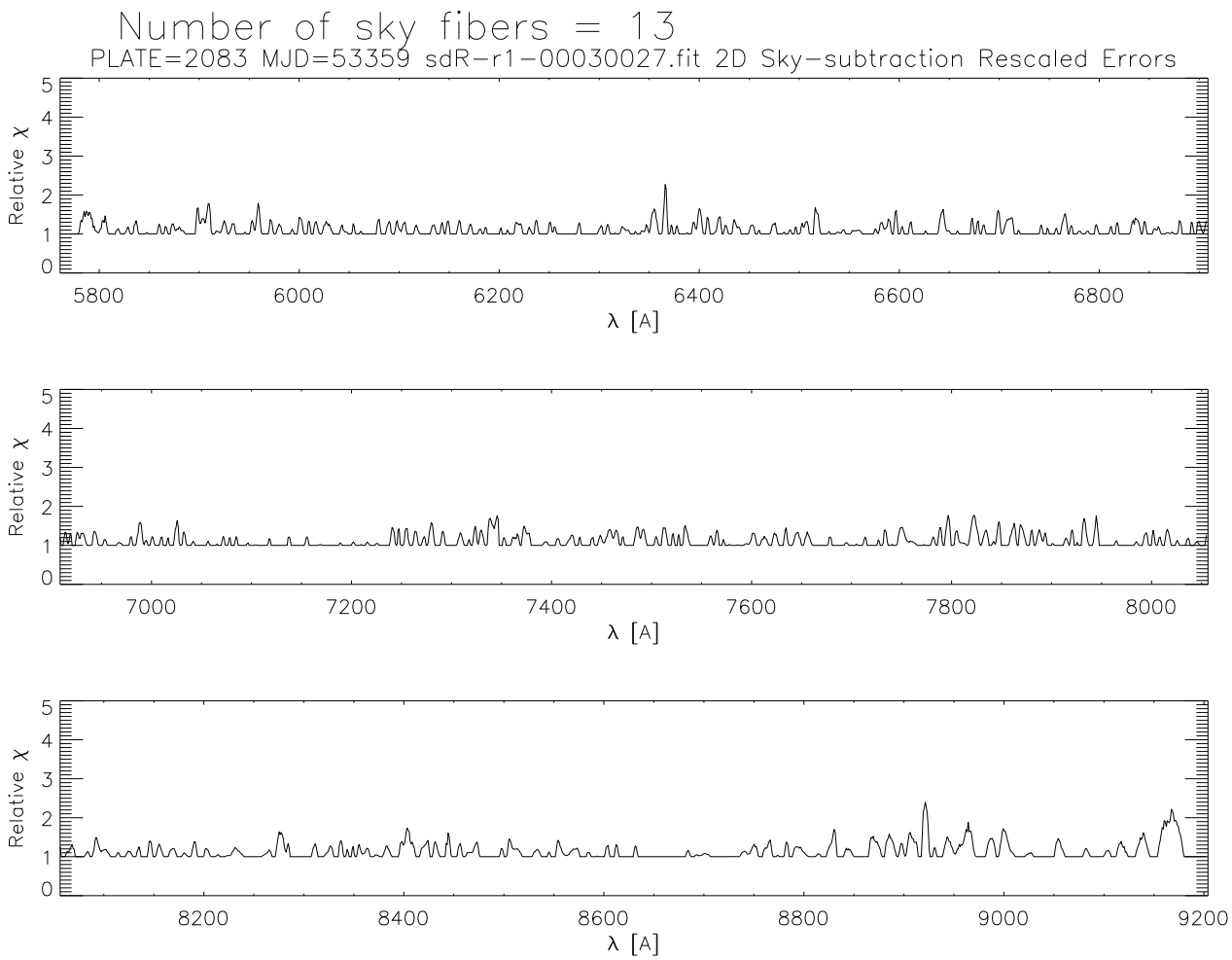

PLATE=2083 MJD=53359 sdR-r1-00030027.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
300
200
100
0
-100
-200
8820
8840
8860
8880
8900
λ [A]

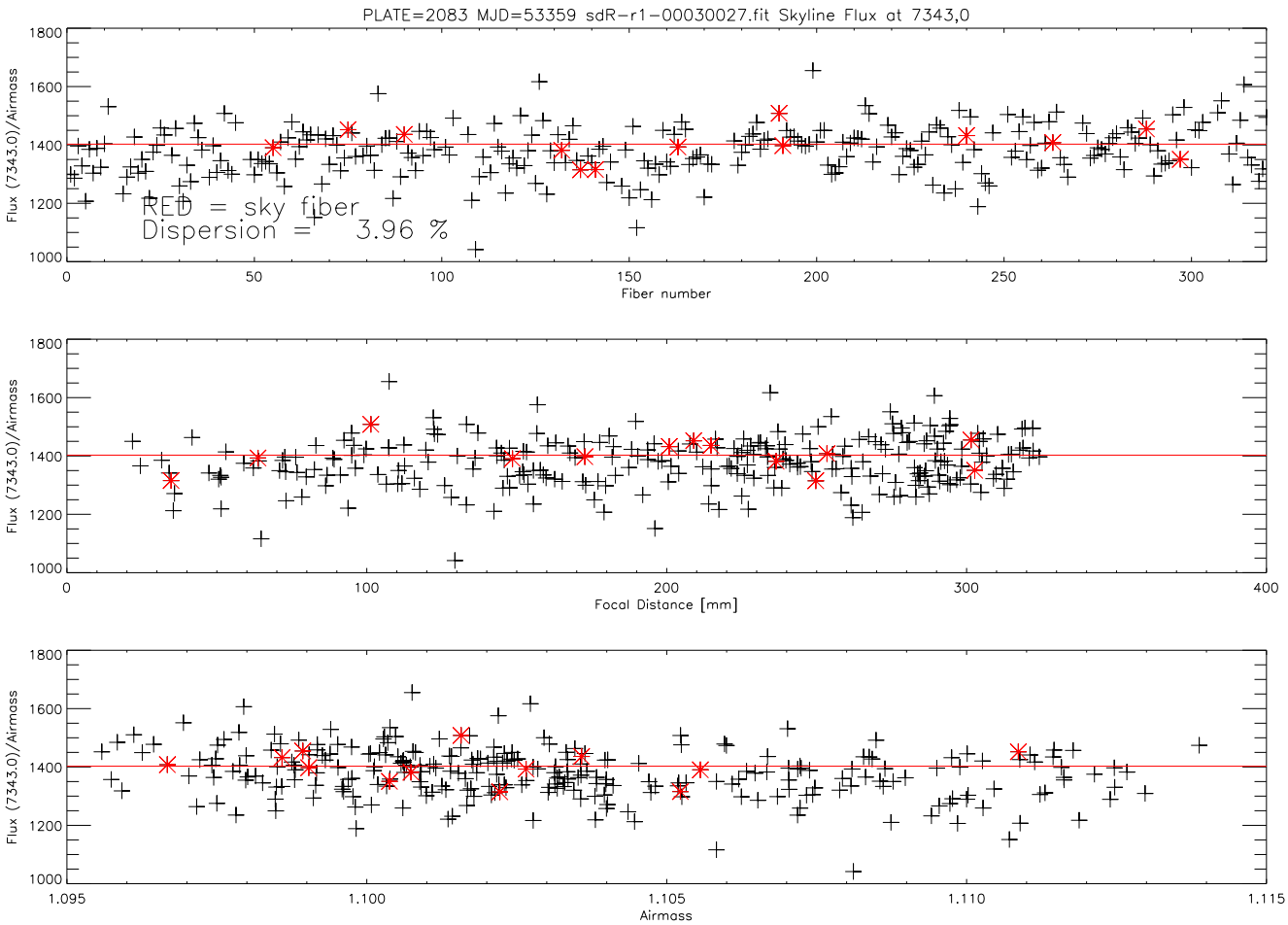

Number of sky fibers = 13
PLATE=2083 MJD=53359 sdR-r1-00030027.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

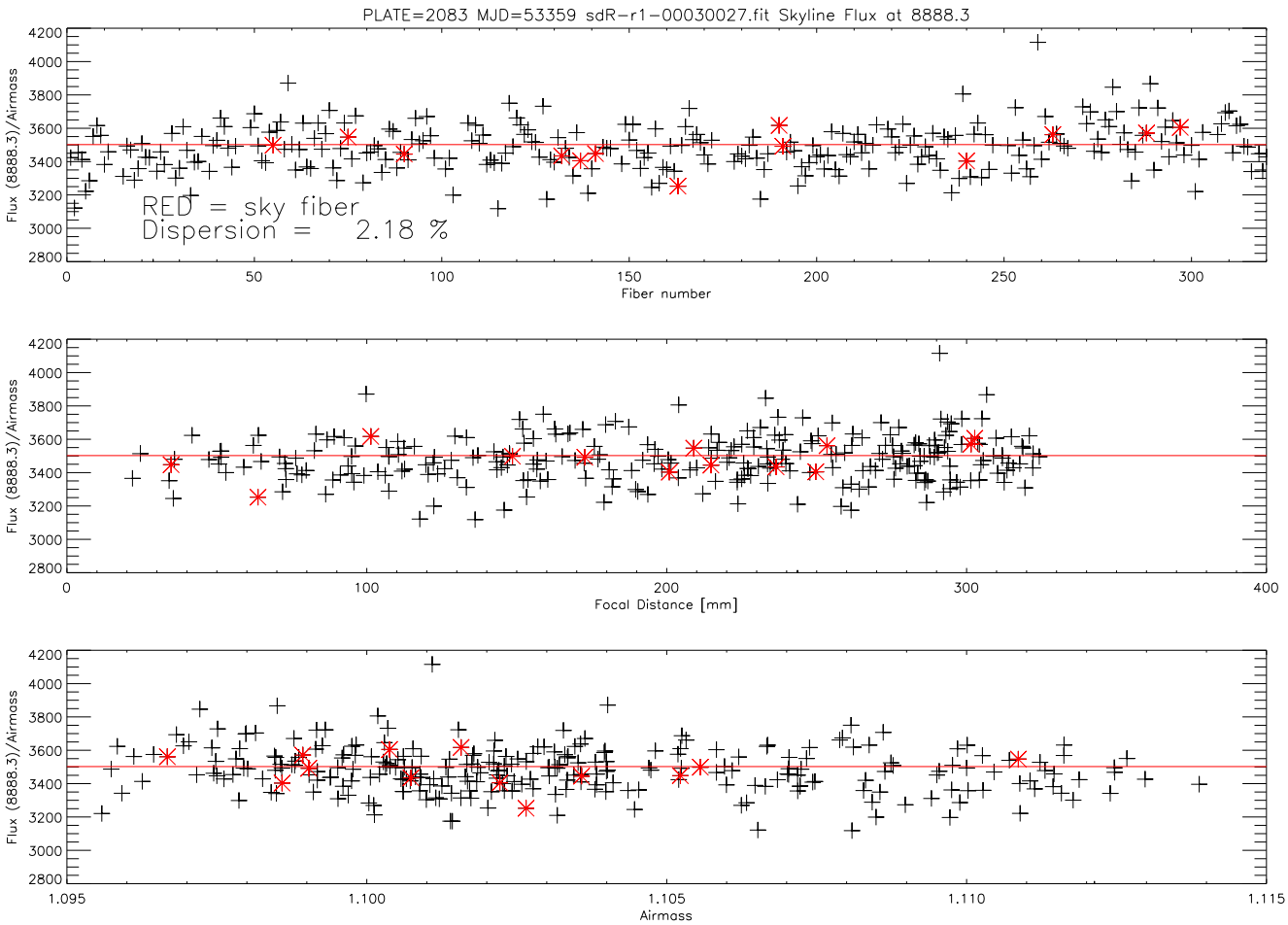

PLATE=2083 MJD=53359 sdR-r1-00030027.fit 2D Sky-subtraction Sky Fibers
Median $\chi^2$
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

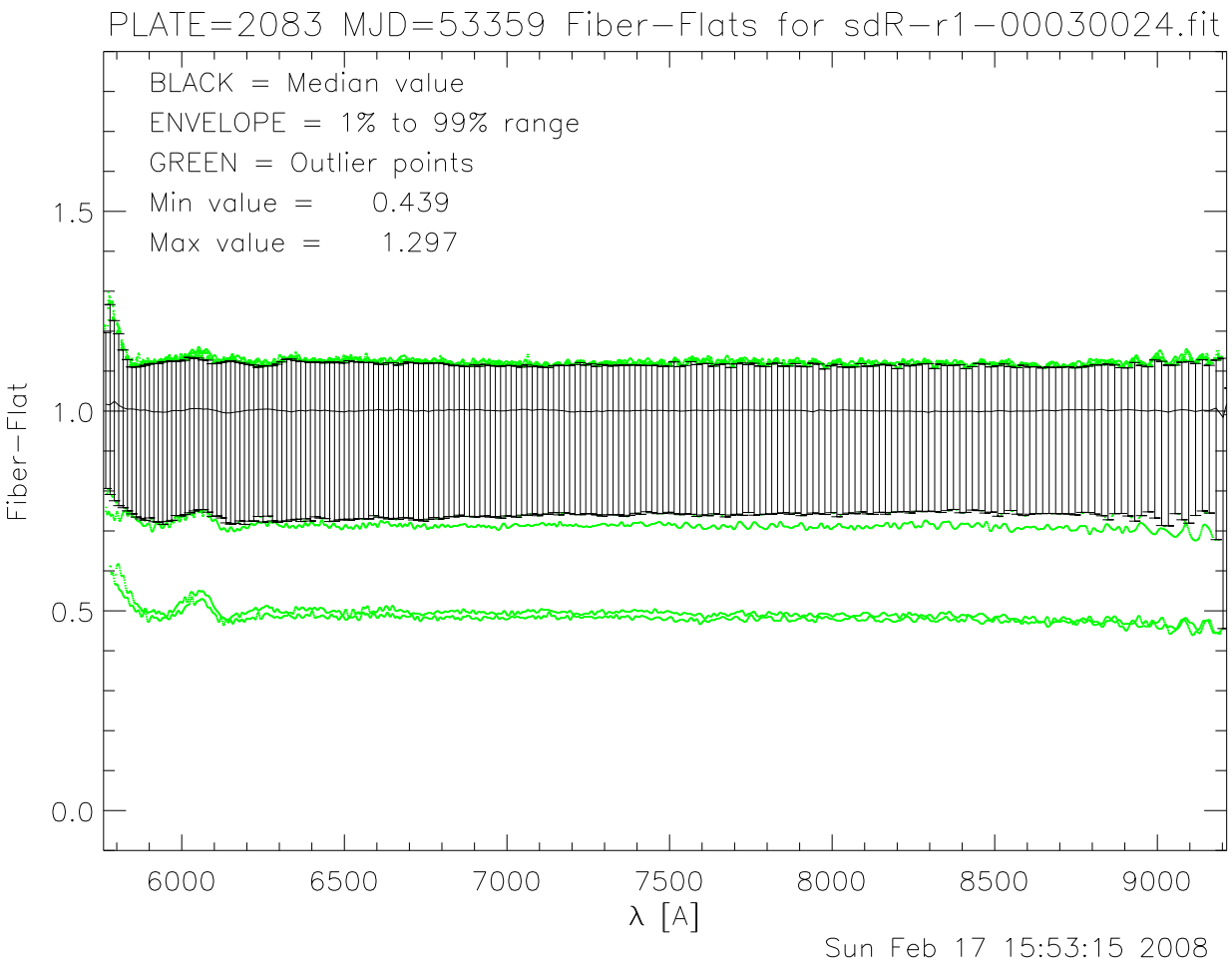

PLATE=2083 MJD=53359 sdR-r1-00030027.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
2500
2000
1500
1000
500
0
8820
8840
8860
8880
8900
λ [A]

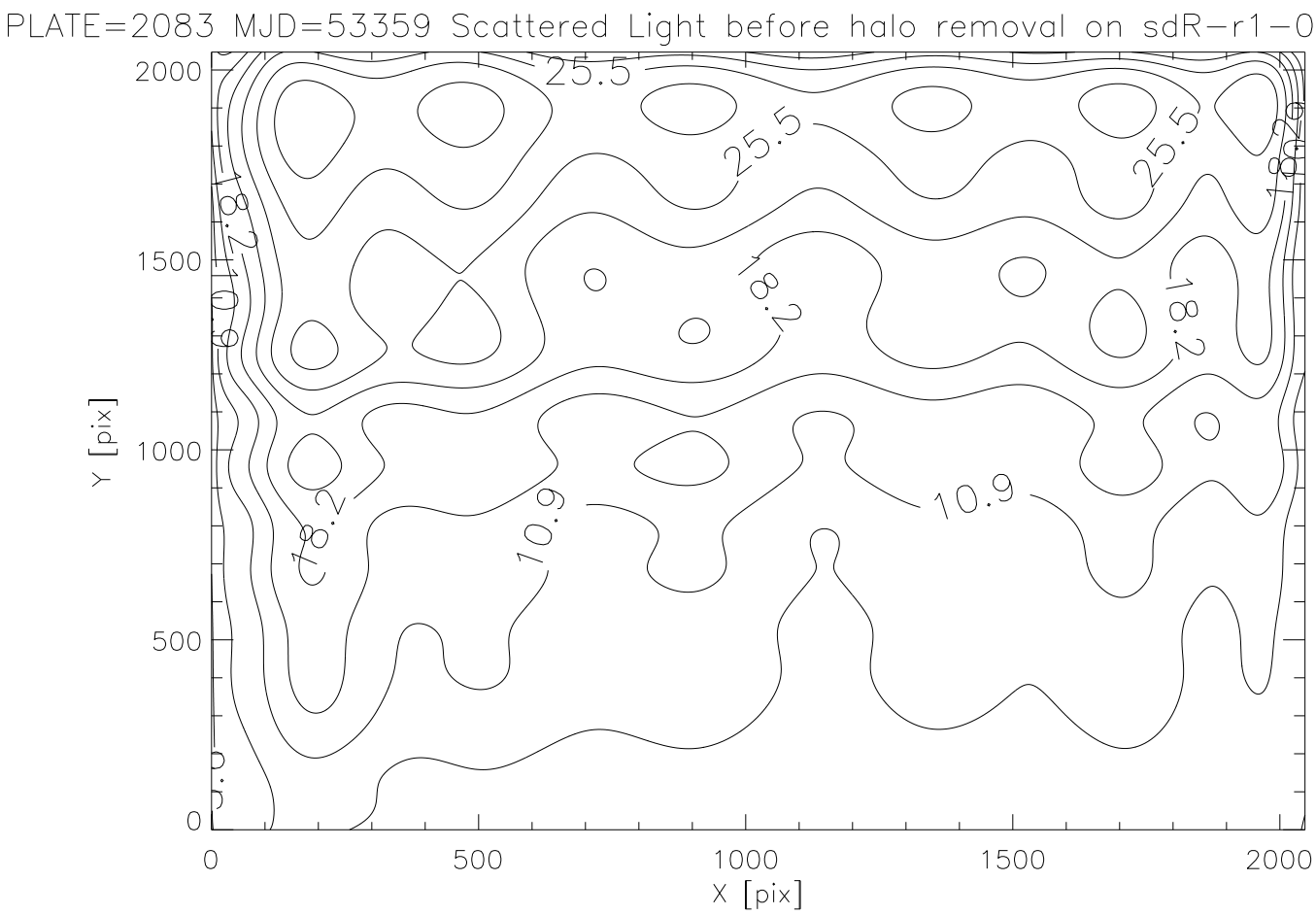

PLATE=2083 MJD=53359 sdR-r1-00030027.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
300
200
100
0
-100
-200
8820
8840
8860
8880
8900
λ [A]

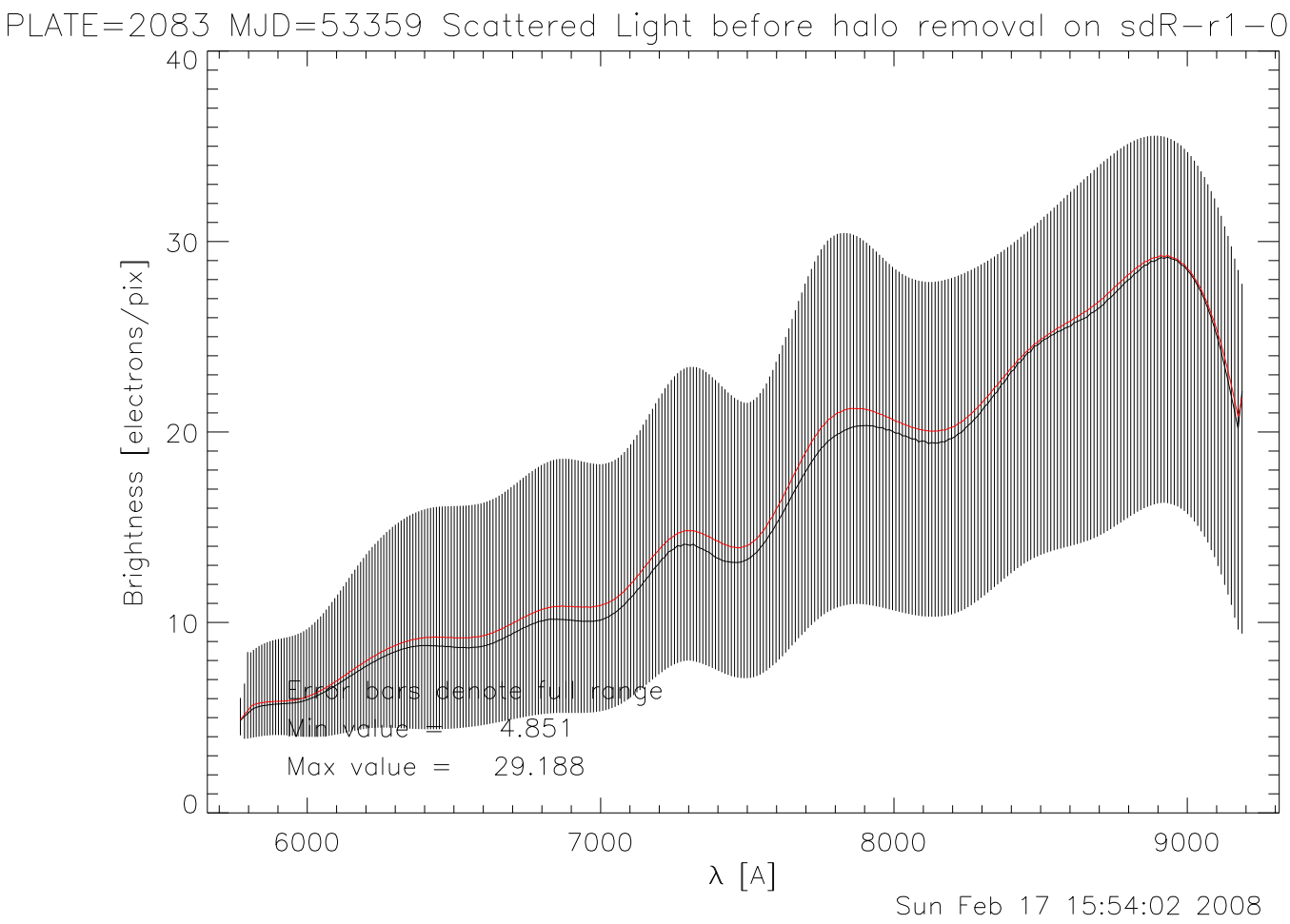

Number of sky fibers = 13
PLATE=2083 MJD=53359 sdR-r1-00030027.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

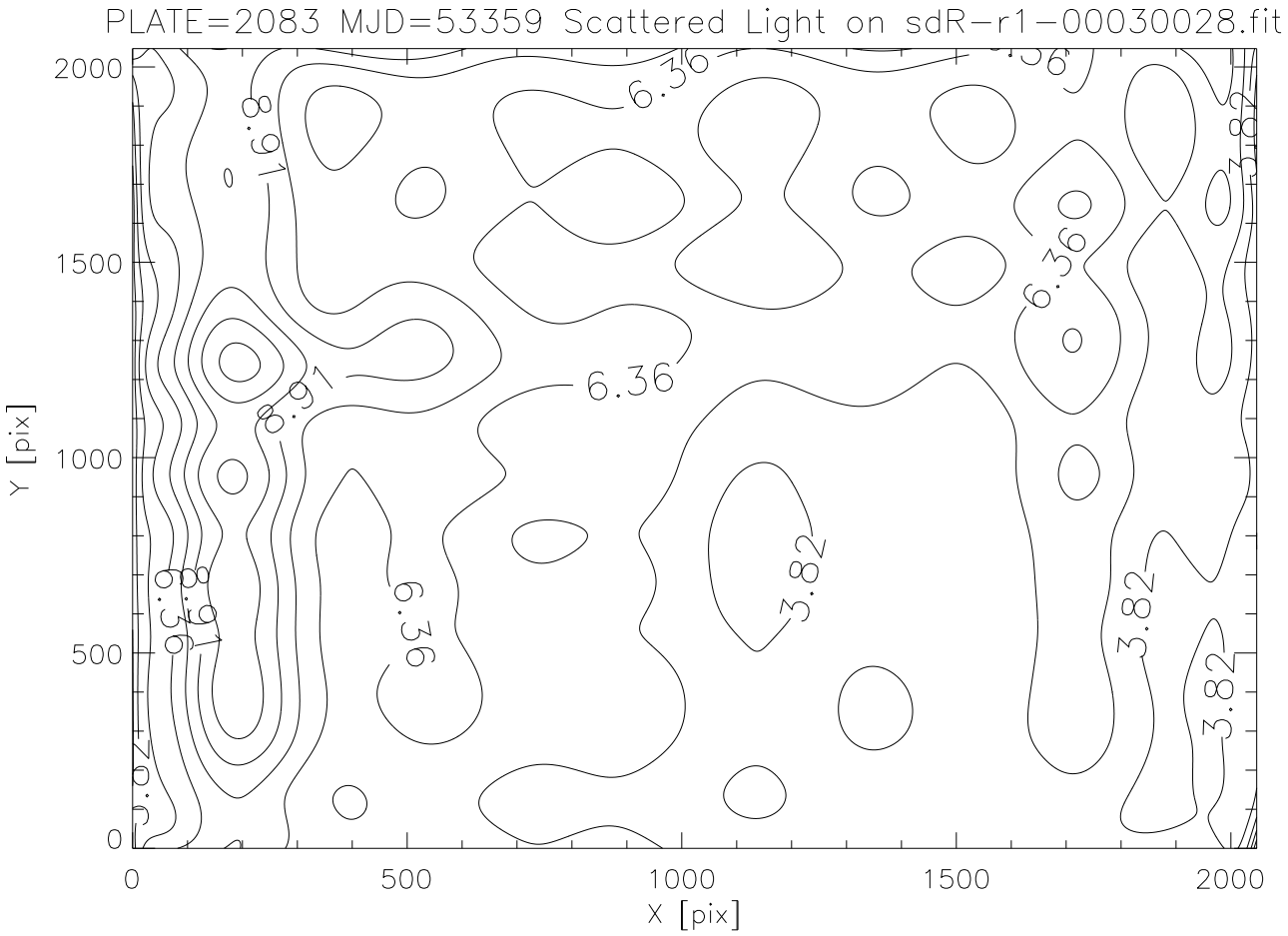

PLATE=2083 MJD=53359 sdR-r1-00030027.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 3.96 %
Fiber number
Focal Distance [mm]
Airmass

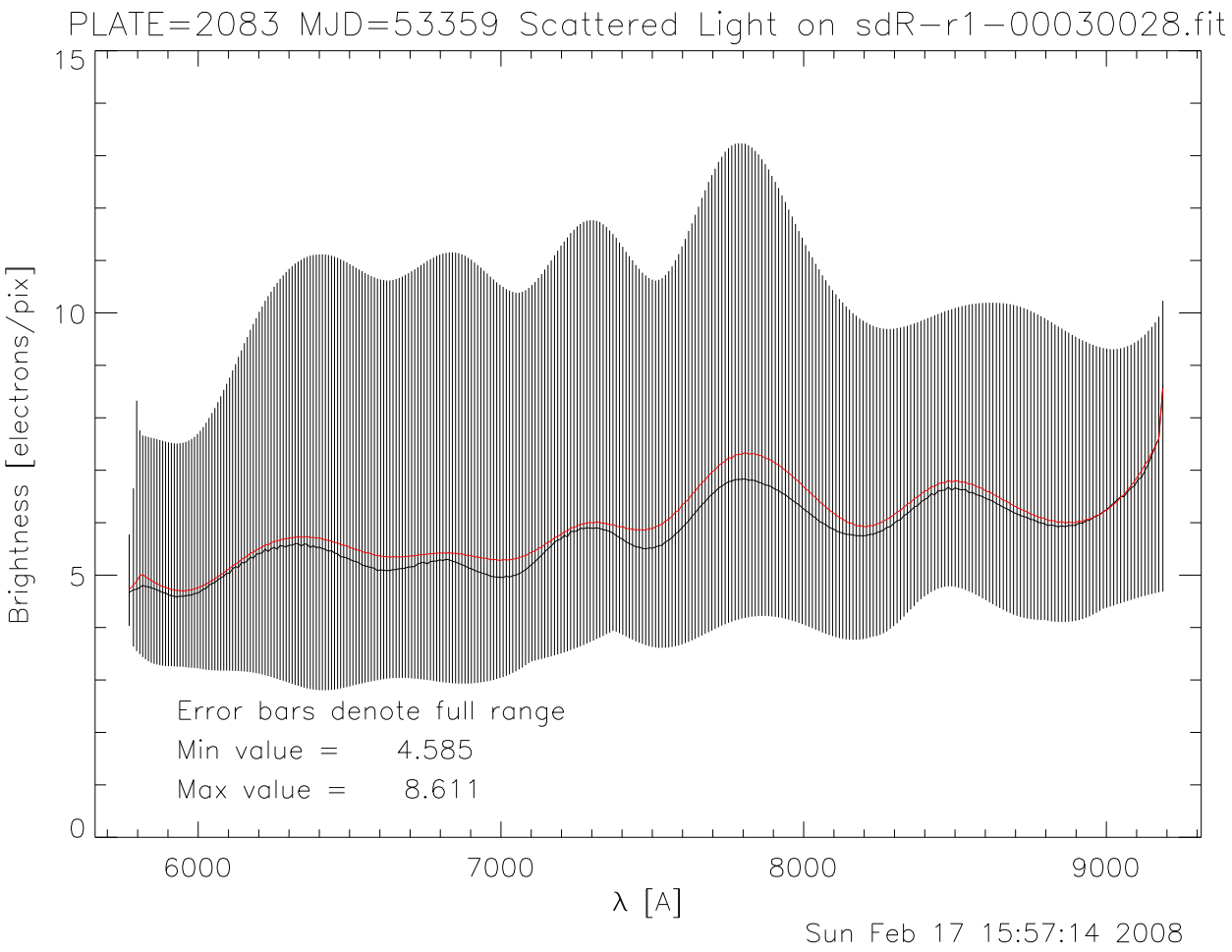

PLATE=2083 MJD=53359 sdR-r1-00030027.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 2.18 %
Fiber number
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass

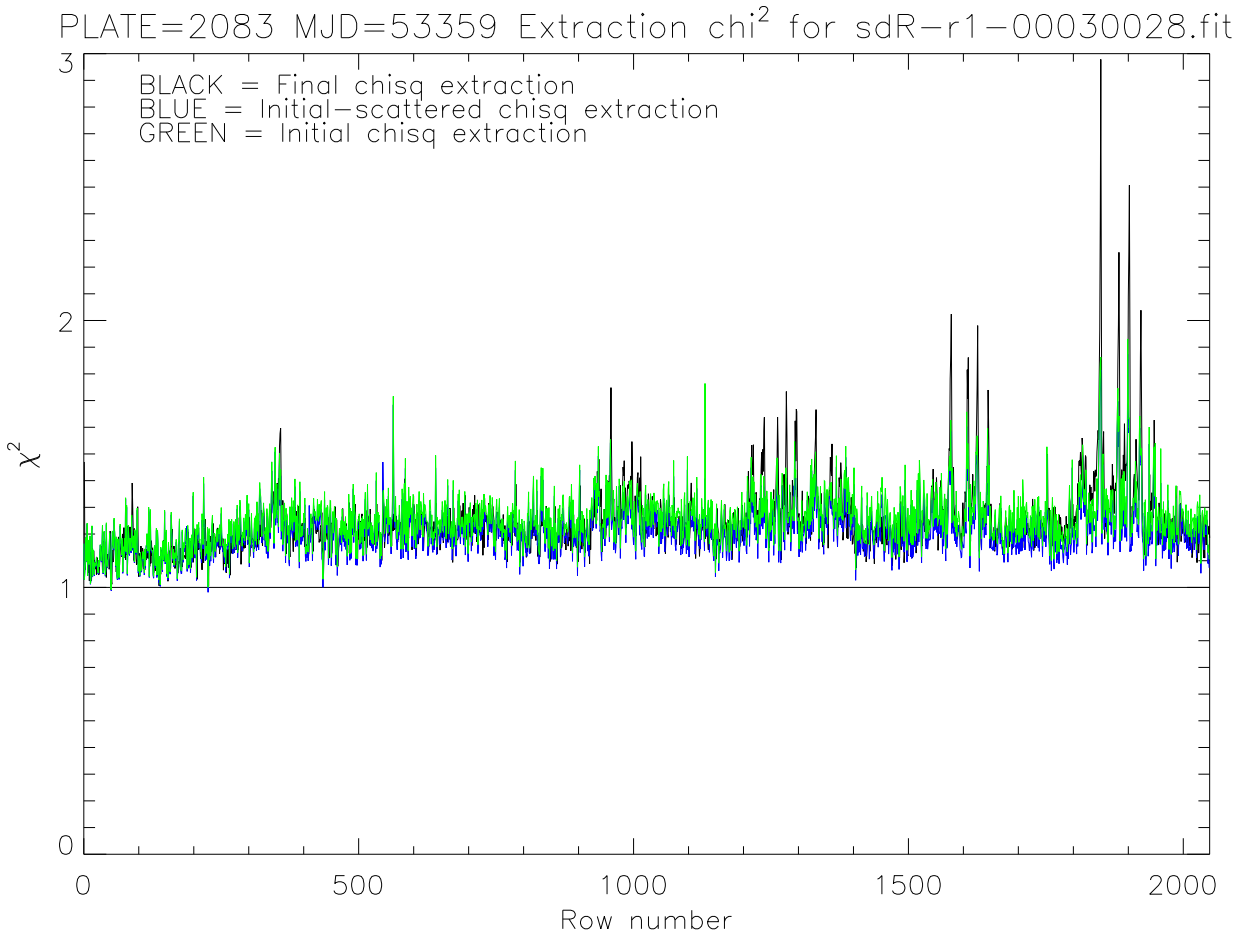

PLATE=2083 MJD=53359 Fiber−Flats for sdR−r1−00030024.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.439
Max value = 1.297
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sun Feb 17 15:53:15 2008

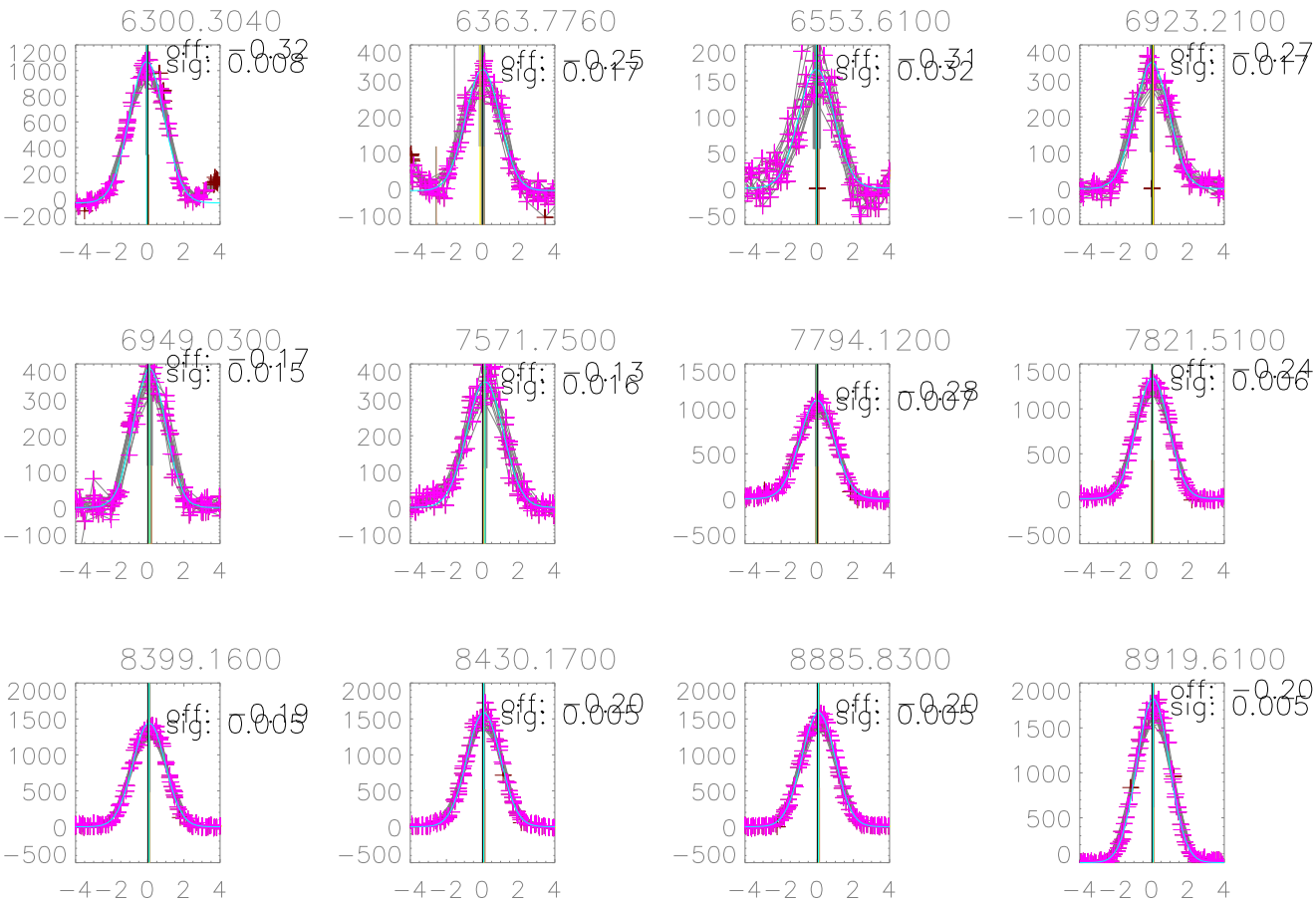

PLATE=2083 MJD=53359 Scattered Light before halo removal on sdR-r1-00030028.fi
25.5
25.5
25.5
18.2
18.2
18.2
18.2
10.9
10.9
10.9
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]

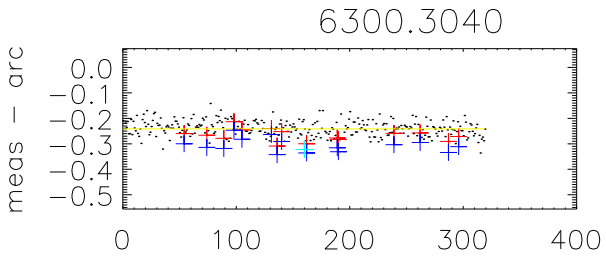

PLATE=2083 MJD=53359 Scattered Light before halo removal on sdR-r1-00030028.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 4.851
Max value = 29.188
Sun Feb 17 15:54:02 2008

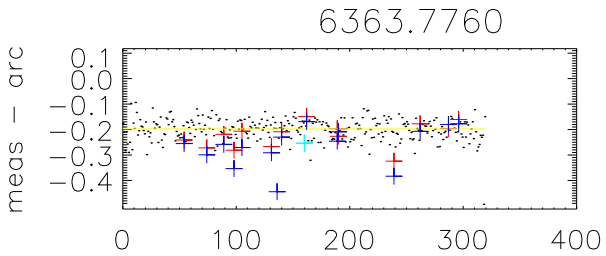

PLATE=2083 MJD=53359 Scattered Light on sdR-r1-00030028.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
6.36
3.82
9.91

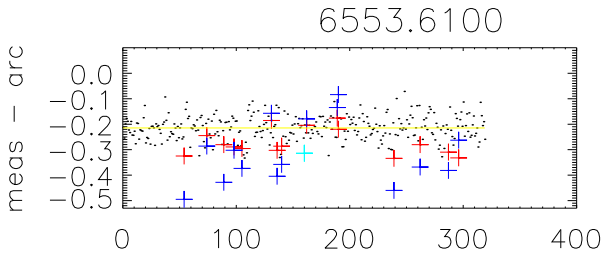

PLATE=2083 MJD=53359 Scattered Light on sdR-r1-00030028.fit
Brightness [electrons/pix]
15
10
5
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 4.585
Max value = 8.611
Sun Feb 17 15:57:14 2008

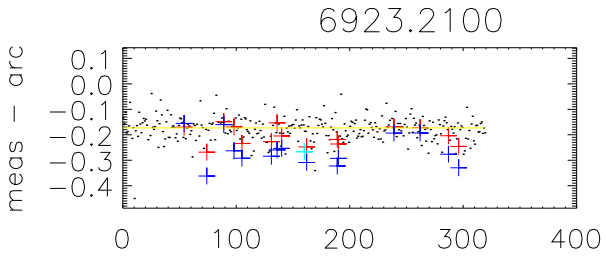

PLATE=2083 MJD=53359 Extraction chi$^2$ for sdR−r1−00030028.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
$\chi^2$
0
1
2
3
0
500
1000
1500
2000
Row number

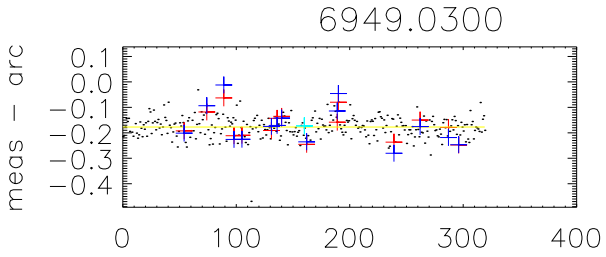

6300.3040
off: −0.32
sig: 0.008
6363.7760
off: −0.25
sig: 0.017
6553.6100
off: −0.31
sig: 0.032
6923.2100
off: −0.27
sig: 0.017
6949.0300
off: −0.17
sig: 0.015
7571.7500
off: −0.13
sig: 0.016
7794.1200
off: −0.28
sig: 0.007
7821.5100
off: −0.24
sig: 0.006
8399.1600
off: −0.19
sig: 0.005
8430.1700
off: −0.20
sig: 0.005
8885.8300
off: −0.20
sig: 0.005
8919.6100
off: −0.20
sig: 0.005

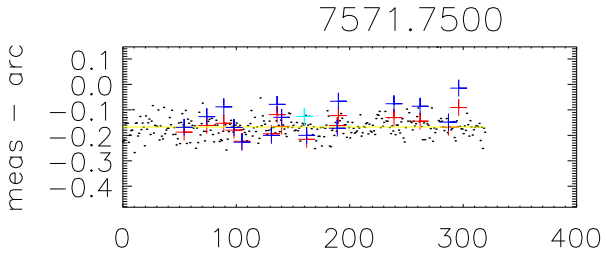

6300.3040
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

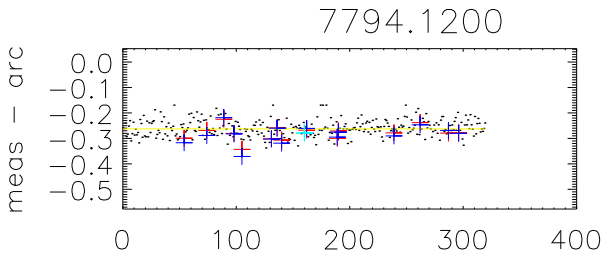

6363.7760
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

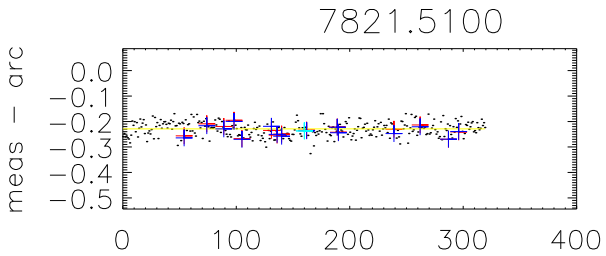

6553.6100
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

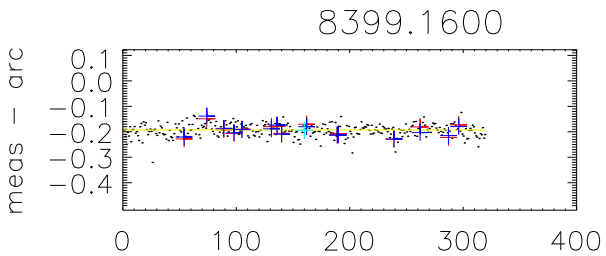

6923.2100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

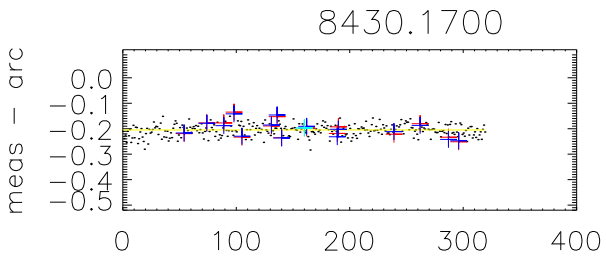

6949.0300
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

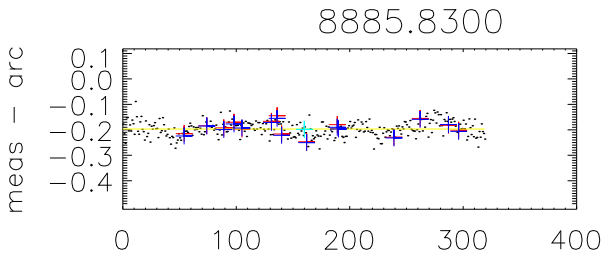

7571.7500
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

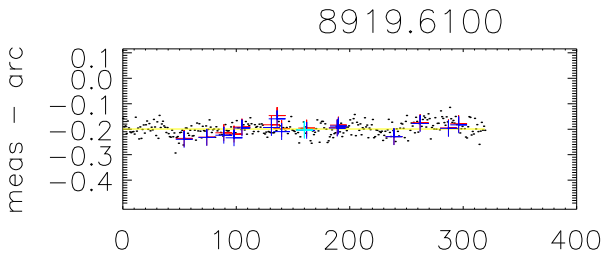

7794.1200
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

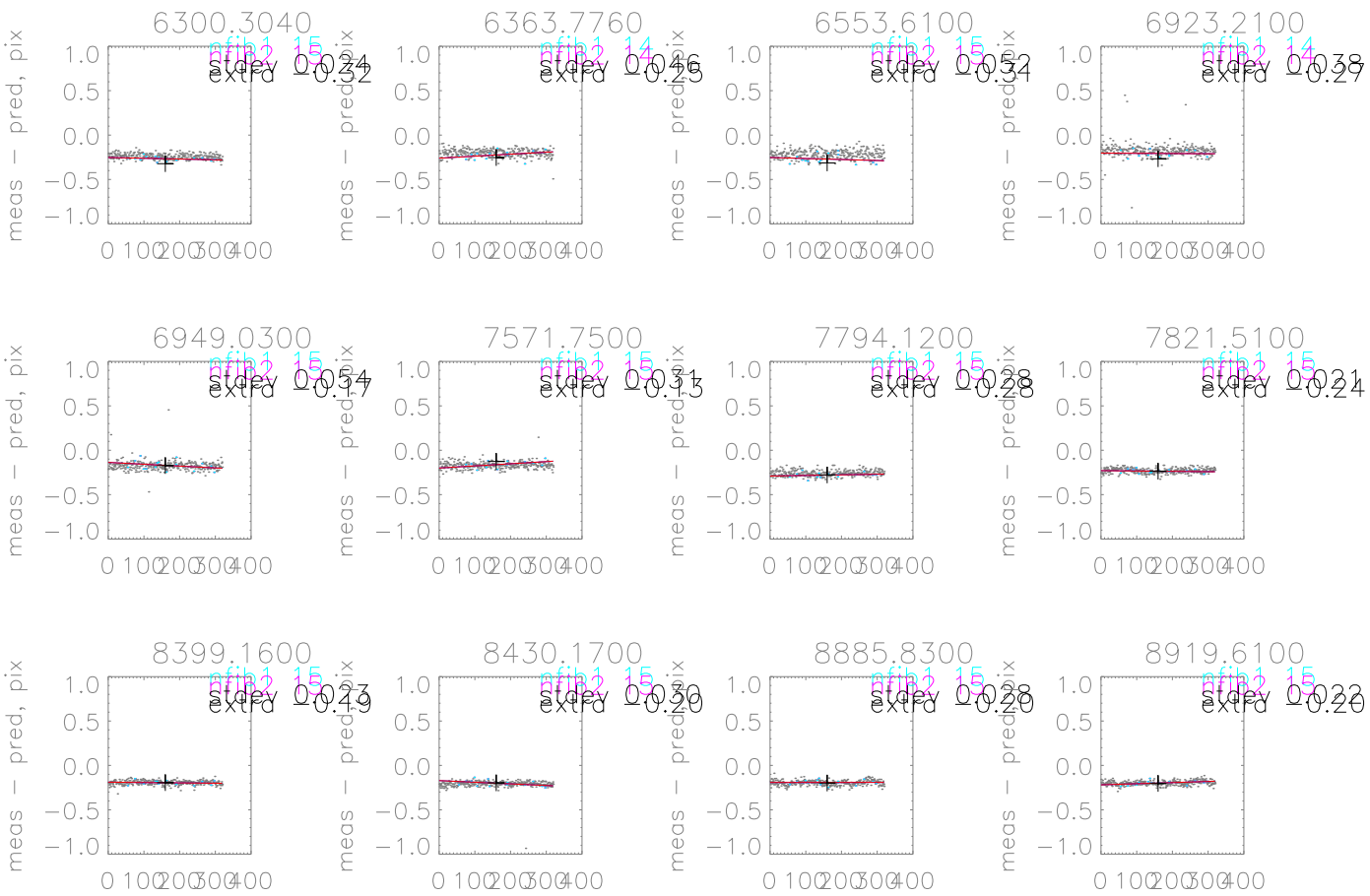

7821.5100
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

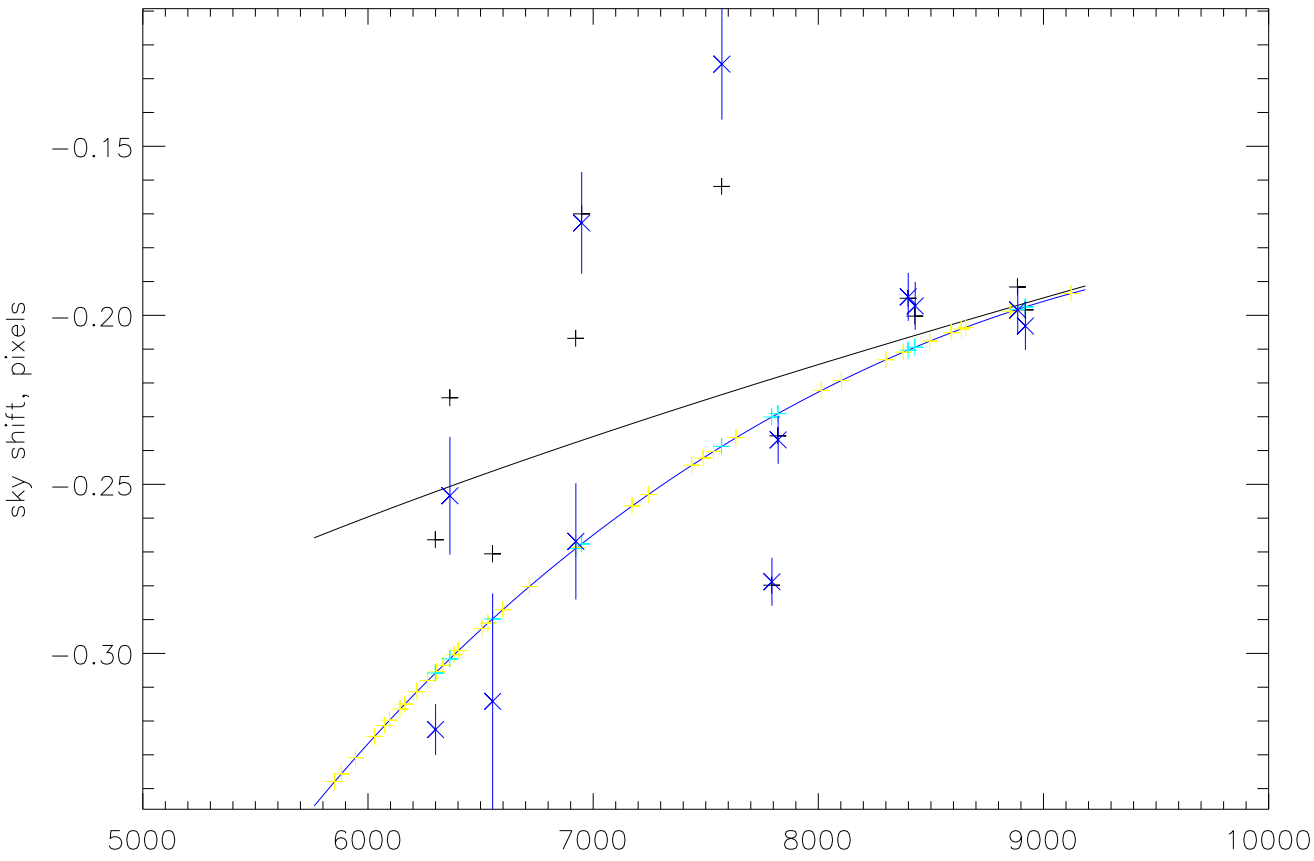

8399.1600
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

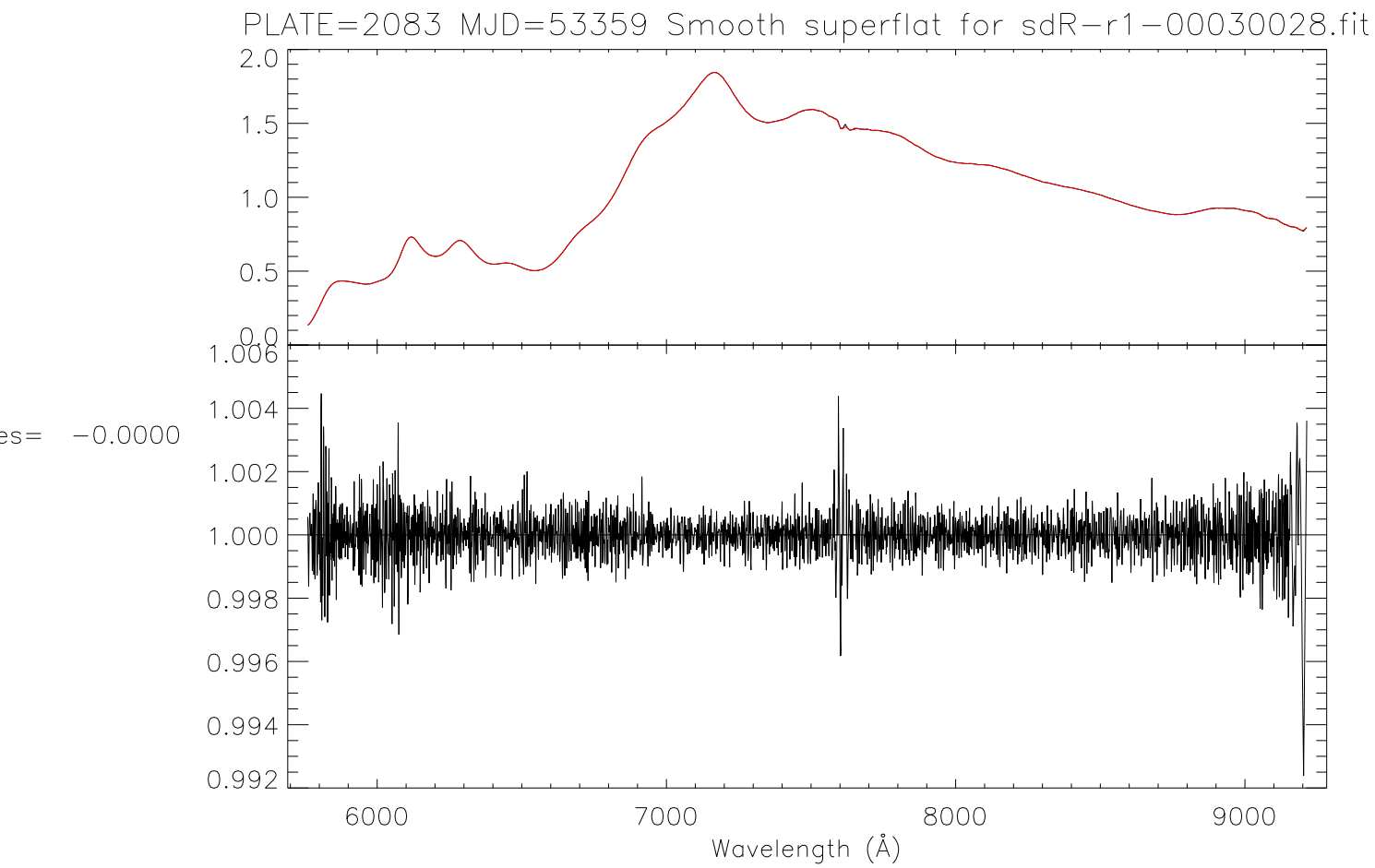

8430.1700
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400


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

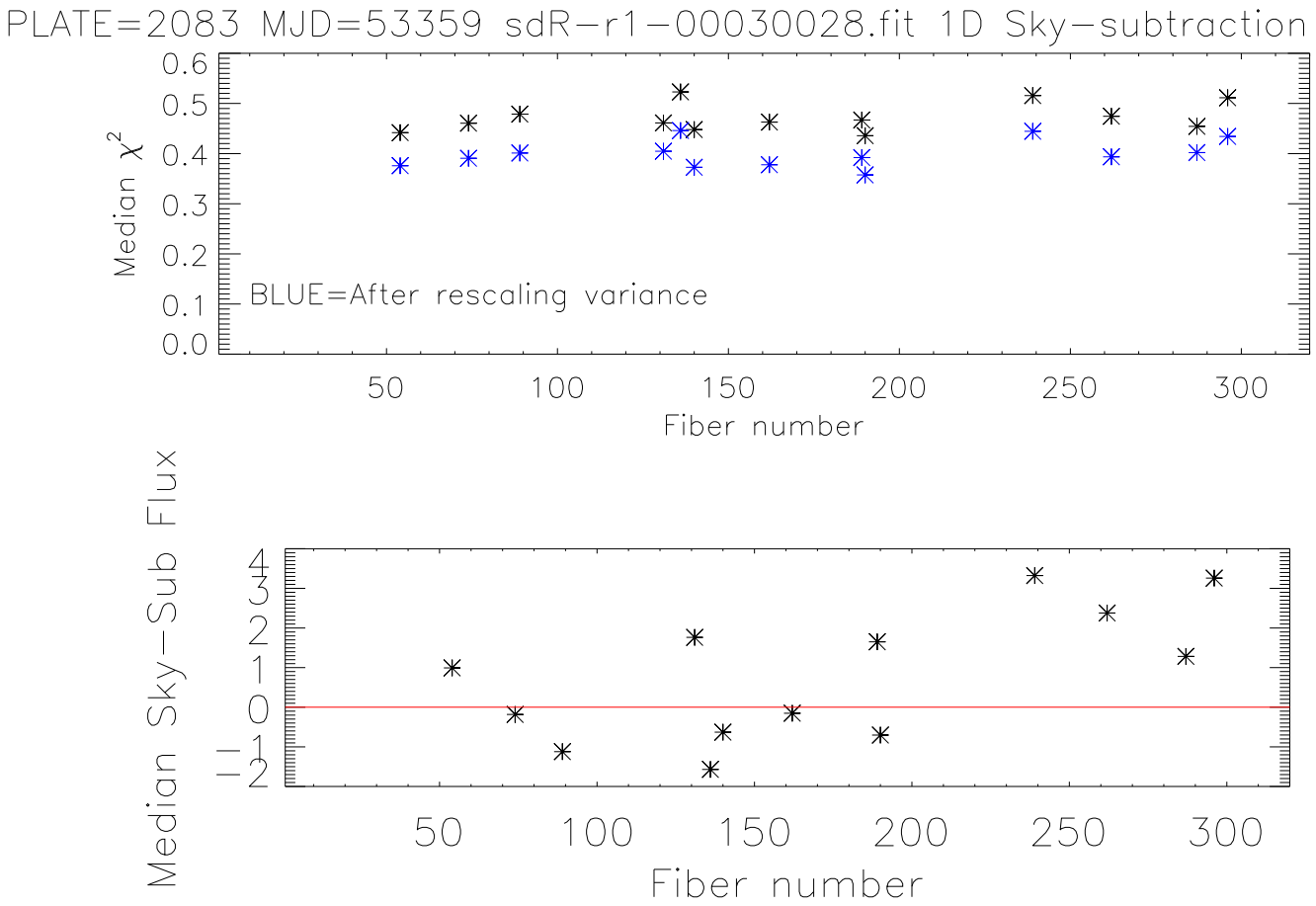

8919.6100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

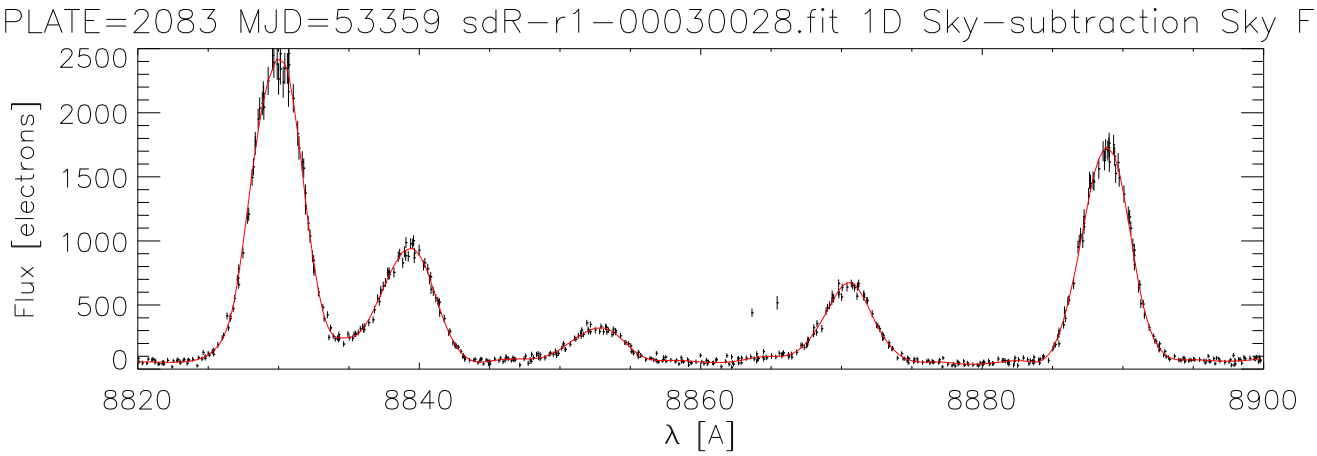

6300.3040
mfhi1 15
mfhi2 15
stdev 0.024
extra 0.32
6363.7760
mfhi1 14
mfhi2 15
stdev 0.046
extra 0.25
6553.6100
mfhi1 15
mfhi2 15
stdev 0.052
extra 0.34
6923.2100
mfhi1 14
mfhi2 14
stdev 0.038
extra 0.27
6949.0300
mfhi1 15
mfhi2 15
stdev 0.054
extra 0.17
7571.7500
mfhi1 15
mfhi2 15
stdev 0.031
extra 0.13
7794.1200
mfhi1 15
mfhi2 15
stdev 0.028
extra 0.28
7821.5100
mfhi1 15
mfhi2 15
stdev 0.021
extra 0.24
8399.1600
mfhi1 15
mfhi2 15
stdev 0.023
extra 0.49
8430.1700
mfhi1 15
mfhi2 15
stdev 0.030
extra 0.20
8885.8300
mfhi1 15
mfhi2 15
stdev 0.028
extra 0.20
8919.6100
mfhi1 15
mfhi2 15
stdev 0.022
extra 0.20
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400

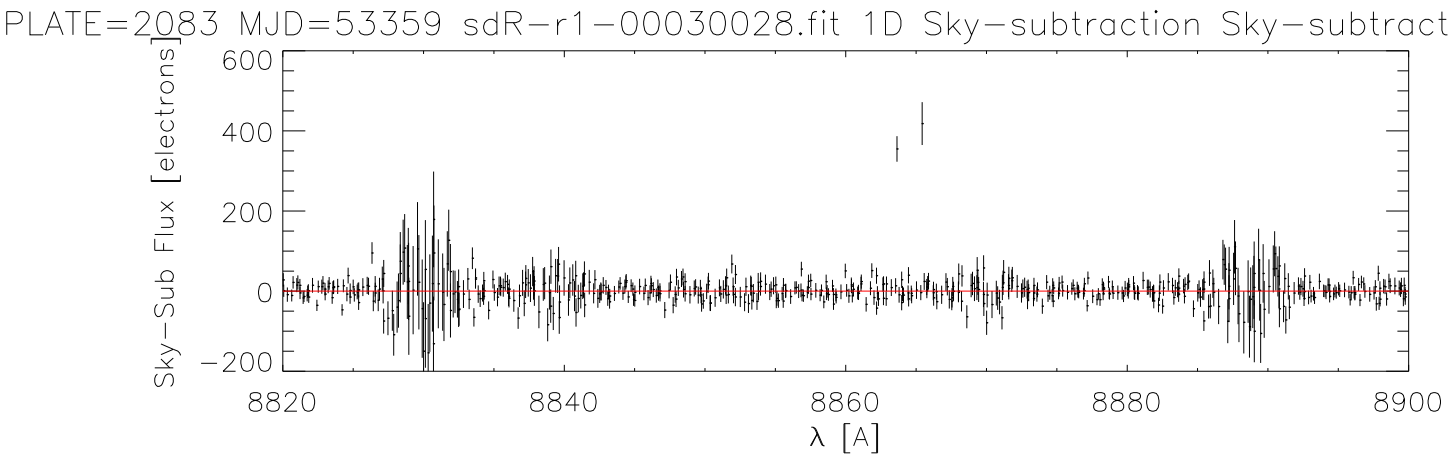

−0.15
−0.20
−0.25
−0.30
sky shift, pixels
5000
6000
7000
8000
9000
10000

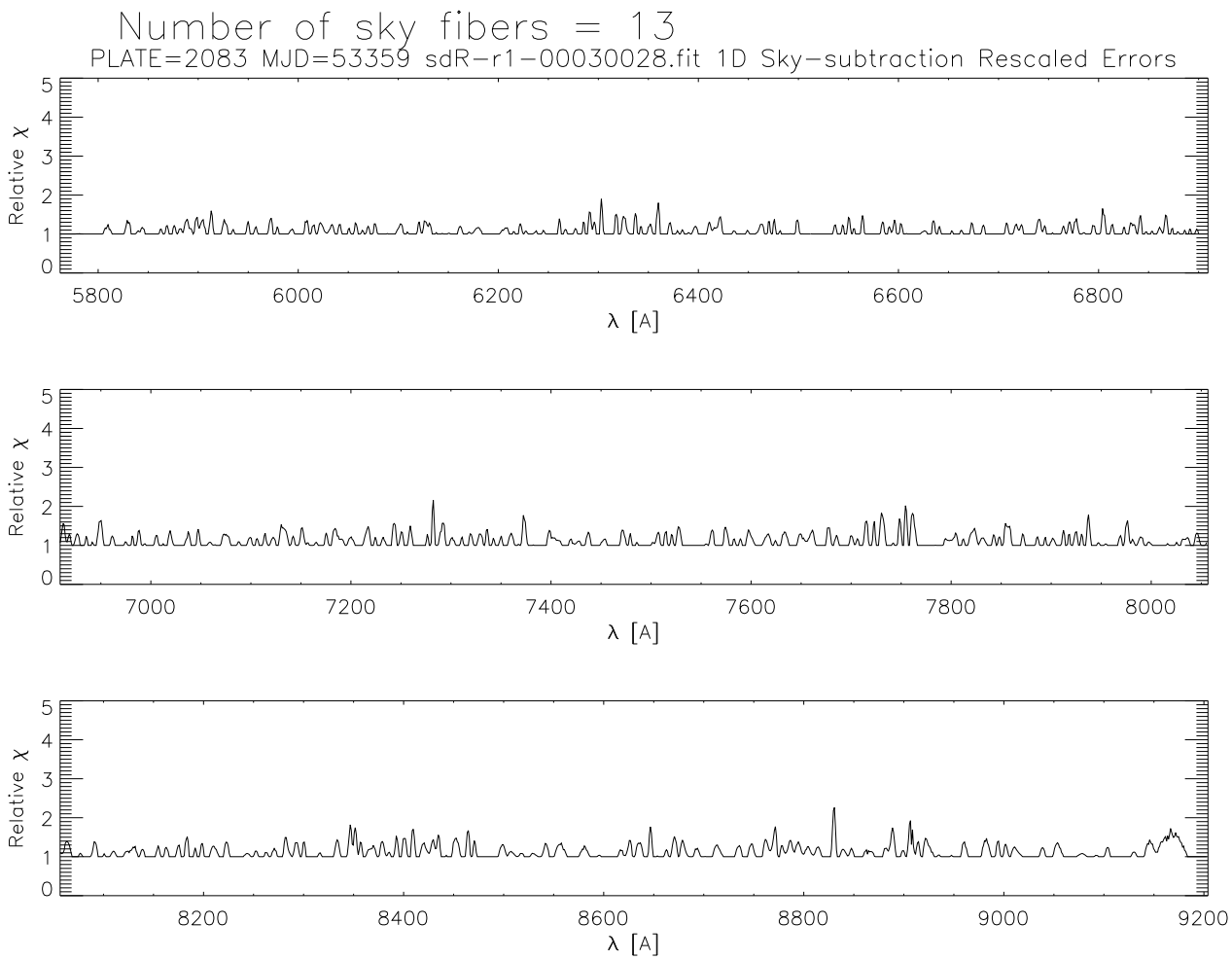

PLATE=2083 MJD=53359 Smooth superflat for sdR-r1-00030028.fit
2.0
1.5
1.0
0.5
0.0
1.006
1.004
1.002
1.000
0.998
0.996
0.994
0.992
6000
7000
8000
9000
Wavelength (Å)

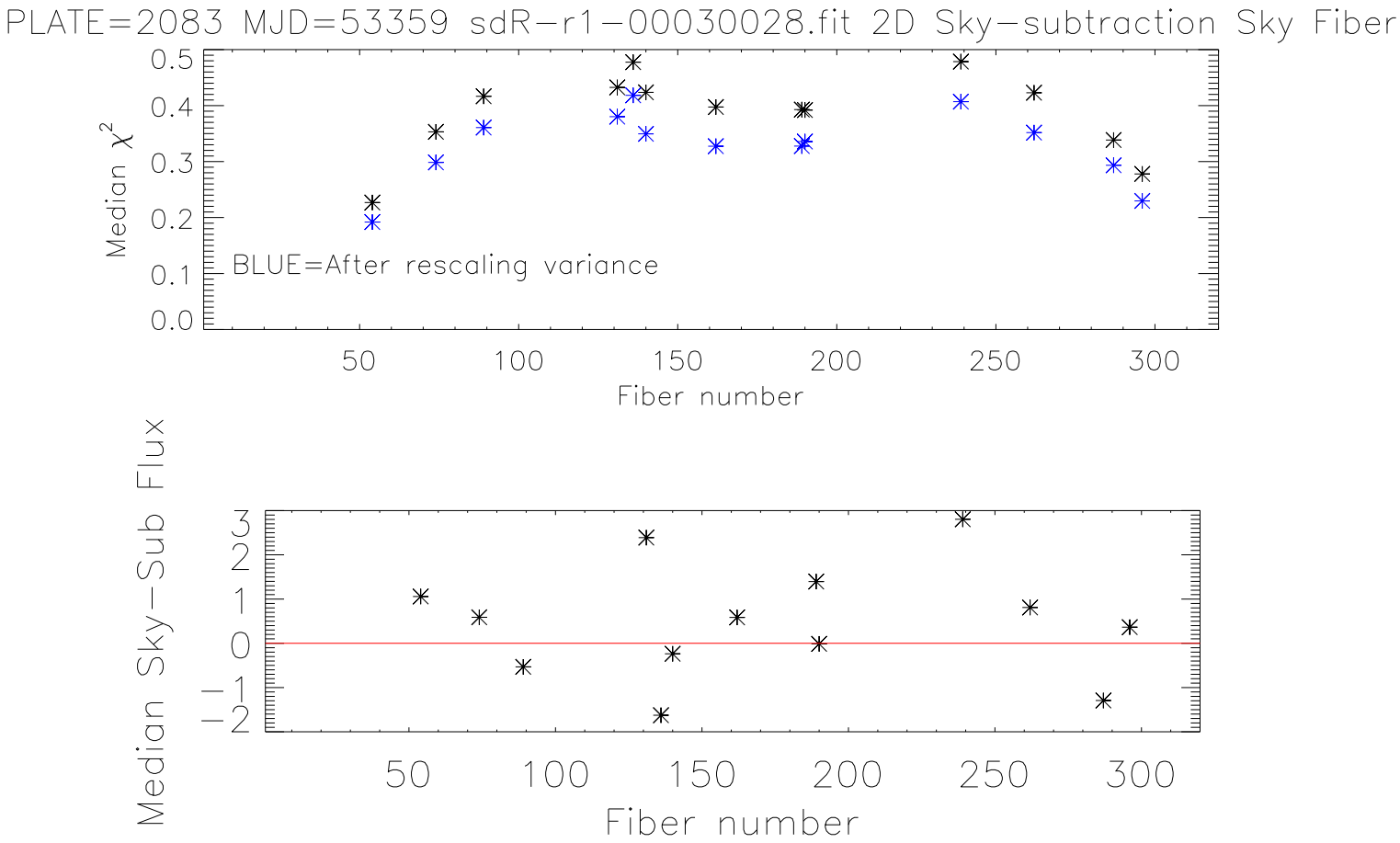
es= −0.0000

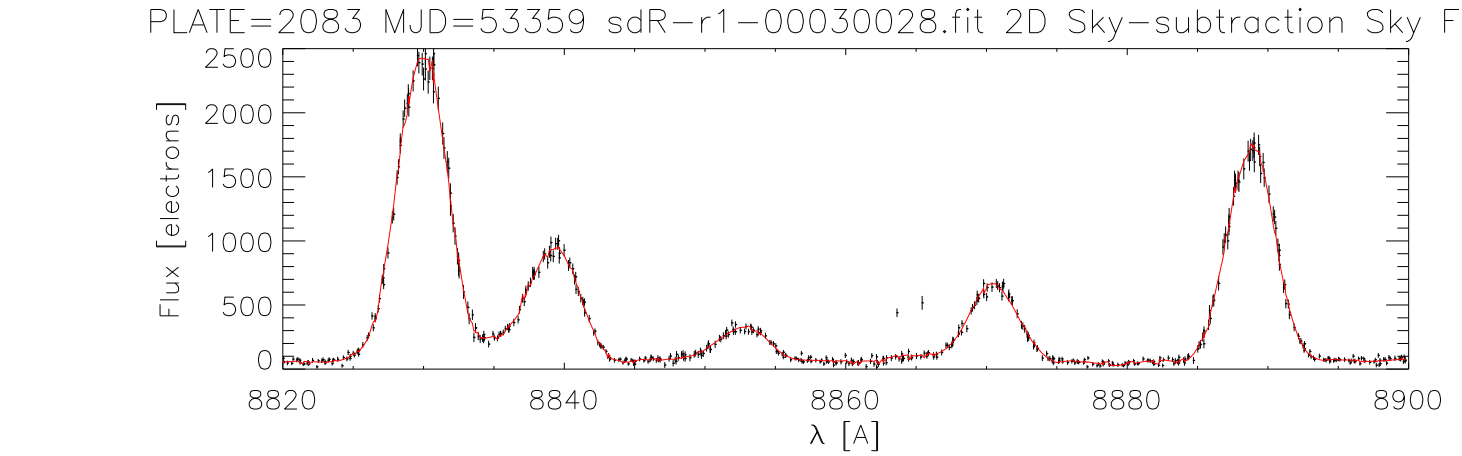

PLATE=2083 MJD=53359 sdR-r1-00030028.fit 1D Sky-subtraction Sky Fibers
Median $\chi^2$
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

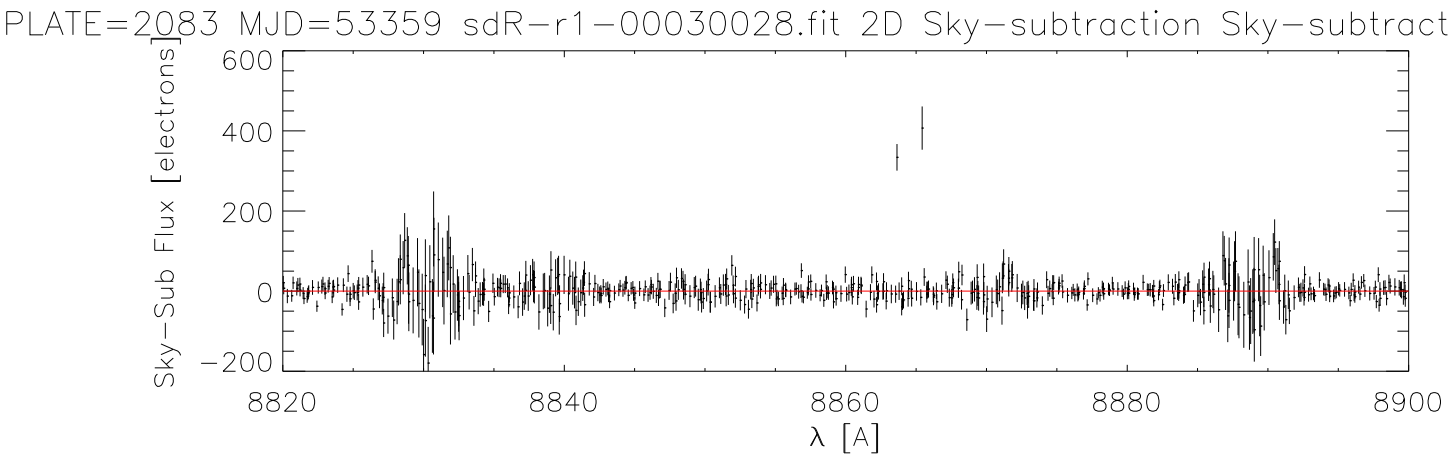

PLATE=2083 MJD=53359 sdR-r1-00030028.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
2500
2000
1500
1000
500
0
8820
8840
8860
8880
8900
λ [A]

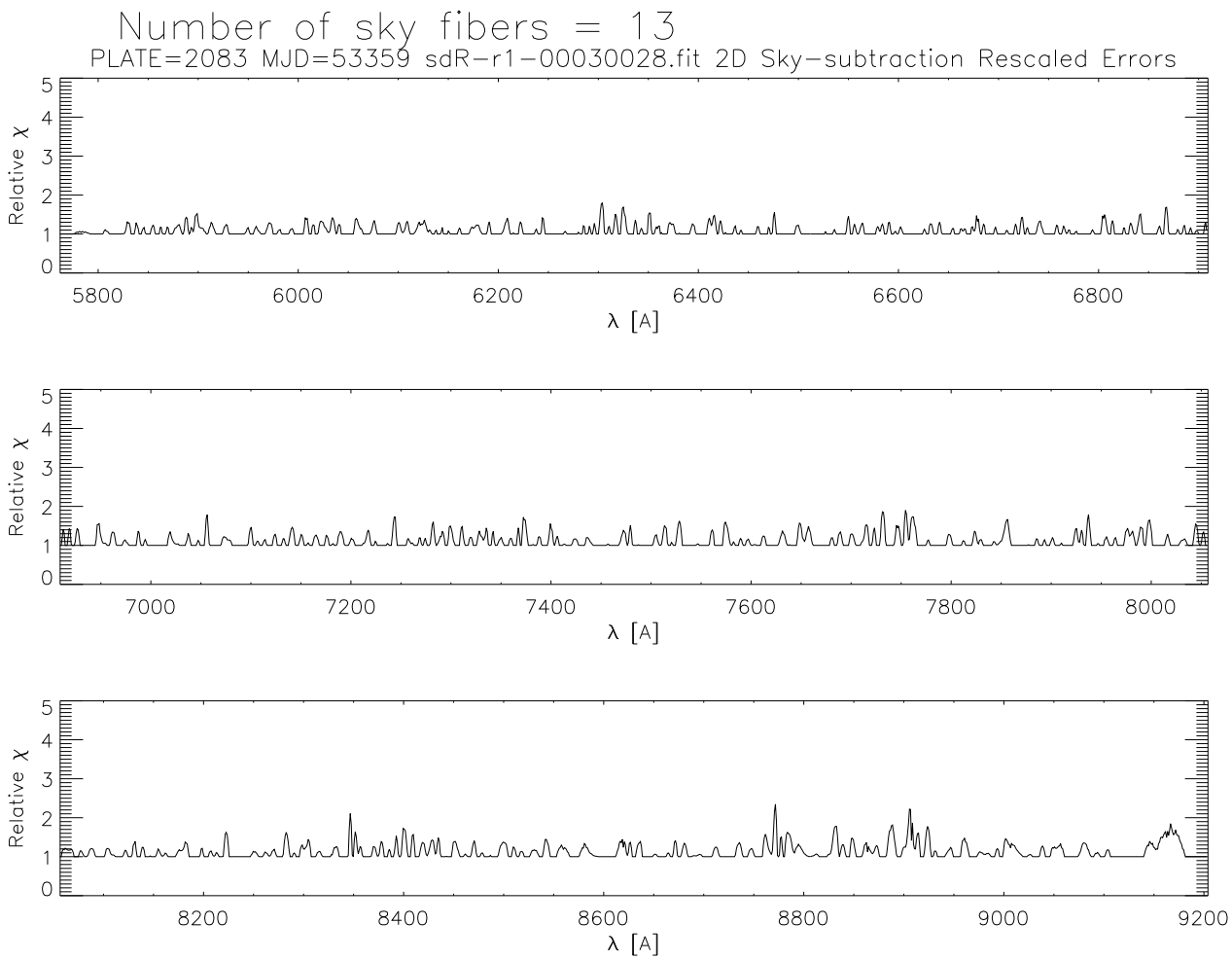

PLATE=2083 MJD=53359 sdR-r1-00030028.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
-200
8820
8840
8860
8880
8900
λ [A]

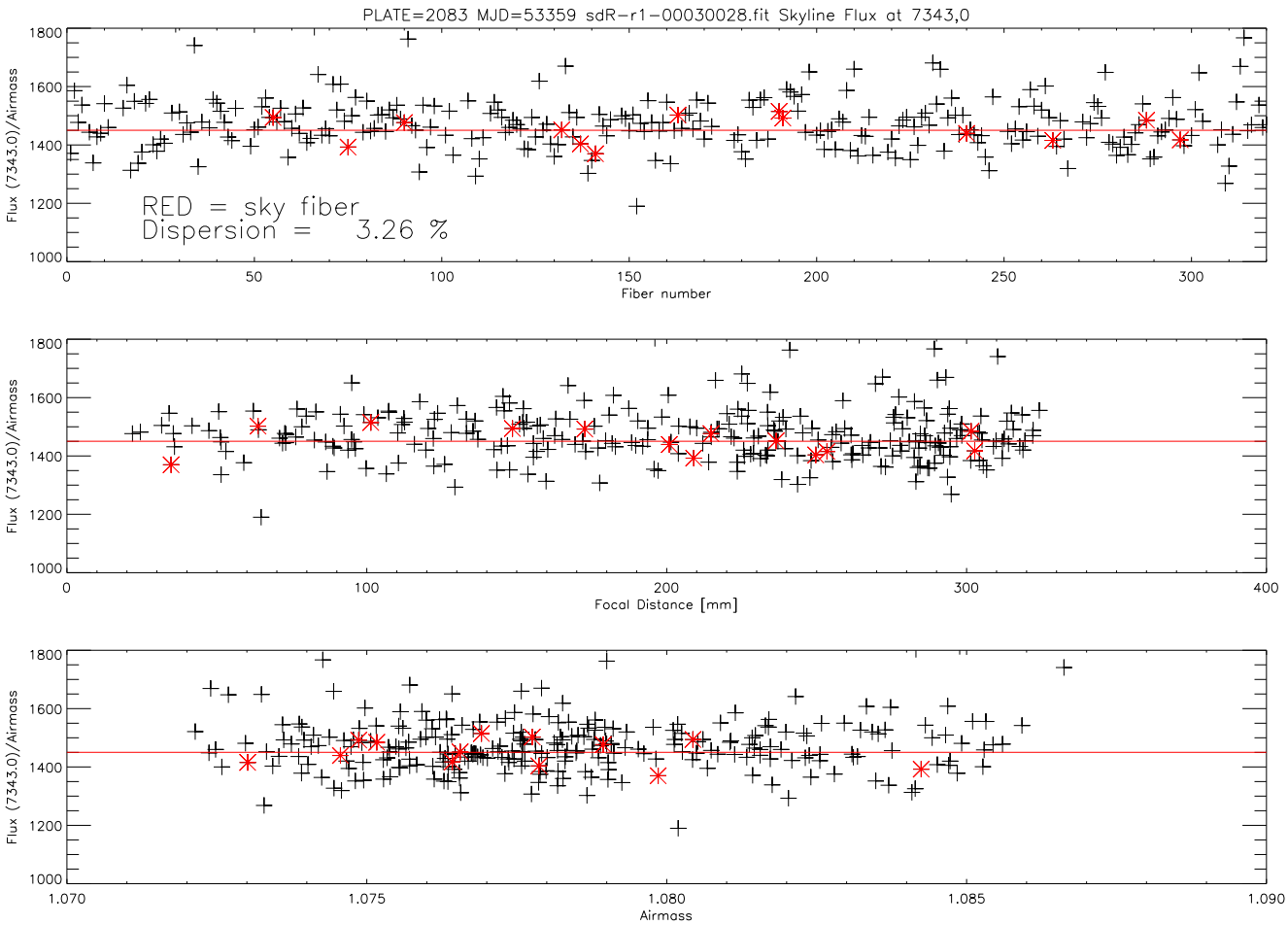

Number of sky fibers = 13
PLATE=2083 MJD=53359 sdR-r1-00030028.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

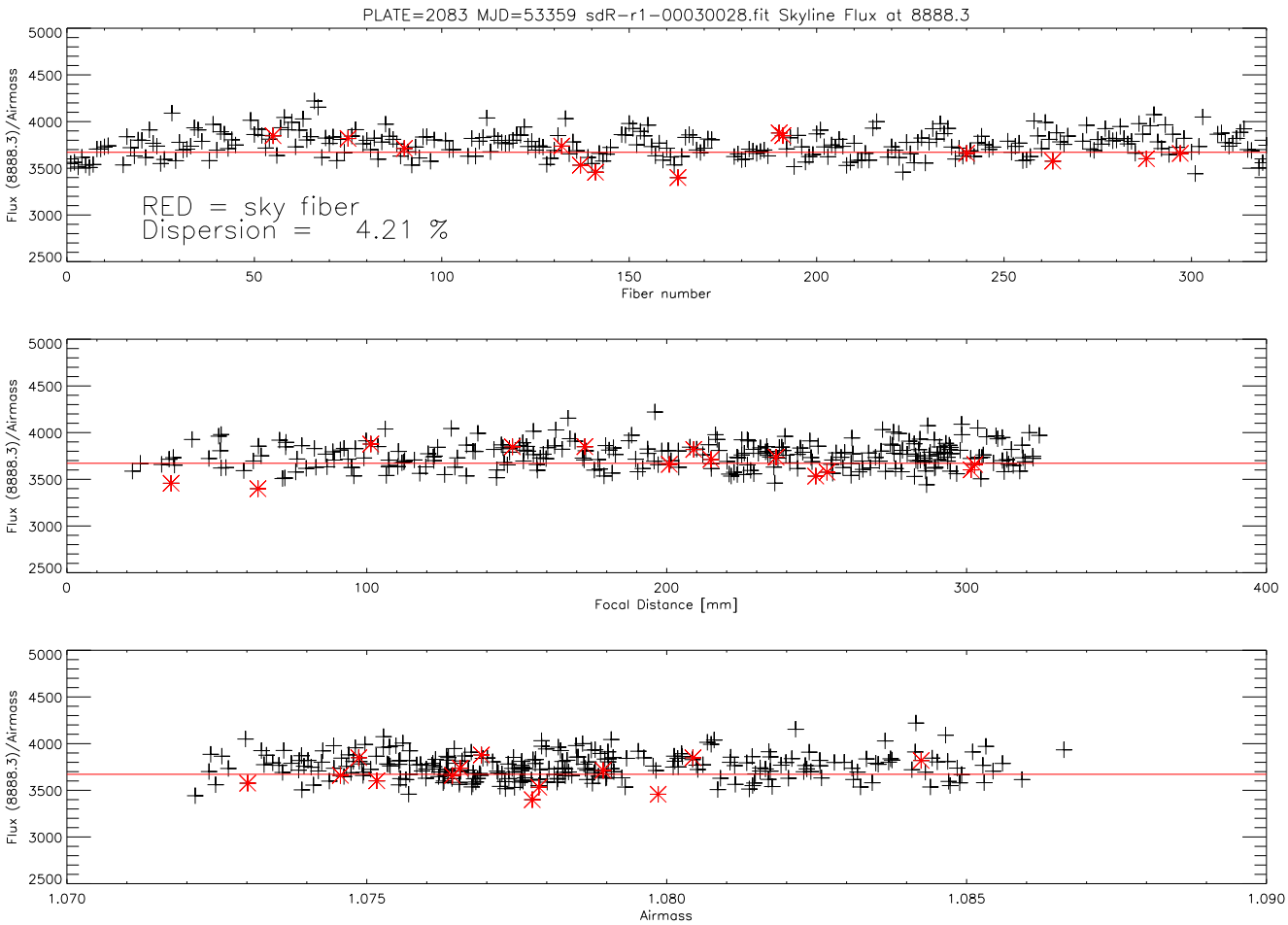

PLATE=2083 MJD=53359 sdR-r1-00030028.fit 2D Sky-subtraction Sky Fibers
Median $\chi^2$
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

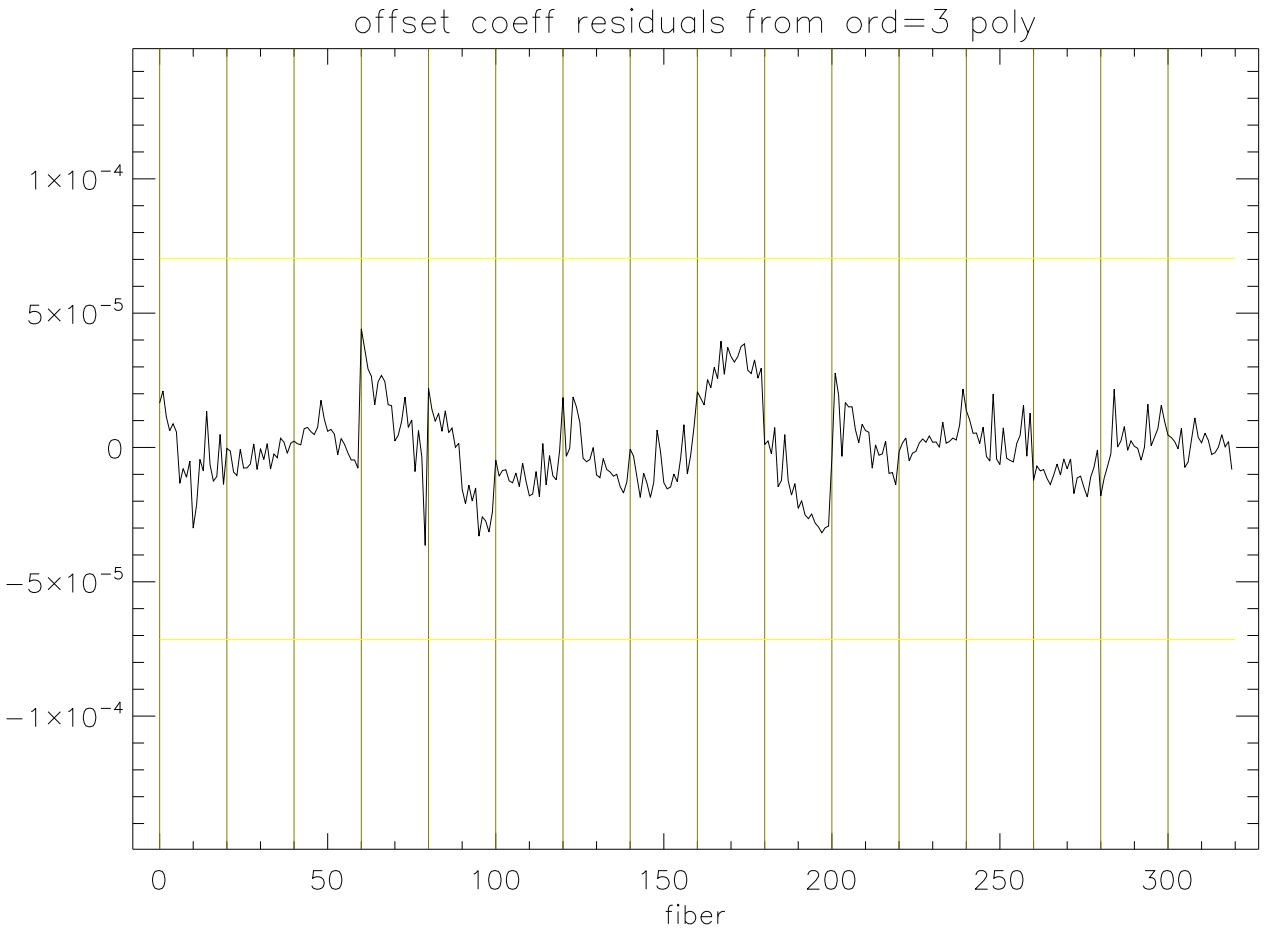

PLATE=2083 MJD=53359 sdR-r1-00030028.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
2500
2000
1500
1000
500
0
8820
8840
8860
8880
8900
λ [A]

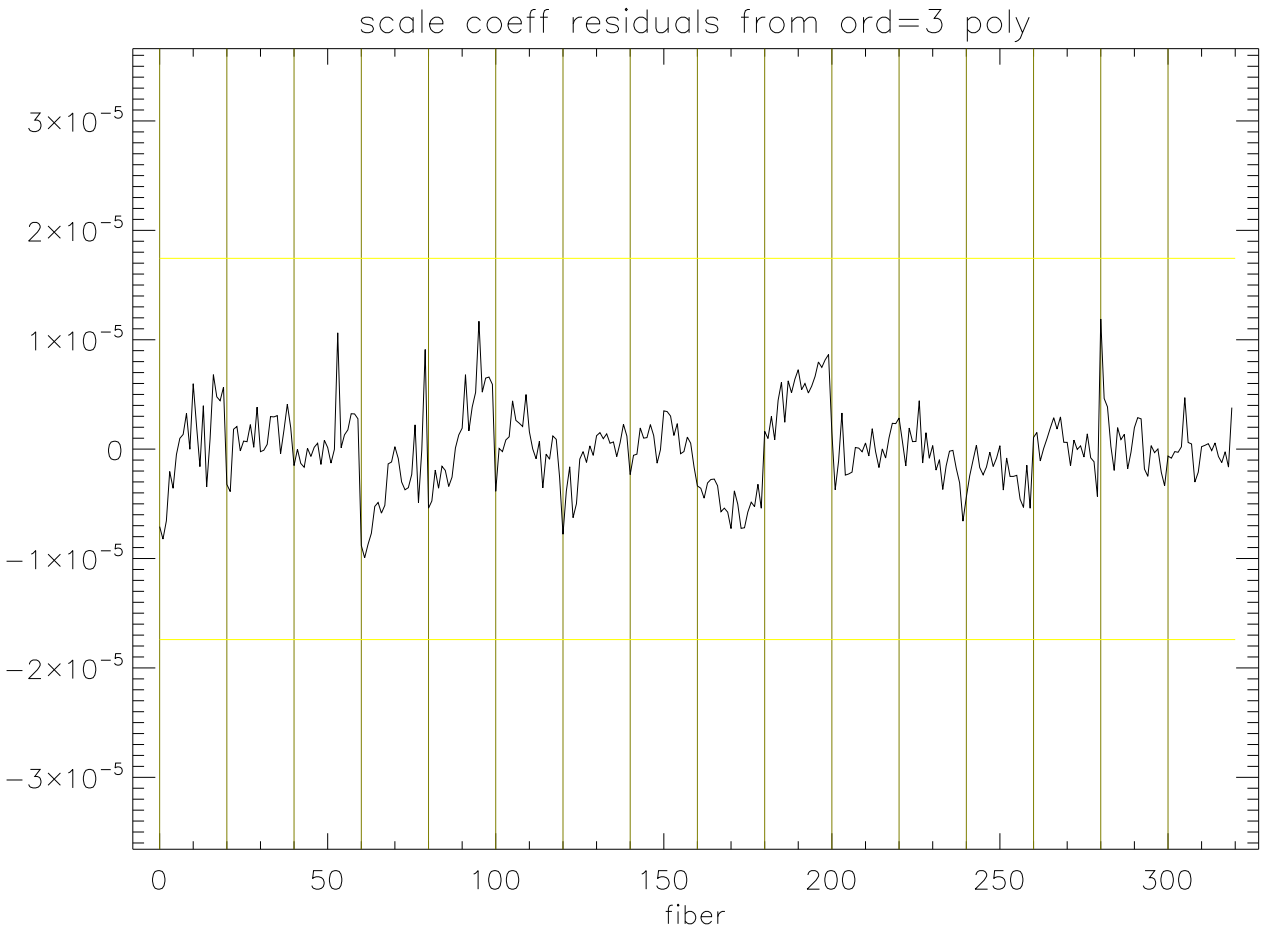

PLATE=2083 MJD=53359 sdR-r1-00030028.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
-200
8820
8840
8860
8880
8900
λ [A]

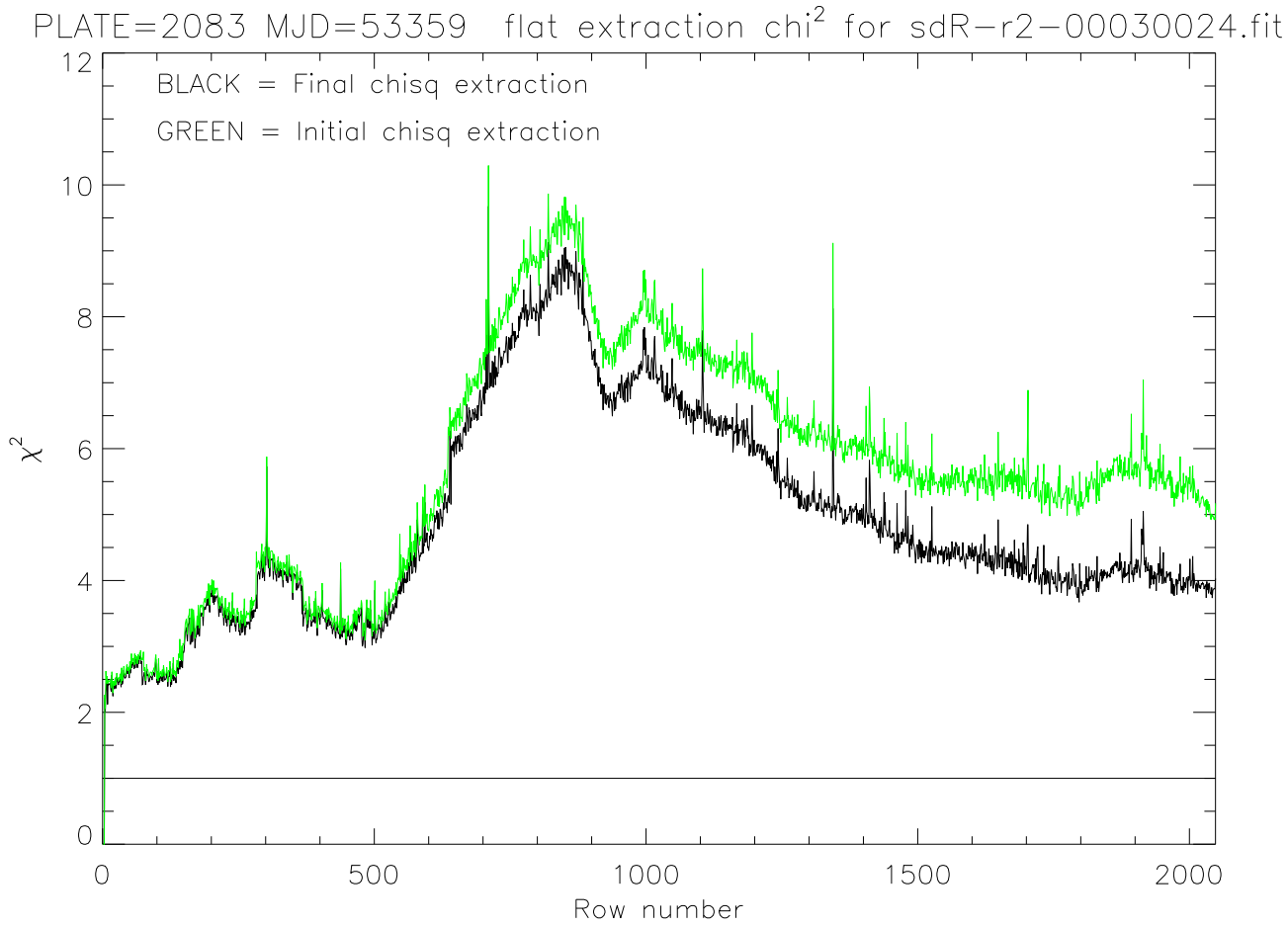

Number of sky fibers = 13
PLATE=2083 MJD=53359 sdR-r1-00030028.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

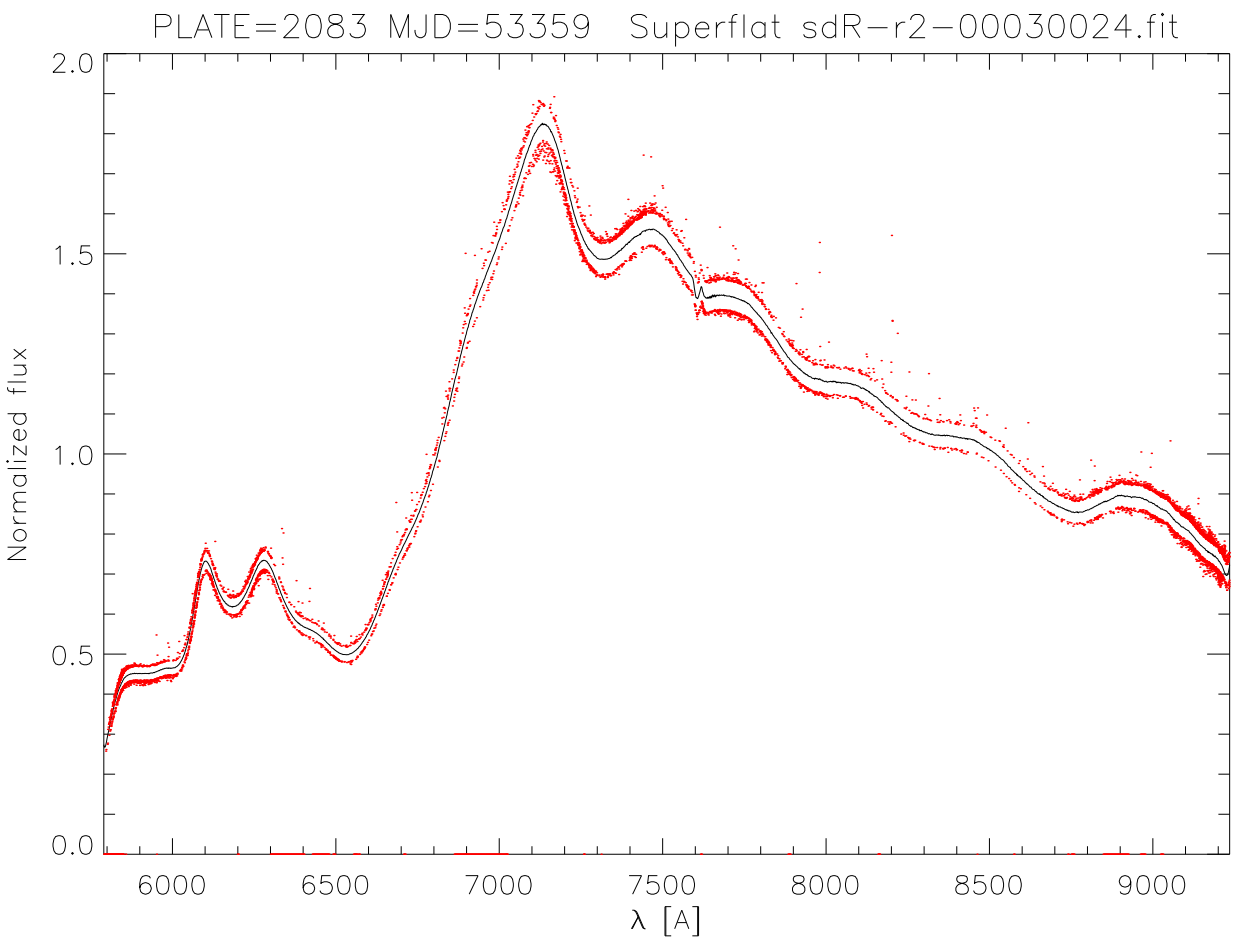

PLATE=2083 MJD=53359 sdR-r1-00030028.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 3.26 %
Fiber number
Focal Distance [mm]
Airmass

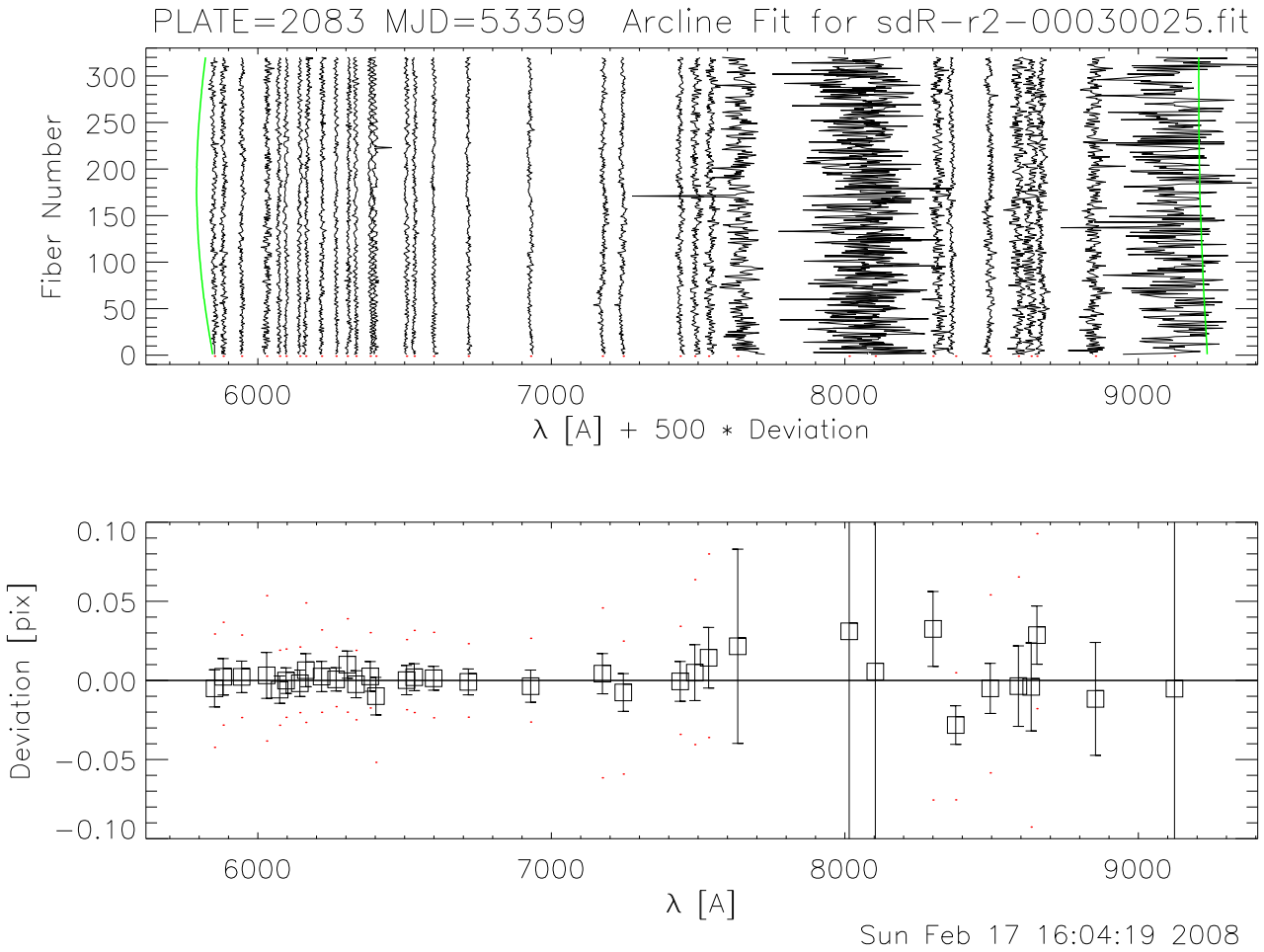

PLATE=2083 MJD=53359 sdR-r1-00030028.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 4.21 %
Fiber number
Focal Distance [mm]
Airmass

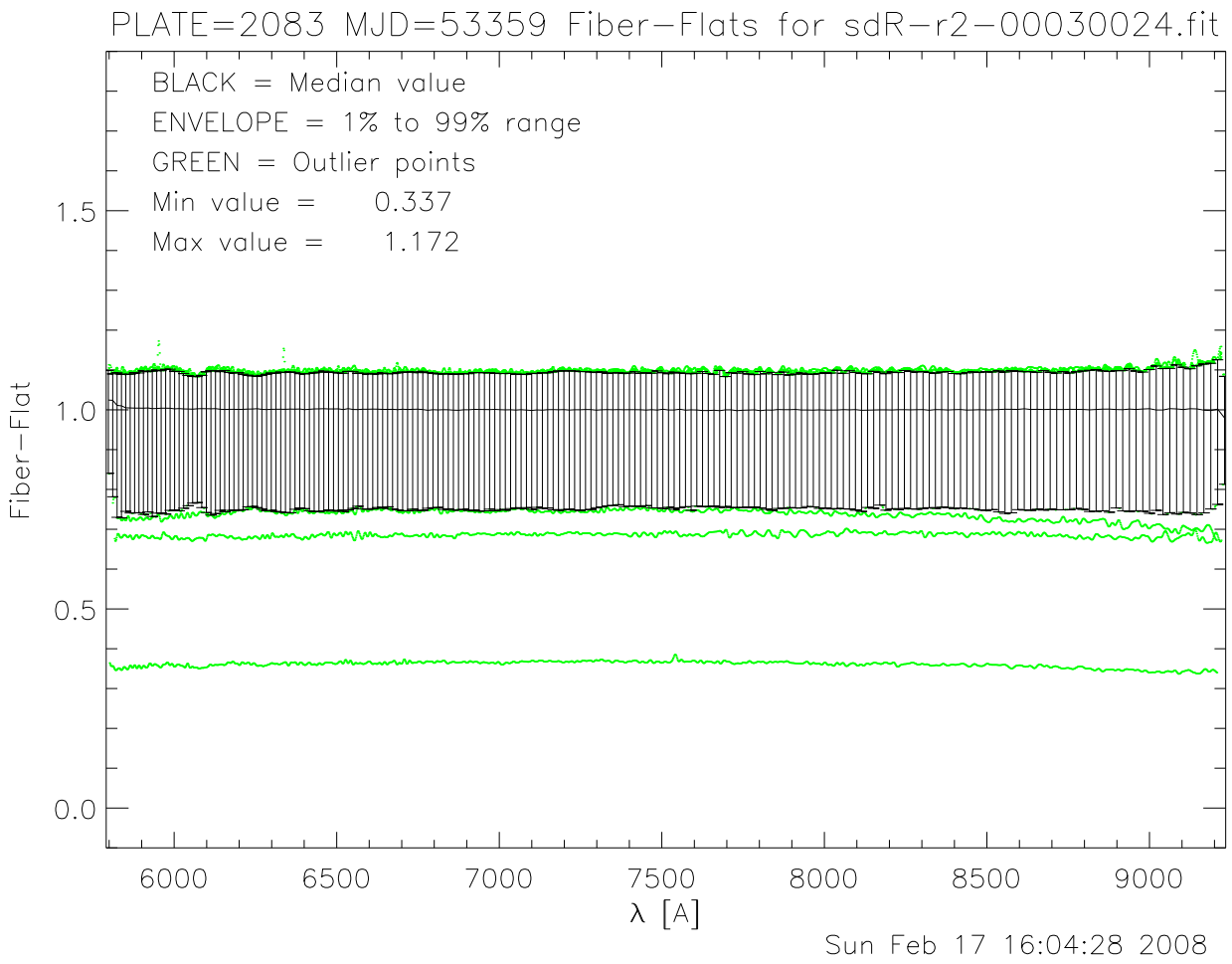

offset coeff residuals from ord=3 poly
1×10^-4
5×10^-5
0
−5×10^-5
−1×10^-4
0
50
100
150
200
250
300
fiber

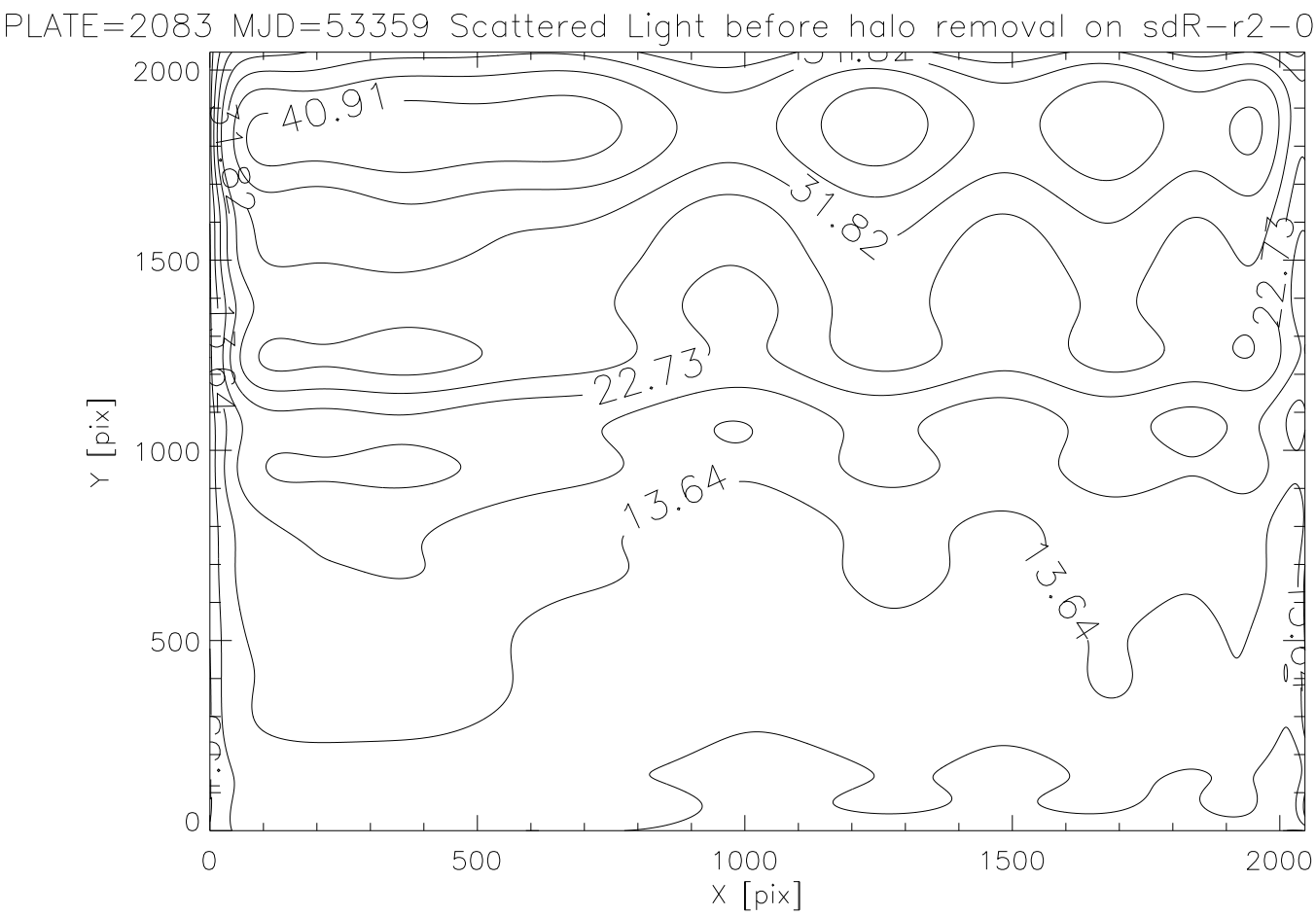

scale coeff residuals from ord=3 poly
3×10⁻⁵
2×10⁻⁵
1×10⁻⁵
0
−1×10⁻⁵
−2×10⁻⁵
−3×10⁻⁵
0
50
100
150
200
250
300
fiber

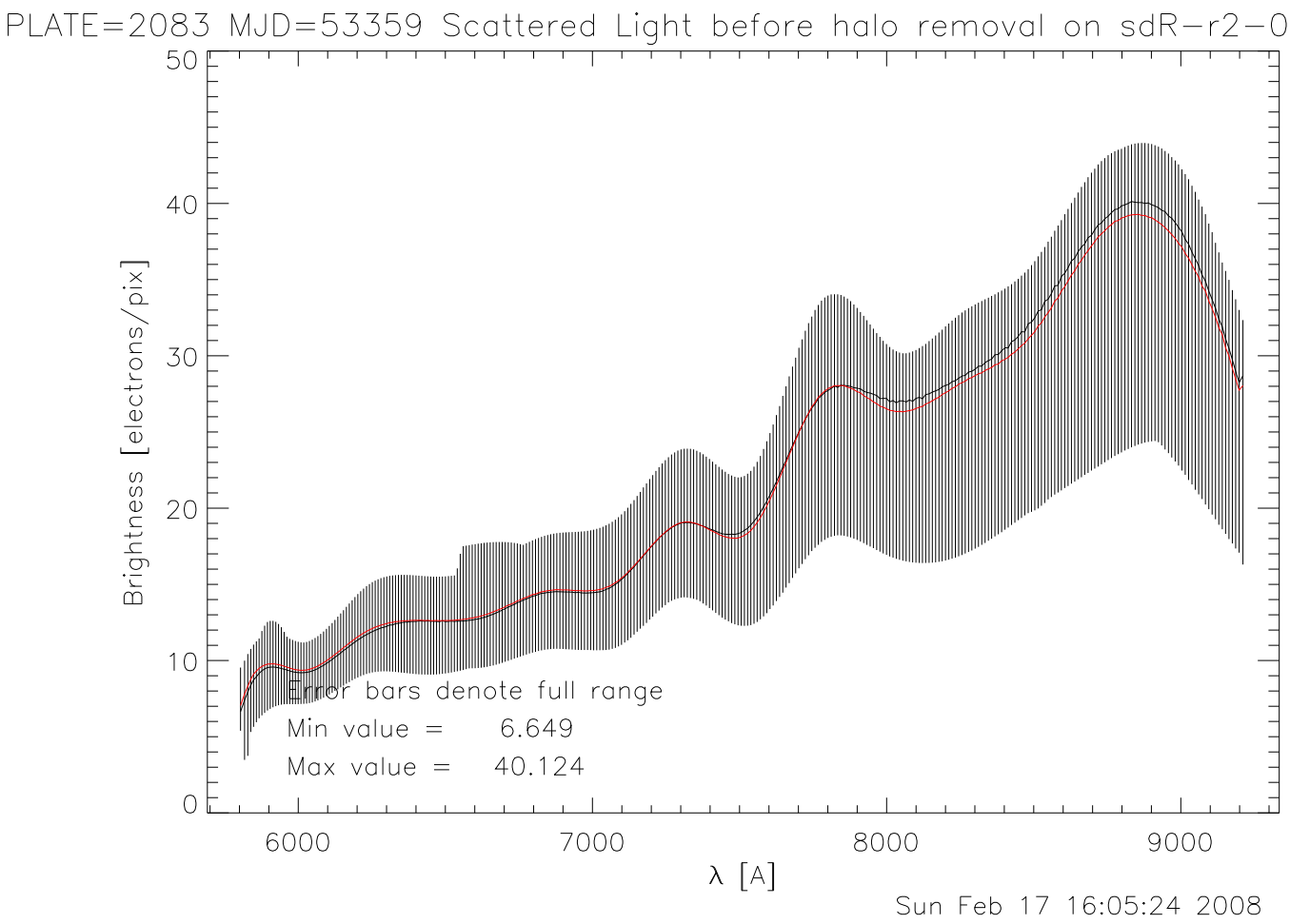

PLATE=2083 MJD=53359 flat extraction chi$^2$ for sdR-r2-00030024.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
$\chi^2$
Row number
0
2
4
6
8
10
12
0
500
1000
1500
2000

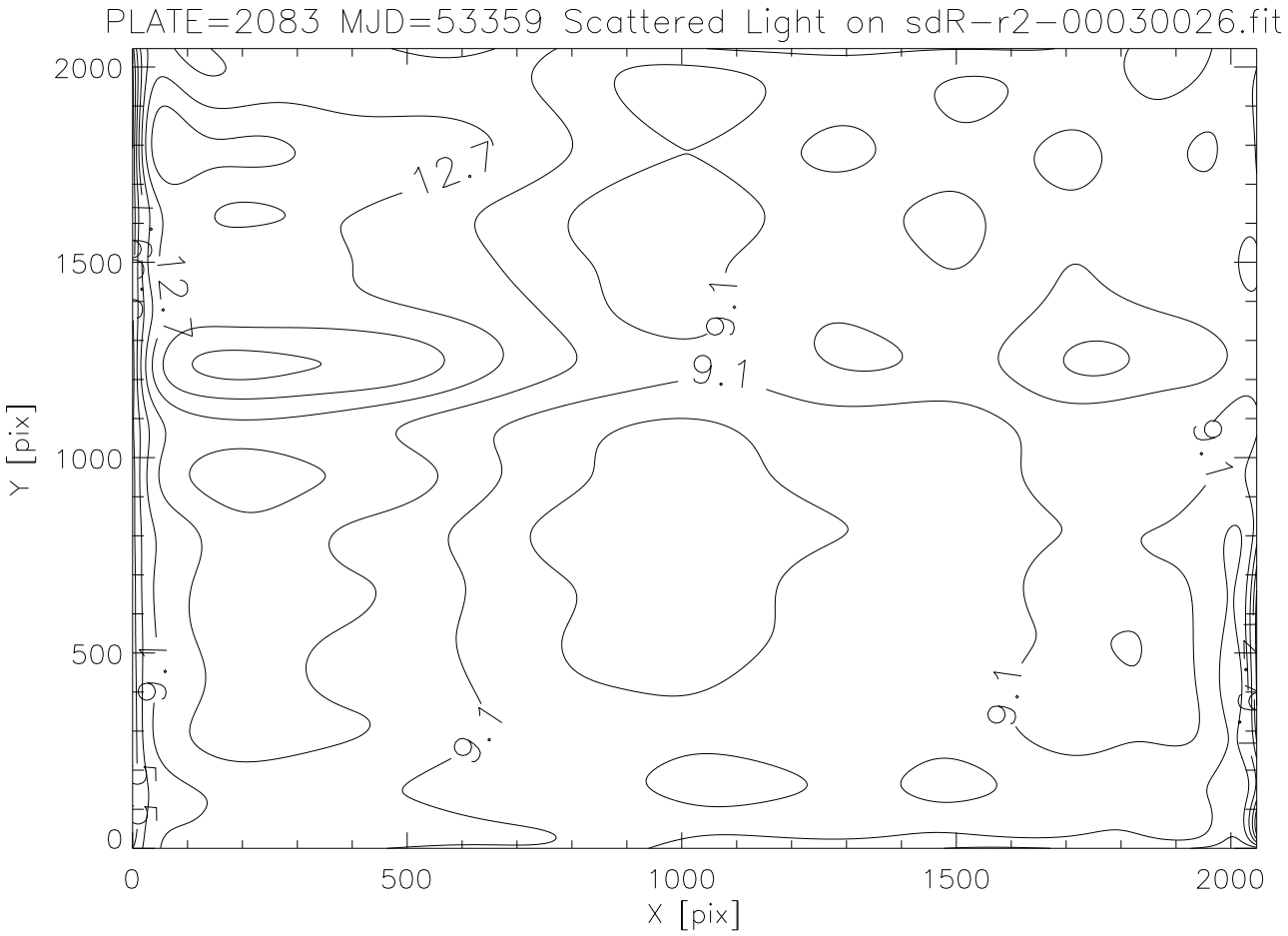

PLATE=2083 MJD=53359 Superflat sdR-r2-00030024.fit
Normalized flux
2.0
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

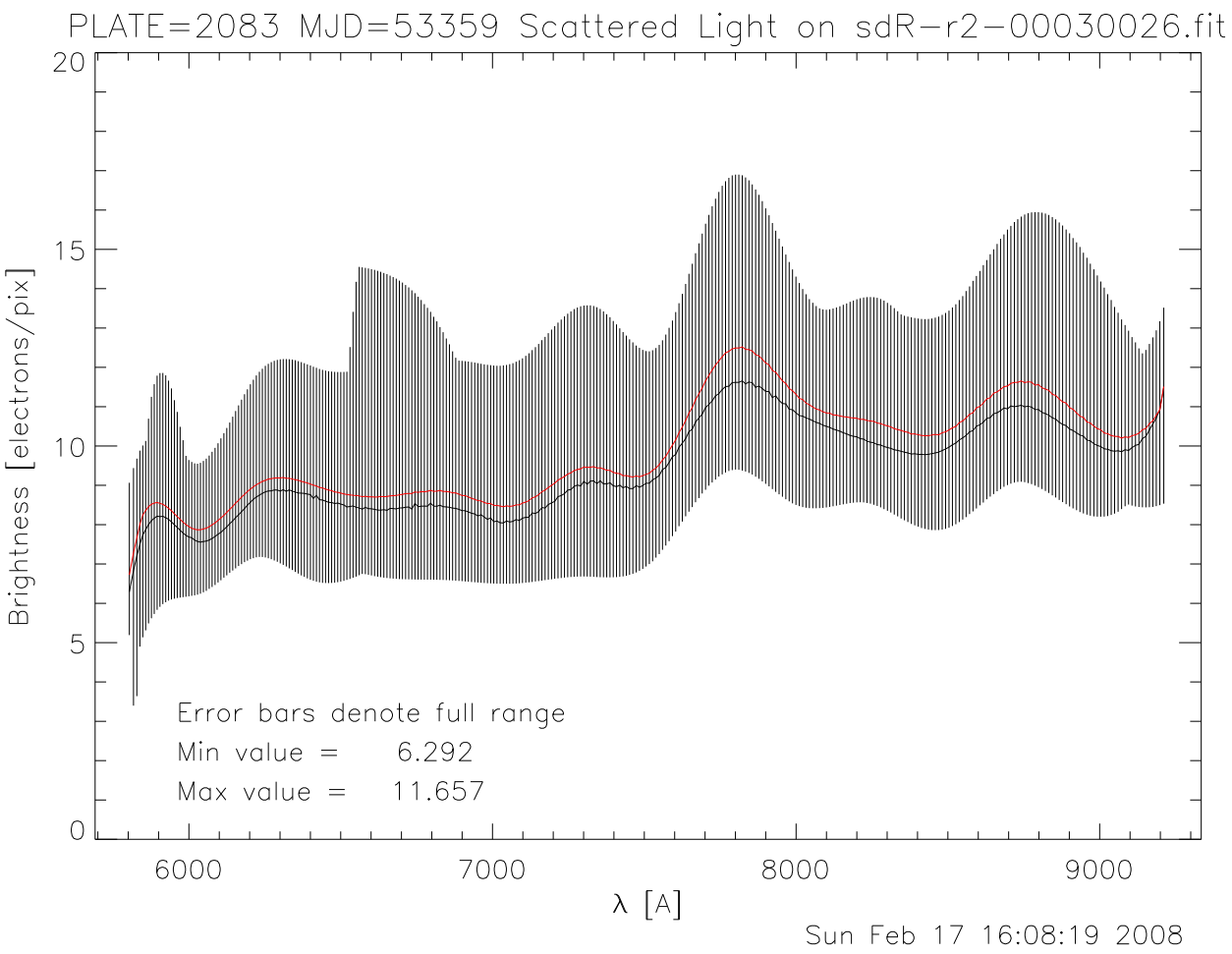

PLATE=2083 MJD=53359 Arcline Fit for sdR-r2-00030025.fit
Fiber Number
300
250
200
150
100
50
0
6000
7000
8000
9000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
6000
7000
8000
9000
λ [A]
Sun Feb 17 16:04:19 2008

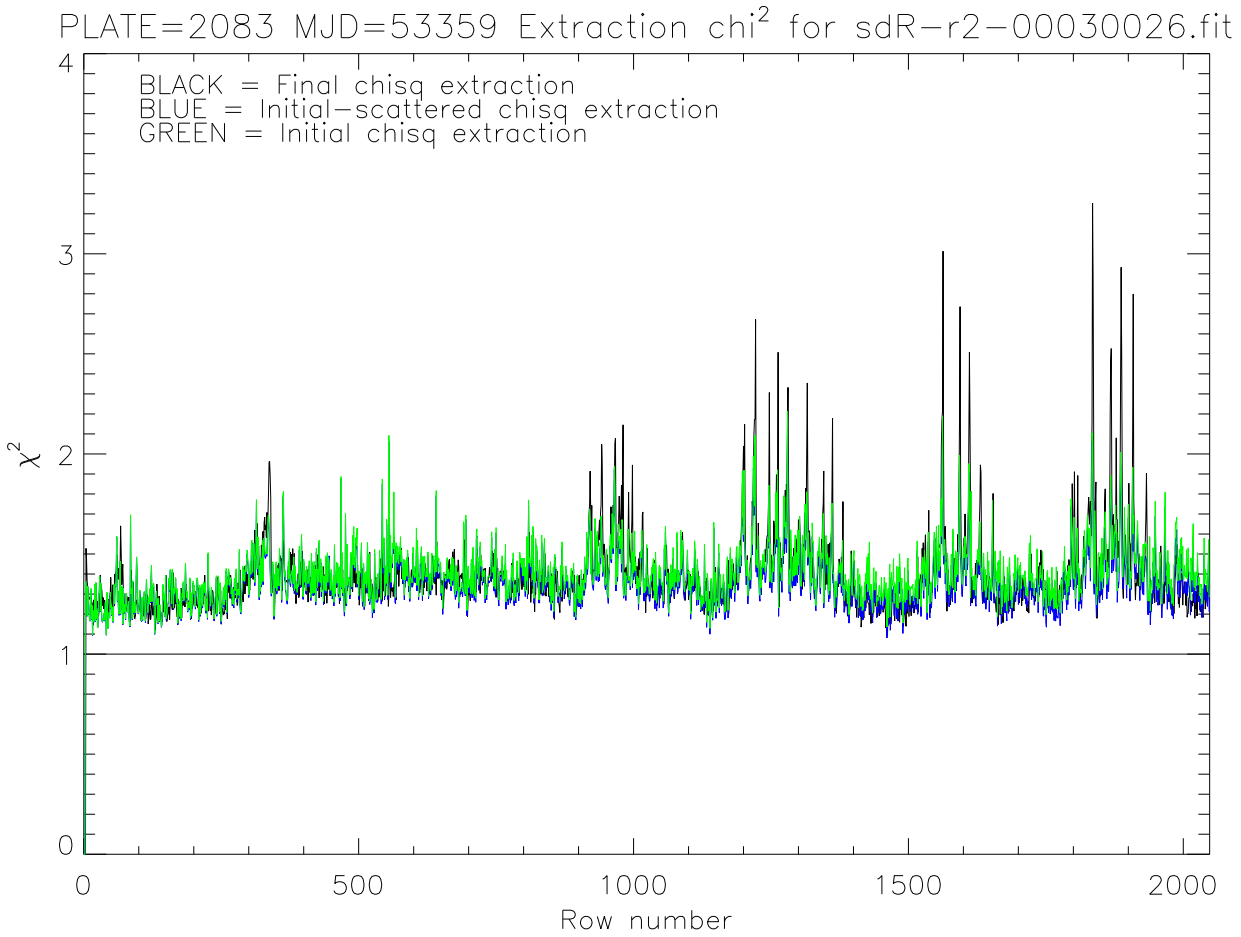

PLATE=2083 MJD=53359 Fiber−Flats for sdR−r2−00030024.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.337
Max value = 1.172
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sun Feb 17 16:04:28 2008

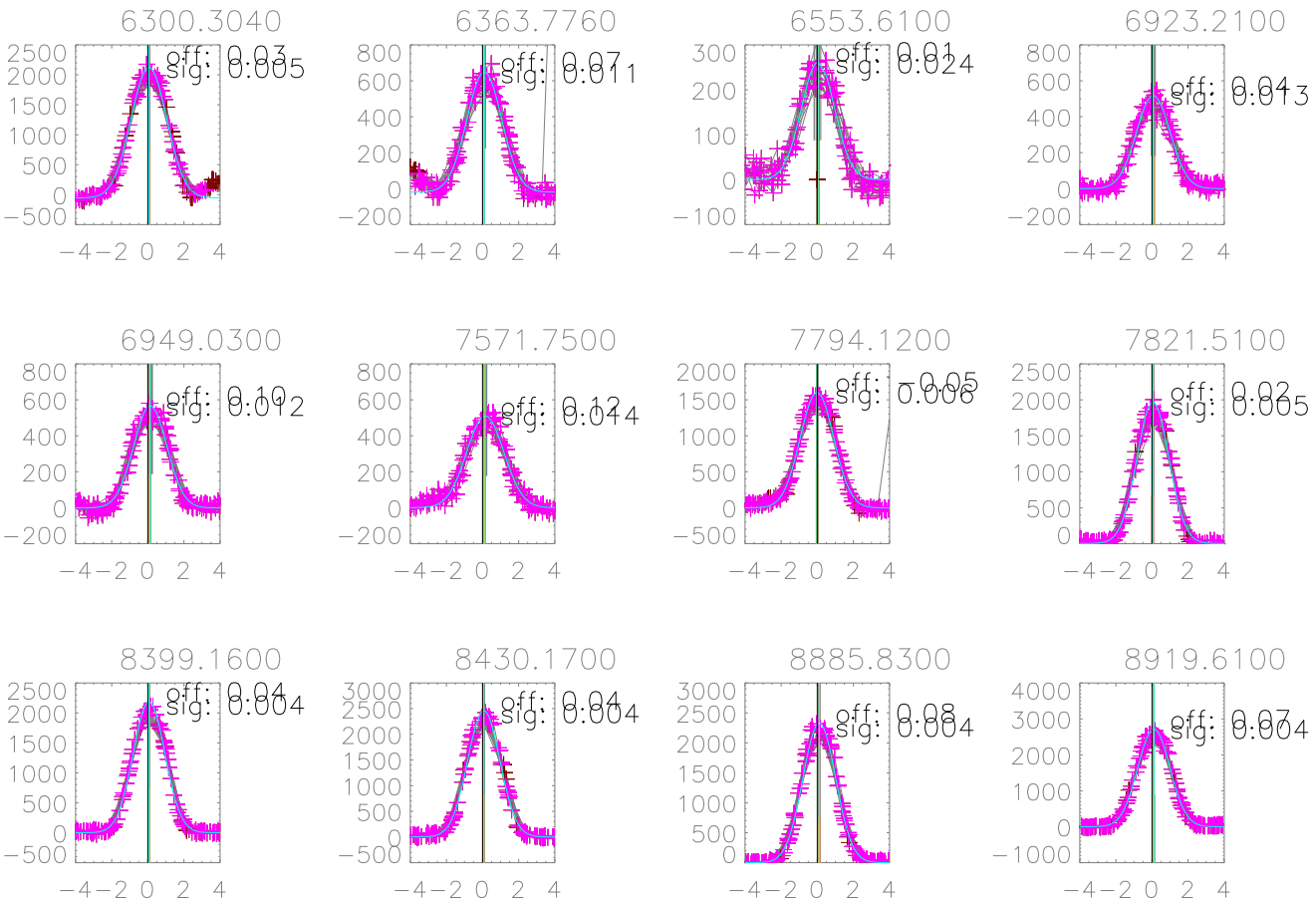

PLATE=2083 MJD=53359 Scattered Light before halo removal on sdR-r2-00030026.fi
40.91
31.82
22.73
13.64
13.64
Y [pix]
X [pix]
0
500
1000
1500
2000

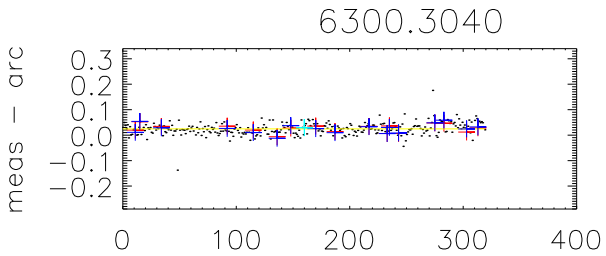

PLATE=2083 MJD=53359 Scattered Light before halo removal on sdR-r2-00030026.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 6.649
Max value = 40.124
Sun Feb 17 16:05:24 2008

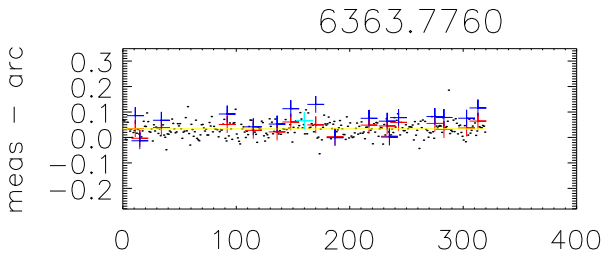

PLATE=2083 MJD=53359 Scattered Light on sdR-r2-00030026.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
12.7
9.1
6.1
3.5

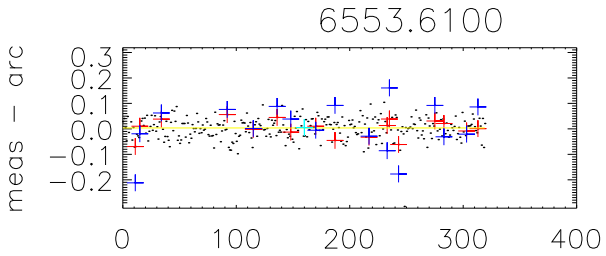

PLATE=2083 MJD=53359 Scattered Light on sdR-r2-00030026.fit
Brightness [electrons/pix]
20
15
10
5
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 6.292
Max value = 11.657
Sun Feb 17 16:08:19 2008

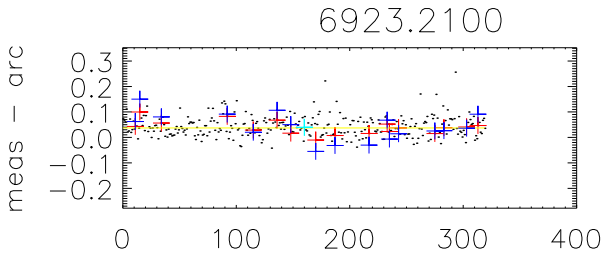

PLATE=2083 MJD=53359 Extraction chi$^2$ for sdR−r2−00030026.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
$\chi^2$
0
1
2
3
4
0
500
1000
1500
2000
Row number

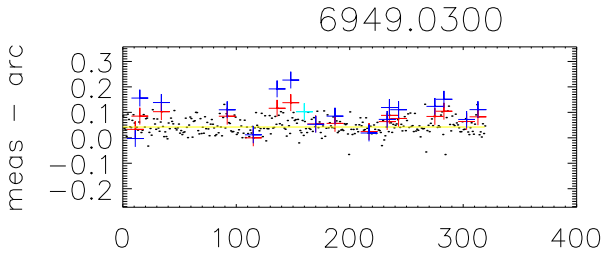

6300.3040
off: 0.03
sig: 0.005
6363.7760
off: 0.07
sig: 0.011
6553.6100
off: 0.01
sig: 0.024
6923.2100
off: 0.04
sig: 0.013
6949.0300
off: 0.10
sig: 0.012
7571.7500
off: 0.12
sig: 0.044
7794.1200
off: −0.05
sig: 0.006
7821.5100
off: 0.02
sig: 0.005
8399.1600
off: 0.04
sig: 0.004
8430.1700
off: 0.04
sig: 0.004
8885.8300
off: 0.08
sig: 0.004
8919.6100
off: 0.07
sig: 0.004

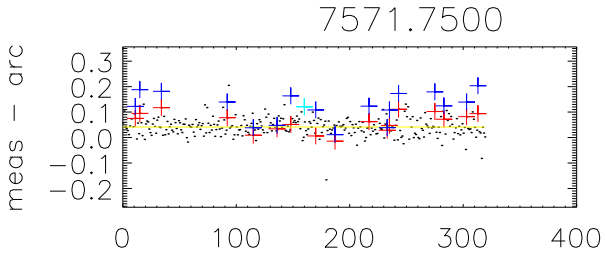

6300.3040
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

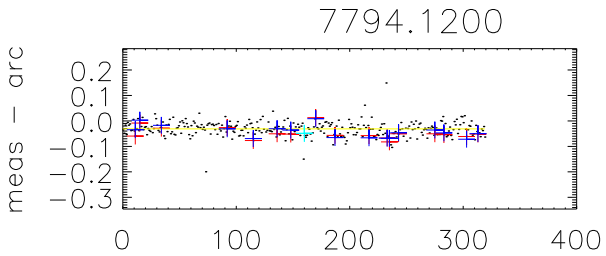

6363.7760
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

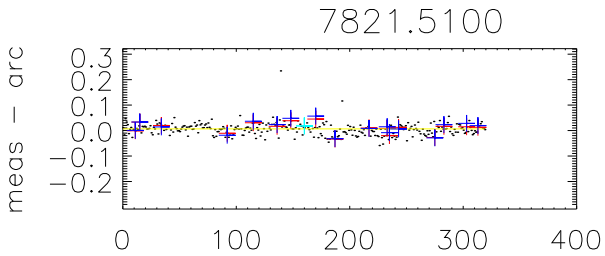

6553.6100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

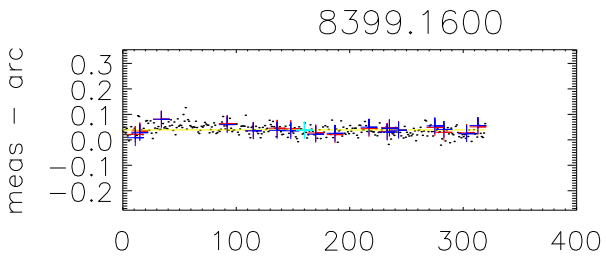

6923.2100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

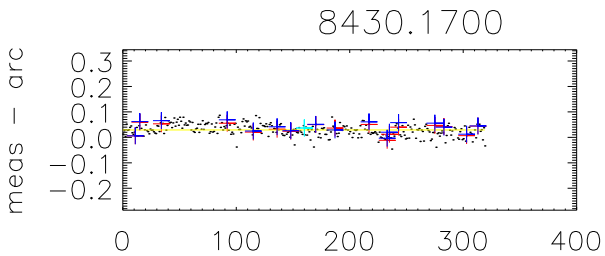

6949.0300
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

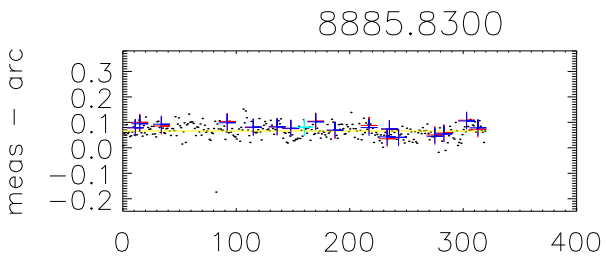

7571.7500
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

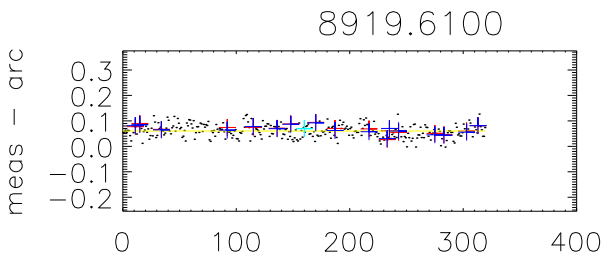

7794.1200
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

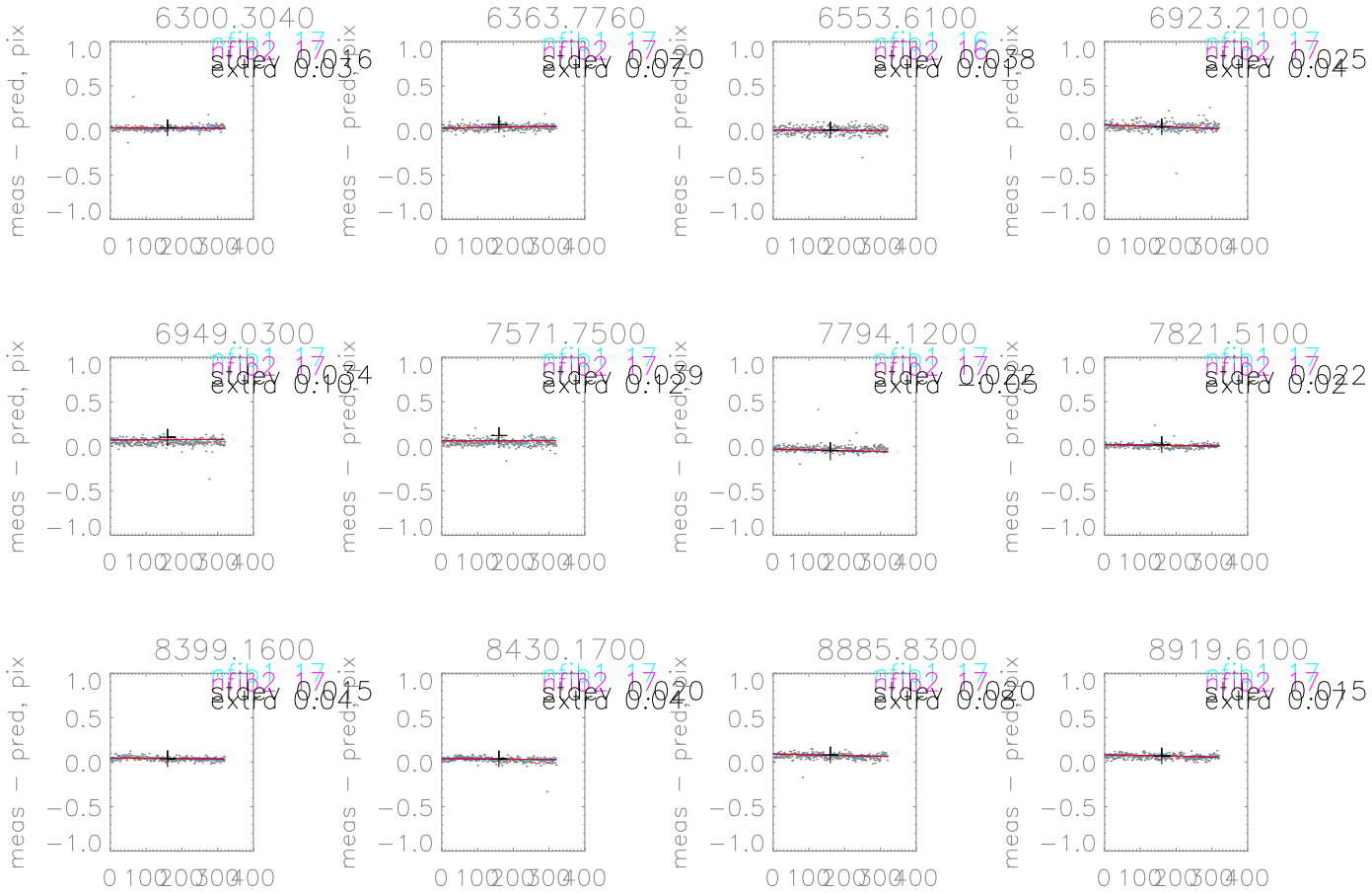

7821.5100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

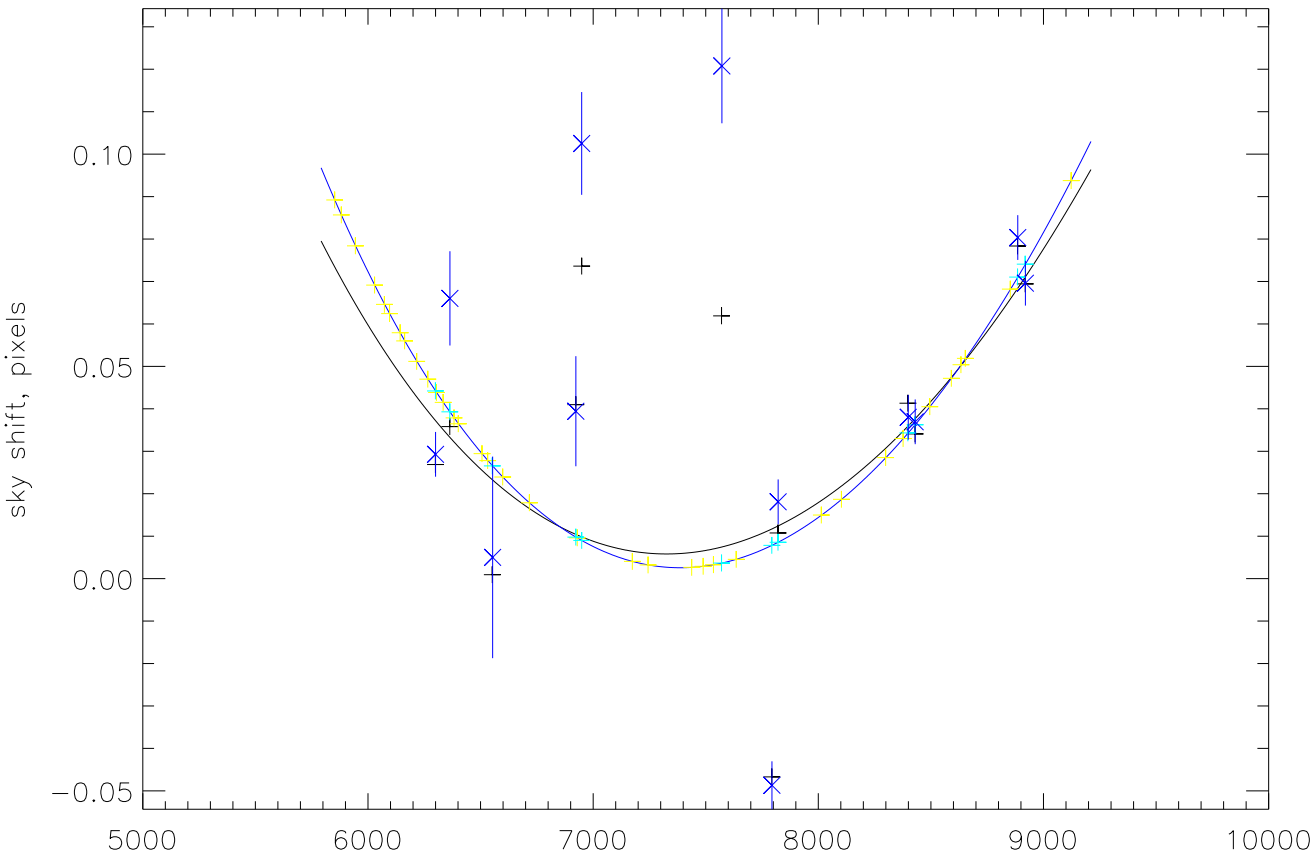

8399.1600
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

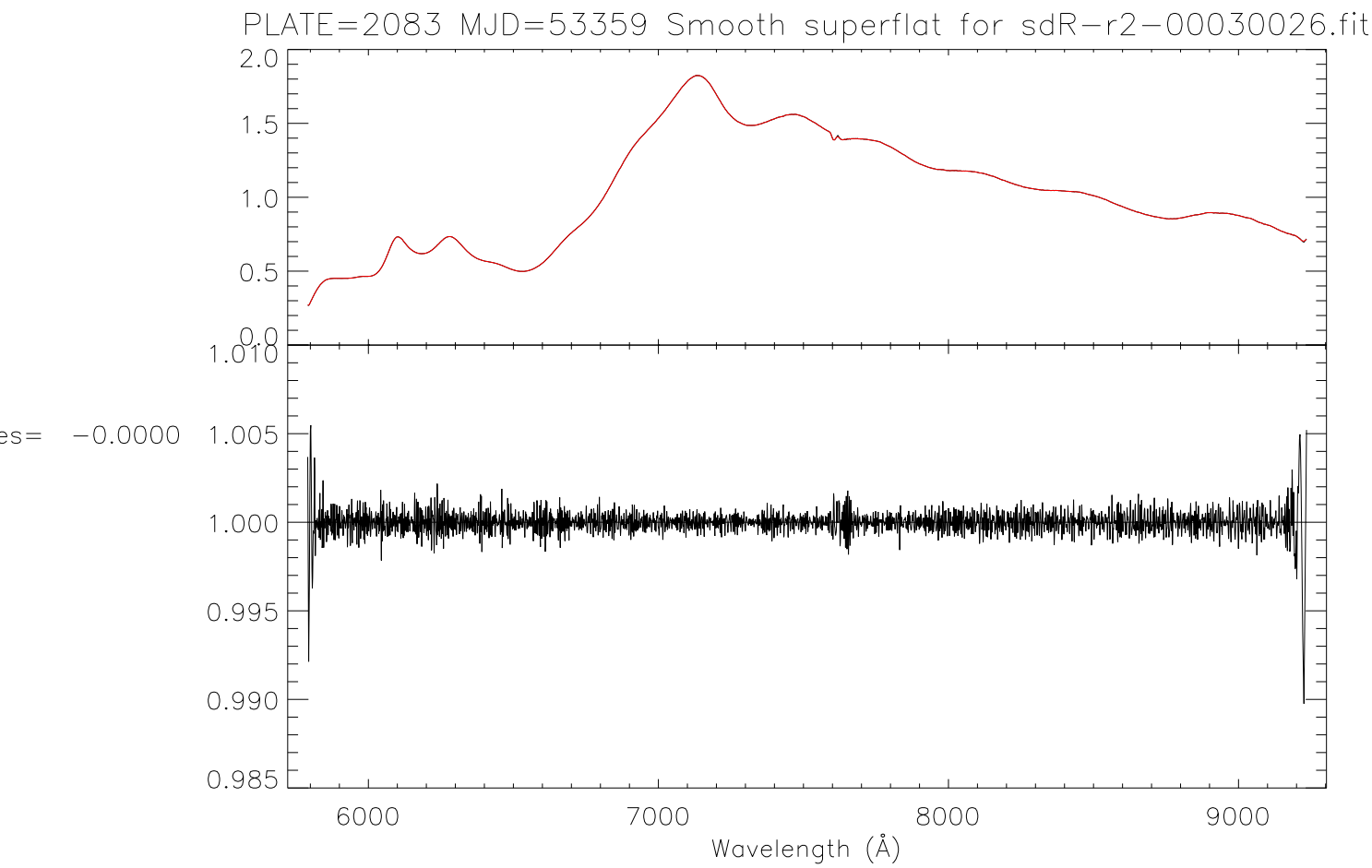

8430.1700
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

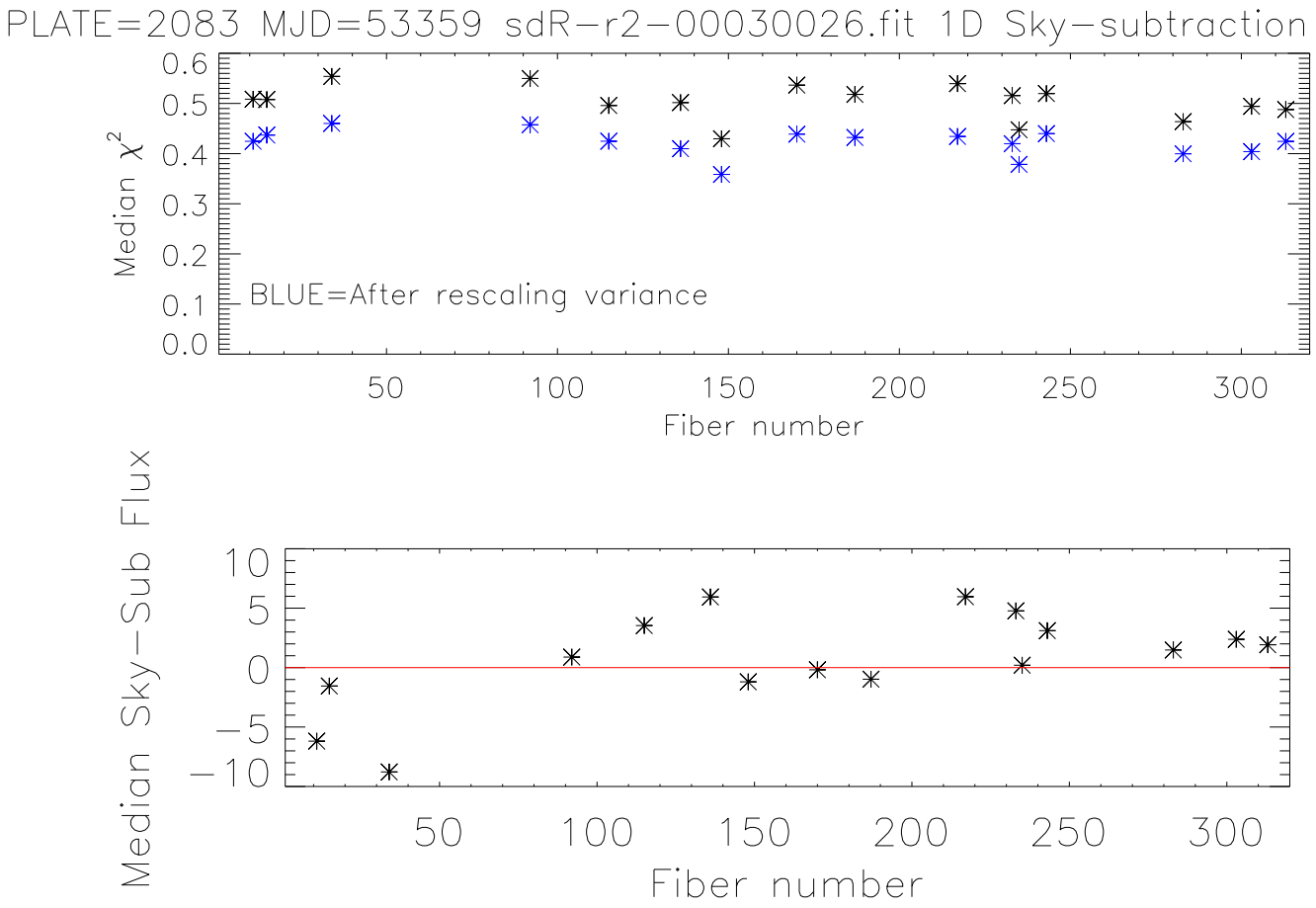

8885.8300
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

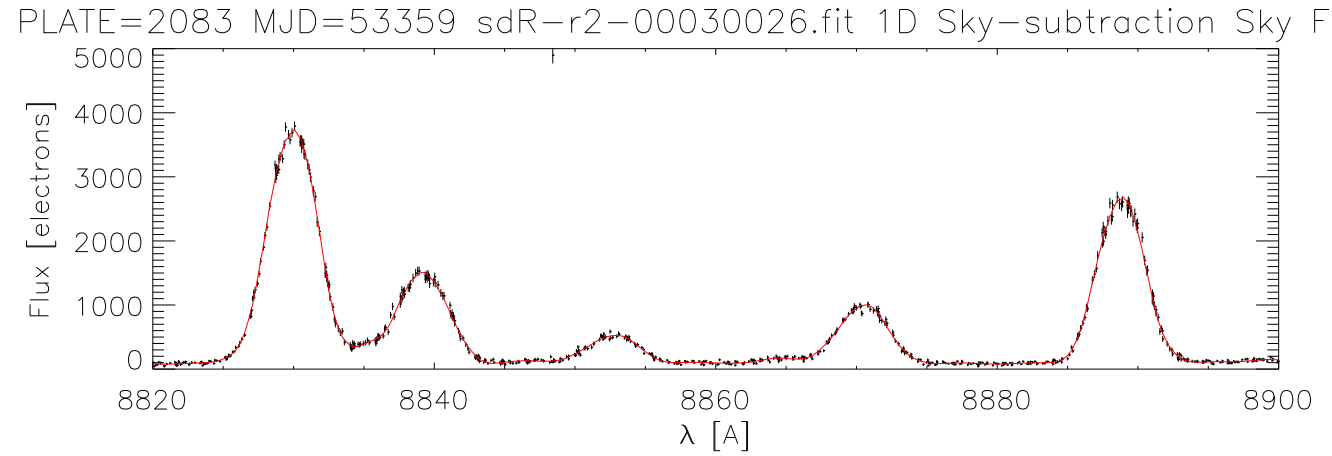

8919.6100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

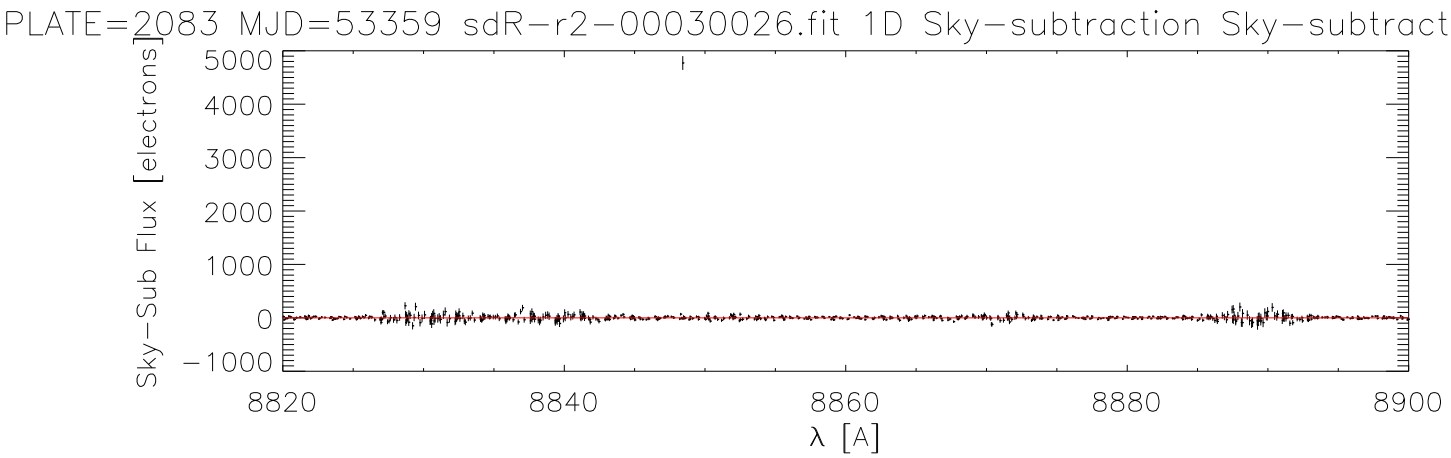

6300.3040
mfhd1 17
mfhd2 17
stdev 0.016
extra 0.036
6363.7760
mfhd1 17
mfhd2 17
stdev 0.020
extra 0.07
6553.6100
mfhd1 16
mfhd2 17
stdev 0.018
extra 0.01
6923.2100
mfhd1 17
mfhd2 17
stdev 0.025
extra 0.04
6949.0300
mfhd1 17
mfhd2 17
stdev 0.034
extra 0.10
7571.7500
mfhd1 17
mfhd2 17
stdev 0.039
extra 0.12
7794.1200
mfhd1 17
mfhd2 17
stdev 0.022
extra −0.05
7821.5100
mfhd1 17
mfhd2 17
stdev 0.022
extra 0.02
8399.1600
mfhd1 17
mfhd2 17
stdev 0.015
extra 0.04
8430.1700
mfhd1 17
mfhd2 17
stdev 0.020
extra 0.04
8885.8300
mfhd1 17
mfhd2 17
stdev 0.020
extra 0.08
8919.6100
mfhd1 17
mfhd2 17
stdev 0.015
extra 0.07
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400

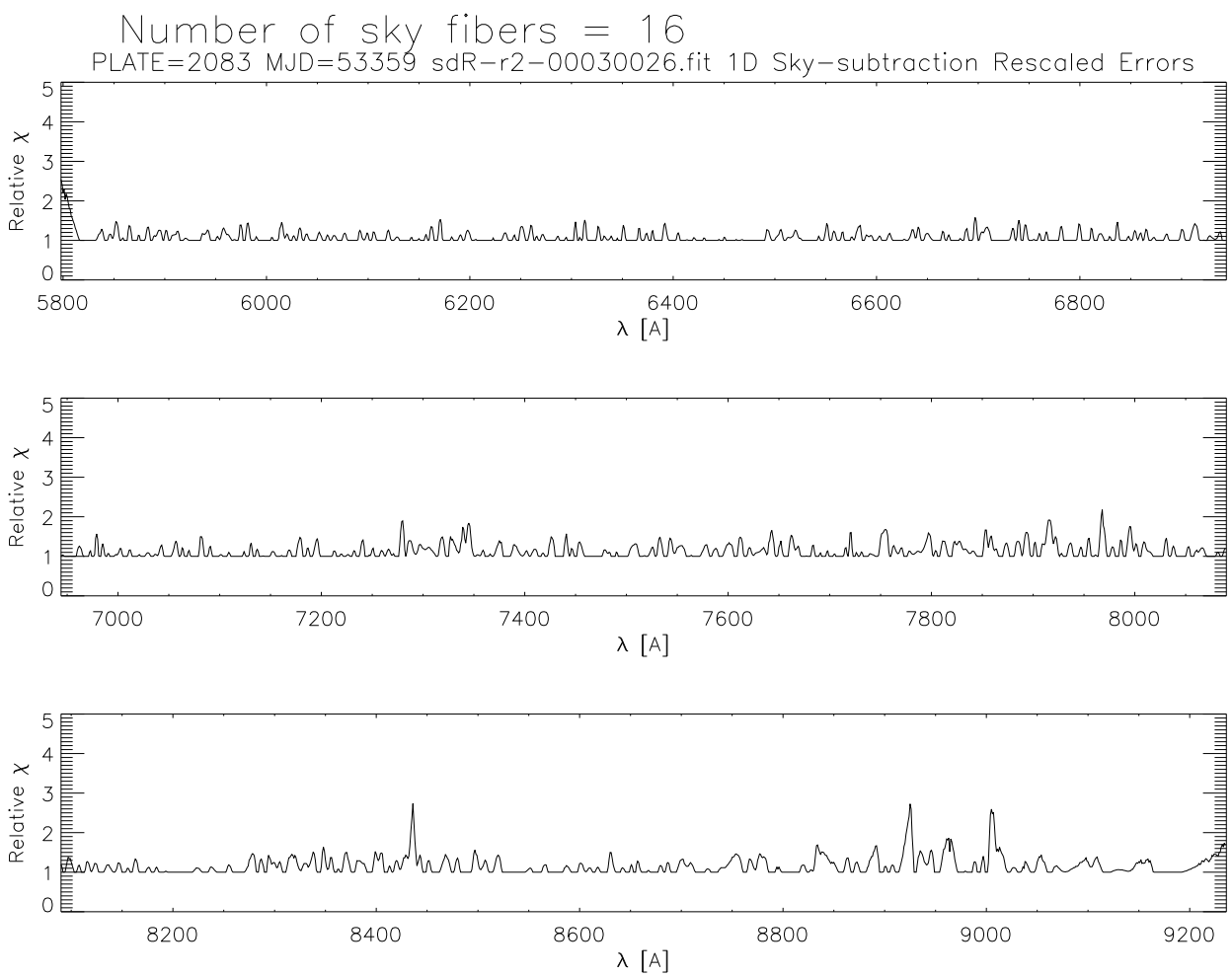

sky shift, pixels
0.10
0.05
0.00
−0.05
5000
6000
7000
8000
9000
10000

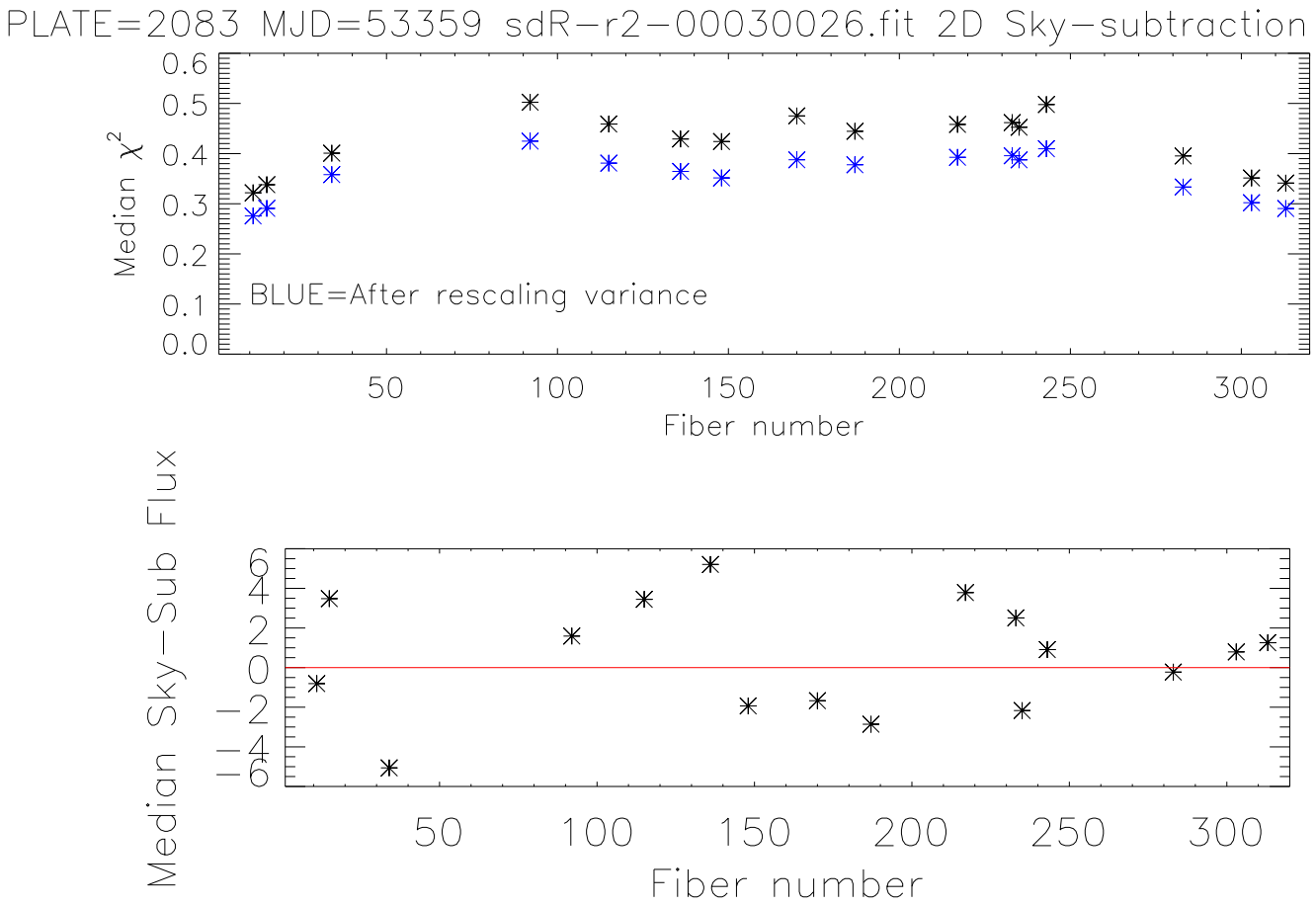

PLATE=2083 MJD=53359 Smooth superflat for sdR-r2-00030026.fit
2.0
1.5
1.0
0.5
0.0
es= -0.0000
1.010
1.005
1.000
0.995
0.990
0.985
6000
7000
8000
9000
Wavelength (Å)

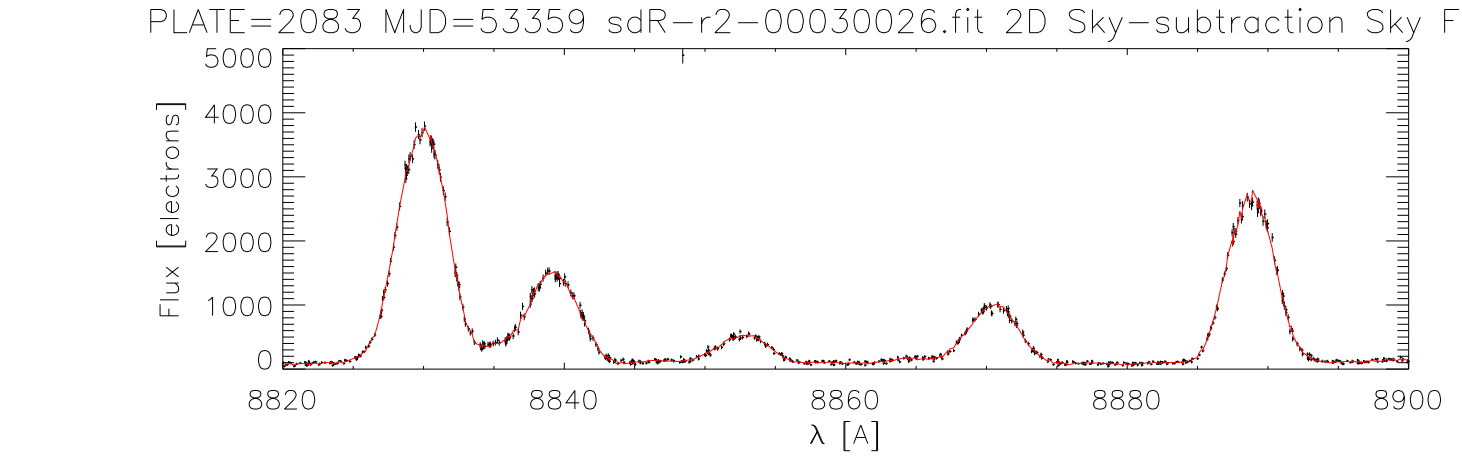

PLATE=2083 MJD=53359 sdR-r2-00030026.fit 1D Sky-subtraction Sky Fibers
Median $\chi^2$
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
−5
−10
50
100
150
200
250
300
Fiber number

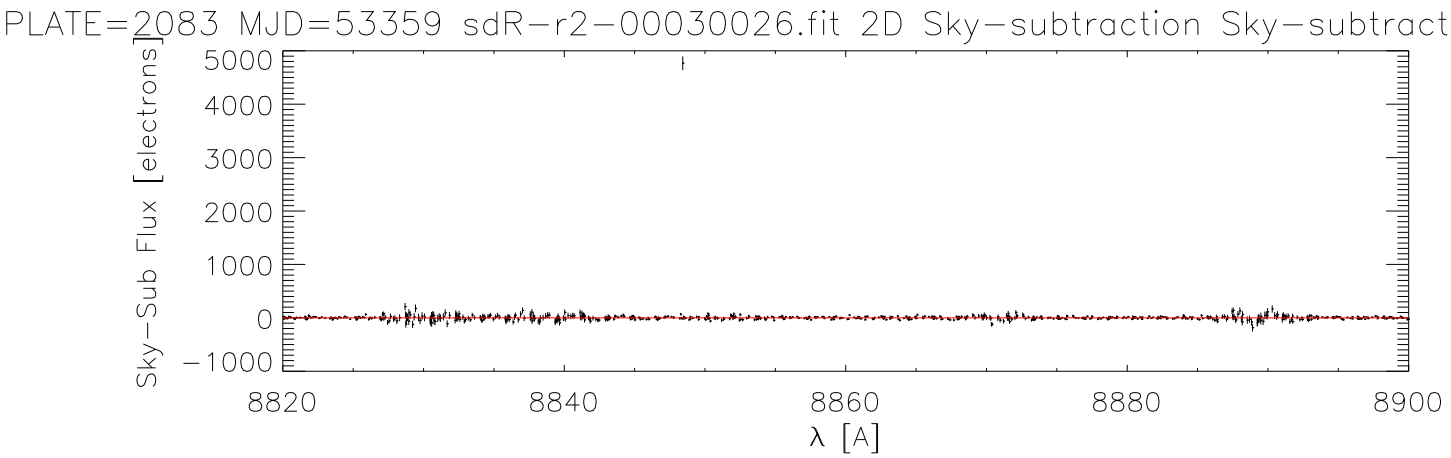

PLATE=2083 MJD=53359 sdR-r2-00030026.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

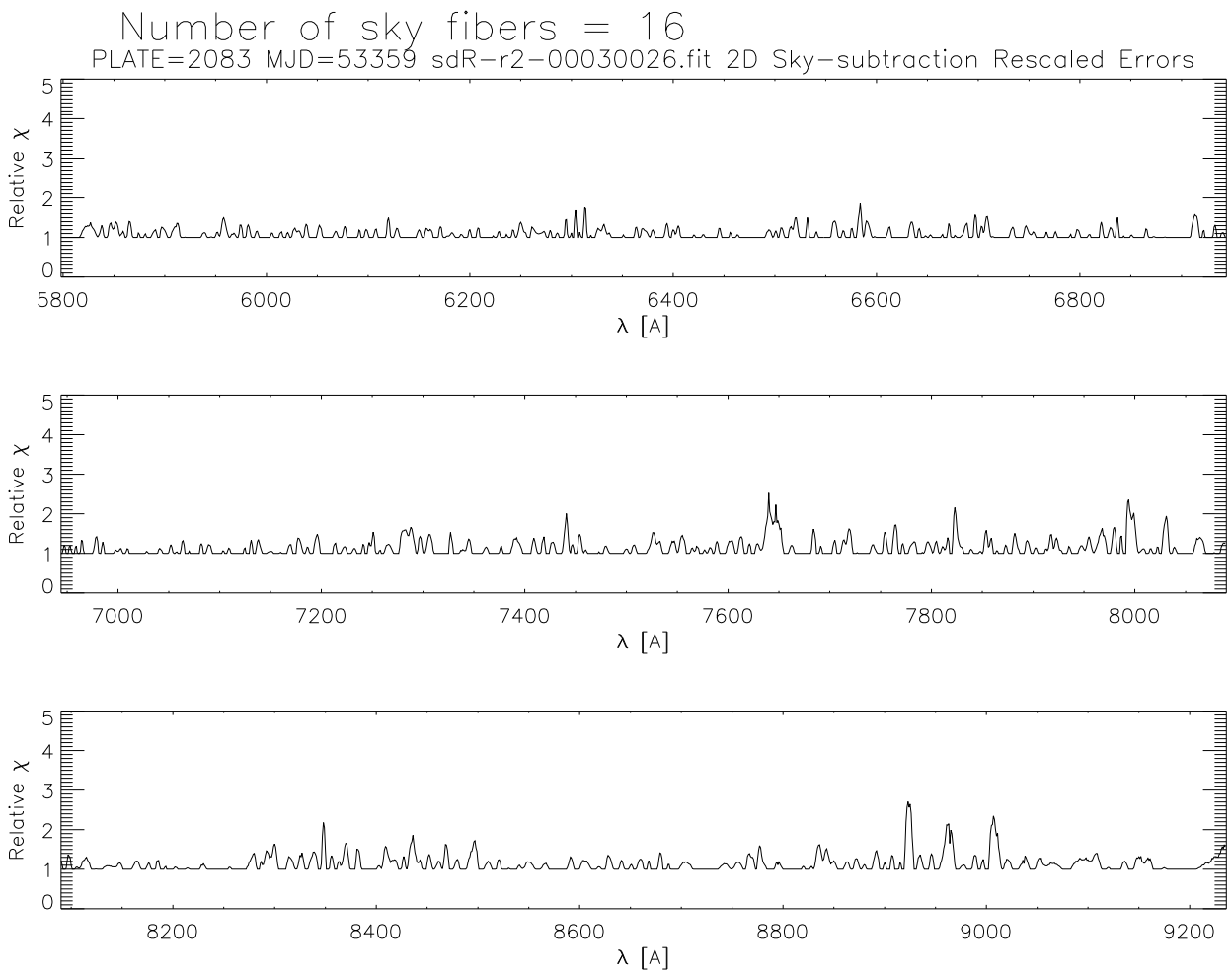

PLATE=2083 MJD=53359 sdR-r2-00030026.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
5000
4000
3000
2000
1000
0
-1000
8820
8840
8860
8880
8900
λ [A]

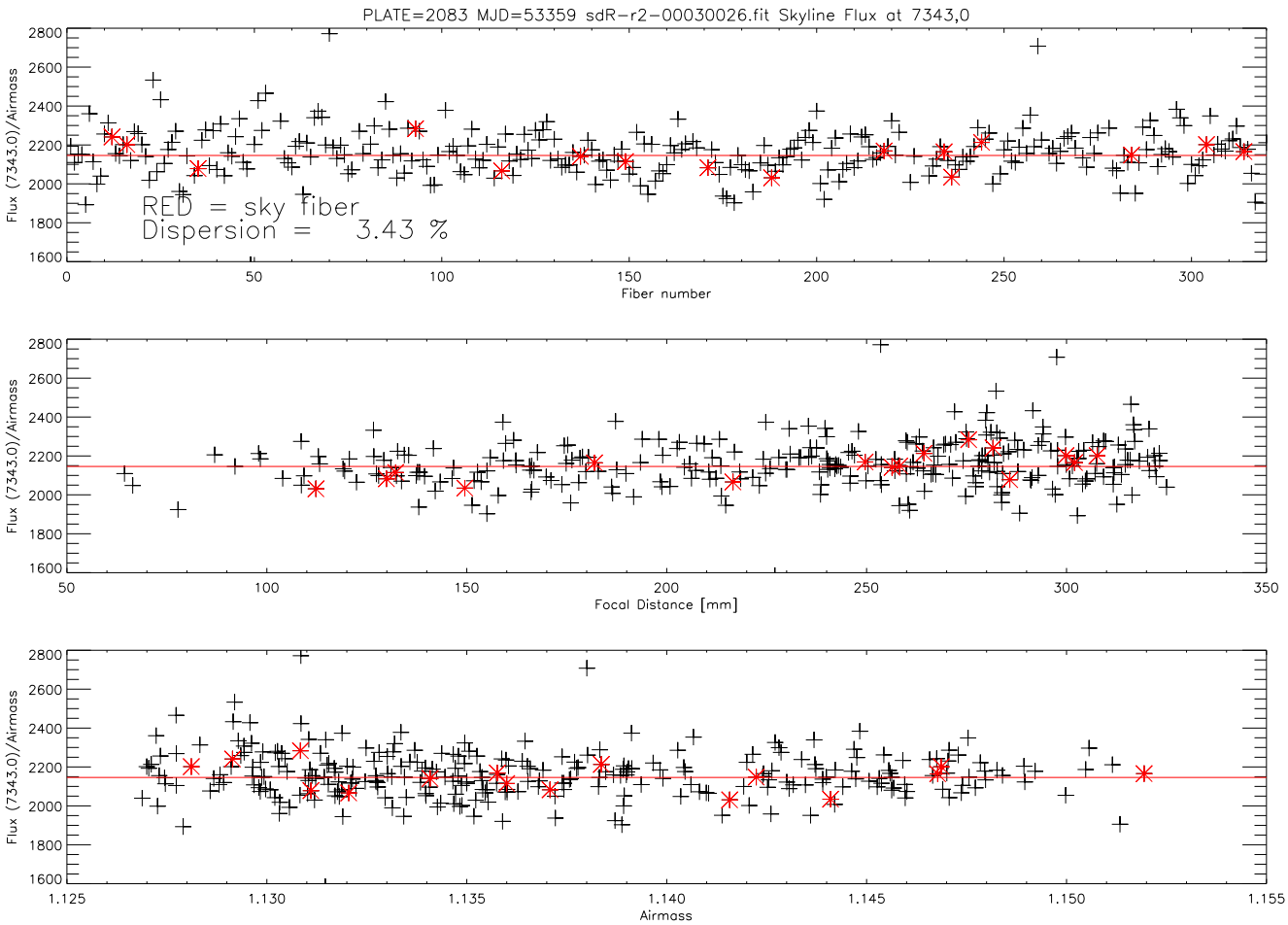

Number of sky fibers = 16
PLATE=2083 MJD=53359 sdR-r2-00030026.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

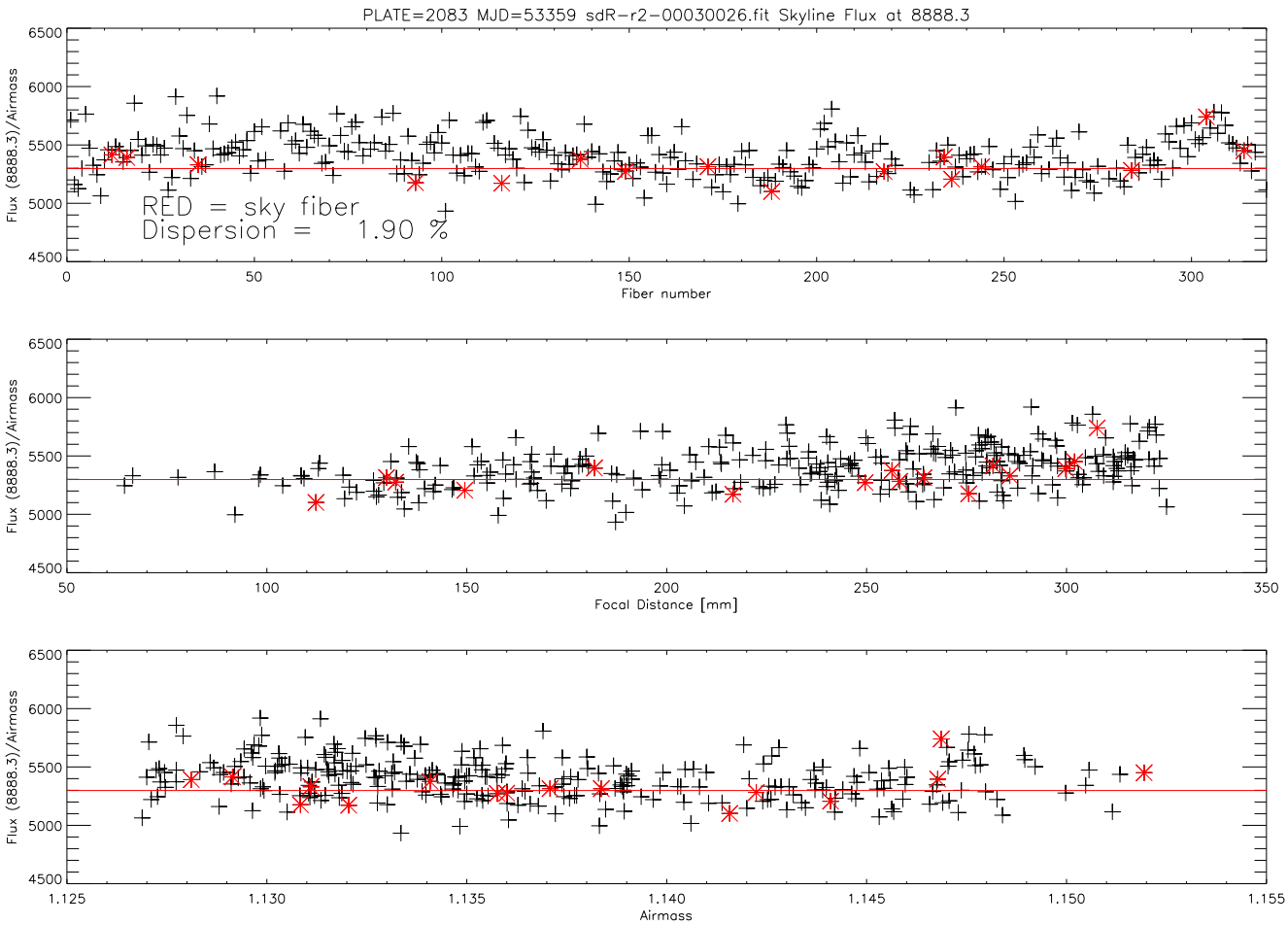

PLATE=2083 MJD=53359 sdR-r2-00030026.fit 2D Sky-subtraction Sky Fibers
Median $\chi^2$
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

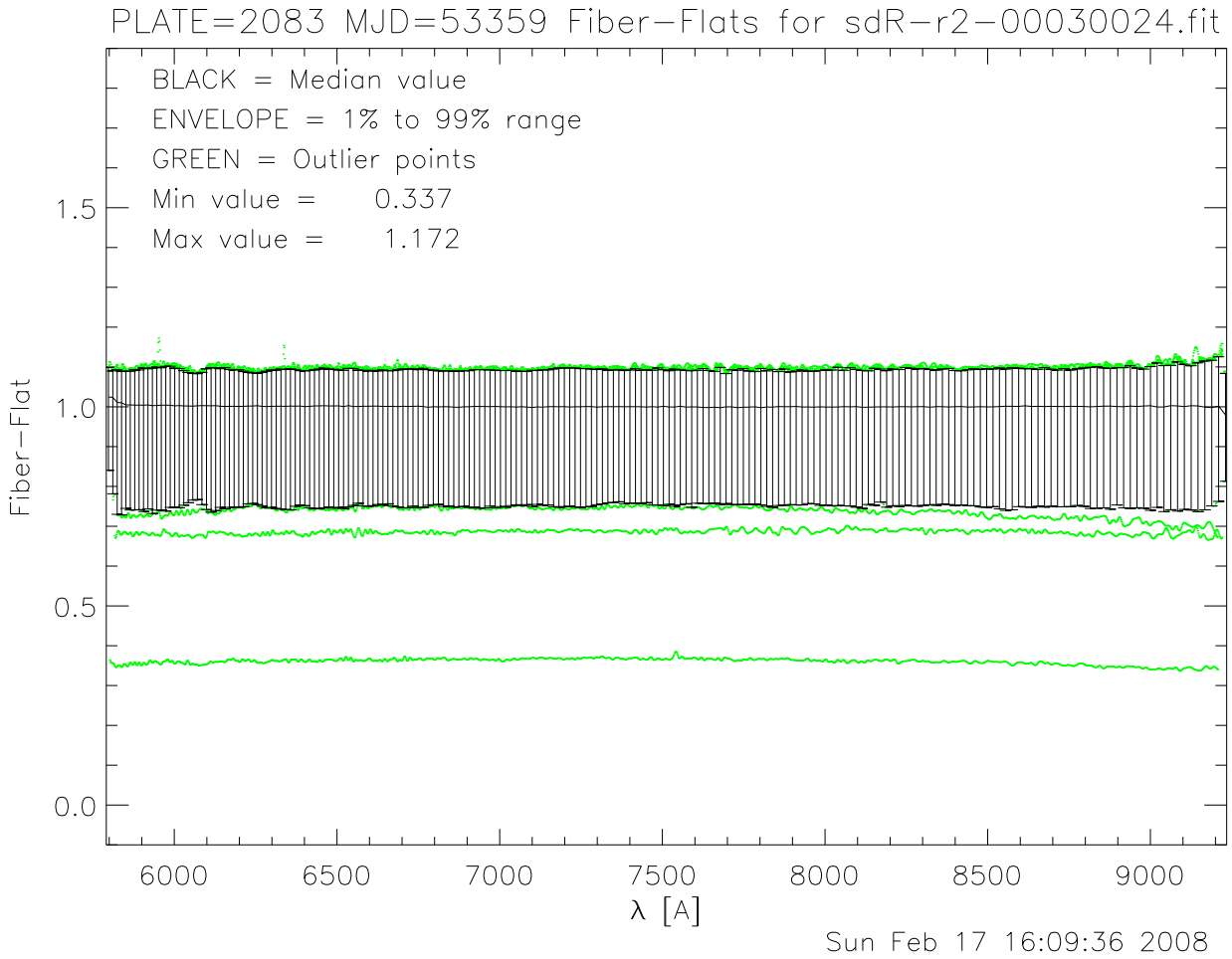

PLATE=2083 MJD=53359 sdR-r2-00030026.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

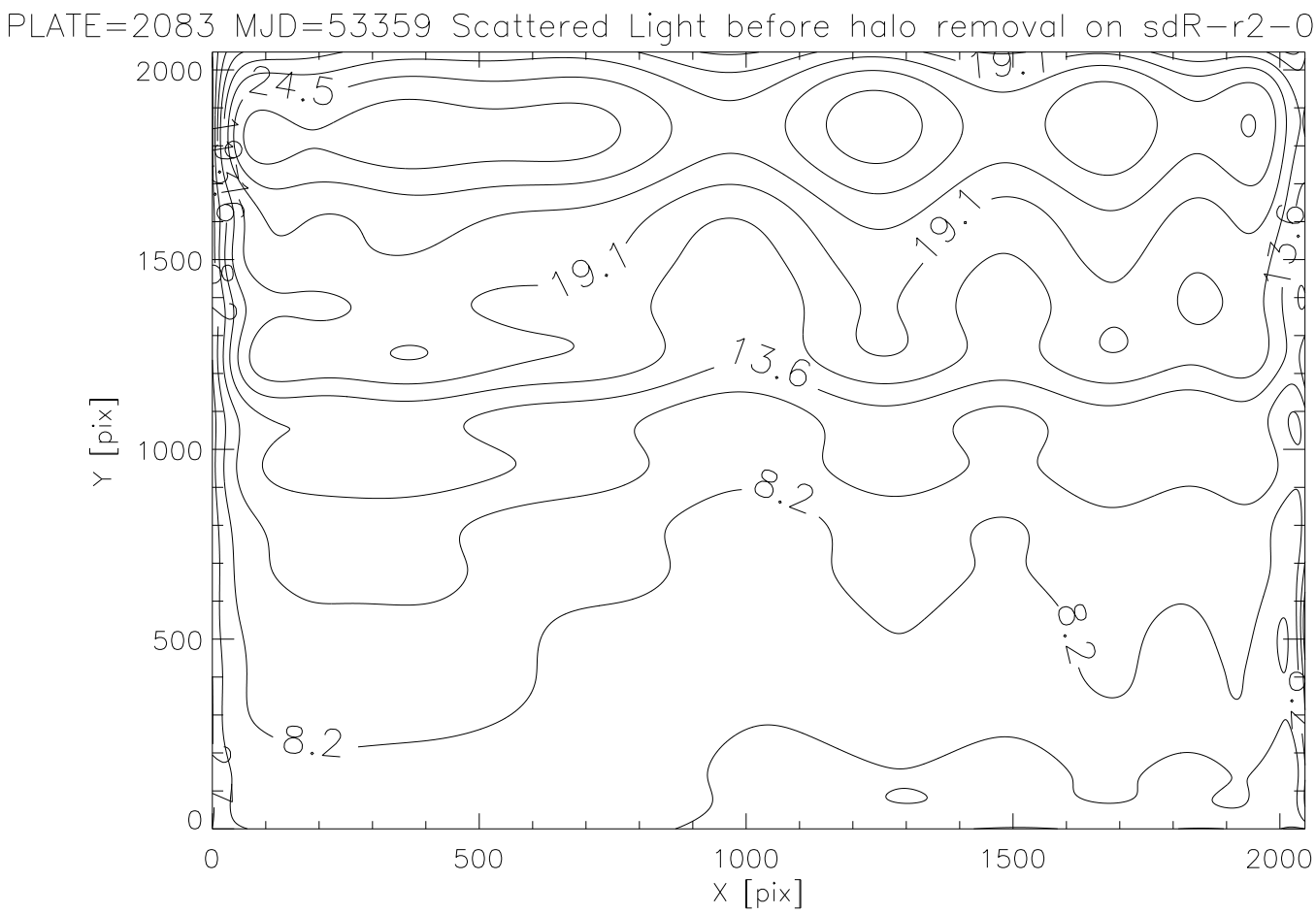

PLATE=2083 MJD=53359 sdR-r2-00030026.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
5000
4000
3000
2000
1000
0
-1000
8820
8840
8860
8880
8900
λ [A]

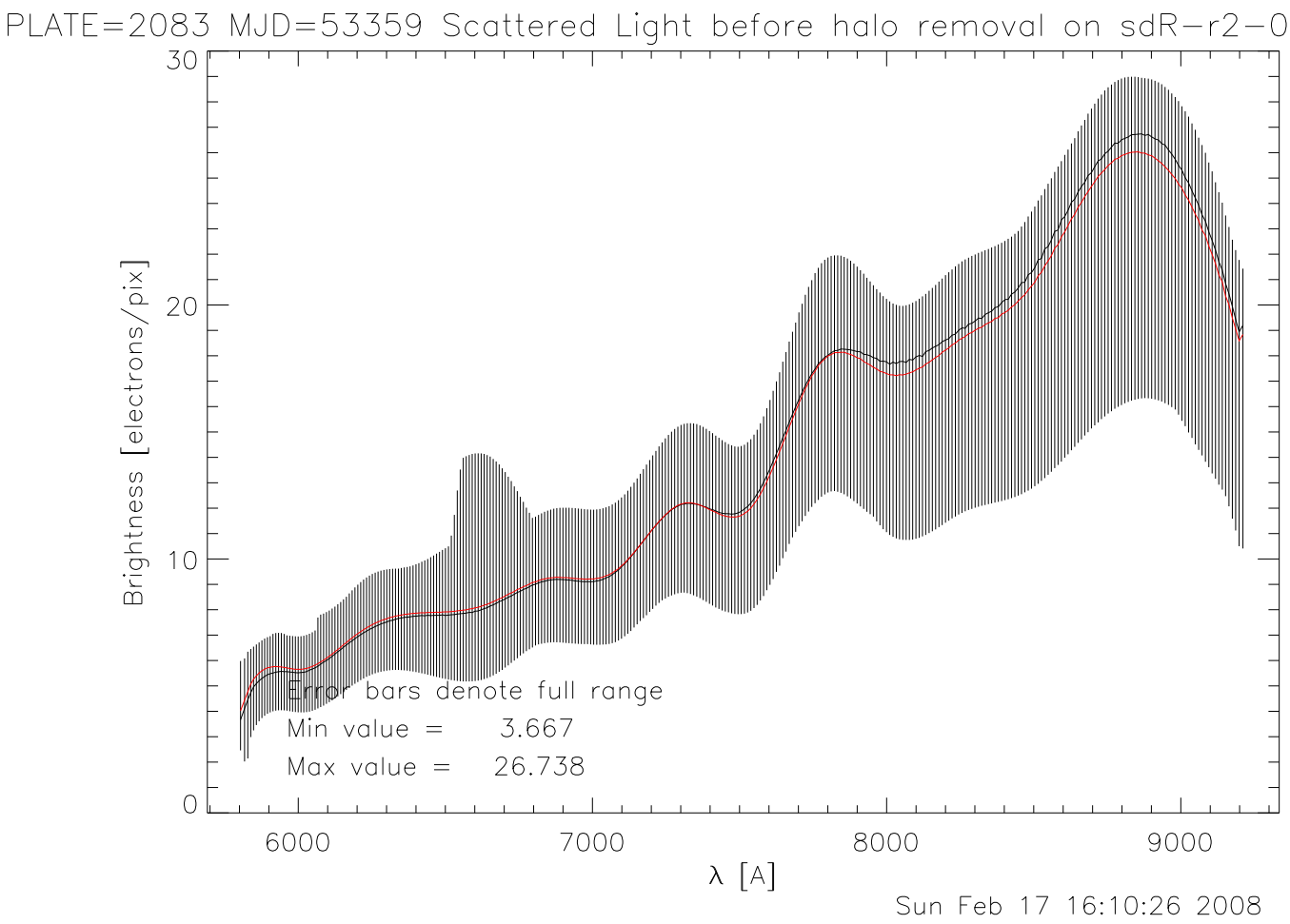

Number of sky fibers = 16
PLATE=2083 MJD=53359 sdR-r2-00030026.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

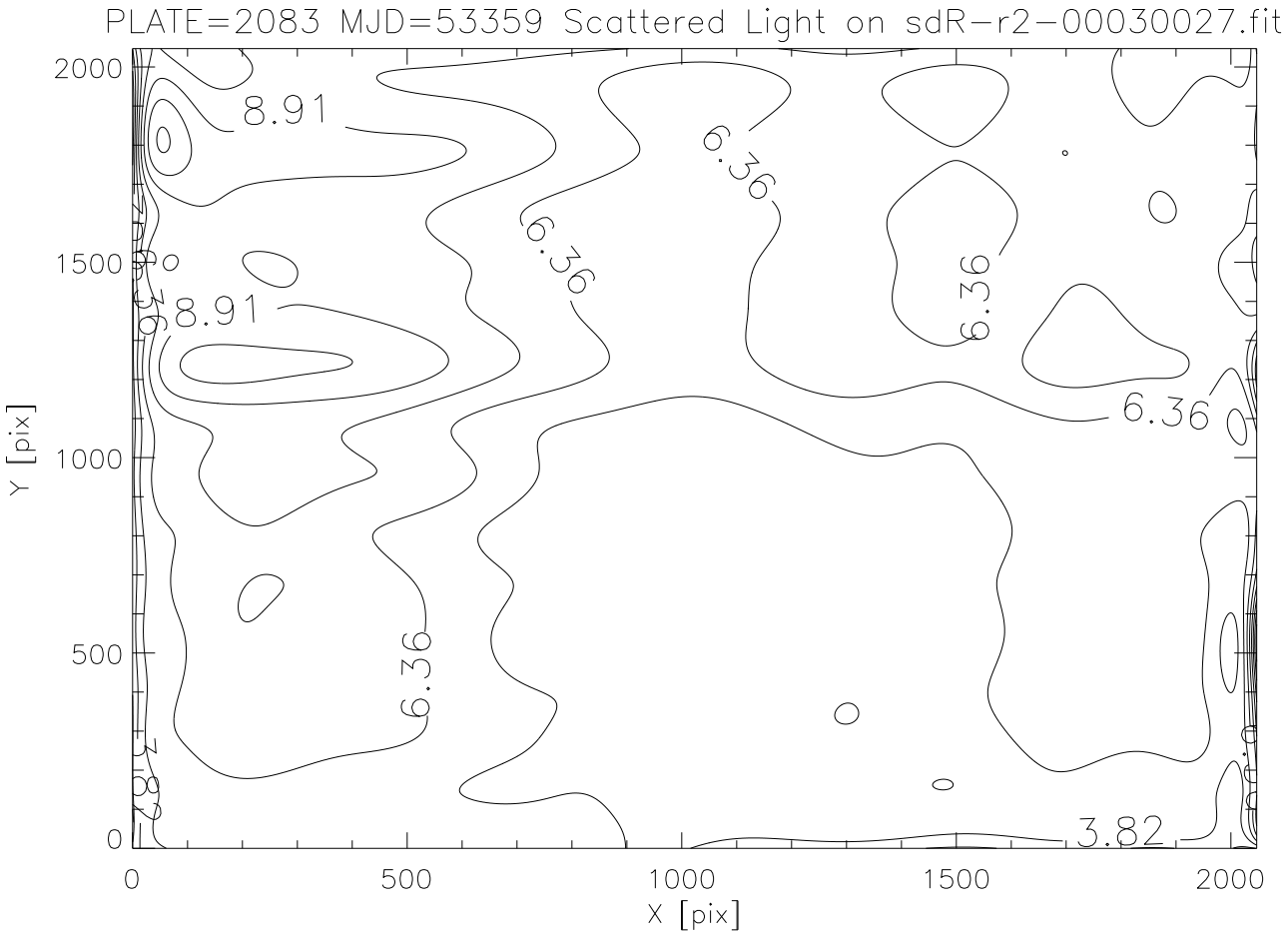

PLATE=2083 MJD=53359 sdR-r2-00030026.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 3.43 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

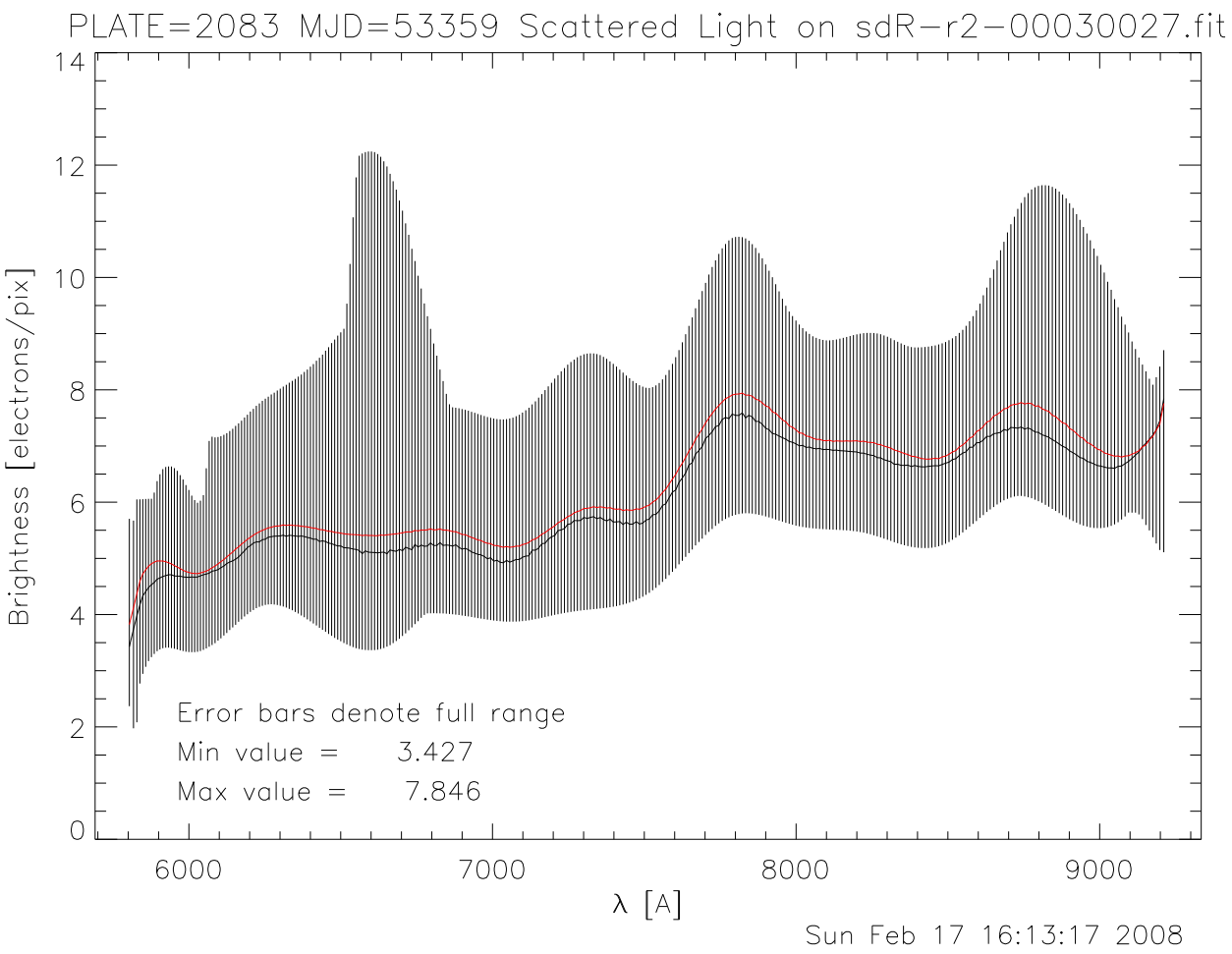

PLATE=2083 MJD=53359 sdR-r2-00030026.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 1.90 %
Fiber number
Focal Distance [mm]
Airmass

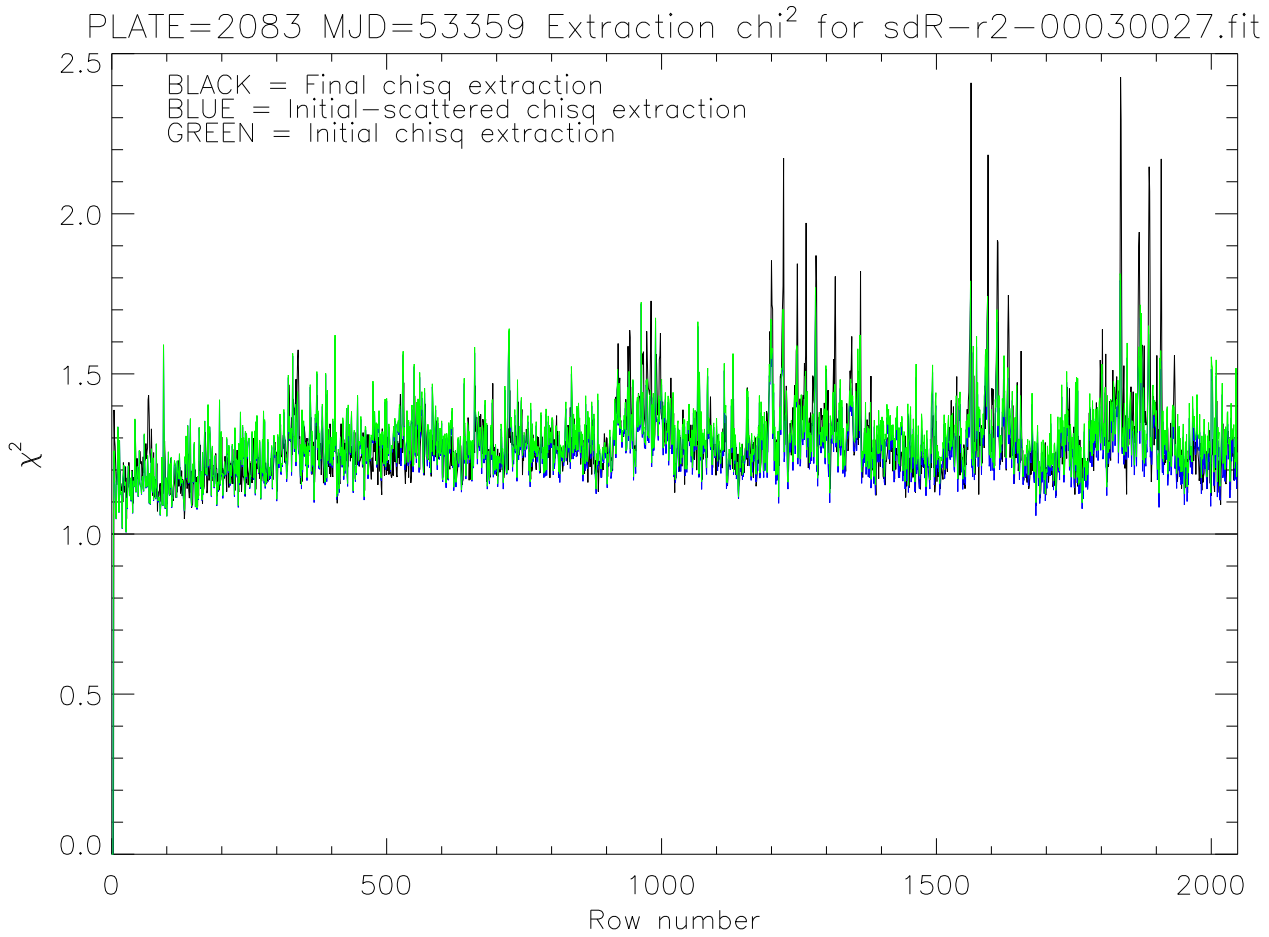

PLATE=2083 MJD=53359 Fiber−Flats for sdR−r2−00030024.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.337
Max value = 1.172
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sun Feb 17 16:09:36 2008

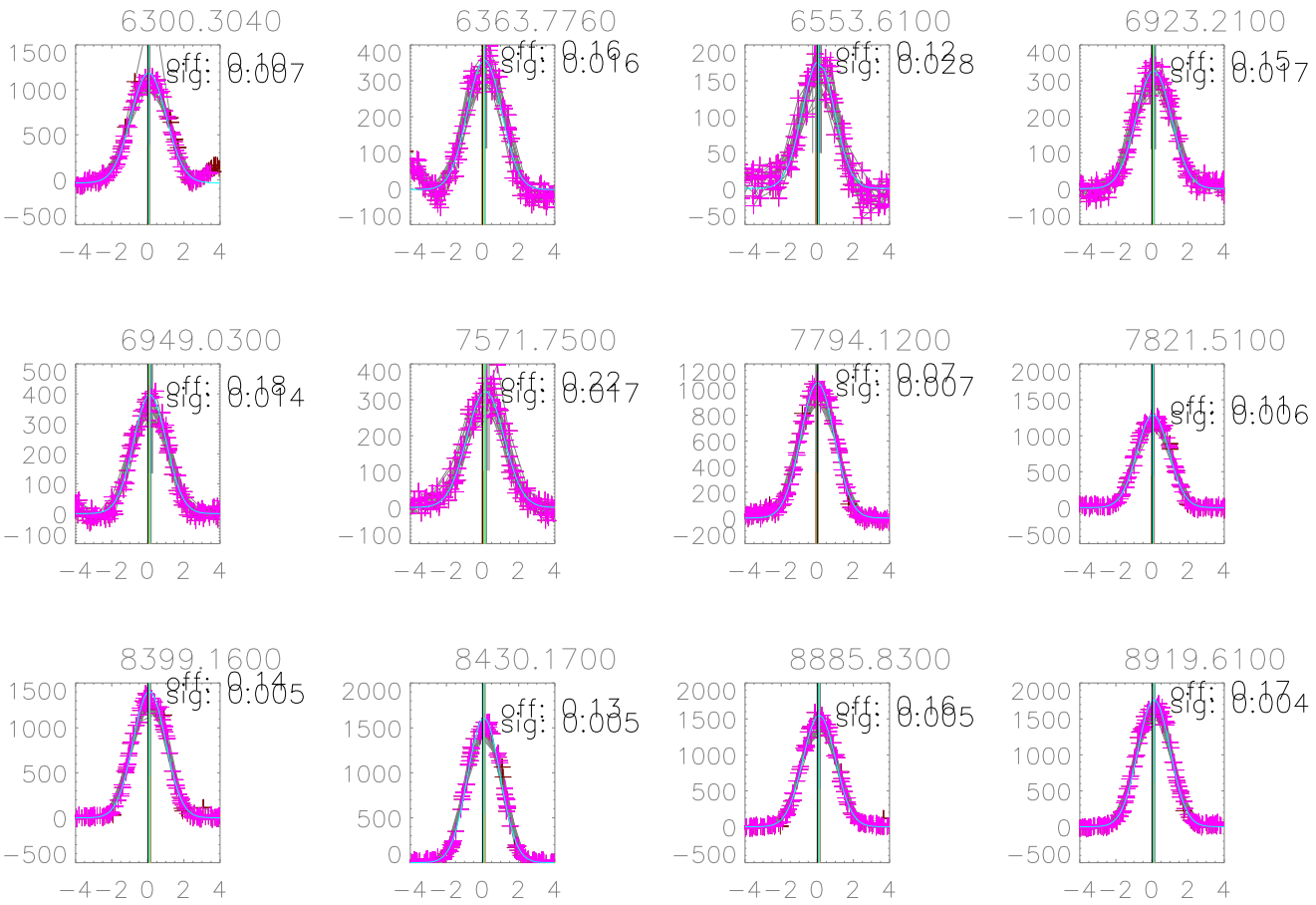

PLATE=2083 MJD=53359 Scattered Light before halo removal on sdR-r2-00030027.fi
24.5
19.1
13.6
8.2
0
Y [pix]
X [pix]
0
500
1000
1500
2000

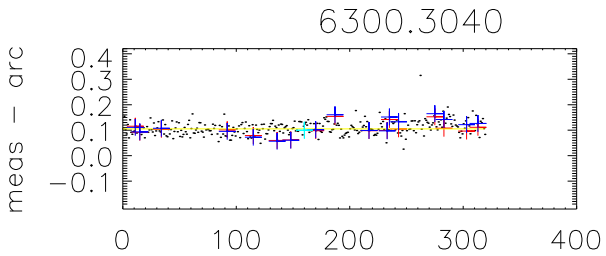

PLATE=2083 MJD=53359 Scattered Light before halo removal on sdR-r2-00030027.fi
Brightness [electrons/pix]
30
20
10
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 3.667
Max value = 26.738
Sun Feb 17 16:10:26 2008

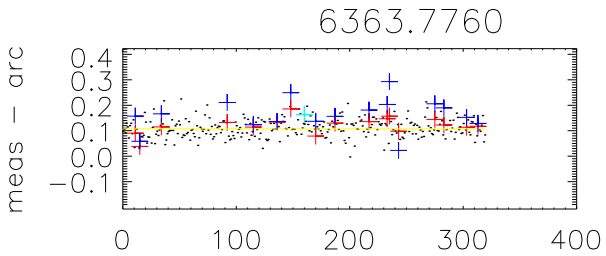

PLATE=2083 MJD=53359 Scattered Light on sdR-r2-00030027.fit
8.91
6.36
6.36
6.36
8.91
6.36
6.36
3.82
Y [pix]
X [pix]
0
500
1000
1500
2000

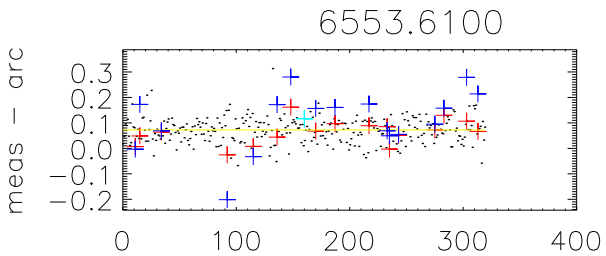

PLATE=2083 MJD=53359 Scattered Light on sdR-r2-00030027.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 3.427
Max value = 7.846
Sun Feb 17 16:13:17 2008

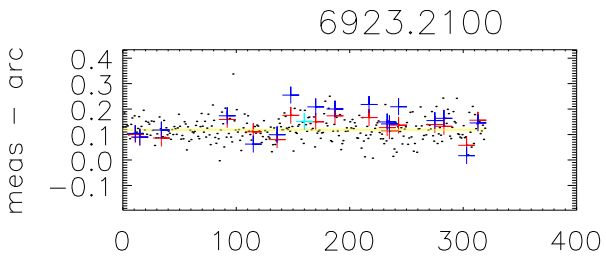

PLATE=2083 MJD=53359 Extraction chi$^2$ for sdR−r2−00030027.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
$\chi^2$
2.5
2.0
1.5
1.0
0.5
0.0
0
500
1000
1500
2000
Row number

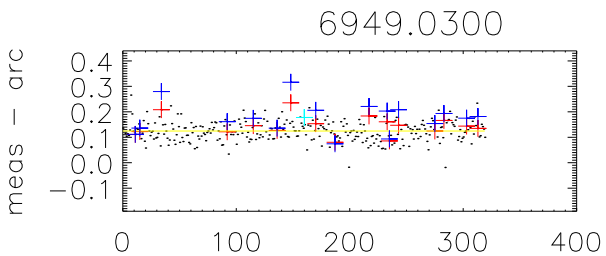

6300.3040
off: 0.10
sig: 0.007
6363.7760
off: 0.16
sig: 0.016
6553.6100
off: 0.12
sig: 0.028
6923.2100
off: 0.15
sig: 0.017
6949.0300
off: 0.18
sig: 0.014
7571.7500
off: 0.22
sig: 0.017
7794.1200
off: 0.07
sig: 0.007
7821.5100
off: 0.11
sig: 0.006
8399.1600
off: 0.14
sig: 0.005
8430.1700
off: 0.13
sig: 0.005
8885.8300
off: 0.16
sig: 0.005
8919.6100
off: 0.17
sig: 0.004

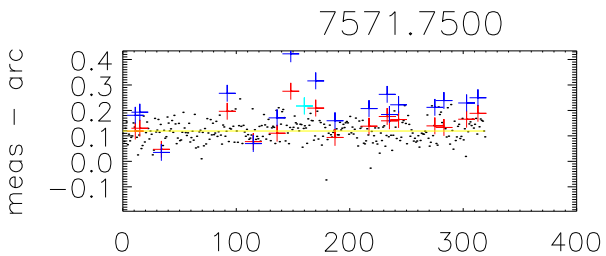

6300.3040
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

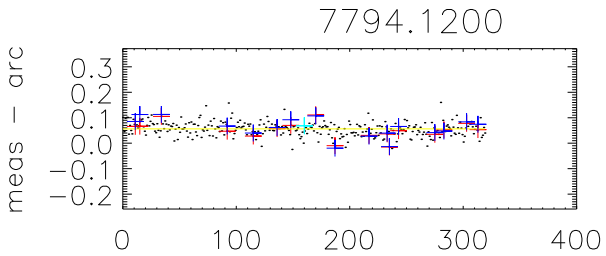

6363.7760
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

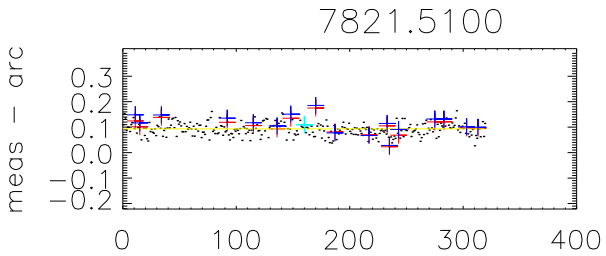

6553.6100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

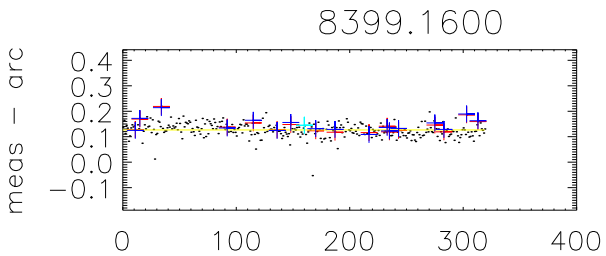

6923.2100
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

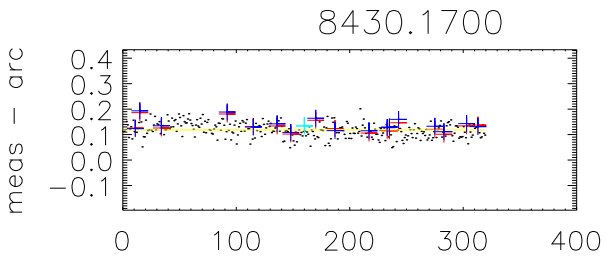

6949.0300
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

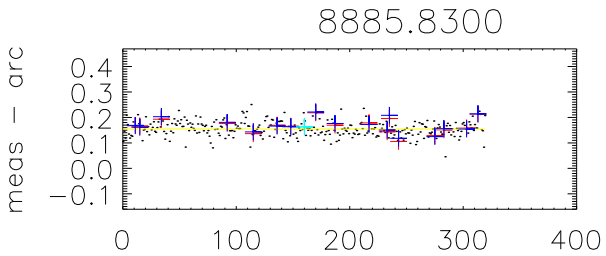

7571.7500
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

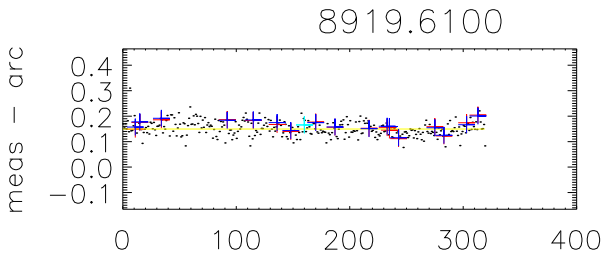

7794.1200
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

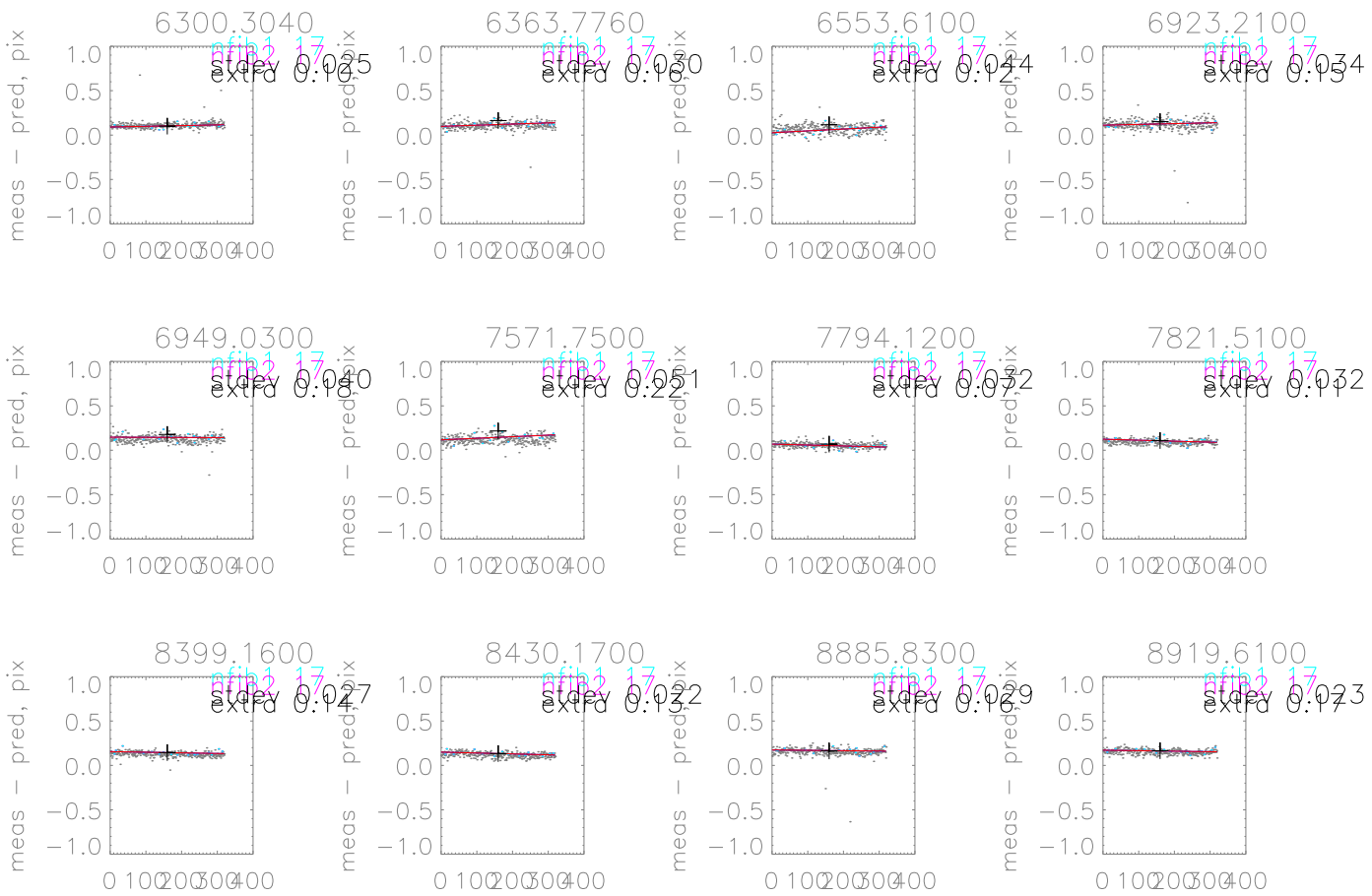

7821.5100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

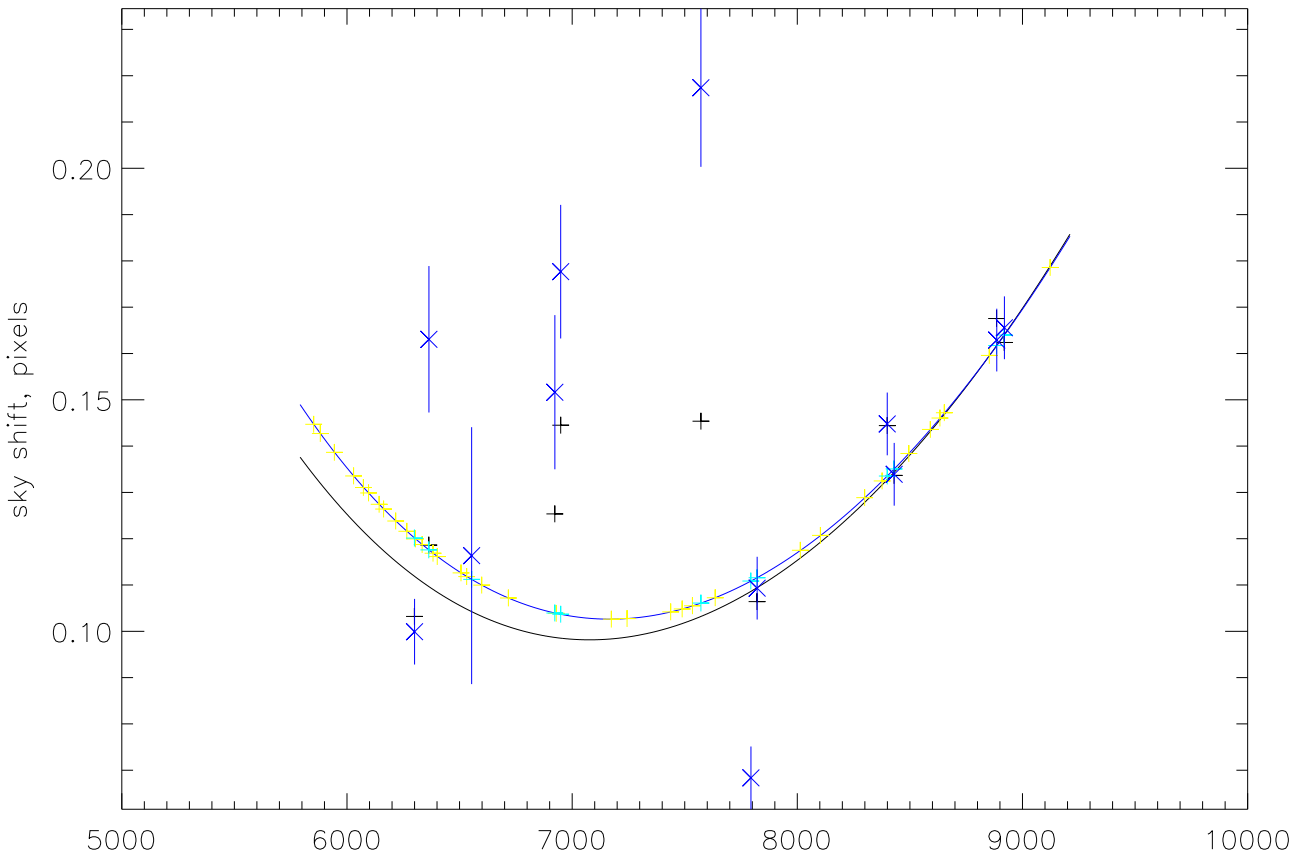

8399.1600
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

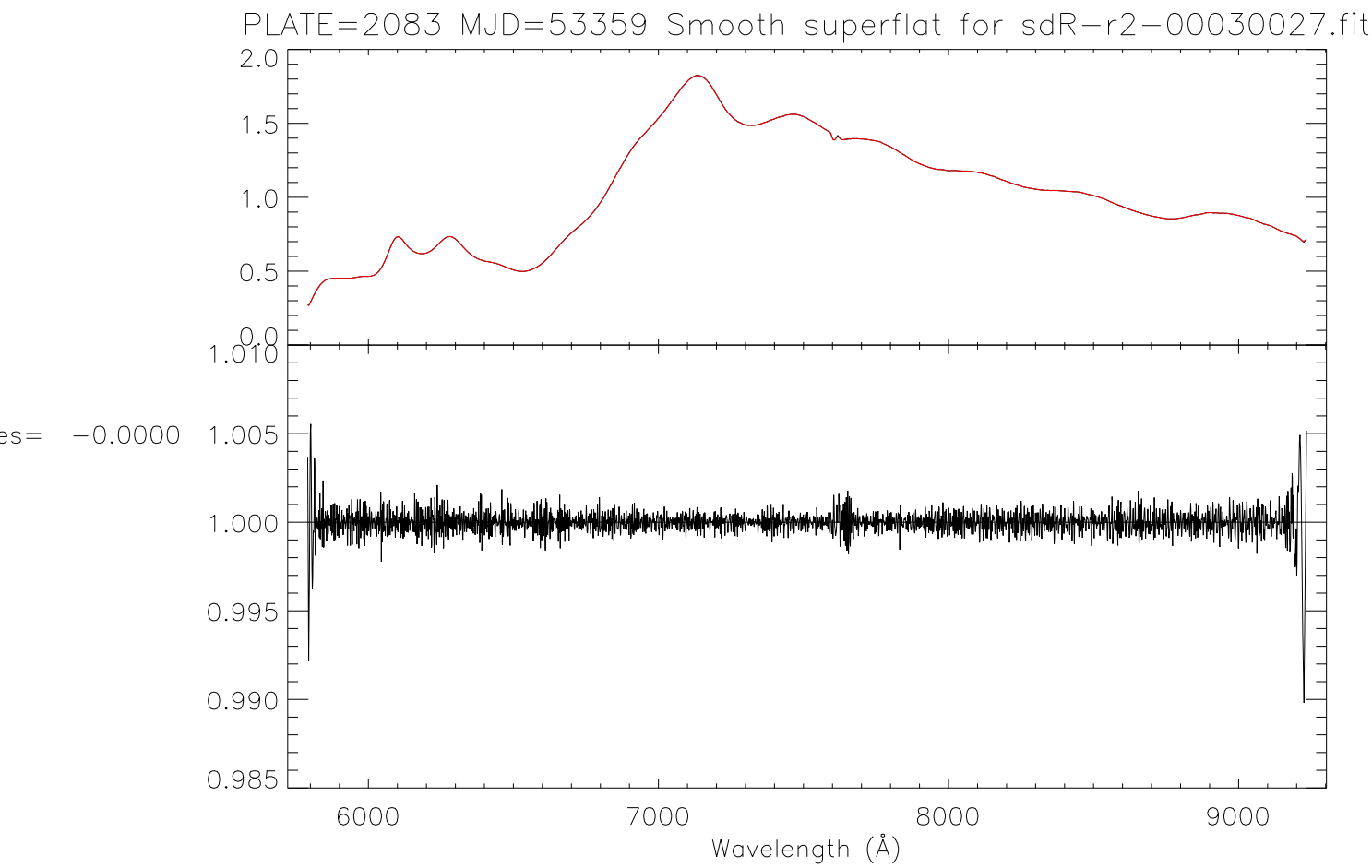

8430.1700
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

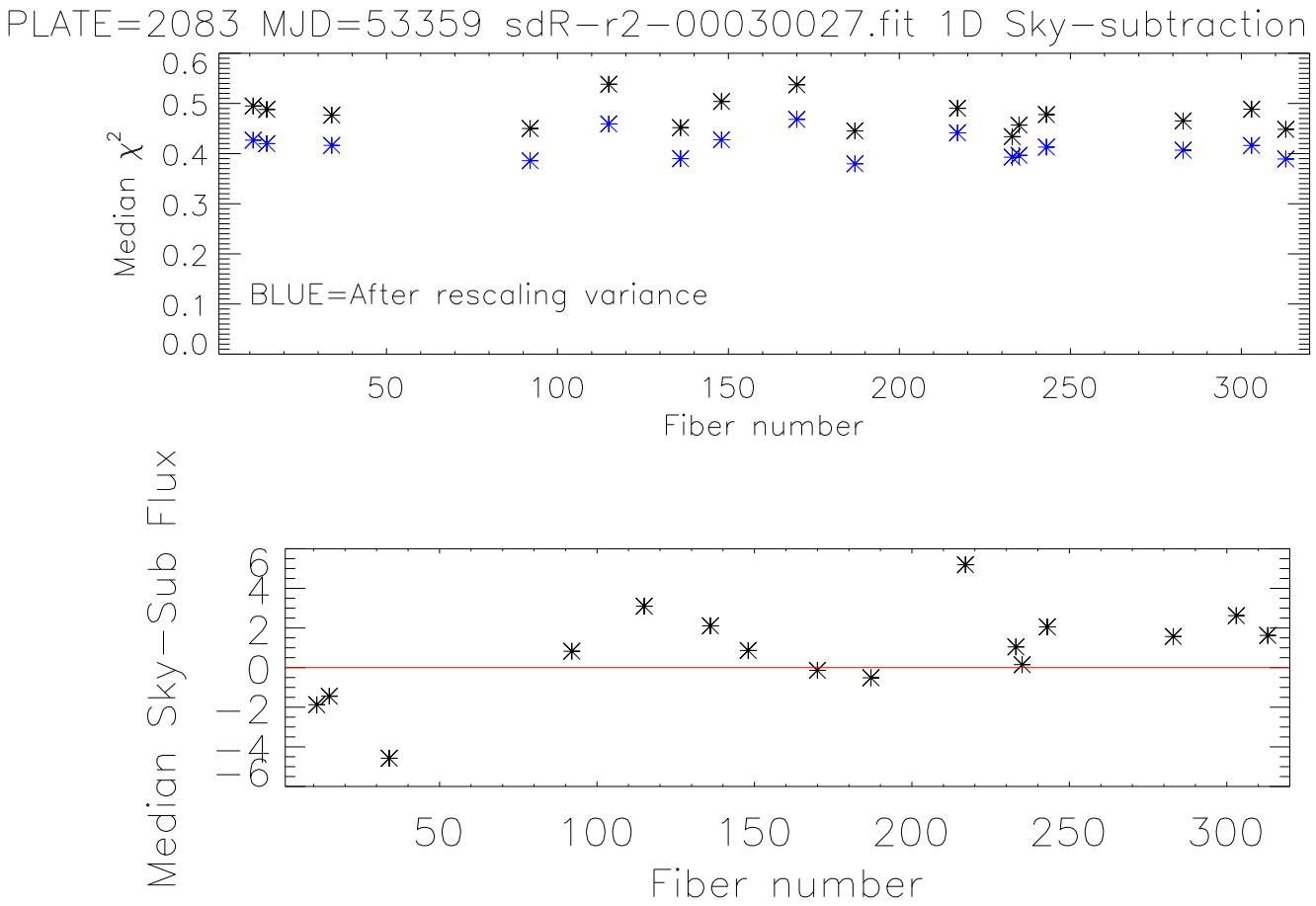

8885.8300
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

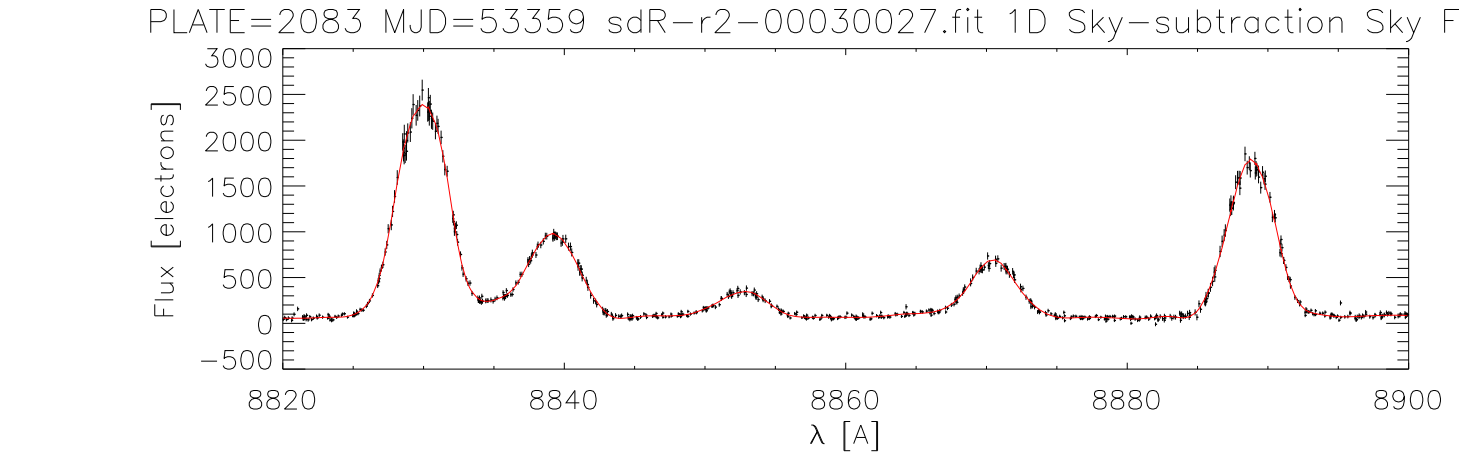

8919.6100
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

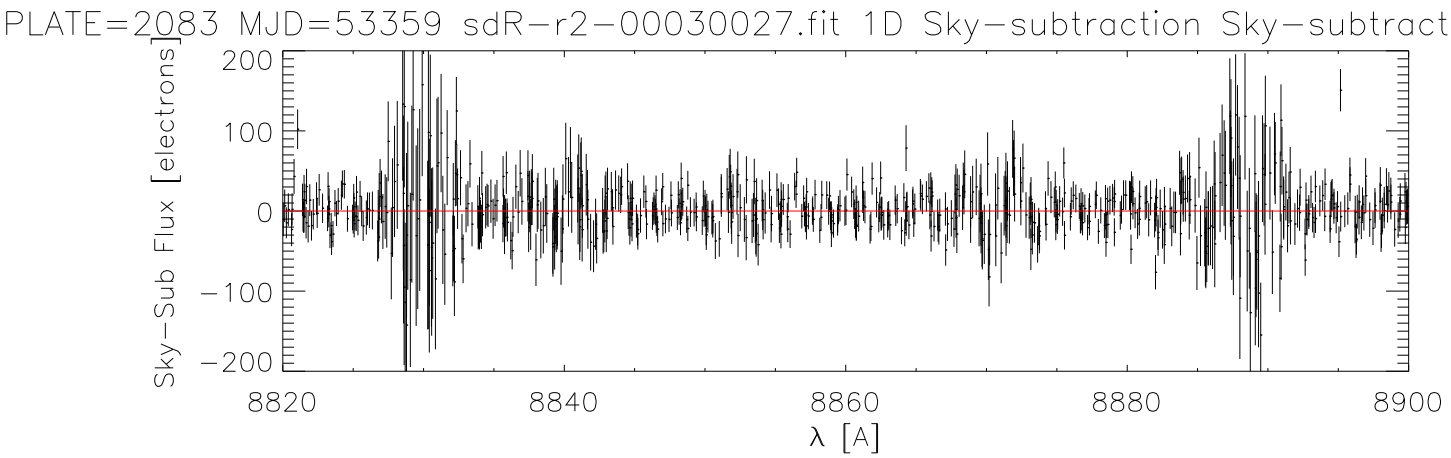

6300.3040
stdev 0.025
extra 0.16
6363.7760
stdev 0.030
extra 0.16
6553.6100
stdev 0.044
extra 0.12
6923.2100
stdev 0.034
extra 0.15
6949.0300
stdev 0.040
extra 0.18
7571.7500
stdev 0.051
extra 0.22
7794.1200
stdev 0.032
extra 0.07
7821.5100
stdev 0.032
extra 0.11
8399.1600
stdev 0.027
extra 0.14
8430.1700
stdev 0.022
extra 0.13
8885.8300
stdev 0.029
extra 0.16
8919.6100
stdev 0.023
extra 0.17
meas − pred, pix
mfb32 17

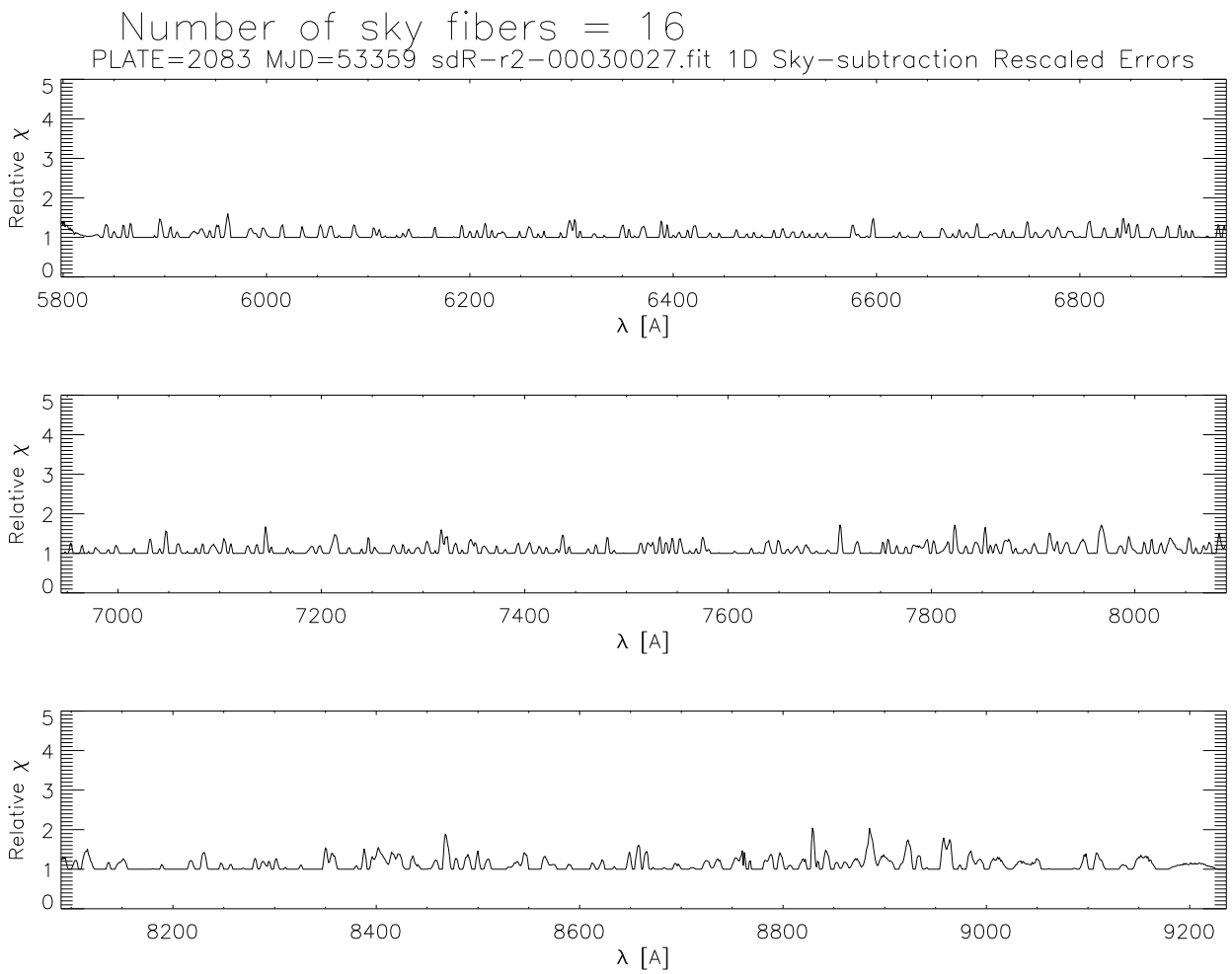

sky shift, pixels
0.20
0.15
0.10
5000
6000
7000
8000
9000
10000

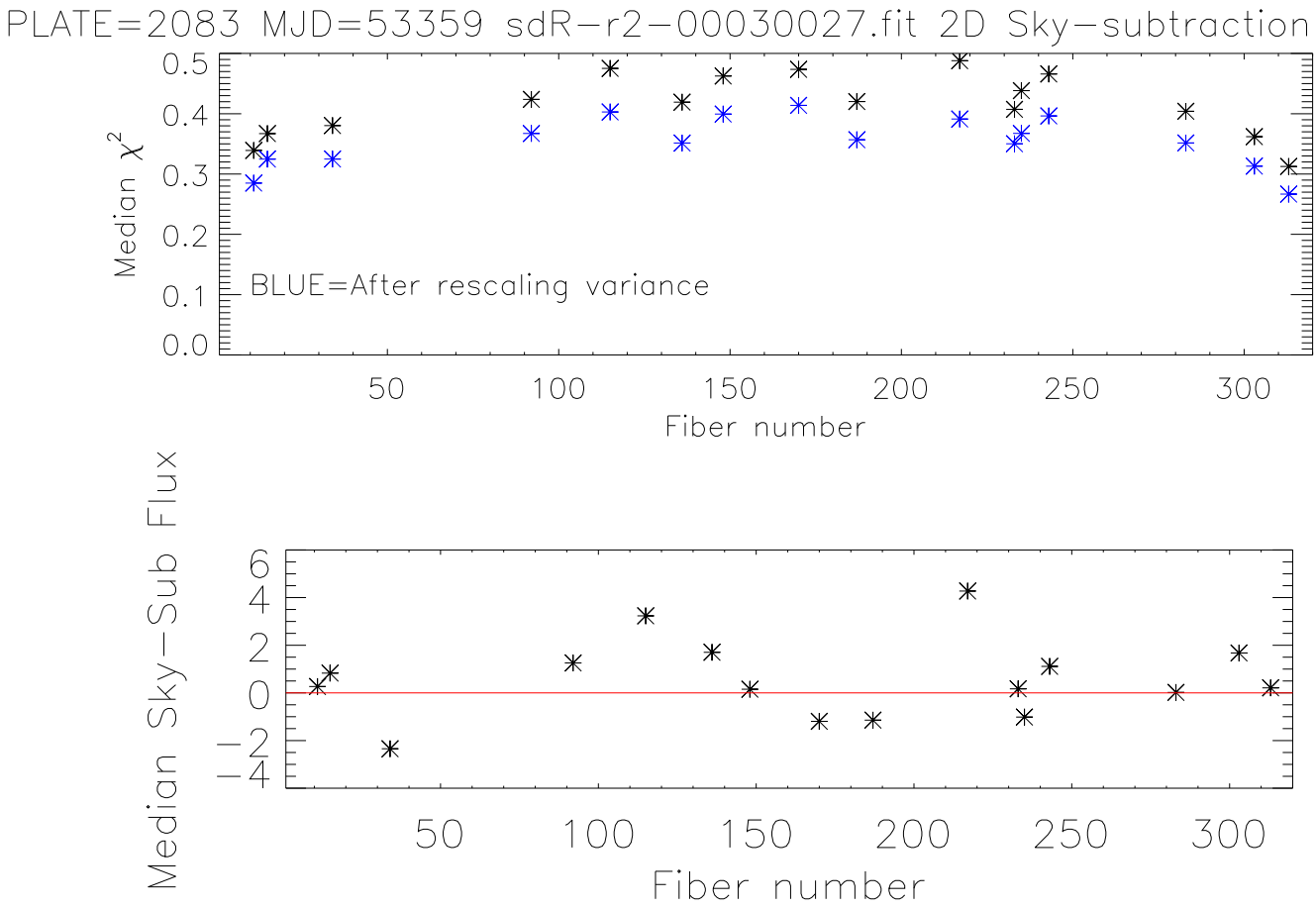

PLATE=2083 MJD=53359 Smooth superflat for sdR-r2-00030027.fit
2.0
1.5
1.0
0.5
0.0
es= -0.0000
1.010
1.005
1.000
0.995
0.990
0.985
6000
7000
8000
9000
Wavelength (Å)

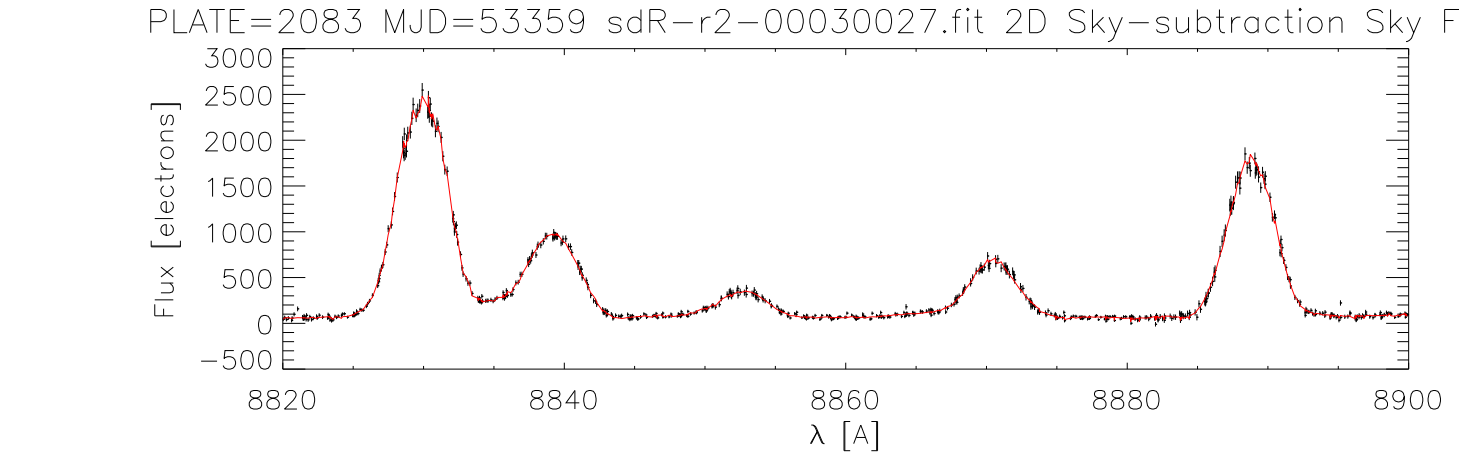

PLATE=2083 MJD=53359 sdR-r2-00030027.fit 1D Sky-subtraction Sky Fibers
Median $\chi^2$
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-6
-4
-2
0
2
4
6
50
100
150
200
250
300
Fiber number

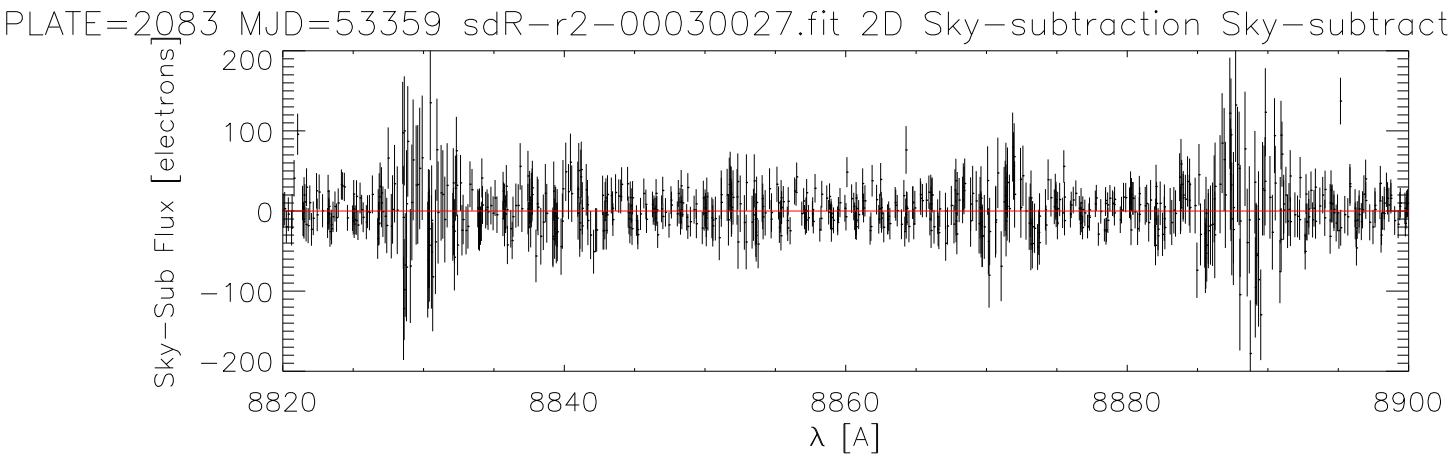

PLATE=2083 MJD=53359 sdR-r2-00030027.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
3000
2500
2000
1500
1000
500
0
-500
8820
8840
8860
8880
8900
λ [A]

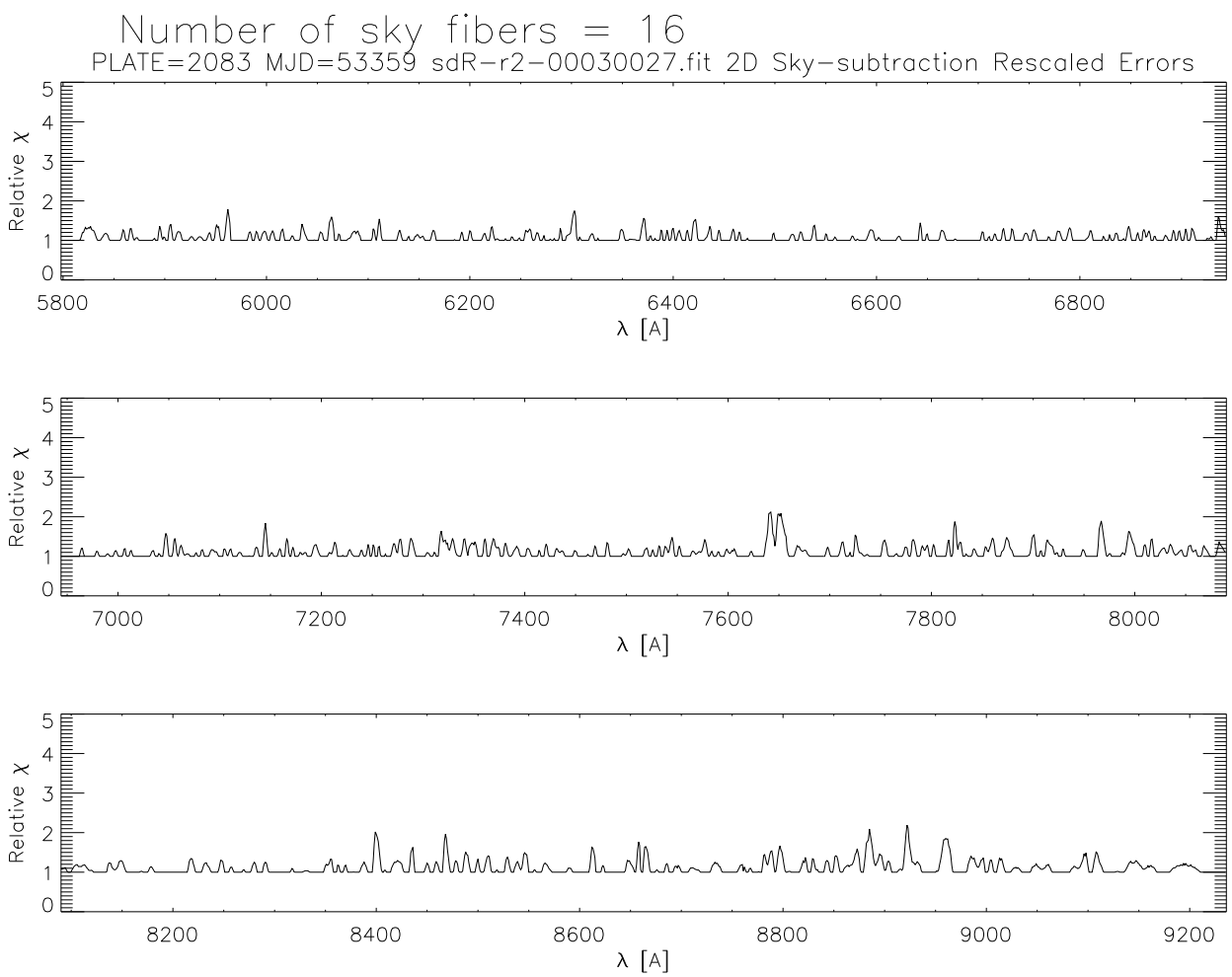

PLATE=2083 MJD=53359 sdR-r2-00030027.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
8820
8840
8860
8880
8900
λ [A]

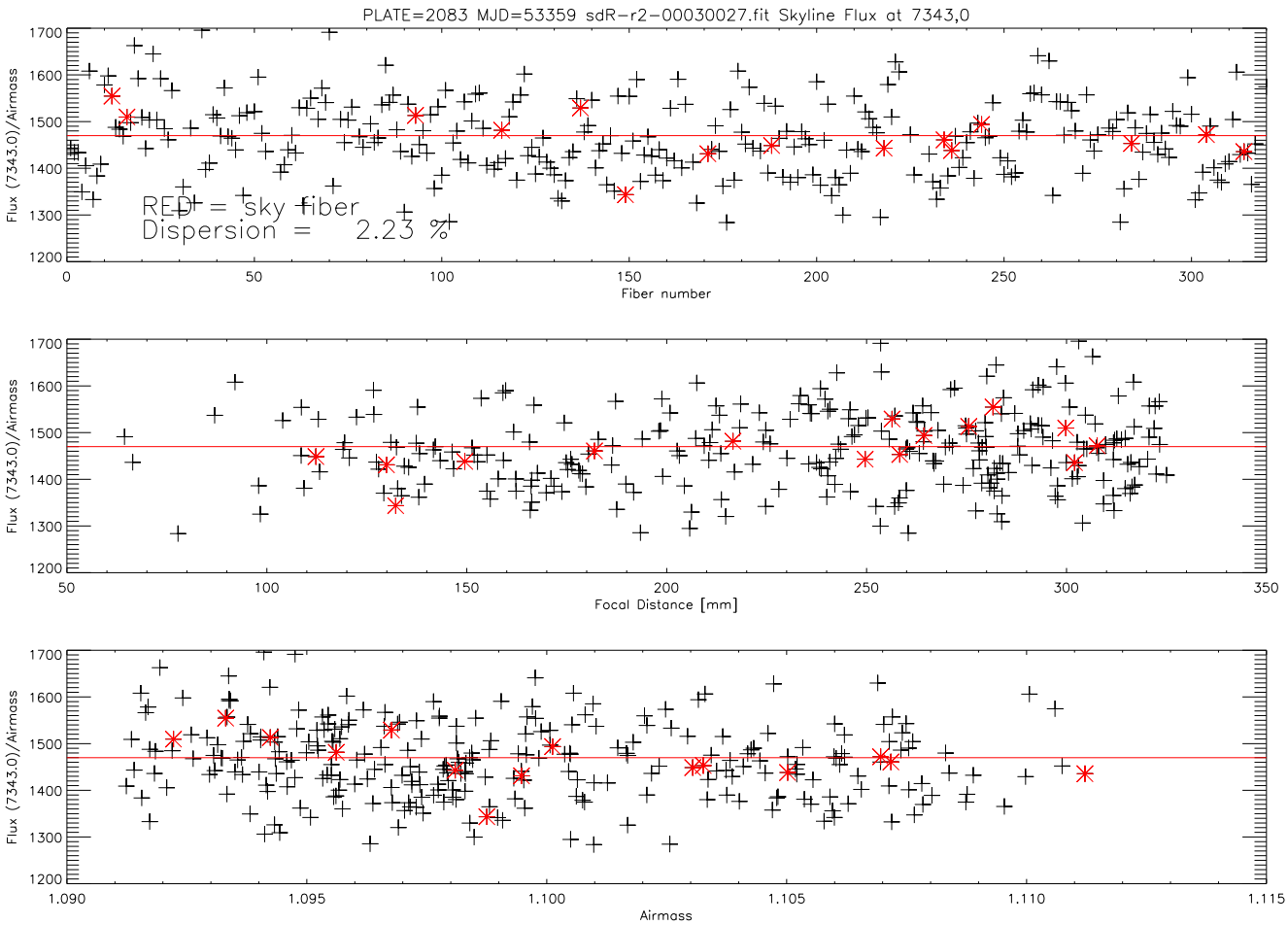

Number of sky fibers = 16
PLATE=2083 MJD=53359 sdR-r2-00030027.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

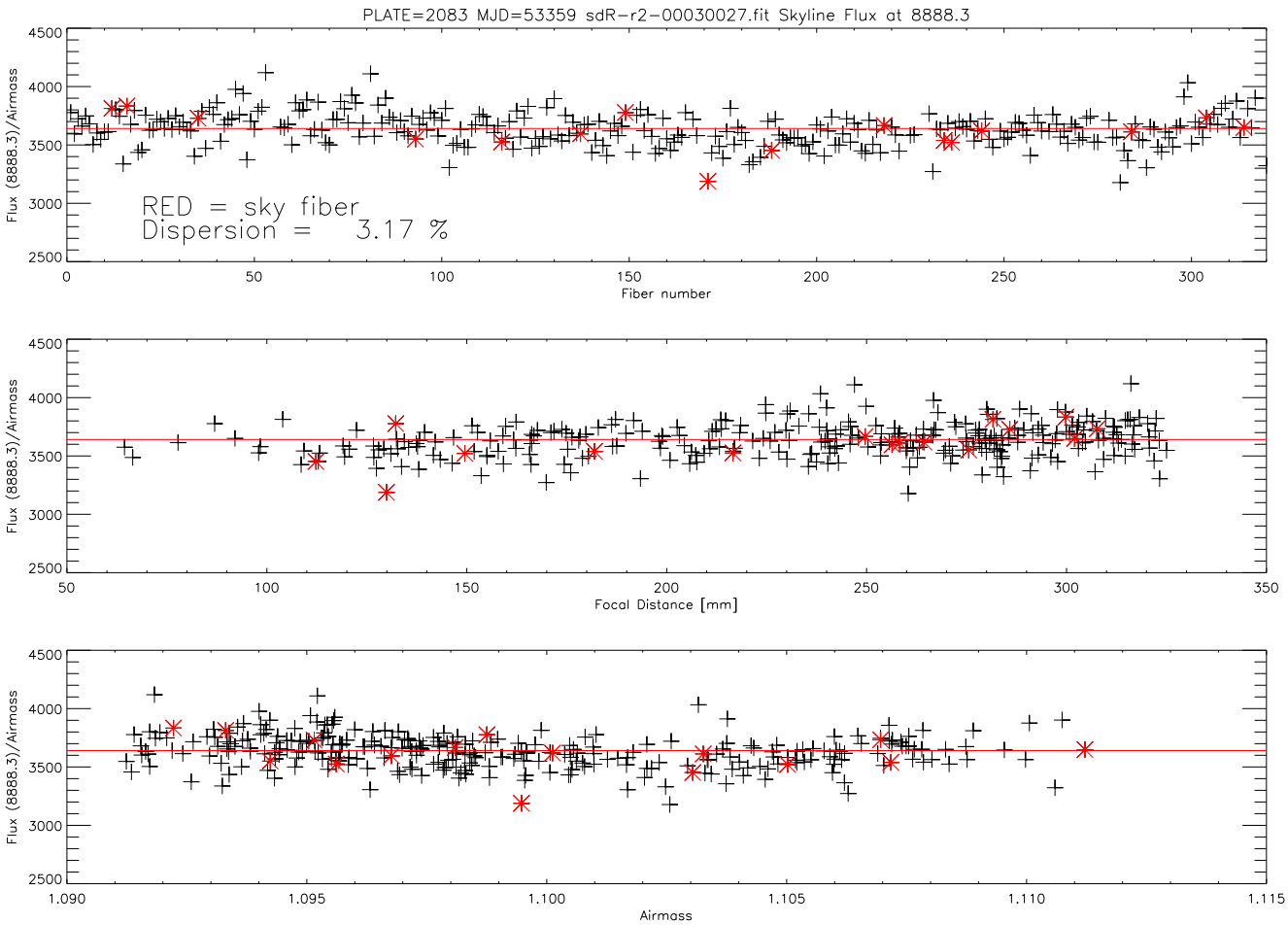

PLATE=2083 MJD=53359 sdR-r2-00030027.fit 2D Sky-subtraction Sky Fibers
Median $\chi^2$
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

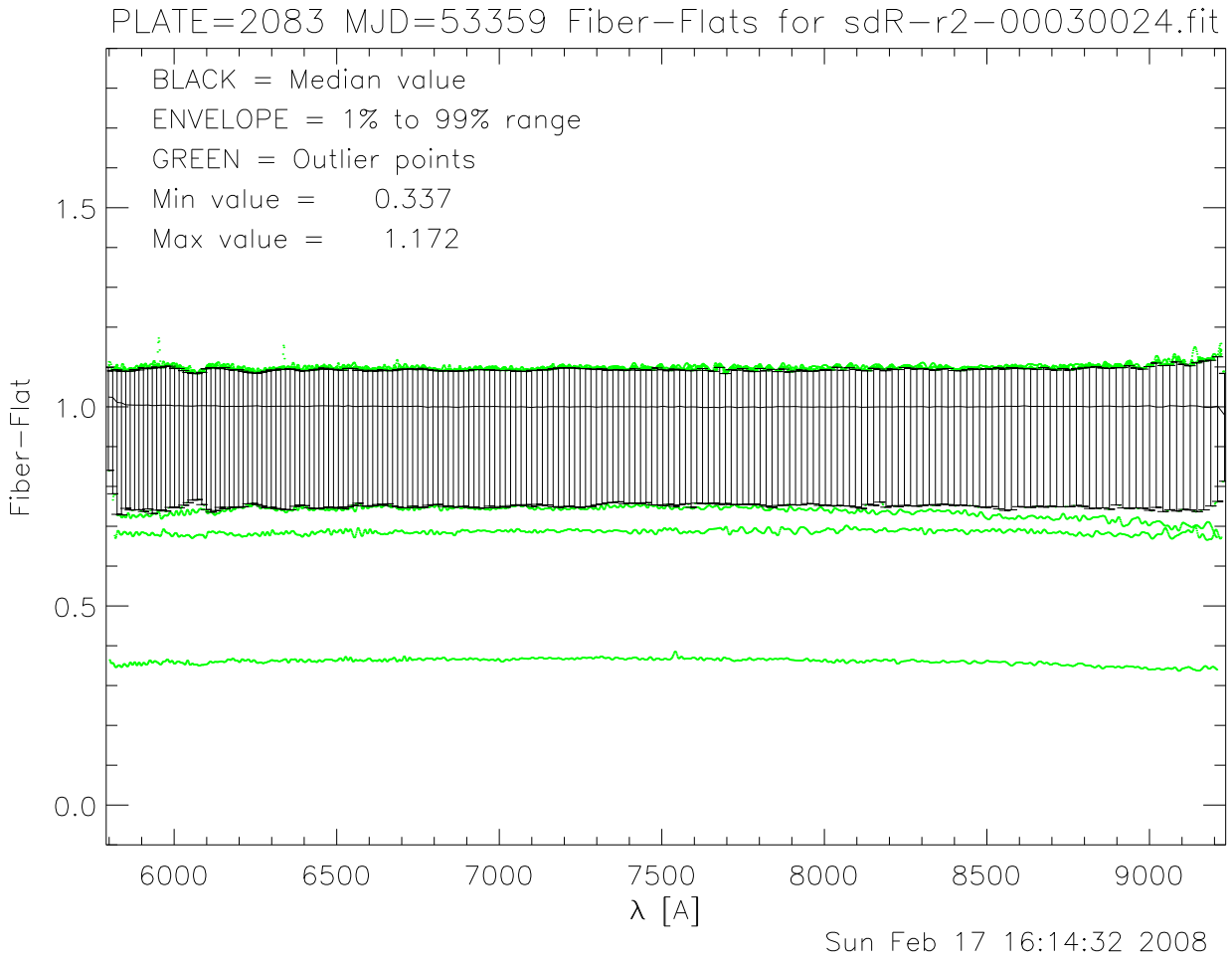

PLATE=2083 MJD=53359 sdR-r2-00030027.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
3000
2500
2000
1500
1000
500
0
−500
8820
8840
8860
8880
8900
λ [A]

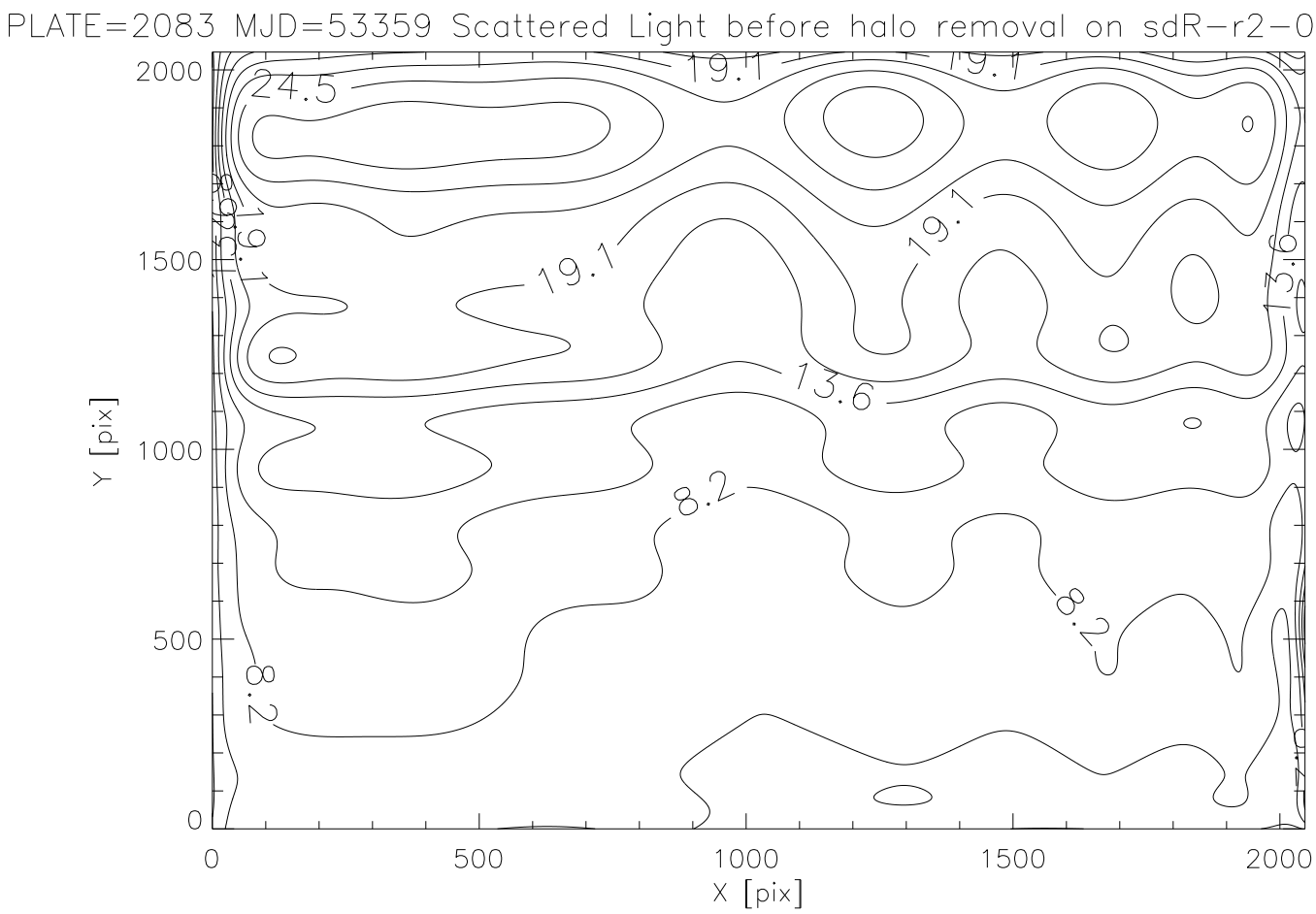

PLATE=2083 MJD=53359 sdR-r2-00030027.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
−100
−200
8820
8840
8860
8880
8900
λ [A]

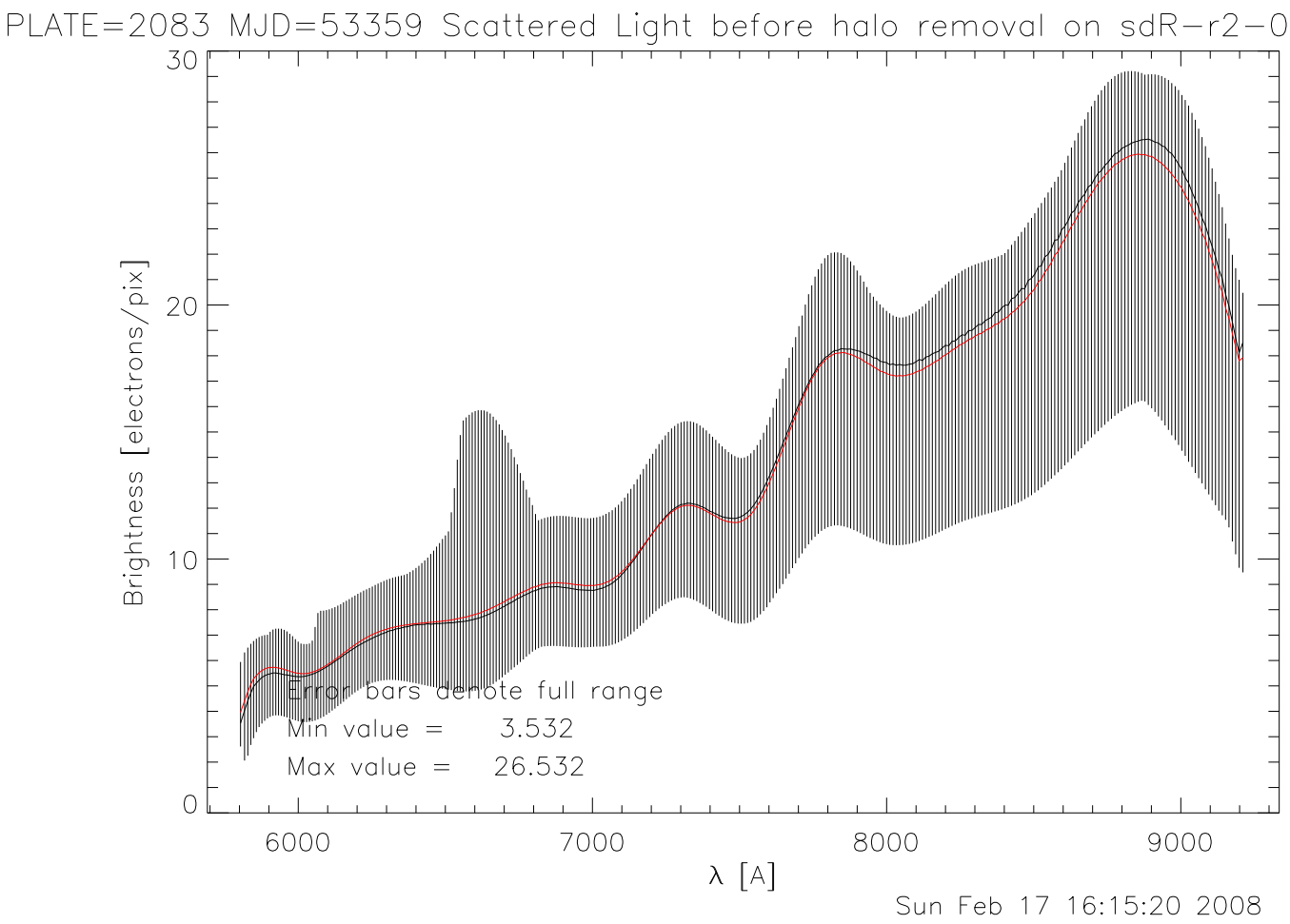

Number of sky fibers = 16
PLATE=2083 MJD=53359 sdR-r2-00030027.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

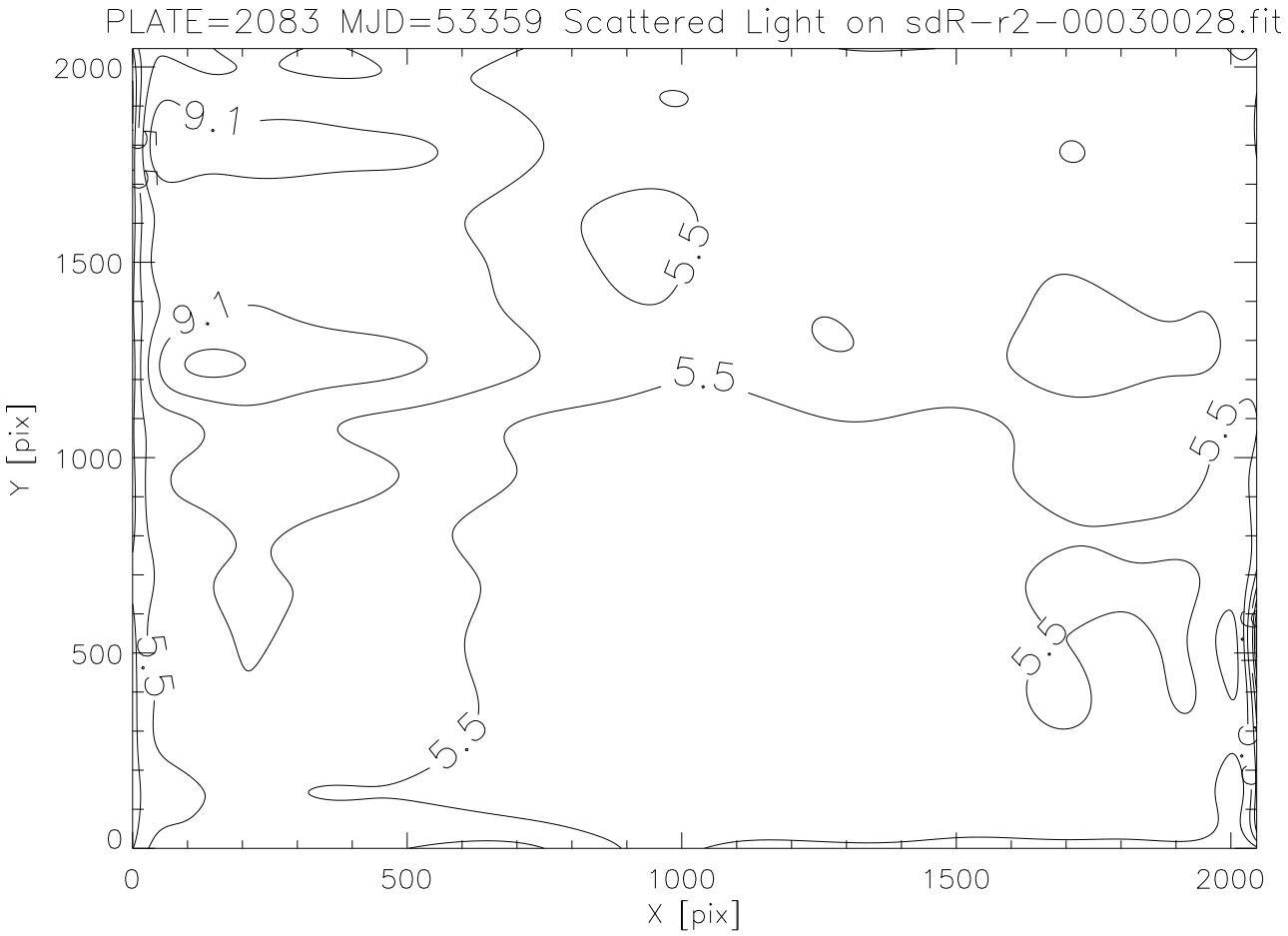

PLATE=2083 MJD=53359 sdR-r2-00030027.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
Fiber number
REF = sky fiber
Dispersion = 2.23 %
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

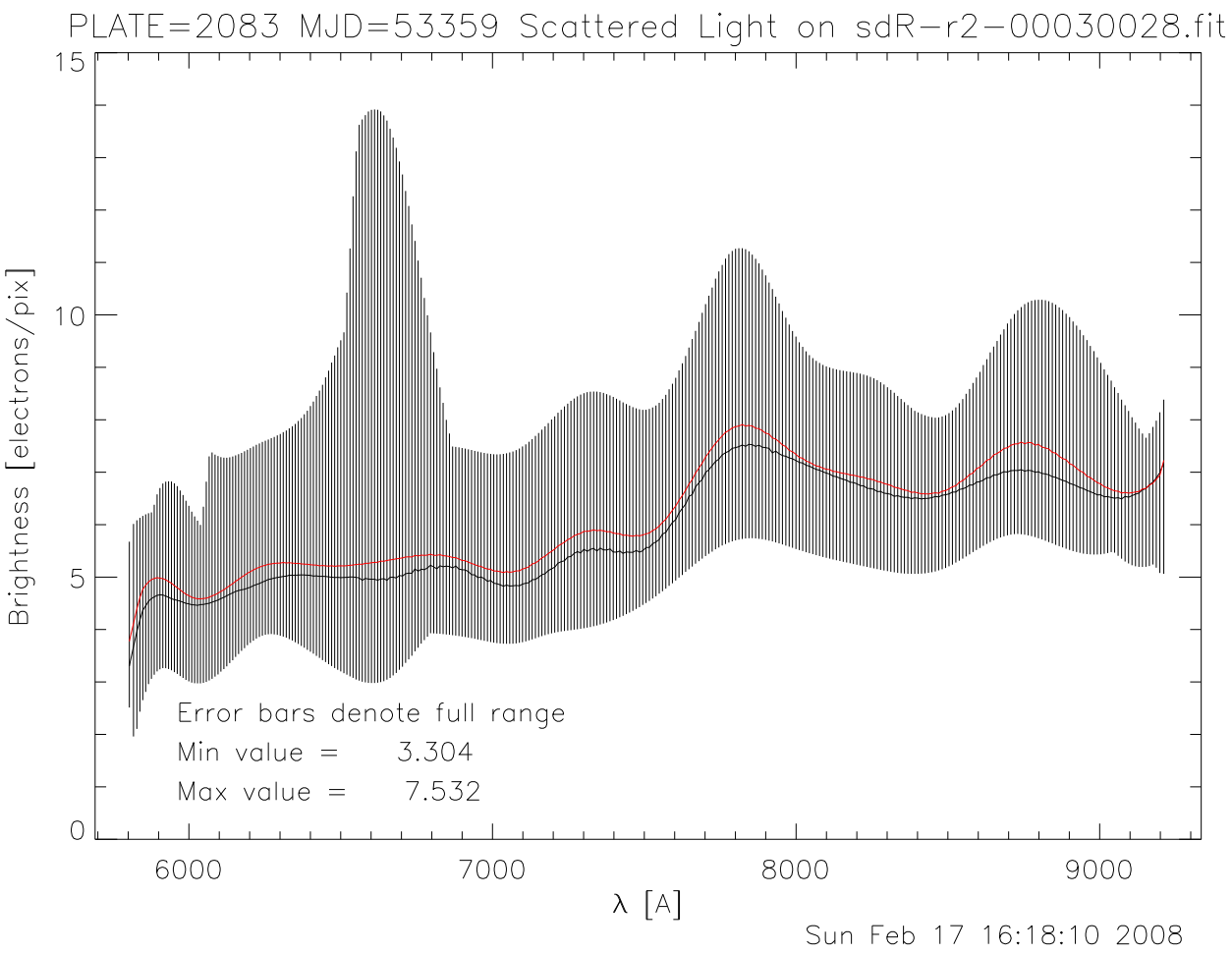

PLATE=2083 MJD=53359 sdR-r2-00030027.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 3.17 %
Fiber number
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass

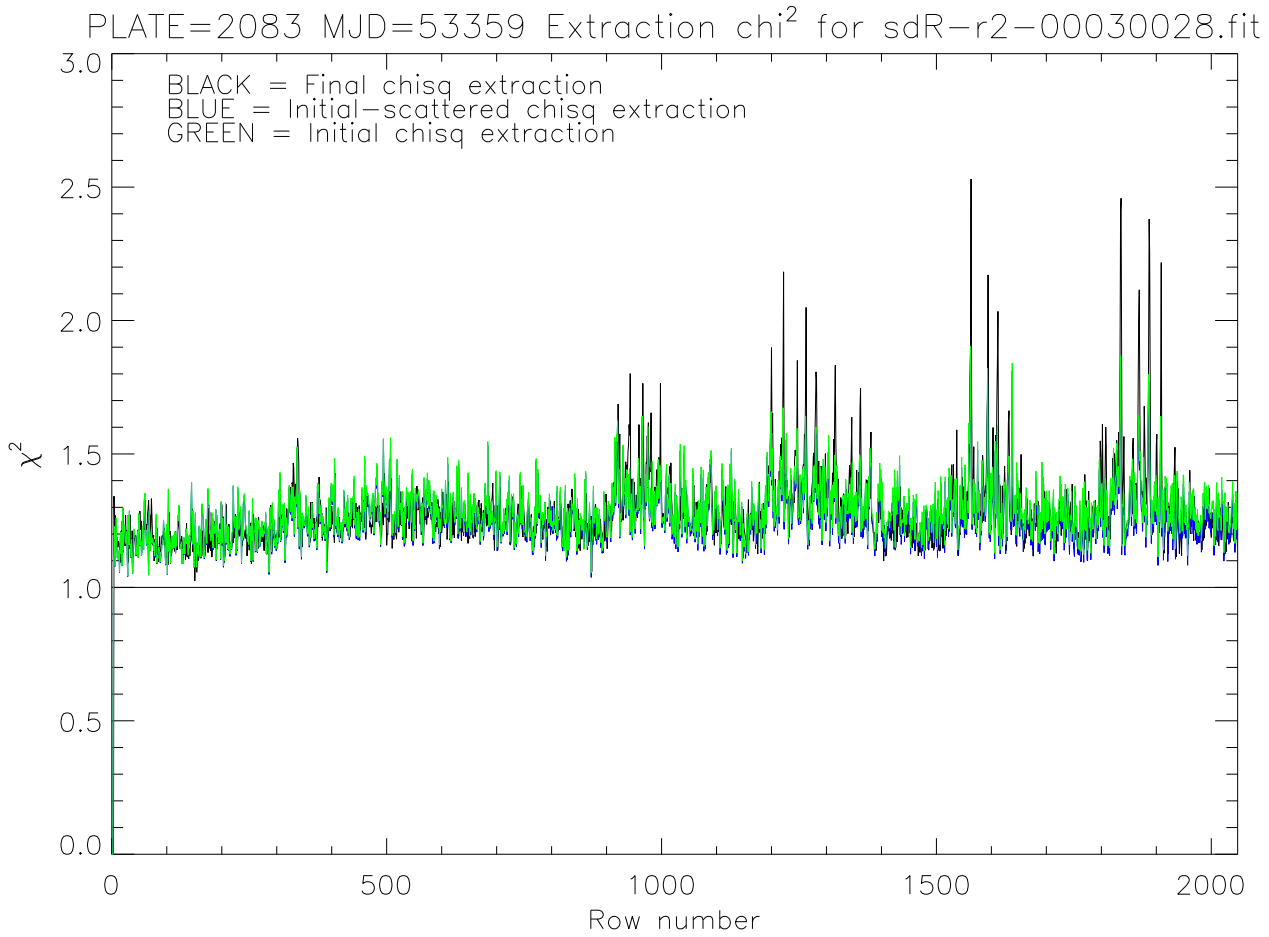

PLATE=2083 MJD=53359 Fiber−Flats for sdR−r2−00030024.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.337
Max value = 1.172
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sun Feb 17 16:14:32 2008

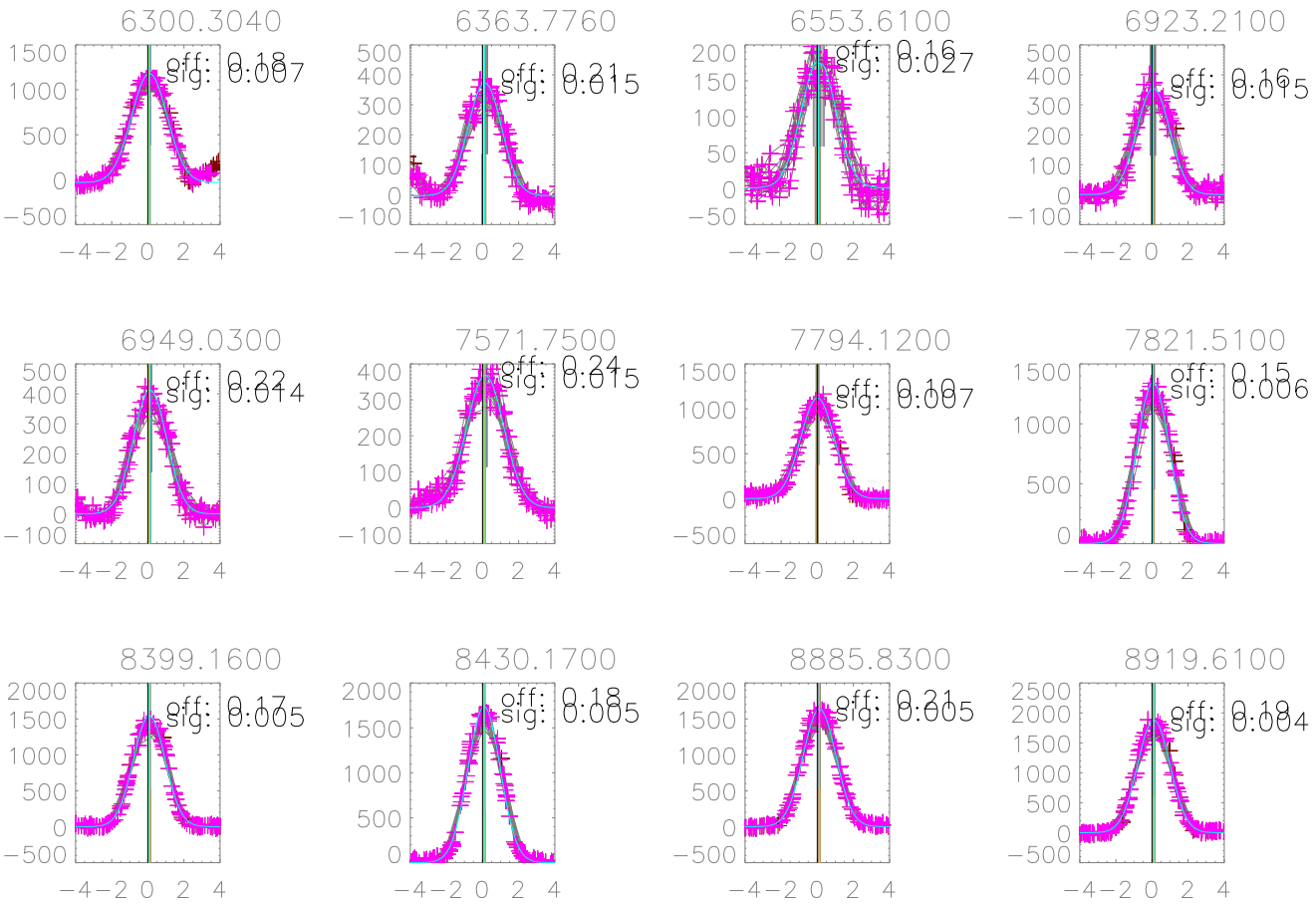

PLATE=2083 MJD=53359 Scattered Light before halo removal on sdR-r2-00030028.fi
24.5
19.1
19.1
19.1
19.1
19.1
13.6
13.6
8.2
8.2
8.2
0
0
0
Y [pix]
X [pix]
0
500
1000
1500
2000

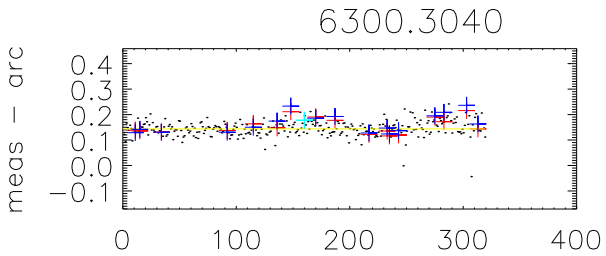

PLATE=2083 MJD=53359 Scattered Light before halo removal on sdR-r2-00030028.fi
Brightness [electrons/pix]
30
20
10
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 3.532
Max value = 26.532
Sun Feb 17 16:15:20 2008

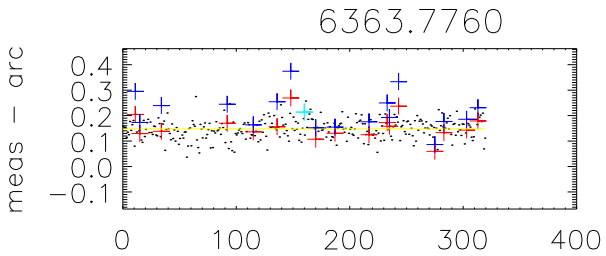

PLATE=2083 MJD=53359 Scattered Light on sdR-r2-00030028.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
9.1
9.1
5.5
5.5
5.5
5.5
5.5
5.5

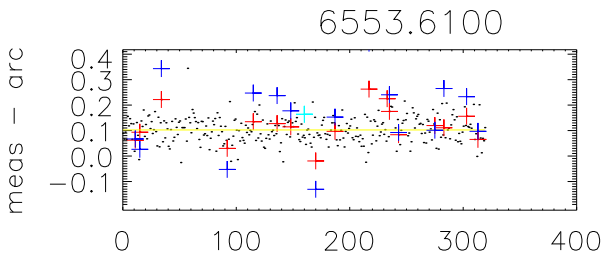

PLATE=2083 MJD=53359 Scattered Light on sdR-r2-00030028.fit
Brightness [electrons/pix]
15
10
5
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 3.304
Max value = 7.532
Sun Feb 17 16:18:10 2008

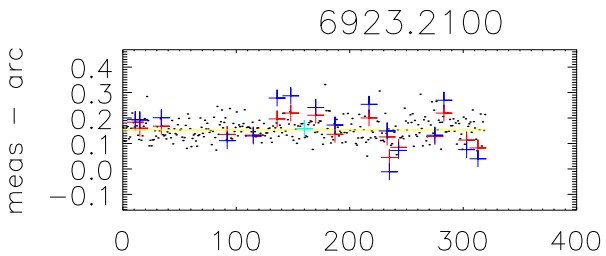

PLATE=2083 MJD=53359 Extraction chi$^2$ for sdR−r2−00030028.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
$\chi^2$
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
500
1000
1500
2000
Row number

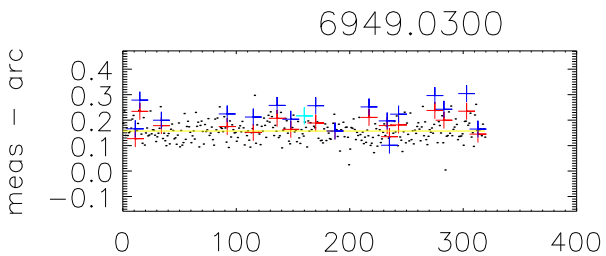

6300.3040
off: 0.18
sig: 0.007
6363.7760
off: 0.21
sig: 0.015
6553.6100
off: 0.16
sig: 0.027
6923.2100
off: 0.16
sig: 0.015
6949.0300
off: 0.22
sig: 0.014
7571.7500
off: 0.24
sig: 0.015
7794.1200
off: 0.10
sig: 0.007
7821.5100
off: 0.15
sig: 0.006
8399.1600
off: 0.17
sig: 0.005
8430.1700
off: 0.18
sig: 0.005
8885.8300
off: 0.21
sig: 0.005
8919.6100
off: 0.18
sig: 0.004

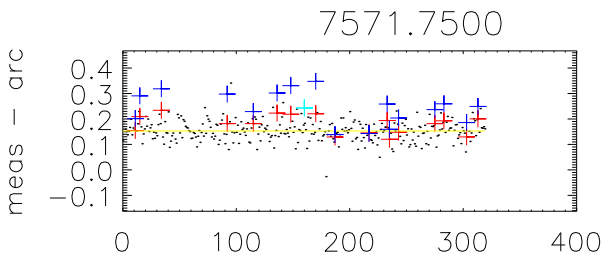

6300.3040
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

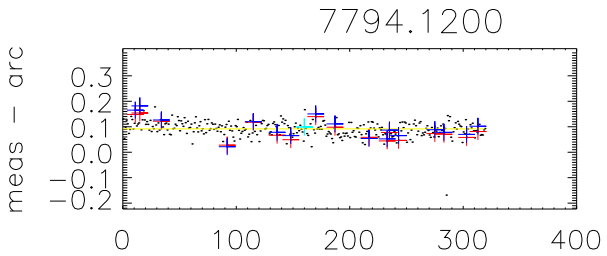

6363.7760
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

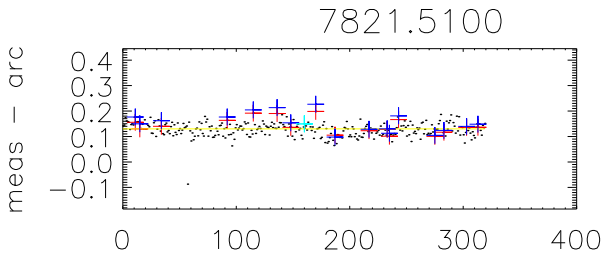

6553.6100
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

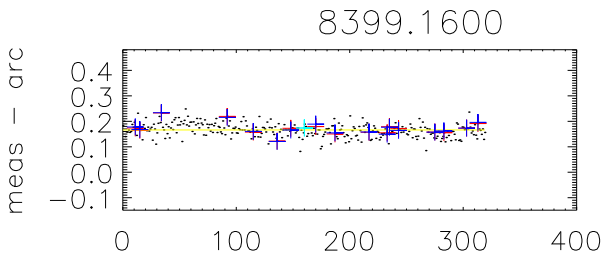

6923.2100
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

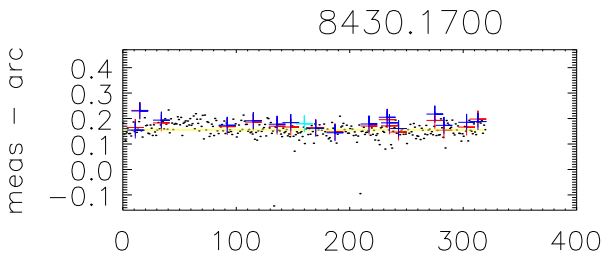

6949.0300
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

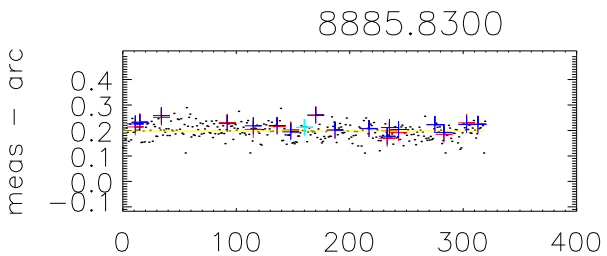

7571.7500
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

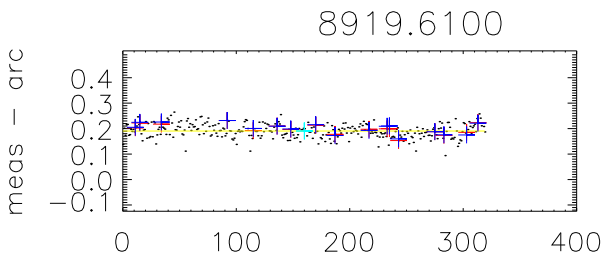

7794.1200
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

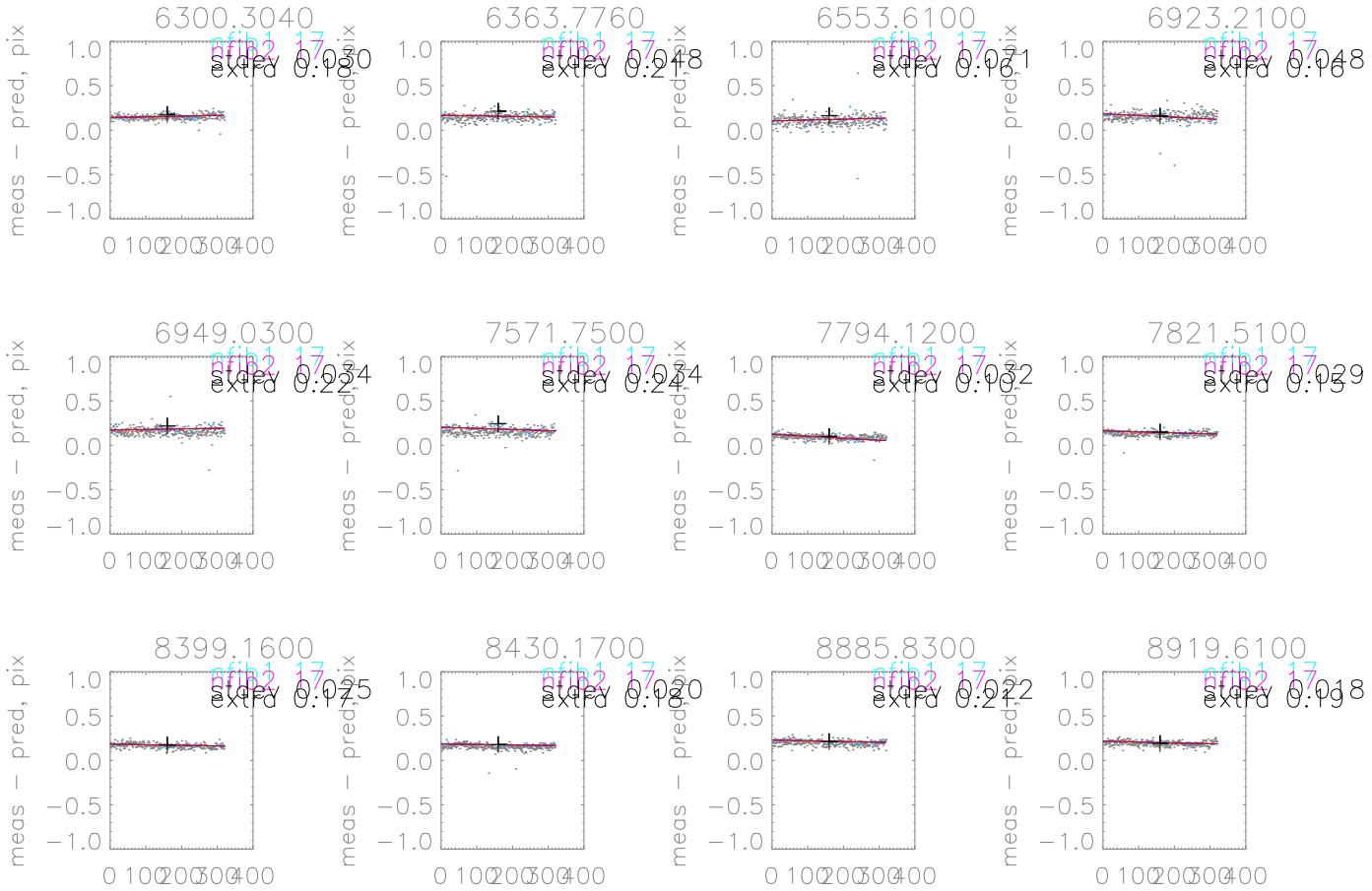

7821.5100
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

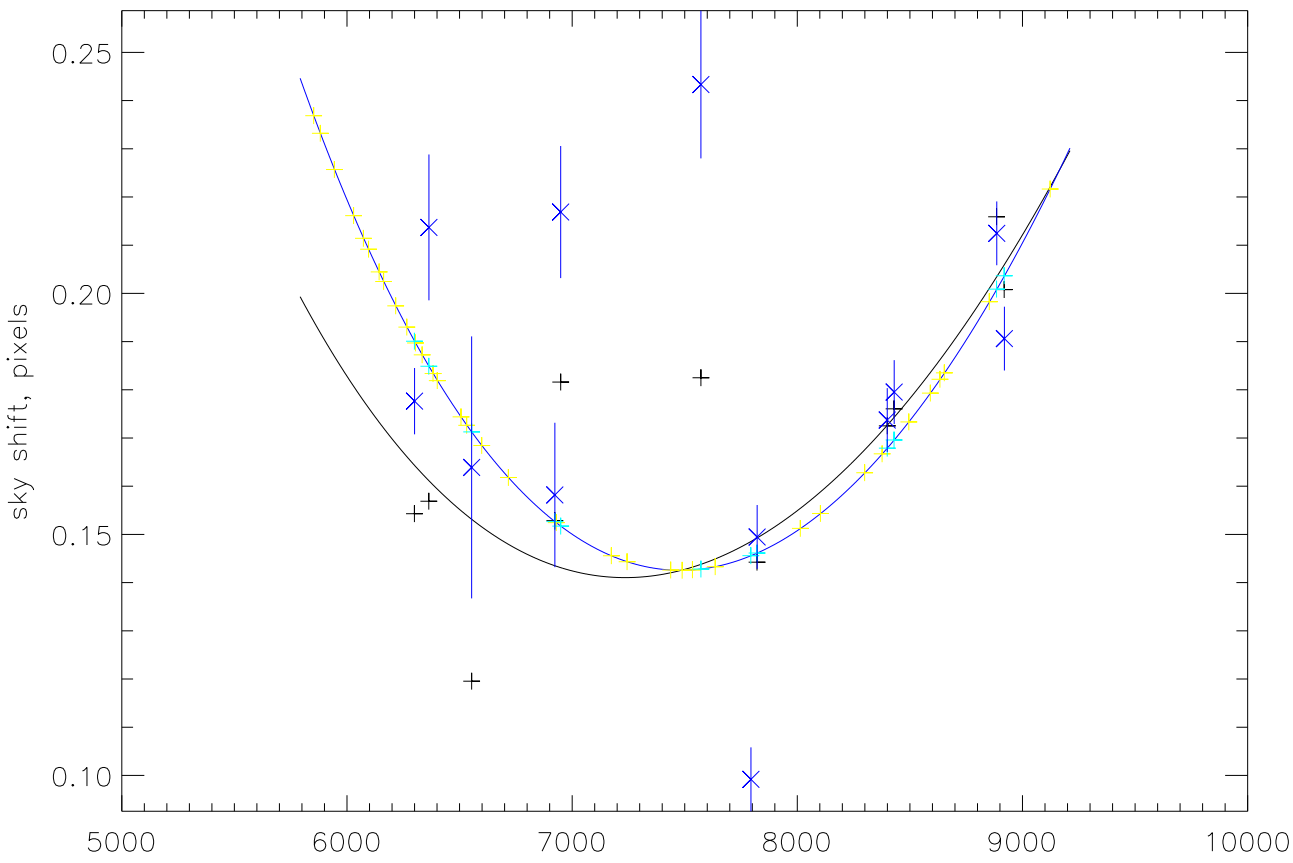

8399.1600
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

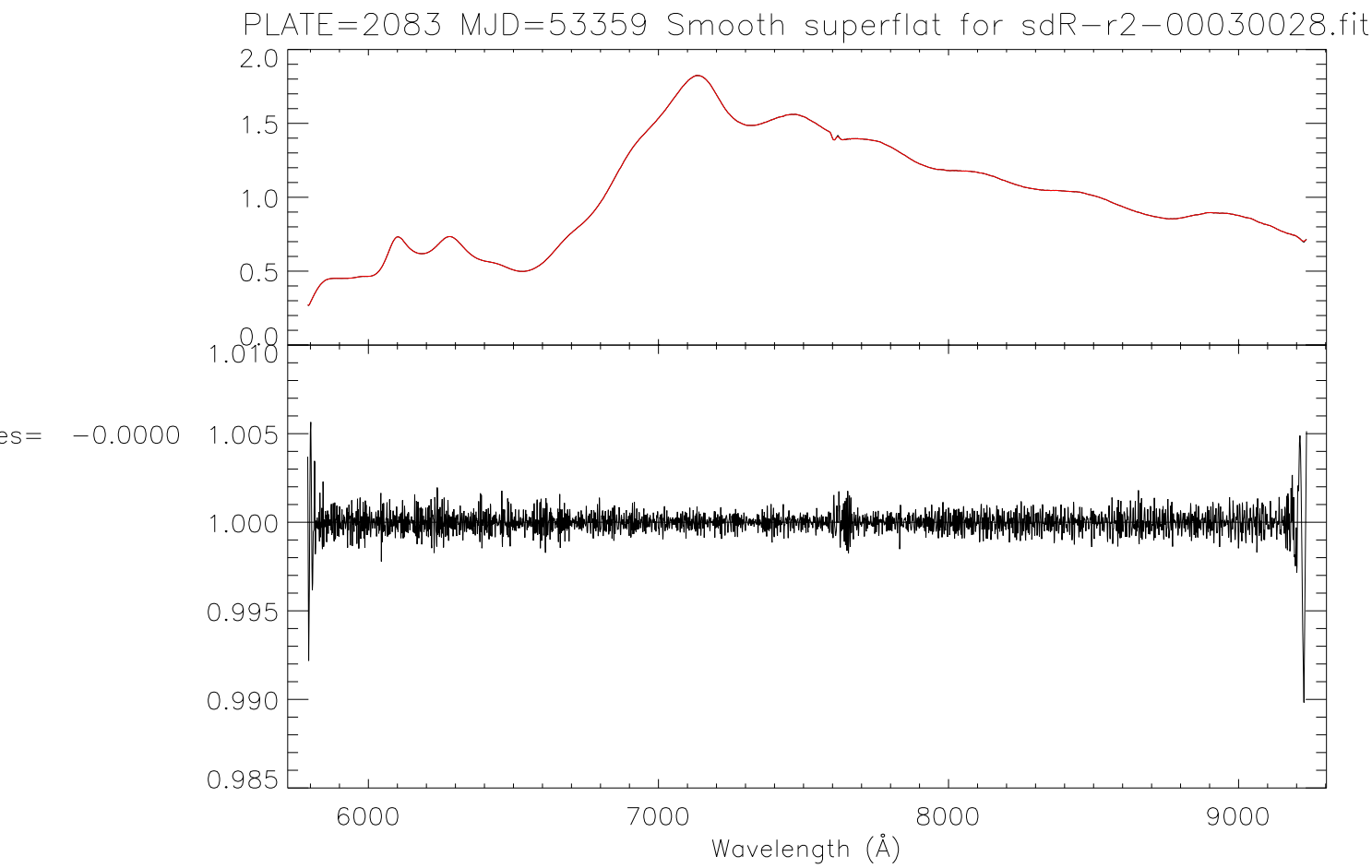

8430.1700
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

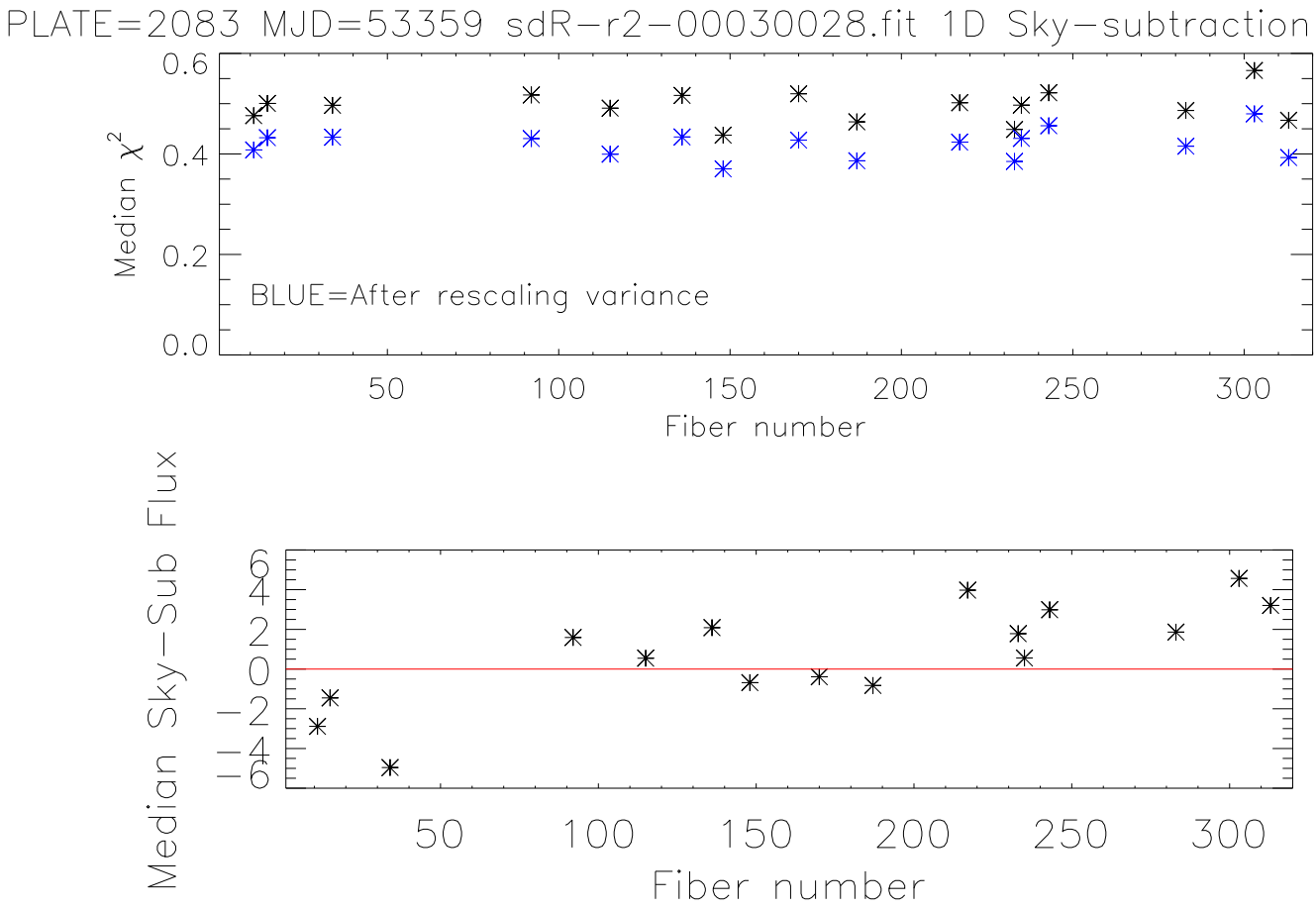

8885.8300
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400


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

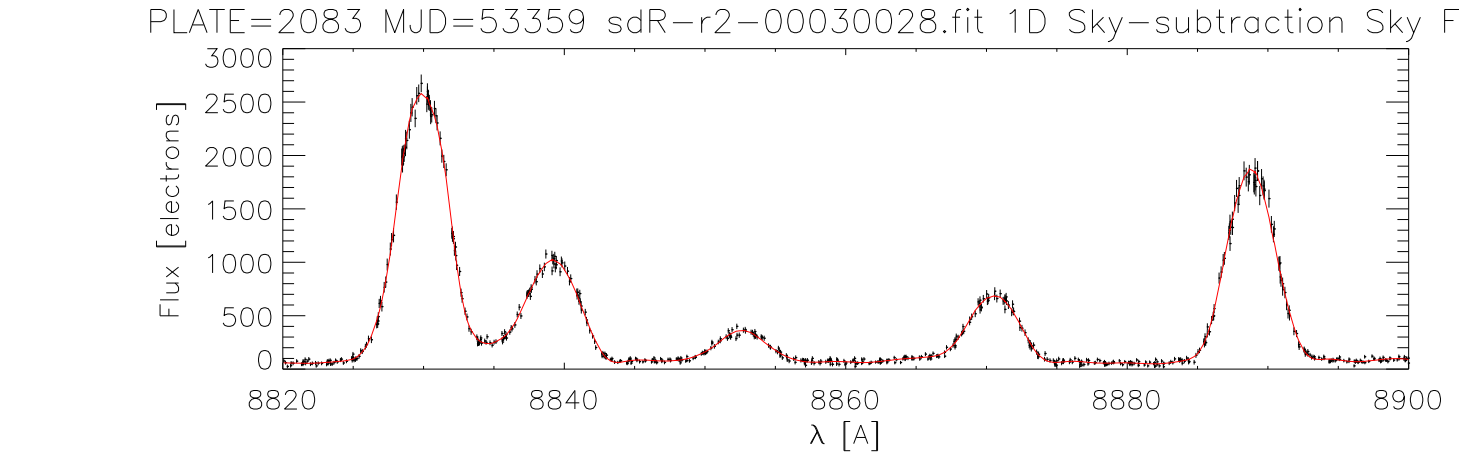

6300.3040
stdev 0.030
extra 0.18
6363.7760
stdev 0.048
extra 0.21
6553.6100
stdev 0.071
extra 0.16
6923.2100
stdev 0.048
extra 0.16
6949.0300
stdev 0.034
extra 0.22
7571.7500
stdev 0.034
extra 0.24
7794.1200
stdev 0.032
extra 0.10
7821.5100
stdev 0.029
extra 0.15
8399.1600
stdev 0.025
extra 0.17
8430.1700
stdev 0.020
extra 0.18
8885.8300
stdev 0.022
extra 0.21
8919.6100
stdev 0.018
extra 0.19
meas − pred, pix
mfb1 17
mfb2 17

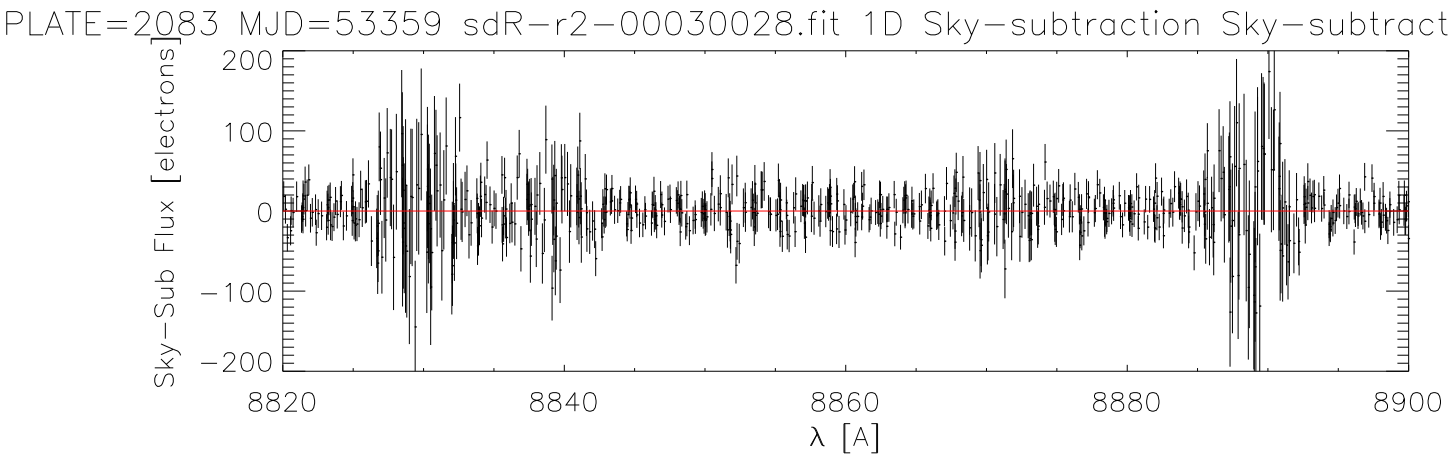

0.25
0.20
0.15
0.10
sky shift, pixels
5000
6000
7000
8000
9000
10000

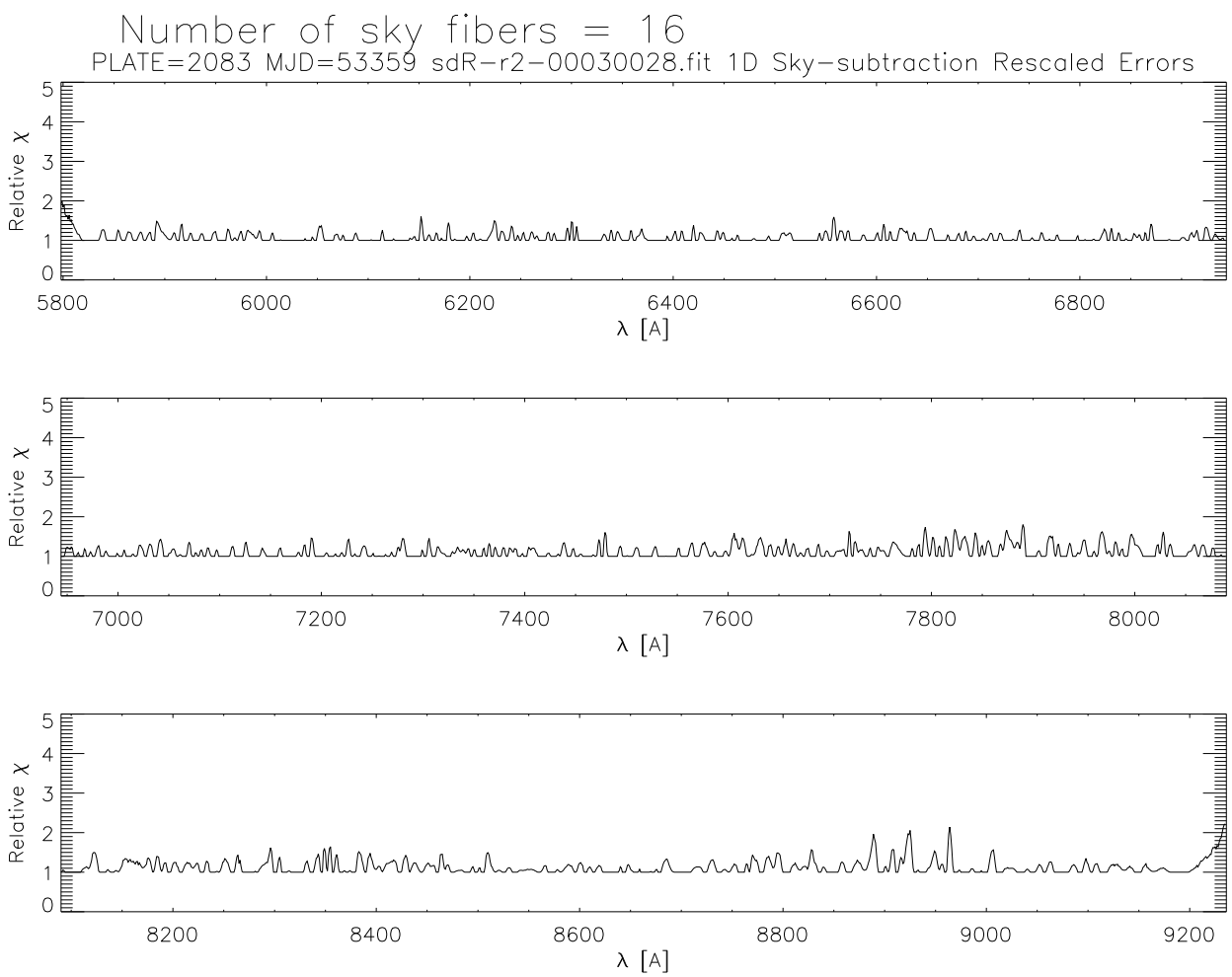

PLATE=2083 MJD=53359 Smooth superflat for sdR-r2-00030028.fit
2.0
1.5
1.0
0.5
0.0
es= -0.0000
1.010
1.005
1.000
0.995
0.990
0.985
6000
7000
8000
9000
Wavelength (Å)

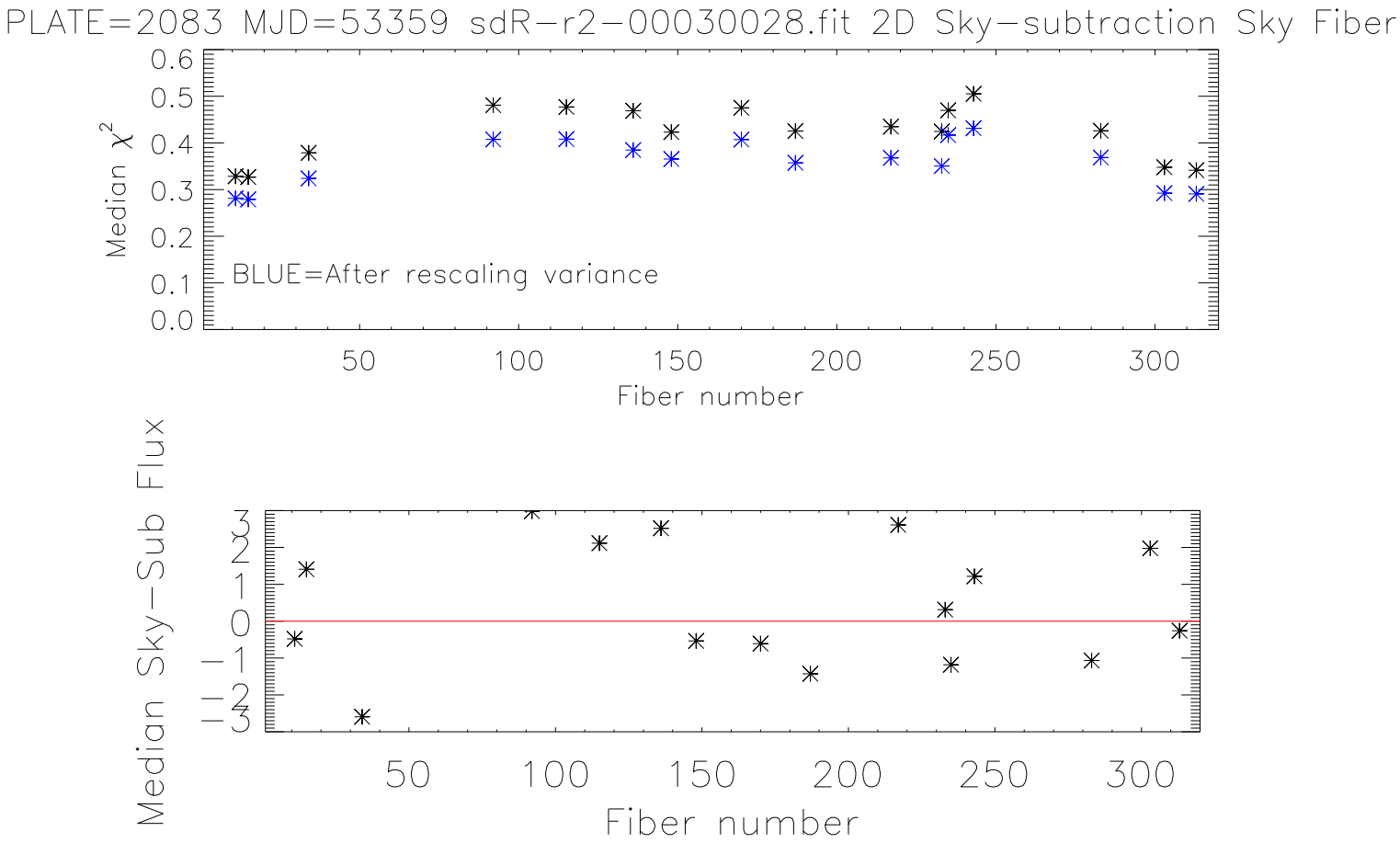

PLATE=2083 MJD=53359 sdR-r2-00030028.fit 1D Sky-subtraction Sky Fibers
Median $\chi^2$
0.0
0.2
0.4
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number

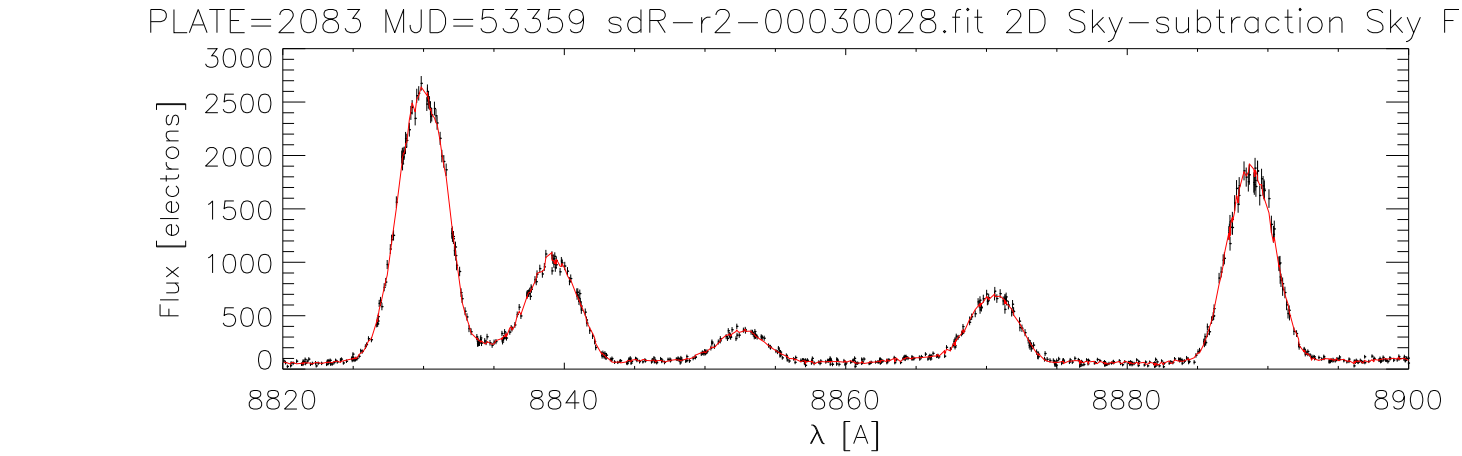

Median Sky-Sub Flux
-6
-4
-2
0
2
4
6
50
100
150
200
250
300
Fiber number

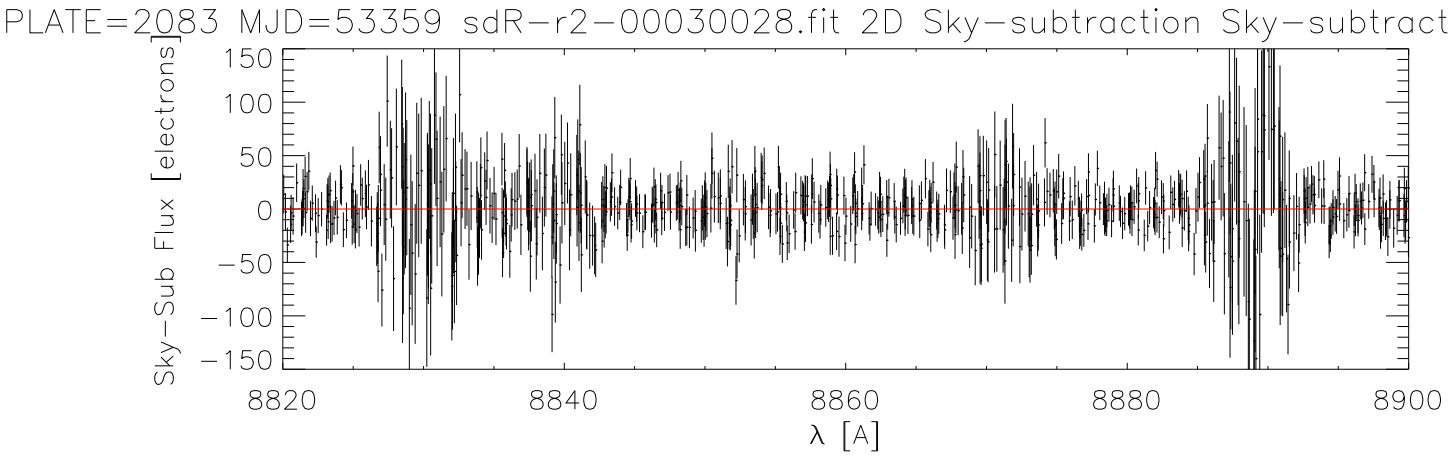

PLATE=2083 MJD=53359 sdR-r2-00030028.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
3000
2500
2000
1500
1000
500
0
8820
8840
8860
8880
8900
λ [A]

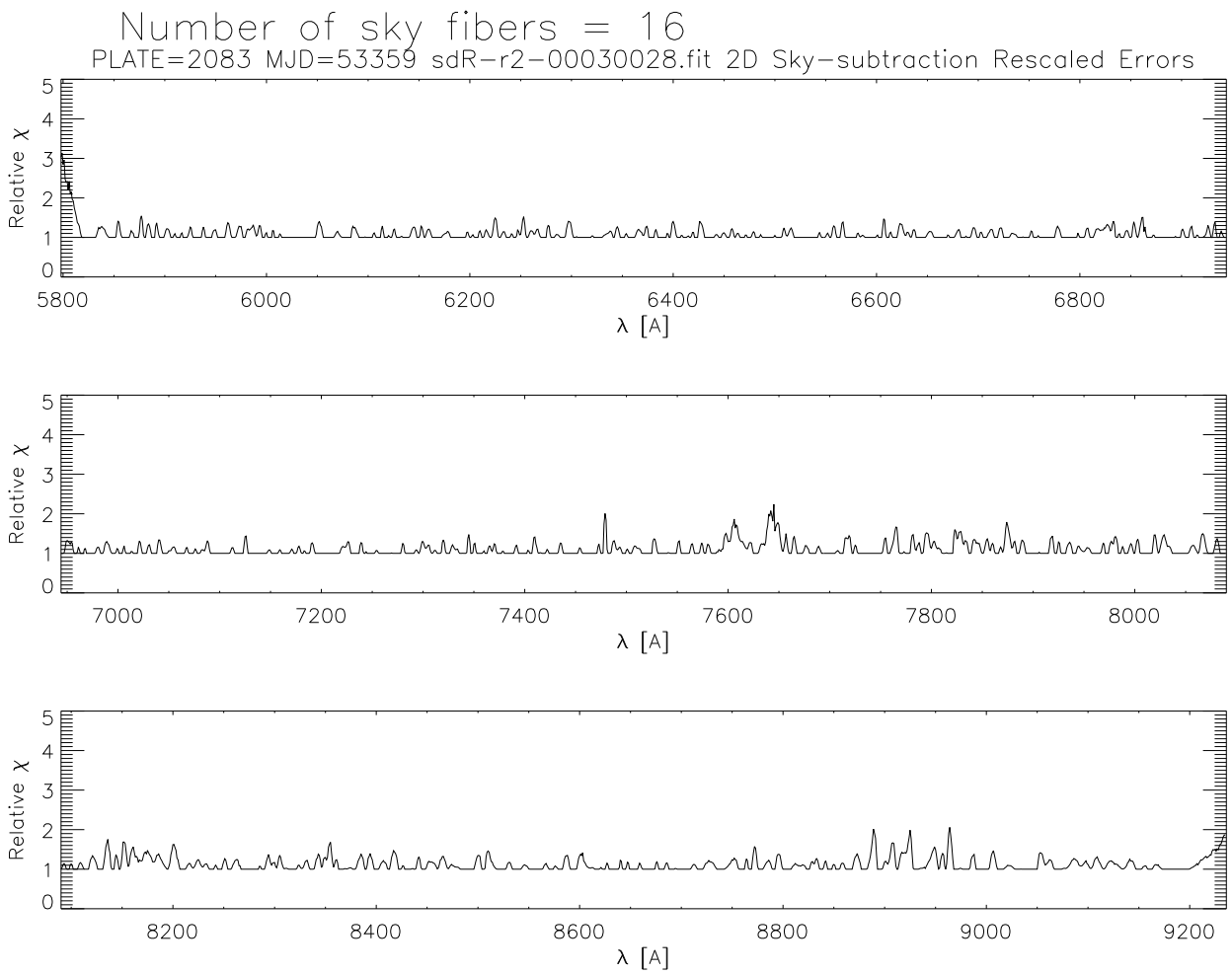

PLATE=2083 MJD=53359 sdR-r2-00030028.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
8820
8840
8860
8880
8900
λ [A]

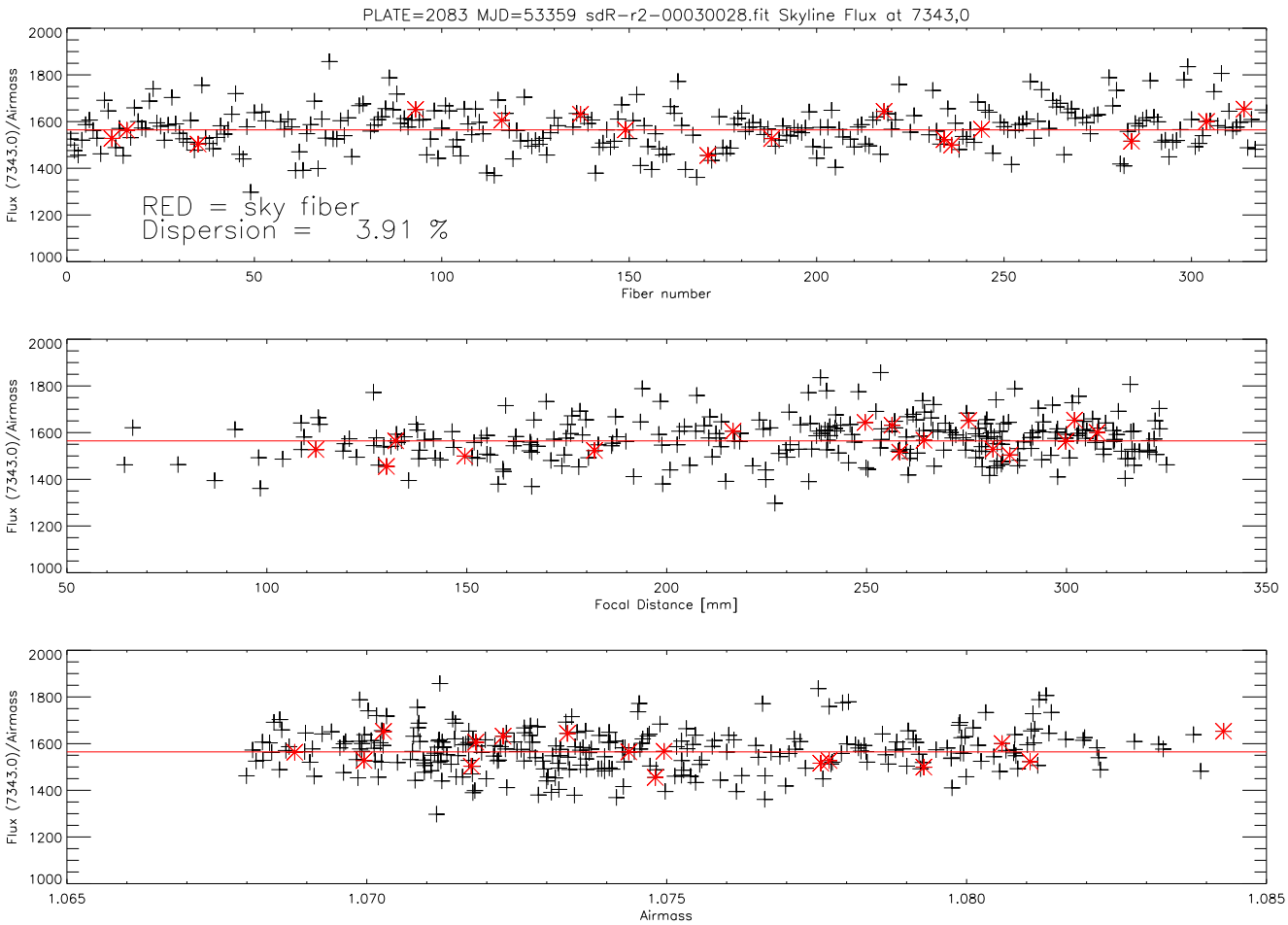

Number of sky fibers = 16
PLATE=2083 MJD=53359 sdR-r2-00030028.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

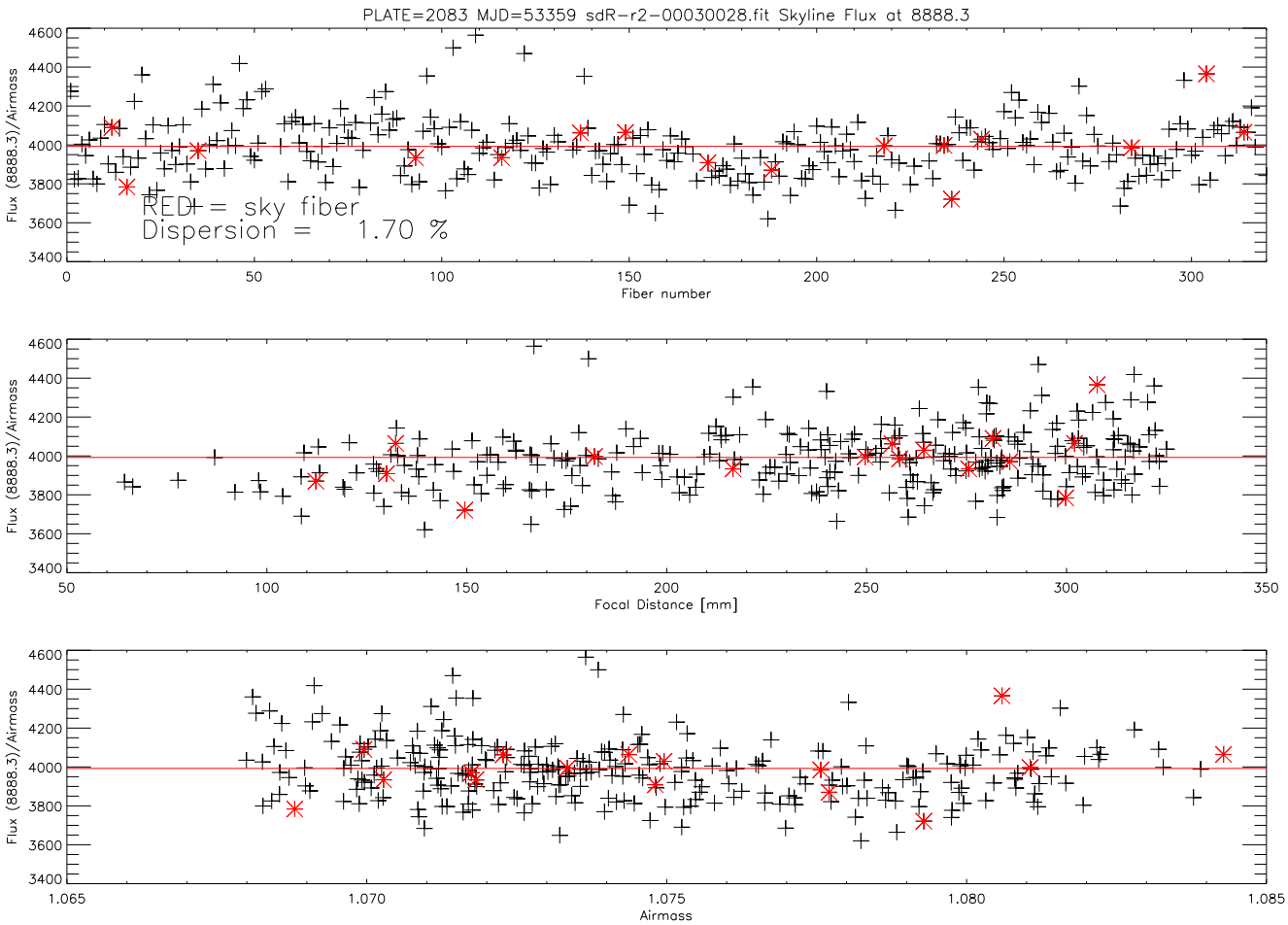

PLATE=2083 MJD=53359 sdR-r2-00030028.fit 2D Sky-subtraction Sky Fibers
Median $\chi^2$
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number


PLATE=2083 MJD=53359 sdR-r2-00030028.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
3000
2500
2000
1500
1000
500
0
8820
8840
8860
8880
8900
λ [A]


PLATE=2083 MJD=53359 sdR-r2-00030028.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
150
100
50
0
−50
−100
−150
8820
8840
8860
8880
8900
λ [A]


Number of sky fibers = 16
PLATE=2083 MJD=53359 sdR-r2-00030028.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=2083 MJD=53359 sdR-r2-00030028.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 3.91 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass


PLATE=2083 MJD=53359 sdR-r2-00030028.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
Fiber number
RED+ = sky fiber
Dispersion = 1.70 %
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass