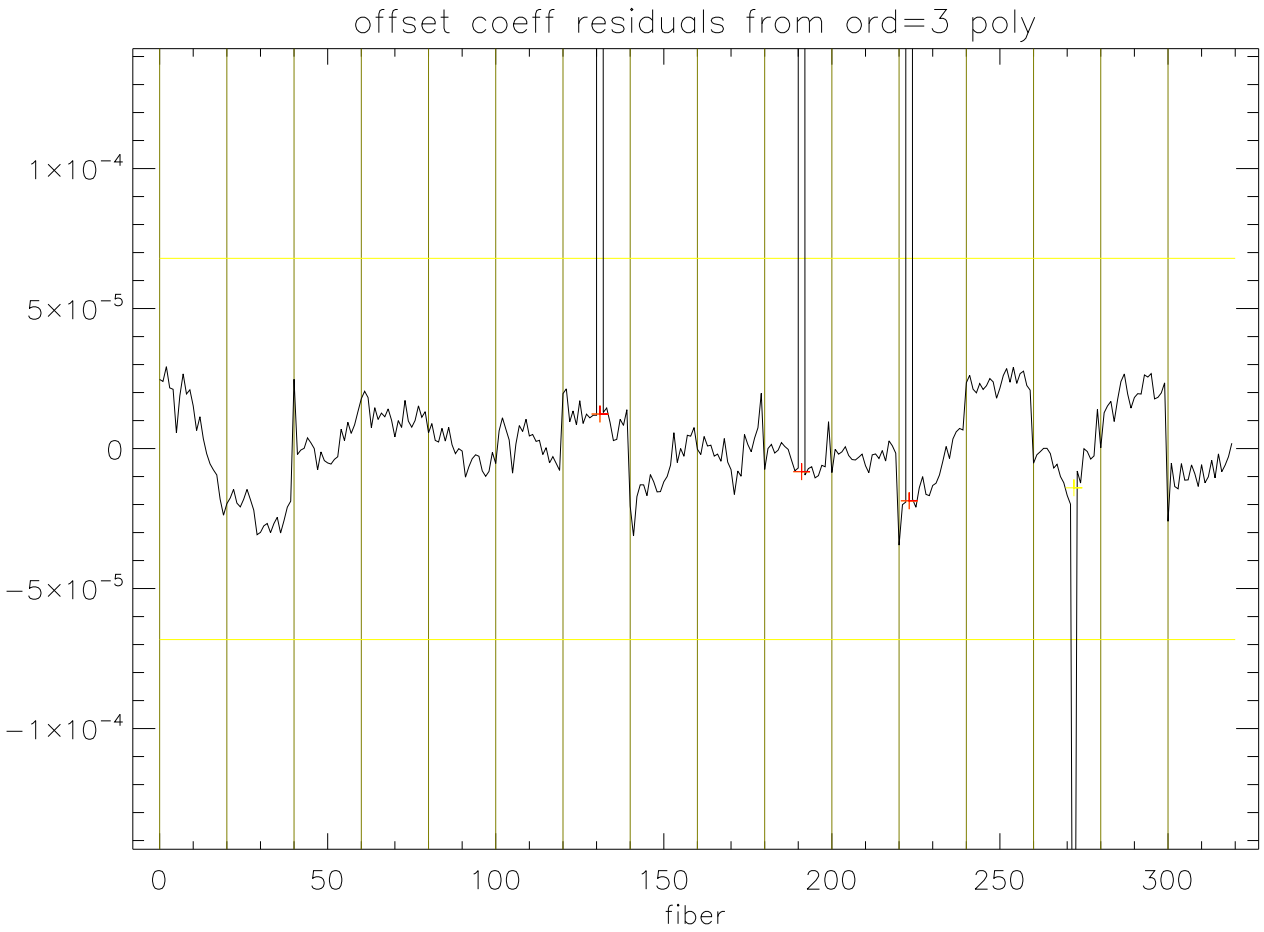
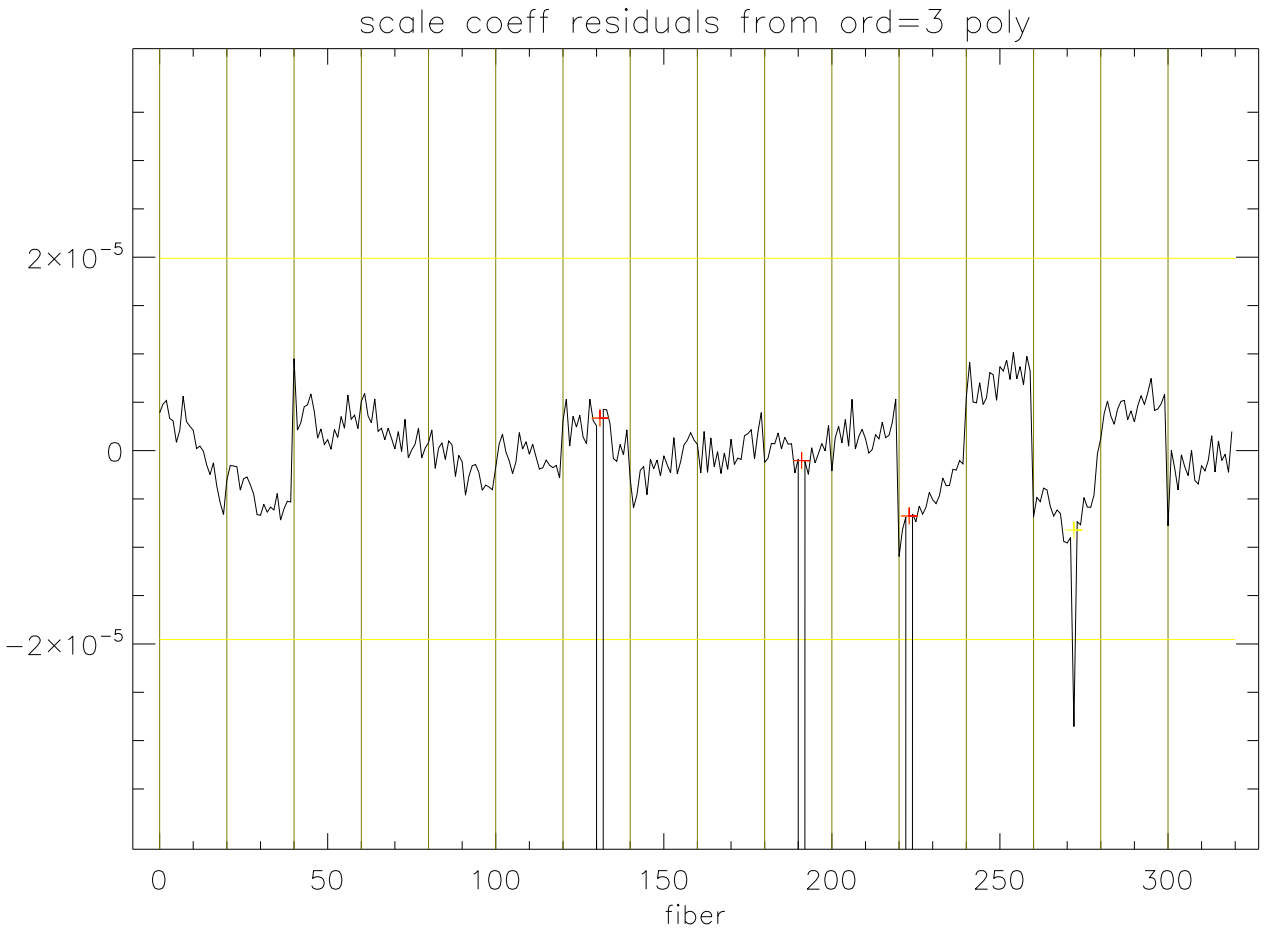
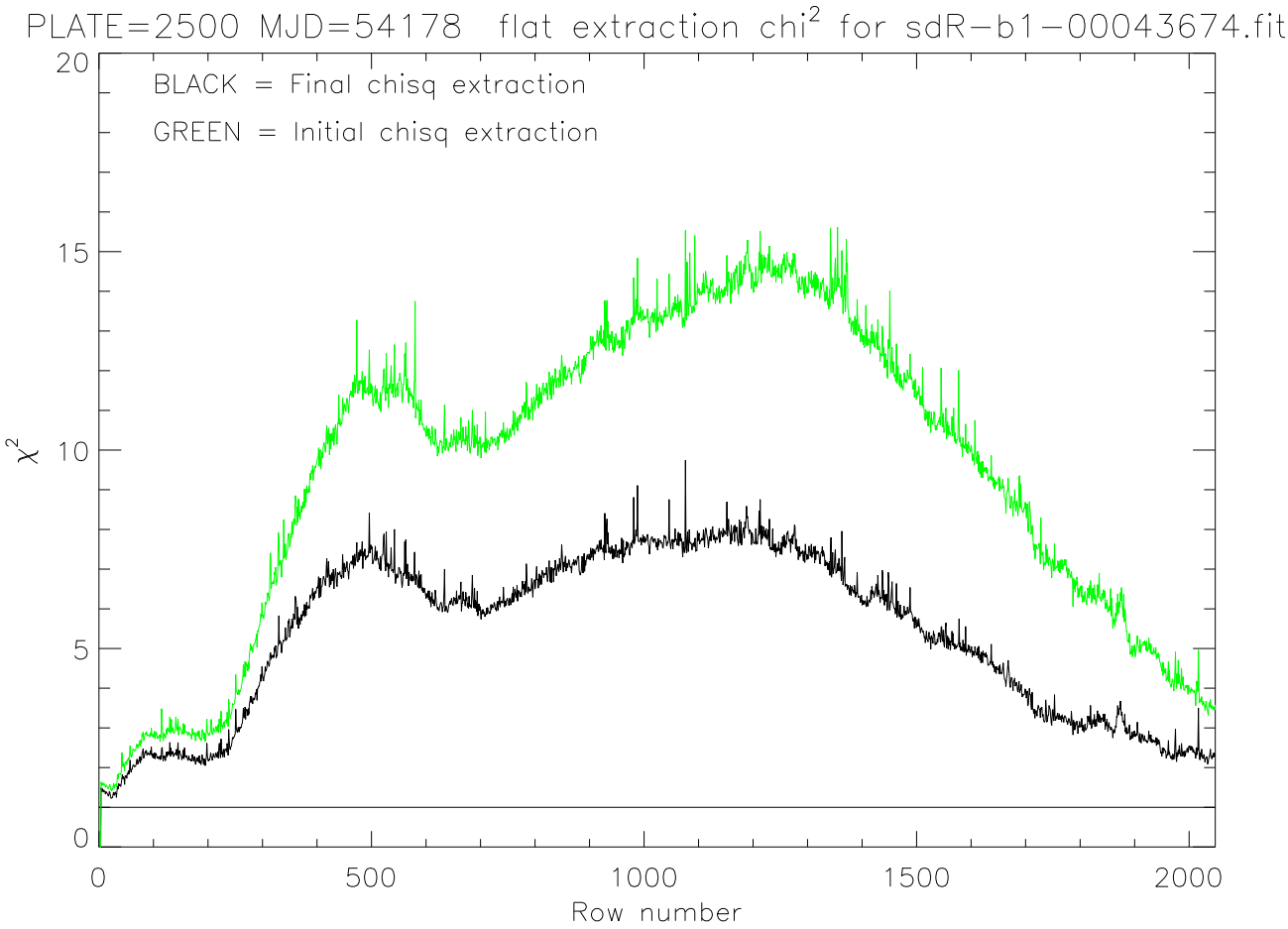
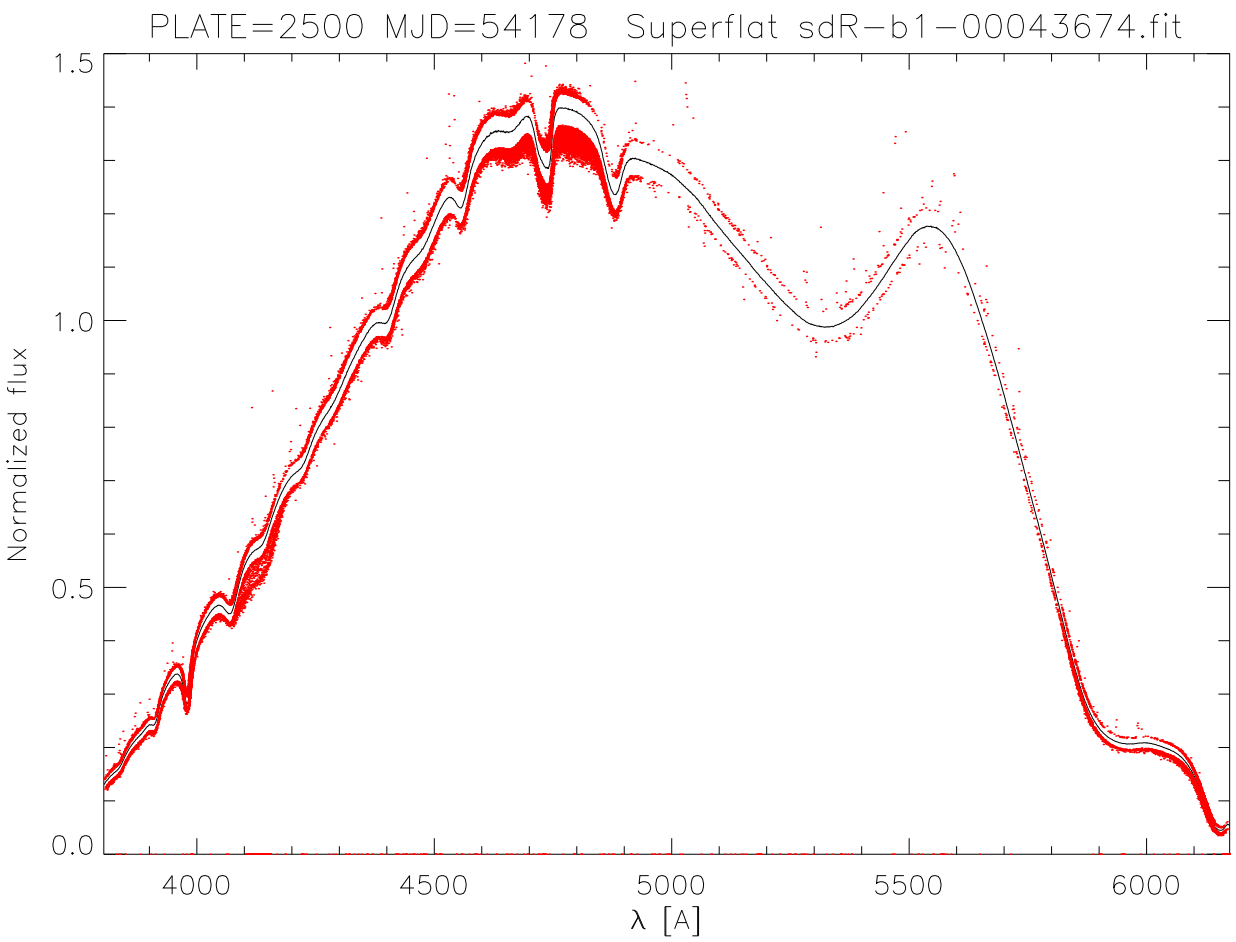
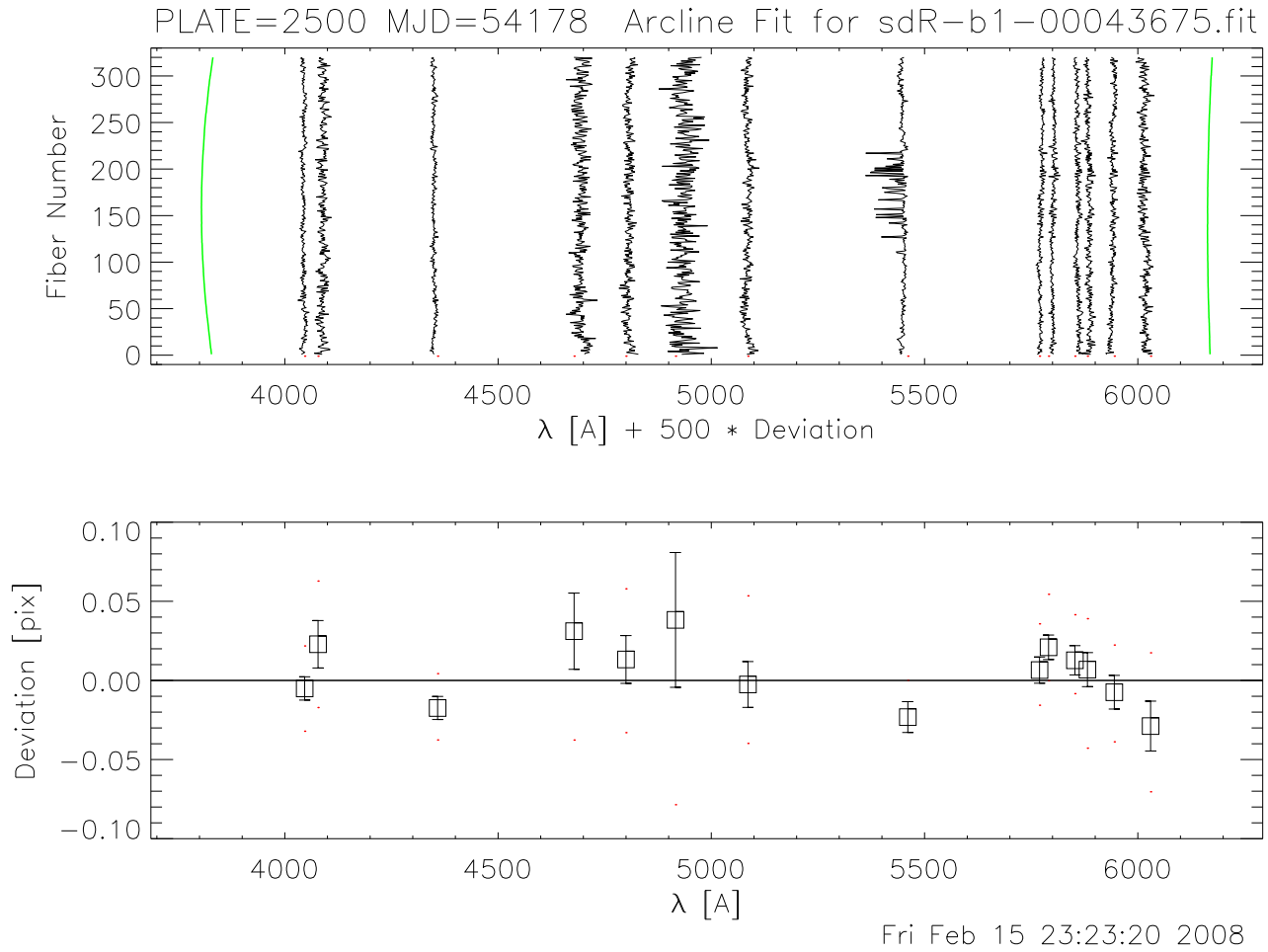
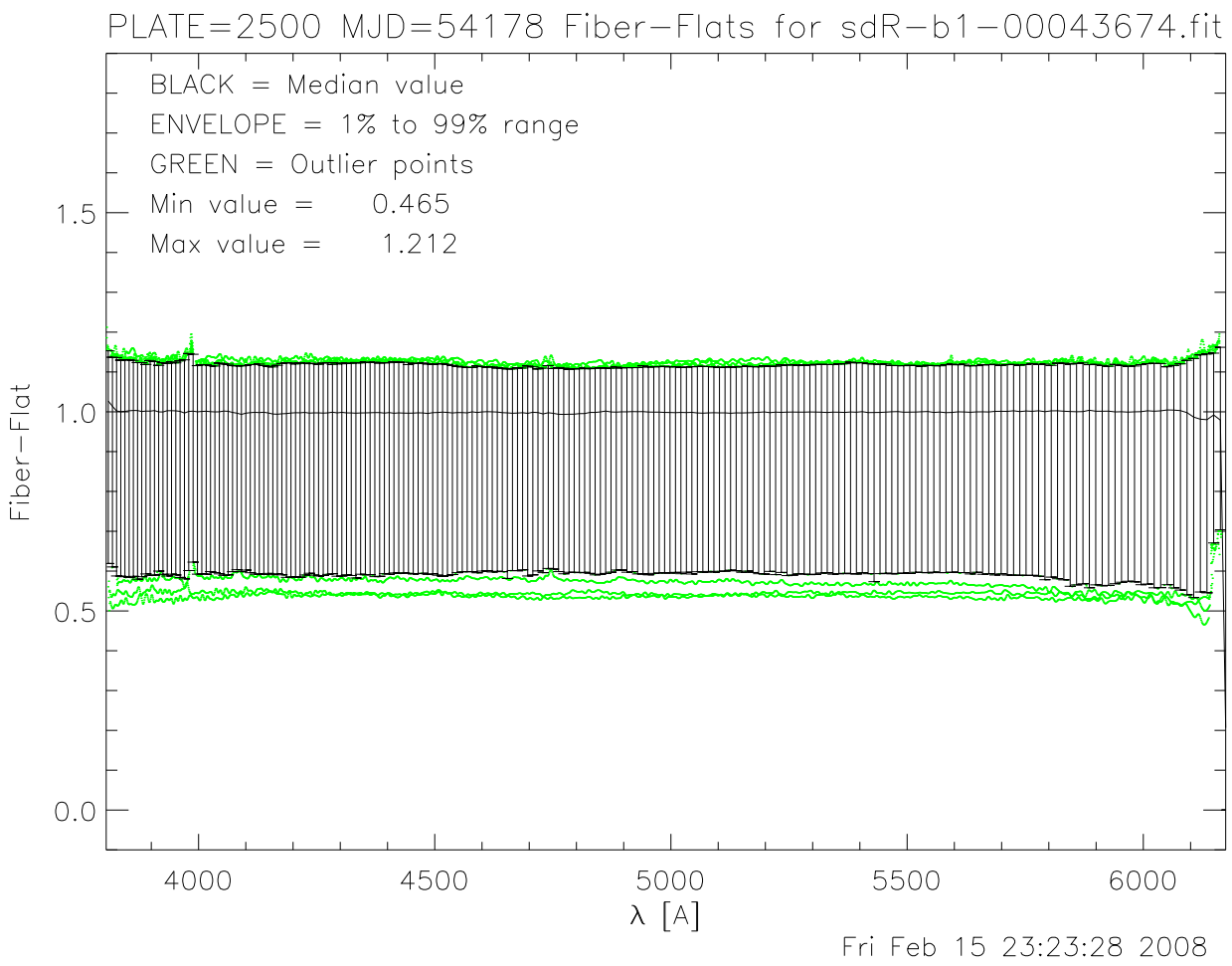

offset coeff residuals from ord=3 poly
1×10⁻⁴
5×10⁻⁵
0
−5×10⁻⁵
−1×10⁻⁴
0
50
100
150
200
250
300
fiber

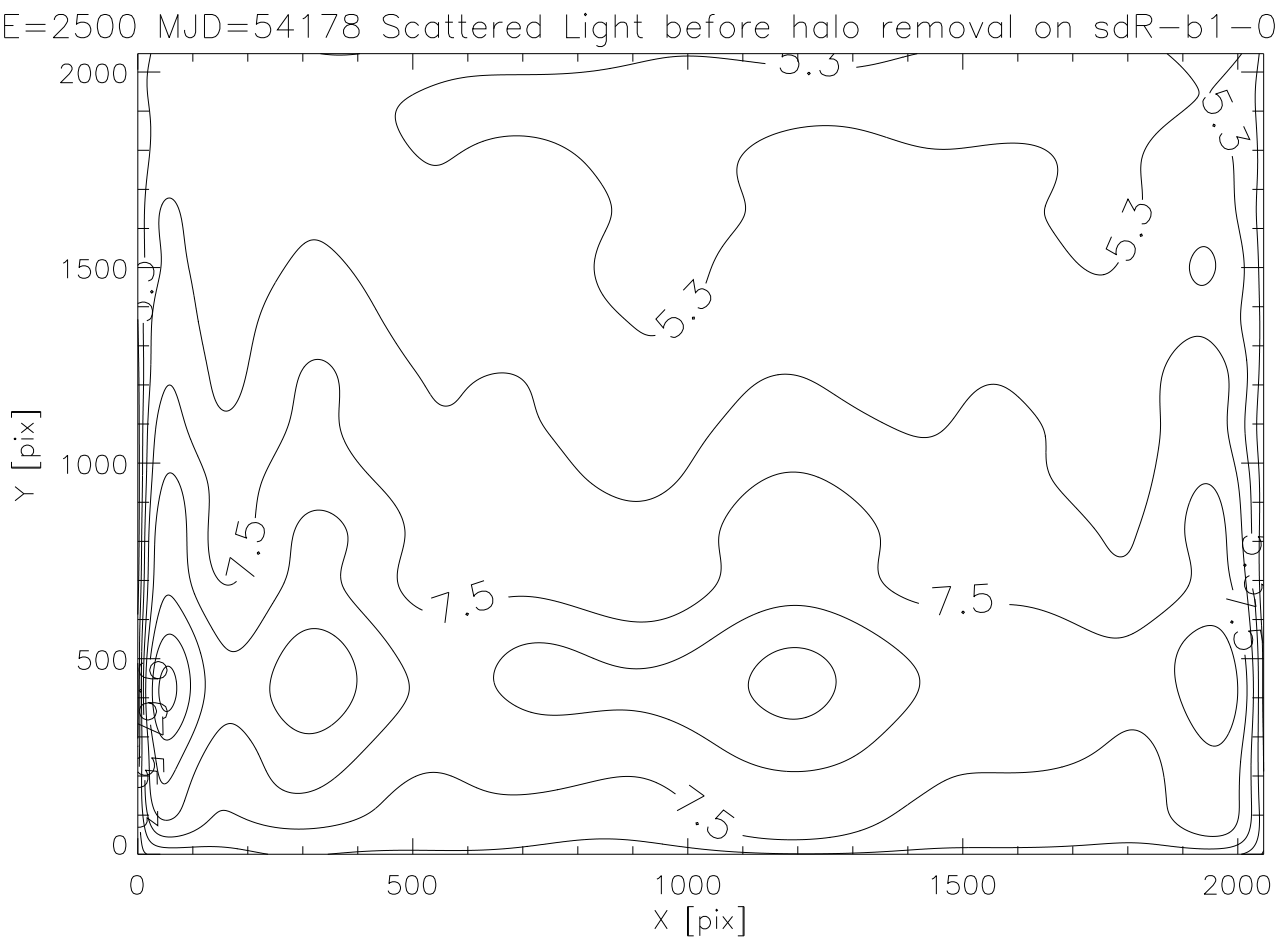

scale coeff residuals from ord=3 poly
2×10⁻⁵
0
−2×10⁻⁵
0
50
100
150
200
250
300
fiber

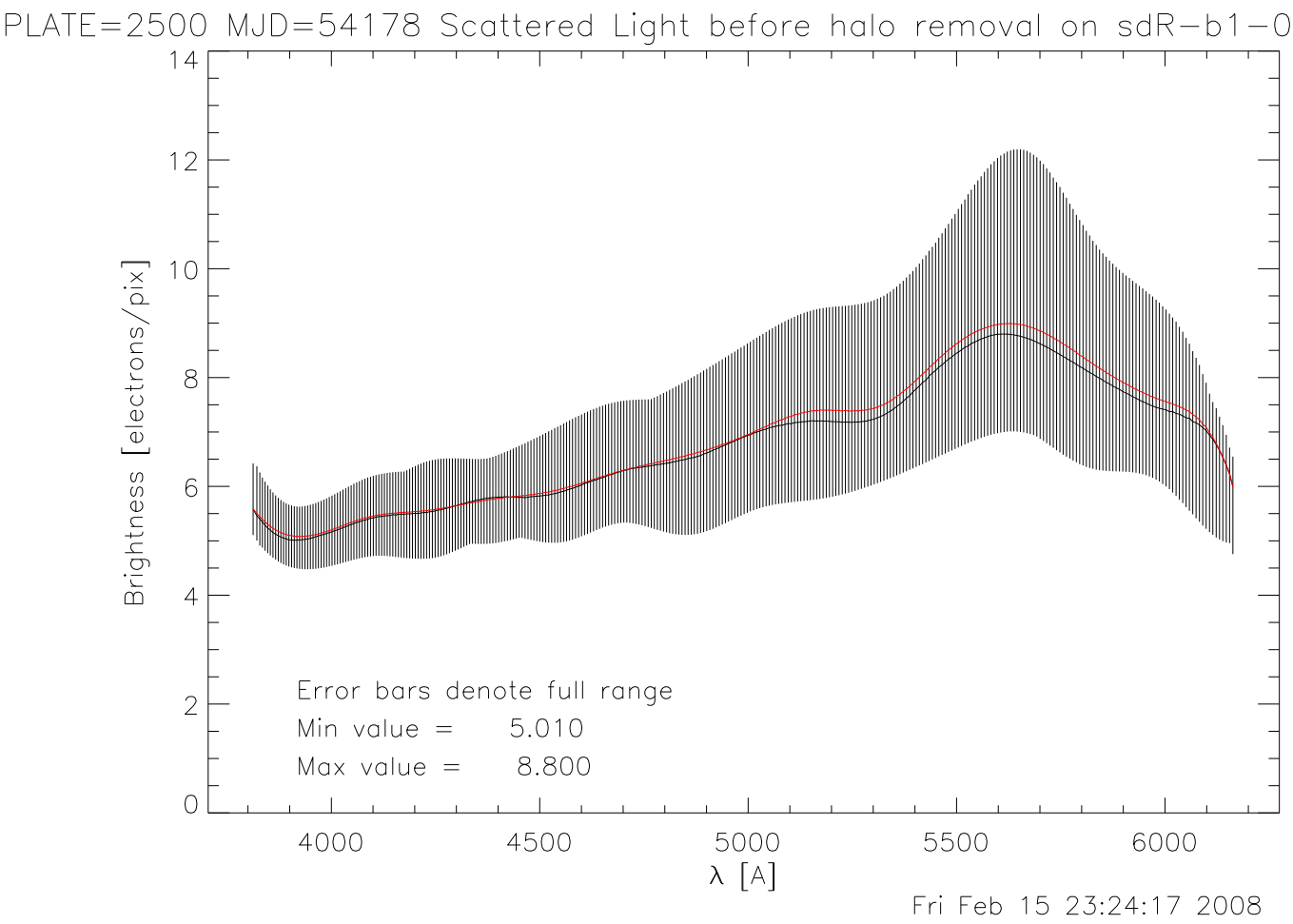

PLATE=2500 MJD=54178 flat extraction chi^2 for sdR−b1−00043674.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
5
10
15
20
0
500
1000
1500
2000

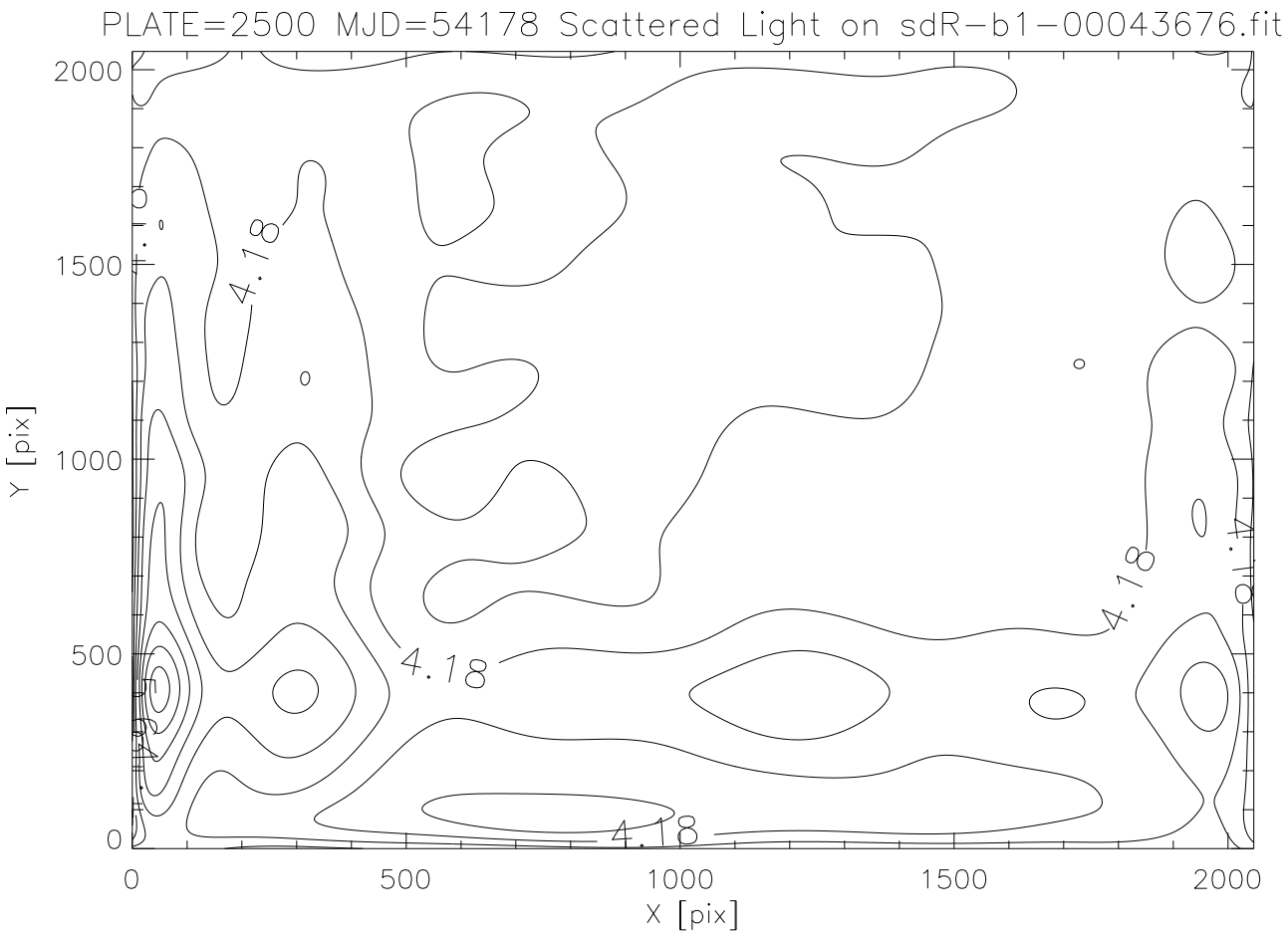

PLATE=2500 MJD=54178 Superflat sdR-b1-00043674.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

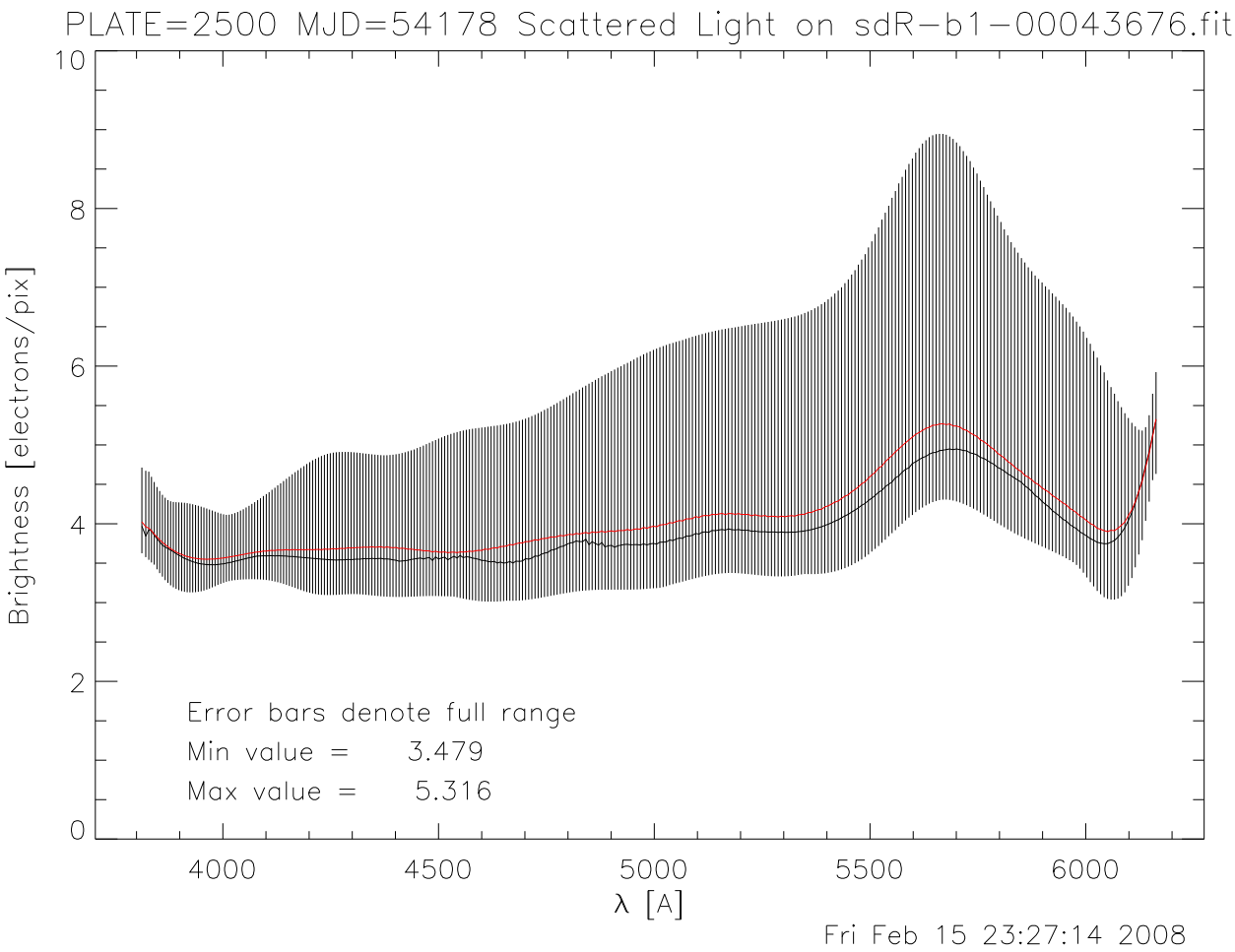

PLATE=2500 MJD=54178 Arcline Fit for sdR-b1-00043675.fit
Fiber Number
300
250
200
150
100
50
0
4000
4500
5000
5500
6000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
4000
4500
5000
5500
6000
λ [A]
Fri Feb 15 23:23:20 2008

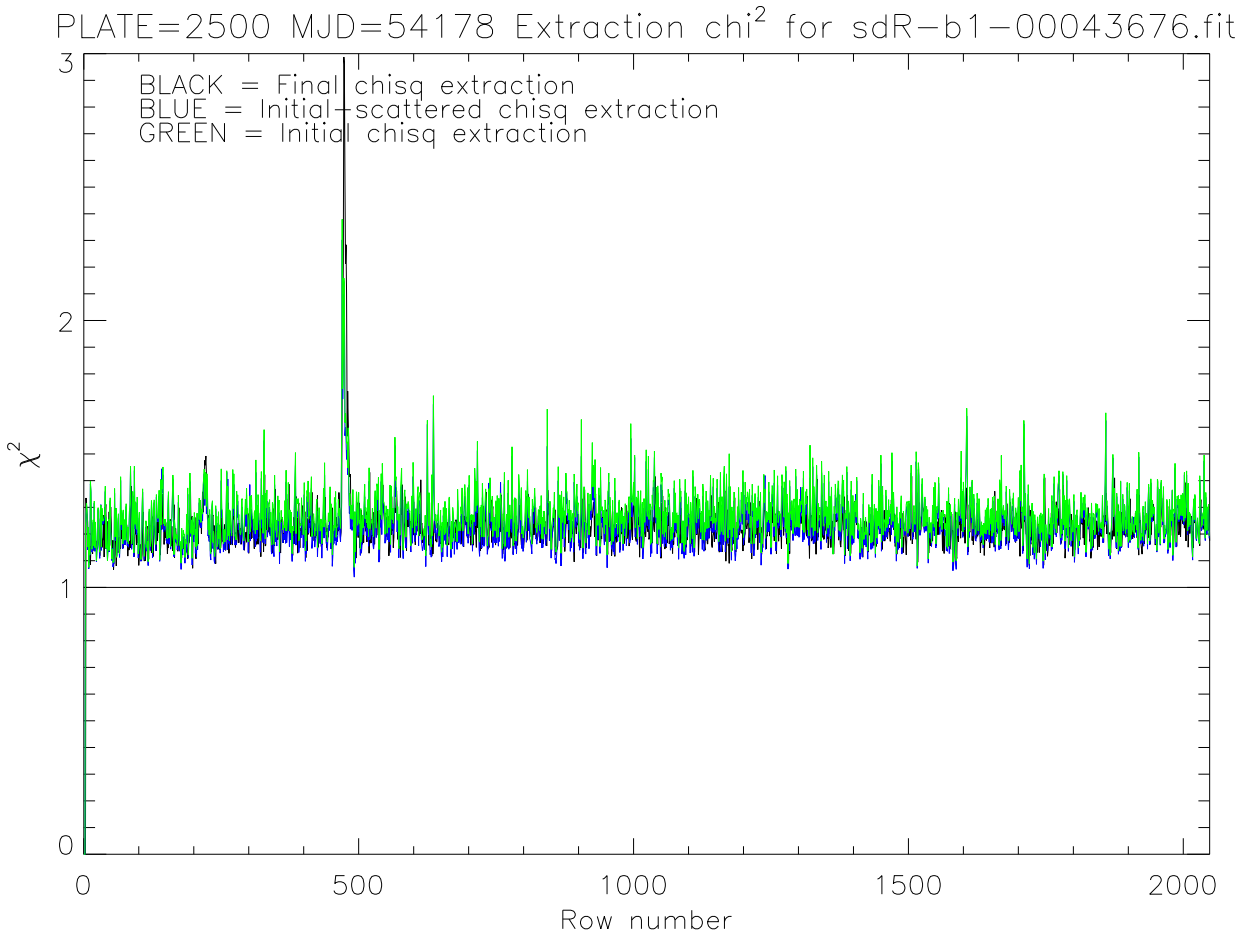

PLATE=2500 MJD=54178 Fiber-Flats for sdR-b1-00043674.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.465
Max value = 1.212
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Fri Feb 15 23:23:28 2008

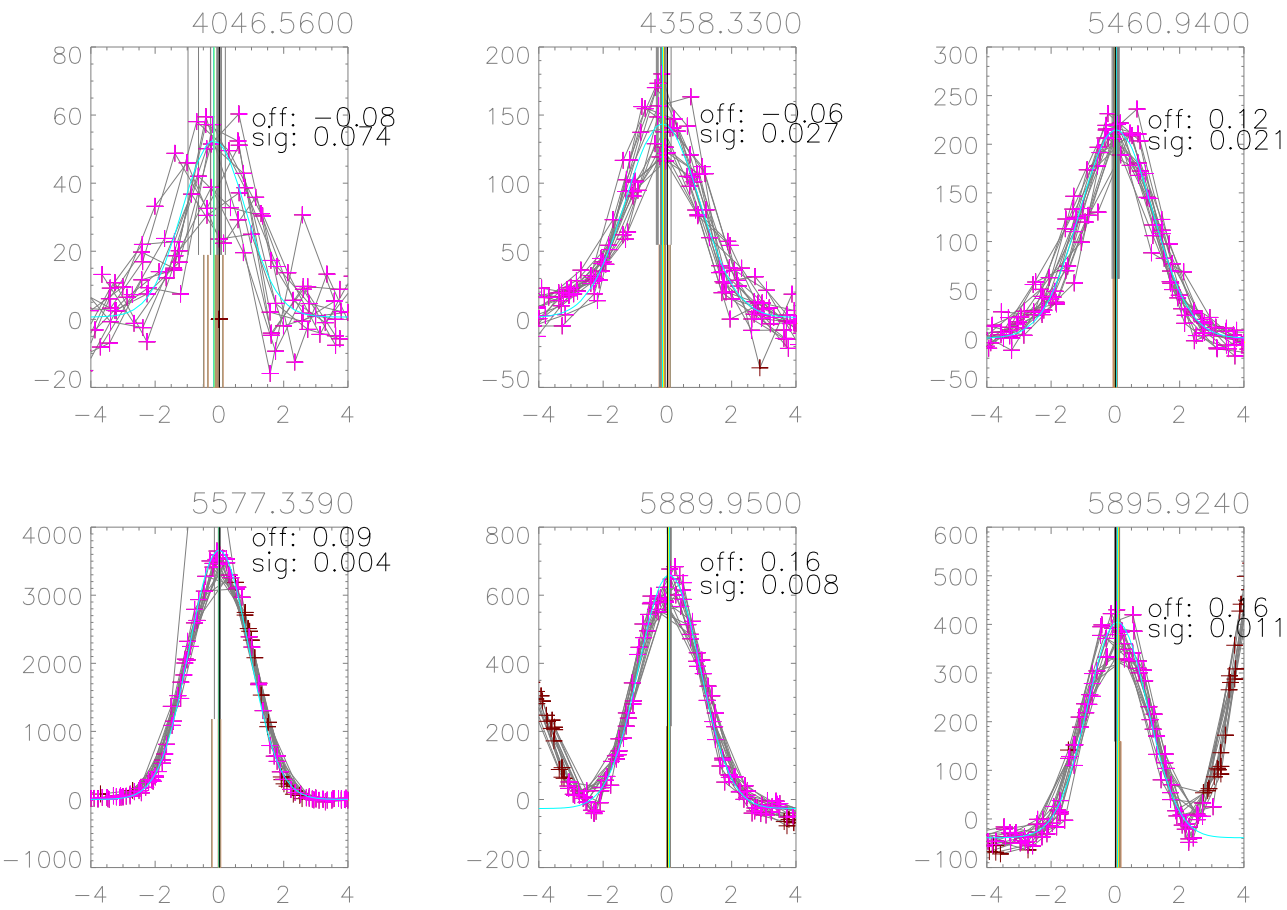

PLATE=2500 MJD=54178 Scattered Light before halo removal on sdR−b1−00043676.f
5.3
5.3
5.3
5.3
0
7.5
7.5
7.5
7.5
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]

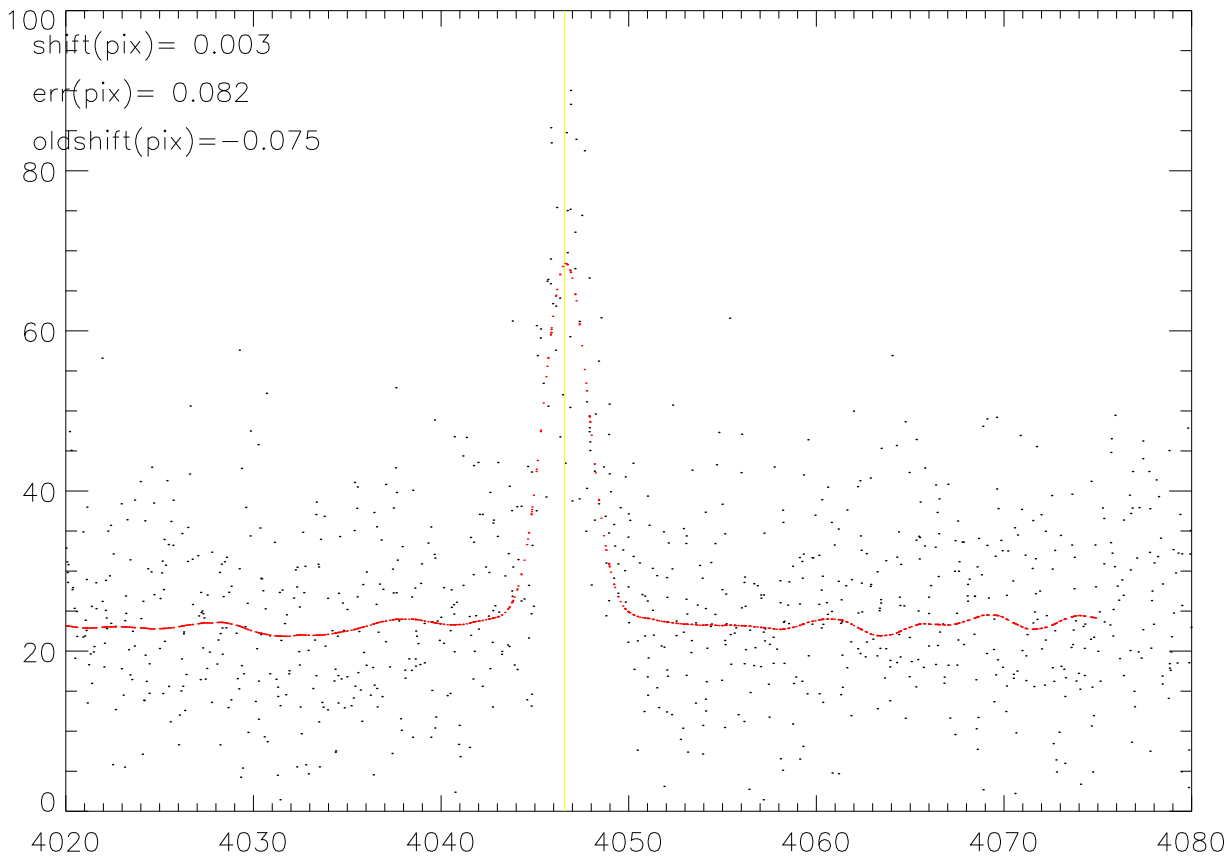

PLATE=2500 MJD=54178 Scattered Light before halo removal on sdR-b1-00043676.f
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 5.010
Max value = 8.800
Fri Feb 15 23:24:17 2008

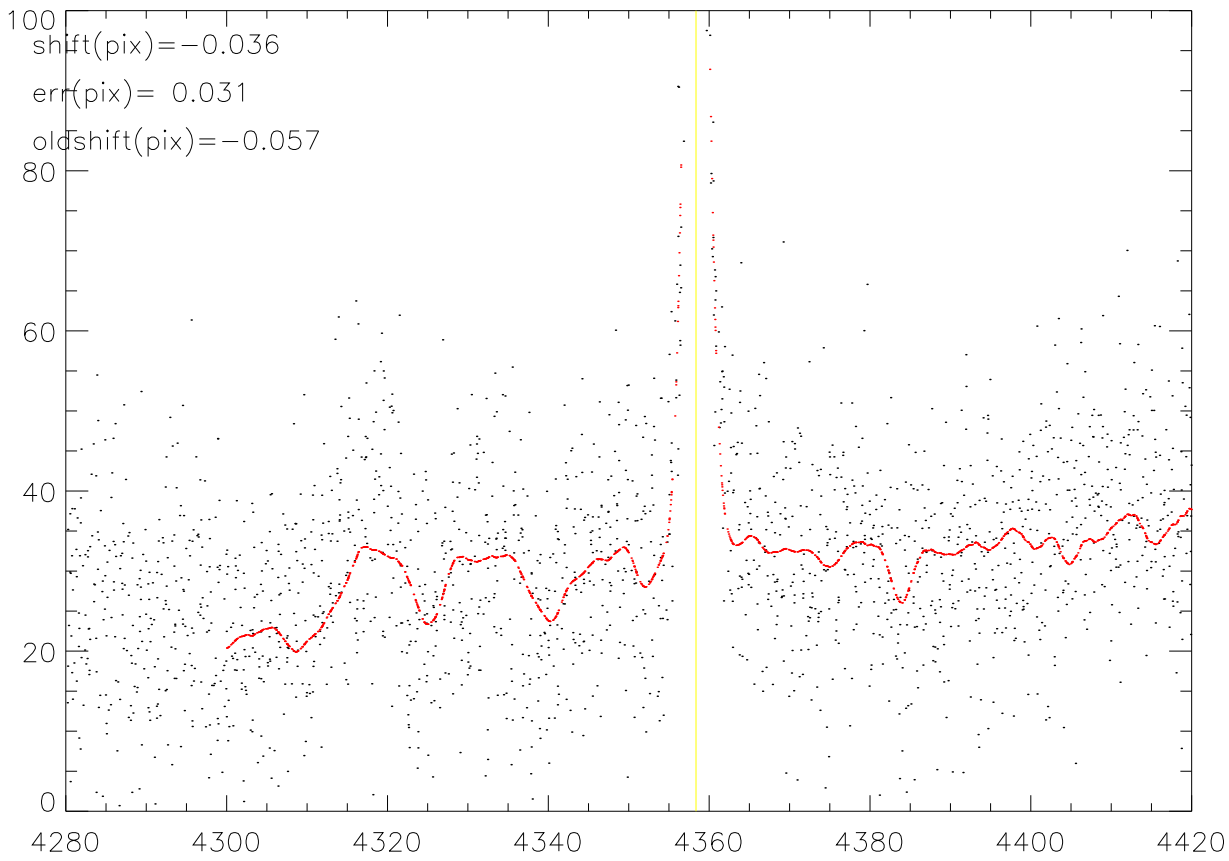

PLATE=2500 MJD=54178 Scattered Light on sdR-b1-00043676.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
4.18
4.18
4.18
4.18

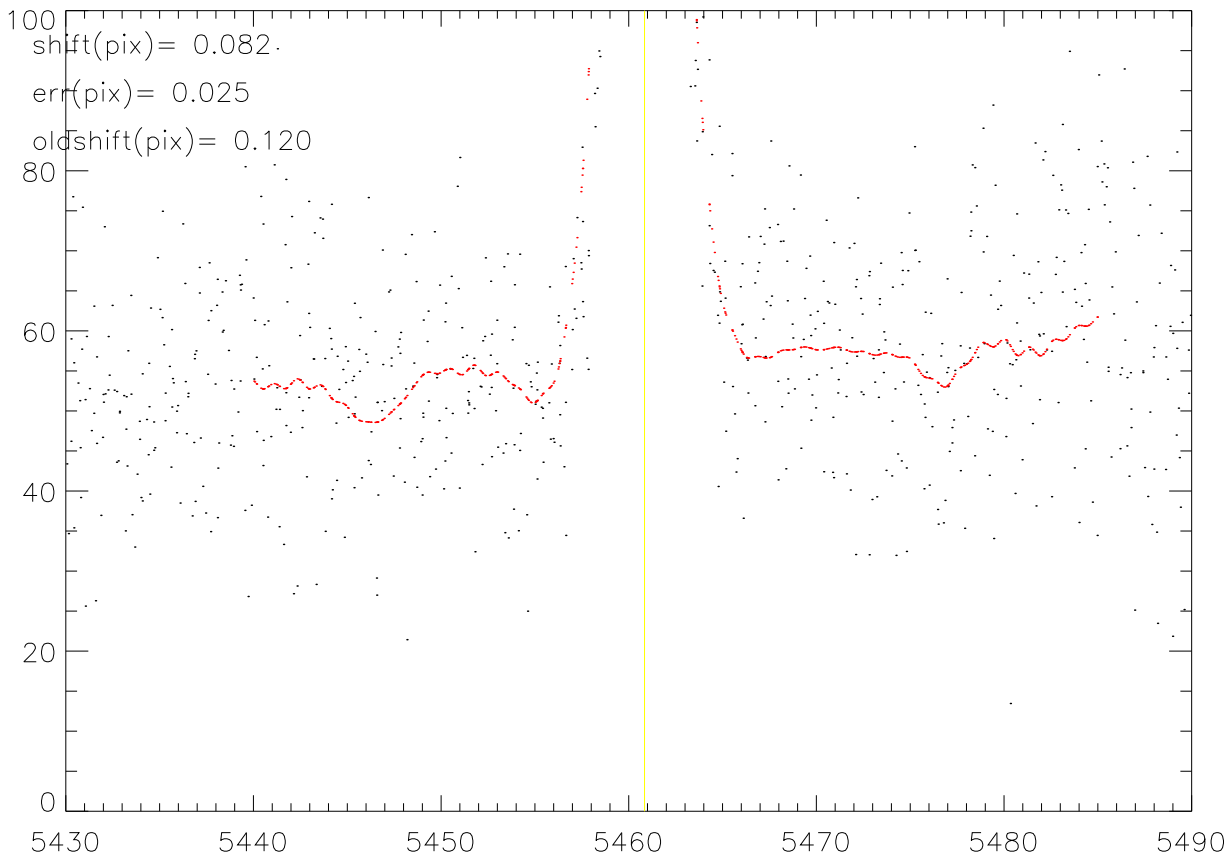

PLATE=2500 MJD=54178 Scattered Light on sdR-b1-00043676.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 3.479
Max value = 5.316
Fri Feb 15 23:27:14 2008

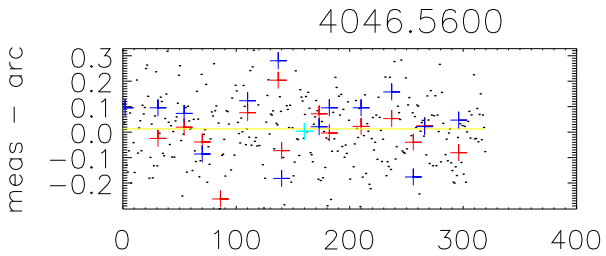

PLATE=2500 MJD=54178 Extraction chi^2 for sdR-b1-00043676.fit
BLACK = Final chisq extraction
BLUE = Initial+scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
0
500
1000
1500
2000
Row number

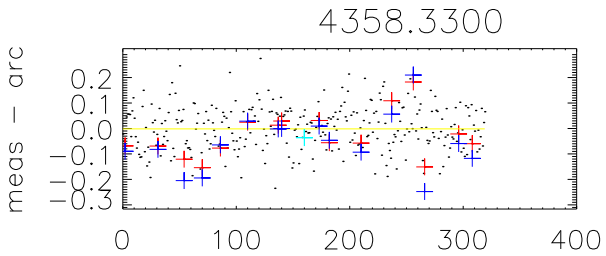

4046.5600
off: −0.08
sig: 0.074
4358.3300
off: −0.06
sig: 0.027
5460.9400
off: 0.12
sig: 0.021
5577.3390
off: 0.09
sig: 0.004
5889.9500
off: 0.16
sig: 0.008
5895.9240
off: 0.16
sig: 0.011

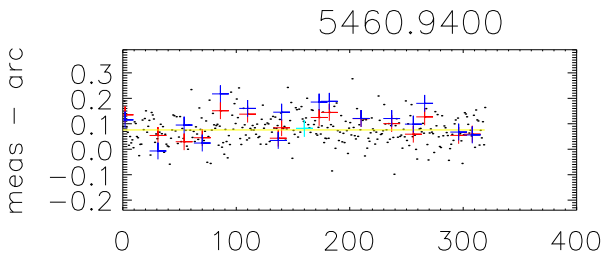

shift(pix)= 0.003
err(pix)= 0.082
oldshift(pix)=−0.075
100
80
60
40
20
0
4020
4030
4040
4050
4060
4070
4080

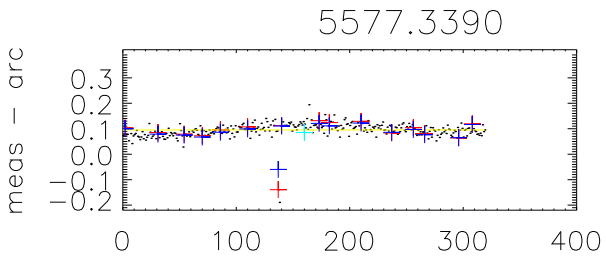

shift(pix)=−0.036
err(pix)= 0.031
oldshift(pix)=−0.057
100
80
60
40
20
0
4280
4300
4320
4340
4360
4380
4400
4420

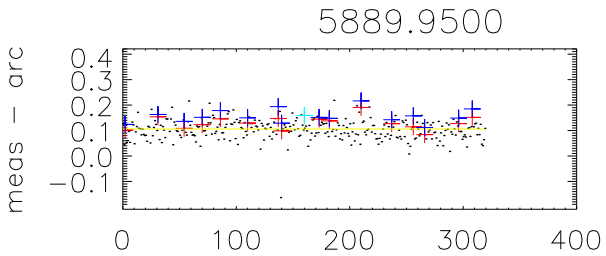

shift(pix)= 0.082
err(pix)= 0.025
oldshift(pix)= 0.120
100
80
60
40
20
0
5430
5440
5450
5460
5470
5480
5490

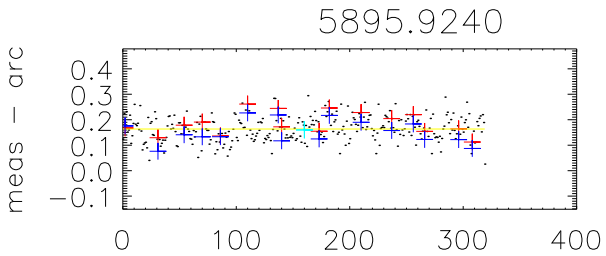

4046.5600
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

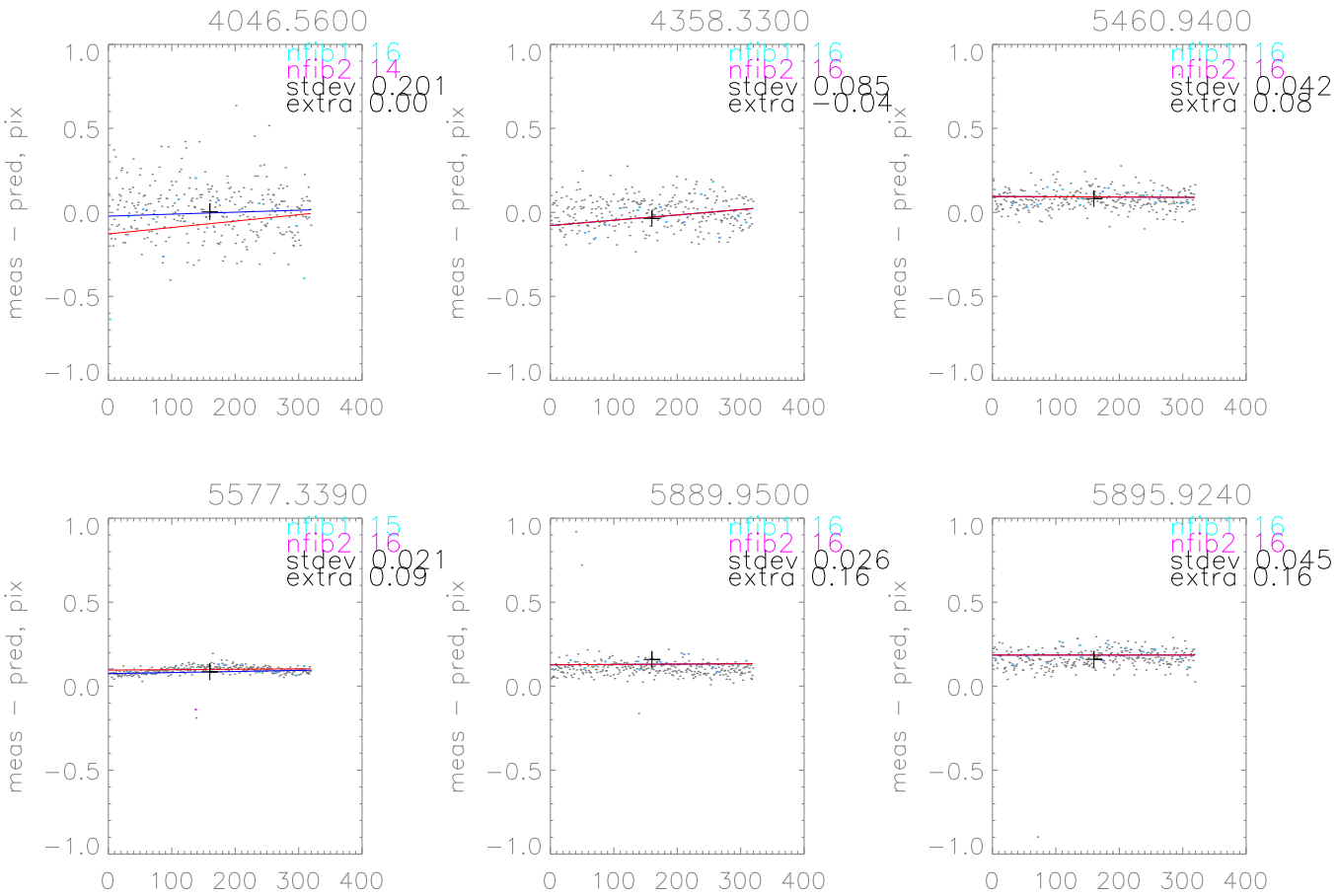

4358.3300
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

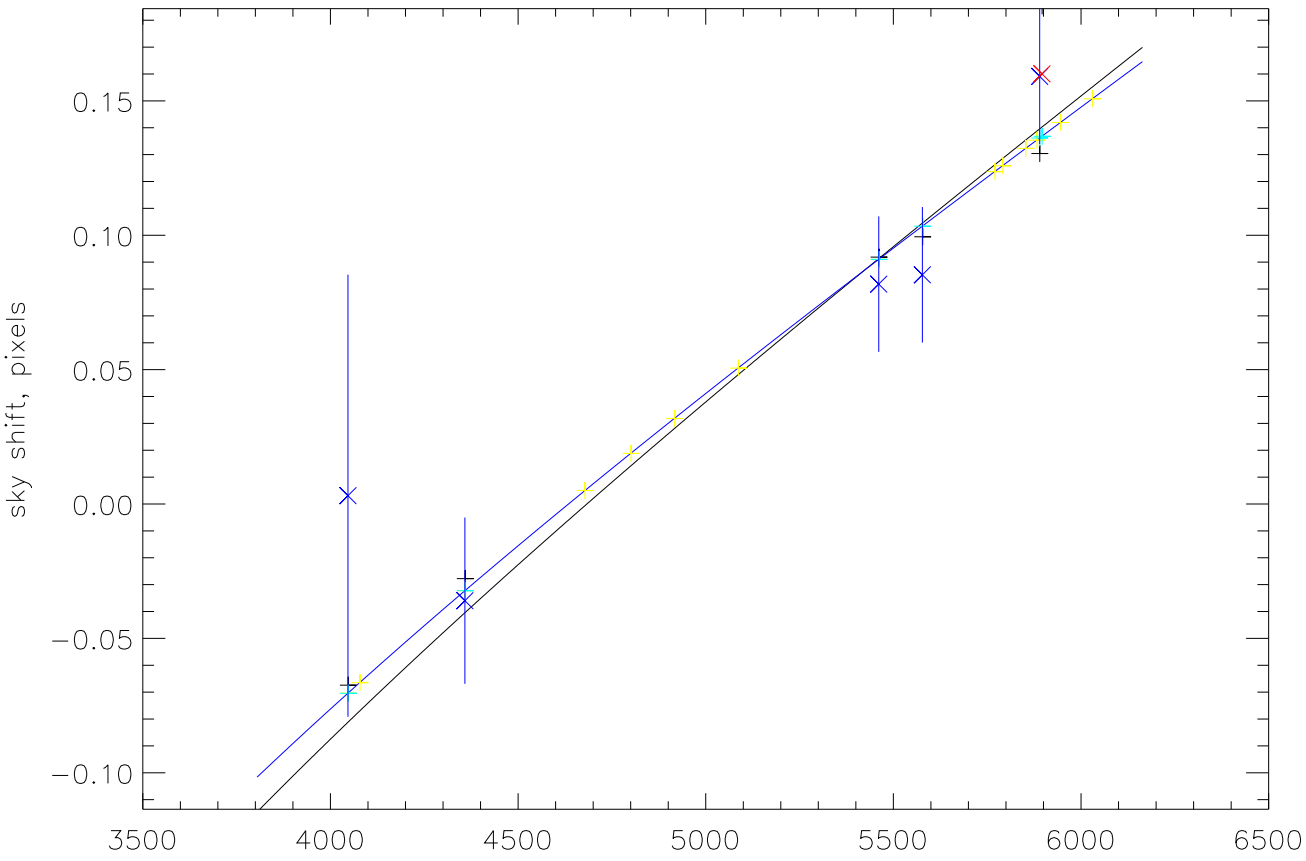

5460.9400
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400


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

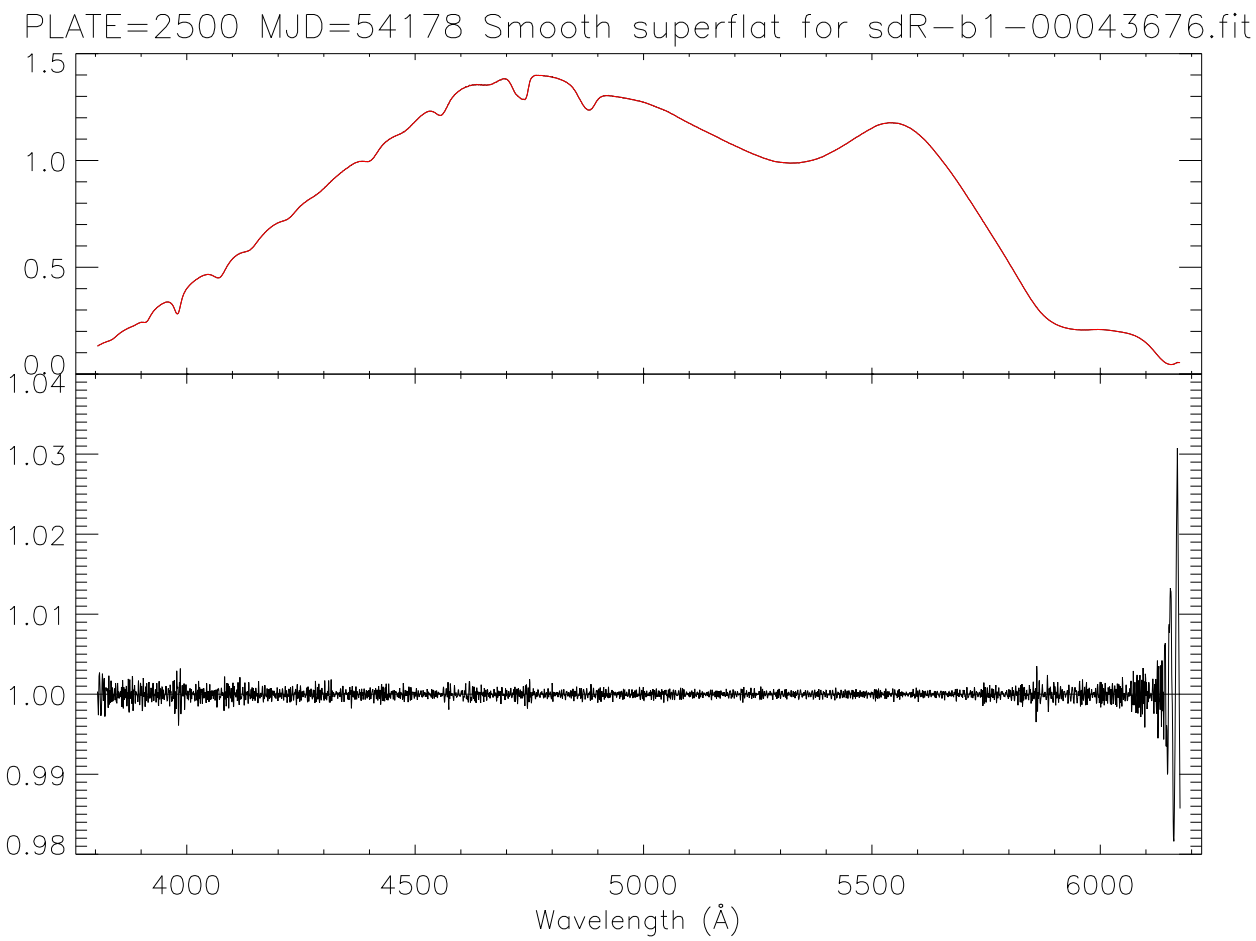

5889.9500
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

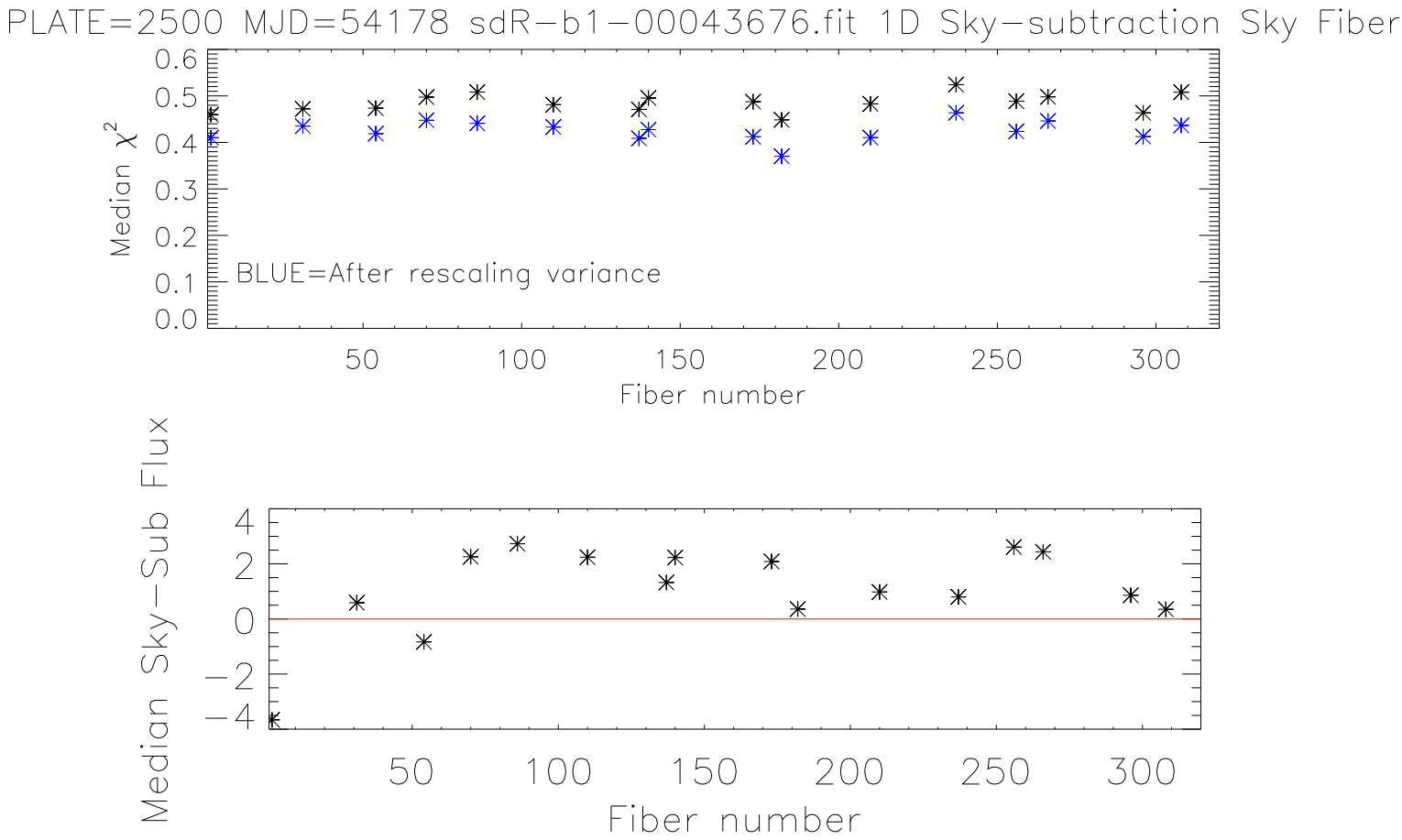

5895.9240
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

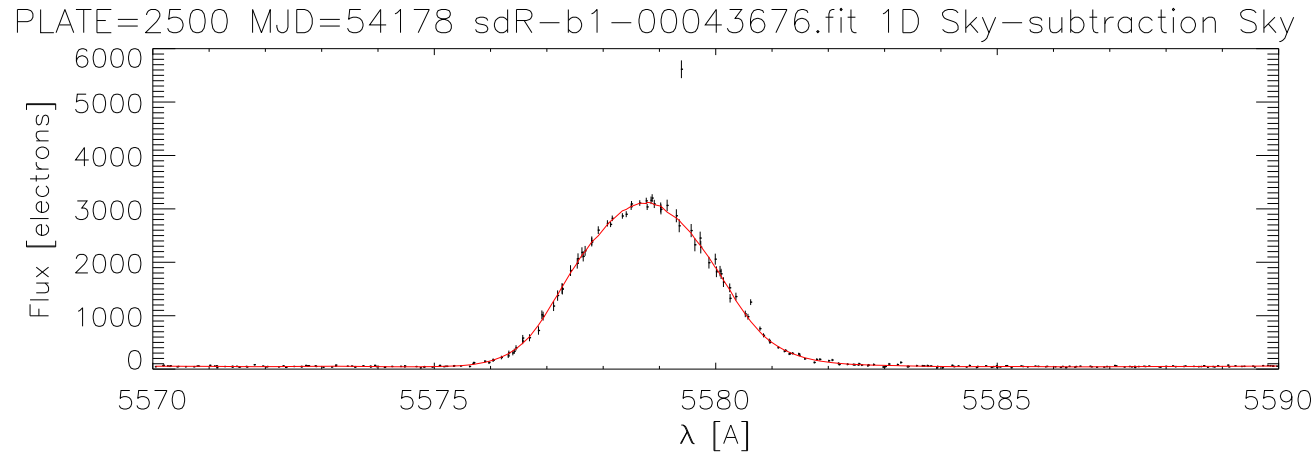

4046.5600
nfib1 16
nfib2 14
stdev 0.201
extra 0.00
4358.3300
nfib1 16
nfib2 16
stdev 0.085
extra −0.04
5460.9400
nfib1 16
nfib2 16
stdev 0.042
extra 0.08
5577.3390
nfib1 15
nfib2 16
stdev 0.021
extra 0.09
5889.9500
nfib1 16
nfib2 16
stdev 0.026
extra 0.16
5895.9240
nfib1 16
nfib2 16
stdev 0.045
extra 0.16
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

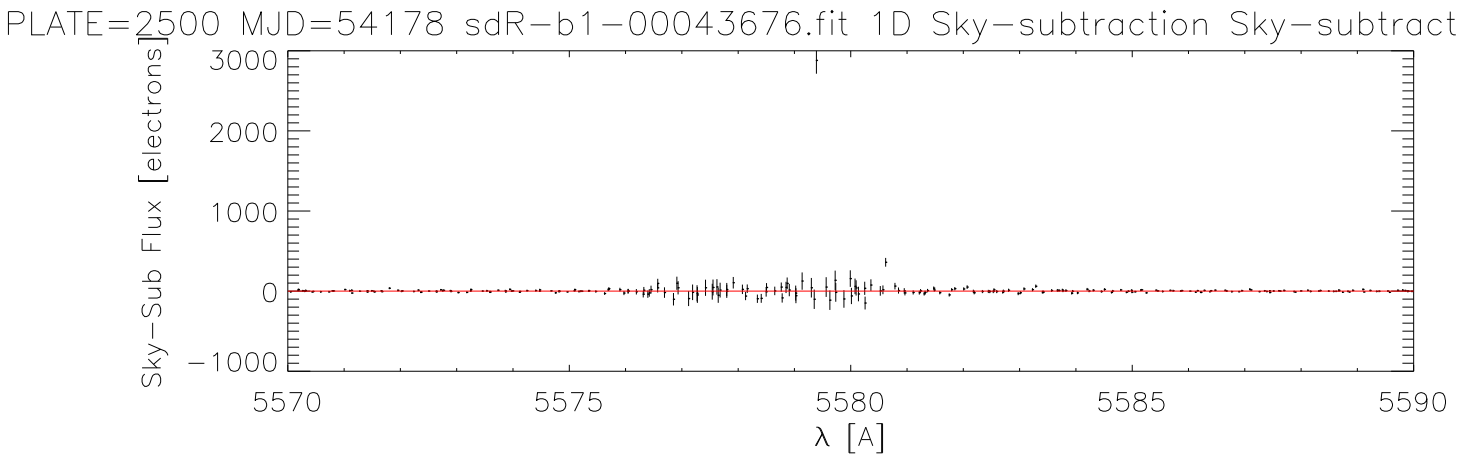

sky shift, pixels
0.15
0.10
0.05
0.00
−0.05
−0.10
3500
4000
4500
5000
5500
6000
6500

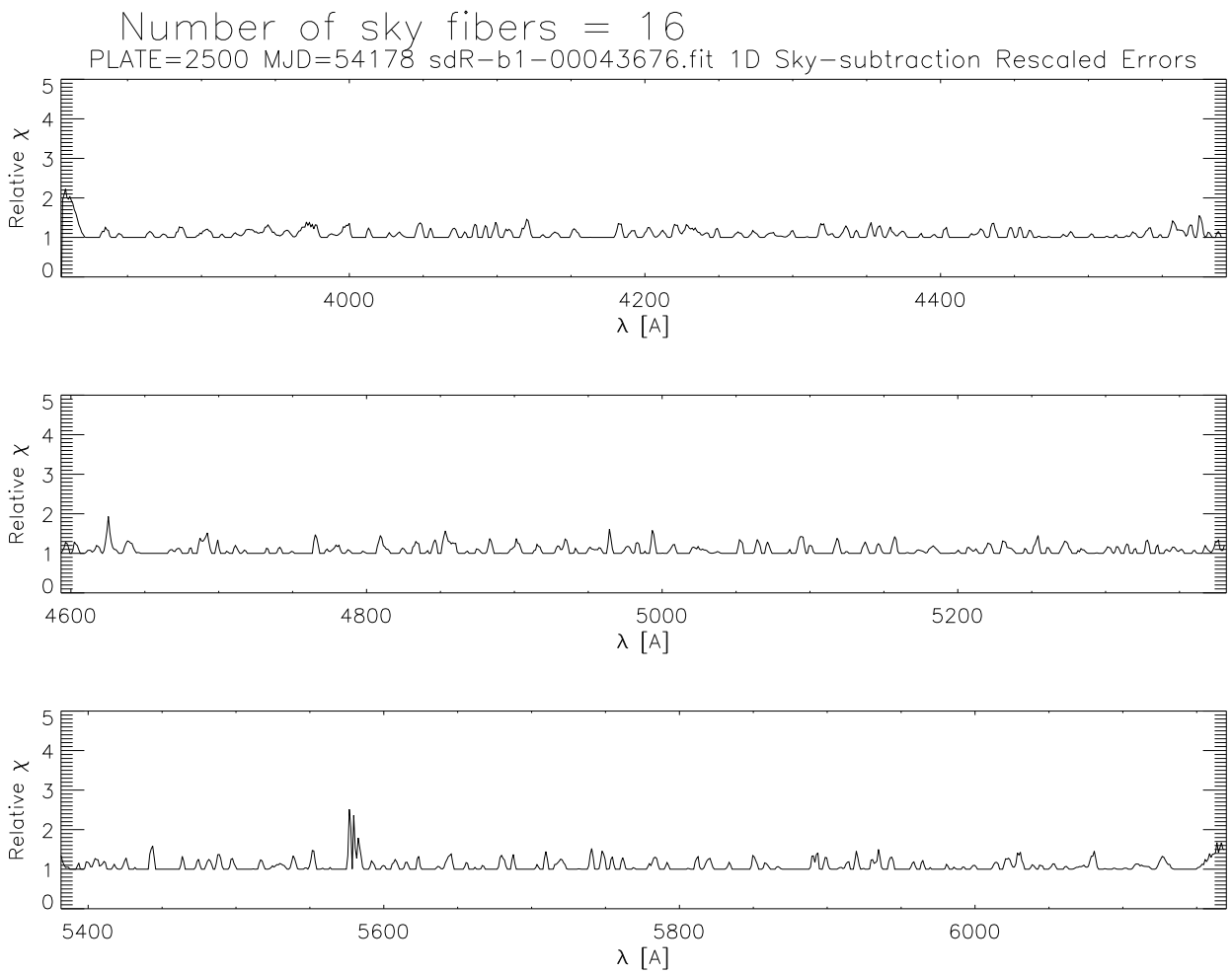
es= −0.0001

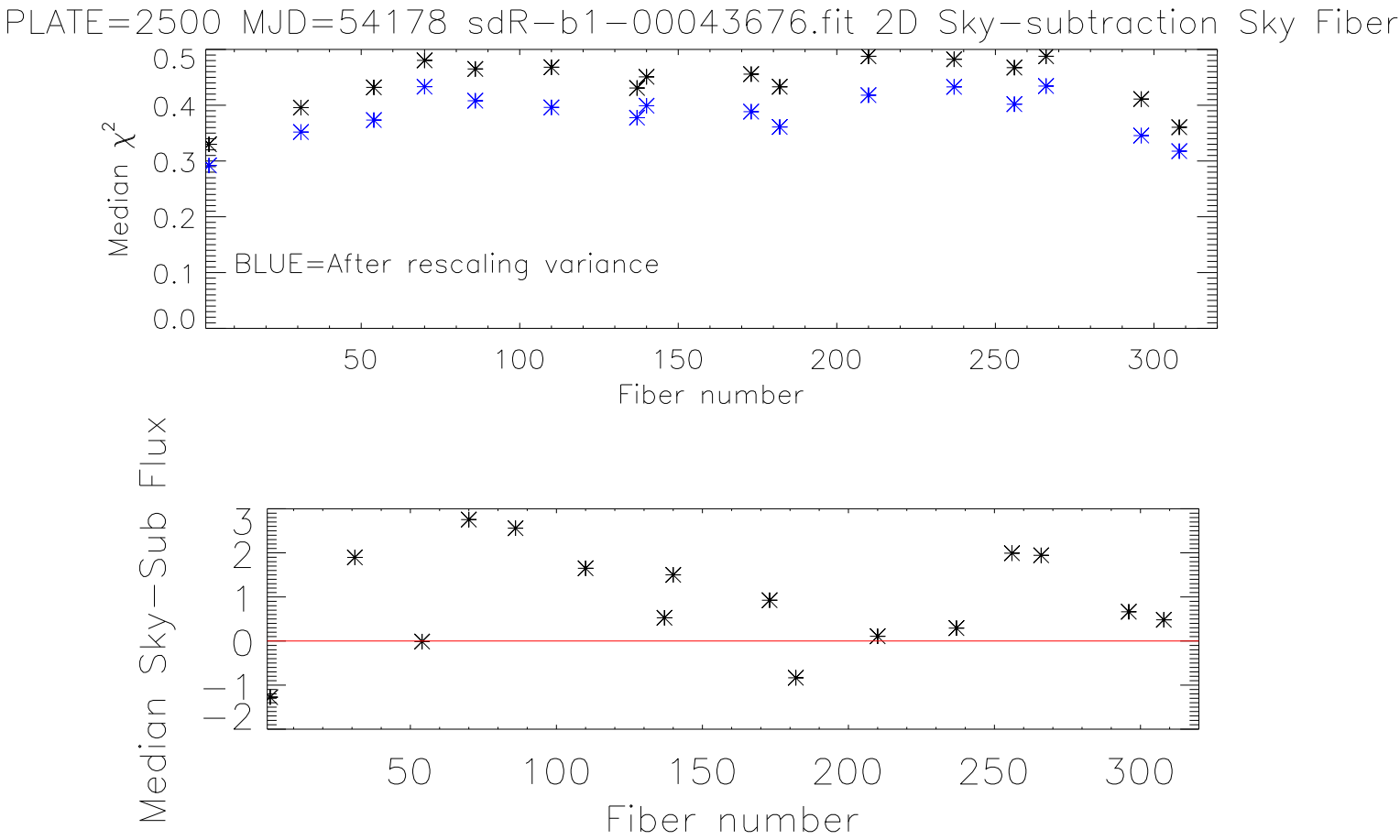

PLATE=2500 MJD=54178 Smooth superflat for sdR−b1−00043676.fit
1.5
1.0
0.5
0.0
1.04
1.03
1.02
1.01
1.00
0.99
0.98
4000
4500
5000
5500
6000
Wavelength (Å)

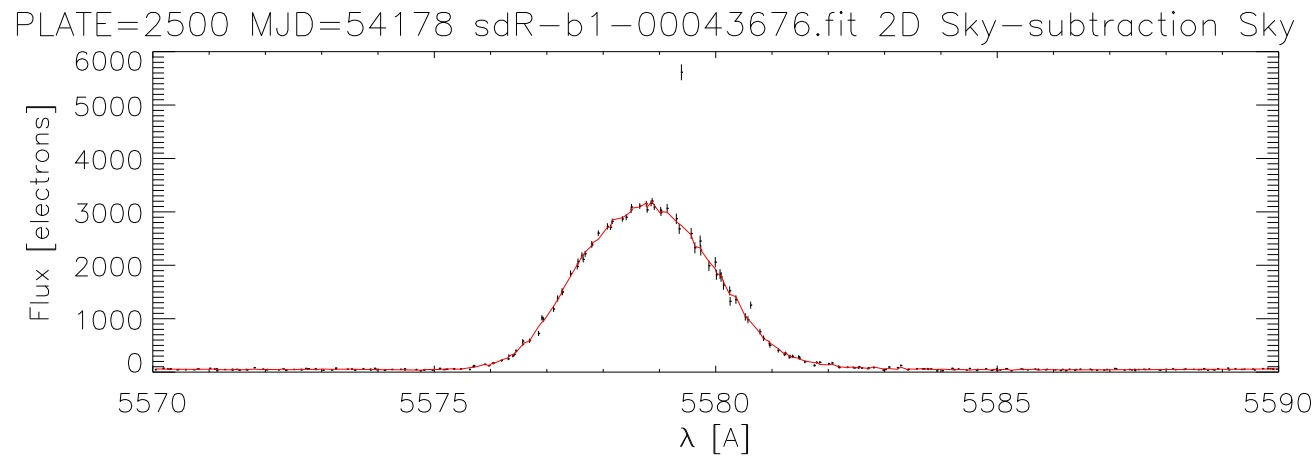

PLATE=2500 MJD=54178 sdR-b1-00043676.fit 1D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

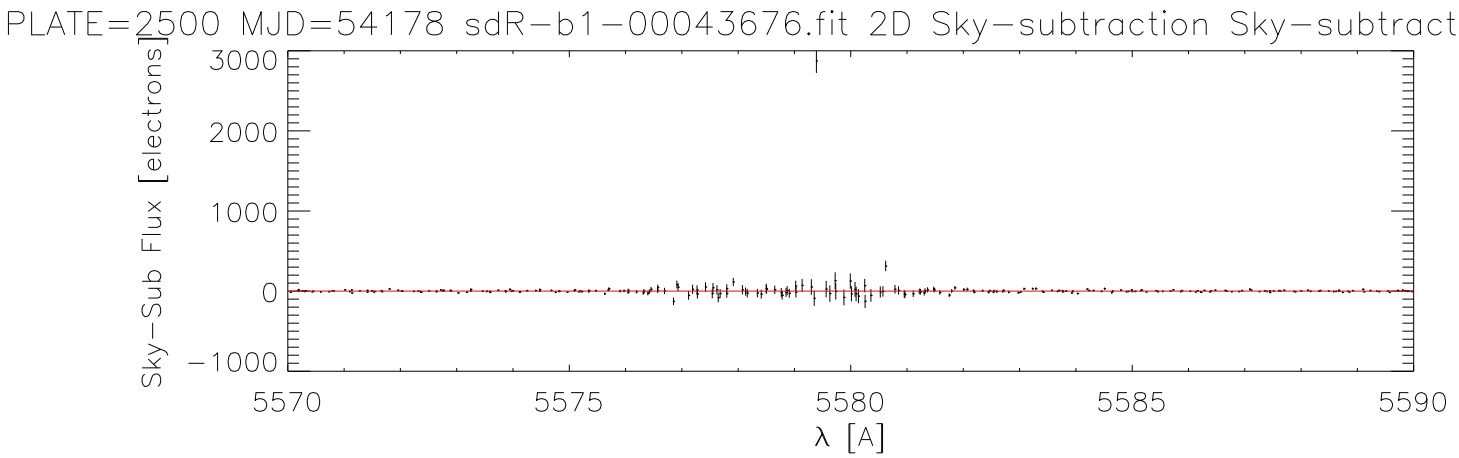

PLATE=2500 MJD=54178 sdR-b1-00043676.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
6000
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

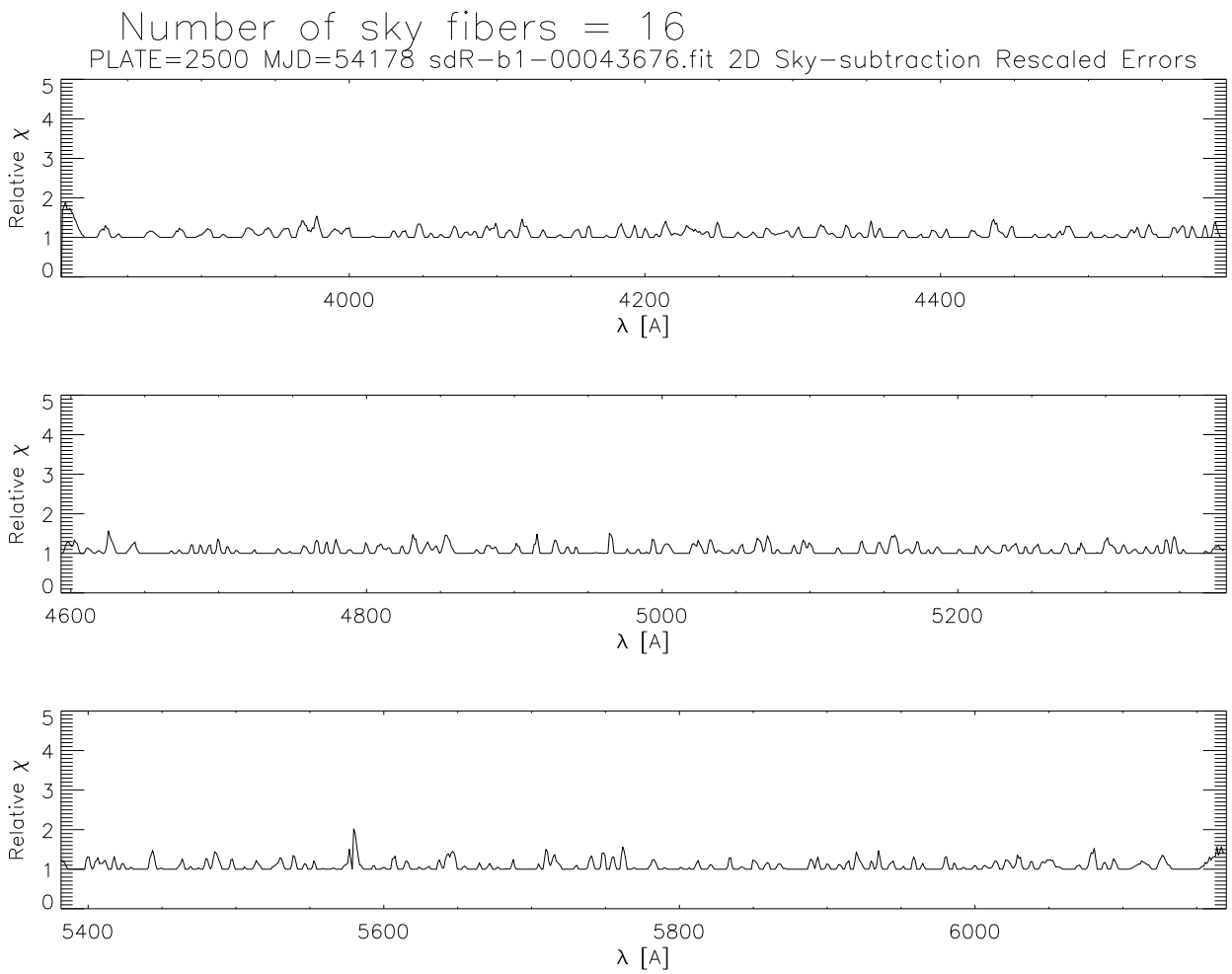

PLATE=2500 MJD=54178 sdR-b1-00043676.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
3000
2000
1000
0
-1000
5570
5575
5580
5585
5590
λ [A]

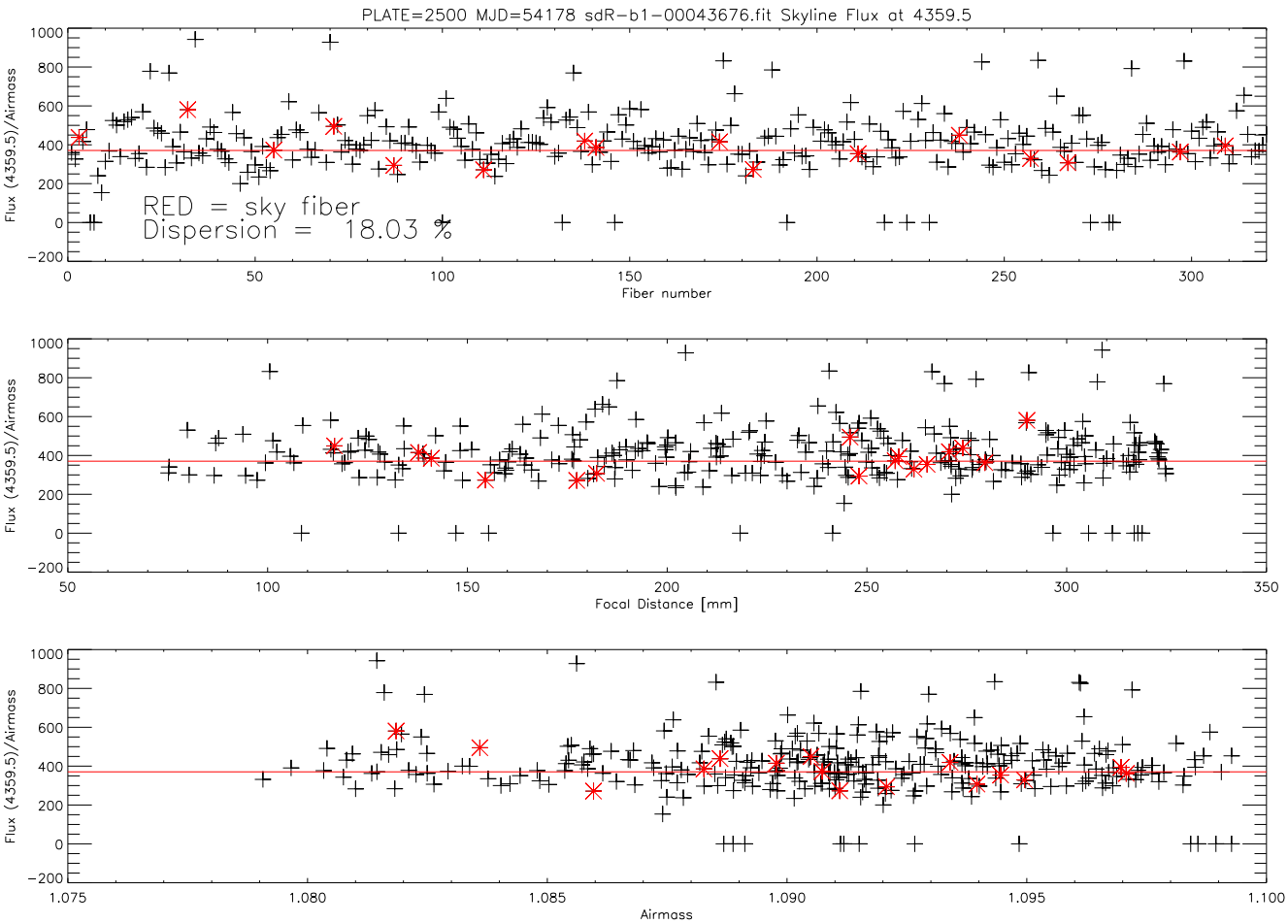

Number of sky fibers = 16
PLATE=2500 MJD=54178 sdR-b1-00043676.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

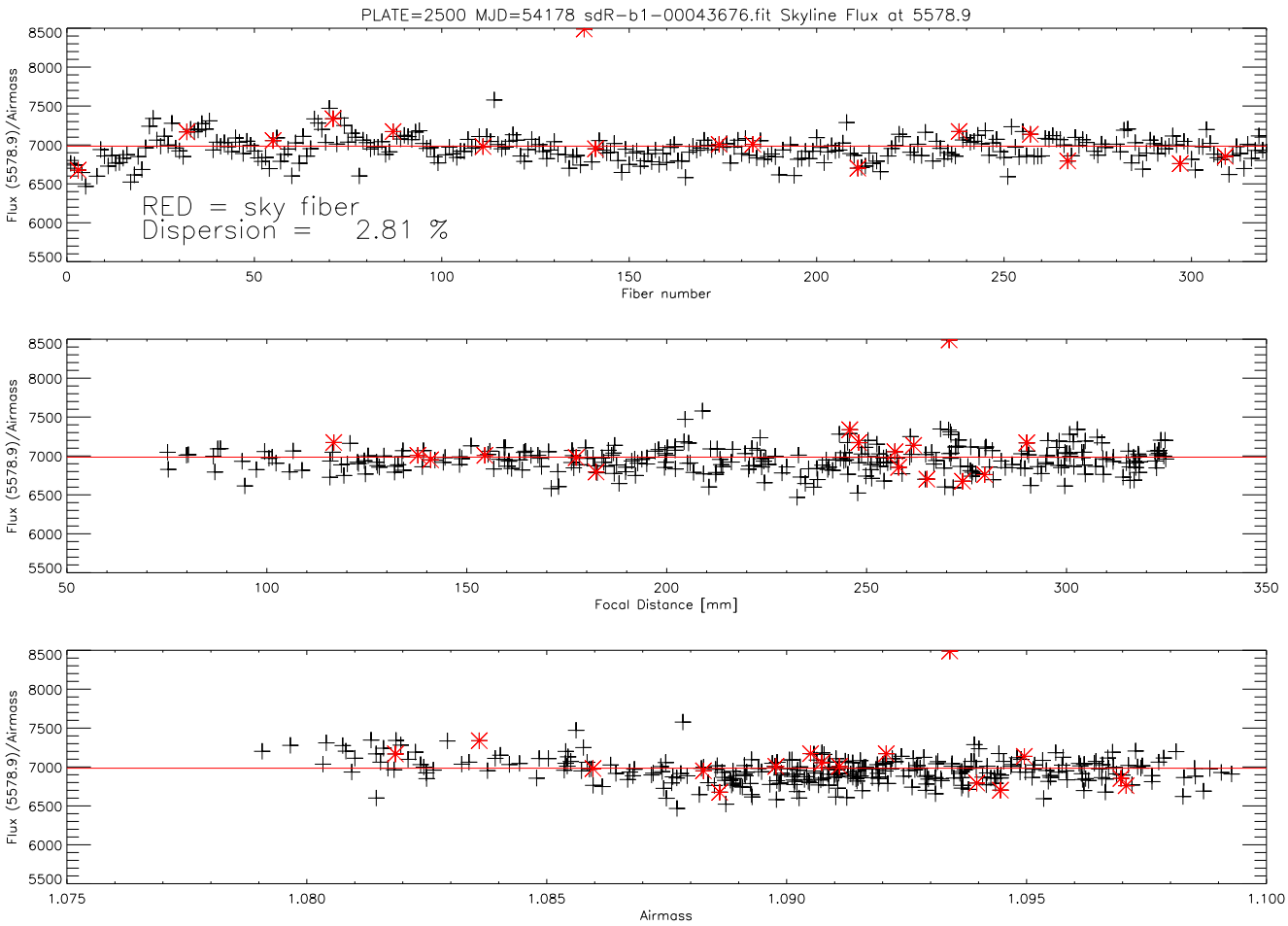

PLATE=2500 MJD=54178 sdR-b1-00043676.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

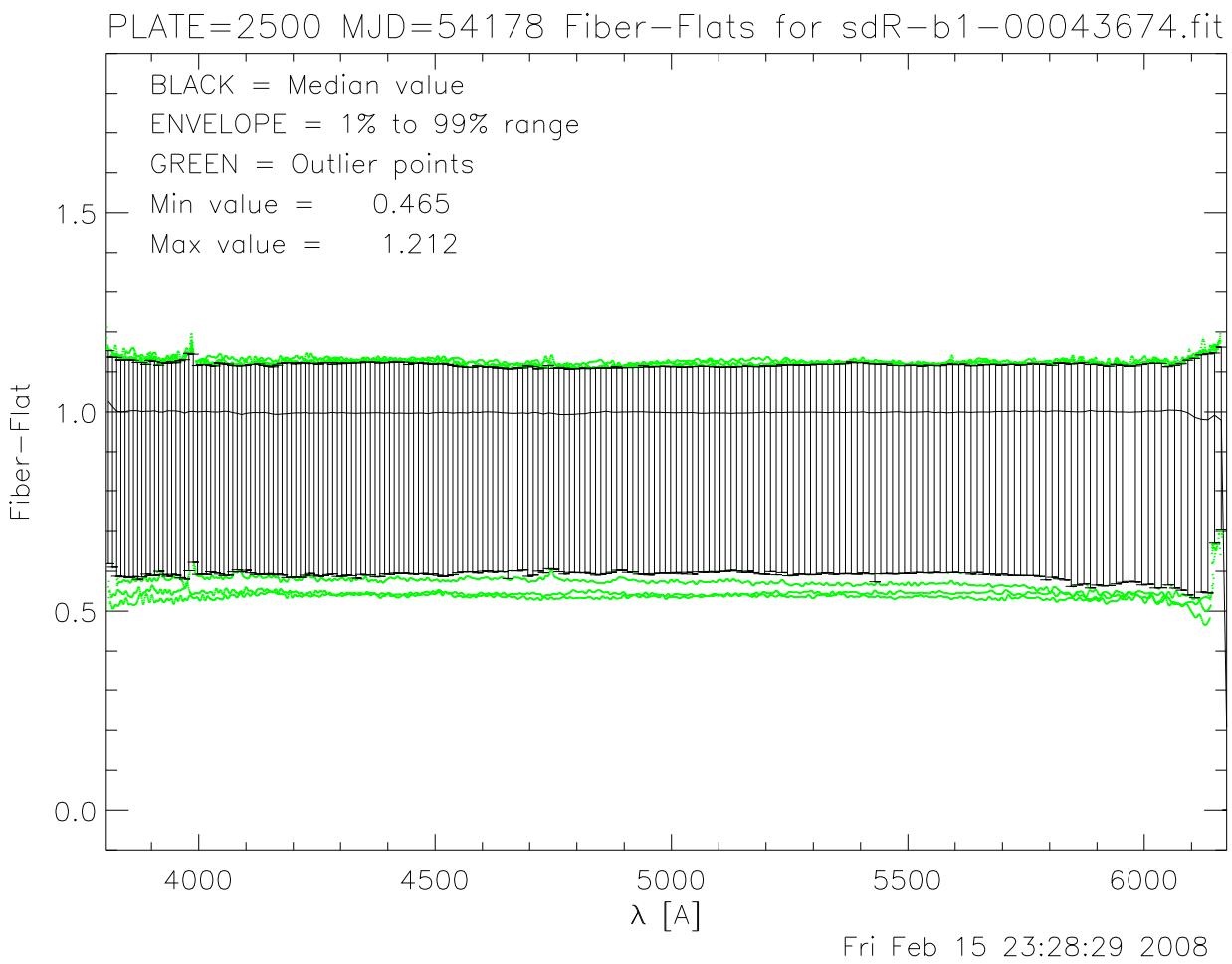

PLATE=2500 MJD=54178 sdR-b1-00043676.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
6000
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

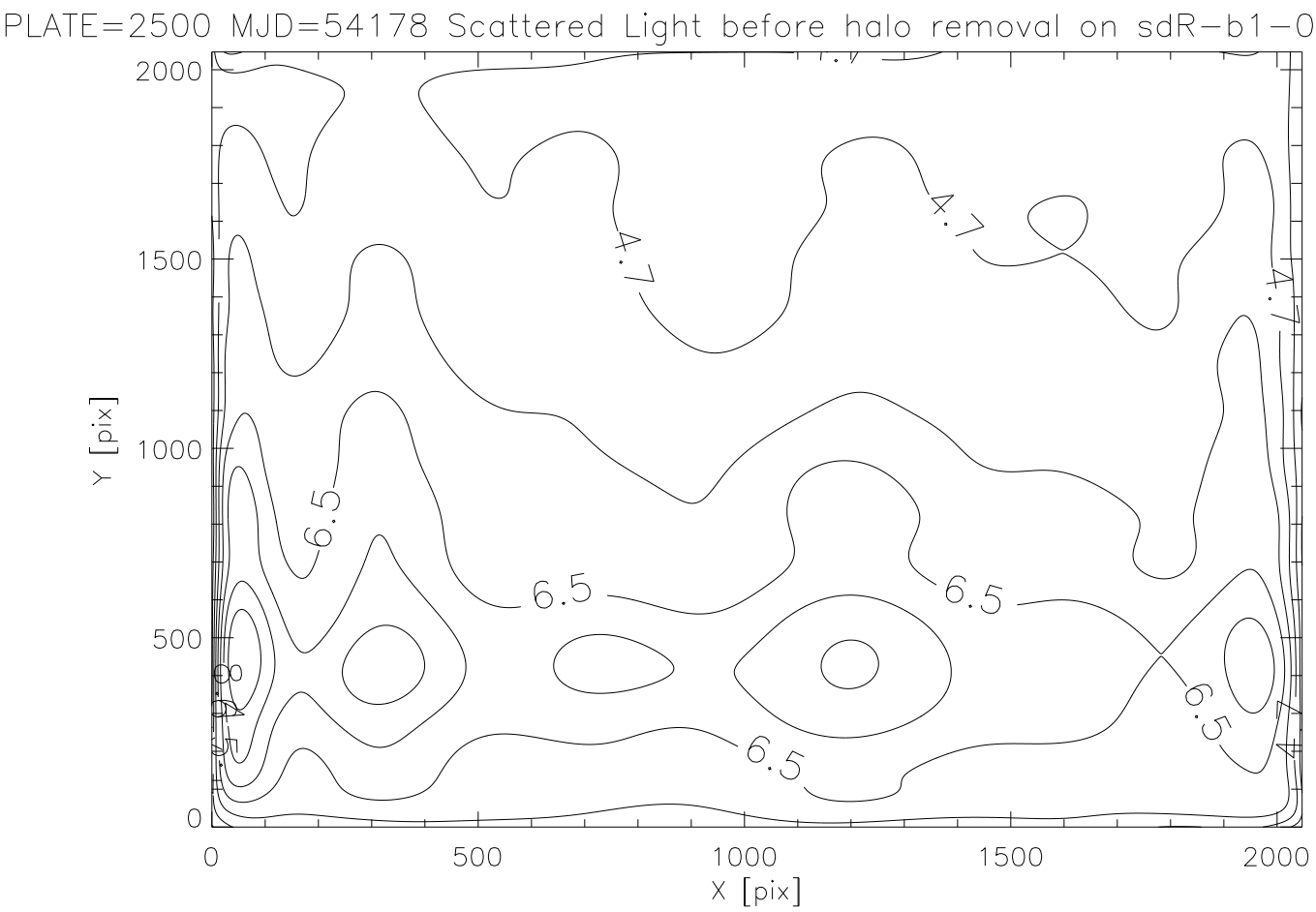

PLATE=2500 MJD=54178 sdR-b1-00043676.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
3000
2000
1000
0
-1000
5570
5575
5580
5585
5590
λ [A]

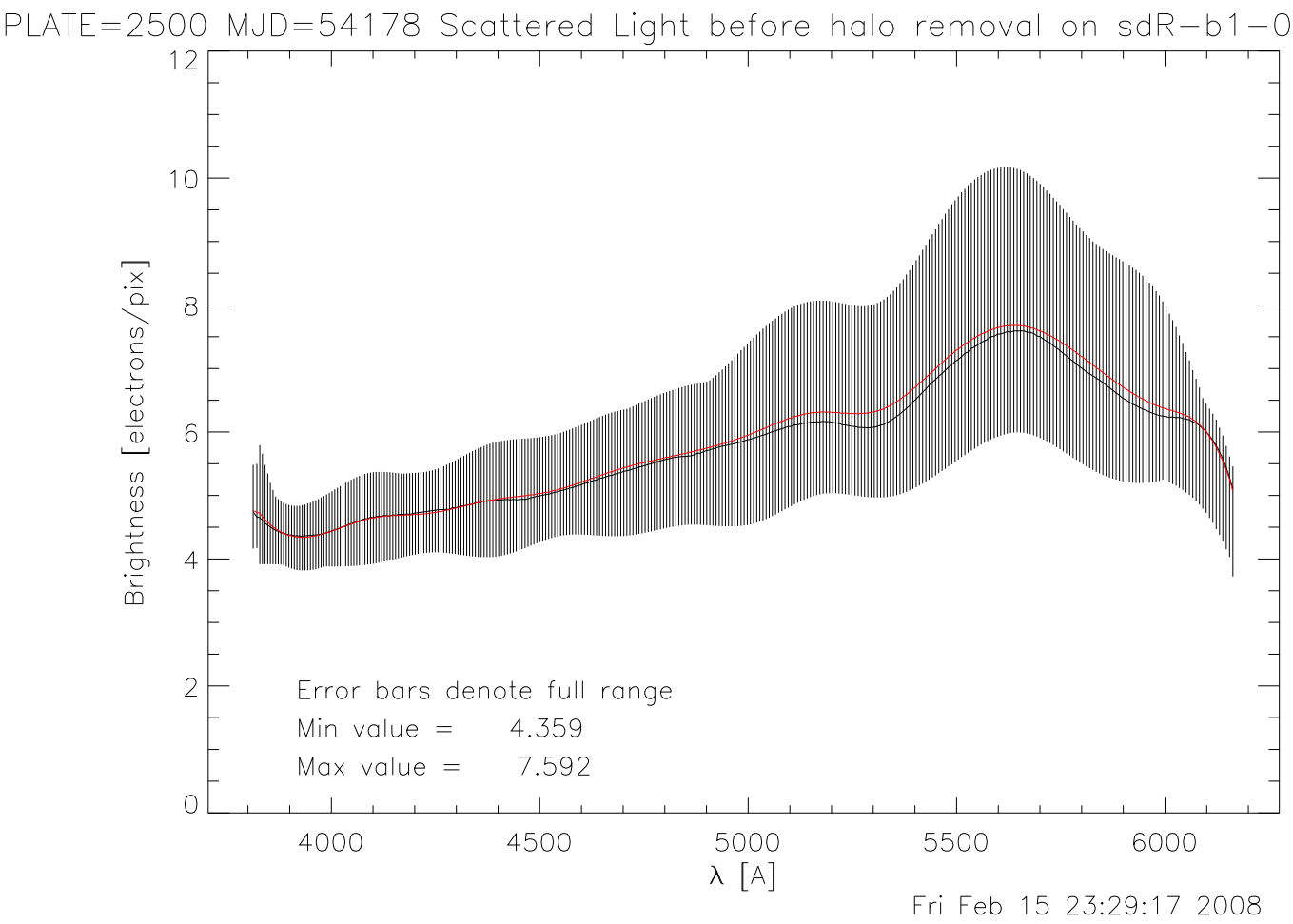

Number of sky fibers = 16
PLATE=2500 MJD=54178 sdR-b1-00043676.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

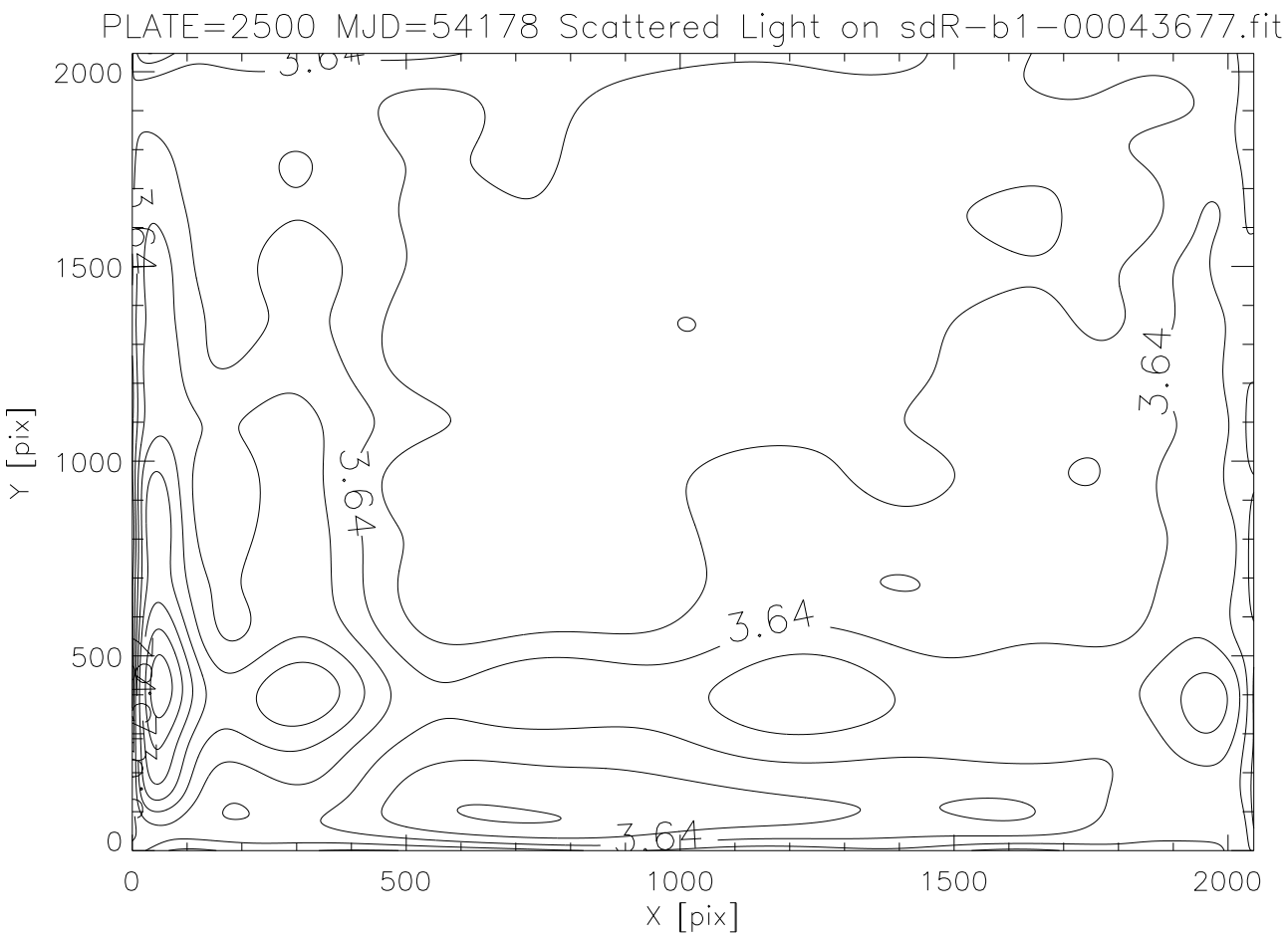

PLATE=2500 MJD=54178 sdR-b1-00043676.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 18.03 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

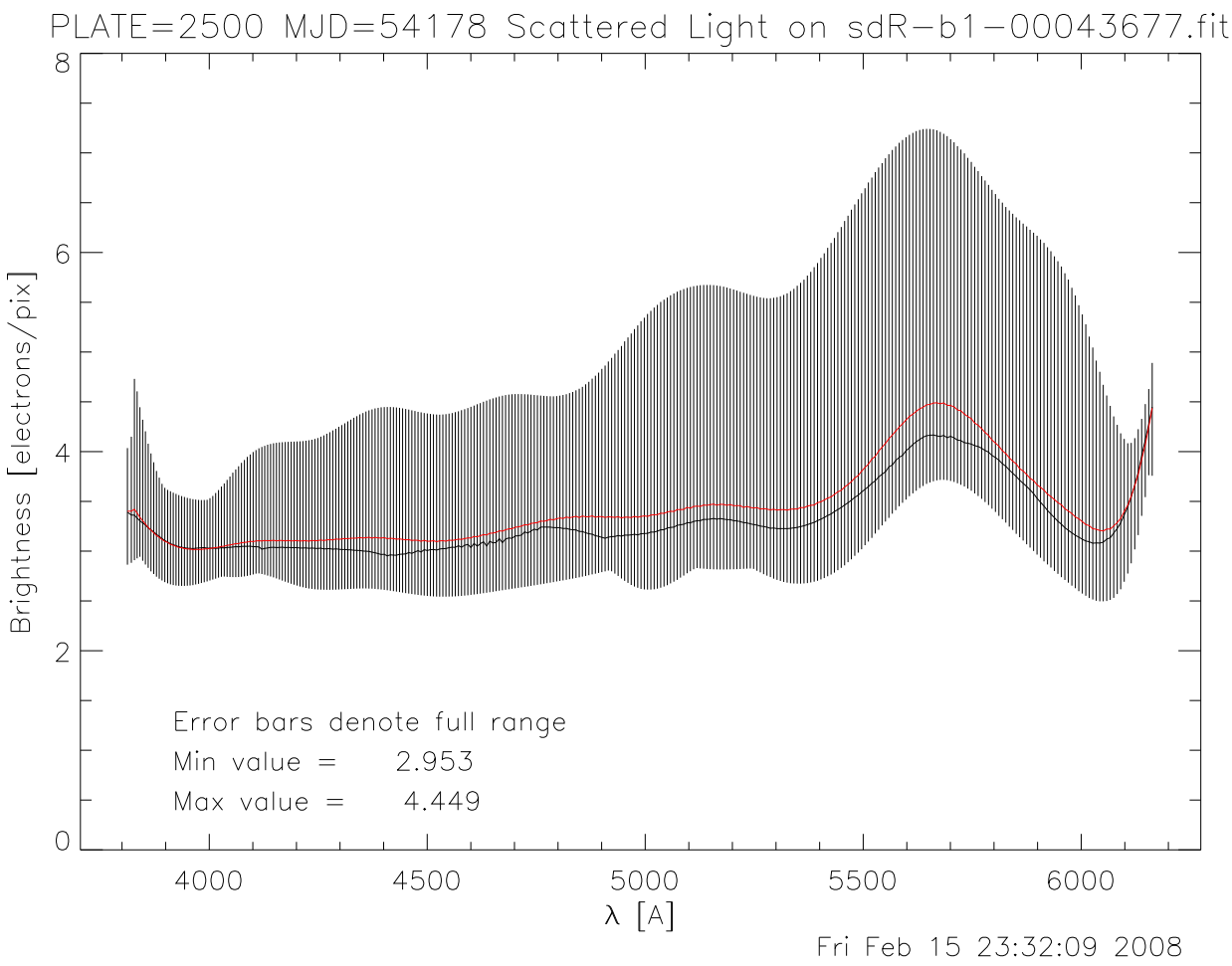

PLATE=2500 MJD=54178 sdR-b1-00043676.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 2.81 %
Fiber number
Flux (5578.9)/Airmass
Focal Distance [mm]
Flux (5578.9)/Airmass
Airmass

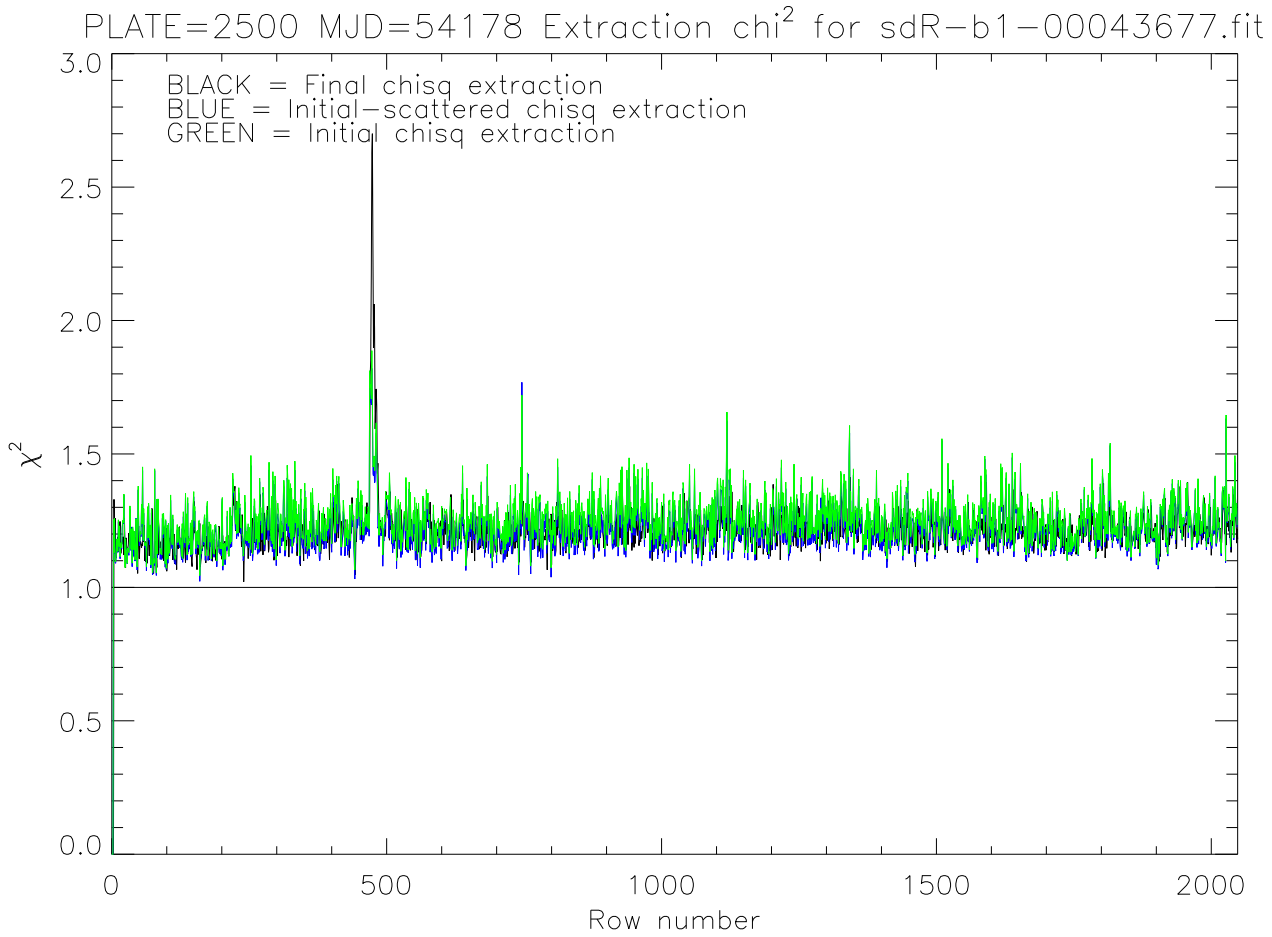

PLATE=2500 MJD=54178 Fiber-Flats for sdR-b1-00043674.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.465
Max value = 1.212
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Fri Feb 15 23:28:29 2008

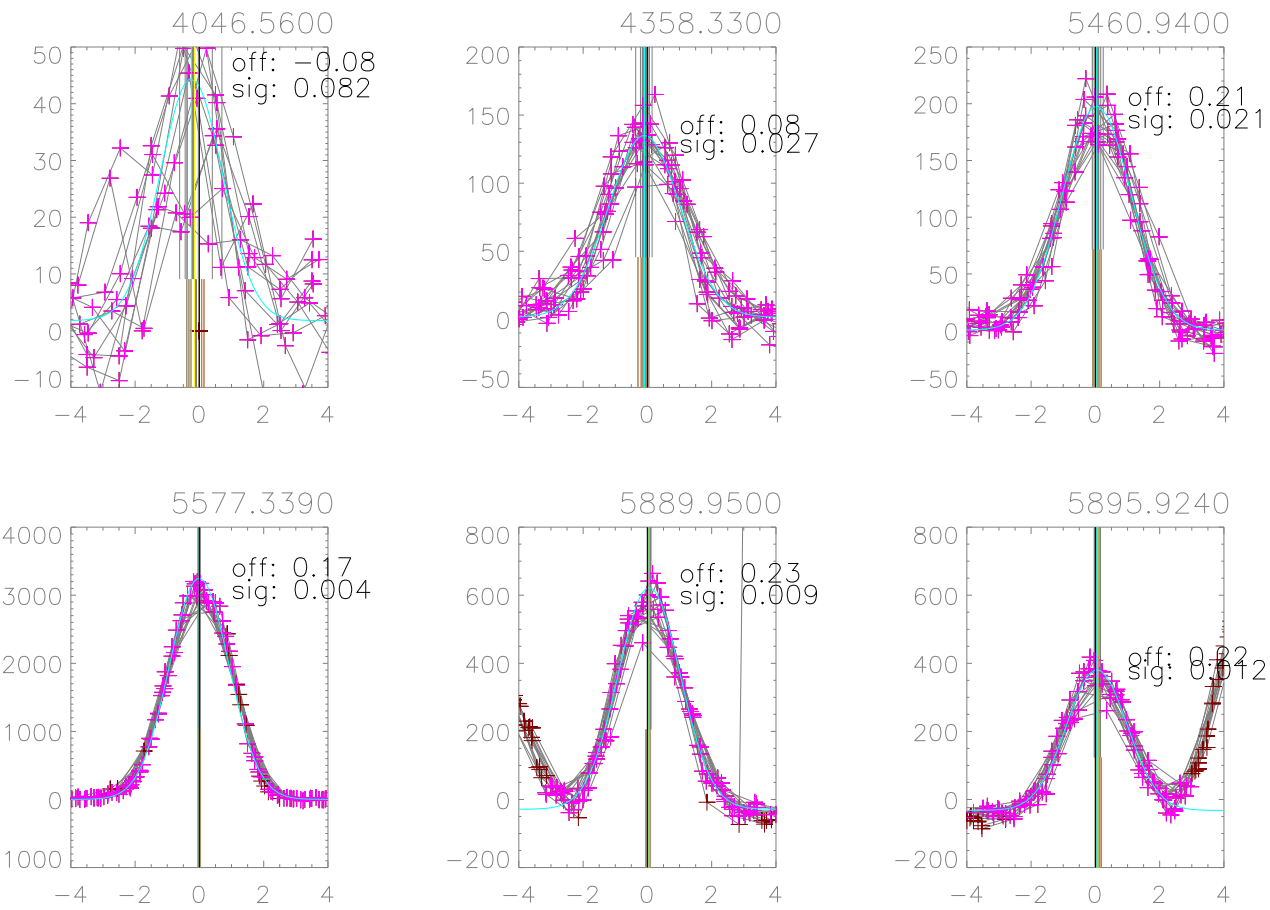

PLATE=2500 MJD=54178 Scattered Light before halo removal on sdR−b1−00043677.f
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
4.7
4.7
4.7
6.5
6.5
6.5
6.5
8.5

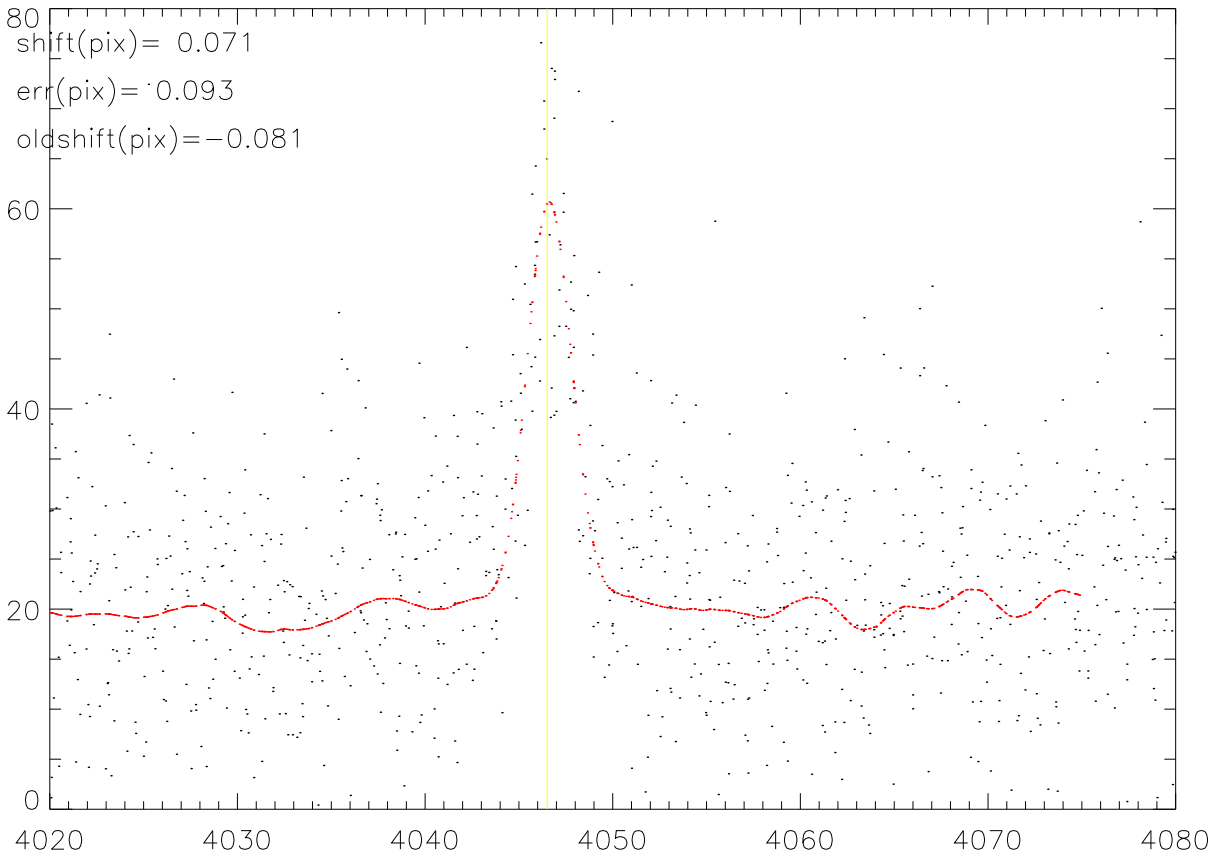

PLATE=2500 MJD=54178 Scattered Light before halo removal on sdR−b1−00043677.f
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 4.359
Max value = 7.592
Fri Feb 15 23:29:17 2008

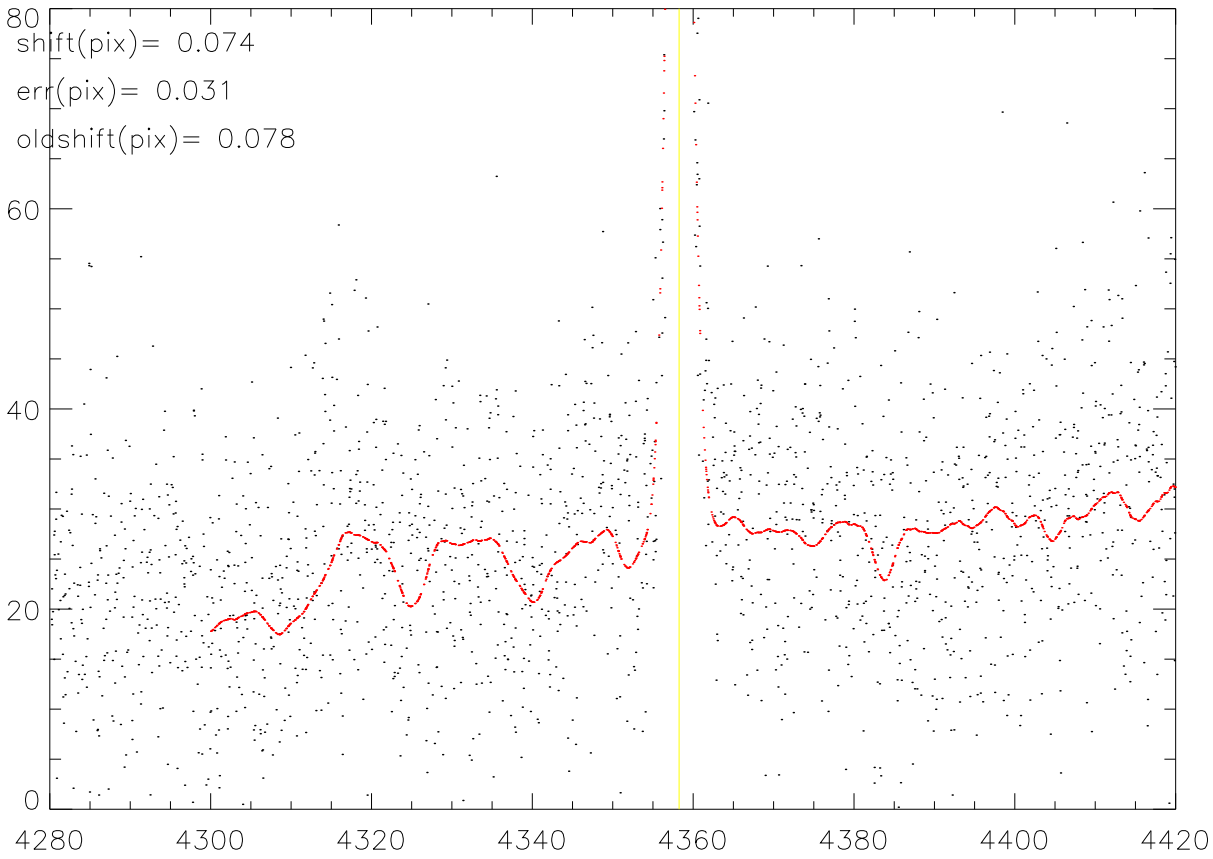

PLATE=2500 MJD=54178 Scattered Light on sdR-b1-00043677.fit
3.64
3.64
3.64
3.64
3.64
3.64
Y [pix]
X [pix]
0
500
1000
1500
2000

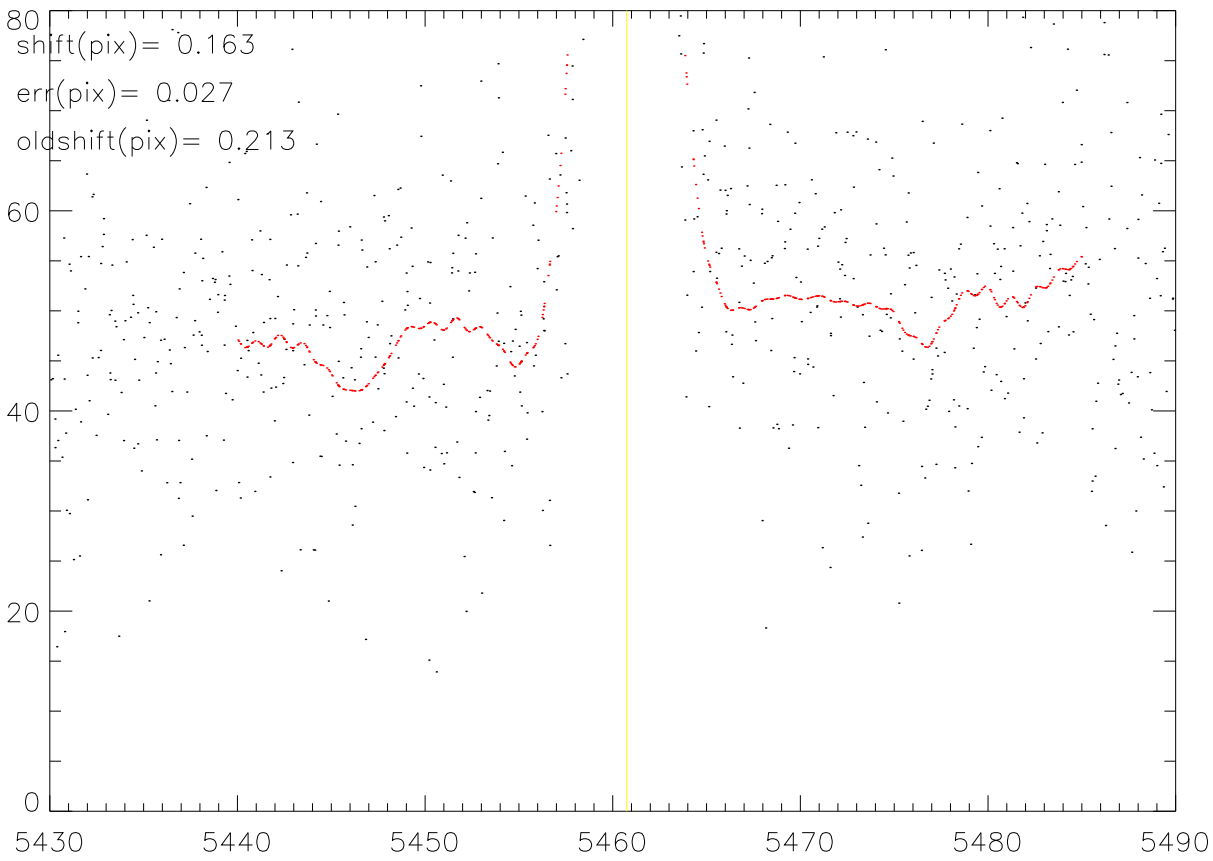

PLATE=2500 MJD=54178 Scattered Light on sdR-b1-00043677.fit
Brightness [electrons/pix]
0
2
4
6
8
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 2.953
Max value = 4.449
Fri Feb 15 23:32:09 2008

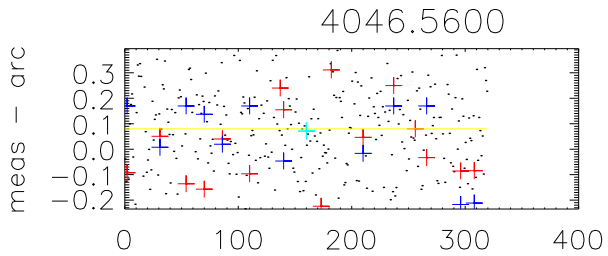

PLATE=2500 MJD=54178 Extraction chi^2 for sdR-b1-00043677.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
500
1000
1500
2000
Row number

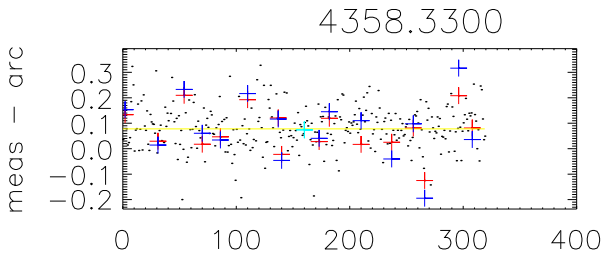

4046.5600
off: −0.08
sig: 0.082
4358.3300
off: 0.08
sig: 0.027
5460.9400
off: 0.21
sig: 0.021
5577.3390
off: 0.17
sig: 0.004
5889.9500
off: 0.23
sig: 0.009
5895.9240
off: 0.22
sig: 0.012

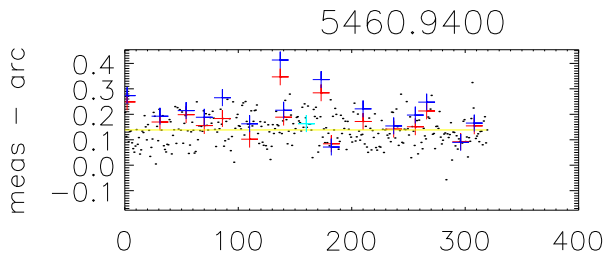

shift(pix)= 0.071
err(pix)= 0.093
oldshift(pix)=−0.081
80
60
40
20
0
4020
4030
4040
4050
4060
4070
4080

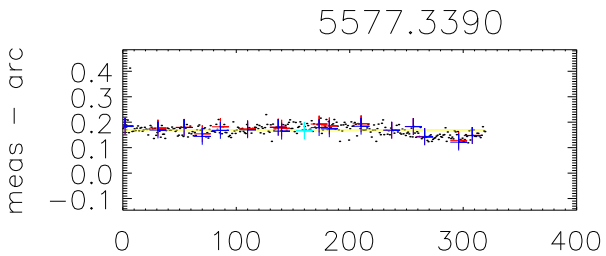

shift(pix)= 0.074
err(pix)= 0.031
oldshift(pix)= 0.078
80
60
40
20
0
4280
4300
4320
4340
4360
4380
4400
4420

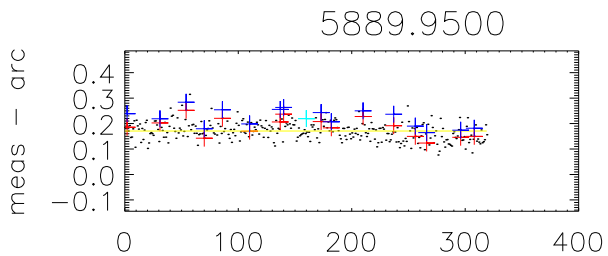

shift(pix)= 0.163
err(pix)= 0.027
oldshift(pix)= 0.213
80
60
40
20
0
5430
5440
5450
5460
5470
5480
5490

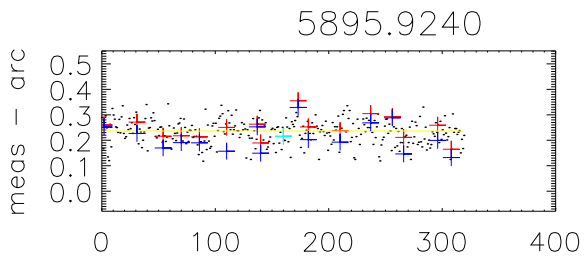

4046.5600
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

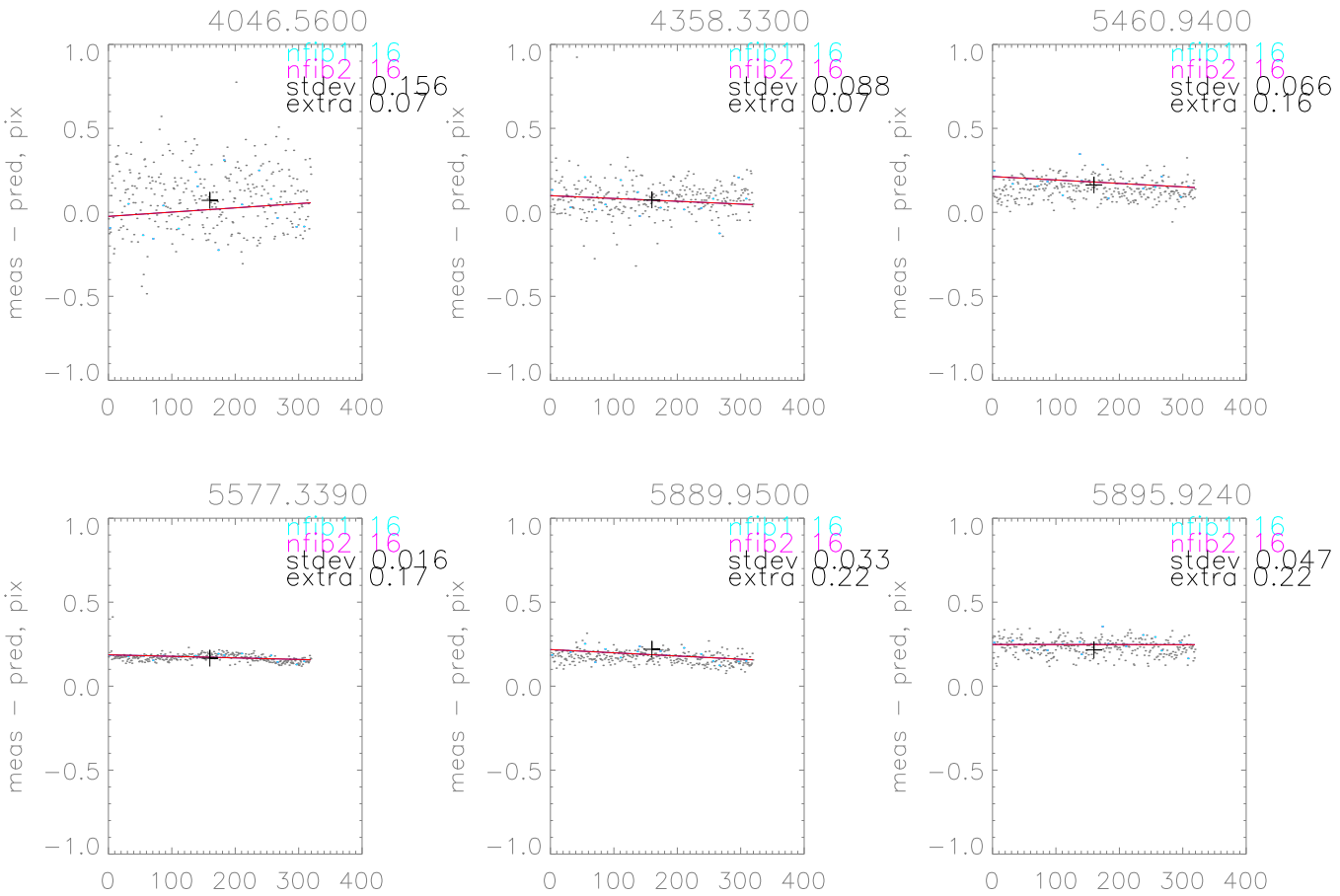

4358.3300
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

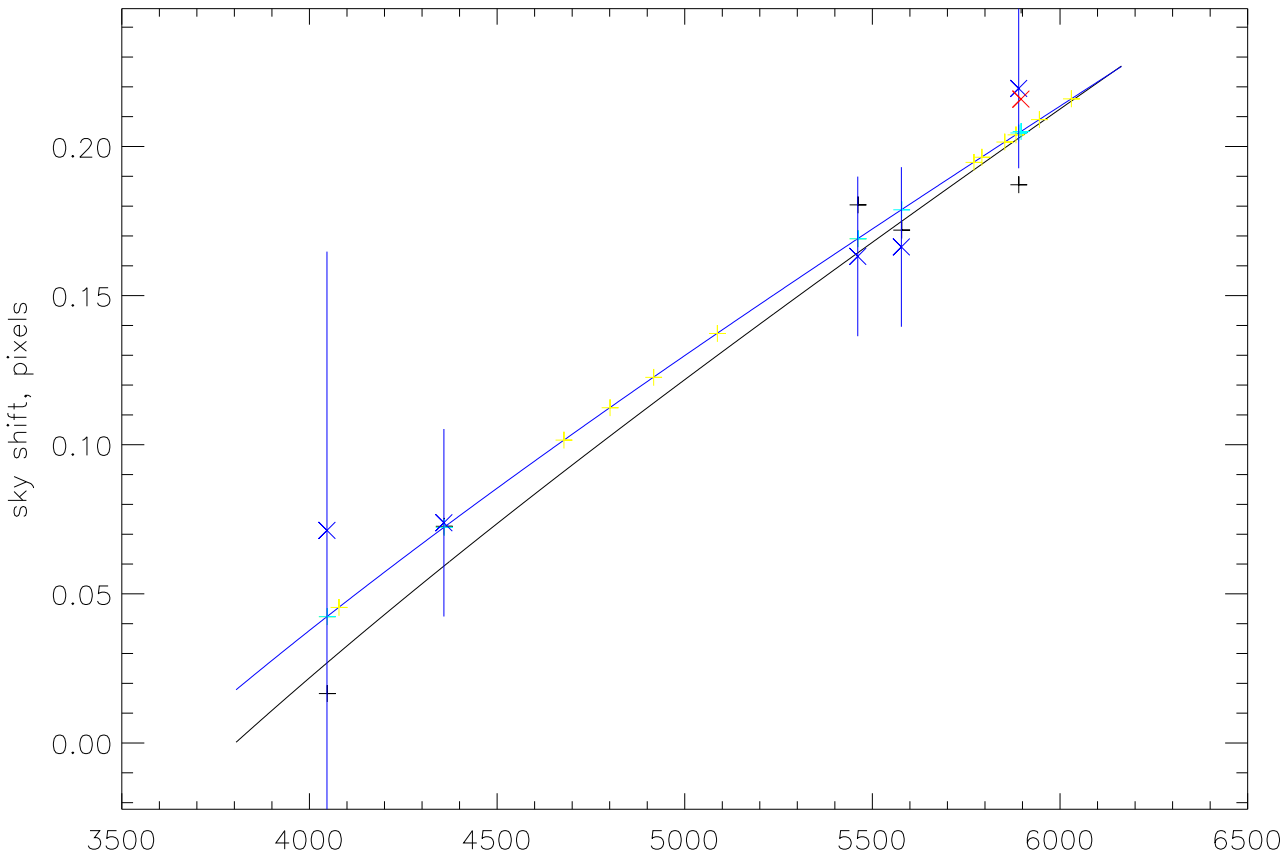

5460.9400
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400


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

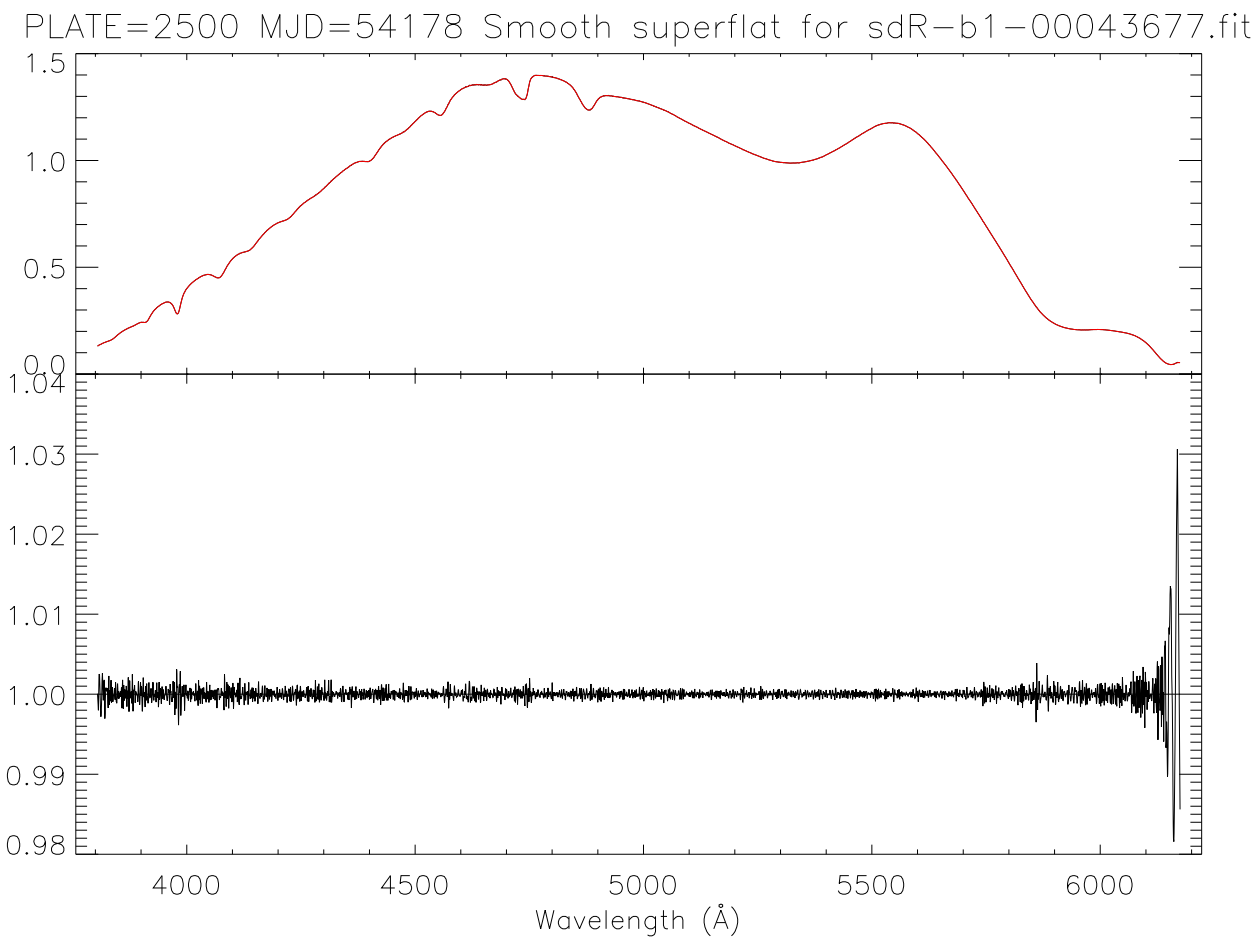

5889.9500
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

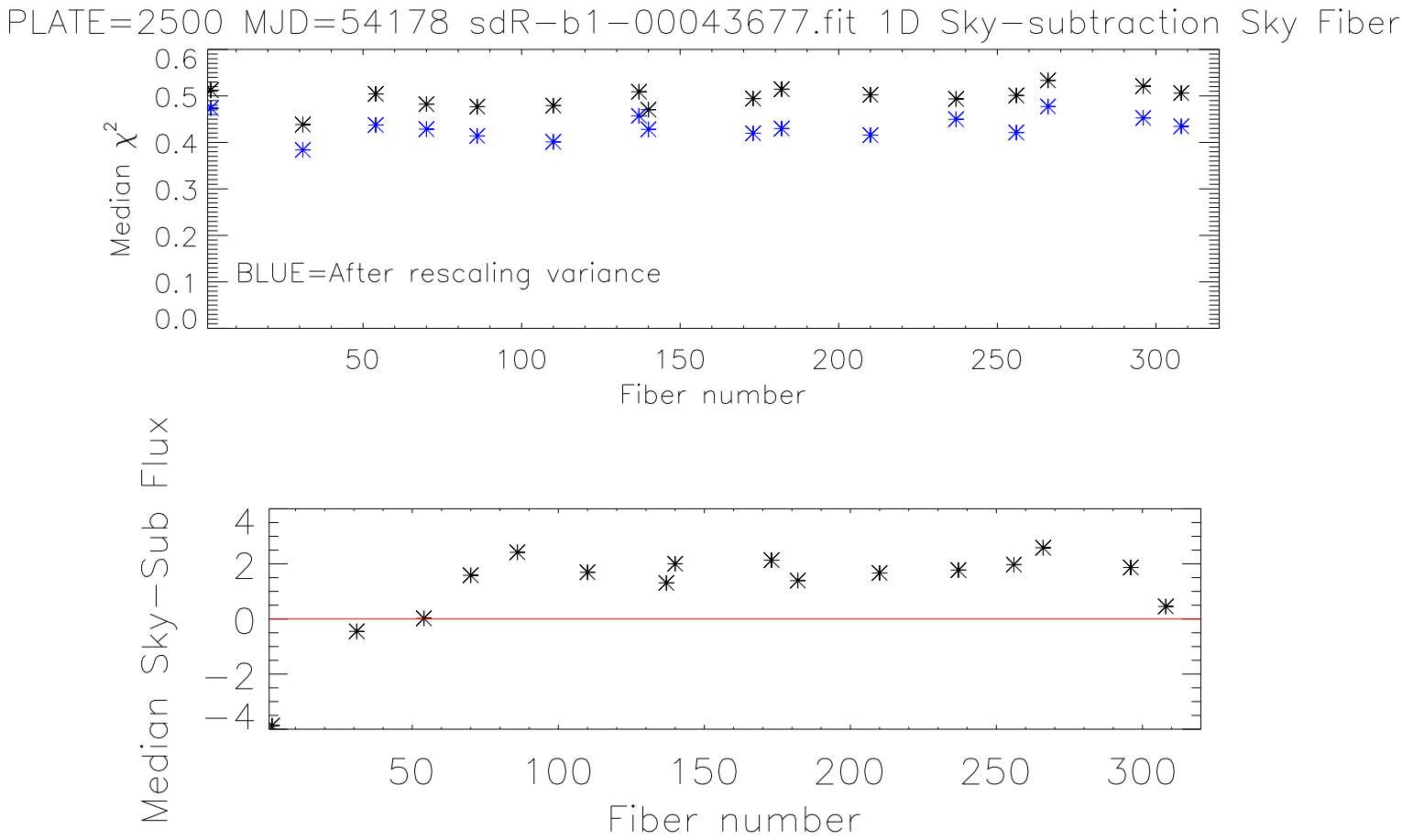

5895.9240
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

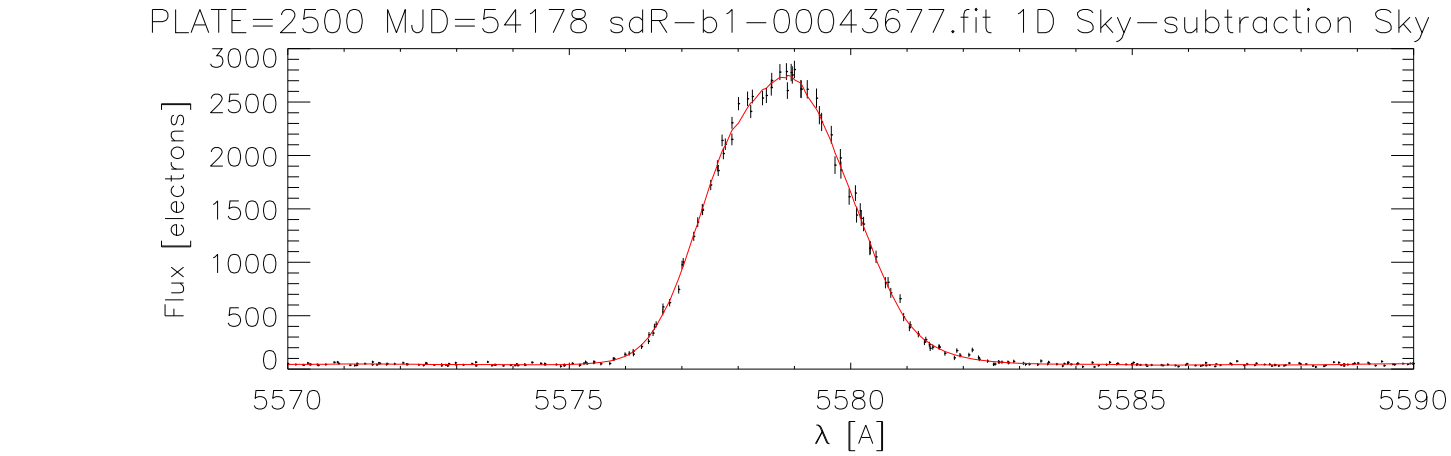

4046.5600
nfib1 16
nfib2 16
stdev 0.156
extra 0.07
4358.3300
nfib1 16
nfib2 16
stdev 0.088
extra 0.07
5460.9400
nfib1 16
nfib2 16
stdev 0.066
extra 0.16
5577.3390
nfib1 16
nfib2 16
stdev 0.016
extra 0.17
5889.9500
nfib1 16
nfib2 16
stdev 0.033
extra 0.22
5895.9240
nfib1 16
nfib2 16
stdev 0.047
extra 0.22
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

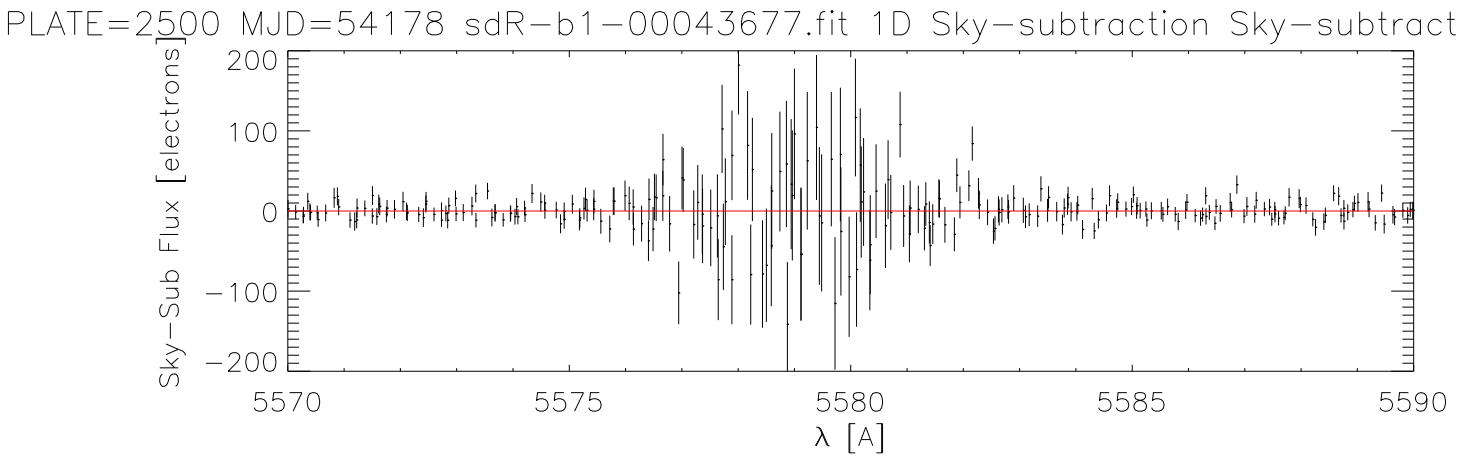

sky shift, pixels
0.00
0.05
0.10
0.15
0.20
3500
4000
4500
5000
5500
6000
6500

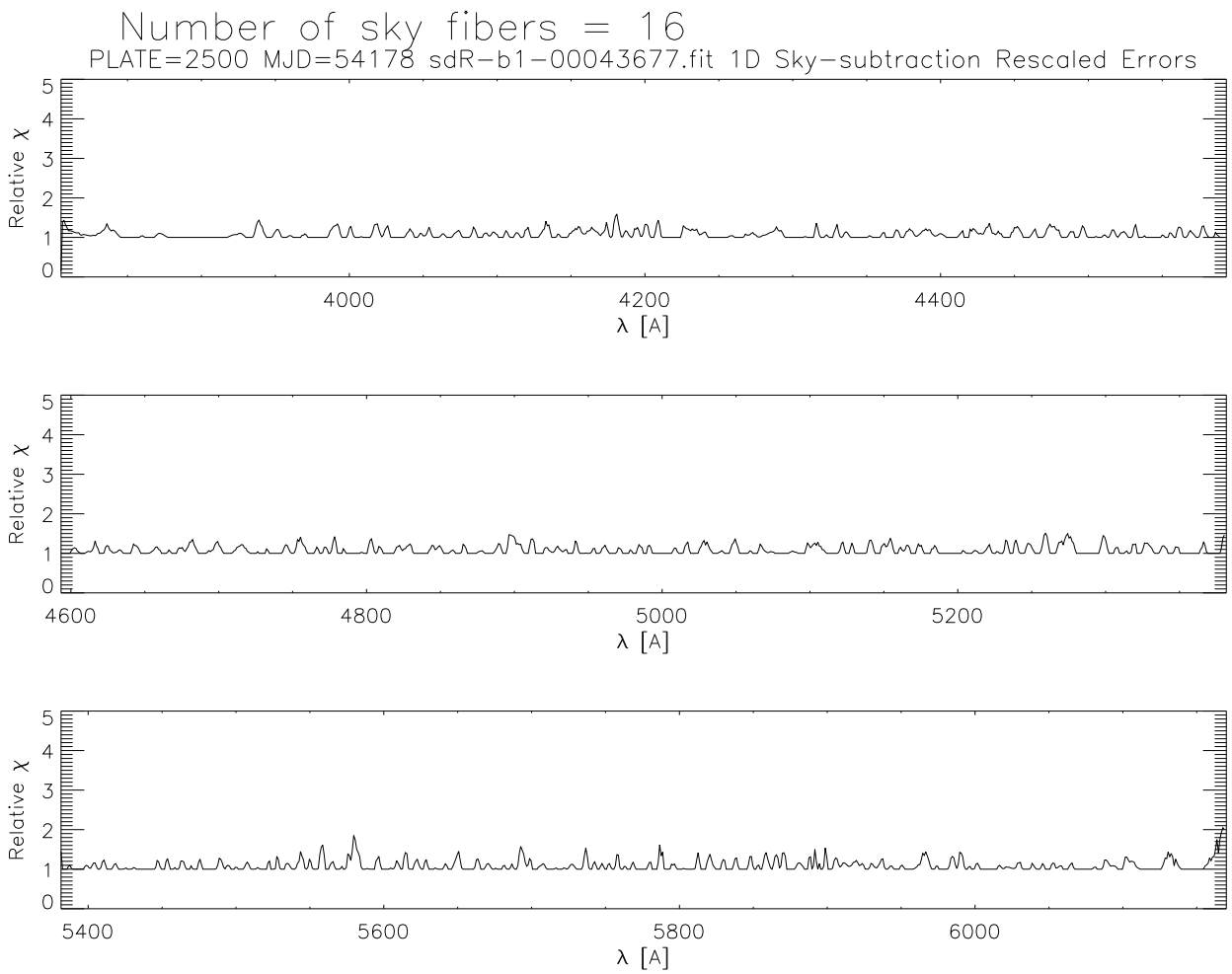
es= −0.0001

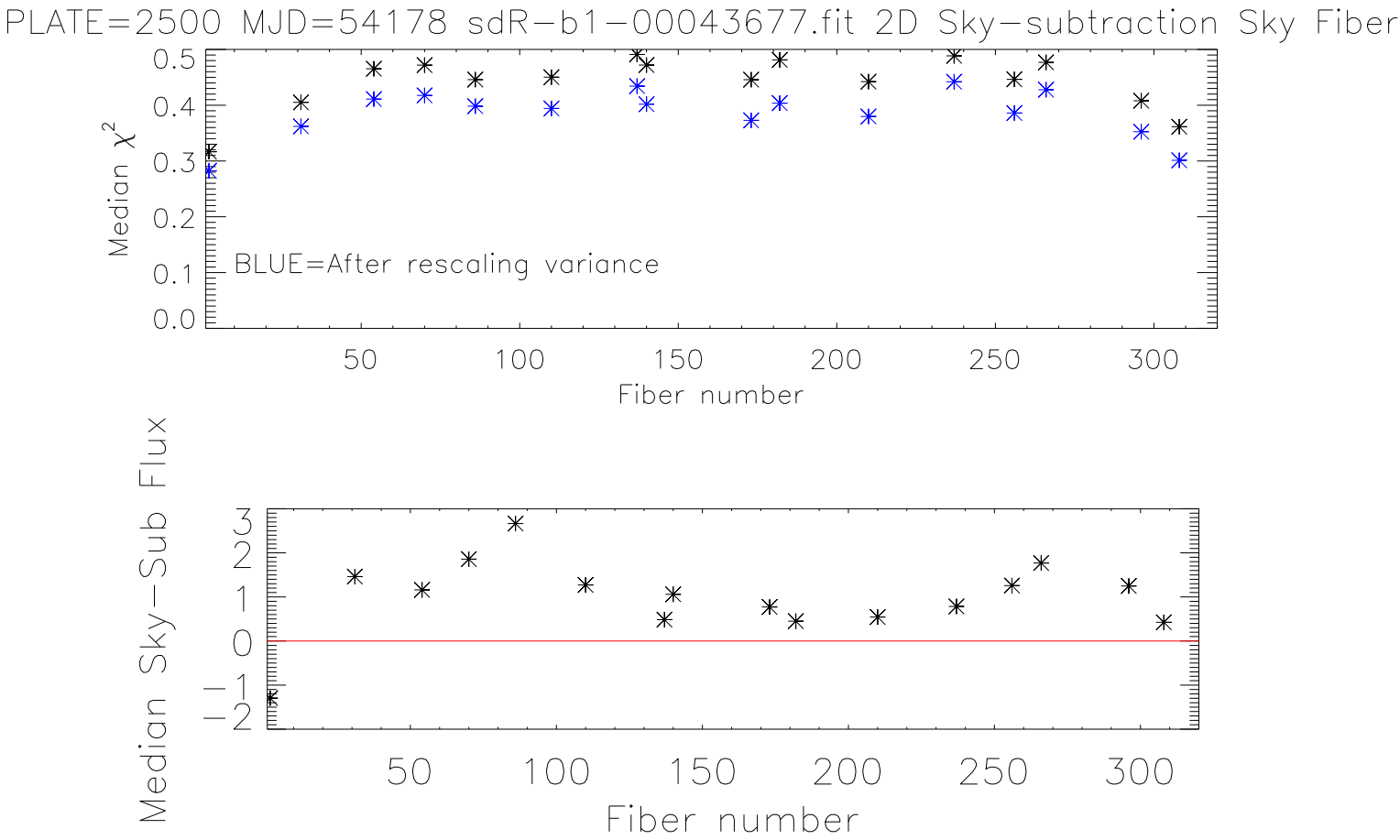

PLATE=2500 MJD=54178 Smooth superflat for sdR−b1−00043677.fit
1.5
1.0
0.5
0.0
1.04
1.03
1.02
1.01
1.00
0.99
0.98
4000
4500
5000
5500
6000
Wavelength (Å)

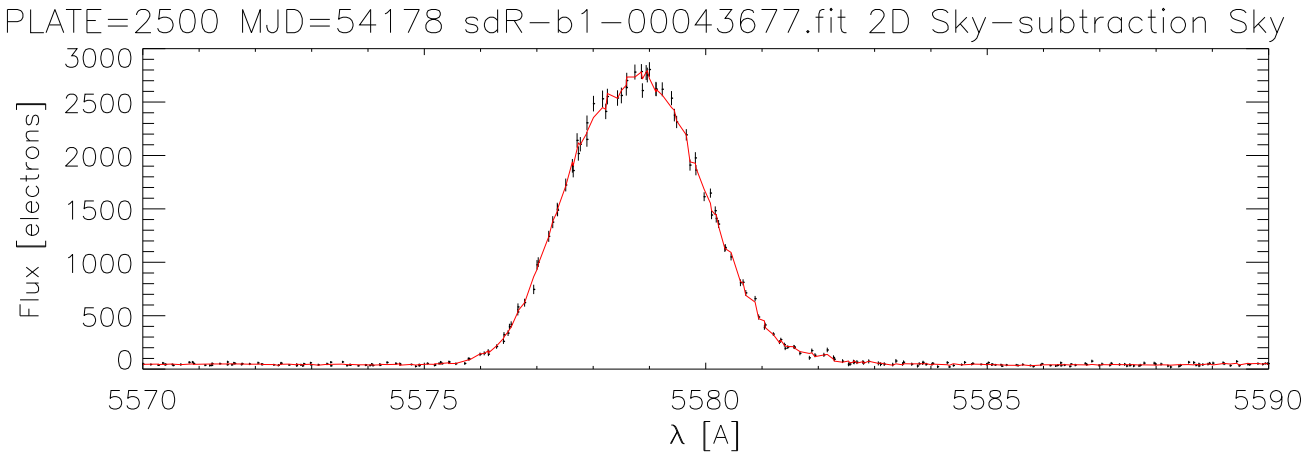

PLATE=2500 MJD=54178 sdR-b1-00043677.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-4
-2
0
2
4
50
100
150
200
250
300
Fiber number

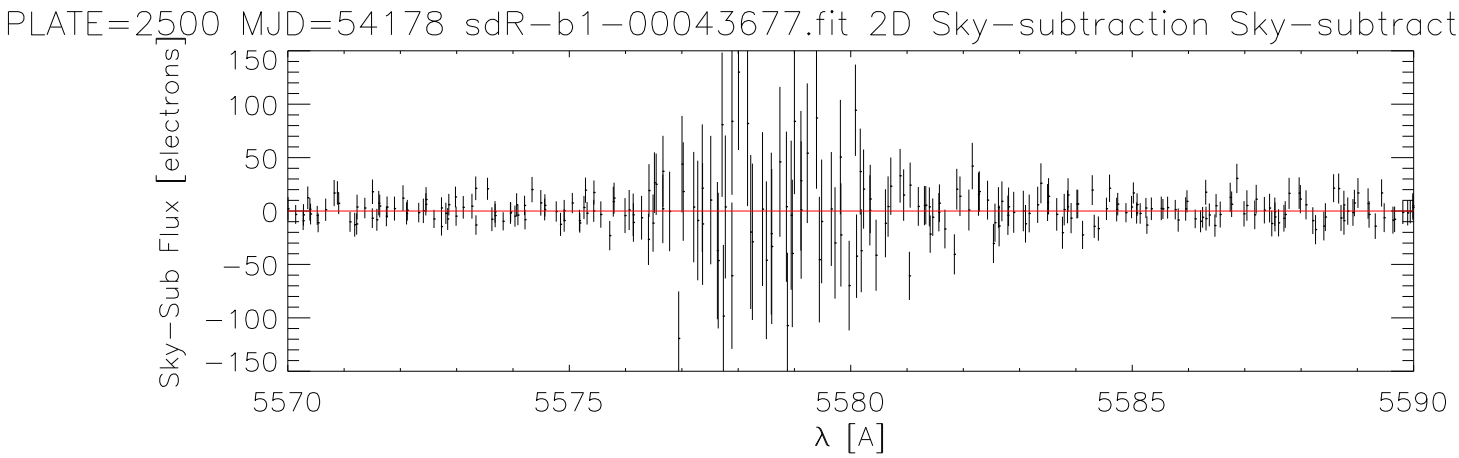

PLATE=2500 MJD=54178 sdR-b1-00043677.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
3000
2500
2000
1500
1000
500
0
5570
5575
5580
5585
5590
λ [A]

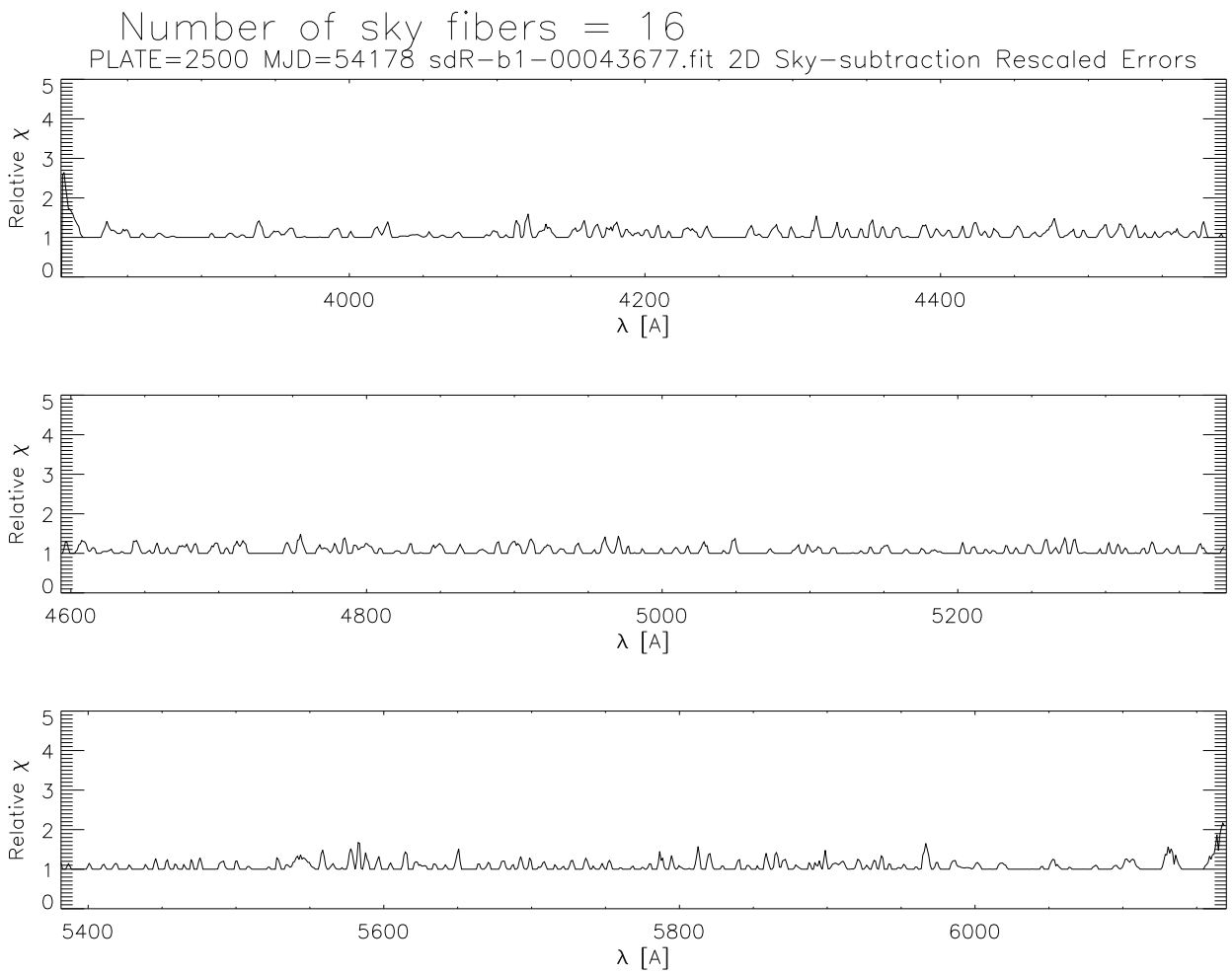

PLATE=2500 MJD=54178 sdR-b1-00043677.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
5570
5575
5580
5585
5590
λ [A]

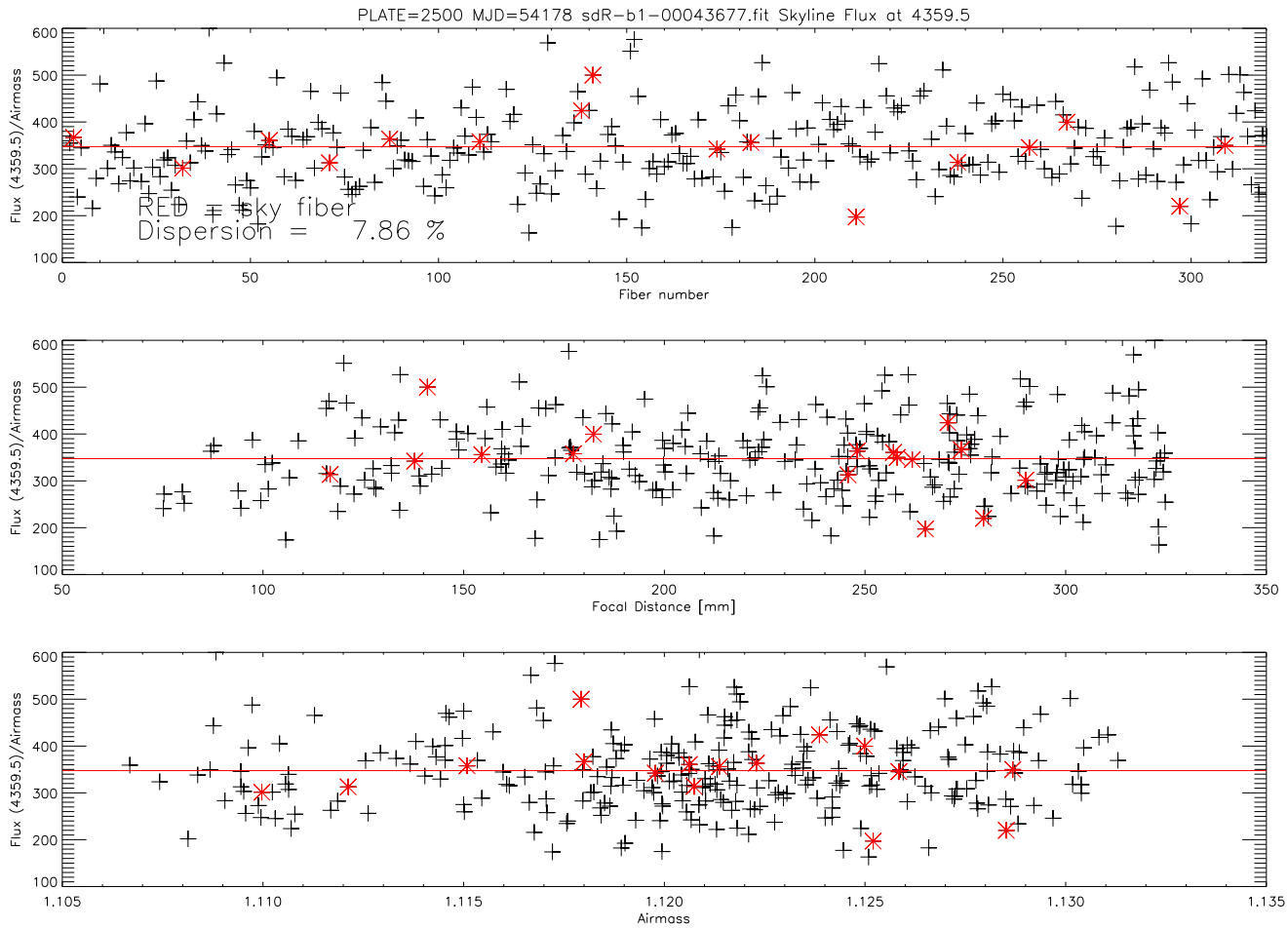

Number of sky fibers = 16
PLATE=2500 MJD=54178 sdR-b1-00043677.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

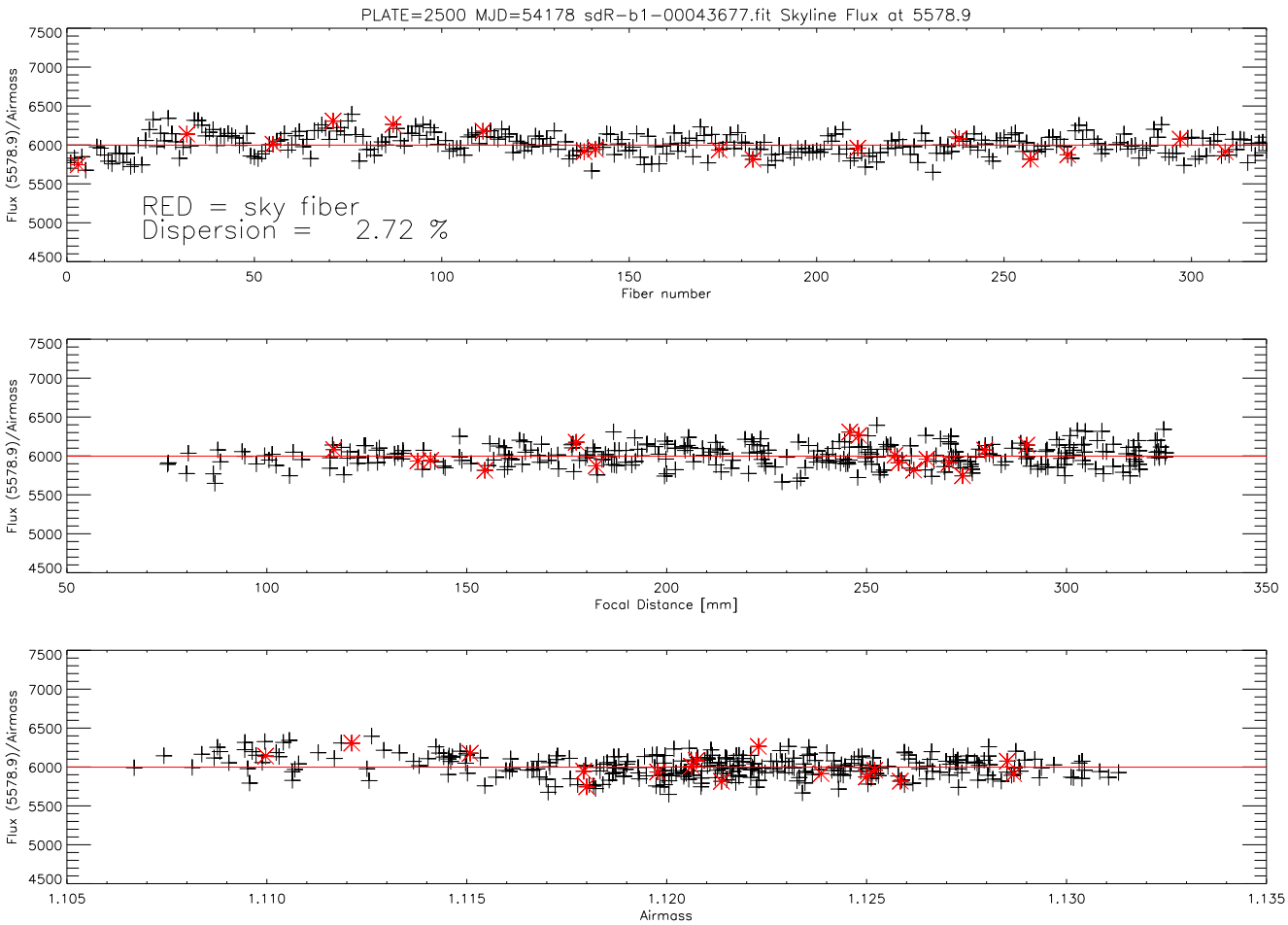

PLATE=2500 MJD=54178 sdR-b1-00043677.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

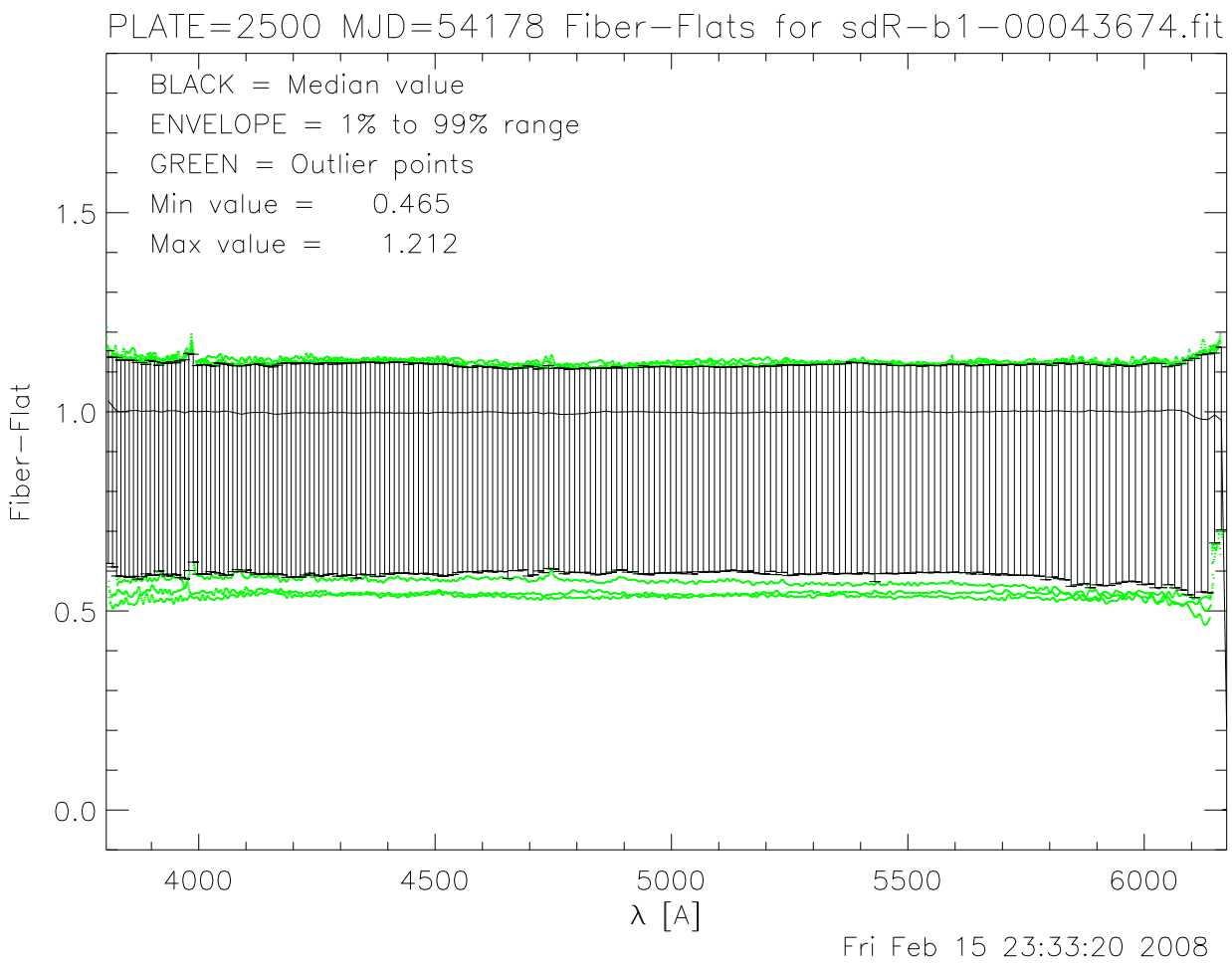

PLATE=2500 MJD=54178 sdR-b1-00043677.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
3000
2500
2000
1500
1000
500
0
5570
5575
5580
5585
5590
λ [A]


PLATE=2500 MJD=54178 sdR-b1-00043677.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
150
100
50
0
-50
-100
-150
5570
5575
5580
5585
5590
λ [A]


Number of sky fibers = 16
PLATE=2500 MJD=54178 sdR-b1-00043677.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5


PLATE=2500 MJD=54178 sdR-b1-00043677.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
Fiber number
RED = sky fiber
Dispersion = 7.86 %
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass


PLATE=2500 MJD=54178 sdR-b1-00043677.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 2.72 %
Fiber number
Flux (5578.9)/Airmass
Focal Distance [mm]
Flux (5578.9)/Airmass
Airmass


PLATE=2500 MJD=54178 Fiber-Flats for sdR-b1-00043674.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.465
Max value = 1.212
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
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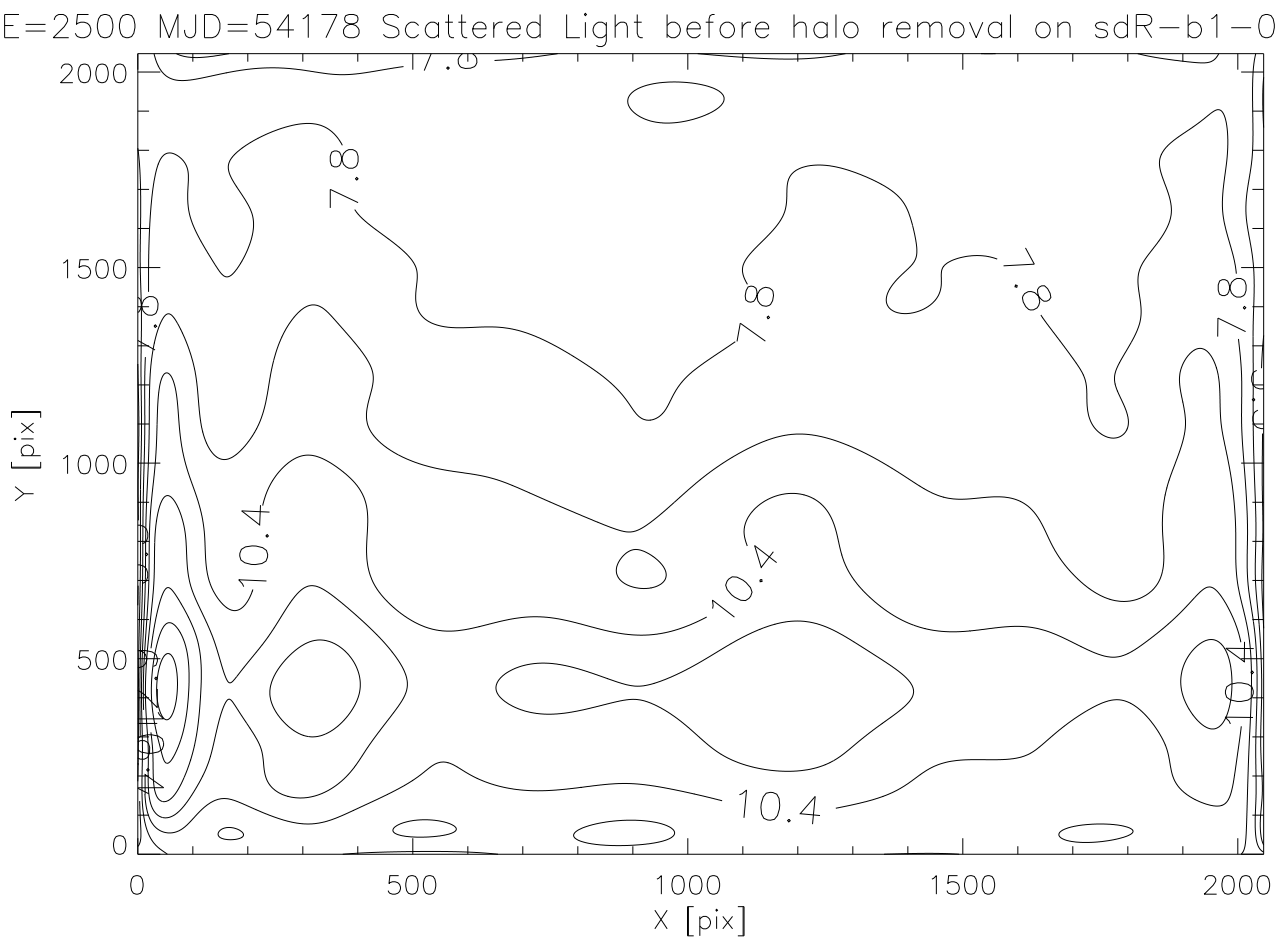
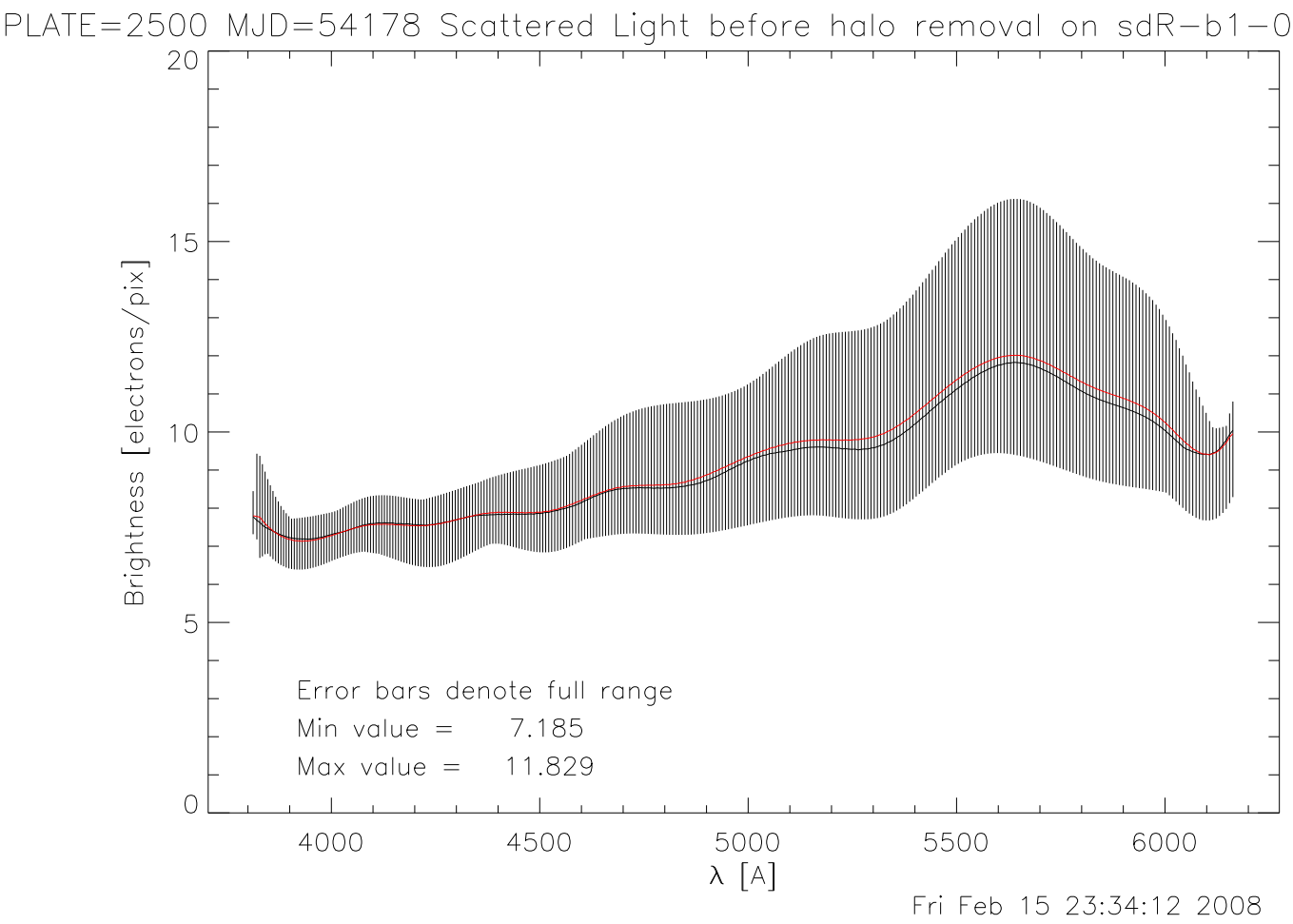
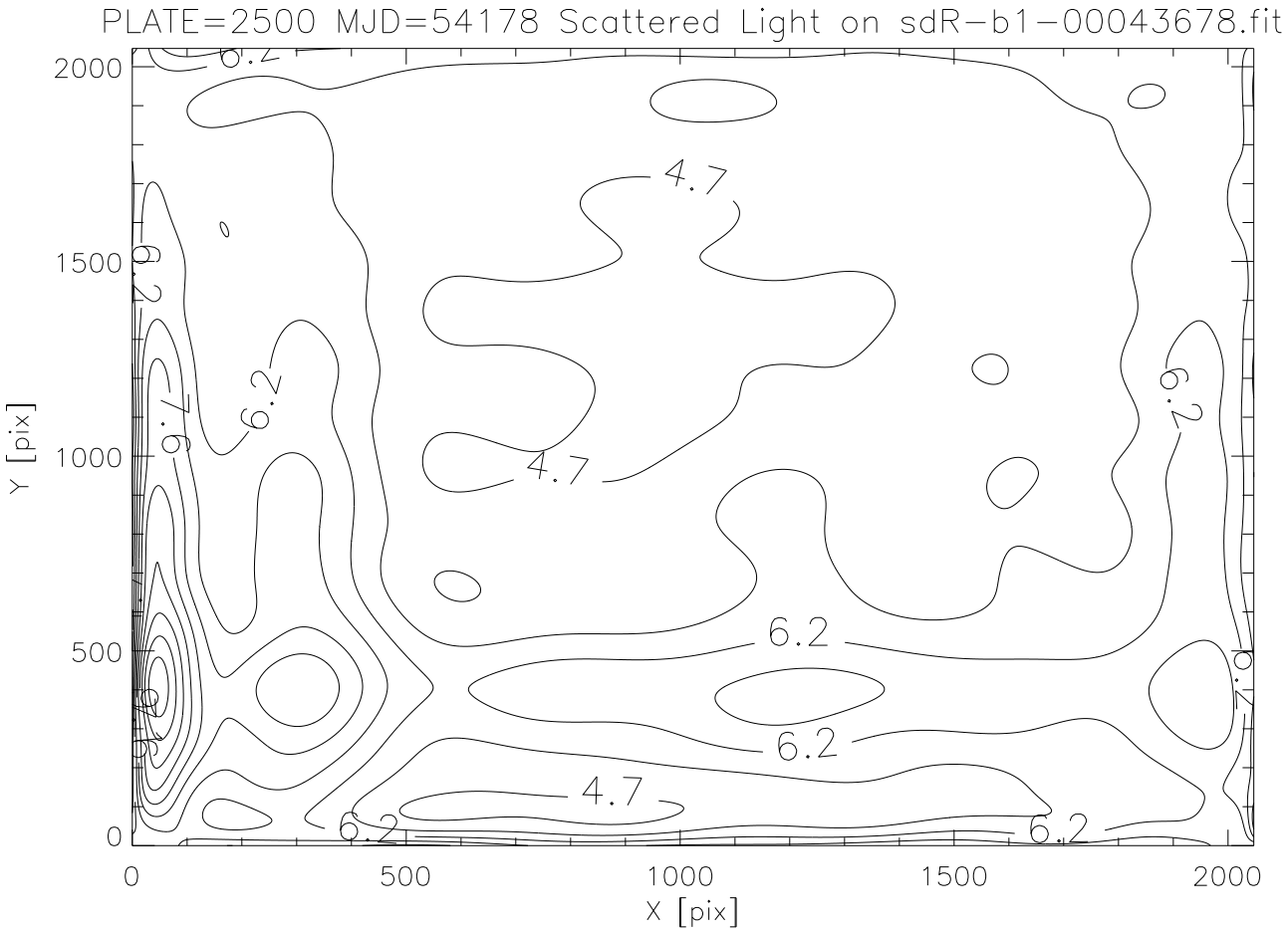
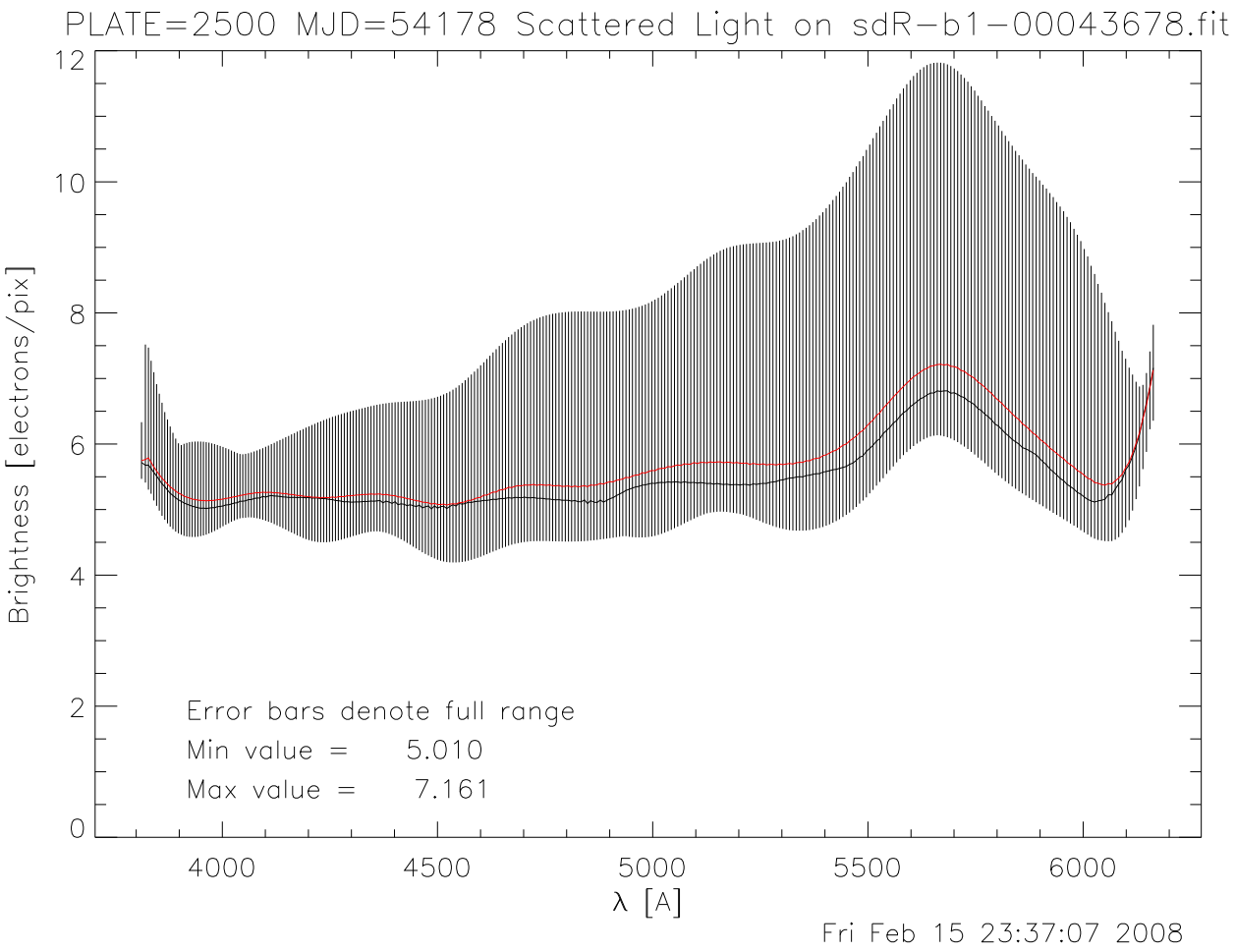
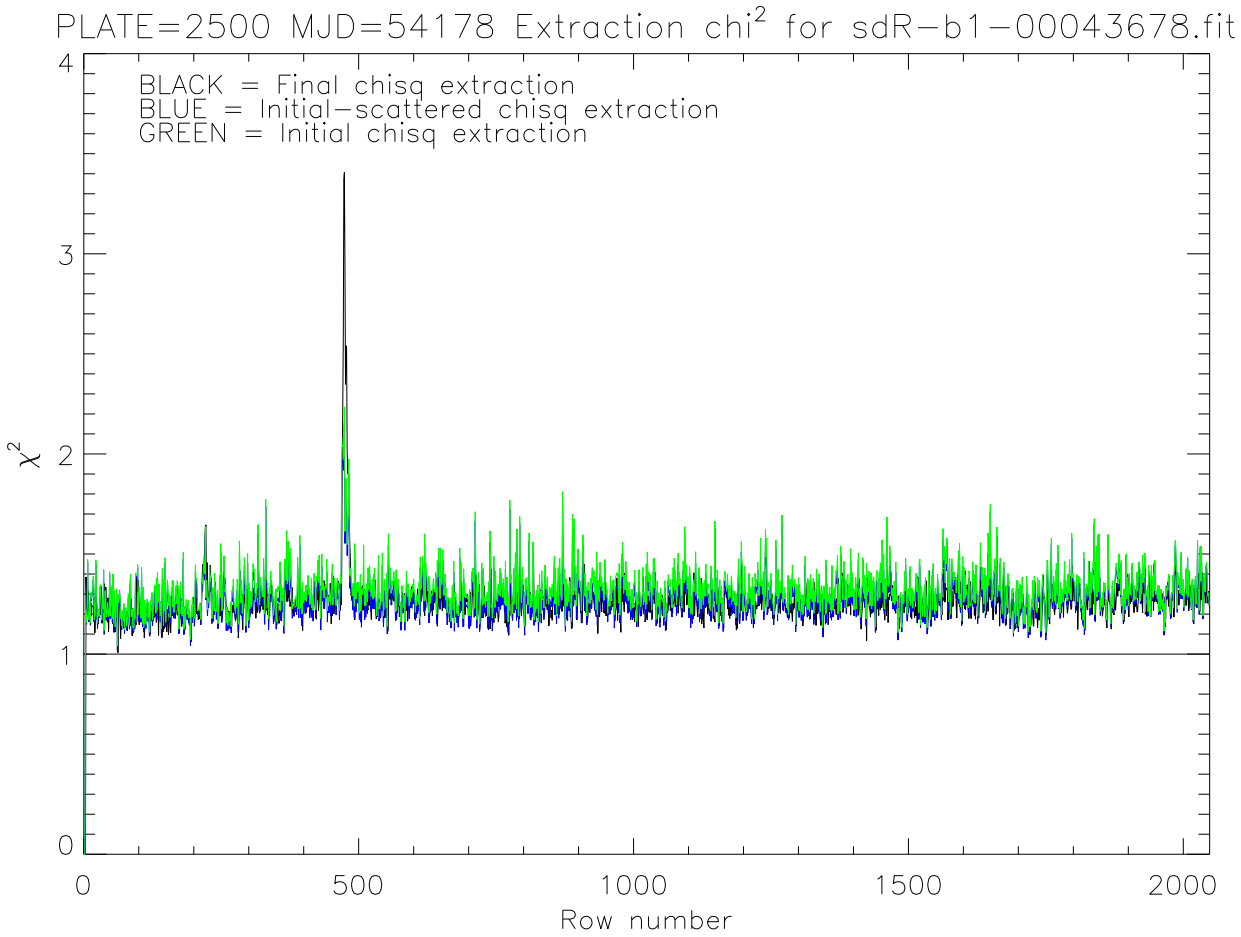
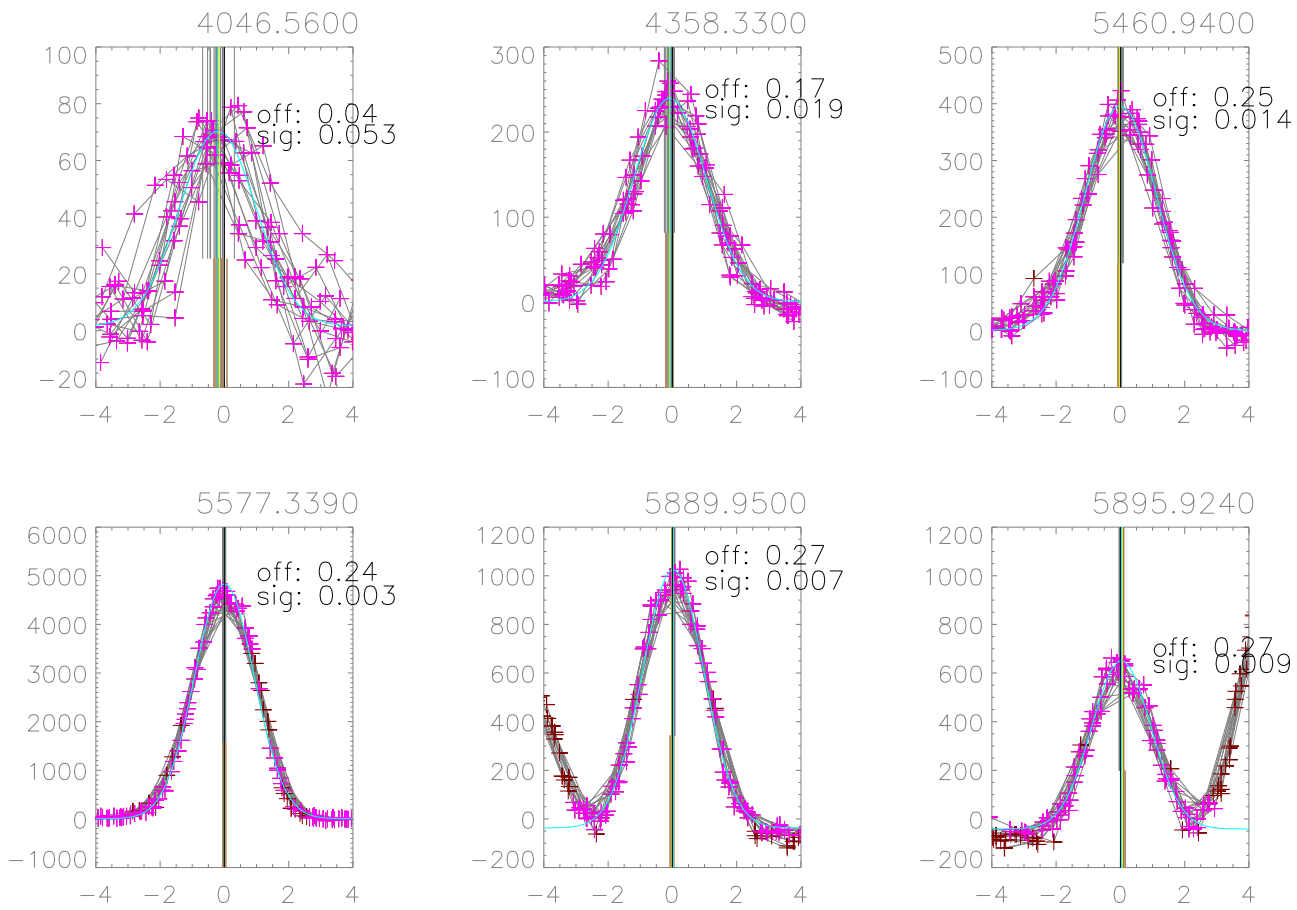

PLATE=2500 MJD=54178 Scattered Light before halo removal on sdR−b1−00043678.f
7.8
10.4
Y [pix]
X [pix]
0
500
1000
1500
2000

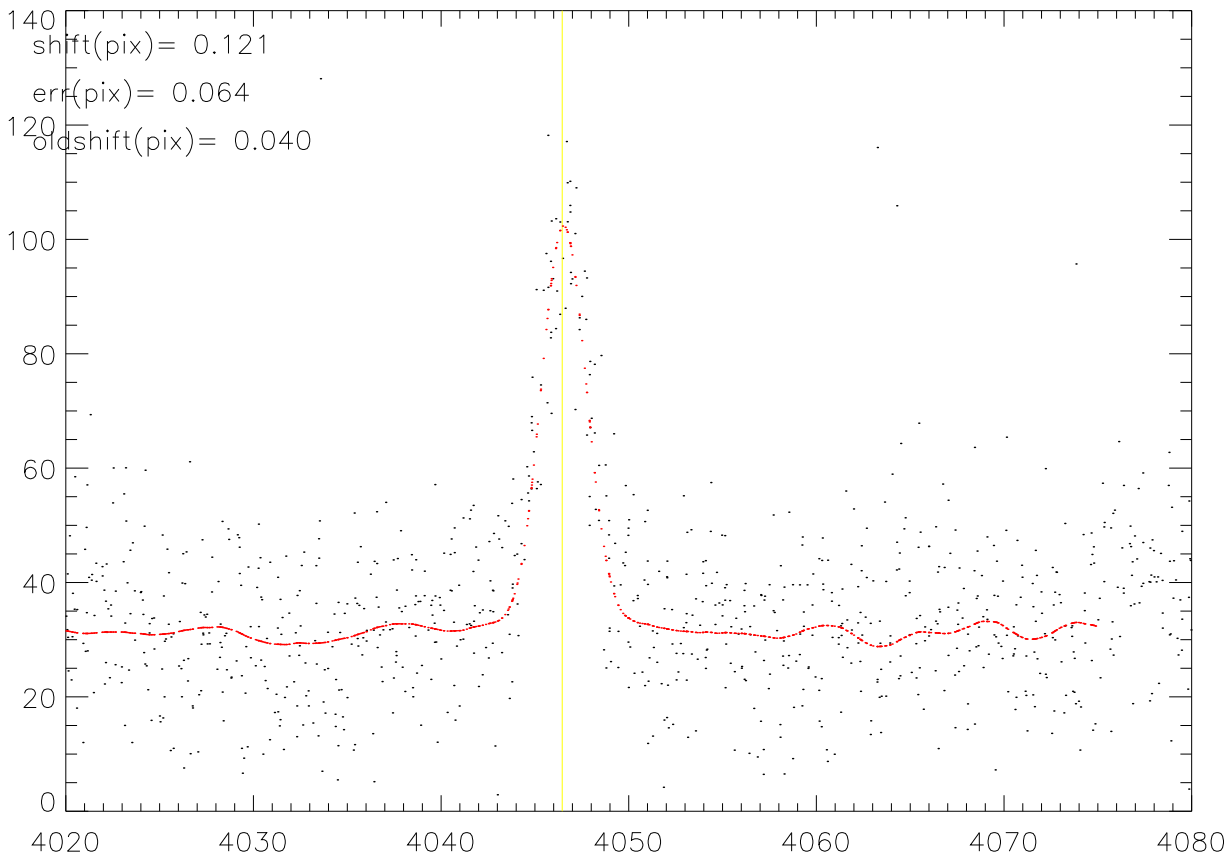

PLATE=2500 MJD=54178 Scattered Light before halo removal on sdR-b1-00043678.f
Brightness [electrons/pix]
20
15
10
5
0
Error bars denote full range
Min value = 7.185
Max value = 11.829
4000
4500
5000
5500
6000
λ [A]
Fri Feb 15 23:34:12 2008

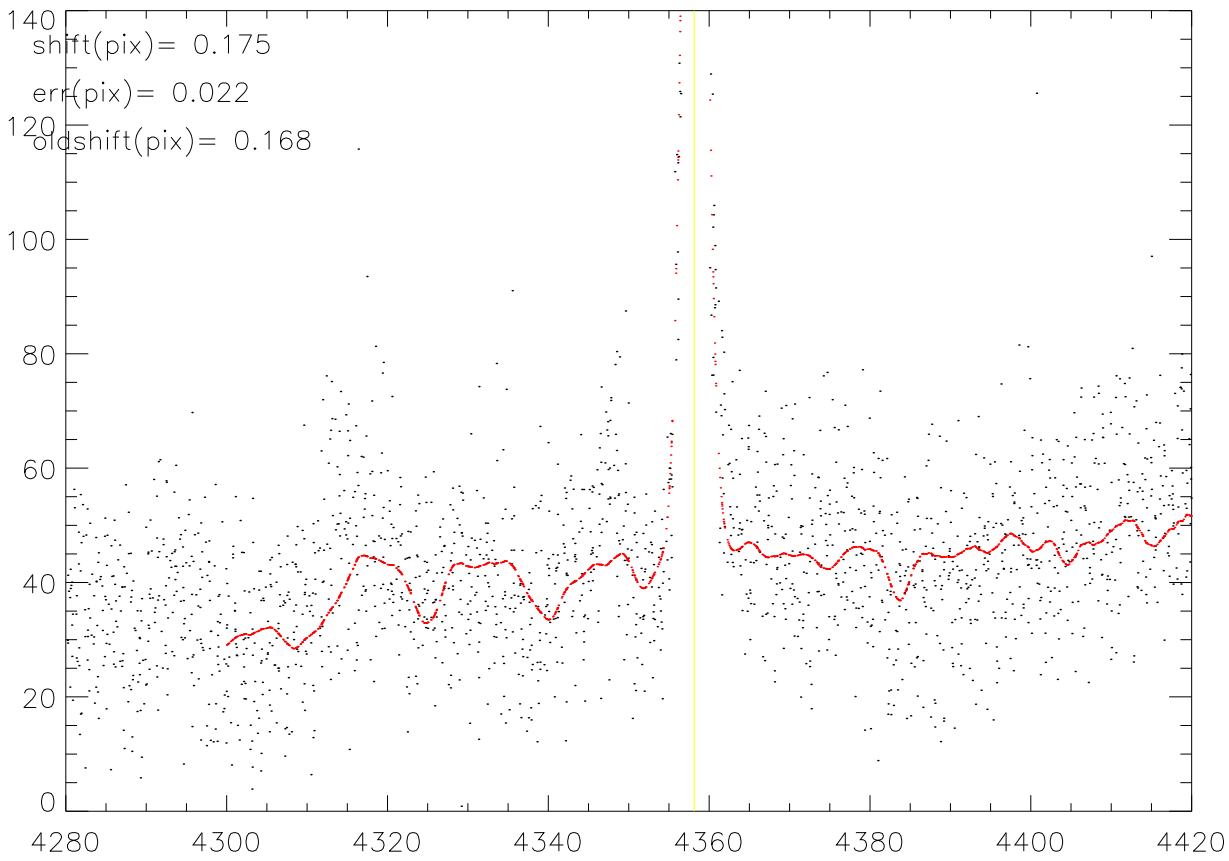

PLATE=2500 MJD=54178 Scattered Light on sdR-b1-00043678.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
6.2
4.7

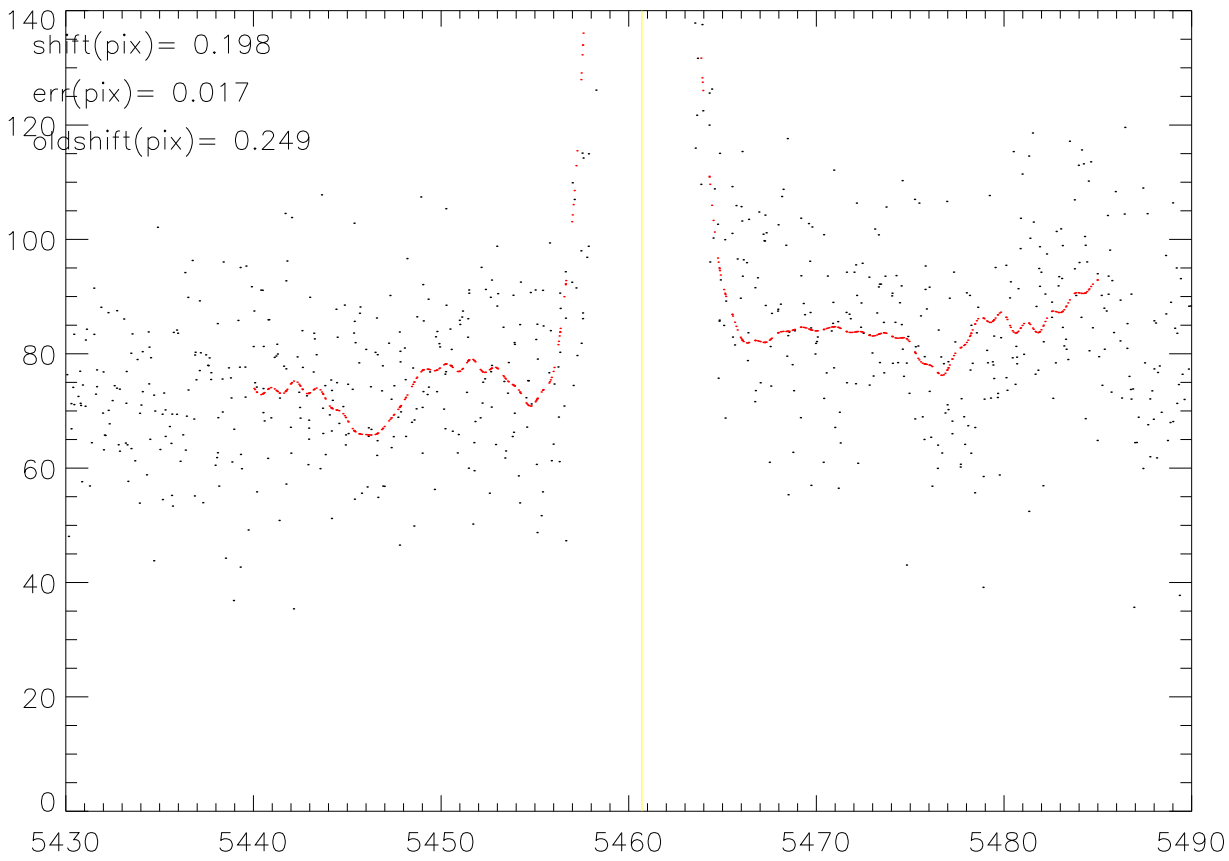

PLATE=2500 MJD=54178 Scattered Light on sdR-b1-00043678.fit
Brightness [electrons/pix]
12
10
8
6
4
2
0
Error bars denote full range
Min value = 5.010
Max value = 7.161
4000
4500
5000
5500
6000
λ [A]
Fri Feb 15 23:37:07 2008

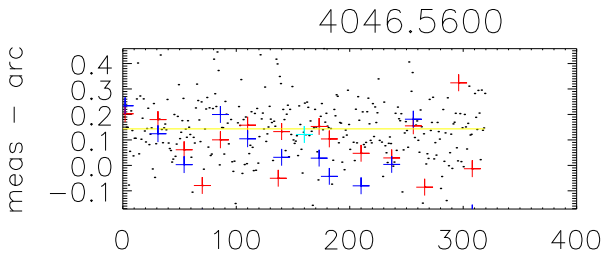

PLATE=2500 MJD=54178 Extraction chi^2 for sdR−b1−00043678.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
0
500
1000
1500
2000
Row number

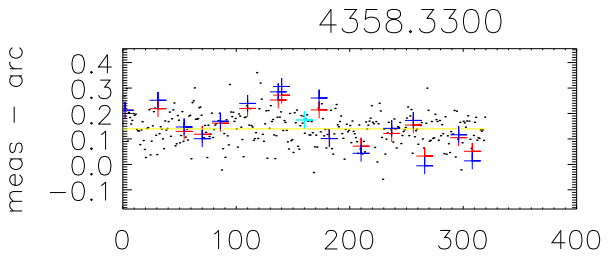

4046.5600
off: 0.04
sig: 0.053
4358.3300
off: 0.17
sig: 0.019
5460.9400
off: 0.25
sig: 0.014
5577.3390
off: 0.24
sig: 0.003
5889.9500
off: 0.27
sig: 0.007
5895.9240
off: 0.27
sig: 0.009

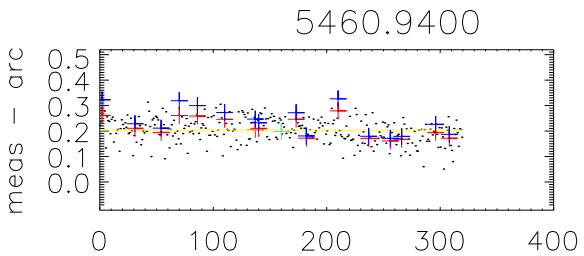

shift(pix)= 0.121
err(pix)= 0.064
oldshift(pix)= 0.040
140
120
100
80
60
40
20
0
4020
4030
4040
4050
4060
4070
4080

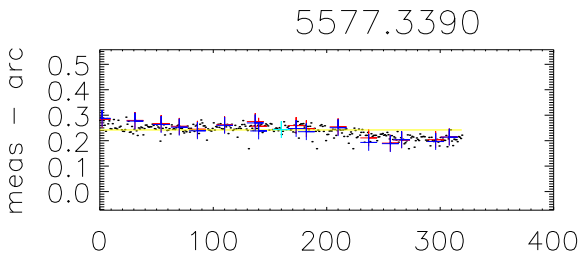

shift(pix)= 0.175
err(pix)= 0.022
oldshift(pix)= 0.168
140
120
100
80
60
40
20
0
4280
4300
4320
4340
4360
4380
4400
4420

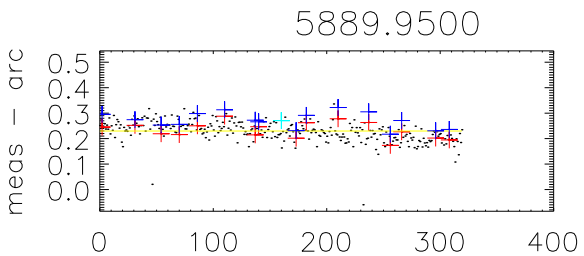

shift(pix)= 0.198
err(pix)= 0.017
oldshift(pix)= 0.249
140
120
100
80
60
40
20
0
5430
5440
5450
5460
5470
5480
5490

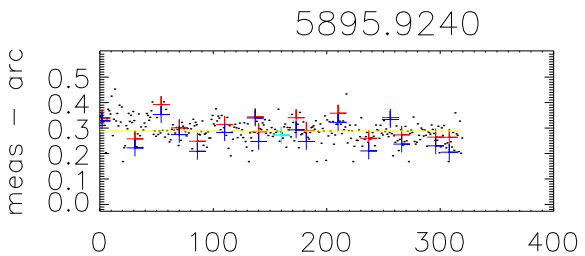

4046.5600
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

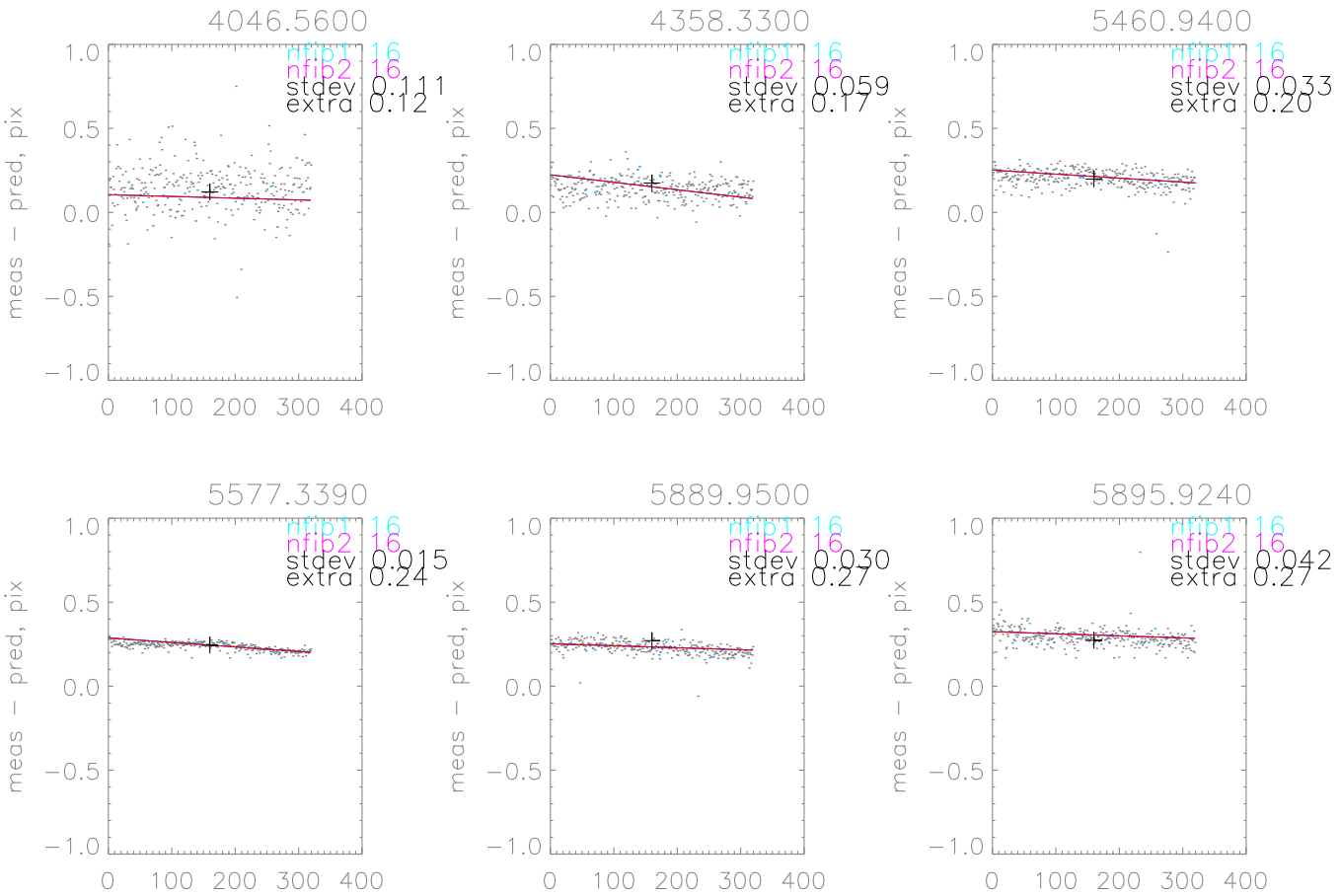

4358.3300
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

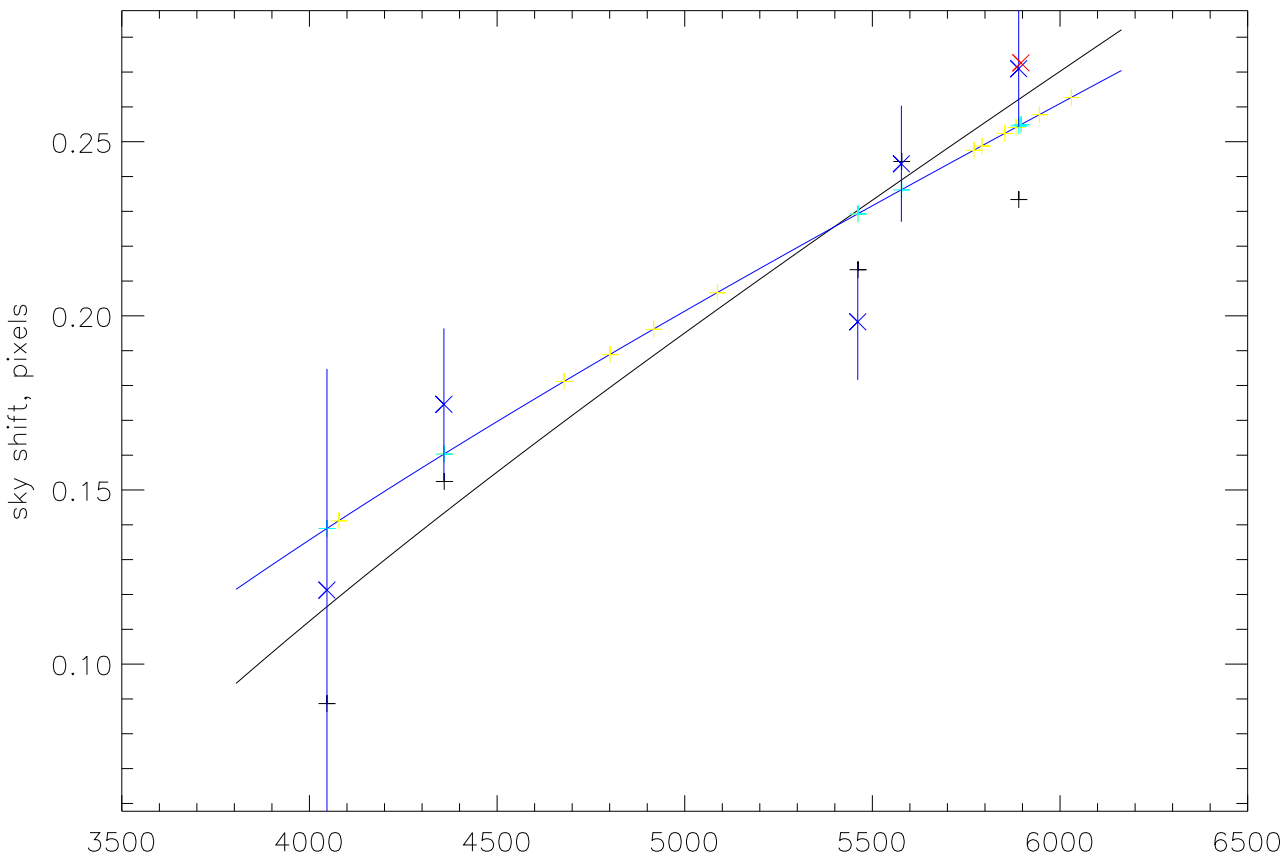

5460.9400
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400


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

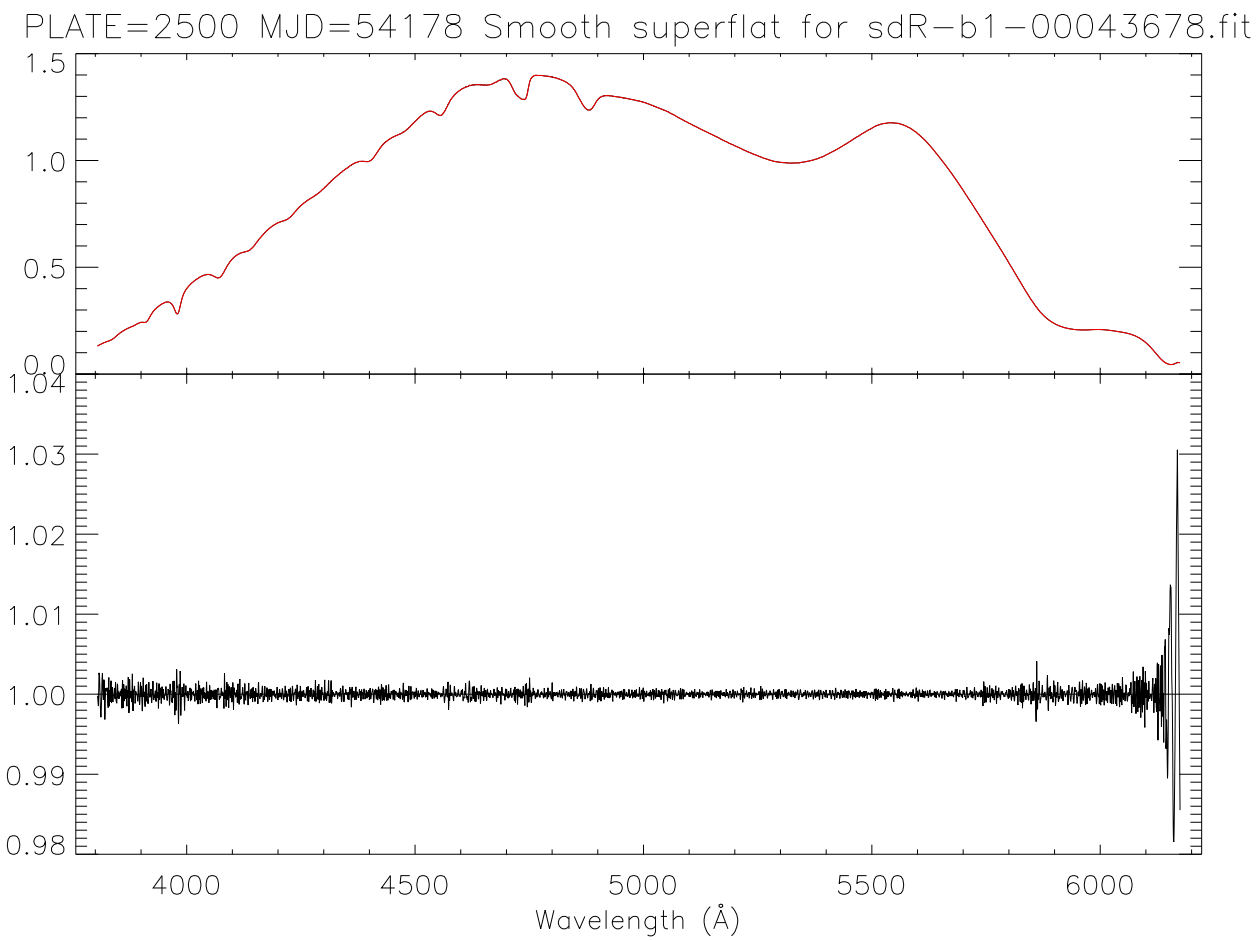

5889.9500
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

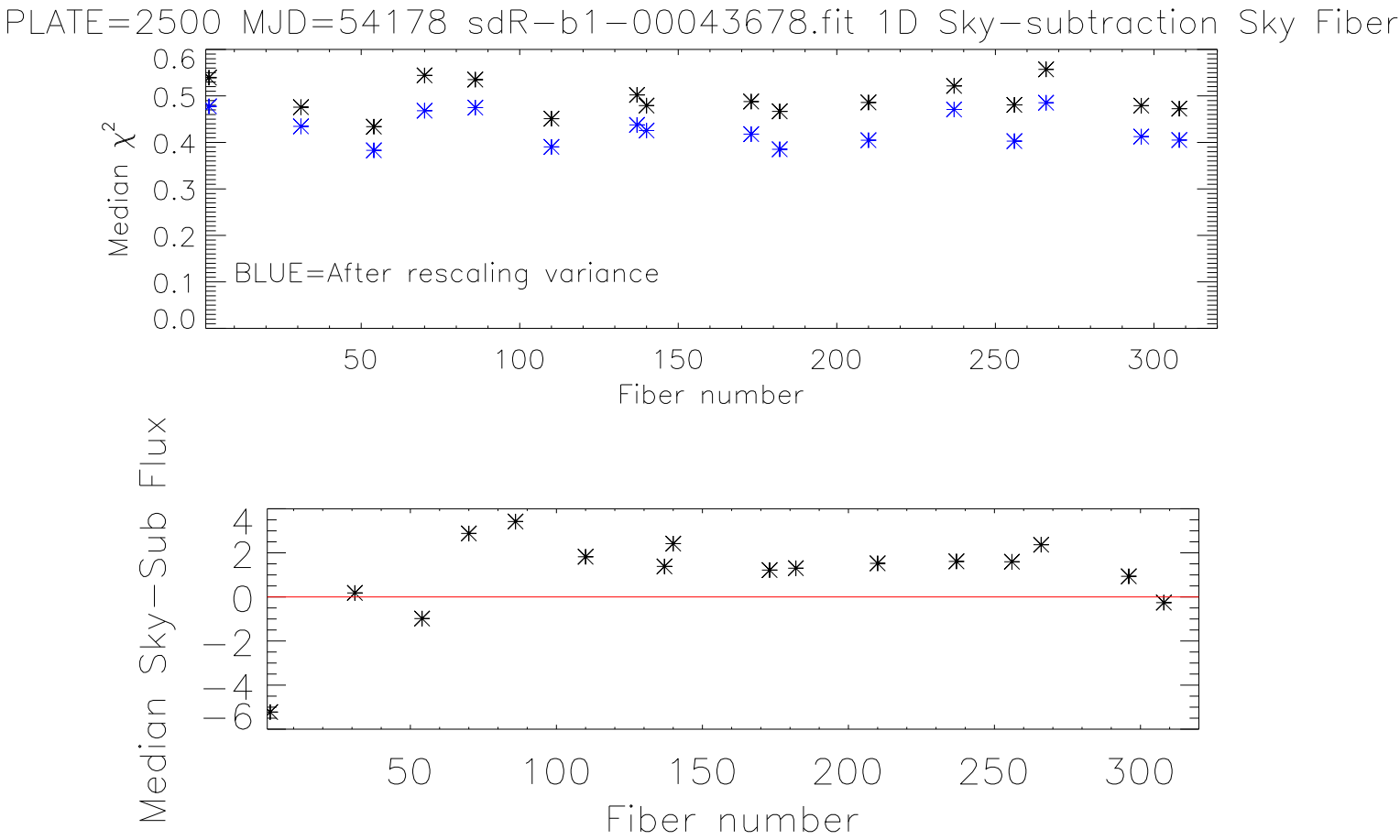

5895.9240
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

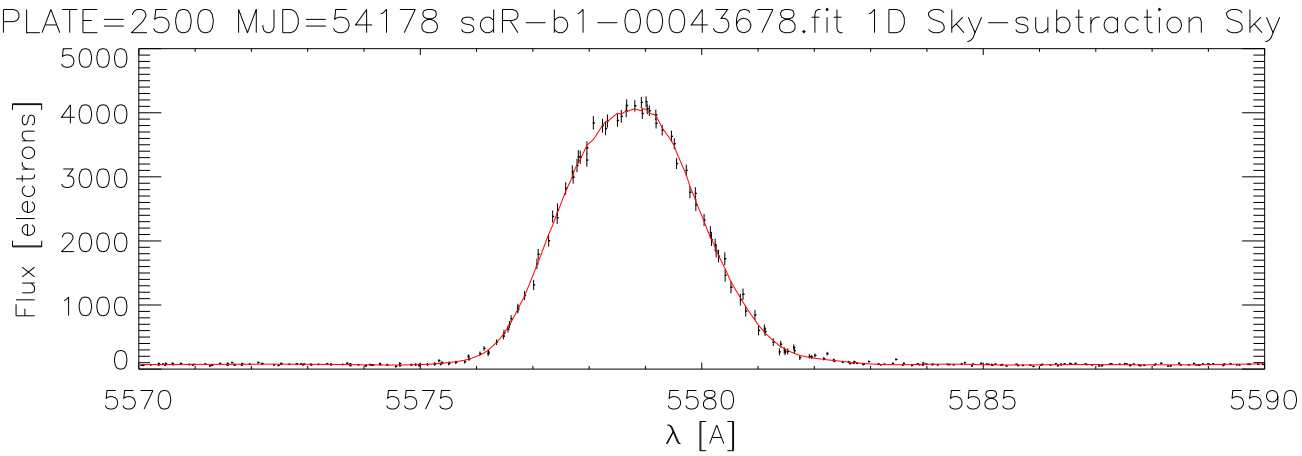

4046.5600
nfib1 16
nfib2 16
stdev 0.111
extra 0.12
4358.3300
nfib1 16
nfib2 16
stdev 0.059
extra 0.17
5460.9400
nfib1 16
nfib2 16
stdev 0.033
extra 0.20
5577.3390
nfib1 16
nfib2 16
stdev 0.015
extra 0.24
5889.9500
nfib1 16
nfib2 16
stdev 0.030
extra 0.27
5895.9240
nfib1 16
nfib2 16
stdev 0.042
extra 0.27
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

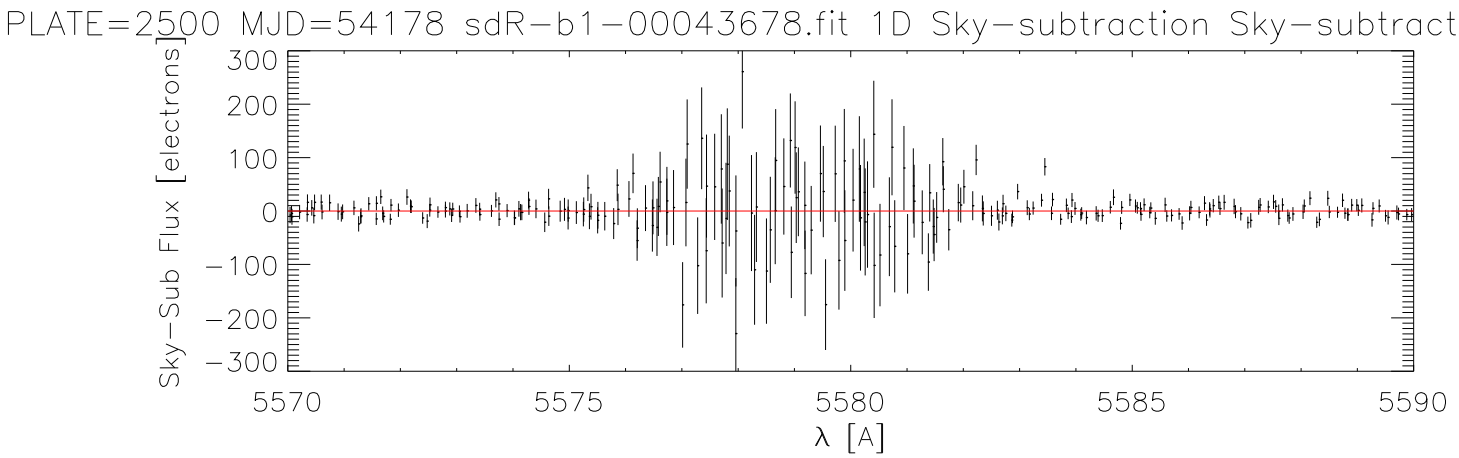

sky shift, pixels
0.25
0.20
0.15
0.10
3500
4000
4500
5000
5500
6000
6500

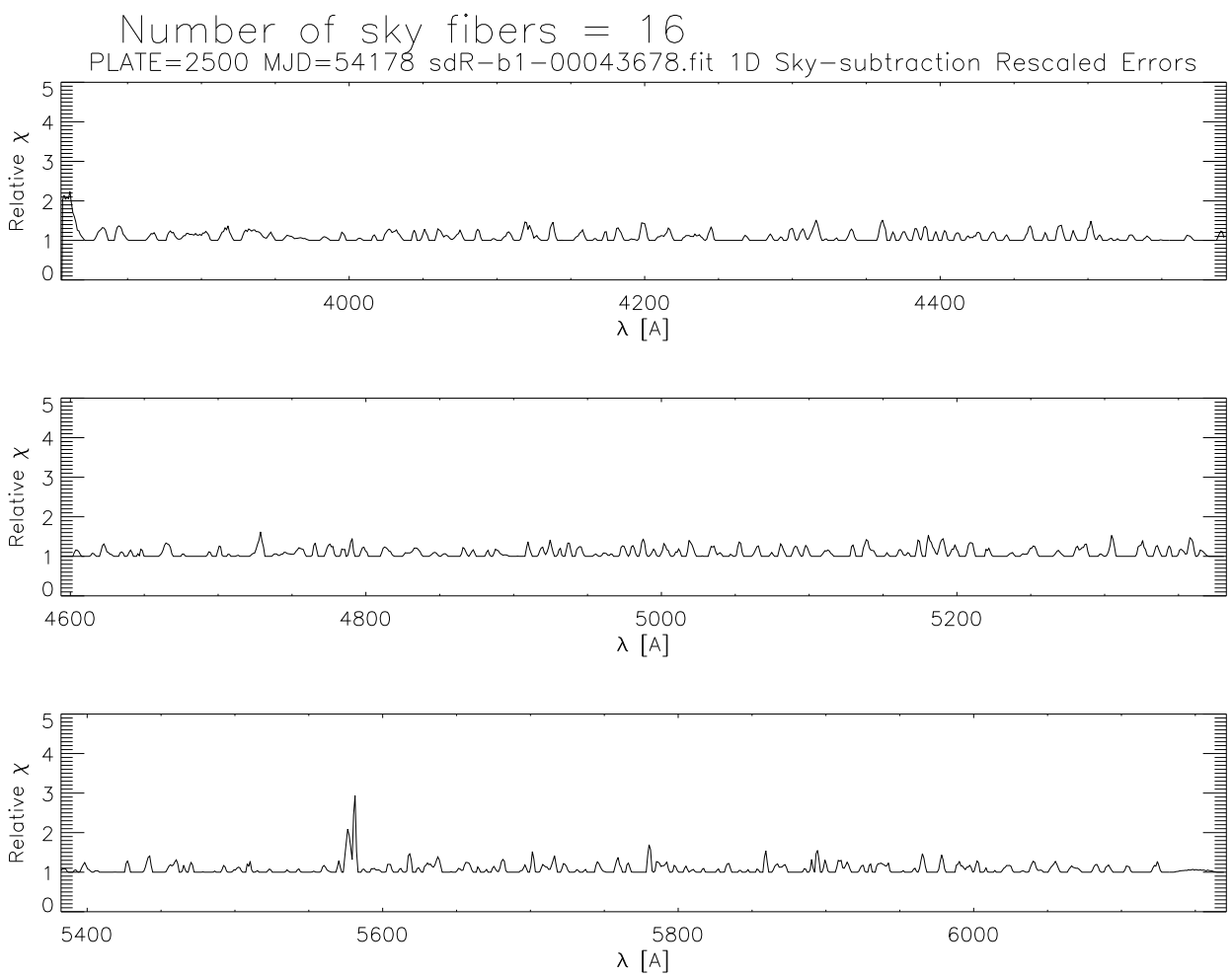
es= −0.0001

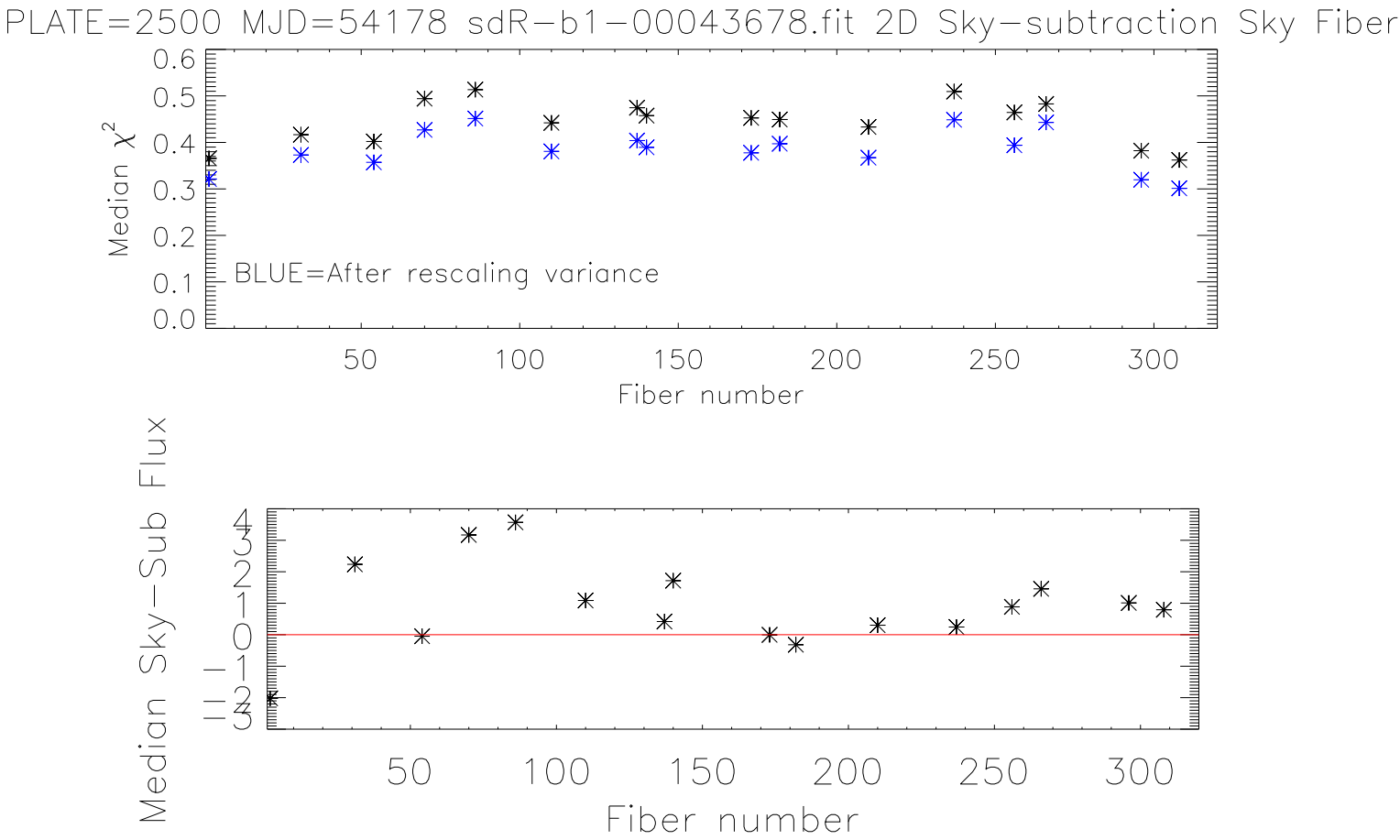

PLATE=2500 MJD=54178 Smooth superflat for sdR−b1−00043678.fit
1.5
1.0
0.5
0.0
1.04
1.03
1.02
1.01
1.00
0.99
0.98
4000
4500
5000
5500
6000
Wavelength (Å)

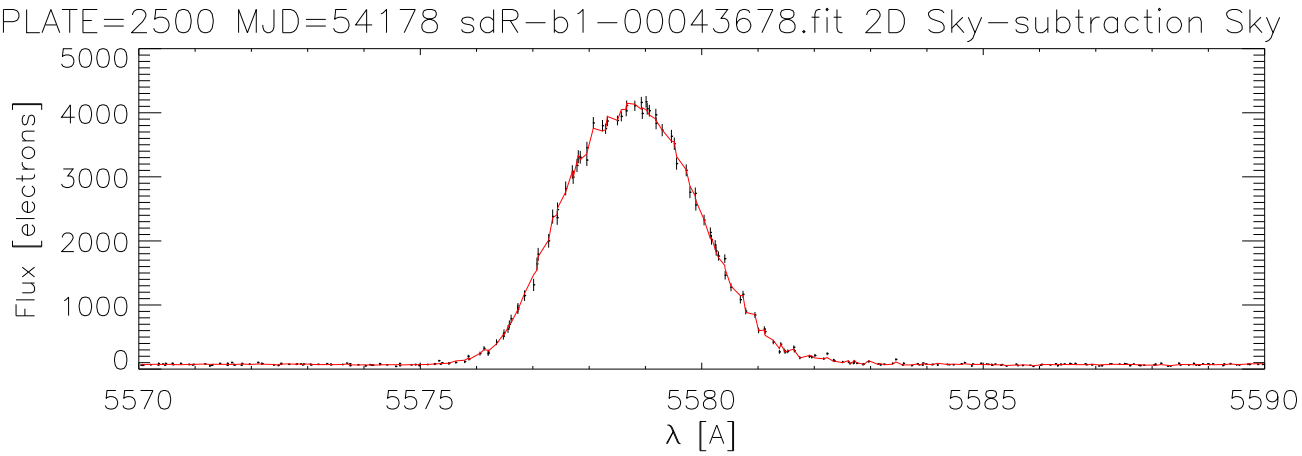

PLATE=2500 MJD=54178 sdR-b1-00043678.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-6
-4
-2
0
2
4
50
100
150
200
250
300
Fiber number

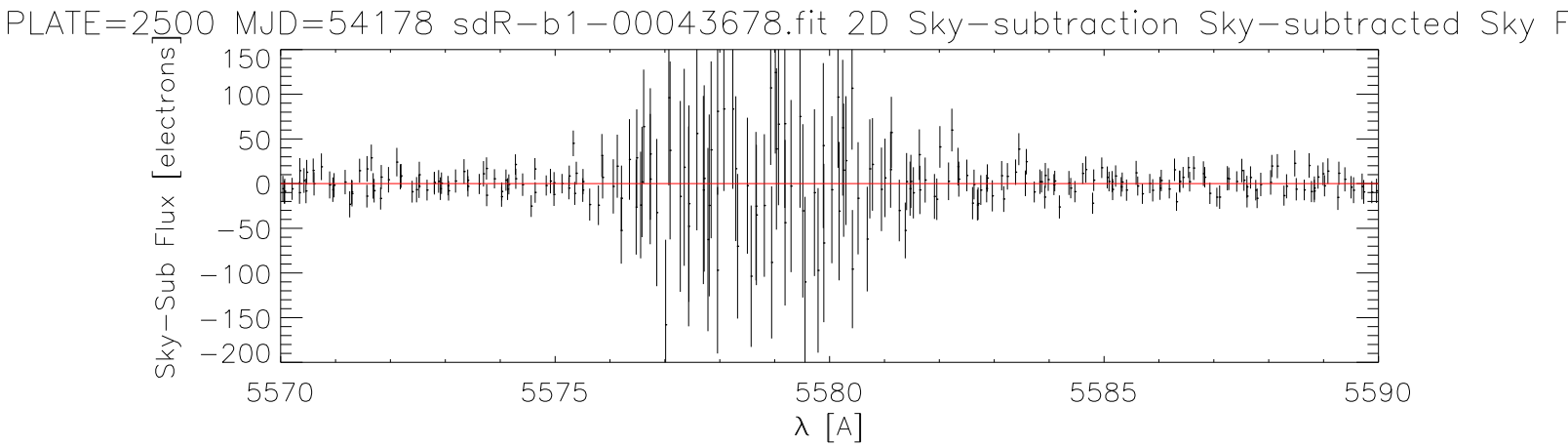

PLATE=2500 MJD=54178 sdR-b1-00043678.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

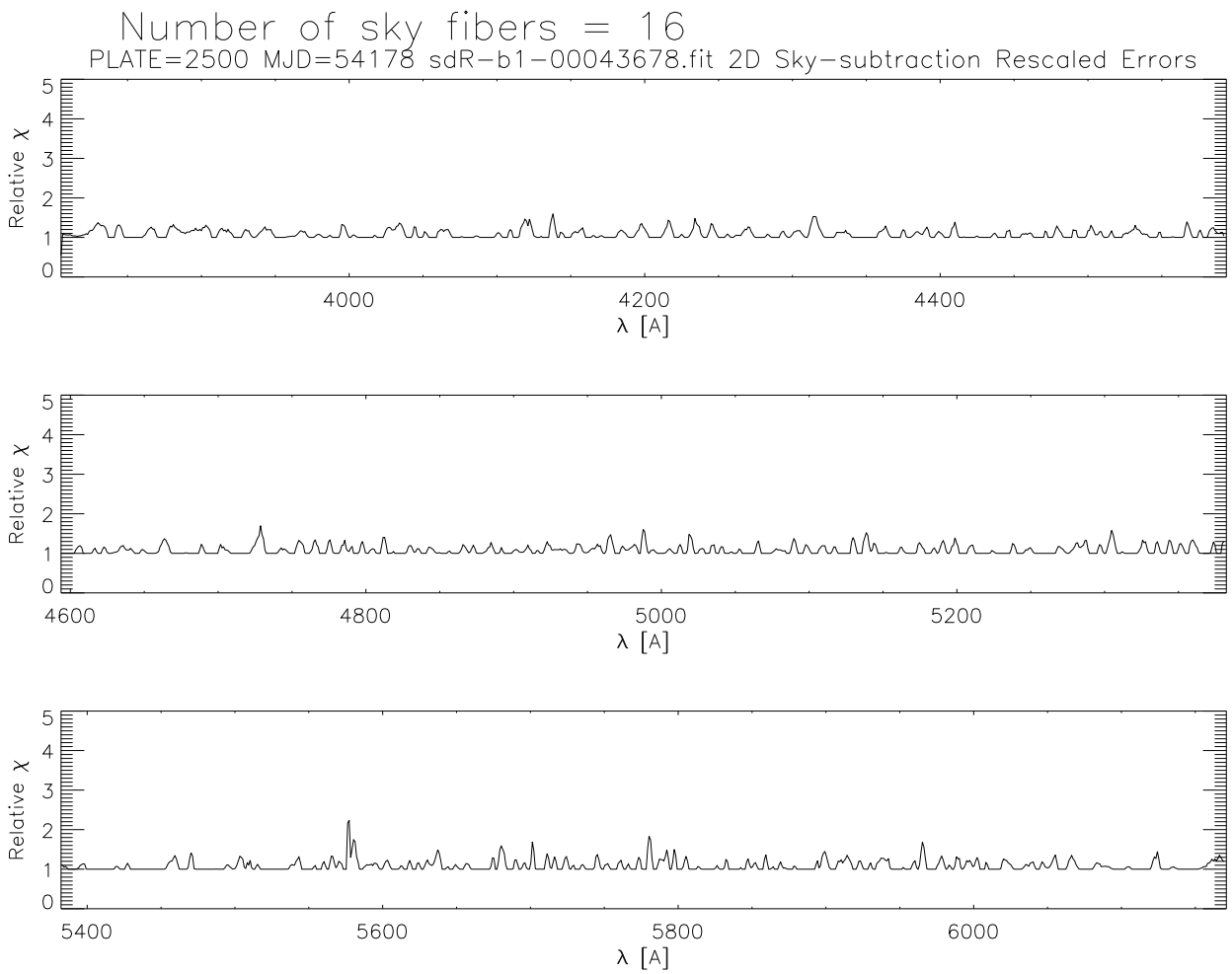

PLATE=2500 MJD=54178 sdR-b1-00043678.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
-300
5570
5575
5580
5585
5590
λ [A]

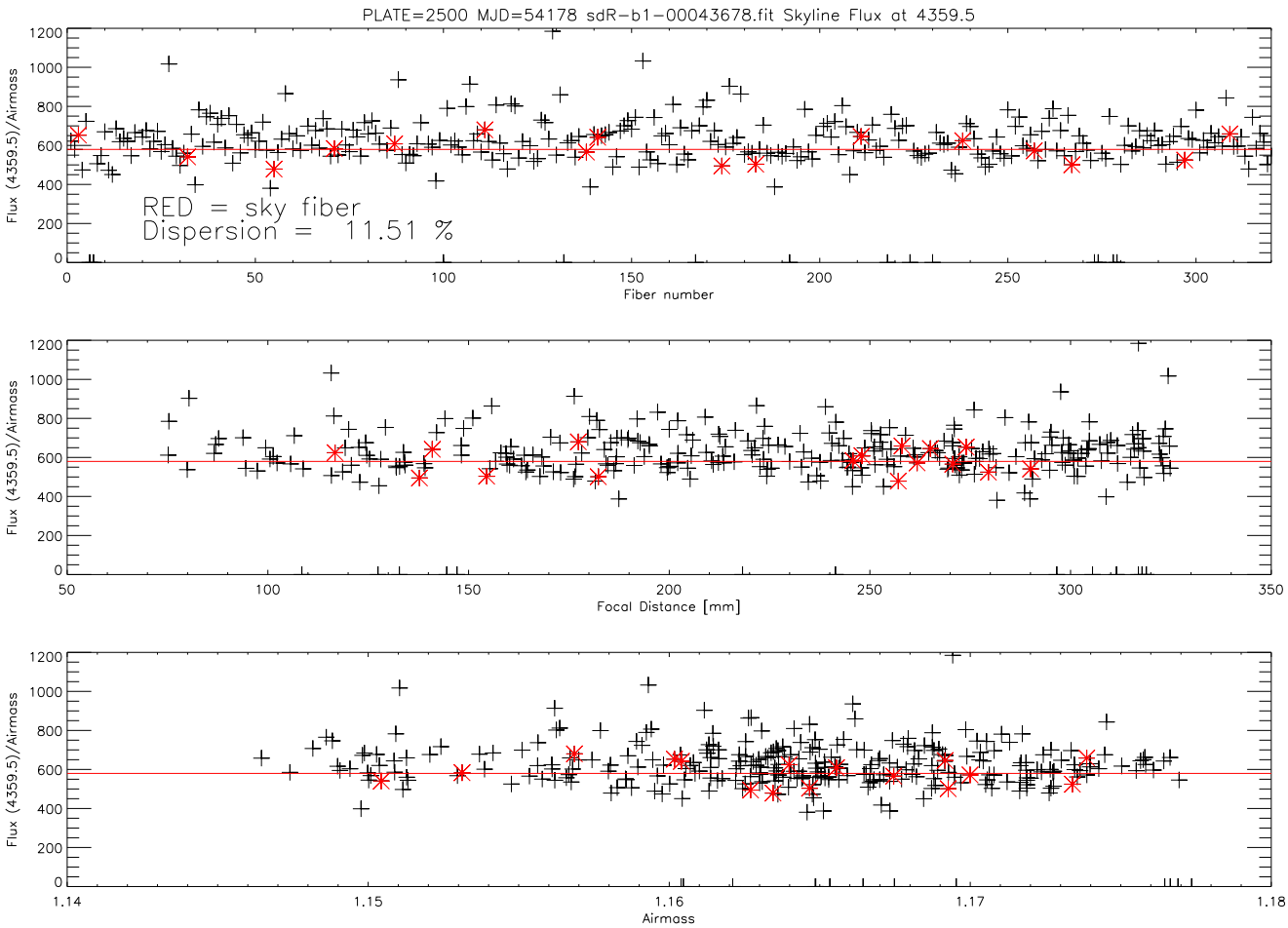

Number of sky fibers = 16
PLATE=2500 MJD=54178 sdR-b1-00043678.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

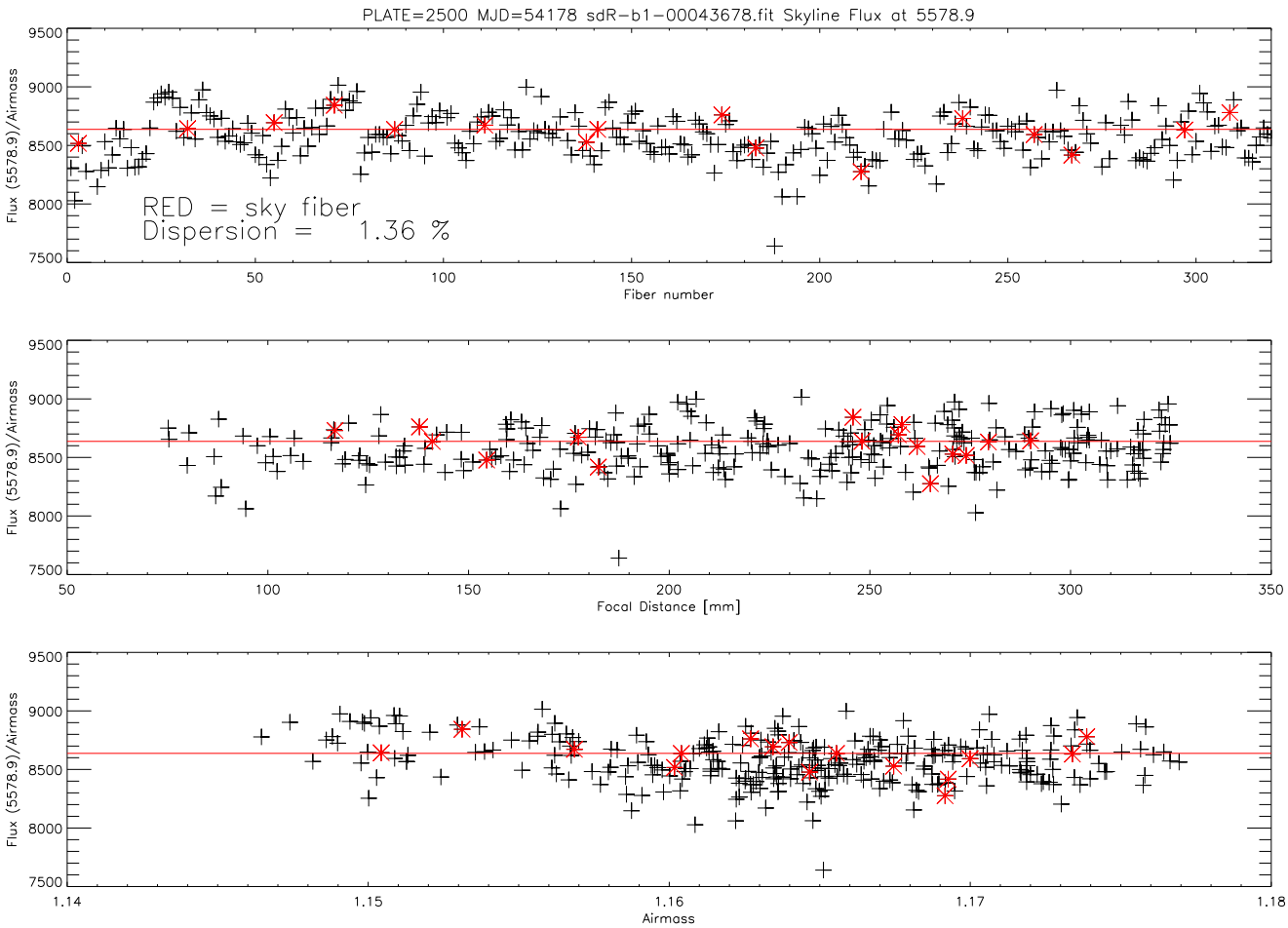

PLATE=2500 MJD=54178 sdR-b1-00043678.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

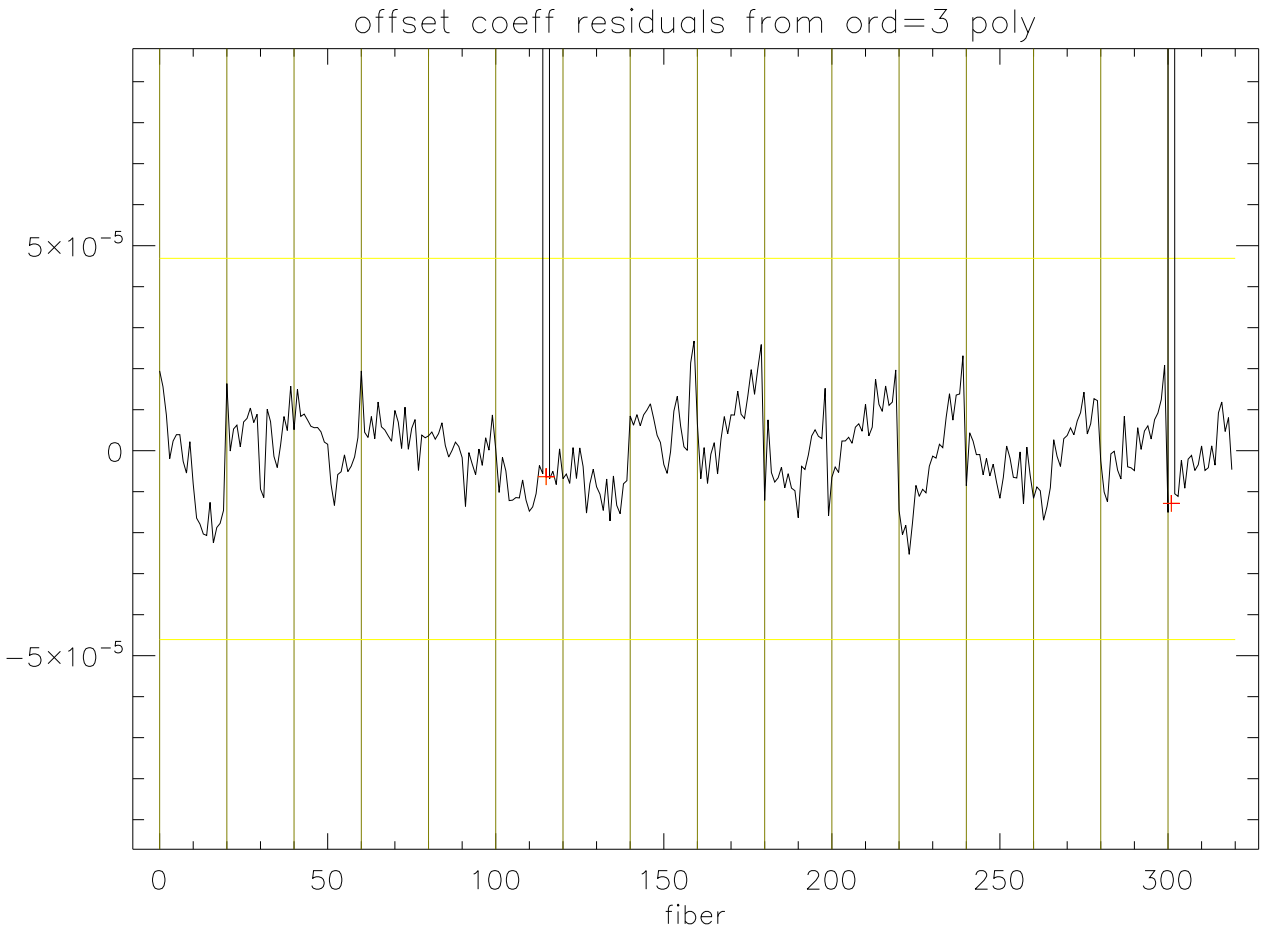

PLATE=2500 MJD=54178 sdR-b1-00043678.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

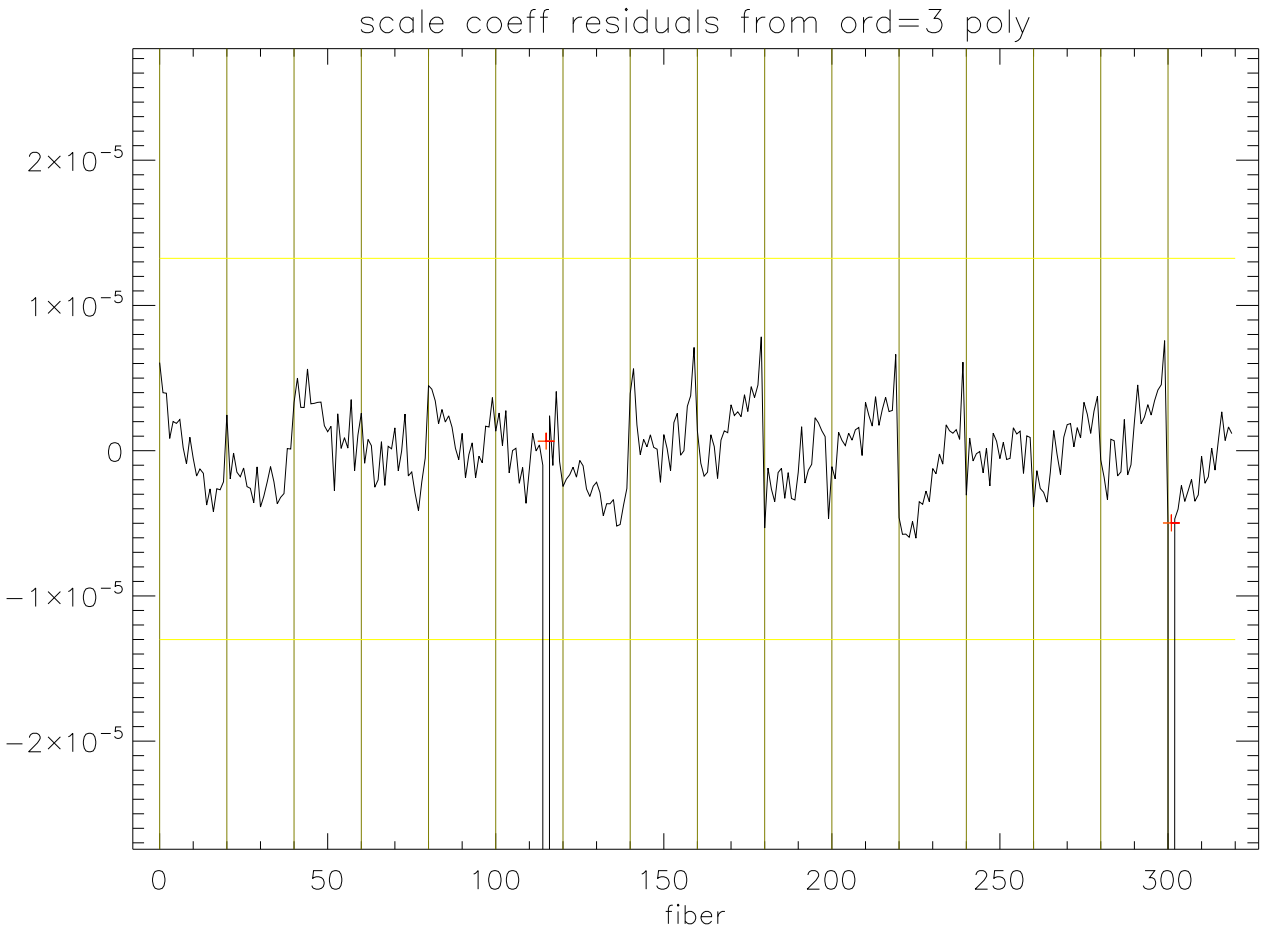

PLATE=2500 MJD=54178 sdR-b1-00043678.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
150
100
50
0
−50
−100
−150
−200
5570
5575
5580
5585
5590
λ [A]

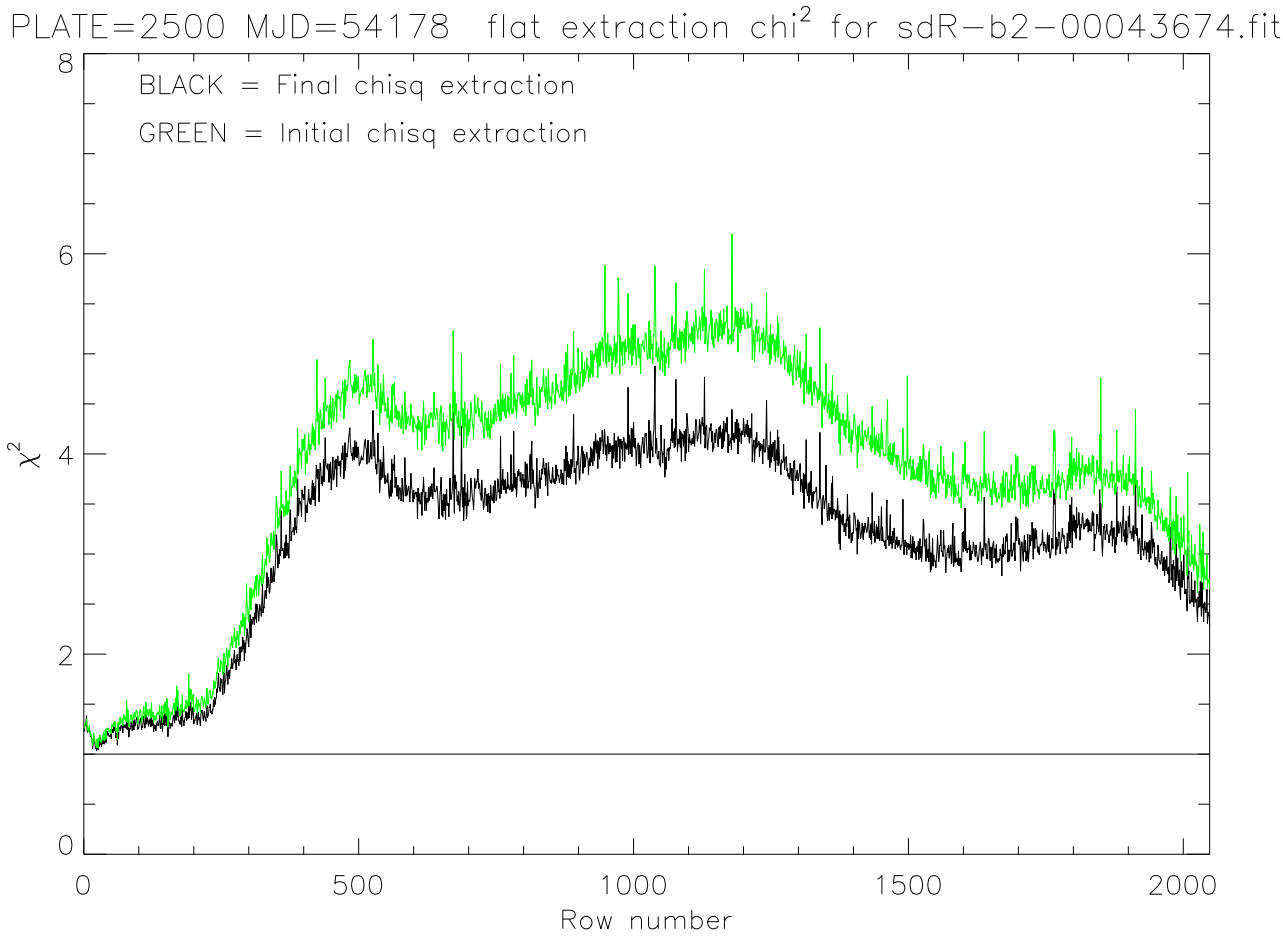

Number of sky fibers = 16
PLATE=2500 MJD=54178 sdR-b1-00043678.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

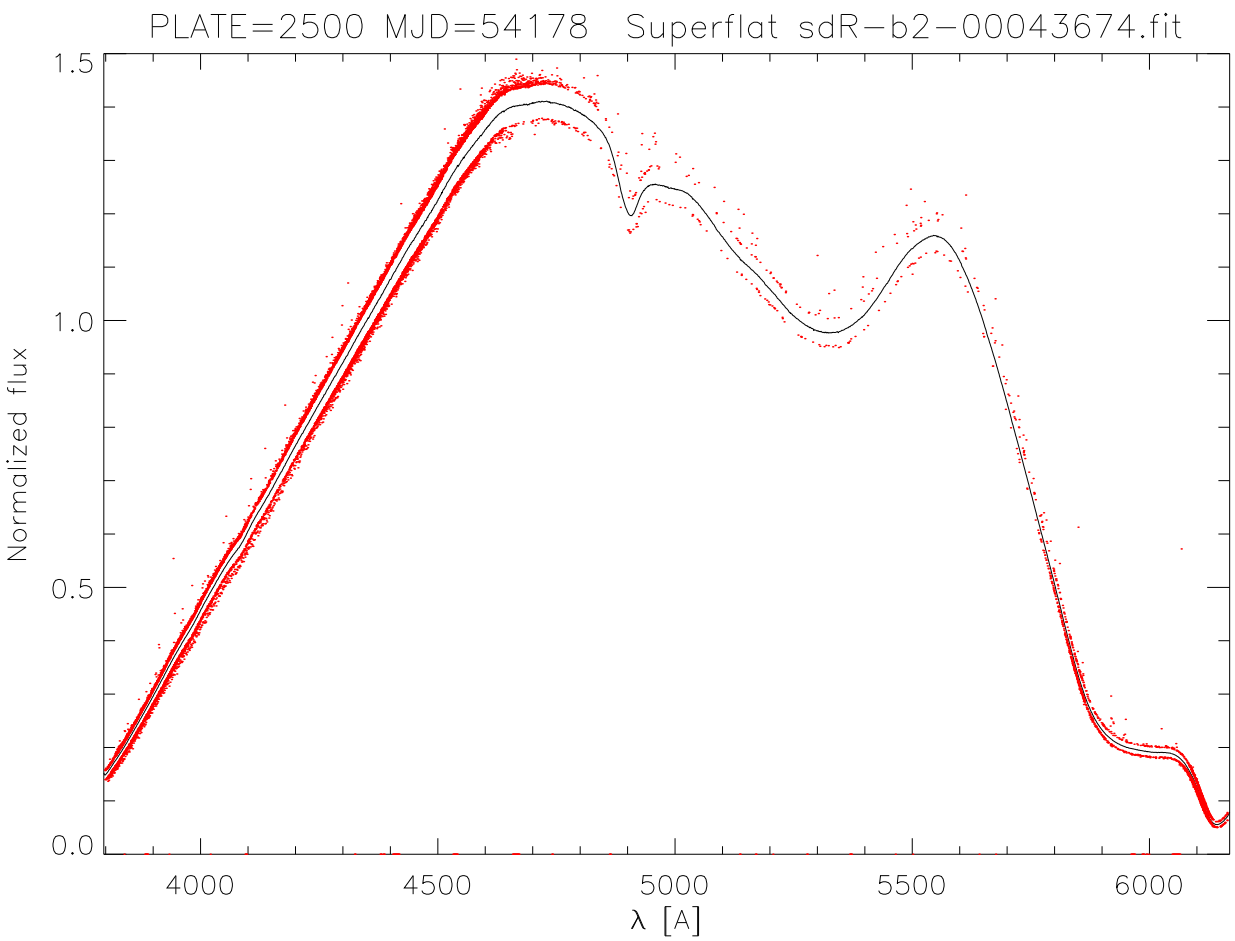

PLATE=2500 MJD=54178 sdR-b1-00043678.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 11.51 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

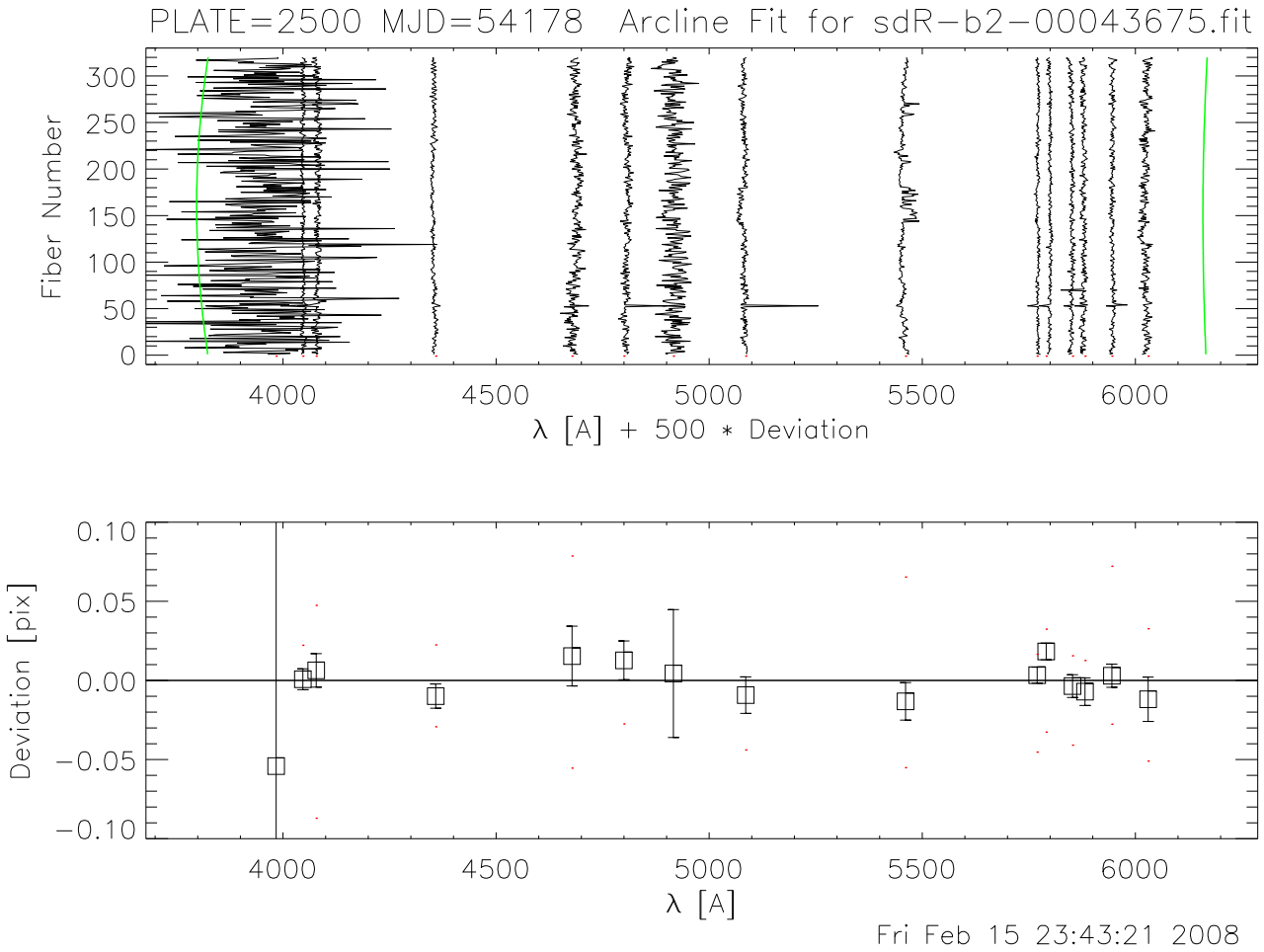

PLATE=2500 MJD=54178 sdR-b1-00043678.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 1.36 %
Fiber number
Flux (5578.9)/Airmass
Focal Distance [mm]
Flux (5578.9)/Airmass
Airmass

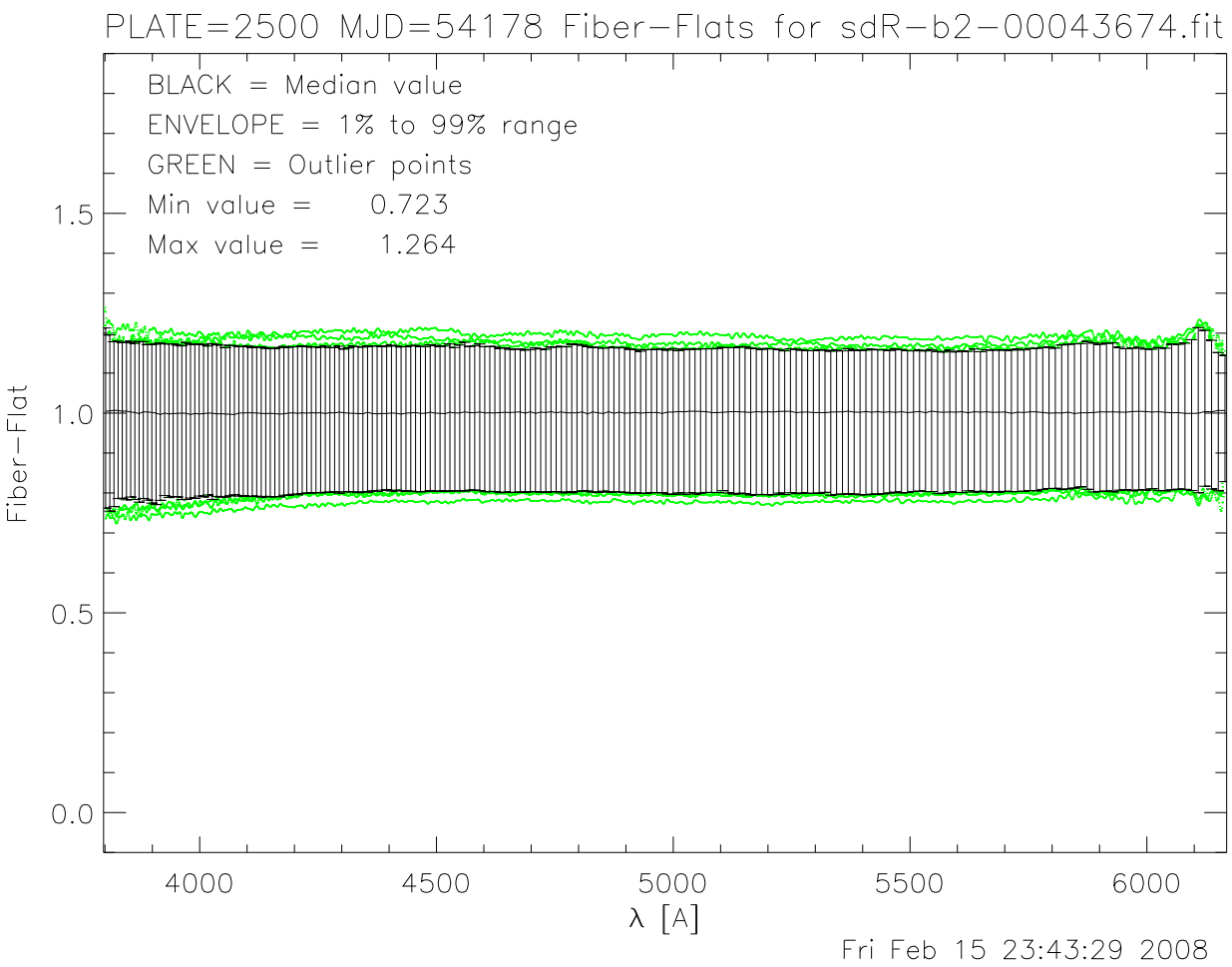

offset coeff residuals from ord=3 poly
5×10⁻⁵
0
−5×10⁻⁵
0
50
100
150
200
250
300
fiber

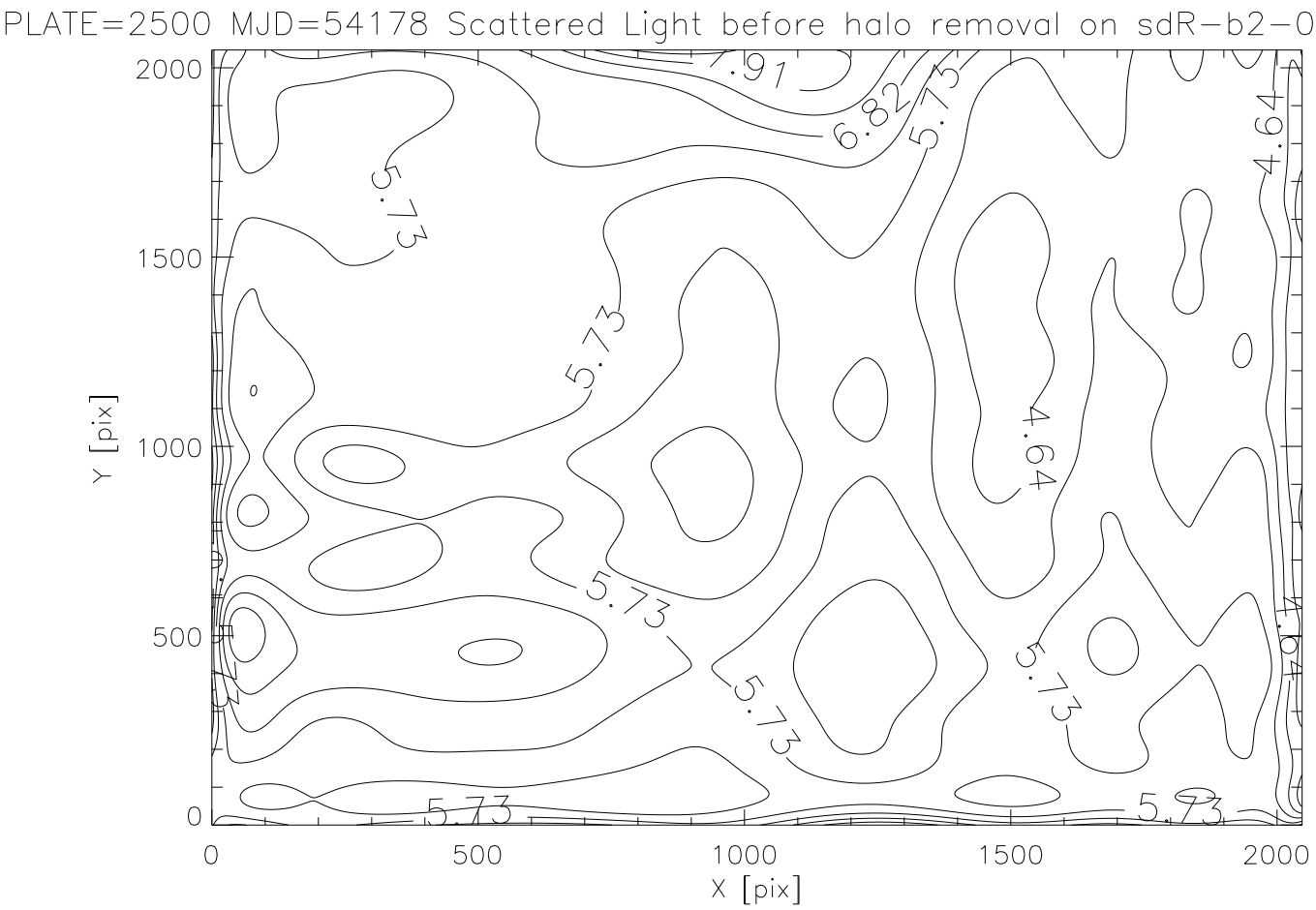

scale coeff residuals from ord=3 poly
2×10⁻⁵
1×10⁻⁵
0
−1×10⁻⁵
−2×10⁻⁵
0
50
100
150
200
250
300
fiber

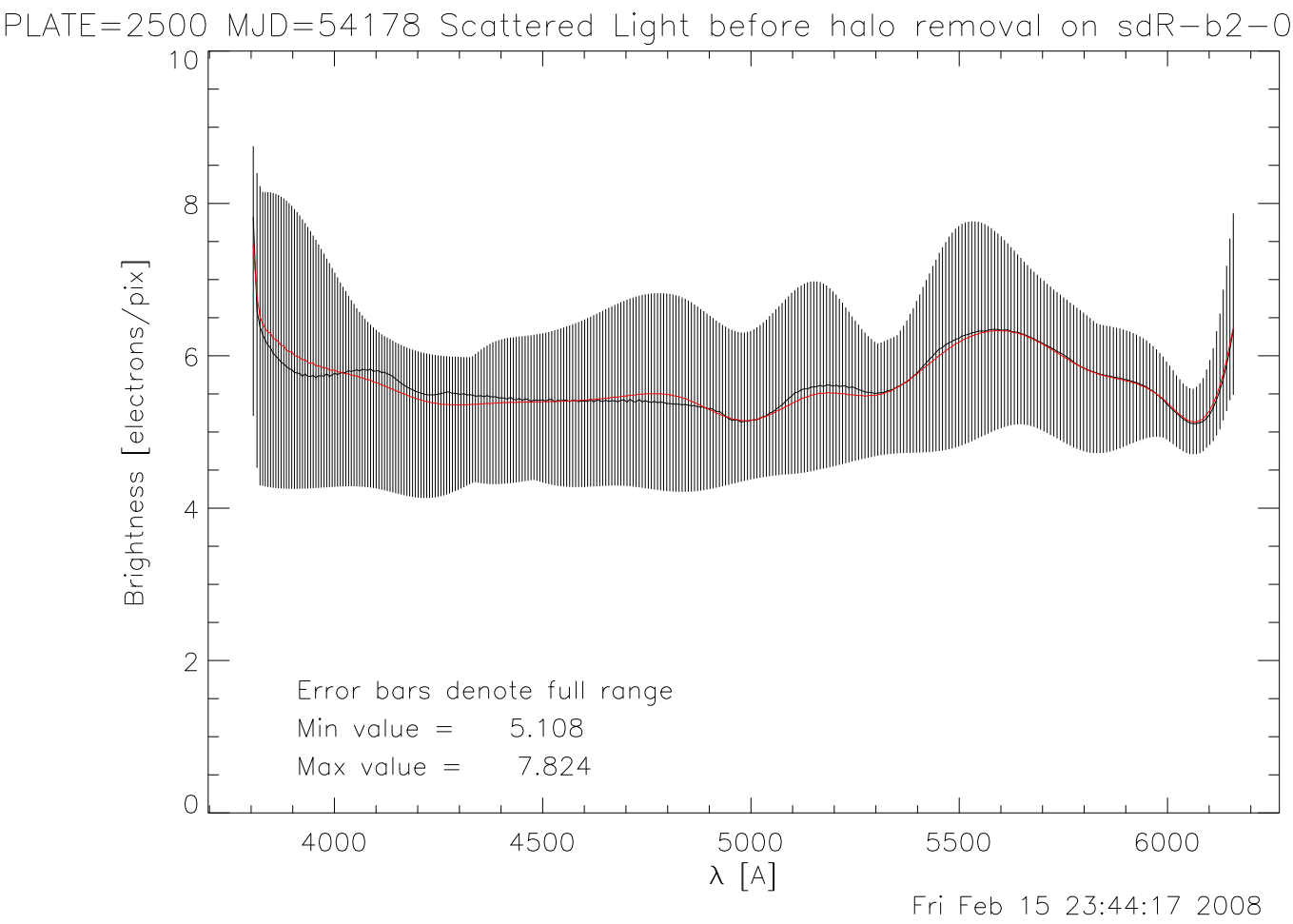

PLATE=2500 MJD=54178 flat extraction chi^2 for sdR−b2−00043674.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
0
500
1000
1500
2000
Row number

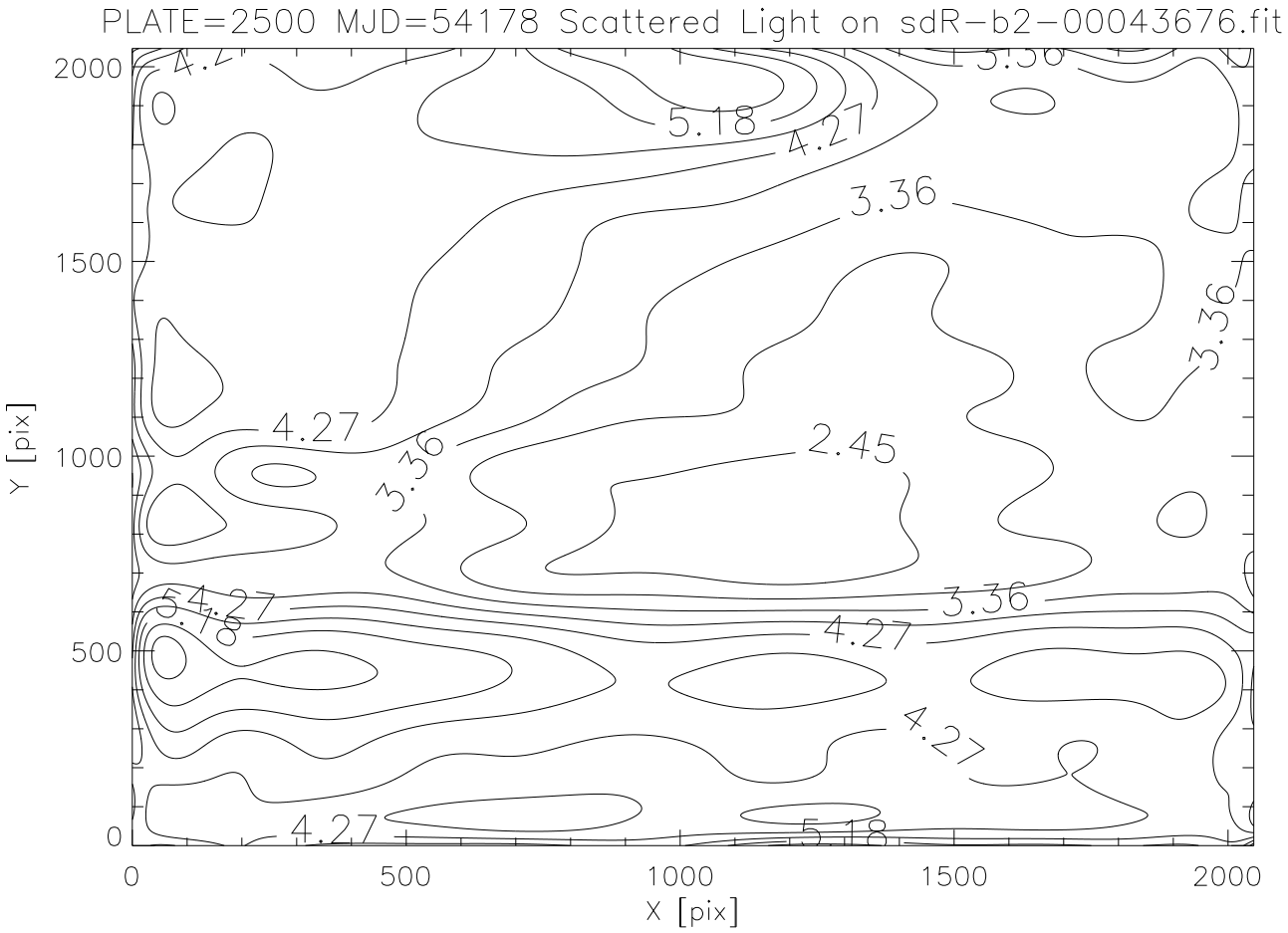

PLATE=2500 MJD=54178 Superflat sdR-b2-00043674.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

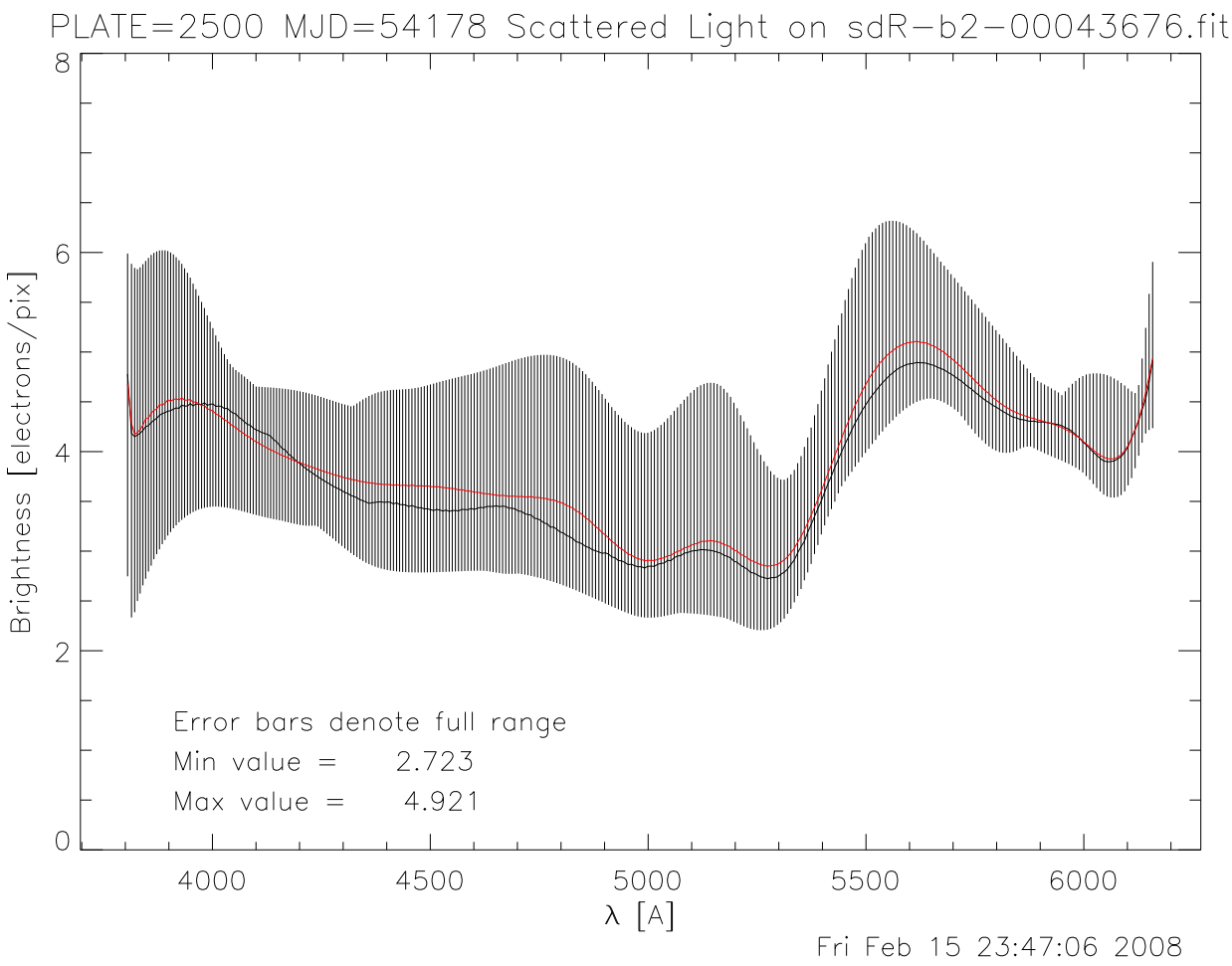

PLATE=2500 MJD=54178 Arcline Fit for sdR-b2-00043675.fit
Fiber Number
300
250
200
150
100
50
0
4000
4500
5000
5500
6000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
4000
4500
5000
5500
6000
λ [A]
Fri Feb 15 23:43:21 2008

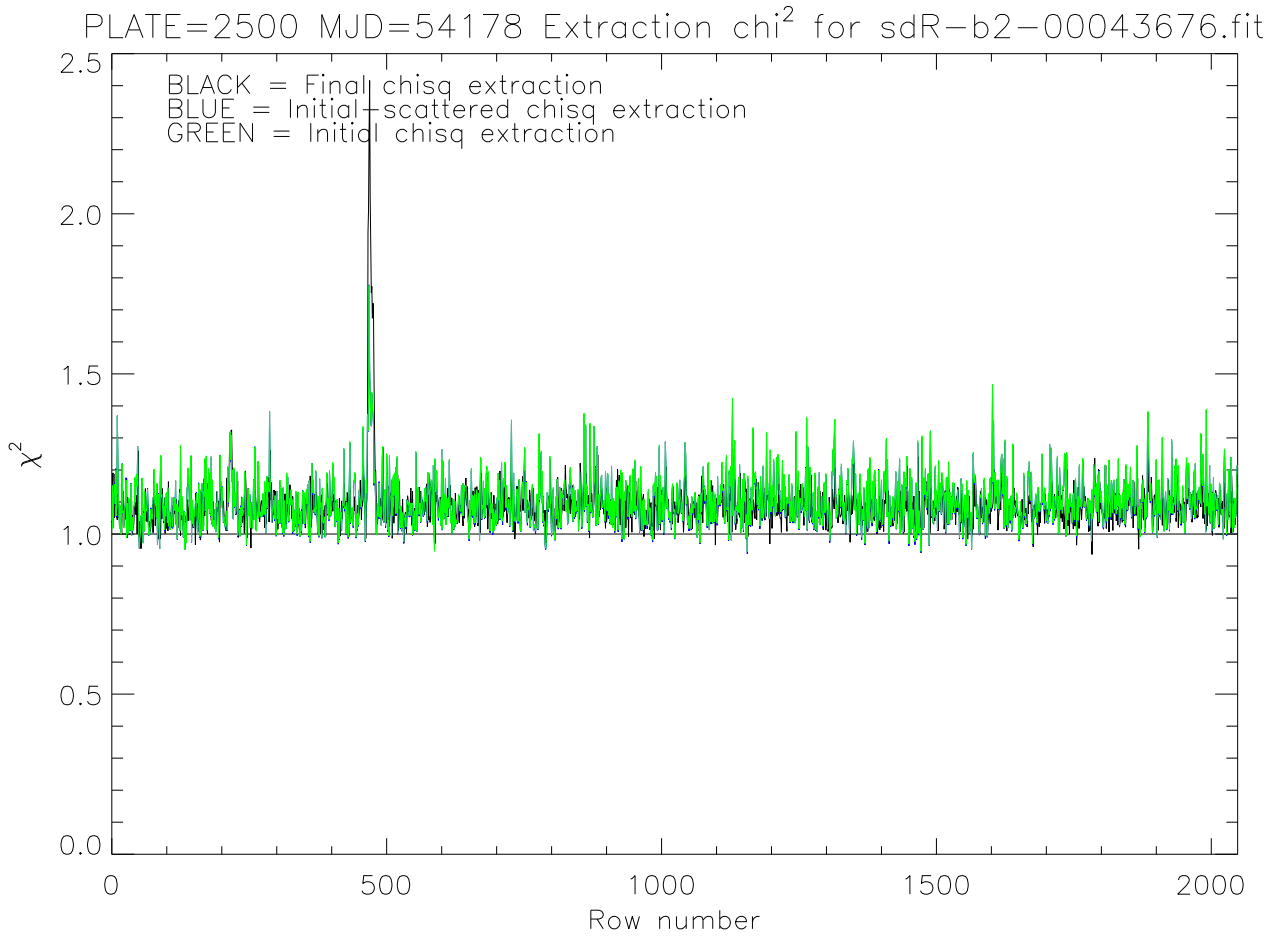

PLATE=2500 MJD=54178 Fiber-Flats for sdR-b2-00043674.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.723
Max value = 1.264
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Fri Feb 15 23:43:29 2008

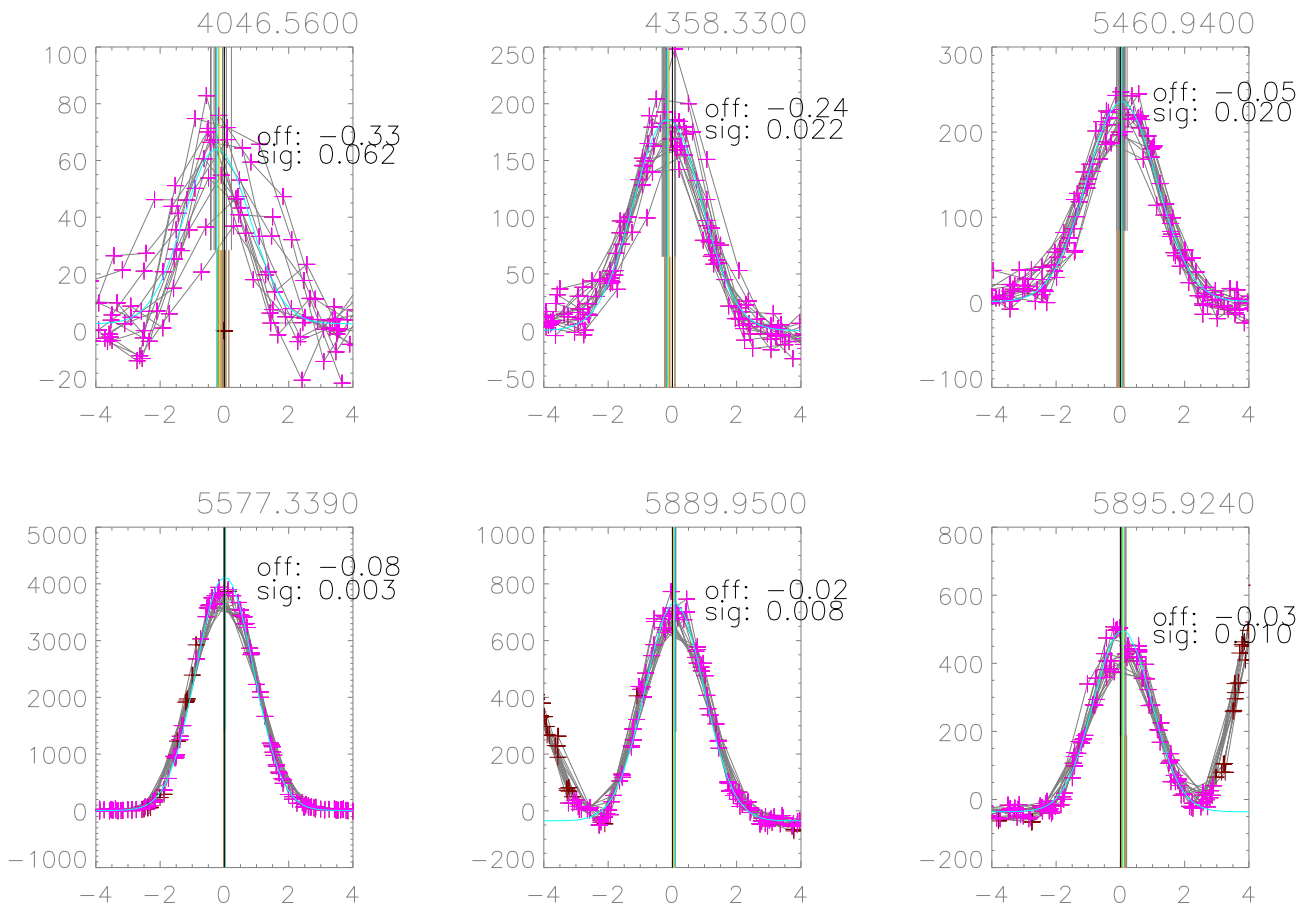

PLATE=2500 MJD=54178 Scattered Light before halo removal on sdR−b2−00043676.f
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
5.73
6.82
4.64
4.94

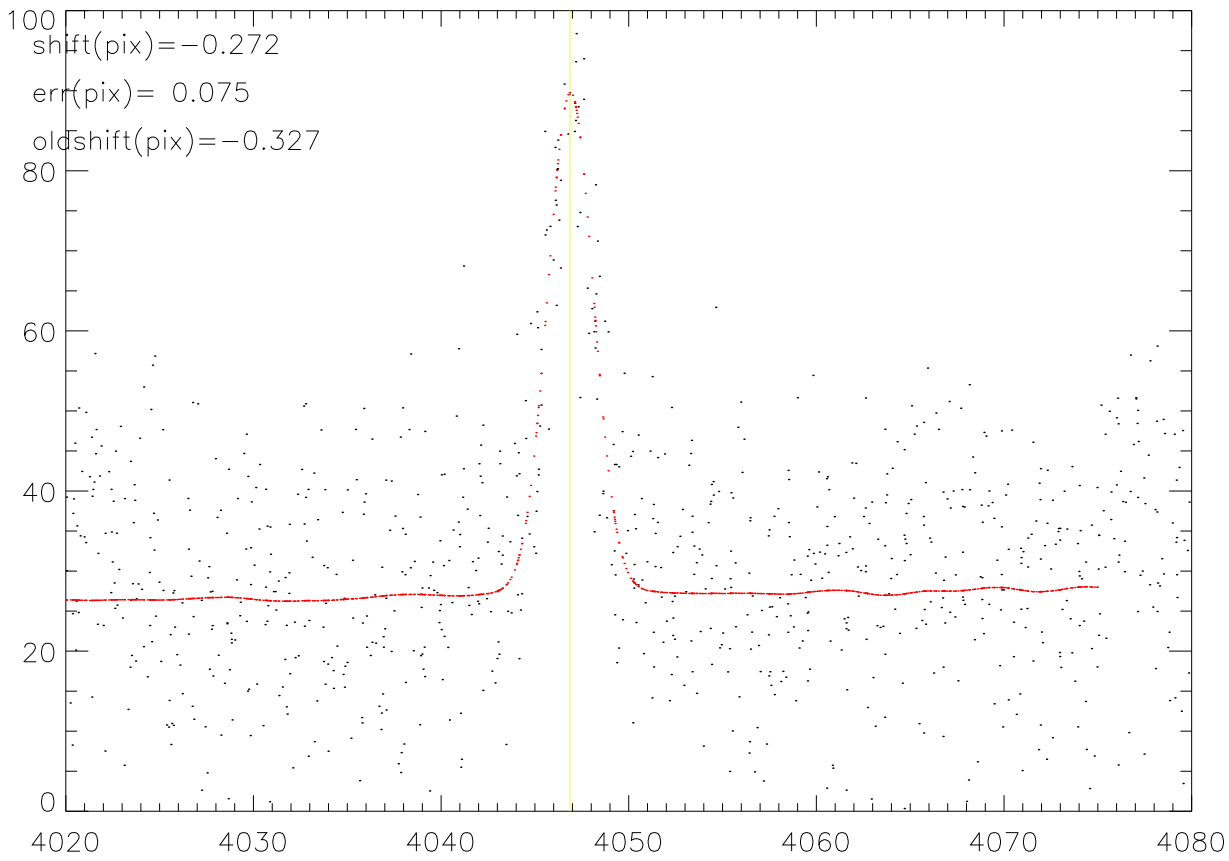

PLATE=2500 MJD=54178 Scattered Light before halo removal on sdR-b2-00043676.f
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 5.108
Max value = 7.824
Fri Feb 15 23:44:17 2008

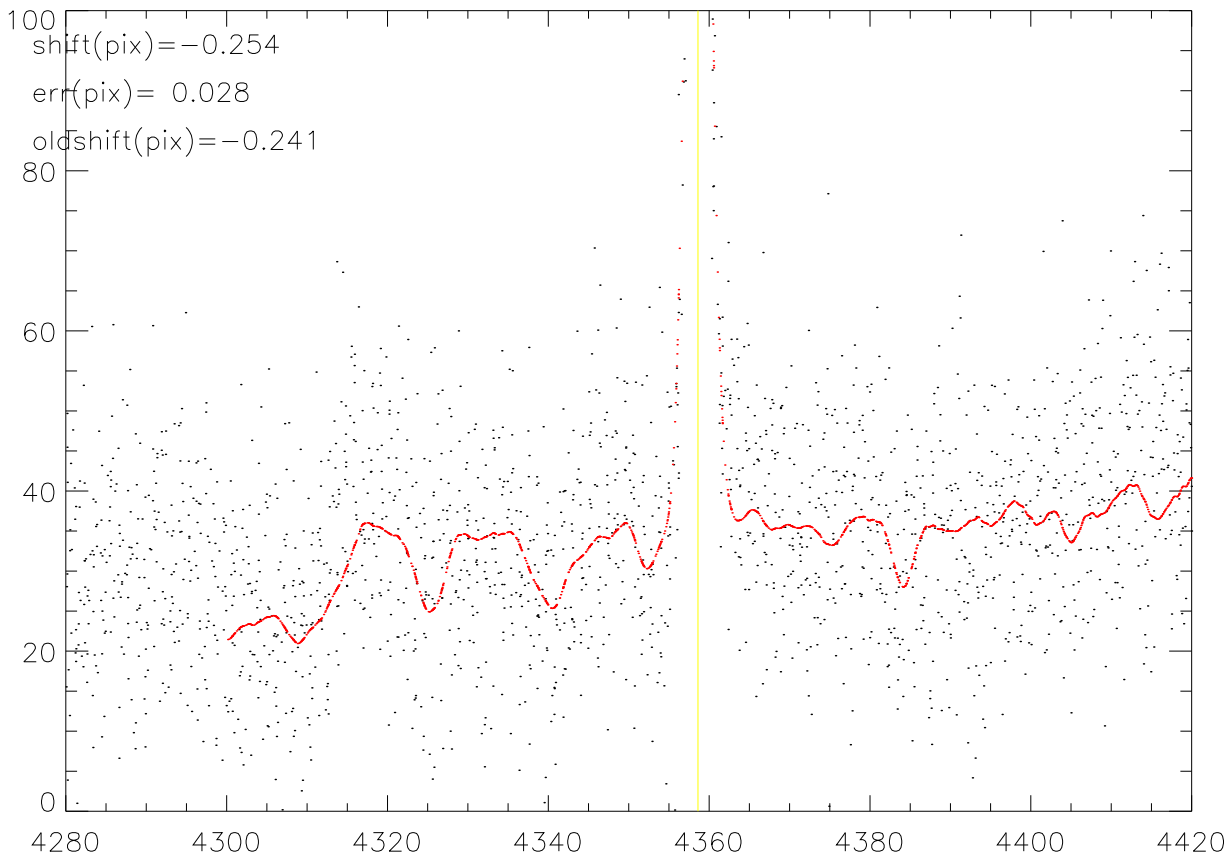

PLATE=2500 MJD=54178 Scattered Light on sdR-b2-00043676.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
5.18
4.27
3.36
2.45

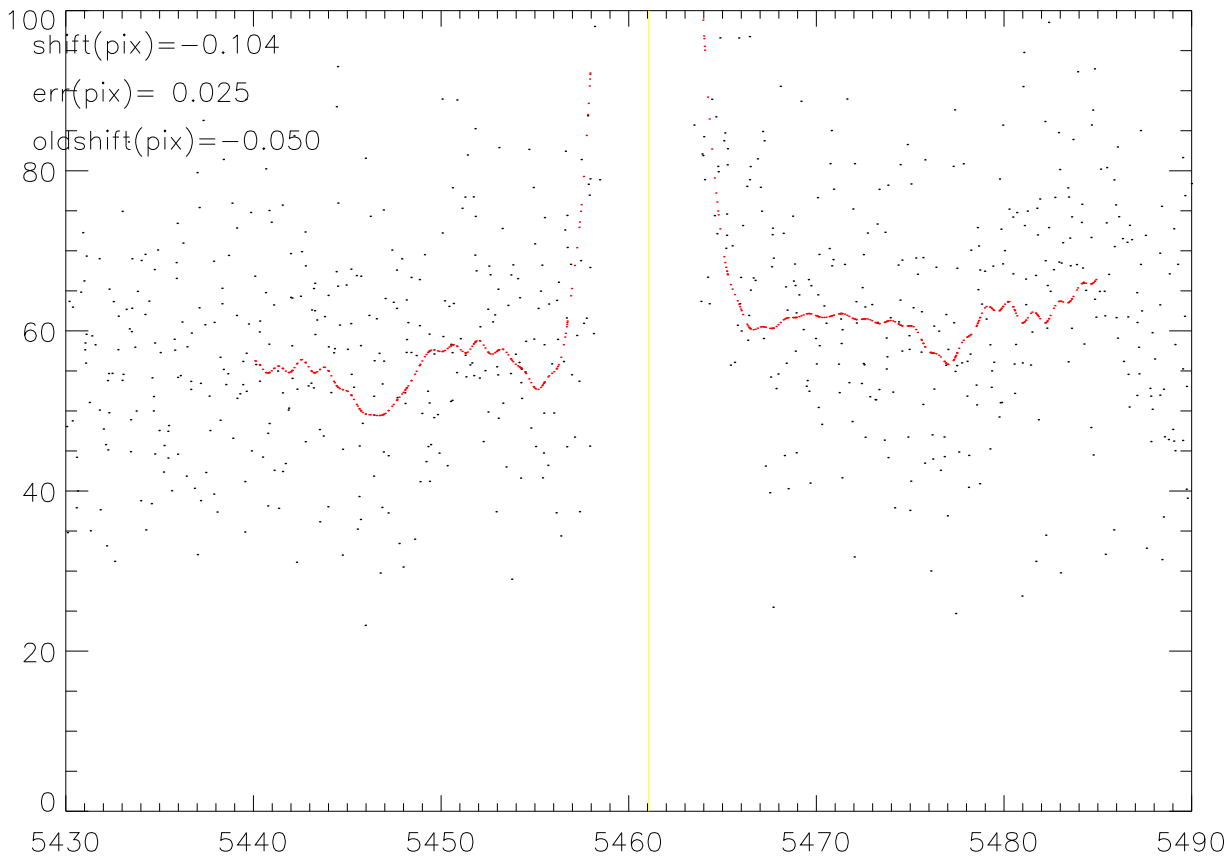

PLATE=2500 MJD=54178 Scattered Light on sdR-b2-00043676.fit
Brightness [electrons/pix]
0
2
4
6
8
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 2.723
Max value = 4.921
Fri Feb 15 23:47:06 2008

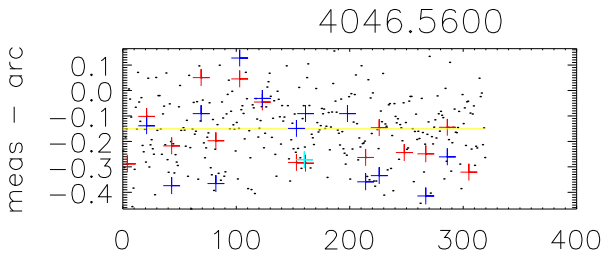

PLATE=2500 MJD=54178 Extraction chi^2 for sdR-b2-00043676.fit
BLACK = Final chisq extraction
BLUE = Initial+scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
2.5
2.0
1.5
1.0
0.5
0.0
0
500
1000
1500
2000
Row number

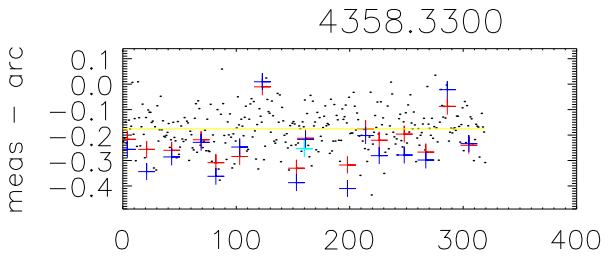

4046.5600
off: −0.33
sig: 0.062
4358.3300
off: −0.24
sig: 0.022
5460.9400
off: −0.05
sig: 0.020
5577.3390
off: −0.08
sig: 0.003
5889.9500
off: −0.02
sig: 0.008
5895.9240
off: −0.03
sig: 0.010

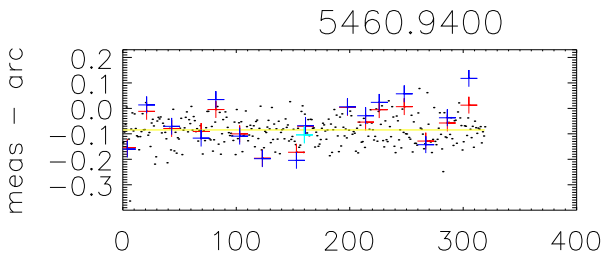

shift(pix)=−0.272
err(pix)= 0.075
oldshift(pix)=−0.327
100
80
60
40
20
0
4020
4030
4040
4050
4060
4070
4080

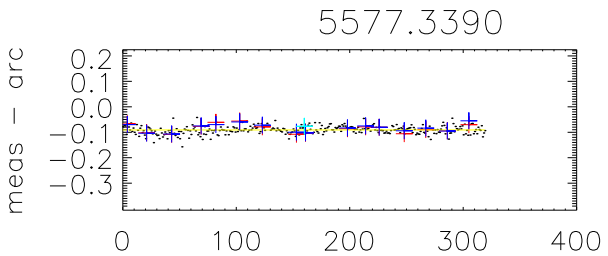

shift(pix)=−0.254
err(pix)= 0.028
oldshift(pix)=−0.241
100
80
60
40
20
0
4280
4300
4320
4340
4360
4380
4400
4420

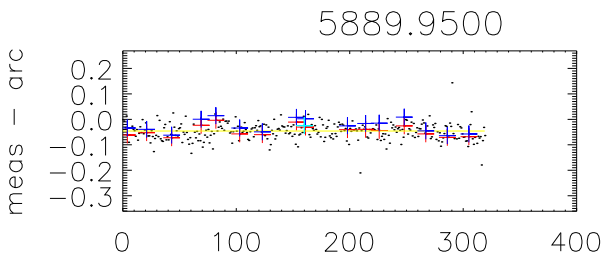

shift(pix)=−0.104
err(pix)= 0.025
oldshift(pix)=−0.050
100
80
60
40
20
0
5430
5440
5450
5460
5470
5480
5490

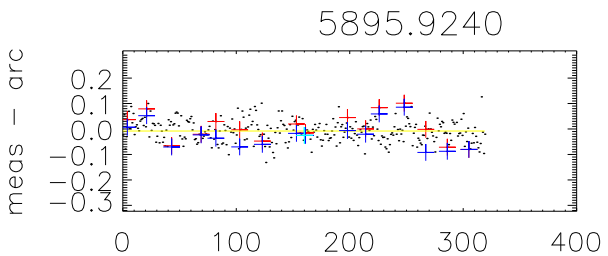

4046.5600
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

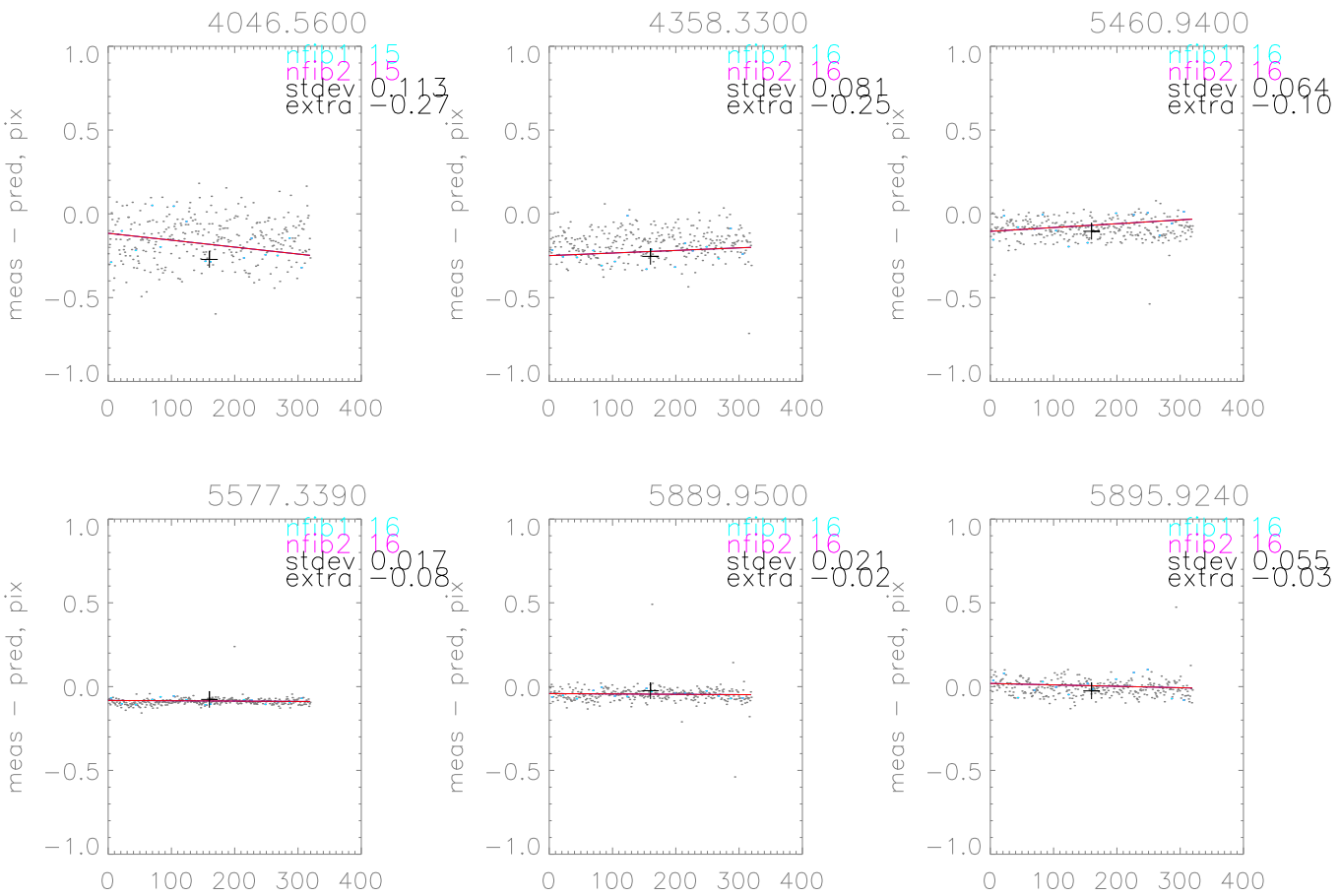

4358.3300
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

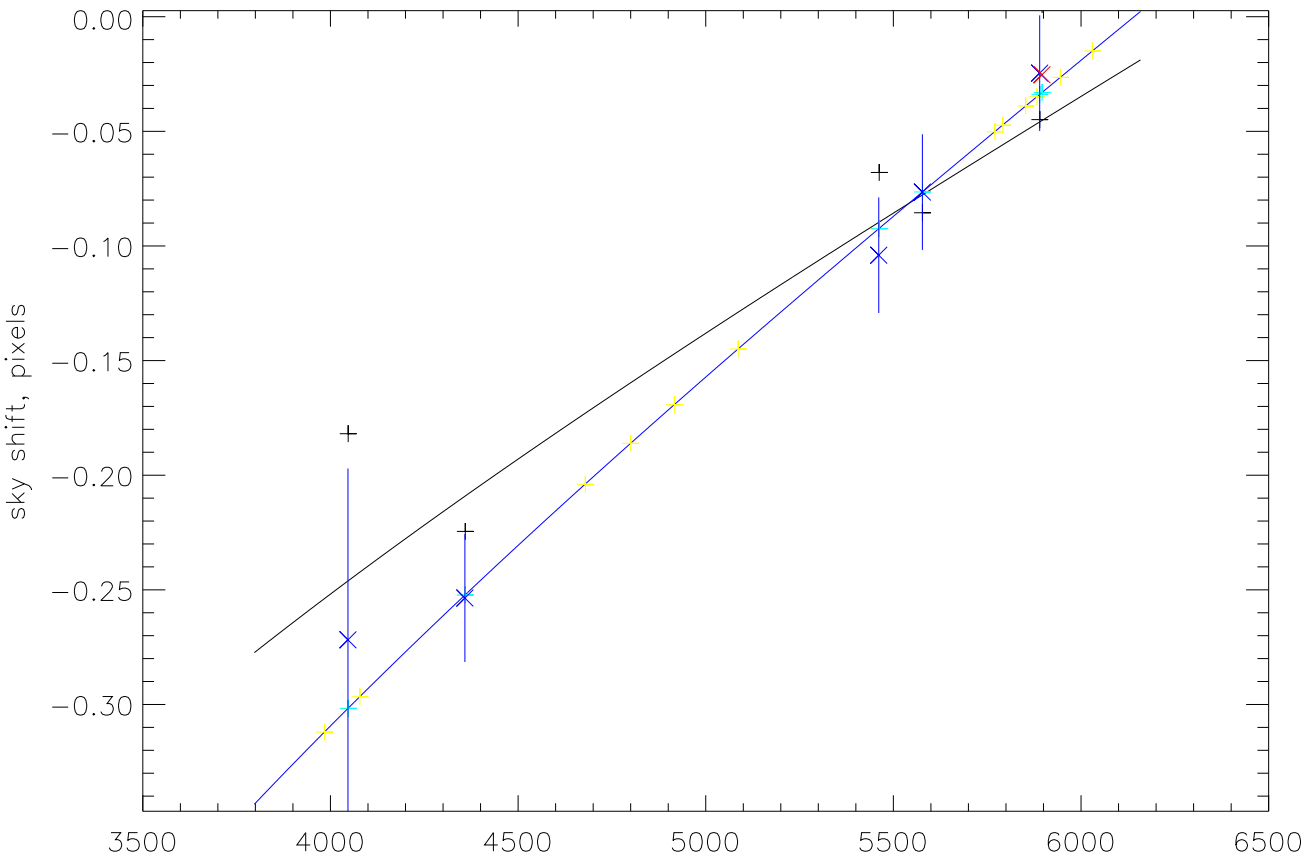

5460.9400
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

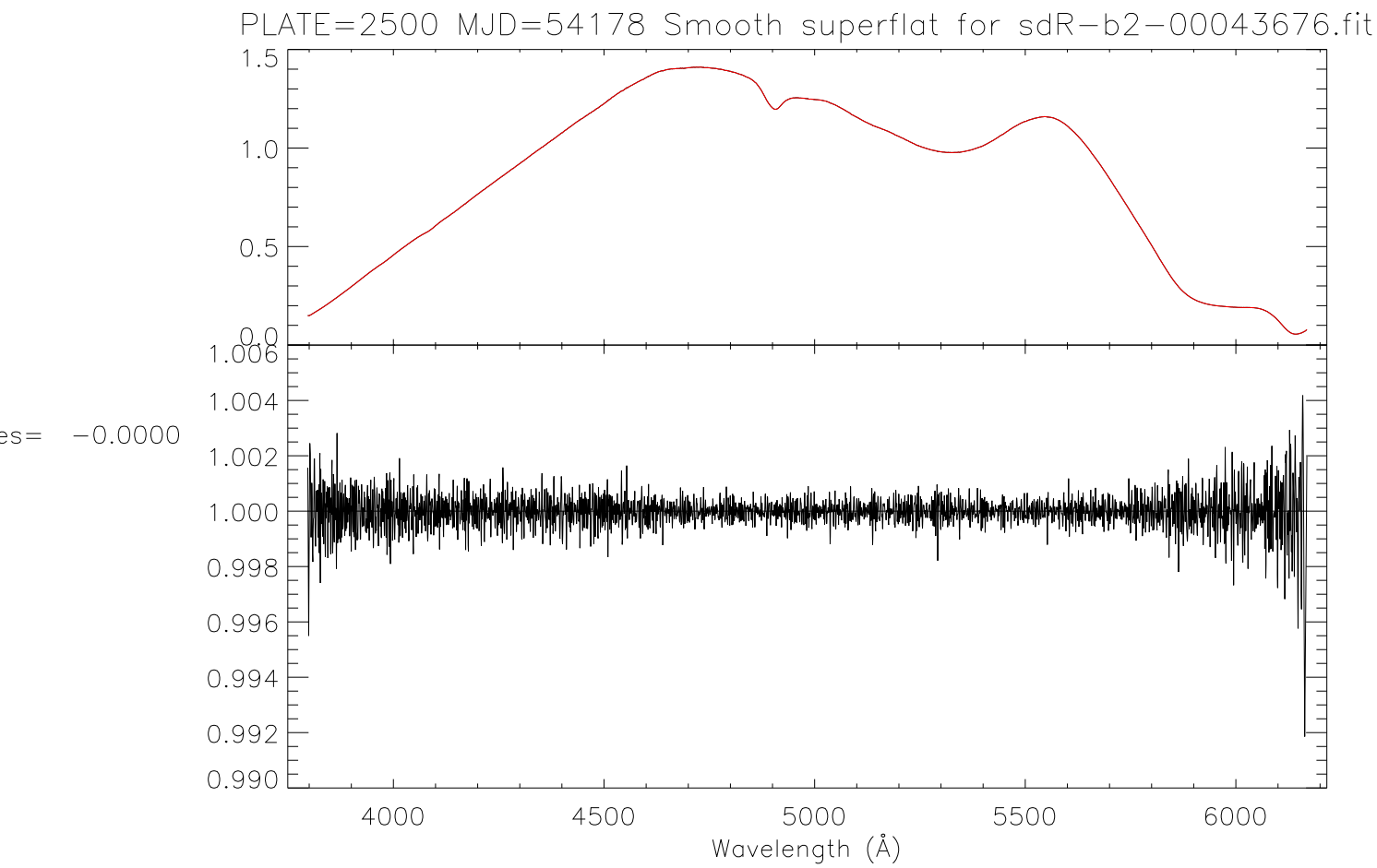

5577.3390
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400


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

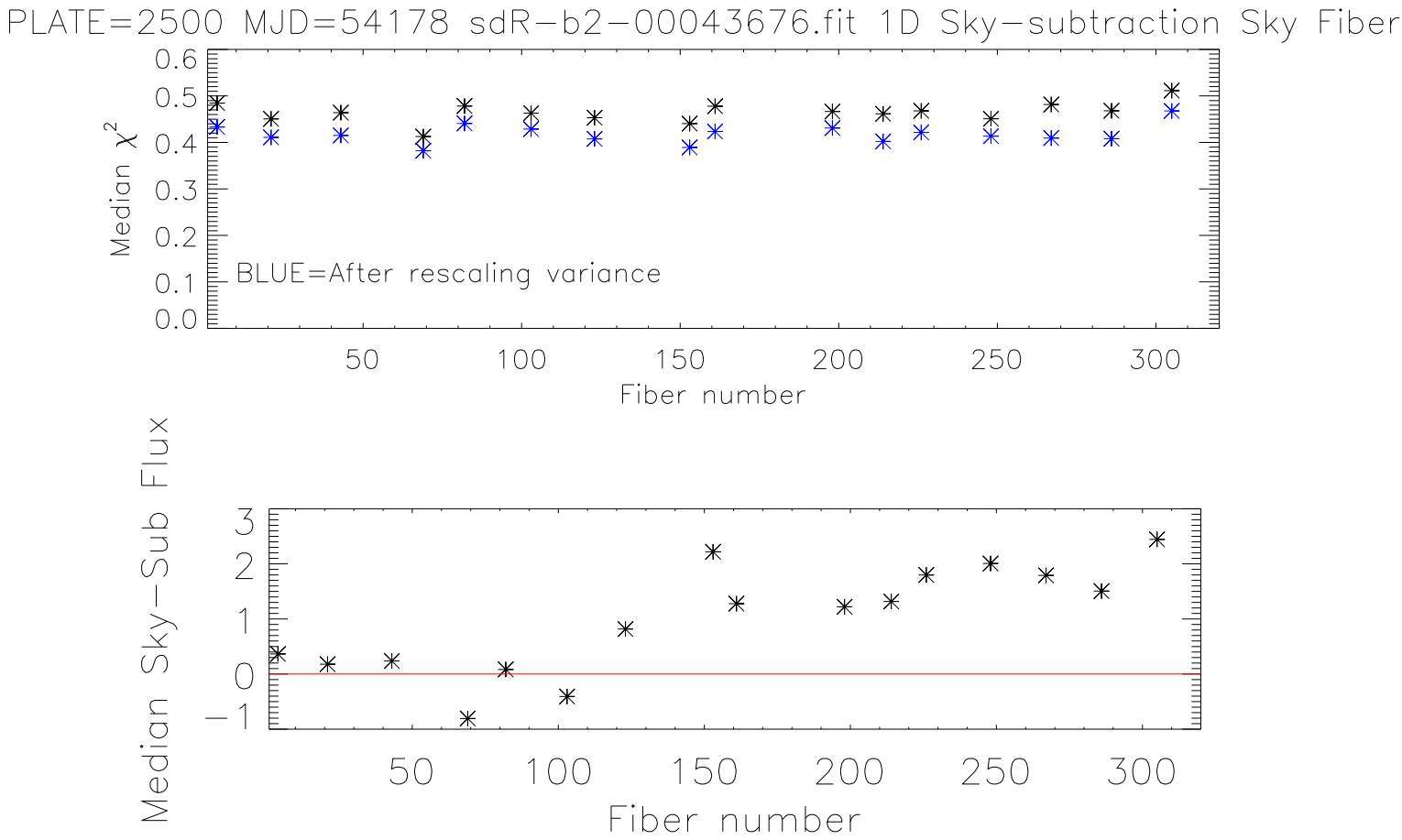

5895.9240
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

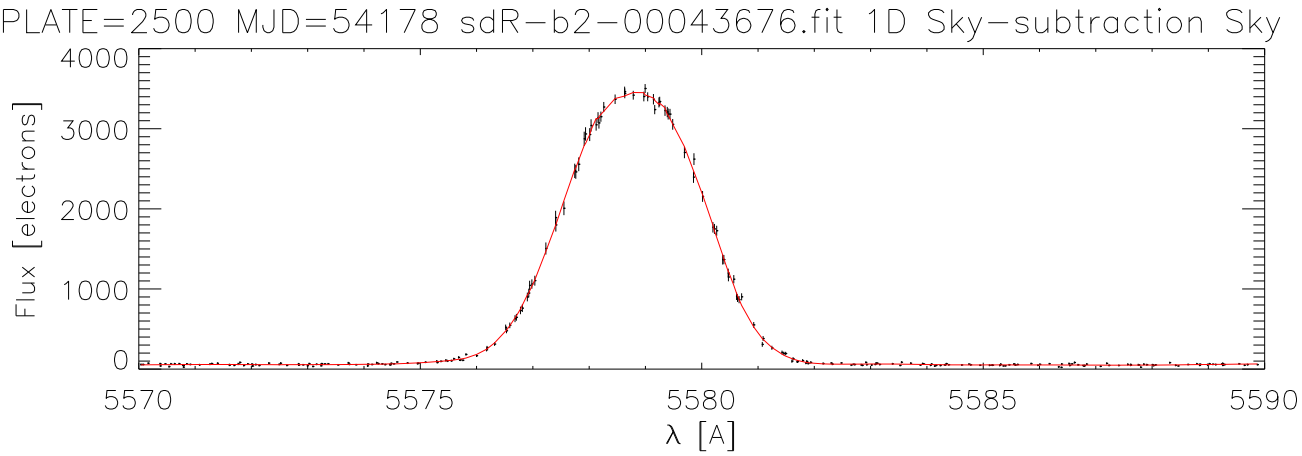

4046.5600
nfib1 15
nfib2 15
stdev 0.113
extra −0.27
4358.3300
nfib1 16
nfib2 16
stdev 0.081
extra −0.25
5460.9400
nfib1 16
nfib2 16
stdev 0.064
extra −0.10
5577.3390
nfib1 16
nfib2 16
stdev 0.017
extra −0.08
5889.9500
nfib1 16
nfib2 16
stdev 0.021
extra −0.02
5895.9240
nfib1 16
nfib2 16
stdev 0.055
extra −0.03
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

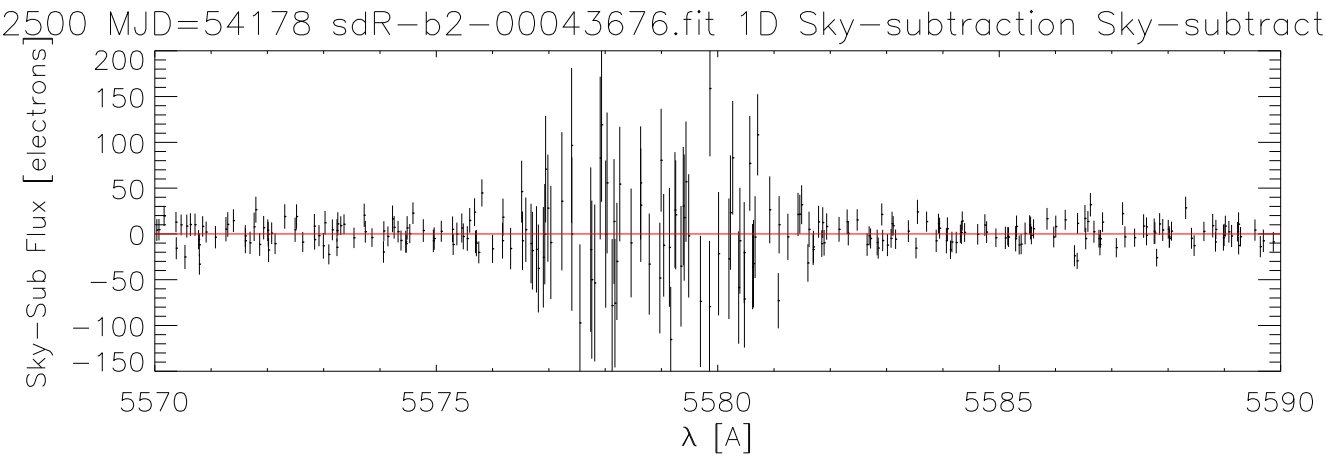

0.00
−0.05
−0.10
−0.15
−0.20
−0.25
−0.30
sky shift, pixels
3500
4000
4500
5000
5500
6000
6500

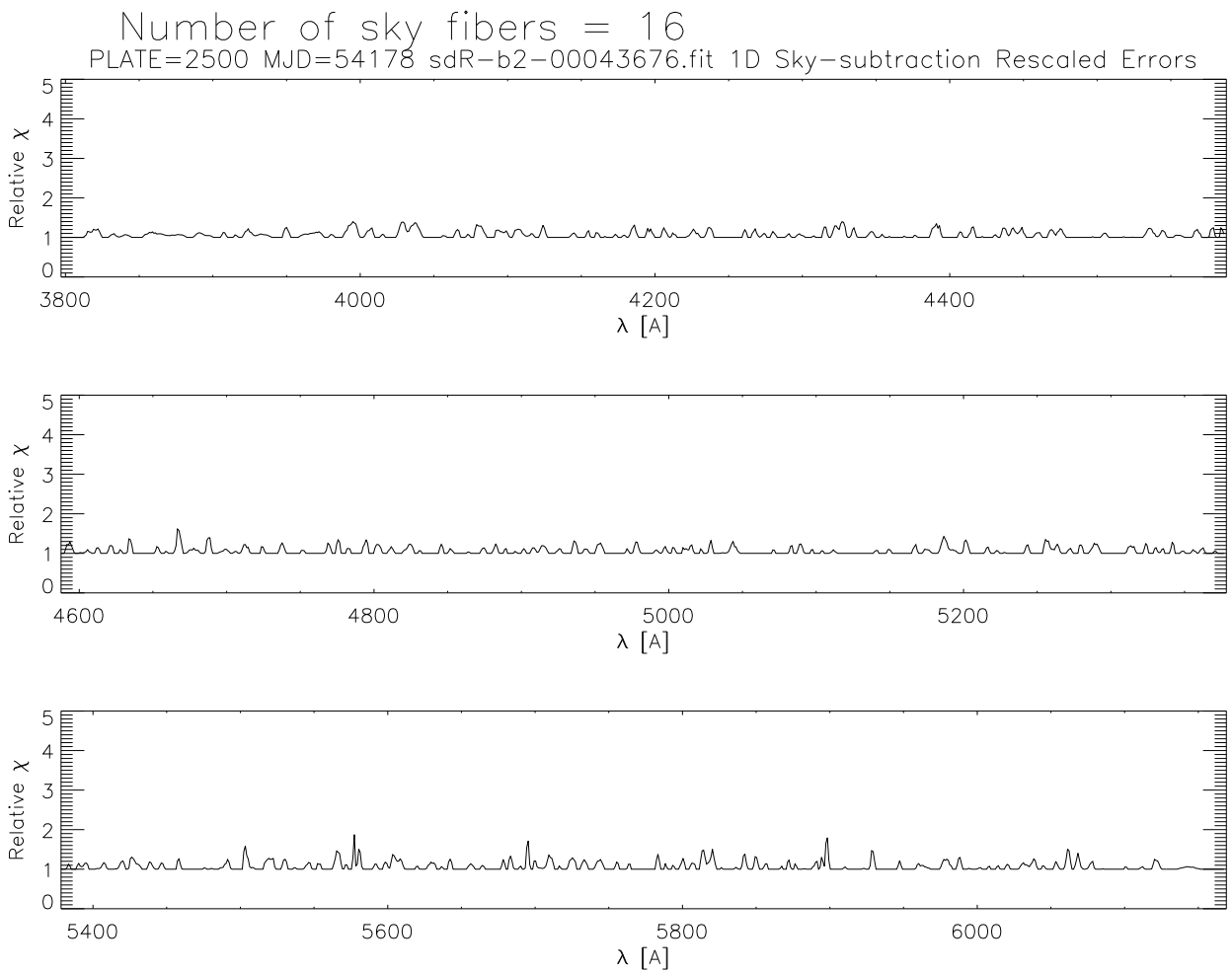

PLATE=2500 MJD=54178 Smooth superflat for sdR-b2-00043676.fit
1.5
1.0
0.5
0.0
1.006
1.004
1.002
1.000
0.998
0.996
0.994
0.992
0.990
4000
4500
5000
5500
6000
Wavelength (Å)

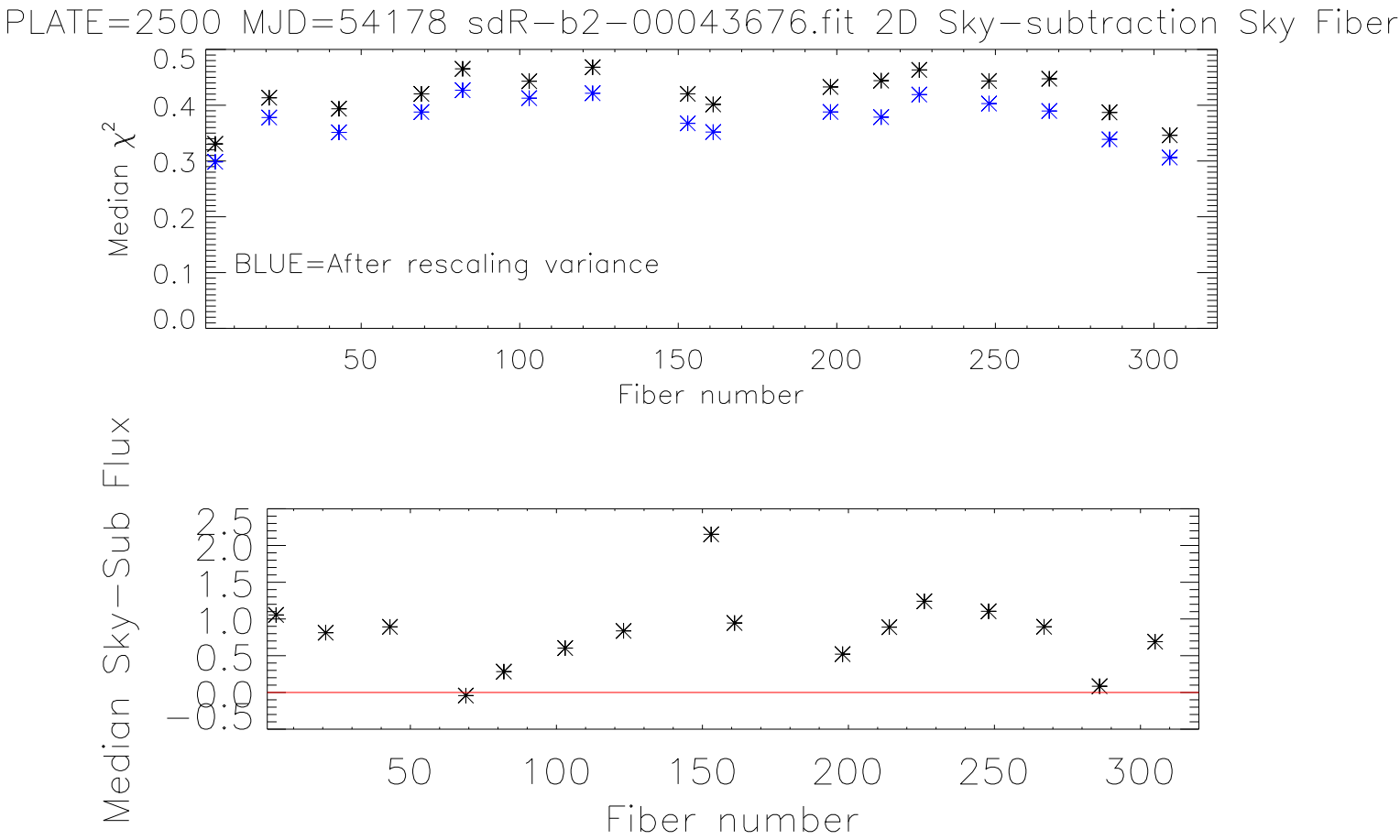
es= −0.0000

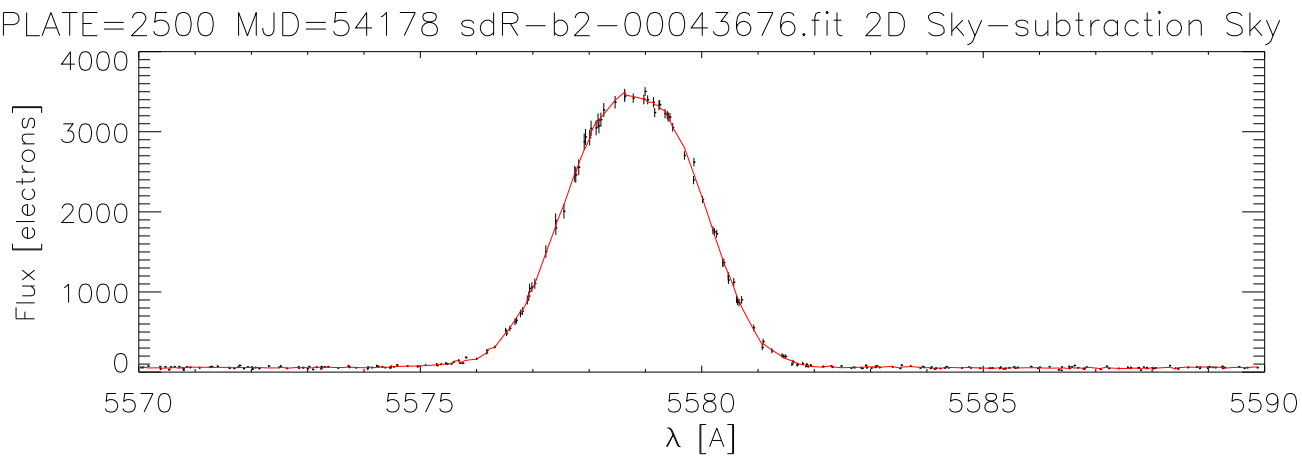

PLATE=2500 MJD=54178 sdR-b2-00043676.fit 1D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

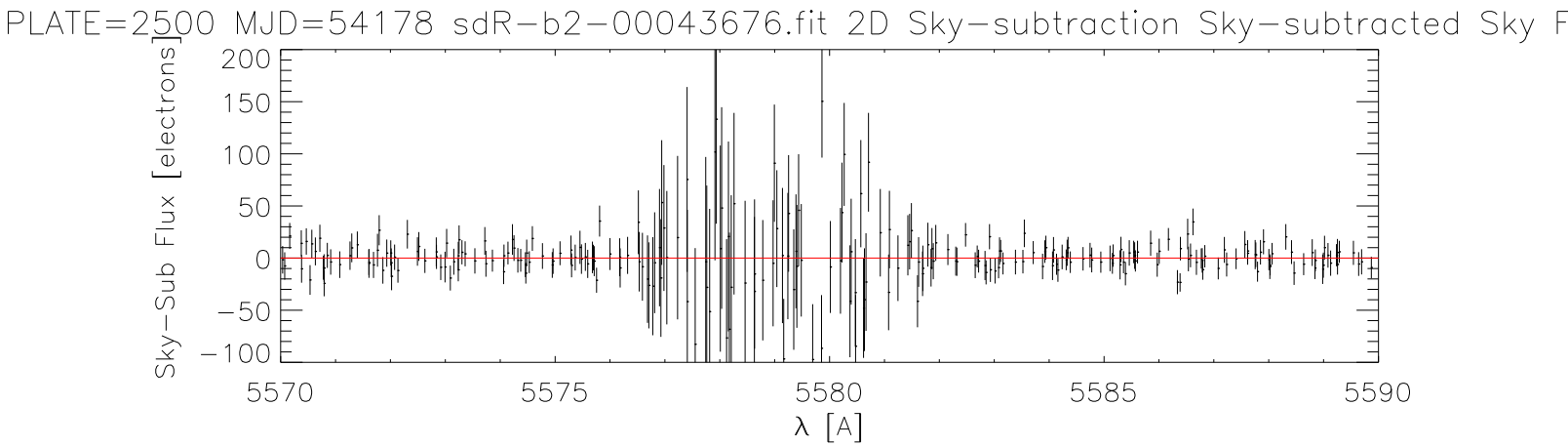

PLATE=2500 MJD=54178 sdR-b2-00043676.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

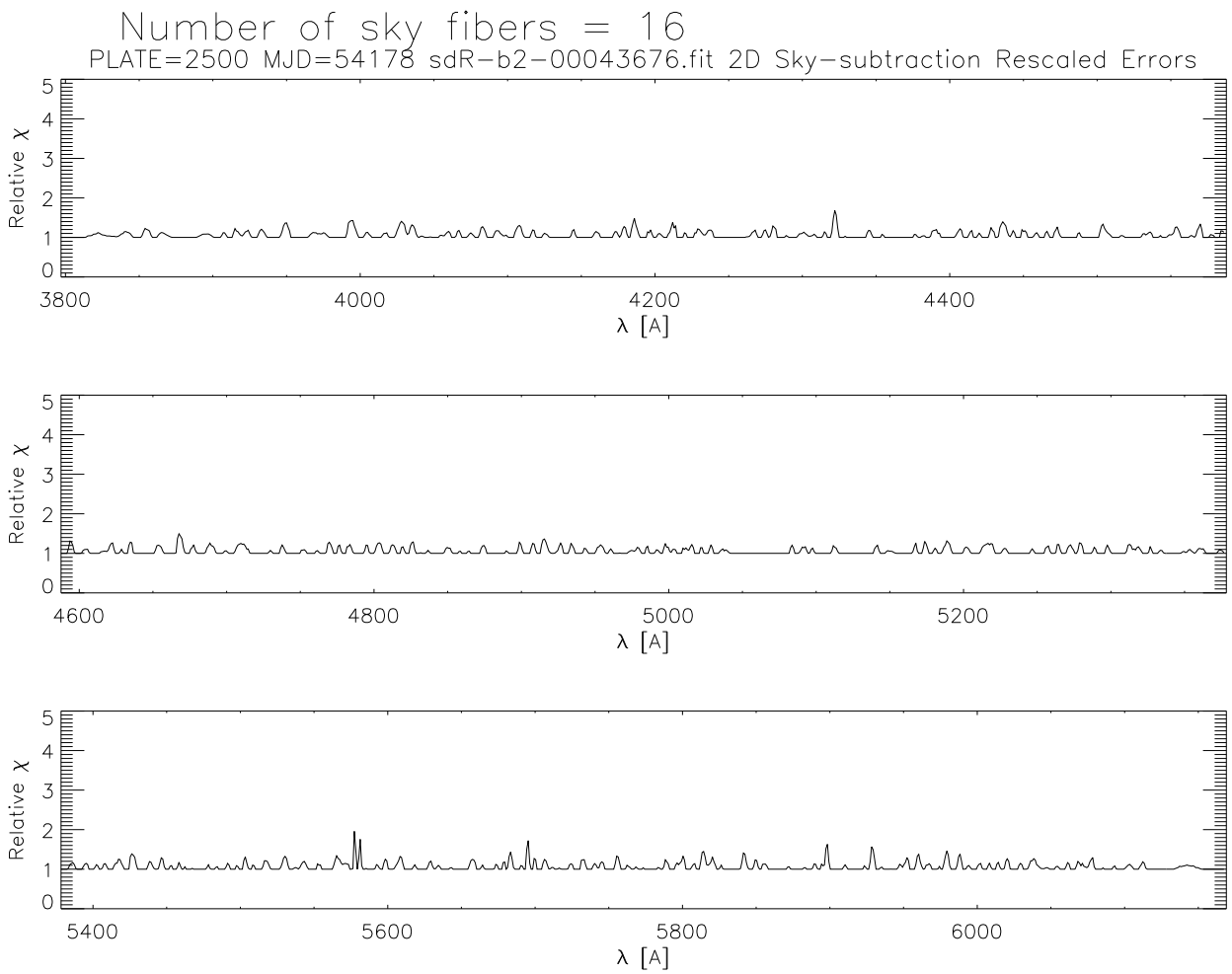

PLATE=2500 MJD=54178 sdR-b2-00043676.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
150
100
50
0
-50
-100
-150
5570
5575
5580
5585
5590
λ [A]

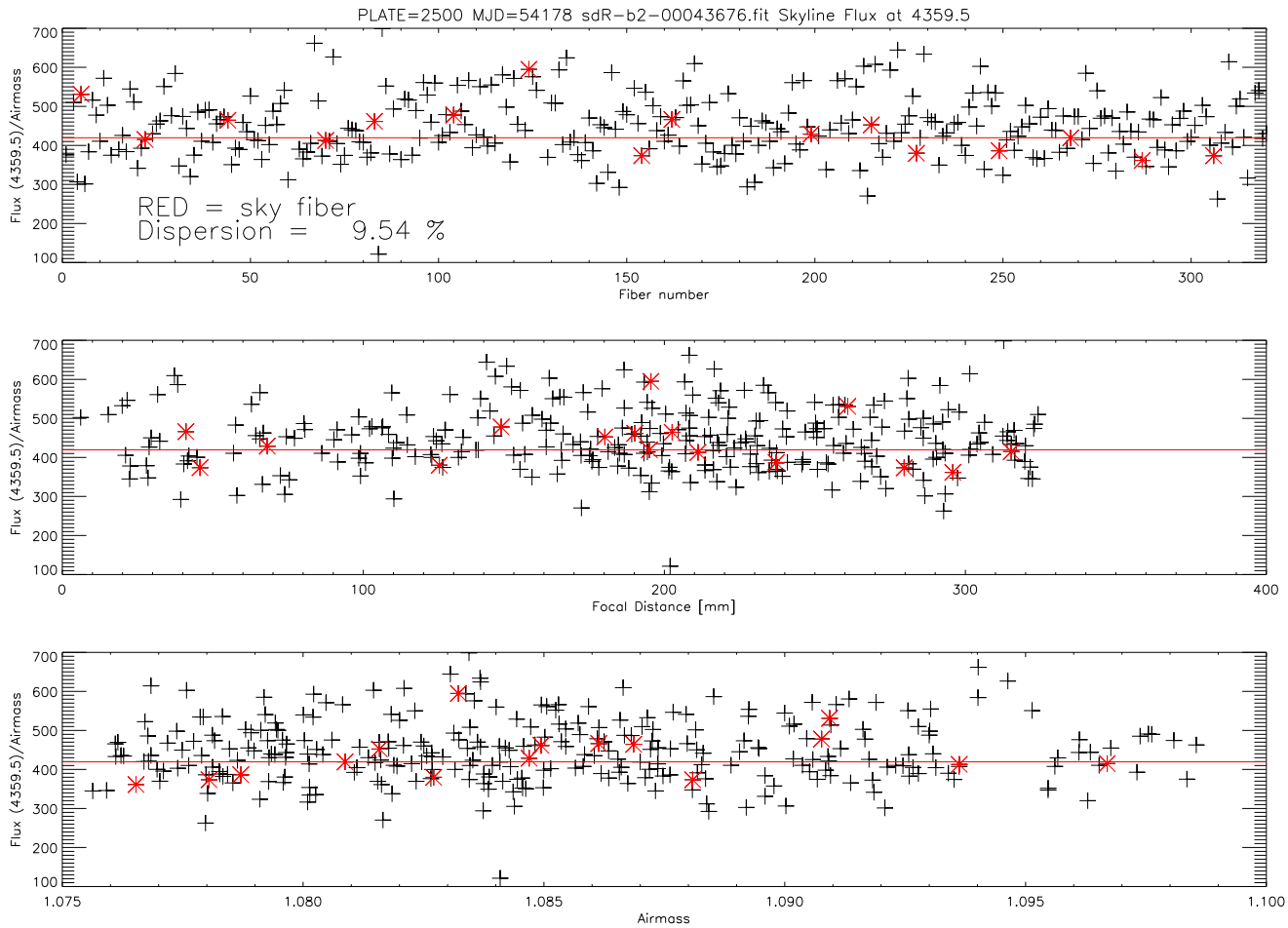

Number of sky fibers = 16
PLATE=2500 MJD=54178 sdR-b2-00043676.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

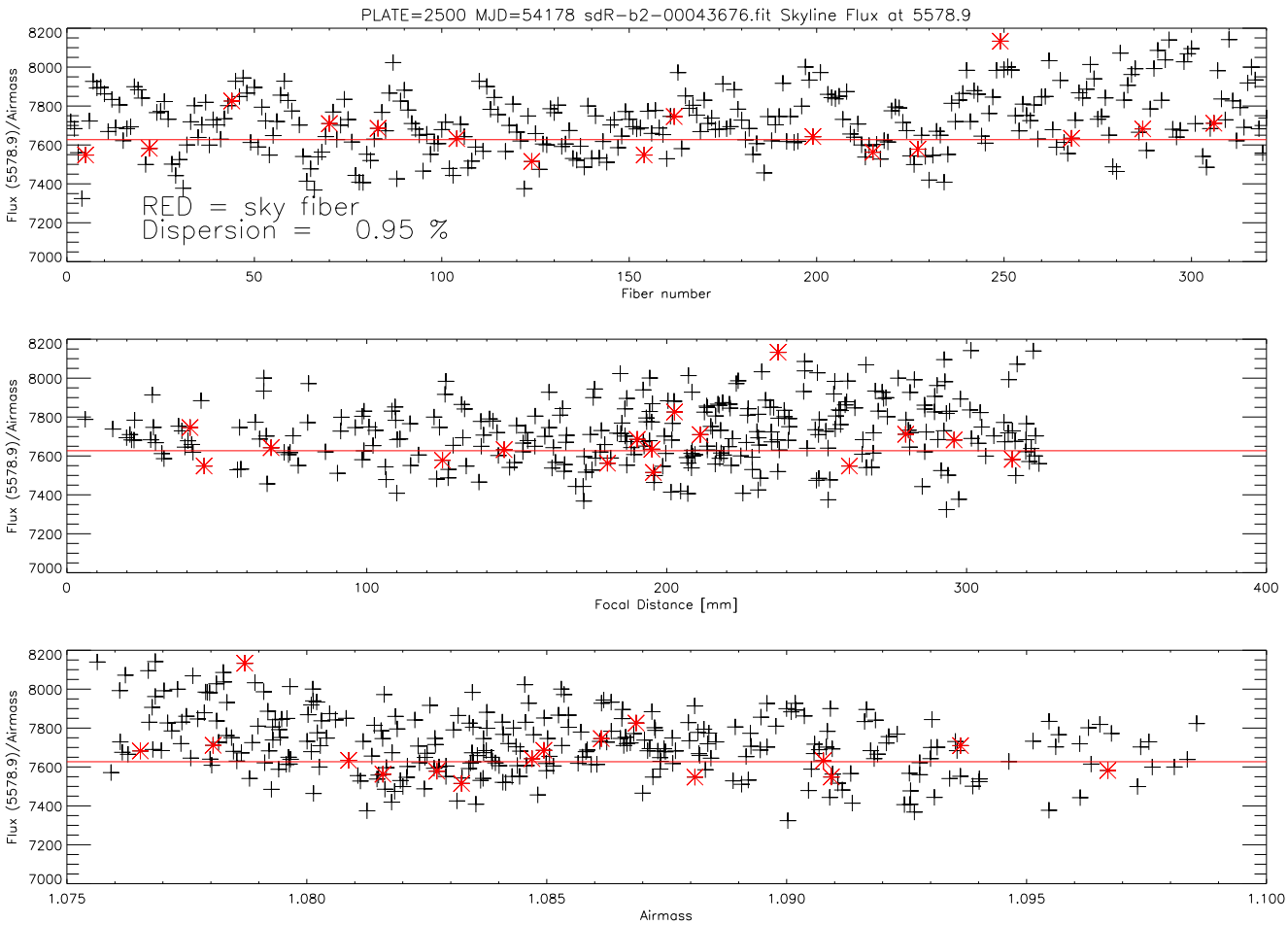

PLATE=2500 MJD=54178 sdR-b2-00043676.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

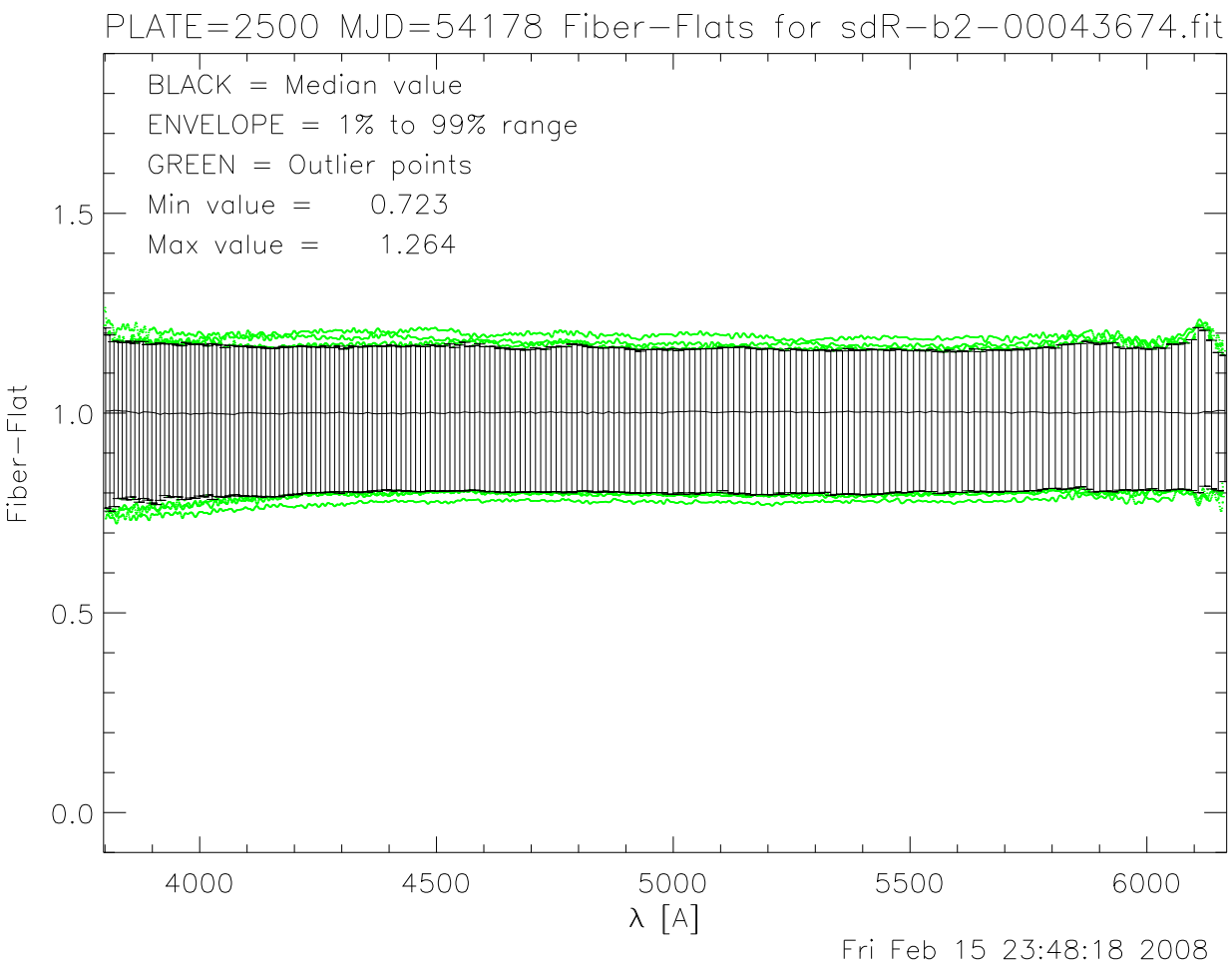

PLATE=2500 MJD=54178 sdR-b2-00043676.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

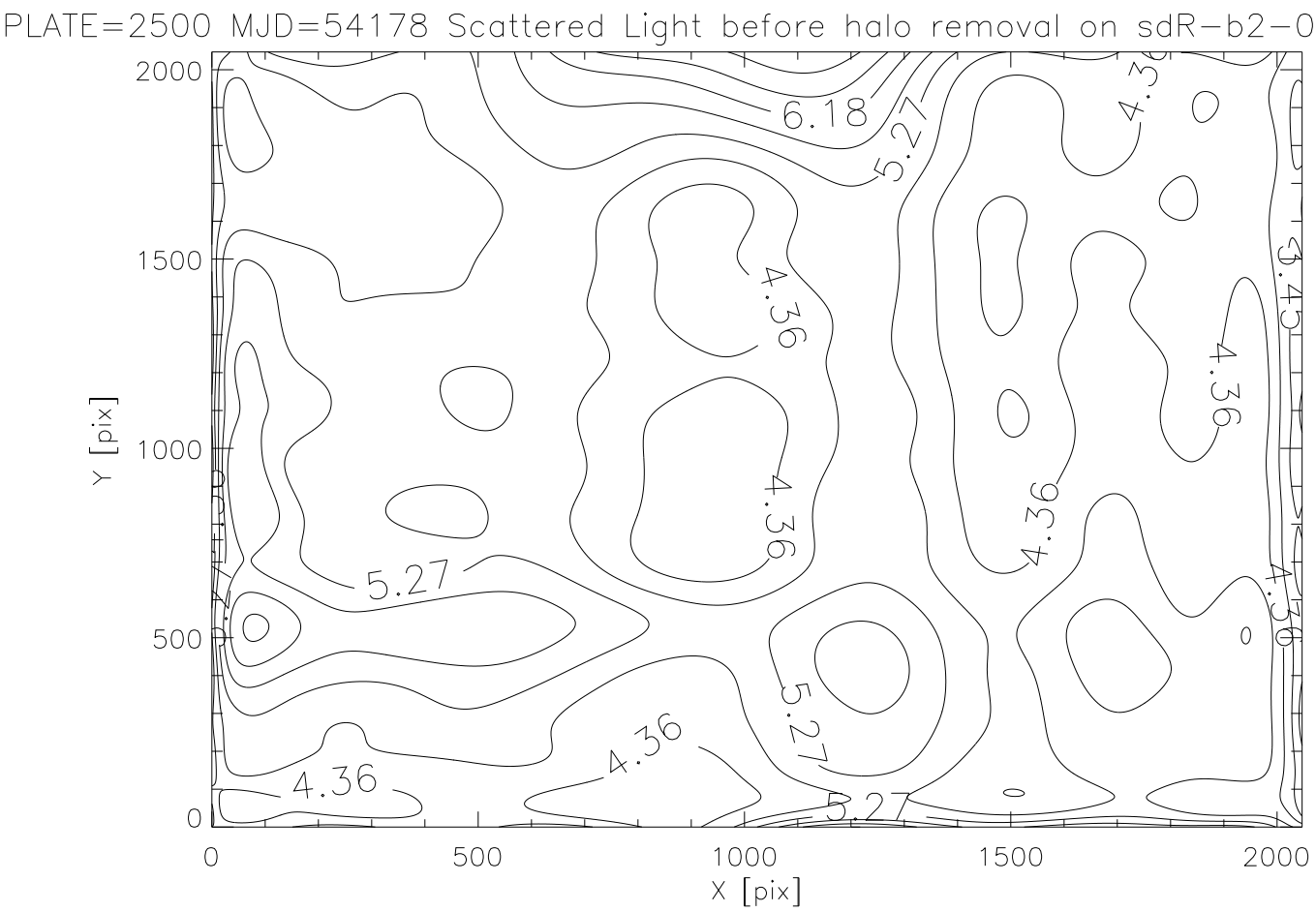

PLATE=2500 MJD=54178 sdR-b2-00043676.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
150
100
50
0
-50
-100
5570
5575
5580
5585
5590
λ [A]

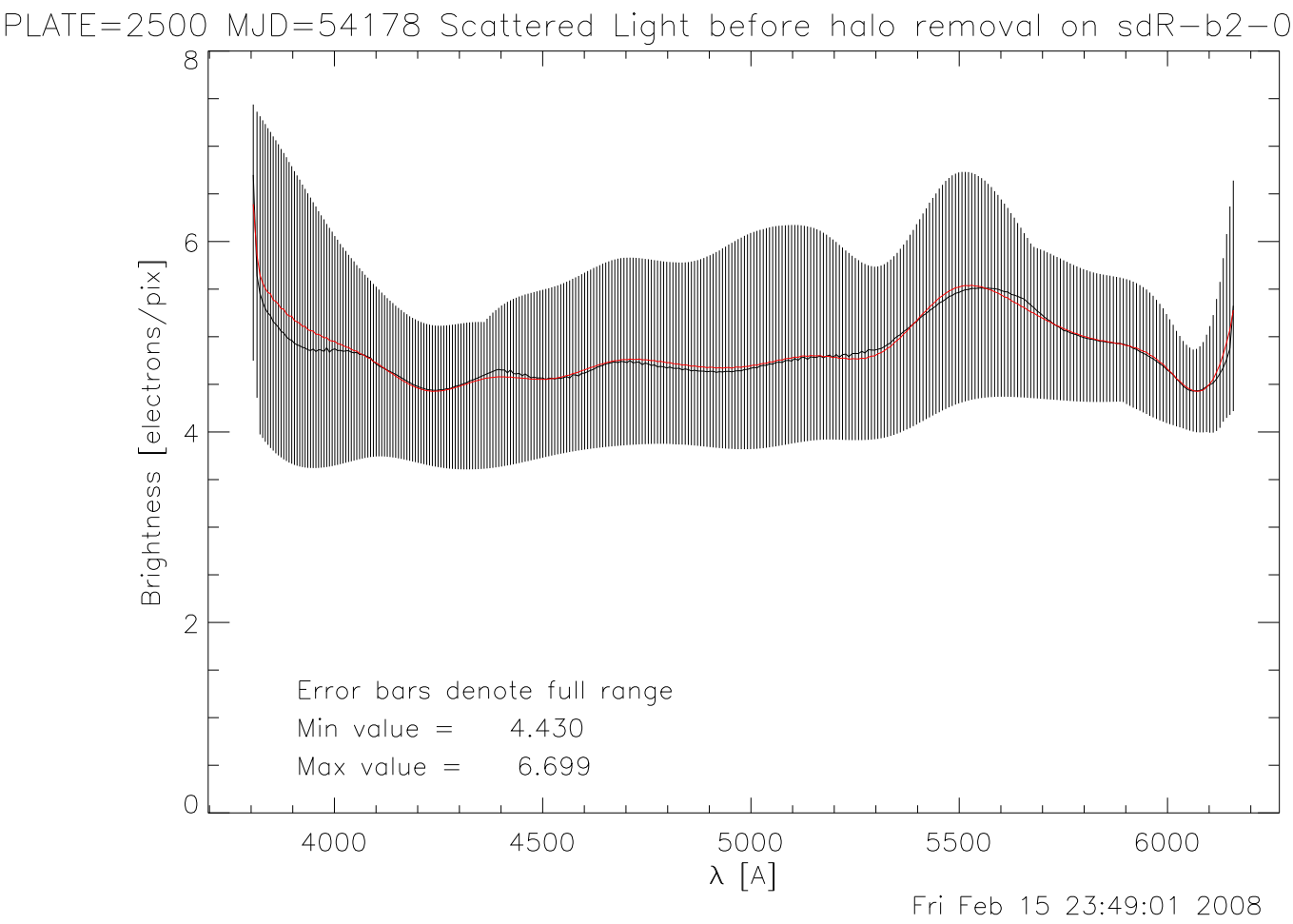

Number of sky fibers = 16
PLATE=2500 MJD=54178 sdR-b2-00043676.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

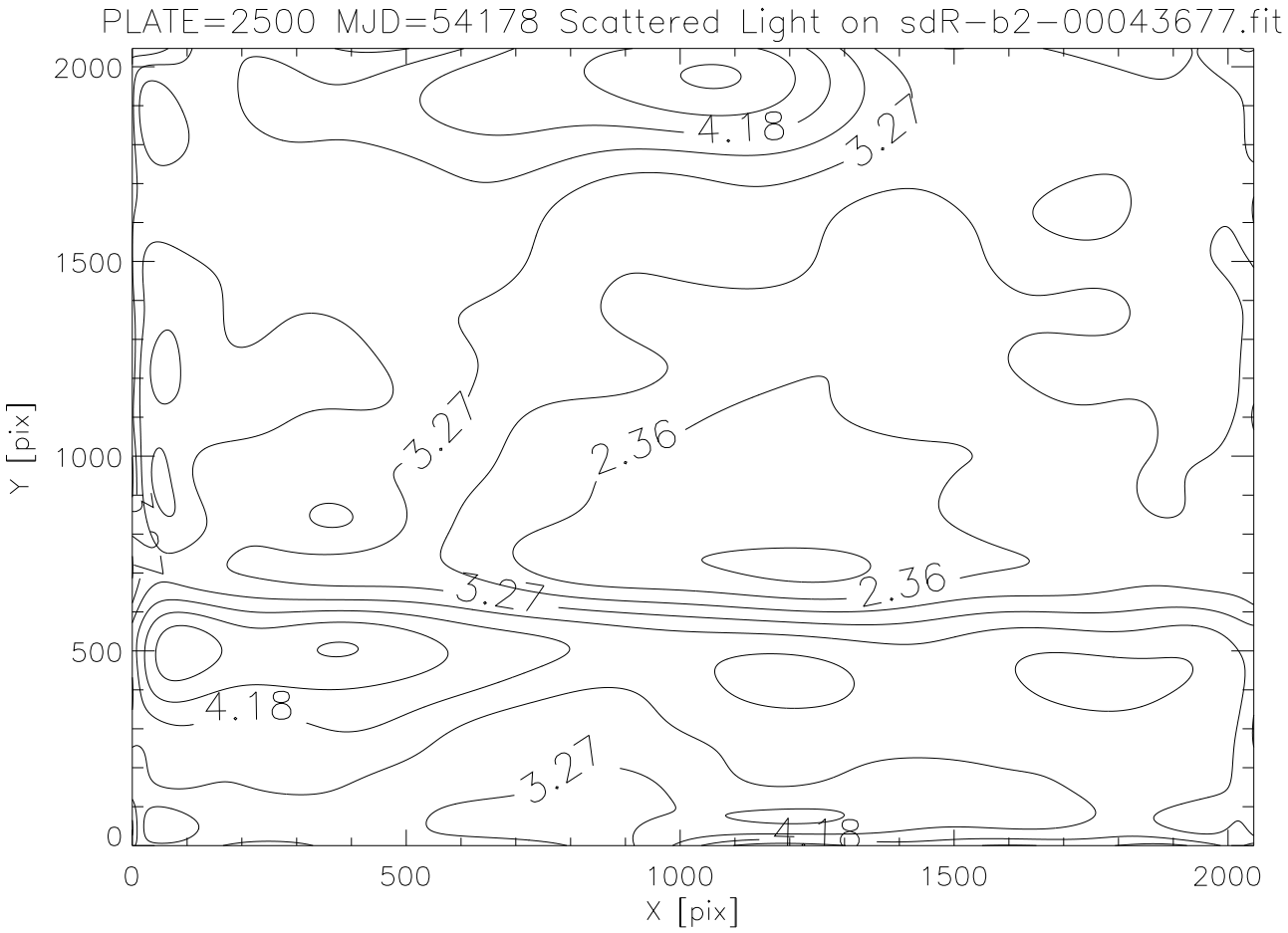

PLATE=2500 MJD=54178 sdR-b2-00043676.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 9.54 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

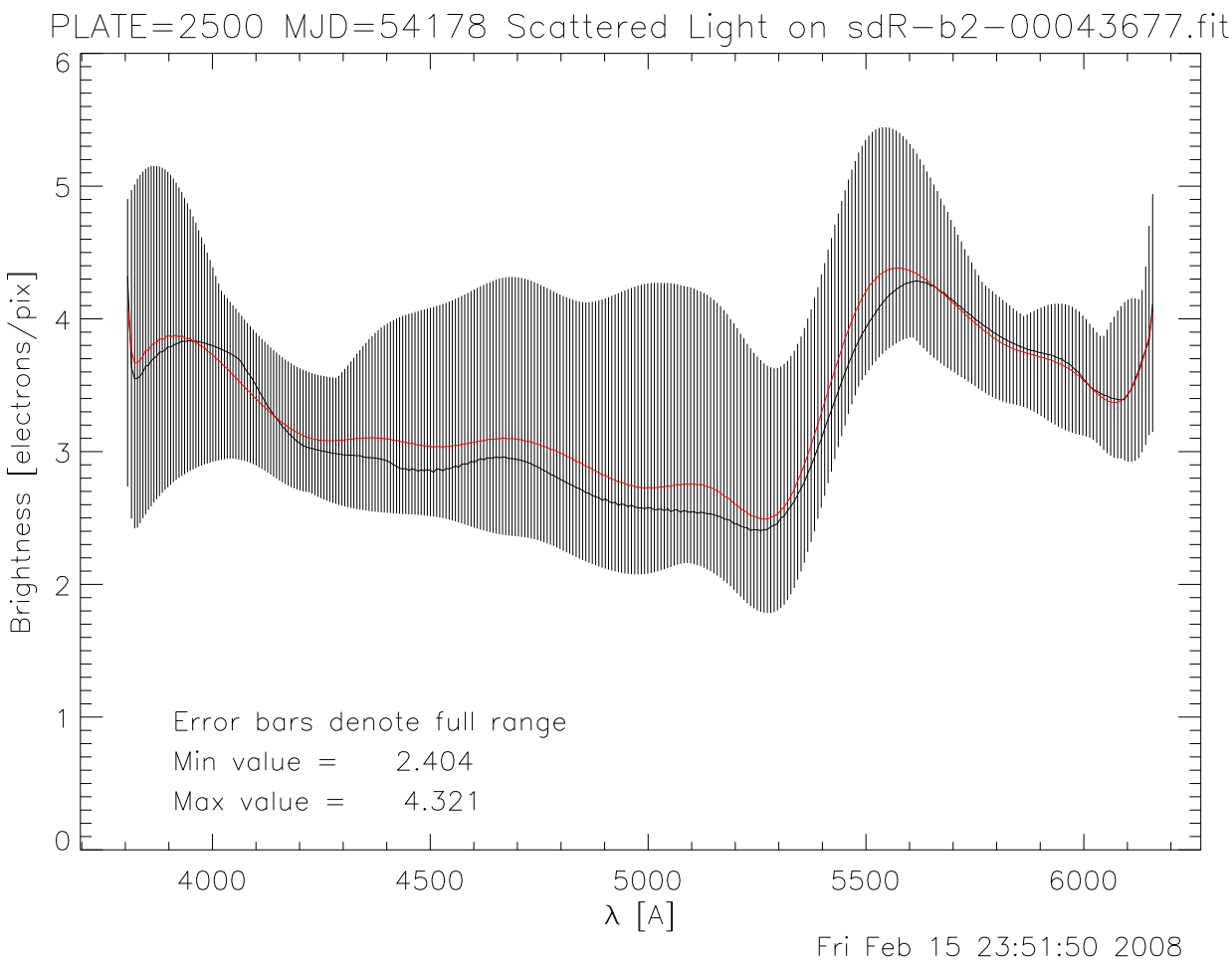

PLATE=2500 MJD=54178 sdR-b2-00043676.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 0.95 %
Fiber number
Flux (5578.9)/Airmass
Focal Distance [mm]
Flux (5578.9)/Airmass
Airmass

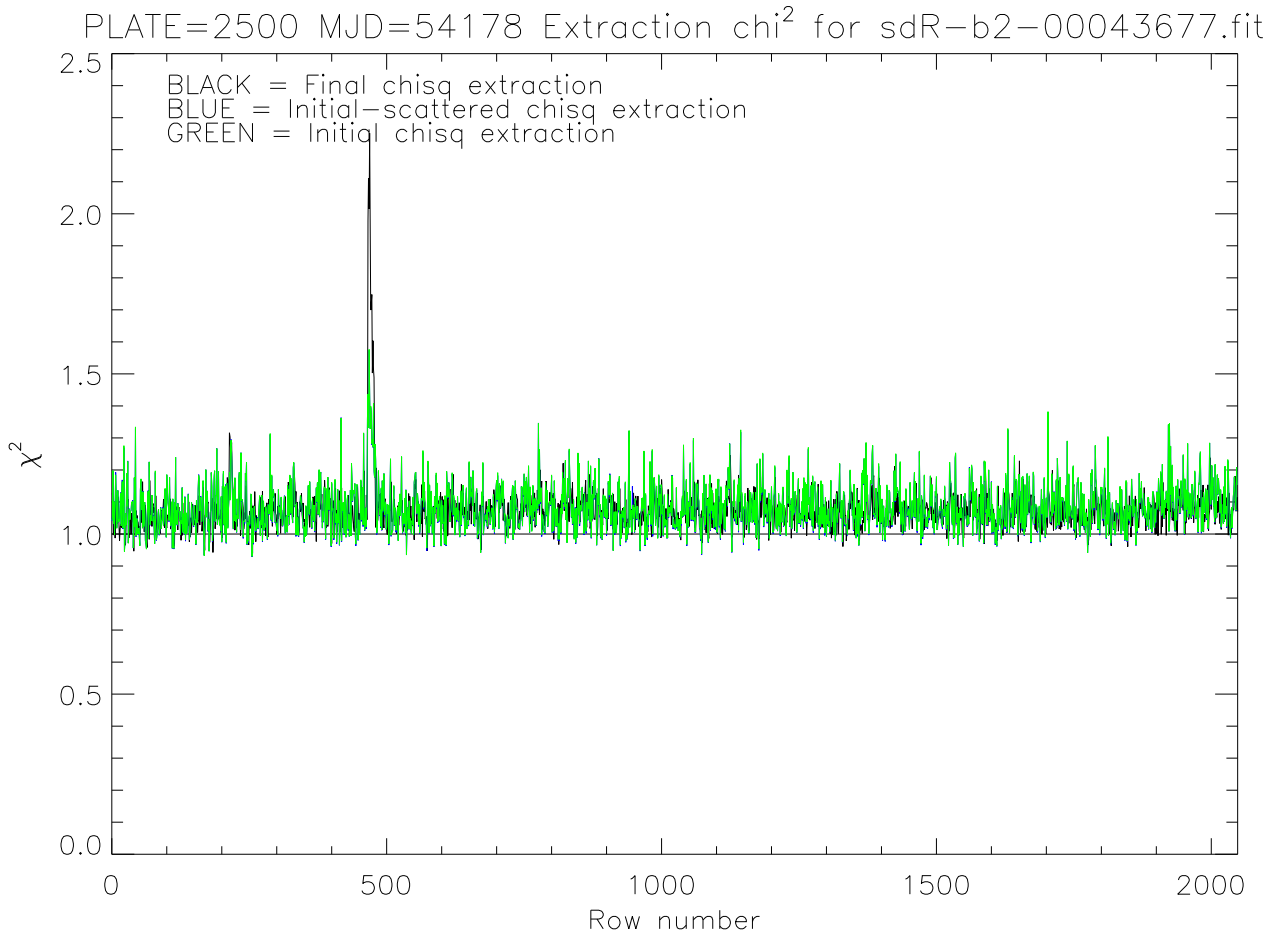

PLATE=2500 MJD=54178 Fiber-Flats for sdR-b2-00043674.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.723
Max value = 1.264
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Fri Feb 15 23:48:18 2008

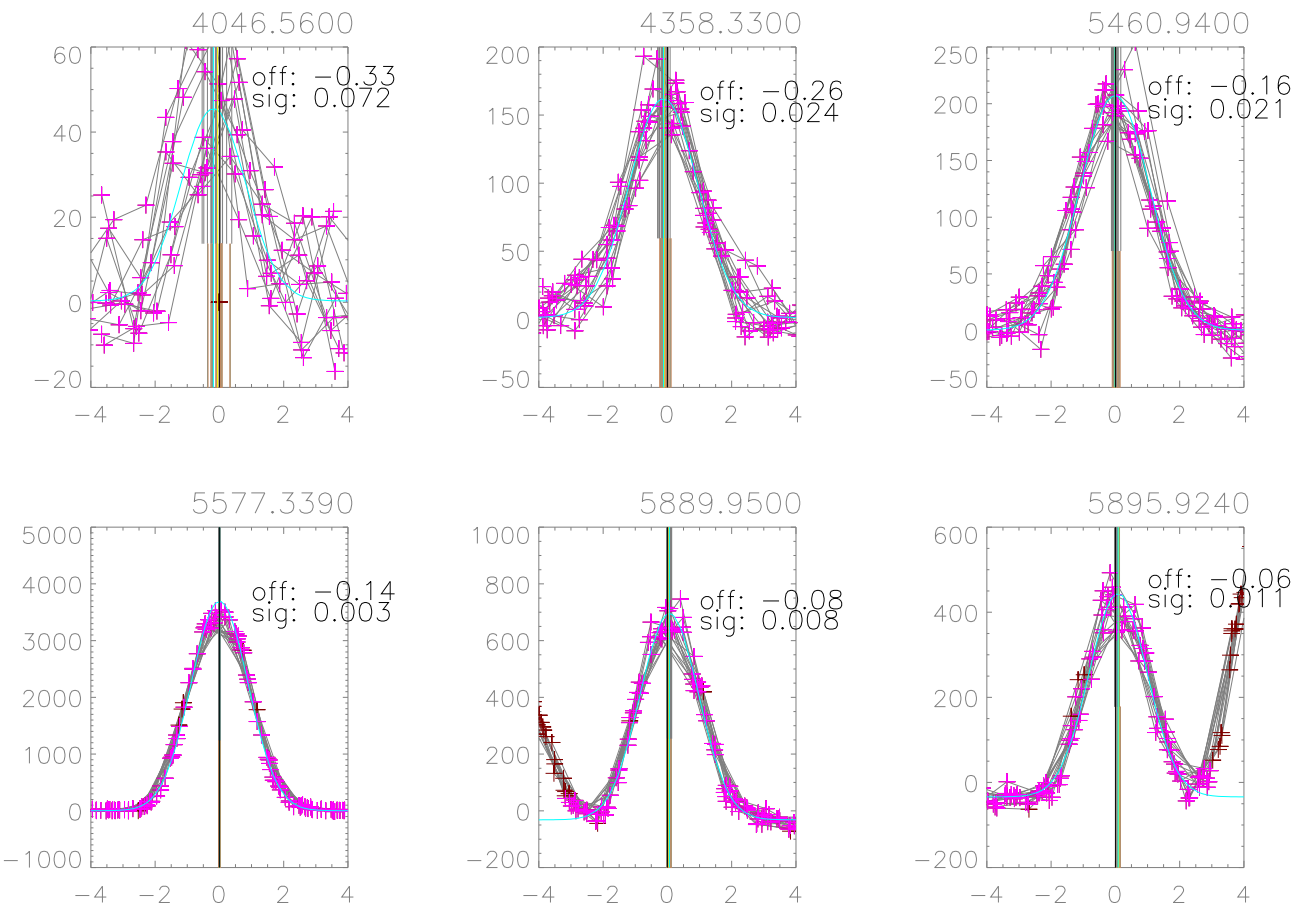

PLATE=2500 MJD=54178 Scattered Light before halo removal on sdR-b2-00043677.f
6.18
5.27
4.36
5.27
4.36
4.36
5.27
4.36
5.27
4.36
0
Y [pix]
X [pix]
0
500
1000
1500
2000

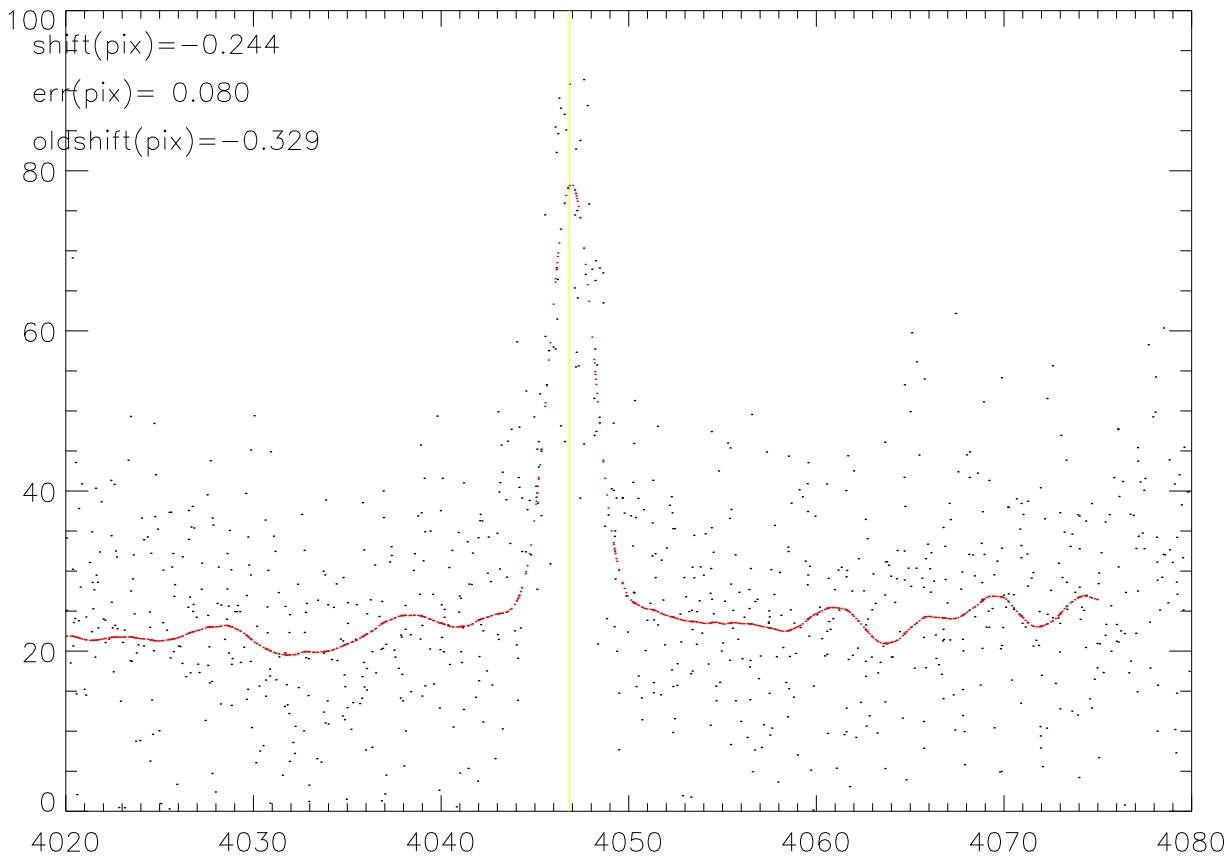

PLATE=2500 MJD=54178 Scattered Light before halo removal on sdR-b2-00043677.f
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 4.430
Max value = 6.699
Fri Feb 15 23:49:01 2008

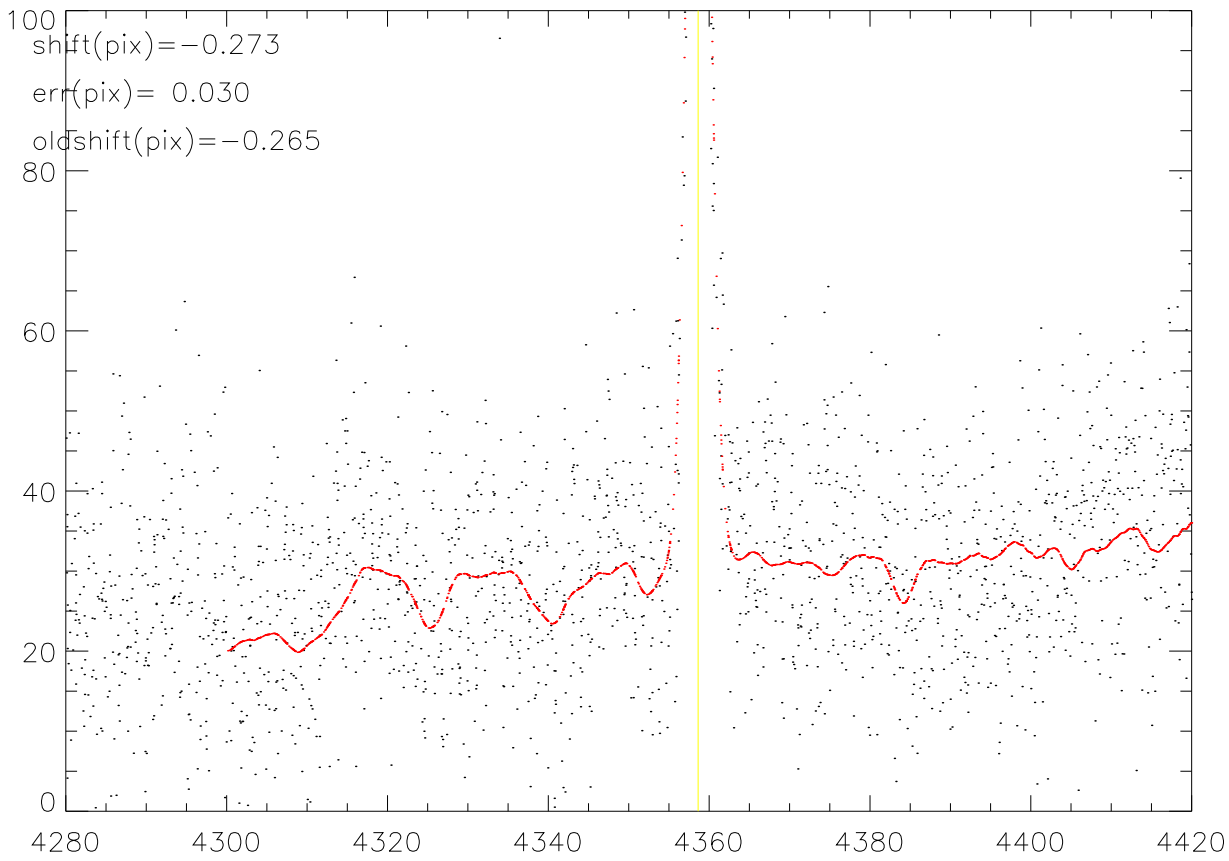

PLATE=2500 MJD=54178 Scattered Light on sdR-b2-00043677.fit
4.18
3.27
3.27
2.36
3.27
2.36
4.18
3.27
4.18
Y [pix]
X [pix]
0
500
1000
1500
2000

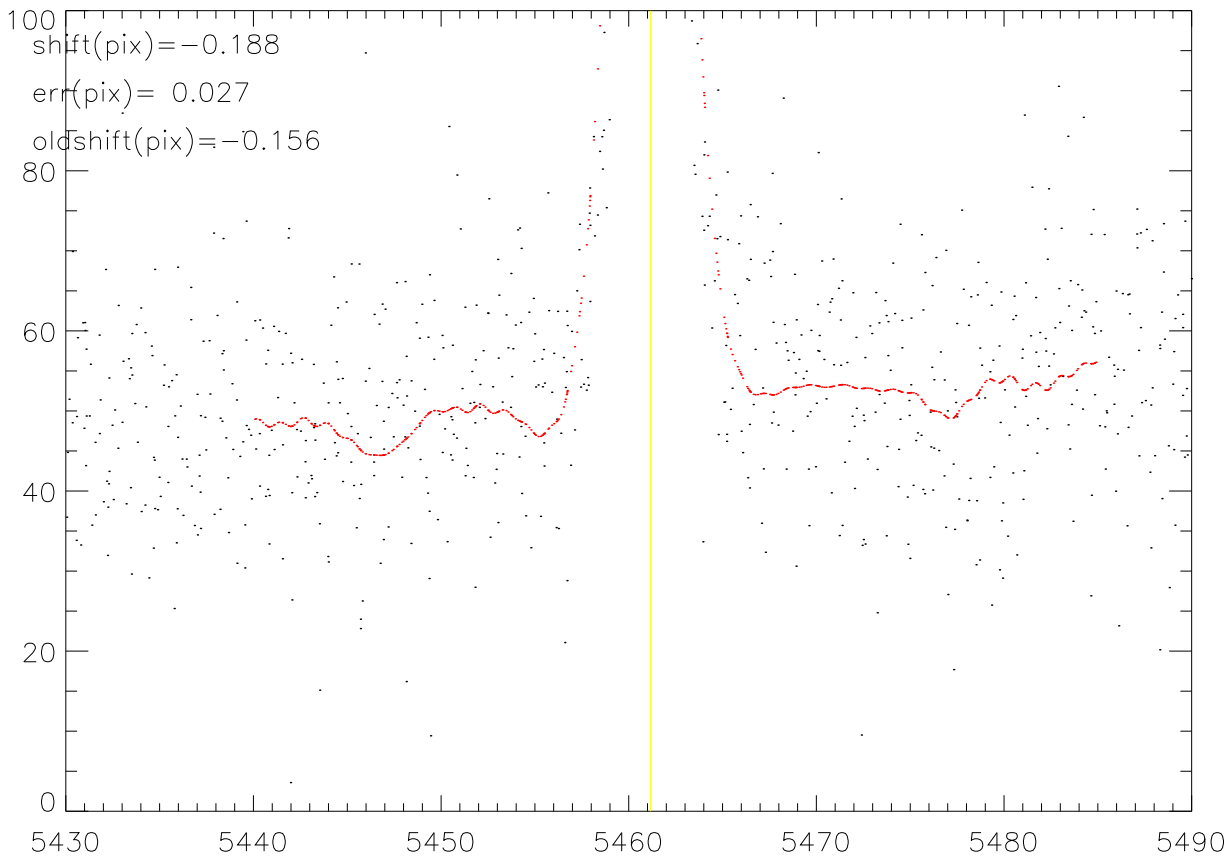

PLATE=2500 MJD=54178 Scattered Light on sdR-b2-00043677.fit
Brightness [electrons/pix]
0
1
2
3
4
5
6
Error bars denote full range
Min value = 2.404
Max value = 4.321
4000
4500
5000
5500
6000
λ [A]
Fri Feb 15 23:51:50 2008

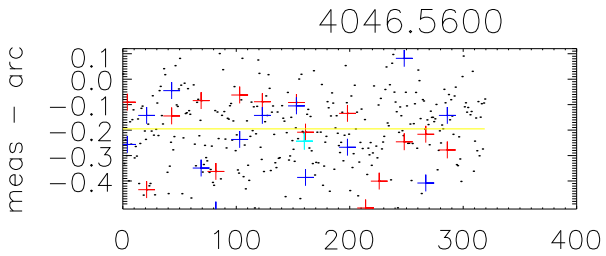

PLATE=2500 MJD=54178 Extraction chi^2 for sdR-b2-00043677.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
2.5
2.0
1.5
1.0
0.5
0.0
0
500
1000
1500
2000
Row number

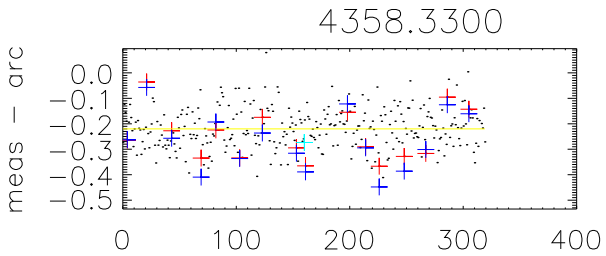

4046.5600
off: −0.33
sig: 0.072
4358.3300
off: −0.26
sig: 0.024
5460.9400
off: −0.16
sig: 0.021
5577.3390
off: −0.14
sig: 0.003
5889.9500
off: −0.08
sig: 0.008
5895.9240
off: −0.06
sig: 0.011

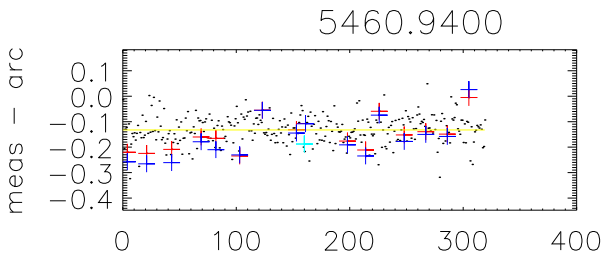

shift(pix)=−0.244
err(pix)= 0.080
oldshift(pix)=−0.329
100
80
60
40
20
0
4020
4030
4040
4050
4060
4070
4080

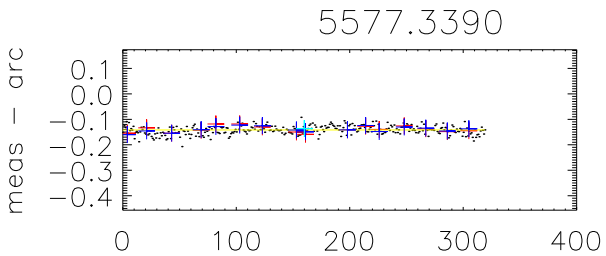

shift(pix)=−0.273
err(pix)= 0.030
oldshift(pix)=−0.265
100
80
60
40
20
0
4280
4300
4320
4340
4360
4380
4400
4420

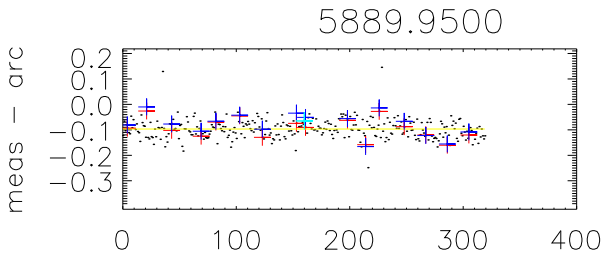

shift(pix)=−0.188
err(pix)= 0.027
oldshift(pix)=−0.156
100
80
60
40
20
0
5430
5440
5450
5460
5470
5480
5490

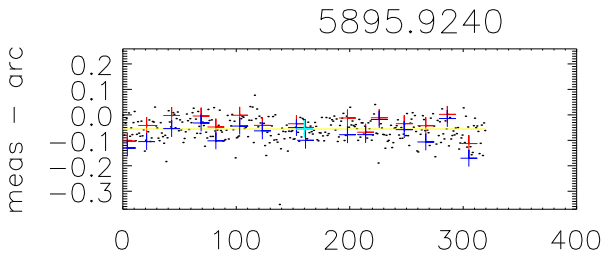

4046.5600
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

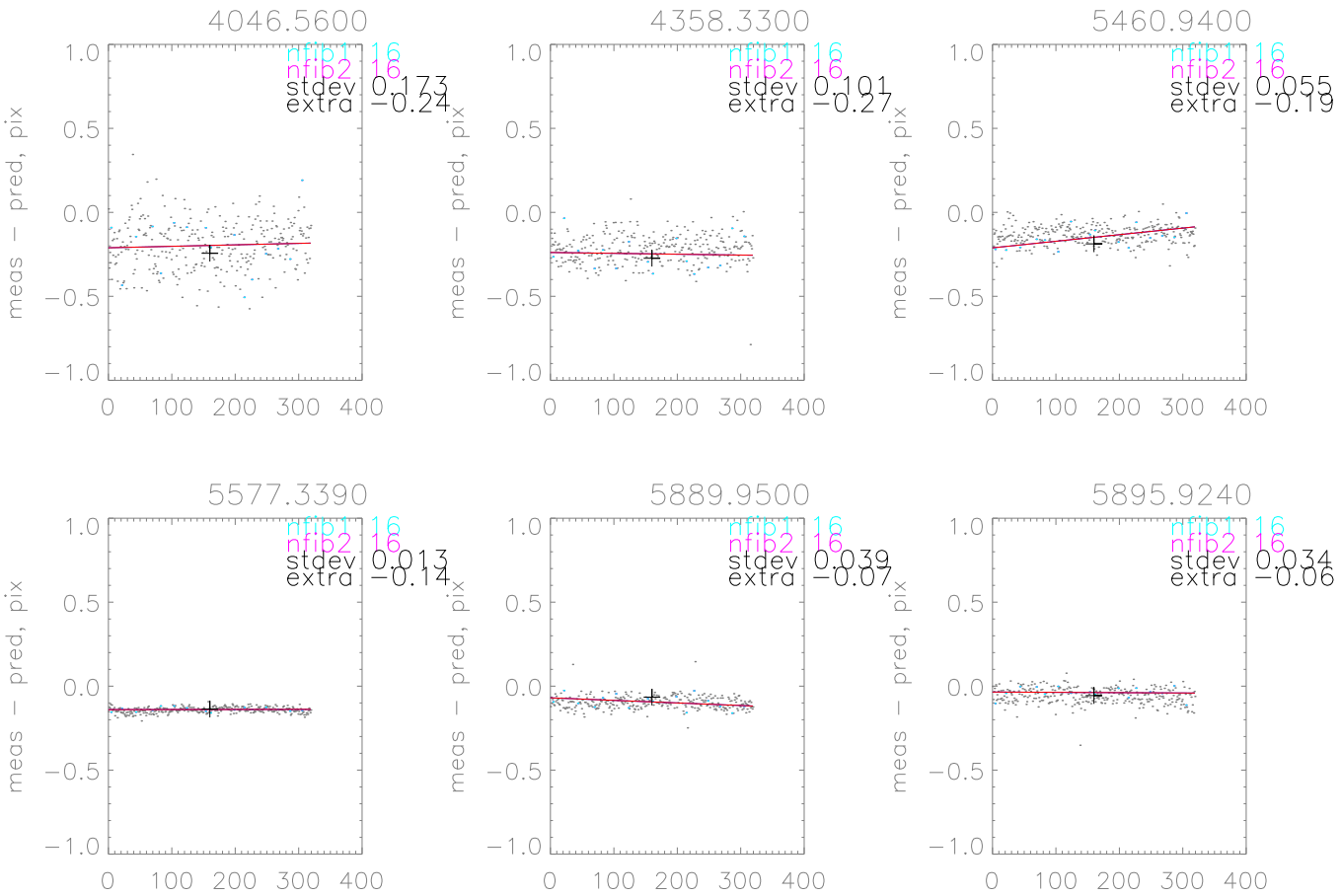

4358.3300
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

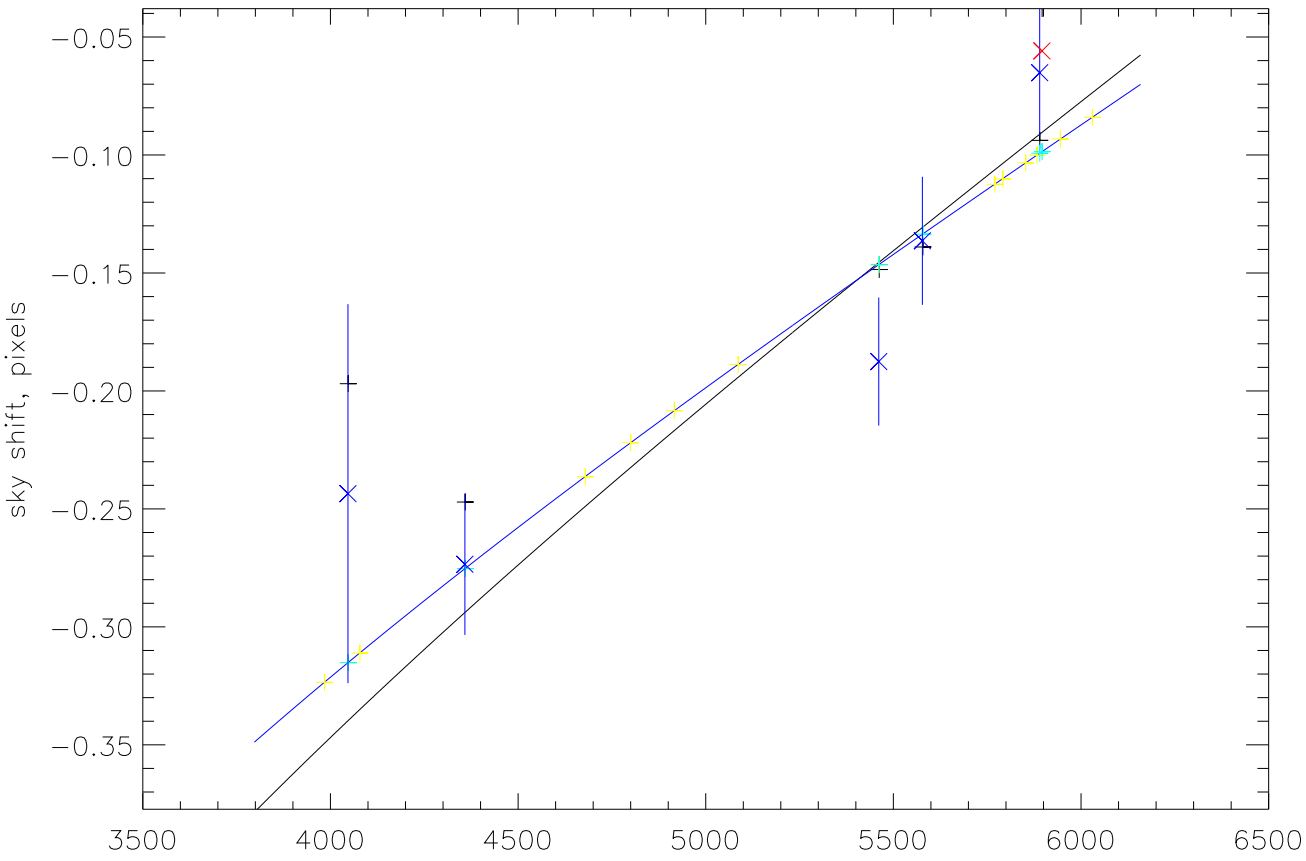

5460.9400
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

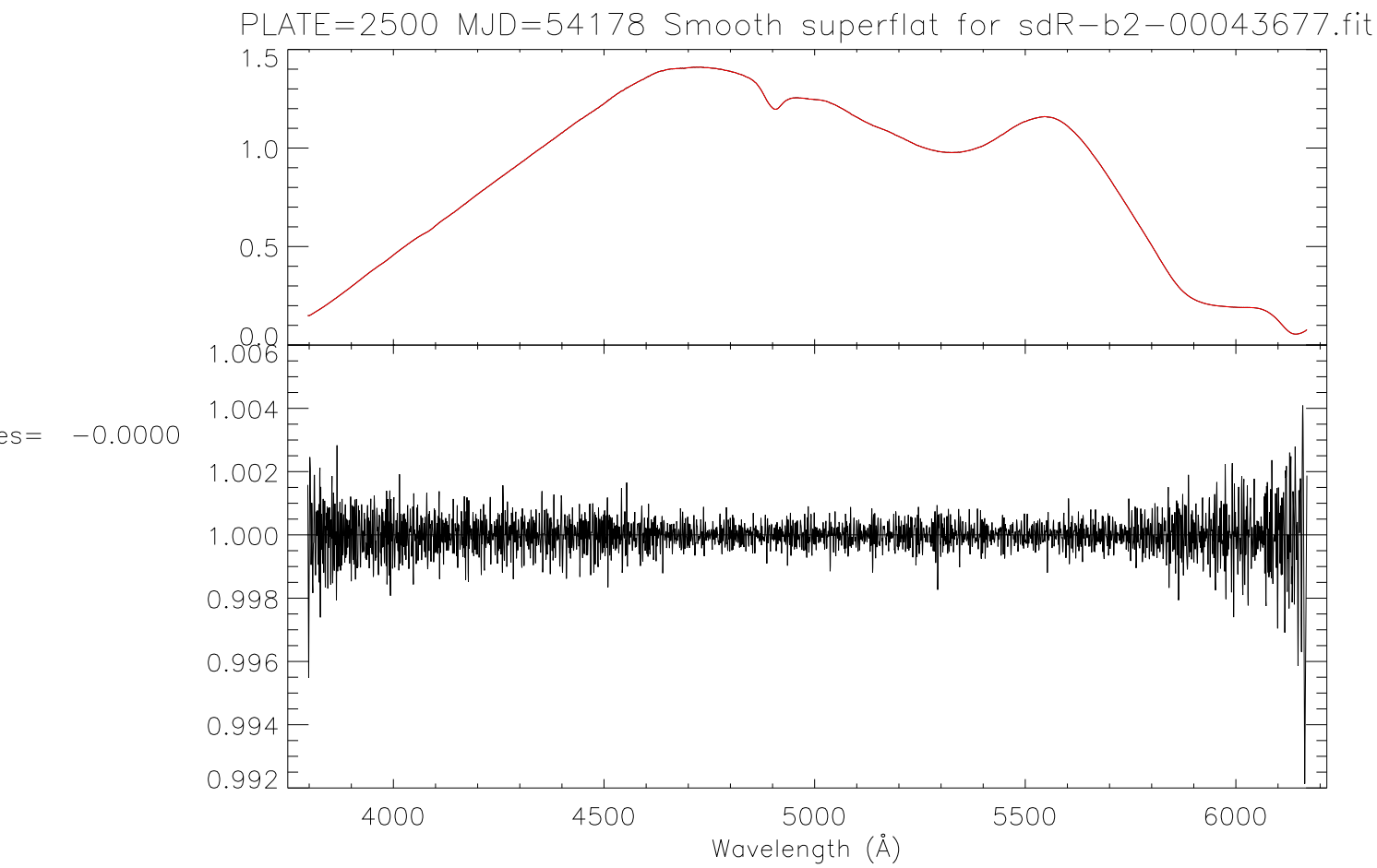

5577.3390
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400


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

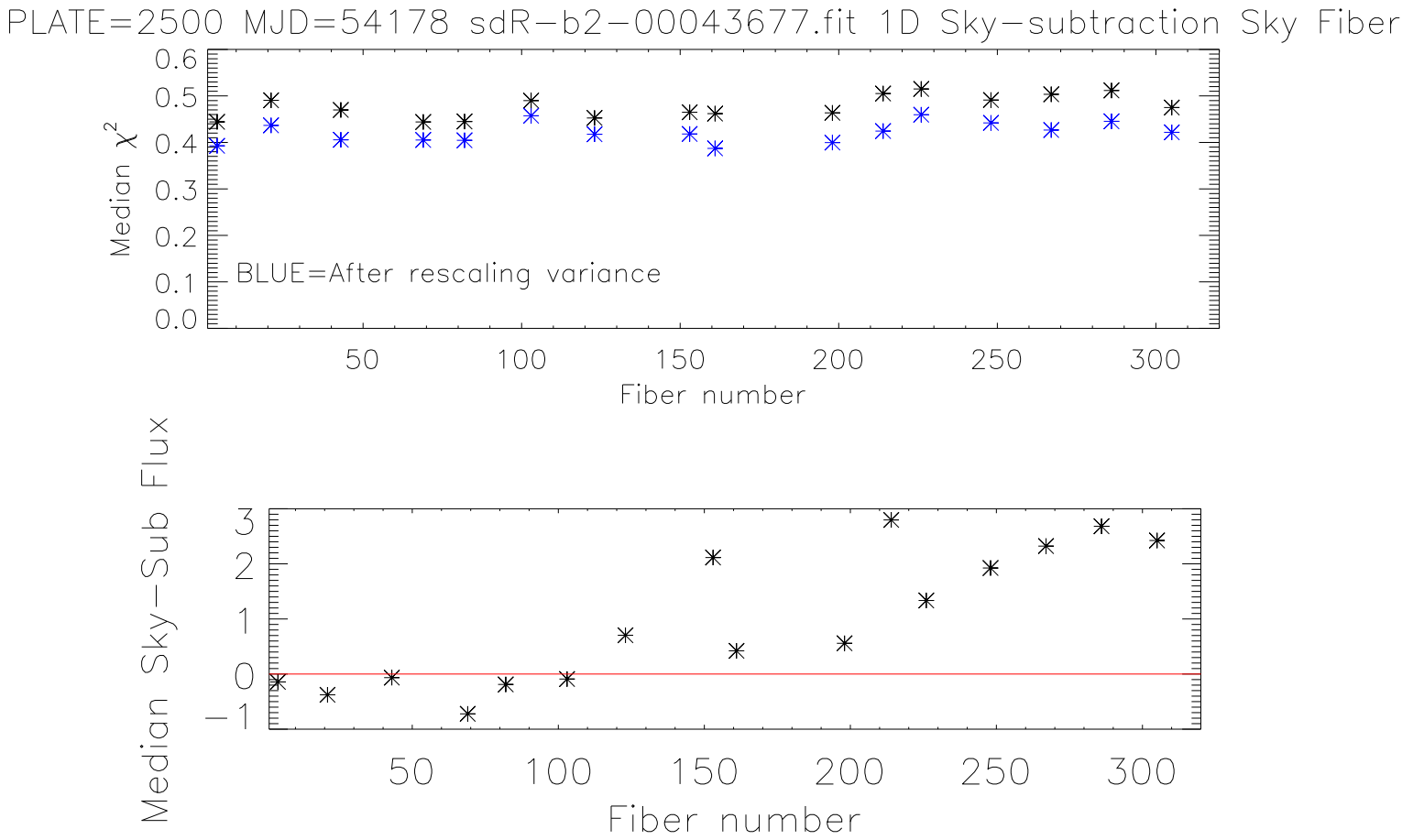

5895.9240
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

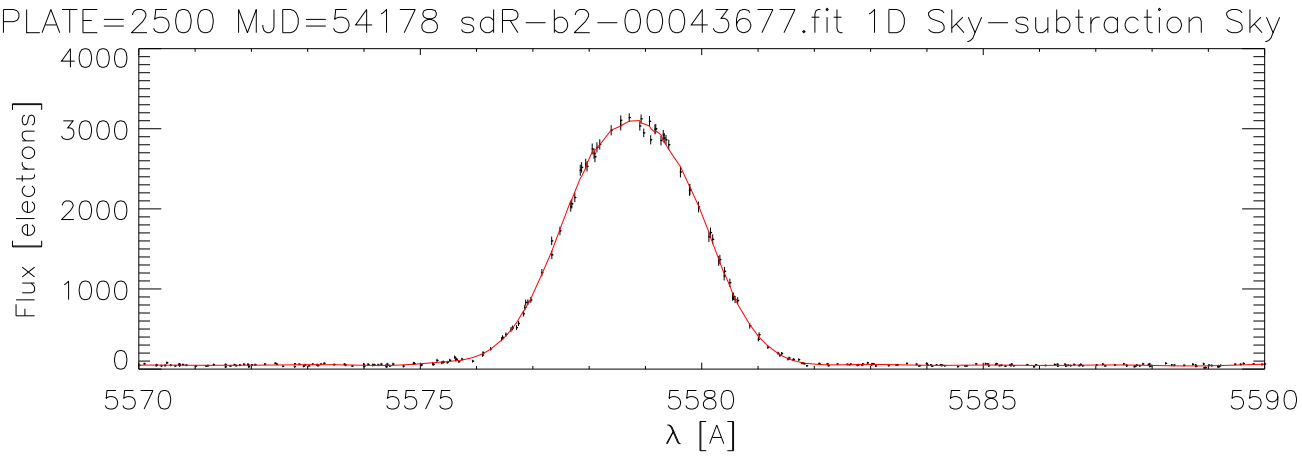

4046.5600
nfib1 16
nfib2 16
stdev 0.173
extra −0.24
4358.3300
nfib1 16
nfib2 16
stdev 0.101
extra −0.27
5460.9400
nfib1 16
nfib2 16
stdev 0.055
extra −0.19
5577.3390
nfib1 16
nfib2 16
stdev 0.013
extra −0.14
5889.9500
nfib1 16
nfib2 16
stdev 0.039
extra −0.07
5895.9240
nfib1 16
nfib2 16
stdev 0.034
extra −0.06
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

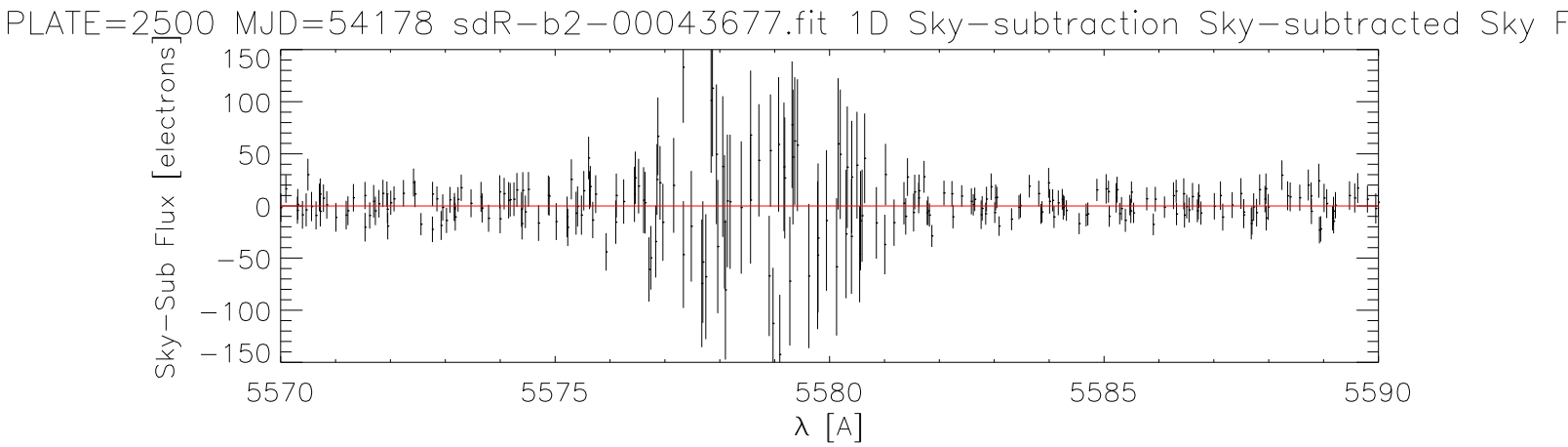

−0.05
−0.10
−0.15
−0.20
−0.25
−0.30
−0.35
sky shift, pixels
3500
4000
4500
5000
5500
6000
6500

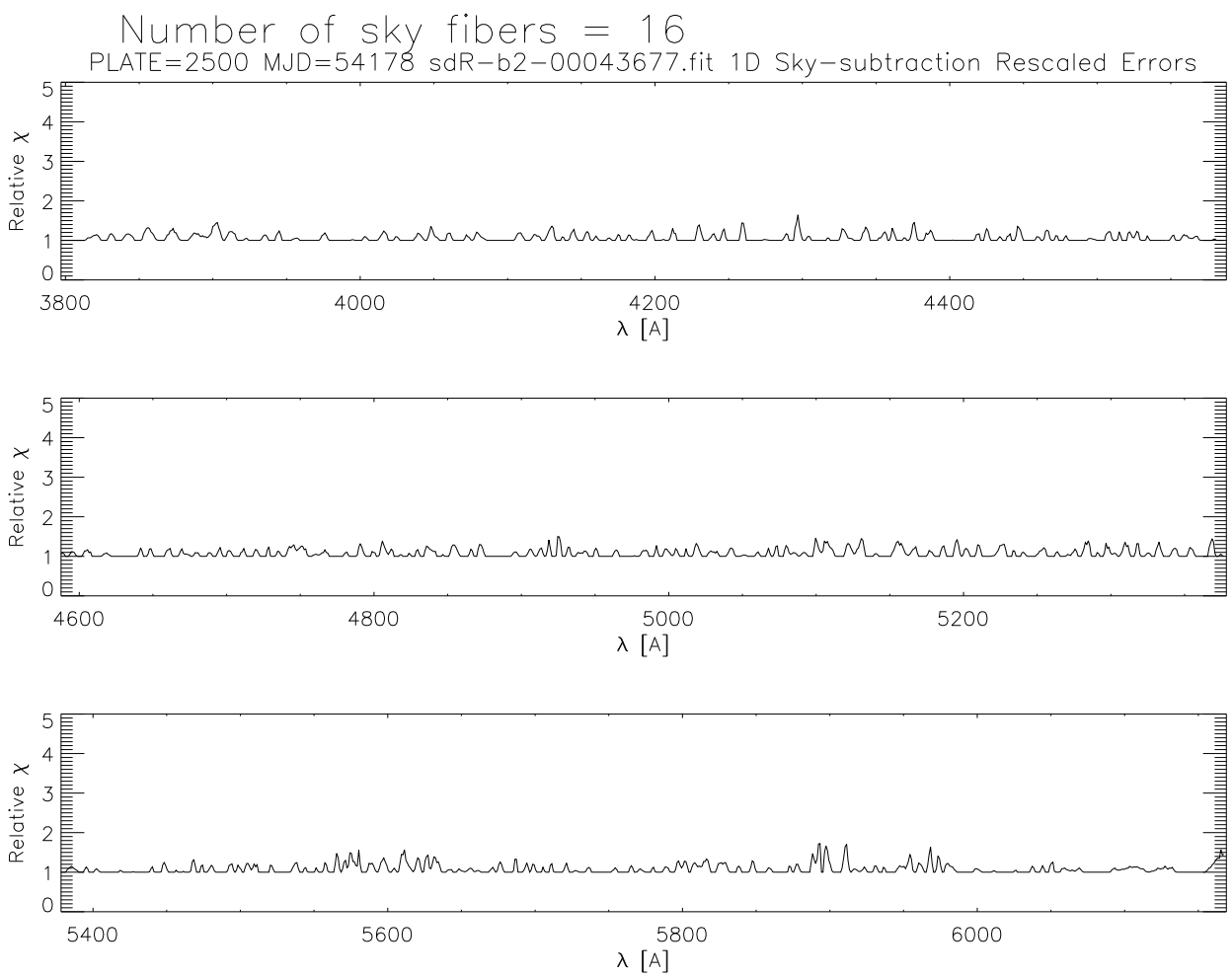

PLATE=2500 MJD=54178 Smooth superflat for sdR-b2-00043677.fit
1.5
1.0
0.5
0.0
1.006
1.004
1.002
1.000
0.998
0.996
0.994
0.992
4000
4500
5000
5500
6000
Wavelength (Å)

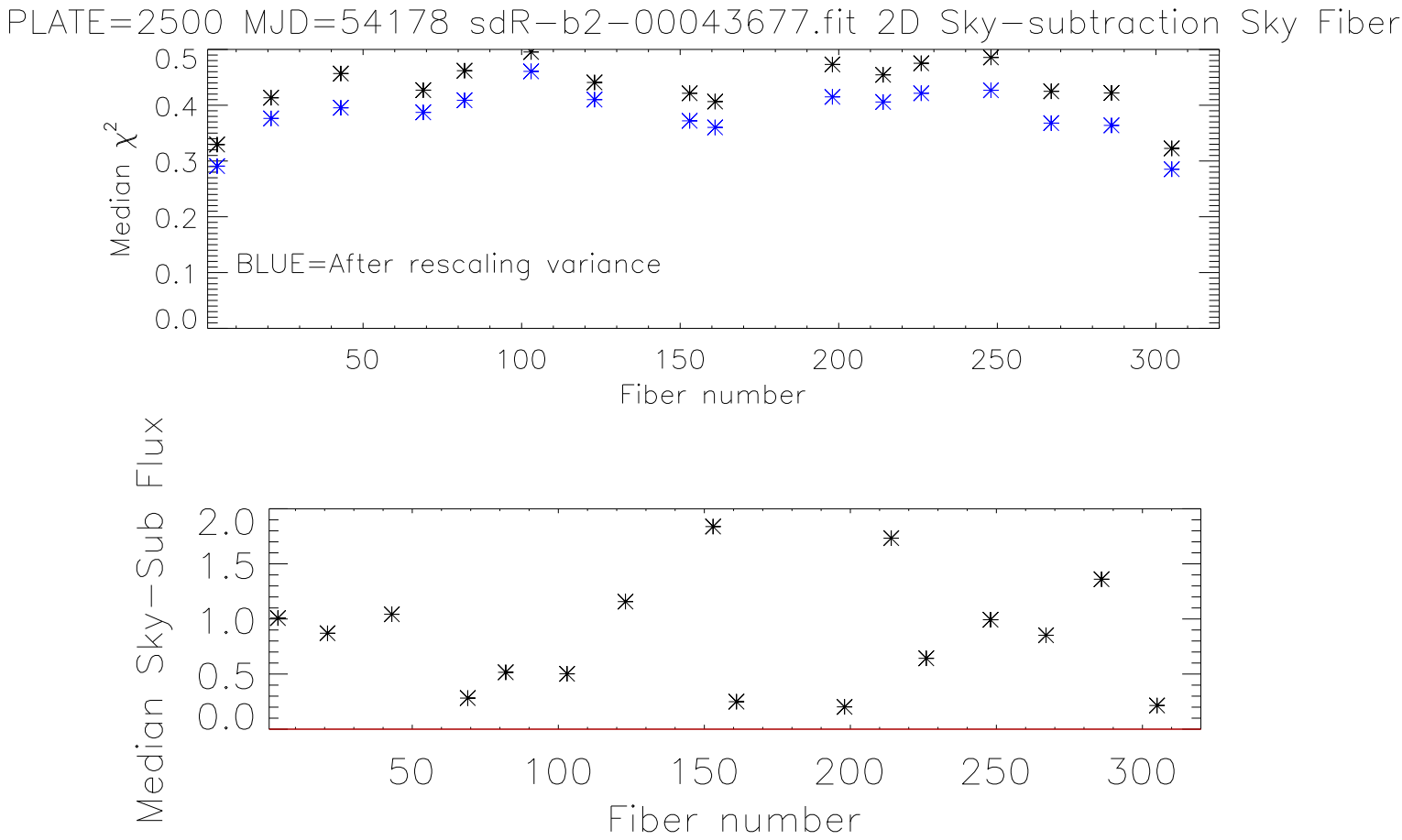
es= −0.0000

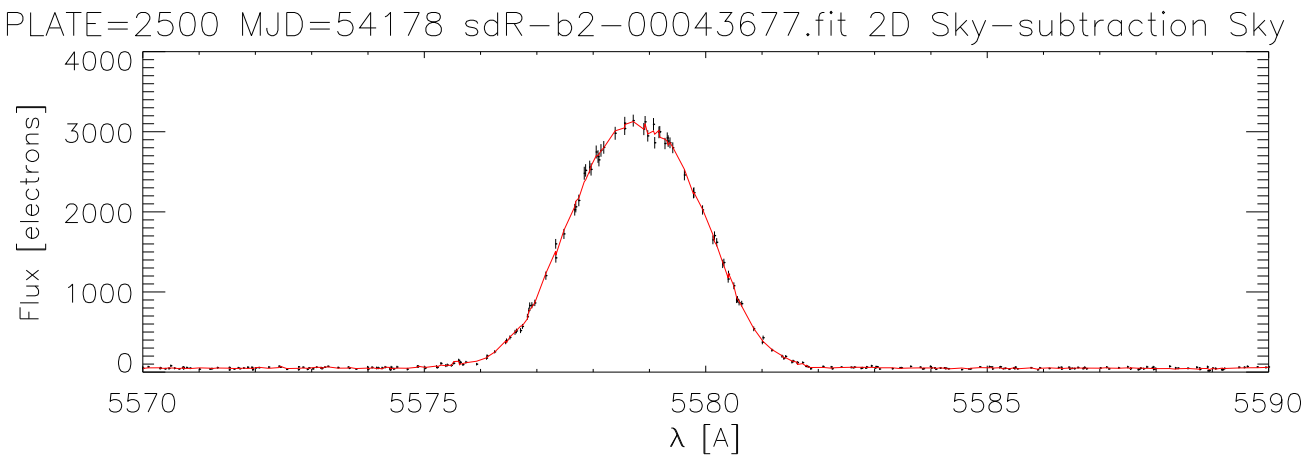

PLATE=2500 MJD=54178 sdR-b2-00043677.fit 1D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

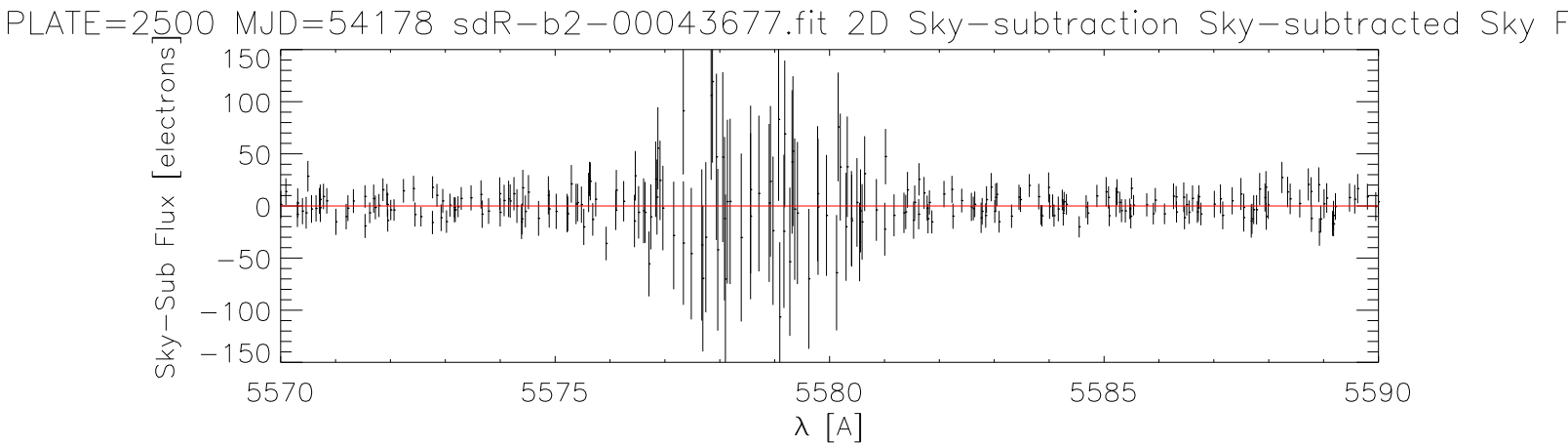

PLATE=2500 MJD=54178 sdR-b2-00043677.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

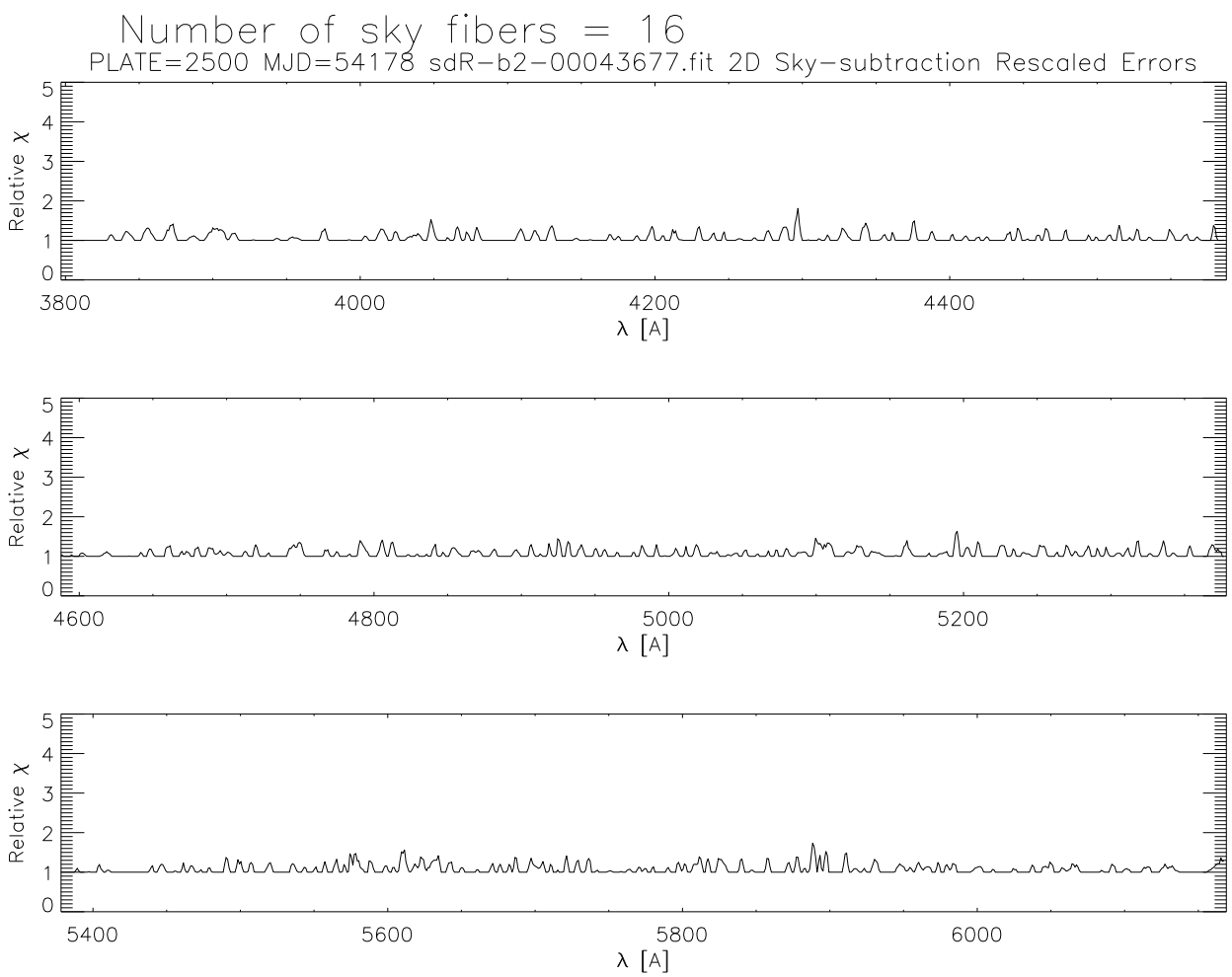

PLATE=2500 MJD=54178 sdR-b2-00043677.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
150
100
50
0
-50
-100
-150
5570
5575
5580
5585
5590
λ [A]

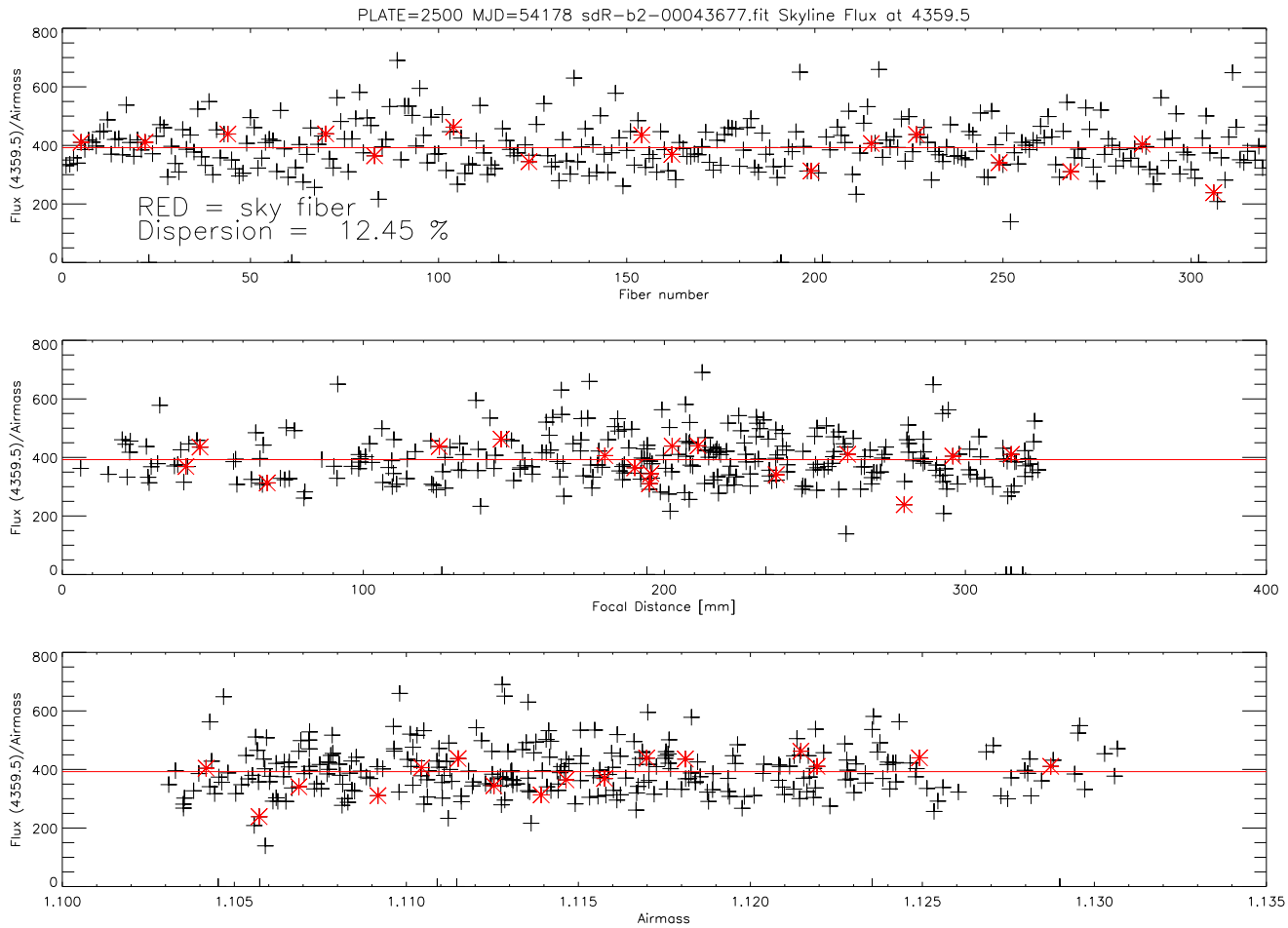

Number of sky fibers = 16
PLATE=2500 MJD=54178 sdR-b2-00043677.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

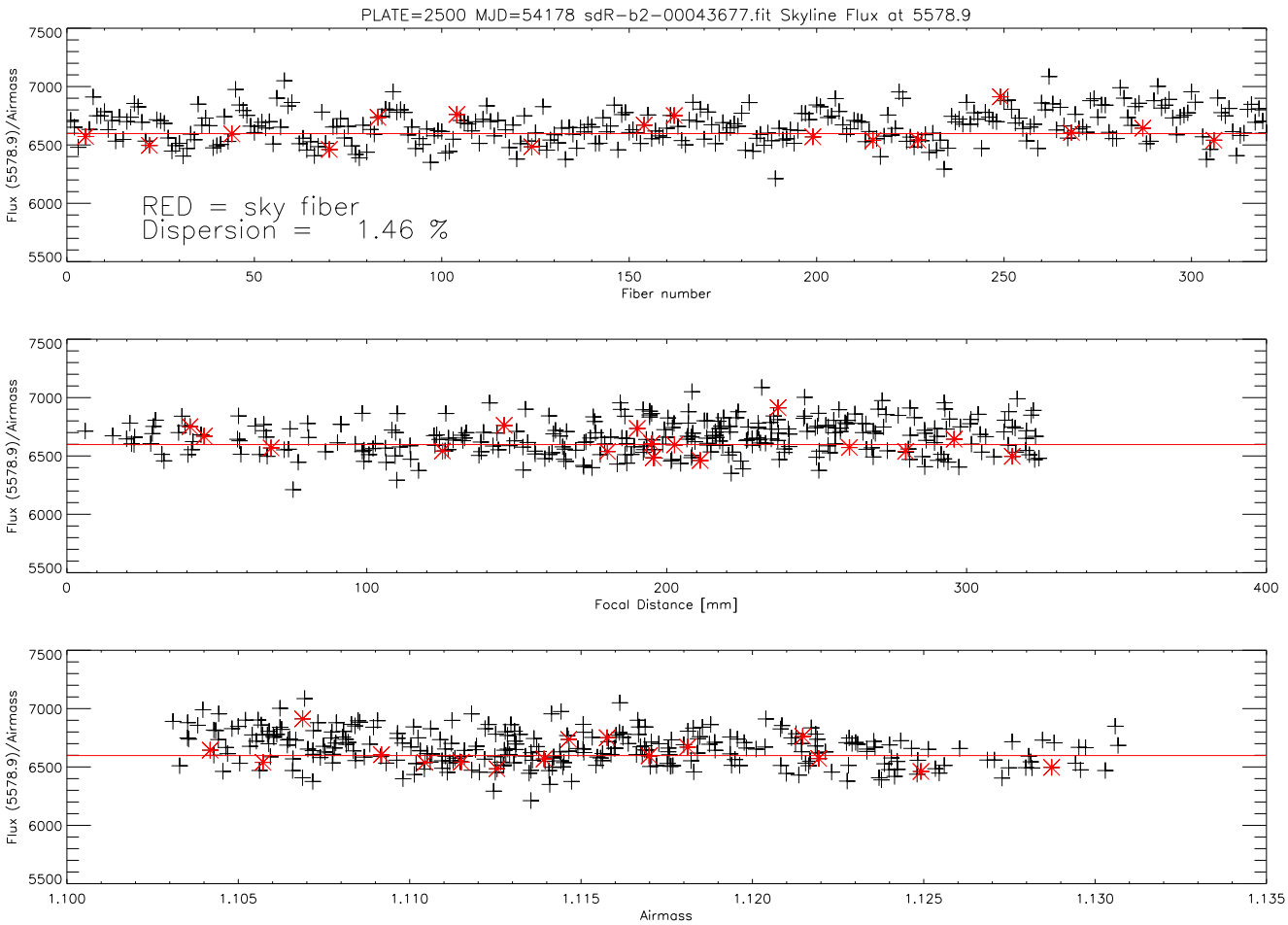

PLATE=2500 MJD=54178 sdR-b2-00043677.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

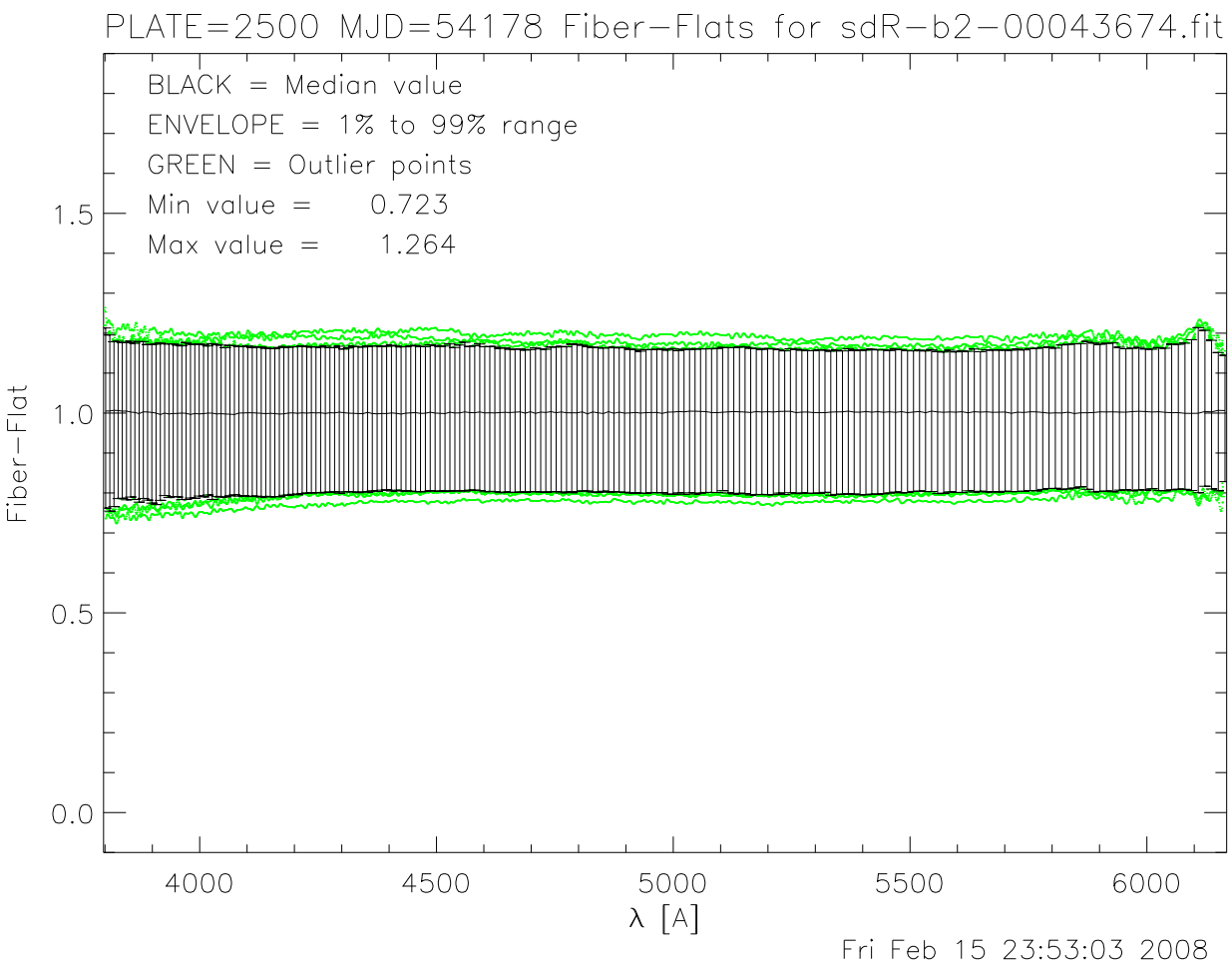

PLATE=2500 MJD=54178 sdR-b2-00043677.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

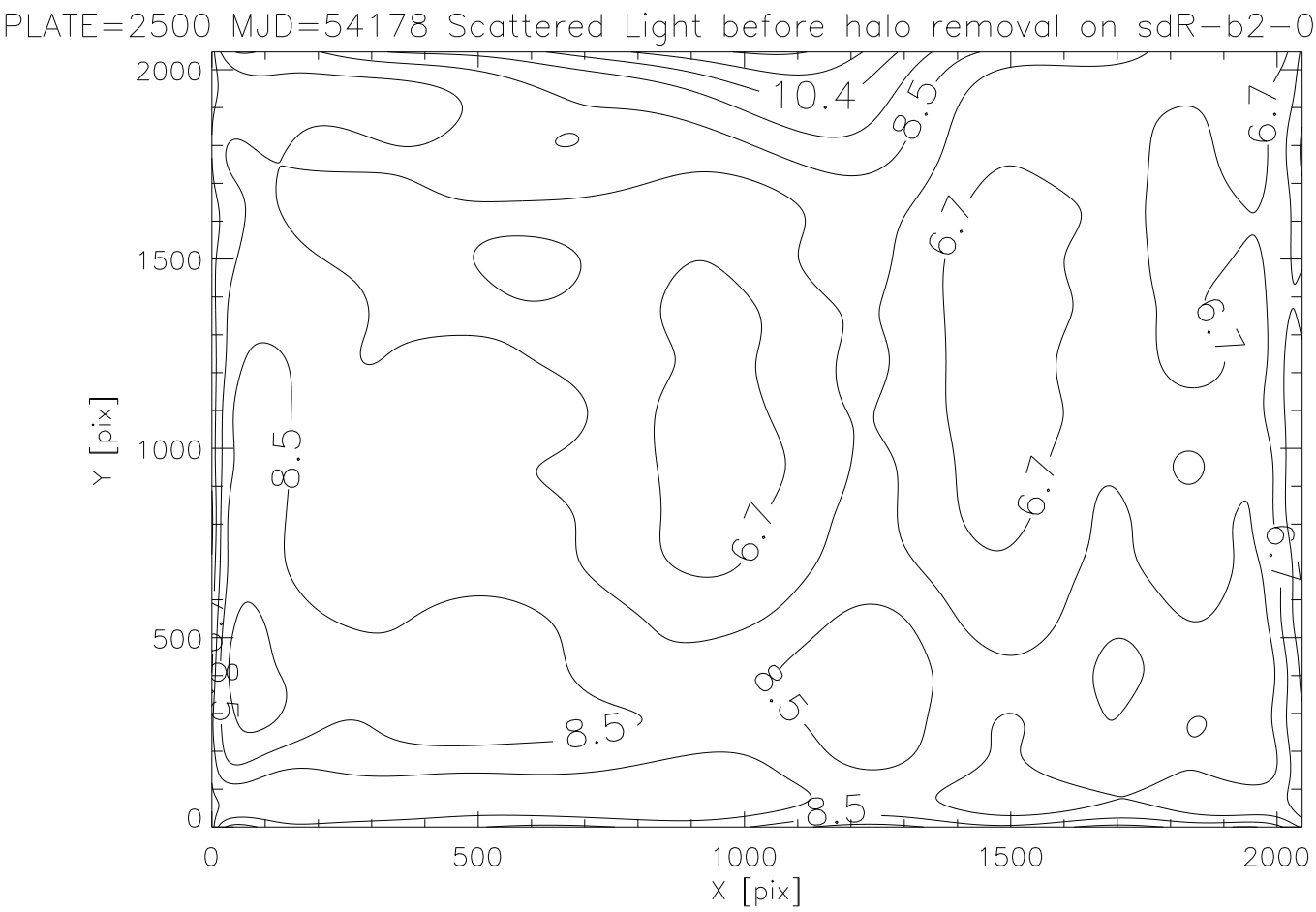

PLATE=2500 MJD=54178 sdR-b2-00043677.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
150
100
50
0
-50
-100
-150
5570
5575
5580
5585
5590
λ [A]

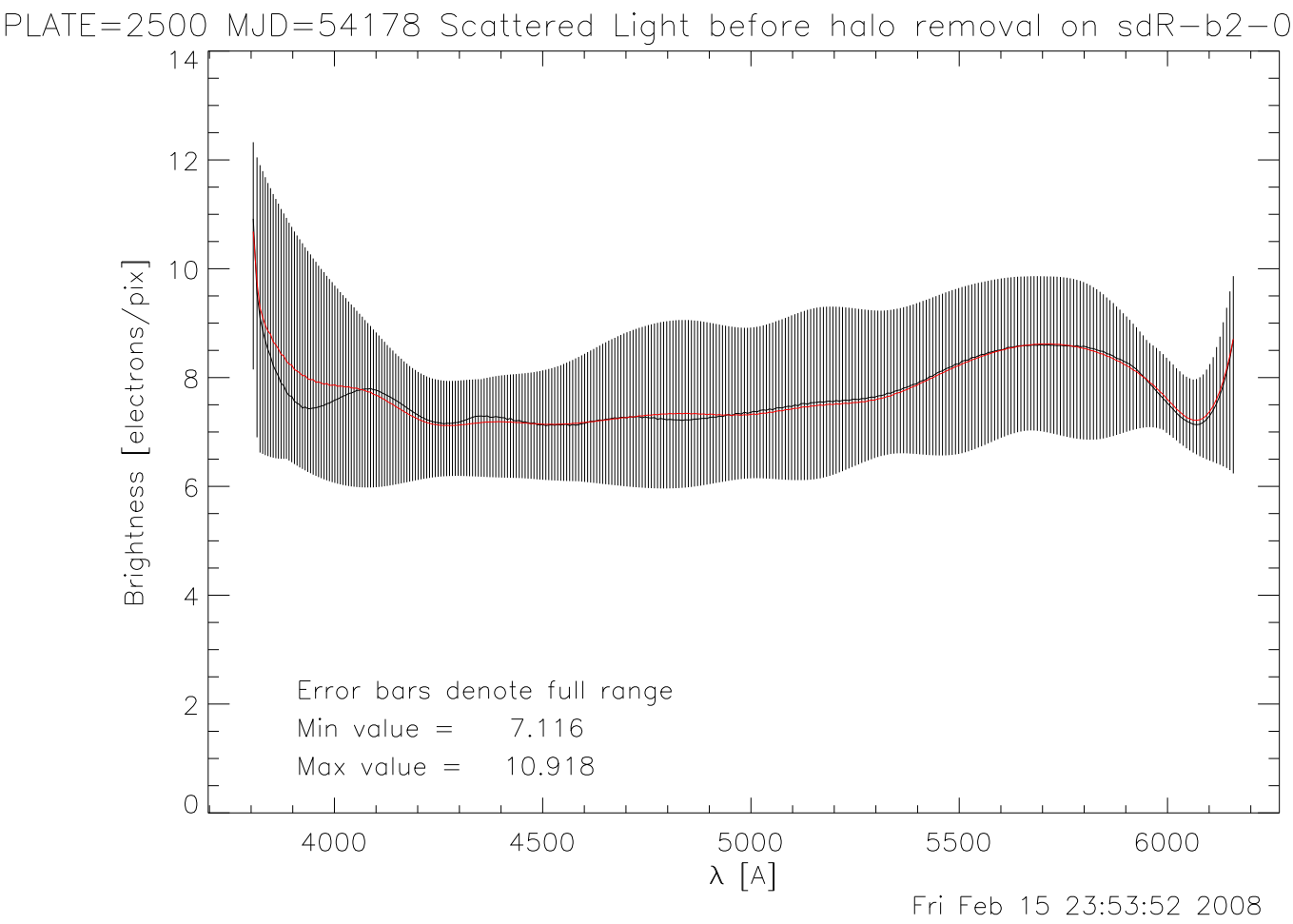

Number of sky fibers = 16
PLATE=2500 MJD=54178 sdR-b2-00043677.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

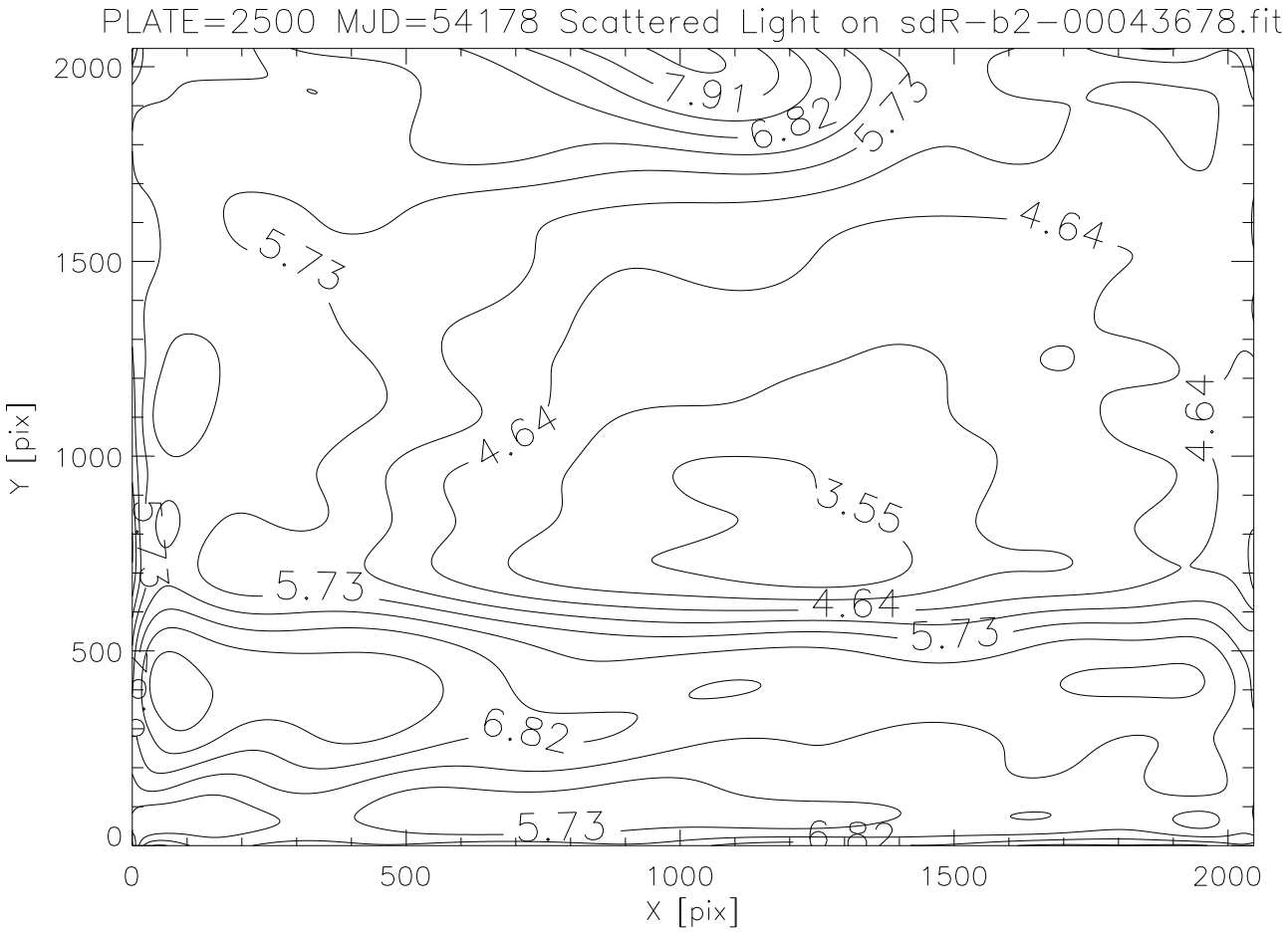

PLATE=2500 MJD=54178 sdR-b2-00043677.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 12.45 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

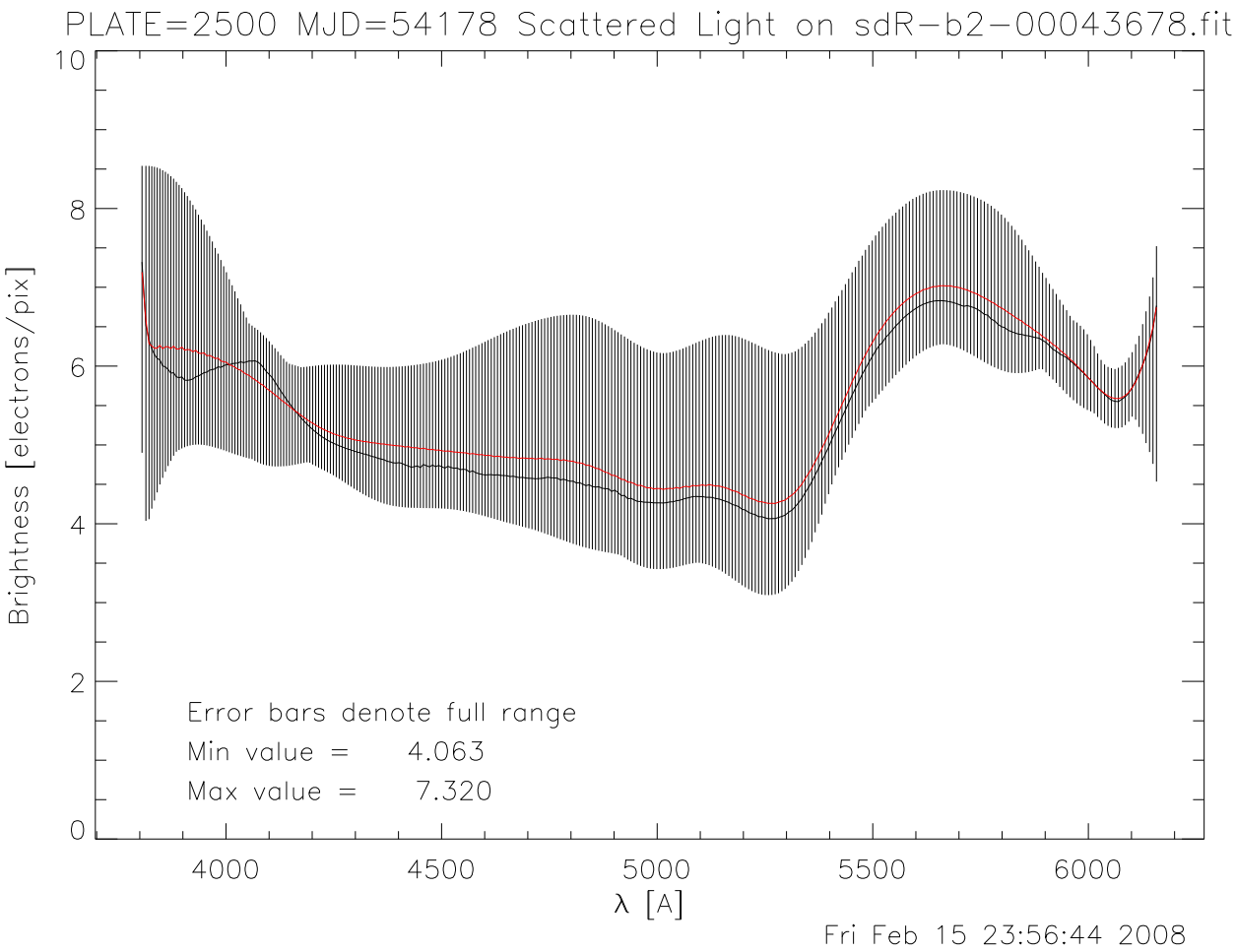

PLATE=2500 MJD=54178 sdR-b2-00043677.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 1.46 %
Fiber number
Flux (5578.9)/Airmass
Focal Distance [mm]
Flux (5578.9)/Airmass
Airmass

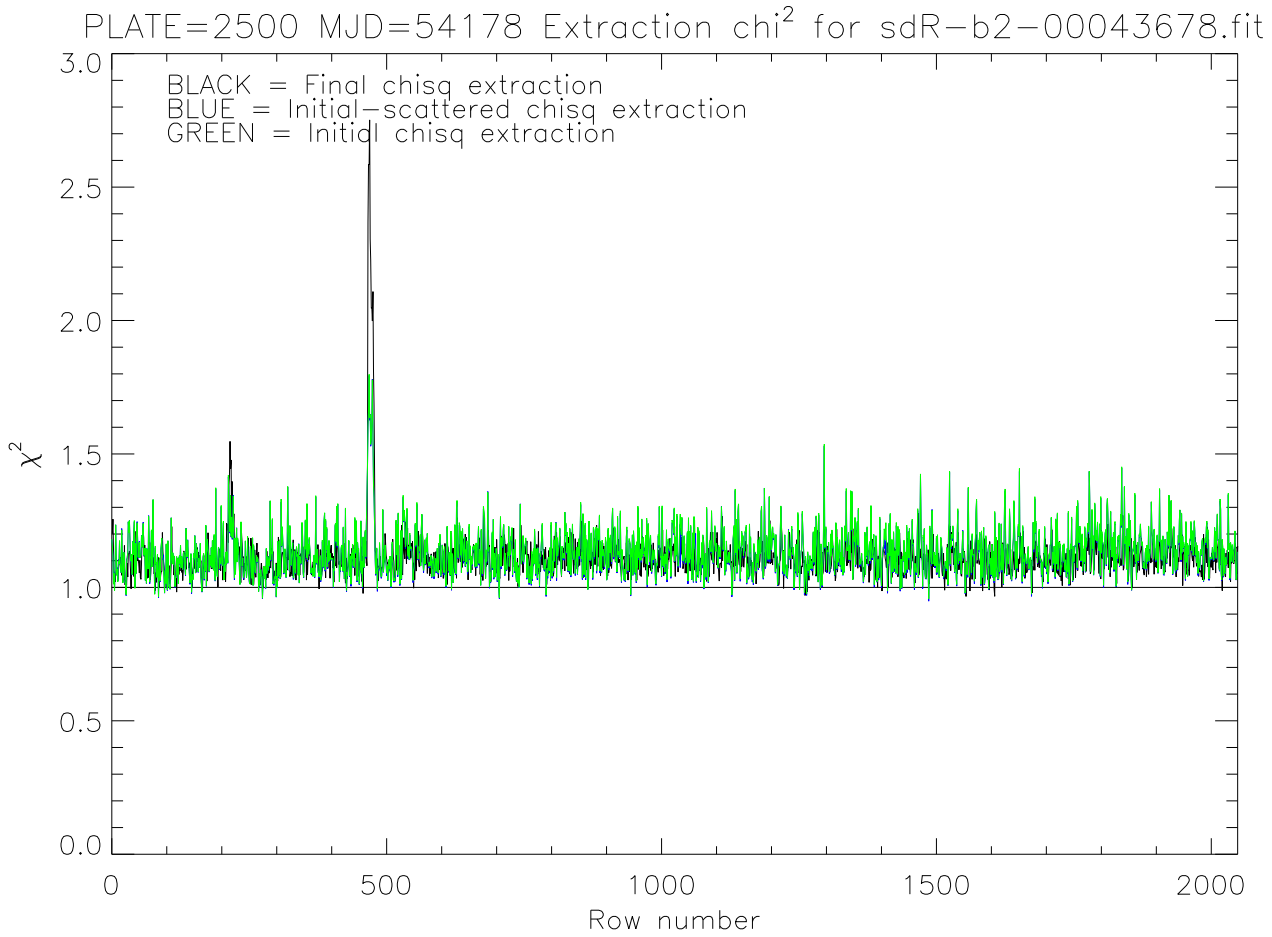

PLATE=2500 MJD=54178 Fiber-Flats for sdR-b2-00043674.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.723
Max value = 1.264
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Fri Feb 15 23:53:03 2008

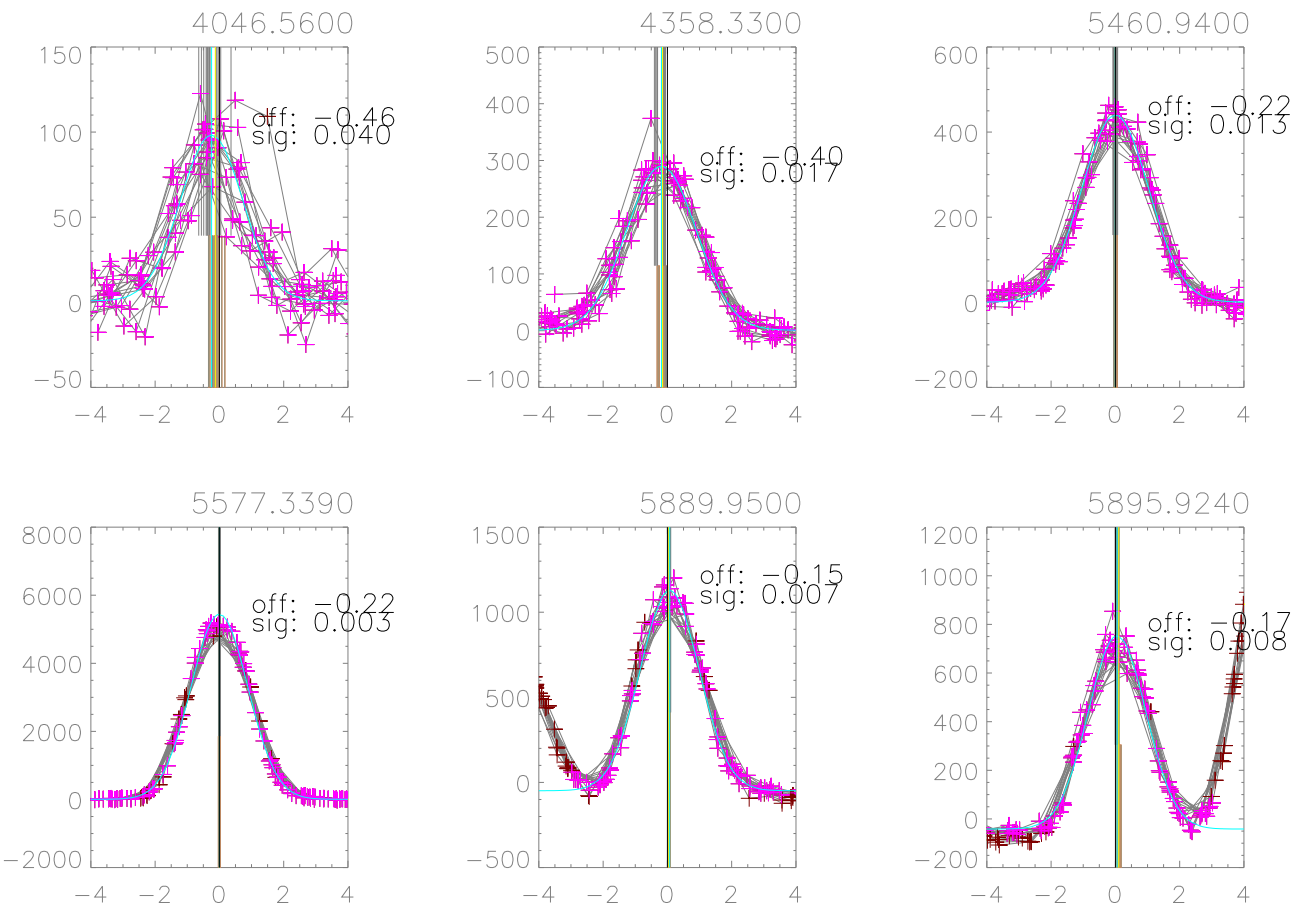

PLATE=2500 MJD=54178 Scattered Light before halo removal on sdR-b2-00043678.f
10.4
8.5
6.7
0
Y [pix]
X [pix]
0
500
1000
1500
2000

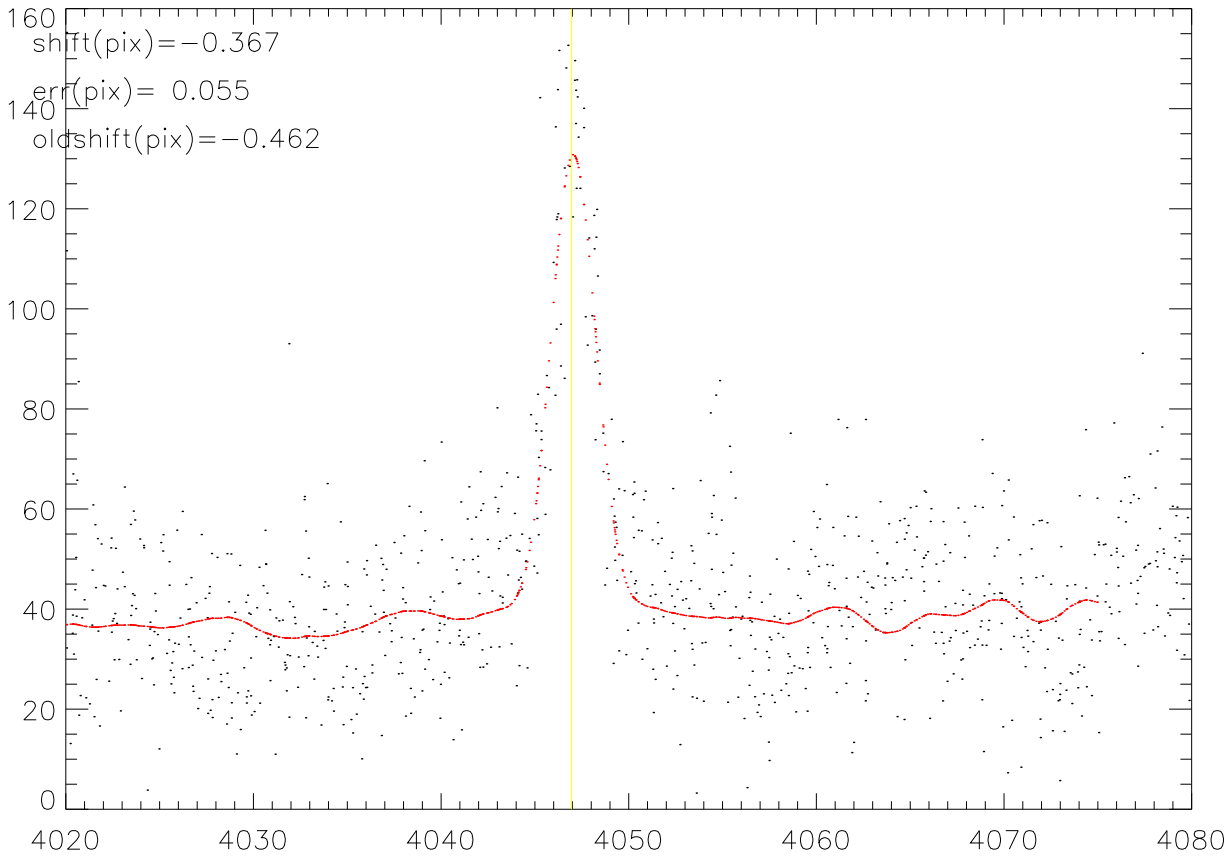

PLATE=2500 MJD=54178 Scattered Light before halo removal on sdR-b2-00043678.f
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 7.116
Max value = 10.918
Fri Feb 15 23:53:52 2008

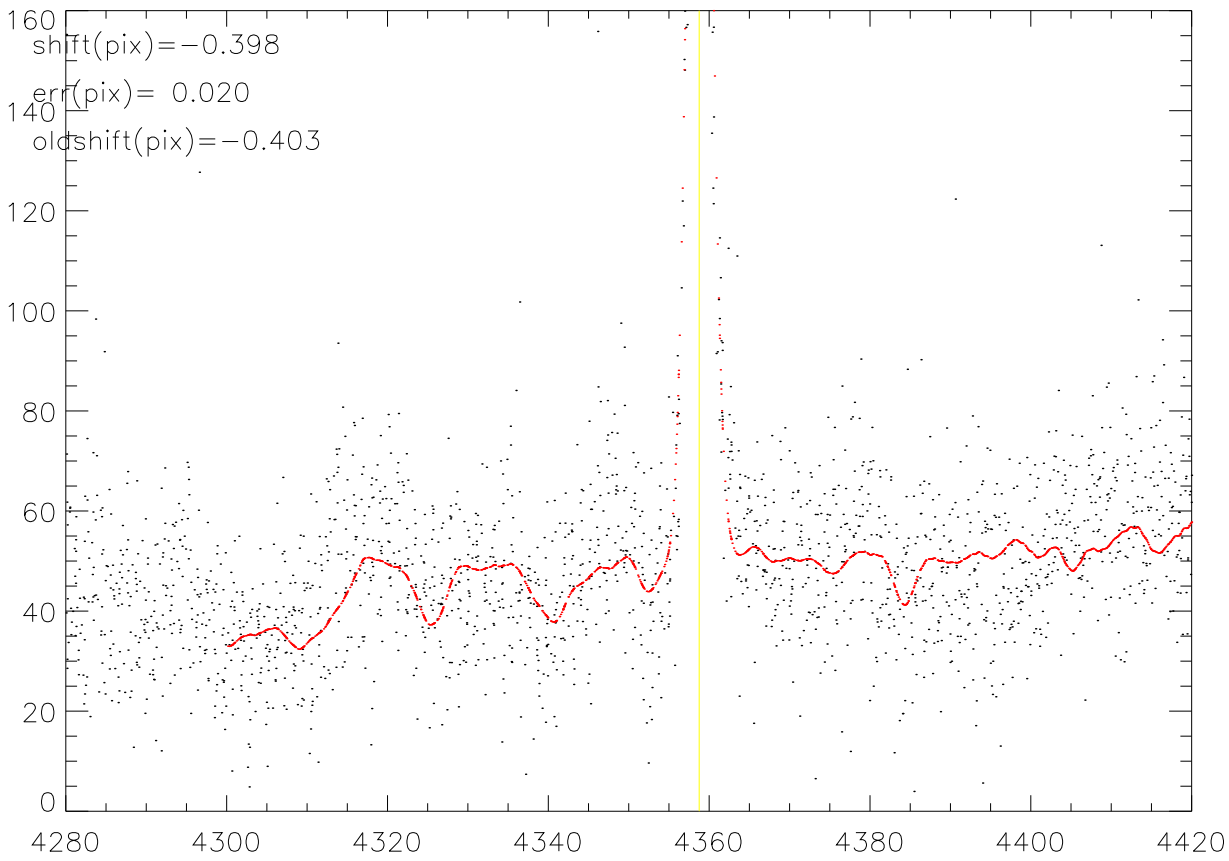

PLATE=2500 MJD=54178 Scattered Light on sdR-b2-00043678.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
7.91
6.82
5.73
4.64
3.55

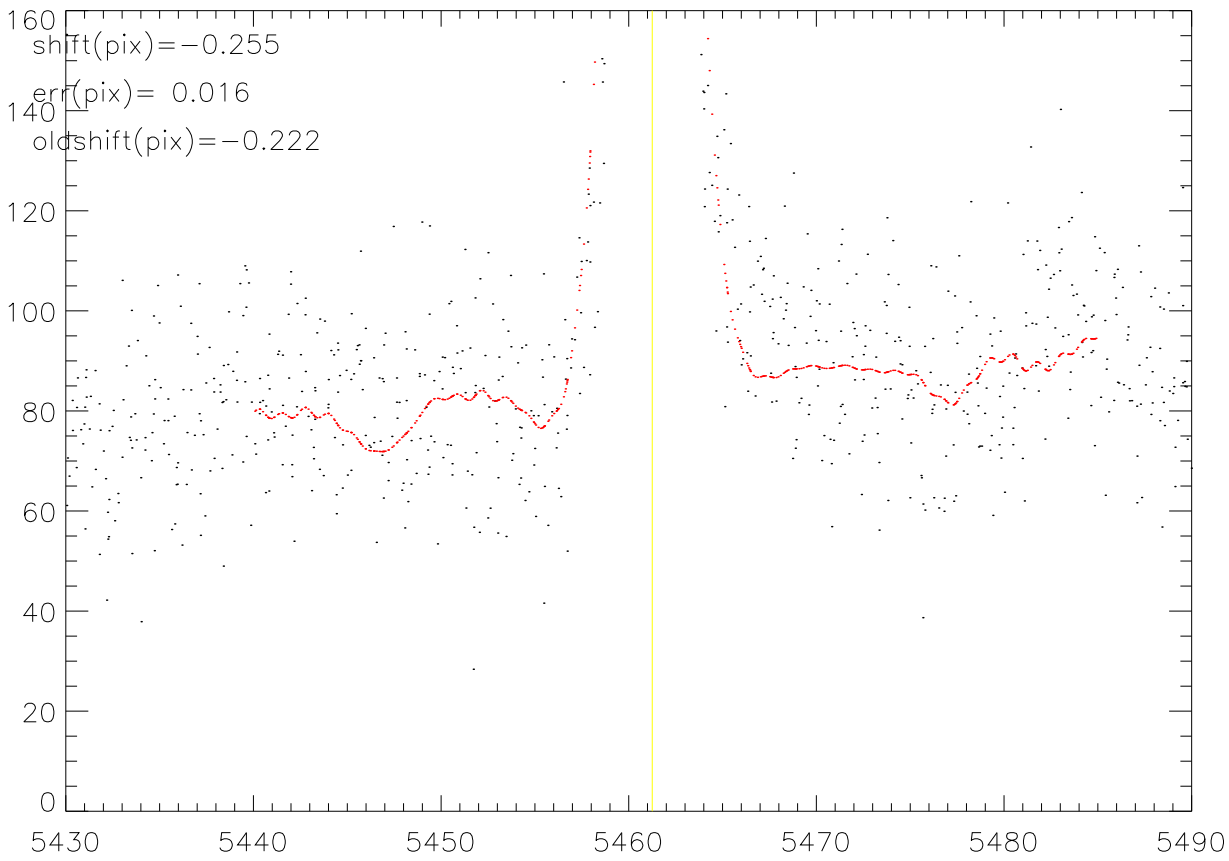

PLATE=2500 MJD=54178 Scattered Light on sdR-b2-00043678.fit
Brightness [electrons/pix]
10
8
6
4
2
0
Error bars denote full range
Min value = 4.063
Max value = 7.320
4000
4500
5000
5500
6000
λ [A]
Fri Feb 15 23:56:44 2008

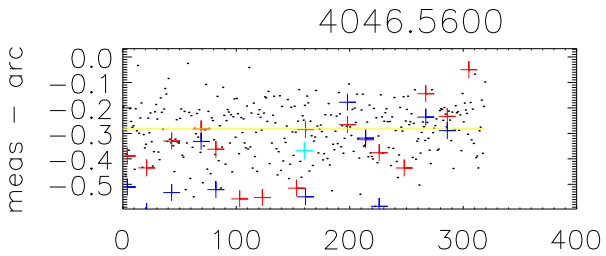

PLATE=2500 MJD=54178 Extraction chi^2 for sdR-b2-00043678.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
500
1000
1500
2000
Row number

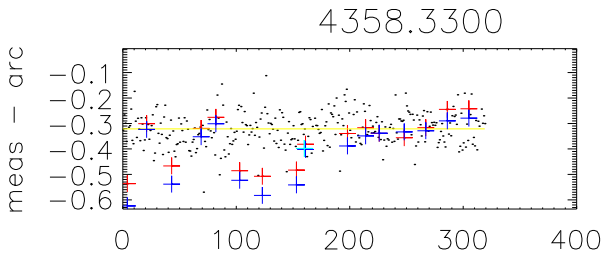

4046.5600
off: −0.46
sig: 0.040
4358.3300
off: −0.40
sig: 0.017
5460.9400
off: −0.22
sig: 0.013
5577.3390
off: −0.22
sig: 0.003
5889.9500
off: −0.15
sig: 0.007
5895.9240
off: −0.17
sig: 0.008

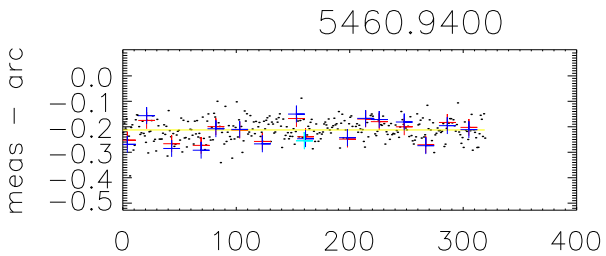

shift(pix)=−0.367
err(pix)= 0.055
oldshift(pix)=−0.462
160
140
120
100
80
60
40
20
0
4020
4030
4040
4050
4060
4070
4080

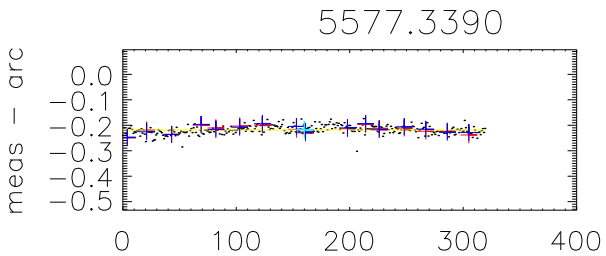

shift(pix)=−0.398
err(pix)= 0.020
oldshift(pix)=−0.403
160
140
120
100
80
60
40
20
0
4280
4300
4320
4340
4360
4380
4400
4420

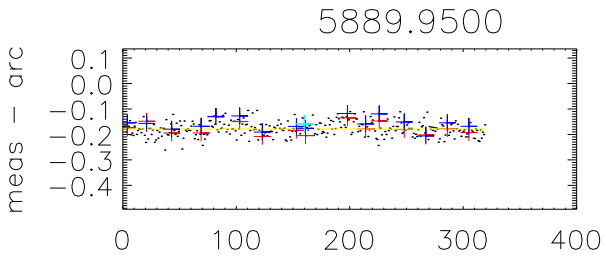

shift(pix)=−0.255
err(pix)= 0.016
oldshift(pix)=−0.222
160
140
120
100
80
60
40
20
0
5430
5440
5450
5460
5470
5480
5490

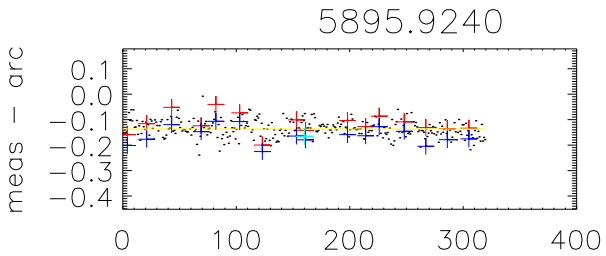

4046.5600
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

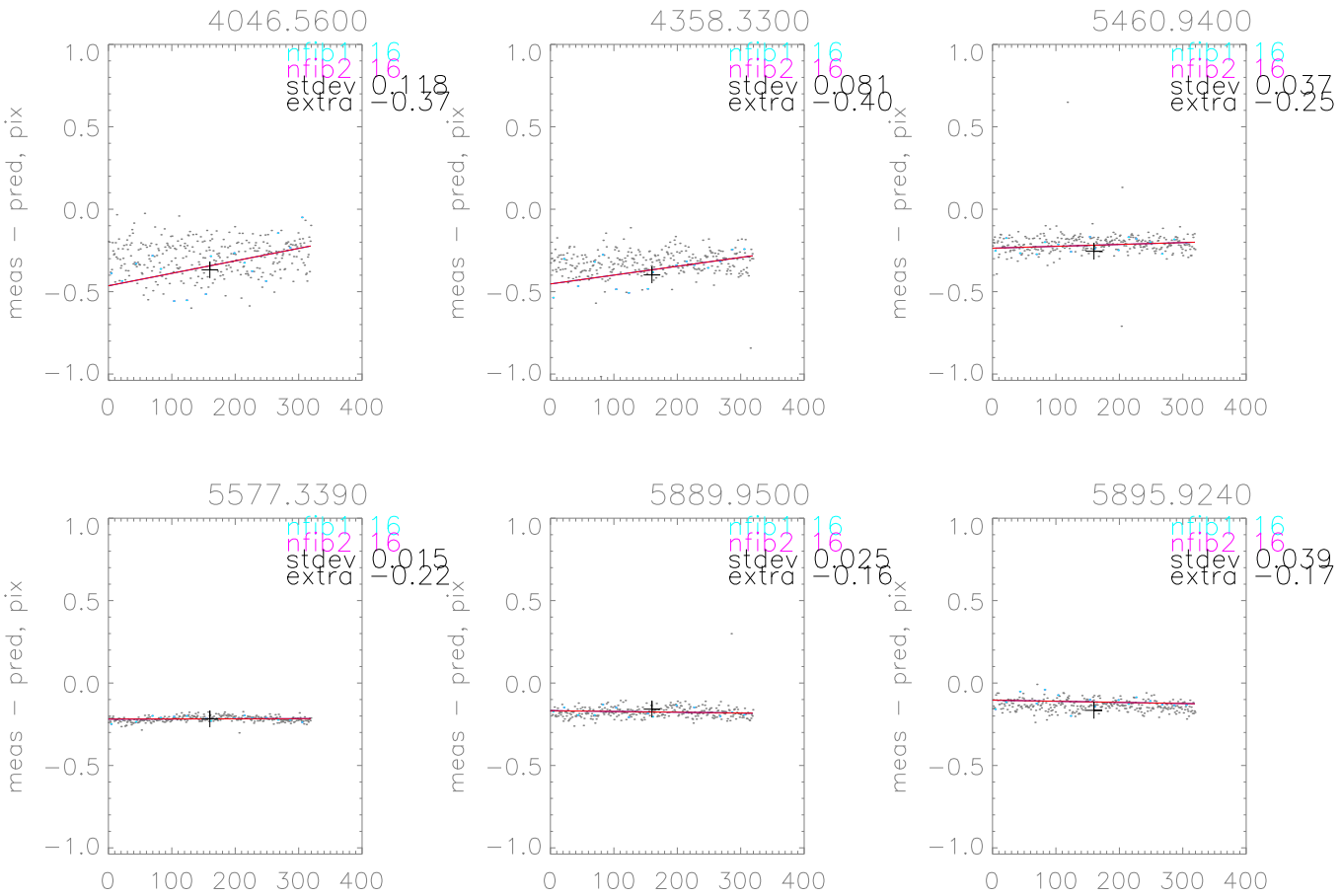

4358.3300
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

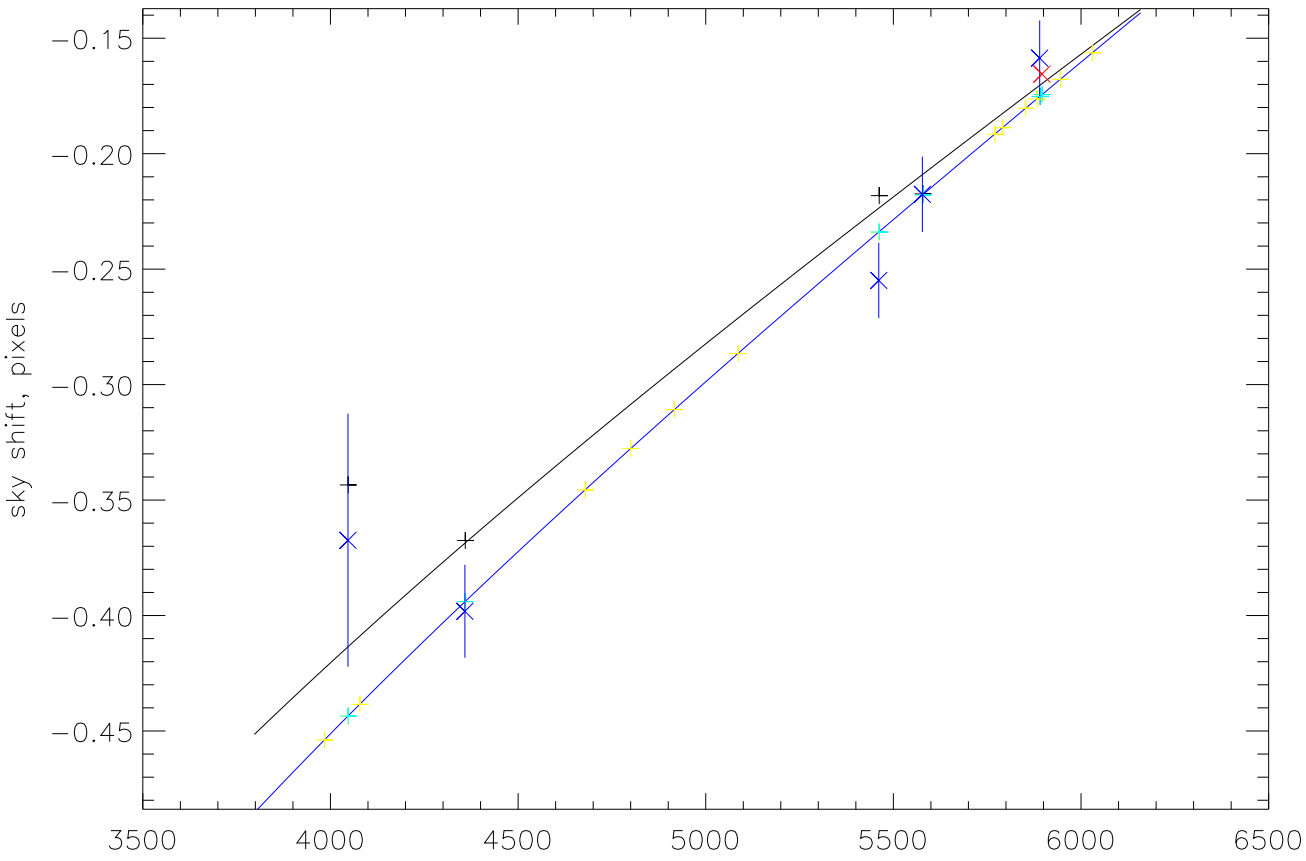

5460.9400
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

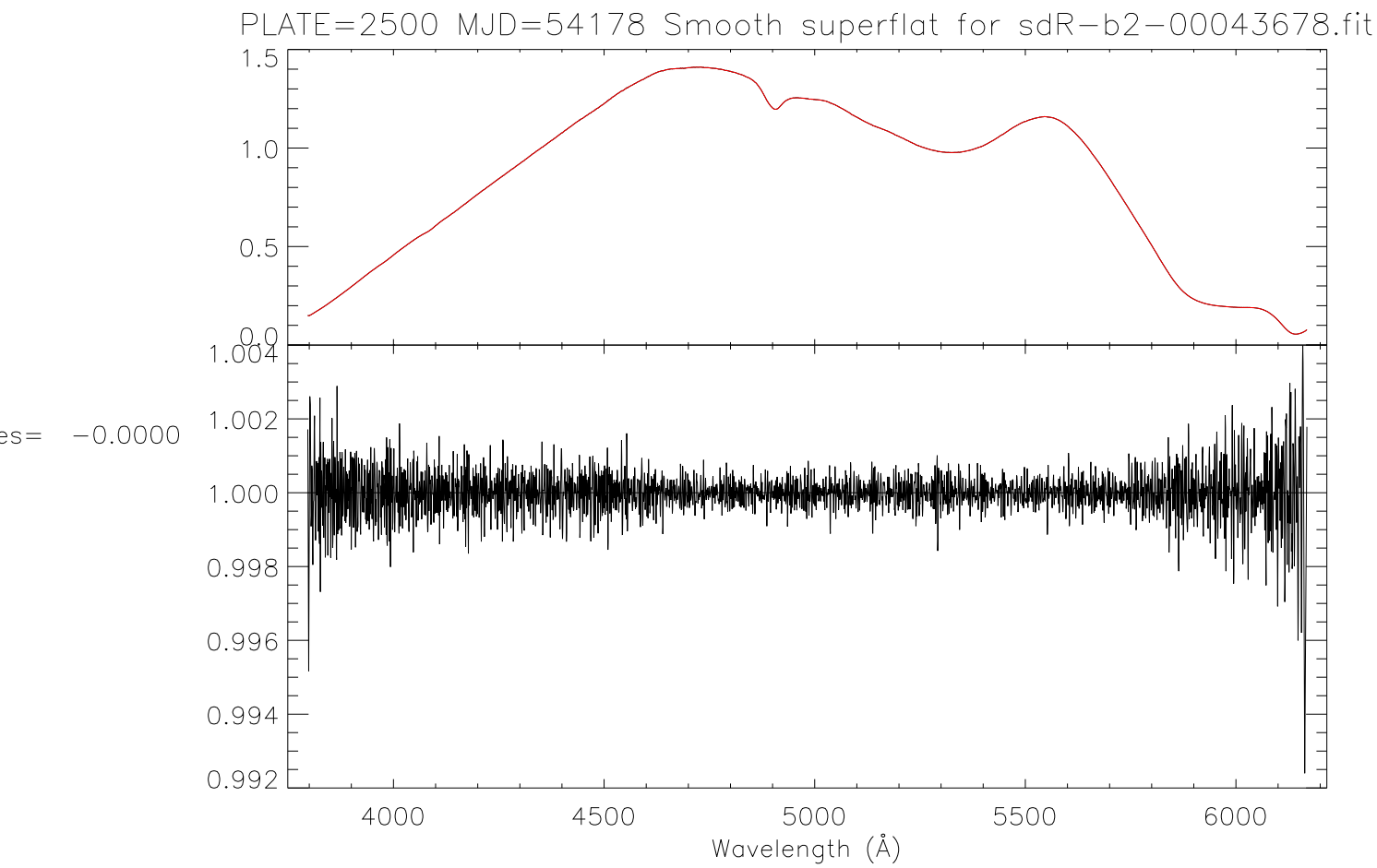

5577.3390
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400


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

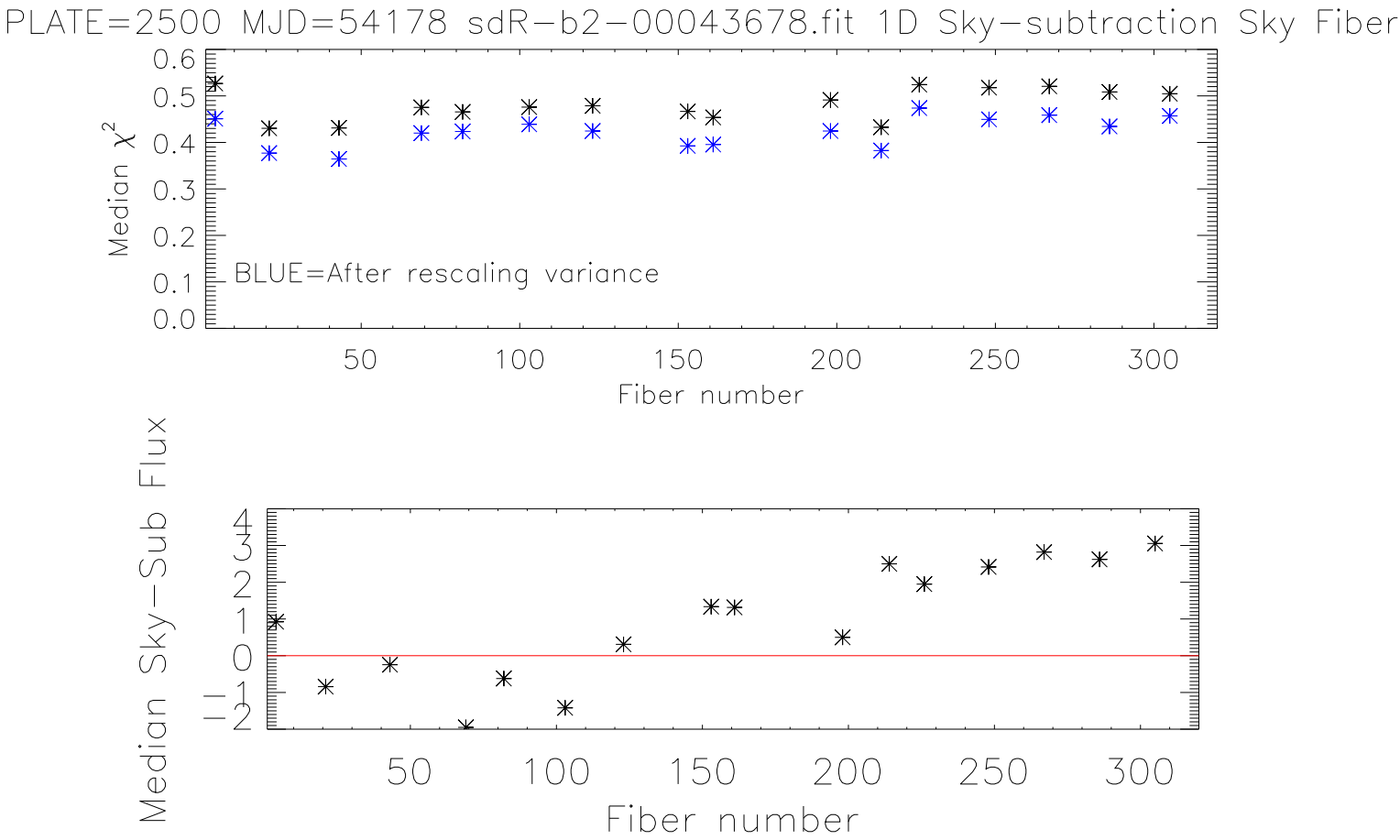

5895.9240
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

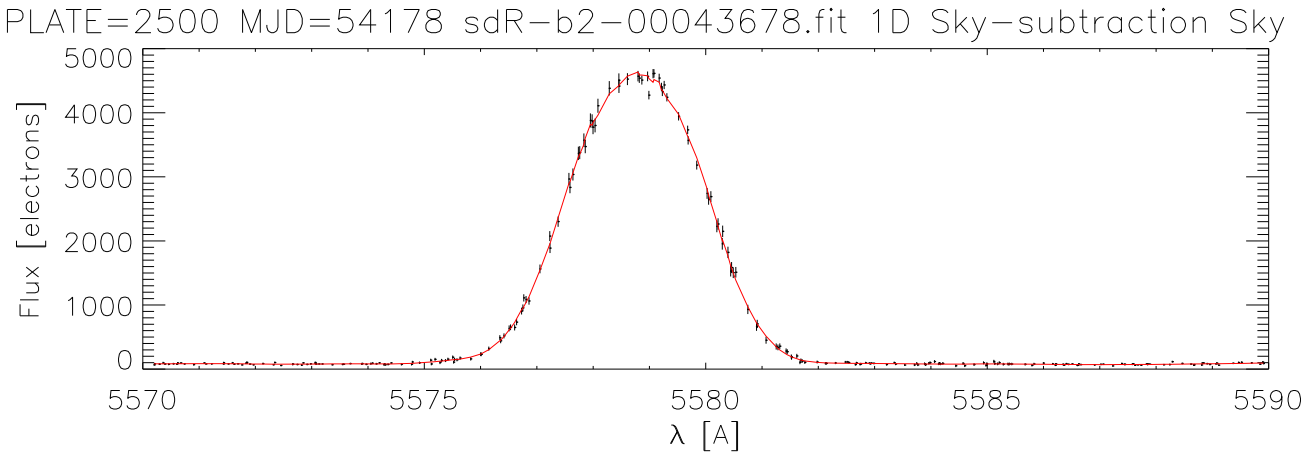

4046.5600
nfib1 16
nfib2 16
stdev 0.118
extra −0.37
4358.3300
nfib1 16
nfib2 16
stdev 0.081
extra −0.40
5460.9400
nfib1 16
nfib2 16
stdev 0.037
extra −0.25
5577.3390
nfib1 16
nfib2 16
stdev 0.015
extra −0.22
5889.9500
nfib1 16
nfib2 16
stdev 0.025
extra −0.16
5895.9240
nfib1 16
nfib2 16
stdev 0.039
extra −0.17
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

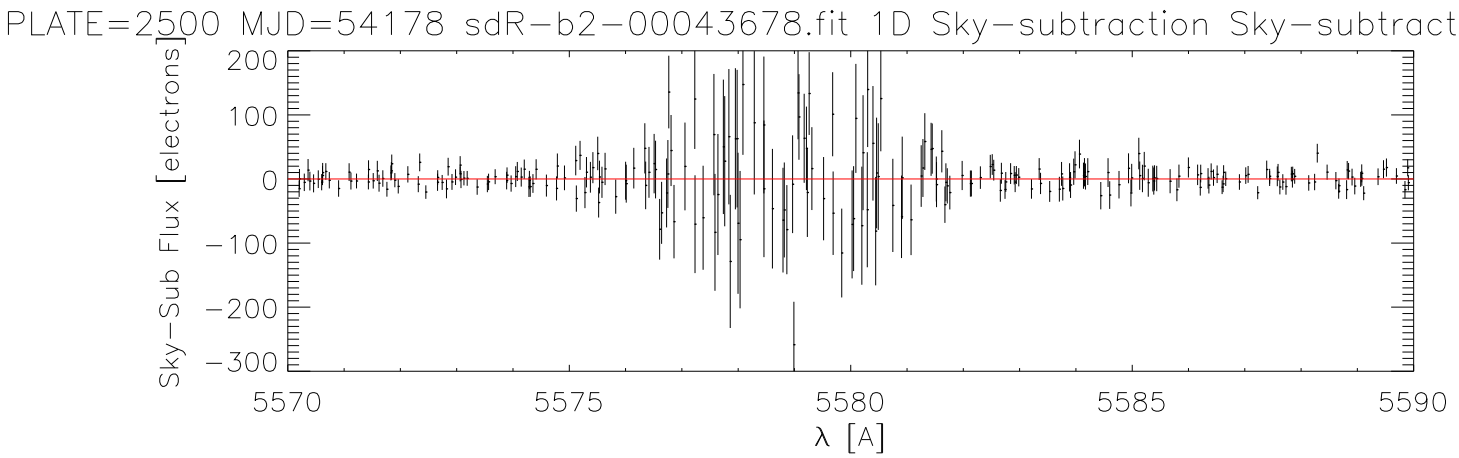

−0.15
−0.20
−0.25
−0.30
−0.35
−0.40
−0.45
sky shift, pixels
3500
4000
4500
5000
5500
6000
6500

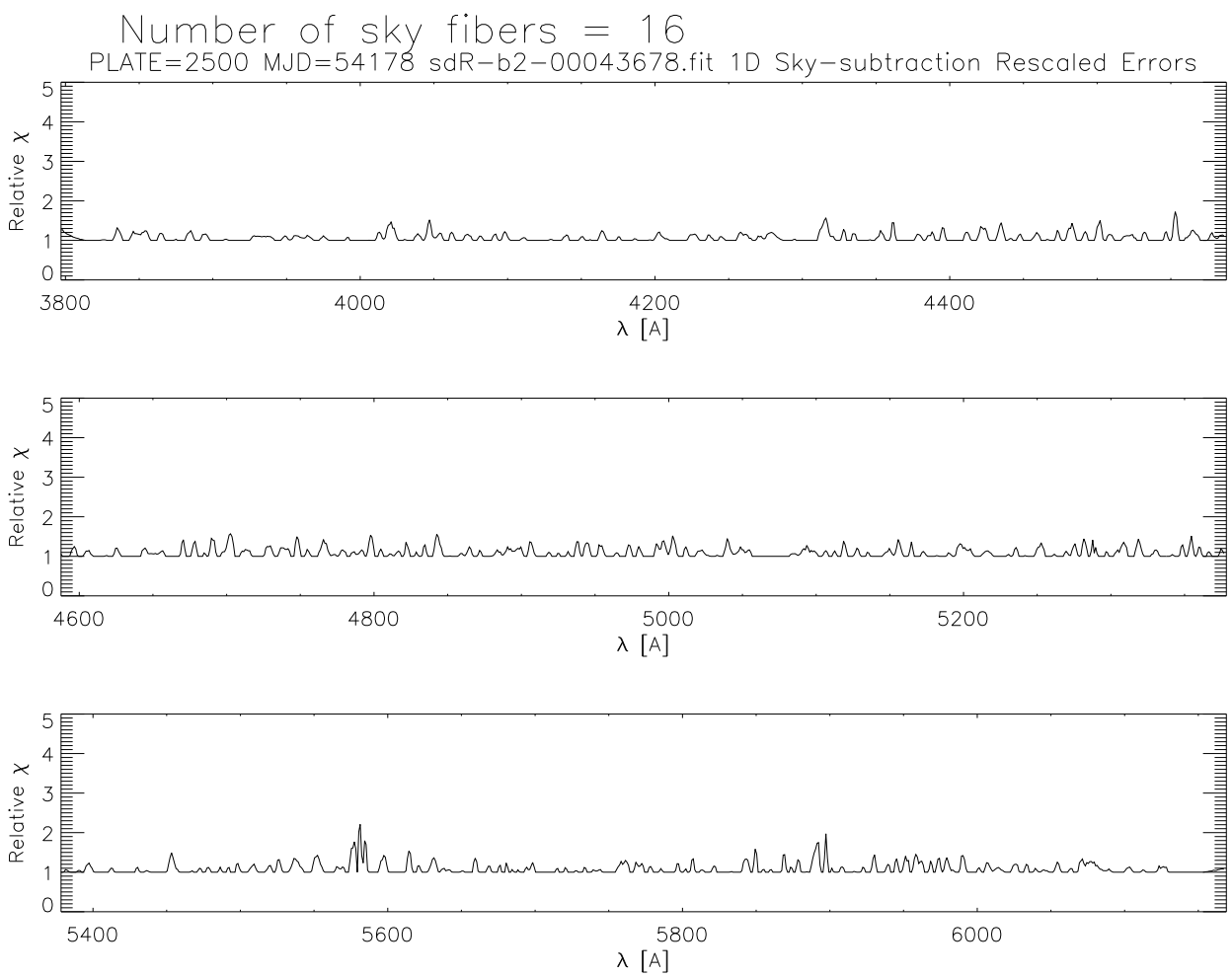

PLATE=2500 MJD=54178 Smooth superflat for sdR-b2-00043678.fit
1.5
1.0
0.5
0.0
1.004
1.002
1.000
0.998
0.996
0.994
0.992
4000
4500
5000
5500
6000
Wavelength (Å)

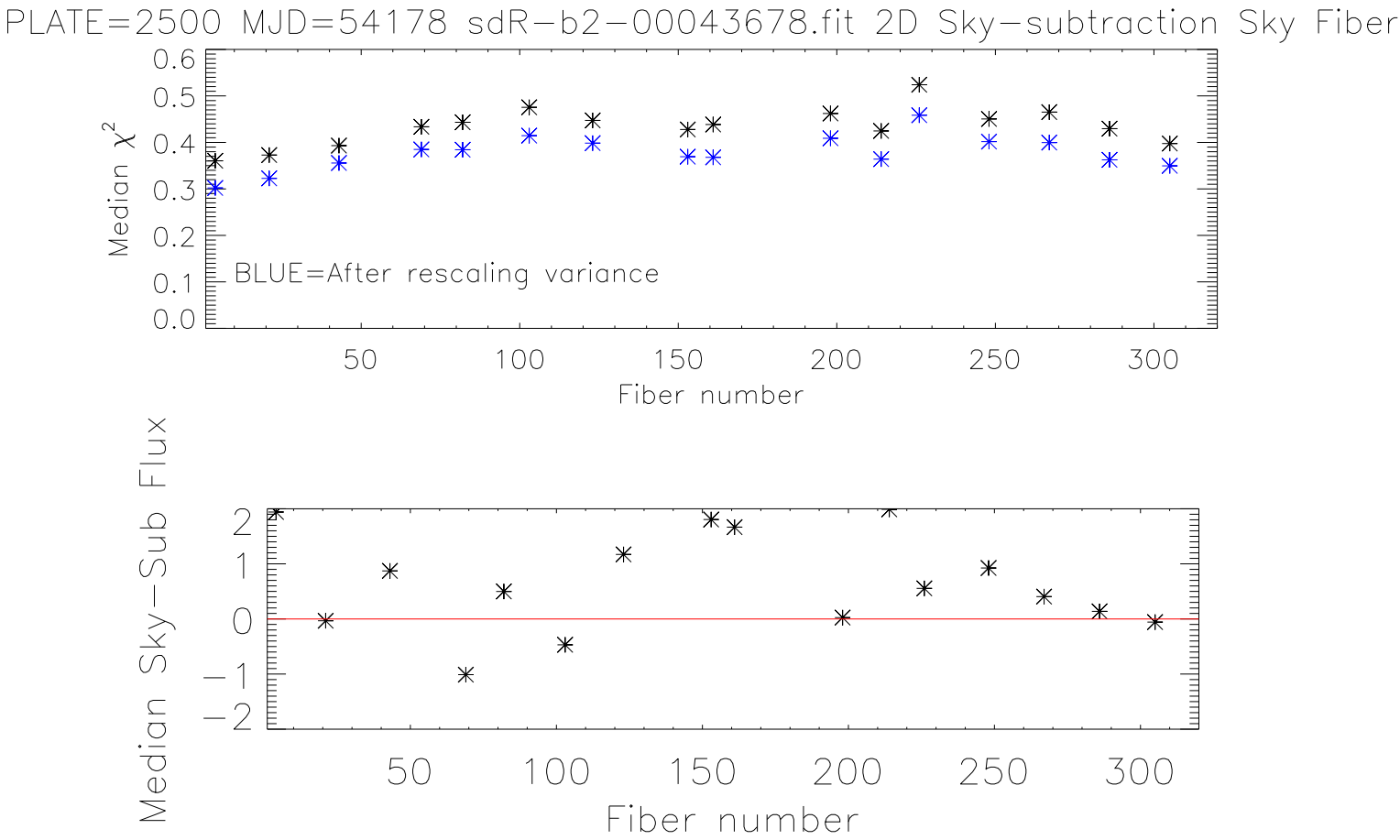
es= −0.0000

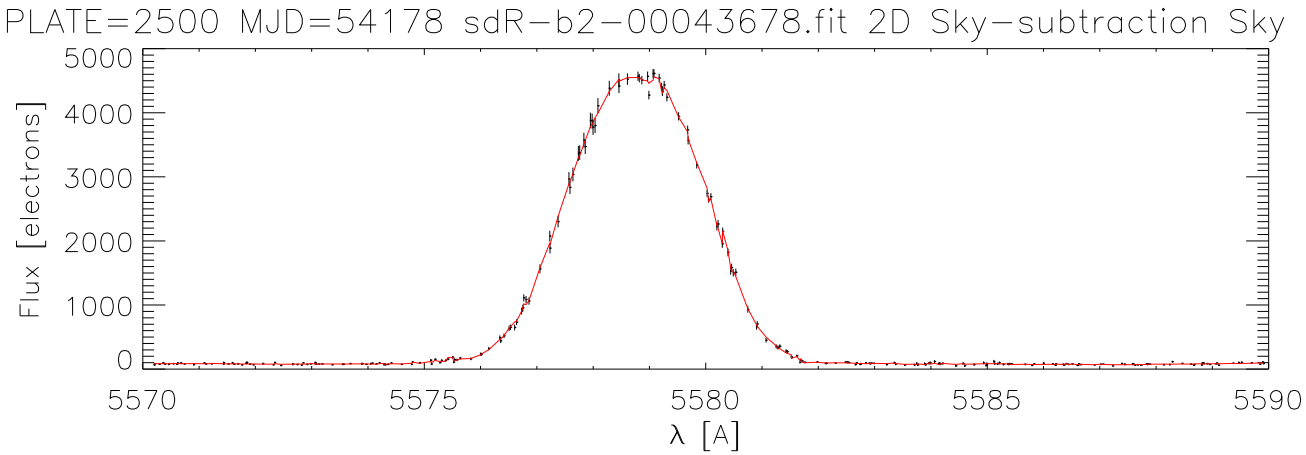

PLATE=2500 MJD=54178 sdR-b2-00043678.fit 1D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

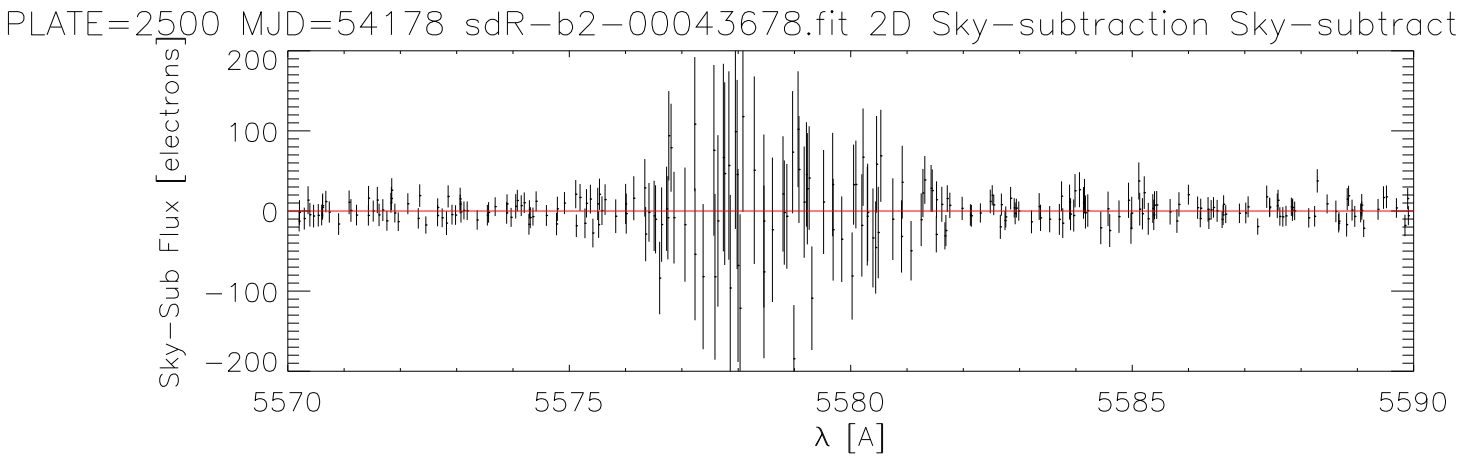

PLATE=2500 MJD=54178 sdR-b2-00043678.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

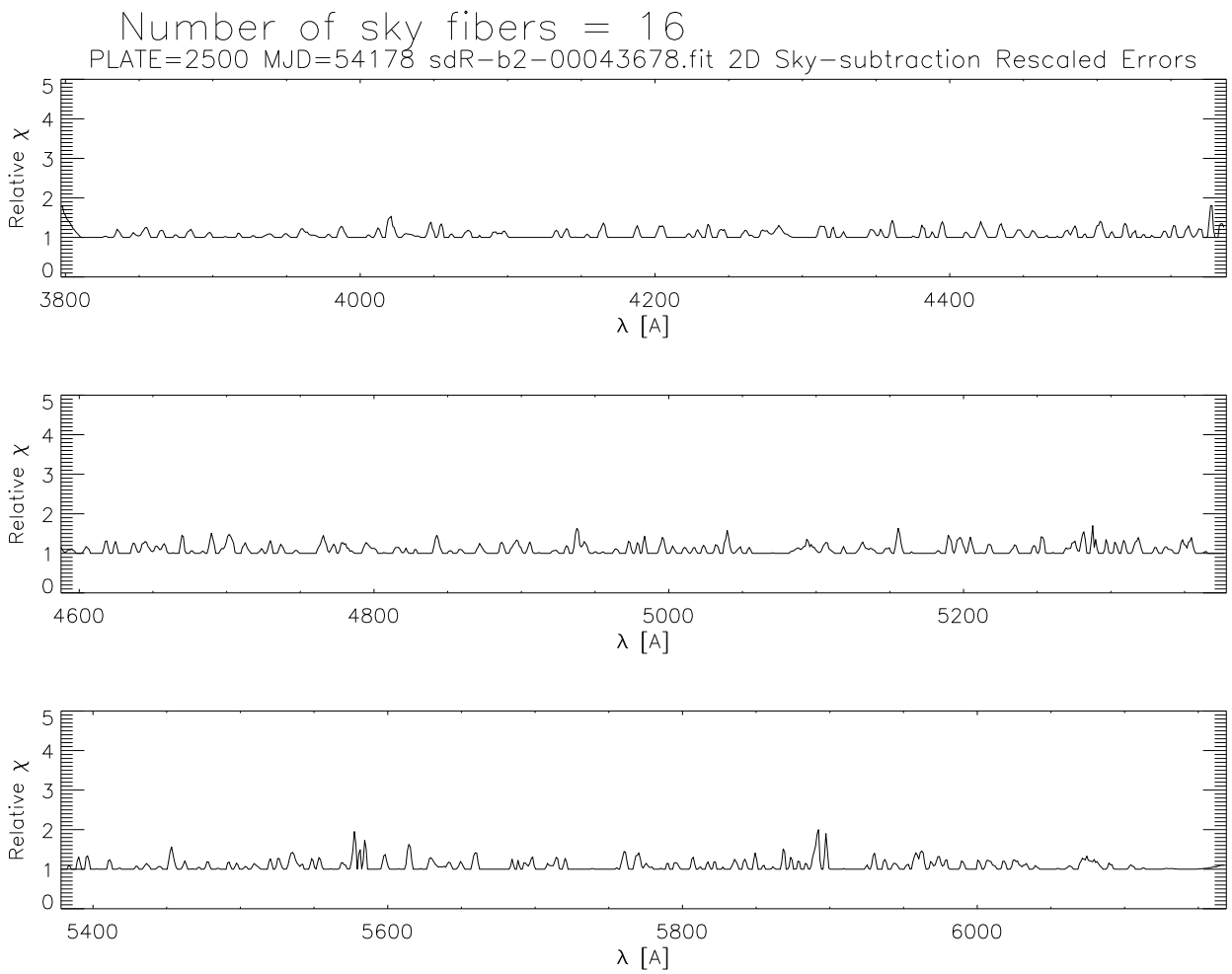

PLATE=2500 MJD=54178 sdR-b2-00043678.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
-300
5570
5575
5580
5585
5590
λ [A]

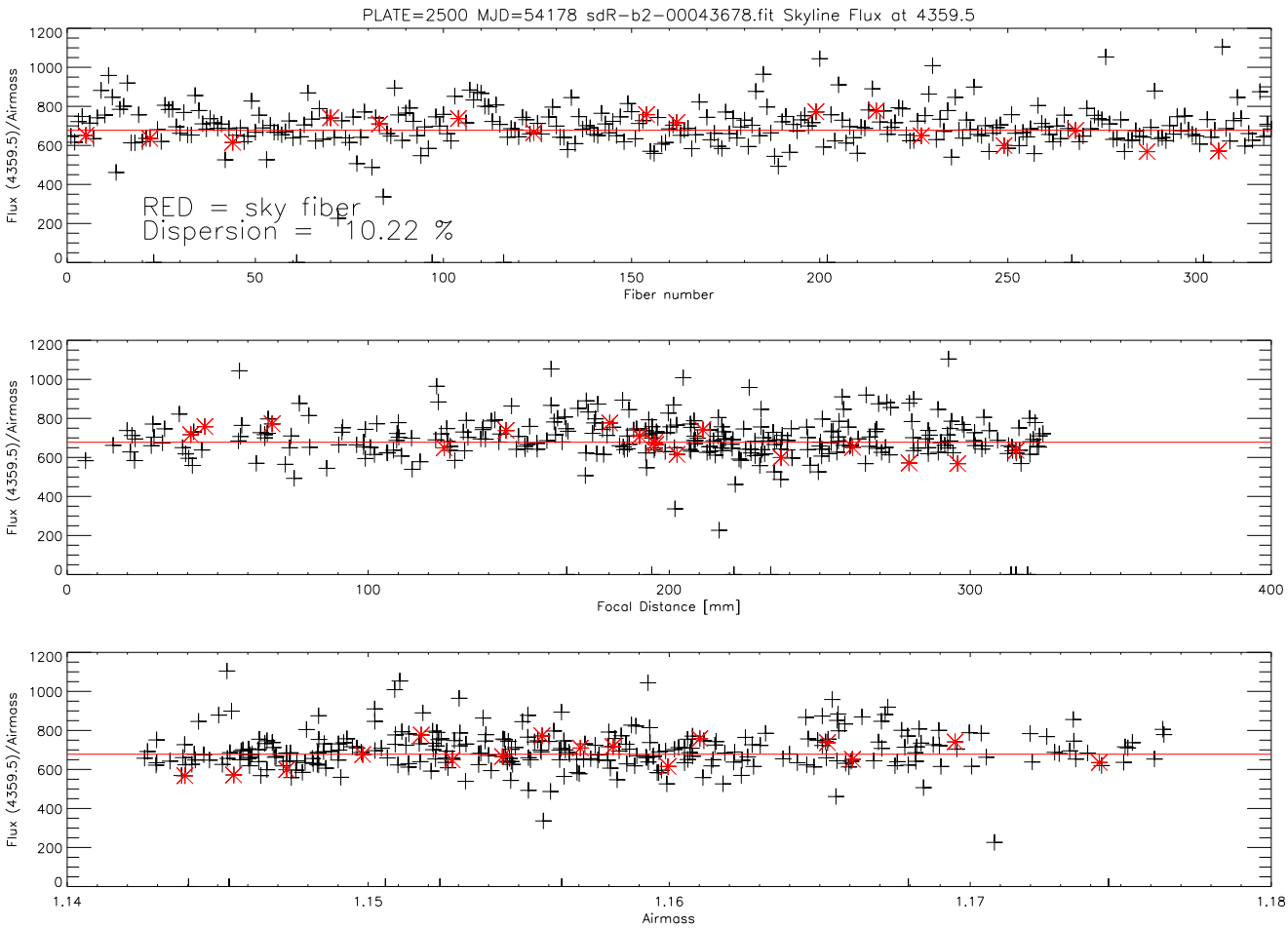

Number of sky fibers = 16
PLATE=2500 MJD=54178 sdR-b2-00043678.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

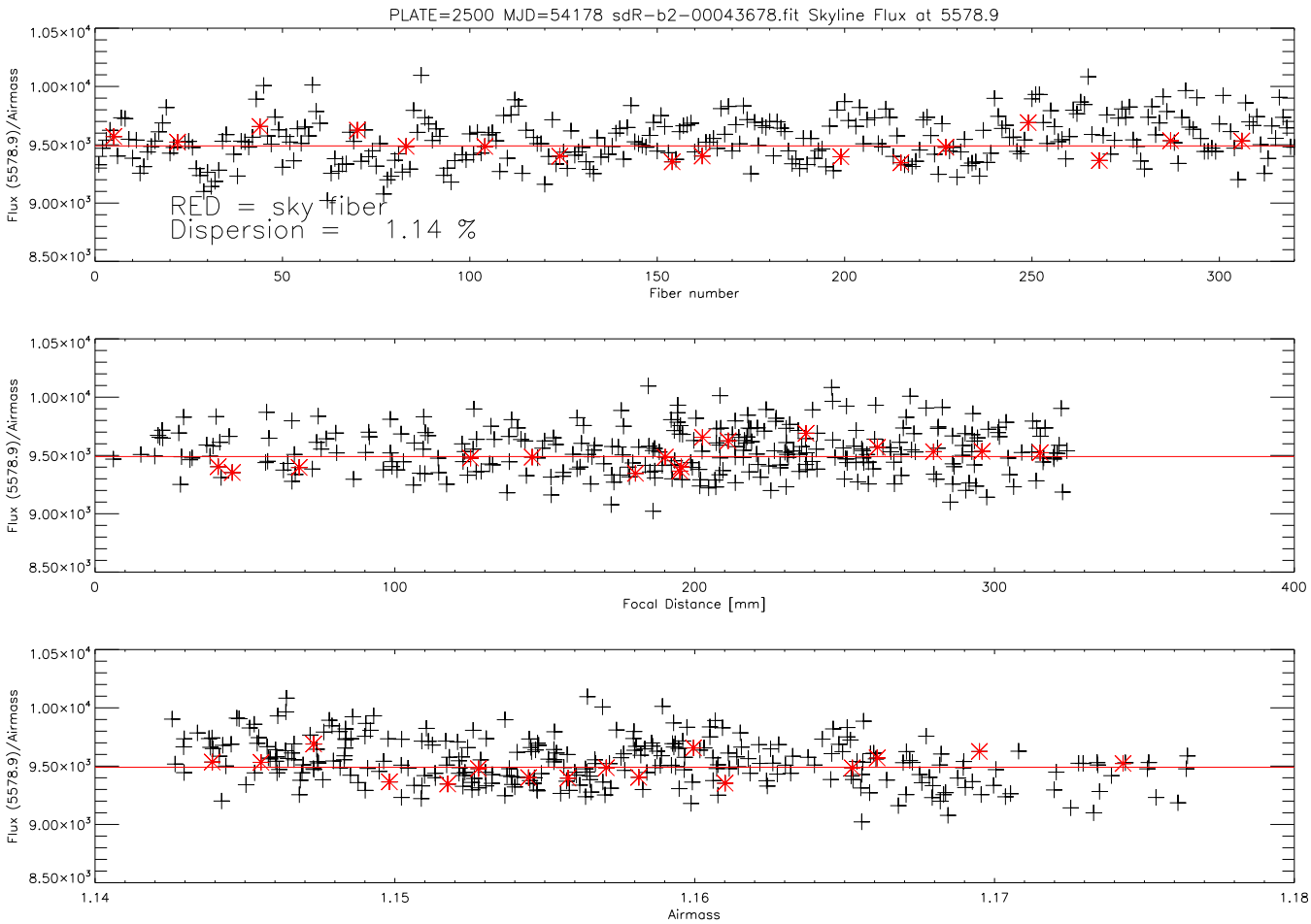

PLATE=2500 MJD=54178 sdR-b2-00043678.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

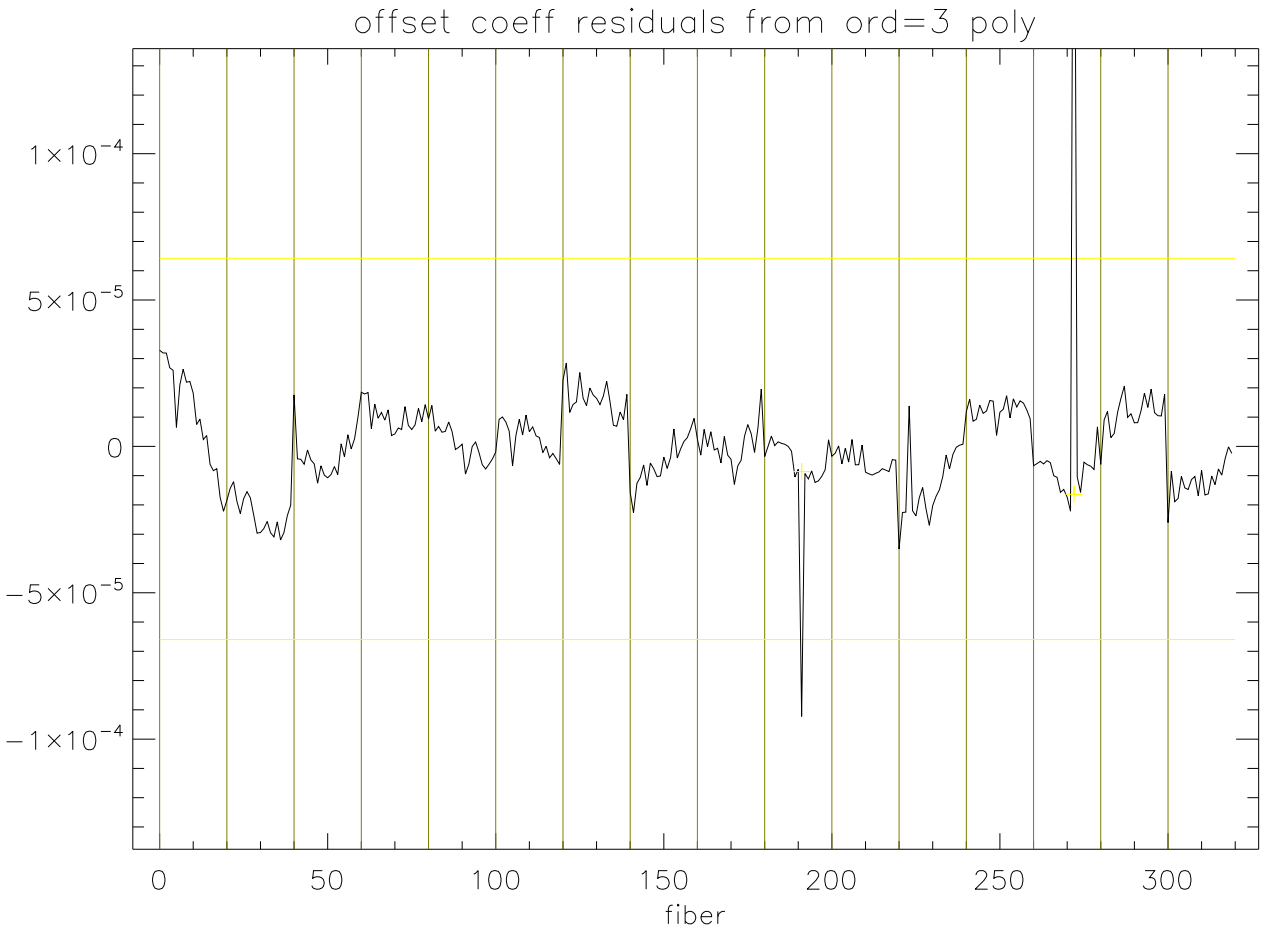

PLATE=2500 MJD=54178 sdR-b2-00043678.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

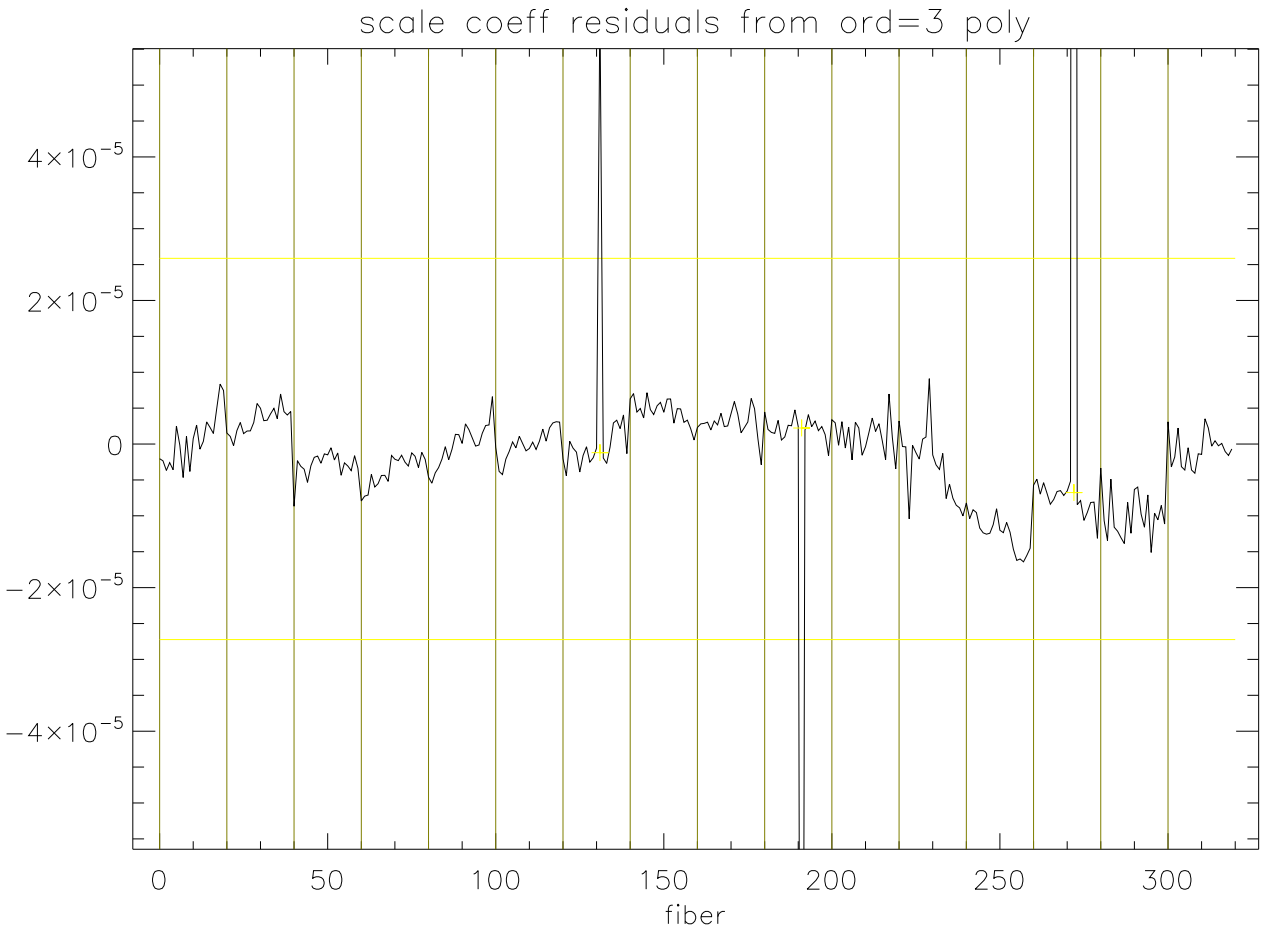

PLATE=2500 MJD=54178 sdR-b2-00043678.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
5570
5575
5580
5585
5590
λ [A]

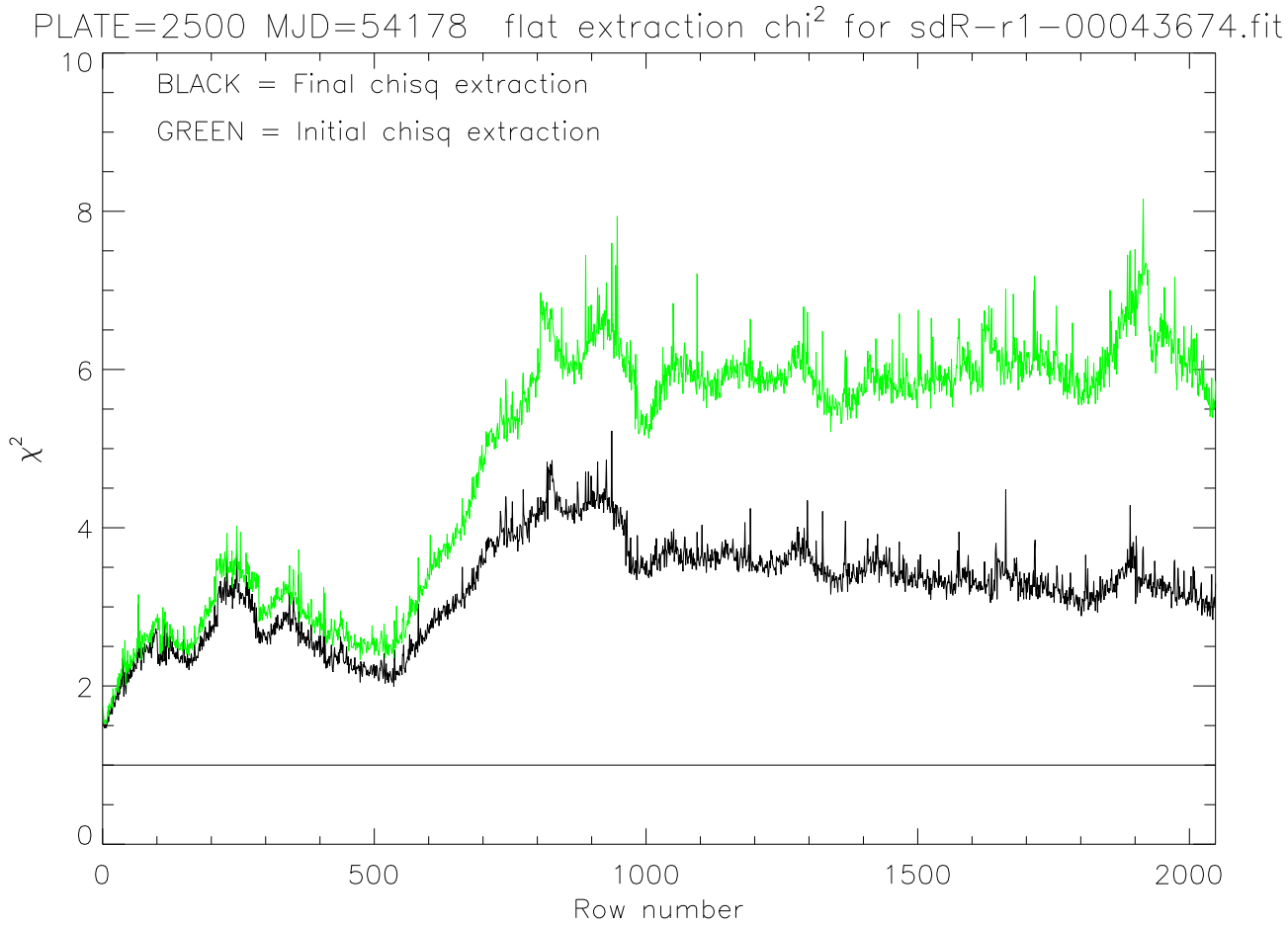

Number of sky fibers = 16
PLATE=2500 MJD=54178 sdR-b2-00043678.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

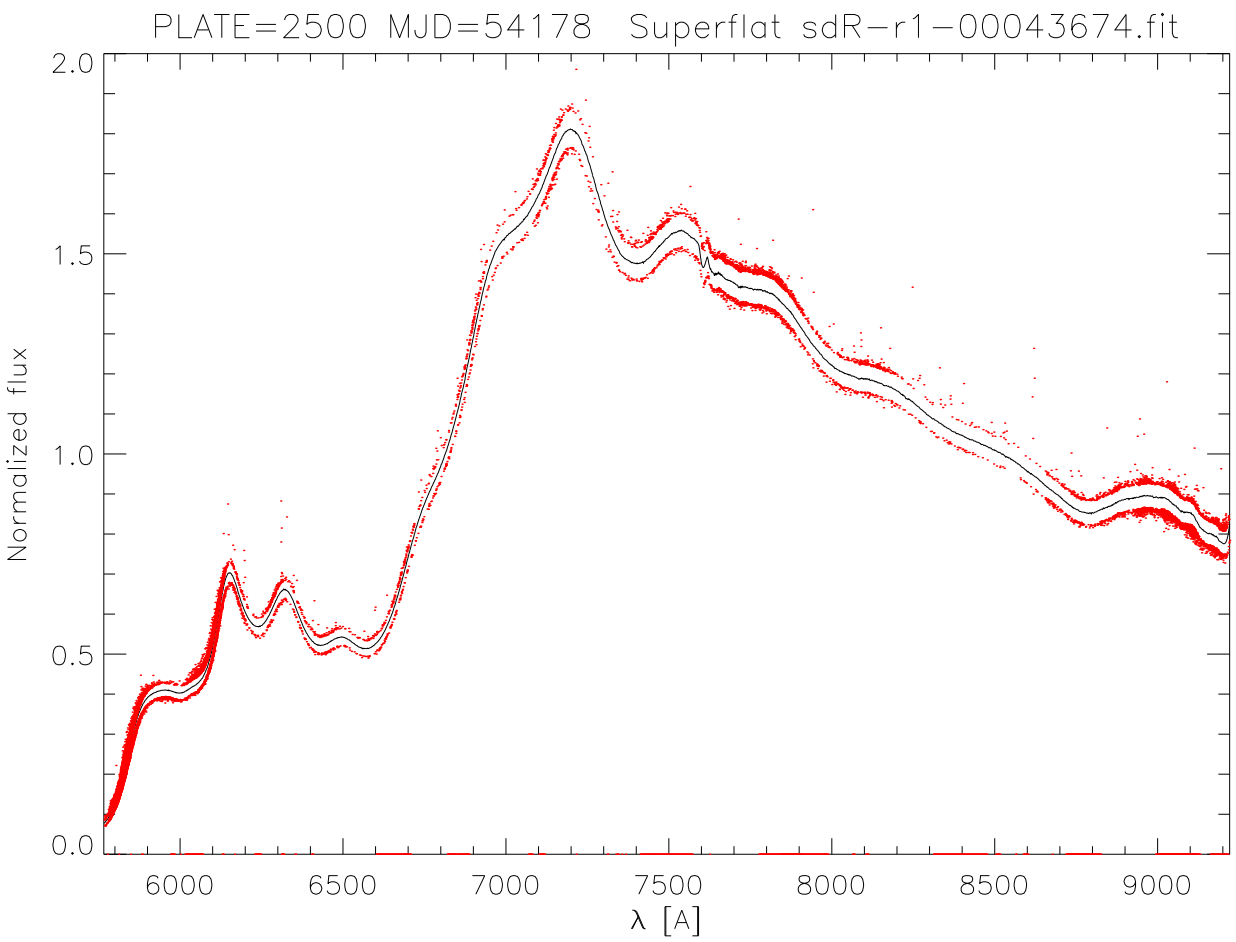

PLATE=2500 MJD=54178 sdR-b2-00043678.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 10.22 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

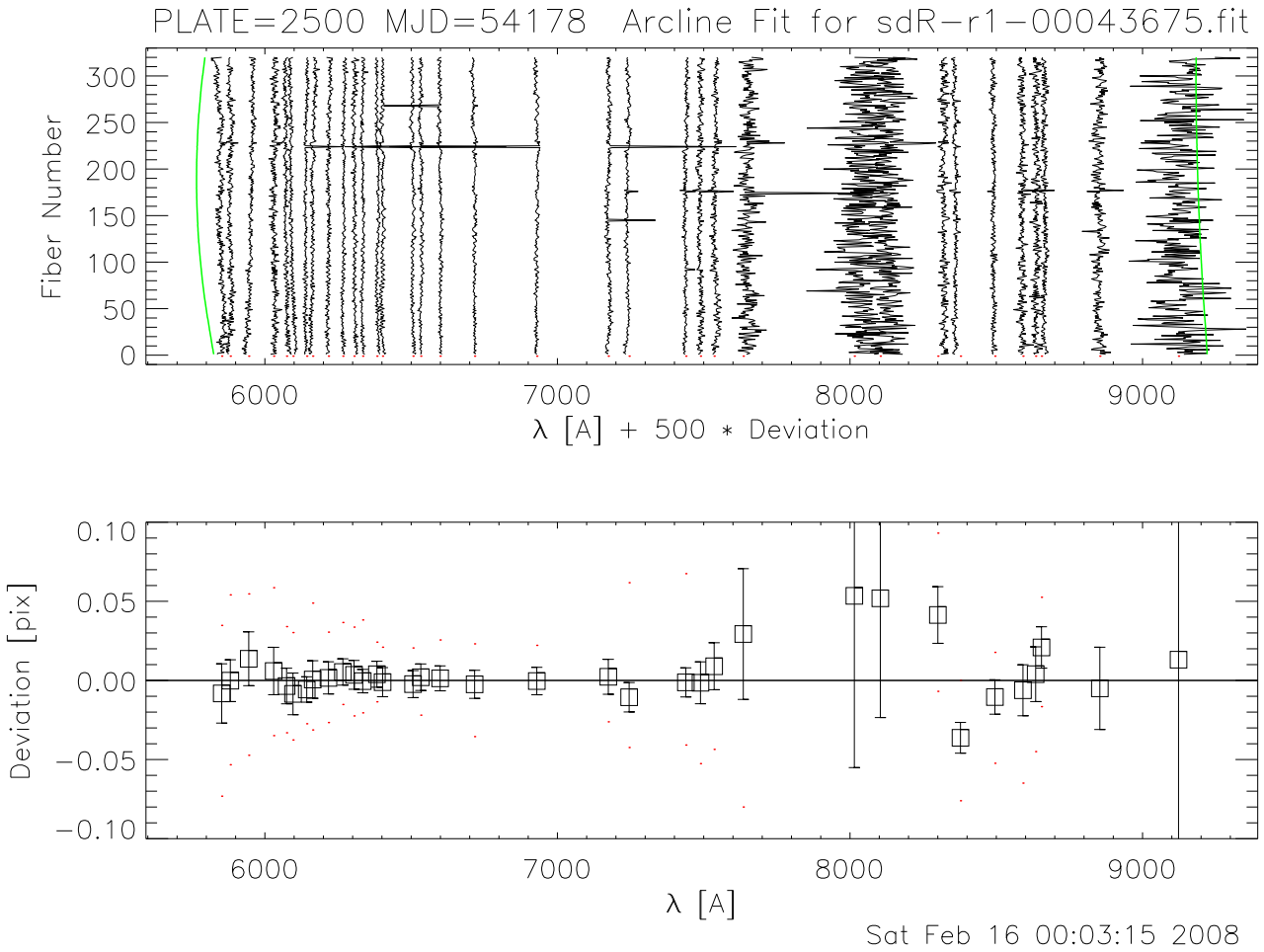

PLATE=2500 MJD=54178 sdR-b2-00043678.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
1.05×10⁴
1.00×10⁴
9.50×10³
9.00×10³
8.50×10³
RED = sky fiber
Dispersion = 1.14 %
0
50
100
150
200
250
300
Fiber number
Flux (5578.9)/Airmass
1.05×10⁴
1.00×10⁴
9.50×10³
9.00×10³
8.50×10³
0
100
200
300
400
Focal Distance [mm]
Flux (5578.9)/Airmass
1.05×10⁴
1.00×10⁴
9.50×10³
9.00×10³
8.50×10³
1.14
1.15
1.16
1.17
1.18
Airmass

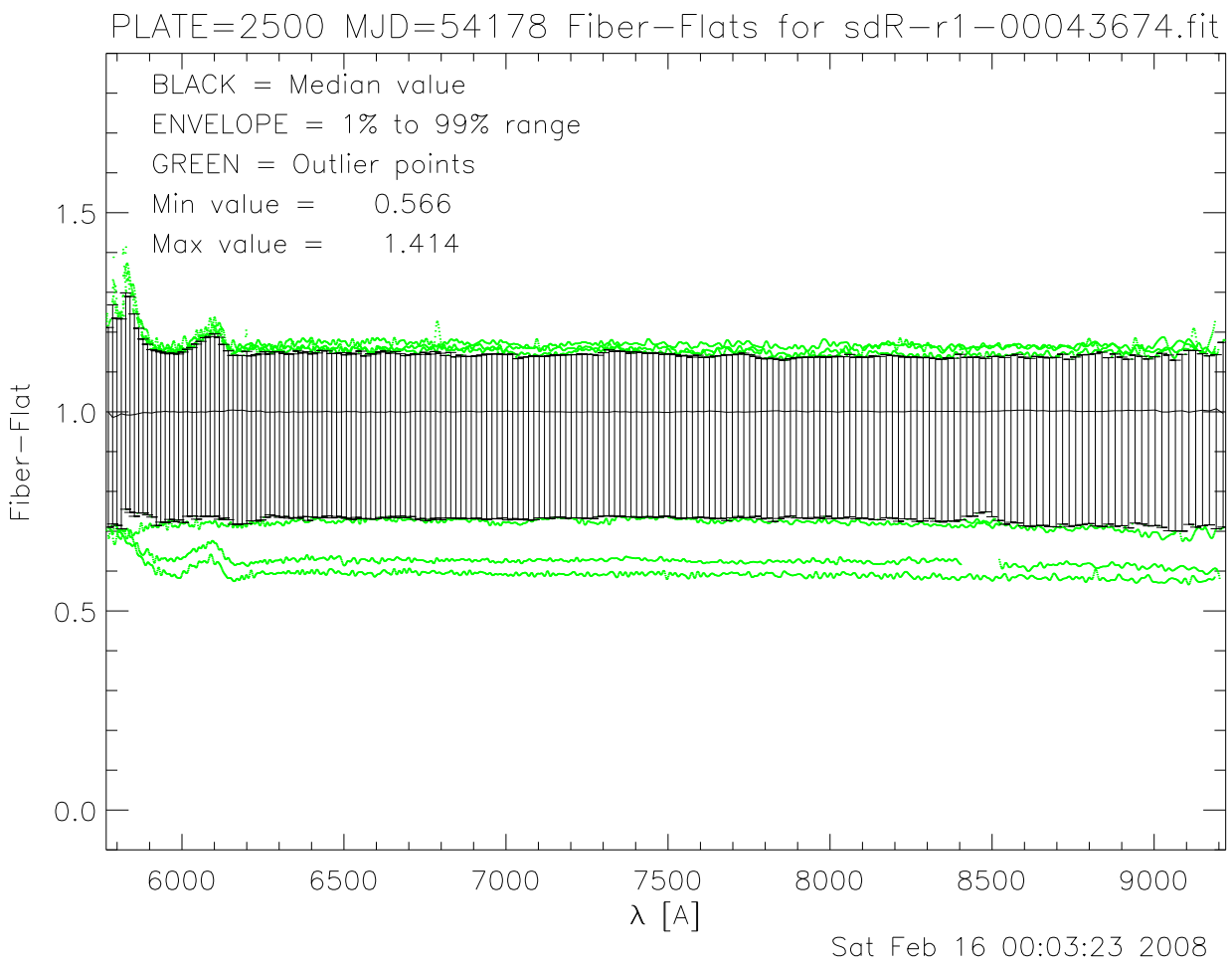

offset coeff residuals from ord=3 poly
1×10^-4
5×10^-5
0
−5×10^-5
−1×10^-4
0
50
100
150
200
250
300
fiber

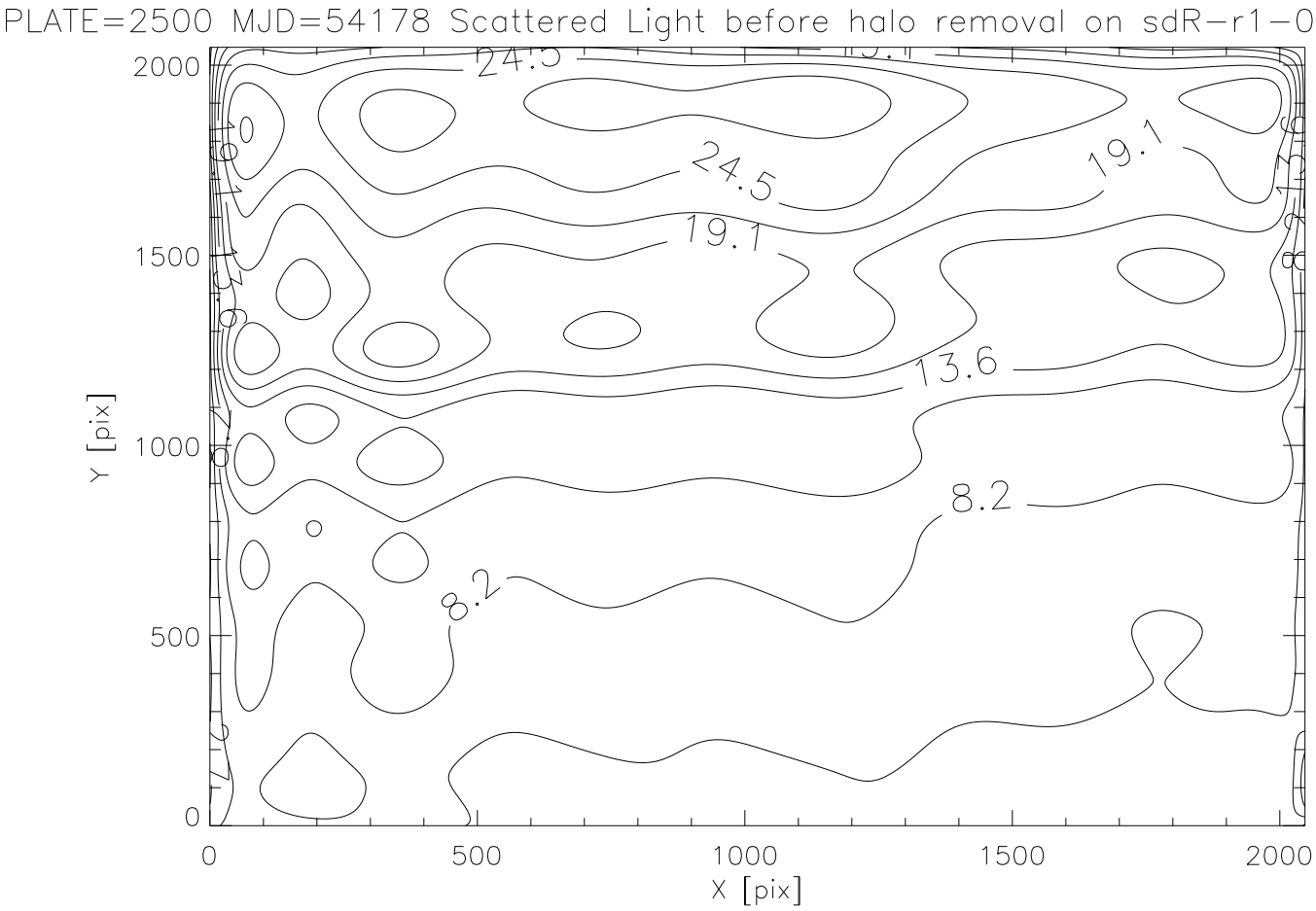

scale coeff residuals from ord=3 poly
4×10⁻⁵
2×10⁻⁵
0
−2×10⁻⁵
−4×10⁻⁵
0
50
100
150
200
250
300
fiber

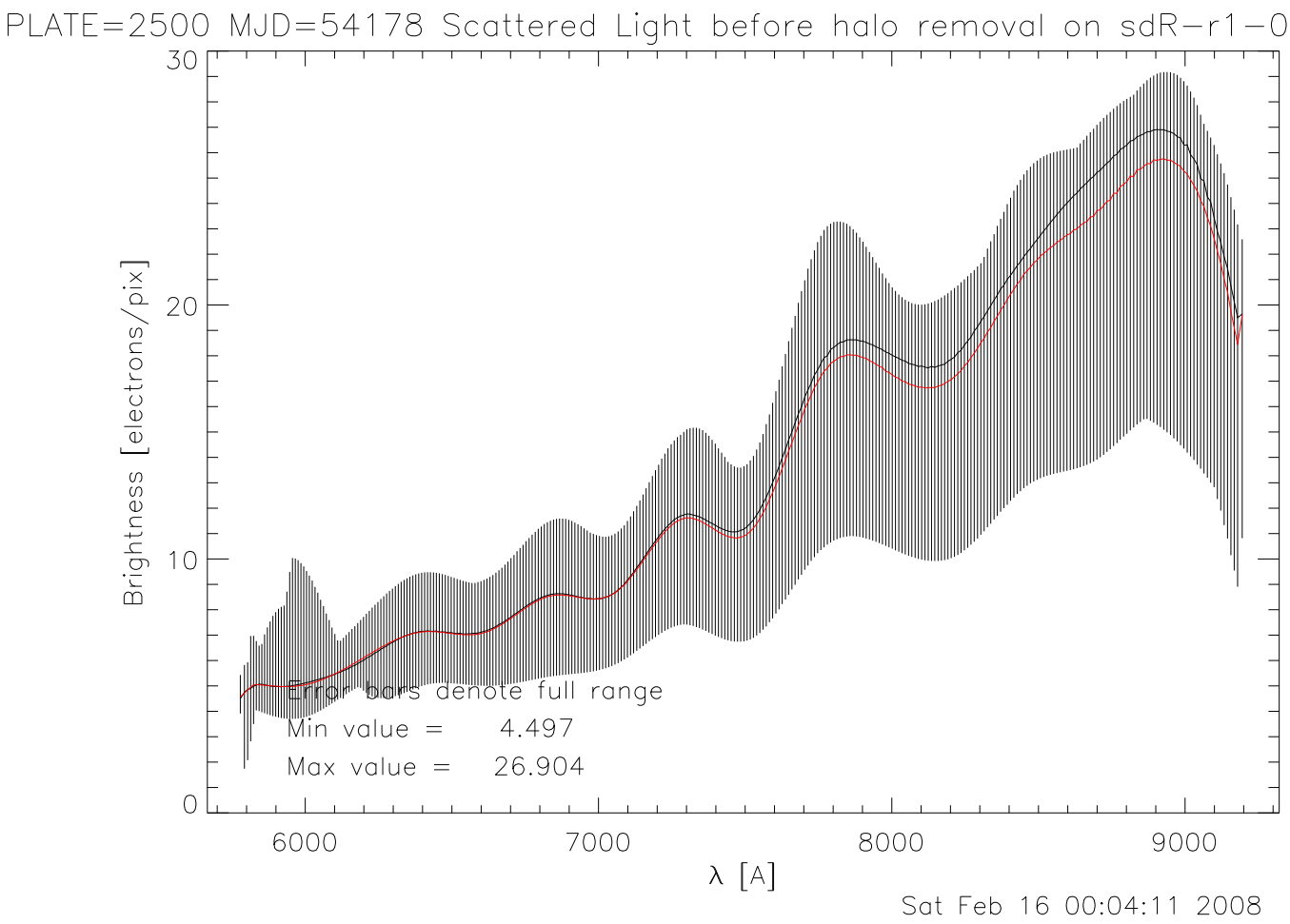

PLATE=2500 MJD=54178 flat extraction chi^2 for sdR−r1−00043674.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
2
4
6
8
10
0
500
1000
1500
2000

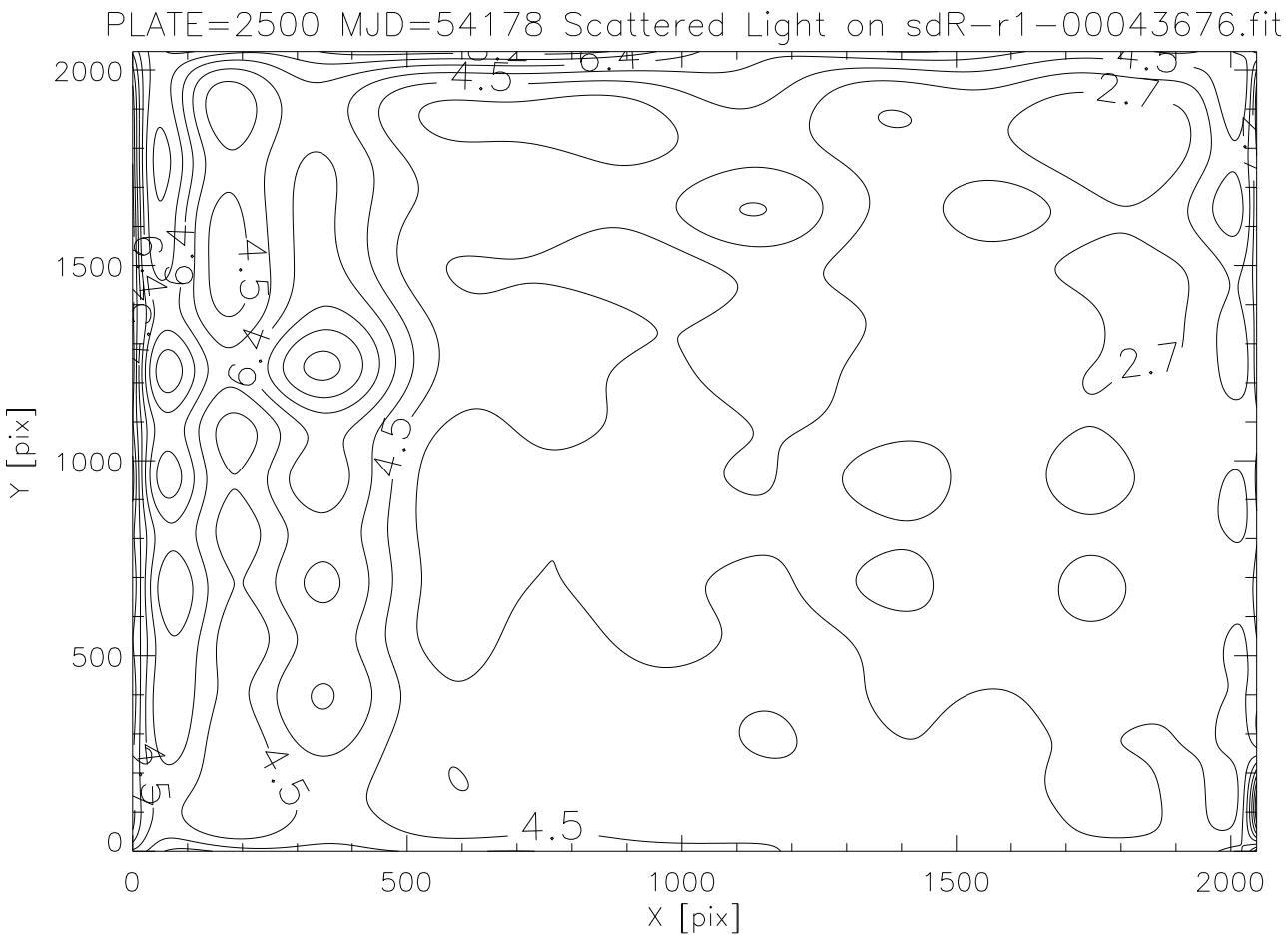

PLATE=2500 MJD=54178 Superflat sdR-r1-00043674.fit
Normalized flux
2.0
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

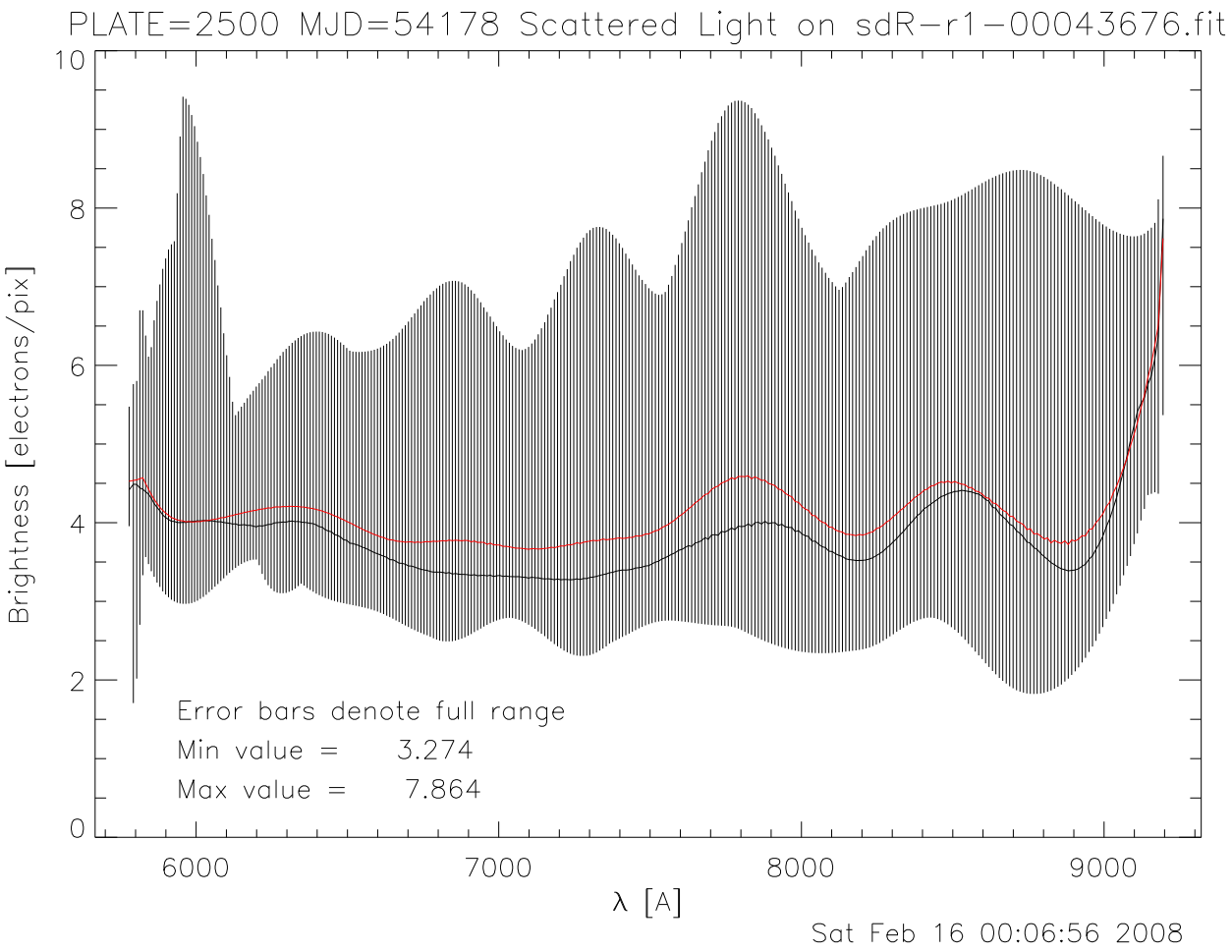

PLATE=2500 MJD=54178 Arcline Fit for sdR-r1-00043675.fit
Fiber Number
300
250
200
150
100
50
0
6000
7000
8000
9000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
6000
7000
8000
9000
λ [A]
Sat Feb 16 00:03:15 2008

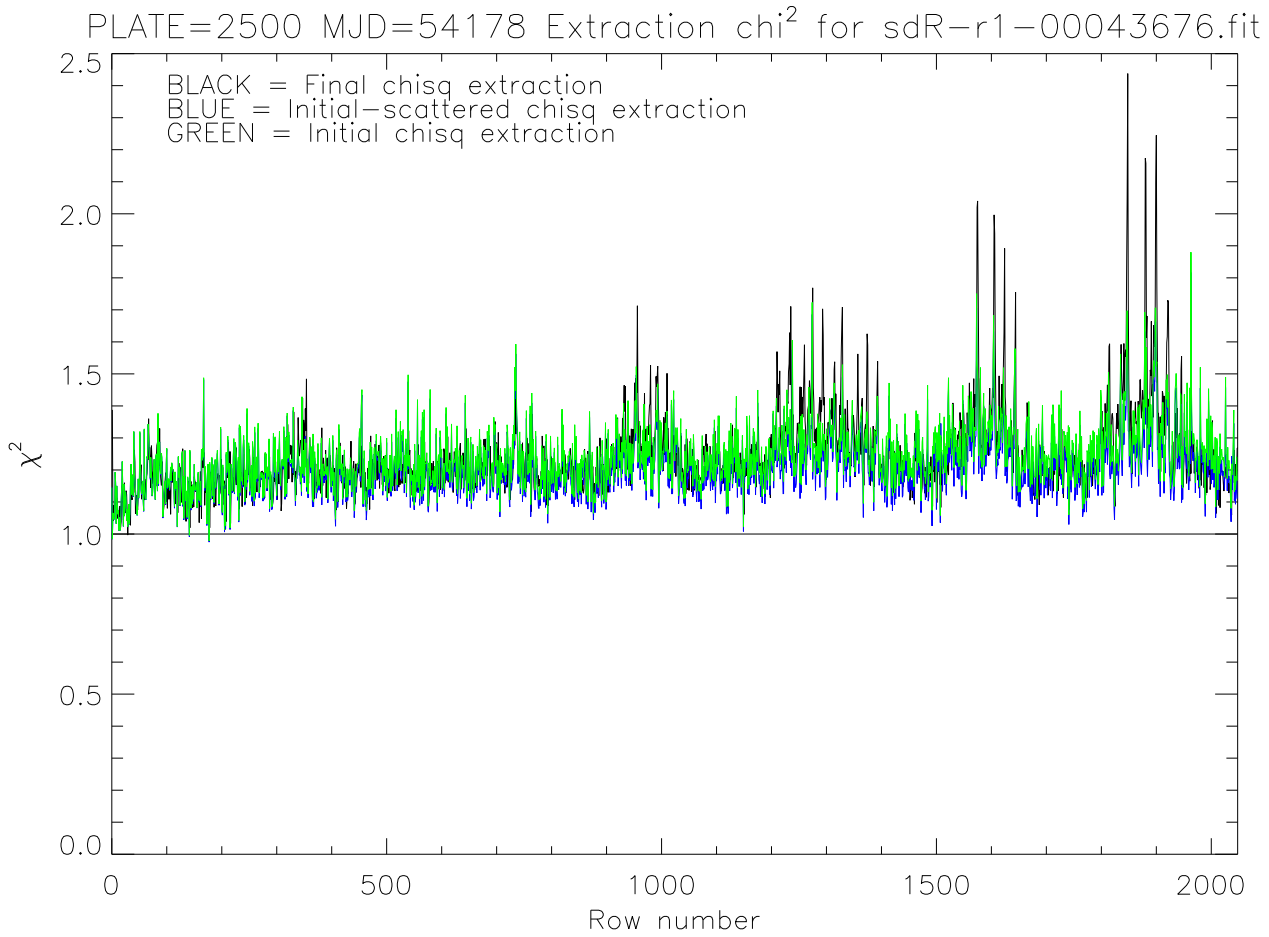

PLATE=2500 MJD=54178 Fiber−Flats for sdR−r1−00043674.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.566
Max value = 1.414
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sat Feb 16 00:03:23 2008

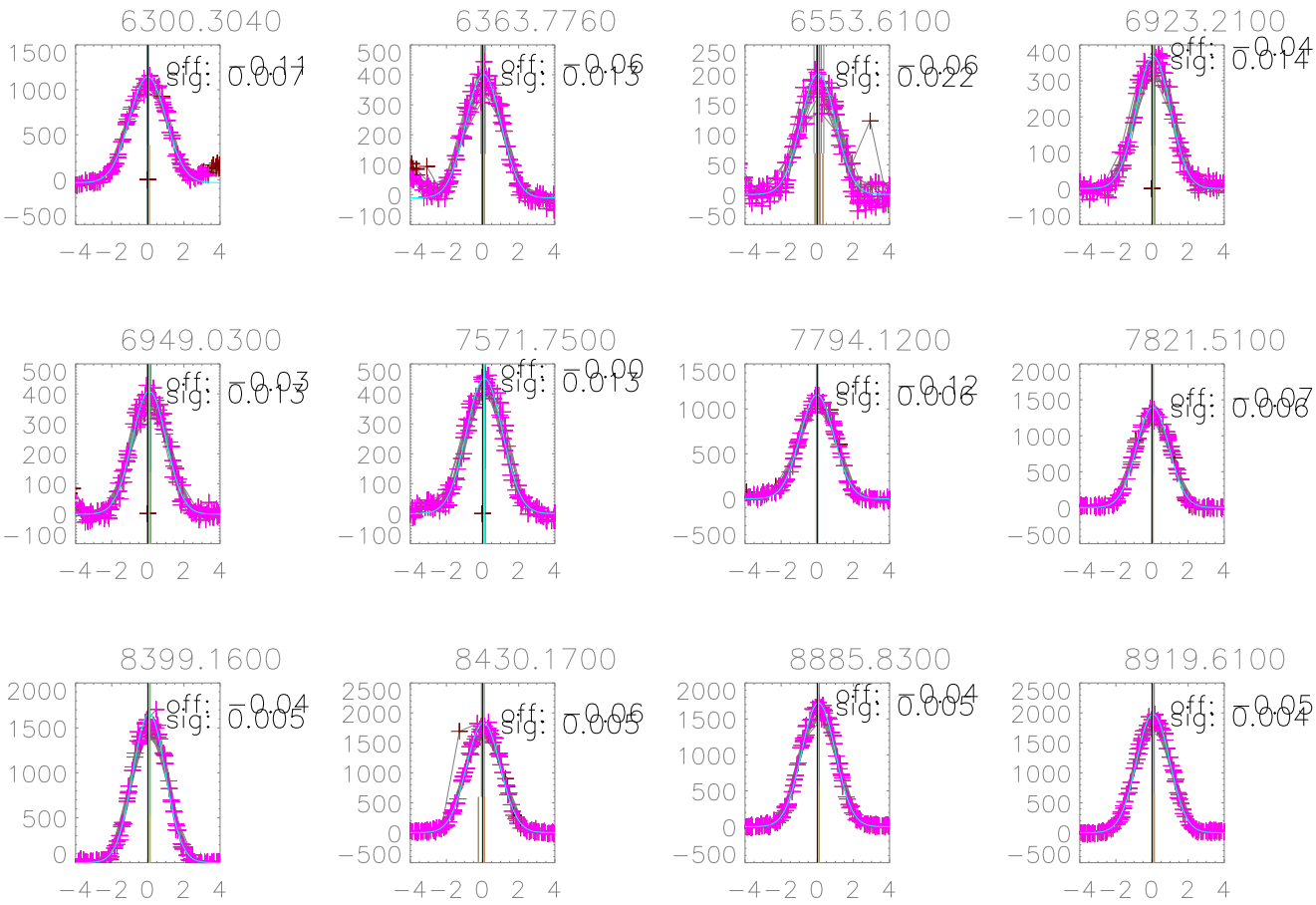

PLATE=2500 MJD=54178 Scattered Light before halo removal on sdR-r1-00043676.fi
24.5
19.1
13.6
8.2
Y [pix]
X [pix]
0
500
1000
1500
2000

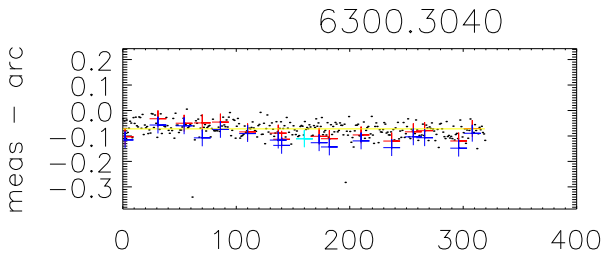

PLATE=2500 MJD=54178 Scattered Light before halo removal on sdR-r1-00043676.fi
Brightness [electrons/pix]
30
20
10
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 4.497
Max value = 26.904
Sat Feb 16 00:04:11 2008

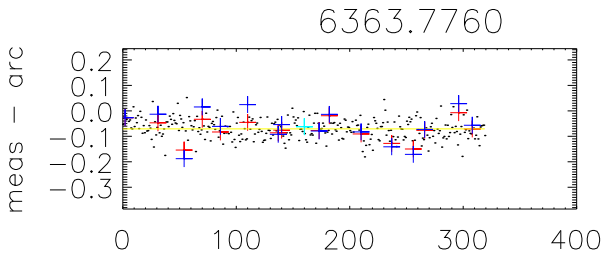

PLATE=2500 MJD=54178 Scattered Light on sdR−r1−00043676.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
4.5
2.7
6.4

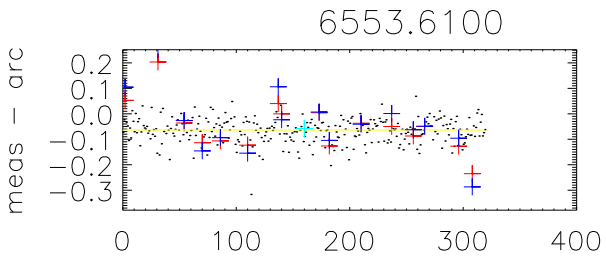

PLATE=2500 MJD=54178 Scattered Light on sdR-r1-00043676.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 3.274
Max value = 7.864
Sat Feb 16 00:06:56 2008

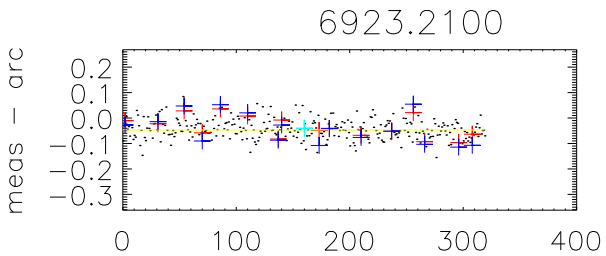

PLATE=2500 MJD=54178 Extraction chi^2 for sdR−r1−00043676.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
2.5
2.0
1.5
1.0
0.5
0.0
0
500
1000
1500
2000
Row number

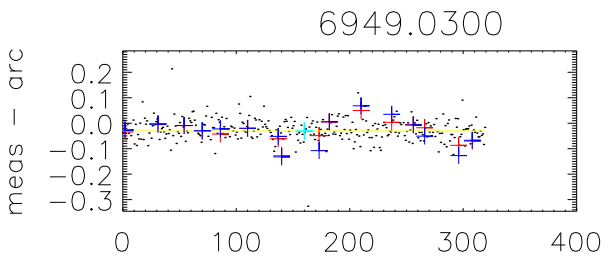

6300.3040
off: −0.11
sig: 0.007
6363.7760
off: −0.06
sig: 0.013
6553.6100
off: −0.06
sig: 0.022
6923.2100
off: −0.04
sig: 0.014
6949.0300
off: −0.03
sig: 0.013
7571.7500
off: −0.09
sig: 0.013
7794.1200
off: −0.12
sig: 0.006
7821.5100
off: −0.07
sig: 0.006
8399.1600
off: −0.04
sig: 0.005
8430.1700
off: −0.06
sig: 0.005
8885.8300
off: −0.04
sig: 0.005
8919.6100
off: −0.05
sig: 0.004

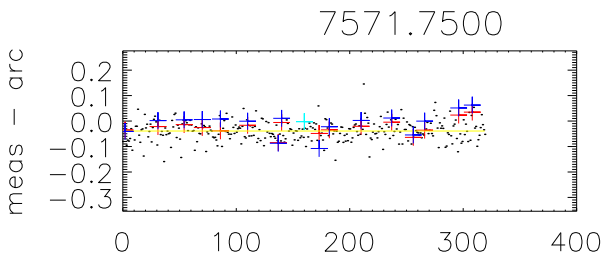

6300.3040
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

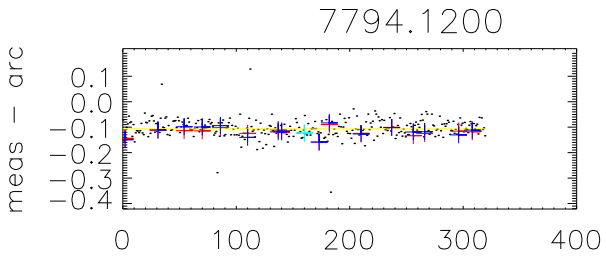

6363.7760
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

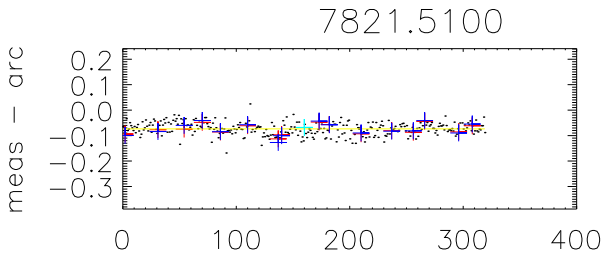

6553.6100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

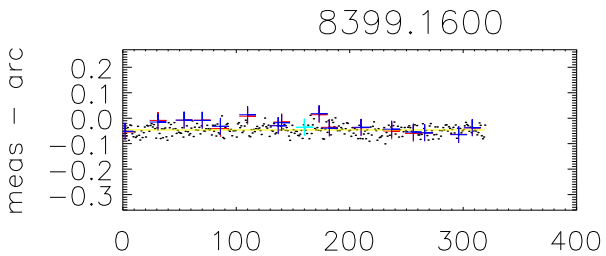

6923.2100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

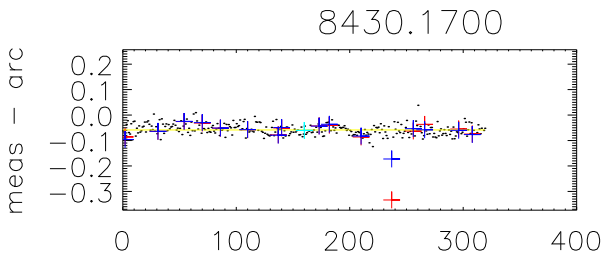

6949.0300
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

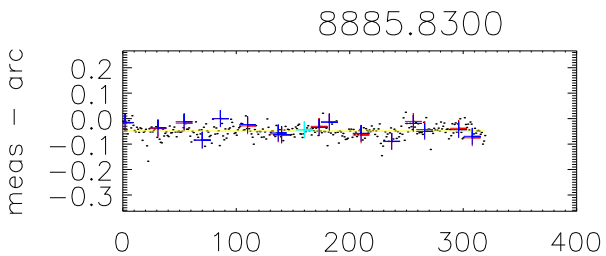

7571.7500
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

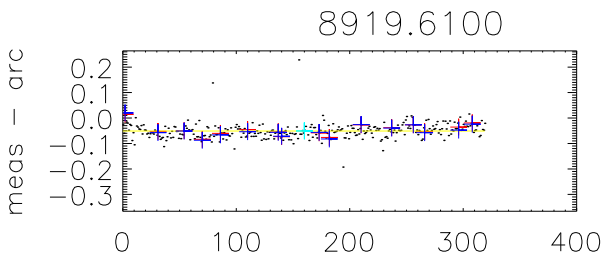

7794.1200
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

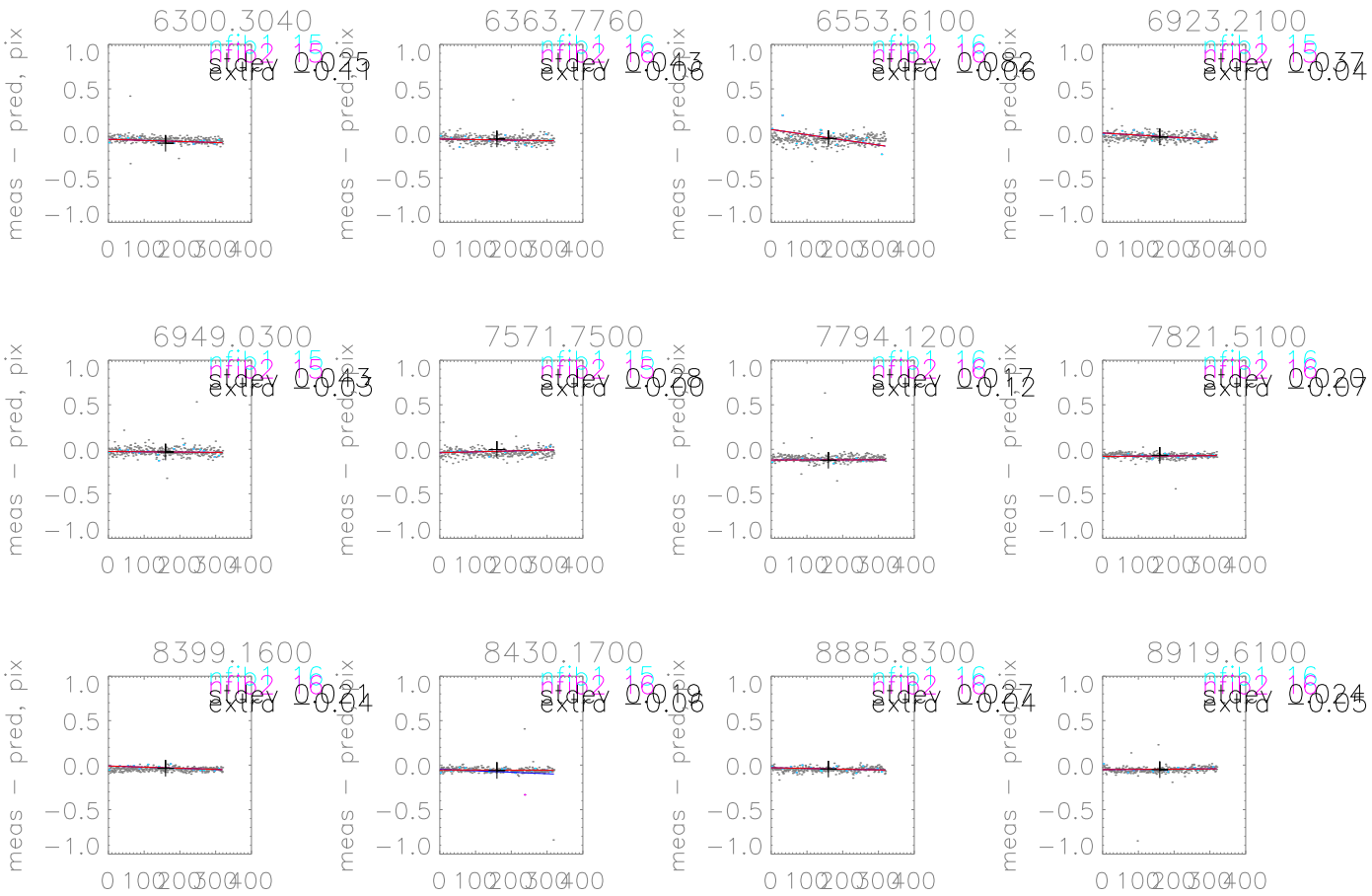

7821.5100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

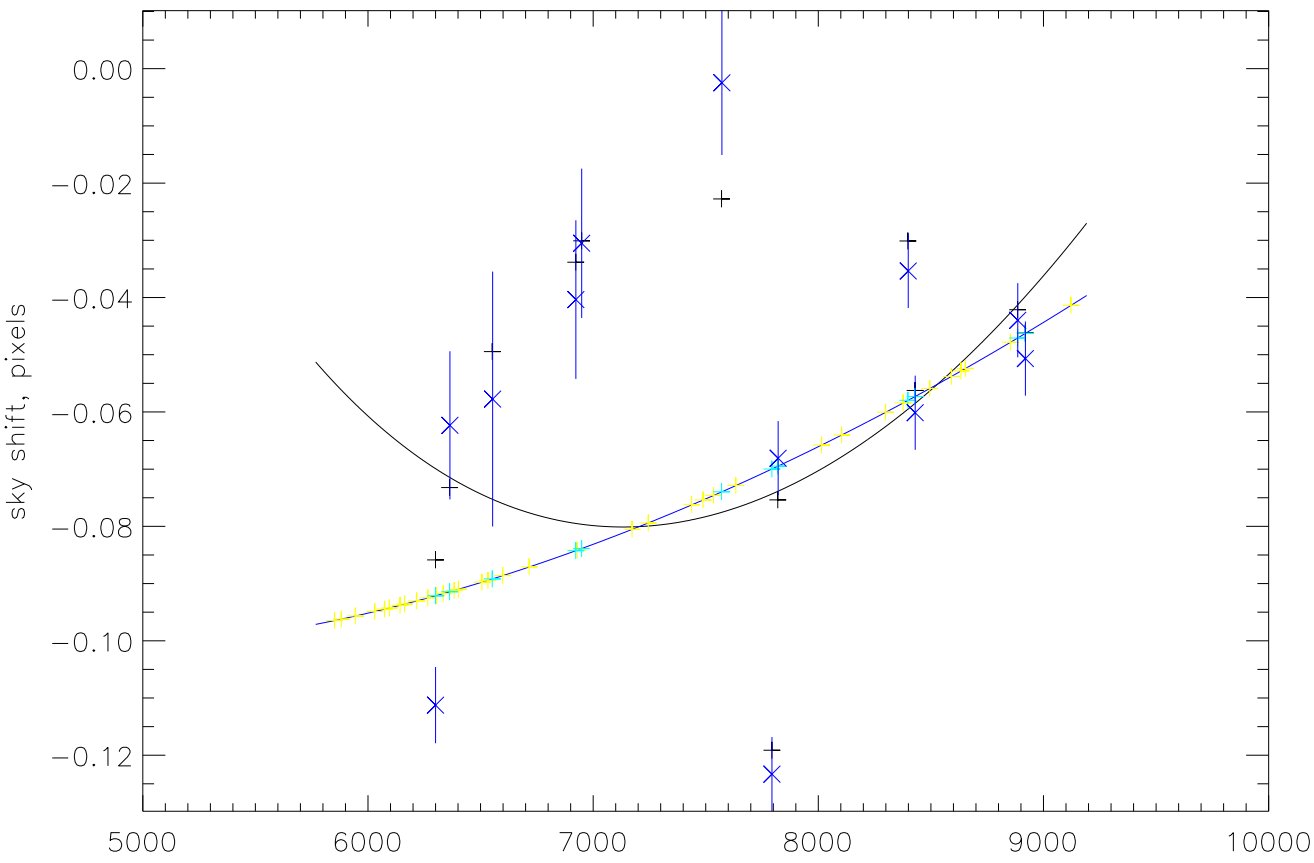

8399.1600
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400


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

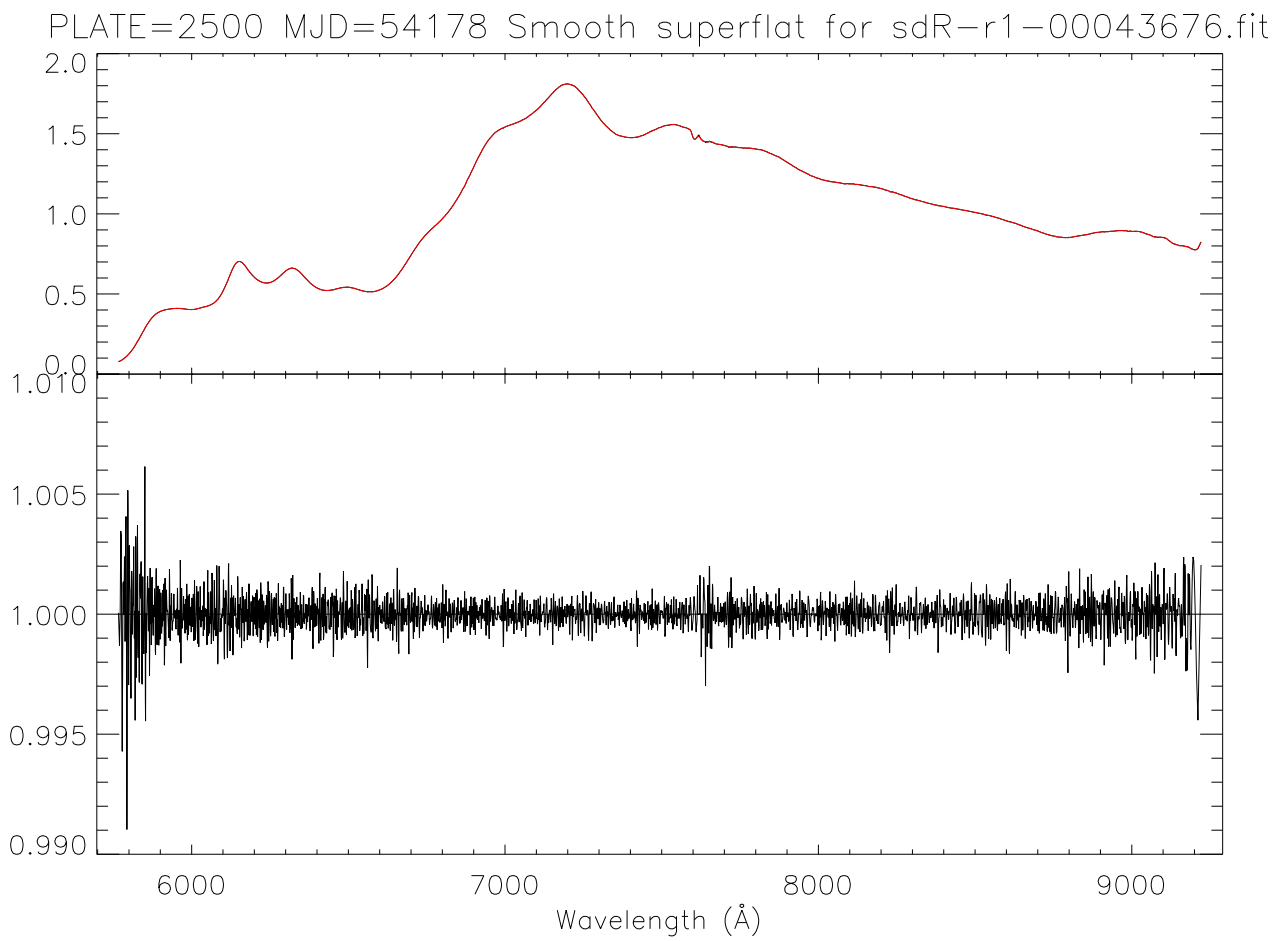

8885.8300
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

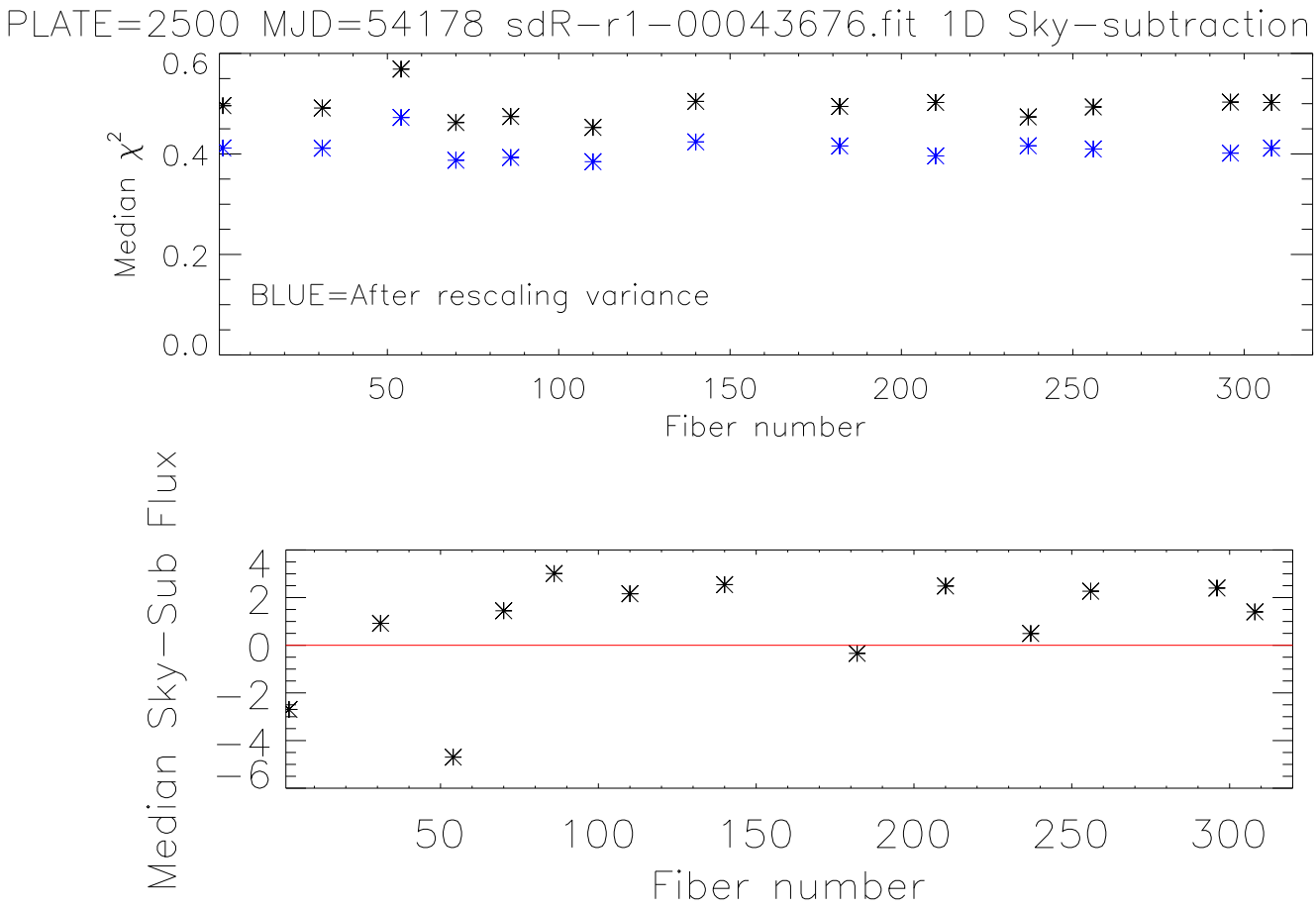

8919.6100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400


6300.3040
stdev 0.025
extra 0.041
6363.7760
stdev 0.043
extra 0.008
6553.6100
stdev 0.082
extra 0.006
6923.2100
stdev 0.037
extra 0.04
6949.0300
stdev 0.043
extra 0.03
7571.7500
stdev 0.028
extra 0.00
7794.1200
stdev 0.017
extra 0.12
7821.5100
stdev 0.020
extra 0.07
8399.1600
stdev 0.021
extra 0.04
8430.1700
stdev 0.019
extra 0.06
8885.8300
stdev 0.027
extra 0.04
8919.6100
stdev 0.024
extra 0.05
meas − pred, pix
mfib2 15
mfib2 16

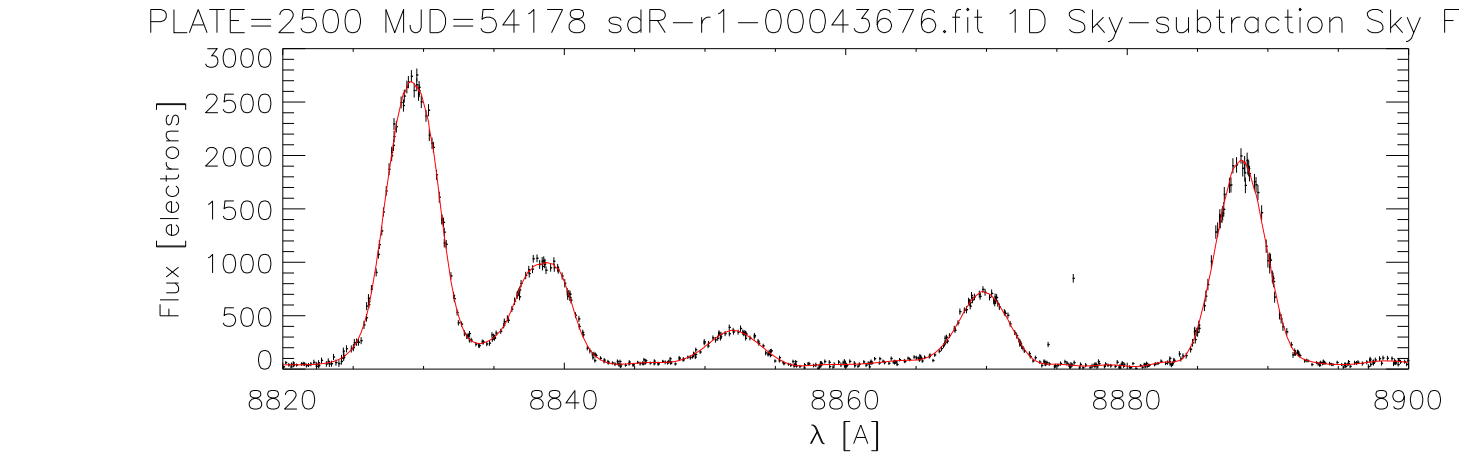

0.00
−0.02
−0.04
−0.06
−0.08
−0.10
−0.12
sky shift, pixels
5000
6000
7000
8000
9000
10000

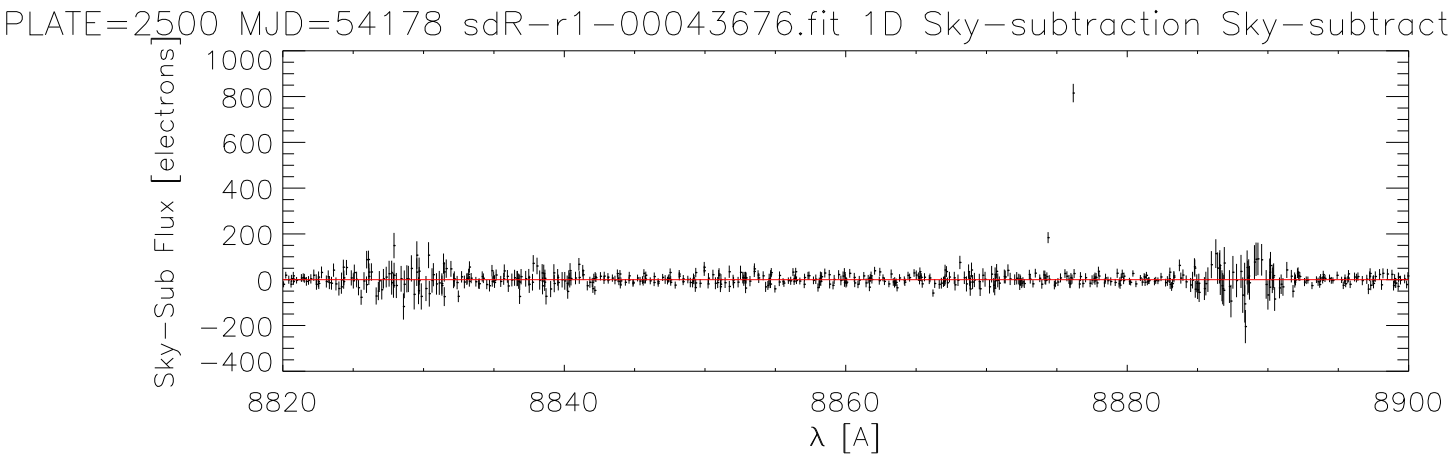
es= −0.0000

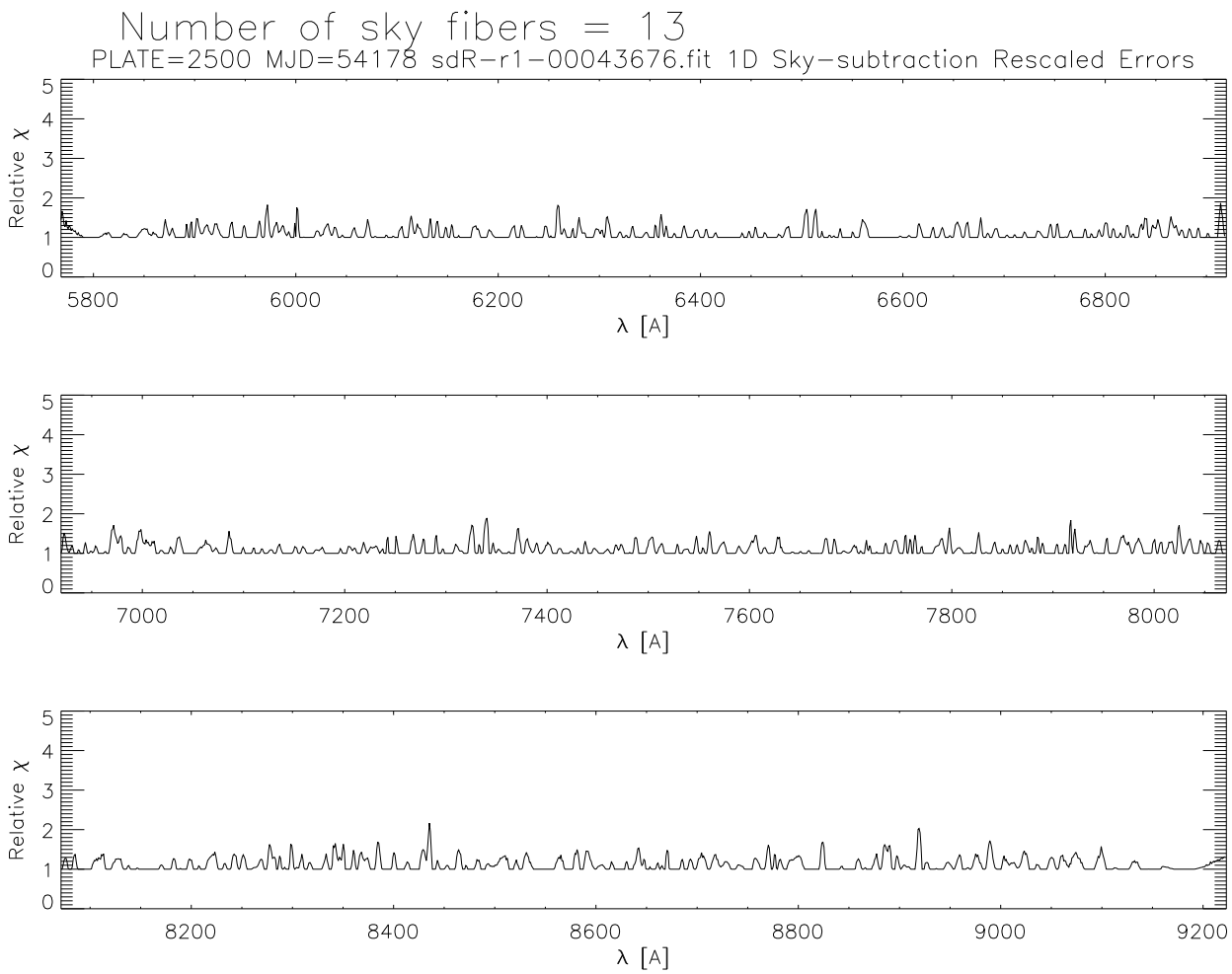

PLATE=2500 MJD=54178 Smooth superflat for sdR−r1−00043676.fit
2.0
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
6000
7000
8000
9000
Wavelength (Å)

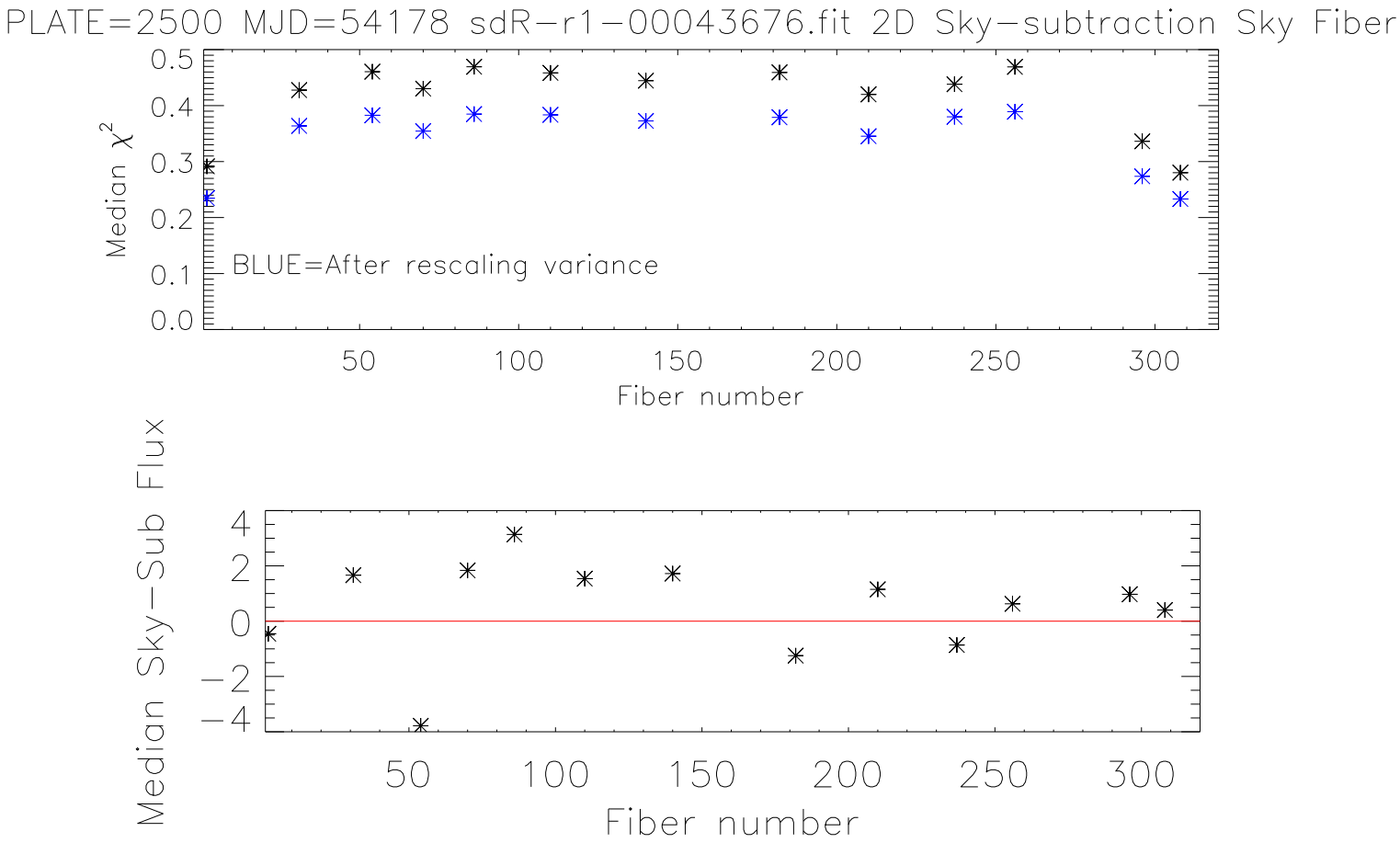

PLATE=2500 MJD=54178 sdR-r1-00043676.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number

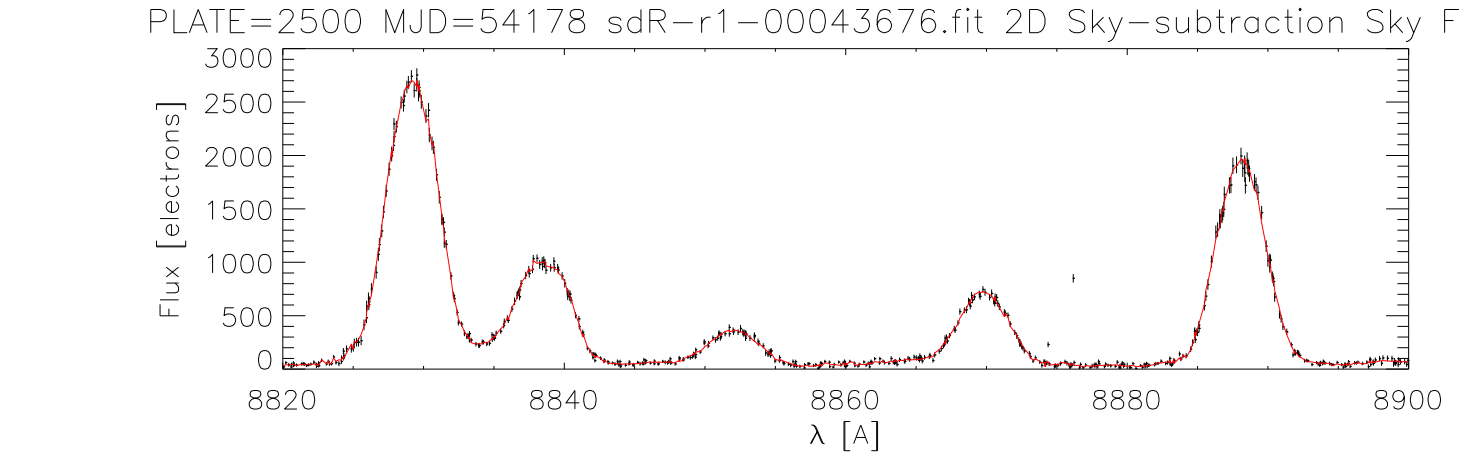
Median Sky-Sub Flux
-6
-4
-2
0
2
4
50
100
150
200
250
300
Fiber number

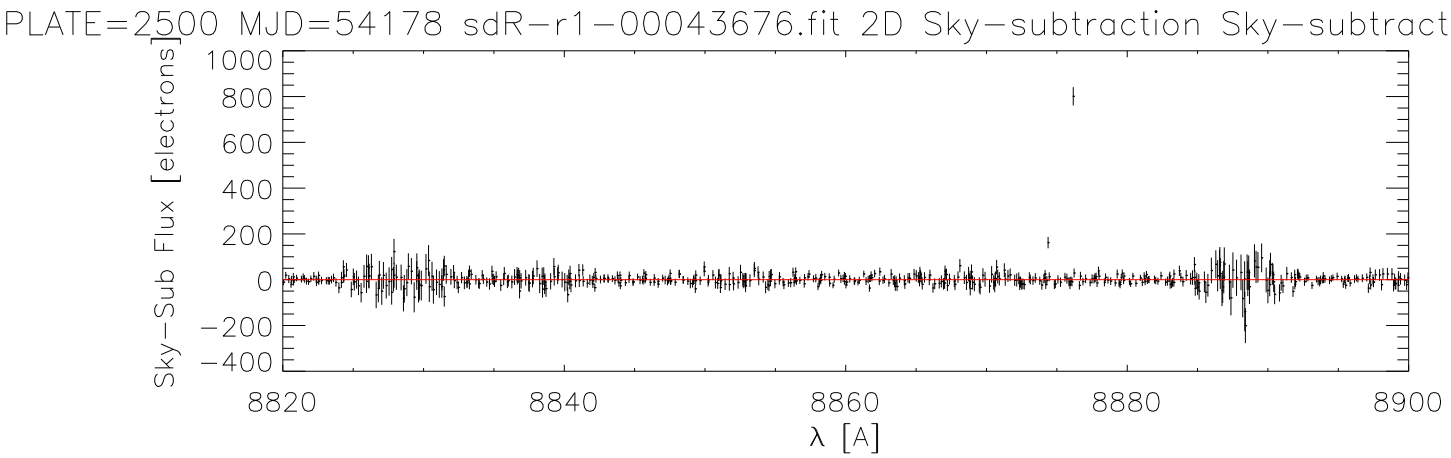

PLATE=2500 MJD=54178 sdR-r1-00043676.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
3000
2500
2000
1500
1000
500
0
8820
8840
8860
8880
8900
λ [A]

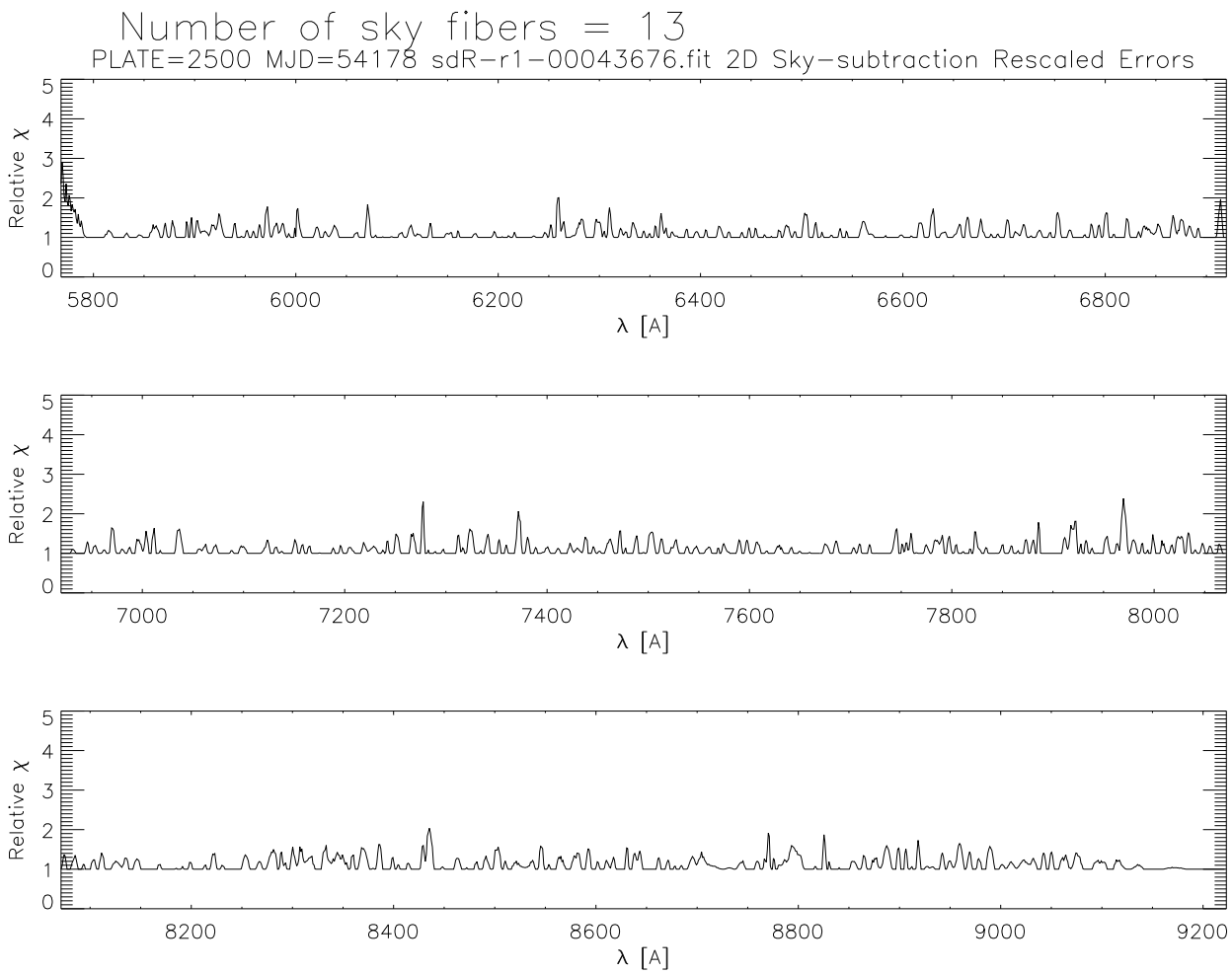

PLATE=2500 MJD=54178 sdR-r1-00043676.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
1000
800
600
400
200
0
-200
-400
8820
8840
8860
8880
8900
λ [A]

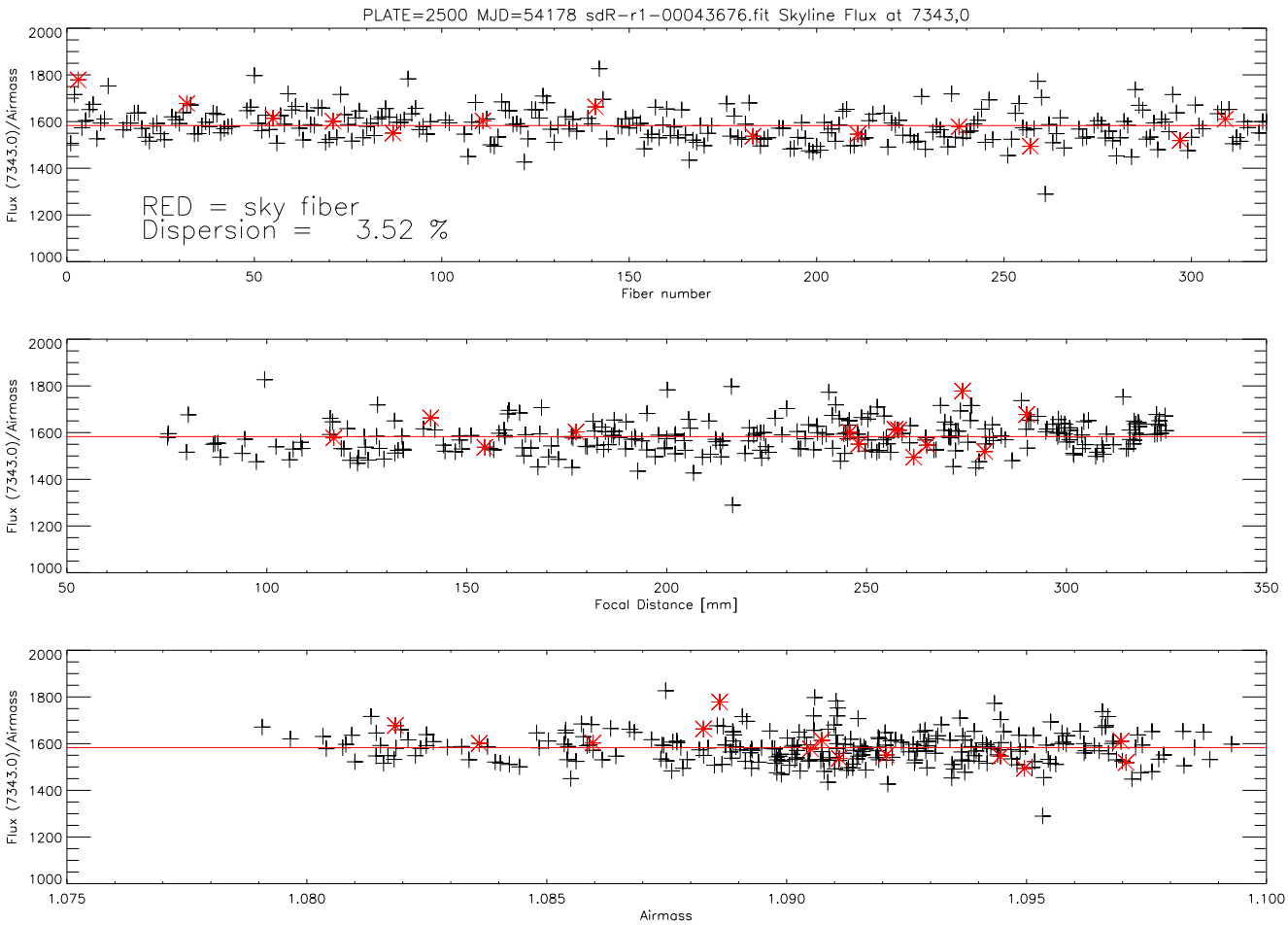

Number of sky fibers = 13
PLATE=2500 MJD=54178 sdR-r1-00043676.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

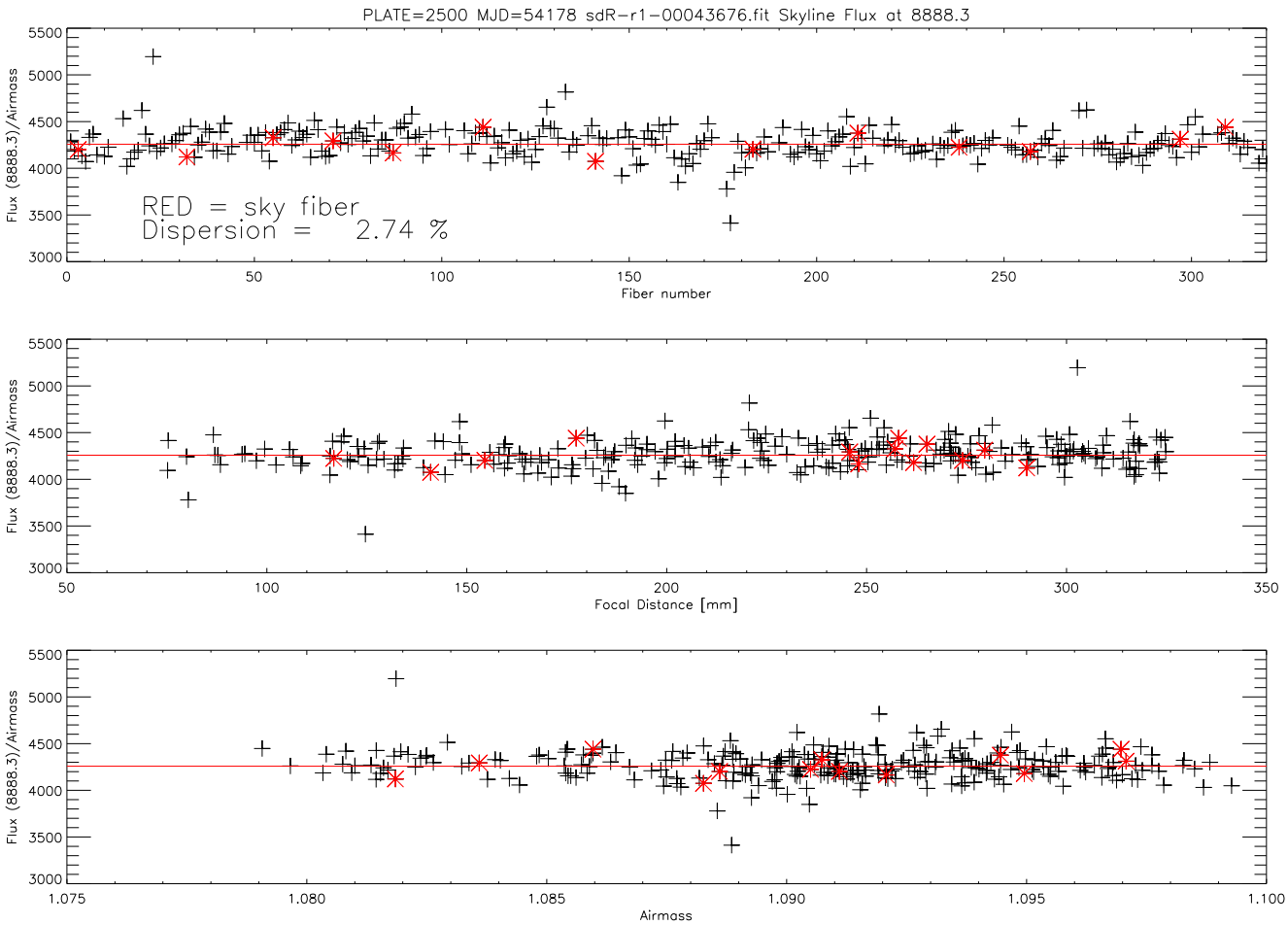

PLATE=2500 MJD=54178 sdR-r1-00043676.fit 2D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-4
-2
0
2
4
50
100
150
200
250
300
Fiber number

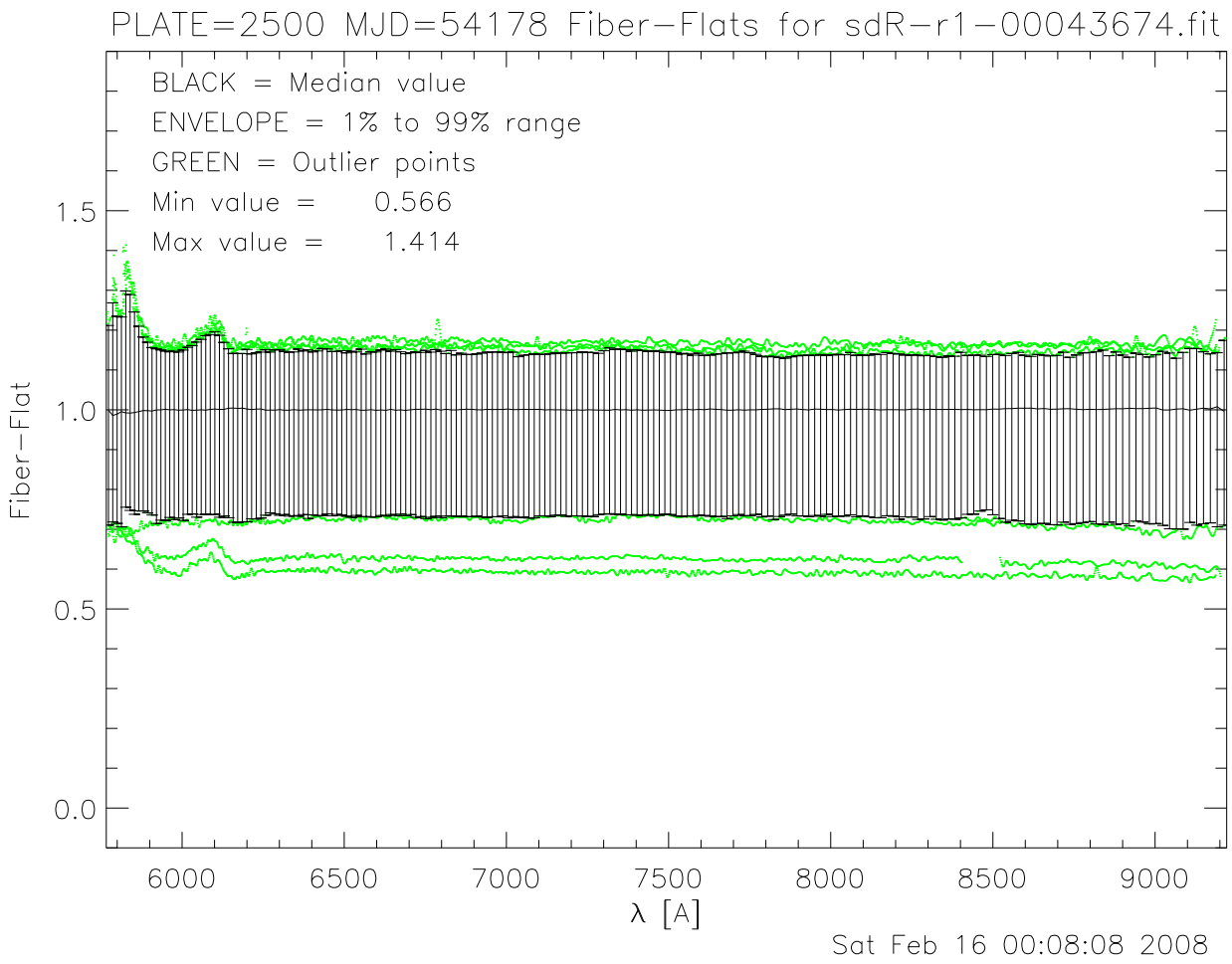

PLATE=2500 MJD=54178 sdR-r1-00043676.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
3000
2500
2000
1500
1000
500
0
8820
8840
8860
8880
8900
λ [A]

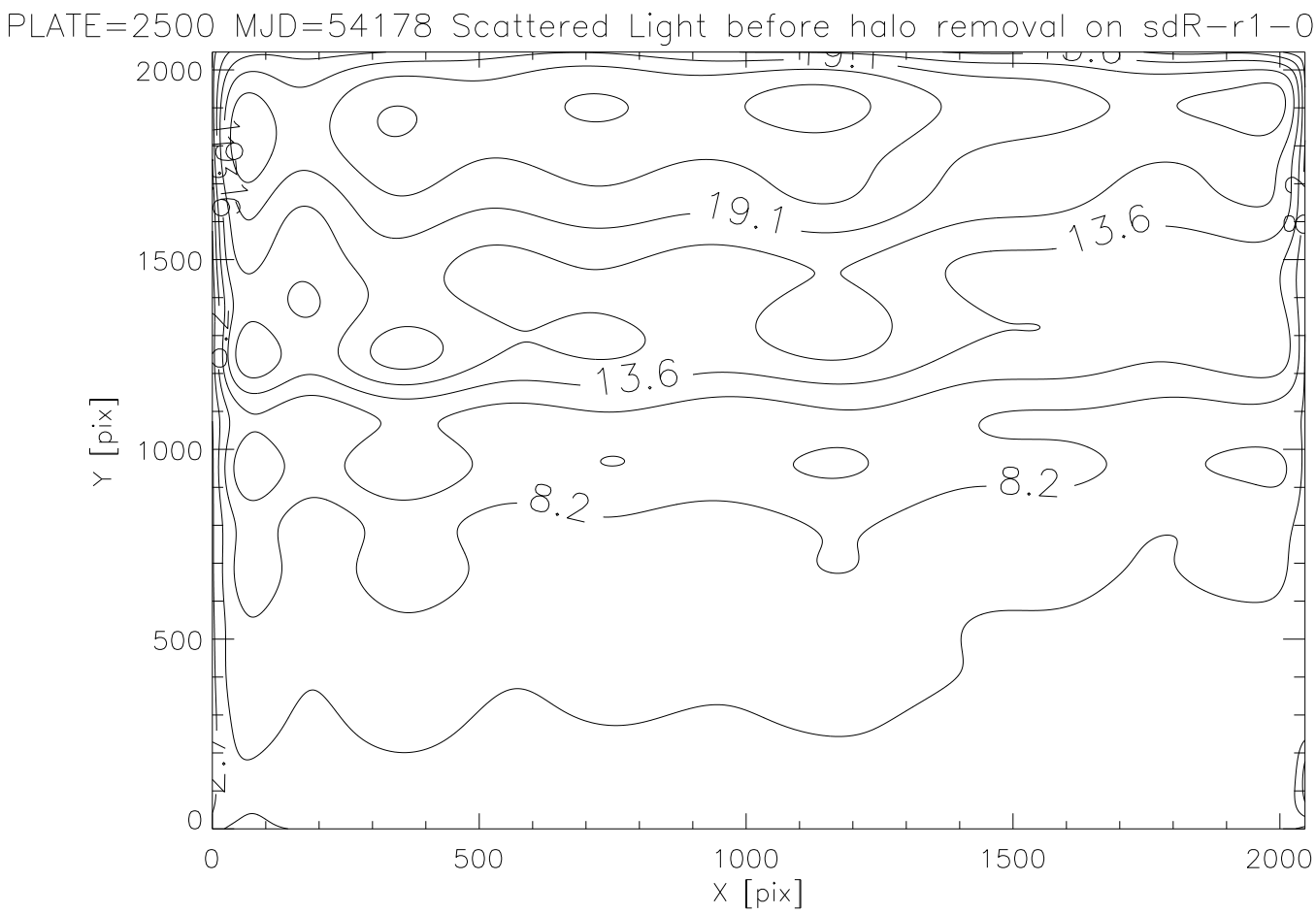

PLATE=2500 MJD=54178 sdR-r1-00043676.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
1000
800
600
400
200
0
-200
-400
8820
8840
8860
8880
8900
λ [A]

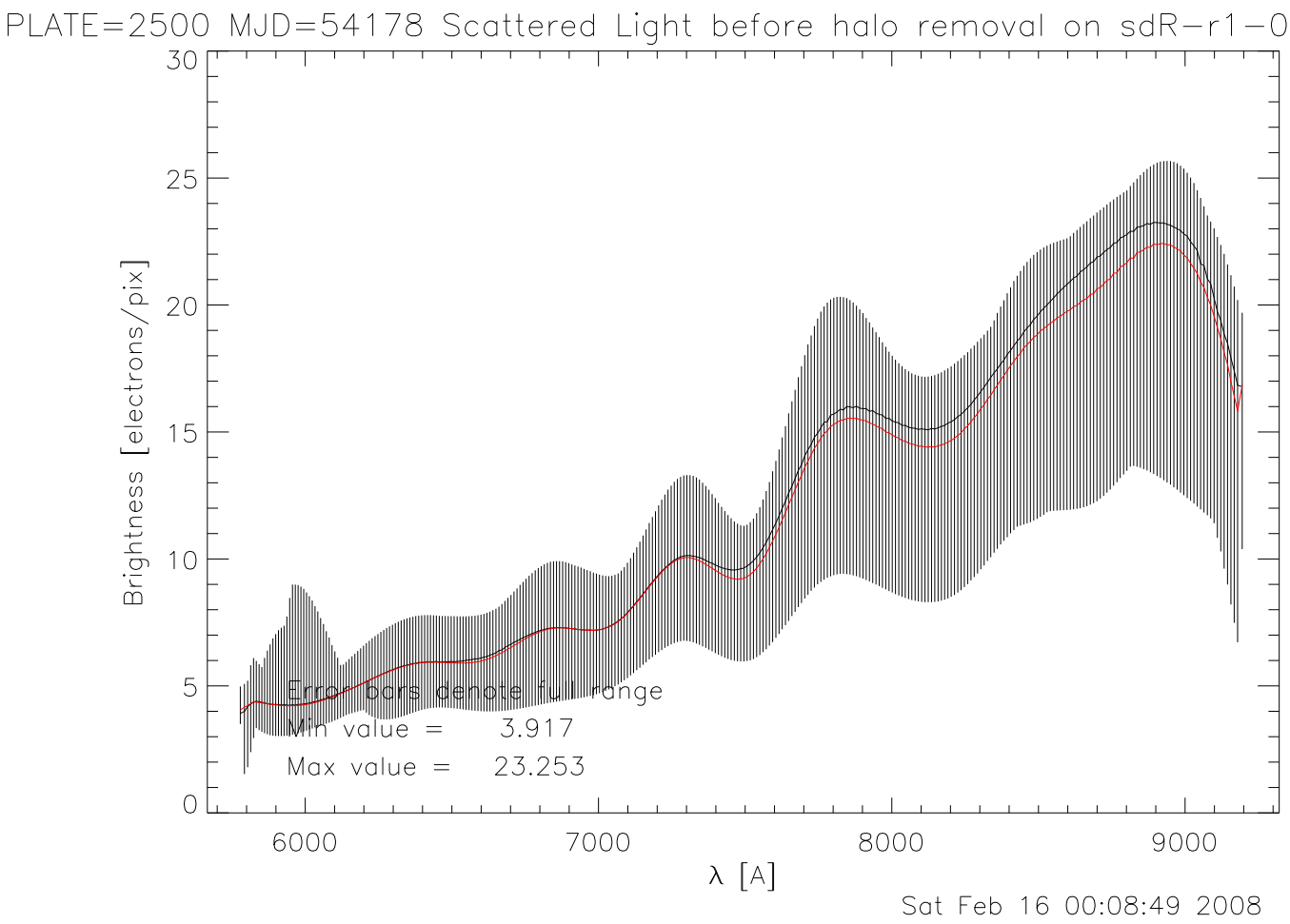

Number of sky fibers = 13
PLATE=2500 MJD=54178 sdR-r1-00043676.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

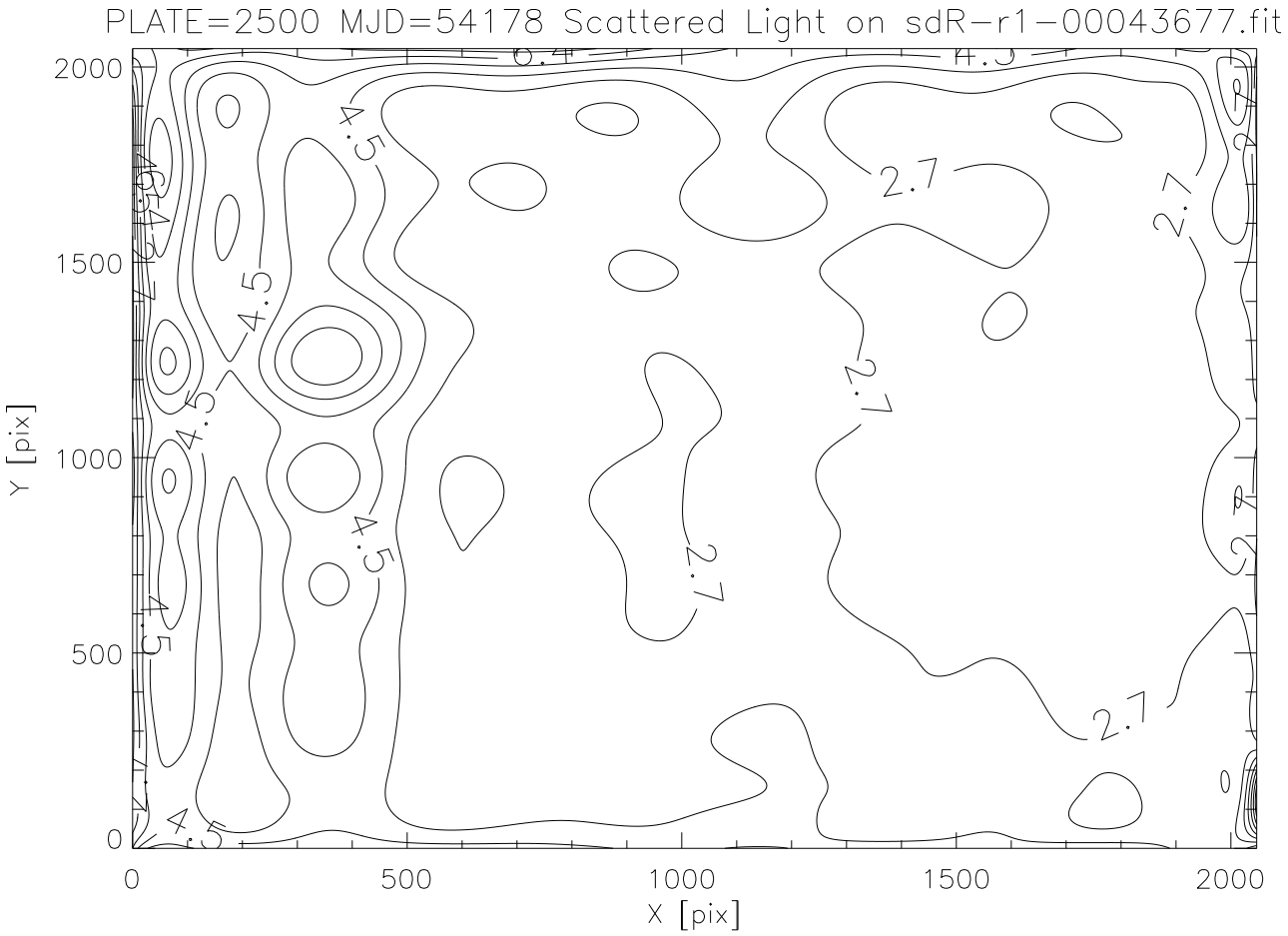

PLATE=2500 MJD=54178 sdR-r1-00043676.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 3.52 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

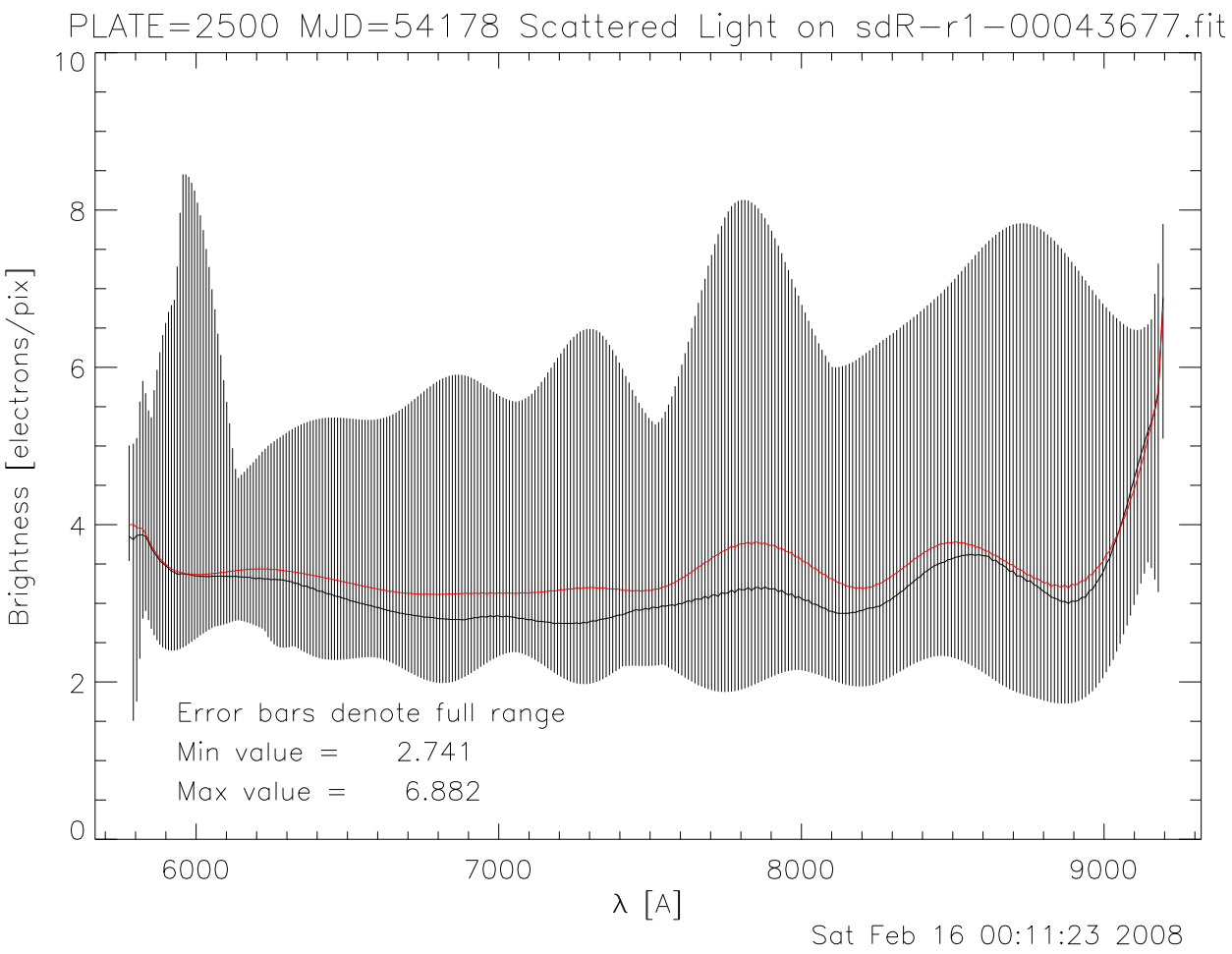

PLATE=2500 MJD=54178 sdR-r1-00043676.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 2.74 %
Fiber number
Focal Distance [mm]
Airmass

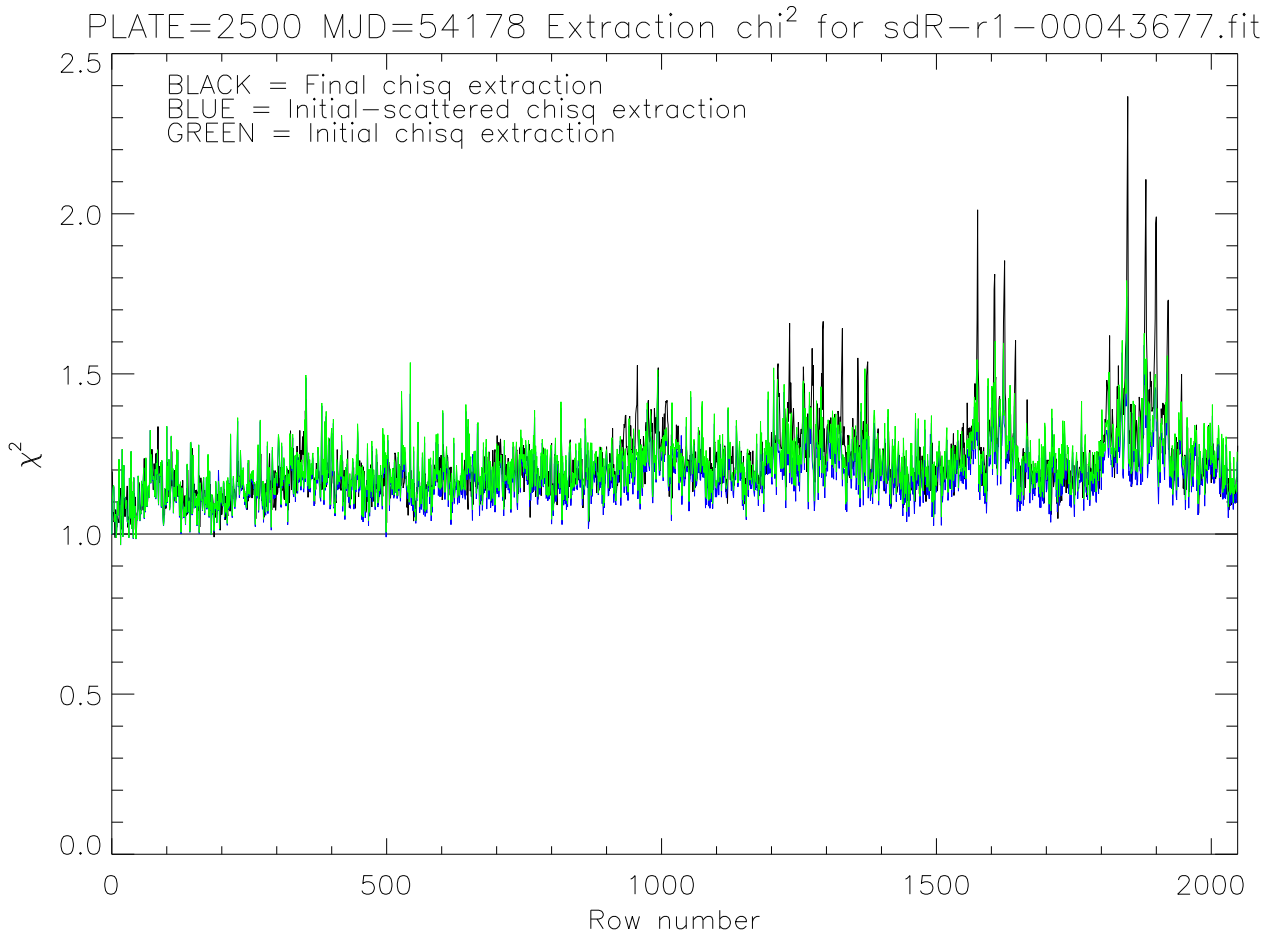

PLATE=2500 MJD=54178 Fiber−Flats for sdR−r1−00043674.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.566
Max value = 1.414
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sat Feb 16 00:08:08 2008

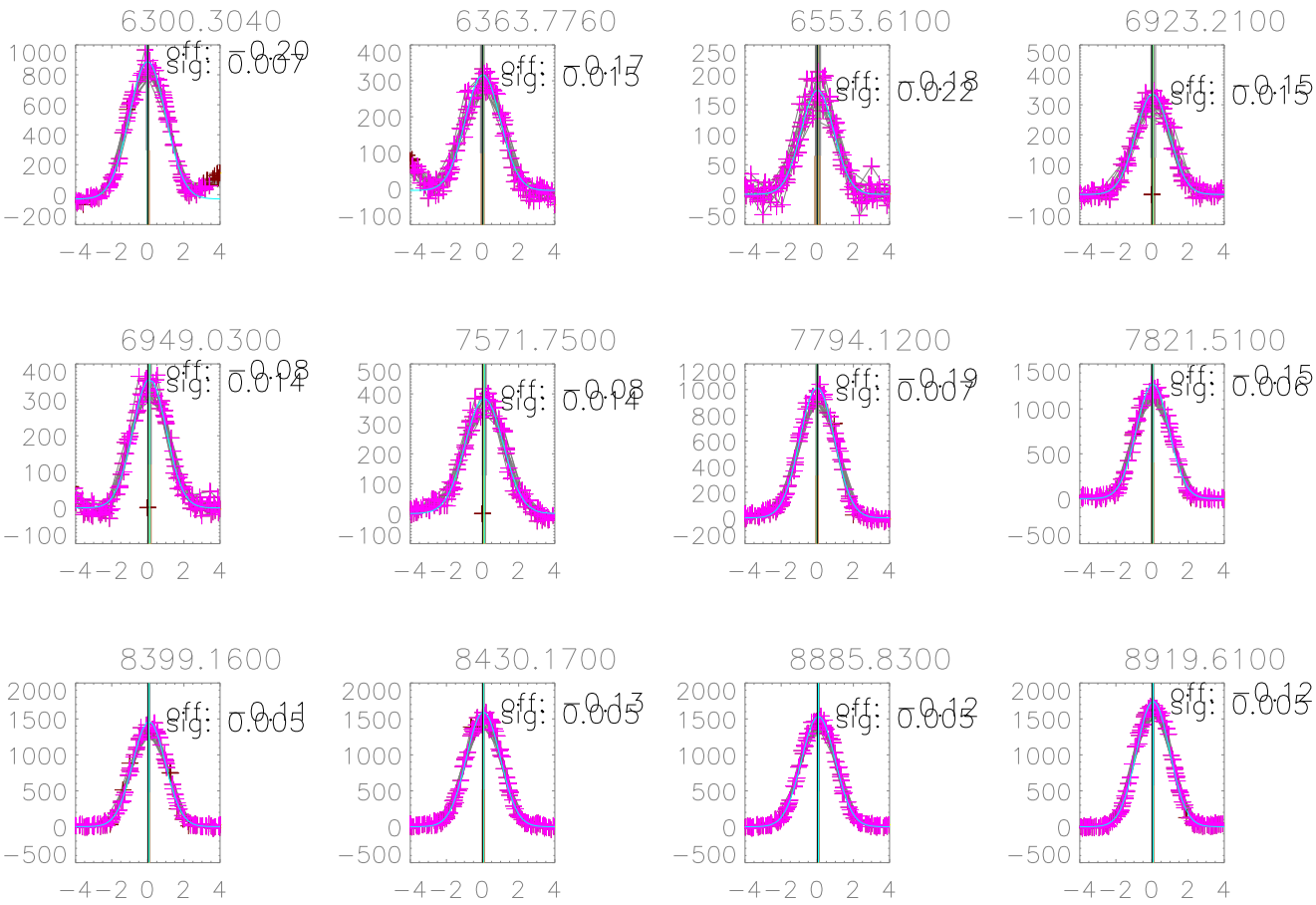

PLATE=2500 MJD=54178 Scattered Light before halo removal on sdR-r1-00043677.fi
19.1
13.6
8.2
Y [pix]
X [pix]
0
500
1000
1500
2000

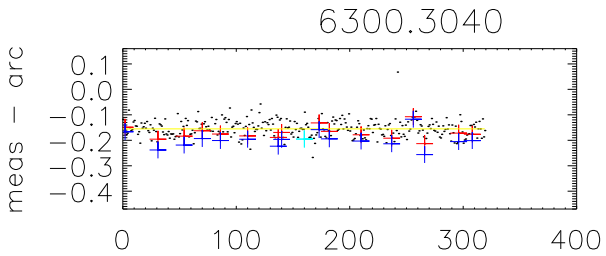

PLATE=2500 MJD=54178 Scattered Light before halo removal on sdR-r1-00043677.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 3.917
Max value = 23.253
Sat Feb 16 00:08:49 2008

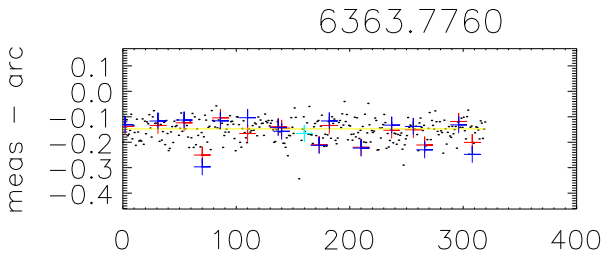

PLATE=2500 MJD=54178 Scattered Light on sdR-r1-00043677.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
4.5
2.7

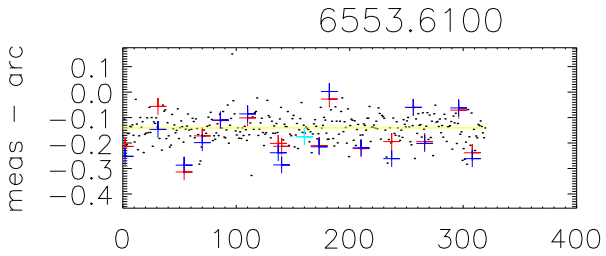

PLATE=2500 MJD=54178 Scattered Light on sdR-r1-00043677.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 2.741
Max value = 6.882
Sat Feb 16 00:11:23 2008

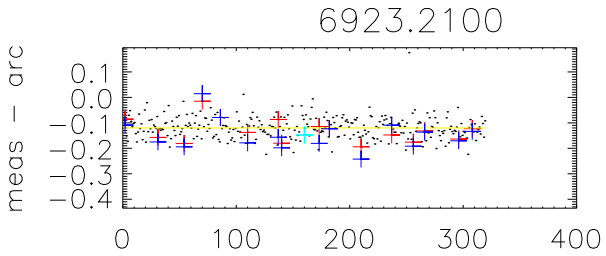

PLATE=2500 MJD=54178 Extraction chi^2 for sdR−r1−00043677.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
2.5
2.0
1.5
1.0
0.5
0.0
0
500
1000
1500
2000
Row number

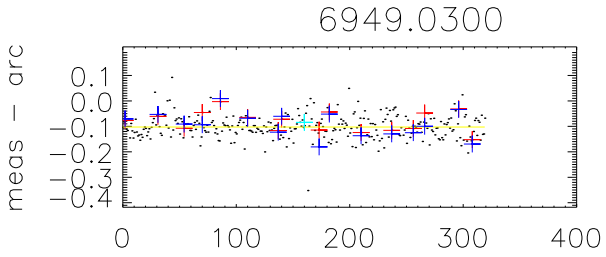

6300.3040
off: −0.20
sig: 0.007
6363.7760
off: −0.17
sig: 0.015
6553.6100
off: −0.18
sig: 0.022
6923.2100
off: −0.15
sig: 0.015
6949.0300
off: −0.08
sig: 0.014
7571.7500
off: −0.08
sig: 0.014
7794.1200
off: −0.19
sig: 0.007
7821.5100
off: −0.15
sig: 0.006
8399.1600
off: −0.11
sig: 0.005
8430.1700
off: −0.13
sig: 0.005
8885.8300
off: −0.12
sig: 0.005
8919.6100
off: −0.12
sig: 0.005

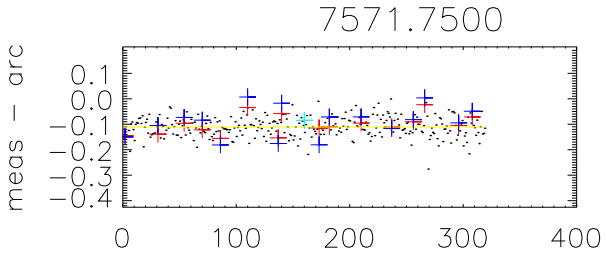

6300.3040
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

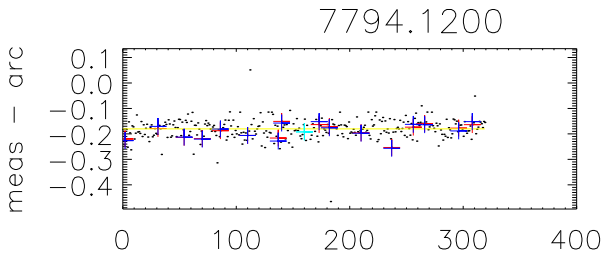

6363.7760
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

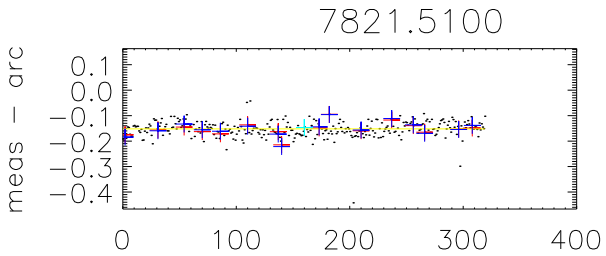

6553.6100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

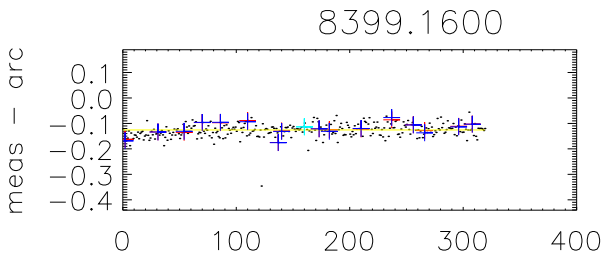

6923.2100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

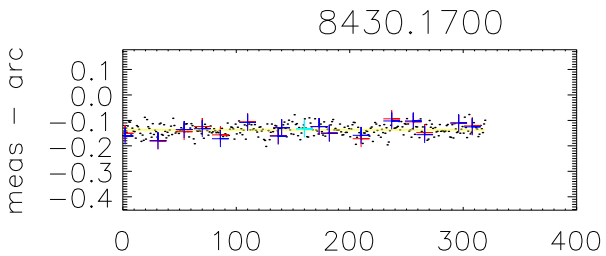

6949.0300
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

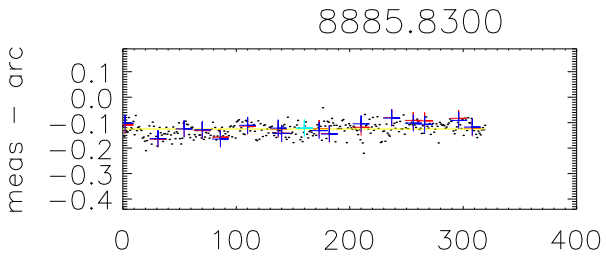

7571.7500
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

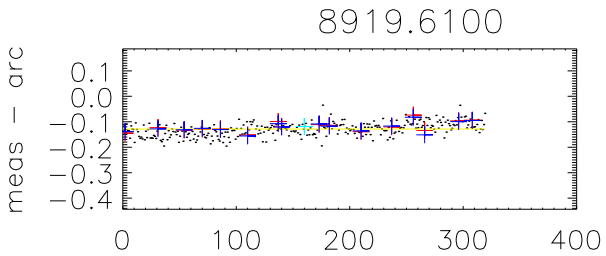

7794.1200
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

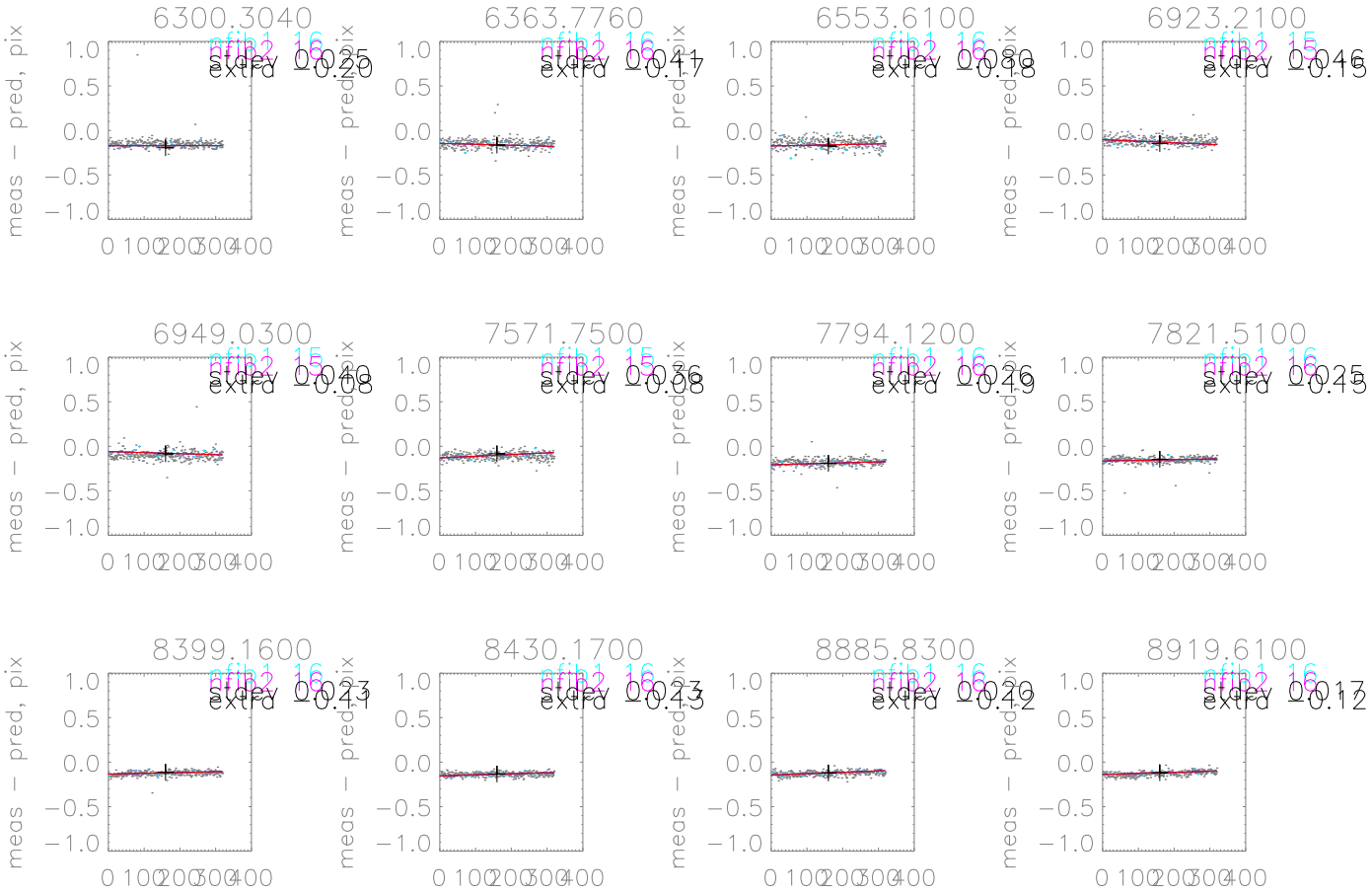

7821.5100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

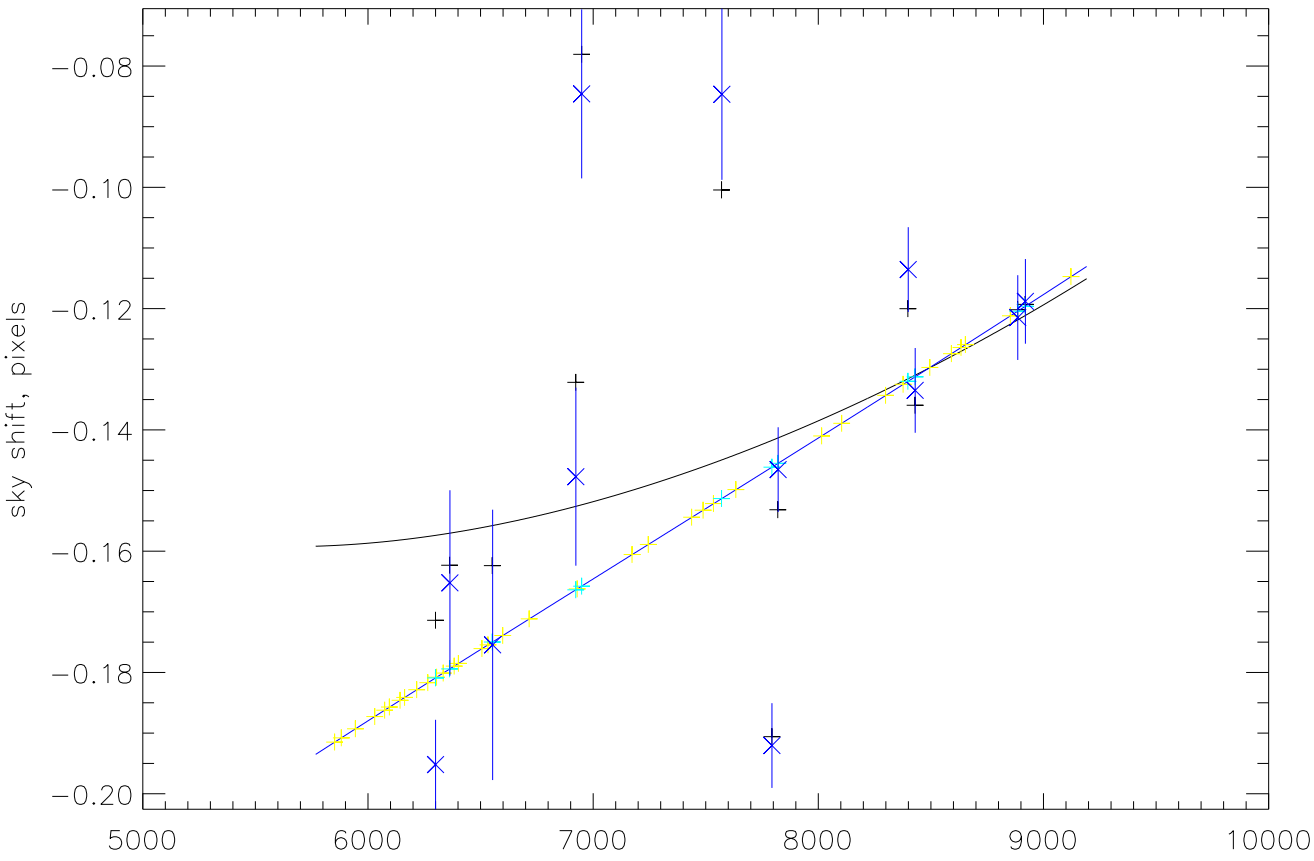

8399.1600
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400


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

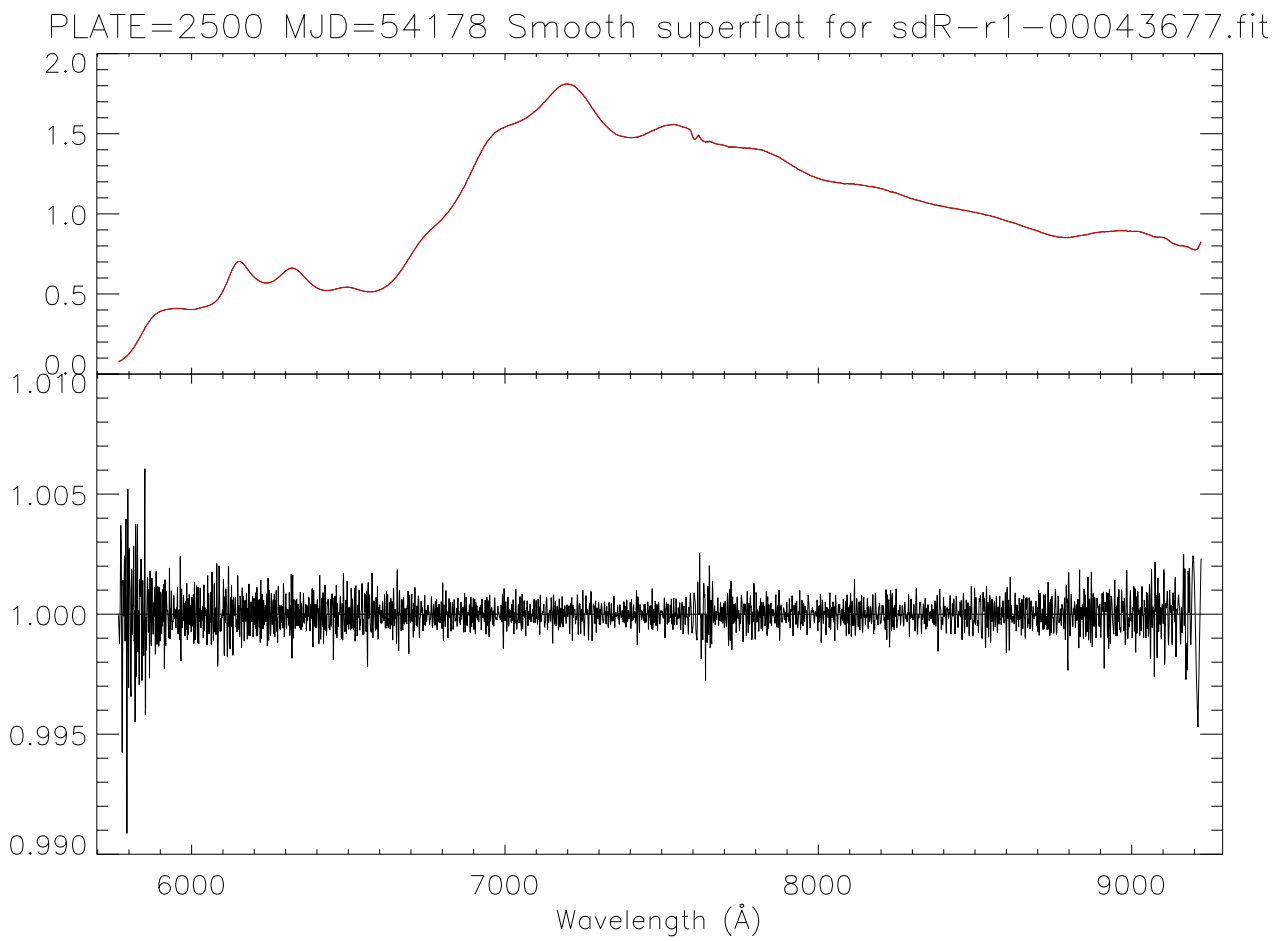

8885.8300
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

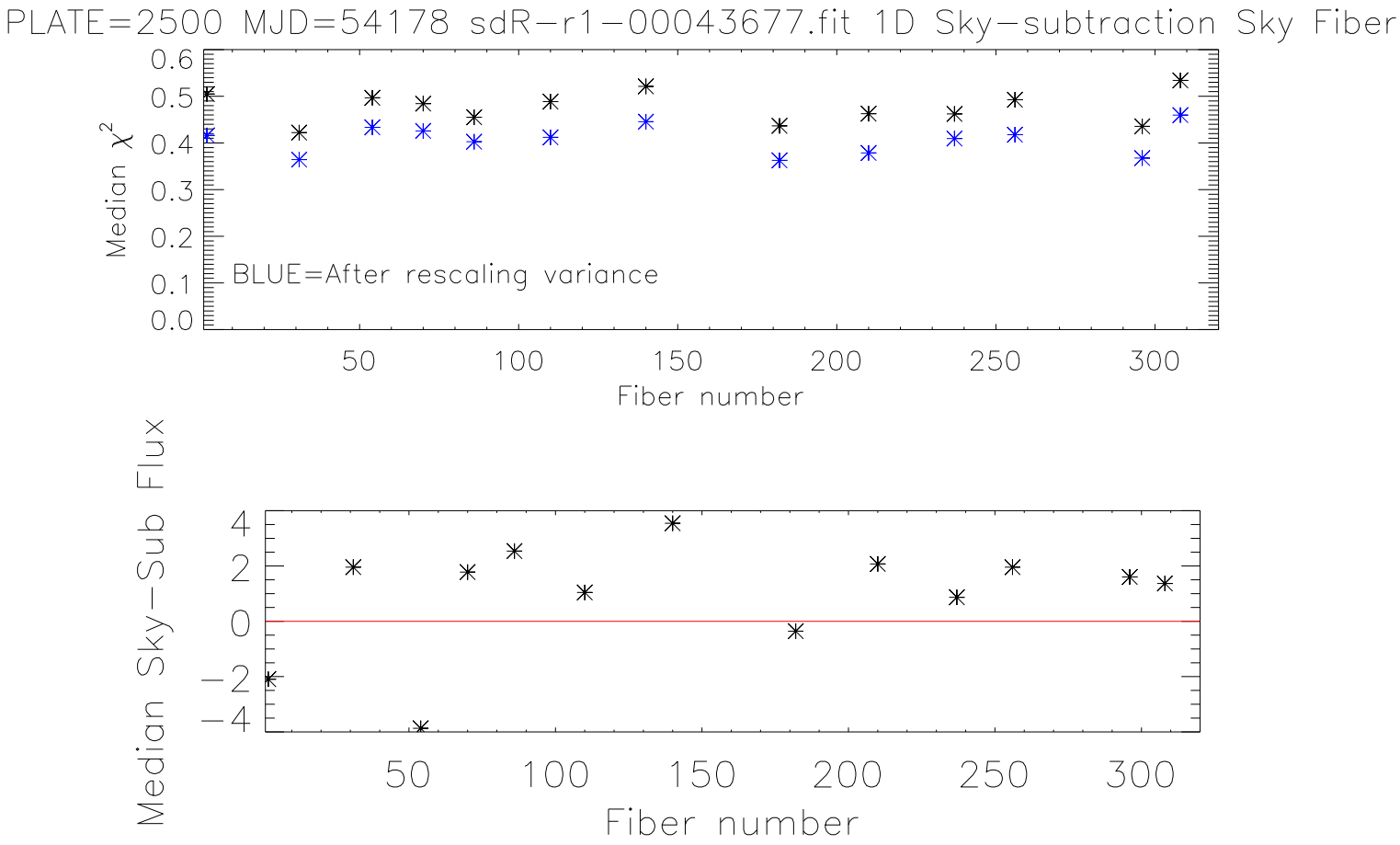

8919.6100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

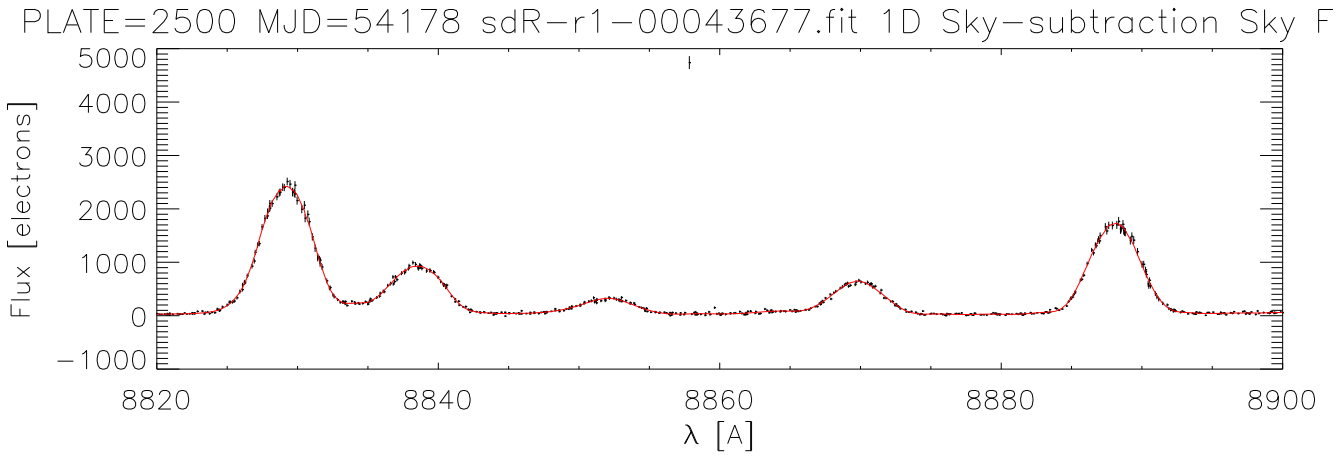

6300.3040
stdev 0.025
extra −0.20
6363.7760
stdev 0.041
extra −0.17
6553.6100
stdev 0.080
extra −0.18
6923.2100
stdev 0.046
extra −0.15
6949.0300
stdev 0.040
extra −0.08
7571.7500
stdev 0.036
extra −0.08
7794.1200
stdev 0.026
extra −0.49
7821.5100
stdev 0.025
extra −0.45
8399.1600
stdev 0.023
extra −0.41
8430.1700
stdev 0.023
extra −0.43
8885.8300
stdev 0.020
extra −0.42
8919.6100
stdev 0.017
extra −0.12
meas − pred, pix
mfib1 16
mfib2 15

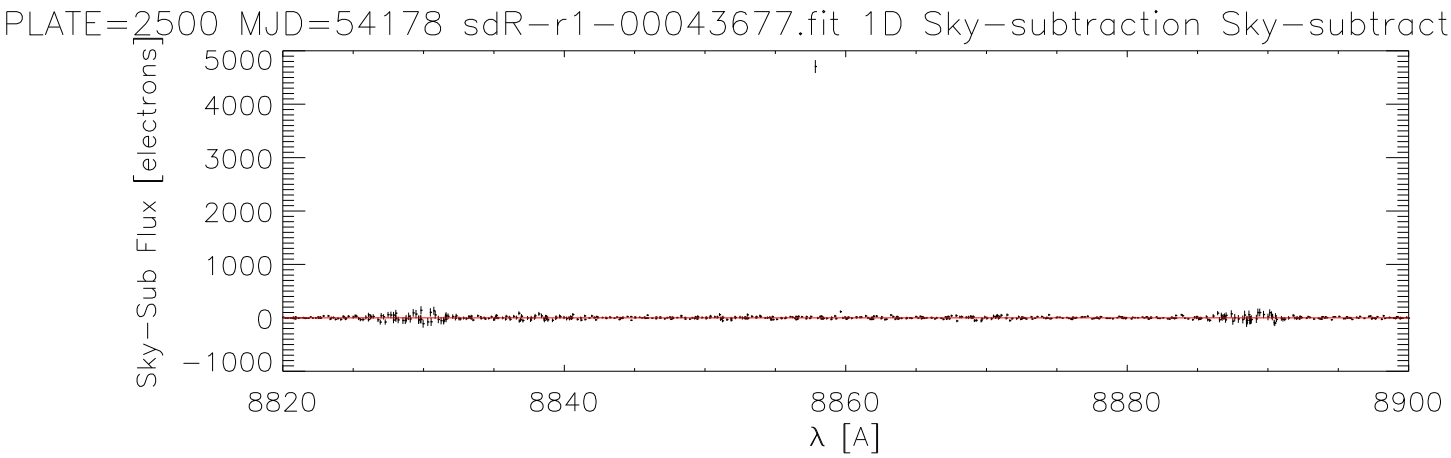

sky shift, pixels
−0.08
−0.10
−0.12
−0.14
−0.16
−0.18
−0.20
5000
6000
7000
8000
9000
10000

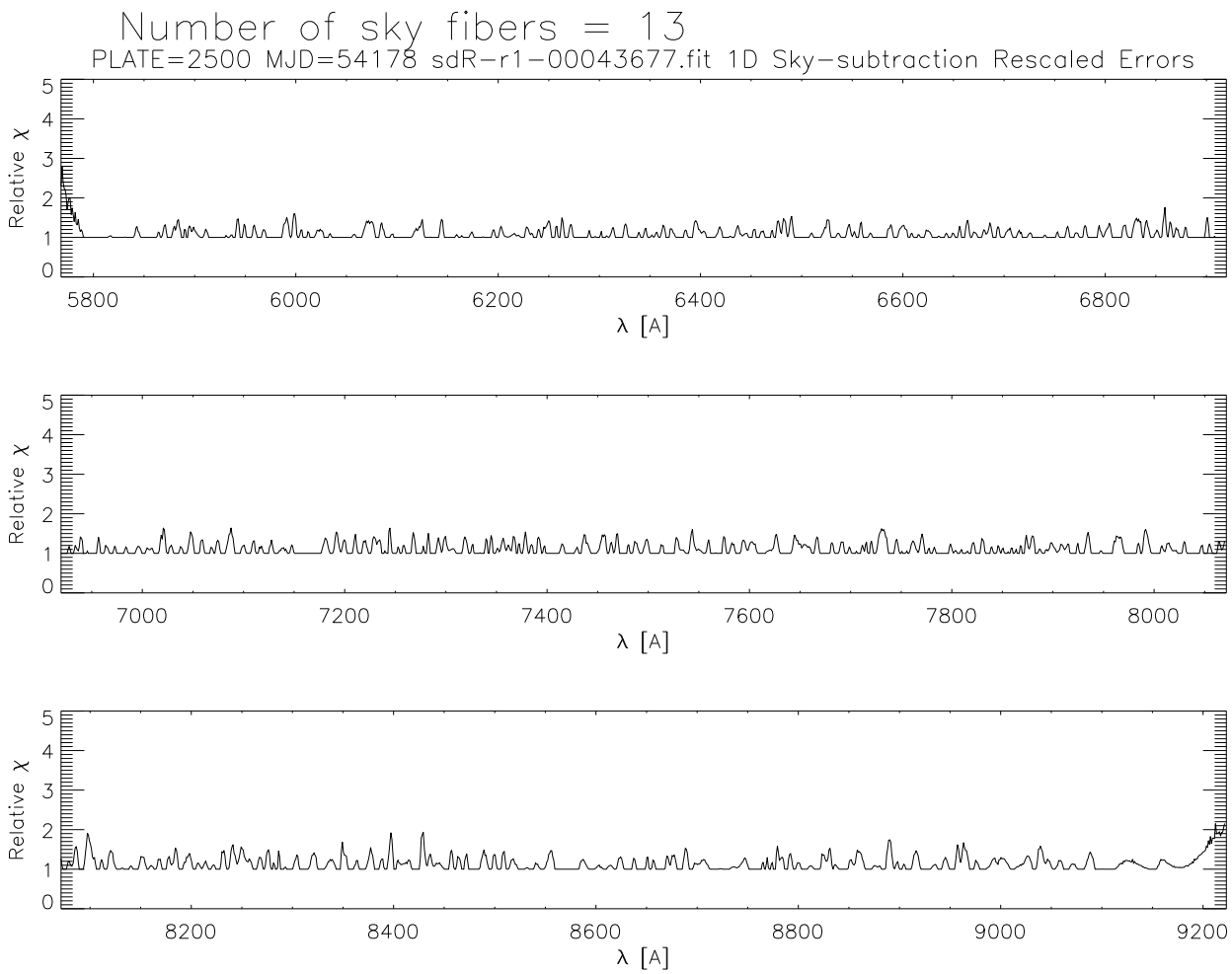
es= 0.0000

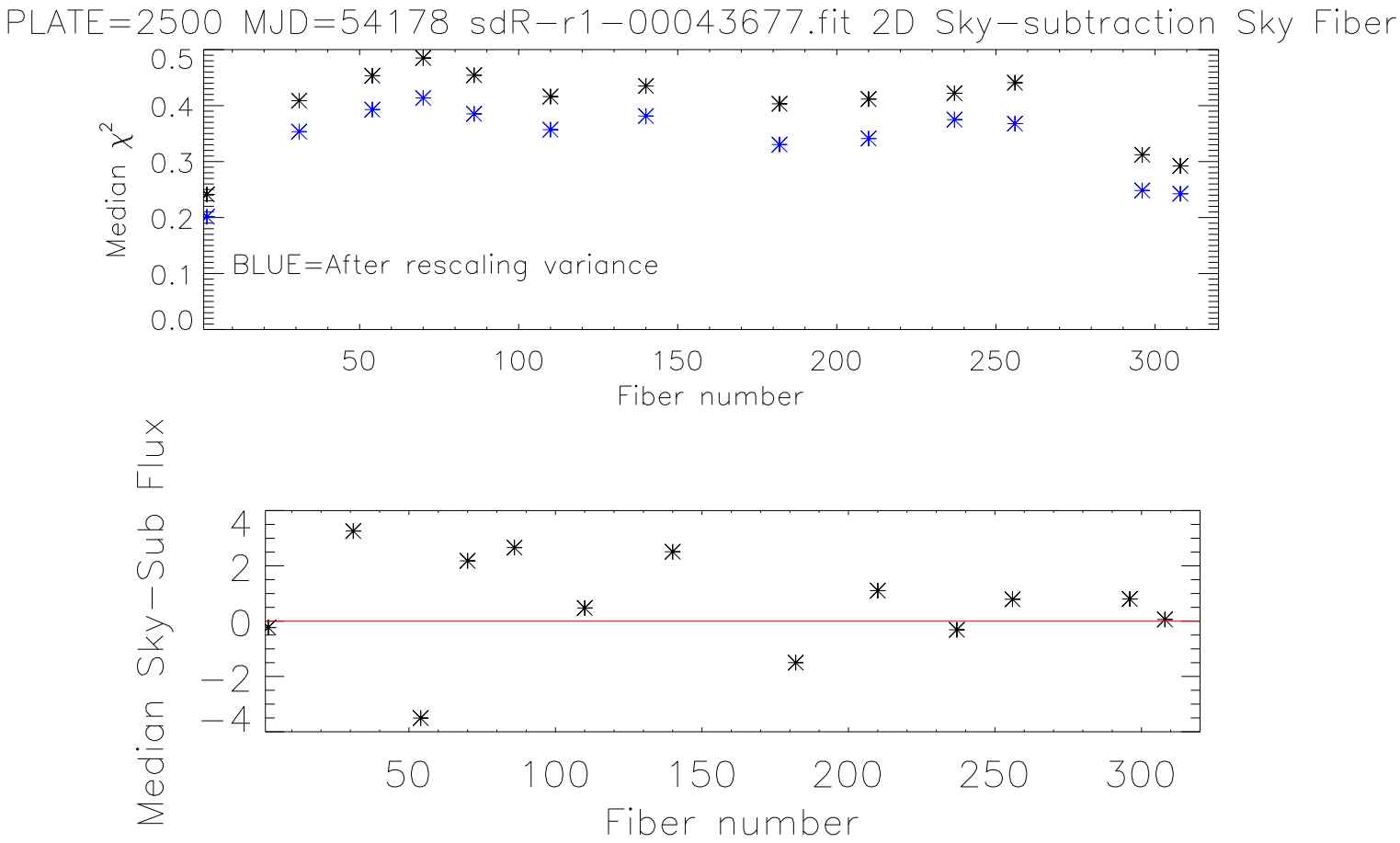

PLATE=2500 MJD=54178 Smooth superflat for sdR-r1-00043677.fit
2.0
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
6000
7000
8000
9000
Wavelength (Å)

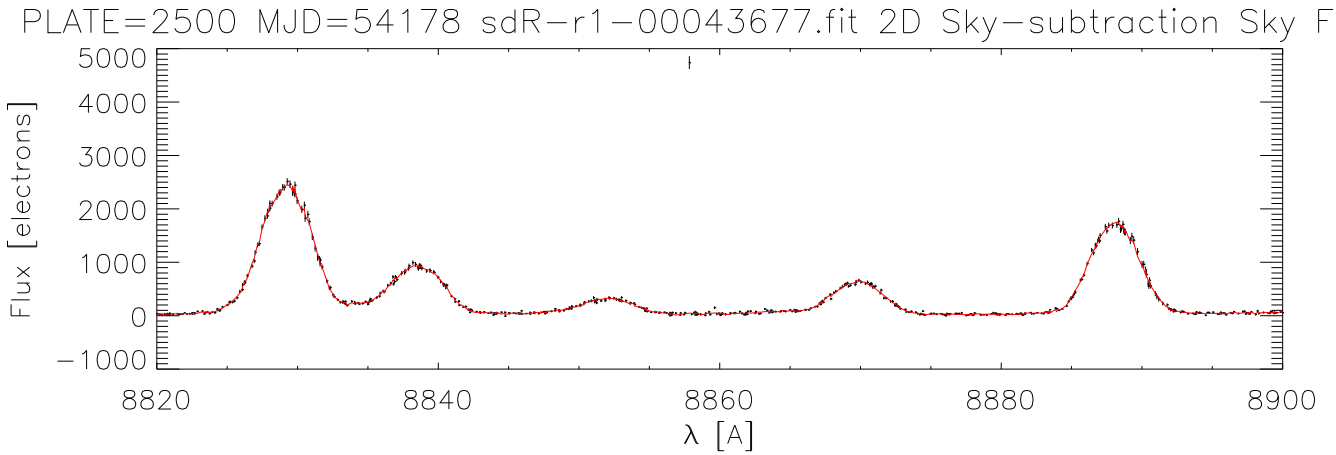

PLATE=2500 MJD=54178 sdR-r1-00043677.fit 1D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

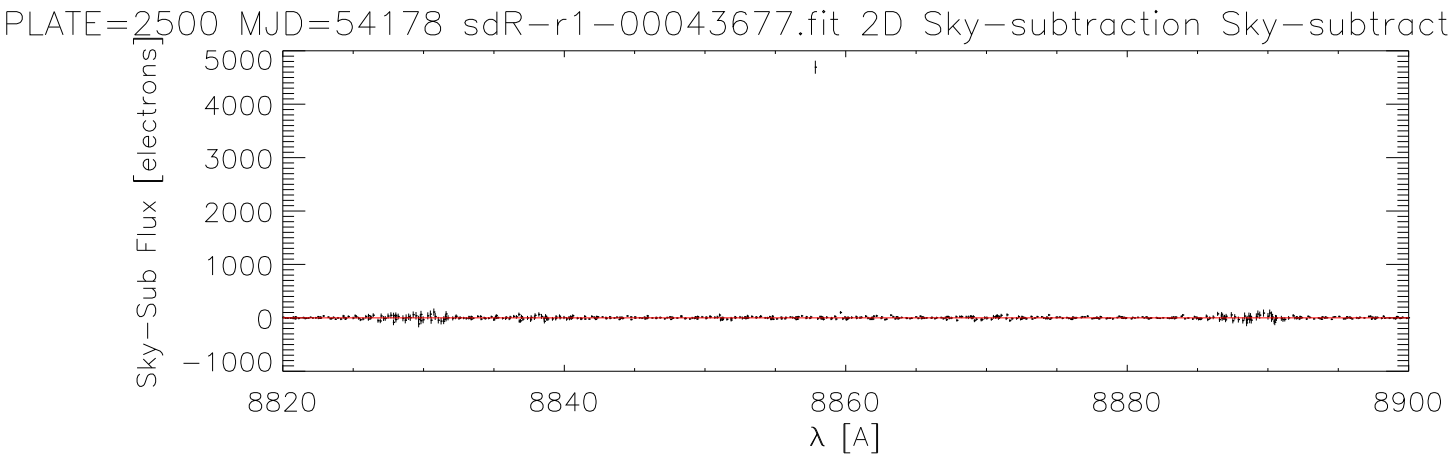

PLATE=2500 MJD=54178 sdR-r1-00043677.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
-1000
8820
8840
8860
8880
8900
λ [A]

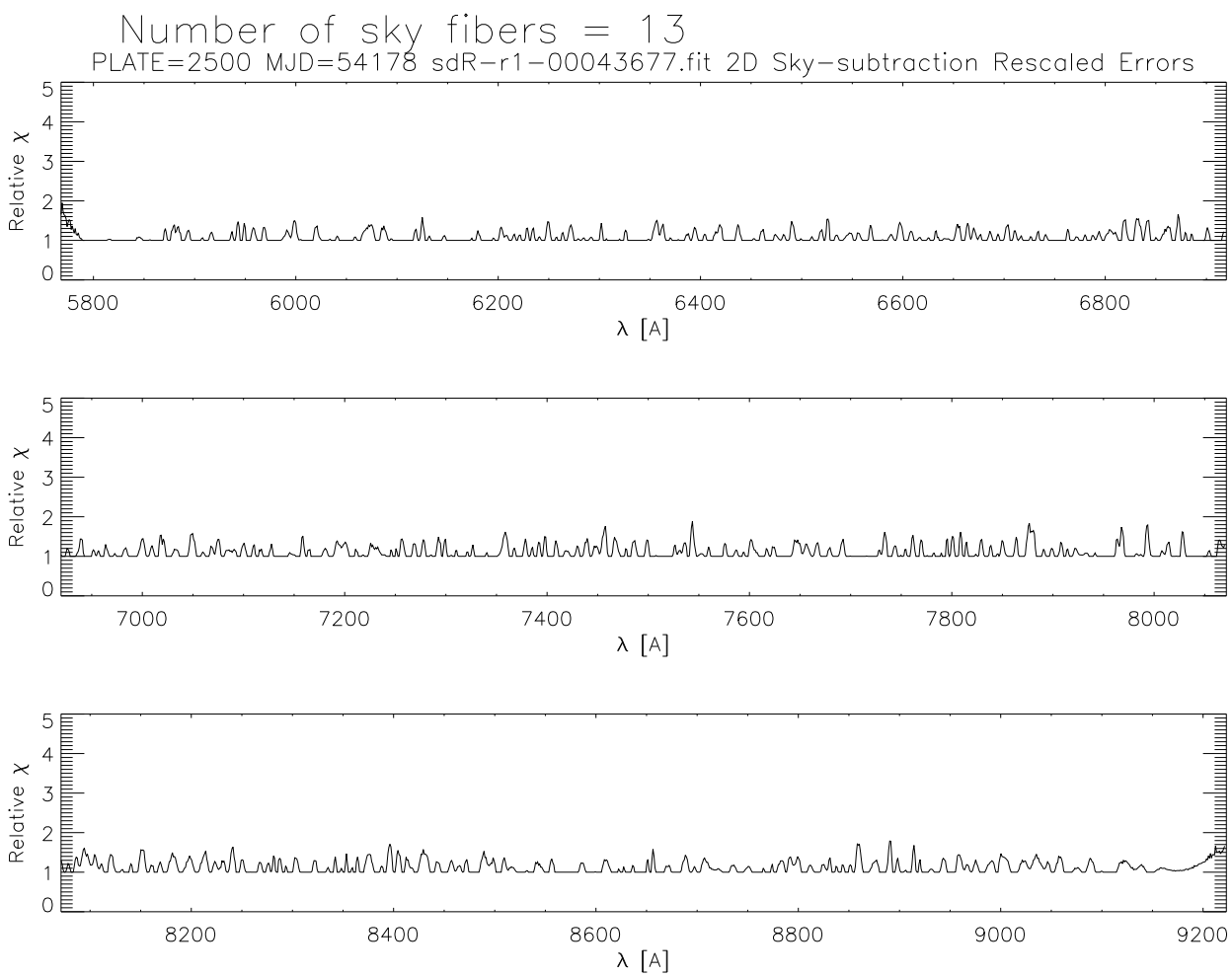

PLATE=2500 MJD=54178 sdR-r1-00043677.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
5000
4000
3000
2000
1000
0
-1000
8820
8840
8860
8880
8900
λ [A]

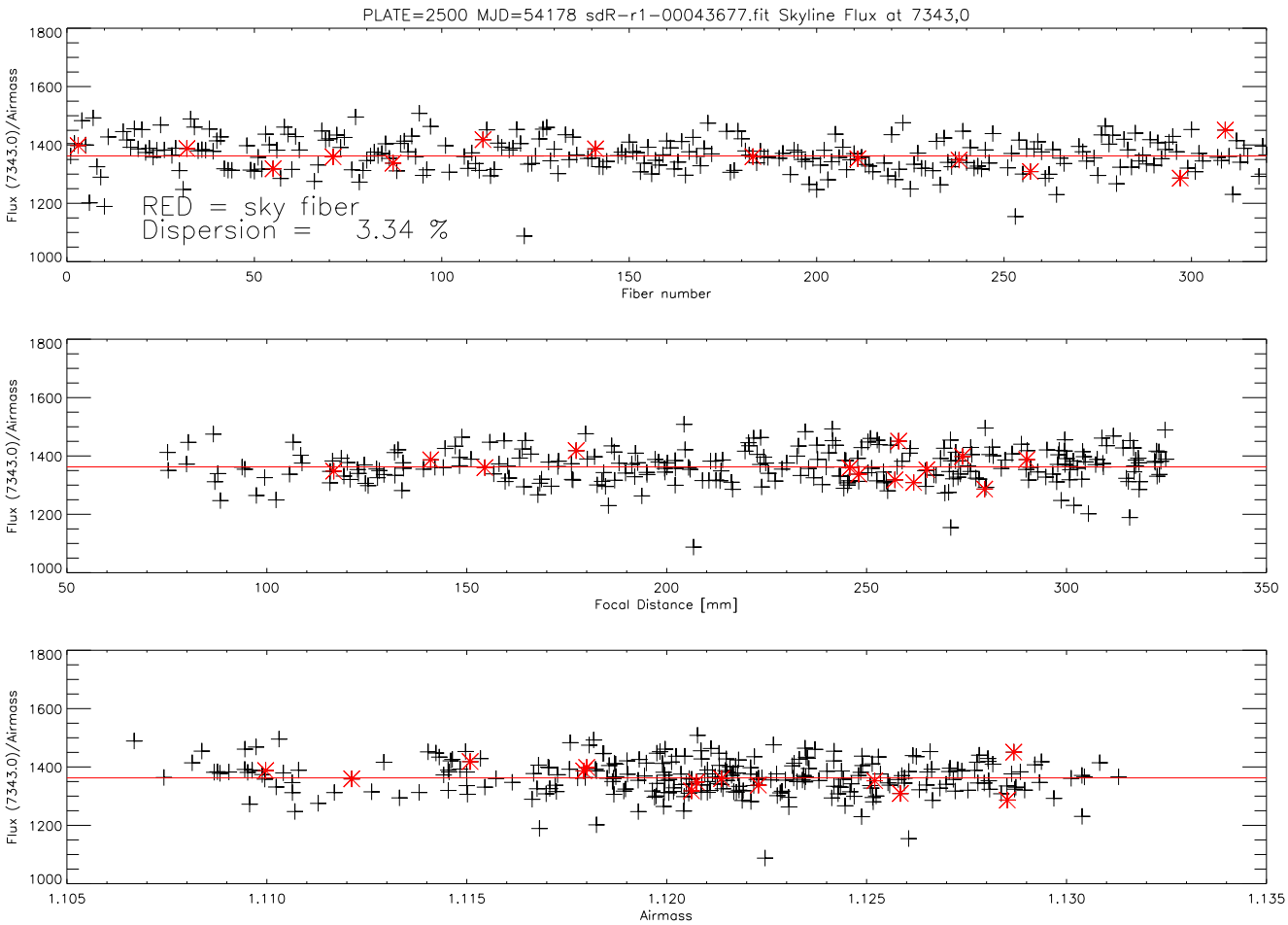

Number of sky fibers = 13
PLATE=2500 MJD=54178 sdR-r1-00043677.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

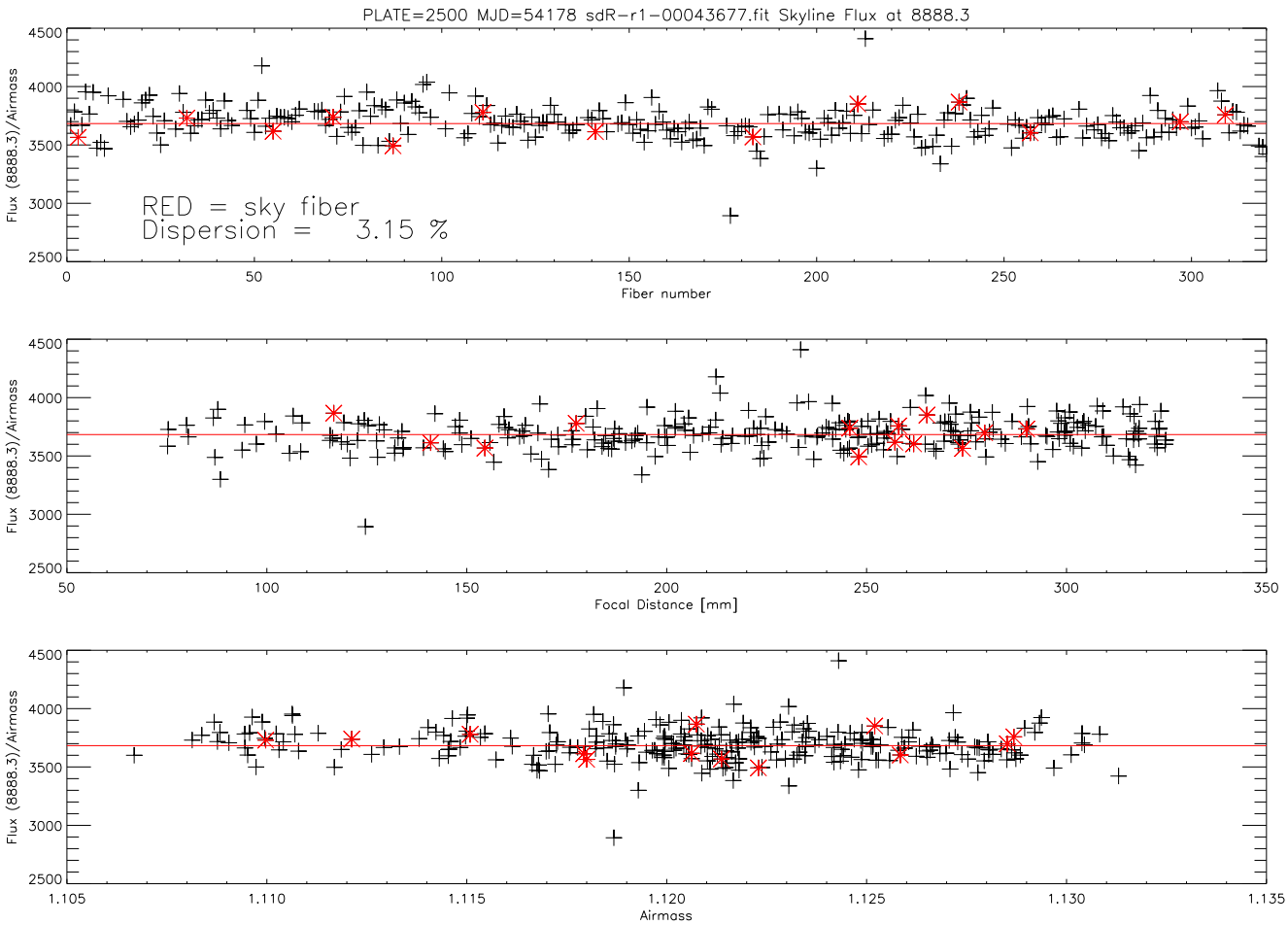

PLATE=2500 MJD=54178 sdR-r1-00043677.fit 2D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-4
-2
0
2
4
50
100
150
200
250
300
Fiber number

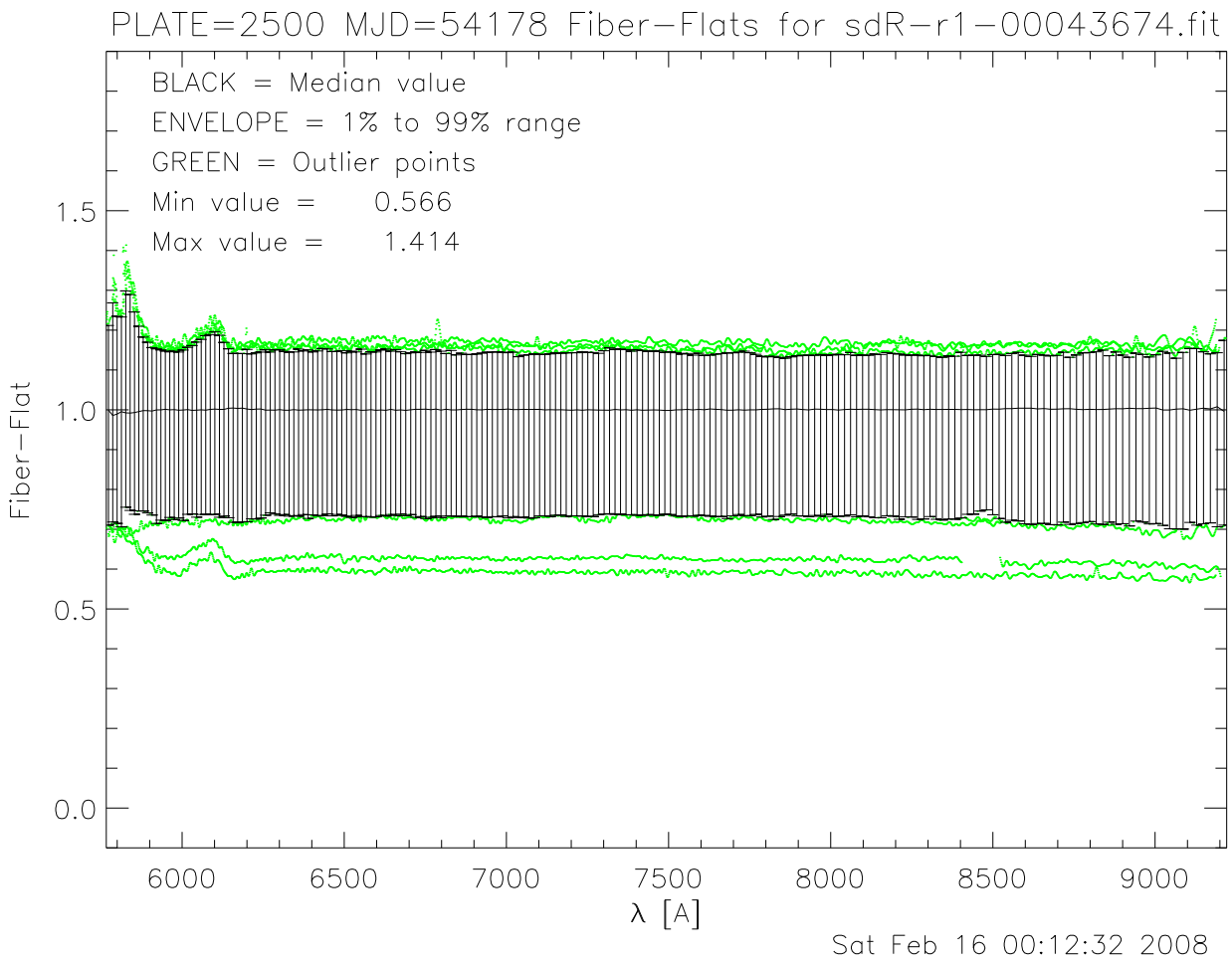

PLATE=2500 MJD=54178 sdR-r1-00043677.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
-1000
8820
8840
8860
8880
8900
λ [A]

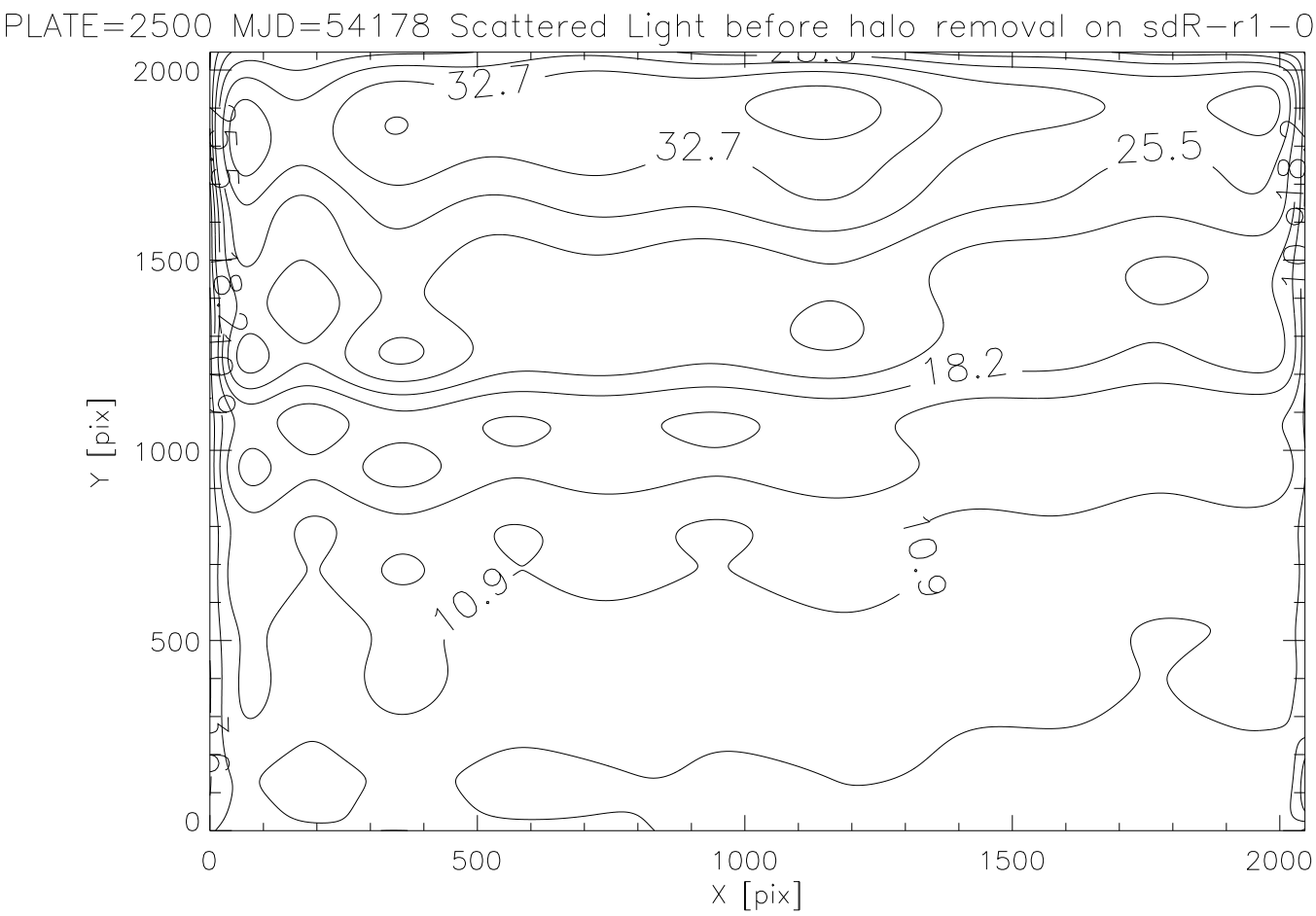

PLATE=2500 MJD=54178 sdR-r1-00043677.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
5000
4000
3000
2000
1000
0
-1000
8820
8840
8860
8880
8900
λ [A]

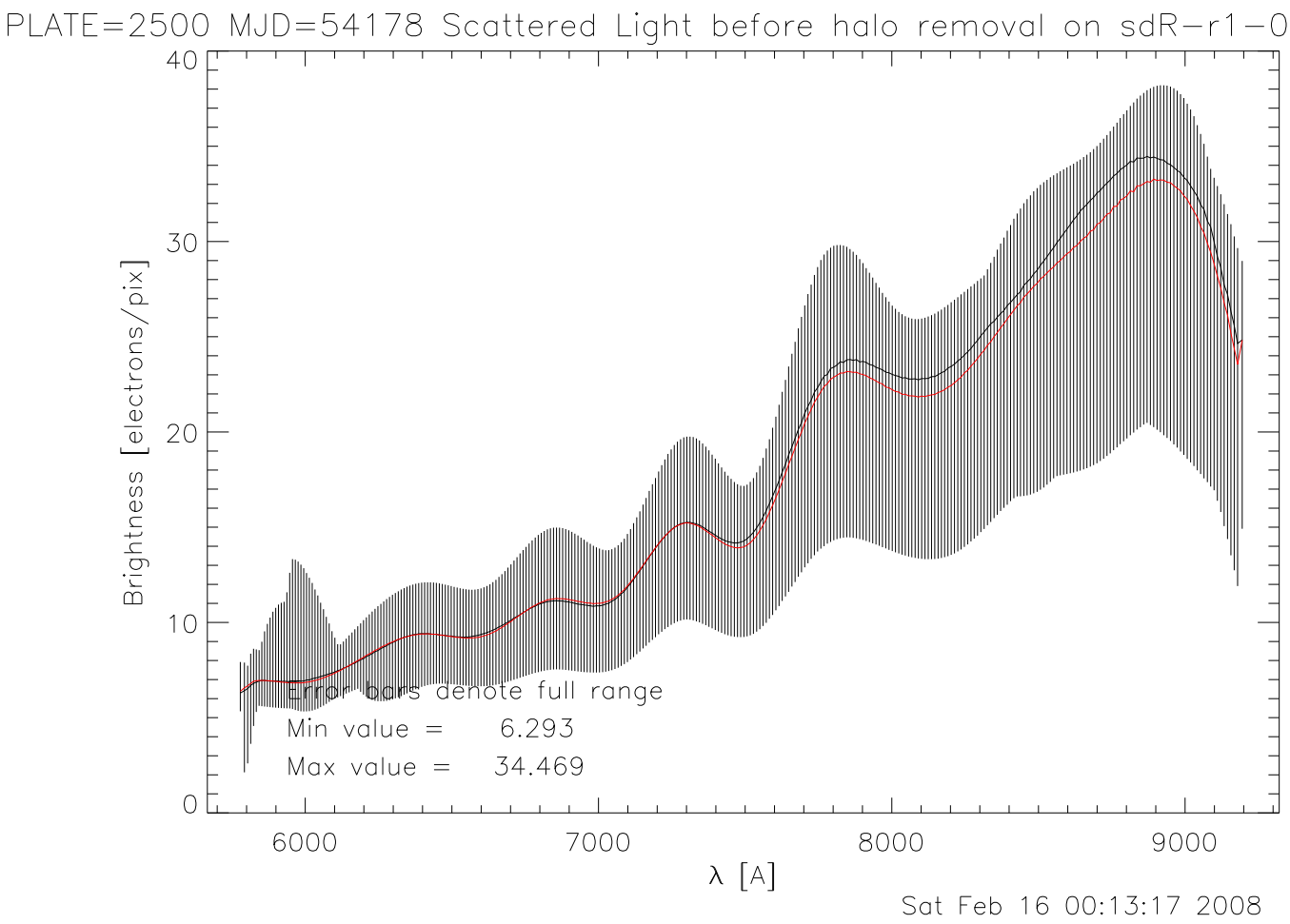

Number of sky fibers = 13
PLATE=2500 MJD=54178 sdR-r1-00043677.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

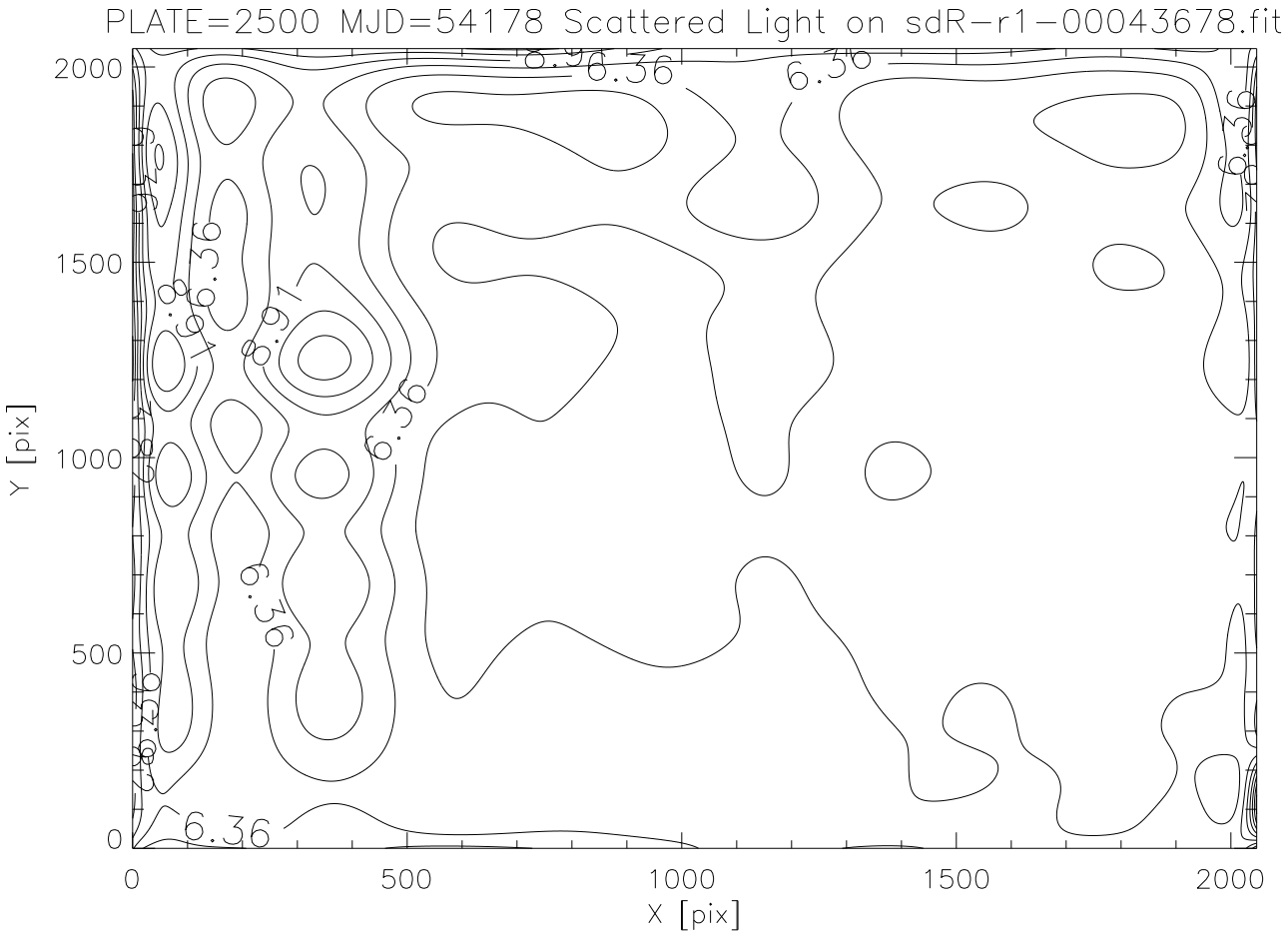

PLATE=2500 MJD=54178 sdR-r1-00043677.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 3.34 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

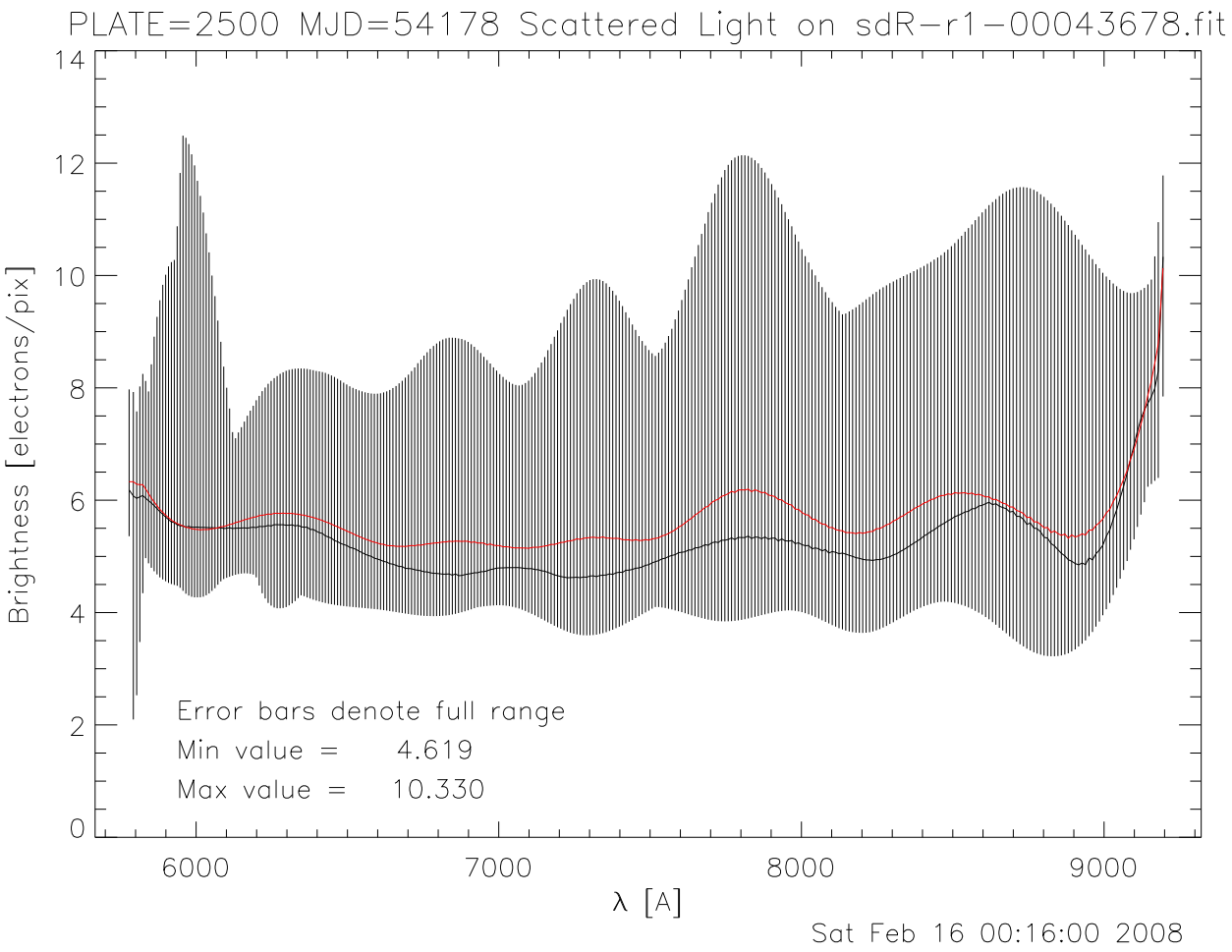

PLATE=2500 MJD=54178 sdR-r1-00043677.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 3.15 %
Fiber number
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass

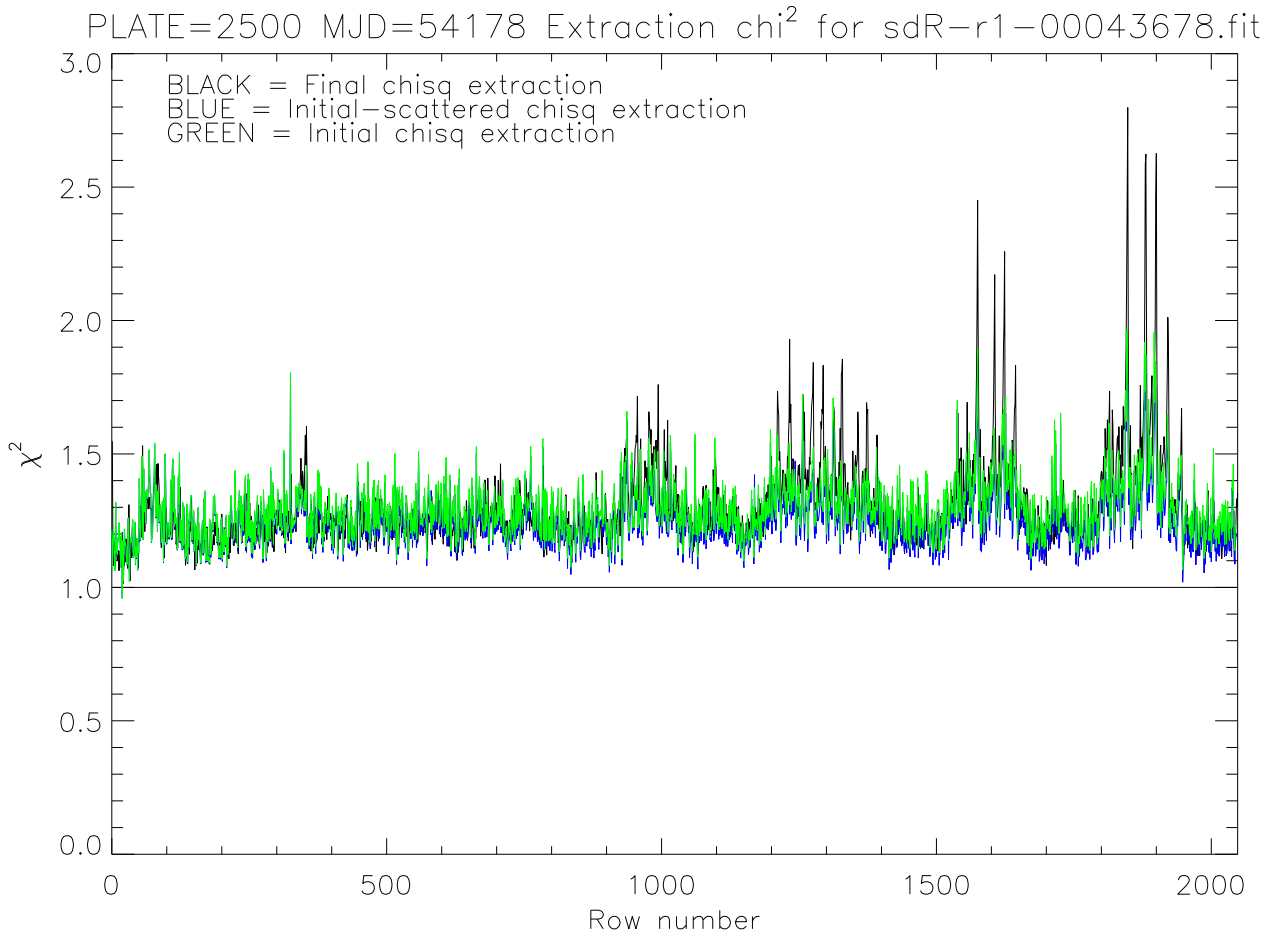

PLATE=2500 MJD=54178 Fiber−Flats for sdR−r1−00043674.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.566
Max value = 1.414
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sat Feb 16 00:12:32 2008

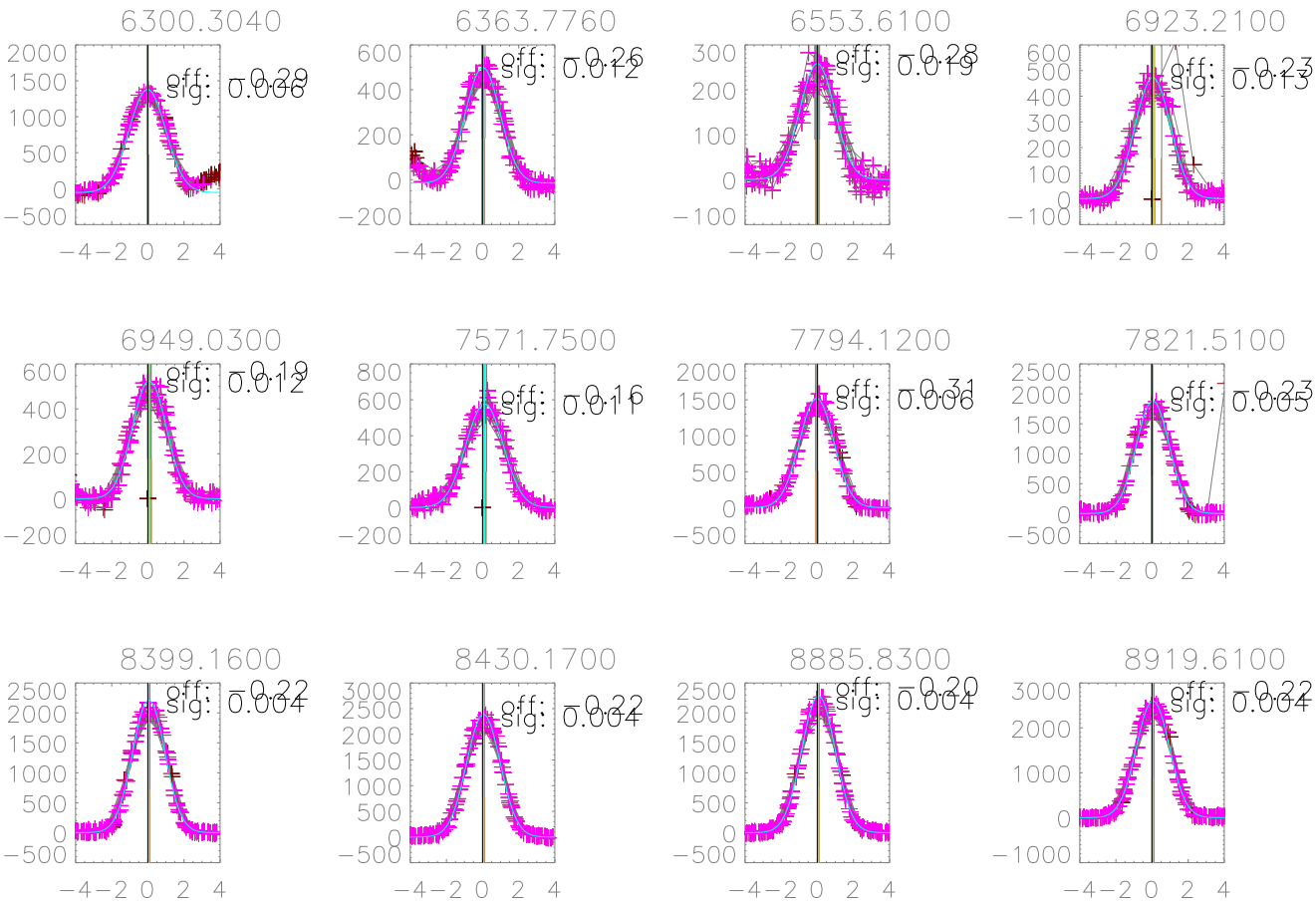

PLATE=2500 MJD=54178 Scattered Light before halo removal on sdR-r1-00043678.fi
32.7
32.7
25.5
18.2
10.9
Y [pix]
X [pix]
0
500
1000
1500
2000

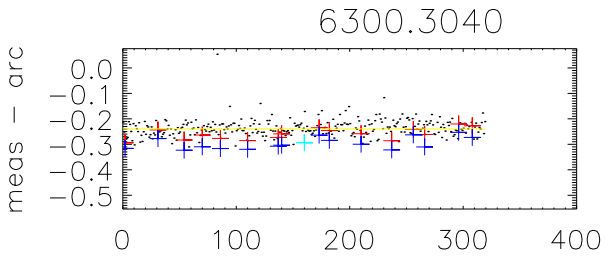

PLATE=2500 MJD=54178 Scattered Light before halo removal on sdR-r1-00043678.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 6.293
Max value = 34.469
Sat Feb 16 00:13:17 2008

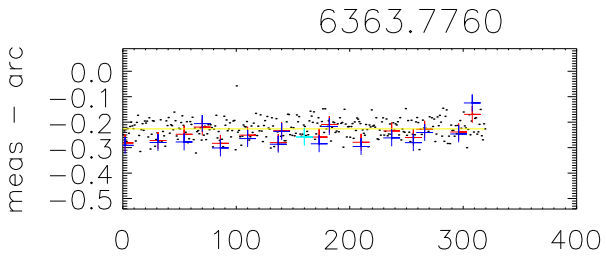

PLATE=2500 MJD=54178 Scattered Light on sdR-r1-00043678.fit
6.36
6.36
6.36

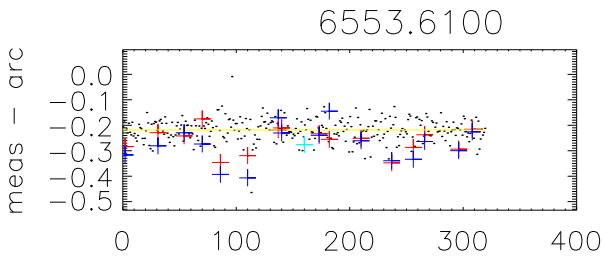

PLATE=2500 MJD=54178 Scattered Light on sdR-r1-00043678.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 4.619
Max value = 10.330
Sat Feb 16 00:16:00 2008

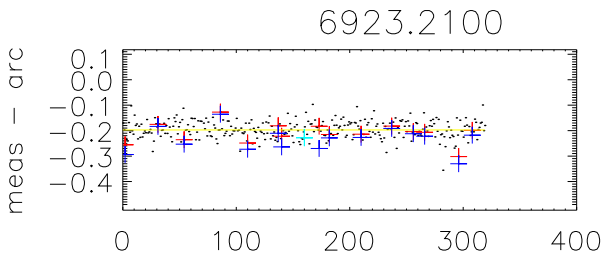

PLATE=2500 MJD=54178 Extraction chi^2 for sdR−r1−00043678.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
500
1000
1500
2000
Row number

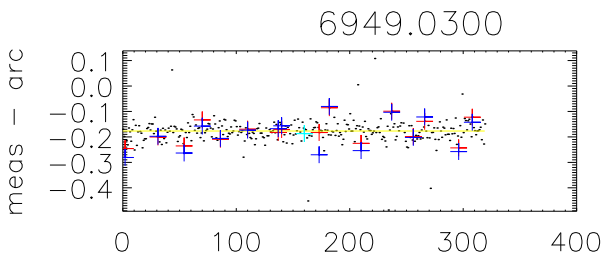

6300.3040
off: −0.29
sig: 0.066
6363.7760
off: −0.26
sig: 0.012
6553.6100
off: −0.28
sig: 0.019
6923.2100
off: −0.23
sig: 0.013
6949.0300
off: −0.19
sig: 0.012
7571.7500
off: −0.16
sig: 0.011
7794.1200
off: −0.31
sig: 0.006
7821.5100
off: −0.23
sig: 0.005
8399.1600
off: −0.22
sig: 0.004
8430.1700
off: −0.22
sig: 0.004
8885.8300
off: −0.20
sig: 0.004
8919.6100
off: −0.22
sig: 0.004

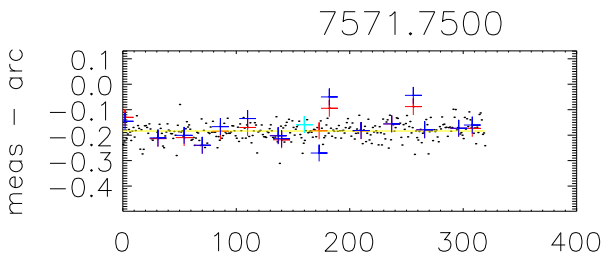

6300.3040
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

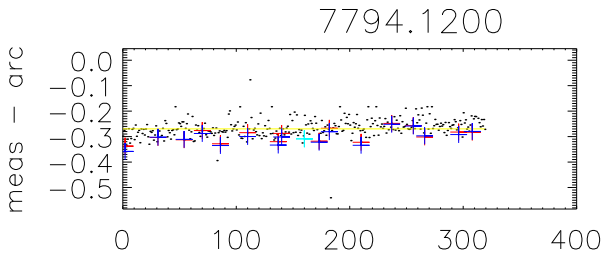

6363.7760
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

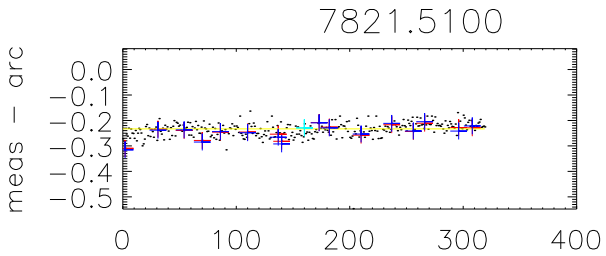

6553.6100
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

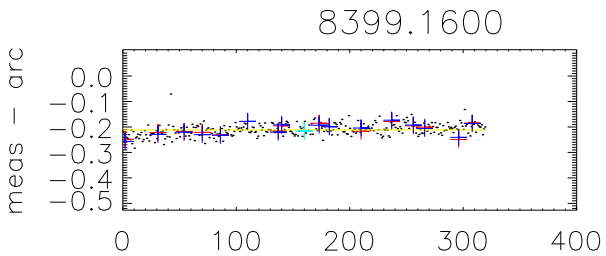

6923.2100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

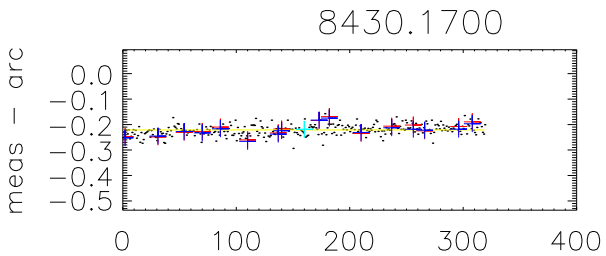

6949.0300
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

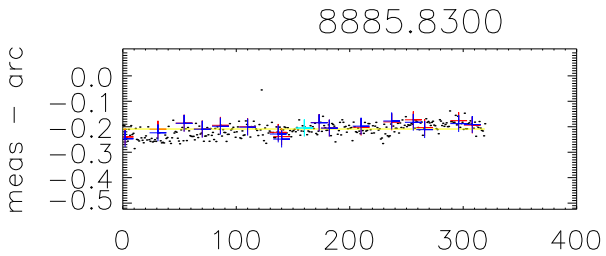

7571.7500
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

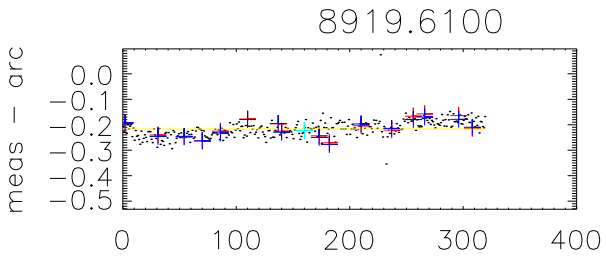

7794.1200
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

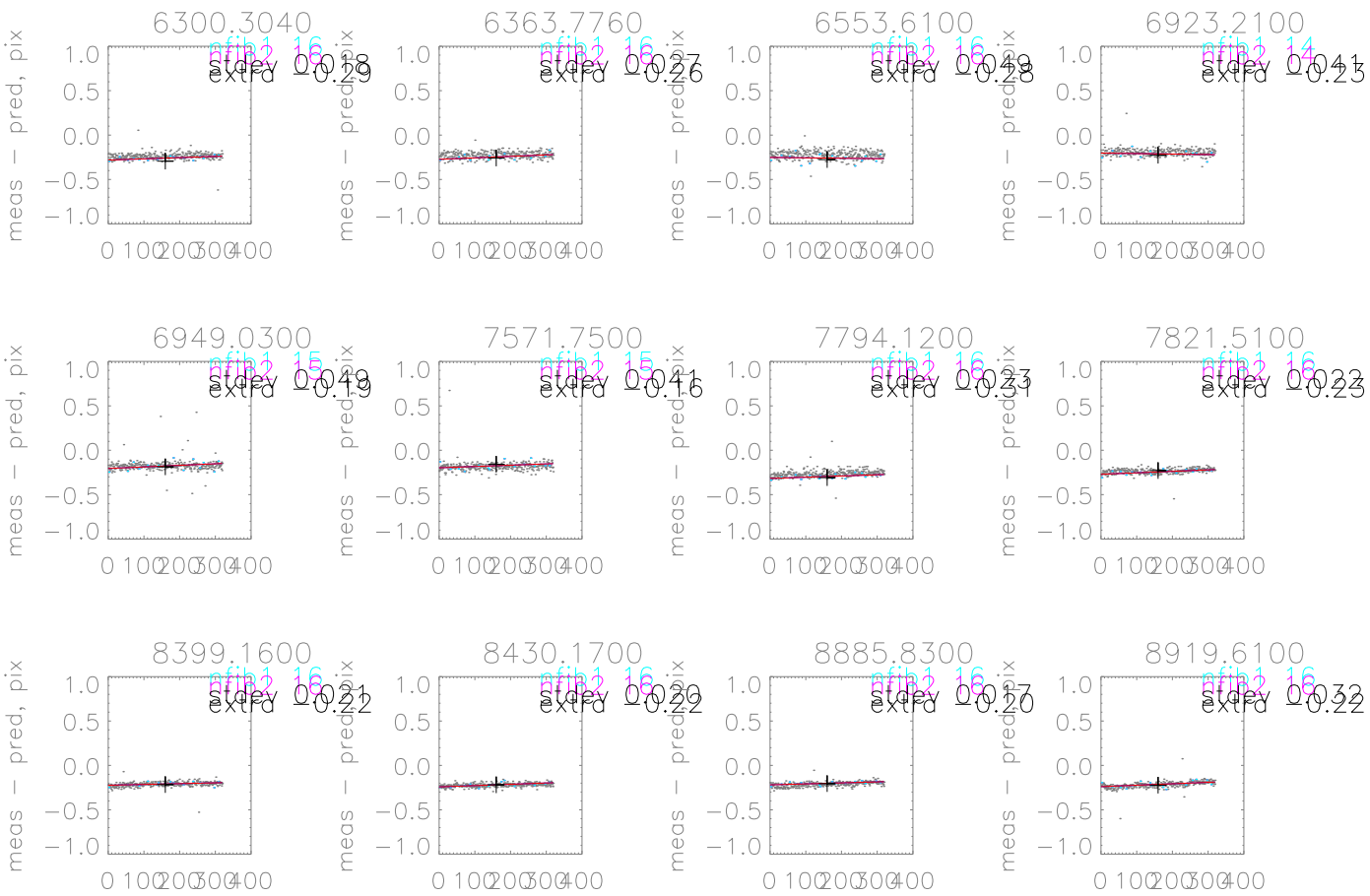

7821.5100
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

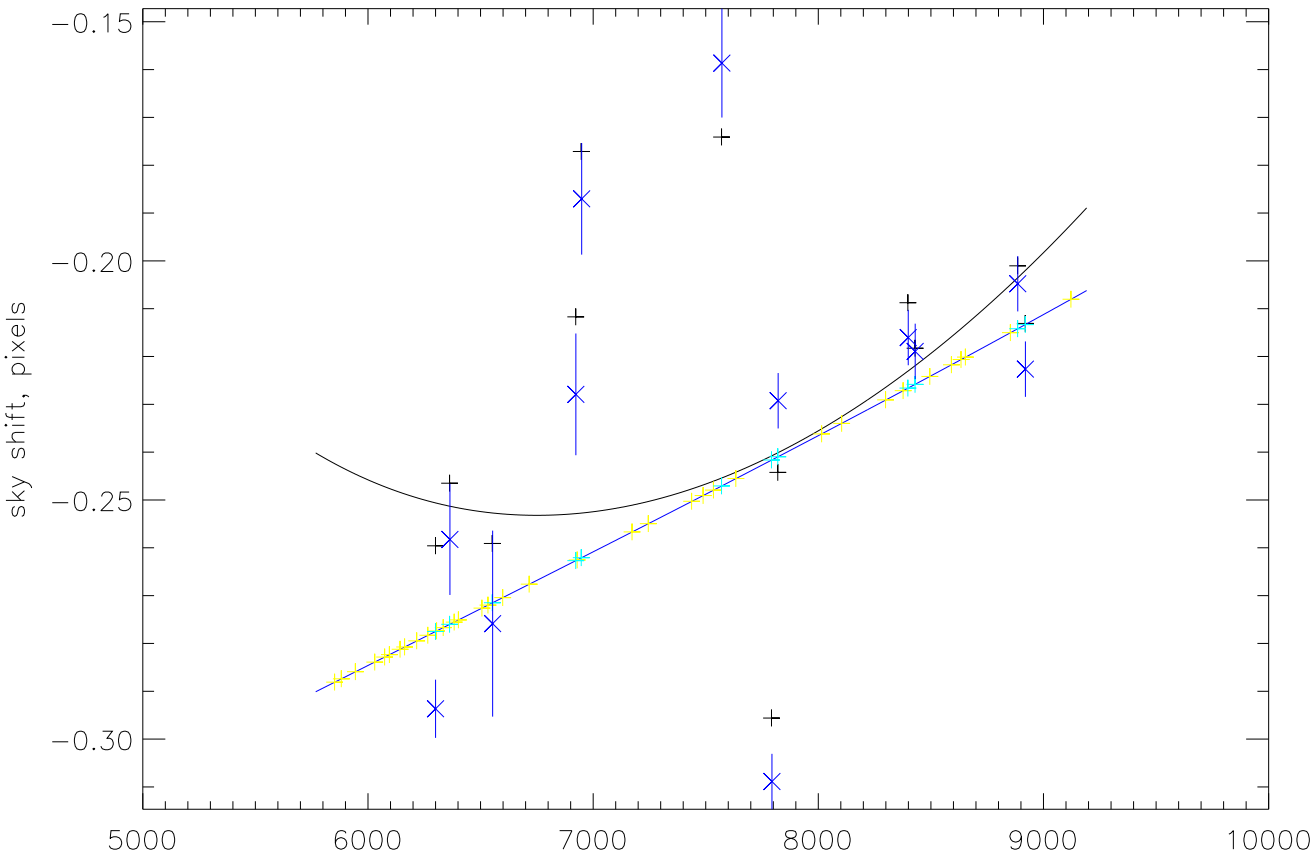

8399.1600
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400


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

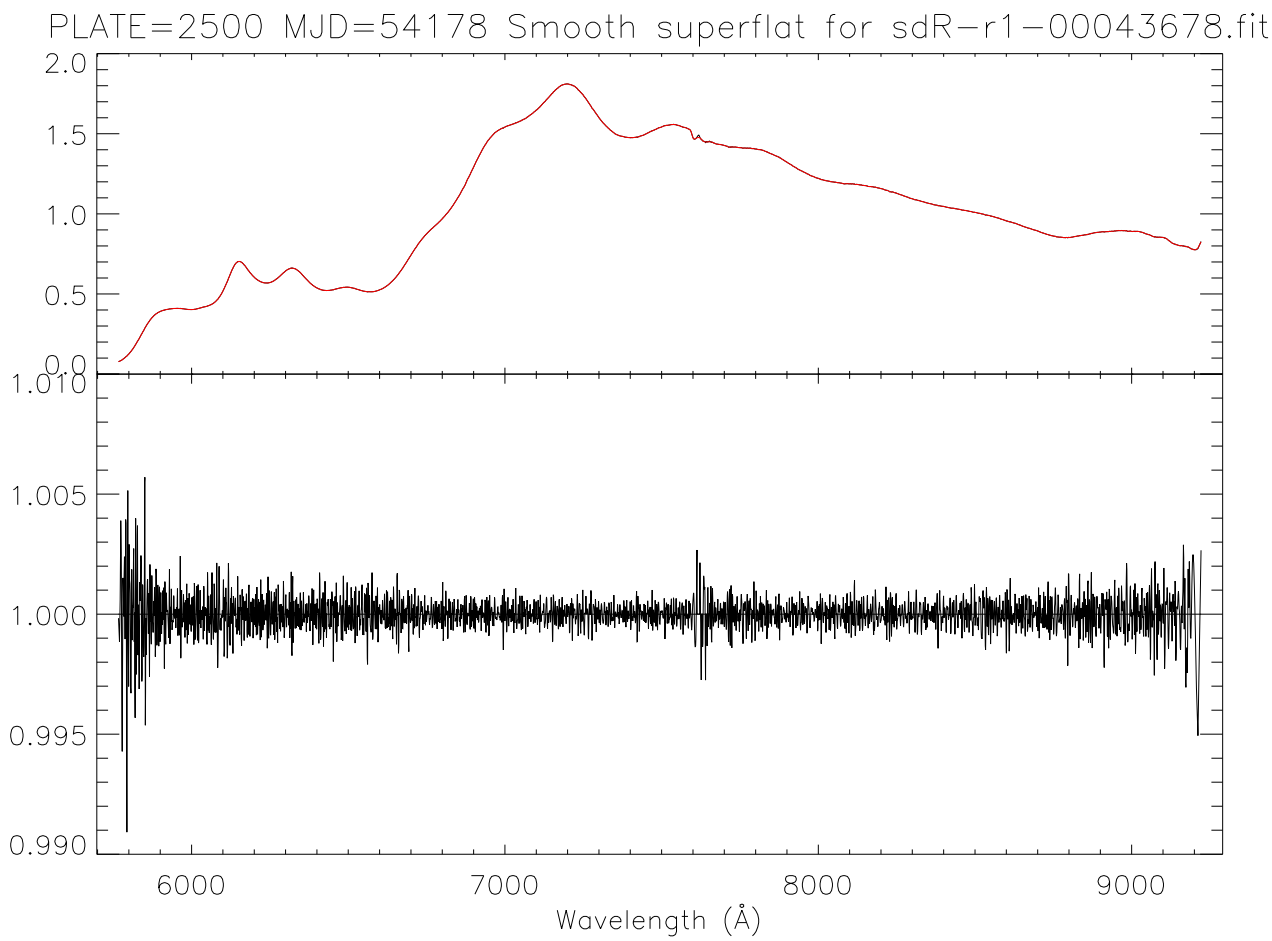

8885.8300
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

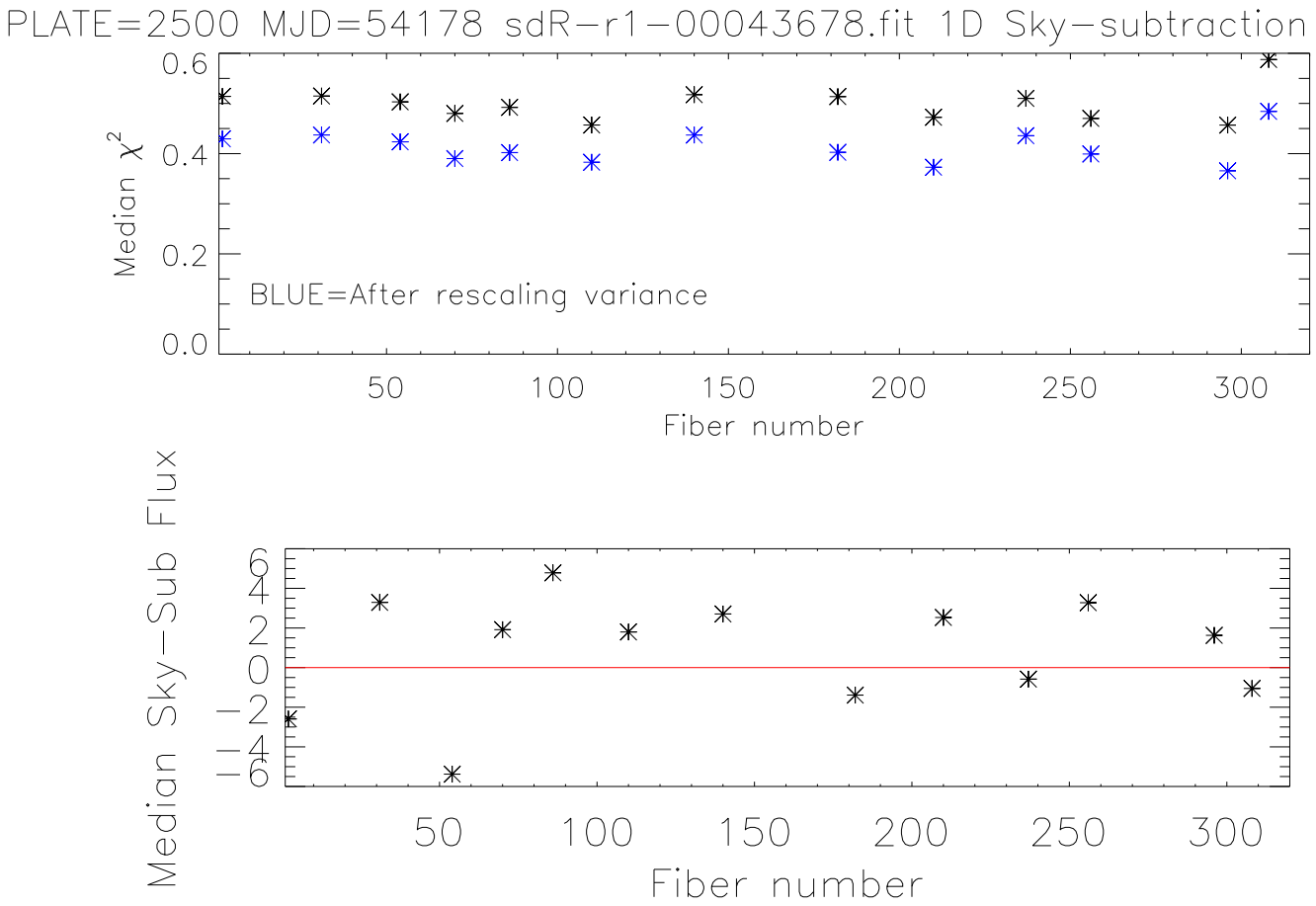

8919.6100
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400


6300.3040
mfib1 16
mfib2 16
stdev 0.018
extra 0.29
6363.7760
mfib1 16
mfib2 16
stdev 0.027
extra 0.26
6553.6100
mfib1 16
mfib2 16
stdev 0.049
extra 0.28
6923.2100
mfib1 14
mfib2 16
stdev 0.041
extra 0.23
6949.0300
mfib1 15
mfib2 16
stdev 0.049
extra 0.19
7571.7500
mfib1 15
mfib2 16
stdev 0.041
extra 0.16
7794.1200
mfib1 16
mfib2 16
stdev 0.033
extra 0.31
7821.5100
mfib1 16
mfib2 16
stdev 0.022
extra 0.23
8399.1600
mfib1 16
mfib2 16
stdev 0.021
extra 0.22
8430.1700
mfib1 16
mfib2 16
stdev 0.020
extra 0.22
8885.8300
mfib1 16
mfib2 16
stdev 0.017
extra 0.20
8919.6100
mfib1 16
mfib2 16
stdev 0.032
extra 0.22
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400

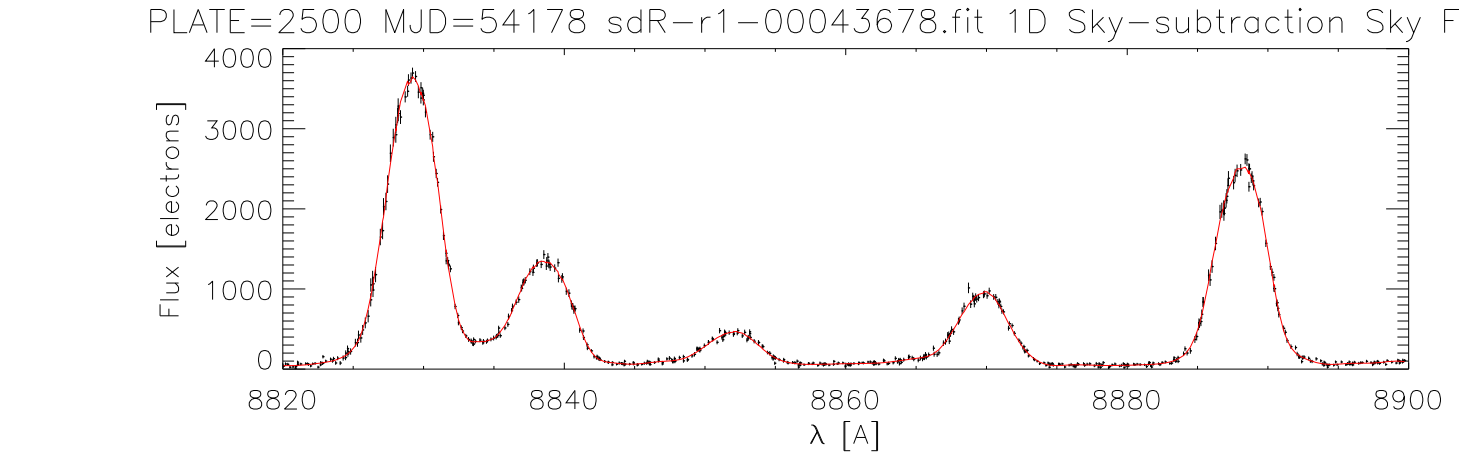

−0.15
−0.20
−0.25
−0.30
sky shift, pixels
5000
6000
7000
8000
9000
10000

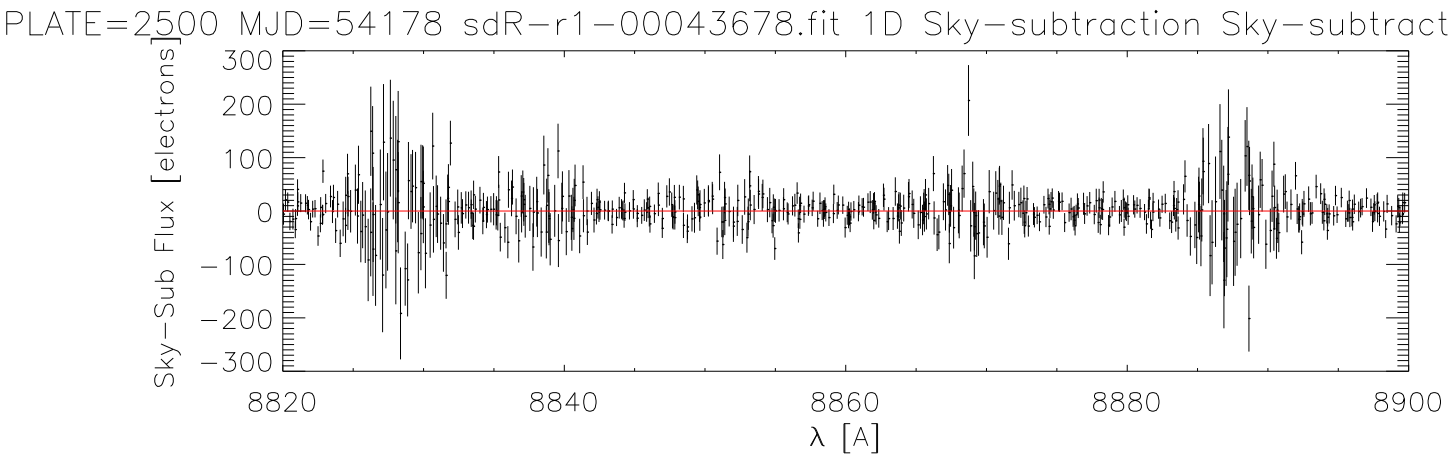
es= 0.0000

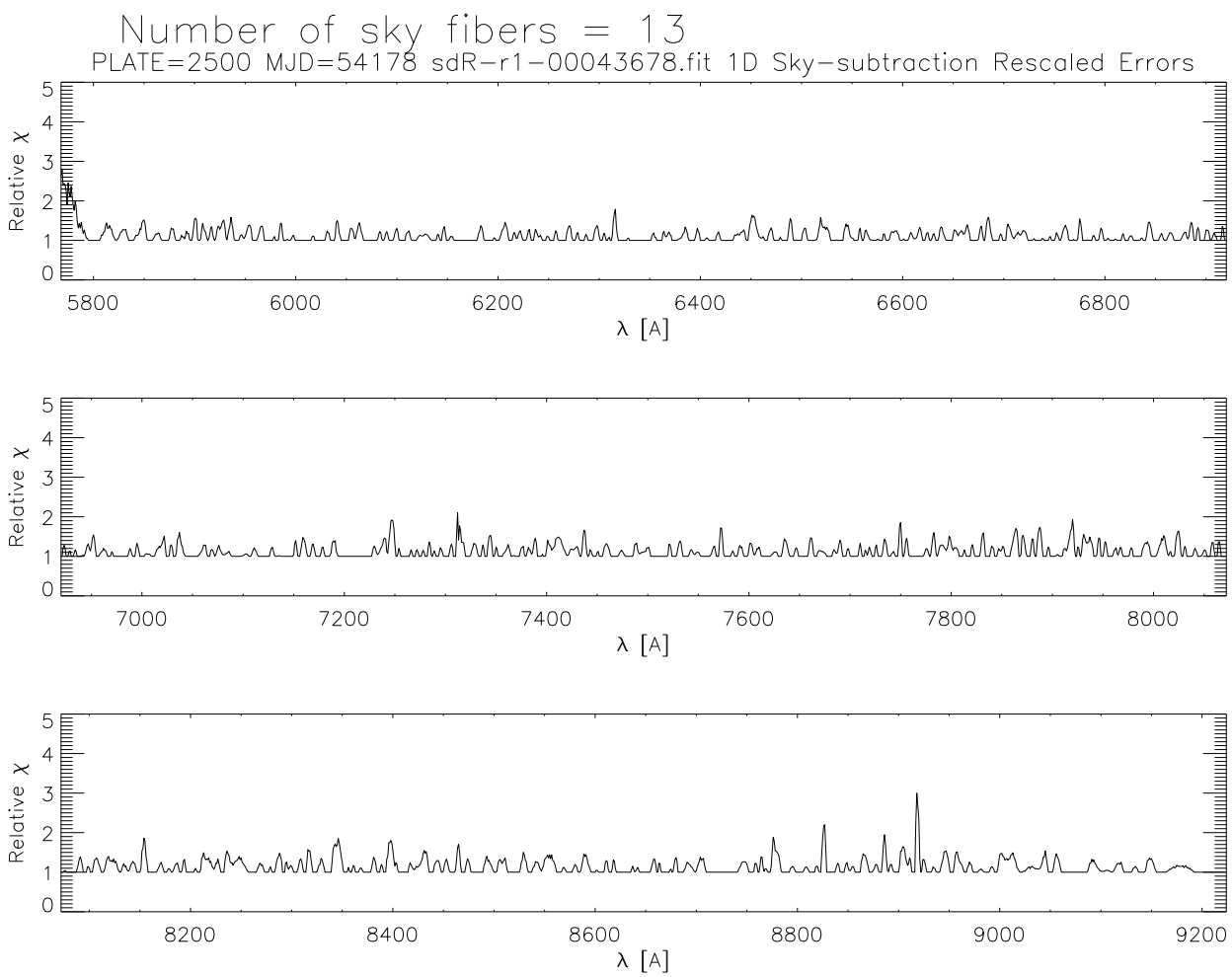

PLATE=2500 MJD=54178 Smooth superflat for sdR-r1-00043678.fit
2.0
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
6000
7000
8000
9000
Wavelength (Å)

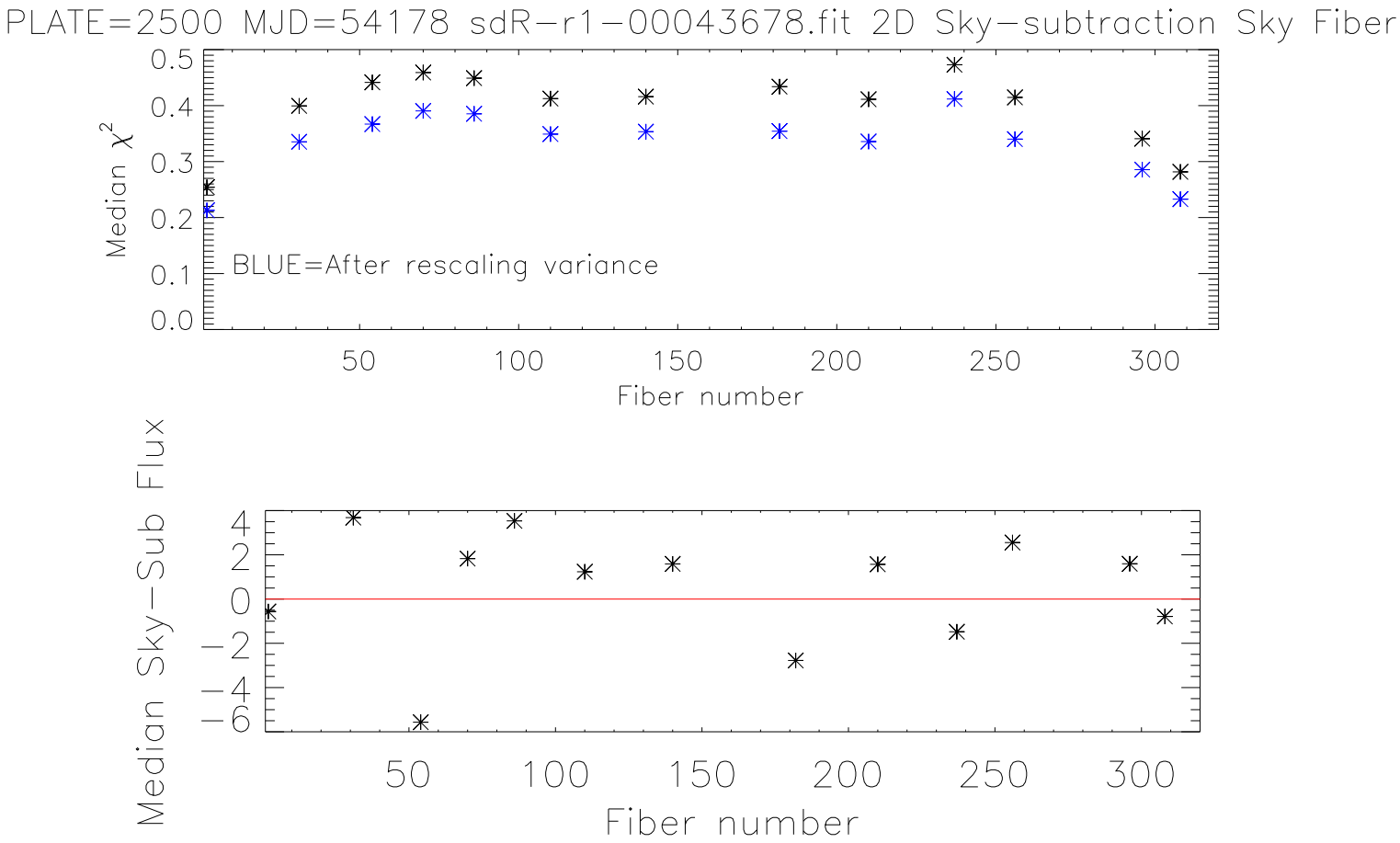

PLATE=2500 MJD=54178 sdR-r1-00043678.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number

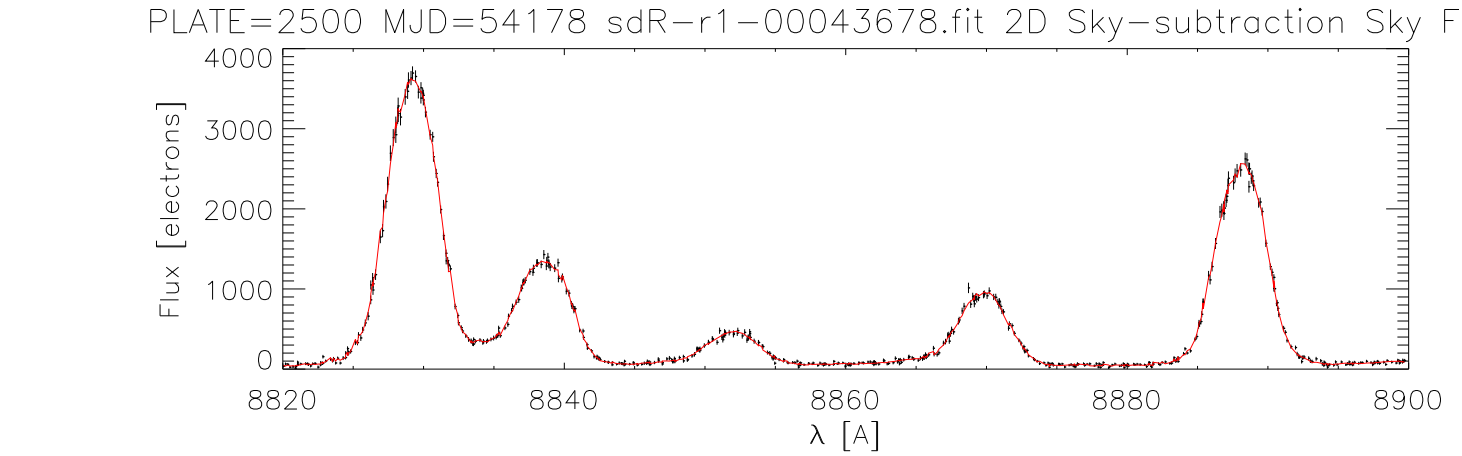
Median Sky-Sub Flux
-6
-4
-2
0
2
4
6
50
100
150
200
250
300
Fiber number

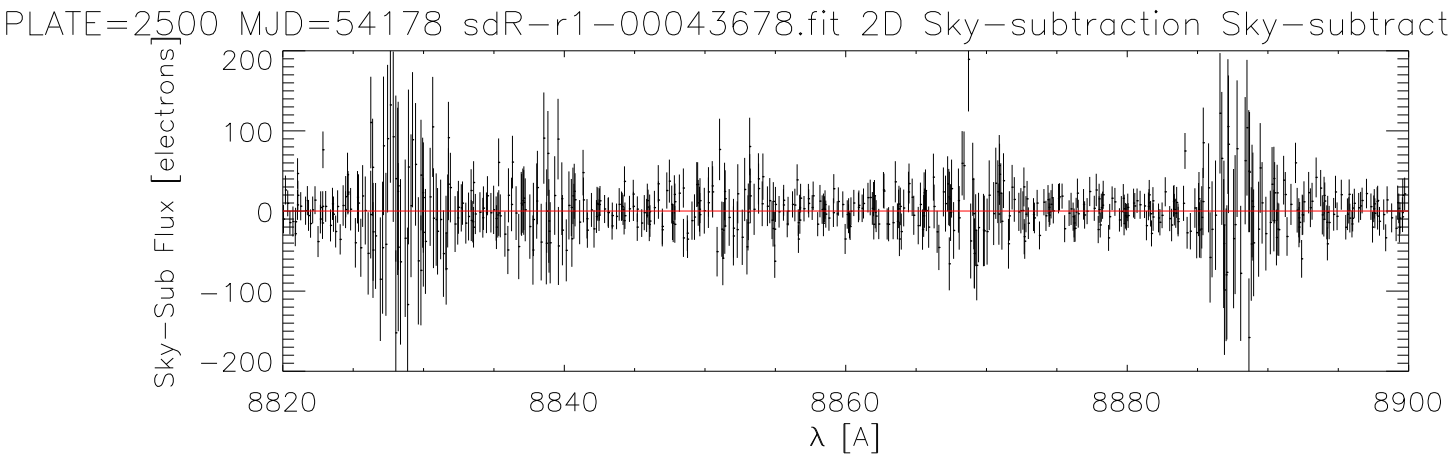

PLATE=2500 MJD=54178 sdR-r1-00043678.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

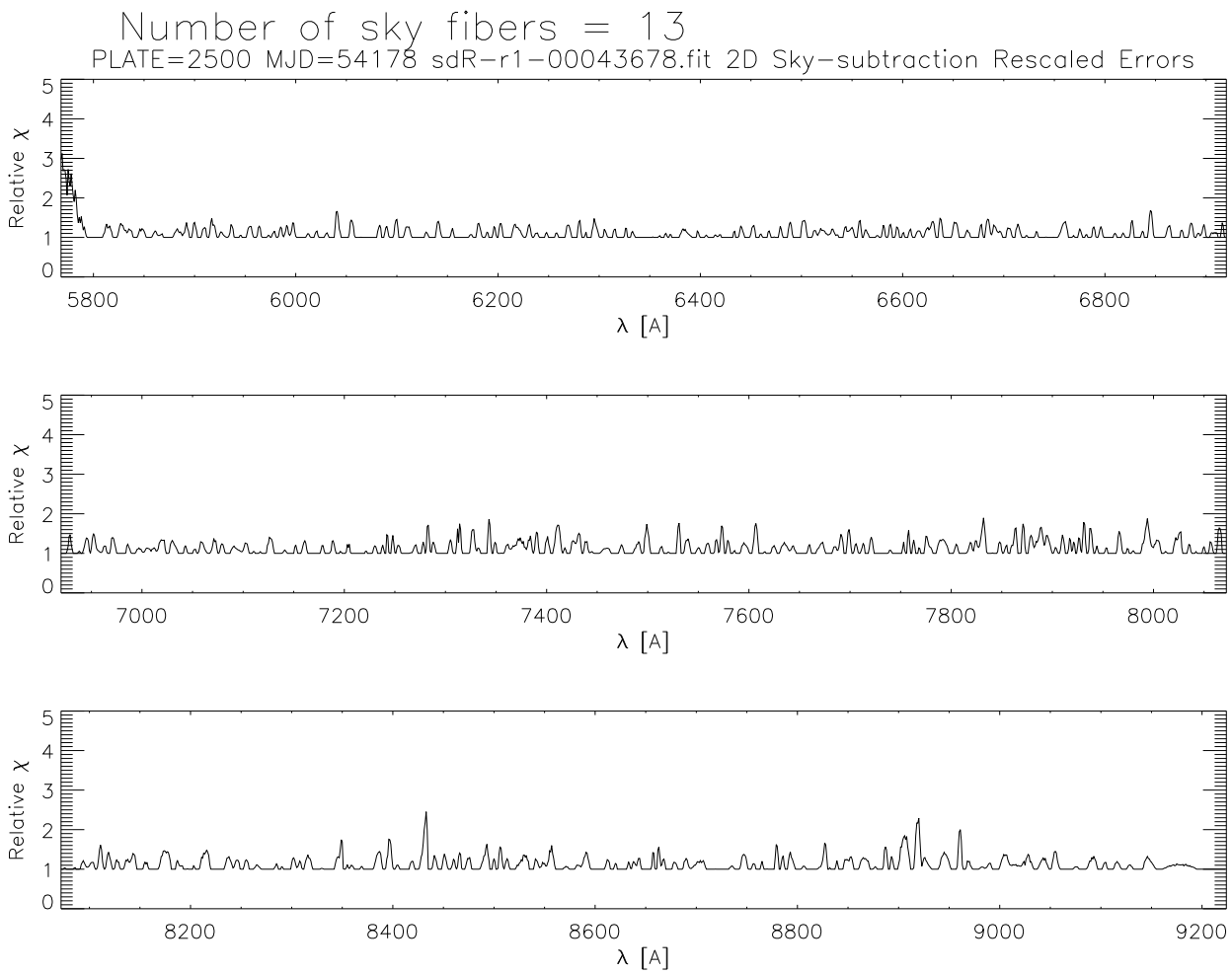

PLATE=2500 MJD=54178 sdR-r1-00043678.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
-300
8820
8840
8860
8880
8900
λ [A]

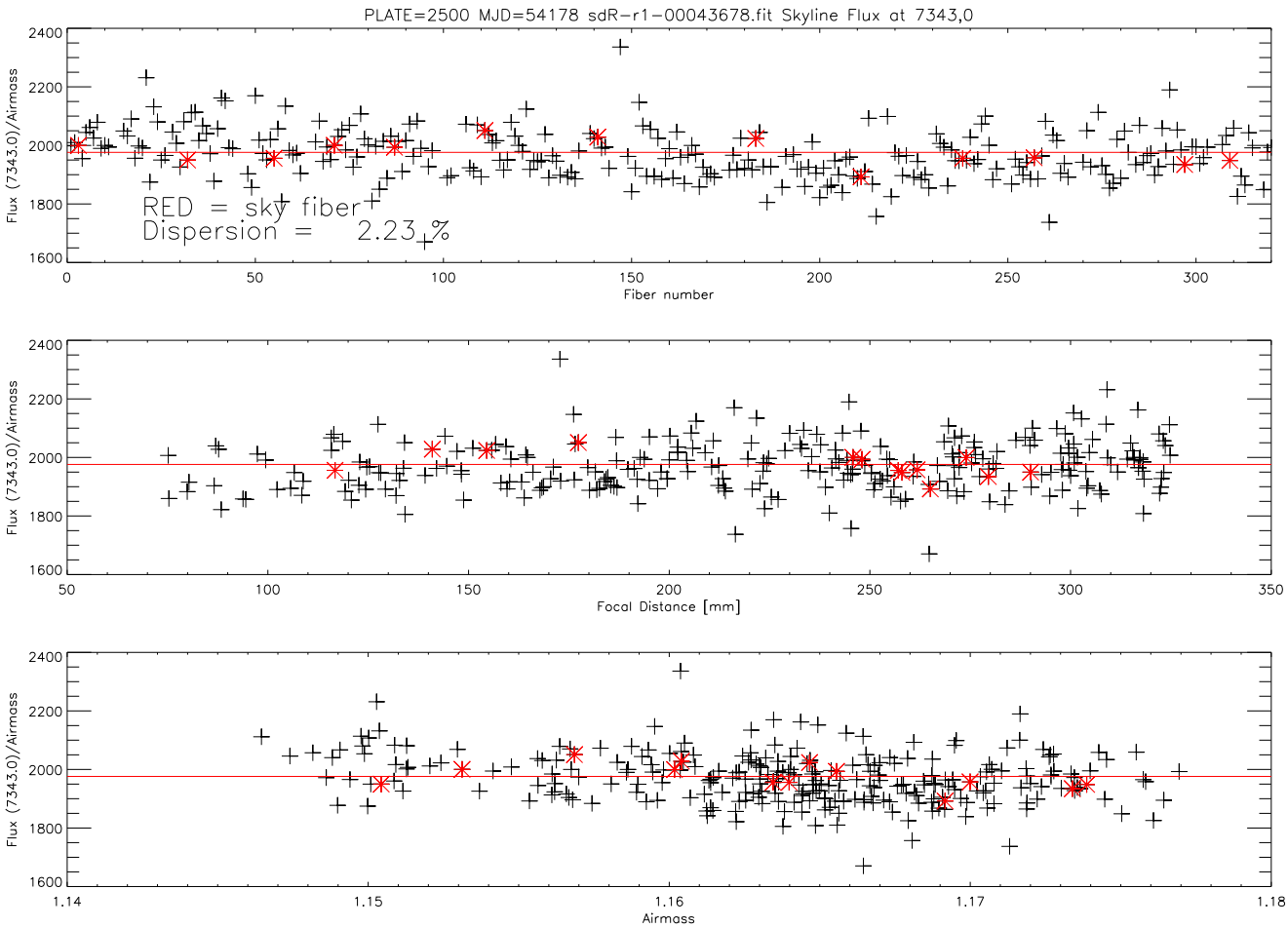

Number of sky fibers = 13
PLATE=2500 MJD=54178 sdR-r1-00043678.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

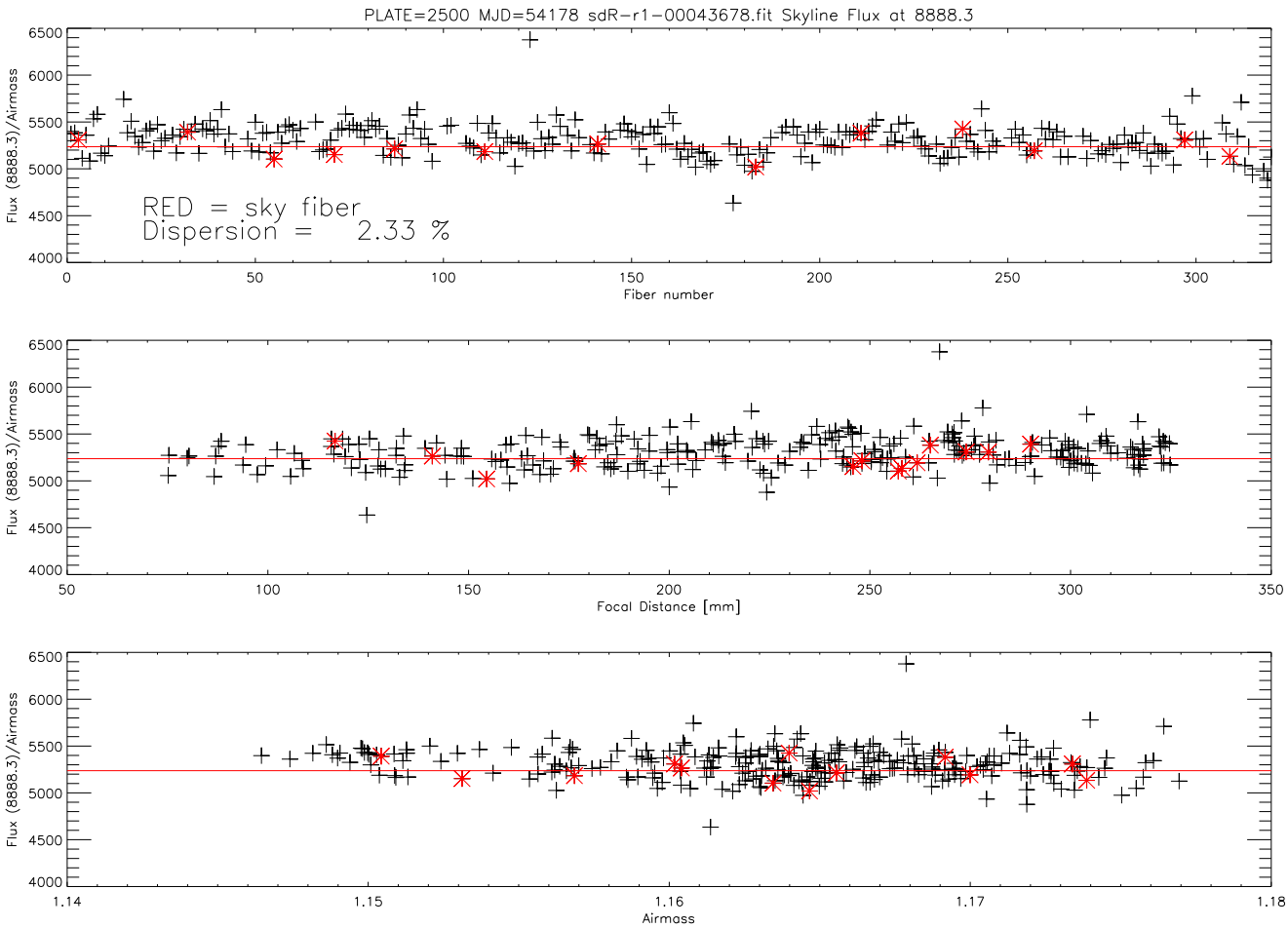

PLATE=2500 MJD=54178 sdR-r1-00043678.fit 2D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-6
-4
-2
0
2
4
50
100
150
200
250
300
Fiber number

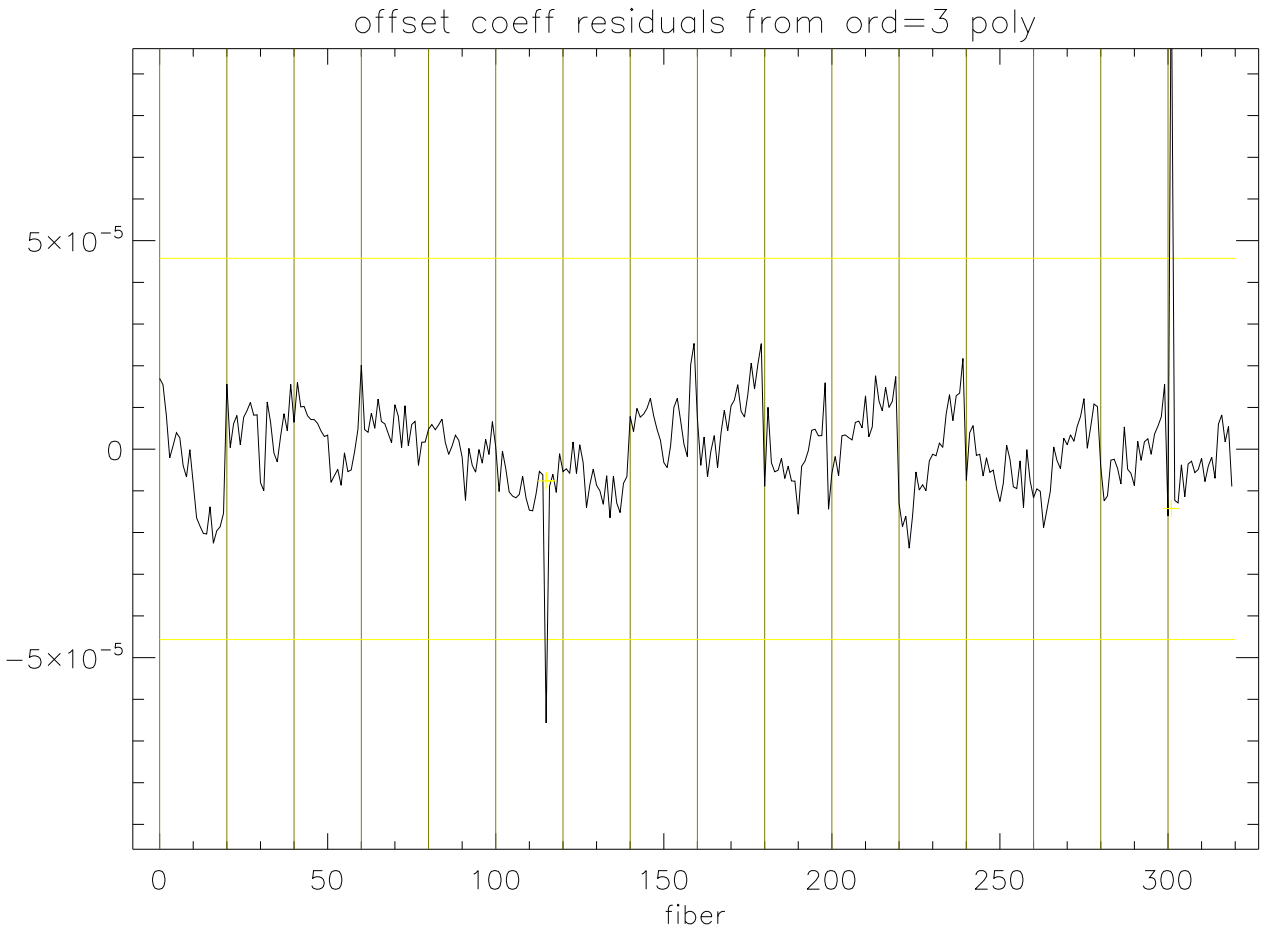

PLATE=2500 MJD=54178 sdR-r1-00043678.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

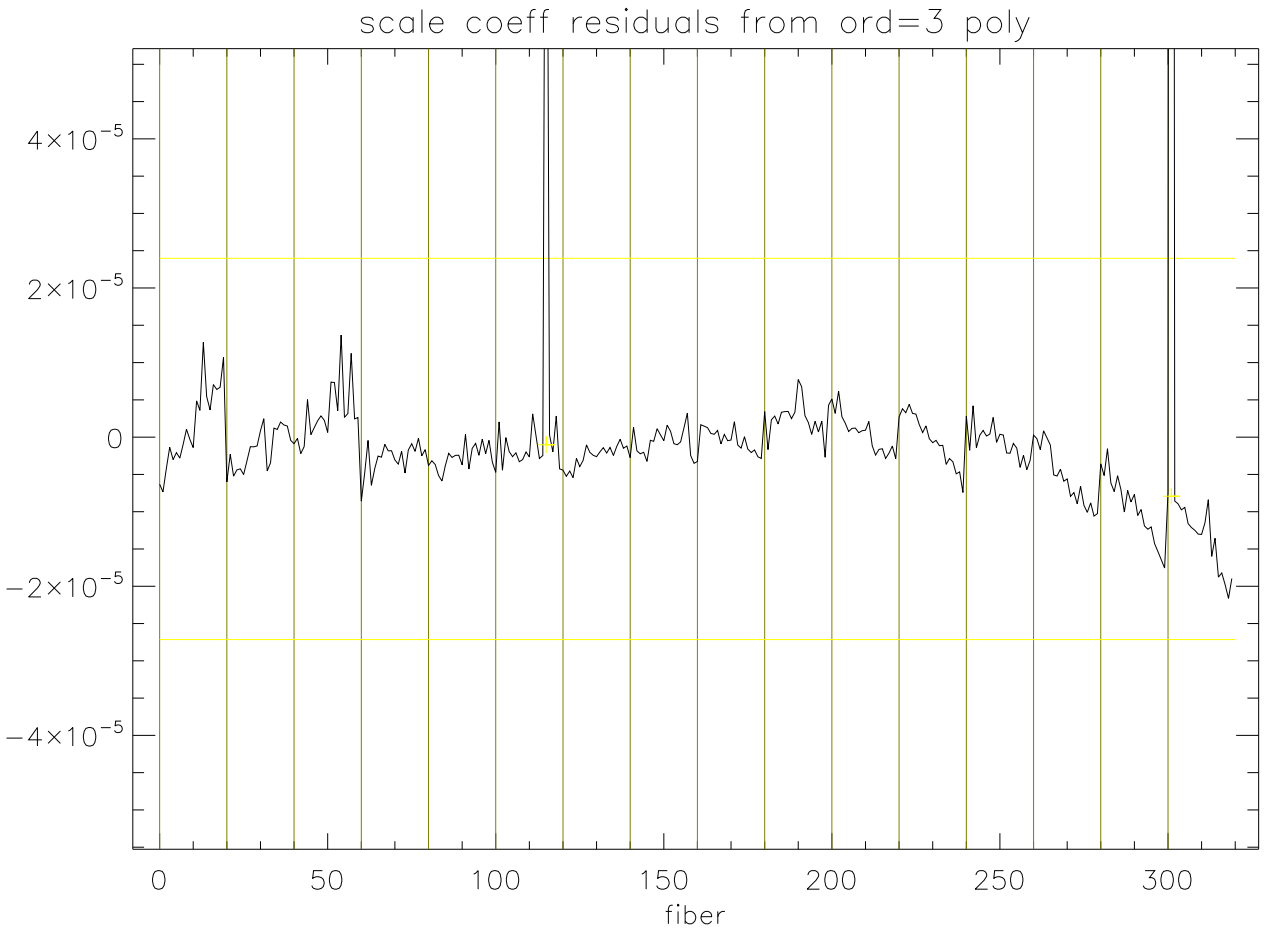

PLATE=2500 MJD=54178 sdR-r1-00043678.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
8820
8840
8860
8880
8900
λ [A]

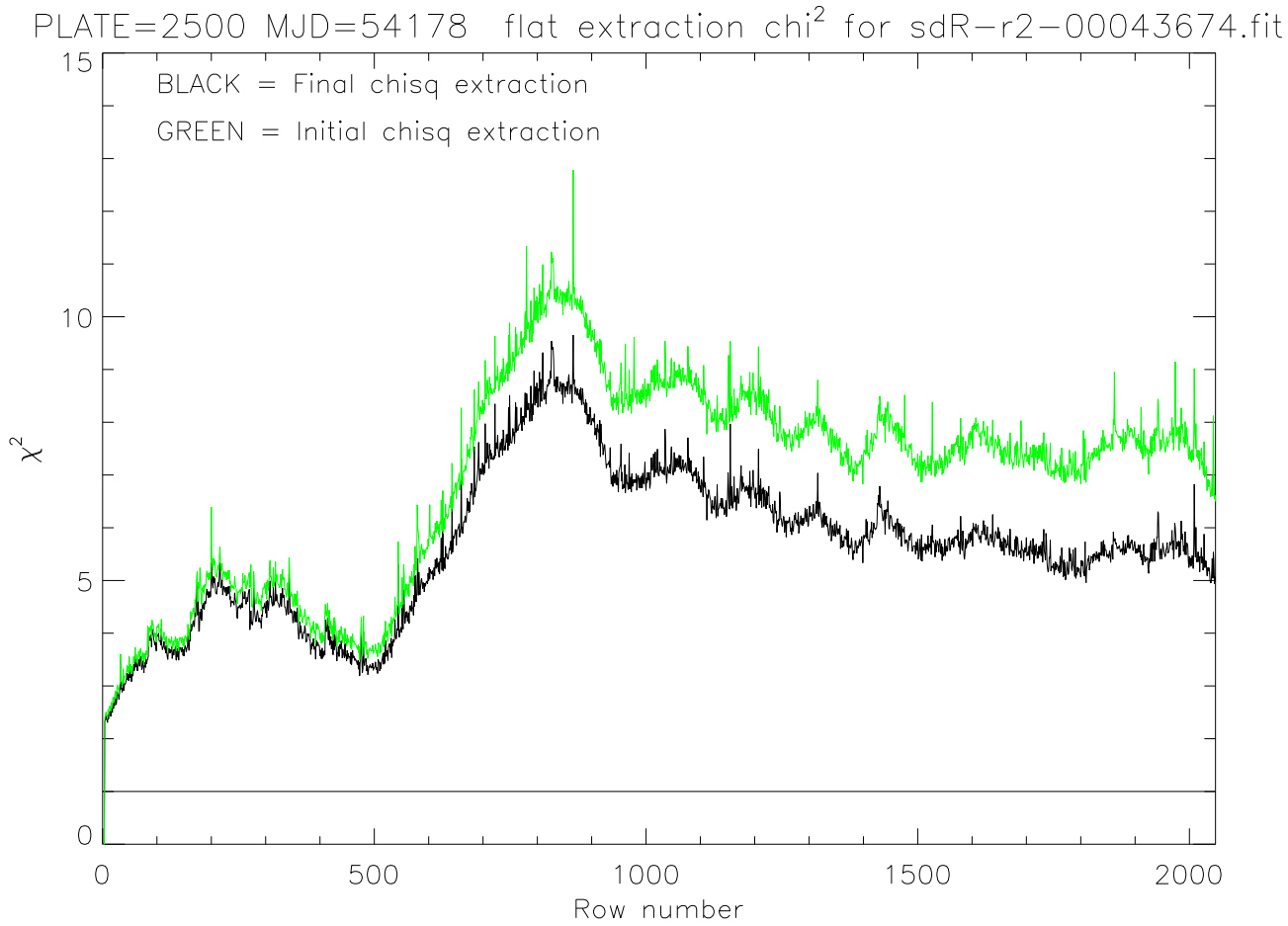

Number of sky fibers = 13
PLATE=2500 MJD=54178 sdR-r1-00043678.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

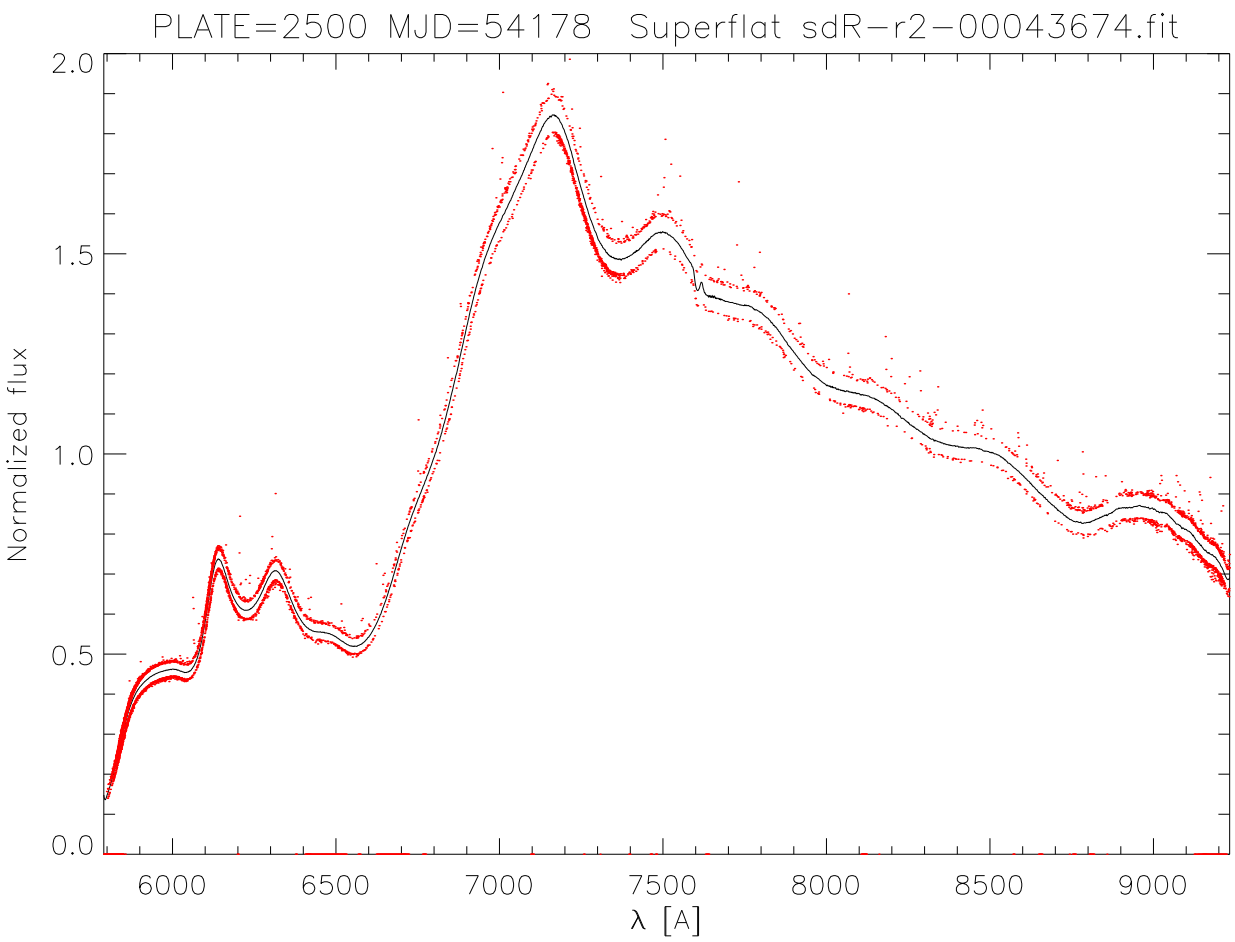

PLATE=2500 MJD=54178 sdR-r1-00043678.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 2.23 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

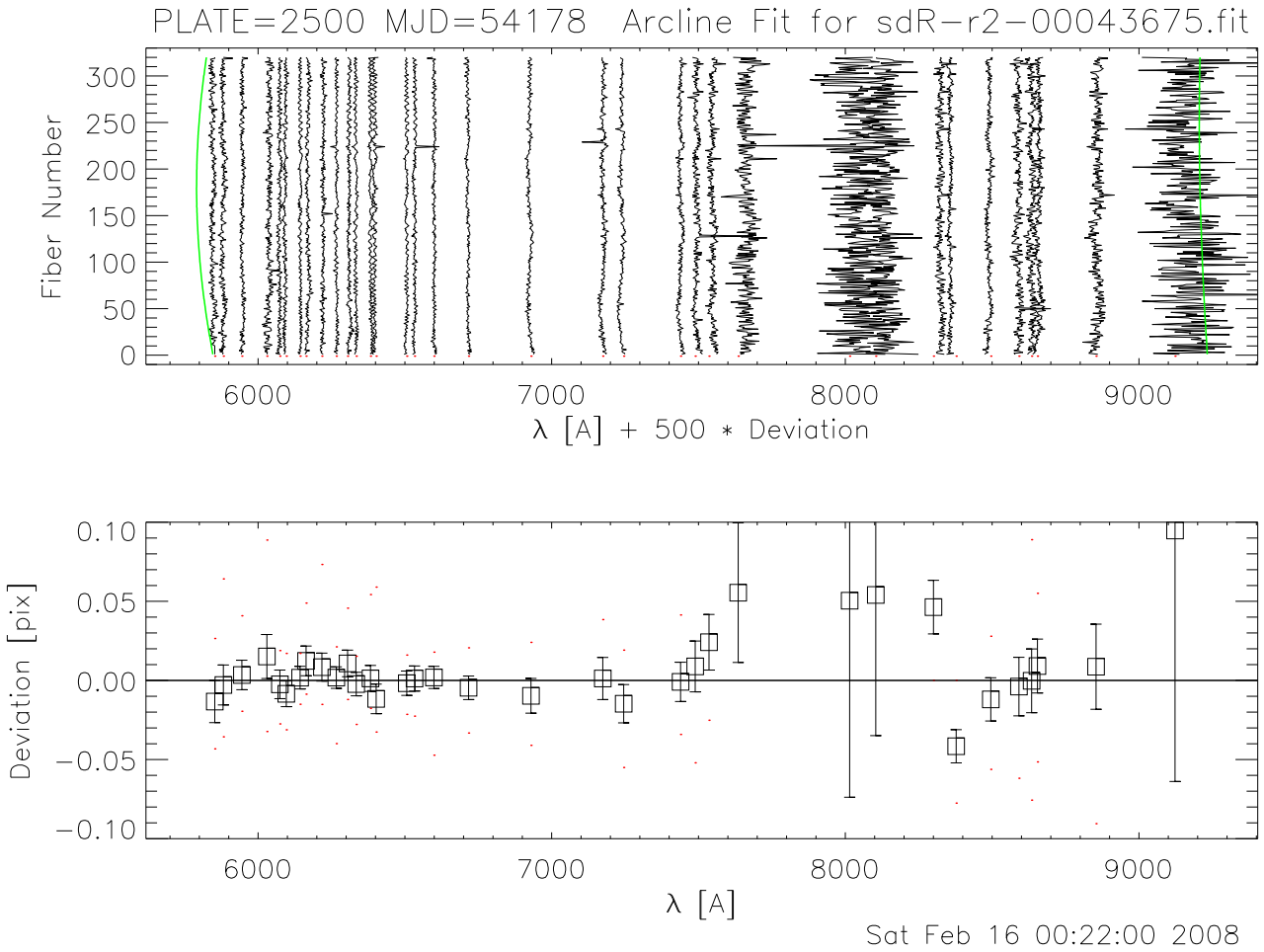

PLATE=2500 MJD=54178 sdR-r1-00043678.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 2.33 %
Fiber number
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass

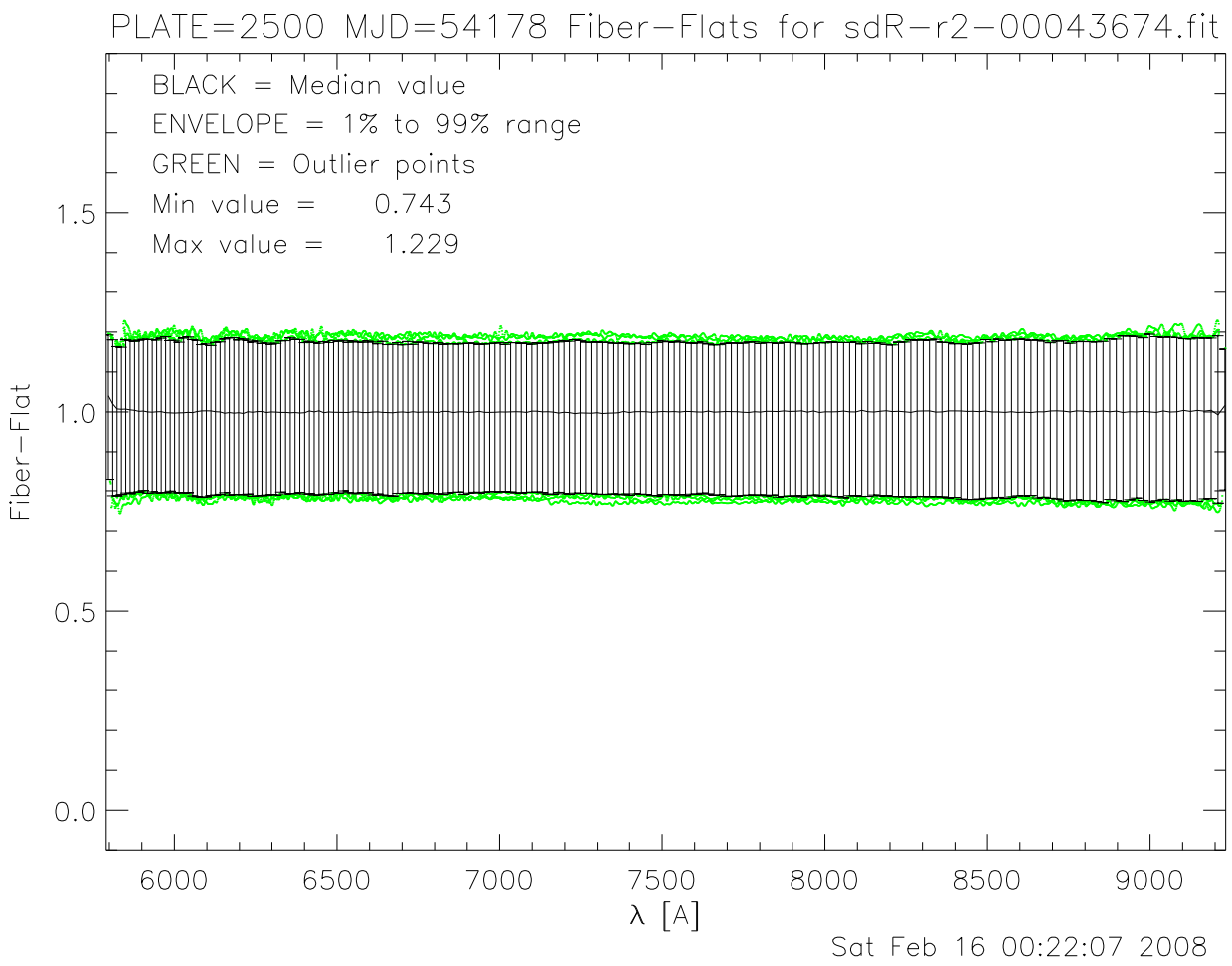

offset coeff residuals from ord=3 poly
5×10⁻⁵
0
−5×10⁻⁵
0
50
100
150
200
250
300
fiber

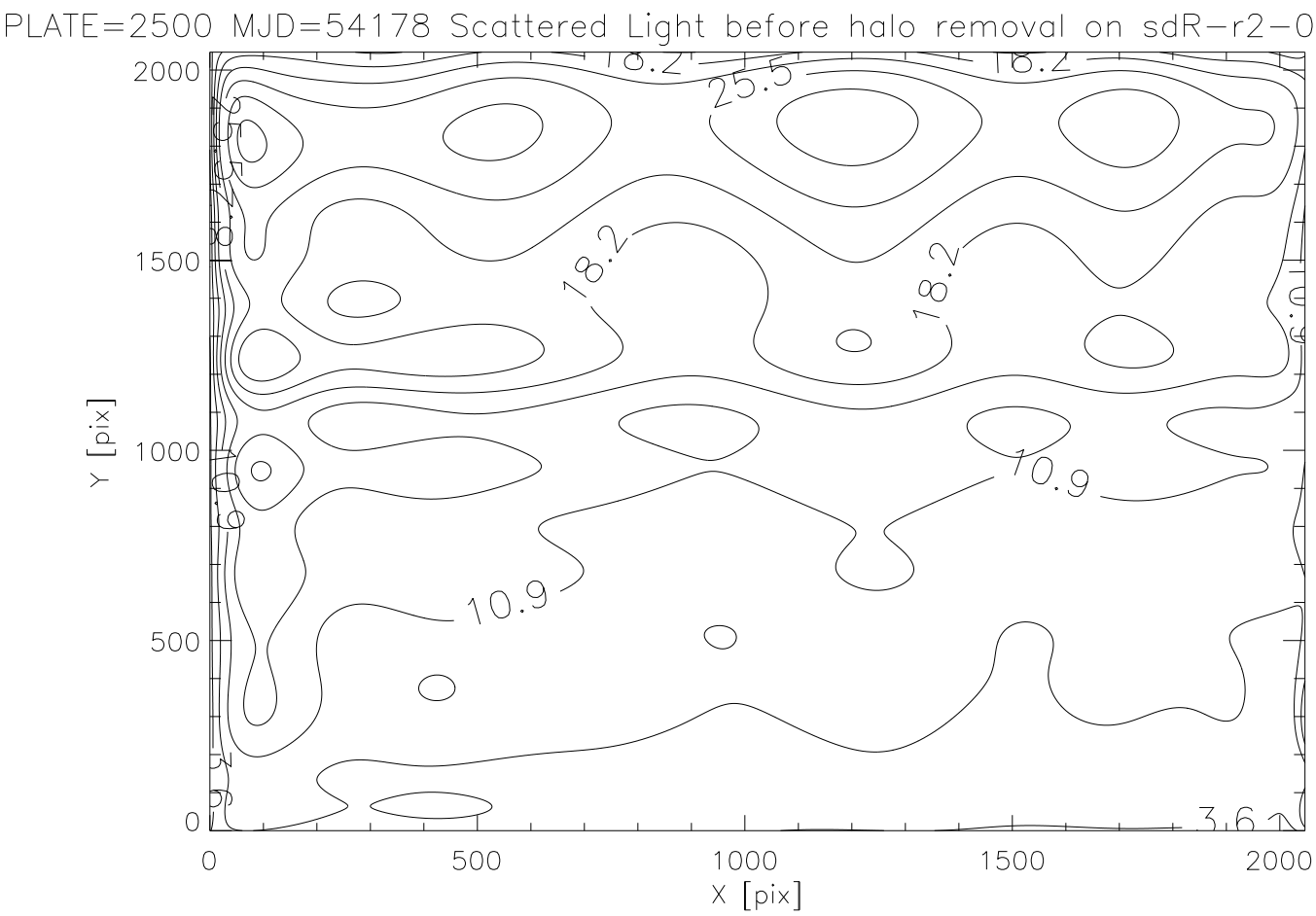

scale coeff residuals from ord=3 poly
4×10⁻⁵
2×10⁻⁵
0
−2×10⁻⁵
−4×10⁻⁵
0
50
100
150
200
250
300
fiber

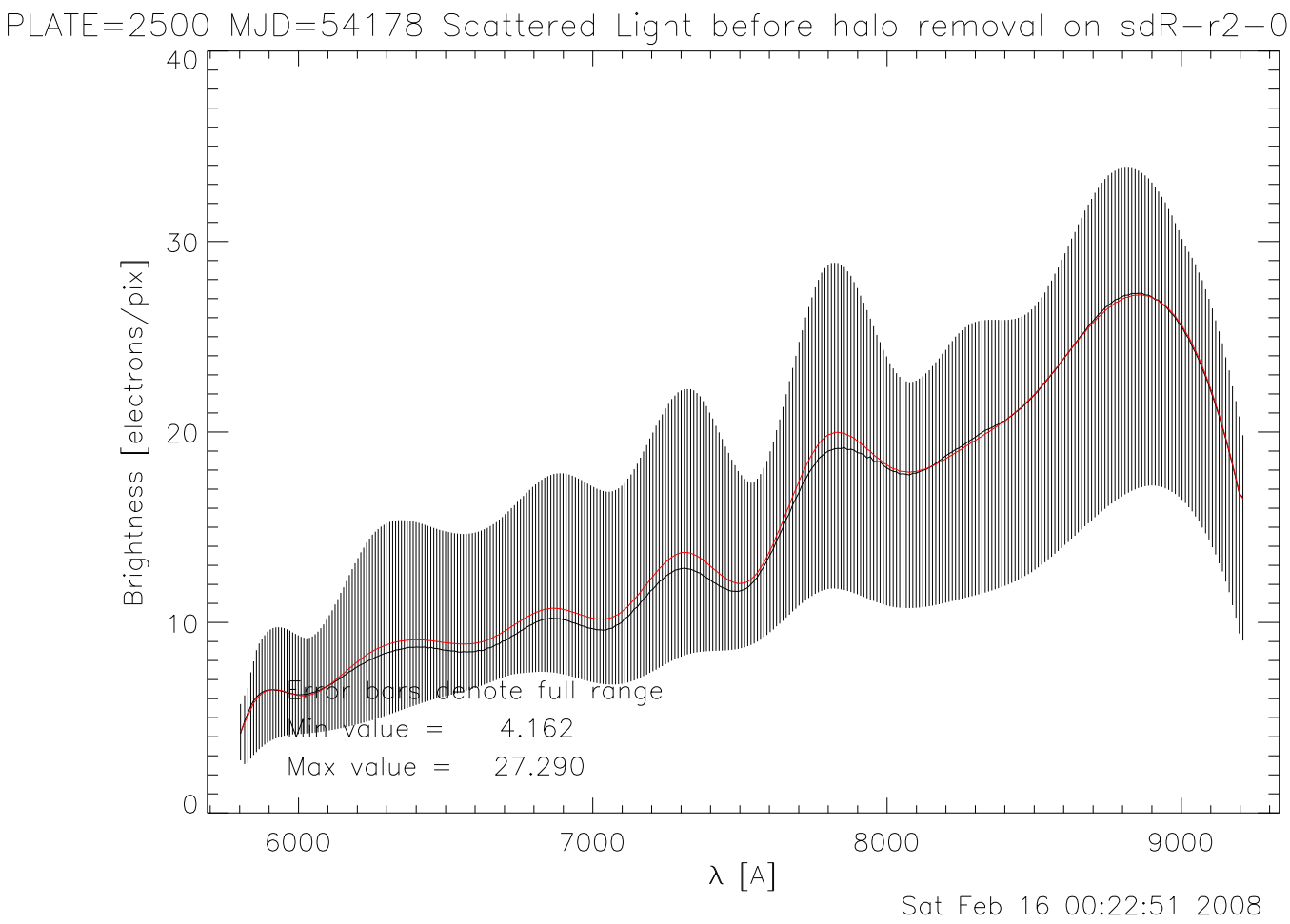

PLATE=2500 MJD=54178 flat extraction chi^2 for sdR−r2−00043674.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
0
5
10
15
0
500
1000
1500
2000
Row number

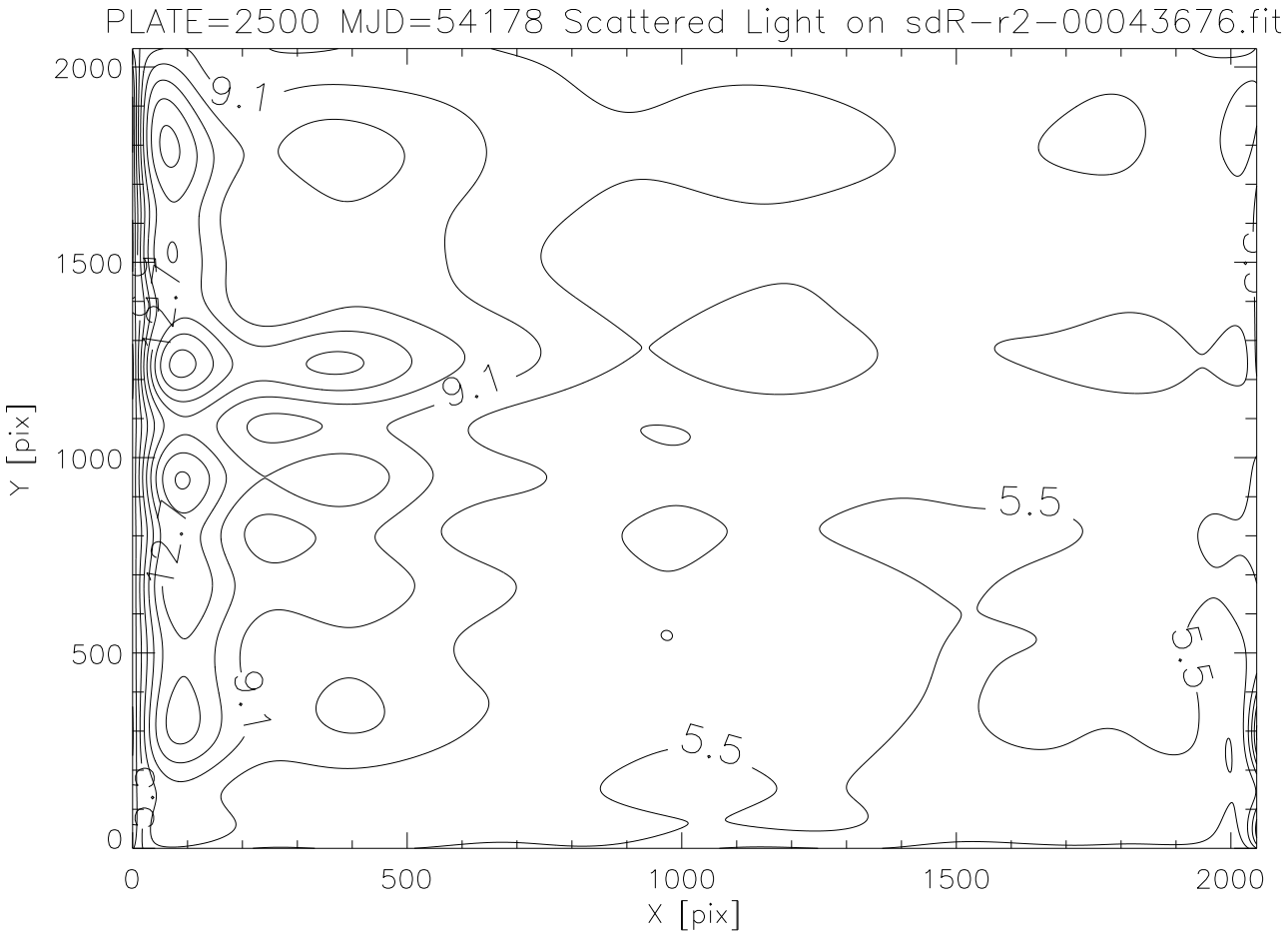

PLATE=2500 MJD=54178 Superflat sdR-r2-00043674.fit
Normalized flux
2.0
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

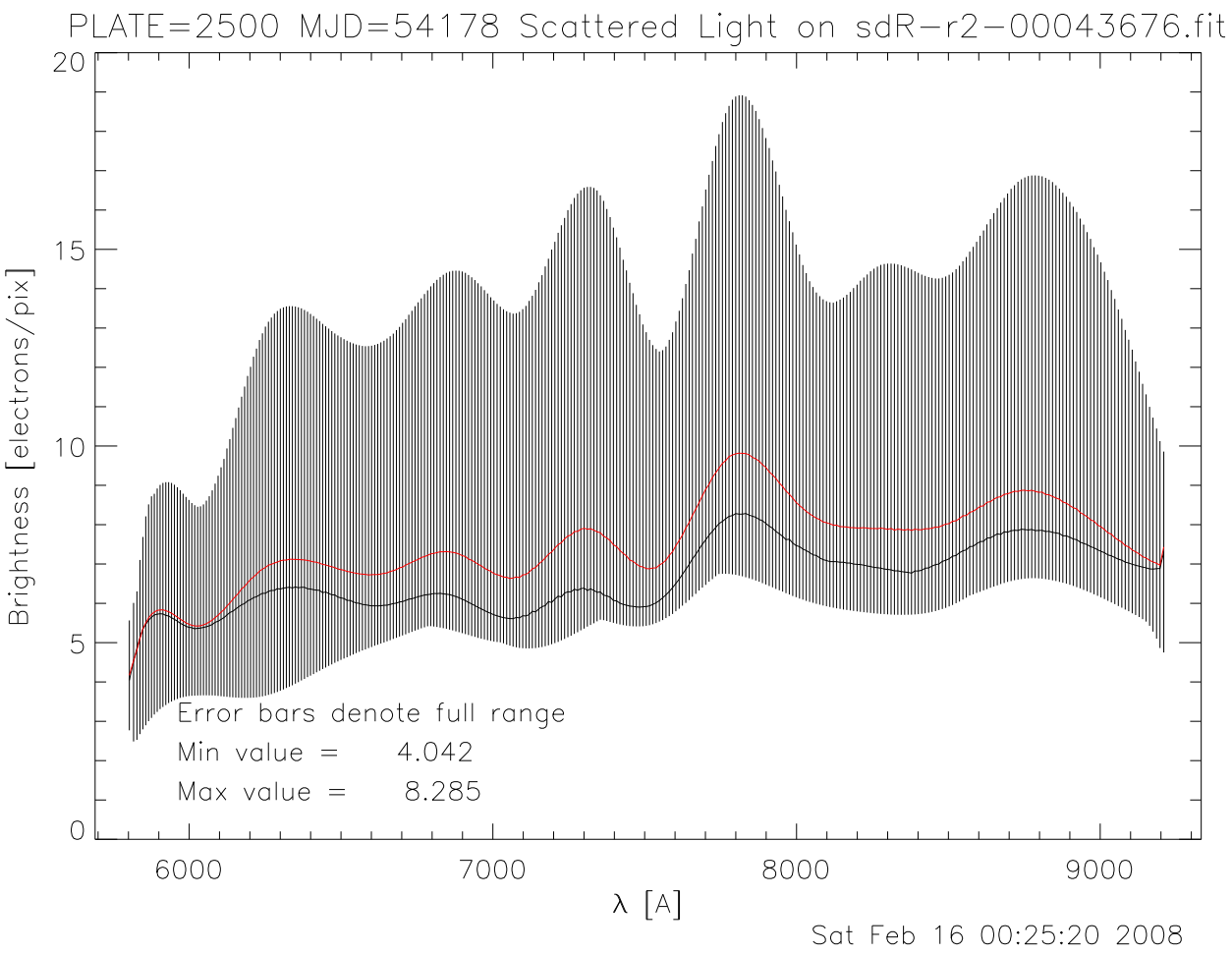

PLATE=2500 MJD=54178 Arcline Fit for sdR-r2-00043675.fit
Fiber Number
300
250
200
150
100
50
0
6000
7000
8000
9000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
6000
7000
8000
9000
λ [A]
Sat Feb 16 00:22:00 2008

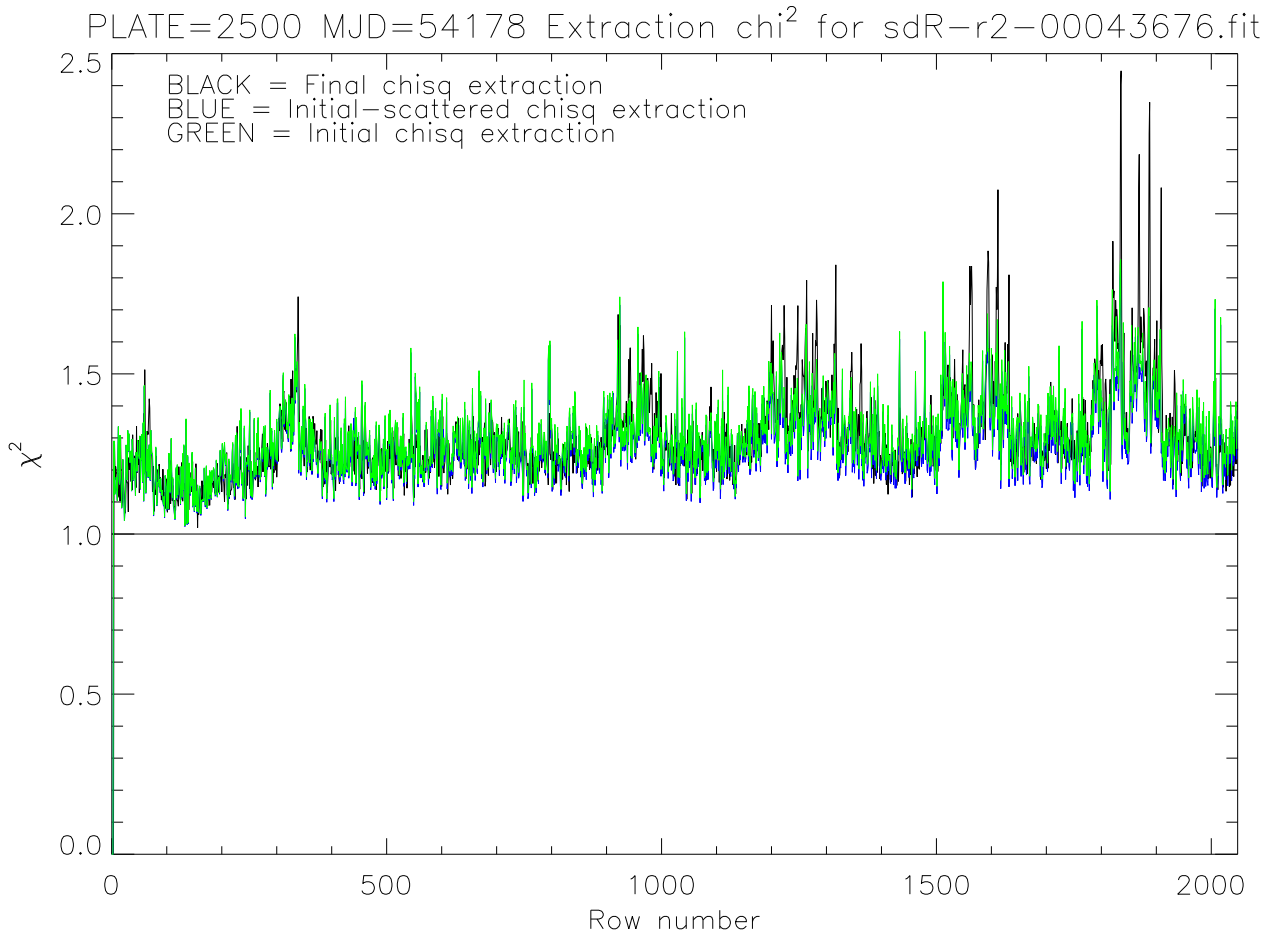

PLATE=2500 MJD=54178 Fiber−Flats for sdR−r2−00043674.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.743
Max value = 1.229
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sat Feb 16 00:22:07 2008

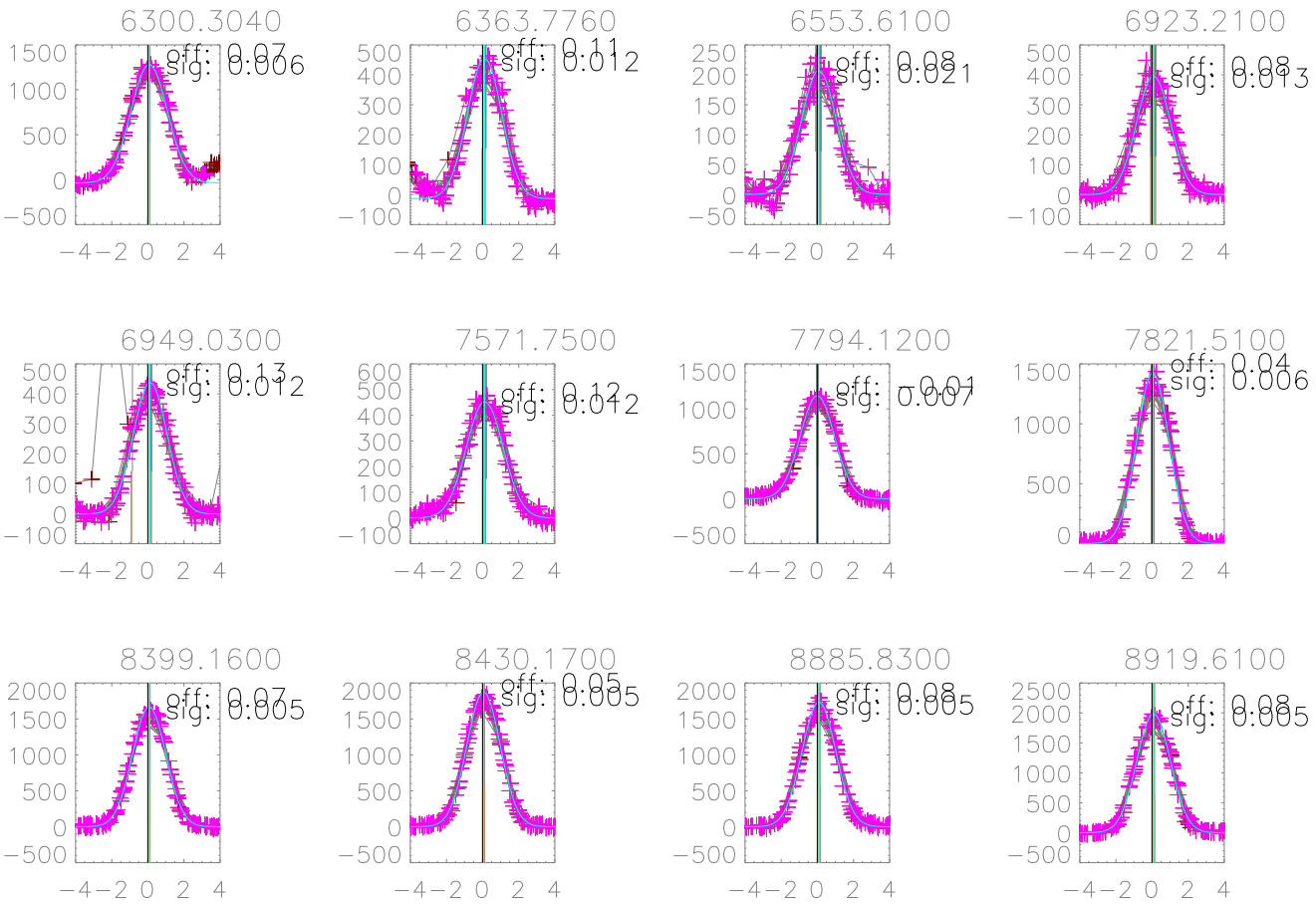

PLATE=2500 MJD=54178 Scattered Light before halo removal on sdR-r2-00043676.fi
18.2
25.5
18.2
18.2
18.2
10.9
10.9
3.6
Y [pix]
X [pix]
0
500
1000
1500
2000

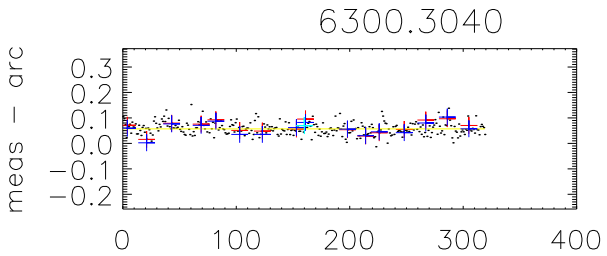

PLATE=2500 MJD=54178 Scattered Light before halo removal on sdR-r2-00043676.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 4.162
Max value = 27.290
Sat Feb 16 00:22:51 2008

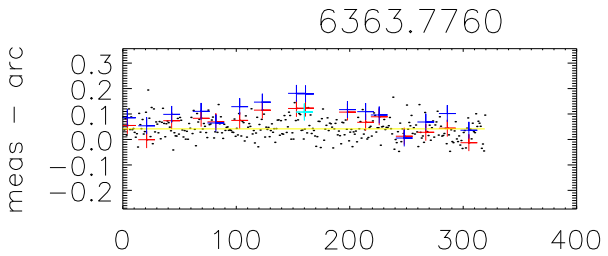

PLATE=2500 MJD=54178 Scattered Light on sdR-r2-00043676.fit
9.1
9.1
9.1
9.1
5.5
5.5
5.5
Y [pix]
X [pix]
0
500
1000
1500
2000

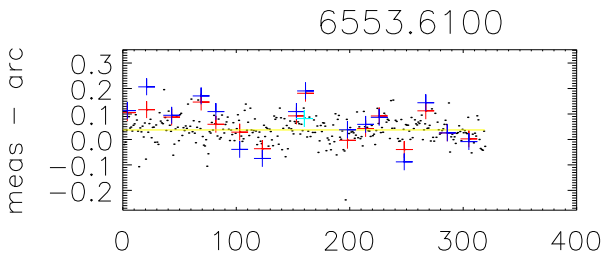

PLATE=2500 MJD=54178 Scattered Light on sdR-r2-00043676.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 4.042
Max value = 8.285
Sat Feb 16 00:25:20 2008

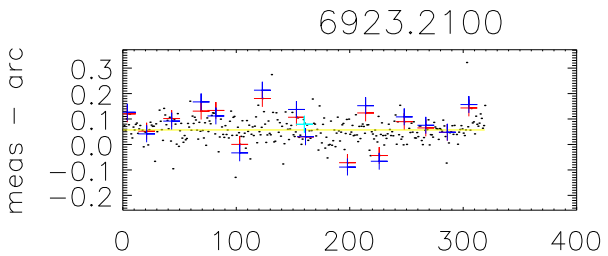

PLATE=2500 MJD=54178 Extraction chi^2 for sdR−r2−00043676.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
2.5
2.0
1.5
1.0
0.5
0.0
0
500
1000
1500
2000
Row number

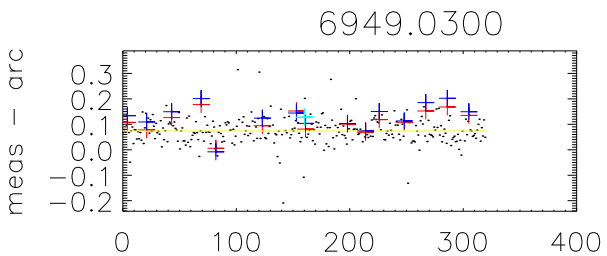

6300.3040
off: 0.07
sig: 0.006
6363.7760
off: 0.11
sig: 0.012
6553.6100
off: 0.08
sig: 0.021
6923.2100
off: 0.08
sig: 0.013
6949.0300
off: 0.13
sig: 0.012
7571.7500
off: 0.12
sig: 0.012
7794.1200
off: 0.01
sig: 0.007
7821.5100
off: 0.04
sig: 0.006
8399.1600
off: 0.07
sig: 0.005
8430.1700
off: 0.05
sig: 0.005
8885.8300
off: 0.08
sig: 0.005
8919.6100
off: 0.08
sig: 0.005

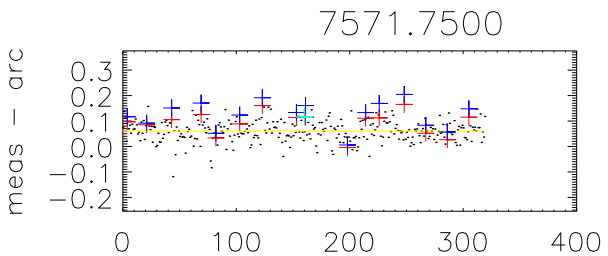

6300.3040
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

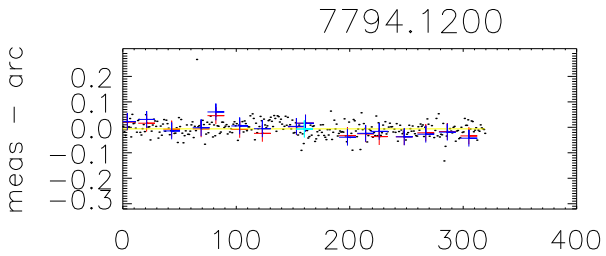

6363.7760
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

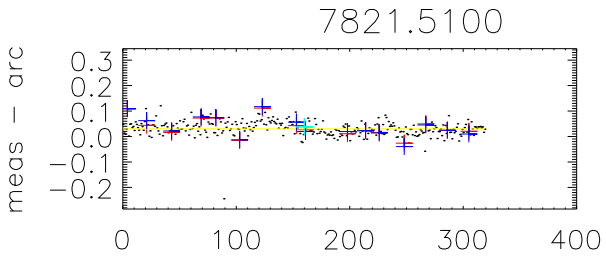

6553.6100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

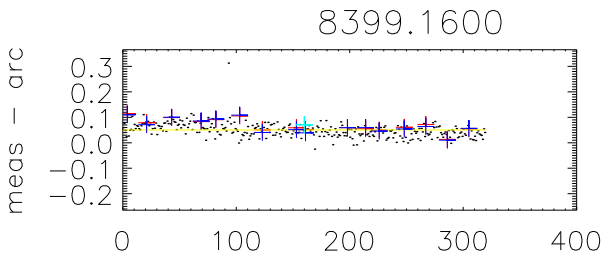

6923.2100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

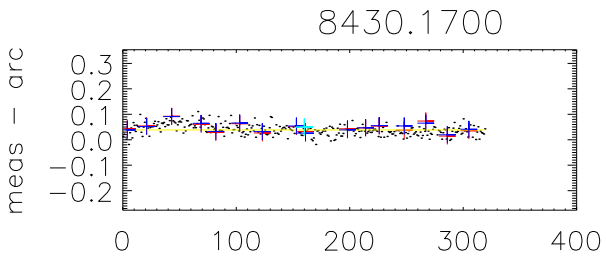

6949.0300
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

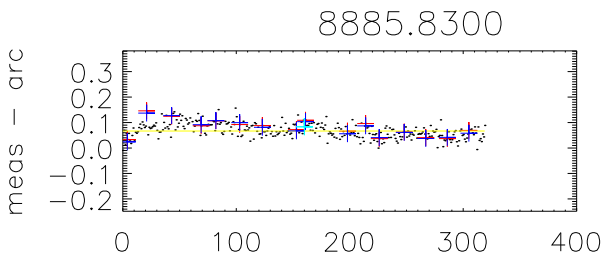

7571.7500
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

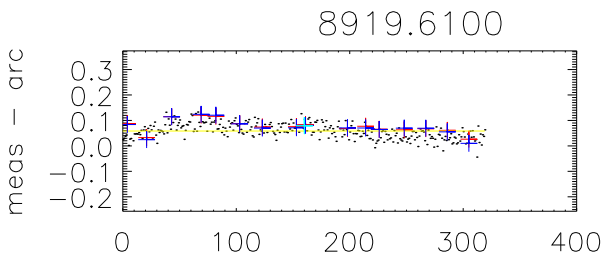

7794.1200
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

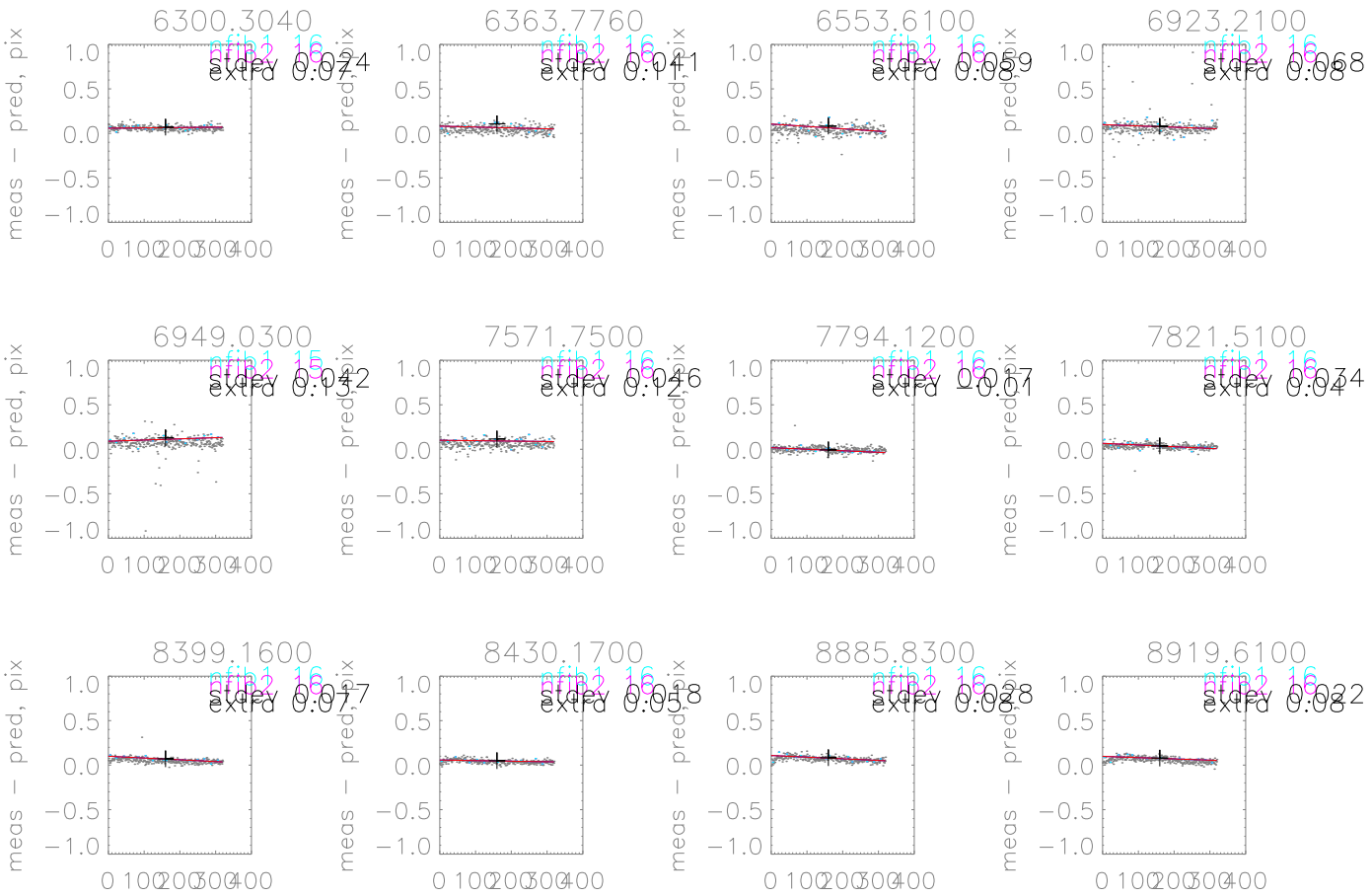

7821.5100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

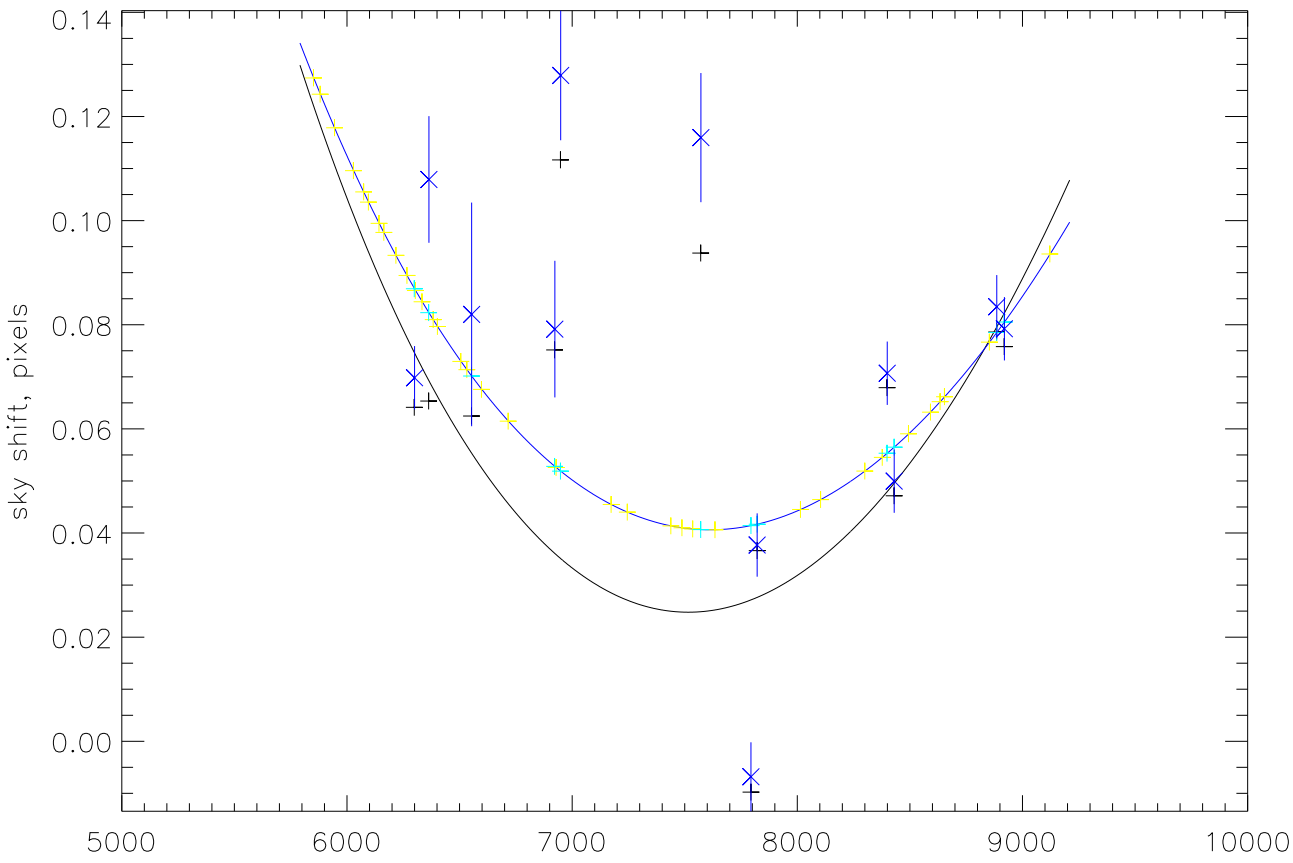

8399.1600
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

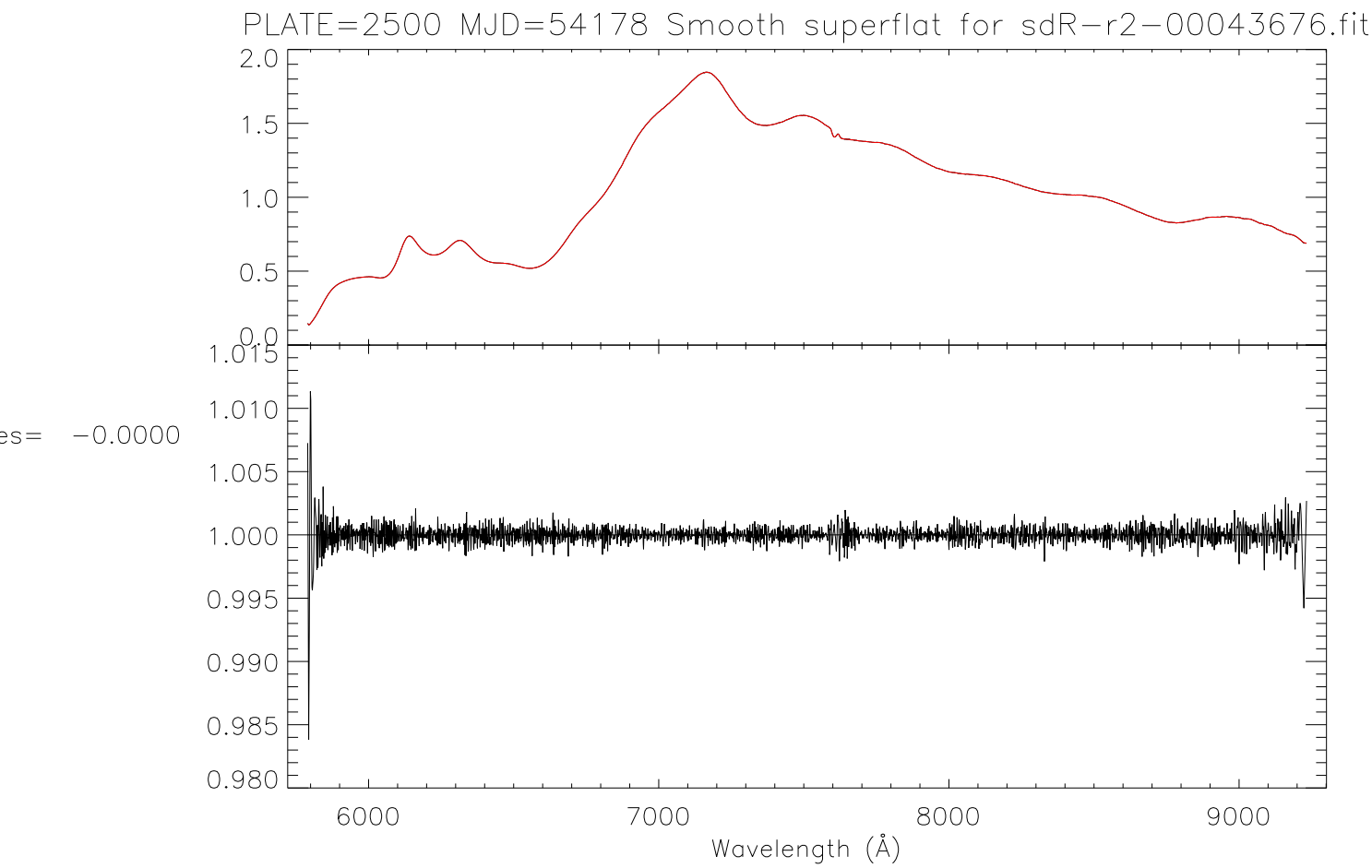

8430.1700
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400


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

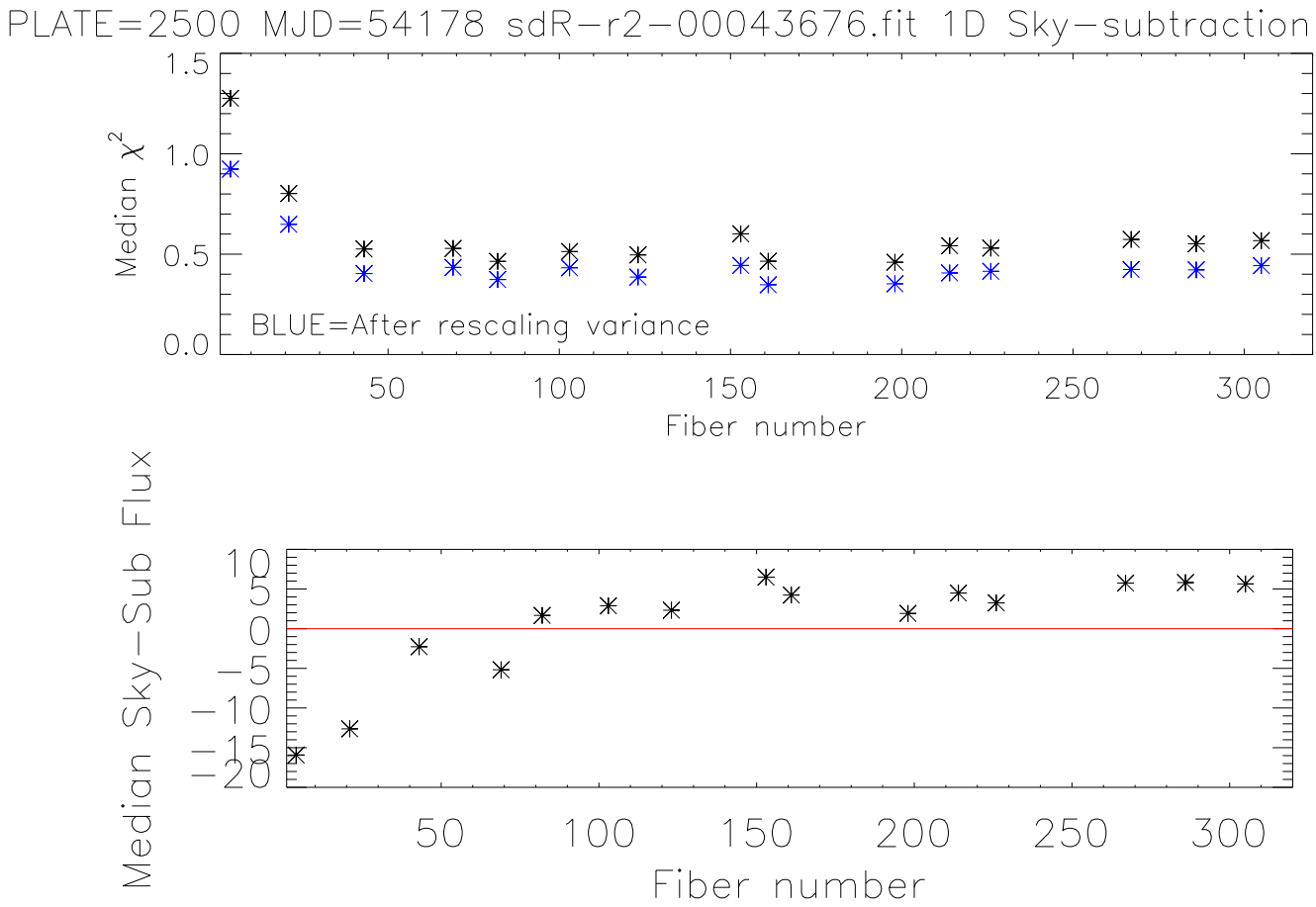

8919.6100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

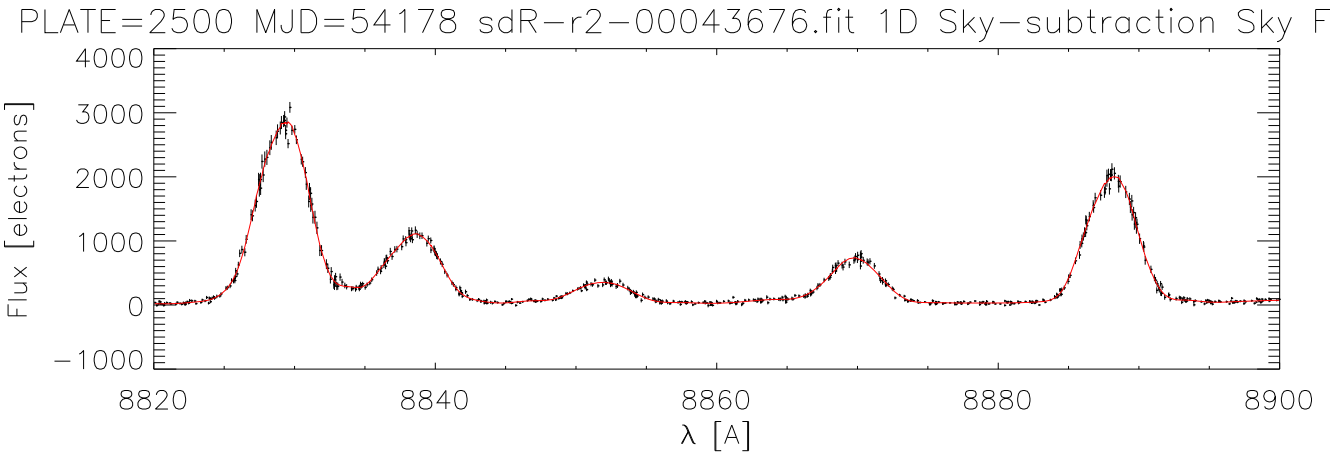

6300.3040
stdev 0.074
extra 0.07
6363.7760
stdev 0.041
extra 0.11
6553.6100
stdev 0.059
extra 0.08
6923.2100
stdev 0.068
extra 0.08
6949.0300
stdev 0.042
extra 0.13
7571.7500
stdev 0.046
extra 0.12
7794.1200
stdev 0.017
extra −0.01
7821.5100
stdev 0.034
extra 0.04
8399.1600
stdev 0.017
extra 0.07
8430.1700
stdev 0.018
extra 0.05
8885.8300
stdev 0.028
extra 0.08
8919.6100
stdev 0.022
extra 0.08
meas − pred, pix
mfhd2 16
mfhd1 15
mfhd1 16

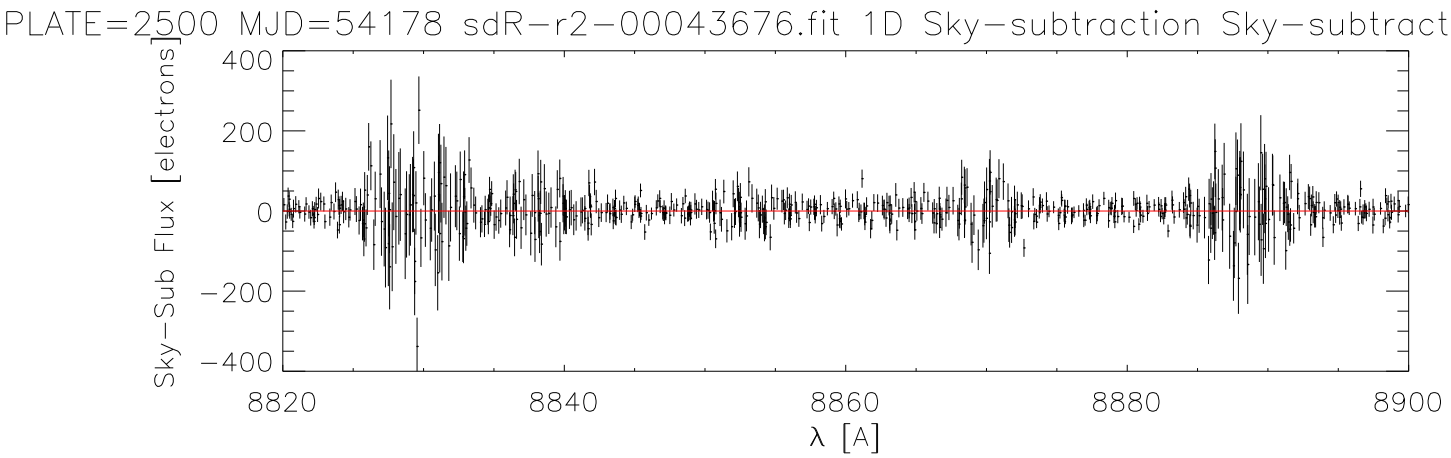

0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.00
sky shift, pixels
5000
6000
7000
8000
9000
10000

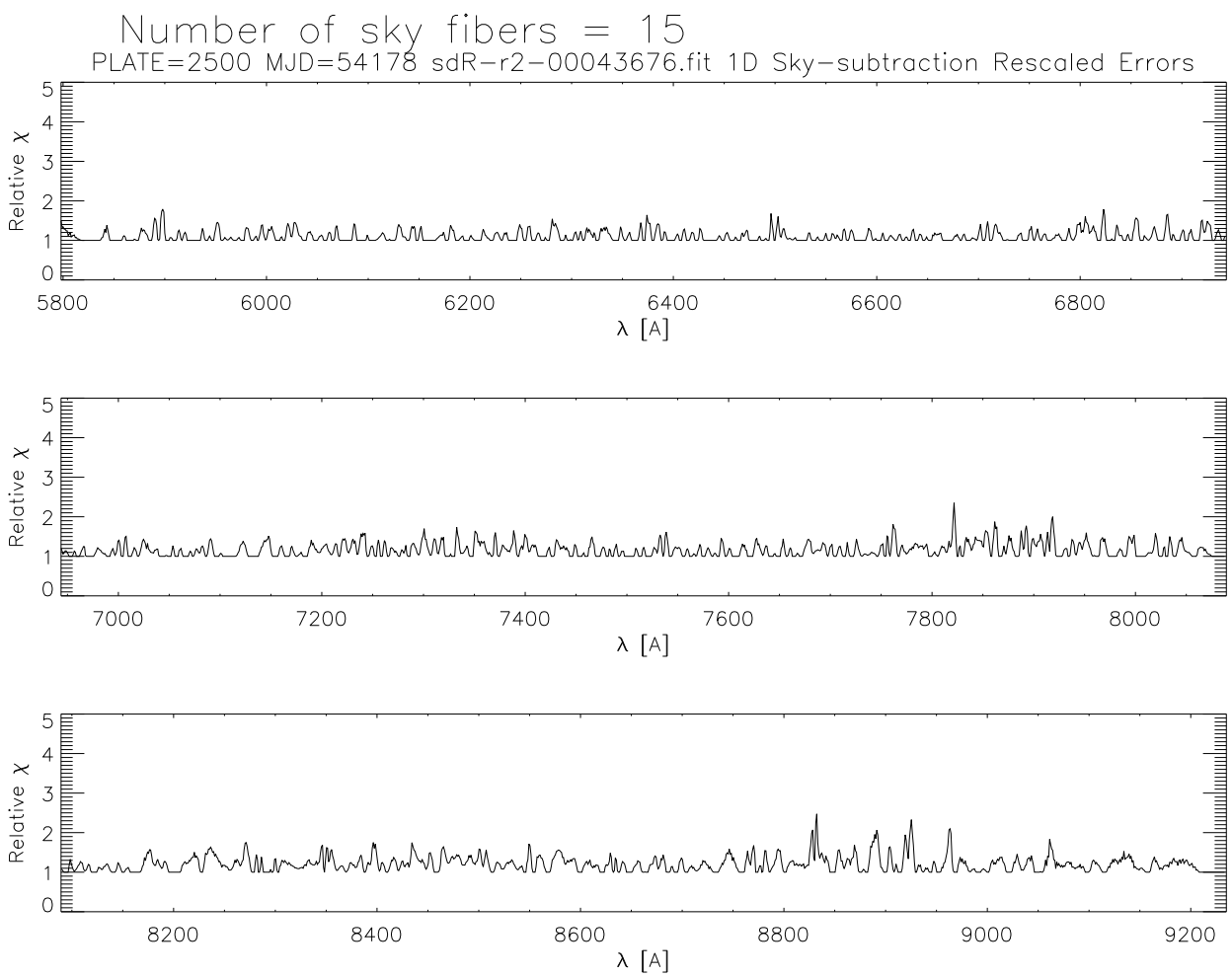

PLATE=2500 MJD=54178 Smooth superflat for sdR-r2-00043676.fit
2.0
1.5
1.0
0.5
0.0
1.015
1.010
1.005
1.000
0.995
0.990
0.985
0.980
6000
7000
8000
9000
Wavelength (Å)

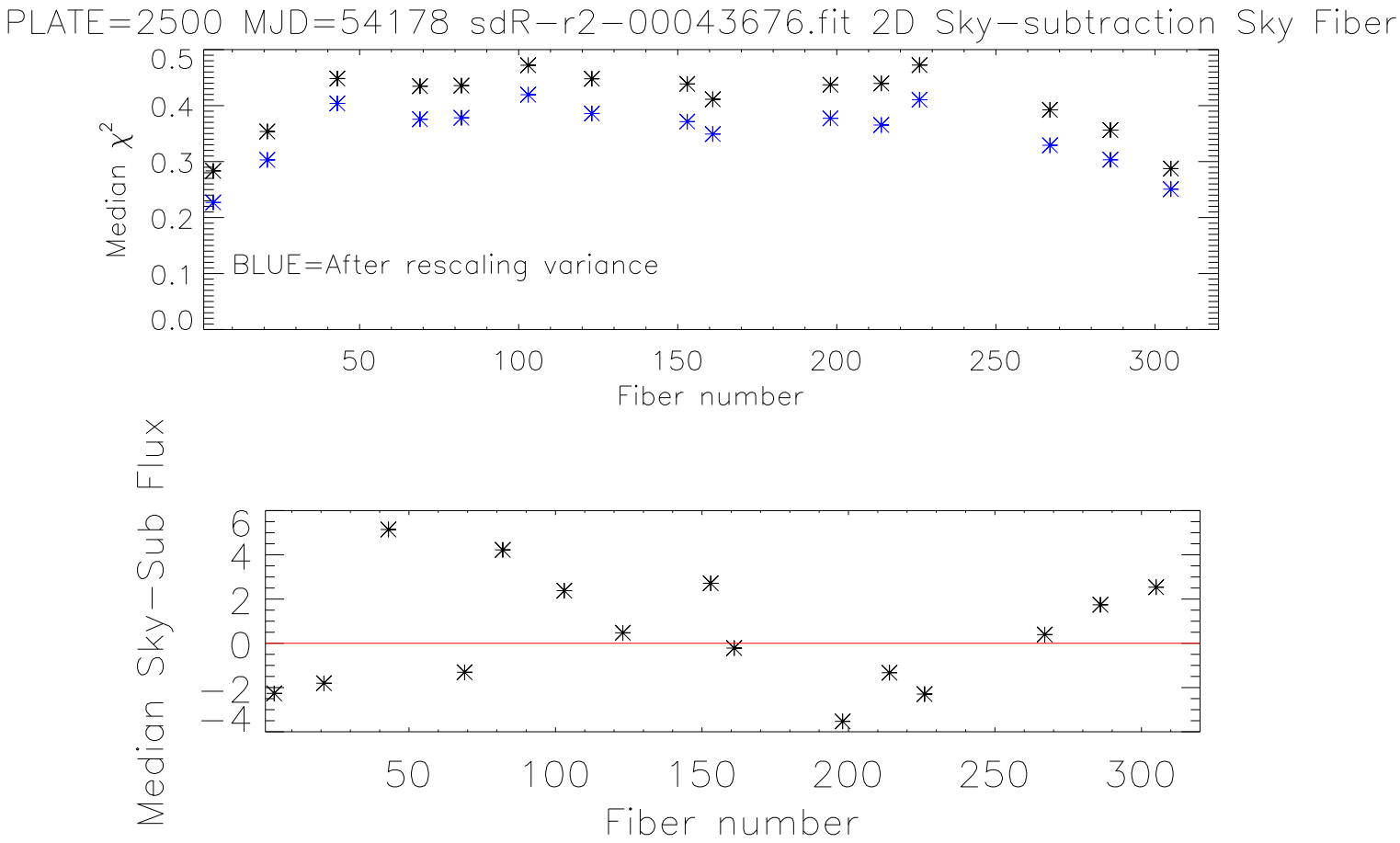
es= −0.0000

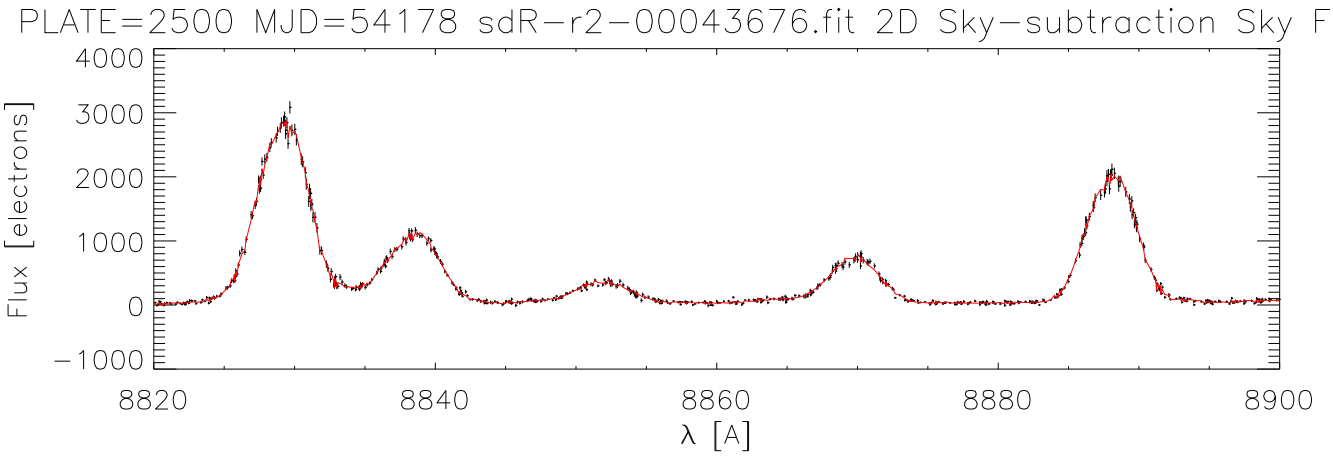

PLATE=2500 MJD=54178 sdR-r2-00043676.fit 1D Sky-subtraction Sky Fibers
Median χ^2
1.5
1.0
0.5
0.0
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
-5
-10
-15
-20
50
100
150
200
250
300
Fiber number

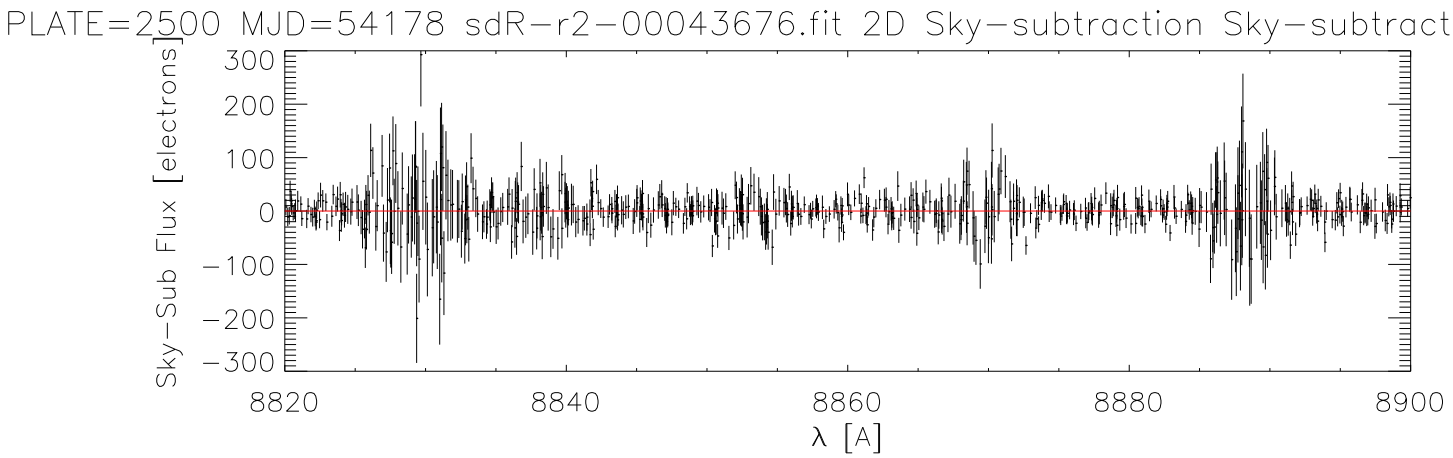

PLATE=2500 MJD=54178 sdR-r2-00043676.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
−1000
8820
8840
8860
8880
8900
λ [A]

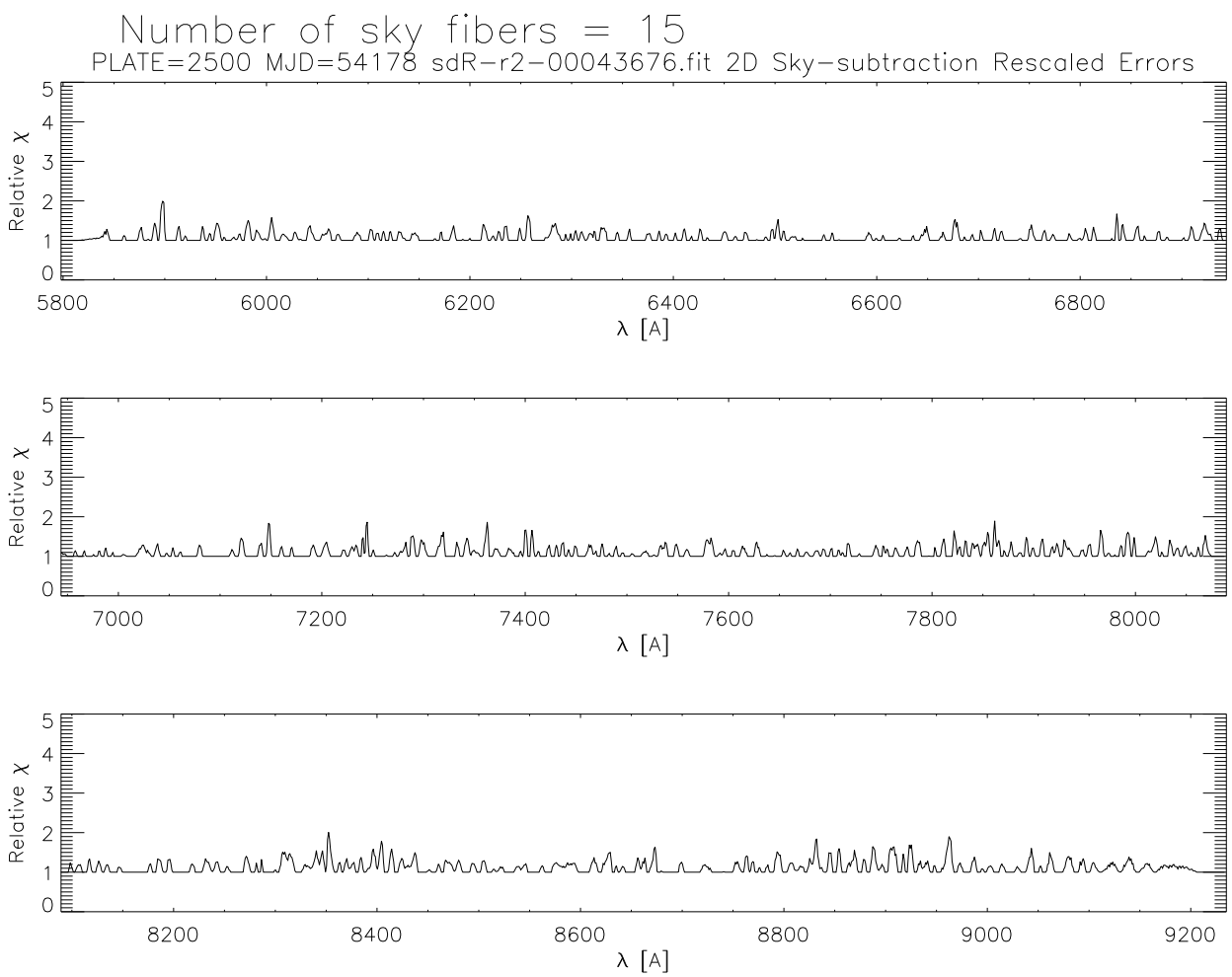

PLATE=2500 MJD=54178 sdR-r2-00043676.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
200
0
−200
−400
8820
8840
8860
8880
8900
λ [A]

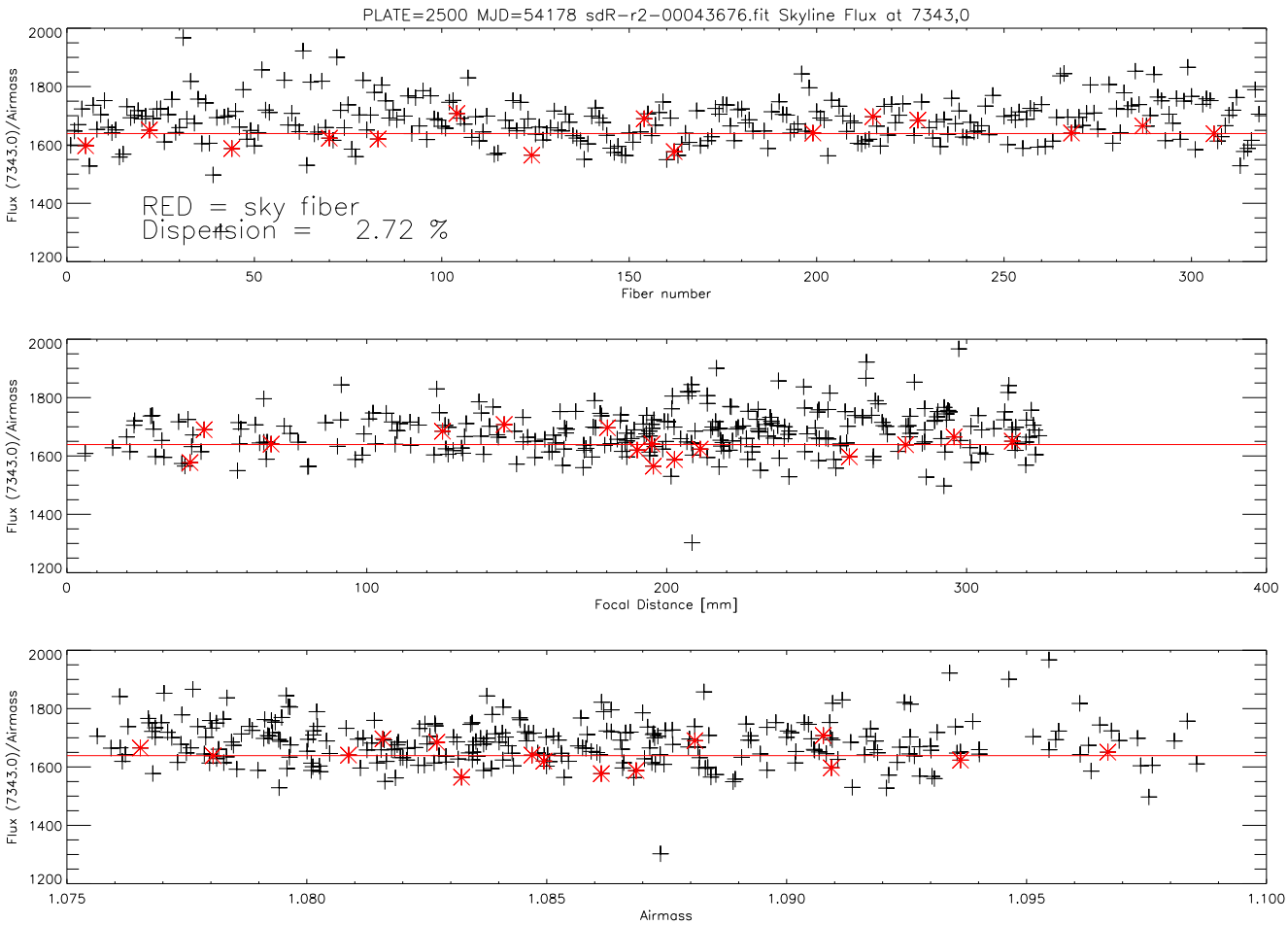

Number of sky fibers = 15
PLATE=2500 MJD=54178 sdR-r2-00043676.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

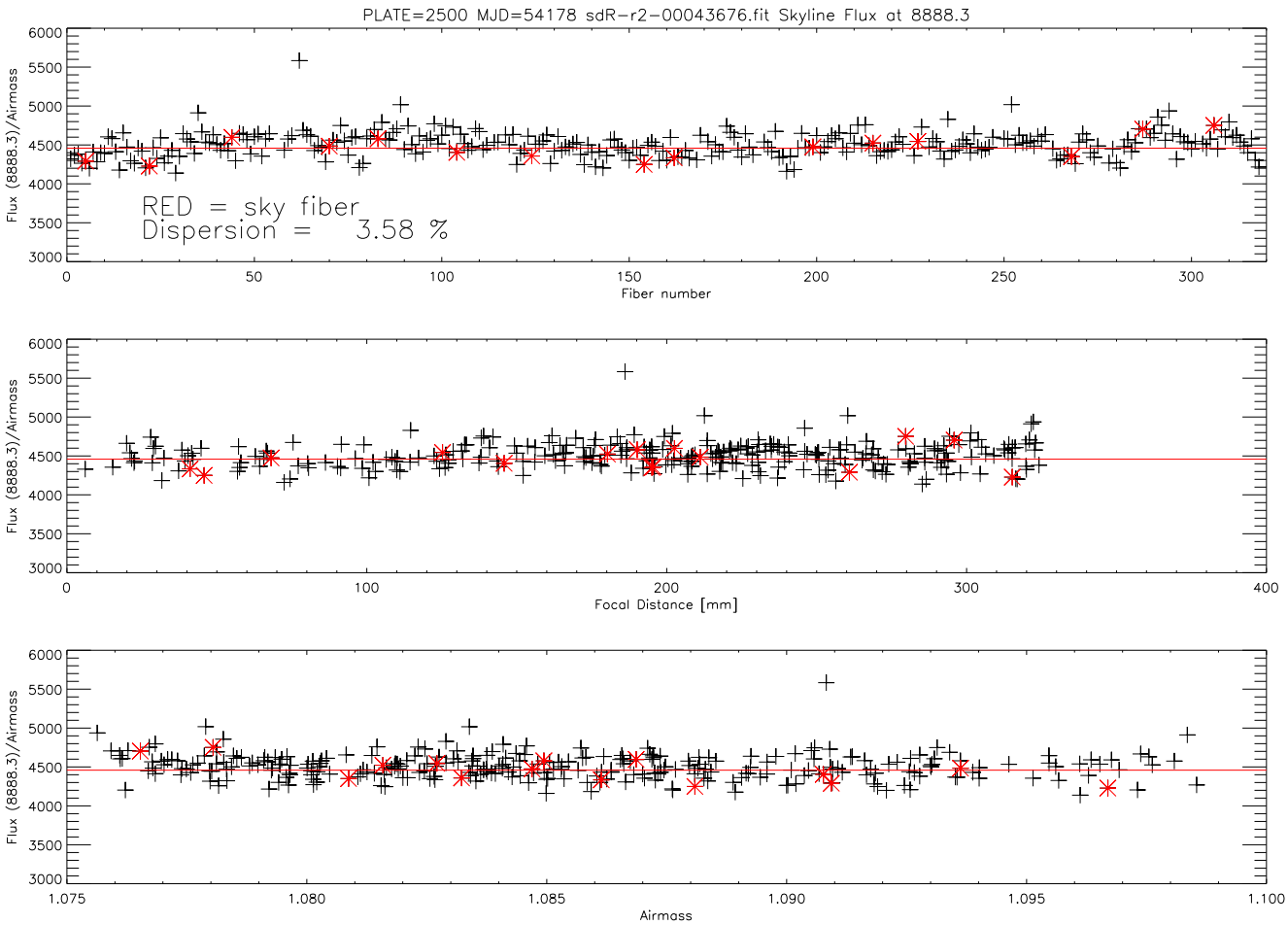

PLATE=2500 MJD=54178 sdR-r2-00043676.fit 2D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

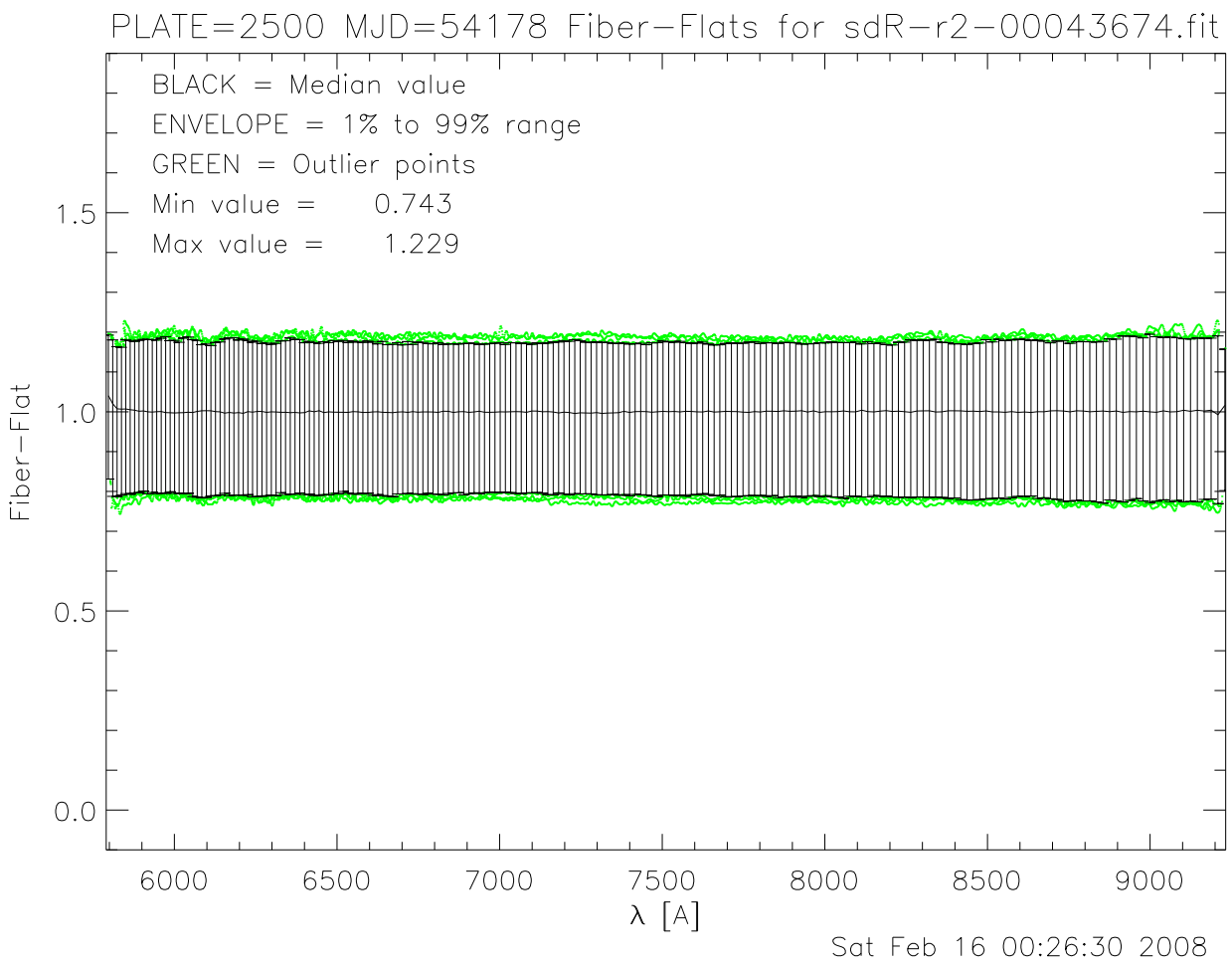

PLATE=2500 MJD=54178 sdR-r2-00043676.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
-1000
8820
8840
8860
8880
8900
λ [A]

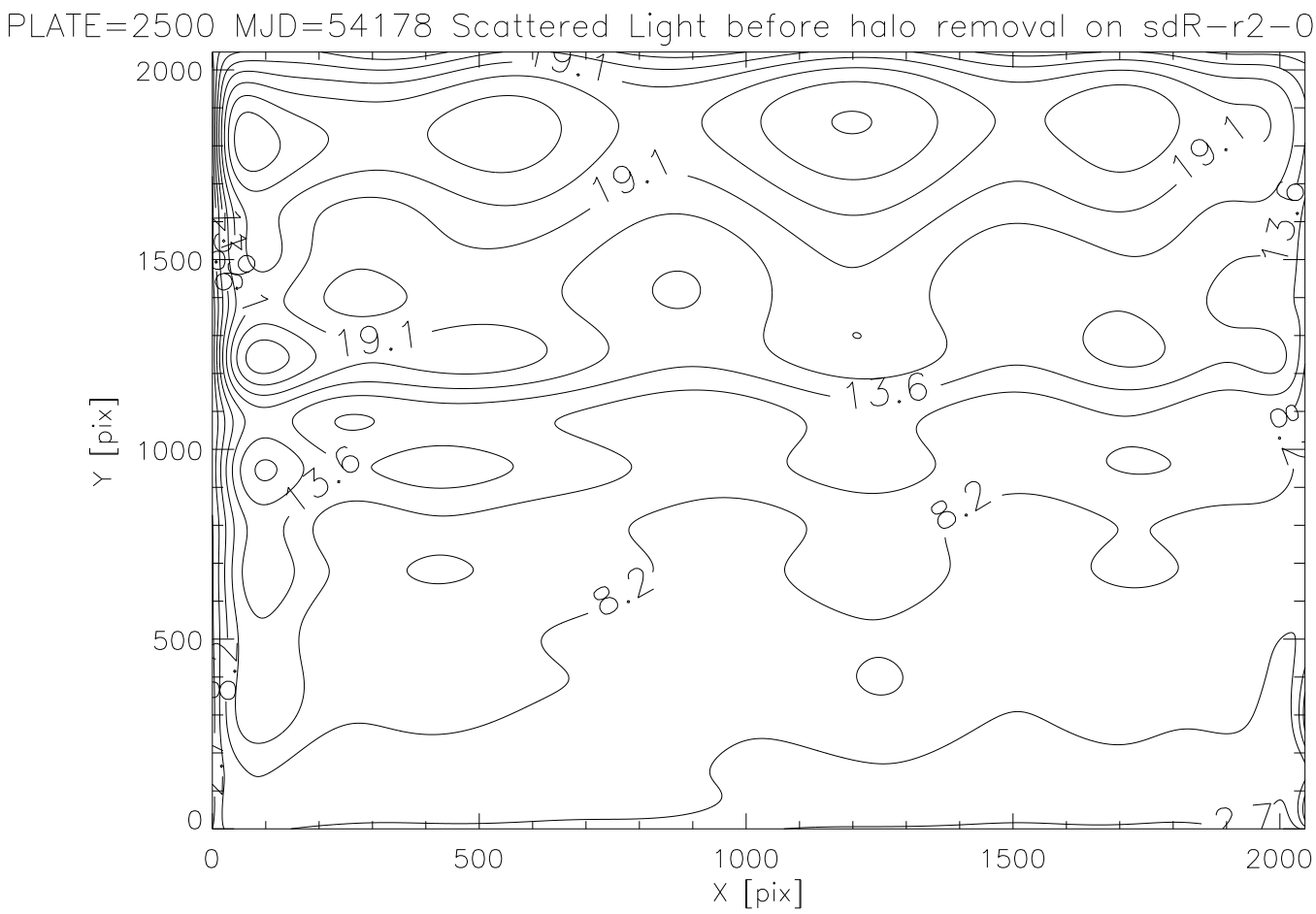

PLATE=2500 MJD=54178 sdR-r2-00043676.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
-300
8820
8840
8860
8880
8900
λ [A]

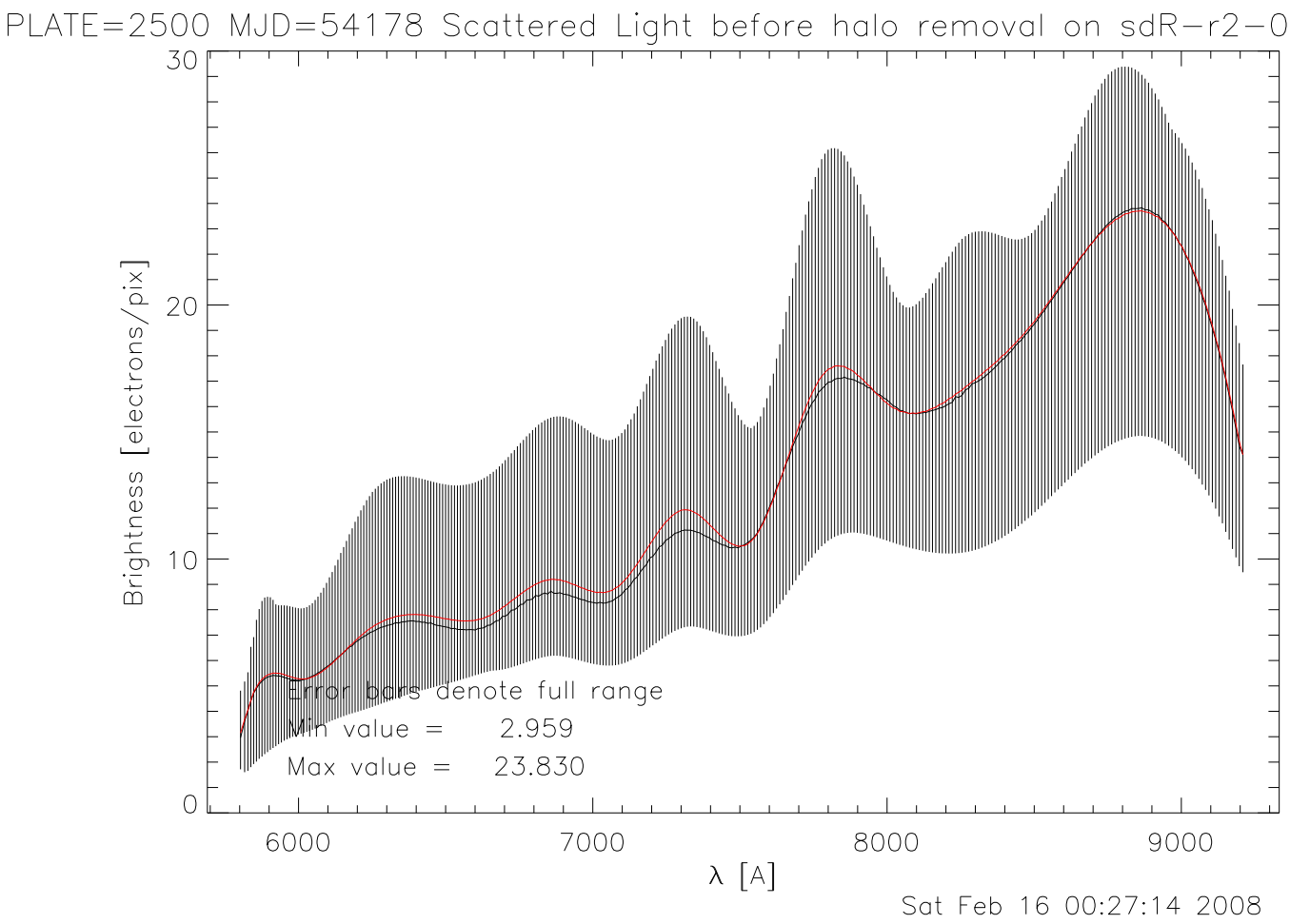

Number of sky fibers = 15
PLATE=2500 MJD=54178 sdR-r2-00043676.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

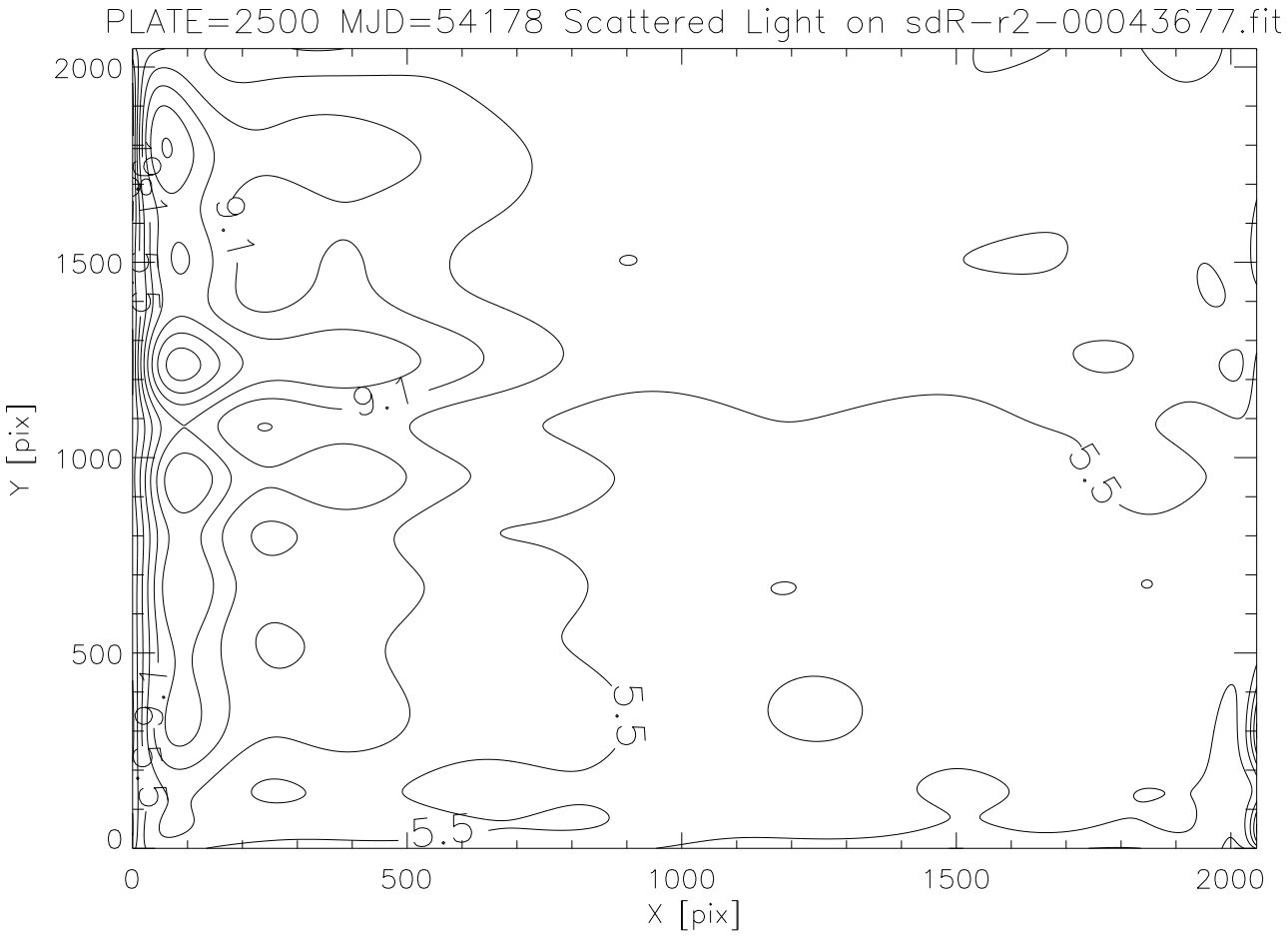

PLATE=2500 MJD=54178 sdR-r2-00043676.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 2.72 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

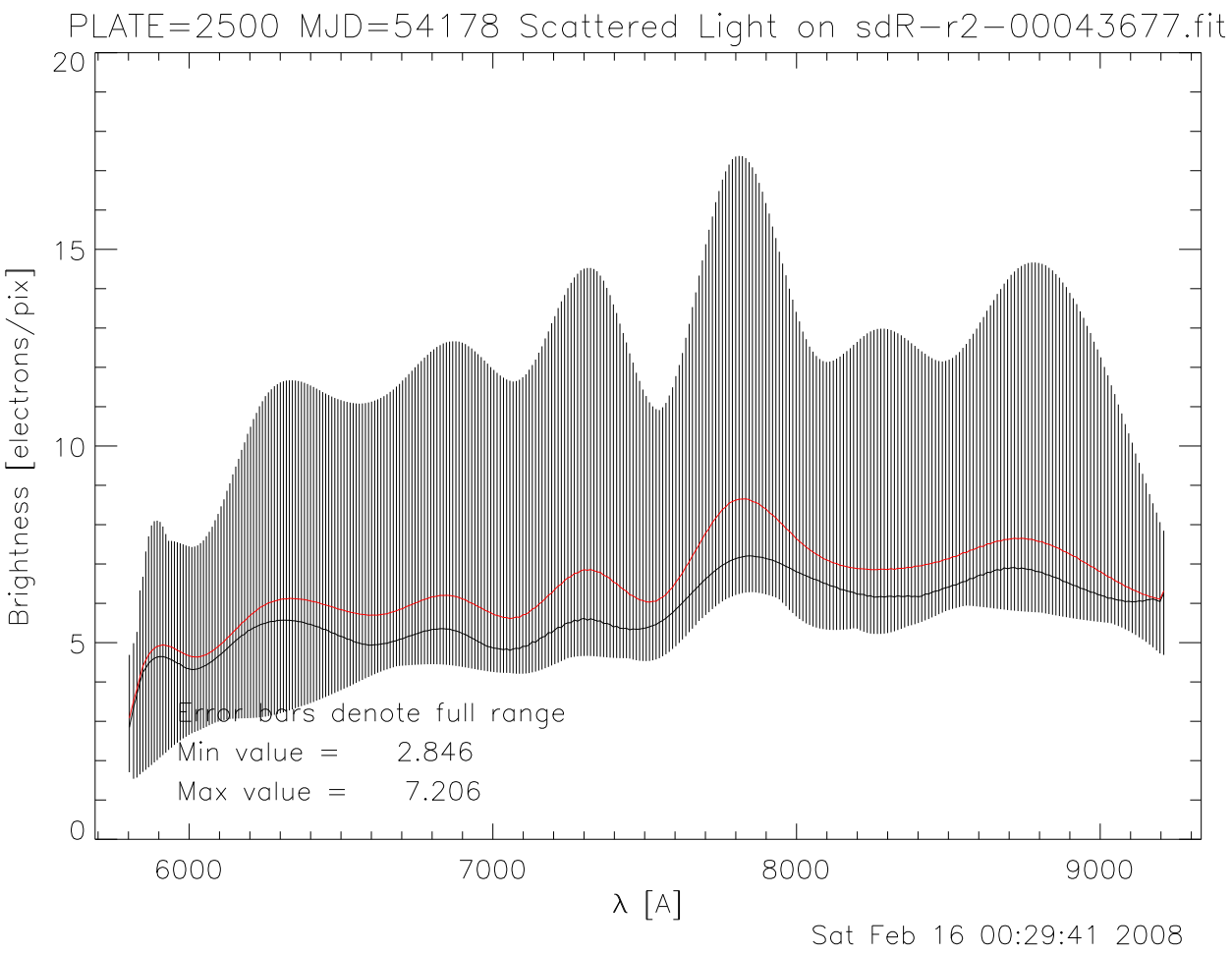

PLATE=2500 MJD=54178 sdR-r2-00043676.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 3.58 %
Fiber number
Focal Distance [mm]
Airmass

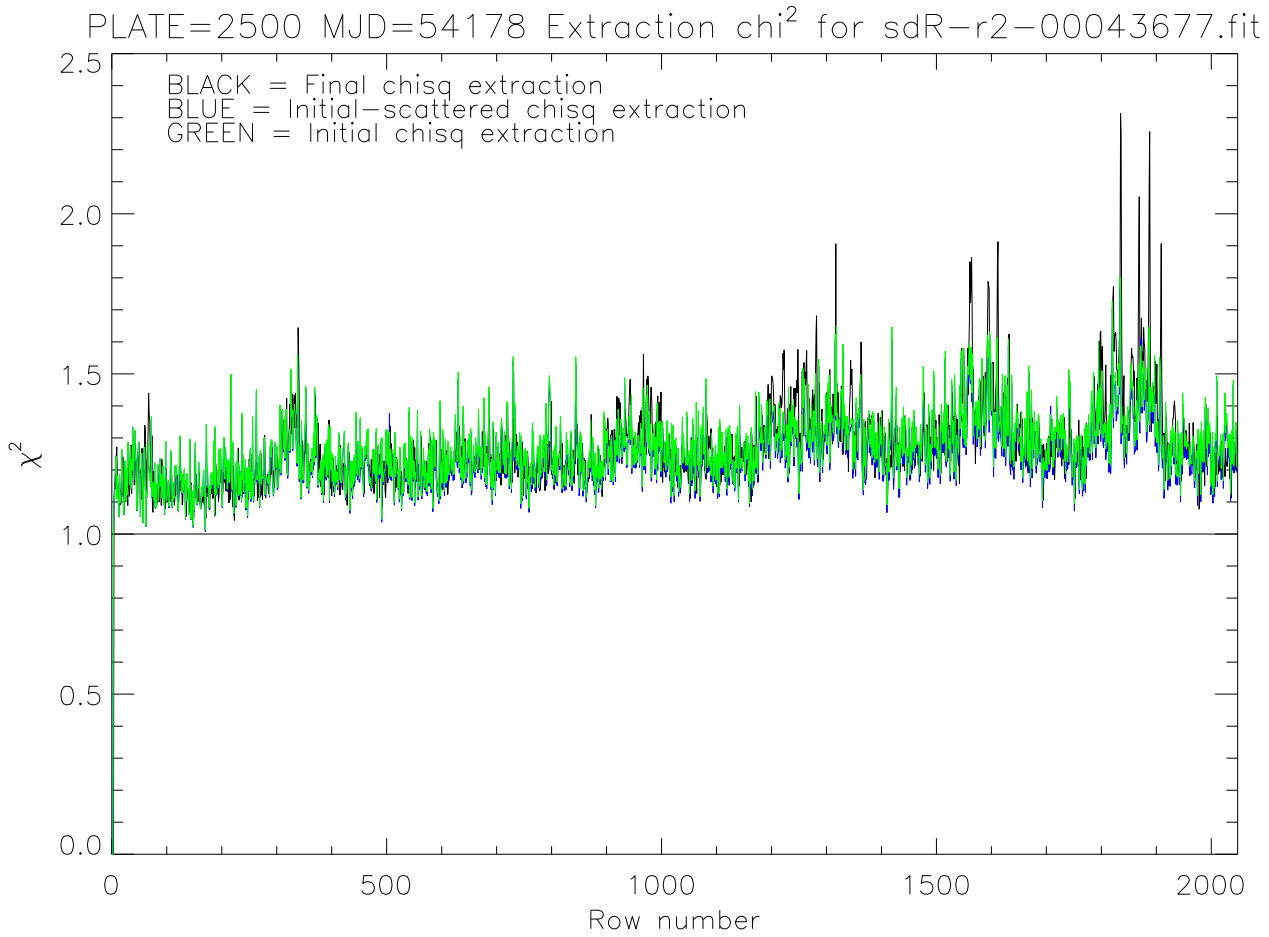

PLATE=2500 MJD=54178 Fiber−Flats for sdR−r2−00043674.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.743
Max value = 1.229
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sat Feb 16 00:26:30 2008

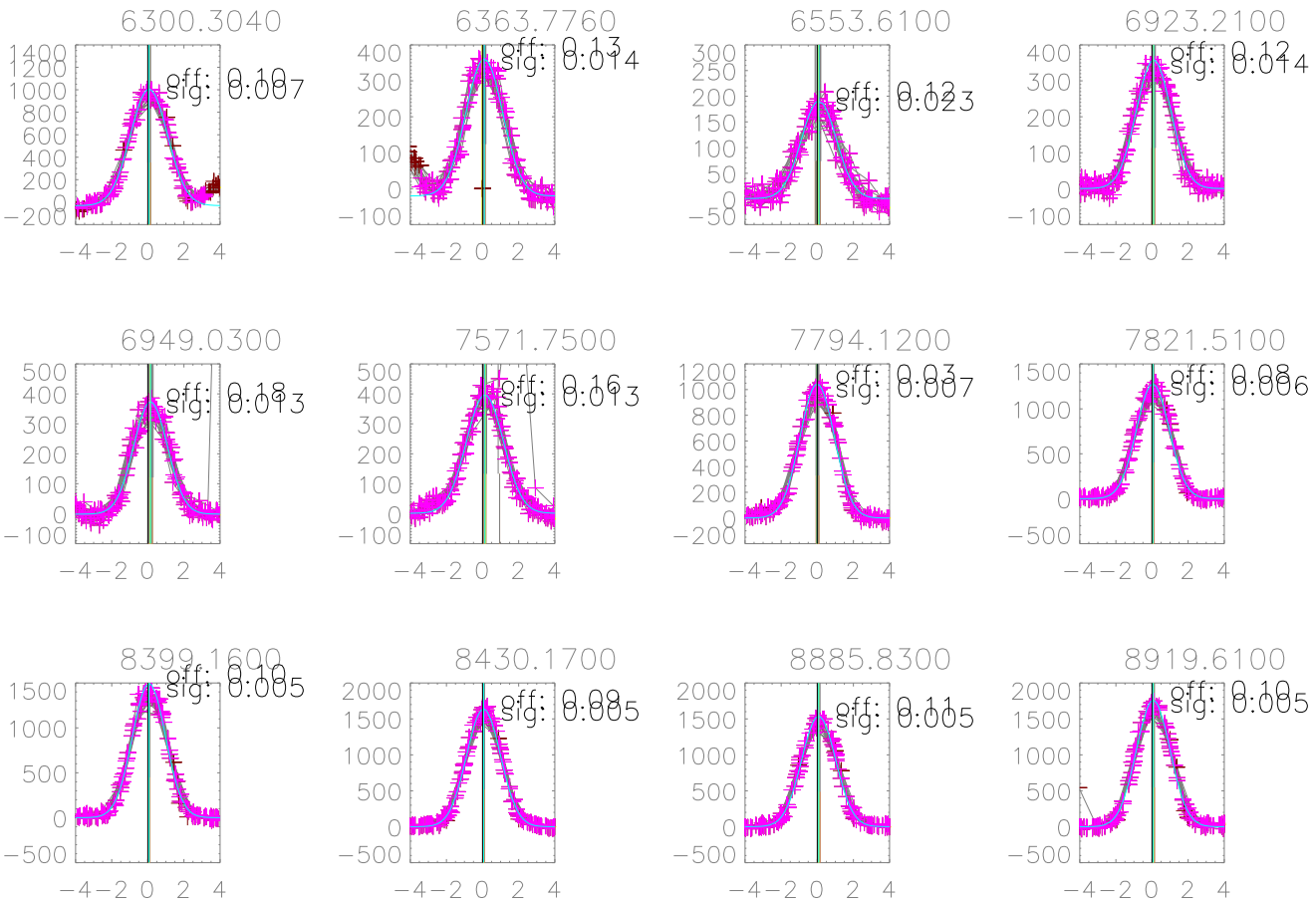

PLATE=2500 MJD=54178 Scattered Light before halo removal on sdR-r2-00043677.fi
19.1
19.1
19.1
19.1
13.6
13.6
13.6
8.2
8.2
2.7
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]

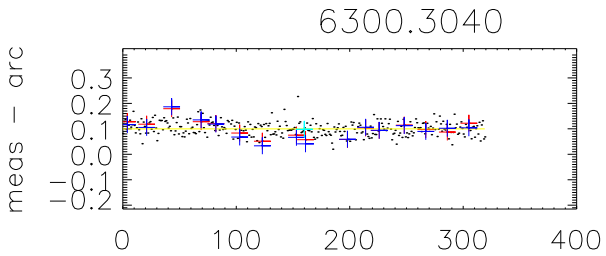

PLATE=2500 MJD=54178 Scattered Light before halo removal on sdR-r2-00043677.fi
Brightness [electrons/pix]
30
20
10
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 2.959
Max value = 23.830
Sat Feb 16 00:27:14 2008

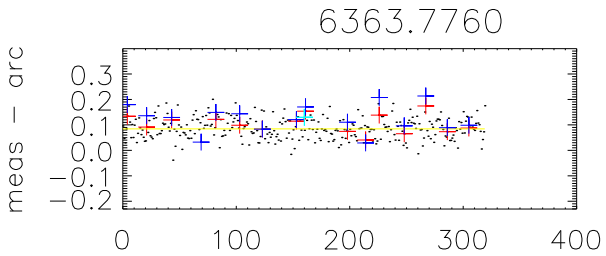

PLATE=2500 MJD=54178 Scattered Light on sdR-r2-00043677.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
9.1
5.5

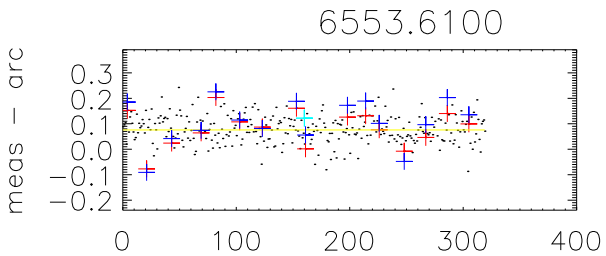

PLATE=2500 MJD=54178 Scattered Light on sdR-r2-00043677.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 2.846
Max value = 7.206
Sat Feb 16 00:29:41 2008

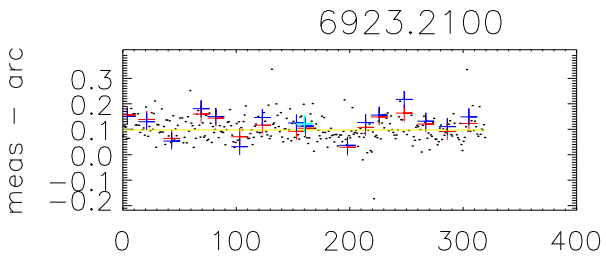

PLATE=2500 MJD=54178 Extraction chi^2 for sdR−r2−00043677.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
2.5
2.0
1.5
1.0
0.5
0.0
0
500
1000
1500
2000
Row number

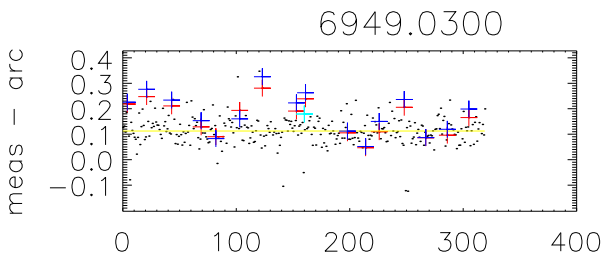

6300.3040
off: 0.10
sig: 0.007
6363.7760
off: 0.13
sig: 0.014
6553.6100
off: 0.12
sig: 0.023
6923.2100
off: 0.12
sig: 0.014
6949.0300
off: 0.18
sig: 0.013
7571.7500
off: 0.16
sig: 0.013
7794.1200
off: 0.03
sig: 0.007
7821.5100
off: 0.08
sig: 0.006
8399.1600
off: 0.10
sig: 0.005
8430.1700
off: 0.08
sig: 0.005
8885.8300
off: 0.11
sig: 0.005
8919.6100
off: 0.10
sig: 0.005

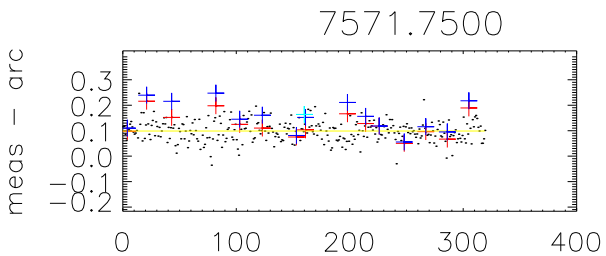

6300.3040
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

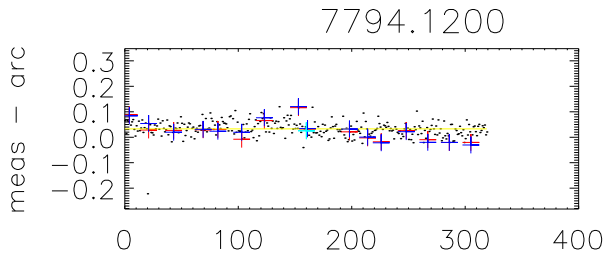

6363.7760
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

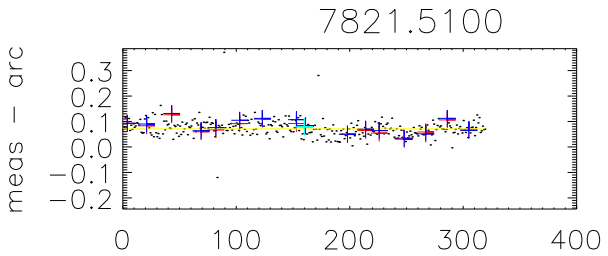

6553.6100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

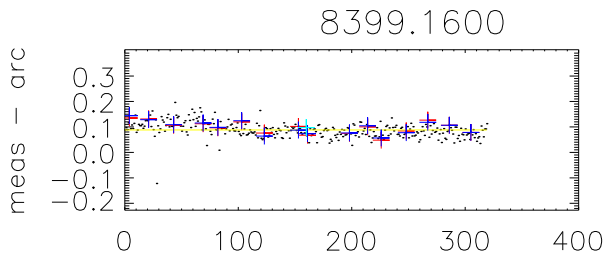

6923.2100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

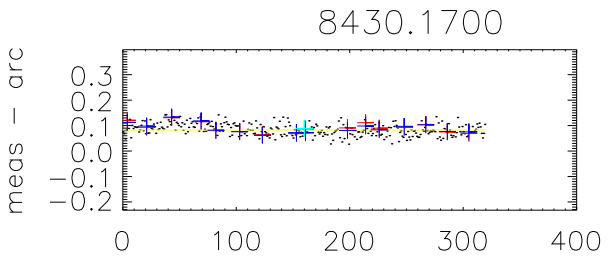

6949.0300
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

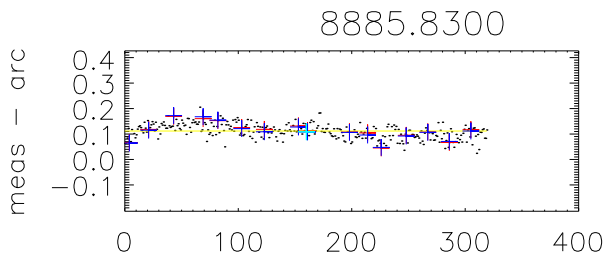

7571.7500
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

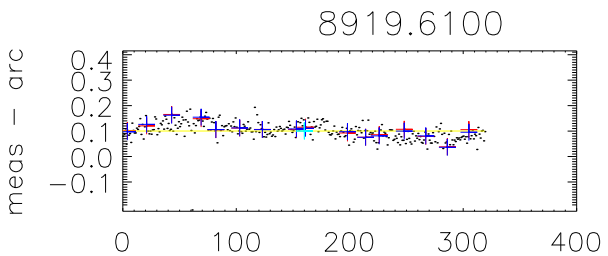

7794.1200
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

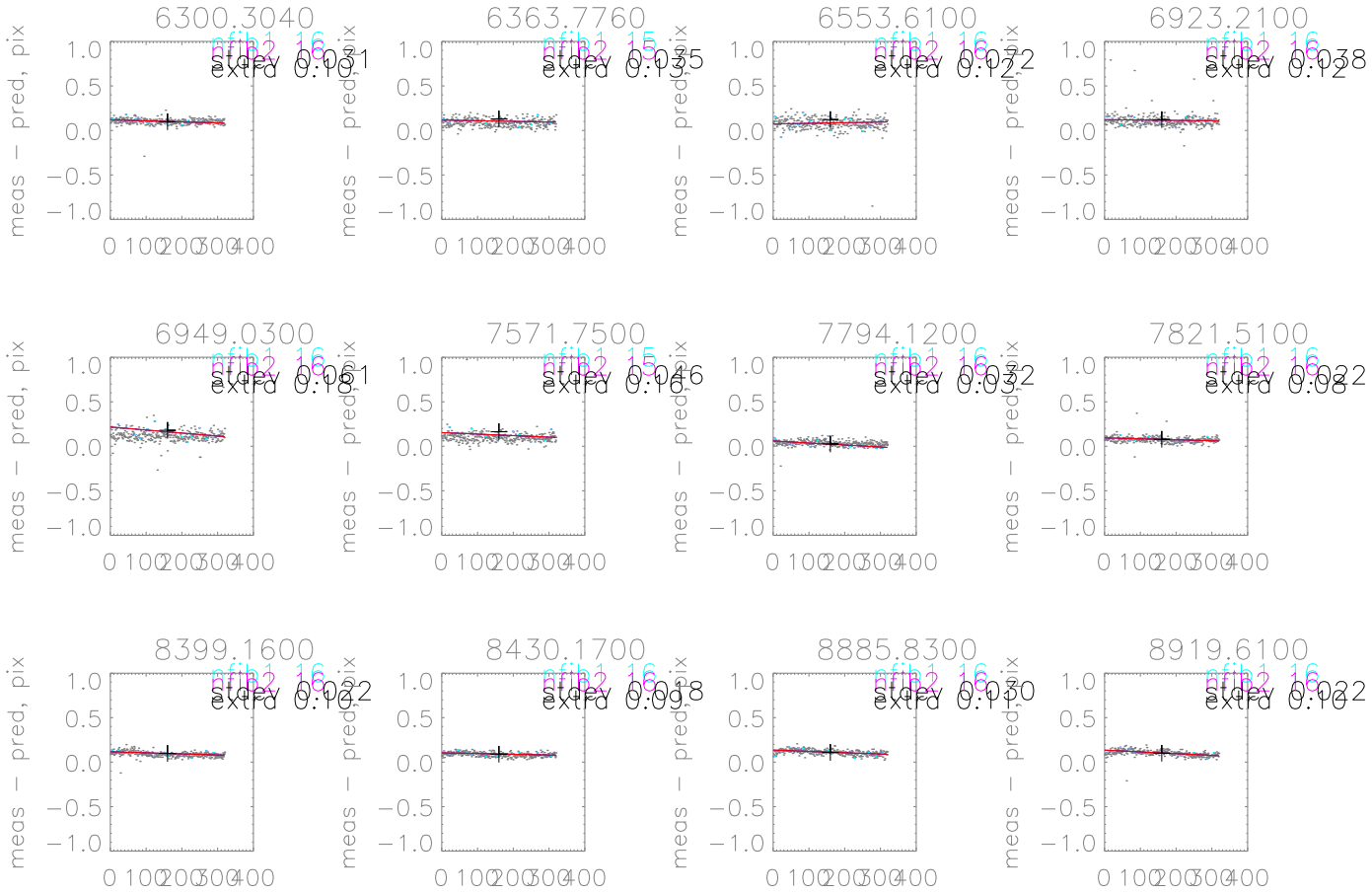

7821.5100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

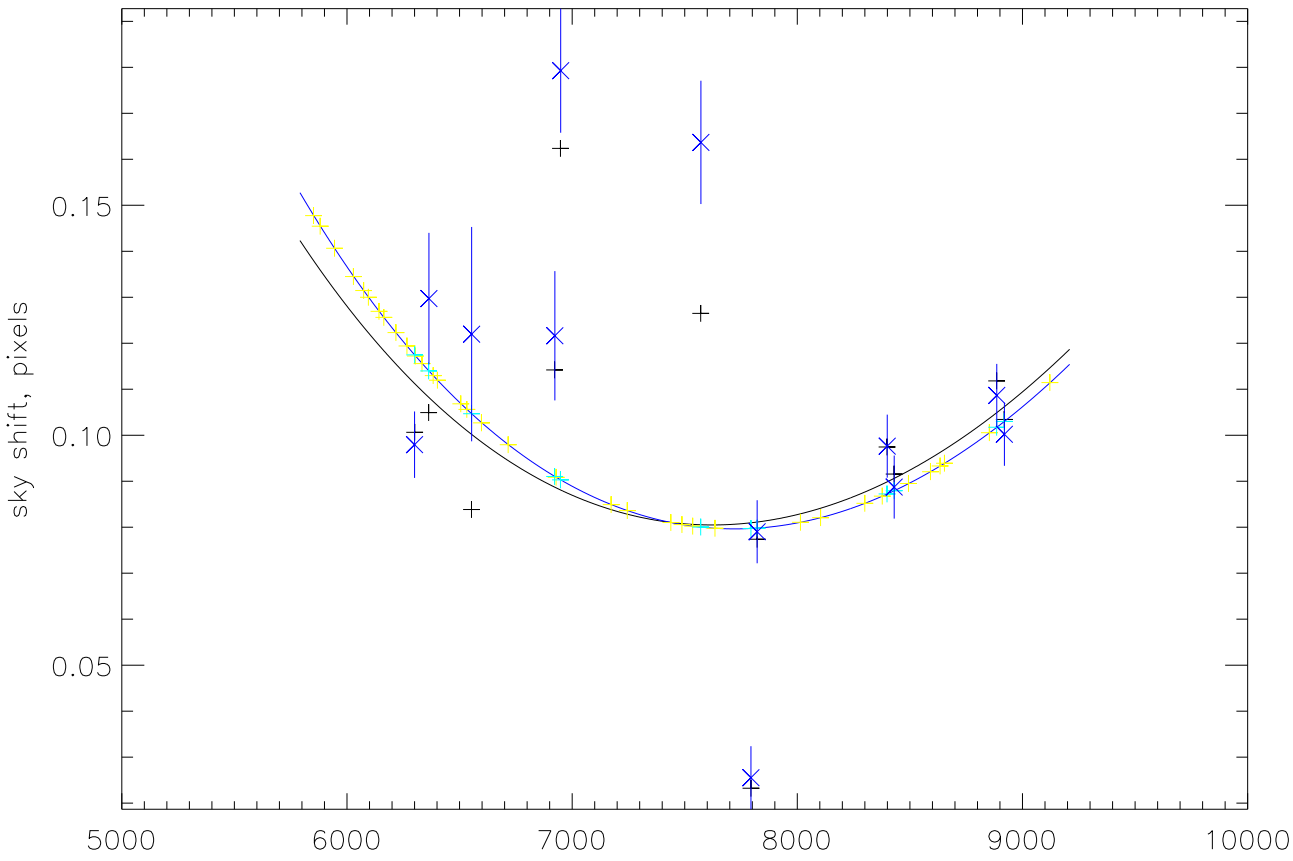

8399.1600
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

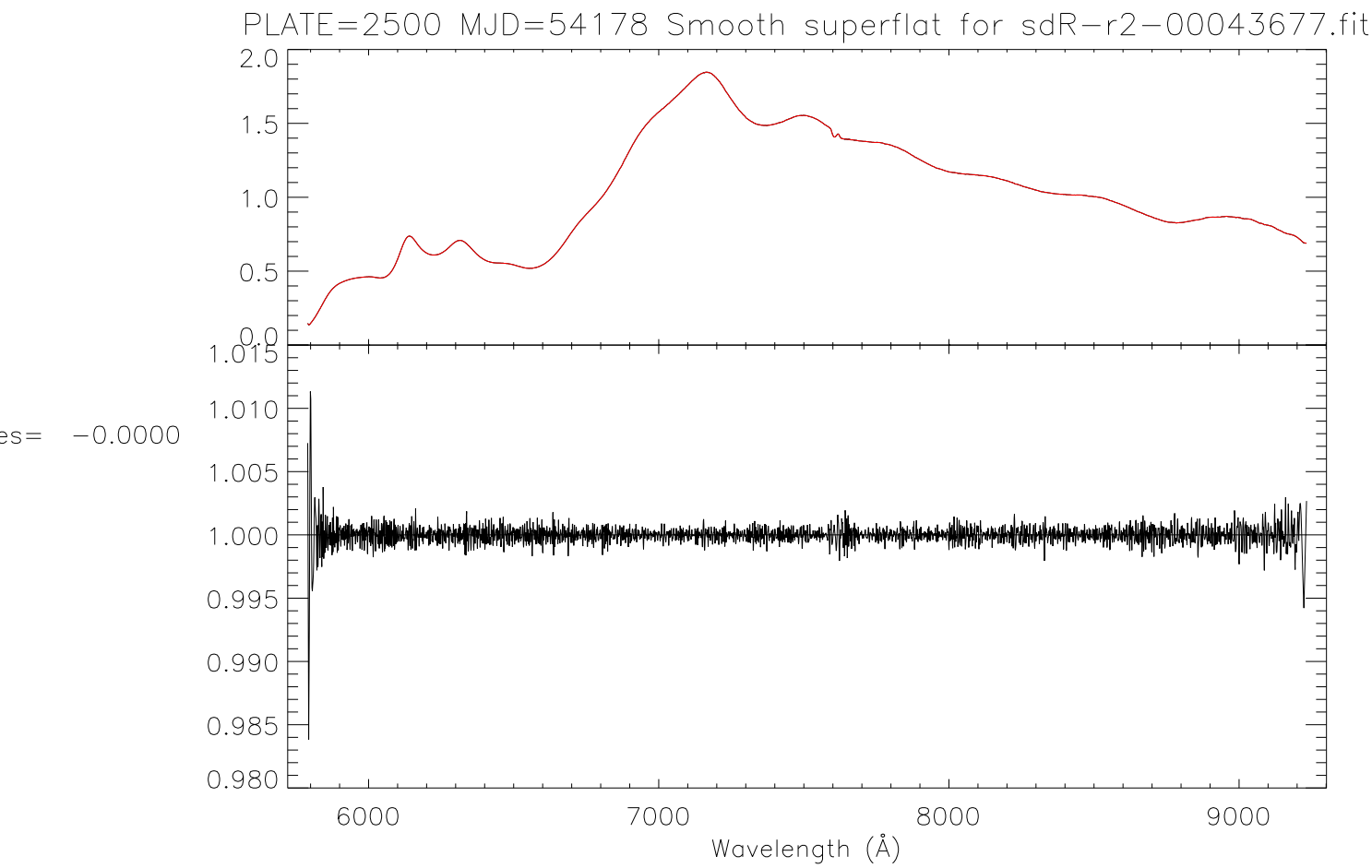

8430.1700
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400


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

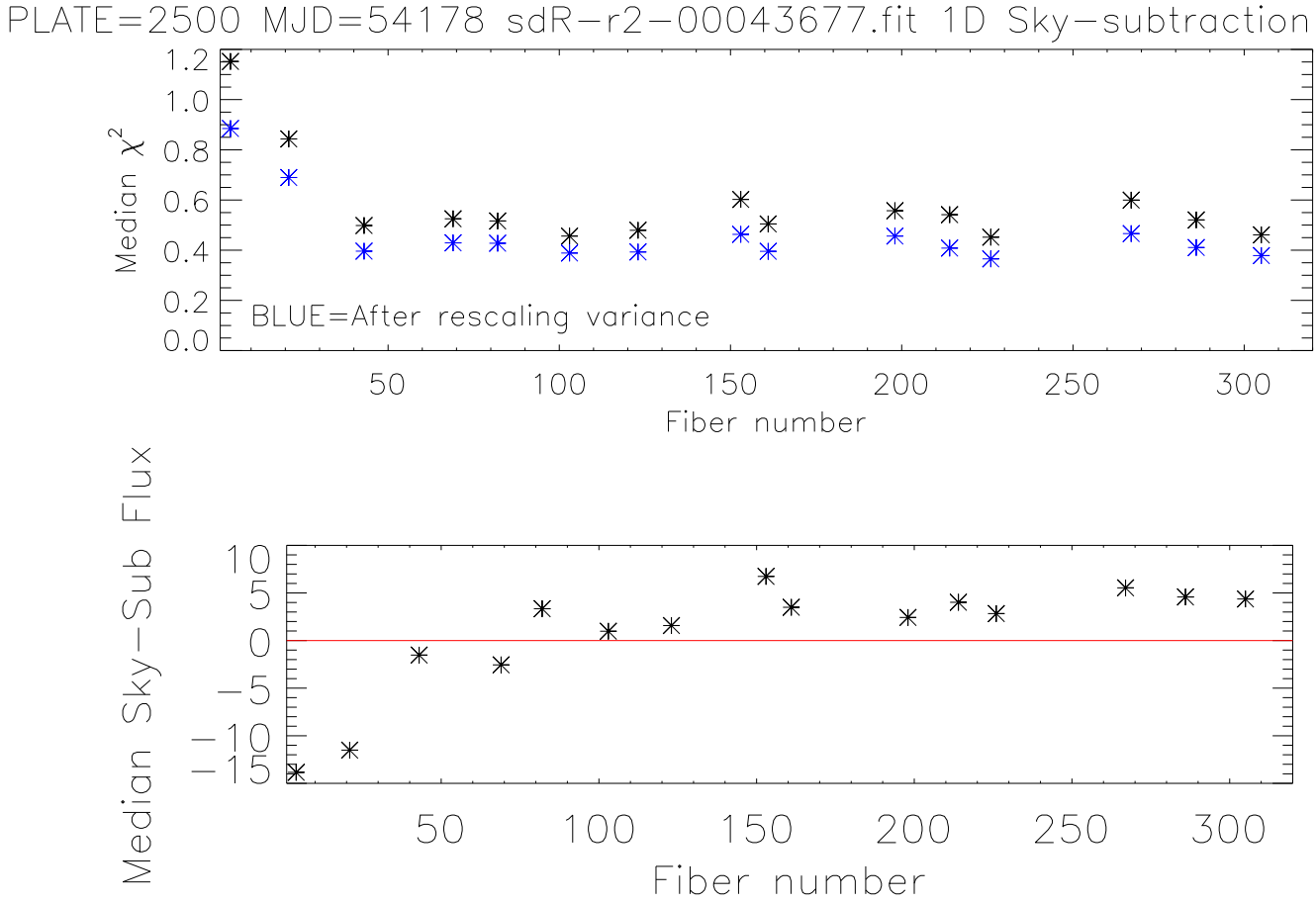

8919.6100
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

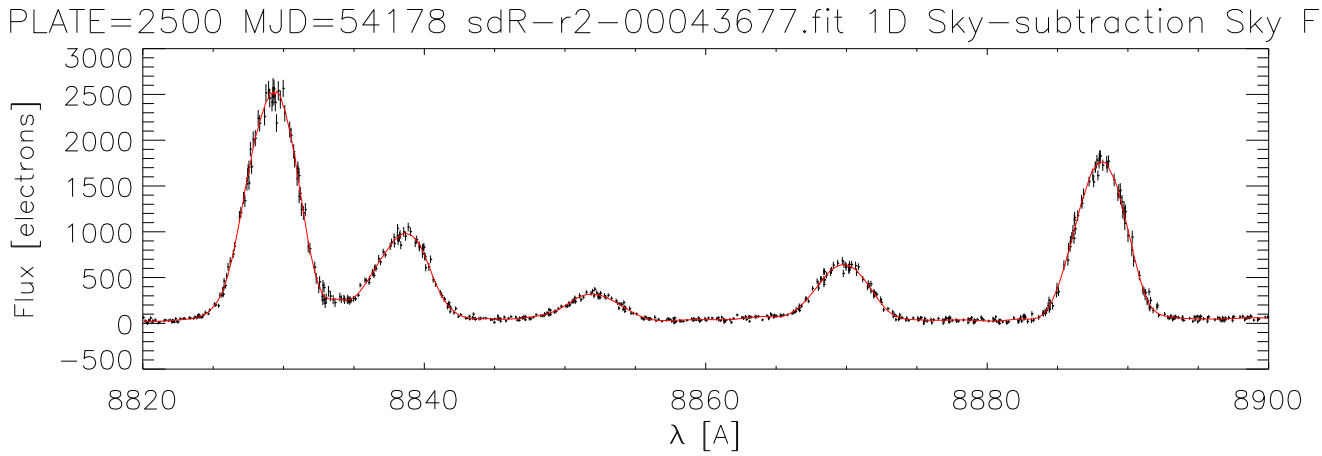

6300.3040
stdev 0.031
extra 0.10
6363.7760
stdev 0.035
extra 0.13
6553.6100
stdev 0.072
extra 0.12
6923.2100
stdev 0.038
extra 0.12
6949.0300
stdev 0.061
extra 0.18
7571.7500
stdev 0.046
extra 0.16
7794.1200
stdev 0.032
extra 0.03
7821.5100
stdev 0.022
extra 0.08
8399.1600
stdev 0.022
extra 0.10
8430.1700
stdev 0.018
extra 0.09
8885.8300
stdev 0.030
extra 0.11
8919.6100
stdev 0.022
extra 0.10
meas − pred, pix
mfib2 16
mfib1 15
mfib1 16

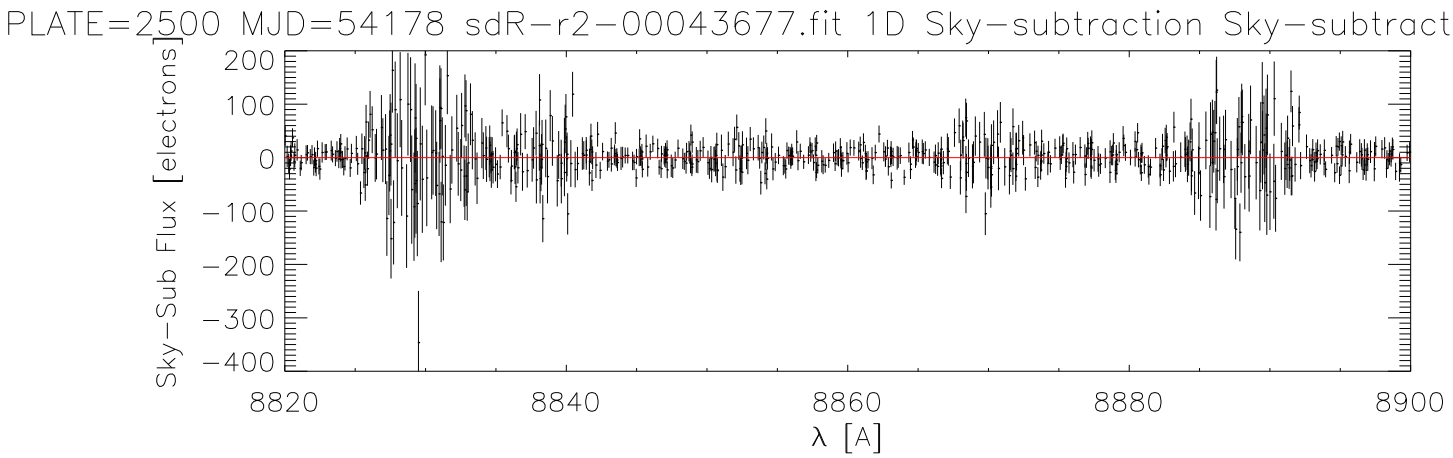

sky shift, pixels
0.15
0.10
0.05
5000
6000
7000
8000
9000
10000

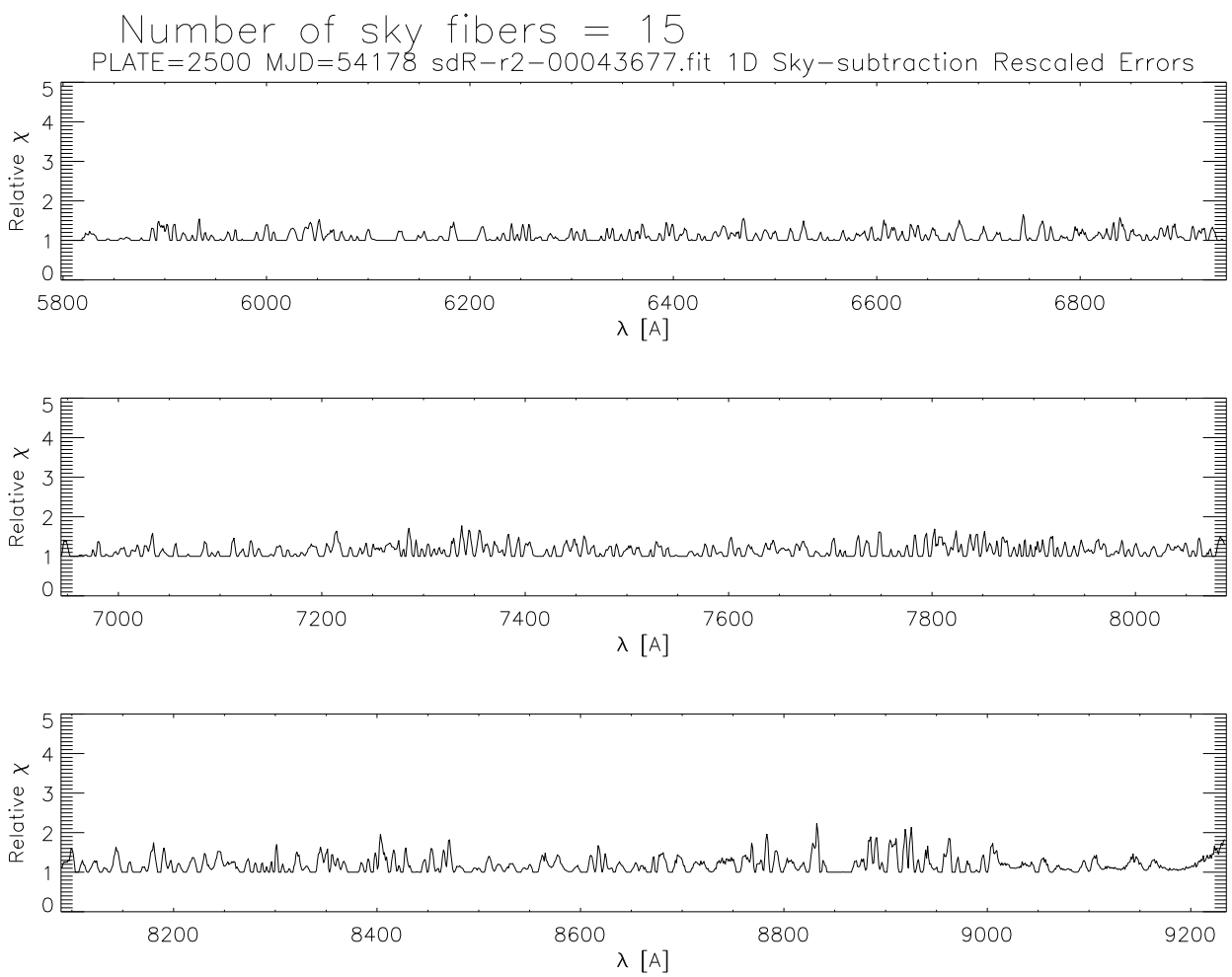

PLATE=2500 MJD=54178 Smooth superflat for sdR-r2-00043677.fit
2.0
1.5
1.0
0.5
0.0
1.015
1.010
1.005
1.000
0.995
0.990
0.985
0.980
6000
7000
8000
9000
Wavelength (Å)

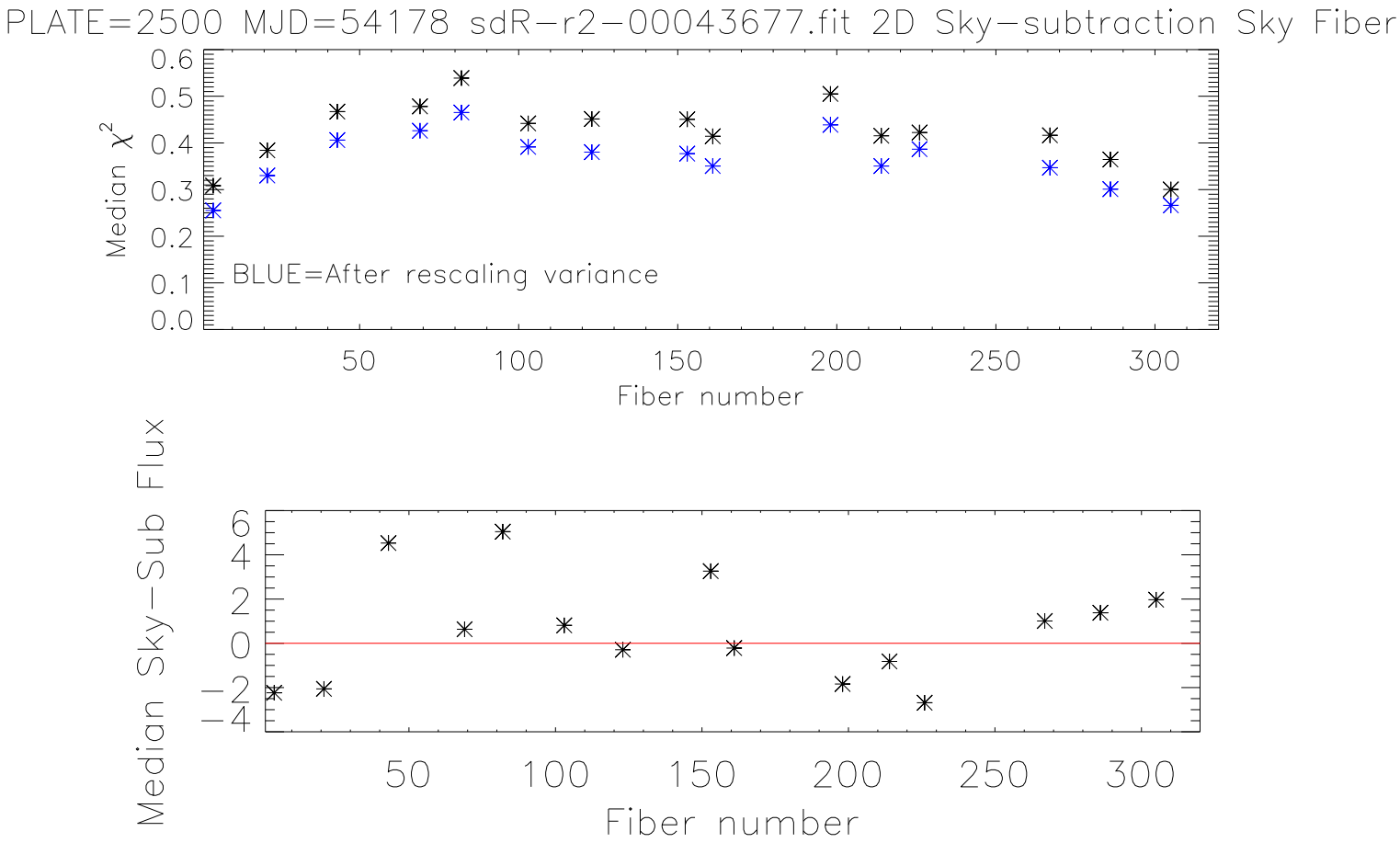
es= −0.0000

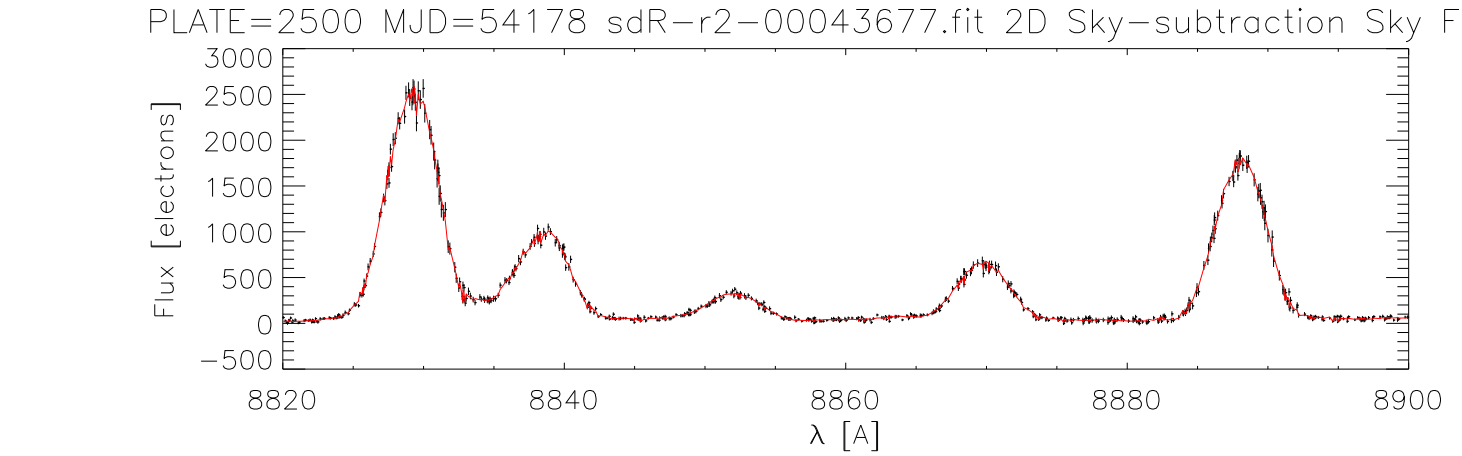

PLATE=2500 MJD=54178 sdR-r2-00043677.fit 1D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

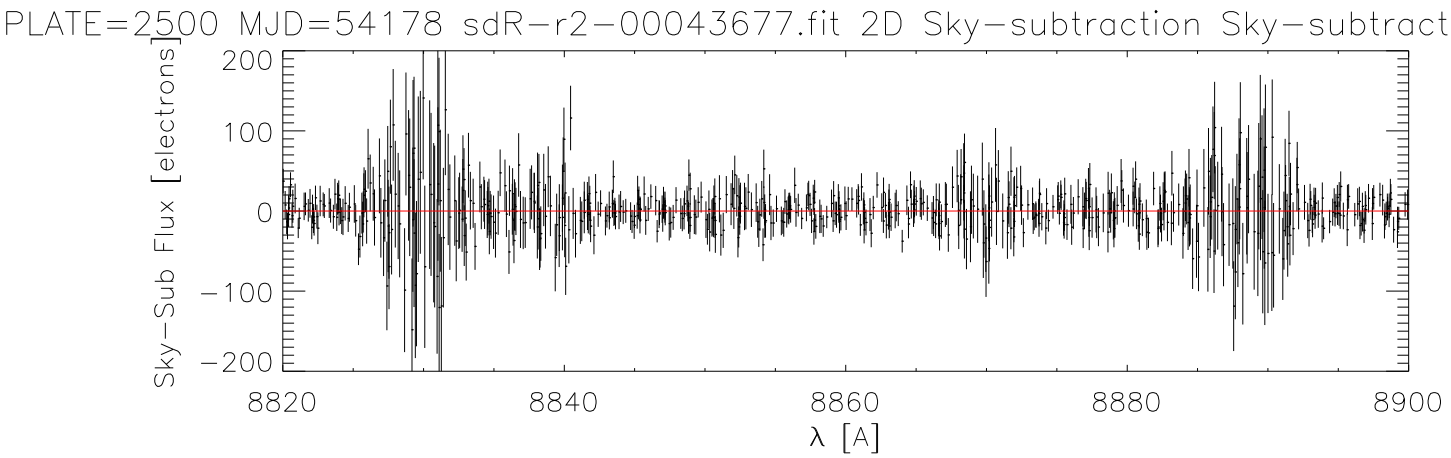

PLATE=2500 MJD=54178 sdR-r2-00043677.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
3000
2500
2000
1500
1000
500
0
-500
8820
8840
8860
8880
8900
λ [A]

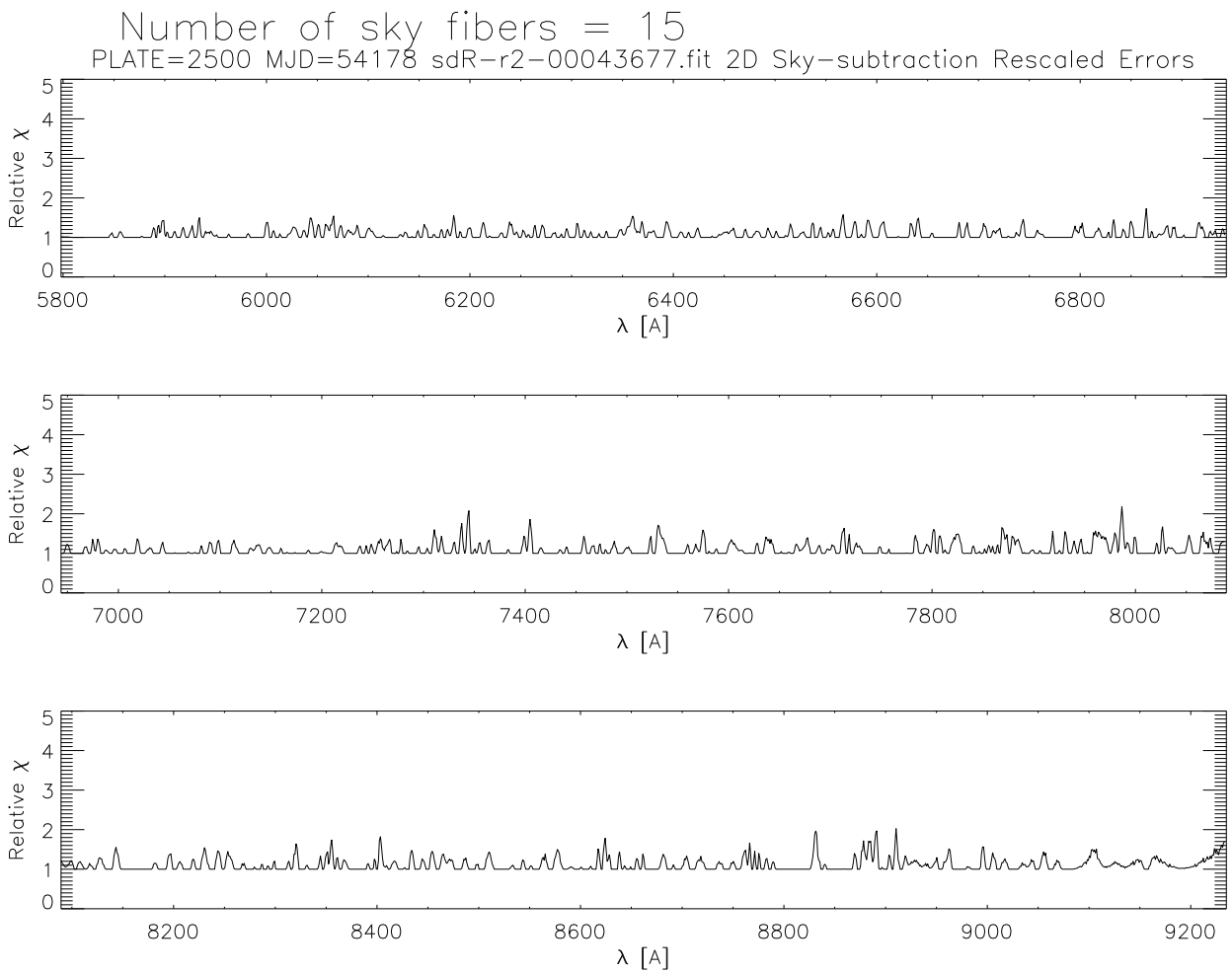

PLATE=2500 MJD=54178 sdR-r2-00043677.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
-300
-400
8820
8840
8860
8880
8900
λ [A]

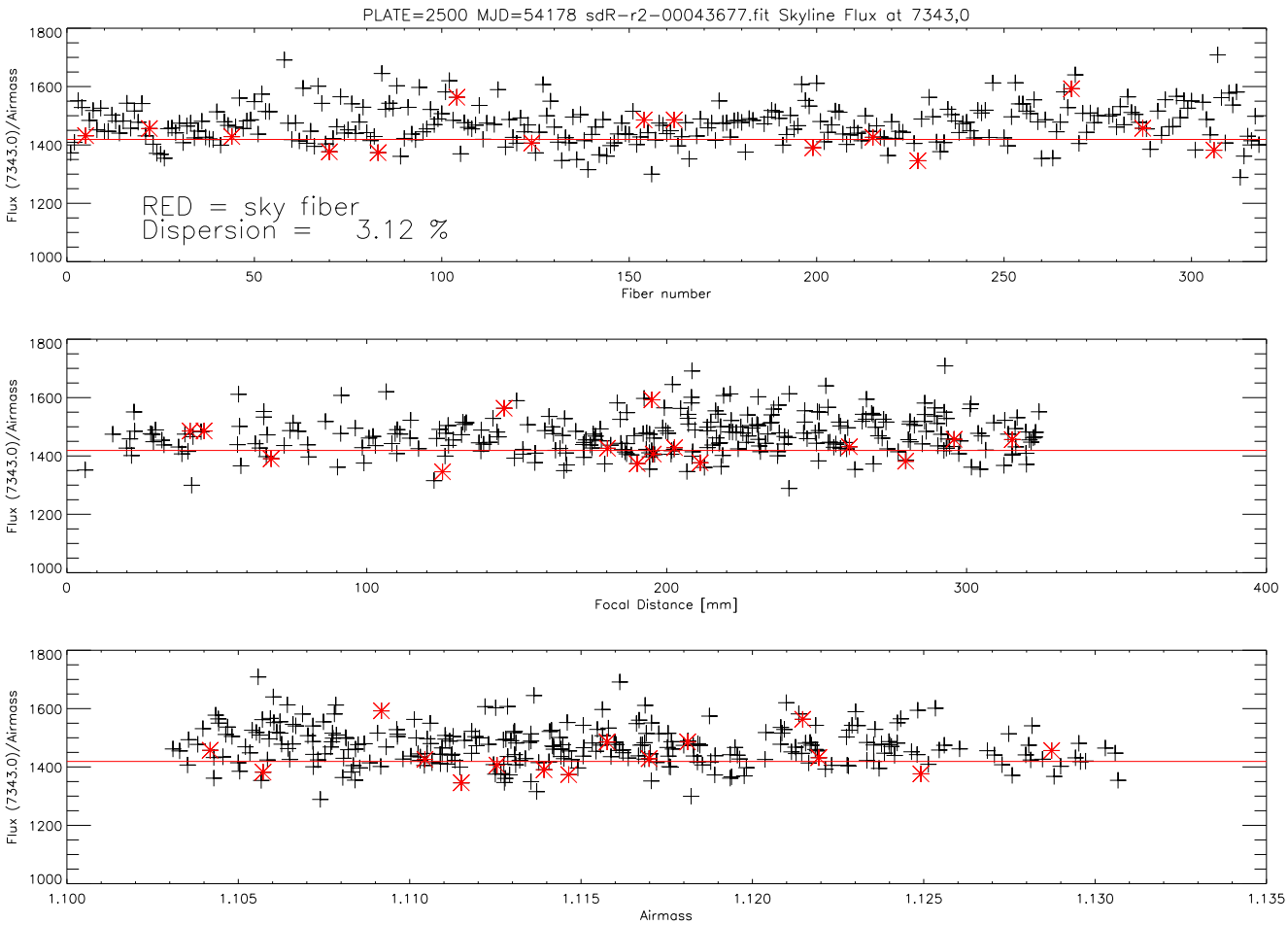

Number of sky fibers = 15
PLATE=2500 MJD=54178 sdR-r2-00043677.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

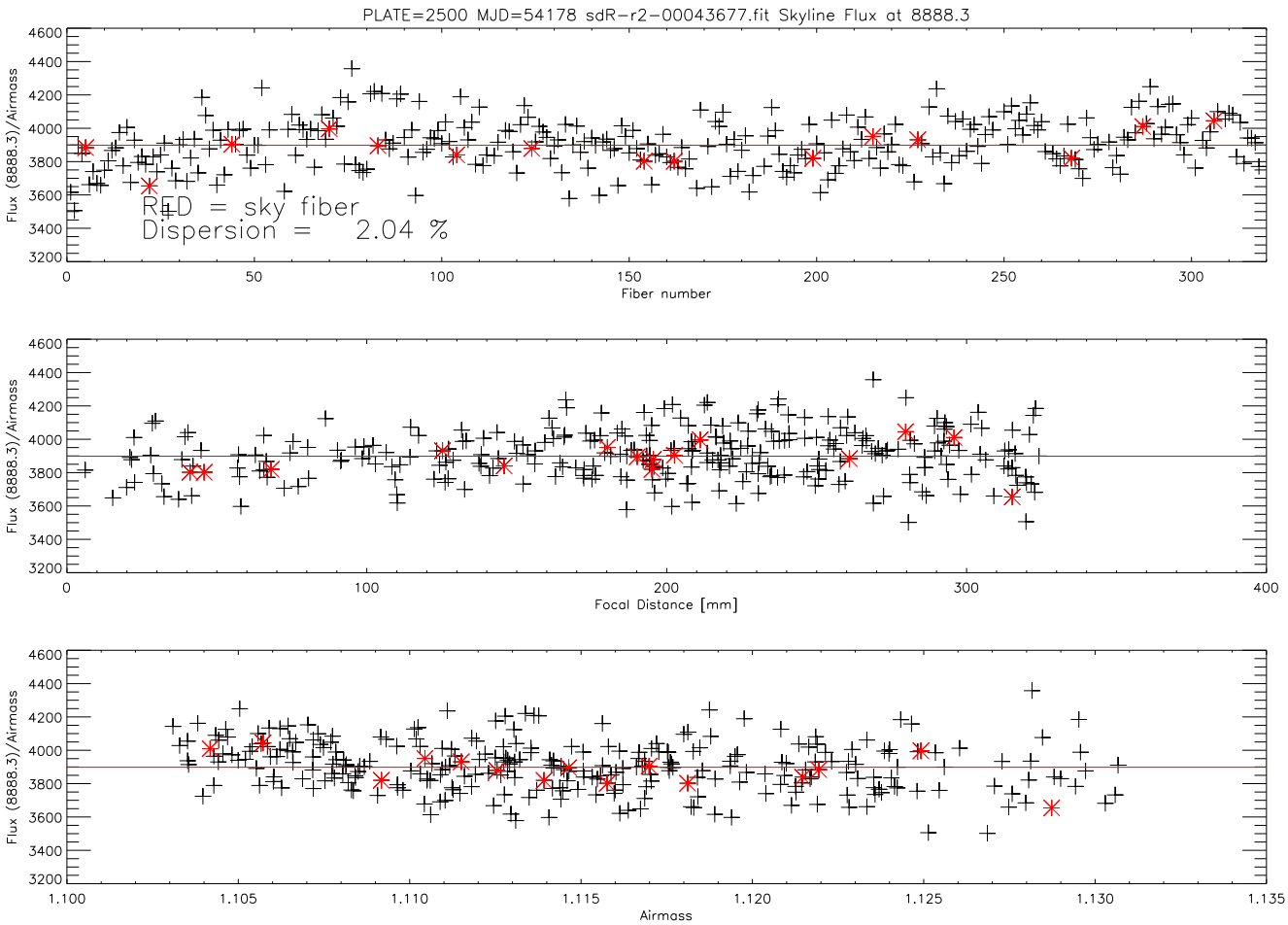

PLATE=2500 MJD=54178 sdR-r2-00043677.fit 2D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

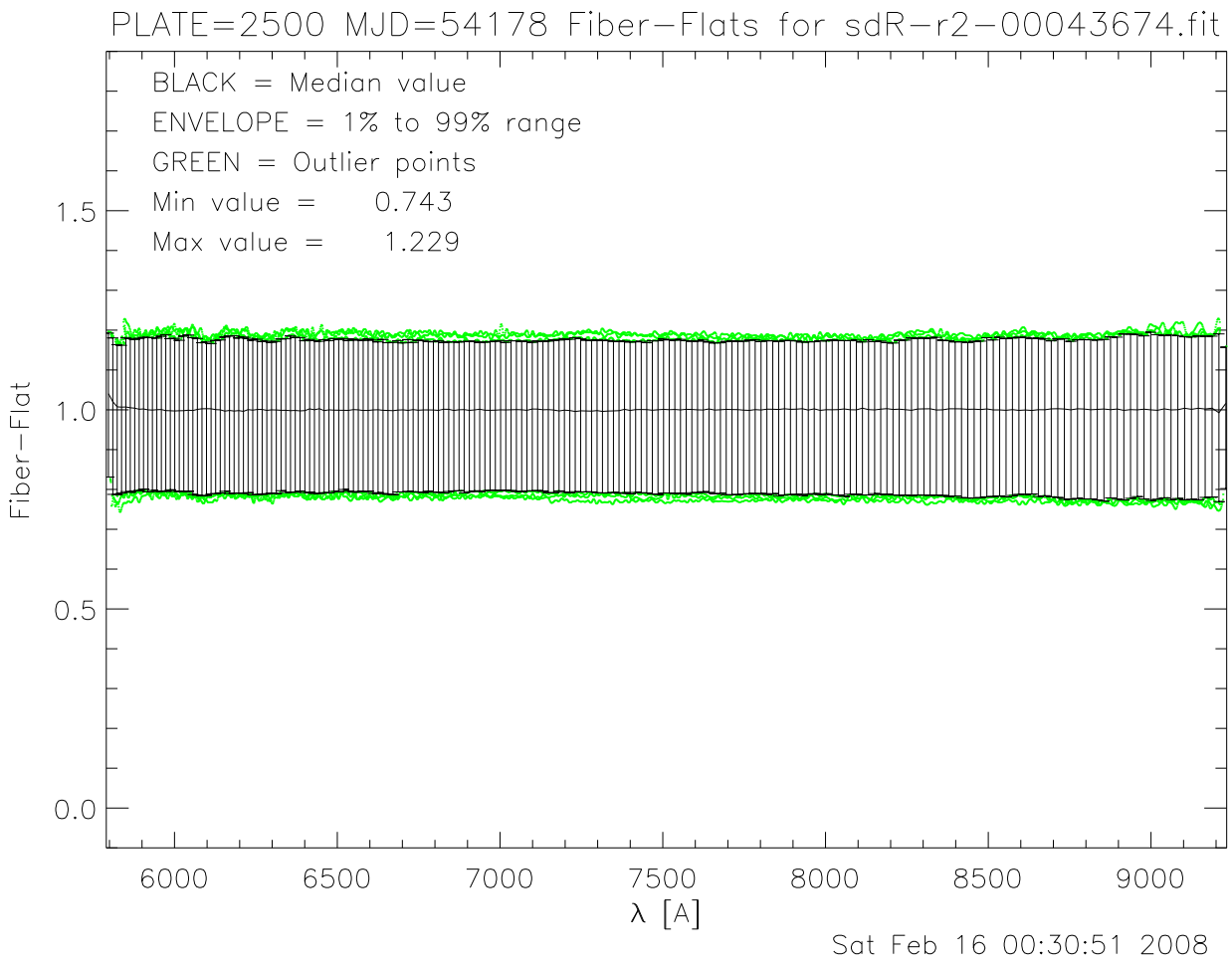

PLATE=2500 MJD=54178 sdR-r2-00043677.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
3000
2500
2000
1500
1000
500
0
-500
8820
8840
8860
8880
8900
λ [A]

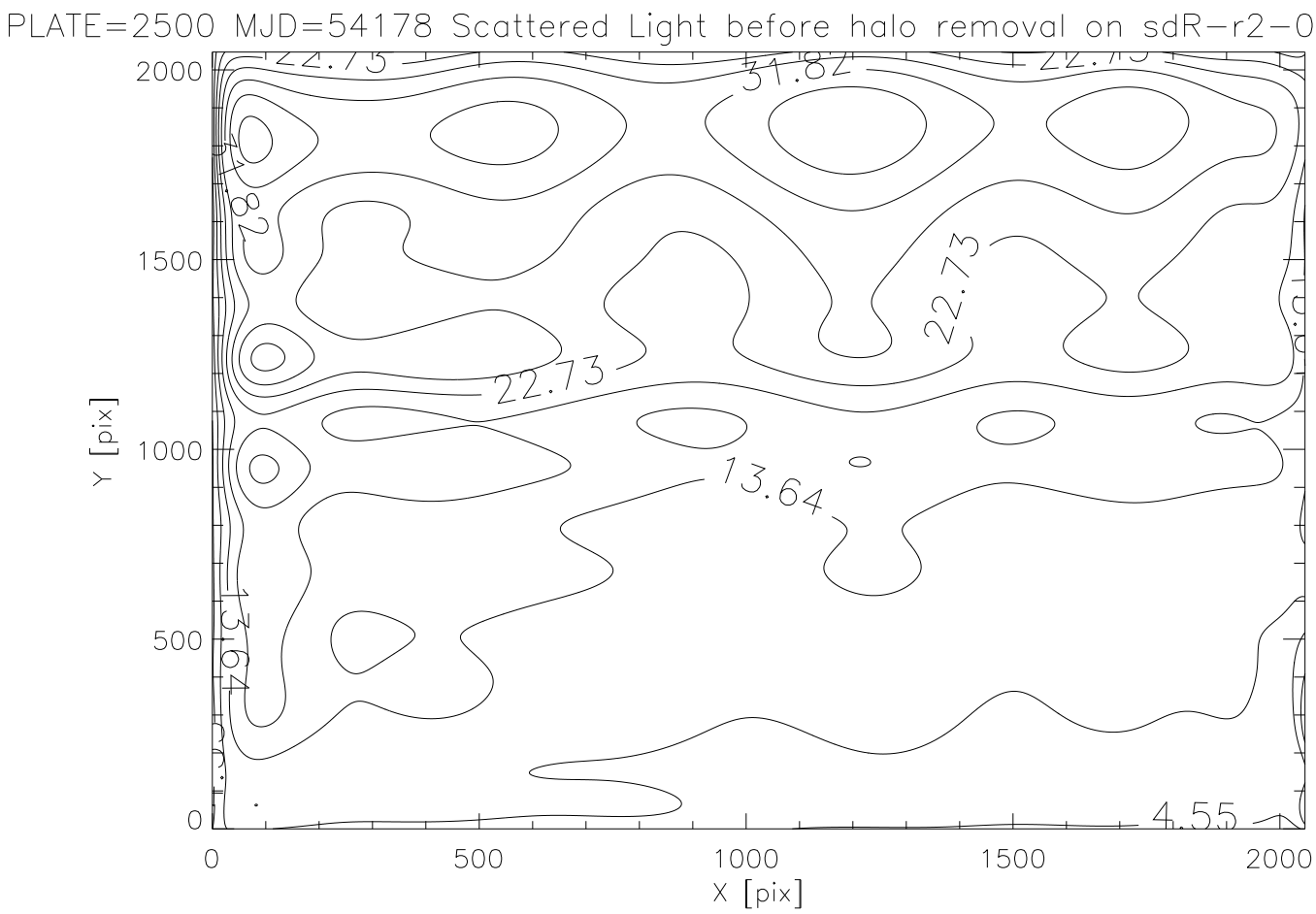

PLATE=2500 MJD=54178 sdR-r2-00043677.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
8820
8840
8860
8880
8900
λ [A]

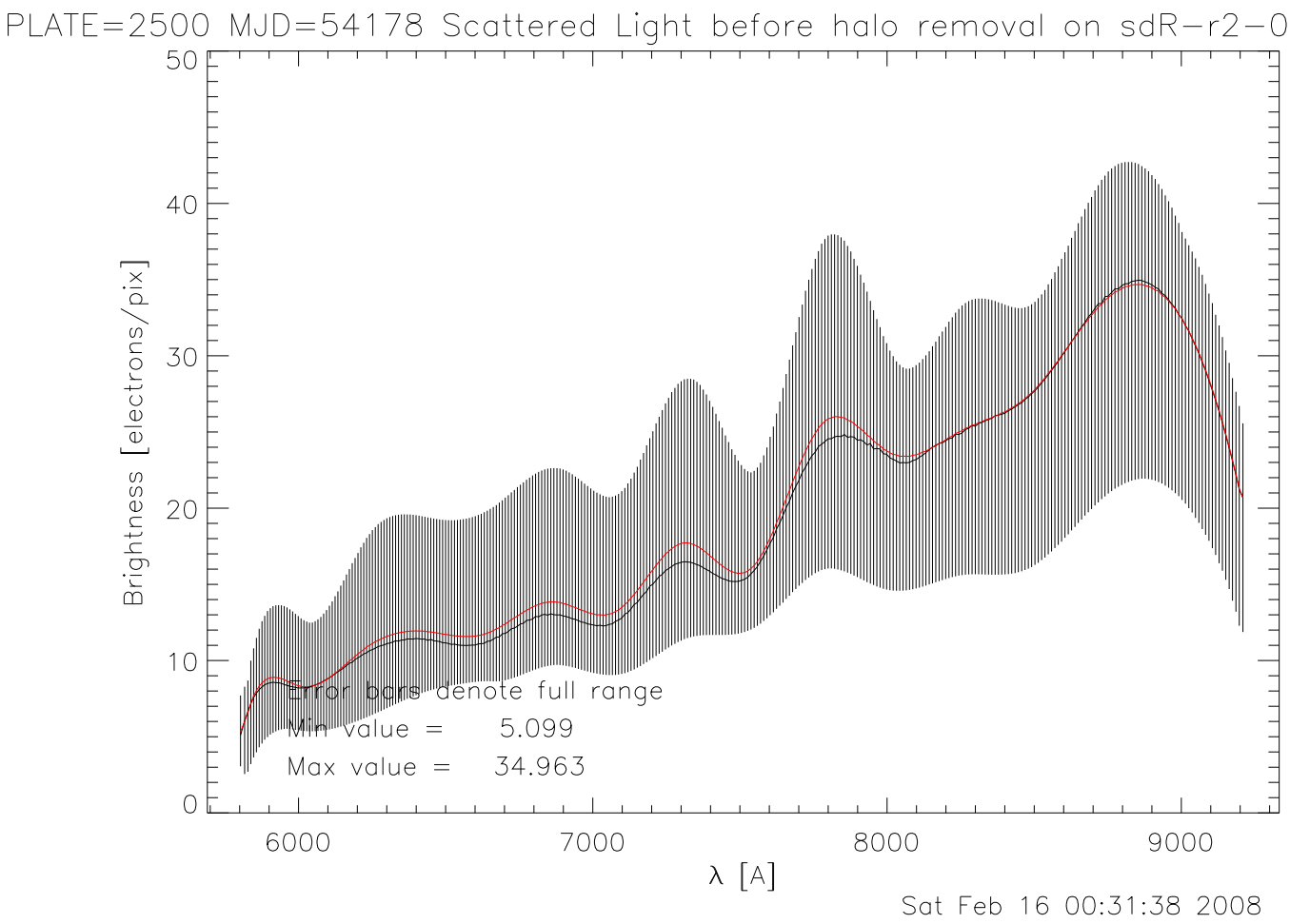

Number of sky fibers = 15
PLATE=2500 MJD=54178 sdR-r2-00043677.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

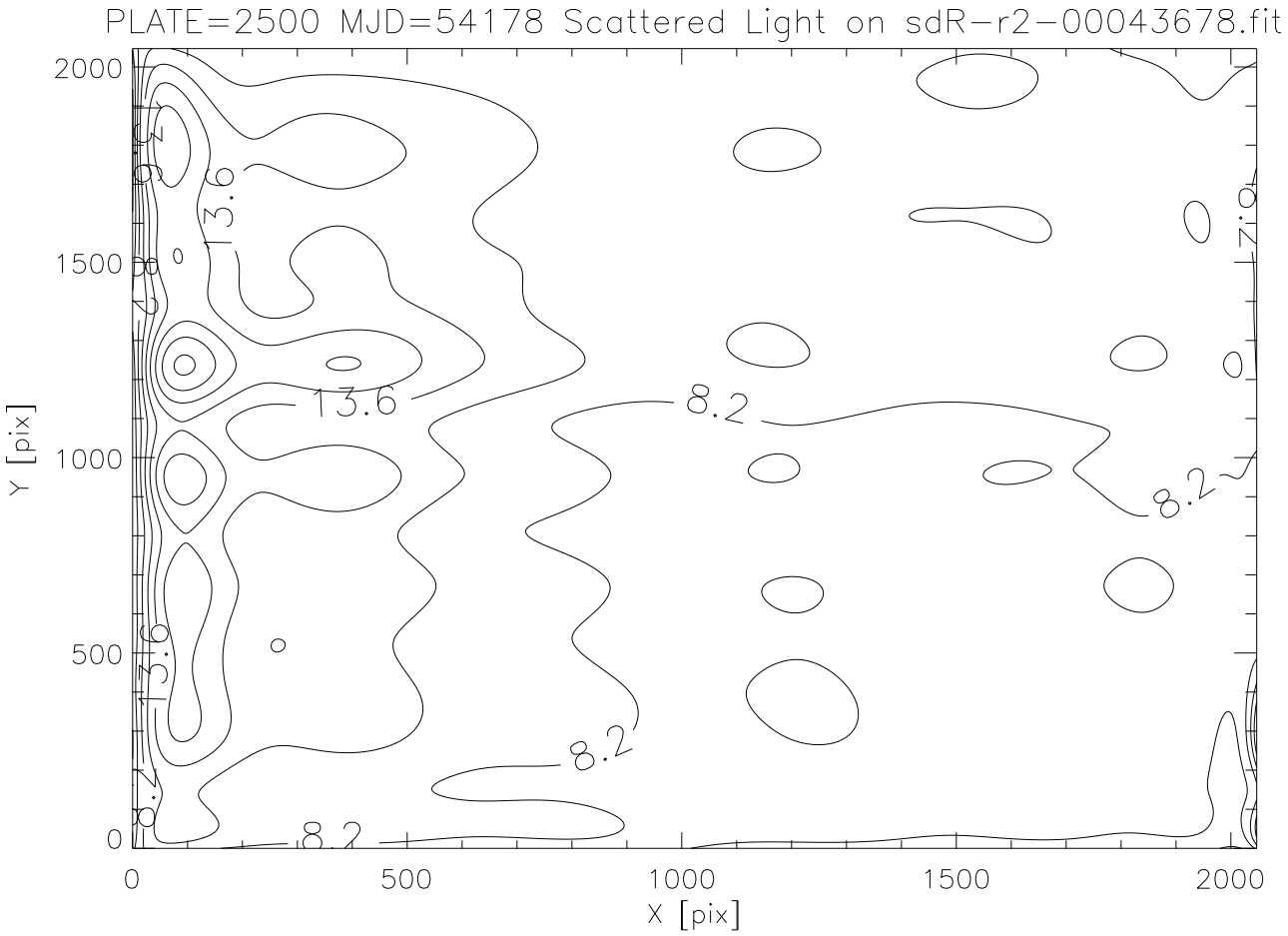

PLATE=2500 MJD=54178 sdR-r2-00043677.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 3.12 %
Fiber number
Focal Distance [mm]
Airmass

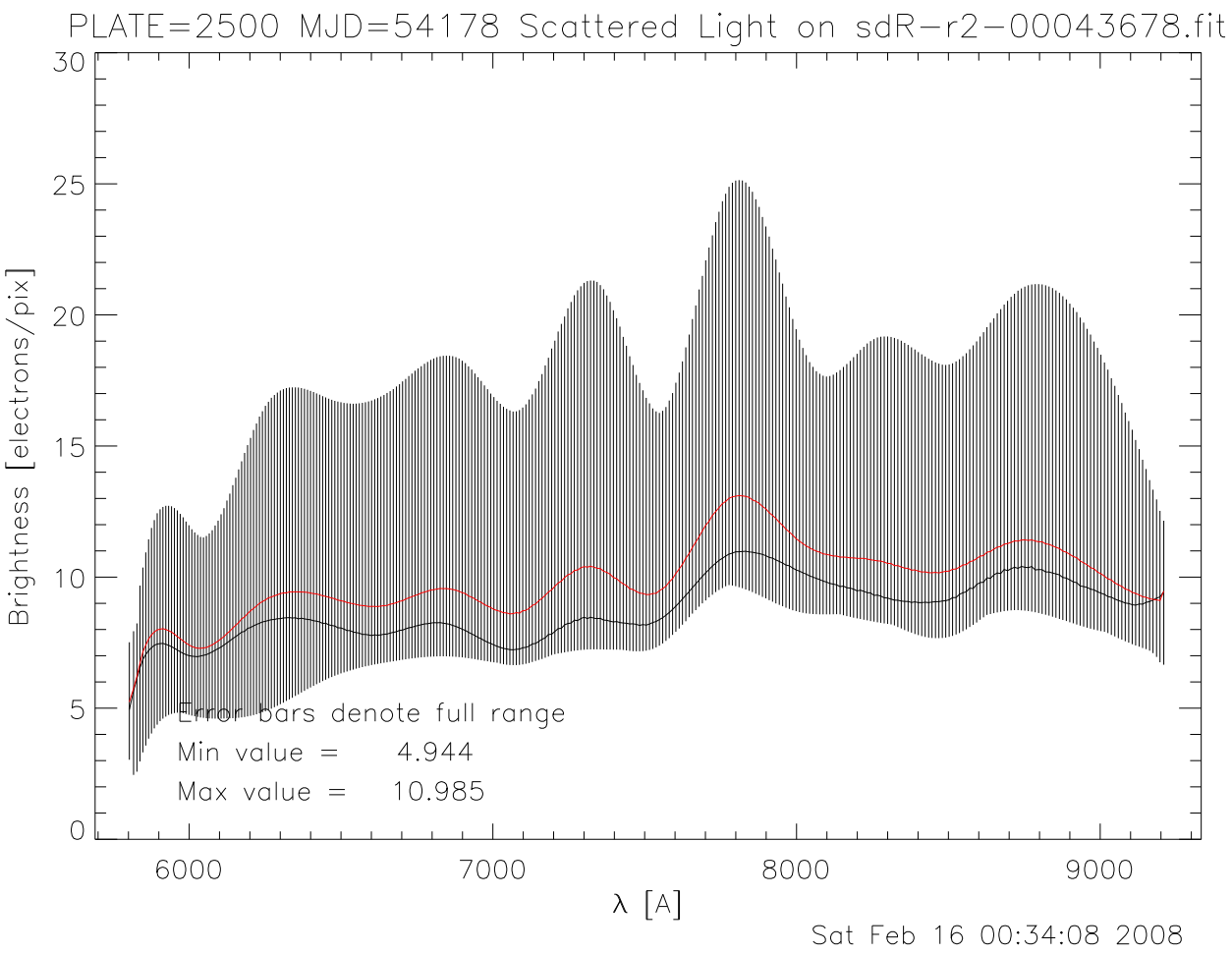

PLATE=2500 MJD=54178 sdR-r2-00043677.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
Fiber number
RED = sky fiber
Dispersion = 2.04 %
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass

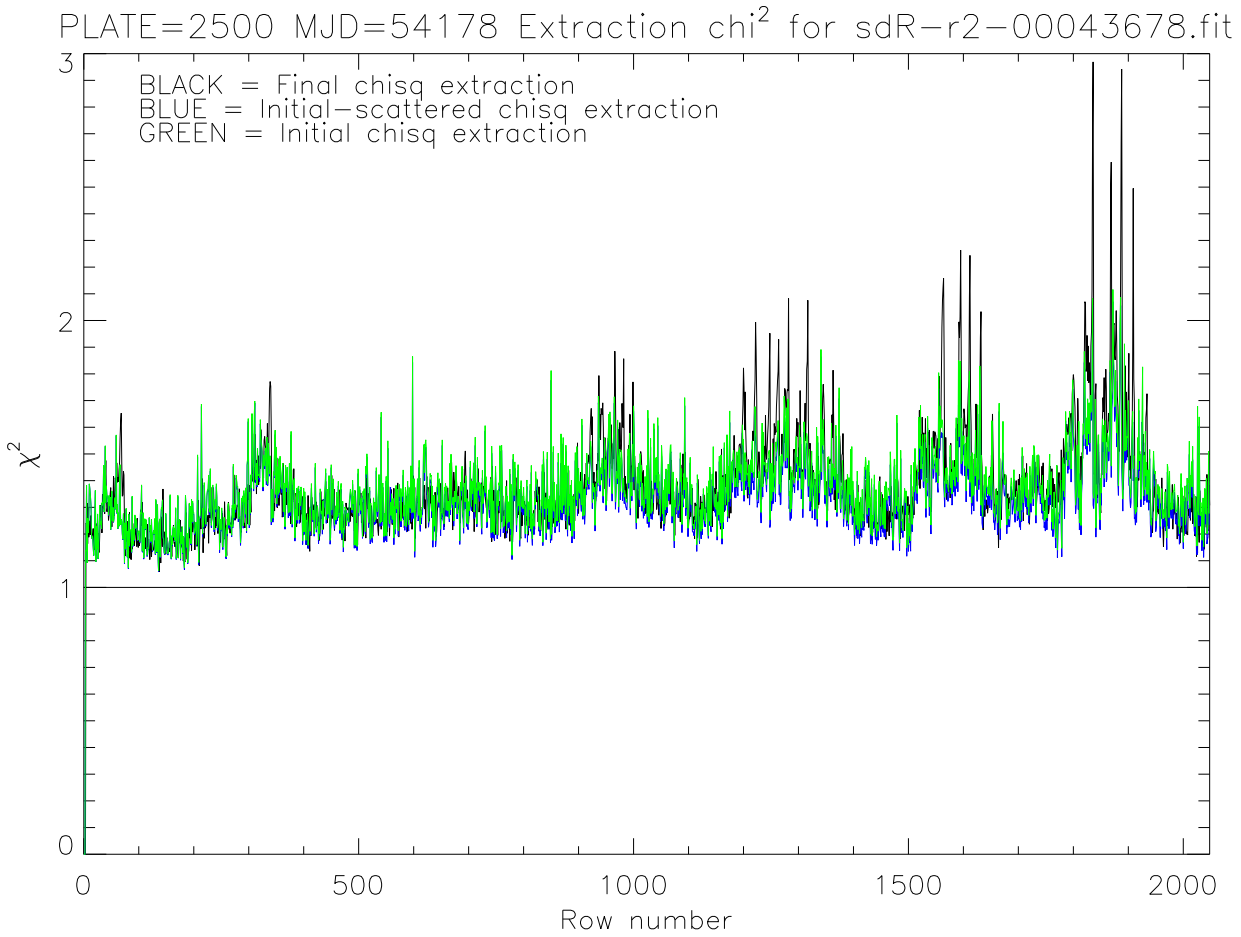

PLATE=2500 MJD=54178 Fiber−Flats for sdR−r2−00043674.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.743
Max value = 1.229
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sat Feb 16 00:30:51 2008

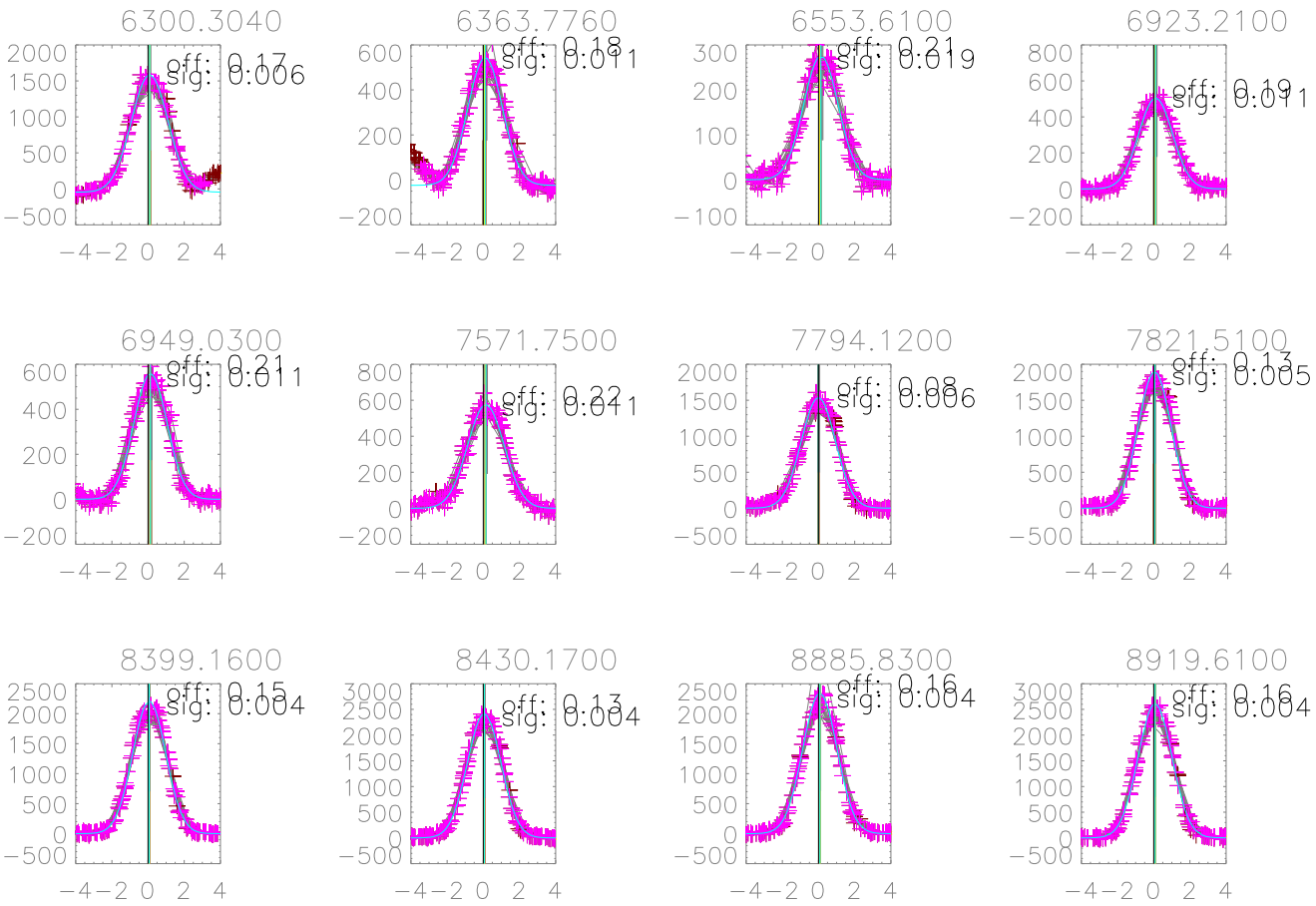

PLATE=2500 MJD=54178 Scattered Light before halo removal on sdR-r2-00043678.fi
22.73
31.82
22.73
31.82
22.73
22.73
13.64
13.64
4.55
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]

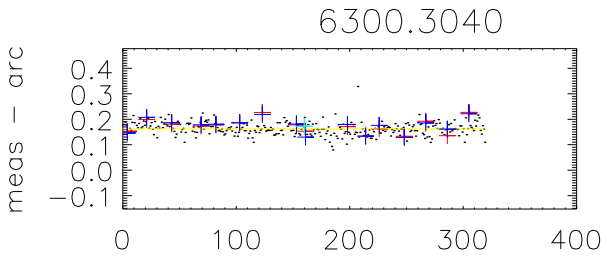

PLATE=2500 MJD=54178 Scattered Light before halo removal on sdR-r2-00043678.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 5.099
Max value = 34.963
Sat Feb 16 00:31:38 2008

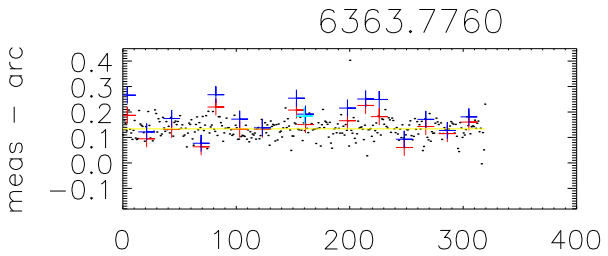

PLATE=2500 MJD=54178 Scattered Light on sdR-r2-00043678.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
13.6
8.2

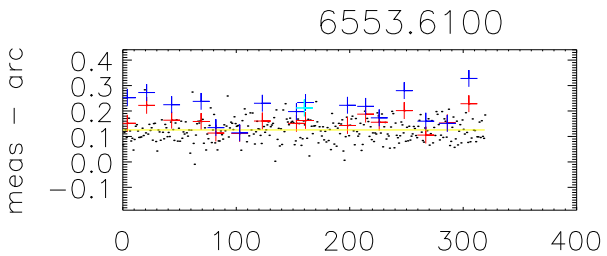

PLATE=2500 MJD=54178 Scattered Light on sdR-r2-00043678.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 4.944
Max value = 10.985
Sat Feb 16 00:34:08 2008

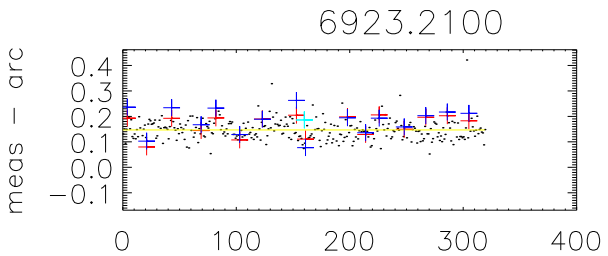

PLATE=2500 MJD=54178 Extraction chi^2 for sdR−r2−00043678.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
0
500
1000
1500
2000
Row number

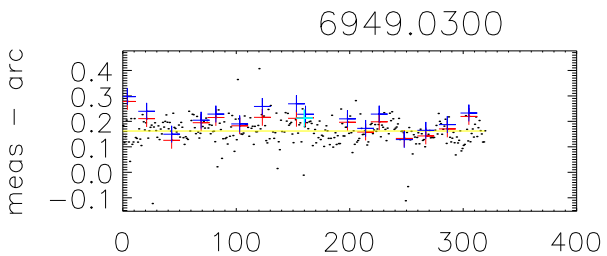

6300.3040
off: 0.17
sig: 0.006
6363.7760
off: 0.18
sig: 0.011
6553.6100
off: 0.21
sig: 0.019
6923.2100
off: 0.19
sig: 0.011
6949.0300
off: 0.21
sig: 0.011
7571.7500
off: 0.22
sig: 0.011
7794.1200
off: 0.08
sig: 0.006
7821.5100
off: 0.13
sig: 0.005
8399.1600
off: 0.15
sig: 0.004
8430.1700
off: 0.13
sig: 0.004
8885.8300
off: 0.16
sig: 0.004
8919.6100
off: 0.16
sig: 0.004

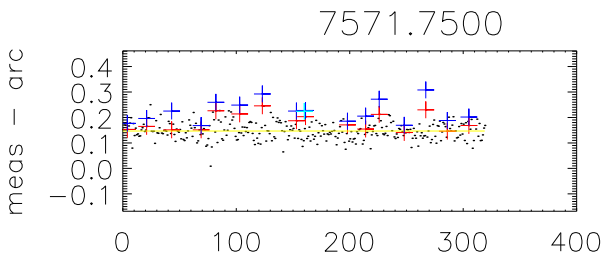

6300.3040
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

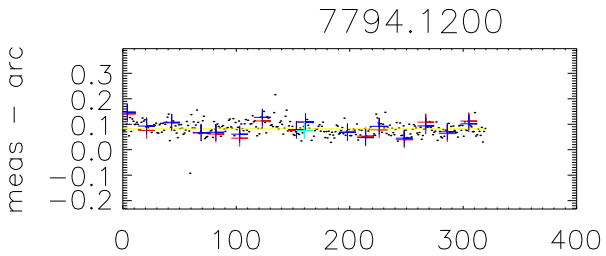

6363.7760
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

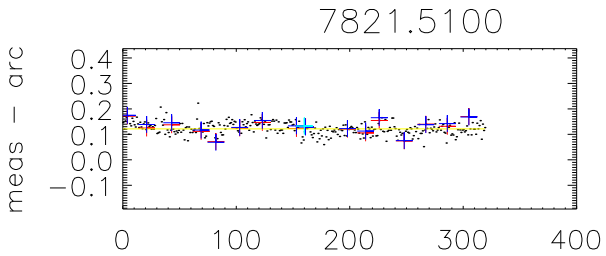

6553.6100
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

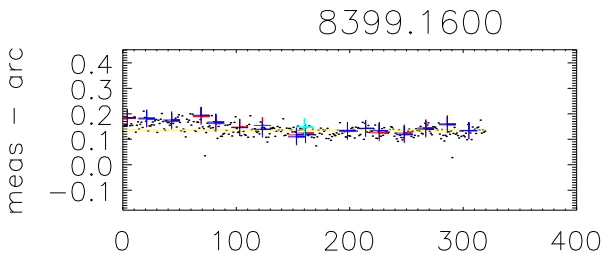

6923.2100
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

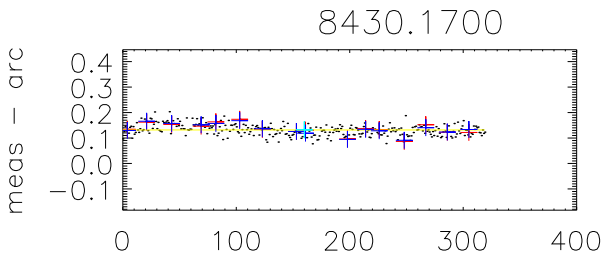

6949.0300
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

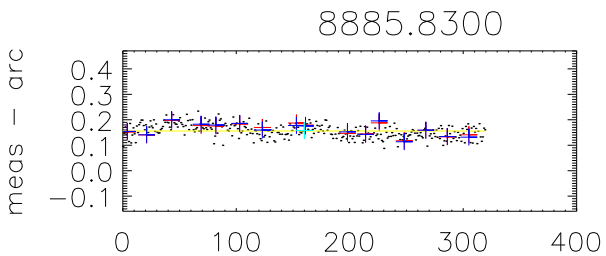

7571.7500
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

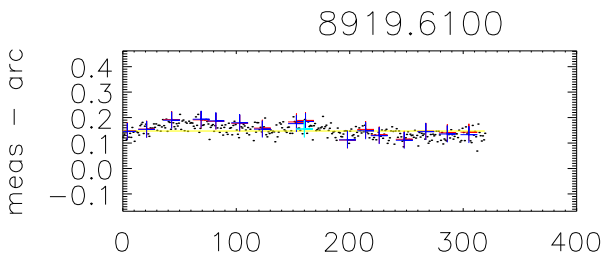

7794.1200
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

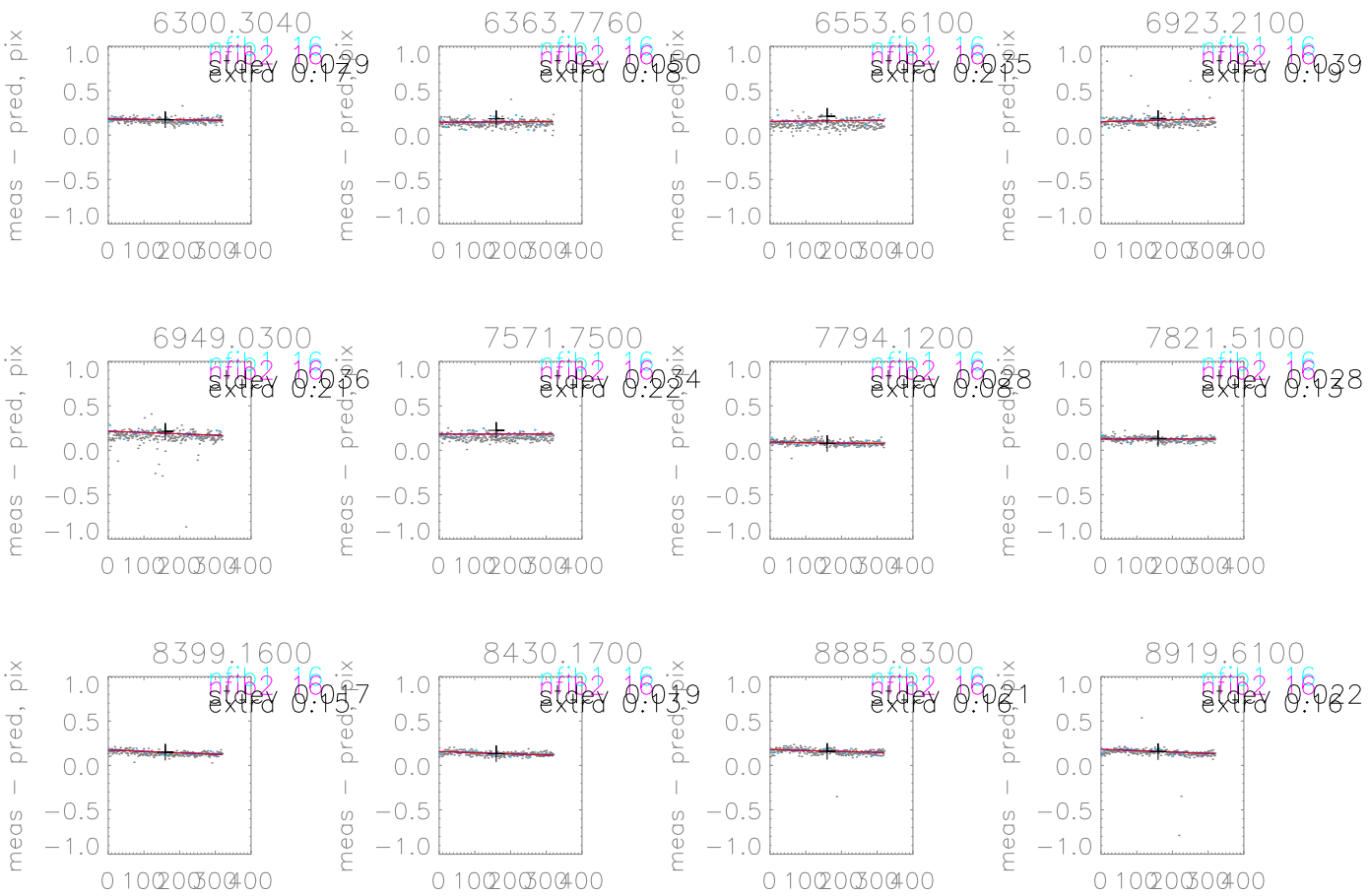

7821.5100
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

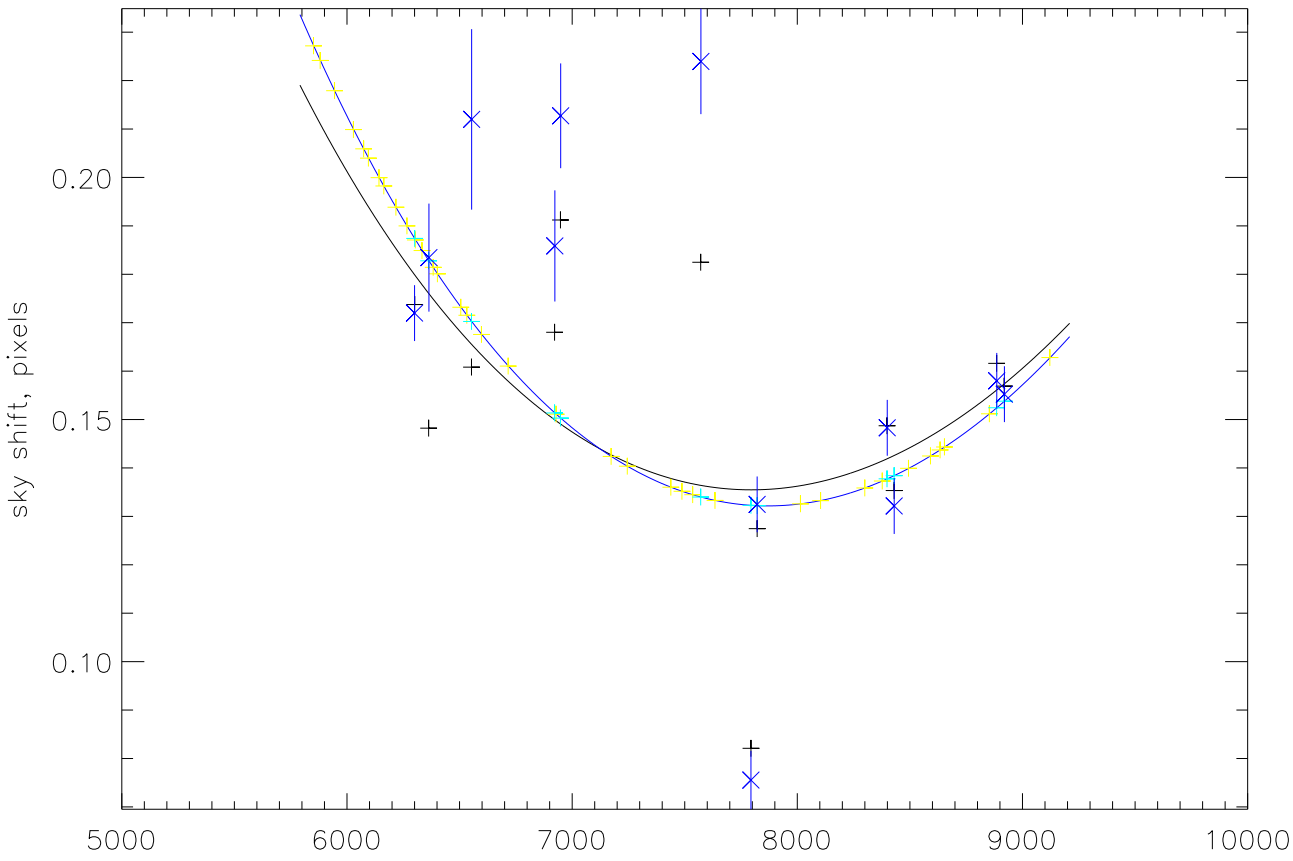

8399.1600
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

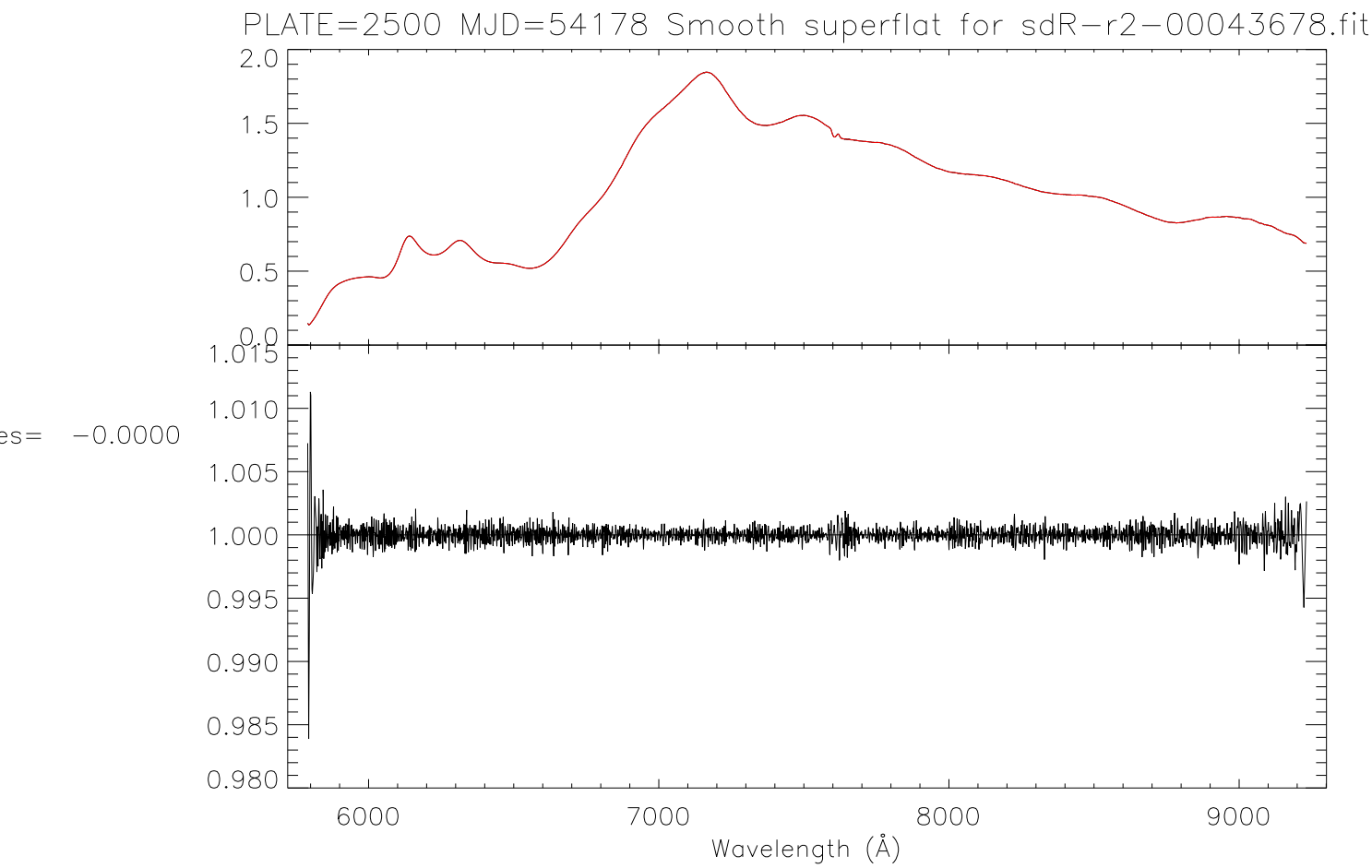

8430.1700
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

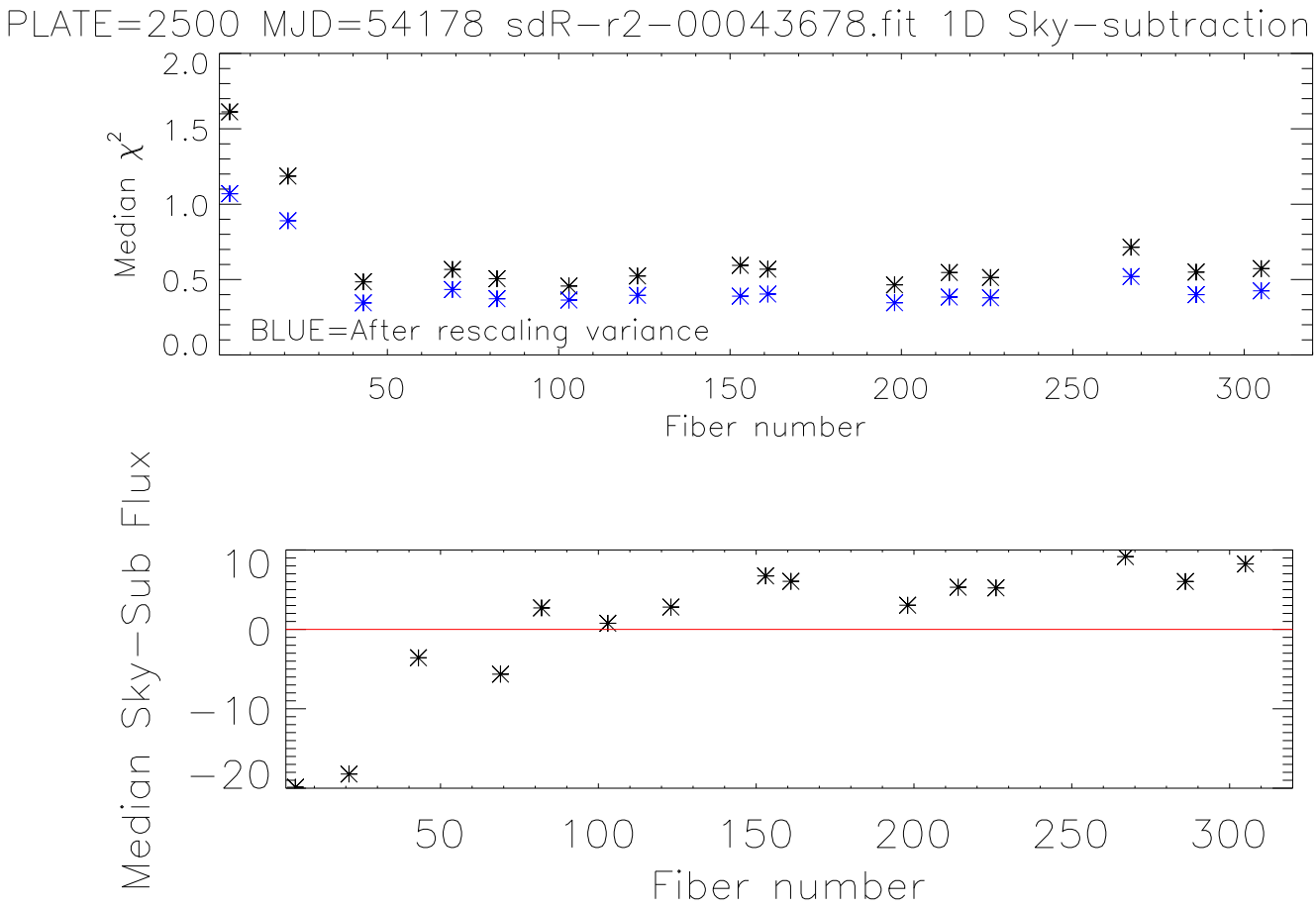

8885.8300
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

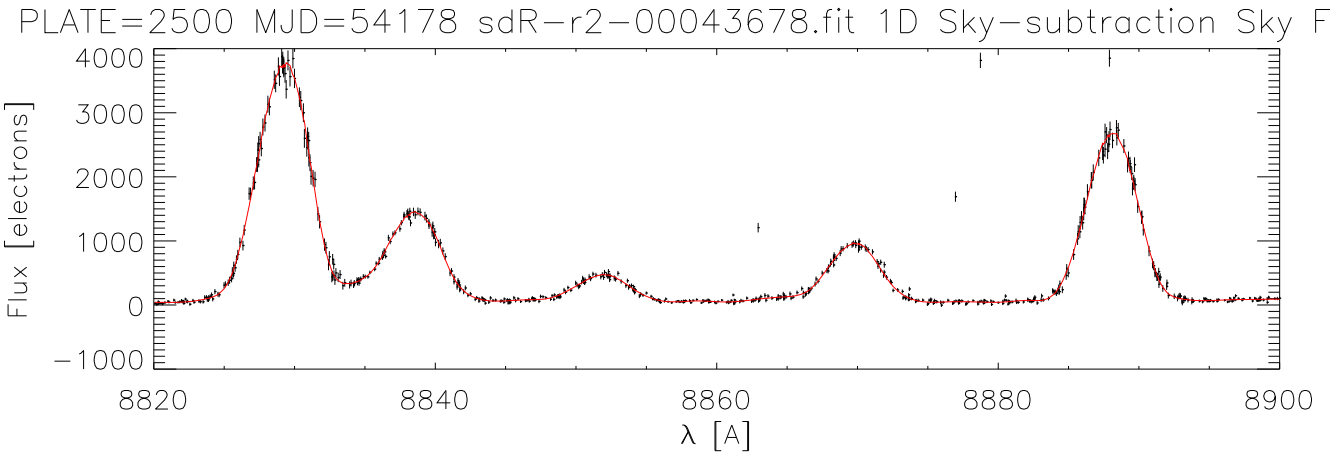

8919.6100
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

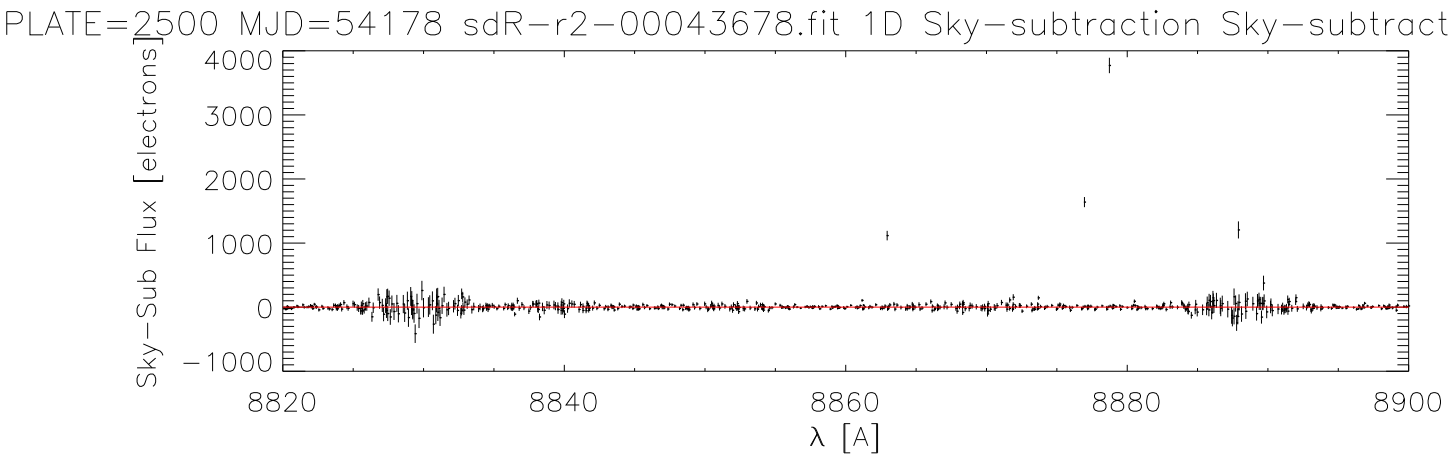

6300.3040
stdev 0.029
extra 0.17
6363.7760
stdev 0.050
extra 0.18
6553.6100
stdev 0.045
extra 0.21
6923.2100
stdev 0.039
extra 0.19
6949.0300
stdev 0.036
extra 0.21
7571.7500
stdev 0.034
extra 0.22
7794.1200
stdev 0.028
extra 0.08
7821.5100
stdev 0.028
extra 0.13
8399.1600
stdev 0.017
extra 0.15
8430.1700
stdev 0.019
extra 0.13
8885.8300
stdev 0.021
extra 0.16
8919.6100
stdev 0.022
extra 0.16
meas − pred, pix
mfhd2 16

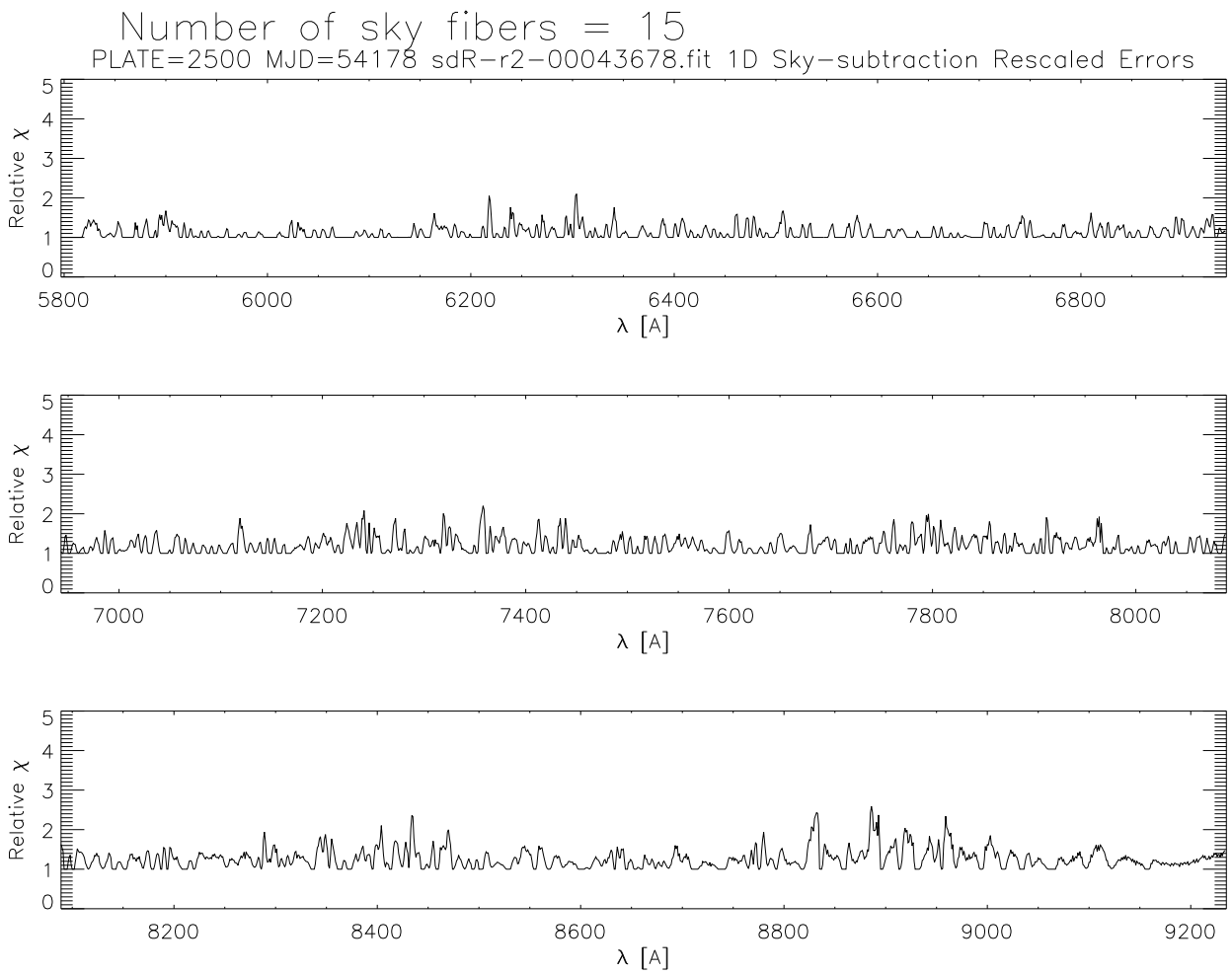

sky shift, pixels
0.20
0.15
0.10
5000
6000
7000
8000
9000
10000

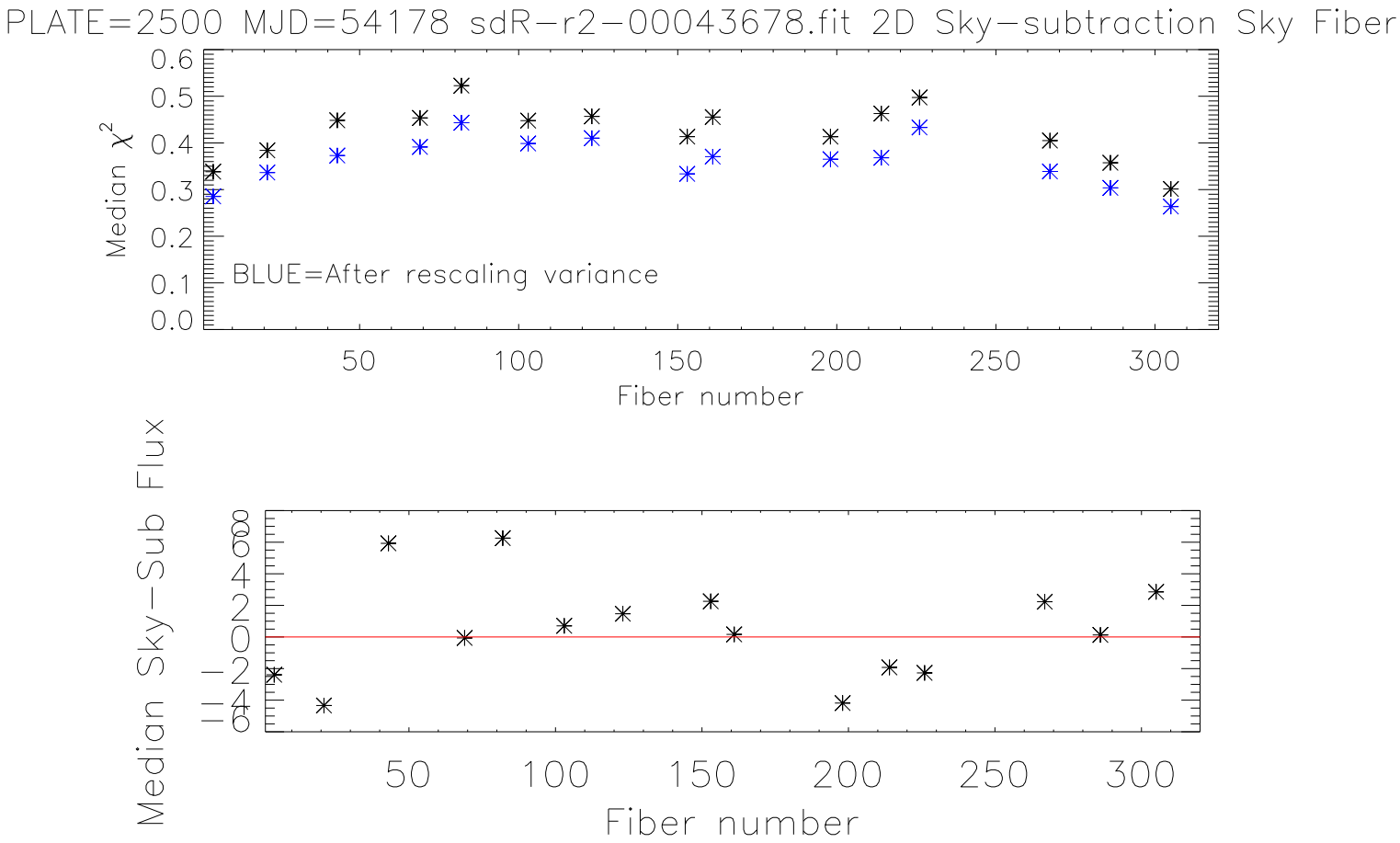

PLATE=2500 MJD=54178 Smooth superflat for sdR-r2-00043678.fit
es= -0.0000
2.0
1.5
1.0
0.5
0.0
1.015
1.010
1.005
1.000
0.995
0.990
0.985
0.980
6000
7000
8000
9000
Wavelength (Å)

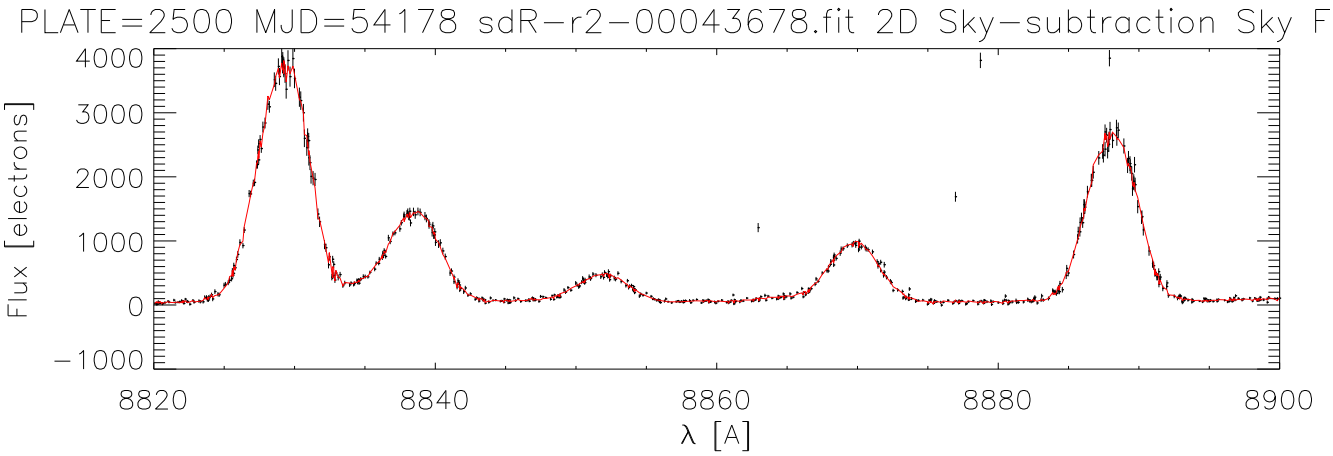

PLATE=2500 MJD=54178 sdR-r2-00043678.fit 1D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

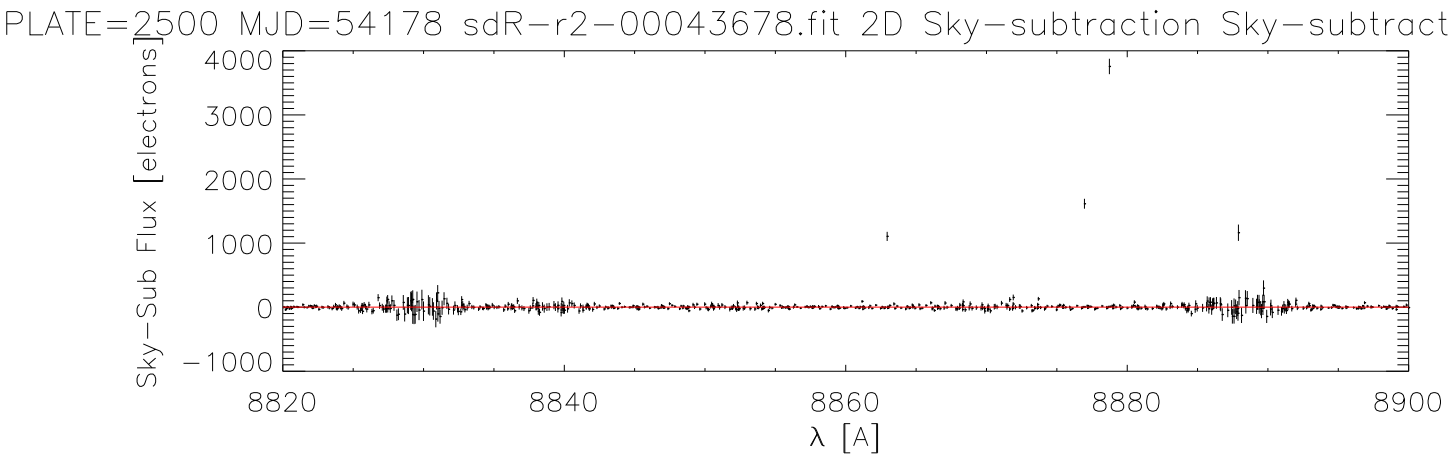

PLATE=2500 MJD=54178 sdR-r2-00043678.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
-1000
8820
8840
8860
8880
8900
λ [A]

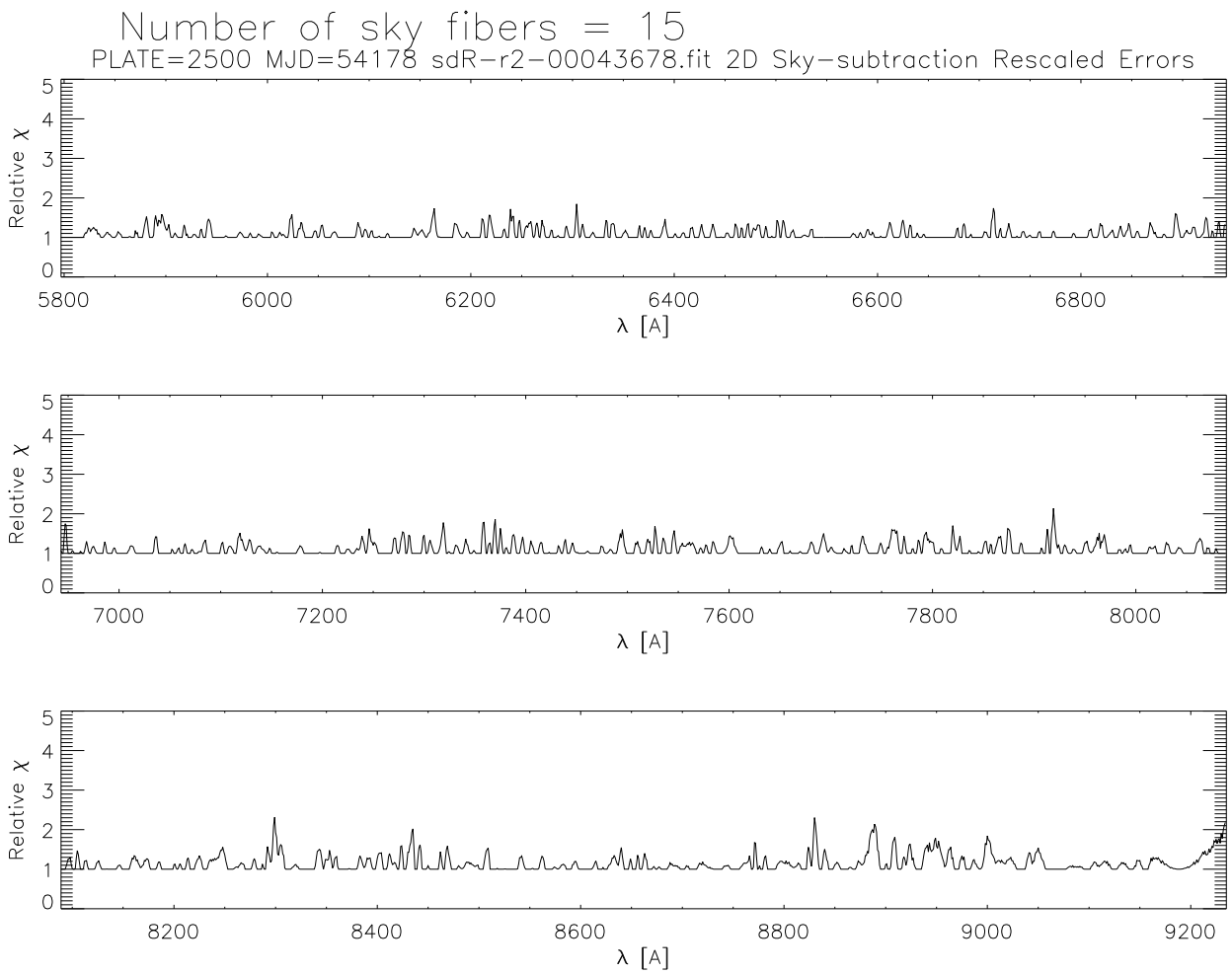

PLATE=2500 MJD=54178 sdR-r2-00043678.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
4000
3000
2000
1000
0
-1000
8820
8840
8860
8880
8900
λ [A]

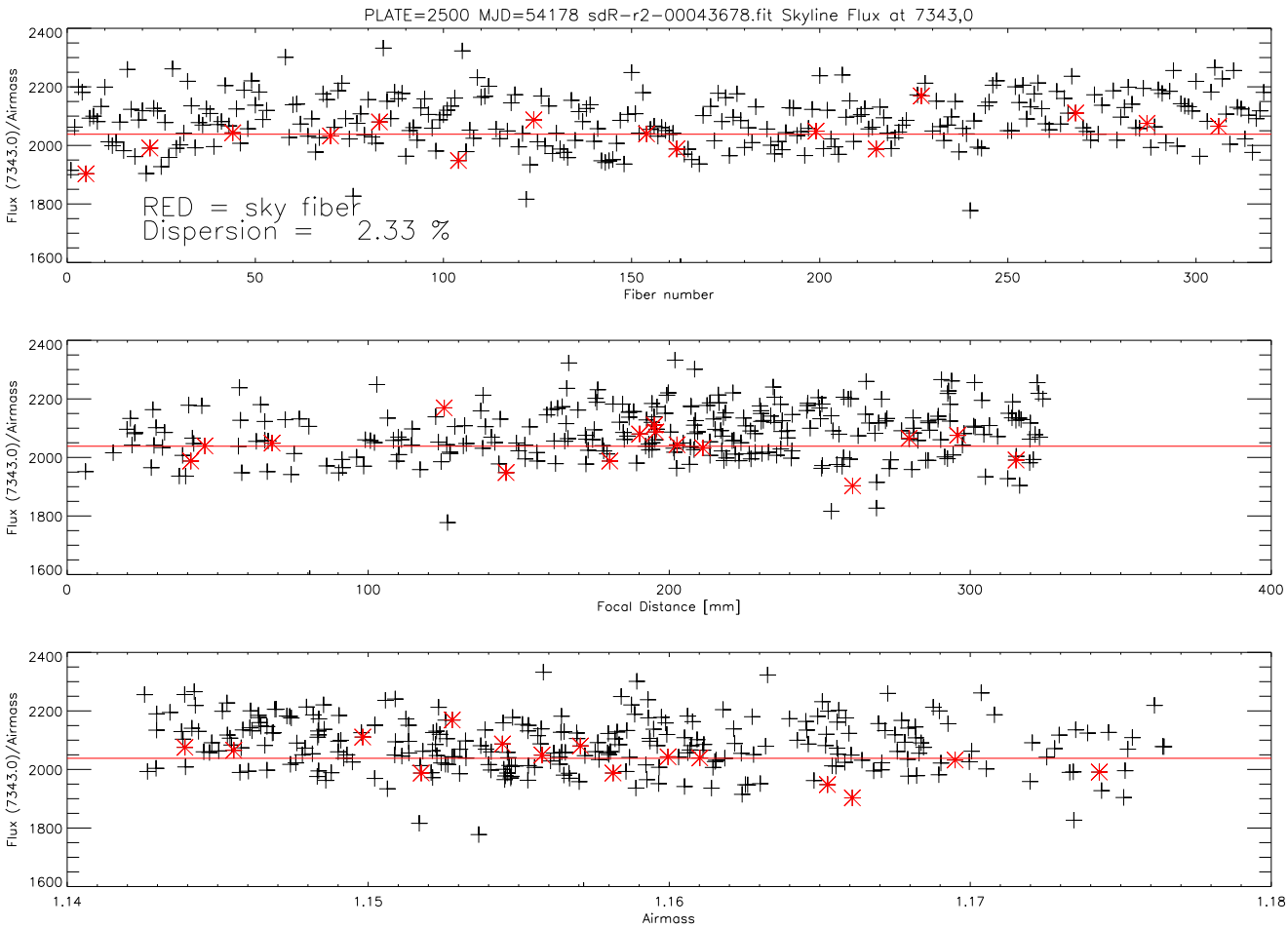

Number of sky fibers = 15
PLATE=2500 MJD=54178 sdR-r2-00043678.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

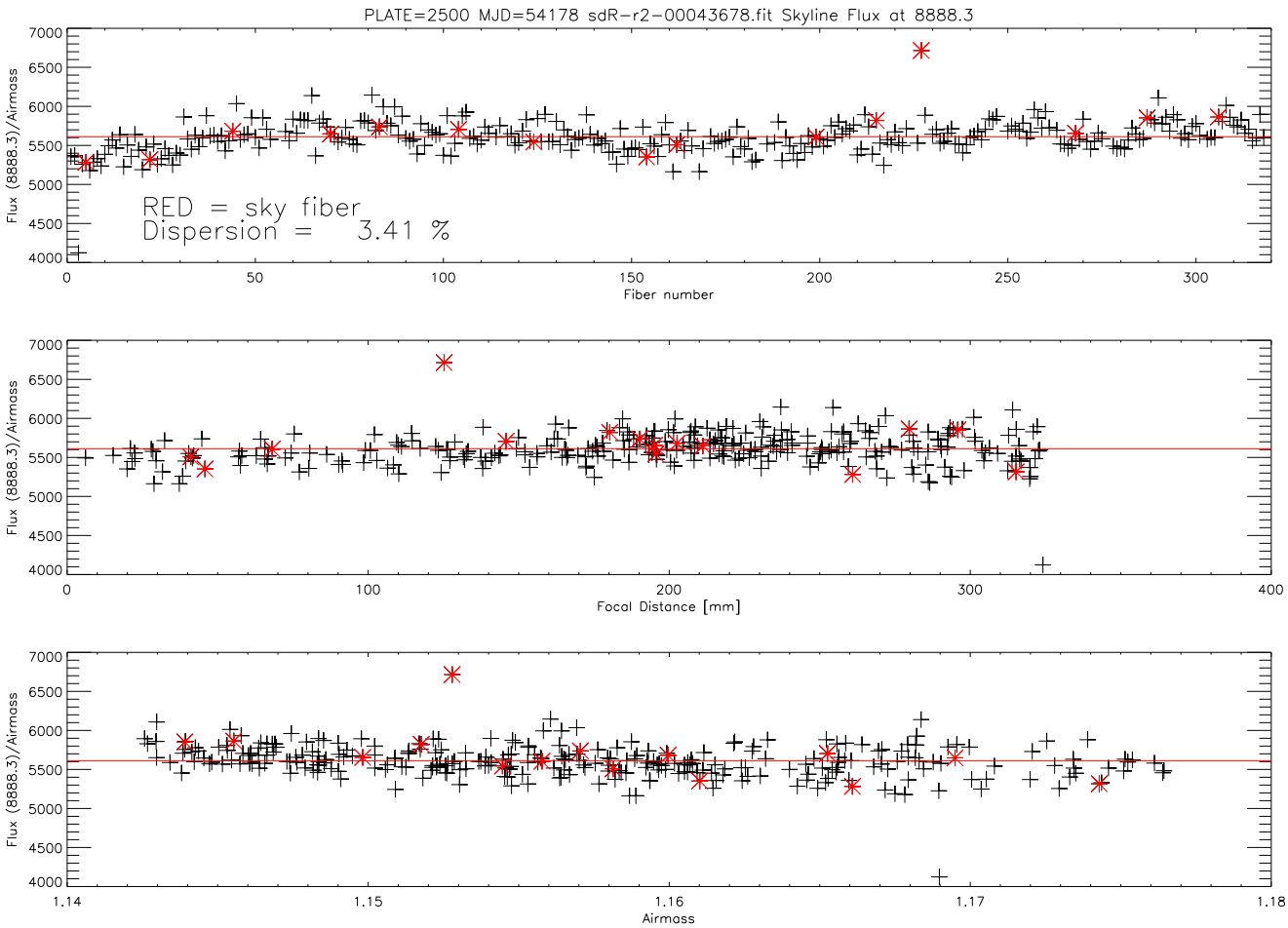

PLATE=2500 MJD=54178 sdR-r2-00043678.fit 2D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-11
-6
-4
-2
0
2
4
6
8
50
100
150
200
250
300
Fiber number


PLATE=2500 MJD=54178 sdR-r2-00043678.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
-1000
8820
8840
8860
8880
8900
λ [A]


PLATE=2500 MJD=54178 sdR-r2-00043678.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
4000
3000
2000
1000
0
-1000
8820
8840
8860
8880
8900
λ [A]


Number of sky fibers = 15
PLATE=2500 MJD=54178 sdR-r2-00043678.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=2500 MJD=54178 sdR-r2-00043678.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 2.33 %
Fiber number
Focal Distance [mm]
Airmass


PLATE=2500 MJD=54178 sdR-r2-00043678.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 3.41 %
Fiber number
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass