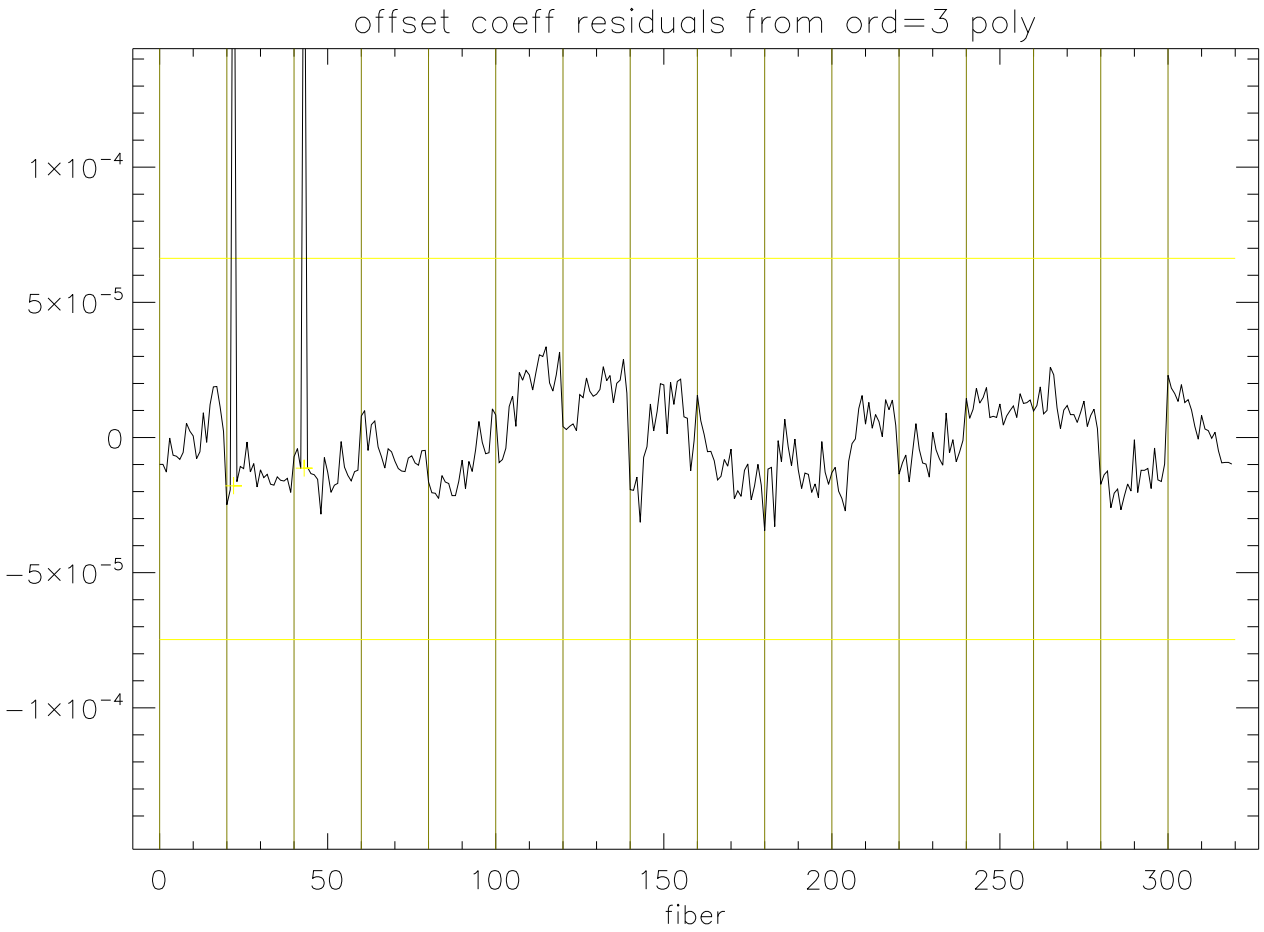
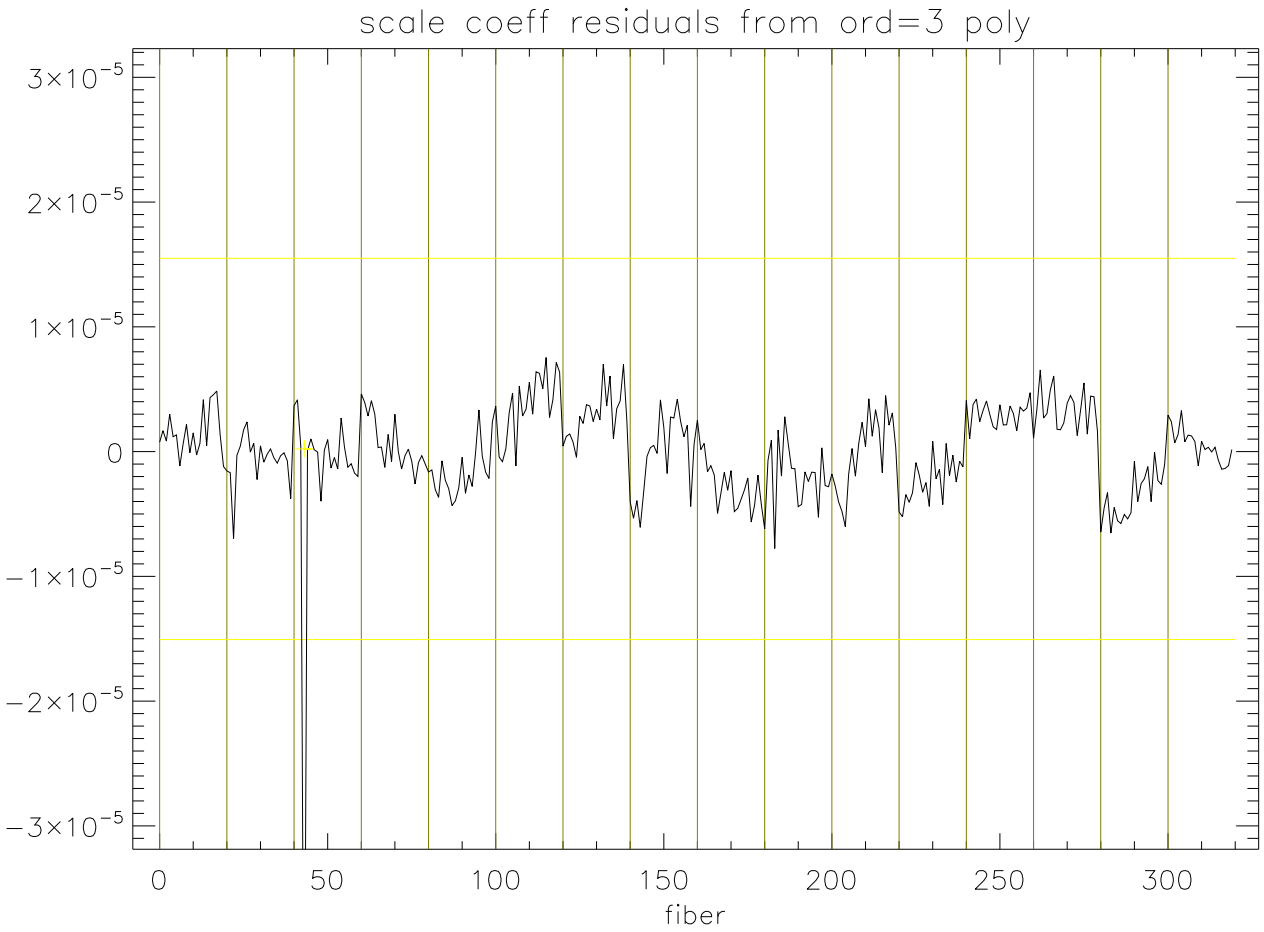
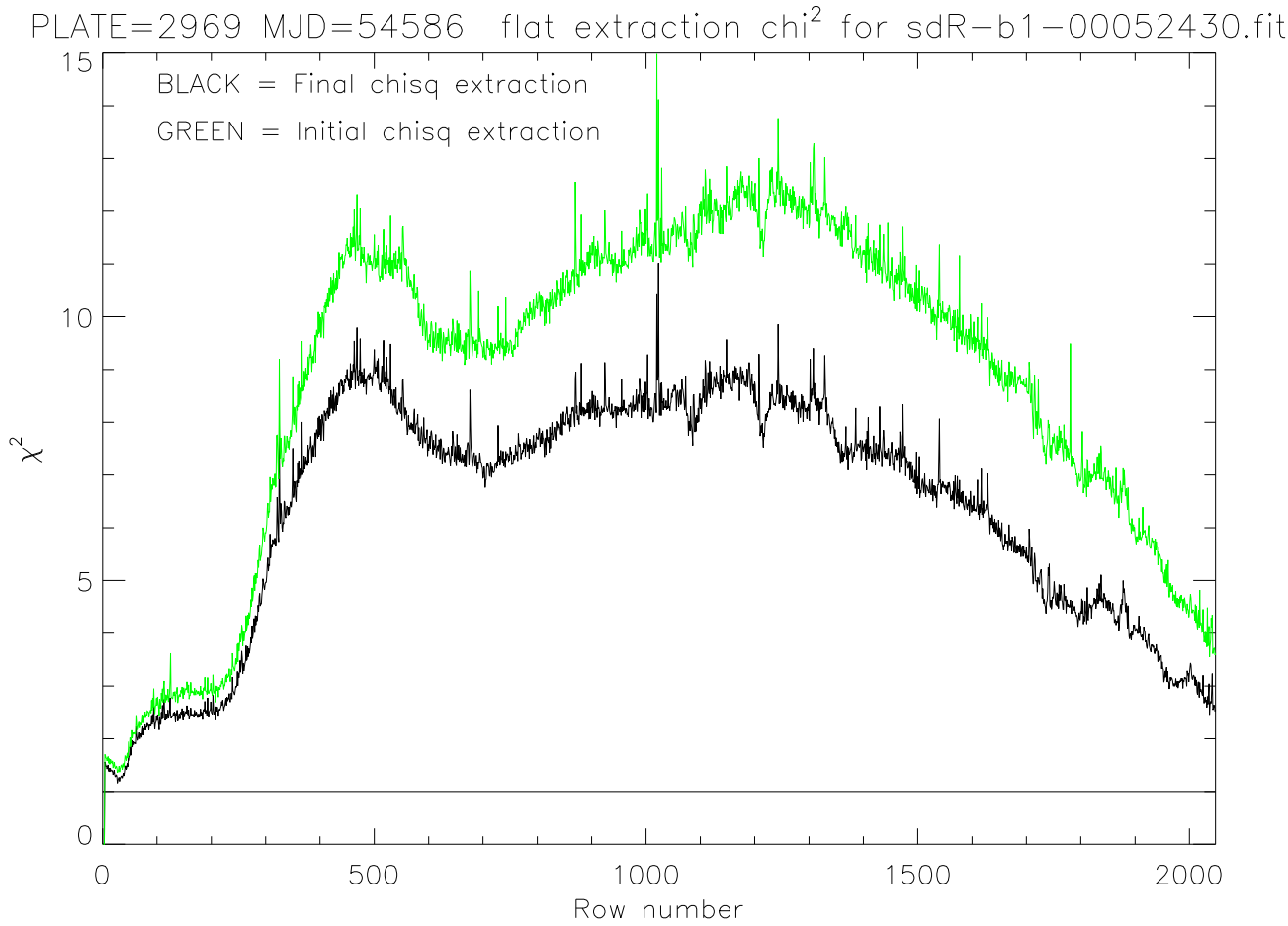
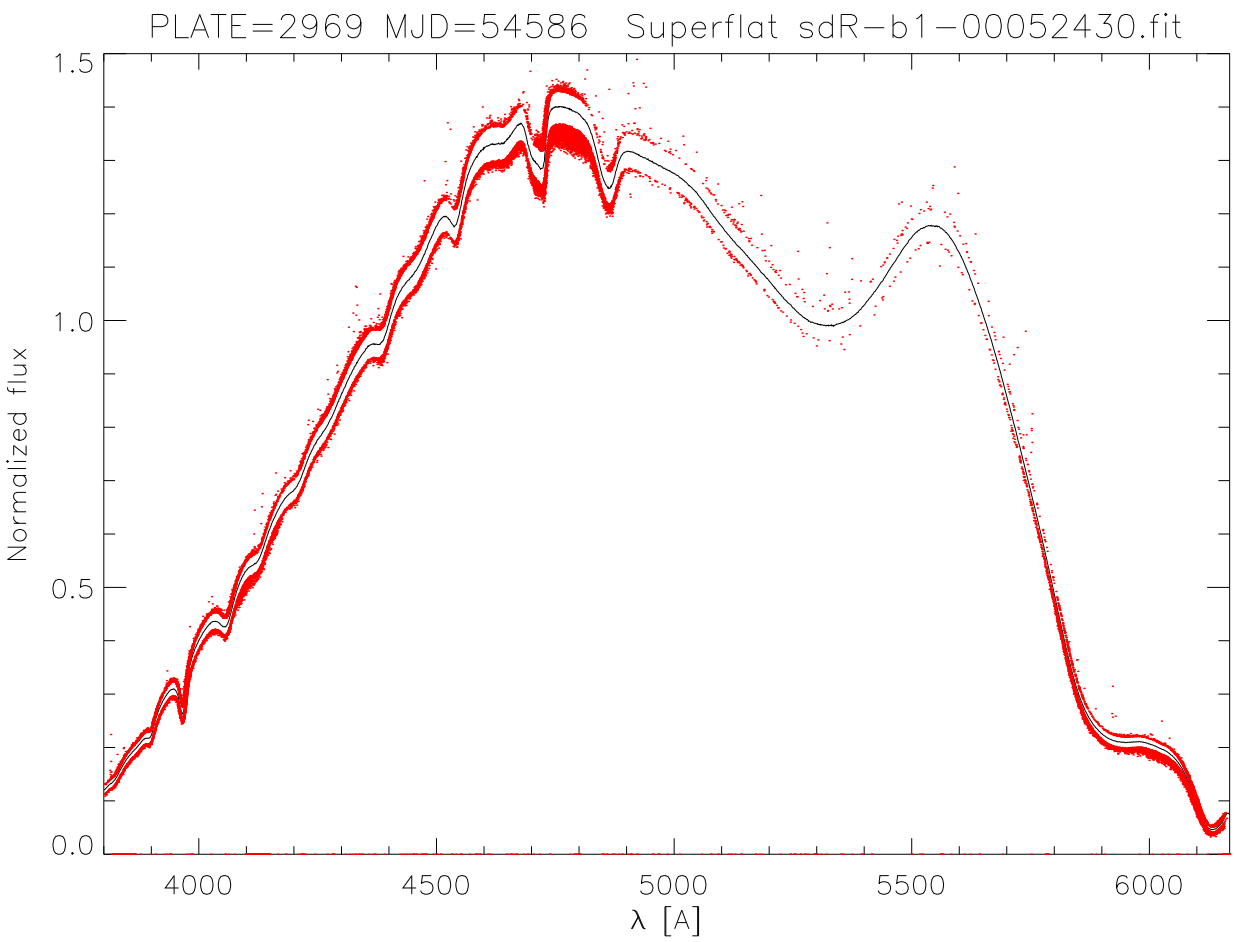
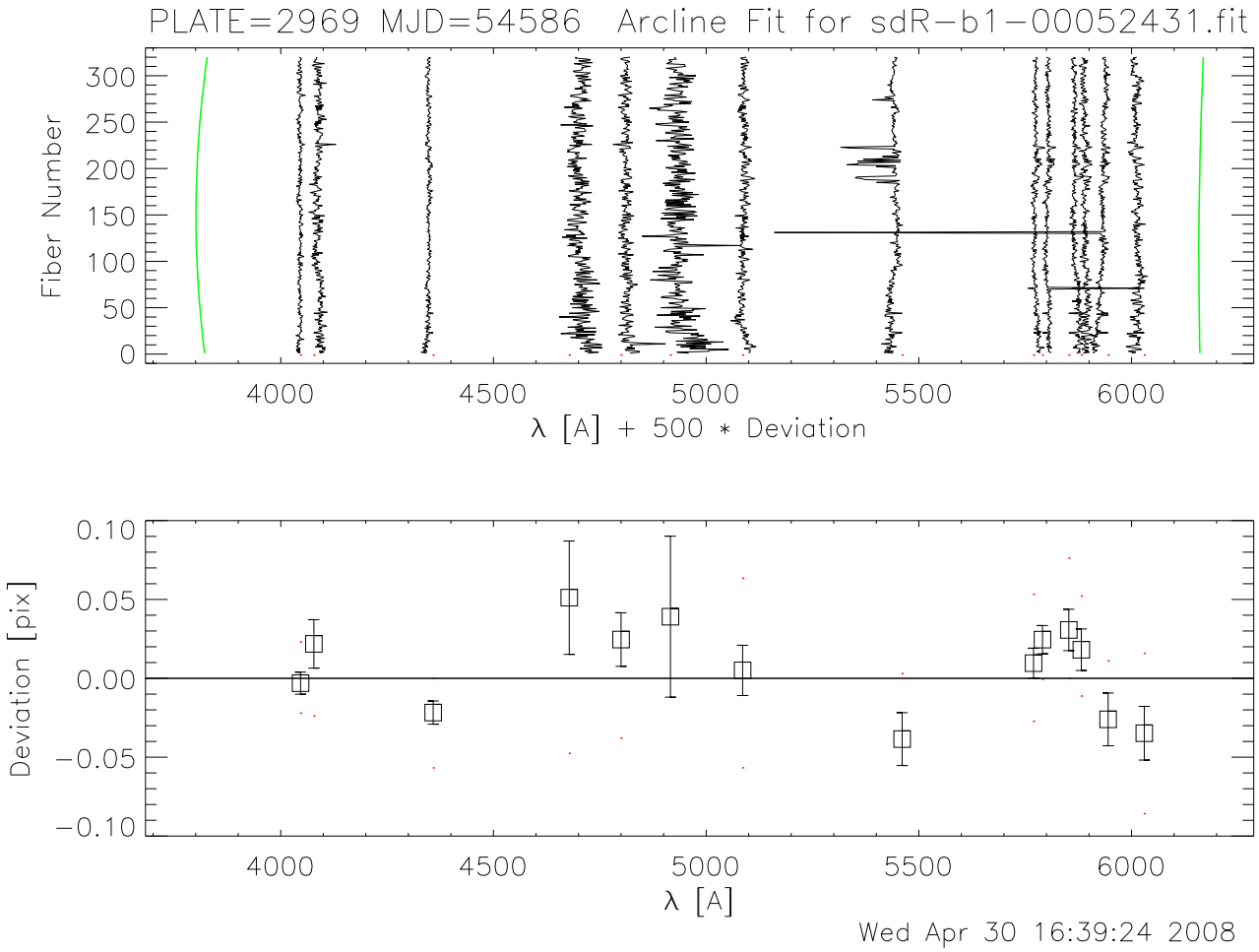
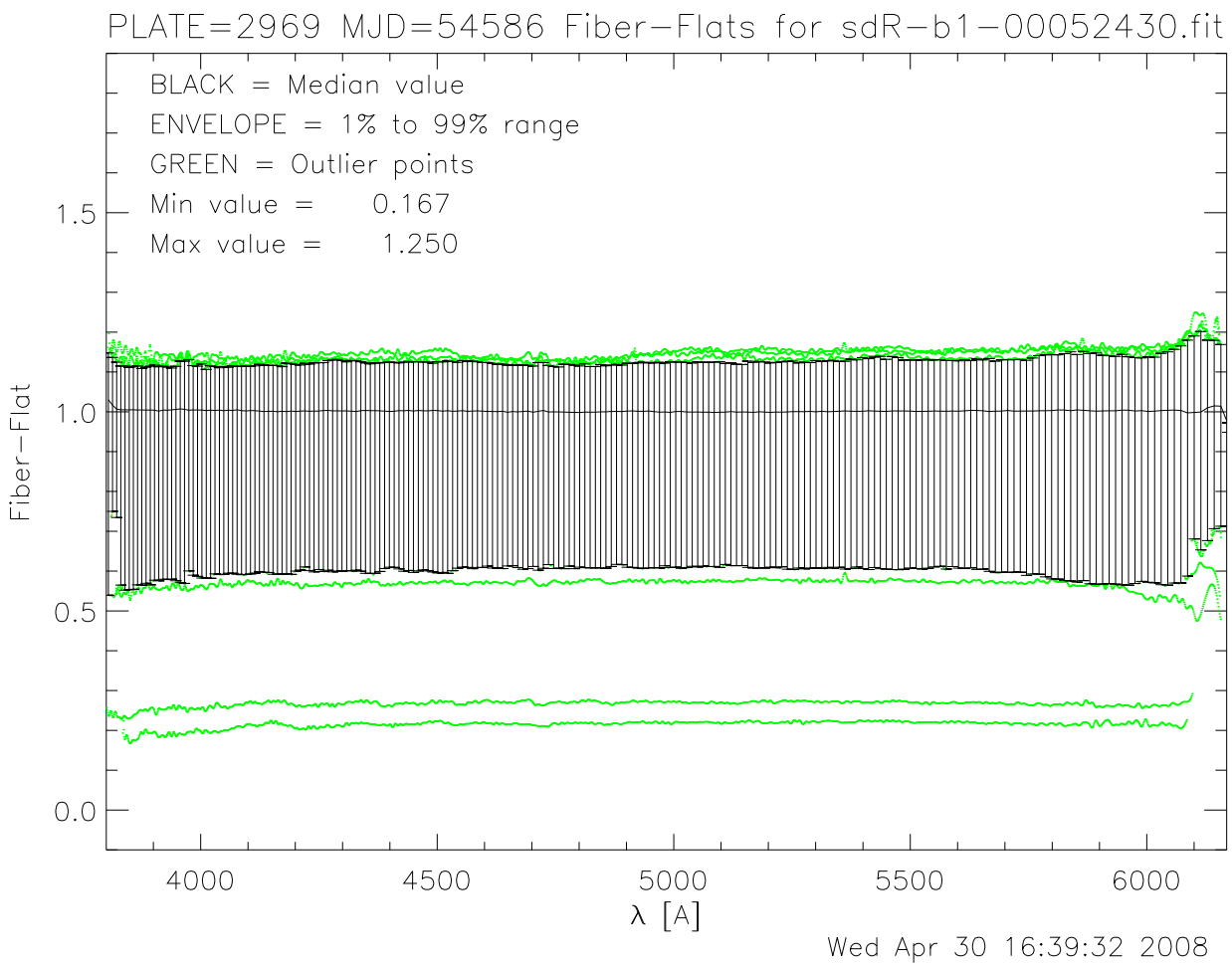

offset coeff residuals from ord=3 poly
1×10⁻⁴
5×10⁻⁵
0
−5×10⁻⁵
−1×10⁻⁴
0
50
100
150
200
250
300
fiber

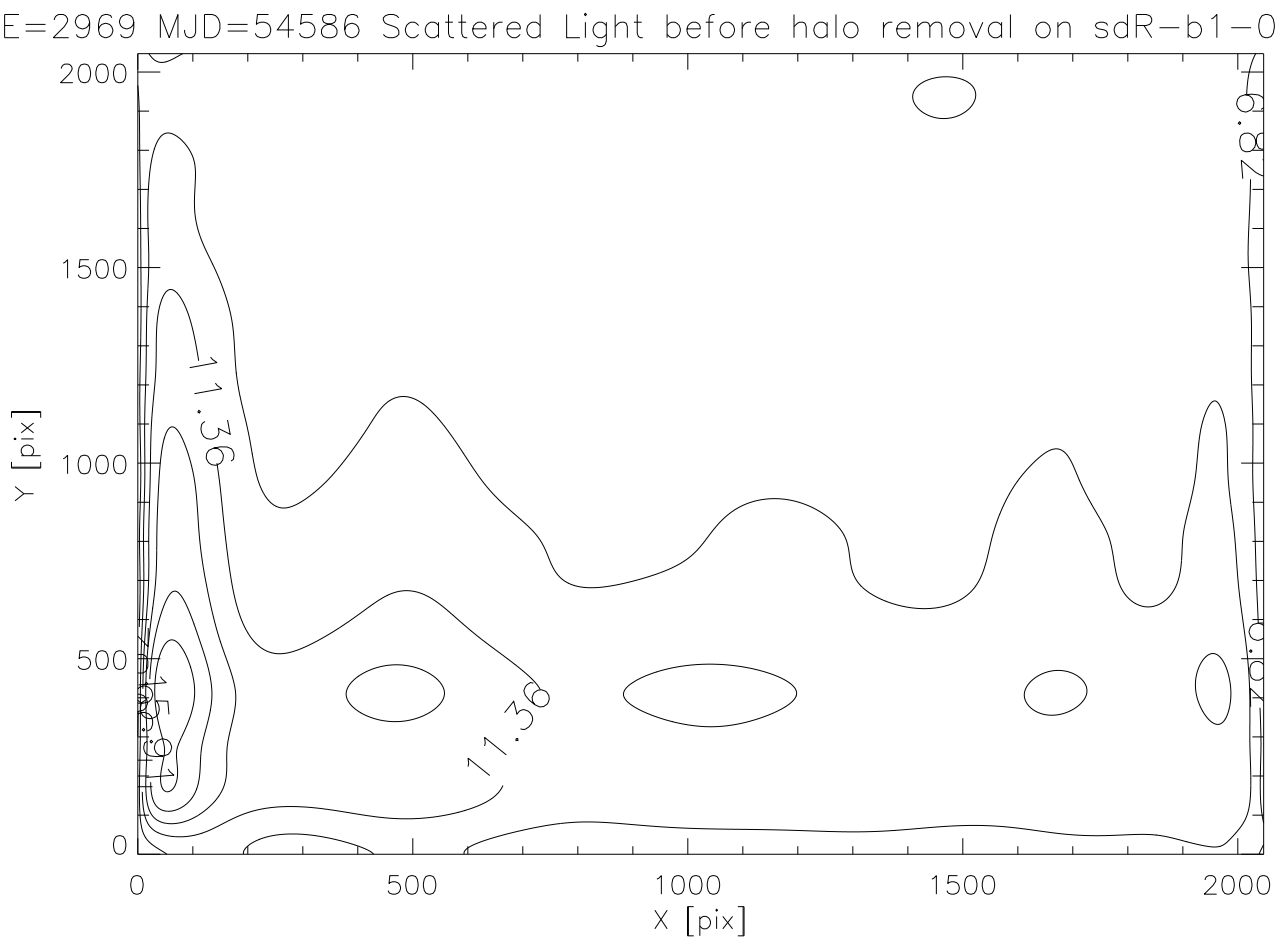

scale coeff residuals from ord=3 poly
3×10⁻⁵
2×10⁻⁵
1×10⁻⁵
0
−1×10⁻⁵
−2×10⁻⁵
−3×10⁻⁵
0
50
100
150
200
250
300
fiber

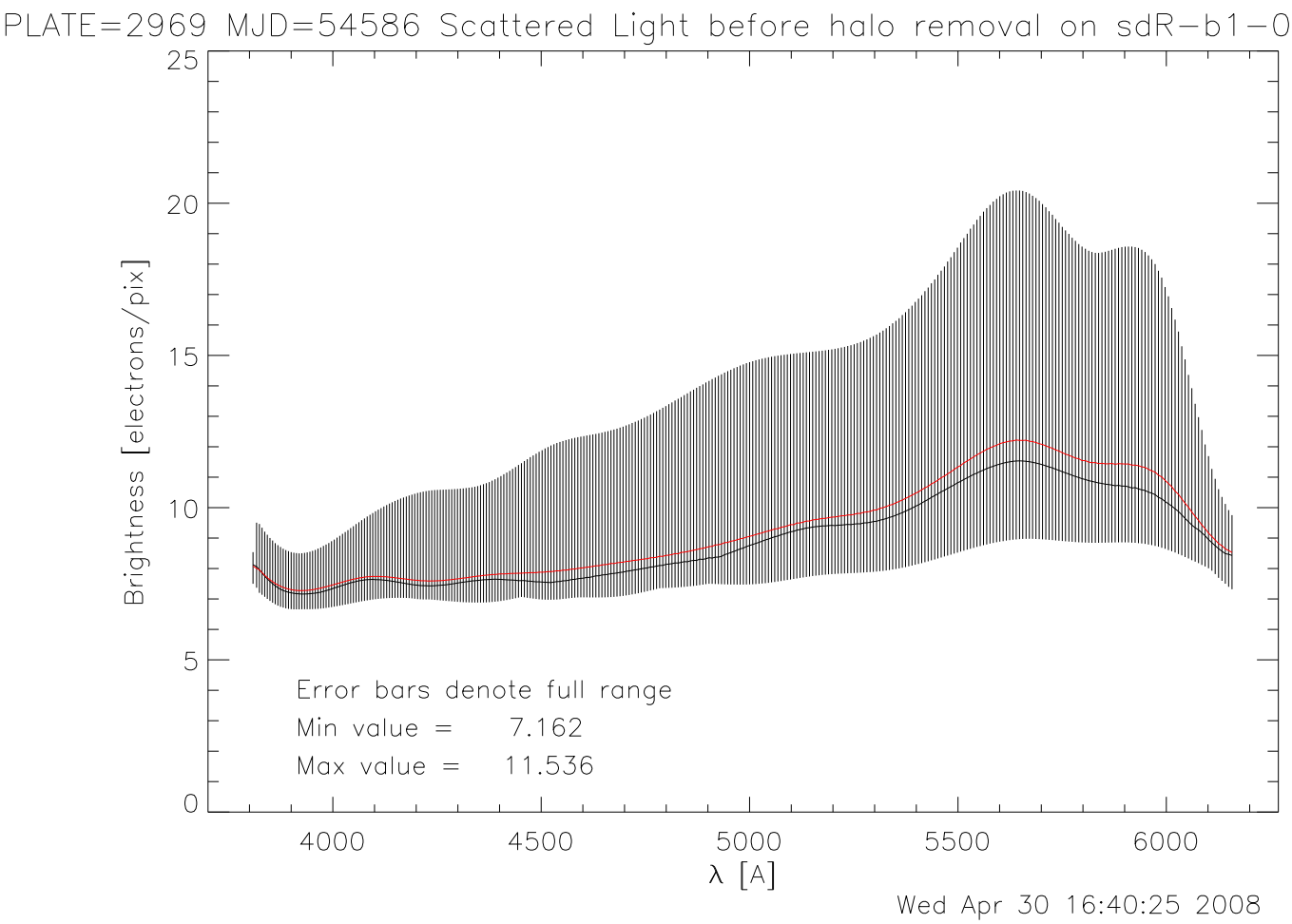

PLATE=2969 MJD=54586 flat extraction chi^2 for sdR−b1−00052430.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
5
10
15
0
500
1000
1500
2000

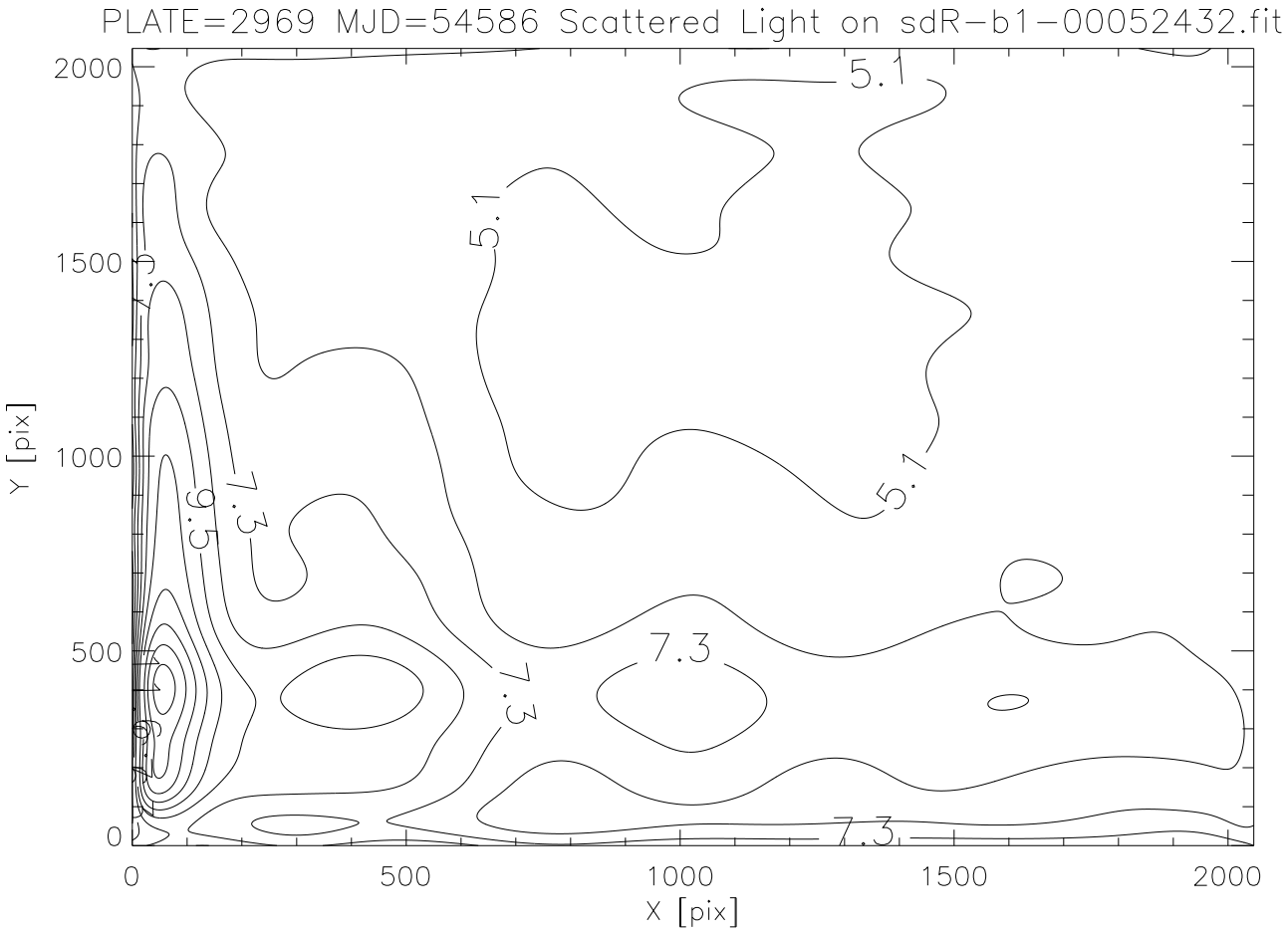

PLATE=2969 MJD=54586 Superflat sdR-b1-00052430.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

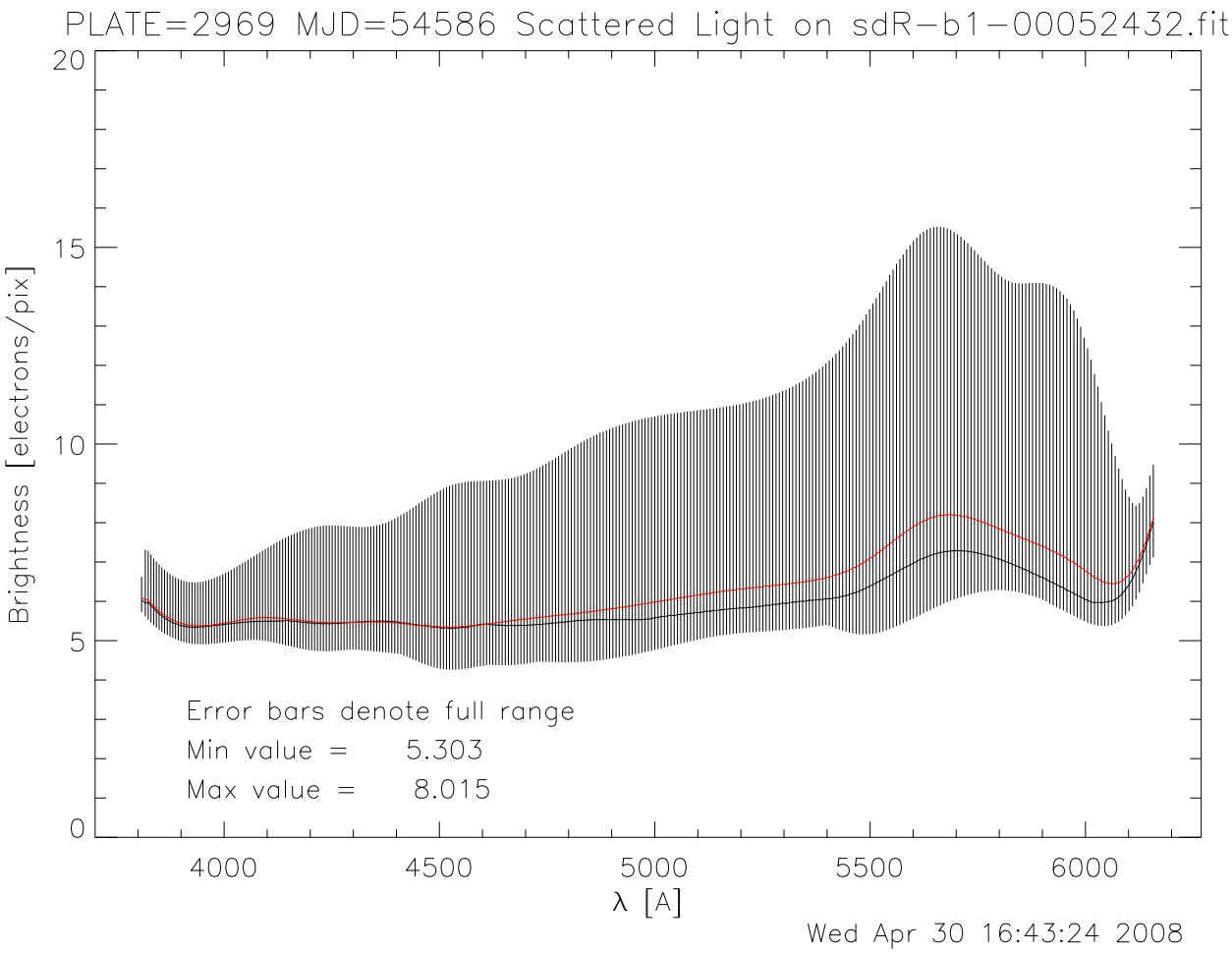

PLATE=2969 MJD=54586 Arcline Fit for sdR-b1-00052431.fit
Fiber Number
300
250
200
150
100
50
0
4000
4500
5000
5500
6000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
4000
4500
5000
5500
6000
λ [A]
Wed Apr 30 16:39:24 2008

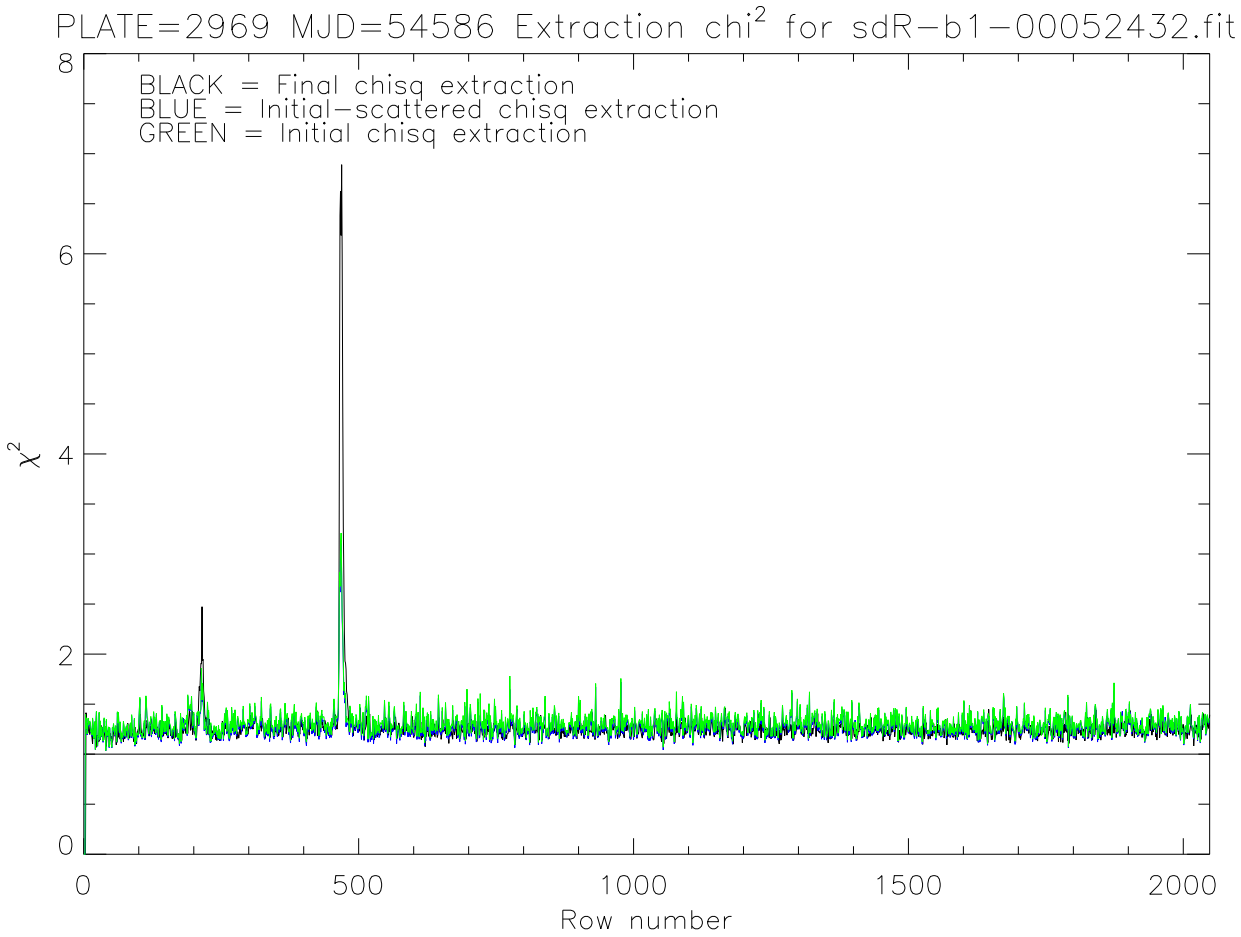

PLATE=2969 MJD=54586 Fiber−Flats for sdR−b1−00052430.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.167
Max value = 1.250
Fiber−Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Wed Apr 30 16:39:32 2008

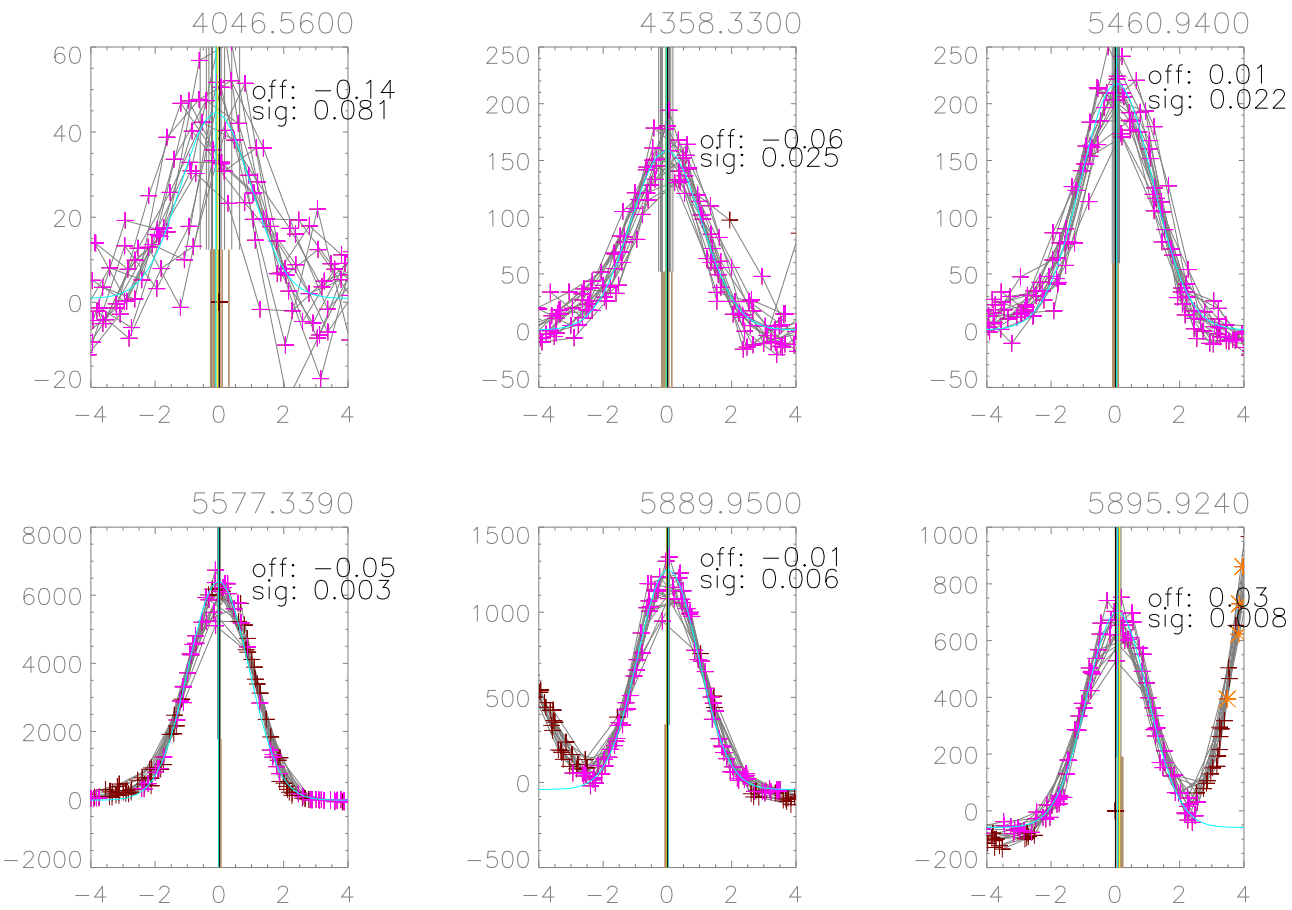

PLATE=2969 MJD=54586 Scattered Light before halo removal on sdR−b1−00052432.f
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
11.36
11.38
7.8
7.9
8.0
8.1
8.2
8.3
8.4
8.5
8.6
8.7
8.8
8.9
9.0
9.1
9.2
9.3
9.4
9.5
9.6
9.7
9.8
9.9
10.0
10.1
10.2
10.3
10.4
10.5
10.6
10.7
10.8
10.9
11.0
11.1
11.2
11.3
11.4
11.5
11.6
11.7
11.8
11.9
12.0
12.1
12.2
12.3
12.4
12.5
12.6
12.7
12.8
12.9
13.0
13.1
13.2
13.3
13.4
13.5
13.6
13.7
13.8
13.9
14.0
14.1
14.2
14.3
14.4
14.5
14.6
14.7
14.8
14.9
15.0
15.1

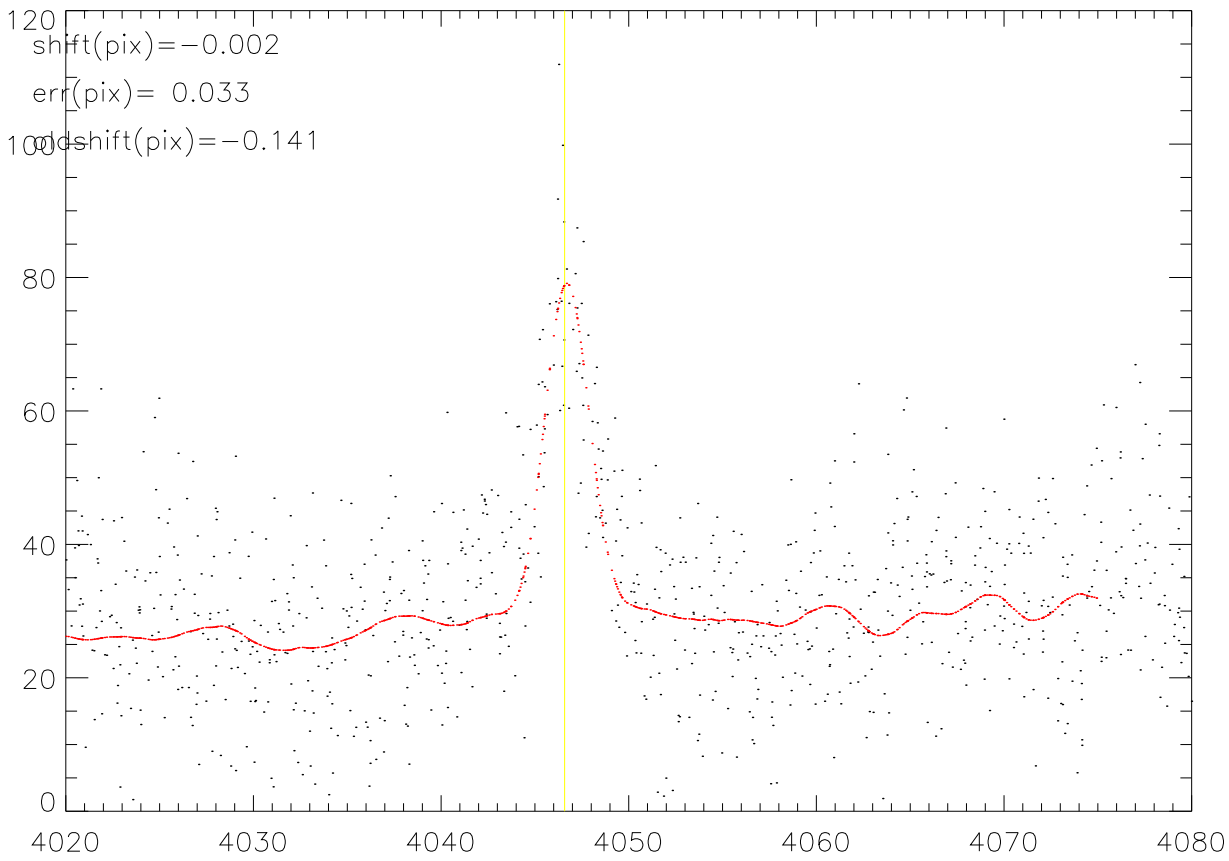

PLATE=2969 MJD=54586 Scattered Light before halo removal on sdR-b1-00052432.f
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 7.162
Max value = 11.536
Wed Apr 30 16:40:25 2008

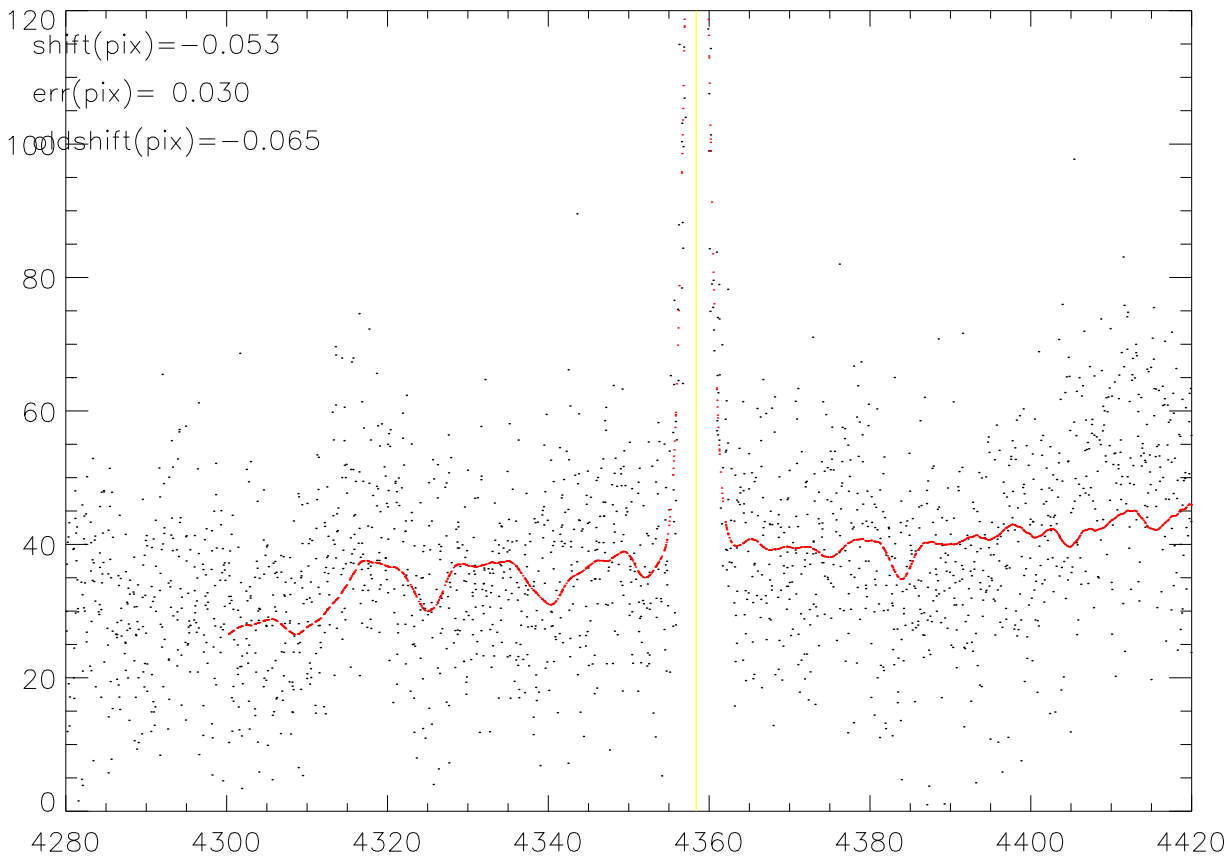

PLATE=2969 MJD=54586 Scattered Light on sdR-b1-00052432.fit
5.1
5.1
5.1
7.3
7.3
7.3
7.3
9.5
9.5
Y [pix]
X [pix]
0
500
1000
1500
2000

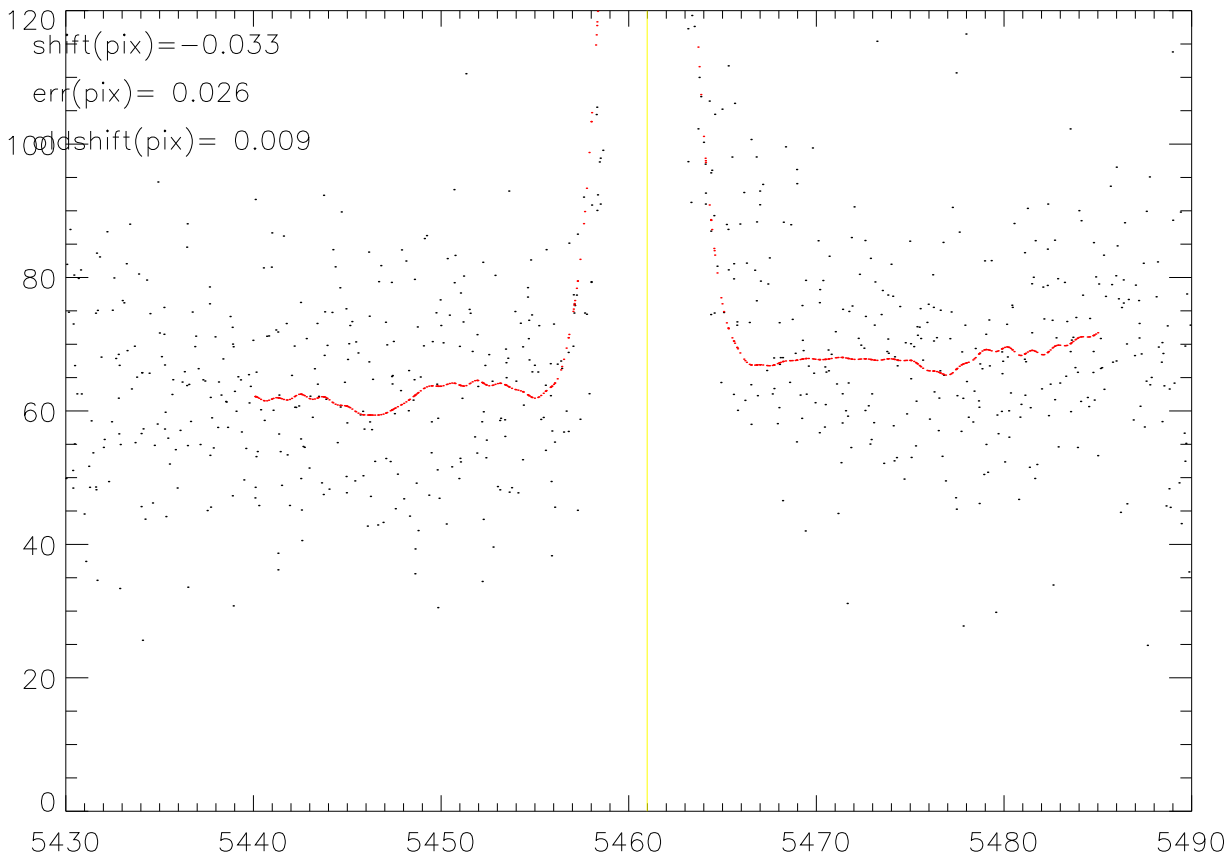

PLATE=2969 MJD=54586 Scattered Light on sdR-b1-00052432.fit
Brightness [electrons/pix]
20
15
10
5
0
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 5.303
Max value = 8.015
Wed Apr 30 16:43:24 2008

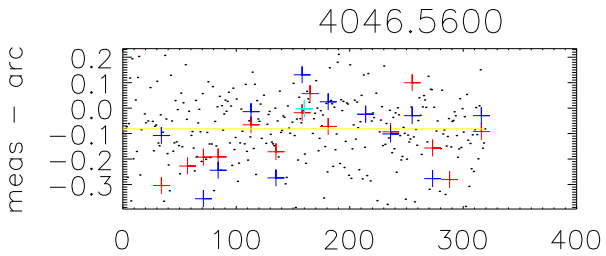

PLATE=2969 MJD=54586 Extraction chi^2 for sdR-b1-00052432.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
0
500
1000
1500
2000
Row number

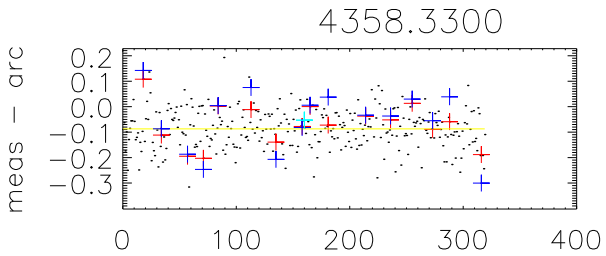

4046.5600
off: −0.14
sig: 0.081
4358.3300
off: −0.06
sig: 0.025
5460.9400
off: 0.01
sig: 0.022
5577.3390
off: −0.05
sig: 0.003
5889.9500
off: −0.01
sig: 0.006
5895.9240
off: 0.03
sig: 0.008

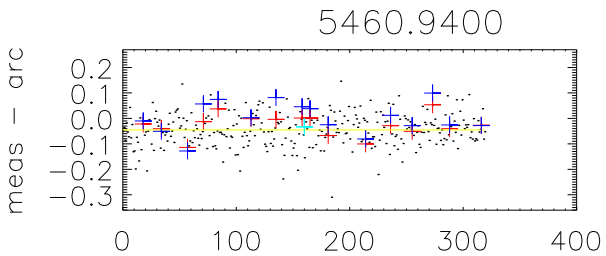

shift(pix)=−0.002
err(pix)= 0.033
oldshift(pix)=−0.141
120
100
80
60
40
20
0
4020
4030
4040
4050
4060
4070
4080

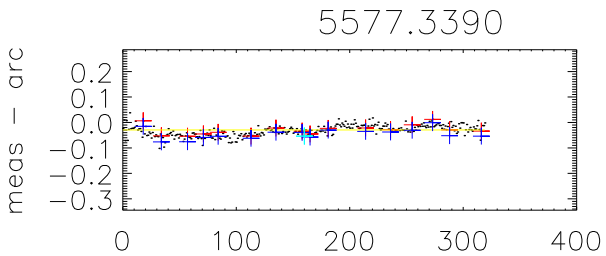

shift(pix)=−0.053
err(pix)= 0.030
oldshift(pix)=−0.065
120
100
80
60
40
20
0
4280
4300
4320
4340
4360
4380
4400
4420

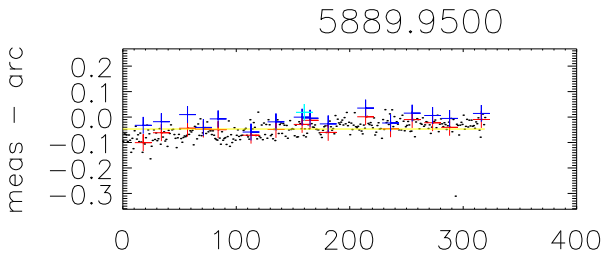

shift(pix)=−0.033
err(pix)= 0.026
oldshift(pix)= 0.009
120
100
80
60
40
20
0
5430
5440
5450
5460
5470
5480
5490

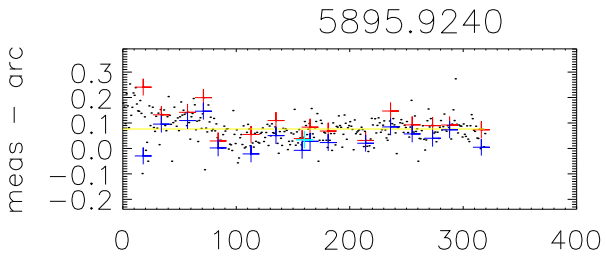

4046.5600
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

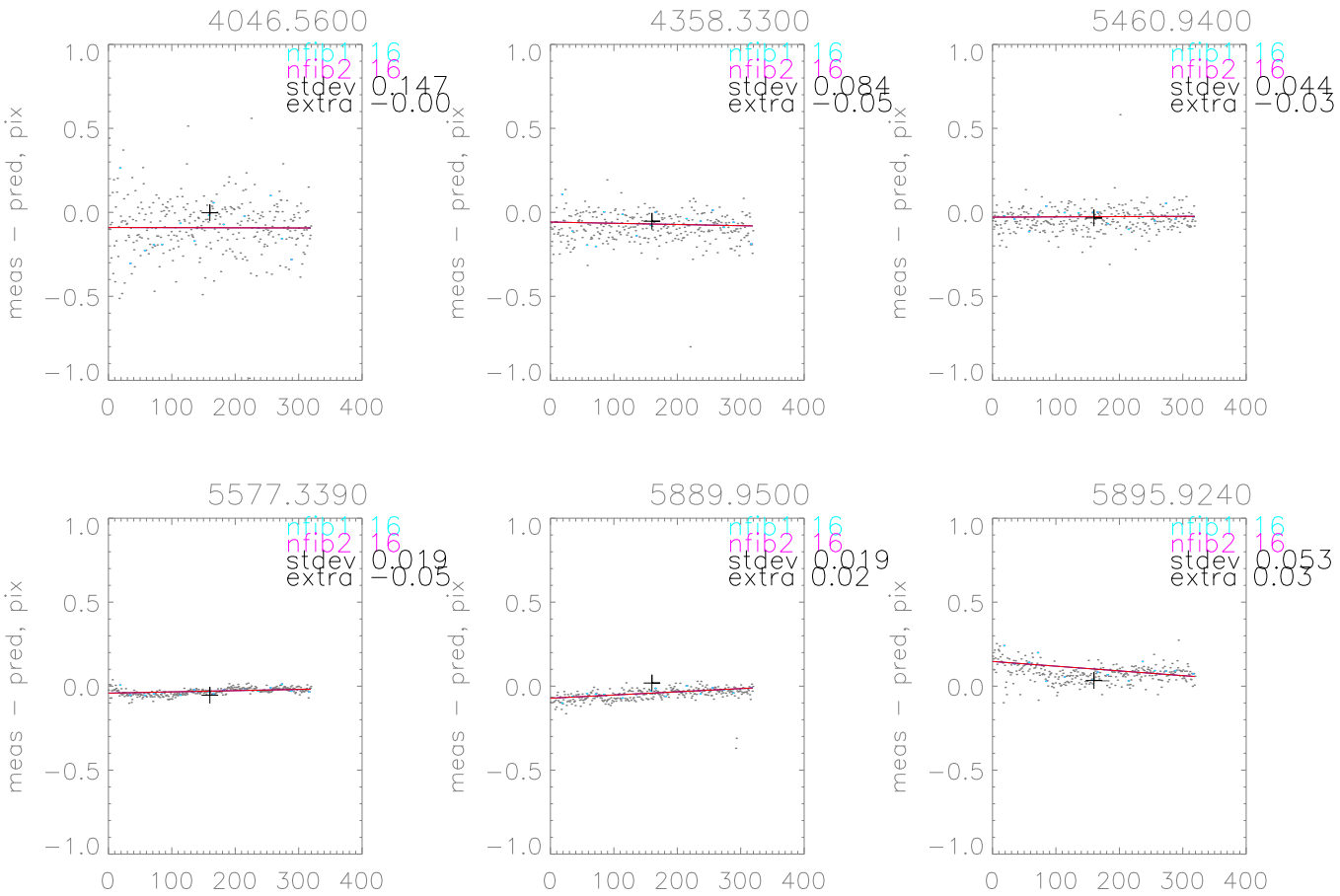

4358.3300
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

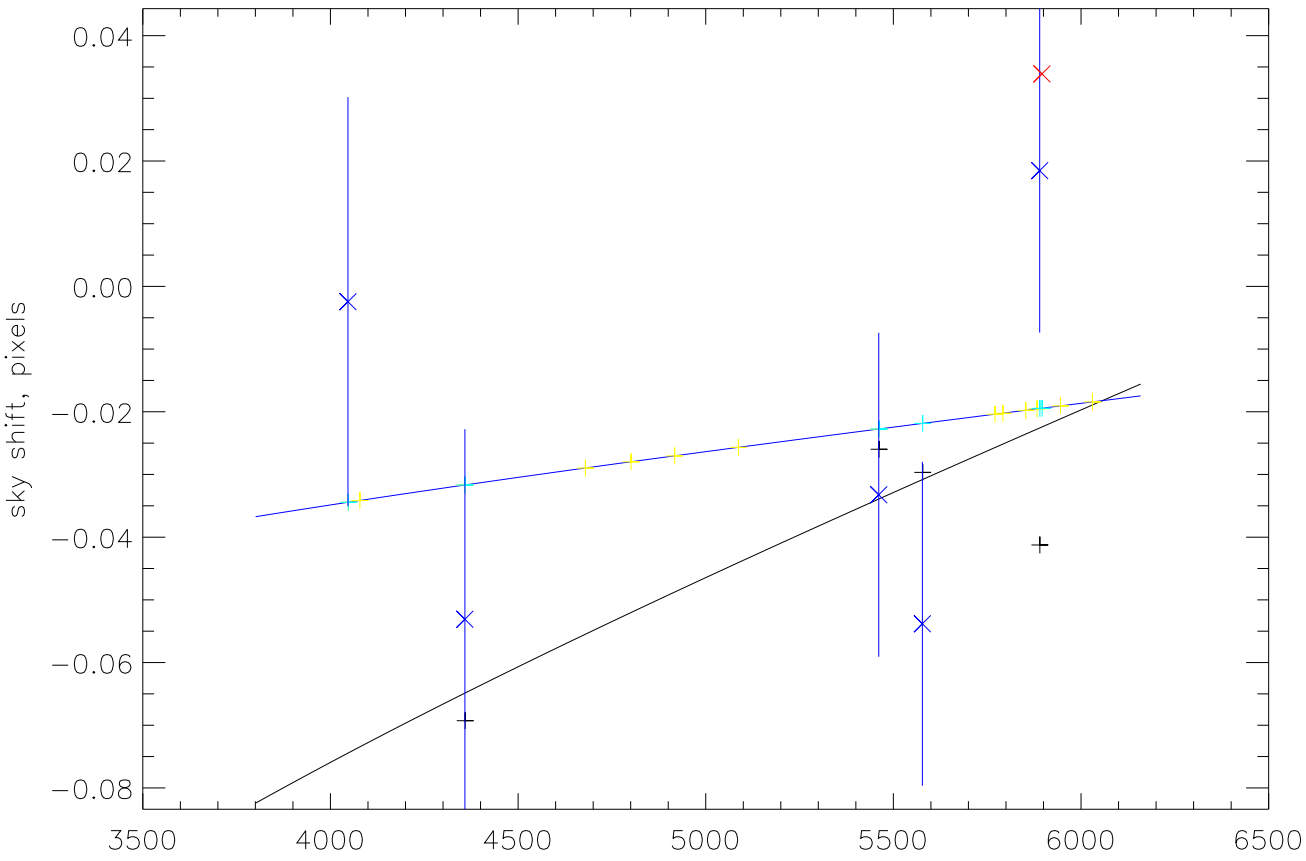

5460.9400
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400


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

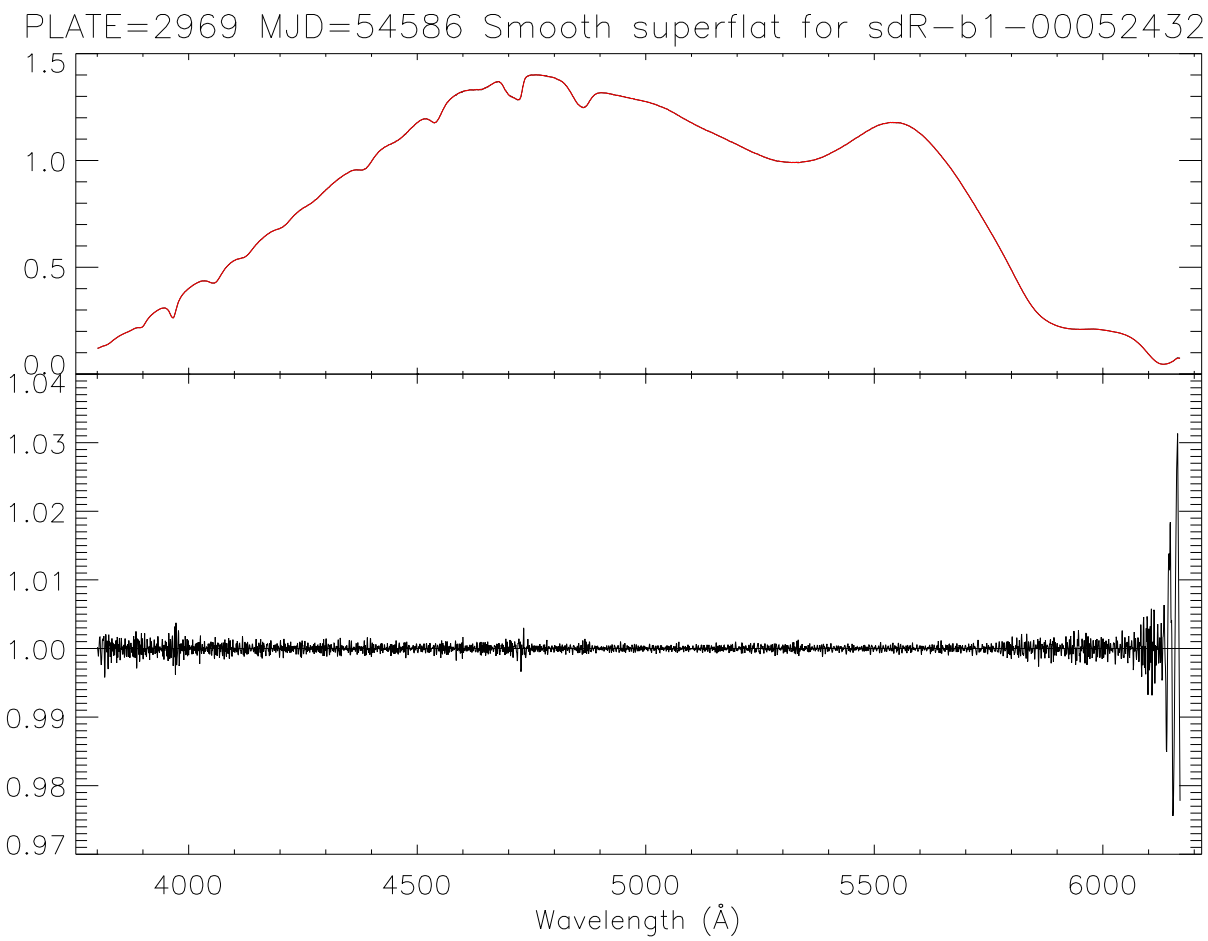

5889.9500
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

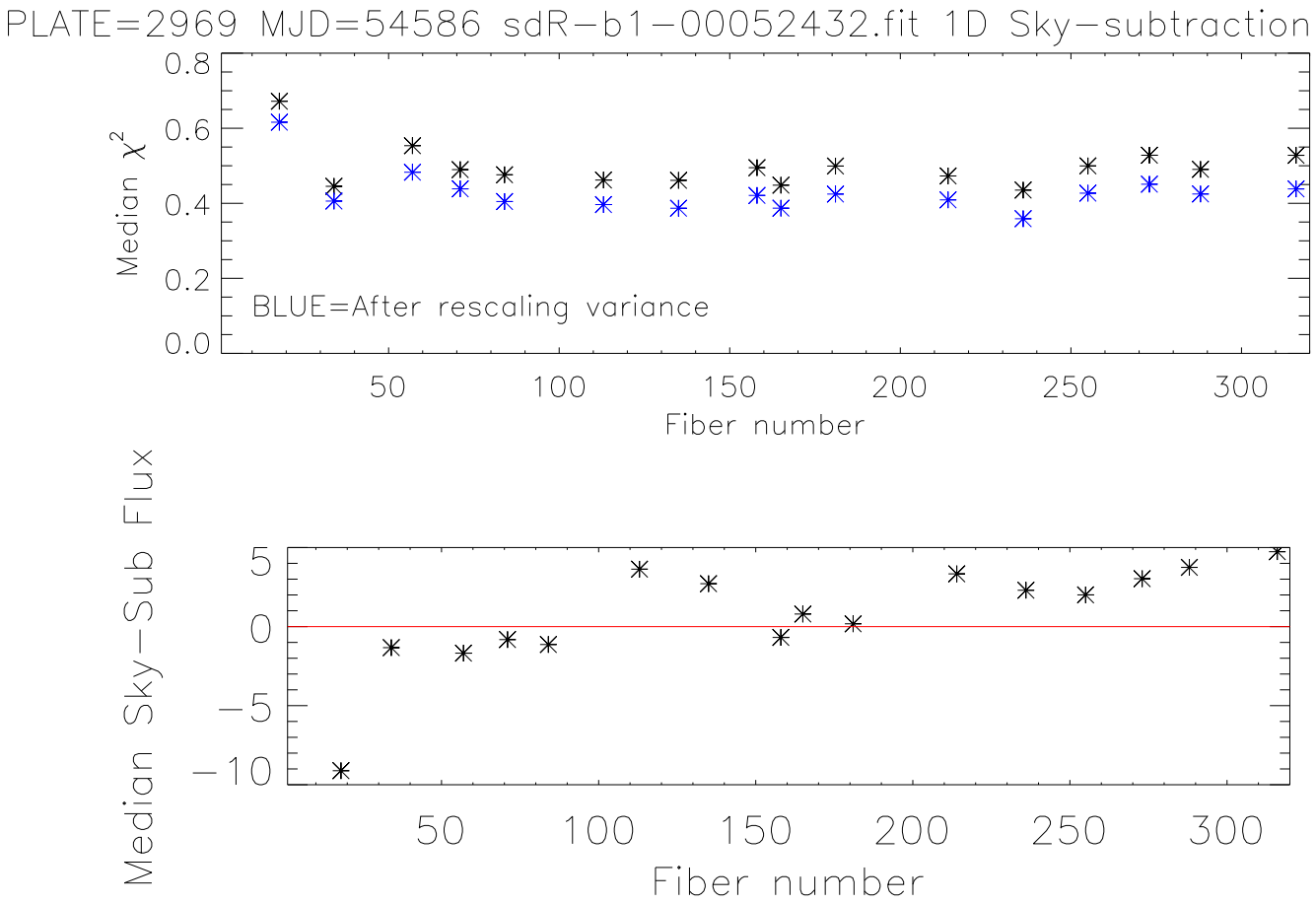

5895.9240
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

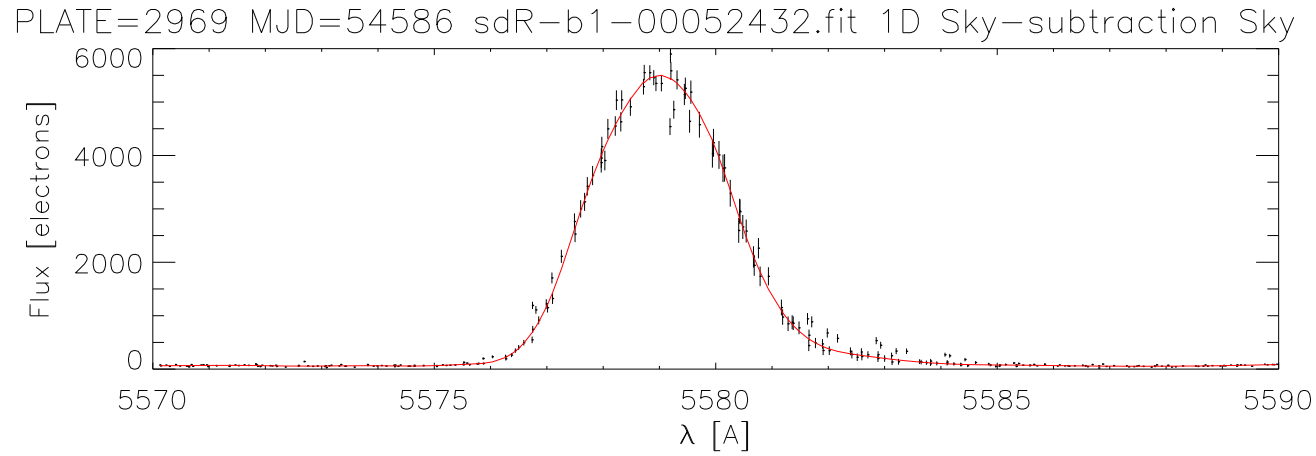

4046.5600
nfib1 16
nfib2 16
stdev 0.147
extra −0.00
4358.3300
nfib1 16
nfib2 16
stdev 0.084
extra −0.05
5460.9400
nfib1 16
nfib2 16
stdev 0.044
extra −0.03
5577.3390
nfib1 16
nfib2 16
stdev 0.019
extra −0.05
5889.9500
nfib1 16
nfib2 16
stdev 0.019
extra 0.02
5895.9240
nfib1 16
nfib2 16
stdev 0.053
extra 0.03
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

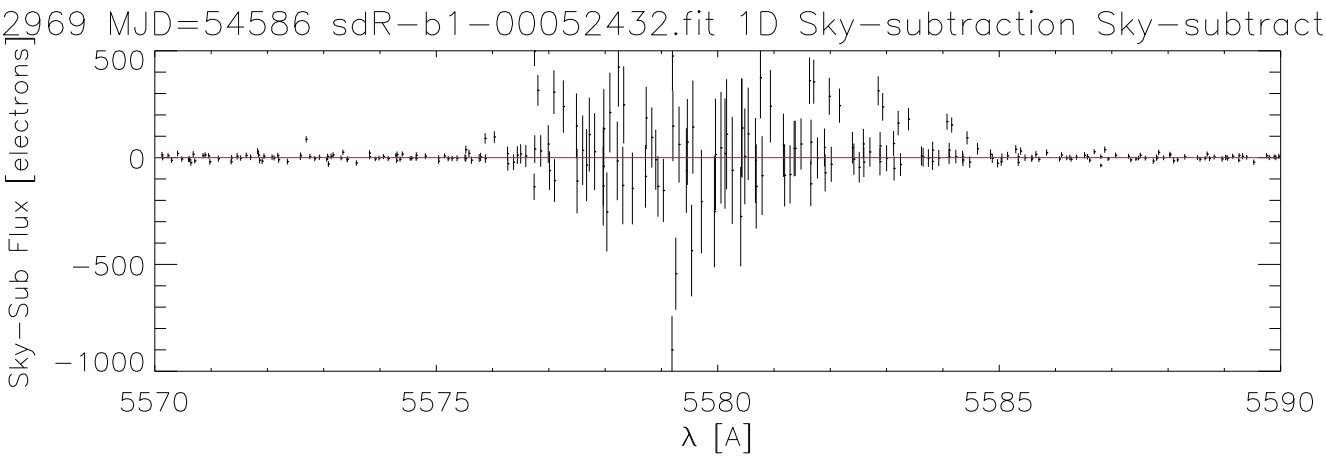

0.04
0.02
0.00
−0.02
−0.04
−0.06
−0.08
sky shift, pixels
3500
4000
4500
5000
5500
6000
6500

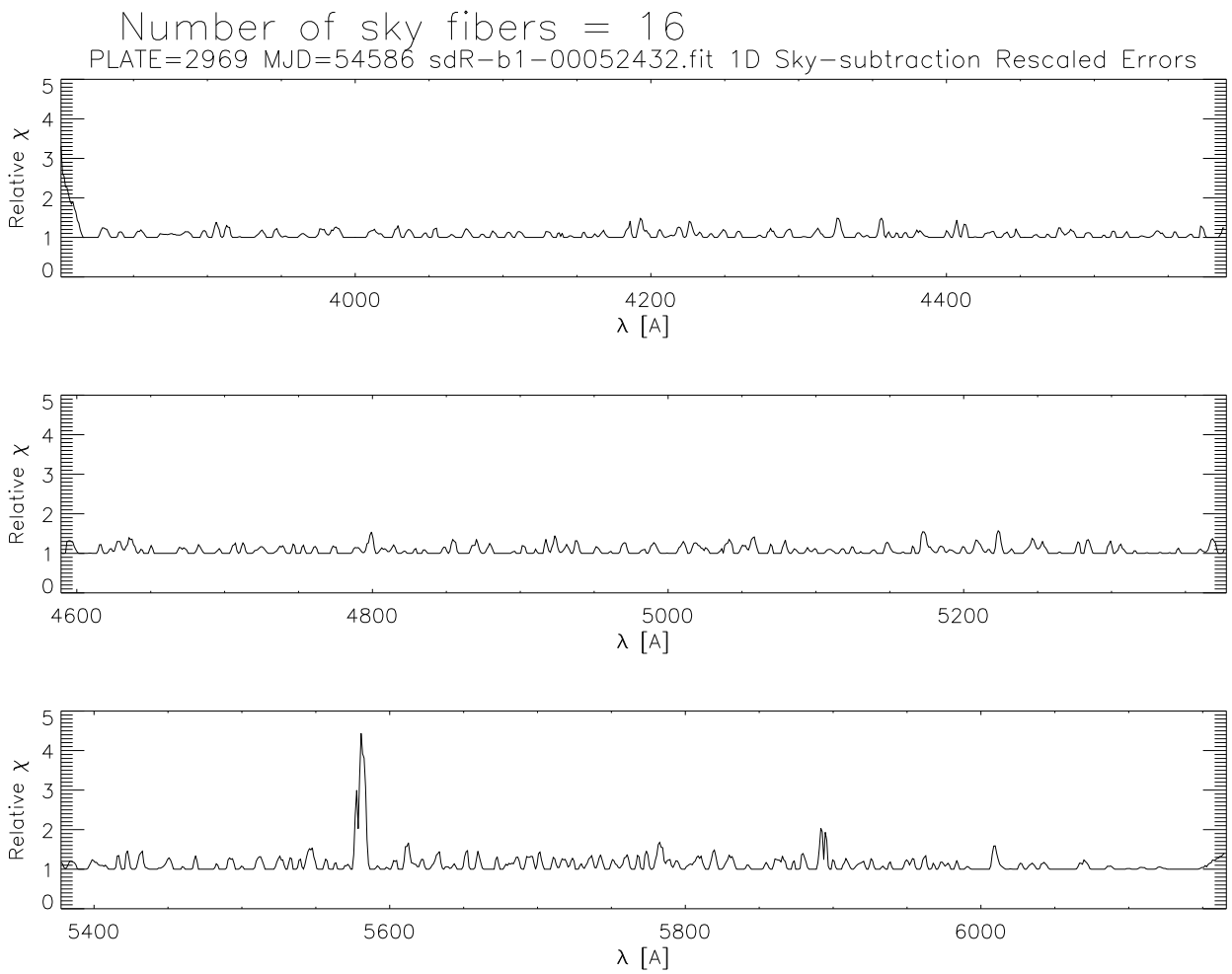
es= 0.0000

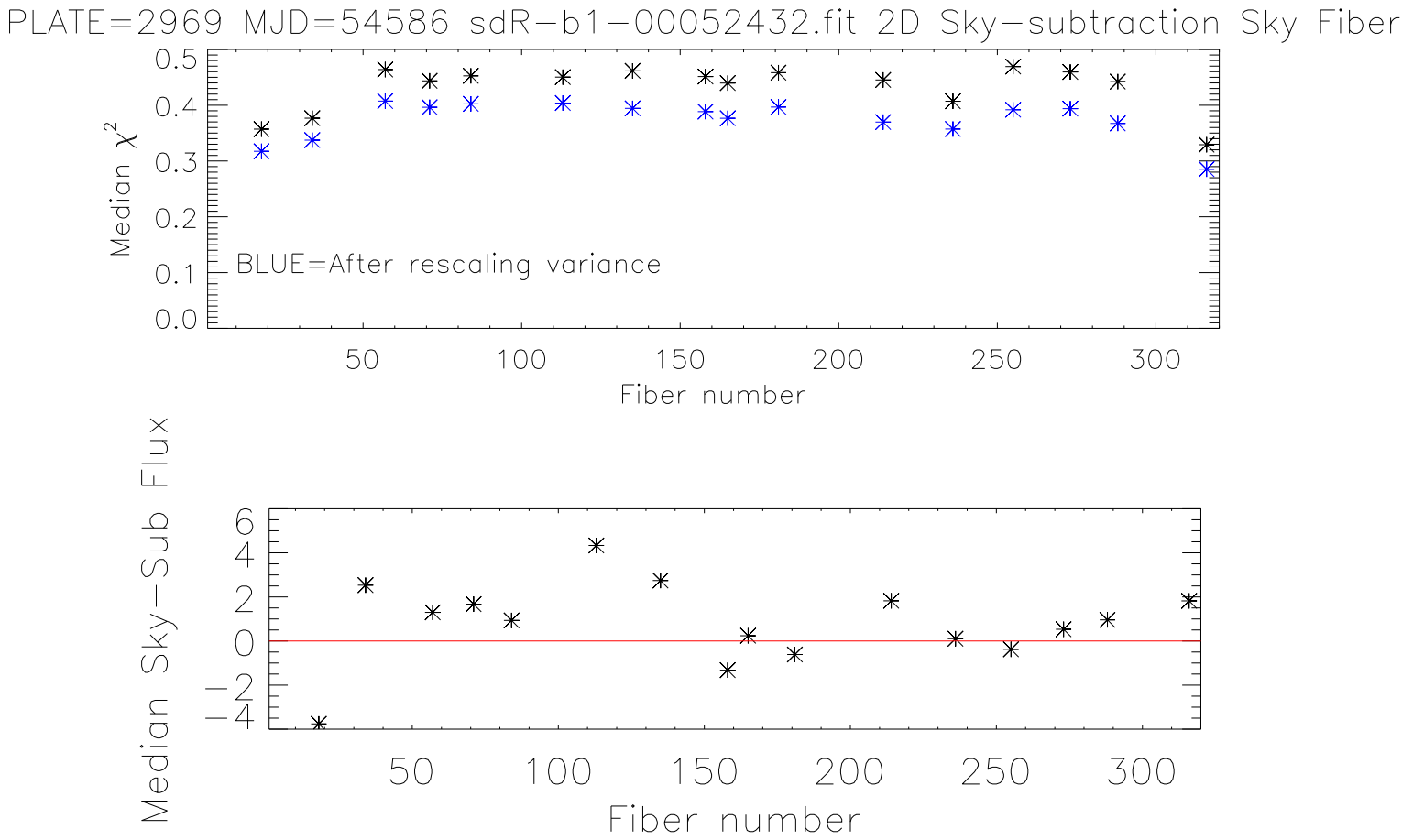

PLATE=2969 MJD=54586 Smooth superflat for sdR-b1-00052432.fit
1.5
1.0
0.5
0.0
1.04
1.03
1.02
1.01
1.00
0.99
0.98
0.97
4000
4500
5000
5500
6000
Wavelength (Å)

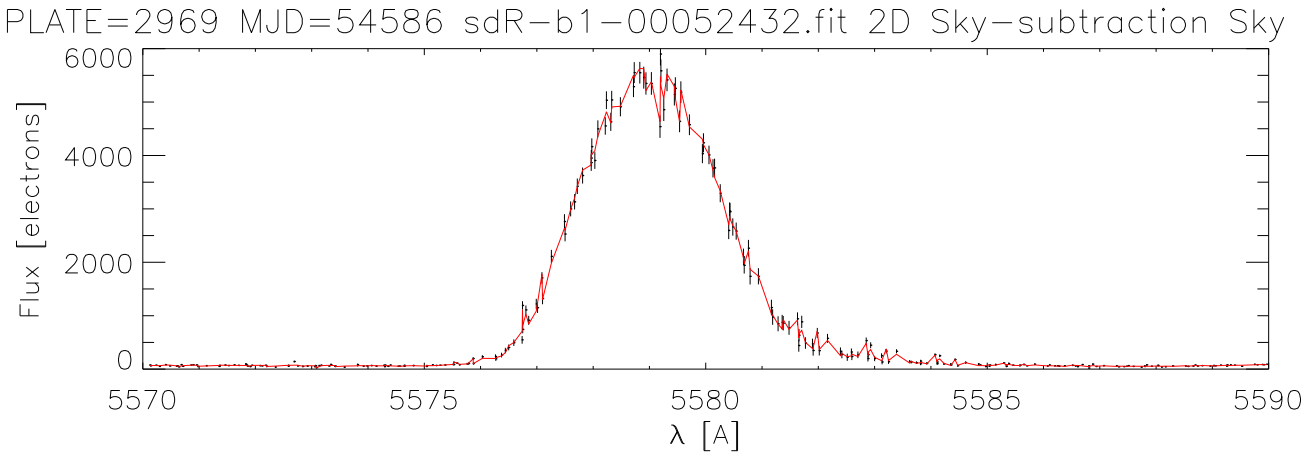

PLATE=2969 MJD=54586 sdR-b1-00052432.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
5
0
-5
-10
50
100
150
200
250
300
Fiber number

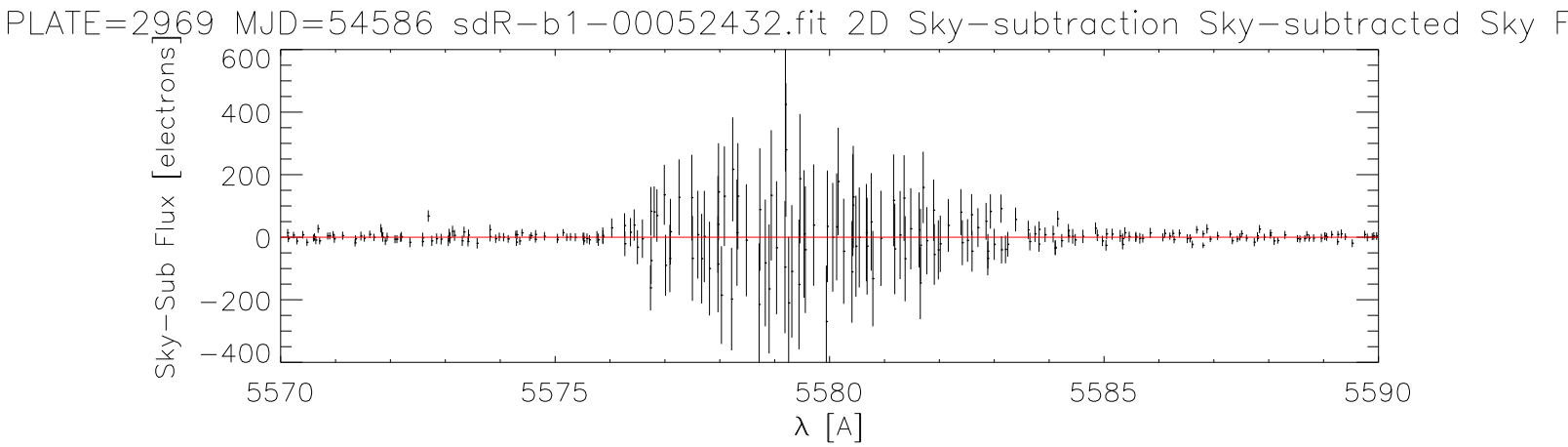

PLATE=2969 MJD=54586 sdR-b1-00052432.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

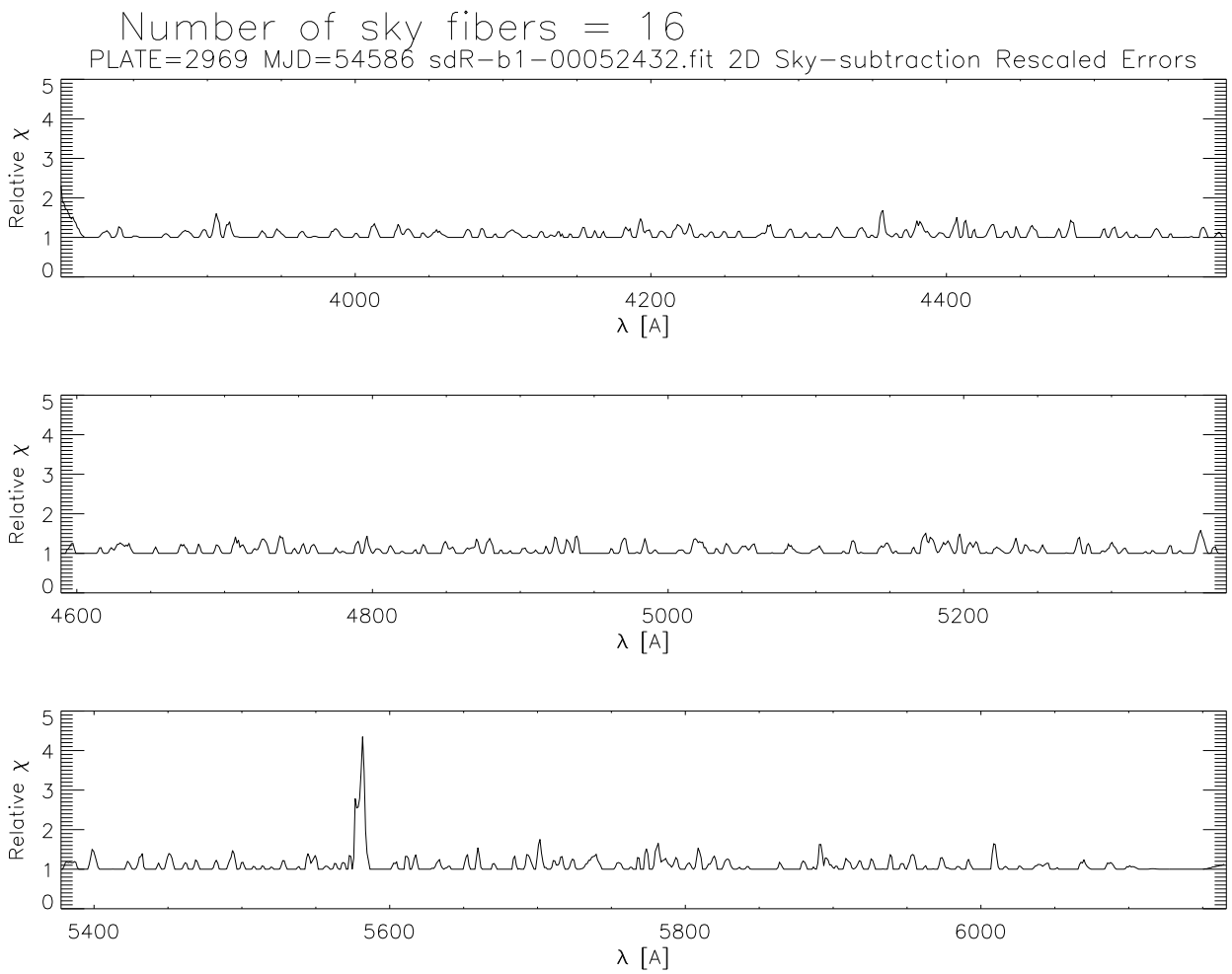

PLATE=2969 MJD=54586 sdR-b1-00052432.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
500
0
-500
-1000
5570
5575
5580
5585
5590
λ [A]

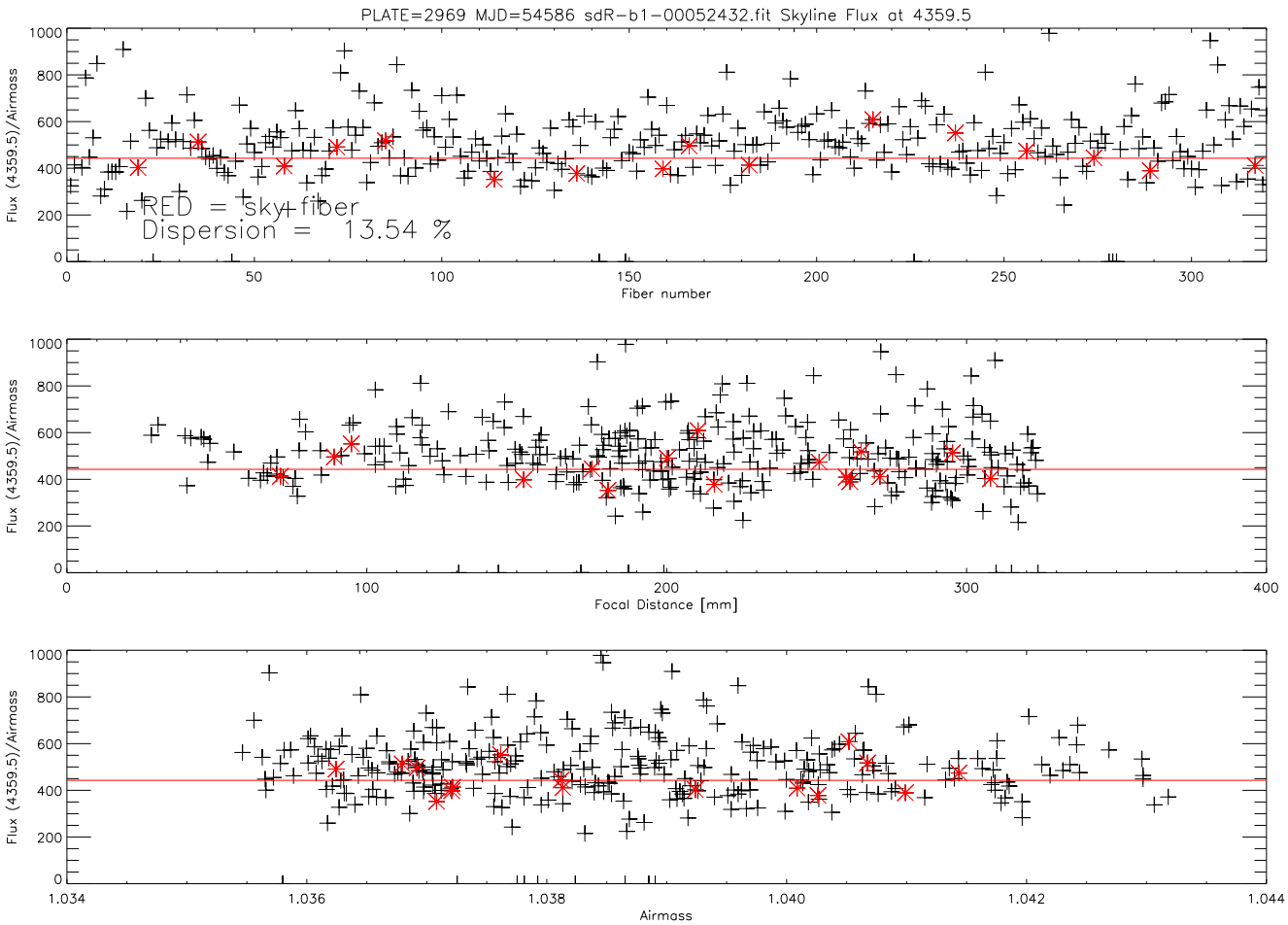

Number of sky fibers = 16
PLATE=2969 MJD=54586 sdR-b1-00052432.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

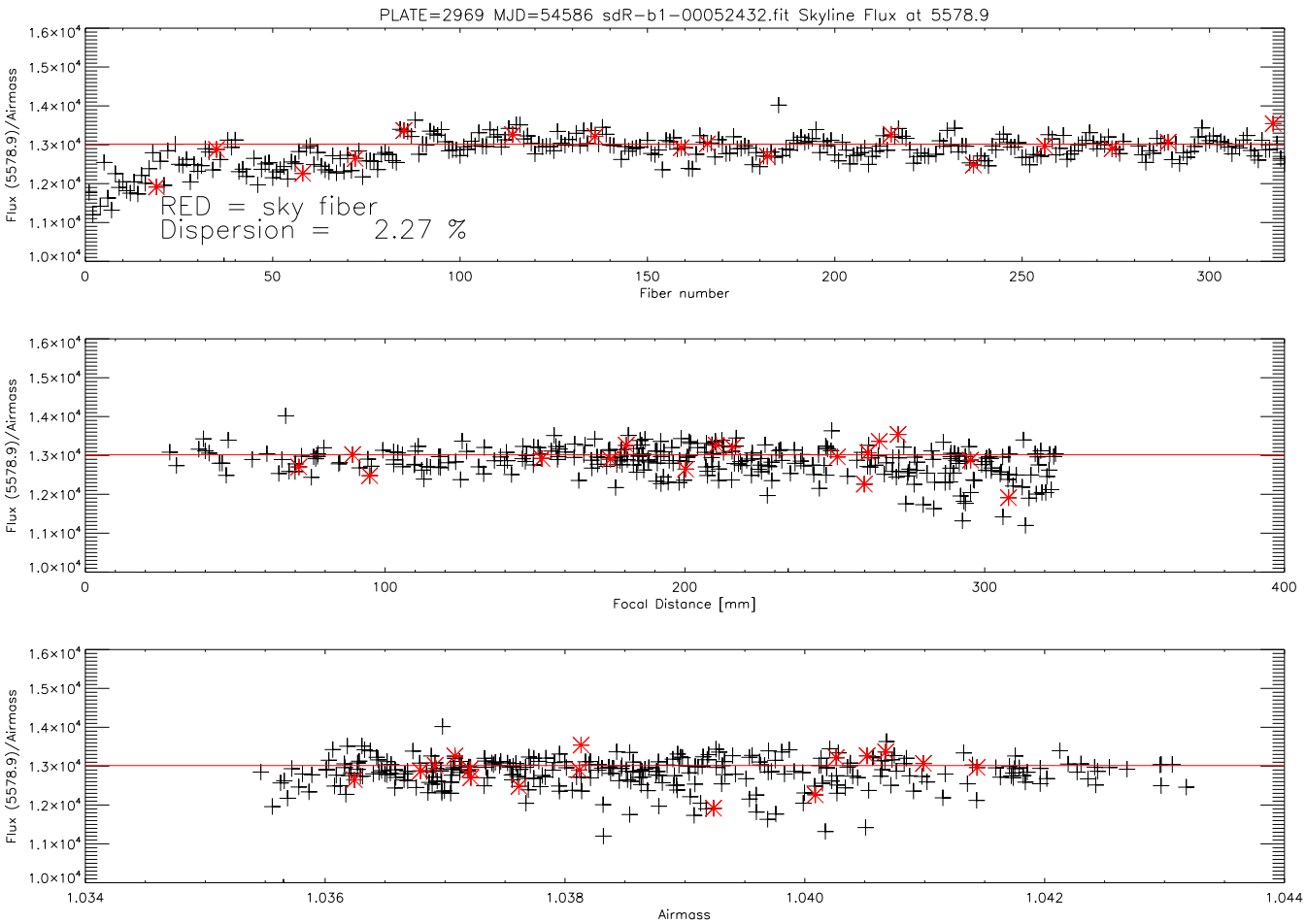

PLATE=2969 MJD=54586 sdR-b1-00052432.fit 2D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-4
-2
0
2
4
6
50
100
150
200
250
300
Fiber number

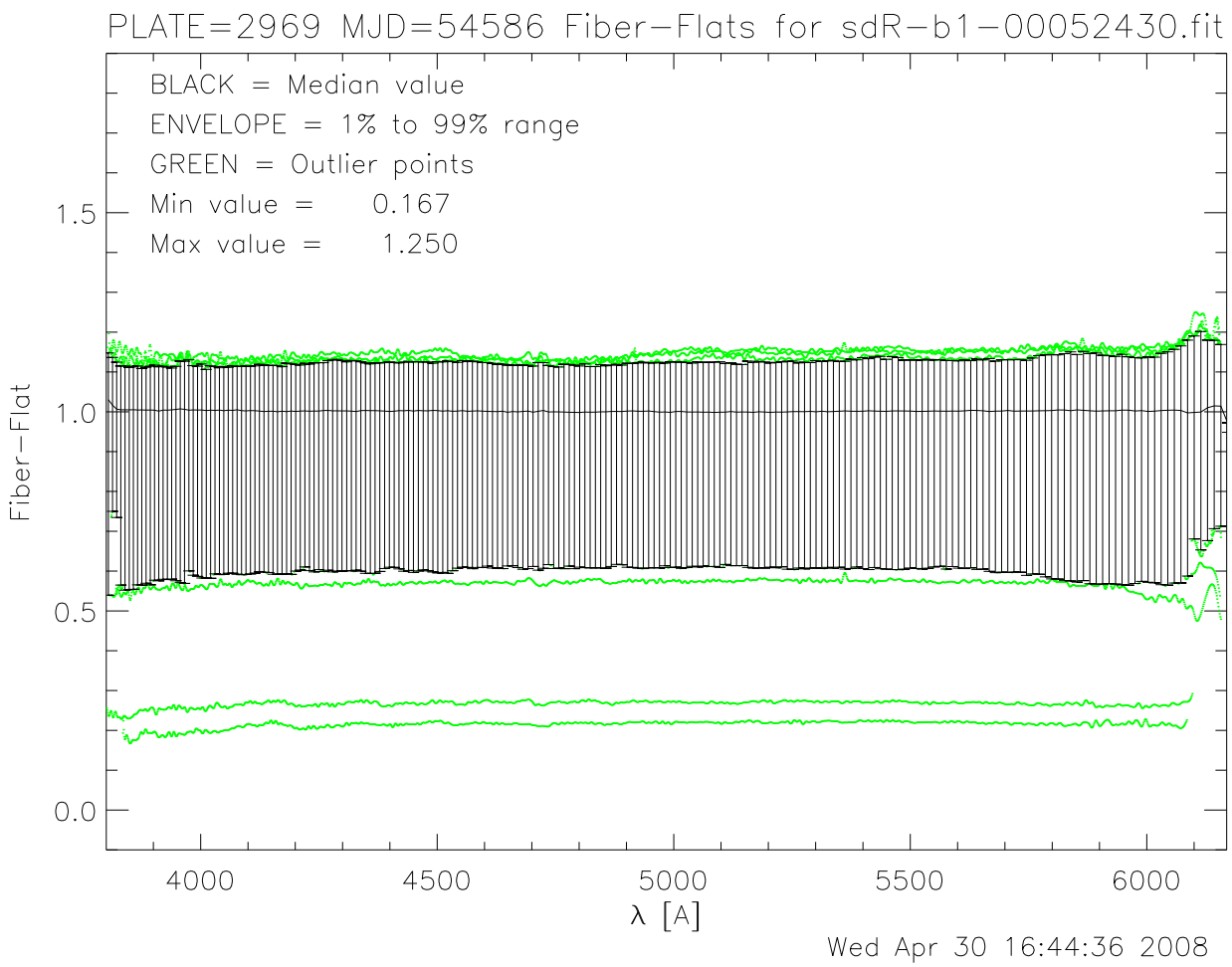

PLATE=2969 MJD=54586 sdR-b1-00052432.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

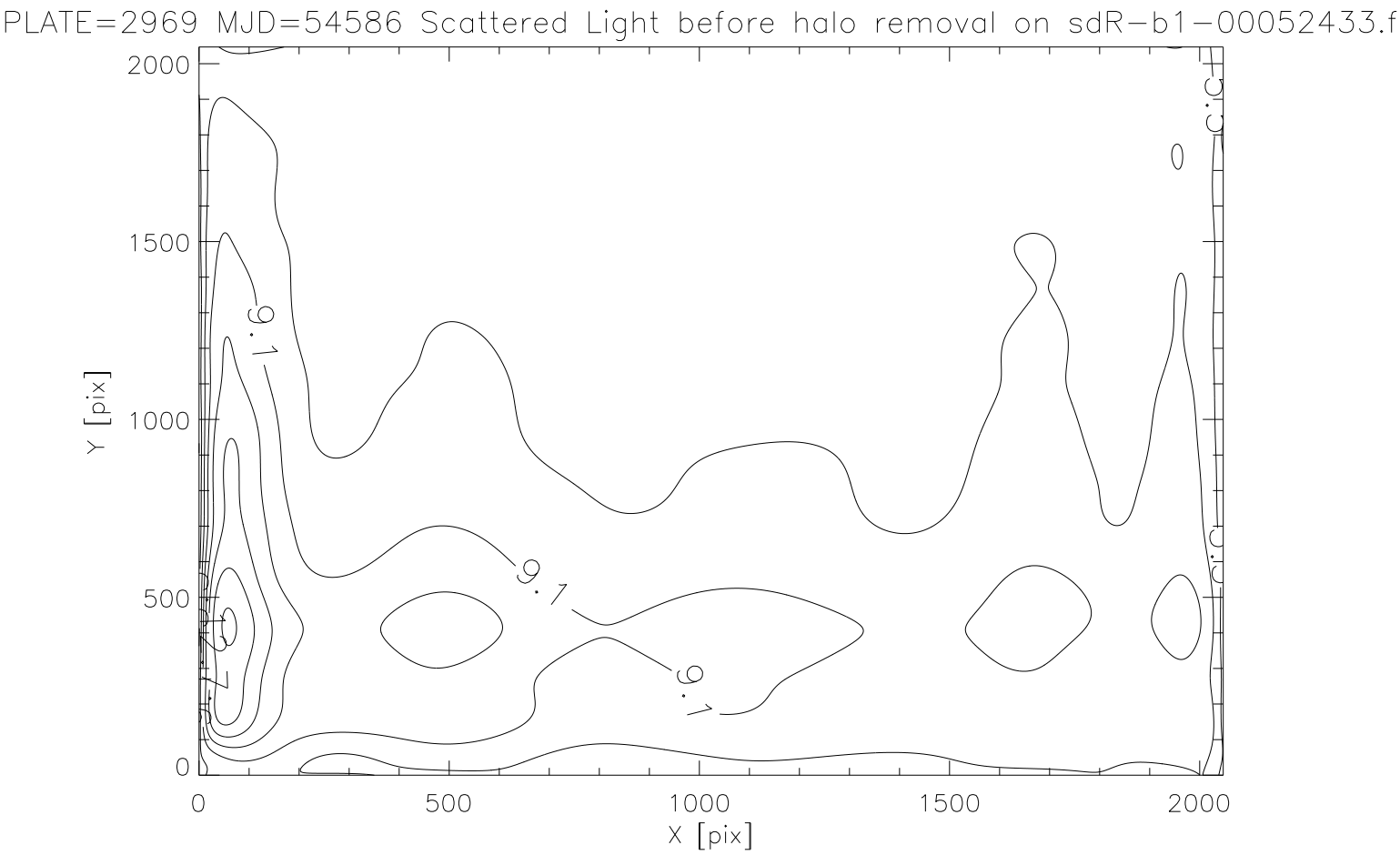

PLATE=2969 MJD=54586 sdR-b1-00052432.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
-200
-400
5570
5575
5580
5585
5590
λ [A]

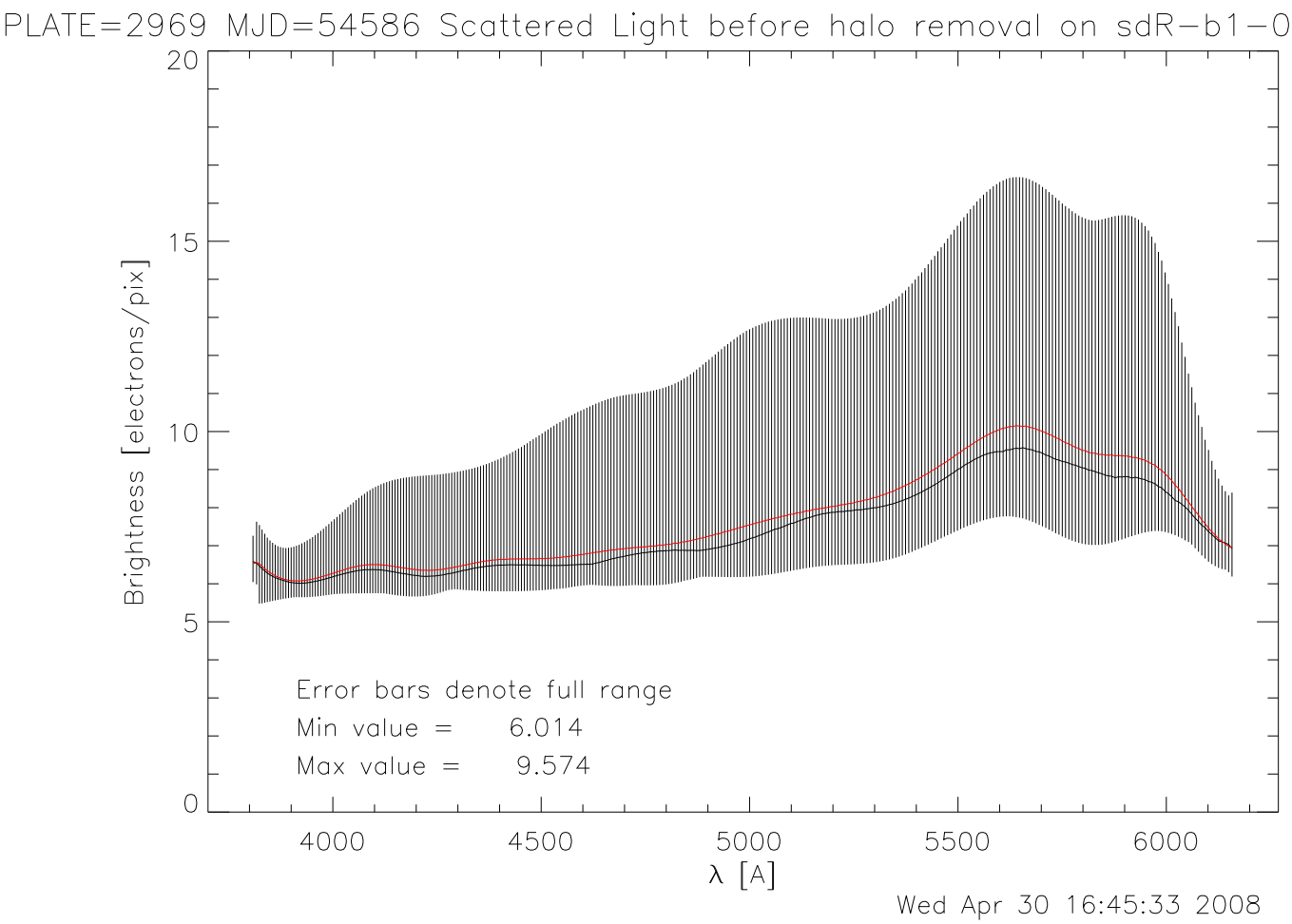

Number of sky fibers = 16
PLATE=2969 MJD=54586 sdR-b1-00052432.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

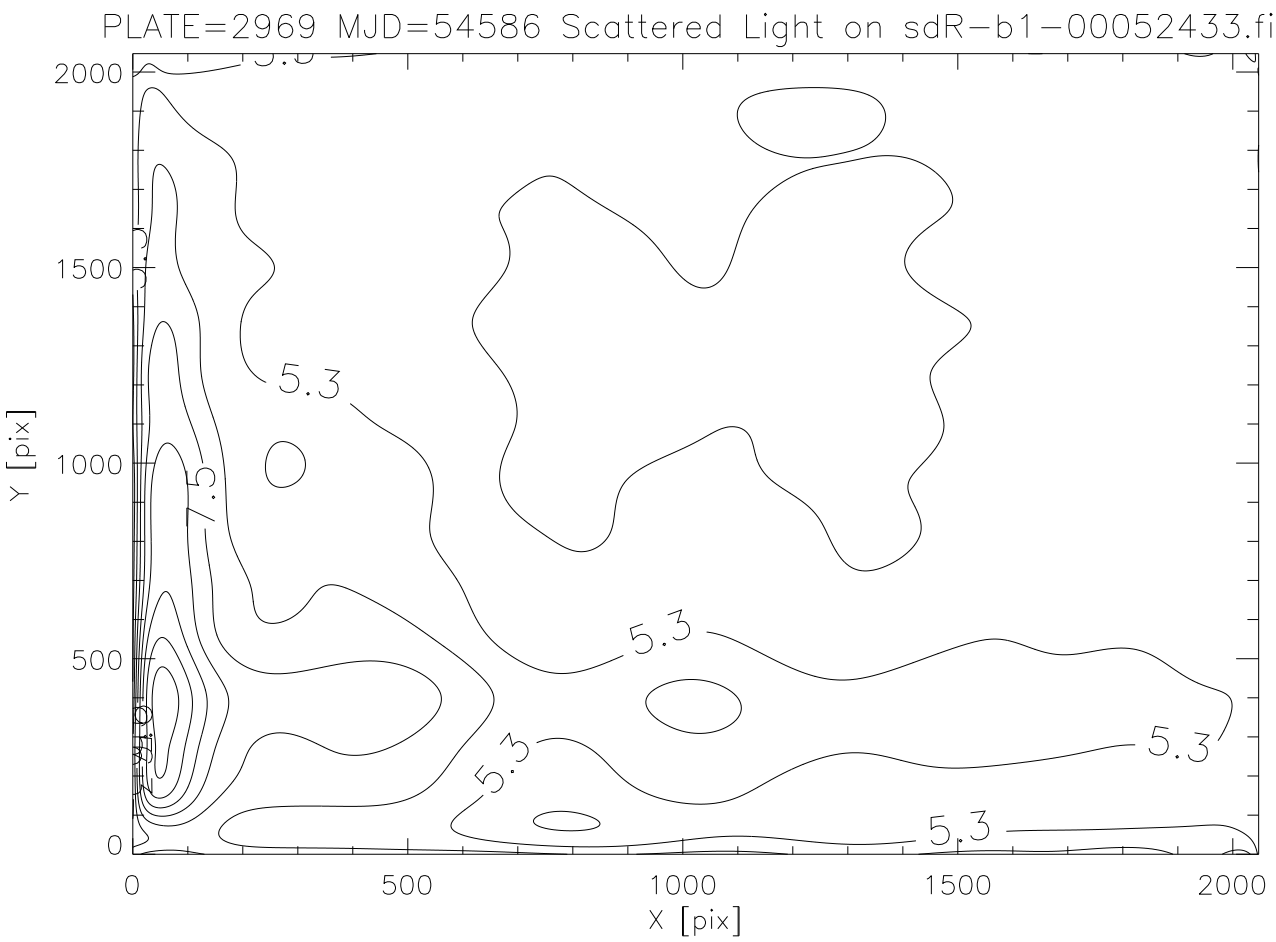

PLATE=2969 MJD=54586 sdR-b1-00052432.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
Fiber number
RED = sky fiber
Dispersion = 13.54 %
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

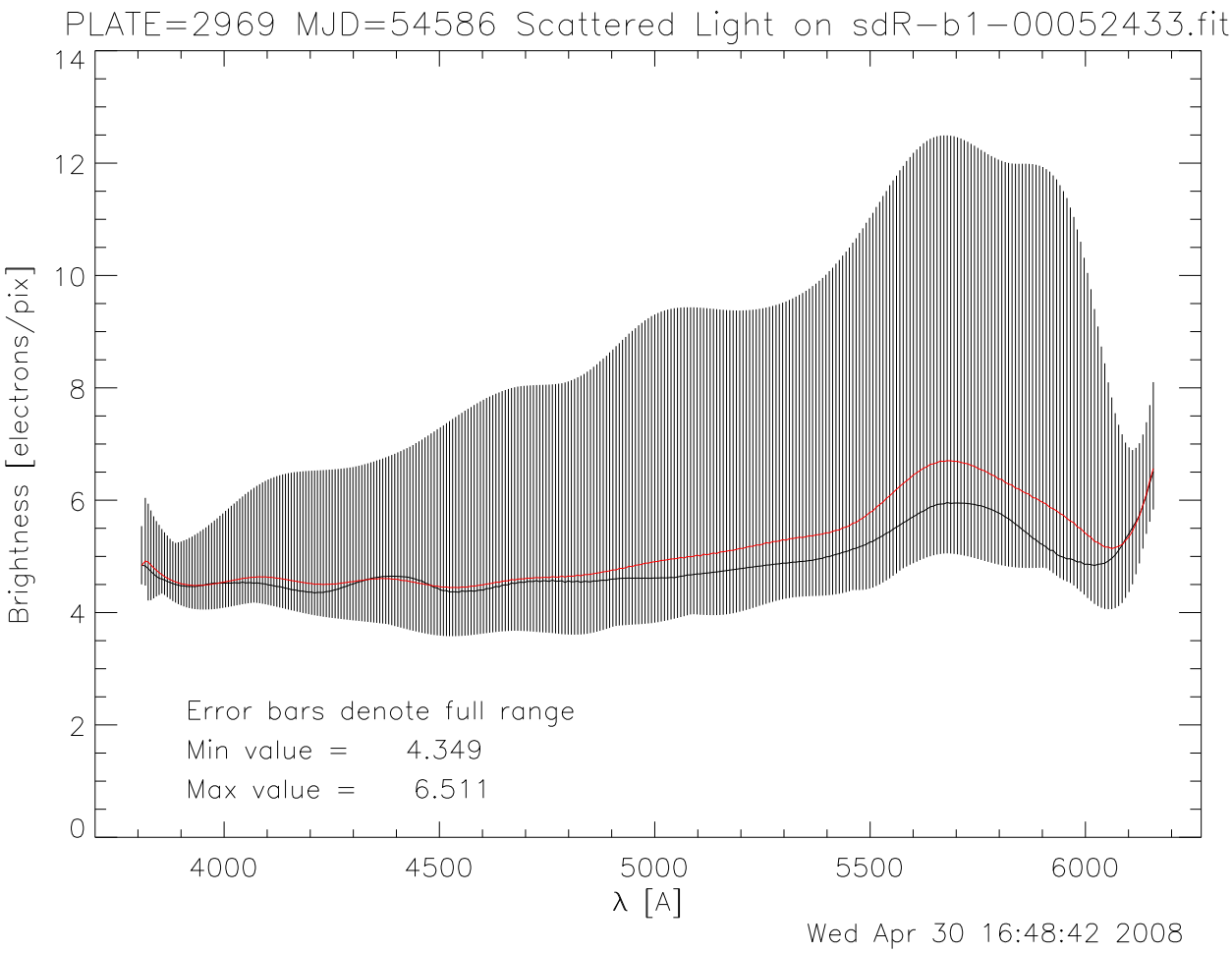

PLATE=2969 MJD=54586 sdR-b1-00052432.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
Fiber number
RED = sky fiber
Dispersion = 2.27 %
Flux (5578.9)/Airmass
Focal Distance [mm]
Flux (5578.9)/Airmass
Airmass

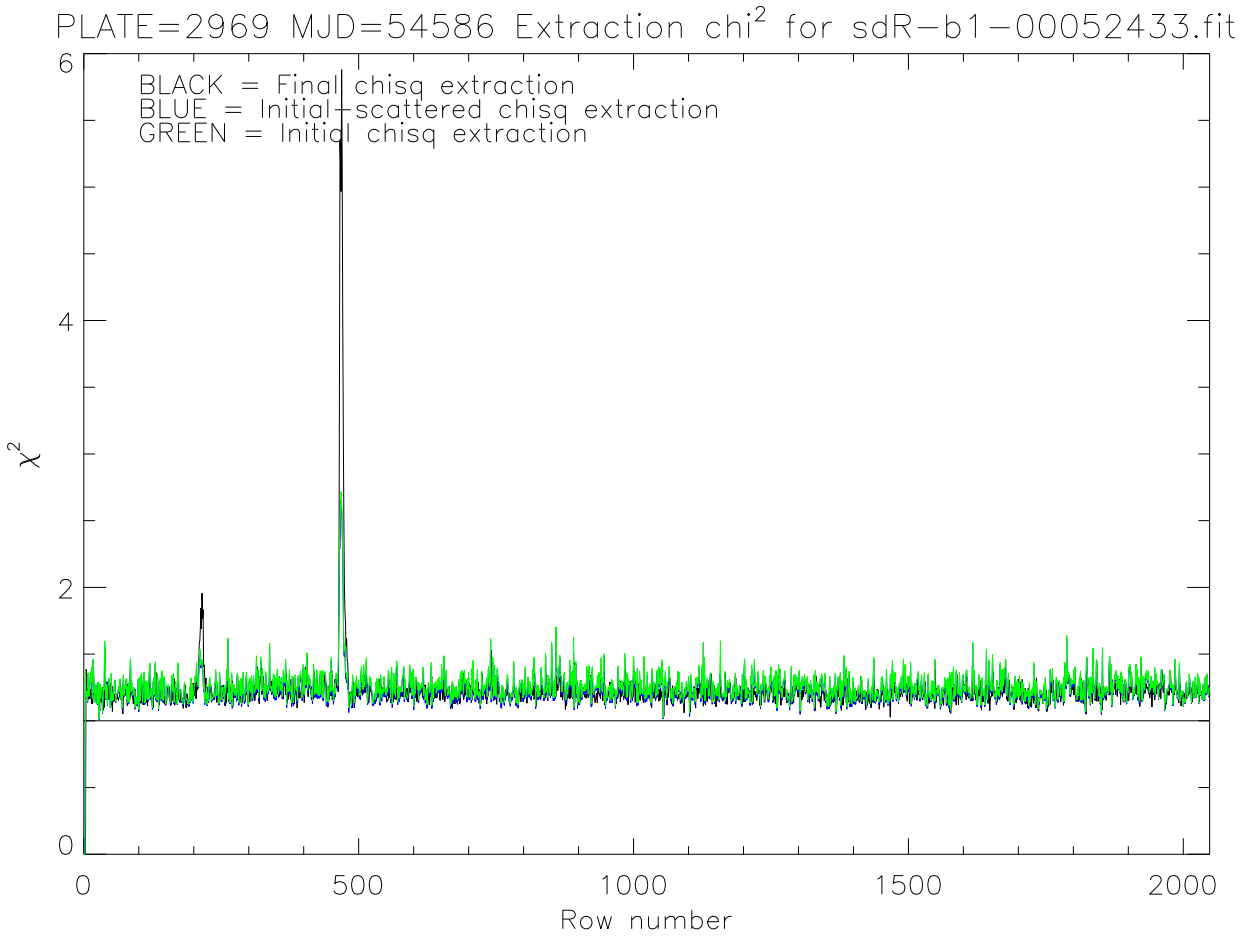

PLATE=2969 MJD=54586 Fiber−Flats for sdR−b1−00052430.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.167
Max value = 1.250
Fiber−Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Wed Apr 30 16:44:36 2008

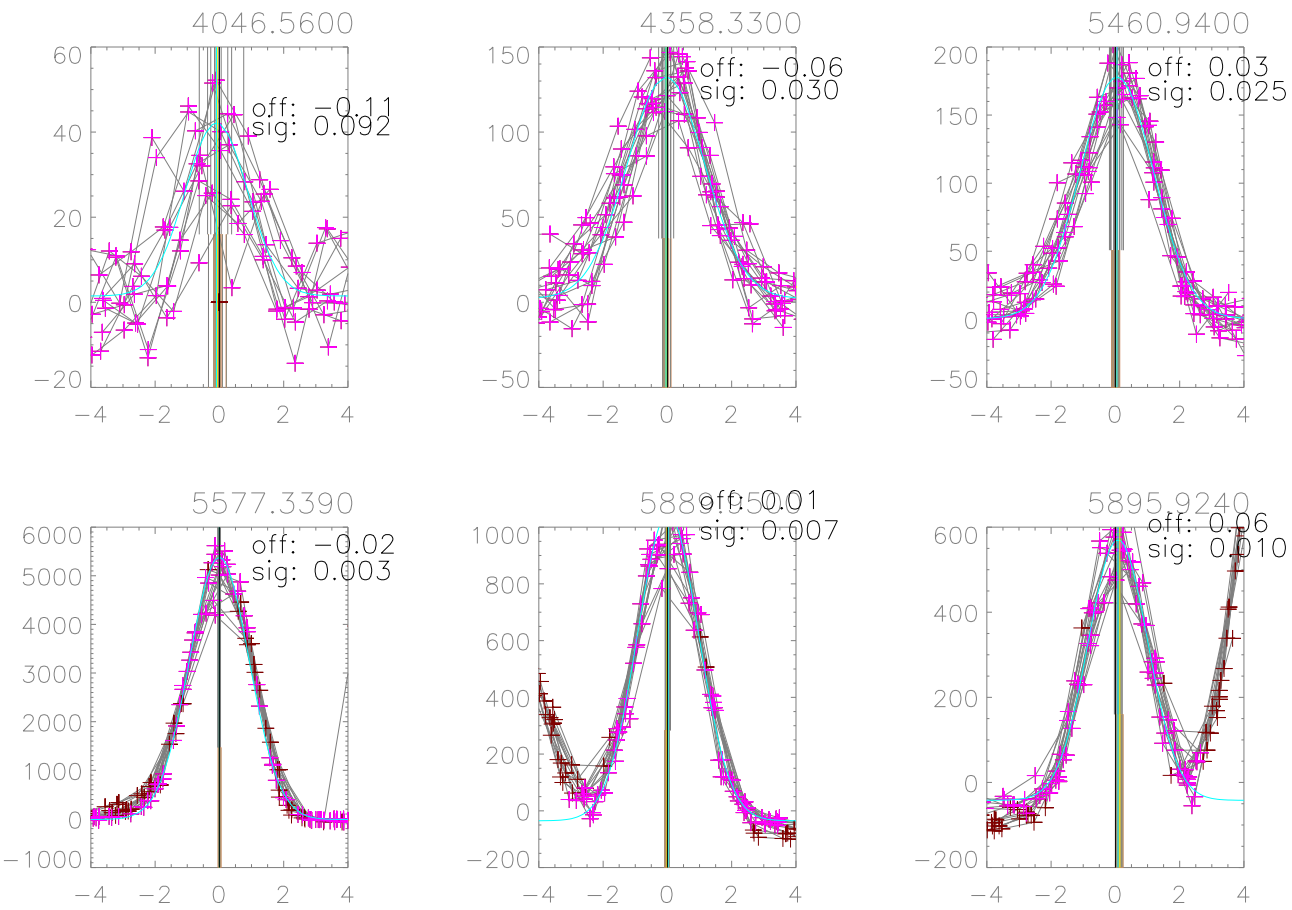

PLATE=2969 MJD=54586 Scattered Light before halo removal on sdR−b1−00052433.f
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
9.1
9.1
9.1
0

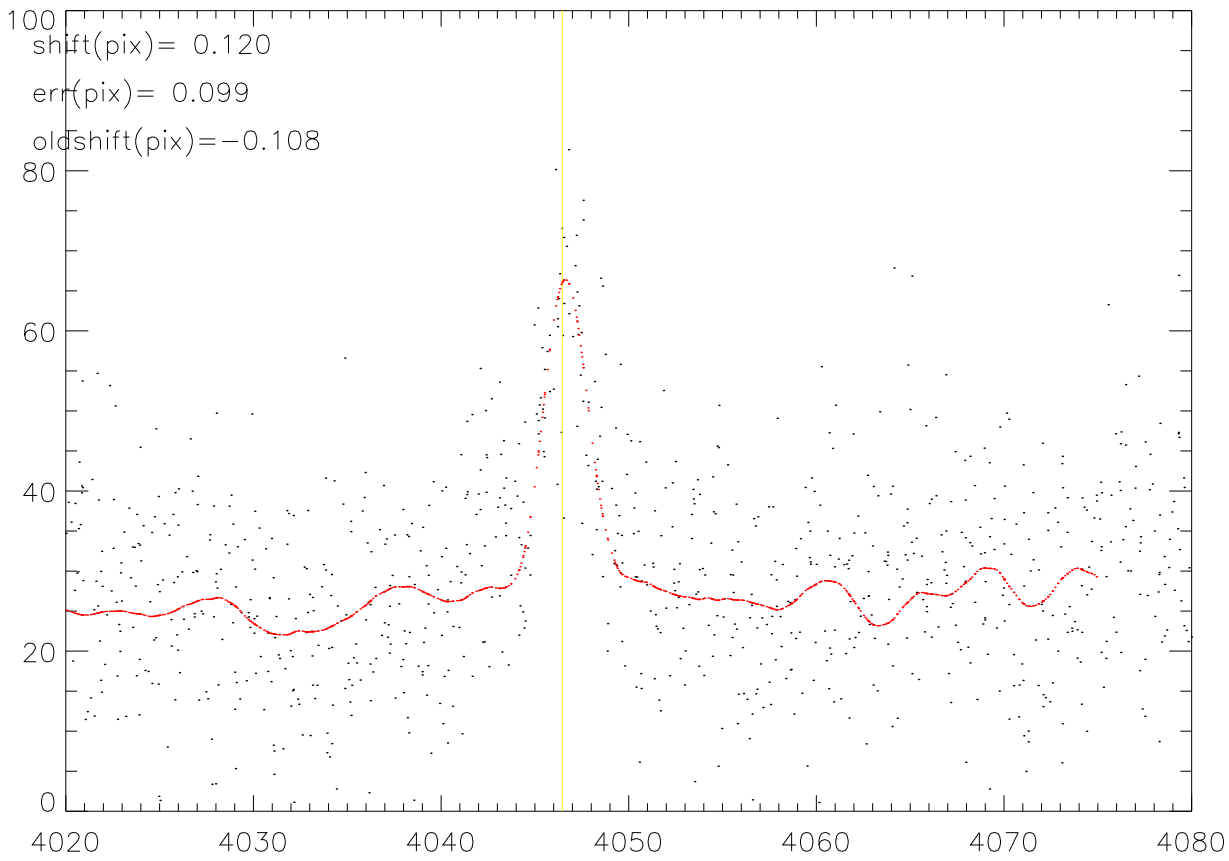

PLATE=2969 MJD=54586 Scattered Light before halo removal on sdR-b1-00052433.f
Brightness [electrons/pix]
20
15
10
5
0
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 6.014
Max value = 9.574
Wed Apr 30 16:45:33 2008

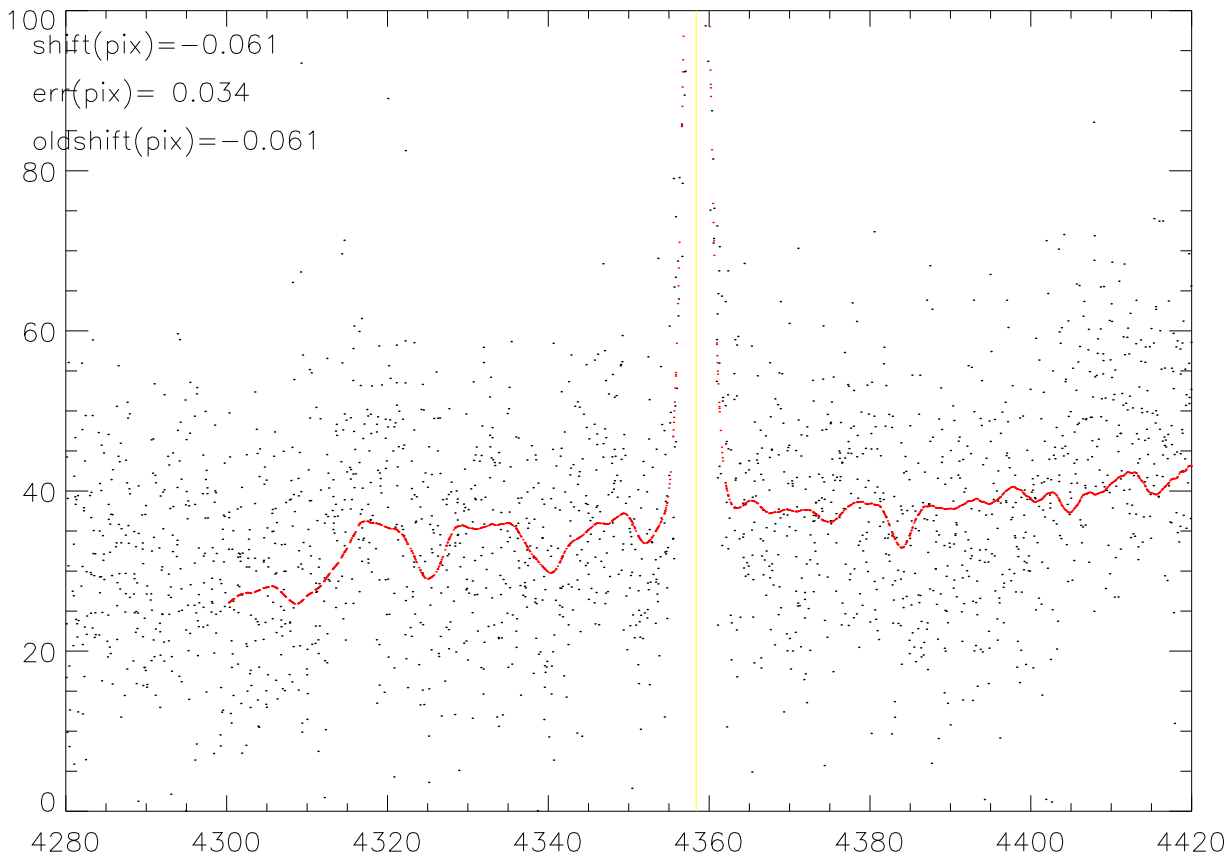

PLATE=2969 MJD=54586 Scattered Light on sdR−b1−00052433.fit
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
5.3
7.5
5.3
5.3
5.3
5.3

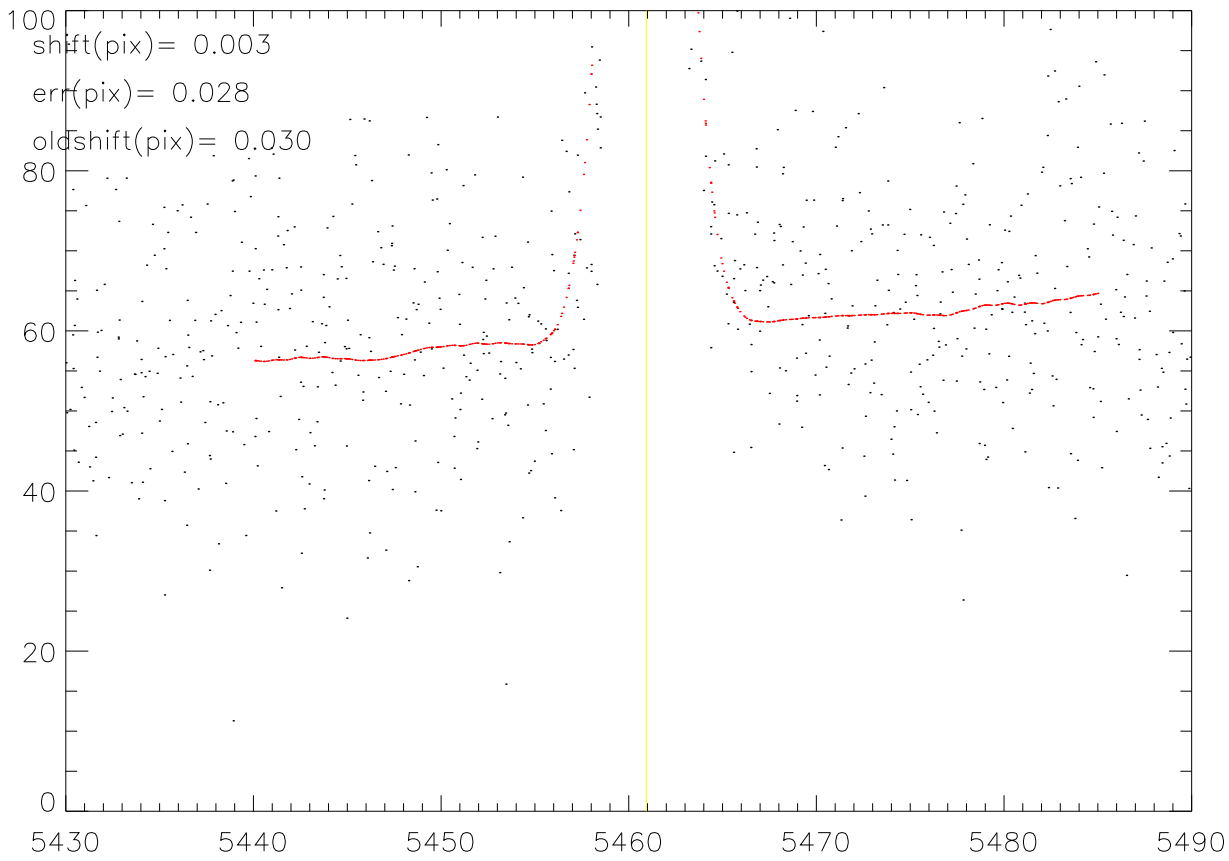

PLATE=2969 MJD=54586 Scattered Light on sdR-b1-00052433.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 4.349
Max value = 6.511
Wed Apr 30 16:48:42 2008

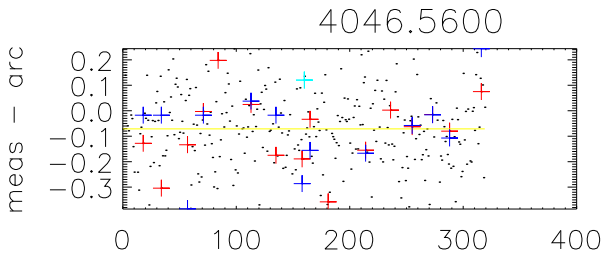

PLATE=2969 MJD=54586 Extraction chi^2 for sdR-b1-00052433.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
0
500
1000
1500
2000
Row number

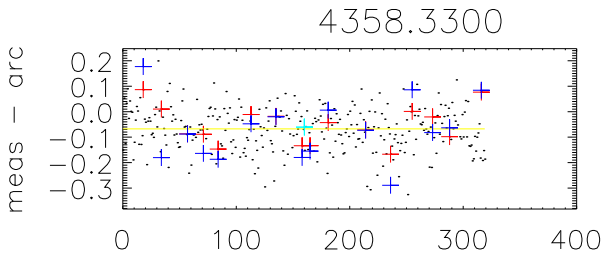

4046.5600
off: −0.11
sig: 0.092
4358.3300
off: −0.06
sig: 0.030
5460.9400
off: 0.03
sig: 0.025
5577.3390
off: −0.02
sig: 0.003
5889.9510
off: 0.01
sig: 0.007
5895.9240
off: 0.06
sig: 0.010

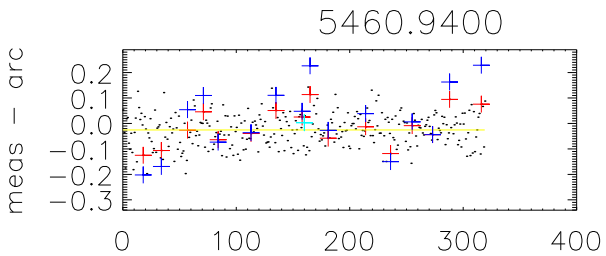

shift(pix)= 0.120
err(pix)= 0.099
oldshift(pix)=−0.108
100
80
60
40
20
0
4020
4030
4040
4050
4060
4070
4080

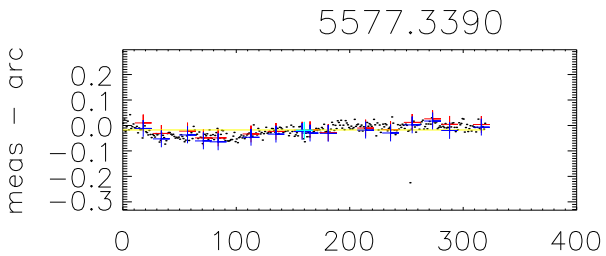

shift(pix)=−0.061
err(pix)= 0.034
oldshift(pix)=−0.061
100
80
60
40
20
0
4280
4300
4320
4340
4360
4380
4400
4420

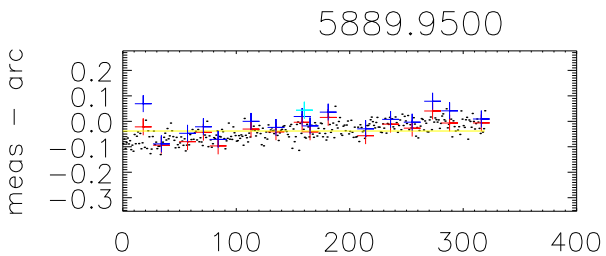

shift(pix)= 0.003
err(pix)= 0.028
oldshift(pix)= 0.030
100
80
60
40
20
0
5430
5440
5450
5460
5470
5480
5490

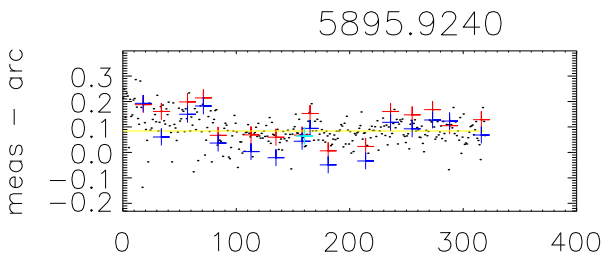

4046.5600
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

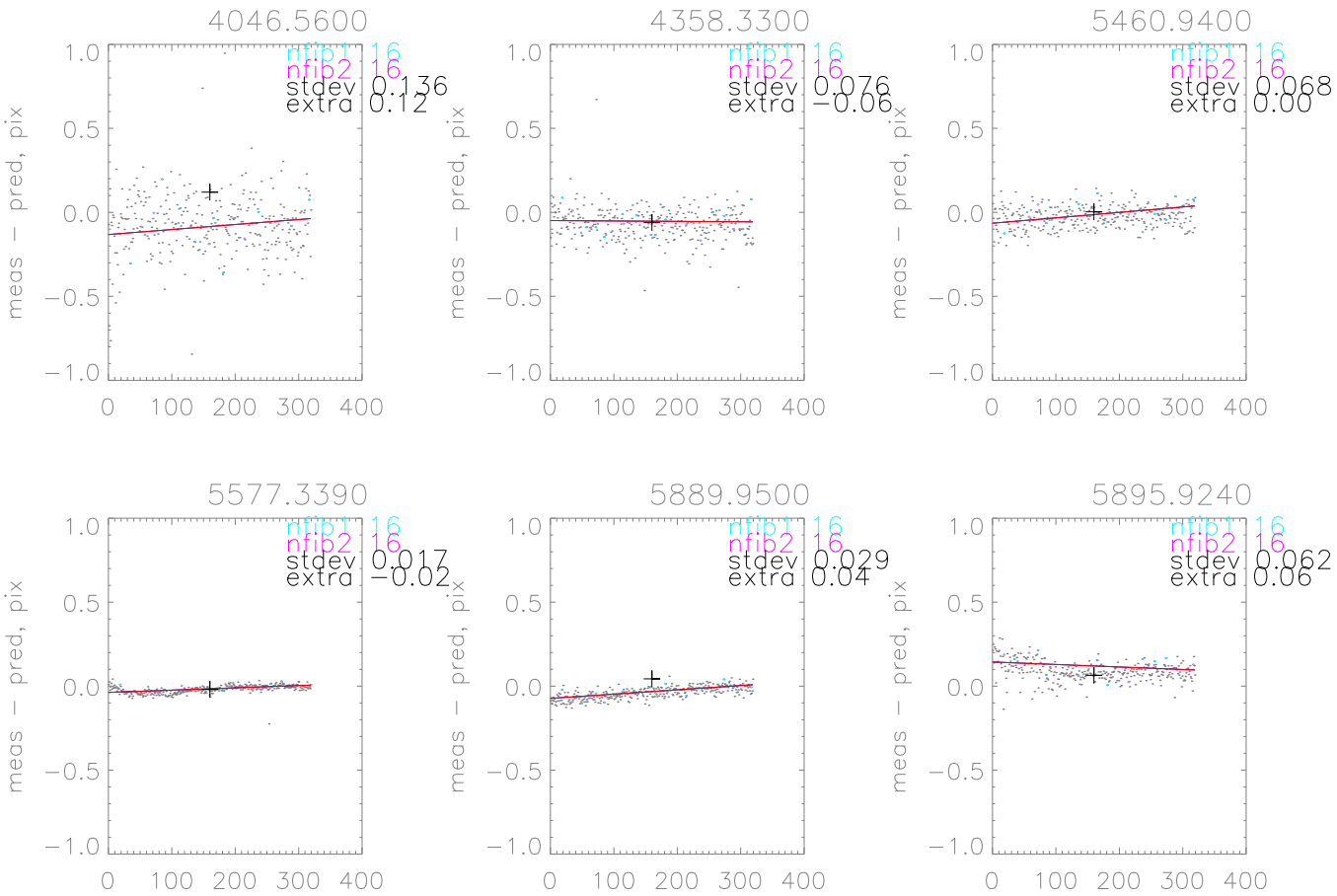

4358.3300
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

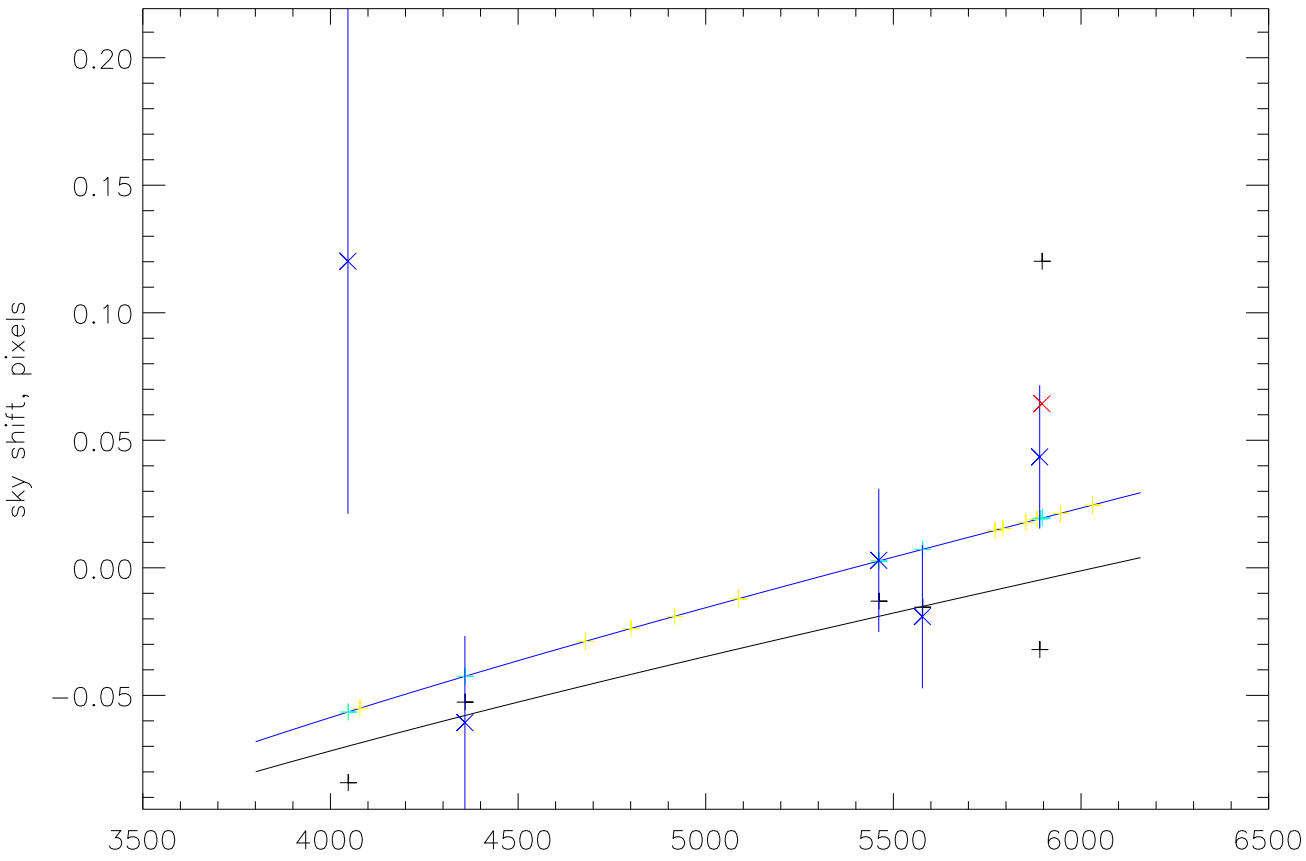

5460.9400
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400


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

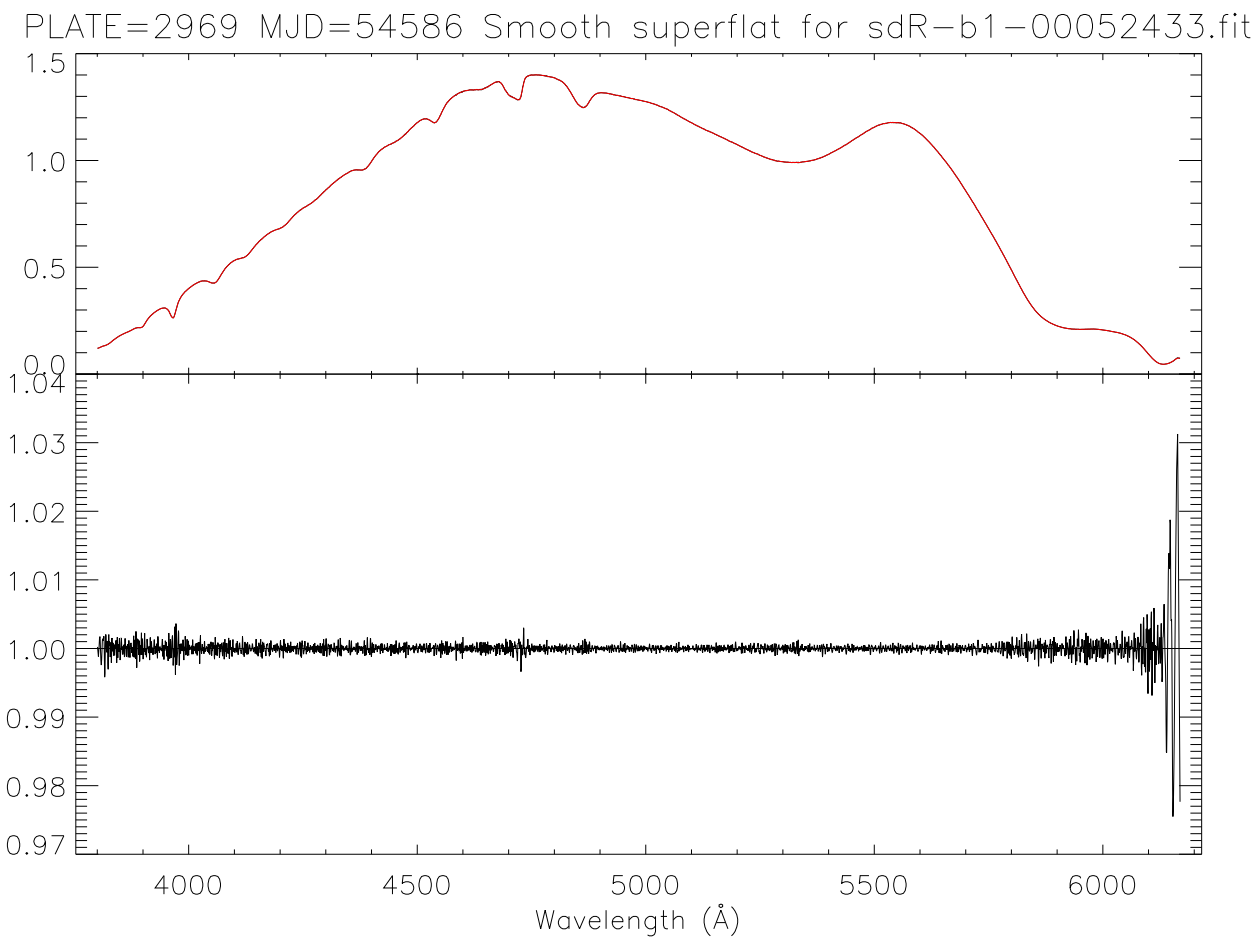

5889.9500
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

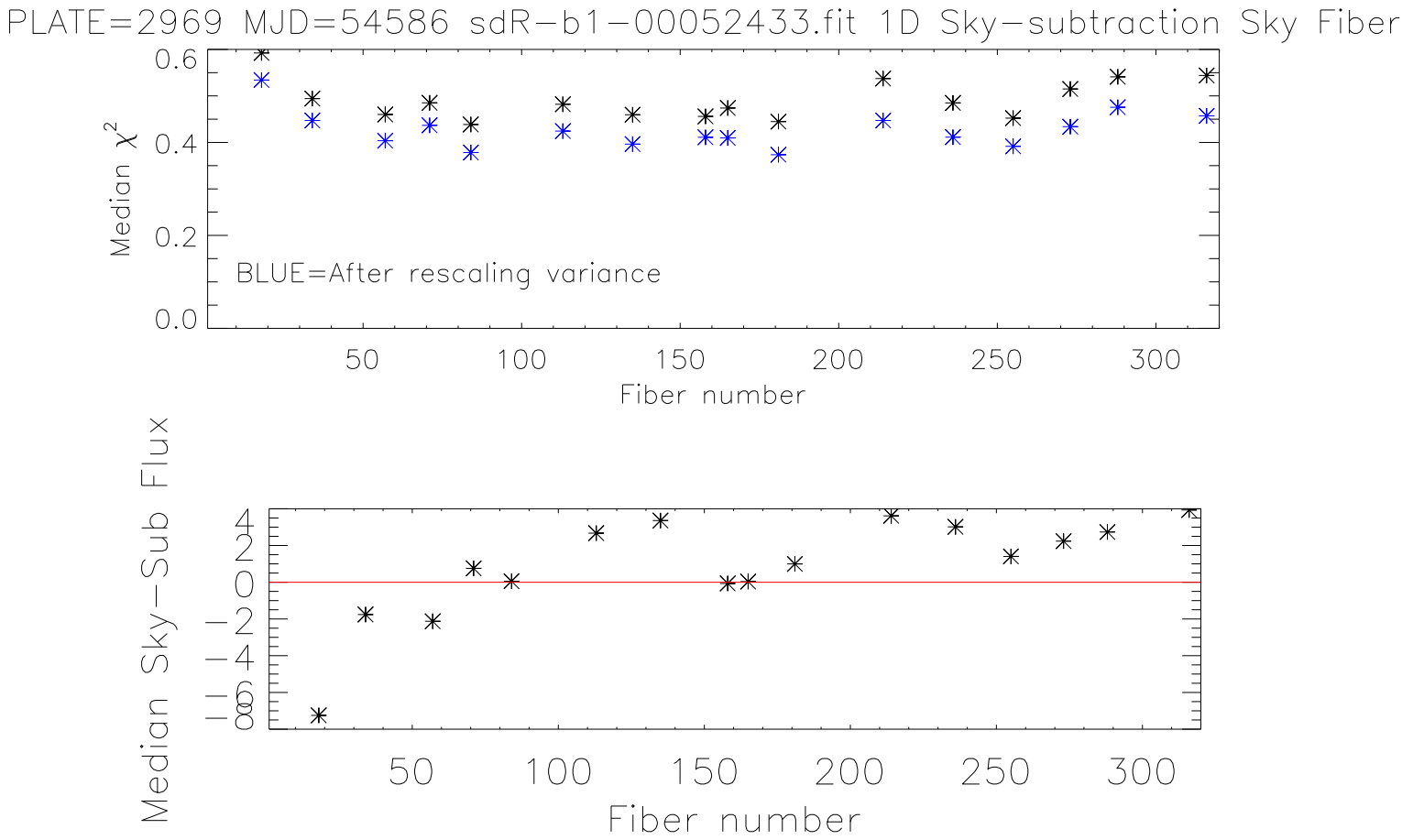

5895.9240
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

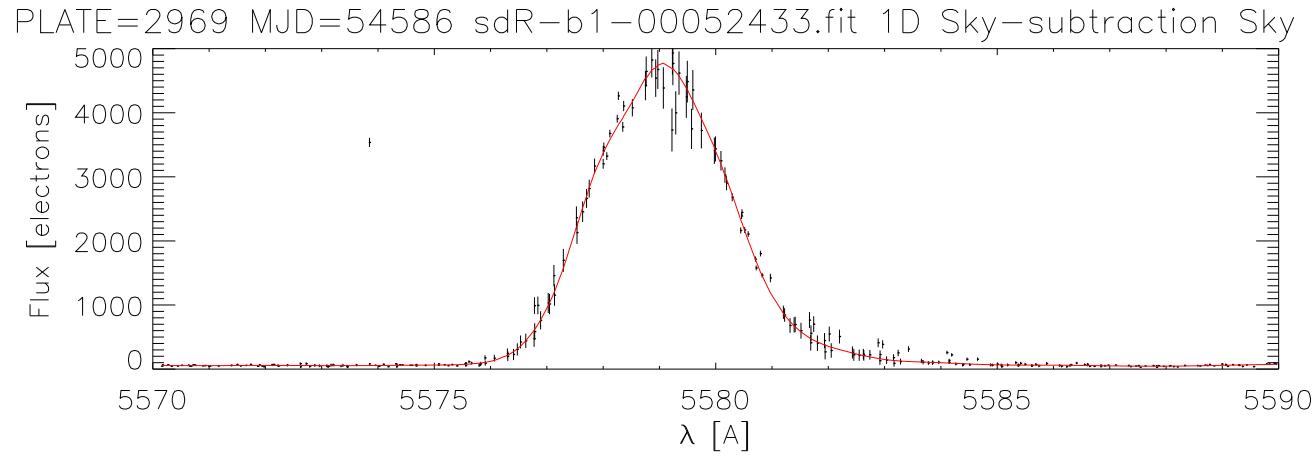

4046.5600
nfib1 16
nfib2 16
stdev 0.136
extra 0.12
4358.3300
nfib1 16
nfib2 16
stdev 0.076
extra −0.06
5460.9400
nfib1 16
nfib2 16
stdev 0.068
extra 0.00
5577.3390
nfib1 16
nfib2 16
stdev 0.017
extra −0.02
5889.9500
nfib1 16
nfib2 16
stdev 0.029
extra 0.04
5895.9240
nfib1 16
nfib2 16
stdev 0.062
extra 0.06
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

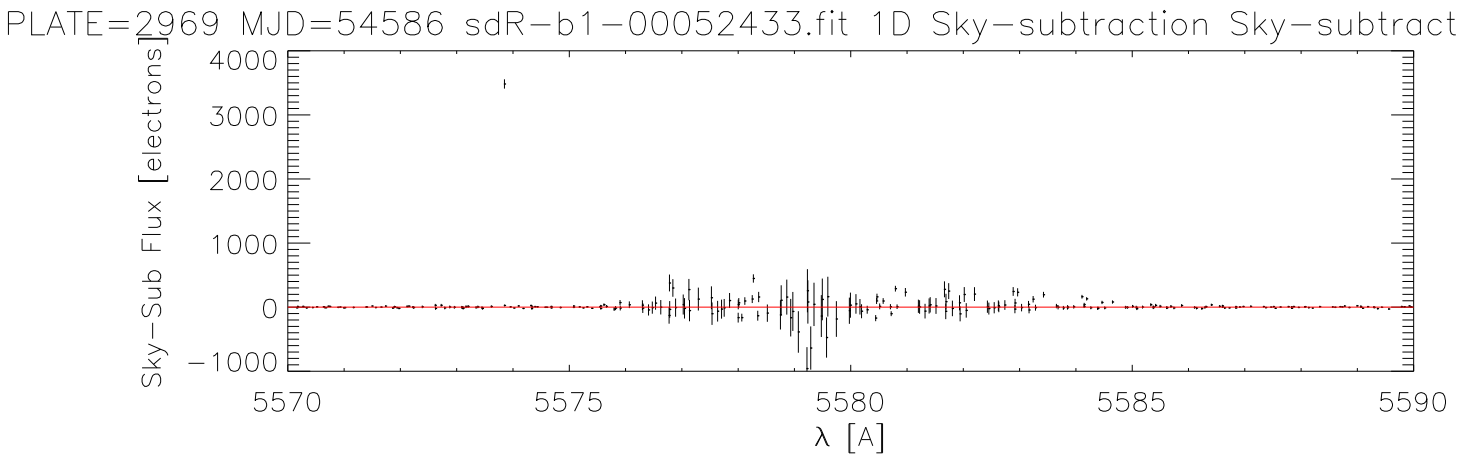

sky shift, pixels
0.20
0.15
0.10
0.05
0.00
−0.05
3500
4000
4500
5000
5500
6000
6500

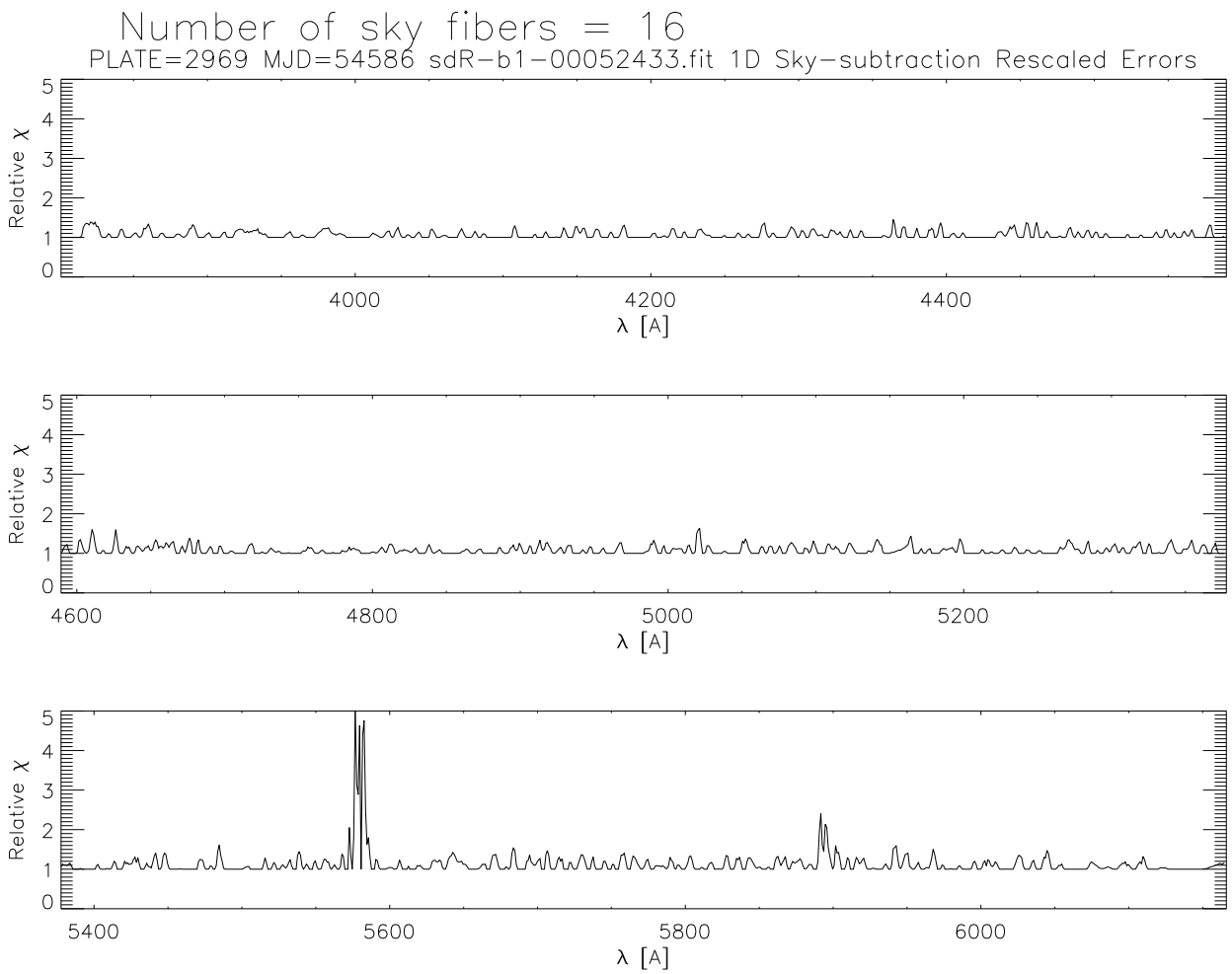
es= 0.0000

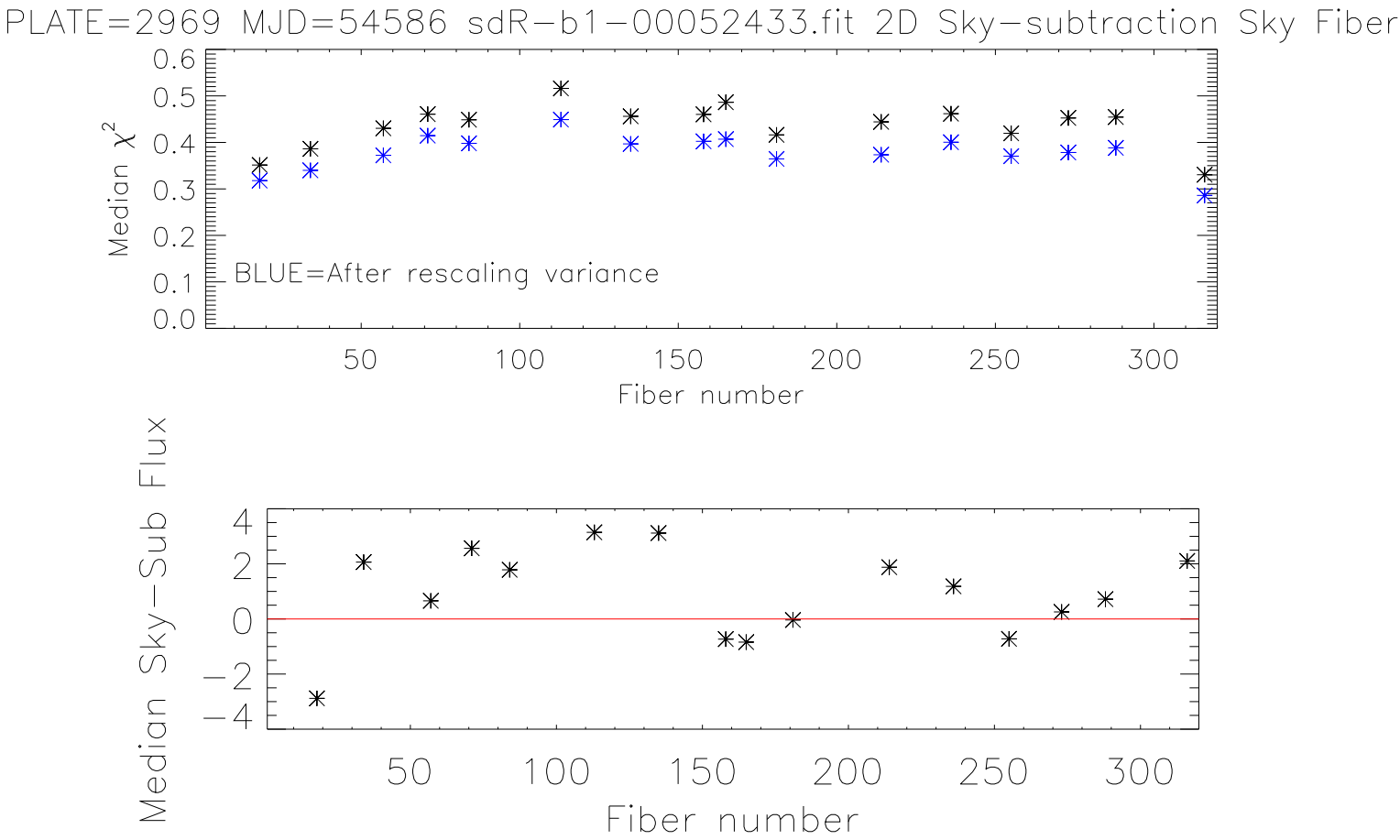

PLATE=2969 MJD=54586 Smooth superflat for sdR-b1-00052433.fit
1.5
1.0
0.5
0.0
1.04
1.03
1.02
1.01
1.00
0.99
0.98
0.97
4000
4500
5000
5500
6000
Wavelength (Å)

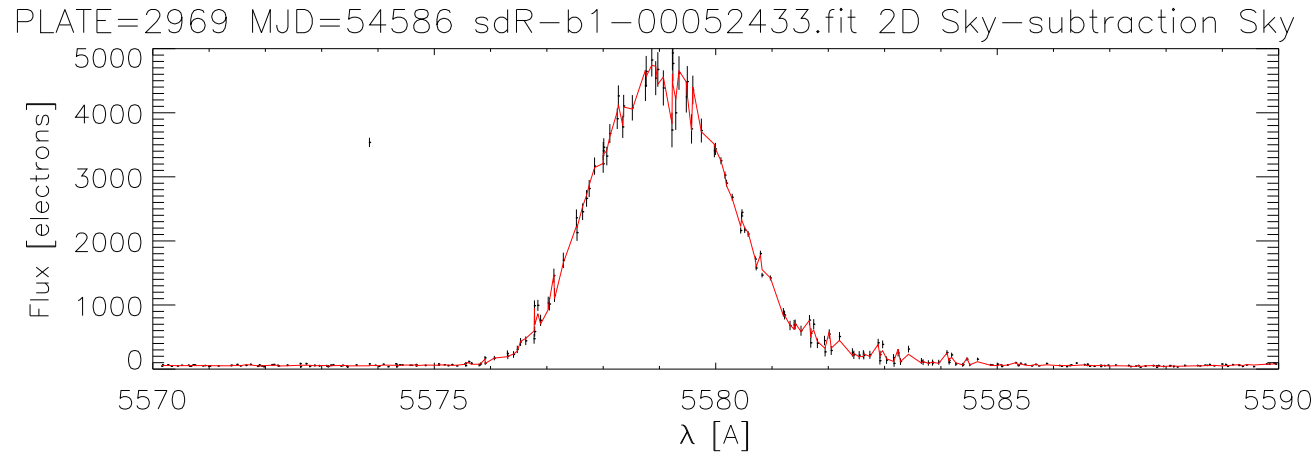

PLATE=2969 MJD=54586 sdR-b1-00052433.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.2
0.4
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-0.6
-0.4
-0.2
0.0
0.2
0.4
50
100
150
200
250
300
Fiber number

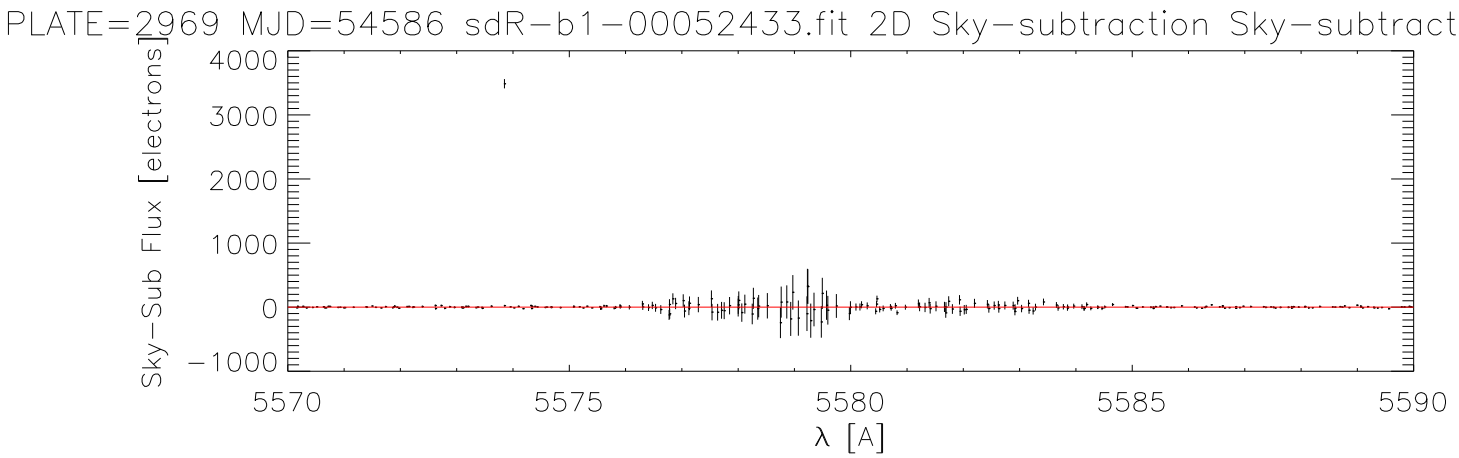

PLATE=2969 MJD=54586 sdR-b1-00052433.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

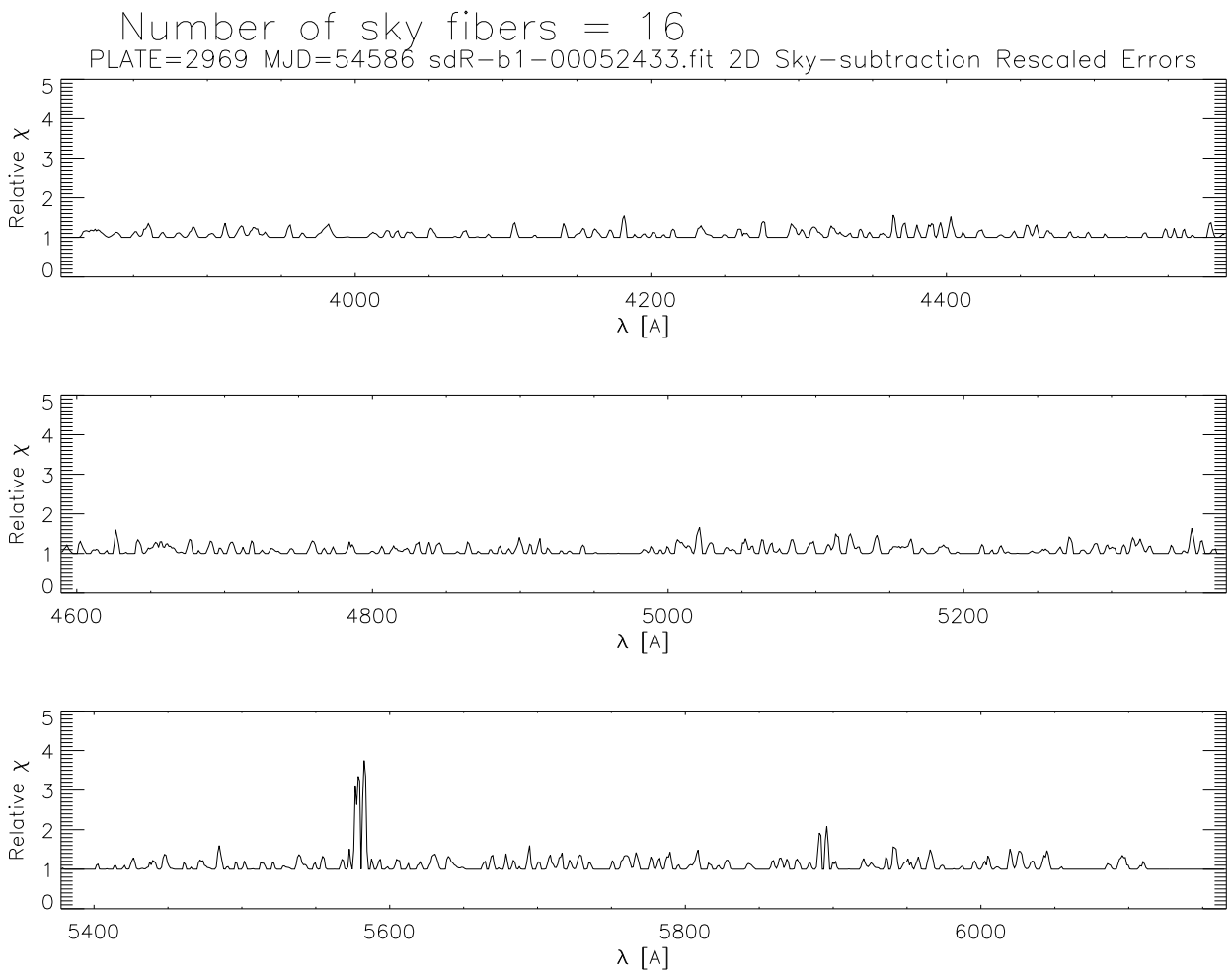

PLATE=2969 MJD=54586 sdR-b1-00052433.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
4000
3000
2000
1000
0
-1000
5570
5575
5580
5585
5590
λ [A]

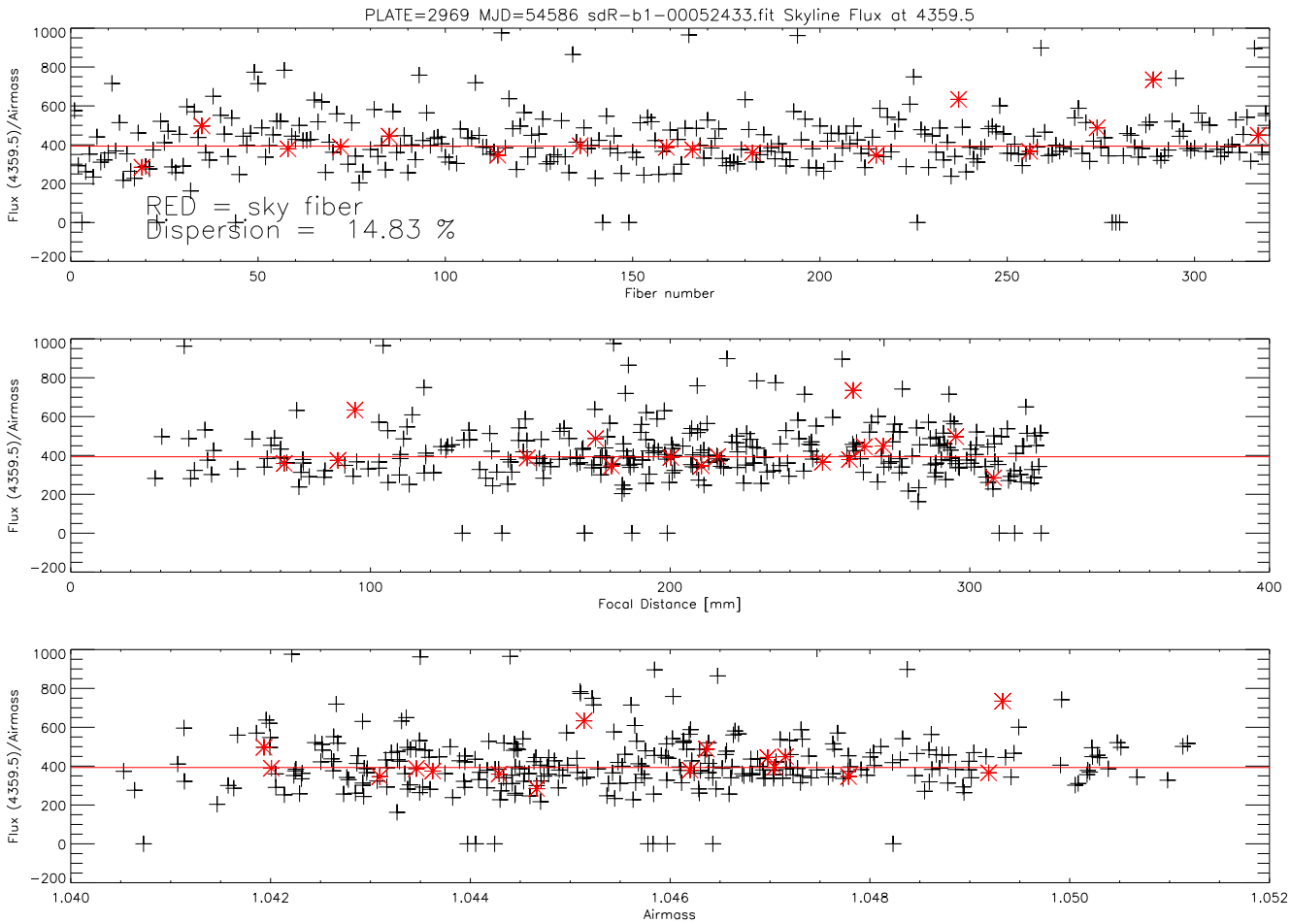

Number of sky fibers = 16
PLATE=2969 MJD=54586 sdR-b1-00052433.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

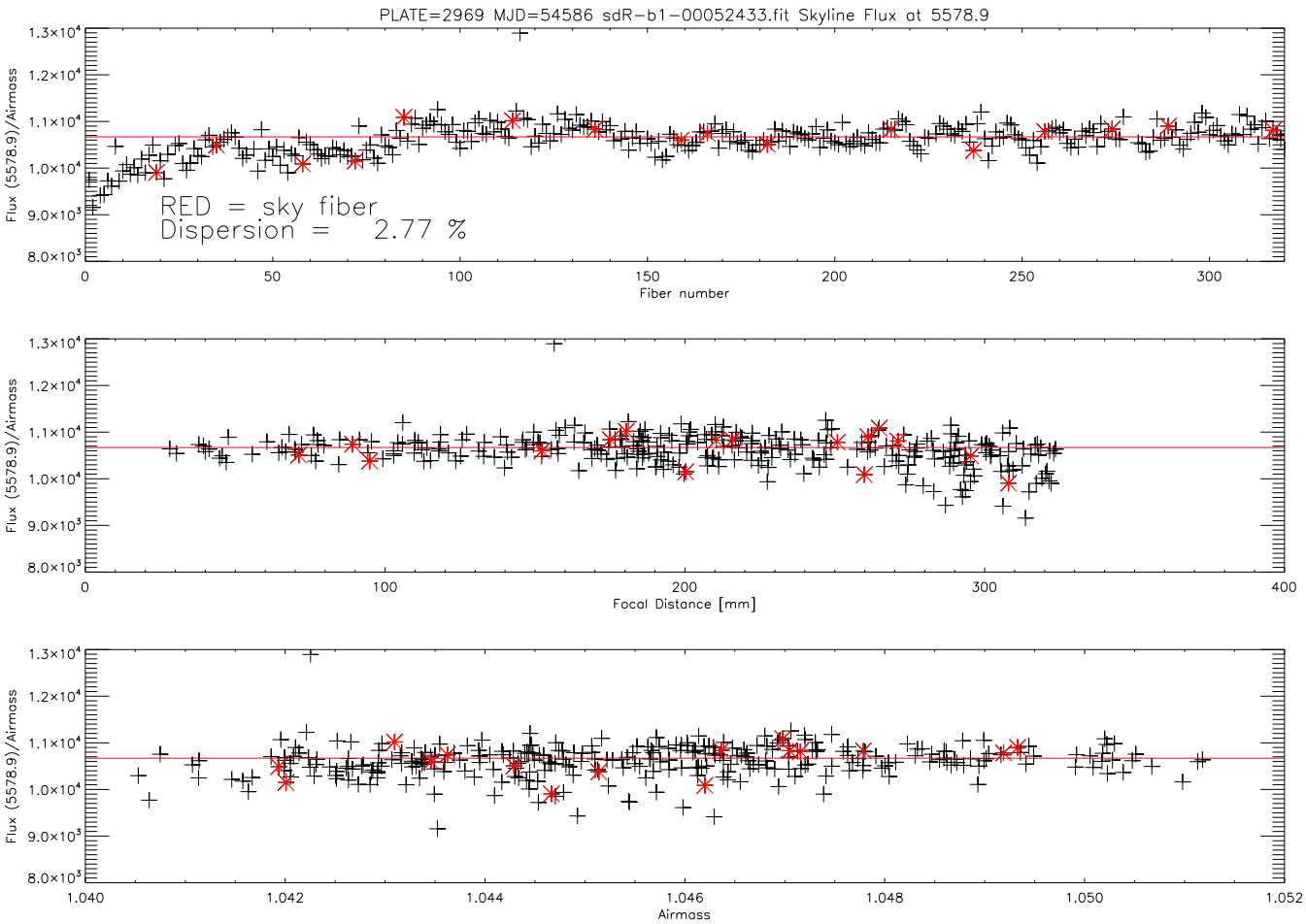

PLATE=2969 MJD=54586 sdR-b1-00052433.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

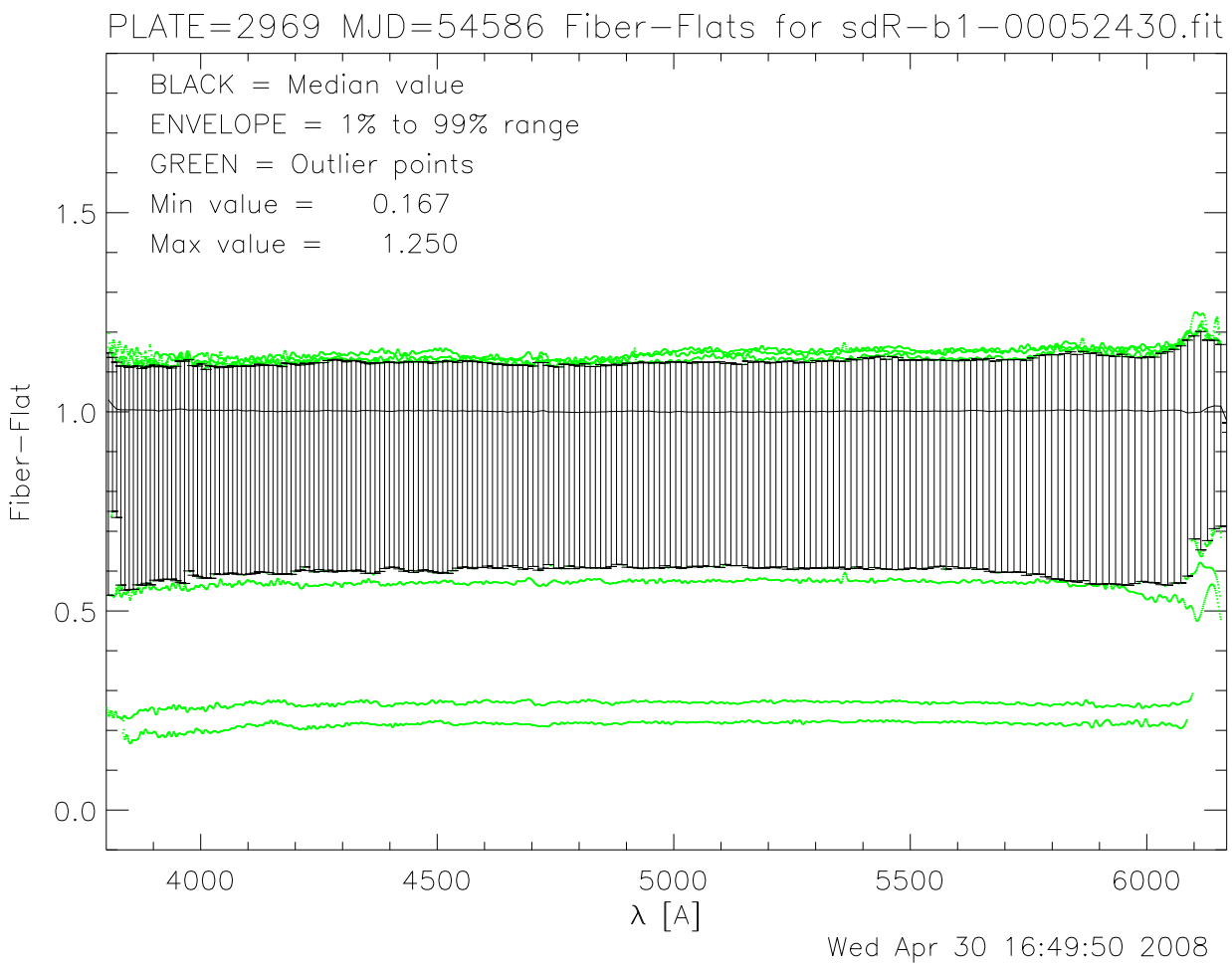

PLATE=2969 MJD=54586 sdR-b1-00052433.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

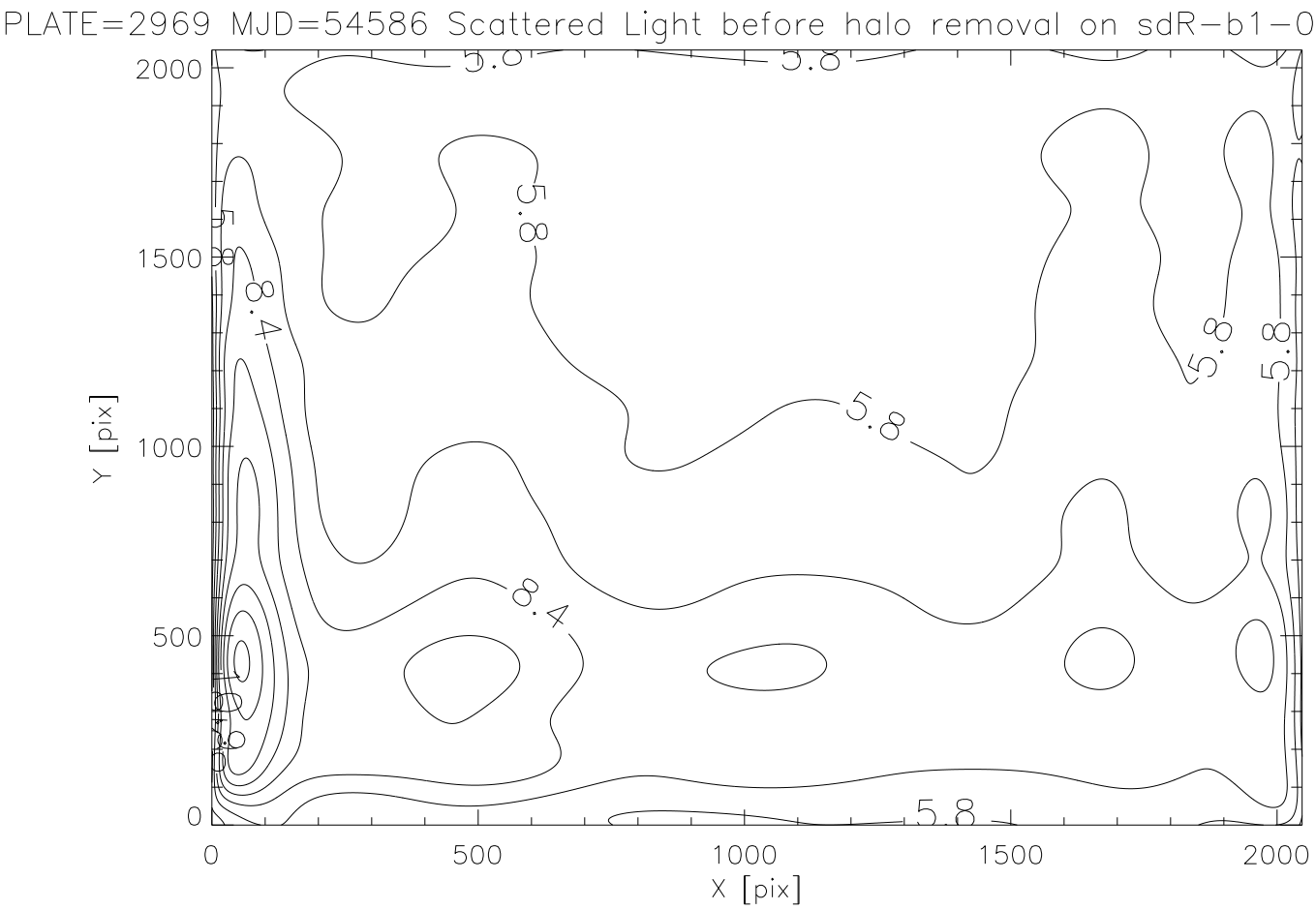

PLATE=2969 MJD=54586 sdR-b1-00052433.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
4000
3000
2000
1000
0
-1000
5570
5575
5580
5585
5590
λ [A]

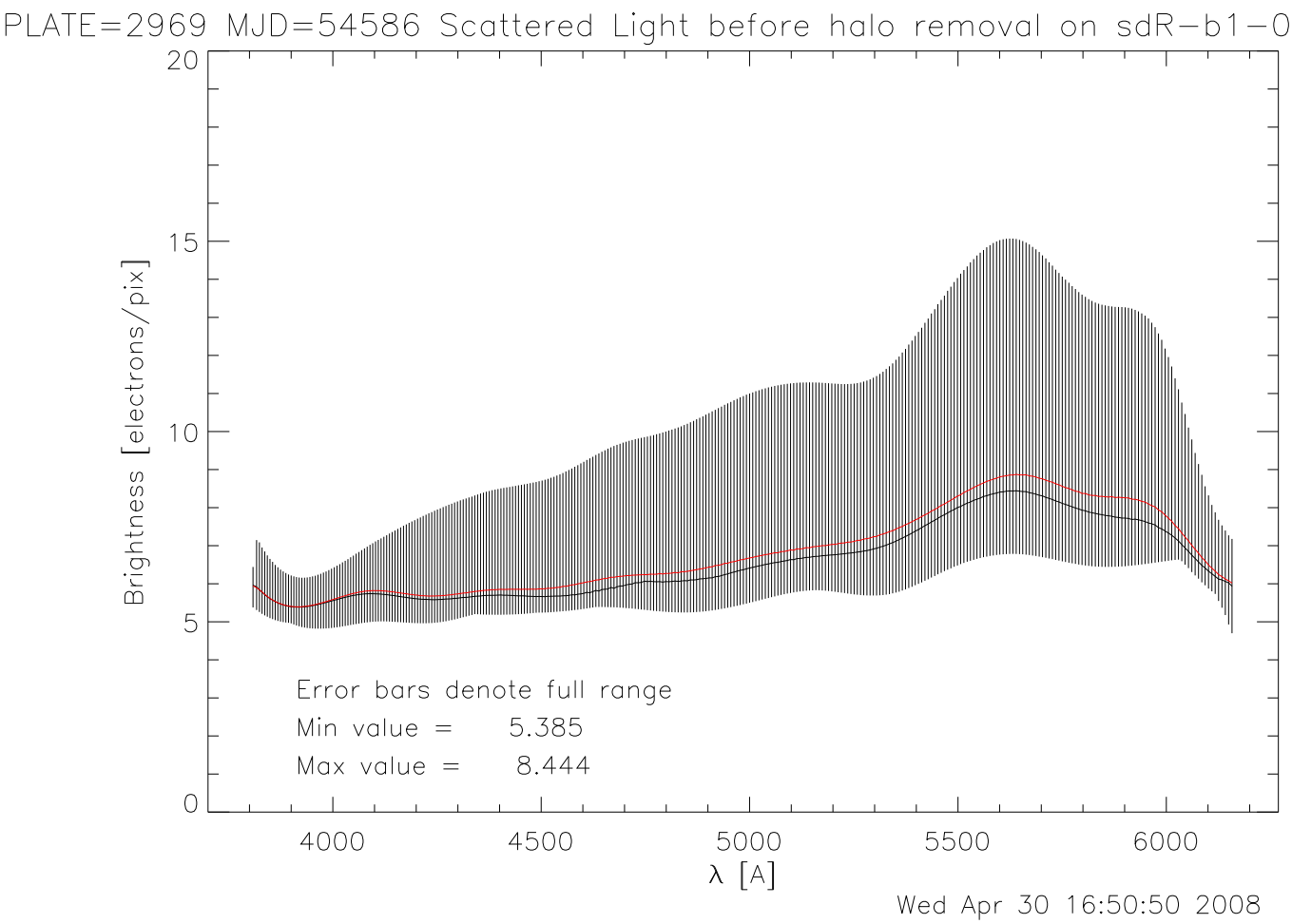

Number of sky fibers = 16
PLATE=2969 MJD=54586 sdR-b1-00052433.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

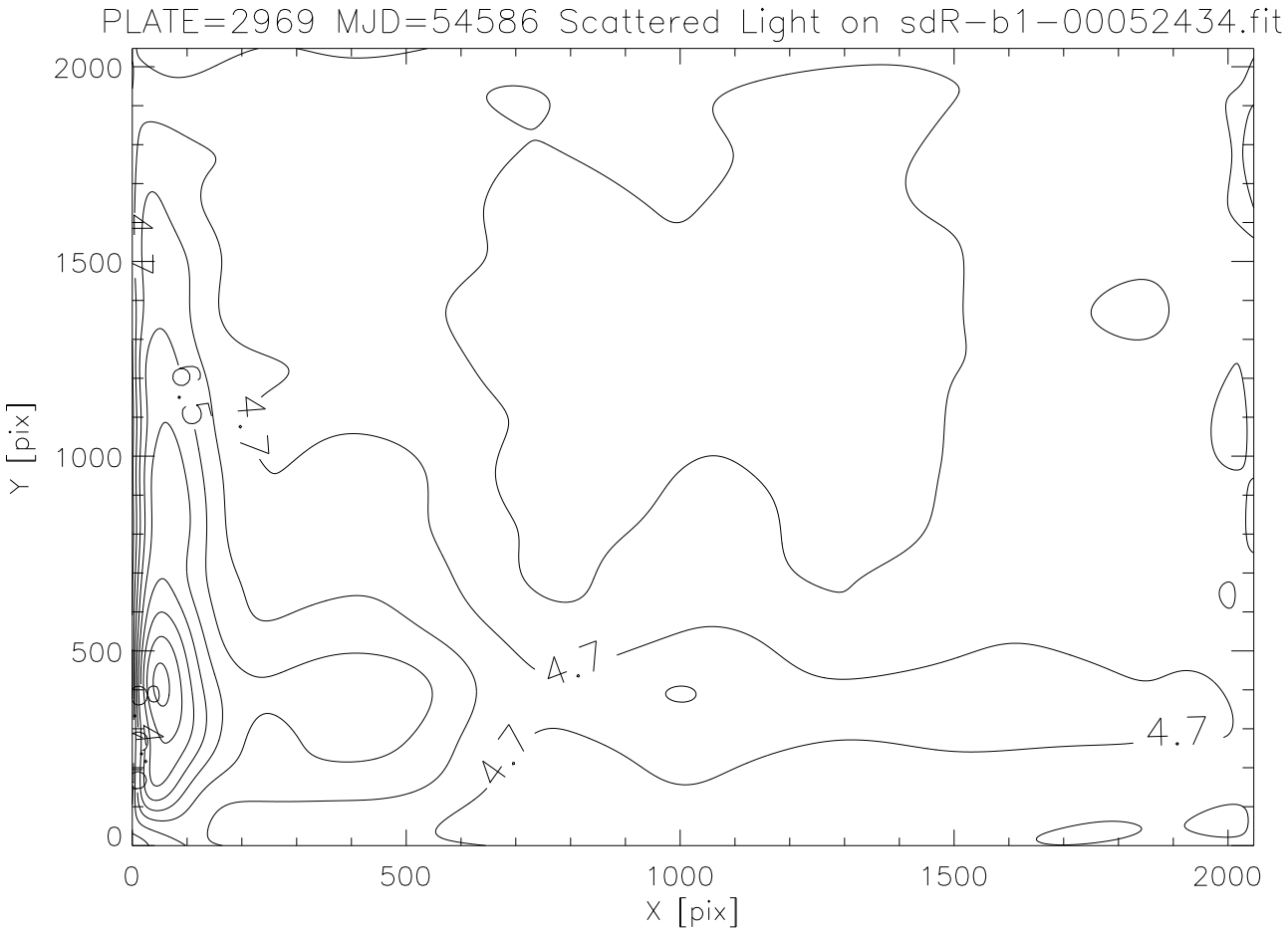

PLATE=2969 MJD=54586 sdR-b1-00052433.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 14.83 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

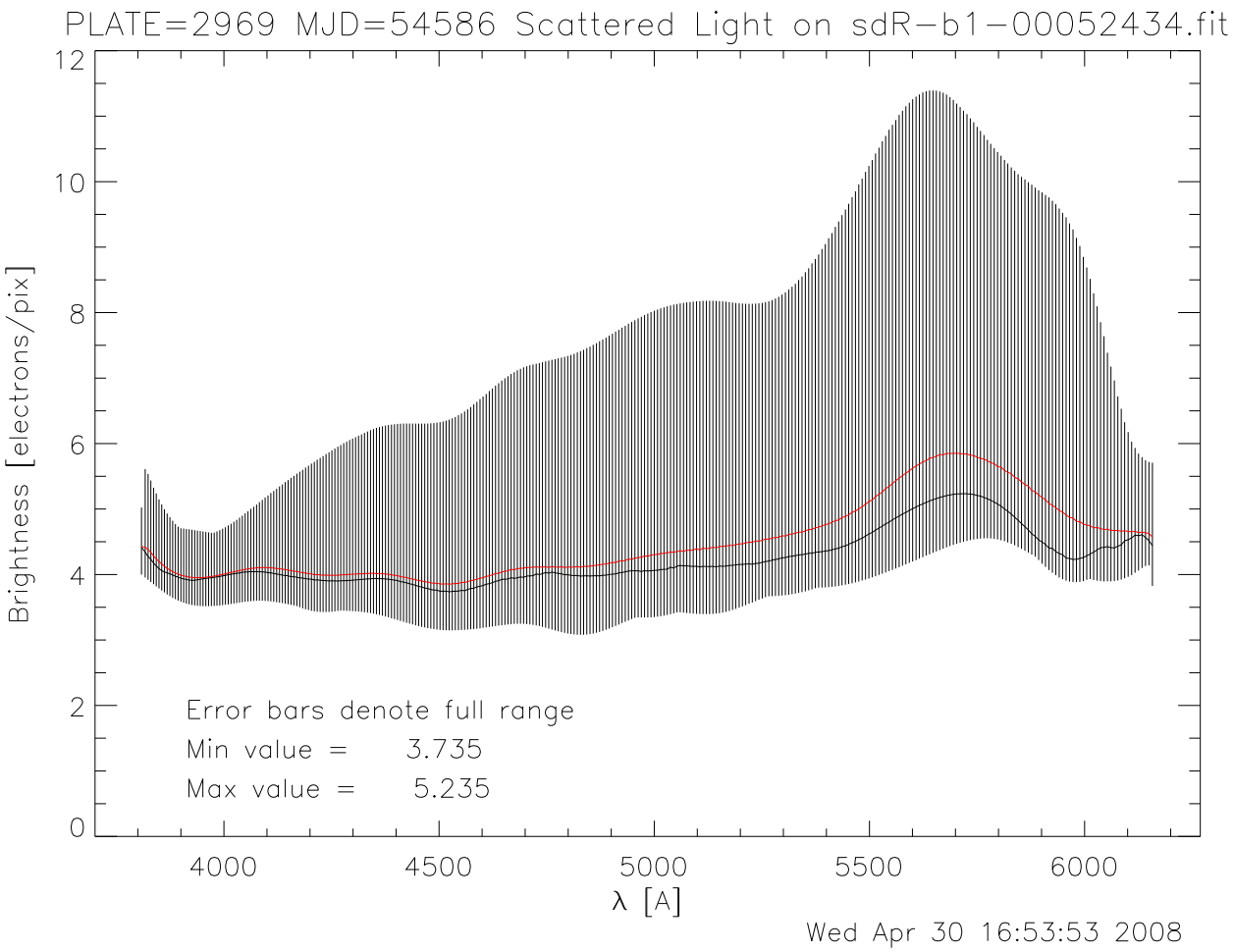

PLATE=2969 MJD=54586 sdR-b1-00052433.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 2.77 %
Fiber number
Focal Distance [mm]
Airmass

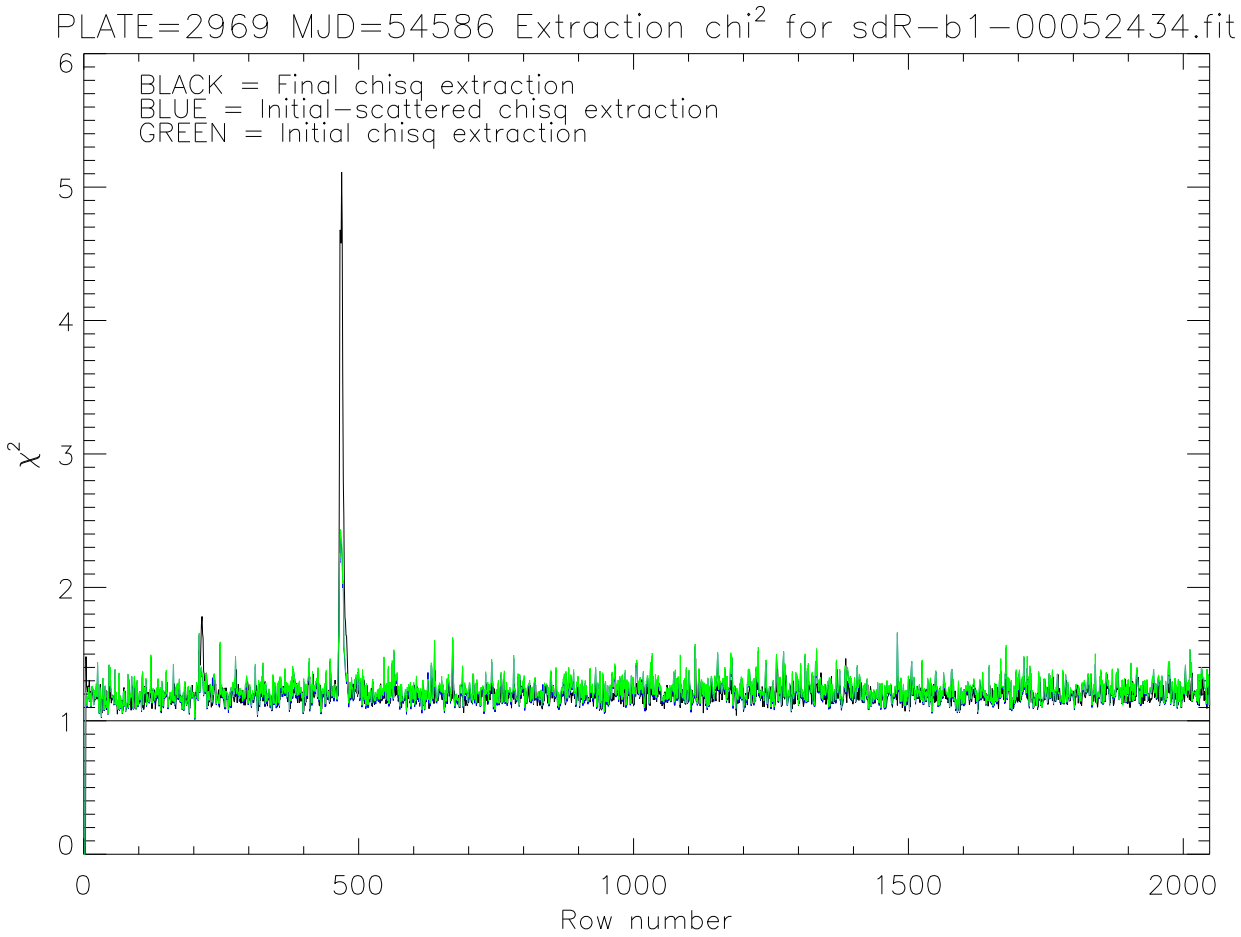

PLATE=2969 MJD=54586 Fiber−Flats for sdR−b1−00052430.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.167
Max value = 1.250
Fiber−Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Wed Apr 30 16:49:50 2008

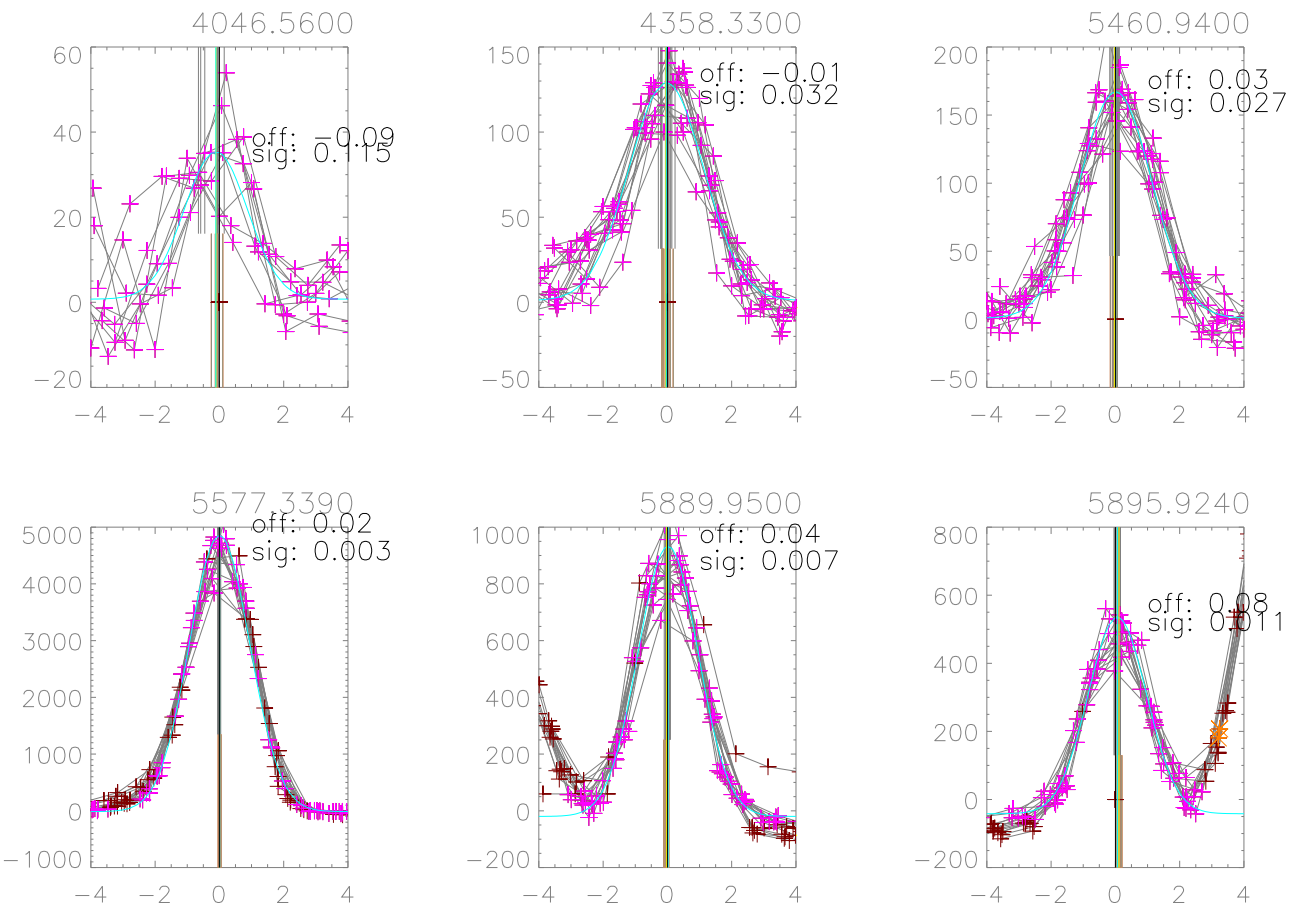

PLATE=2969 MJD=54586 Scattered Light before halo removal on sdR−b1−00052434.f
5.8
5.8
5.8
8.4
5.8
5.8
5.8
8.4
5.8
8.4
8.4
5.8
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]

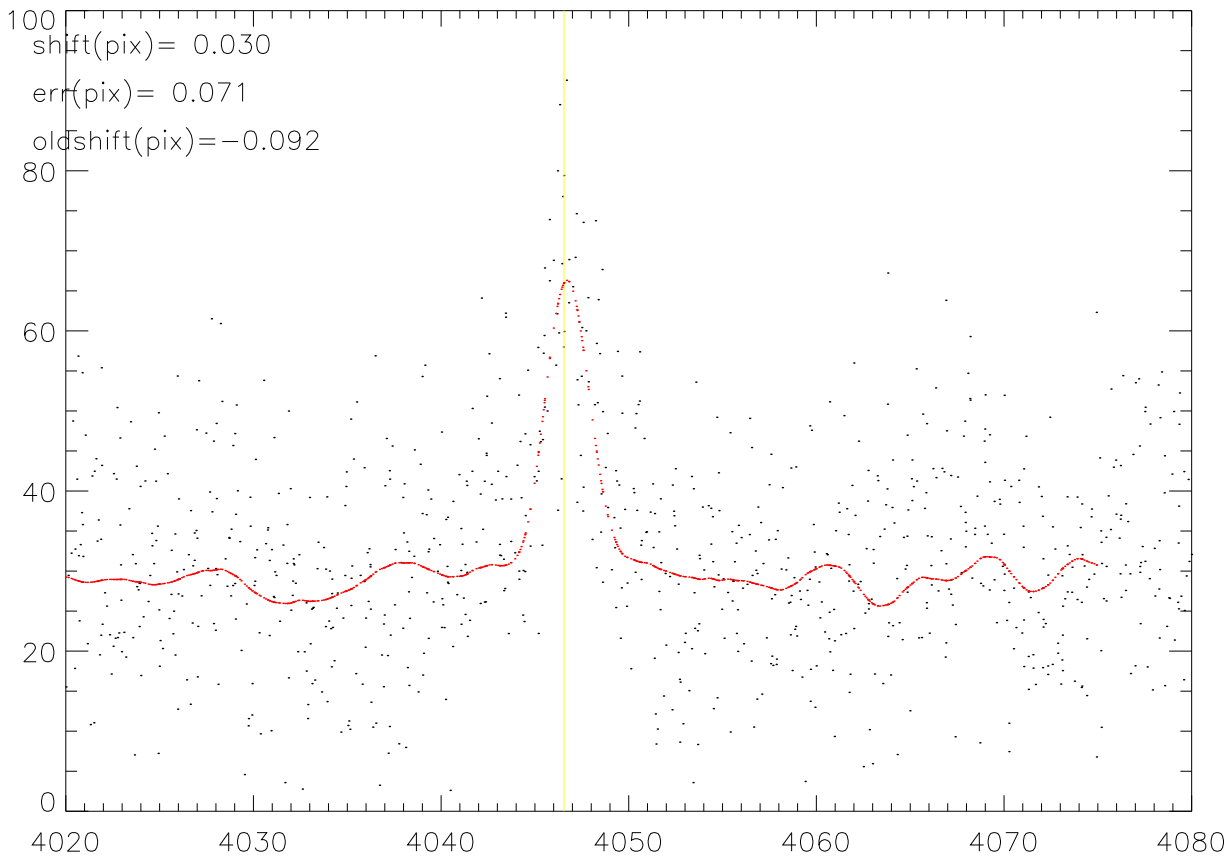

PLATE=2969 MJD=54586 Scattered Light before halo removal on sdR-b1-00052434.f
Brightness [electrons/pix]
20
15
10
5
0
Error bars denote full range
Min value = 5.385
Max value = 8.444
4000
4500
5000
5500
6000
λ [A]
Wed Apr 30 16:50:50 2008

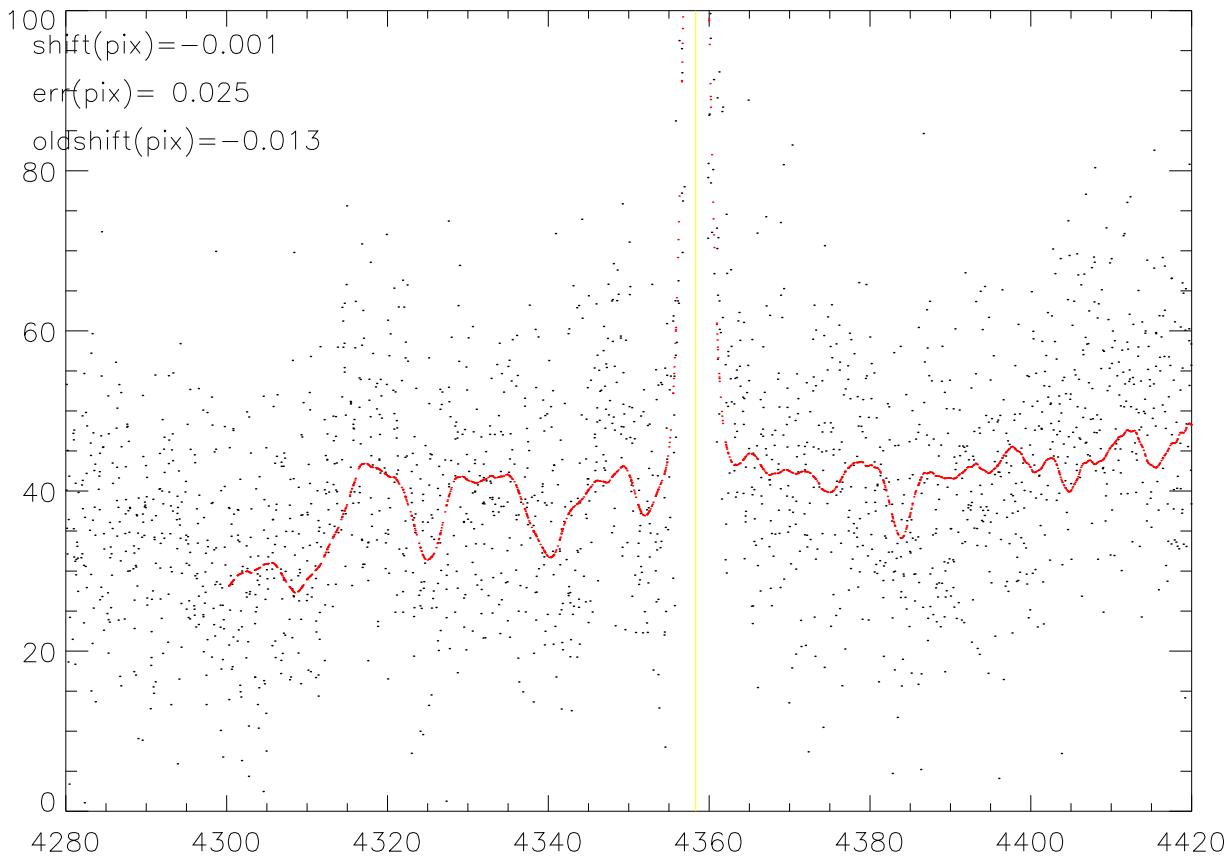

PLATE=2969 MJD=54586 Scattered Light on sdR-b1-00052434.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
4.4
6.5
4.7
4.7
4.7
4.7
0

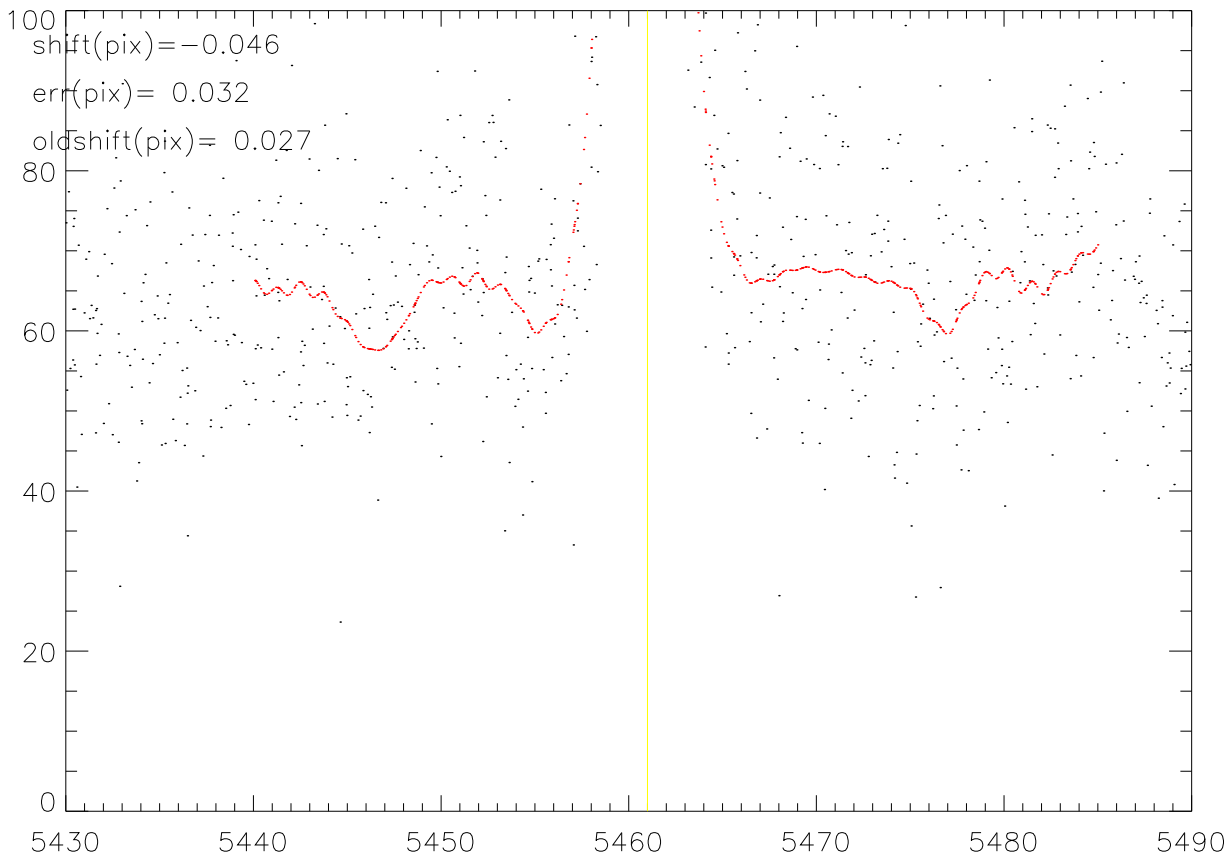

PLATE=2969 MJD=54586 Scattered Light on sdR-b1-00052434.fit
Brightness [electrons/pix]
12
10
8
6
4
2
0
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 3.735
Max value = 5.235
Wed Apr 30 16:53:53 2008

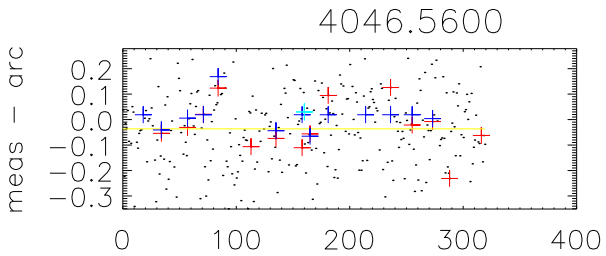

PLATE=2969 MJD=54586 Extraction chi^2 for sdR-b1-00052434.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
5
6
0
500
1000
1500
2000
Row number

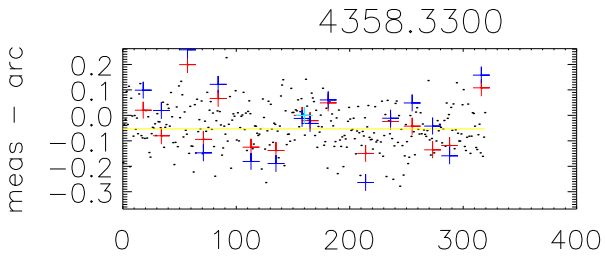

4046.5600
off: −0.09
sig: 0.115
4358.3300
off: −0.01
sig: 0.032
5460.9400
off: 0.03
sig: 0.027
5577.3390
off: 0.02
sig: 0.003
5889.9500
off: 0.04
sig: 0.007
5895.9240
off: 0.08
sig: 0.011

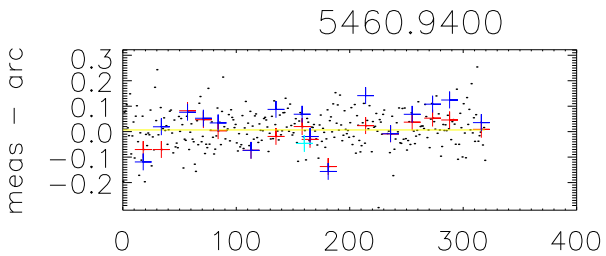

shift(pix)= 0.030
err(pix)= 0.071
oldshift(pix)=−0.092
100
80
60
40
20
0
4020
4030
4040
4050
4060
4070
4080

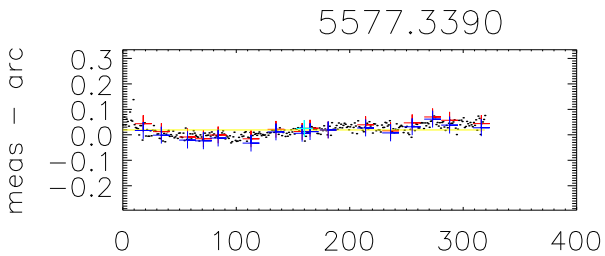

shift(pix)=−0.001
err(pix)= 0.025
oldshift(pix)=−0.013
100
80
60
40
20
0
4280
4300
4320
4340
4360
4380
4400
4420

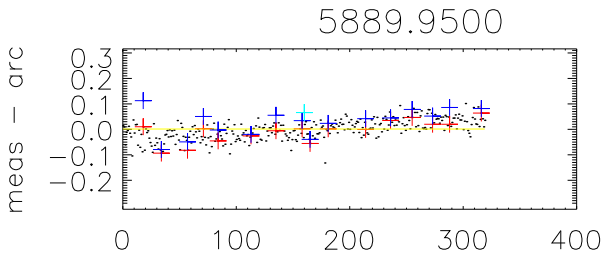

shift(pix)=−0.046
err(pix)= 0.032
oldshift(pix)= 0.027
100
80
60
40
20
0
5430
5440
5450
5460
5470
5480
5490

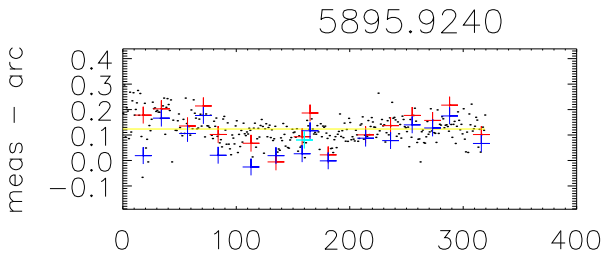

4046.5600
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

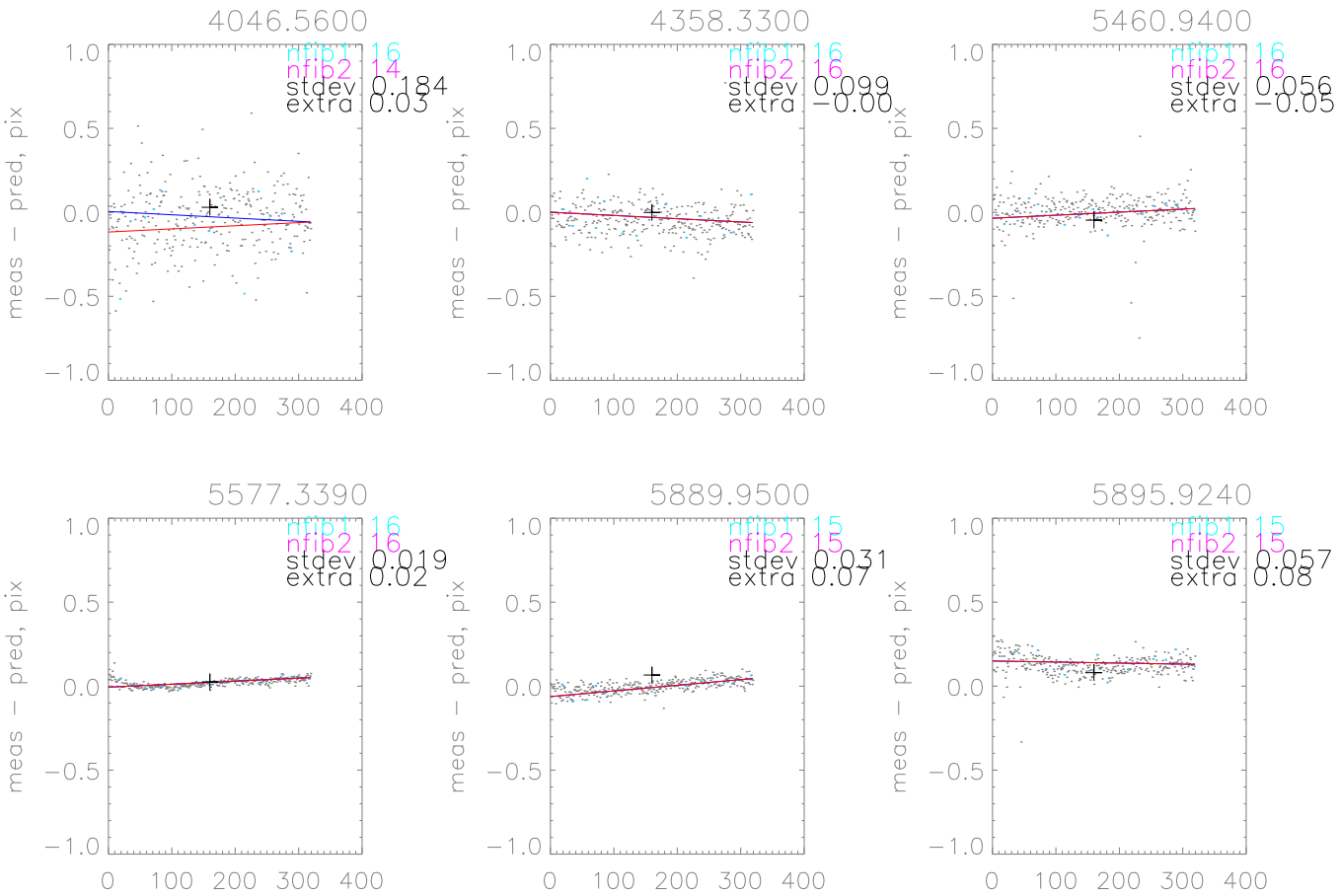

4358.3300
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

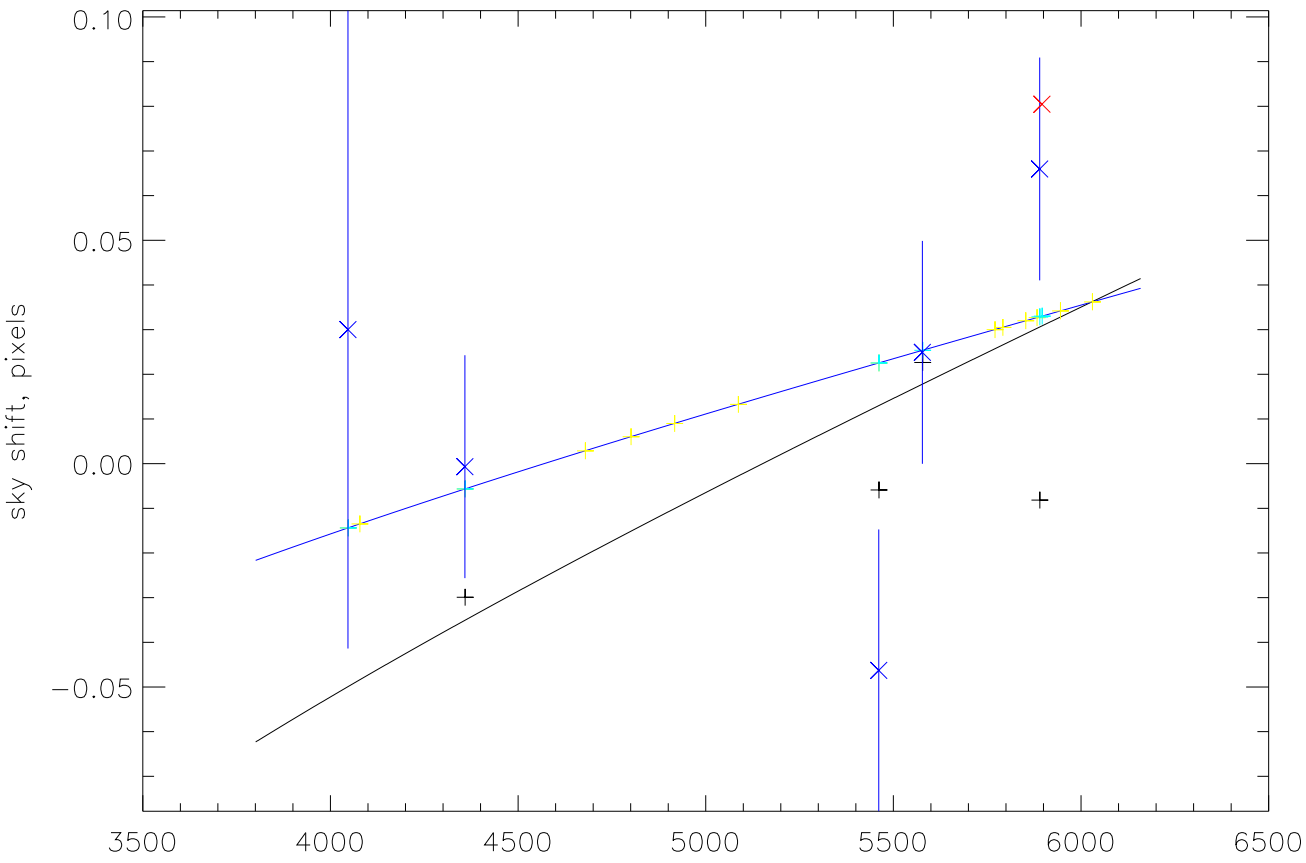

5460.9400
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400


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

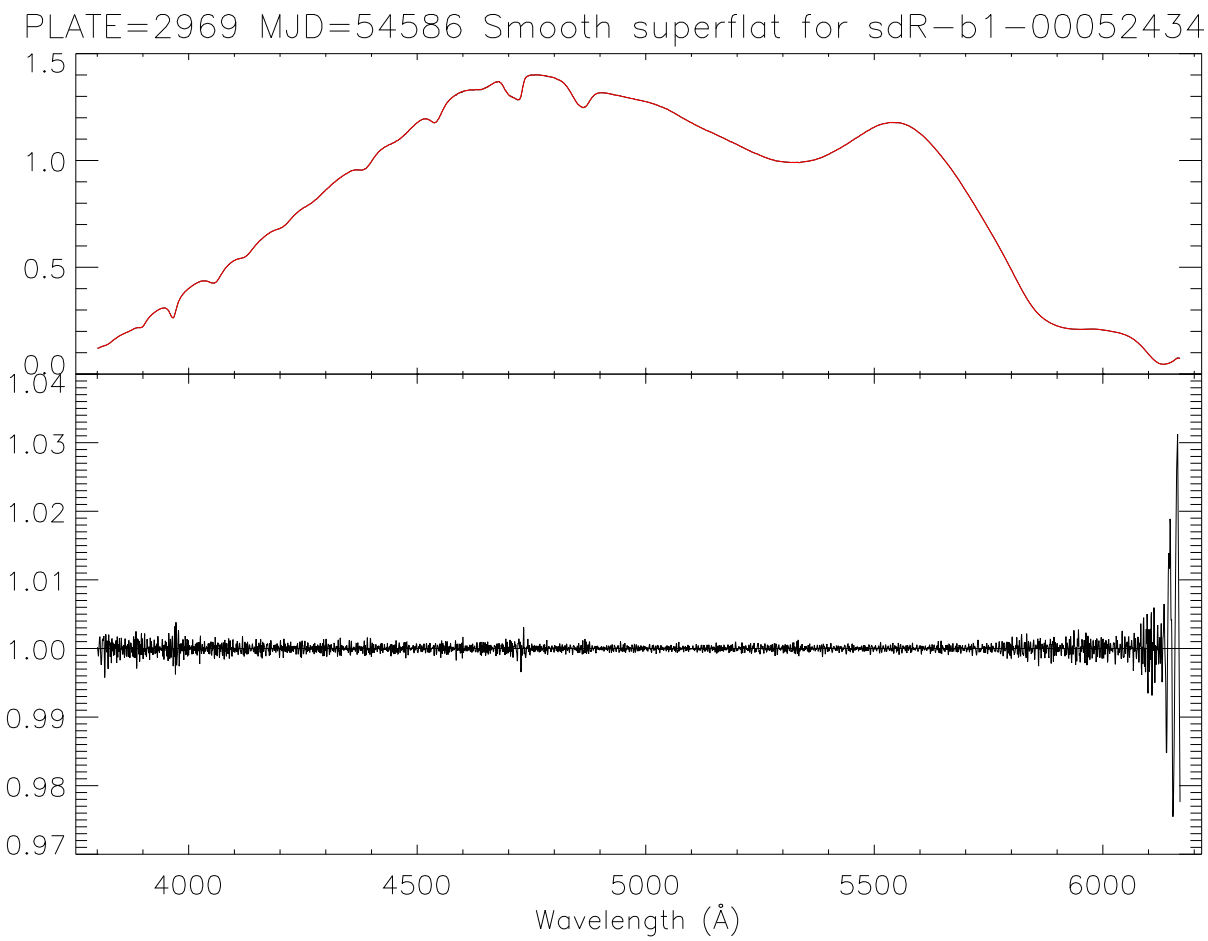

5889.9500
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

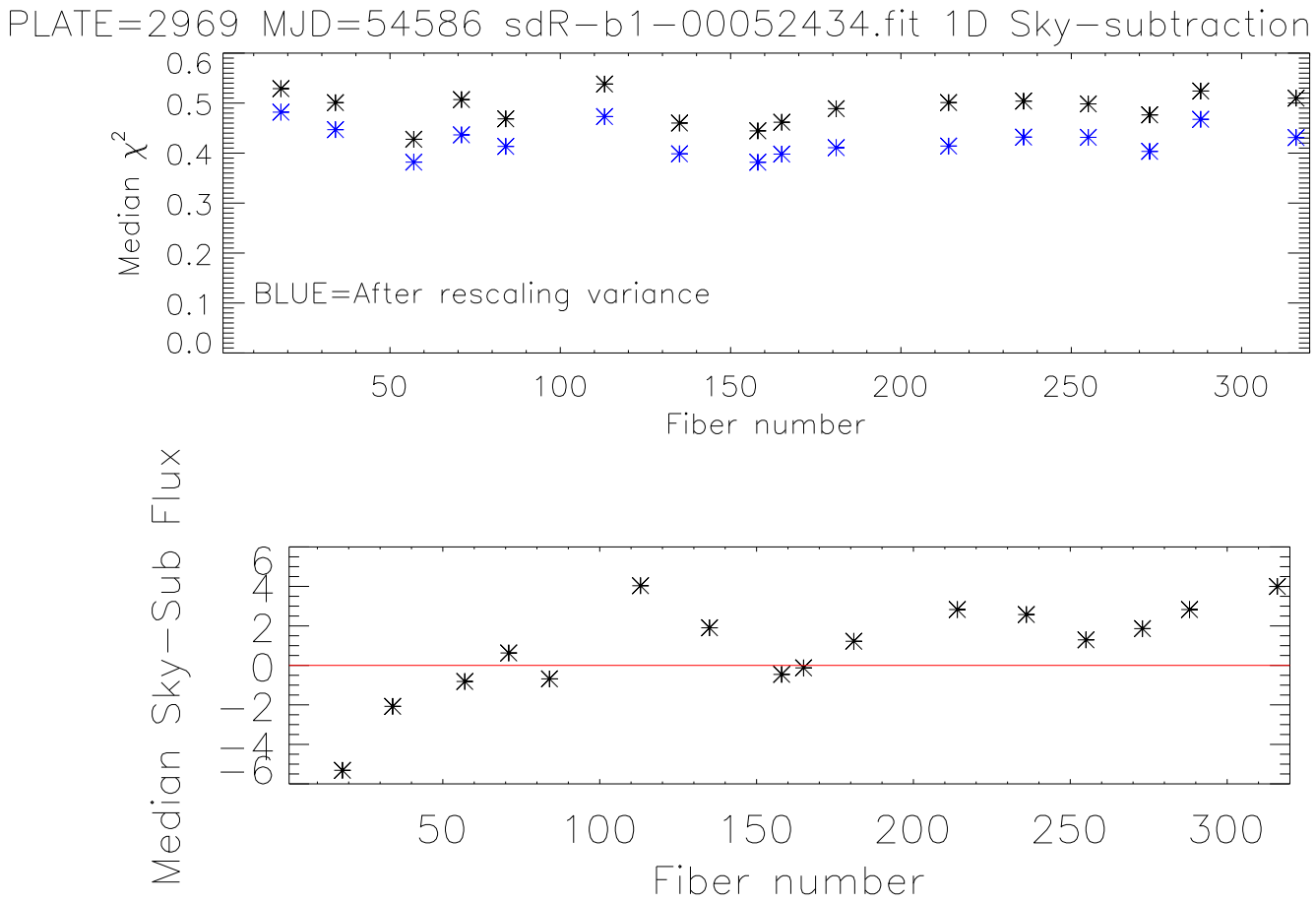

5895.9240
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

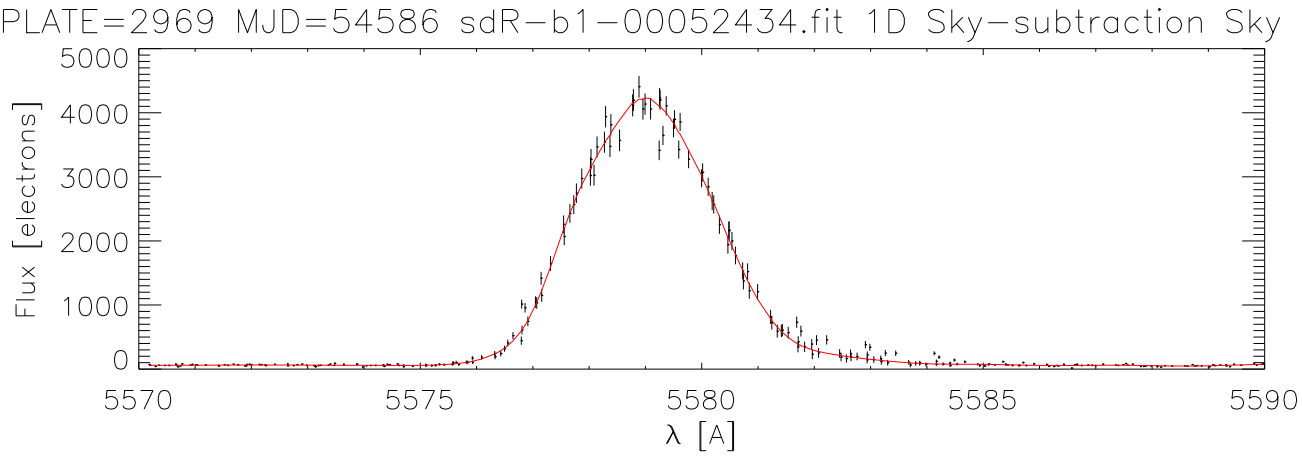

4046.5600
nfib1 16
nfib2 14
stdev 0.184
extra 0.03
4358.3300
nfib1 16
nfib2 16
stdev 0.099
extra −0.00
5460.9400
nfib1 16
nfib2 16
stdev 0.056
extra −0.05
5577.3390
nfib1 16
nfib2 16
stdev 0.019
extra 0.02
5889.9500
nfib1 15
nfib2 15
stdev 0.031
extra 0.07
5895.9240
nfib1 15
nfib2 15
stdev 0.057
extra 0.08
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

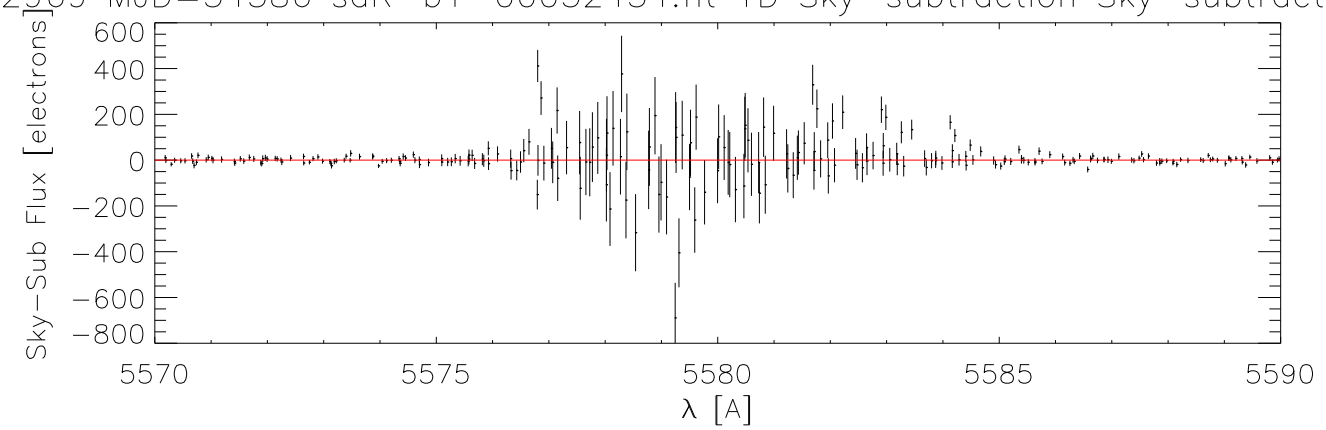

0.10
0.05
0.00
−0.05
sky shift, pixels
3500
4000
4500
5000
5500
6000
6500

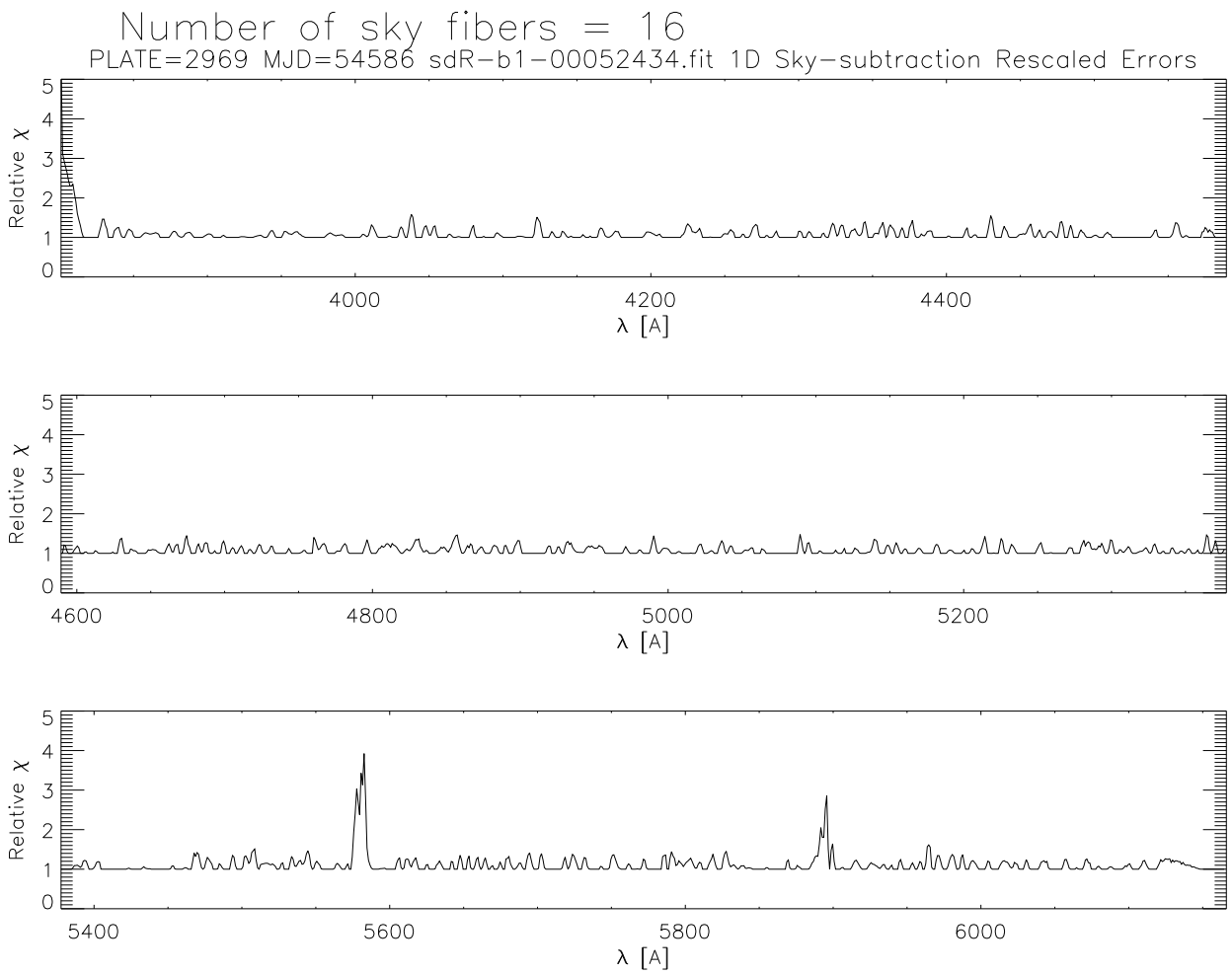
es= 0.0000

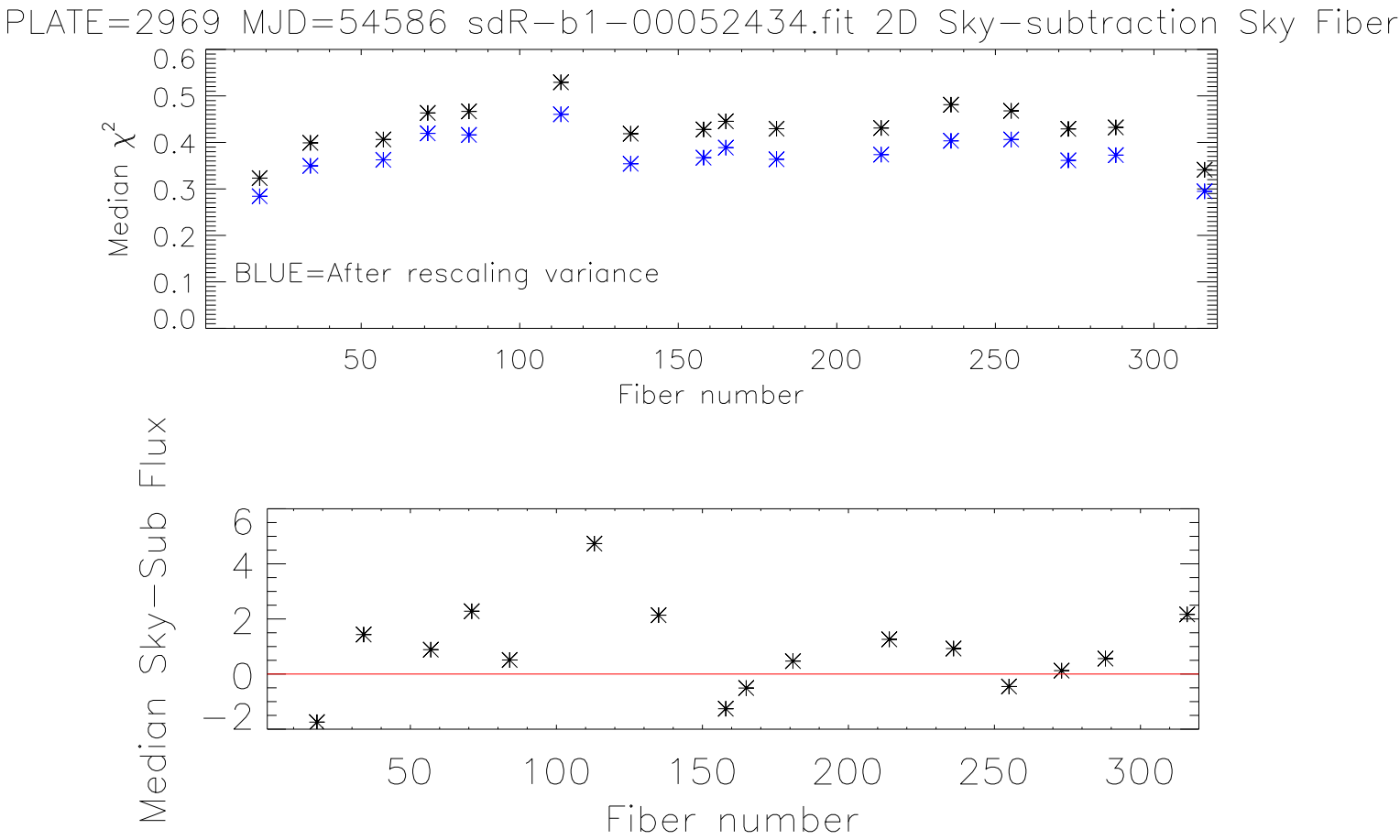

PLATE=2969 MJD=54586 Smooth superflat for sdR-b1-00052434.fit
1.5
1.0
0.5
0.0
1.04
1.03
1.02
1.01
1.00
0.99
0.98
0.97
4000
4500
5000
5500
6000
Wavelength (Å)

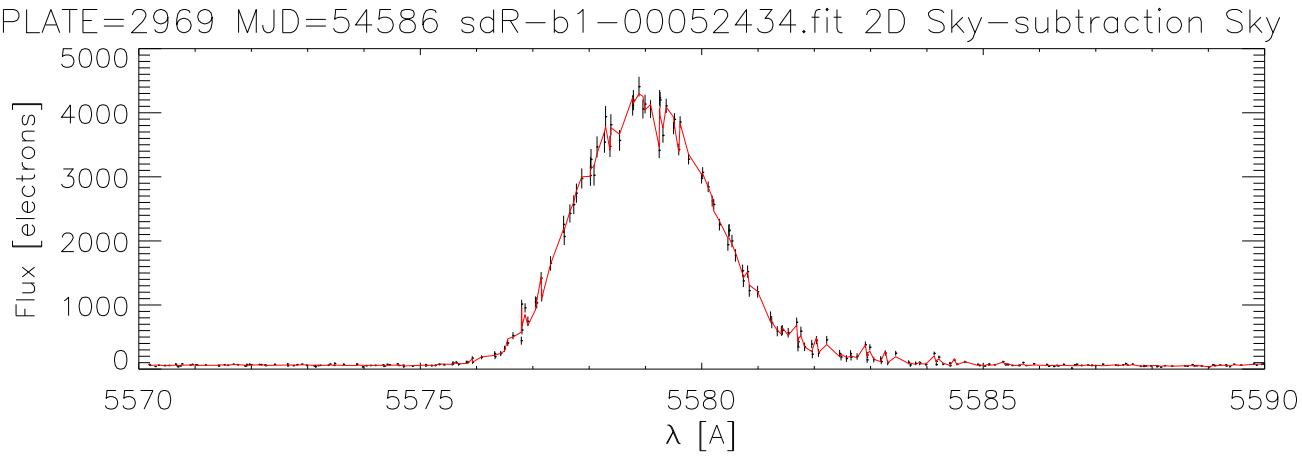

PLATE=2969 MJD=54586 sdR-b1-00052434.fit 1D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

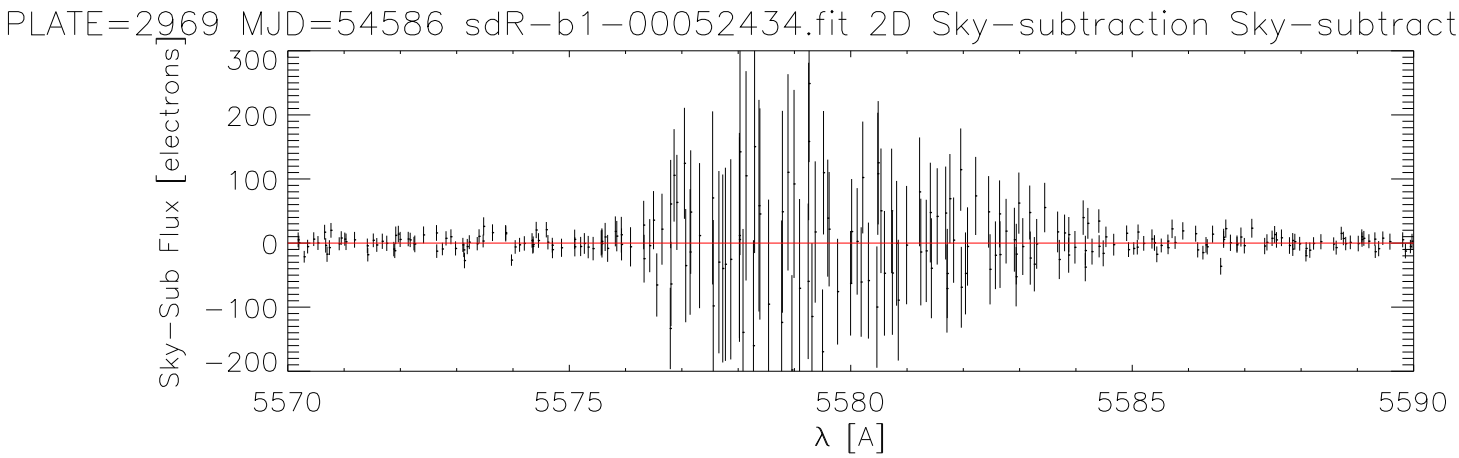

PLATE=2969 MJD=54586 sdR-b1-00052434.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

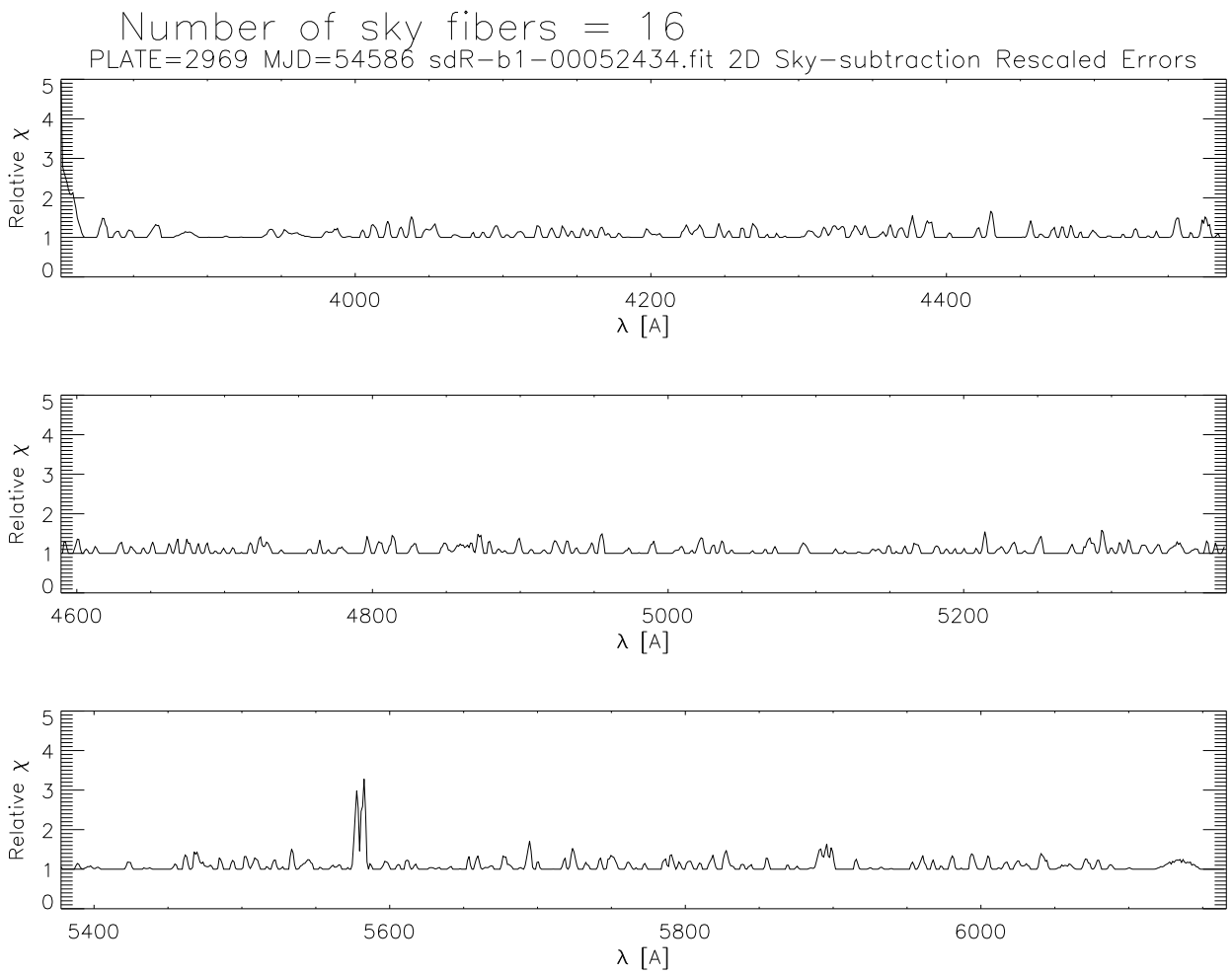

PLATE=2969 MJD=54586 sdR-b1-00052434.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
-200
-400
-600
-800
5570
5575
5580
5585
5590
λ [A]

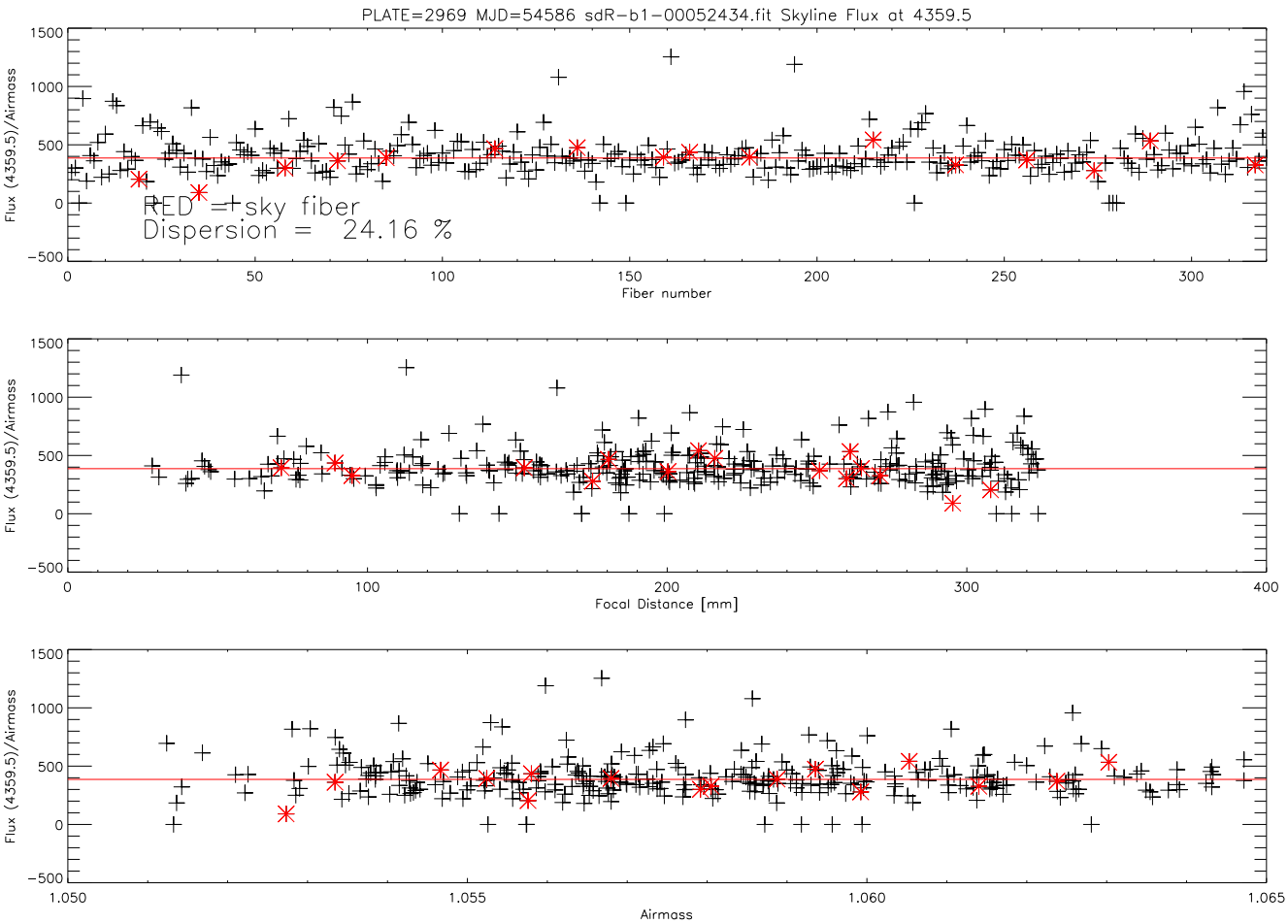

Number of sky fibers = 16
PLATE=2969 MJD=54586 sdR-b1-00052434.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

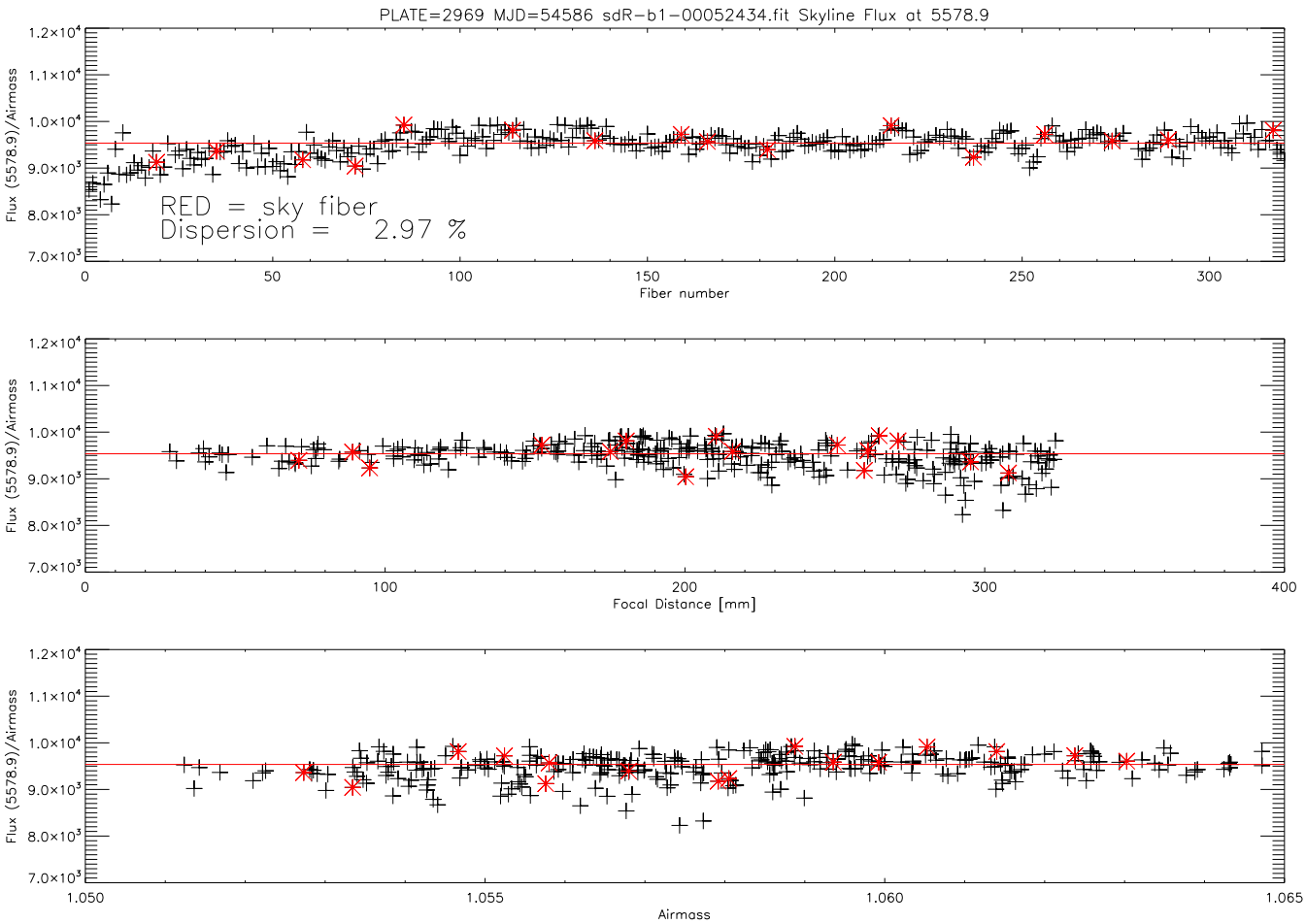

PLATE=2969 MJD=54586 sdR-b1-00052434.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

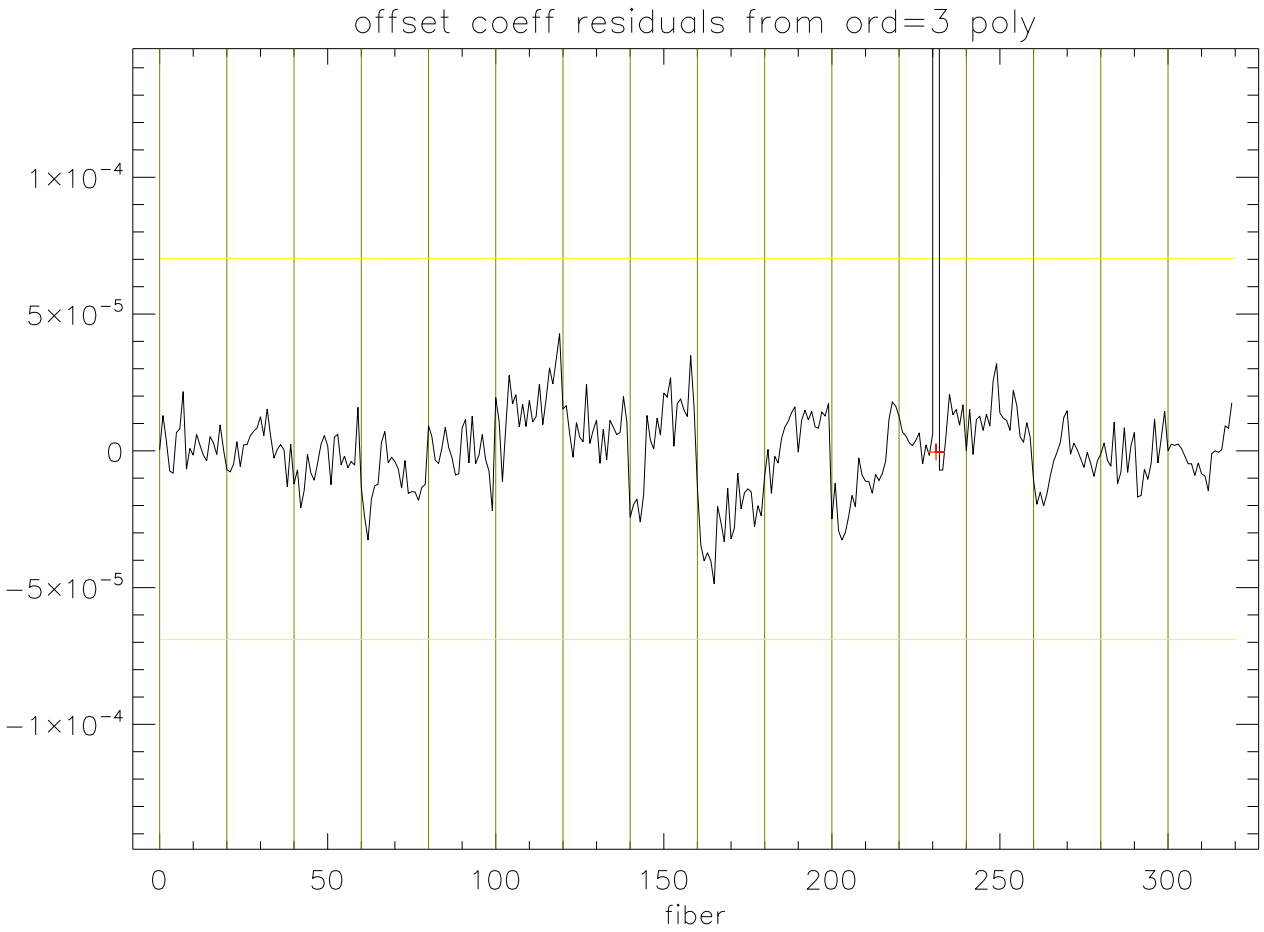

PLATE=2969 MJD=54586 sdR-b1-00052434.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

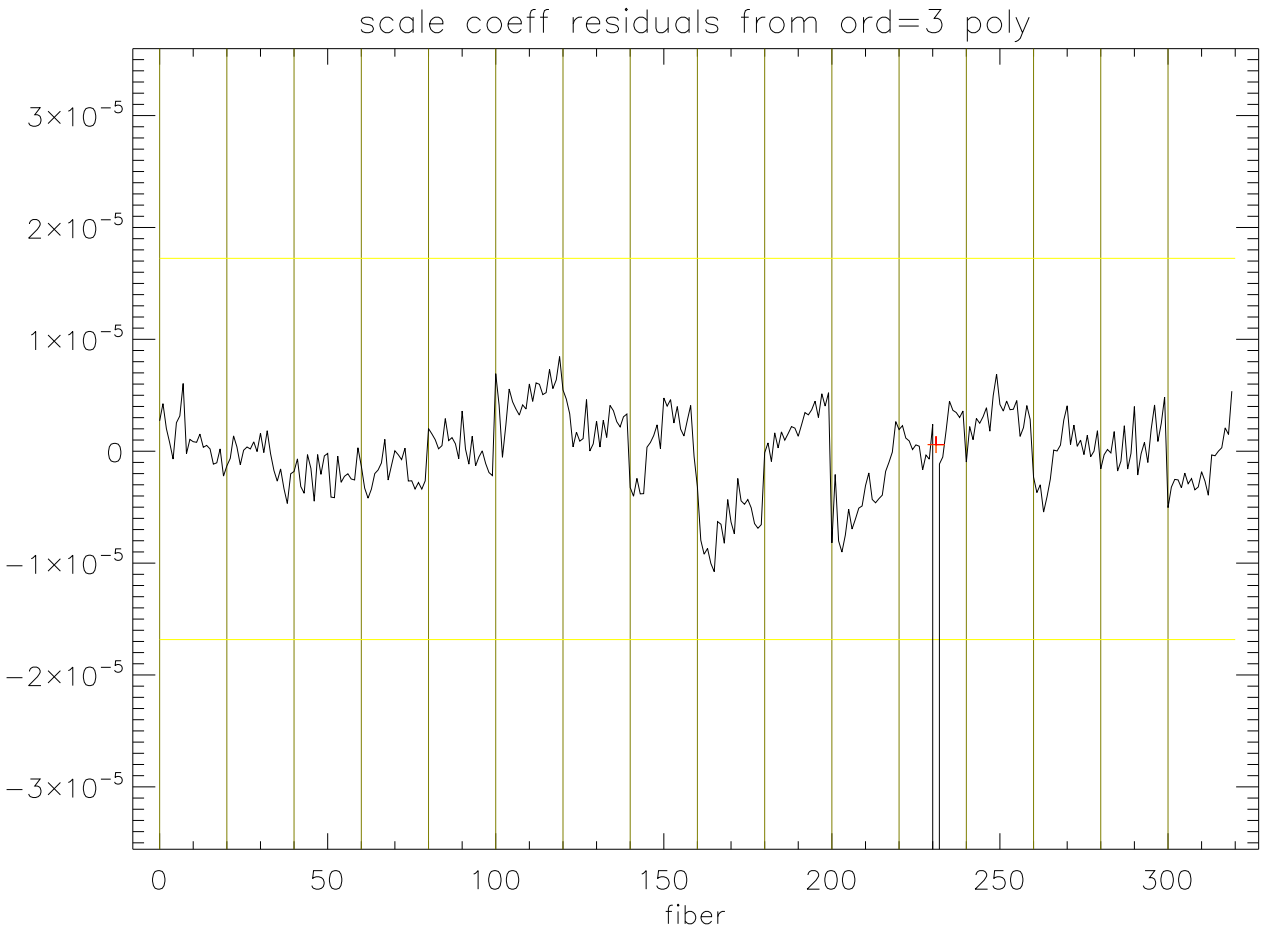

PLATE=2969 MJD=54586 sdR-b1-00052434.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
5570
5575
5580
5585
5590
λ [A]

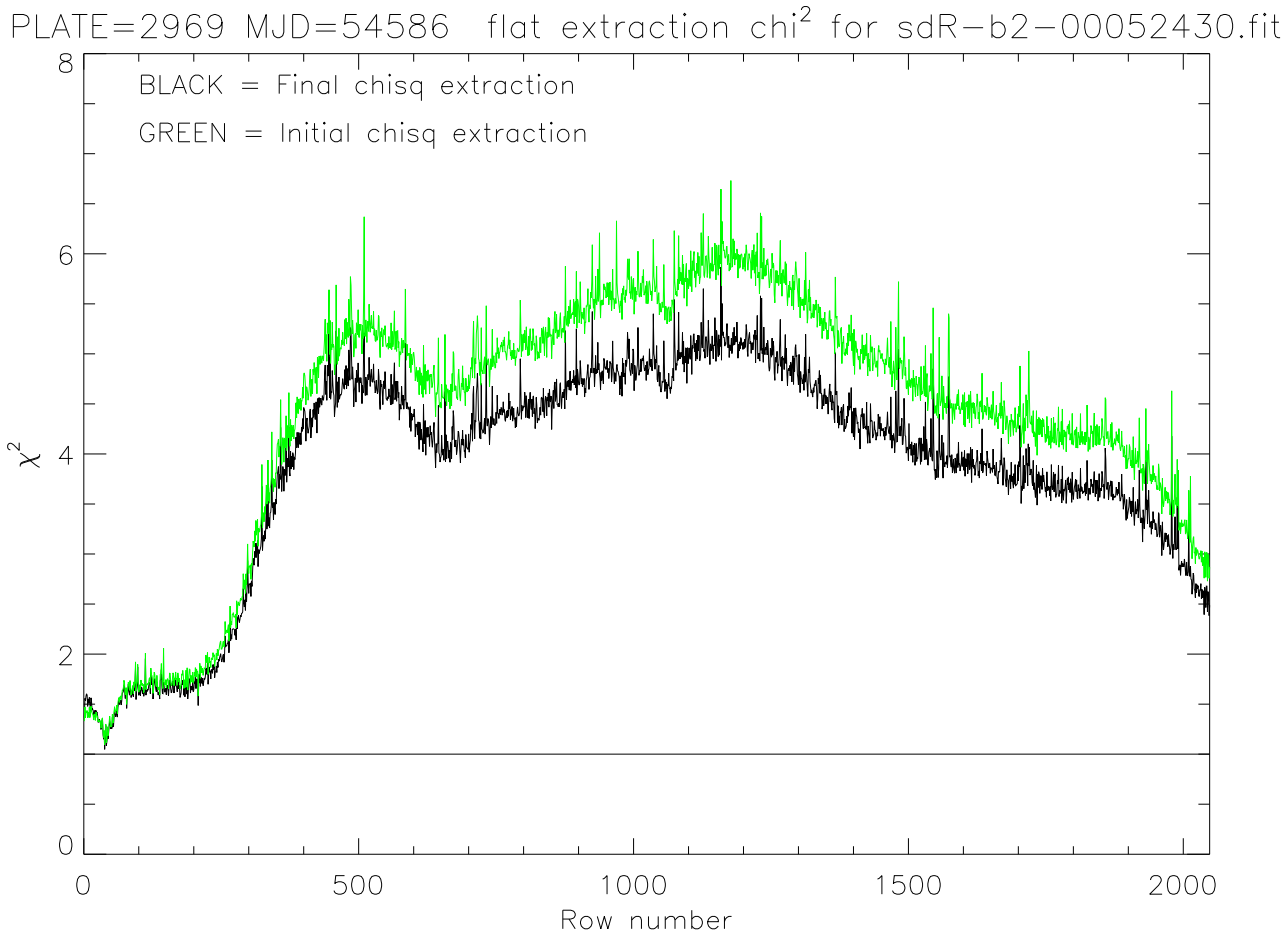

Number of sky fibers = 16
PLATE=2969 MJD=54586 sdR-b1-00052434.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

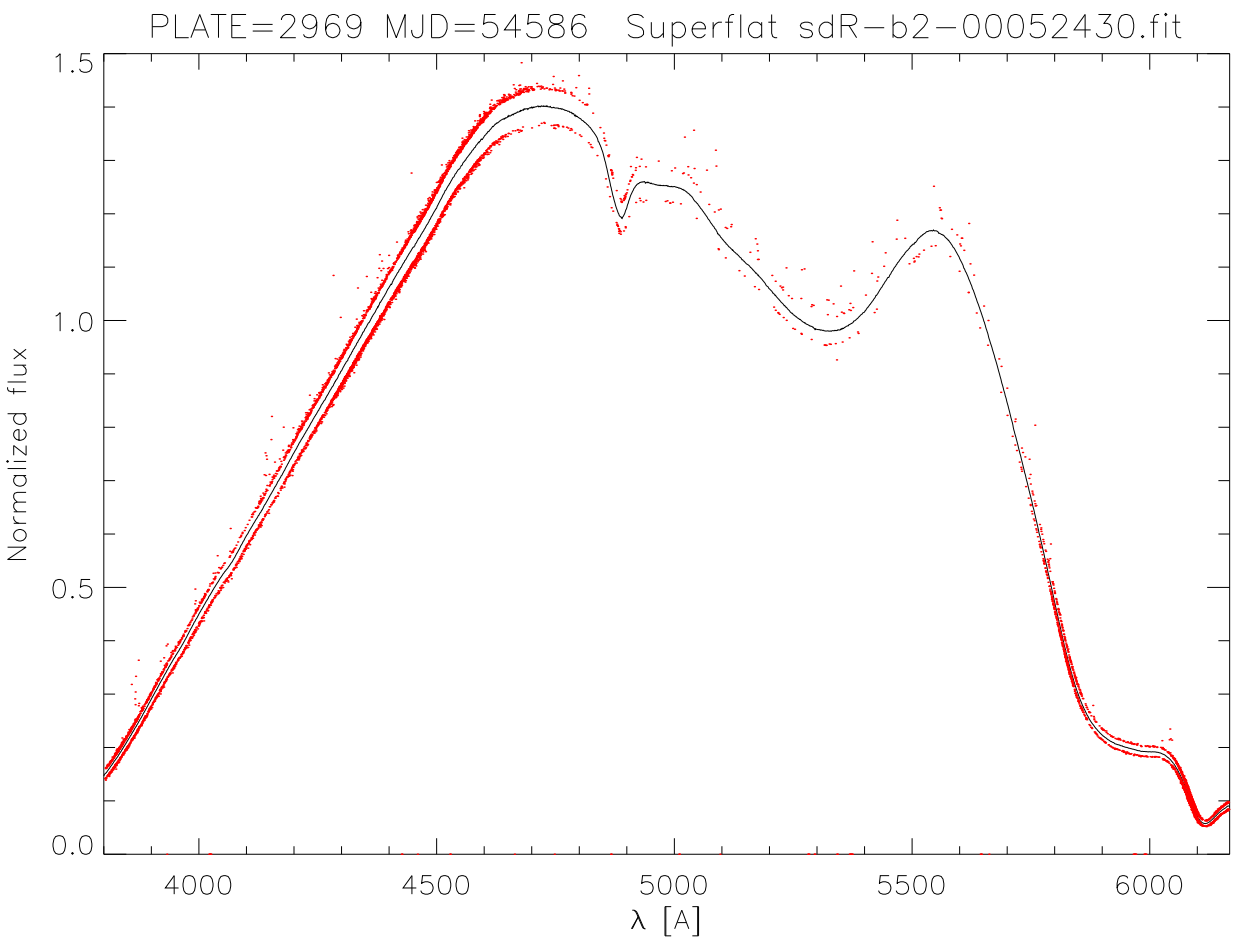

PLATE=2969 MJD=54586 sdR-b1-00052434.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
Fiber number
RED = sky fiber
Dispersion = 24.16 %
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

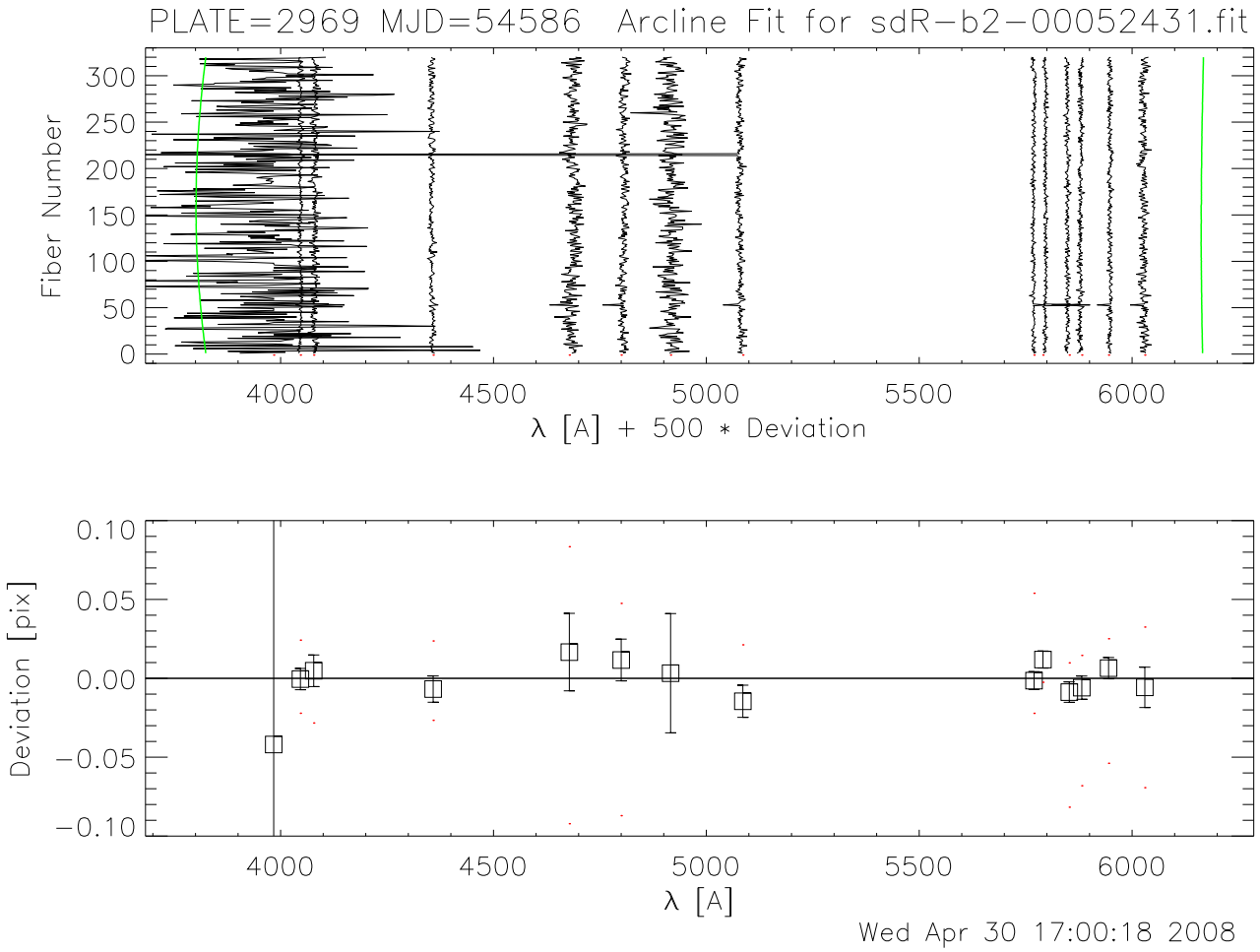

PLATE=2969 MJD=54586 sdR-b1-00052434.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 2.97 %
Fiber number
Focal Distance [mm]
Airmass

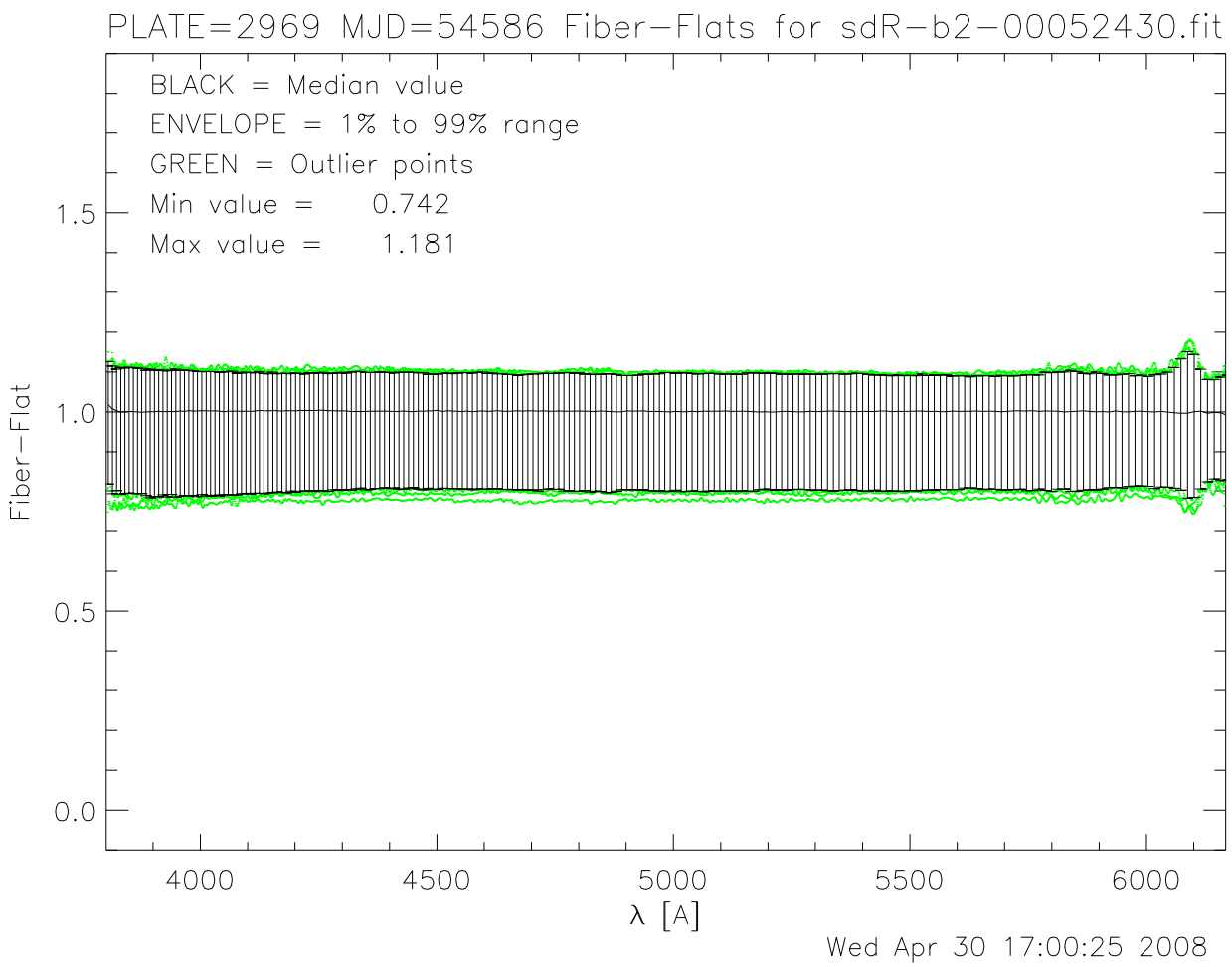

offset coeff residuals from ord=3 poly
1×10⁻⁴
5×10⁻⁵
0
−5×10⁻⁵
−1×10⁻⁴
0
50
100
150
200
250
300
fiber

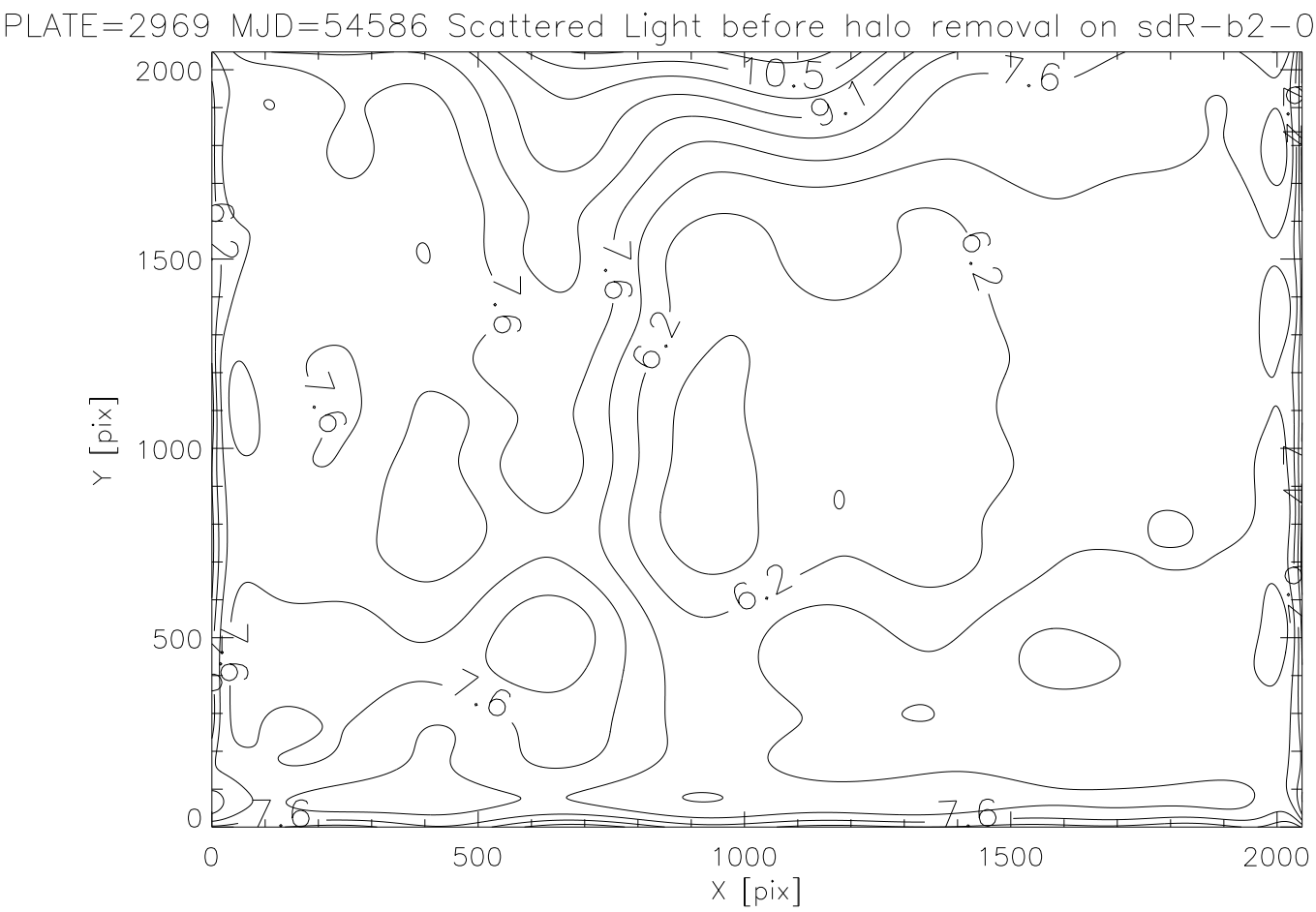

scale coeff residuals from ord=3 poly
3×10⁻⁵
2×10⁻⁵
1×10⁻⁵
0
−1×10⁻⁵
−2×10⁻⁵
−3×10⁻⁵
0
50
100
150
200
250
300
fiber

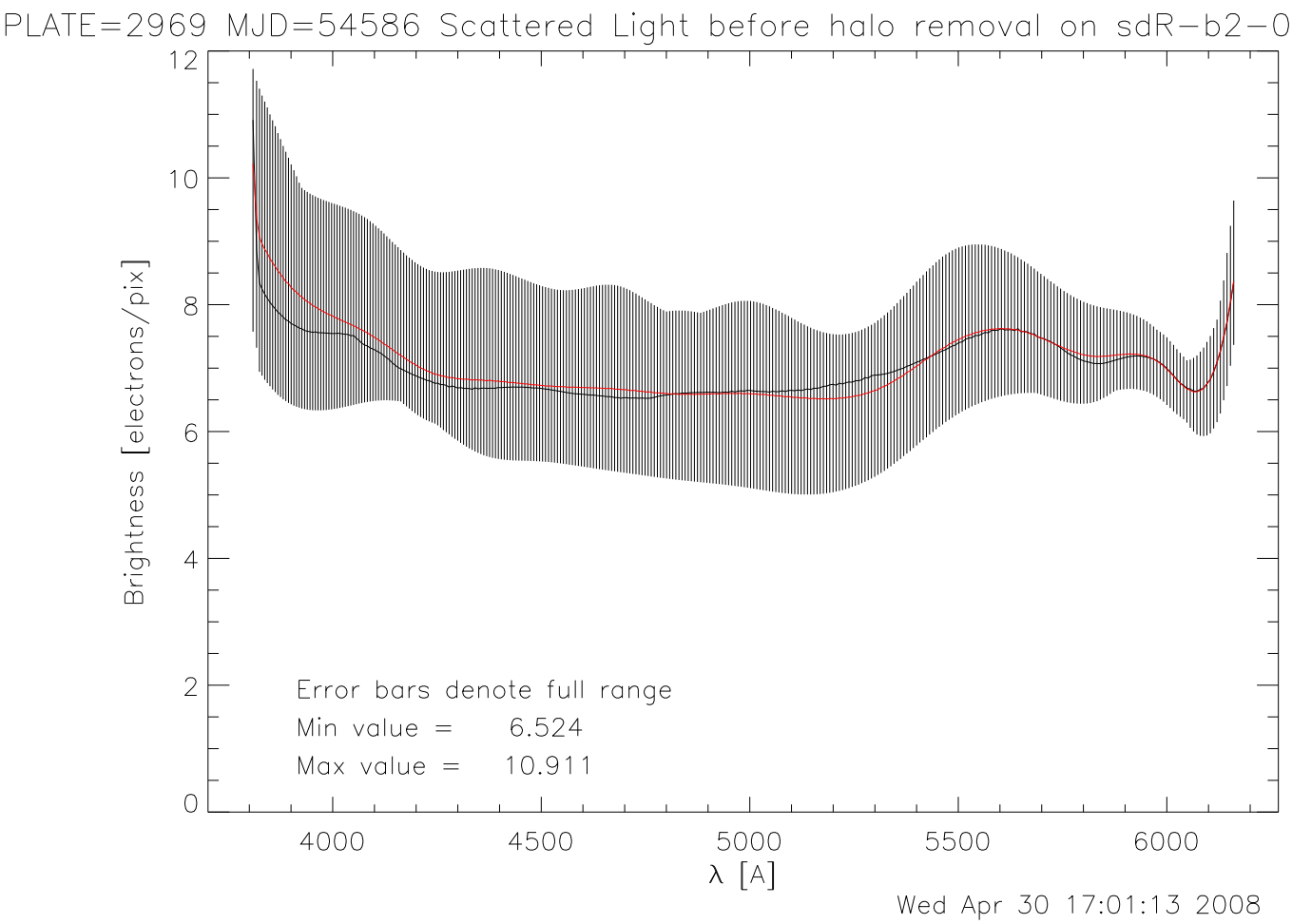

PLATE=2969 MJD=54586 flat extraction chi^2 for sdR−b2−00052430.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
0
500
1000
1500
2000
Row number

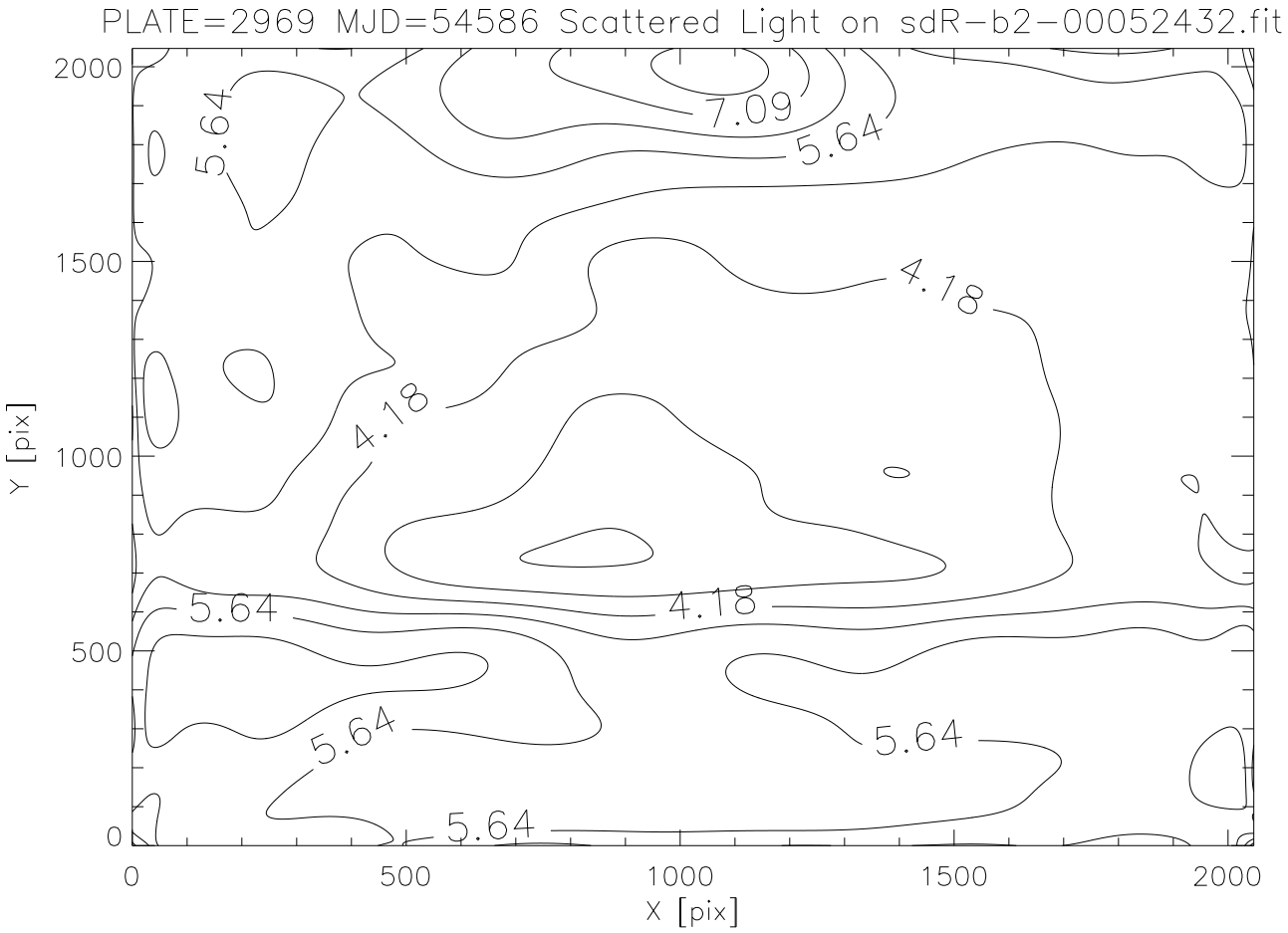

PLATE=2969 MJD=54586 Superflat sdR-b2-00052430.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

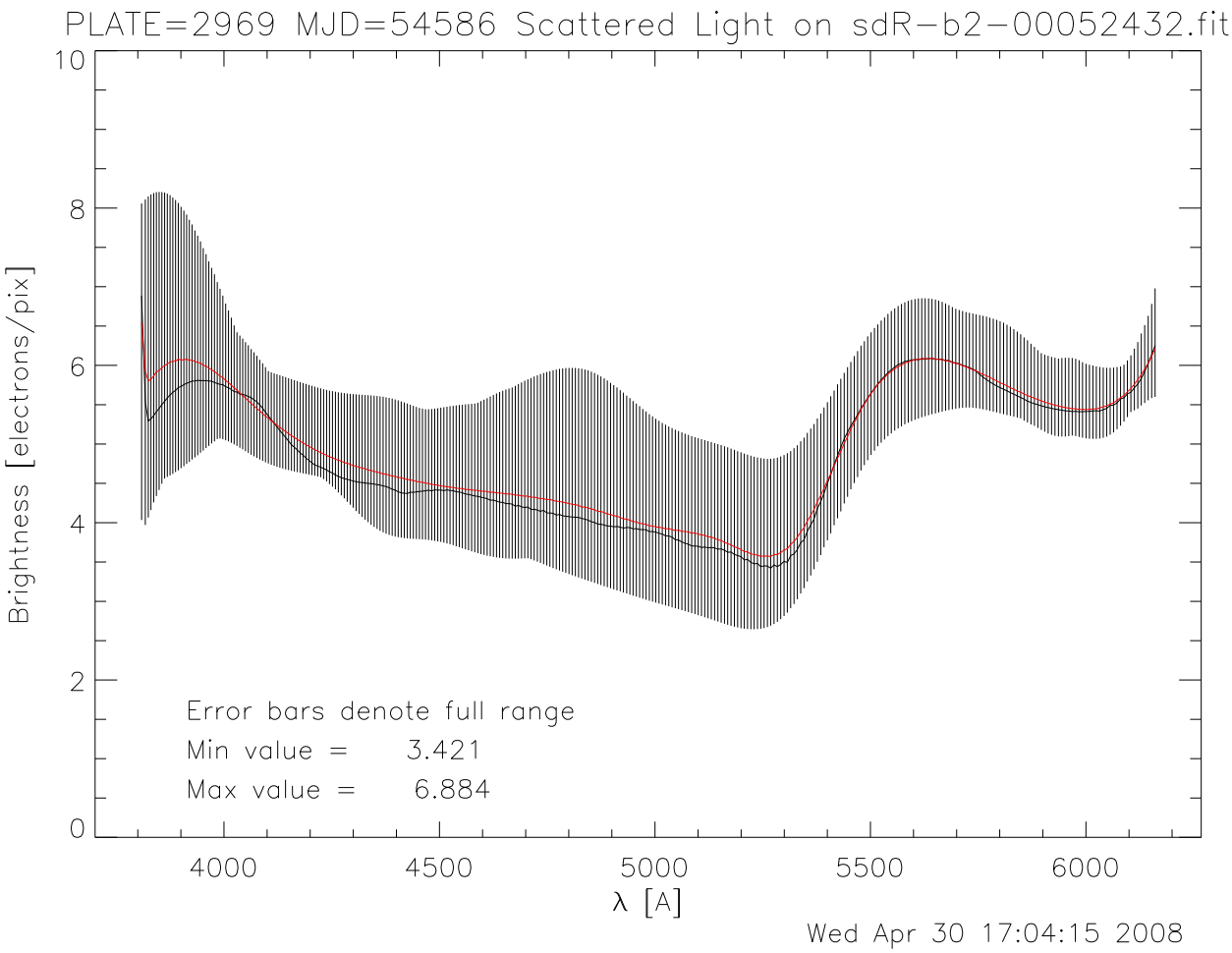

PLATE=2969 MJD=54586 Arcline Fit for sdR-b2-00052431.fit
Fiber Number
300
250
200
150
100
50
0
4000
4500
5000
5500
6000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
4000
4500
5000
5500
6000
λ [A]
Wed Apr 30 17:00:18 2008

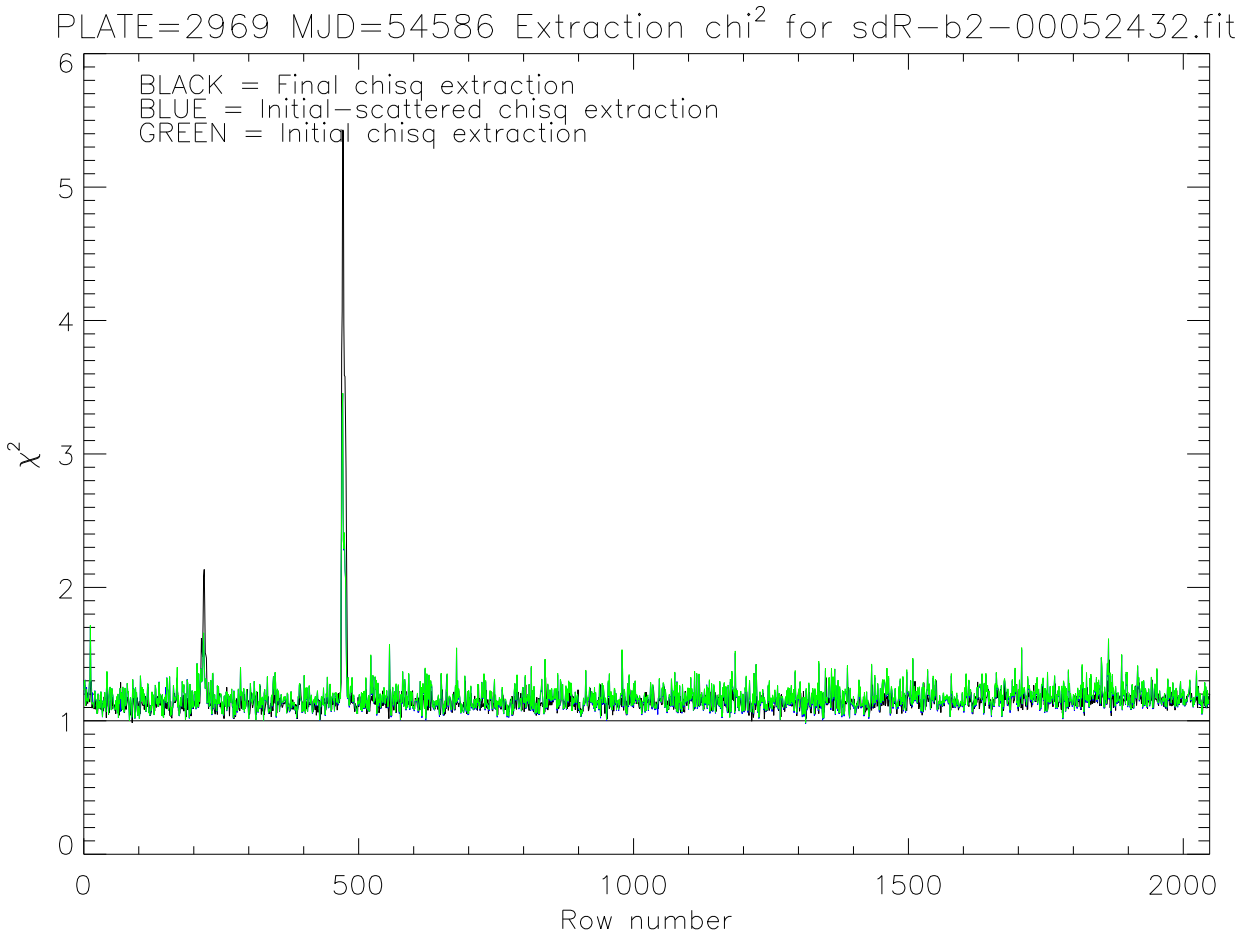

PLATE=2969 MJD=54586 Fiber-Flats for sdR-b2-00052430.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.742
Max value = 1.181
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Wed Apr 30 17:00:25 2008

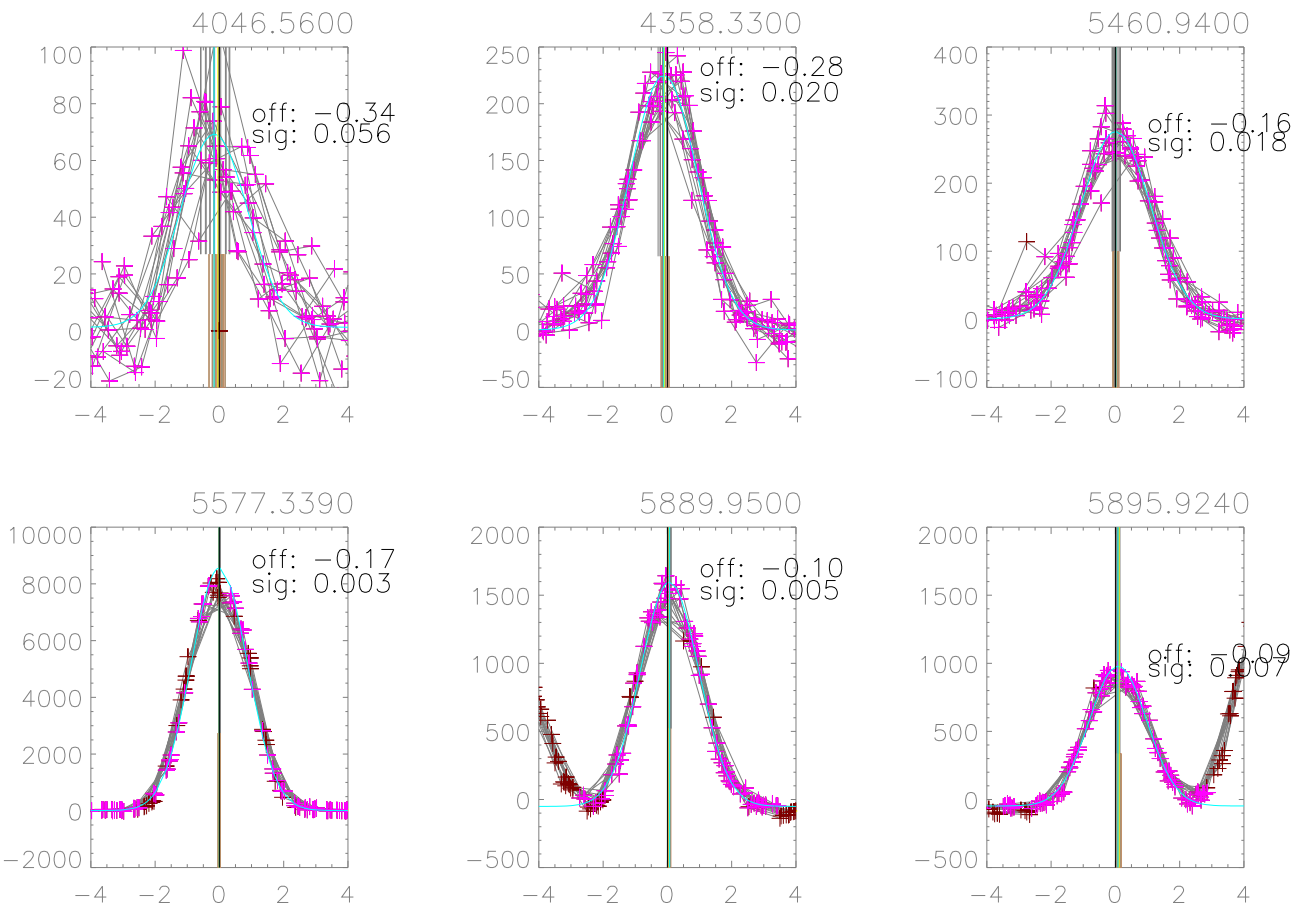

PLATE=2969 MJD=54586 Scattered Light before halo removal on sdR−b2−00052432.f
10.5
9.1
7.6
6.2
0
Y [pix]
X [pix]
0
500
1000
1500
2000

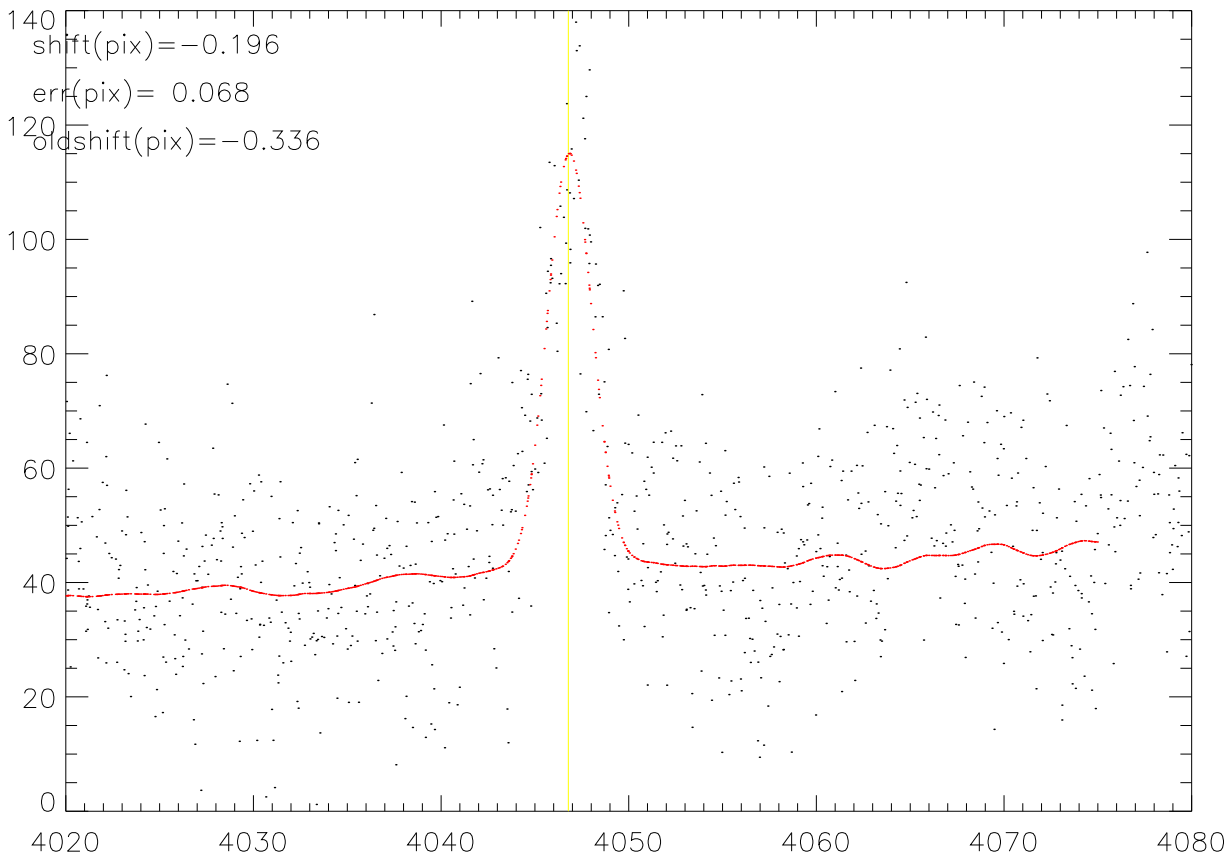

PLATE=2969 MJD=54586 Scattered Light before halo removal on sdR-b2-00052432.f
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 6.524
Max value = 10.911
Wed Apr 30 17:01:13 2008

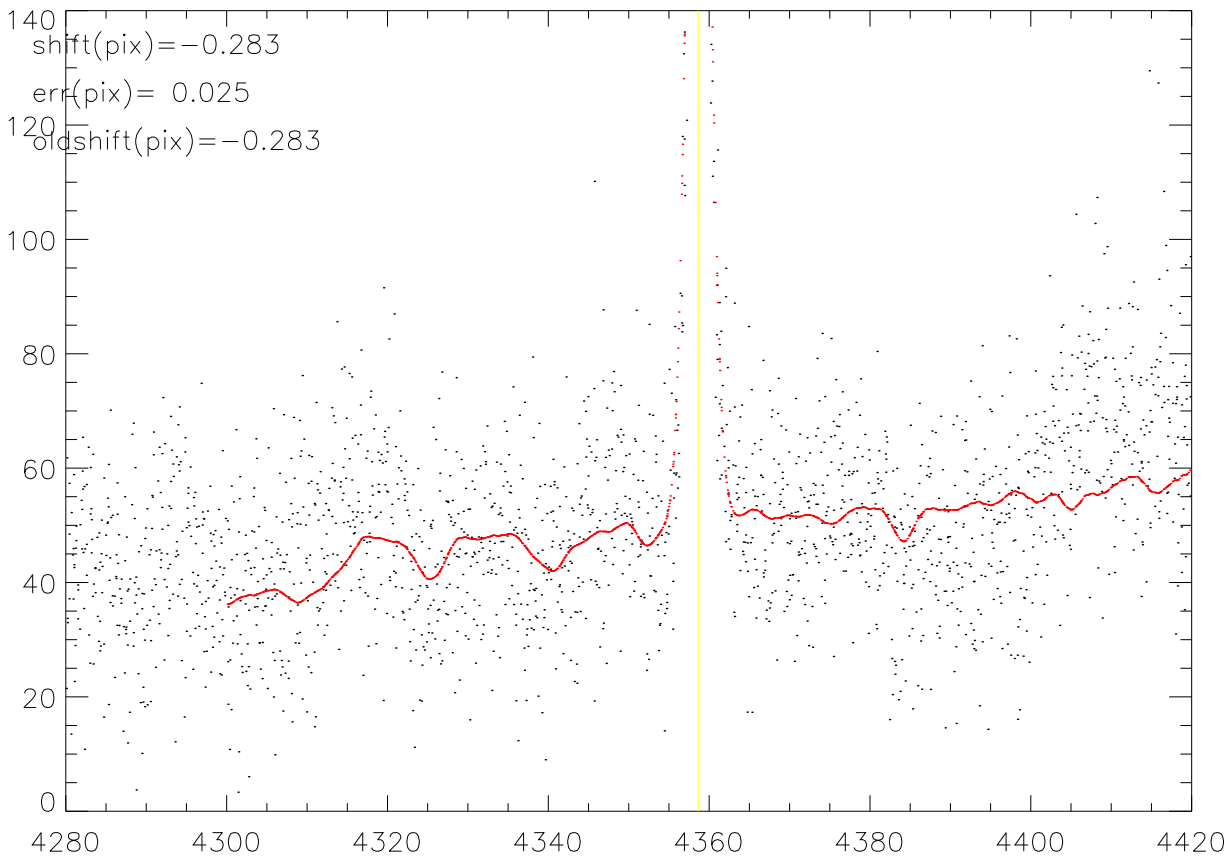

PLATE=2969 MJD=54586 Scattered Light on sdR-b2-00052432.fit
7.09
5.64
4.18
0
Y [pix]
X [pix]
0
500
1000
1500
2000

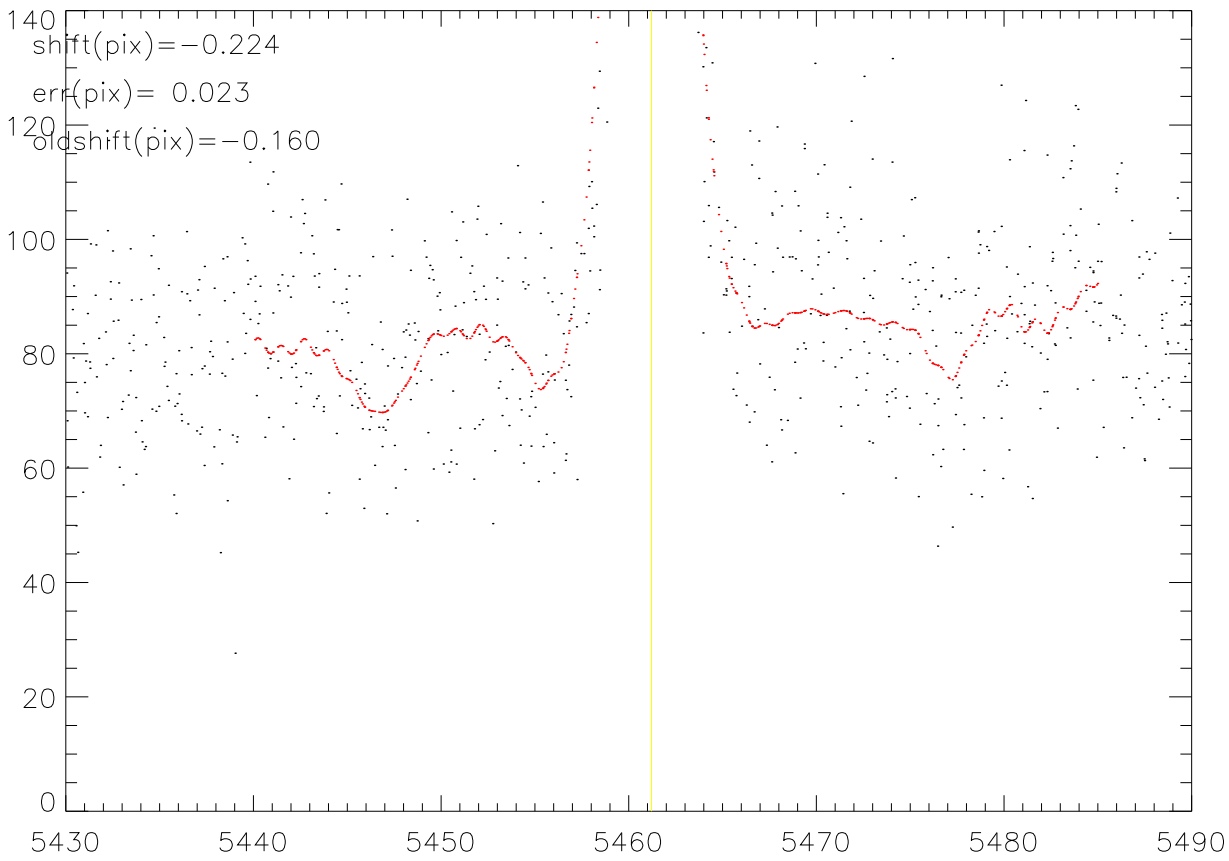

PLATE=2969 MJD=54586 Scattered Light on sdR-b2-00052432.fit
Brightness [electrons/pix]
10
8
6
4
2
0
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 3.421
Max value = 6.884
Wed Apr 30 17:04:15 2008

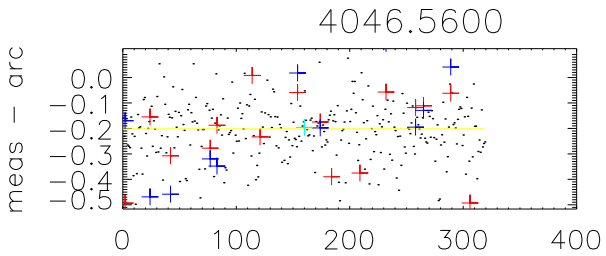

PLATE=2969 MJD=54586 Extraction chi^2 for sdR-b2-00052432.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
5
6
0
500
1000
1500
2000
Row number

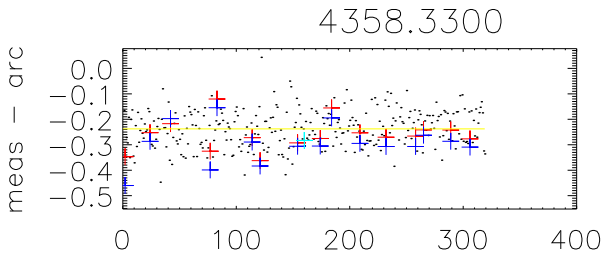

4046.5600
off: −0.34
sig: 0.056
4358.3300
off: −0.28
sig: 0.020
5460.9400
off: −0.16
sig: 0.018
5577.3390
off: −0.17
sig: 0.003
5889.9500
off: −0.10
sig: 0.005
5895.9240
off: −0.09
sig: 0.007

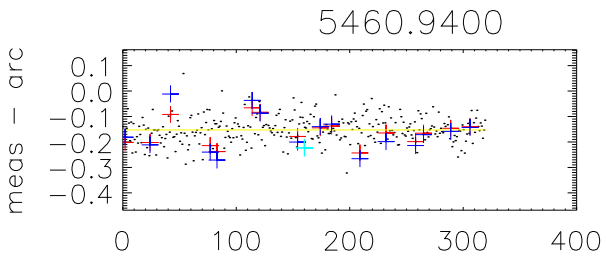

shift(pix)=−0.196
err(pix)= 0.068
oldshift(pix)=−0.336
140
120
100
80
60
40
20
0
4020
4030
4040
4050
4060
4070
4080

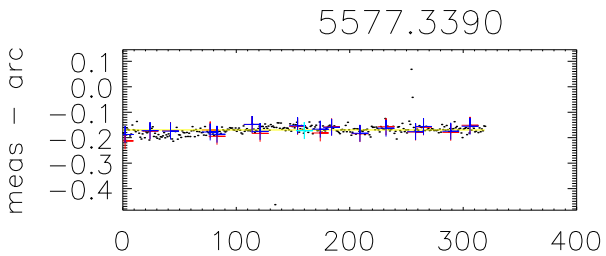

shift(pix)=−0.283
err(pix)= 0.025
oldshift(pix)=−0.283
140
120
100
80
60
40
20
0
4280
4300
4320
4340
4360
4380
4400
4420

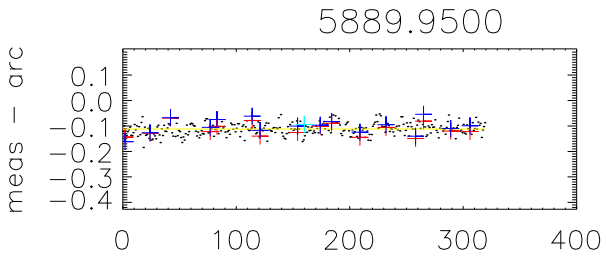

shift(pix)=−0.224
err(pix)= 0.023
oldshift(pix)=−0.160
140
120
100
80
60
40
20
0
5430
5440
5450
5460
5470
5480
5490

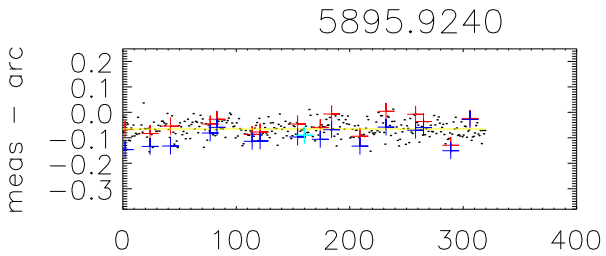

4046.5600
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

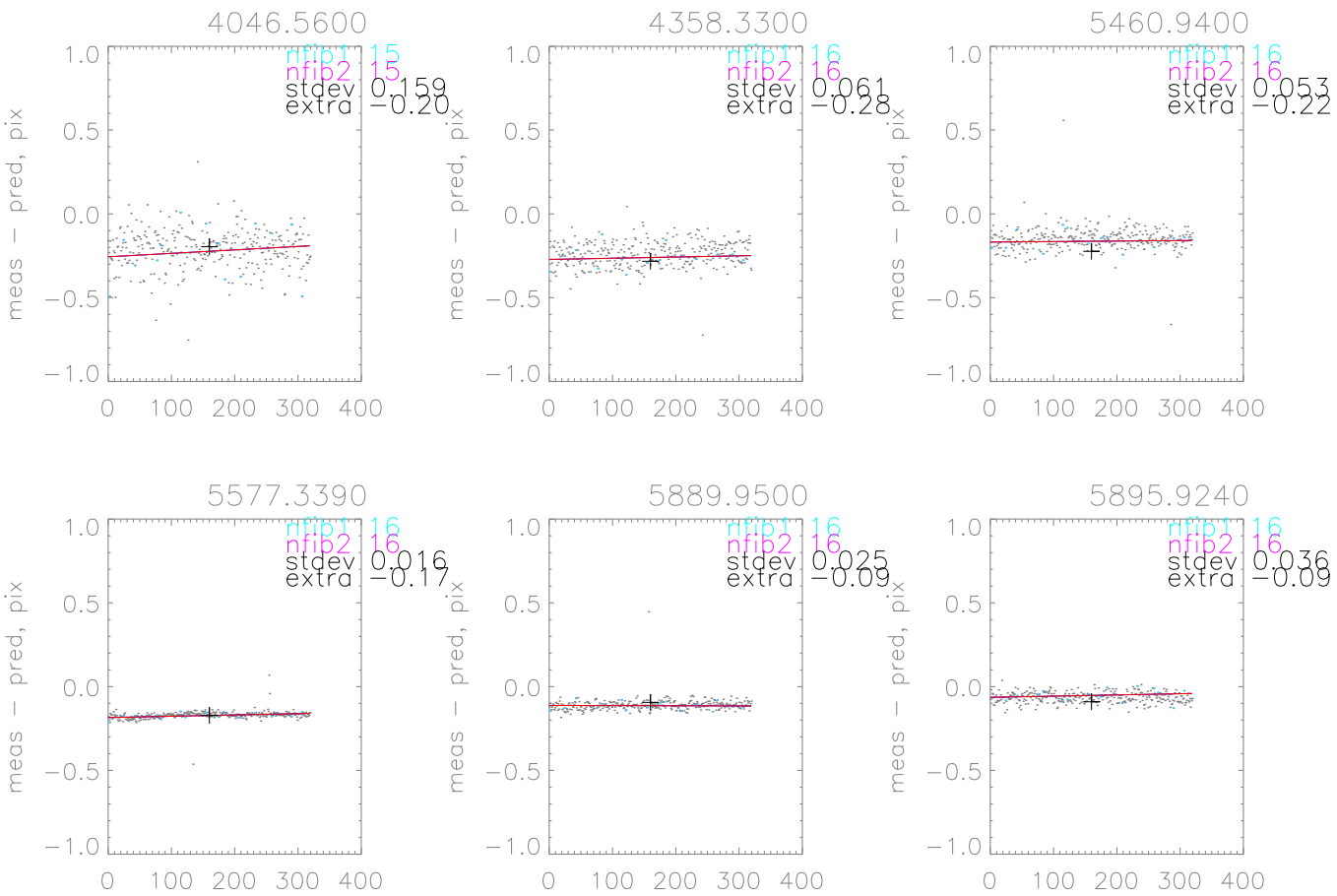

4358.3300
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

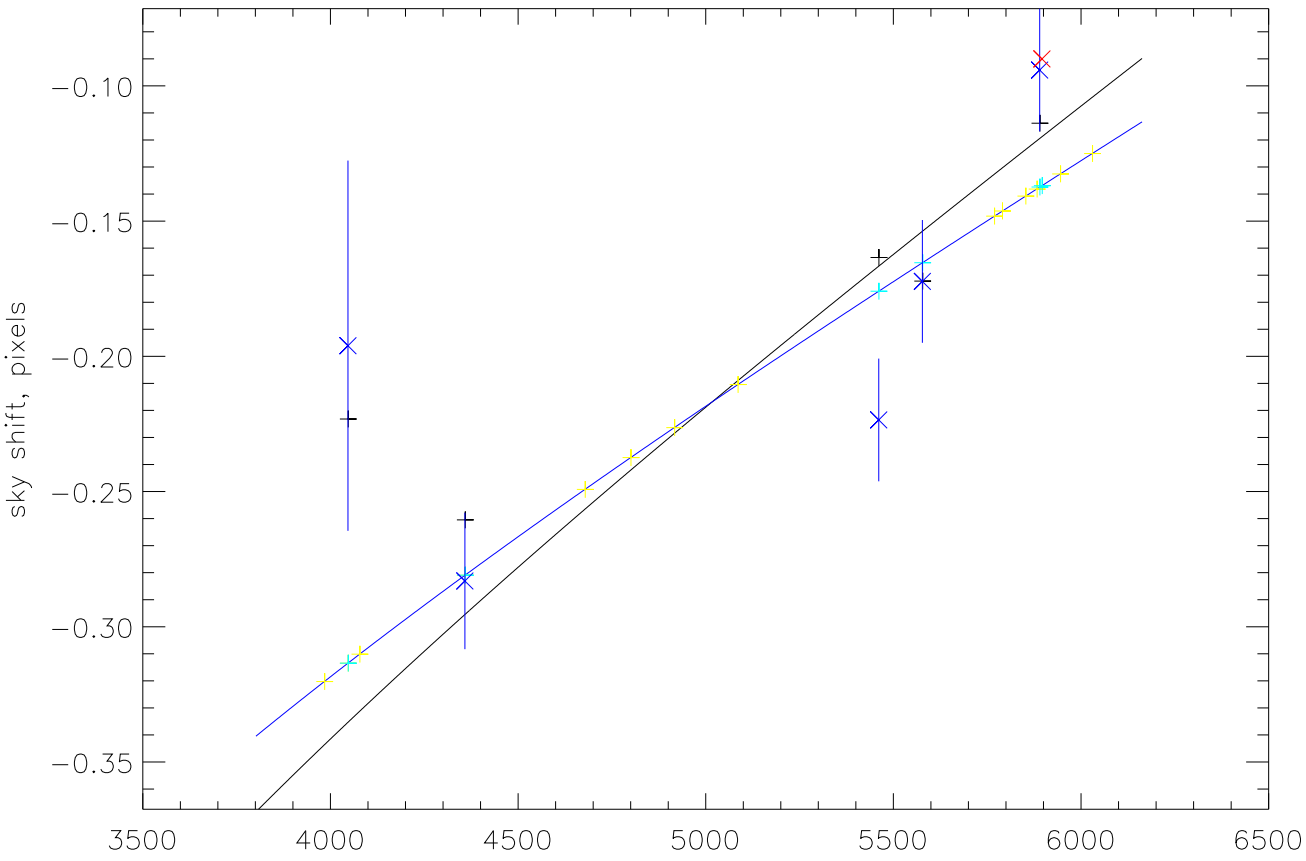

5460.9400
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

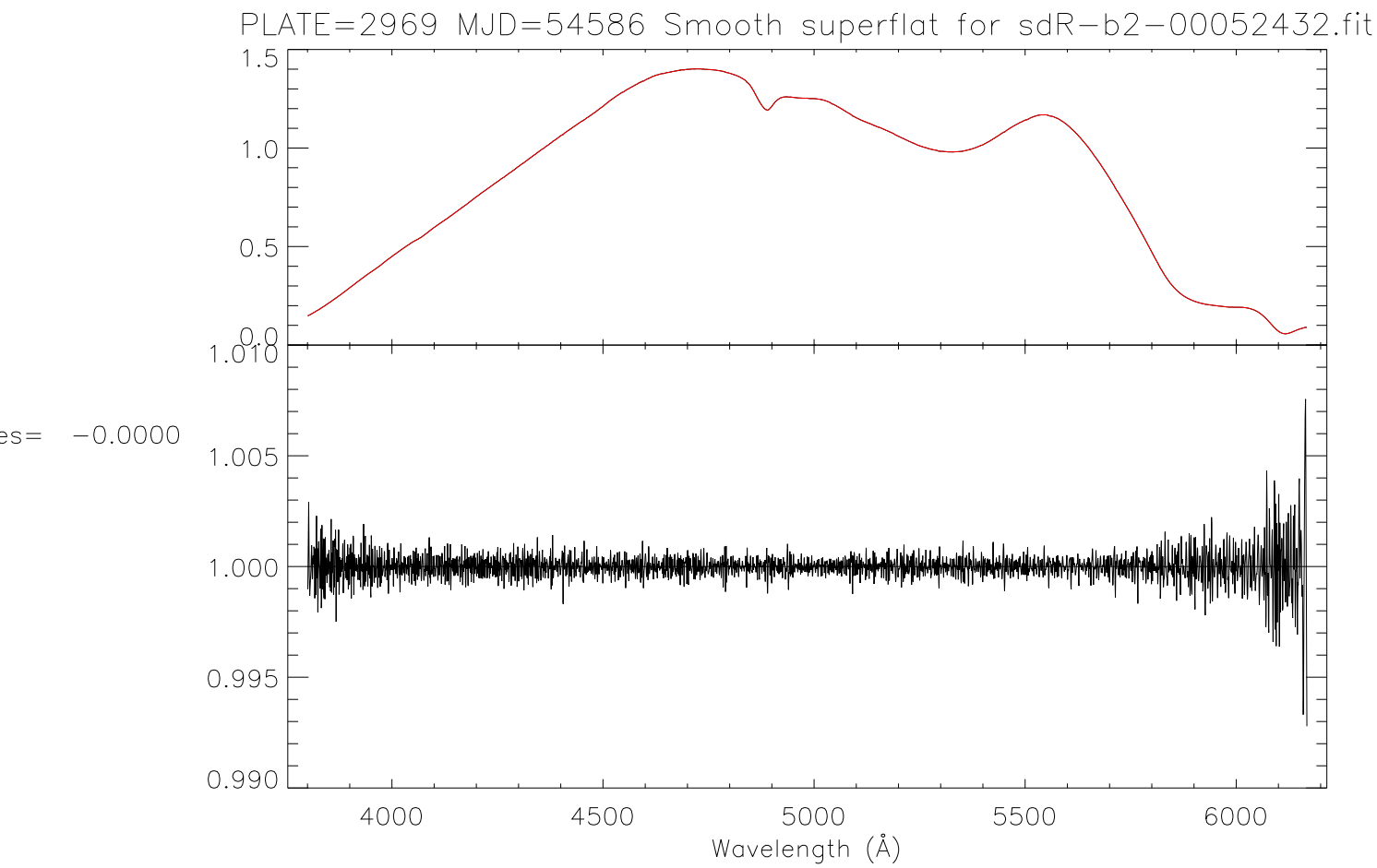

5577.3390
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

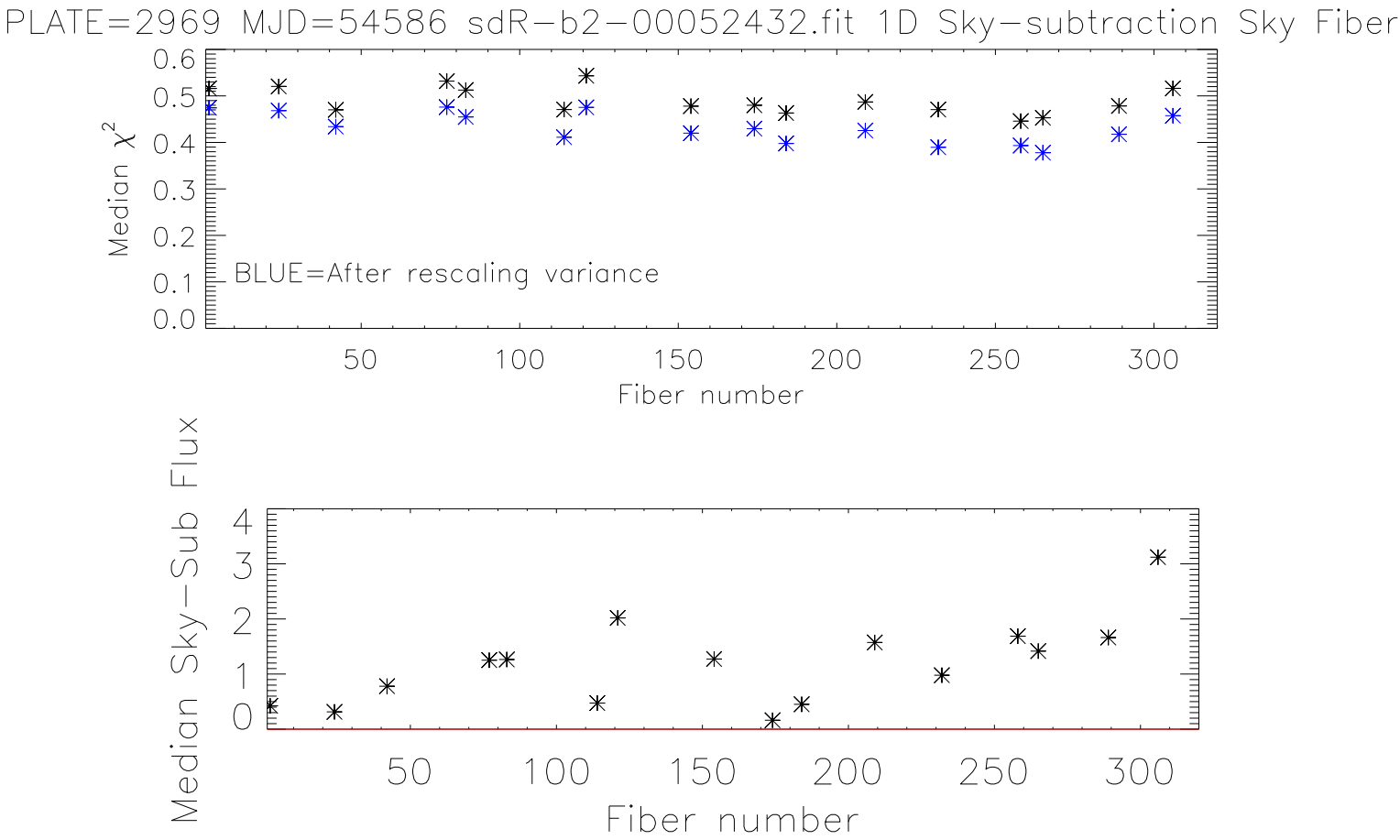

5889.9500
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

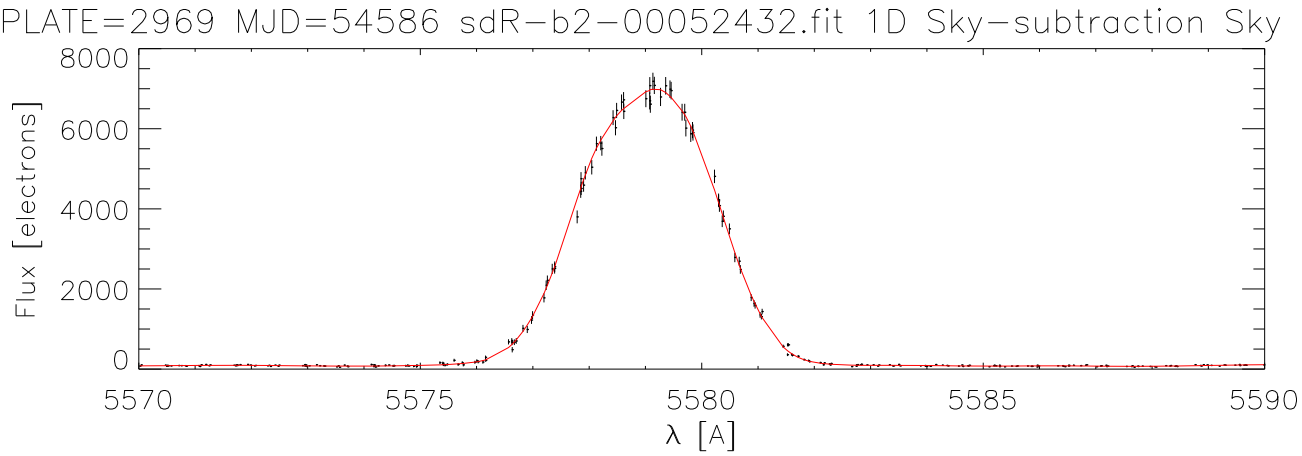

5895.9240
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

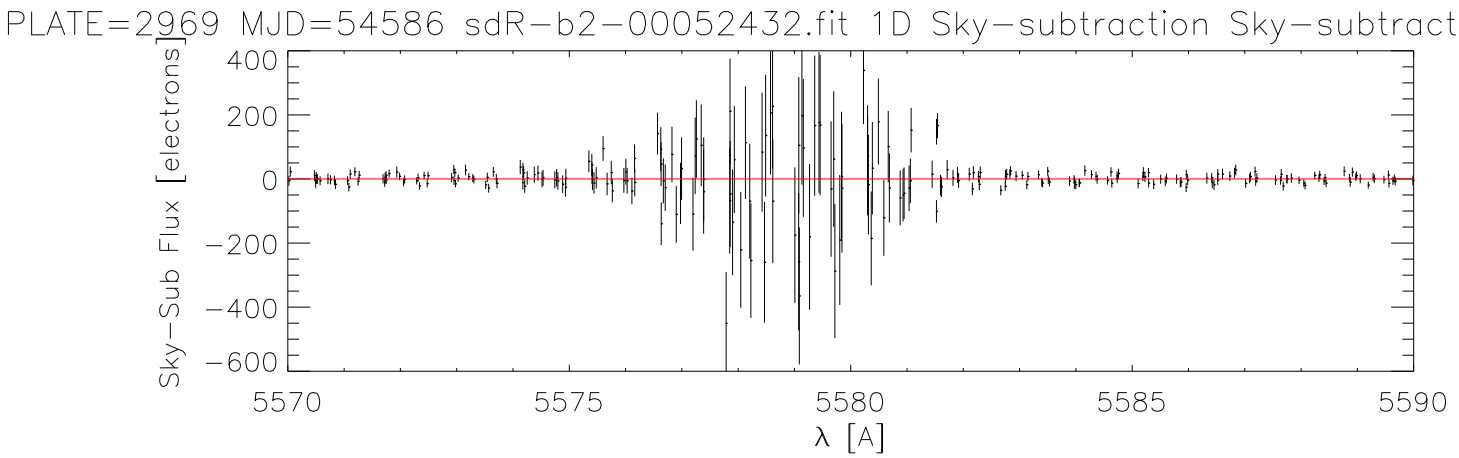

4046.5600
nfib1 15
nfib2 15
stdev 0.159
extra −0.20
4358.3300
nfib1 16
nfib2 16
stdev 0.061
extra −0.28
5460.9400
nfib1 16
nfib2 16
stdev 0.053
extra −0.22
5577.3390
nfib1 16
nfib2 16
stdev 0.016
extra −0.17
5889.9500
nfib1 16
nfib2 16
stdev 0.025
extra −0.09
5895.9240
nfib1 16
nfib2 16
stdev 0.036
extra −0.09
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

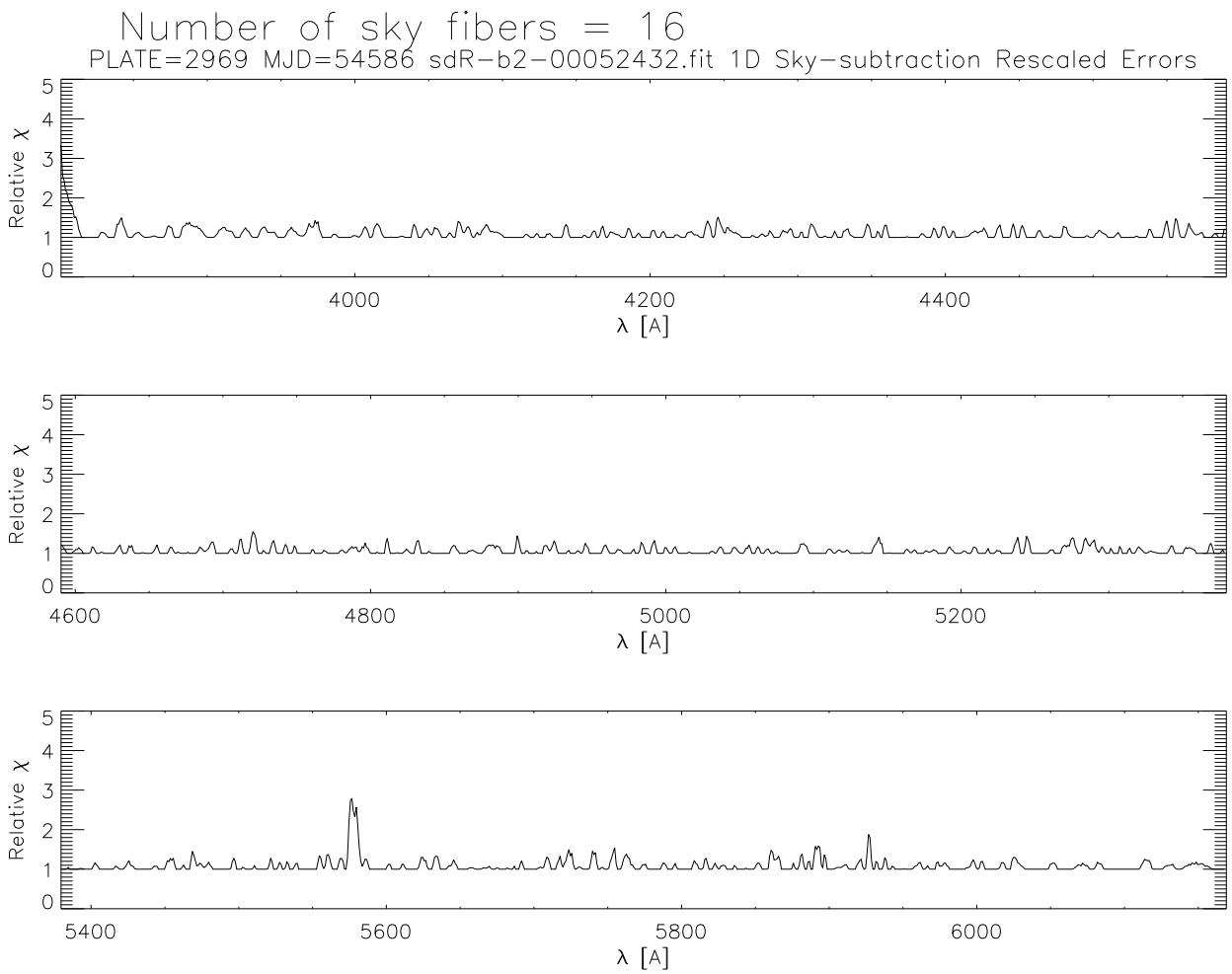

sky shift, pixels
−0.10
−0.15
−0.20
−0.25
−0.30
−0.35
3500
4000
4500
5000
5500
6000
6500

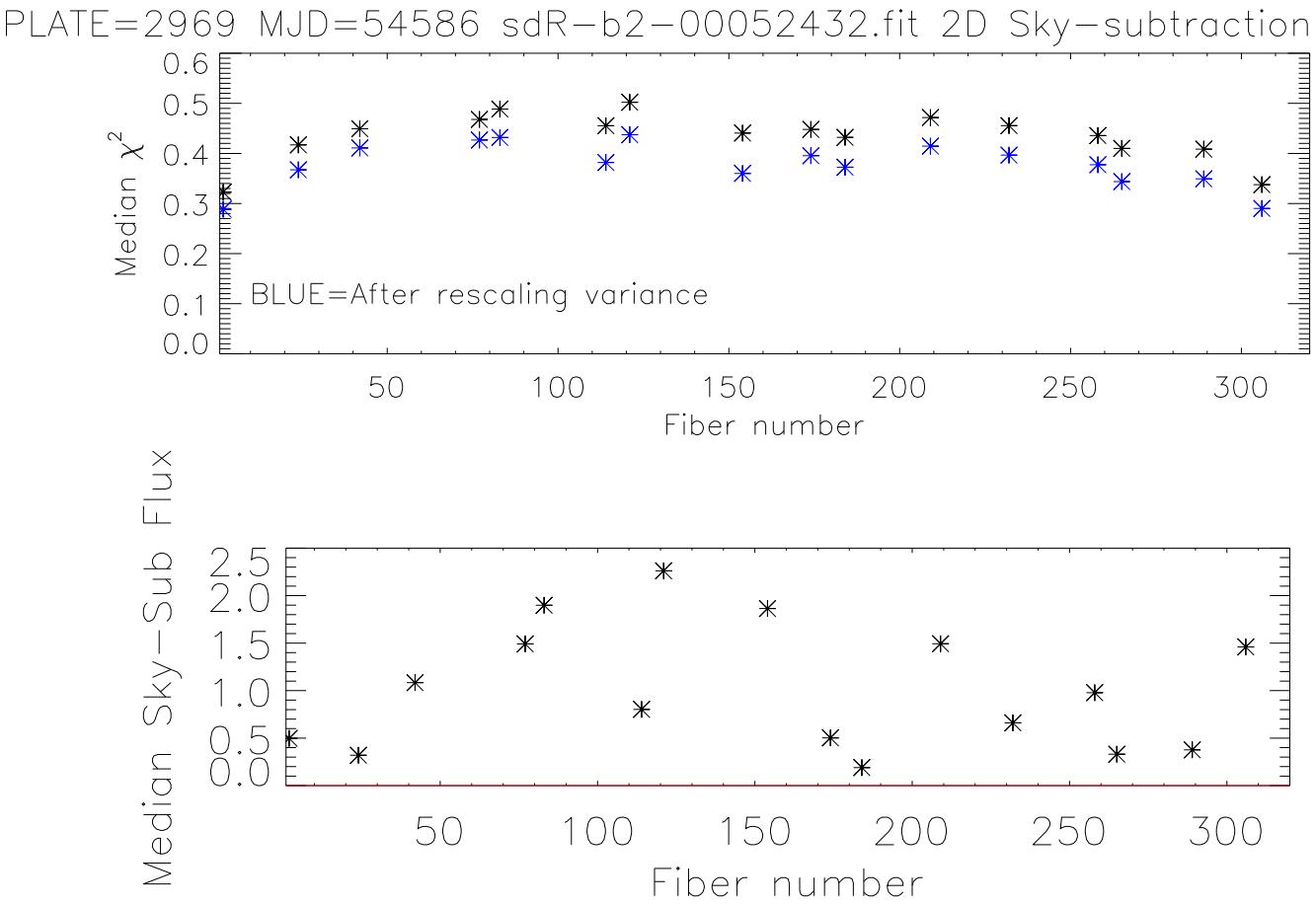

PLATE=2969 MJD=54586 Smooth superflat for sdR-b2-00052432.fit
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
es= −0.0000
4000
4500
5000
5500
6000
Wavelength (Å)

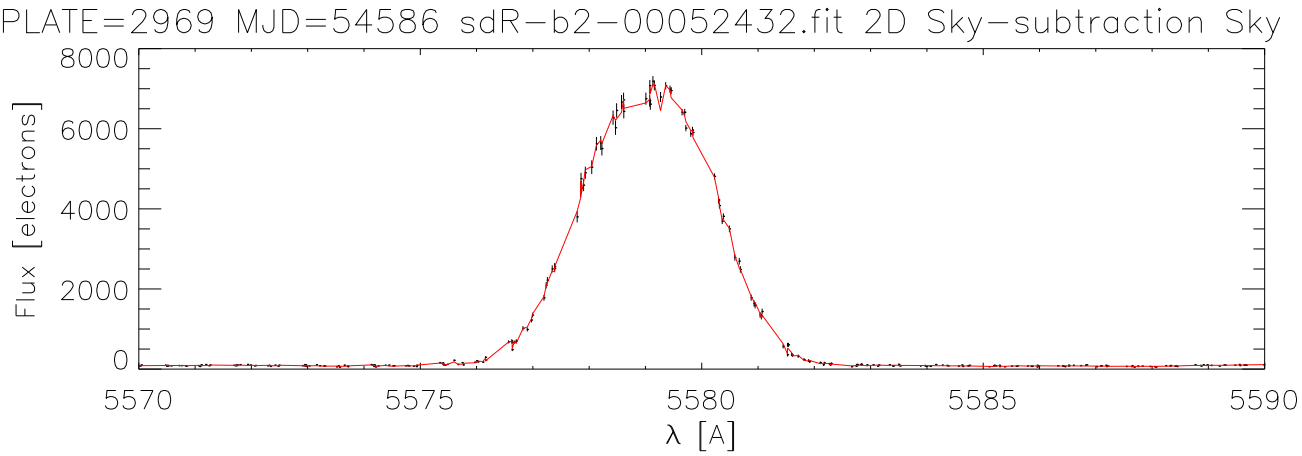

PLATE=2969 MJD=54586 sdR-b2-00052432.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
0
1
2
3
4
50
100
150
200
250
300
Fiber number

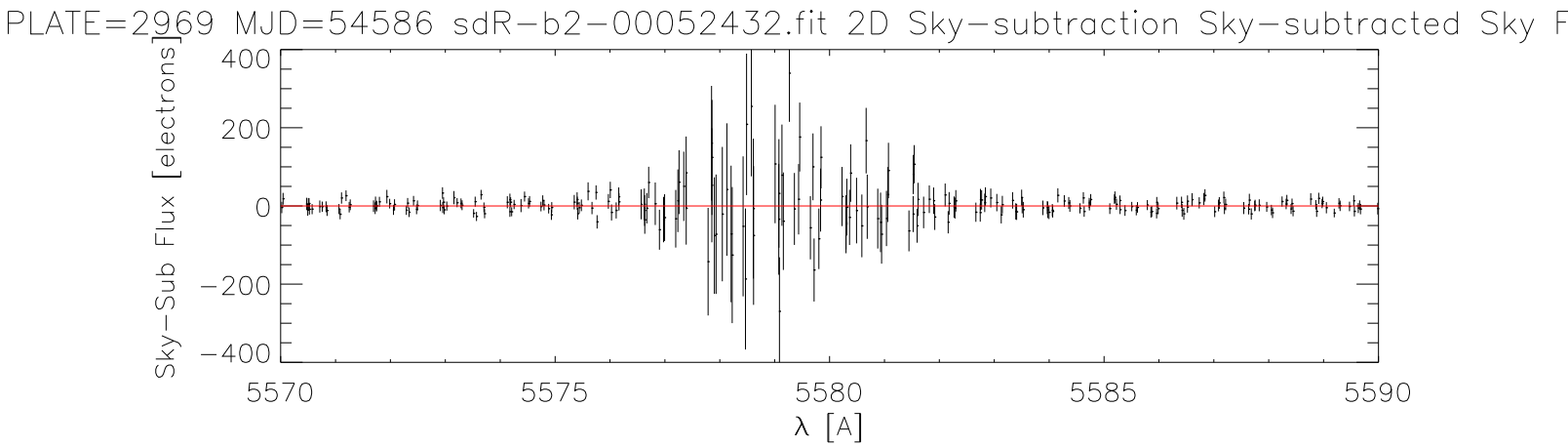

PLATE=2969 MJD=54586 sdR-b2-00052432.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

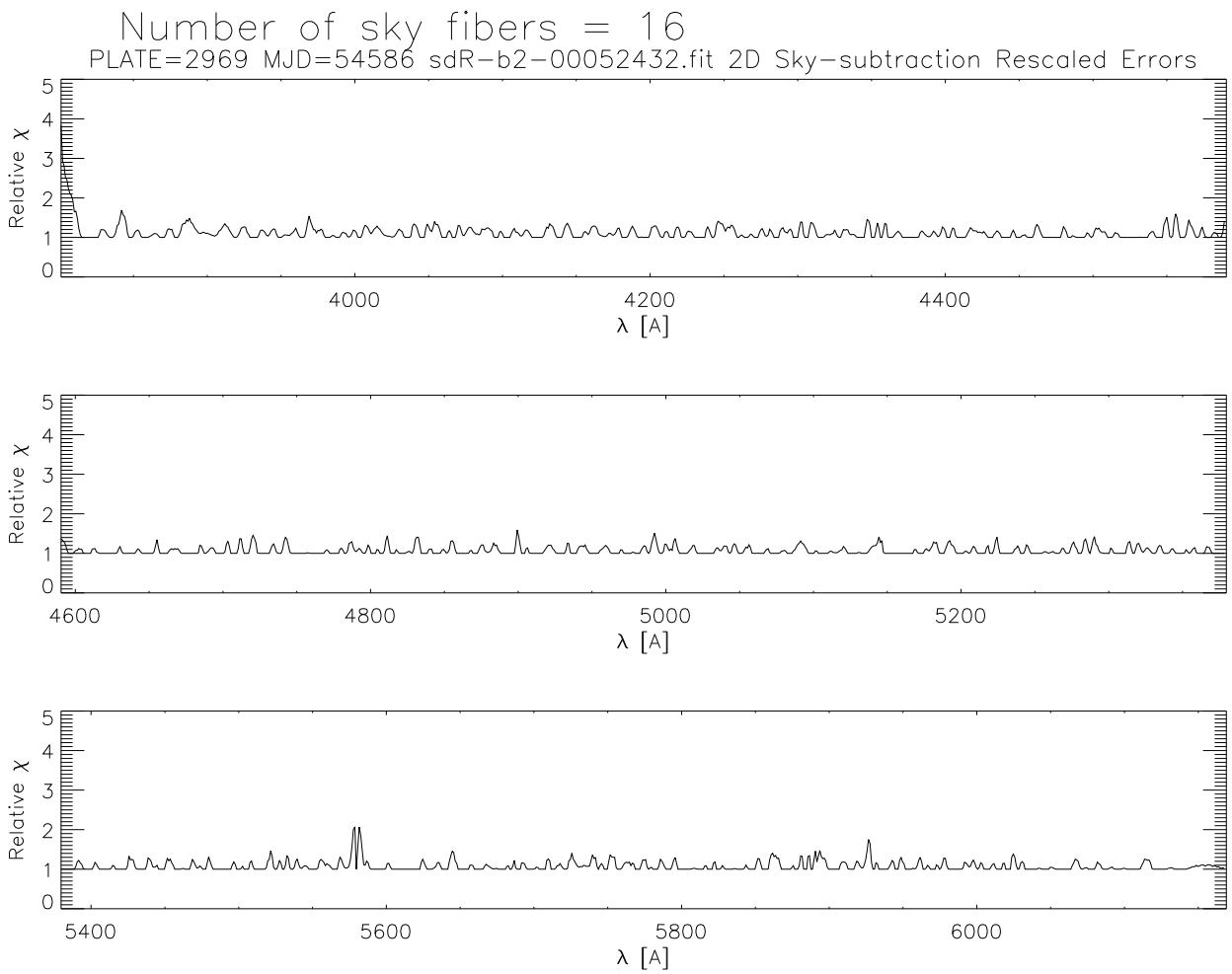

PLATE=2969 MJD=54586 sdR-b2-00052432.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
200
0
-200
-400
-600
5570
5575
5580
5585
5590
λ [A]

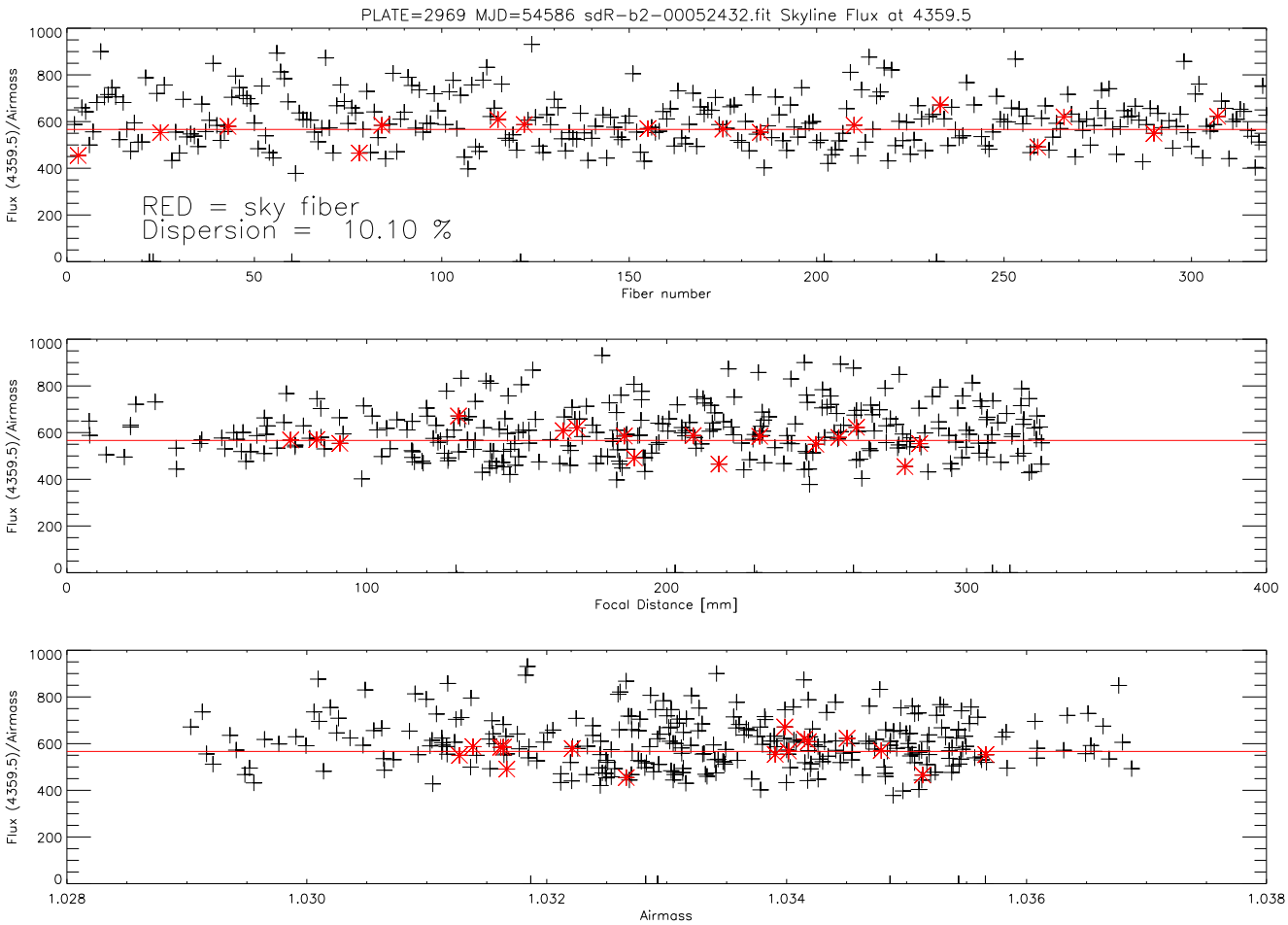

Number of sky fibers = 16
PLATE=2969 MJD=54586 sdR-b2-00052432.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

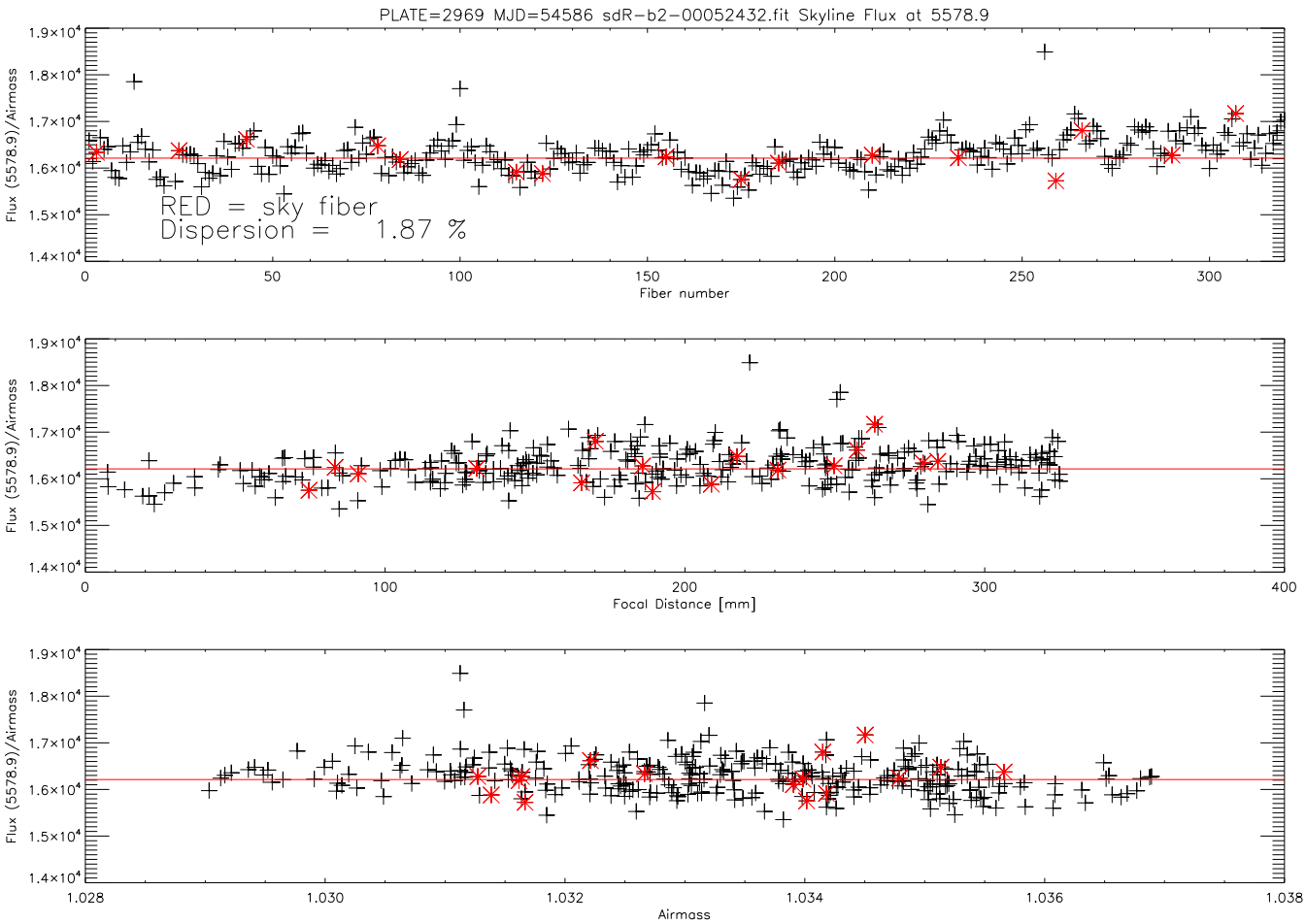

PLATE=2969 MJD=54586 sdR-b2-00052432.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

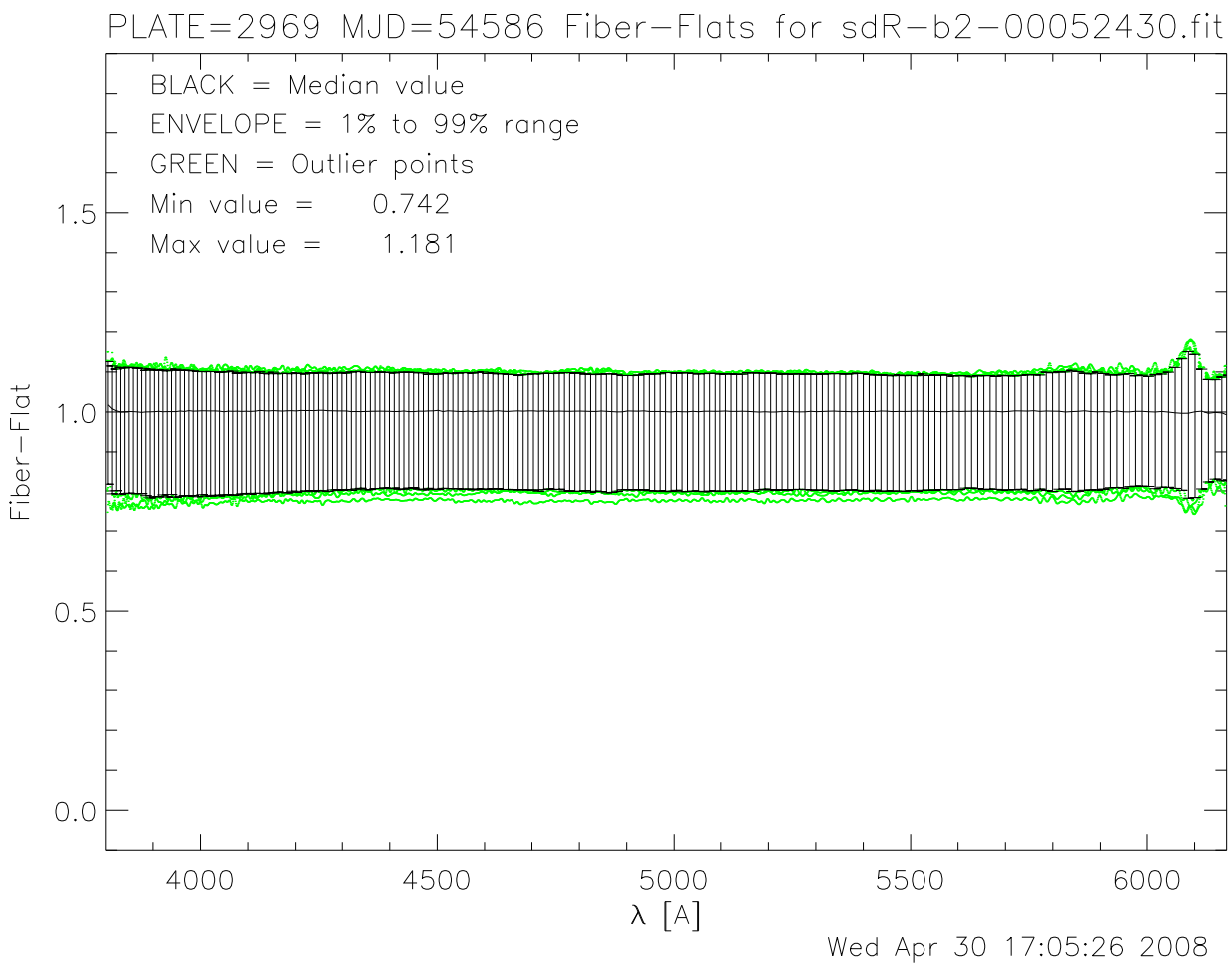

PLATE=2969 MJD=54586 sdR-b2-00052432.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

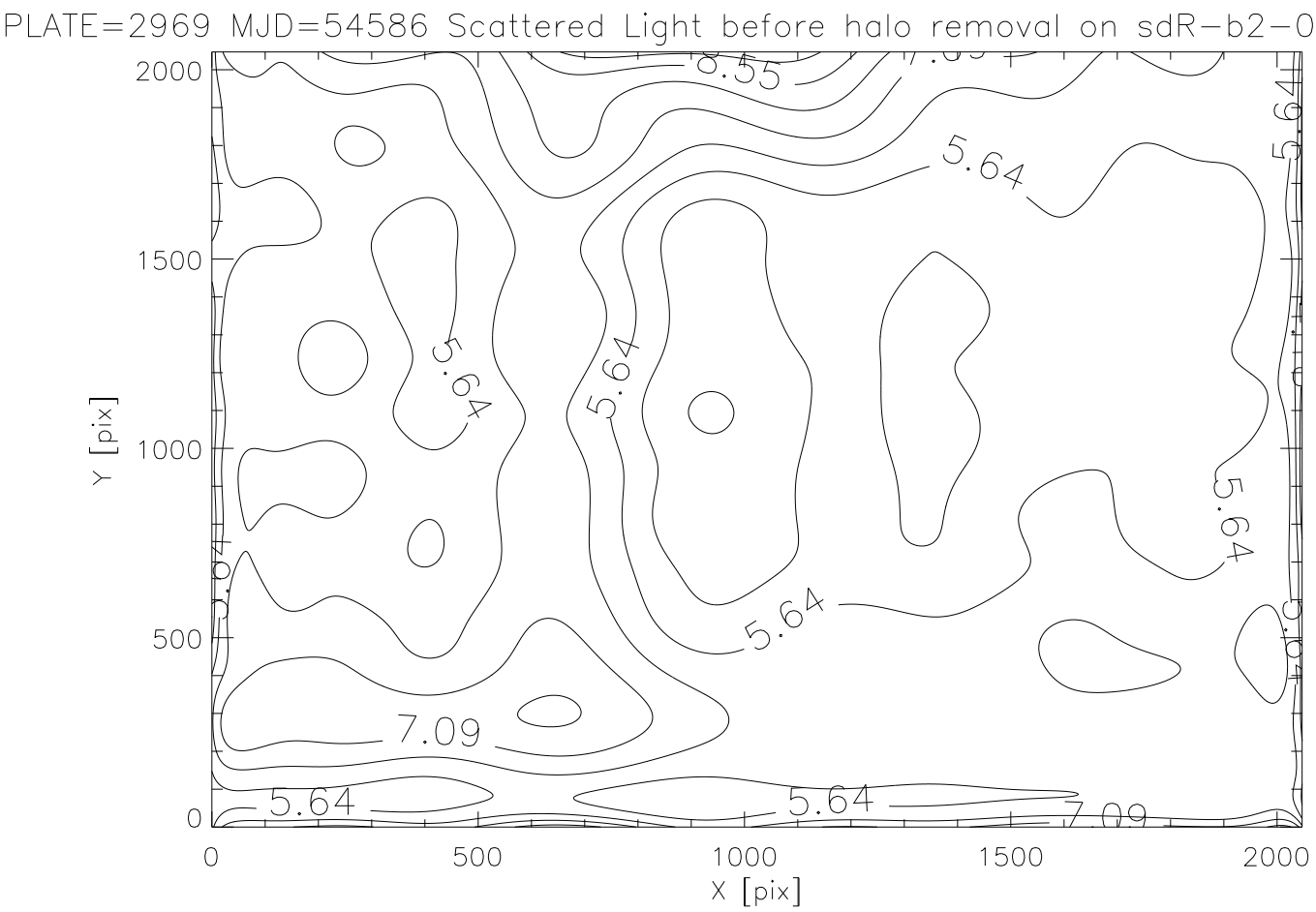

PLATE=2969 MJD=54586 sdR-b2-00052432.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
200
0
-200
-400
5570
5575
5580
5585
5590
λ [A]

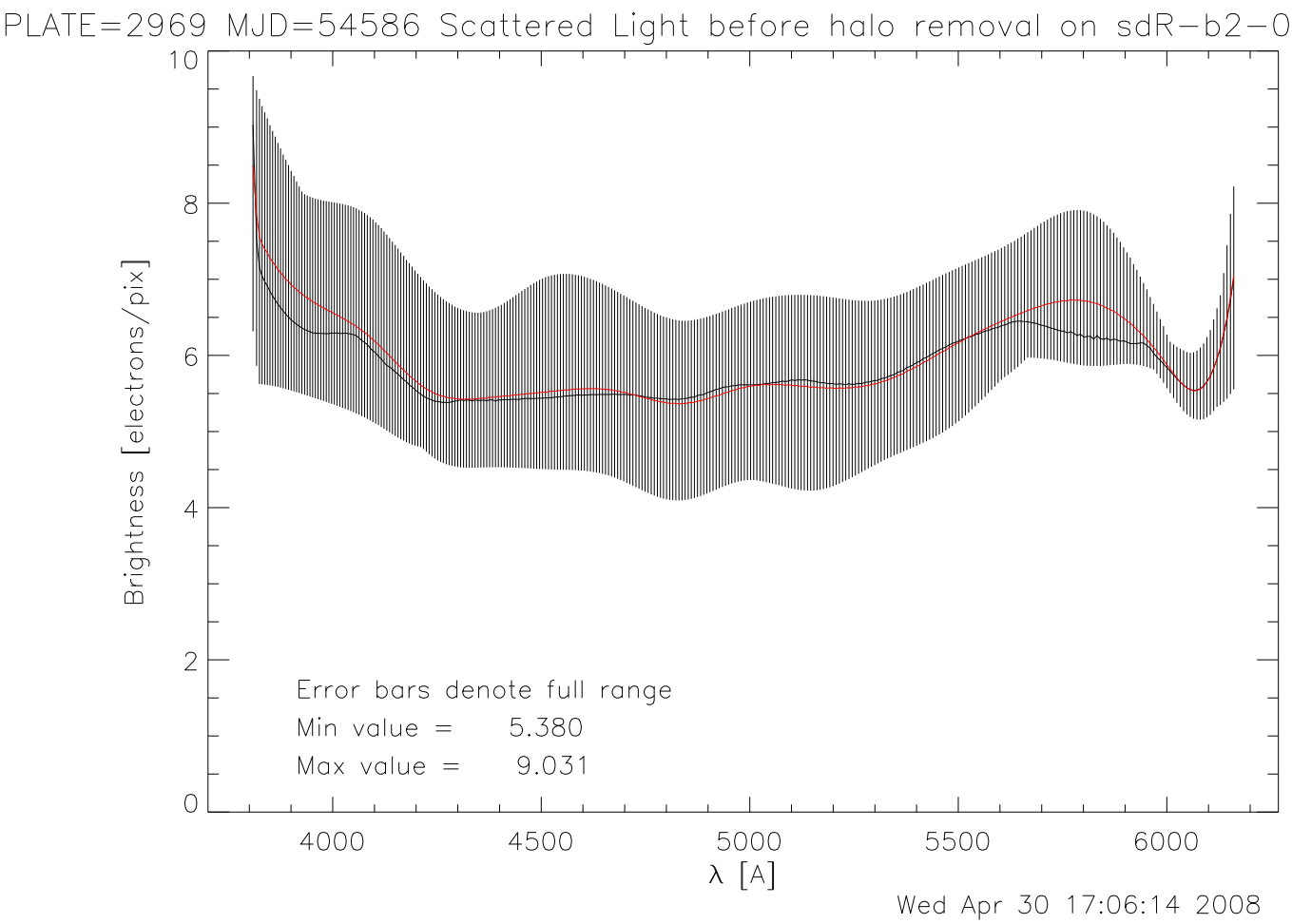

Number of sky fibers = 16
PLATE=2969 MJD=54586 sdR-b2-00052432.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

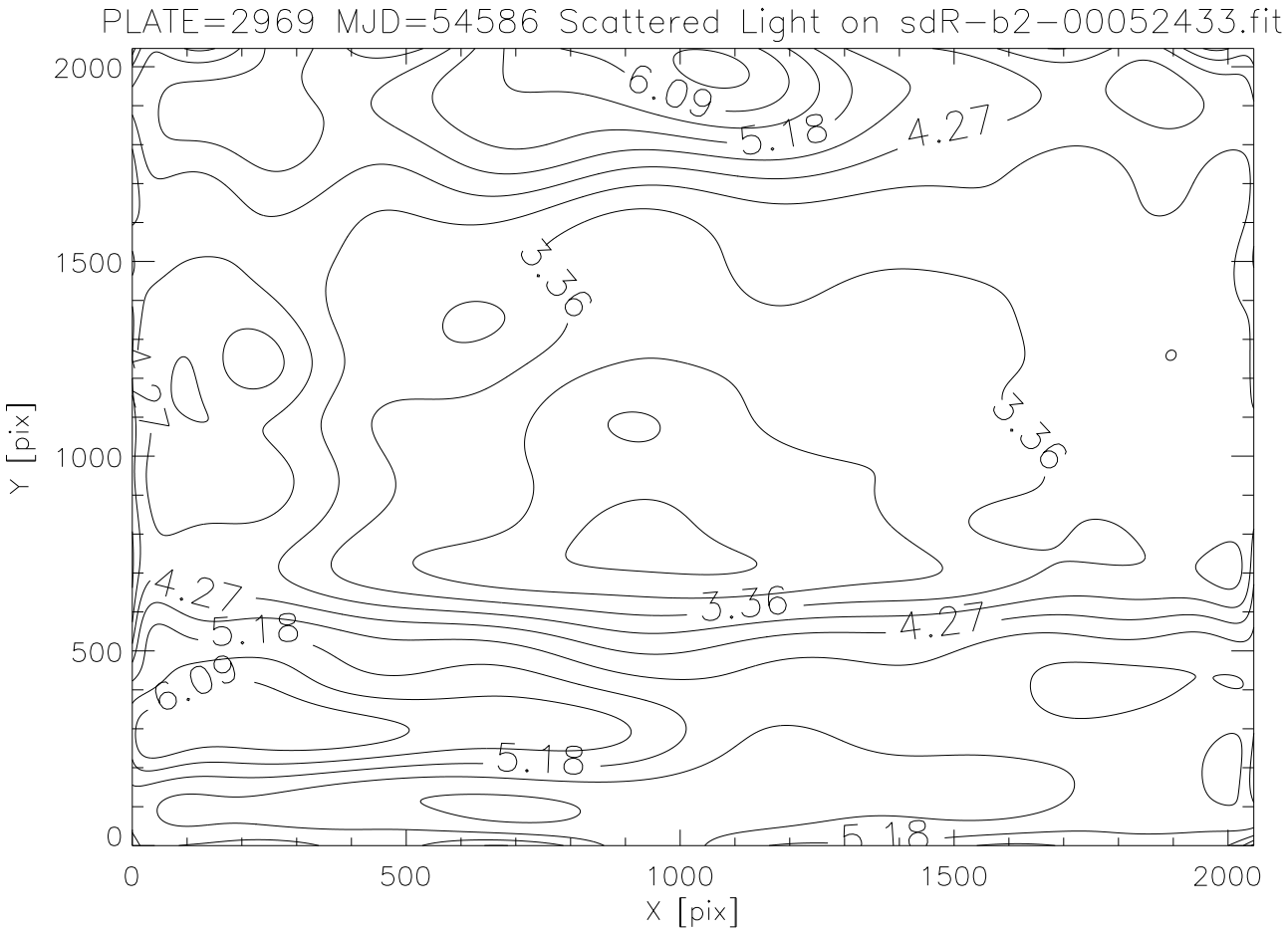

PLATE=2969 MJD=54586 sdR-b2-00052432.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 10.10 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

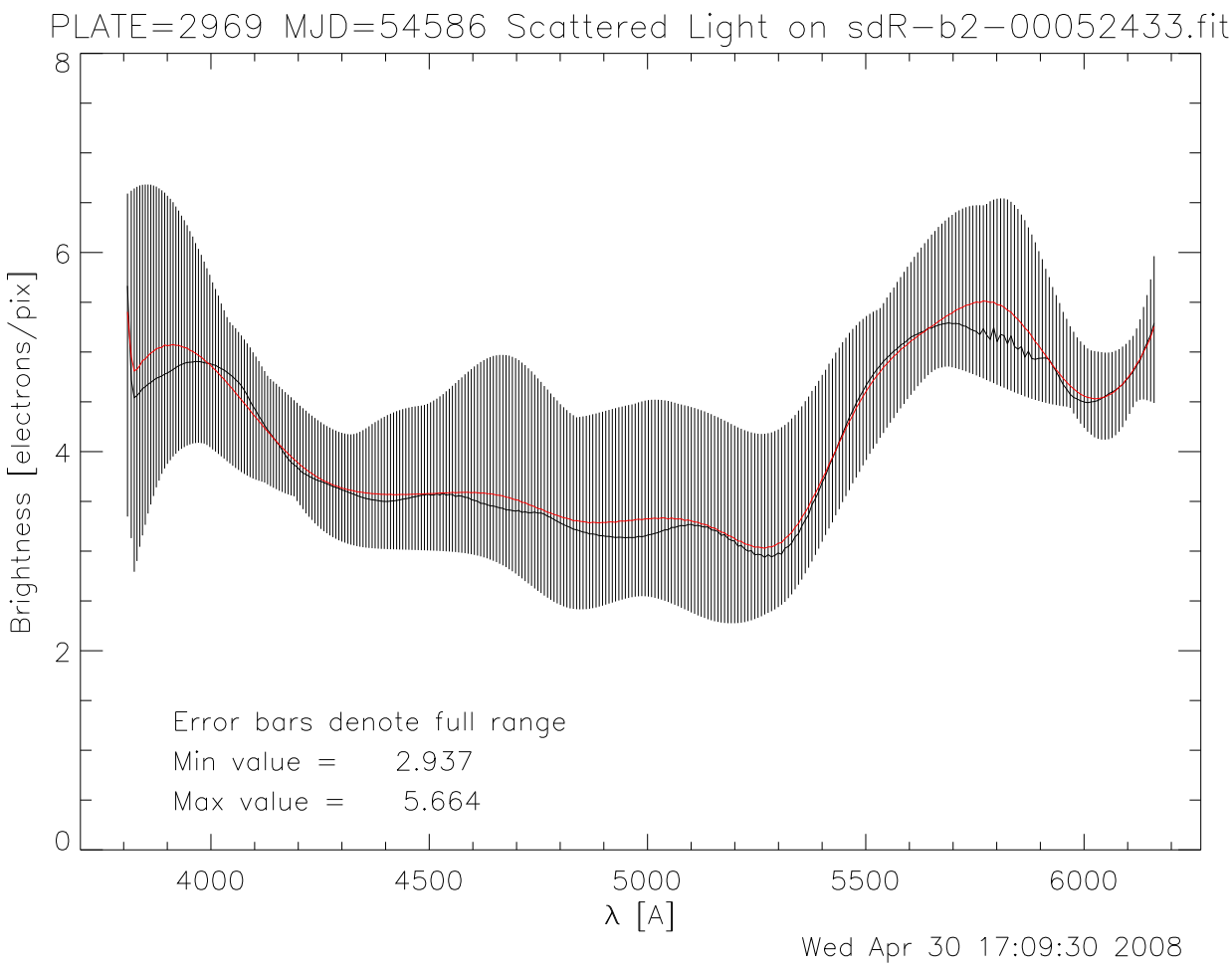

PLATE=2969 MJD=54586 sdR-b2-00052432.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
Fiber number
RED = sky fiber
Dispersion = 1.87 %
Flux (5578.9)/Airmass
Focal Distance [mm]
Flux (5578.9)/Airmass
Airmass

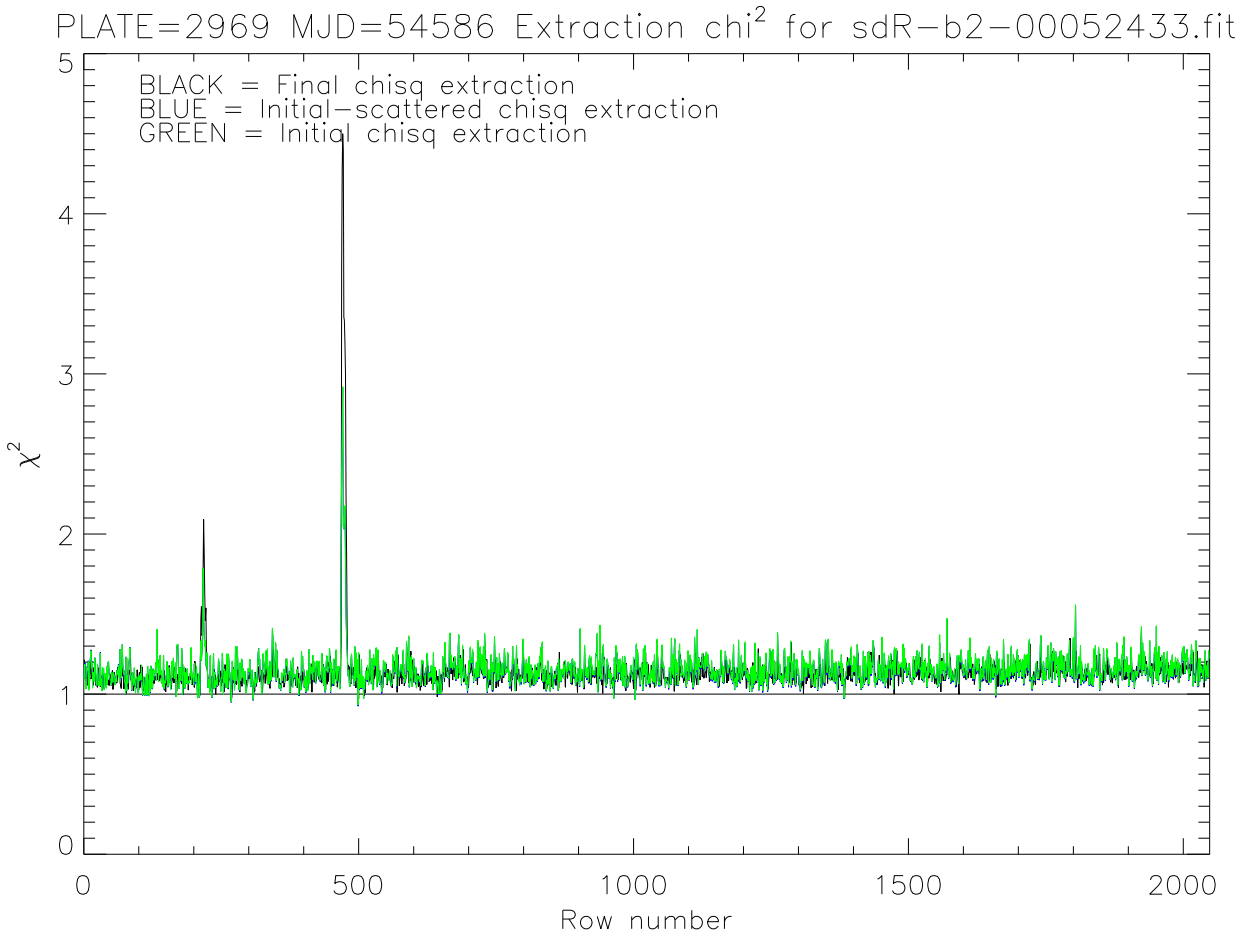

PLATE=2969 MJD=54586 Fiber-Flats for sdR-b2-00052430.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.742
Max value = 1.181
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Wed Apr 30 17:05:26 2008

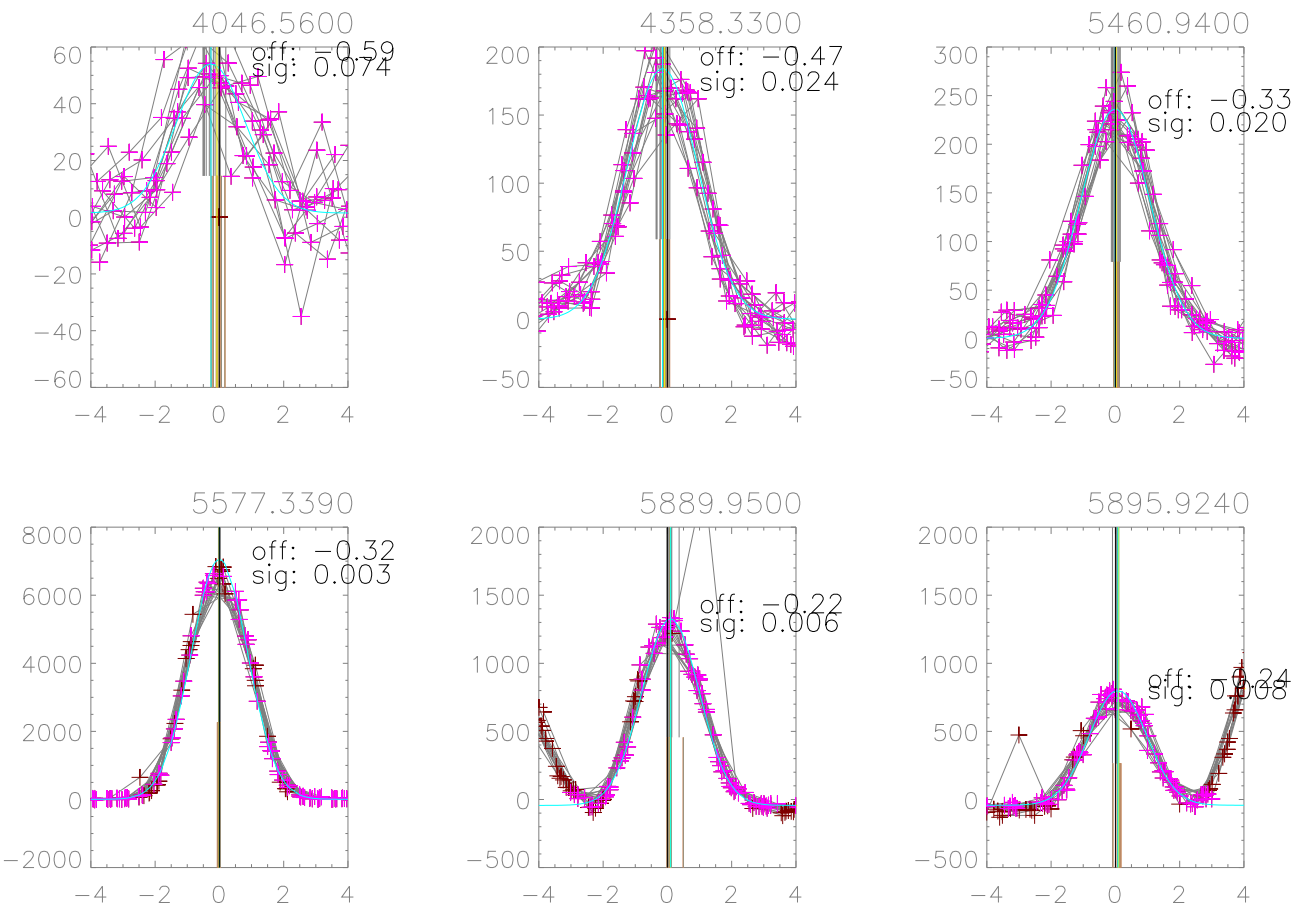

PLATE=2969 MJD=54586 Scattered Light before halo removal on sdR−b2−00052433.f
8.55
5.64
5.64
5.64
5.64
5.64
5.64
7.09
5.64
5.64
7.09
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]

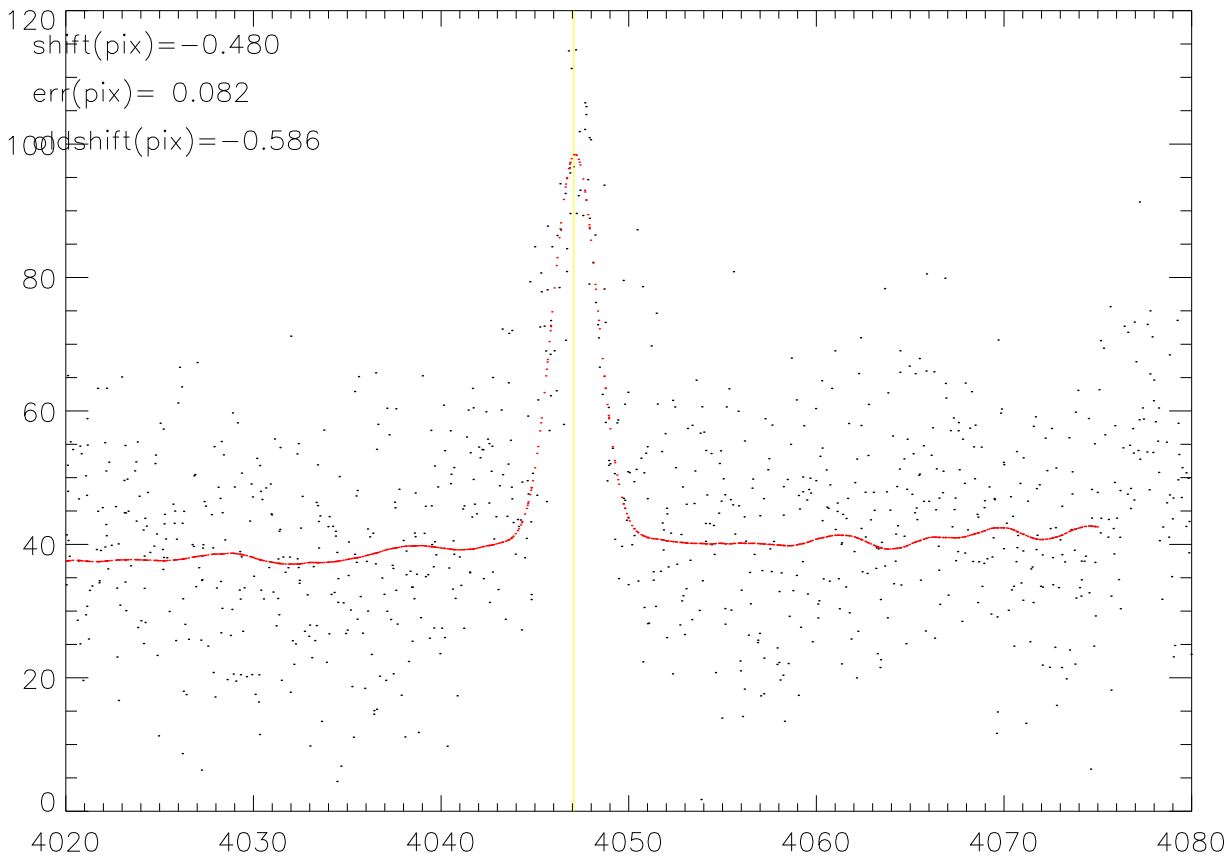

PLATE=2969 MJD=54586 Scattered Light before halo removal on sdR-b2-00052433.f
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 5.380
Max value = 9.031
Wed Apr 30 17:06:14 2008

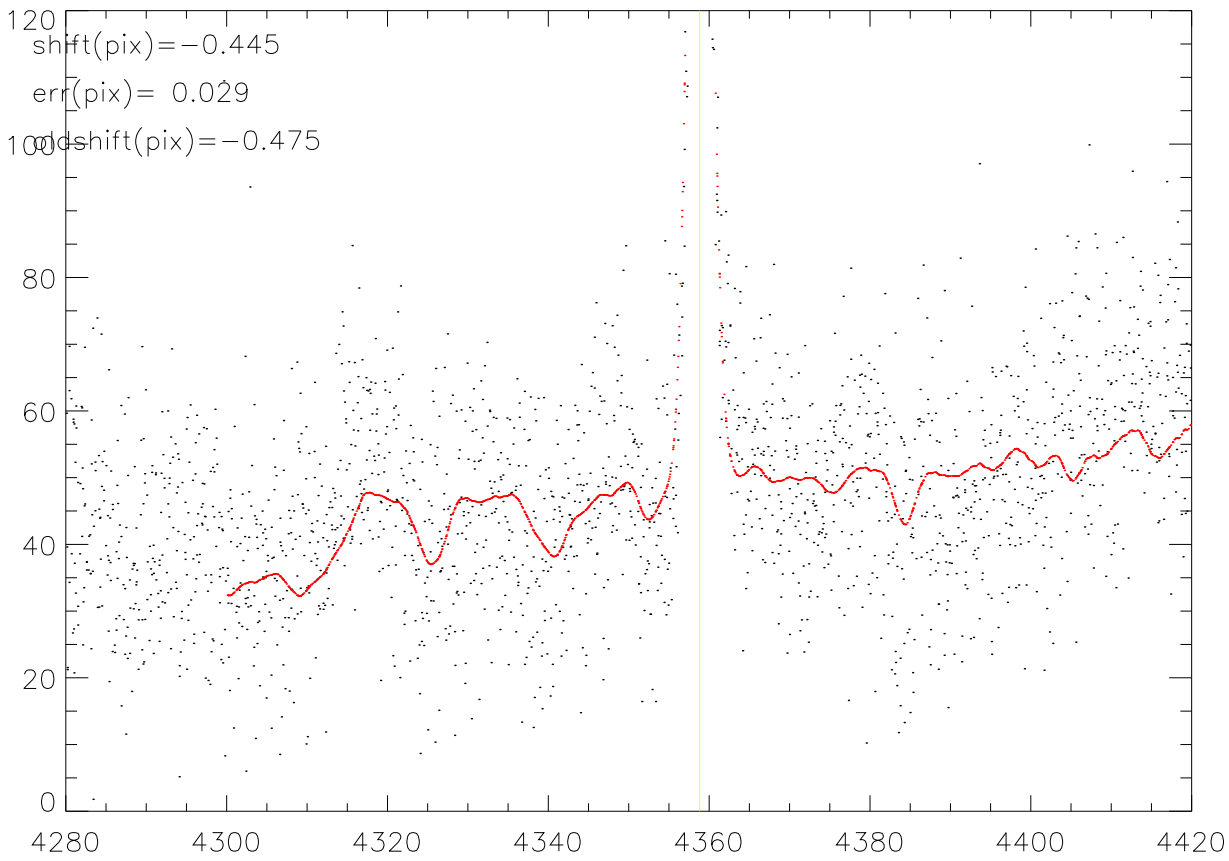

PLATE=2969 MJD=54586 Scattered Light on sdR-b2-00052433.fit
6.09
5.18
4.27
3.36
3.36
4.27
3.36
4.27
5.18
6.09
5.18
5.18
Y [pix]
X [pix]
0
500
1000
1500
2000

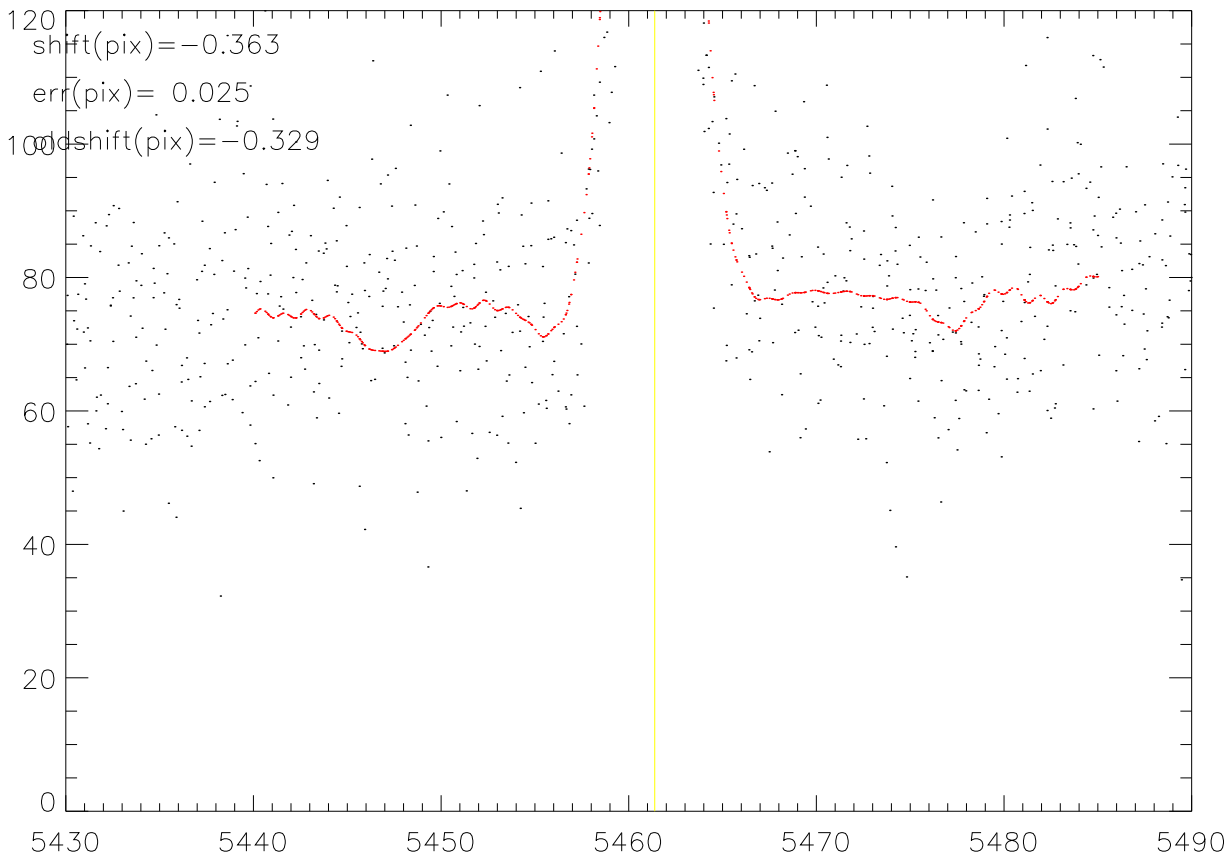

PLATE=2969 MJD=54586 Scattered Light on sdR-b2-00052433.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 2.937
Max value = 5.664
Wed Apr 30 17:09:30 2008

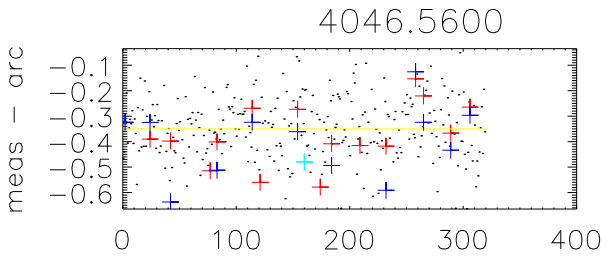

PLATE=2969 MJD=54586 Extraction chi^2 for sdR-b2-00052433.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
5
0
500
1000
1500
2000
Row number

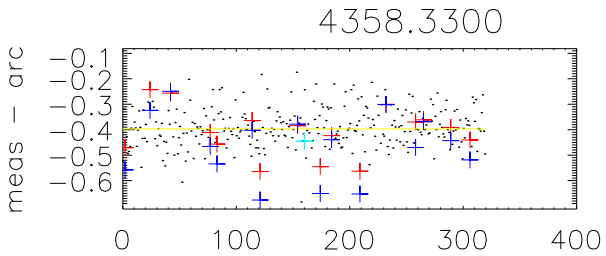

4046.5600
off: −0.59
sig: 0.074
4358.3300
off: −0.47
sig: 0.024
5460.9400
off: −0.33
sig: 0.020
5577.3390
off: −0.32
sig: 0.003
5889.9500
off: −0.22
sig: 0.006
5895.9240
off: −0.24
sig: 0.008

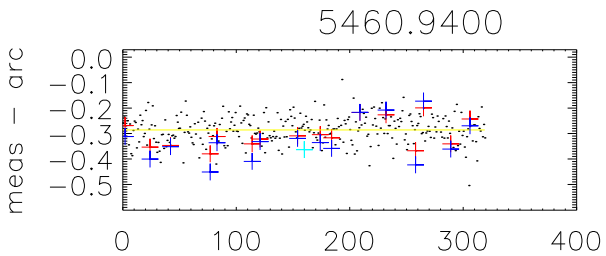

shift(pix)=−0.480
err(pix)= 0.082
oldshift(pix)=−0.586
120
100
80
60
40
20
0
4020
4030
4040
4050
4060
4070
4080

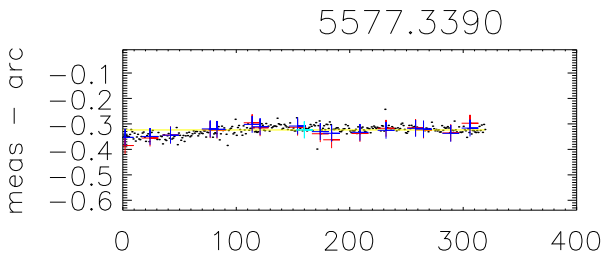

shift(pix)=−0.445
err(pix)= 0.029
oldshift(pix)=−0.475
120
100
80
60
40
20
0
4280
4300
4320
4340
4360
4380
4400
4420

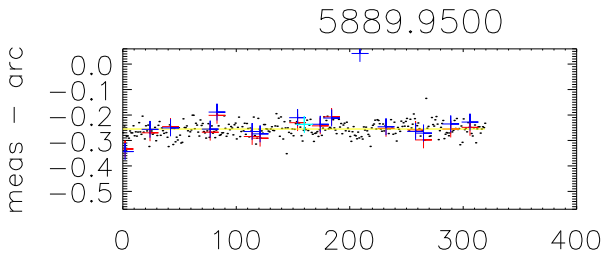

shift(pix)=−0.363
err(pix)= 0.025
oldshift(pix)=−0.329
120
100
80
60
40
20
0
5430
5440
5450
5460
5470
5480
5490

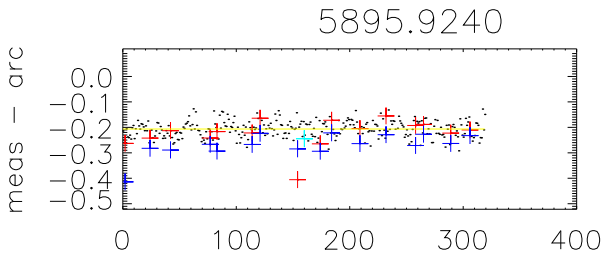

4046.5600
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

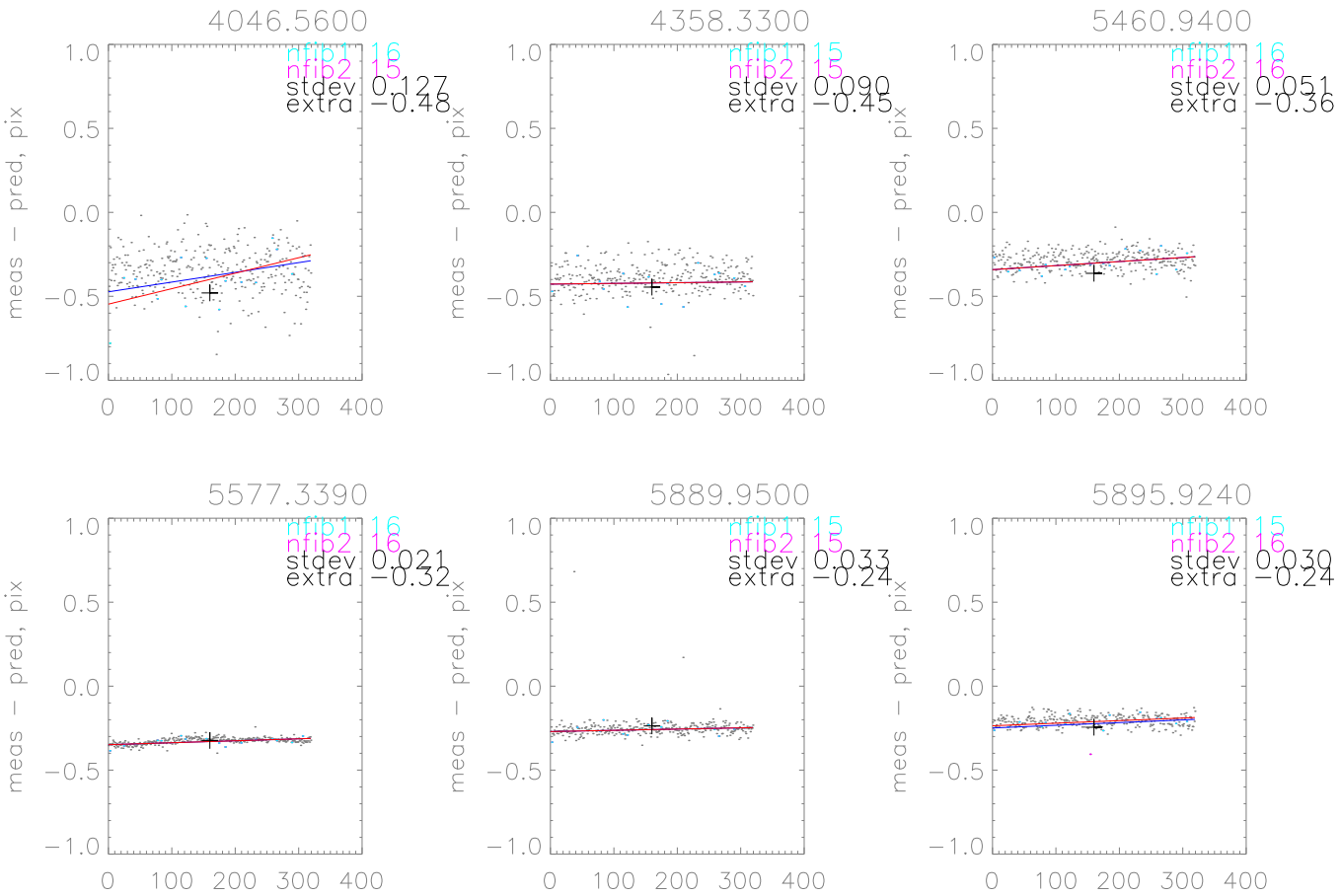

4358.3300
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

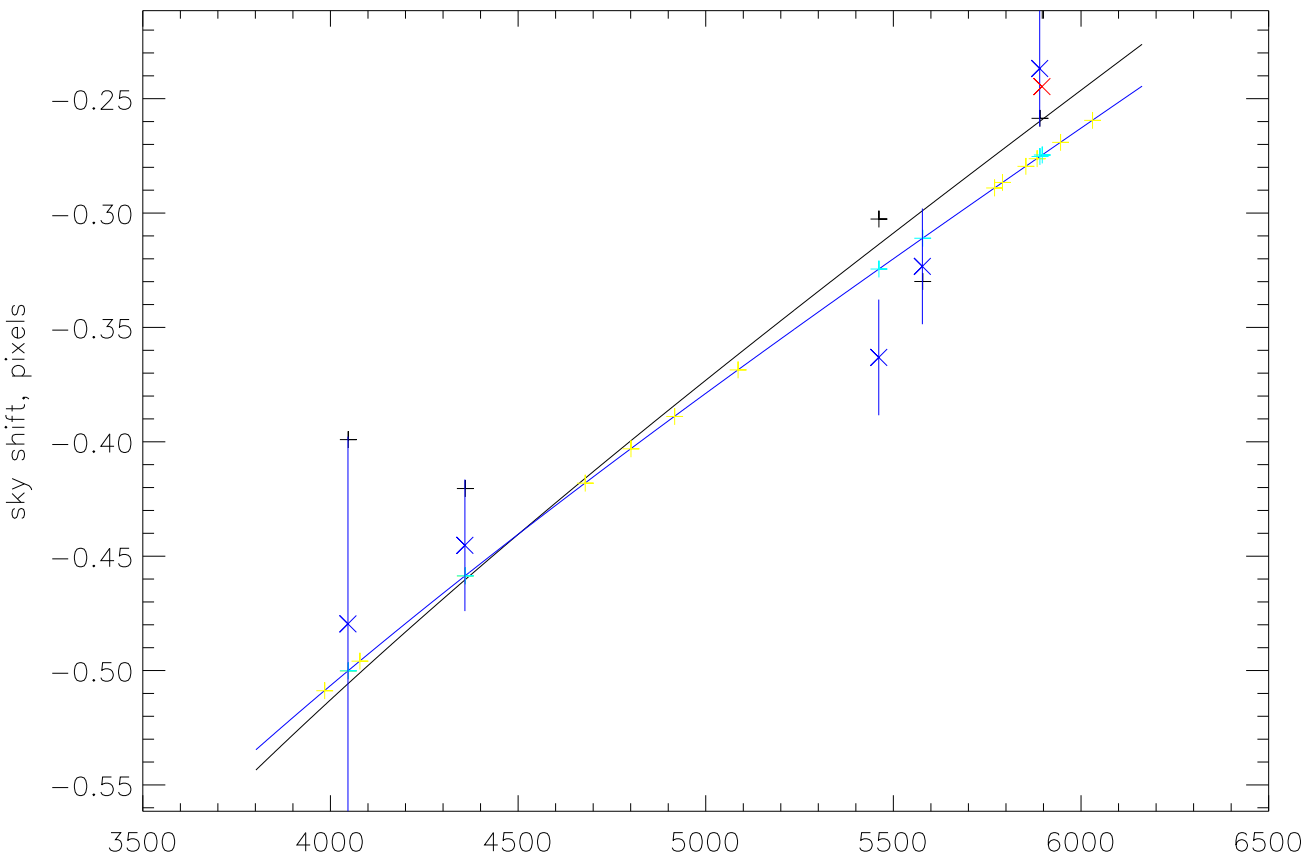

5460.9400
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

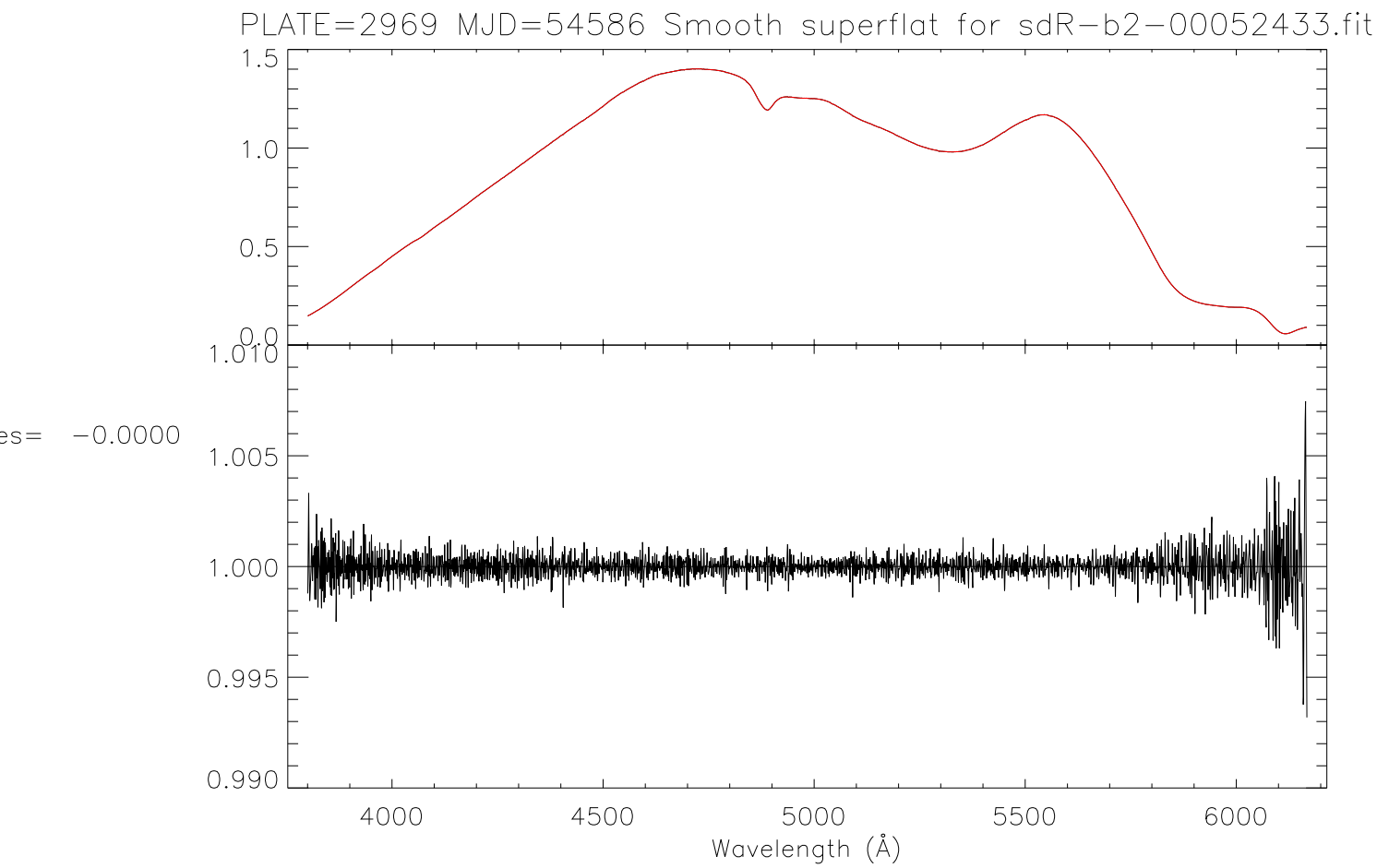

5577.3390
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400


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

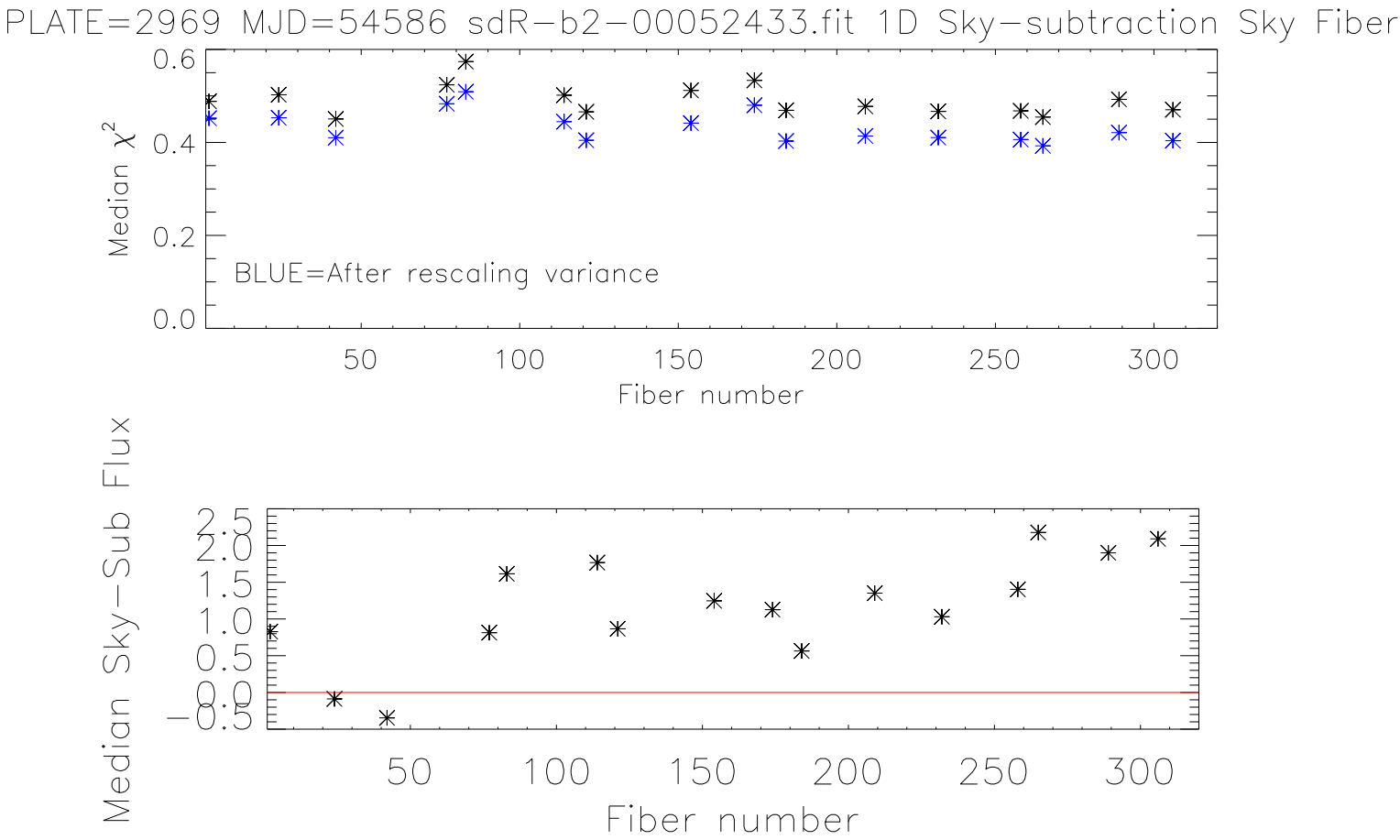

5895.9240
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

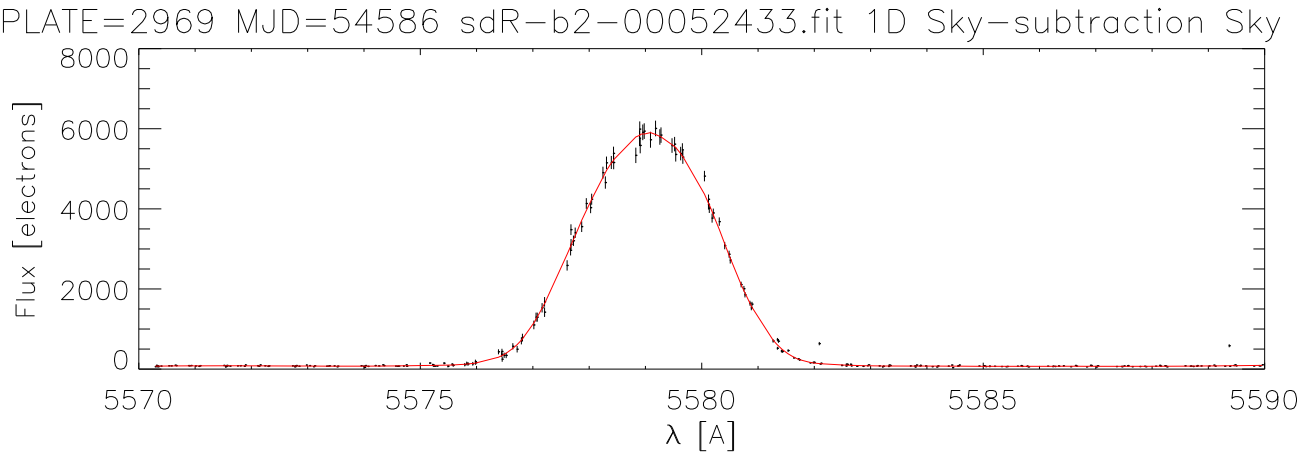

4046.5600
nfib1 16
nfib2 15
stdev 0.127
extra −0.48
4358.3300
nfib1 15
nfib2 15
stdev 0.090
extra −0.45
5460.9400
nfib1 16
nfib2 16
stdev 0.051
extra −0.36
5577.3390
nfib1 16
nfib2 16
stdev 0.021
extra −0.32
5889.9500
nfib1 15
nfib2 15
stdev 0.033
extra −0.24
5895.9240
nfib1 15
nfib2 16
stdev 0.030
extra −0.24
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

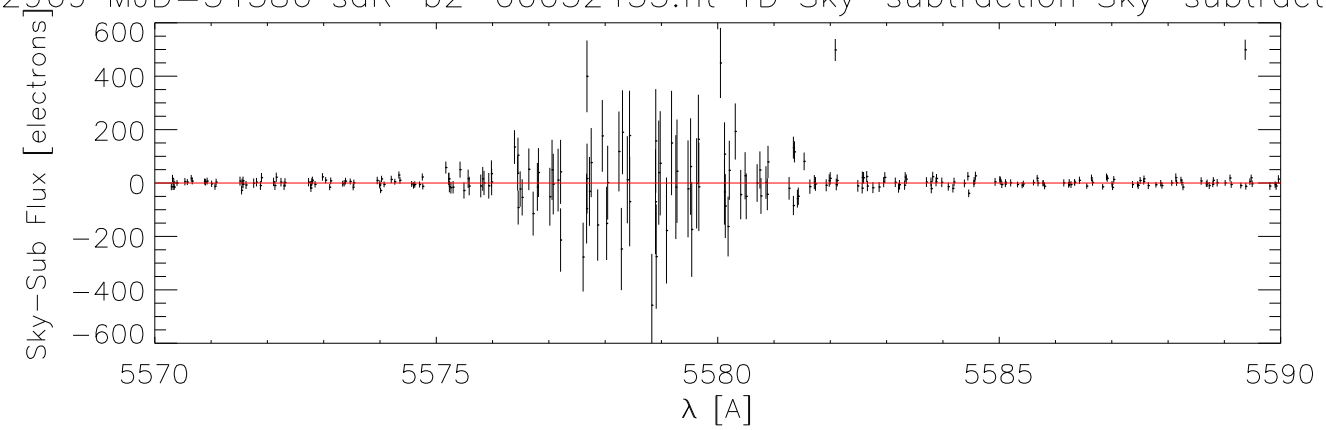

sky shift, pixels
−0.25
−0.30
−0.35
−0.40
−0.45
−0.50
−0.55
3500
4000
4500
5000
5500
6000
6500

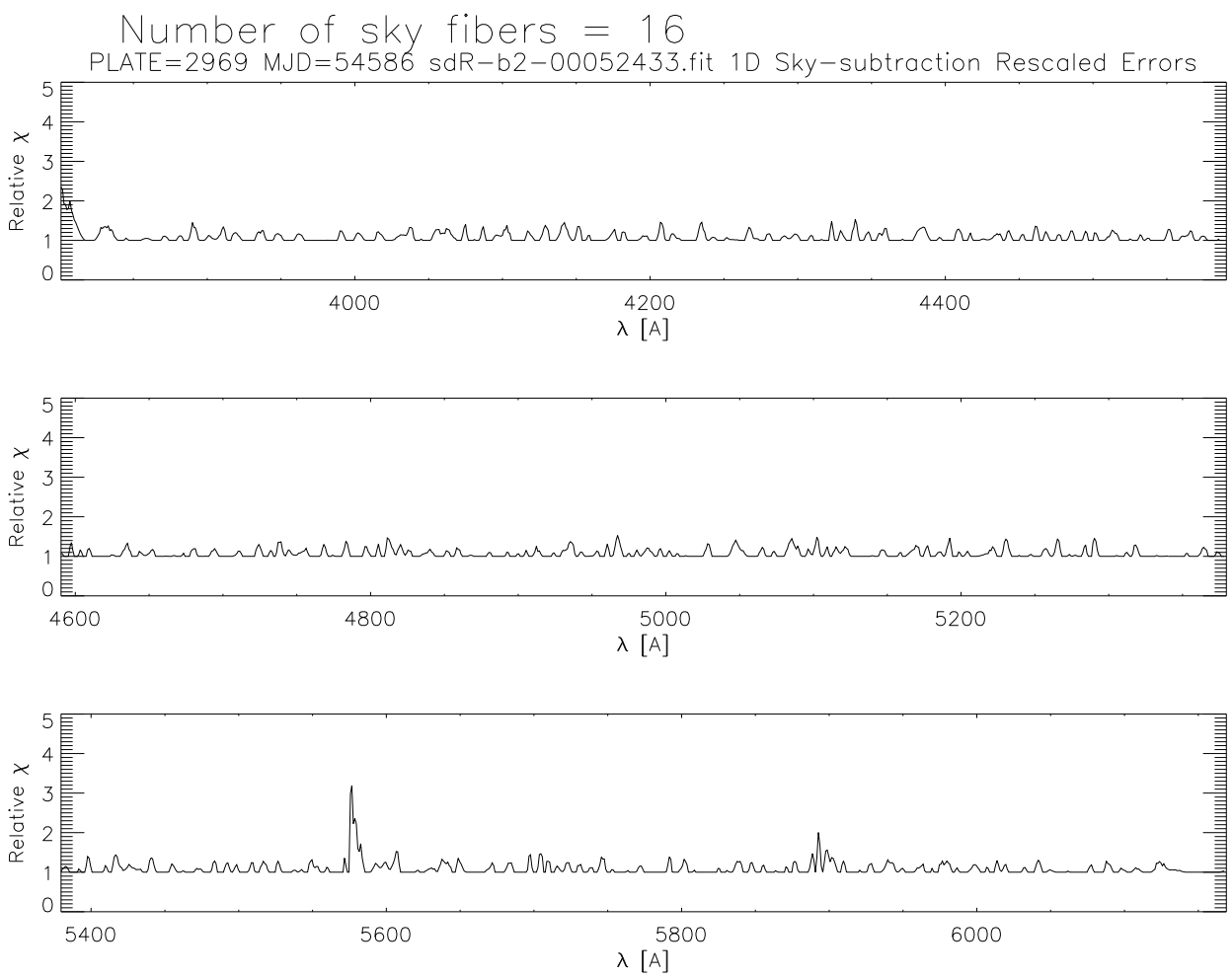

PLATE=2969 MJD=54586 Smooth superflat for sdR-b2-00052433.fit
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
4000
4500
5000
5500
6000
Wavelength (Å)

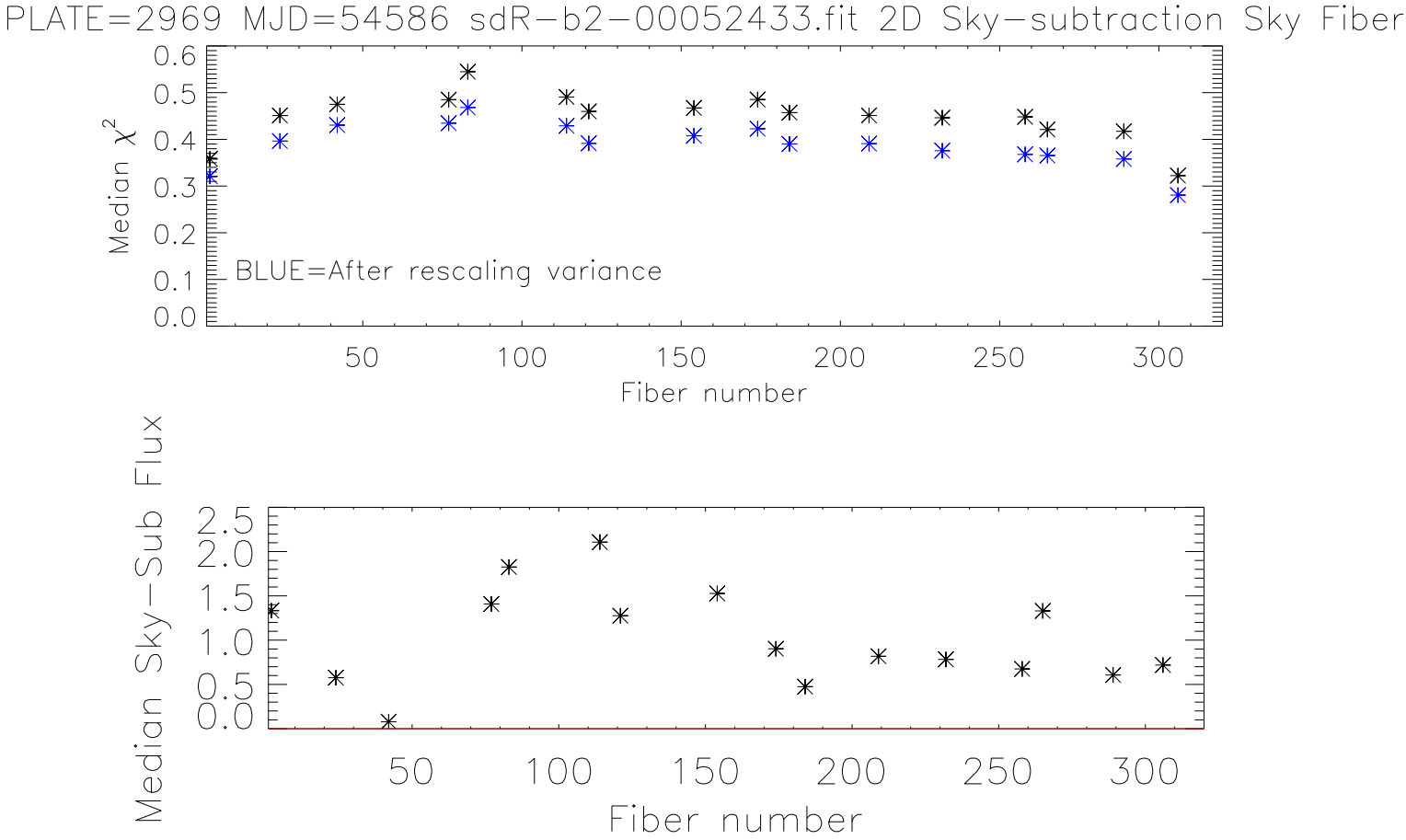
es= −0.0000

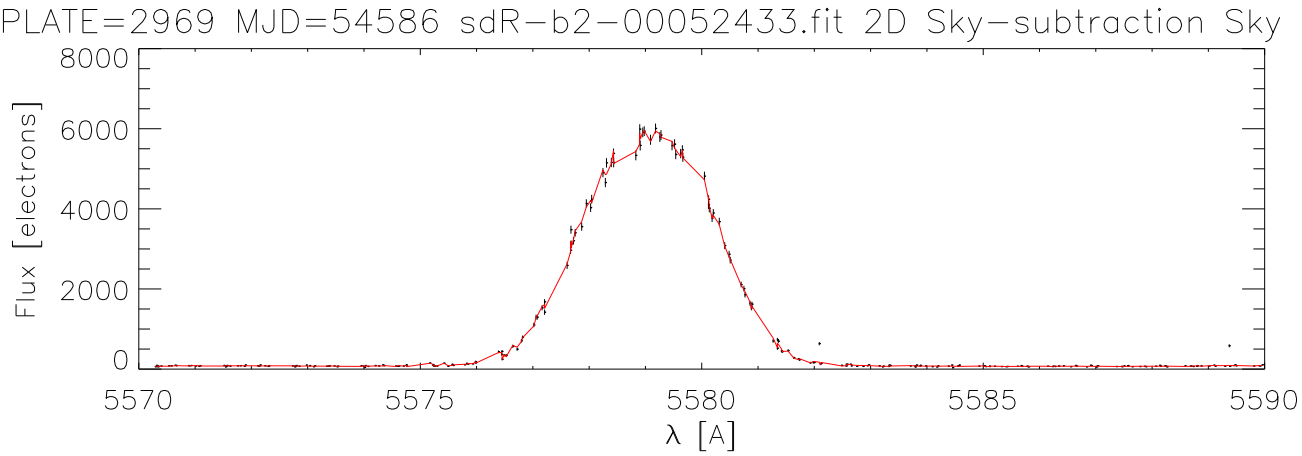

PLATE=2969 MJD=54586 sdR-b2-00052433.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.2
0.4
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-0.5
0.0
0.5
1.0
1.5
2.0
2.5
50
100
150
200
250
300
Fiber number

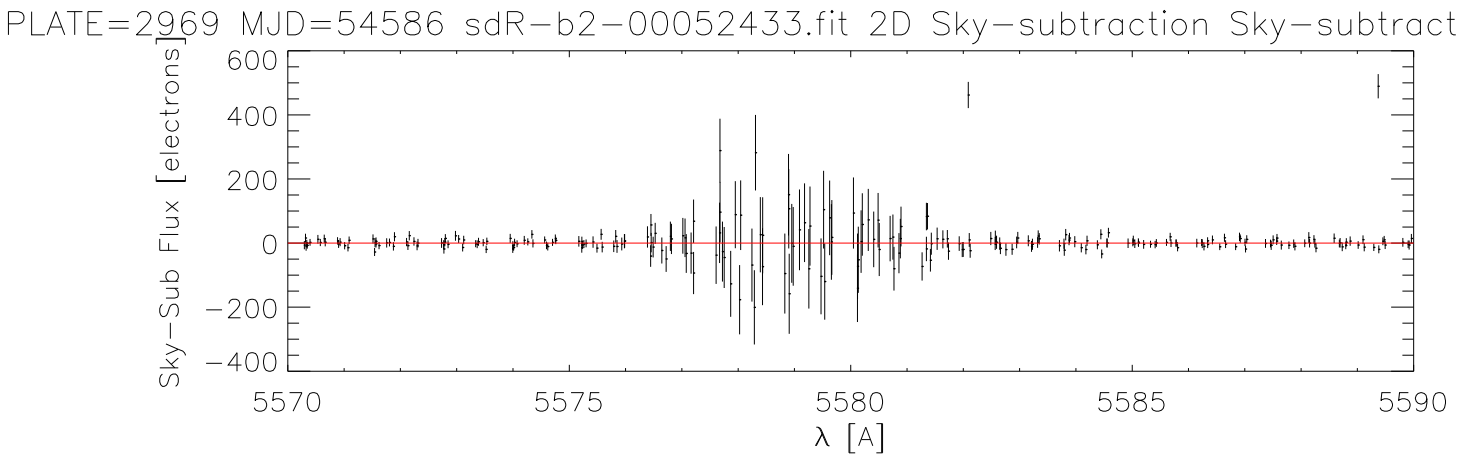

PLATE=2969 MJD=54586 sdR-b2-00052433.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

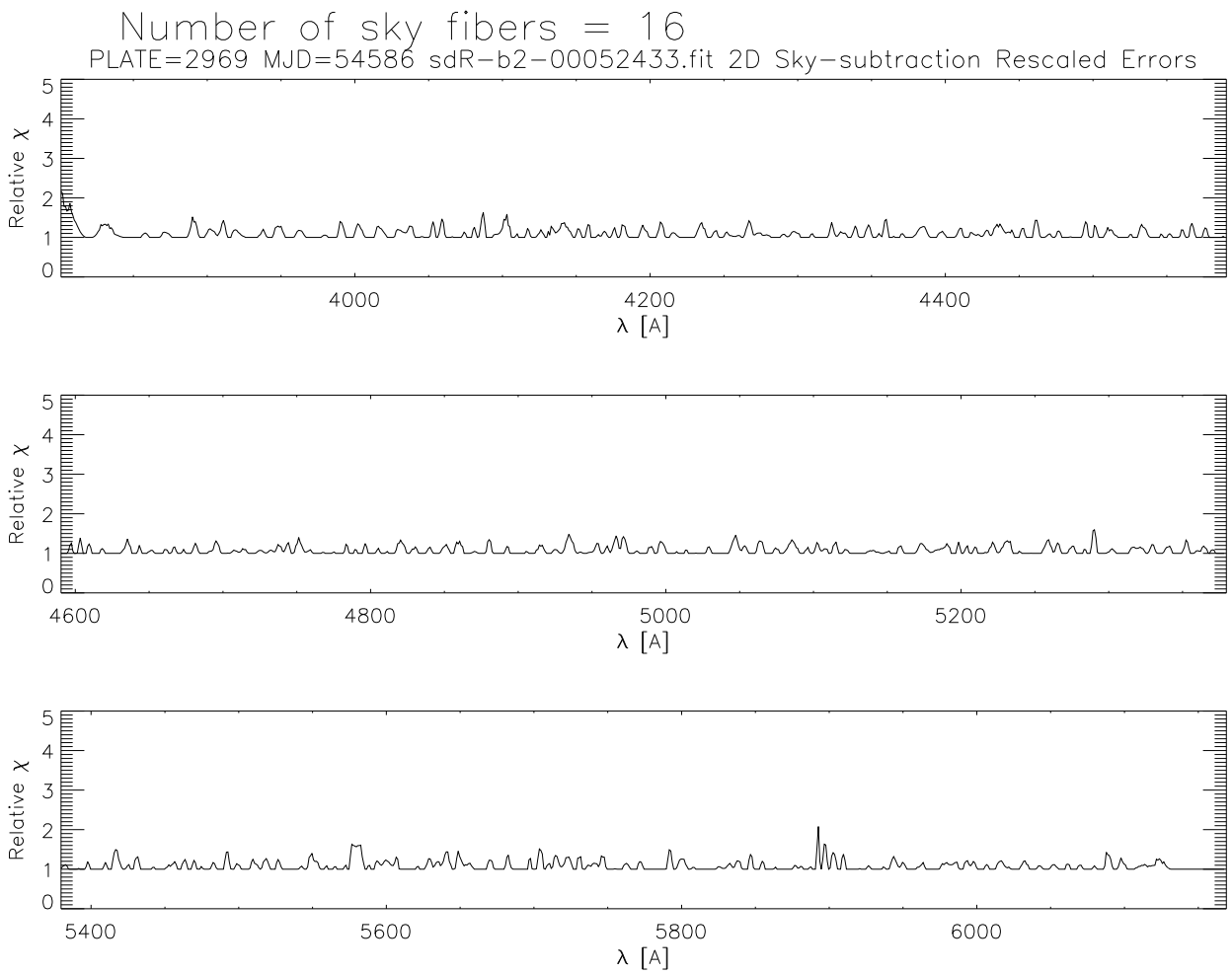

PLATE=2969 MJD=54586 sdR-b2-00052433.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
-200
-400
-600
5570
5575
5580
5585
5590
λ [A]

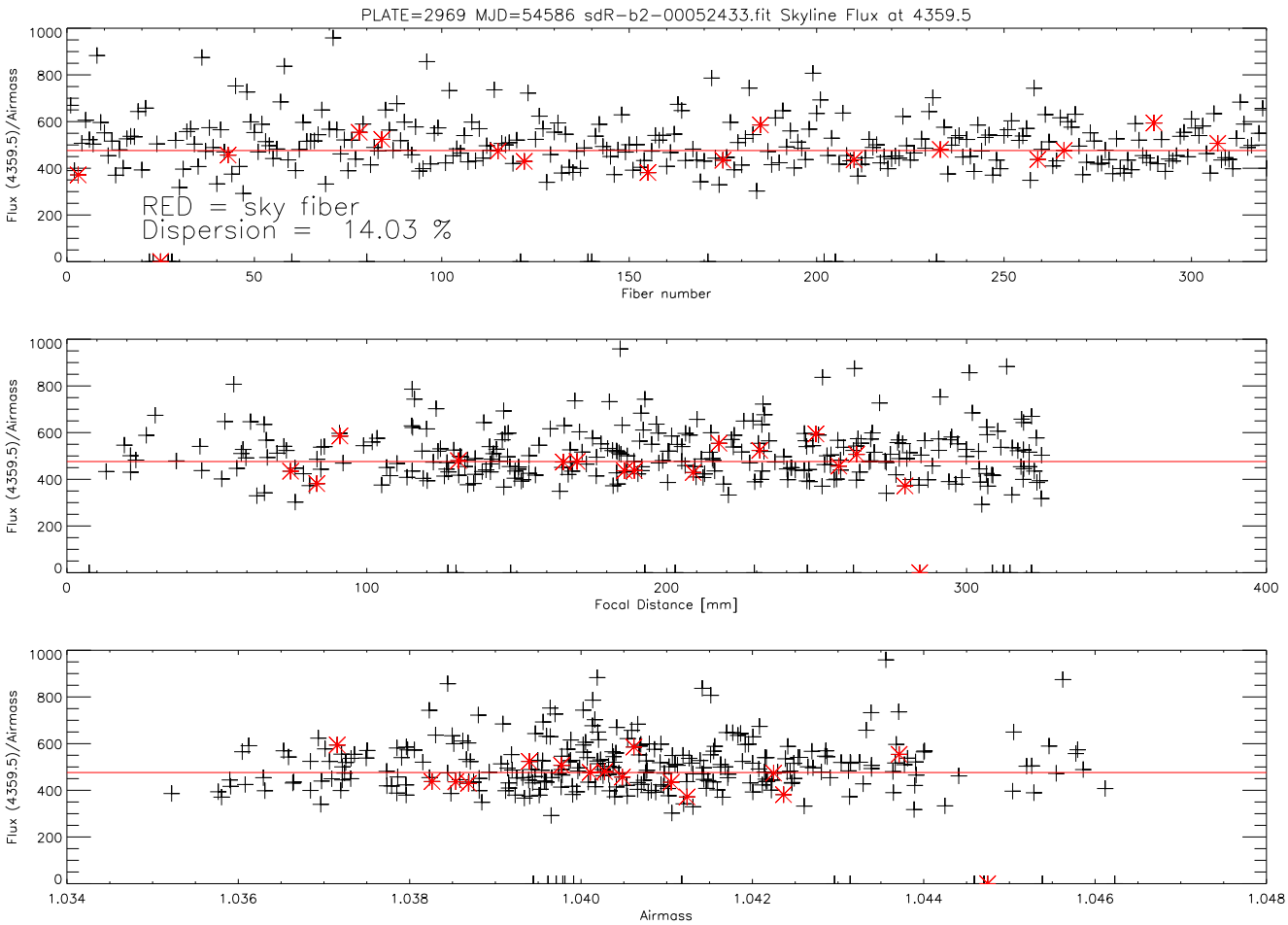

Number of sky fibers = 16
PLATE=2969 MJD=54586 sdR-b2-00052433.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

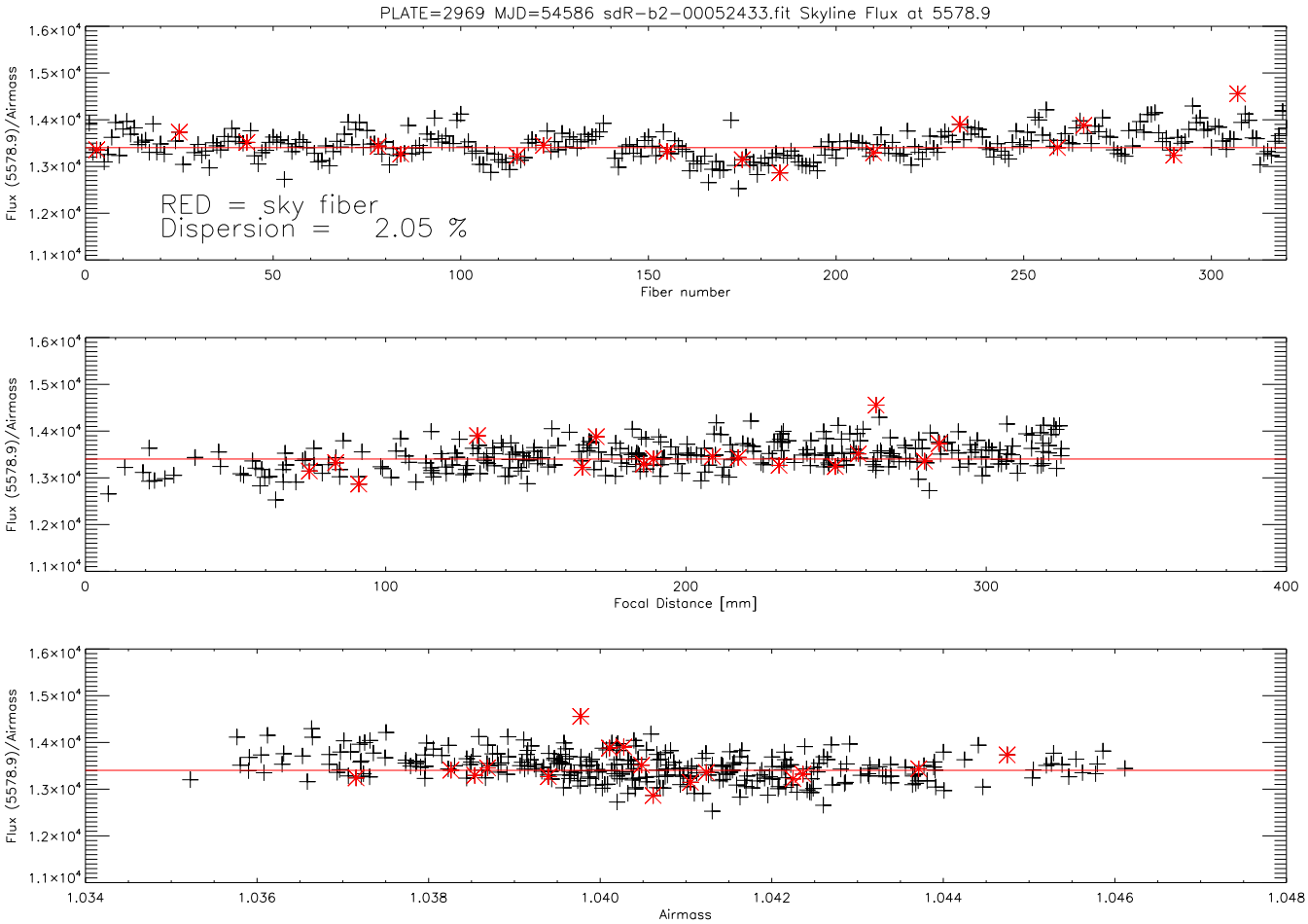

PLATE=2969 MJD=54586 sdR-b2-00052433.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

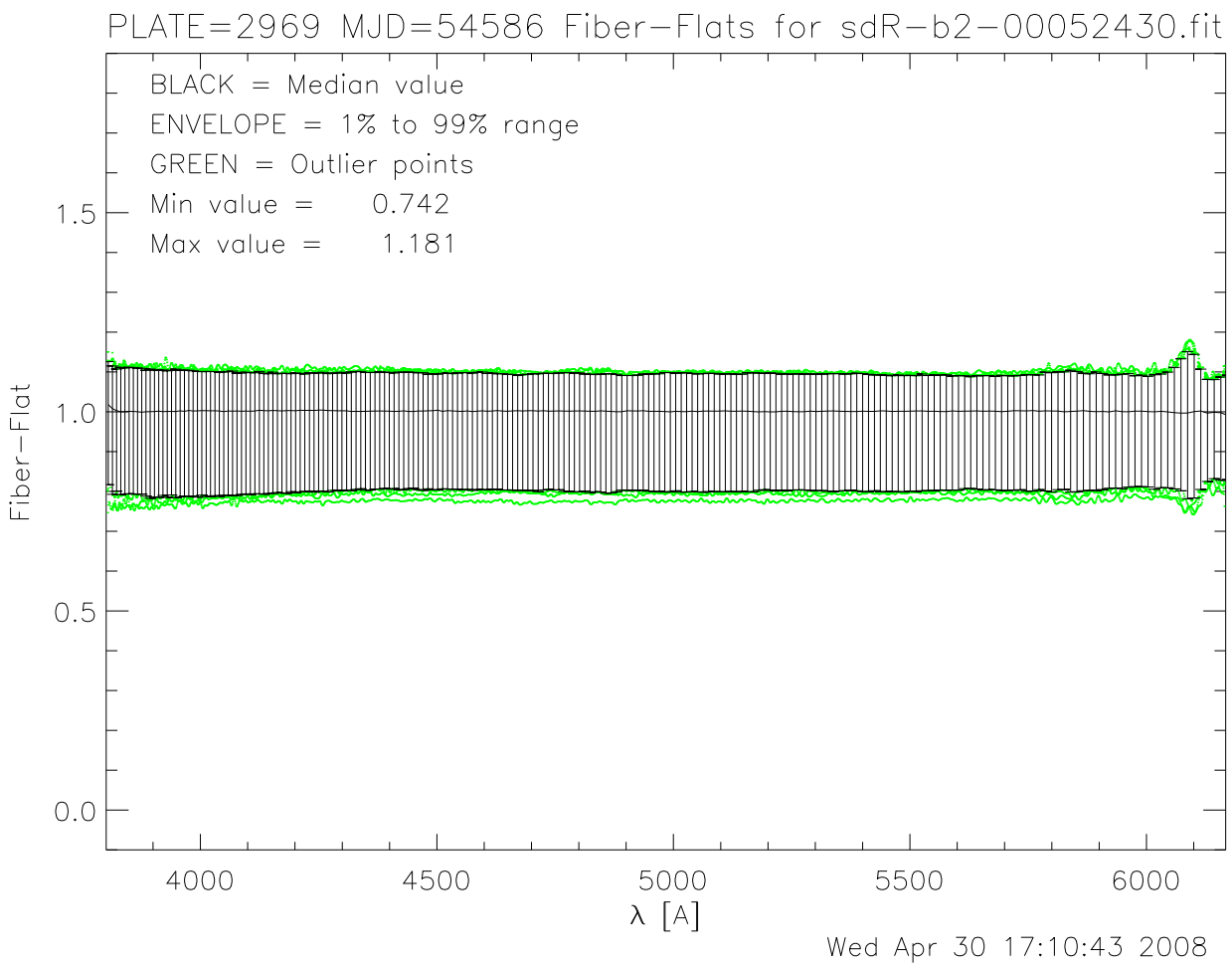

PLATE=2969 MJD=54586 sdR-b2-00052433.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

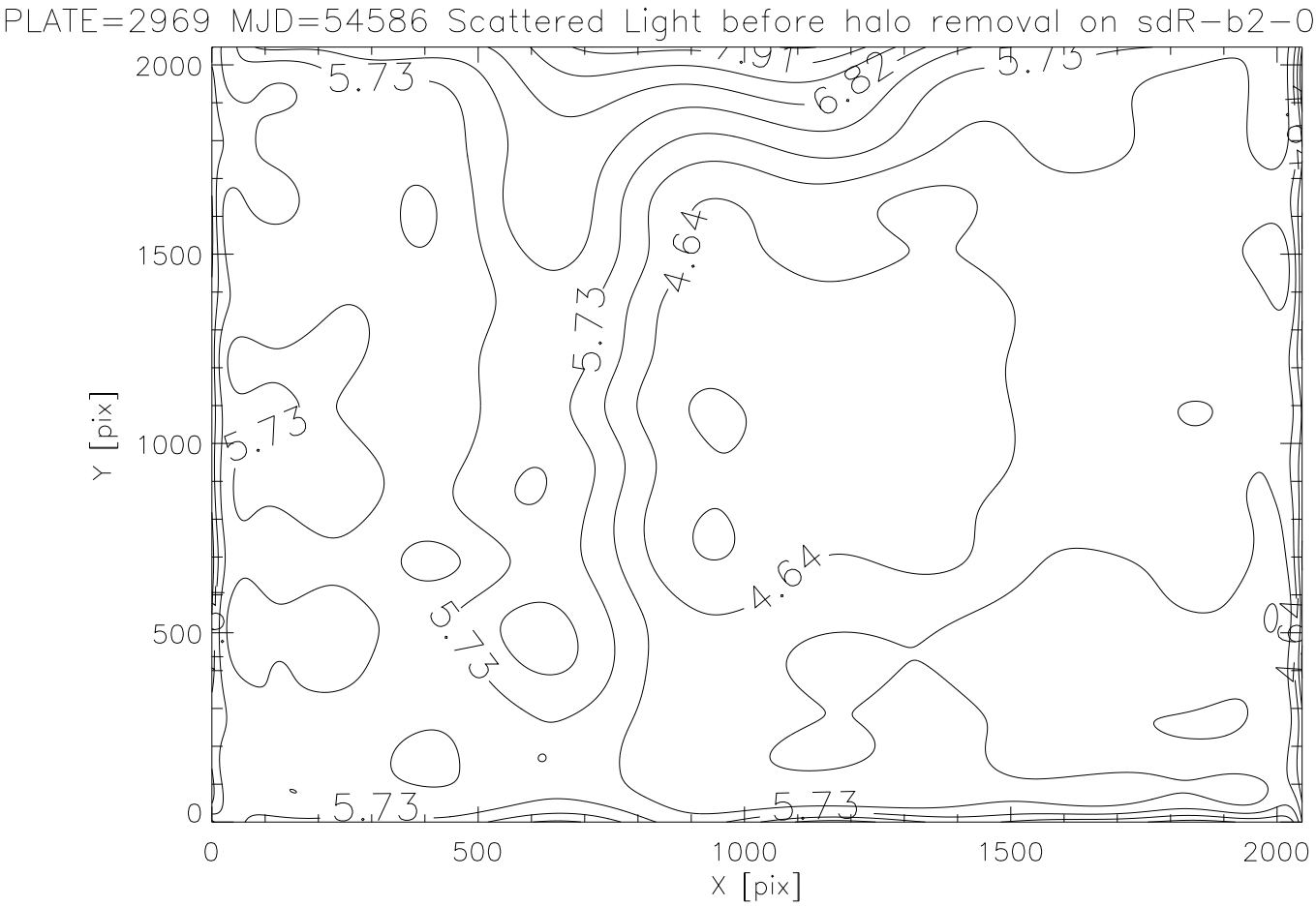

PLATE=2969 MJD=54586 sdR-b2-00052433.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
-200
-400
5570
5575
5580
5585
5590
λ [A]

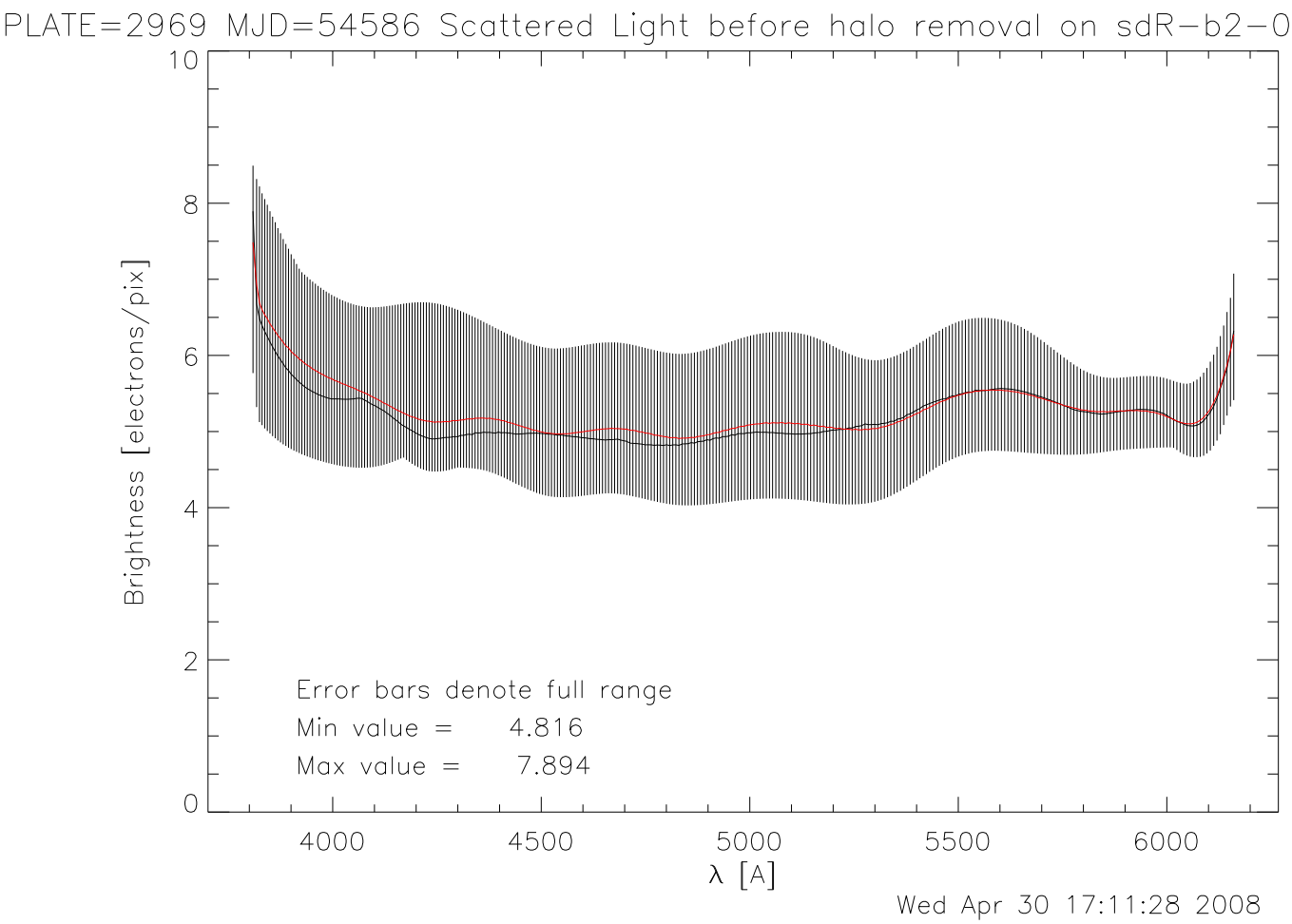

Number of sky fibers = 16
PLATE=2969 MJD=54586 sdR-b2-00052433.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

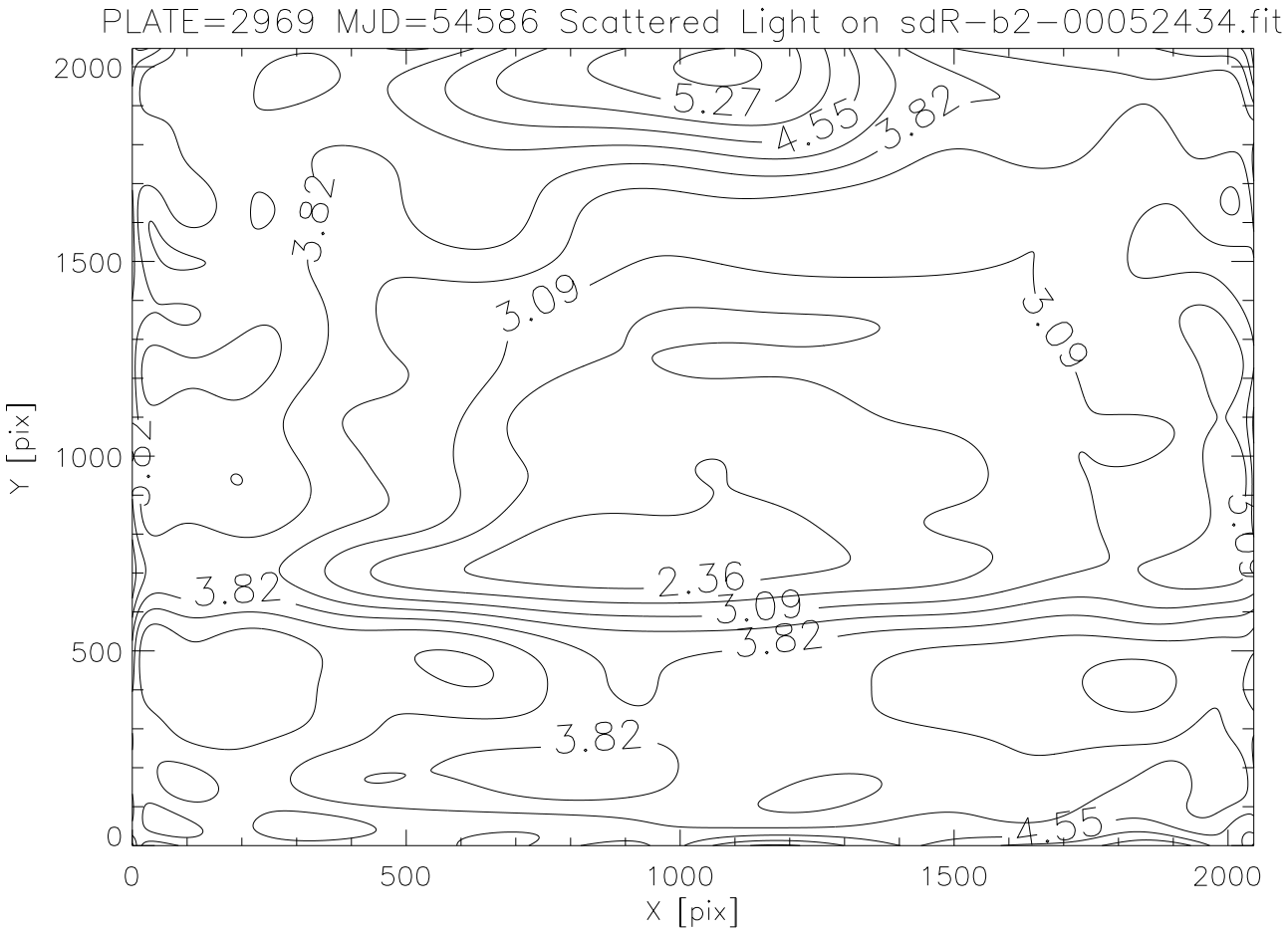

PLATE=2969 MJD=54586 sdR-b2-00052433.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 14.03 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

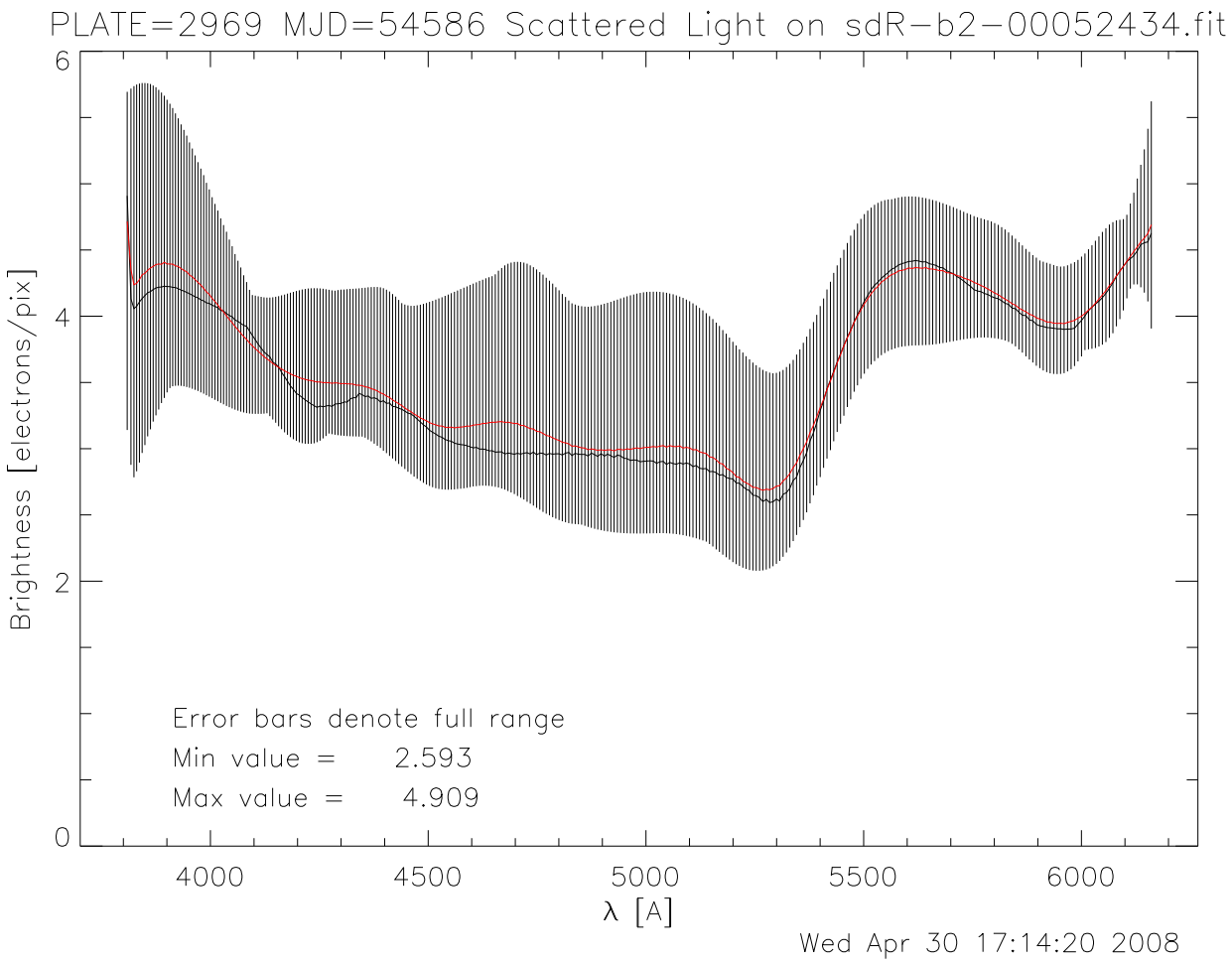

PLATE=2969 MJD=54586 sdR-b2-00052433.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
1.6×10^4
1.5×10^4
1.4×10^4
1.3×10^4
1.2×10^4
1.1×10^4
RED = sky fiber
Dispersion = 2.05 %
0
50
100
150
200
250
300
Fiber number
Flux (5578.9)/Airmass
1.6×10^4
1.5×10^4
1.4×10^4
1.3×10^4
1.2×10^4
1.1×10^4
0
100
200
300
400
Focal Distance [mm]
Flux (5578.9)/Airmass
1.6×10^4
1.5×10^4
1.4×10^4
1.3×10^4
1.2×10^4
1.1×10^4
1.034
1.036
1.038
1.040
1.042
1.044
1.046
1.048
Airmass

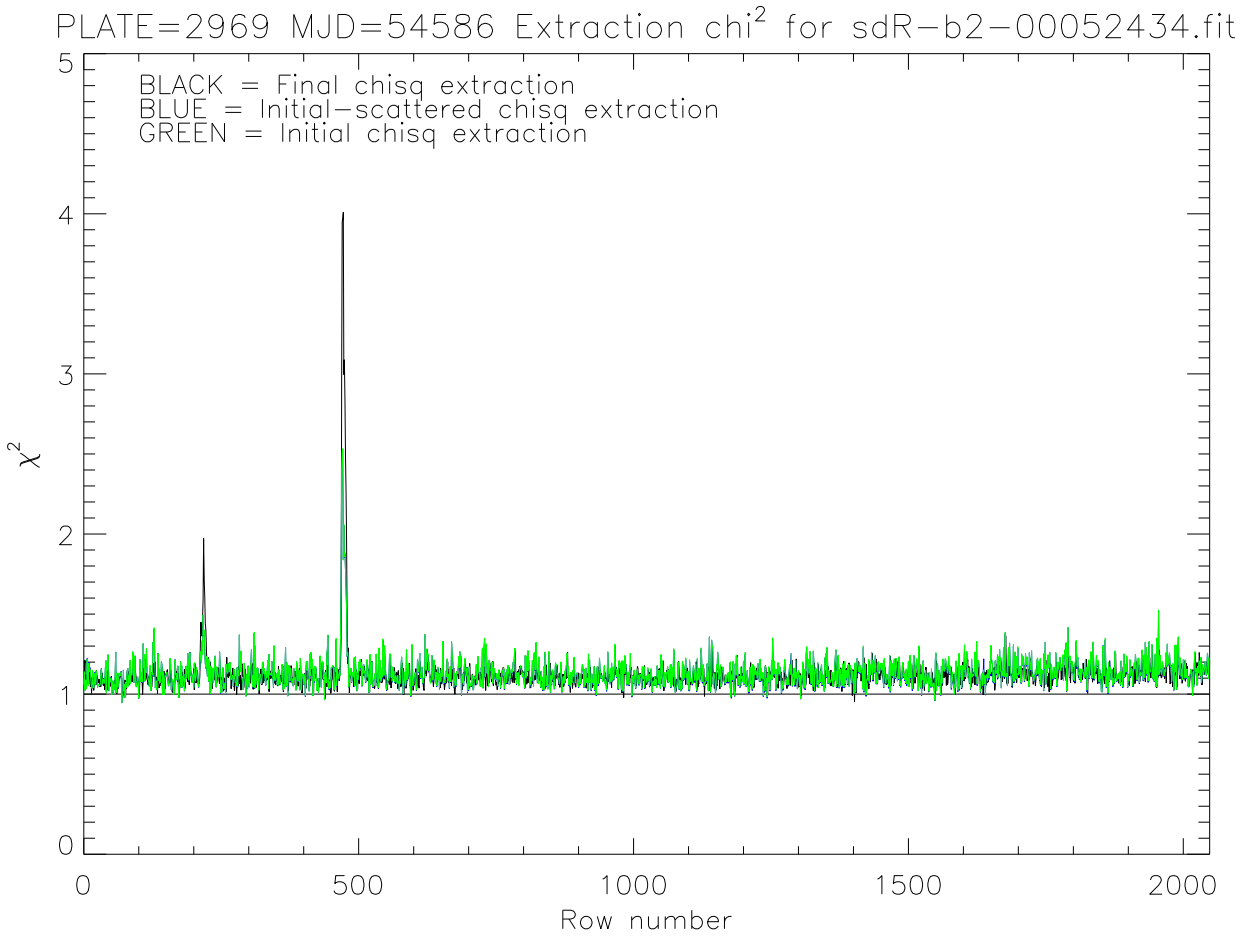

PLATE=2969 MJD=54586 Fiber-Flats for sdR-b2-00052430.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.742
Max value = 1.181
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Wed Apr 30 17:10:43 2008

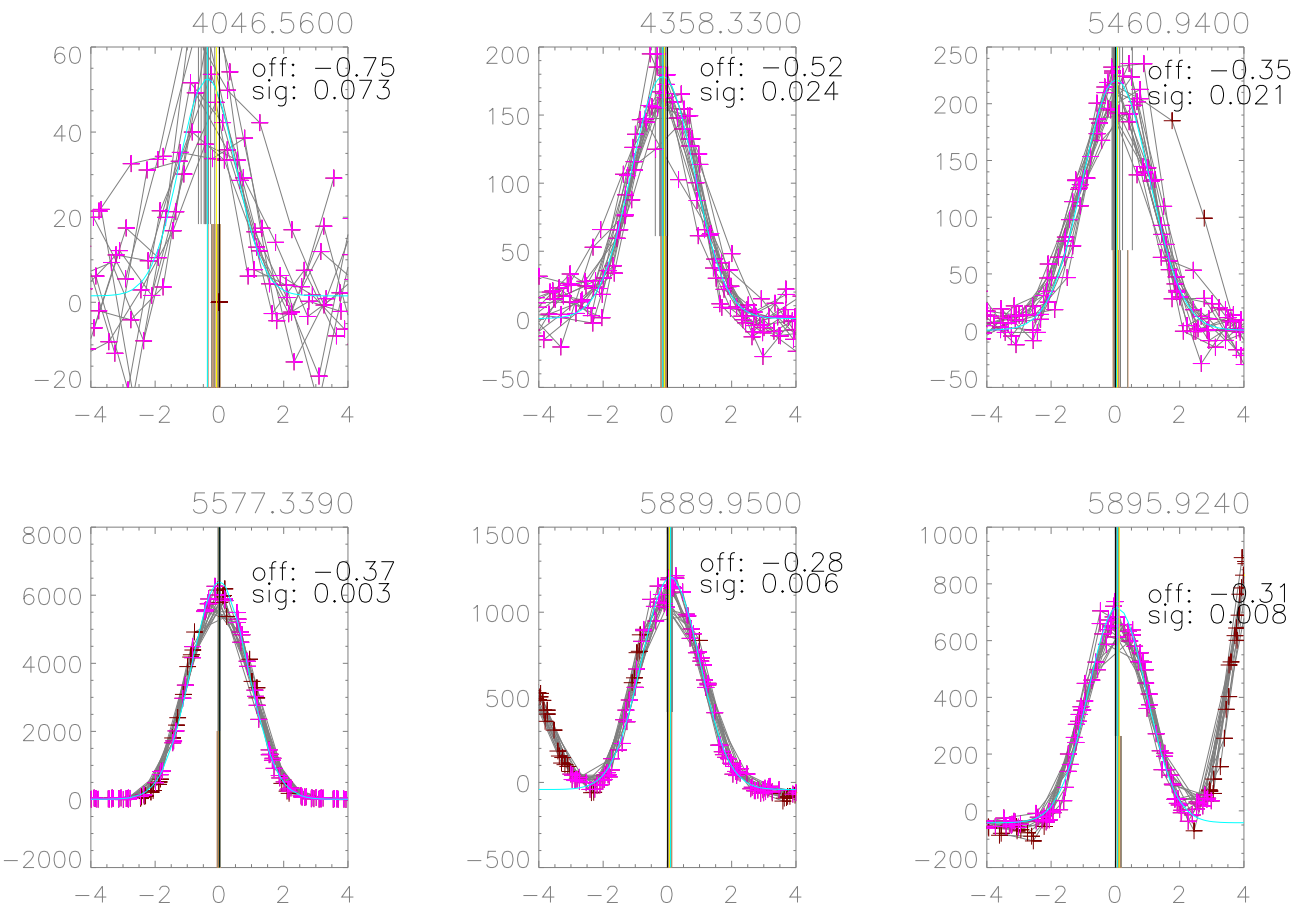

PLATE=2969 MJD=54586 Scattered Light before halo removal on sdR−b2−00052434.f
5.73
6.82
5.75
4.64
5.73
5.73
4.64
5.73
5.73
5.73
4.64
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]

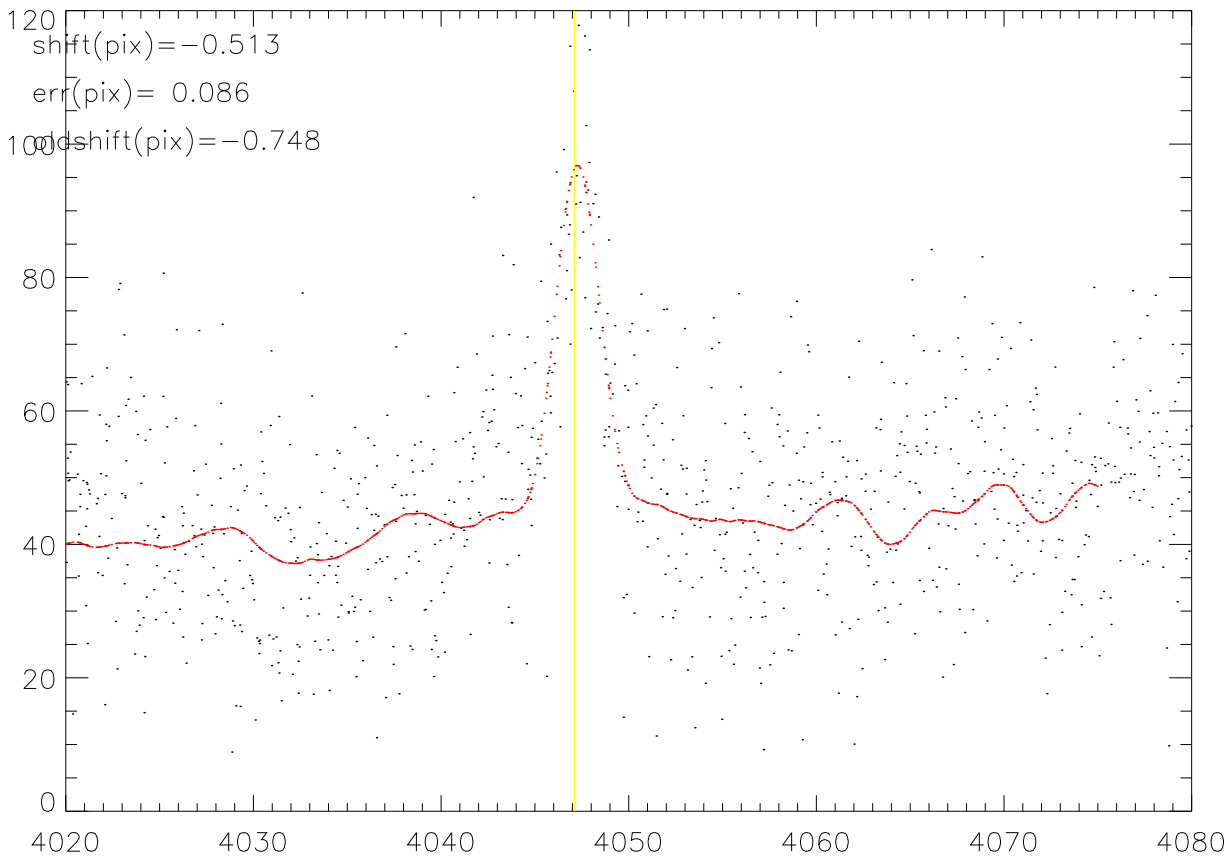

PLATE=2969 MJD=54586 Scattered Light before halo removal on sdR-b2-00052434.f
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 4.816
Max value = 7.894
Wed Apr 30 17:11:28 2008

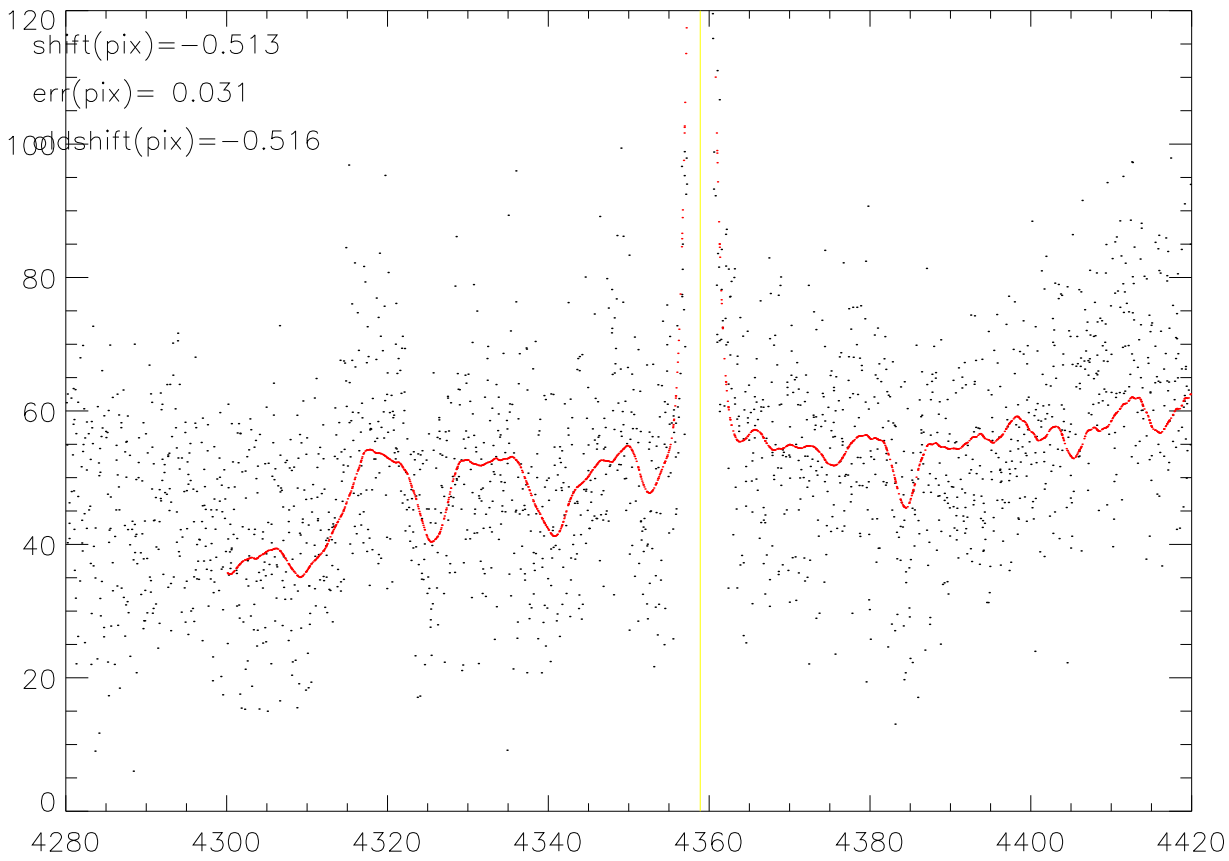

PLATE=2969 MJD=54586 Scattered Light on sdR-b2-00052434.fit
5.27
4.55
3.82
3.09
2.36
Y [pix]
X [pix]
0
500
1000
1500
2000

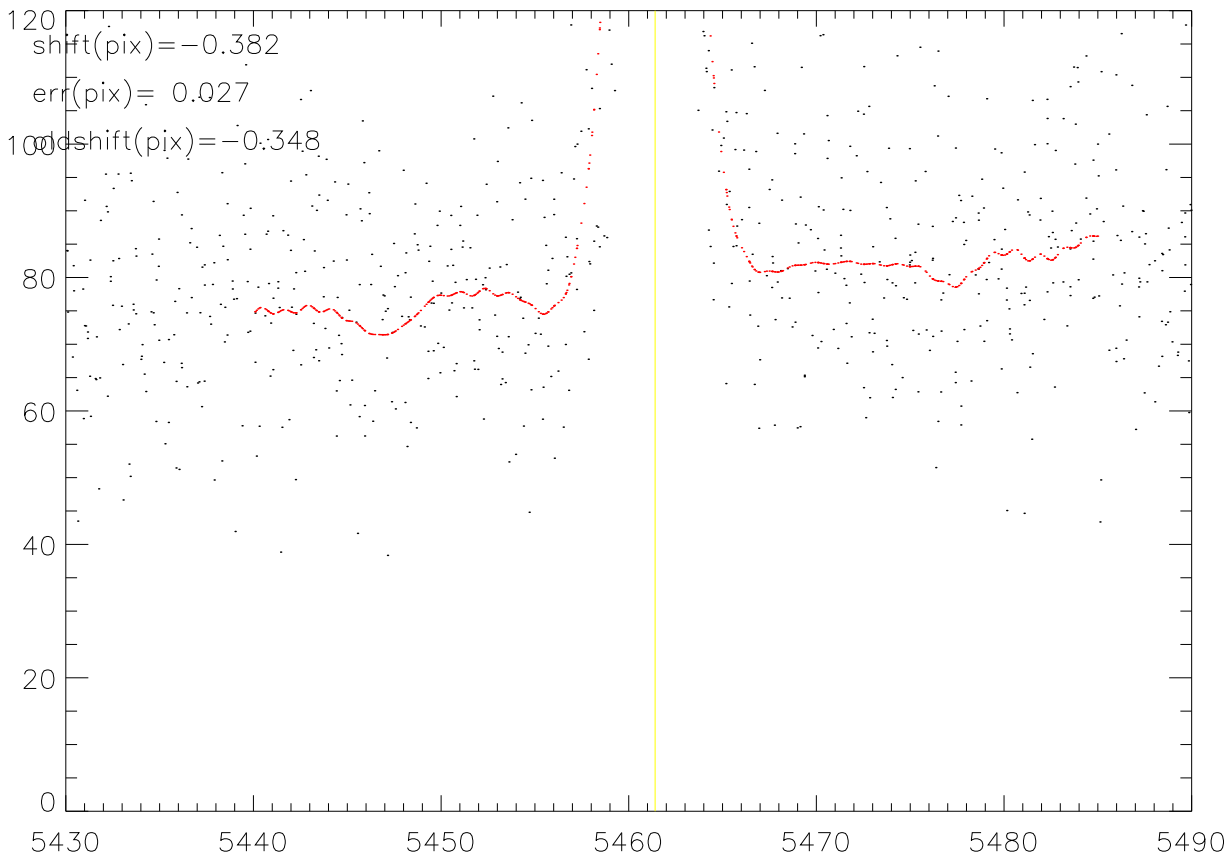

PLATE=2969 MJD=54586 Scattered Light on sdR-b2-00052434.fit
Brightness [electrons/pix]
0
2
4
6
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 2.593
Max value = 4.909
Wed Apr 30 17:14:20 2008

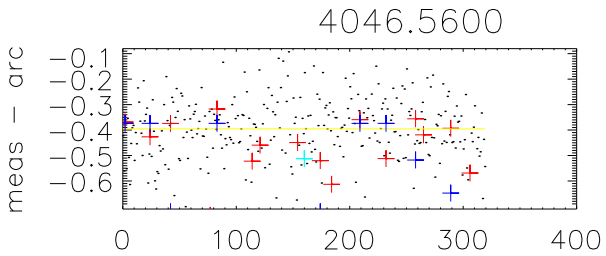

PLATE=2969 MJD=54586 Extraction chi^2 for sdR-b2-00052434.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
5
0
500
1000
1500
2000
Row number

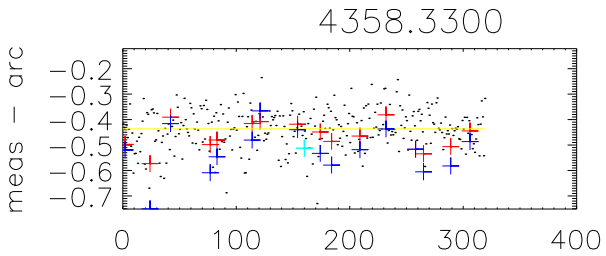

4046.5600
off: −0.75
sig: 0.073
4358.3300
off: −0.52
sig: 0.024
5460.9400
off: −0.35
sig: 0.021
5577.3390
off: −0.37
sig: 0.003
5889.9500
off: −0.28
sig: 0.006
5895.9240
off: −0.31
sig: 0.008

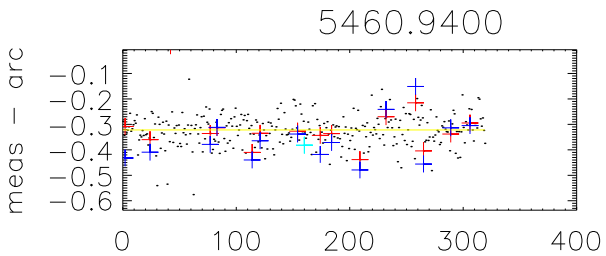

shift(pix)=−0.513
err(pix)= 0.086
oldshift(pix)=−0.748
120
100
80
60
40
20
0
4020
4030
4040
4050
4060
4070
4080

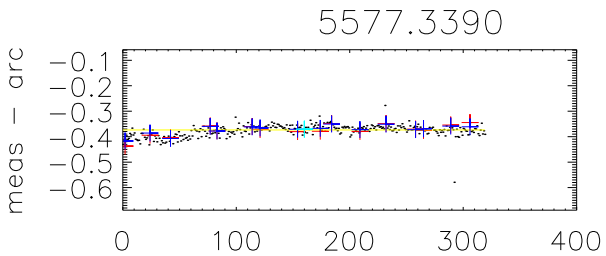

shift(pix)=−0.513
err(pix)= 0.031
oldshift(pix)=−0.516
120
100
80
60
40
20
0
4280
4300
4320
4340
4360
4380
4400
4420

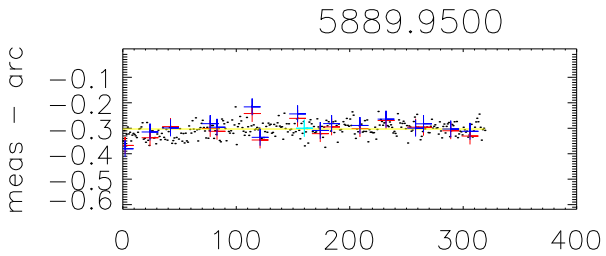

shift(pix)=−0.382
err(pix)= 0.027
oldshift(pix)=−0.348
120
100
80
60
40
20
0
5430
5440
5450
5460
5470
5480
5490

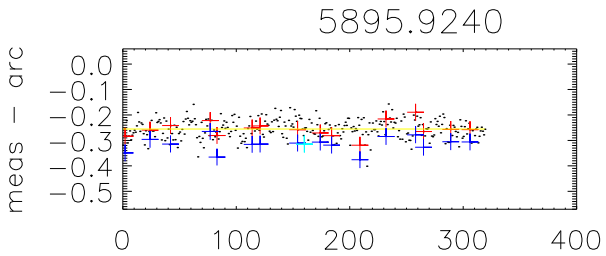

4046.5600
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

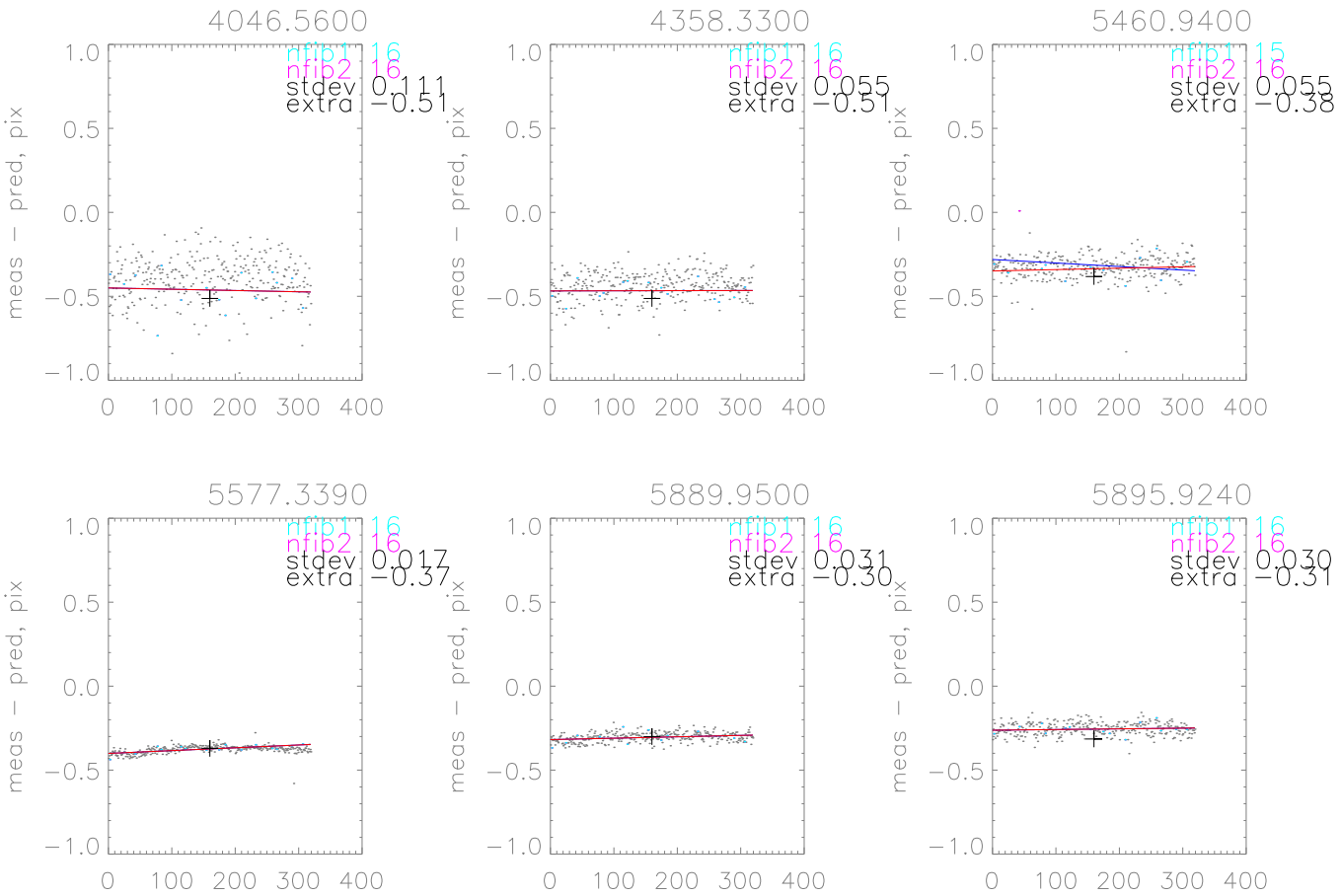

4358.3300
meas − arc
−0.2
−0.3
−0.4
−0.5
−0.6
−0.7
0
100
200
300
400

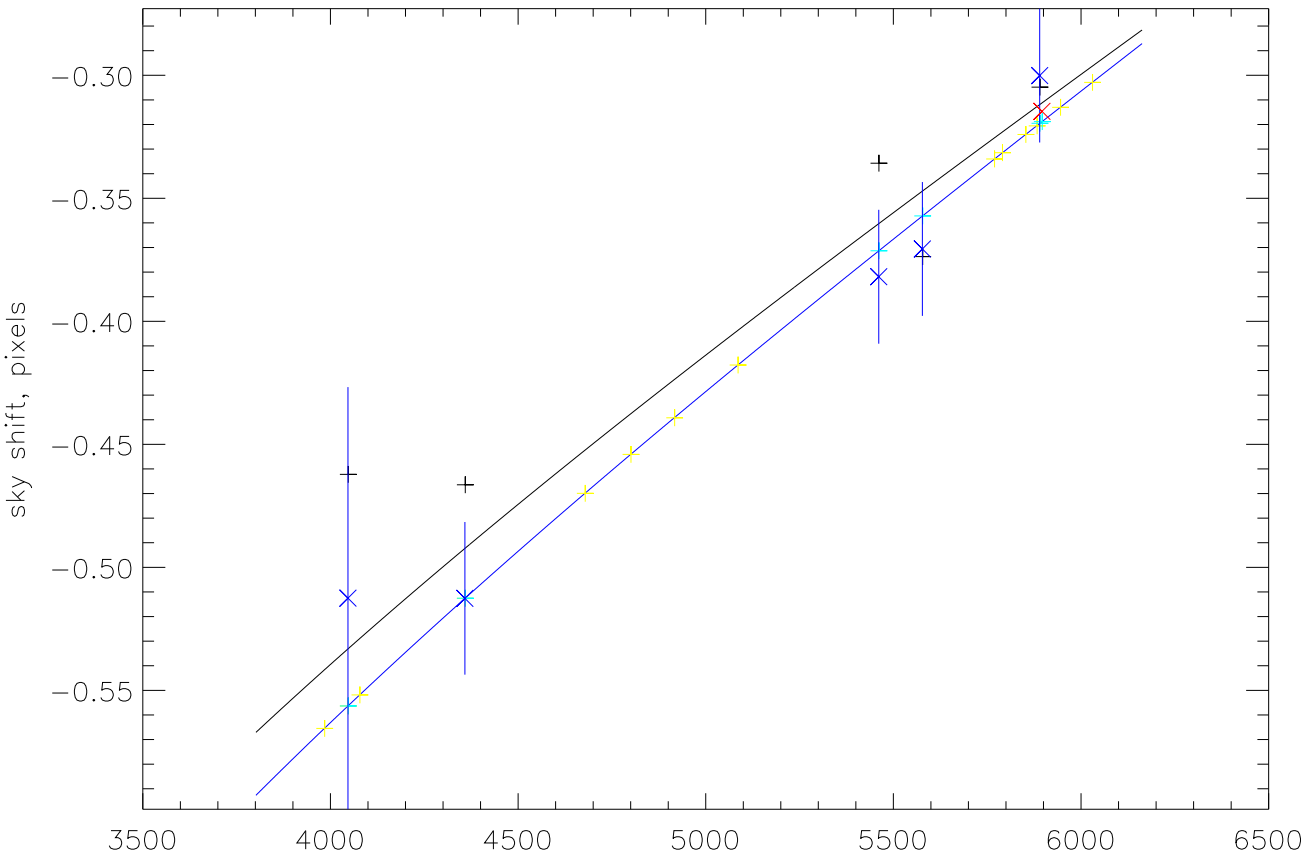

5460.9400
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

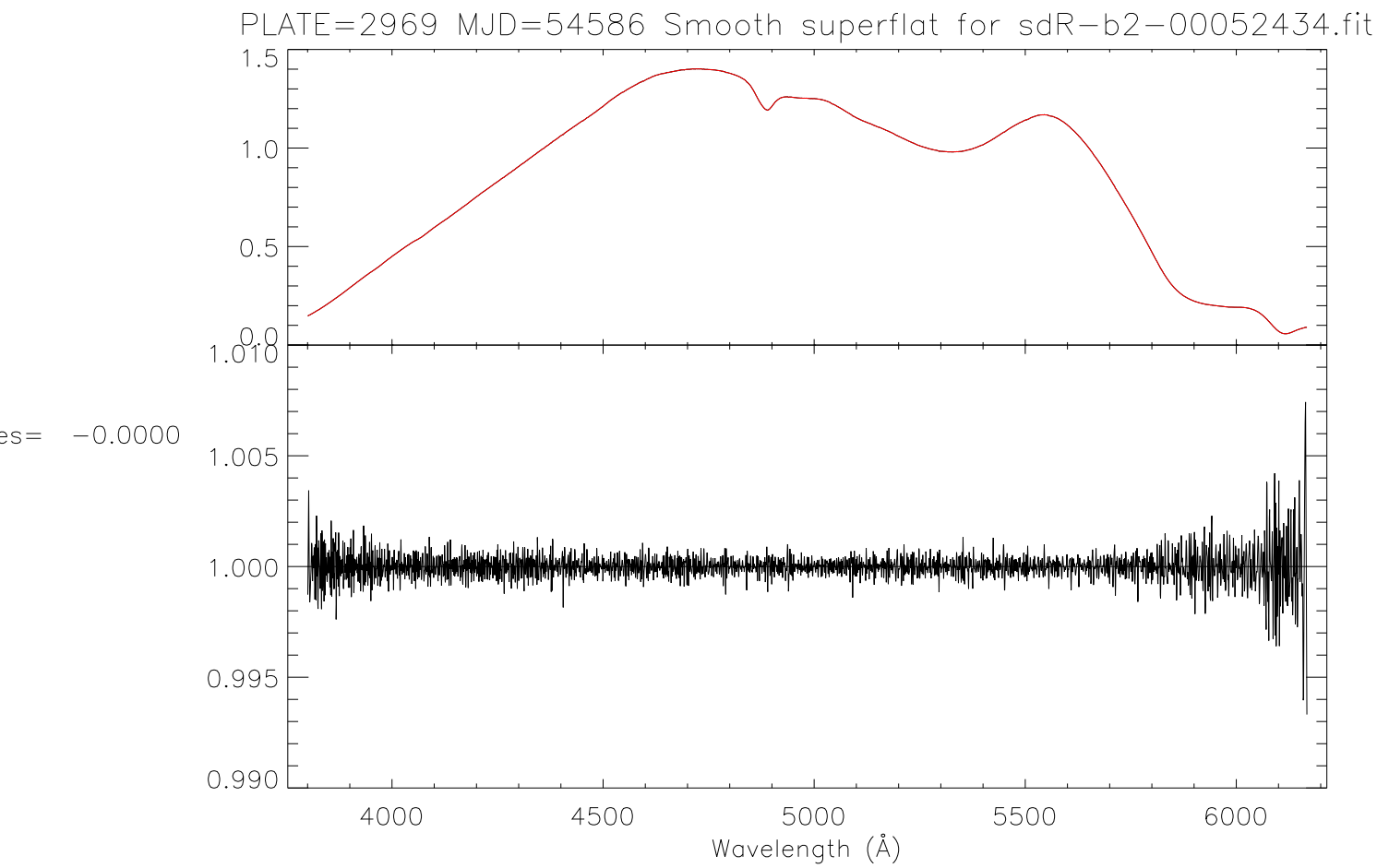

5577.3390
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400


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

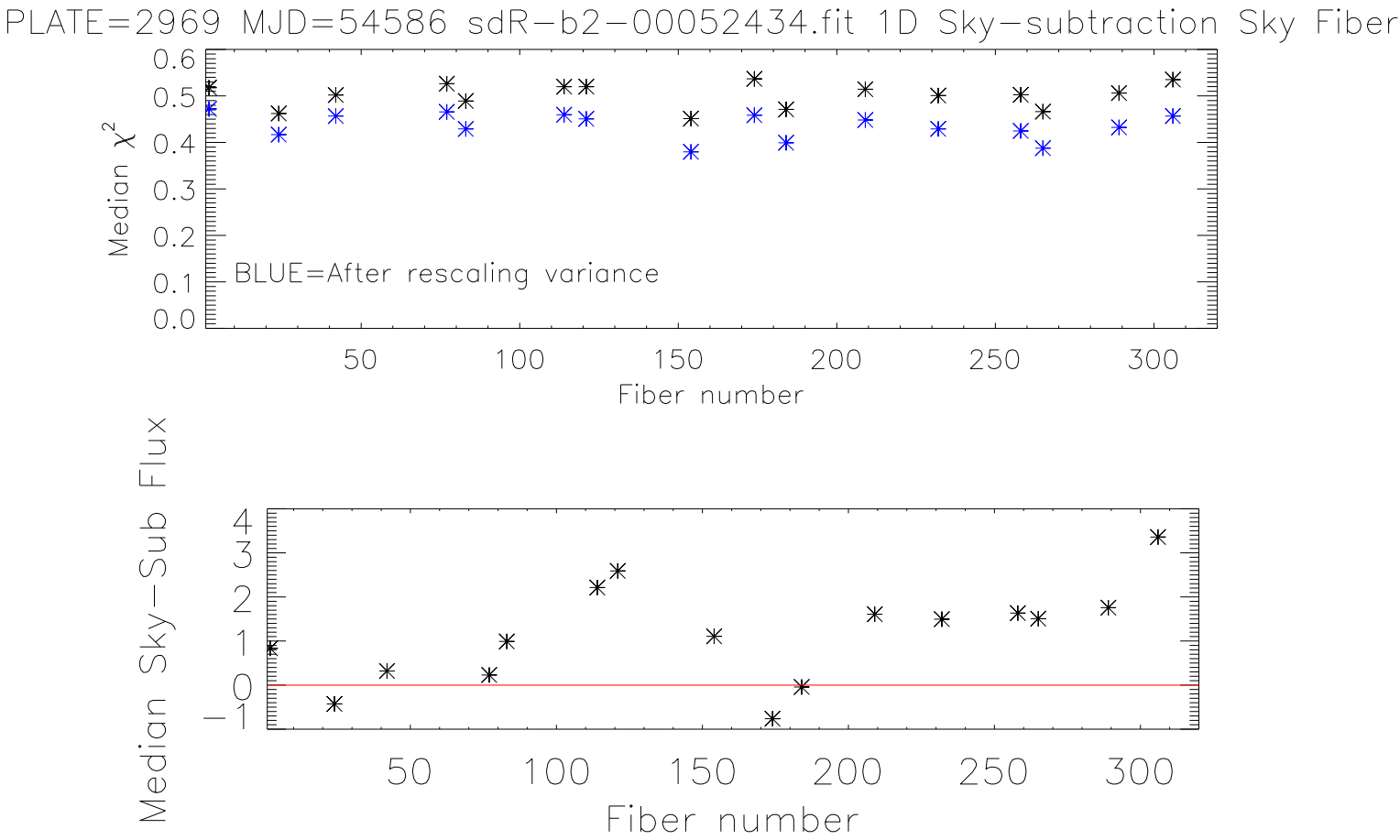

5895.9240
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

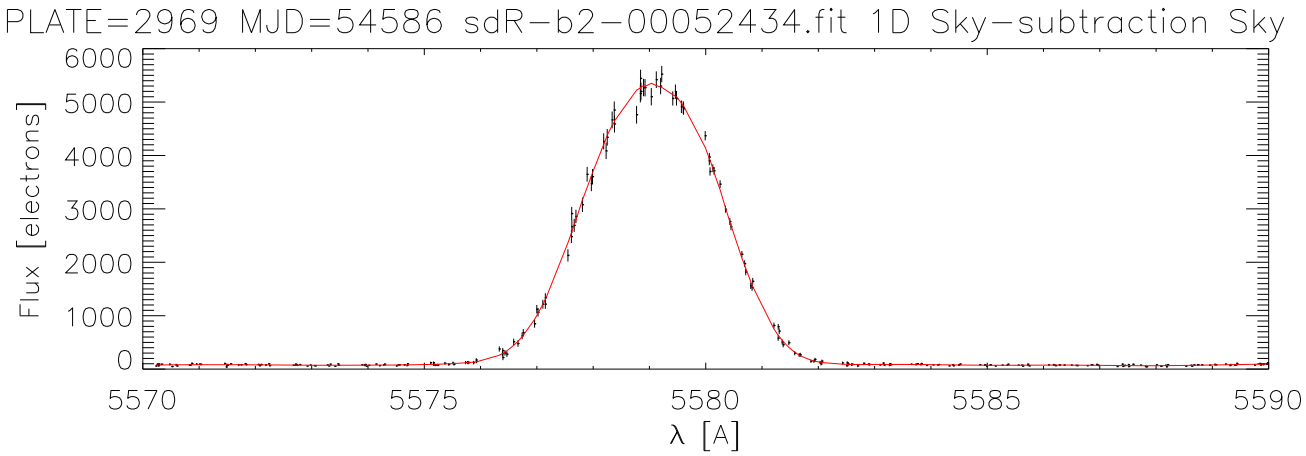

4046.5600
nfib1 16
nfib2 16
stdev 0.111
extra −0.51
4358.3300
nfib1 16
nfib2 16
stdev 0.055
extra −0.51
5460.9400
nfib1 15
nfib2 16
stdev 0.055
extra −0.38
5577.3390
nfib1 16
nfib2 16
stdev 0.017
extra −0.37
5889.9500
nfib1 16
nfib2 16
stdev 0.031
extra −0.30
5895.9240
nfib1 16
nfib2 16
stdev 0.030
extra −0.31
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

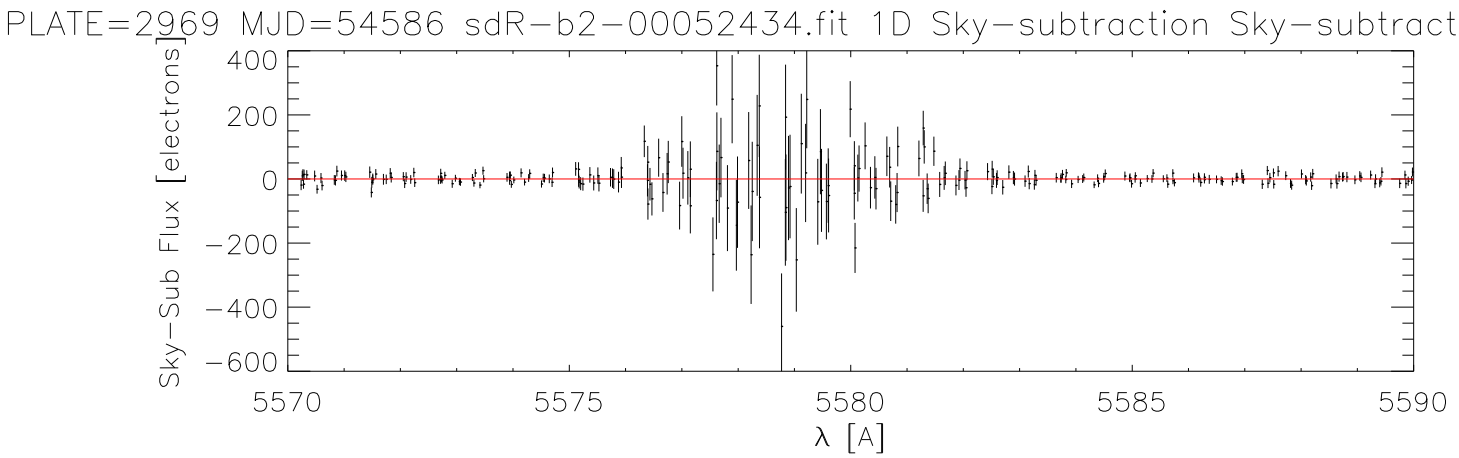

sky shift, pixels
−0.30
−0.35
−0.40
−0.45
−0.50
−0.55
3500
4000
4500
5000
5500
6000
6500

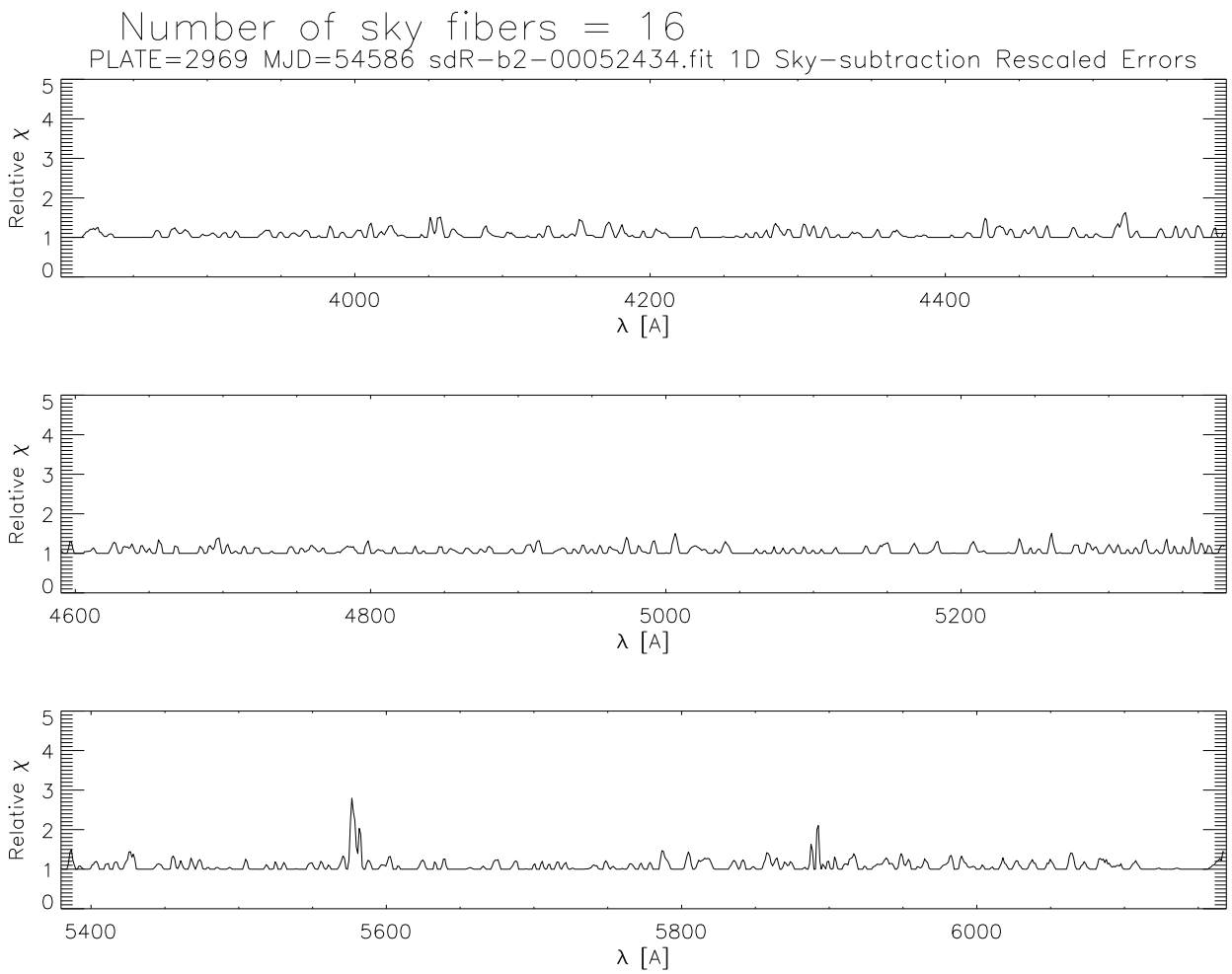

PLATE=2969 MJD=54586 Smooth superflat for sdR-b2-00052434.fit
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
4000
4500
5000
5500
6000
Wavelength (Å)

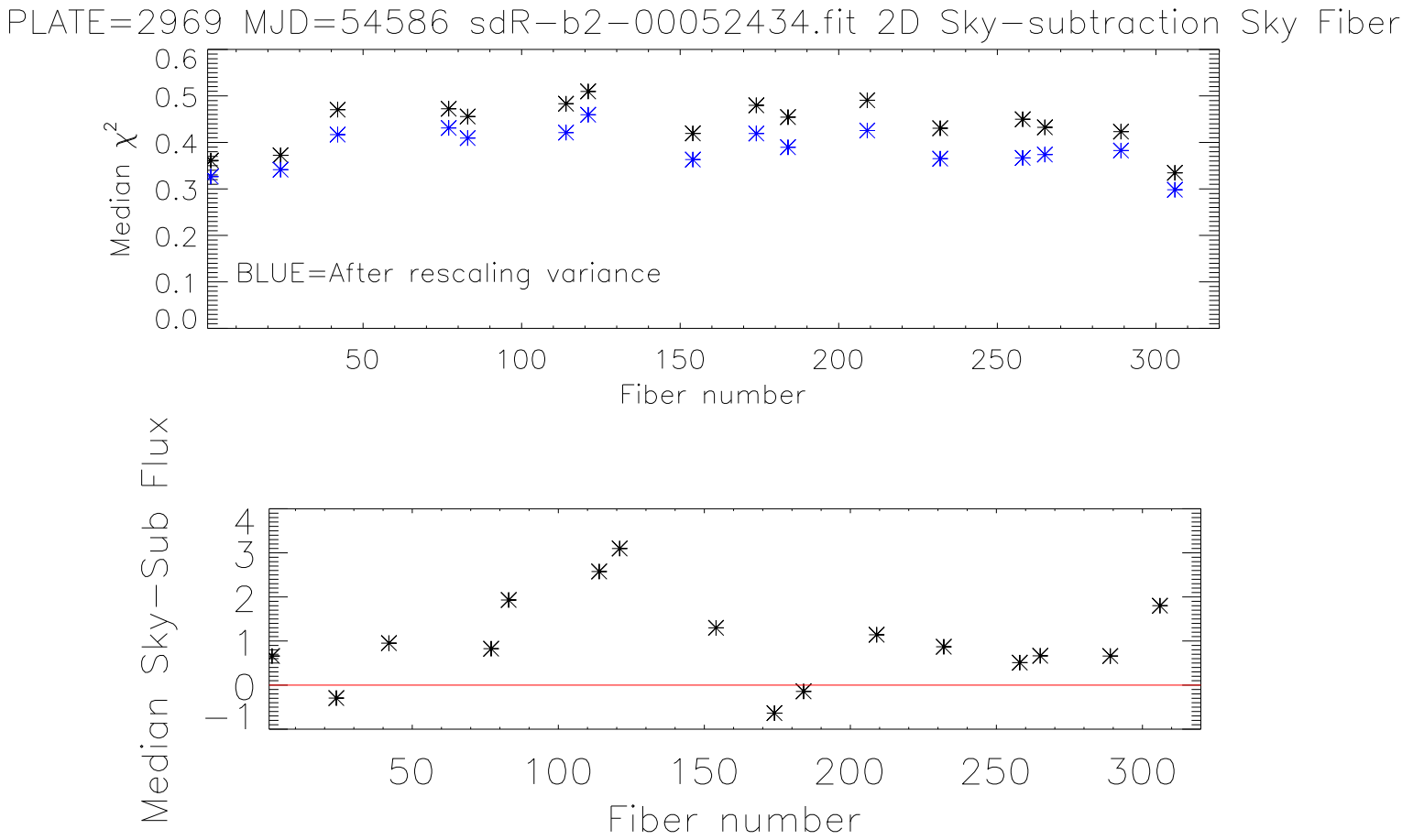
es= −0.0000

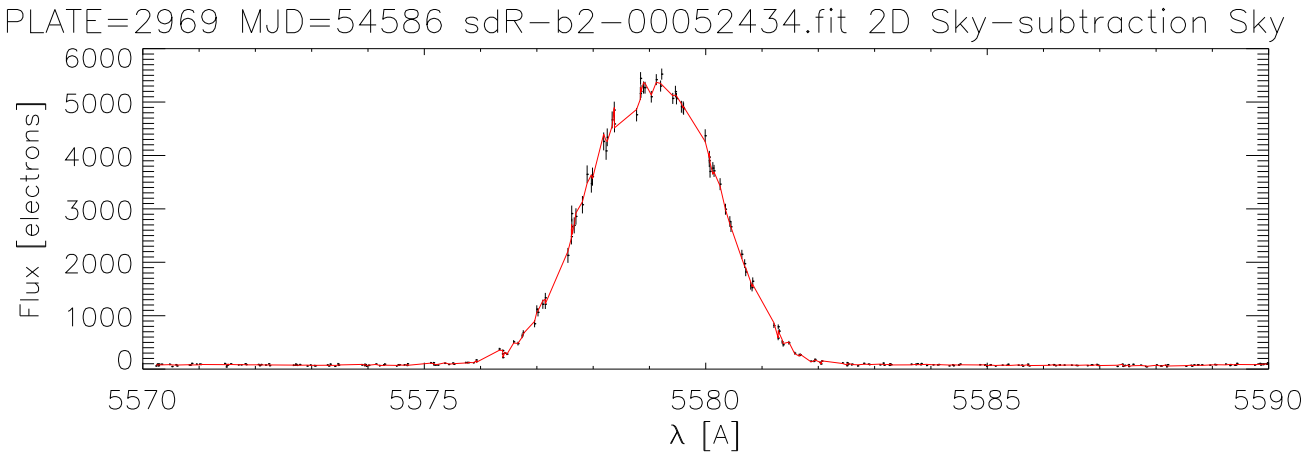

PLATE=2969 MJD=54586 sdR-b2-00052434.fit 1D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

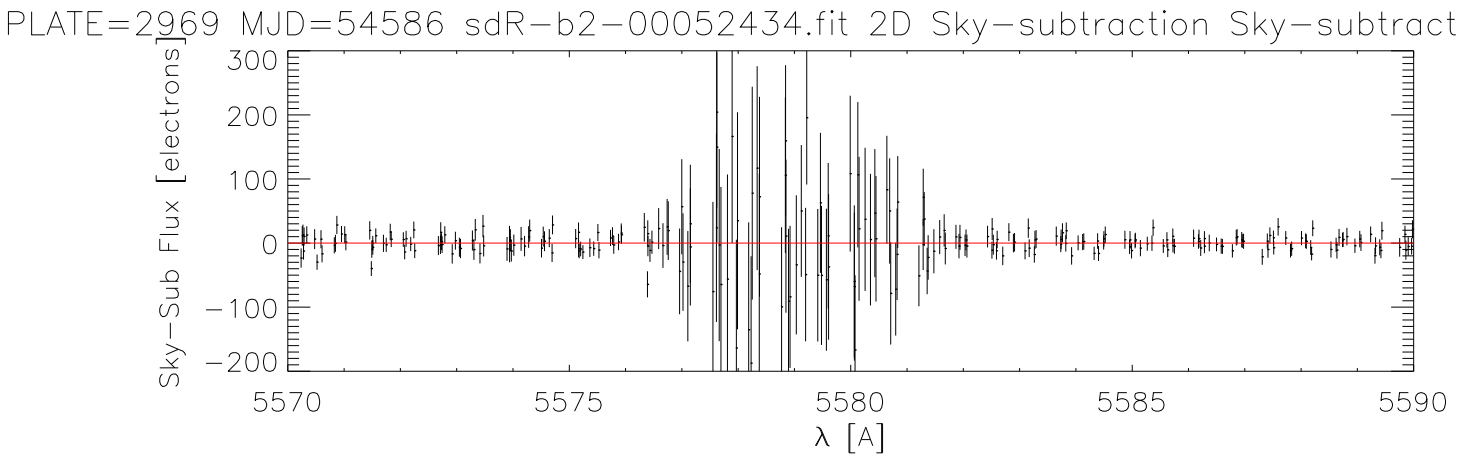

PLATE=2969 MJD=54586 sdR-b2-00052434.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
6000
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

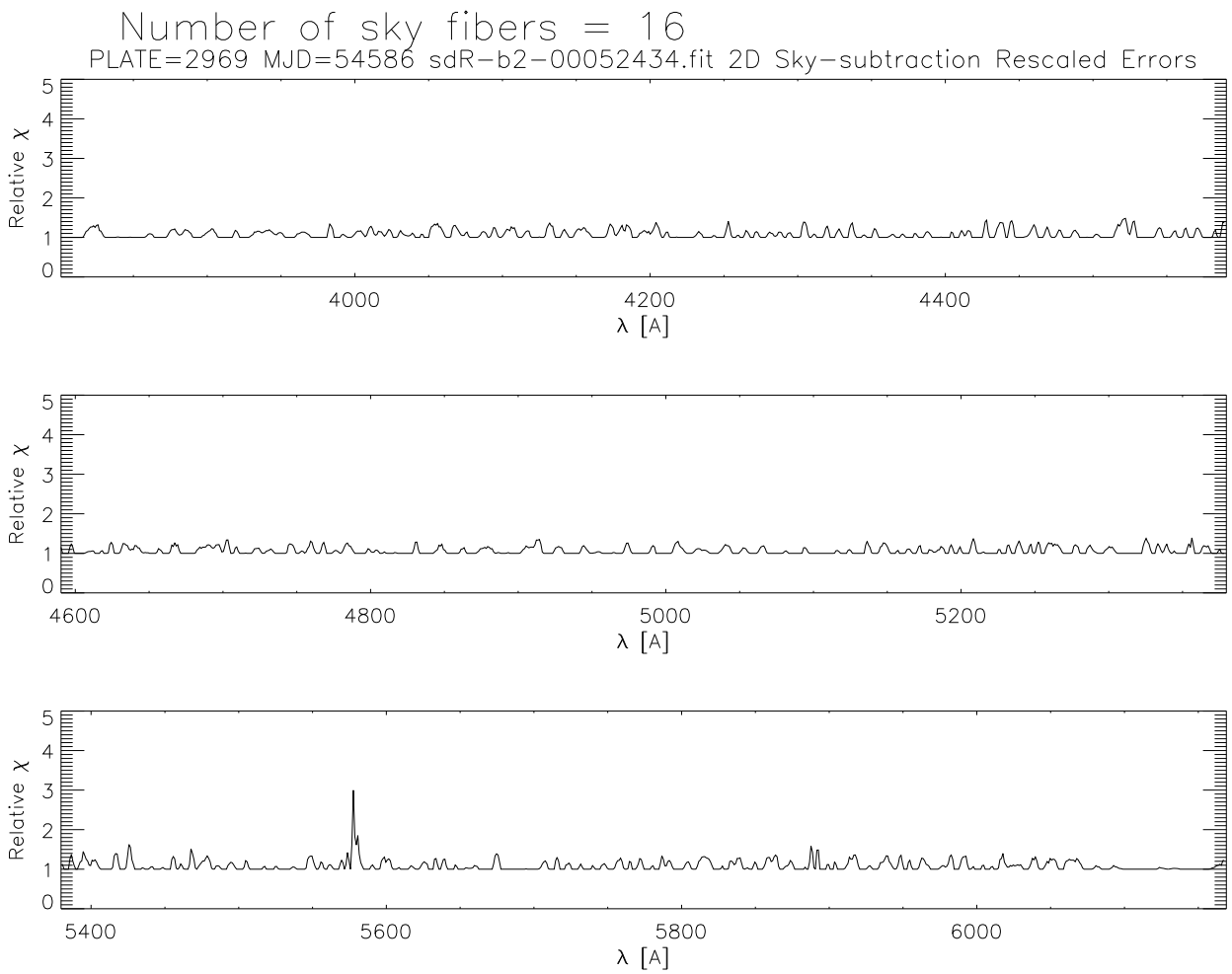

PLATE=2969 MJD=54586 sdR-b2-00052434.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
200
0
-200
-400
-600
5570
5575
5580
5585
5590
λ [A]

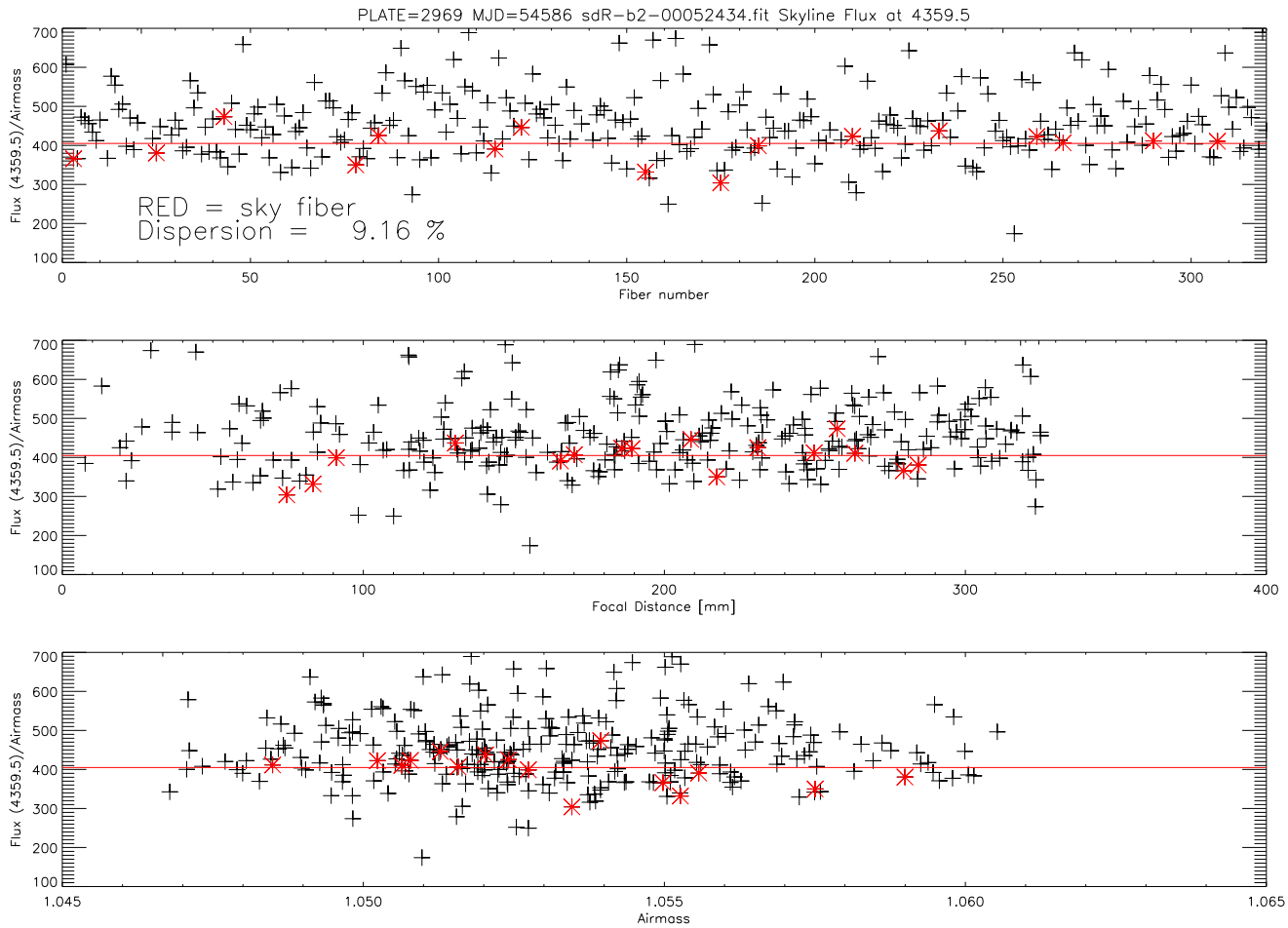

Number of sky fibers = 16
PLATE=2969 MJD=54586 sdR-b2-00052434.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

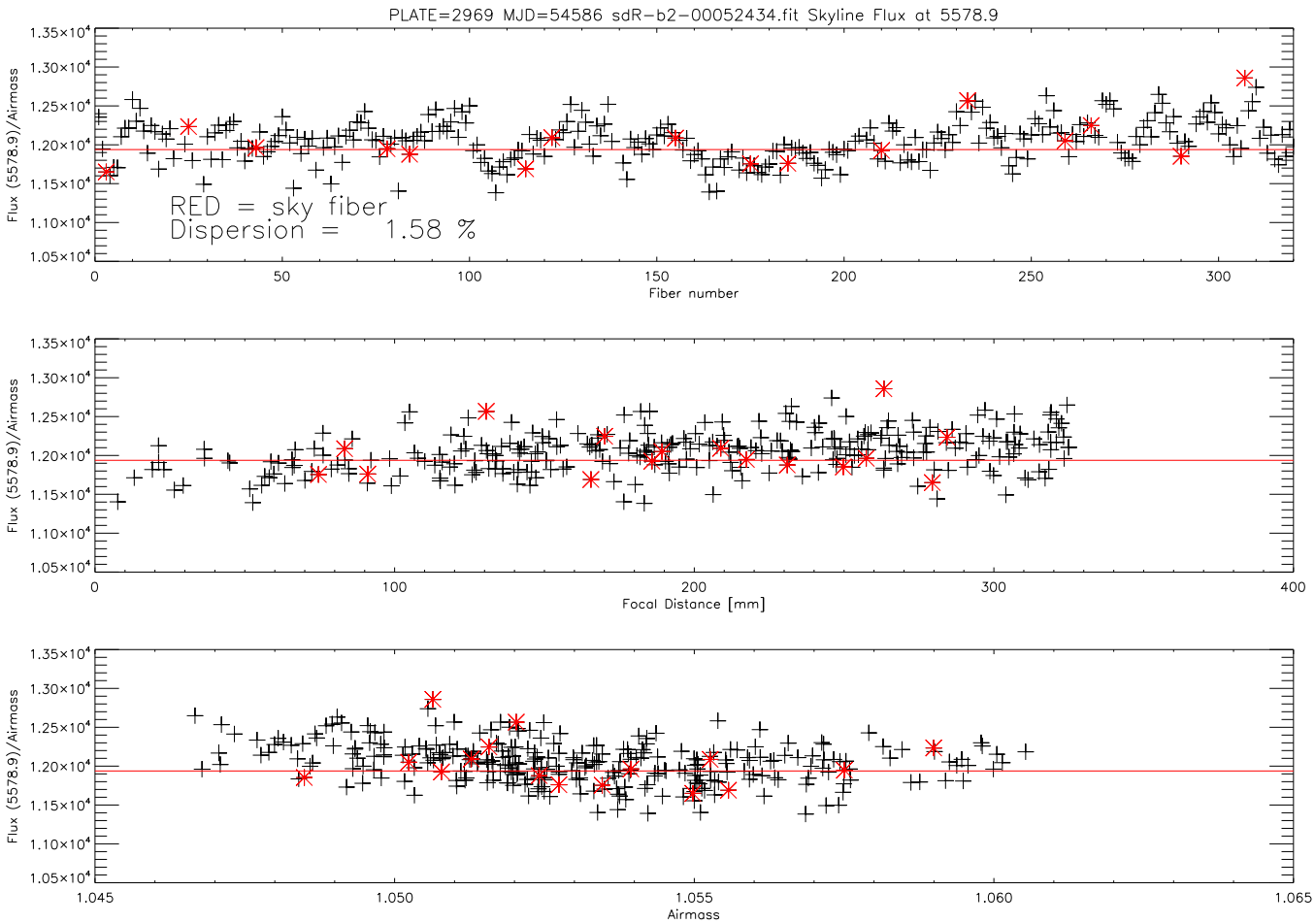

PLATE=2969 MJD=54586 sdR-b2-00052434.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

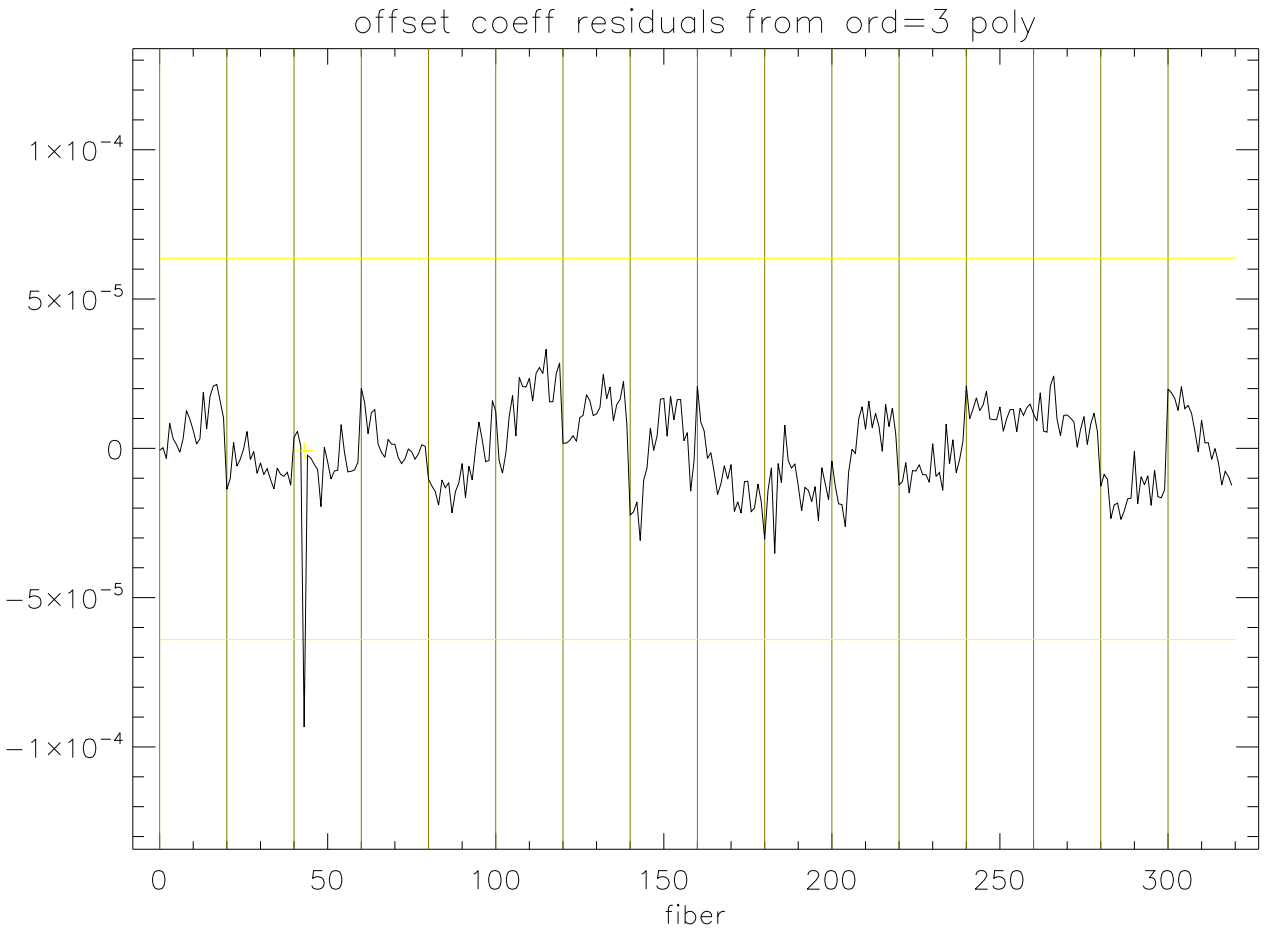

PLATE=2969 MJD=54586 sdR-b2-00052434.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
6000
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

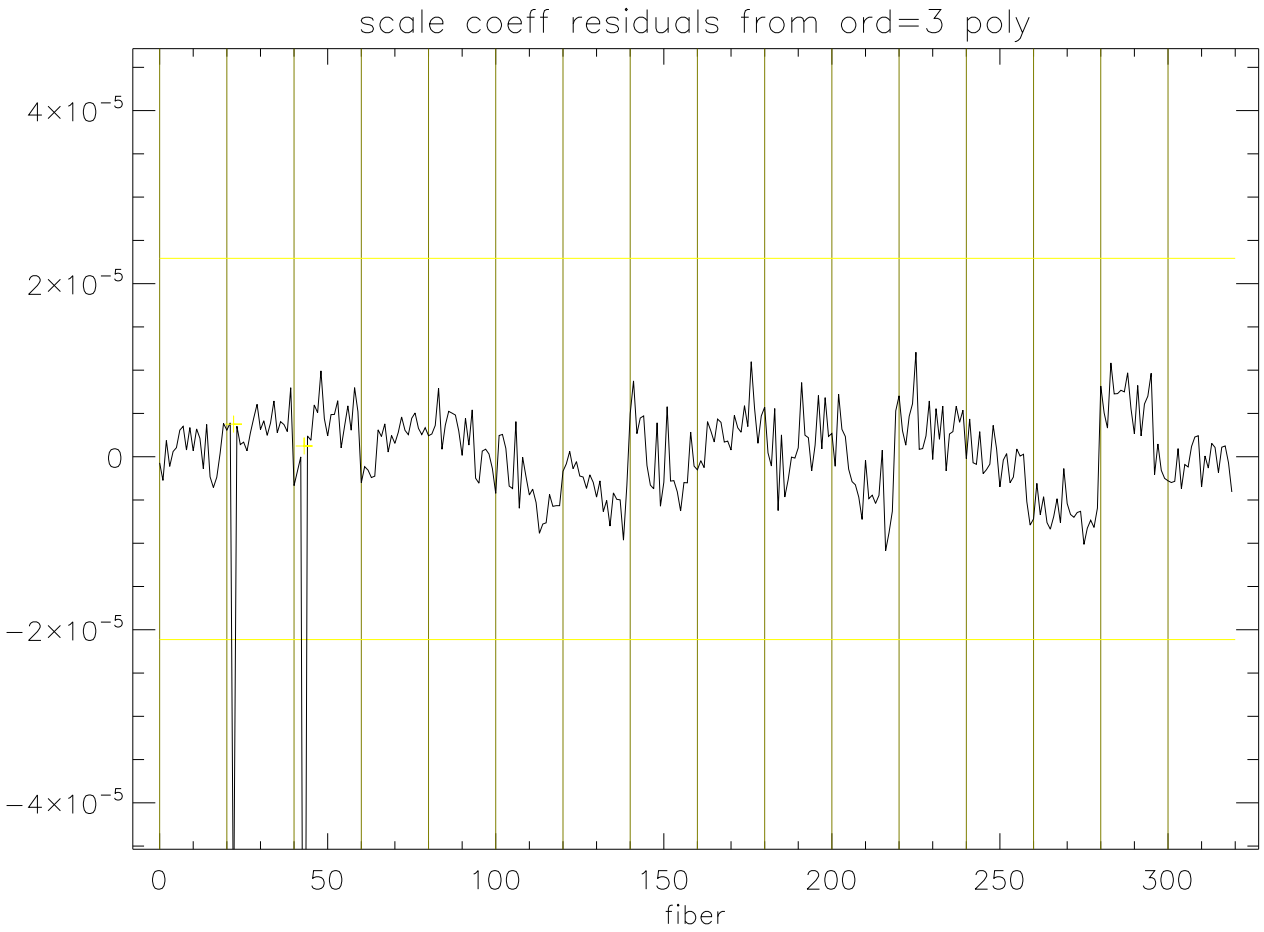

PLATE=2969 MJD=54586 sdR-b2-00052434.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
5570
5575
5580
5585
5590
λ [A]

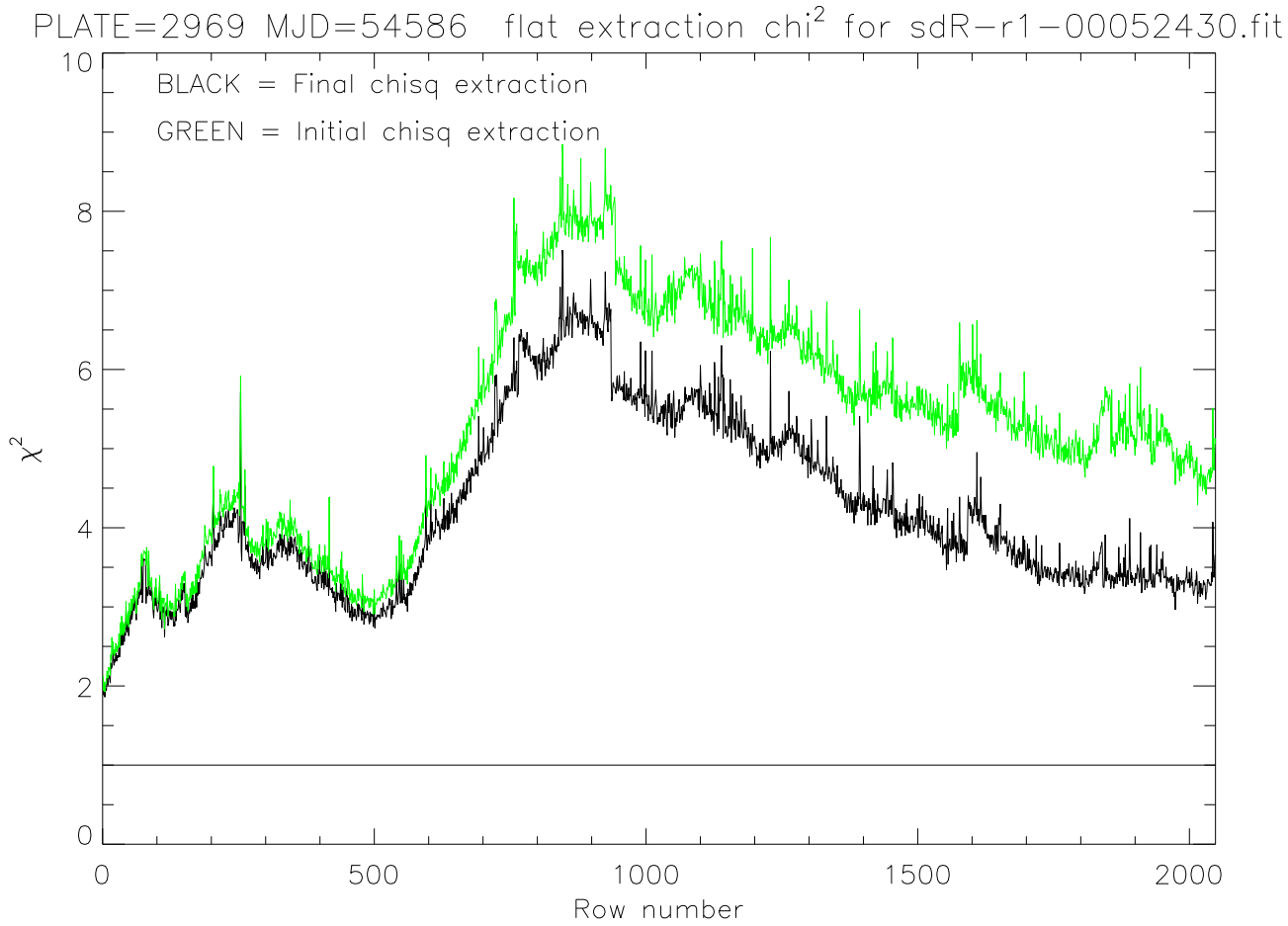

Number of sky fibers = 16
PLATE=2969 MJD=54586 sdR-b2-00052434.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

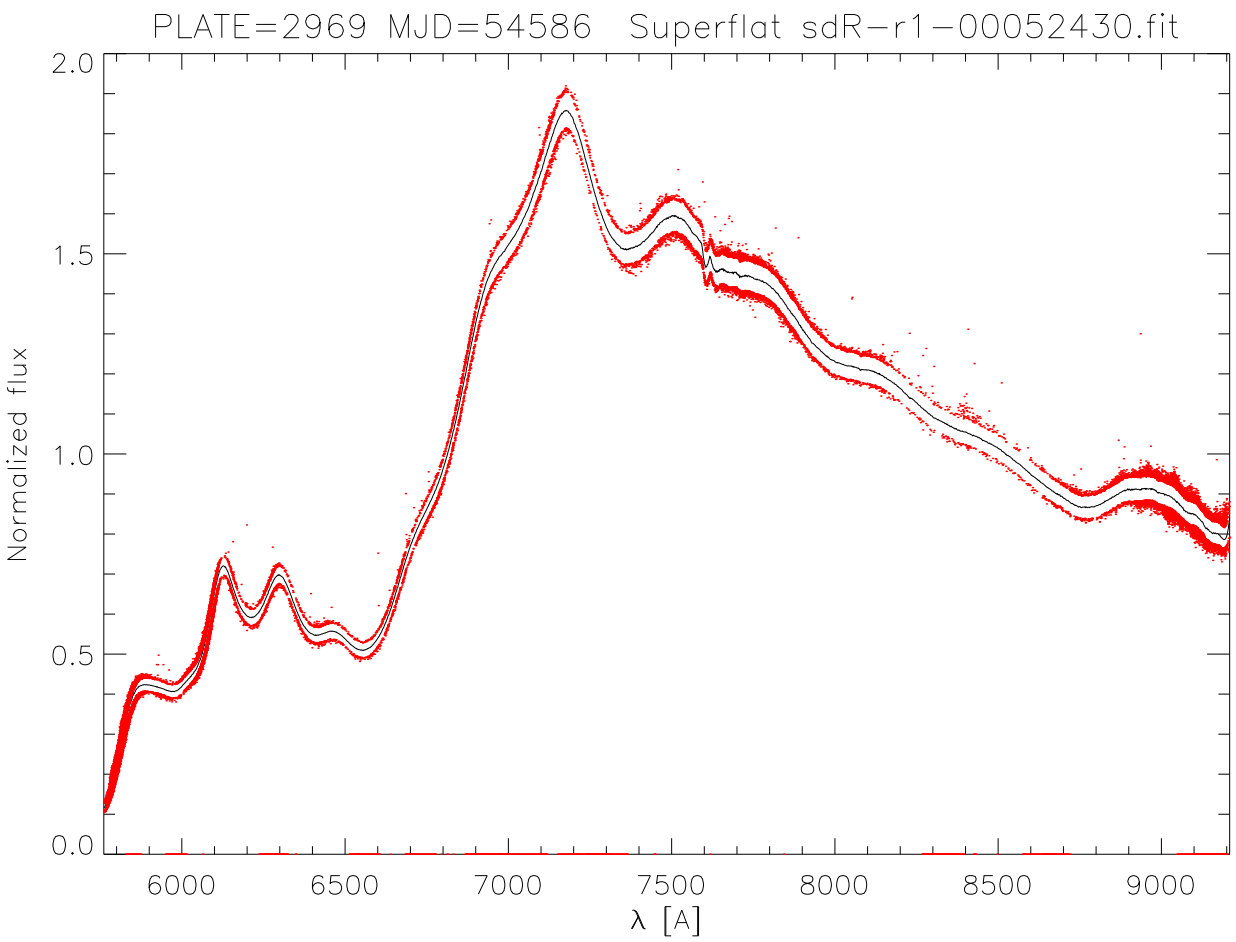

PLATE=2969 MJD=54586 sdR-b2-00052434.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 9.16 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

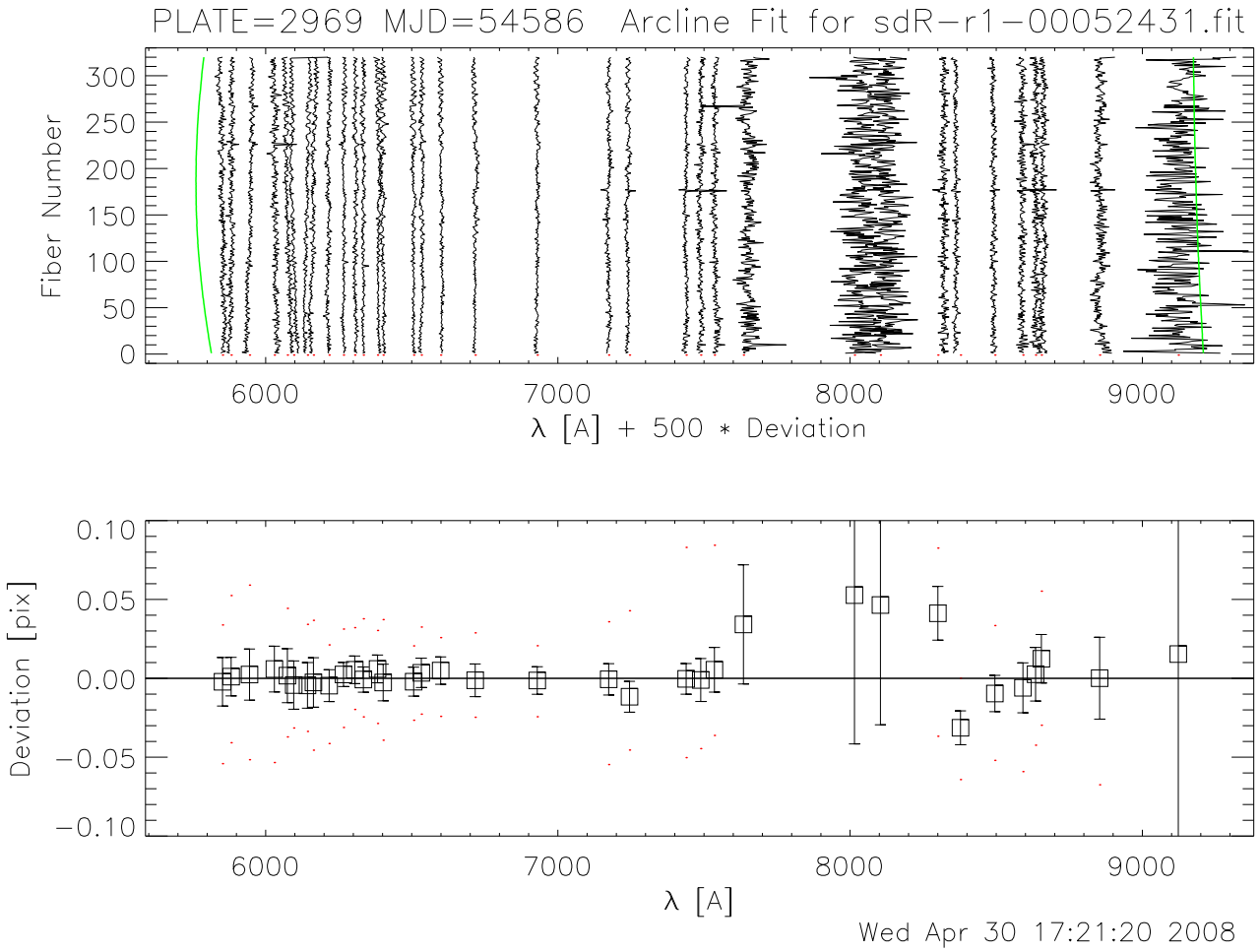

PLATE=2969 MJD=54586 sdR-b2-00052434.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 1.58 %
Fiber number
Focal Distance [mm]
Airmass

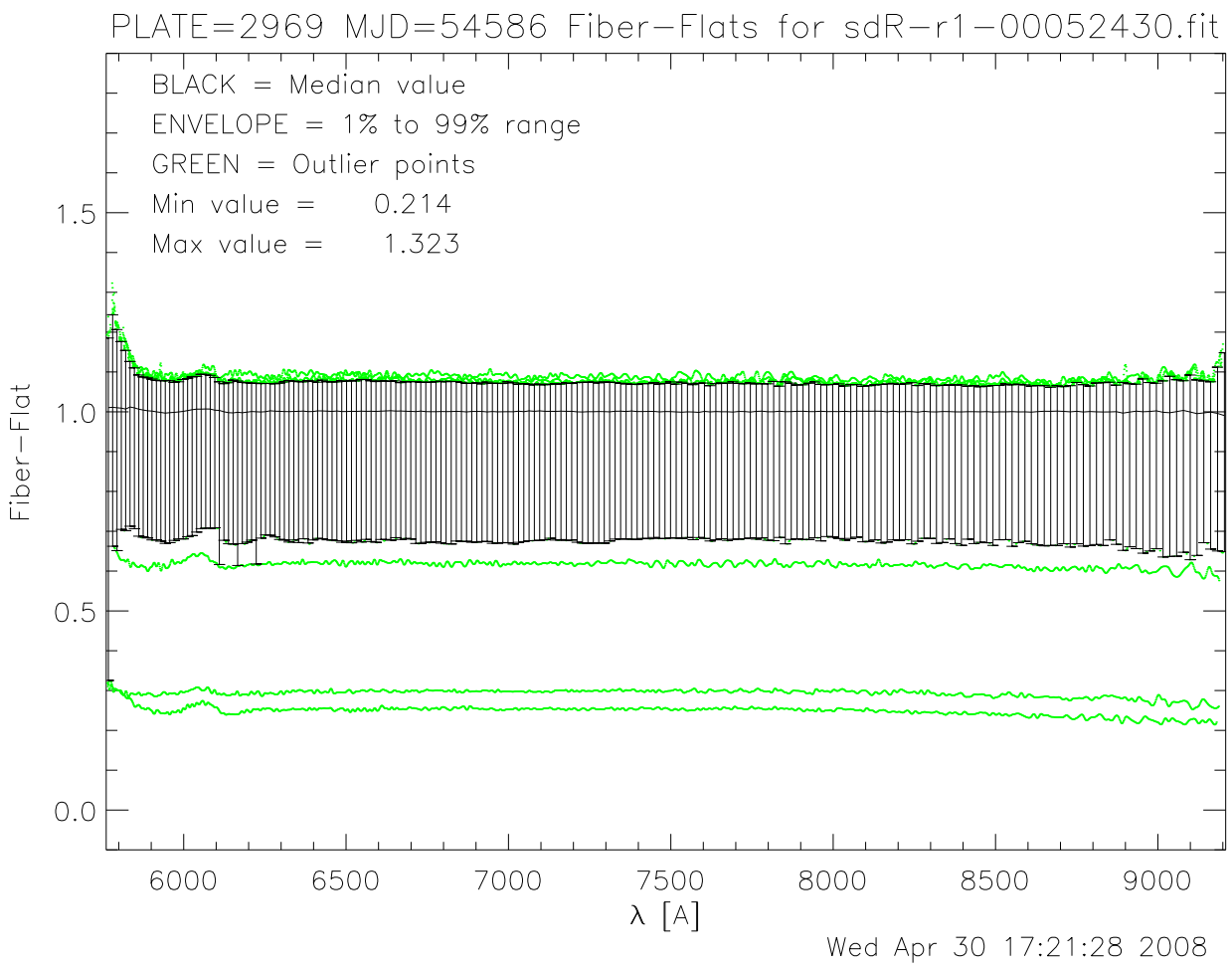

offset coeff residuals from ord=3 poly
1×10^-4
5×10^-5
0
−5×10^-5
−1×10^-4
0
50
100
150
200
250
300
fiber

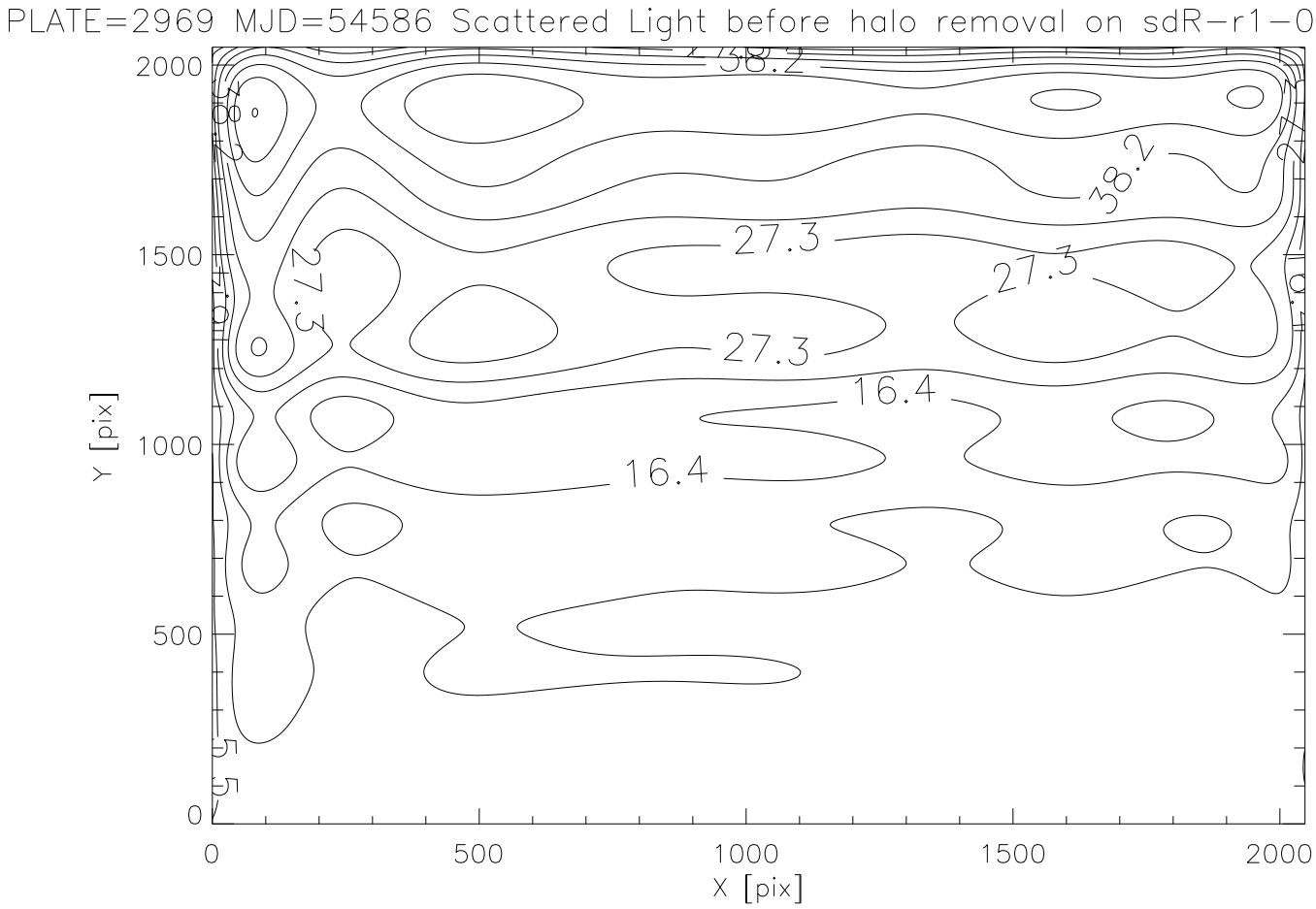

scale coeff residuals from ord=3 poly
4×10⁻⁵
2×10⁻⁵
0
−2×10⁻⁵
−4×10⁻⁵
0
50
100
150
200
250
300
fiber

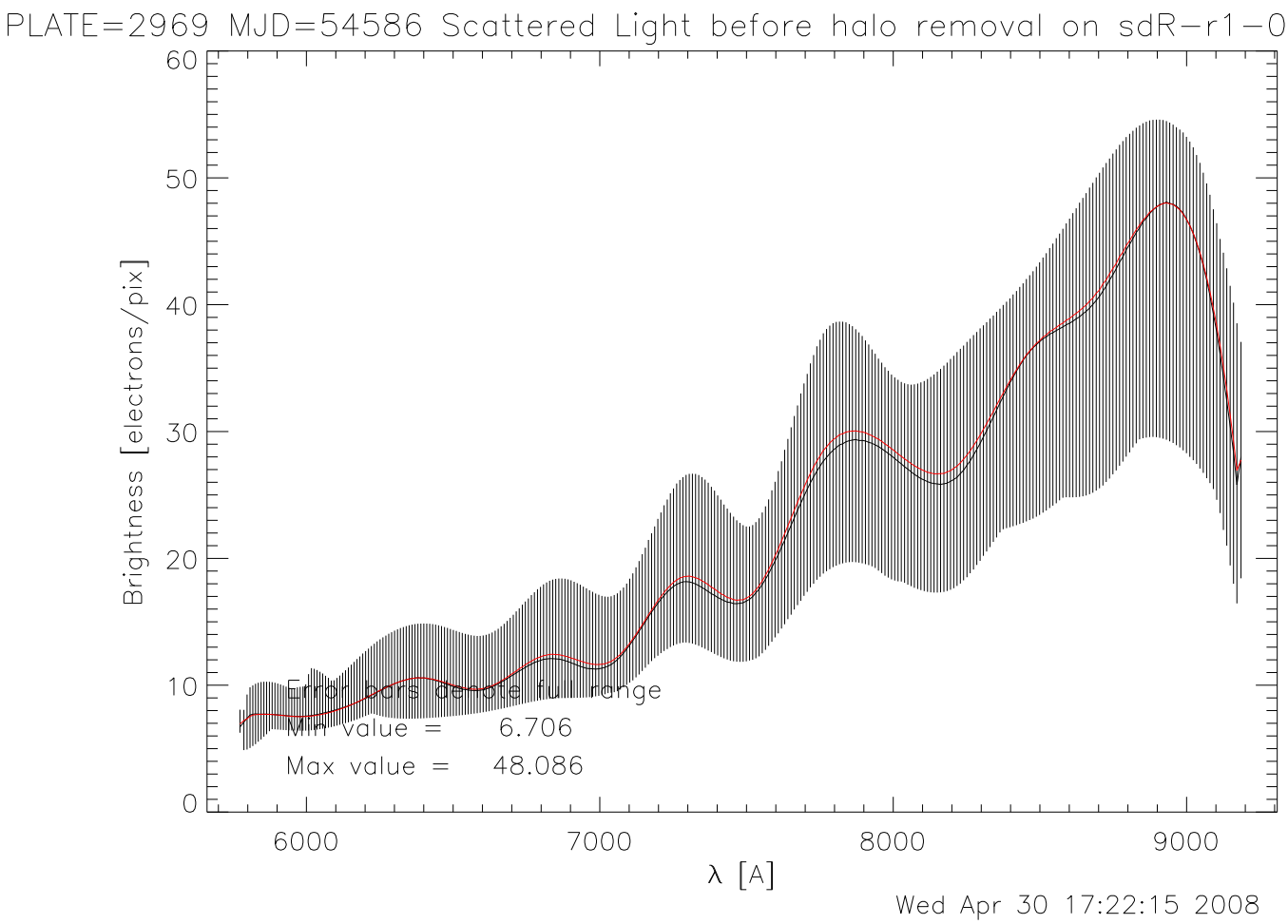

PLATE=2969 MJD=54586 flat extraction chi^2 for sdR−r1−00052430.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
2
4
6
8
10
0
500
1000
1500
2000

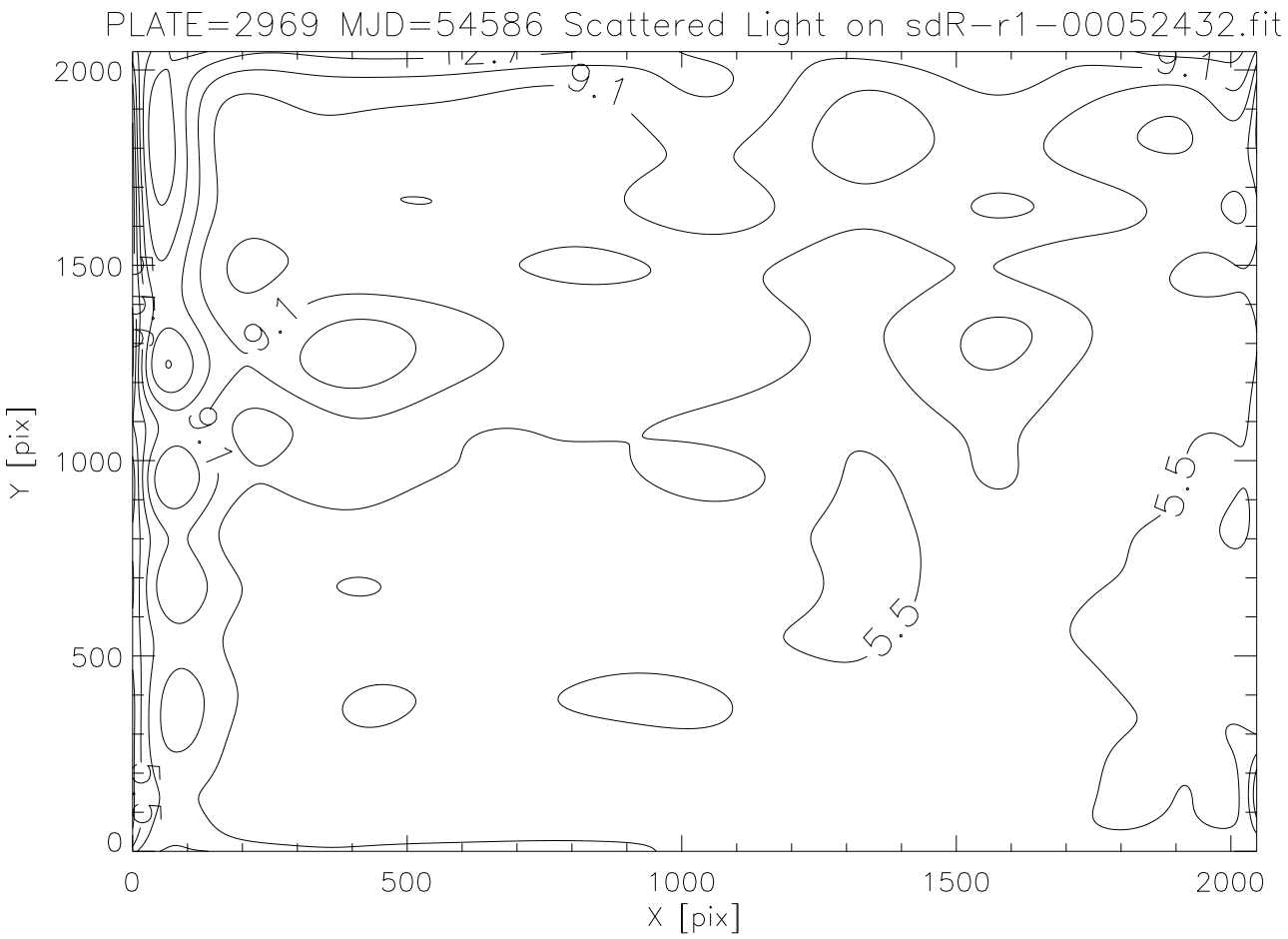

PLATE=2969 MJD=54586 Superflat sdR-r1-00052430.fit
Normalized flux
2.0
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

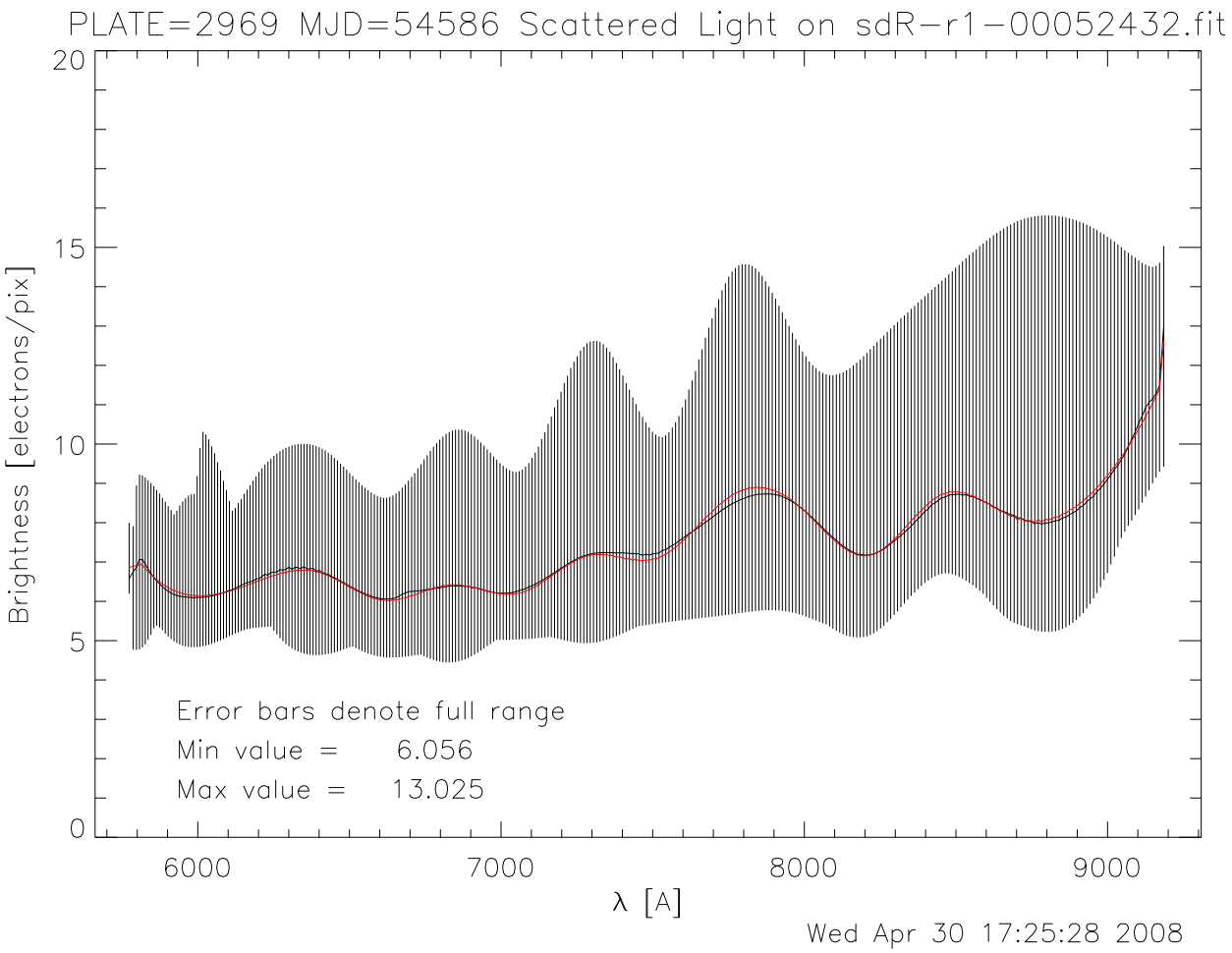

PLATE=2969 MJD=54586 Arcline Fit for sdR-r1-00052431.fit
Fiber Number
300
250
200
150
100
50
0
6000
7000
8000
9000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
6000
7000
8000
9000
λ [A]
Wed Apr 30 17:21:20 2008

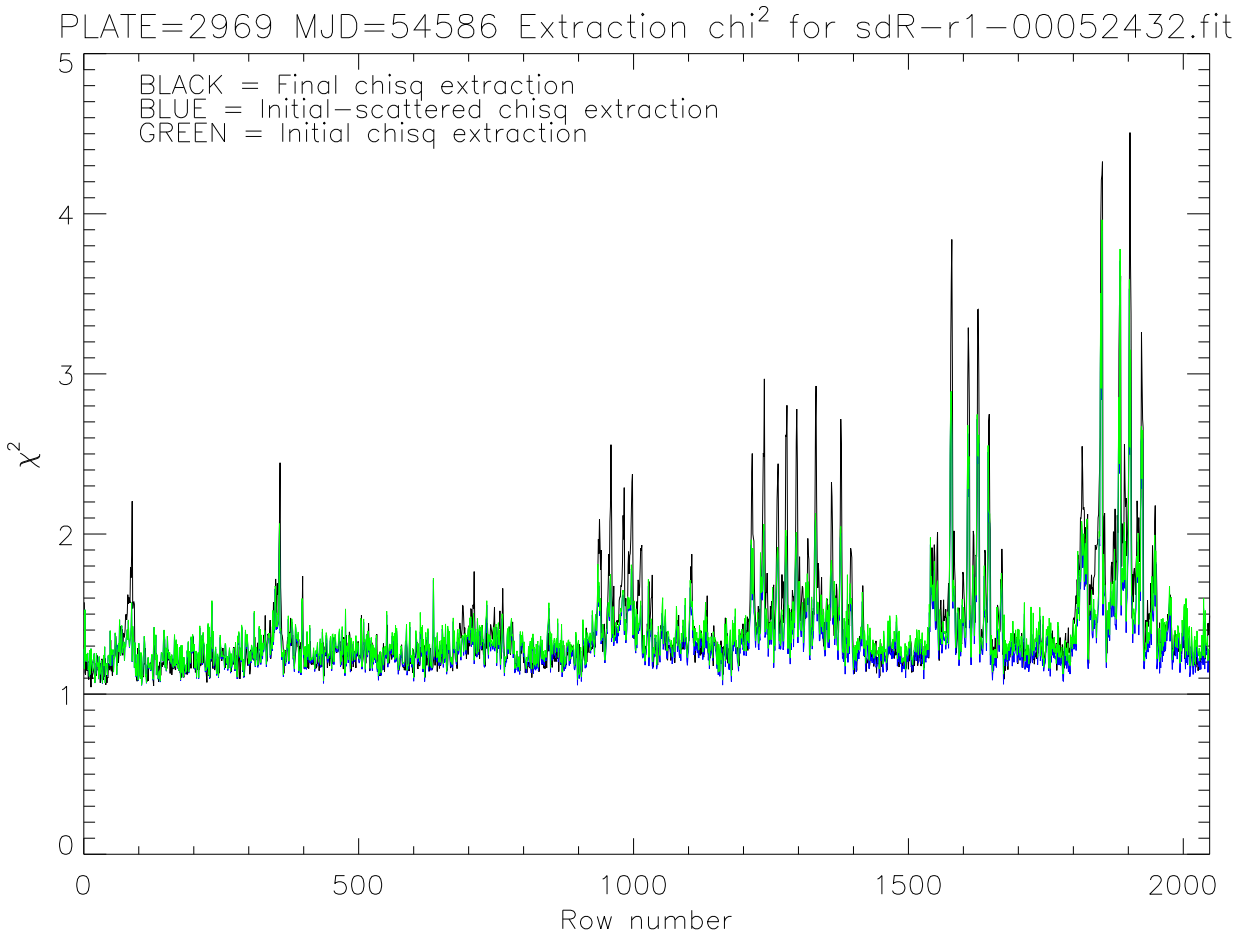

PLATE=2969 MJD=54586 Fiber−Flats for sdR−r1−00052430.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.214
Max value = 1.323
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Wed Apr 30 17:21:28 2008

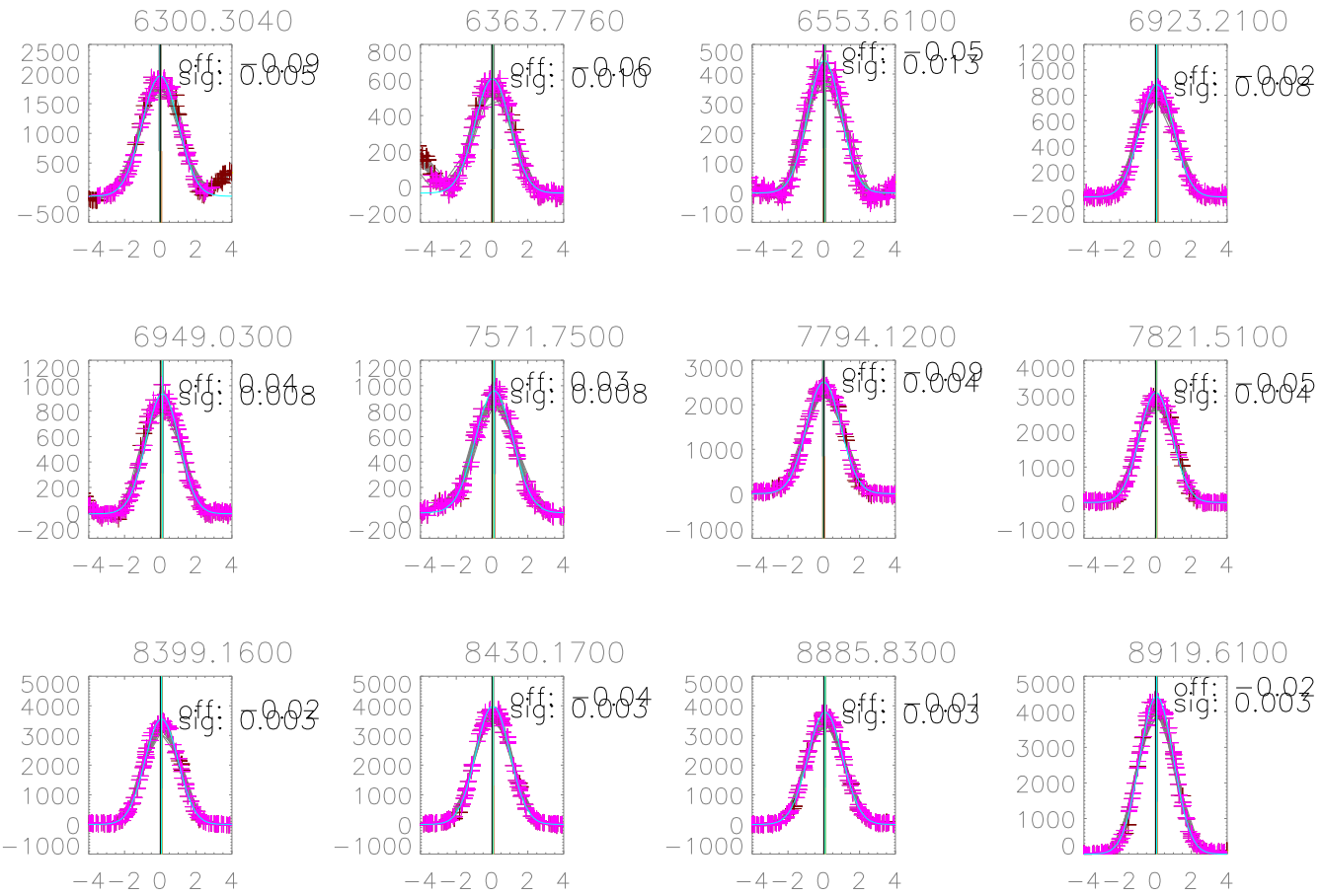

PLATE=2969 MJD=54586 Scattered Light before halo removal on sdR-r1-00052432.fi
38.2
38.2
27.3
27.3
27.3
27.3
16.4
16.4
5.5
5.5
Y [pix]
X [pix]
0
500
1000
1500
2000

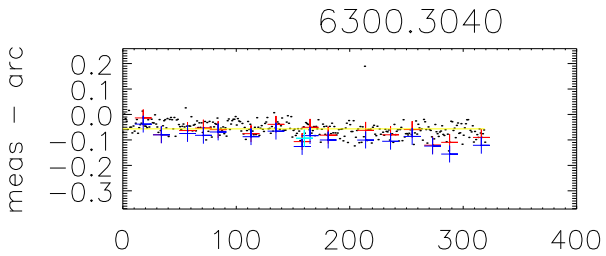

PLATE=2969 MJD=54586 Scattered Light before halo removal on sdR-r1-00052432.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 6.706
Max value = 48.086
Wed Apr 30 17:22:15 2008

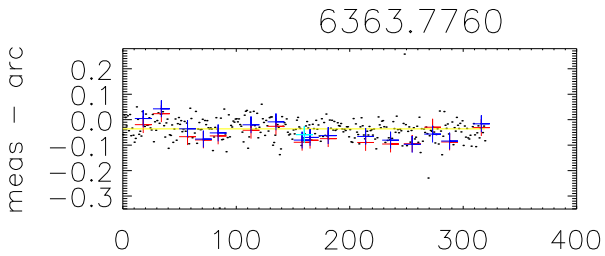

PLATE=2969 MJD=54586 Scattered Light on sdR-r1-00052432.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
12.7
9.1
5.5

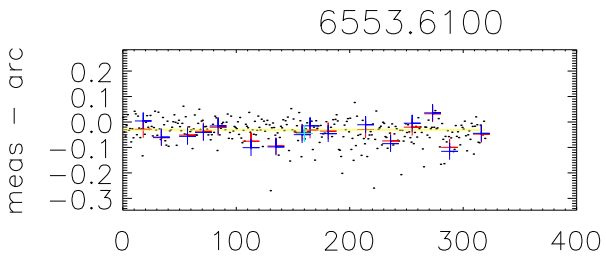

PLATE=2969 MJD=54586 Scattered Light on sdR-r1-00052432.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 6.056
Max value = 13.025
Wed Apr 30 17:25:28 2008

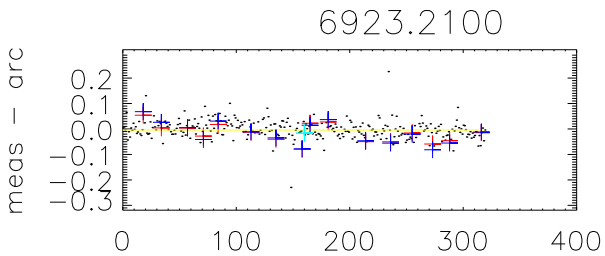

PLATE=2969 MJD=54586 Extraction chi^2 for sdR−r1−00052432.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
5
0
500
1000
1500
2000
Row number

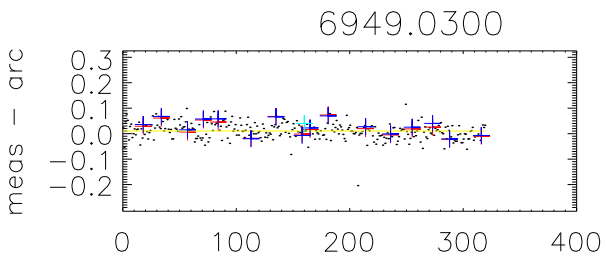

6300.3040
off: −0.09
sig: 0.005
6363.7760
off: −0.06
sig: 0.010
6553.6100
off: −0.05
sig: 0.013
6923.2100
off: −0.02
sig: 0.008
6949.0300
off: 0.04
sig: 0.008
7571.7500
off: 0.03
sig: 0.008
7794.1200
off: −0.09
sig: 0.004
7821.5100
off: −0.05
sig: 0.004
8399.1600
off: −0.02
sig: 0.003
8430.1700
off: −0.04
sig: 0.003
8885.8300
off: −0.01
sig: 0.003
8919.6100
off: −0.02
sig: 0.003

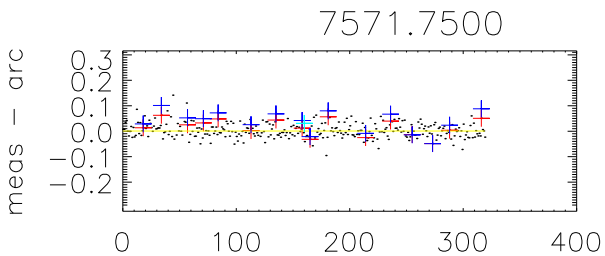

6300.3040
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

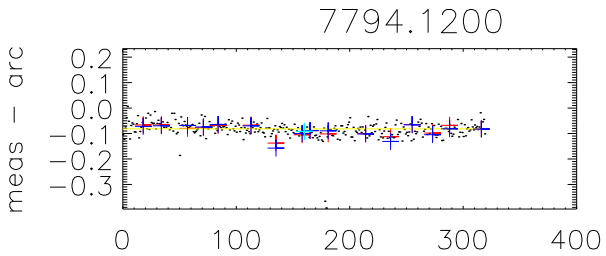

6363.7760
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

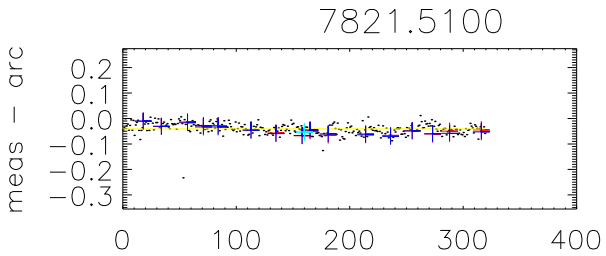

6553.6100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

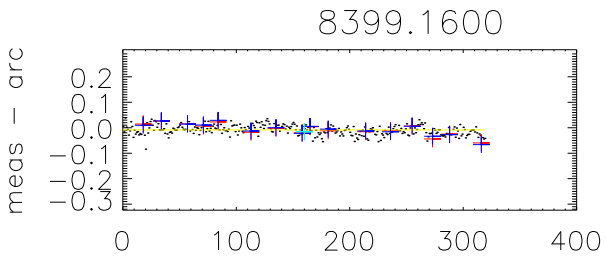

6923.2100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

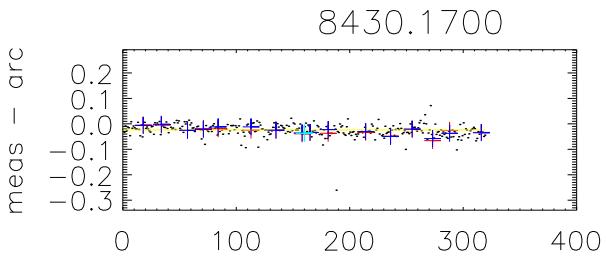

6949.0300
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

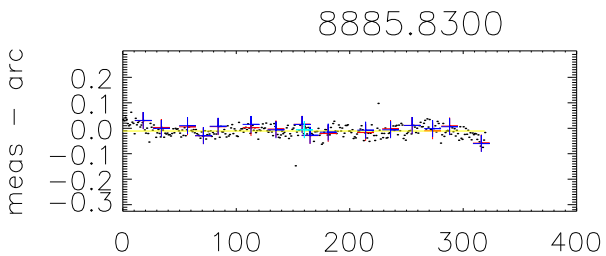

7571.7500
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

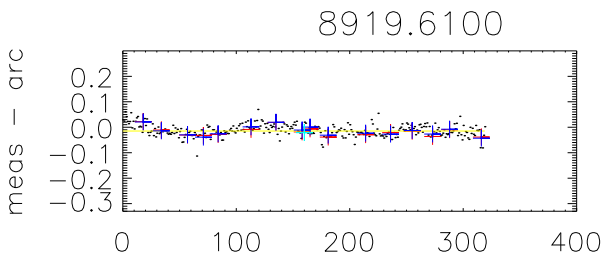

7794.1200
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

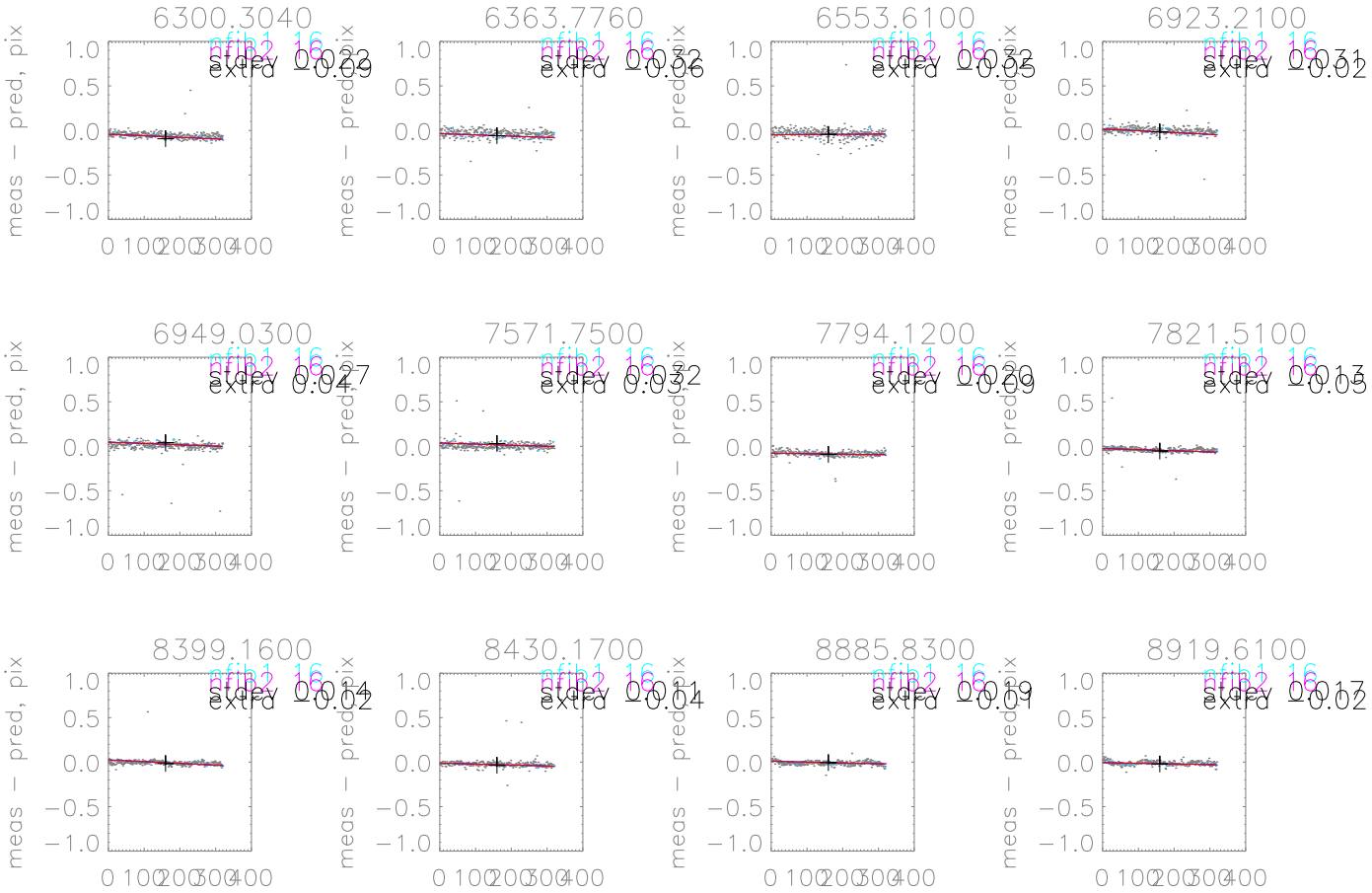

7821.5100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

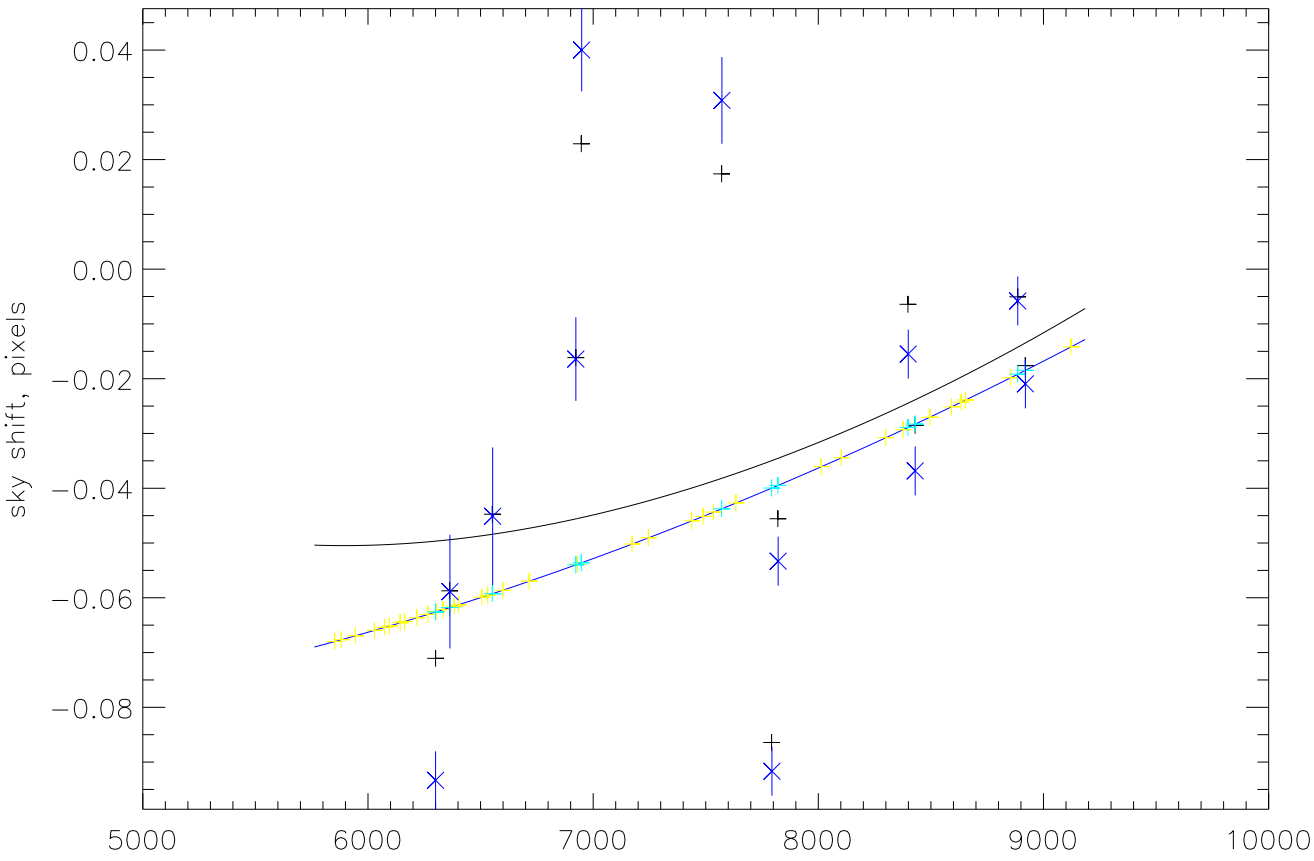

8399.1600
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400


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

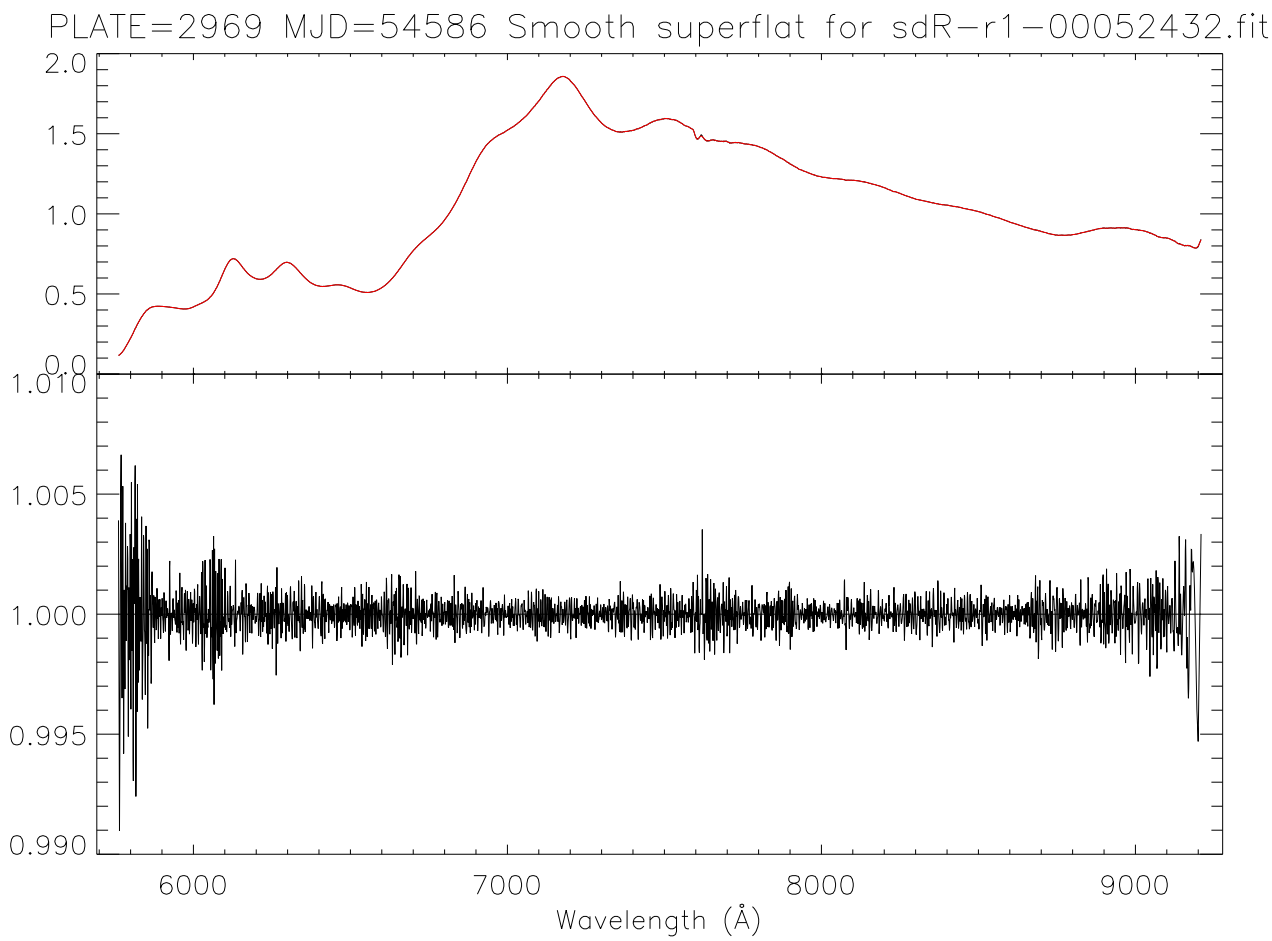

8885.8300
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

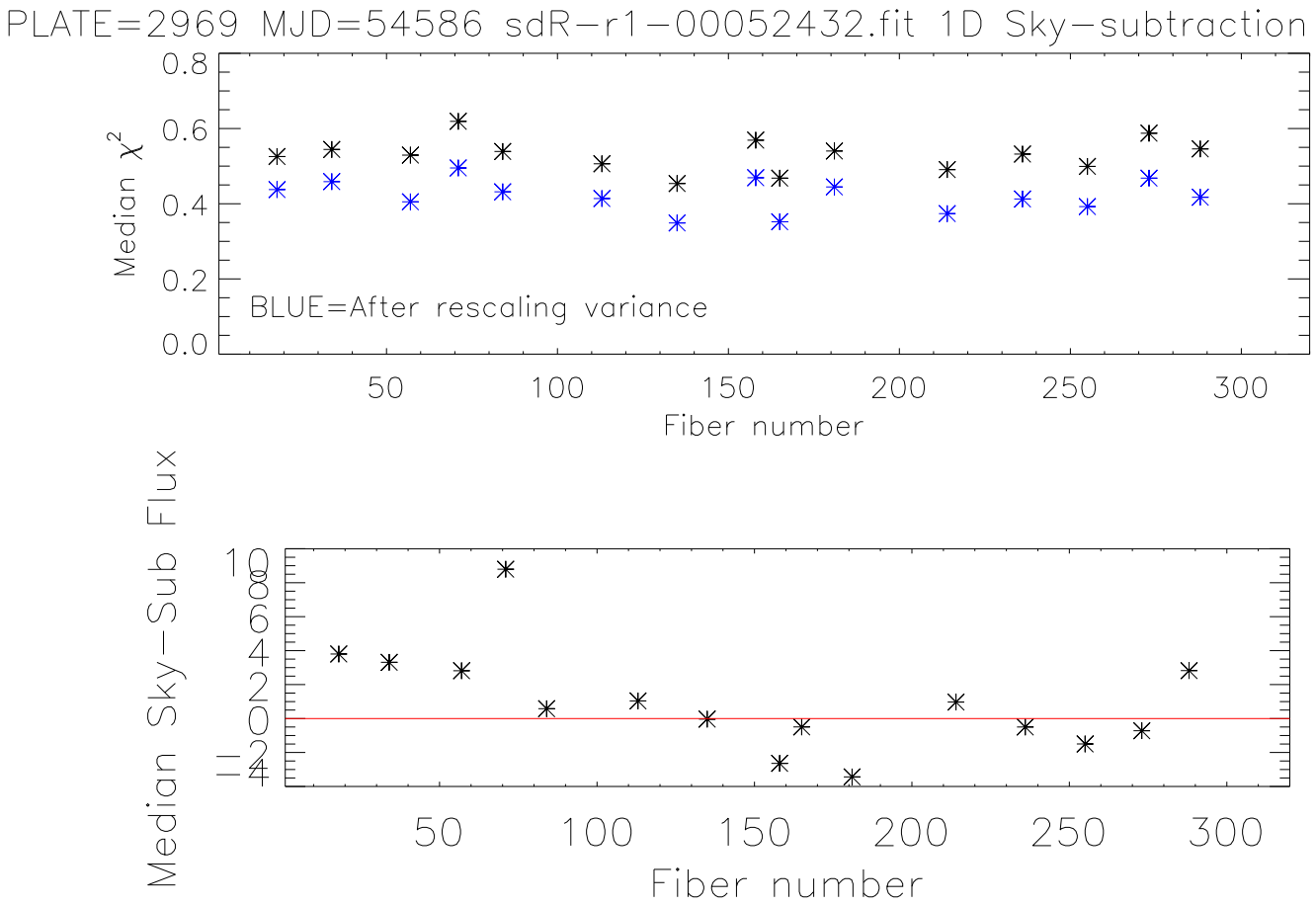

8919.6100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400


6300.3040
stdev 0.022
extra 0.009
6363.7760
stdev 0.032
extra 0.006
6553.6100
stdev 0.032
extra 0.005
6923.2100
stdev 0.031
extra 0.002
6949.0300
stdev 0.027
extra 0.004
7571.7500
stdev 0.032
extra 0.003
7794.1200
stdev 0.030
extra 0.009
7821.5100
stdev 0.013
extra 0.005
8399.1600
stdev 0.014
extra 0.002
8430.1700
stdev 0.011
extra 0.004
8885.8300
stdev 0.019
extra 0.001
8919.6100
stdev 0.017
extra 0.002
meas − pred, pix
mfhd2 16

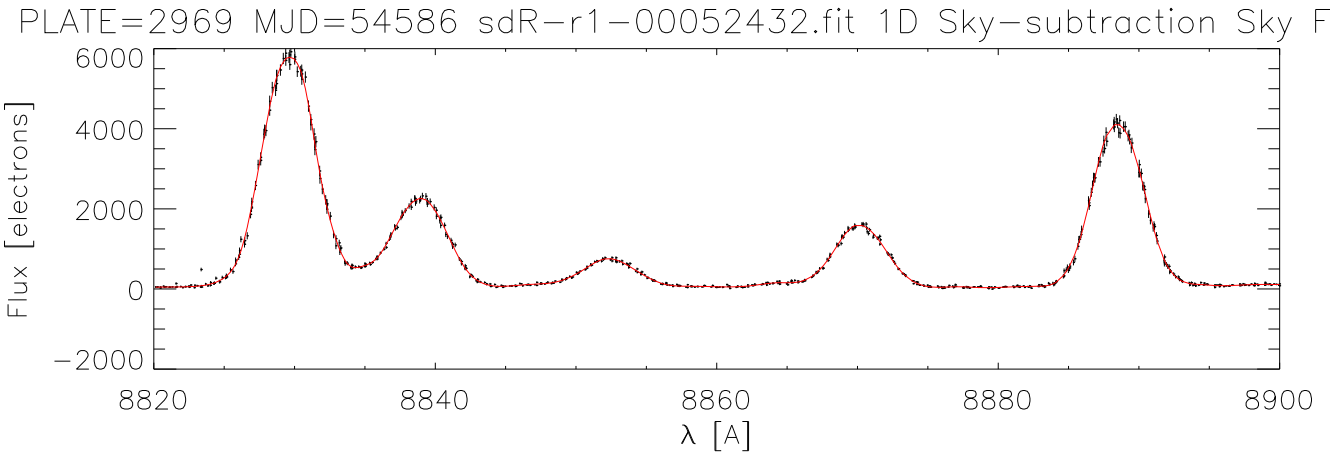

0.04
0.02
0.00
−0.02
−0.04
−0.06
−0.08
sky shift, pixels
5000
6000
7000
8000
9000
10000

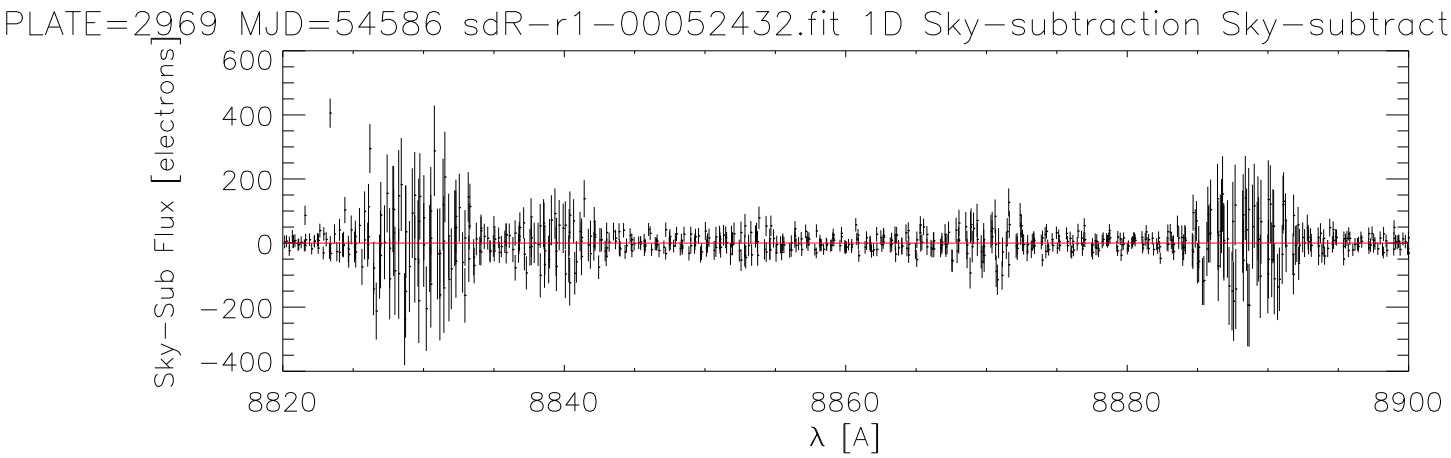
es= 0.0000

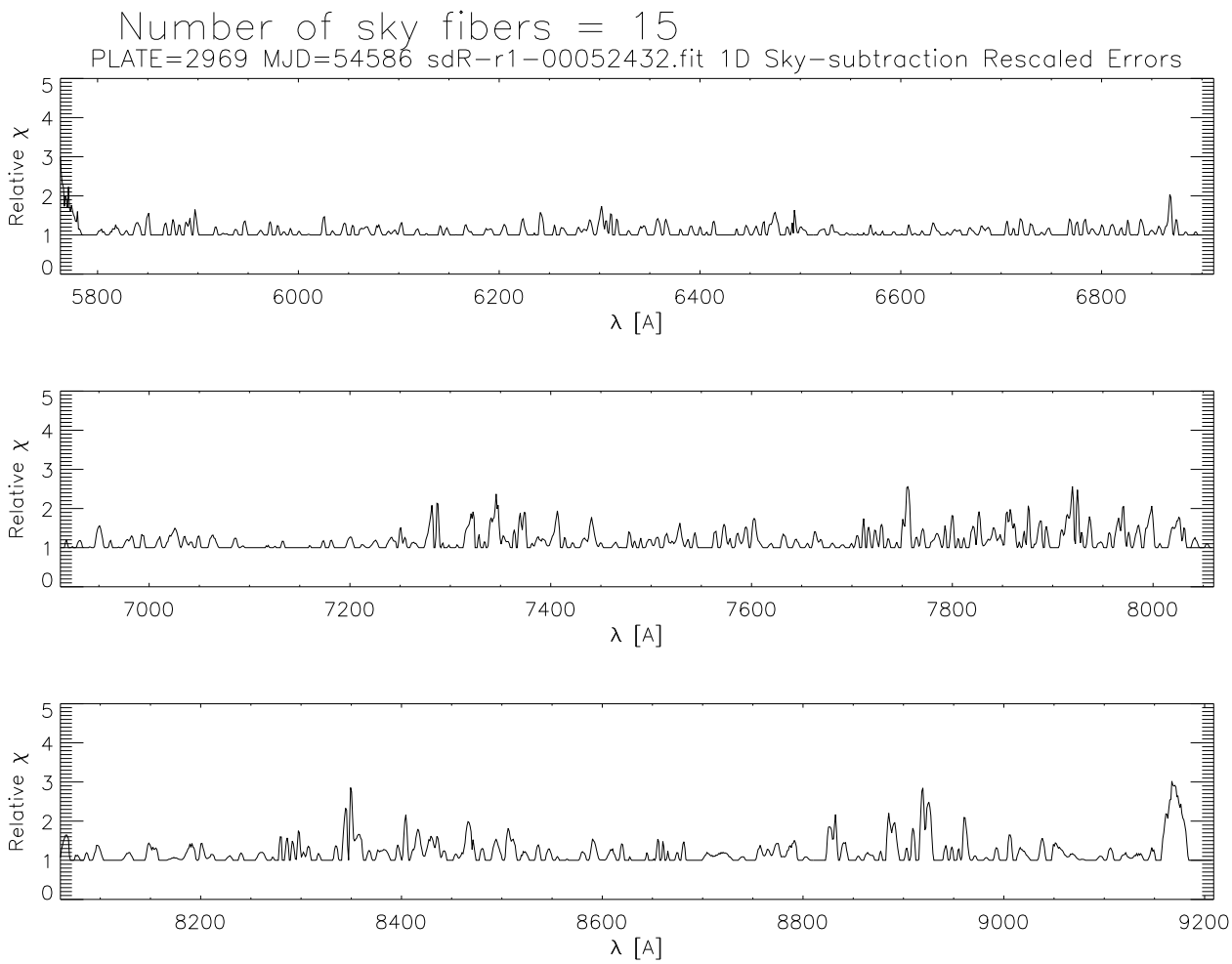

PLATE=2969 MJD=54586 Smooth superflat for sdR-r1-00052432.fit
2.0
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
6000
7000
8000
9000
Wavelength (Å)

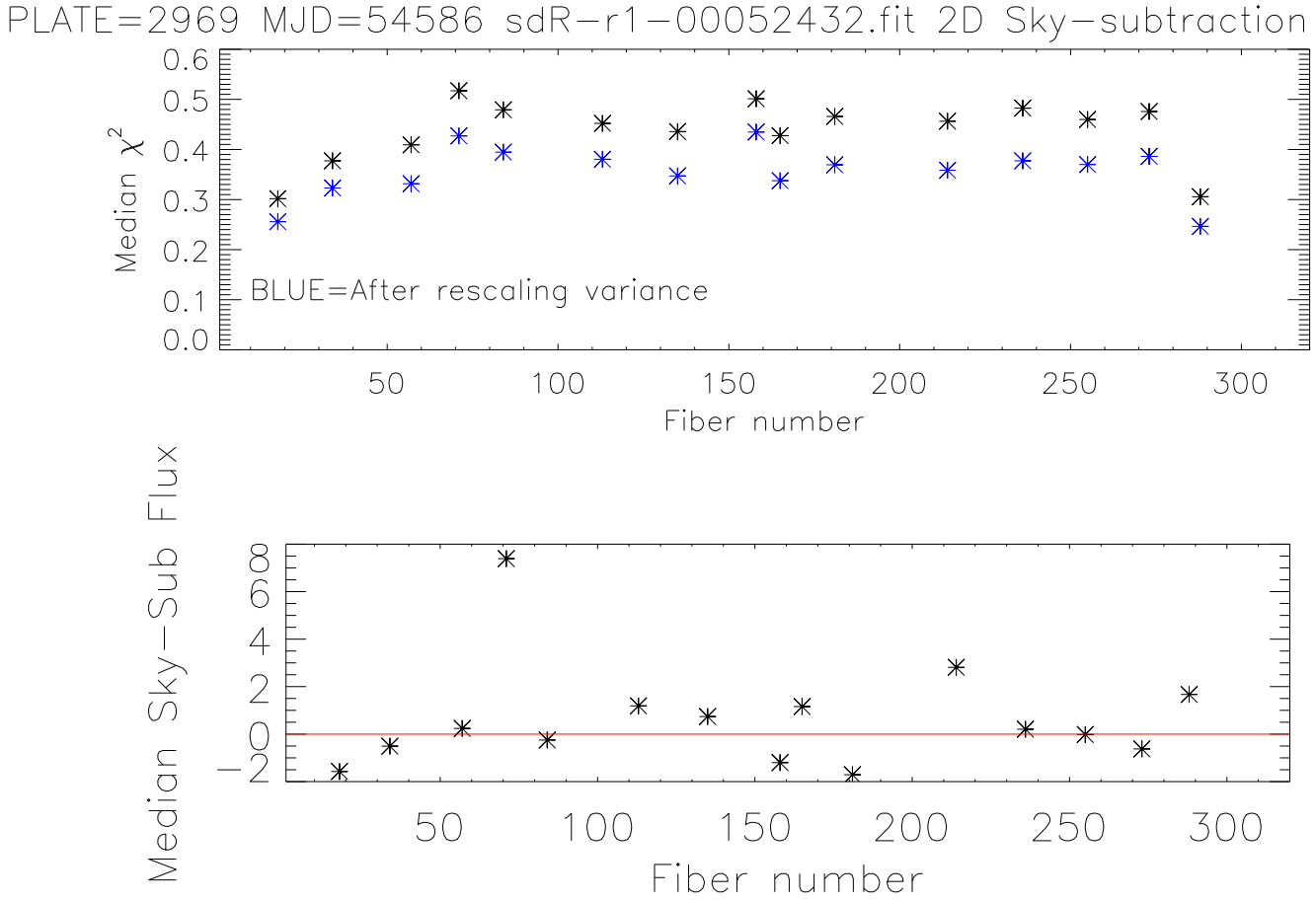

PLATE=2969 MJD=54586 sdR-r1-00052432.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number

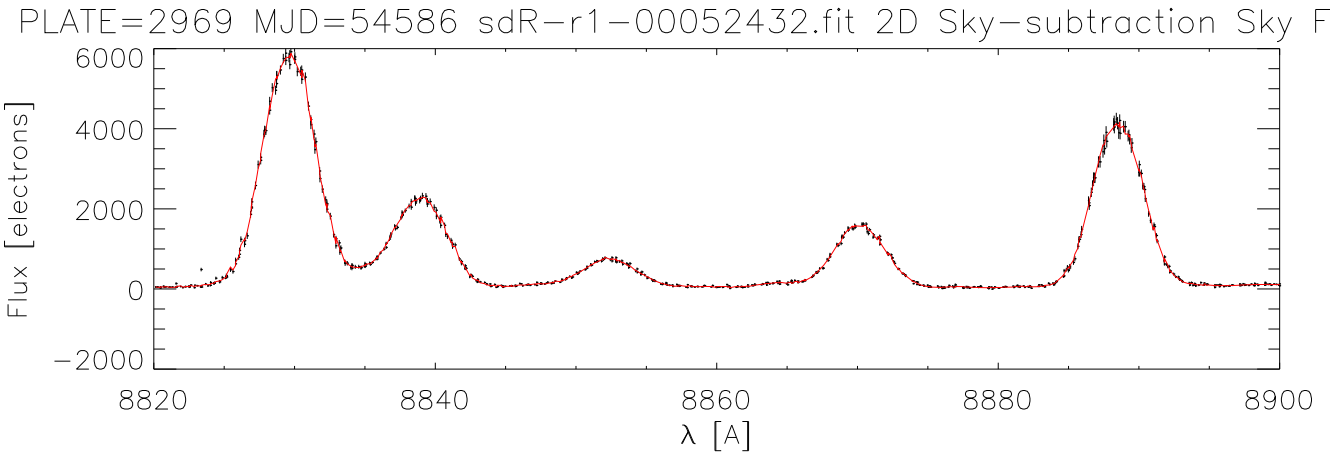
Median Sky-Sub Flux
-4
-2
0
2
4
6
8
10
50
100
150
200
250
300
Fiber number

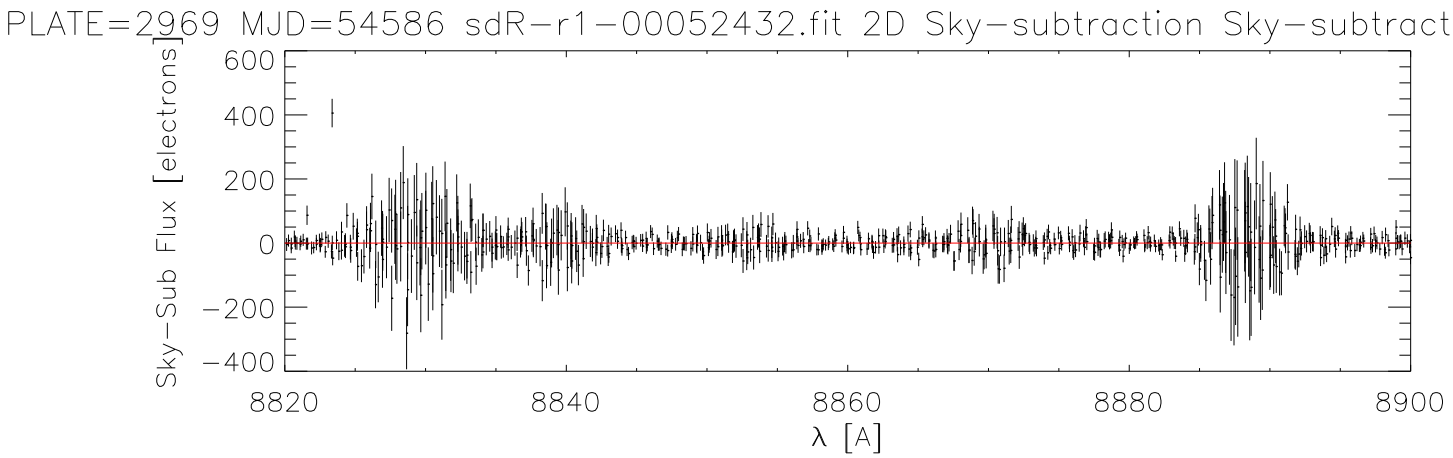

PLATE=2969 MJD=54586 sdR-r1-00052432.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
6000
4000
2000
0
−2000
8820
8840
8860
8880
8900
λ [A]

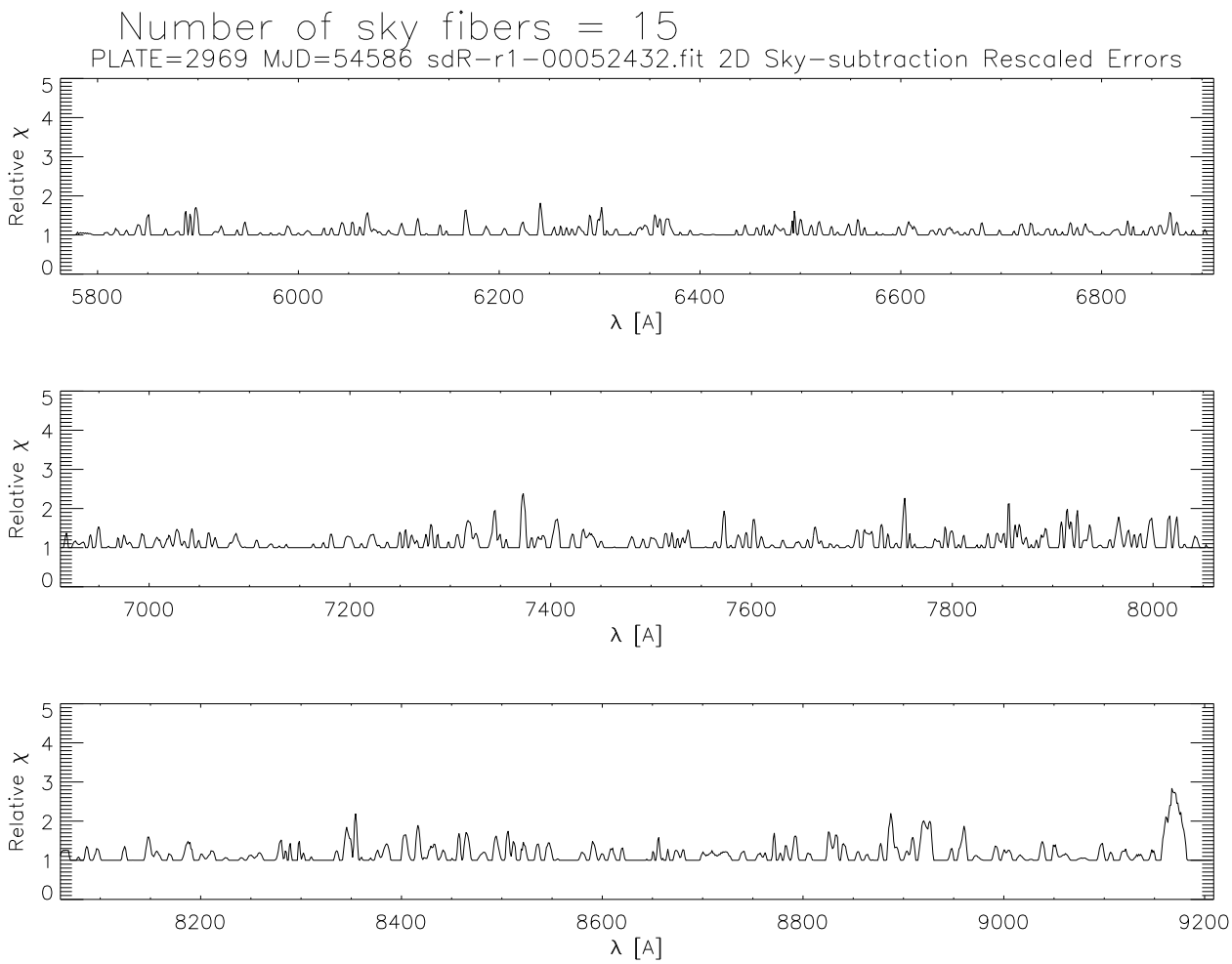

PLATE=2969 MJD=54586 sdR-r1-00052432.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
−200
−400
8820
8840
8860
8880
8900
λ [A]

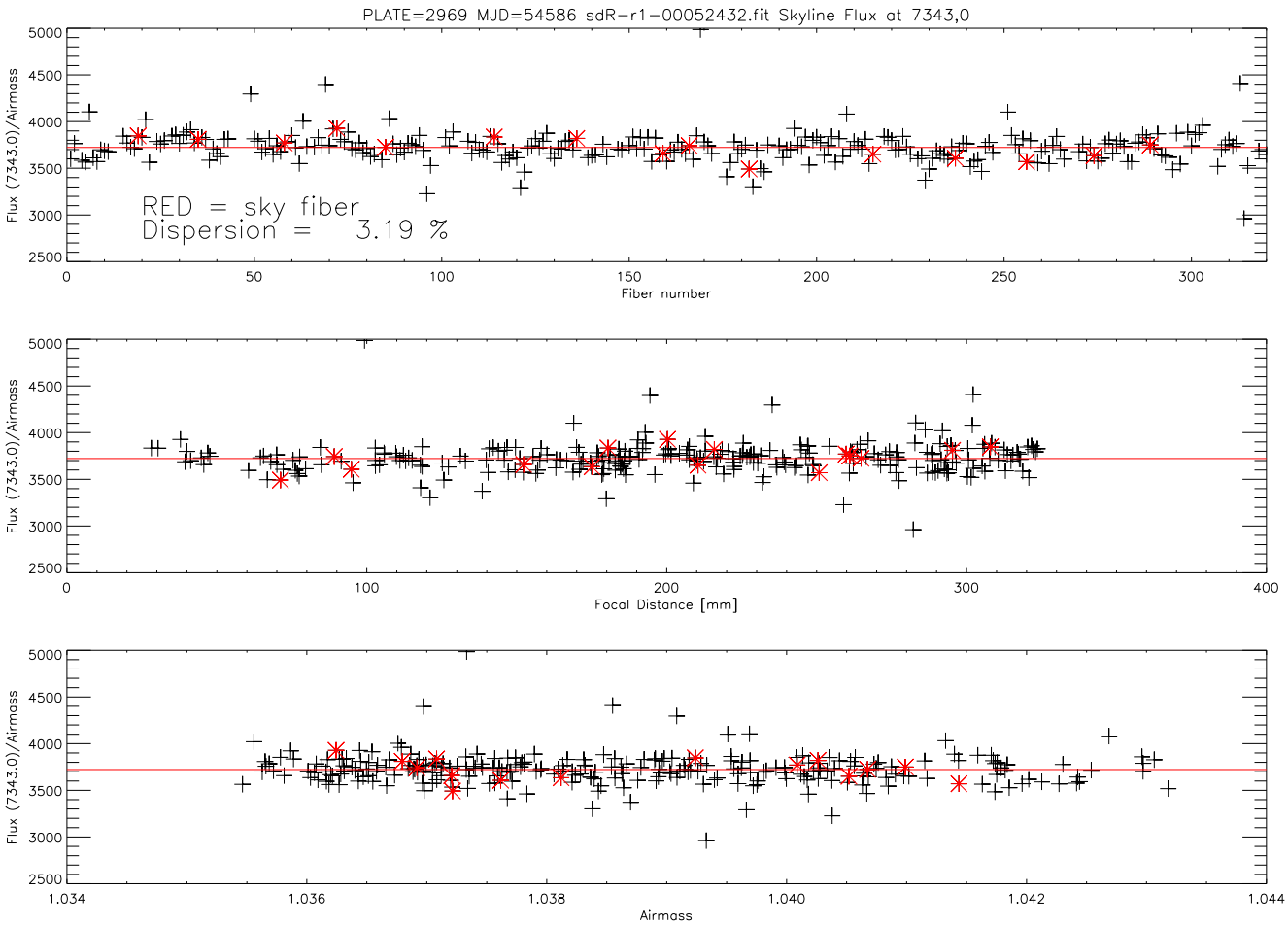

Number of sky fibers = 15
PLATE=2969 MJD=54586 sdR-r1-00052432.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

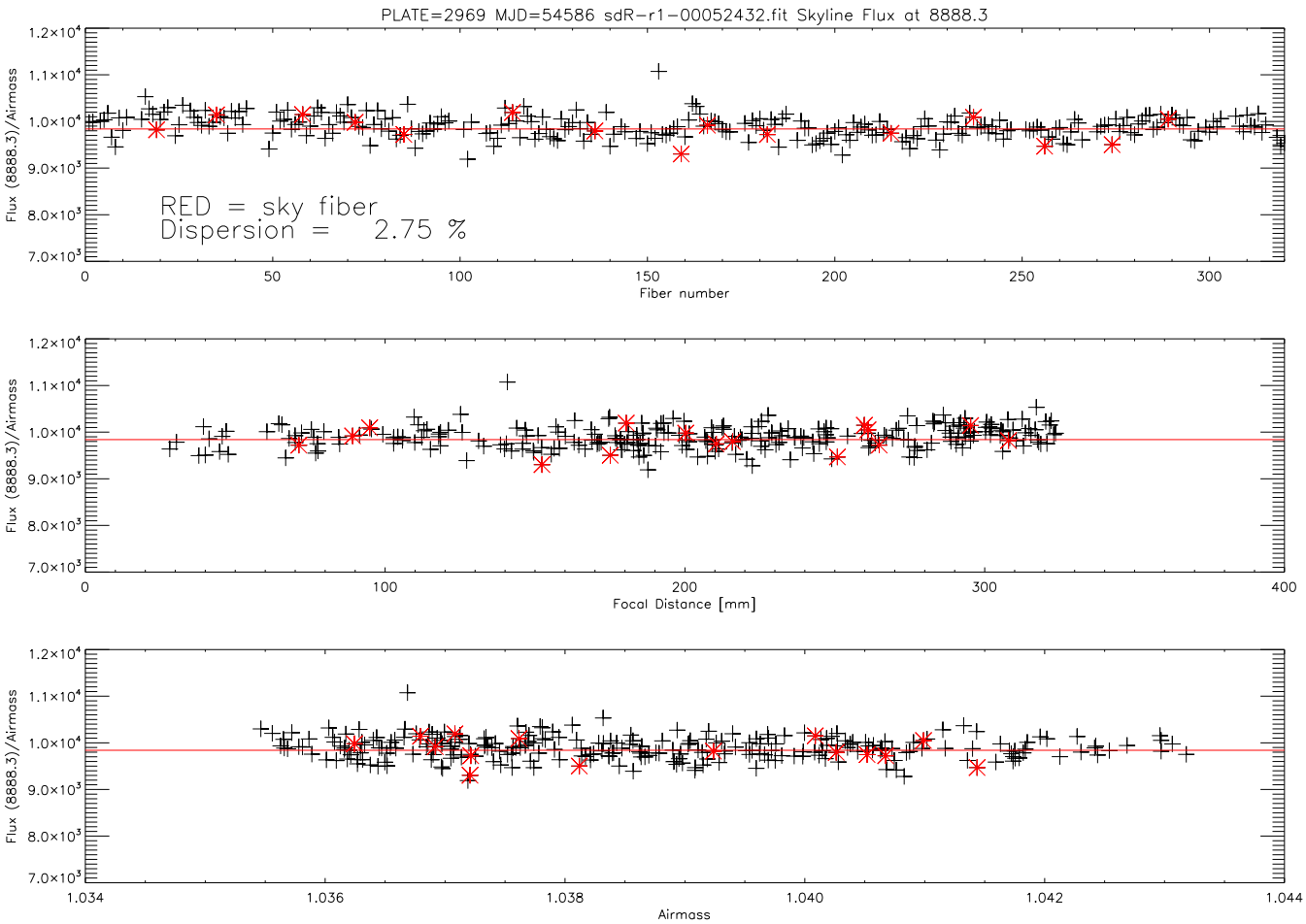

PLATE=2969 MJD=54586 sdR-r1-00052432.fit 2D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-2
0
2
4
6
8
50
100
150
200
250
300
Fiber number

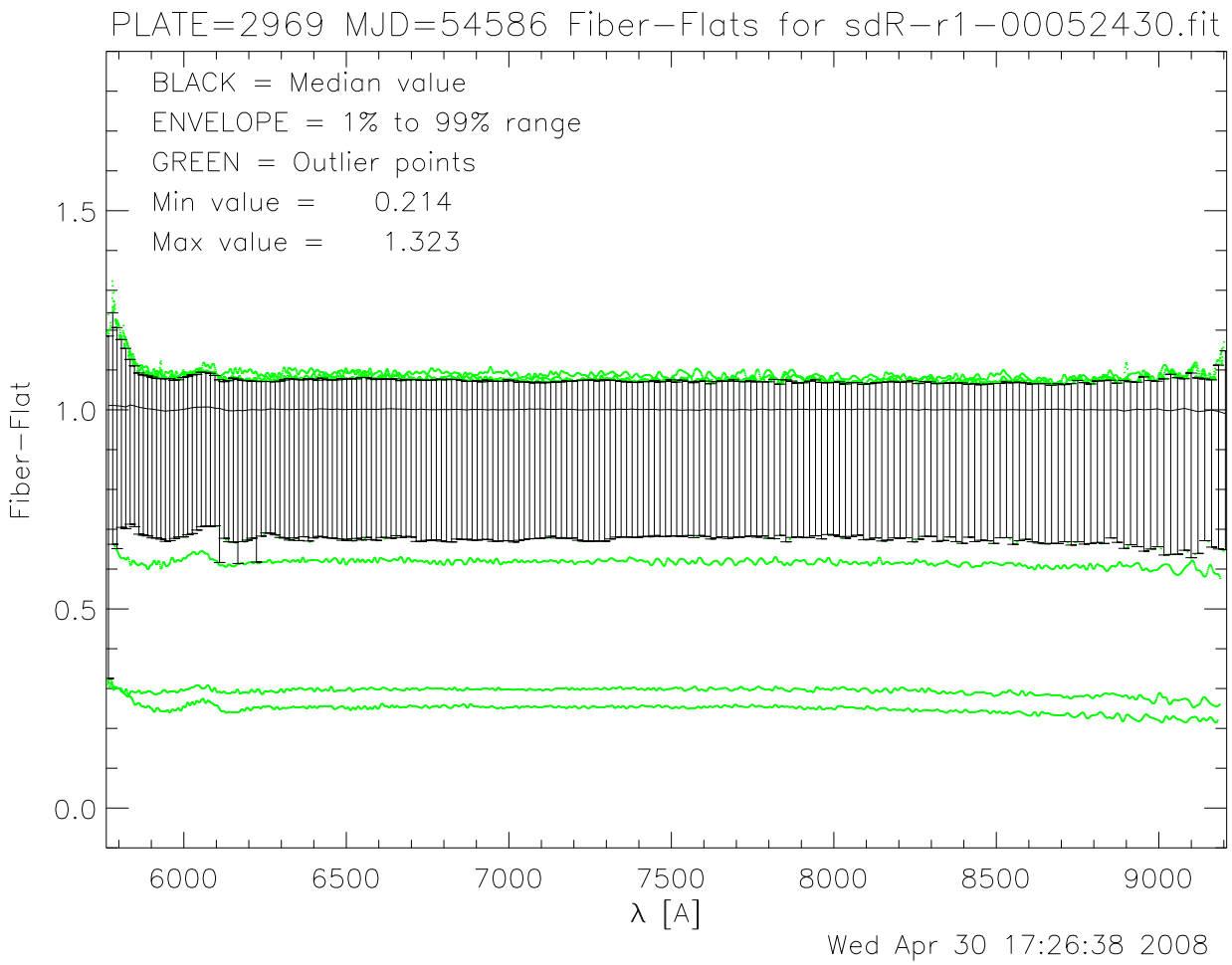

PLATE=2969 MJD=54586 sdR-r1-00052432.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
6000
4000
2000
0
−2000
8820
8840
8860
8880
8900
λ [A]

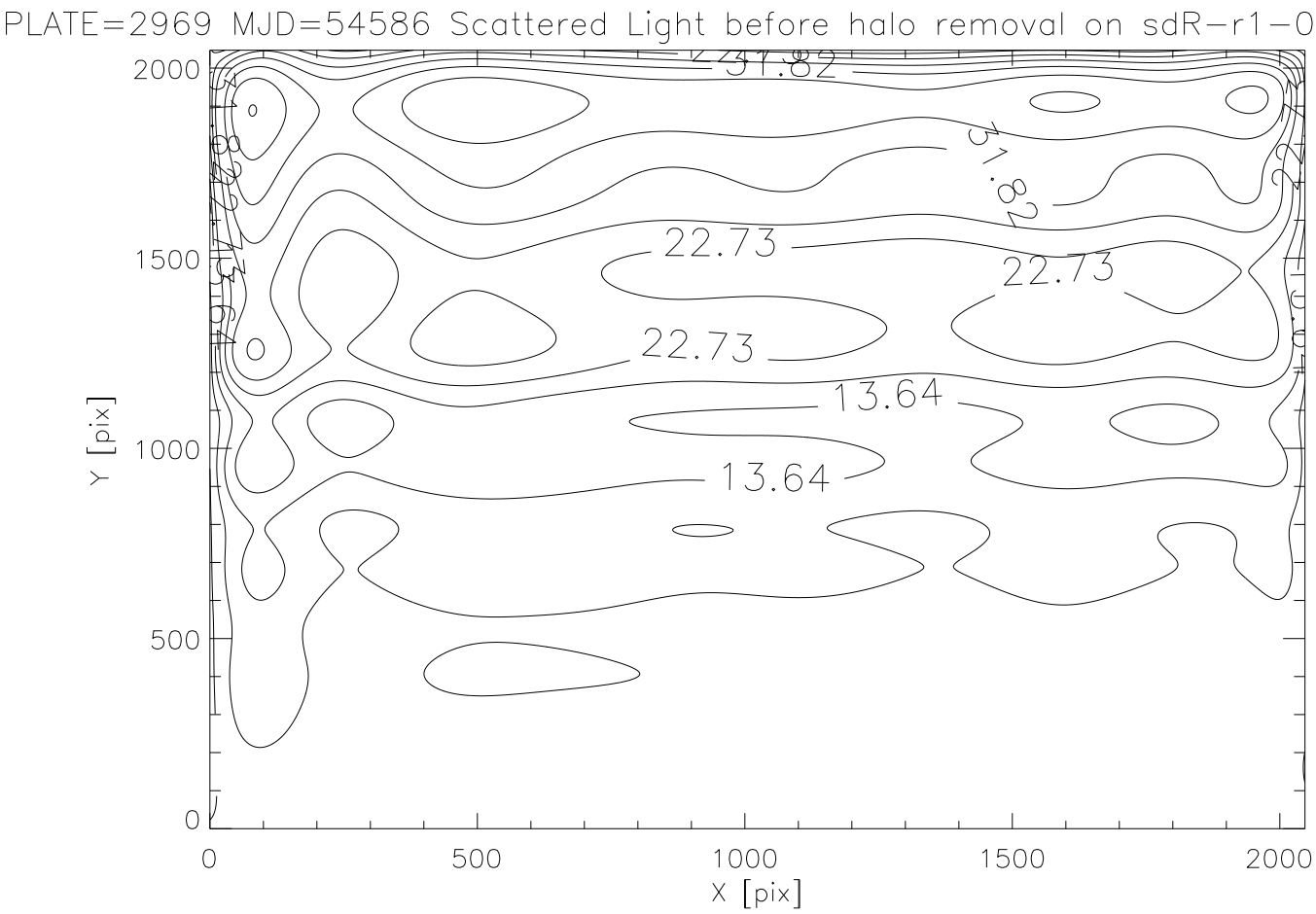

PLATE=2969 MJD=54586 sdR-r1-00052432.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
−200
−400
8820
8840
8860
8880
8900
λ [A]

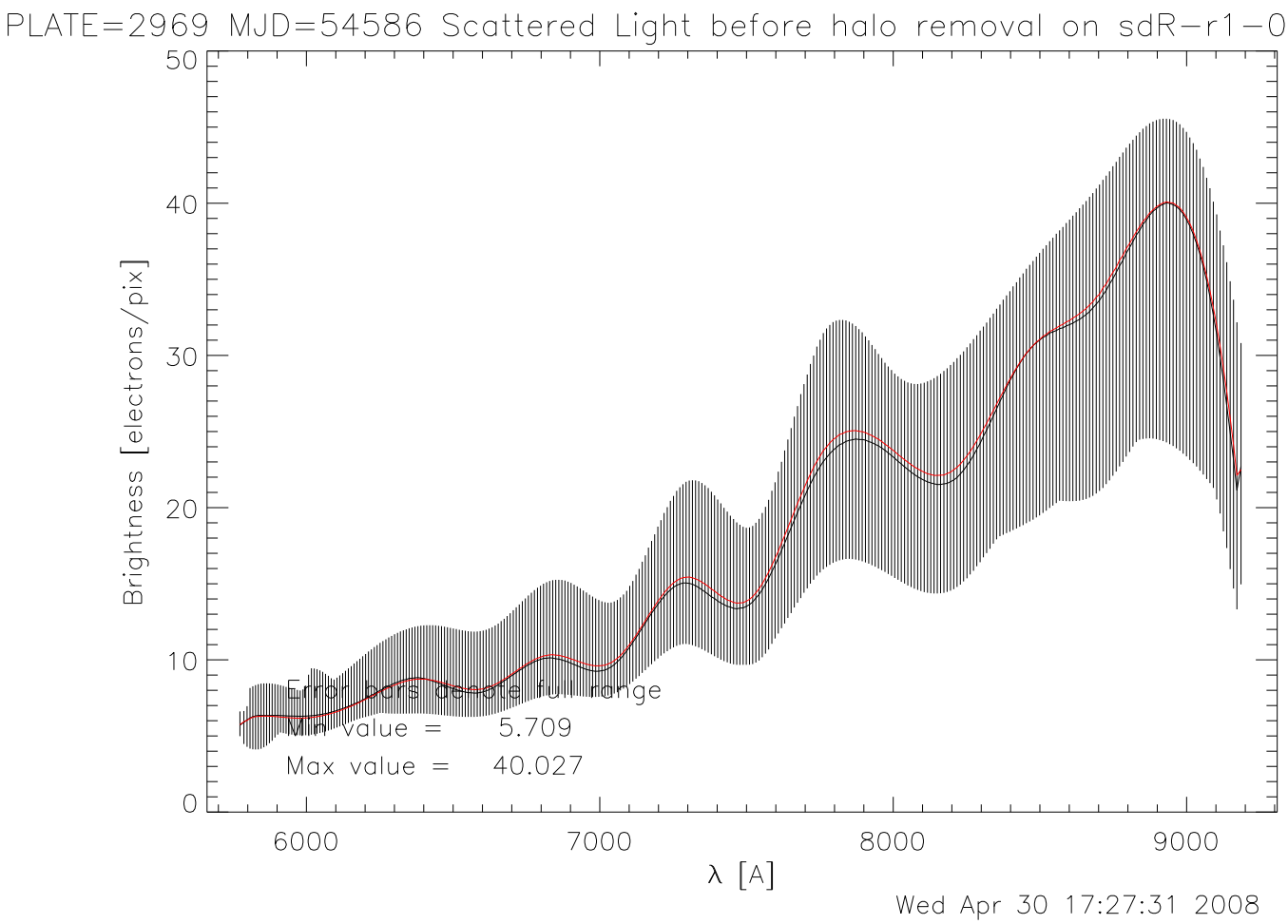

Number of sky fibers = 15
PLATE=2969 MJD=54586 sdR-r1-00052432.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

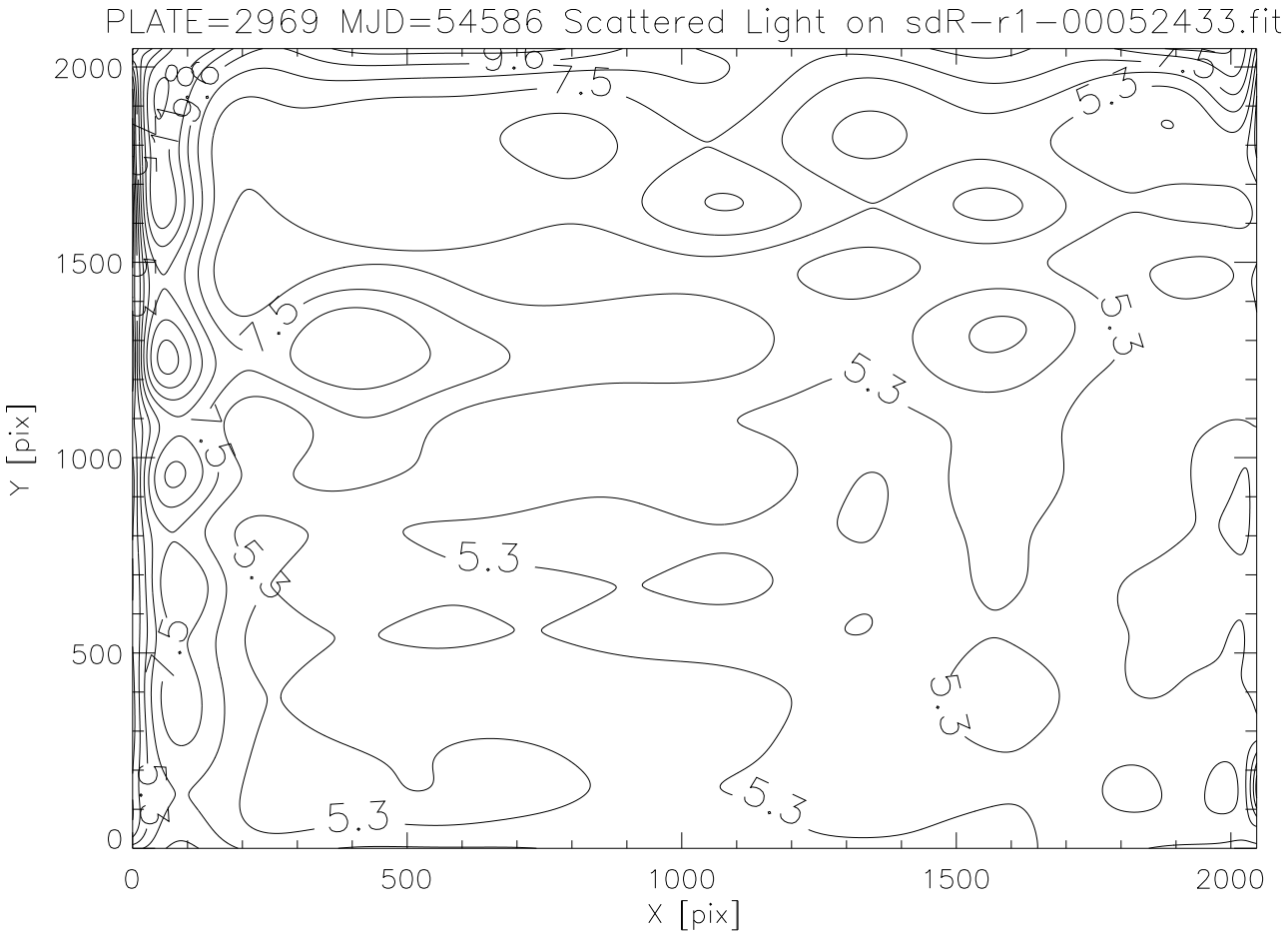

PLATE=2969 MJD=54586 sdR-r1-00052432.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 3.19 %
Fiber number
Focal Distance [mm]
Airmass

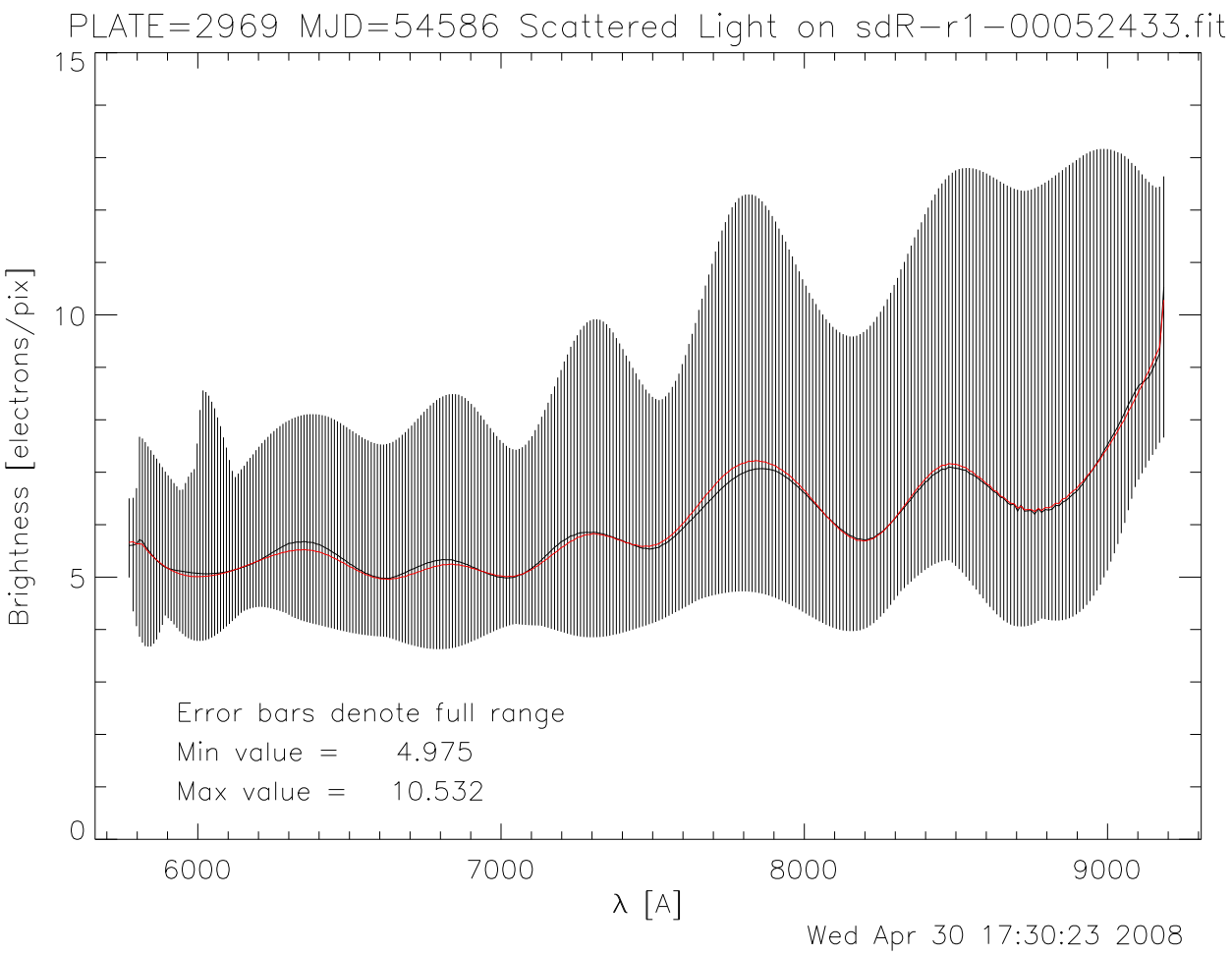

PLATE=2969 MJD=54586 sdR-r1-00052432.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 2.75 %
Fiber number
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass

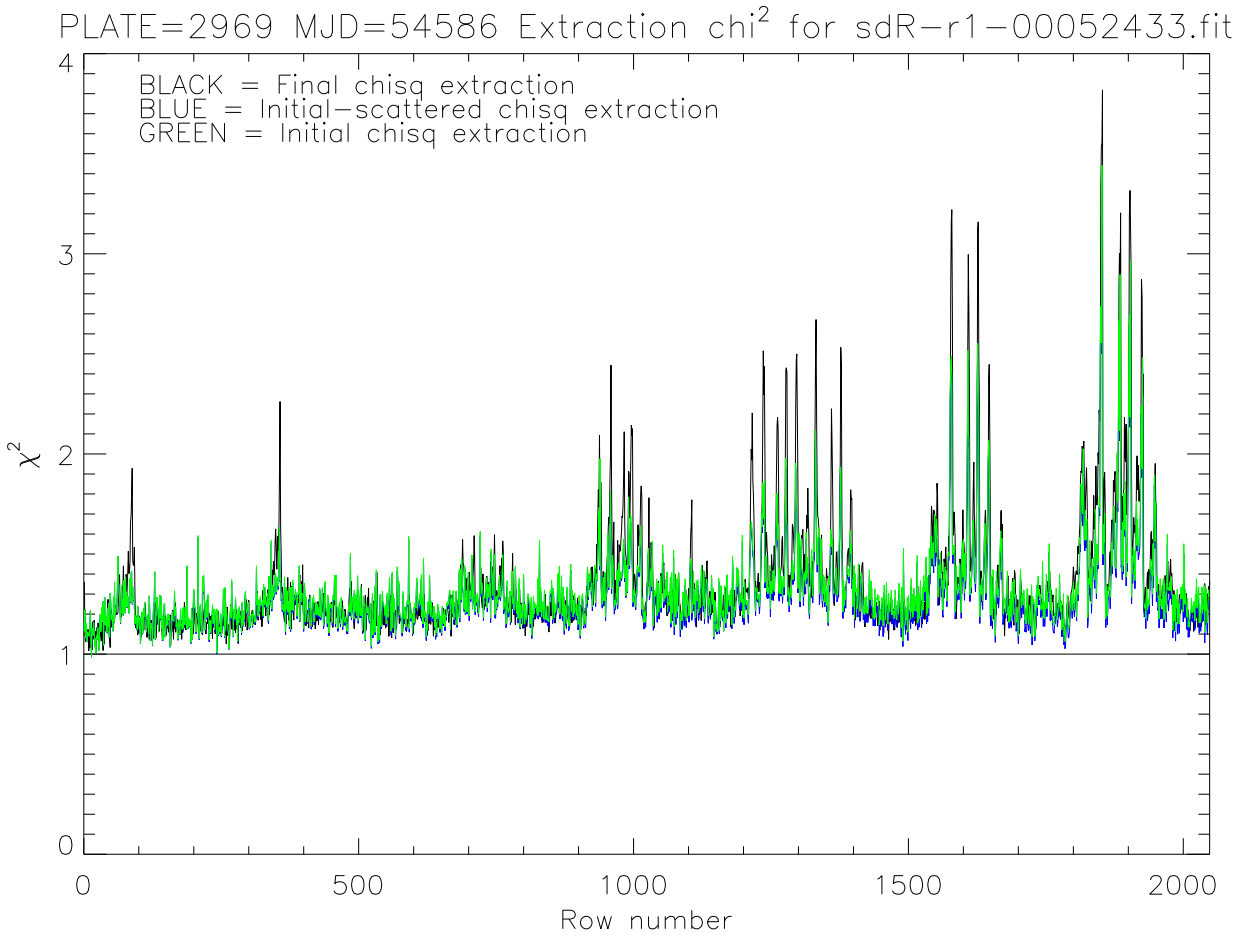

PLATE=2969 MJD=54586 Fiber−Flats for sdR−r1−00052430.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.214
Max value = 1.323
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Wed Apr 30 17:26:38 2008

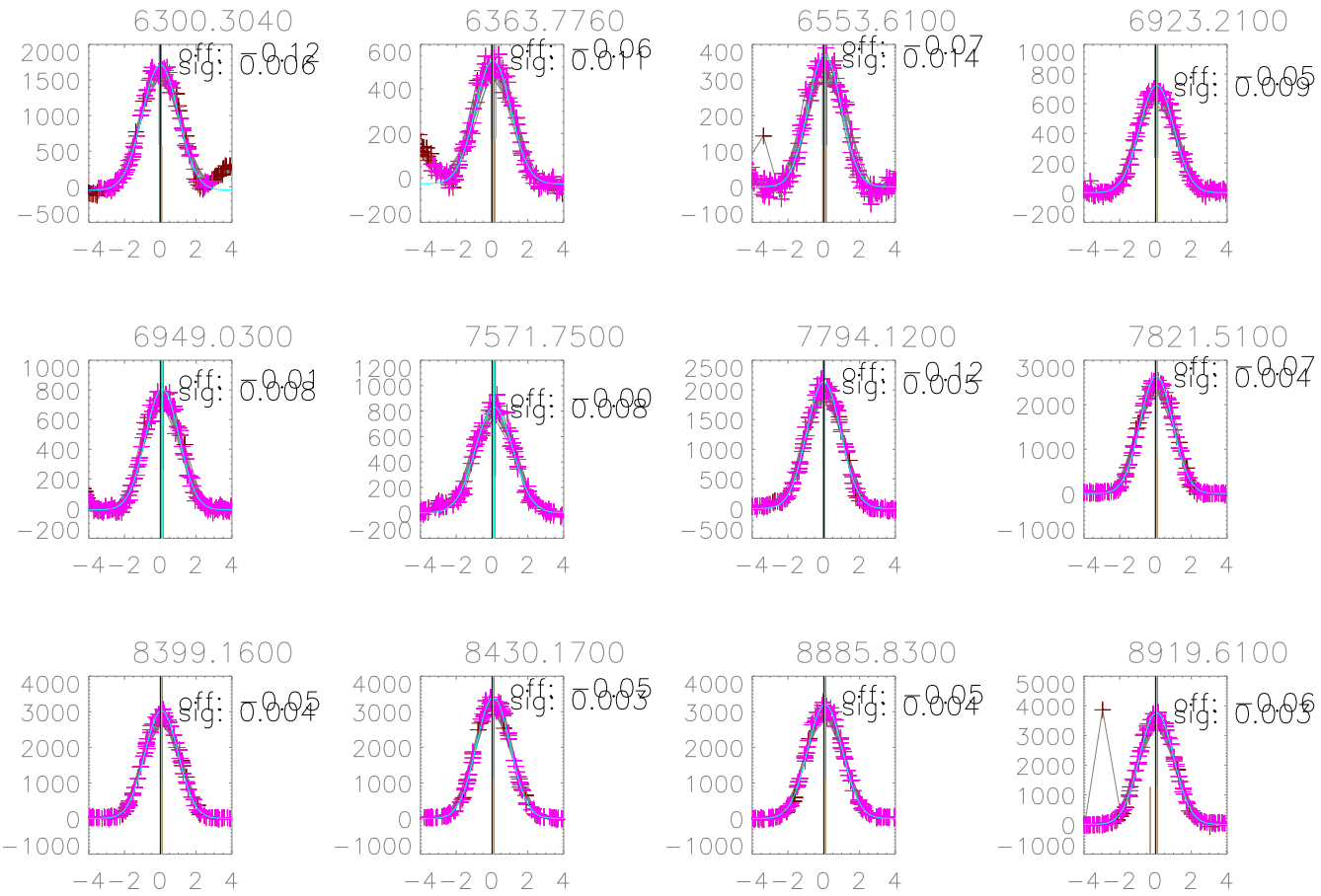

PLATE=2969 MJD=54586 Scattered Light before halo removal on sdR-r1-00052433.fi
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
91.82
45.91
22.73
22.73
22.73
13.64
13.64
0
0

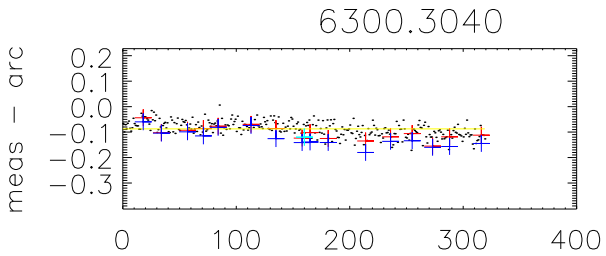

PLATE=2969 MJD=54586 Scattered Light before halo removal on sdR-r1-00052433.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 5.709
Max value = 40.027
Wed Apr 30 17:27:31 2008

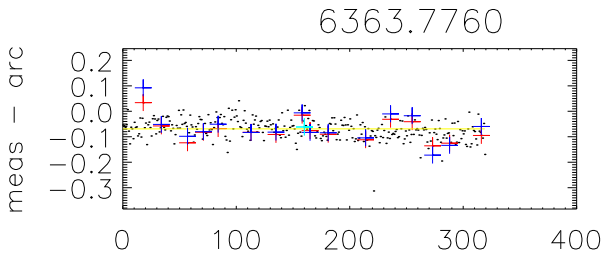

PLATE=2969 MJD=54586 Scattered Light on sdR-r1-00052433.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
9.6
7.5
5.3

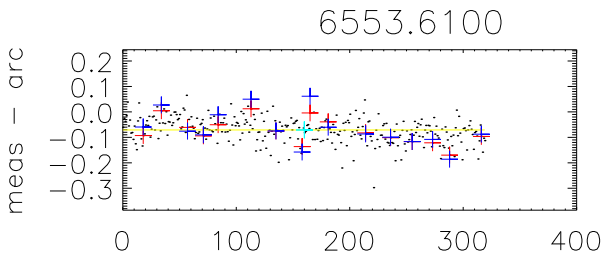

PLATE=2969 MJD=54586 Scattered Light on sdR-r1-00052433.fit
Brightness [electrons/pix]
15
10
5
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 4.975
Max value = 10.532
Wed Apr 30 17:30:23 2008

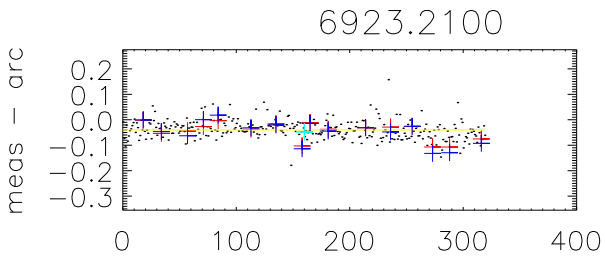

PLATE=2969 MJD=54586 Extraction chi^2 for sdR−r1−00052433.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
0
500
1000
1500
2000
Row number

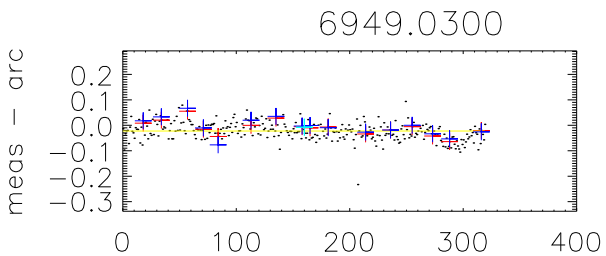

6300.3040
off: −0.12
sig: 0.006
6363.7760
off: −0.06
sig: 0.011
6553.6100
off: −0.07
sig: 0.014
6923.2100
off: −0.05
sig: 0.009
6949.0300
off: −0.01
sig: 0.008
7571.7500
off: −0.00
sig: 0.008
7794.1200
off: −0.12
sig: 0.005
7821.5100
off: −0.07
sig: 0.004
8399.1600
off: −0.05
sig: 0.004
8430.1700
off: −0.05
sig: 0.003
8885.8300
off: −0.05
sig: 0.004
8919.6100
off: −0.06
sig: 0.003

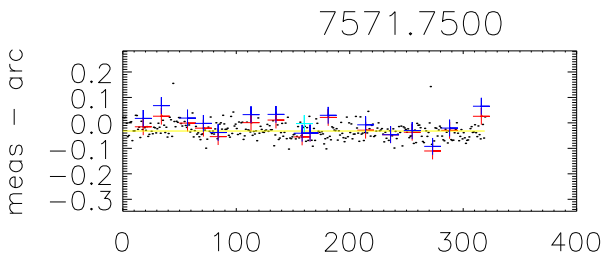

6300.3040
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

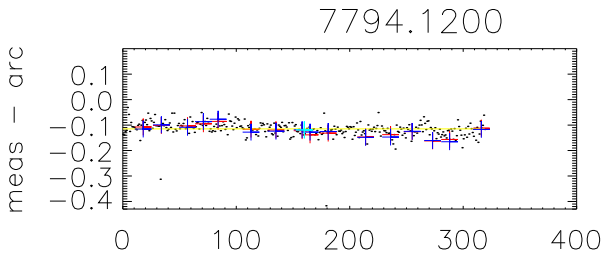

6363.7760
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

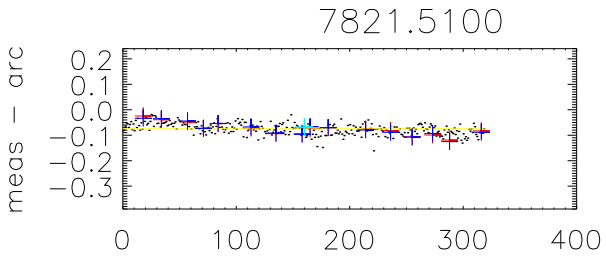

6553.6100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

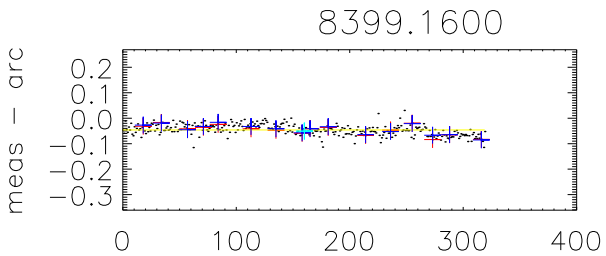

6923.2100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

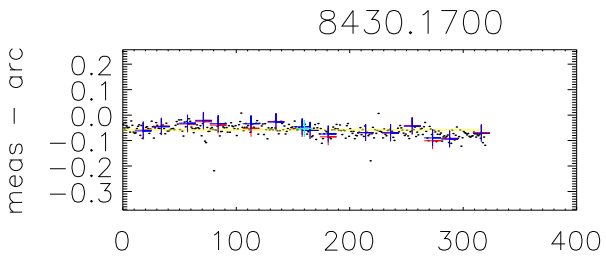

6949.0300
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

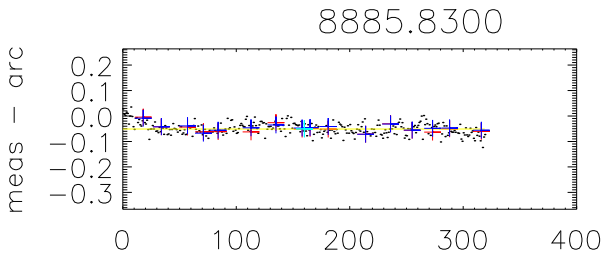

7571.7500
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

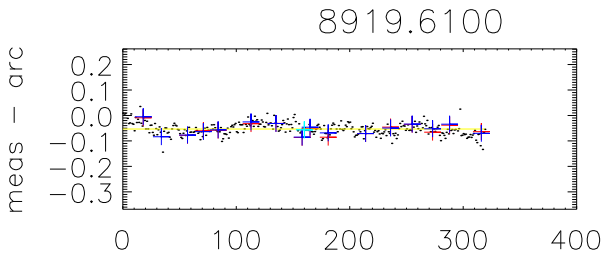

7794.1200
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

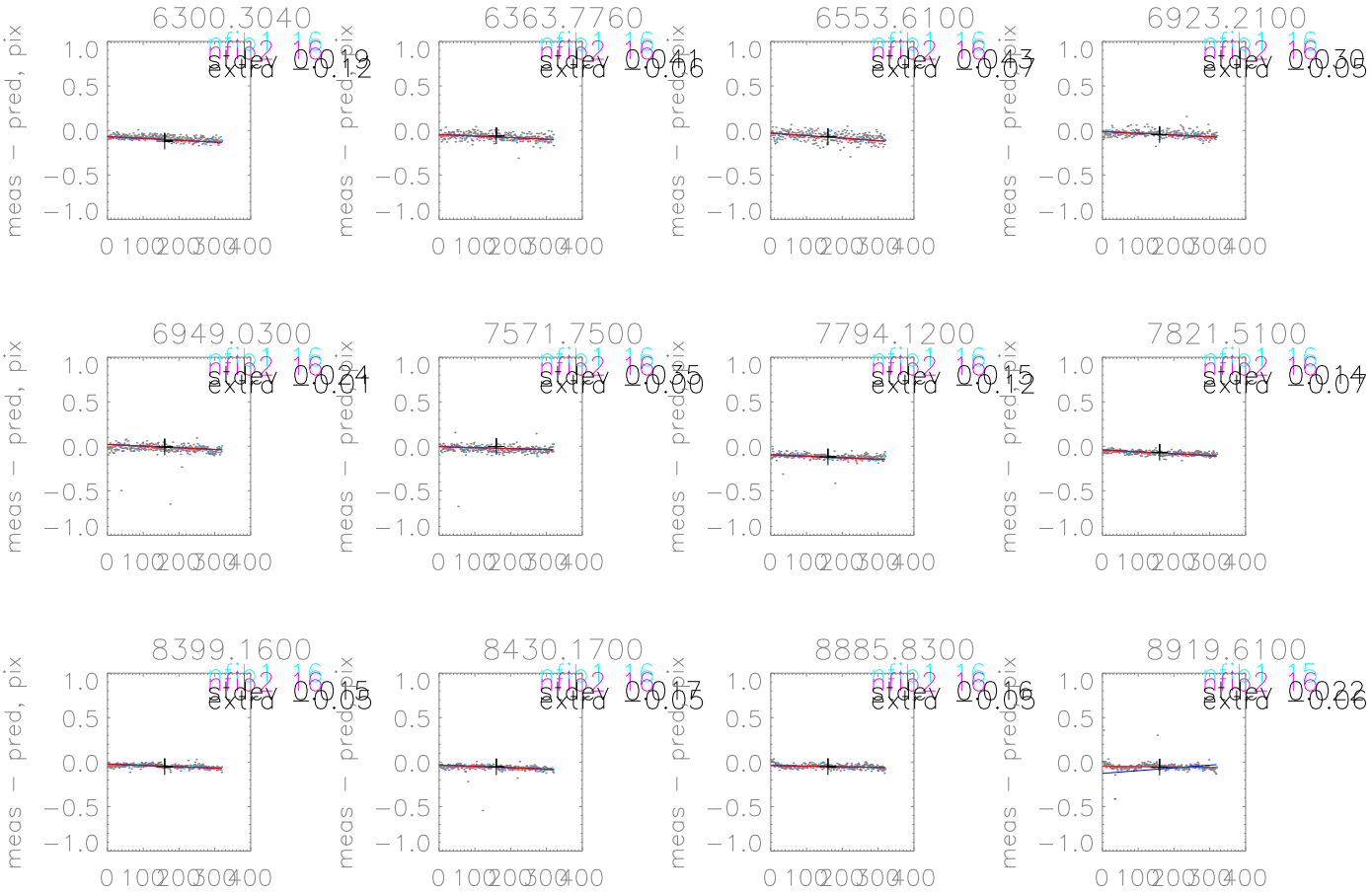

7821.5100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

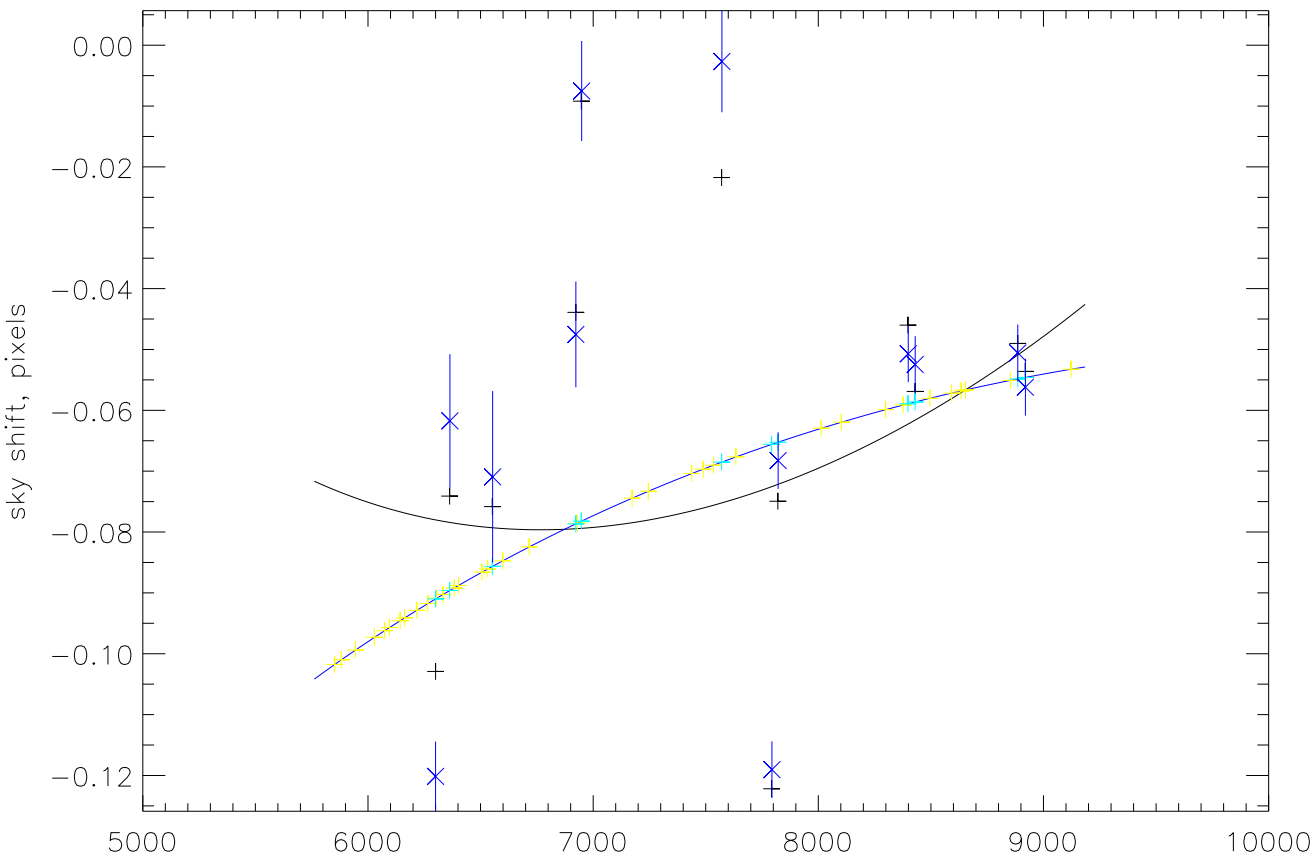

8399.1600
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400


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

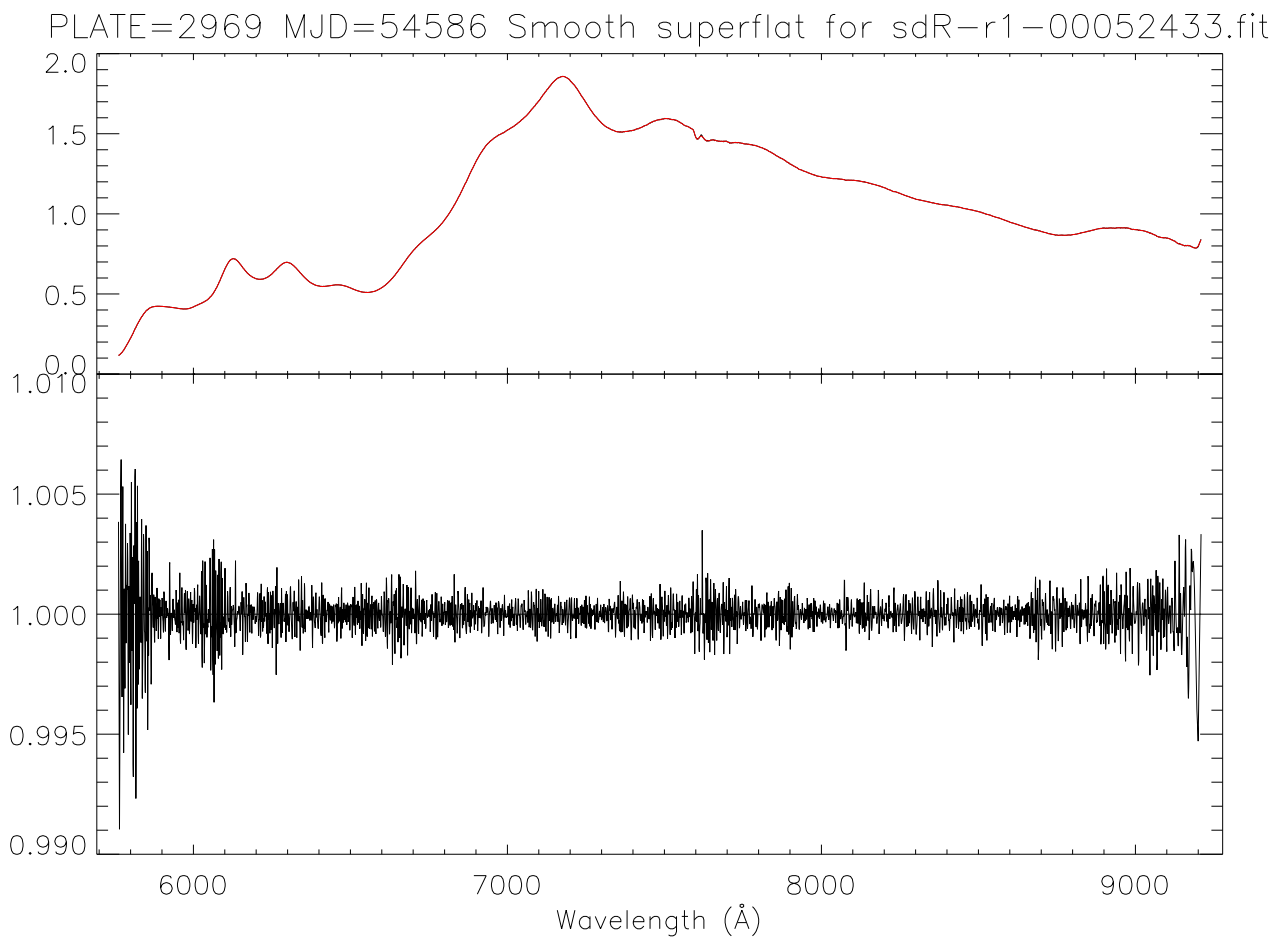

8885.8300
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

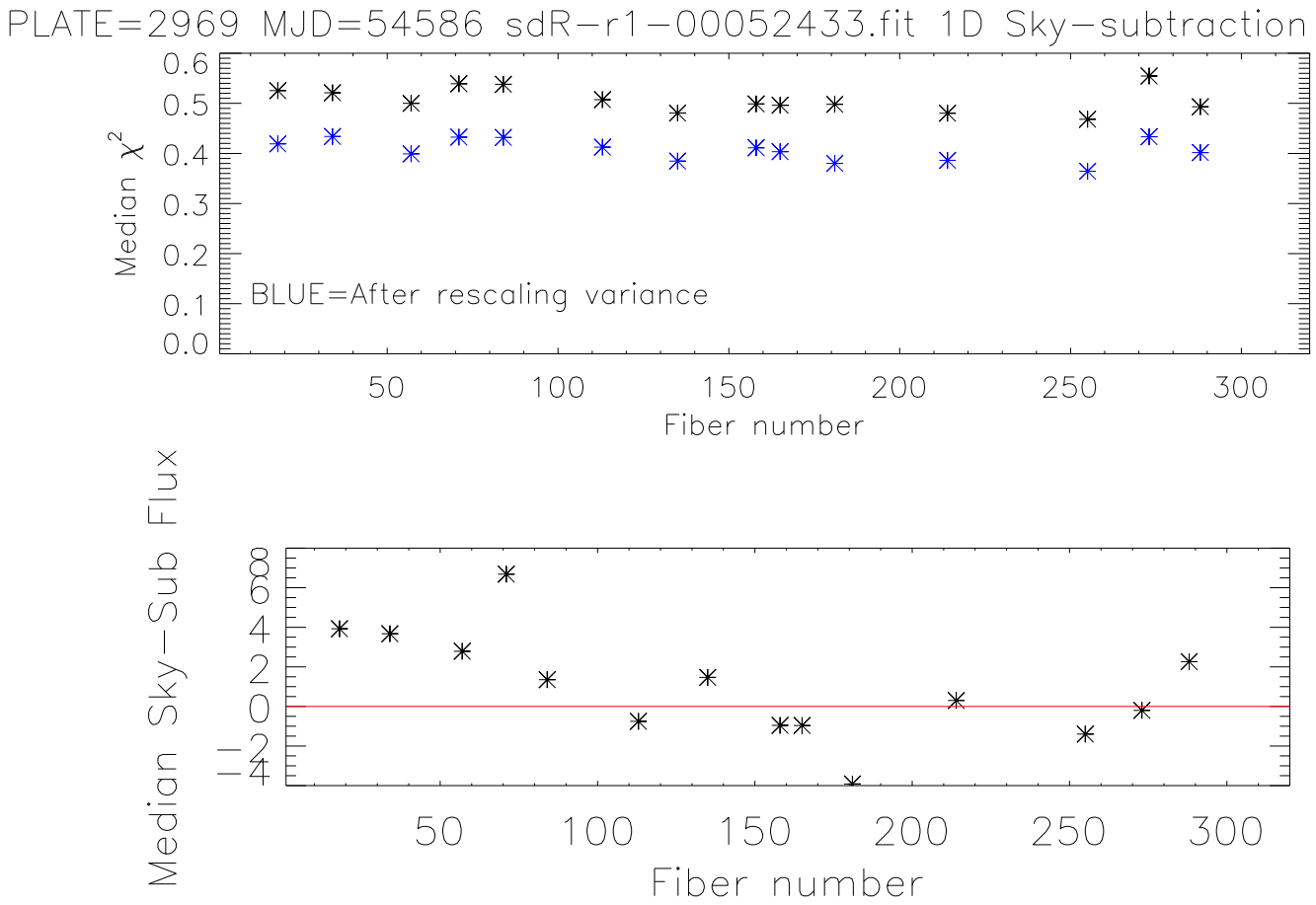

8919.6100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

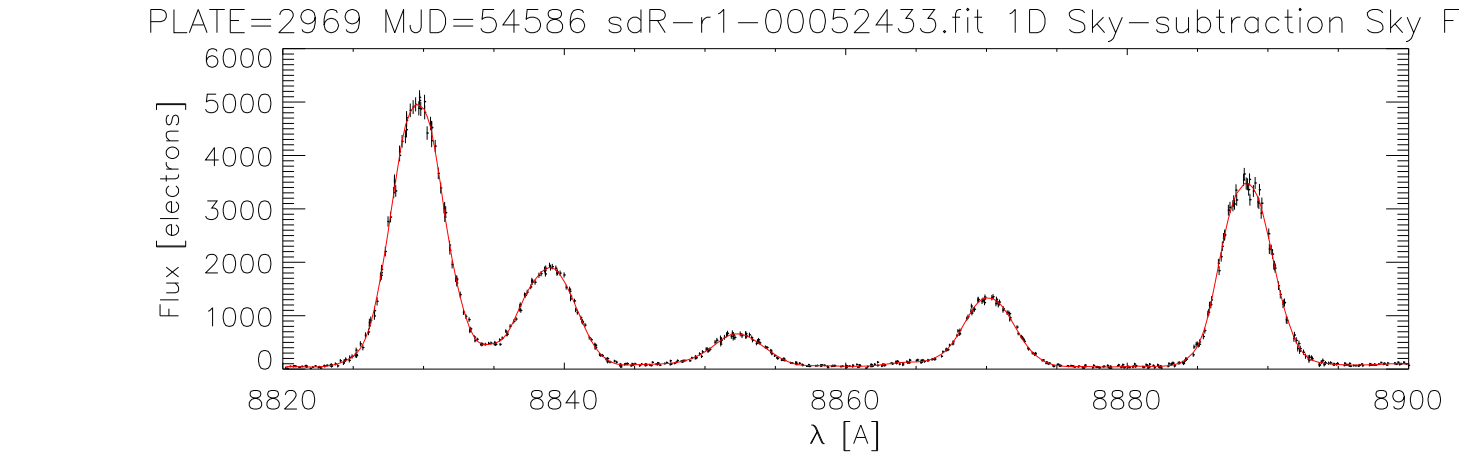

6300.3040
mfhd1 16
mfhd2 16
stdev 0.019
extra 0.12
6363.7760
mfhd1 16
mfhd2 16
stdev 0.041
extra 0.06
6553.6100
mfhd1 16
mfhd2 16
stdev 0.043
extra 0.07
6923.2100
mfhd1 16
mfhd2 16
stdev 0.030
extra 0.05
6949.0300
mfhd1 16
mfhd2 16
stdev 0.024
extra 0.01
7571.7500
mfhd1 16
mfhd2 16
stdev 0.035
extra 0.00
7794.1200
mfhd1 16
mfhd2 16
stdev 0.015
extra 0.12
7821.5100
mfhd1 16
mfhd2 16
stdev 0.014
extra 0.07
8399.1600
mfhd1 16
mfhd2 16
stdev 0.015
extra 0.05
8430.1700
mfhd1 16
mfhd2 16
stdev 0.017
extra 0.05
8885.8300
mfhd1 16
mfhd2 16
stdev 0.016
extra 0.05
8919.6100
mfhd1 15
mfhd2 16
stdev 0.022
extra 0.06
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400

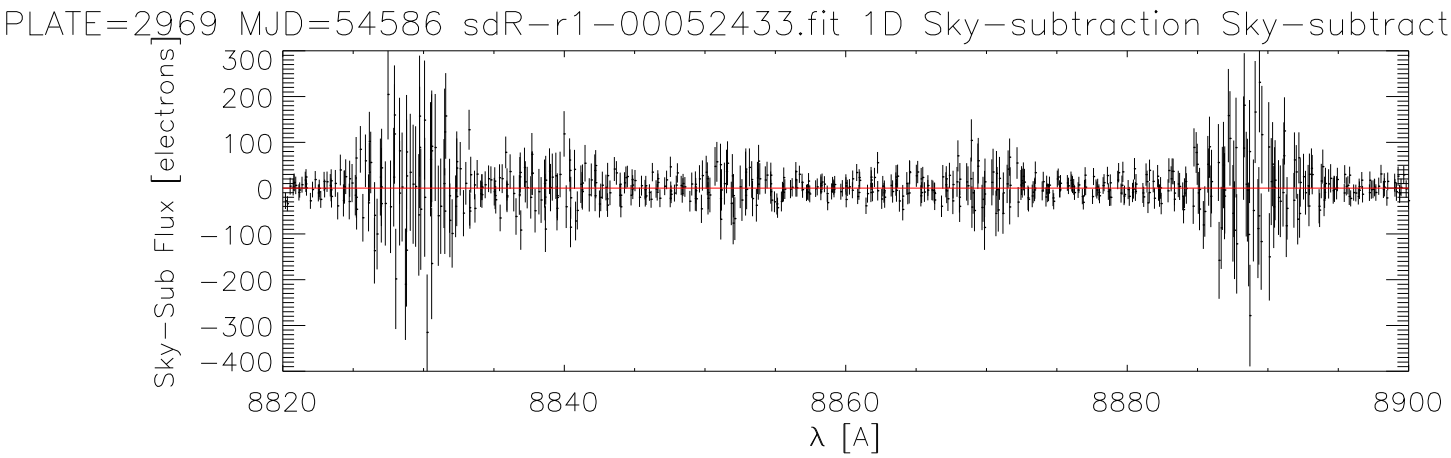

0.00
−0.02
−0.04
−0.06
−0.08
−0.10
−0.12
sky shift, pixels
5000
6000
7000
8000
9000
10000

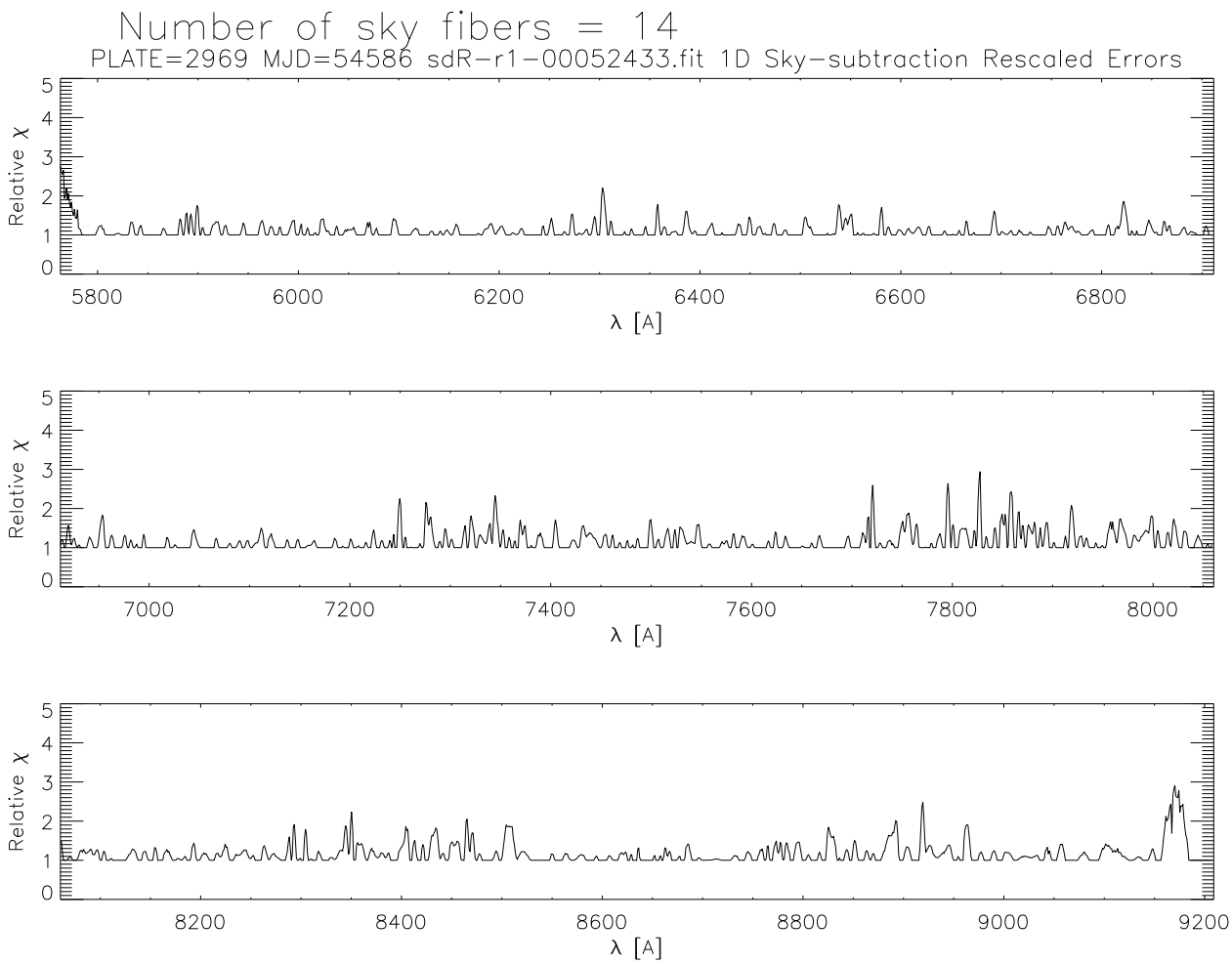
es= 0.0000

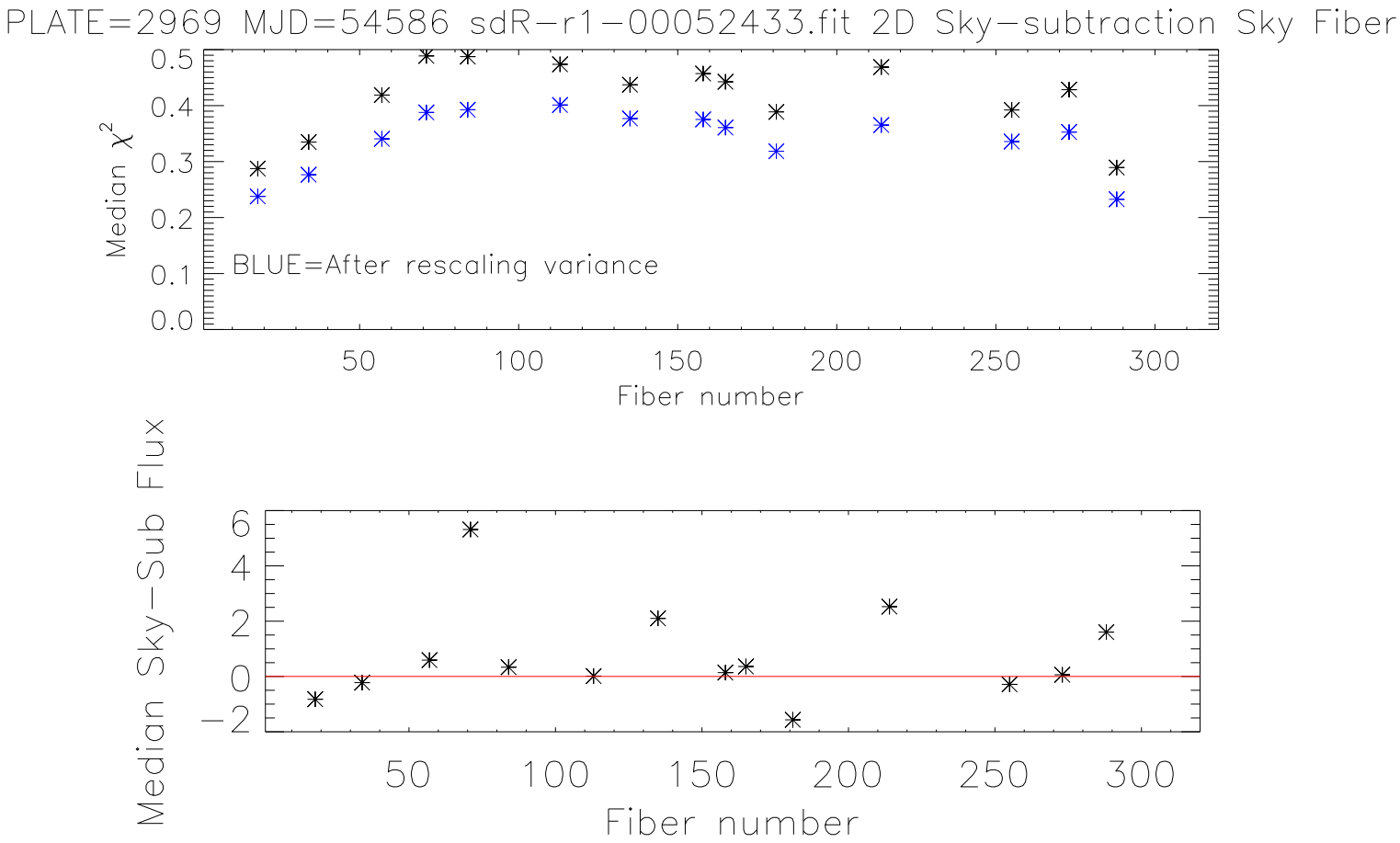

PLATE=2969 MJD=54586 Smooth superflat for sdR-r1-00052433.fit
2.0
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
6000
7000
8000
9000
Wavelength (Å)

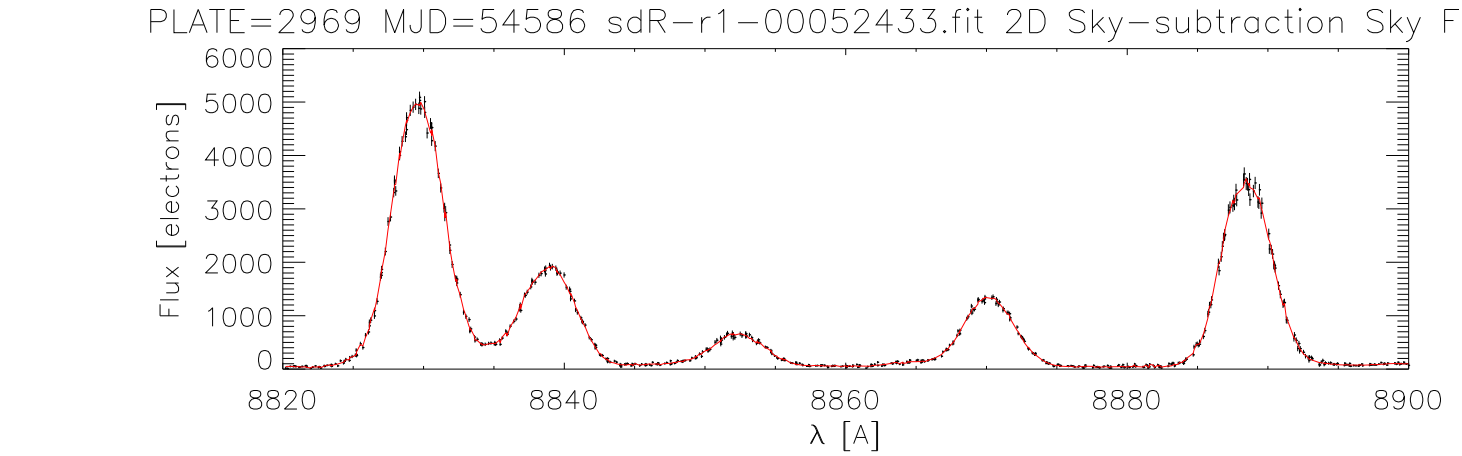

PLATE=2969 MJD=54586 sdR-r1-00052433.fit 1D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

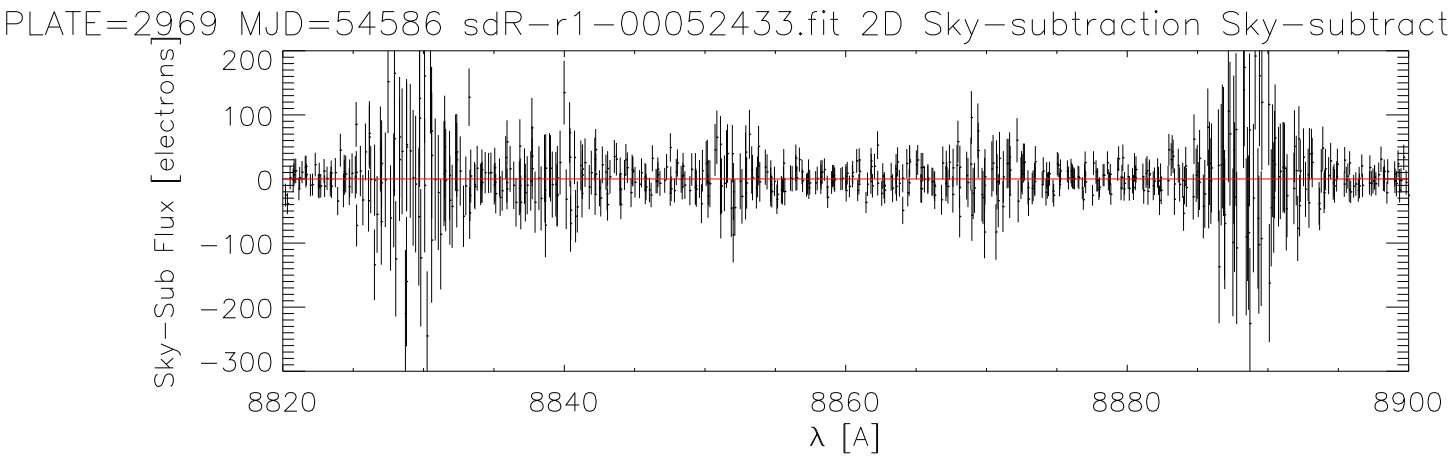

PLATE=2969 MJD=54586 sdR-r1-00052433.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
6000
5000
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

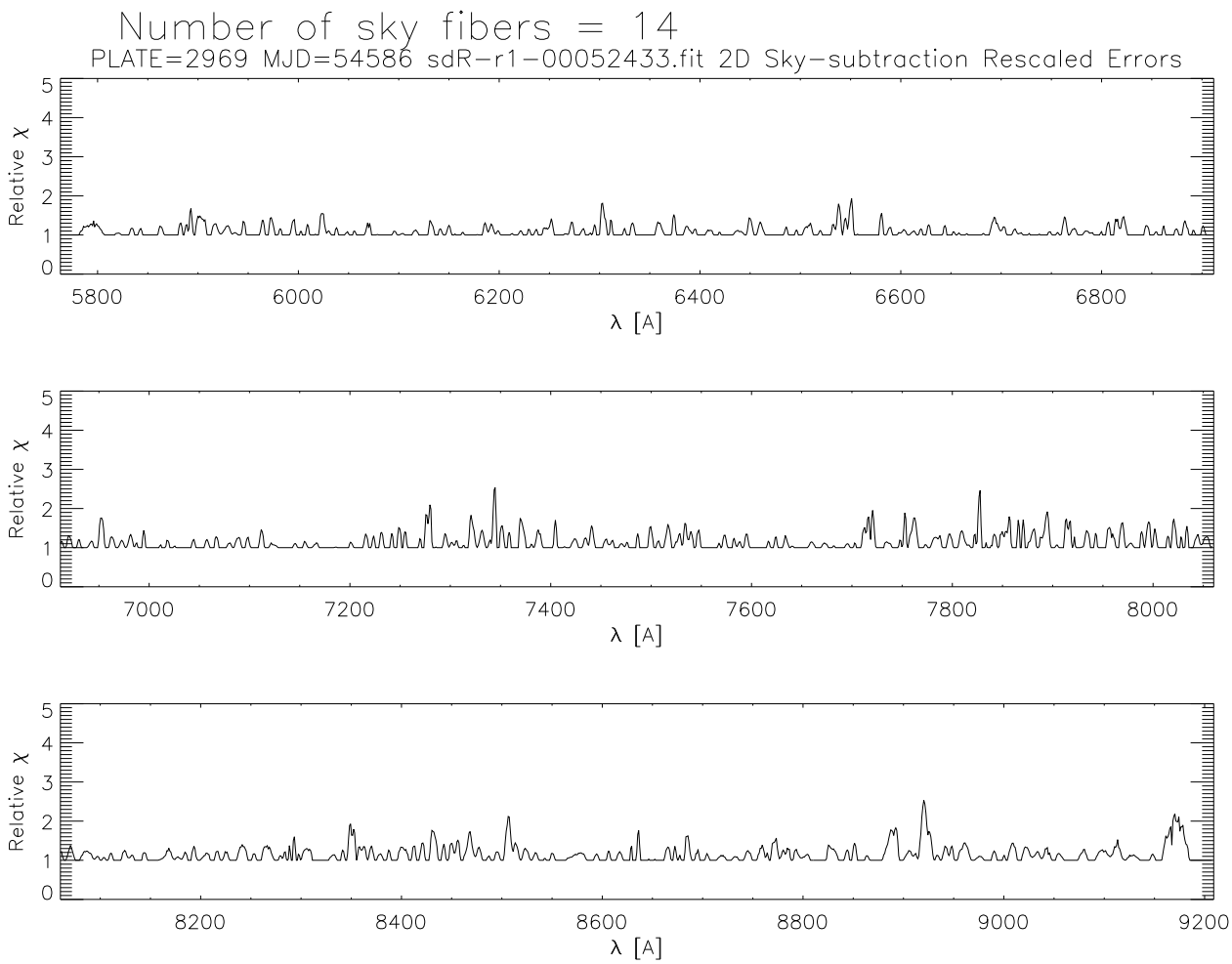

PLATE=2969 MJD=54586 sdR-r1-00052433.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
-300
-400
8820
8840
8860
8880
8900
λ [A]

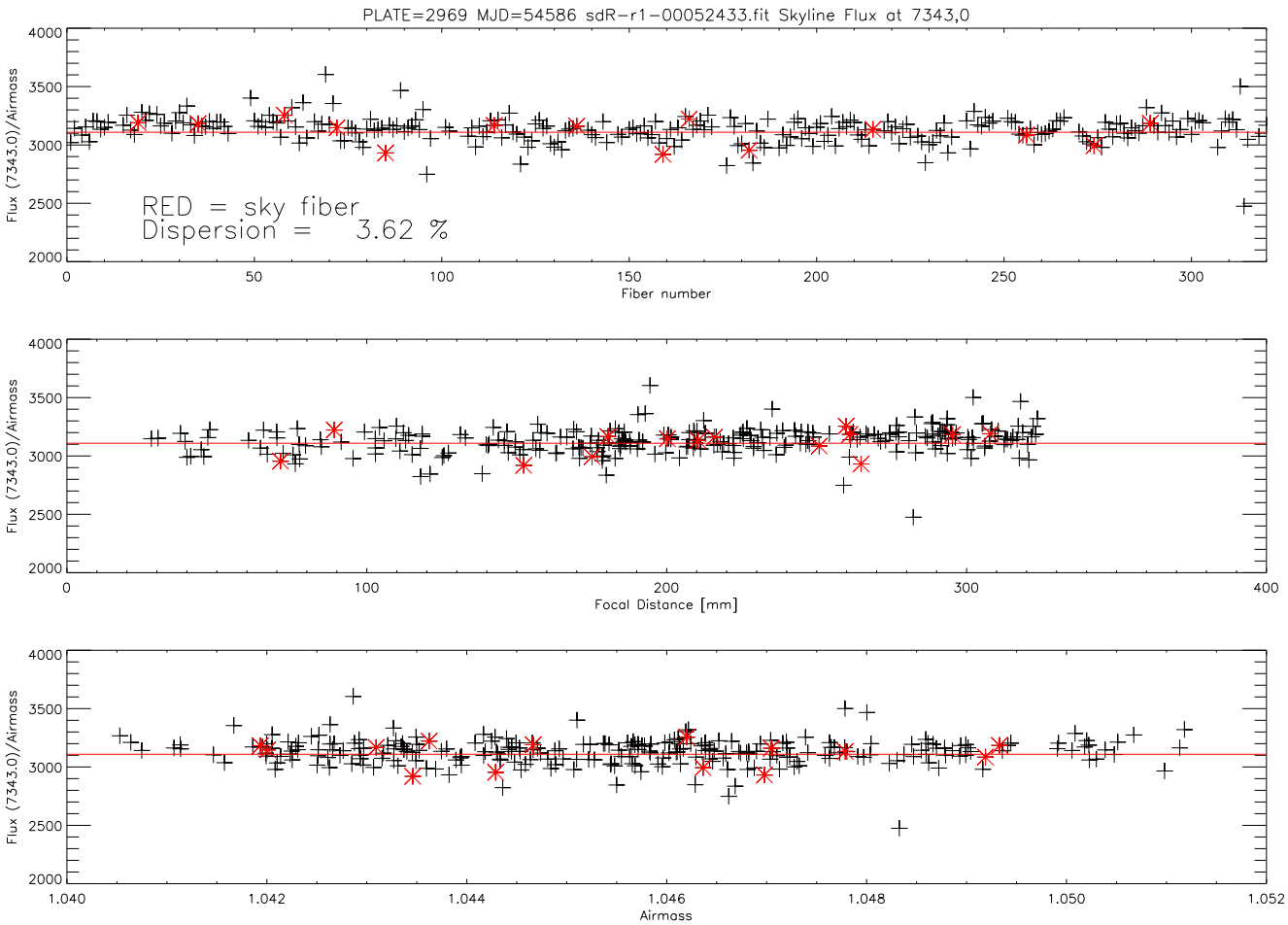

Number of sky fibers = 14
PLATE=2969 MJD=54586 sdR-r1-00052433.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

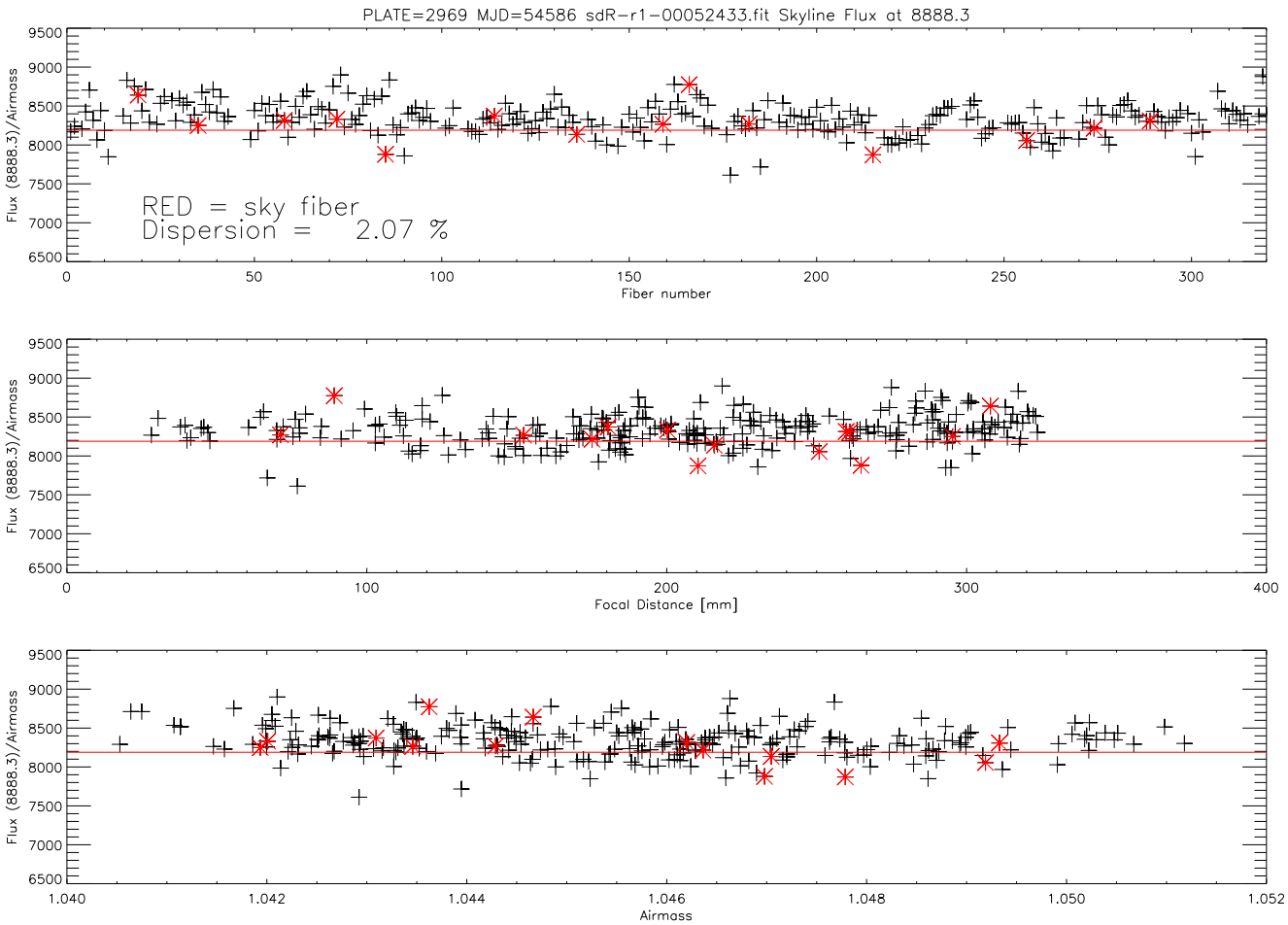

PLATE=2969 MJD=54586 sdR-r1-00052433.fit 2D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-2
0
2
4
6
50
100
150
200
250
300
Fiber number

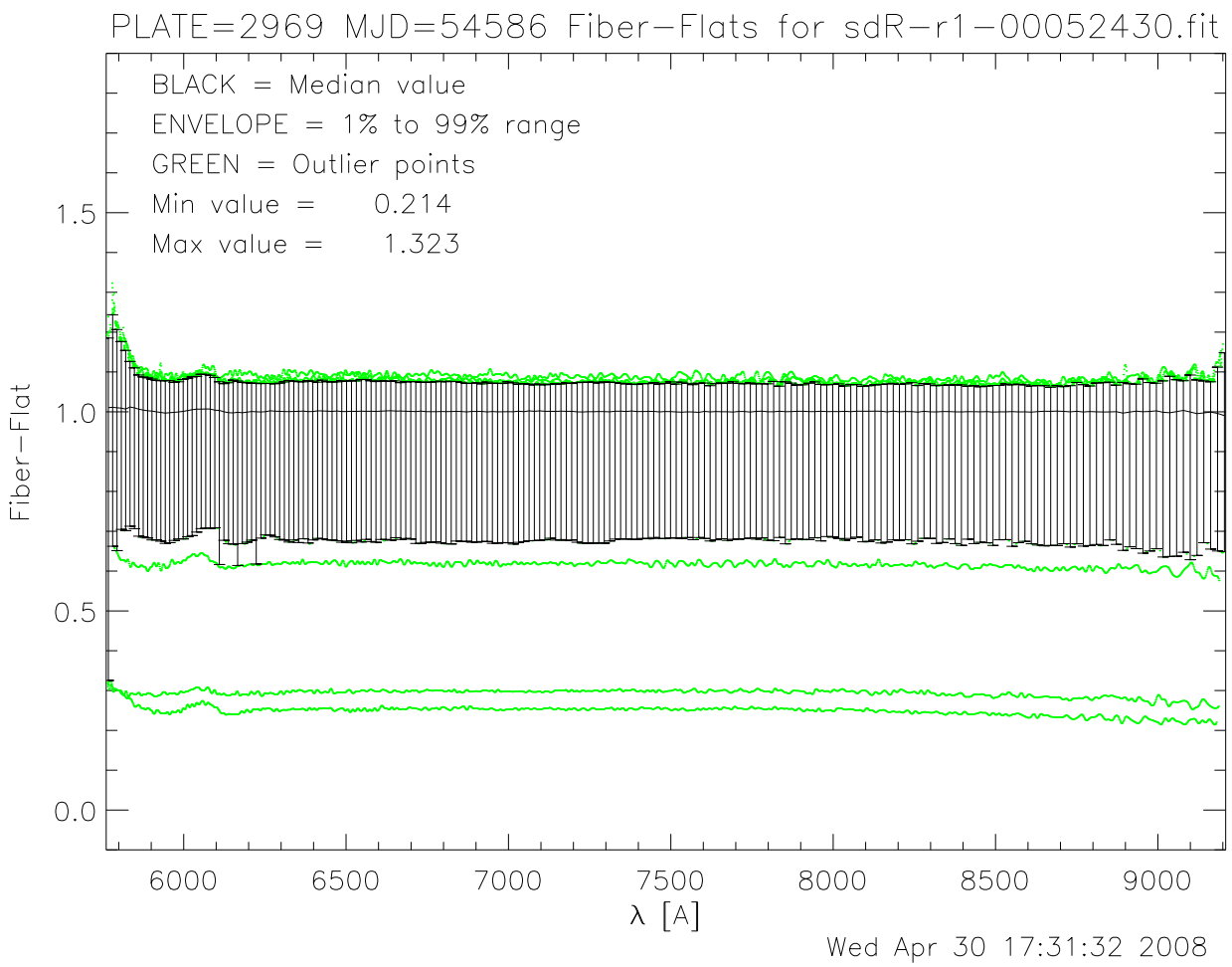

PLATE=2969 MJD=54586 sdR-r1-00052433.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
6000
5000
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

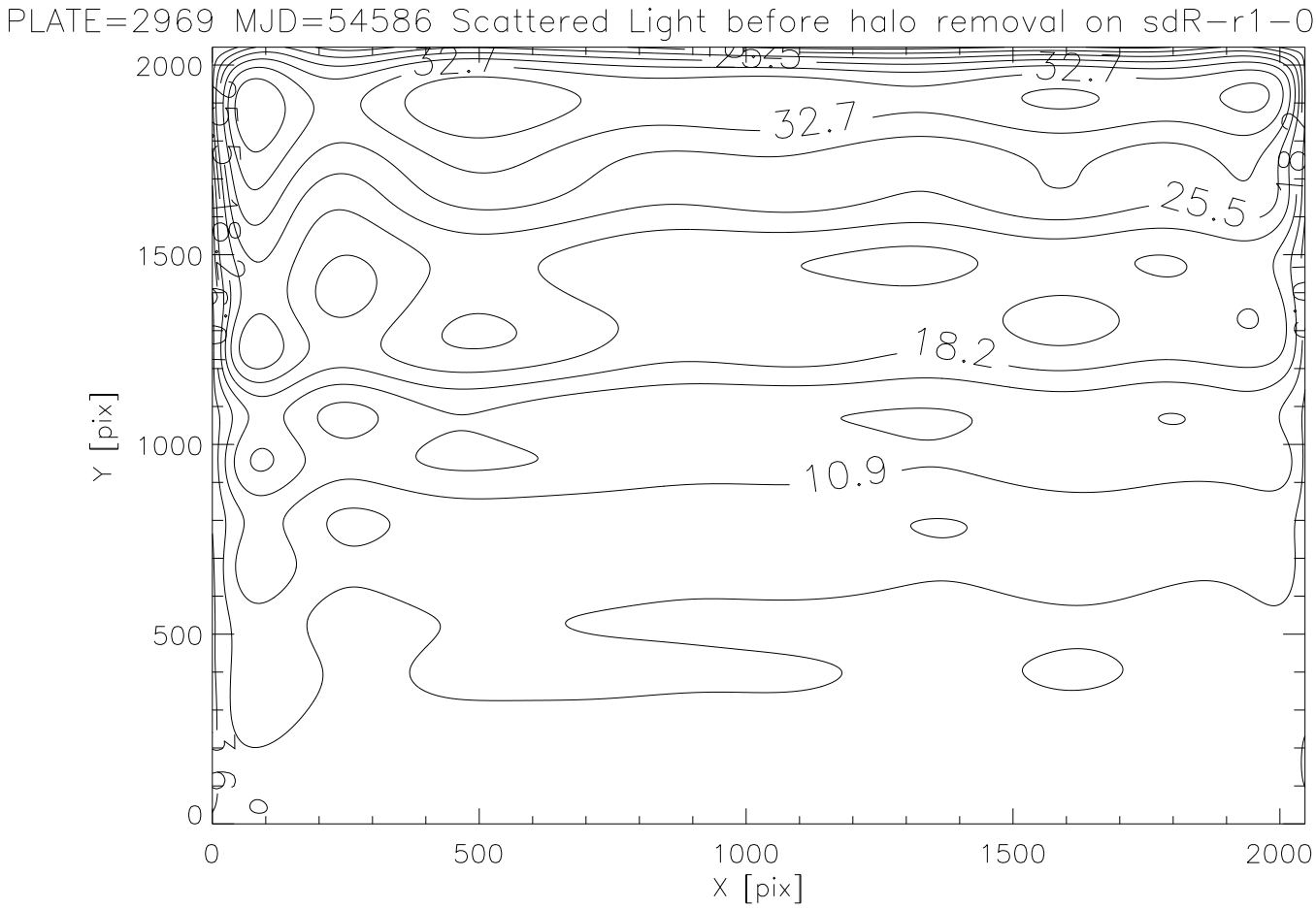

PLATE=2969 MJD=54586 sdR-r1-00052433.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
-300
8820
8840
8860
8880
8900
λ [A]

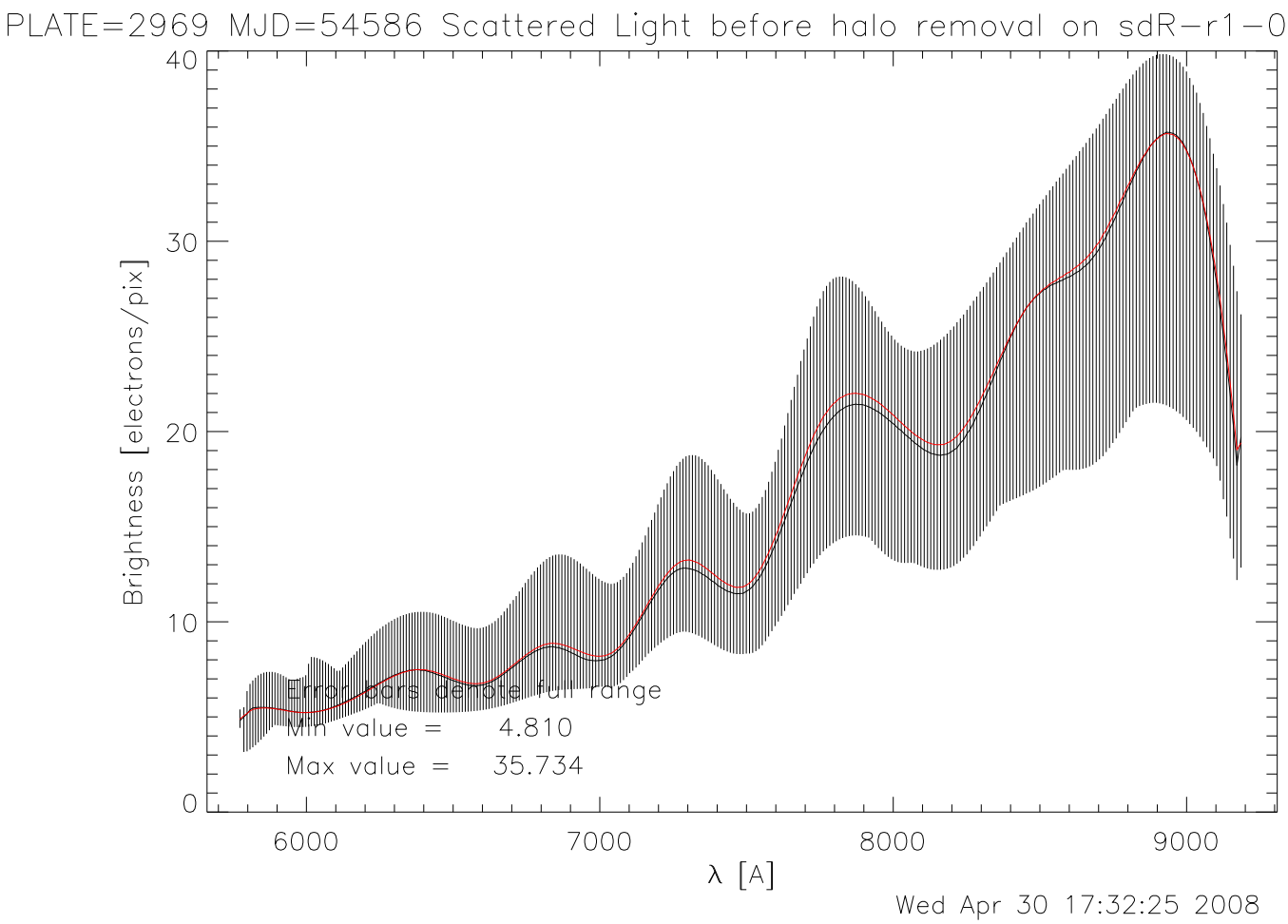

Number of sky fibers = 14
PLATE=2969 MJD=54586 sdR-r1-00052433.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

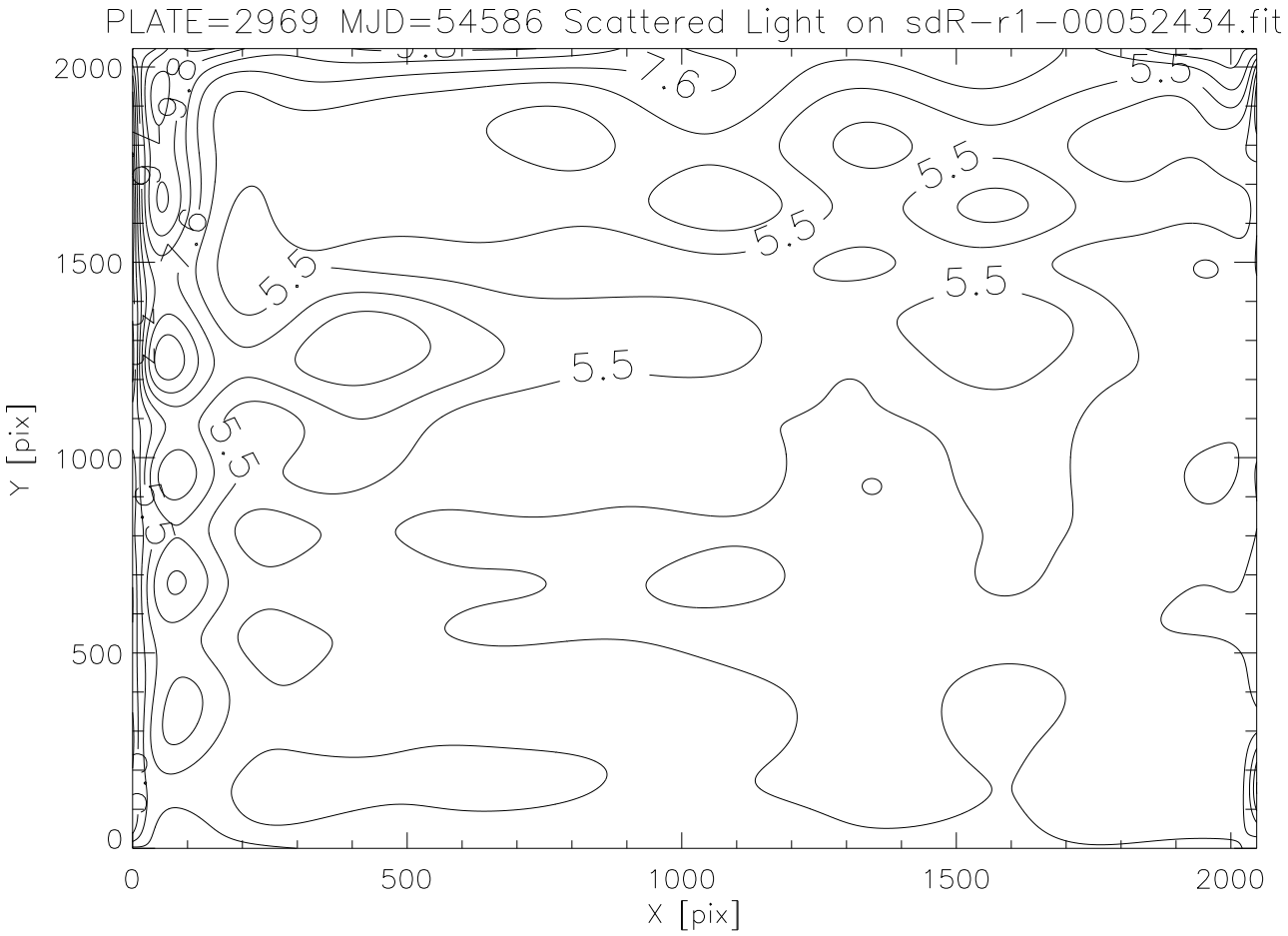

PLATE=2969 MJD=54586 sdR-r1-00052433.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 3.62 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

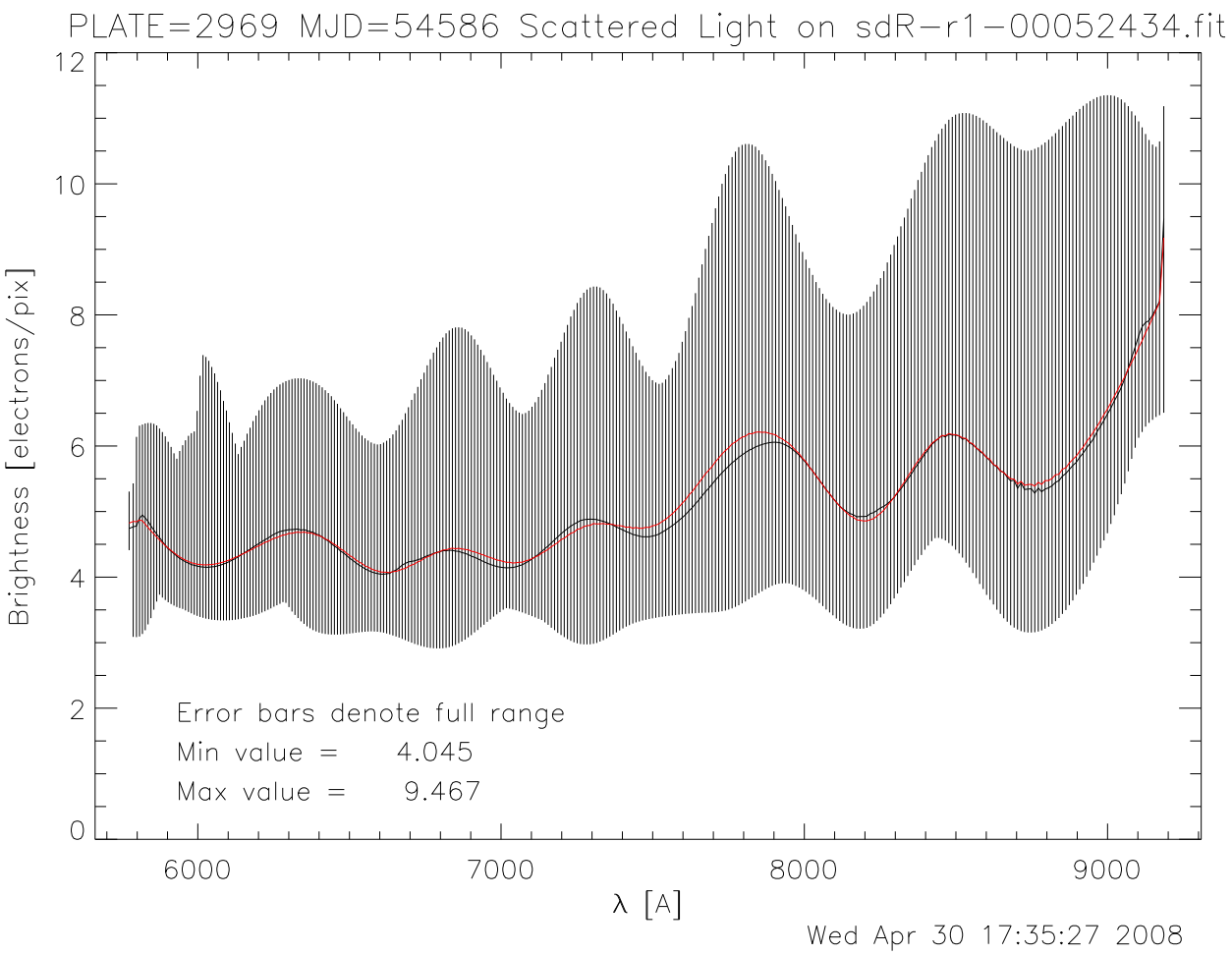

PLATE=2969 MJD=54586 sdR-r1-00052433.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 2.07 %
Fiber number
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass

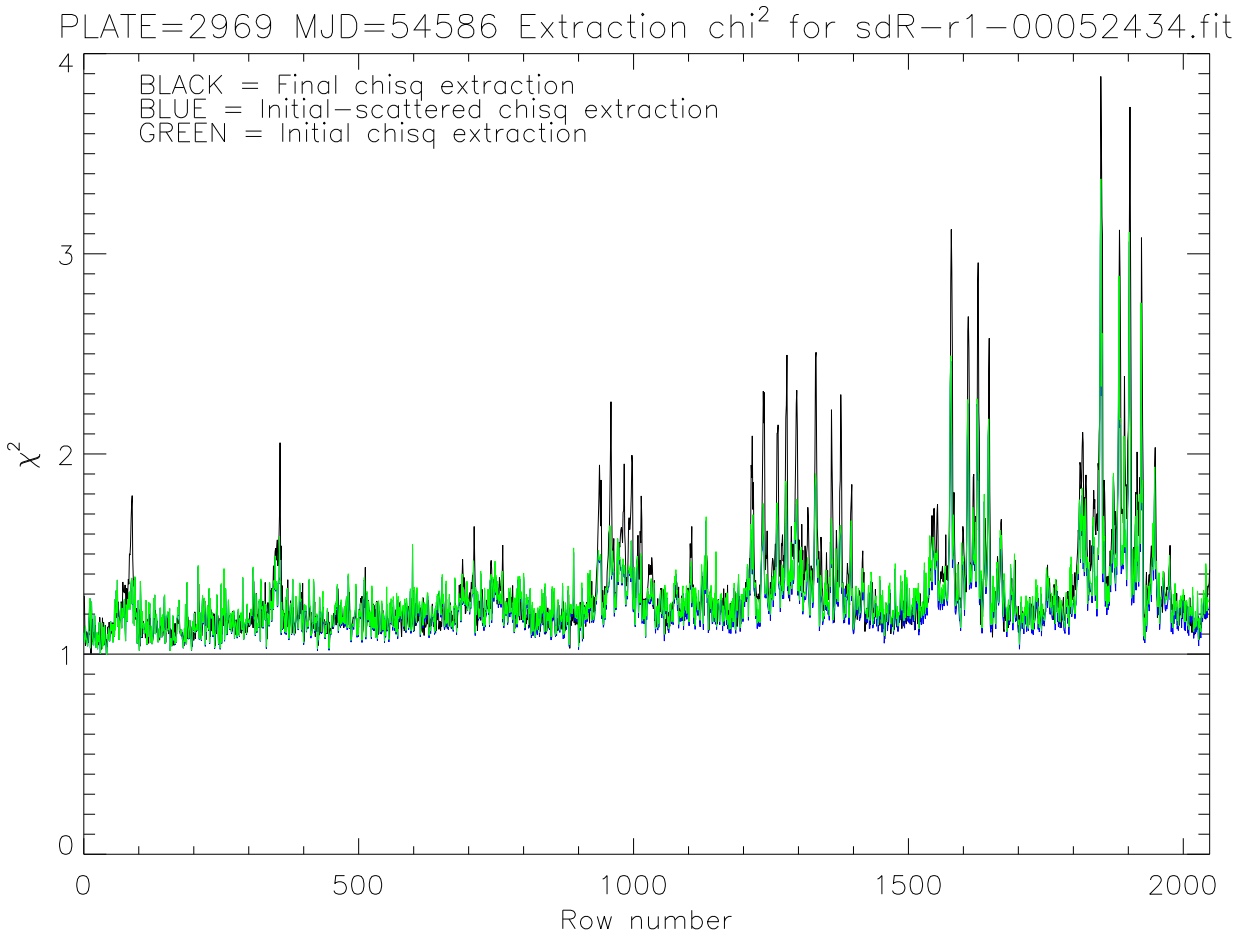

PLATE=2969 MJD=54586 Fiber-Flats for sdR-r1-00052430.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.214
Max value = 1.323
Fiber-Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Wed Apr 30 17:31:32 2008

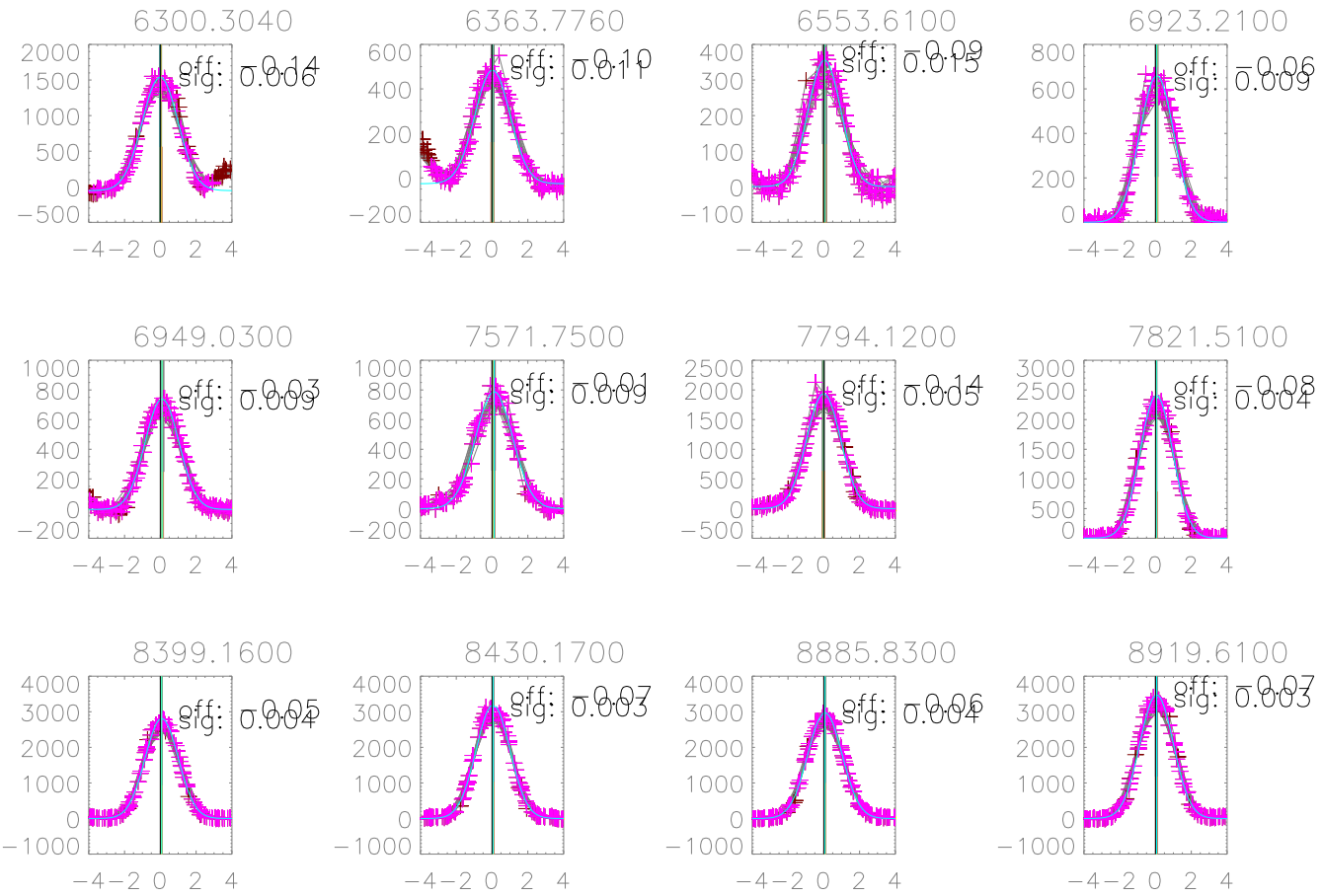

PLATE=2969 MJD=54586 Scattered Light before halo removal on sdR-r1-00052434.fi
32.7
25.5
18.2
10.9
Y [pix]
X [pix]
0
500
1000
1500
2000

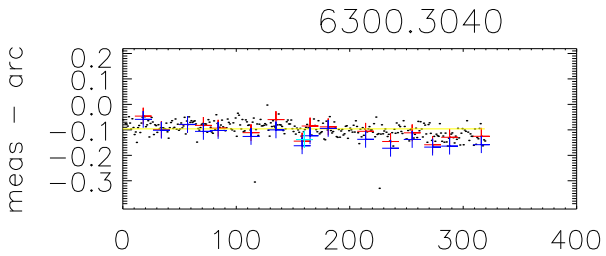

PLATE=2969 MJD=54586 Scattered Light before halo removal on sdR-r1-00052434.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 4.810
Max value = 35.734
Wed Apr 30 17:32:25 2008

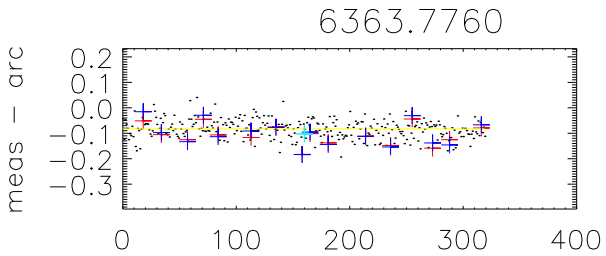

PLATE=2969 MJD=54586 Scattered Light on sdR−r1−00052434.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
5.5
5.6
0

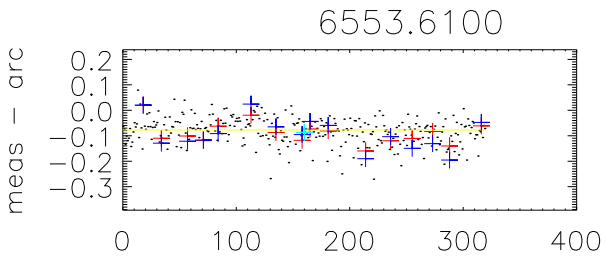

PLATE=2969 MJD=54586 Scattered Light on sdR-r1-00052434.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 4.045
Max value = 9.467
Wed Apr 30 17:35:27 2008

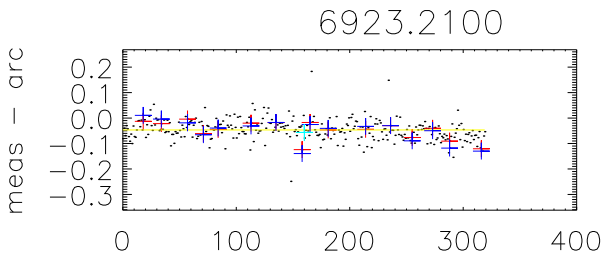

PLATE=2969 MJD=54586 Extraction chi^2 for sdR−r1−00052434.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
0
500
1000
1500
2000
Row number

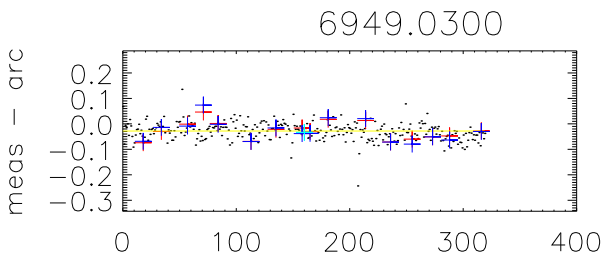

6300.3040
off: −0.14
sig: 0.006
6363.7760
off: −0.10
sig: 0.011
6553.6100
off: −0.09
sig: 0.015
6923.2100
off: −0.06
sig: 0.009
6949.0300
off: −0.03
sig: 0.009
7571.7500
off: −0.01
sig: 0.009
7794.1200
off: −0.14
sig: 0.005
7821.5100
off: −0.08
sig: 0.004
8399.1600
off: −0.05
sig: 0.004
8430.1700
off: −0.07
sig: 0.003
8885.8300
off: −0.06
sig: 0.004
8919.6100
off: −0.07
sig: 0.003

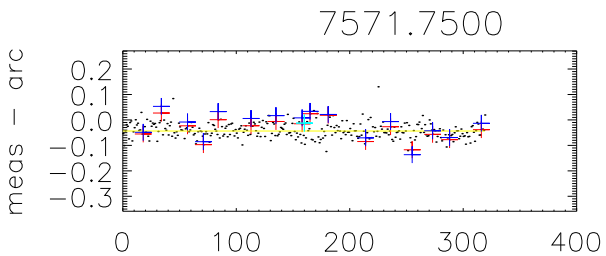

6300.3040
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

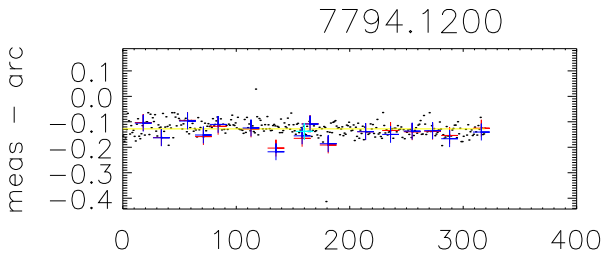

6363.7760
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

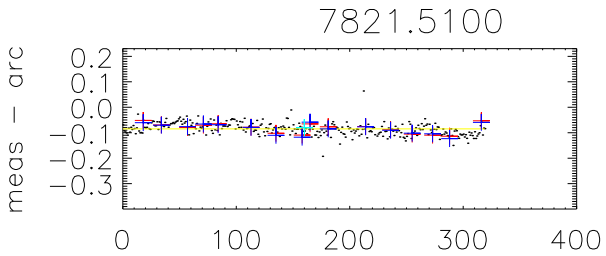

6553.6100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

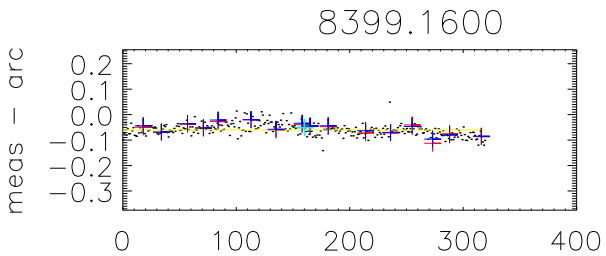

6923.2100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

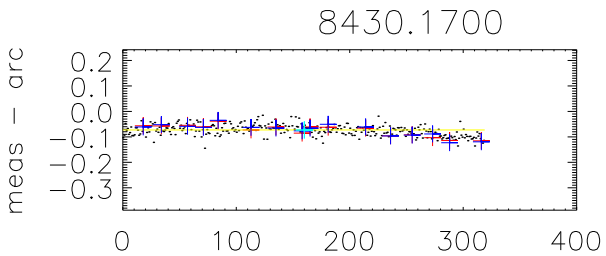

6949.0300
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

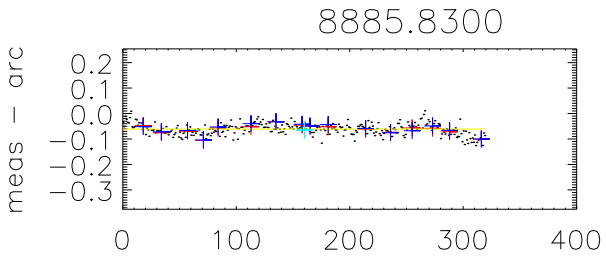

7571.7500
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

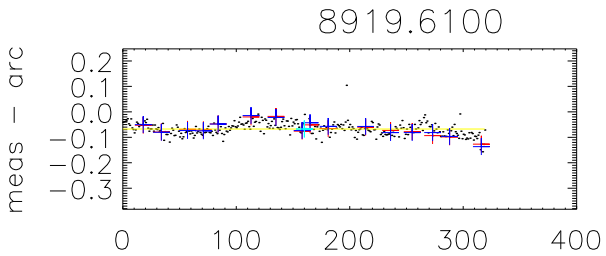

7794.1200
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

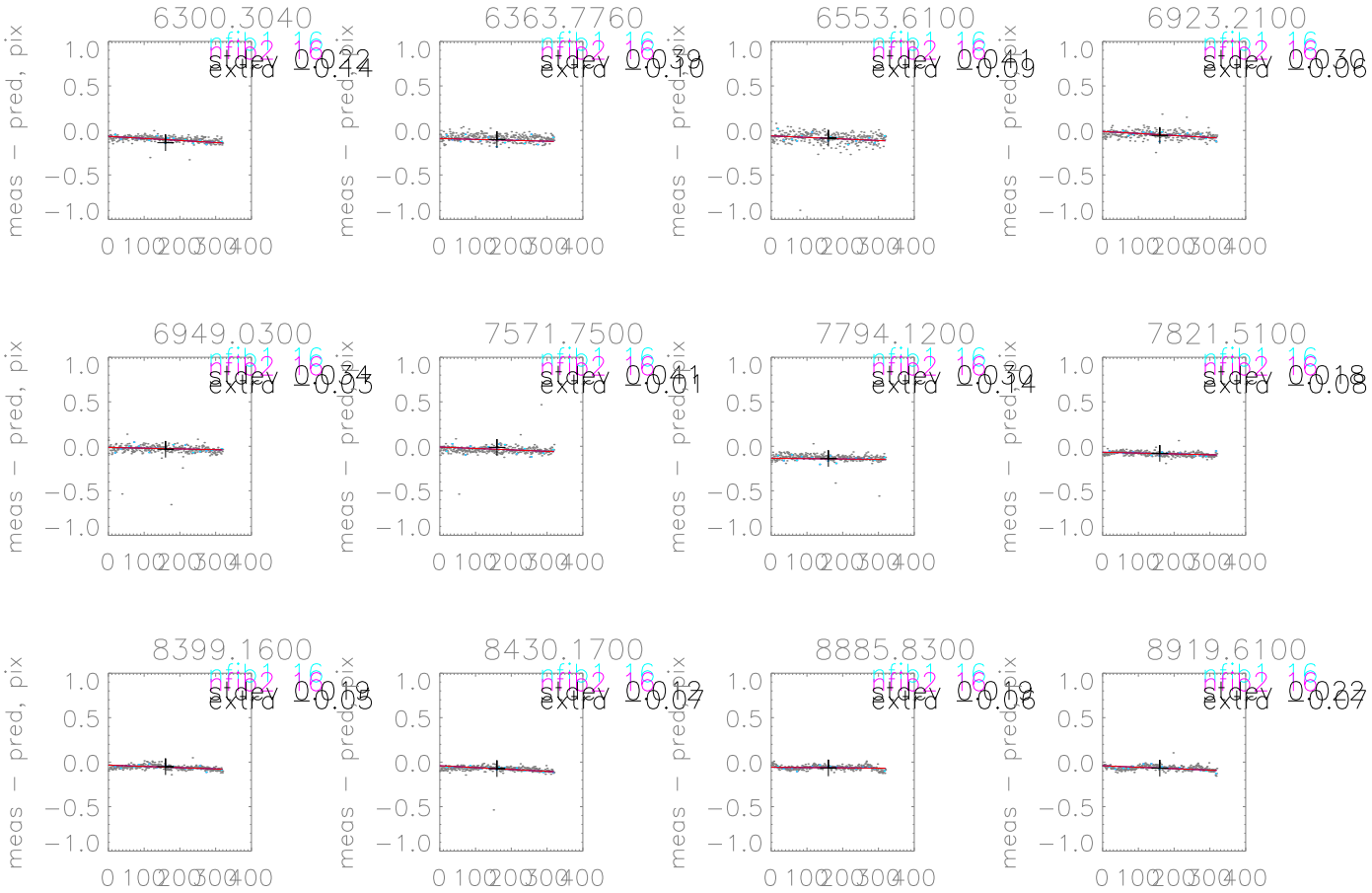

7821.5100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

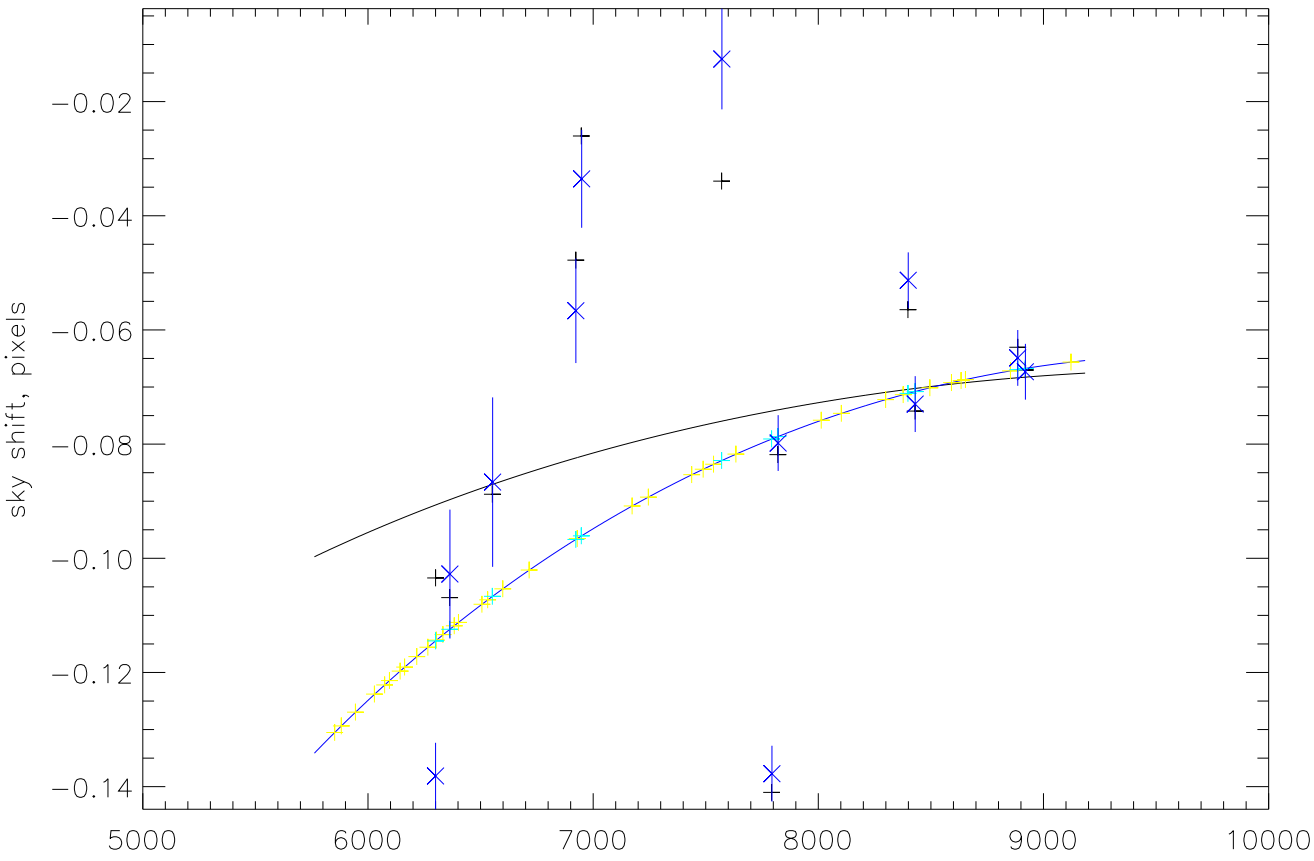

8399.1600
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

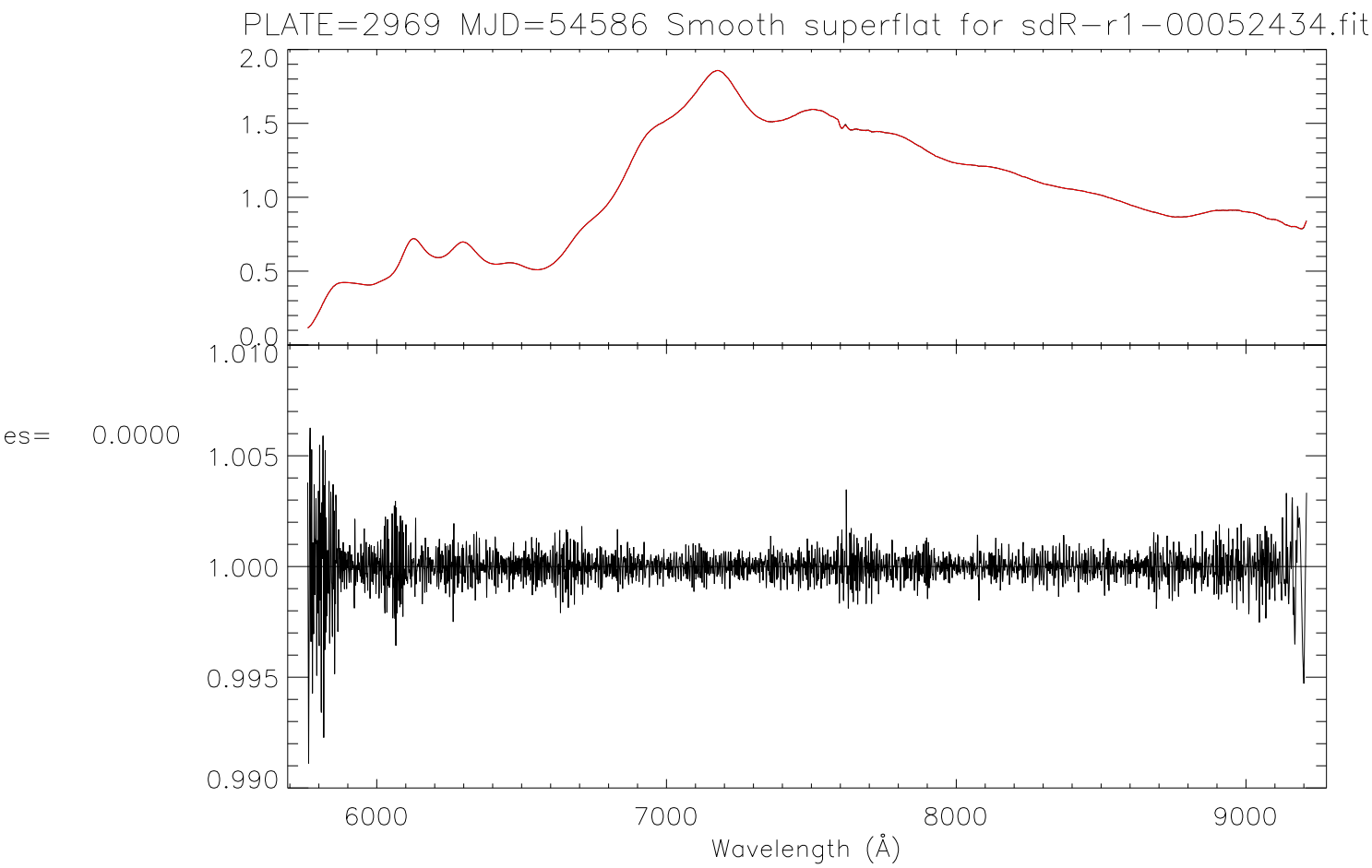

8430.1700
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400


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

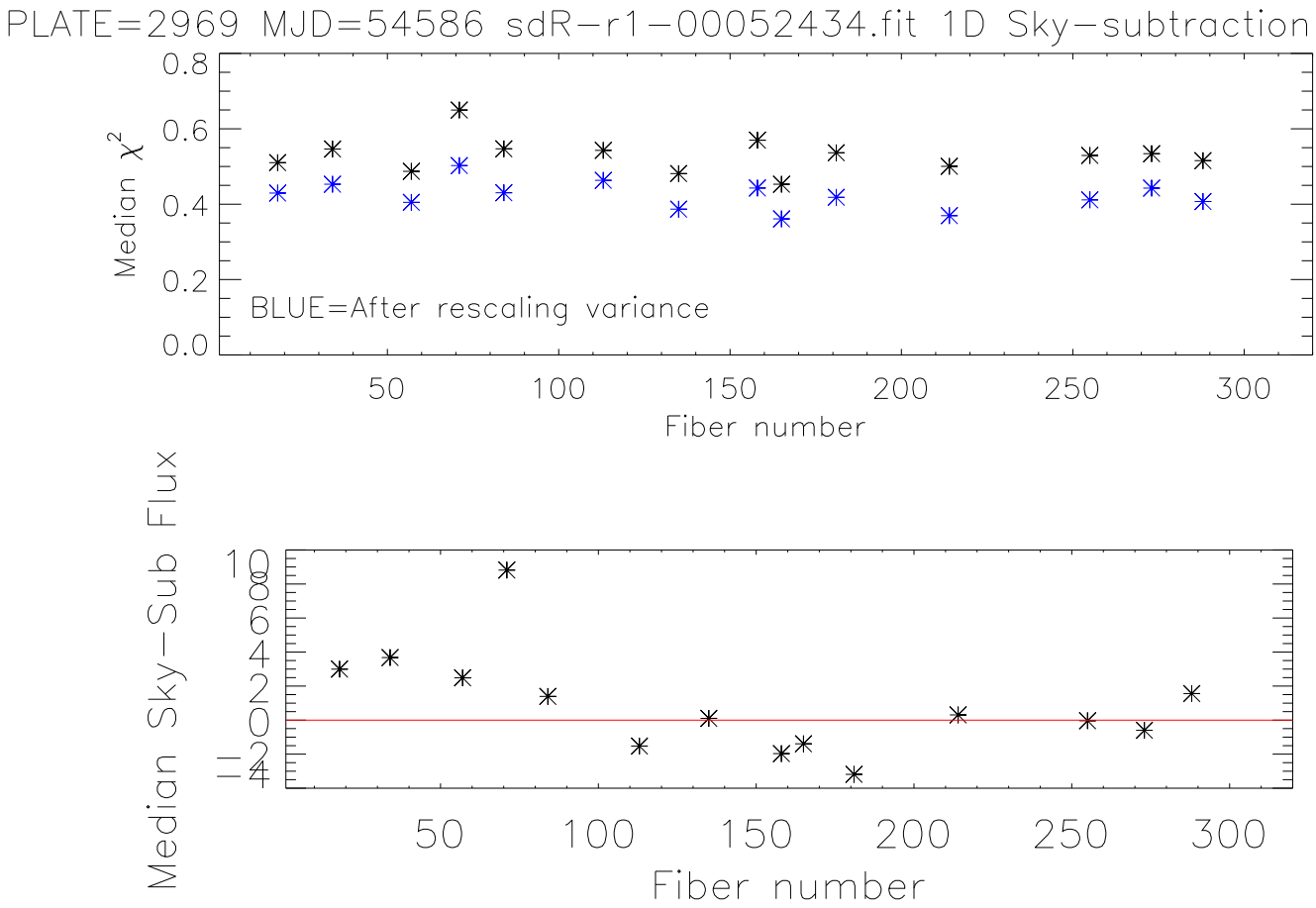

8919.6100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

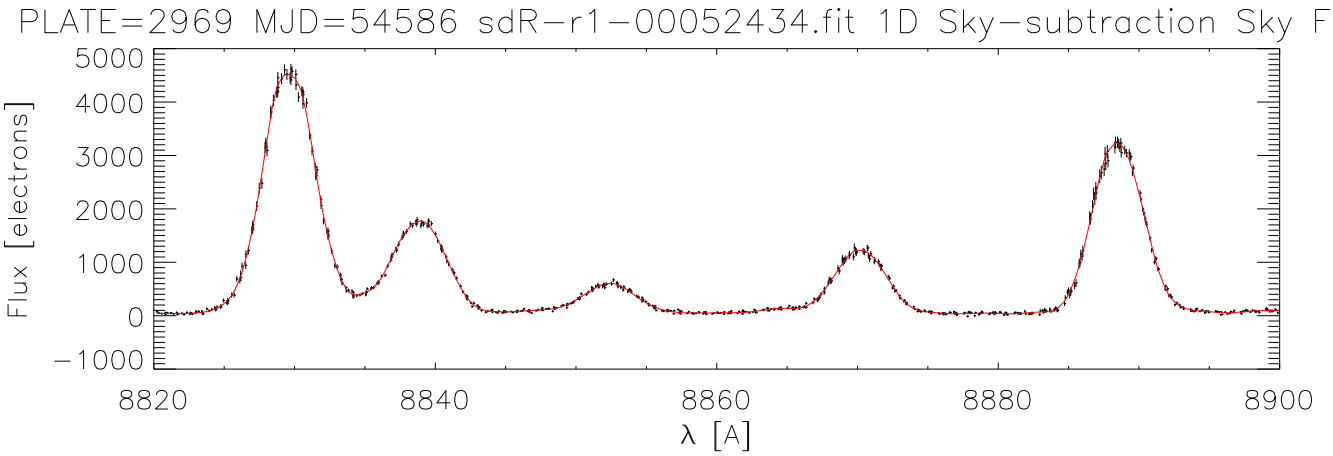

6300.3040
stdev 0.022
extra 0.044
6363.7760
stdev 0.030
extra 0.010
6553.6100
stdev 0.041
extra 0.009
6923.2100
stdev 0.030
extra 0.006
6949.0300
stdev 0.034
extra 0.003
7571.7500
stdev 0.041
extra 0.001
7794.1200
stdev 0.030
extra 0.014
7821.5100
stdev 0.018
extra 0.008
8399.1600
stdev 0.019
extra 0.005
8430.1700
stdev 0.012
extra 0.007
8885.8300
stdev 0.019
extra 0.006
8919.6100
stdev 0.022
extra 0.007
meas − pred, pix
mfib1 16
mfib2 16

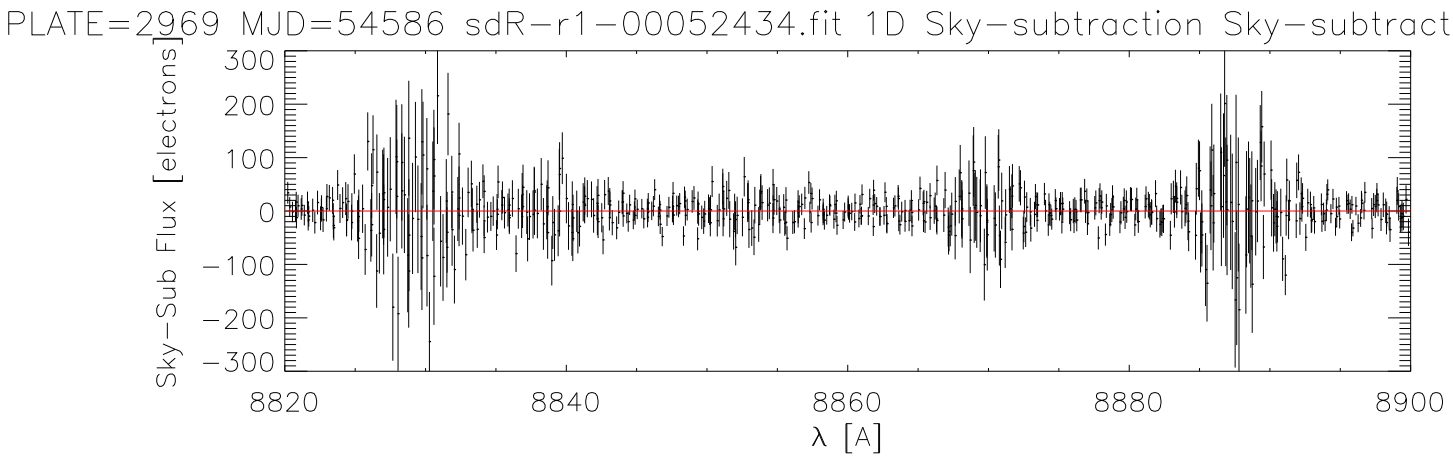

sky shift, pixels
−0.02
−0.04
−0.06
−0.08
−0.10
−0.12
−0.14
5000
6000
7000
8000
9000
10000

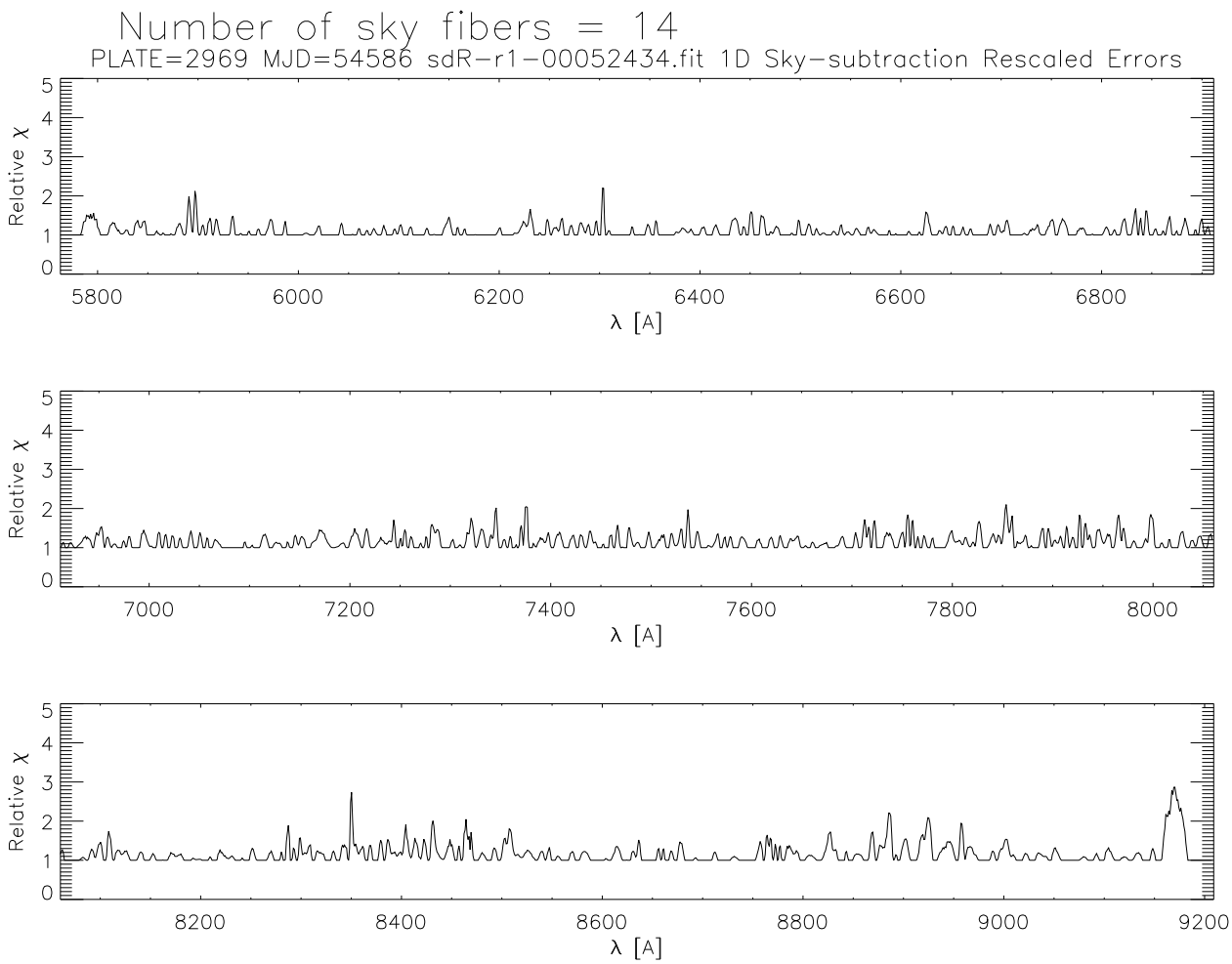

PLATE=2969 MJD=54586 Smooth superflat for sdR-r1-00052434.fit
2.0
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
6000
7000
8000
9000
Wavelength (Å)

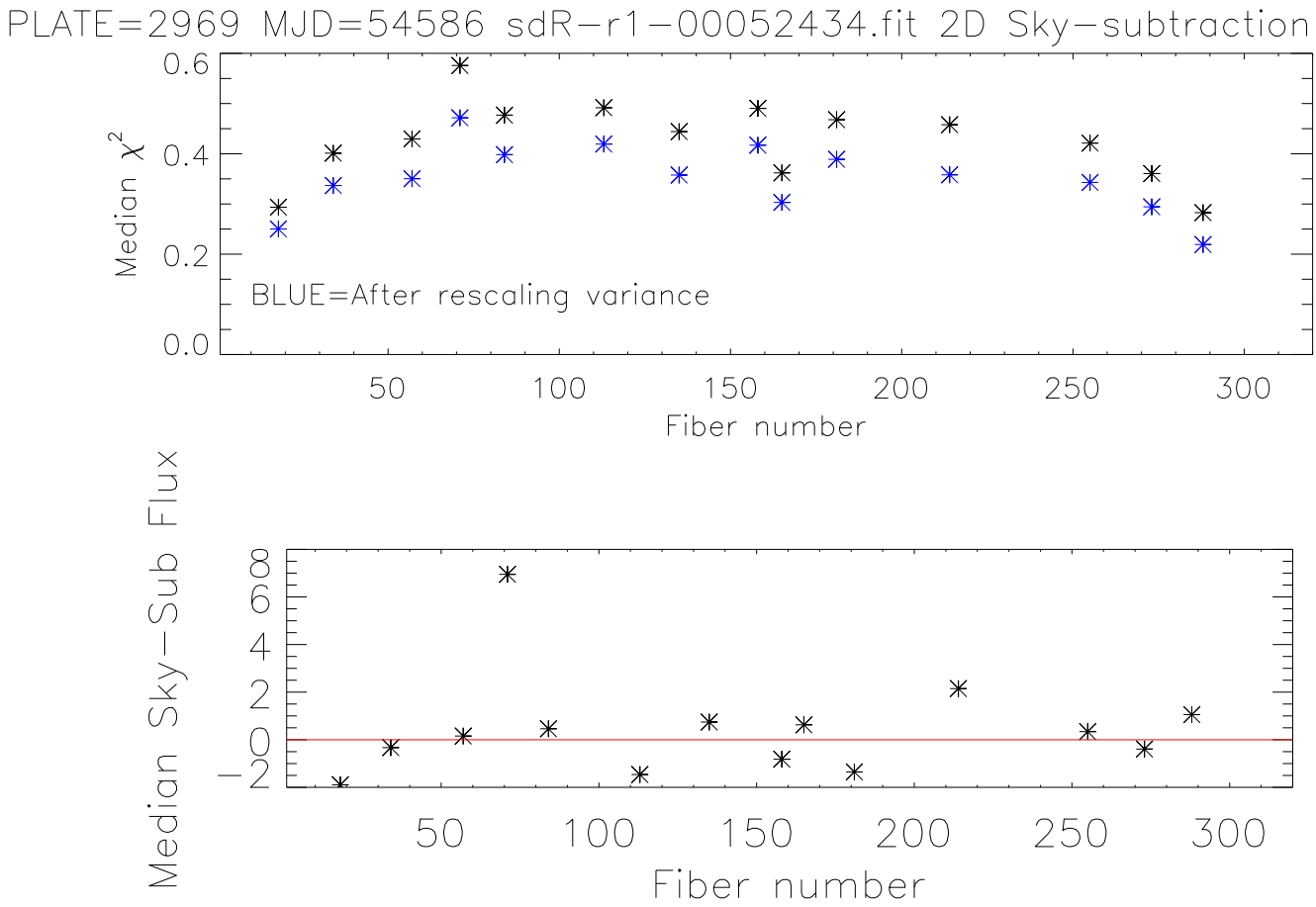
es= 0.0000

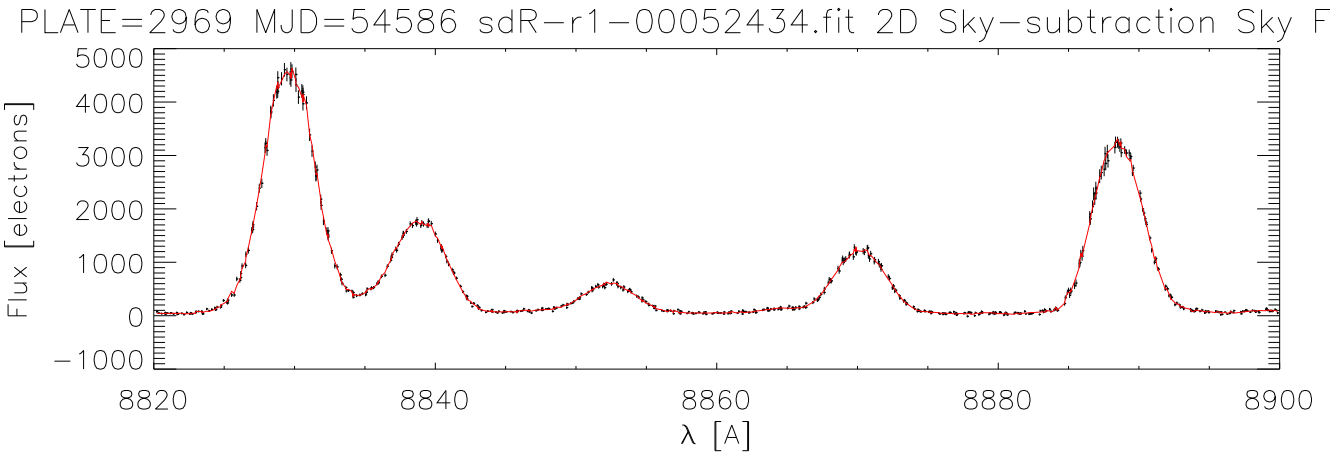

PLATE=2969 MJD=54586 sdR-r1-00052434.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-10
-8
-6
-4
-2
0
2
4
6
8
10
50
100
150
200
250
300
Fiber number

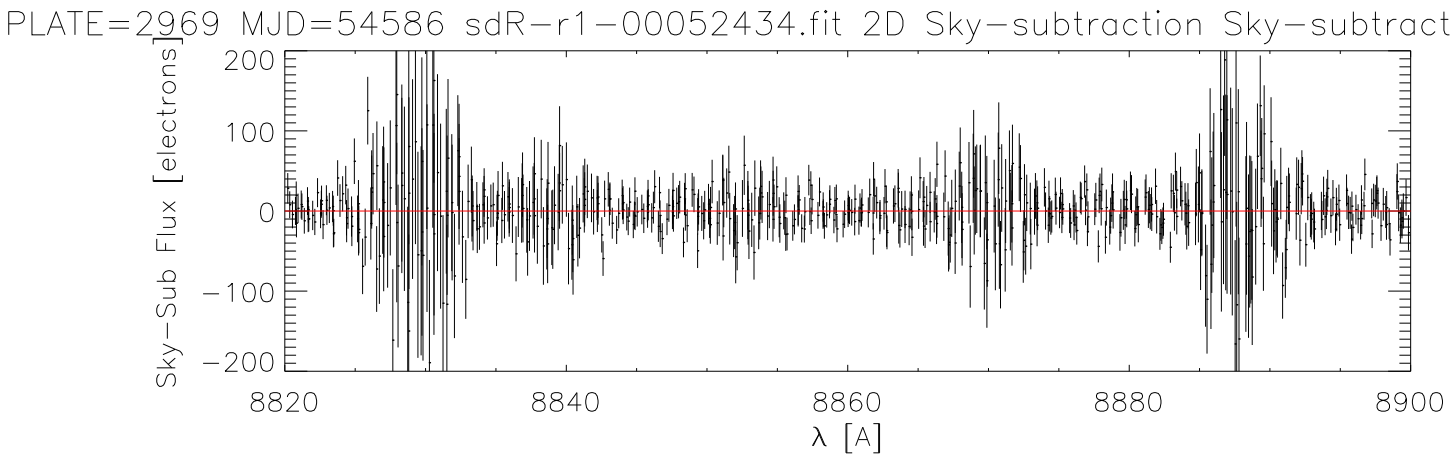

PLATE=2969 MJD=54586 sdR-r1-00052434.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
−1000
8820
8840
8860
8880
8900
λ [A]

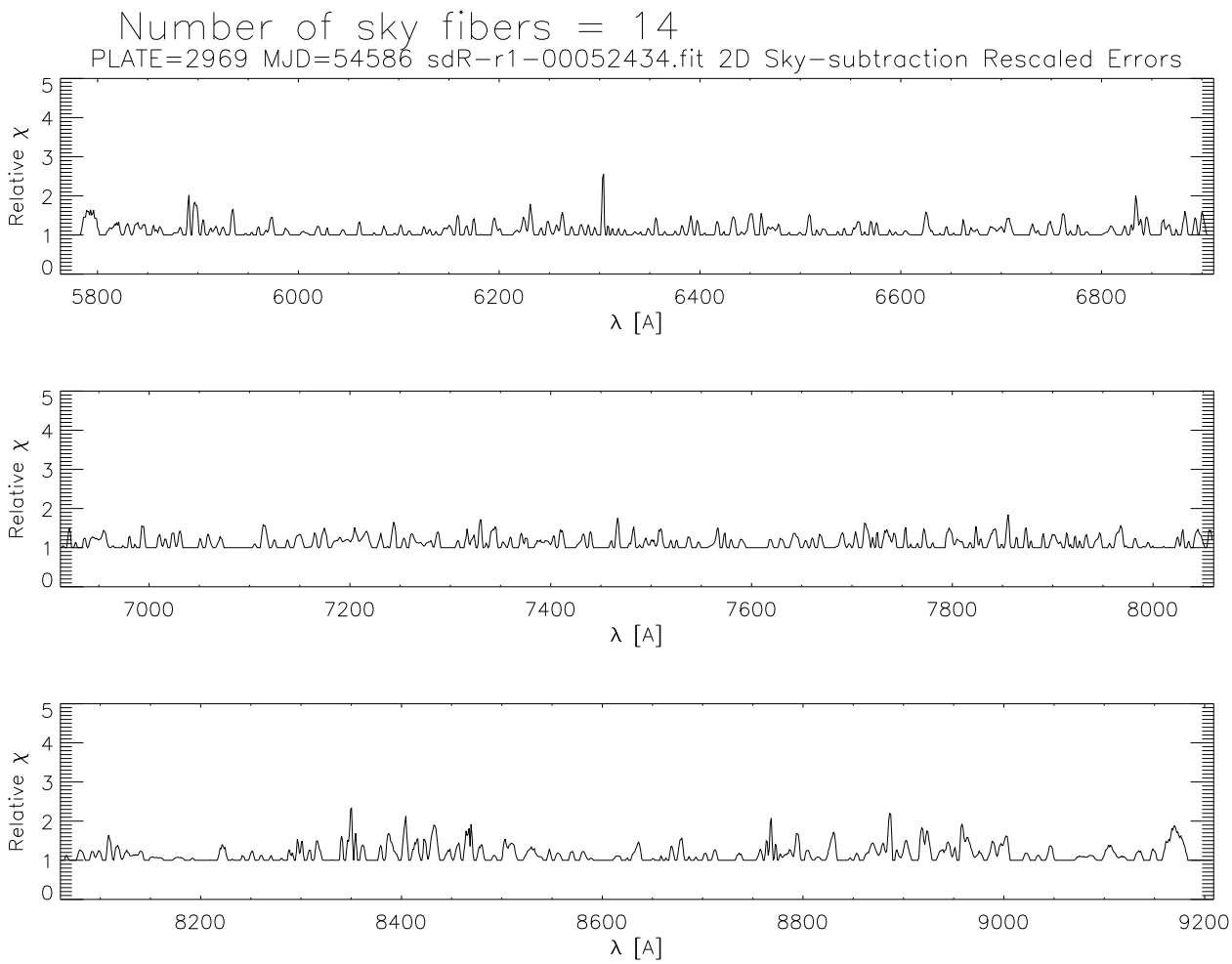

PLATE=2969 MJD=54586 sdR-r1-00052434.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
−100
−200
−300
8820
8840
8860
8880
8900
λ [A]

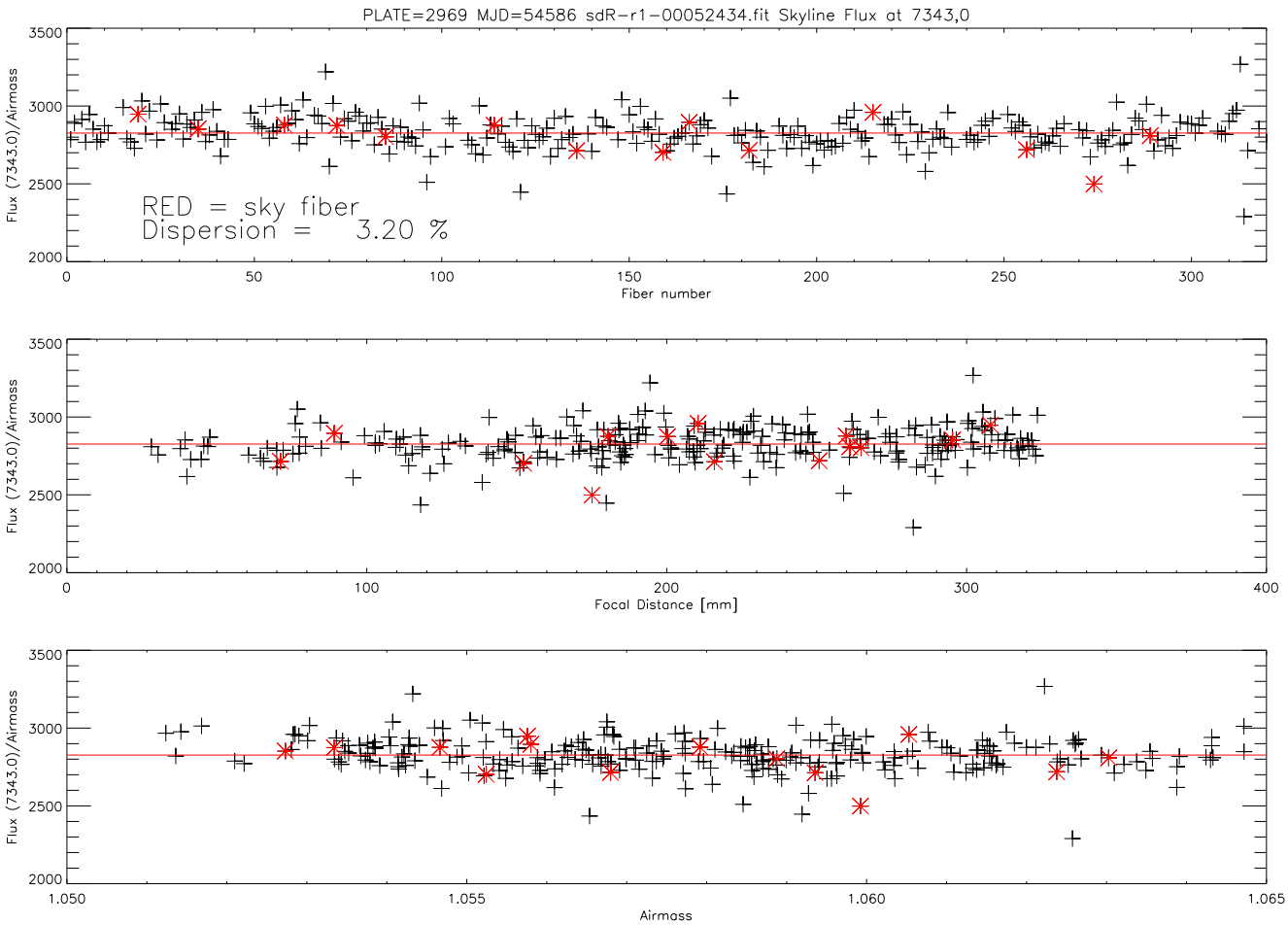

Number of sky fibers = 14
PLATE=2969 MJD=54586 sdR-r1-00052434.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

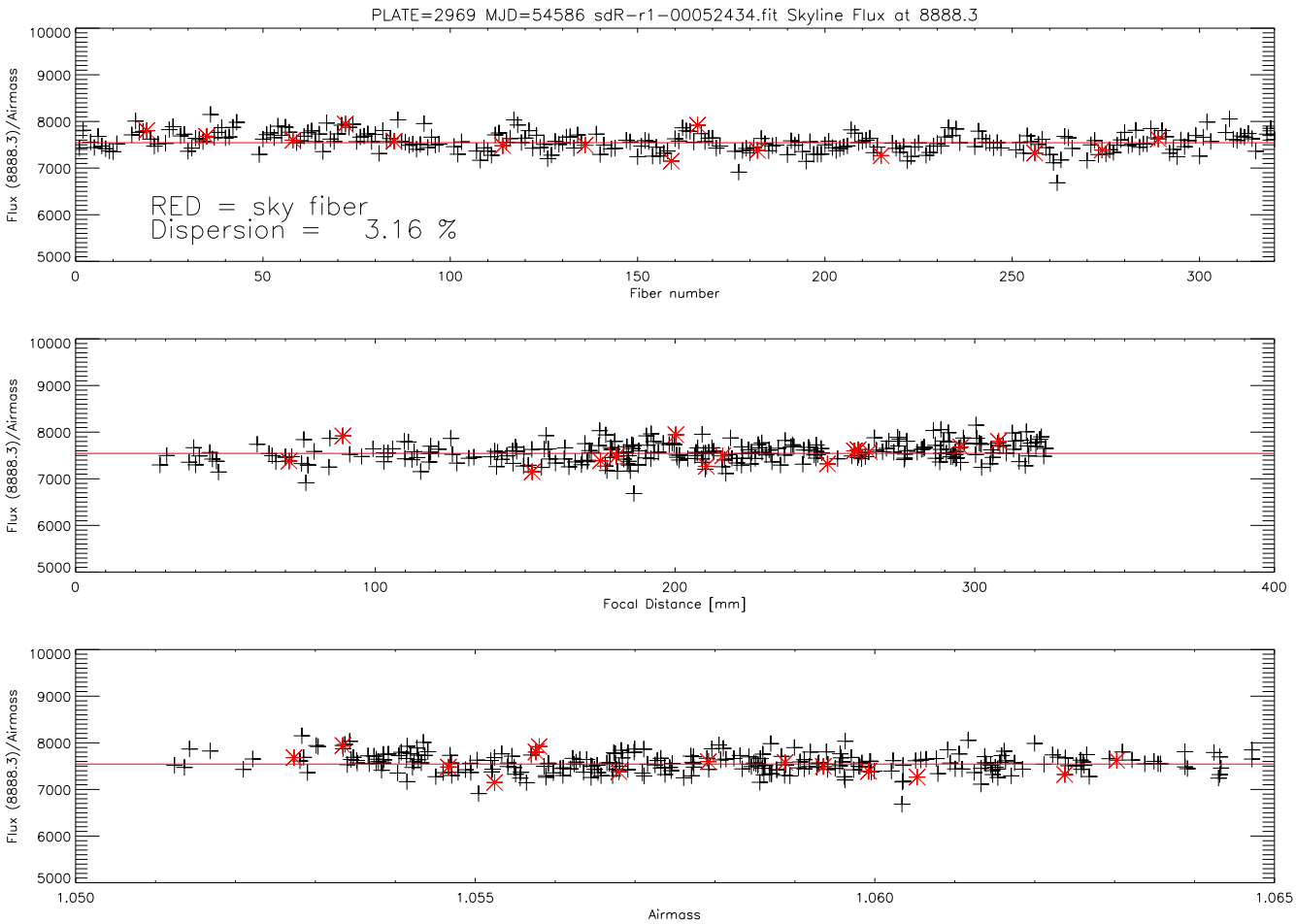

PLATE=2969 MJD=54586 sdR-r1-00052434.fit 2D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-2
0
2
4
6
8
50
100
150
200
250
300
Fiber number

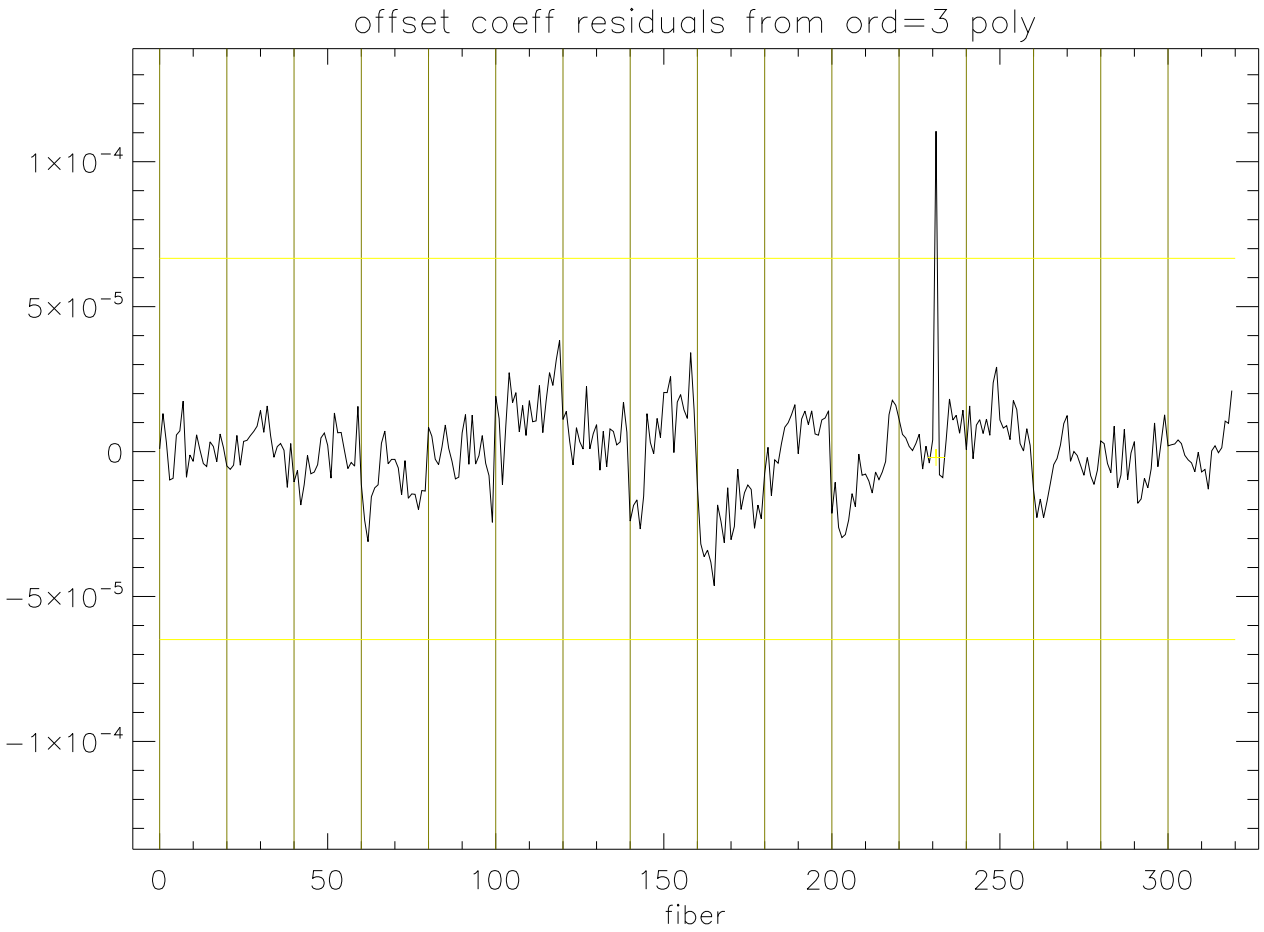

PLATE=2969 MJD=54586 sdR-r1-00052434.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
−1000
8820
8840
8860
8880
8900
λ [A]

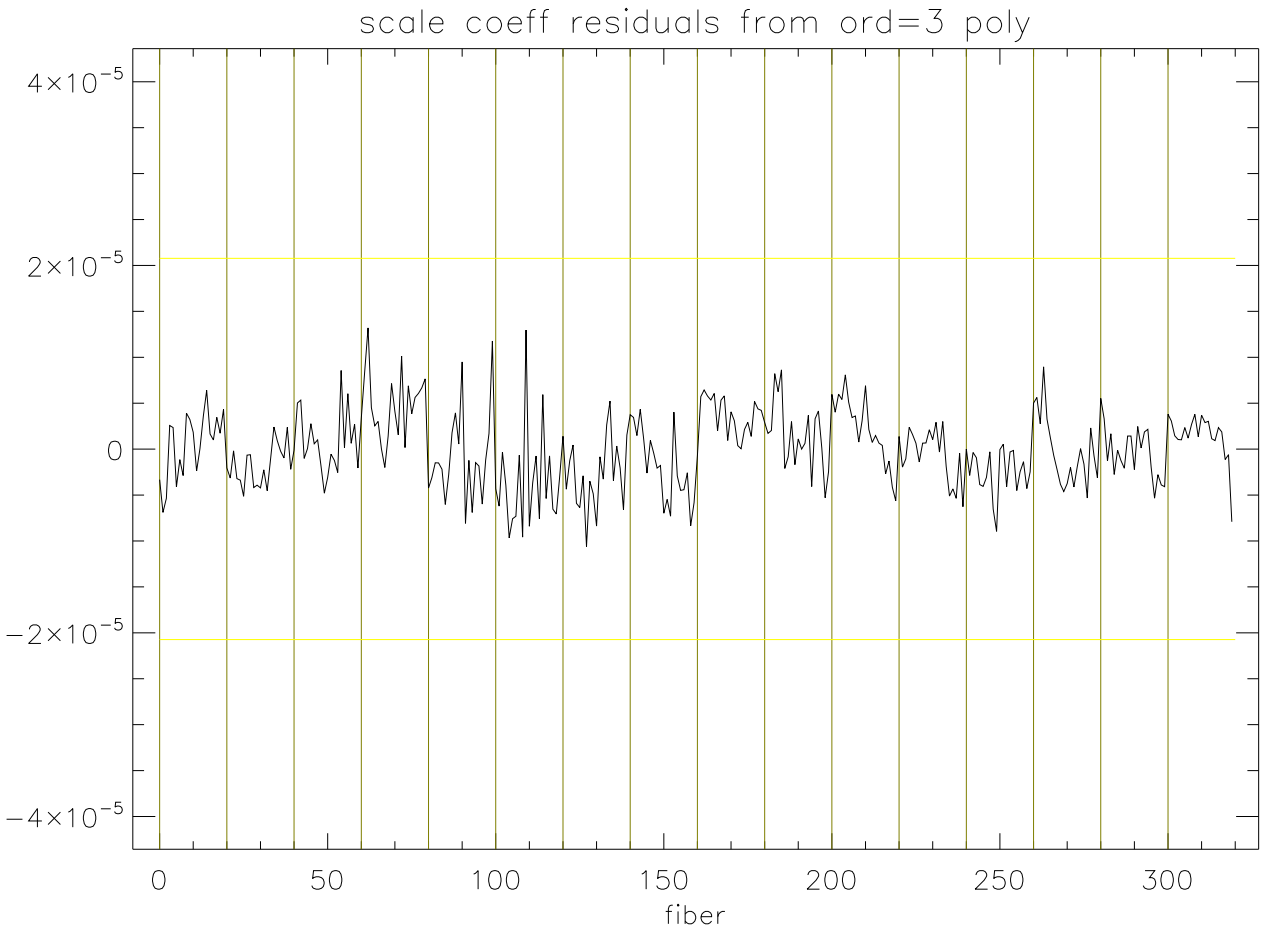

PLATE=2969 MJD=54586 sdR-r1-00052434.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
−100
−200
8820
8840
8860
8880
8900
λ [A]

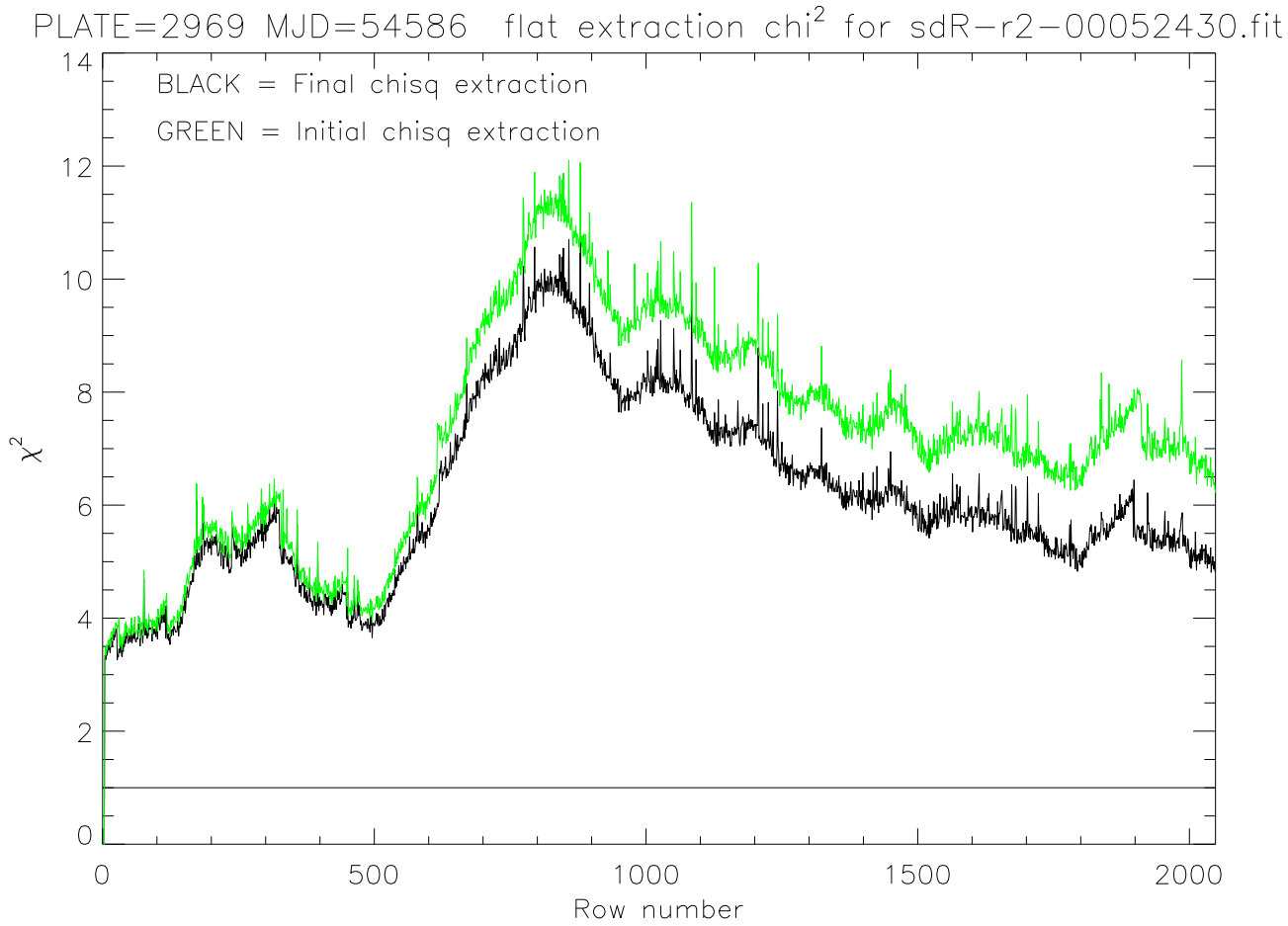

Number of sky fibers = 14
PLATE=2969 MJD=54586 sdR-r1-00052434.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

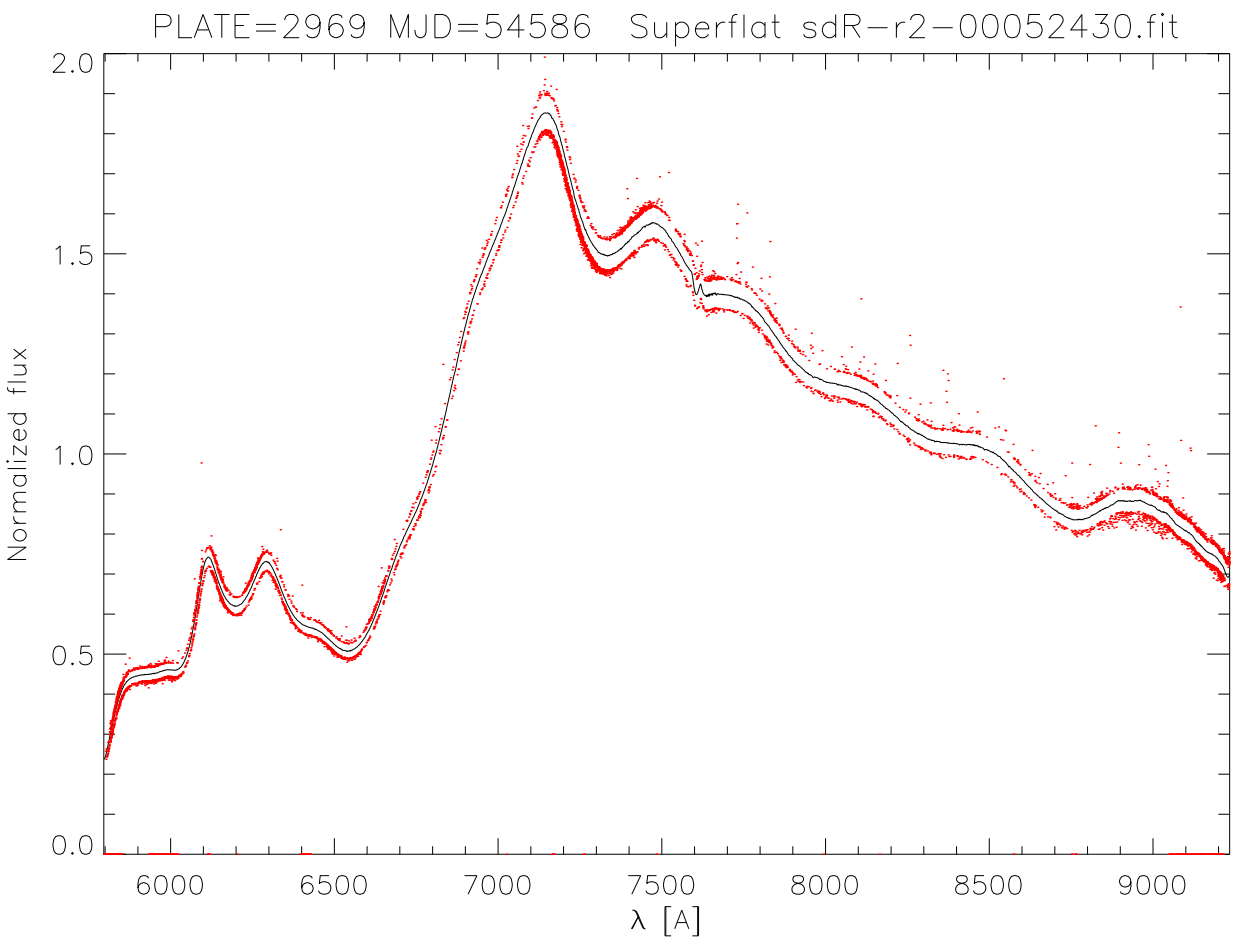

PLATE=2969 MJD=54586 sdR-r1-00052434.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 3.20 %
Fiber number
Focal Distance [mm]
Airmass

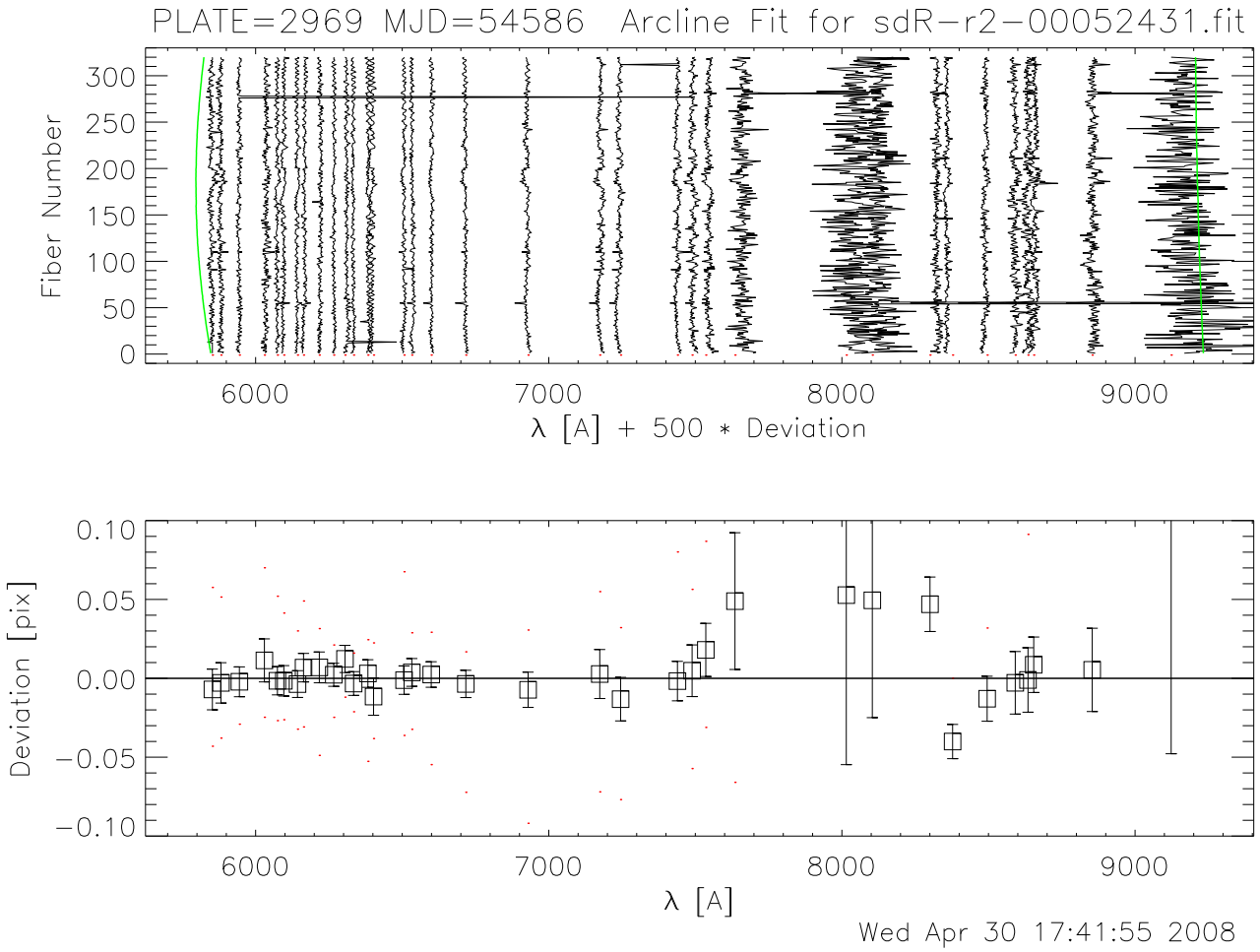

PLATE=2969 MJD=54586 sdR-r1-00052434.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 3.16 %
Fiber number
Focal Distance [mm]
Airmass

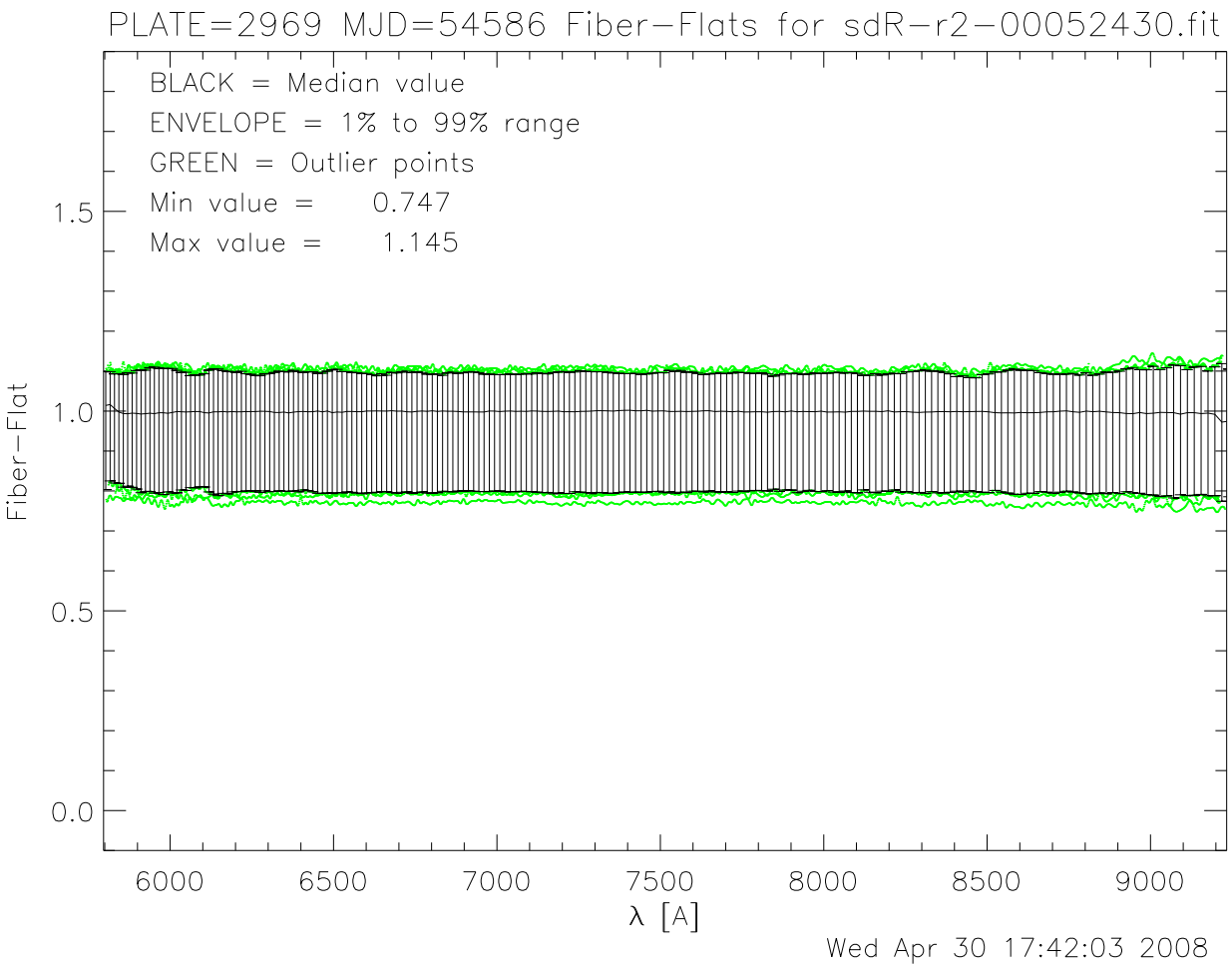

offset coeff residuals from ord=3 poly
1×10^-4
5×10^-5
0
−5×10^-5
−1×10^-4
0
50
100
150
200
250
300
fiber

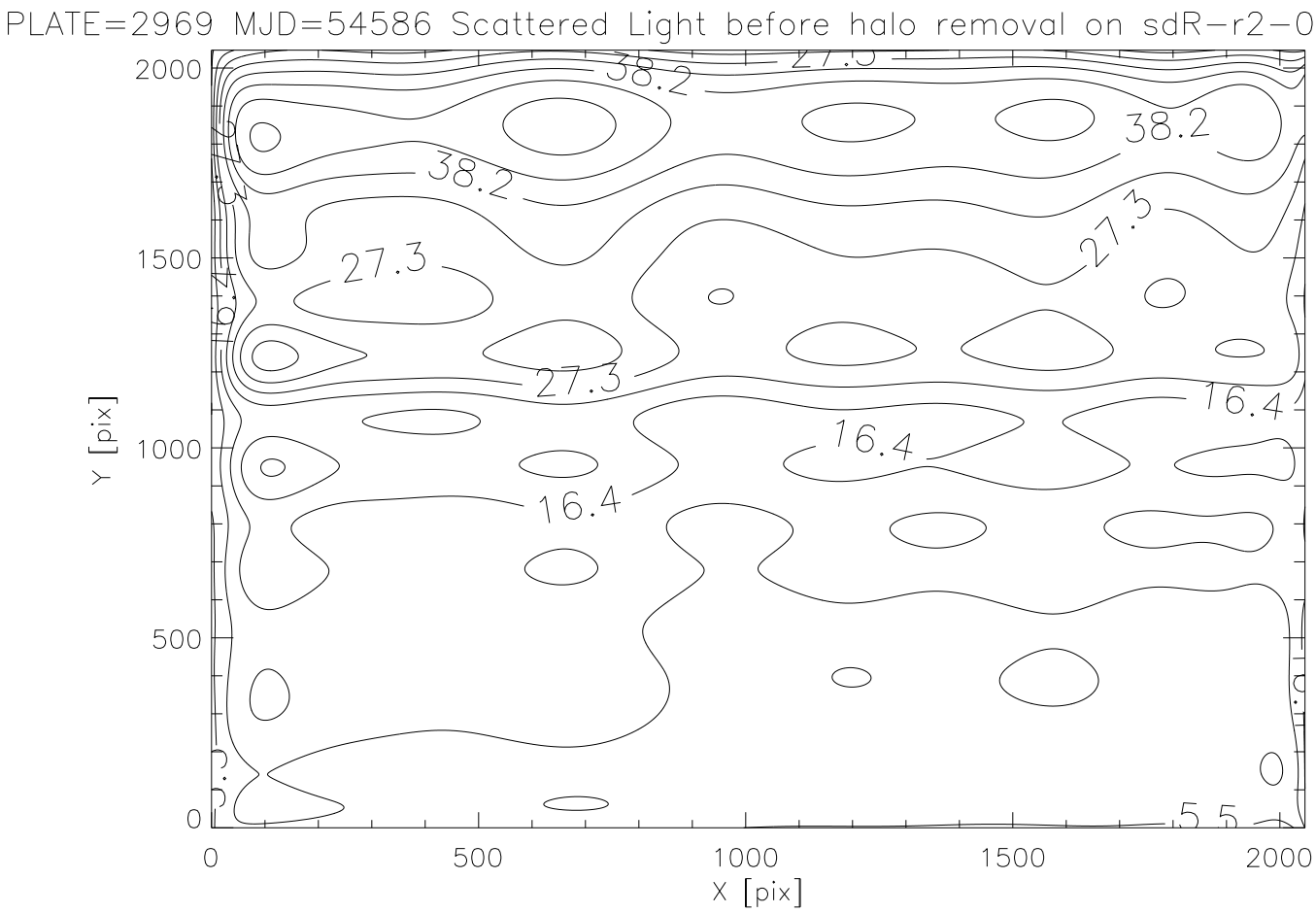

scale coeff residuals from ord=3 poly
4×10⁻⁵
2×10⁻⁵
0
−2×10⁻⁵
−4×10⁻⁵
0
50
100
150
200
250
300
fiber

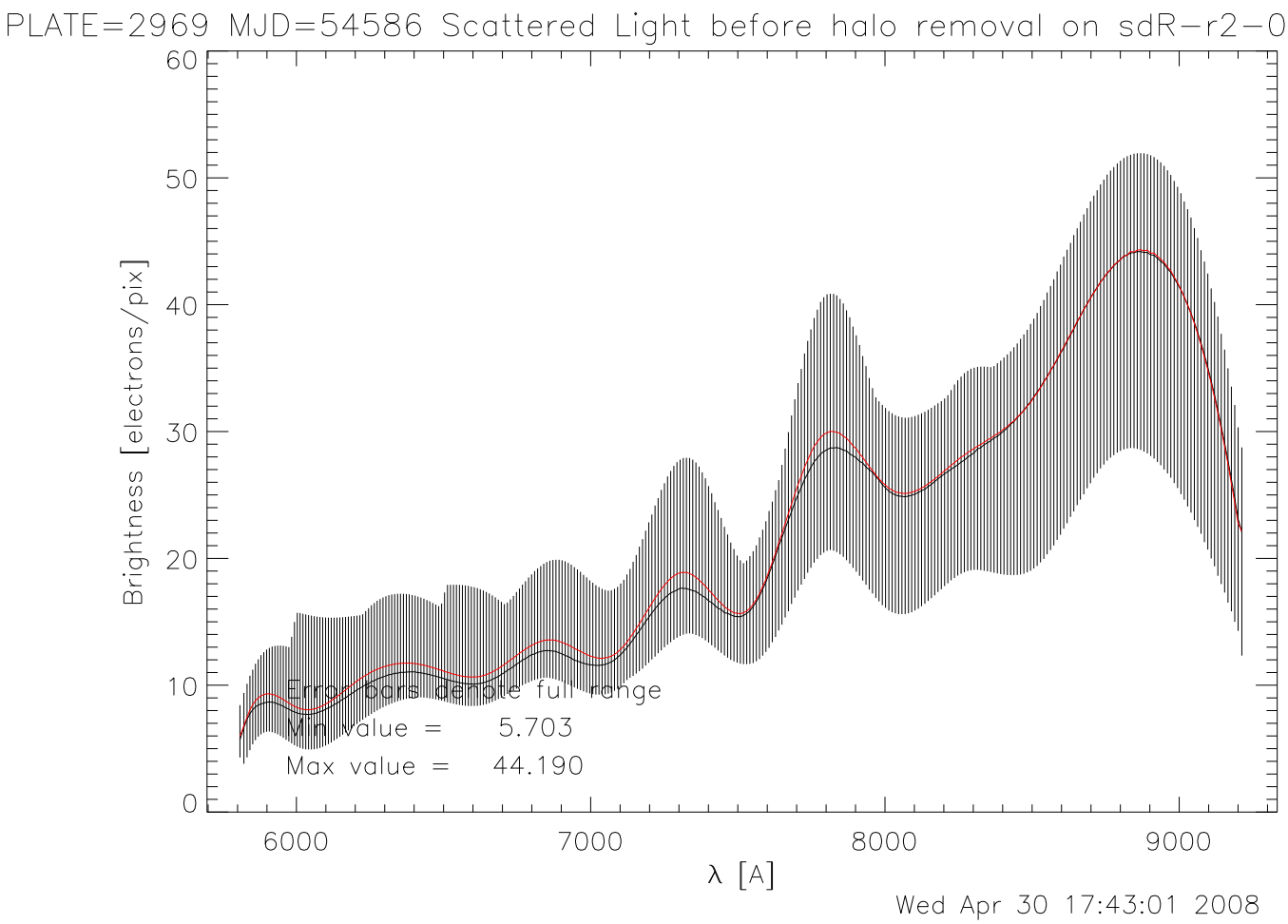

PLATE=2969 MJD=54586 flat extraction chi^2 for sdR−r2−00052430.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
2
4
6
8
10
12
14
0
500
1000
1500
2000

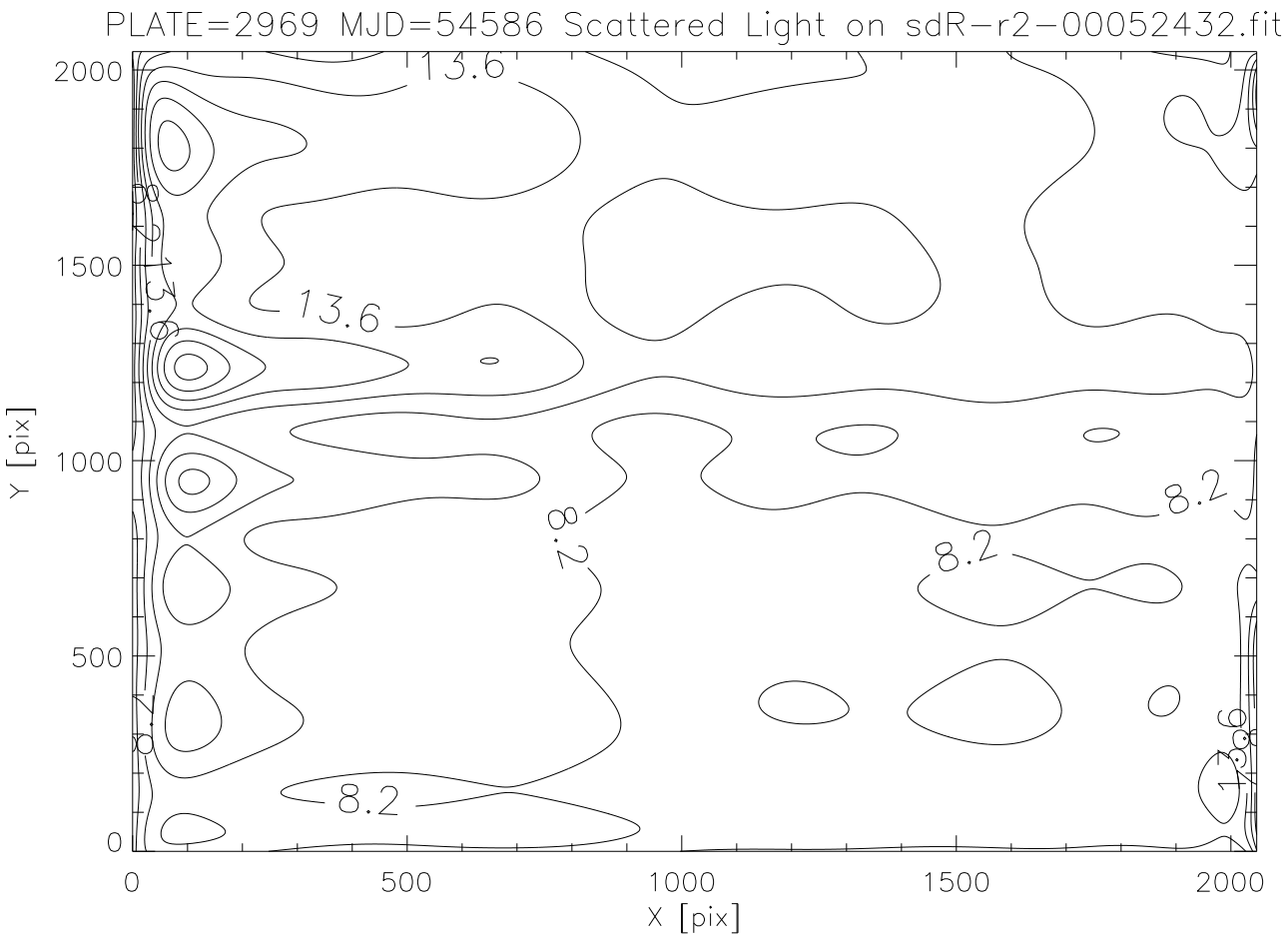

PLATE=2969 MJD=54586 Superflat sdR-r2-00052430.fit
Normalized flux
2.0
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

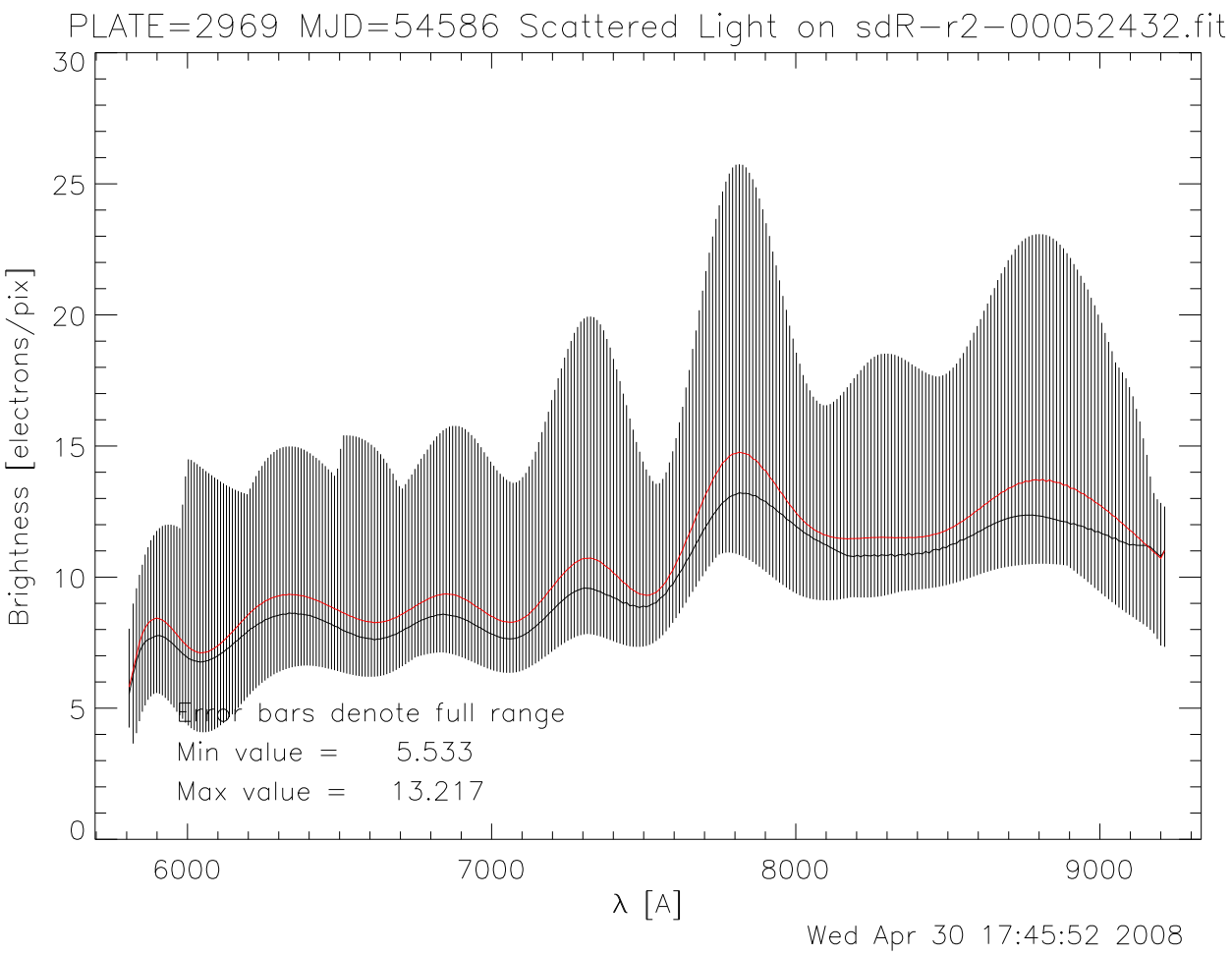

PLATE=2969 MJD=54586 Arcline Fit for sdR-r2-00052431.fit
Fiber Number
300
250
200
150
100
50
0
6000
7000
8000
9000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
6000
7000
8000
9000
λ [A]
Wed Apr 30 17:41:55 2008

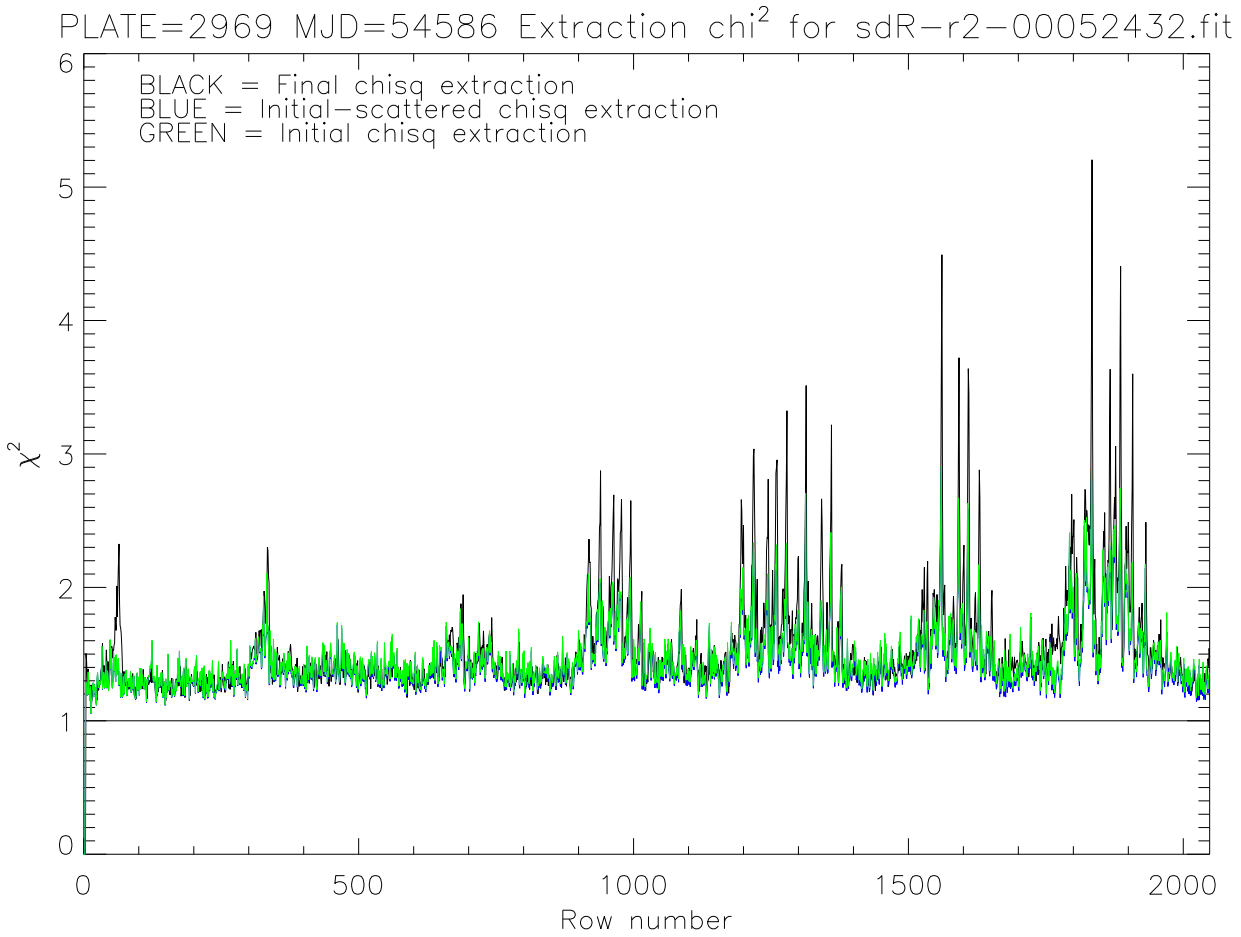

PLATE=2969 MJD=54586 Fiber−Flats for sdR−r2−00052430.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.747
Max value = 1.145
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Wed Apr 30 17:42:03 2008

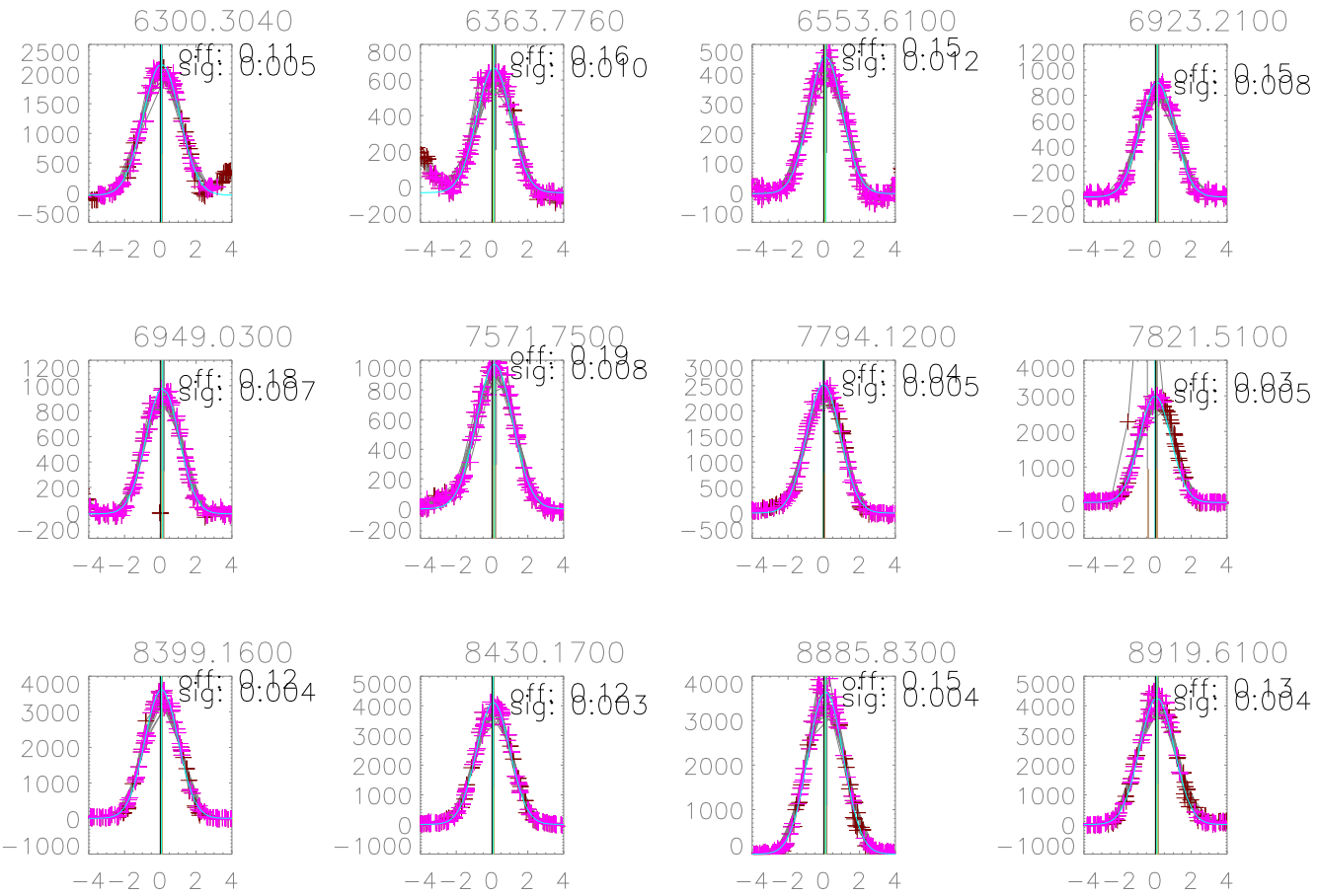

PLATE=2969 MJD=54586 Scattered Light before halo removal on sdR-r2-00052432.fi
38.2
38.2
38.2
27.3
27.3
27.3
16.4
16.4
16.4
5.5
0
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]

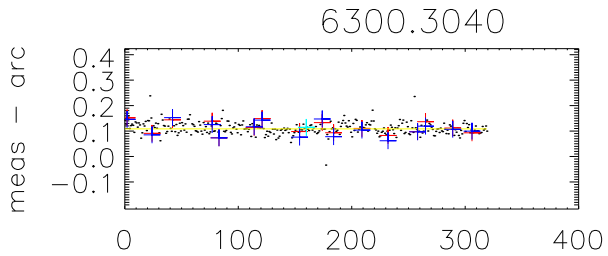

PLATE=2969 MJD=54586 Scattered Light before halo removal on sdR-r2-00052432.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 5.703
Max value = 44.190
Wed Apr 30 17:43:01 2008

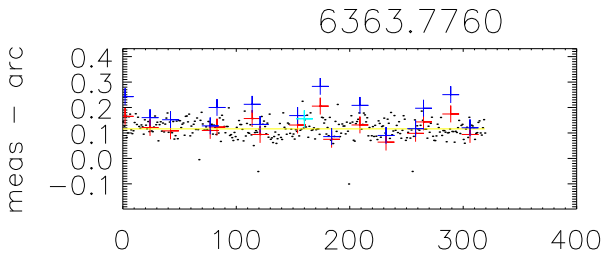

PLATE=2969 MJD=54586 Scattered Light on sdR-r2-00052432.fit
13.6
13.6
13.6
8.2
8.2
8.2
8.2
13.6
13.6
Y [pix]
X [pix]
0
500
1000
1500
2000

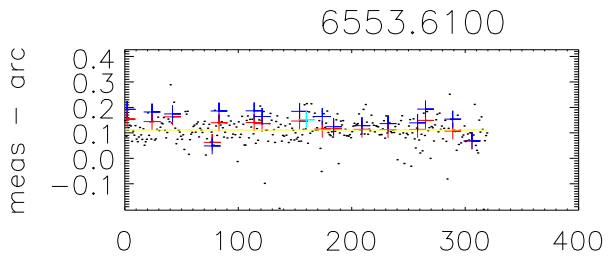

PLATE=2969 MJD=54586 Scattered Light on sdR-r2-00052432.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 5.533
Max value = 13.217
Wed Apr 30 17:45:52 2008

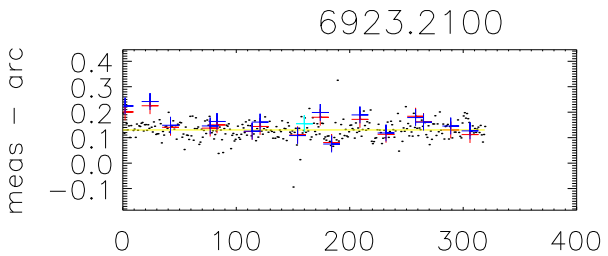

PLATE=2969 MJD=54586 Extraction chi^2 for sdR-r2-00052432.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
5
6
0
500
1000
1500
2000
Row number

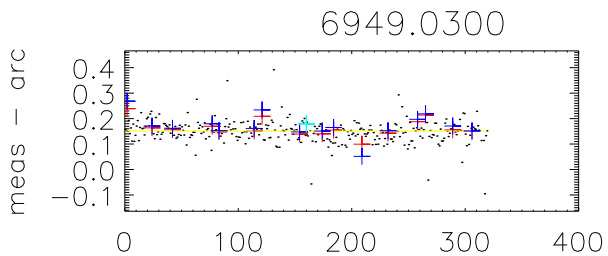

6300.3040
off: 0.11
sig: 0.005
6363.7760
off: 0.16
sig: 0.010
6553.6100
off: 0.15
sig: 0.012
6923.2100
off: 0.15
sig: 0.008
6949.0300
off: 0.18
sig: 0.007
7571.7500
off: 0.19
sig: 0.008
7794.1200
off: 0.04
sig: 0.005
7821.5100
off: 0.03
sig: 0.005
8399.1600
off: 0.12
sig: 0.004
8430.1700
off: 0.12
sig: 0.003
8885.8300
off: 0.15
sig: 0.004
8919.6100
off: 0.13
sig: 0.004

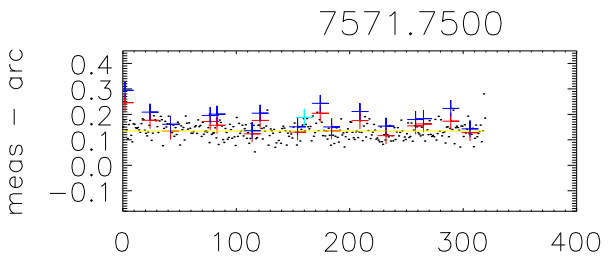

6300.3040
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

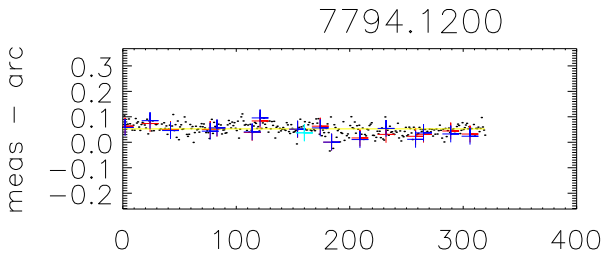

6363.7760
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

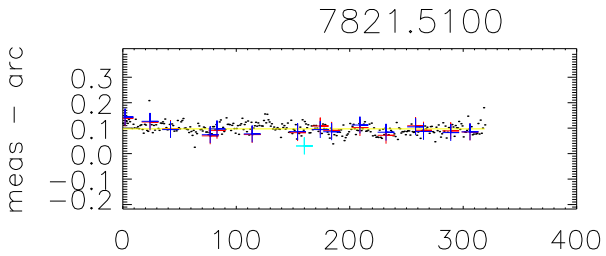

6553.6100
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

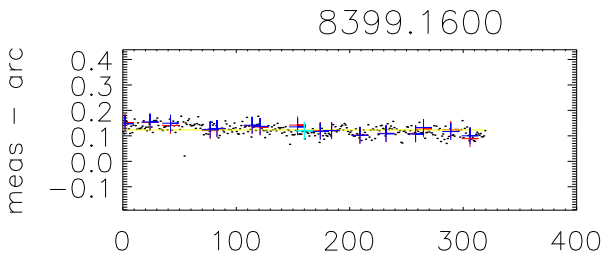

6923.2100
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

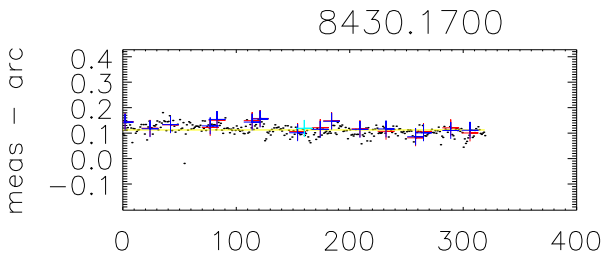

6949.0300
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

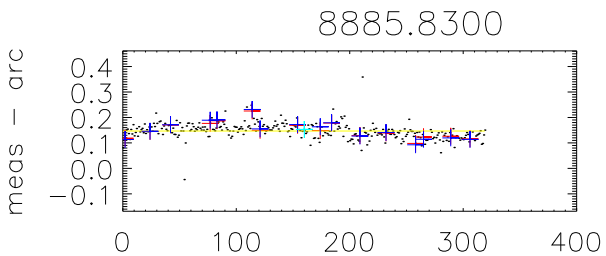

7571.7500
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

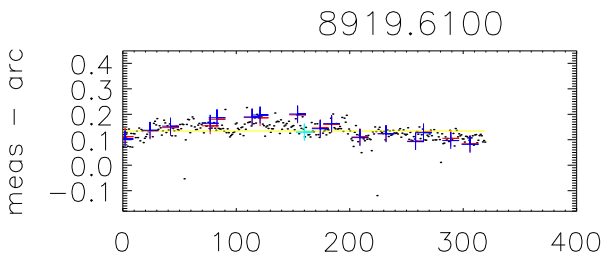

7794.1200
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

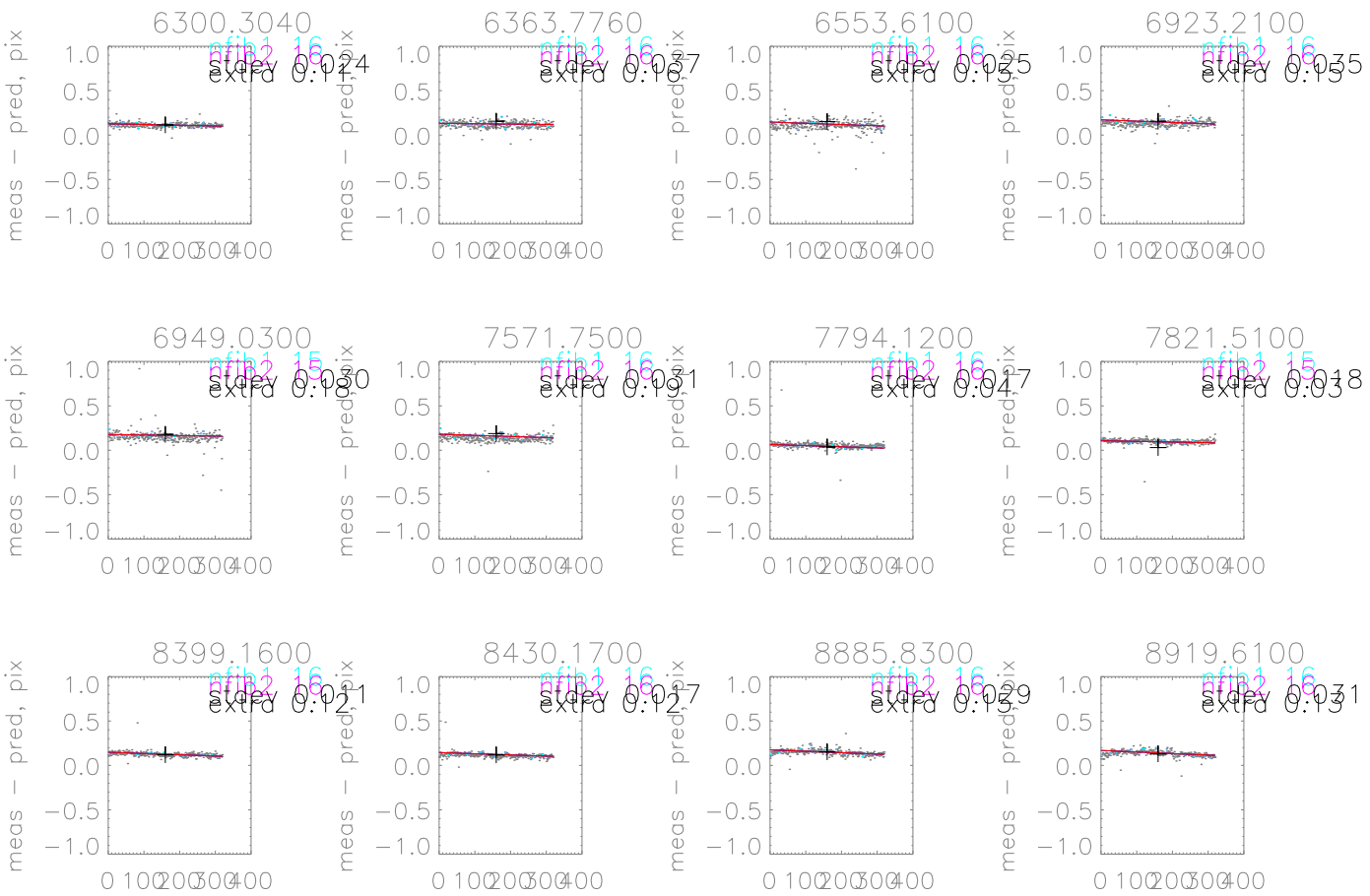

7821.5100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

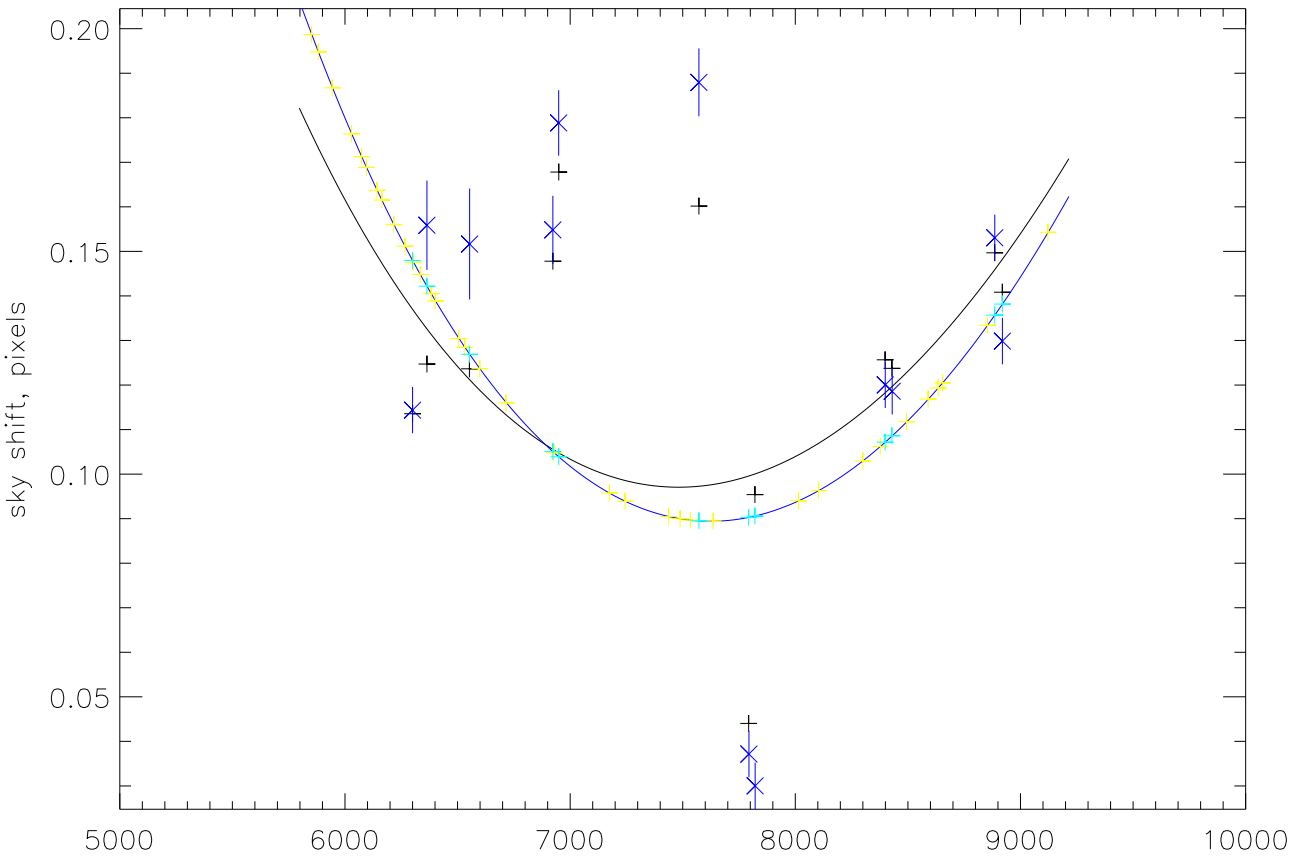

8399.1600
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

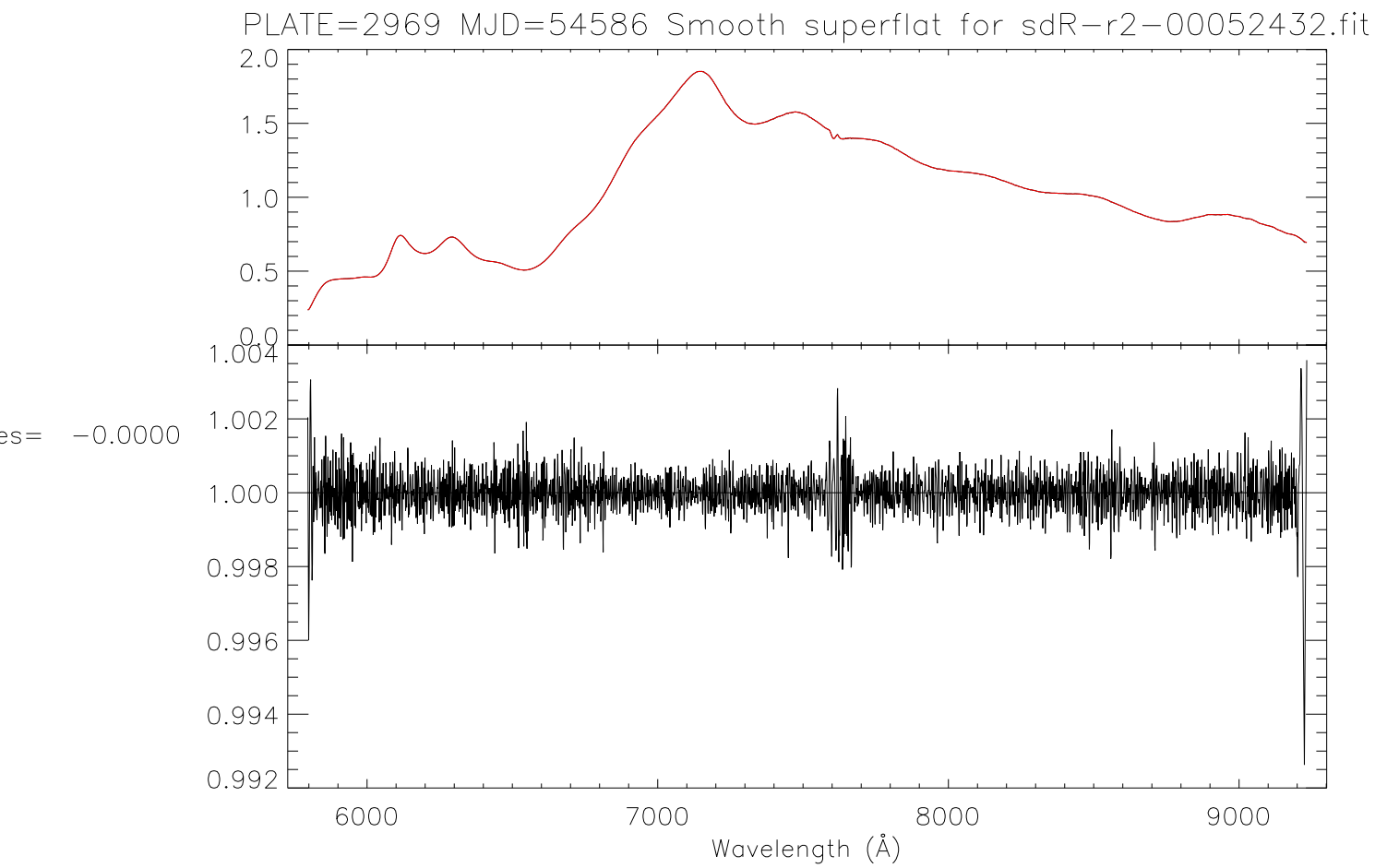

8430.1700
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

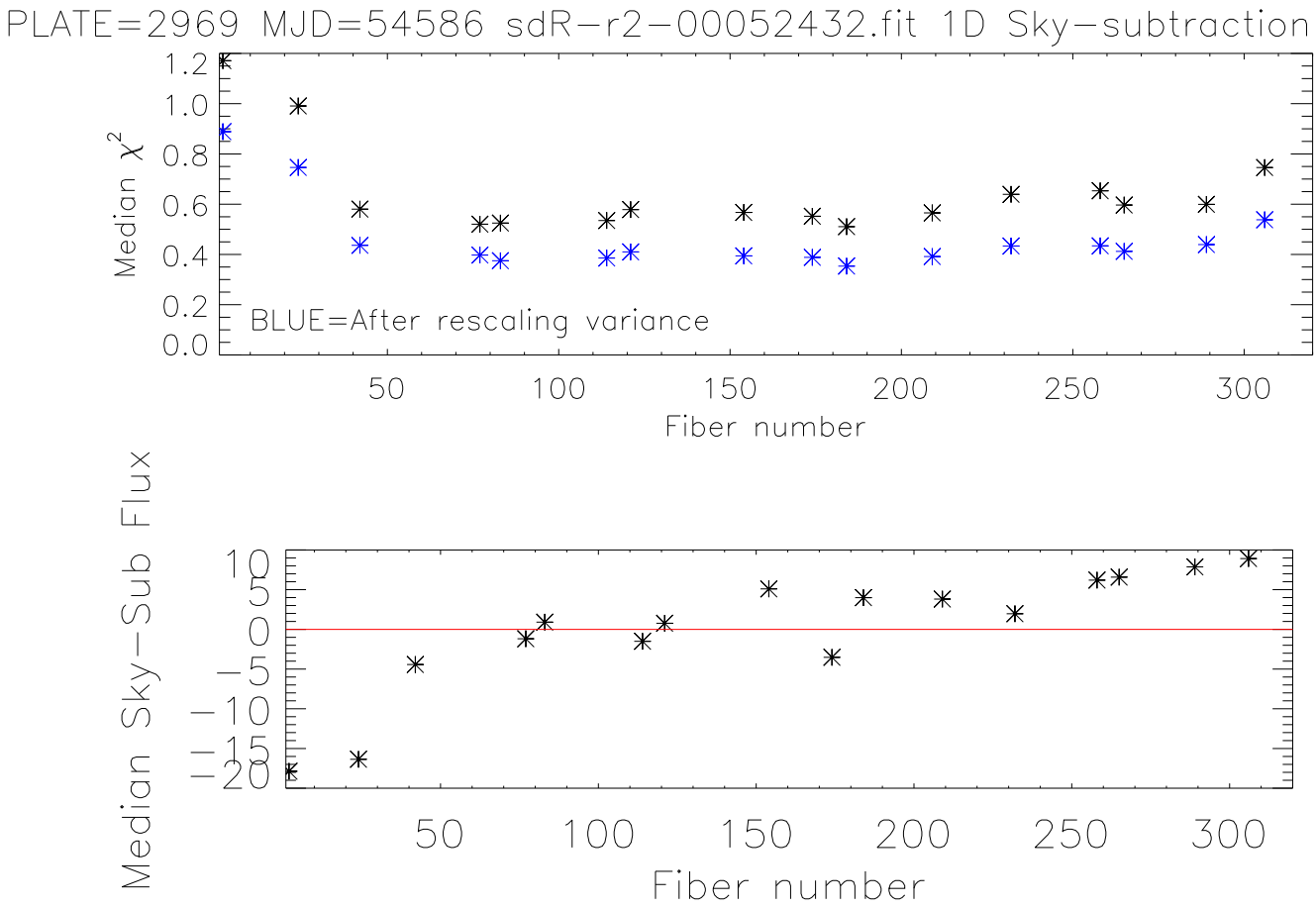

8885.8300
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

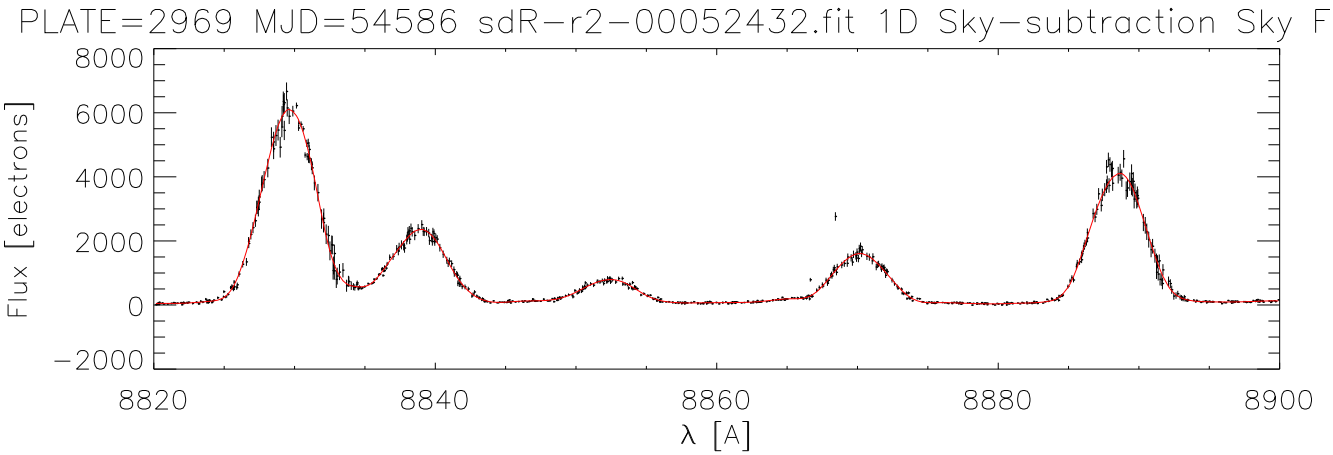

8919.6100
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

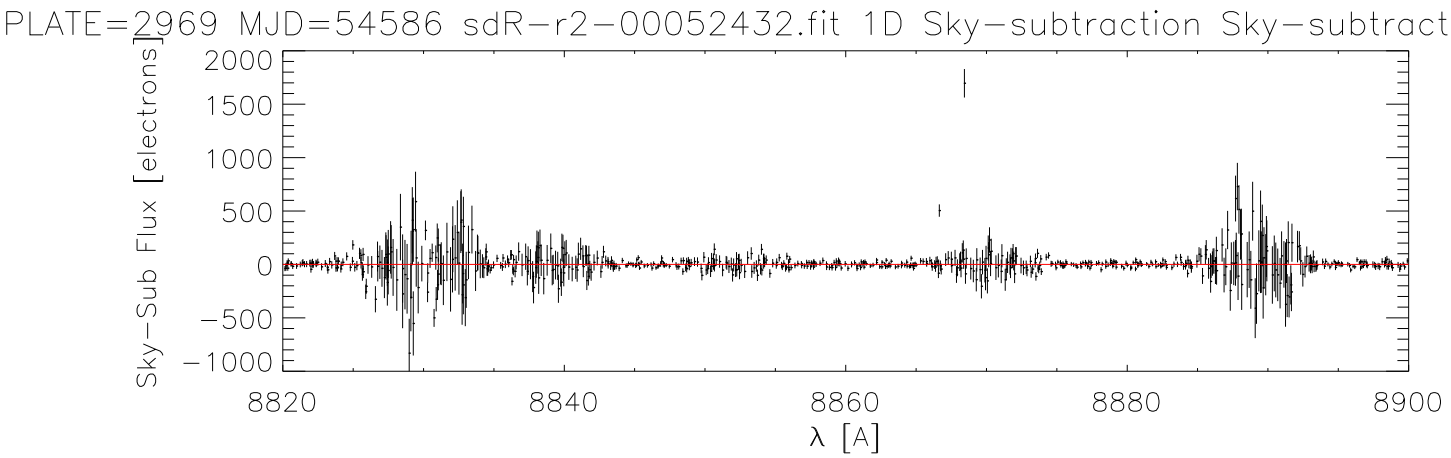

6300.3040
stdev 0.024
extra 0.14
6363.7760
stdev 0.037
extra 0.16
6553.6100
stdev 0.025
extra 0.15
6923.2100
stdev 0.035
extra 0.15
6949.0300
stdev 0.030
extra 0.18
7571.7500
stdev 0.031
extra 0.19
7794.1200
stdev 0.047
extra 0.04
7821.5100
stdev 0.018
extra 0.03
8399.1600
stdev 0.021
extra 0.12
8430.1700
stdev 0.017
extra 0.12
8885.8300
stdev 0.029
extra 0.13
8919.6100
stdev 0.031
extra 0.13
meas − pred, pix
mfib2 16
mfib1 15
mfib1 16

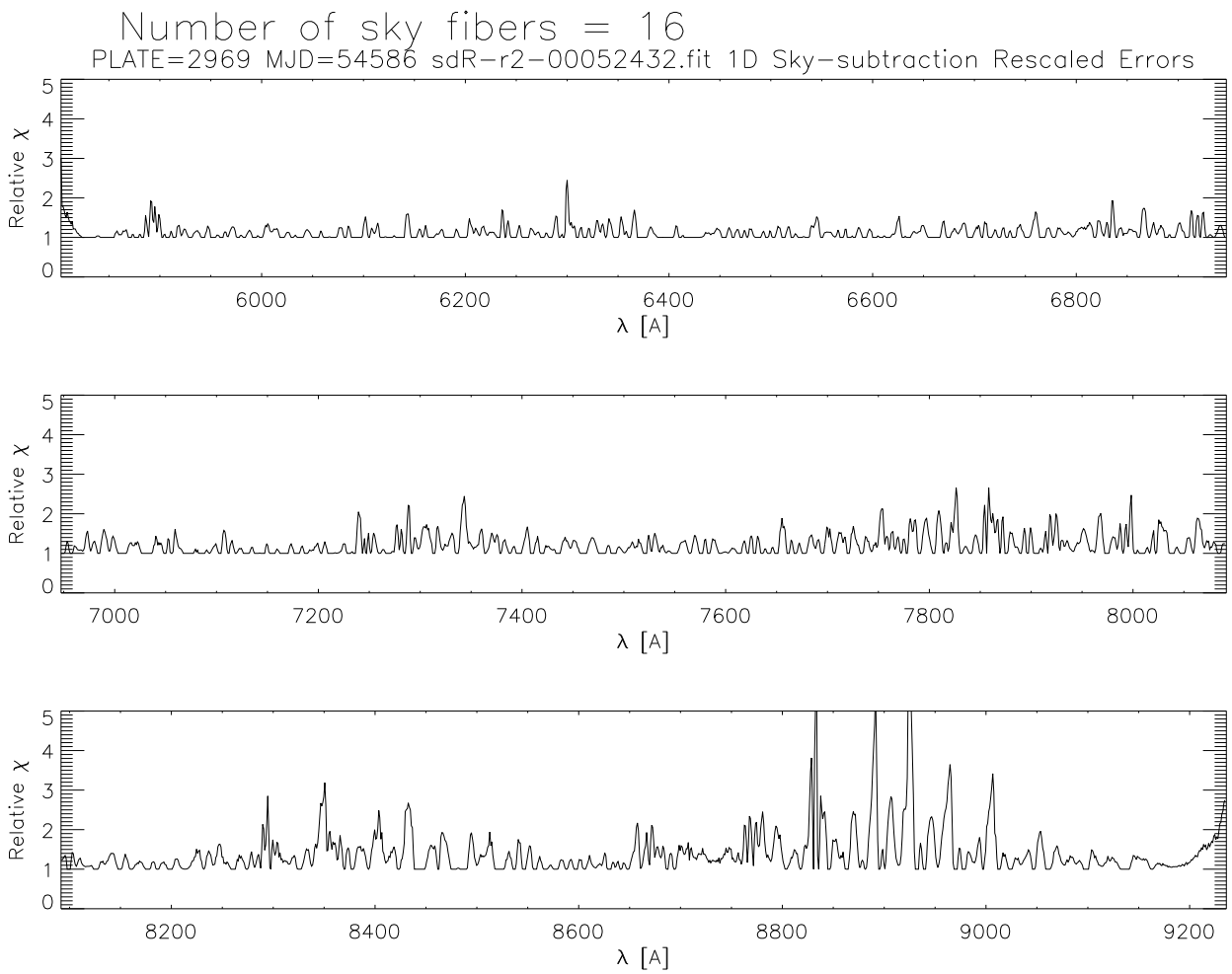

0.20
0.15
0.10
0.05
sky shift, pixels
5000
6000
7000
8000
9000
10000

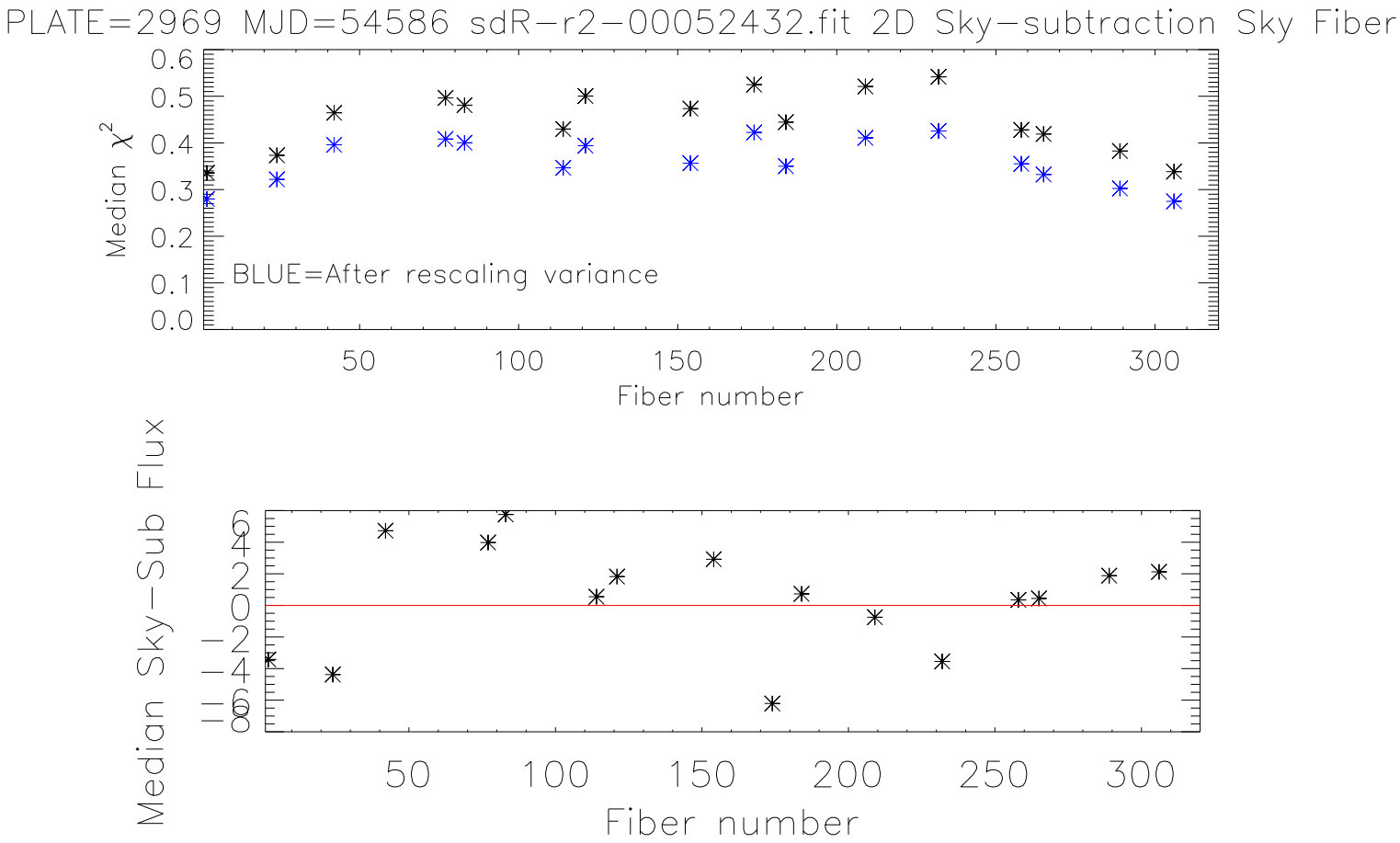

PLATE=2969 MJD=54586 Smooth superflat for sdR-r2-00052432.fit
2.0
1.5
1.0
0.5
0.0
1.004
1.002
1.000
0.998
0.996
0.994
0.992
es= −0.0000
6000
7000
8000
9000
Wavelength (Å)

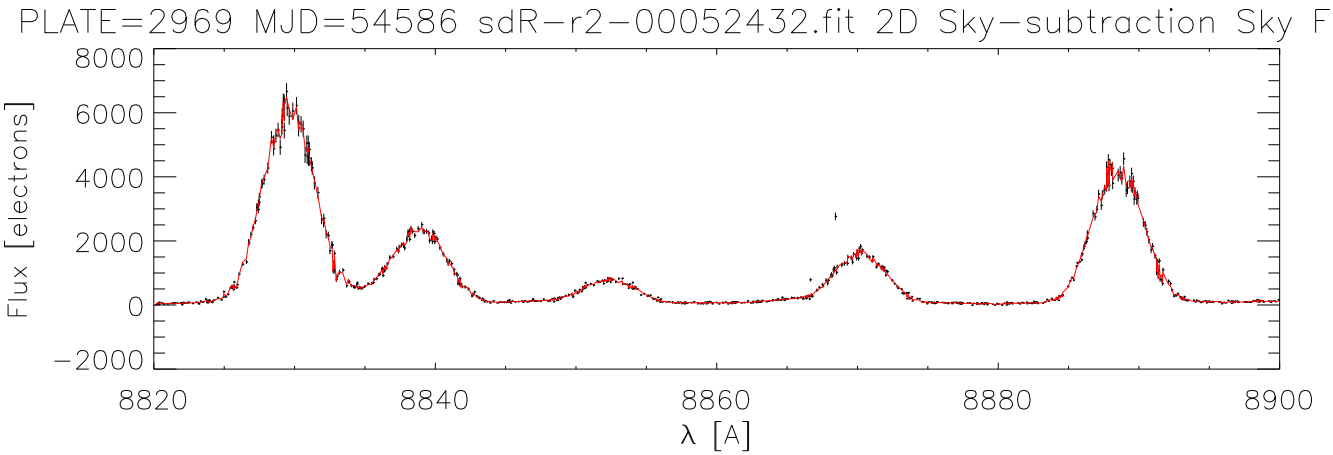

PLATE=2969 MJD=54586 sdR-r2-00052432.fit 1D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

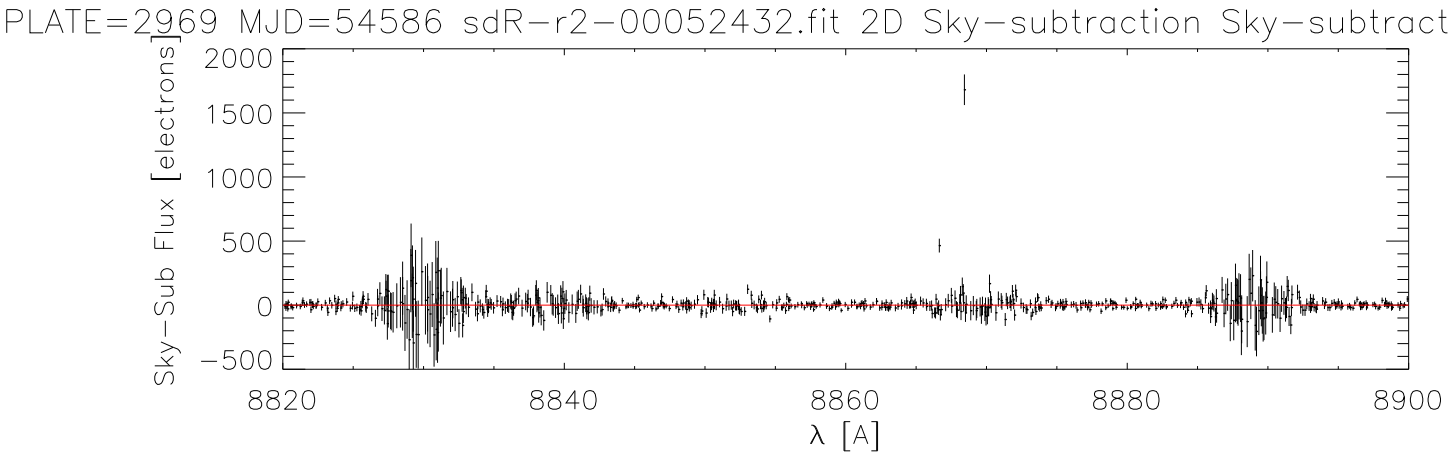

PLATE=2969 MJD=54586 sdR-r2-00052432.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
−2000
8820
8840
8860
8880
8900
λ [A]

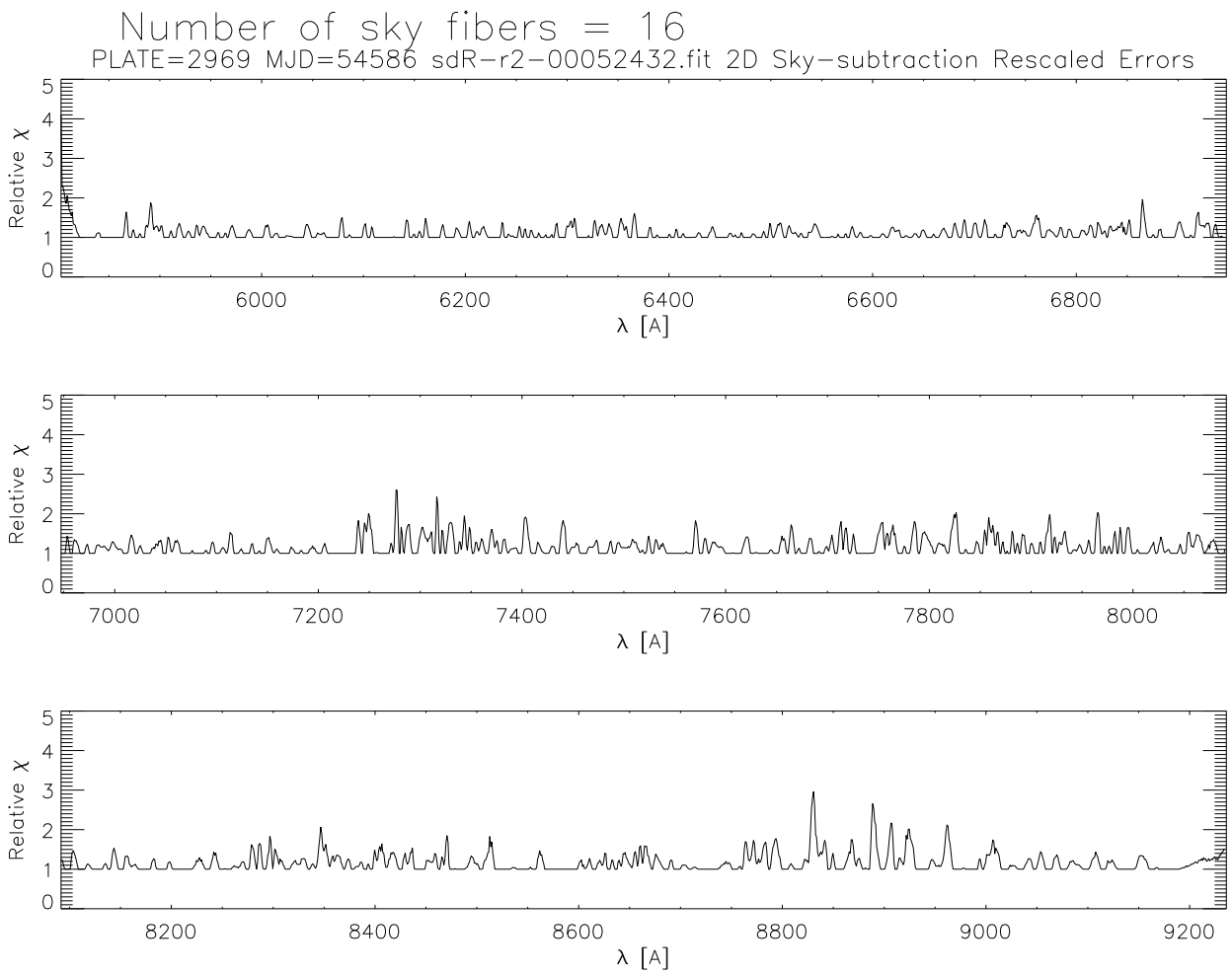

PLATE=2969 MJD=54586 sdR-r2-00052432.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
2000
1500
1000
500
0
−500
−1000
8820
8840
8860
8880
8900
λ [A]

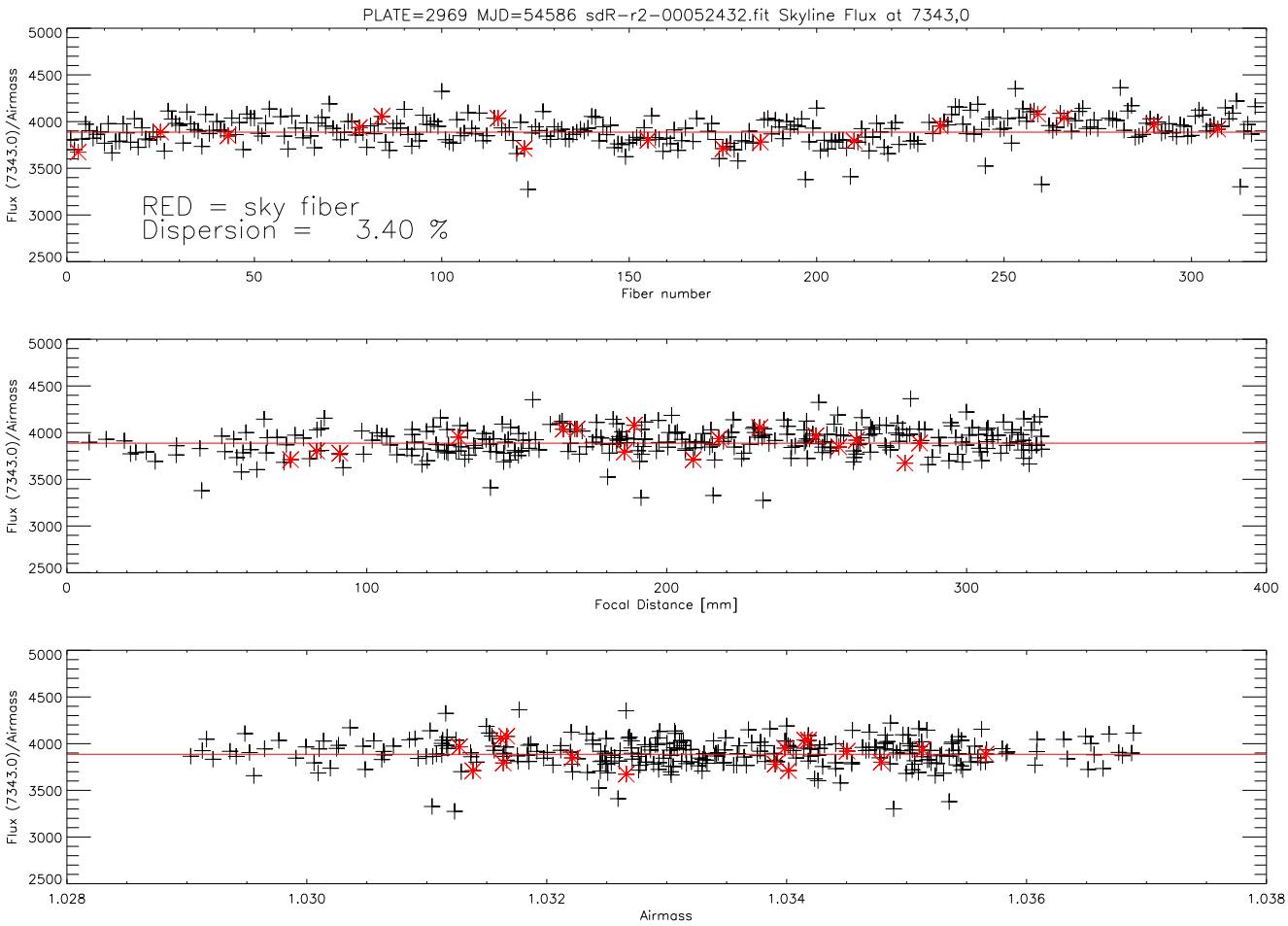

Number of sky fibers = 16
PLATE=2969 MJD=54586 sdR-r2-00052432.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

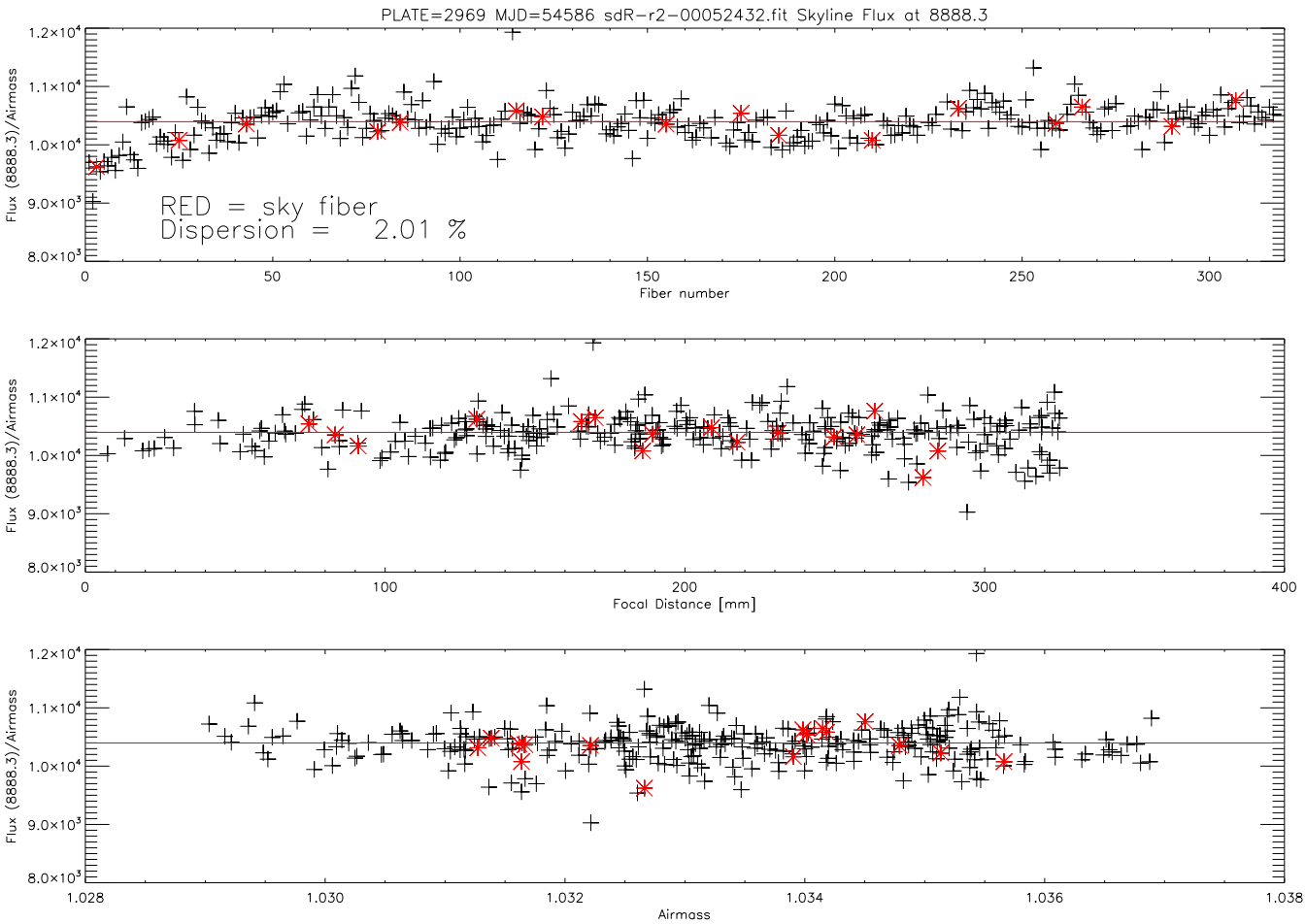

PLATE=2969 MJD=54586 sdR-r2-00052432.fit 2D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-0.00046
-0.00044
-0.00042
-0.00040
50
100
150
200
250
300
Fiber number

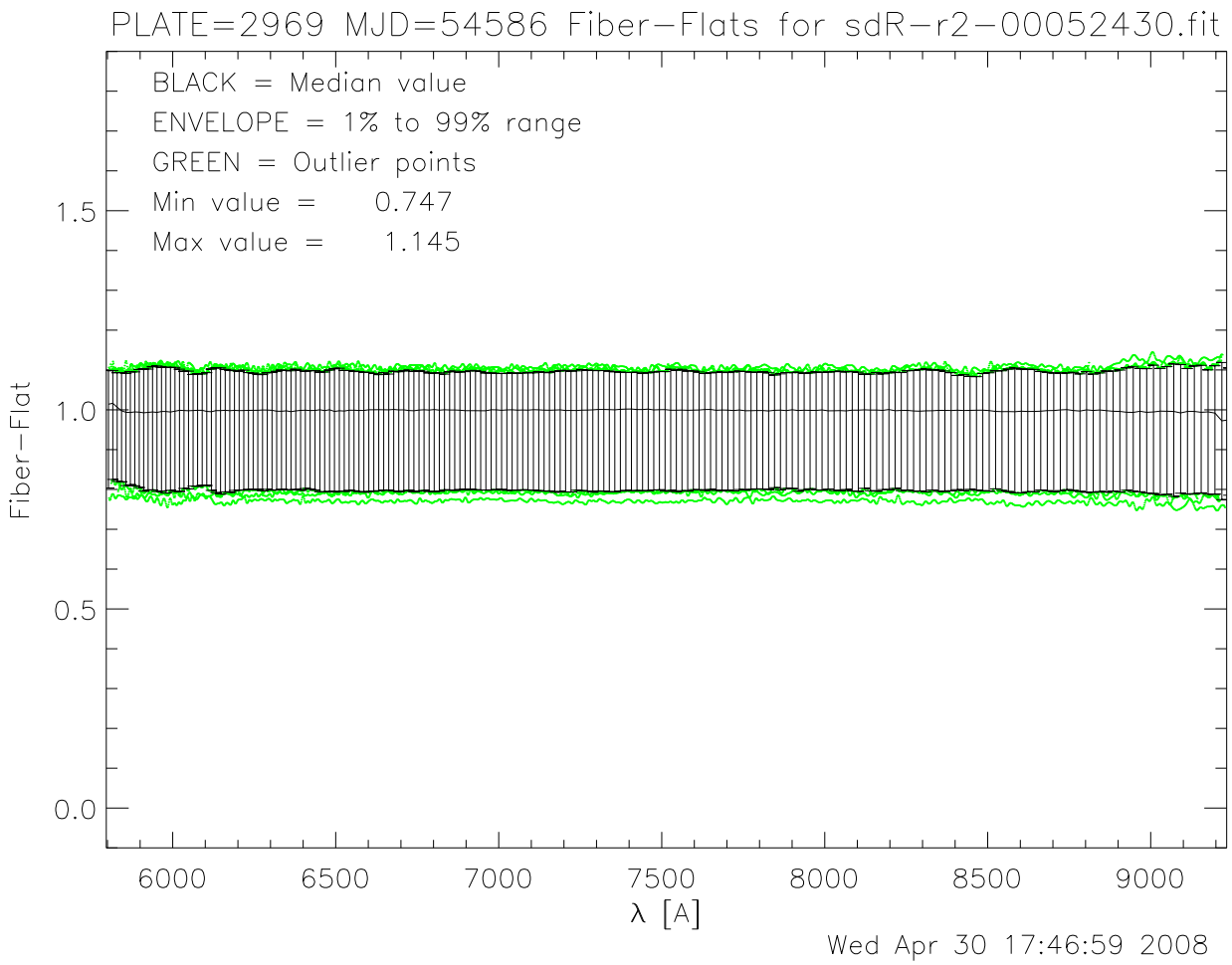

PLATE=2969 MJD=54586 sdR-r2-00052432.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
-2000
8820
8840
8860
8880
8900
λ [A]

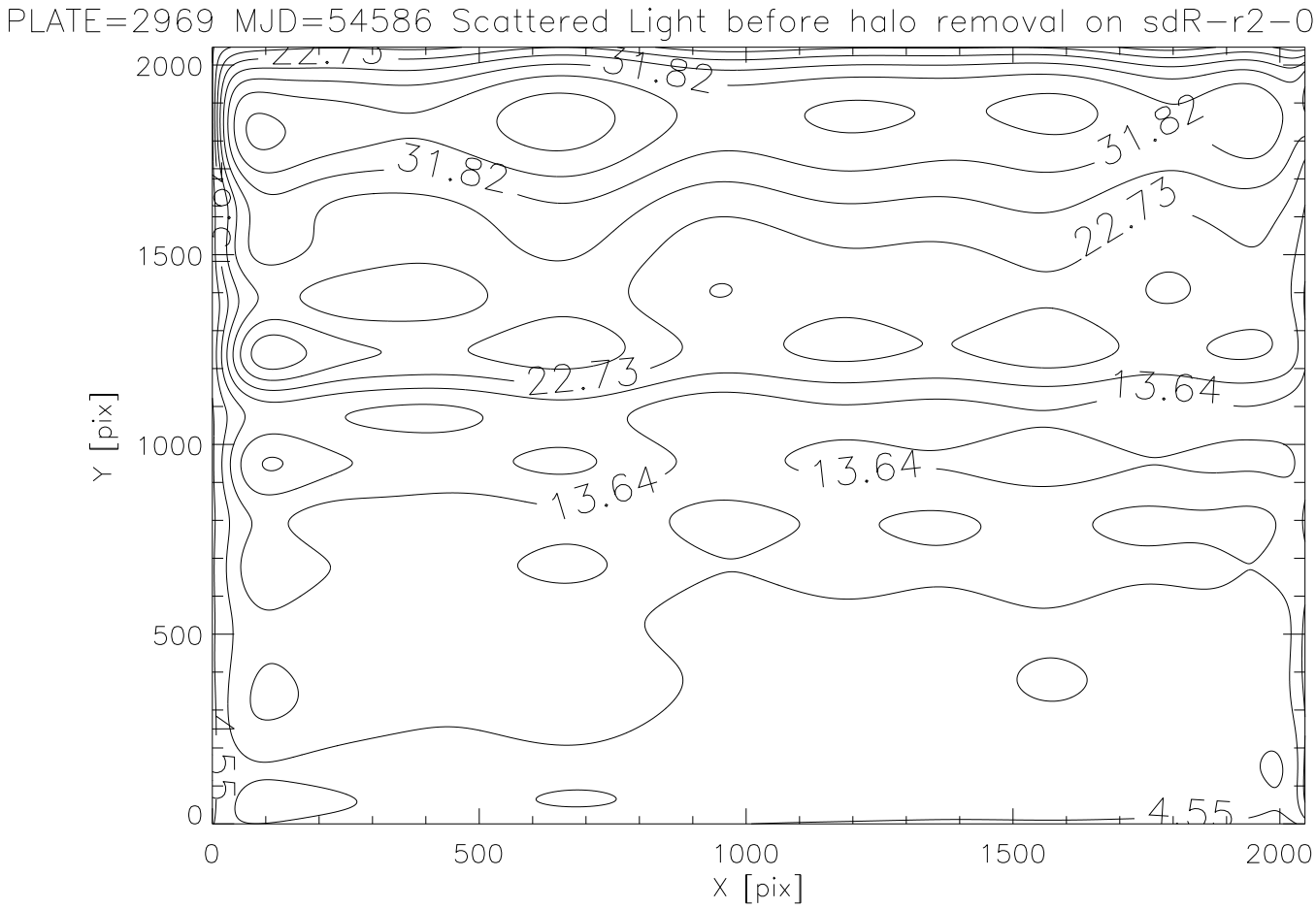

PLATE=2969 MJD=54586 sdR-r2-00052432.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
2000
1500
1000
500
0
-500
8820
8840
8860
8880
8900
λ [A]

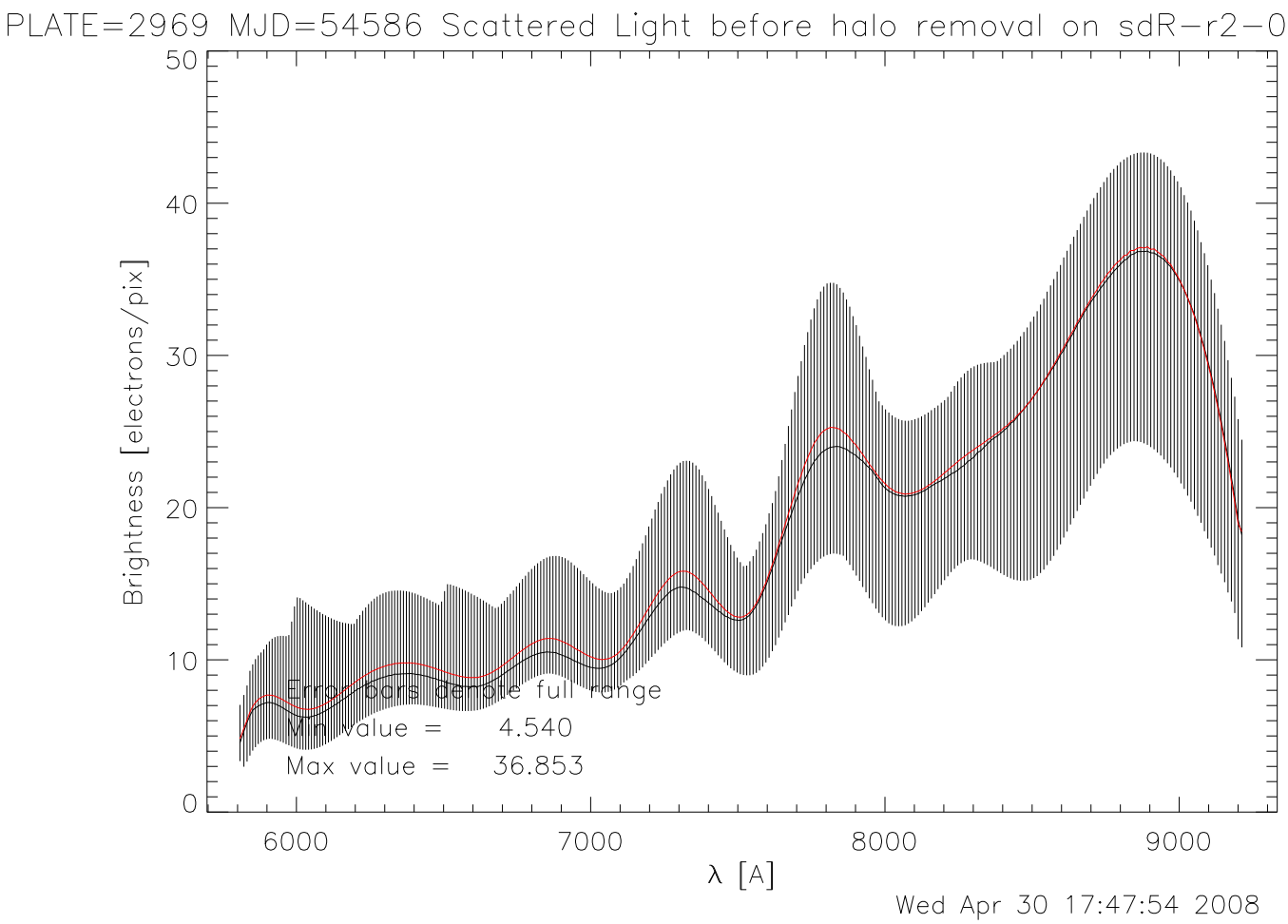

Number of sky fibers = 16
PLATE=2969 MJD=54586 sdR-r2-00052432.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

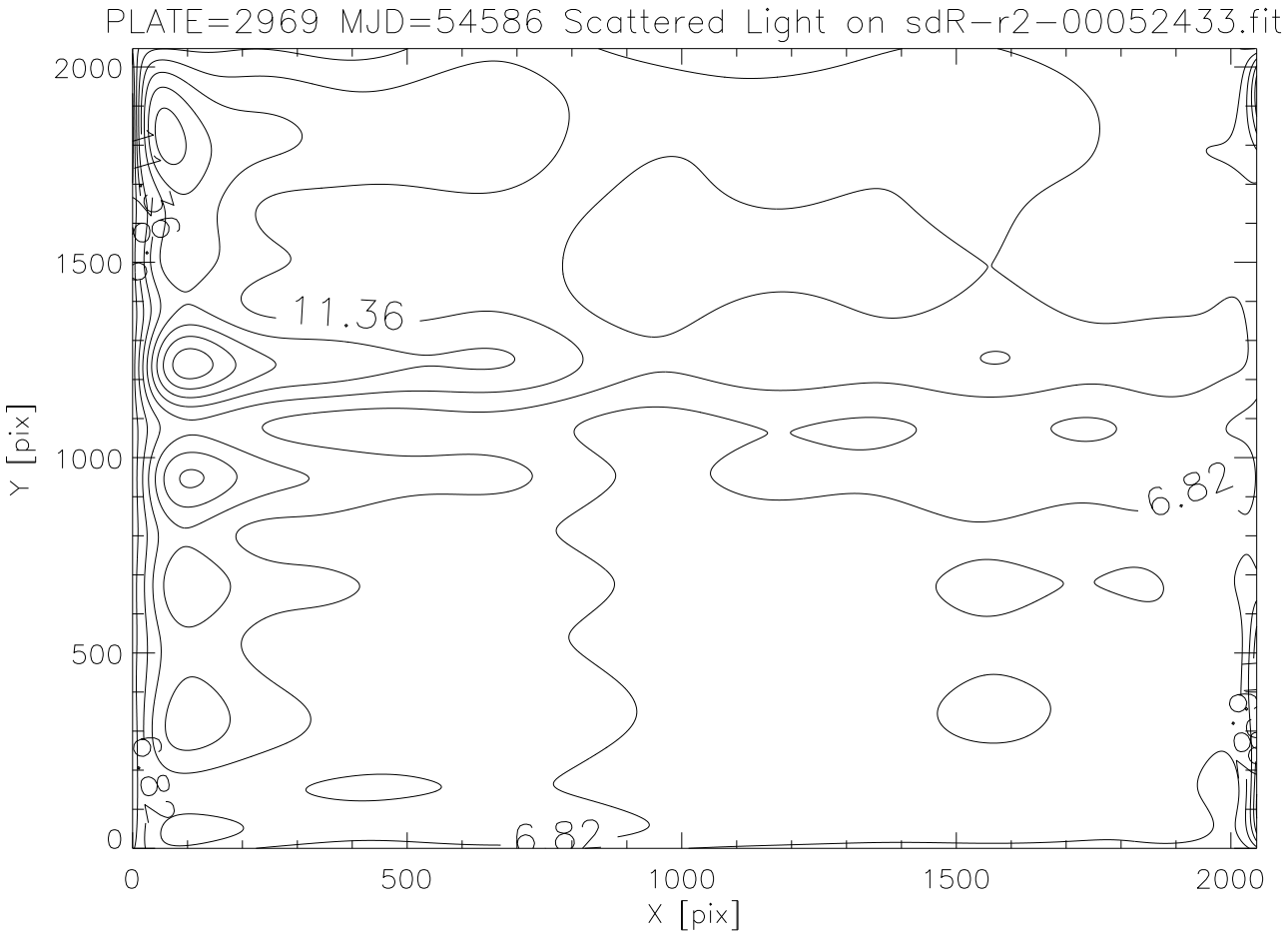

PLATE=2969 MJD=54586 sdR-r2-00052432.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 3.40 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

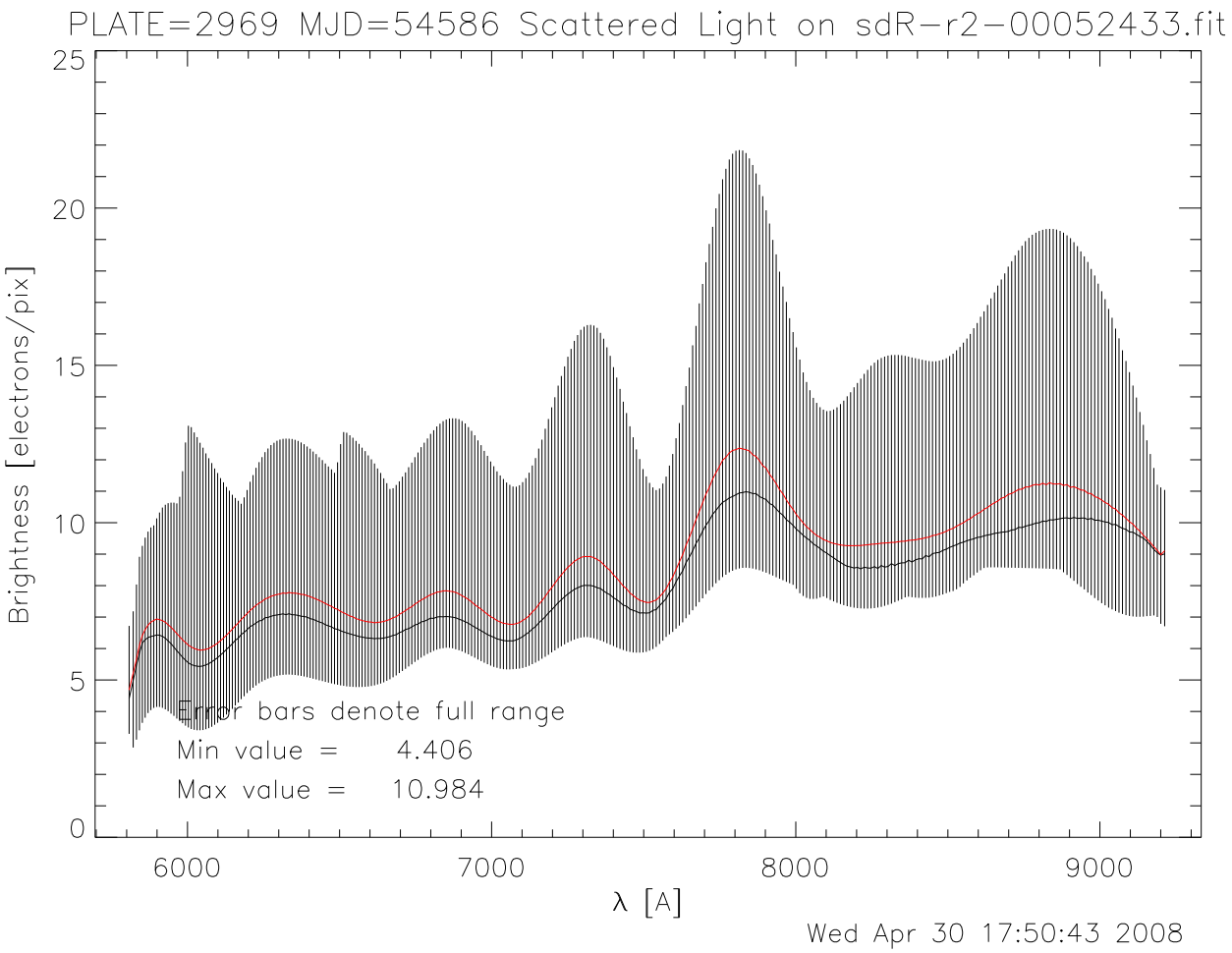

PLATE=2969 MJD=54586 sdR-r2-00052432.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 2.01 %
Fiber number
Focal Distance [mm]
Airmass

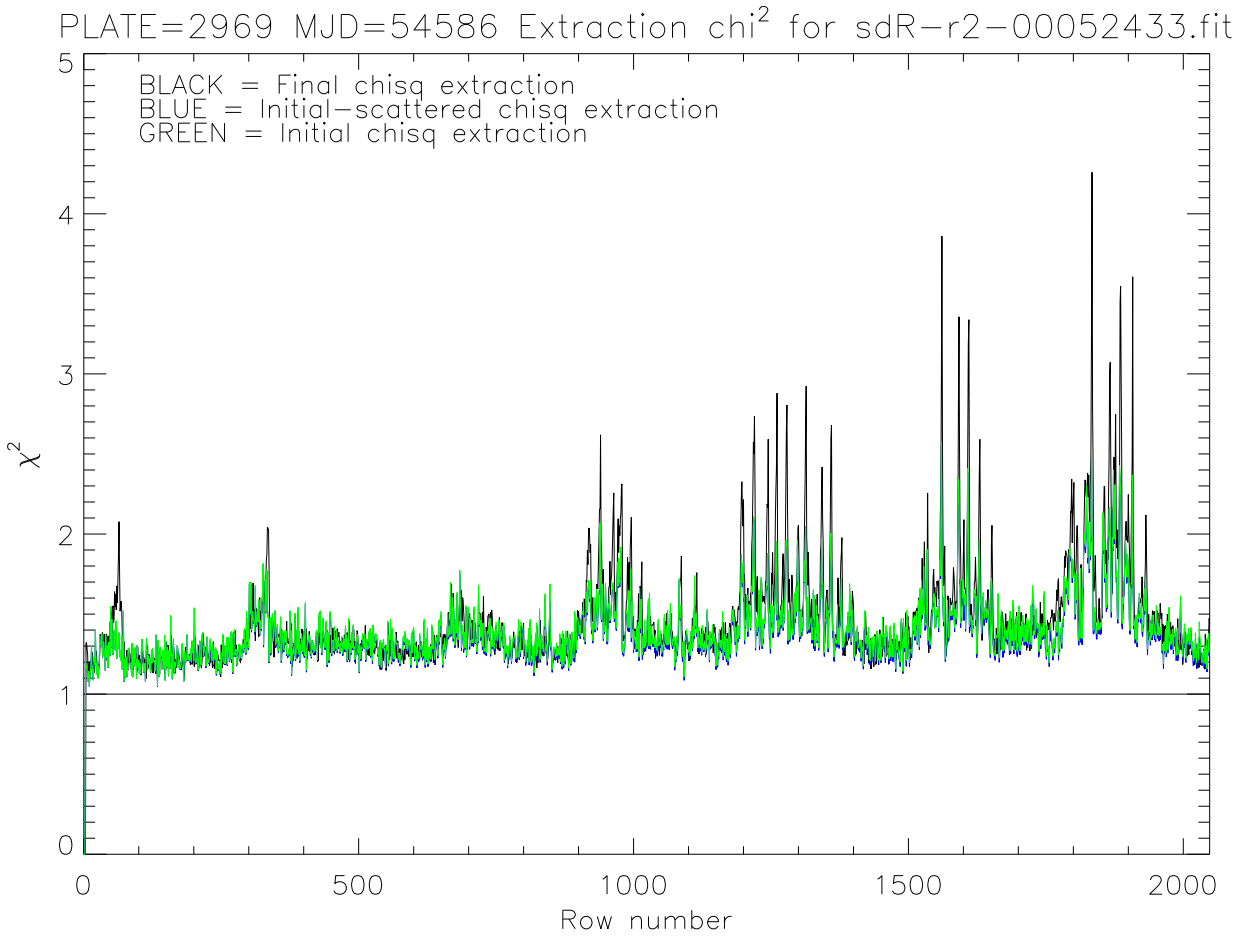

PLATE=2969 MJD=54586 Fiber−Flats for sdR−r2−00052430.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.747
Max value = 1.145
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Wed Apr 30 17:46:59 2008

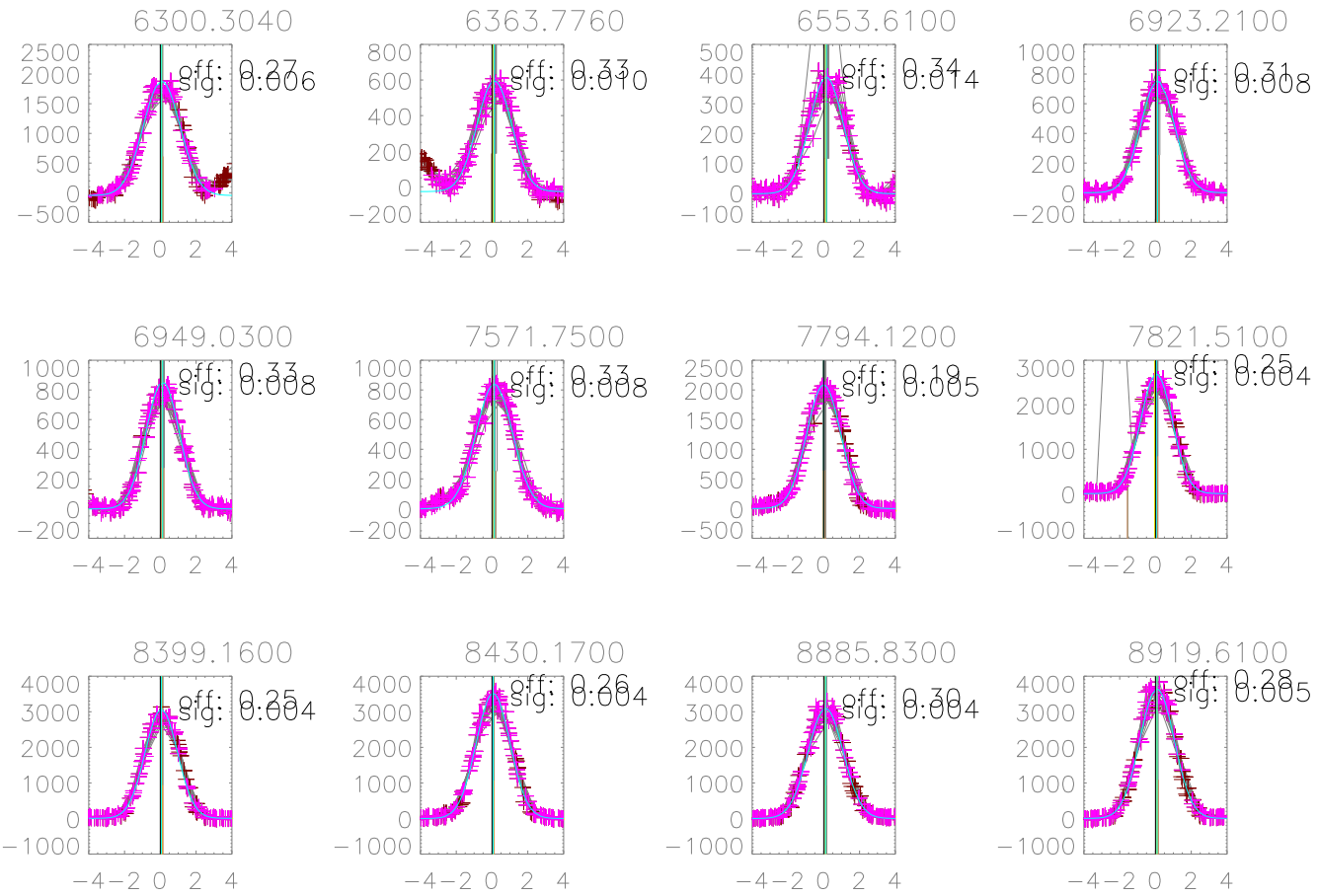

PLATE=2969 MJD=54586 Scattered Light before halo removal on sdR-r2-00052433.fi
22.73
31.82
31.82
31.82
22.73
22.73
13.64
13.64
13.64
4.55
0
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]

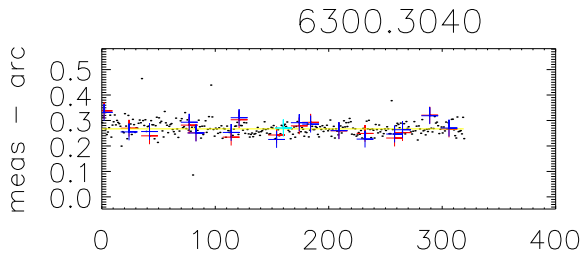

PLATE=2969 MJD=54586 Scattered Light before halo removal on sdR-r2-00052433.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 4.540
Max value = 36.853
Wed Apr 30 17:47:54 2008

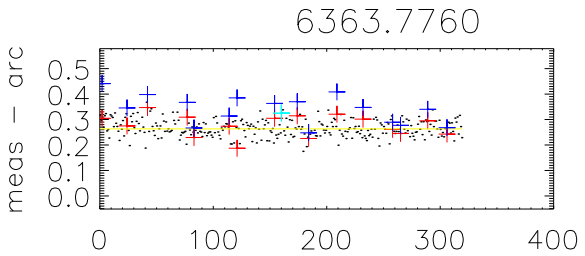

PLATE=2969 MJD=54586 Scattered Light on sdR-r2-00052433.fit
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
11.36
11.36
6.82
6.82
6.82
6.82

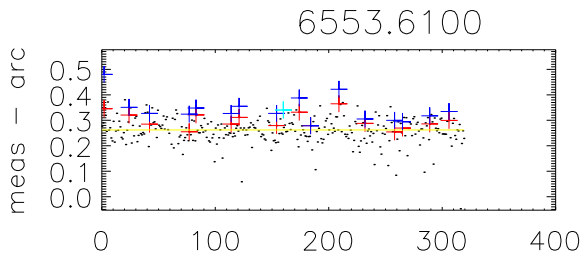

PLATE=2969 MJD=54586 Scattered Light on sdR-r2-00052433.fit
Brightness [electrons/pix]
25
20
15
10
5
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 4.406
Max value = 10.984
Wed Apr 30 17:50:43 2008

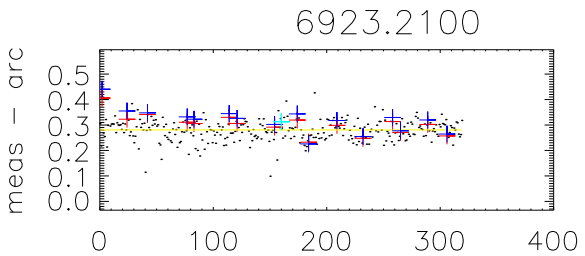

PLATE=2969 MJD=54586 Extraction chi^2 for sdR−r2−00052433.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
5
0
500
1000
1500
2000
Row number

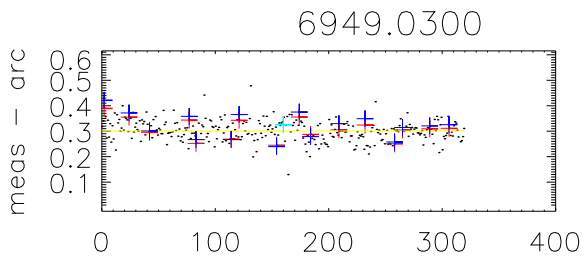

6300.3040
off: 0.27
sig: 0.006
6363.7760
off: 0.33
sig: 0.010
6553.6100
off: 0.34
sig: 0.014
6923.2100
off: 0.31
sig: 0.008
6949.0300
off: 0.33
sig: 0.008
7571.7500
off: 0.33
sig: 0.008
7794.1200
off: 0.18
sig: 0.005
7821.5100
off: 0.25
sig: 0.004
8399.1600
off: 0.25
sig: 0.004
8430.1700
off: 0.26
sig: 0.004
8885.8300
off: 0.30
sig: 0.004
8919.6100
off: 0.28
sig: 0.005

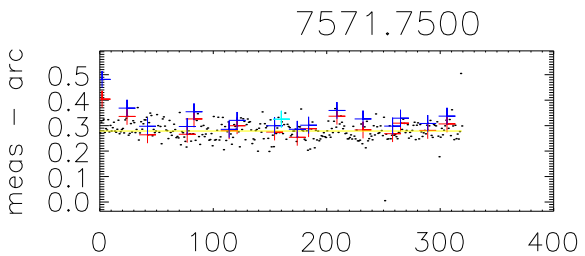

6300.3040
meas − arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400

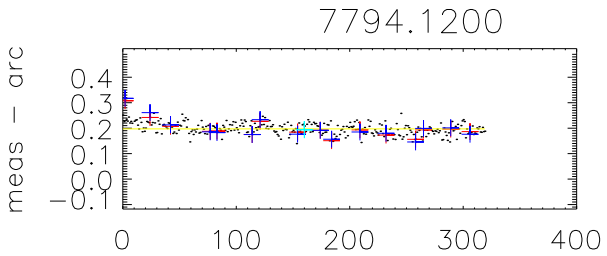

6363.7760
meas − arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400

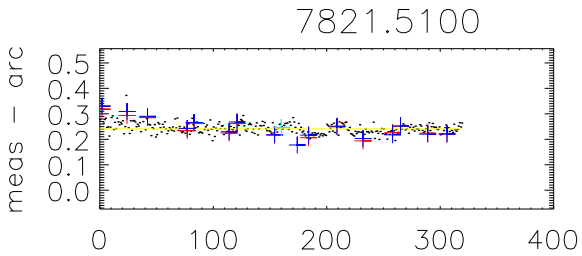

6553.6100
meas − arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400

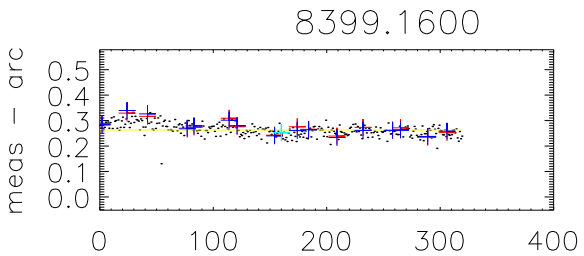

6923.2100
meas − arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400

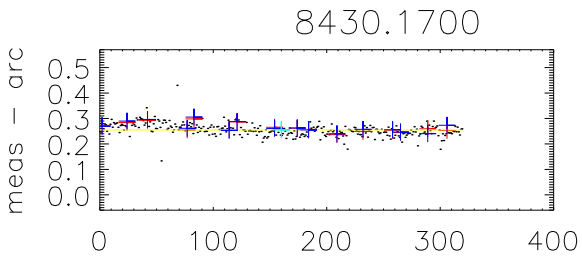

6949.0300
meas − arc
0.1
0.2
0.3
0.4
0.5
0.6
0
100
200
300
400

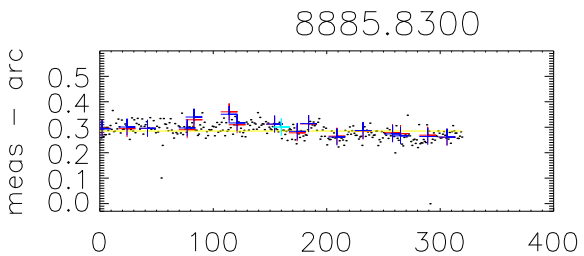

7571.7500
meas − arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400

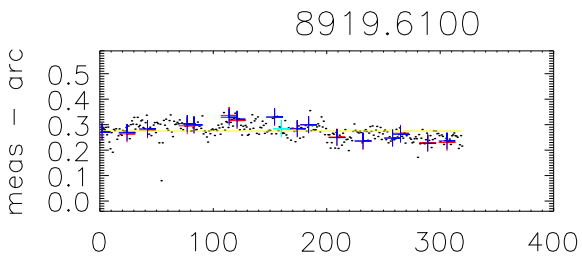

7794.1200
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

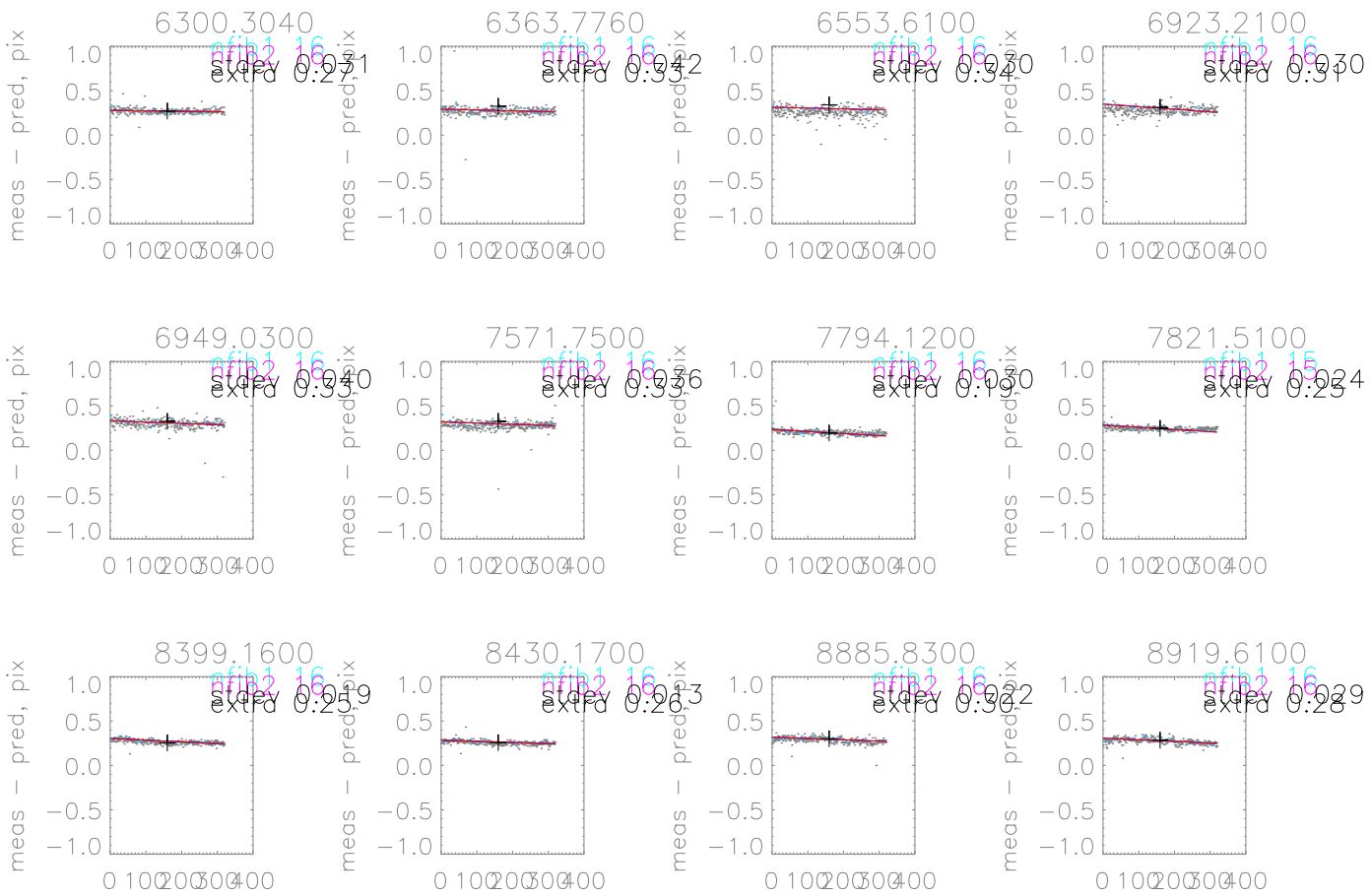

7821.5100
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

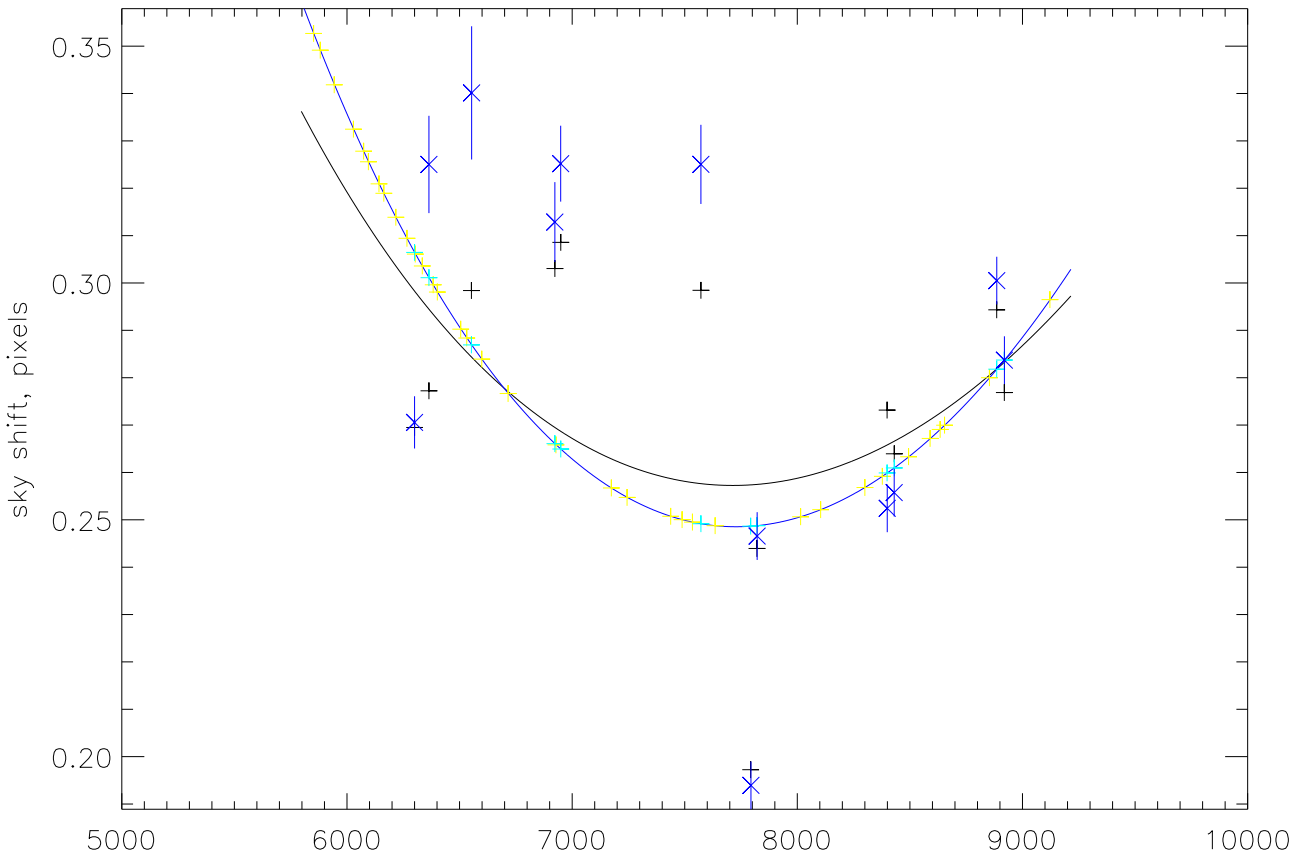

8399.1600
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

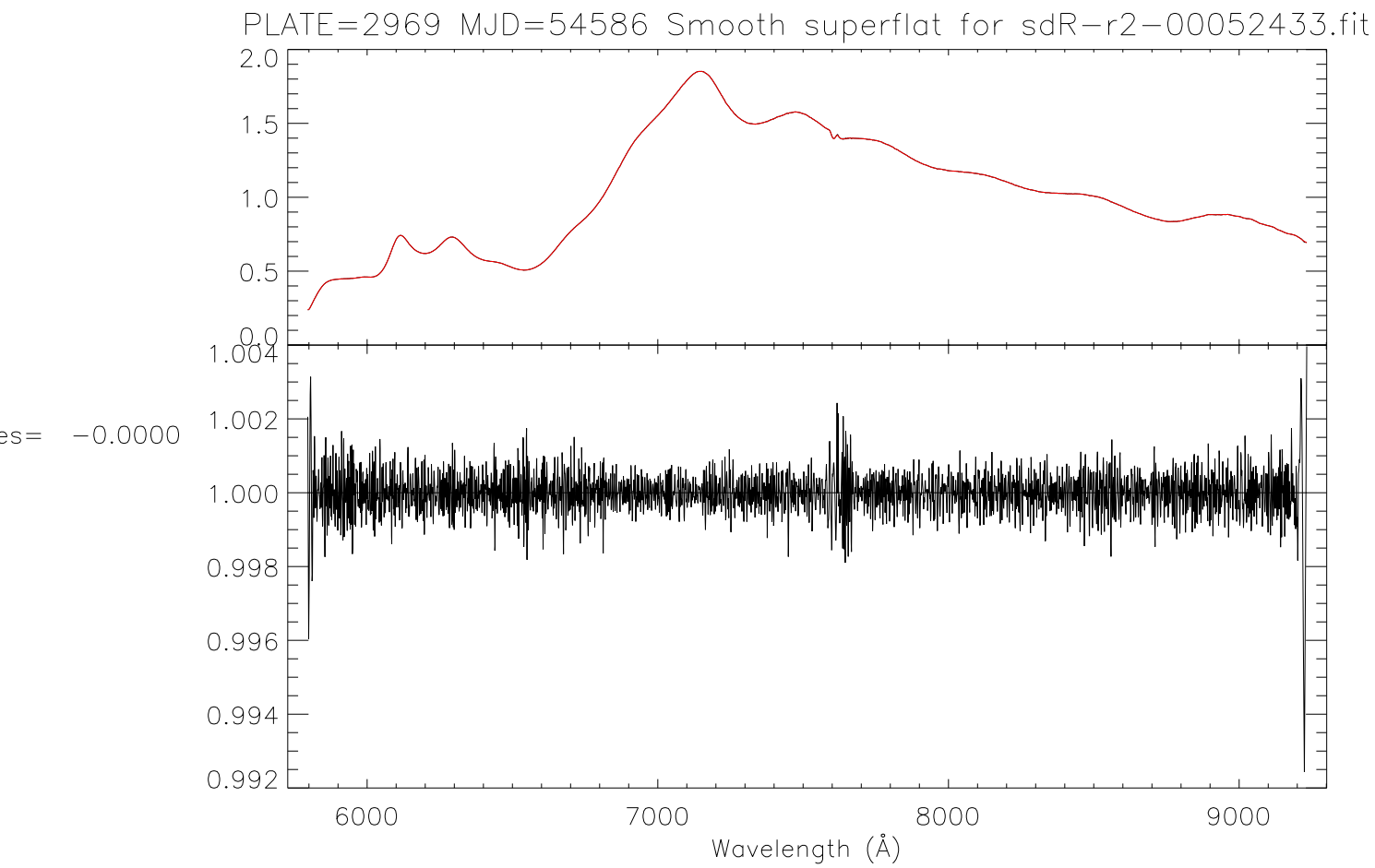

8430.1700
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400


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

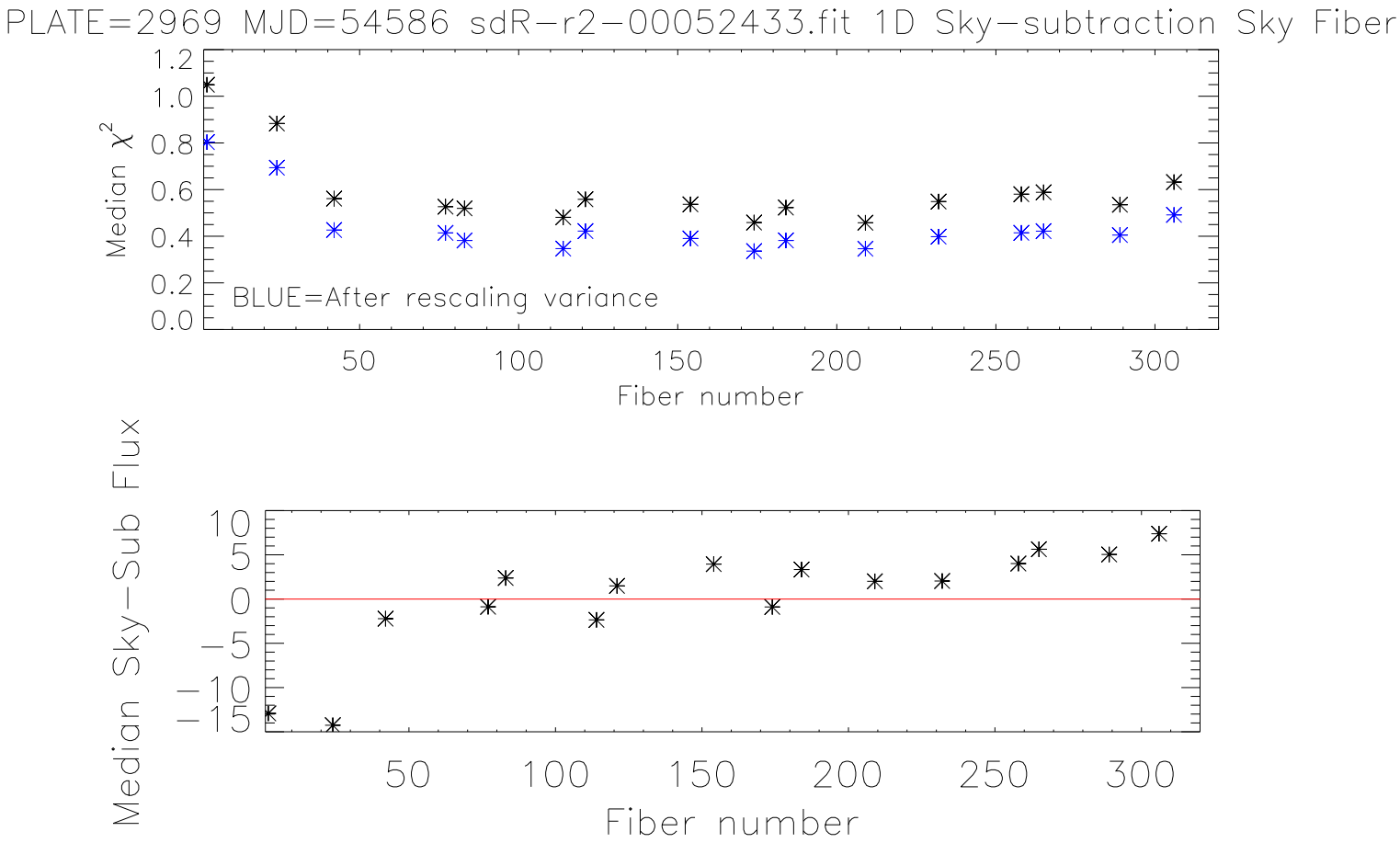

8919.6100
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

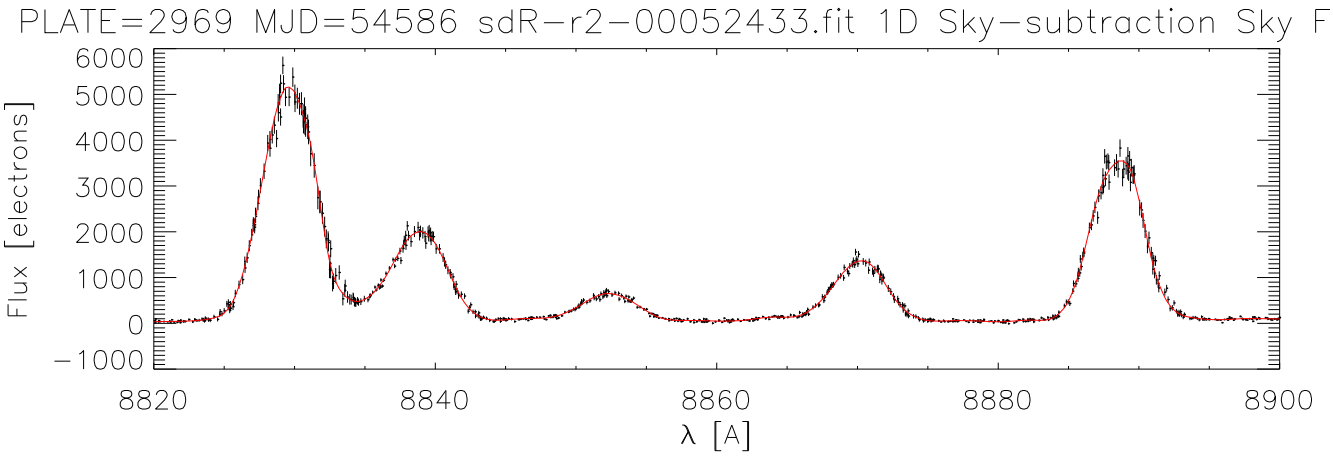

6300.3040
stdev 0.031
extra 0.27
6363.7760
stdev 0.042
extra 0.33
6553.6100
stdev 0.030
extra 0.34
6923.2100
stdev 0.030
extra 0.31
6949.0300
stdev 0.040
extra 0.33
7571.7500
stdev 0.036
extra 0.33
7794.1200
stdev 0.030
extra 0.19
7821.5100
stdev 0.024
extra 0.25
8399.1600
stdev 0.029
extra 0.25
8430.1700
stdev 0.043
extra 0.26
8885.8300
stdev 0.032
extra 0.30
8919.6100
stdev 0.029
extra 0.28
meas − pred, pix

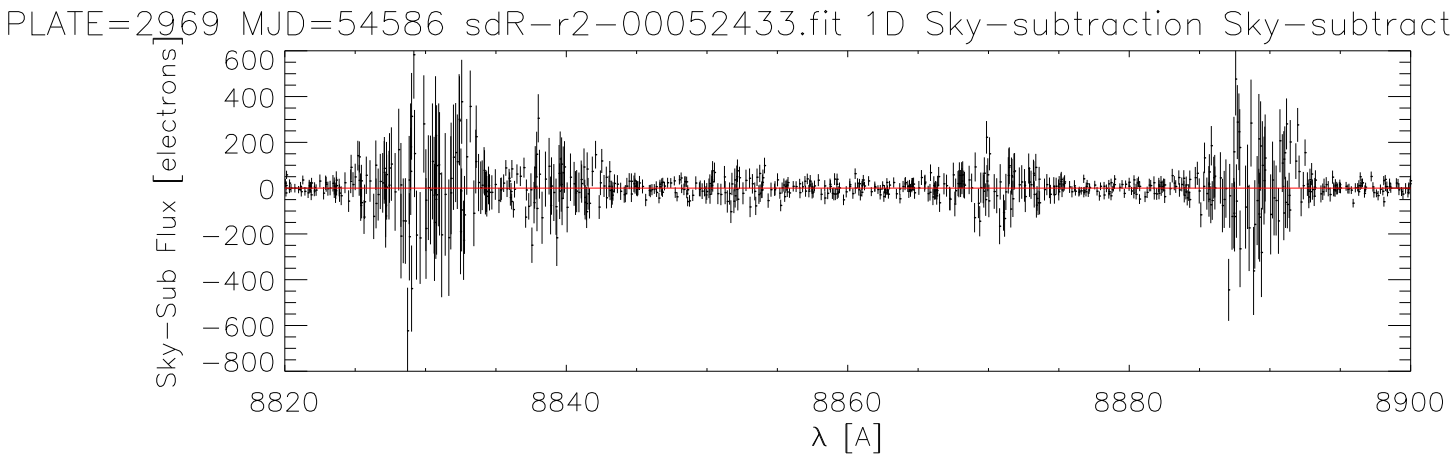

0.35
0.30
0.25
0.20
sky shift, pixels
5000
6000
7000
8000
9000
10000

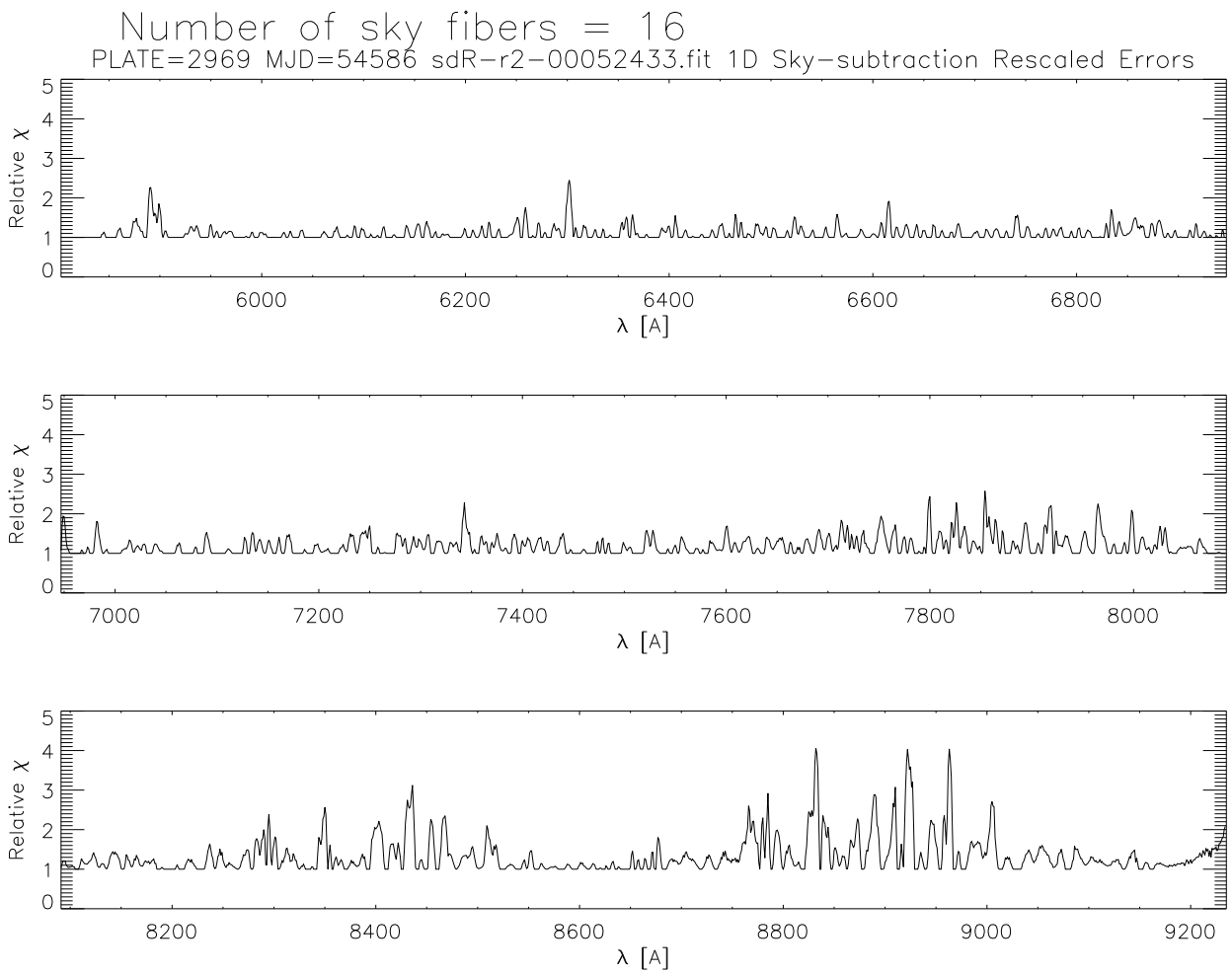

PLATE=2969 MJD=54586 Smooth superflat for sdR-r2-00052433.fit
2.0
1.5
1.0
0.5
0.0
1.004
1.002
1.000
0.998
0.996
0.994
0.992
6000
7000
8000
9000
Wavelength (Å)

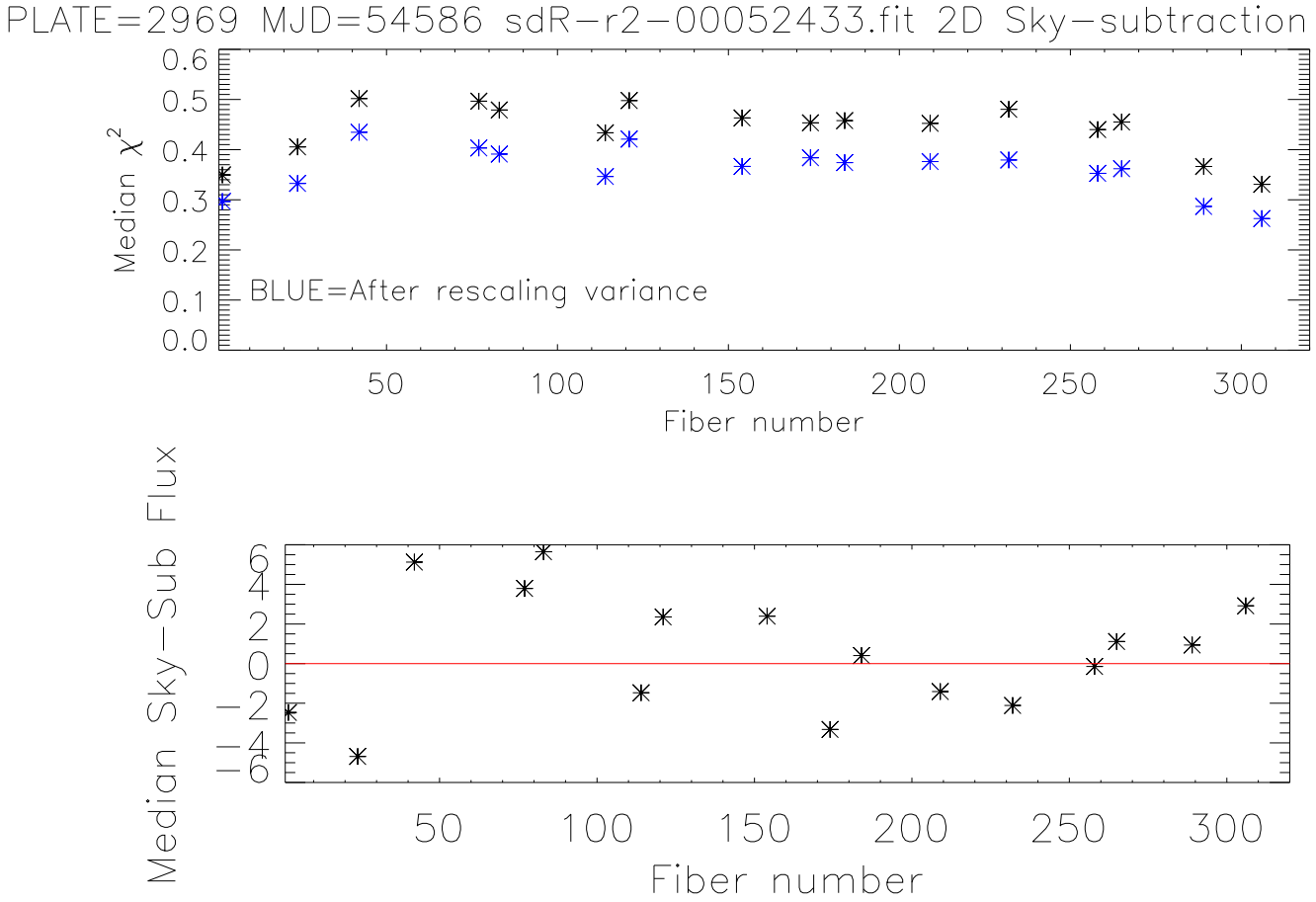
es= −0.0000

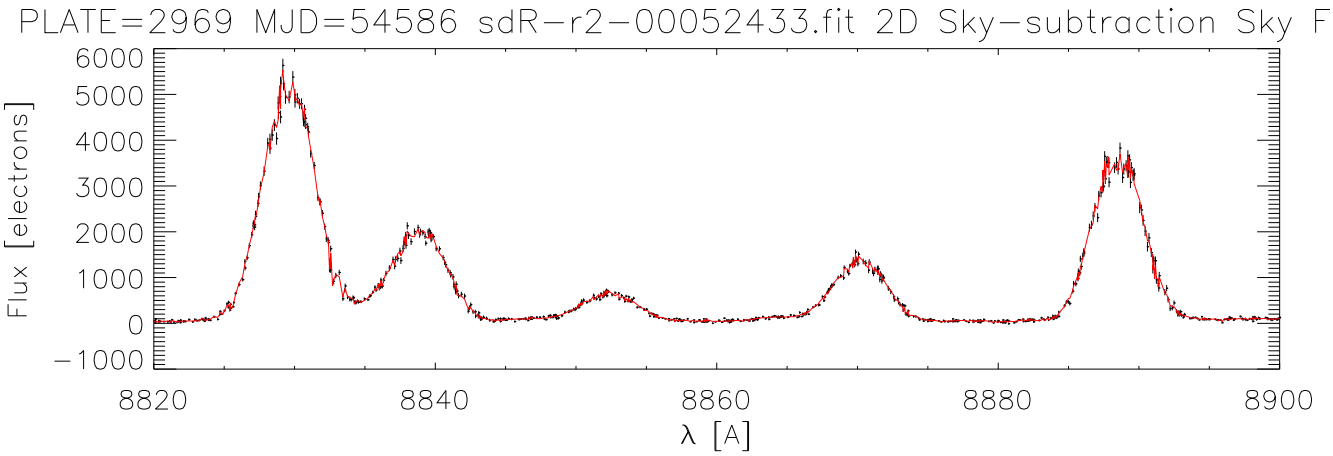

PLATE=2969 MJD=54586 sdR-r2-00052433.fit 1D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

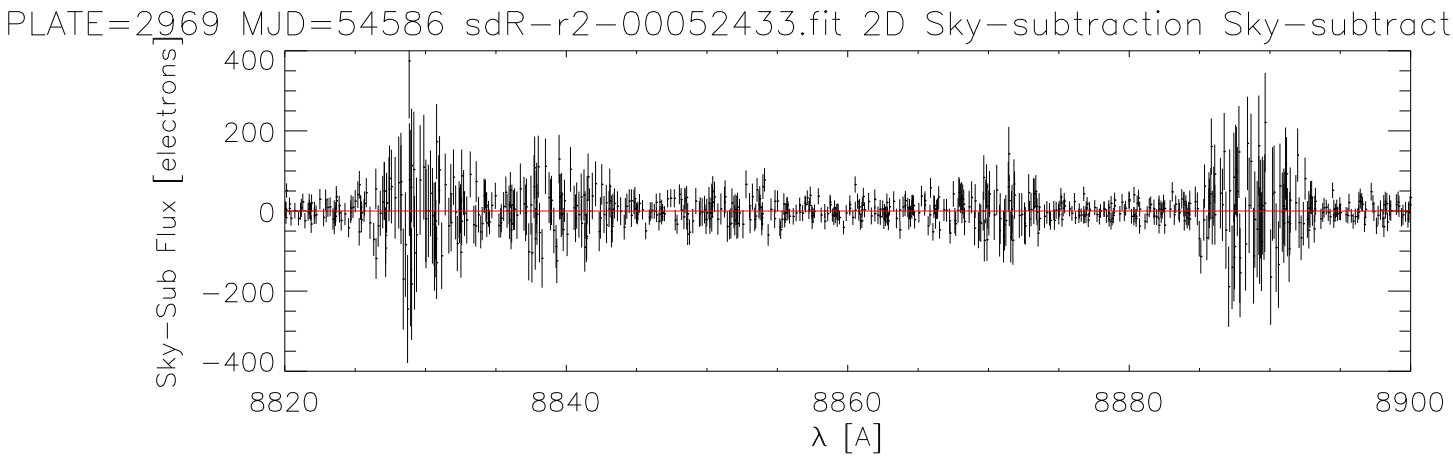

PLATE=2969 MJD=54586 sdR-r2-00052433.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
6000
5000
4000
3000
2000
1000
0
−1000
8820
8840
8860
8880
8900
λ [A]

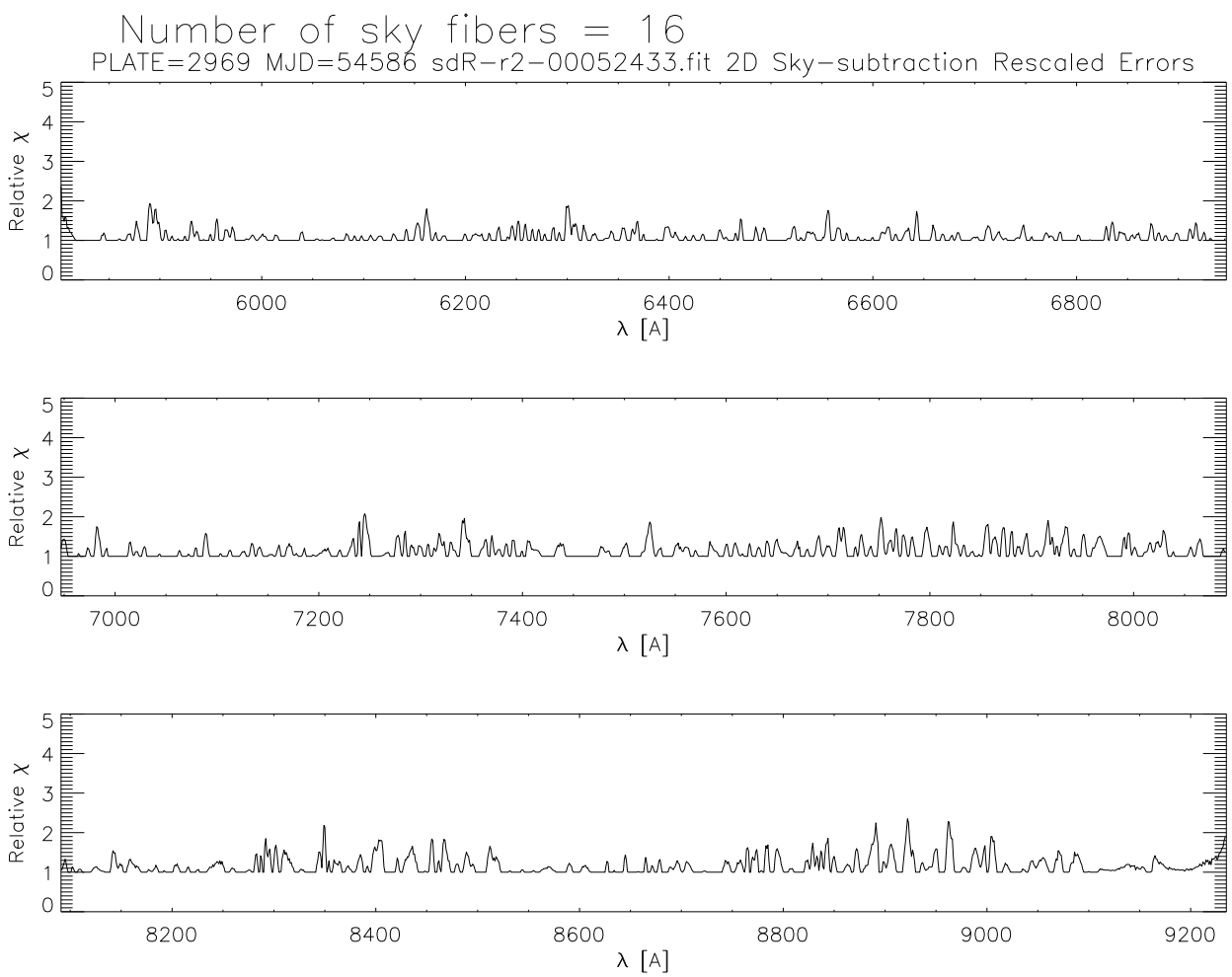

PLATE=2969 MJD=54586 sdR-r2-00052433.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
−200
−400
−600
−800
8820
8840
8860
8880
8900
λ [A]

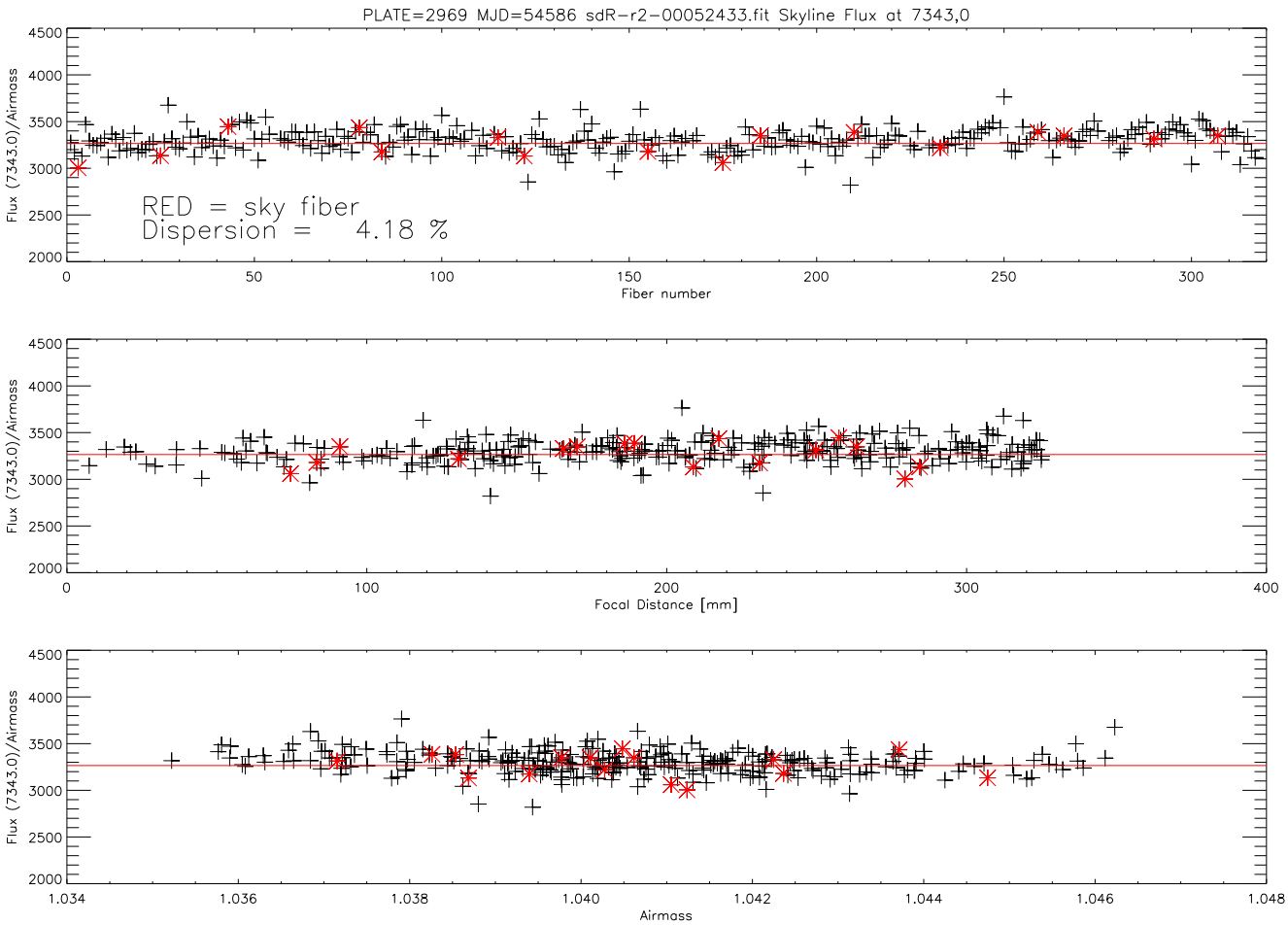

Number of sky fibers = 16
PLATE=2969 MJD=54586 sdR-r2-00052433.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

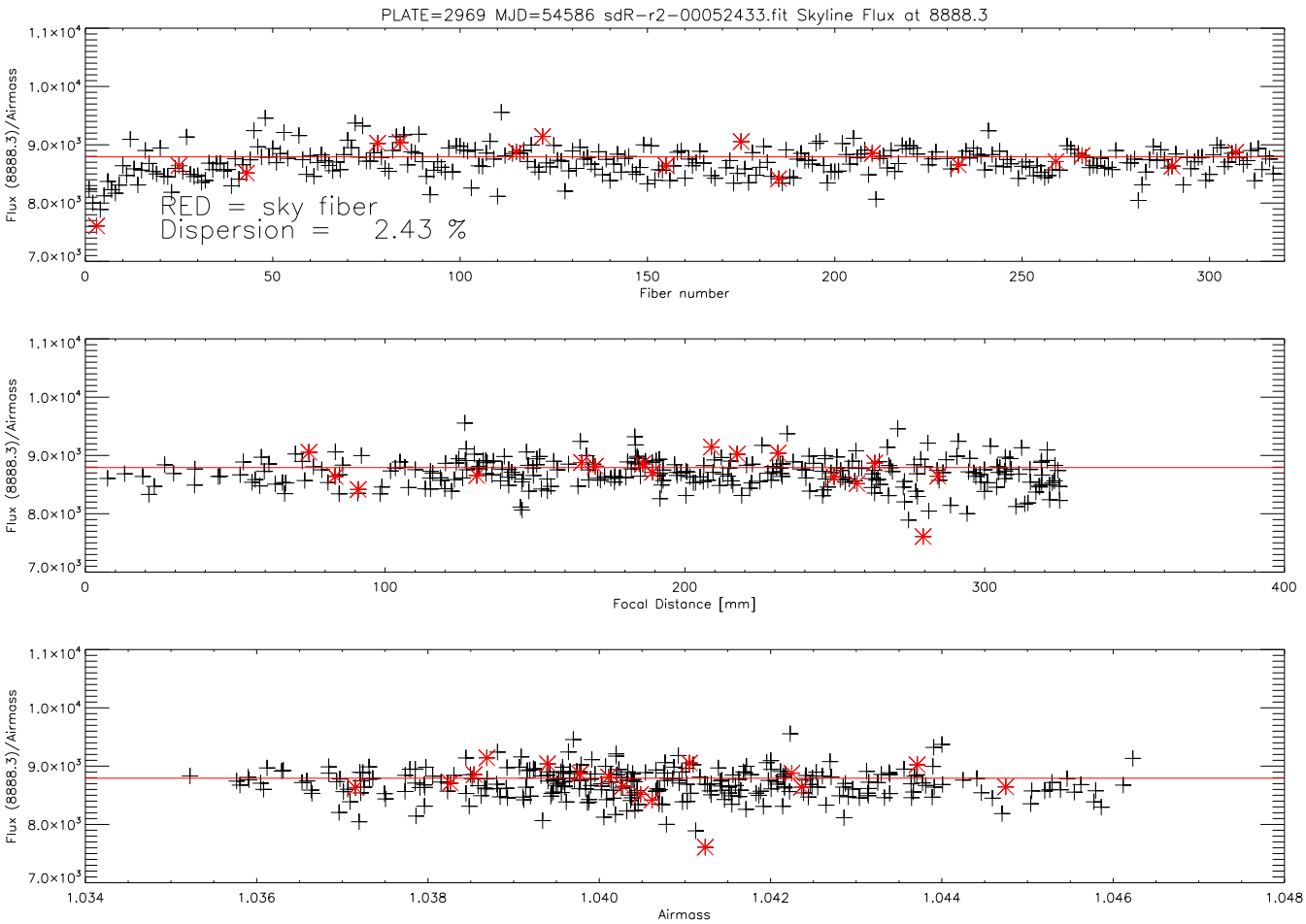

PLATE=2969 MJD=54586 sdR-r2-00052433.fit 2D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

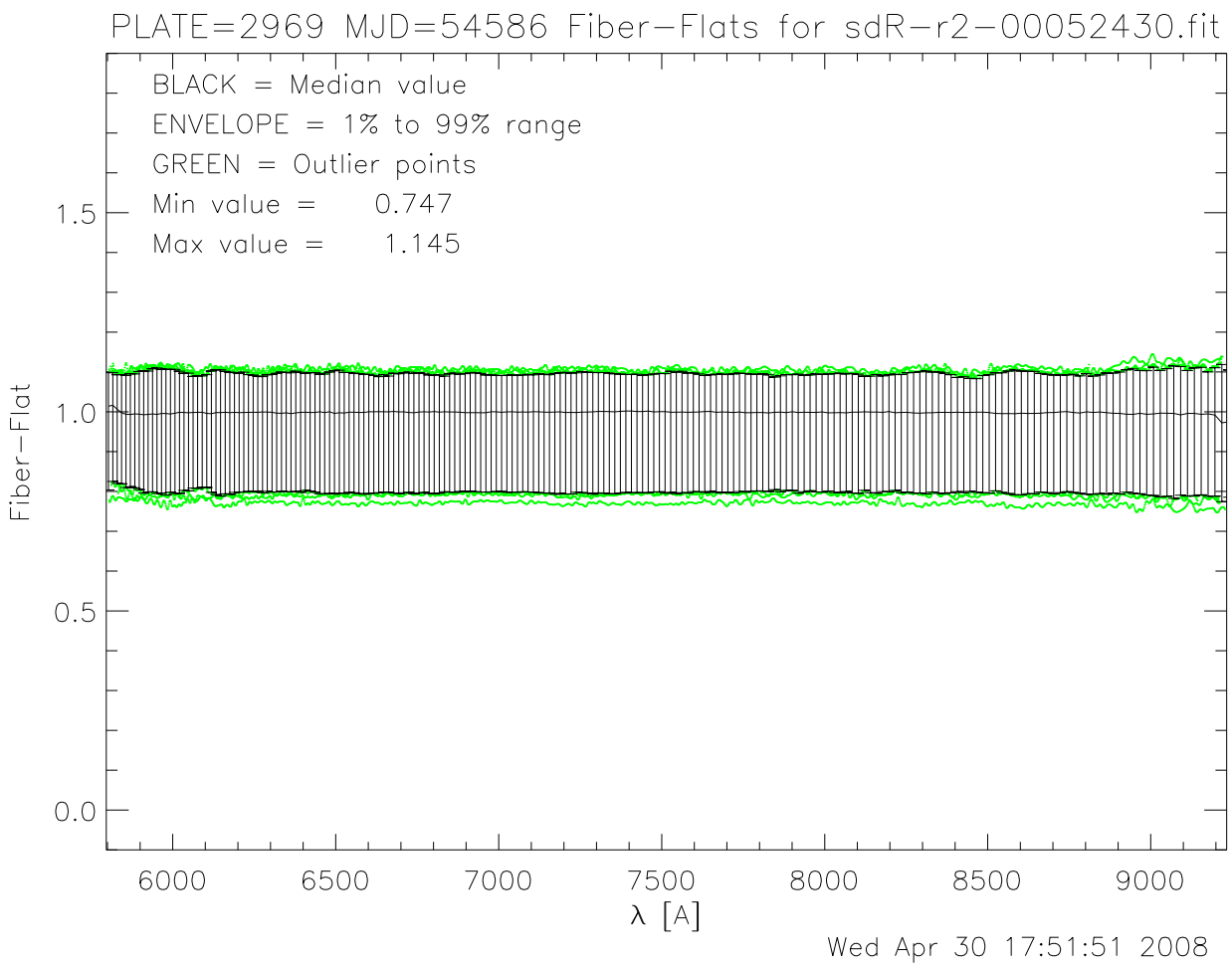

PLATE=2969 MJD=54586 sdR-r2-00052433.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
6000
5000
4000
3000
2000
1000
0
-1000
8820
8840
8860
8880
8900
λ [A]

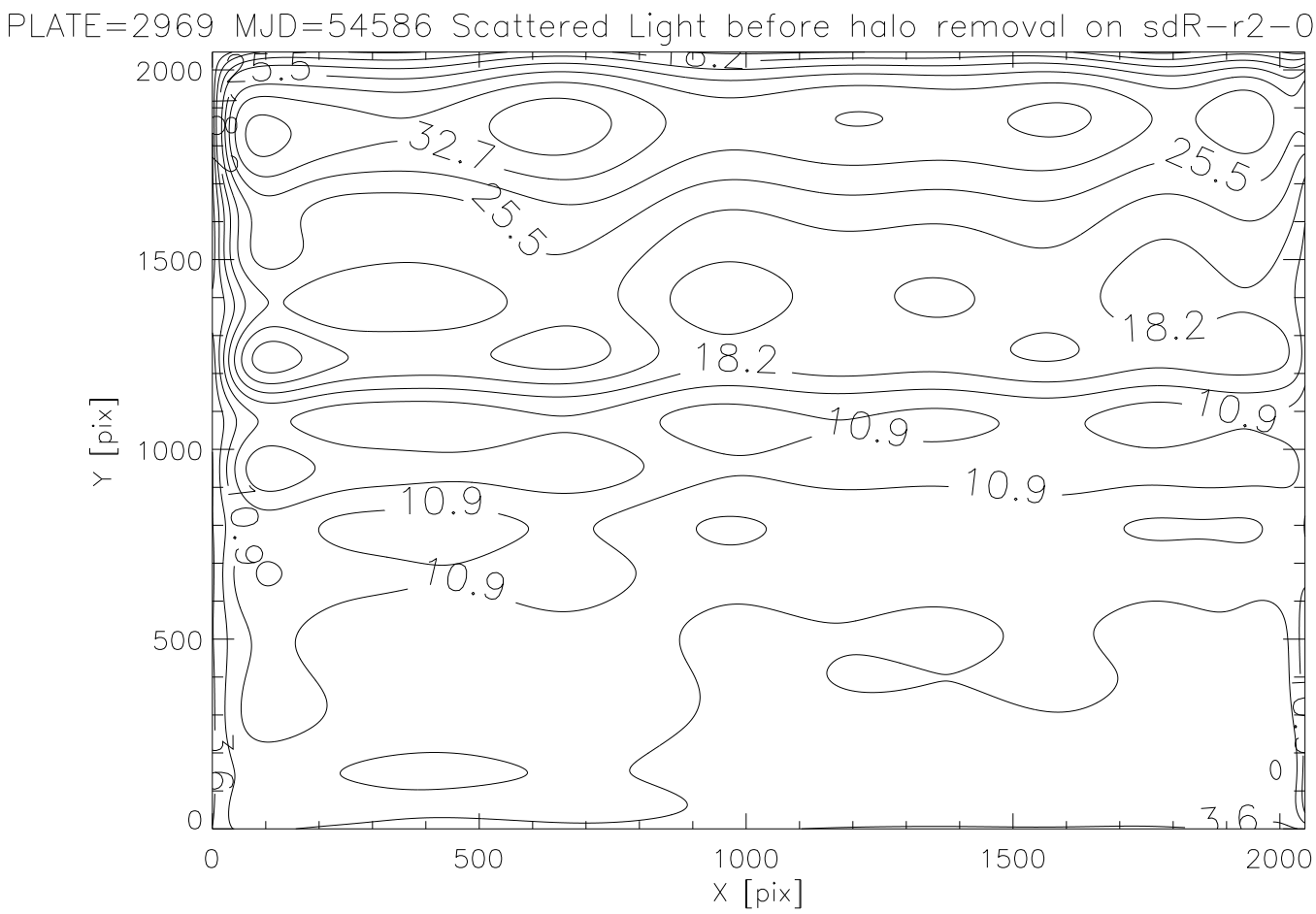

PLATE=2969 MJD=54586 sdR-r2-00052433.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
200
0
-200
-400
8820
8840
8860
8880
8900
λ [A]

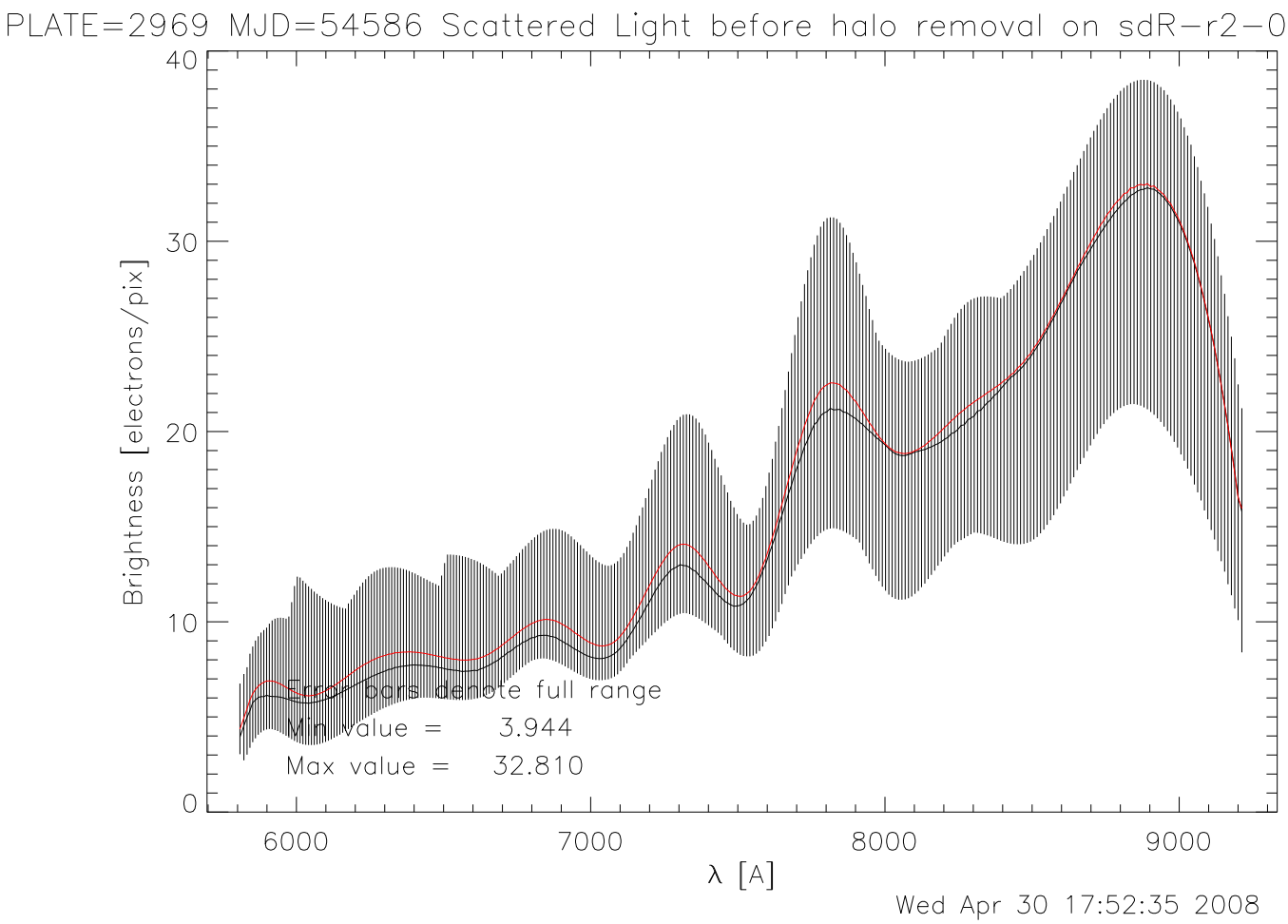

Number of sky fibers = 16
PLATE=2969 MJD=54586 sdR-r2-00052433.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

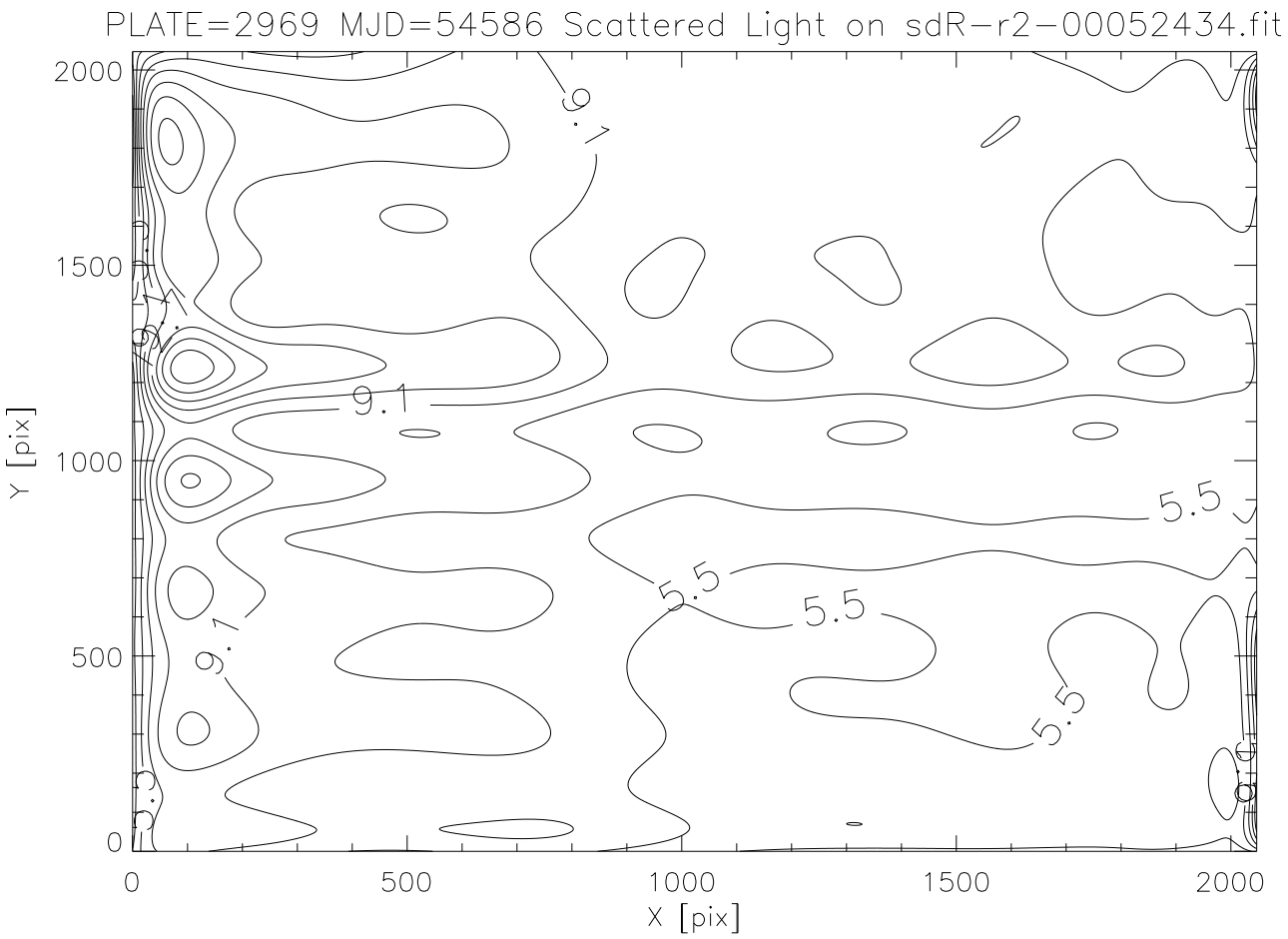

PLATE=2969 MJD=54586 sdR-r2-00052433.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 4.18 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

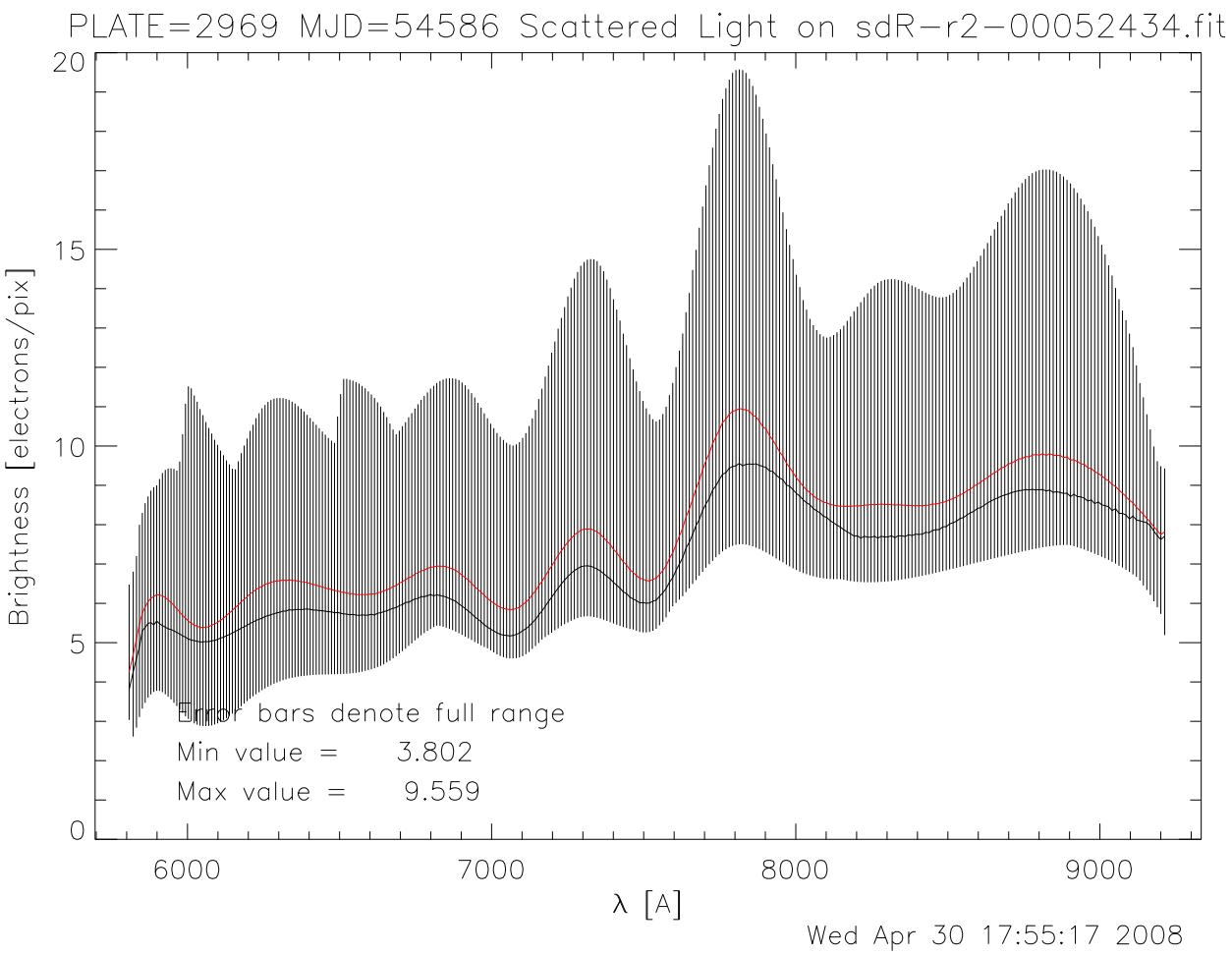

PLATE=2969 MJD=54586 sdR-r2-00052433.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 2.43 %
Fiber number
Focal Distance [mm]
Airmass

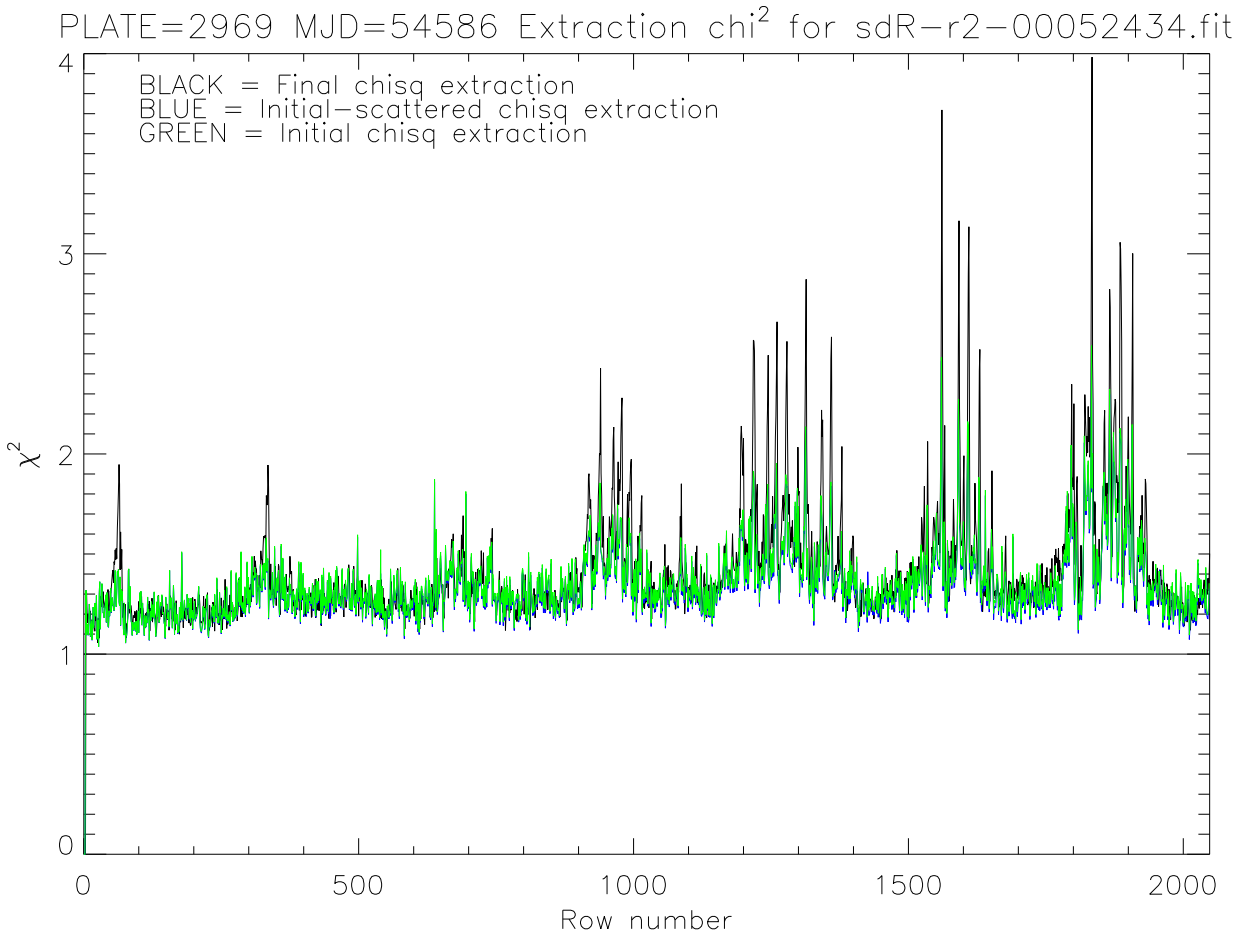

PLATE=2969 MJD=54586 Fiber−Flats for sdR−r2−00052430.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.747
Max value = 1.145
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Wed Apr 30 17:51:51 2008

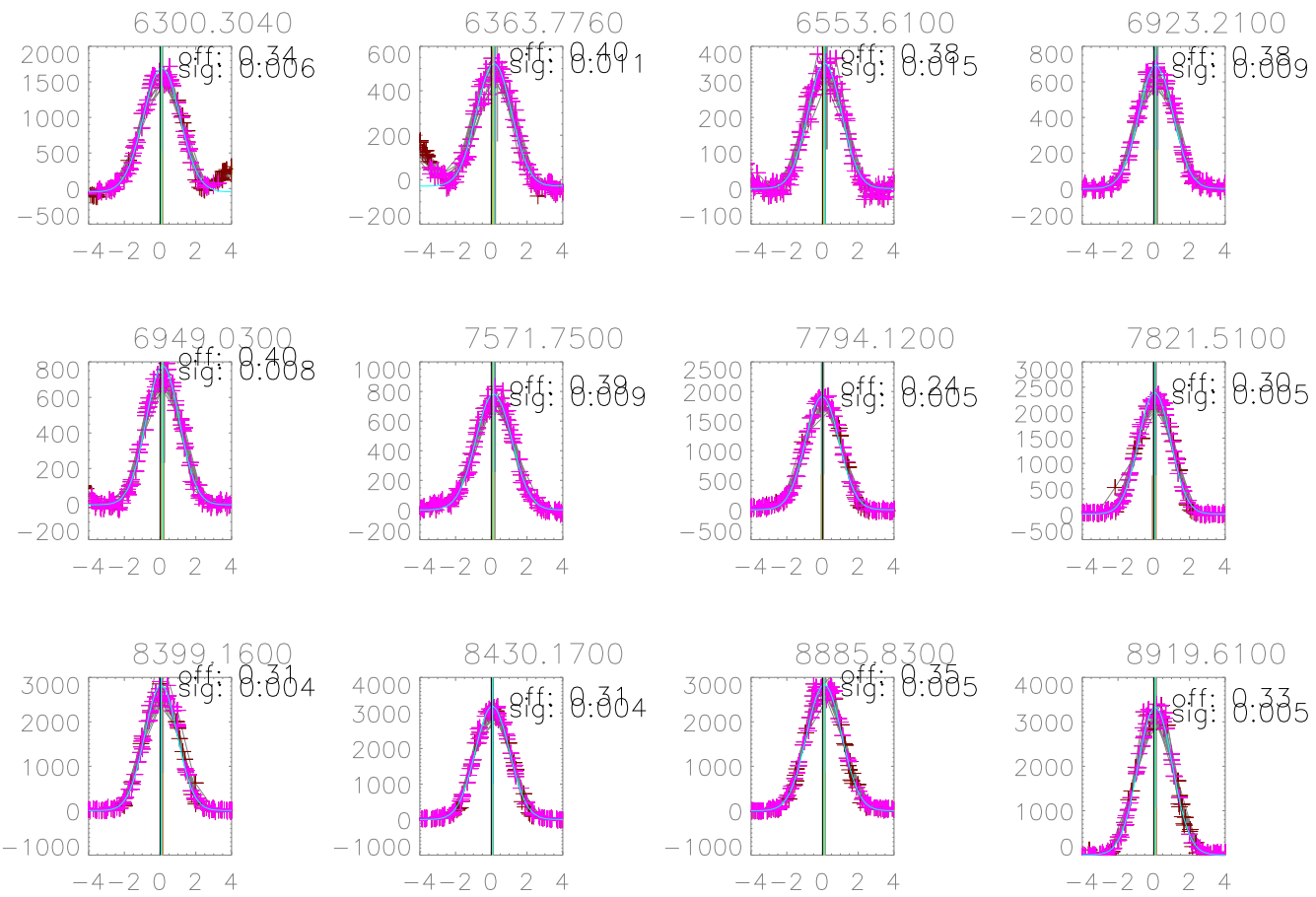

PLATE=2969 MJD=54586 Scattered Light before halo removal on sdR−r2−00052434.fi
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
25.5
32.7
25.5
18.2
18.2
10.9
10.9
10.9
10.9
10.9
0
3.6

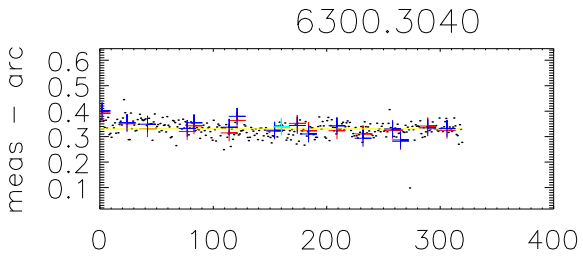

PLATE=2969 MJD=54586 Scattered Light before halo removal on sdR-r2-00052434.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 3.944
Max value = 32.810
Wed Apr 30 17:52:35 2008

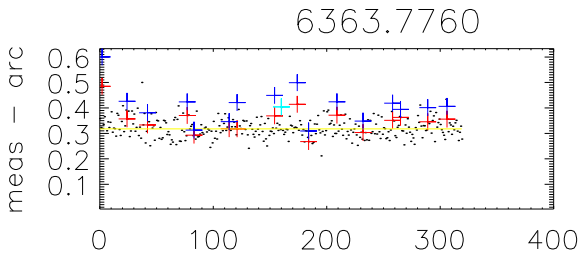

PLATE=2969 MJD=54586 Scattered Light on sdR-r2-00052434.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
9.1
5.5

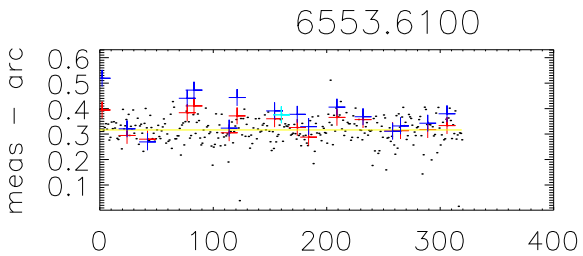

PLATE=2969 MJD=54586 Scattered Light on sdR-r2-00052434.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 3.802
Max value = 9.559
Wed Apr 30 17:55:17 2008

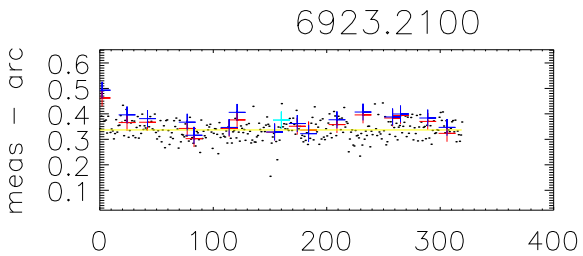

PLATE=2969 MJD=54586 Extraction chi^2 for sdR−r2−00052434.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
0
500
1000
1500
2000
Row number

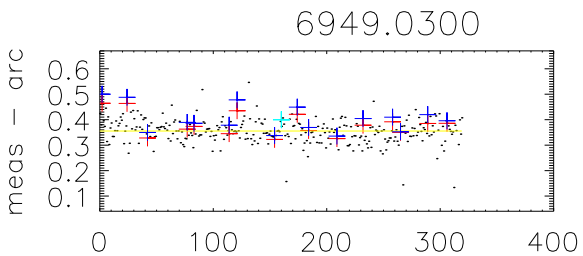

6300.3040
off: 0.34
sig: 0.006
6363.7760
off: 0.40
sig: 0.011
6553.6100
off: 0.38
sig: 0.015
6923.2100
off: 0.38
sig: 0.009
6949.0300
off: 0.40
sig: 0.008
7571.7500
off: 0.38
sig: 0.009
7794.1200
off: 0.24
sig: 0.005
7821.5100
off: 0.30
sig: 0.005
8399.1600
off: 0.31
sig: 0.004
8430.1700
off: 0.31
sig: 0.004
8885.8300
off: 0.35
sig: 0.005
8919.6100
off: 0.33
sig: 0.005

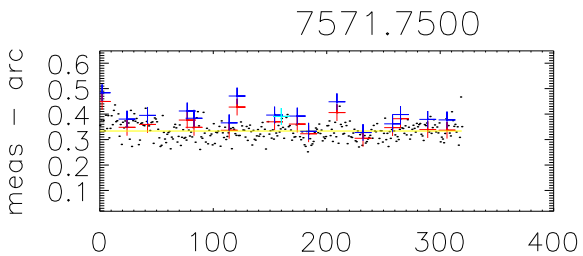

6300.3040
meas − arc
0.6
0.5
0.4
0.3
0.2
0.1
0
100
200
300
400

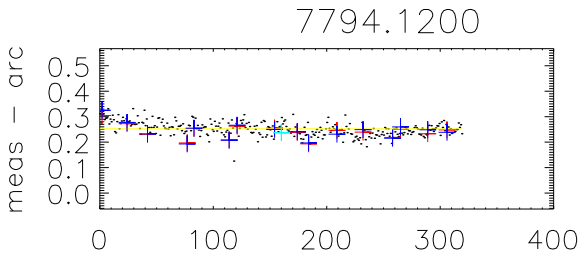

6363.7760
meas − arc
0.6
0.5
0.4
0.3
0.2
0.1
0
100
200
300
400

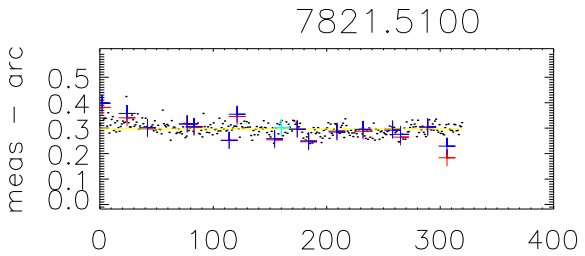

6553.6100
meas − arc
0.6
0.5
0.4
0.3
0.2
0.1
0
100
200
300
400

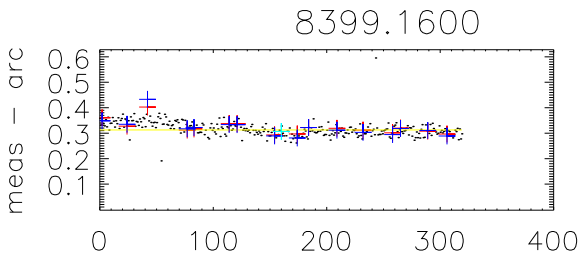

6923.2100
meas − arc
0.6
0.5
0.4
0.3
0.2
0.1
0
100
200
300
400

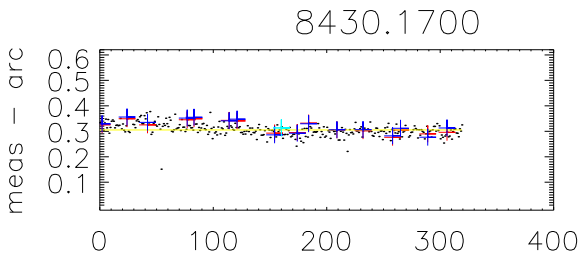

6949.0300
meas − arc
0.6
0.5
0.4
0.3
0.2
0.1
0
100
200
300
400

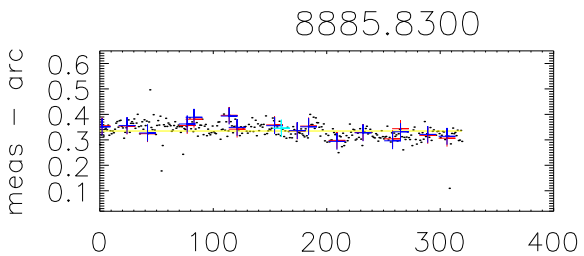

7571.7500
meas − arc
0.6
0.5
0.4
0.3
0.2
0.1
0
100
200
300
400

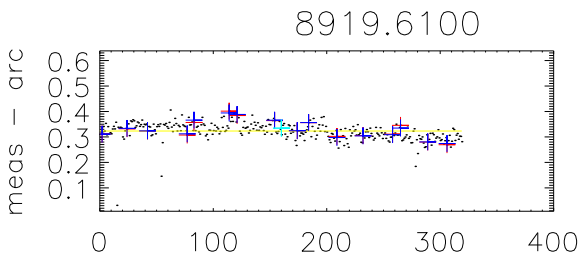

7794.1200
meas − arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400

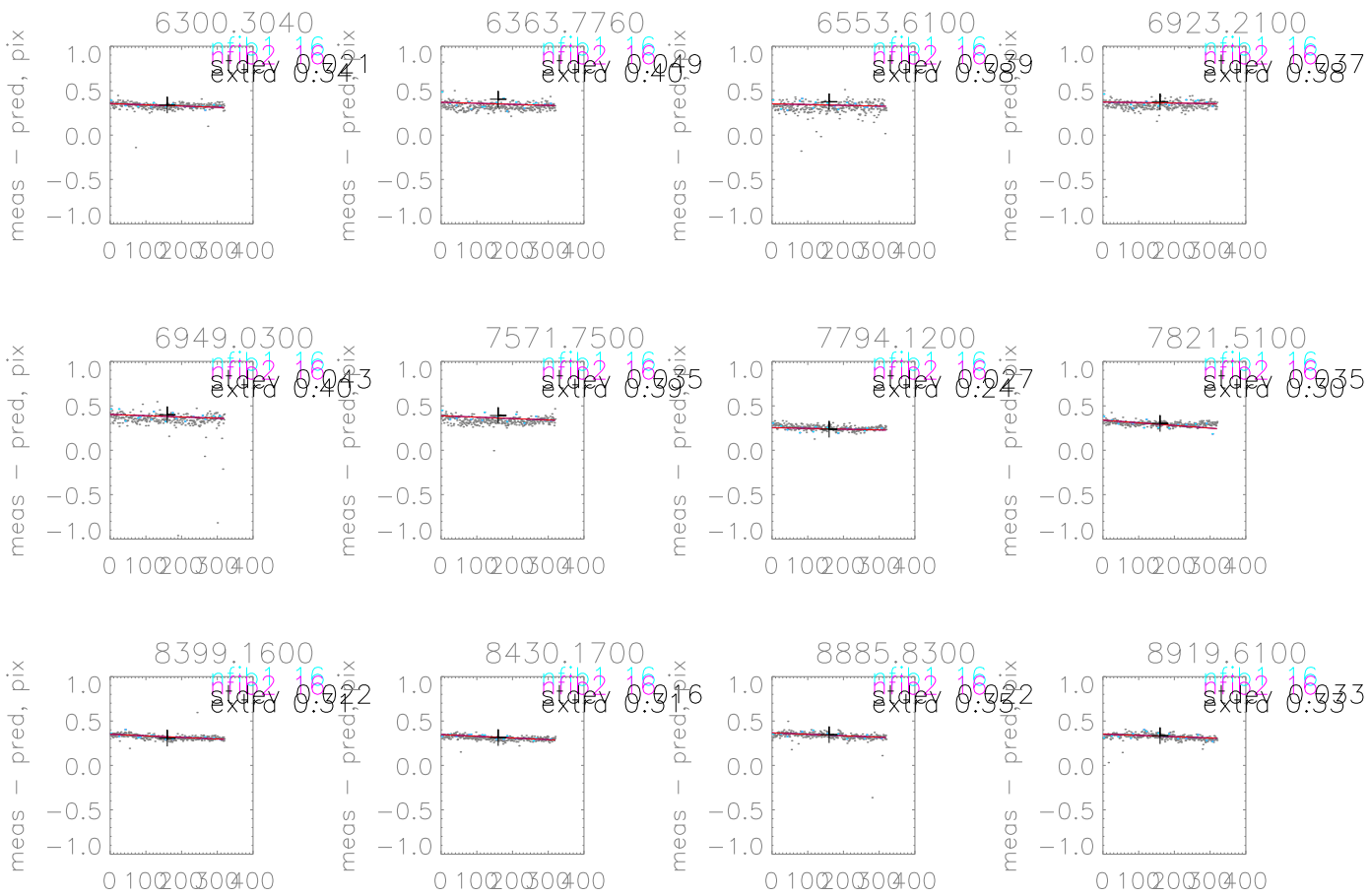

7821.5100
meas − arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400

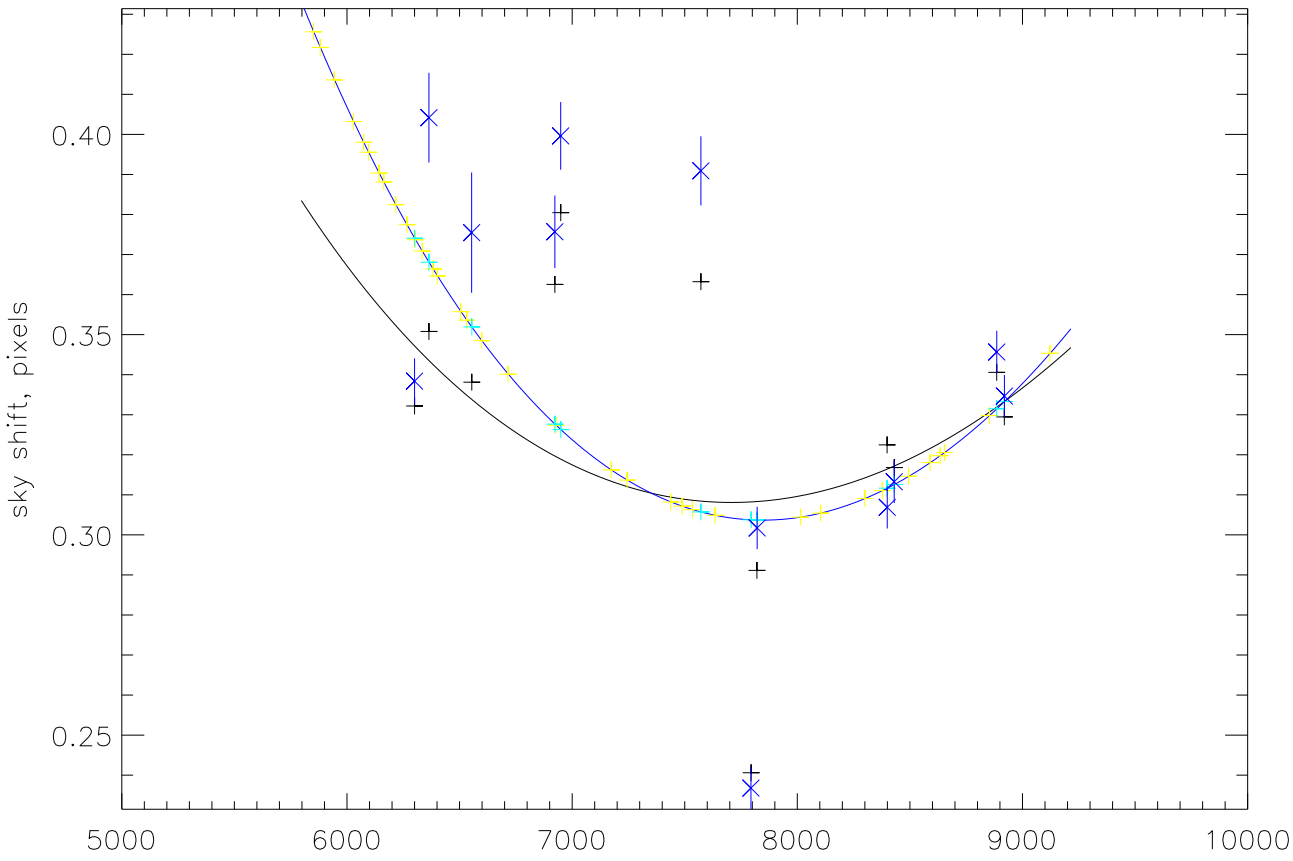

8399.1600
meas − arc
0.1
0.2
0.3
0.4
0.5
0.6
0
100
200
300
400

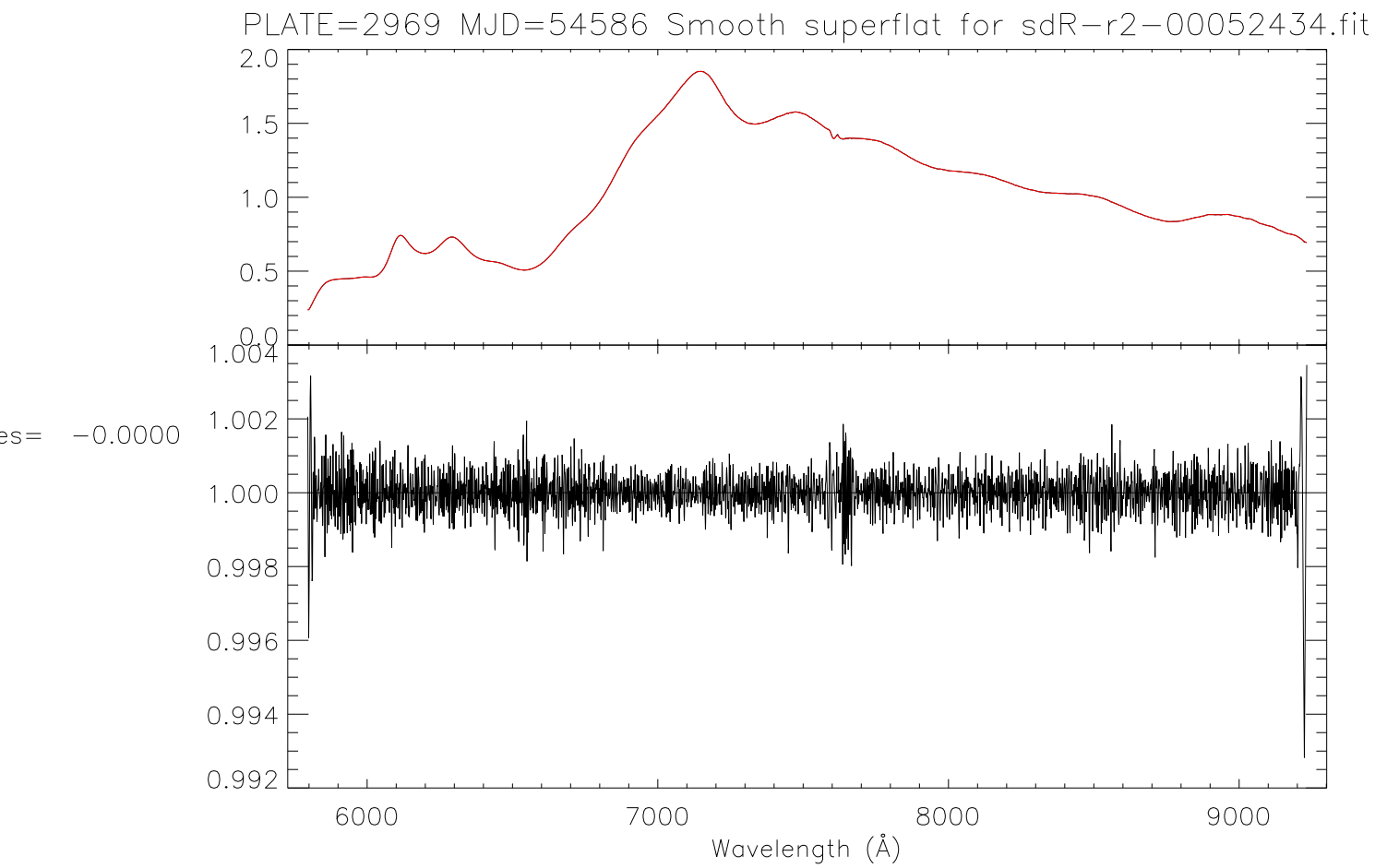

8430.1700
meas − arc
0.1
0.2
0.3
0.4
0.5
0.6
0
100
200
300
400

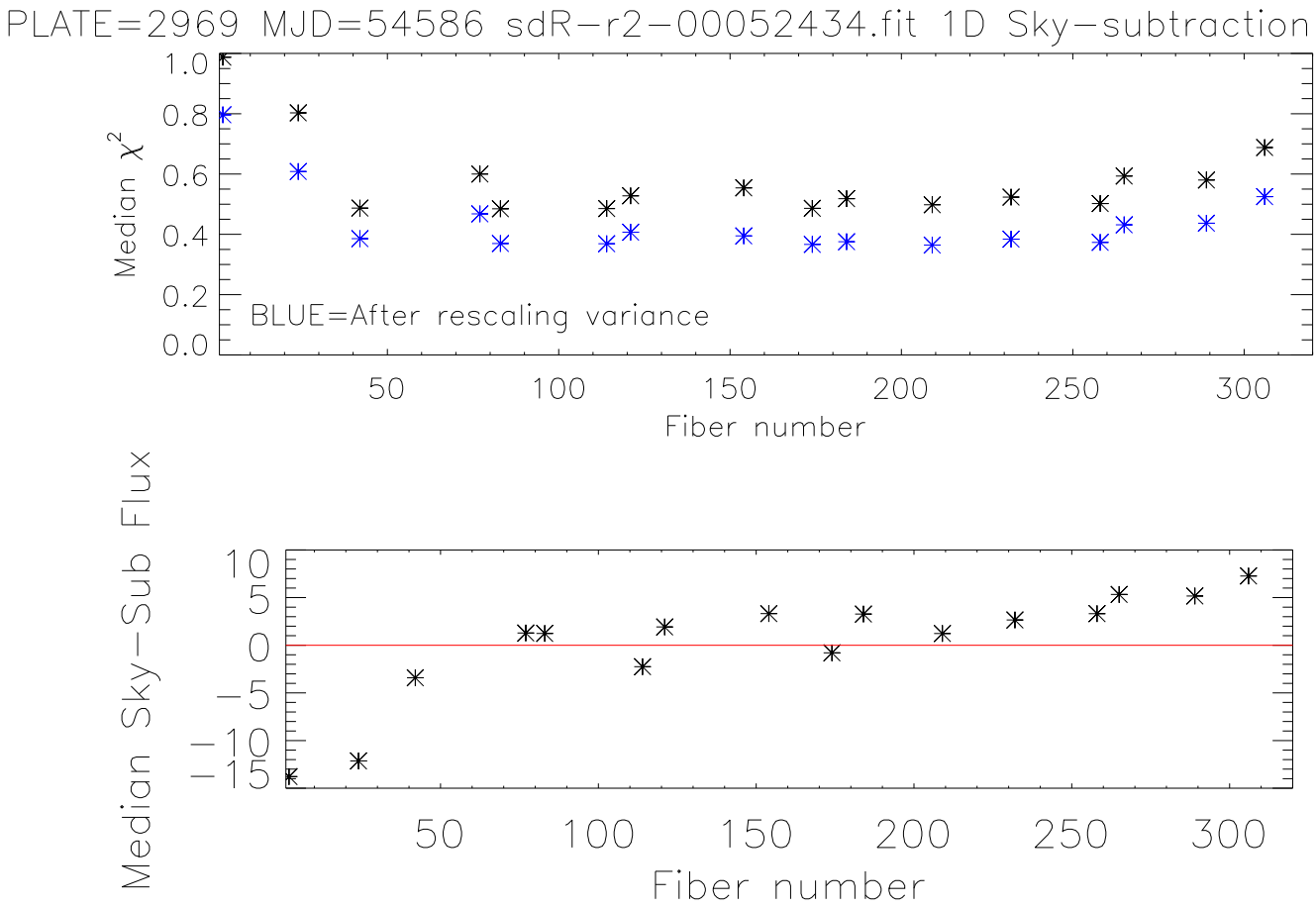

8885.8300
meas − arc
0.1
0.2
0.3
0.4
0.5
0.6
0
100
200
300
400

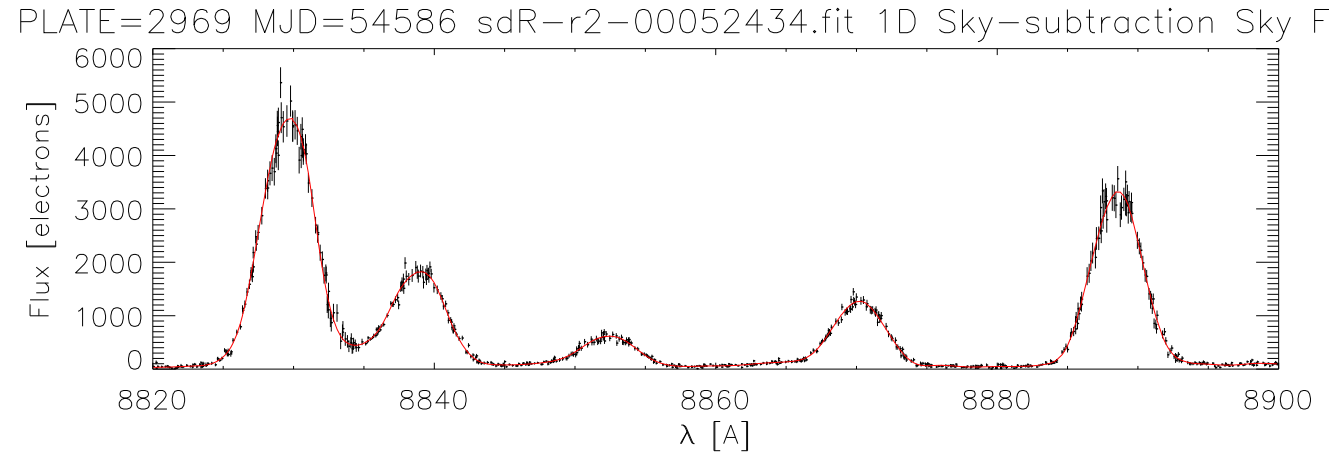

8919.6100
meas − arc
0.1
0.2
0.3
0.4
0.5
0.6
0
100
200
300
400

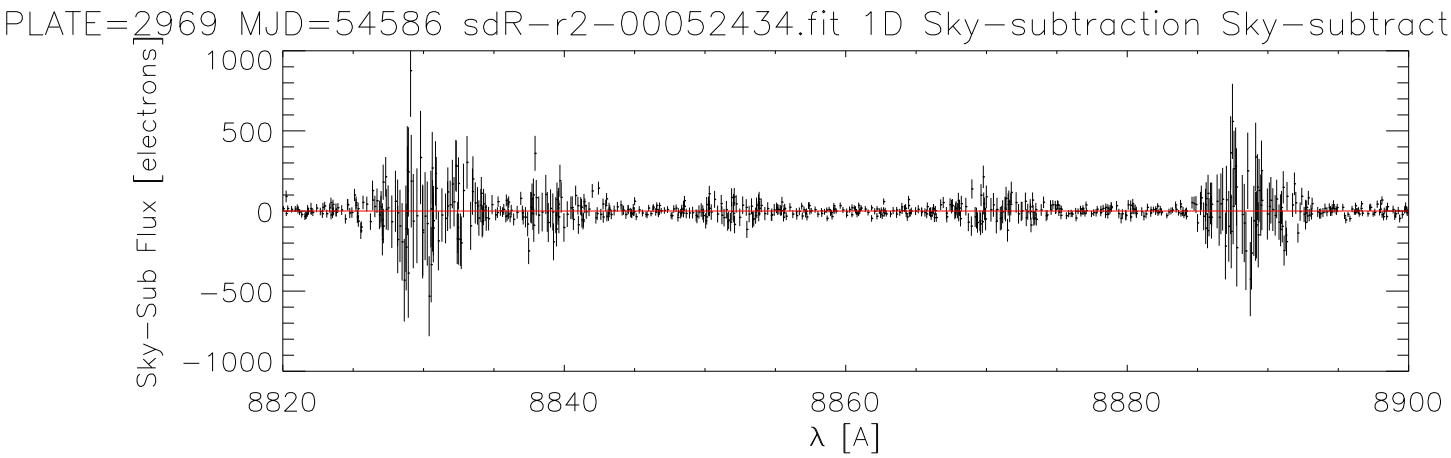

6300.3040
stdev 0.321
extra 0.34
6363.7760
stdev 0.349
extra 0.40
6553.6100
stdev 0.339
extra 0.38
6923.2100
stdev 0.337
extra 0.38
6949.0300
stdev 0.343
extra 0.40
7571.7500
stdev 0.335
extra 0.39
7794.1200
stdev 0.227
extra 0.24
7821.5100
stdev 0.235
extra 0.30
8399.1600
stdev 0.322
extra 0.32
8430.1700
stdev 0.316
extra 0.31
8885.8300
stdev 0.322
extra 0.33
8919.6100
stdev 0.333
extra 0.33
meas − pred, pix
mfhd2 16
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400

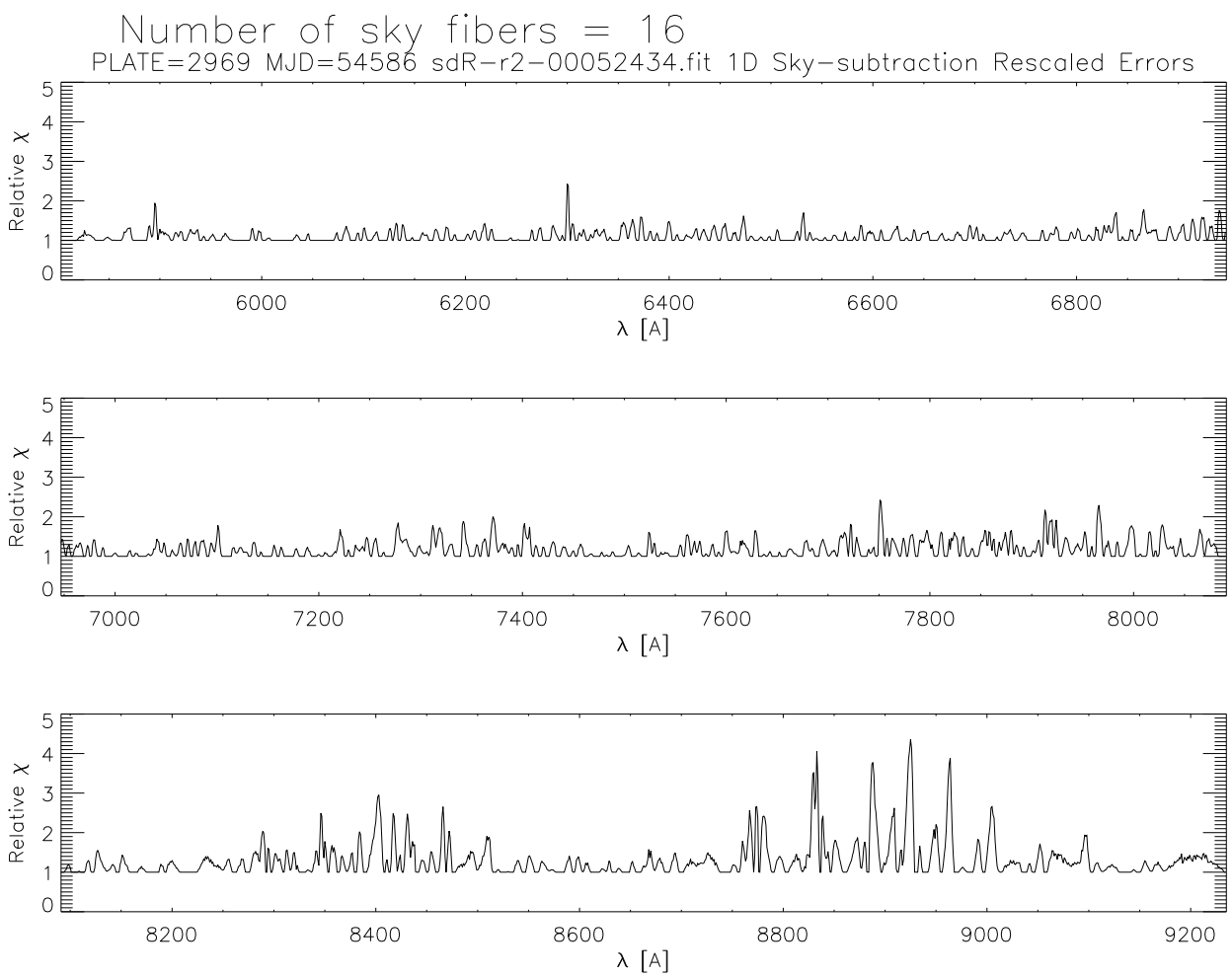

sky shift, pixels
0.40
0.35
0.30
0.25
5000
6000
7000
8000
9000
10000

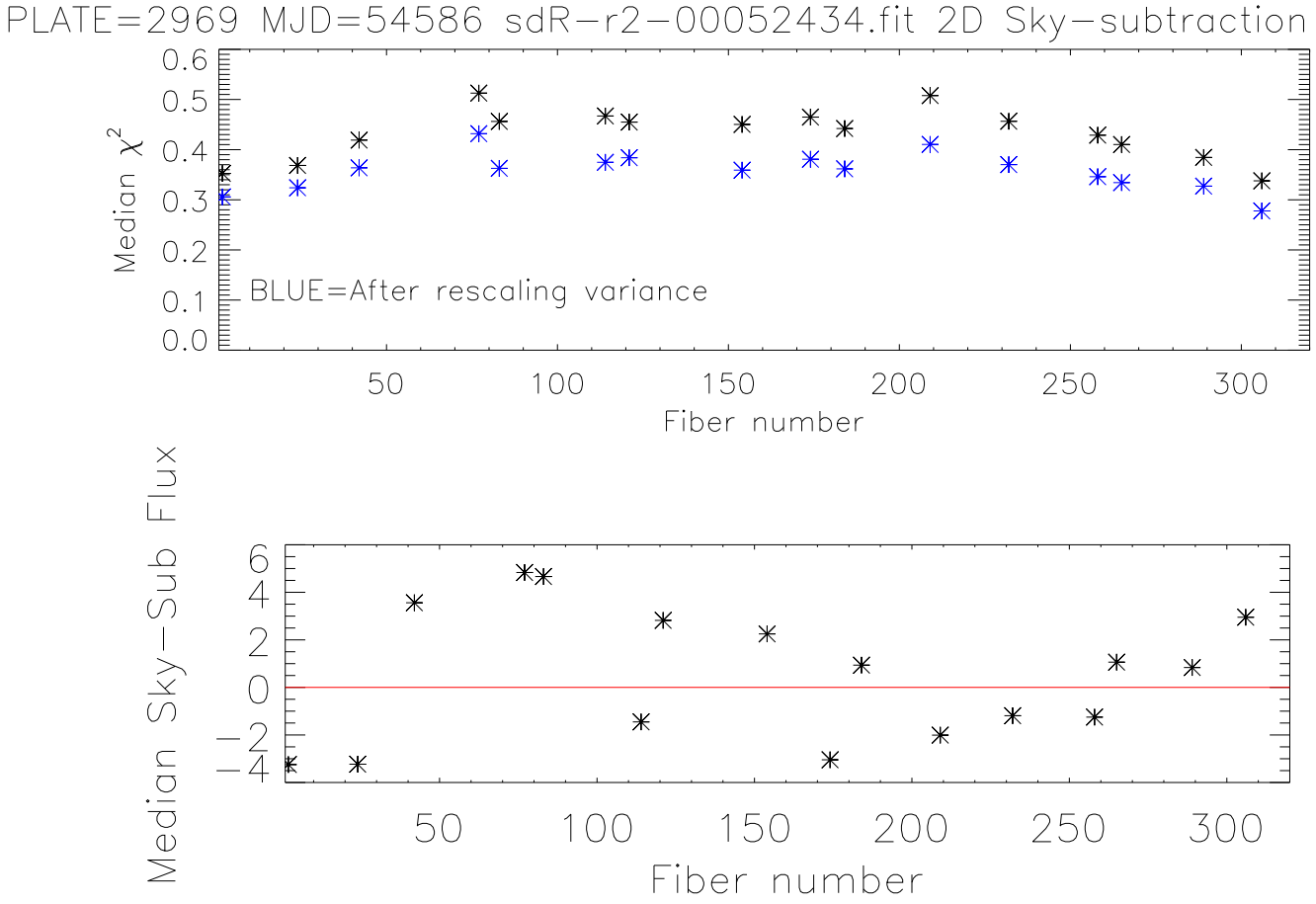

PLATE=2969 MJD=54586 Smooth superflat for sdR-r2-00052434.fit
2.0
1.5
1.0
0.5
0.0
1.004
1.002
1.000
0.998
0.996
0.994
0.992
es= −0.0000
6000
7000
8000
9000
Wavelength (Å)

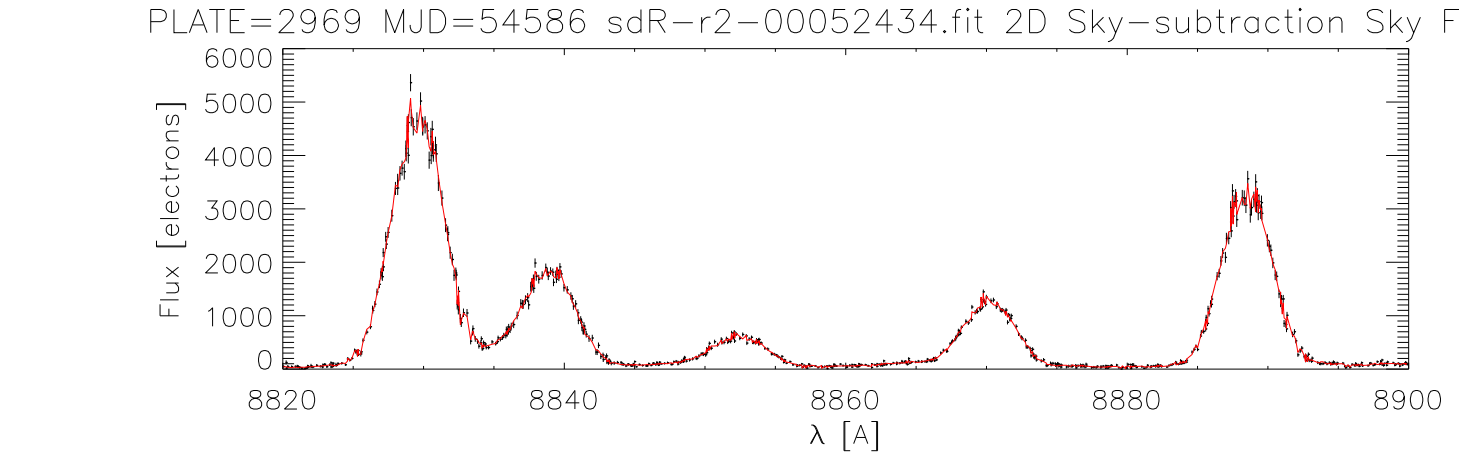

PLATE=2969 MJD=54586 sdR-r2-00052434.fit 1D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

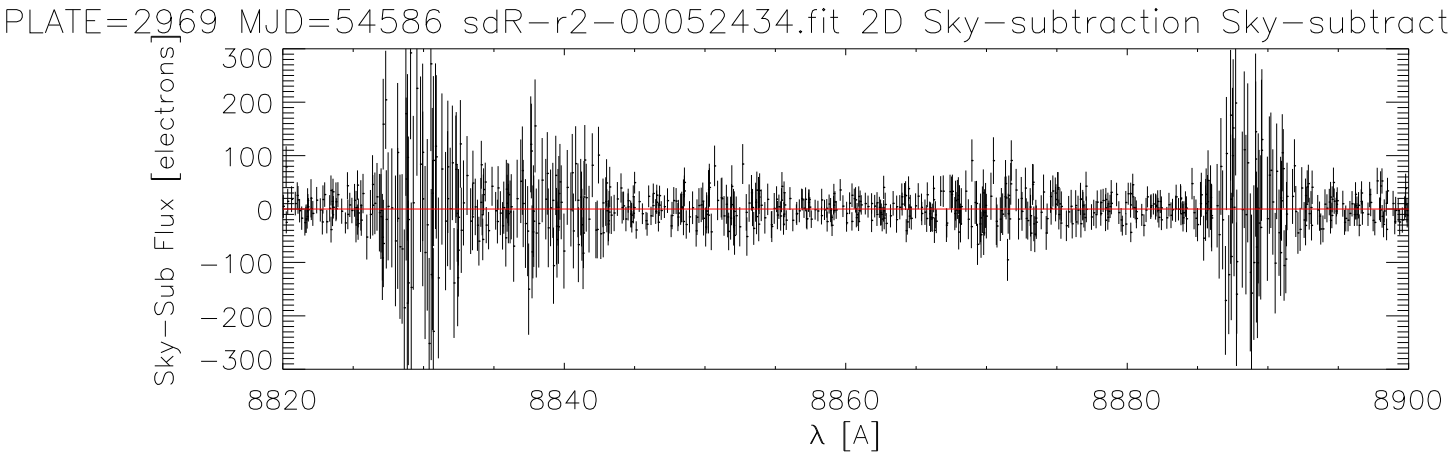

PLATE=2969 MJD=54586 sdR-r2-00052434.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
6000
5000
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

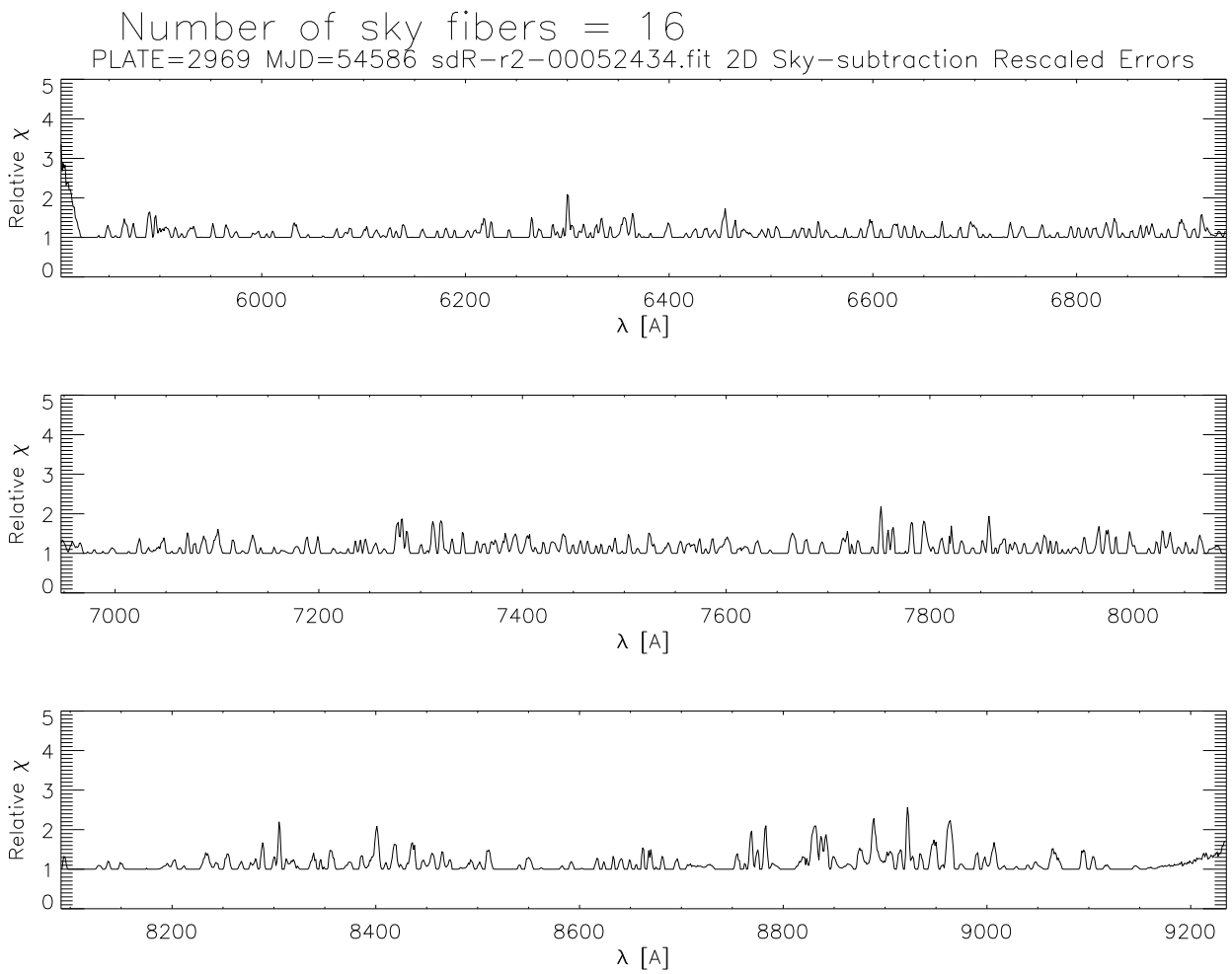

PLATE=2969 MJD=54586 sdR-r2-00052434.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
1000
500
0
-500
-1000
8820
8840
8860
8880
8900
λ [A]

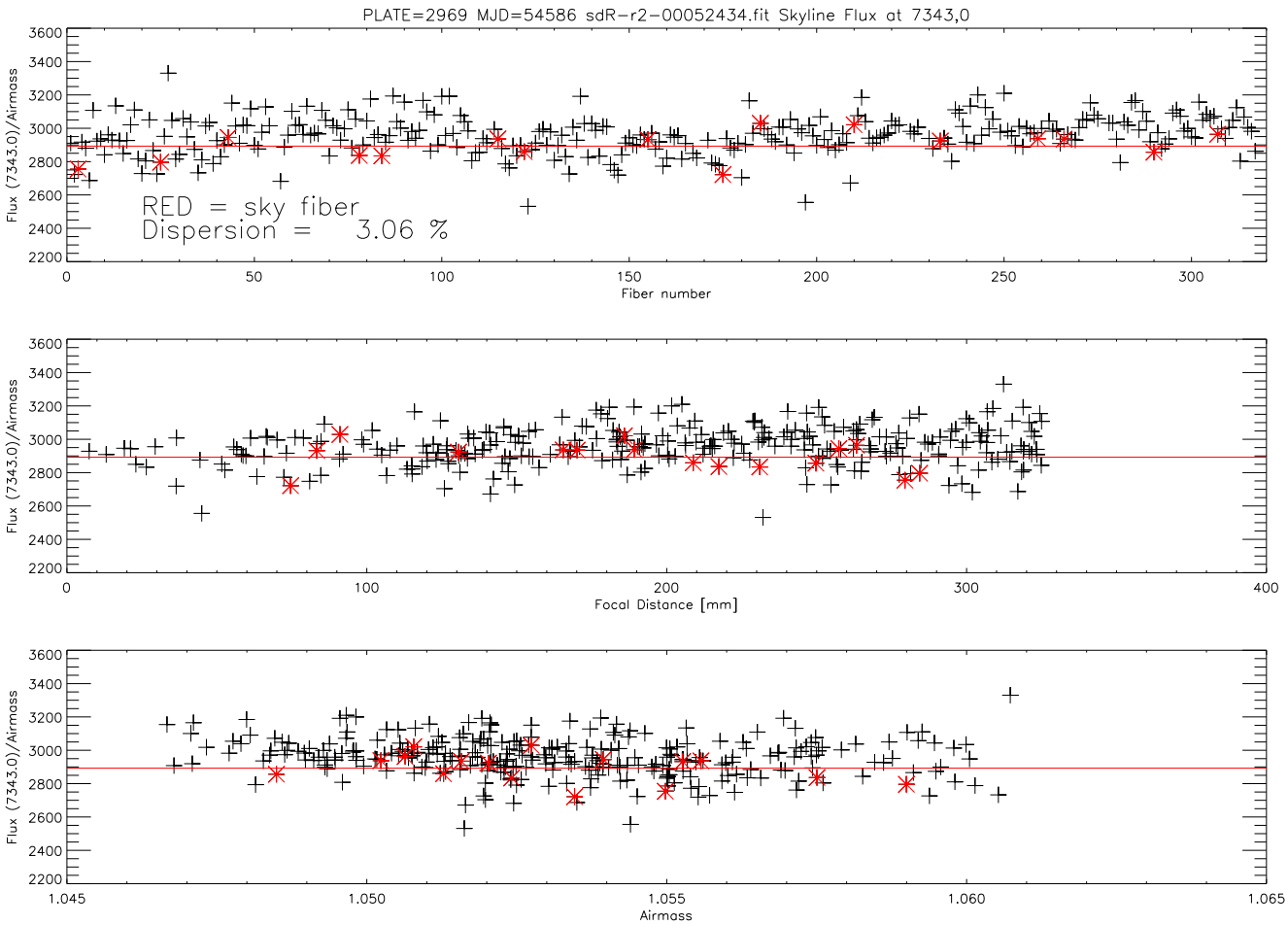

Number of sky fibers = 16
PLATE=2969 MJD=54586 sdR-r2-00052434.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

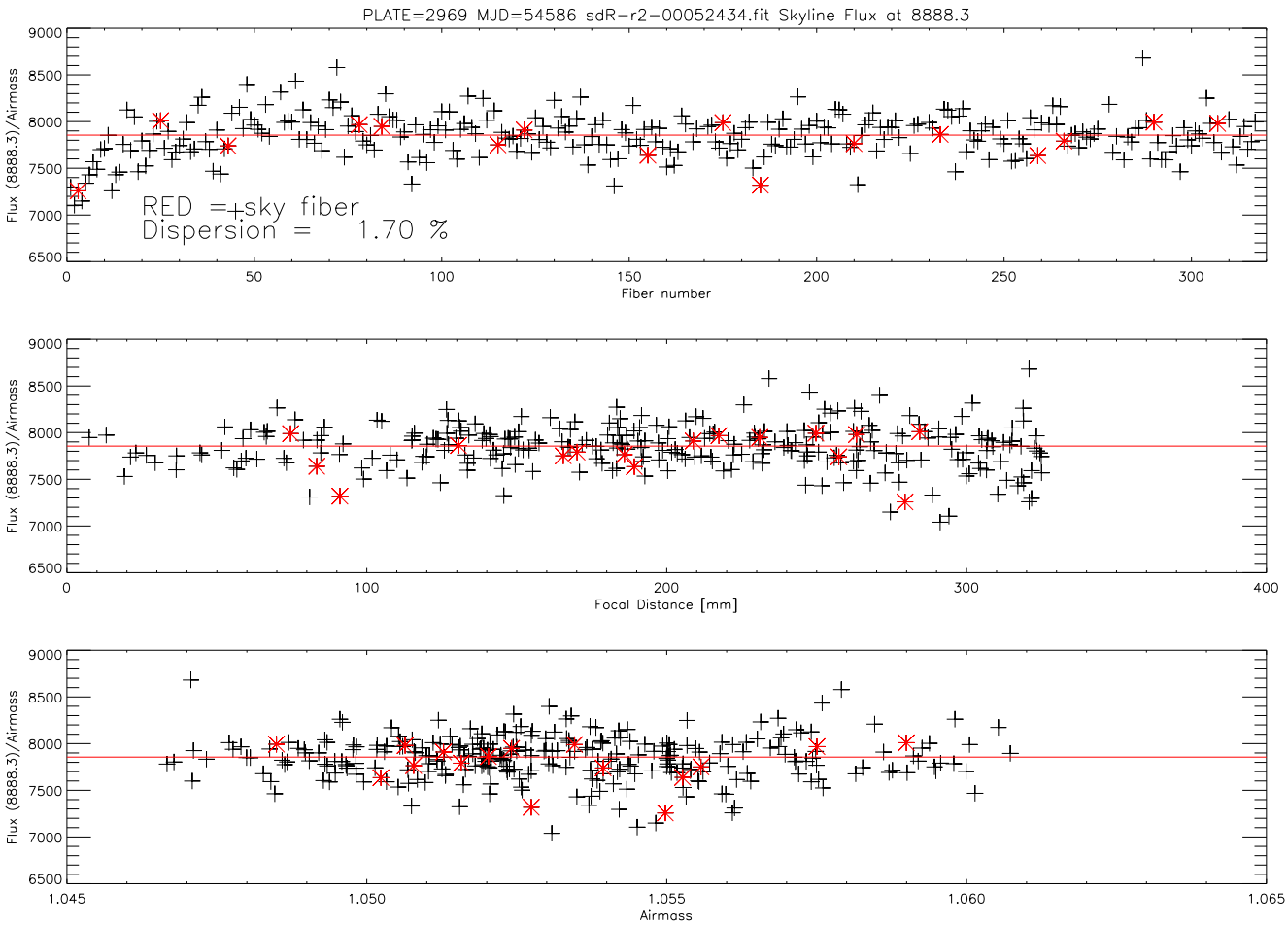

PLATE=2969 MJD=54586 sdR-r2-00052434.fit 2D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number


PLATE=2969 MJD=54586 sdR-r2-00052434.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
6000
5000
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]


PLATE=2969 MJD=54586 sdR-r2-00052434.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 = 16
PLATE=2969 MJD=54586 sdR-r2-00052434.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5


PLATE=2969 MJD=54586 sdR-r2-00052434.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 3.06 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass


PLATE=2969 MJD=54586 sdR-r2-00052434.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