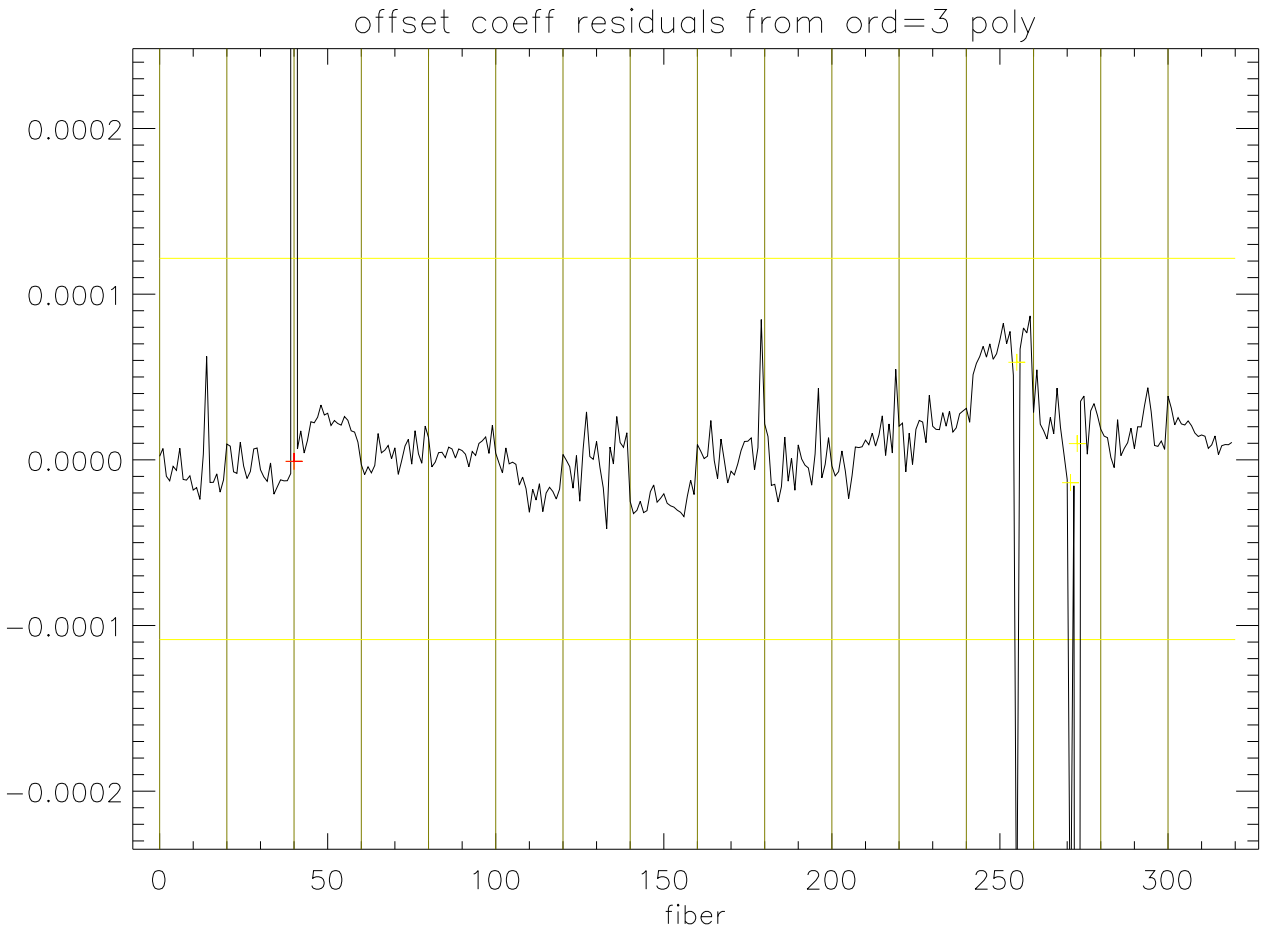
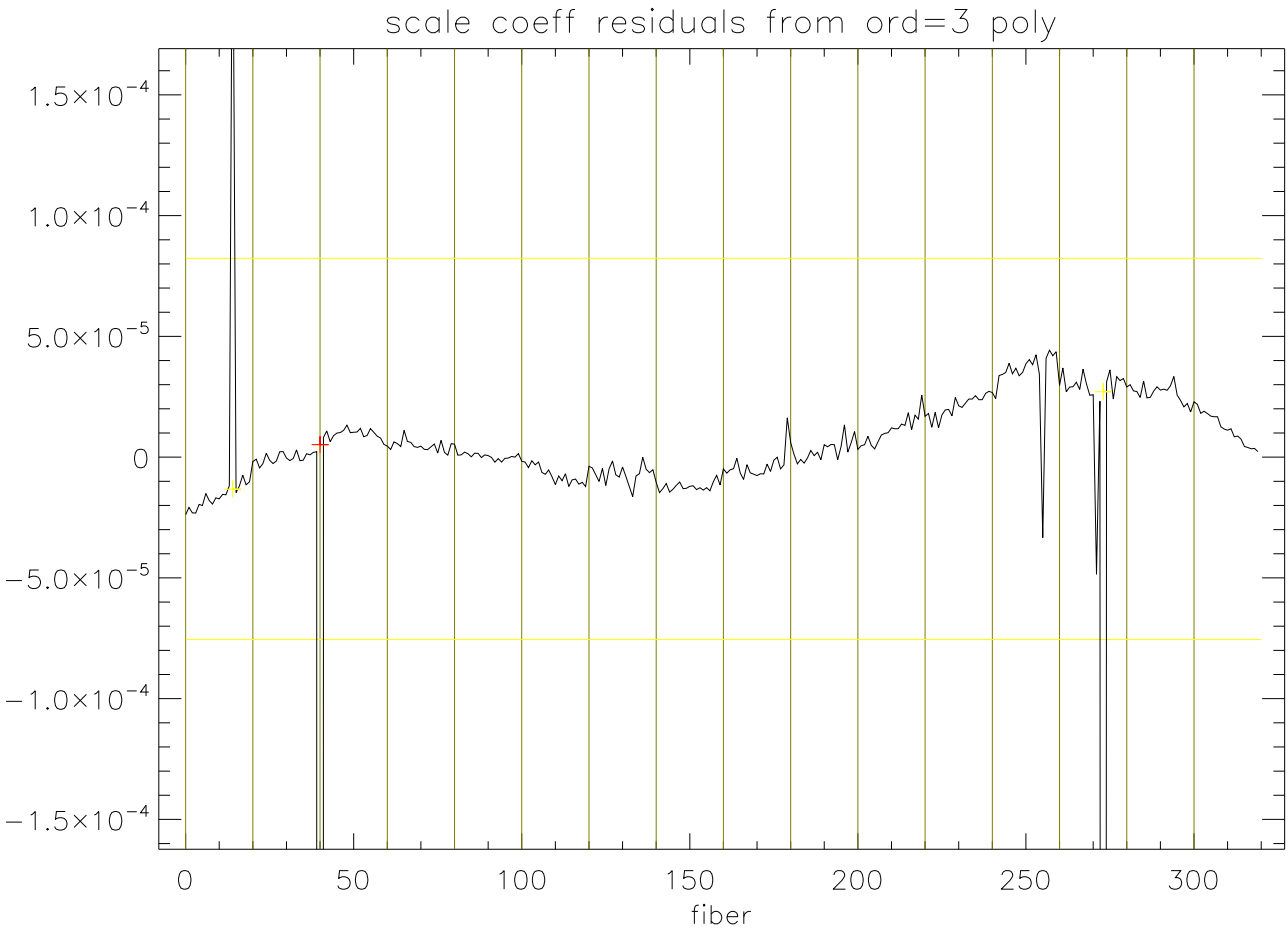
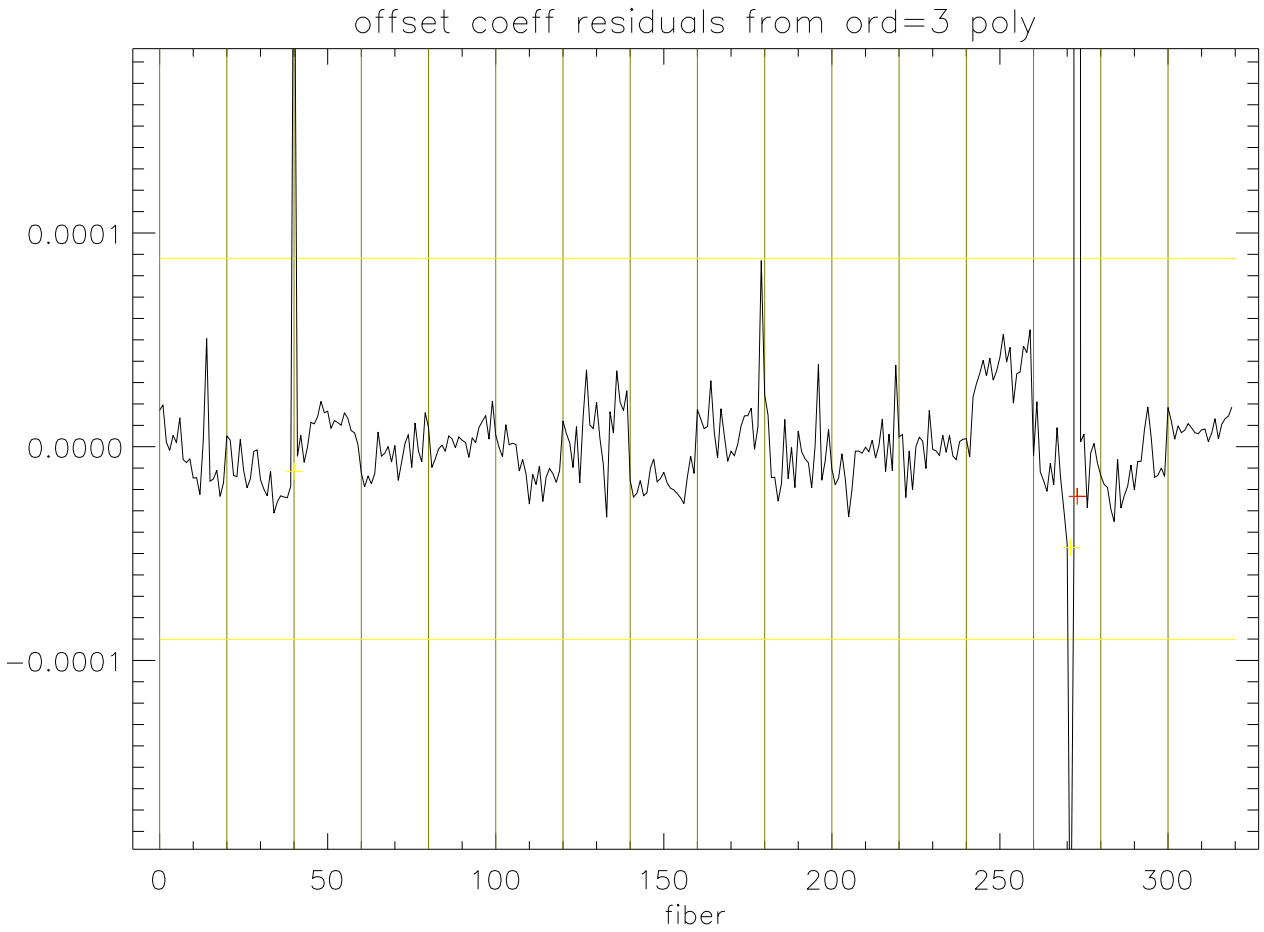
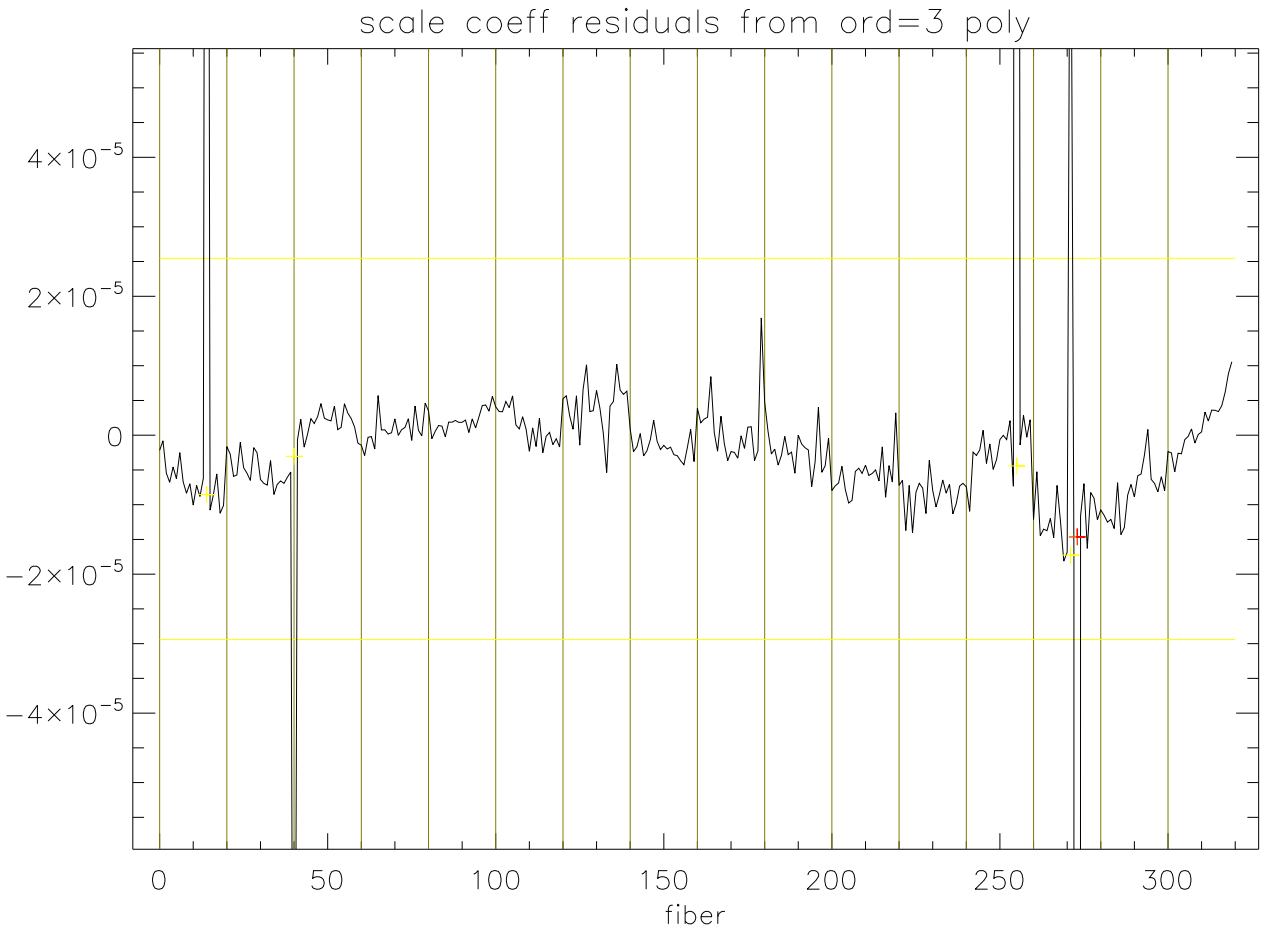
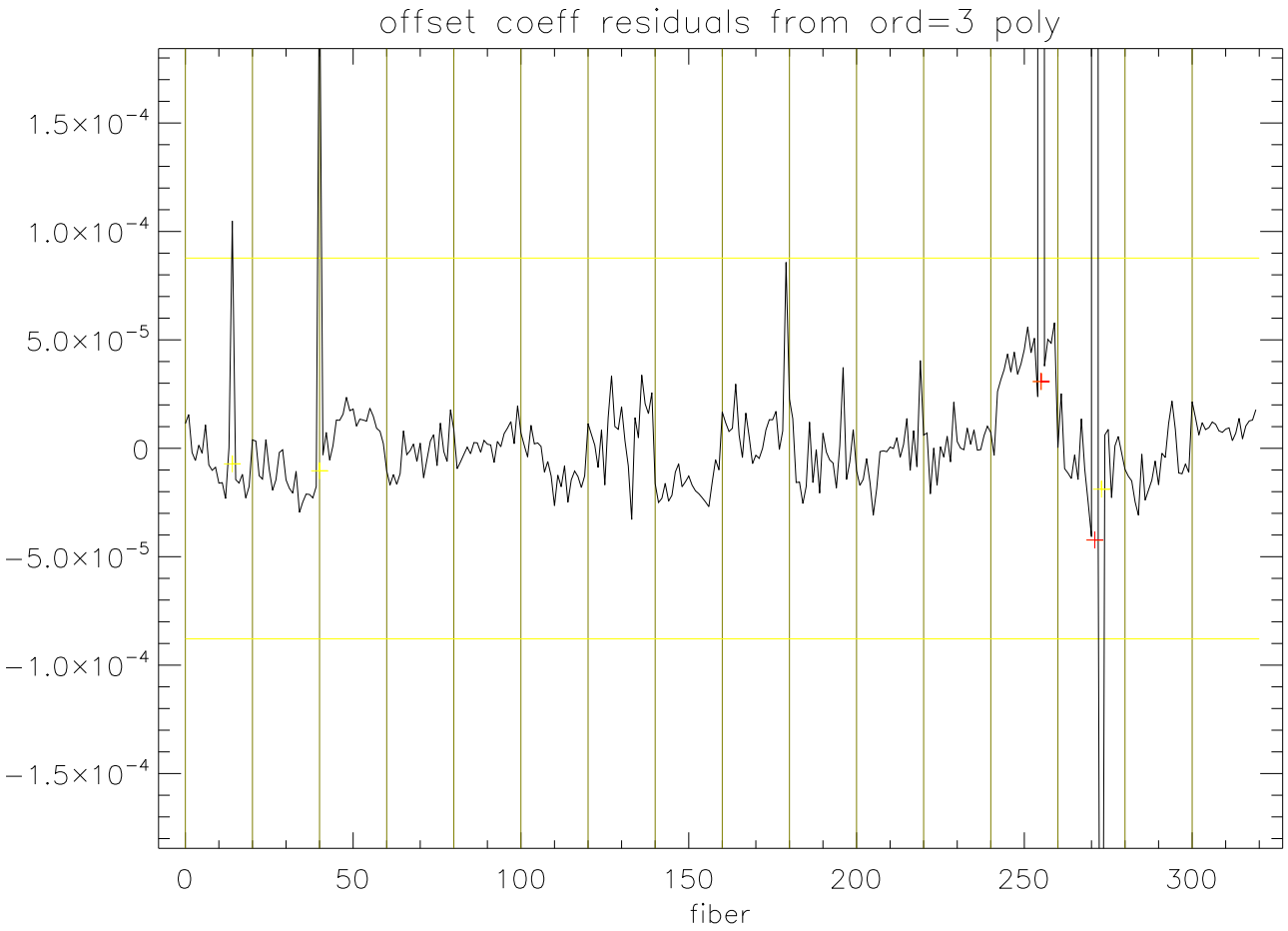
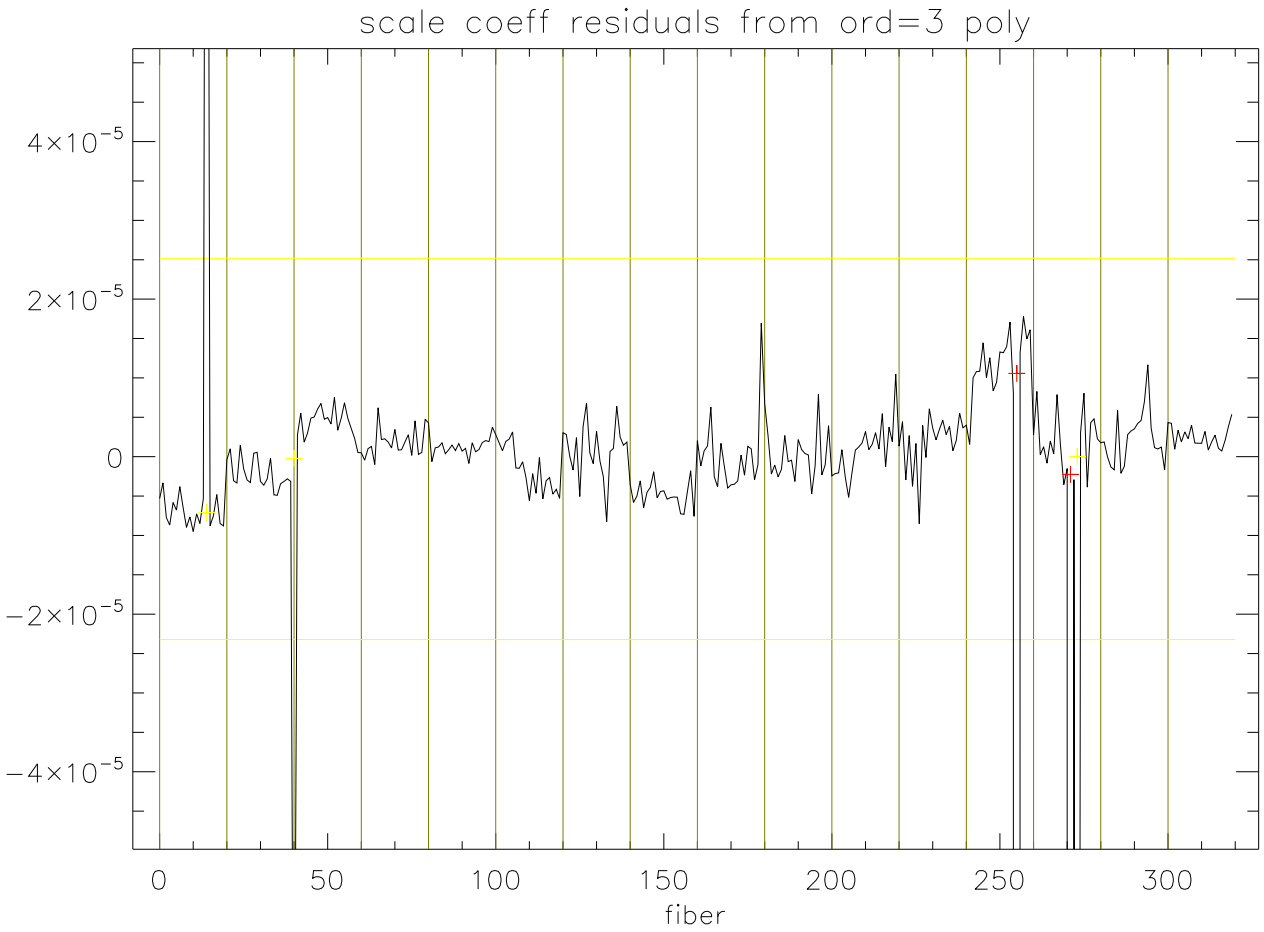

offset coeff residuals from ord=3 poly
0.0002
0.0001
0.0000
−0.0001
−0.0002
0
50
100
150
200
250
300
fiber

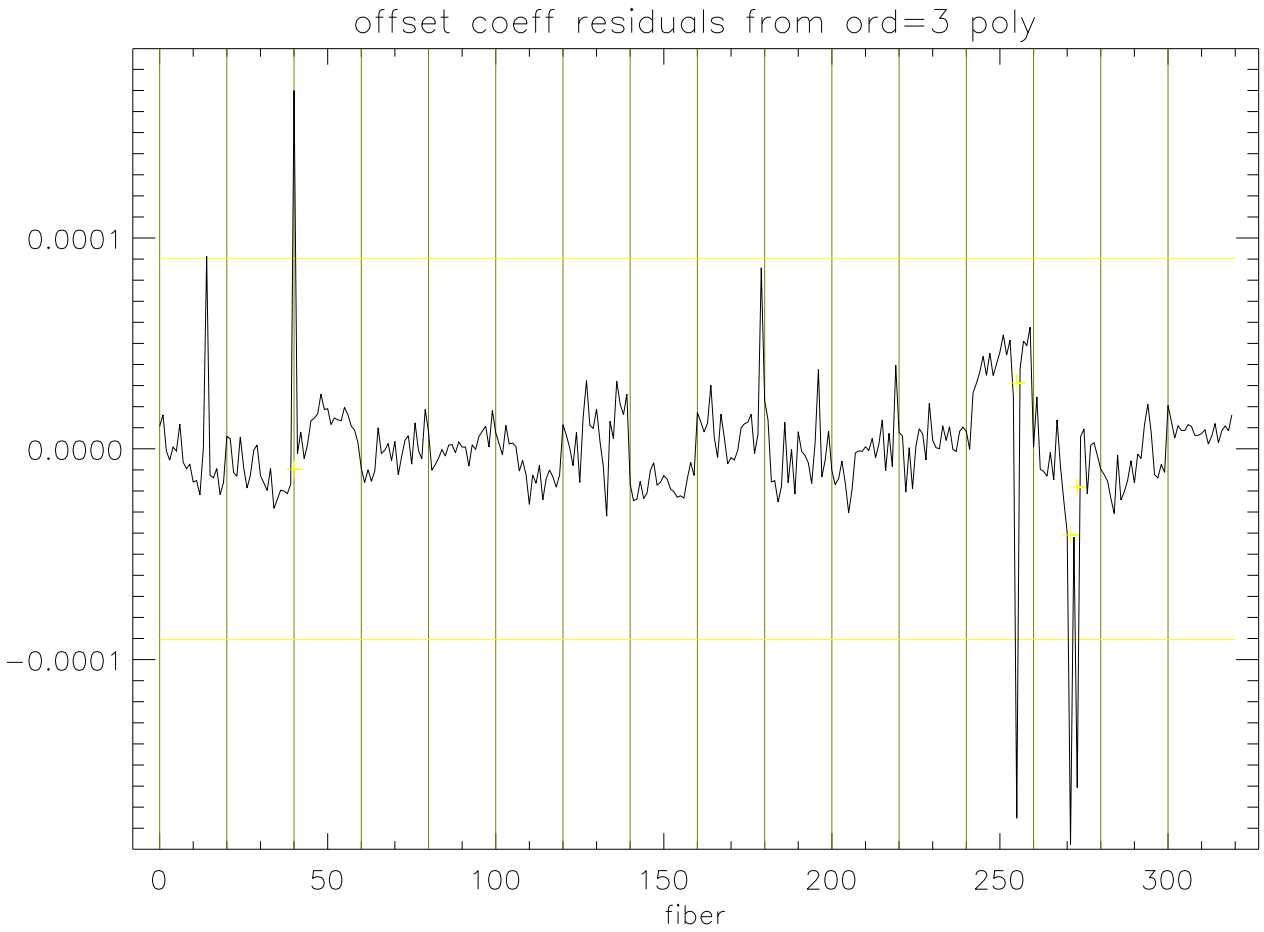

scale coeff residuals from ord=3 poly
1.5×10⁻⁴
1.0×10⁻⁴
5.0×10⁻⁵
0
−5.0×10⁻⁵
−1.0×10⁻⁴
−1.5×10⁻⁴
0
50
100
150
200
250
300
fiber

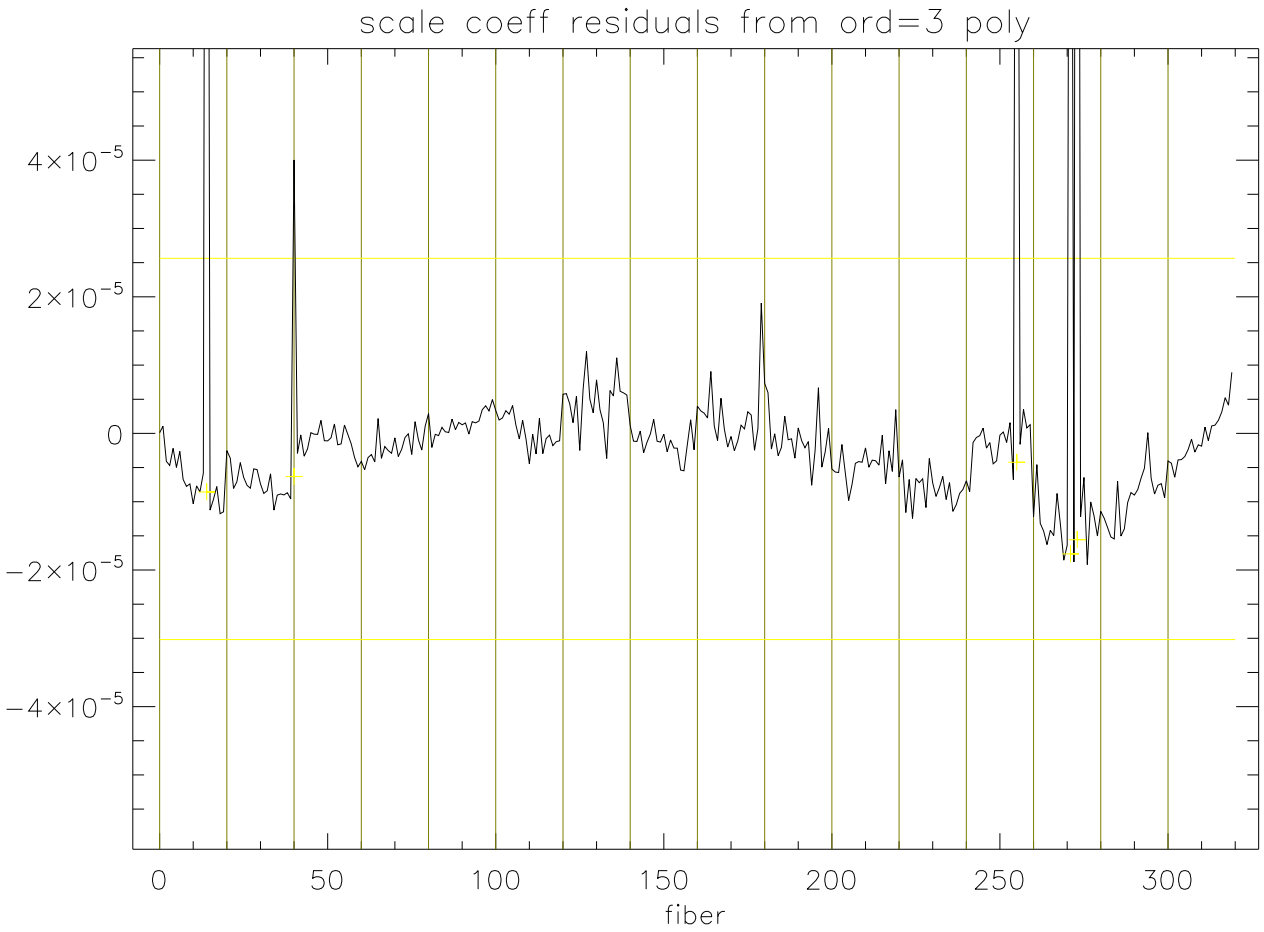

offset coeff residuals from ord=3 poly
0.0001
0.0000
−0.0001
0
50
100
150
200
250
300
fiber

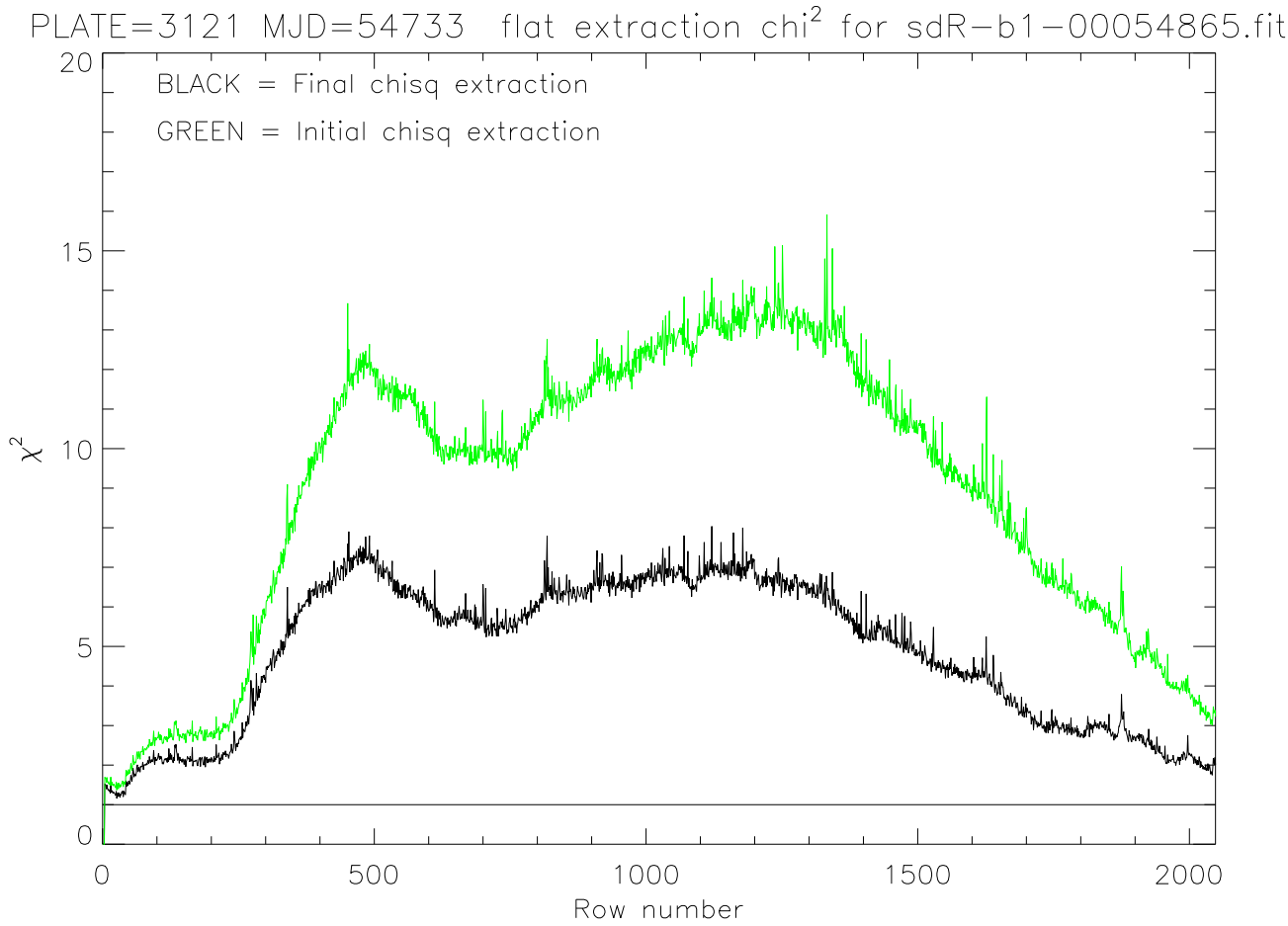

scale coeff residuals from ord=3 poly
4×10⁻⁵
2×10⁻⁵
0
−2×10⁻⁵
−4×10⁻⁵
0
50
100
150
200
250
300
fiber

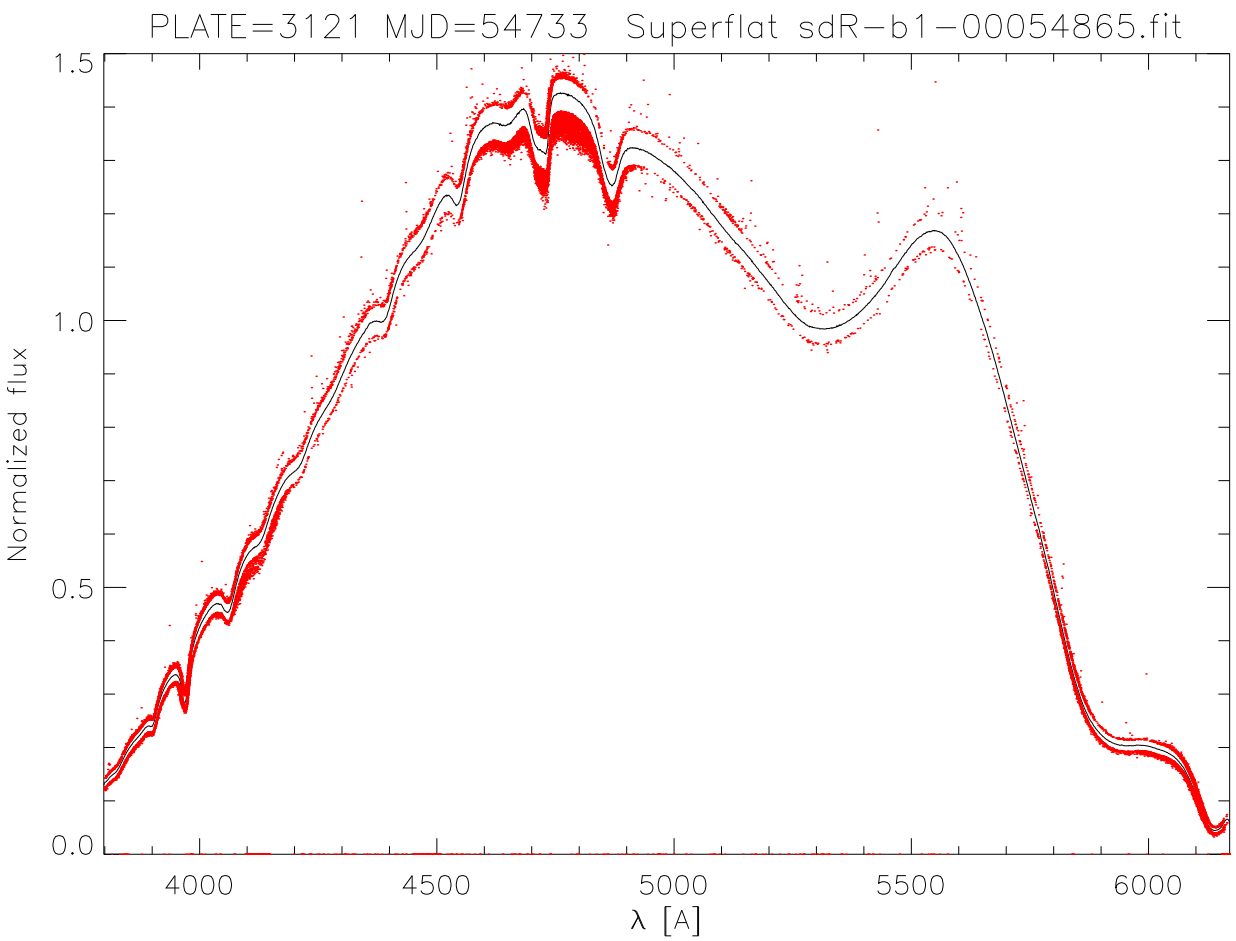

offset coeff residuals from ord=3 poly
1.5×10^-4
1.0×10^-4
5.0×10^-5
0
−5.0×10^-5
−1.0×10^-4
−1.5×10^-4
0
50
100
150
200
250
300
fiber

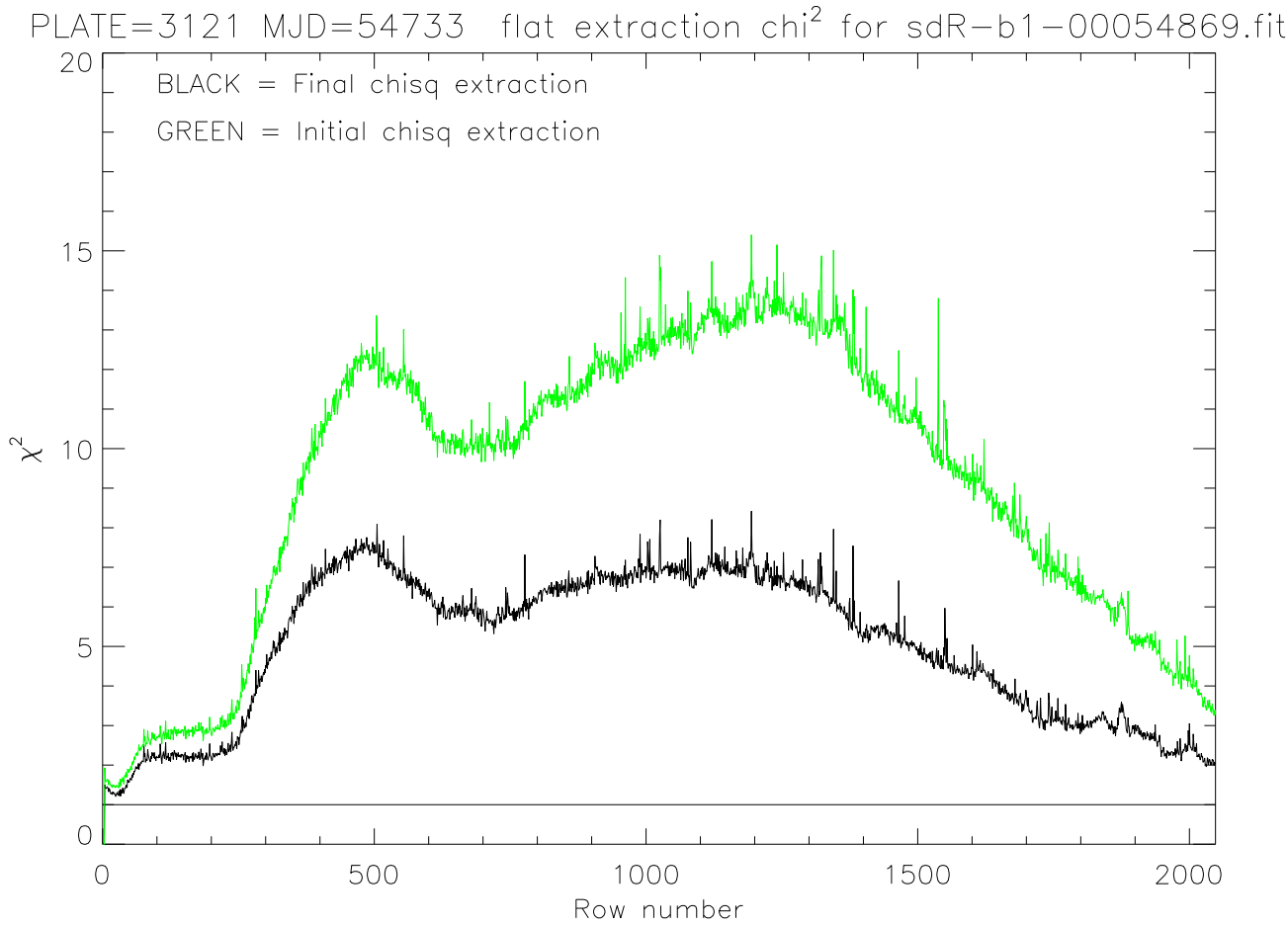

scale coeff residuals from ord=3 poly
4×10⁻⁵
2×10⁻⁵
0
−2×10⁻⁵
−4×10⁻⁵
0
50
100
150
200
250
300
fiber

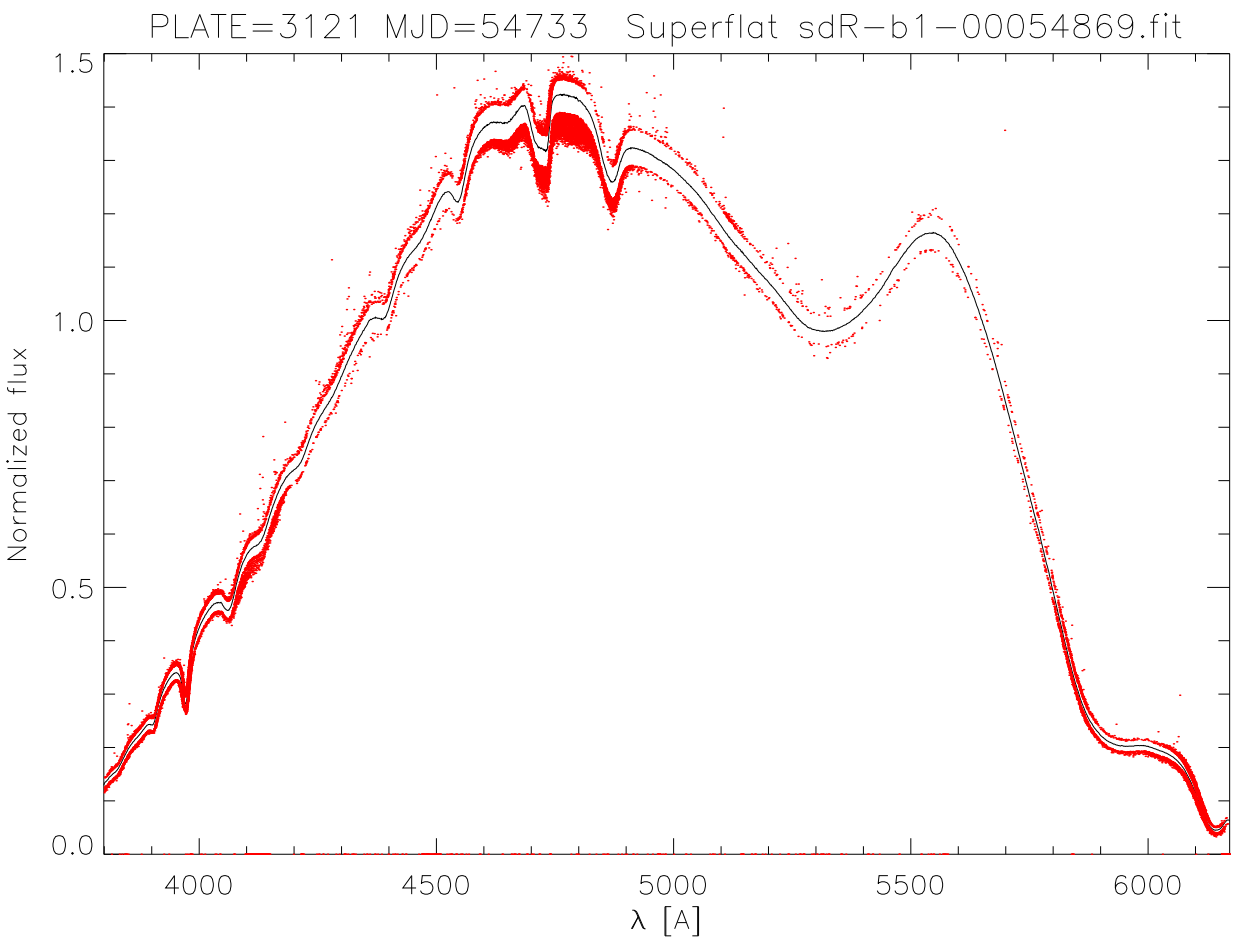

offset coeff residuals from ord=3 poly
0.0001
0.0000
−0.0001
0
50
100
150
200
250
300
fiber

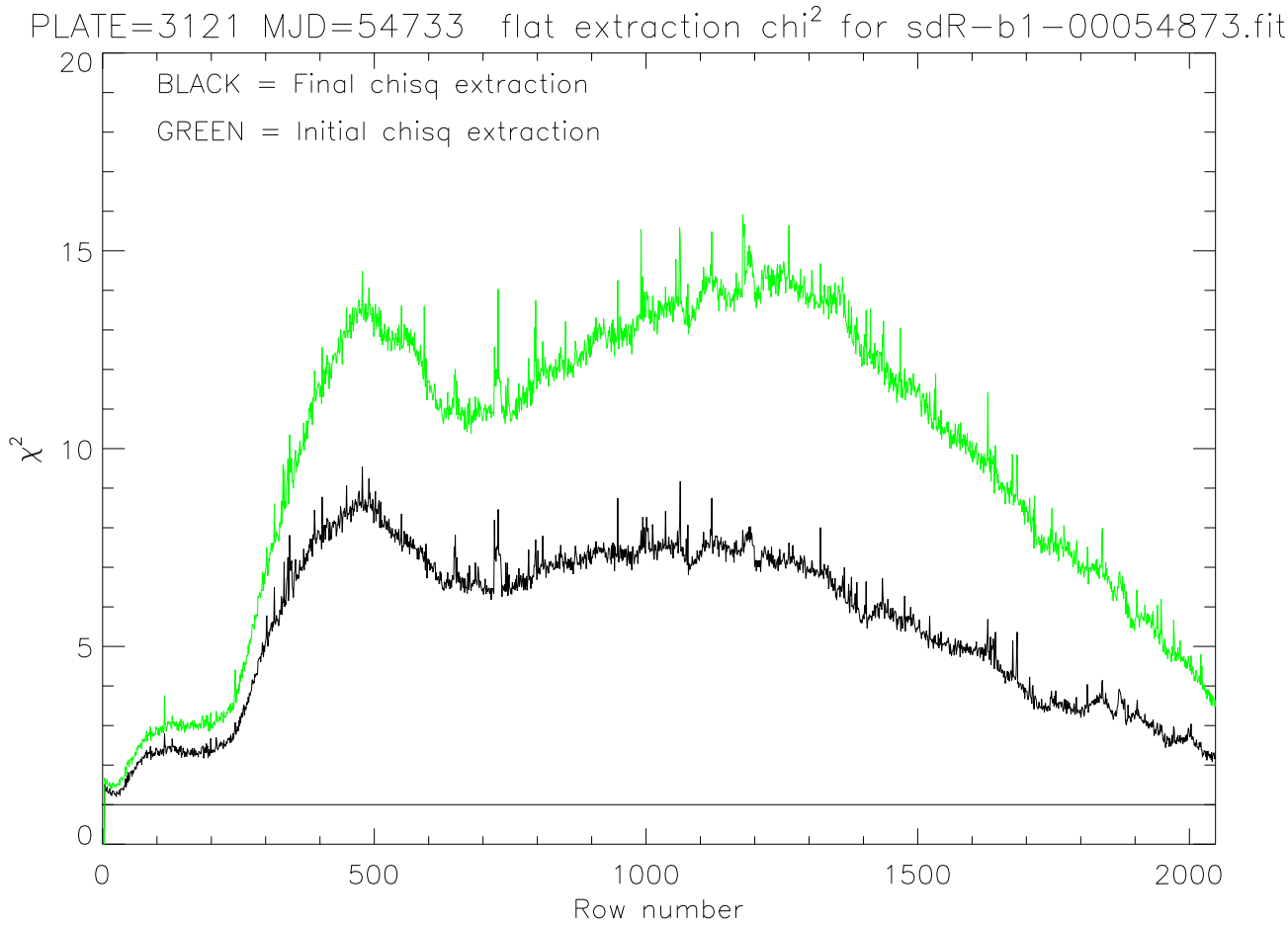

scale coeff residuals from ord=3 poly
4×10⁻⁵
2×10⁻⁵
0
−2×10⁻⁵
−4×10⁻⁵
0
50
100
150
200
250
300
fiber

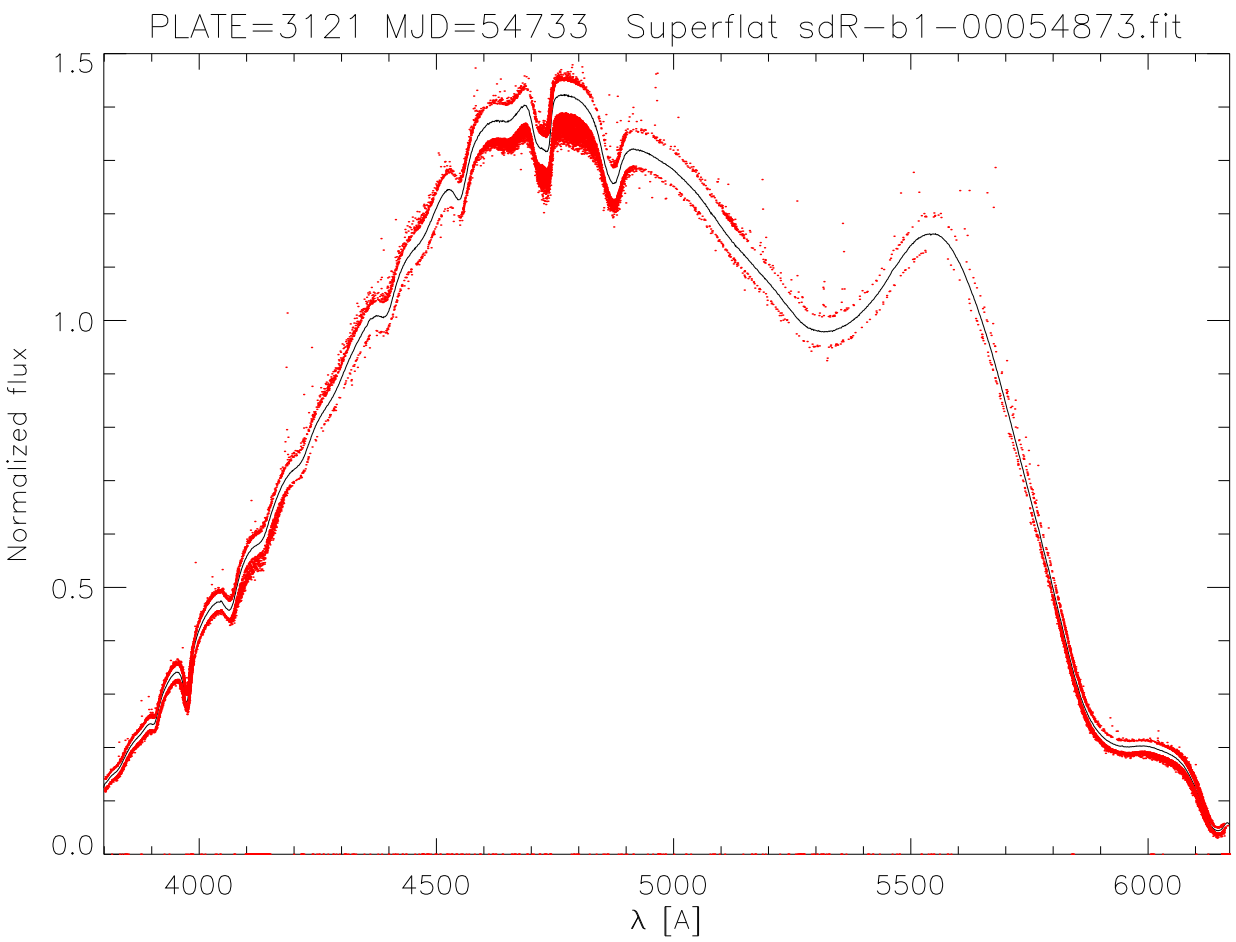

PLATE=3121 MJD=54733 flat extraction chi^2 for sdR−b1−00054865.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
5
10
15
20
0
500
1000
1500
2000

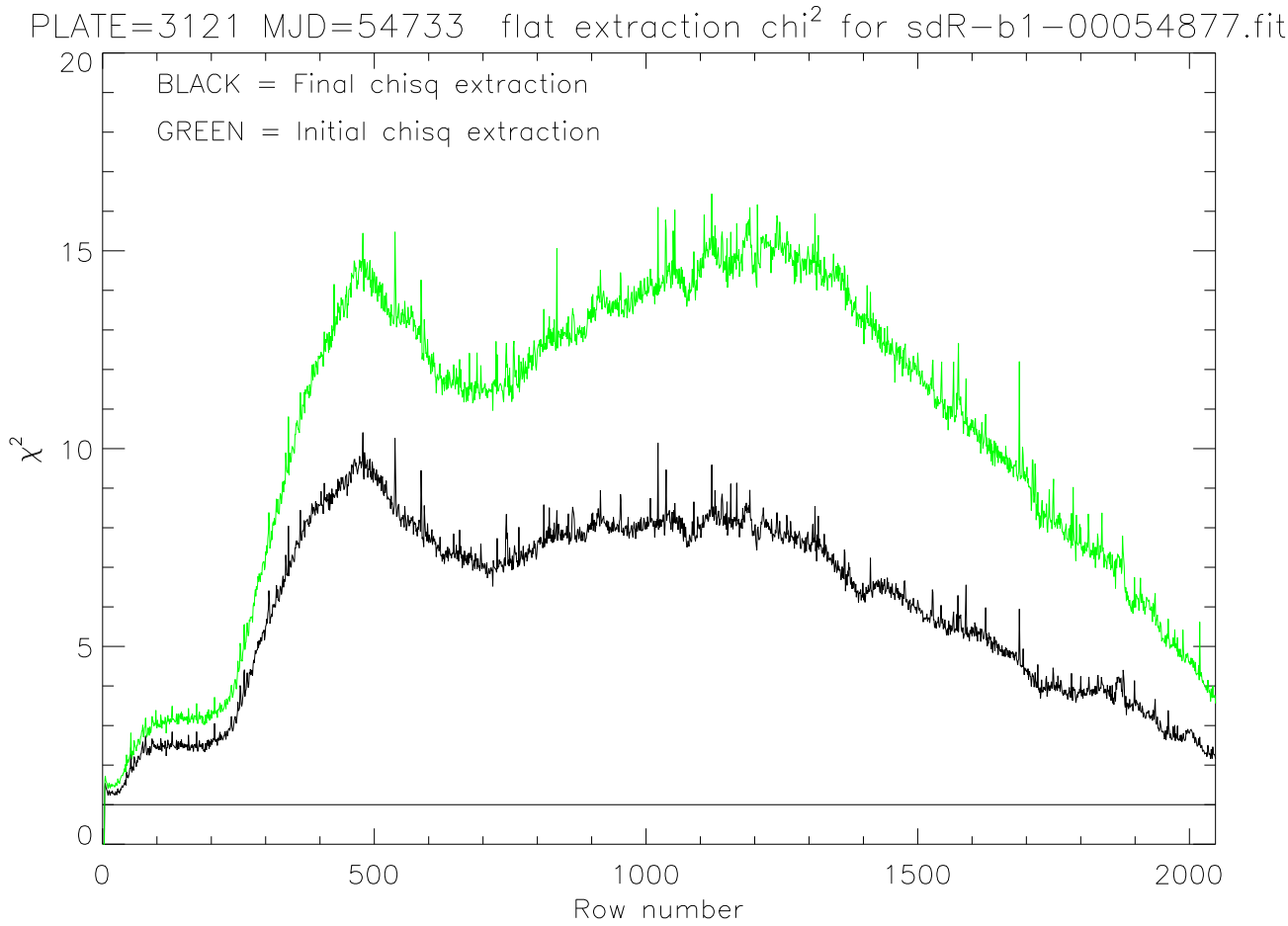

PLATE=3121 MJD=54733 Superflat sdR-b1-00054865.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

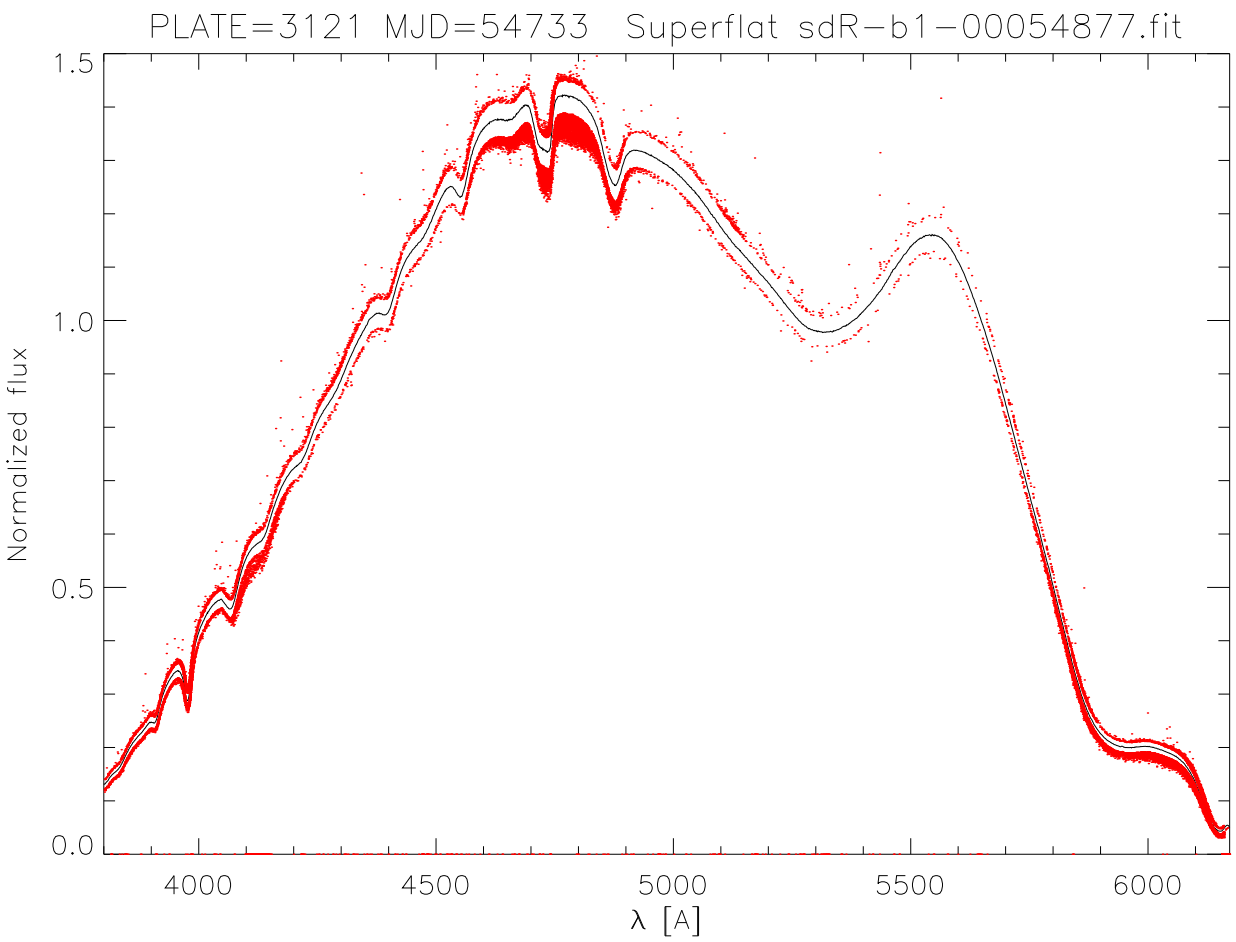

PLATE=3121 MJD=54733 flat extraction chi^2 for sdR−b1−00054869.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
5
10
15
20
0
500
1000
1500
2000

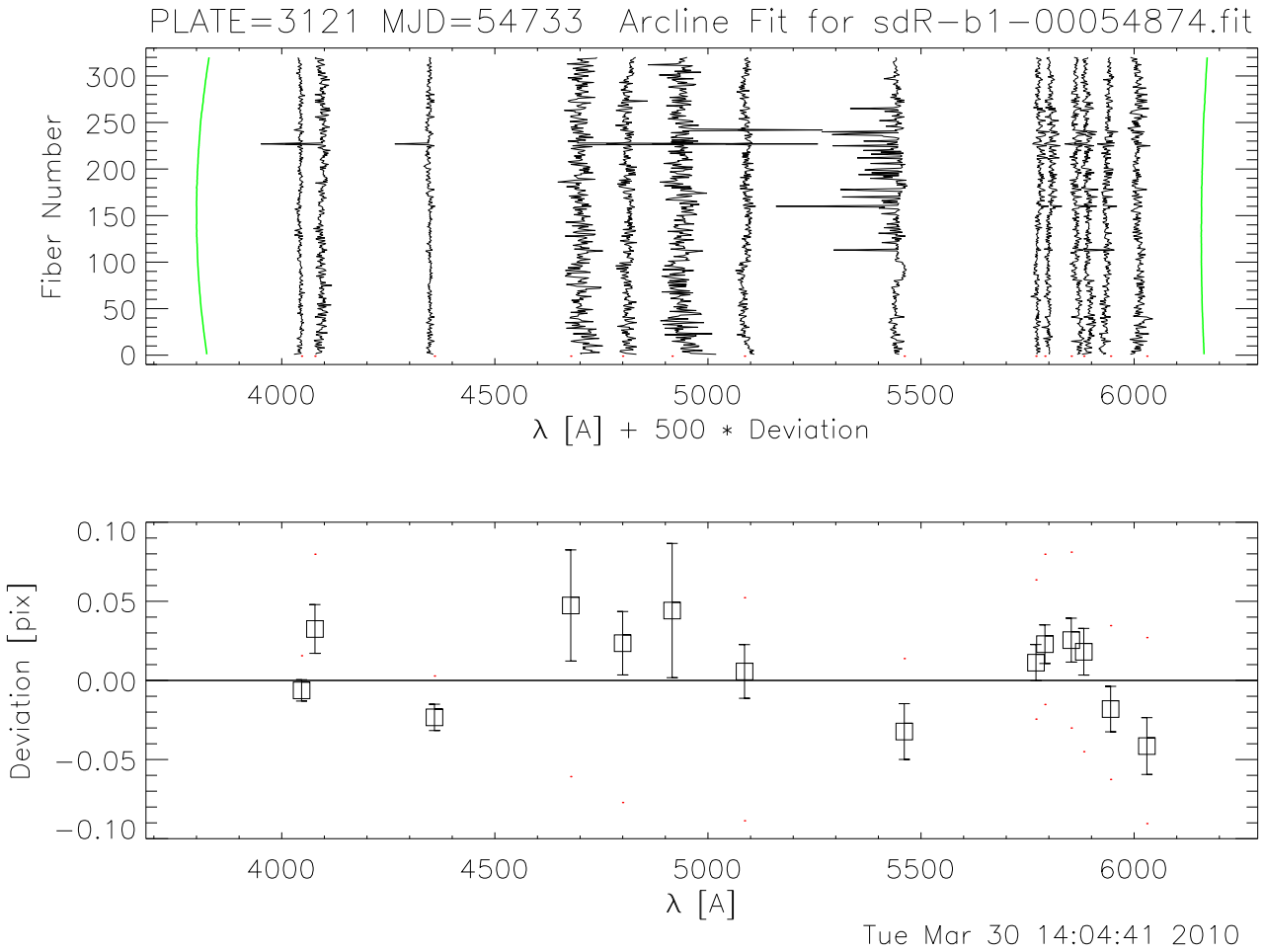

PLATE=3121 MJD=54733 Superflat sdR-b1-00054869.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

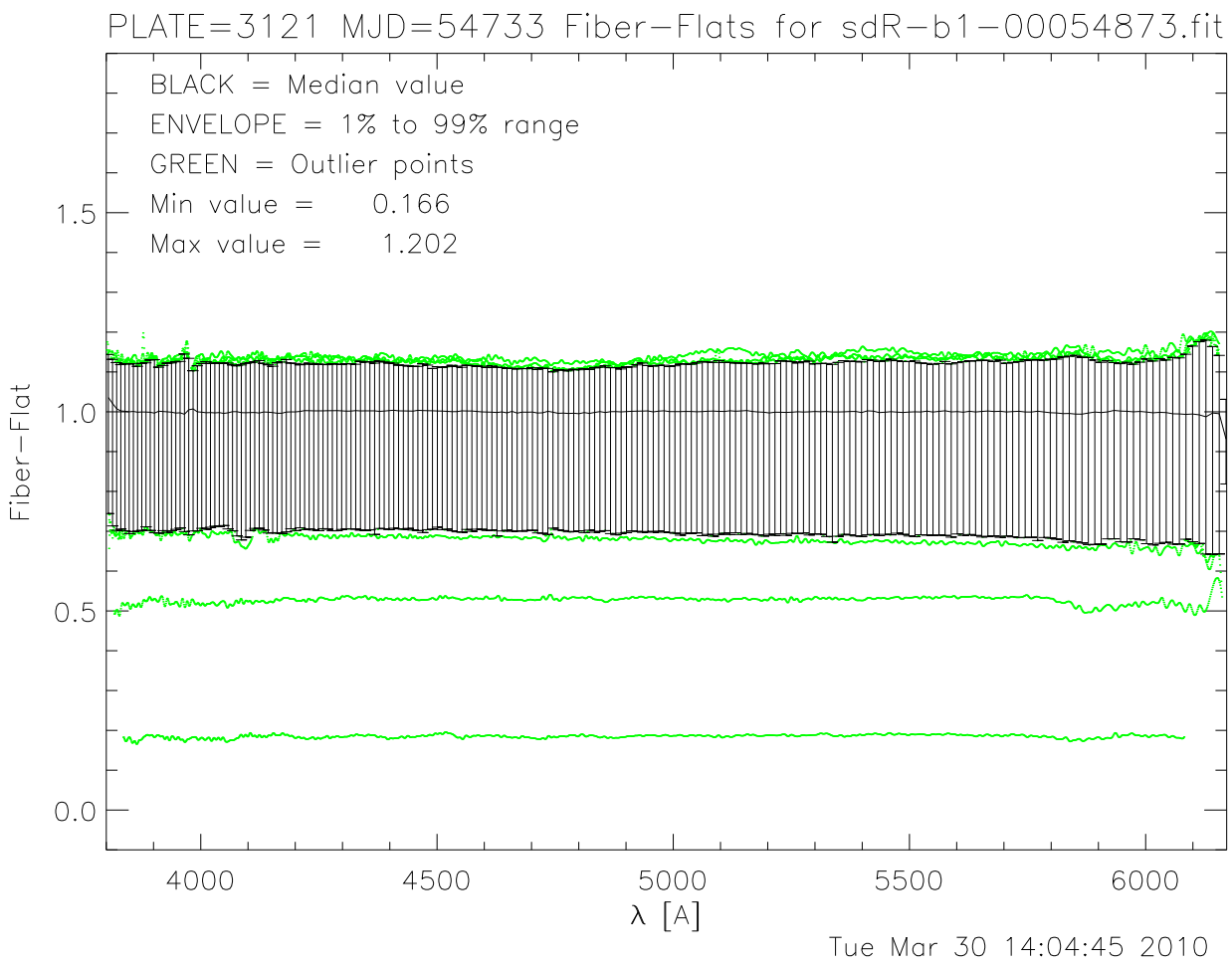

PLATE=3121 MJD=54733 flat extraction chi^2 for sdR−b1−00054873.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
5
10
15
20
0
500
1000
1500
2000

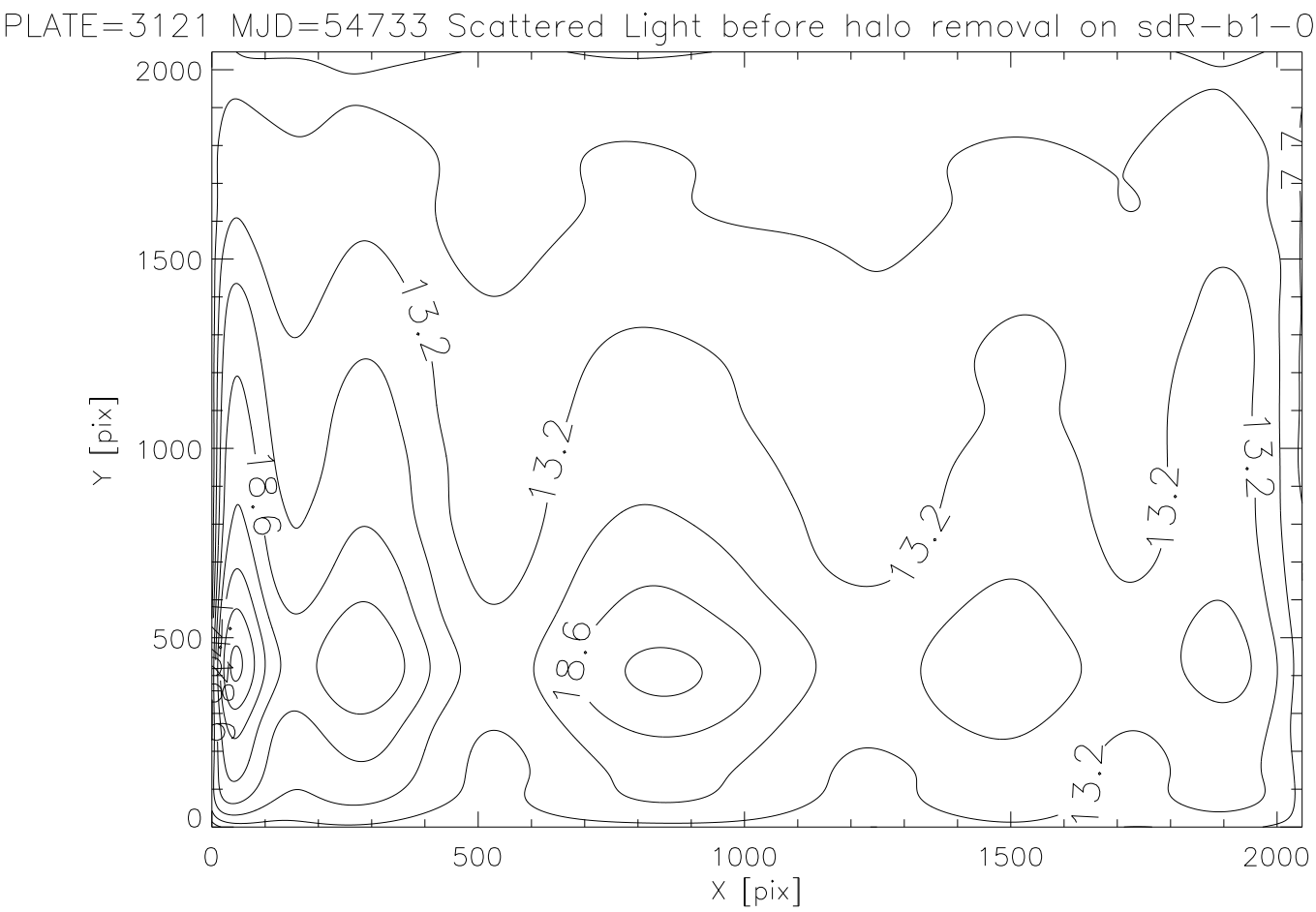

PLATE=3121 MJD=54733 Superflat sdR-b1-00054873.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

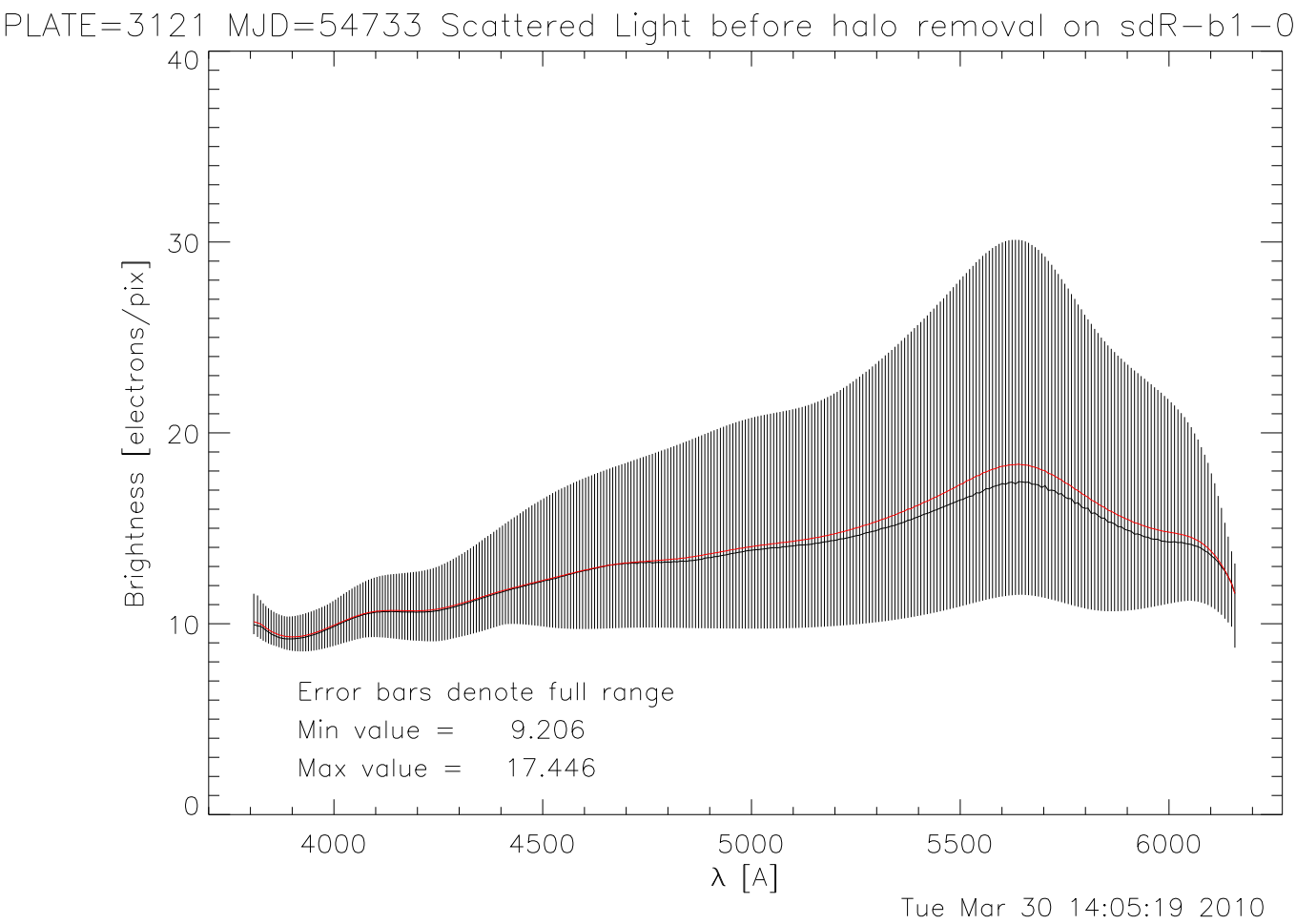

PLATE=3121 MJD=54733 flat extraction chi^2 for sdR−b1−00054877.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
5
10
15
20
0
500
1000
1500
2000

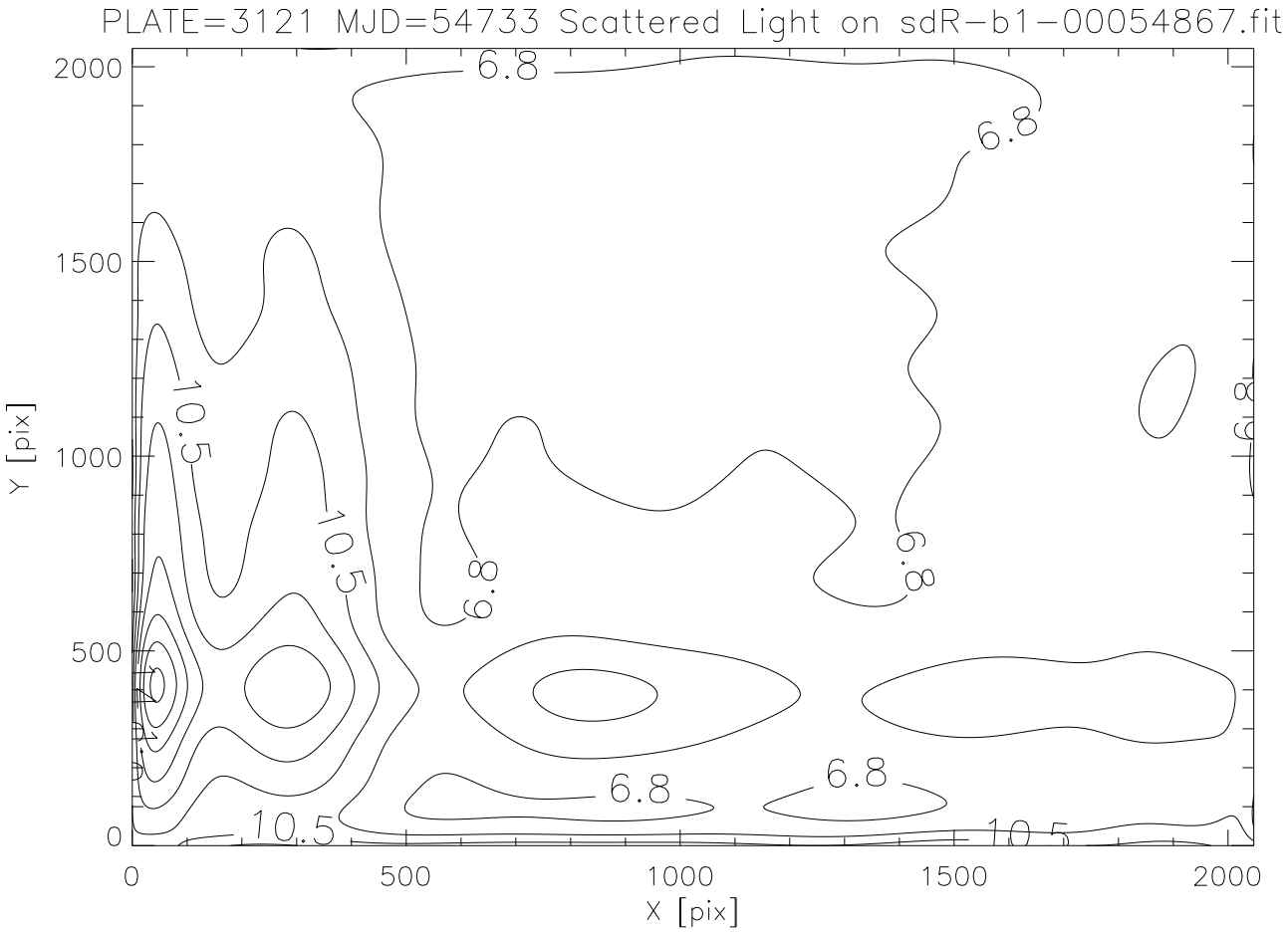

PLATE=3121 MJD=54733 Superflat sdR-b1-00054877.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

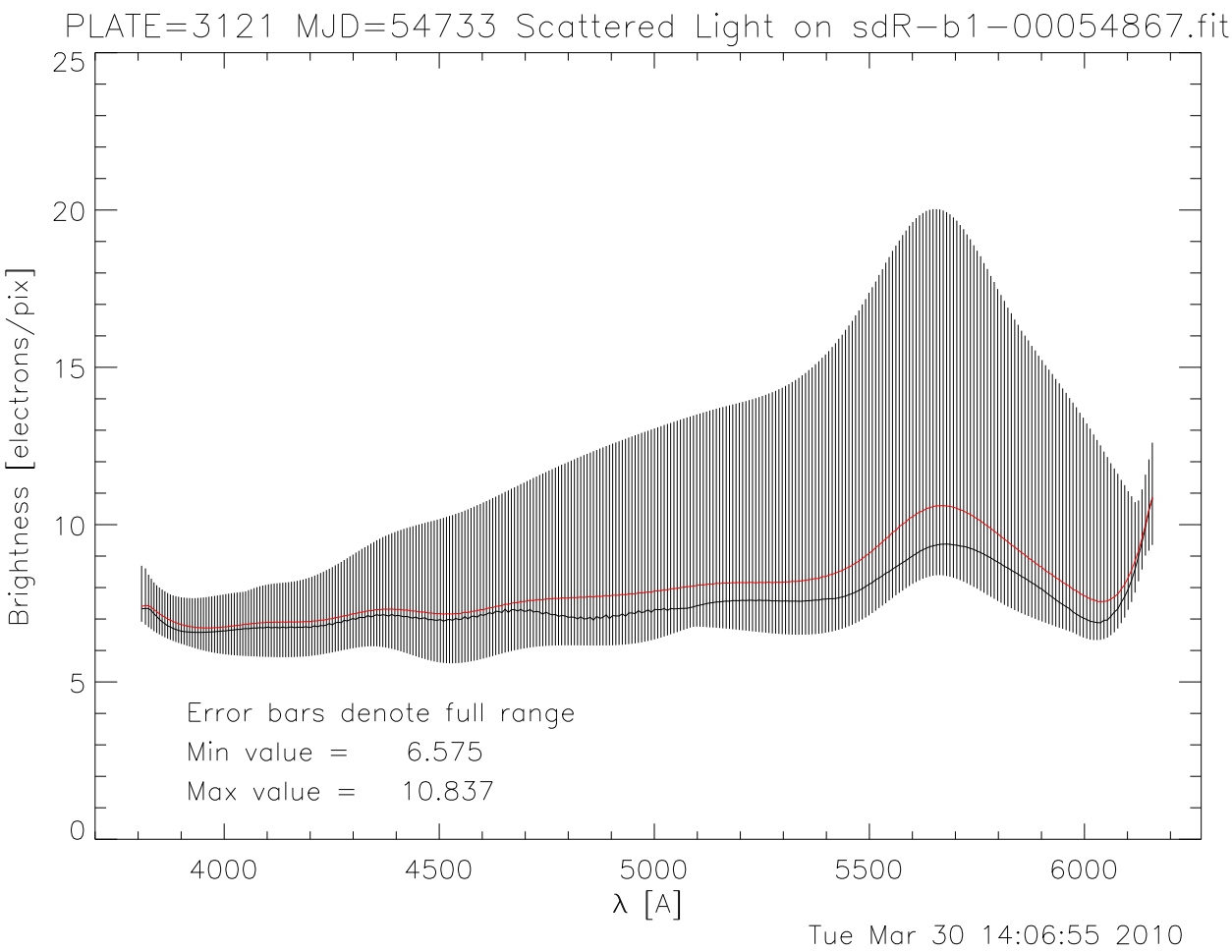

PLATE=3121 MJD=54733 Arcline Fit for sdR-b1-00054874.fit
Fiber Number
300
250
200
150
100
50
0
4000
4500
5000
5500
6000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
4000
4500
5000
5500
6000
λ [A]
Tue Mar 30 14:04:41 2010

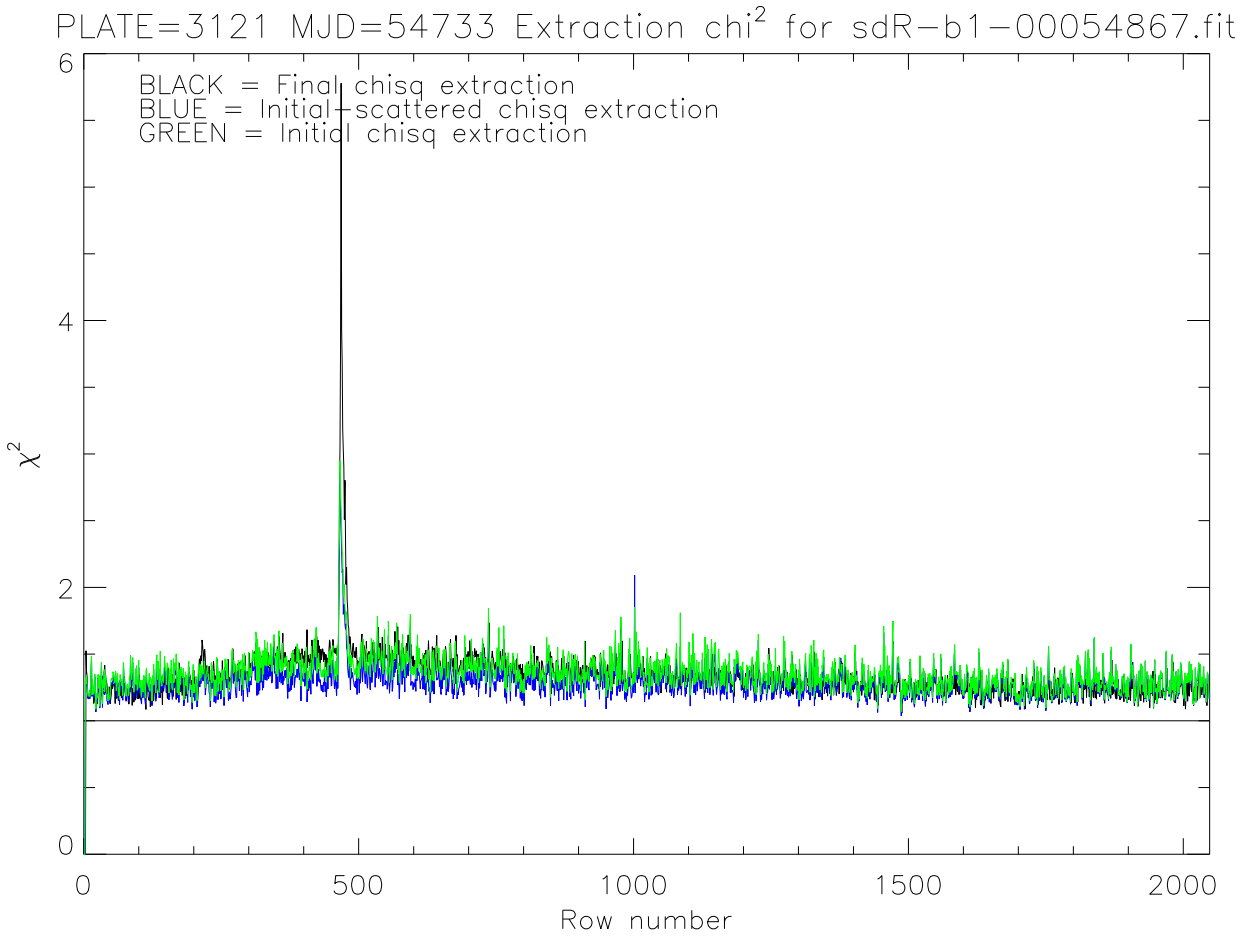

PLATE=3121 MJD=54733 Fiber-Flats for sdR-b1-00054873.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.166
Max value = 1.202
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Tue Mar 30 14:04:45 2010

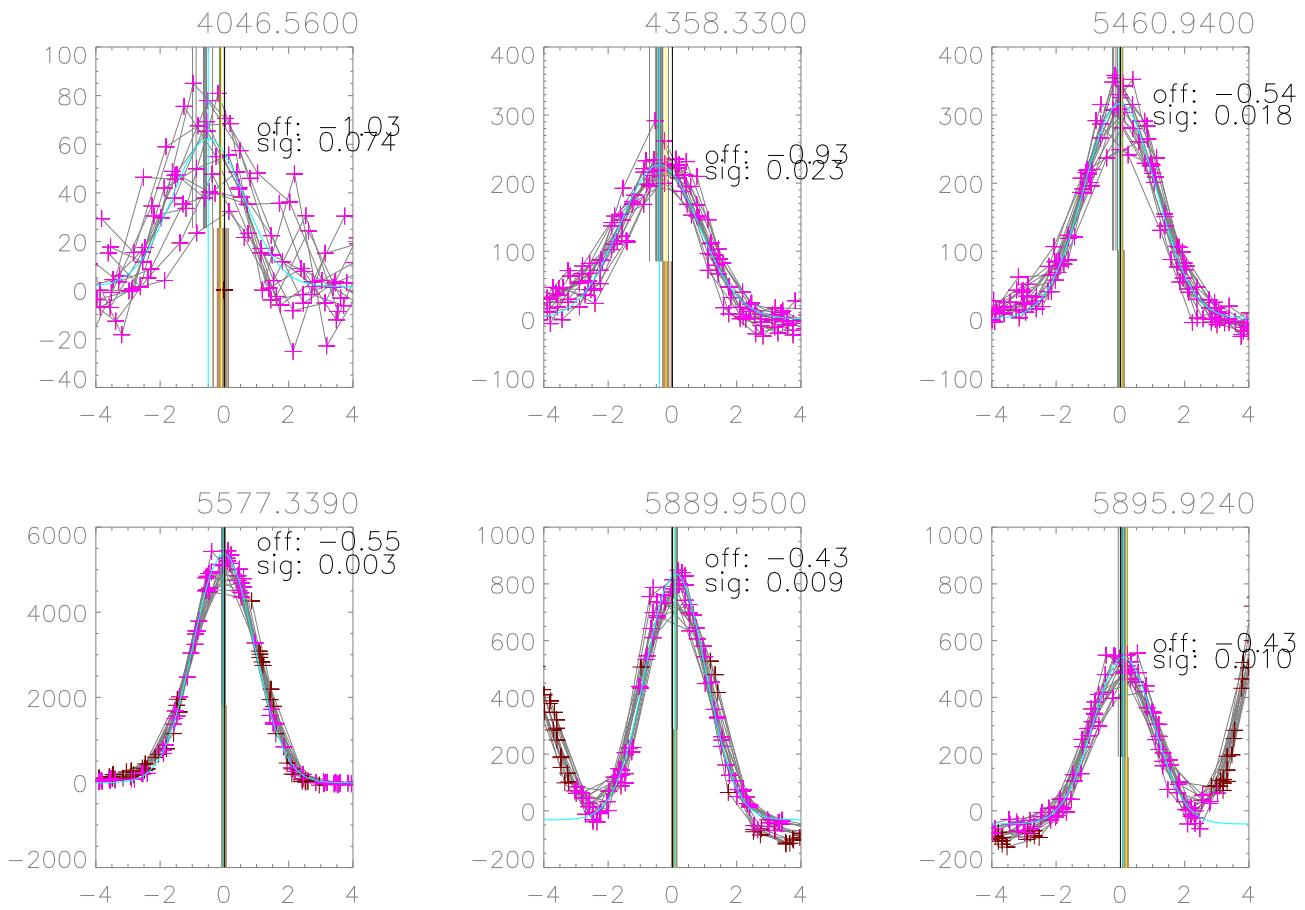

PLATE=3121 MJD=54733 Scattered Light before halo removal on sdR−b1−00054867.f
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
13.2
18.6
13.2
18.6
13.2
13.2
13.2
13.2

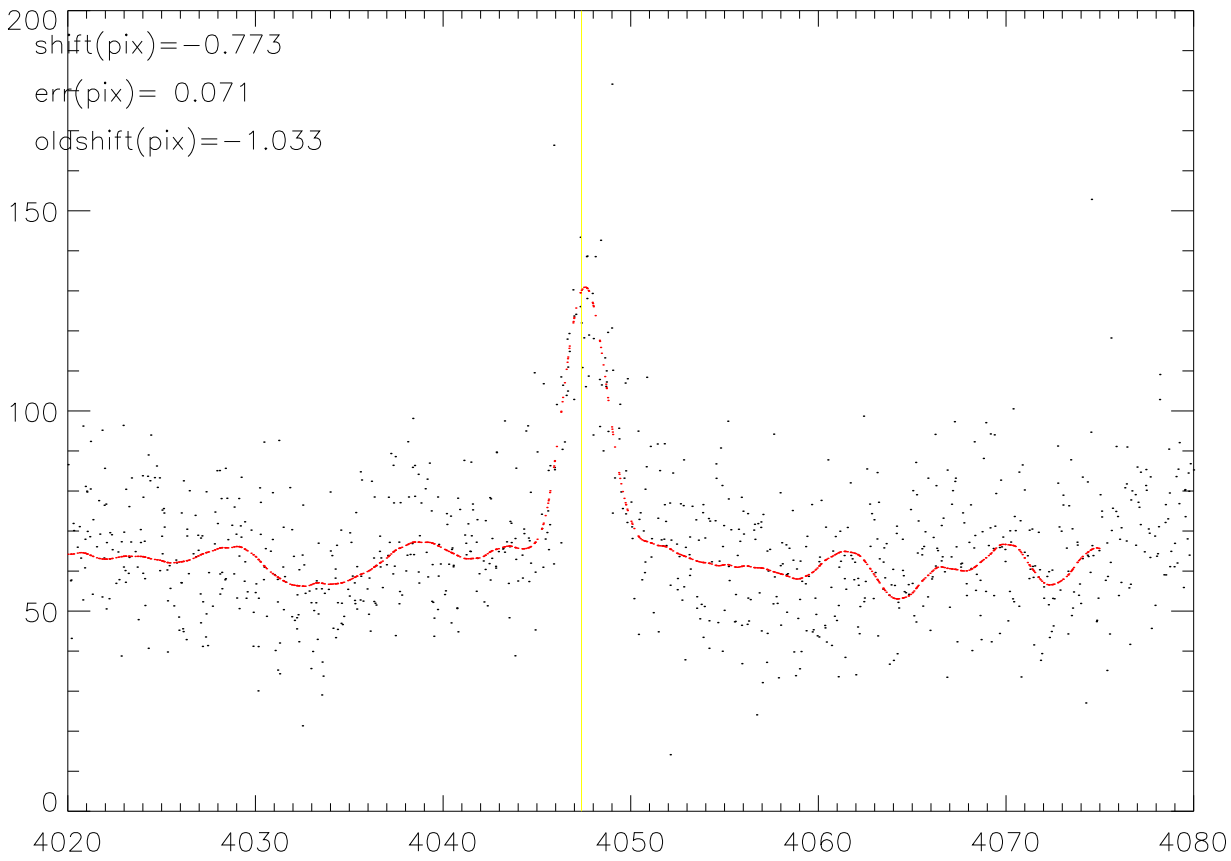

PLATE=3121 MJD=54733 Scattered Light before halo removal on sdR-b1-00054867.f
Brightness [electrons/pix]
40
30
20
10
0
Error bars denote full range
Min value = 9.206
Max value = 17.446
4000
4500
5000
5500
6000
λ [A]
Tue Mar 30 14:05:19 2010

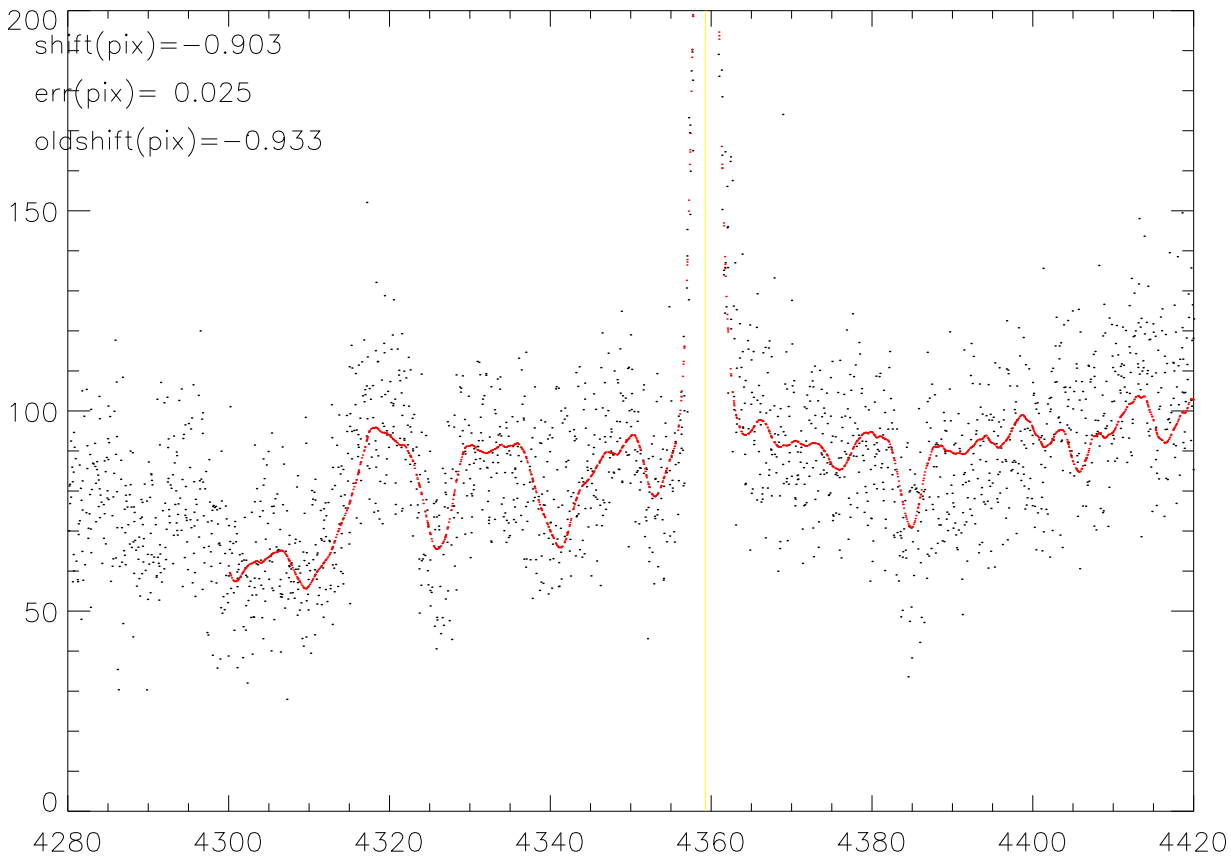

PLATE=3121 MJD=54733 Scattered Light on sdR-b1-00054867.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
6.8
10.5

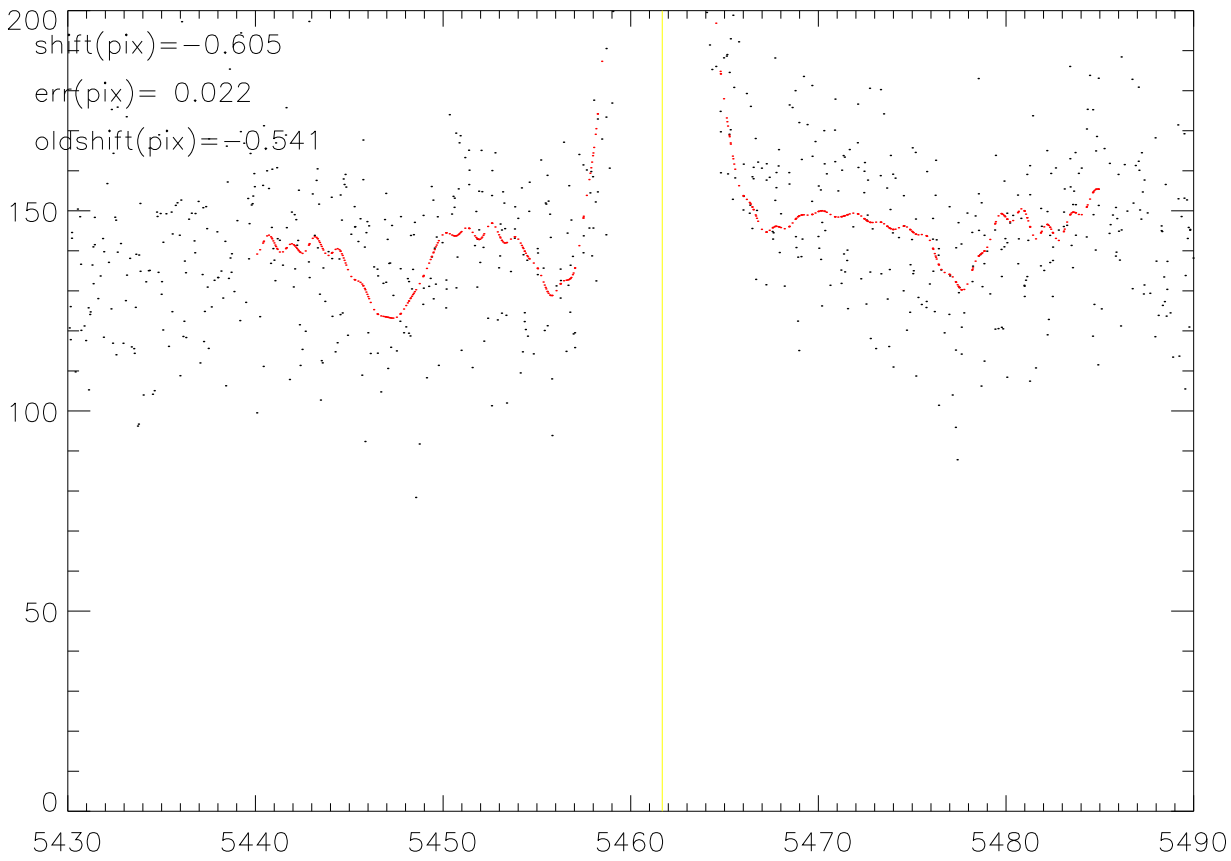

PLATE=3121 MJD=54733 Scattered Light on sdR-b1-00054867.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 6.575
Max value = 10.837
Tue Mar 30 14:06:55 2010

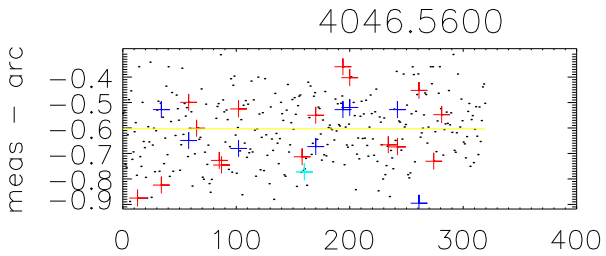

PLATE=3121 MJD=54733 Extraction chi^2 for sdR-b1-00054867.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
0
500
1000
1500
2000
Row number

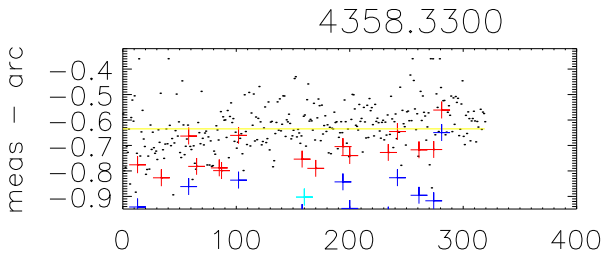

4046.5600
off: −1.03
sig: 0.074
4358.3300
off: −0.93
sig: 0.023
5460.9400
off: −0.54
sig: 0.018
5577.3390
off: −0.55
sig: 0.003
5889.9500
off: −0.43
sig: 0.009
5895.9240
off: −0.43
sig: 0.010

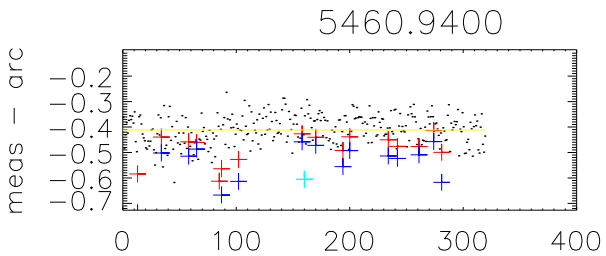

shift(pix)=−0.773
err(pix)= 0.071
oldshift(pix)=−1.033
200
150
100
50
0
4020
4030
4040
4050
4060
4070
4080

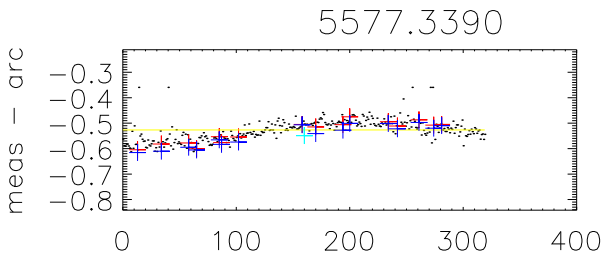

shift(pix)=−0.903
err(pix)= 0.025
oldshift(pix)=−0.933
200
150
100
50
0
4280
4300
4320
4340
4360
4380
4400
4420

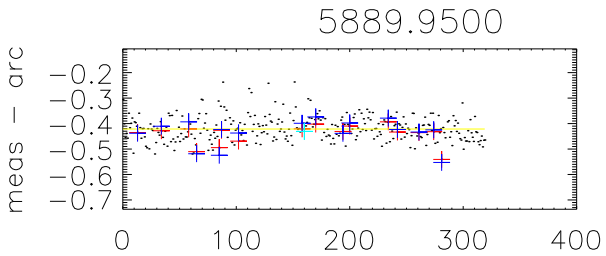

shift(pix)=−0.605
err(pix)= 0.022
oldshift(pix)=−0.541
200
150
100
50
0
5430
5440
5450
5460
5470
5480
5490

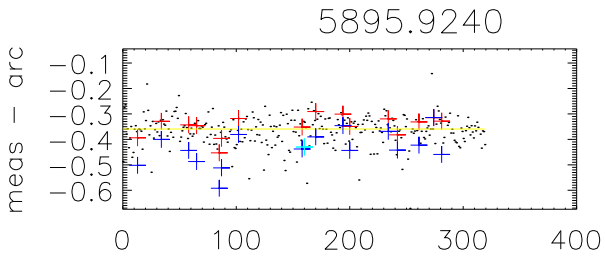

4046.5600
meas − arc
−0.4
−0.5
−0.6
−0.7
−0.8
−0.9
0
100
200
300
400

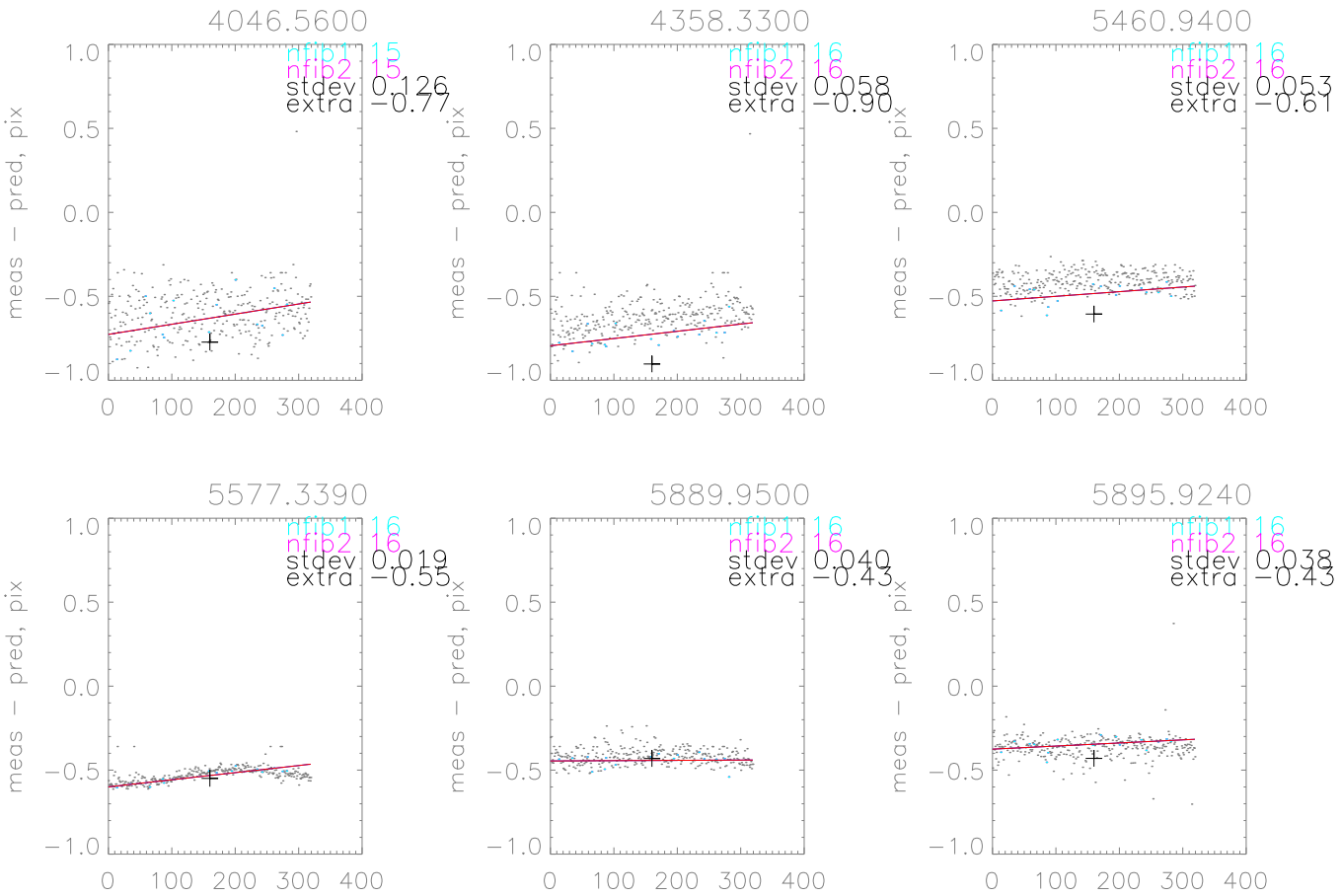

4358.3300
meas − arc
−0.4
−0.5
−0.6
−0.7
−0.8
−0.9
0
100
200
300
400

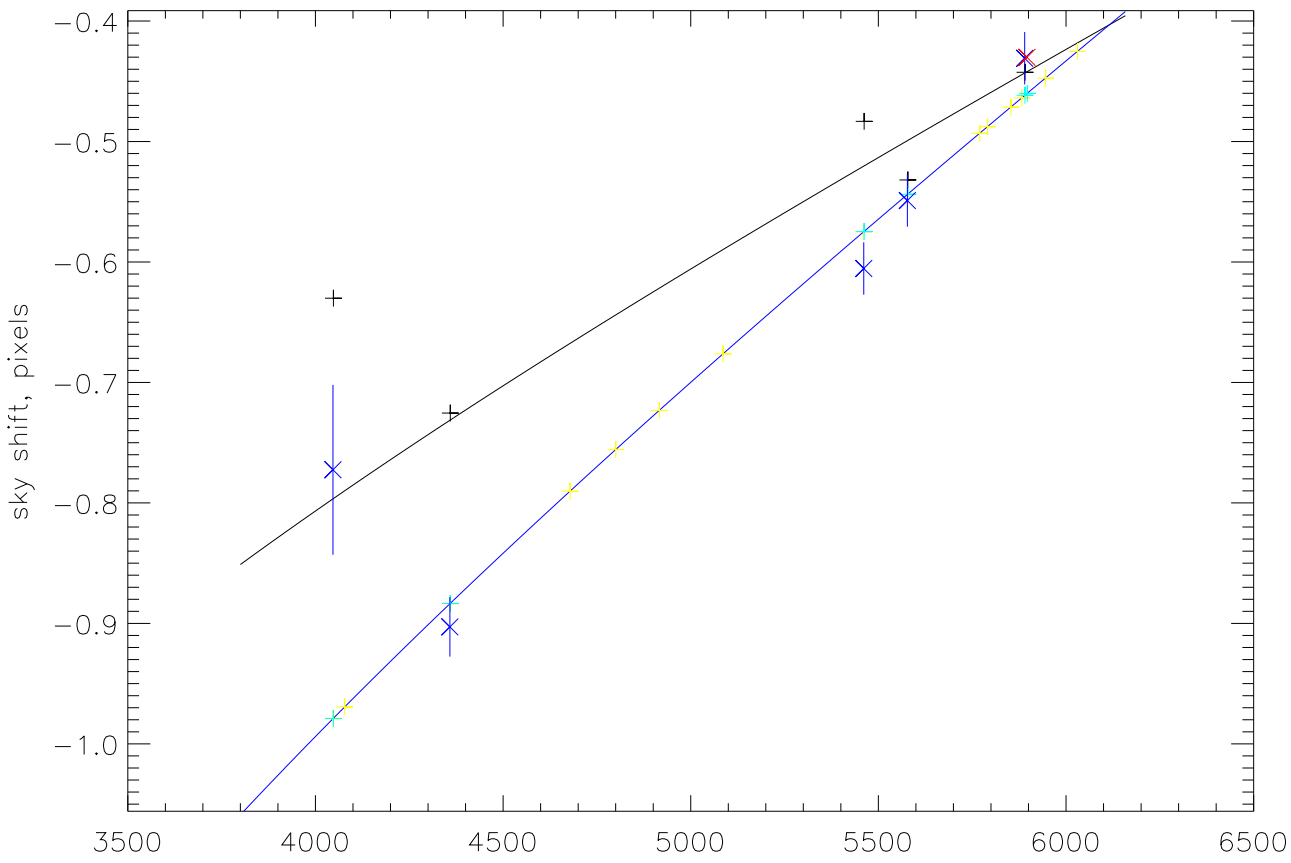

5460.9400
meas − arc
−0.2
−0.3
−0.4
−0.5
−0.6
−0.7
0
100
200
300
400

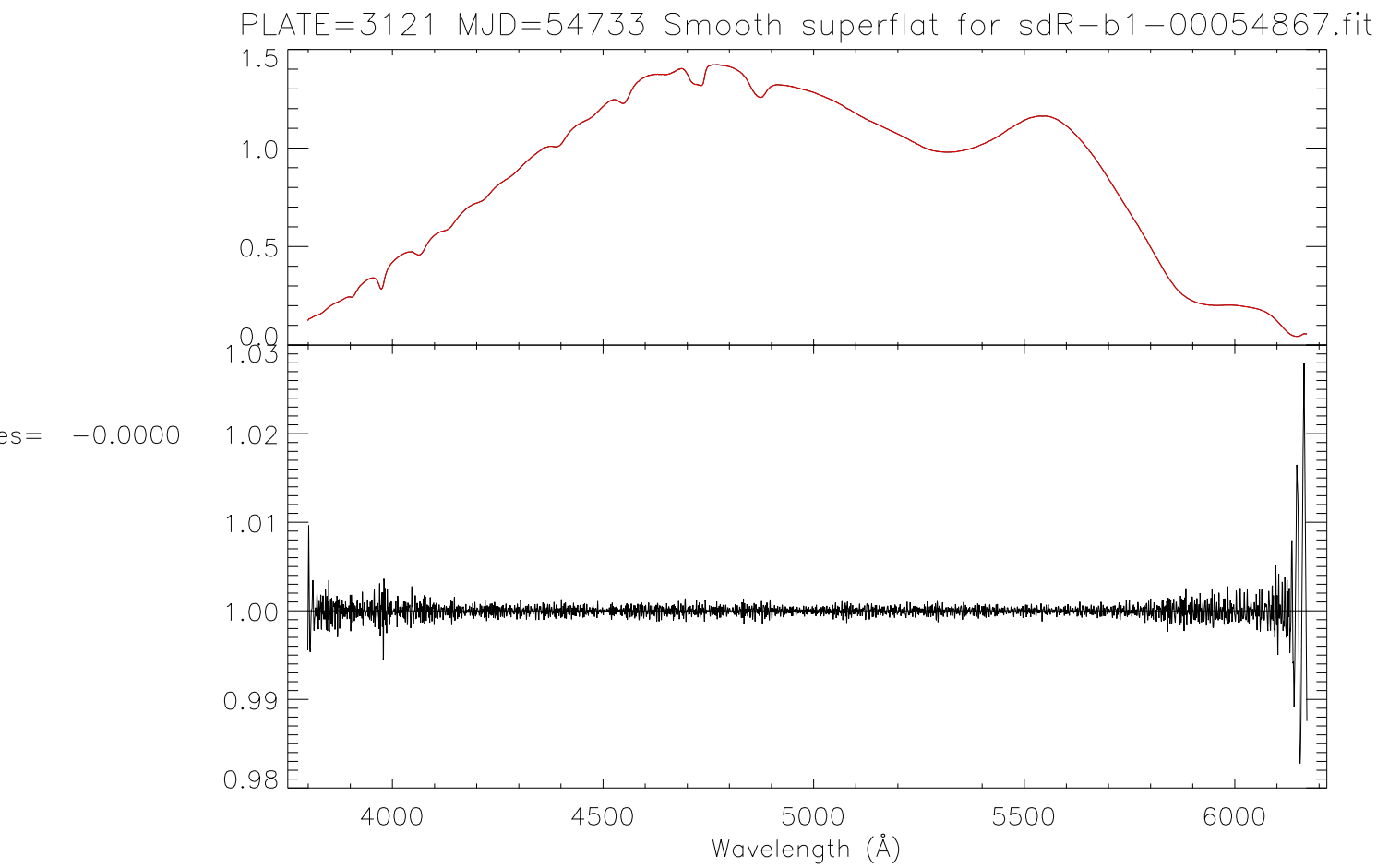

5577.3390
meas − arc
−0.3
−0.4
−0.5
−0.6
−0.7
−0.8
0
100
200
300
400


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

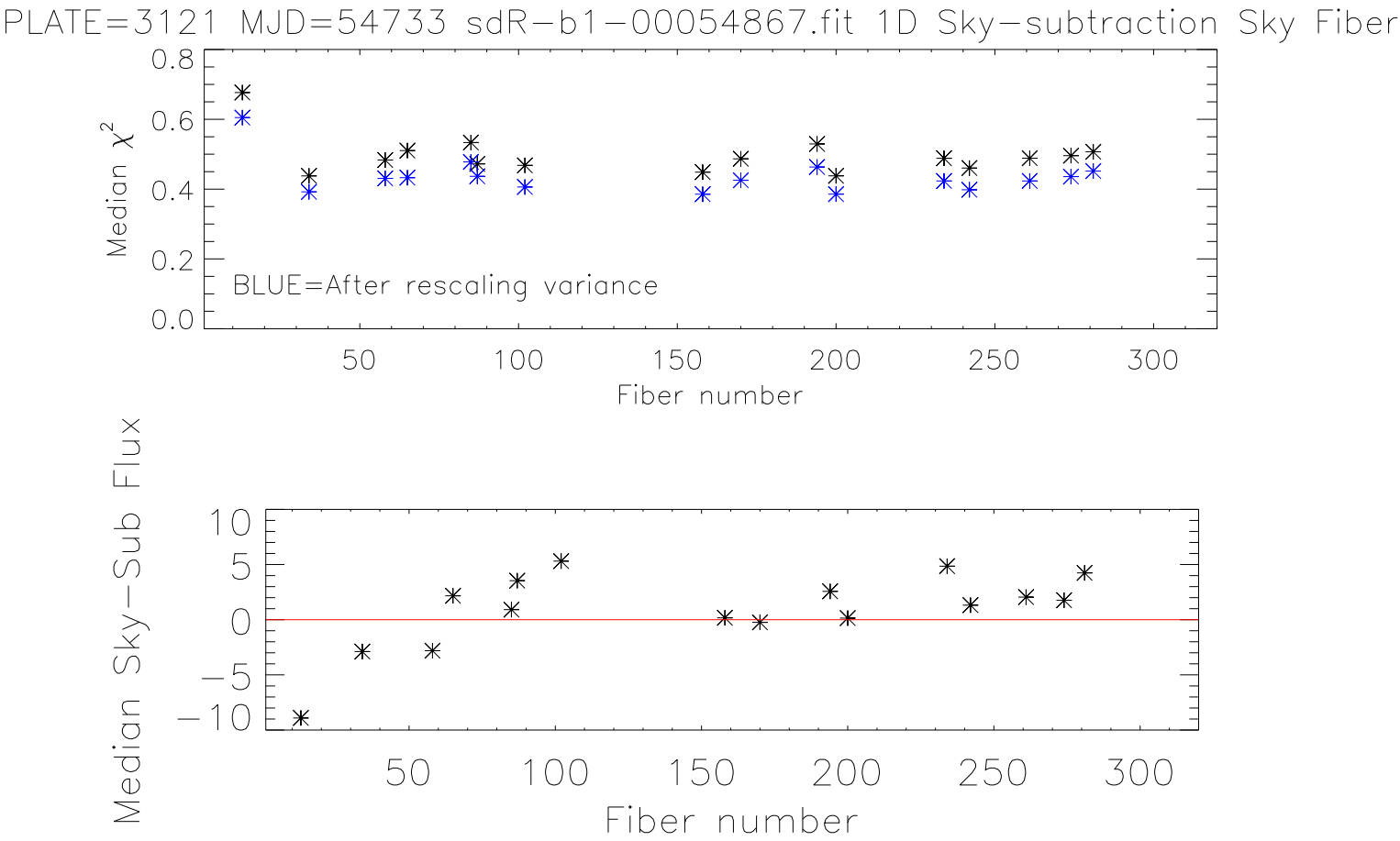

5895.9240
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

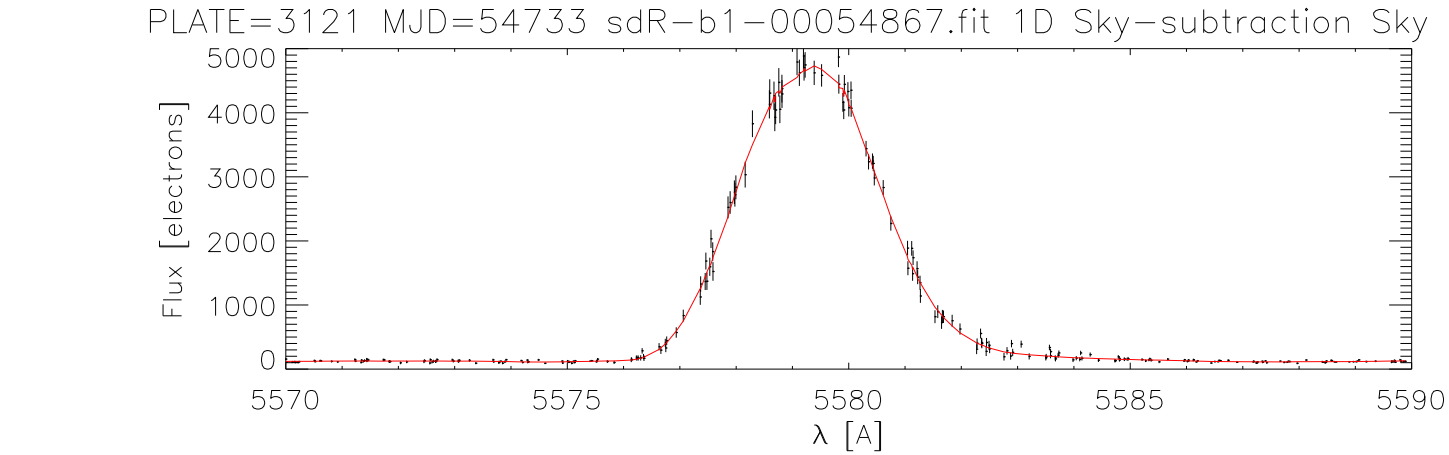

4046.5600
nfib1 15
nfib2 15
stdev 0.126
extra −0.77
4358.3300
nfib1 16
nfib2 16
stdev 0.058
extra −0.90
5460.9400
nfib1 16
nfib2 16
stdev 0.053
extra −0.61
5577.3390
nfib1 16
nfib2 16
stdev 0.019
extra −0.55
5889.9500
nfib1 16
nfib2 16
stdev 0.040
extra −0.43
5895.9240
nfib1 16
nfib2 16
stdev 0.038
extra −0.43
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

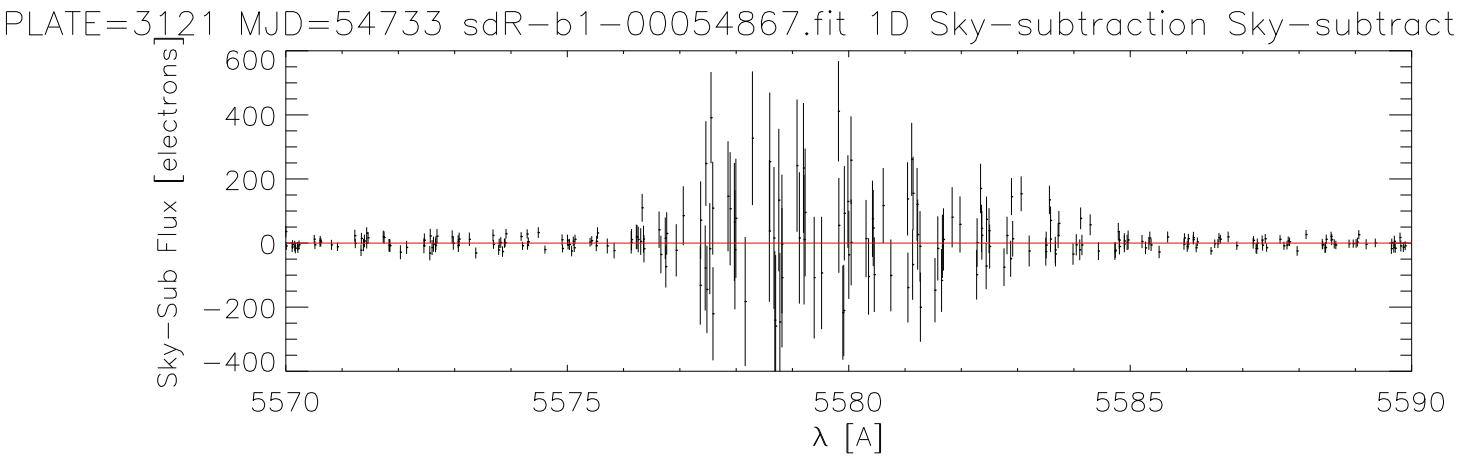

sky shift, pixels
−0.4
−0.5
−0.6
−0.7
−0.8
−0.9
−1.0
3500
4000
4500
5000
5500
6000
6500

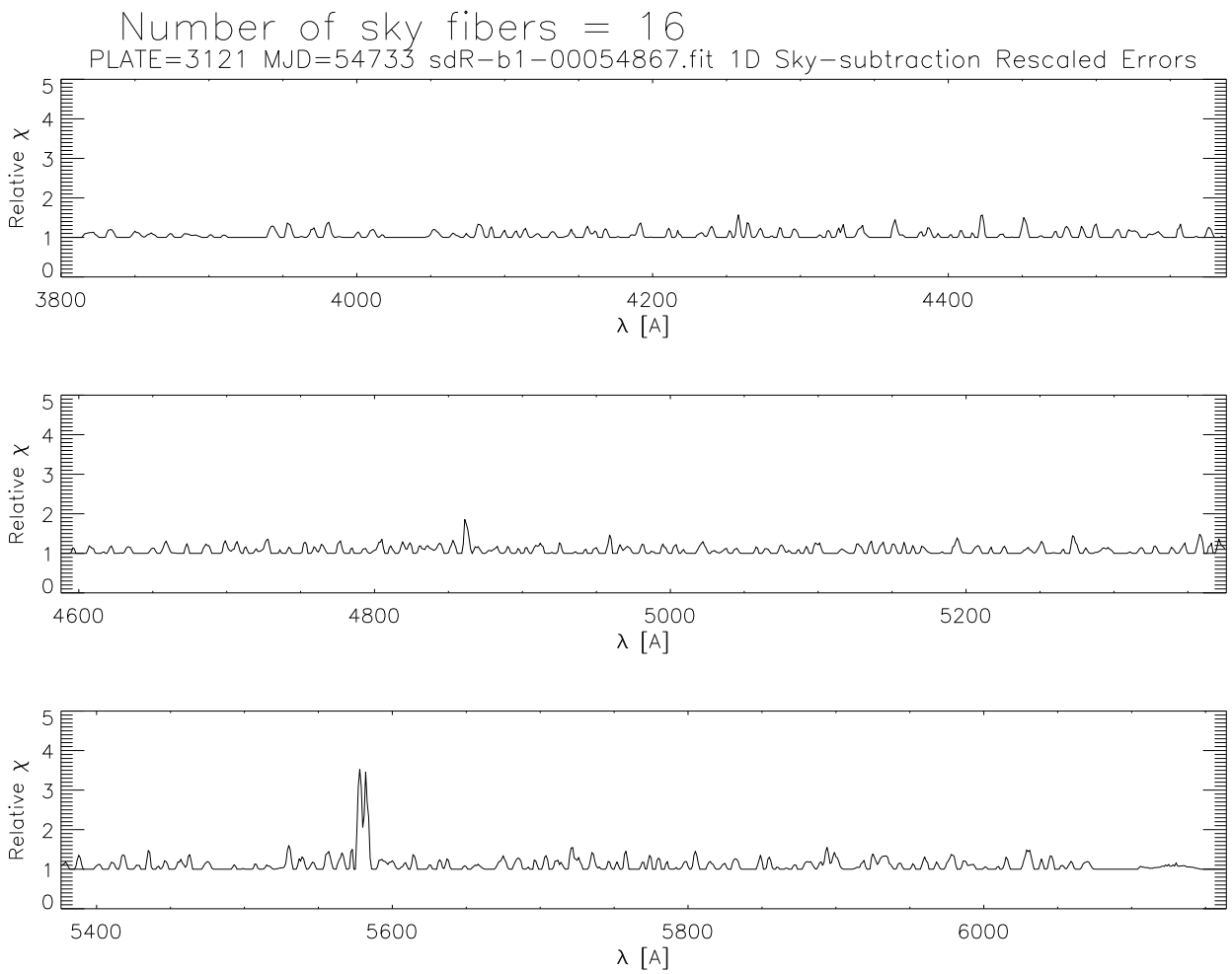

PLATE=3121 MJD=54733 Smooth superflat for sdR-b1-00054867.fit
1.5
1.0
0.5
0.0
1.03
1.02
1.01
1.00
0.99
0.98
4000
4500
5000
5500
6000
Wavelength (Å)

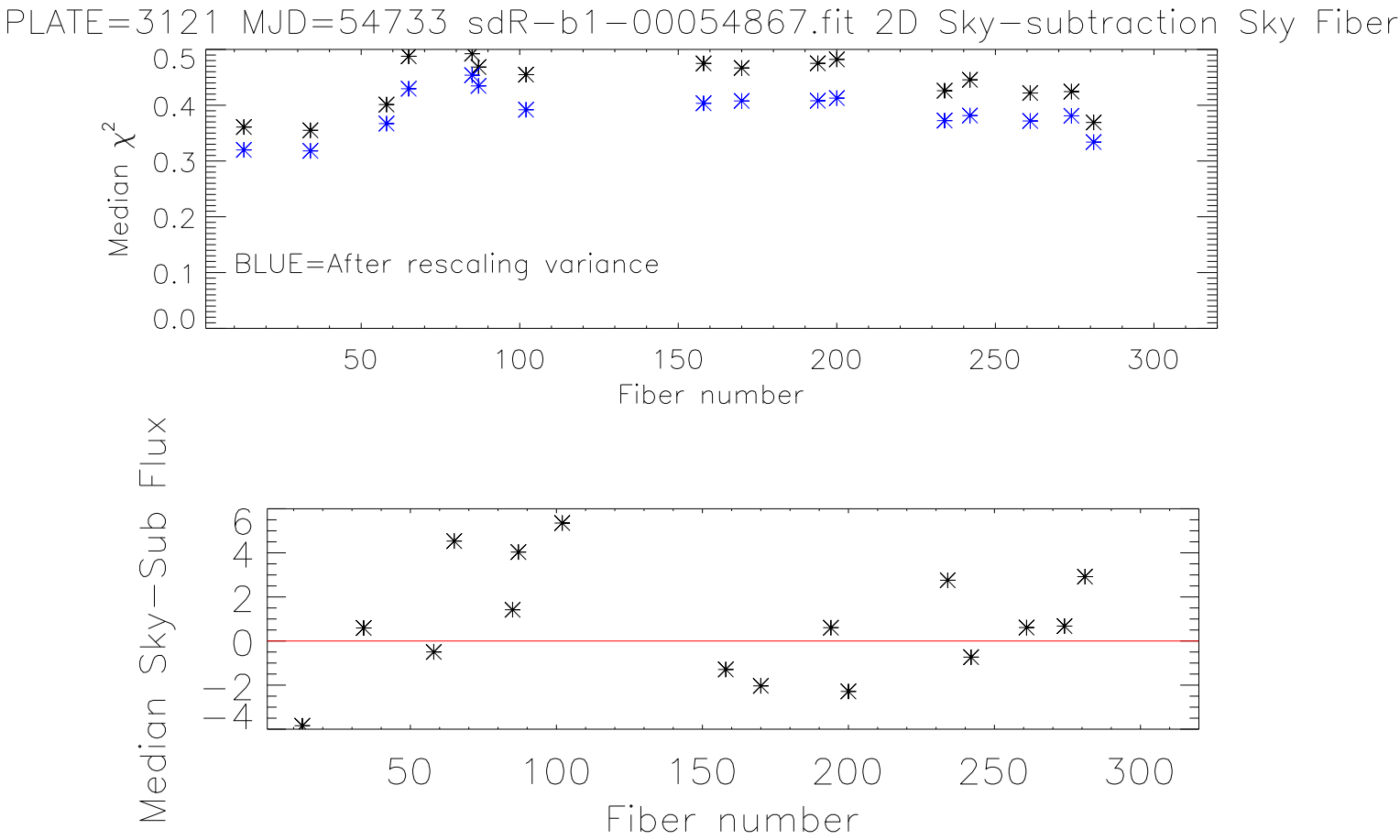
es= −0.0000

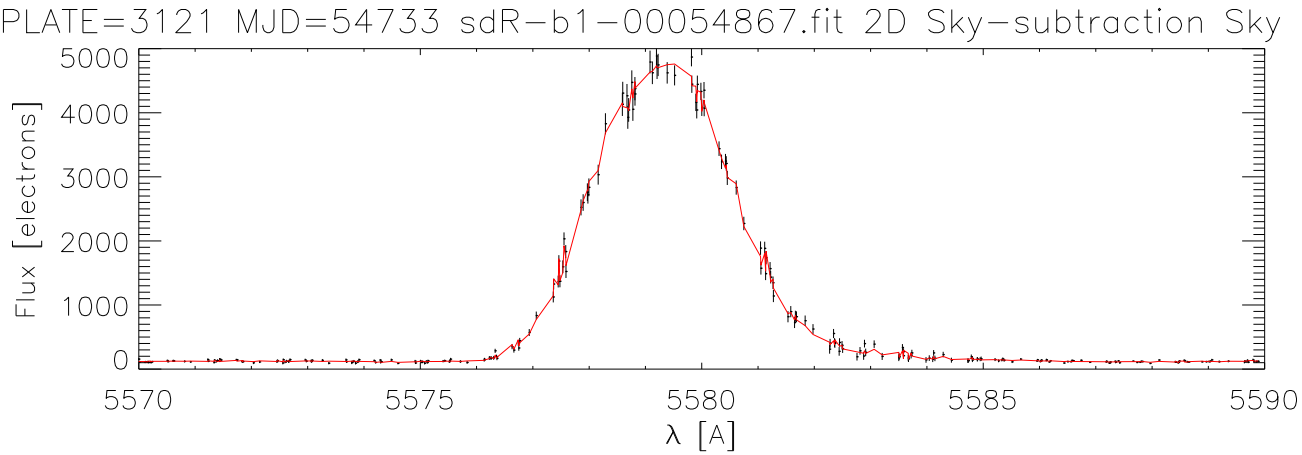

PLATE=3121 MJD=54733 sdR-b1-00054867.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
−5
−10
50
100
150
200
250
300
Fiber number

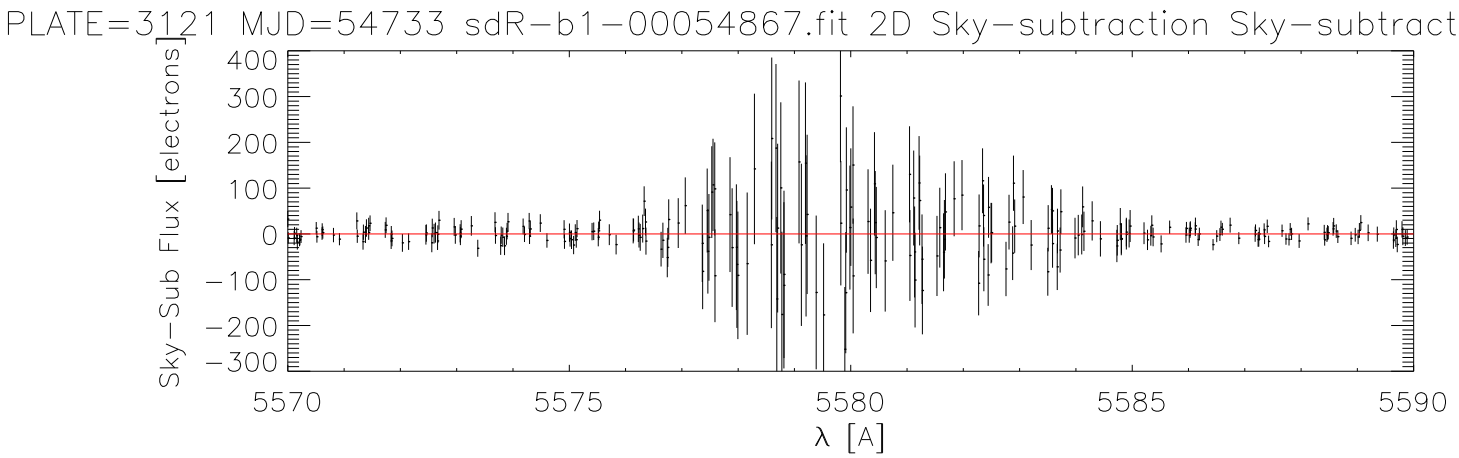

PLATE=3121 MJD=54733 sdR-b1-00054867.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

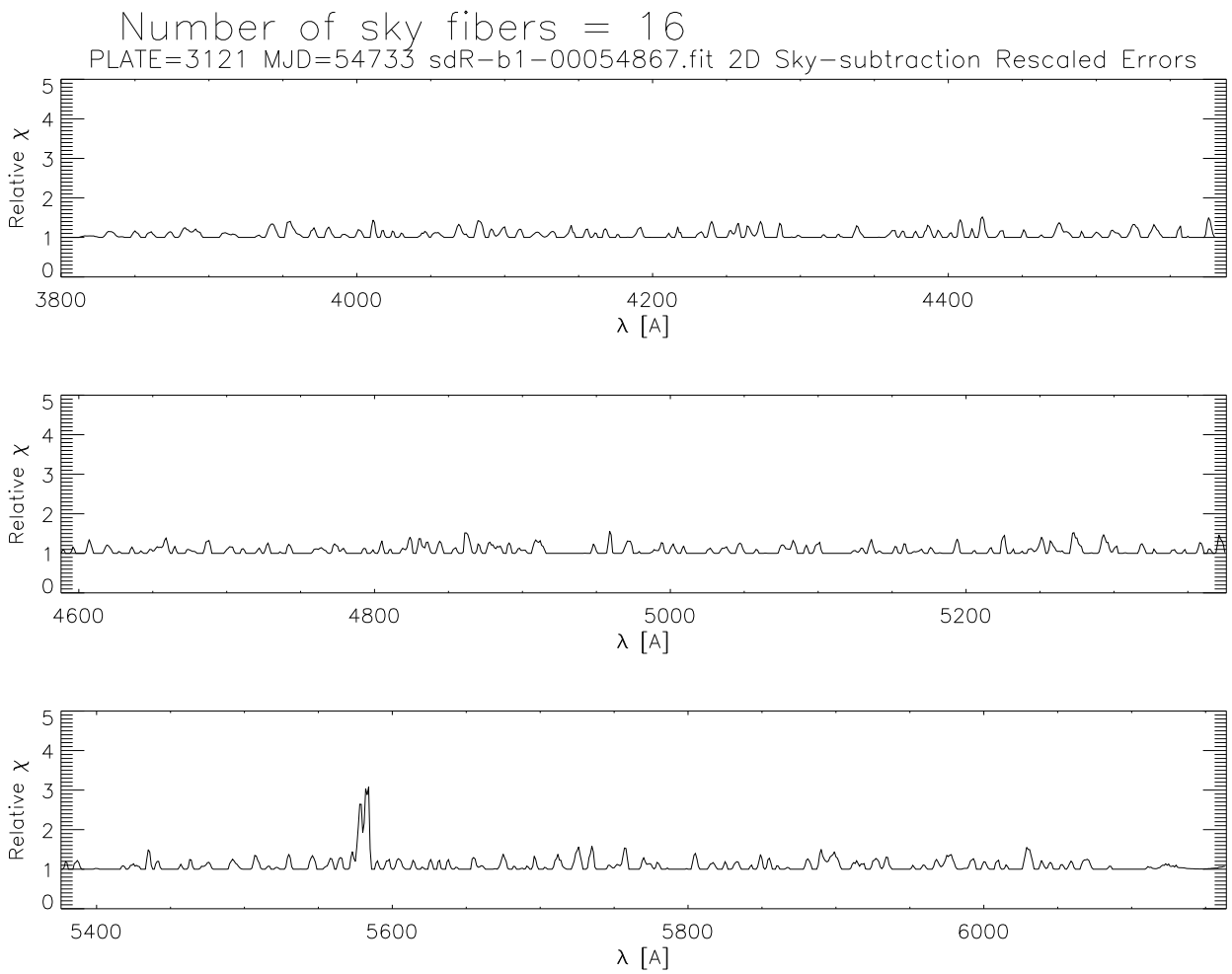

PLATE=3121 MJD=54733 sdR-b1-00054867.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
-200
-400
5570
5575
5580
5585
5590
λ [A]

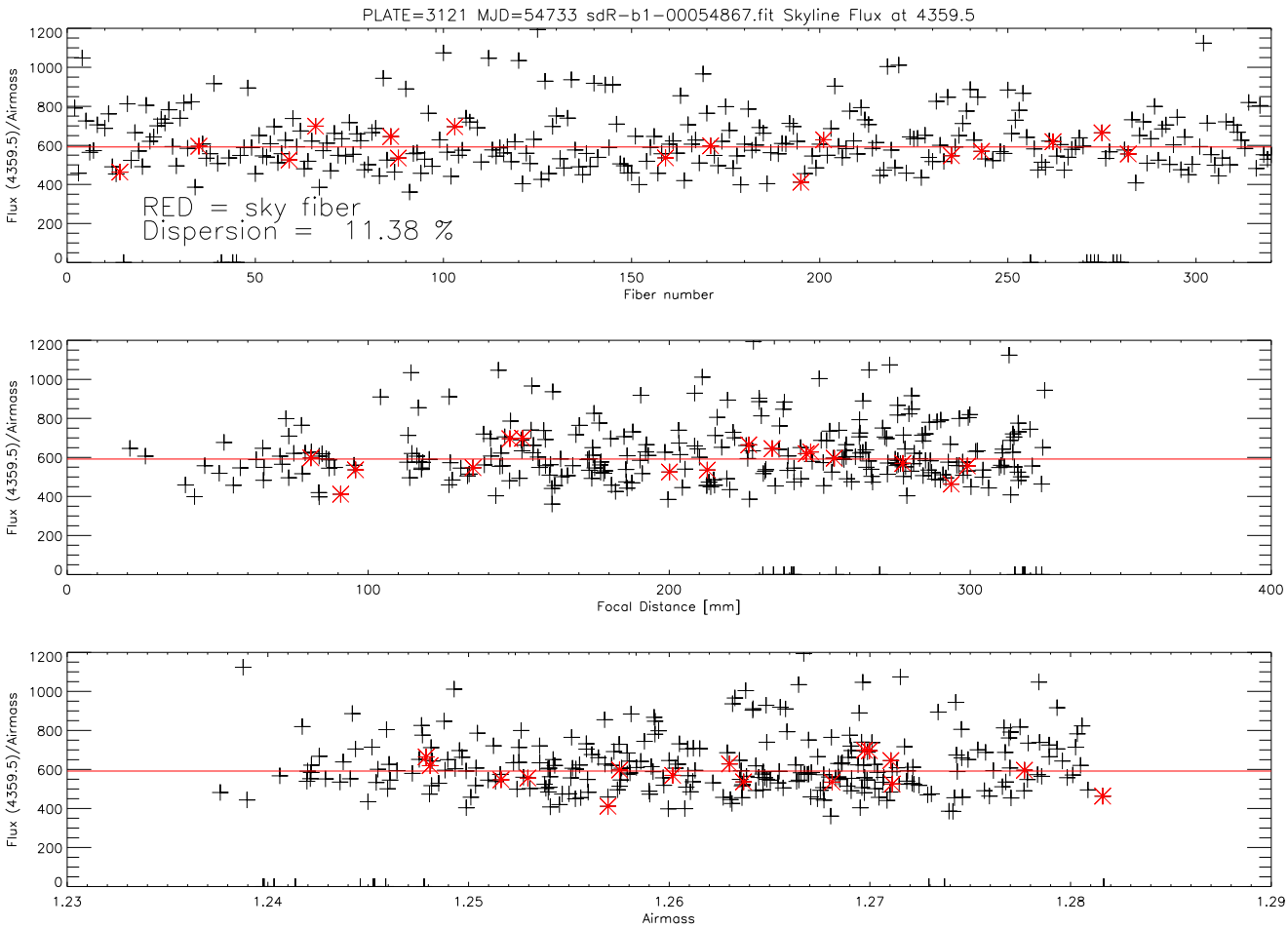

Number of sky fibers = 16
PLATE=3121 MJD=54733 sdR-b1-00054867.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

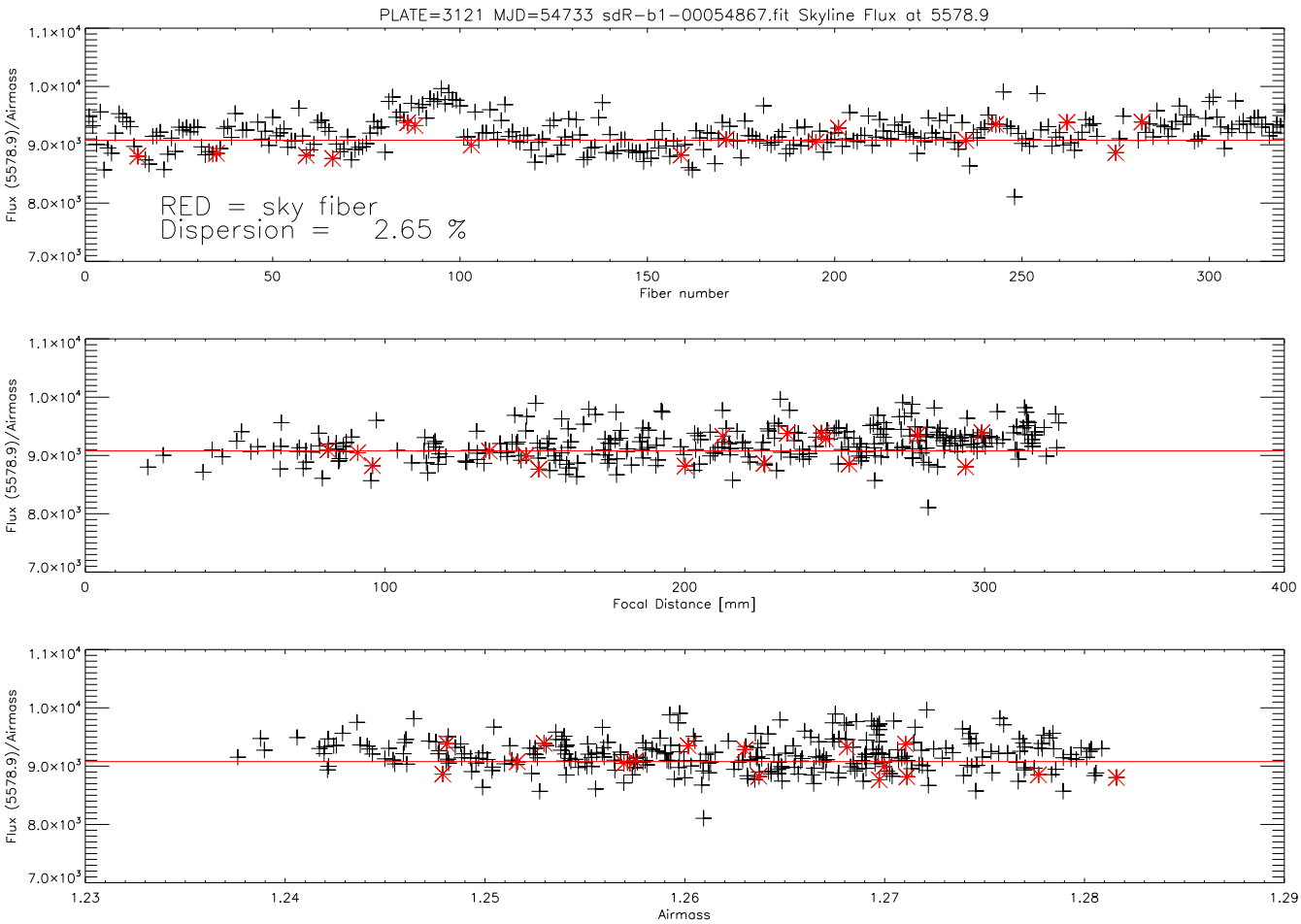

PLATE=3121 MJD=54733 sdR-b1-00054867.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

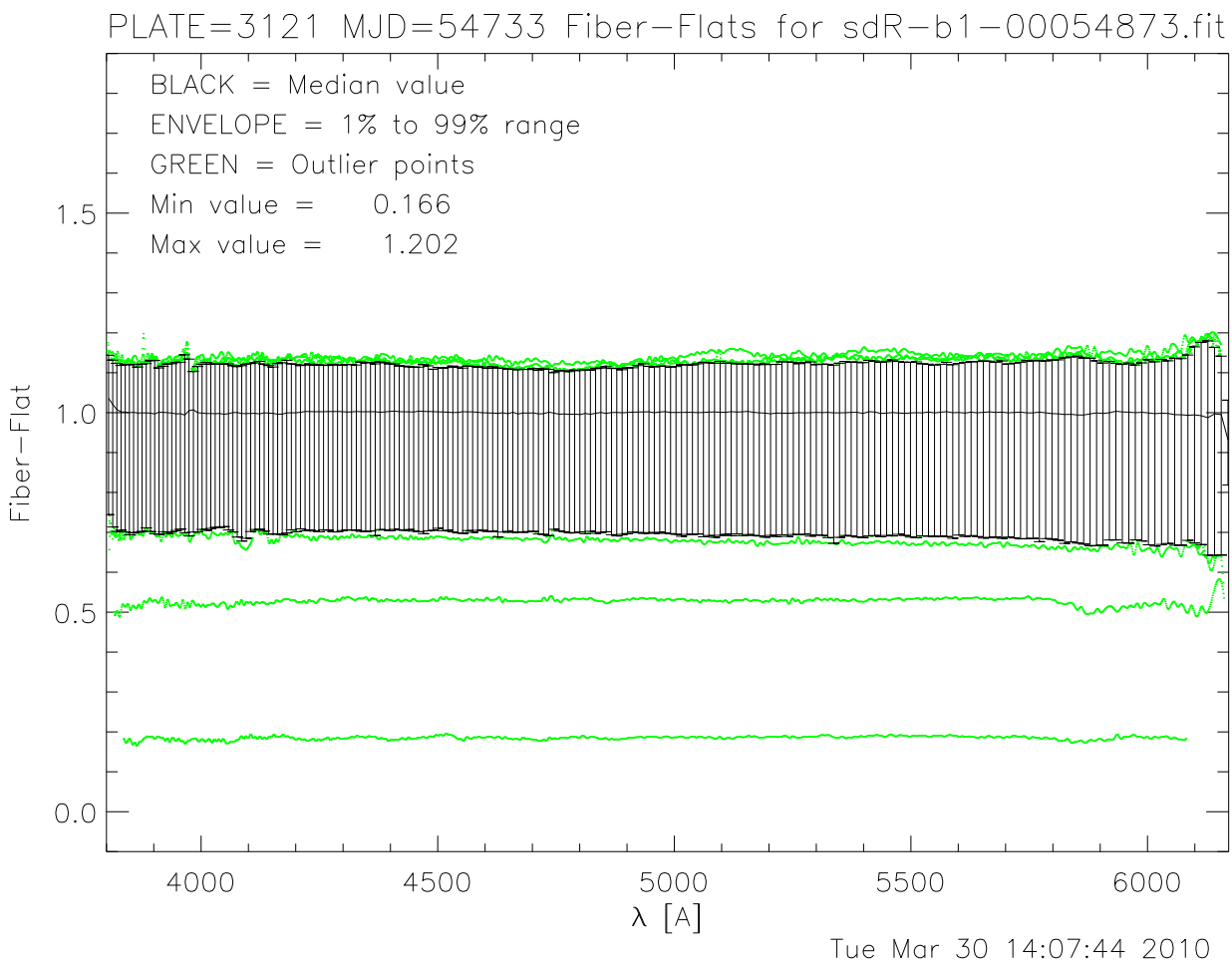

PLATE=3121 MJD=54733 sdR-b1-00054867.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

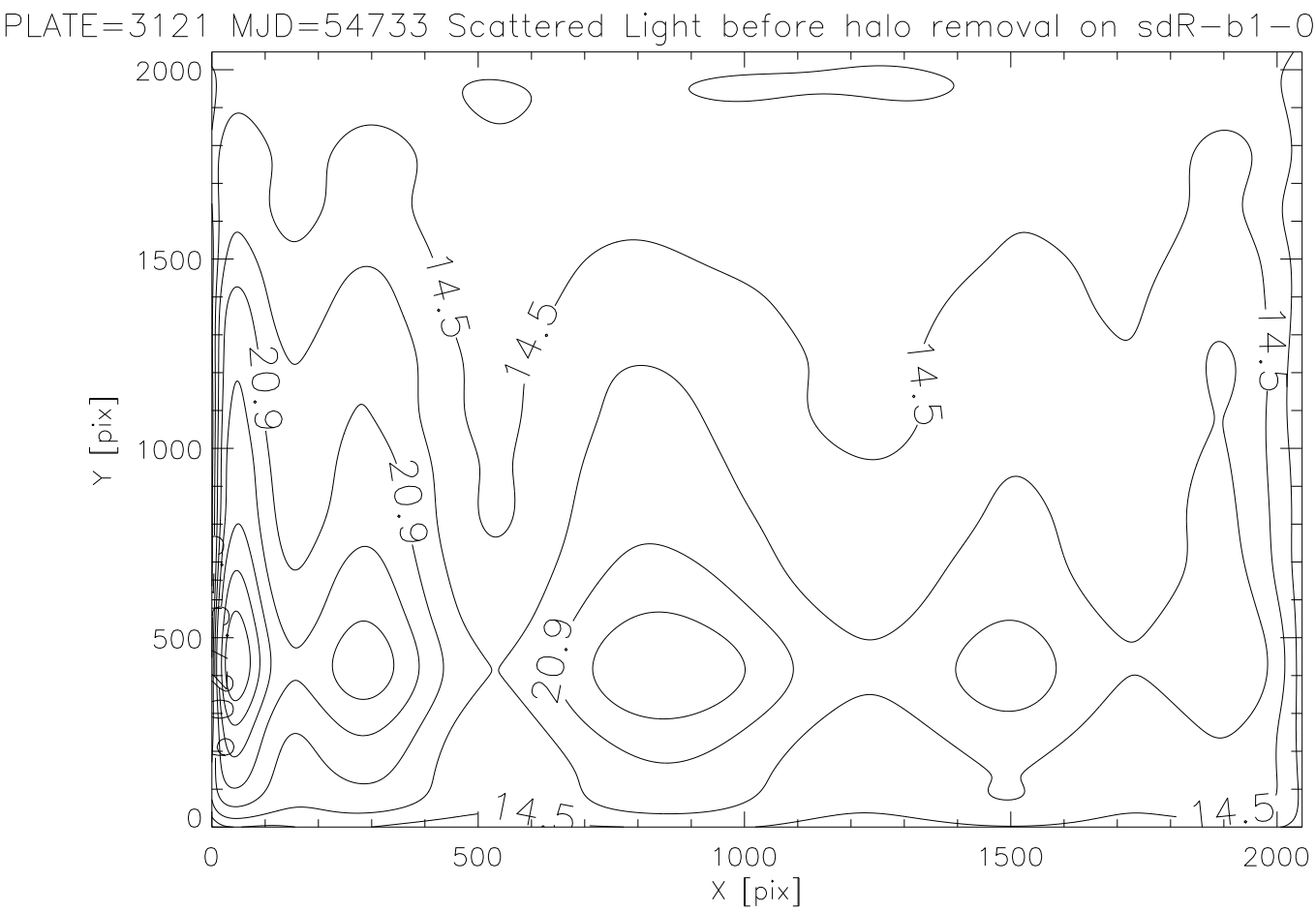

PLATE=3121 MJD=54733 sdR-b1-00054867.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
300
200
100
0
-100
-200
-300
5570
5575
5580
5585
5590
λ [A]

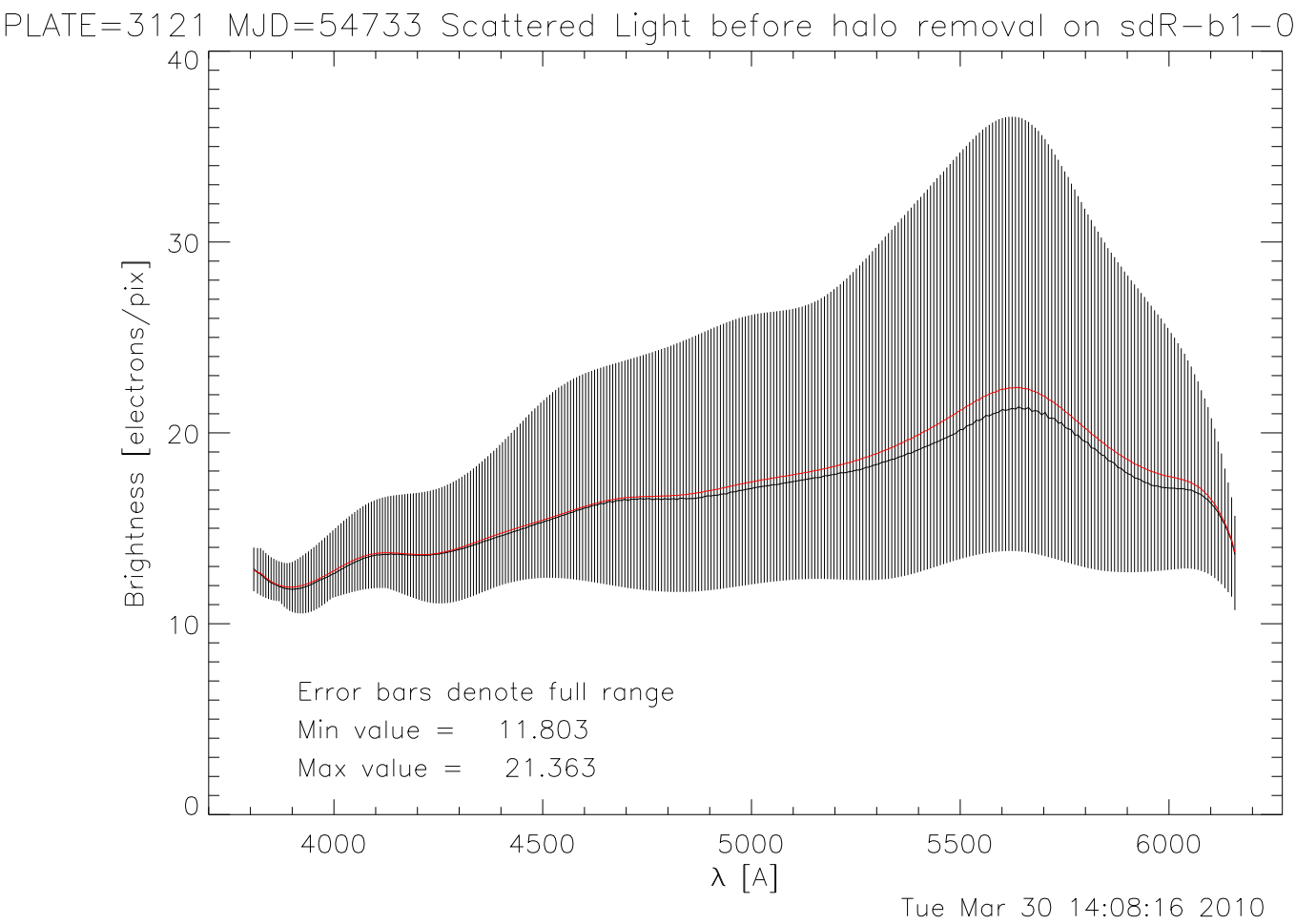

Number of sky fibers = 16
PLATE=3121 MJD=54733 sdR-b1-00054867.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

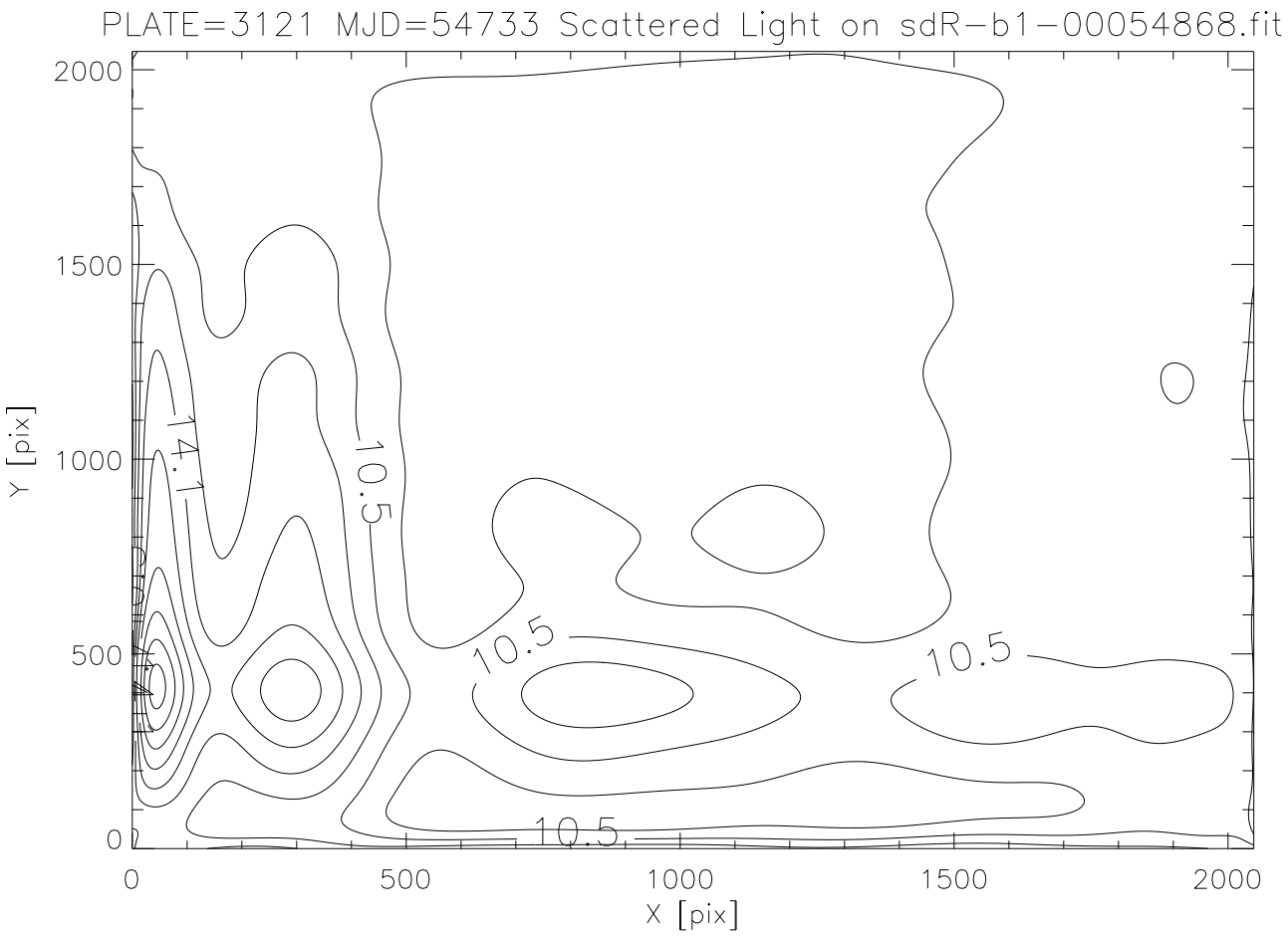

PLATE=3121 MJD=54733 sdR-b1-00054867.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 11.38 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

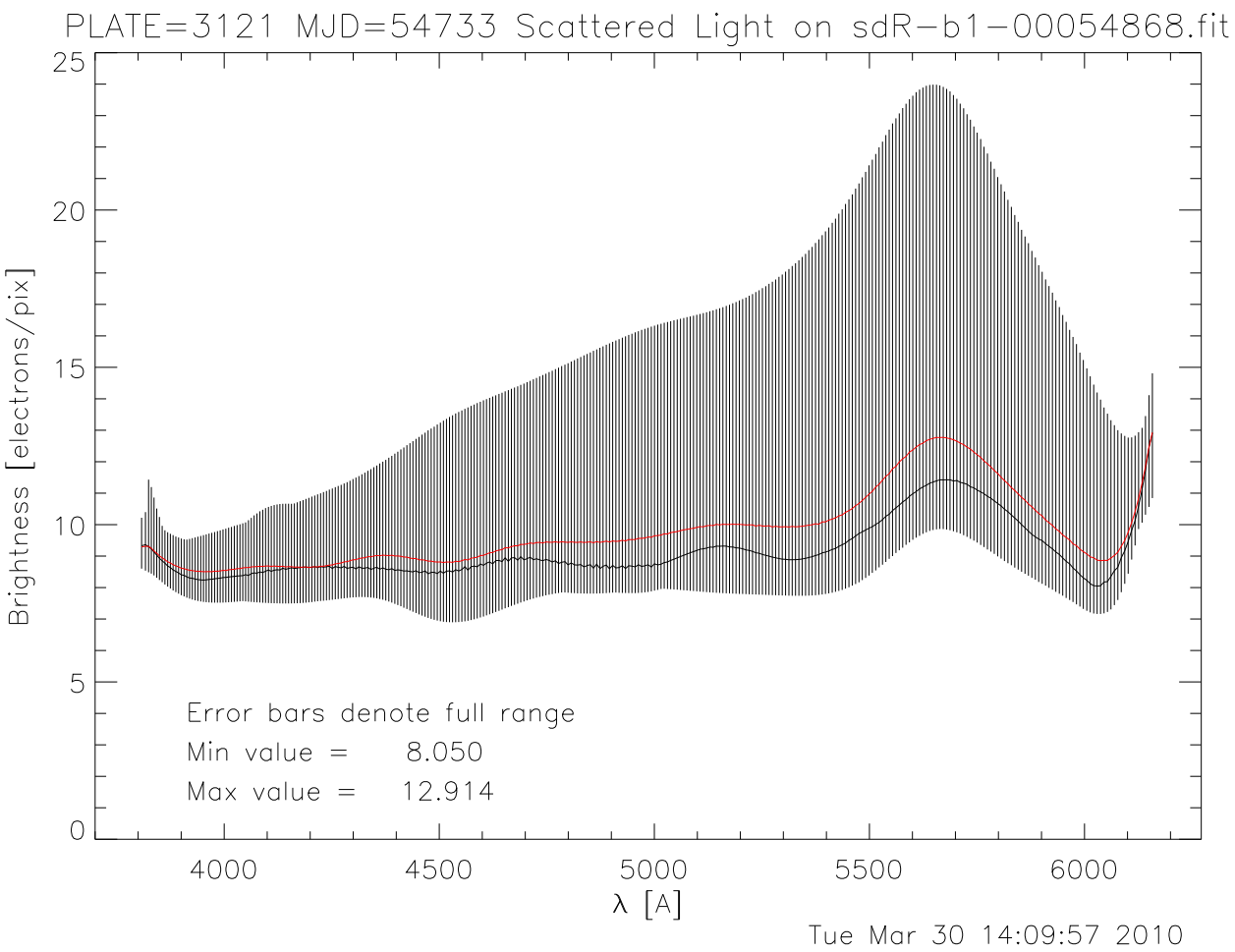

PLATE=3121 MJD=54733 sdR-b1-00054867.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 2.65 %
Fiber number
Focal Distance [mm]
Airmass

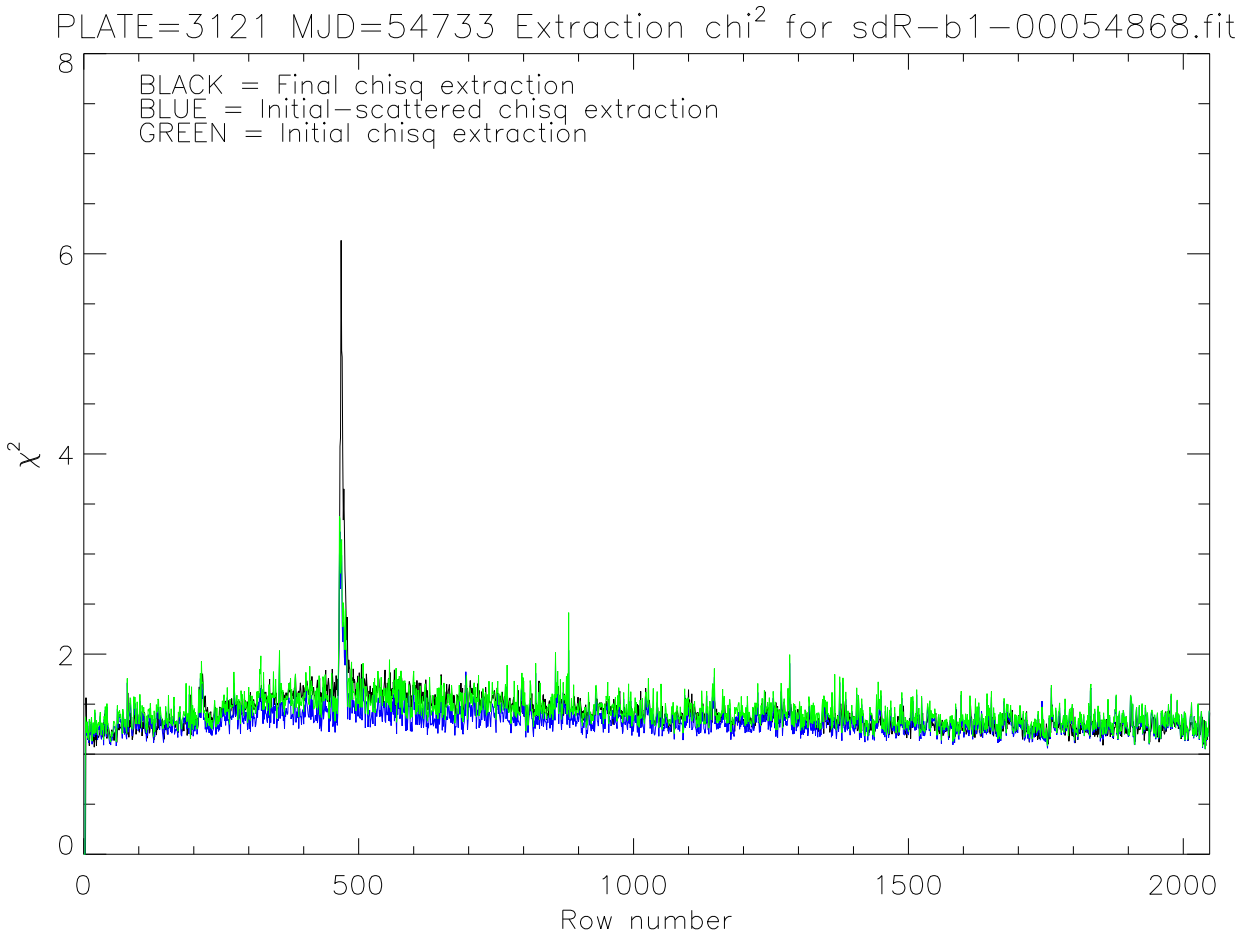

PLATE=3121 MJD=54733 Fiber-Flats for sdR-b1-00054873.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.166
Max value = 1.202
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Tue Mar 30 14:07:44 2010

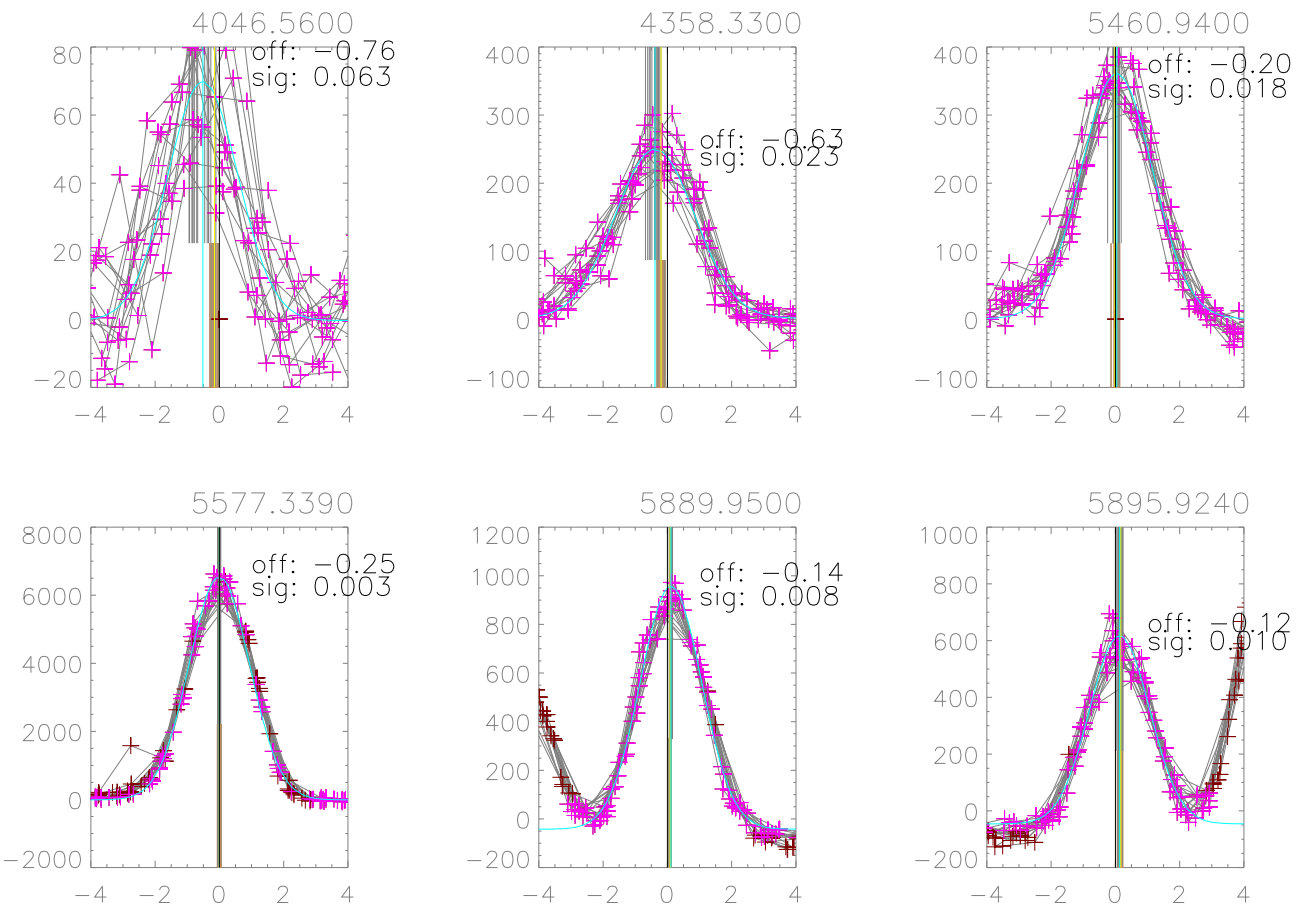

PLATE=3121 MJD=54733 Scattered Light before halo removal on sdR−b1−00054868.f
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
14.5
20.9

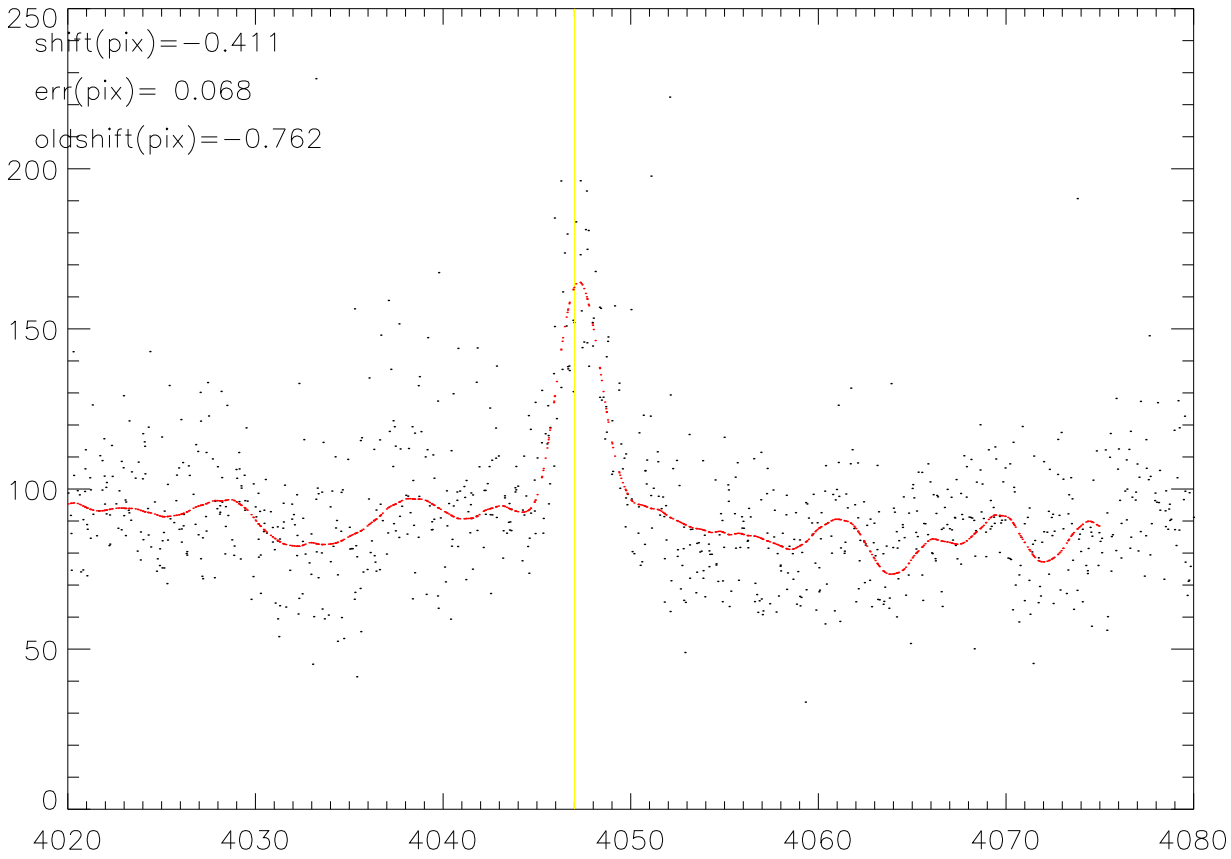

PLATE=3121 MJD=54733 Scattered Light before halo removal on sdR-b1-00054868.f
Brightness [electrons/pix]
40
30
20
10
0
Error bars denote full range
Min value = 11.803
Max value = 21.363
4000
4500
5000
5500
6000
λ [A]
Tue Mar 30 14:08:16 2010

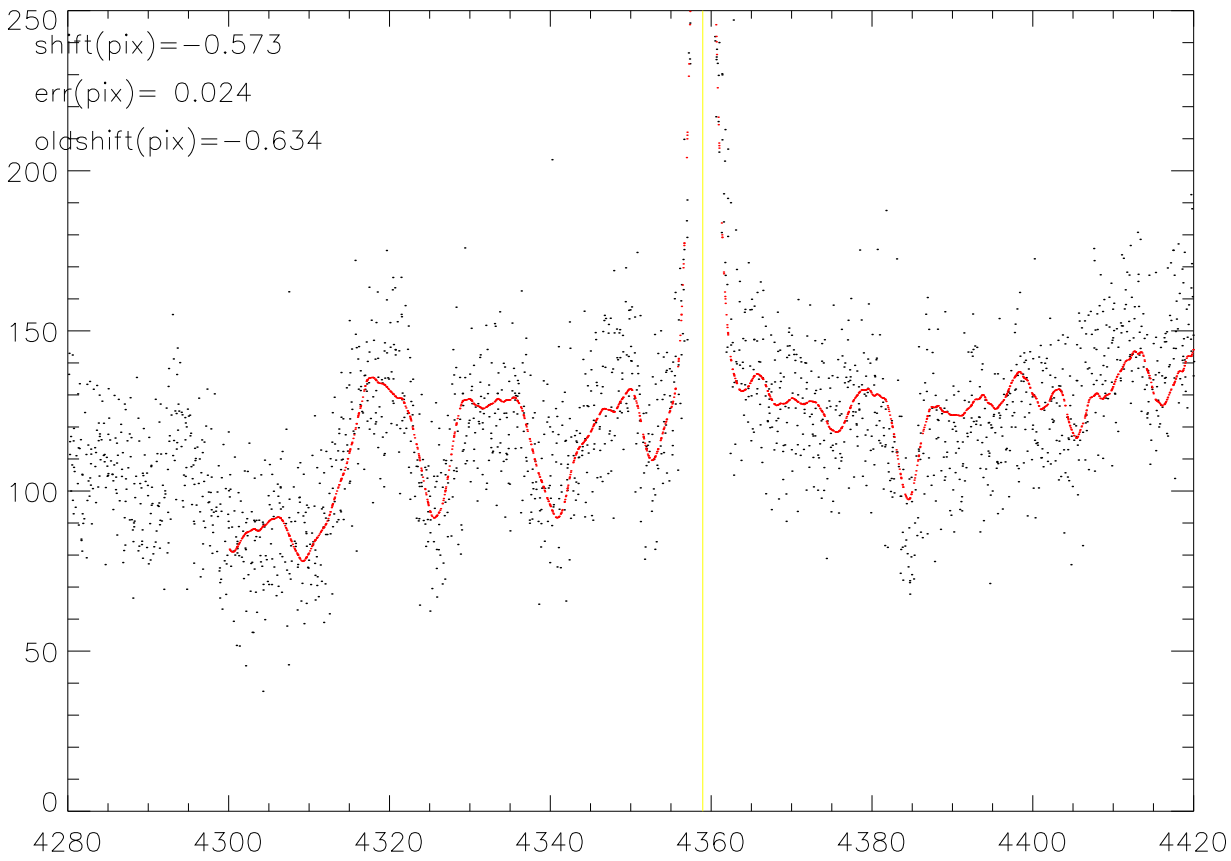

PLATE=3121 MJD=54733 Scattered Light on sdR-b1-00054868.fit
2000
1500
1000
500
0
Y [pix]
14.1
10.5
10.5
10.5
10.5
0
500
1000
1500
2000
X [pix]

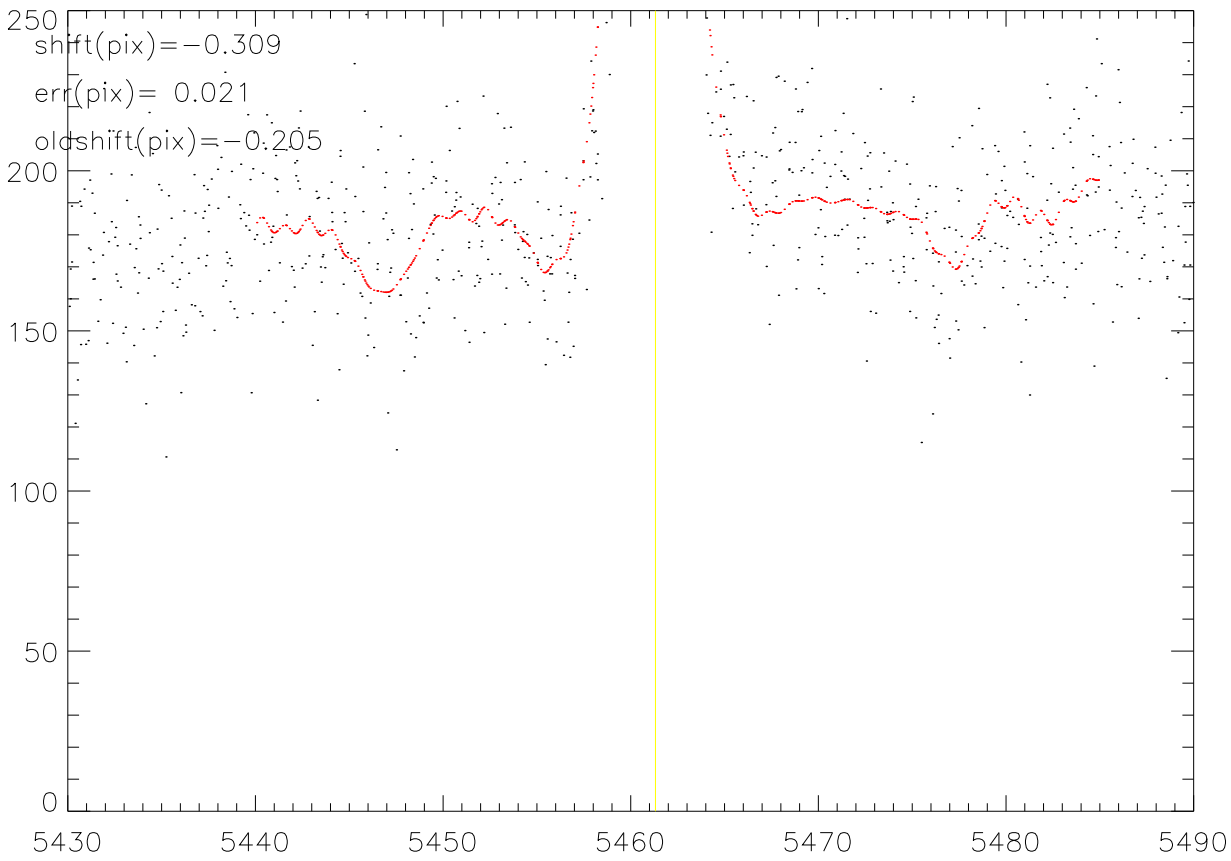

PLATE=3121 MJD=54733 Scattered Light on sdR-b1-00054868.fit
Brightness [electrons/pix]
25
20
15
10
5
0
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 8.050
Max value = 12.914
Tue Mar 30 14:09:57 2010

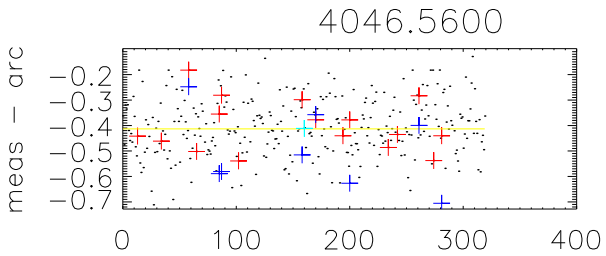

PLATE=3121 MJD=54733 Extraction chi^2 for sdR-b1-00054868.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
0
500
1000
1500
2000
Row number

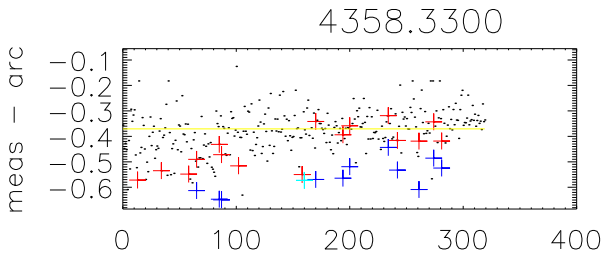

4046.5600
off: −0.76
sig: 0.063
4358.3300
off: −0.63
sig: 0.023
5460.9400
off: −0.20
sig: 0.018
5577.3390
off: −0.25
sig: 0.003
5889.9500
off: −0.14
sig: 0.008
5895.9240
off: −0.12
sig: 0.010

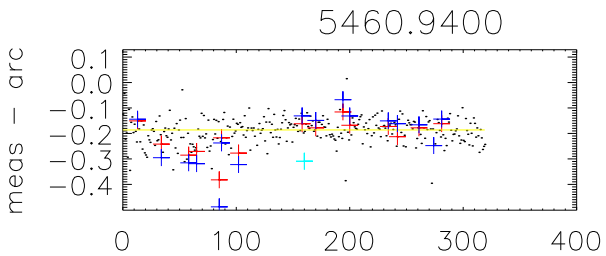

shift(pix)=−0.411
err(pix)= 0.068
oldshift(pix)=−0.762
250
200
150
100
50
0
4020
4030
4040
4050
4060
4070
4080

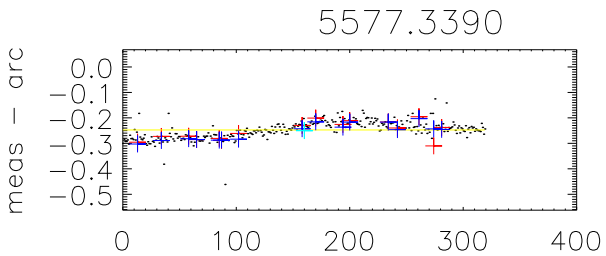

shift(pix)=−0.573
err(pix)= 0.024
oldshift(pix)=−0.634
250
200
150
100
50
0
4280
4300
4320
4340
4360
4380
4400
4420

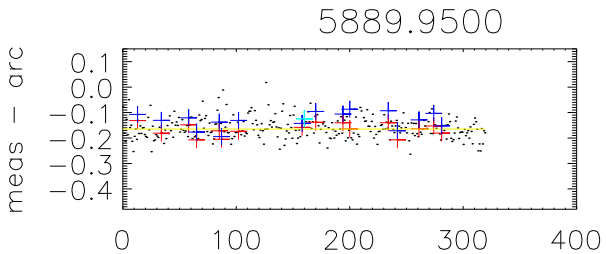

shift(pix)=−0.309
err(pix)= 0.021
oldshift(pix)=−0.205
250
200
150
100
50
0
5430
5440
5450
5460
5470
5480
5490

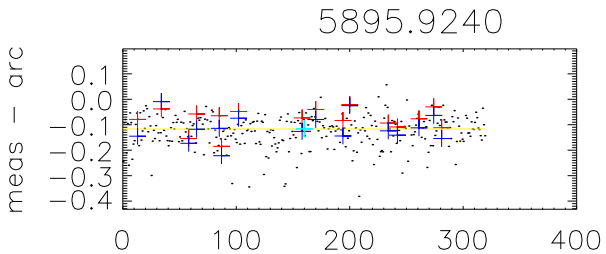

4046.5600
meas − arc
−0.2
−0.3
−0.4
−0.5
−0.6
−0.7
0
100
200
300
400

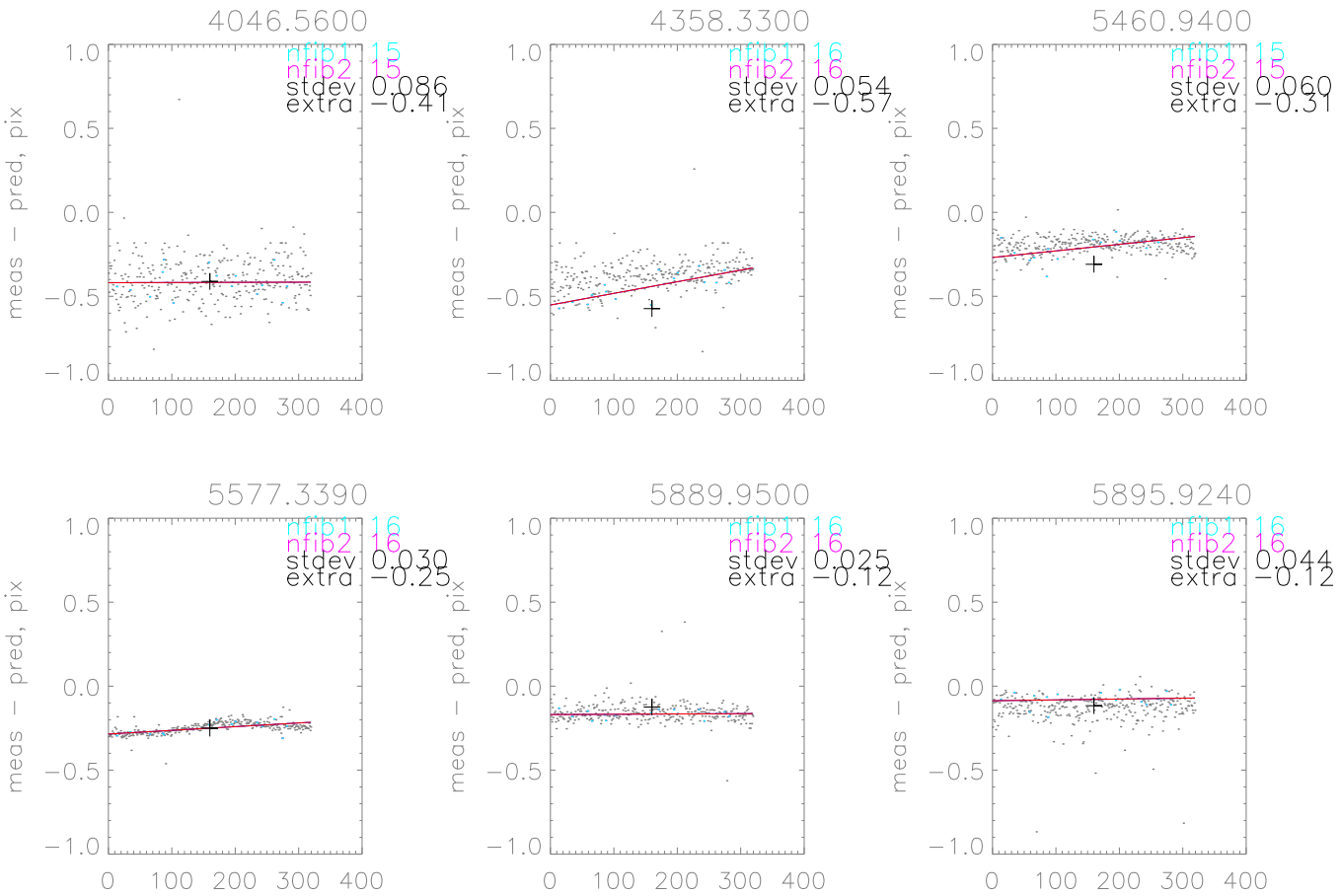

4358.3300
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

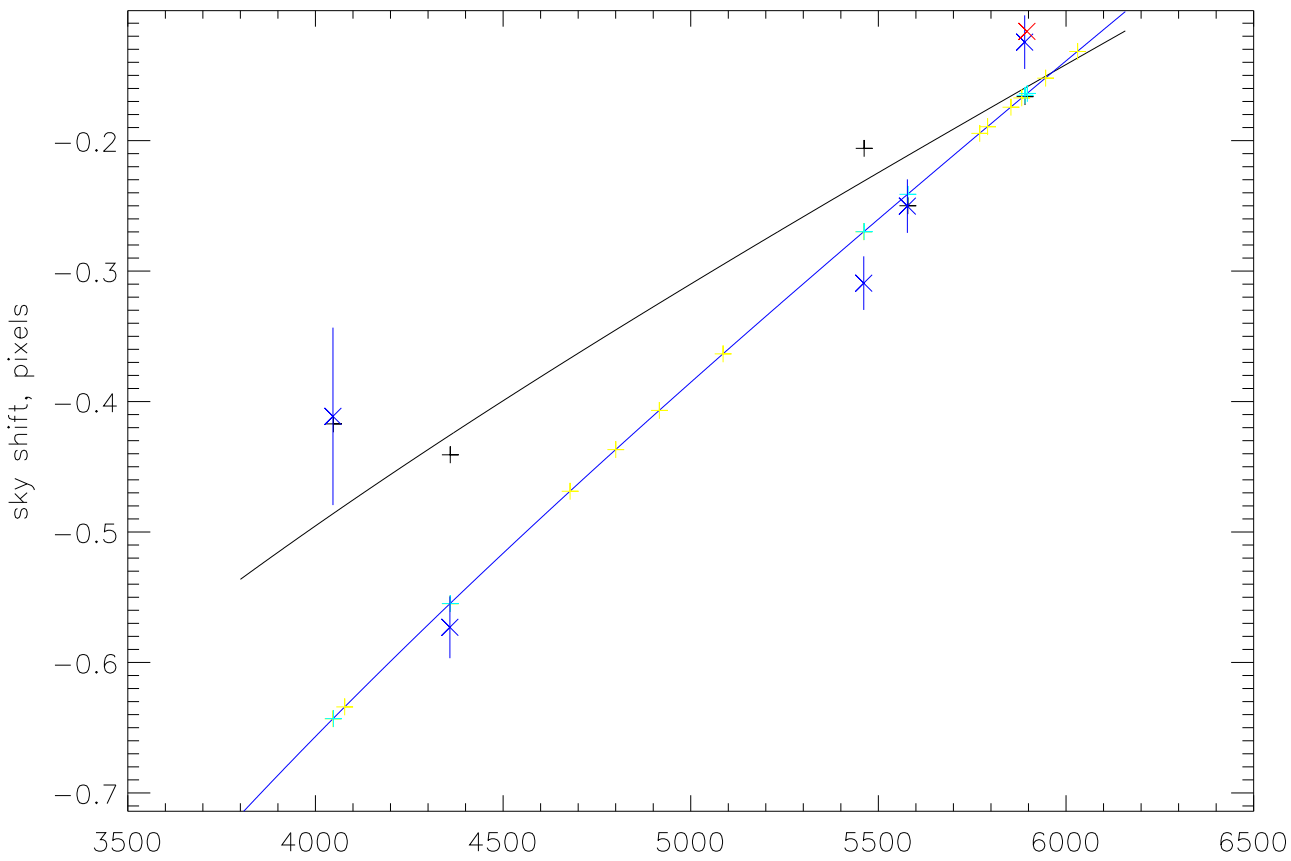

5460.9400
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

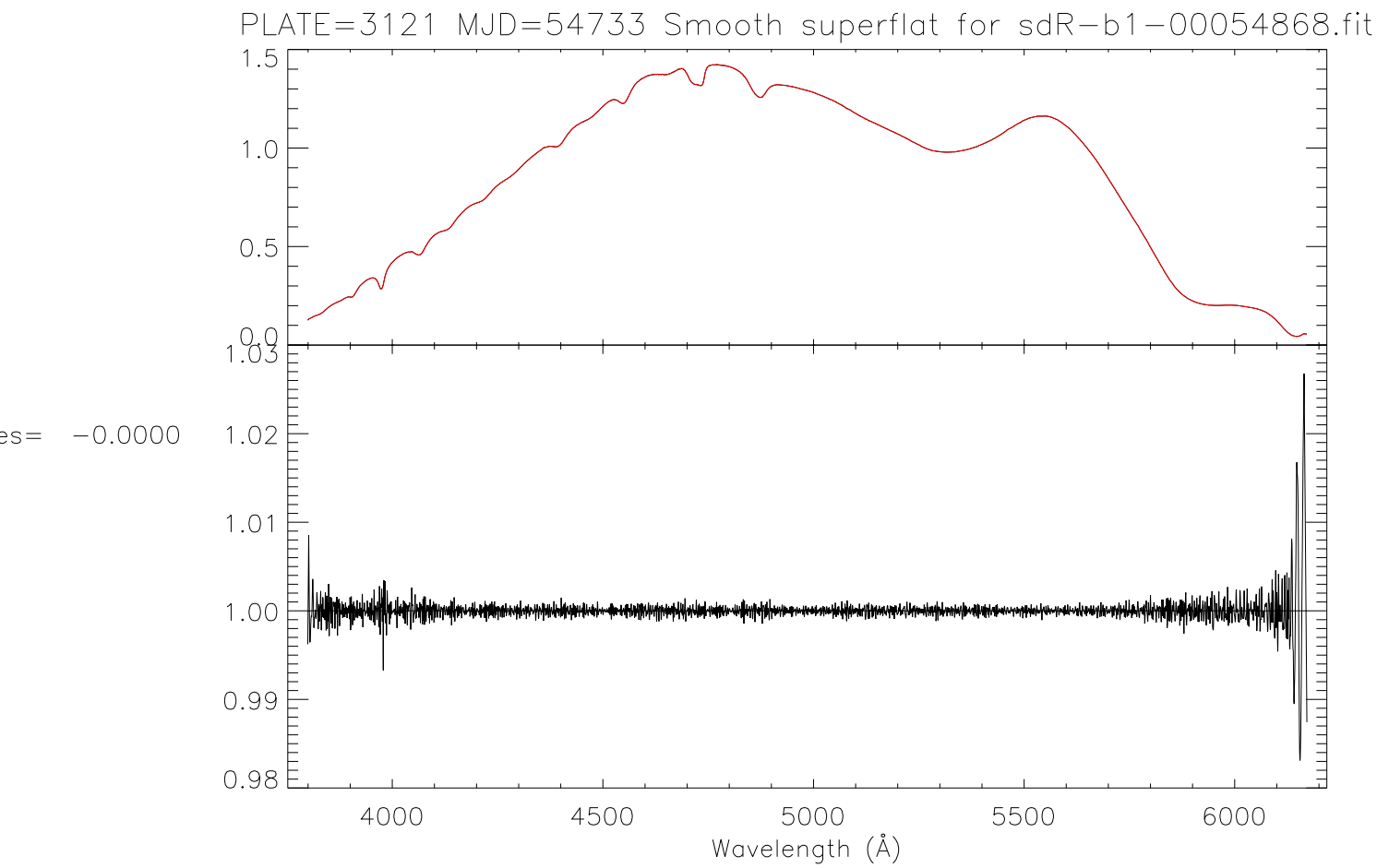

5577.3390
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400


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

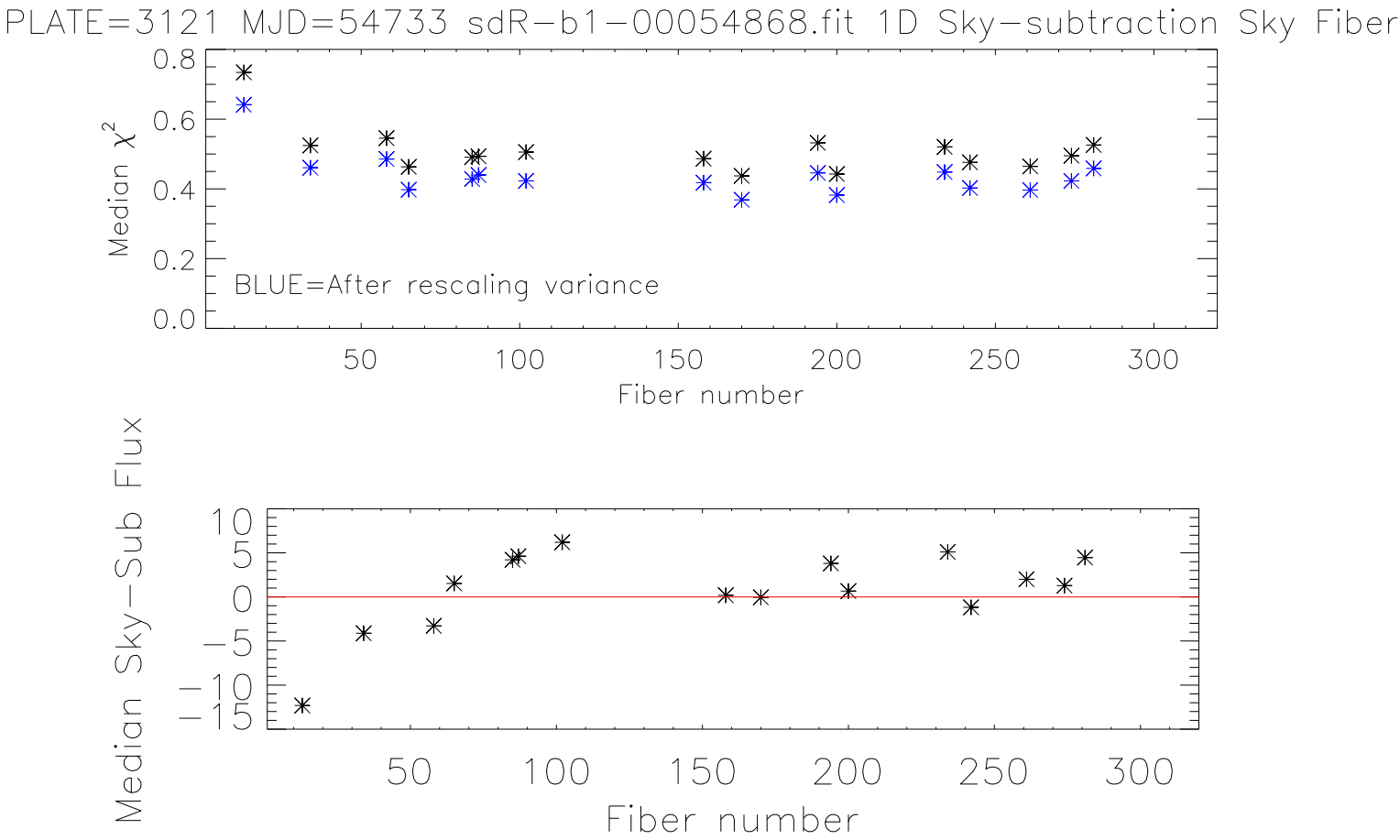

5895.9240
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

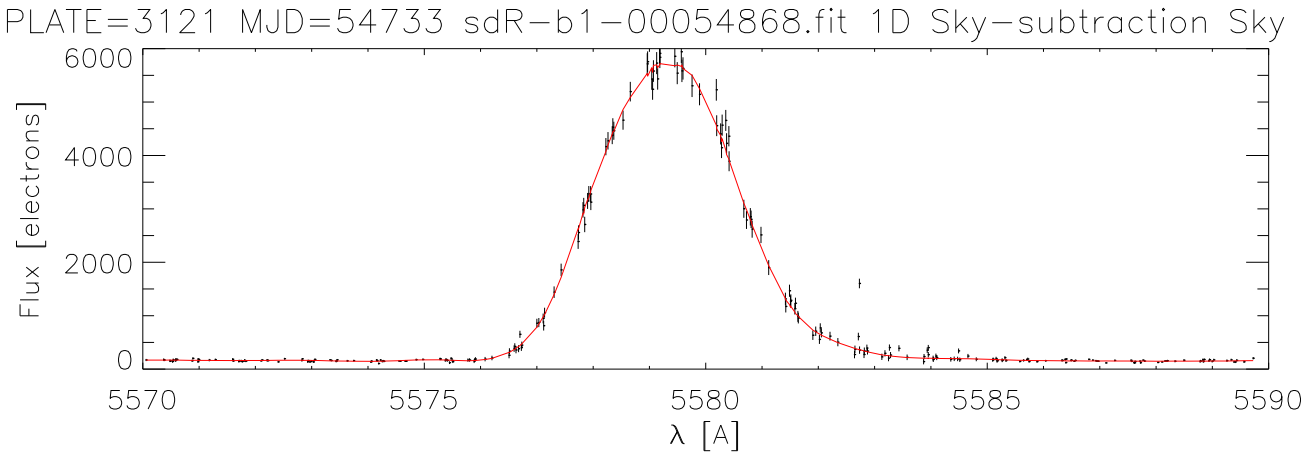

4046.5600
nfib1 15
nfib2 15
stdev 0.086
extra −0.41
4358.3300
nfib1 16
nfib2 16
stdev 0.054
extra −0.57
5460.9400
nfib1 15
nfib2 15
stdev 0.060
extra −0.31
5577.3390
nfib1 16
nfib2 16
stdev 0.030
extra −0.25
5889.9500
nfib1 16
nfib2 16
stdev 0.025
extra −0.12
5895.9240
nfib1 16
nfib2 16
stdev 0.044
extra −0.12
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

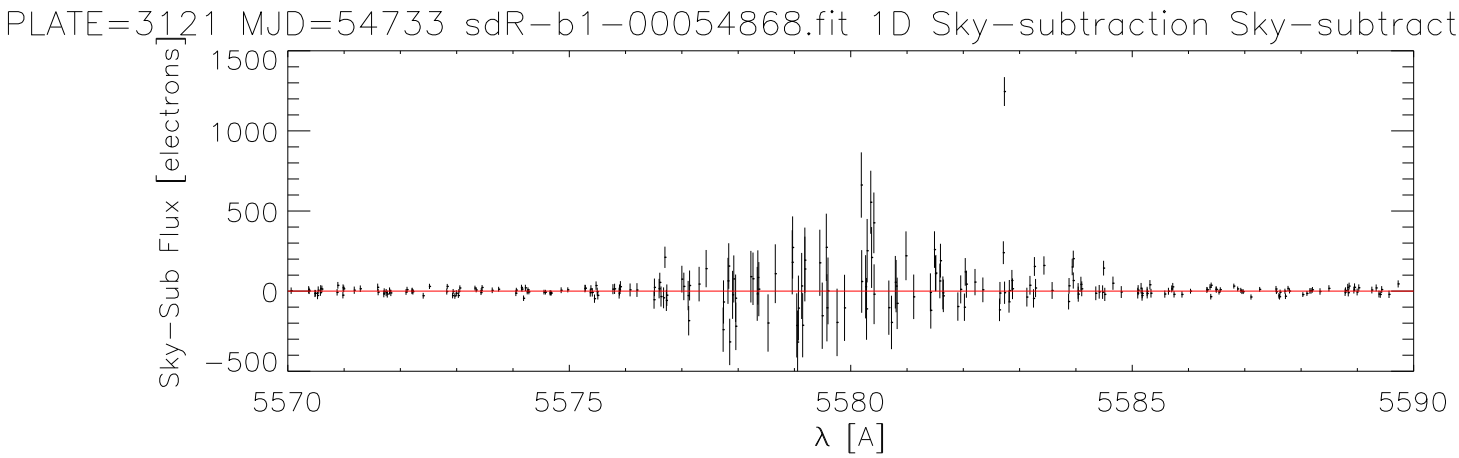

sky shift, pixels
−0.2
−0.3
−0.4
−0.5
−0.6
−0.7
3500
4000
4500
5000
5500
6000
6500

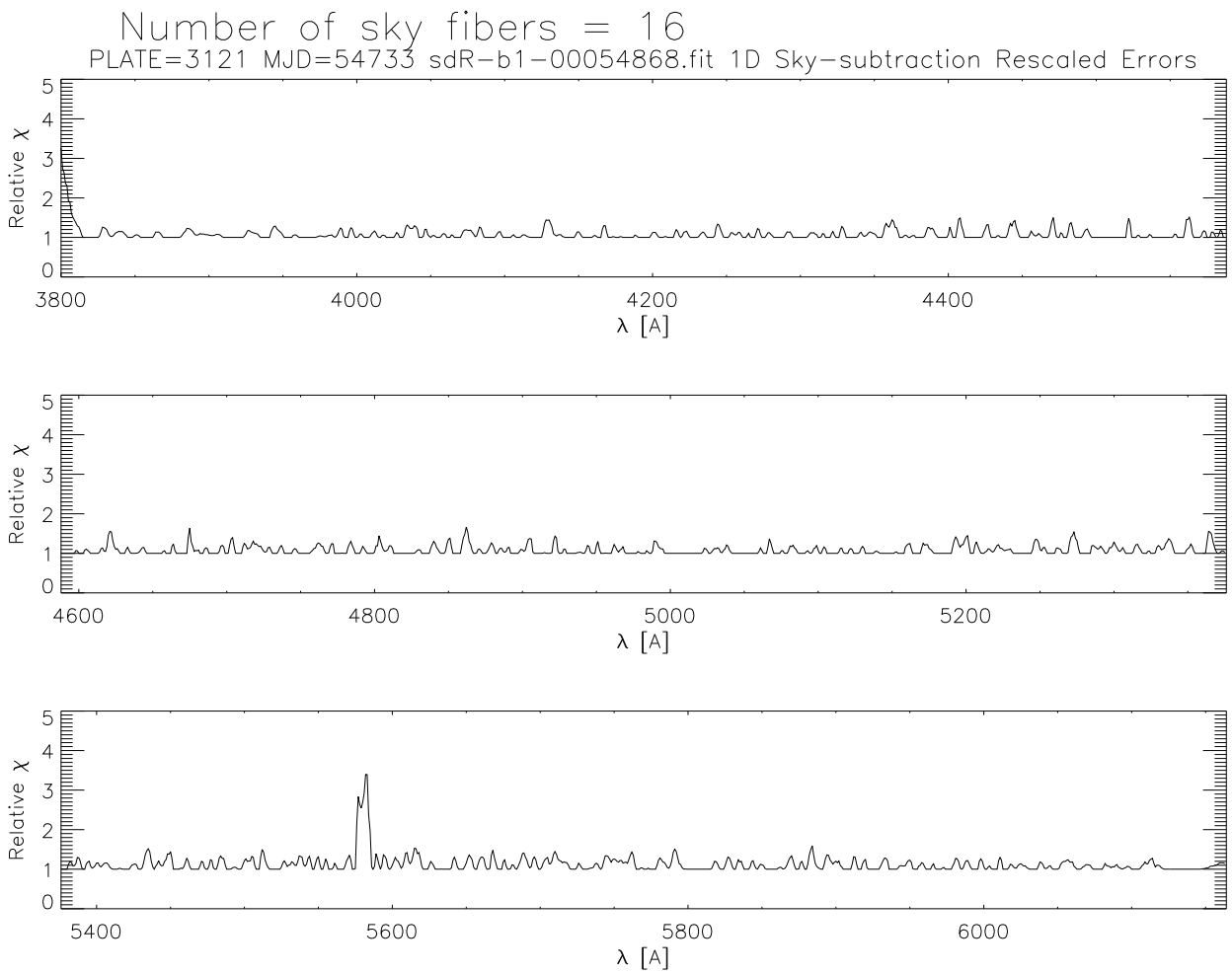

PLATE=3121 MJD=54733 Smooth superflat for sdR-b1-00054868.fit
1.5
1.0
0.5
0.0
1.03
1.02
1.01
1.00
0.99
0.98
4000
4500
5000
5500
6000
Wavelength (Å)

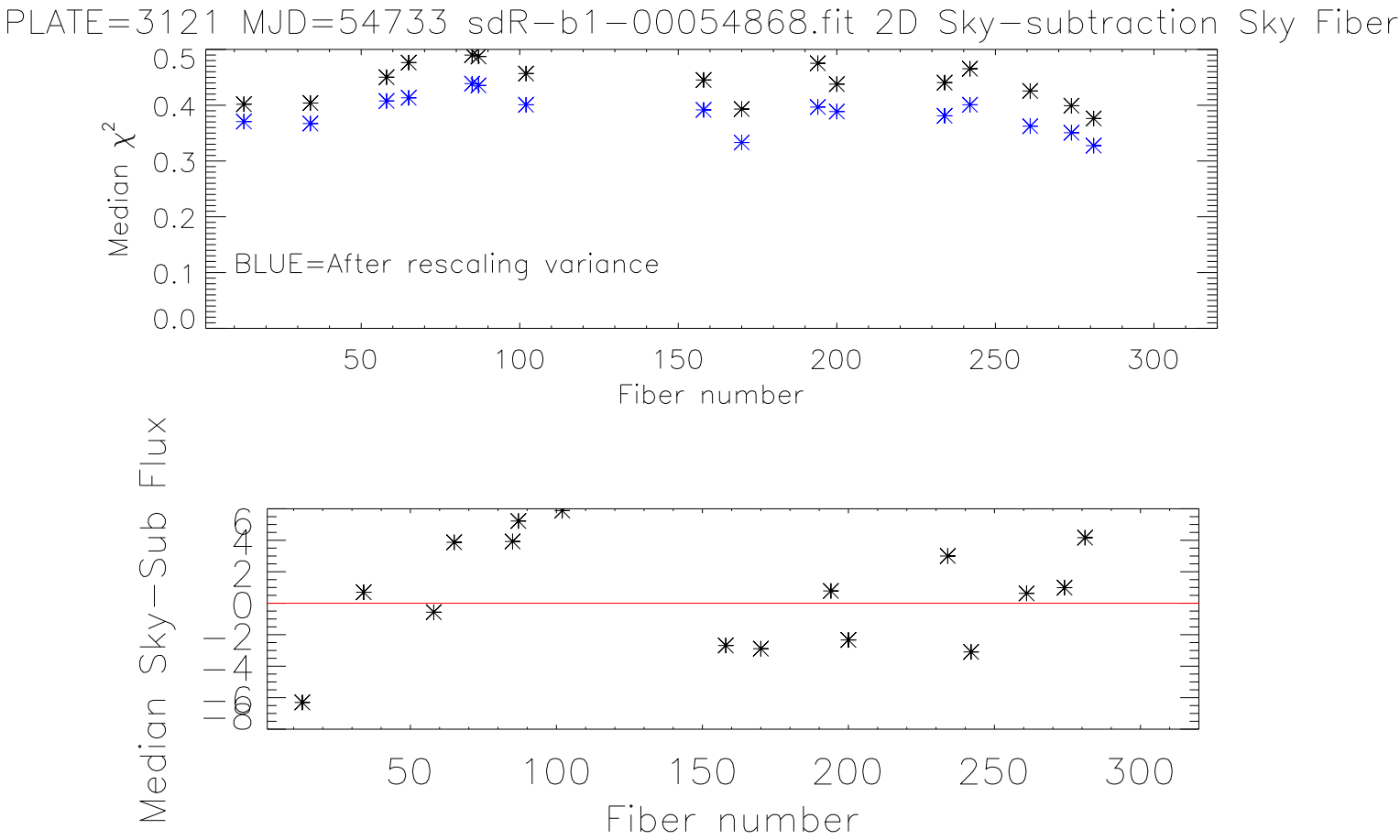
es= −0.0000

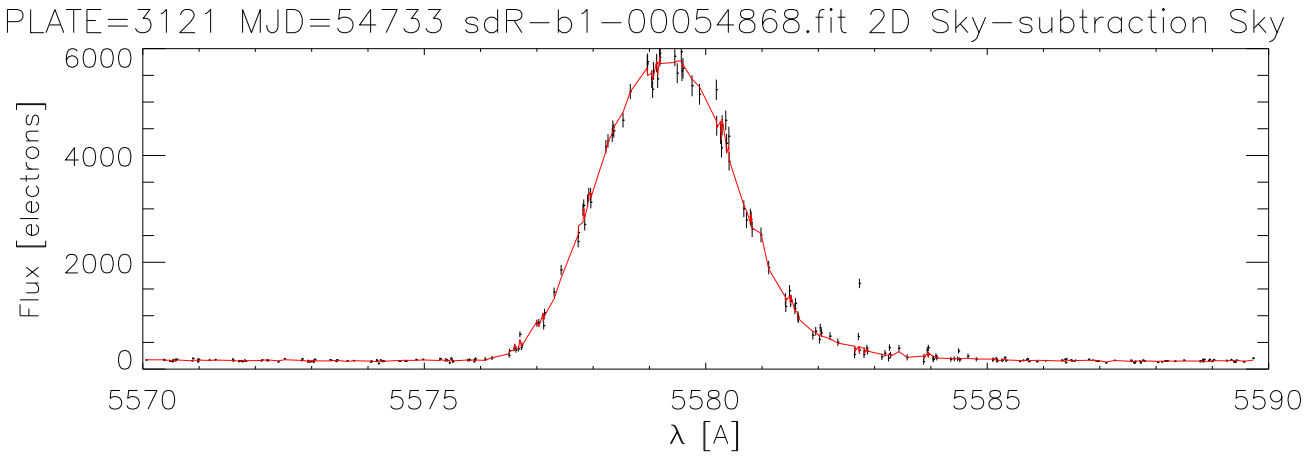

PLATE=3121 MJD=54733 sdR-b1-00054868.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
-5
-10
-15
50
100
150
200
250
300
Fiber number

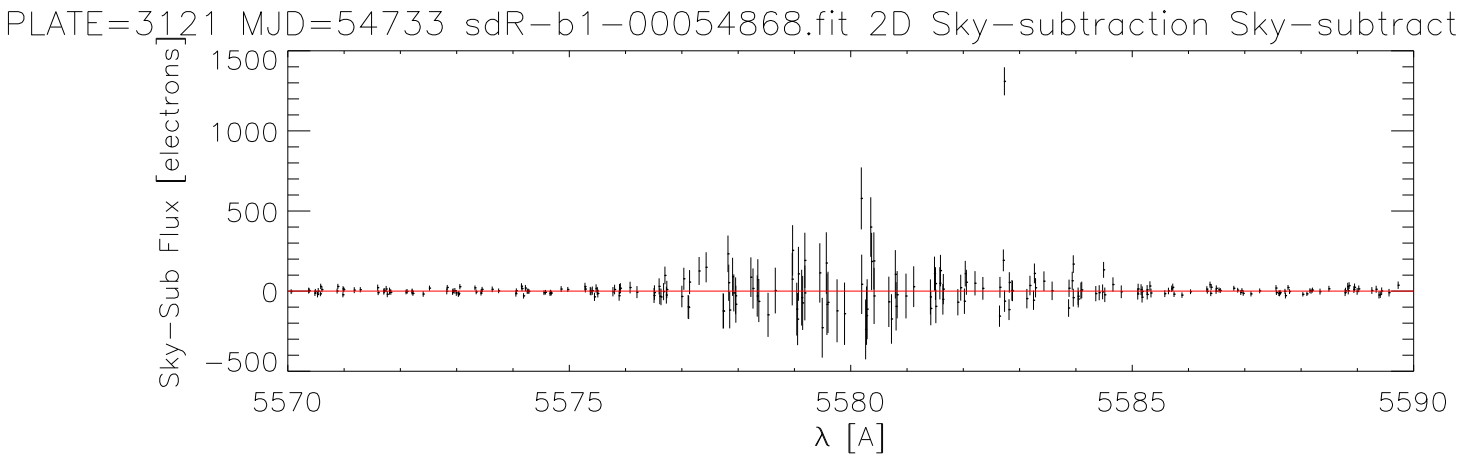

PLATE=3121 MJD=54733 sdR-b1-00054868.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

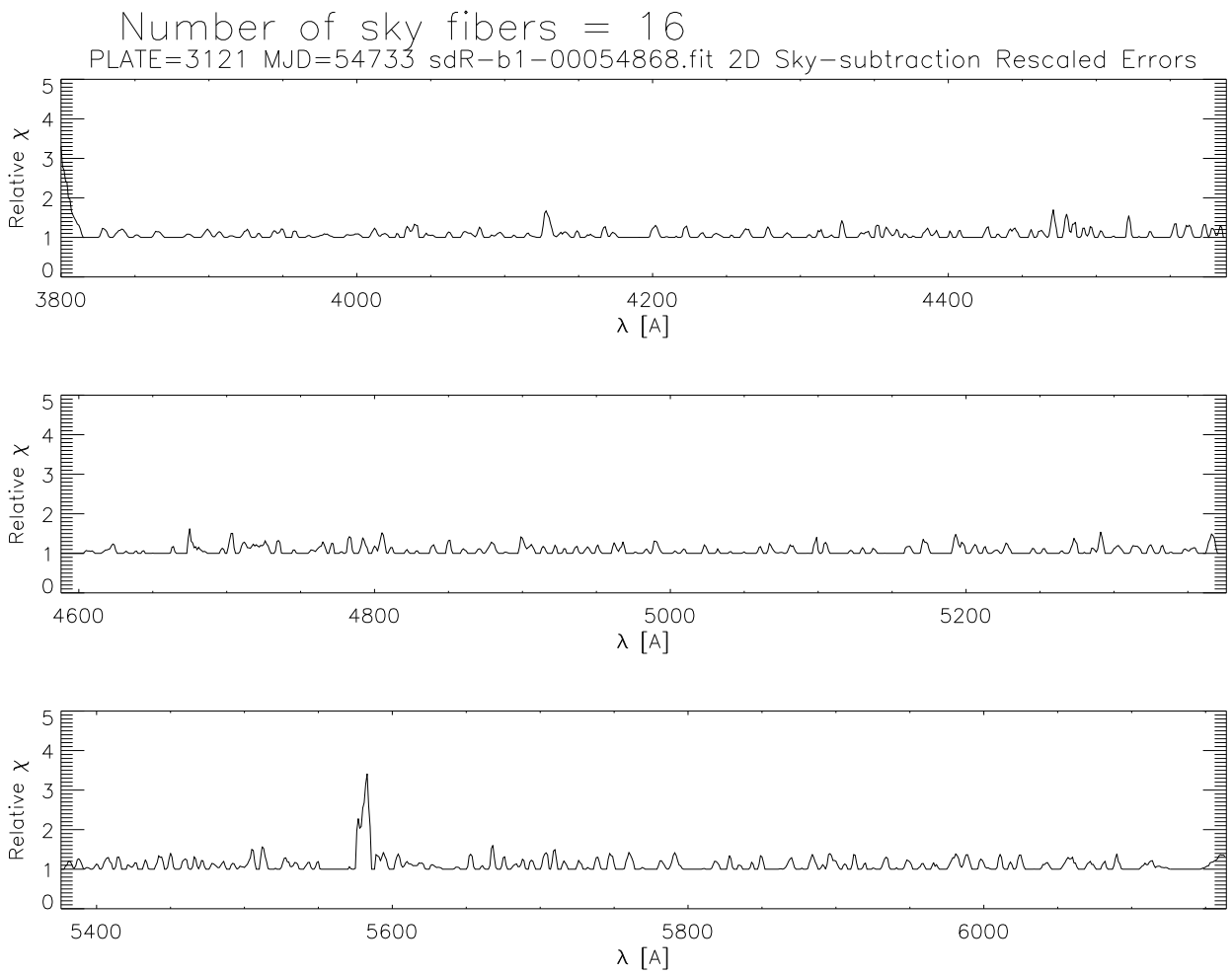

PLATE=3121 MJD=54733 sdR-b1-00054868.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
1500
1000
500
0
−500
5570
5575
5580
5585
5590
λ [A]

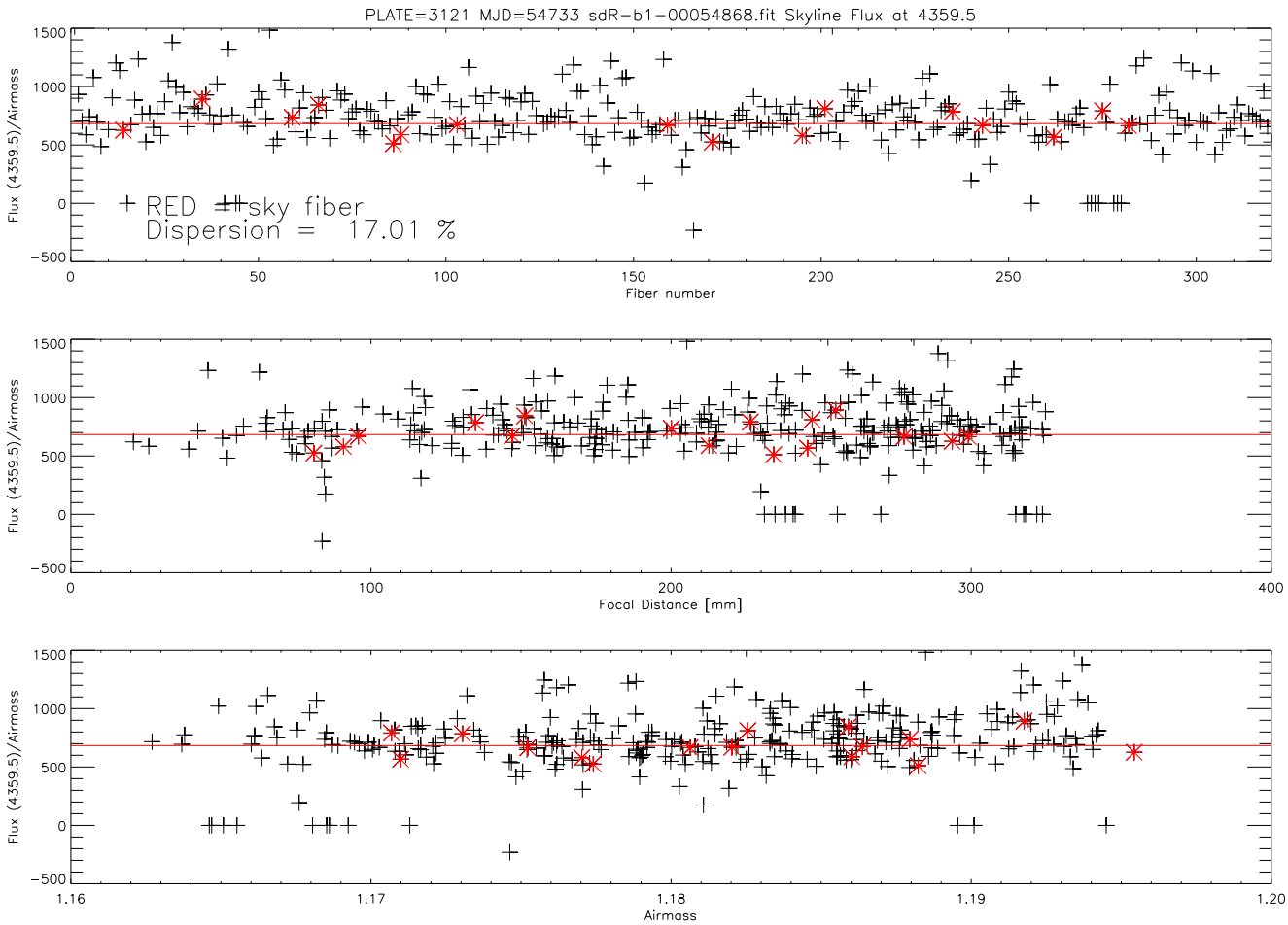

Number of sky fibers = 16
PLATE=3121 MJD=54733 sdR-b1-00054868.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

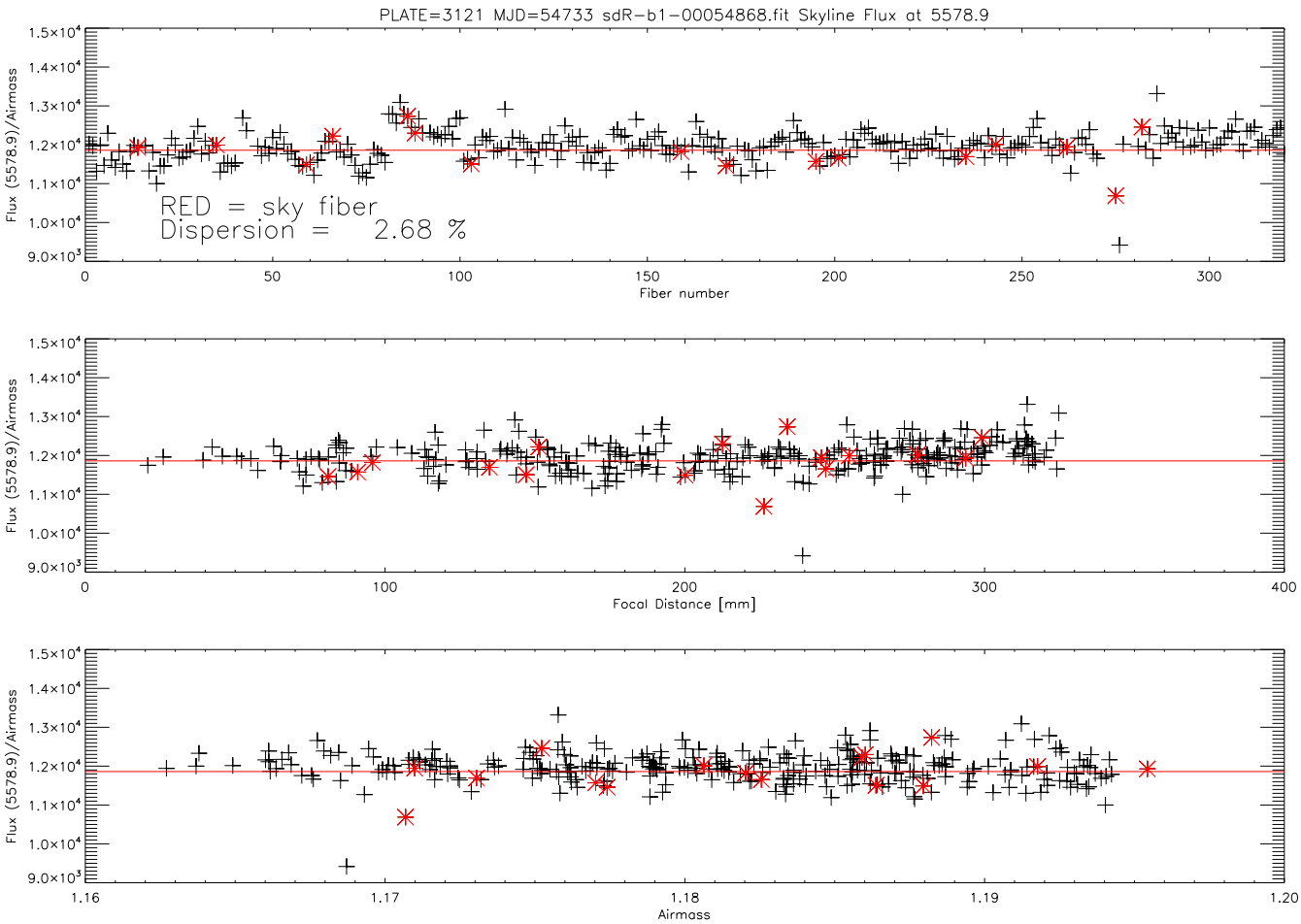

PLATE=3121 MJD=54733 sdR-b1-00054868.fit 2D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-0.006
-0.004
-0.002
0.000
0.002
0.004
0.006
50
100
150
200
250
300
Fiber number

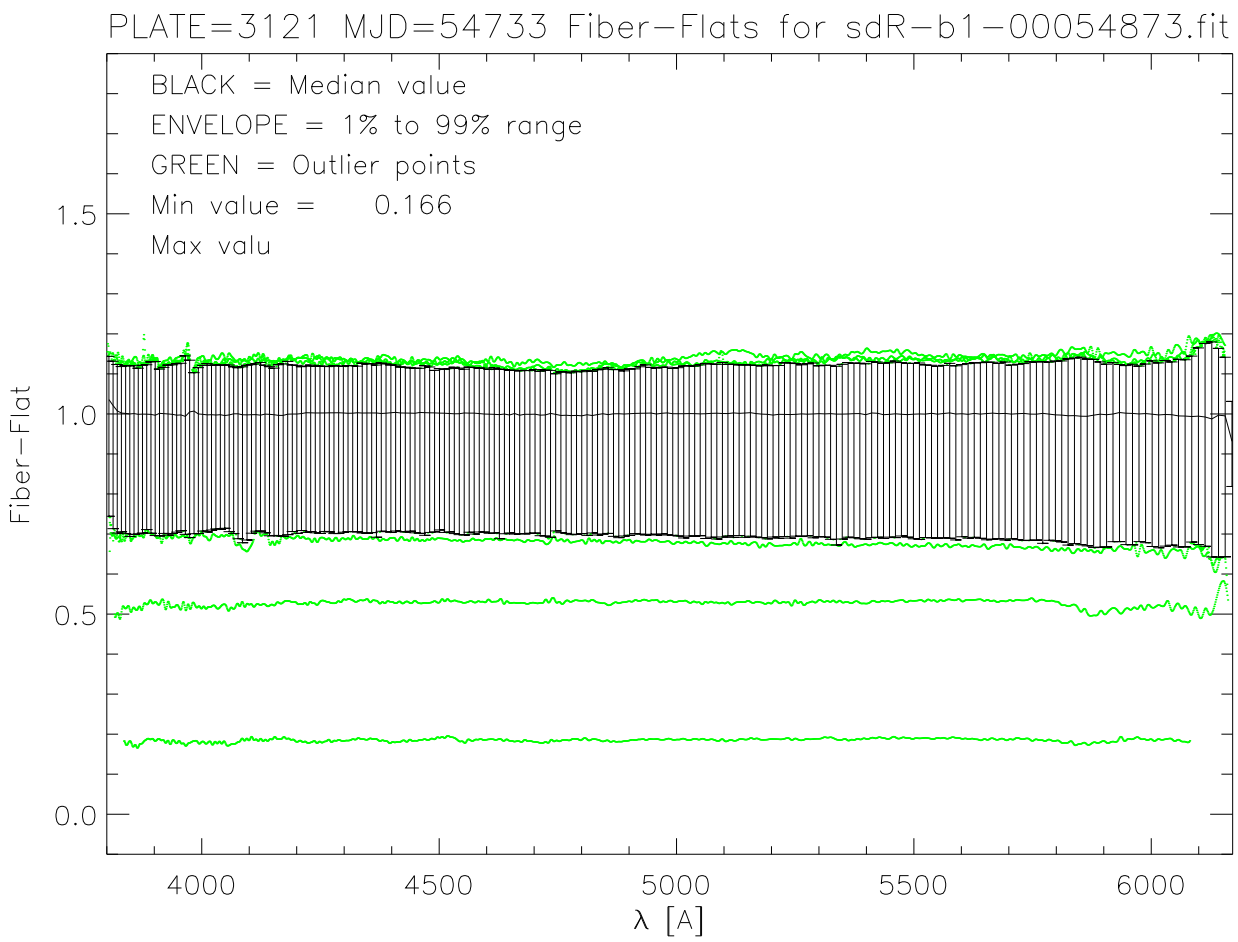

PLATE=3121 MJD=54733 sdR-b1-00054868.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]


PLATE=3121 MJD=54733 sdR-b1-00054868.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
1500
1000
500
0
-500
5570
5575
5580
5585
5590
λ [A]


Number of sky fibers = 16
PLATE=3121 MJD=54733 sdR-b1-00054868.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5


PLATE=3121 MJD=54733 sdR-b1-00054868.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED sky fiber
Dispersion = 17.01 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass


PLATE=3121 MJD=54733 sdR-b1-00054868.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 2.68 %
Fiber number
Flux (5578.9)/Airmass
Focal Distance [mm]
Flux (5578.9)/Airmass
Airmass


PLATE=3121 MJD=54733 Fiber-Flats for sdR-b1-00054873.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.166
Max valu
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]