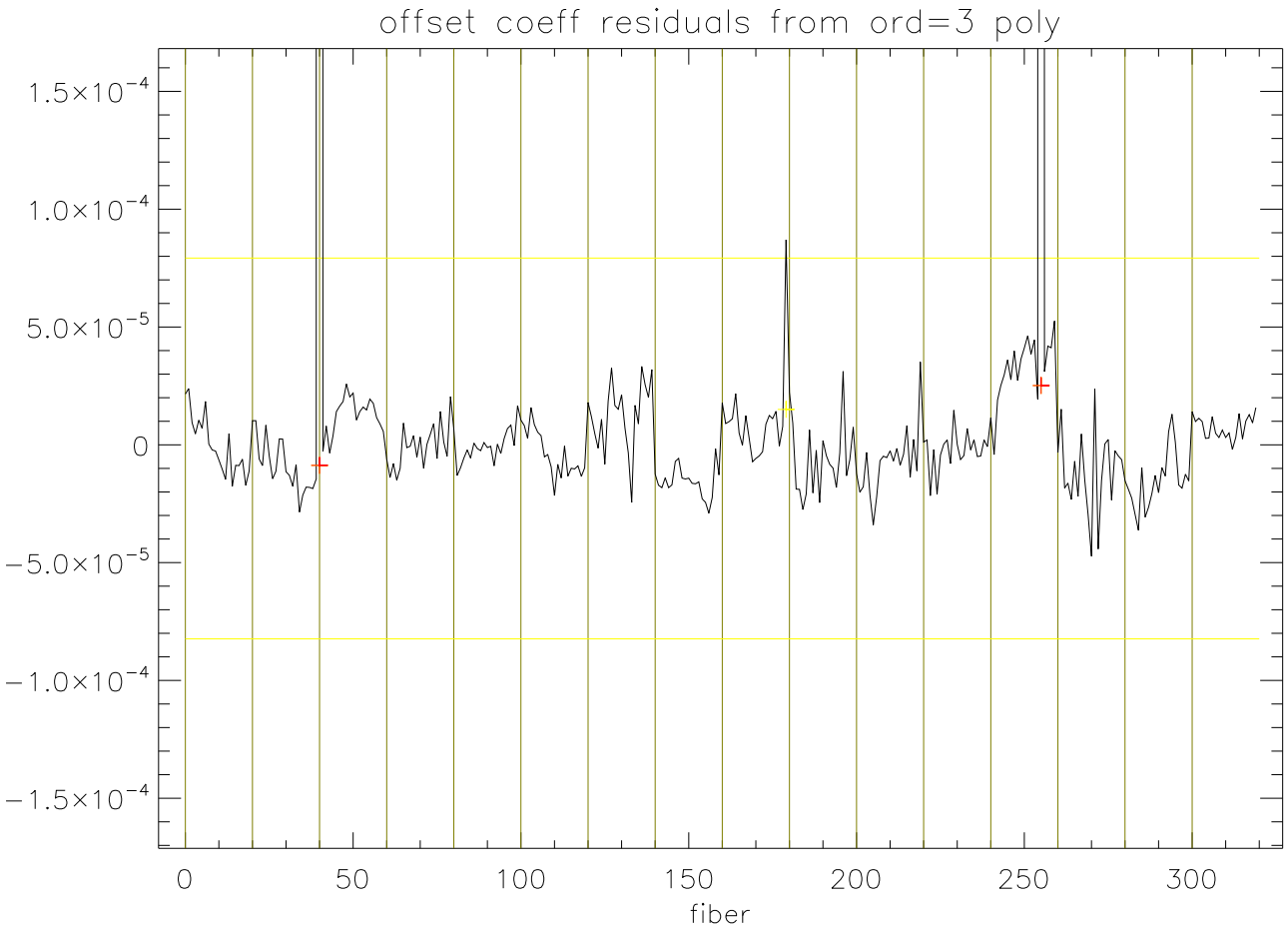
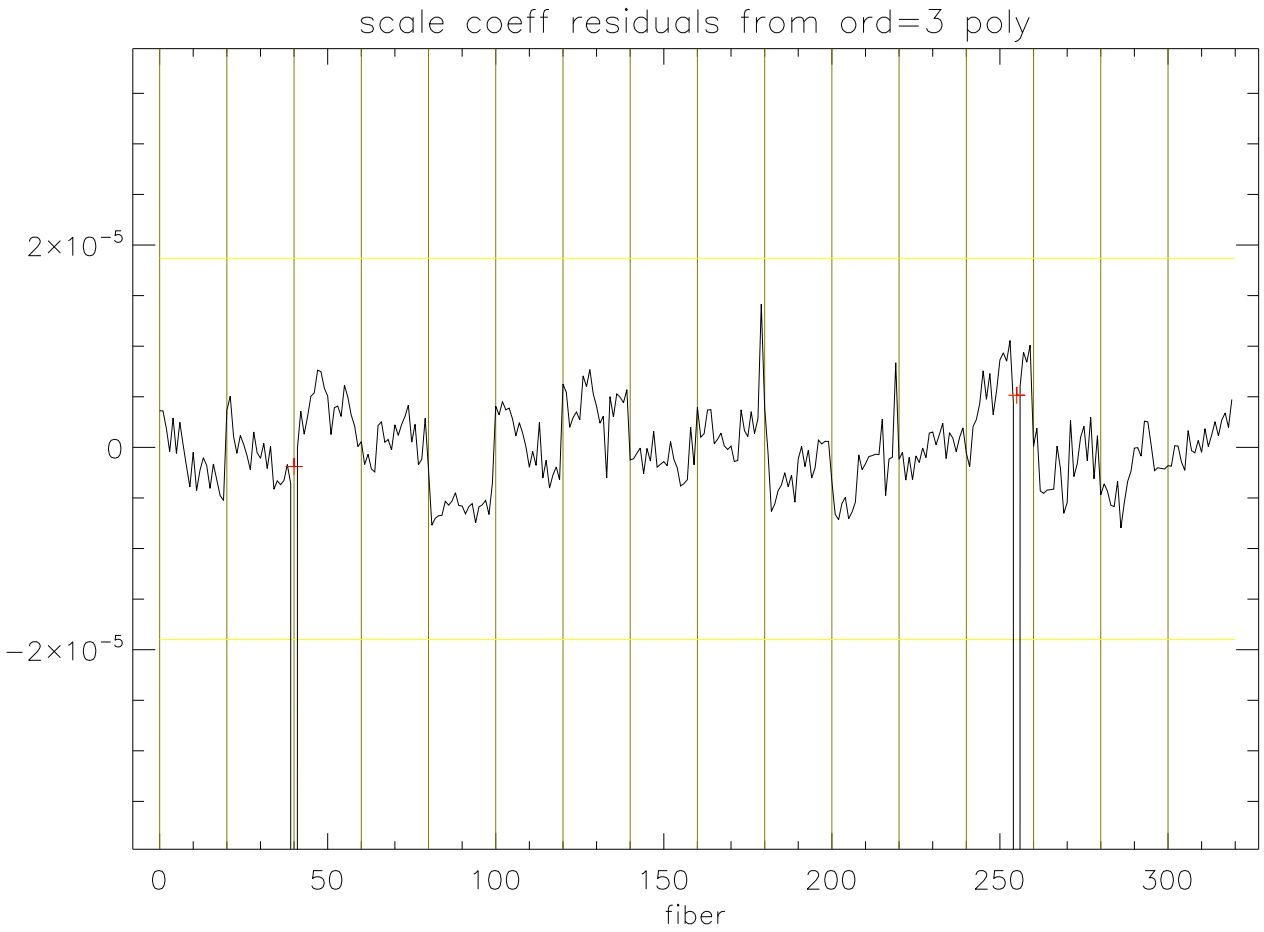
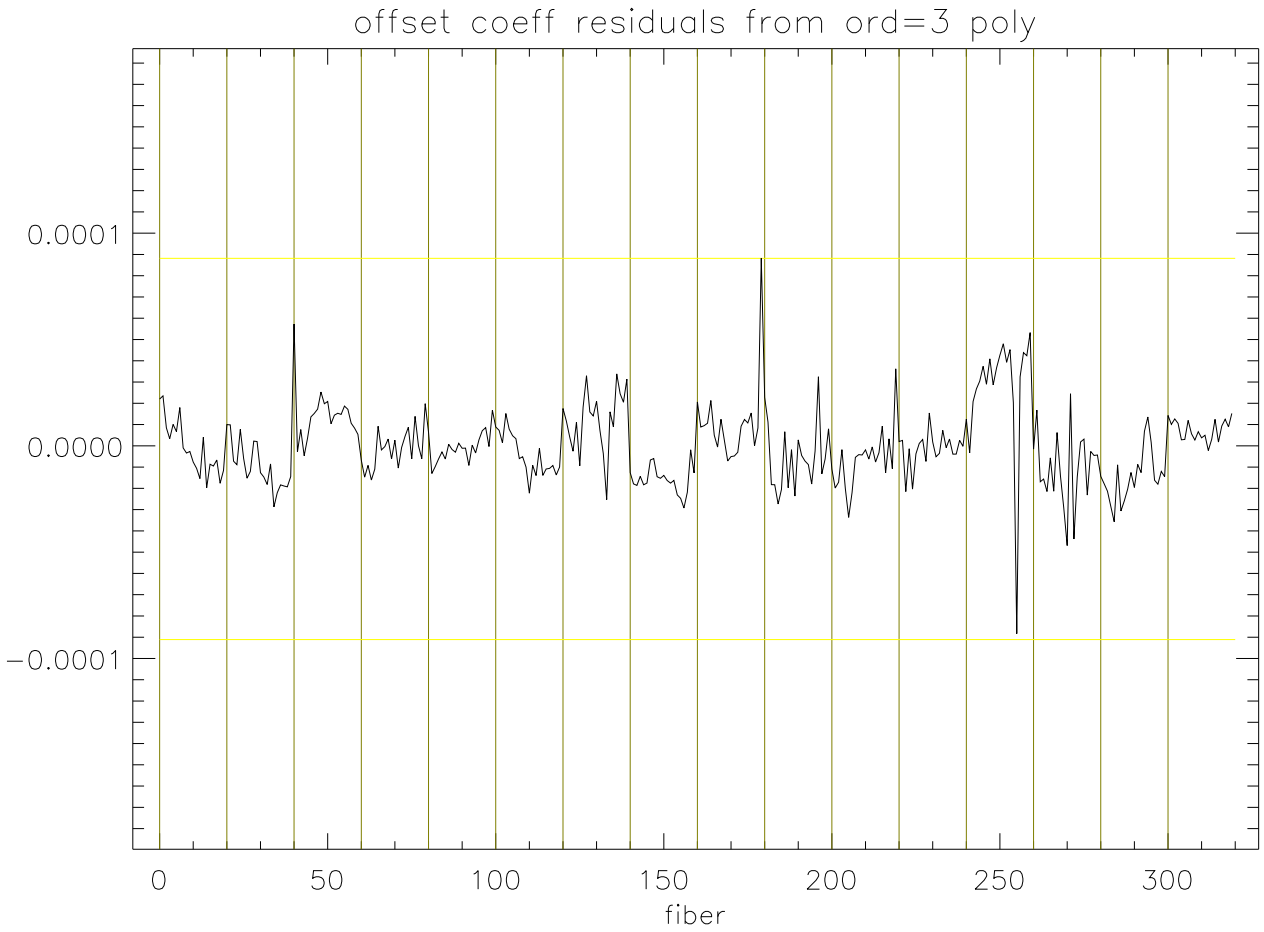
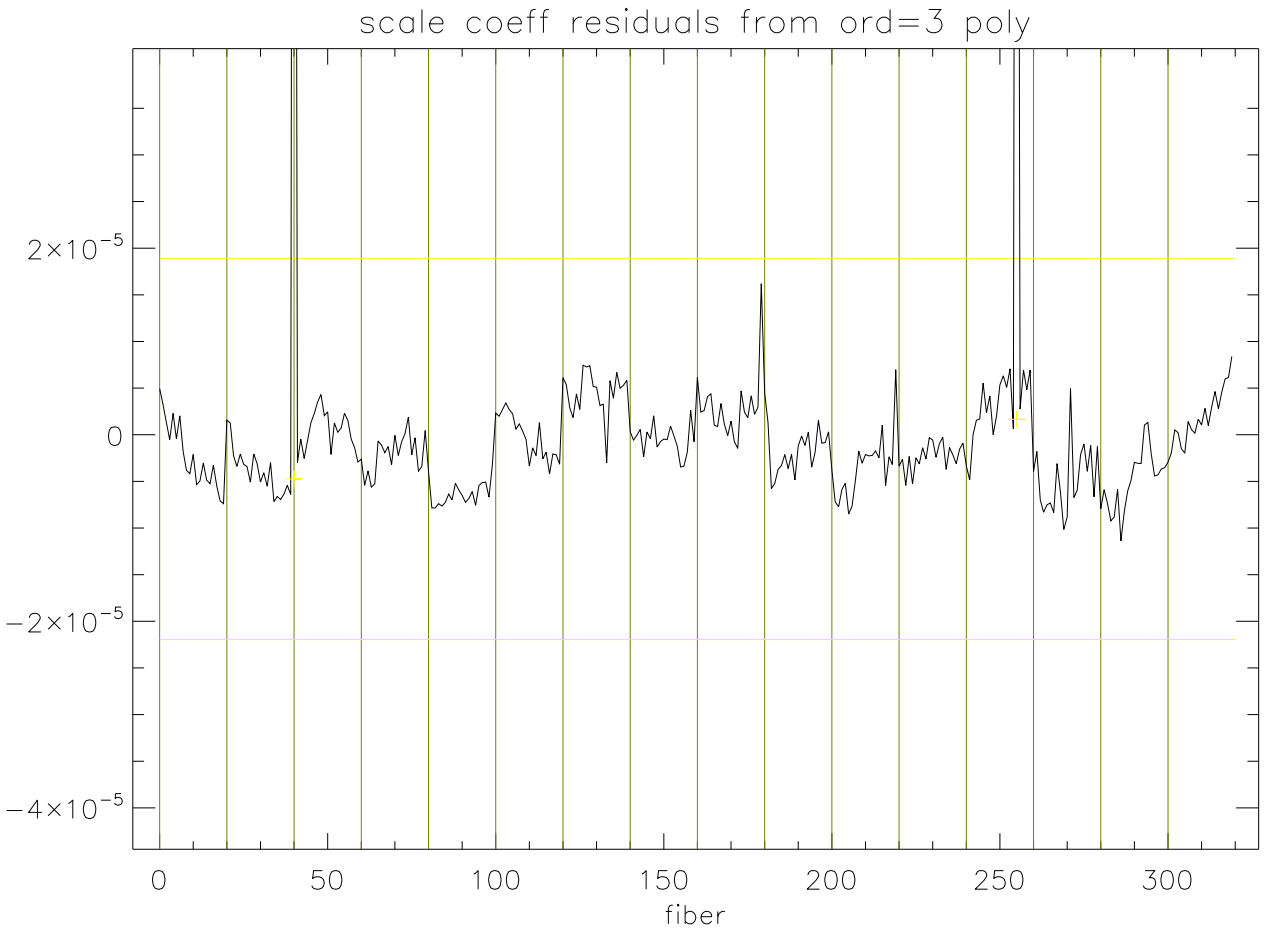
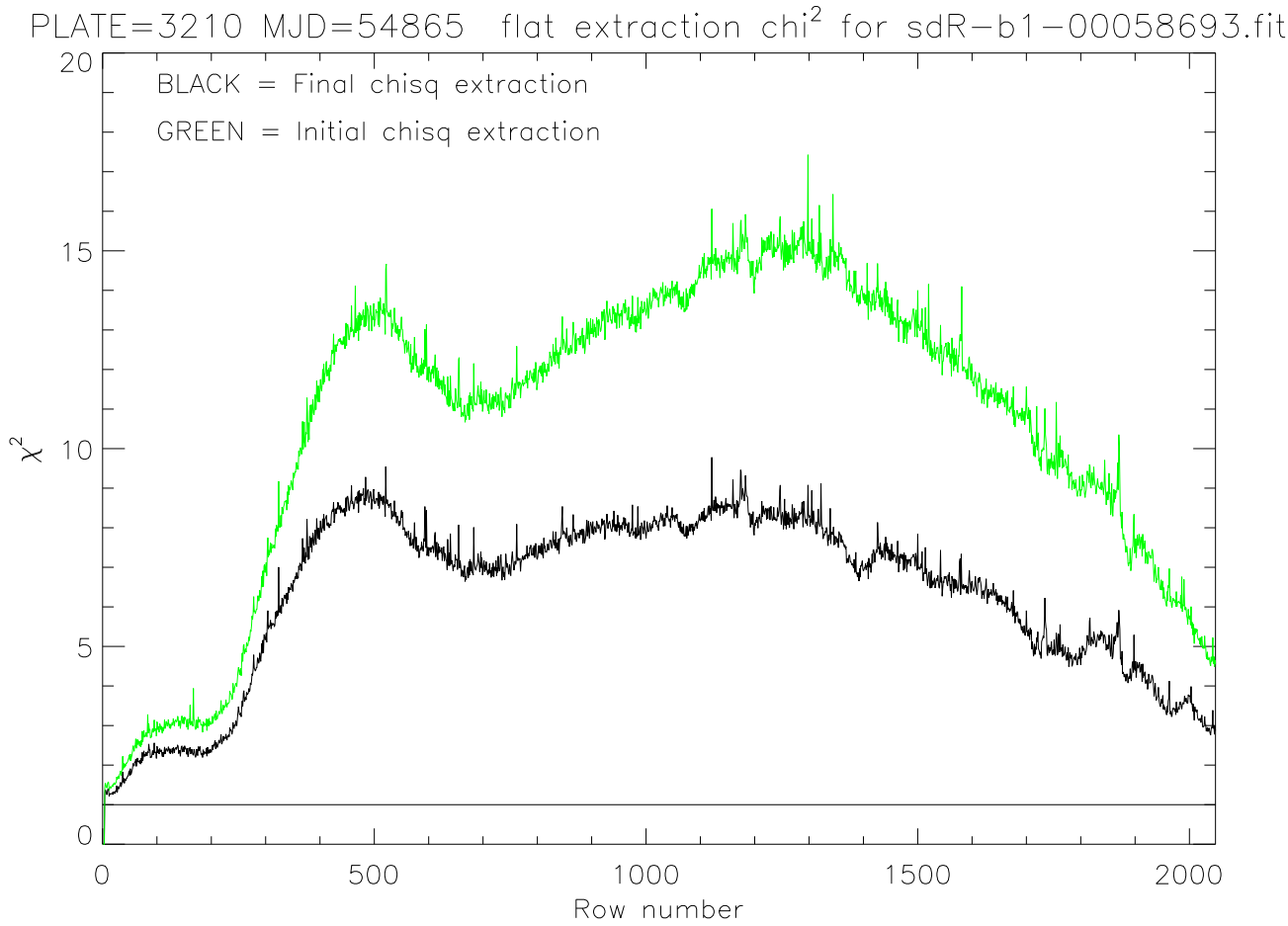
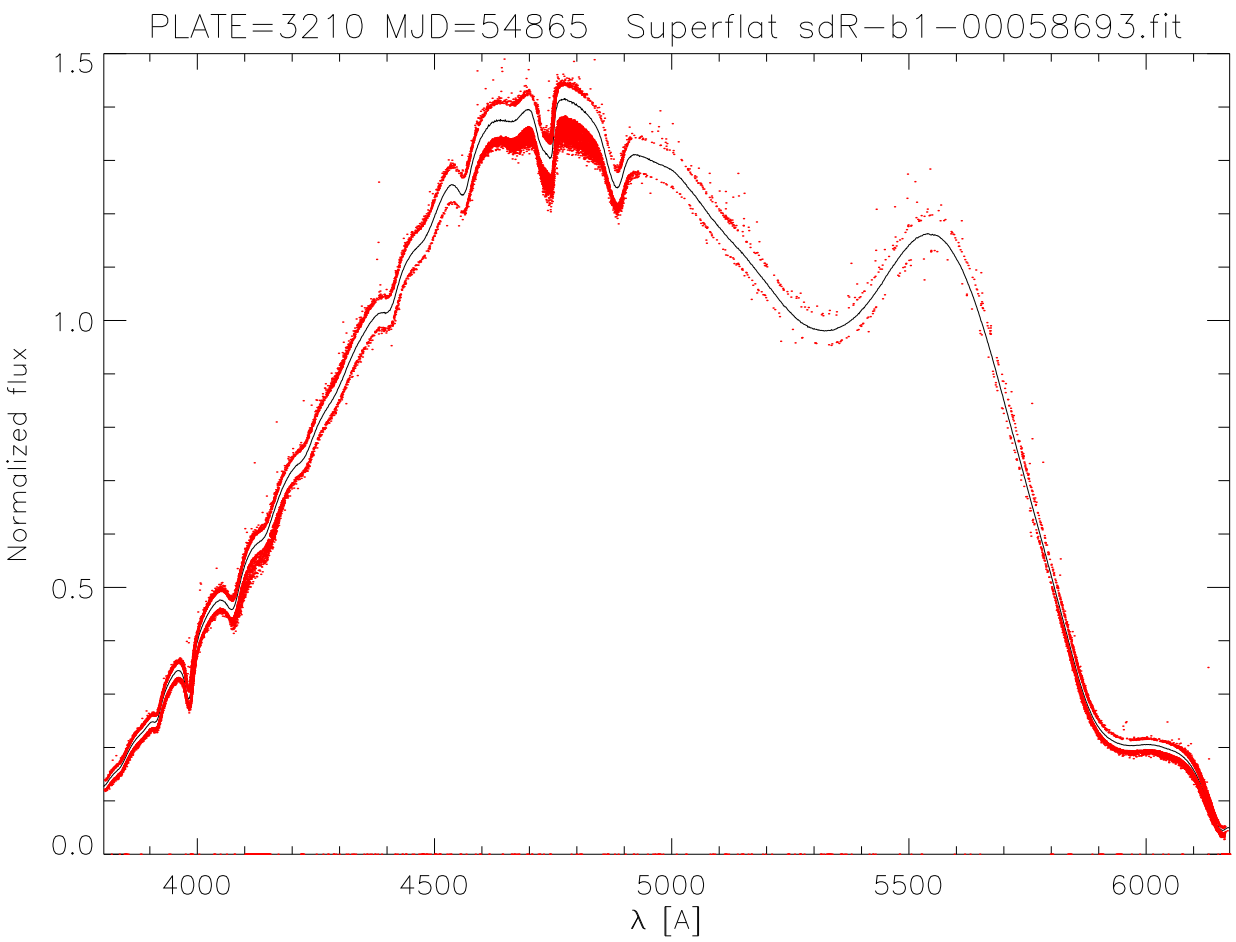

offset coeff residuals from ord=3 poly
1.5×10⁻⁴
1.0×10⁻⁴
5.0×10⁻⁵
0
−5.0×10⁻⁵
−1.0×10⁻⁴
−1.5×10⁻⁴
0
50
100
150
200
250
300
fiber

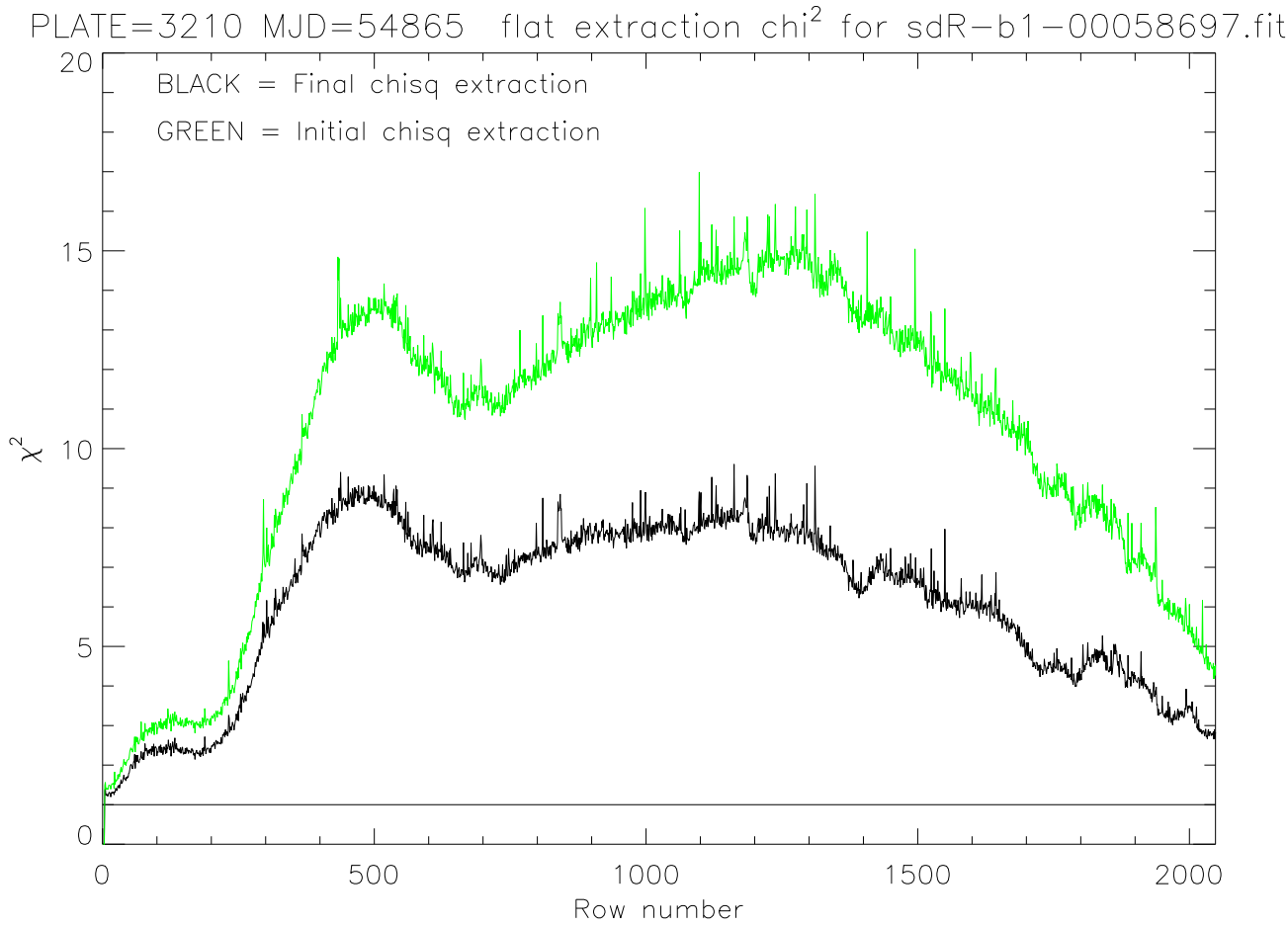

scale coeff residuals from ord=3 poly
2×10⁻⁵
0
−2×10⁻⁵
0
50
100
150
200
250
300
fiber

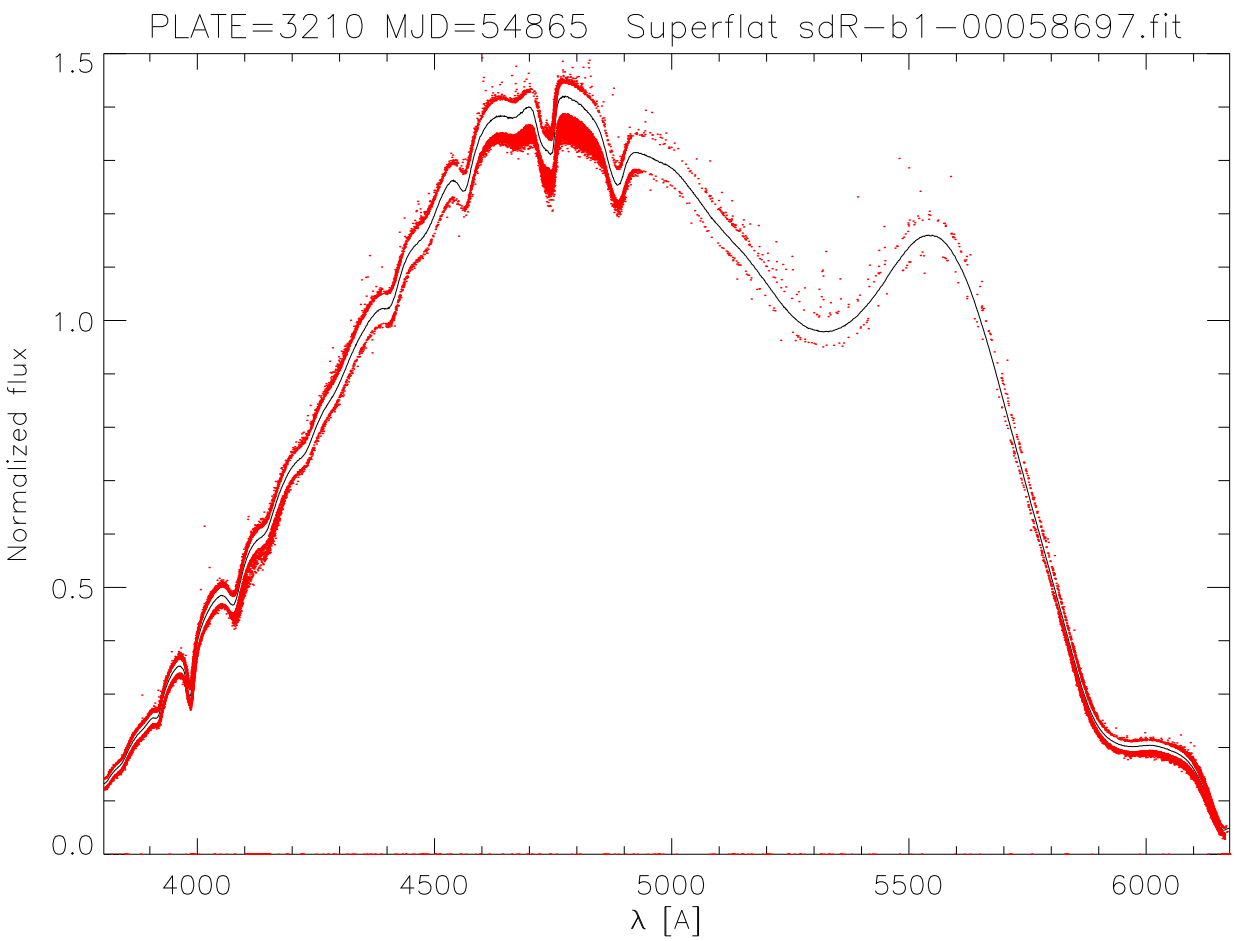

offset coeff residuals from ord=3 poly
0.0001
0.0000
−0.0001
0
50
100
150
200
250
300
fiber

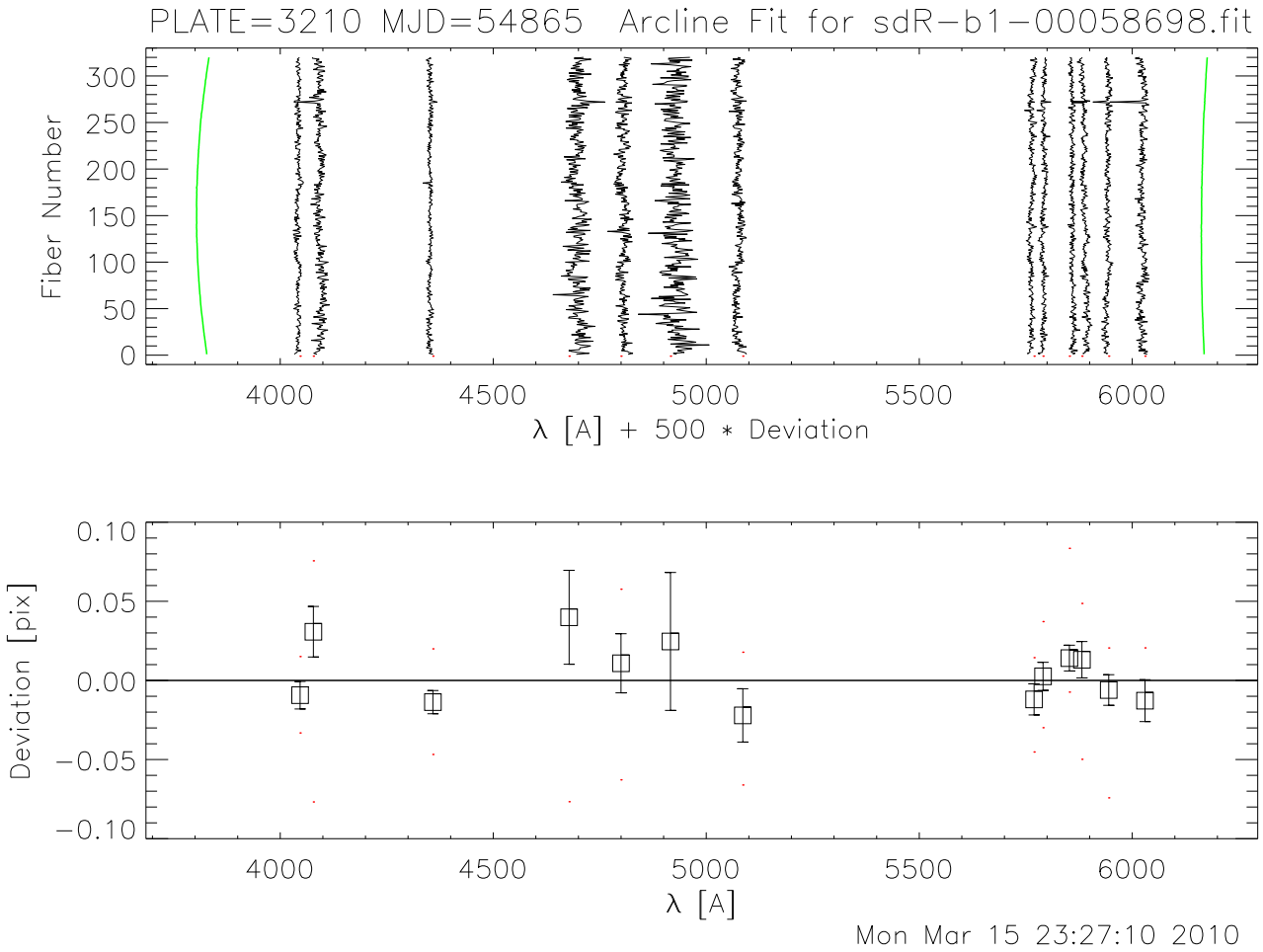

scale coeff residuals from ord=3 poly
2×10^-5
0
−2×10^-5
−4×10^-5
0
50
100
150
200
250
300
fiber

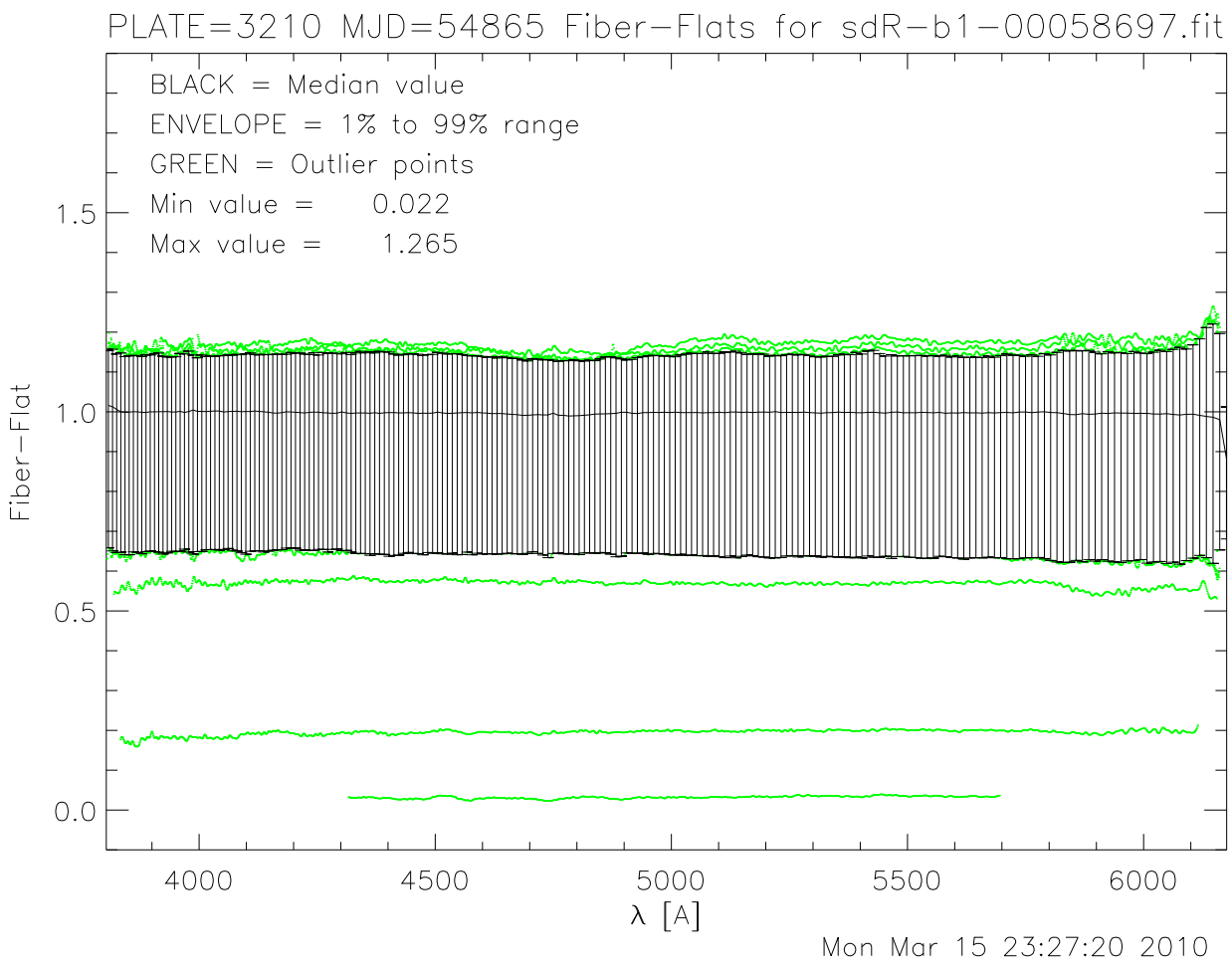

PLATE=3210 MJD=54865 flat extraction chi^2 for sdR−b1−00058693.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
5
10
15
20
0
500
1000
1500
2000

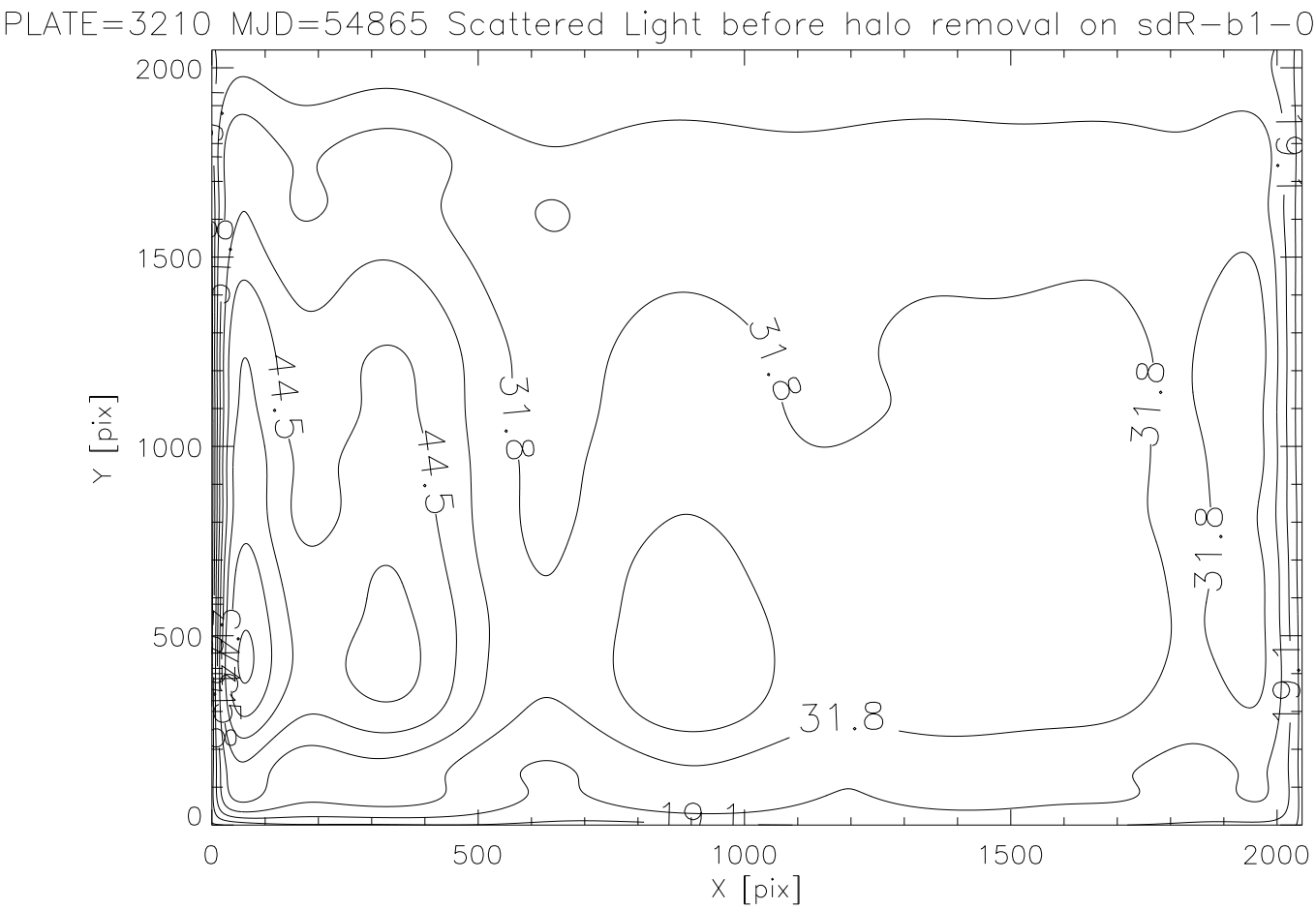

PLATE=3210 MJD=54865 Superflat sdR-b1-00058693.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

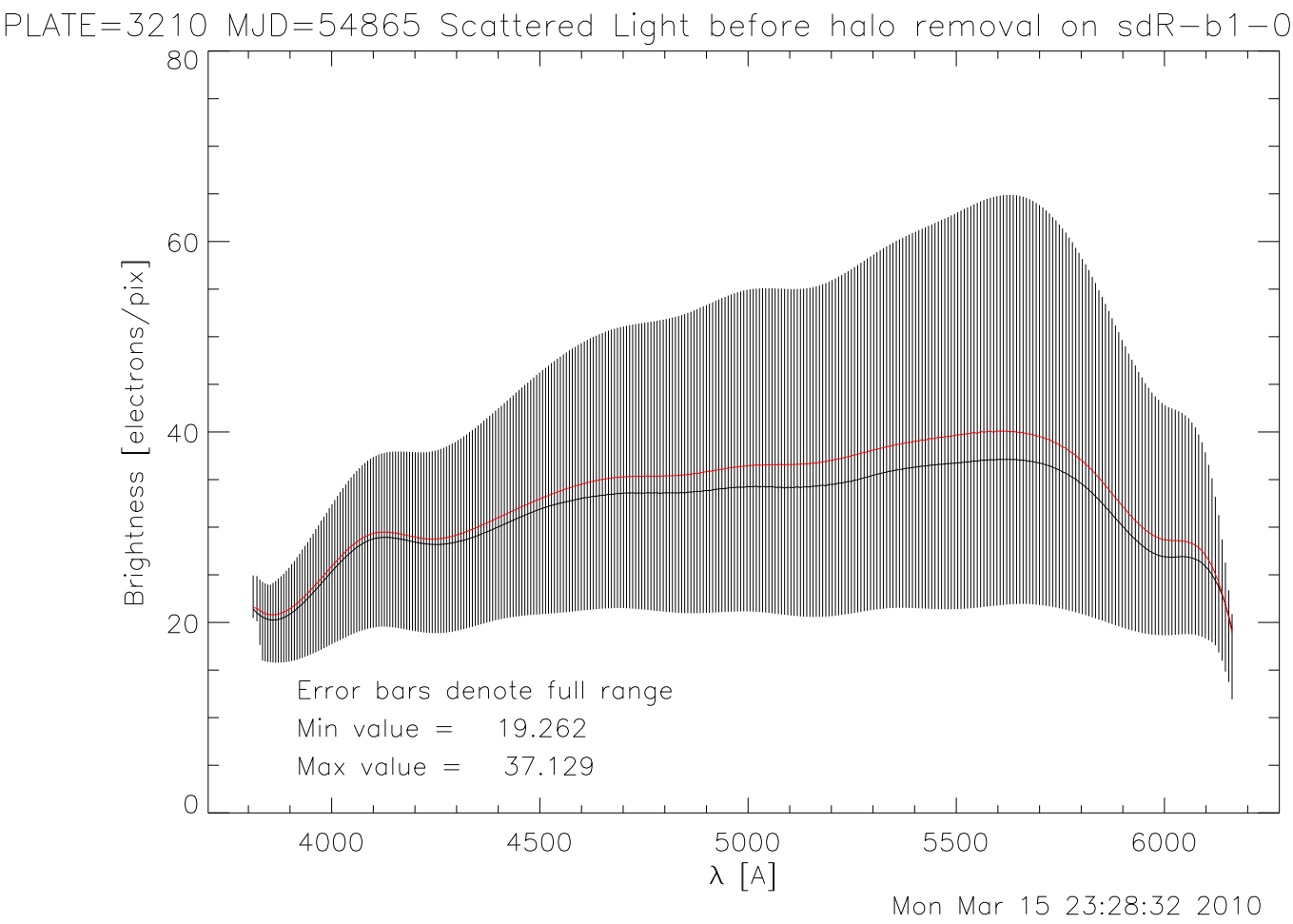

PLATE=3210 MJD=54865 flat extraction chi^2 for sdR−b1−00058697.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
5
10
15
20
0
500
1000
1500
2000

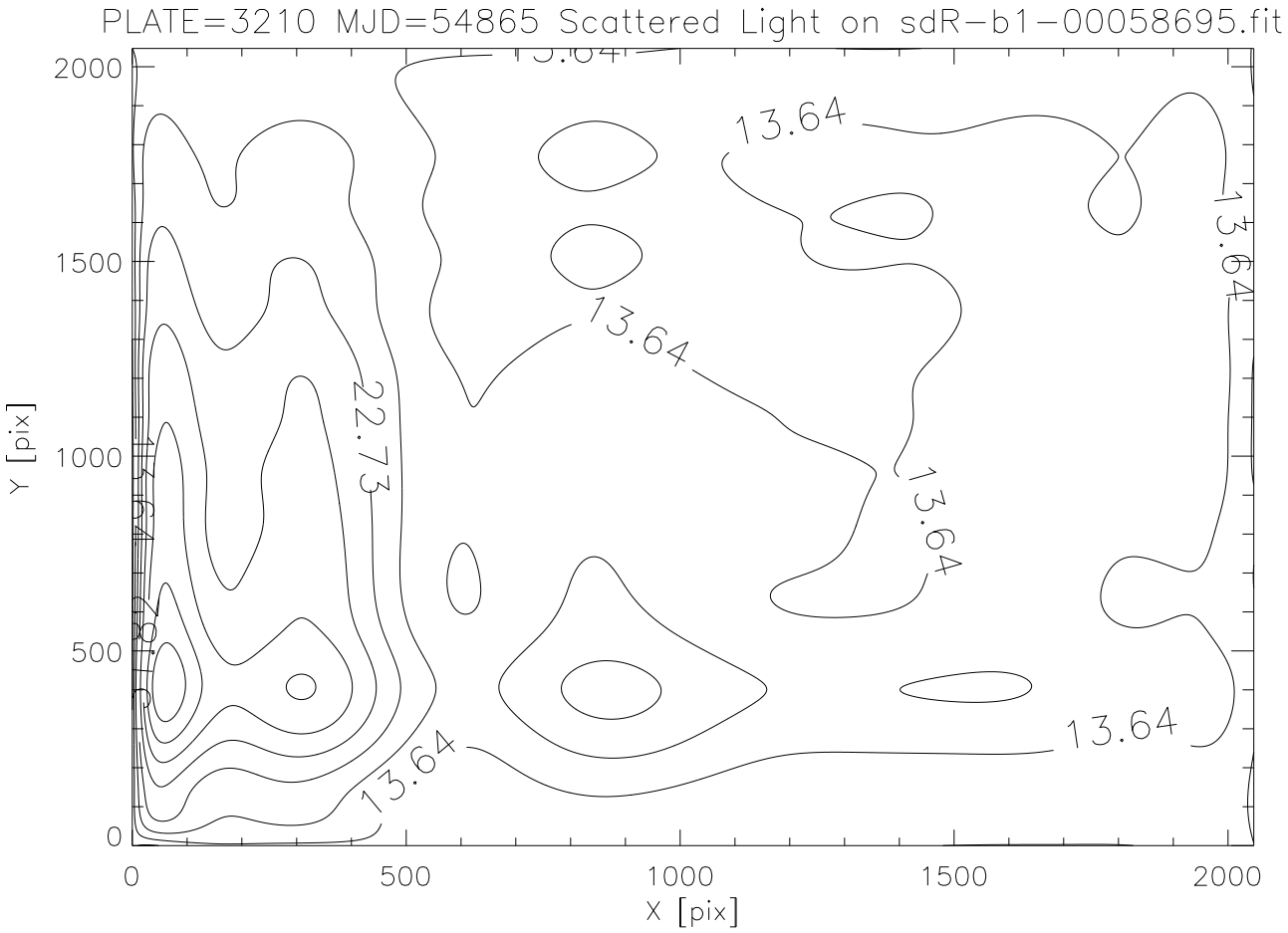

PLATE=3210 MJD=54865 Superflat sdR-b1-00058697.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

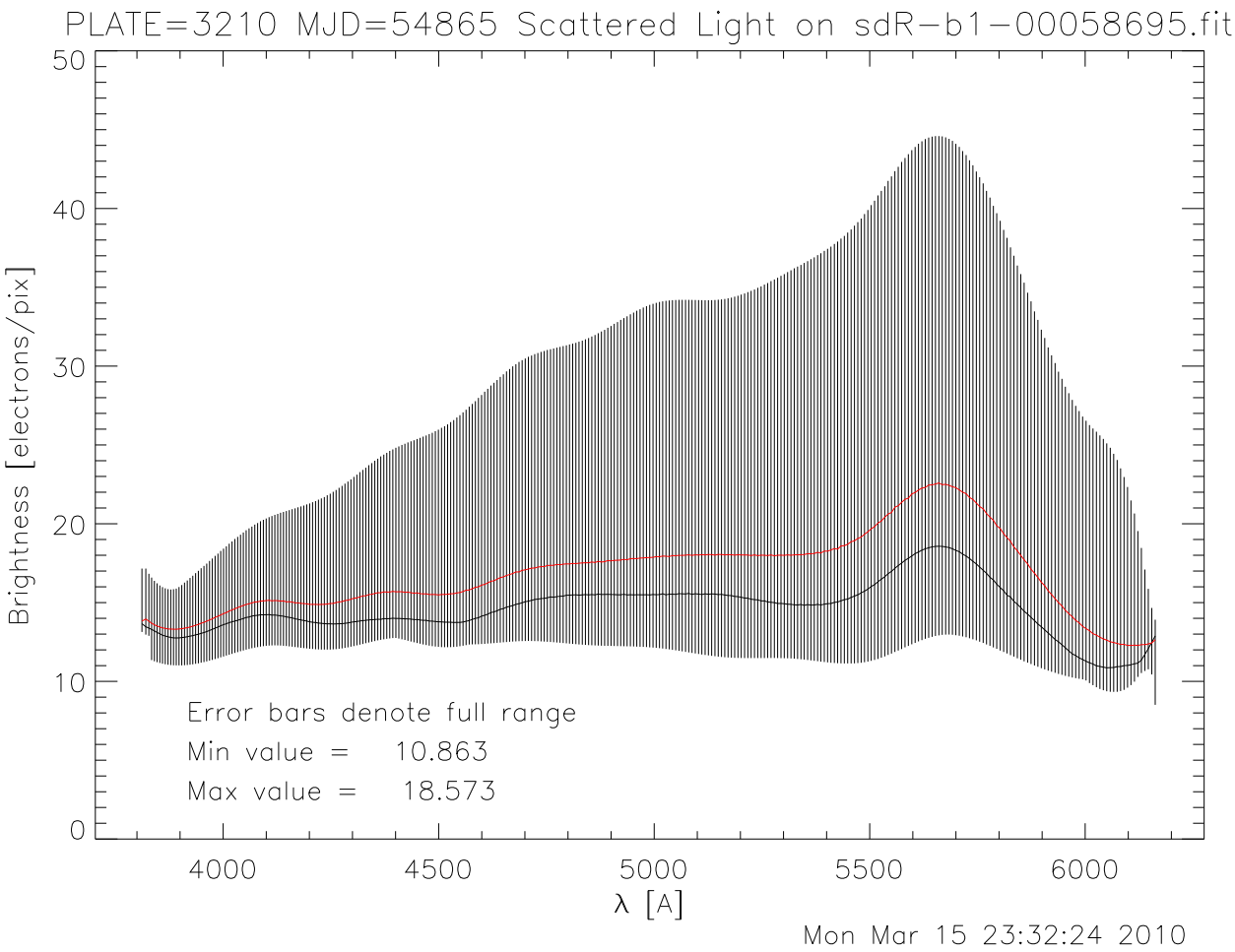

PLATE=3210 MJD=54865 Arcline Fit for sdR-b1-00058698.fit
Fiber Number
300
250
200
150
100
50
0
4000
4500
5000
5500
6000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
4000
4500
5000
5500
6000
λ [A]
Mon Mar 15 23:27:10 2010

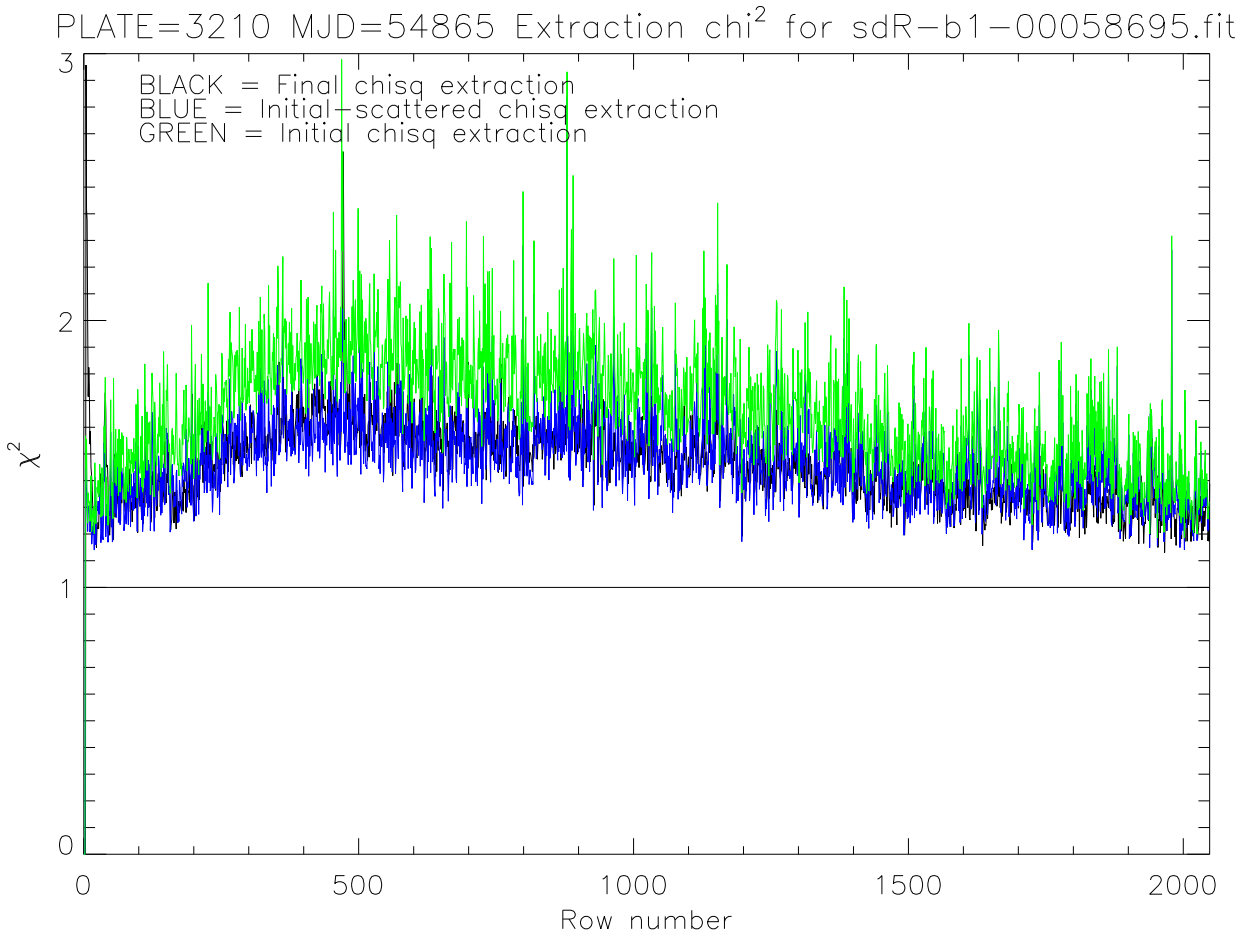

PLATE=3210 MJD=54865 Fiber-Flats for sdR-b1-00058697.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.022
Max value = 1.265
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Mon Mar 15 23:27:20 2010

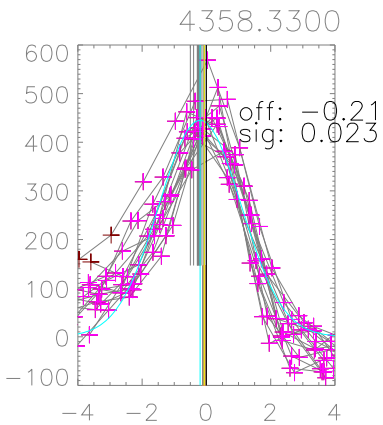

PLATE=3210 MJD=54865 Scattered Light before halo removal on sdR−b1−00058695.f
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
0
44.5
31.8
19.1

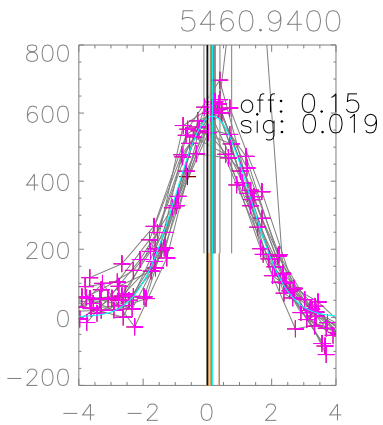

PLATE=3210 MJD=54865 Scattered Light before halo removal on sdR-b1-00058695.f
Brightness [electrons/pix]
80
60
40
20
0
Error bars denote full range
Min value = 19.262
Max value = 37.129
4000
4500
5000
5500
6000
λ [A]
Mon Mar 15 23:28:32 2010

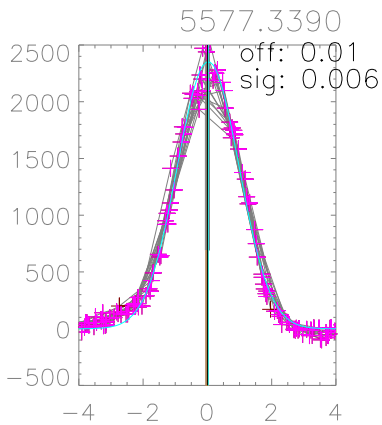

PLATE=3210 MJD=54865 Scattered Light on sdR-b1-00058695.fit
13.64
13.64
13.64
13.64
22.73
13.64
13.64
13.64
Y [pix]
X [pix]
0
500
1000
1500
2000

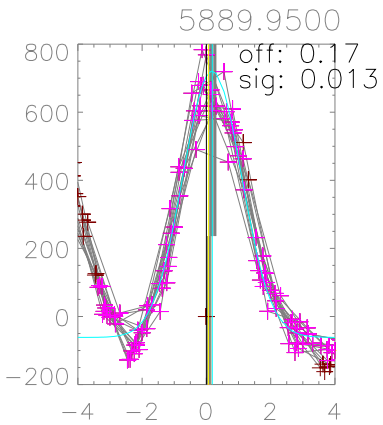

PLATE=3210 MJD=54865 Scattered Light on sdR-b1-00058695.fit
Brightness [electrons/pix]
50
40
30
20
10
0
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 10.863
Max value = 18.573
Mon Mar 15 23:32:24 2010

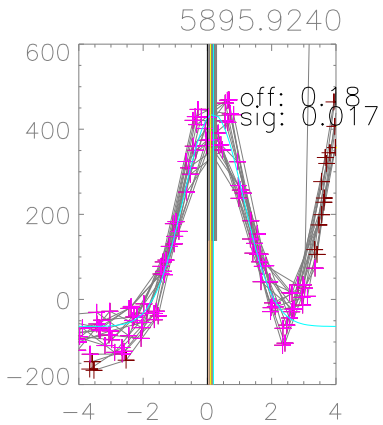

PLATE=3210 MJD=54865 Extraction chi^2 for sdR-b1-00058695.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
0
500
1000
1500
2000
Row number

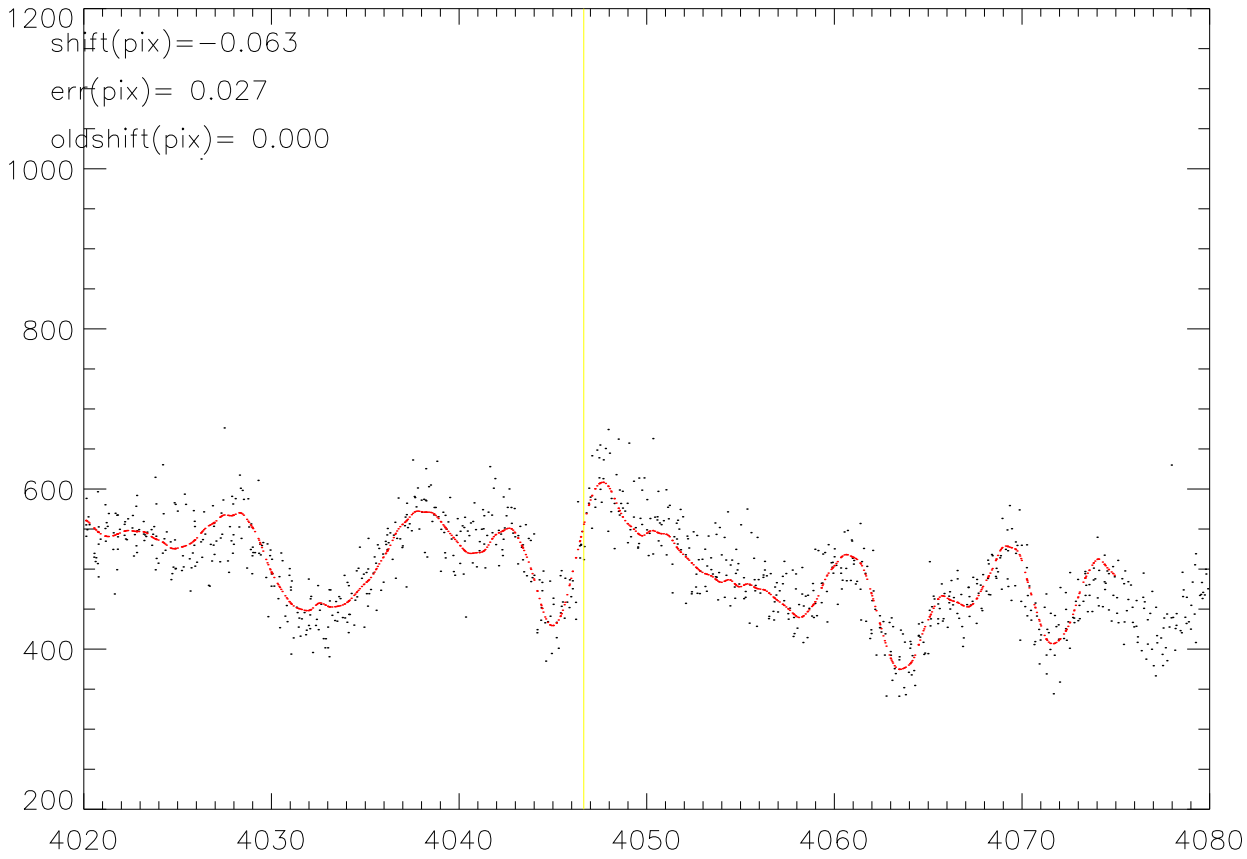

4358.3300
off: −0.21
sig: 0.023

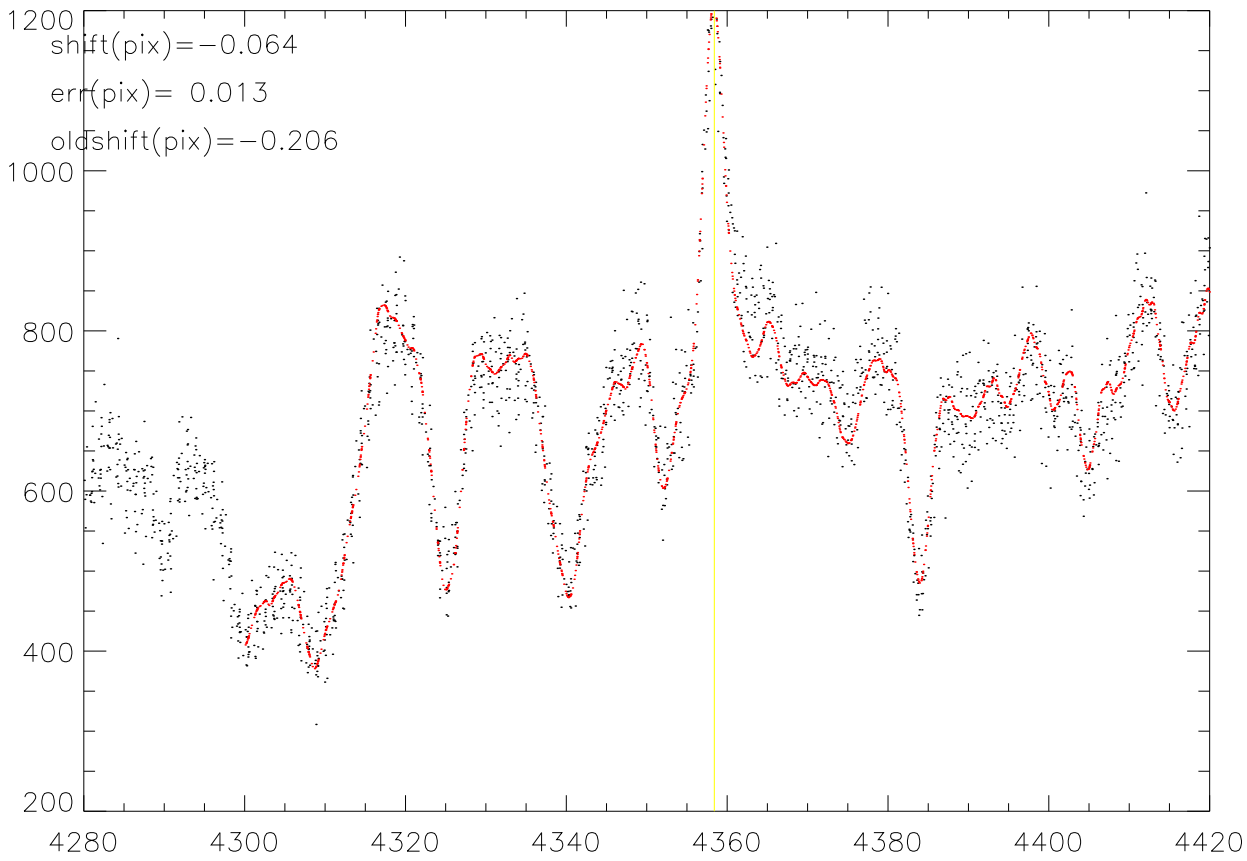

5460.9400
off: 0.15
sig: 0.019

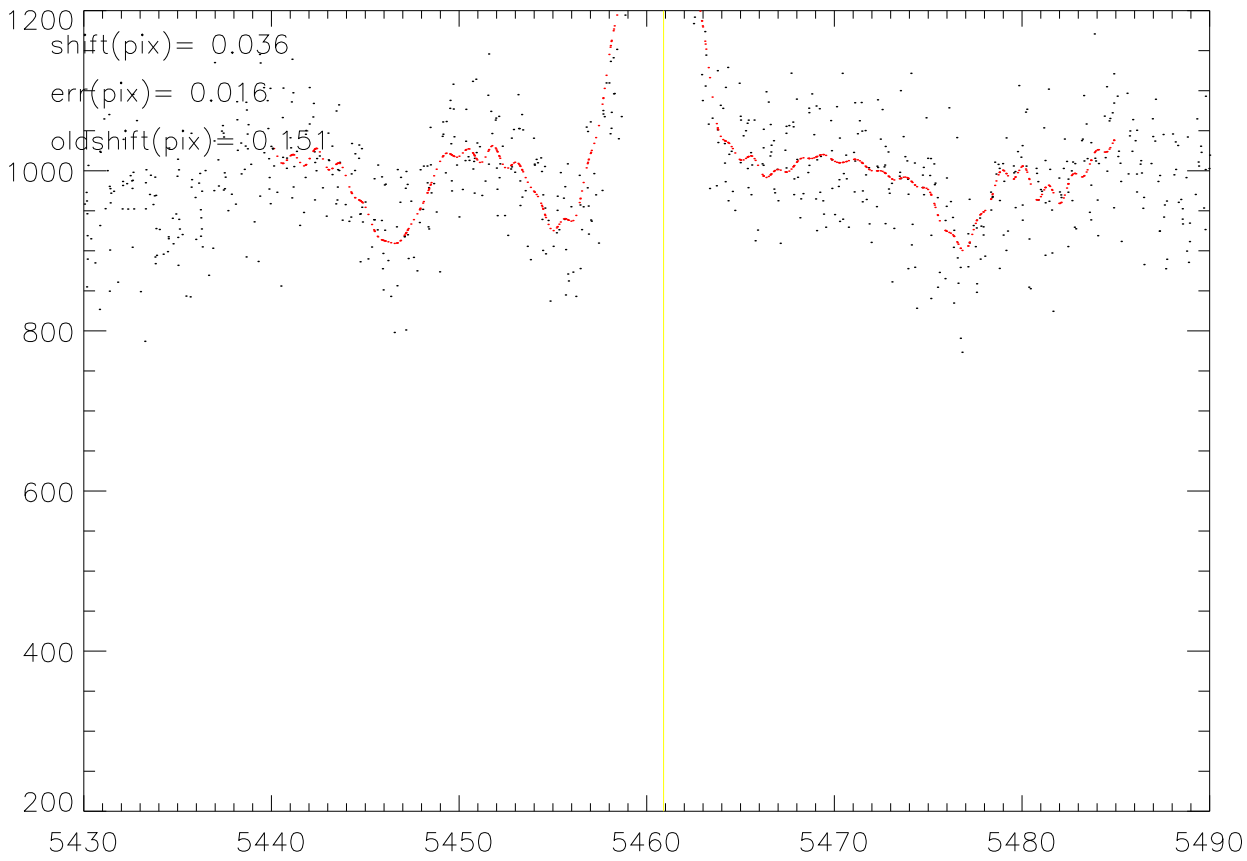

5577.3390
off: 0.01
sig: 0.006

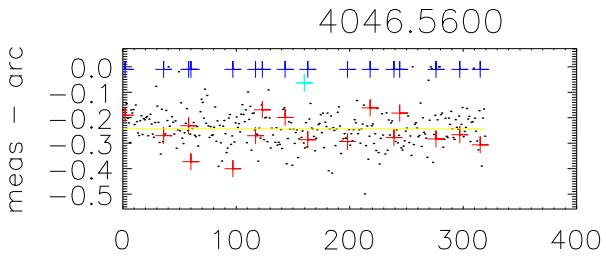

5889.9500
off: 0.17
sig: 0.013

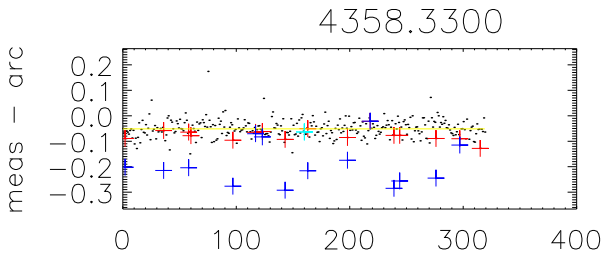

5895.9240
off: 0.18
sig: 0.017

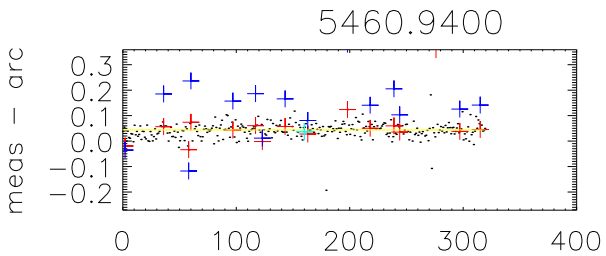

shift(pix)=−0.063
err(pix)= 0.027
oldshift(pix)= 0.000
1200
1000
800
600
400
200
4020
4030
4040
4050
4060
4070
4080

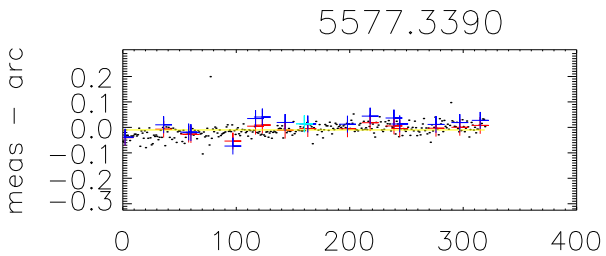

shift(pix)=−0.064
err(pix)= 0.013
oldshift(pix)=−0.206
1200
1000
800
600
400
200
4280
4300
4320
4340
4360
4380
4400
4420

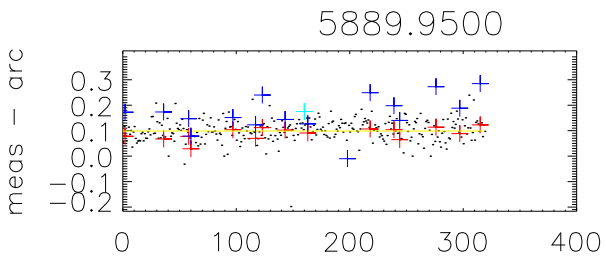

shift(pix)= 0.036
err(pix)= 0.016
oldshift(pix)= -0.151
1200
1000
800
600
400
200
5430
5440
5450
5460
5470
5480
5490

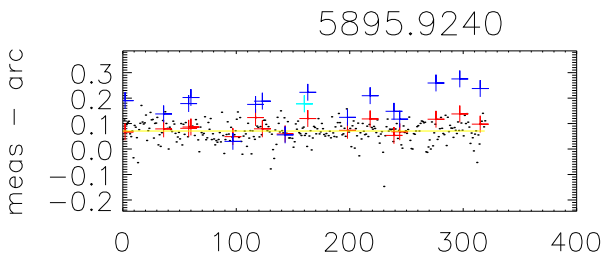

4046.5600
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

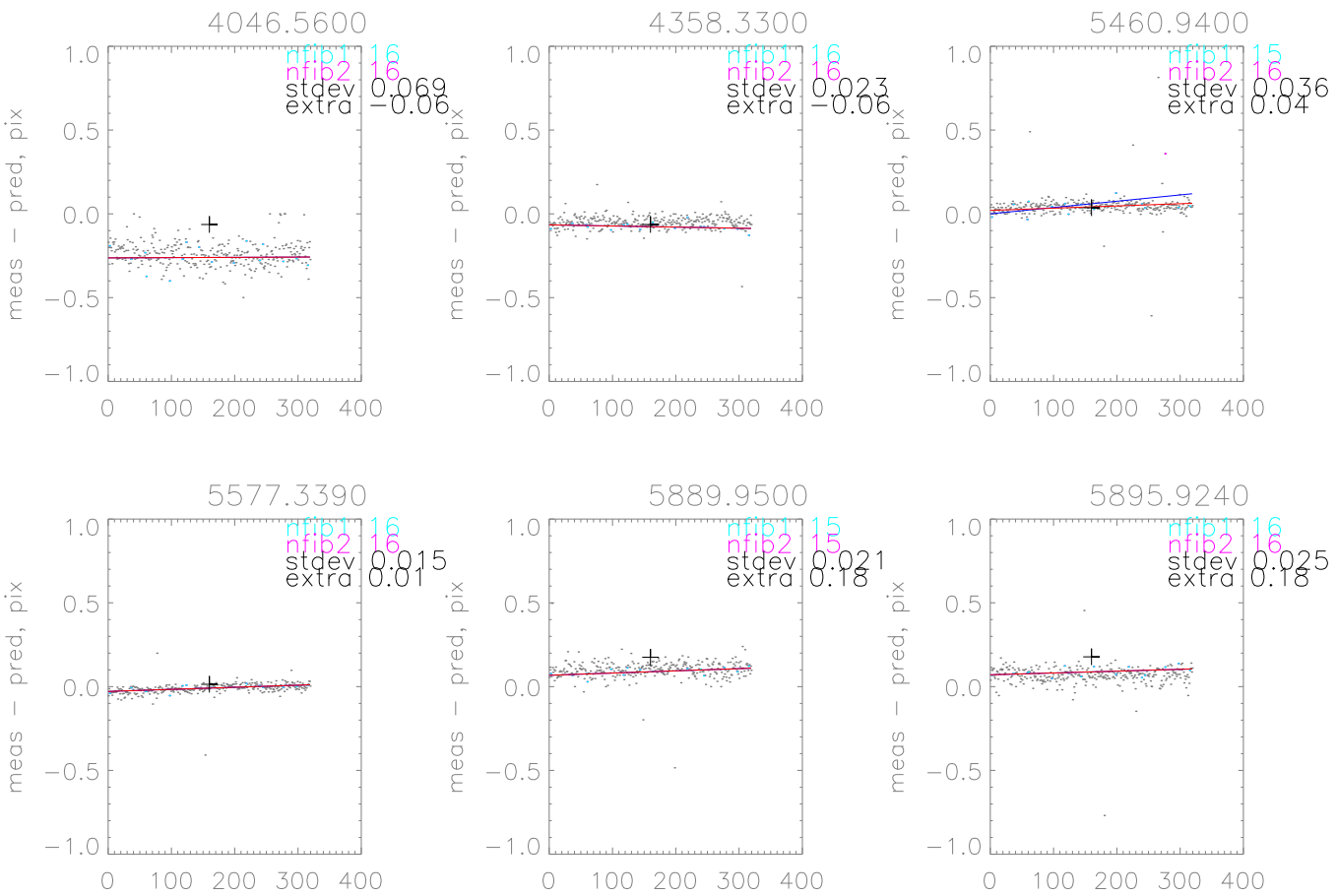

4358.3300
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

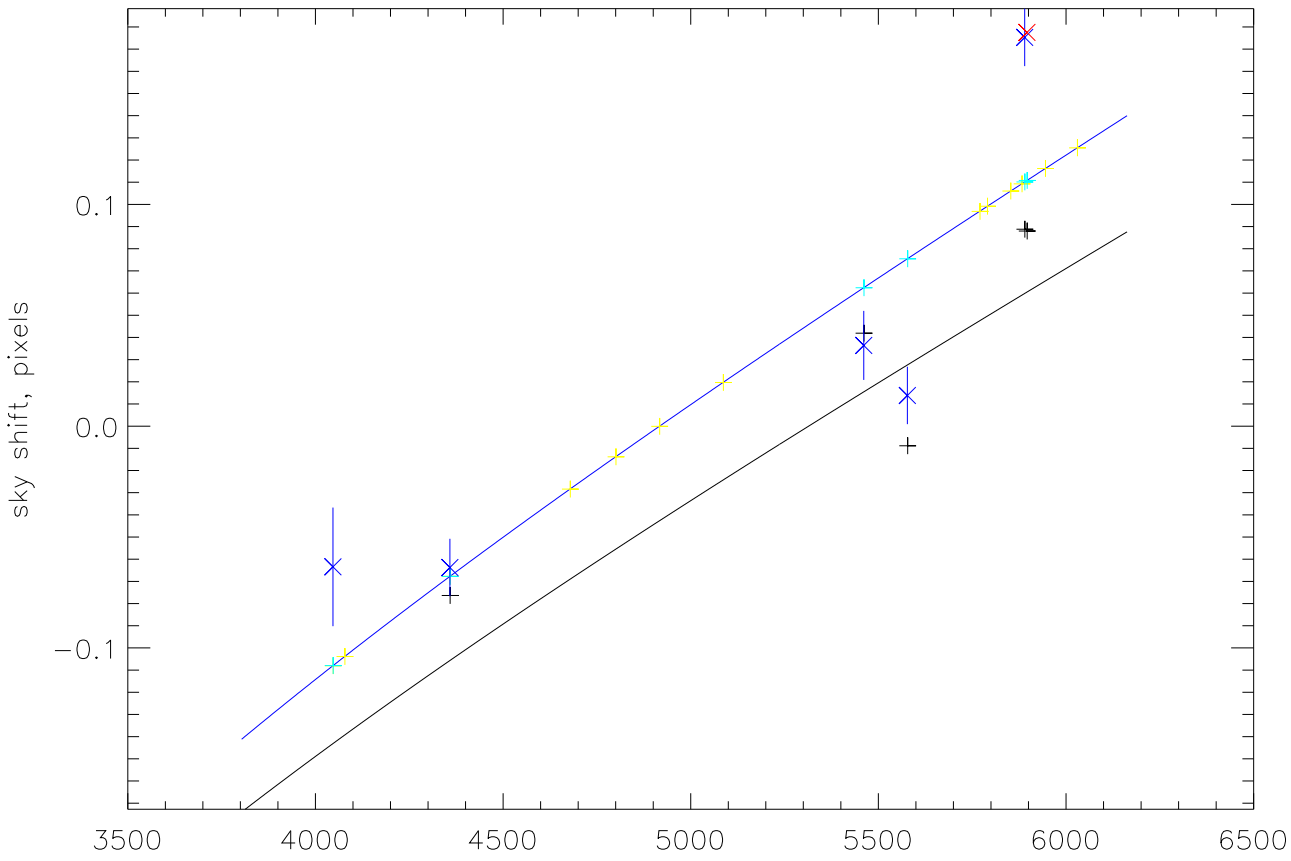

5460.9400
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400


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

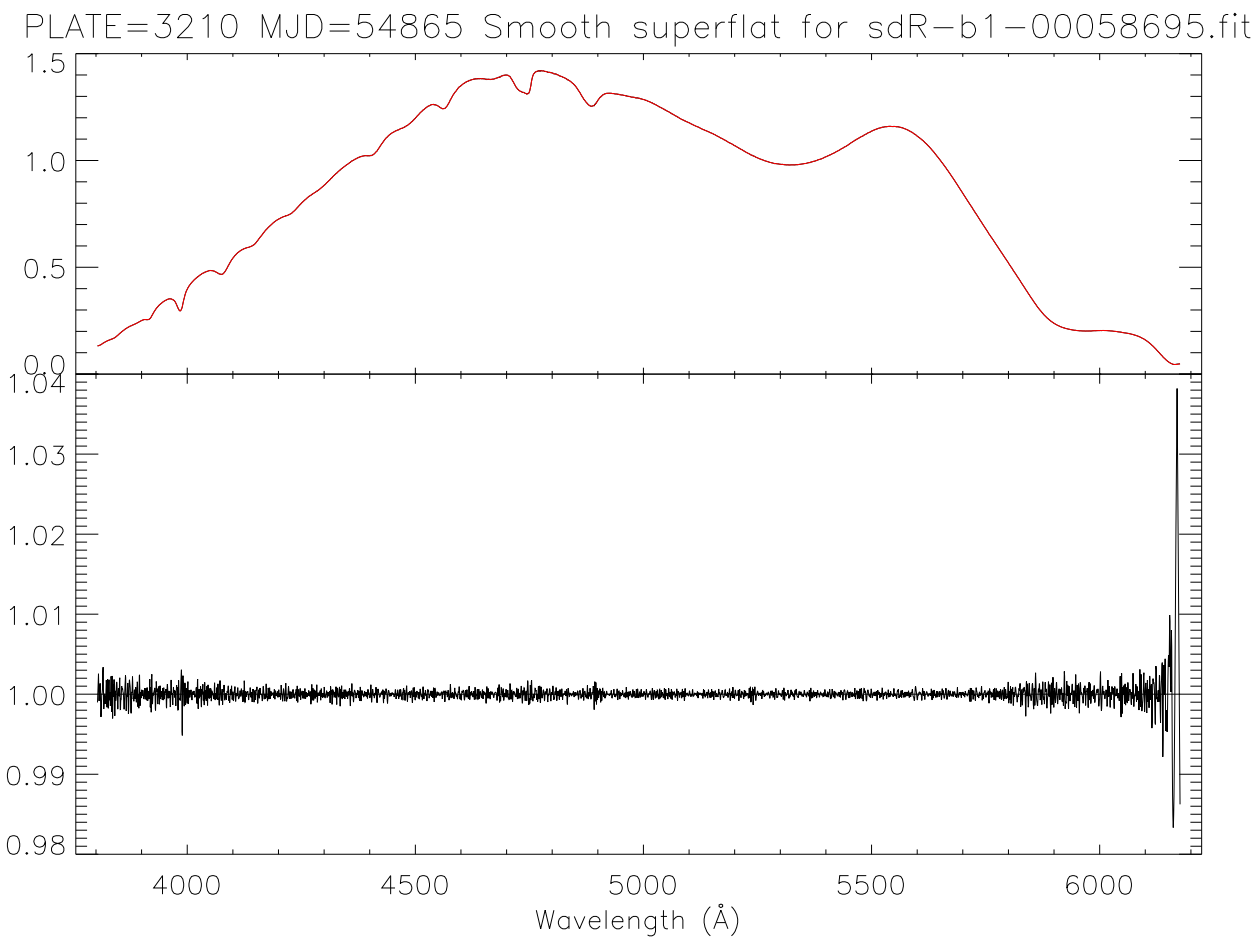

5889.9500
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

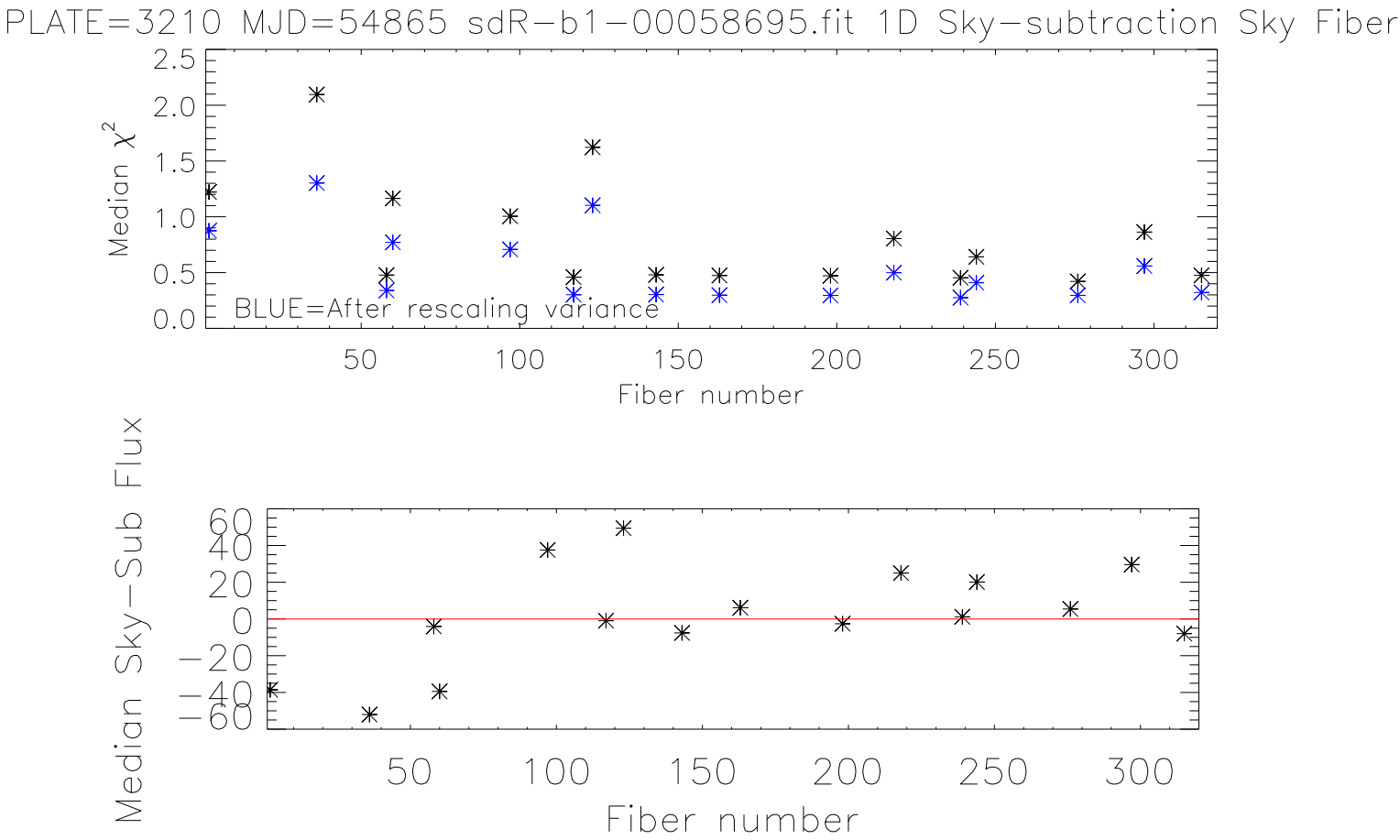

5895.9240
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

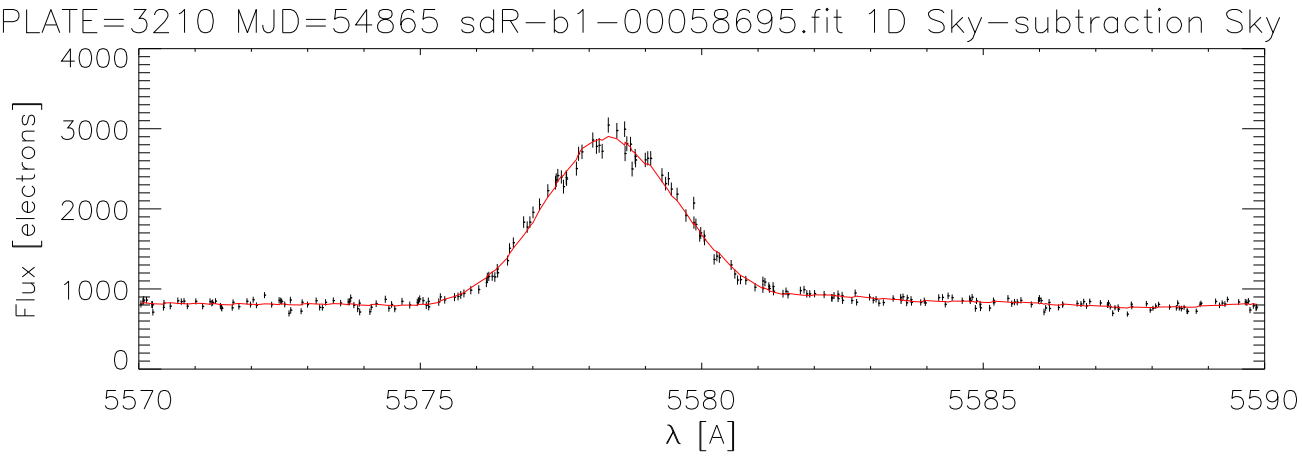

4046.5600
nfib1 16
nfib2 16
stdev 0.069
extra −0.06
4358.3300
nfib1 16
nfib2 16
stdev 0.023
extra −0.06
5460.9400
nfib1 15
nfib2 16
stdev 0.036
extra 0.04
5577.3390
nfib1 16
nfib2 16
stdev 0.015
extra 0.01
5889.9500
nfib1 15
nfib2 15
stdev 0.021
extra 0.18
5895.9240
nfib1 16
nfib2 16
stdev 0.025
extra 0.18
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

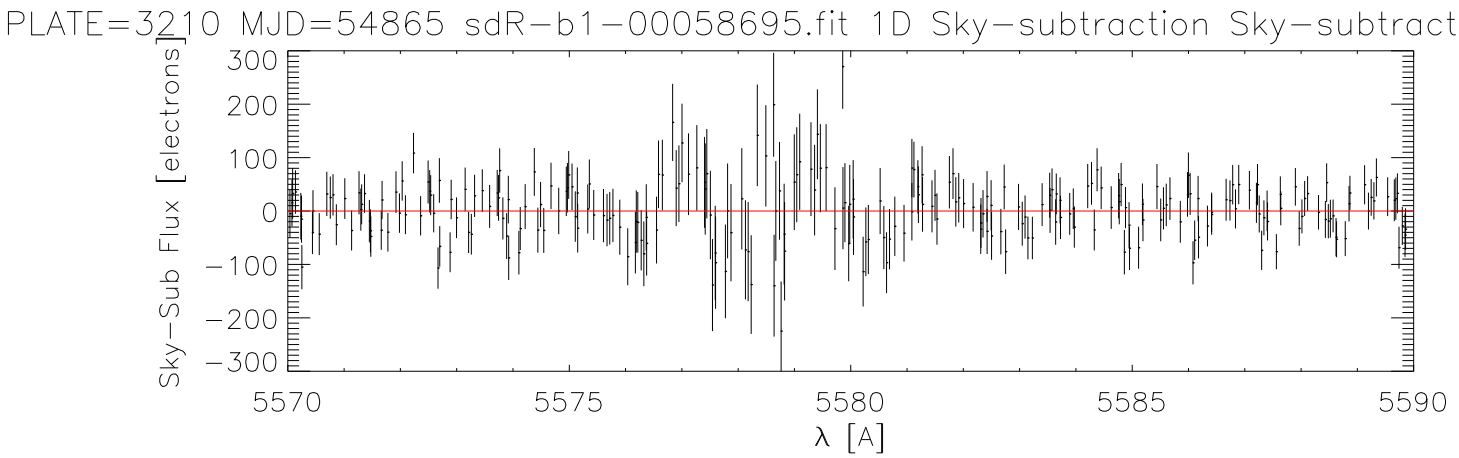

sky shift, pixels
0.1
0.0
−0.1
3500
4000
4500
5000
5500
6000
6500

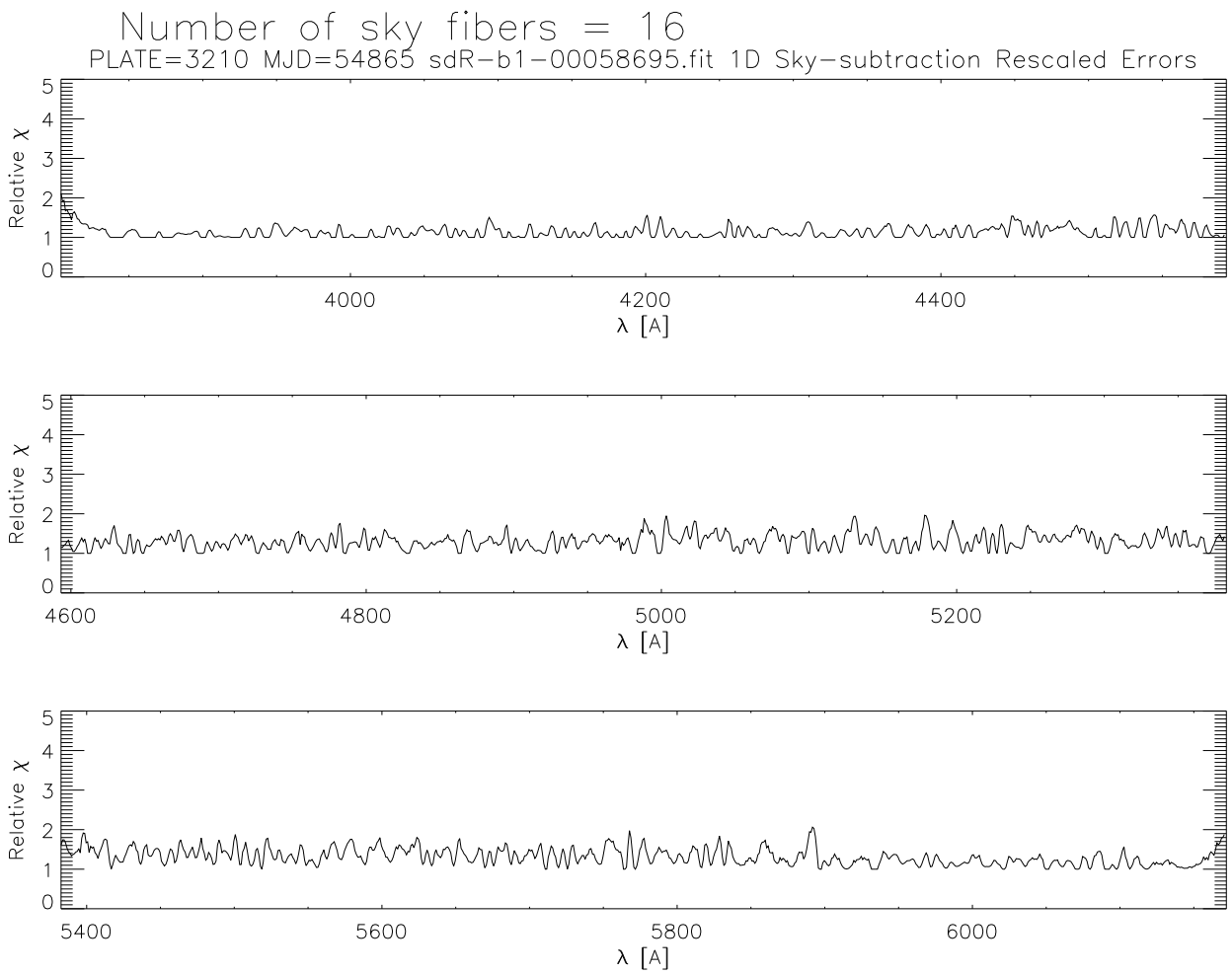
es= −0.0001

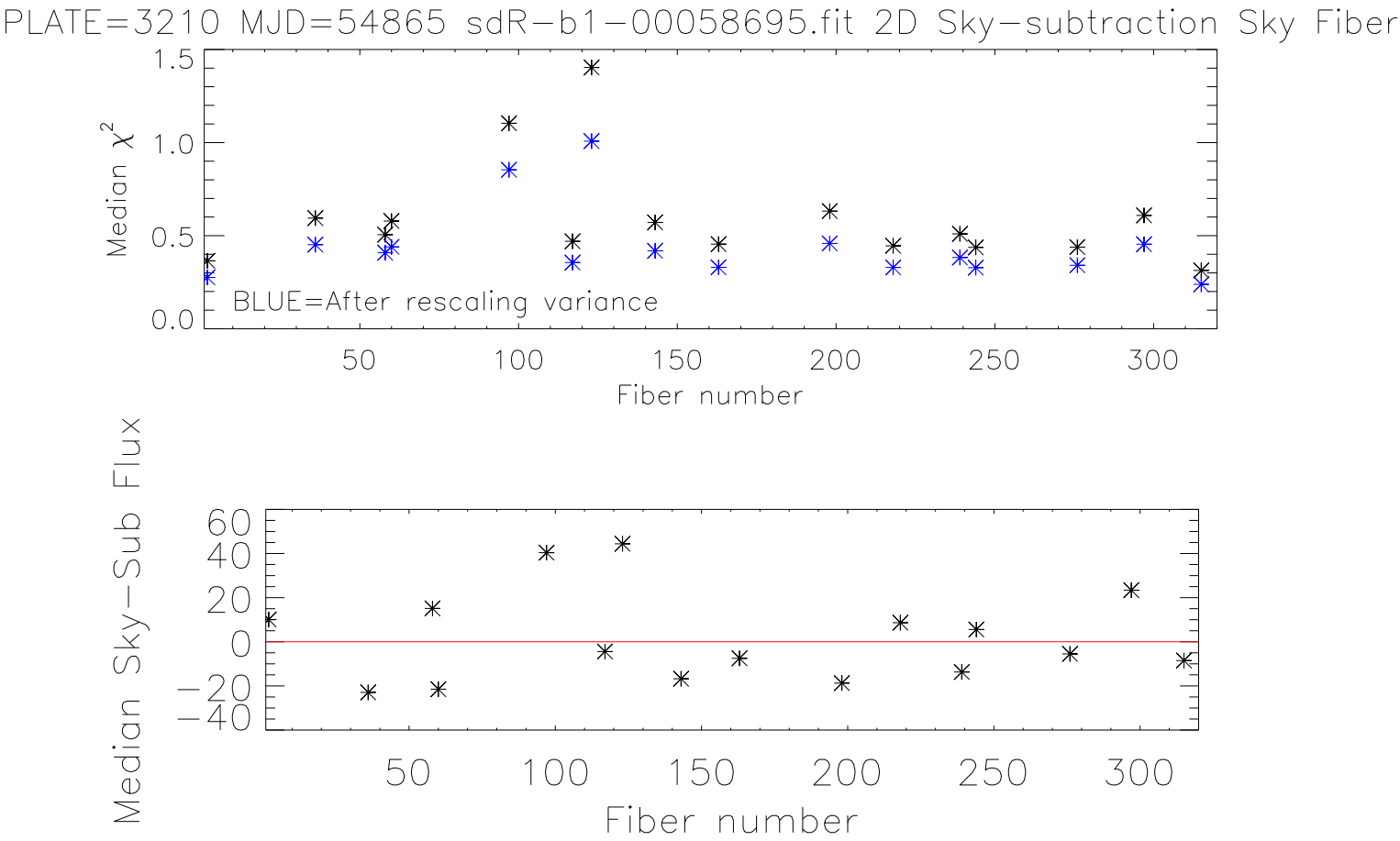

PLATE=3210 MJD=54865 Smooth superflat for sdR−b1−00058695.fit
1.5
1.0
0.5
0.0
1.04
1.03
1.02
1.01
1.00
0.99
0.98
4000
4500
5000
5500
6000
Wavelength (Å)

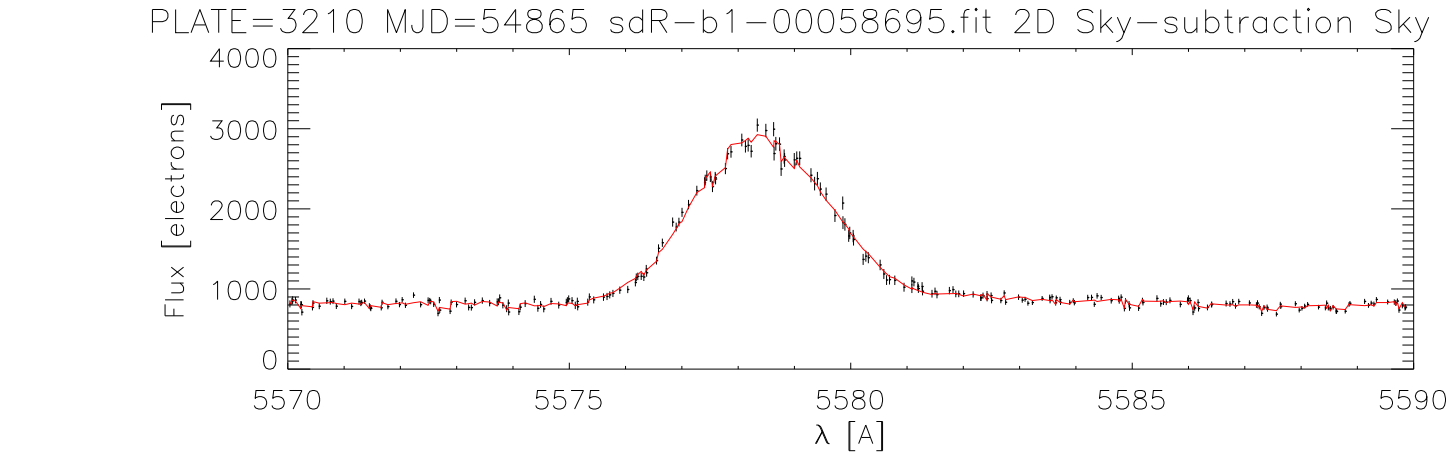

PLATE=3210 MJD=54865 sdR-b1-00058695.fit 1D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

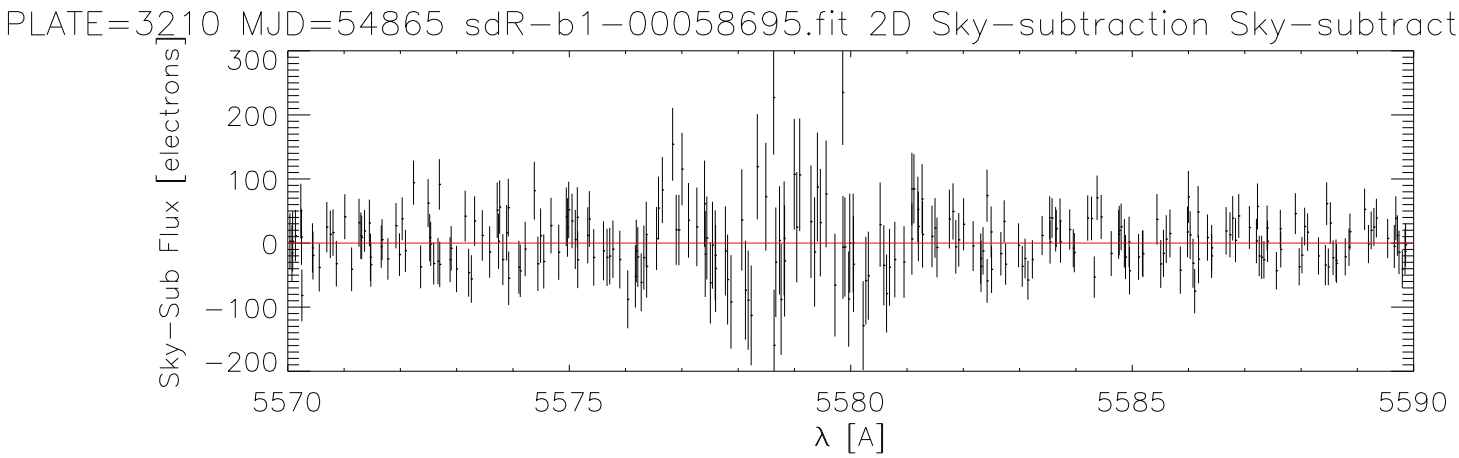

PLATE=3210 MJD=54865 sdR-b1-00058695.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

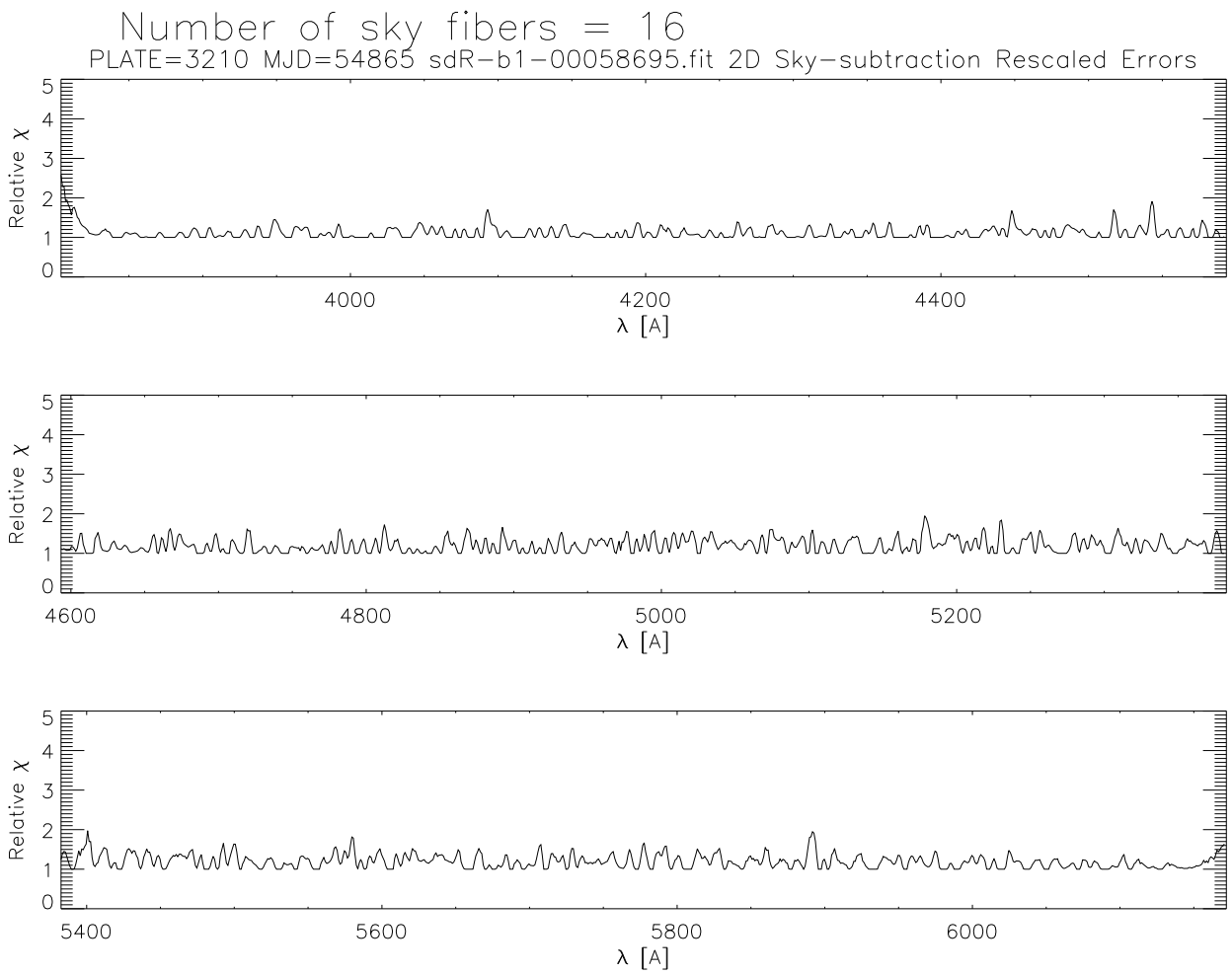

PLATE=3210 MJD=54865 sdR-b1-00058695.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
-300
5570
5575
5580
5585
5590
λ [A]

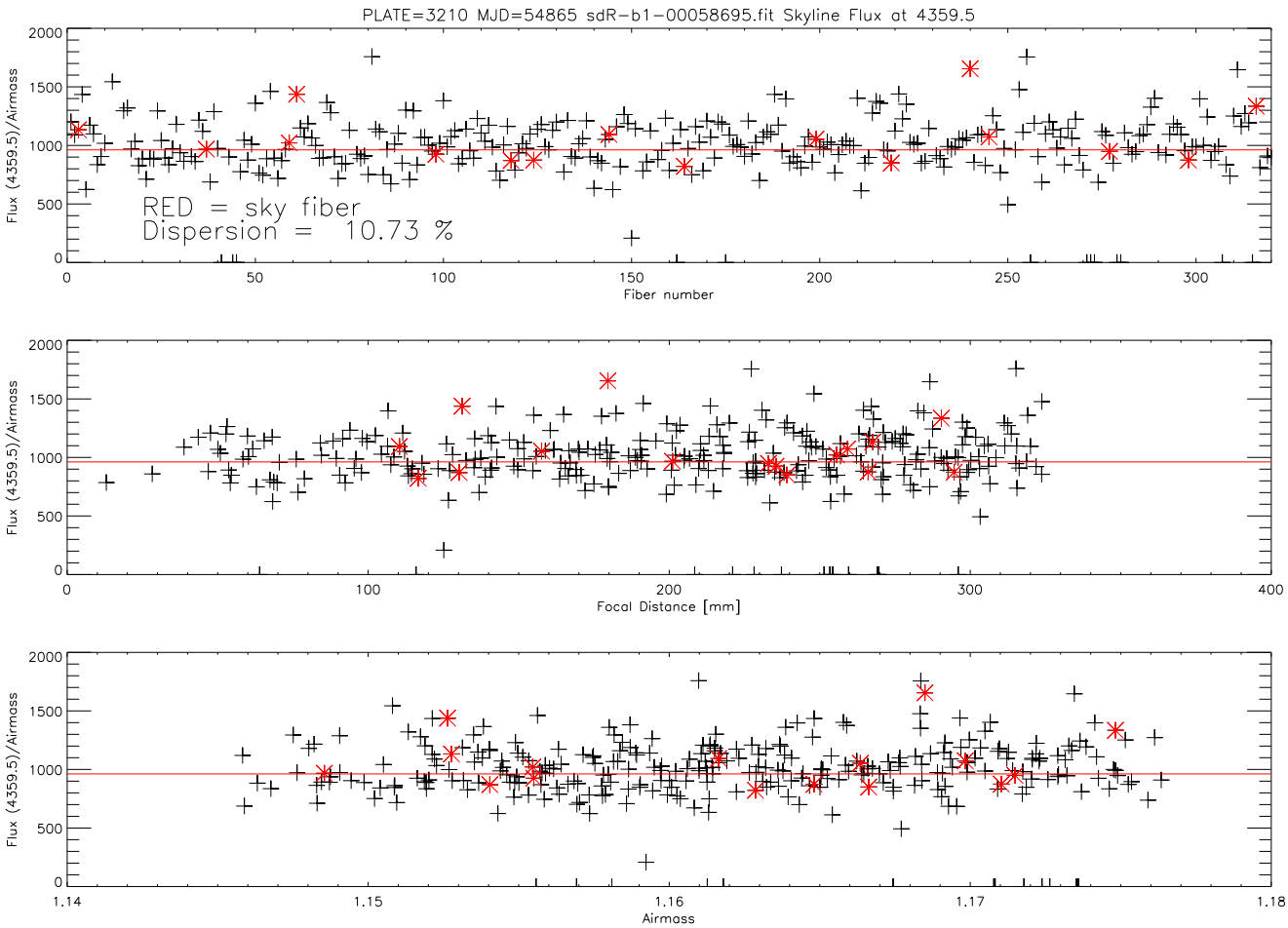

Number of sky fibers = 16
PLATE=3210 MJD=54865 sdR-b1-00058695.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

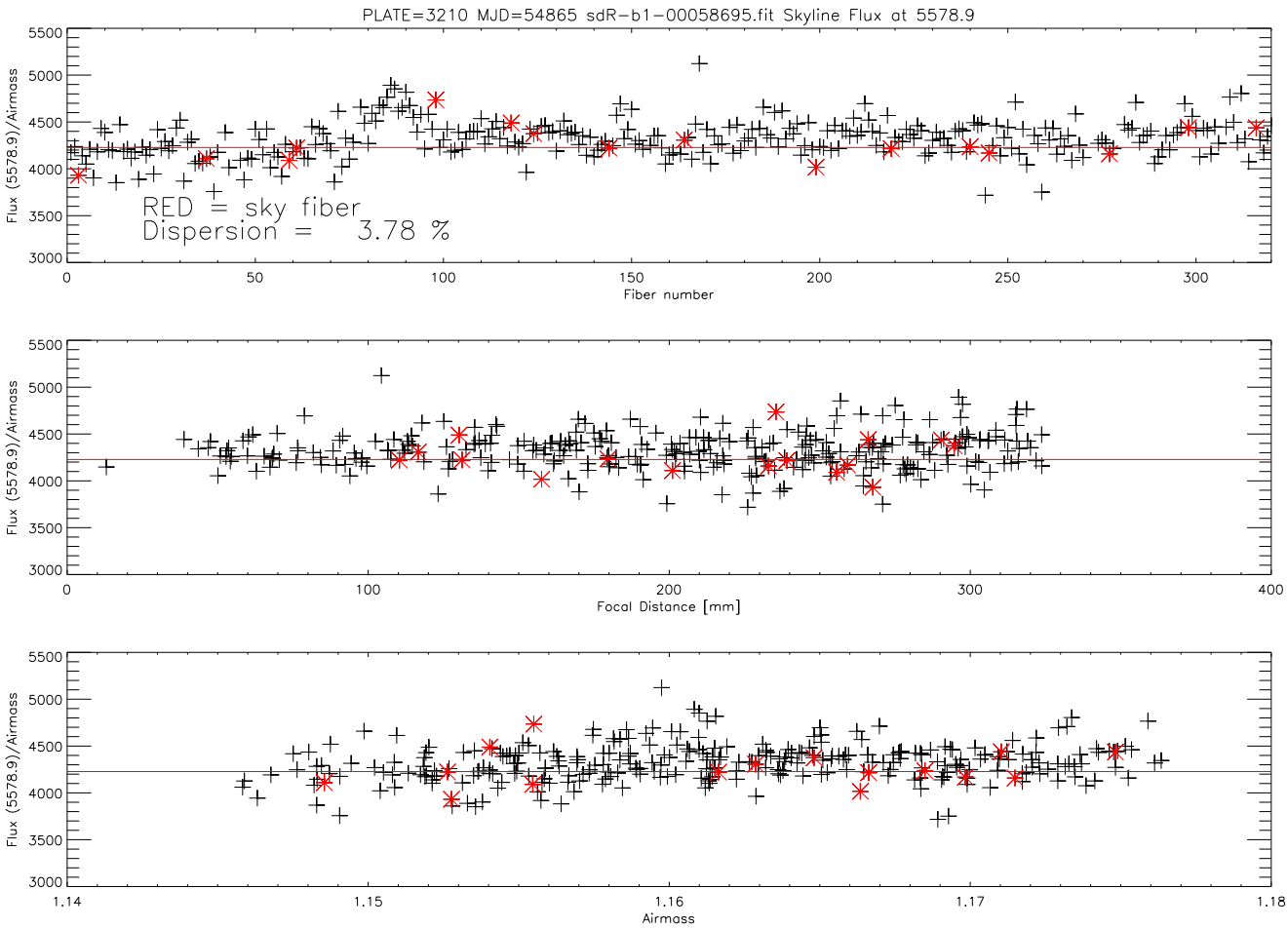

PLATE=3210 MJD=54865 sdR-b1-00058695.fit 2D Sky-subtraction Sky Fiber
Median χ^2
1.5
1.0
0.5
0.0
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
60
40
20
0
-20
-40
50
100
150
200
250
300
Fiber number

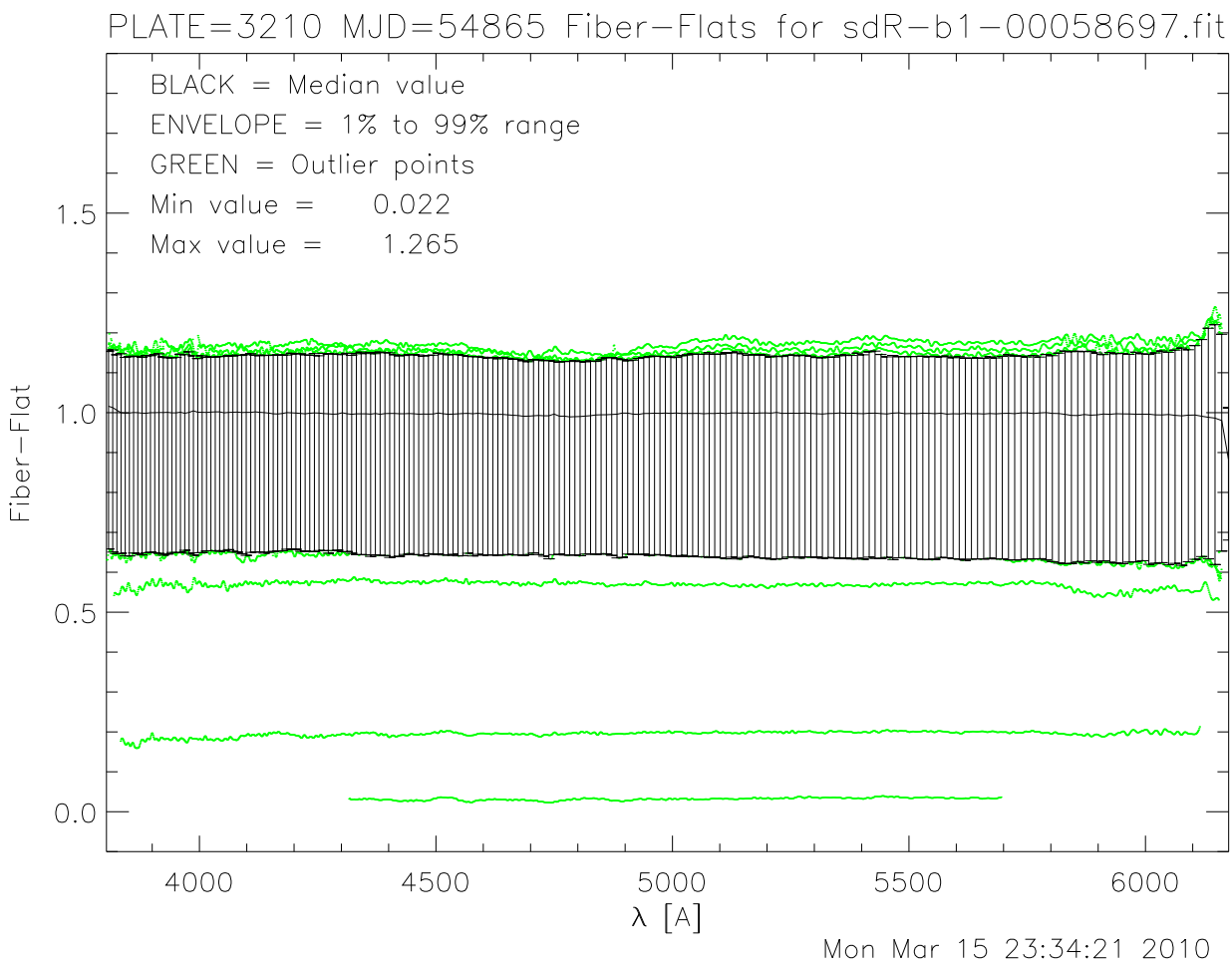

PLATE=3210 MJD=54865 sdR-b1-00058695.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

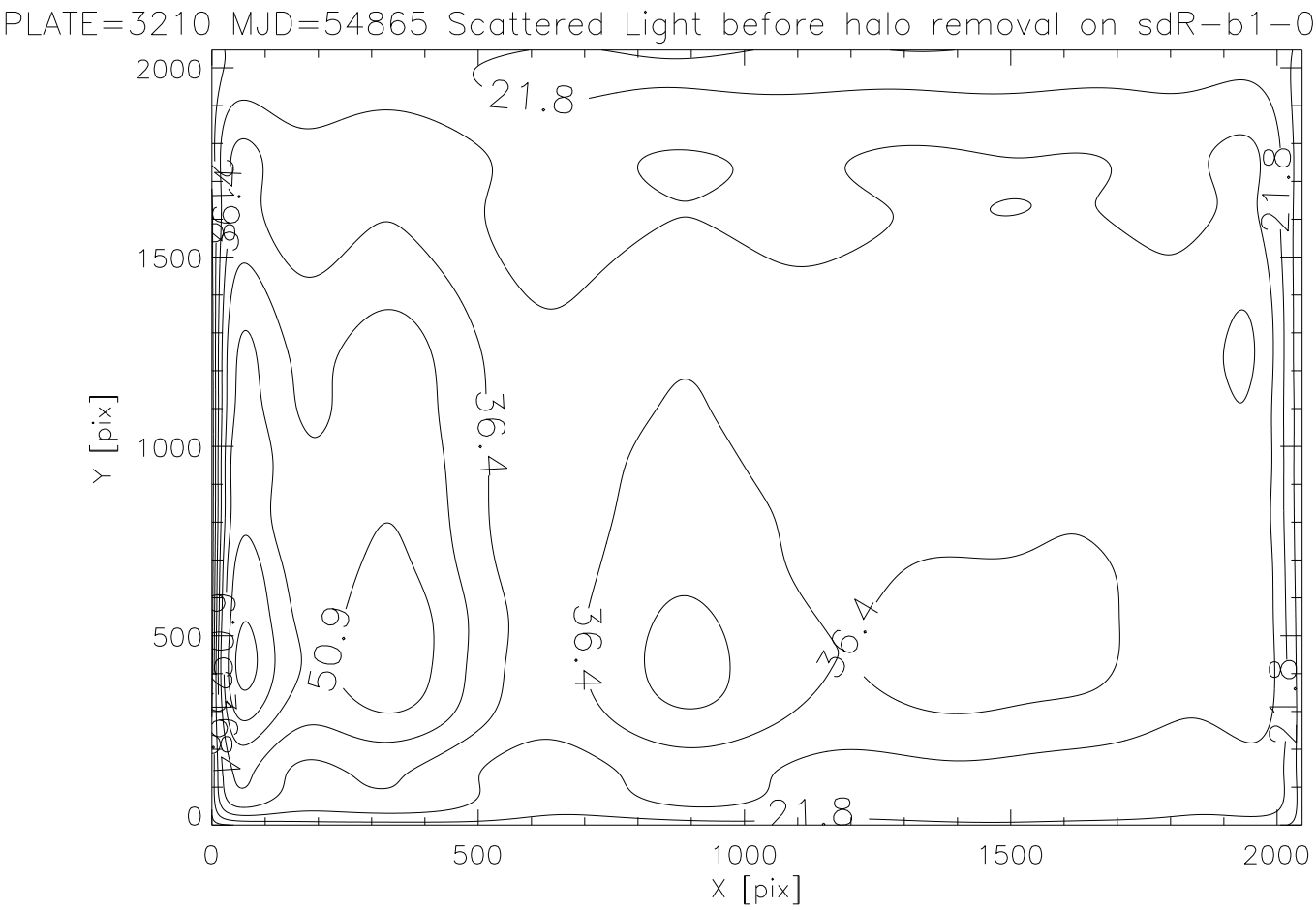

PLATE=3210 MJD=54865 sdR-b1-00058695.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
5570
5575
5580
5585
5590
λ [A]

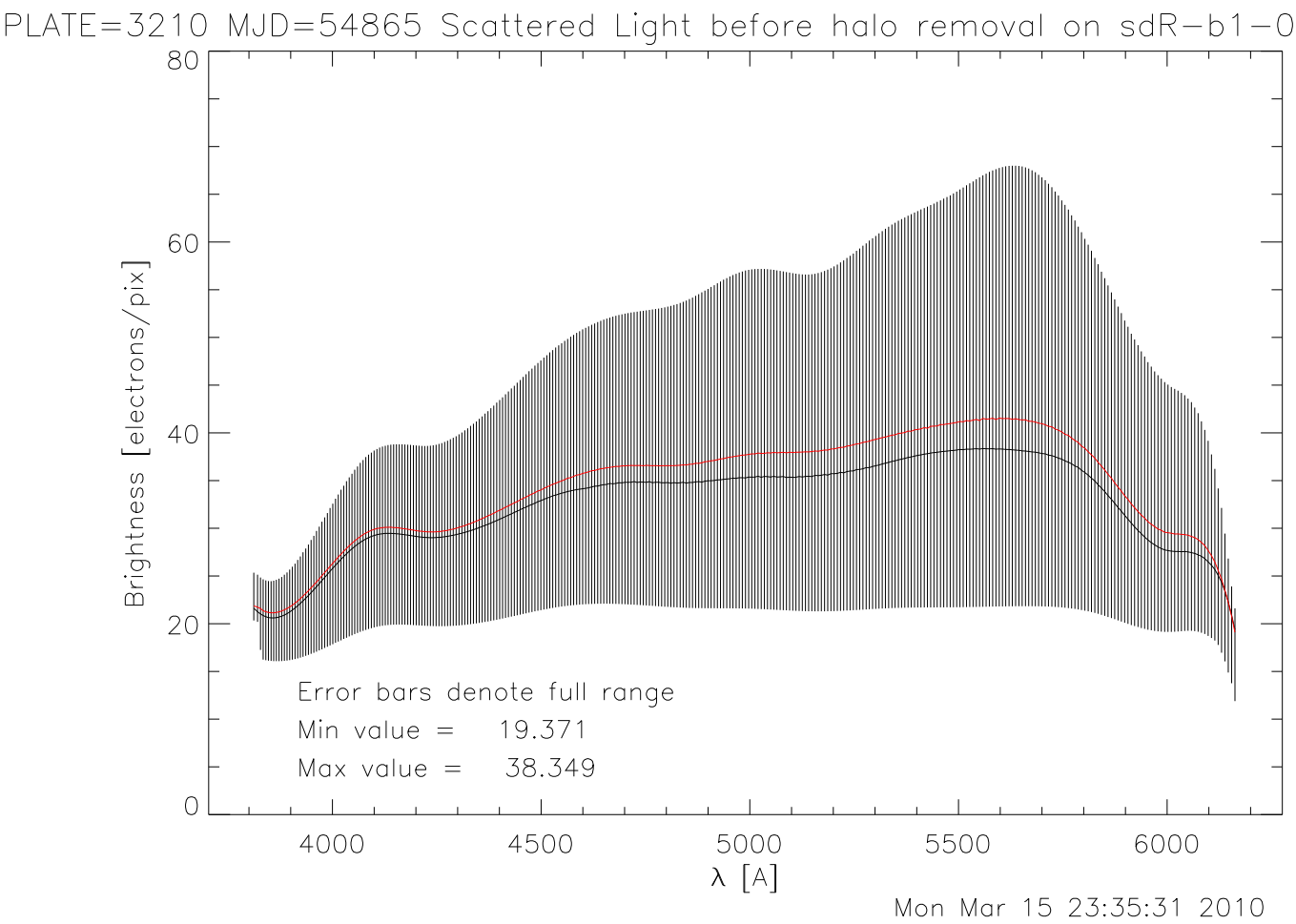

Number of sky fibers = 16
PLATE=3210 MJD=54865 sdR-b1-00058695.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

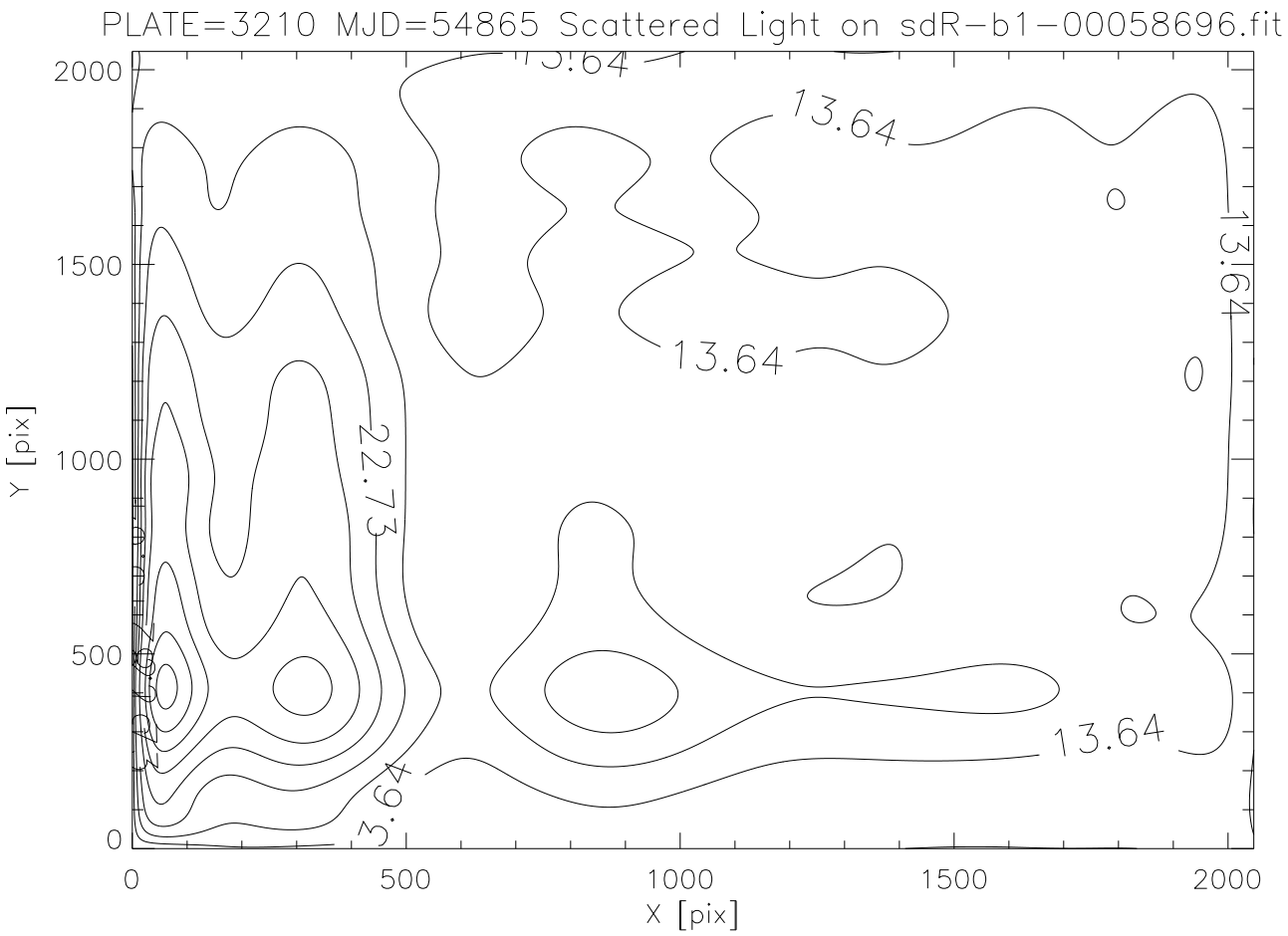

PLATE=3210 MJD=54865 sdR-b1-00058695.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 10.73 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

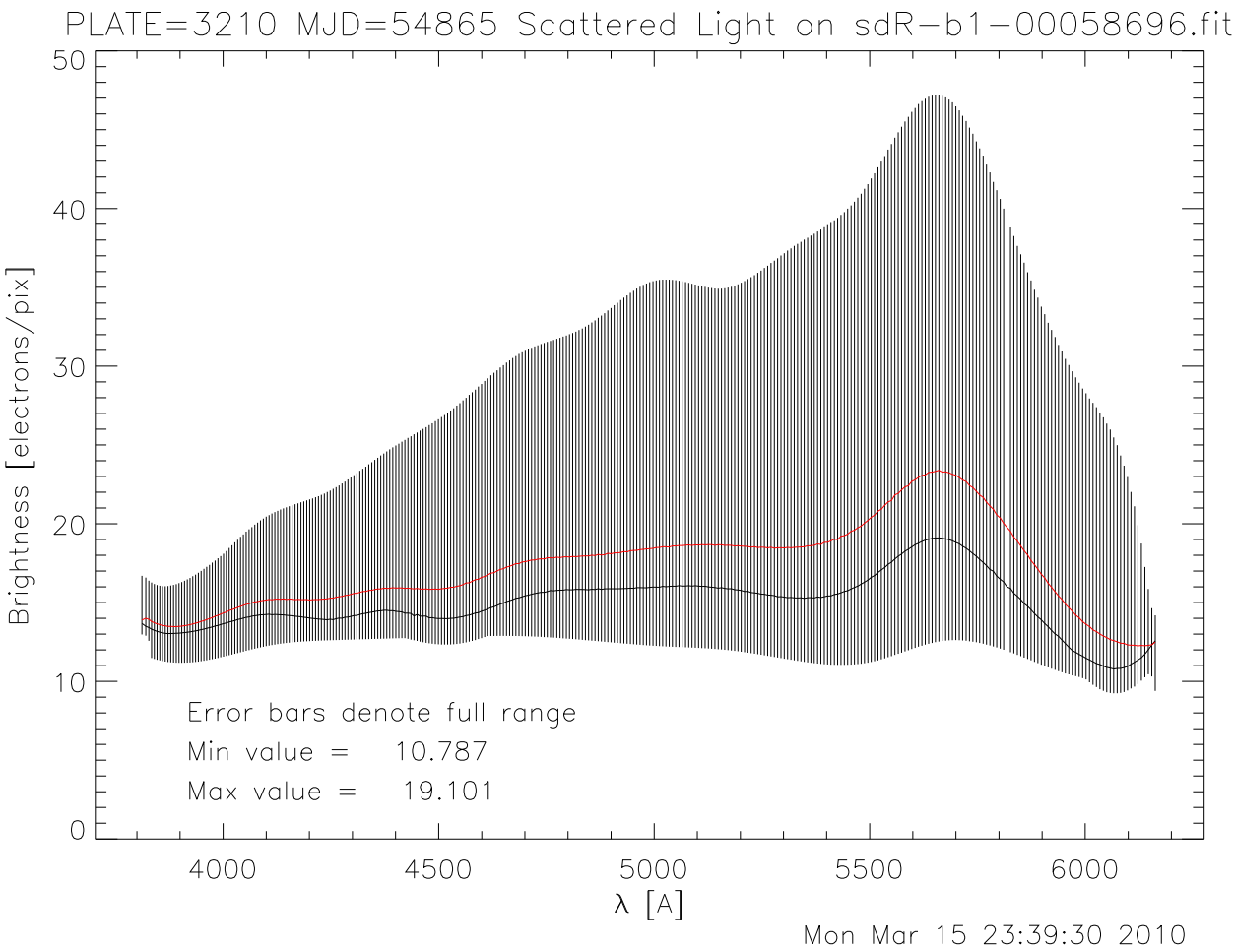

PLATE=3210 MJD=54865 sdR-b1-00058695.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 3.78 %
Fiber number
Focal Distance [mm]
Airmass

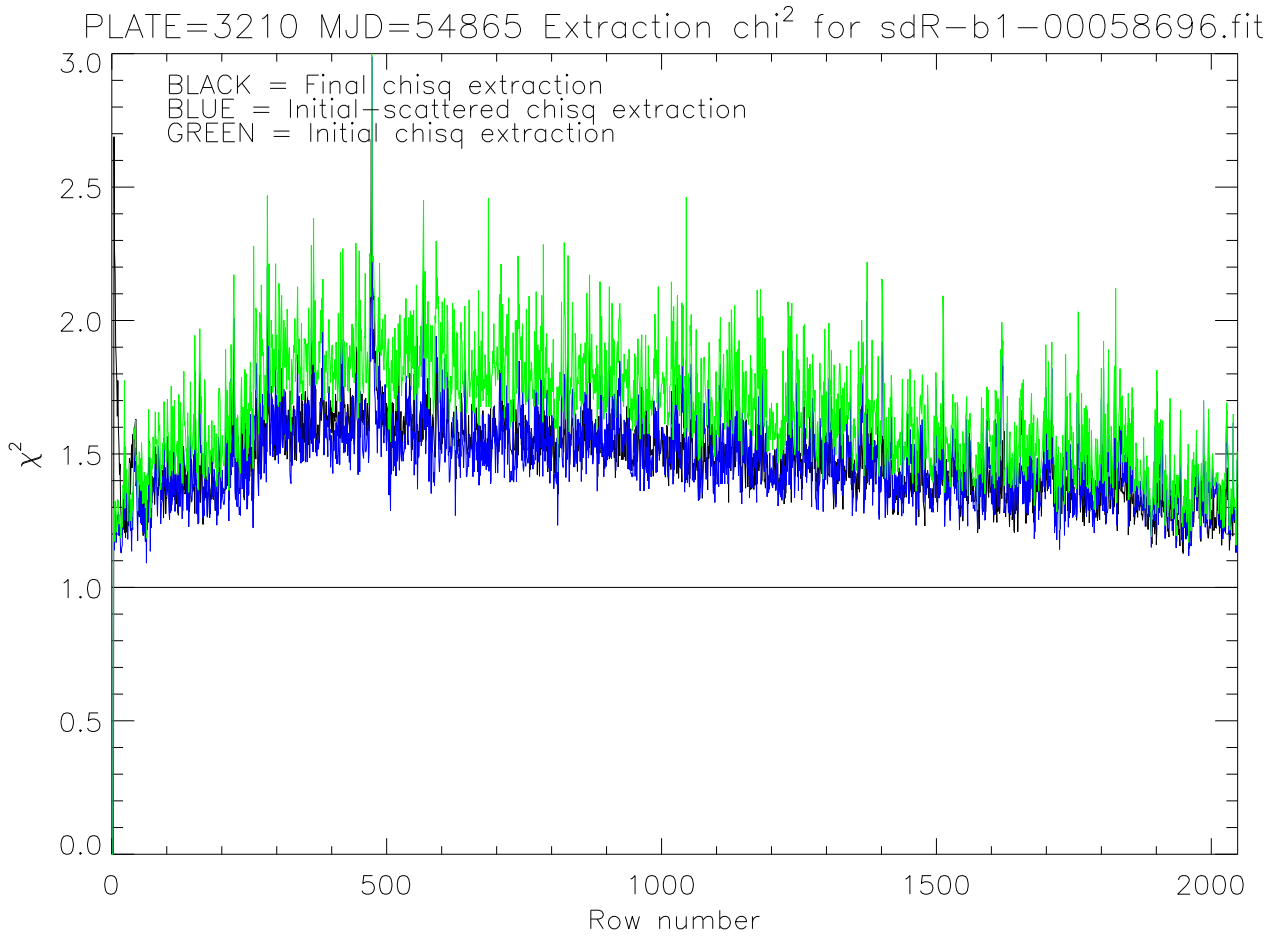

PLATE=3210 MJD=54865 Fiber-Flats for sdR-b1-00058697.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.022
Max value = 1.265
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Mon Mar 15 23:34:21 2010

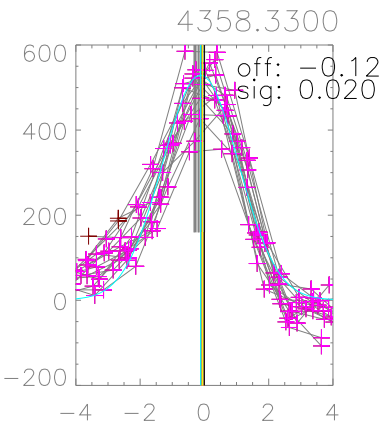

PLATE=3210 MJD=54865 Scattered Light before halo removal on sdR-b1-00058696.f
21.8
36.4
50.9
Y [pix]
X [pix]
0
500
1000
1500
2000

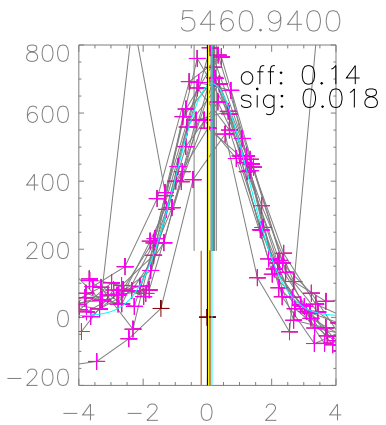

PLATE=3210 MJD=54865 Scattered Light before halo removal on sdR-b1-00058696.f
Brightness [electrons/pix]
80
60
40
20
0
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 19.371
Max value = 38.349
Mon Mar 15 23:35:31 2010

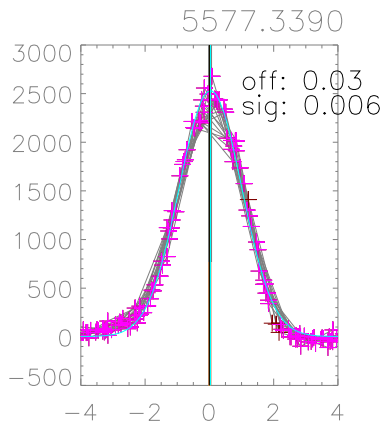

PLATE=3210 MJD=54865 Scattered Light on sdR-b1-00058696.fit
13.64
13.64
0
13.64
13.64
0
0
22.73
3.64
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]

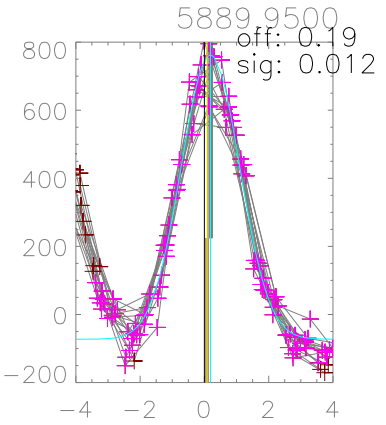

PLATE=3210 MJD=54865 Scattered Light on sdR-b1-00058696.fit
Brightness [electrons/pix]
50
40
30
20
10
0
Error bars denote full range
Min value = 10.787
Max value = 19.101
4000
4500
5000
5500
6000
λ [A]
Mon Mar 15 23:39:30 2010

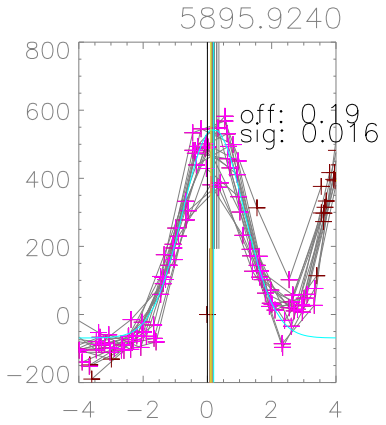

PLATE=3210 MJD=54865 Extraction chi^2 for sdR-b1-00058696.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
500
1000
1500
2000
Row number

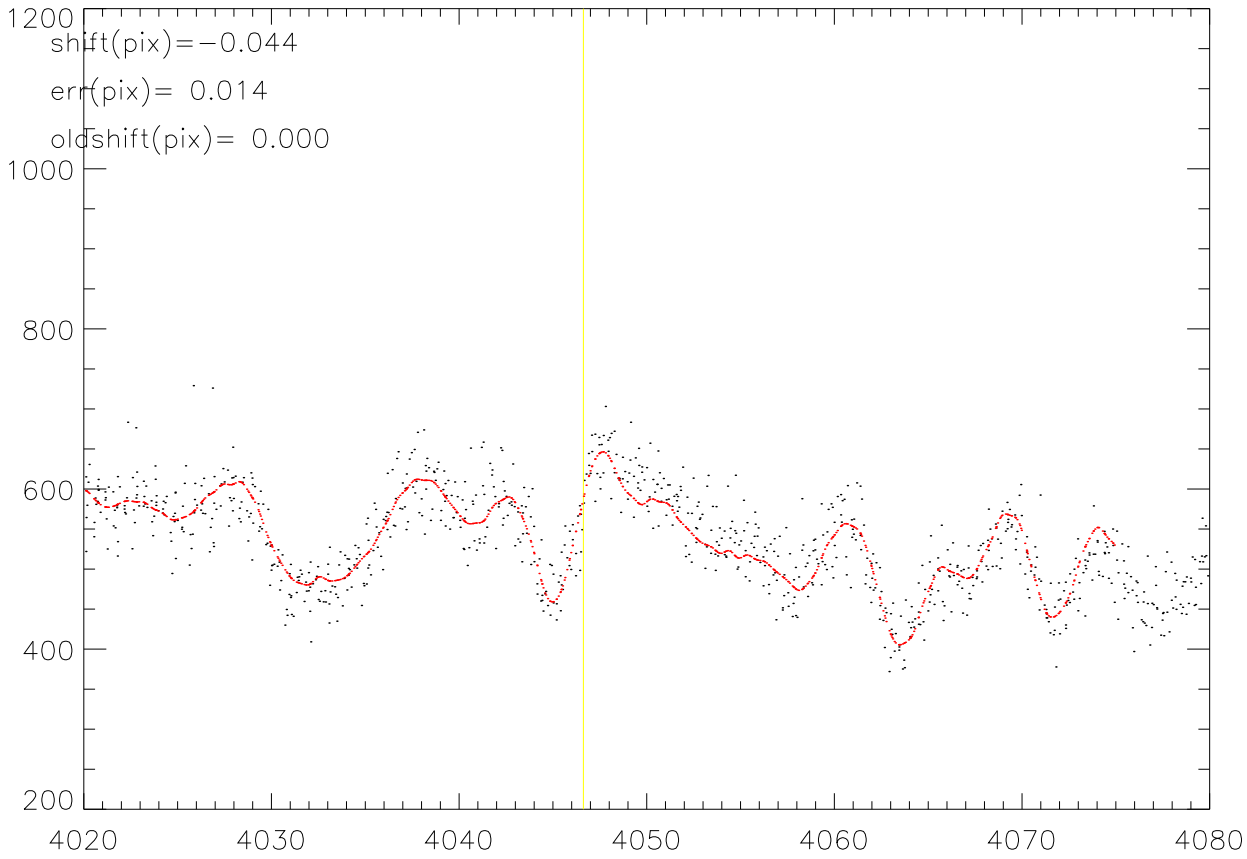

4358.3300
off: −0.12
sig: 0.020

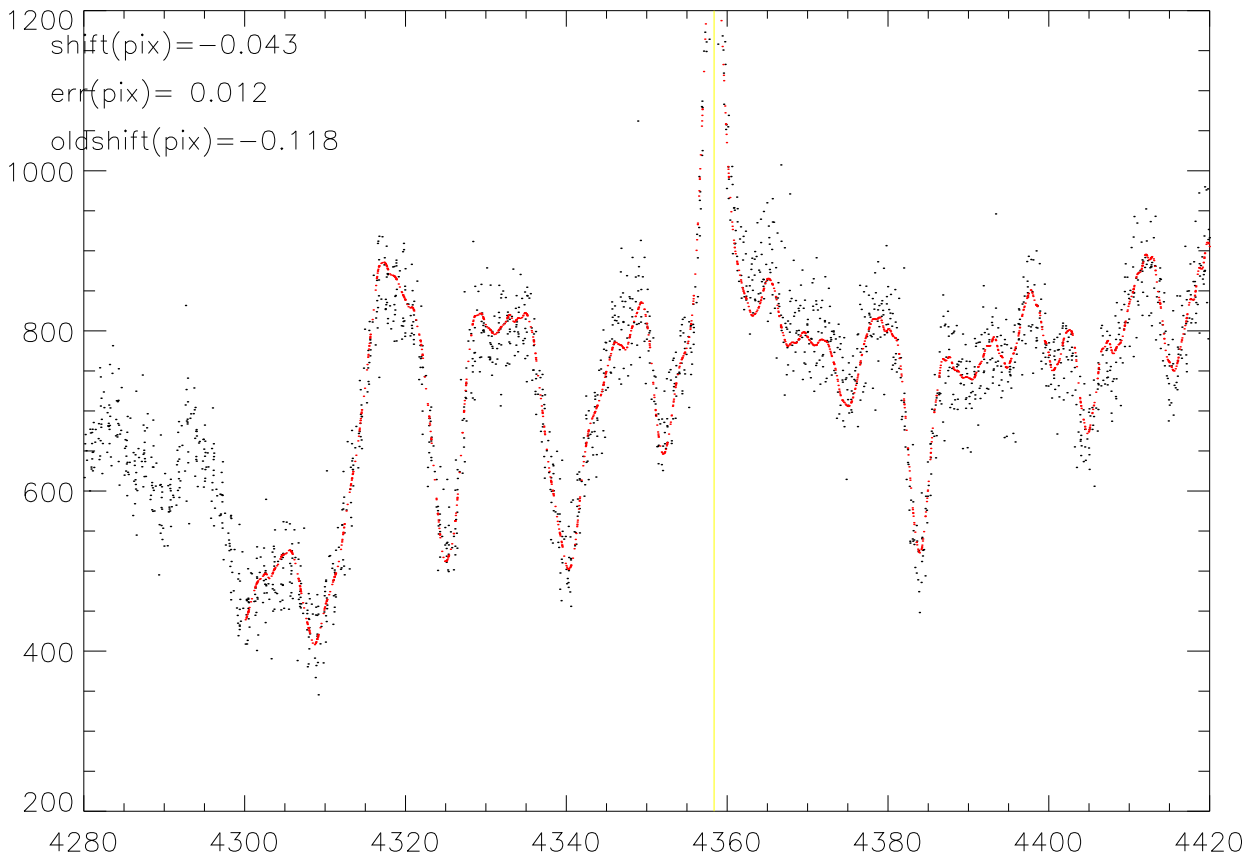

5460.9400
off: 0.14
sig: 0.018

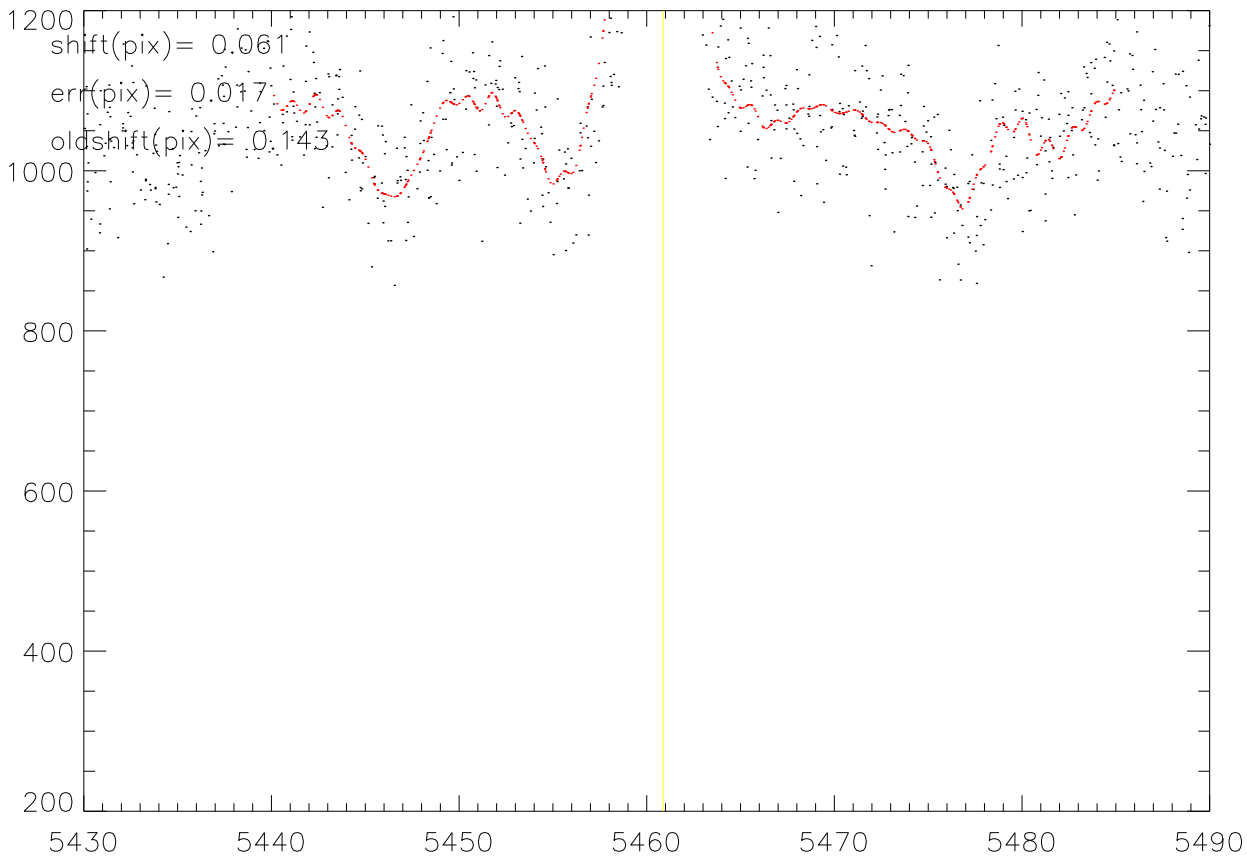

5577.3390
off: 0.03
sig: 0.006

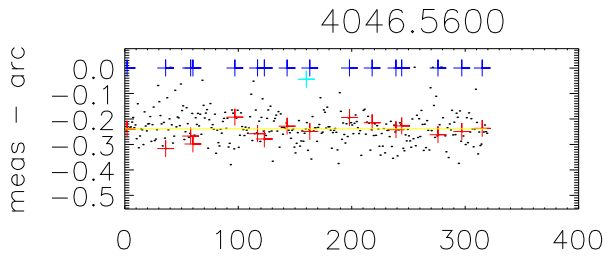

5889.9500
off: 0.19
sig: 0.012

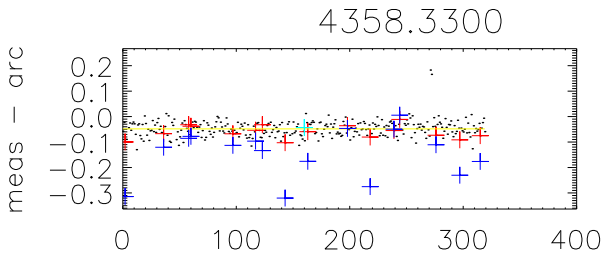

5895.9240
off: 0.19
sig: 0.016

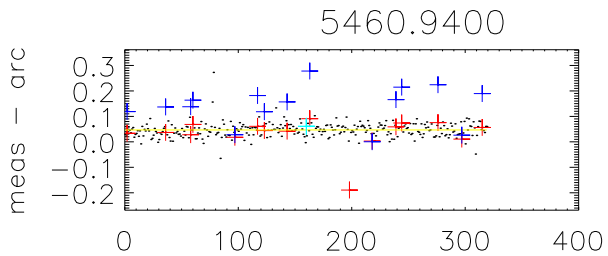

shift(pix)=−0.044
err(pix)= 0.014
oldshift(pix)= 0.000
1200
1000
800
600
400
200
4020
4030
4040
4050
4060
4070
4080

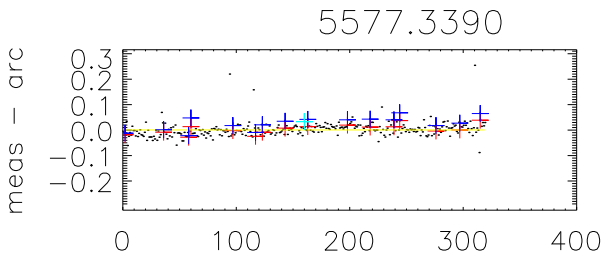

shift(pix)=−0.043
err(pix)= 0.012
oldshift(pix)=−0.118
1200
1000
800
600
400
200
4280
4300
4320
4340
4360
4380
4400
4420

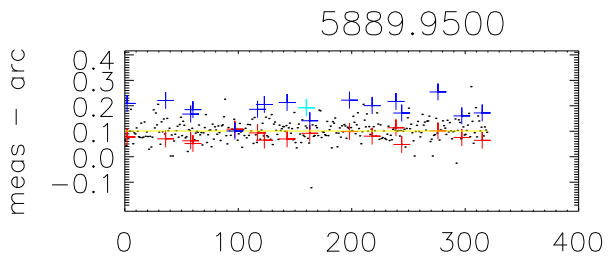

shift(pix)= 0.061
err(pix)= 0.017
oldshift(pix)= 0.143
1200
1000
800
600
400
200
5430
5440
5450
5460
5470
5480
5490

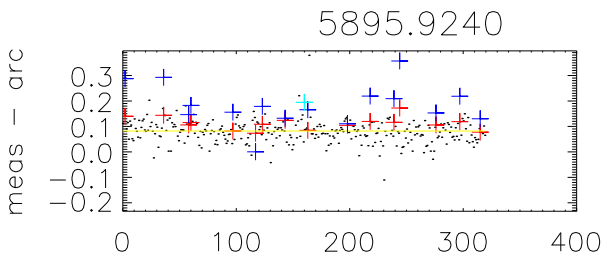

4046.5600
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

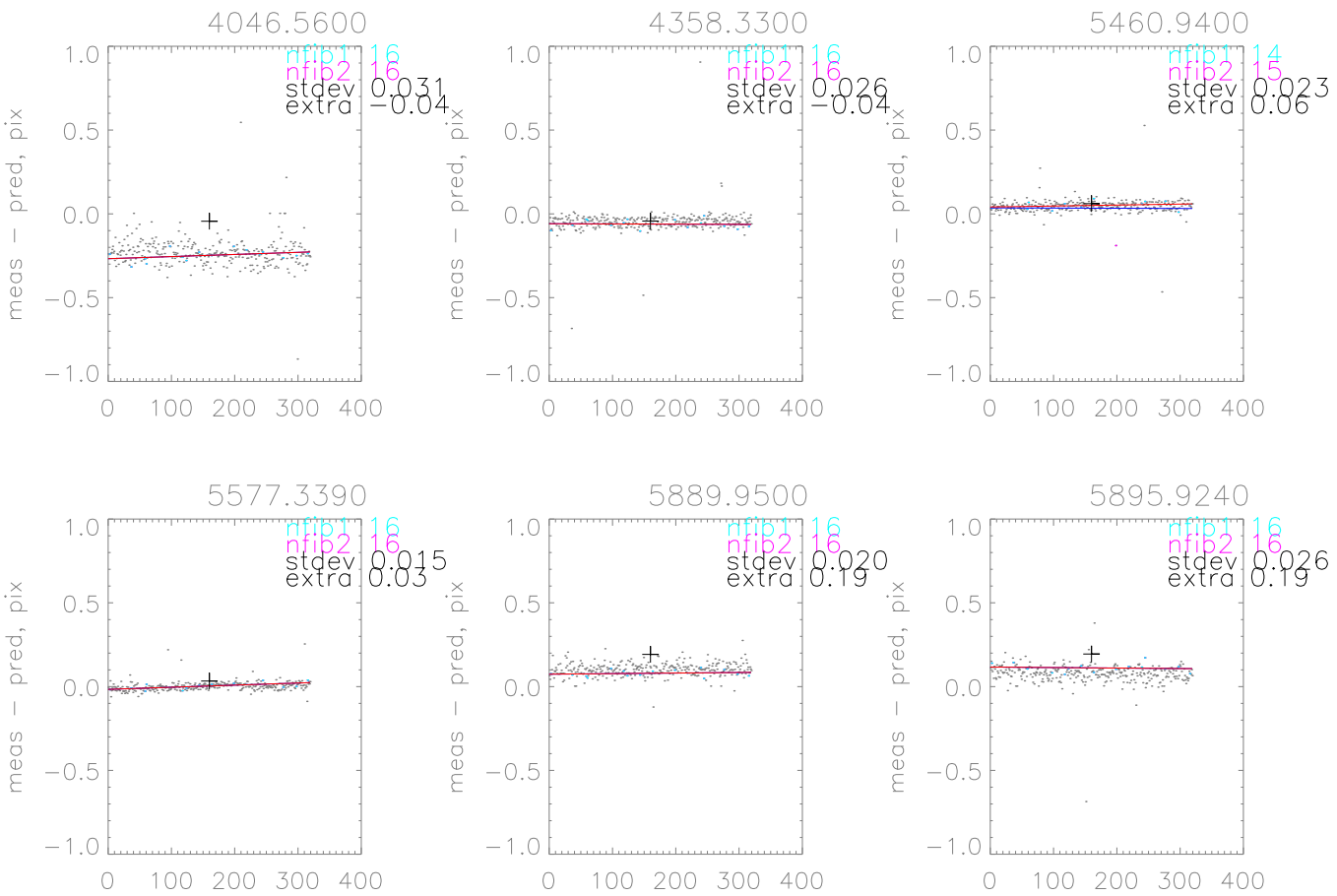

4358.3300
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

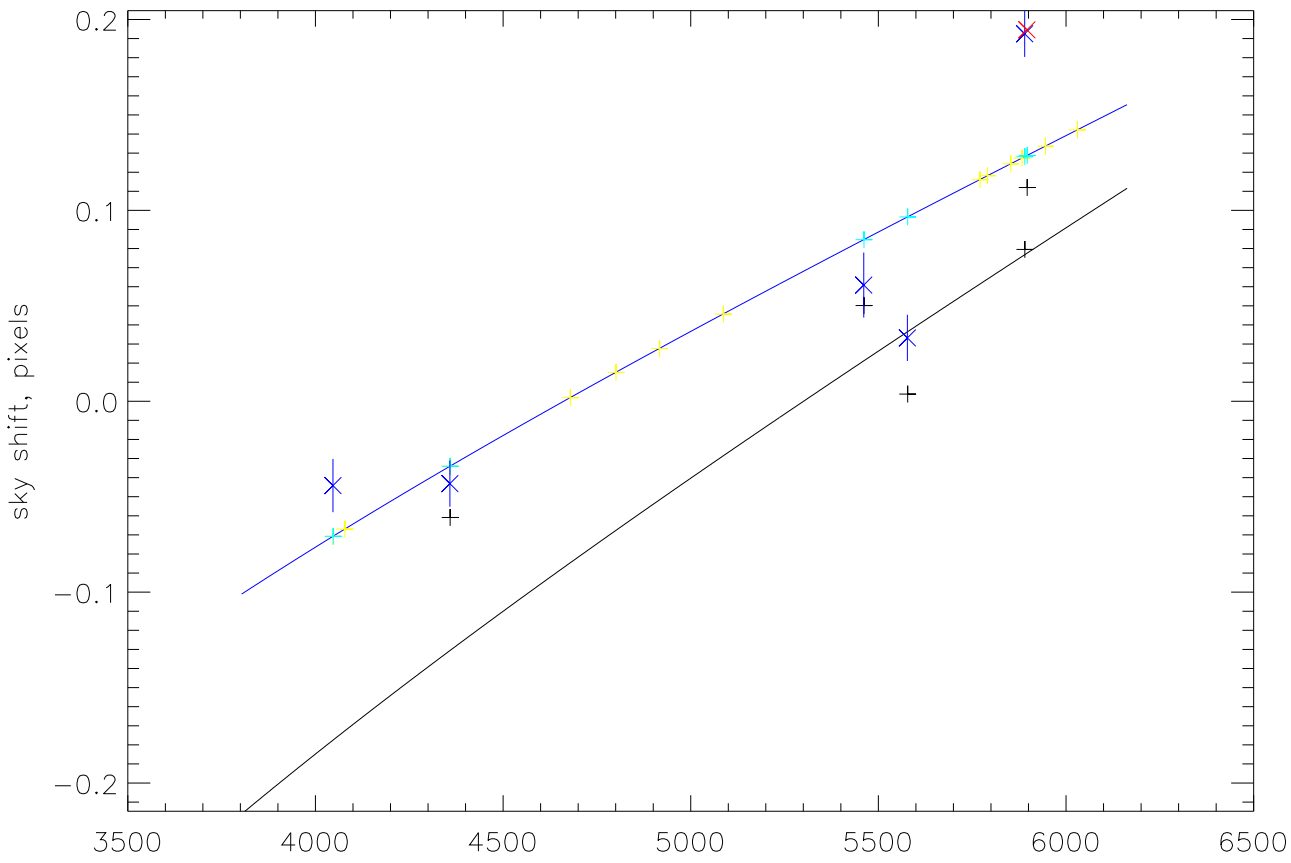

5460.9400
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400


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

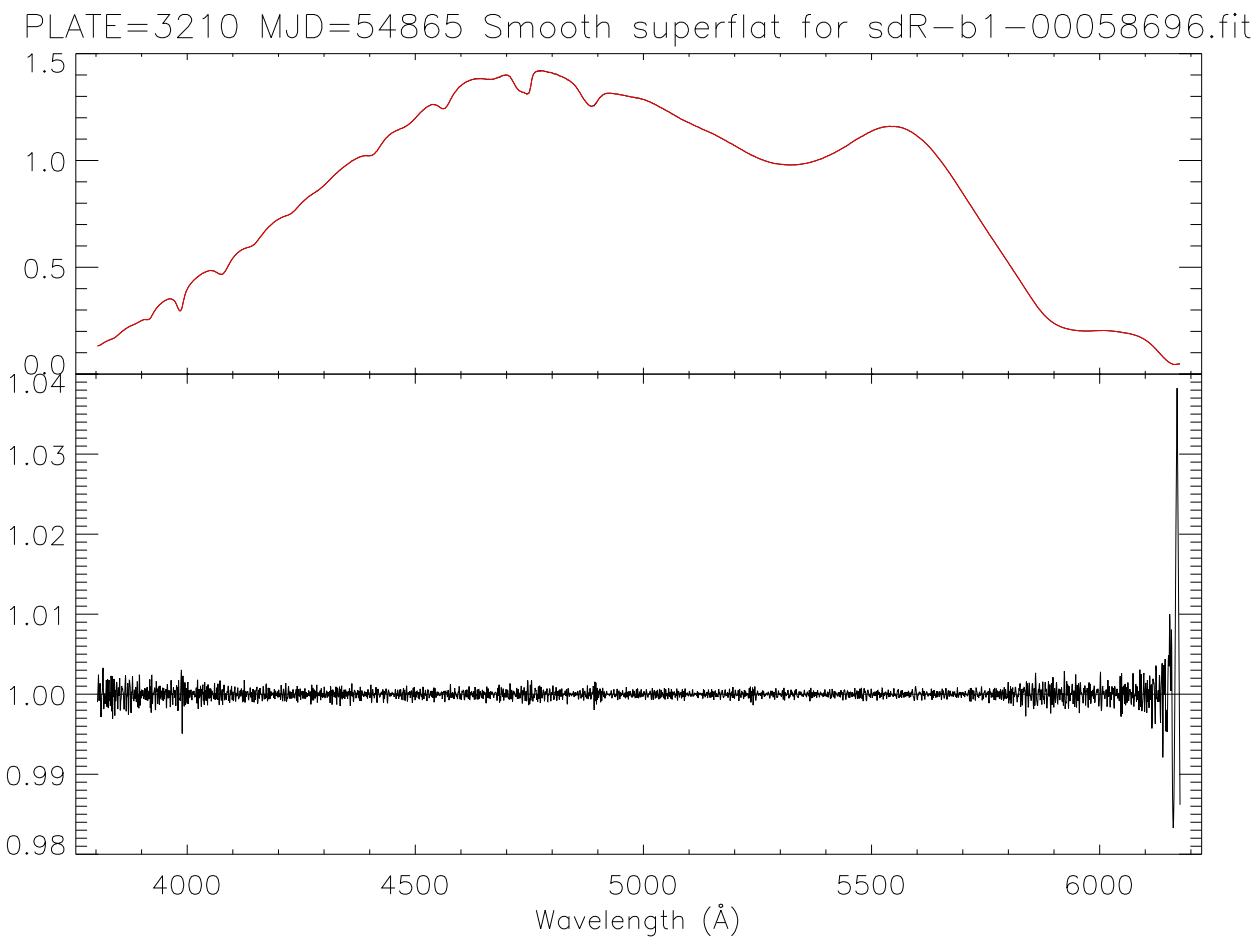

5889.9500
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

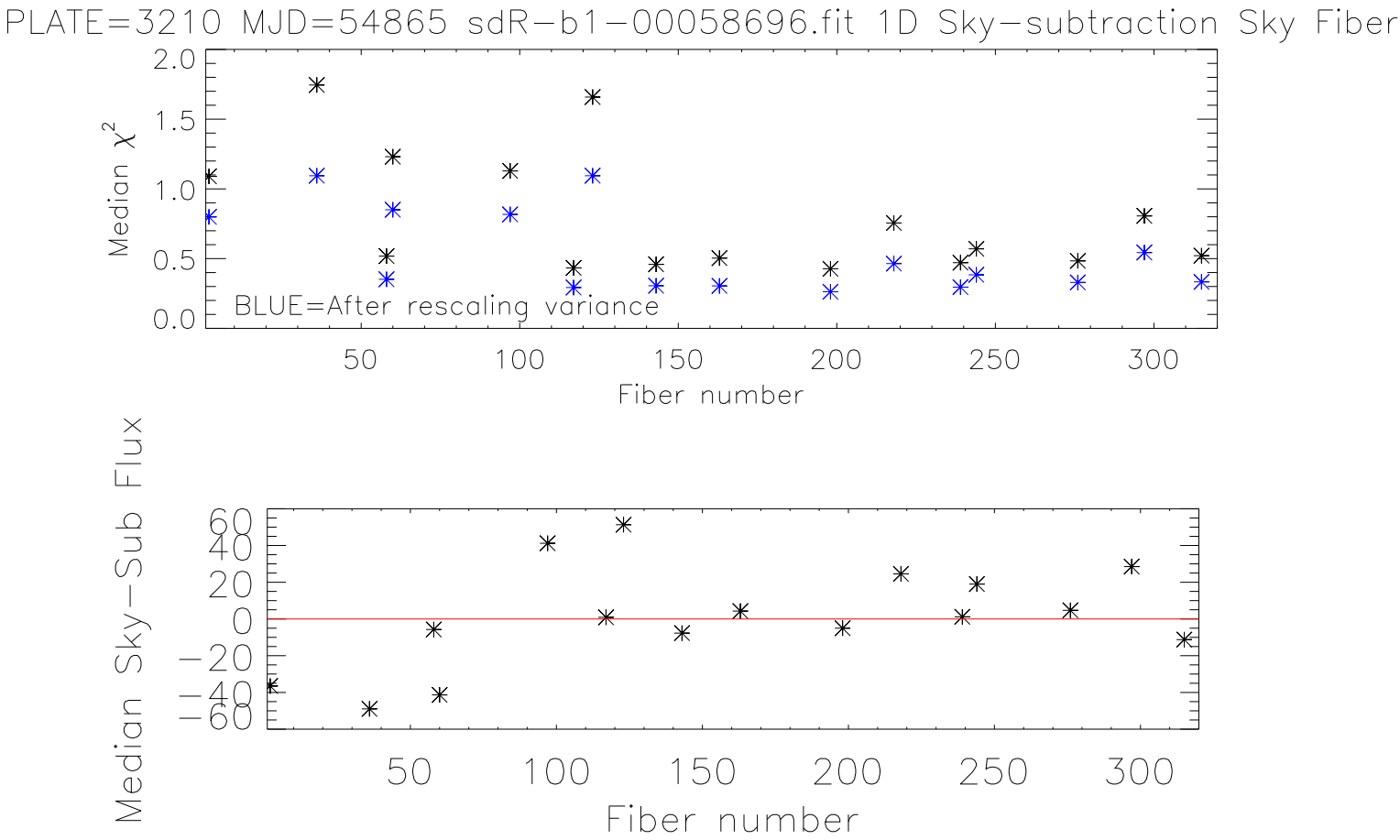

5895.9240
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

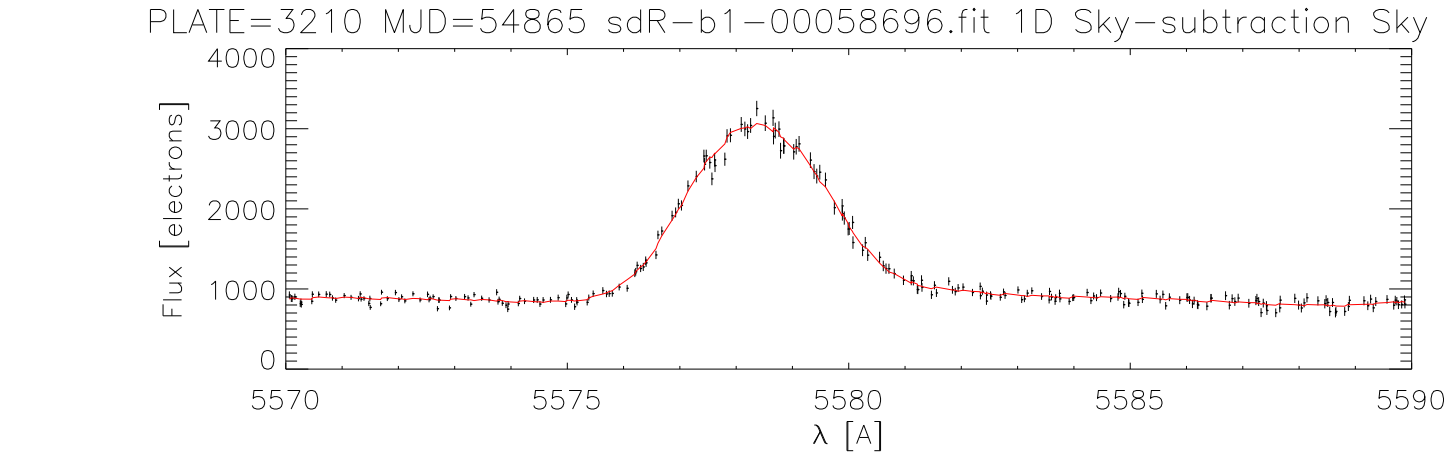

4046.5600
nfib1 16
nfib2 16
stdev 0.031
extra −0.04
4358.3300
nfib1 16
nfib2 16
stdev 0.026
extra −0.04
5460.9400
nfib1 14
nfib2 15
stdev 0.023
extra 0.06
5577.3390
nfib1 16
nfib2 16
stdev 0.015
extra 0.03
5889.9500
nfib1 16
nfib2 16
stdev 0.020
extra 0.19
5895.9240
nfib1 16
nfib2 16
stdev 0.026
extra 0.19
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

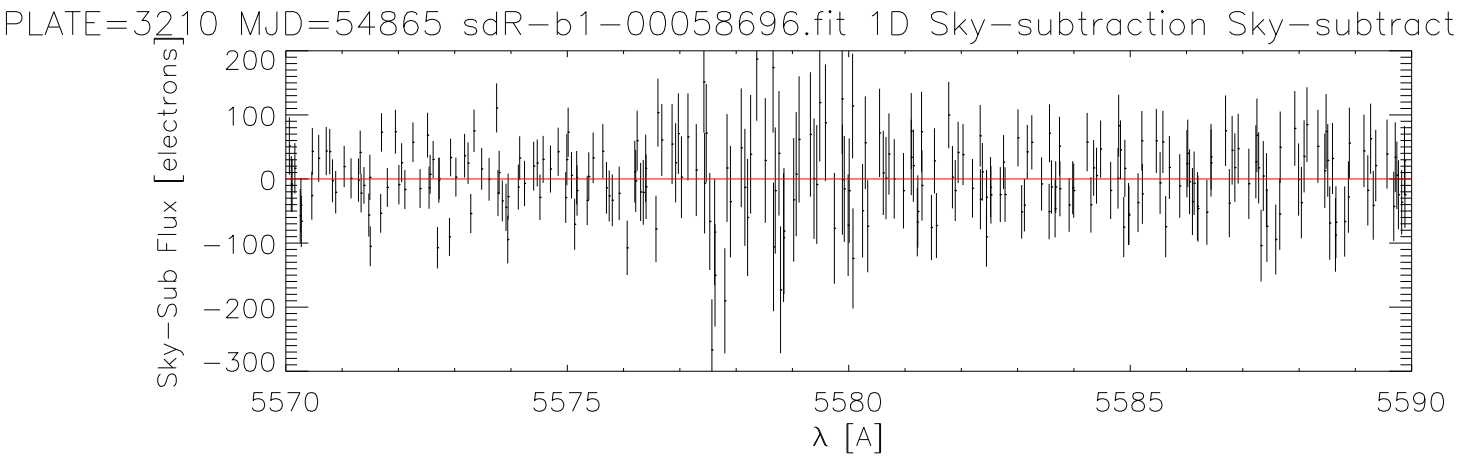

0.2
0.1
0.0
−0.1
−0.2
sky shift, pixels
3500
4000
4500
5000
5500
6000
6500

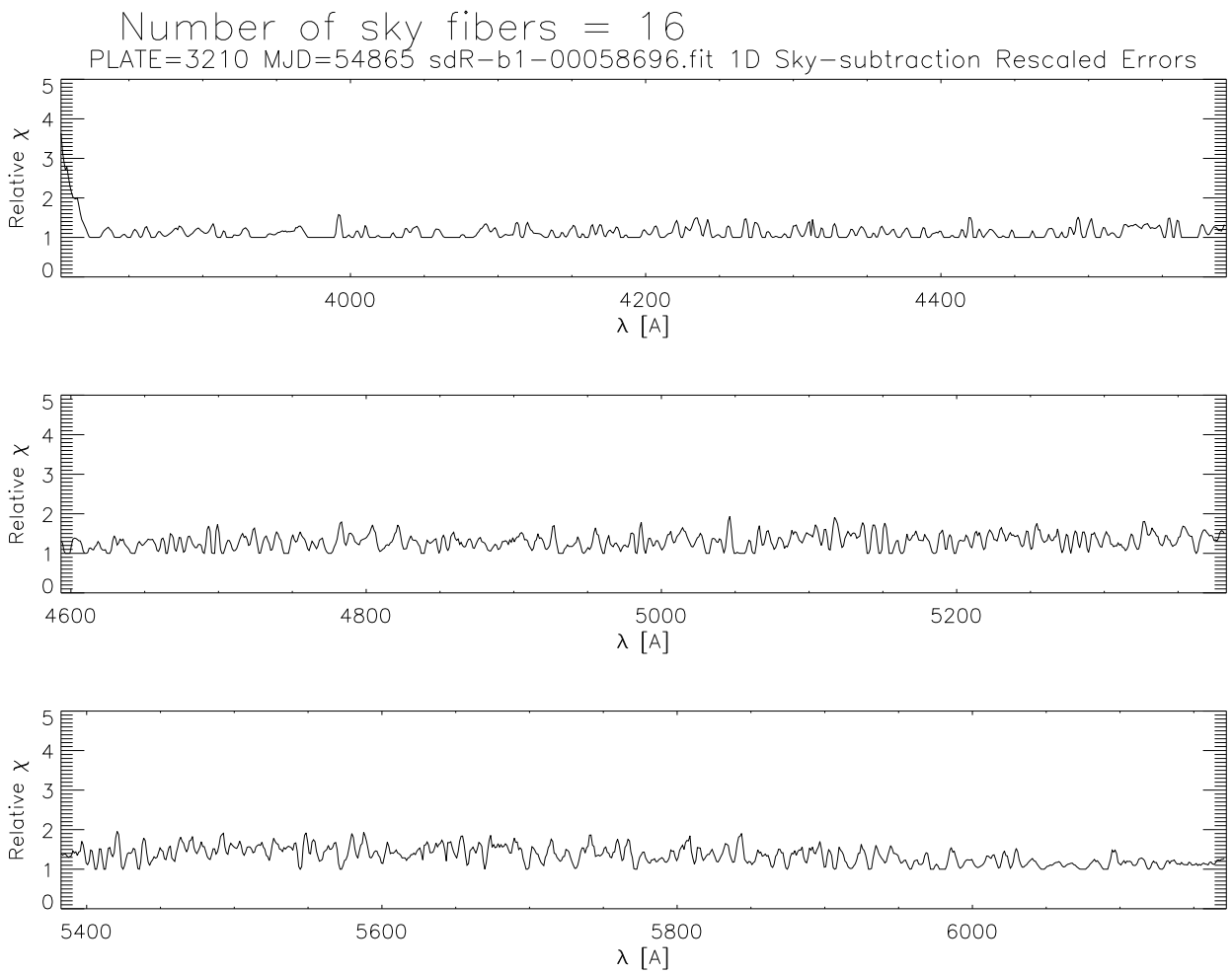
es= −0.0001

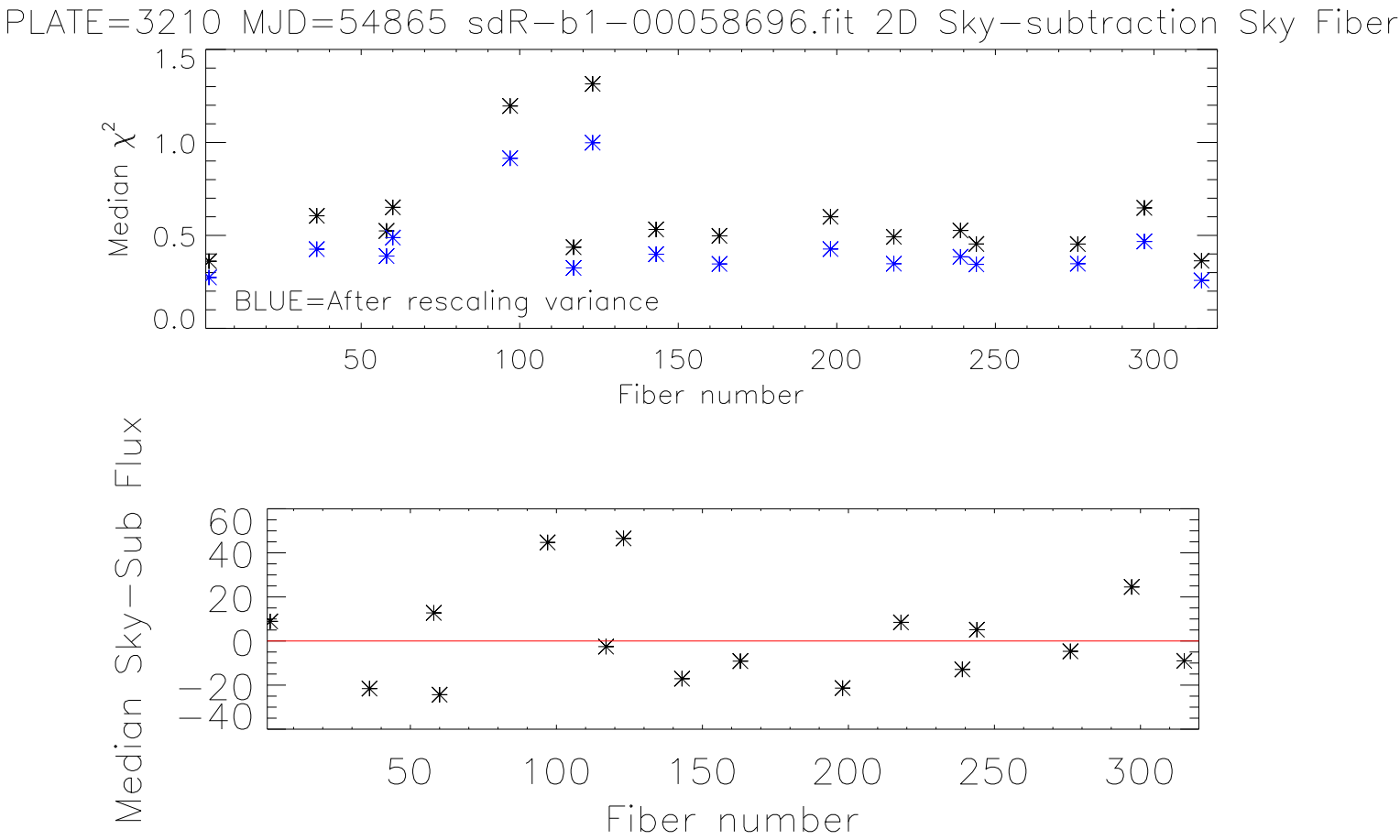

PLATE=3210 MJD=54865 Smooth superflat for sdR−b1−00058696.fit
1.5
1.0
0.5
0.0
1.04
1.03
1.02
1.01
1.00
0.99
0.98
4000
4500
5000
5500
6000
Wavelength (Å)

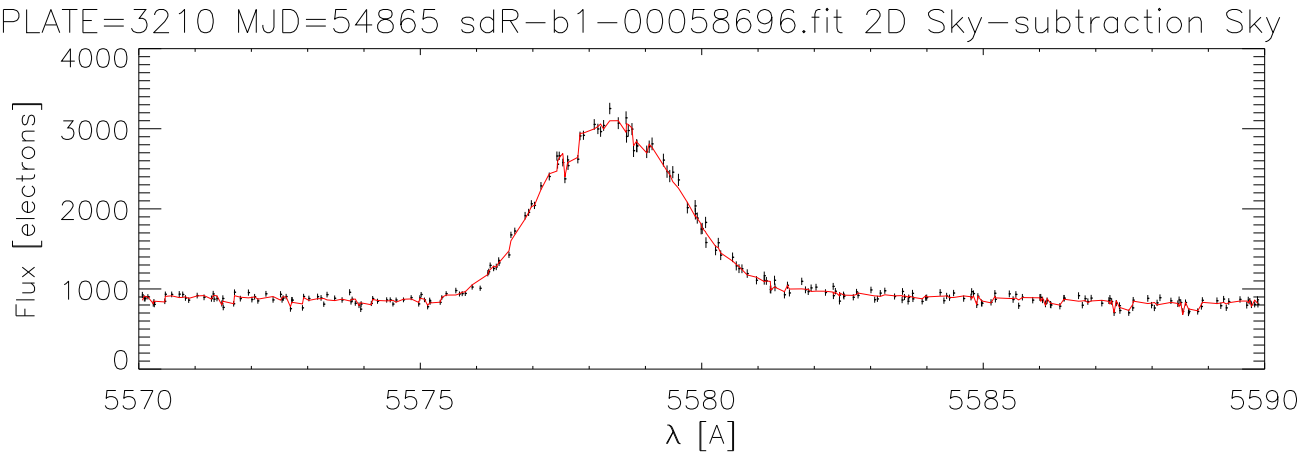

PLATE=3210 MJD=54865 sdR-b1-00058696.fit 1D Sky-subtraction Sky Fiber
Median χ^2
2.0
1.5
1.0
0.5
0.0
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
60
40
20
0
-20
-40
-60
50
100
150
200
250
300
Fiber number

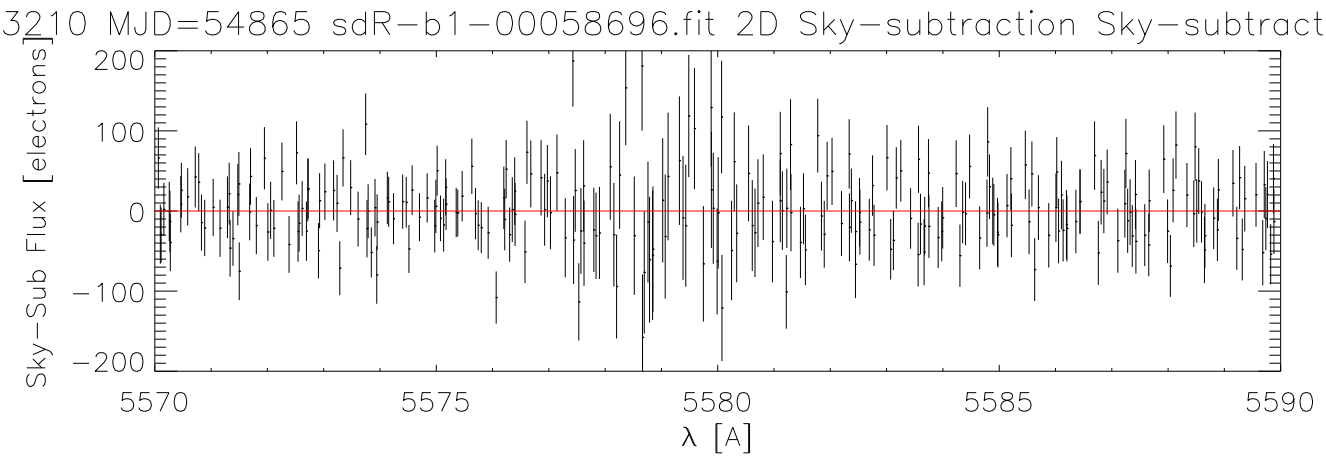

PLATE=3210 MJD=54865 sdR-b1-00058696.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

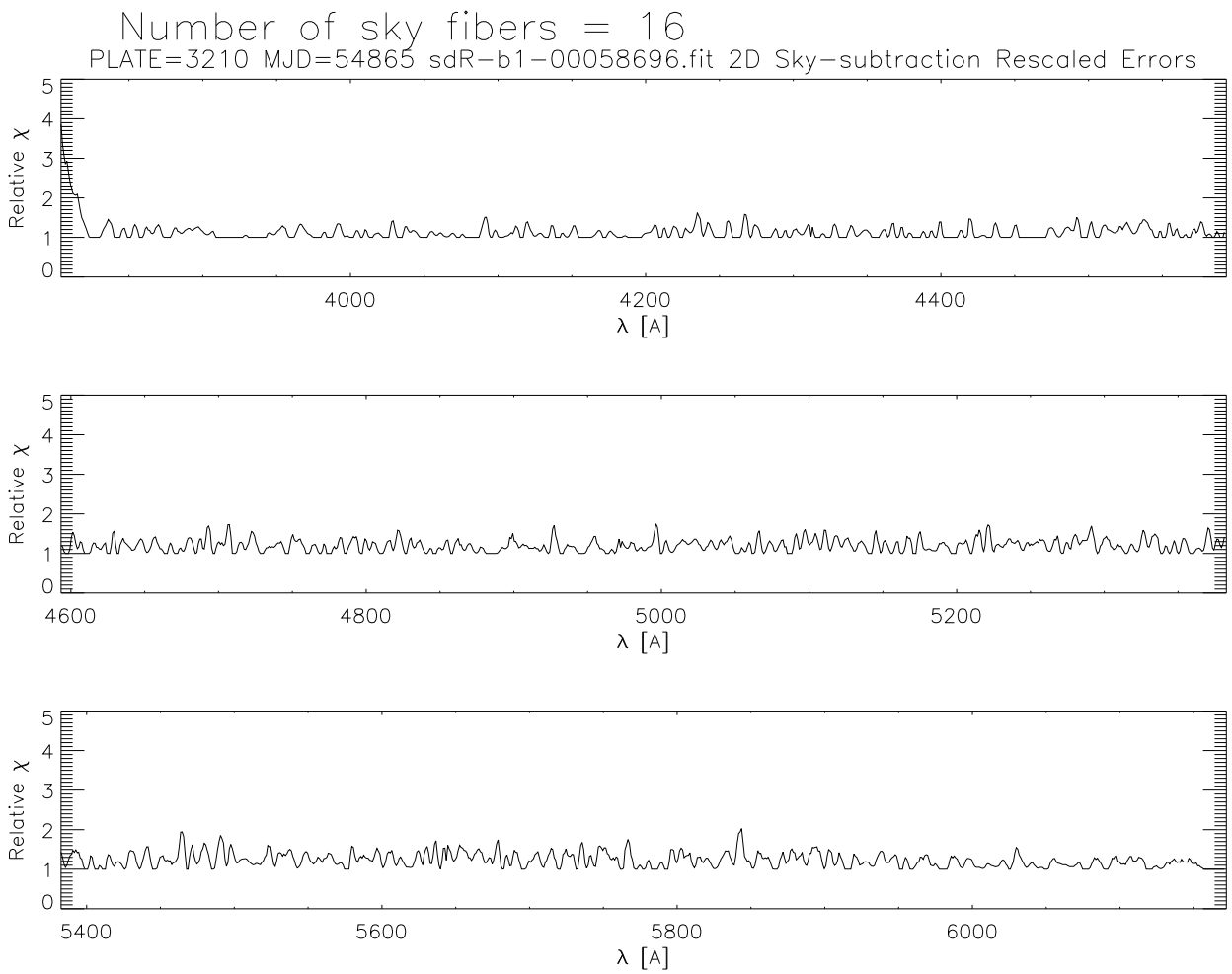

PLATE=3210 MJD=54865 sdR-b1-00058696.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
-300
5570
5575
5580
5585
5590
λ [A]

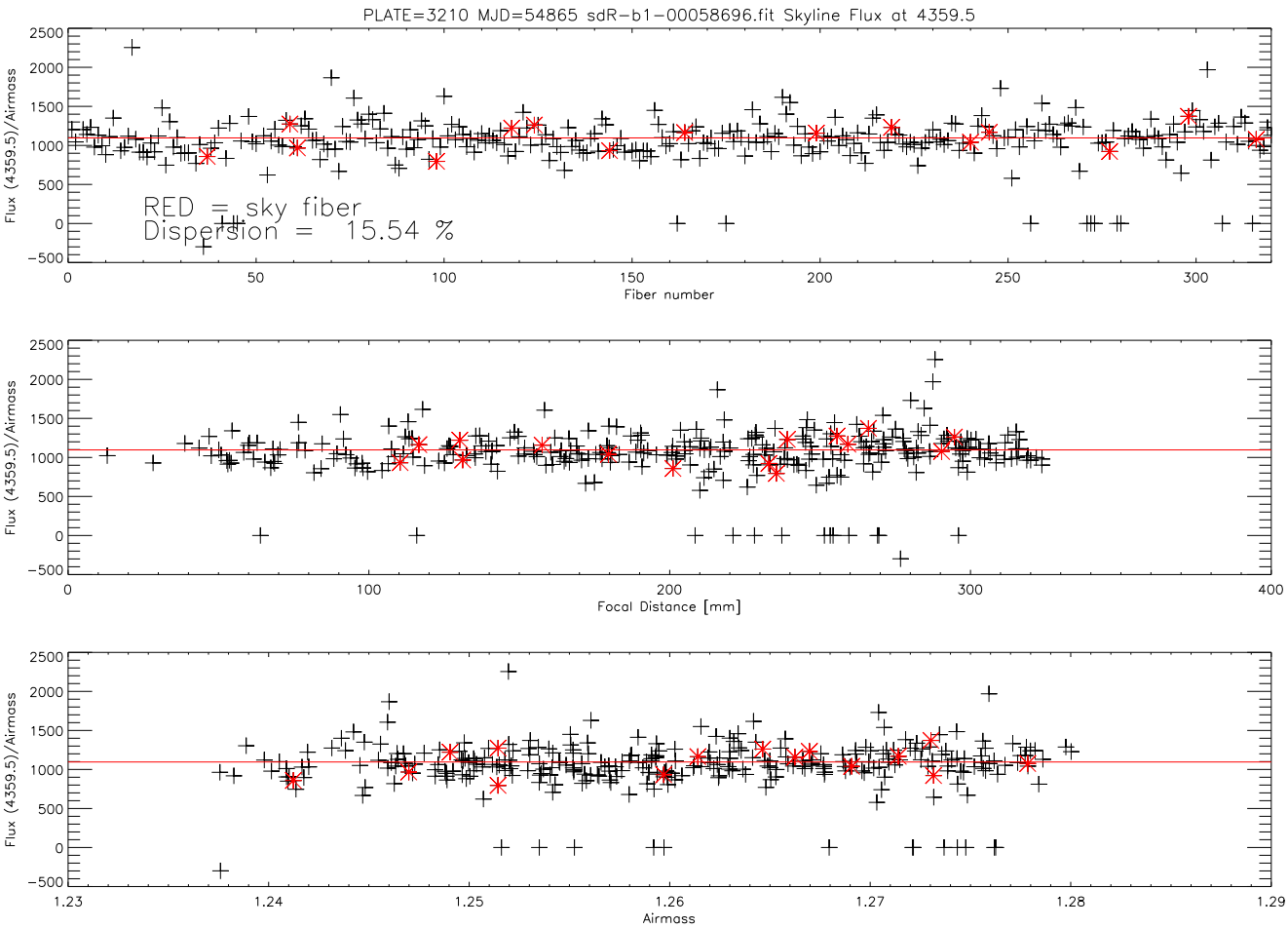

Number of sky fibers = 16
PLATE=3210 MJD=54865 sdR-b1-00058696.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

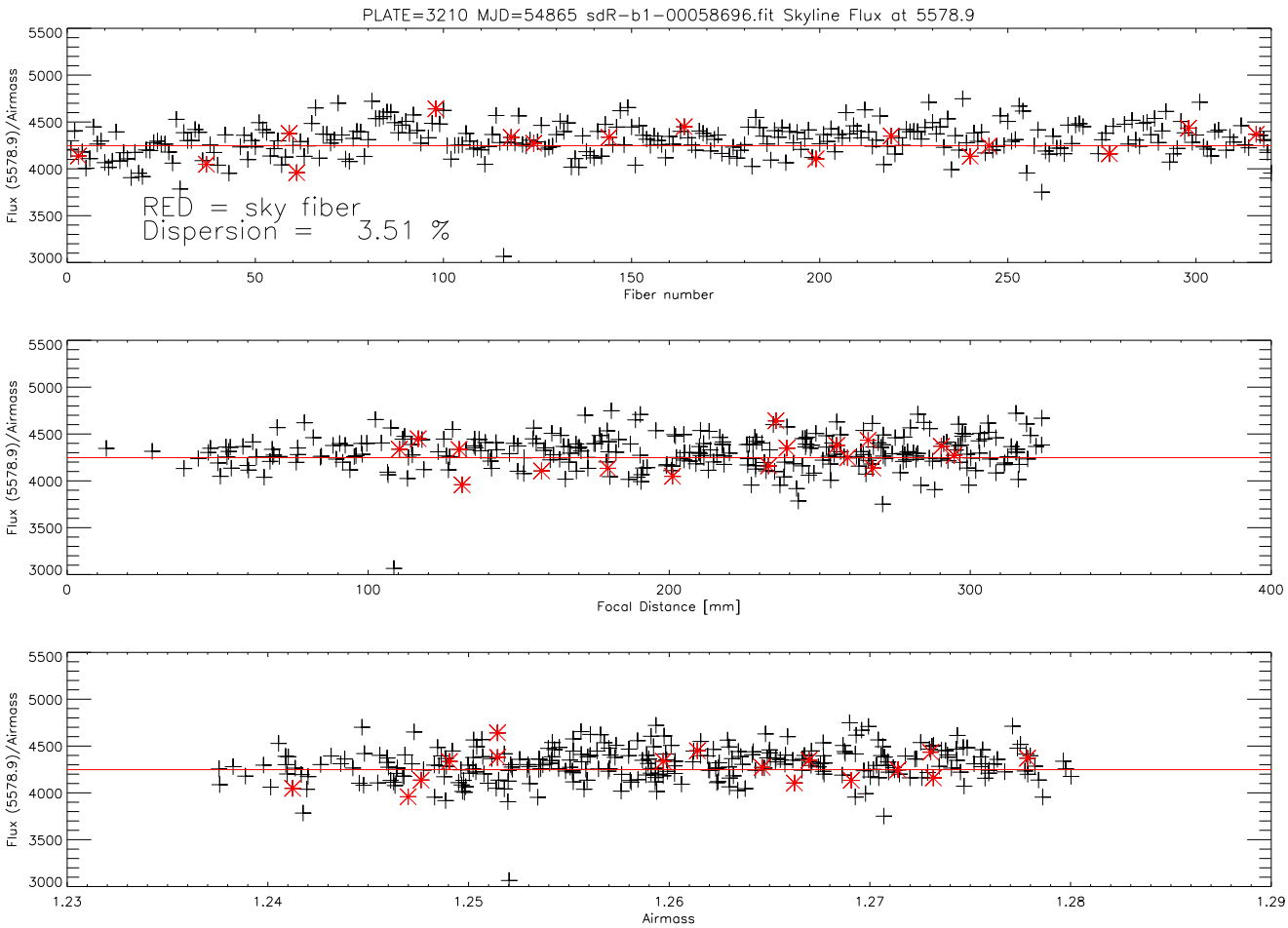

PLATE=3210 MJD=54865 sdR-b1-00058696.fit 2D Sky-subtraction Sky Fiber
Median χ^2
1.5
1.0
0.5
0.0
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
60
40
20
0
-20
-40
50
100
150
200
250
300
Fiber number

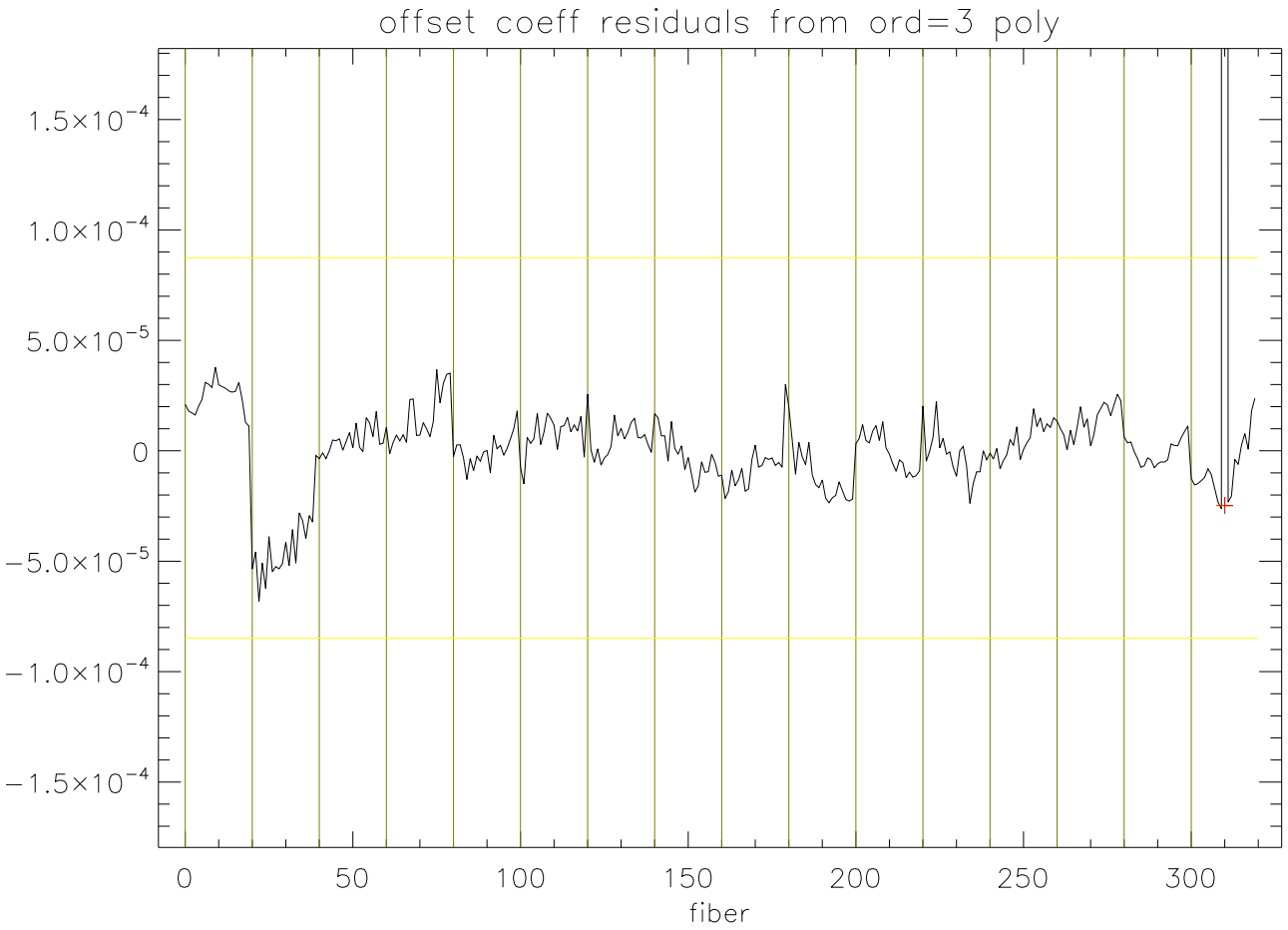

PLATE=3210 MJD=54865 sdR-b1-00058696.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

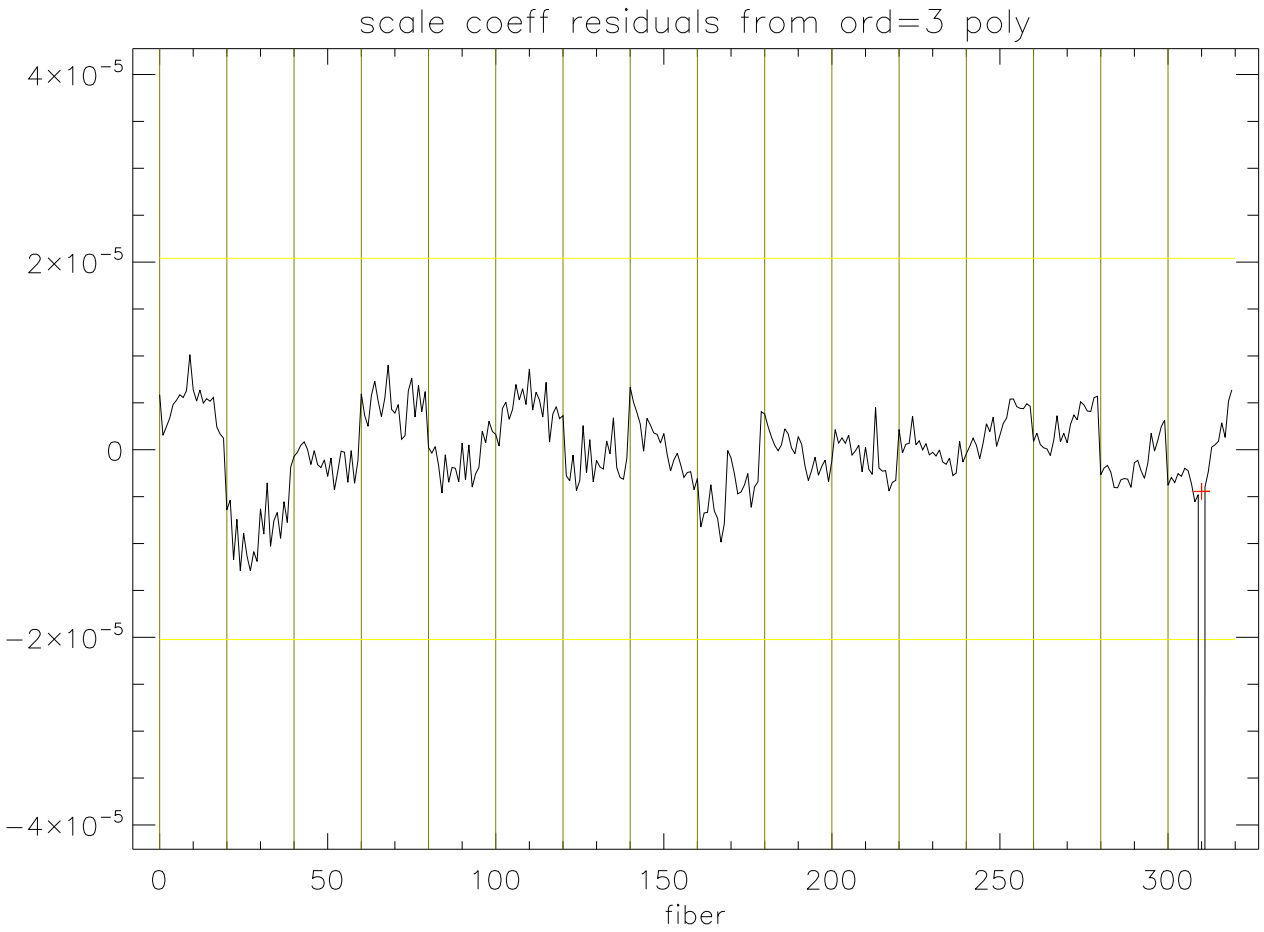

PLATE=3210 MJD=54865 sdR-b1-00058696.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
5570
5575
5580
5585
5590
λ [A]

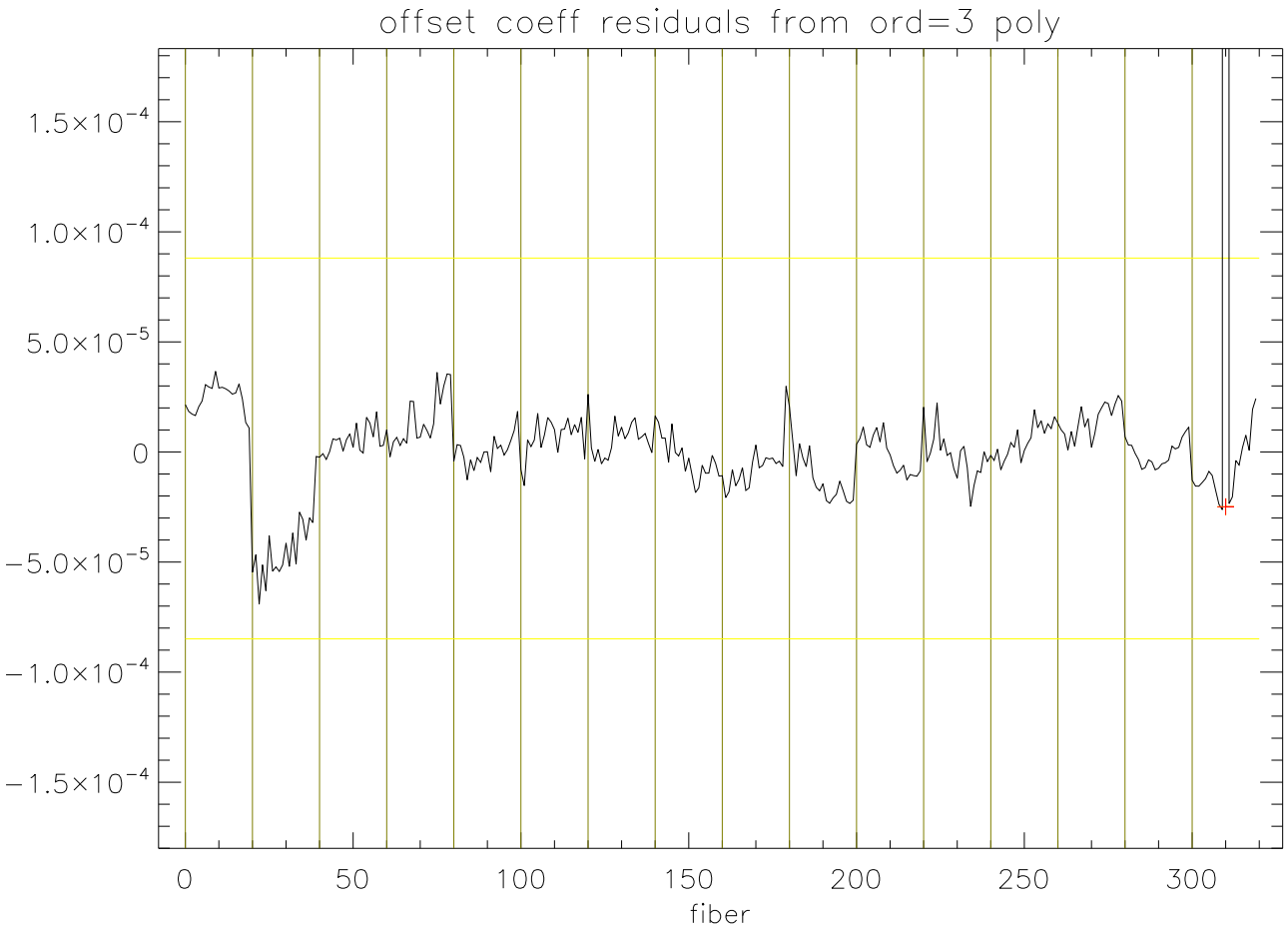

Number of sky fibers = 16
PLATE=3210 MJD=54865 sdR-b1-00058696.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

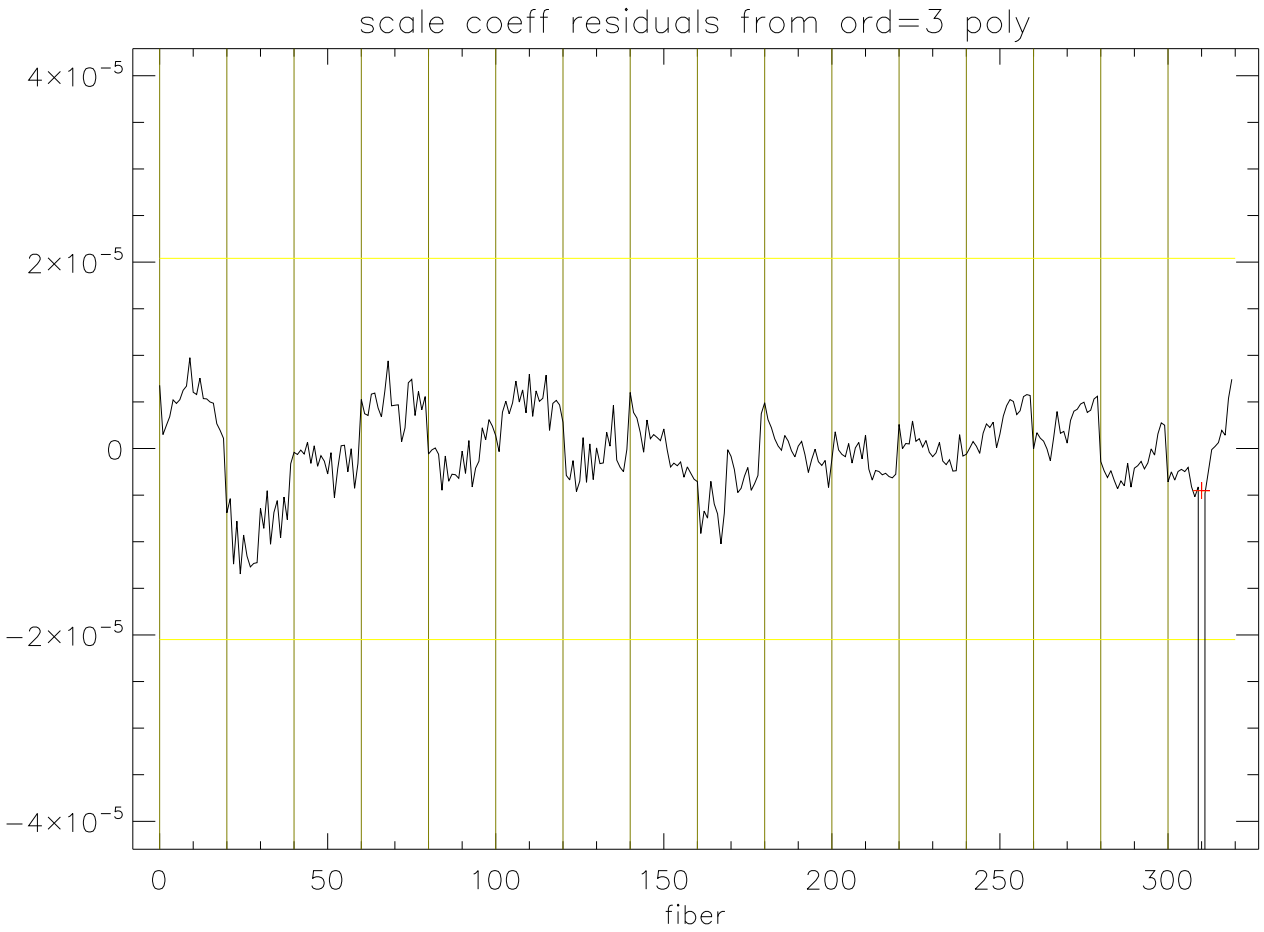

PLATE=3210 MJD=54865 sdR-b1-00058696.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 15.54 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

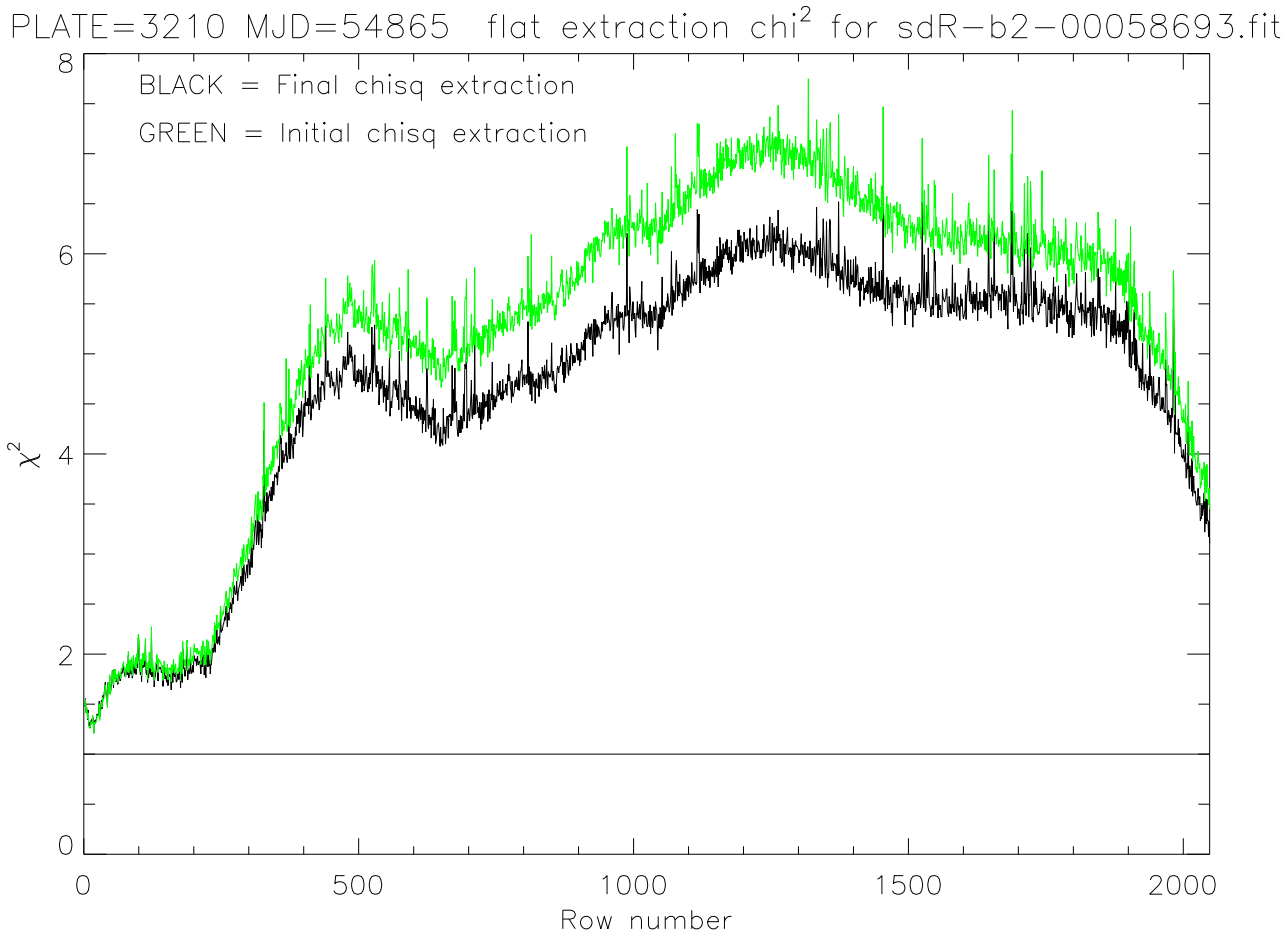

PLATE=3210 MJD=54865 sdR-b1-00058696.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 3.51 %
Fiber number
Focal Distance [mm]
Airmass

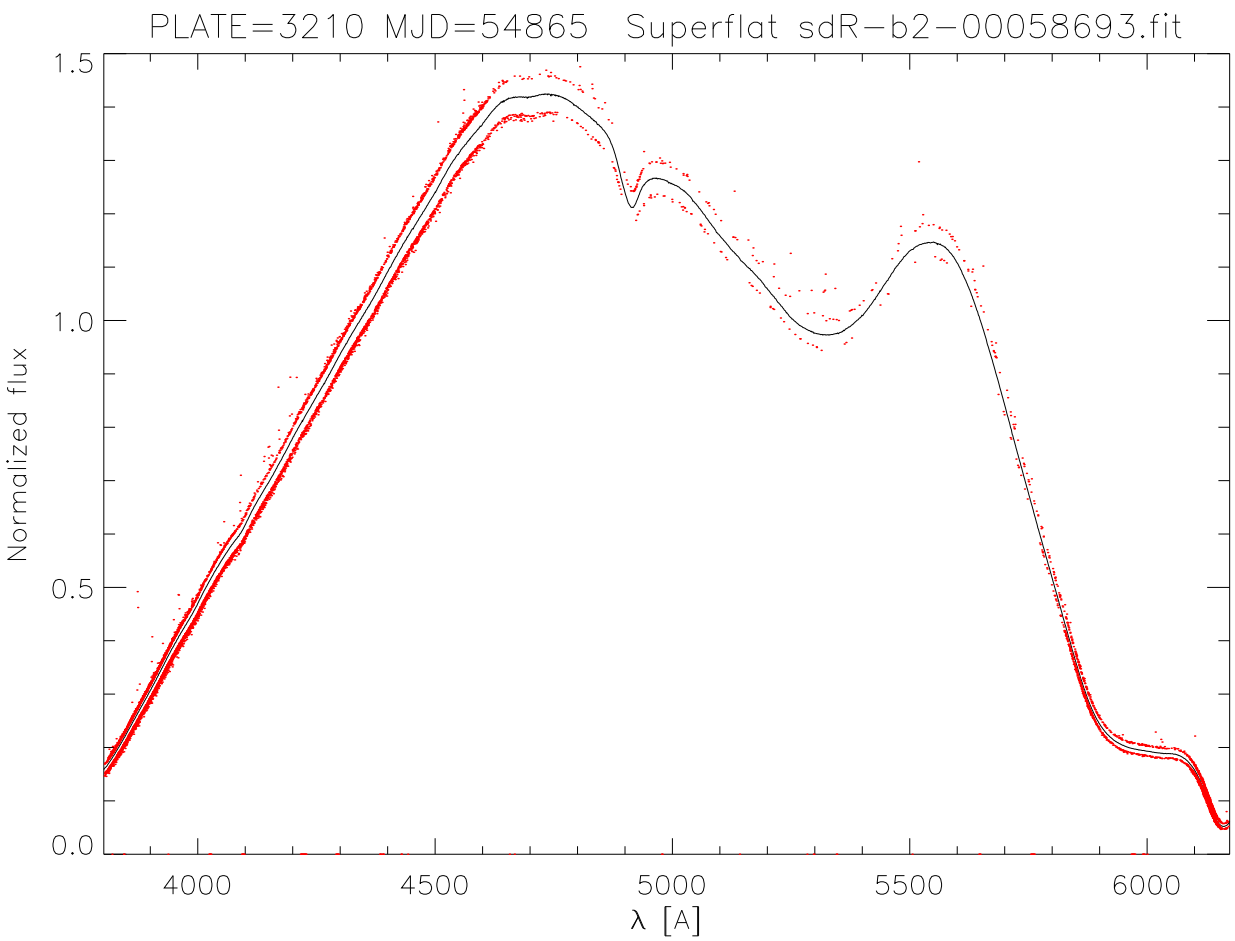

offset coeff residuals from ord=3 poly
1.5×10^-4
1.0×10^-4
5.0×10^-5
0
−5.0×10^-5
−1.0×10^-4
−1.5×10^-4
0
50
100
150
200
250
300
fiber

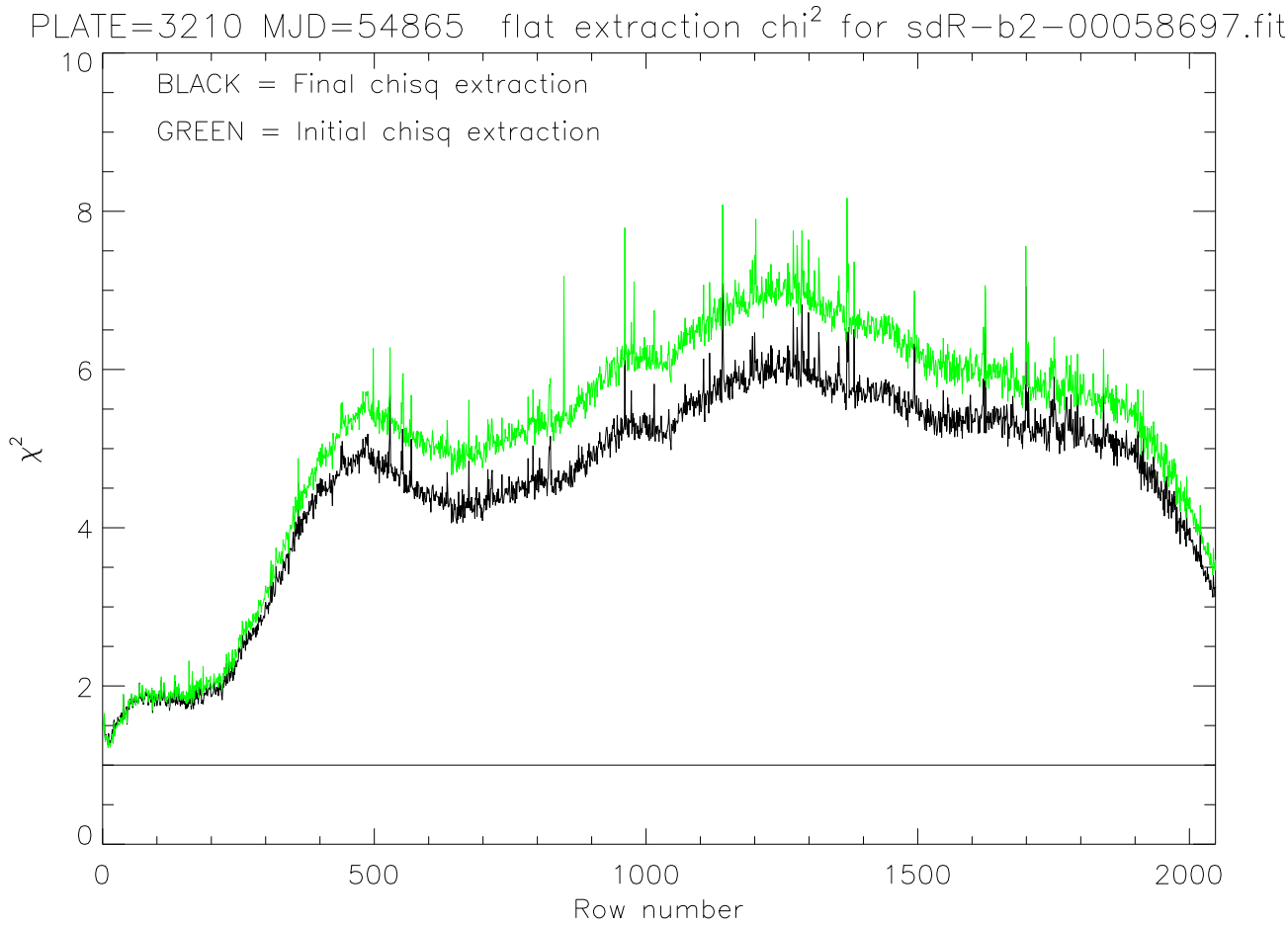

scale coeff residuals from ord=3 poly
4×10⁻⁵
2×10⁻⁵
0
−2×10⁻⁵
−4×10⁻⁵
0
50
100
150
200
250
300
fiber

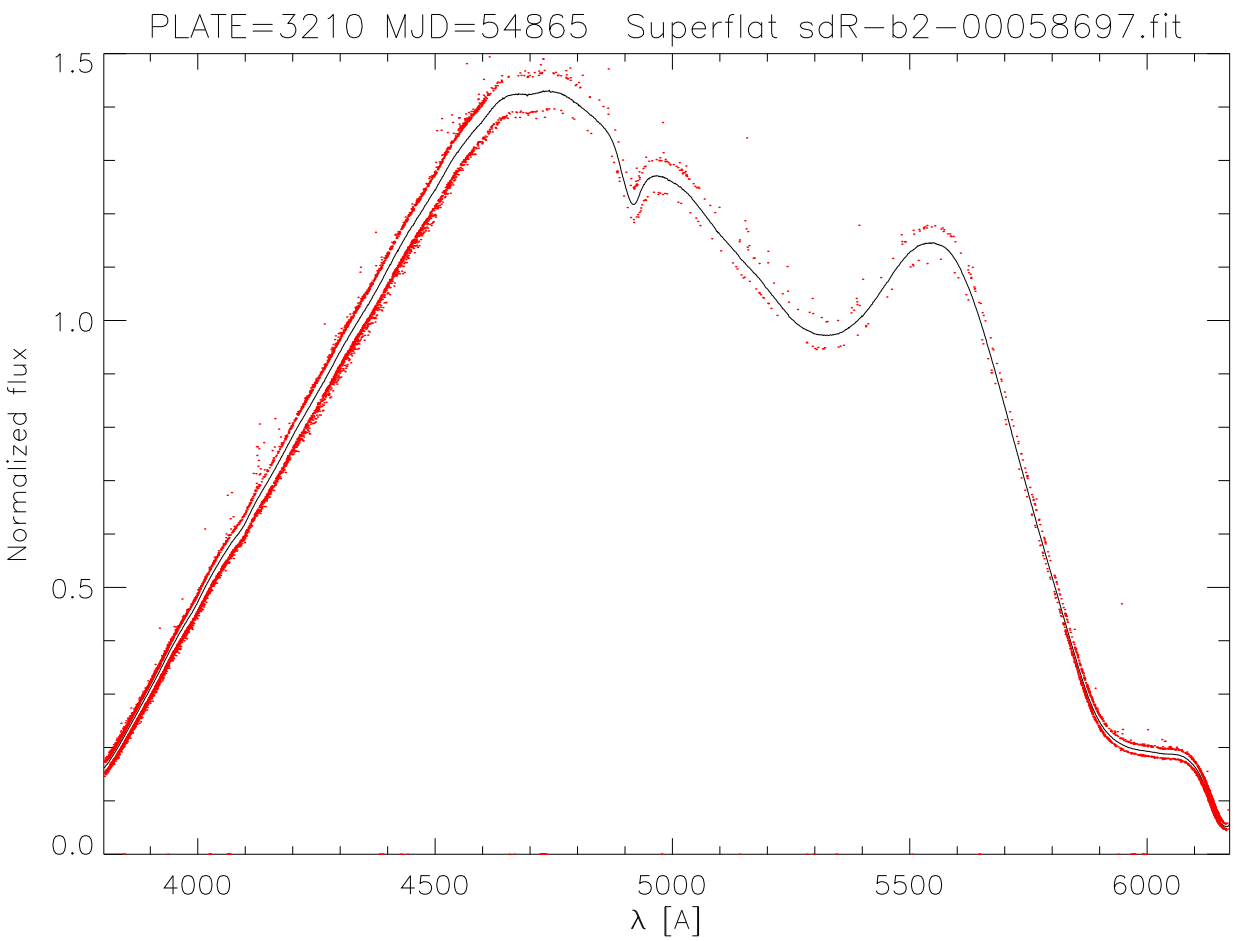

offset coeff residuals from ord=3 poly
1.5×10⁻⁴
1.0×10⁻⁴
5.0×10⁻⁵
0
−5.0×10⁻⁵
−1.0×10⁻⁴
−1.5×10⁻⁴
0
50
100
150
200
250
300
fiber

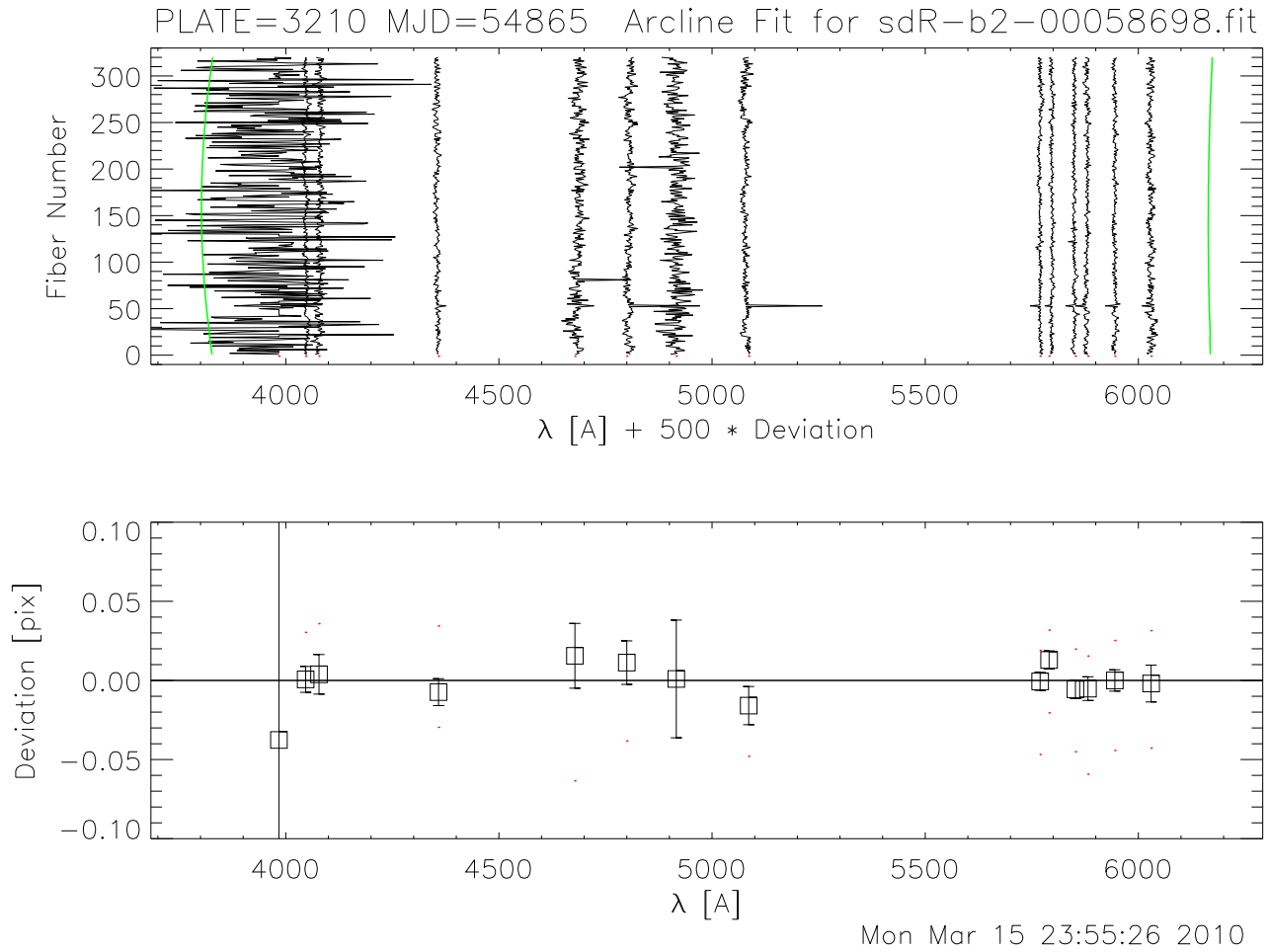

scale coeff residuals from ord=3 poly
4×10⁻⁵
2×10⁻⁵
0
−2×10⁻⁵
−4×10⁻⁵
0
50
100
150
200
250
300
fiber

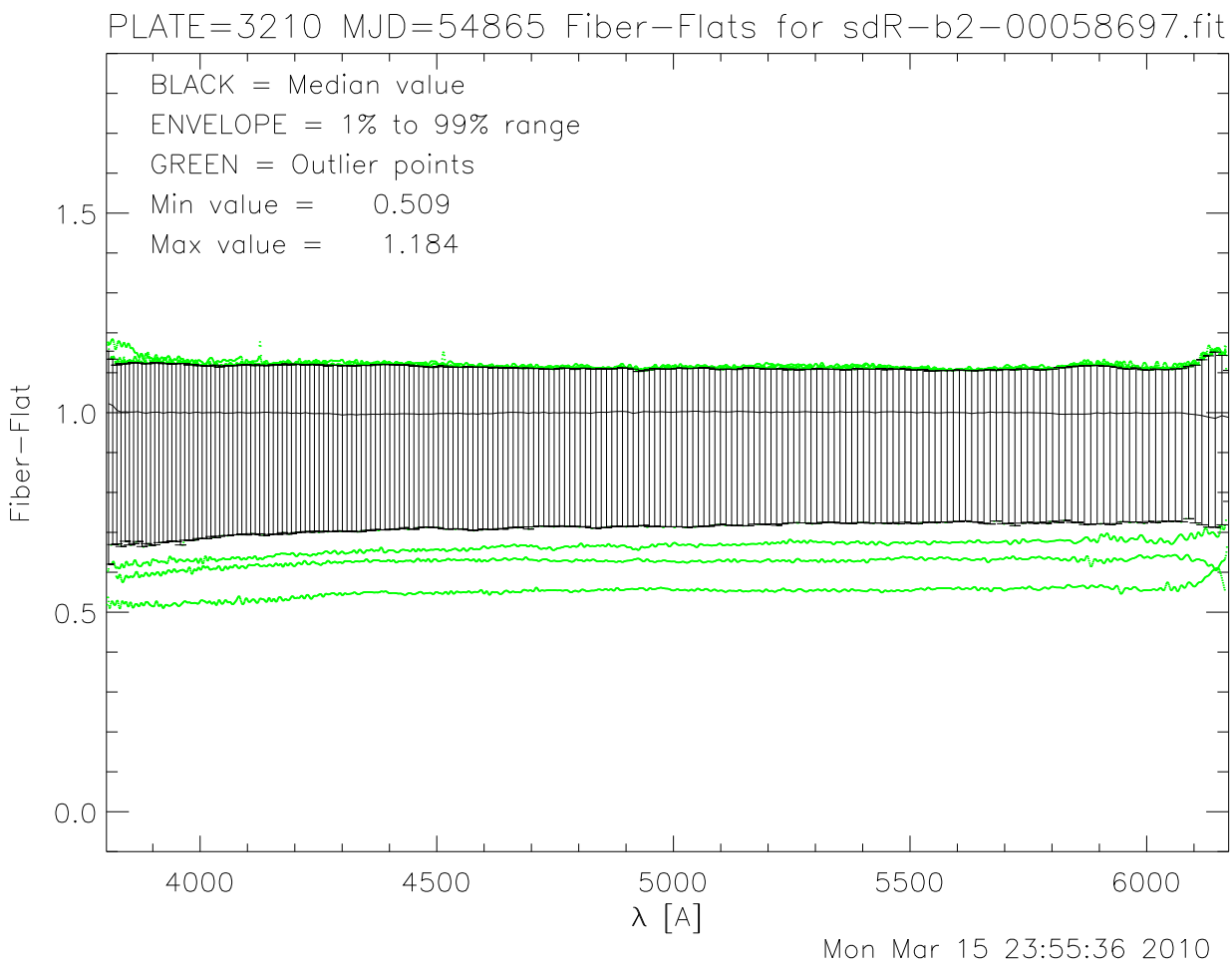

PLATE=3210 MJD=54865 flat extraction chi^2 for sdR−b2−00058693.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
0
500
1000
1500
2000
Row number

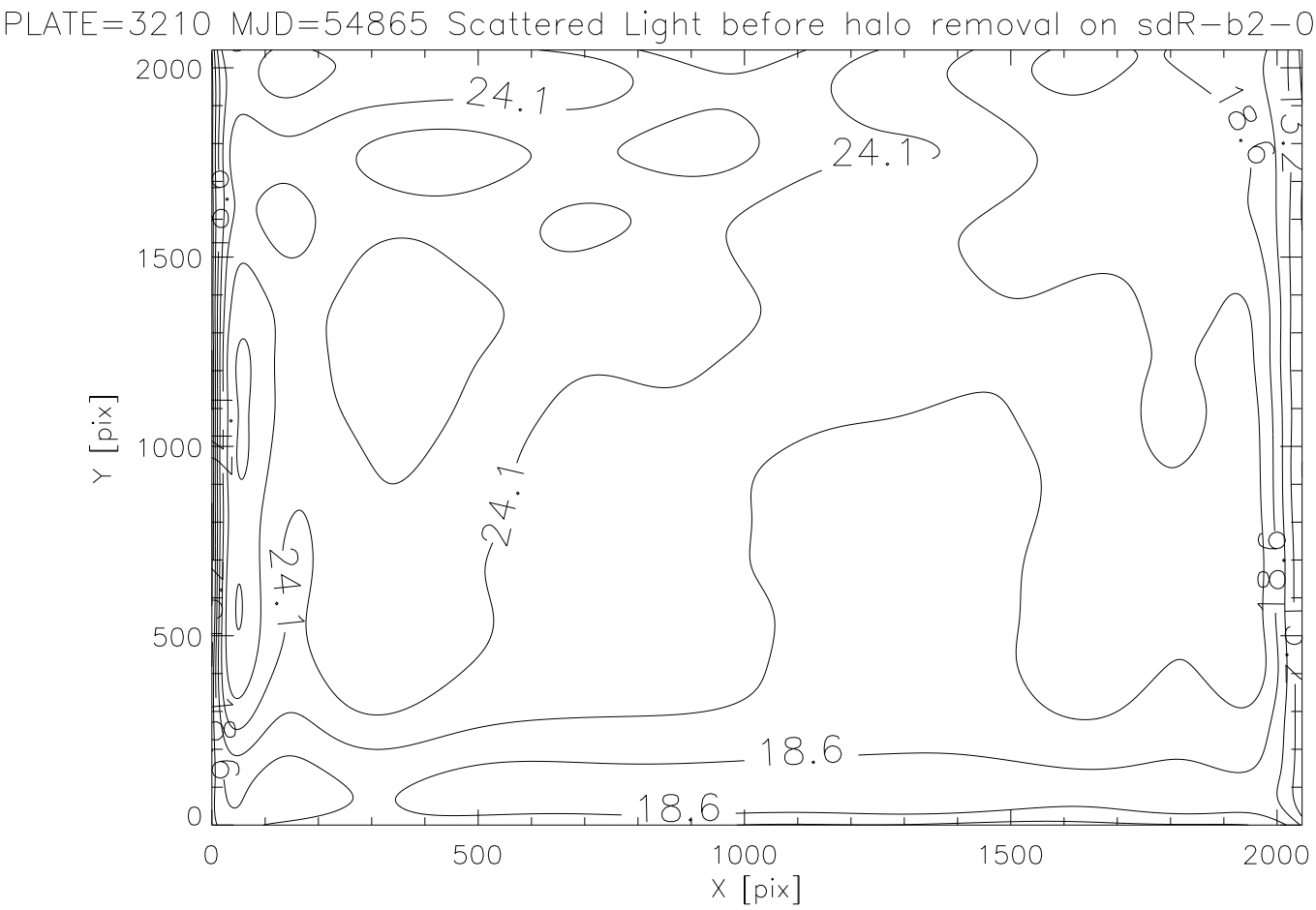

PLATE=3210 MJD=54865 Superflat sdR-b2-00058693.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

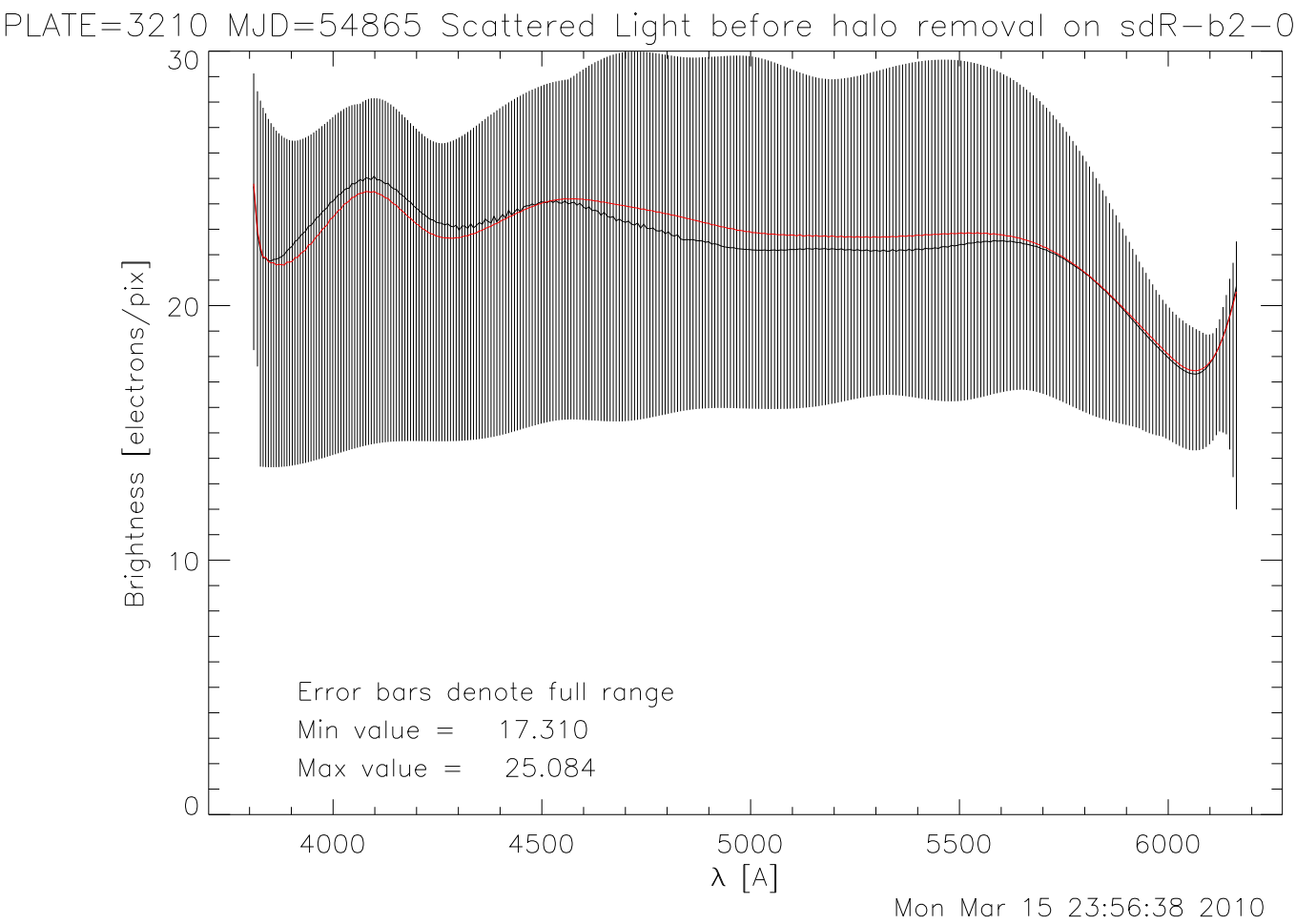

PLATE=3210 MJD=54865 flat extraction chi^2 for sdR−b2−00058697.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
2
4
6
8
10
0
500
1000
1500
2000

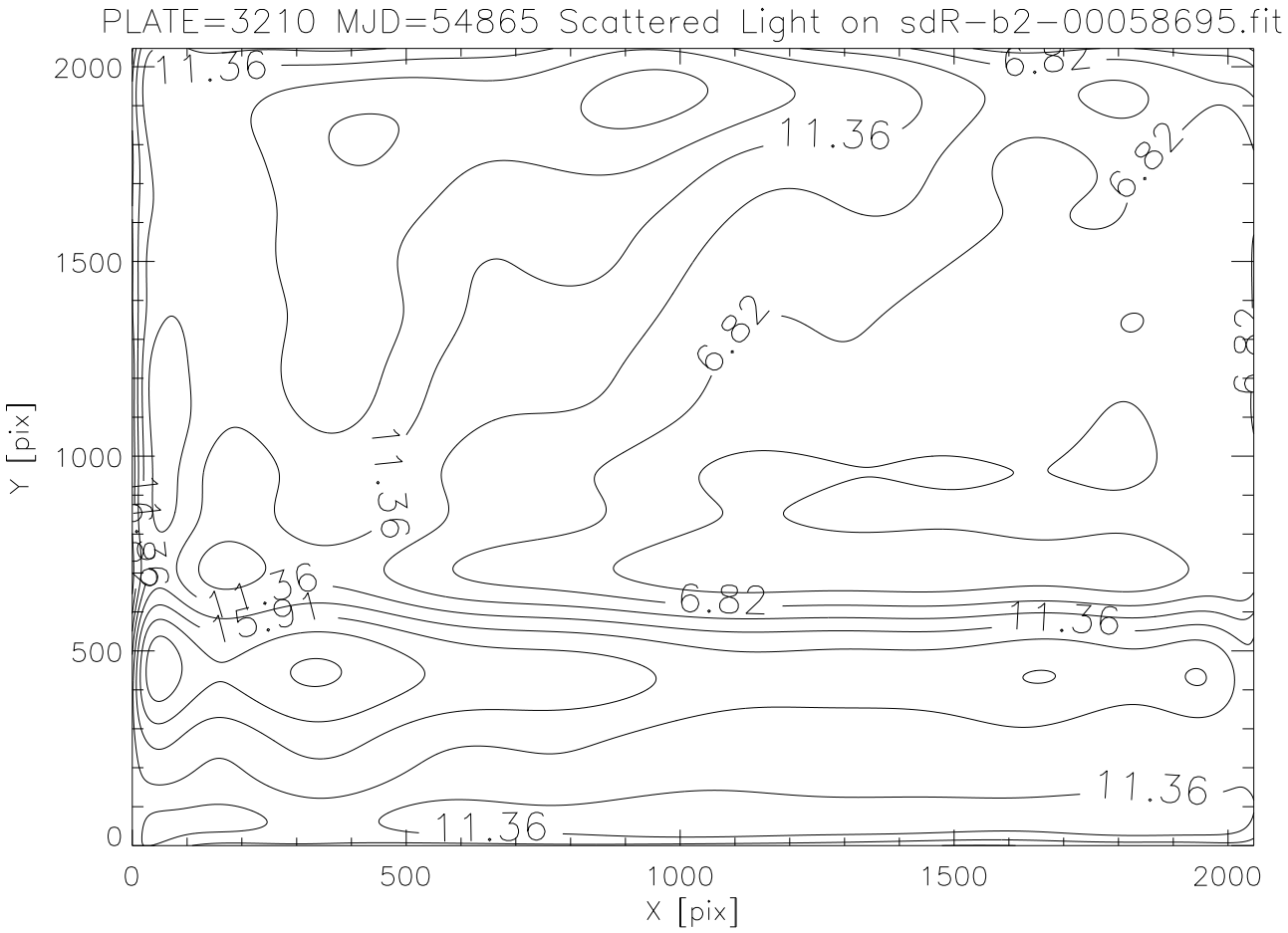

PLATE=3210 MJD=54865 Superflat sdR-b2-00058697.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

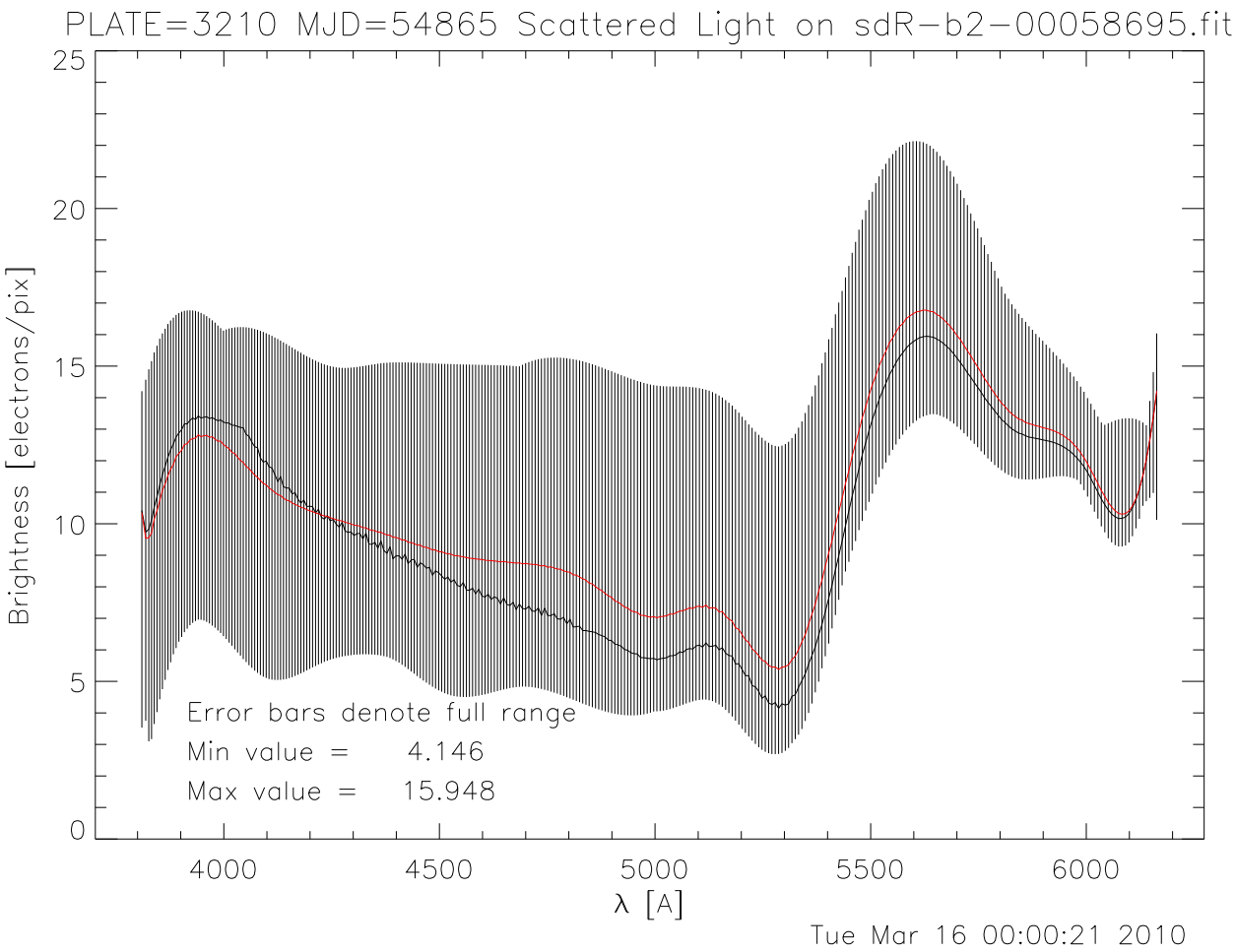

PLATE=3210 MJD=54865 Arcline Fit for sdR-b2-00058698.fit
Fiber Number
300
250
200
150
100
50
0
4000
4500
5000
5500
6000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
4000
4500
5000
5500
6000
λ [A]
Mon Mar 15 23:55:26 2010

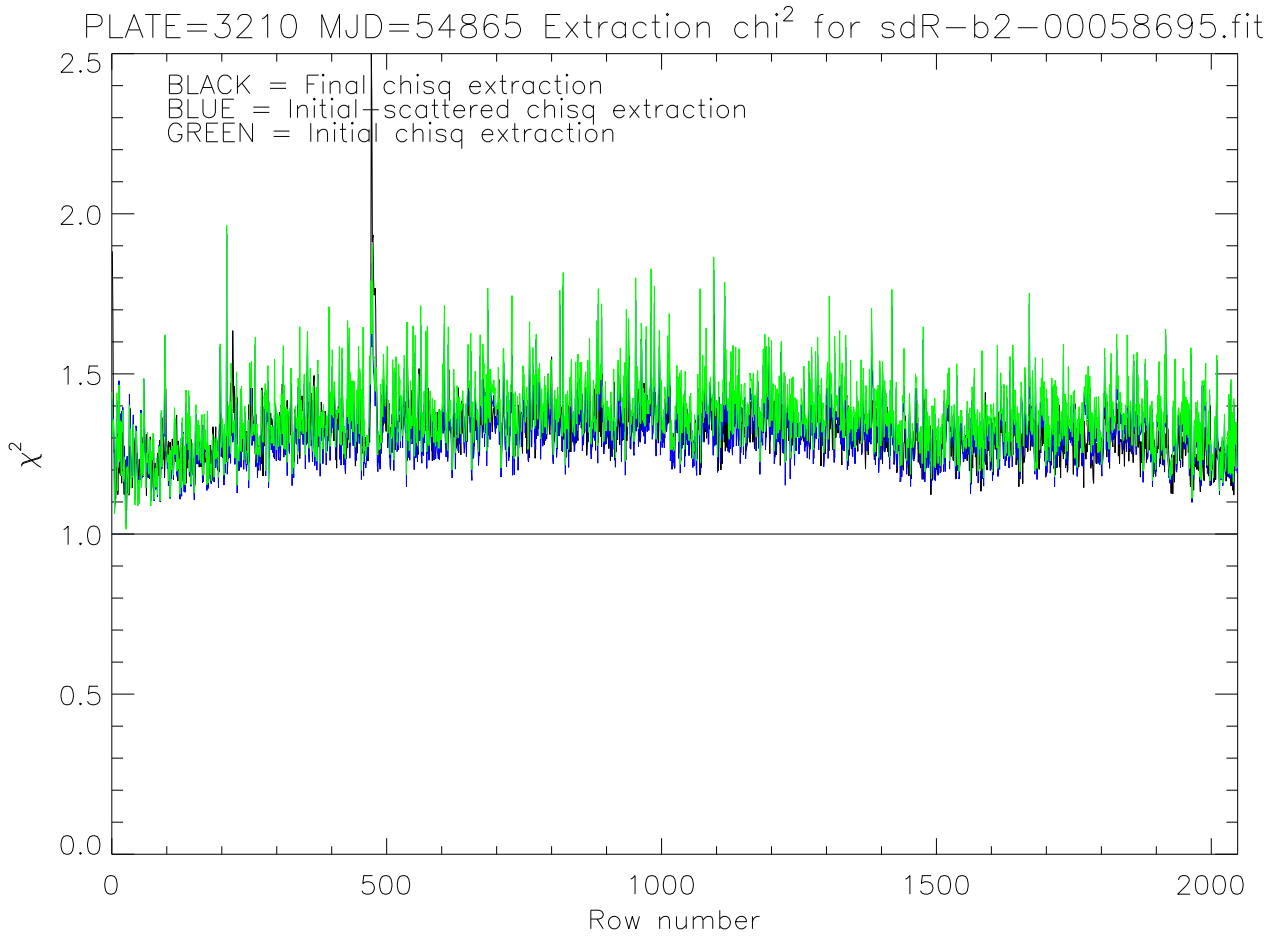

PLATE=3210 MJD=54865 Fiber-Flats for sdR-b2-00058697.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.509
Max value = 1.184
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Mon Mar 15 23:55:36 2010

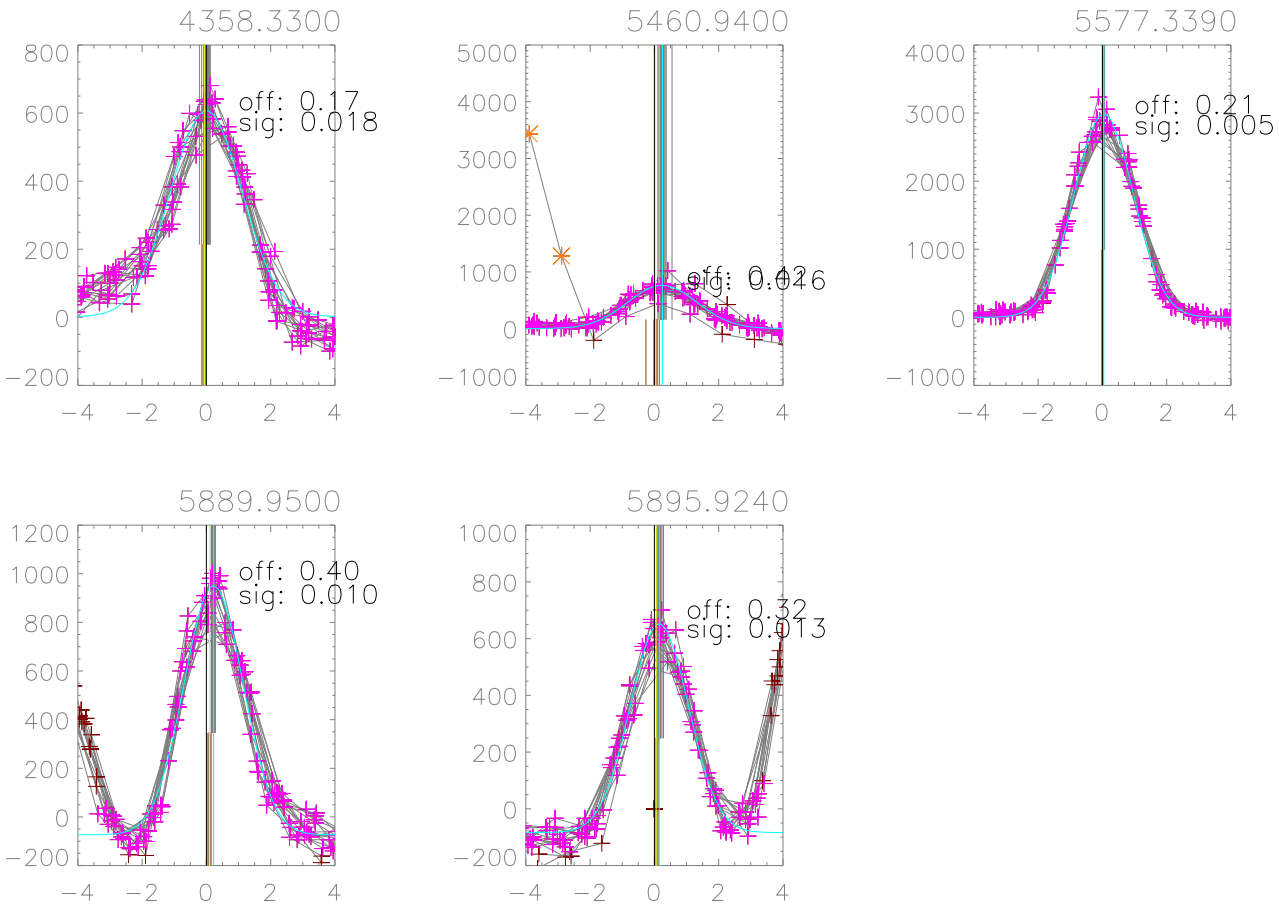

PLATE=3210 MJD=54865 Scattered Light before halo removal on sdR-b2-00058695.f
24.1
24.1
18.6
24.1
24.1
18.6
18.6
18.6
18.6
Y [pix]
X [pix]
0
500
1000
1500
2000

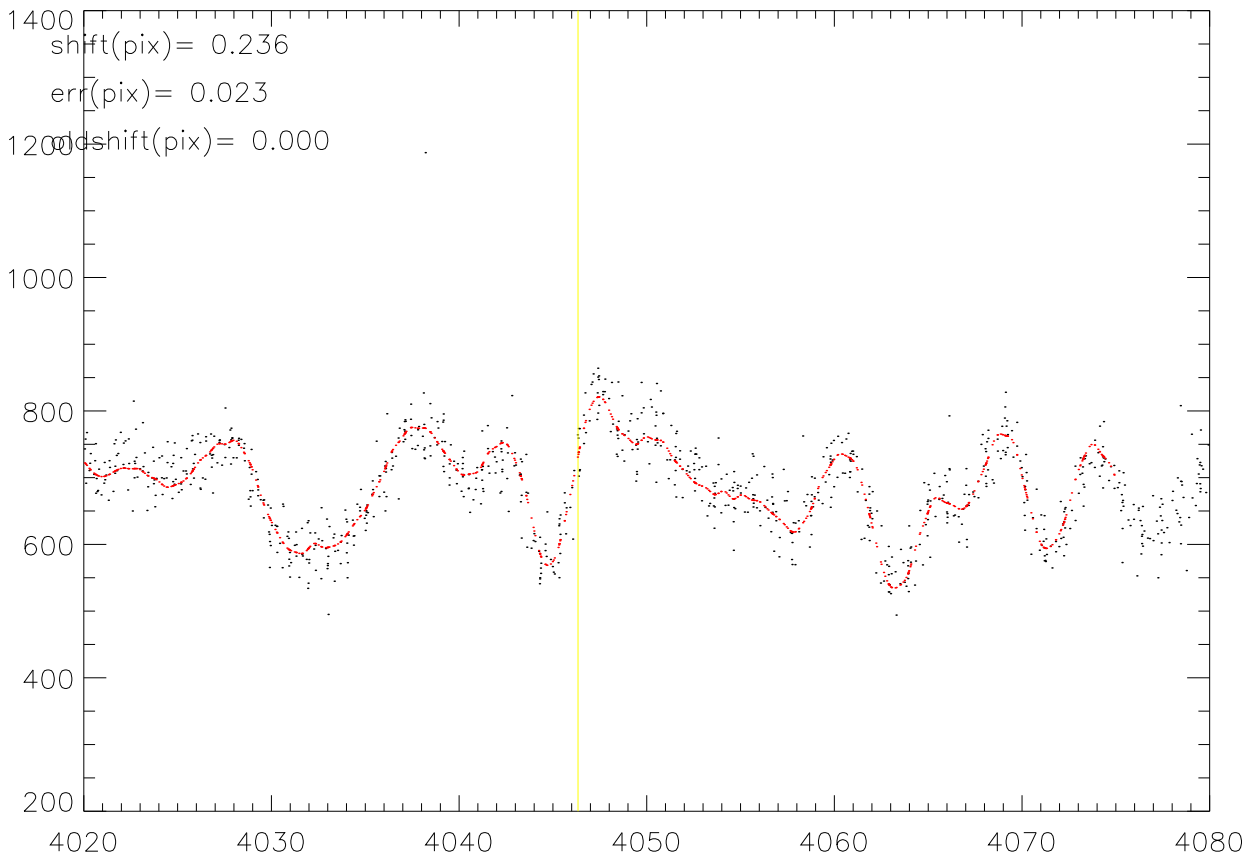

PLATE=3210 MJD=54865 Scattered Light before halo removal on sdR-b2-00058695.f
Brightness [electrons/pix]
30
20
10
0
Error bars denote full range
Min value = 17.310
Max value = 25.084
4000
4500
5000
5500
6000
λ [A]
Mon Mar 15 23:56:38 2010

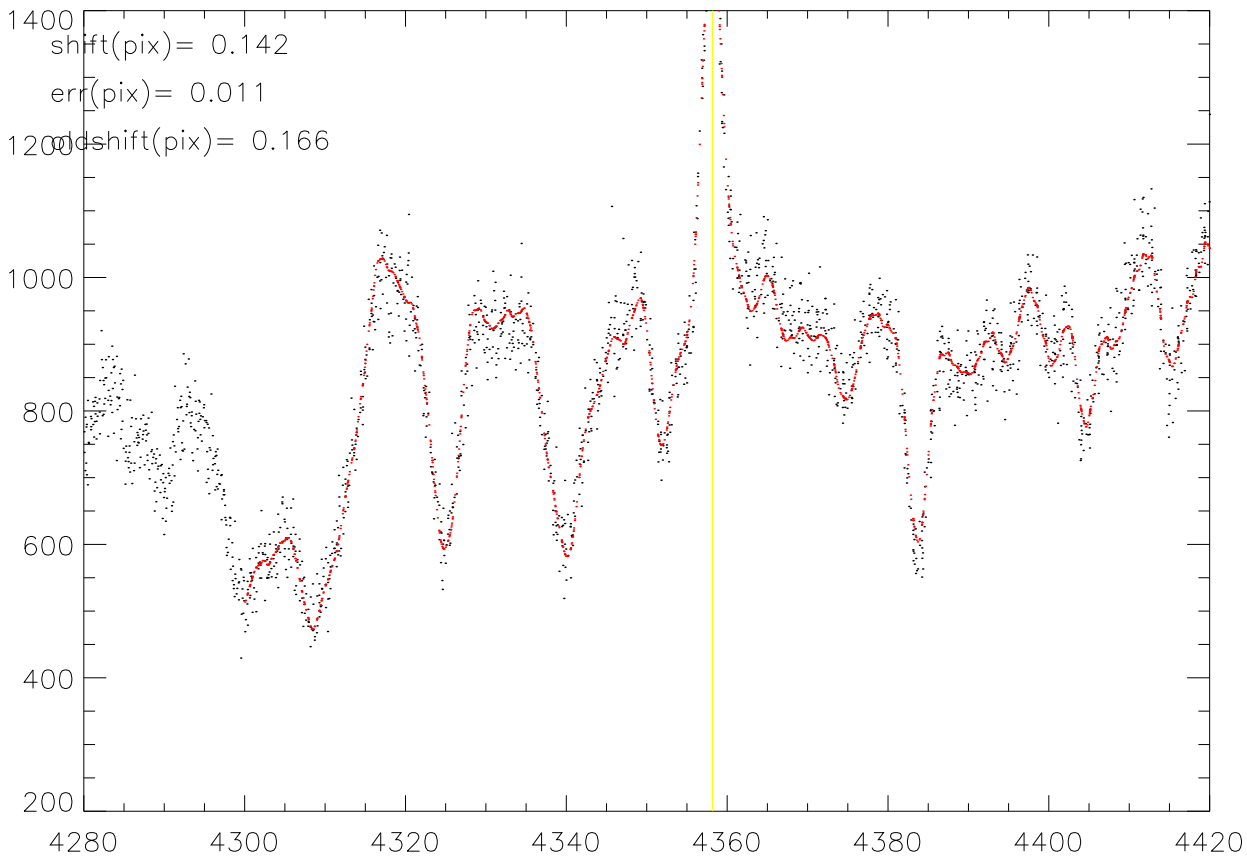

PLATE=3210 MJD=54865 Scattered Light on sdR-b2-00058695.fit
11.36
6.82
11.36
6.82
6.82
11.36
6.82
11.36
15.91
11.36
6.82
11.36
11.36
11.36
Y [pix]
X [pix]
0
500
1000
1500
2000

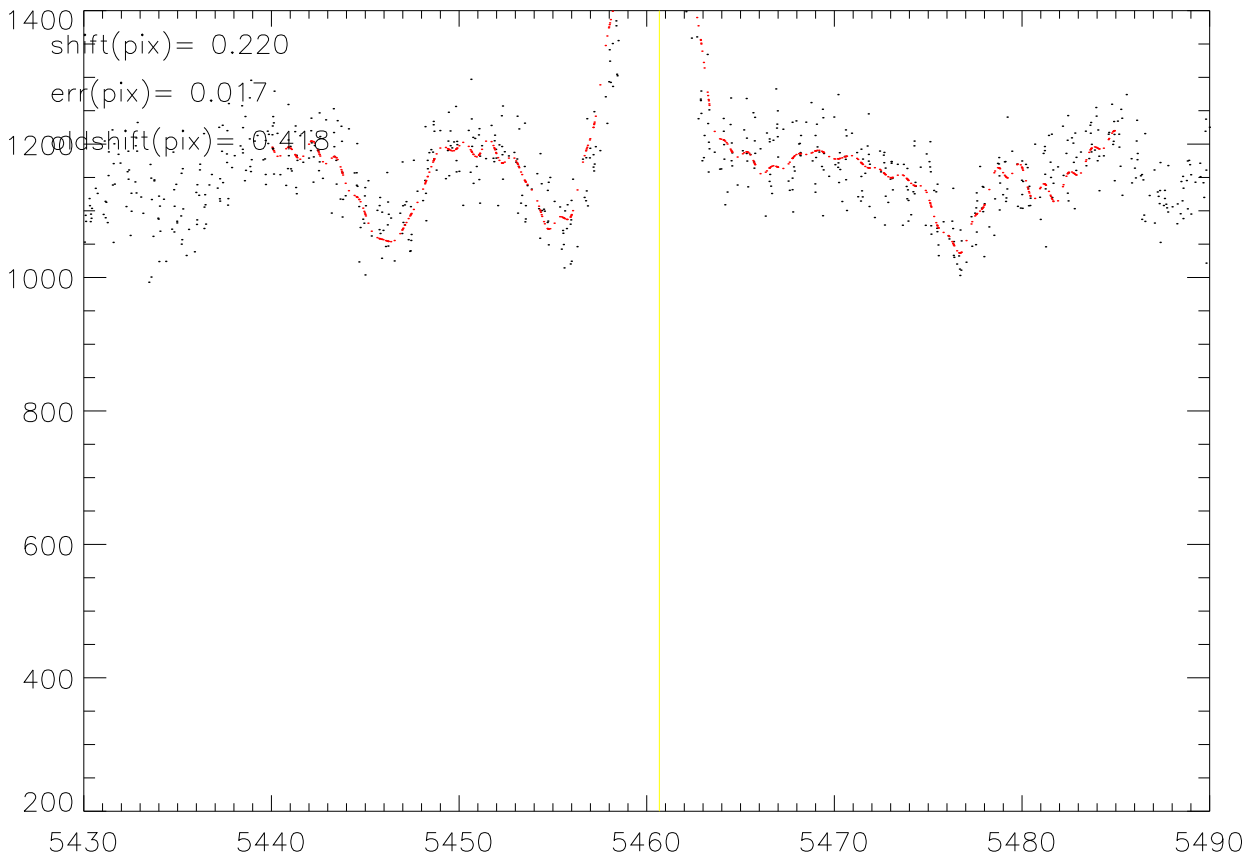

PLATE=3210 MJD=54865 Scattered Light on sdR-b2-00058695.fit
Brightness [electrons/pix]
25
20
15
10
5
0
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 4.146
Max value = 15.948
Tue Mar 16 00:00:21 2010

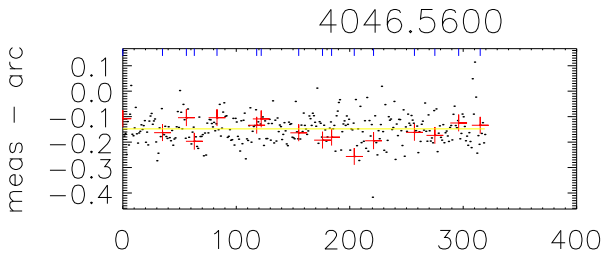

PLATE=3210 MJD=54865 Extraction chi^2 for sdR-b2-00058695.fit
BLACK = Final chisq extraction
BLUE = Initial+scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
2.5
2.0
1.5
1.0
0.5
0.0
0
500
1000
1500
2000
Row number

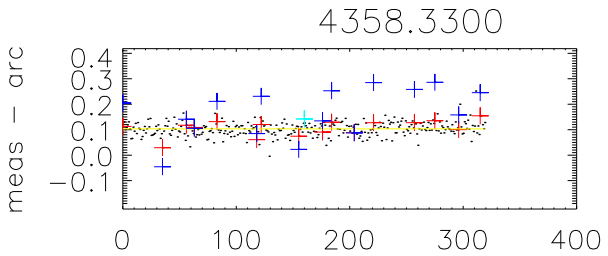

4358.3300
off: 0.17
sig: 0.018
5460.9400
sig: 0.046
5577.3390
off: 0.21
sig: 0.005
5889.9500
off: 0.40
sig: 0.010
5895.9240
off: 0.32
sig: 0.013

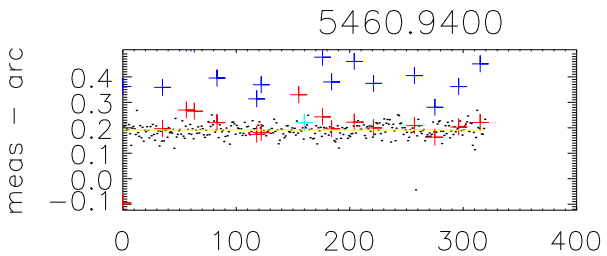

shift(pix)= 0.236
err(pix)= 0.023
oldshift(pix)= 0.000
1400
1200
1000
800
600
400
200
4020
4030
4040
4050
4060
4070
4080

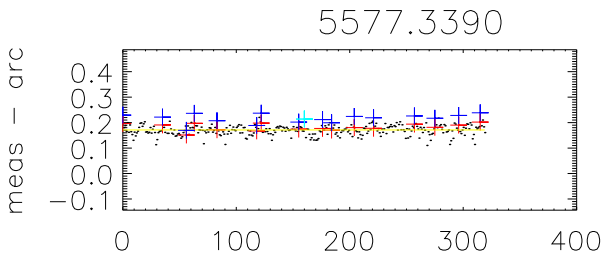

shift(pix)= 0.142
err(pix)= 0.011
oldshift(pix)= 0.166
1400
1200
1000
800
600
400
200
4280
4300
4320
4340
4360
4380
4400
4420

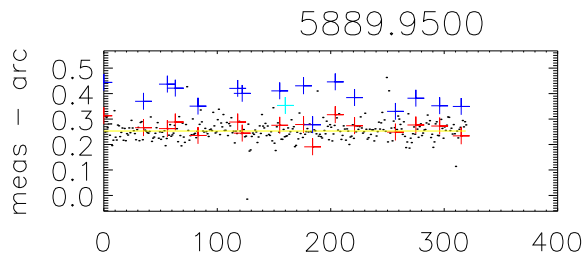

shift(pix)= 0.220
err(pix)= 0.017
oldshift(pix)= 0.418
1400
1200
1000
800
600
400
200
5430
5440
5450
5460
5470
5480
5490

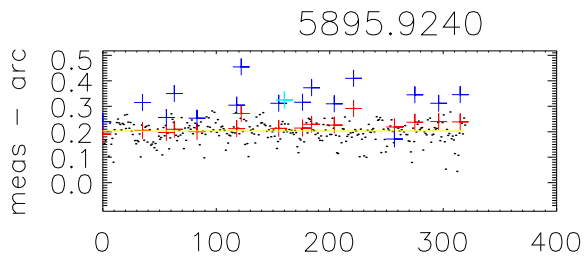

4046.5600
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

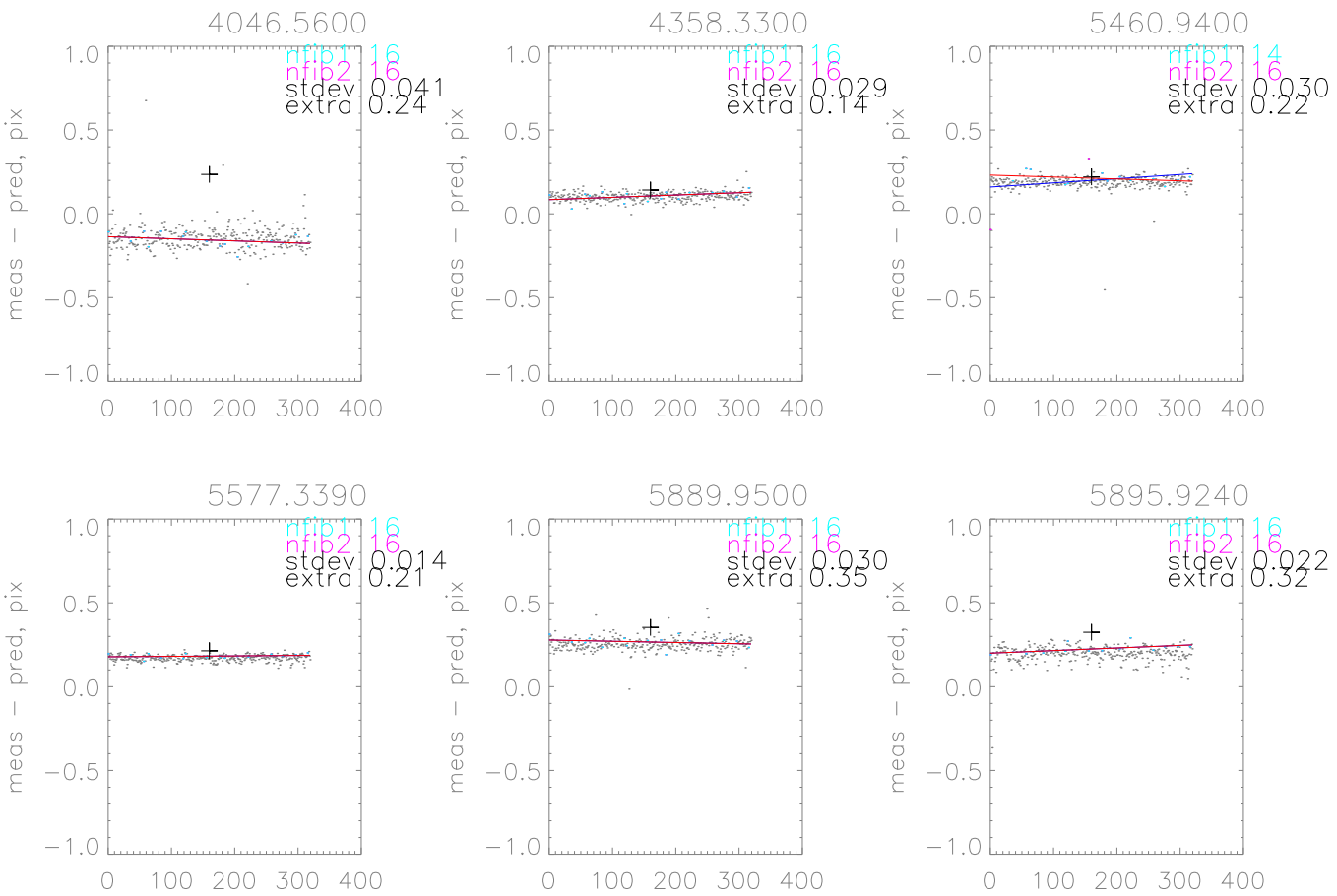

4358.3300
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

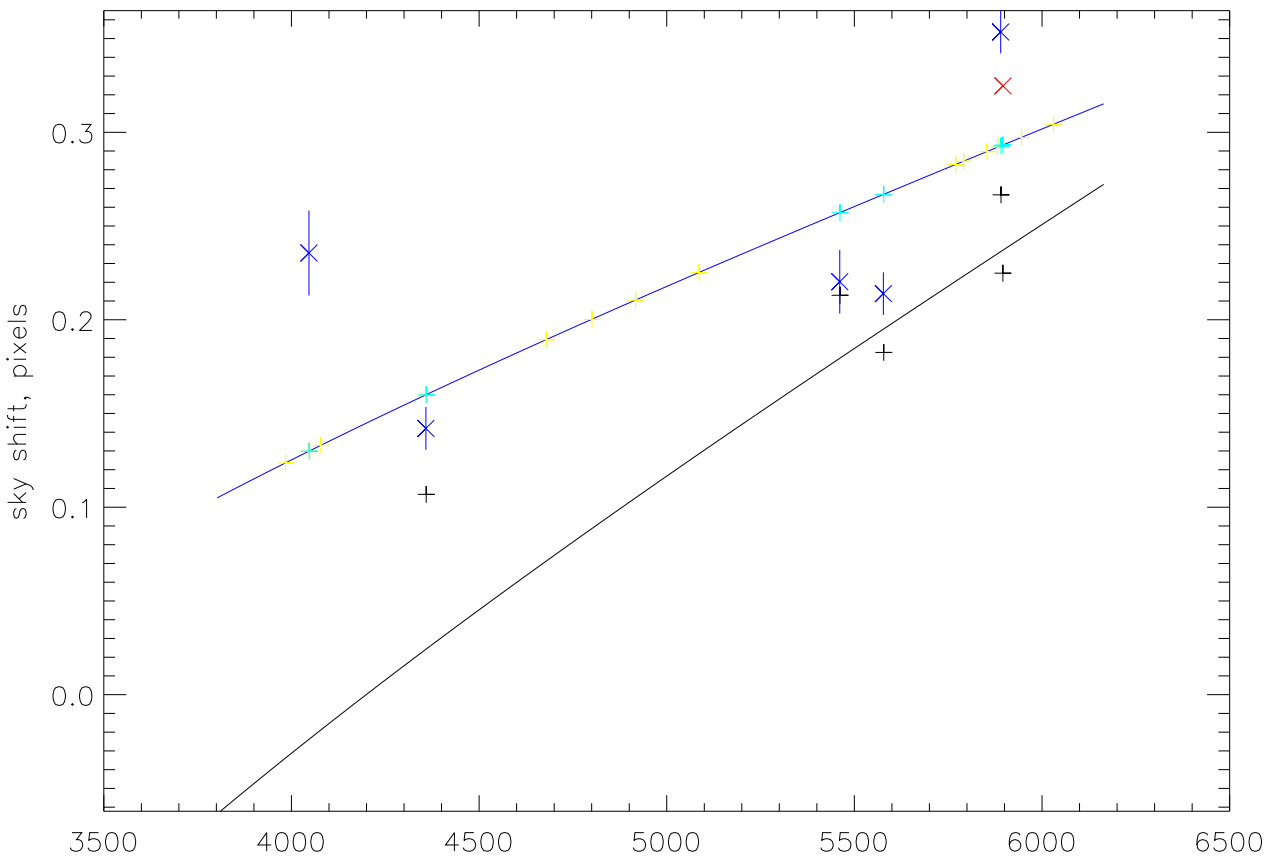

5460.9400
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

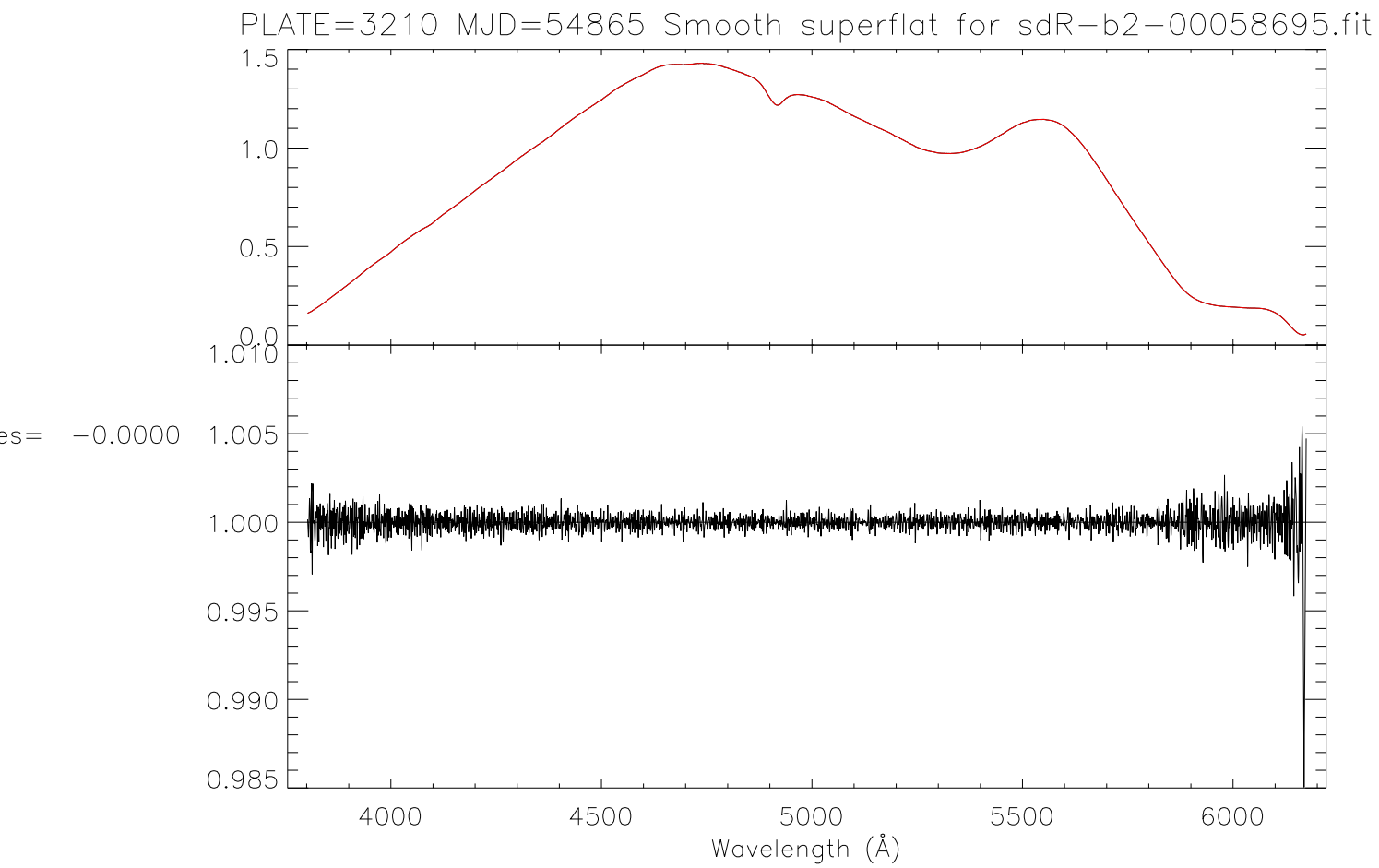

5577.3390
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

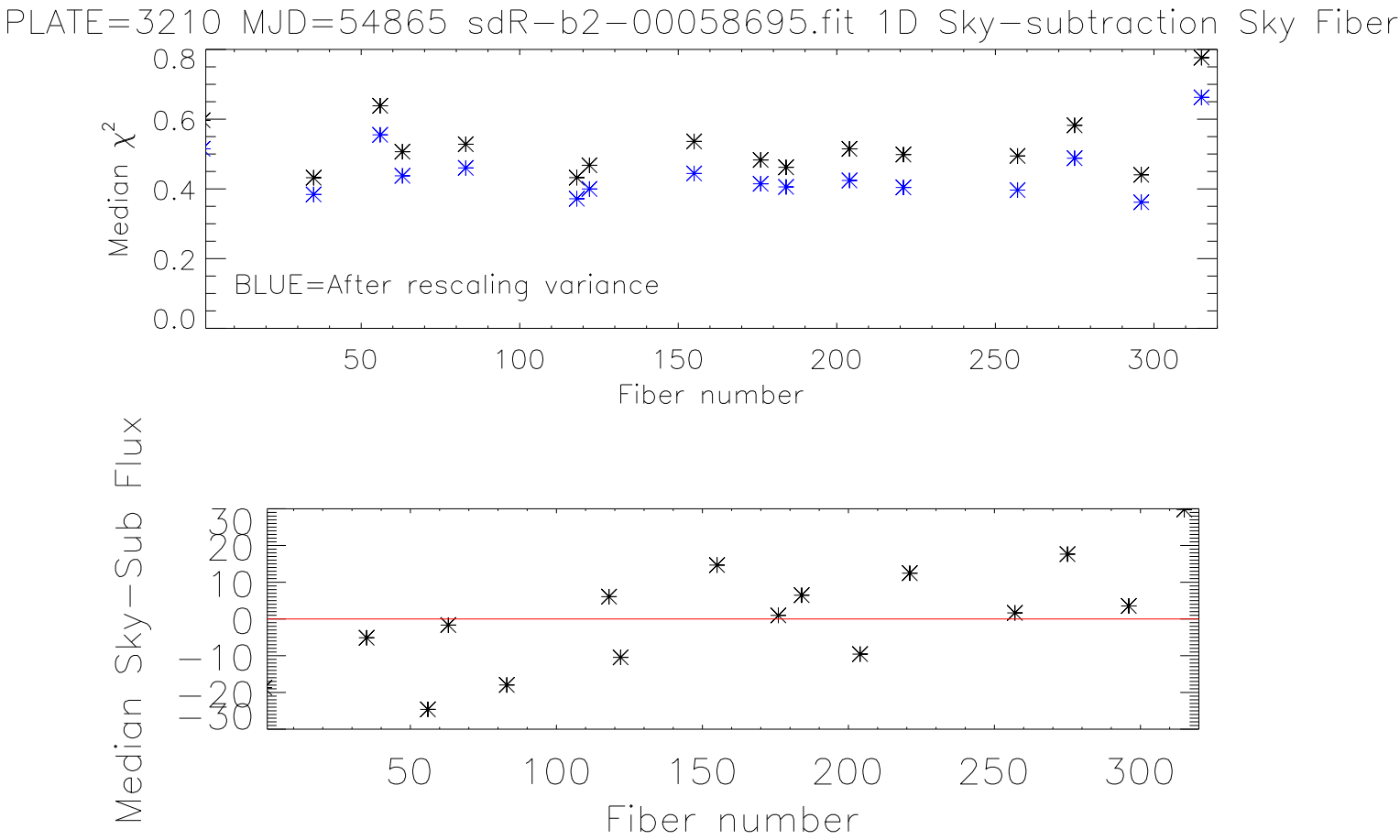

5889.9500
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

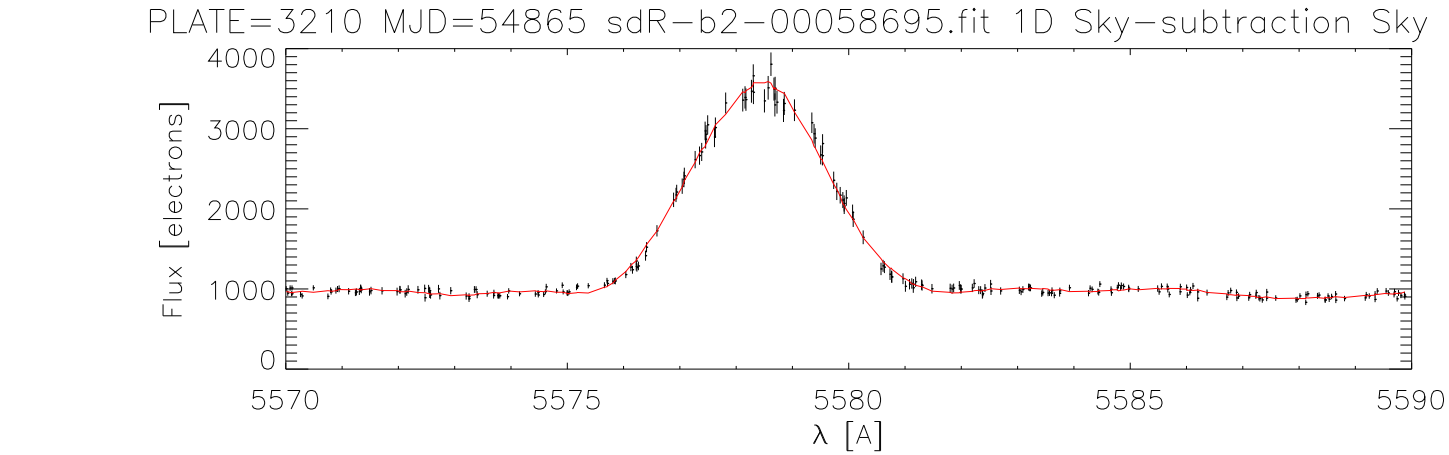

5895.9240
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

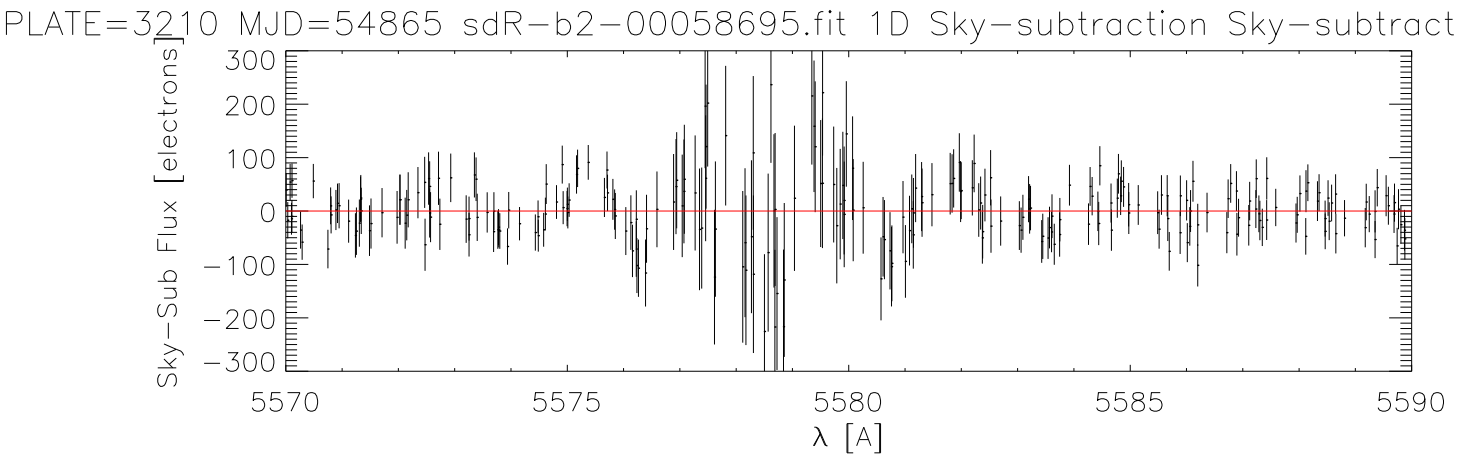

4046.5600
nfib1 16
nfib2 16
stdev 0.041
extra 0.24
4358.3300
nfib1 16
nfib2 16
stdev 0.029
extra 0.14
5460.9400
nfib1 14
nfib2 16
stdev 0.030
extra 0.22
5577.3390
nfib1 16
nfib2 16
stdev 0.014
extra 0.21
5889.9500
nfib1 16
nfib2 16
stdev 0.030
extra 0.35
5895.9240
nfib1 16
nfib2 16
stdev 0.022
extra 0.32
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

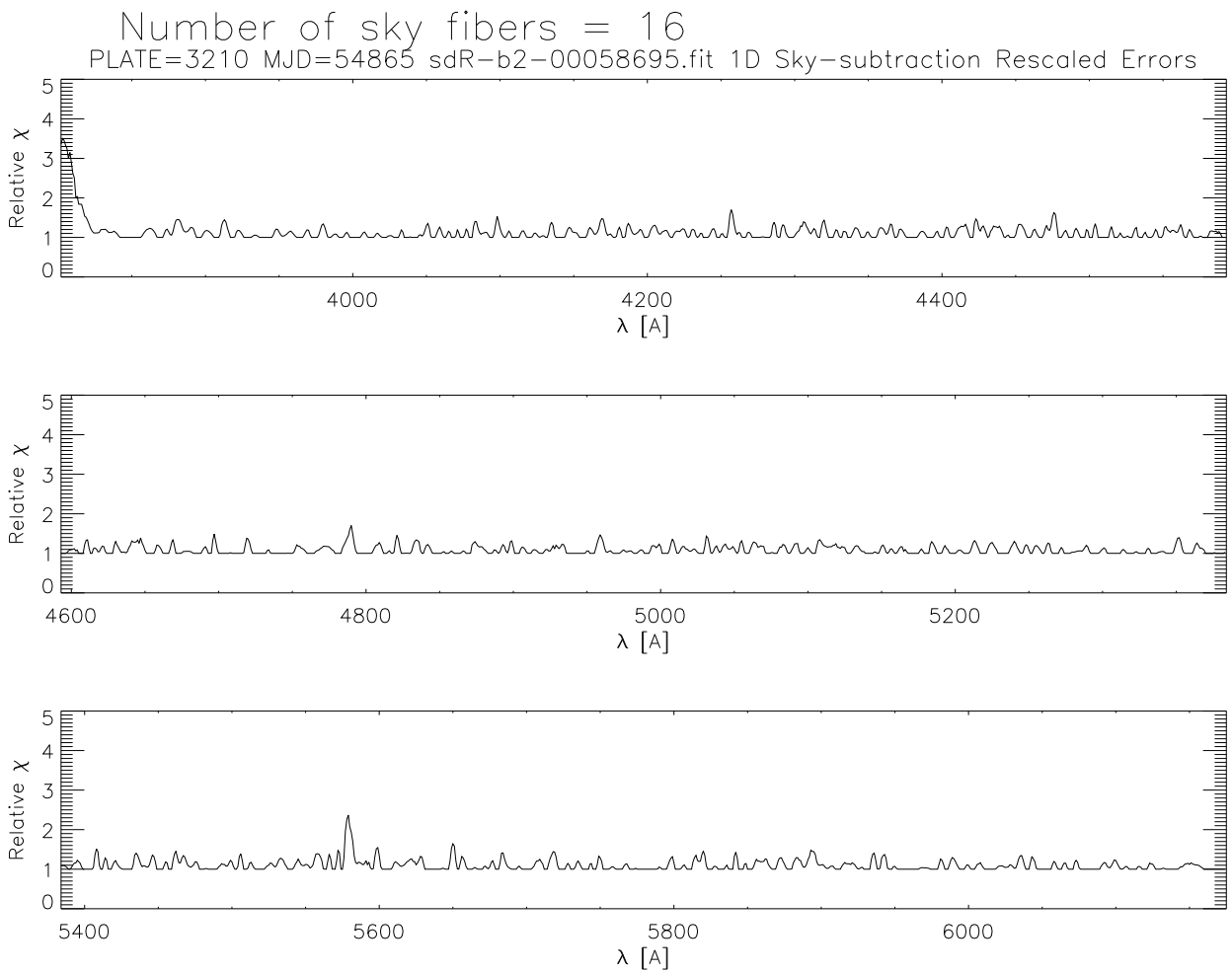

sky shift, pixels
0.0
0.1
0.2
0.3
3500
4000
4500
5000
5500
6000
6500

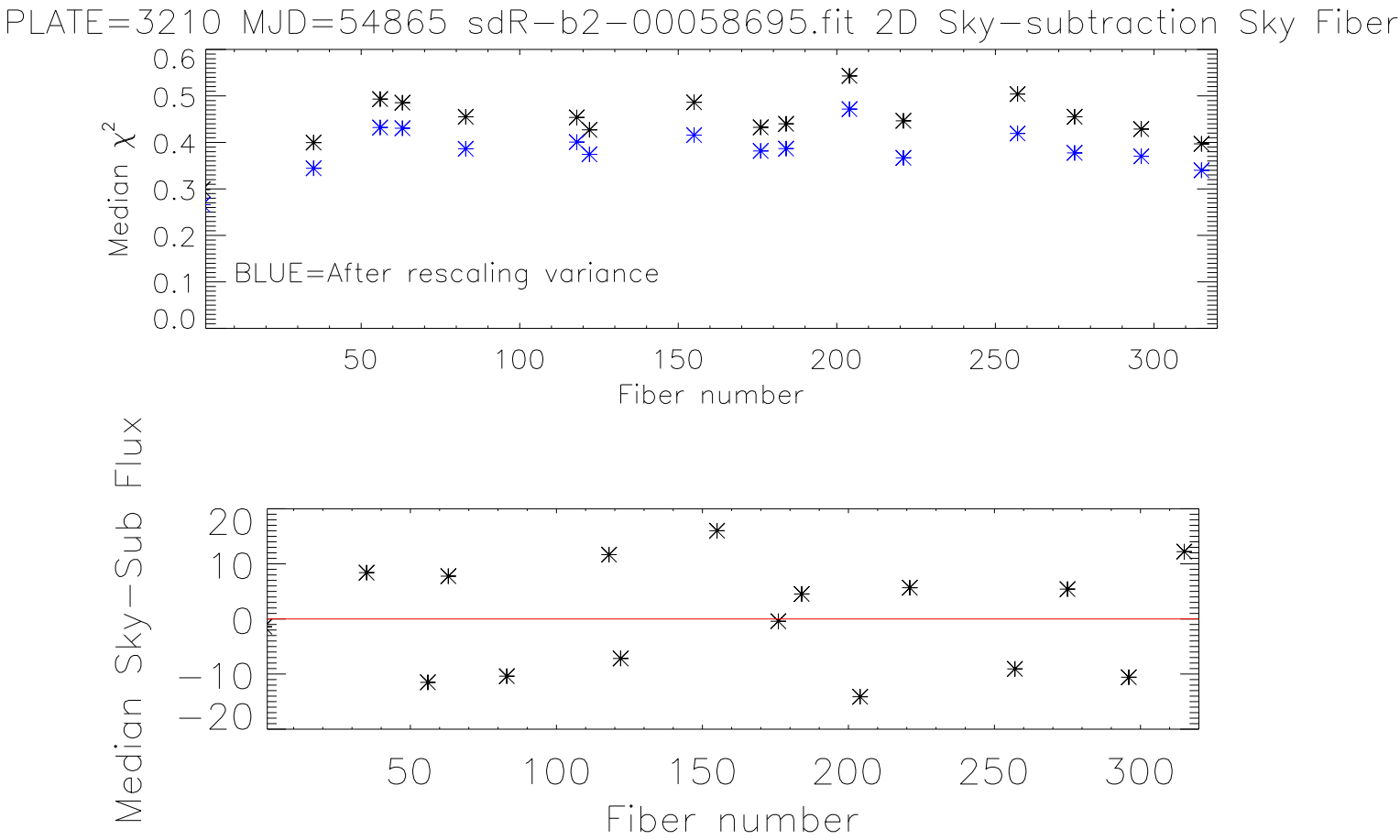

PLATE=3210 MJD=54865 Smooth superflat for sdR-b2-00058695.fit
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
0.985
es= −0.0000
4000
4500
5000
5500
6000
Wavelength (Å)

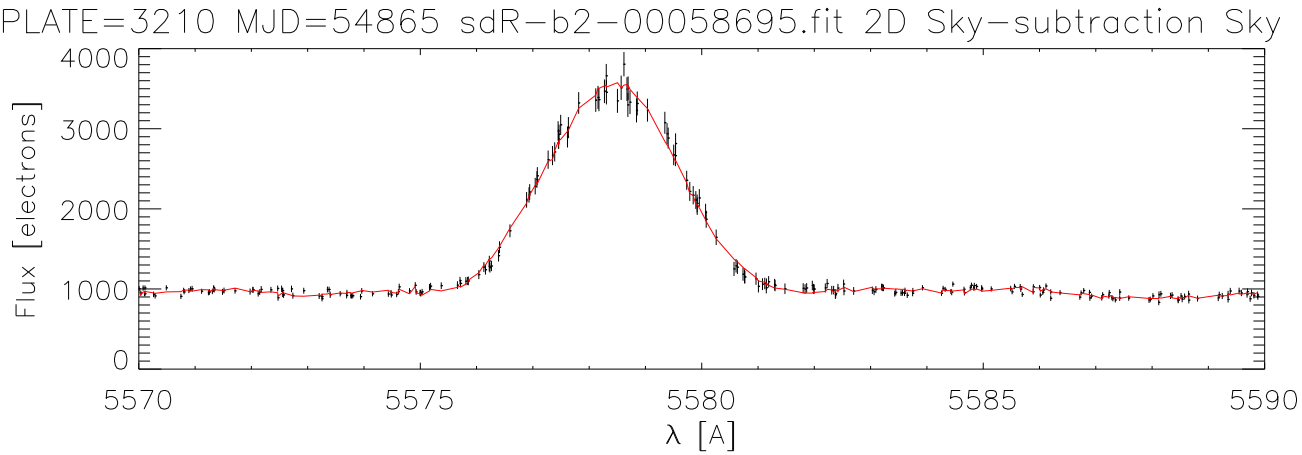

PLATE=3210 MJD=54865 sdR-b2-00058695.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
30
20
10
0
-10
-20
-30
50
100
150
200
250
300
Fiber number

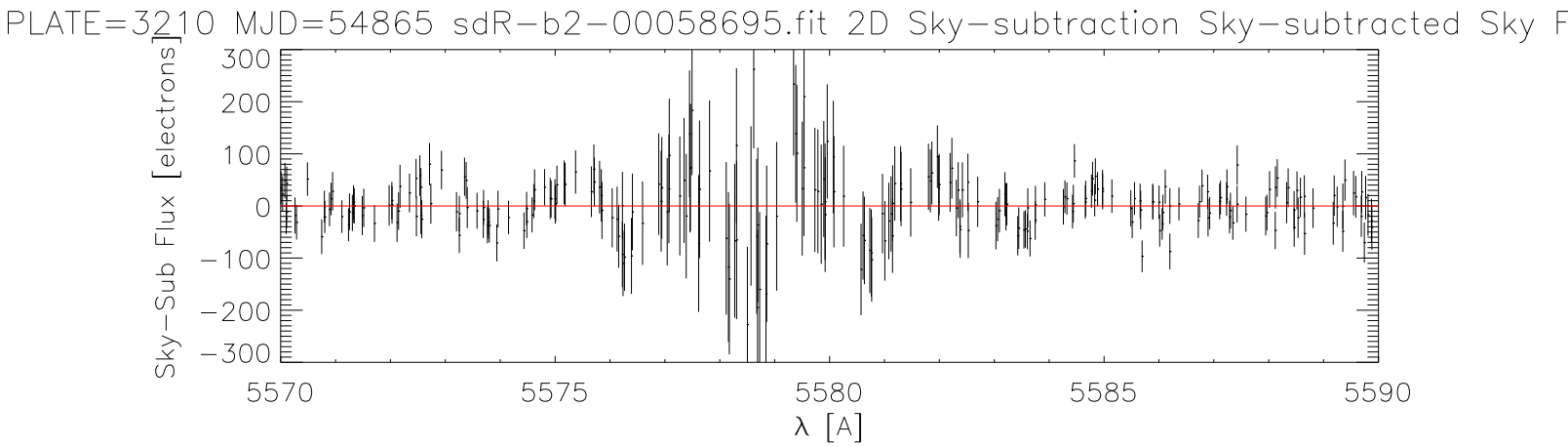

PLATE=3210 MJD=54865 sdR-b2-00058695.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

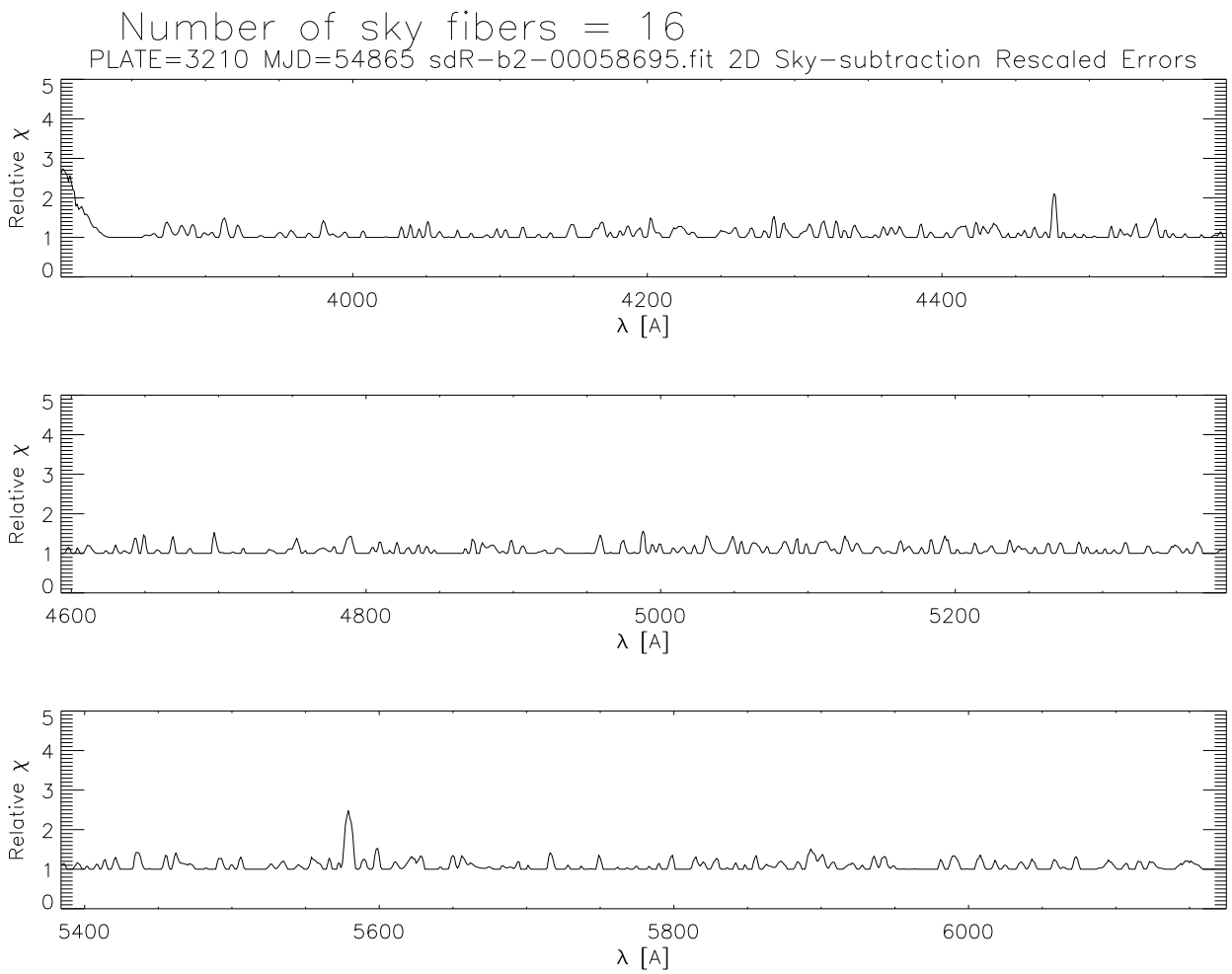

PLATE=3210 MJD=54865 sdR-b2-00058695.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
-300
5570
5575
5580
5585
5590
λ [A]

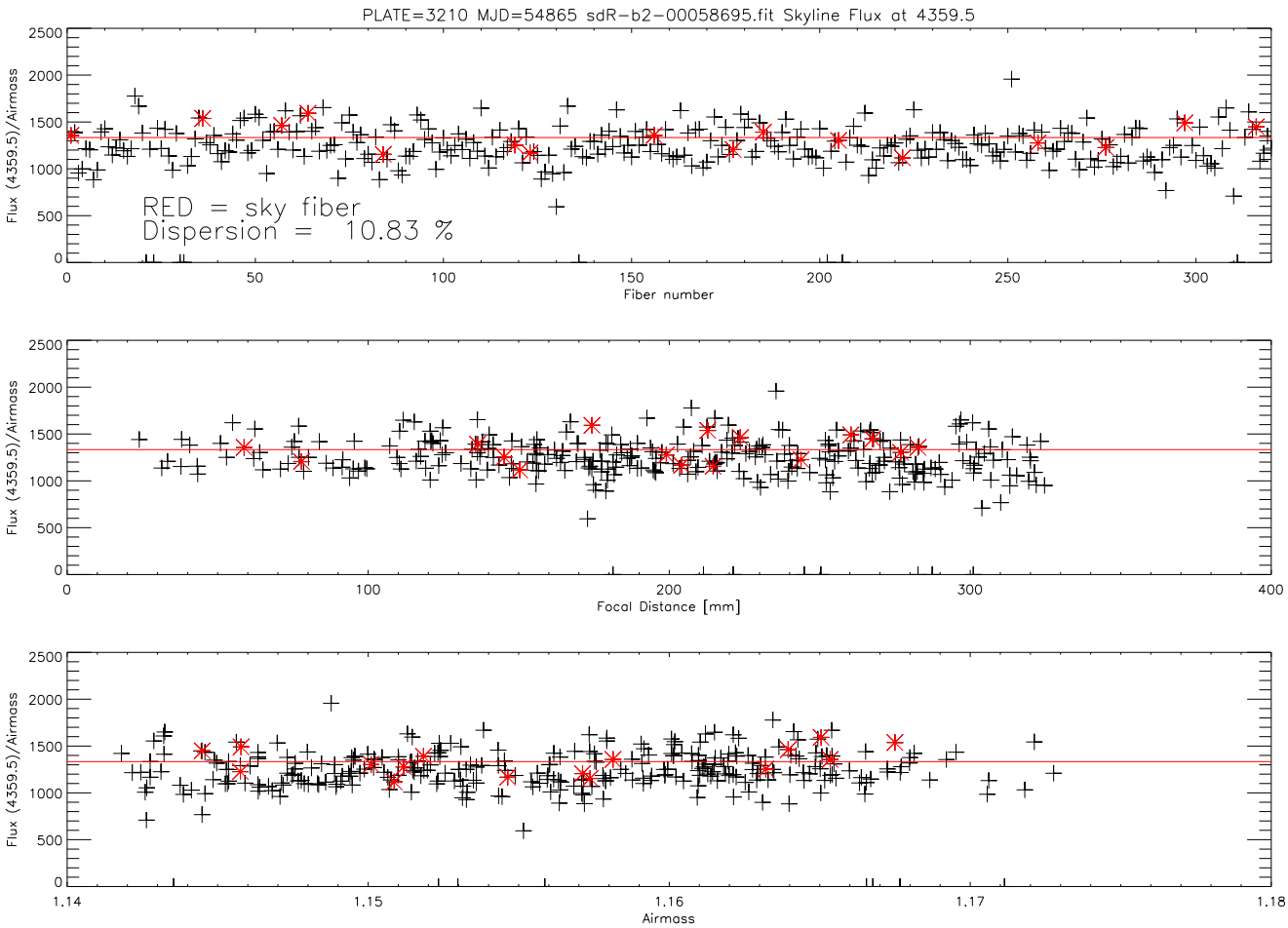

Number of sky fibers = 16
PLATE=3210 MJD=54865 sdR-b2-00058695.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

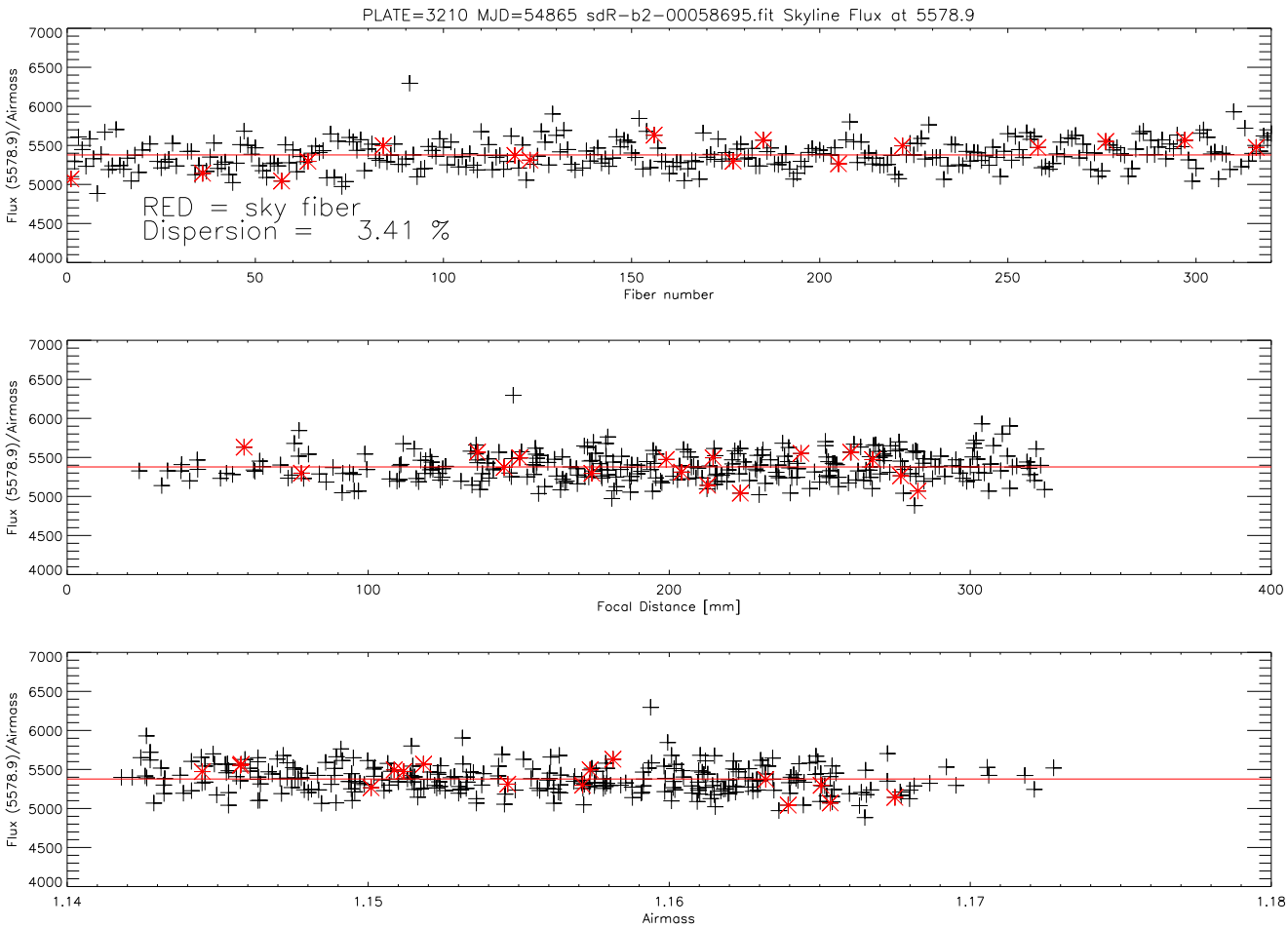

PLATE=3210 MJD=54865 sdR-b2-00058695.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

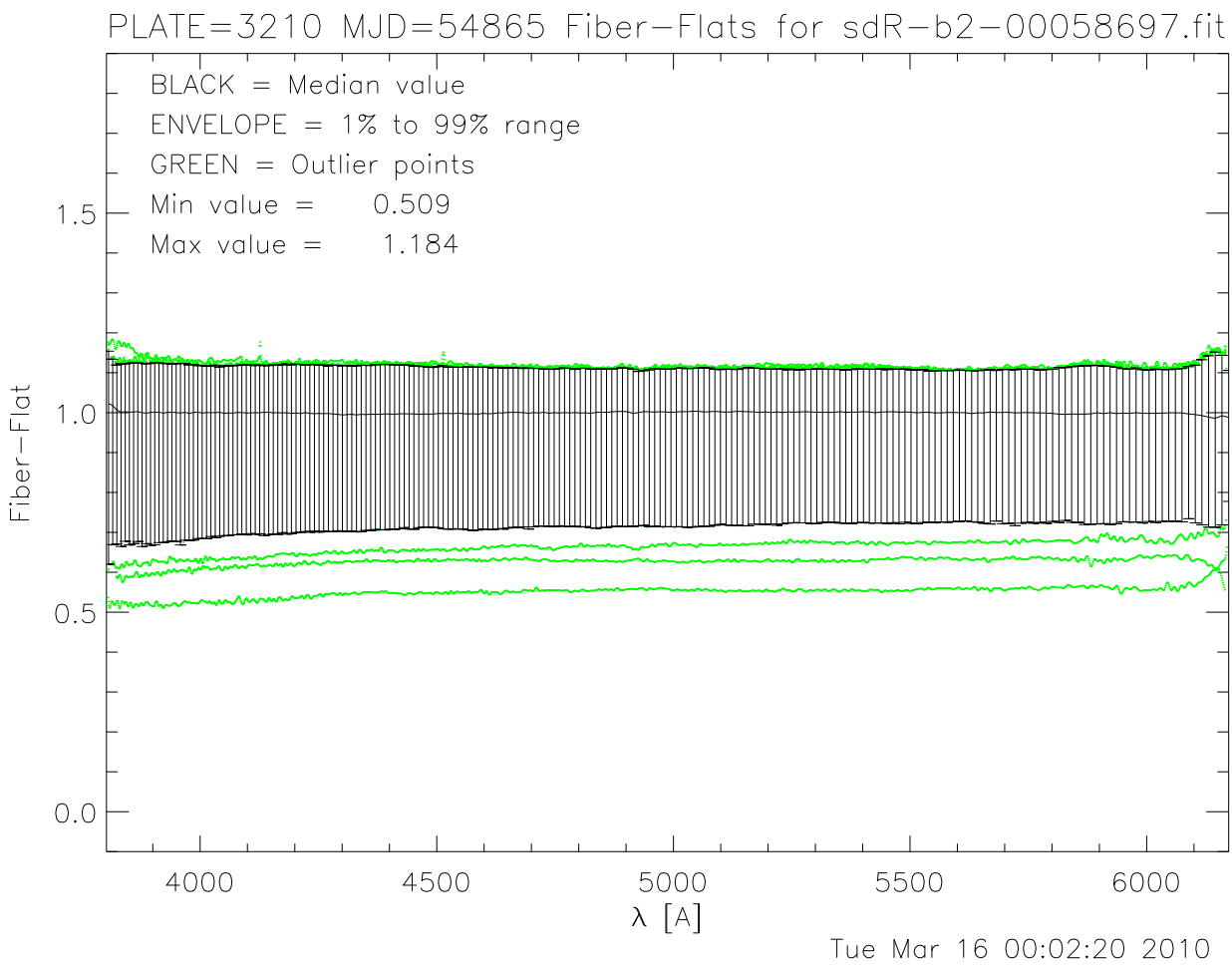

PLATE=3210 MJD=54865 sdR-b2-00058695.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

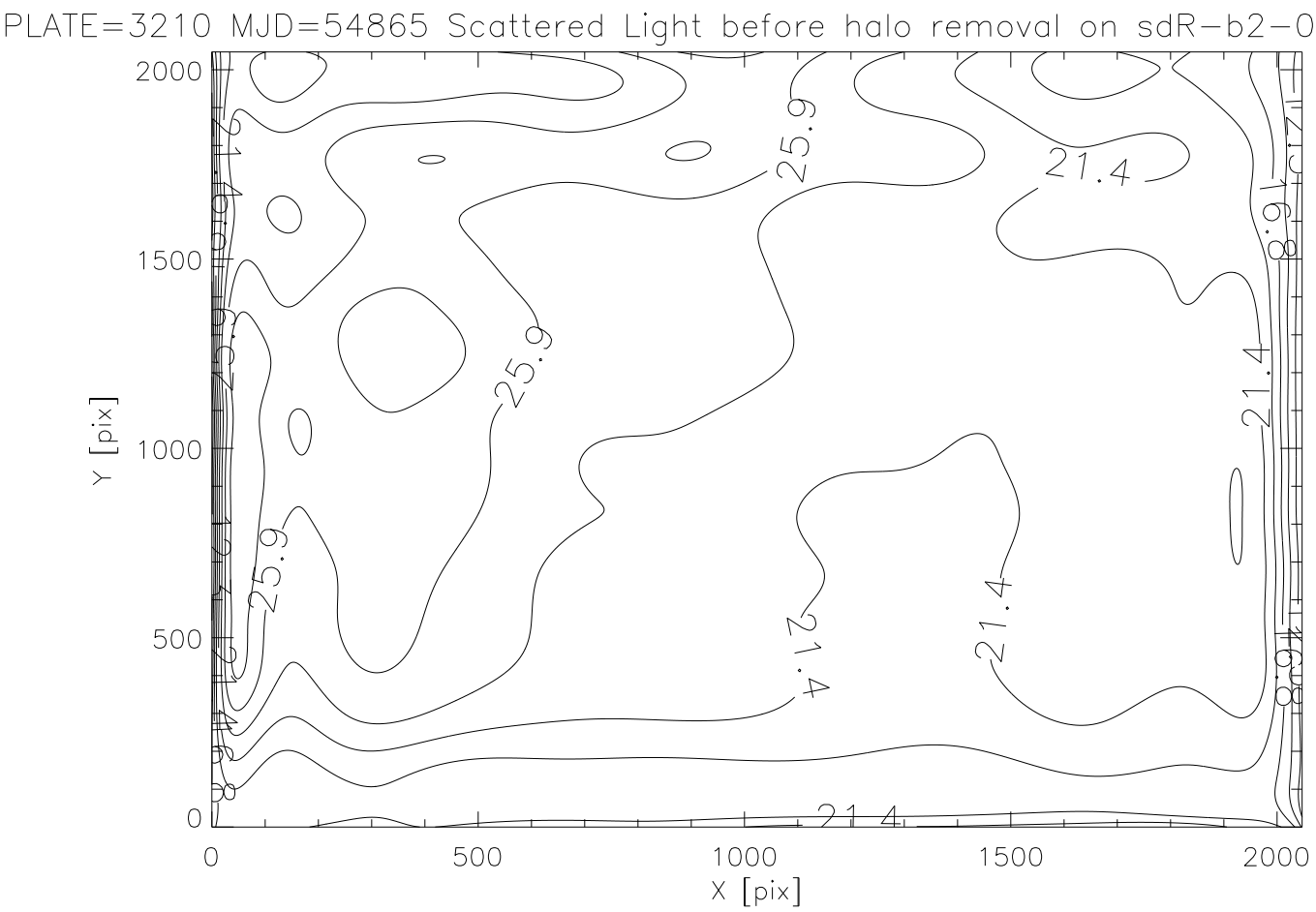

PLATE=3210 MJD=54865 sdR-b2-00058695.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
-300
5570
5575
5580
5585
5590
λ [A]

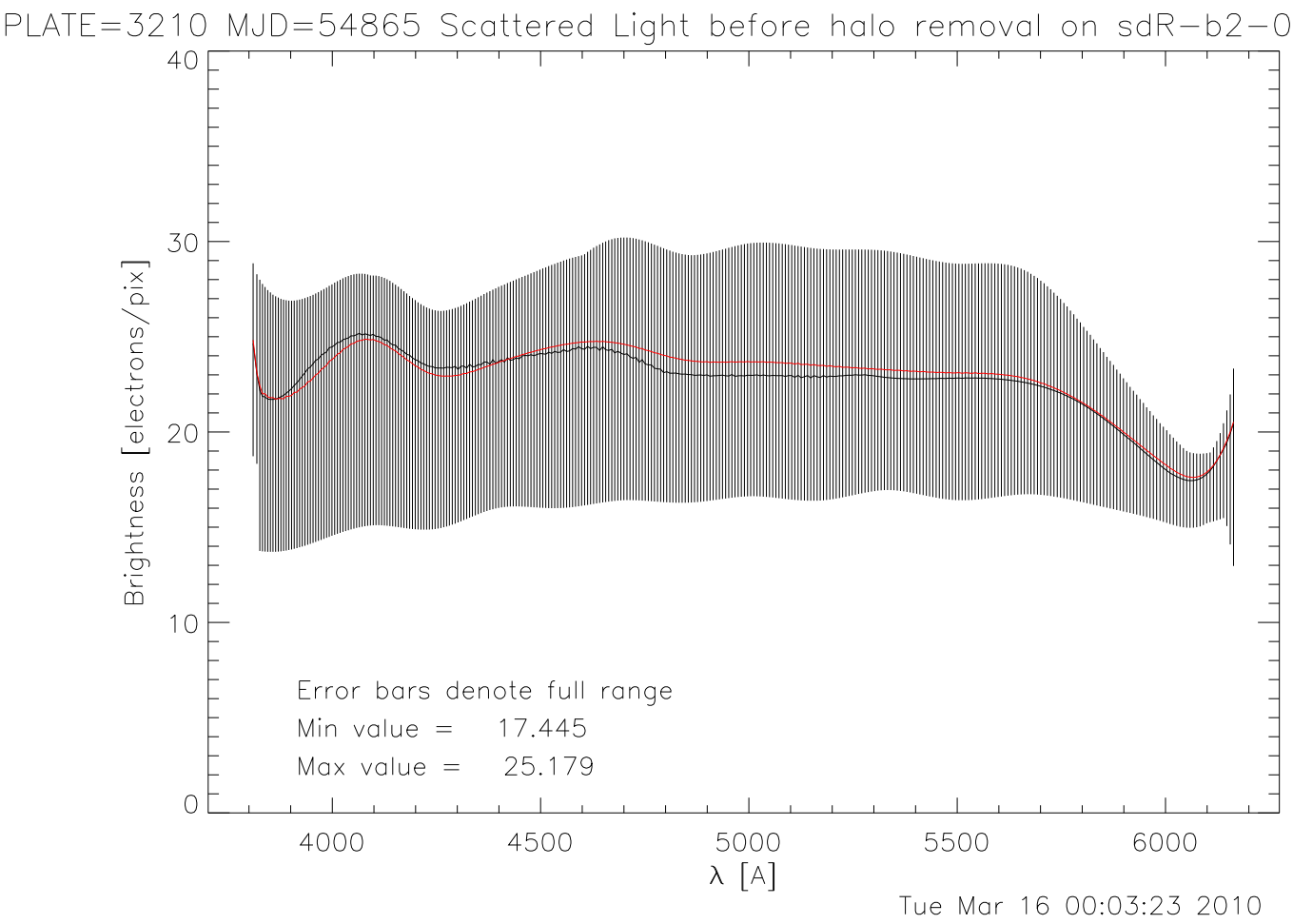

Number of sky fibers = 16
PLATE=3210 MJD=54865 sdR-b2-00058695.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

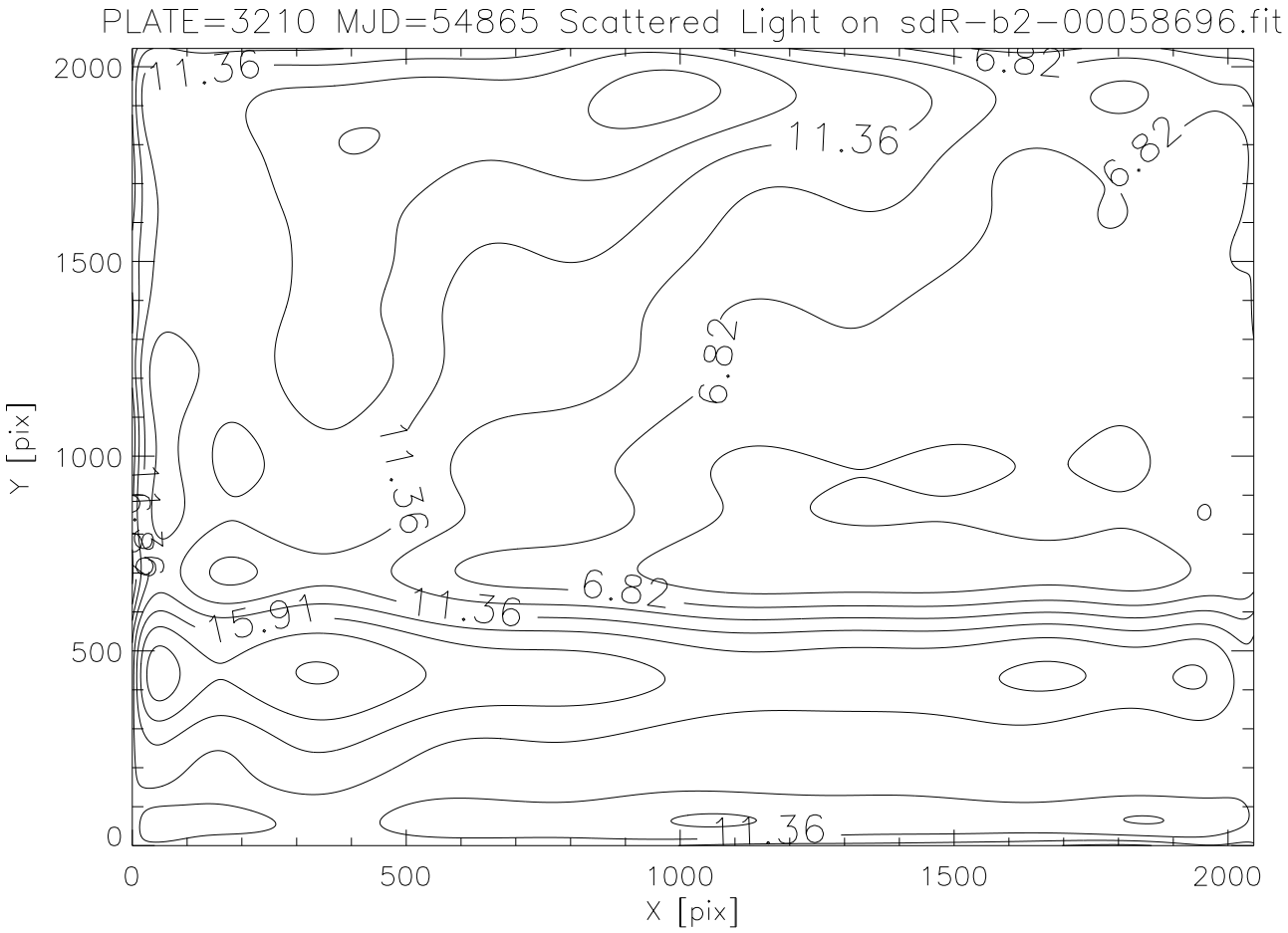

PLATE=3210 MJD=54865 sdR-b2-00058695.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 10.83 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

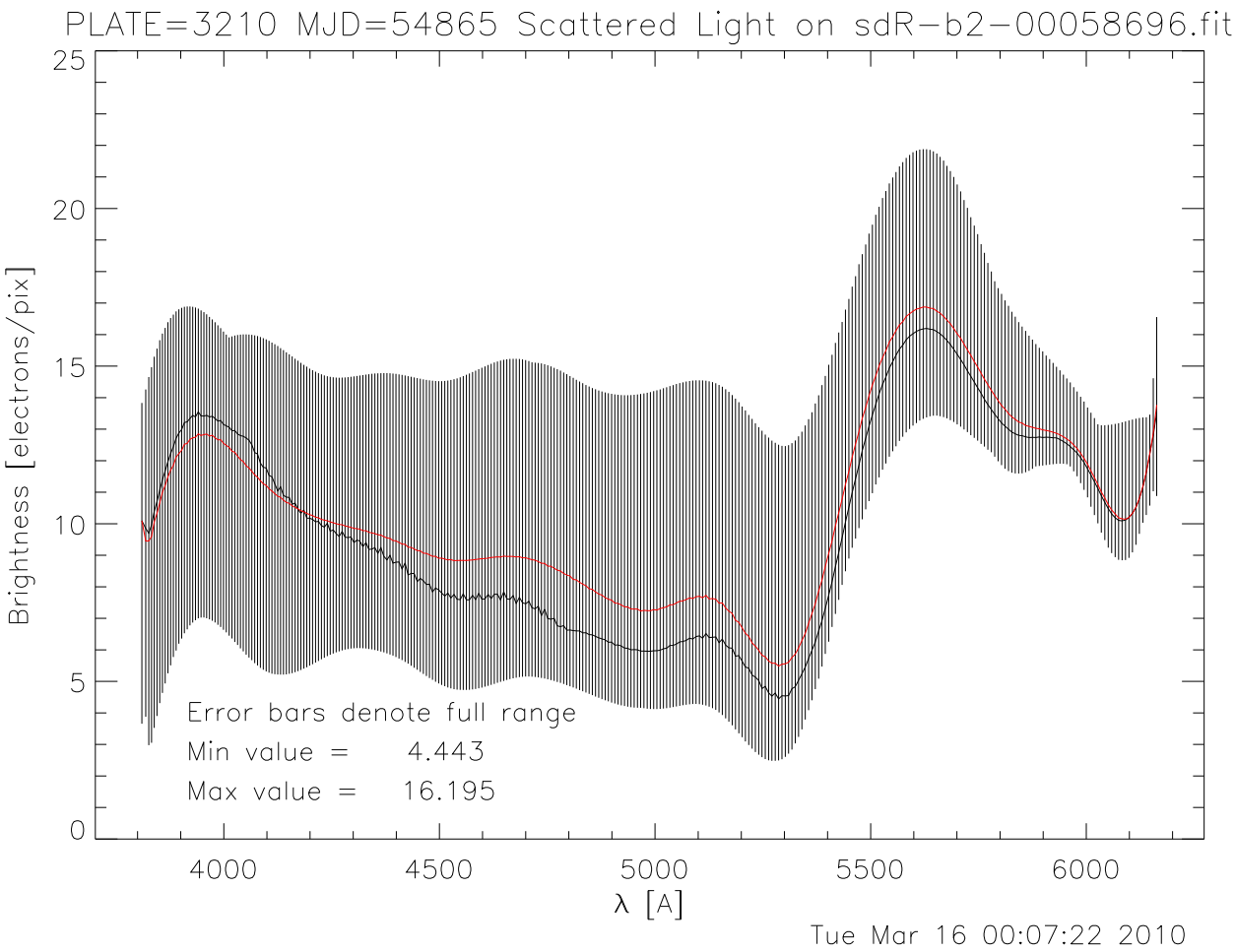

PLATE=3210 MJD=54865 sdR-b2-00058695.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 3.41 %
Fiber number
Flux (5578.9)/Airmass
Focal Distance [mm]
Flux (5578.9)/Airmass
Airmass

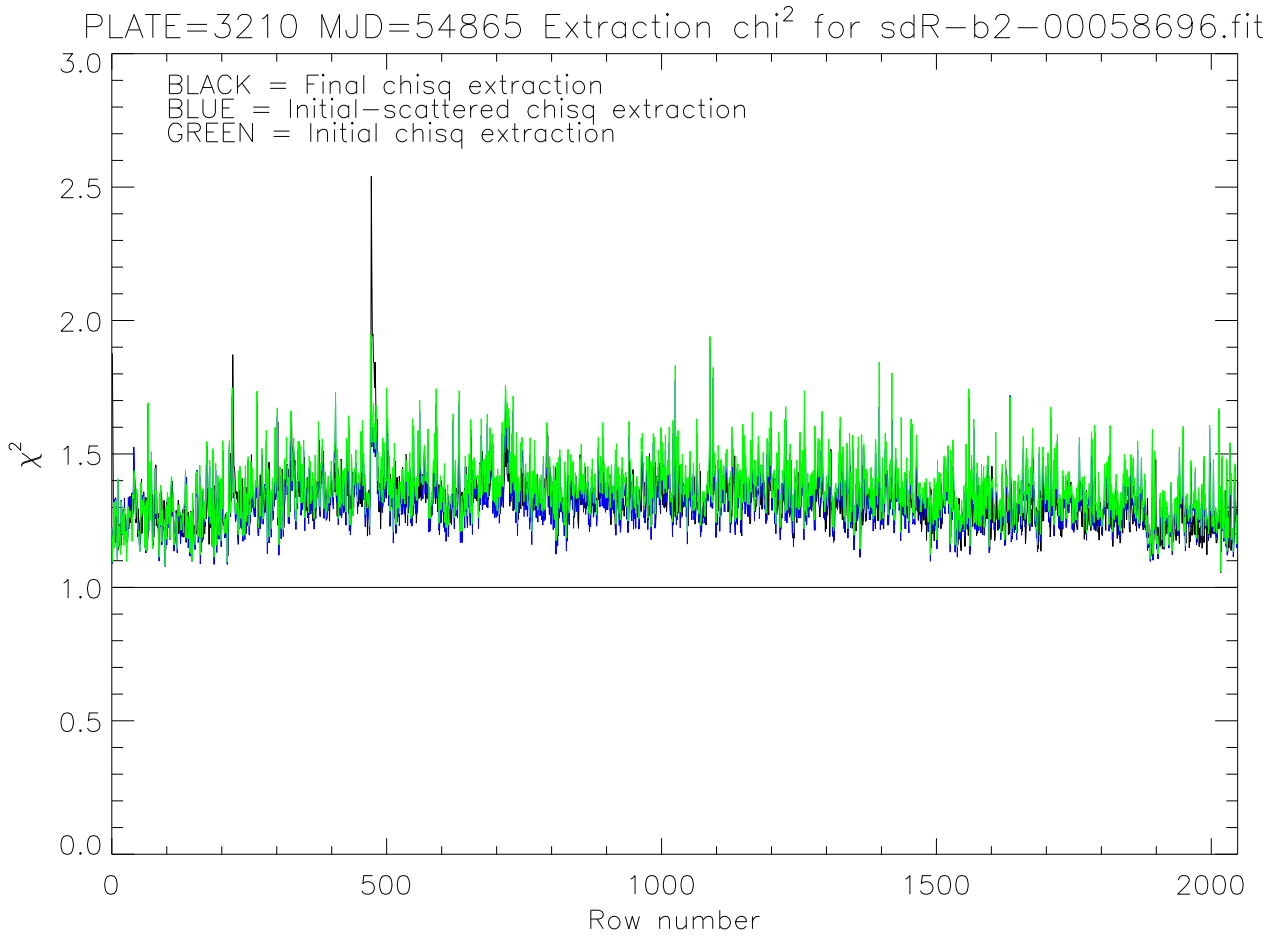

PLATE=3210 MJD=54865 Fiber-Flats for sdR-b2-00058697.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.509
Max value = 1.184
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Tue Mar 16 00:02:20 2010

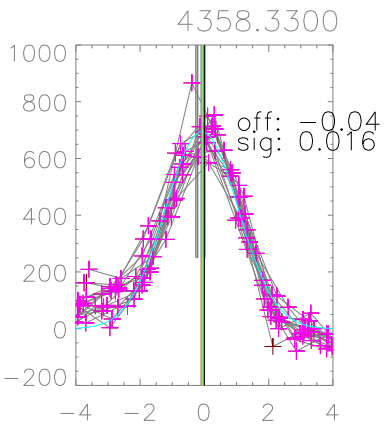

PLATE=3210 MJD=54865 Scattered Light before halo removal on sdR-b2-00058696.f
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
25.9
21.4
21.4
25.9
25.9
21.4
21.4
21.4

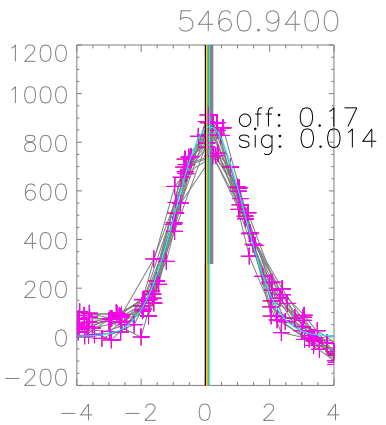

PLATE=3210 MJD=54865 Scattered Light before halo removal on sdR-b2-00058696.f
Brightness [electrons/pix]
40
30
20
10
0
Error bars denote full range
Min value = 17.445
Max value = 25.179
4000
4500
5000
5500
6000
λ [A]
Tue Mar 16 00:03:23 2010

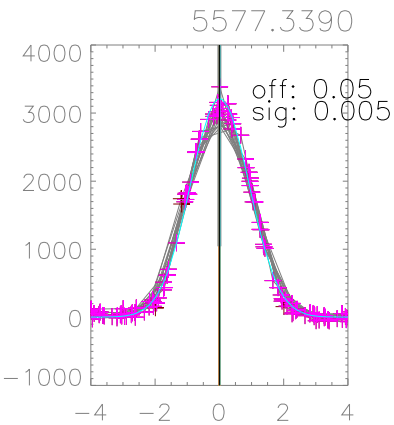

PLATE=3210 MJD=54865 Scattered Light on sdR-b2-00058696.fit
11.36
6.82
11.36
6.82
6.82
11.36
11.36
6.82
15.91
11.36
11.36
0
2000
1500
1000
500
0
0
500
1000
1500
2000
Y [pix]
X [pix]

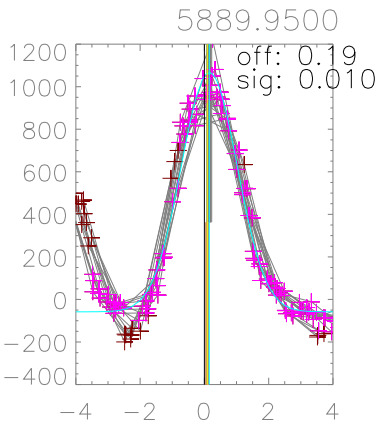

PLATE=3210 MJD=54865 Scattered Light on sdR-b2-00058696.fit
Brightness [electrons/pix]
25
20
15
10
5
0
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 4.443
Max value = 16.195
Tue Mar 16 00:07:22 2010

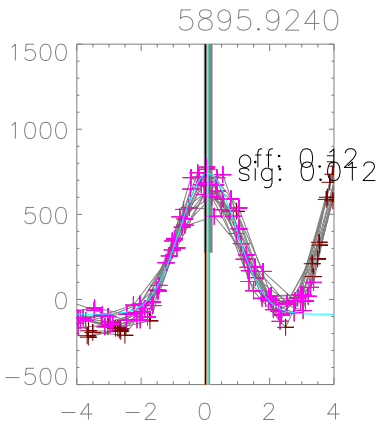

PLATE=3210 MJD=54865 Extraction chi^2 for sdR-b2-00058696.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
500
1000
1500
2000
Row number

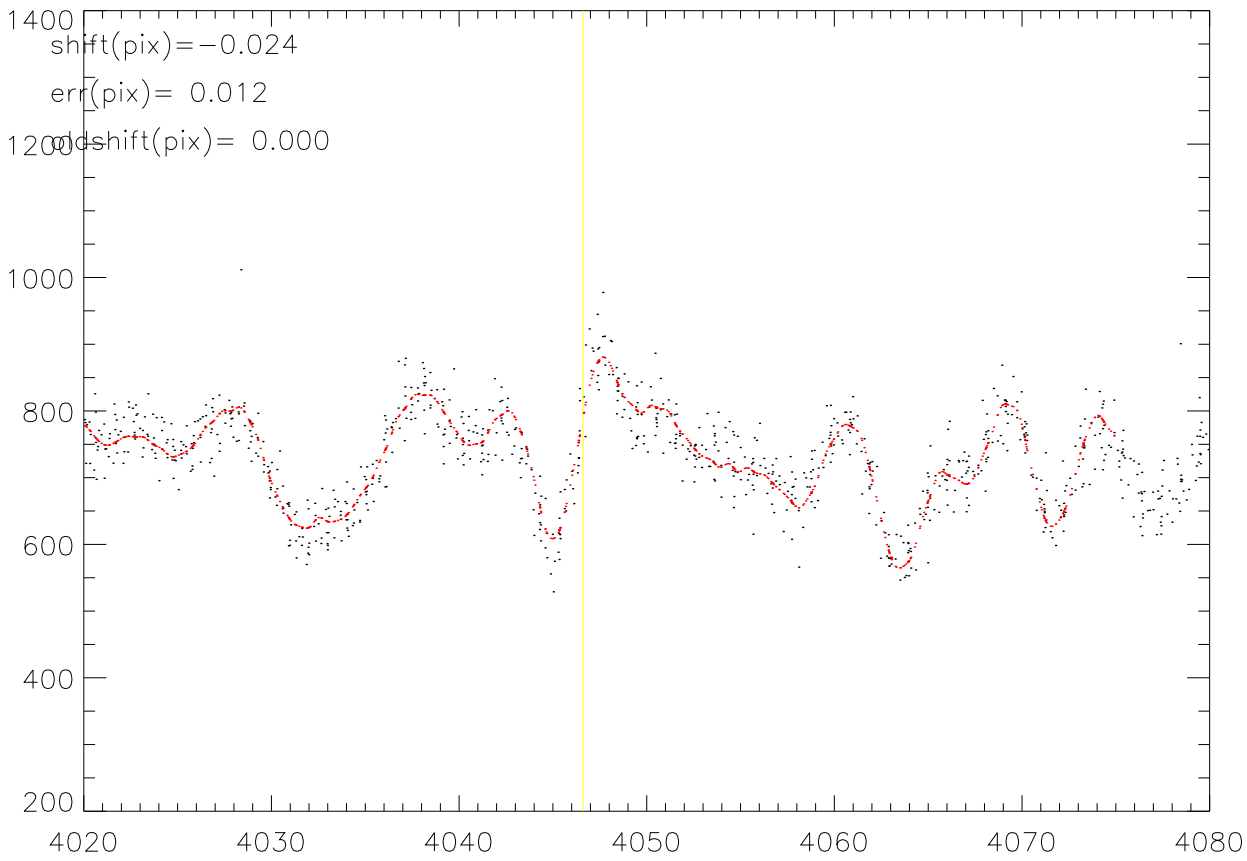

4358.3300
off: −0.04
sig: 0.016

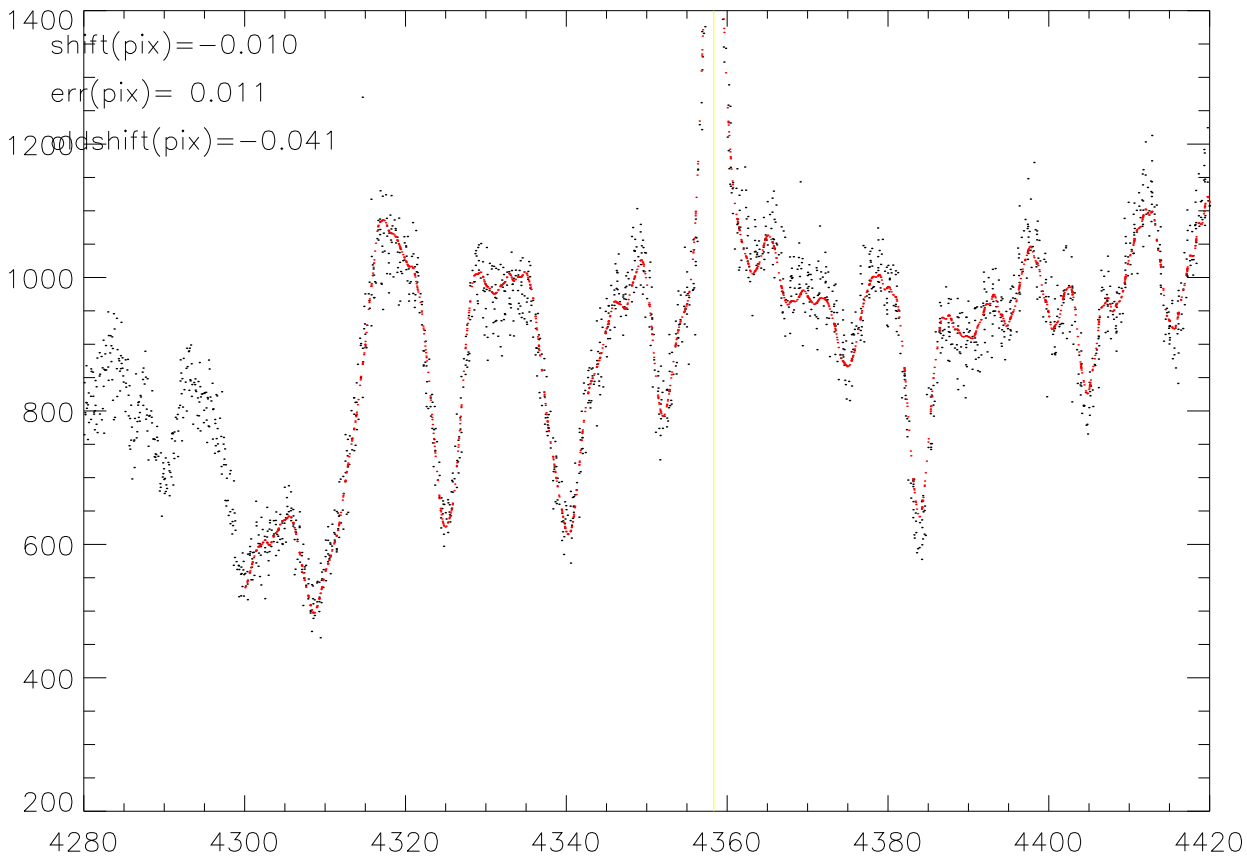

5460.9400
off: 0.17
sig: 0.014


5577.3390
off: 0.05
sig: 0.005

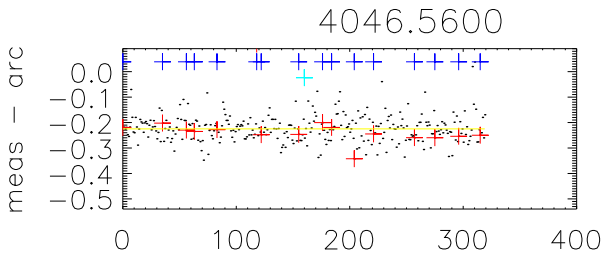

5889.9500
off: 0.19
sig: 0.010

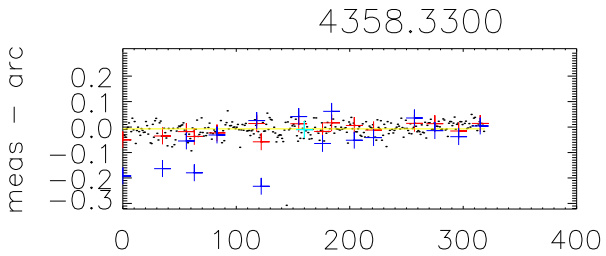

5895.9240
off: 0.12
sig: 0.012

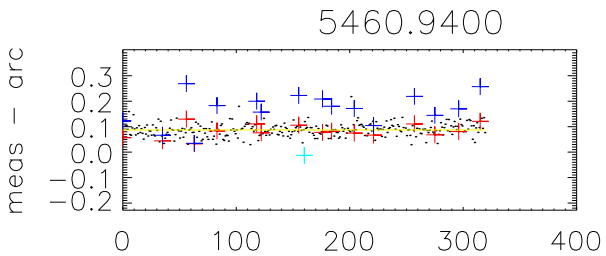

shift(pix)=−0.024
err(pix)= 0.012
oldshift(pix)= 0.000
1400
1200
1000
800
600
400
200
4020
4030
4040
4050
4060
4070
4080

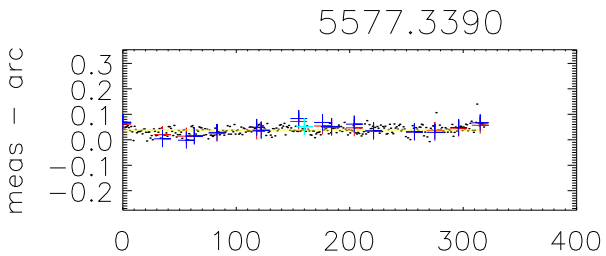

shift(pix)=−0.010
err(pix)= 0.011
oldshift(pix)=−0.041
1400
1200
1000
800
600
400
200
4280
4300
4320
4340
4360
4380
4400
4420

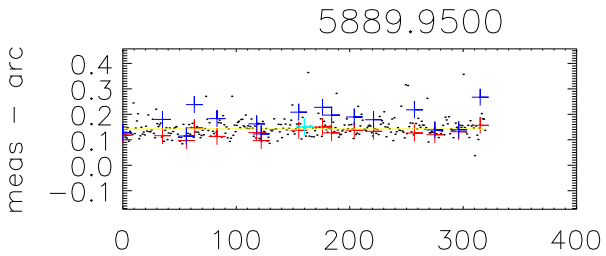
shift(pix)=−0.013
err(pix)= 0.008
oldshift(pix)= 0.171
1400
1200
1000
800
600
400
200
5430
5440
5450
5460
5470
5480
5490

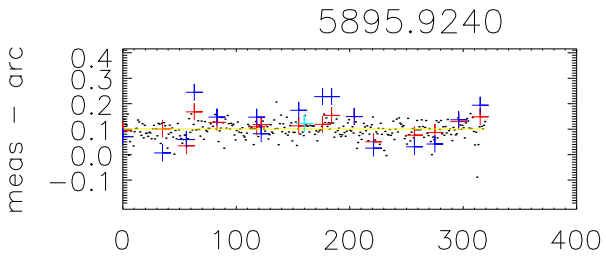

4046.5600
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

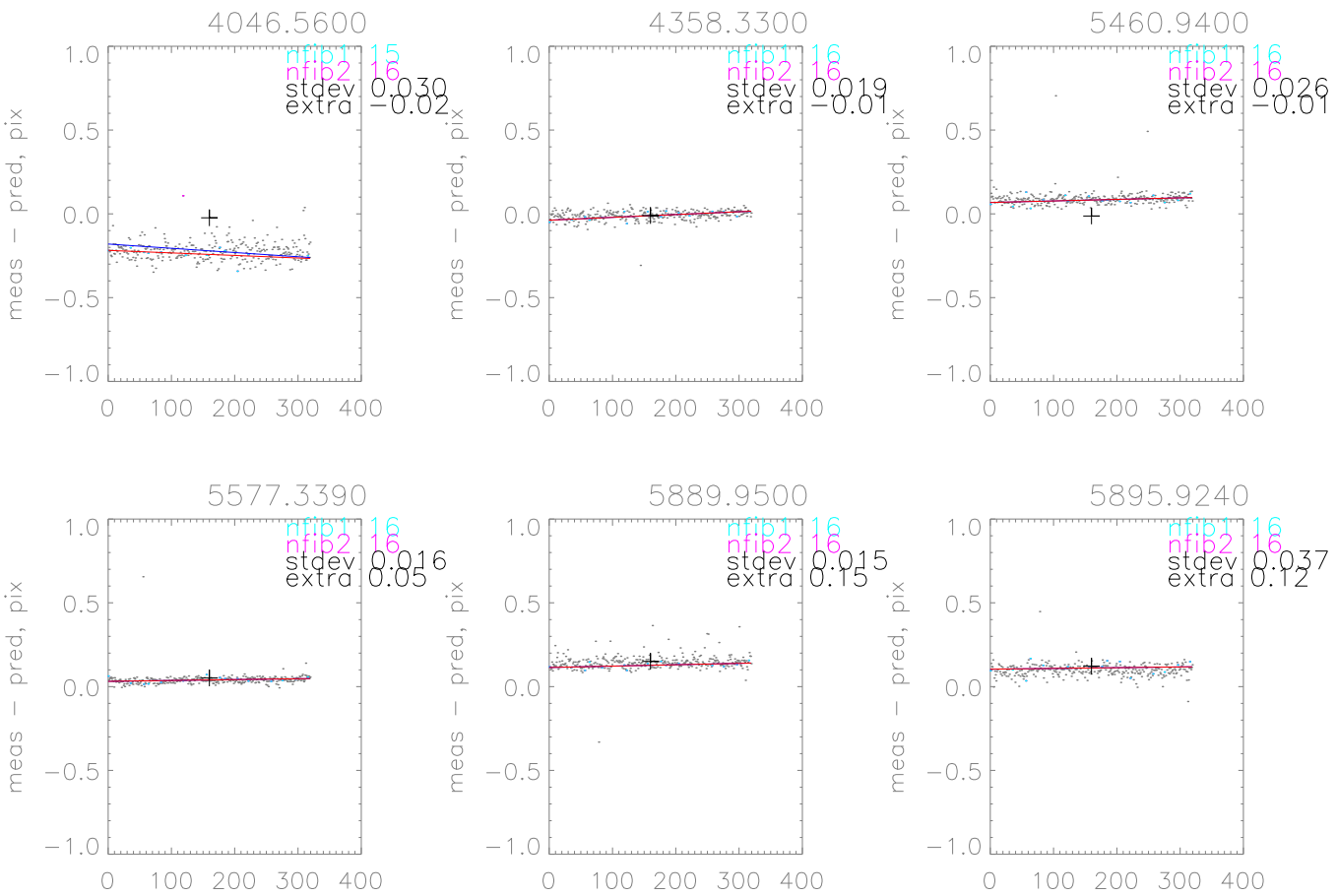

4358.3300
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

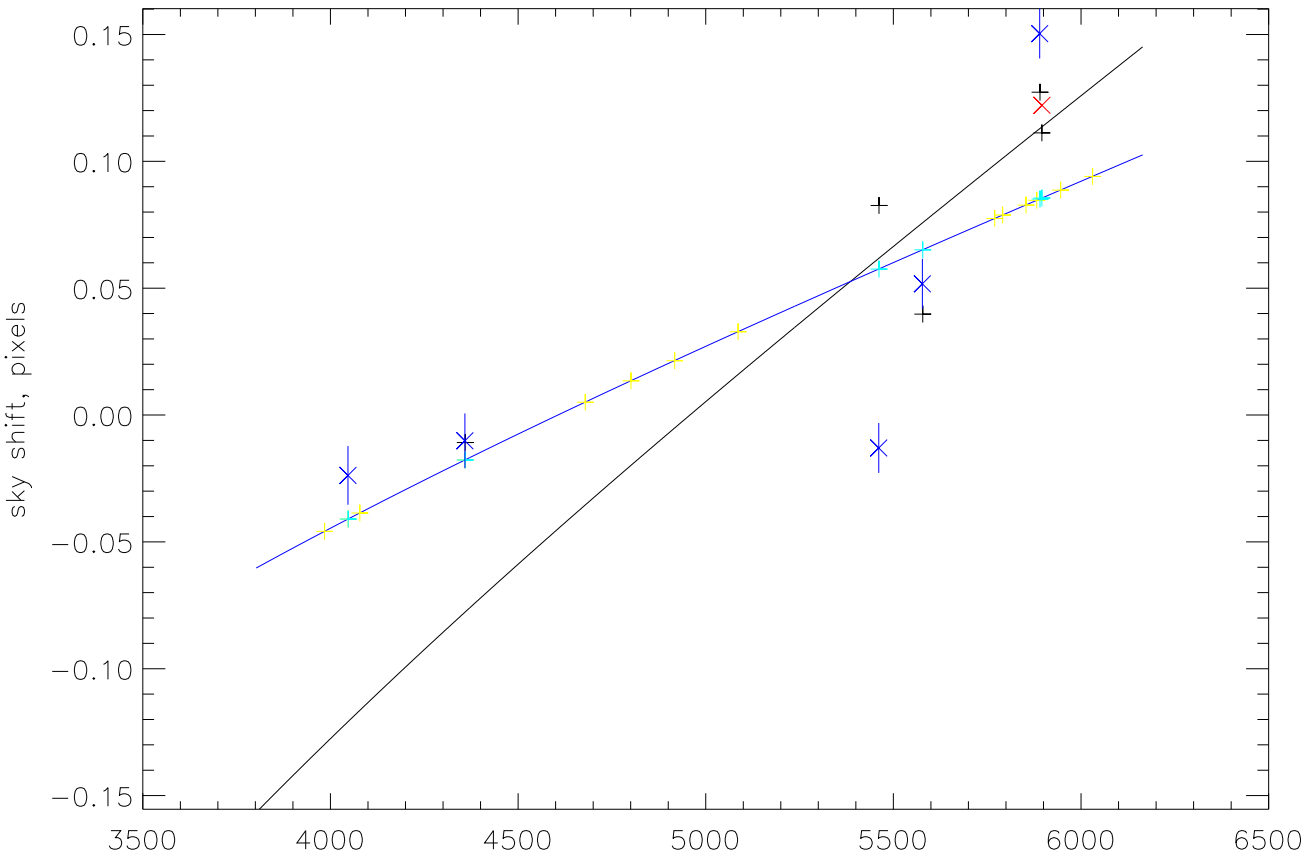

5460.9400
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

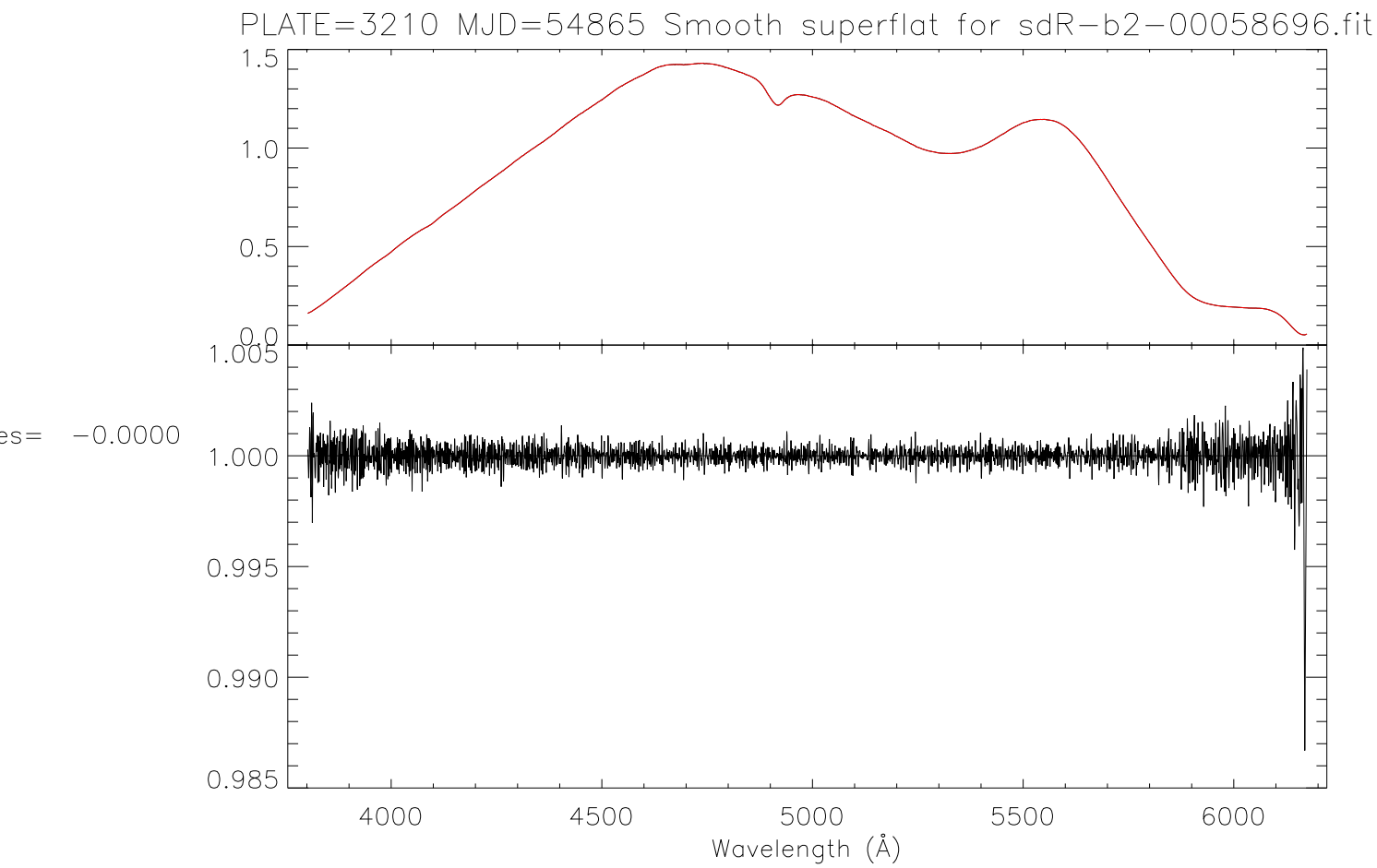

5577.3390
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

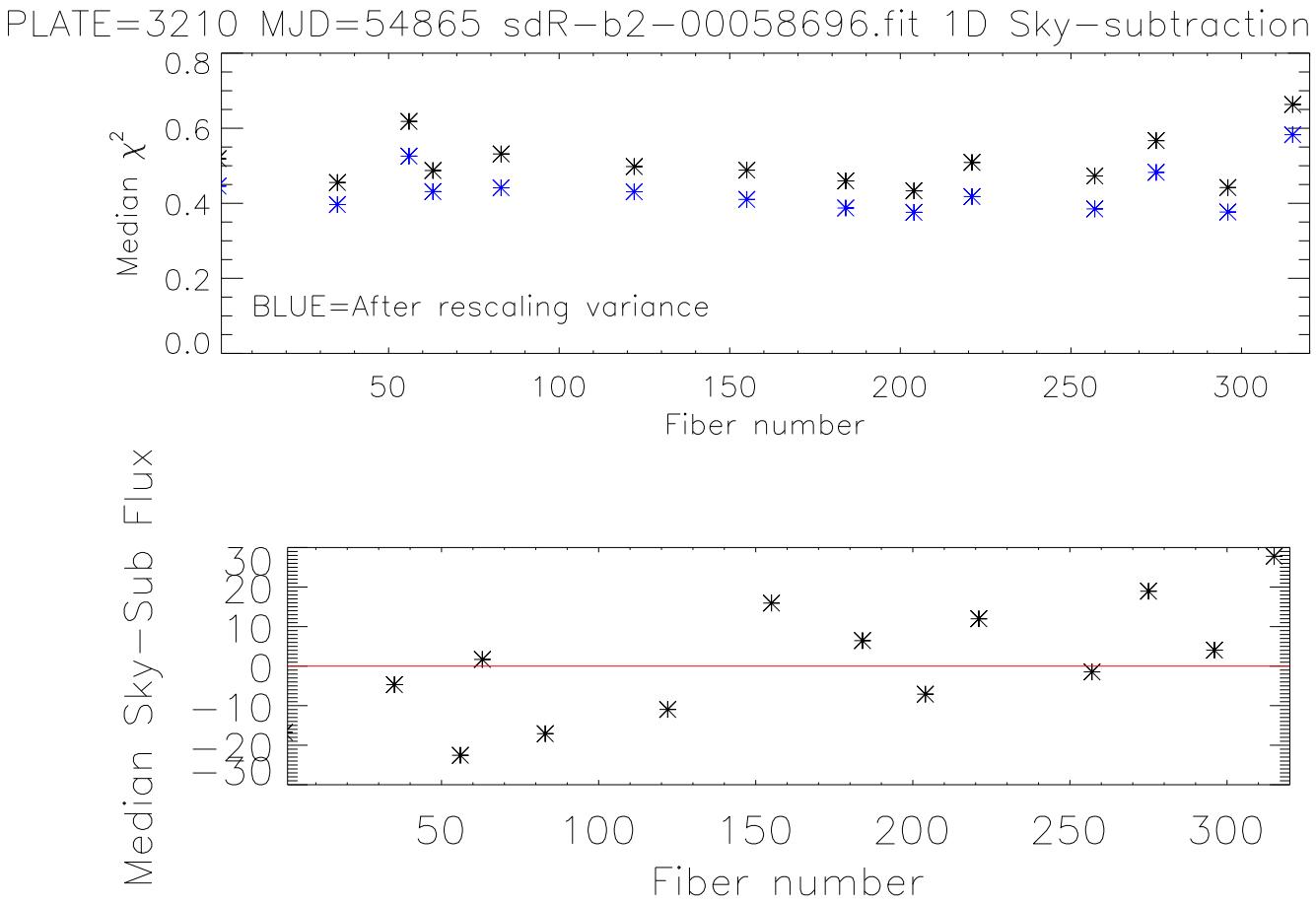

5889.9500
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

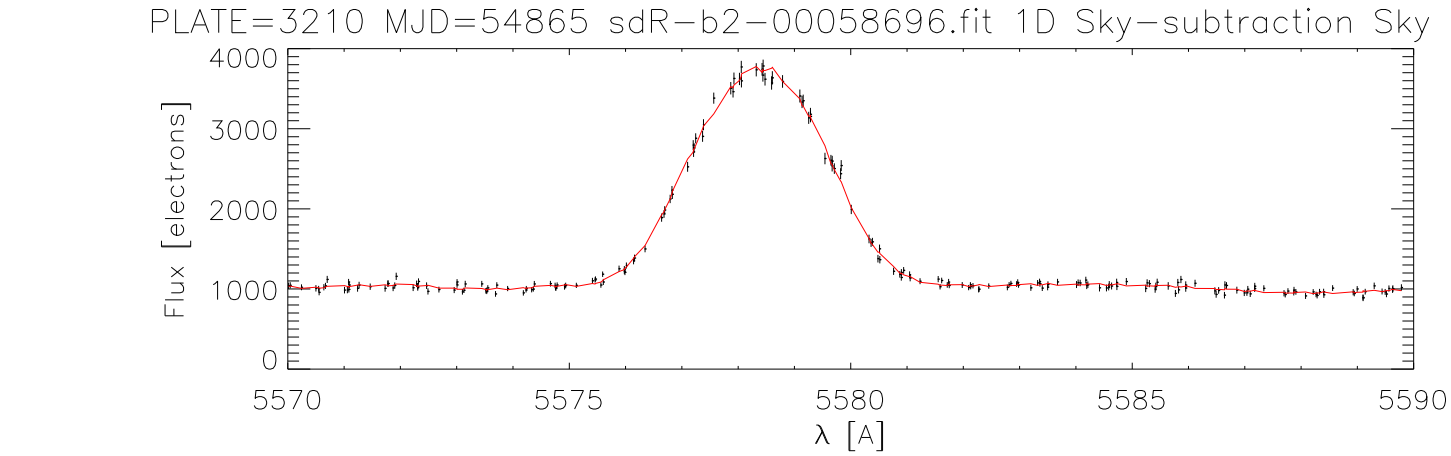

5895.9240
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

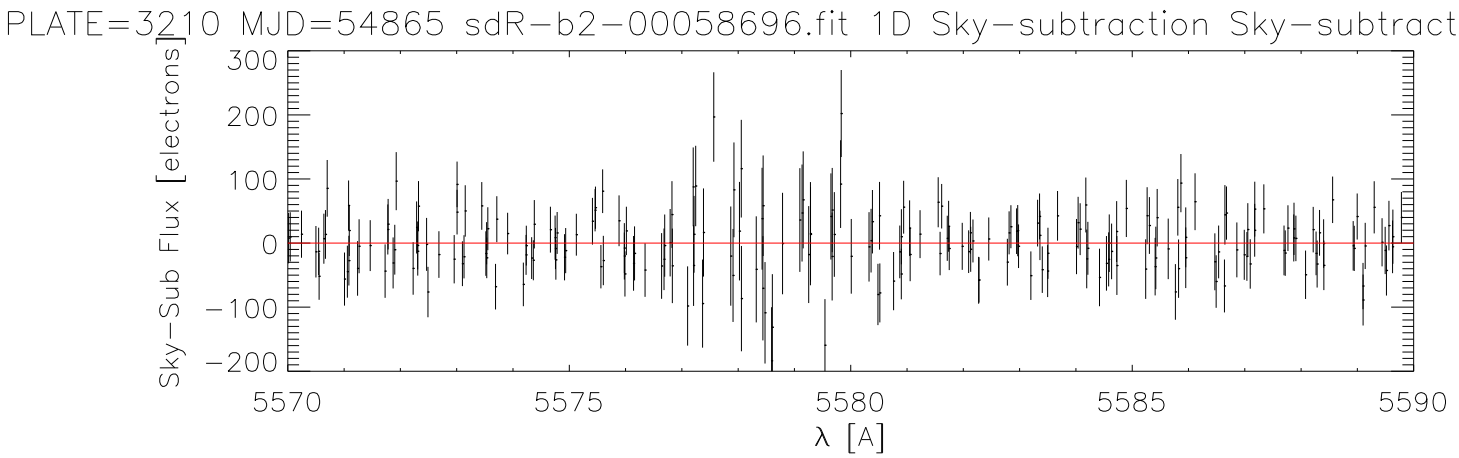

4046.5600
nfib1 15
nfib2 16
stdev 0.030
extra −0.02
4358.3300
nfib1 16
nfib2 16
stdev 0.019
extra −0.01
5460.9400
nfib1 16
nfib2 16
stdev 0.026
extra −0.01
5577.3390
nfib1 16
nfib2 16
stdev 0.016
extra 0.05
5889.9500
nfib1 16
nfib2 16
stdev 0.015
extra 0.15
5895.9240
nfib1 16
nfib2 16
stdev 0.037
extra 0.12
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

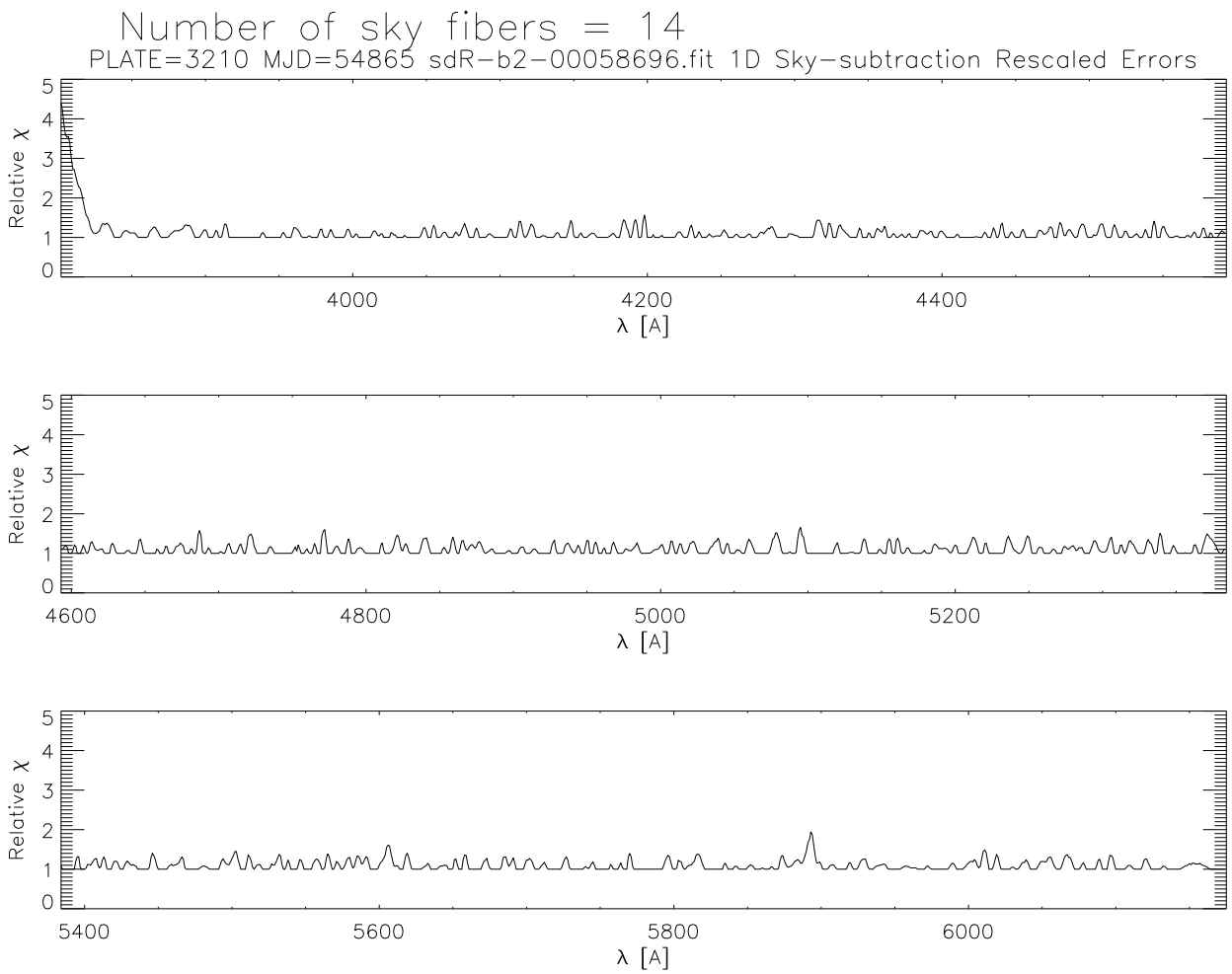

0.15
0.10
0.05
0.00
−0.05
−0.10
−0.15
sky shift, pixels
3500
4000
4500
5000
5500
6000
6500

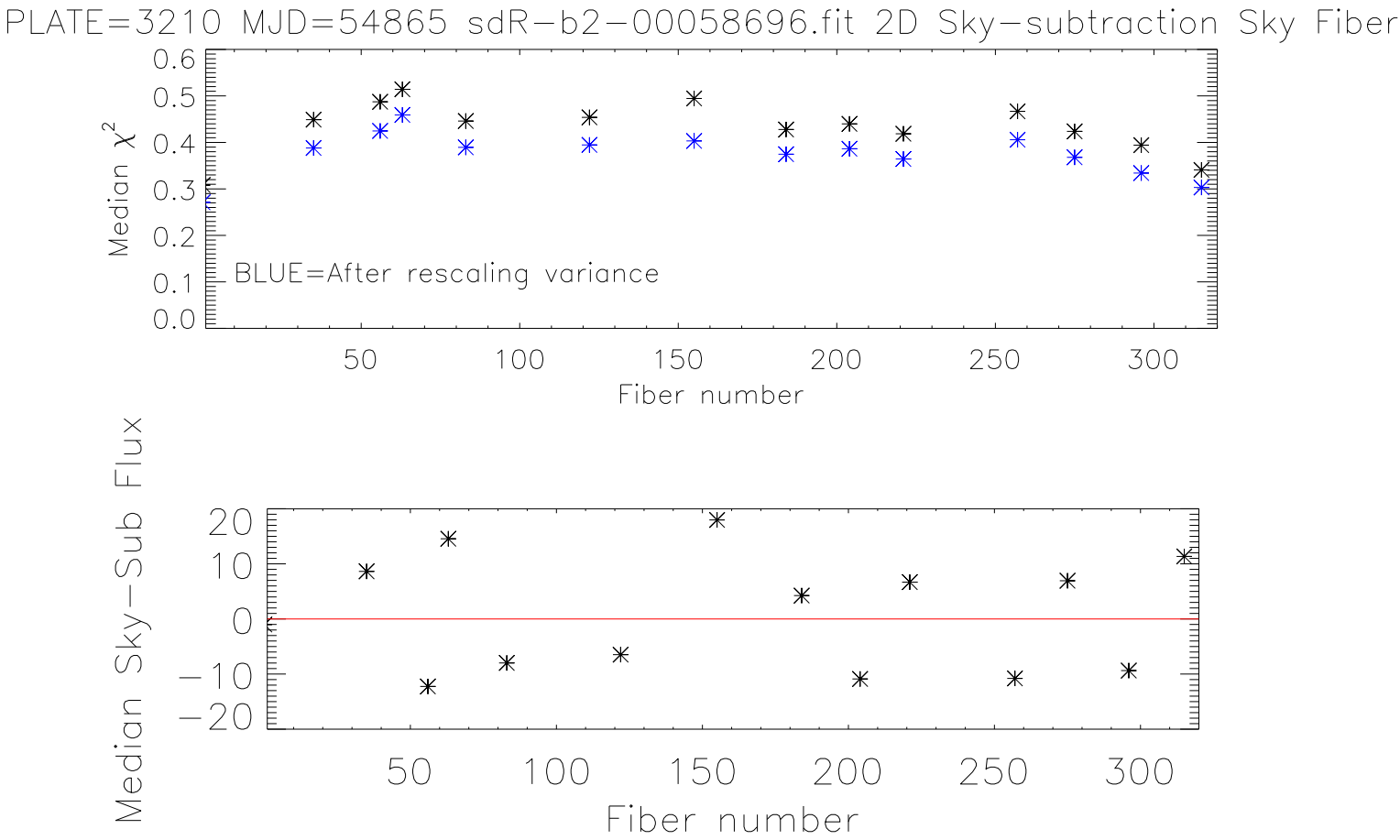

PLATE=3210 MJD=54865 Smooth superflat for sdR-b2-00058696.fit
1.5
1.0
0.5
0.0
1.005
1.000
0.995
0.990
0.985
es= −0.0000
4000
4500
5000
5500
6000
Wavelength (Å)

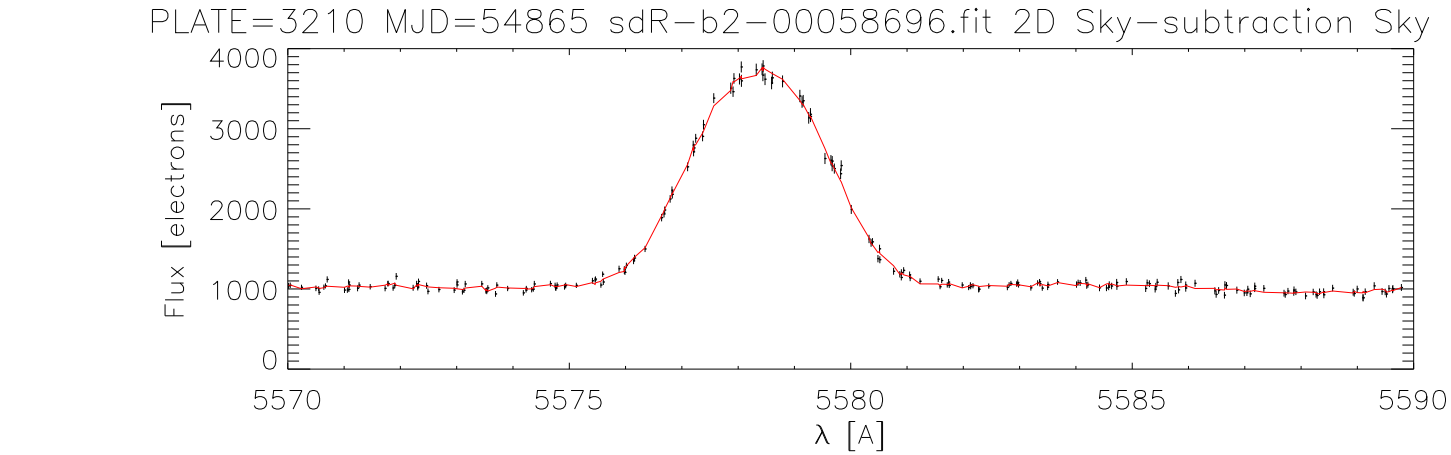

PLATE=3210 MJD=54865 sdR-b2-00058696.fit 1D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

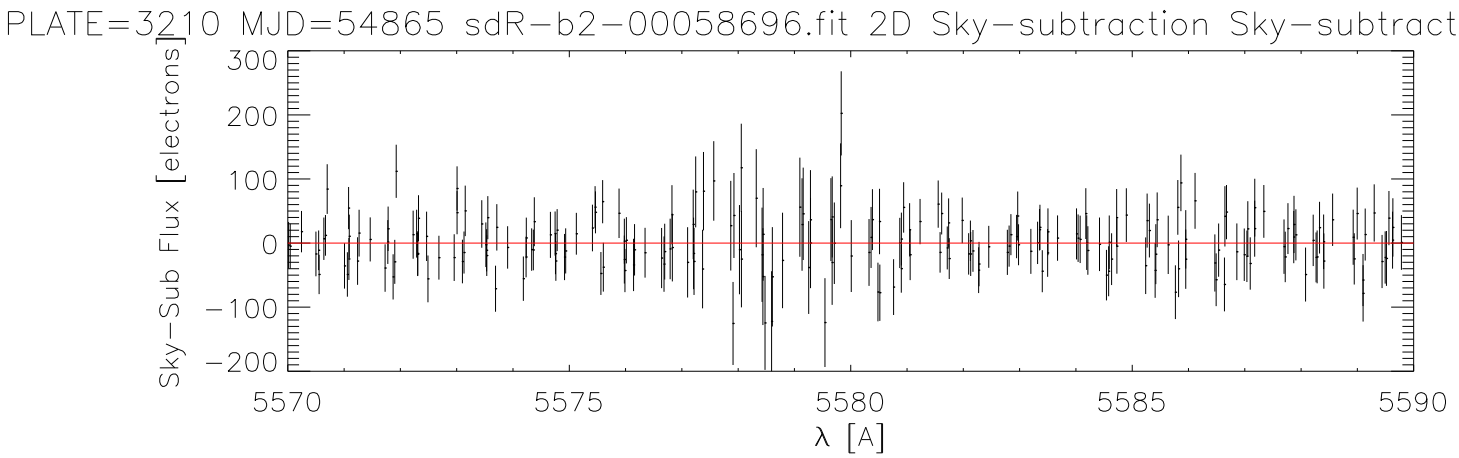

PLATE=3210 MJD=54865 sdR-b2-00058696.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

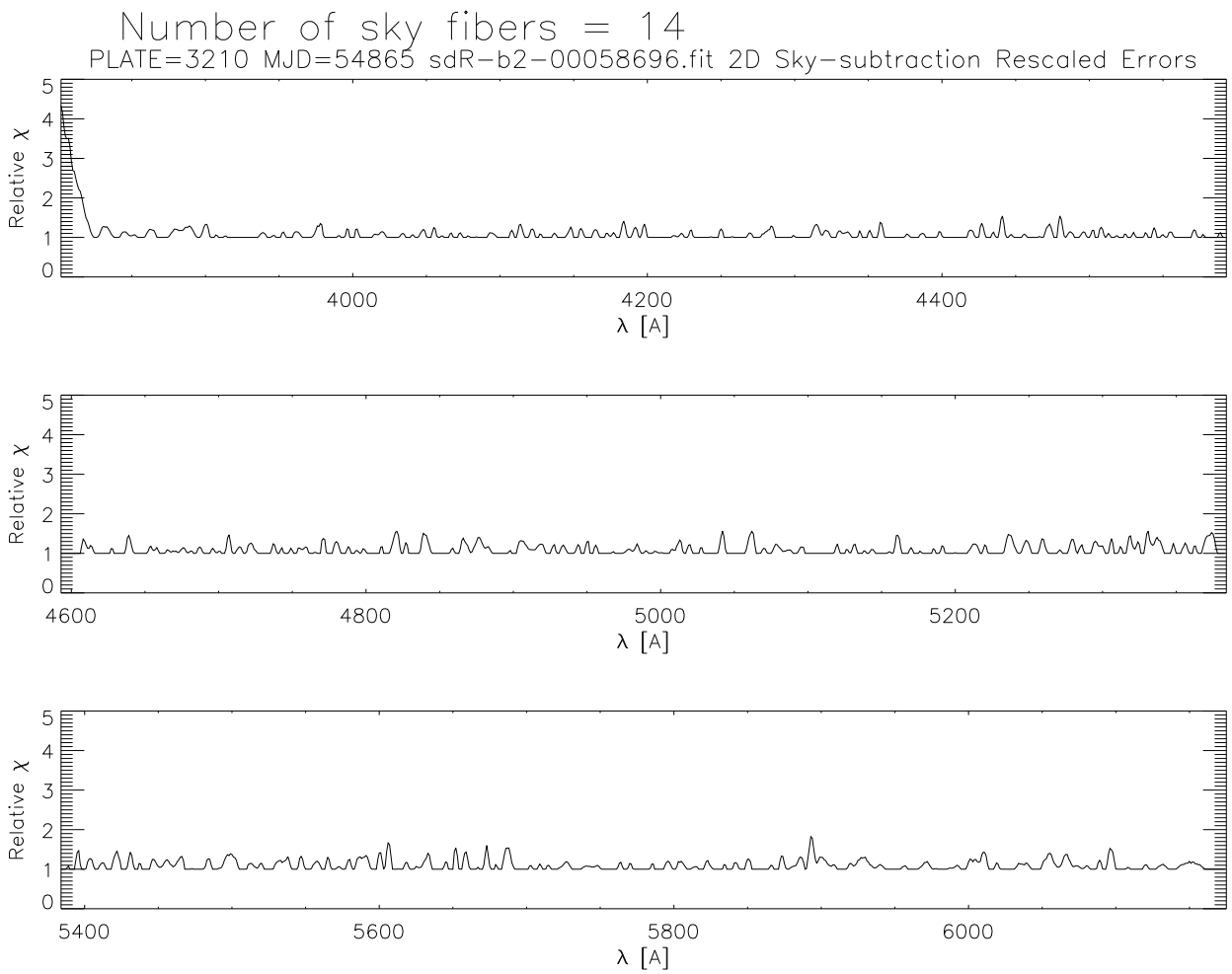

PLATE=3210 MJD=54865 sdR-b2-00058696.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
5570
5575
5580
5585
5590
λ [A]

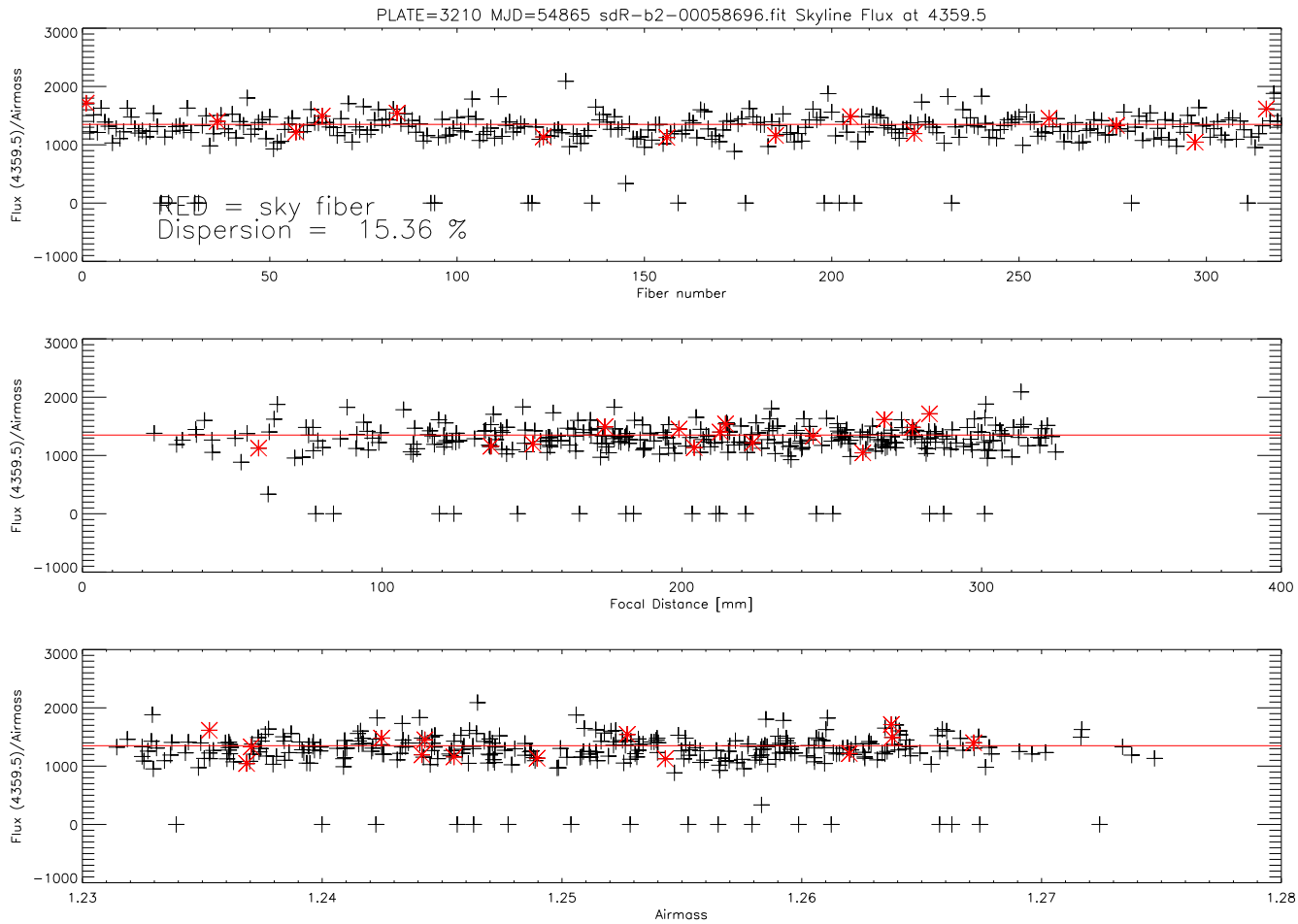

Number of sky fibers = 14
PLATE=3210 MJD=54865 sdR-b2-00058696.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

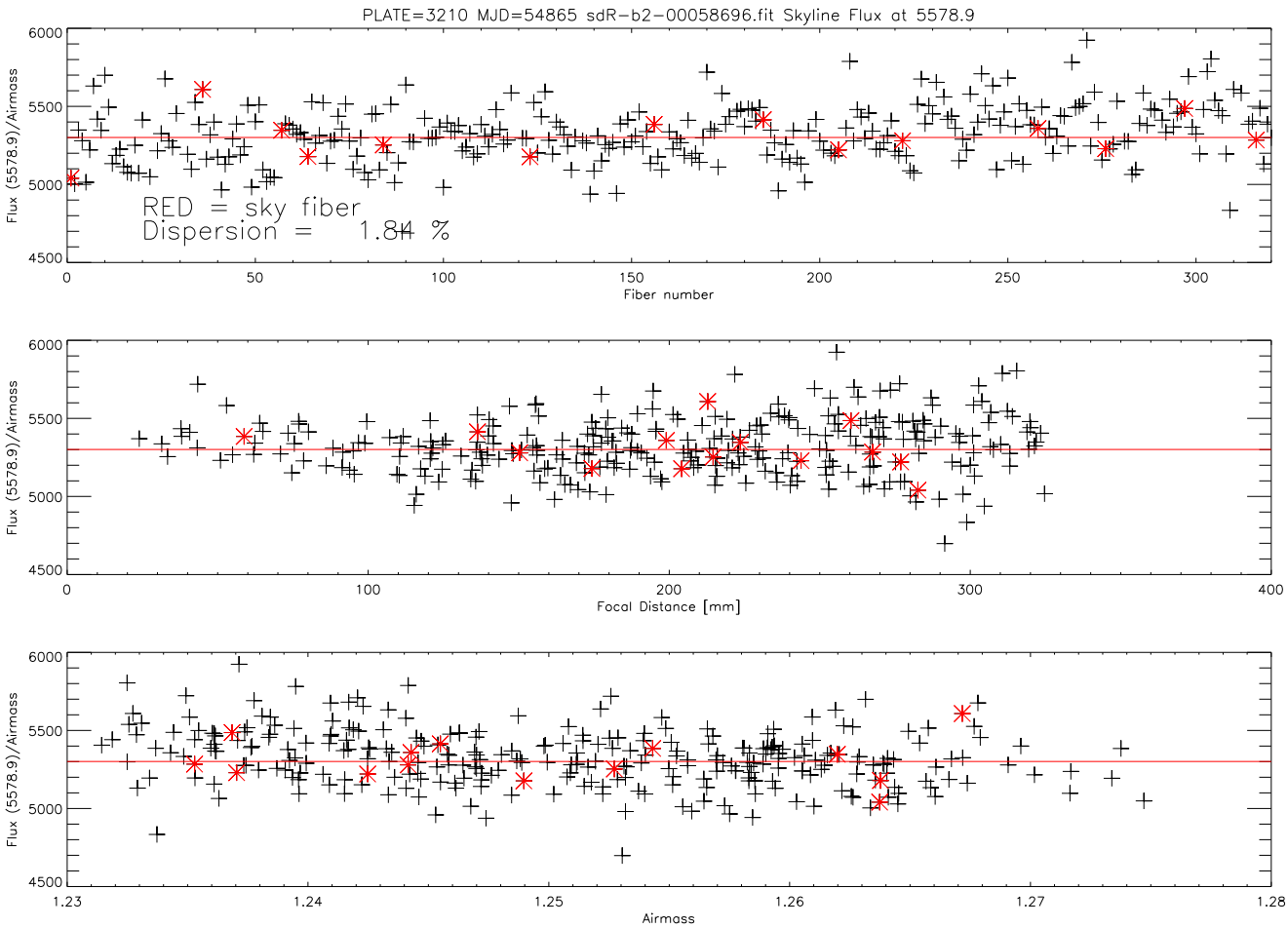

PLATE=3210 MJD=54865 sdR-b2-00058696.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

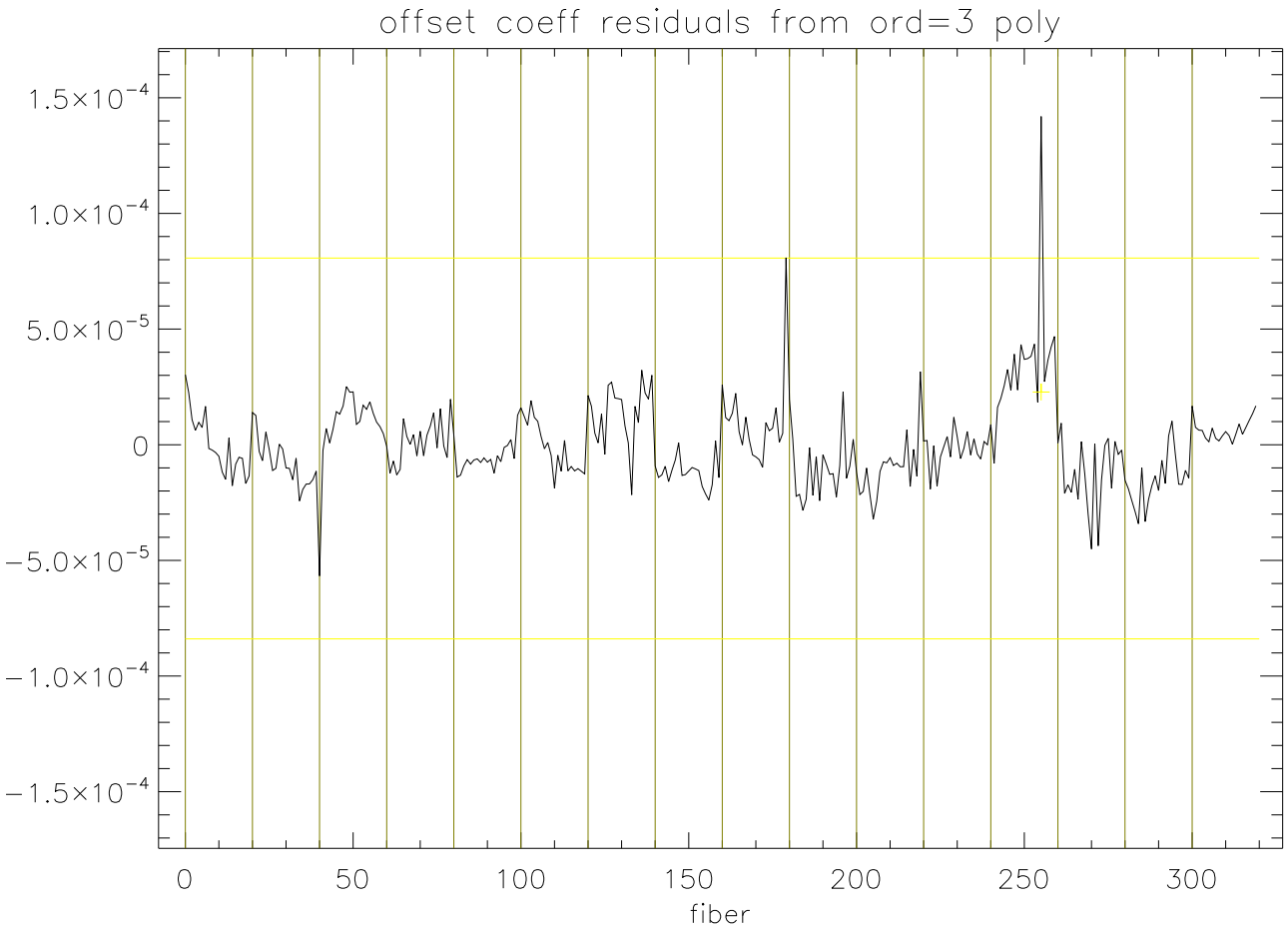

PLATE=3210 MJD=54865 sdR-b2-00058696.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

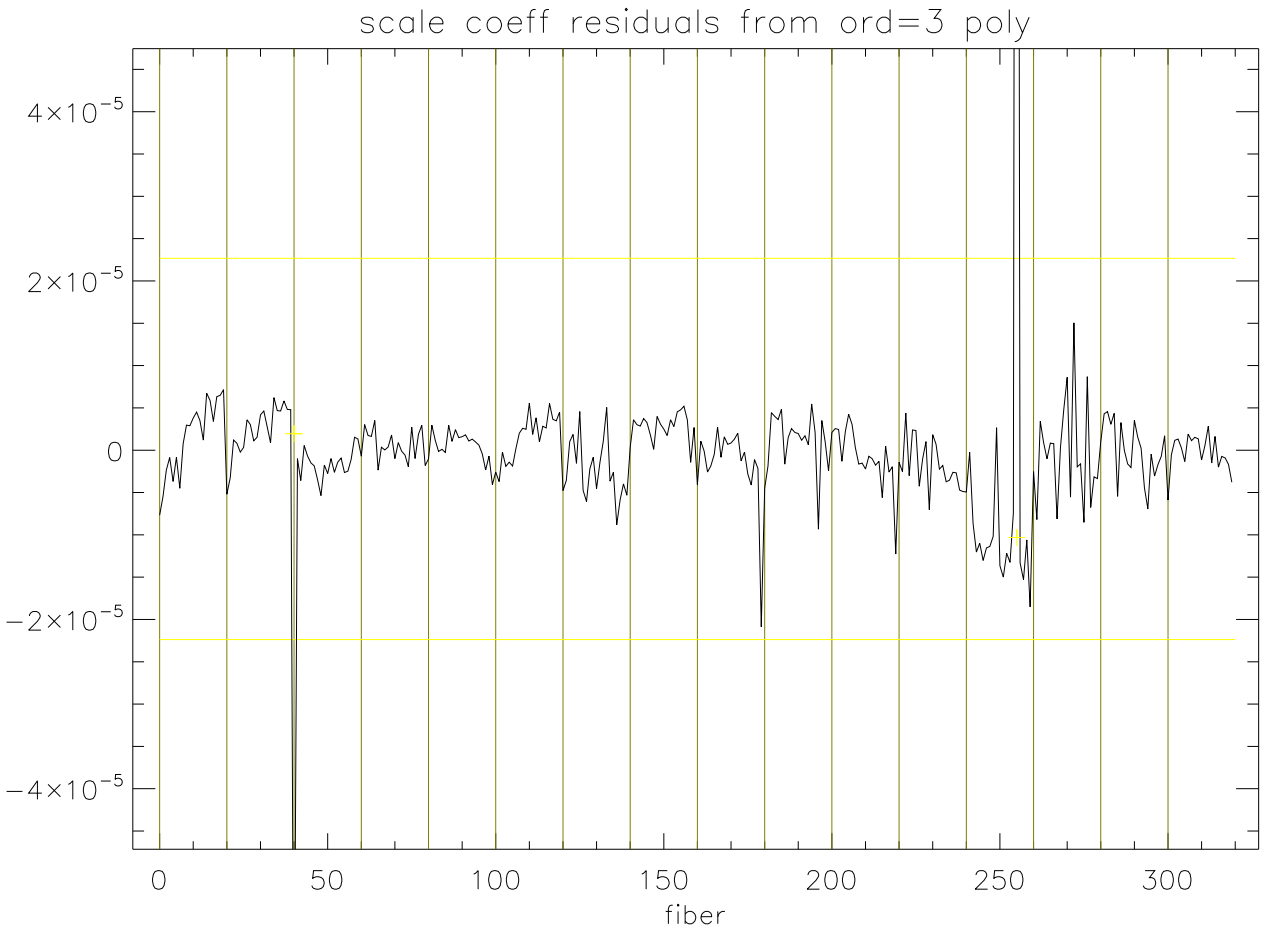

PLATE=3210 MJD=54865 sdR-b2-00058696.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
5570
5575
5580
5585
5590
λ [A]

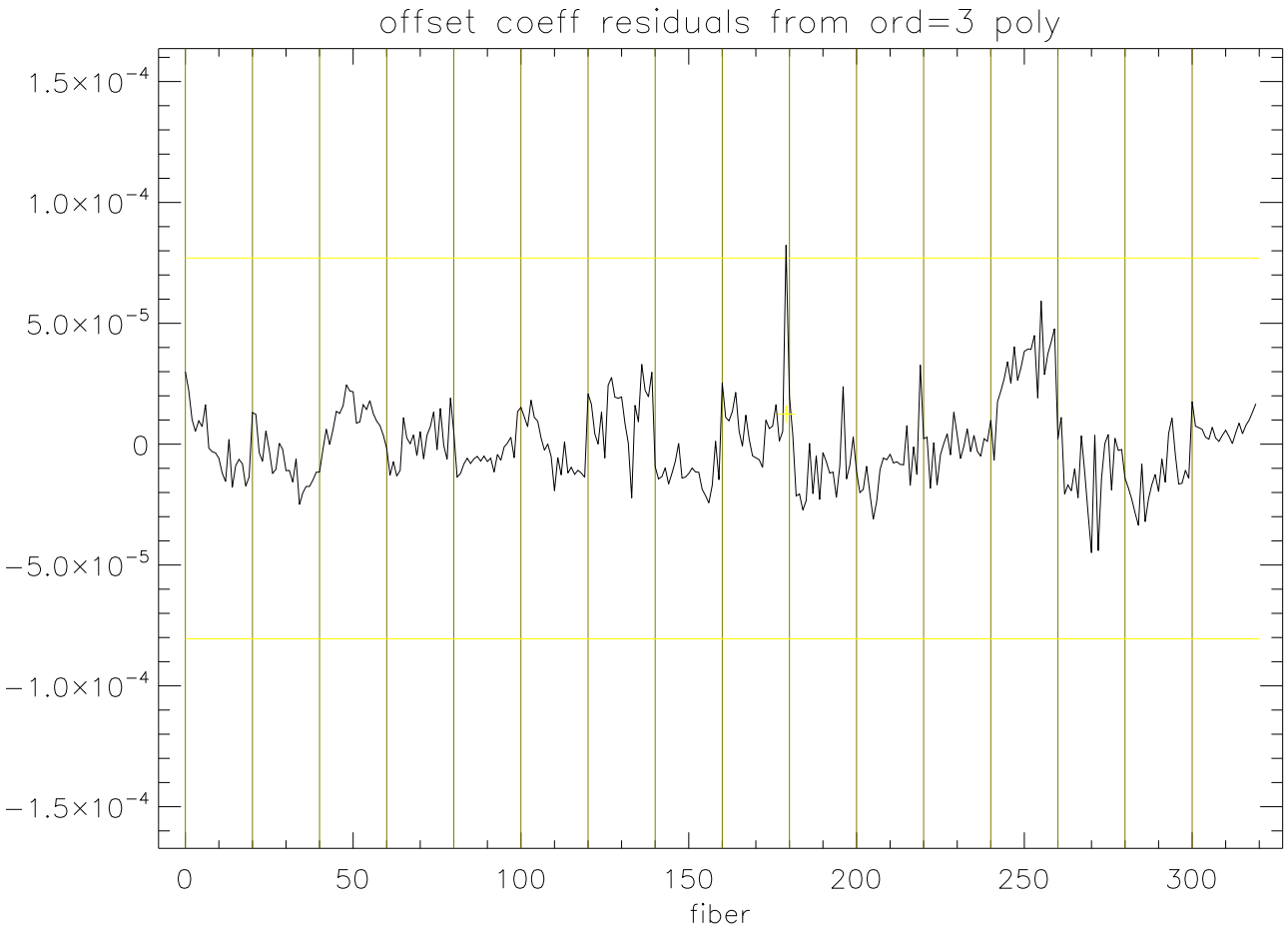

Number of sky fibers = 14
PLATE=3210 MJD=54865 sdR-b2-00058696.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

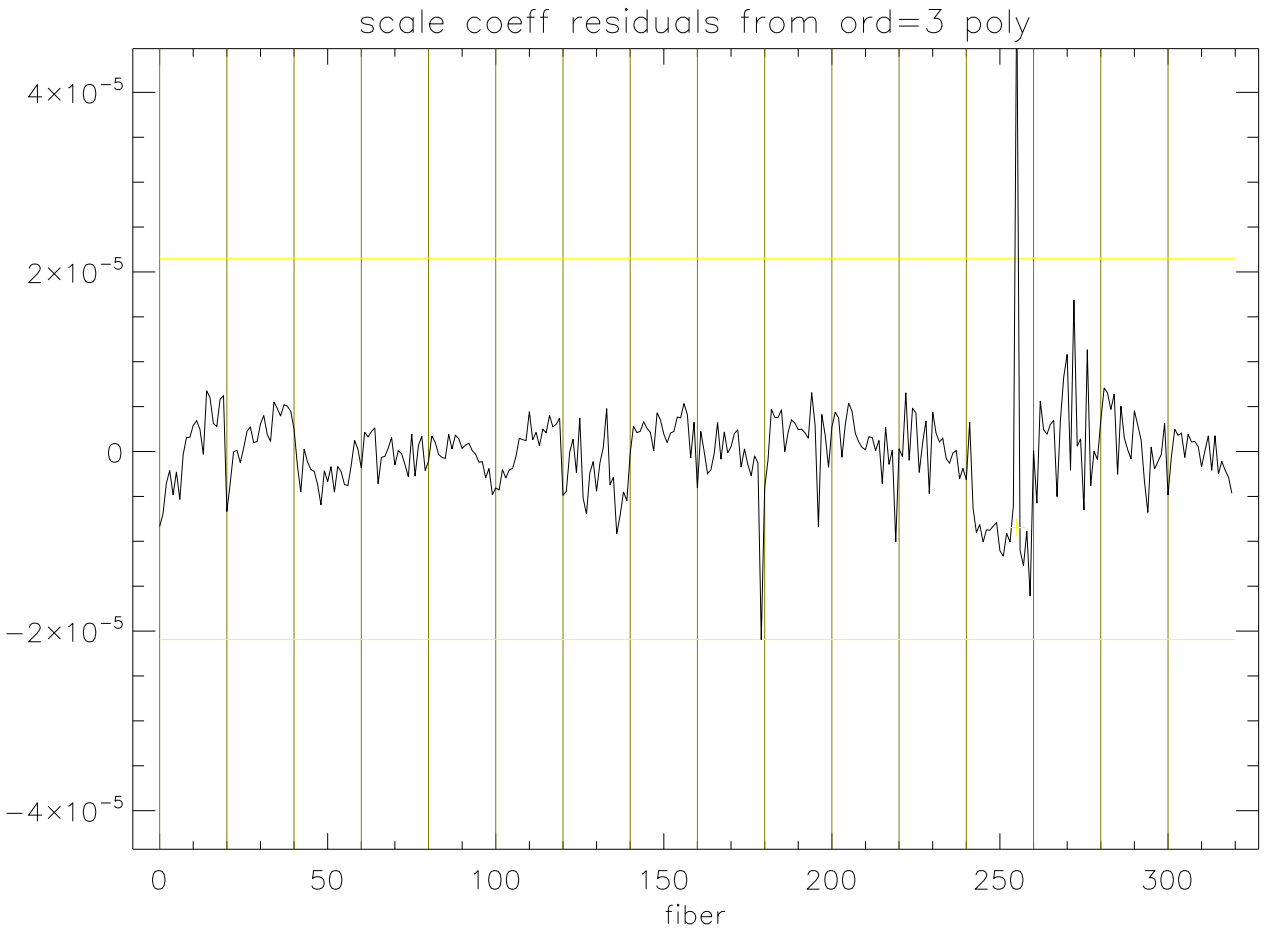

PLATE=3210 MJD=54865 sdR-b2-00058696.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 15.36 %
Fiber number
Focal Distance [mm]
Airmass

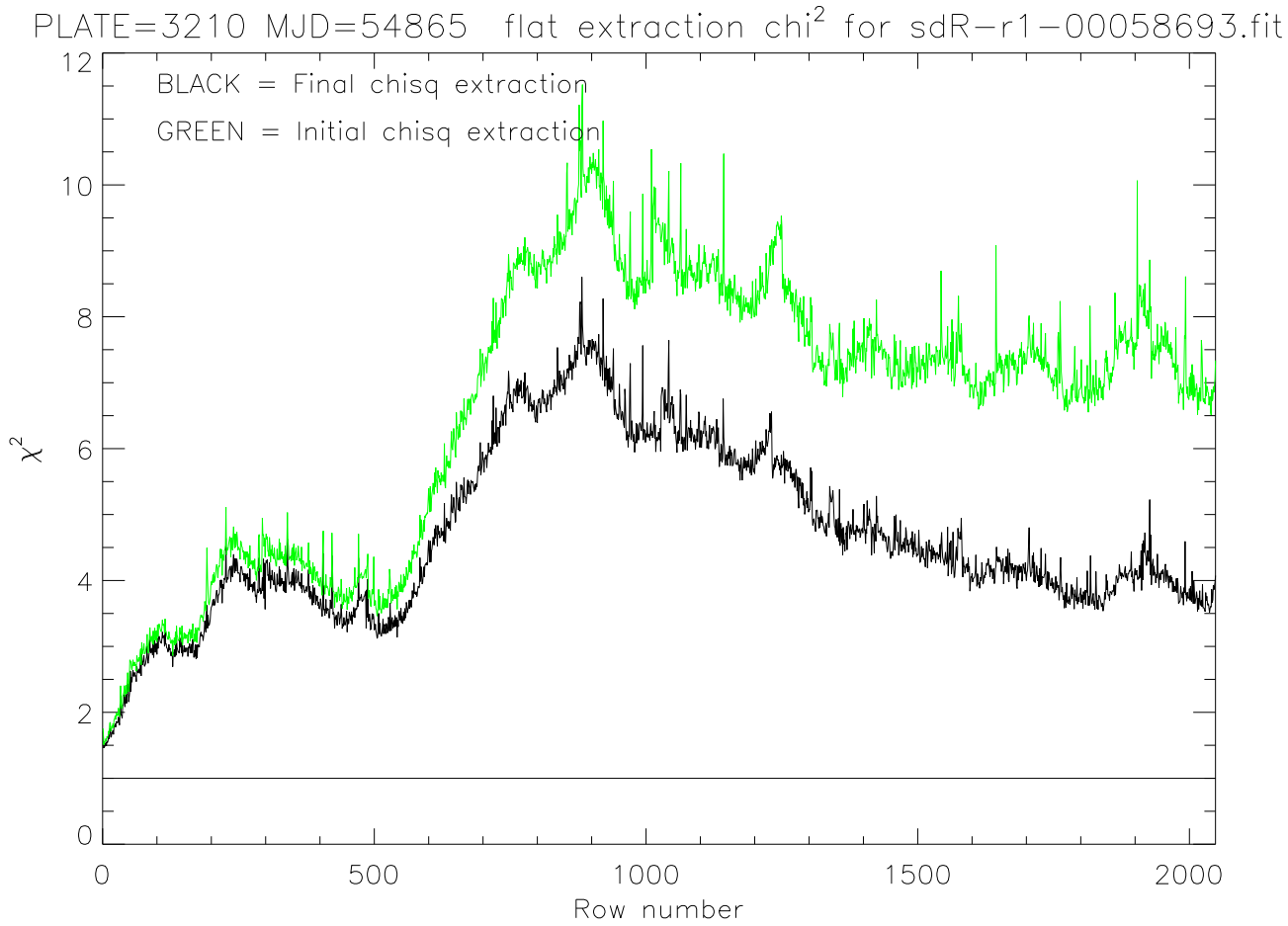

PLATE=3210 MJD=54865 sdR-b2-00058696.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 1.84 %
Fiber number
Flux (5578.9)/Airmass
Focal Distance [mm]
Flux (5578.9)/Airmass
Airmass

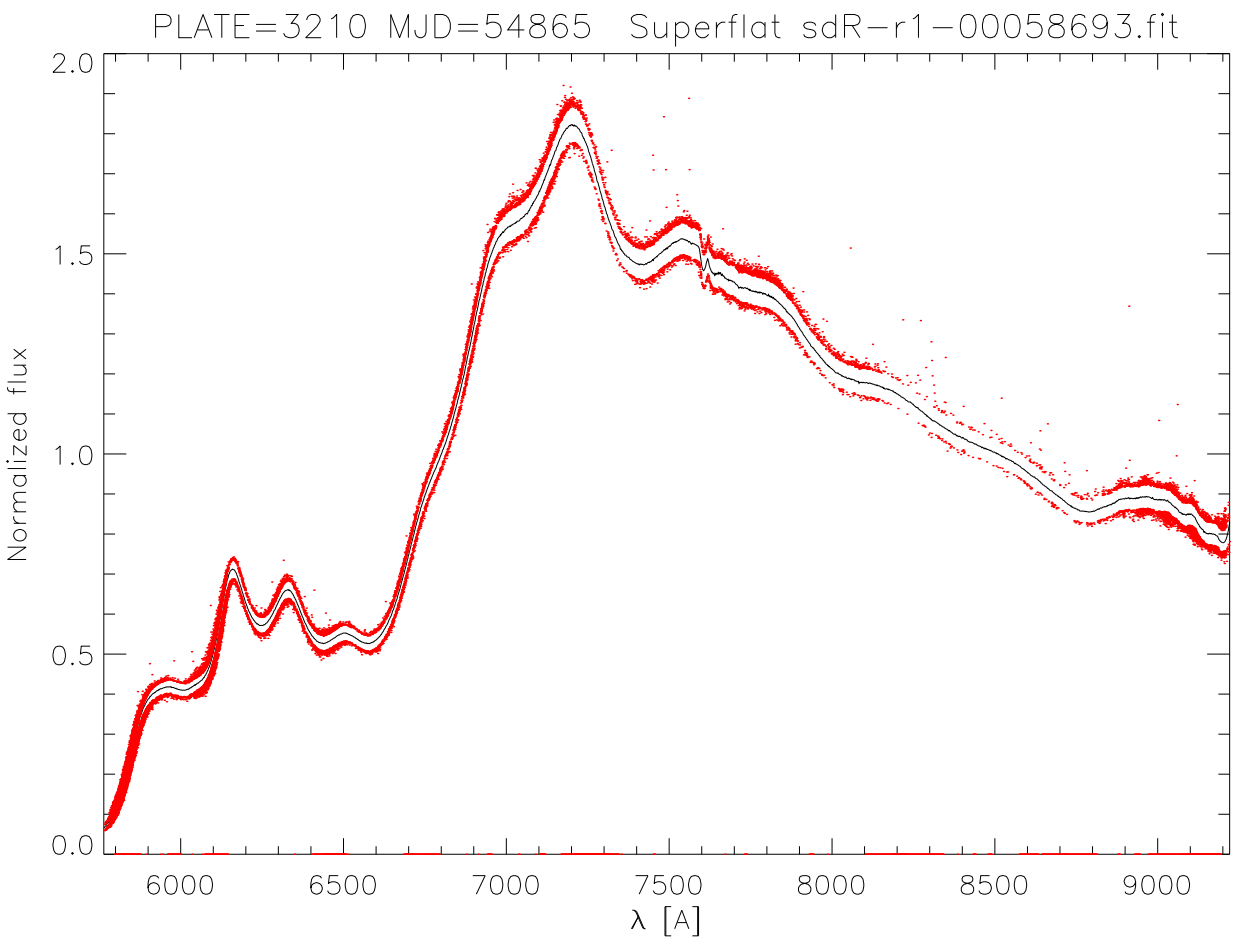

offset coeff residuals from ord=3 poly
1.5×10⁻⁴
1.0×10⁻⁴
5.0×10⁻⁵
0
−5.0×10⁻⁵
−1.0×10⁻⁴
−1.5×10⁻⁴
0
50
100
150
200
250
300
fiber

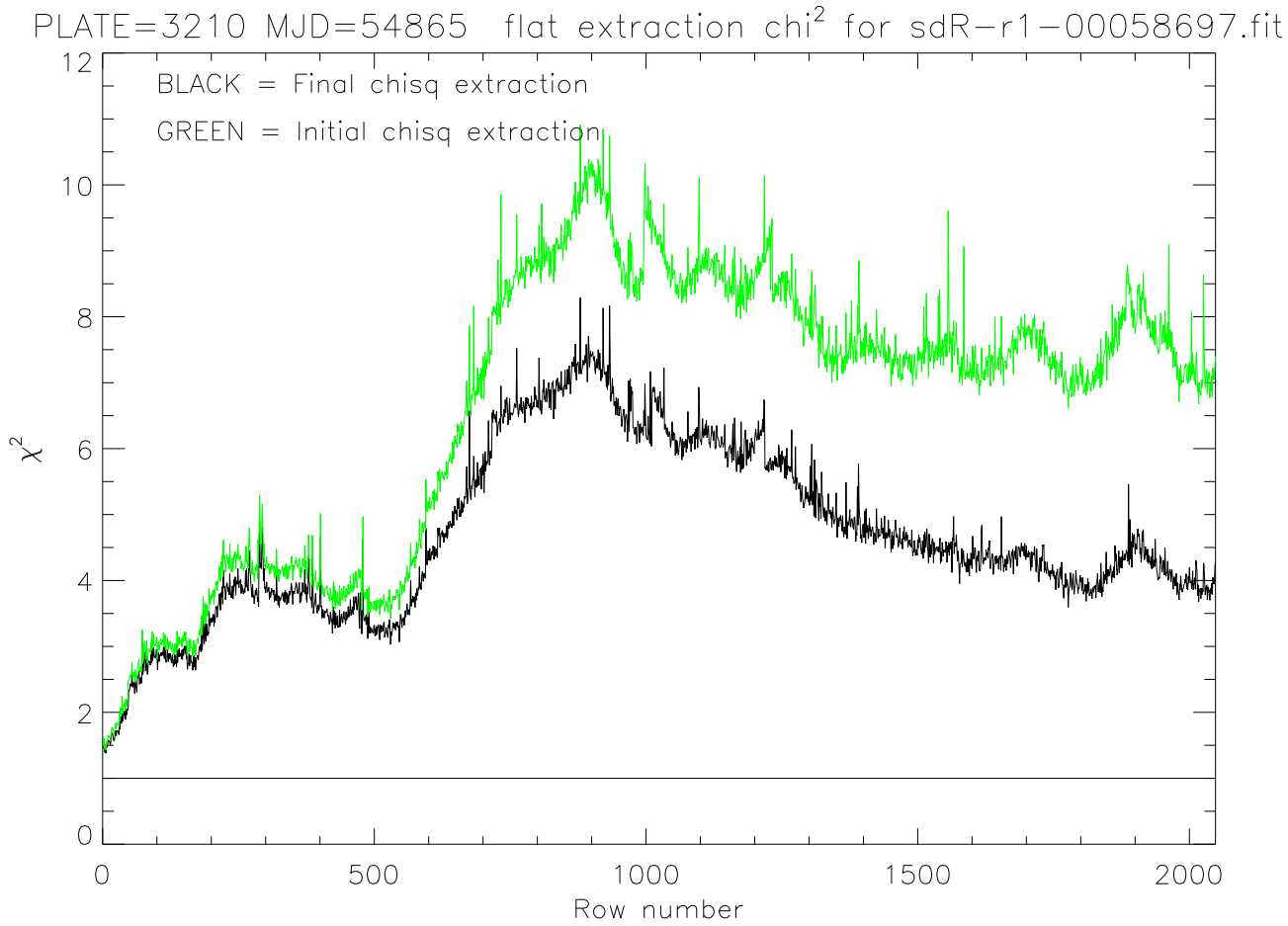

scale coeff residuals from ord=3 poly
4×10⁻⁵
2×10⁻⁵
0
−2×10⁻⁵
−4×10⁻⁵
0
50
100
150
200
250
300
fiber

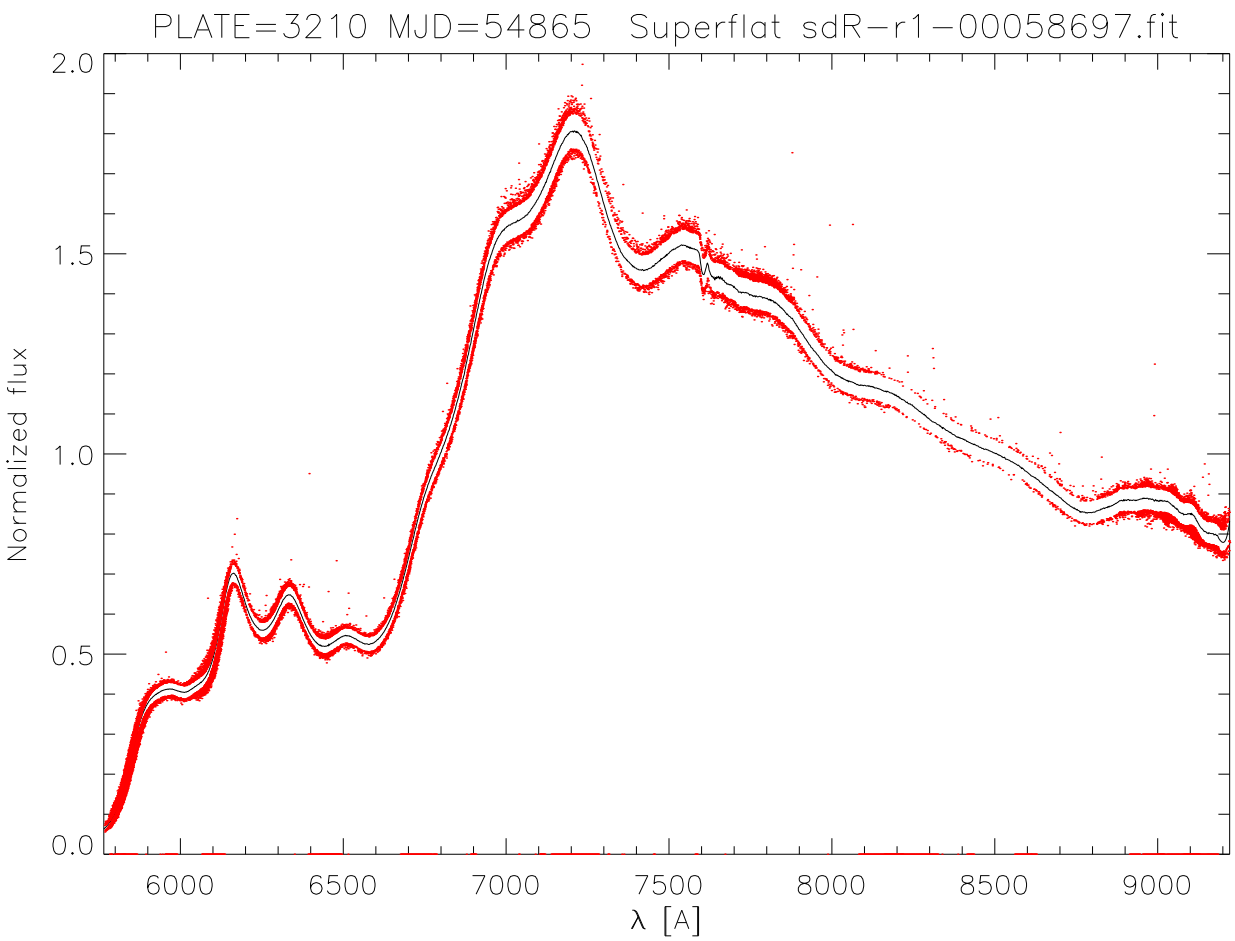

offset coeff residuals from ord=3 poly
1.5×10^-4
1.0×10^-4
5.0×10^-5
0
−5.0×10^-5
−1.0×10^-4
−1.5×10^-4
0
50
100
150
200
250
300
fiber

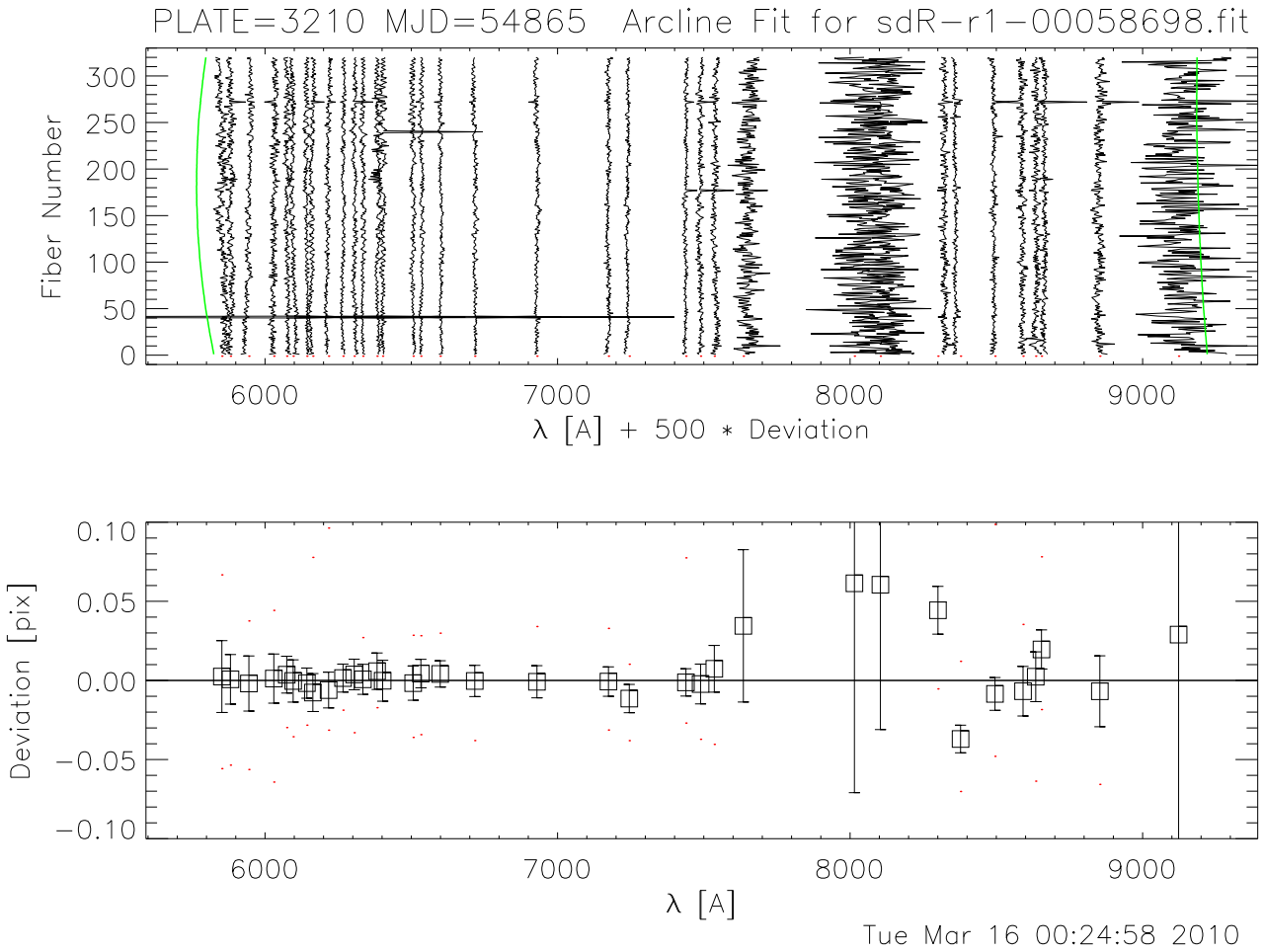

scale coeff residuals from ord=3 poly
4×10^-5
2×10^-5
0
−2×10^-5
−4×10^-5
0
50
100
150
200
250
300
fiber

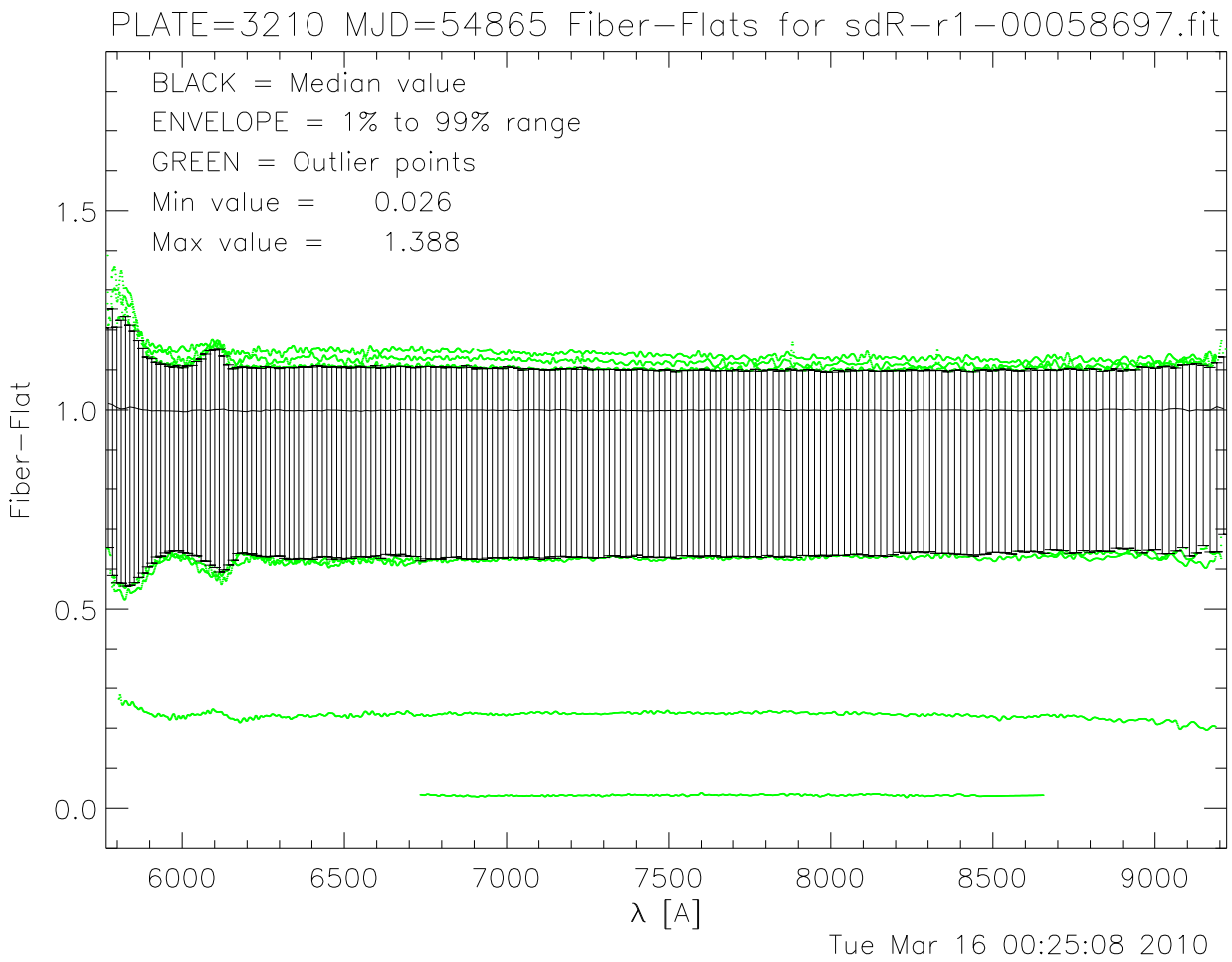

PLATE=3210 MJD=54865 flat extraction chi^2 for sdR−r1−00058693.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
2
4
6
8
10
12
0
500
1000
1500
2000

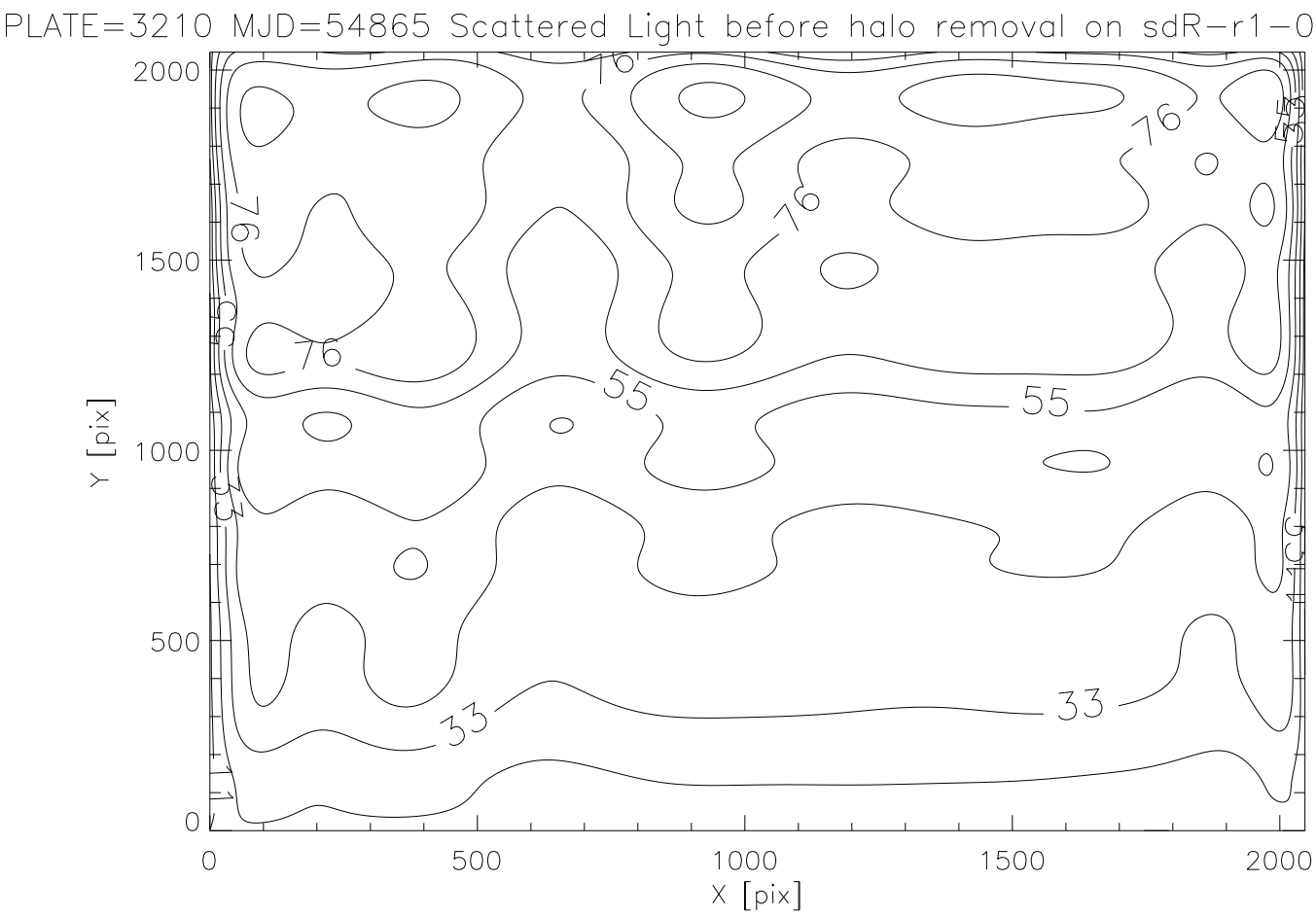

PLATE=3210 MJD=54865 Superflat sdR-r1-00058693.fit
Normalized flux
2.0
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

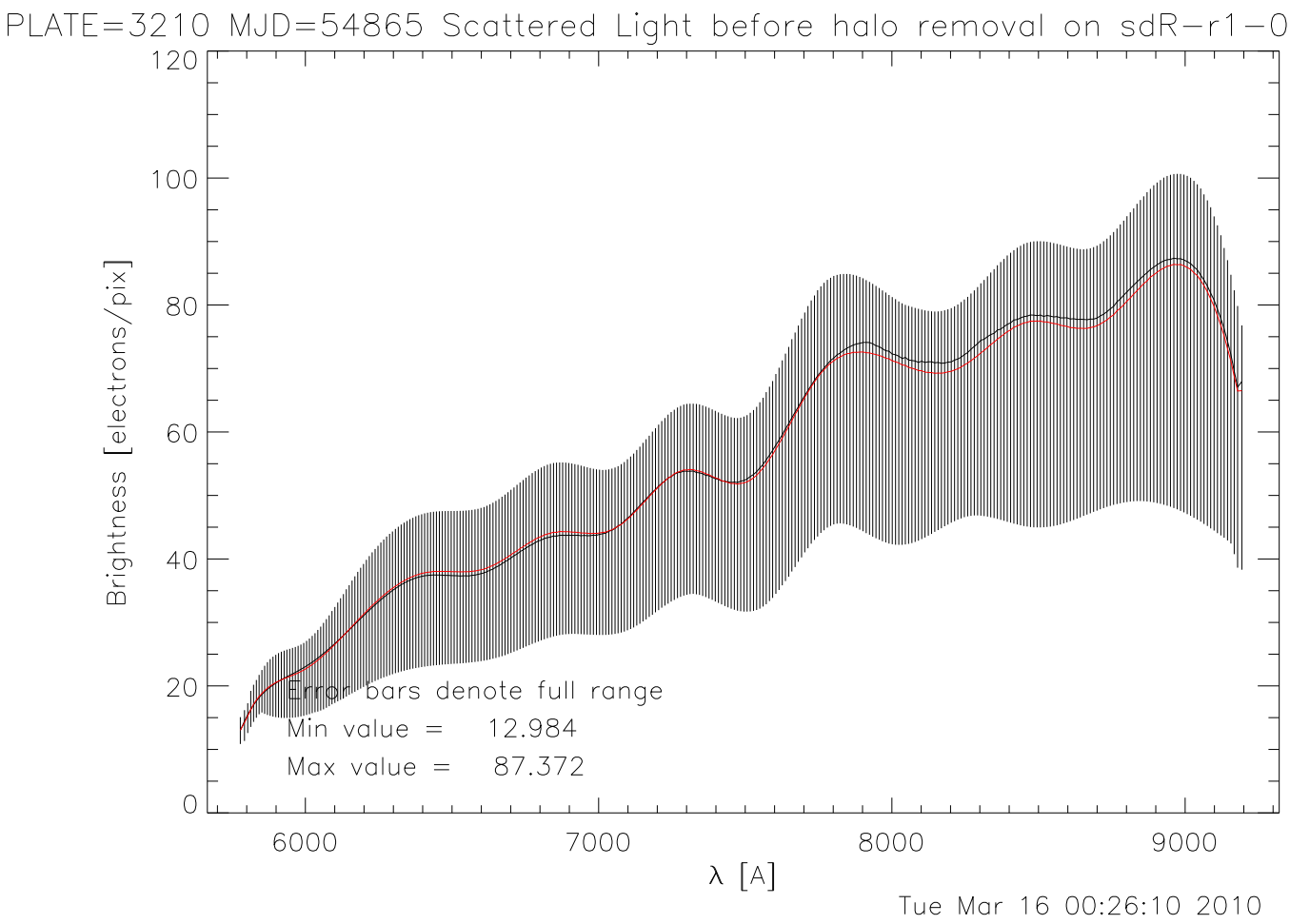

PLATE=3210 MJD=54865 flat extraction chi^2 for sdR−r1−00058697.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
2
4
6
8
10
12
0
500
1000
1500
2000

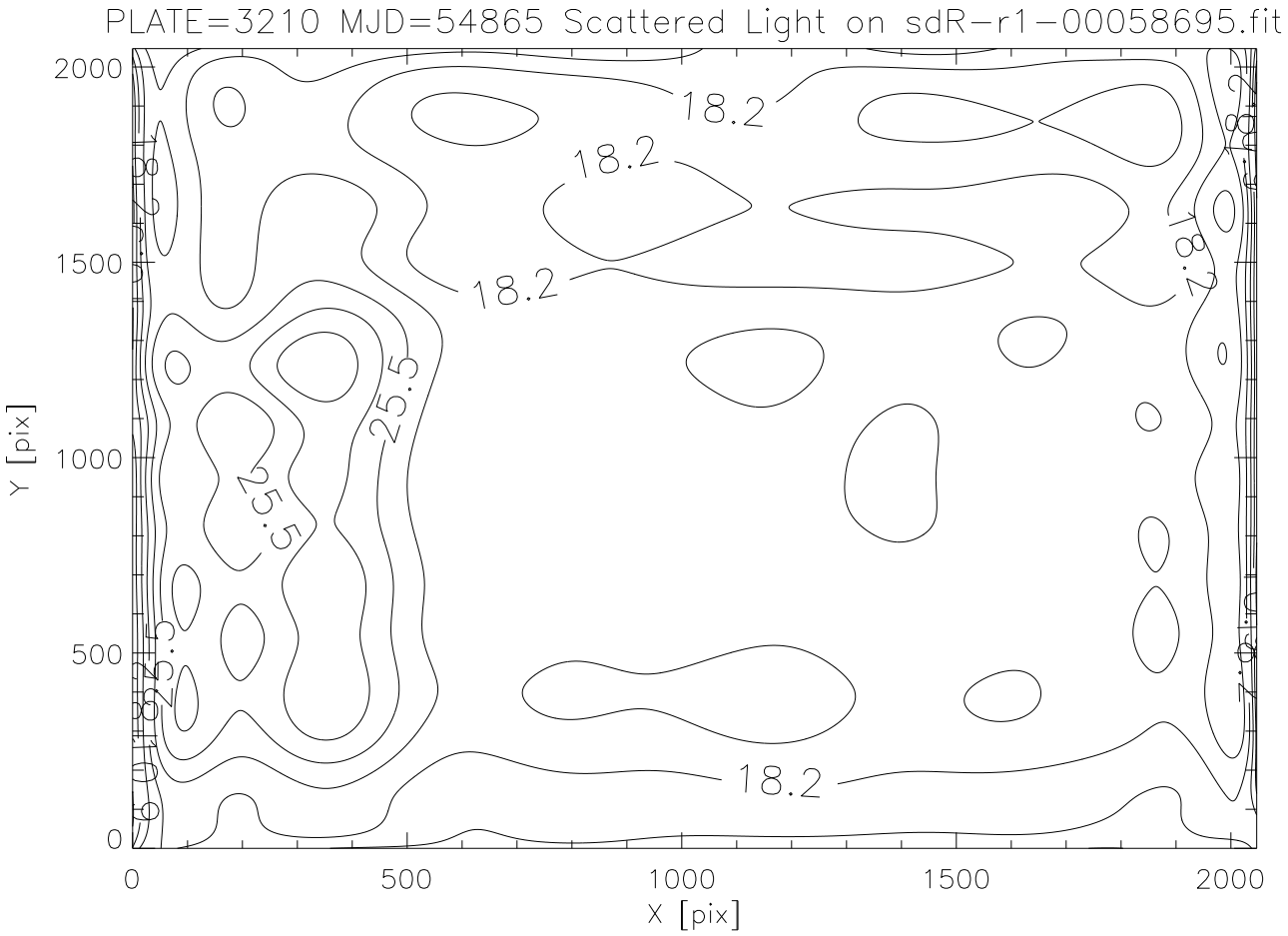

PLATE=3210 MJD=54865 Superflat sdR-r1-00058697.fit
Normalized flux
2.0
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

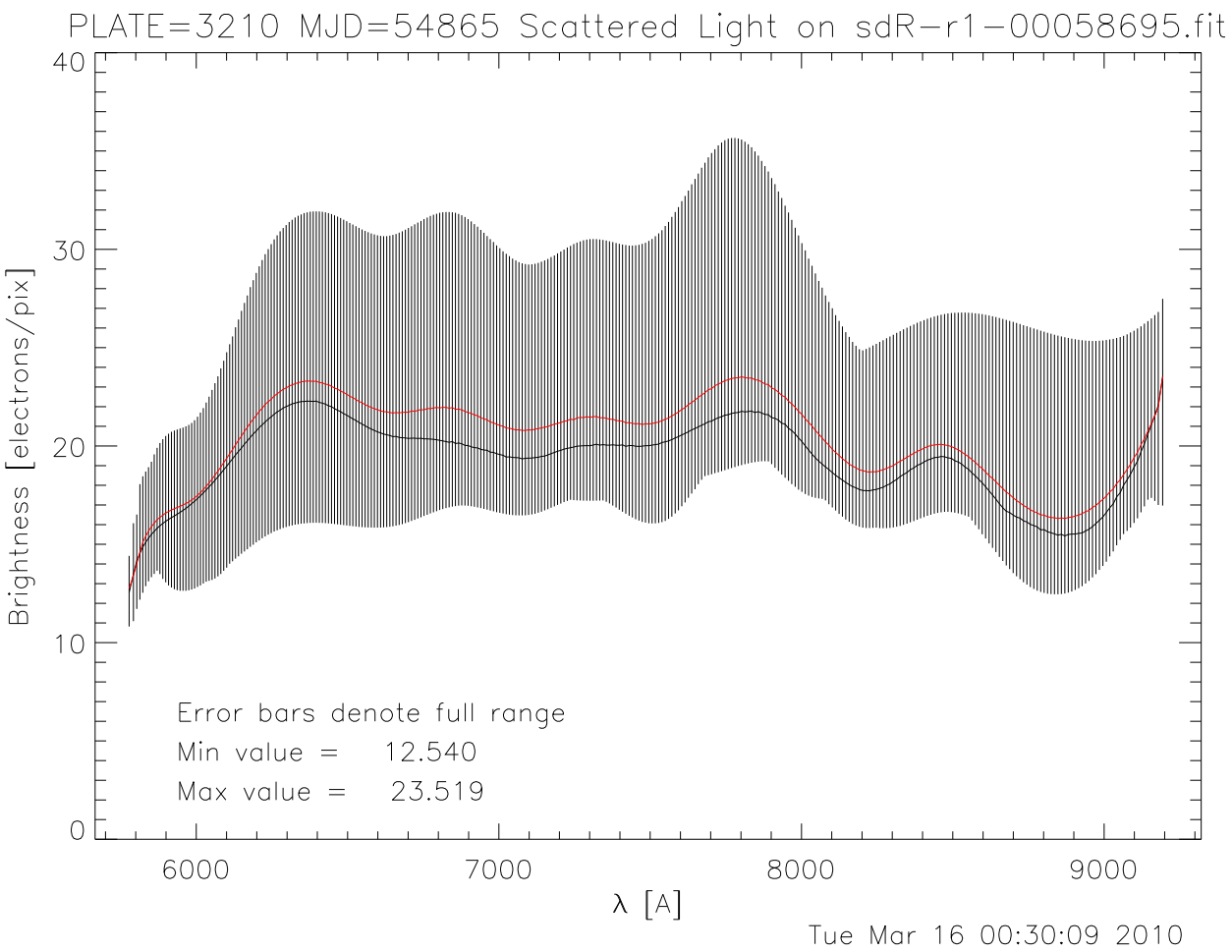

PLATE=3210 MJD=54865 Arcline Fit for sdR-r1-00058698.fit
Fiber Number
300
250
200
150
100
50
0
6000
7000
8000
9000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
6000
7000
8000
9000
λ [A]
Tue Mar 16 00:24:58 2010

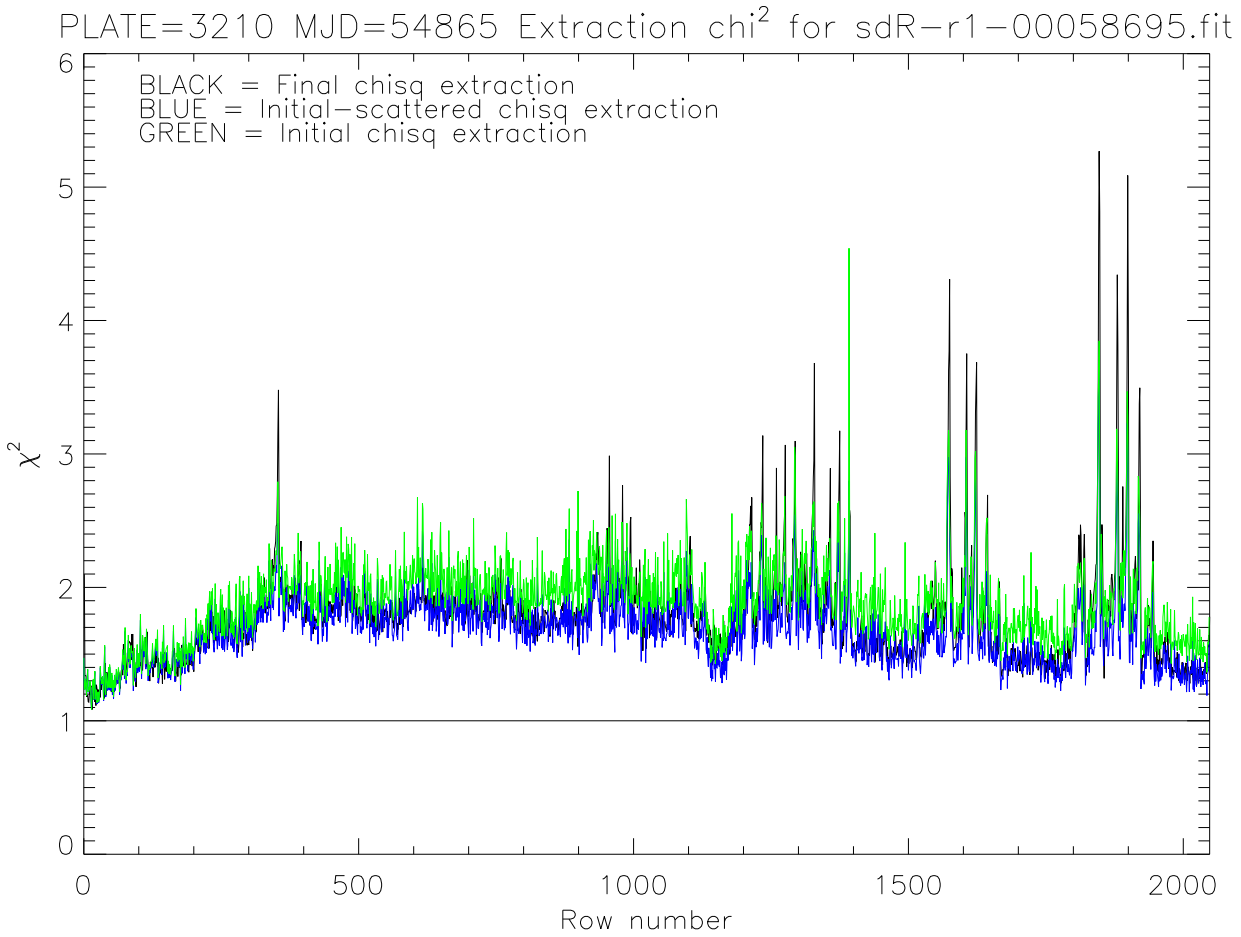

PLATE=3210 MJD=54865 Fiber−Flats for sdR−r1−00058697.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.026
Max value = 1.388
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Tue Mar 16 00:25:08 2010

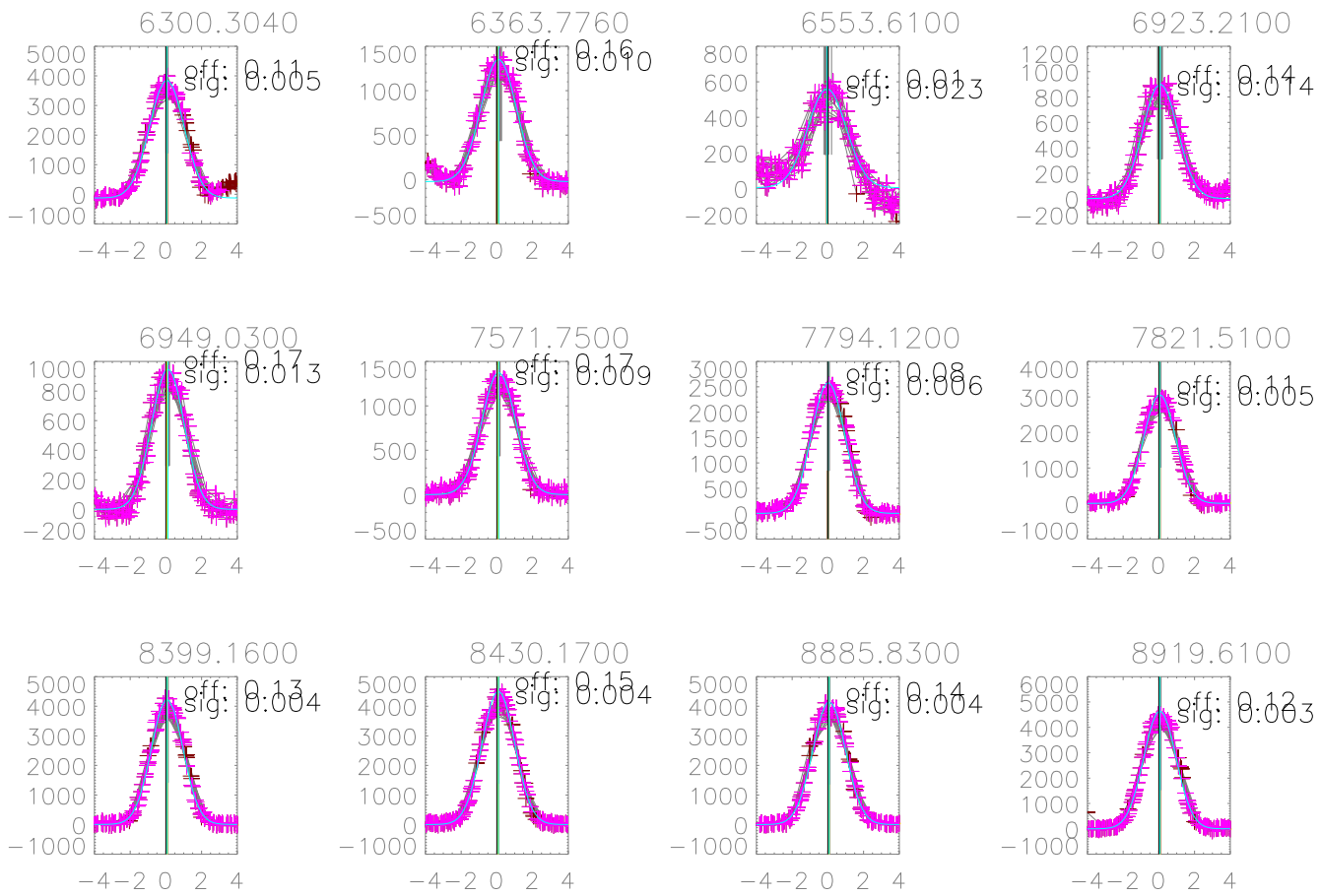

PLATE=3210 MJD=54865 Scattered Light before halo removal on sdR-r1-00058695.fi
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
76
55
33
0

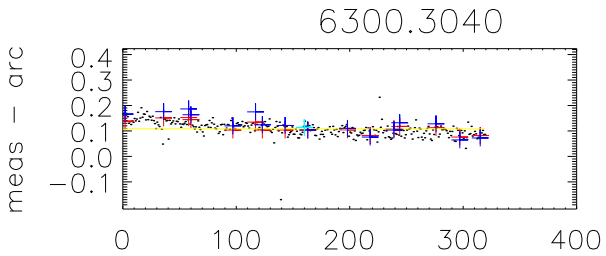

PLATE=3210 MJD=54865 Scattered Light before halo removal on sdR-r1-00058695.fi
Brightness [electrons/pix]
120
100
80
60
40
20
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 12.984
Max value = 87.372
Tue Mar 16 00:26:10 2010

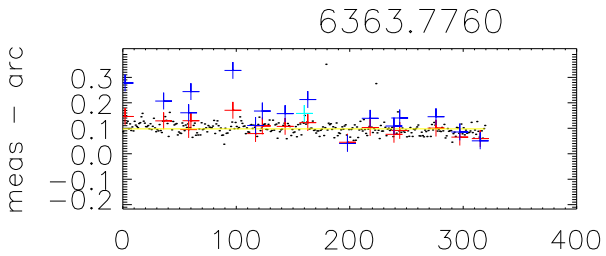

PLATE=3210 MJD=54865 Scattered Light on sdR−r1−00058695.fit
18.2
18.2
18.2
18.2
25.5
35.5
25.5
0
0
500
1000
1500
2000
X [pix]
Y [pix]

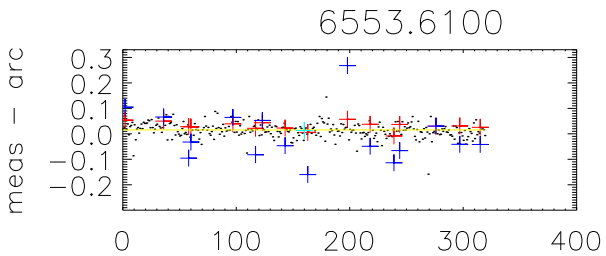

PLATE=3210 MJD=54865 Scattered Light on sdR-r1-00058695.fit
Brightness [electrons/pix]
40
30
20
10
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 12.540
Max value = 23.519
Tue Mar 16 00:30:09 2010

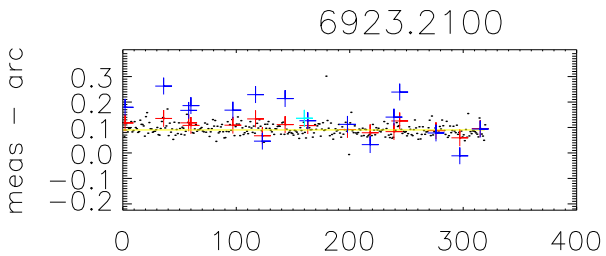

PLATE=3210 MJD=54865 Extraction chi^2 for sdR−r1−00058695.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
1
2
3
4
5
6
0
500
1000
1500
2000

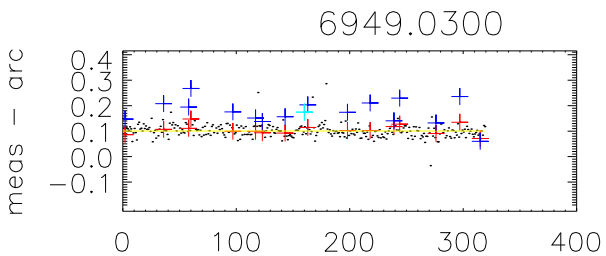

6300.3040
off: 0.11
sig: 0.005
6363.7760
off: 0.16
sig: 0.010
6553.6100
off: 0.01
sig: 0.023
6923.2100
off: 0.14
sig: 0.014
6949.0300
off: 0.17
sig: 0.013
7571.7500
off: 0.17
sig: 0.009
7794.1200
off: 0.08
sig: 0.006
7821.5100
off: 0.11
sig: 0.005
8399.1600
off: 0.13
sig: 0.004
8430.1700
off: 0.15
sig: 0.004
8885.8300
off: 0.14
sig: 0.004
8919.6100
off: 0.12
sig: 0.003

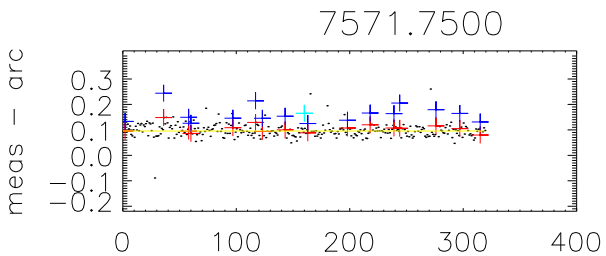

6300.3040
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

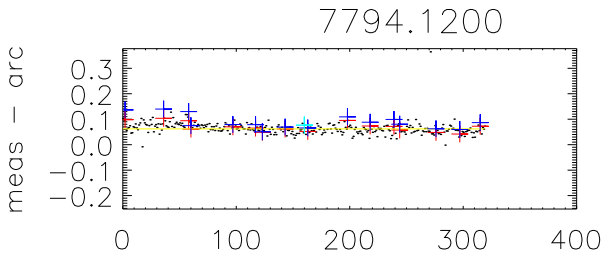

6363.7760
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

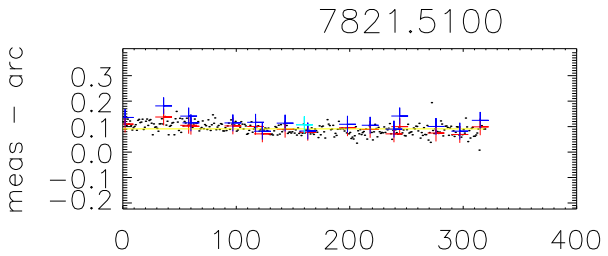

6553.6100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

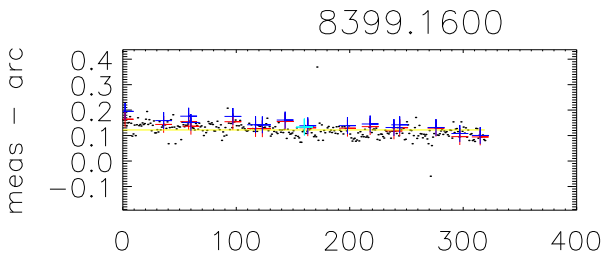

6923.2100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

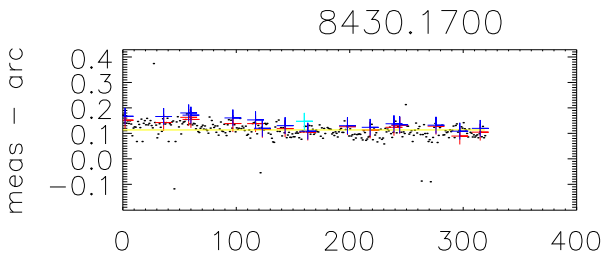

6949.0300
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

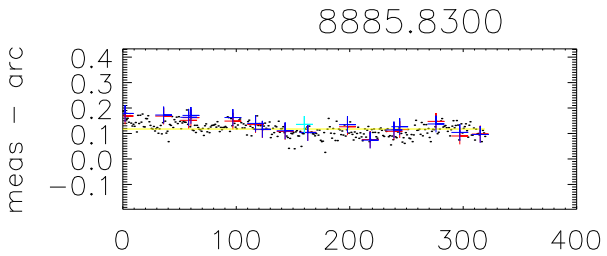

7571.7500
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

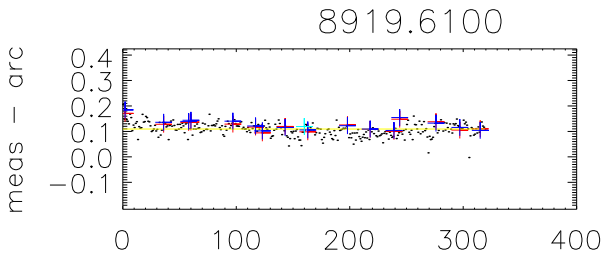

7794.1200
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

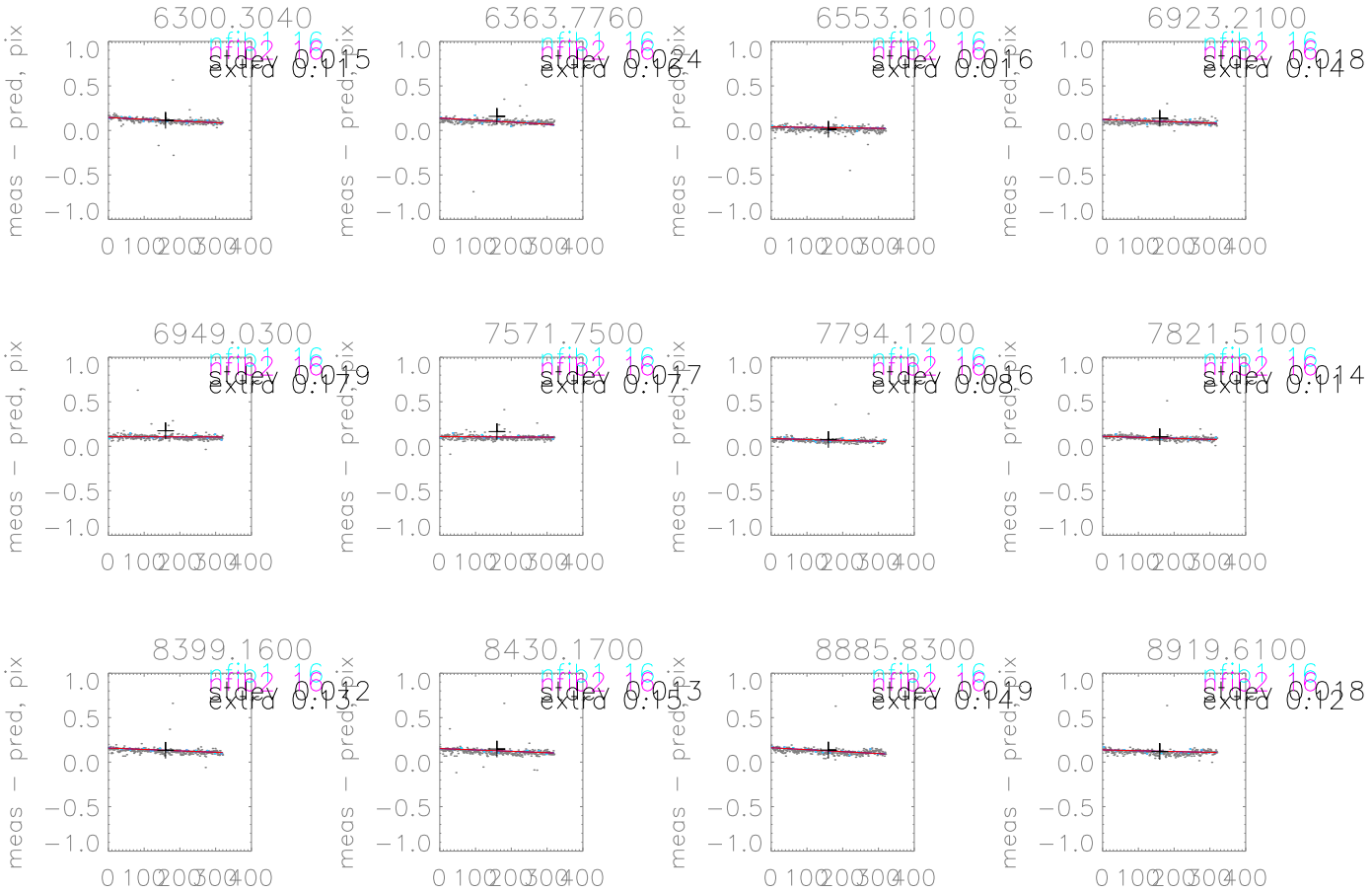

7821.5100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

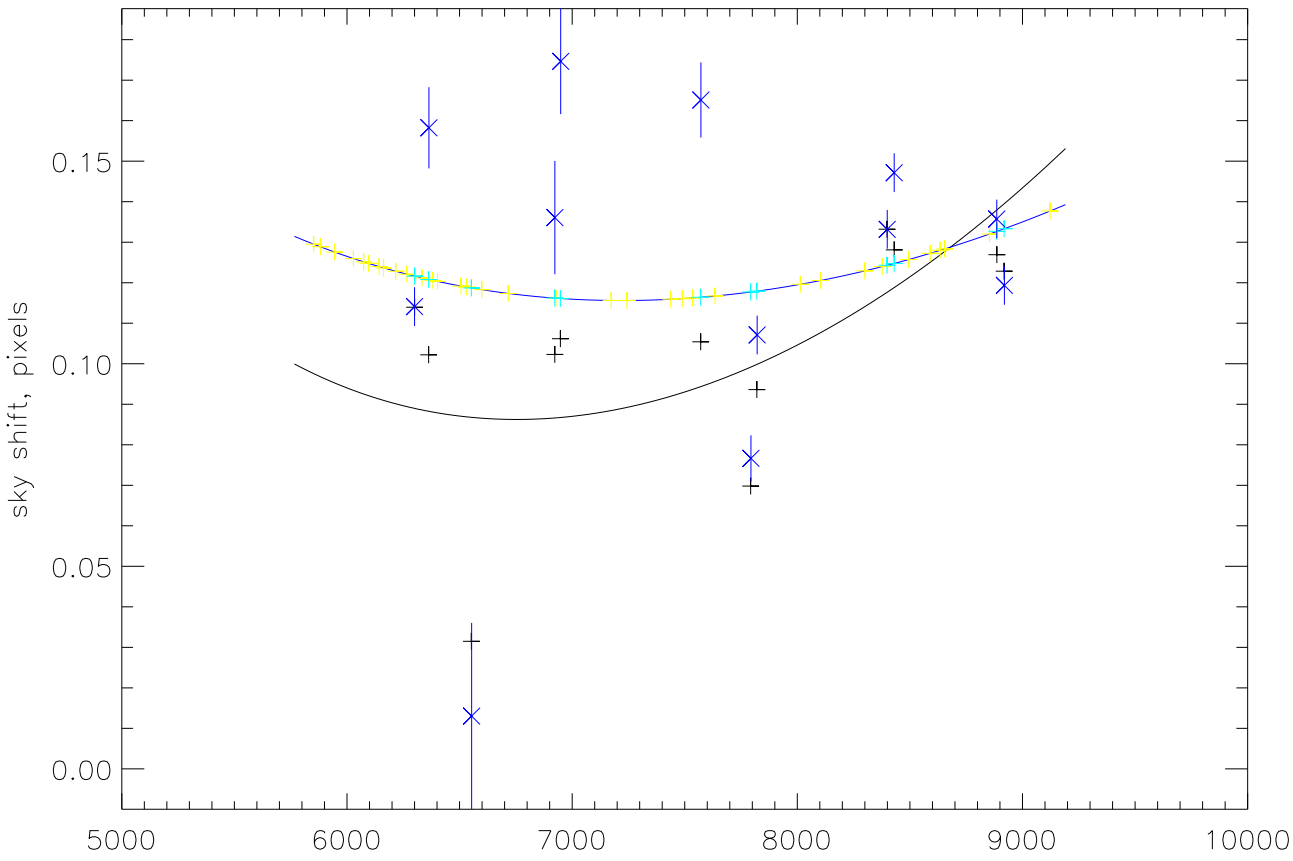

8399.1600
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

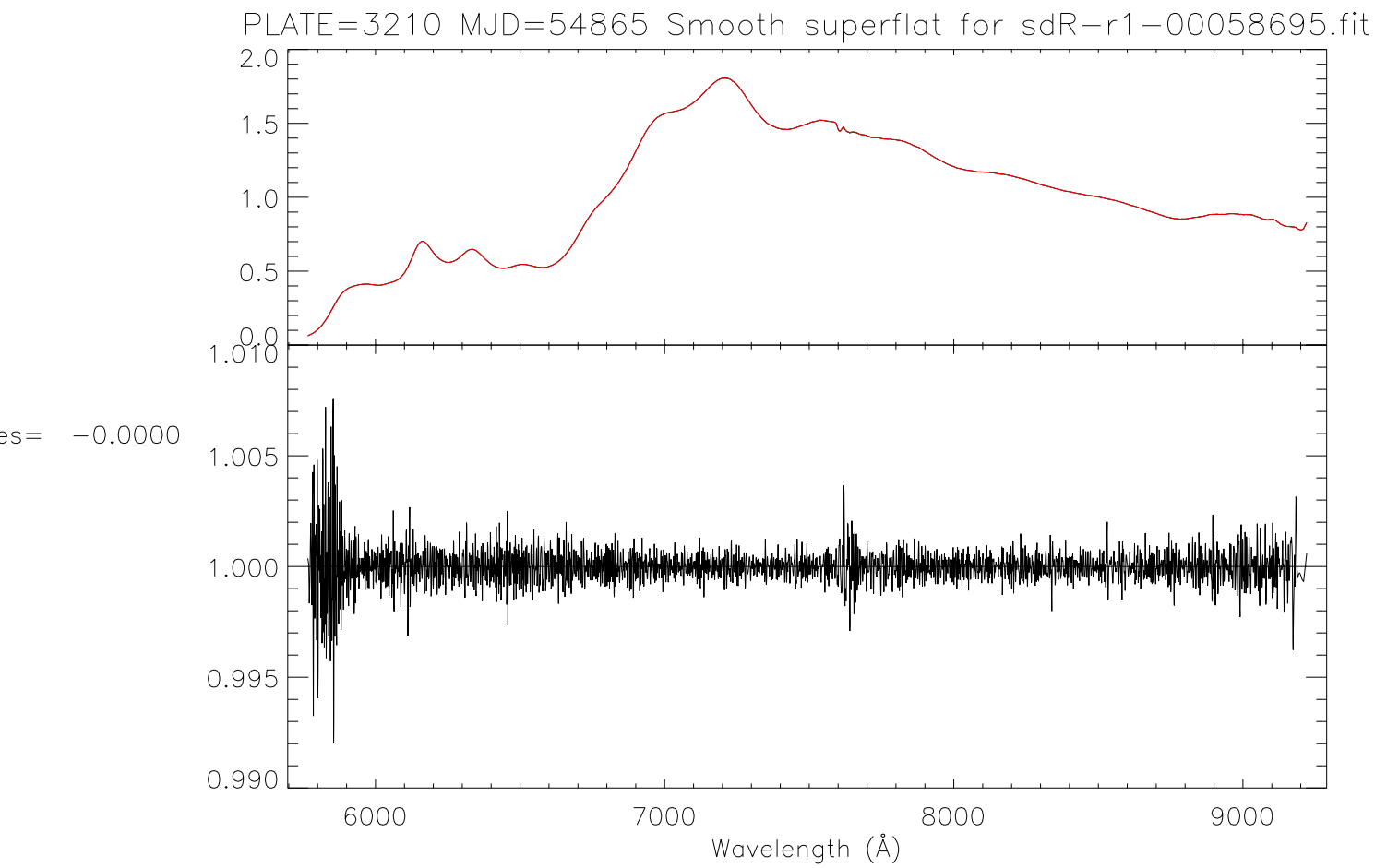

8430.1700
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

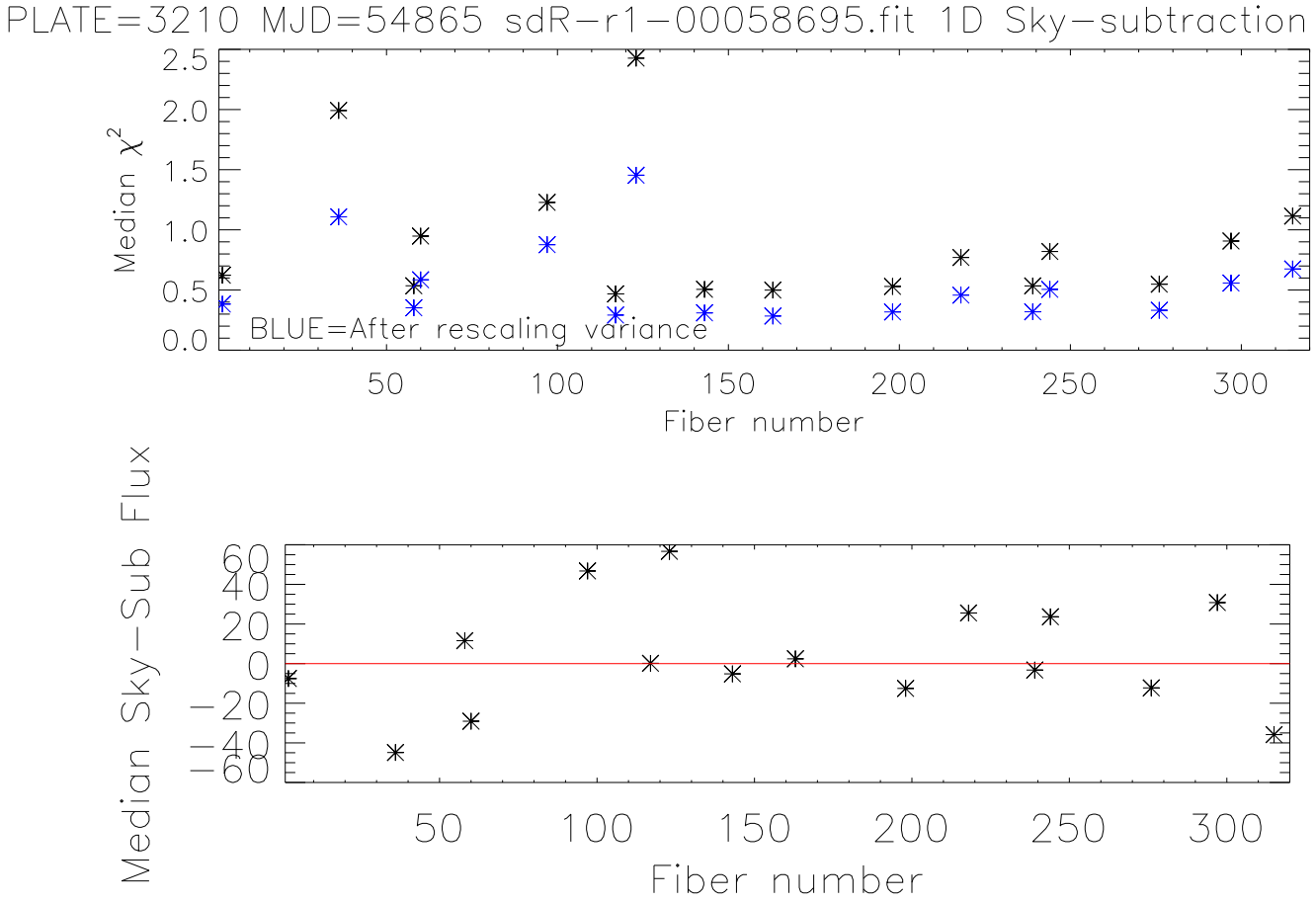

8885.8300
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

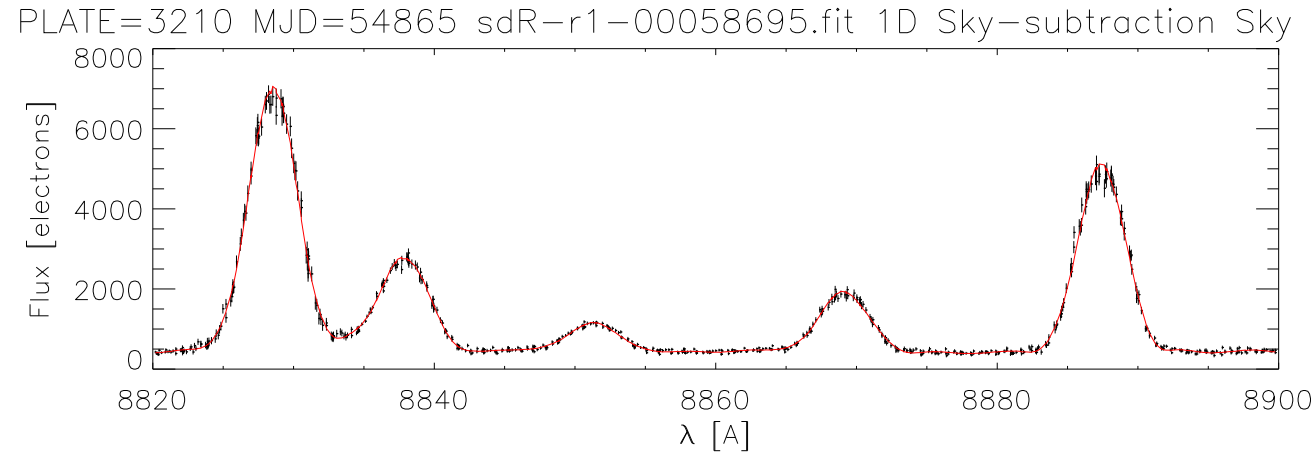

8919.6100
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

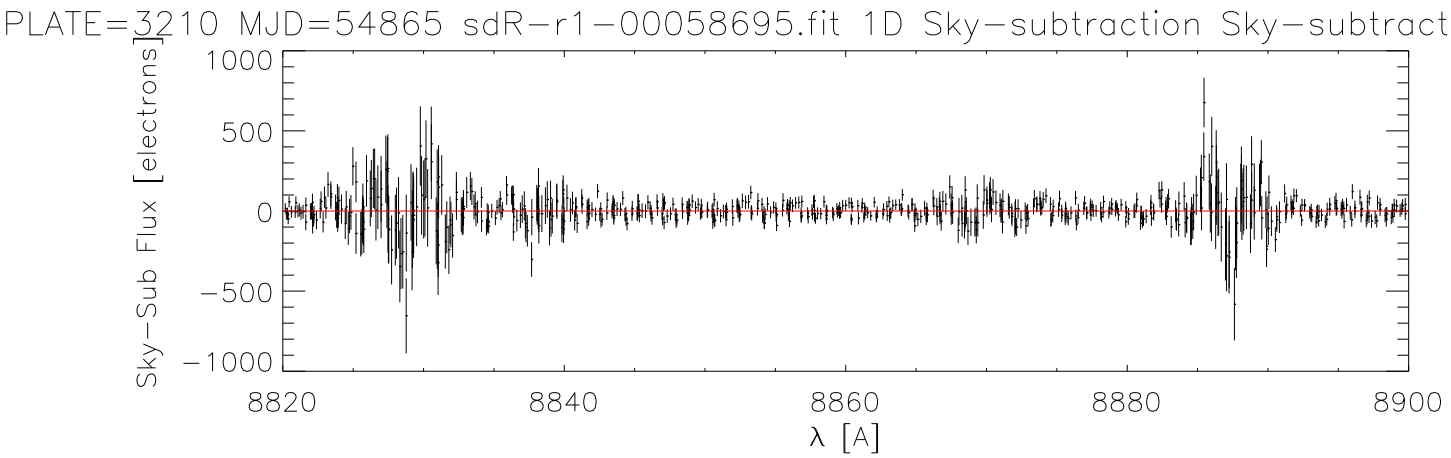

6300.3040
stdev 0.015
extra 0.11
6363.7760
stdev 0.024
extra 0.16
6553.6100
stdev 0.016
extra 0.01
6923.2100
stdev 0.018
extra 0.14
6949.0300
stdev 0.019
extra 0.17
7571.7500
stdev 0.017
extra 0.17
7794.1200
stdev 0.016
extra 0.08
7821.5100
stdev 0.014
extra 0.11
8399.1600
stdev 0.012
extra 0.13
8430.1700
stdev 0.013
extra 0.15
8885.8300
stdev 0.019
extra 0.14
8919.6100
stdev 0.018
extra 0.12
meas − pred, pix
mfbx1 16
mfbx2 16

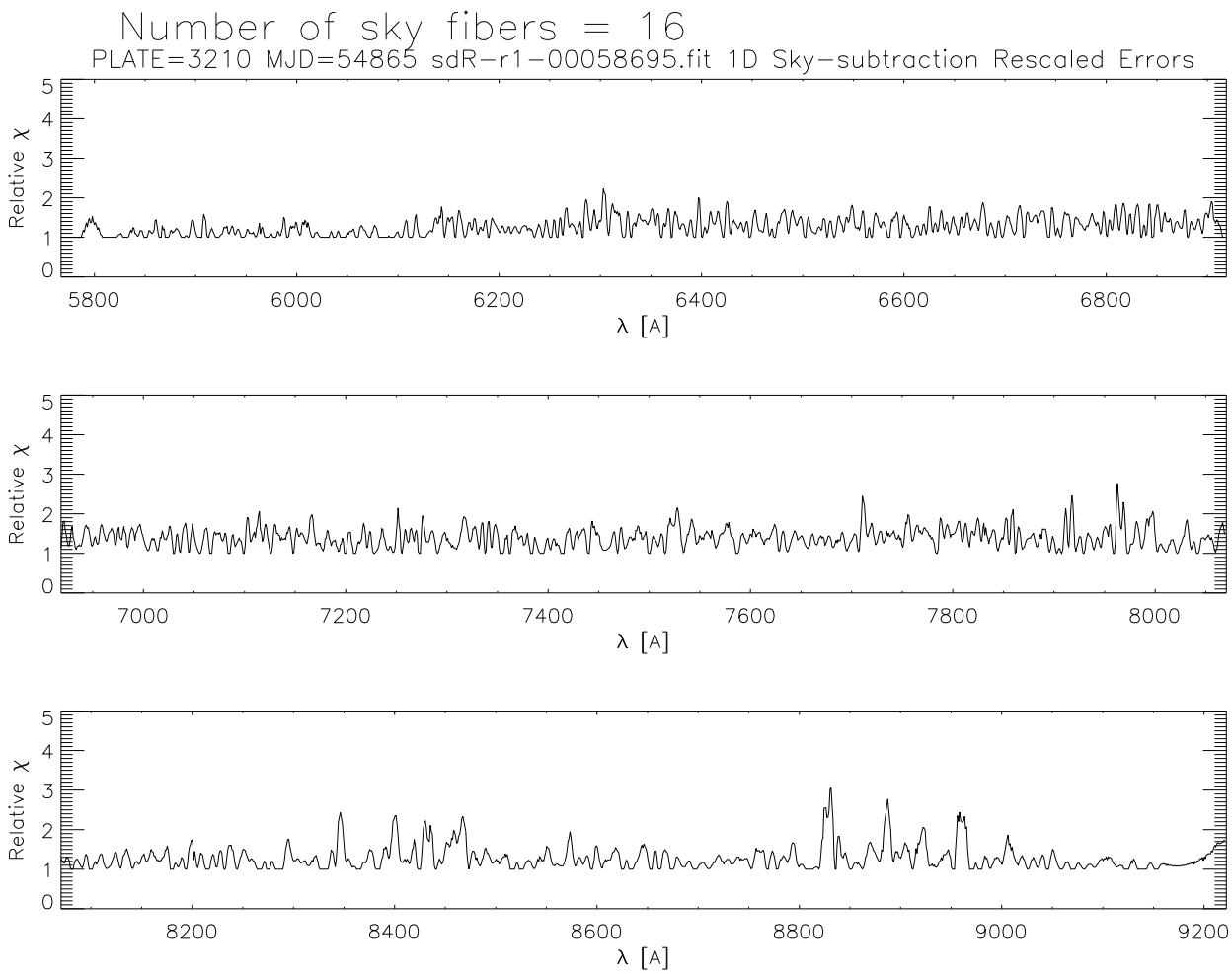

sky shift, pixels
0.00
0.05
0.10
0.15
5000
6000
7000
8000
9000
10000

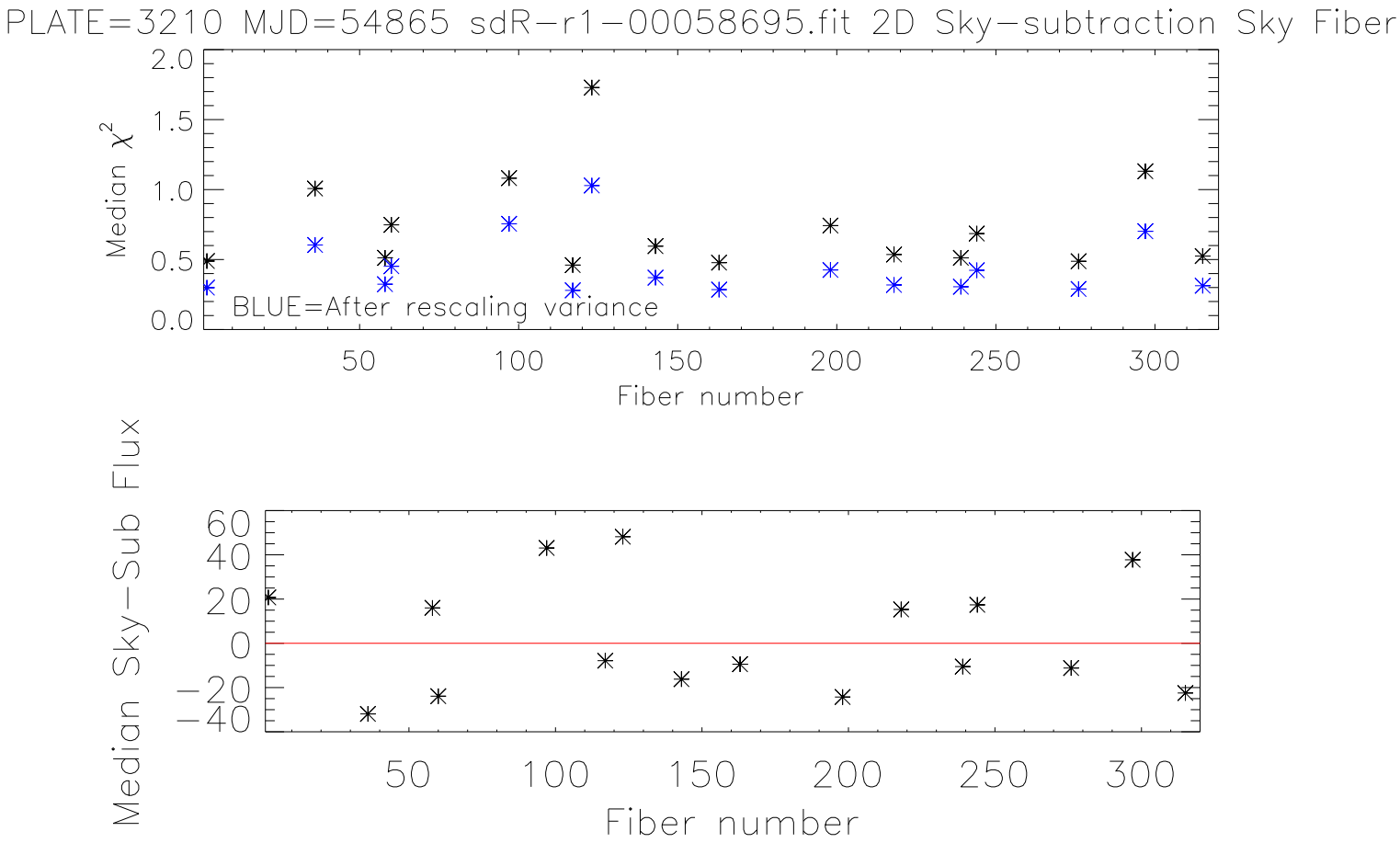

PLATE=3210 MJD=54865 Smooth superflat for sdR-r1-00058695.fit
2.0
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
es= -0.0000
6000
7000
8000
9000
Wavelength (Å)

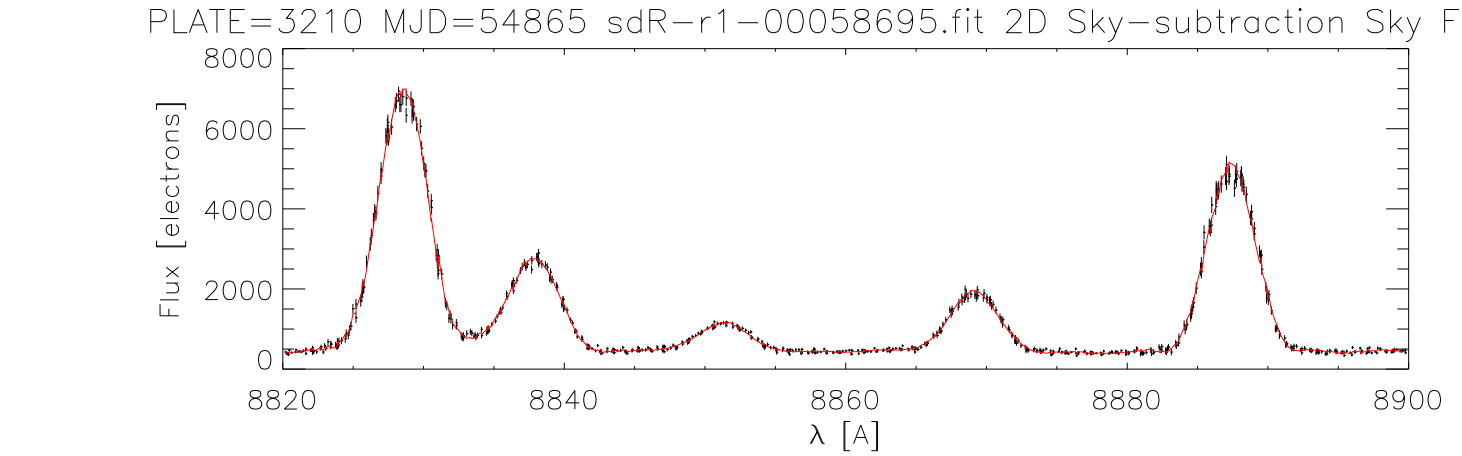

PLATE=3210 MJD=54865 sdR-r1-00058695.fit 1D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

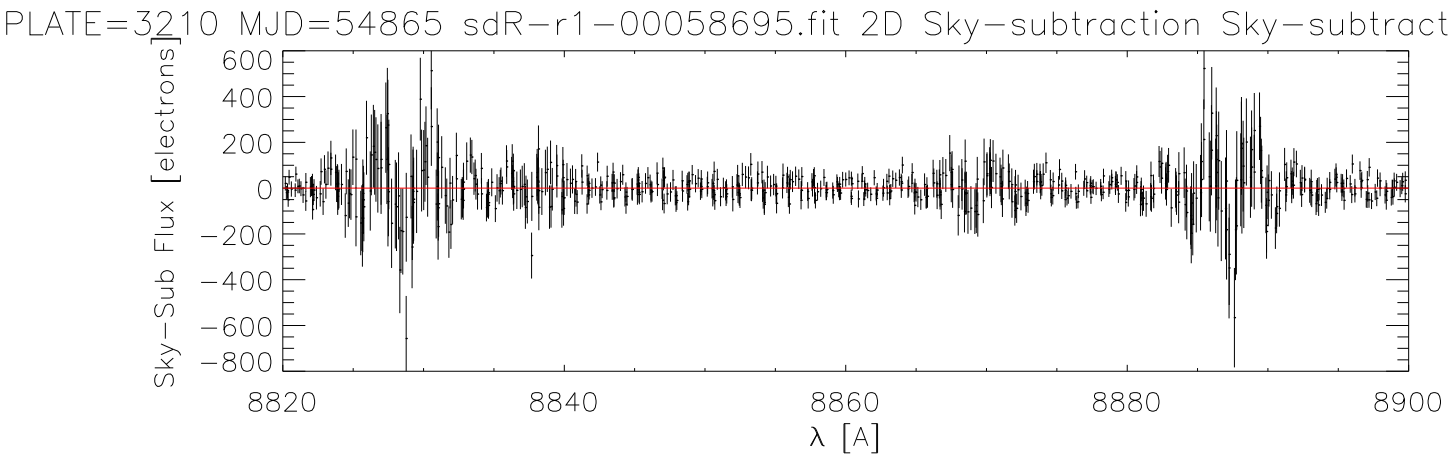

PLATE=3210 MJD=54865 sdR-r1-00058695.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
8820
8840
8860
8880
8900
λ [A]

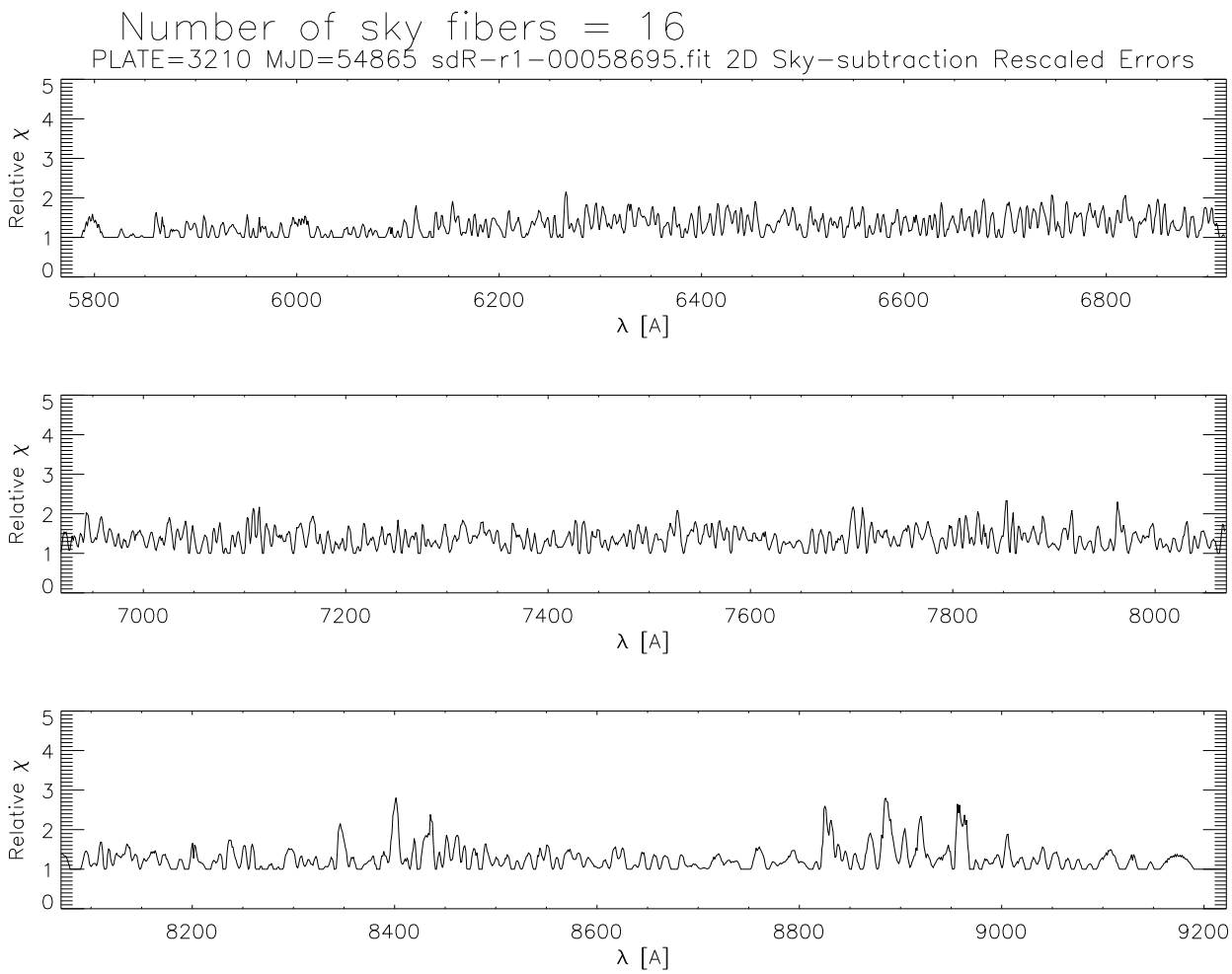

PLATE=3210 MJD=54865 sdR-r1-00058695.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
1000
500
0
-500
-1000
8820
8840
8860
8880
8900
λ [A]

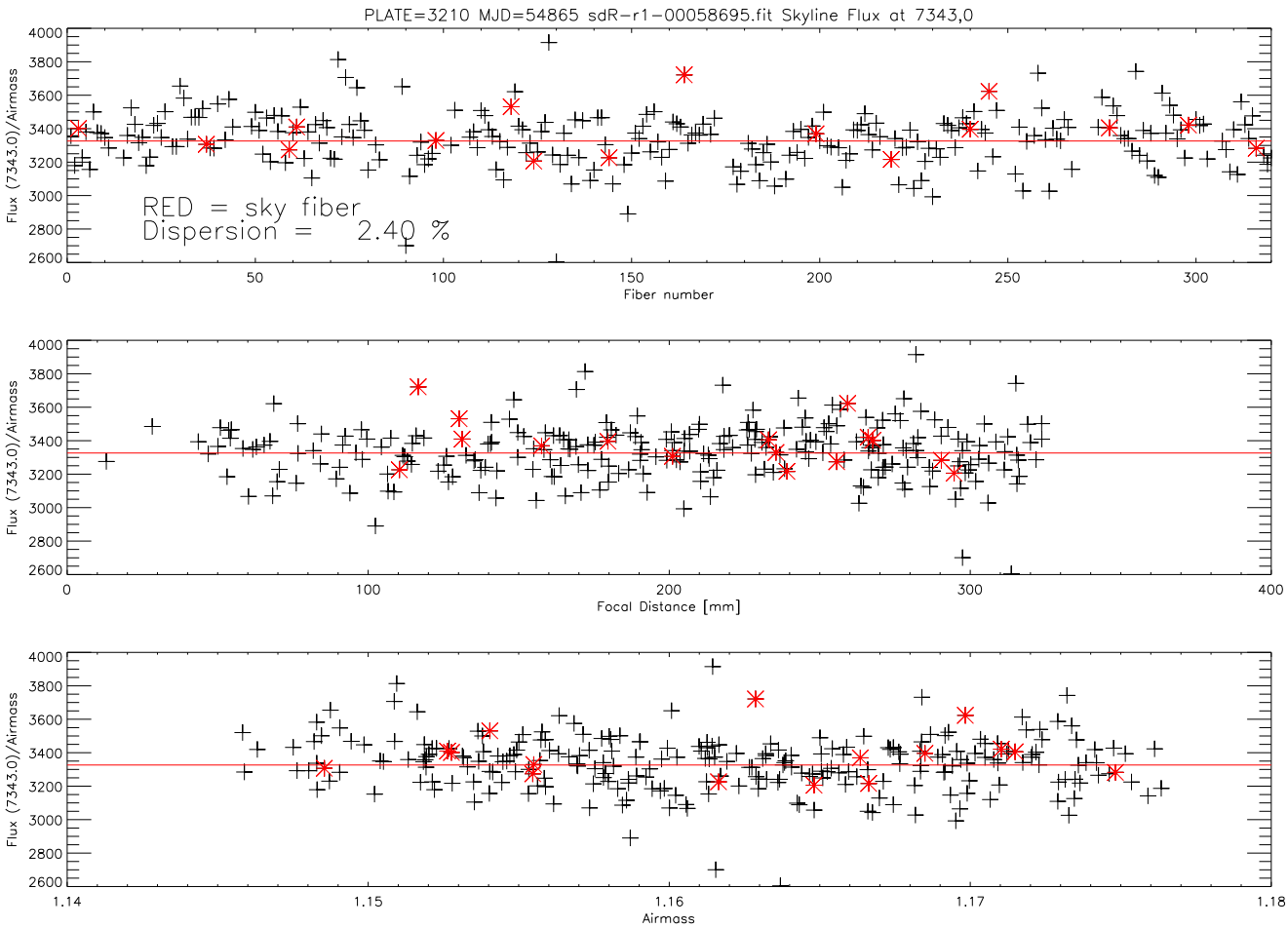

Number of sky fibers = 16
PLATE=3210 MJD=54865 sdR-r1-00058695.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

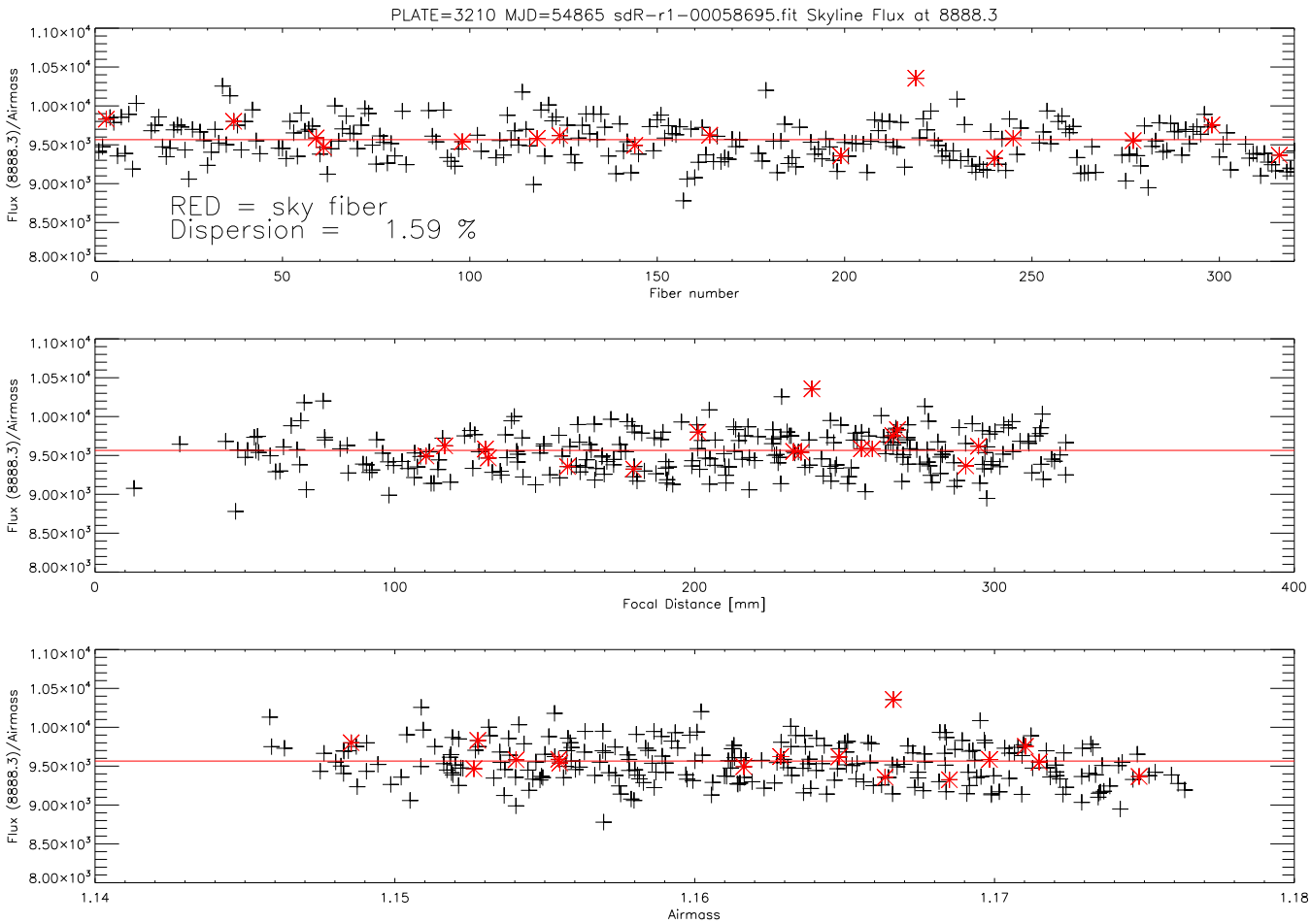

PLATE=3210 MJD=54865 sdR-r1-00058695.fit 2D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

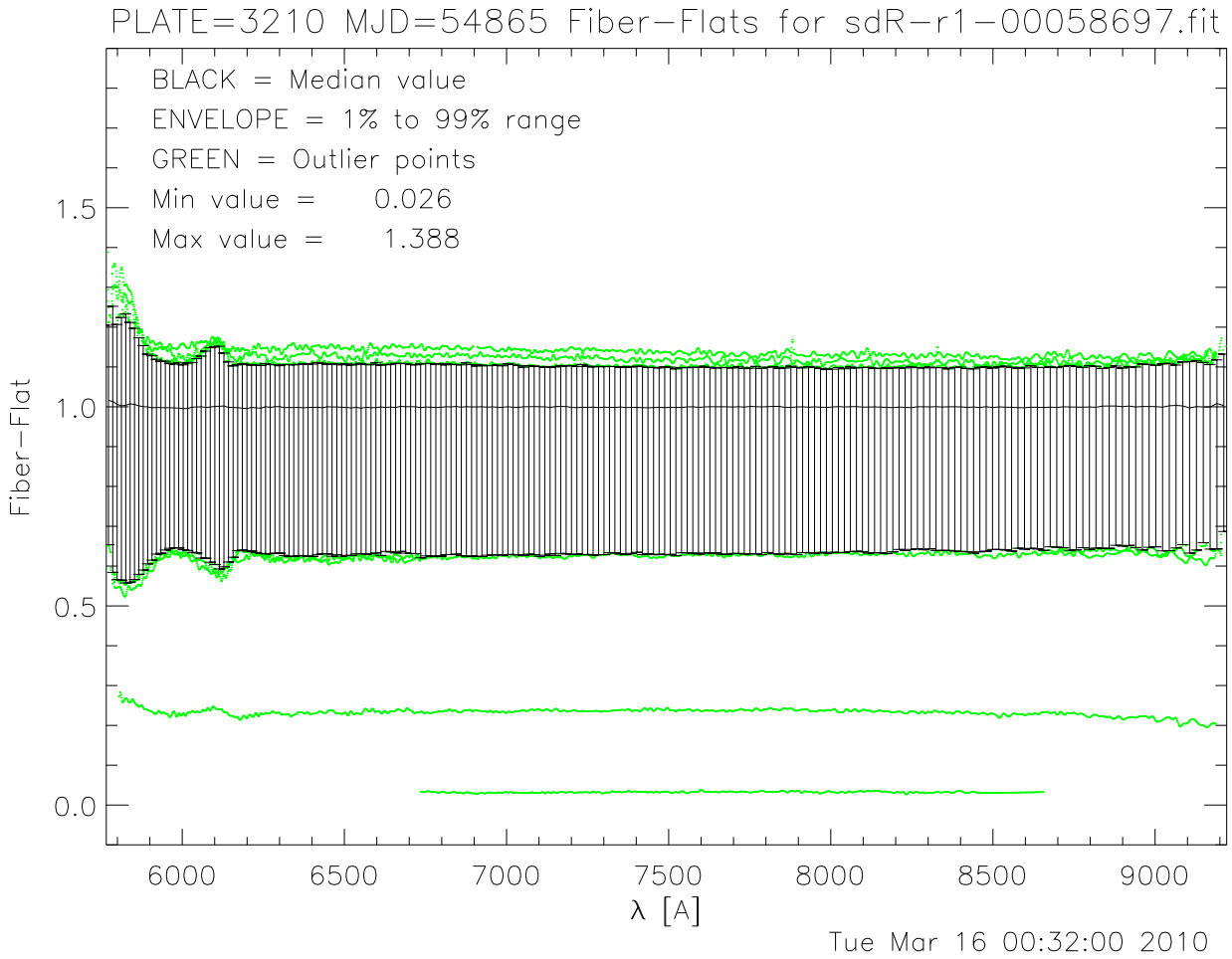

PLATE=3210 MJD=54865 sdR-r1-00058695.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
8820
8840
8860
8880
8900
λ [A]

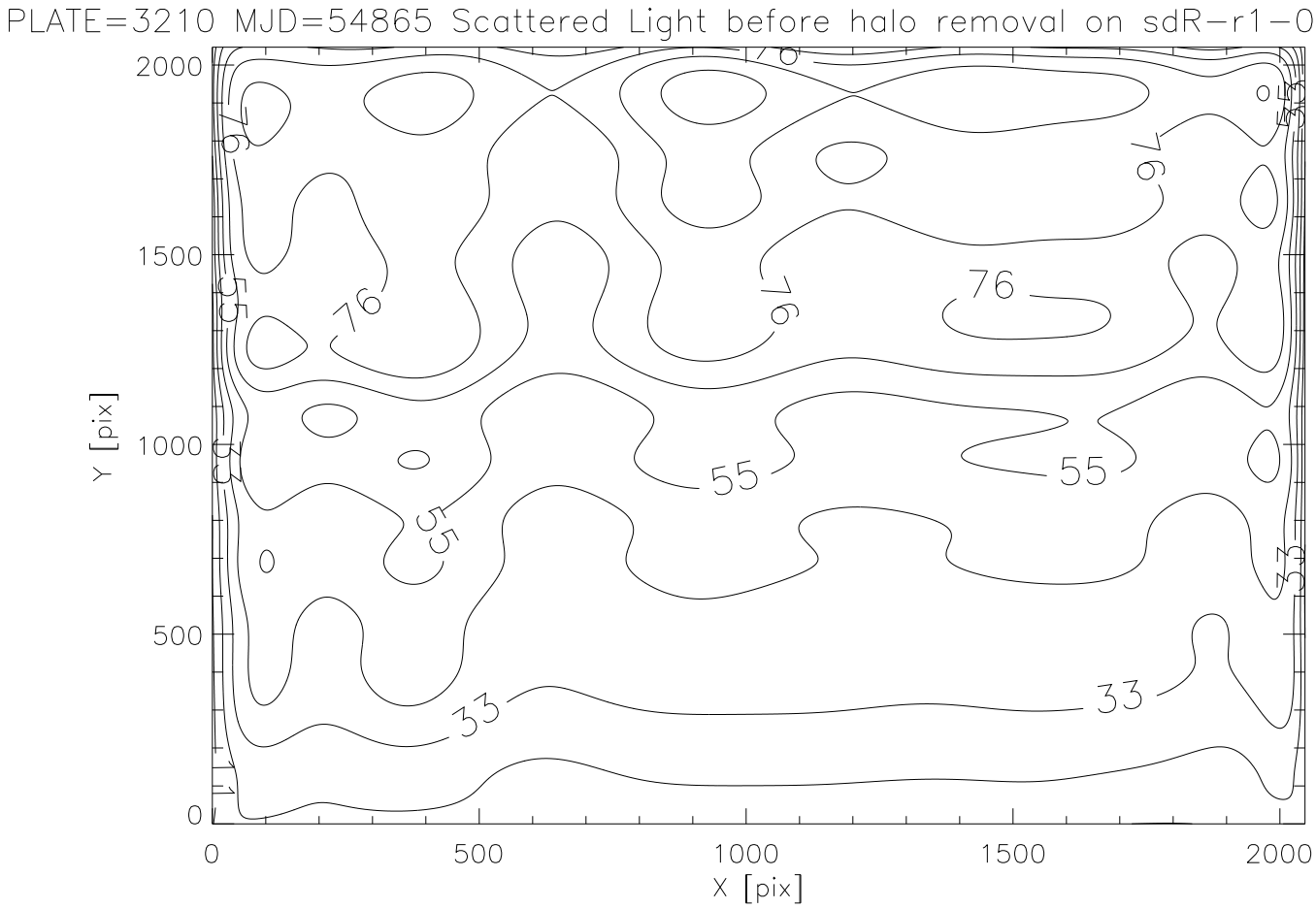

PLATE=3210 MJD=54865 sdR-r1-00058695.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
-200
-400
-600
-800
8820
8840
8860
8880
8900
λ [A]

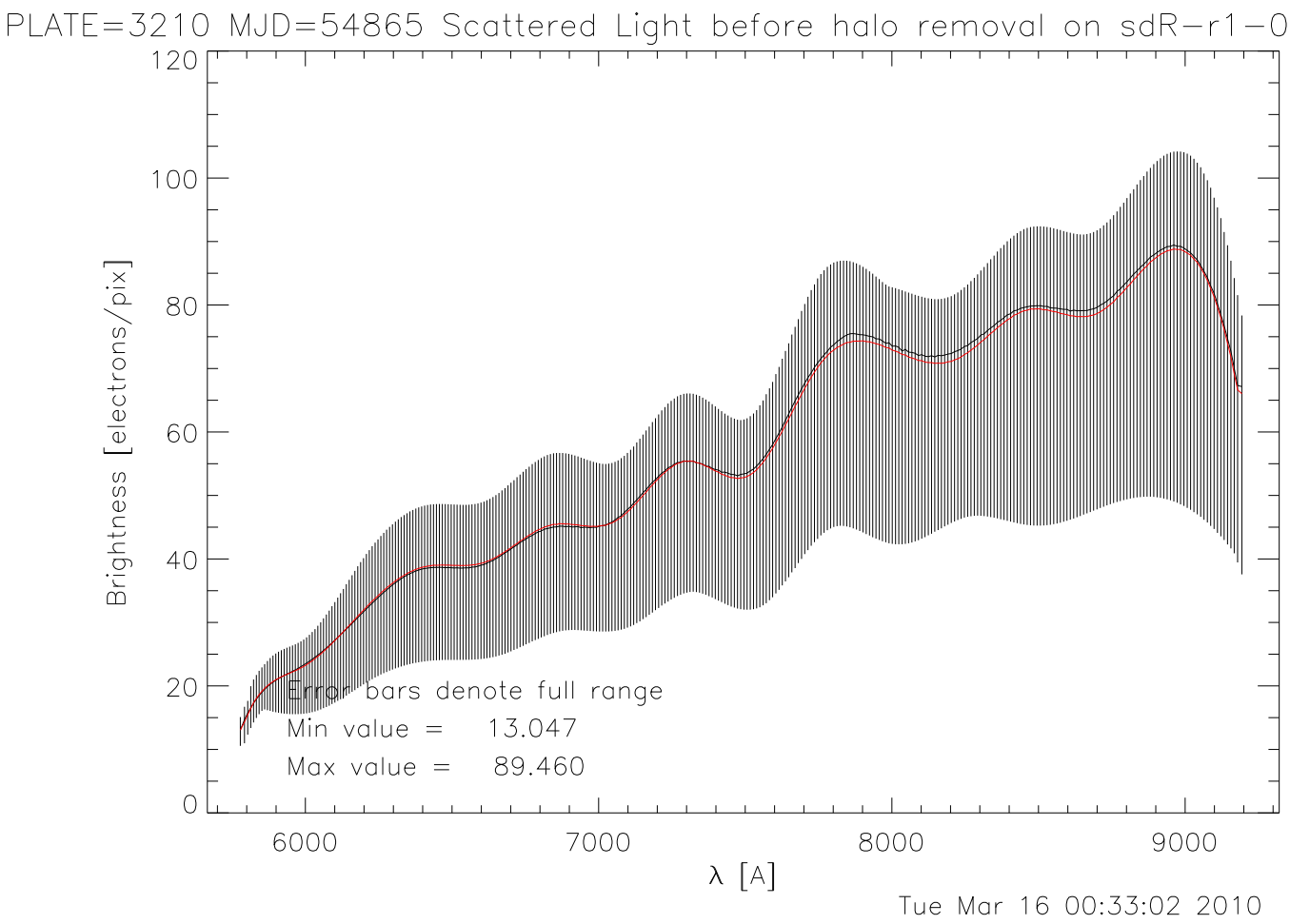

Number of sky fibers = 16
PLATE=3210 MJD=54865 sdR-r1-00058695.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

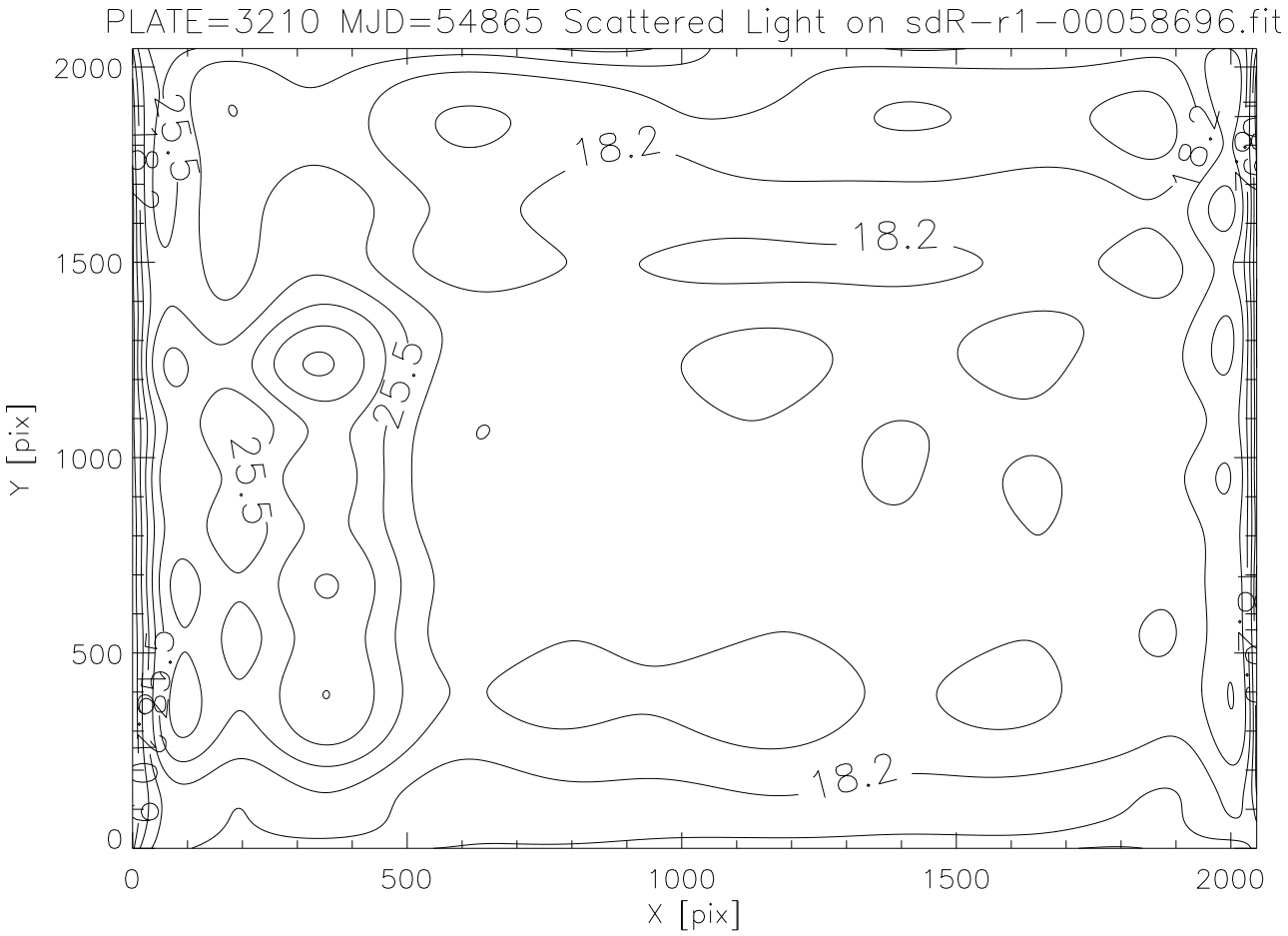

PLATE=3210 MJD=54865 sdR-r1-00058695.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 2.40 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

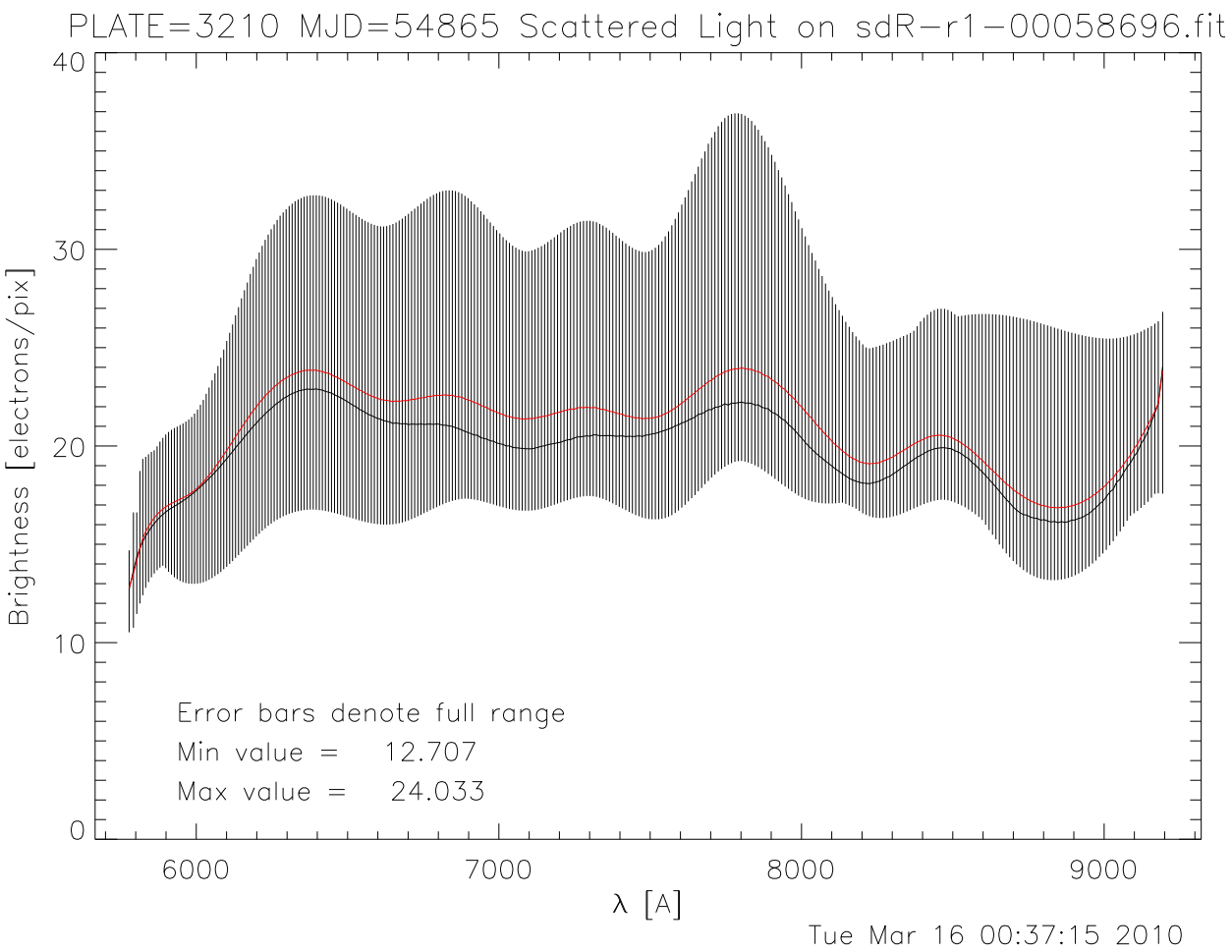

PLATE=3210 MJD=54865 sdR-r1-00058695.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 1.59 %
Fiber number
Focal Distance [mm]
Airmass

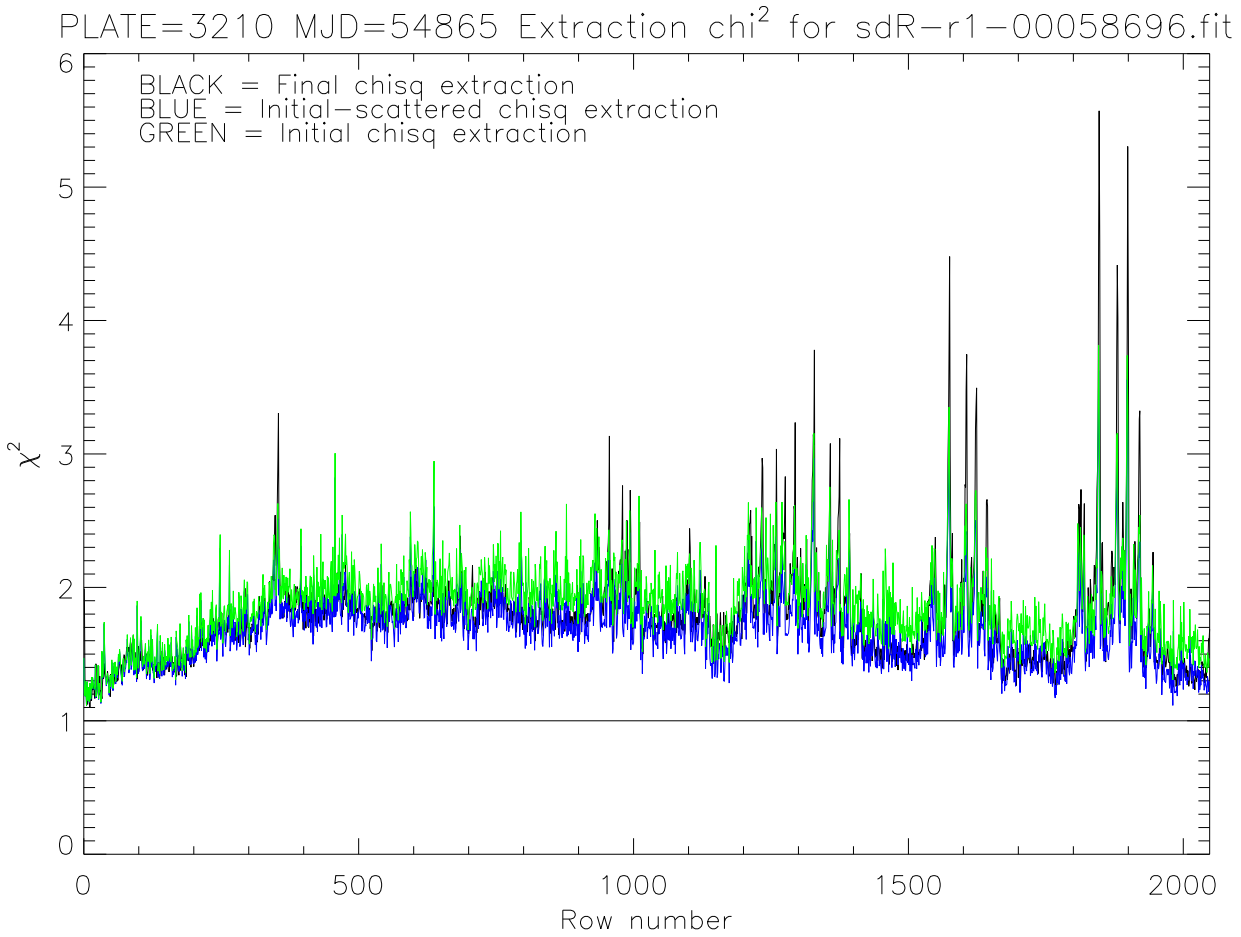

PLATE=3210 MJD=54865 Fiber−Flats for sdR−r1−00058697.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.026
Max value = 1.388
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Tue Mar 16 00:32:00 2010

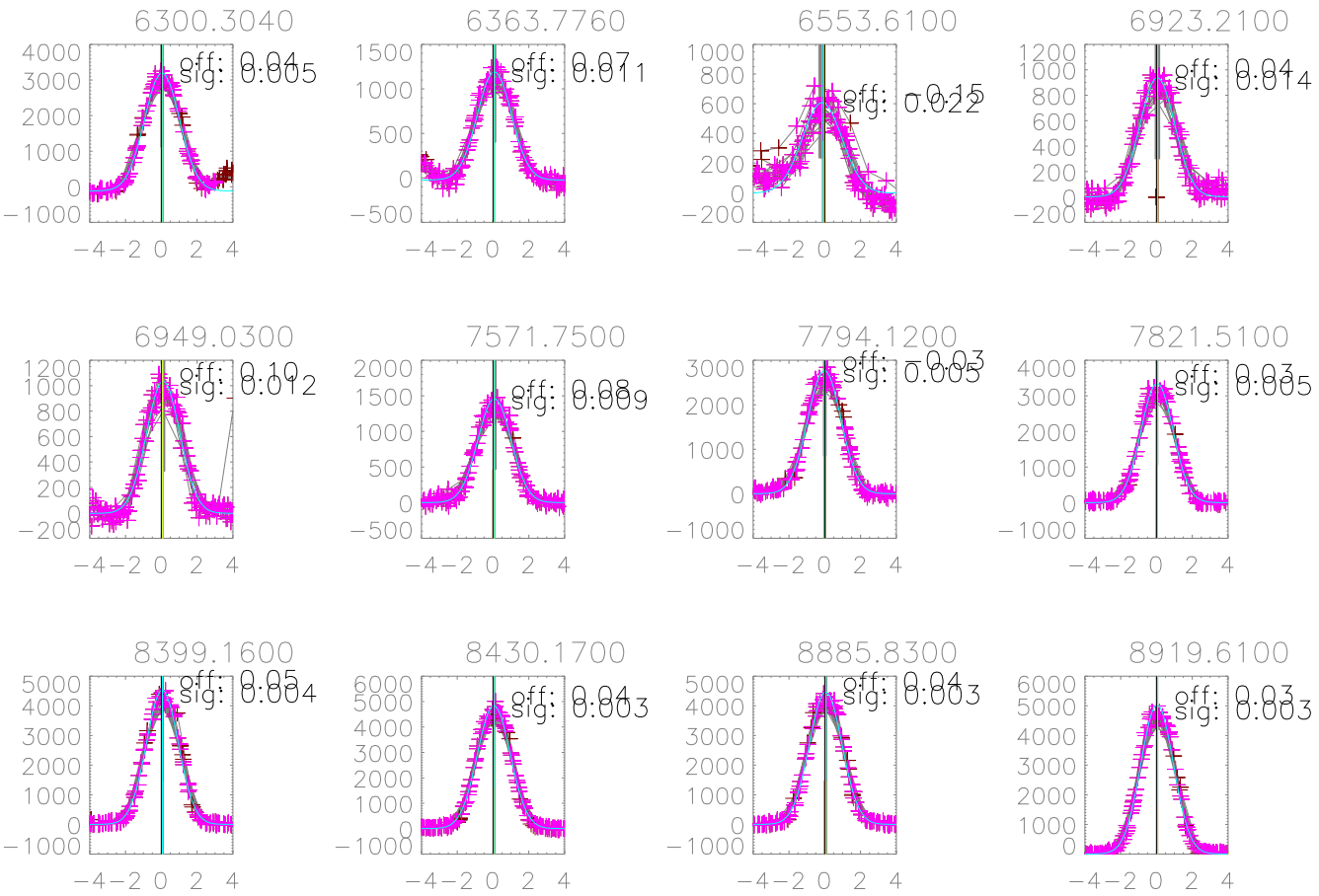

PLATE=3210 MJD=54865 Scattered Light before halo removal on sdR-r1-00058696.fi
Y [pix]
X [pix]
0
500
1000
1500
2000
76
55
33
0

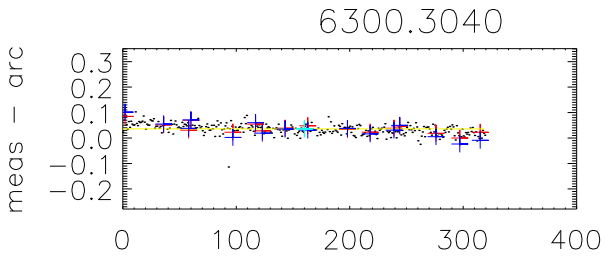

PLATE=3210 MJD=54865 Scattered Light before halo removal on sdR-r1-00058696.fi
Brightness [electrons/pix]
120
100
80
60
40
20
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 13.047
Max value = 89.460
Tue Mar 16 00:33:02 2010

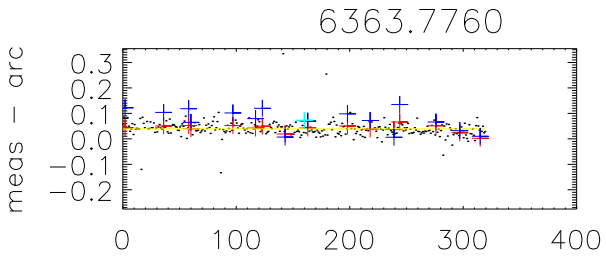

PLATE=3210 MJD=54865 Scattered Light on sdR−r1−00058696.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
18.2
25.5

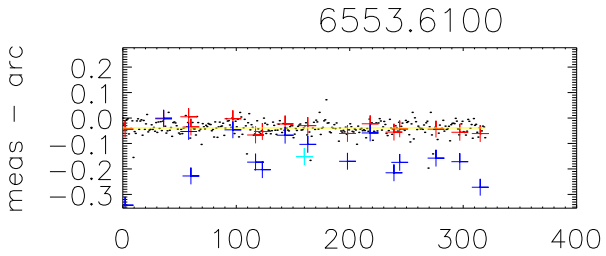

PLATE=3210 MJD=54865 Scattered Light on sdR-r1-00058696.fit
Brightness [electrons/pix]
40
30
20
10
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 12.707
Max value = 24.033
Tue Mar 16 00:37:15 2010

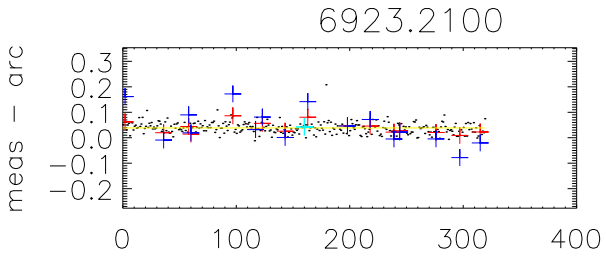

PLATE=3210 MJD=54865 Extraction chi^2 for sdR−r1−00058696.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
5
6
0
500
1000
1500
2000
Row number

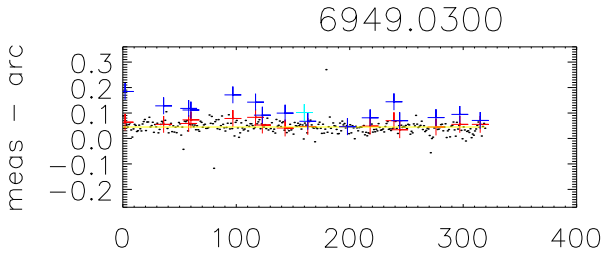

6300.3040
off: 0.04
sig: 0.005
6363.7760
off: 0.07
sig: 0.011
6553.6100
off: −0.15
sig: 0.022
6923.2100
off: 0.04
sig: 0.014
6949.0300
off: 0.10
sig: 0.012
7571.7500
off: 0.08
sig: 0.009
7794.1200
off: −0.03
sig: 0.005
7821.5100
off: 0.03
sig: 0.005
8399.1600
off: 0.05
sig: 0.004
8430.1700
off: 0.04
sig: 0.003
8885.8300
off: 0.04
sig: 0.003
8919.6100
off: 0.03
sig: 0.003

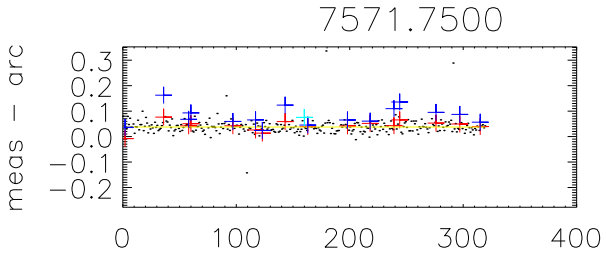

6300.3040
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

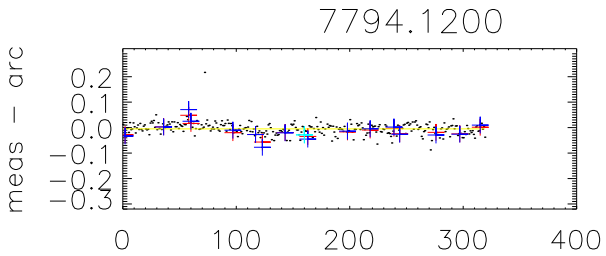

6363.7760
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

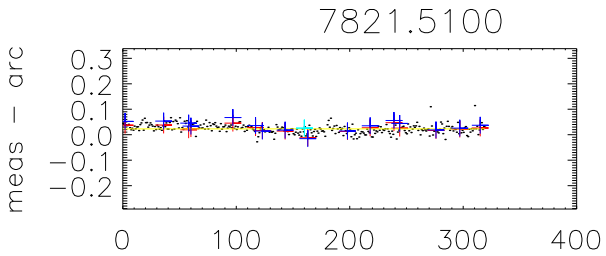

6553.6100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

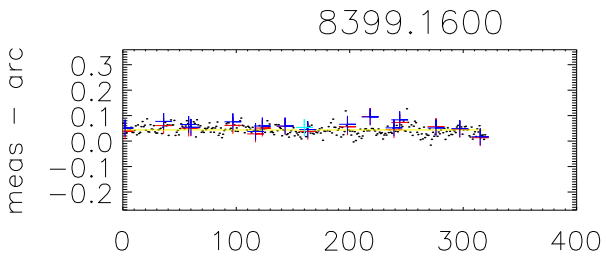

6923.2100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

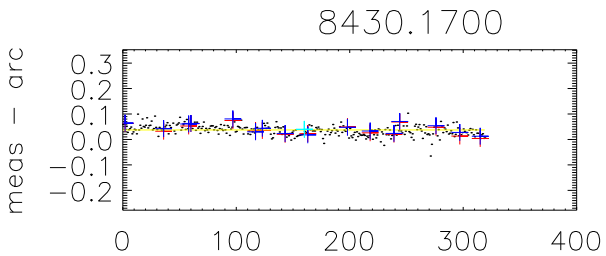

6949.0300
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

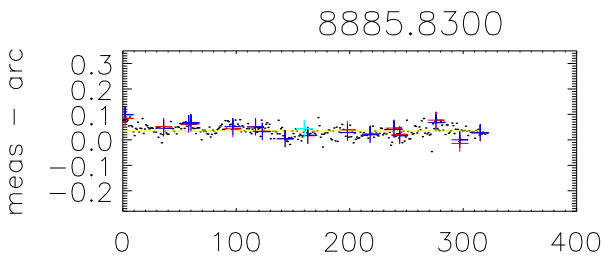

7571.7500
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

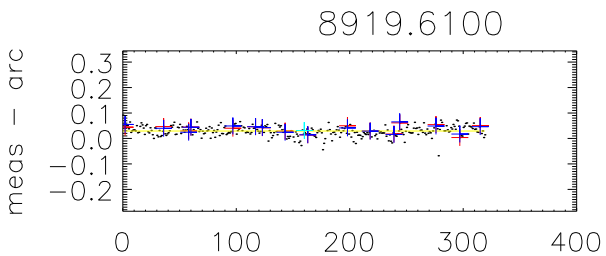

7794.1200
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

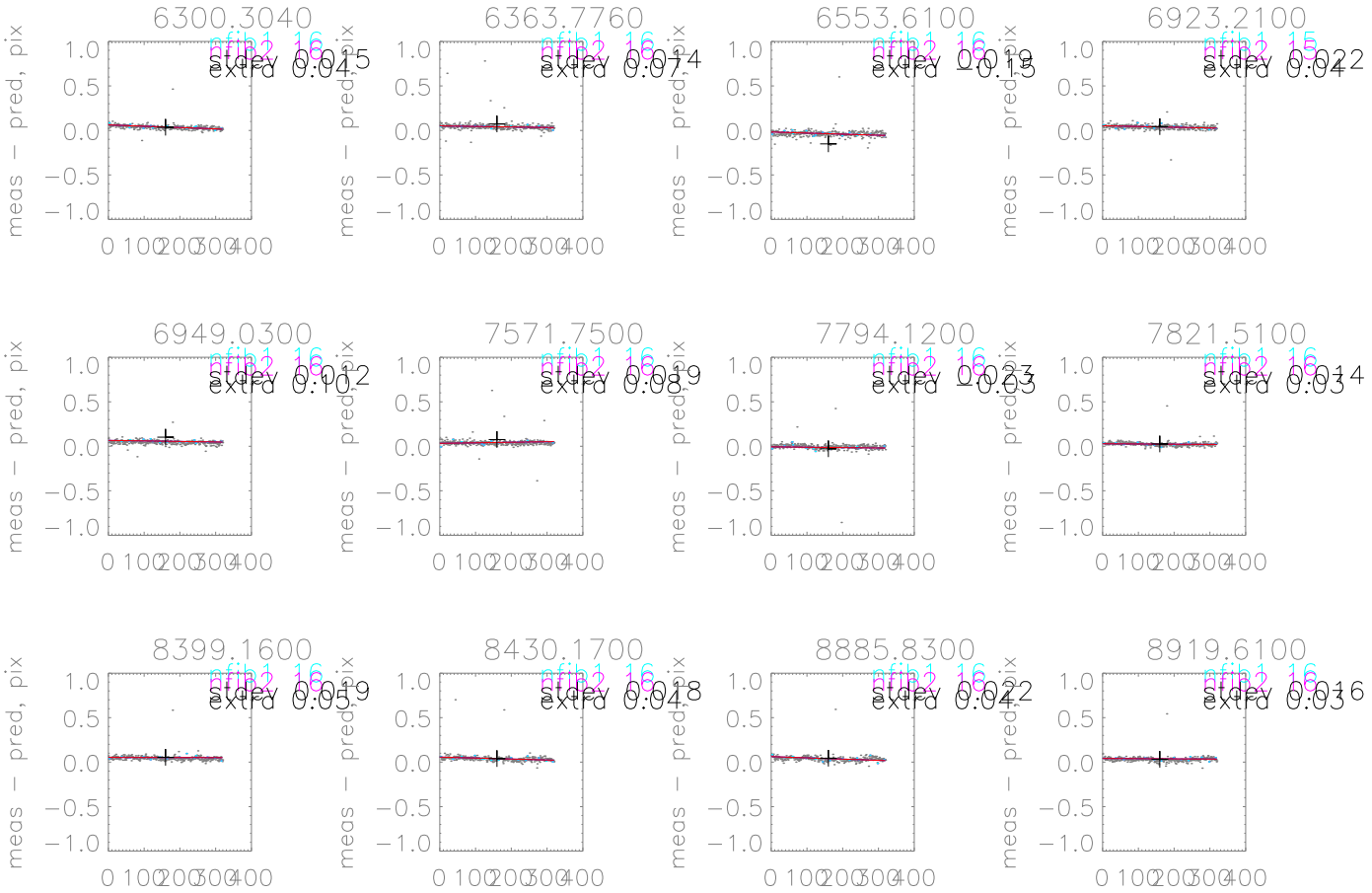

7821.5100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

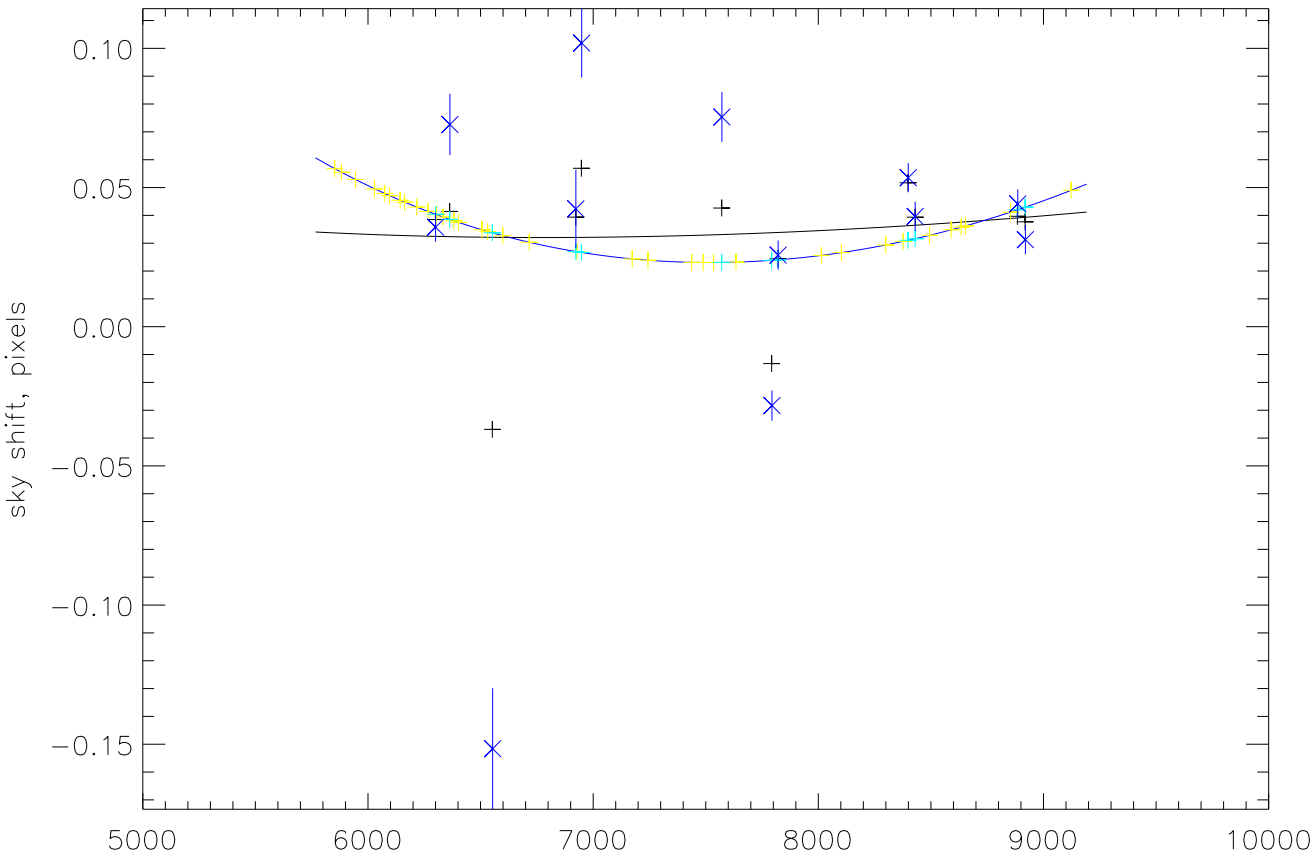

8399.1600
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400


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

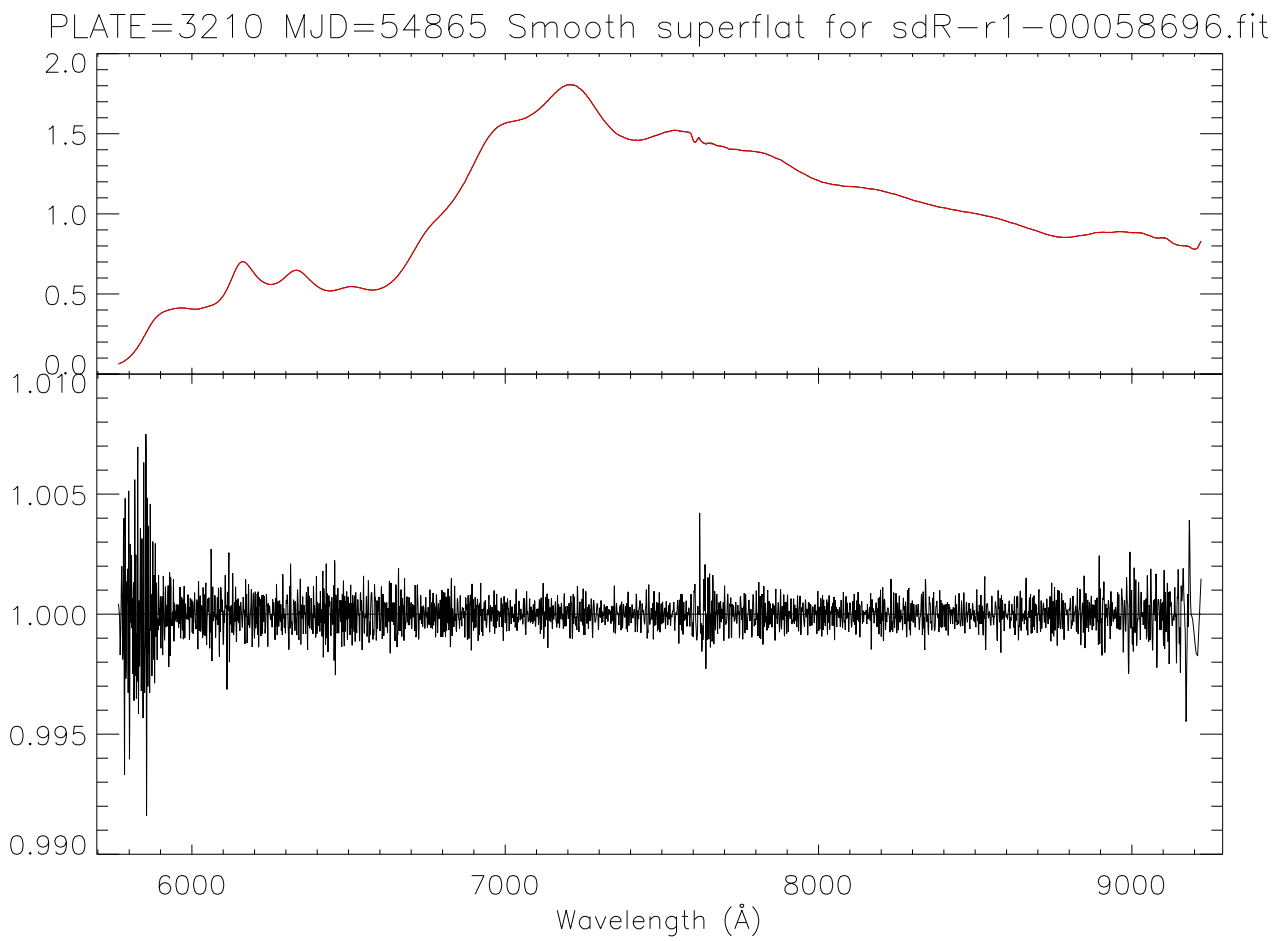

8885.8300
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

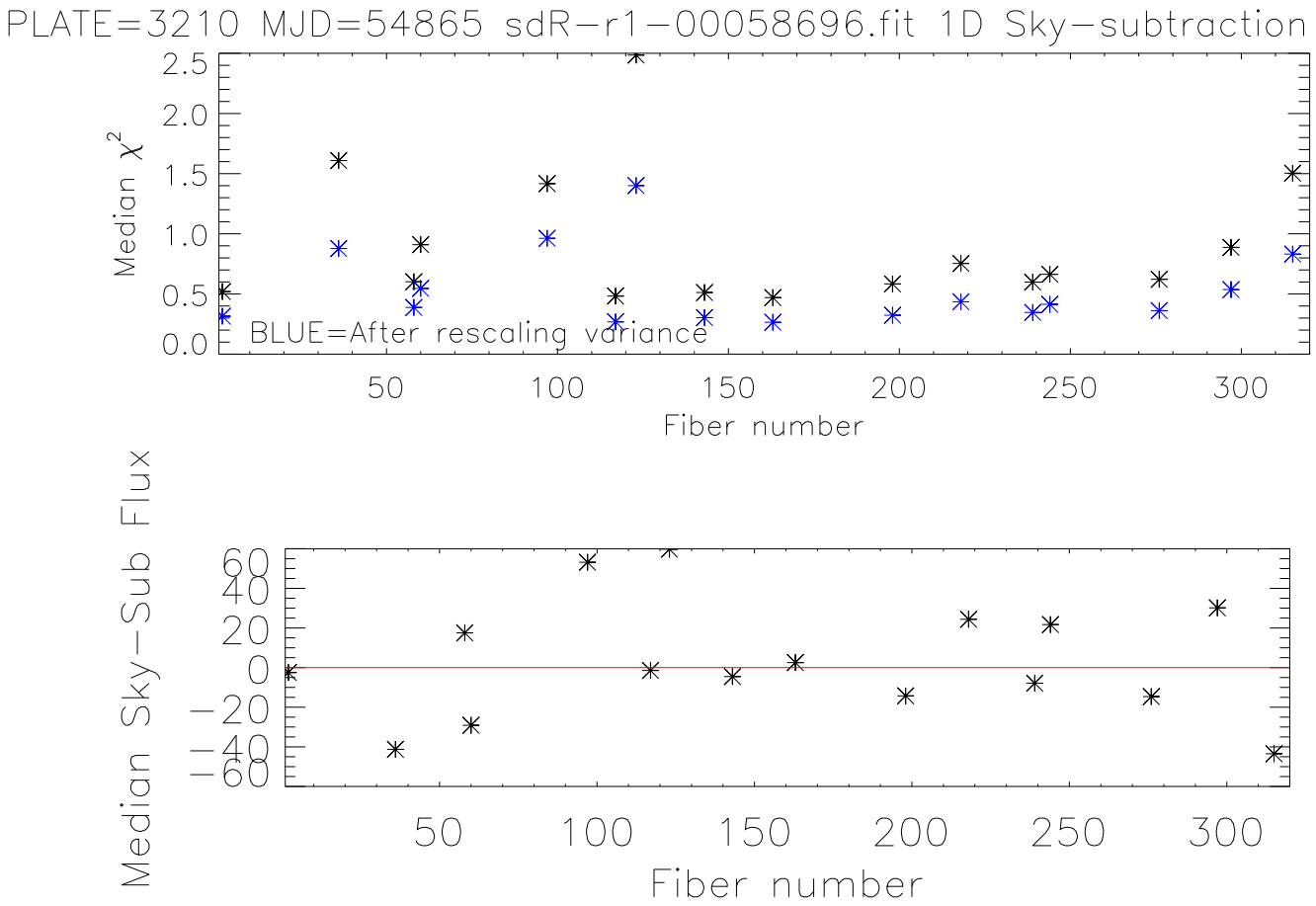

8919.6100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

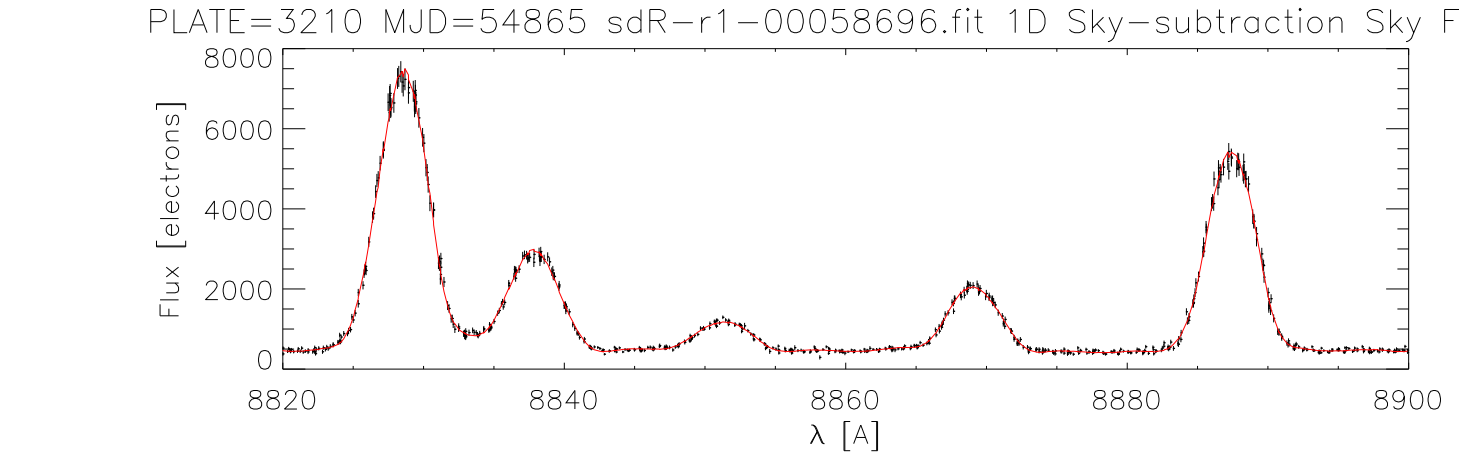

6300.3040
stdev 0.045
extra 0.04
6363.7760
stdev 0.074
extra 0.07
6553.6100
stdev 0.019
extra −0.15
6923.2100
stdev 0.022
extra 0.04
6949.0300
stdev 0.012
extra 0.10
7571.7500
stdev 0.049
extra 0.08
7794.1200
stdev 0.023
extra −0.03
7821.5100
stdev 0.014
extra 0.03
8399.1600
stdev 0.059
extra 0.05
8430.1700
stdev 0.018
extra 0.04
8885.8300
stdev 0.022
extra 0.04
8919.6100
stdev 0.016
extra 0.03
meas − pred, pix

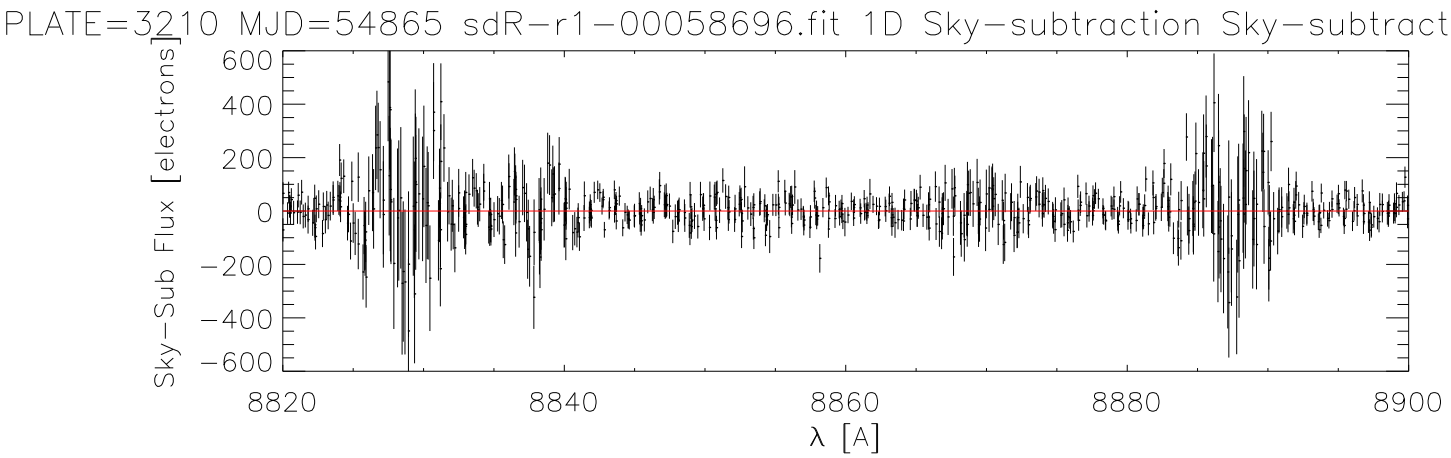

0.10
0.05
0.00
−0.05
−0.10
−0.15
sky shift, pixels
5000
6000
7000
8000
9000
10000

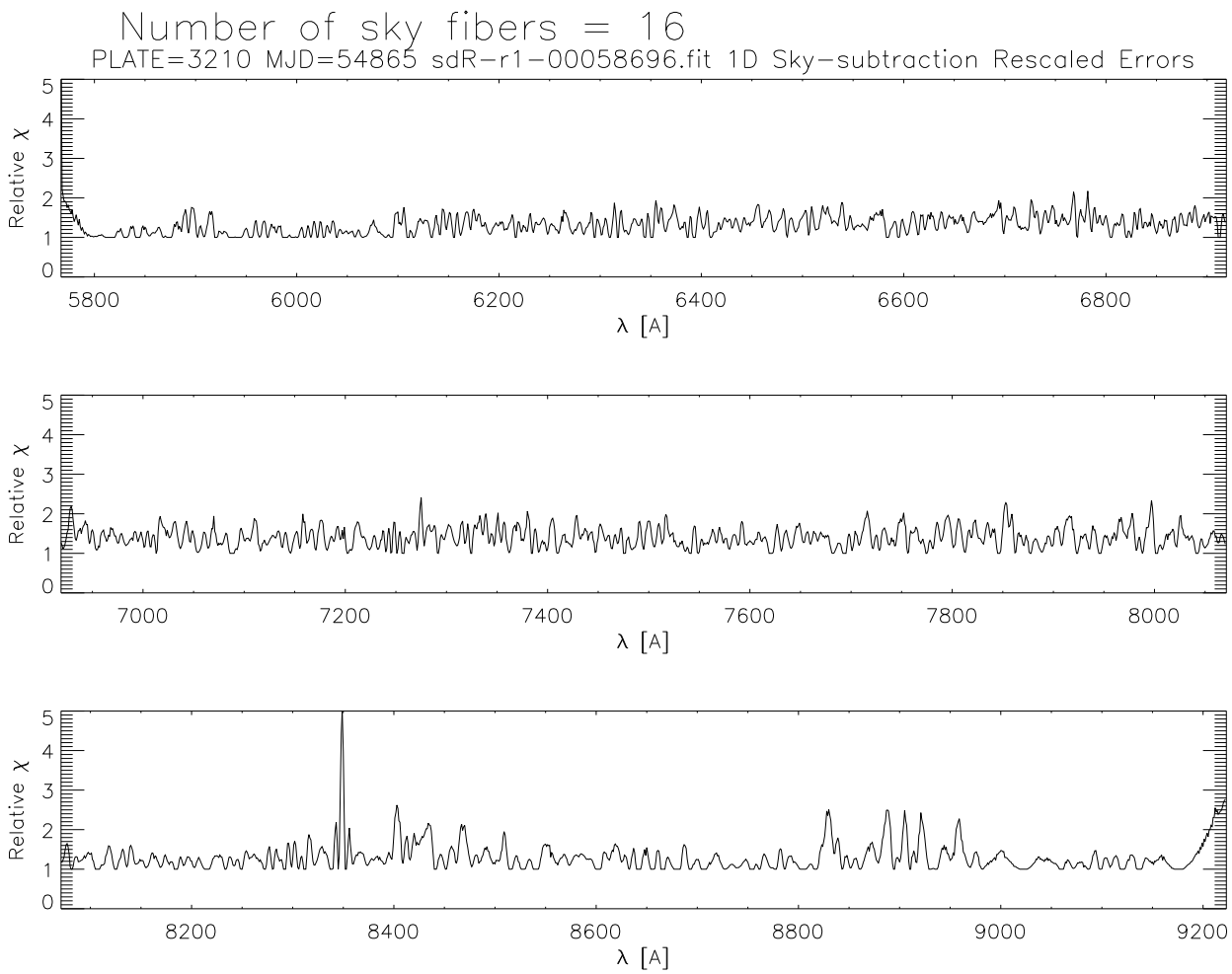
es= 0.0000

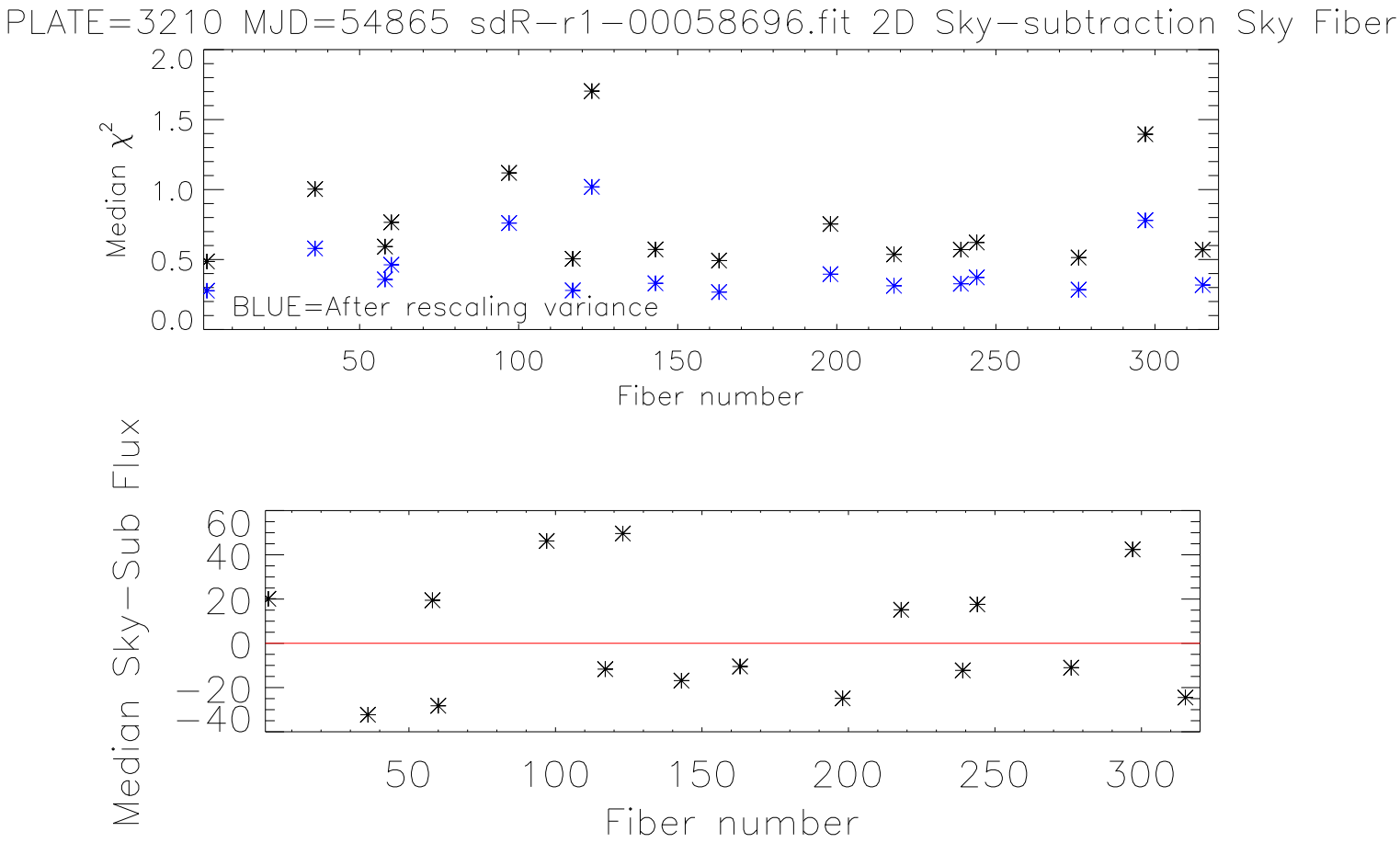

PLATE=3210 MJD=54865 Smooth superflat for sdR-r1-00058696.fit
2.0
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
6000
7000
8000
9000
Wavelength (Å)

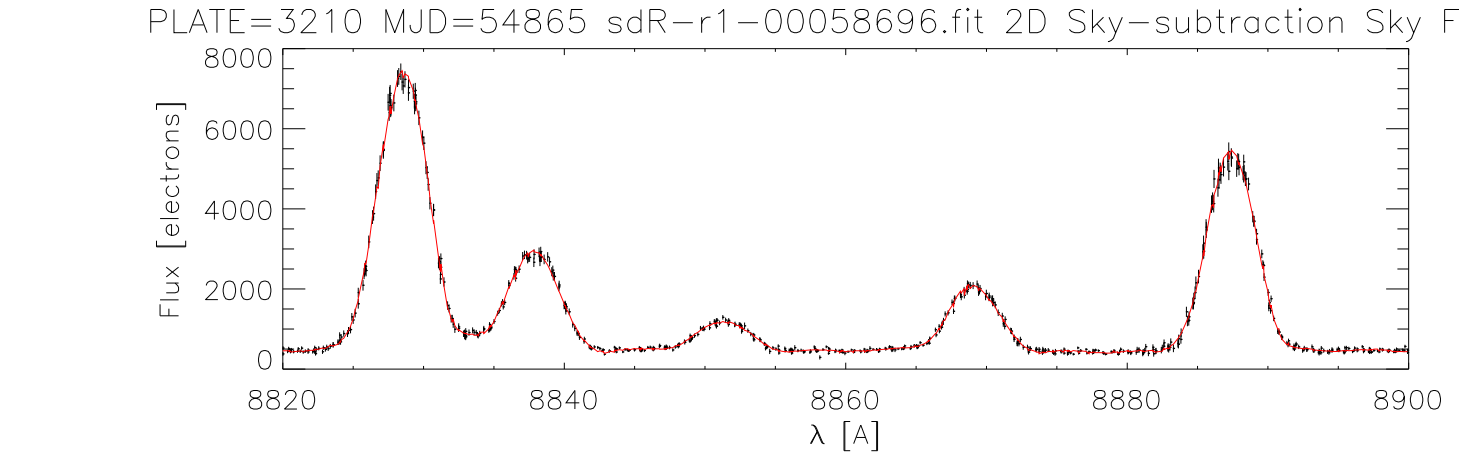

PLATE=3210 MJD=54865 sdR-r1-00058696.fit 1D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

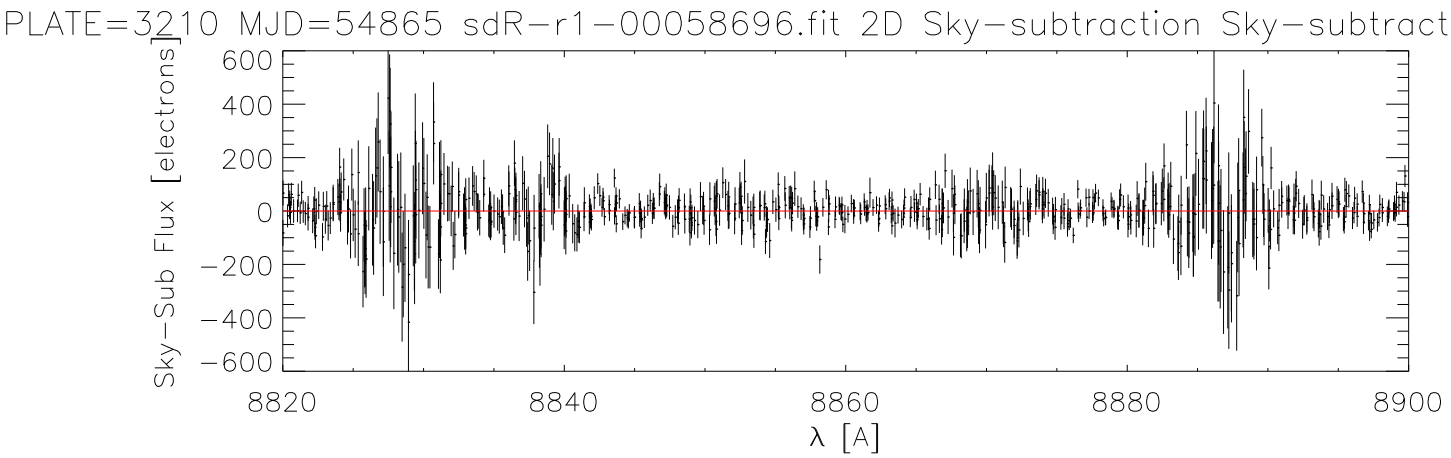

PLATE=3210 MJD=54865 sdR-r1-00058696.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
8820
8840
8860
8880
8900
λ [A]

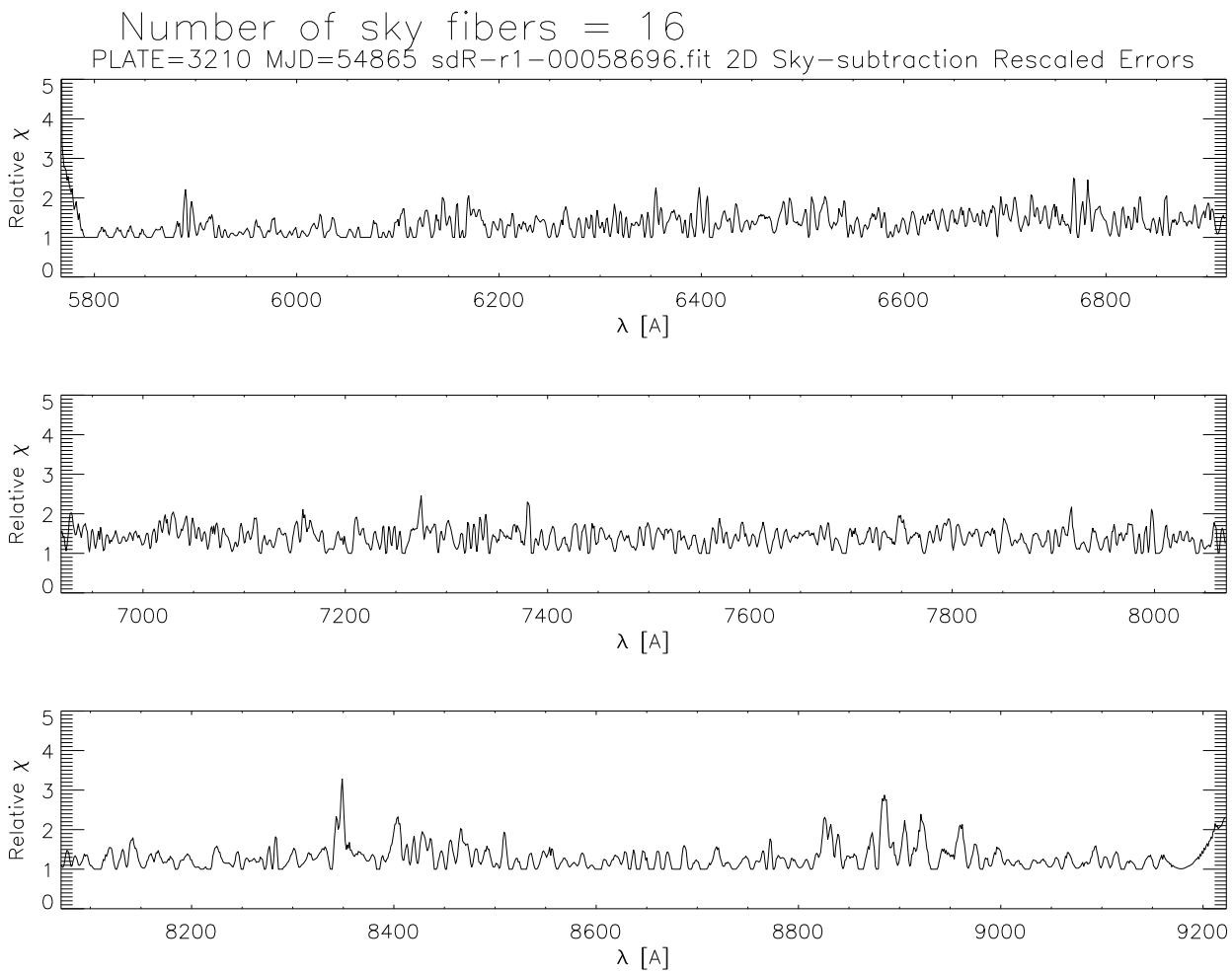

PLATE=3210 MJD=54865 sdR-r1-00058696.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
-200
-400
-600
8820
8840
8860
8880
8900
λ [A]

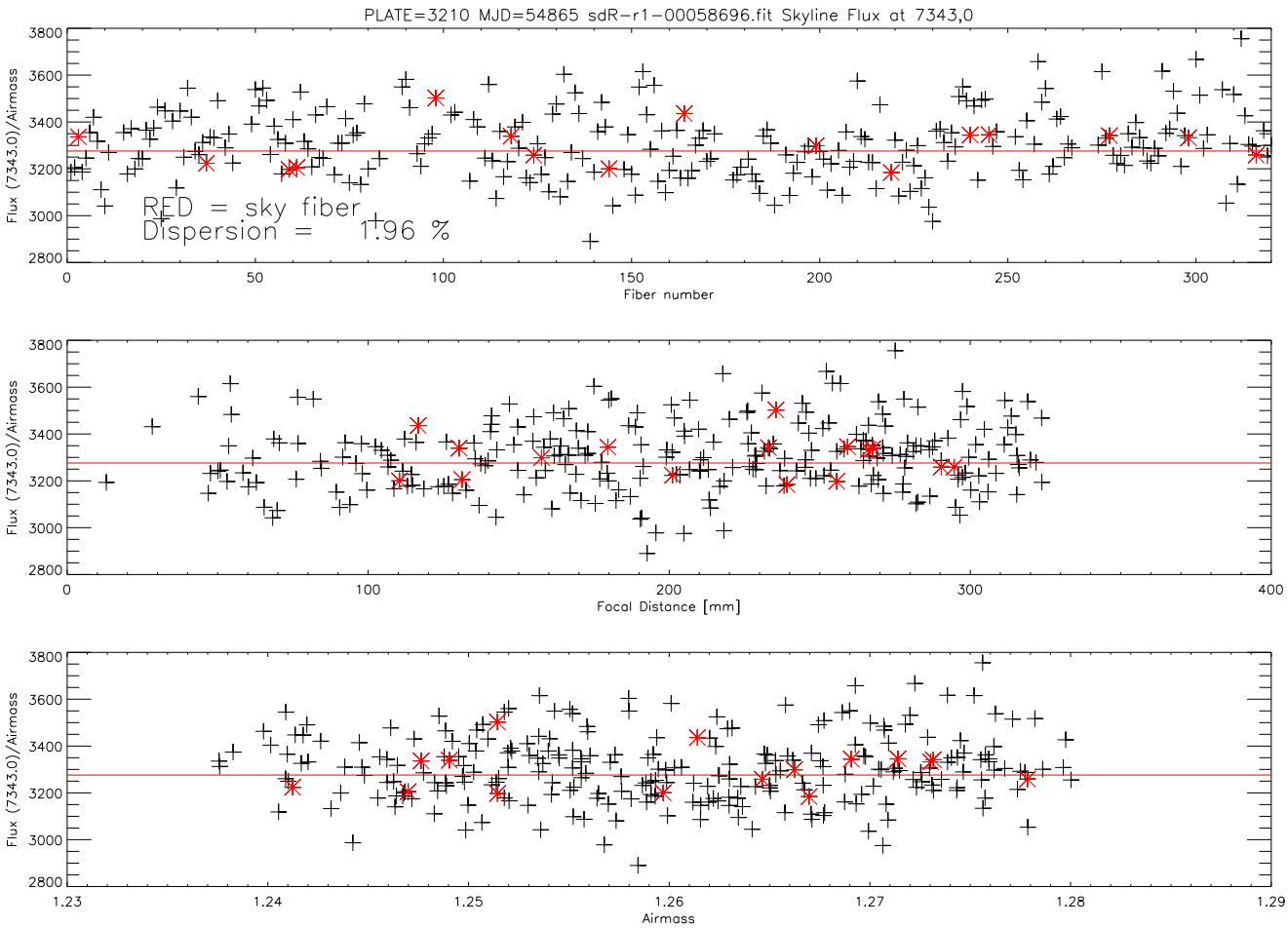

Number of sky fibers = 16
PLATE=3210 MJD=54865 sdR-r1-00058696.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

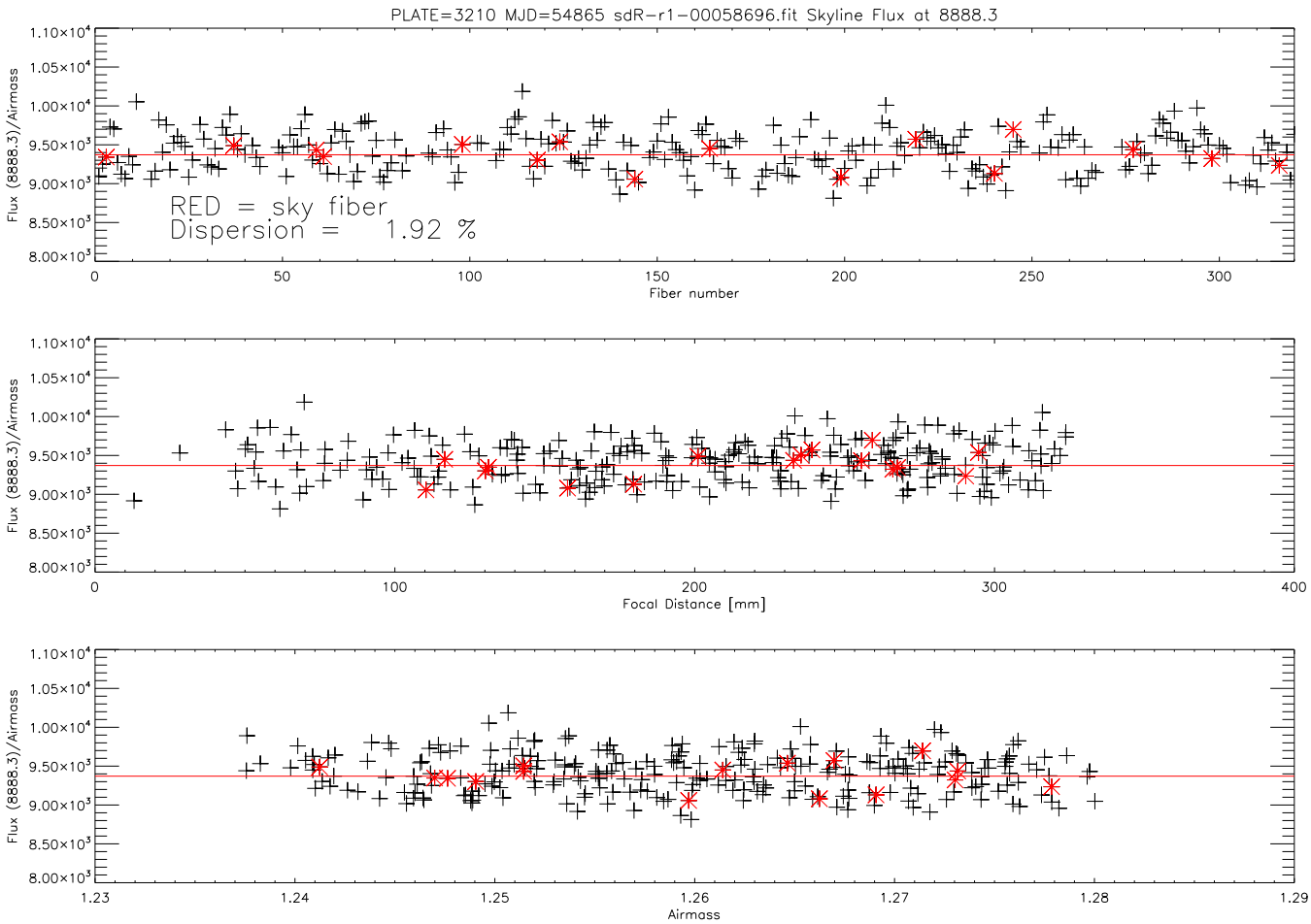

PLATE=3210 MJD=54865 sdR-r1-00058696.fit 2D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

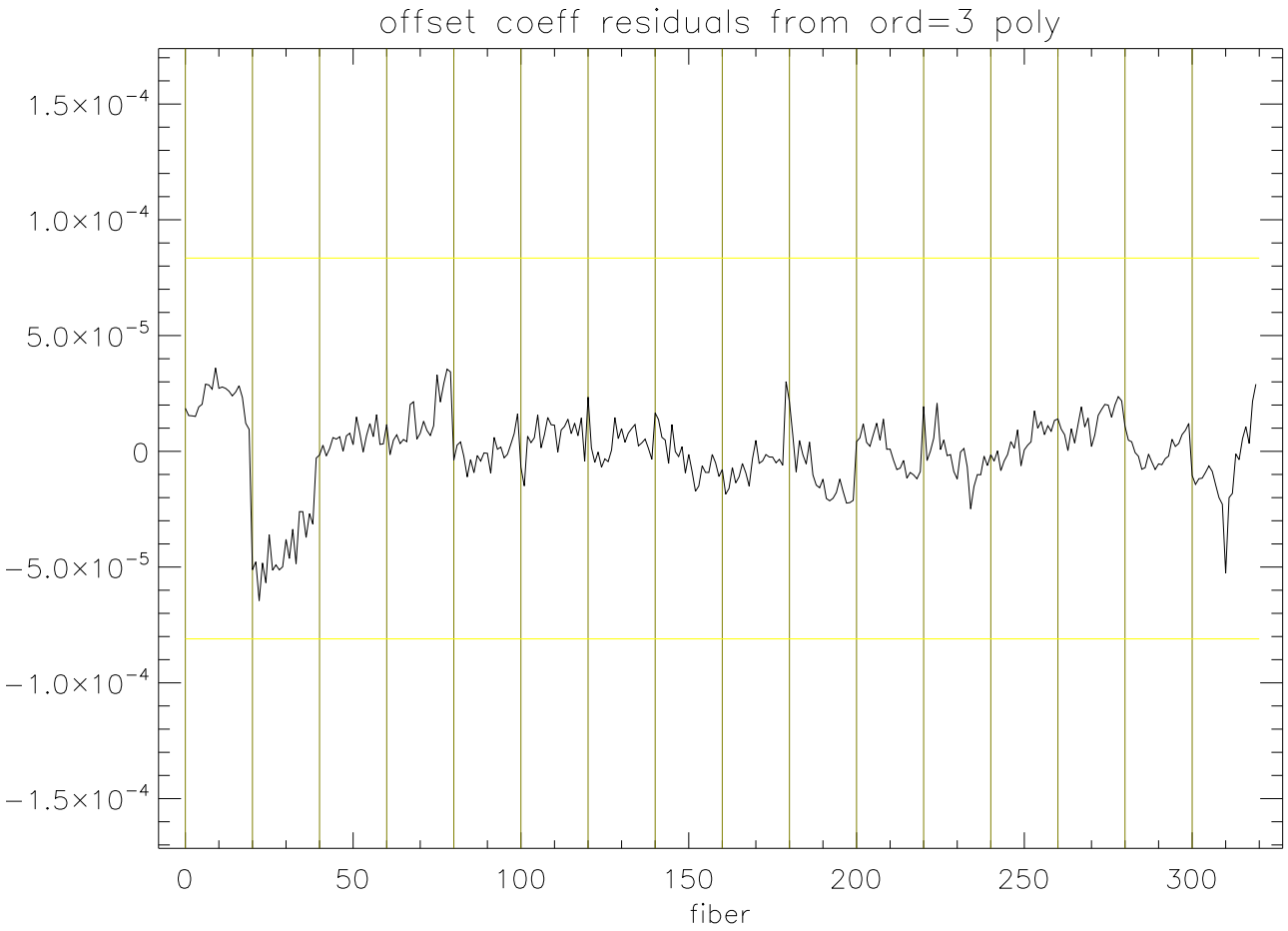

PLATE=3210 MJD=54865 sdR-r1-00058696.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
8820
8840
8860
8880
8900
λ [A]

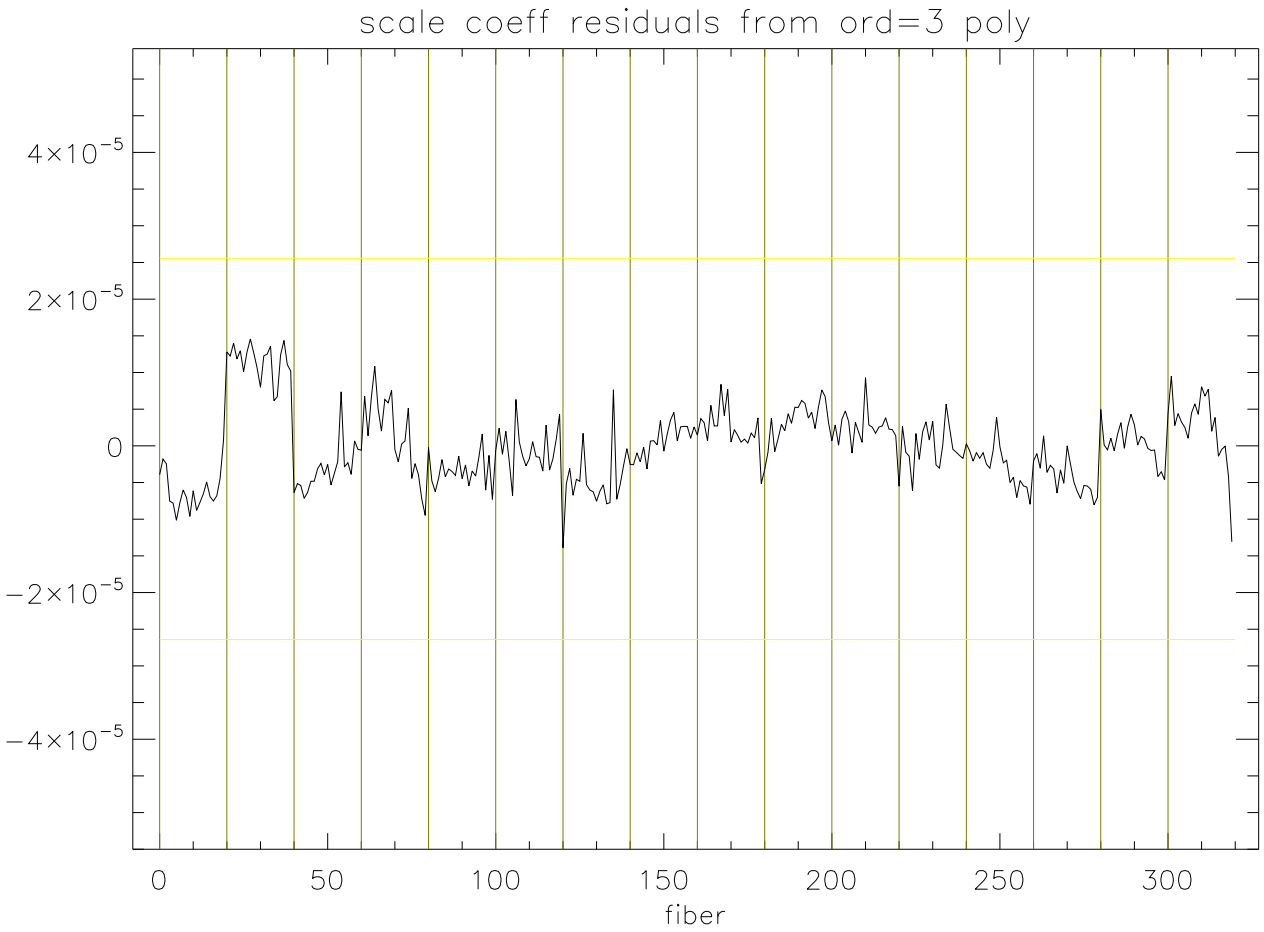

PLATE=3210 MJD=54865 sdR-r1-00058696.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
-200
-400
-600
8820
8840
8860
8880
8900
λ [A]

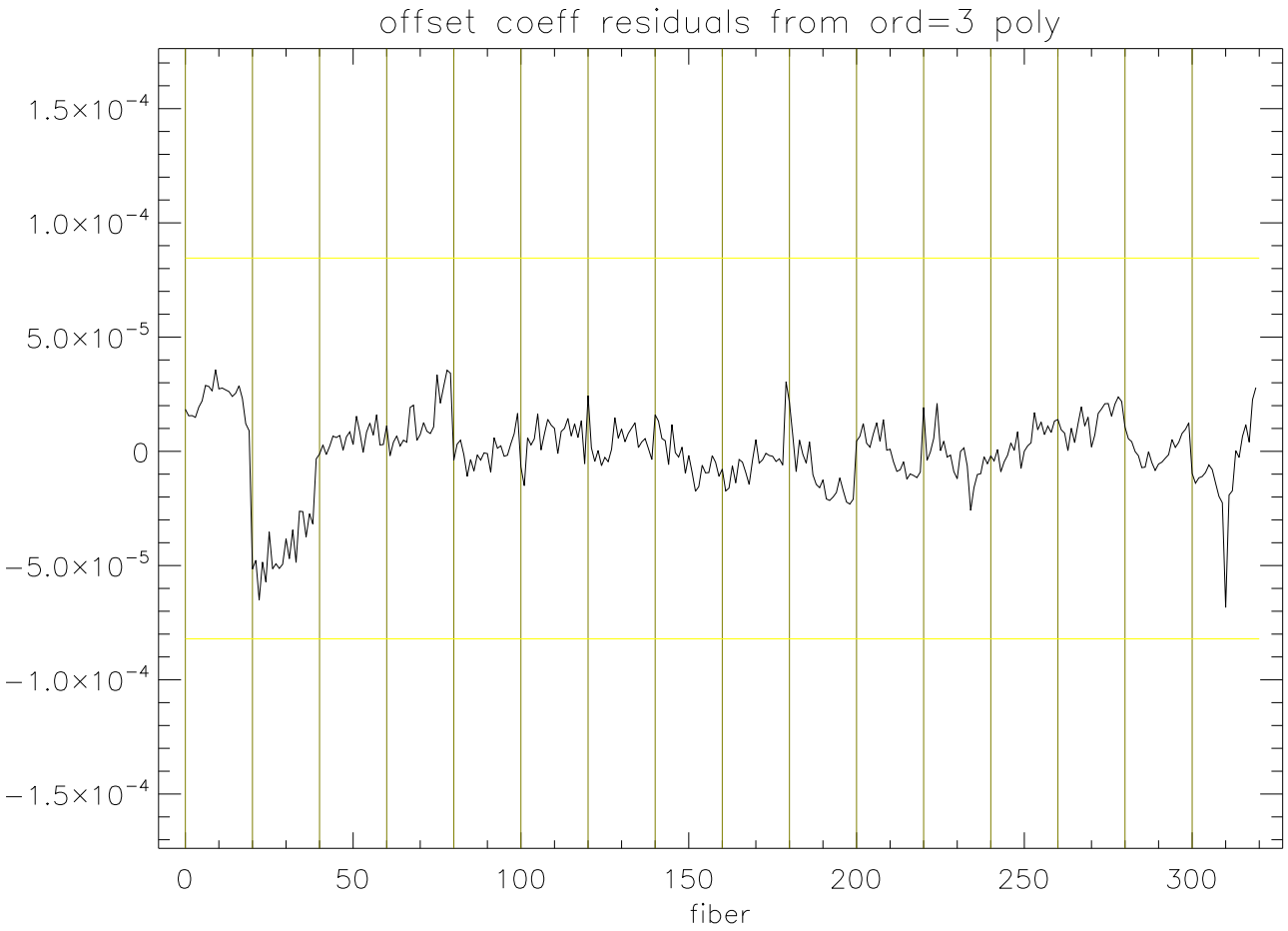

Number of sky fibers = 16
PLATE=3210 MJD=54865 sdR-r1-00058696.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

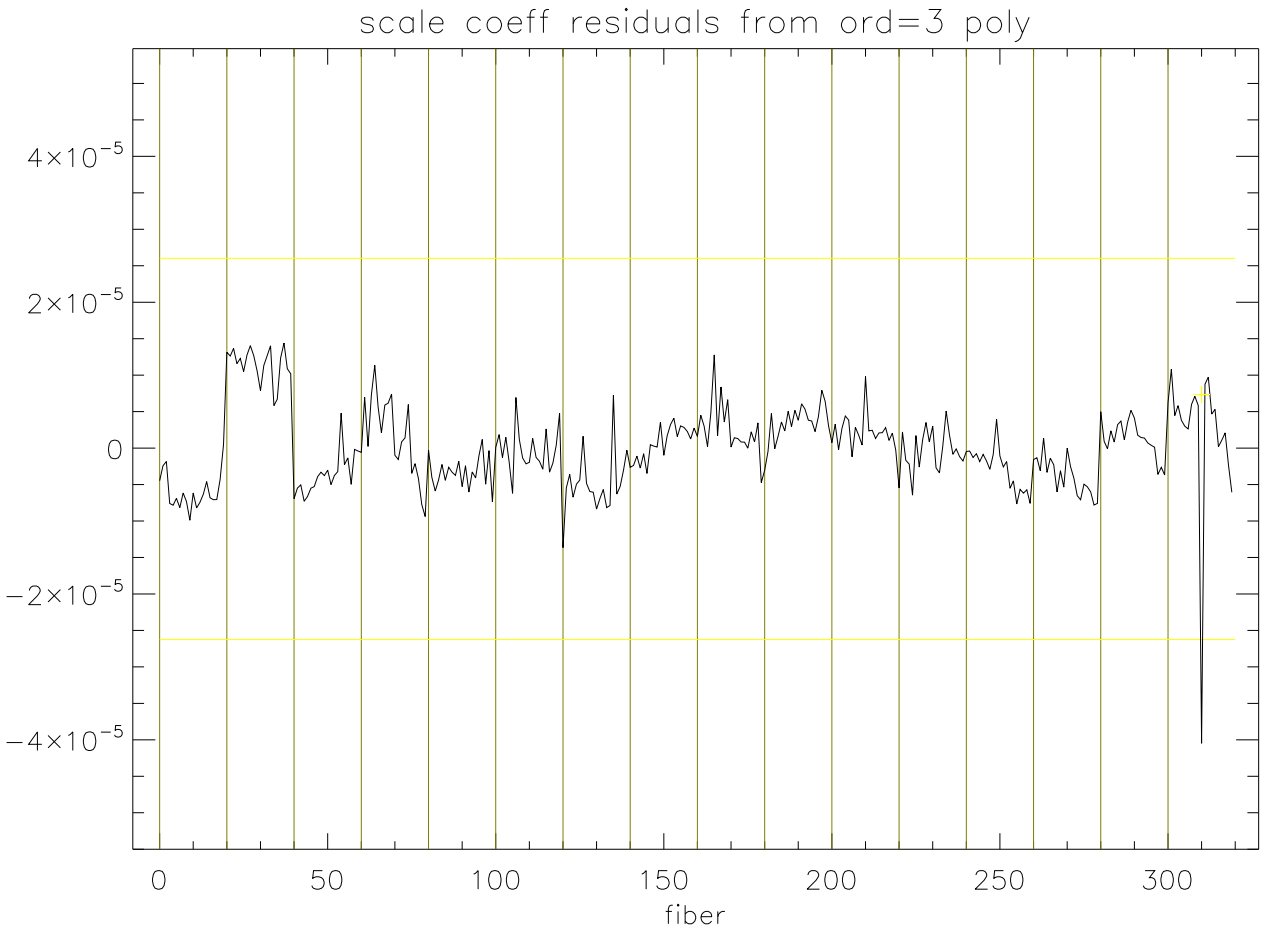

PLATE=3210 MJD=54865 sdR-r1-00058696.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 1.96 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

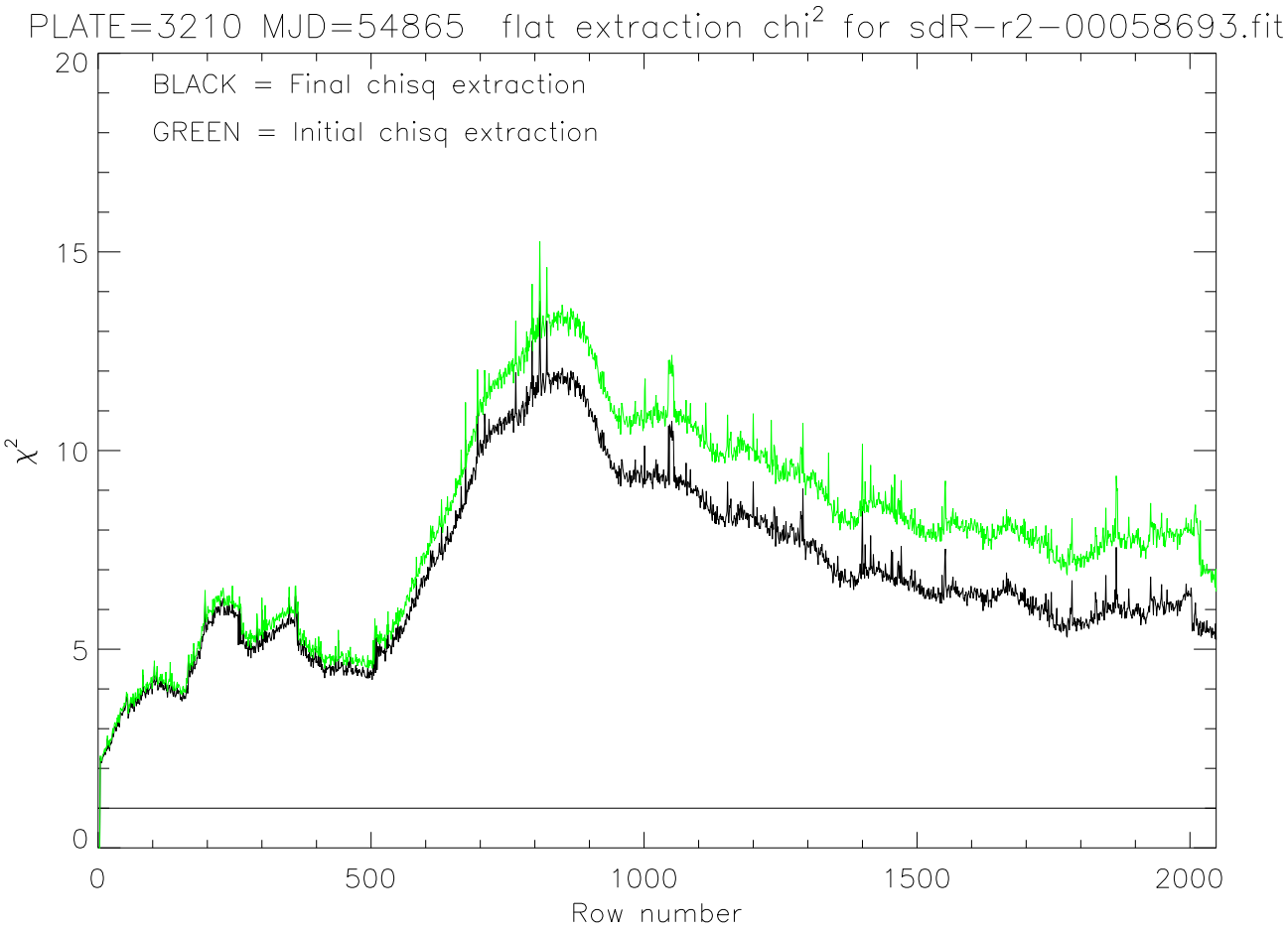

PLATE=3210 MJD=54865 sdR-r1-00058696.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 1.92 %
Fiber number
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass

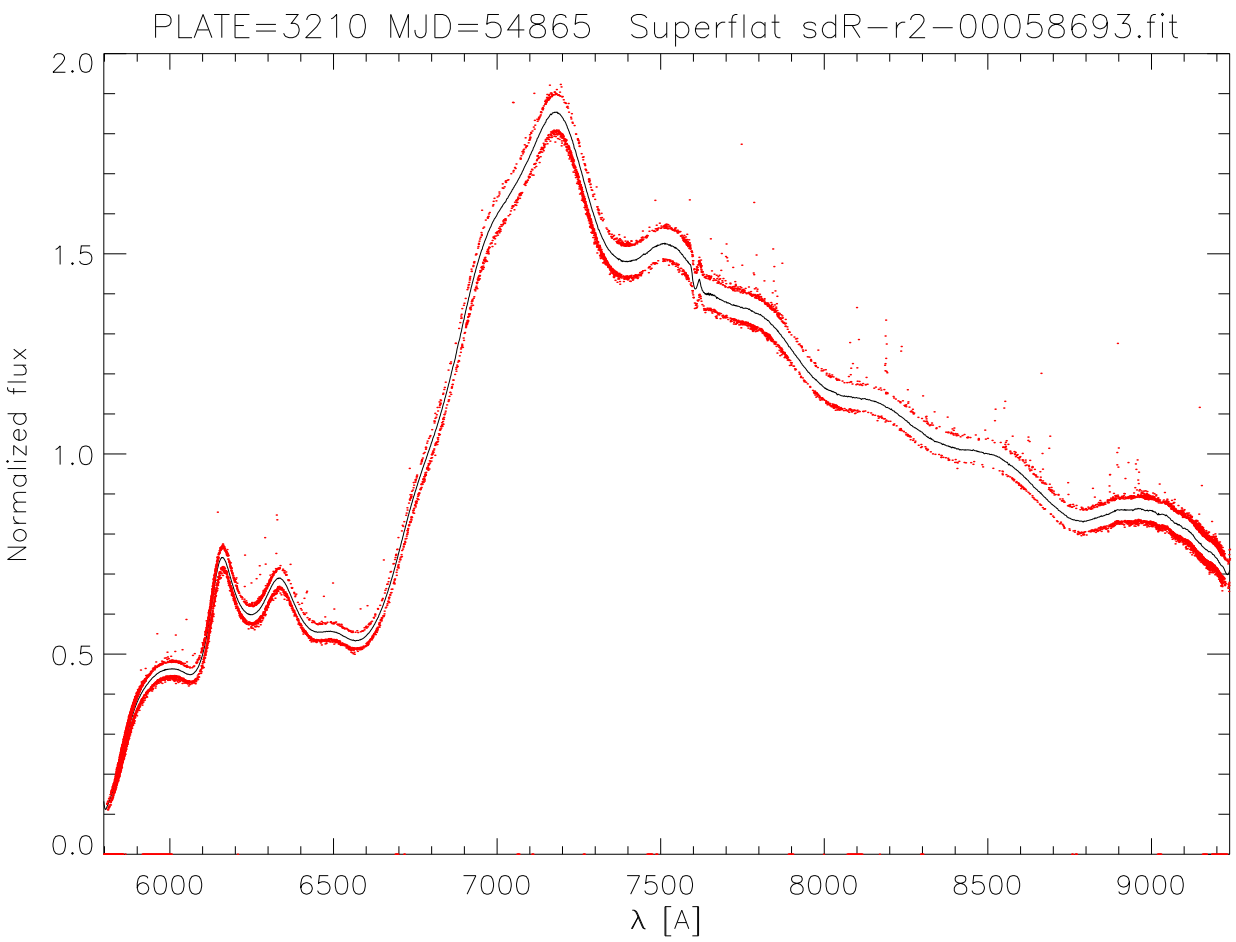

offset coeff residuals from ord=3 poly
1.5×10⁻⁴
1.0×10⁻⁴
5.0×10⁻⁵
0
−5.0×10⁻⁵
−1.0×10⁻⁴
−1.5×10⁻⁴
0
50
100
150
200
250
300
fiber

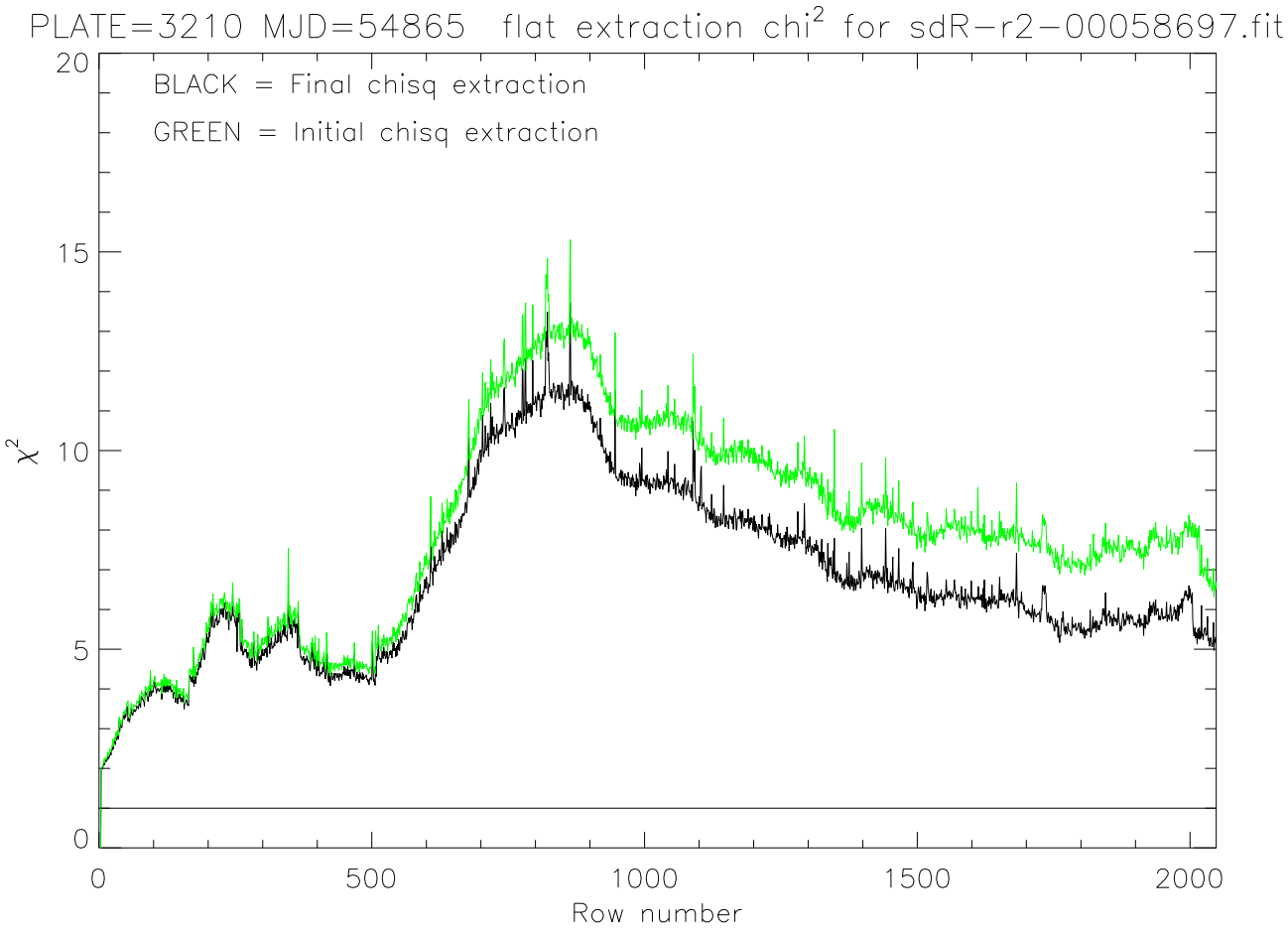

scale coeff residuals from ord=3 poly
4×10⁻⁵
2×10⁻⁵
0
−2×10⁻⁵
−4×10⁻⁵
0
50
100
150
200
250
300
fiber

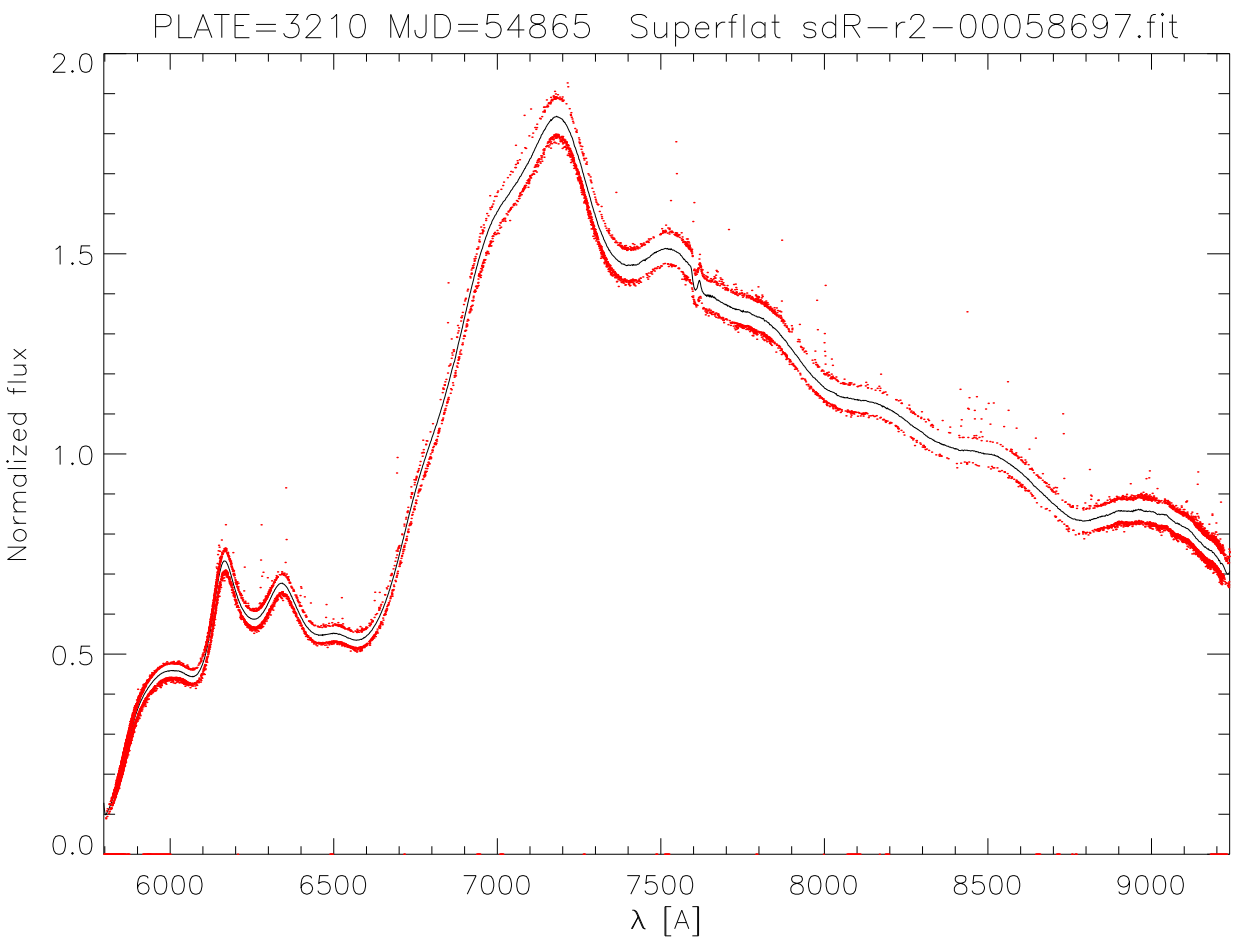

offset coeff residuals from ord=3 poly
1.5×10⁻⁴
1.0×10⁻⁴
5.0×10⁻⁵
0
−5.0×10⁻⁵
−1.0×10⁻⁴
−1.5×10⁻⁴
0
50
100
150
200
250
300
fiber

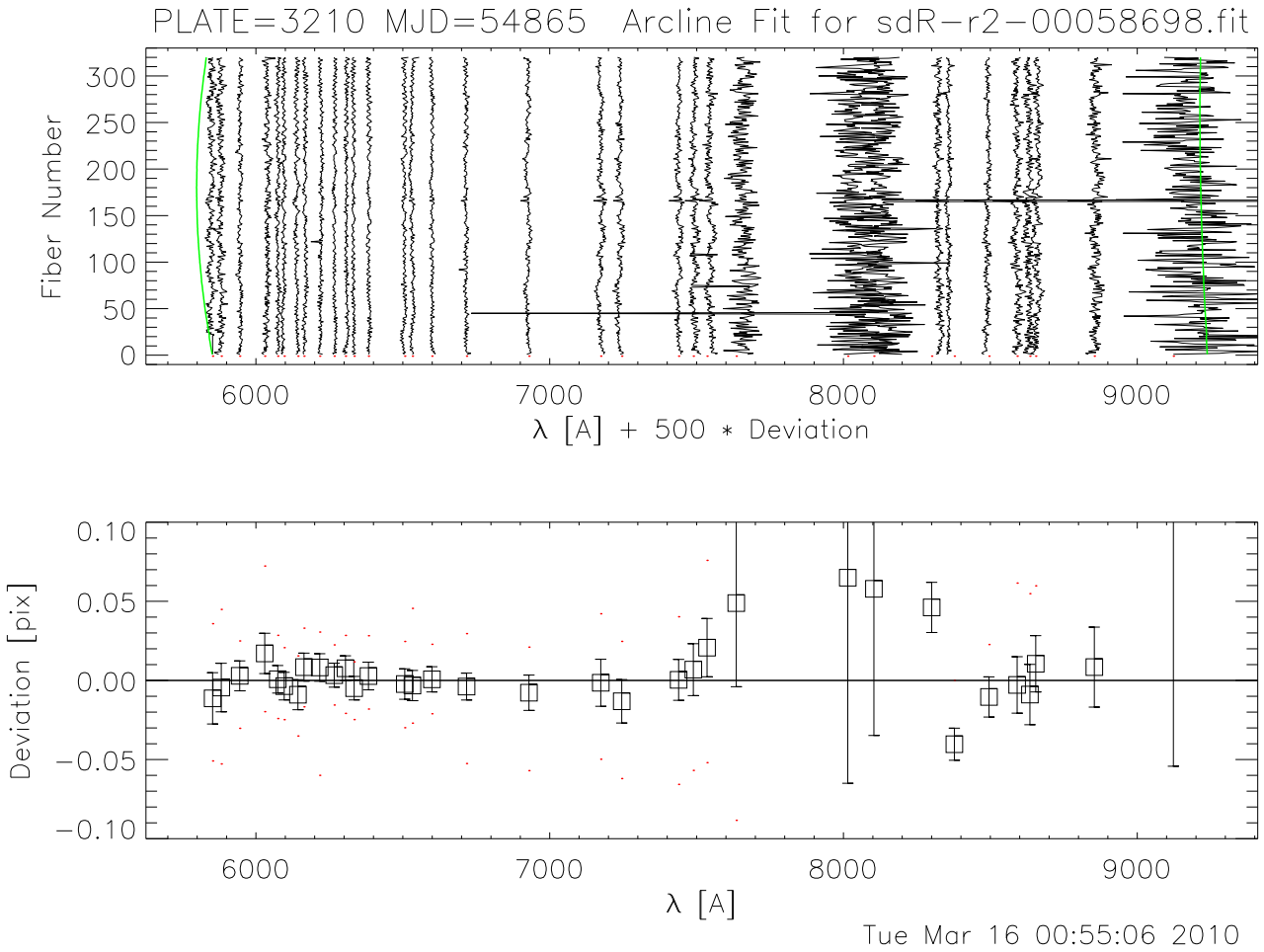

scale coeff residuals from ord=3 poly
4×10⁻⁵
2×10⁻⁵
0
−2×10⁻⁵
−4×10⁻⁵
0
50
100
150
200
250
300
fiber

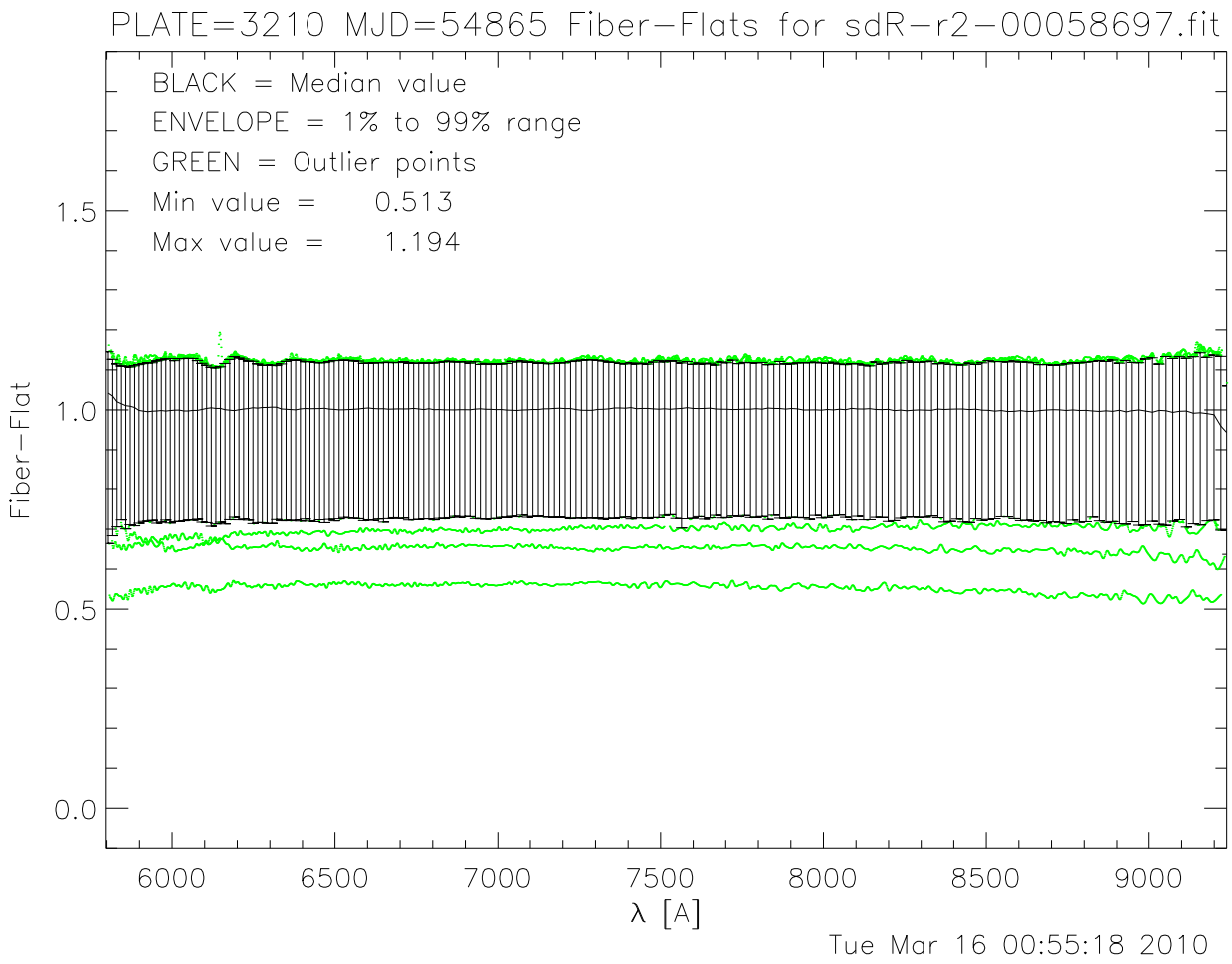

PLATE=3210 MJD=54865 flat extraction chi^2 for sdR−r2−00058693.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
5
10
15
20
0
500
1000
1500
2000

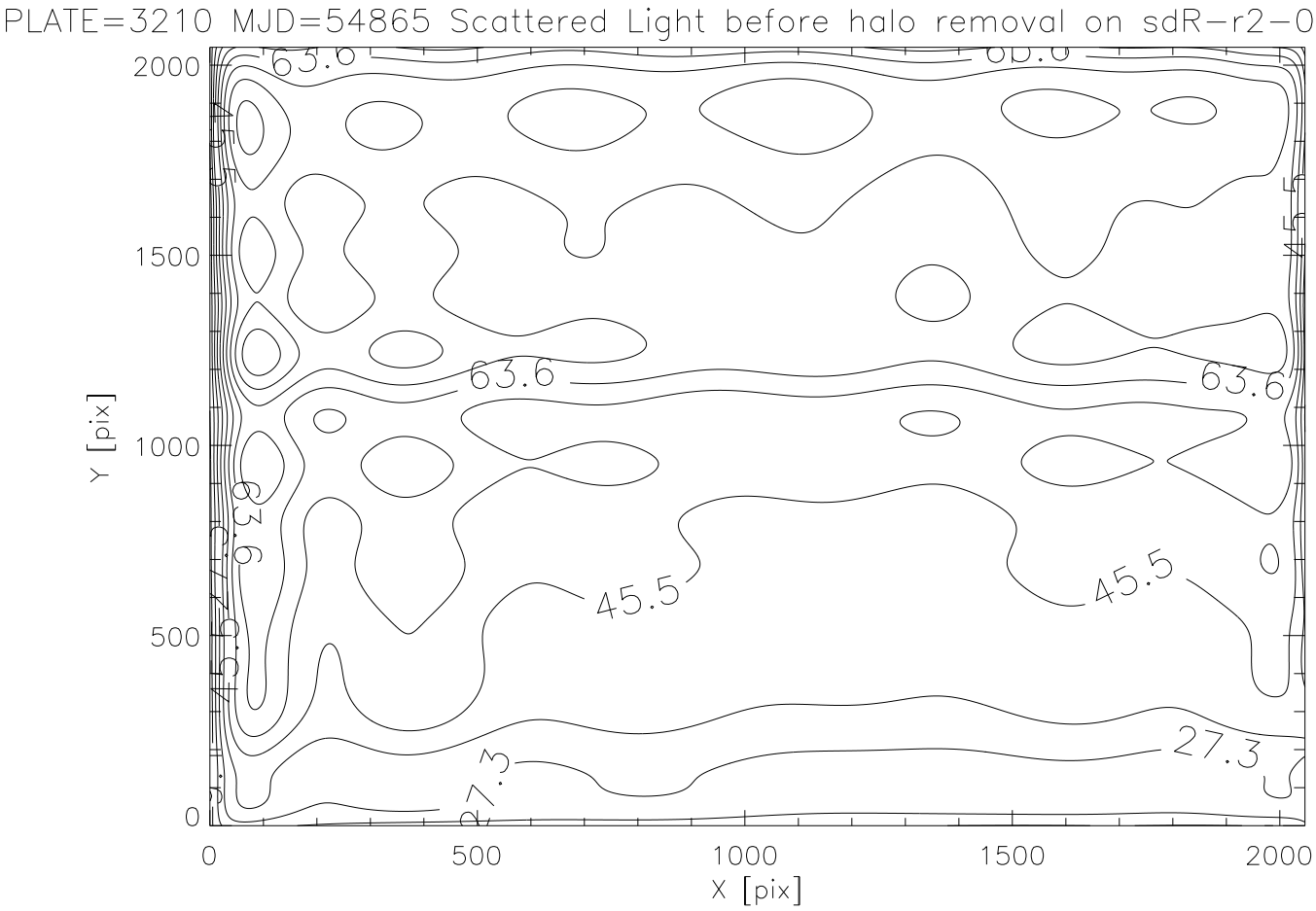

PLATE=3210 MJD=54865 Superflat sdR-r2-00058693.fit
Normalized flux
2.0
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

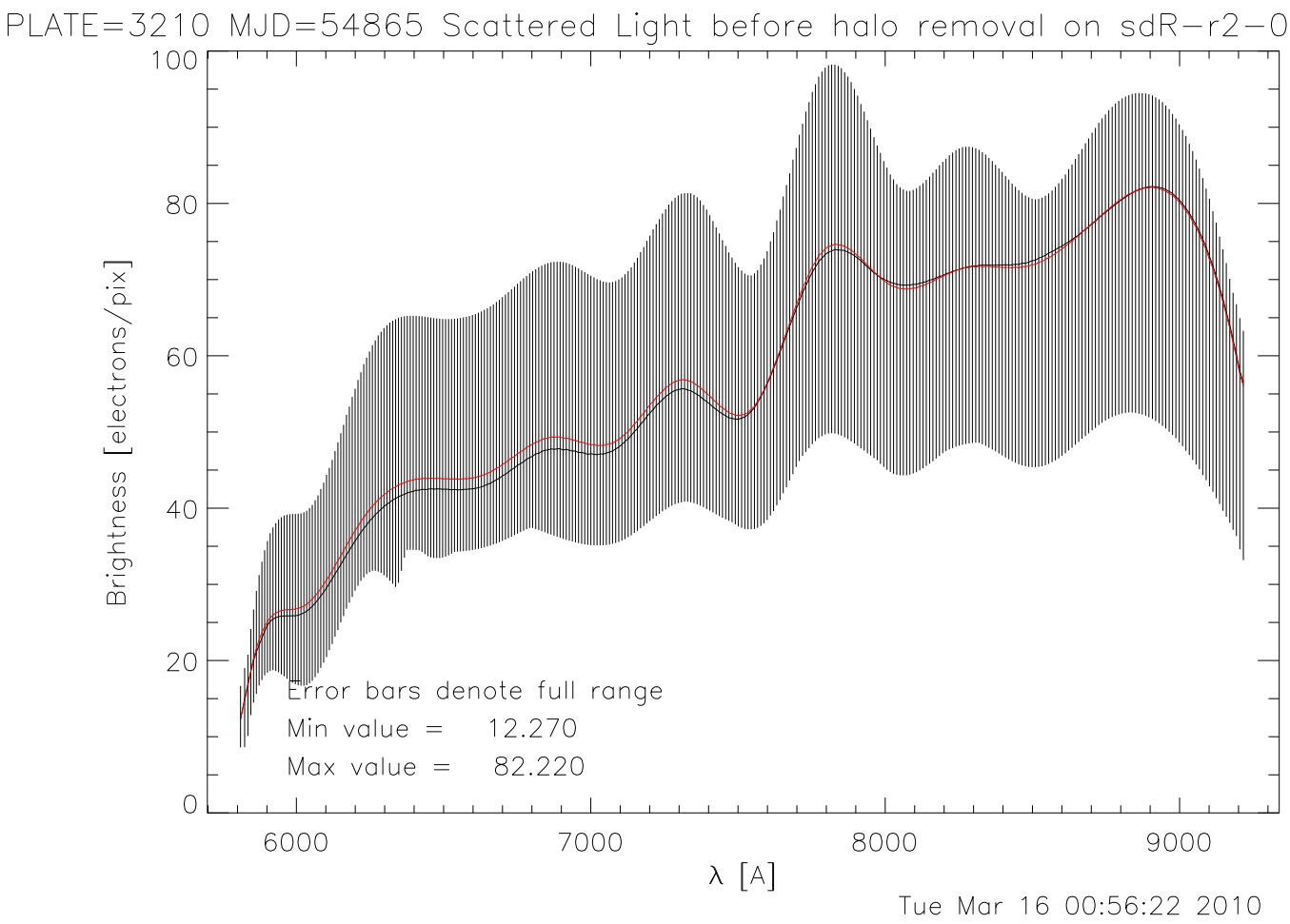

PLATE=3210 MJD=54865 flat extraction chi^2 for sdR−r2−00058697.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
0
5
10
15
20
0
500
1000
1500
2000
Row number

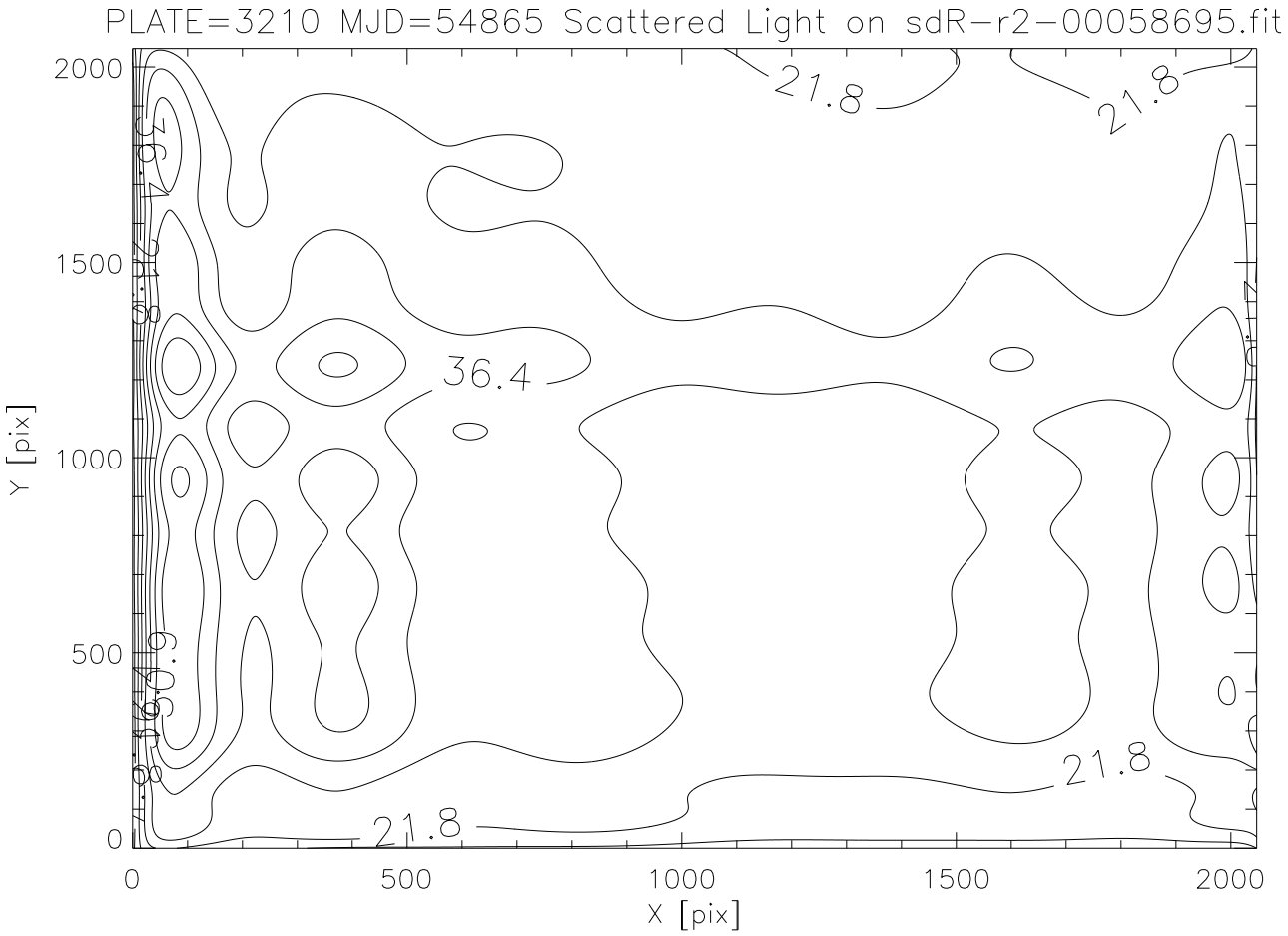

PLATE=3210 MJD=54865 Superflat sdR-r2-00058697.fit
Normalized flux
2.0
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

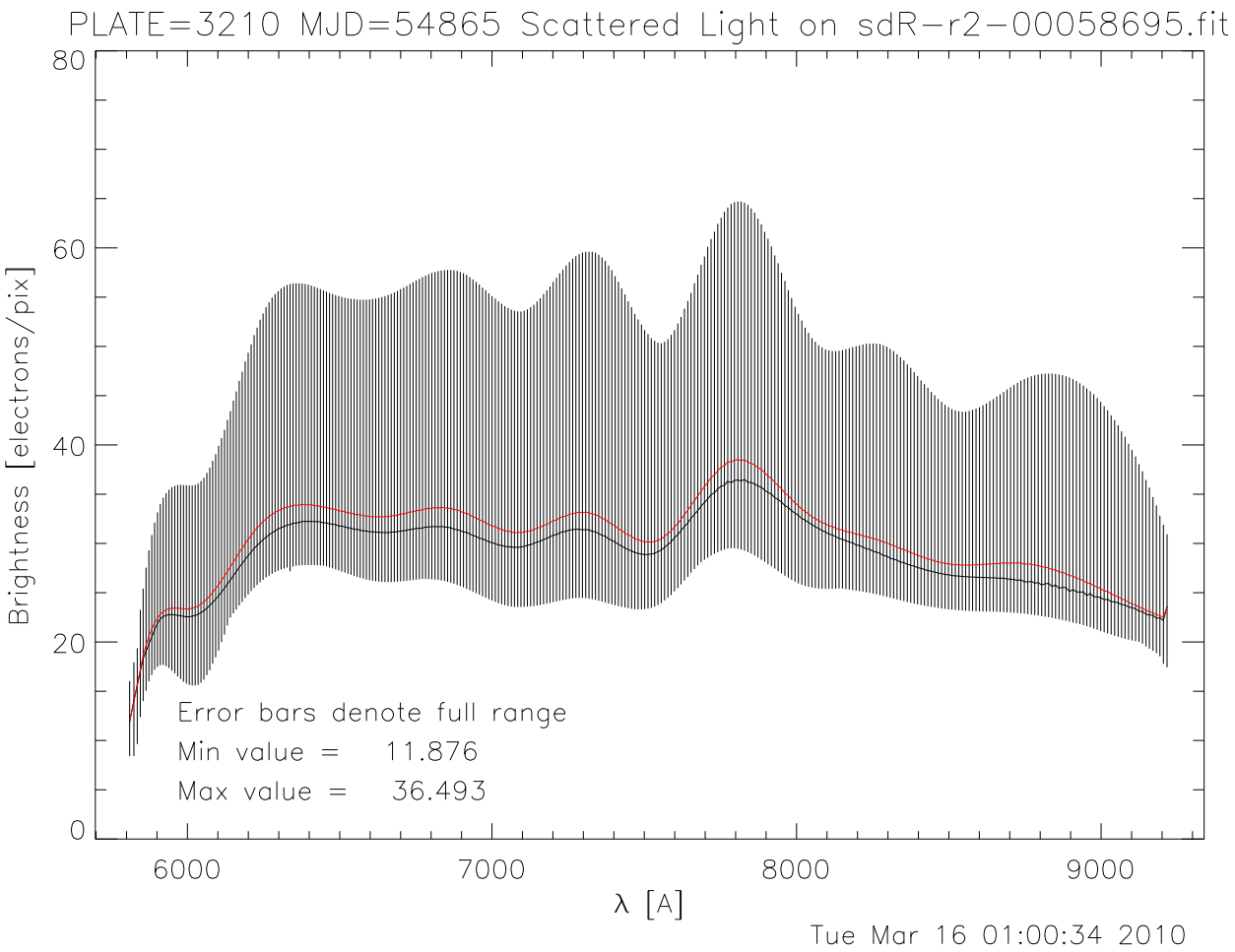

PLATE=3210 MJD=54865 Arcline Fit for sdR-r2-00058698.fit
Fiber Number
300
250
200
150
100
50
0
6000
7000
8000
9000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
6000
7000
8000
9000
λ [A]
Tue Mar 16 00:55:06 2010

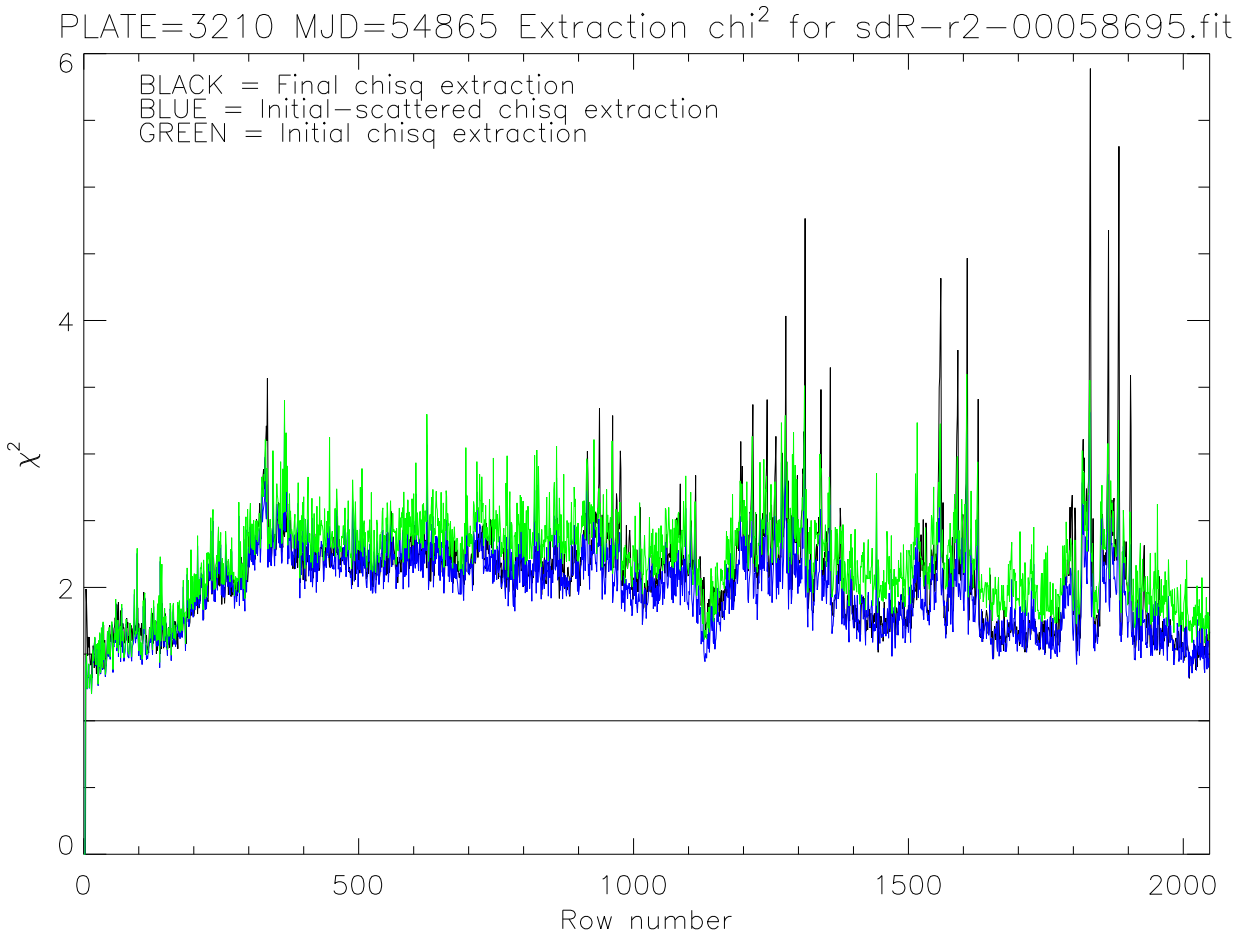

PLATE=3210 MJD=54865 Fiber-Flats for sdR-r2-00058697.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.513
Max value = 1.194
Fiber-Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Tue Mar 16 00:55:18 2010

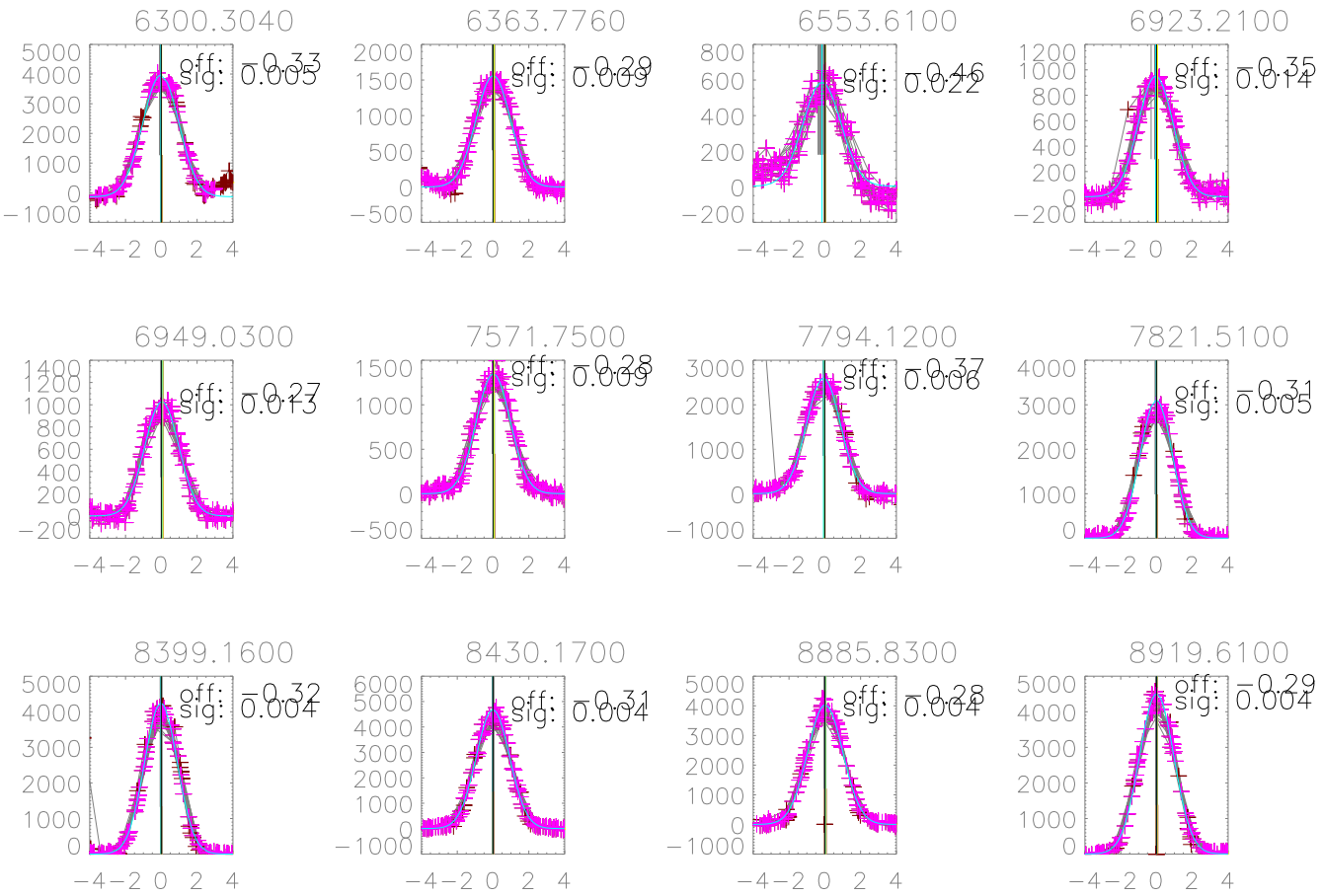

PLATE=3210 MJD=54865 Scattered Light before halo removal on sdR-r2-00058695.fi
63.6
63.6
63.6
45.5
45.5
27.3
0
Y [pix]
X [pix]
0
500
1000
1500
2000

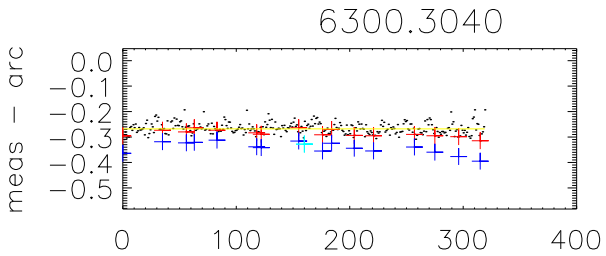

PLATE=3210 MJD=54865 Scattered Light before halo removal on sdR-r2-00058695.fi
Brightness [electrons/pix]
100
80
60
40
20
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 12.270
Max value = 82.220
Tue Mar 16 00:56:22 2010

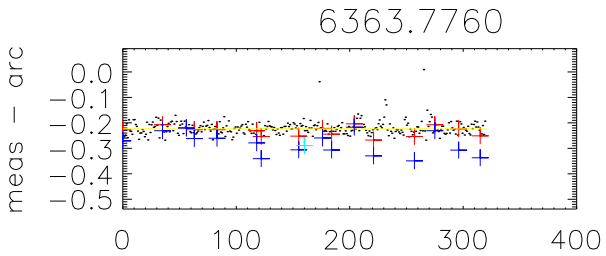

PLATE=3210 MJD=54865 Scattered Light on sdR-r2-00058695.fit
21.8
21.8
36.4
21.8
21.8
0
Y [pix]
X [pix]
0
500
1000
1500
2000

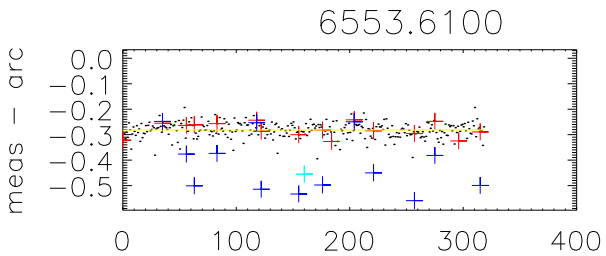

PLATE=3210 MJD=54865 Scattered Light on sdR-r2-00058695.fit
Brightness [electrons/pix]
80
60
40
20
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 11.876
Max value = 36.493
Tue Mar 16 01:00:34 2010

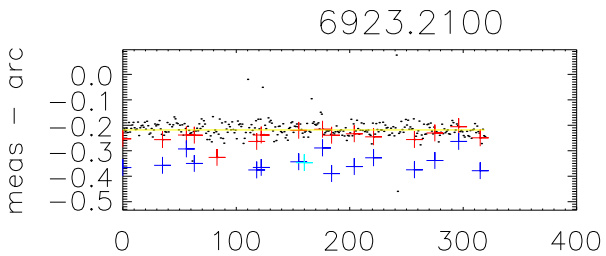

PLATE=3210 MJD=54865 Extraction chi^2 for sdR-r2-00058695.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
0
500
1000
1500
2000
Row number

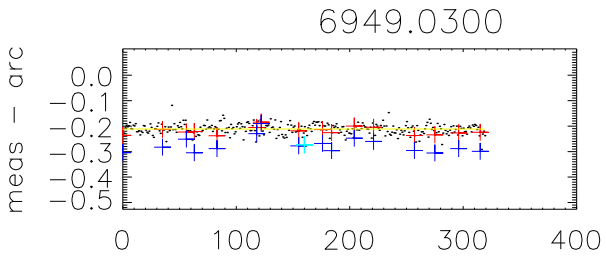

6300.3040
off: −0.33
sig: 0.005
6363.7760
off: −0.29
sig: 0.009
6553.6100
off: −0.46
sig: 0.022
6923.2100
off: −0.35
sig: 0.014
6949.0300
off: −0.27
sig: 0.013
7571.7500
off: −0.28
sig: 0.009
7794.1200
off: −0.37
sig: 0.006
7821.5100
off: −0.31
sig: 0.005
8399.1600
off: −0.32
sig: 0.004
8430.1700
off: −0.31
sig: 0.004
8885.8300
off: −0.28
sig: 0.004
8919.6100
off: −0.29
sig: 0.004

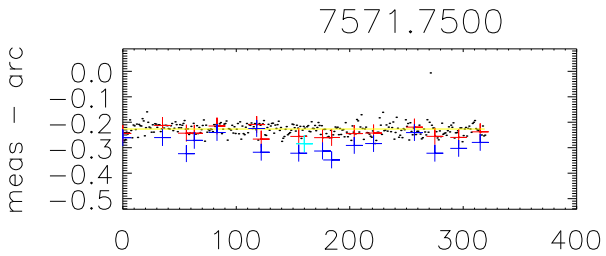

6300.3040
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

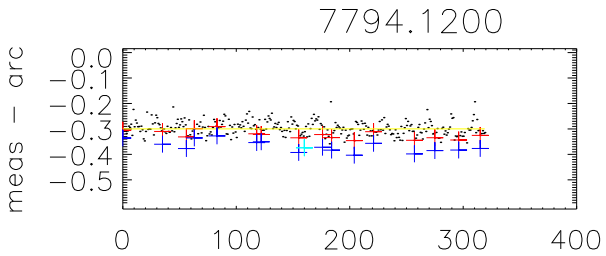

6363.7760
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

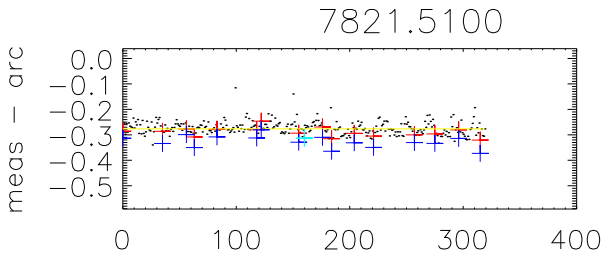

6553.6100
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

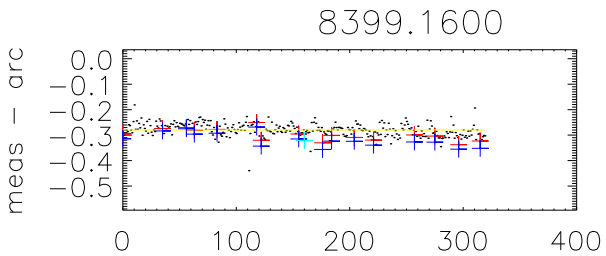

6923.2100
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

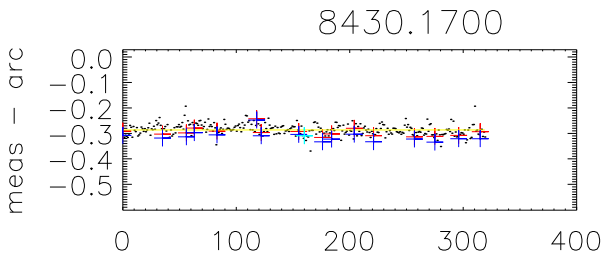

6949.0300
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

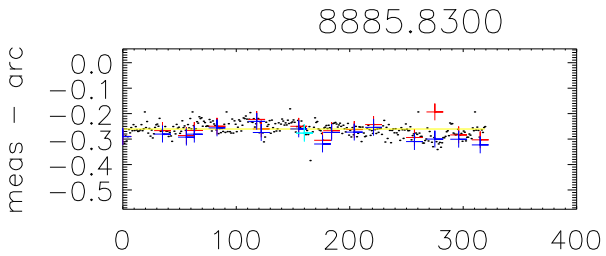

7571.7500
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

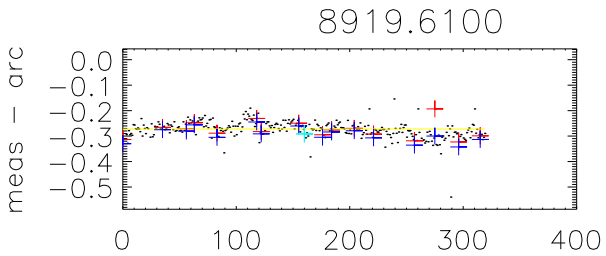

7794.1200
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

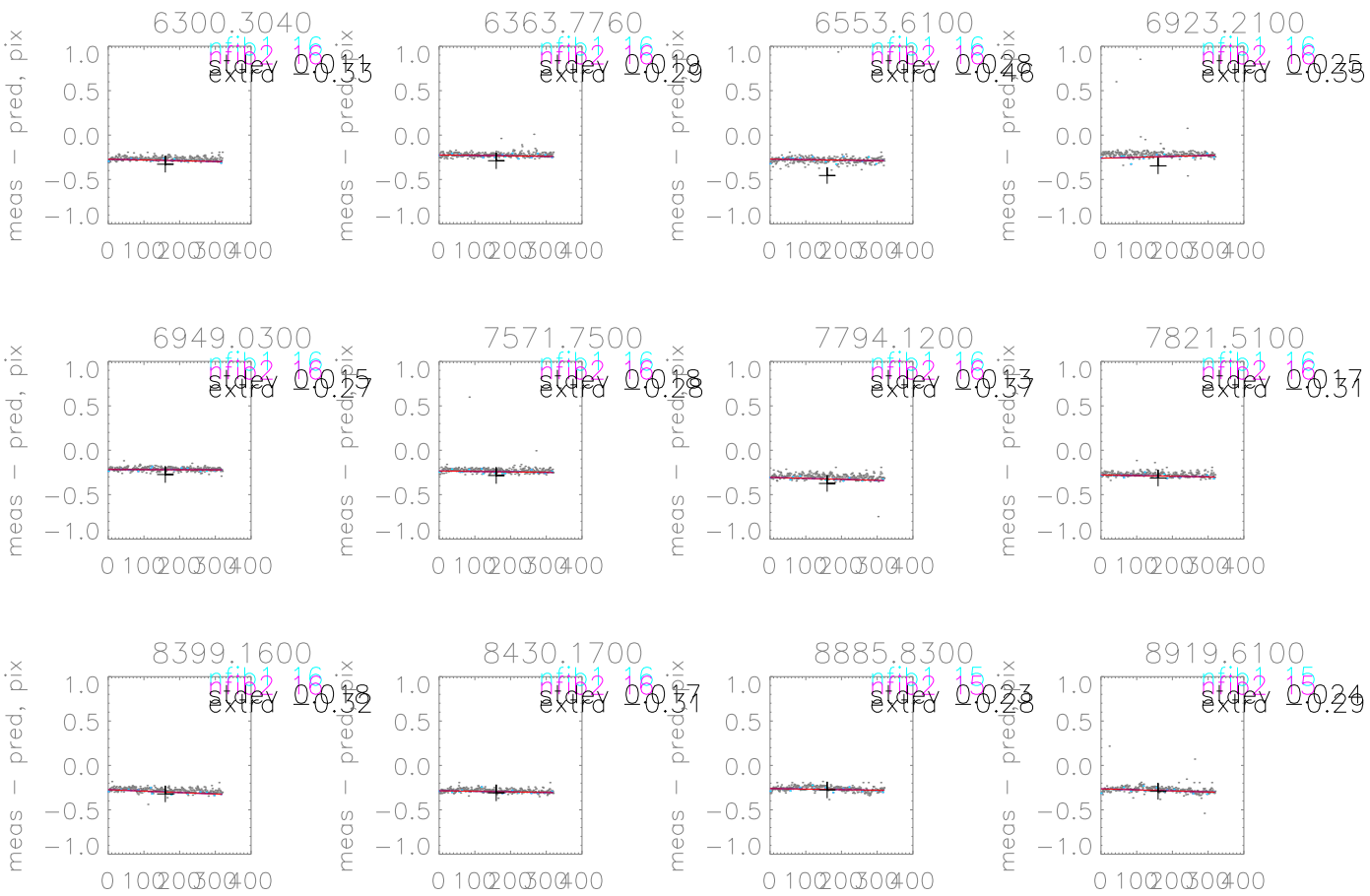

7821.5100
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

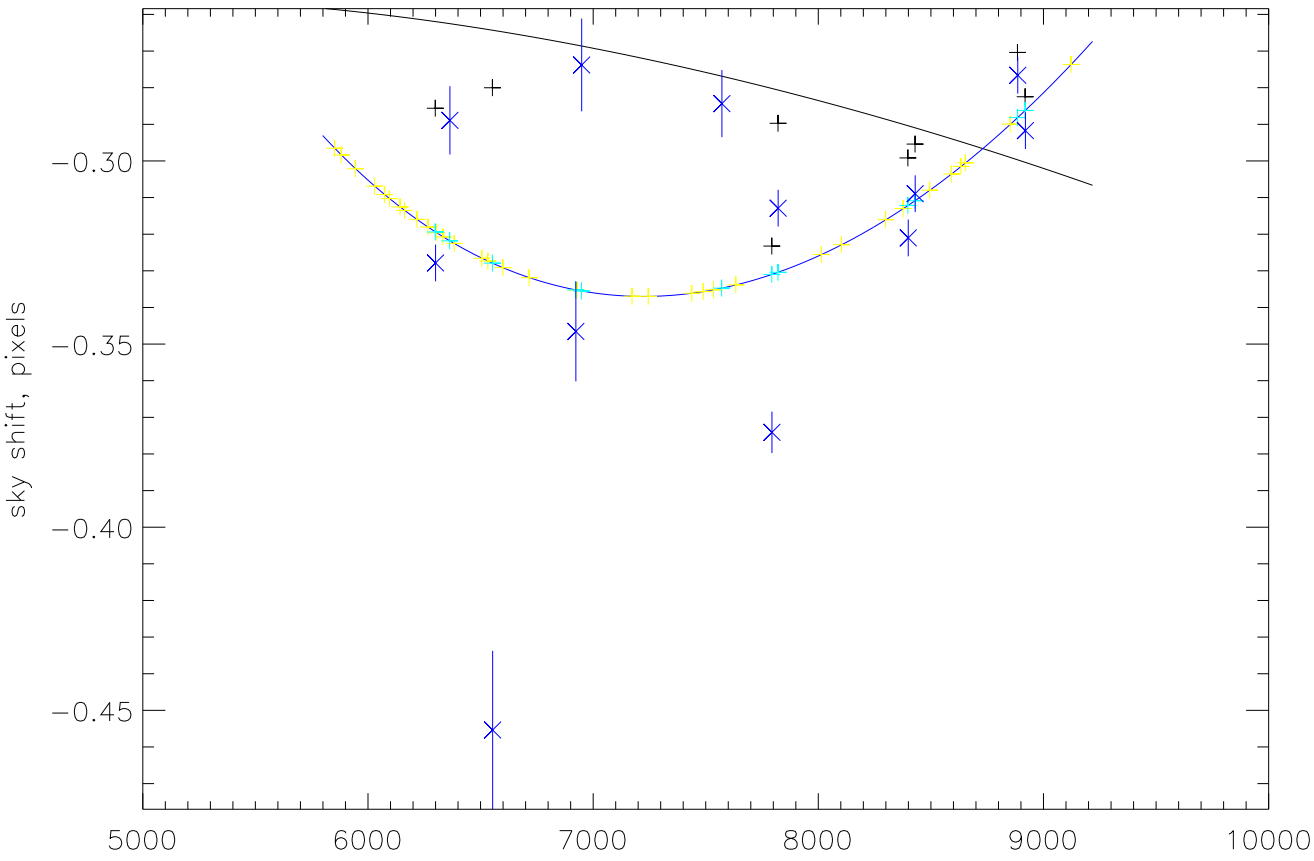

8399.1600
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

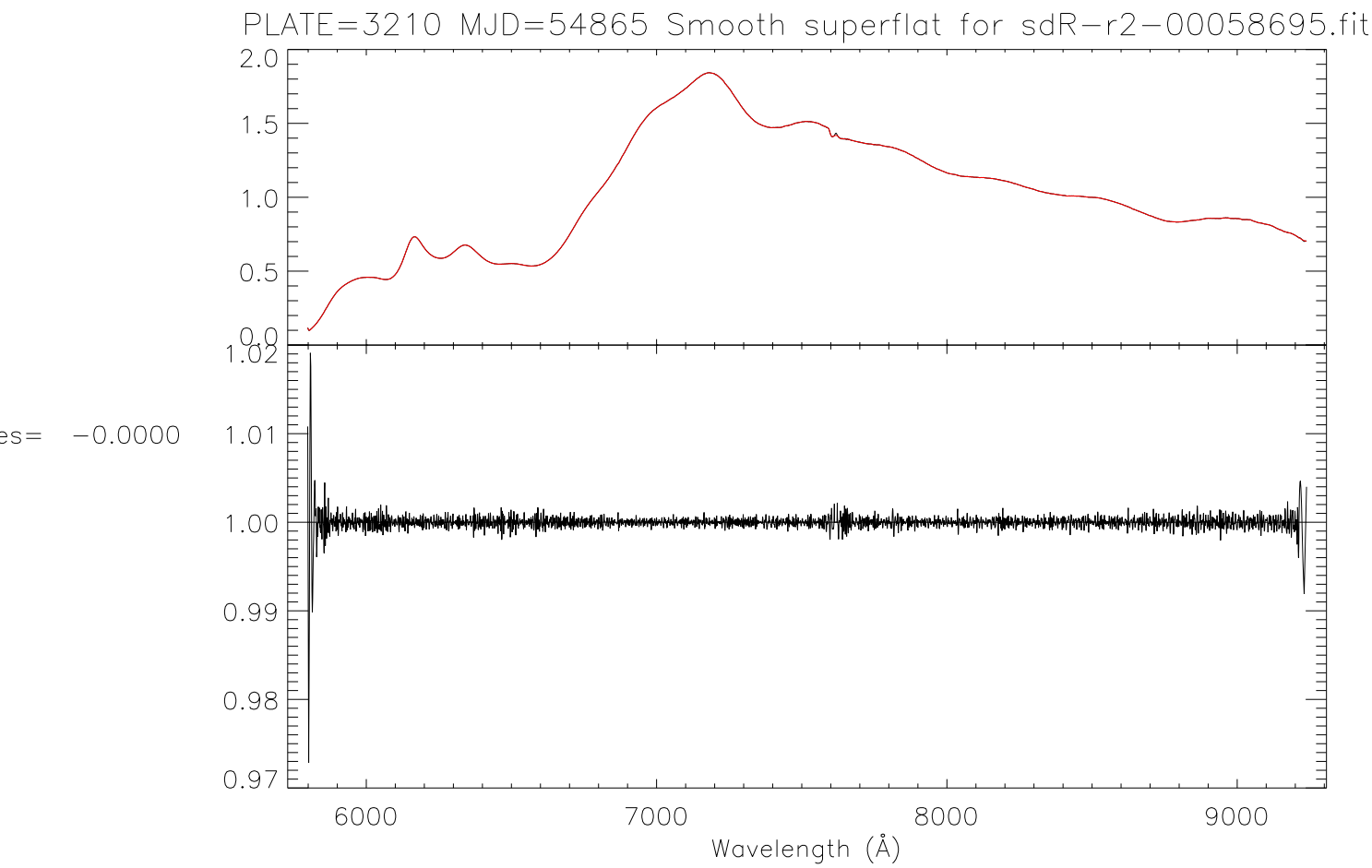

8430.1700
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400


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

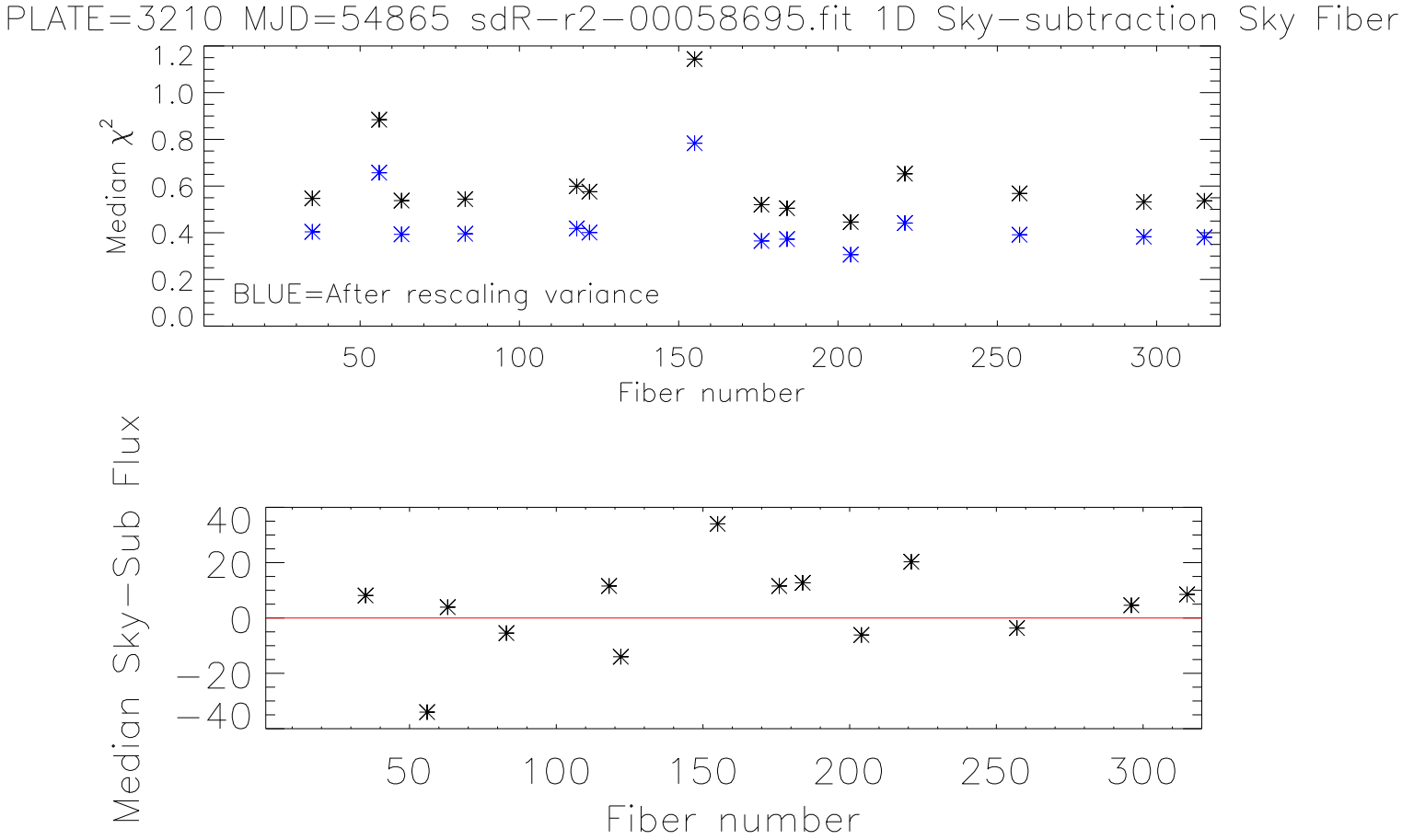

8919.6100
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

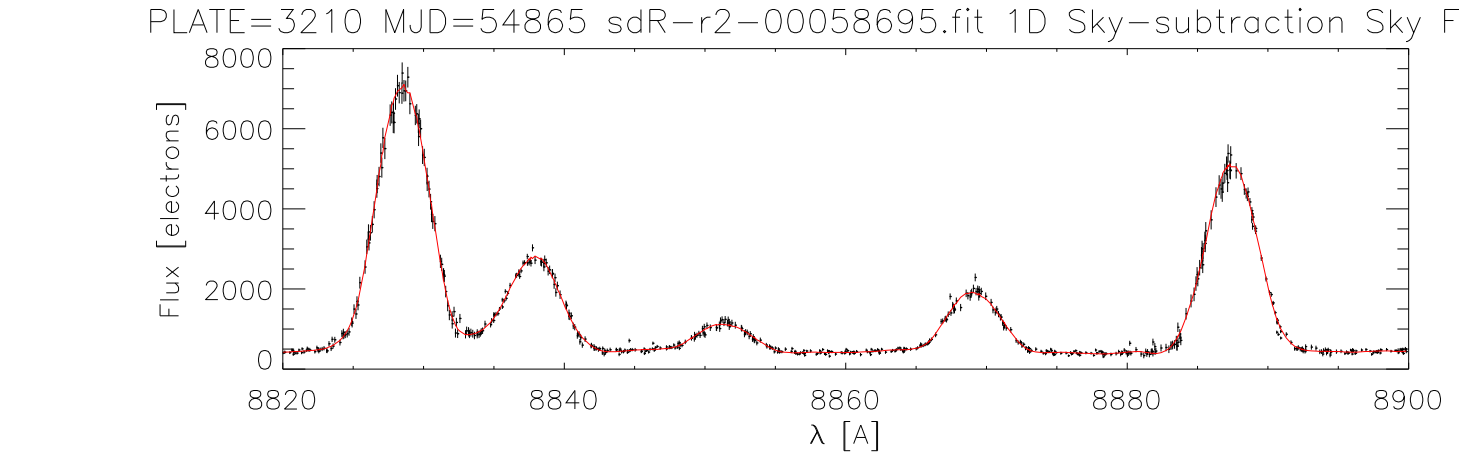

6300.3040
6363.7760
6553.6100
6923.2100
6949.0300
7571.7500
7794.1200
7821.5100
8399.1600
8430.1700
8885.8300
8919.6100
meas − pred, pix
mfhs2 16
stdev 0.31
extrd 0.33
stdev 0.29
extrd 0.29
stdev 0.28
extrd 0.46
stdev 0.25
extrd 0.35
stdev 0.25
extrd 0.27
stdev 0.28
extrd 0.28
stdev 0.33
extrd 0.37
stdev 0.17
extrd 0.31
stdev 0.18
extrd 0.32
stdev 0.17
extrd 0.31
mfhs2 15
stdev 0.23
extrd 0.28
stdev 0.24
extrd 0.29

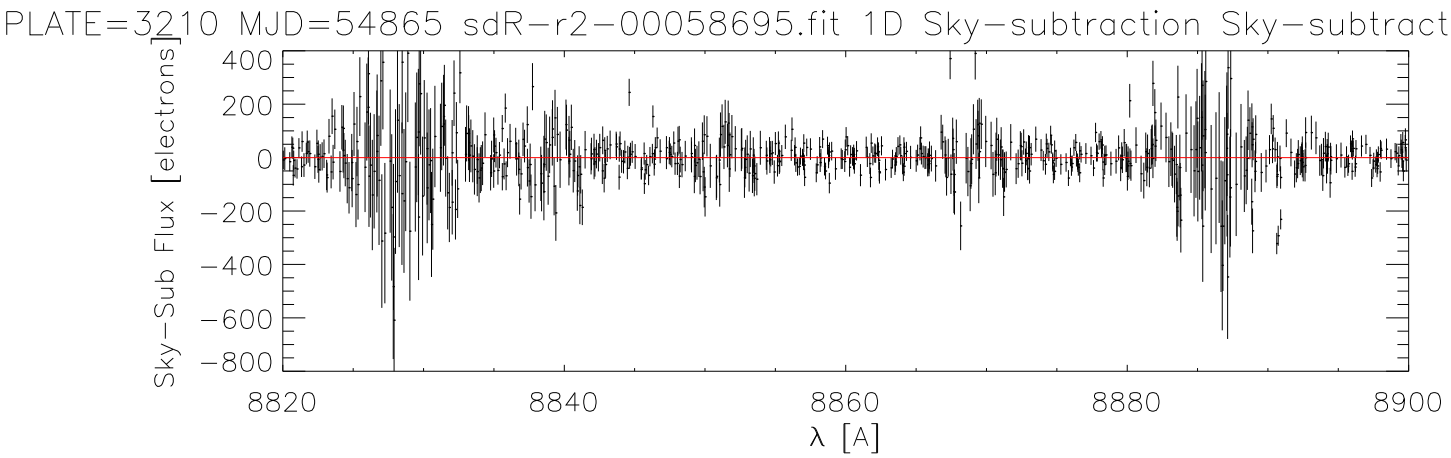

sky shift, pixels
−0.30
−0.35
−0.40
−0.45
5000
6000
7000
8000
9000
10000

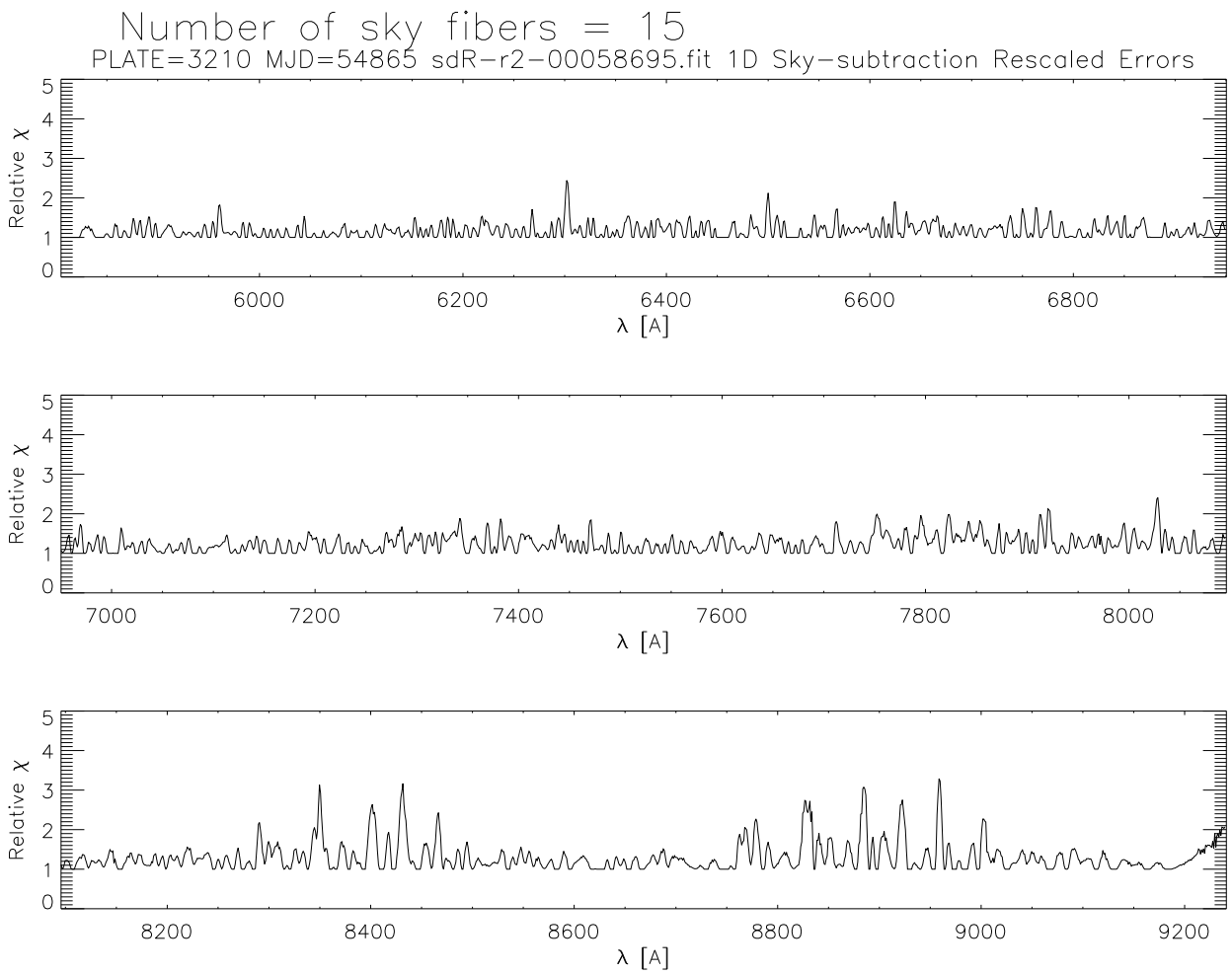

PLATE=3210 MJD=54865 Smooth superflat for sdR-r2-00058695.fit
2.0
1.5
1.0
0.5
0.0
1.02
1.01
1.00
0.99
0.98
0.97
6000
7000
8000
9000
Wavelength (Å)

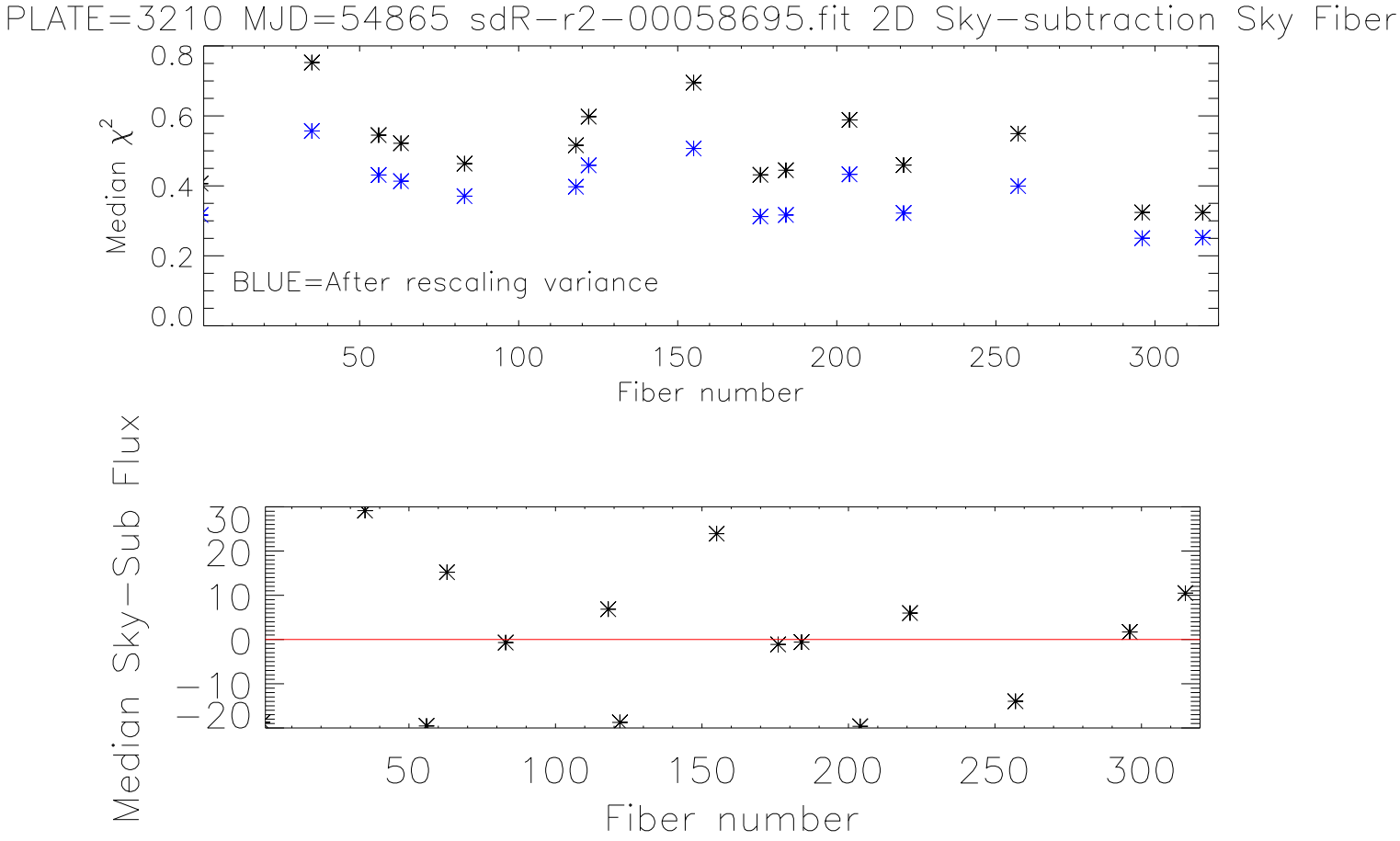
es= −0.0000

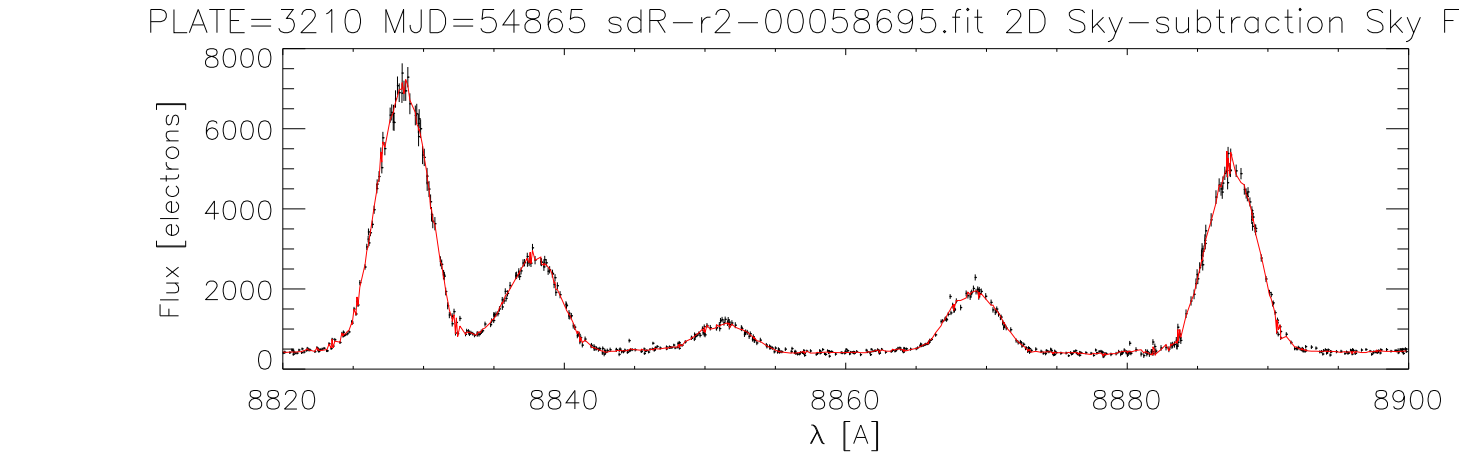

PLATE=3210 MJD=54865 sdR-r2-00058695.fit 1D Sky-subtraction Sky Fibers
Median χ^2
1.2
1.0
0.8
0.6
0.4
0.2
0.0
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
40
20
0
-20
-40
50
100
150
200
250
300
Fiber number

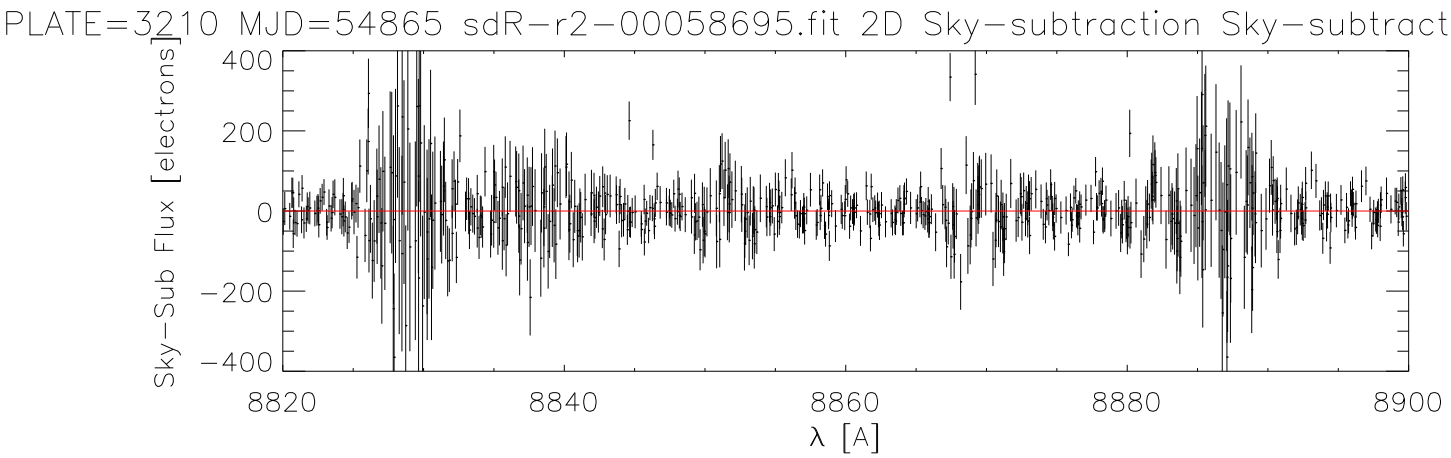

PLATE=3210 MJD=54865 sdR-r2-00058695.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
8820
8840
8860
8880
8900
λ [A]

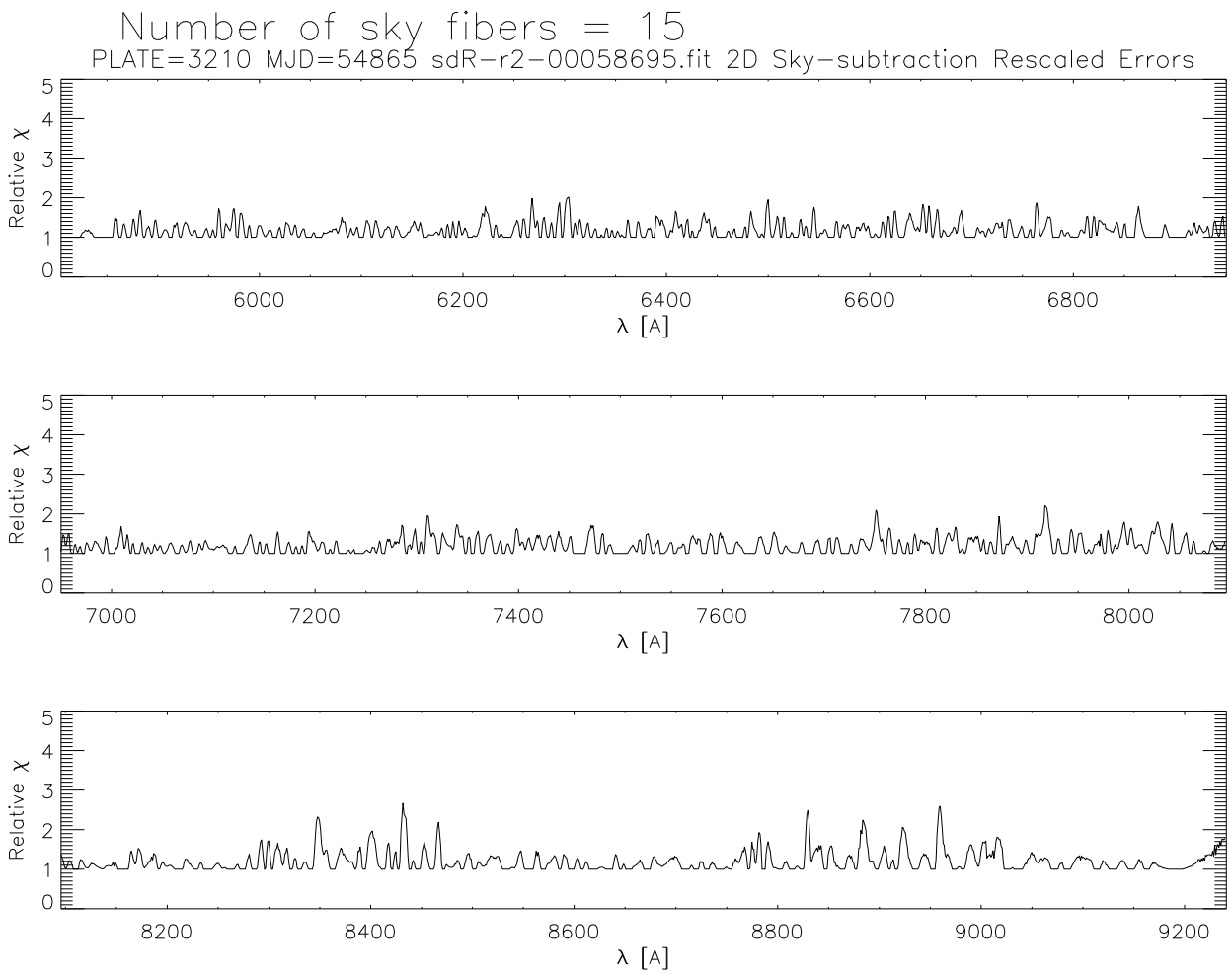

PLATE=3210 MJD=54865 sdR-r2-00058695.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
200
0
-200
-400
-600
-800
8820
8840
8860
8880
8900
λ [A]

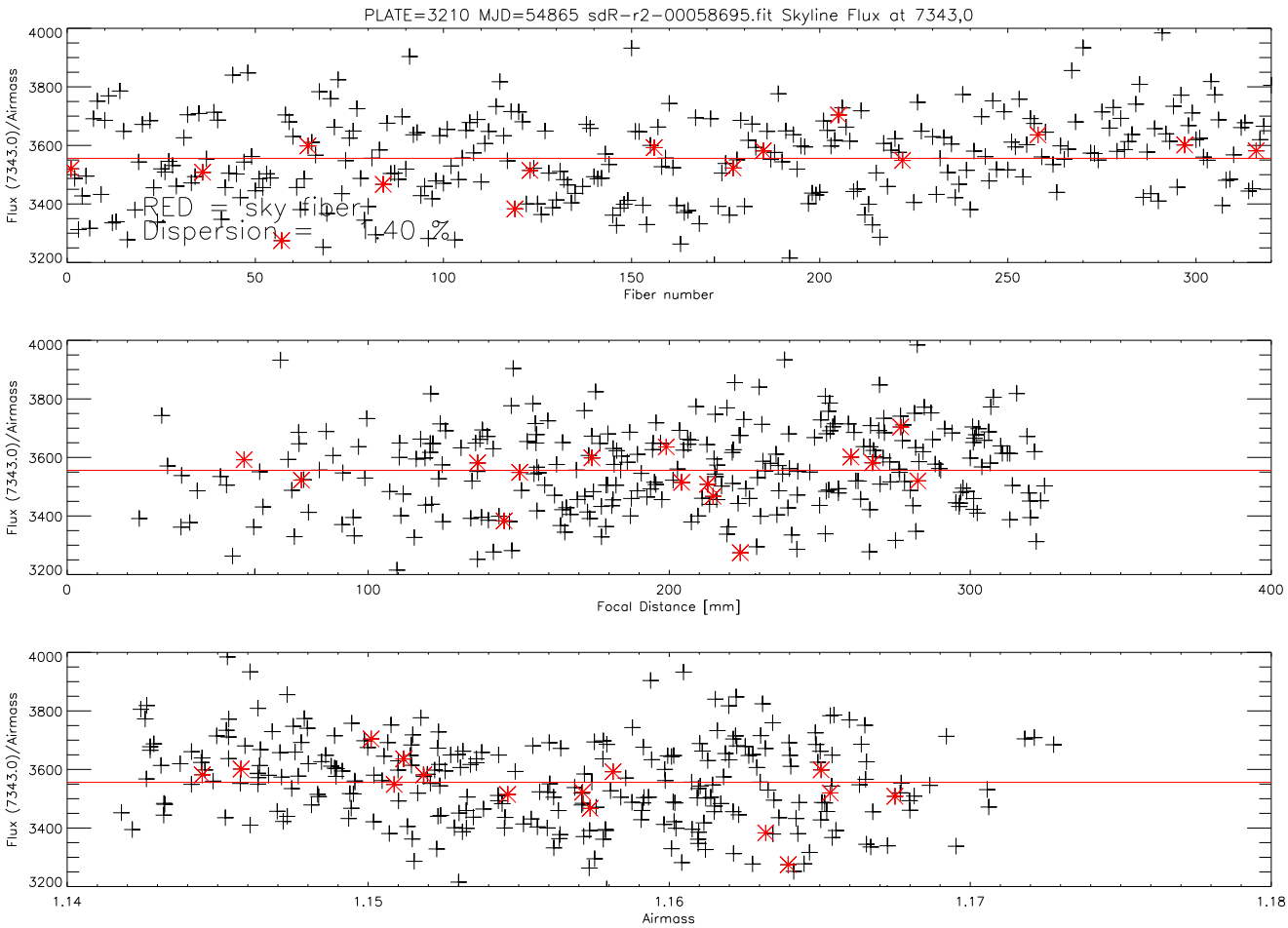

Number of sky fibers = 15
PLATE=3210 MJD=54865 sdR-r2-00058695.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

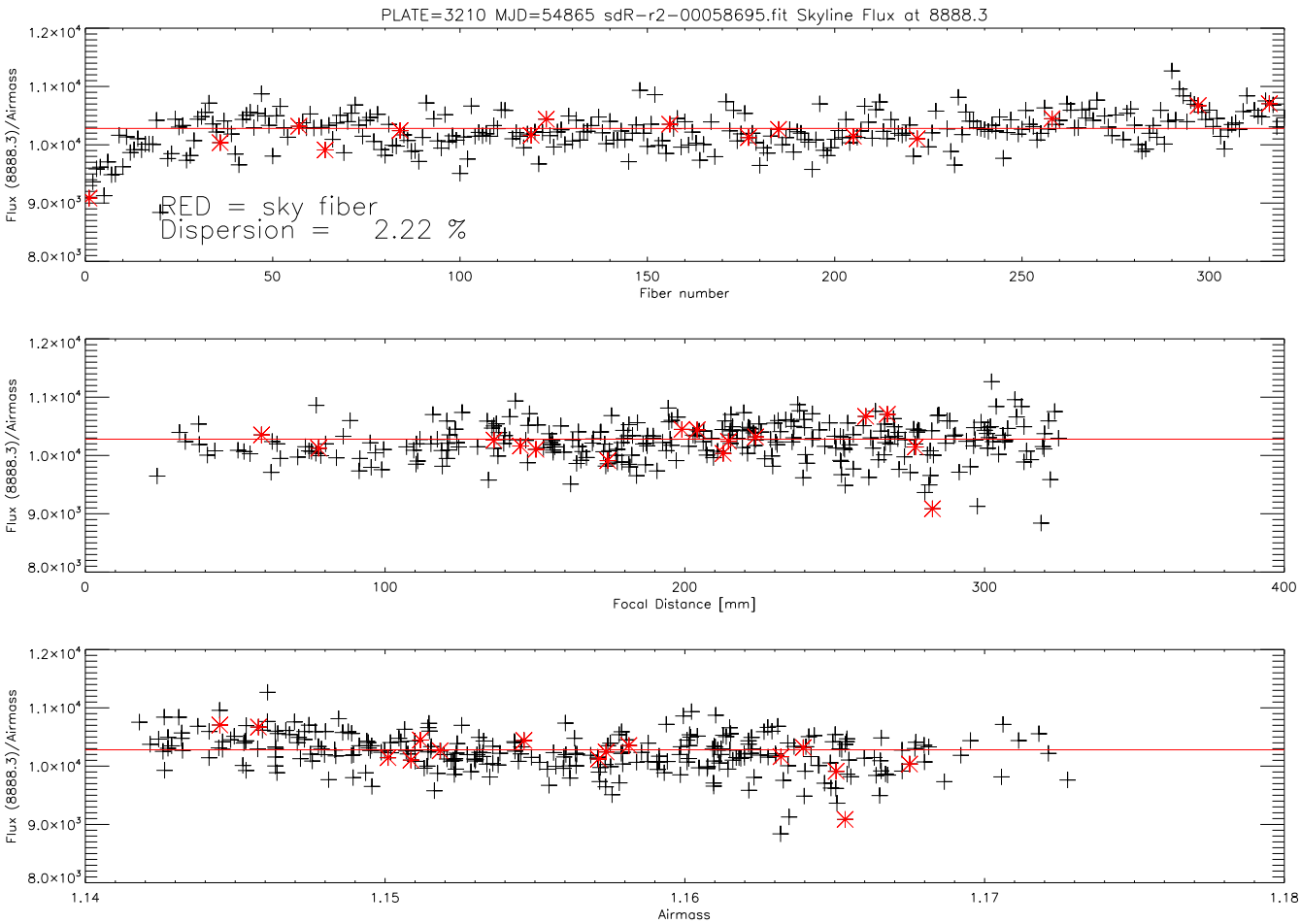

PLATE=3210 MJD=54865 sdR-r2-00058695.fit 2D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
−20
−10
0
10
20
30
50
100
150
200
250
300
Fiber number

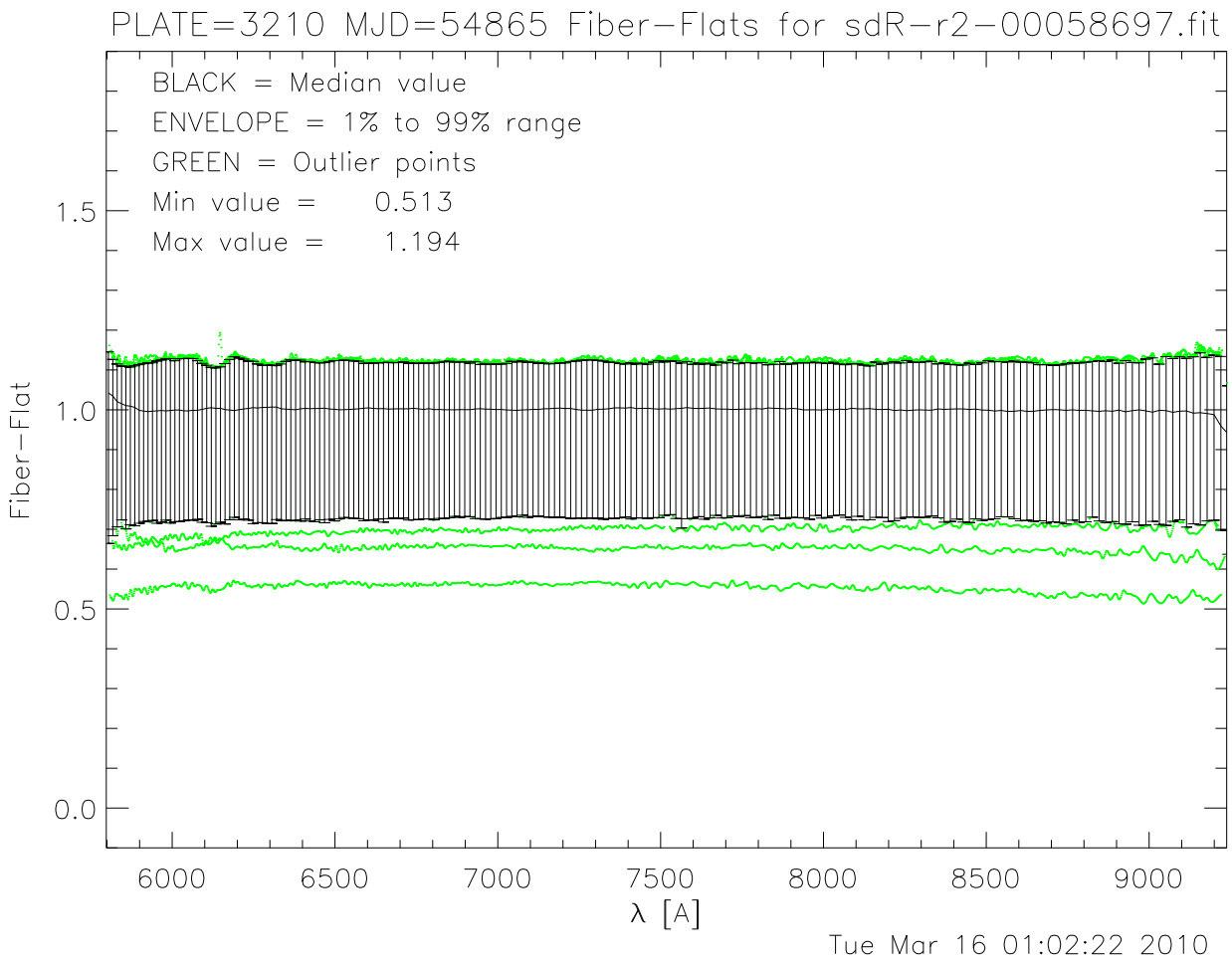

PLATE=3210 MJD=54865 sdR-r2-00058695.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
8820
8840
8860
8880
8900
λ [A]

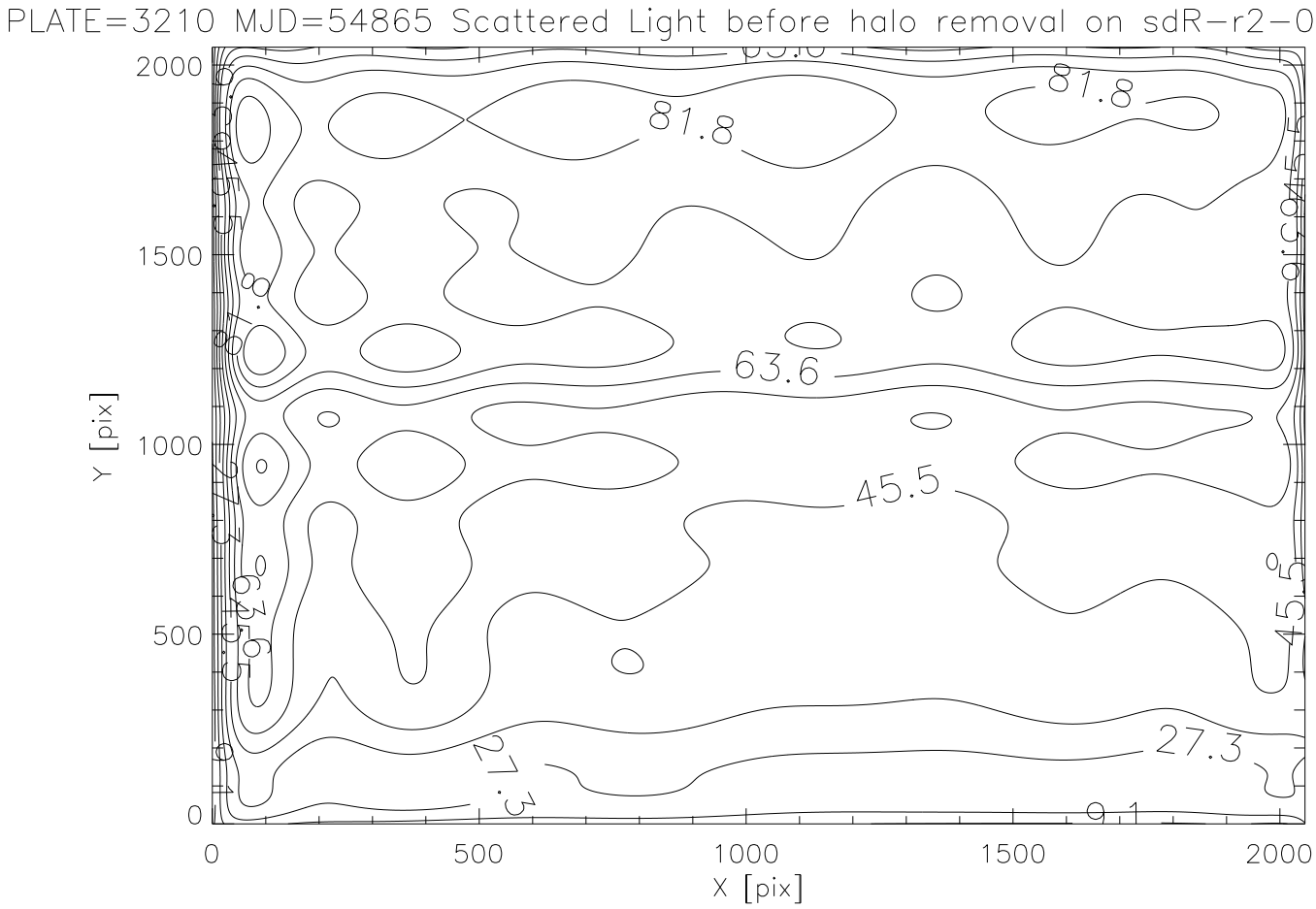

PLATE=3210 MJD=54865 sdR-r2-00058695.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
200
0
-200
-400
8820
8840
8860
8880
8900
λ [A]

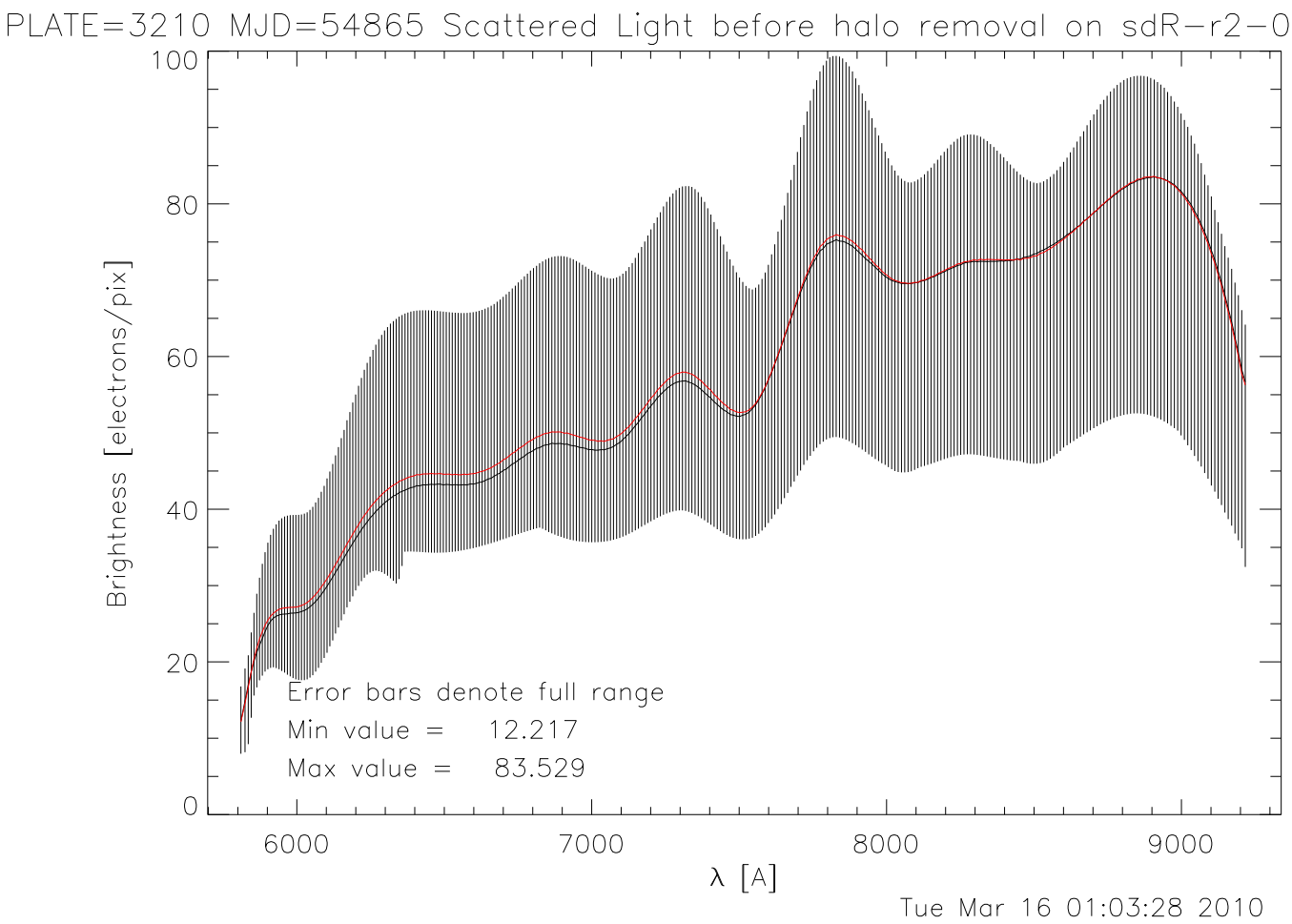

Number of sky fibers = 15
PLATE=3210 MJD=54865 sdR-r2-00058695.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

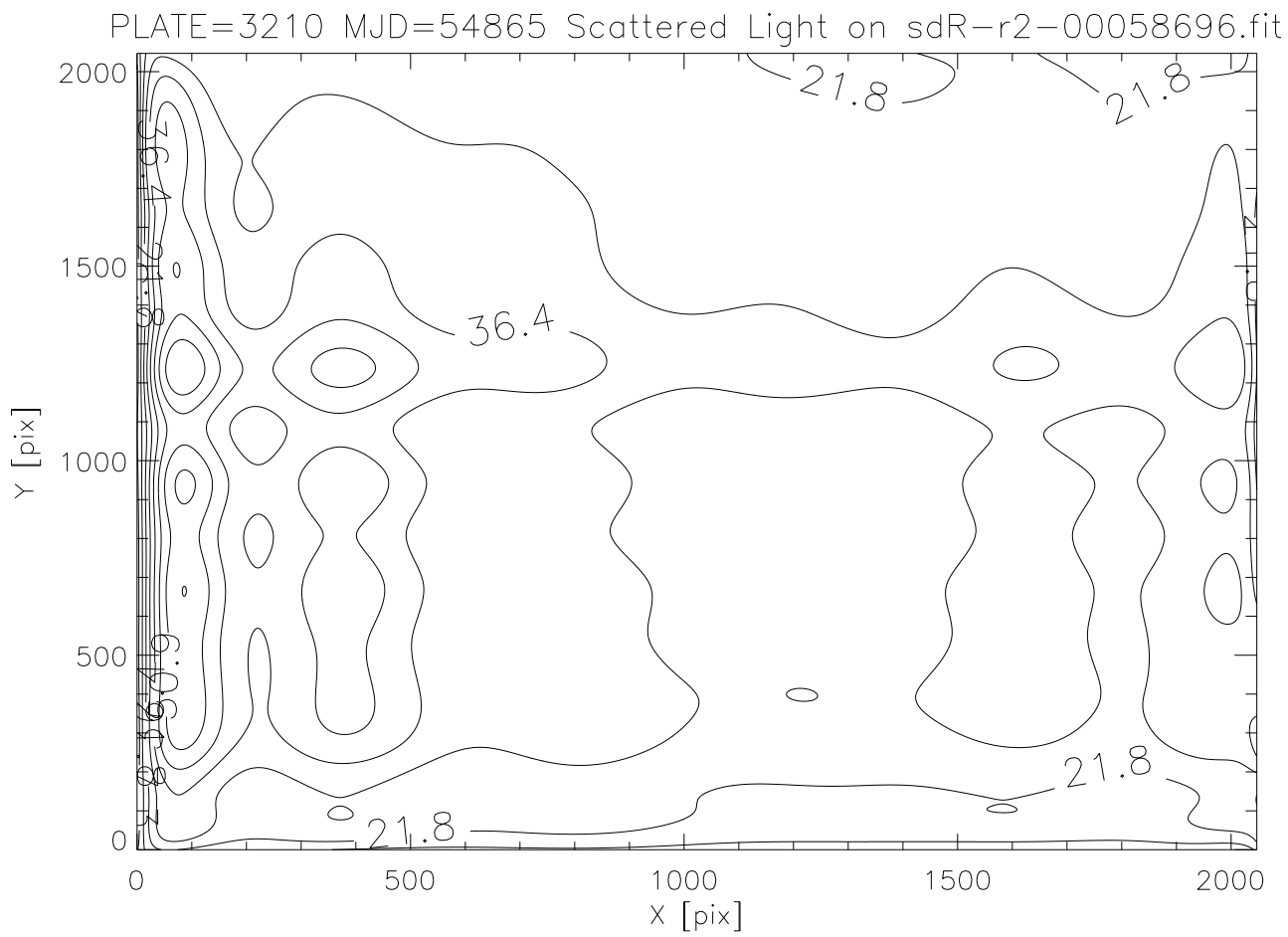

PLATE=3210 MJD=54865 sdR-r2-00058695.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
Fiber number
RED = sky fiber
Dispersion = 1.40 %
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

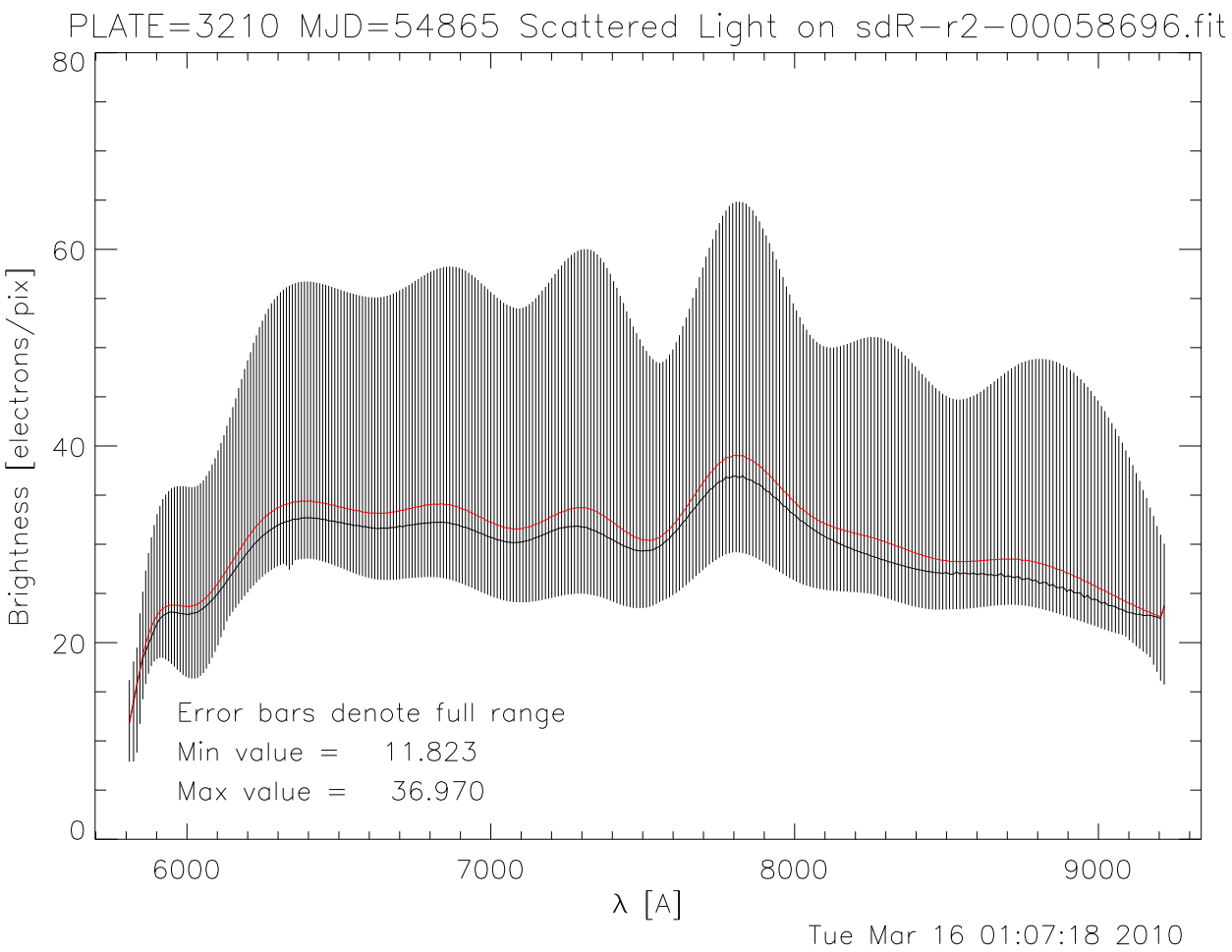

PLATE=3210 MJD=54865 sdR-r2-00058695.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 2.22 %
Fiber number
Focal Distance [mm]
Airmass

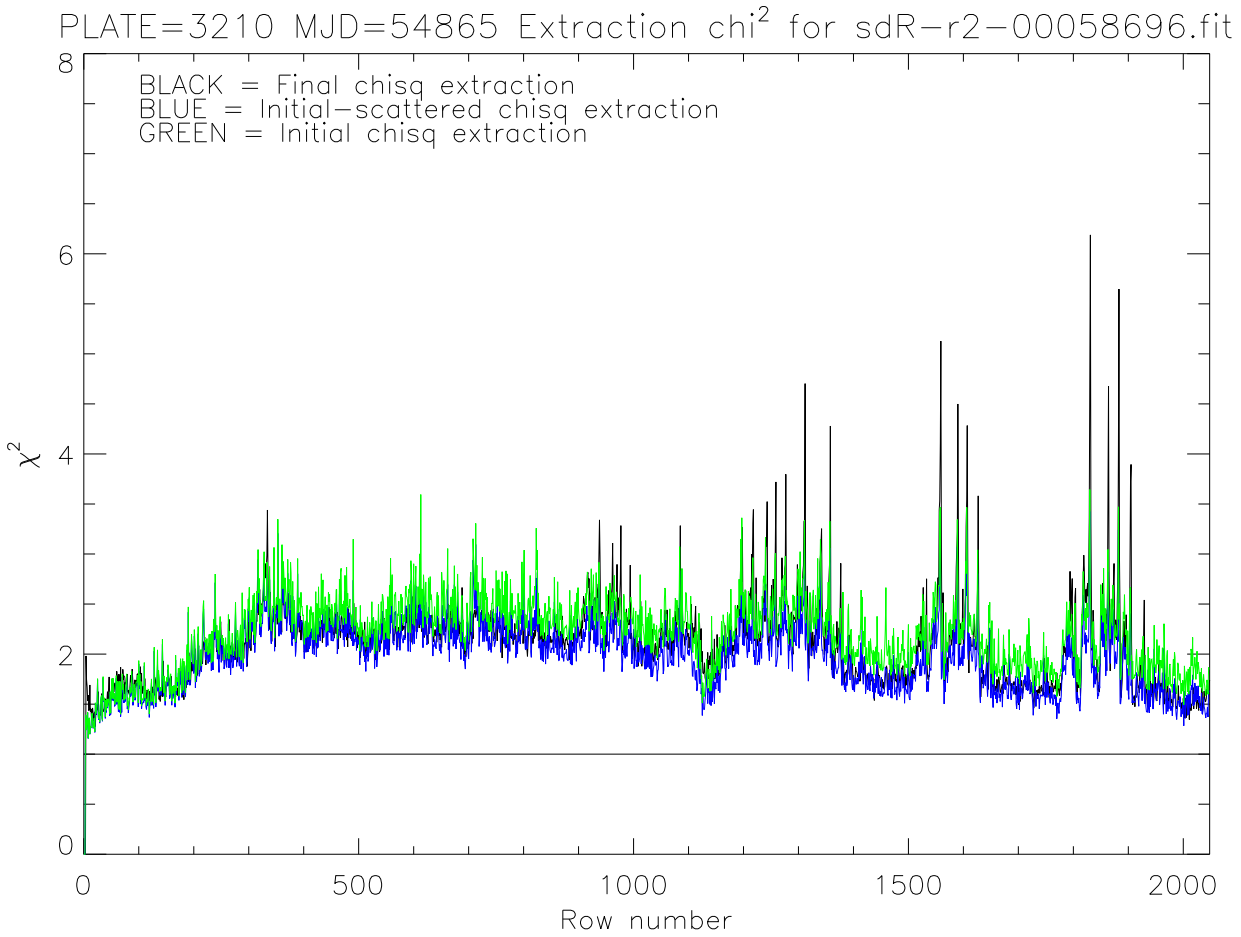

PLATE=3210 MJD=54865 Fiber−Flats for sdR−r2−00058697.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.513
Max value = 1.194
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Tue Mar 16 01:02:22 2010

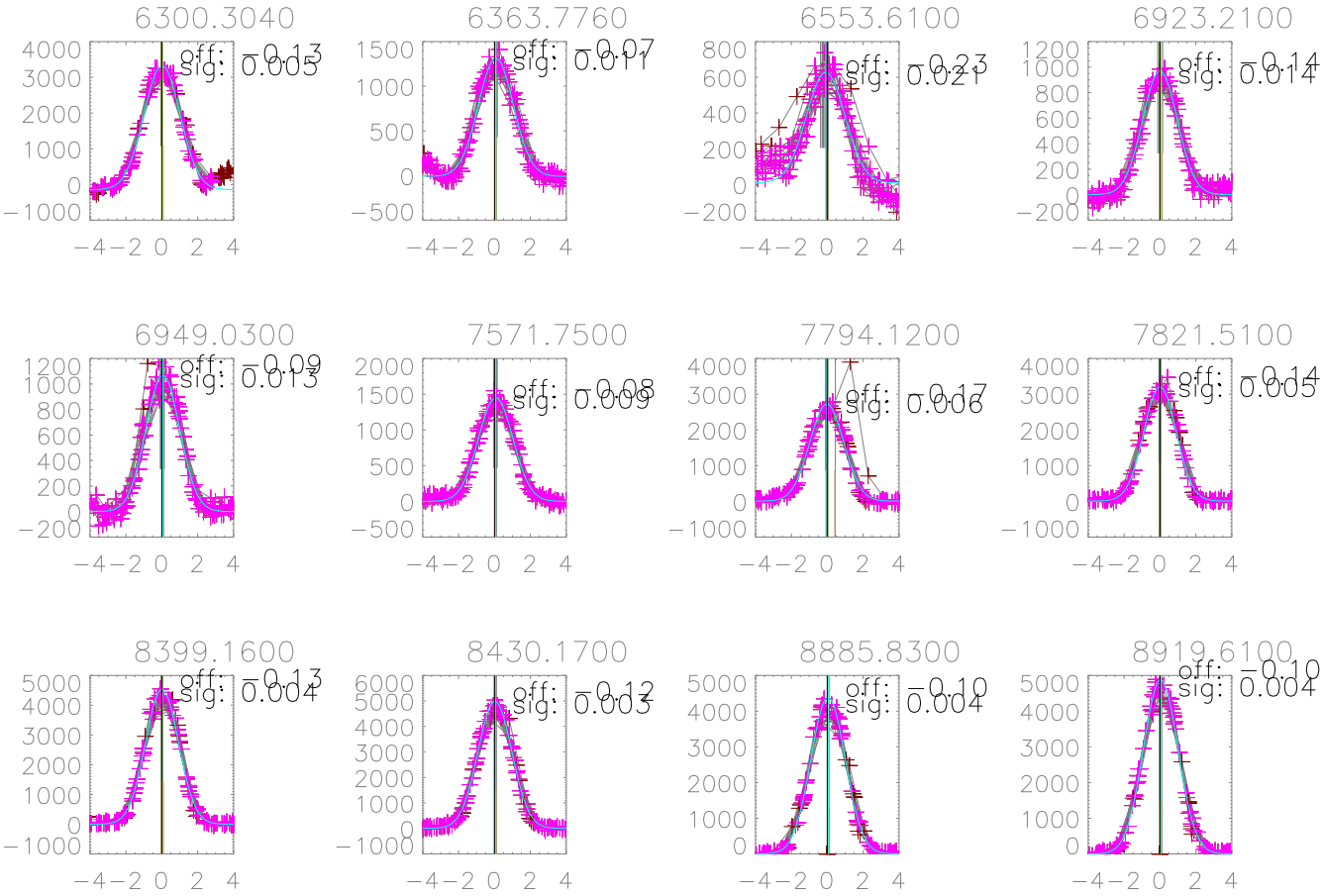

PLATE=3210 MJD=54865 Scattered Light before halo removal on sdR-r2-00058696.fi
81.8
63.6
45.5
27.3
9.1
Y [pix]
X [pix]
0
500
1000
1500
2000

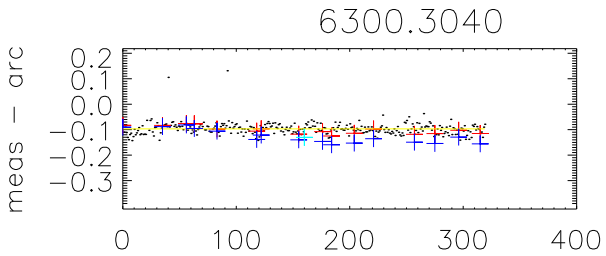

PLATE=3210 MJD=54865 Scattered Light before halo removal on sdR-r2-00058696.fi
Brightness [electrons/pix]
100
80
60
40
20
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 12.217
Max value = 83.529
Tue Mar 16 01:03:28 2010

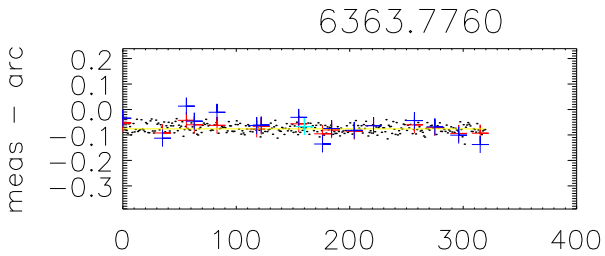

PLATE=3210 MJD=54865 Scattered Light on sdR-r2-00058696.fit
21.8
21.8
36.4
36.4
21.8
21.8
Y [pix]
X [pix]
0
500
1000
1500
2000

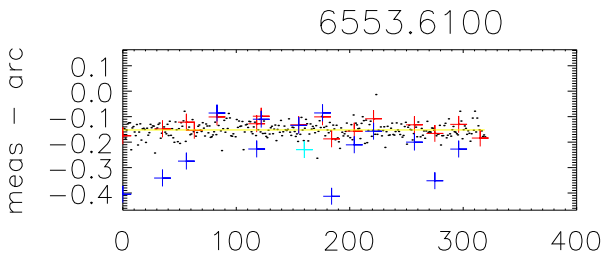

PLATE=3210 MJD=54865 Scattered Light on sdR-r2-00058696.fit
Brightness [electrons/pix]
80
60
40
20
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 11.823
Max value = 36.970
Tue Mar 16 01:07:18 2010

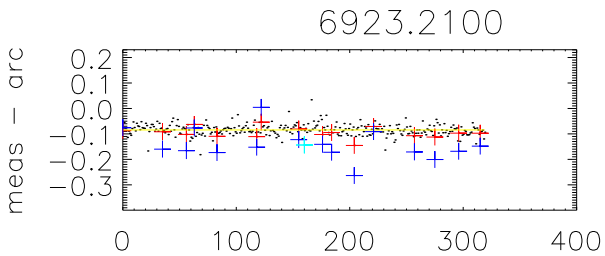

PLATE=3210 MJD=54865 Extraction chi^2 for sdR-r2-00058696.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
0
500
1000
1500
2000
Row number

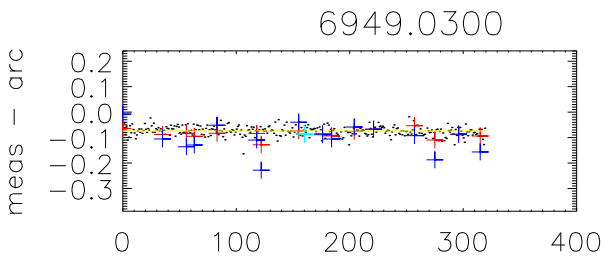

6300.3040
off: −0.13
sig: 0.005
6363.7760
off: −0.07
sig: 0.011
6553.6100
off: −0.23
sig: 0.021
6923.2100
off: −0.14
sig: 0.014
6949.0300
off: −0.09
sig: 0.013
7571.7500
off: −0.08
sig: 0.009
7794.1200
off: −0.17
sig: 0.006
7821.5100
off: −0.14
sig: 0.005
8399.1600
off: −0.13
sig: 0.004
8430.1700
off: −0.12
sig: 0.003
8885.8300
off: −0.10
sig: 0.004
8919.6100
off: −0.10
sig: 0.004

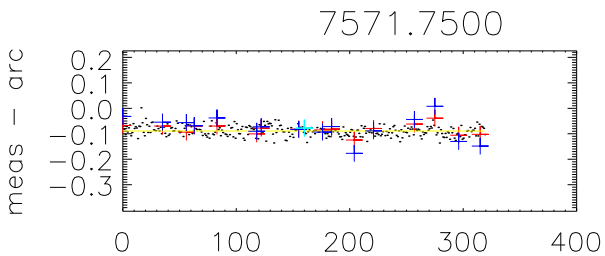

6300.3040
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

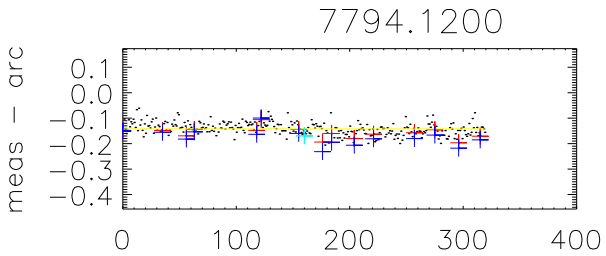

6363.7760
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

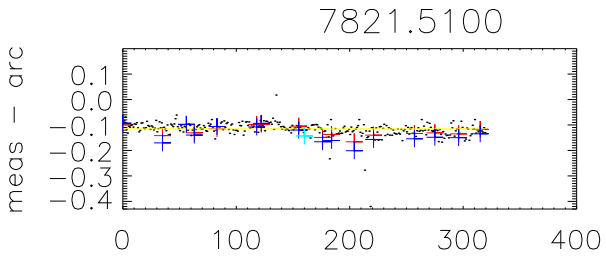

6553.6100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

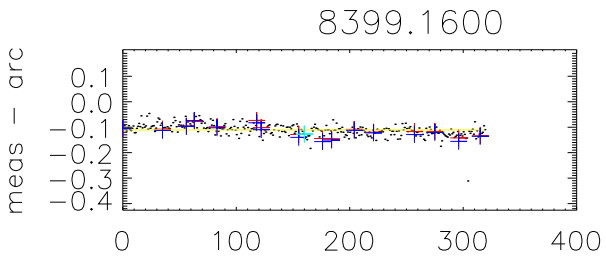

6923.2100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

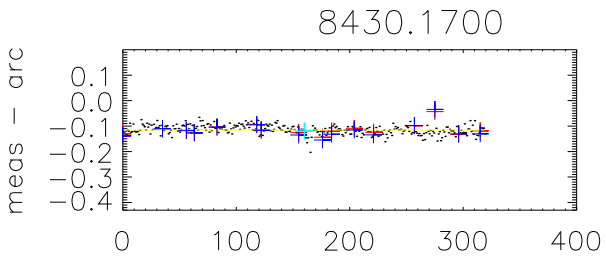

6949.0300
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

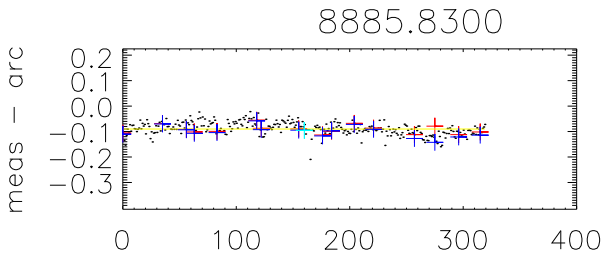

7571.7500
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

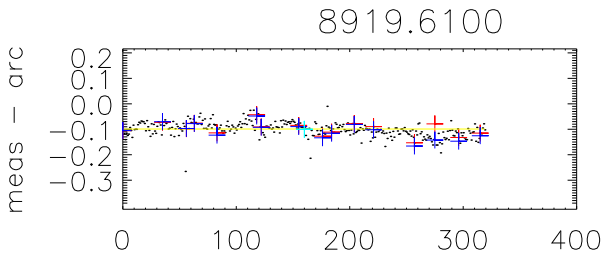

7794.1200
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

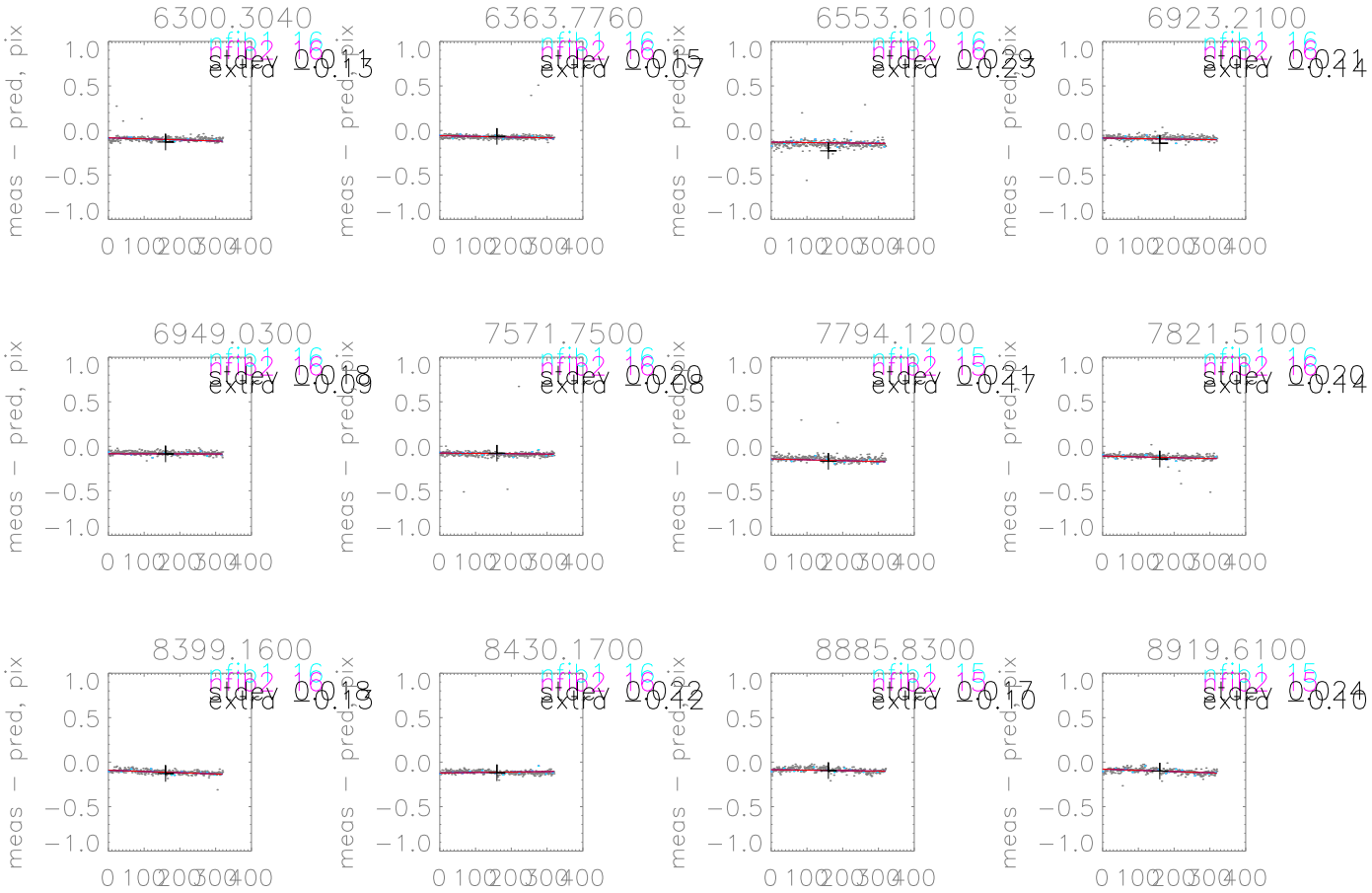

7821.5100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

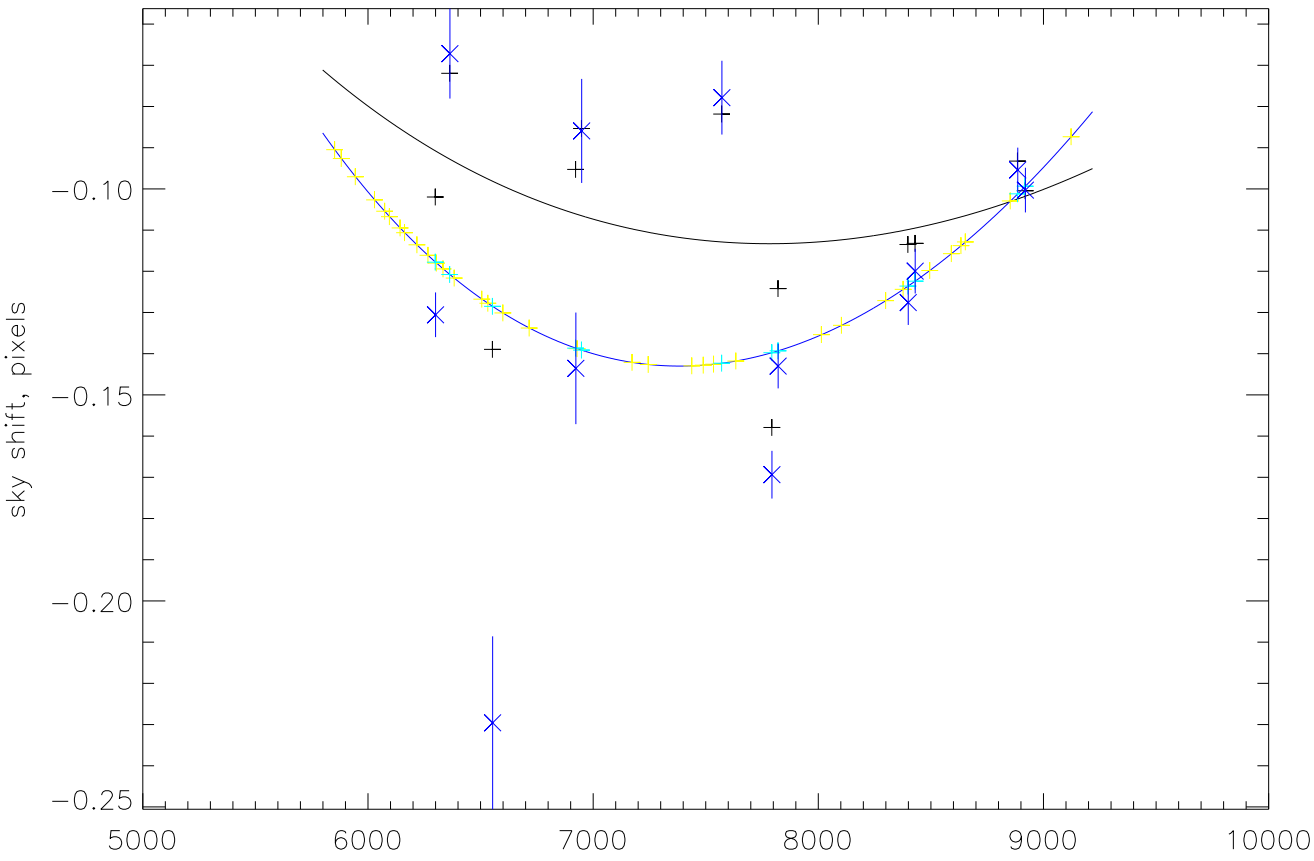

8399.1600
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400


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

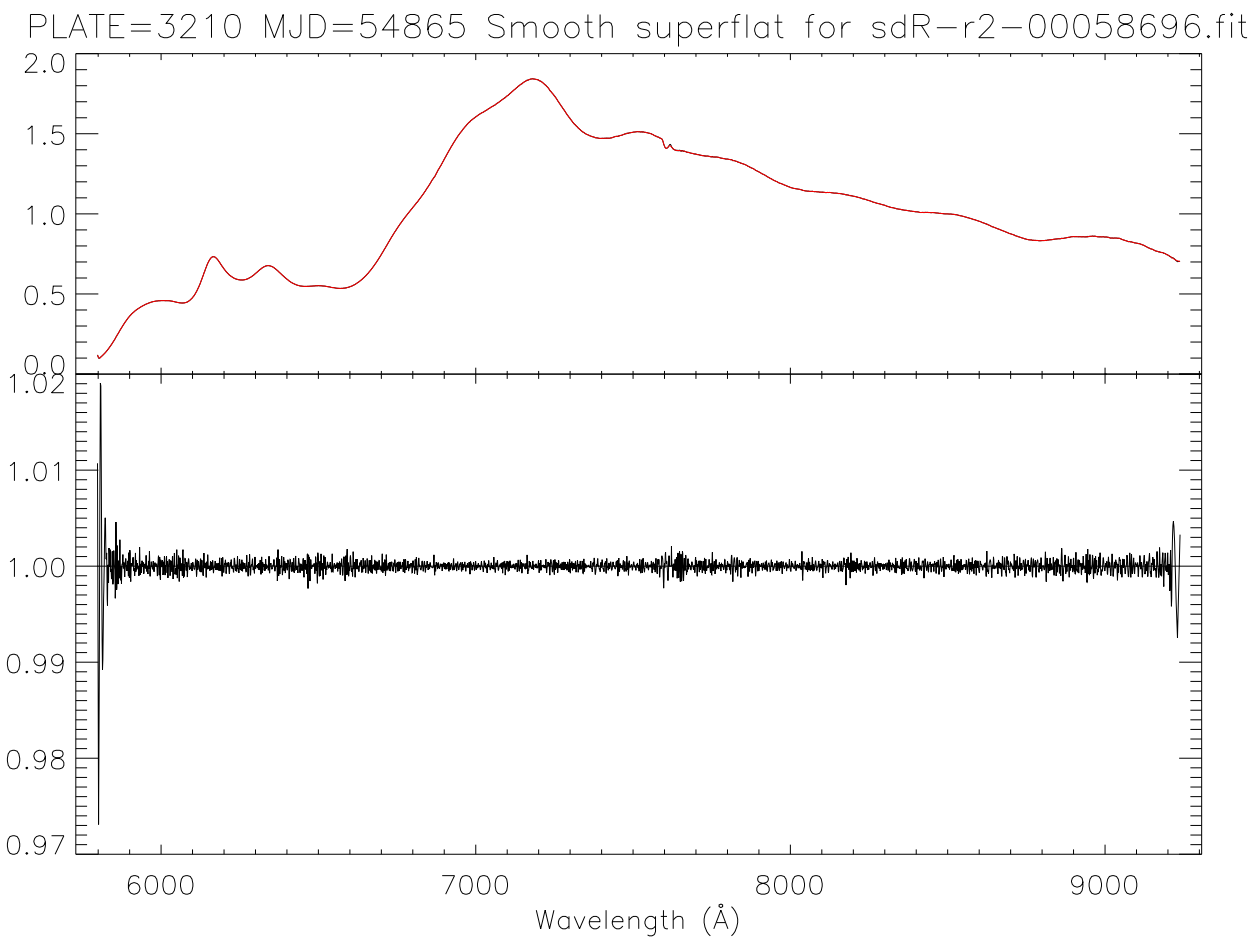

8885.8300
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

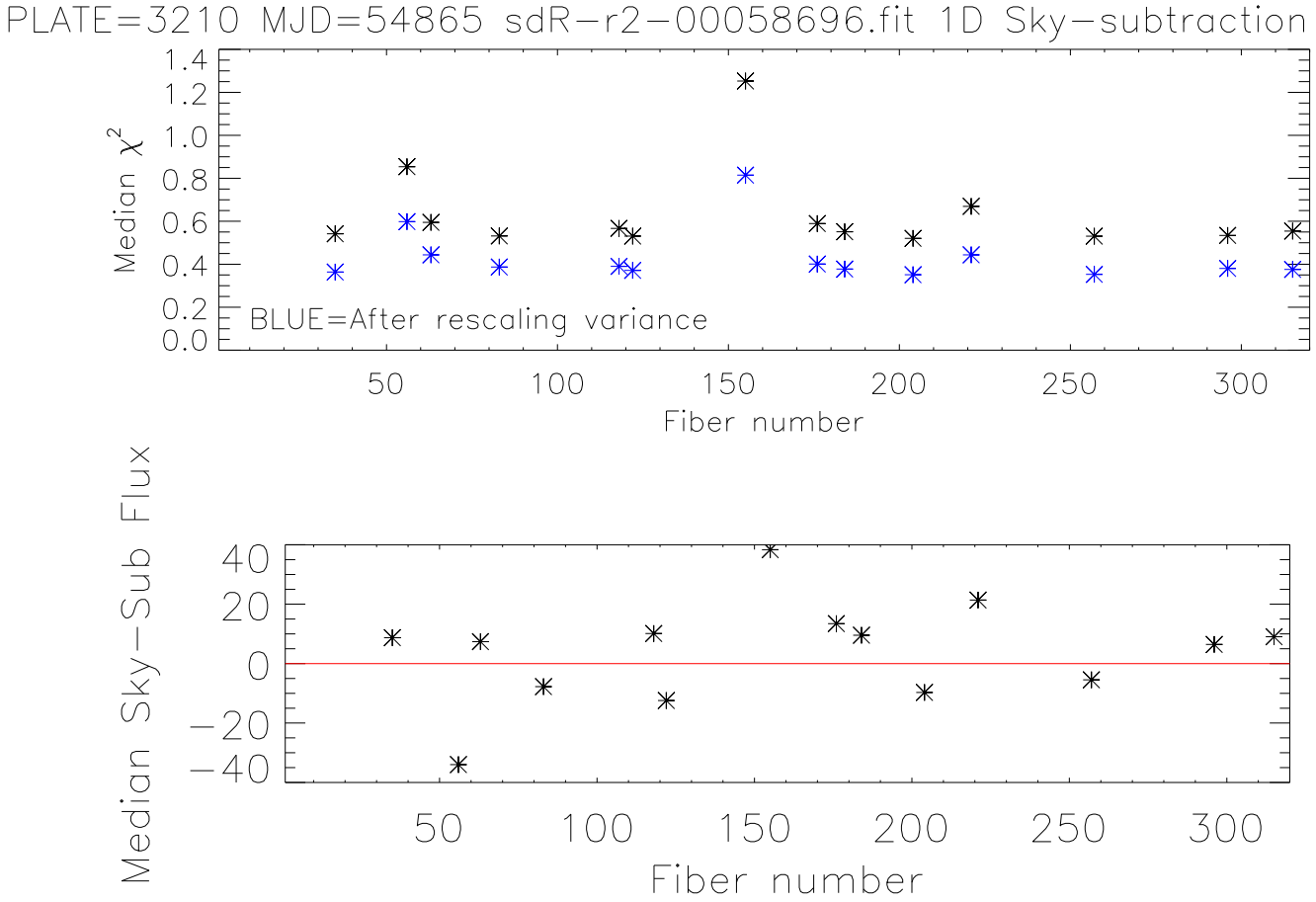

8919.6100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

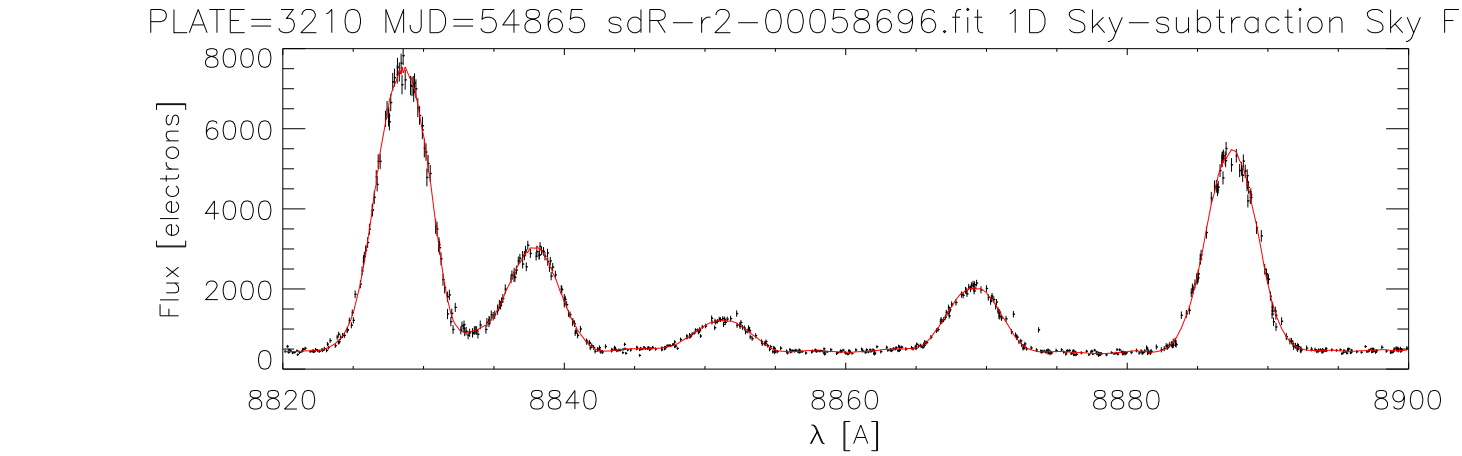

6300.3040
stdev 0.013
extra −0.13
6363.7760
stdev 0.015
extra −0.07
6553.6100
stdev 0.029
extra −0.23
6923.2100
stdev 0.021
extra −0.44
6949.0300
stdev 0.018
extra −0.09
7571.7500
stdev 0.020
extra −0.08
7794.1200
stdev 0.021
extra −0.47
7821.5100
stdev 0.020
extra −0.44
8399.1600
stdev 0.018
extra −0.13
8430.1700
stdev 0.022
extra −0.42
8885.8300
stdev 0.017
extra −0.10
8919.6100
stdev 0.024
extra −0.40
meas − pred, pix

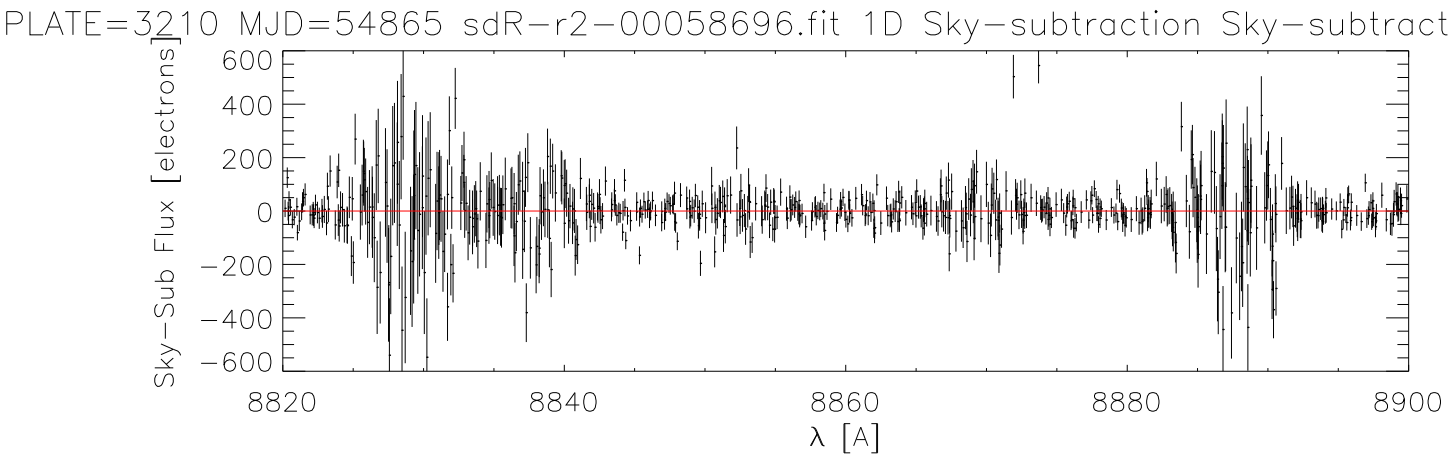

sky shift, pixels
−0.10
−0.15
−0.20
−0.25
5000
6000
7000
8000
9000
10000

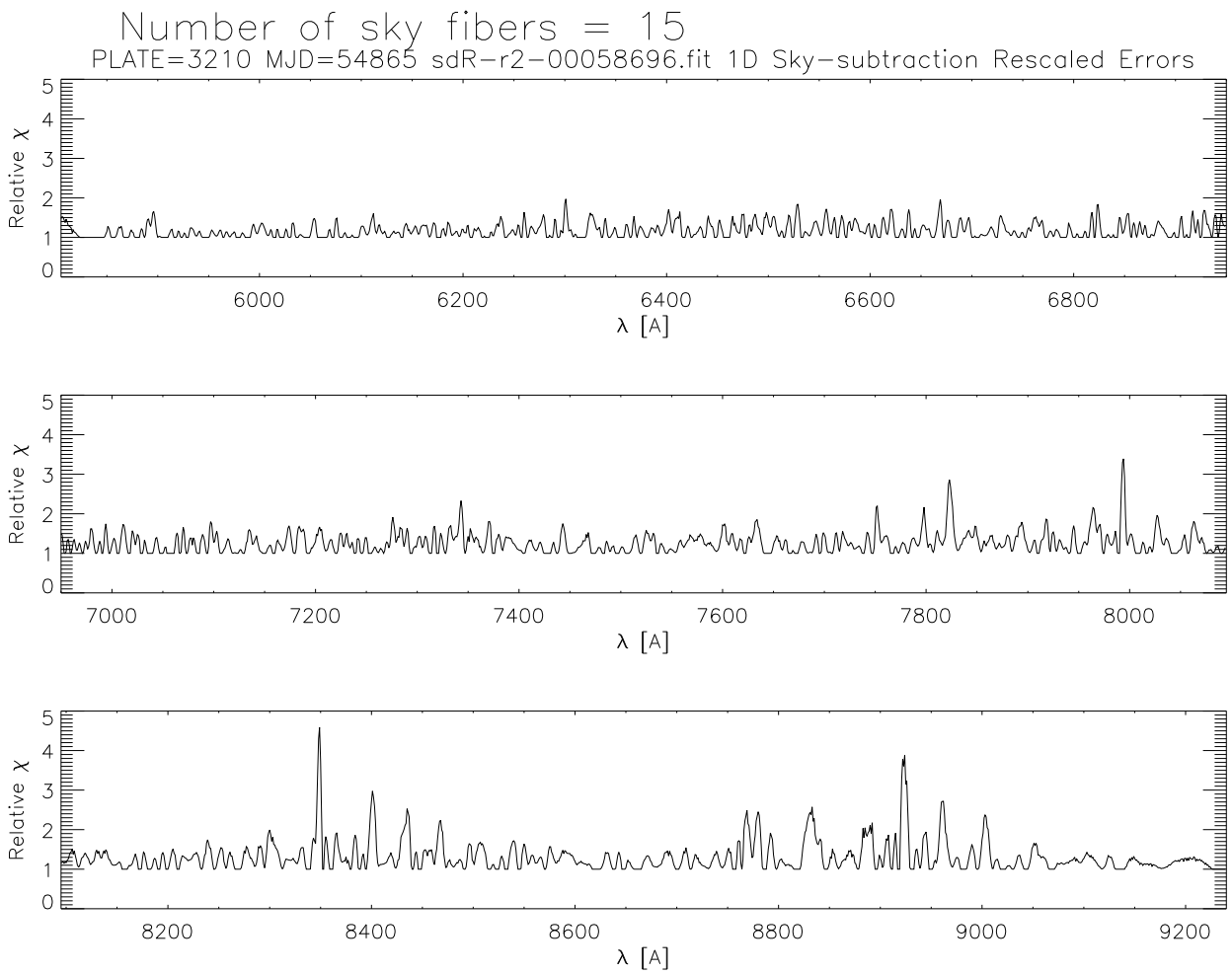
es= 0.0000

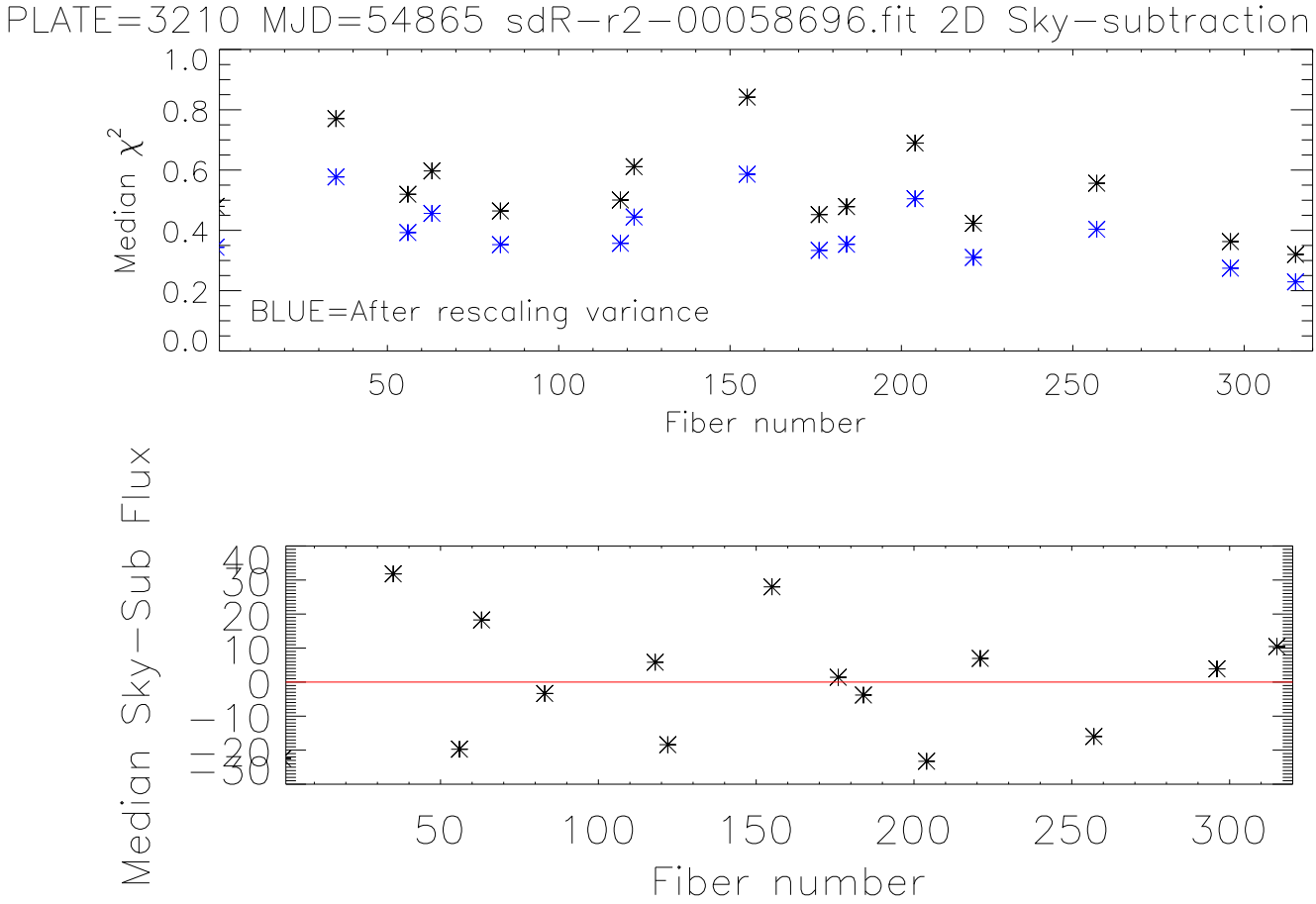

PLATE=3210 MJD=54865 Smooth superflat for sdR-r2-00058696.fit
2.0
1.5
1.0
0.5
0.0
1.02
1.01
1.00
0.99
0.98
0.97
6000
7000
8000
9000
Wavelength (Å)

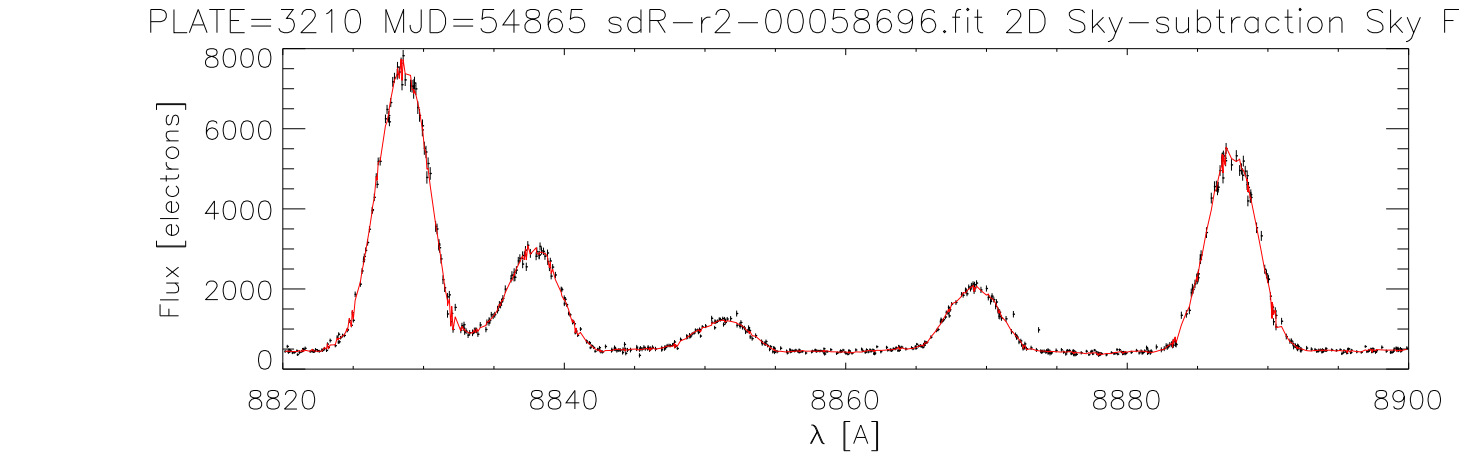

PLATE=3210 MJD=54865 sdR-r2-00058696.fit 1D Sky-subtraction Sky Fibers
Median χ^2
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
40
20
0
-20
-40
50
100
150
200
250
300
Fiber number

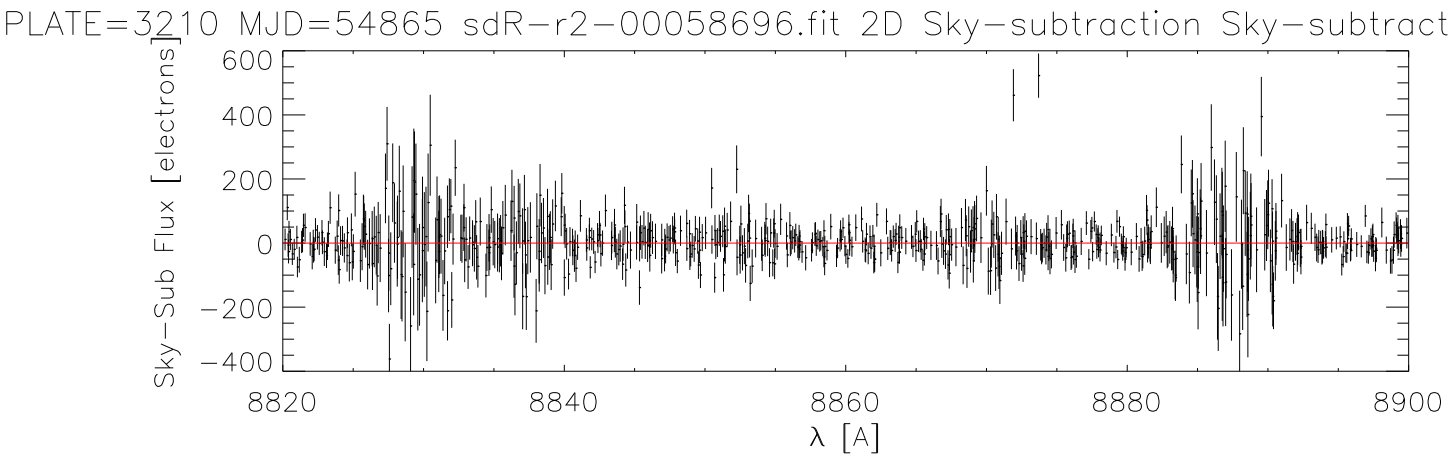

PLATE=3210 MJD=54865 sdR-r2-00058696.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
8820
8840
8860
8880
8900
λ [A]

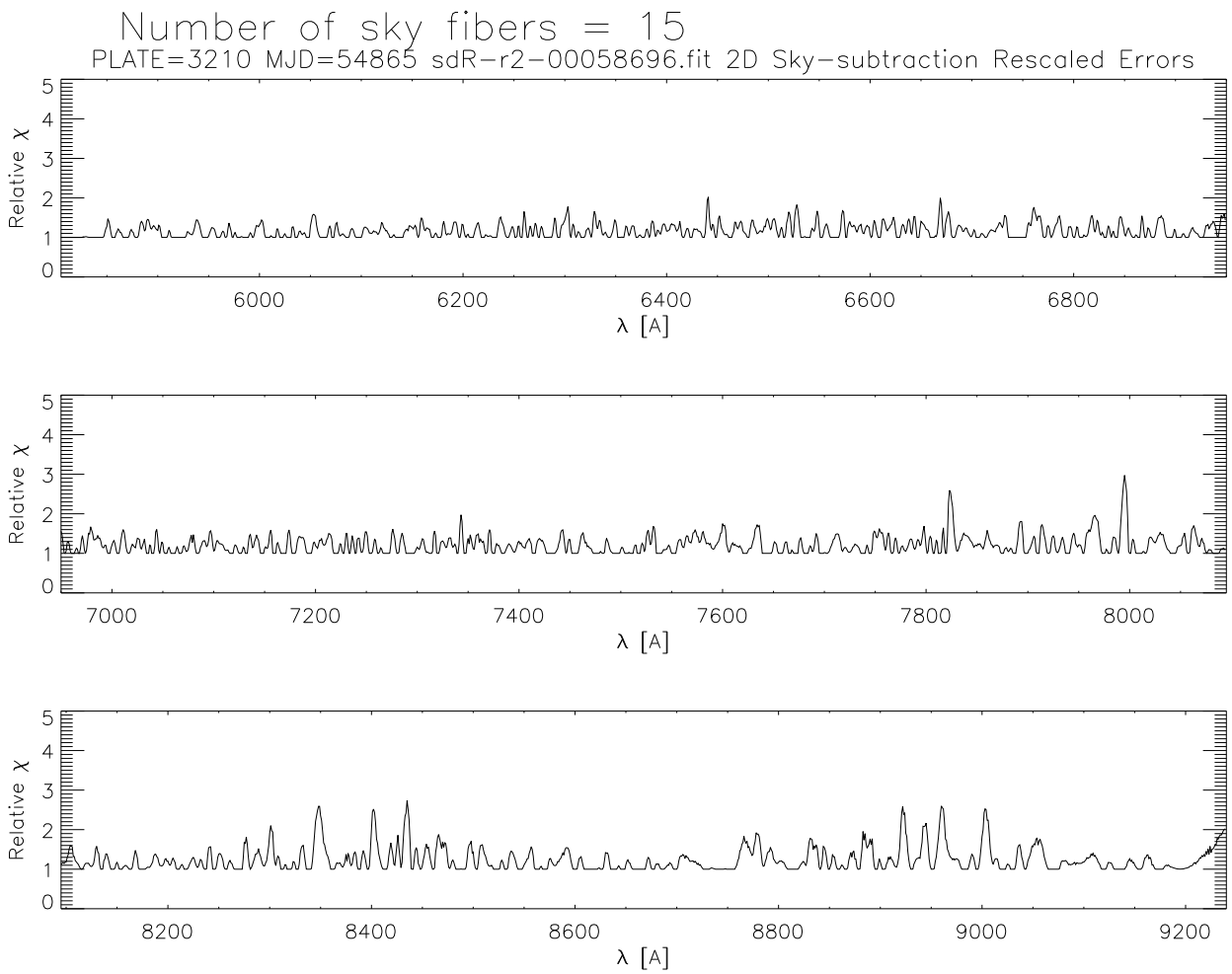

PLATE=3210 MJD=54865 sdR-r2-00058696.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
-200
-400
-600
8820
8840
8860
8880
8900
λ [A]

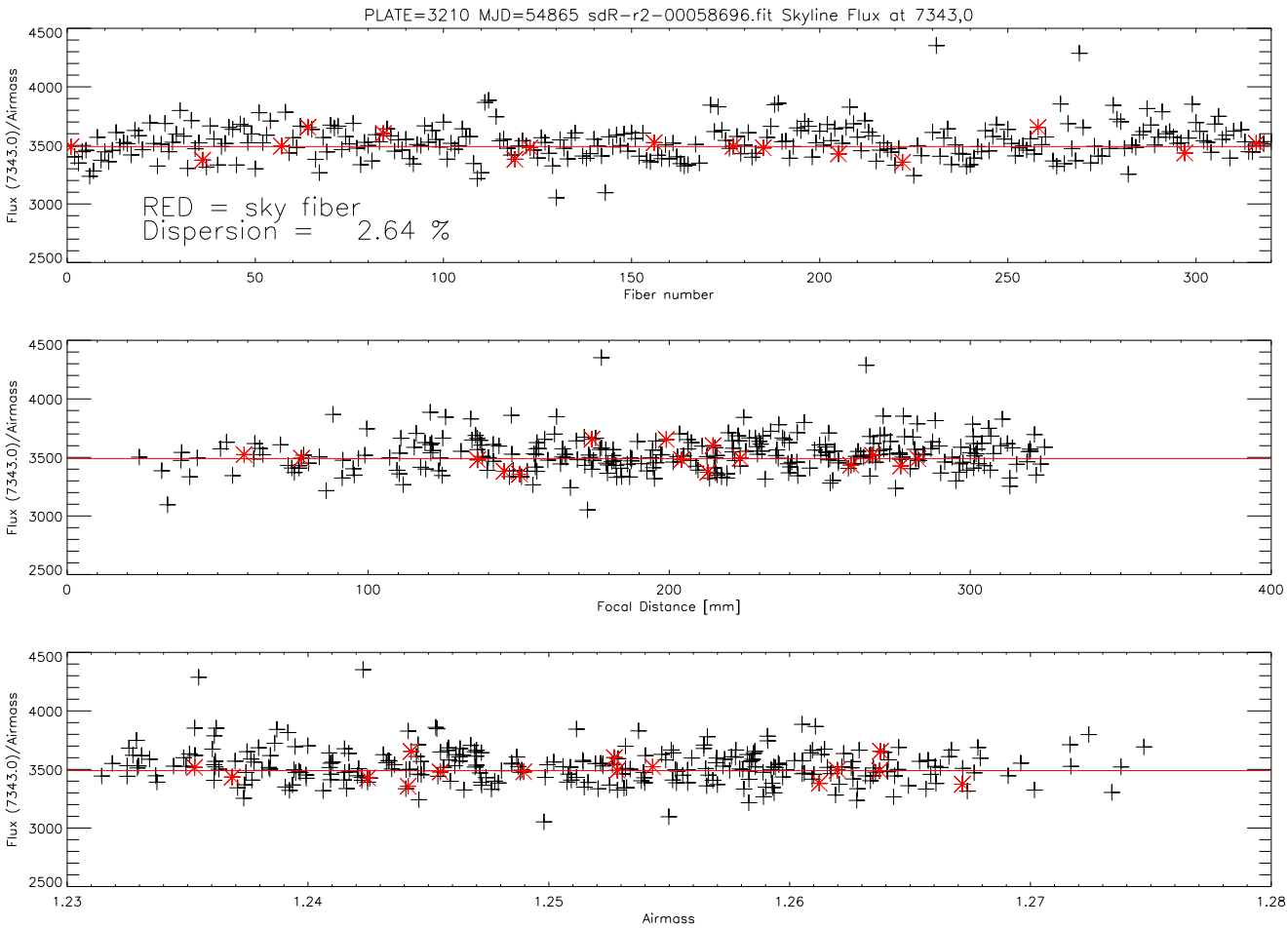

Number of sky fibers = 15
PLATE=3210 MJD=54865 sdR-r2-00058696.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

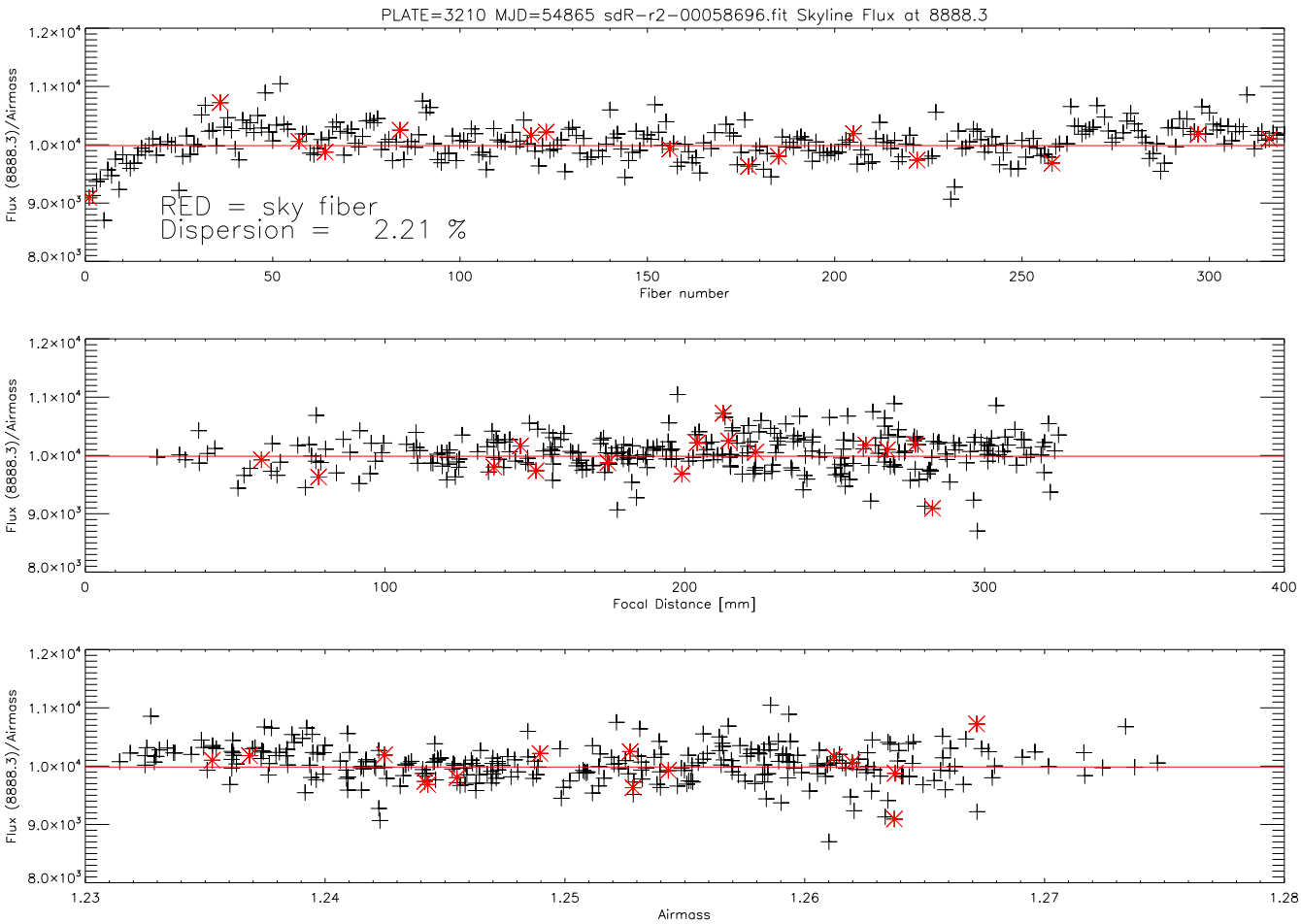

PLATE=3210 MJD=54865 sdR-r2-00058696.fit 2D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number


PLATE=3210 MJD=54865 sdR-r2-00058696.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
8820
8840
8860
8880
8900
λ [A]


PLATE=3210 MJD=54865 sdR-r2-00058696.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=3210 MJD=54865 sdR-r2-00058696.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=3210 MJD=54865 sdR-r2-00058696.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 2.64 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass


PLATE=3210 MJD=54865 sdR-r2-00058696.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 2.21 %
Fiber number
Focal Distance [mm]
Airmass