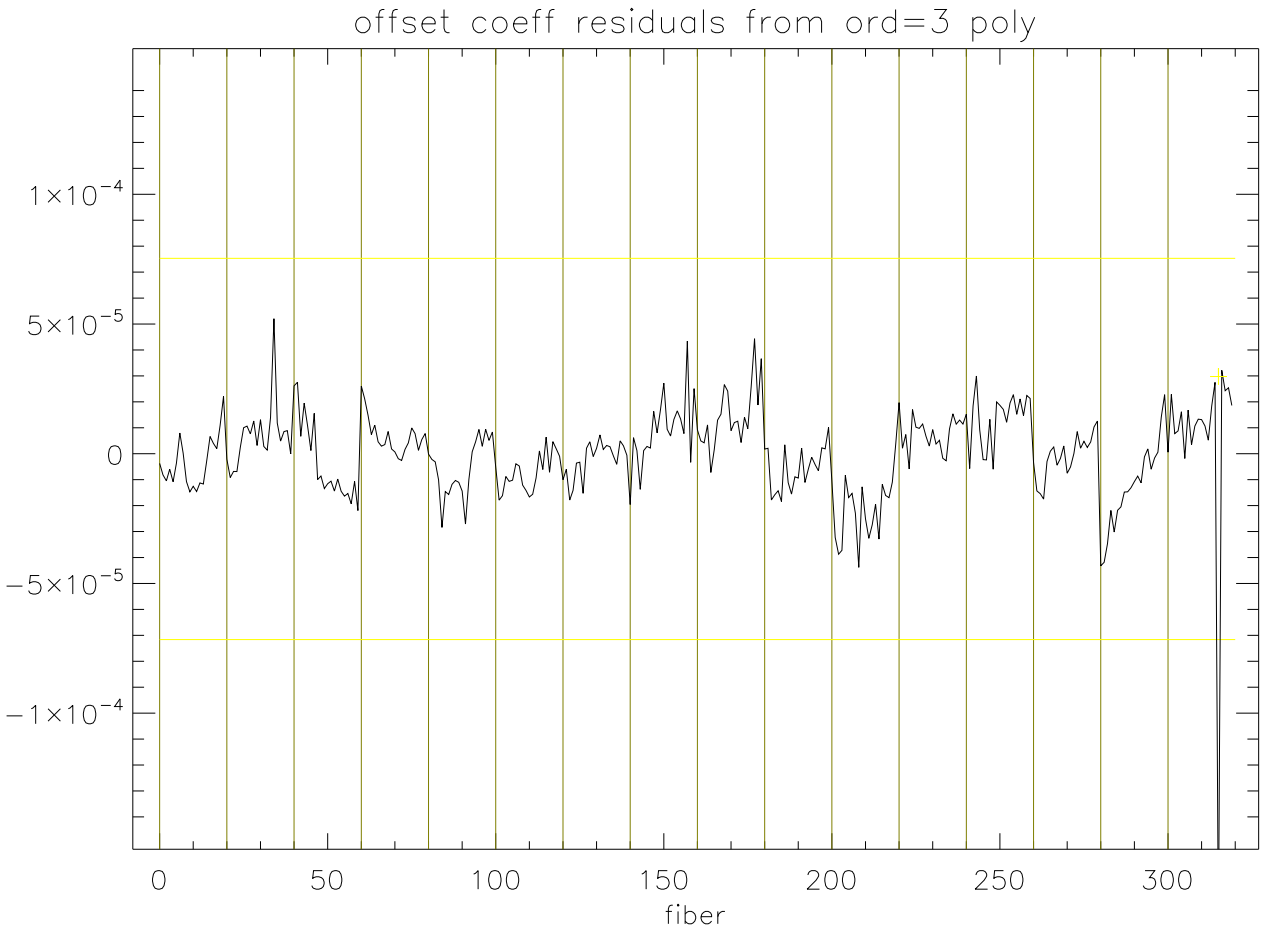
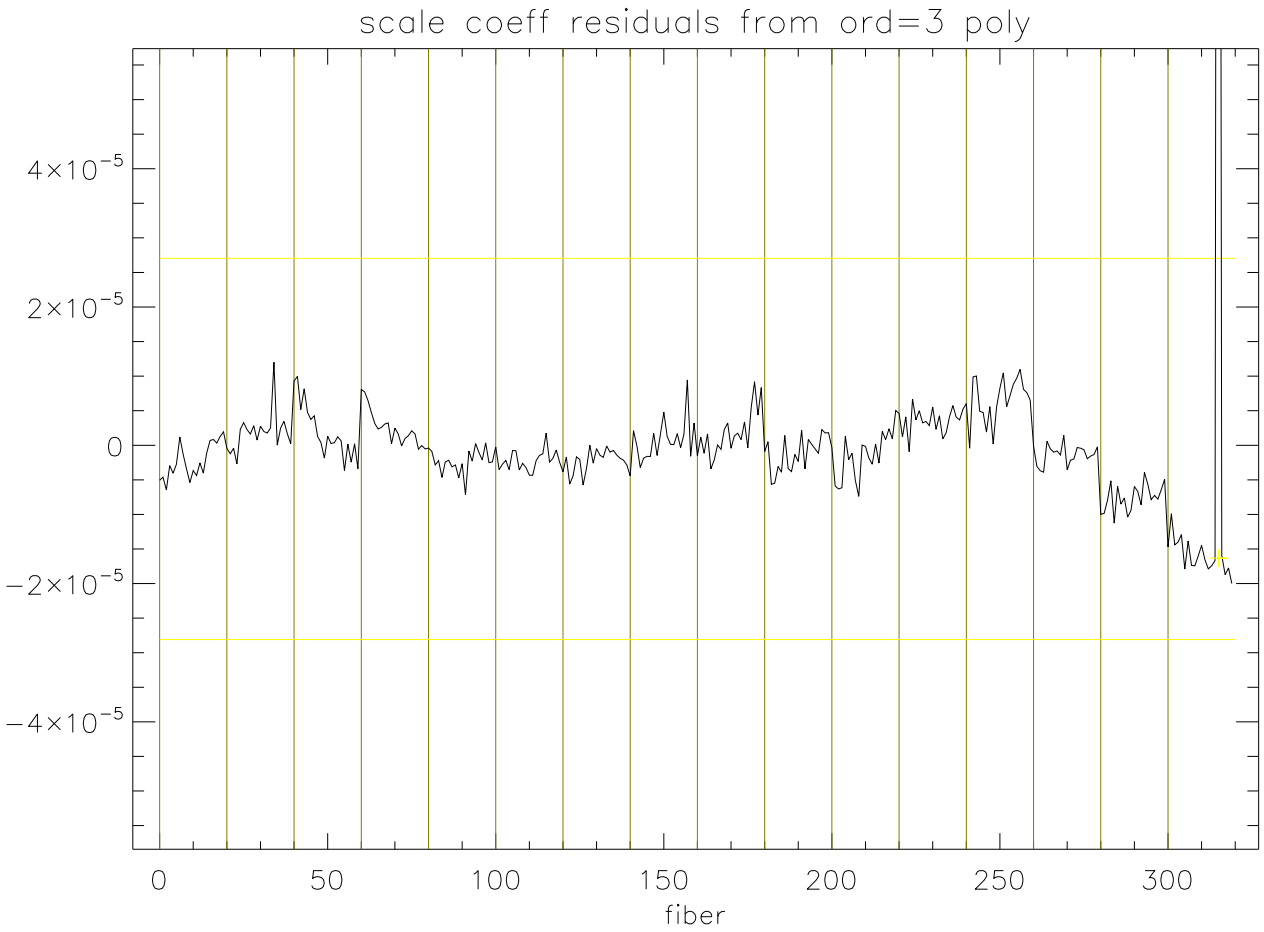
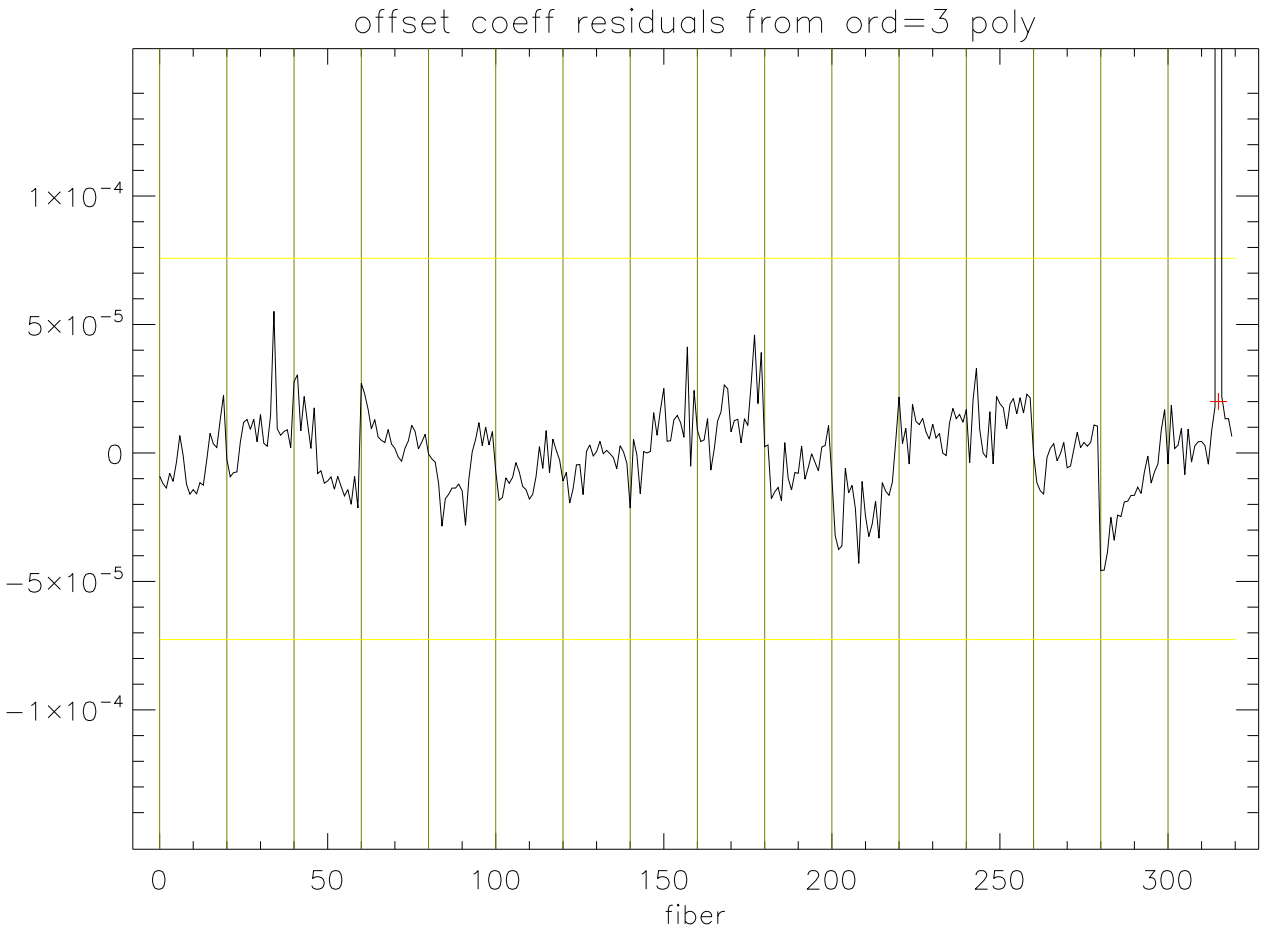
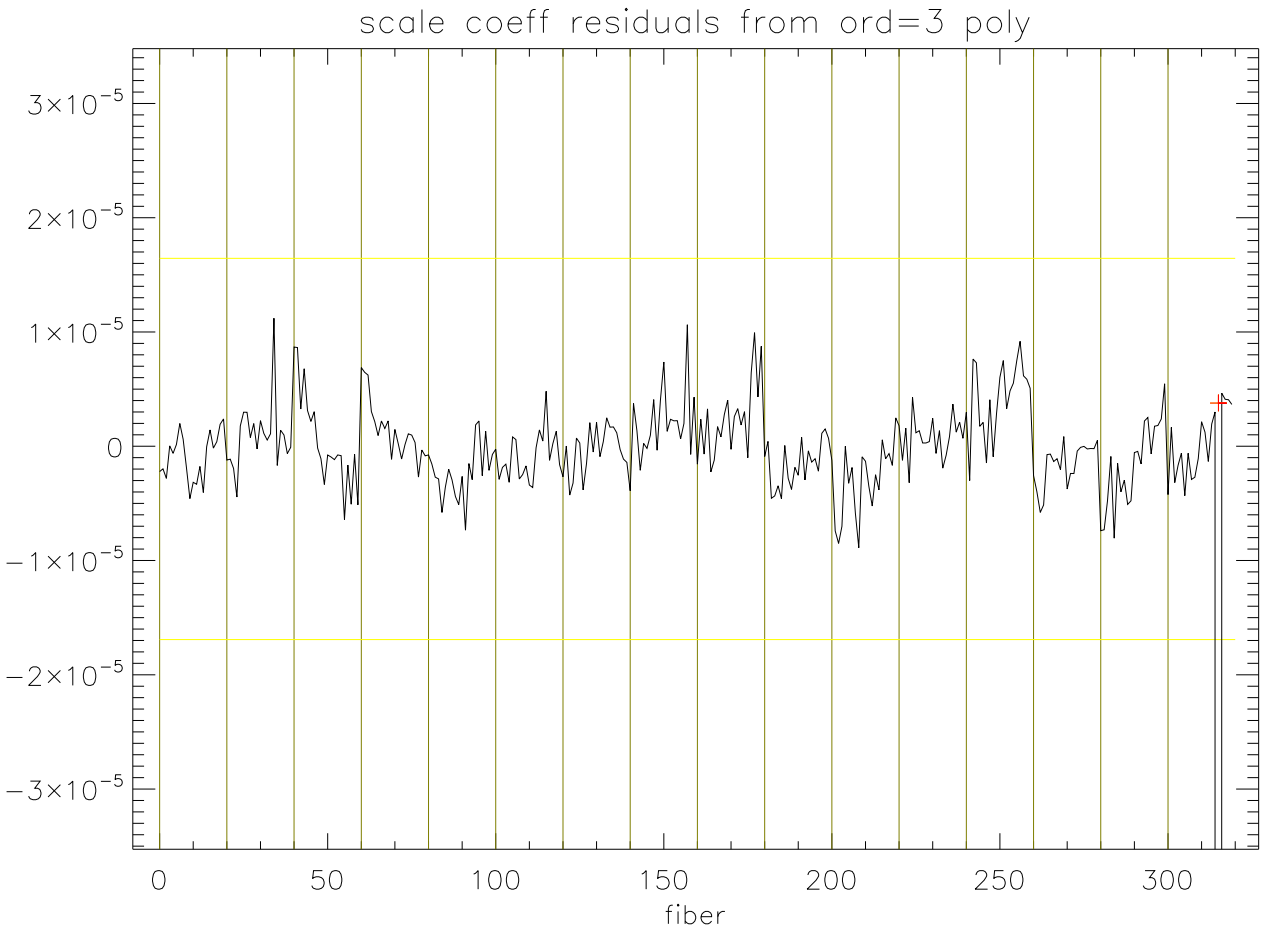
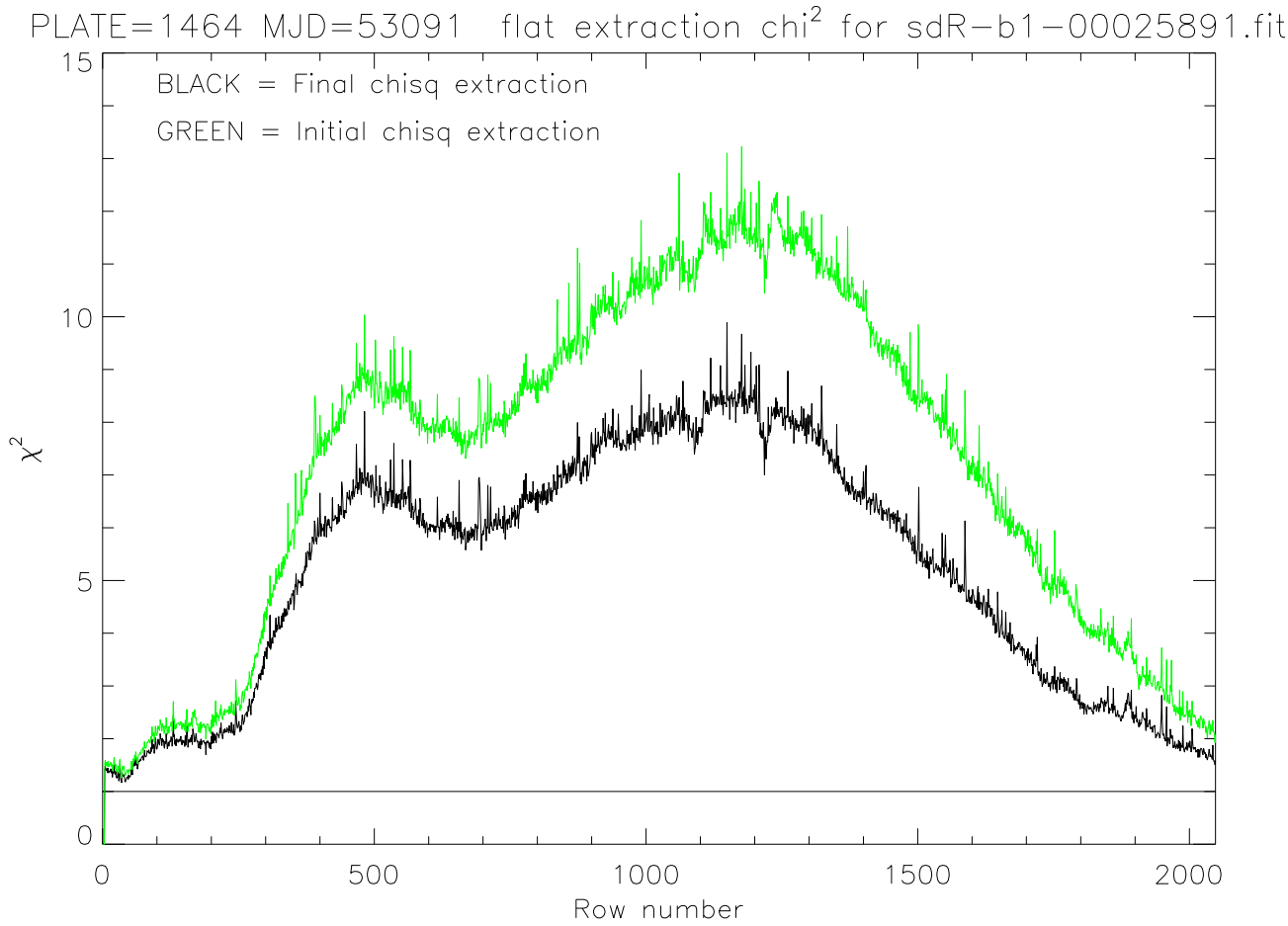
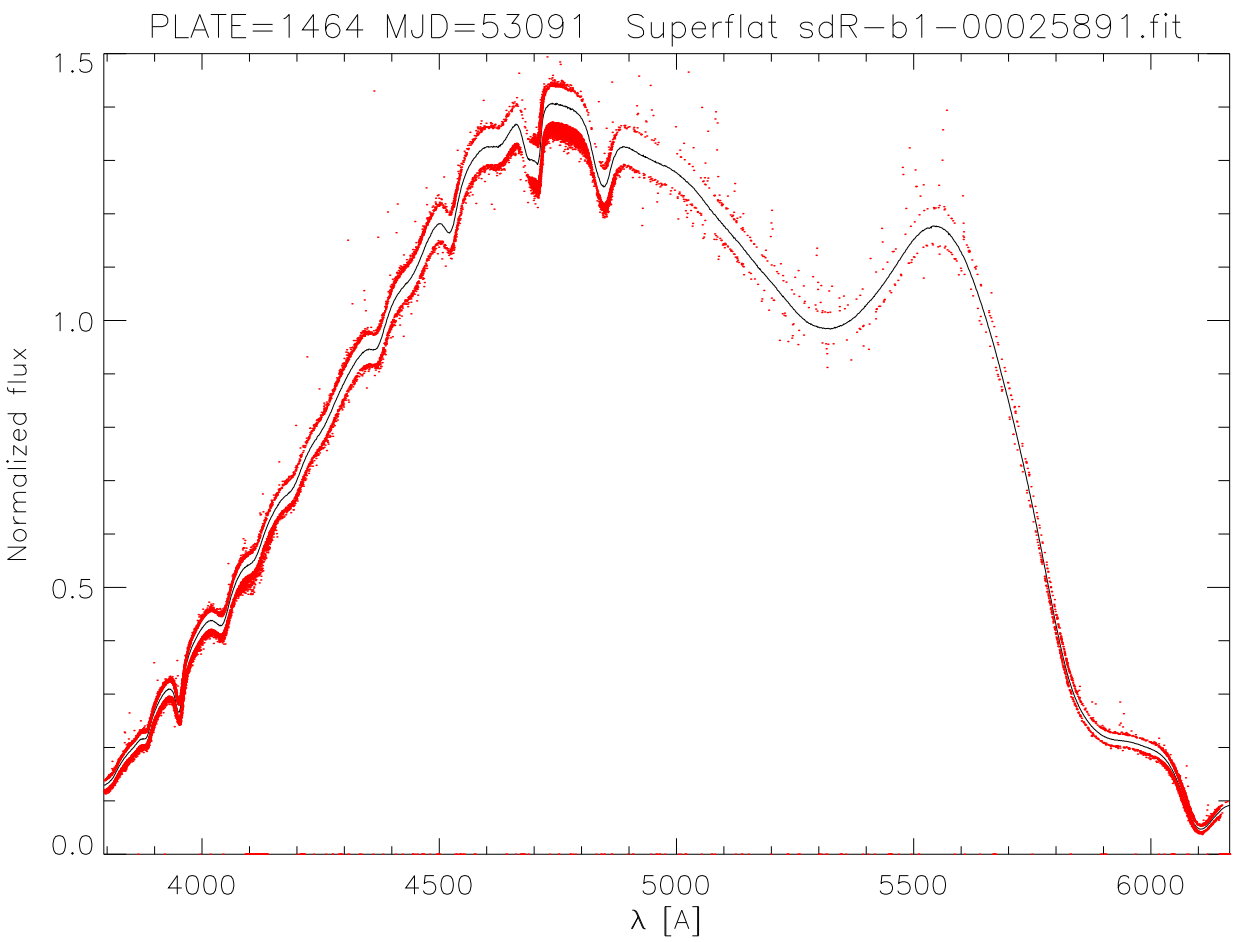

offset coeff residuals from ord=3 poly
1×10⁻⁴
5×10⁻⁵
0
−5×10⁻⁵
−1×10⁻⁴
0
50
100
150
200
250
300
fiber

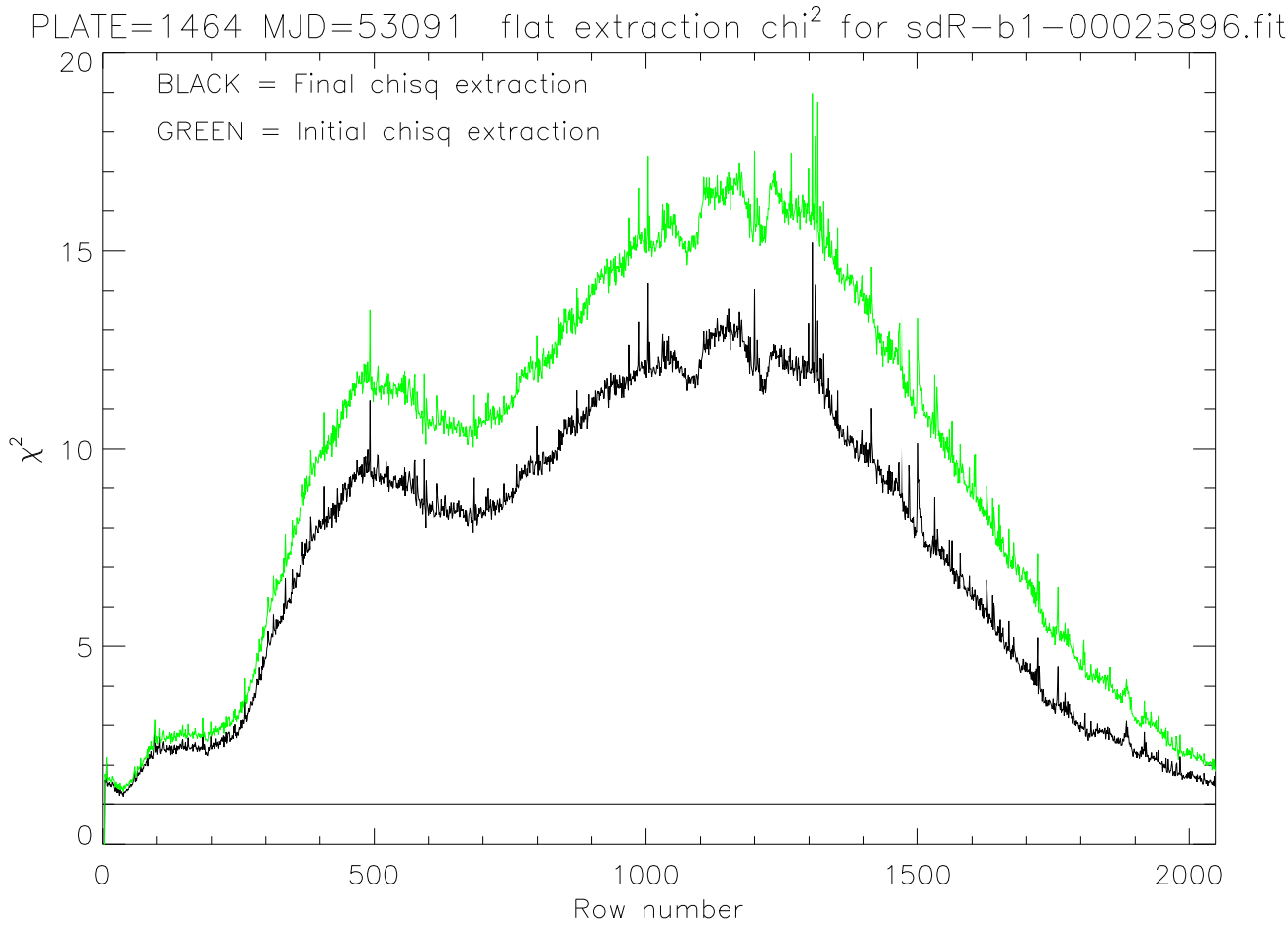

scale coeff residuals from ord=3 poly
4×10⁻⁵
2×10⁻⁵
0
−2×10⁻⁵
−4×10⁻⁵
0
50
100
150
200
250
300
fiber

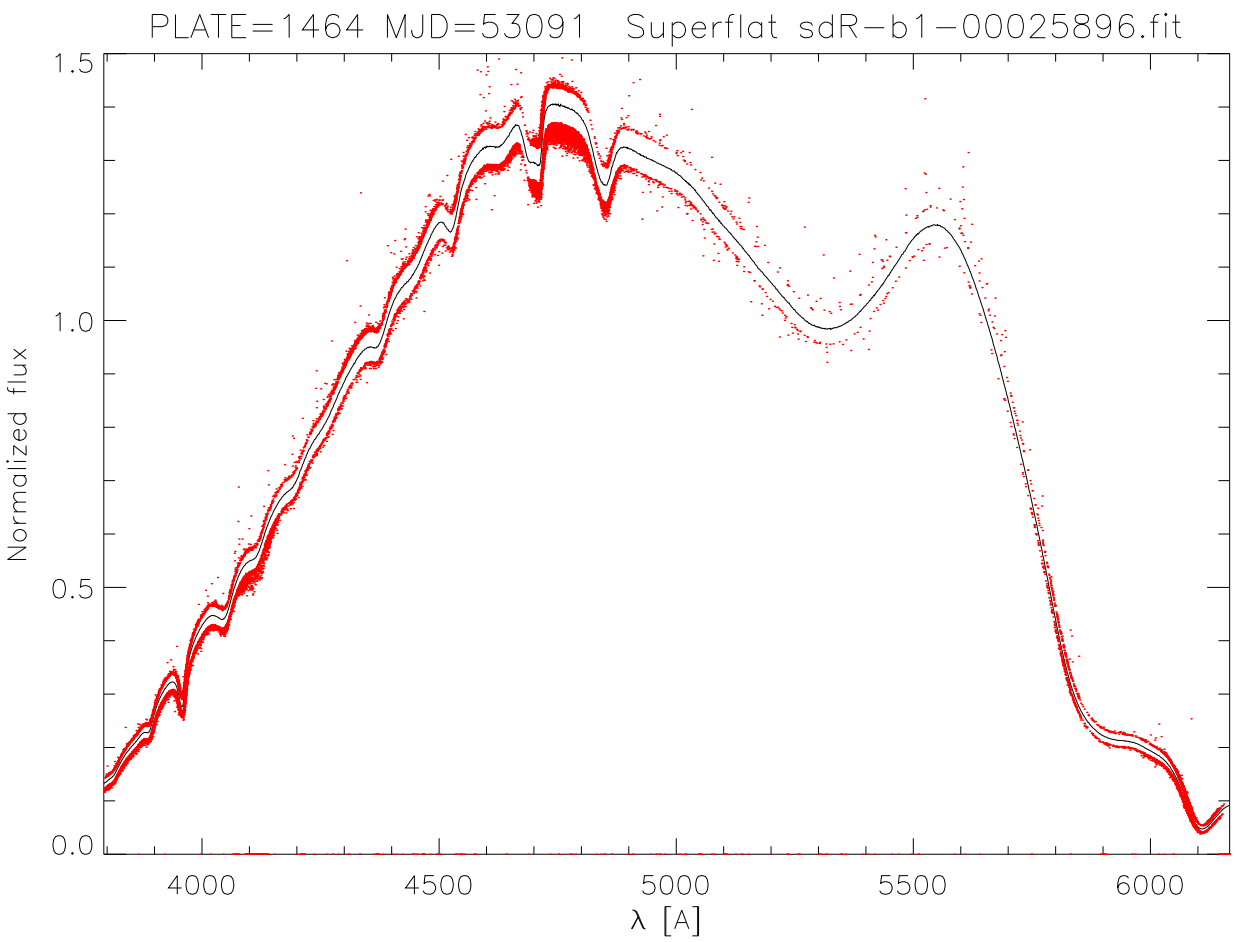

offset coeff residuals from ord=3 poly
1×10⁻⁴
5×10⁻⁵
0
−5×10⁻⁵
−1×10⁻⁴
0
50
100
150
200
250
300
fiber

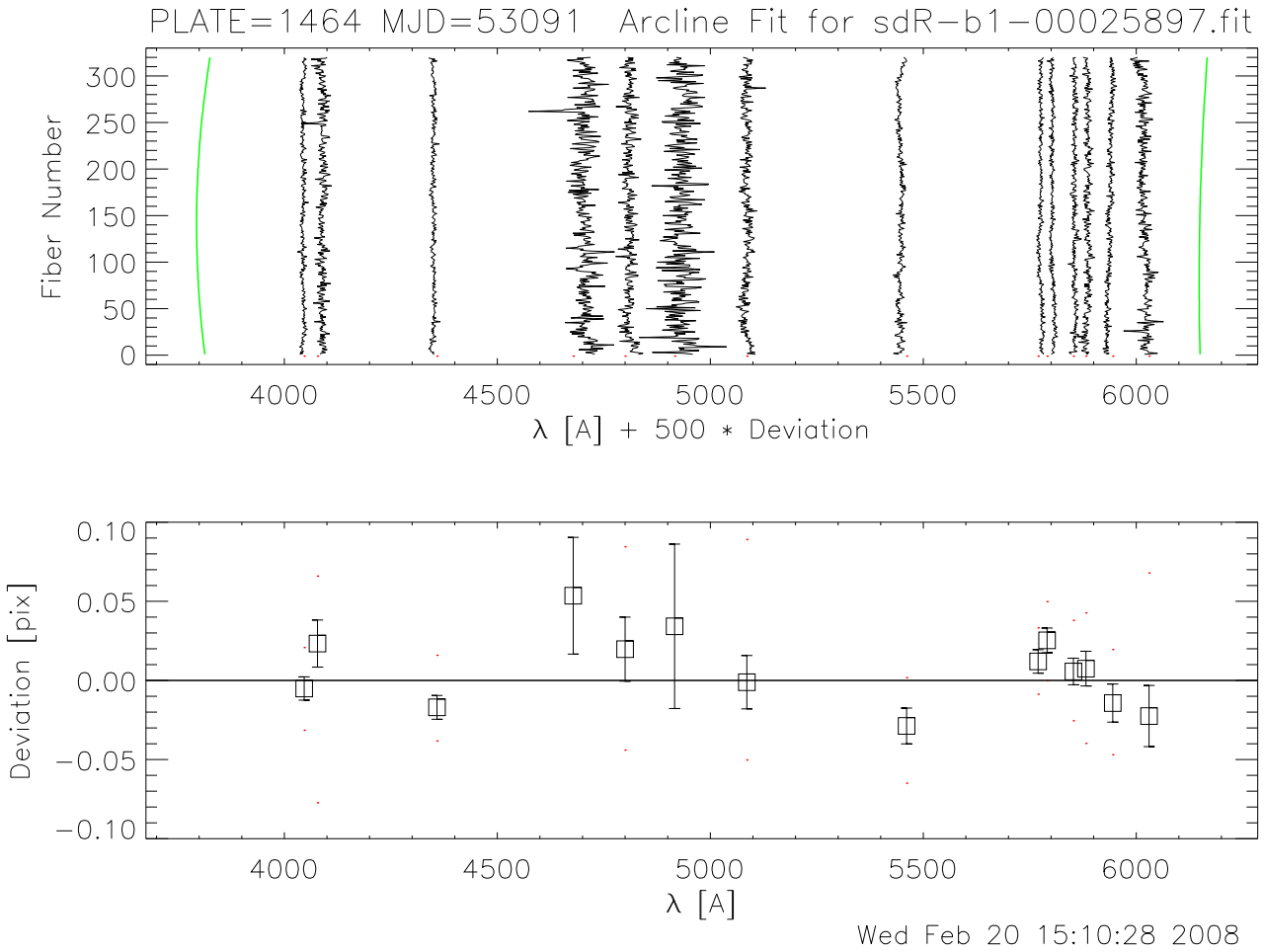

scale coeff residuals from ord=3 poly
3×10⁻⁵
2×10⁻⁵
1×10⁻⁵
0
−1×10⁻⁵
−2×10⁻⁵
−3×10⁻⁵
0
50
100
150
200
250
300
fiber

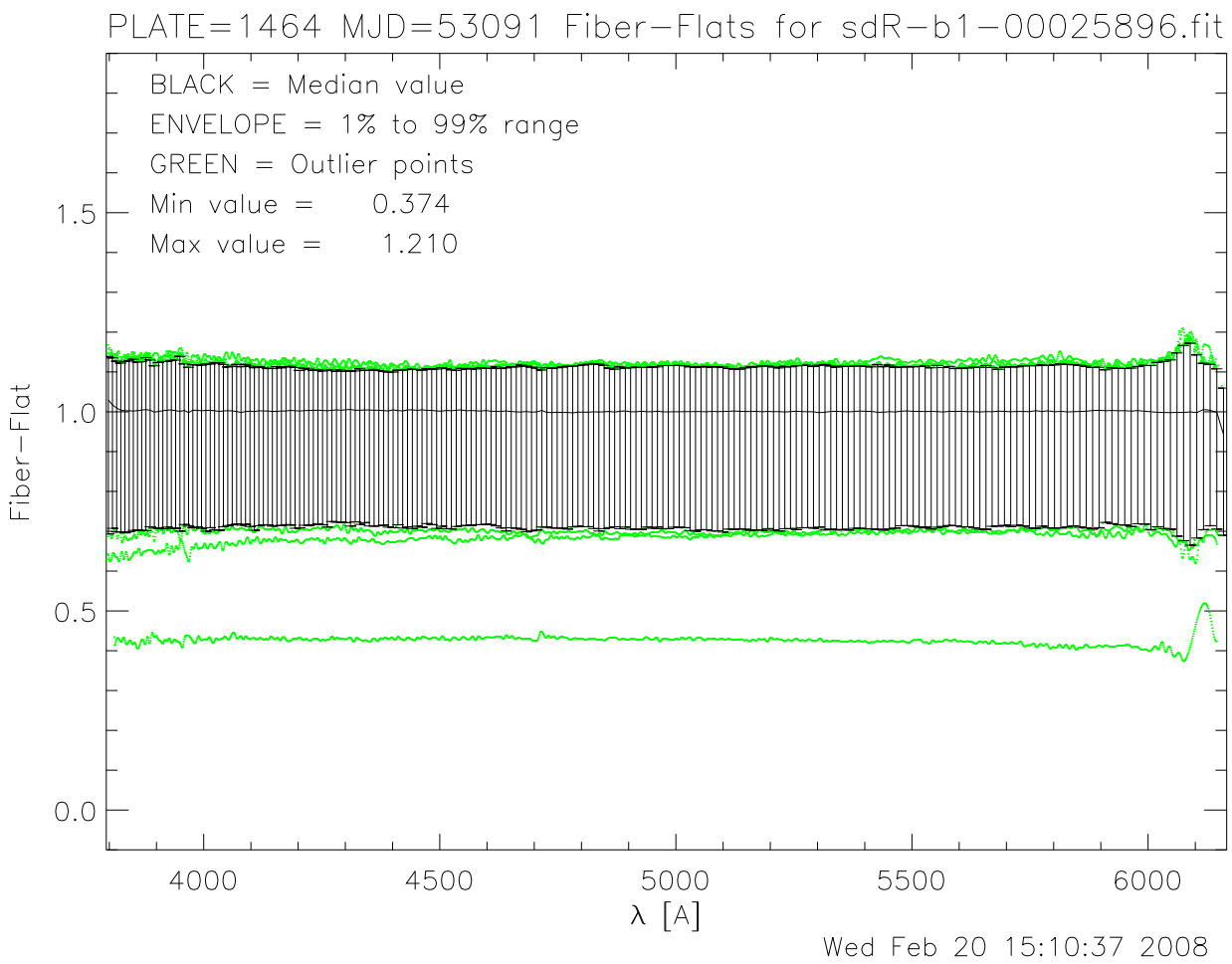

PLATE=1464 MJD=53091 flat extraction chi^2 for sdR-b1-00025891.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
0
5
10
15
0
500
1000
1500
2000
Row number

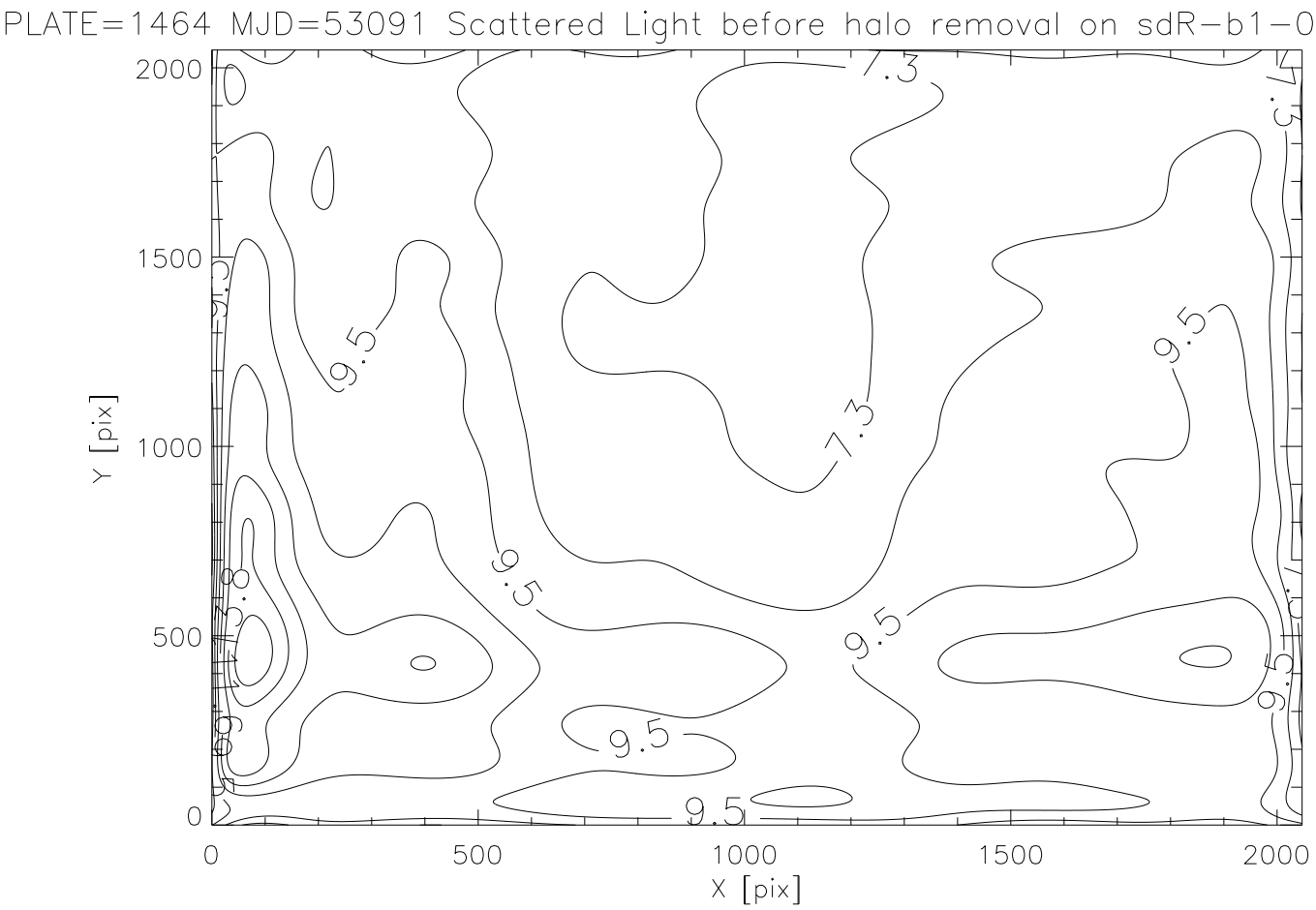

PLATE=1464 MJD=53091 Superflat sdR-b1-00025891.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

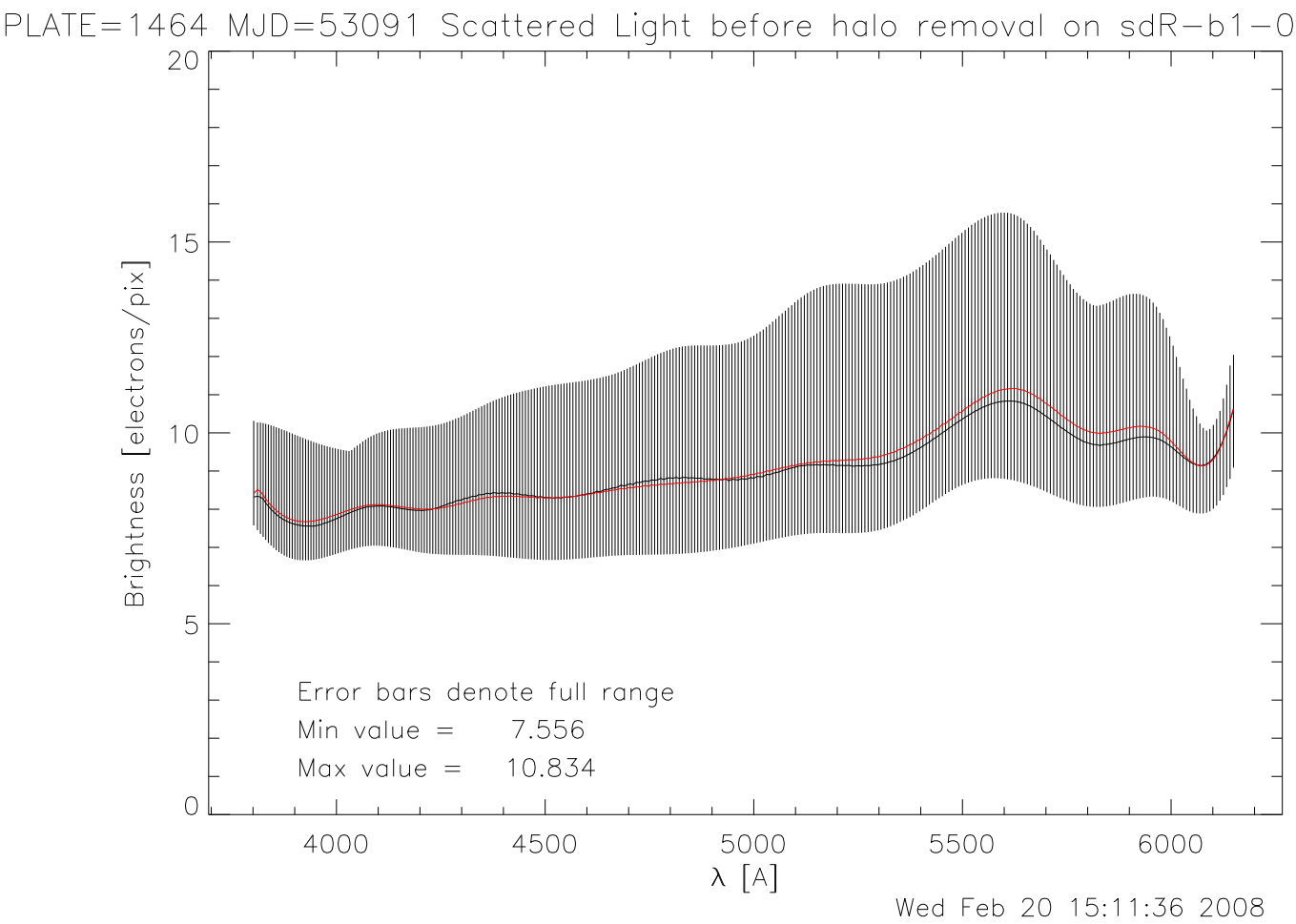

PLATE=1464 MJD=53091 flat extraction chi^2 for sdR-b1-00025896.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
5
10
15
20
0
500
1000
1500
2000

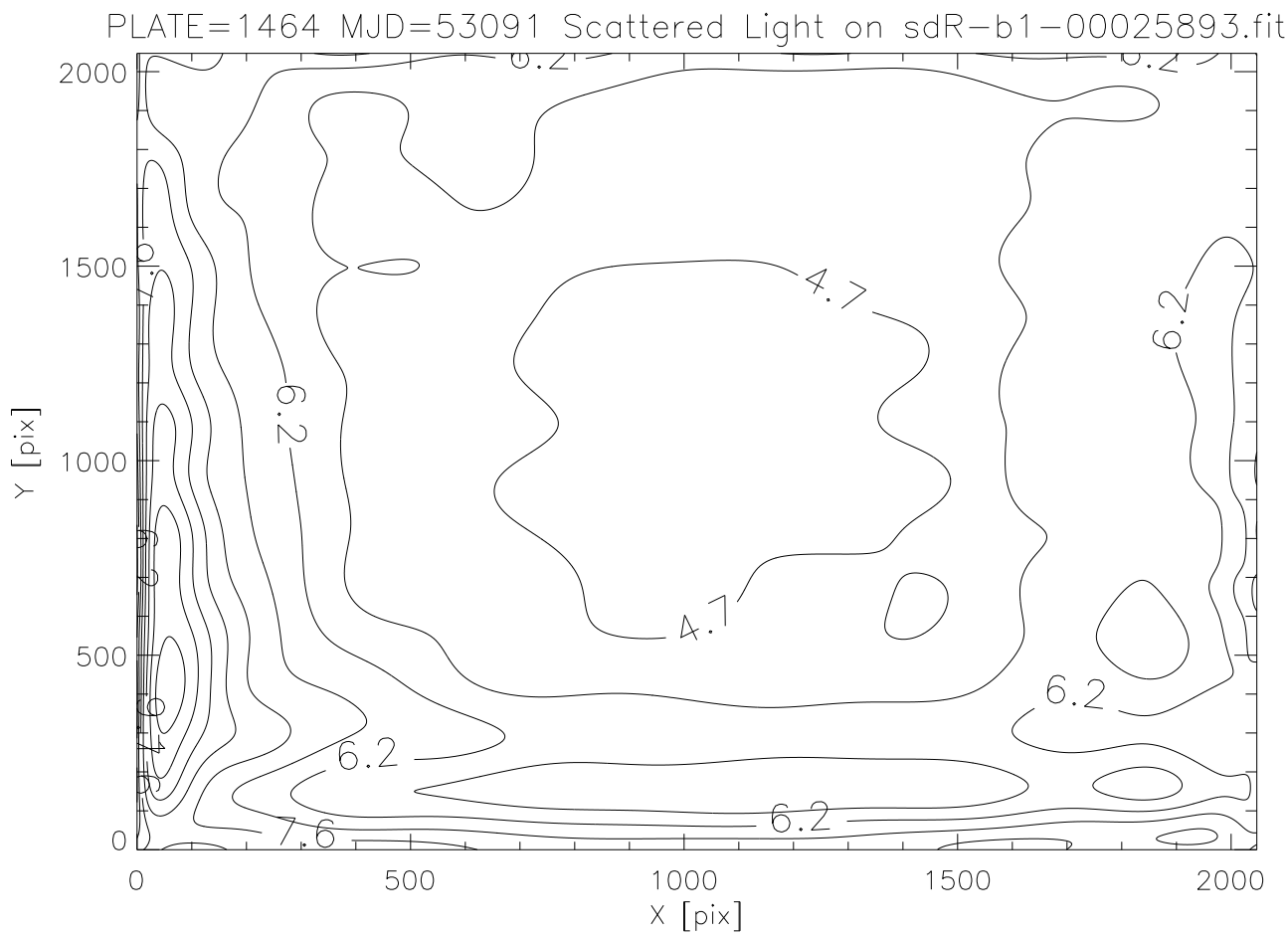

PLATE=1464 MJD=53091 Superflat sdR-b1-00025896.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

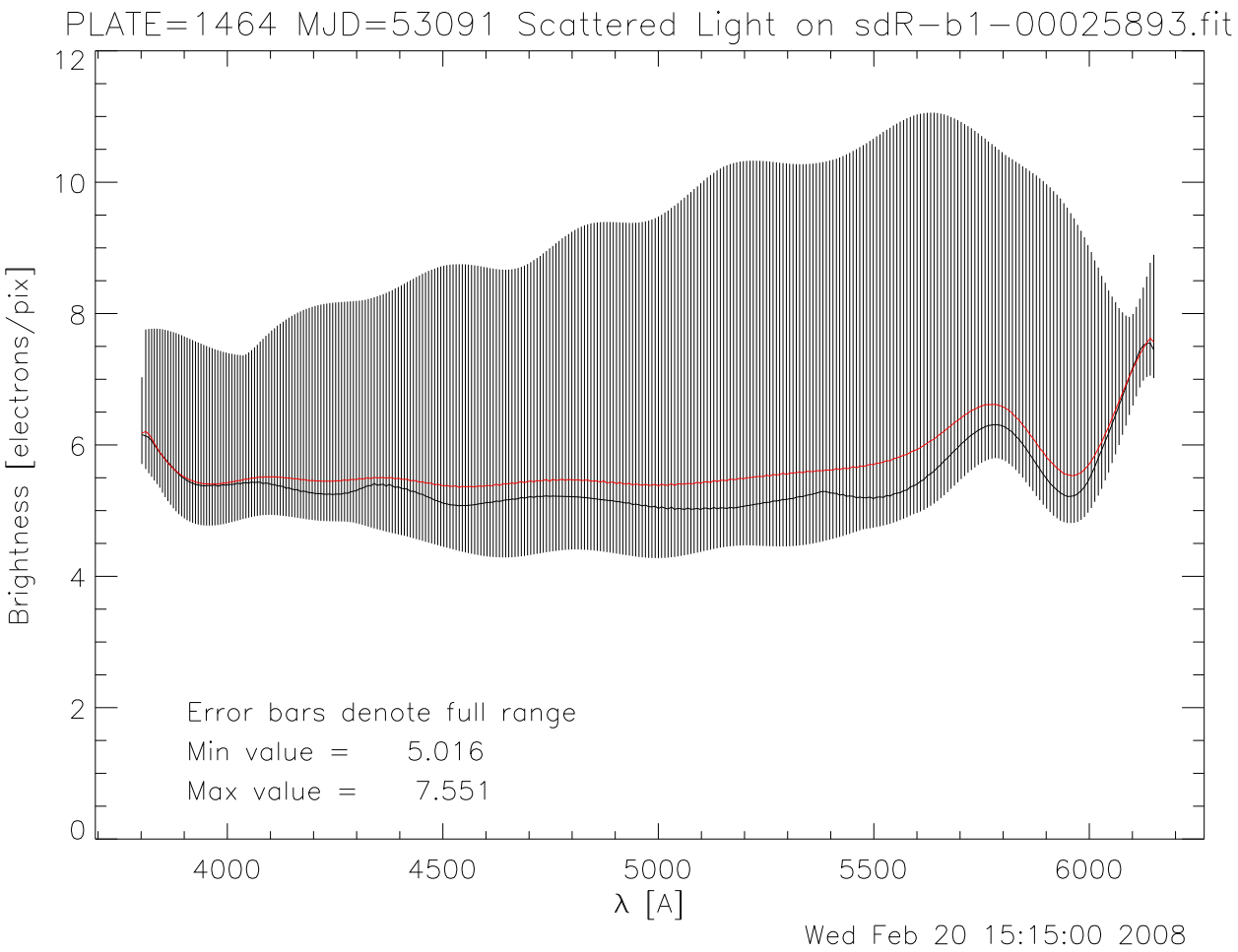

PLATE=1464 MJD=53091 Arcline Fit for sdR-b1-00025897.fit
Fiber Number
300
250
200
150
100
50
0
4000
4500
5000
5500
6000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
4000
4500
5000
5500
6000
λ [A]
Wed Feb 20 15:10:28 2008

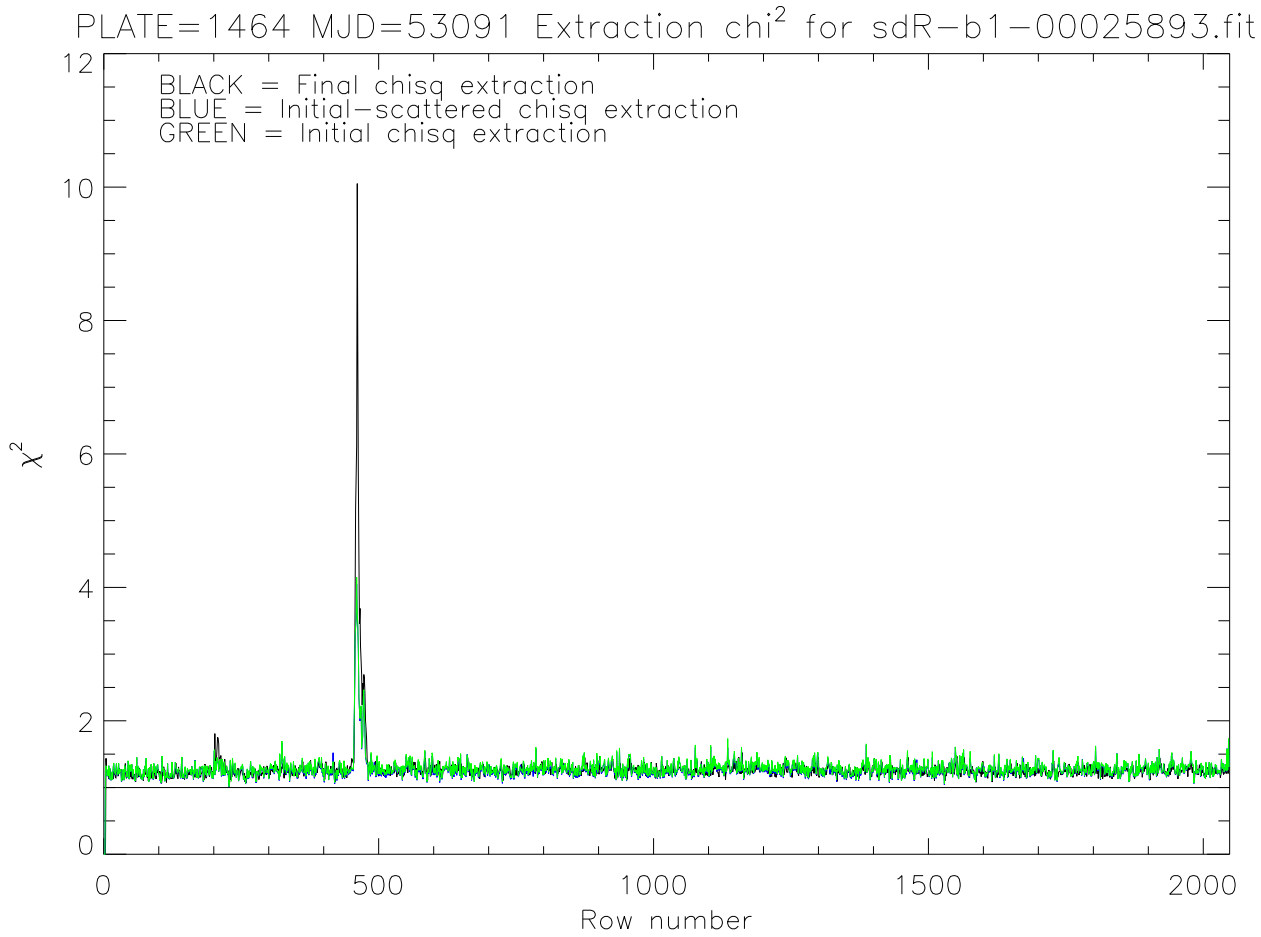

PLATE=1464 MJD=53091 Fiber-Flats for sdR-b1-00025896.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.374
Max value = 1.210
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Wed Feb 20 15:10:37 2008

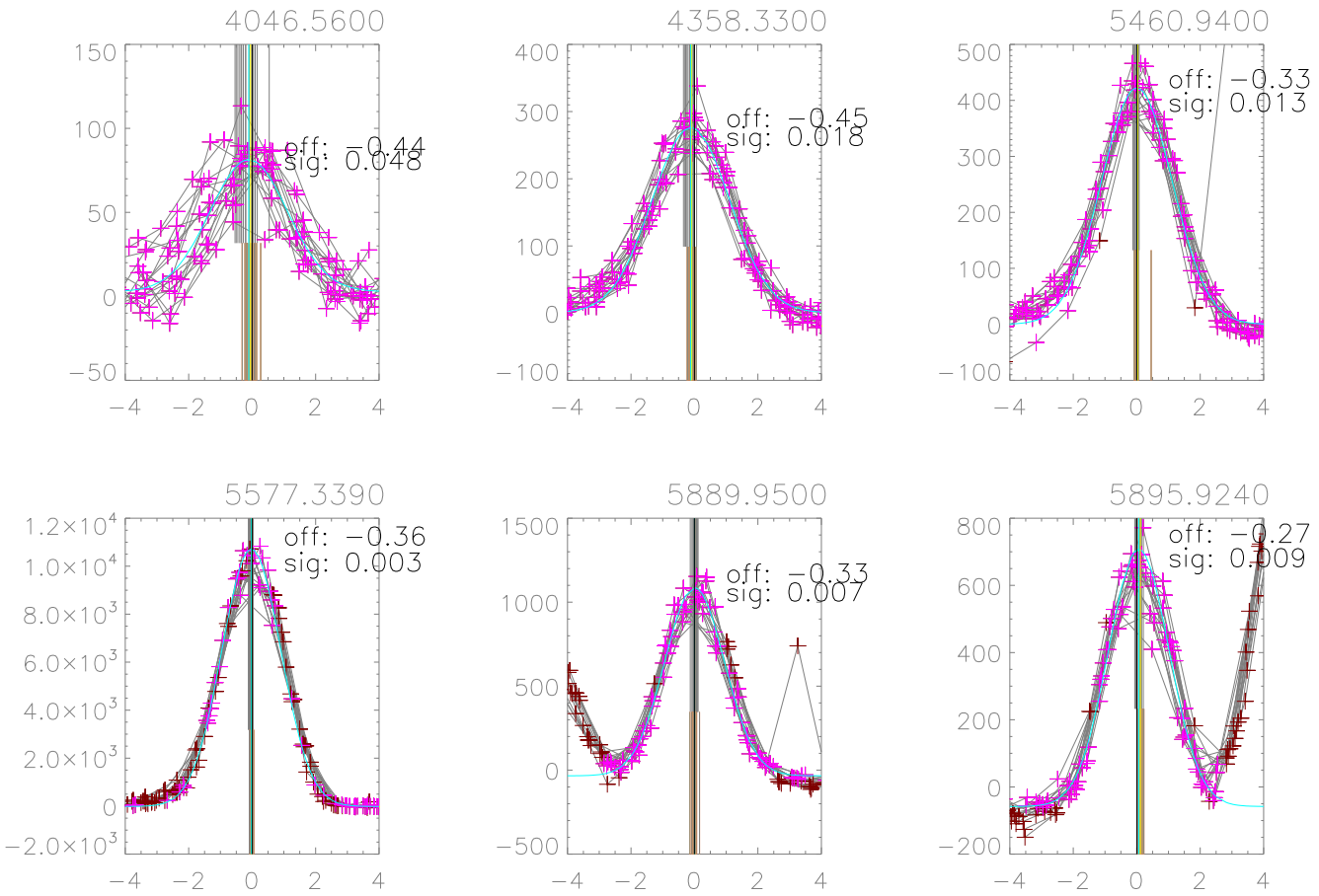

PLATE=1464 MJD=53091 Scattered Light before halo removal on sdR−b1−00025893.f
Y [pix]
X [pix]
0
500
1000
1500
2000
7.3
9.5

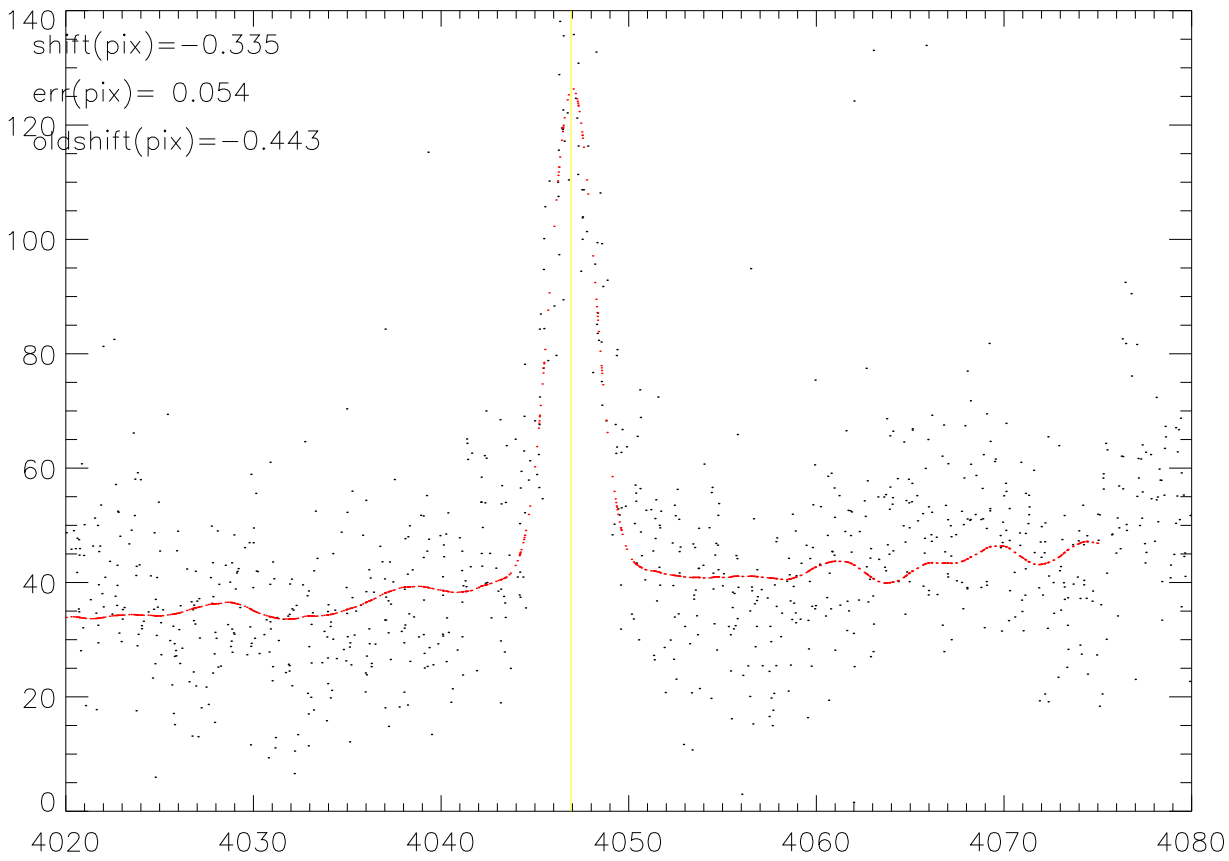

PLATE=1464 MJD=53091 Scattered Light before halo removal on sdR-b1-00025893.f
Brightness [electrons/pix]
20
15
10
5
0
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 7.556
Max value = 10.834
Wed Feb 20 15:11:36 2008

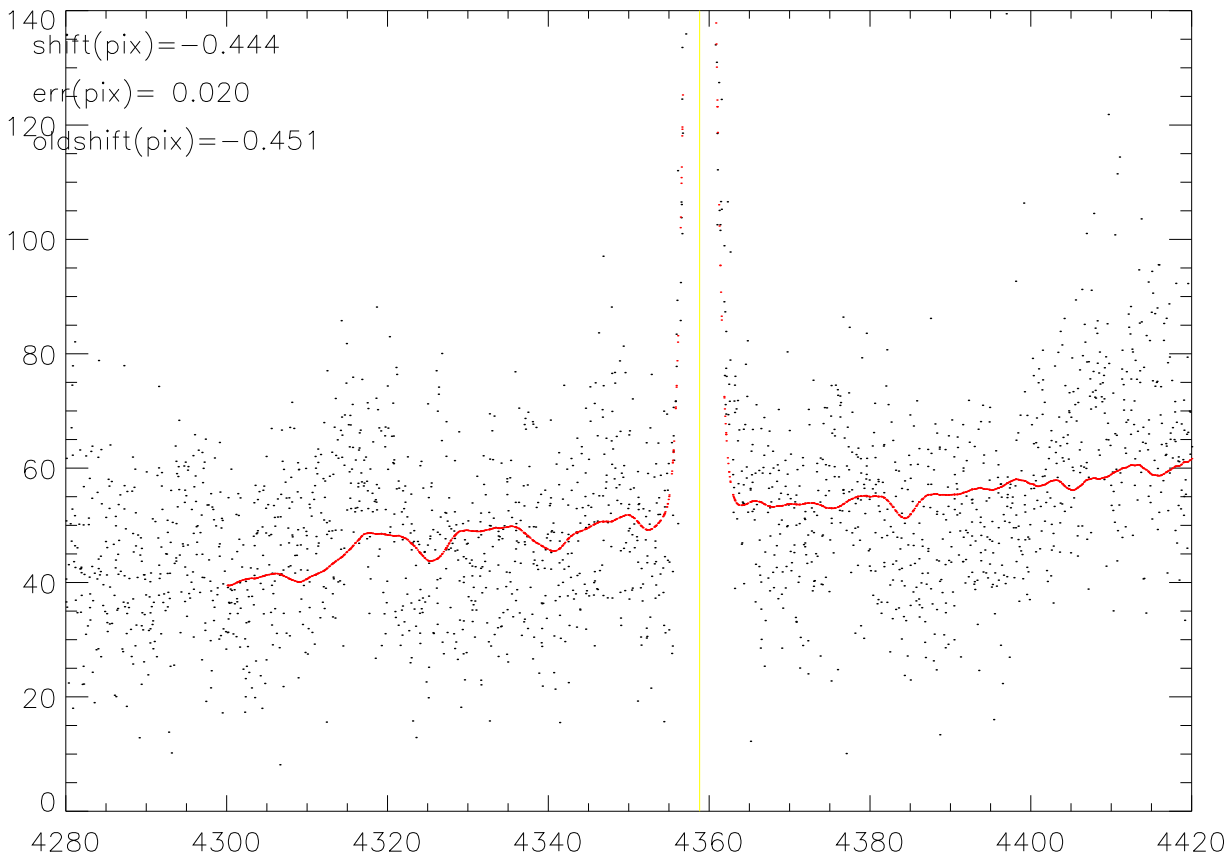

PLATE=1464 MJD=53091 Scattered Light on sdR-b1-00025893.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
6.2
4.7
7.6

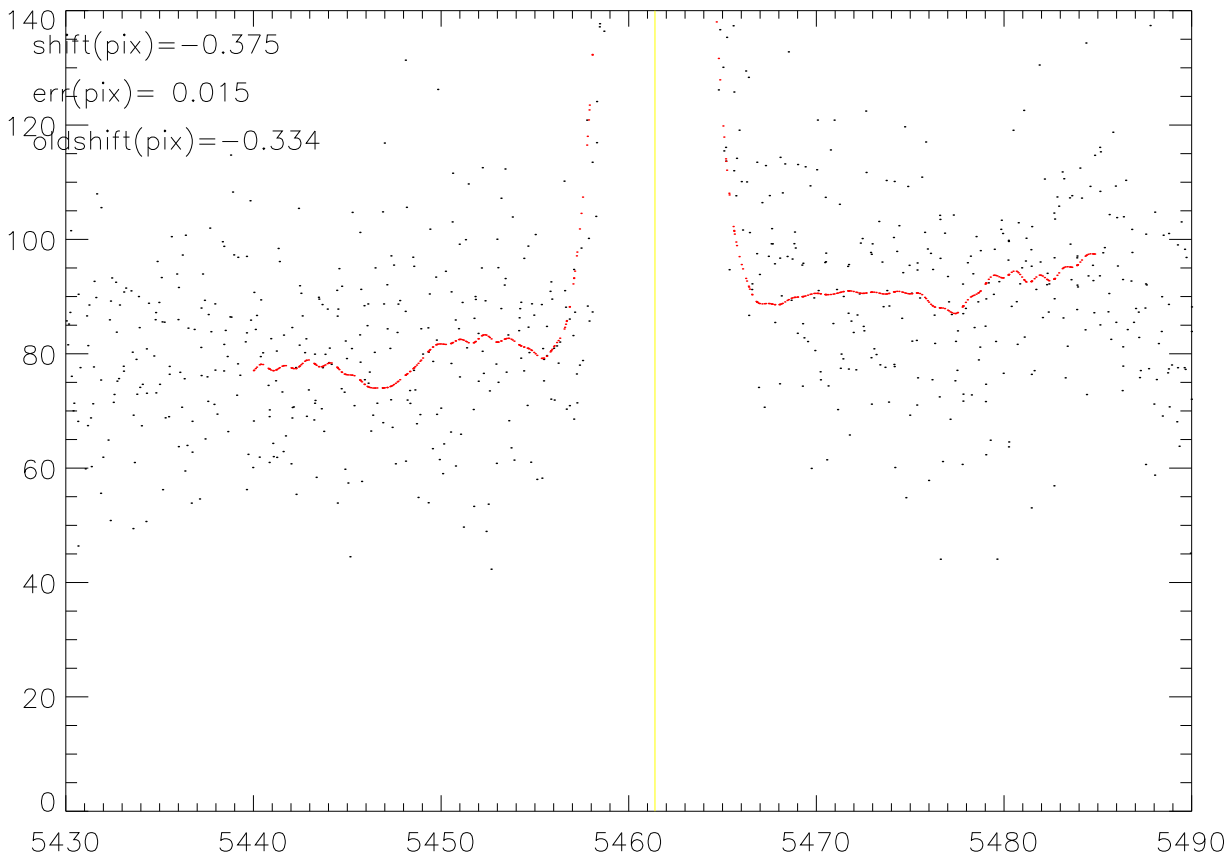

PLATE=1464 MJD=53091 Scattered Light on sdR-b1-00025893.fit
Brightness [electrons/pix]
12
10
8
6
4
2
0
Error bars denote full range
Min value = 5.016
Max value = 7.551
4000
4500
5000
5500
6000
λ [A]
Wed Feb 20 15:15:00 2008

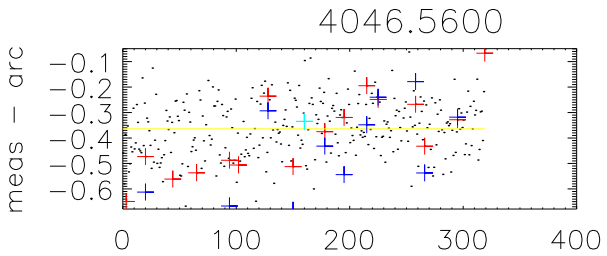

PLATE=1464 MJD=53091 Extraction chi^2 for sdR-b1-00025893.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
2
4
6
8
10
12
0
500
1000
1500
2000

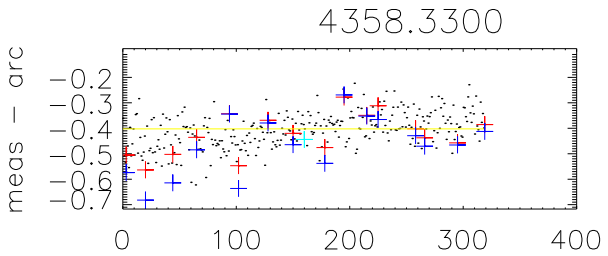

4046.5600
off: −0.44
sig: 0.048
4358.3300
off: −0.45
sig: 0.018
5460.9400
off: −0.33
sig: 0.013
5577.3390
off: −0.36
sig: 0.003
5889.9500
off: −0.33
sig: 0.007
5895.9240
off: −0.27
sig: 0.009

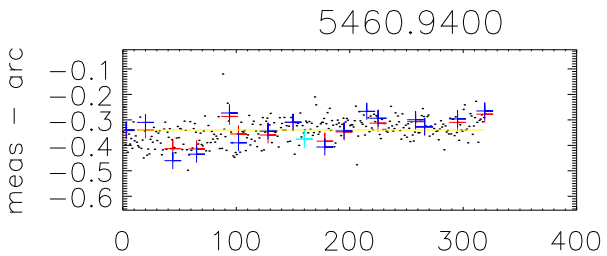

shift(pix)=−0.335
err(pix)= 0.054
oldshift(pix)=−0.443
140
120
100
80
60
40
20
0
4020
4030
4040
4050
4060
4070
4080

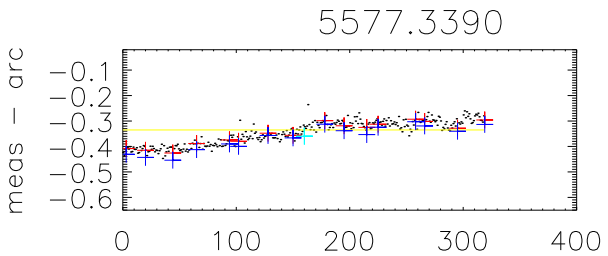

shift(pix)=−0.444
err(pix)= 0.020
oldshift(pix)=−0.451
140
120
100
80
60
40
20
0
4280
4300
4320
4340
4360
4380
4400
4420

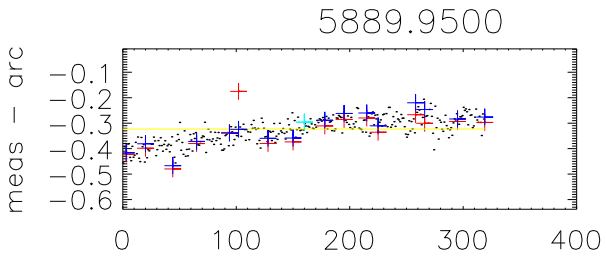

shift(pix)=−0.375
err(pix)= 0.015
oldshift(pix)=−0.334
140
120
100
80
60
40
20
0
5430
5440
5450
5460
5470
5480
5490

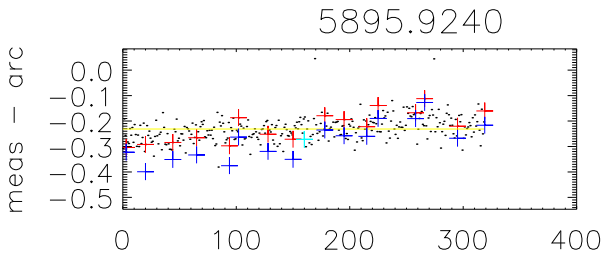

4046.5600
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

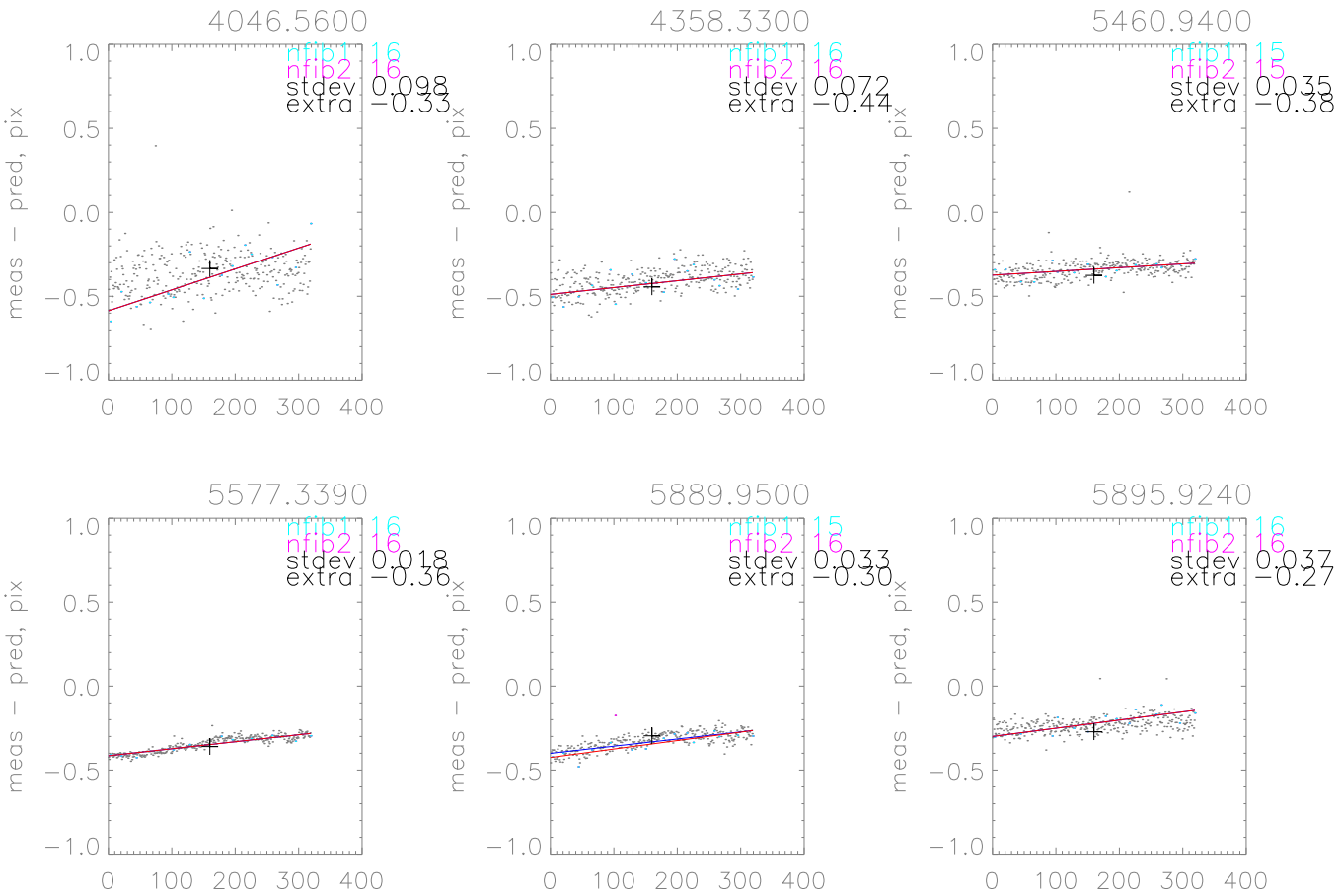

4358.3300
meas − arc
−0.2
−0.3
−0.4
−0.5
−0.6
−0.7
0
100
200
300
400

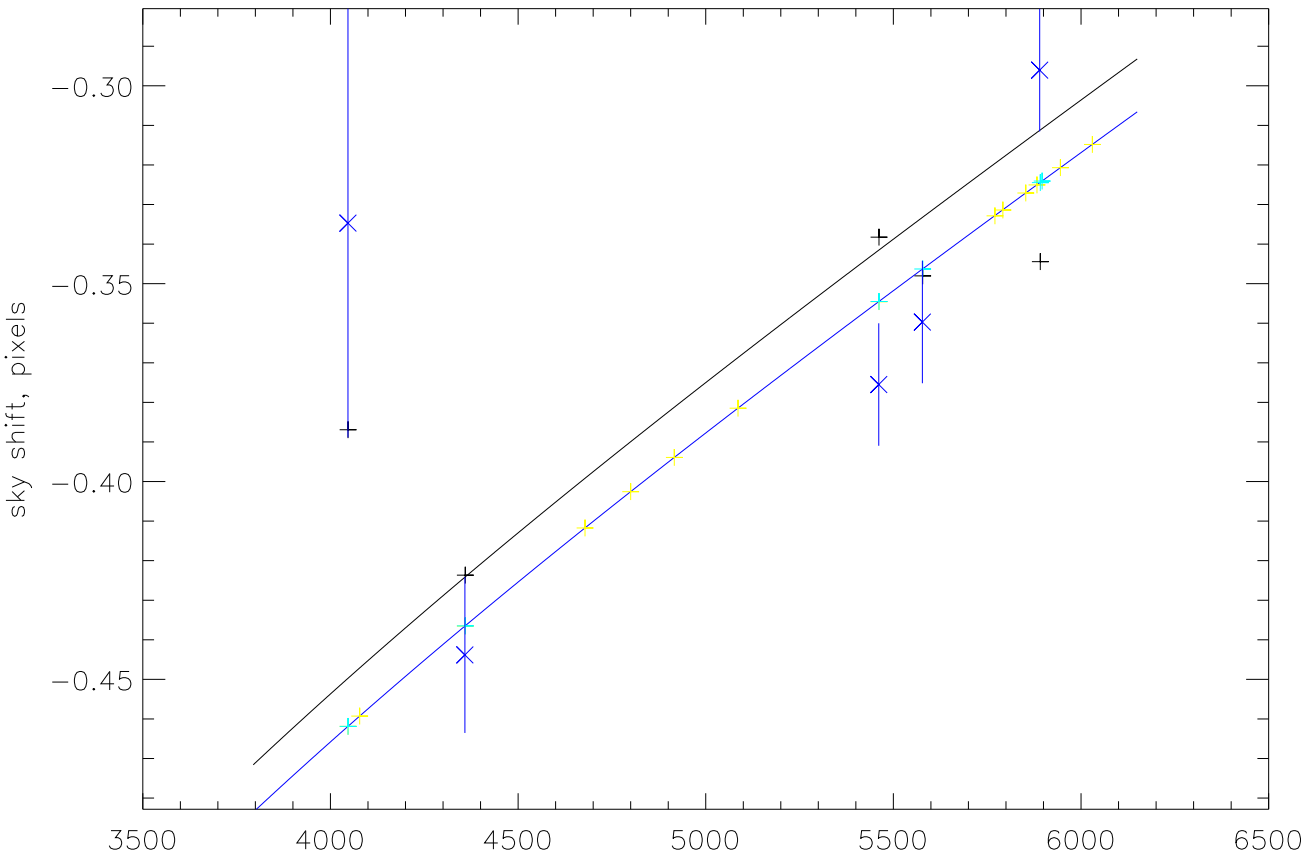

5460.9400
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

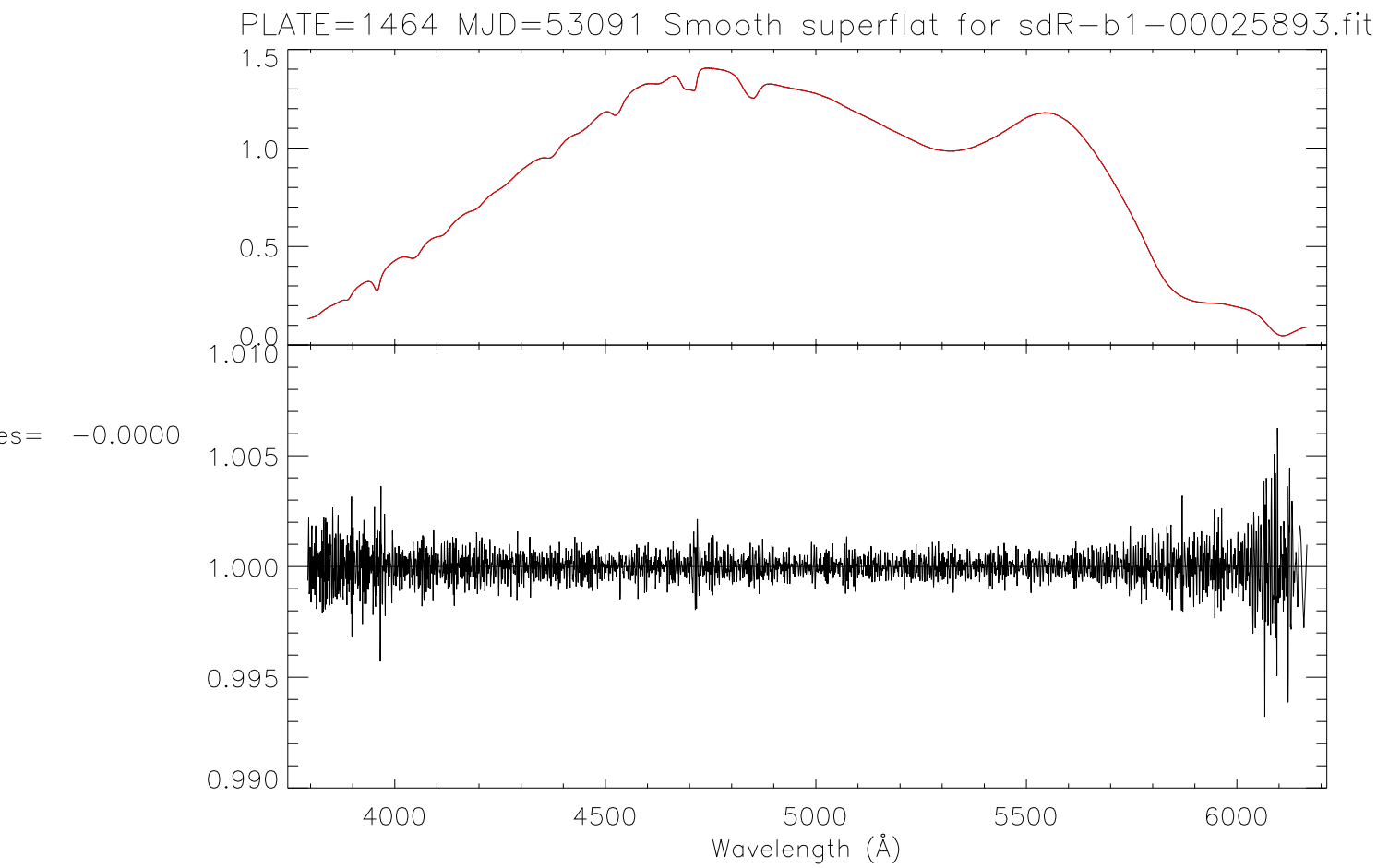

5577.3390
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

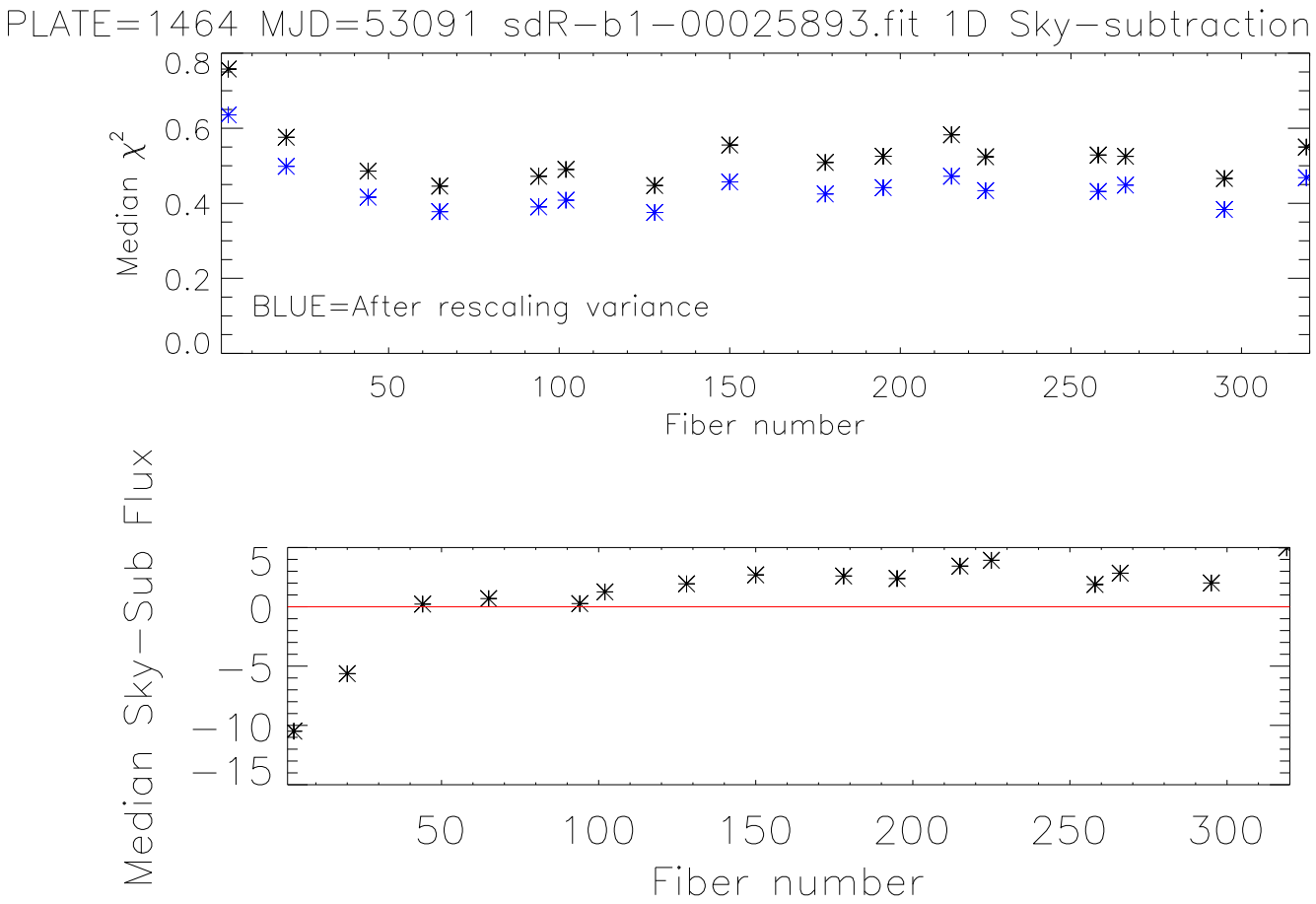

5889.9500
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

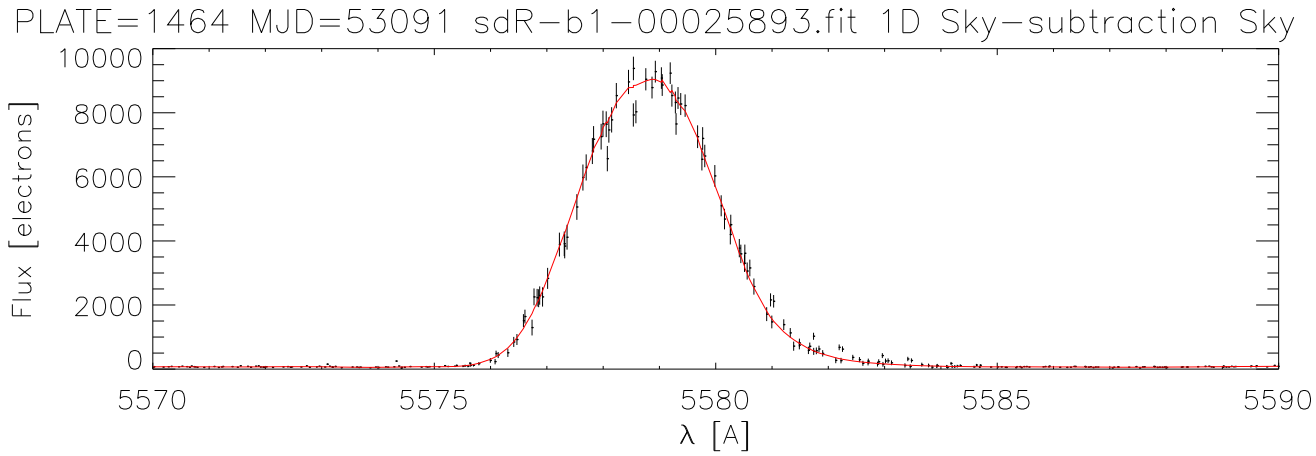

5895.9240
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

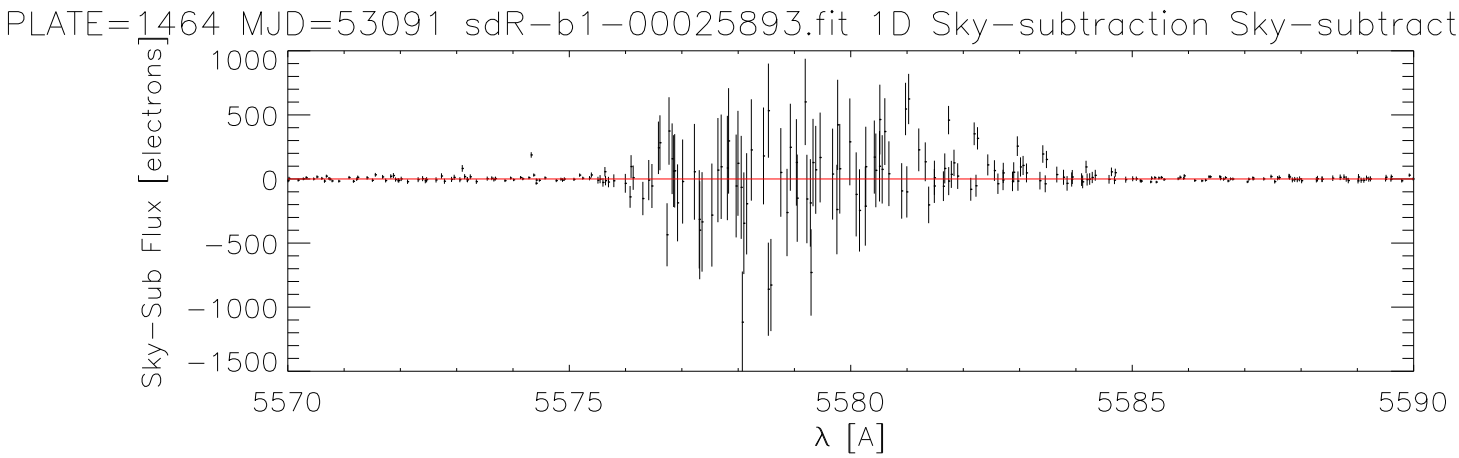

4046.5600
nfib1 16
nfib2 16
stdev 0.098
extra −0.33
4358.3300
nfib1 16
nfib2 16
stdev 0.072
extra −0.44
5460.9400
nfib1 15
nfib2 15
stdev 0.035
extra −0.38
5577.3390
nfib1 16
nfib2 16
stdev 0.018
extra −0.36
5889.9500
nfib1 15
nfib2 16
stdev 0.033
extra −0.30
5895.9240
nfib1 16
nfib2 16
stdev 0.037
extra −0.27
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

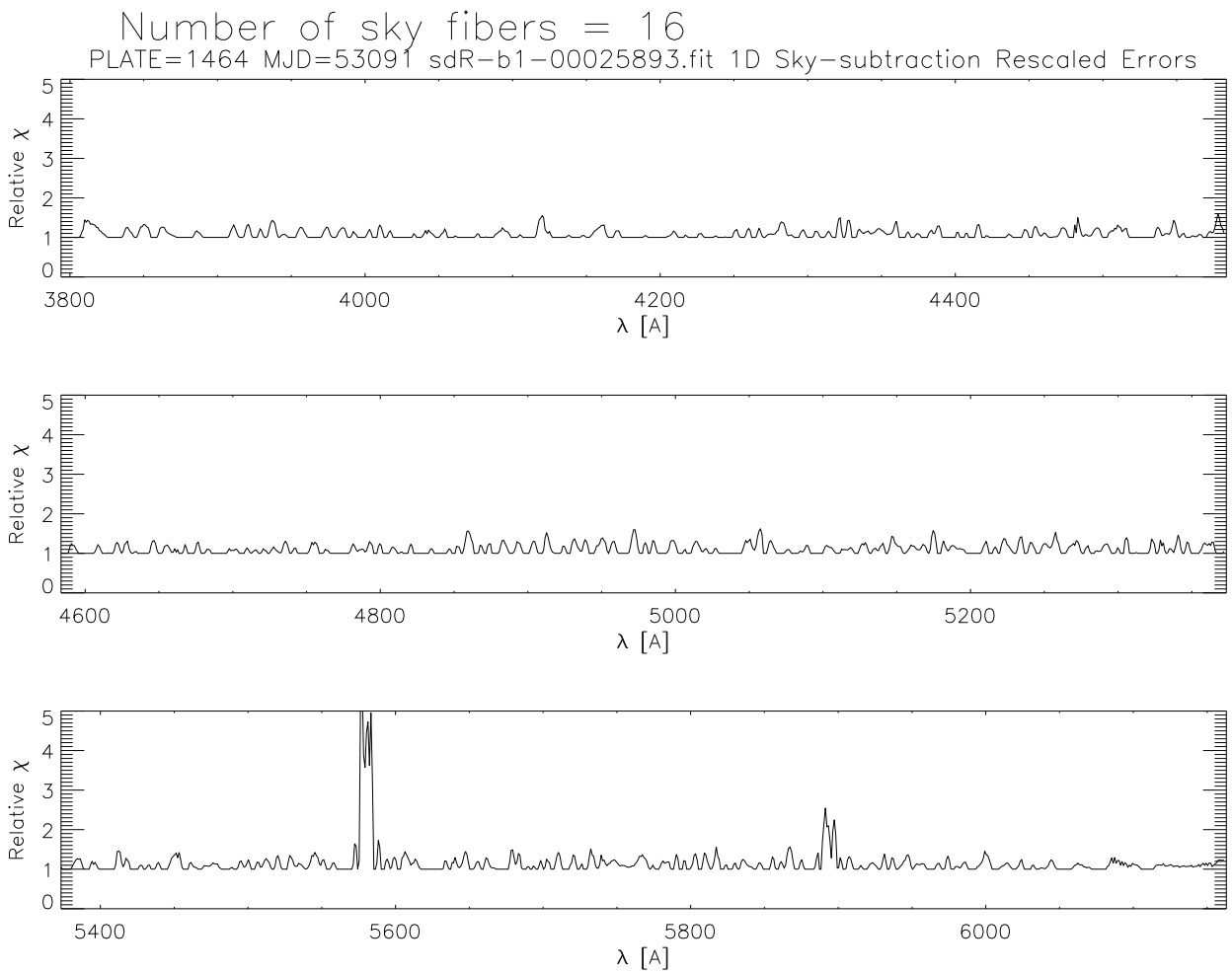

−0.30
−0.35
−0.40
−0.45
sky shift, pixels
3500
4000
4500
5000
5500
6000
6500

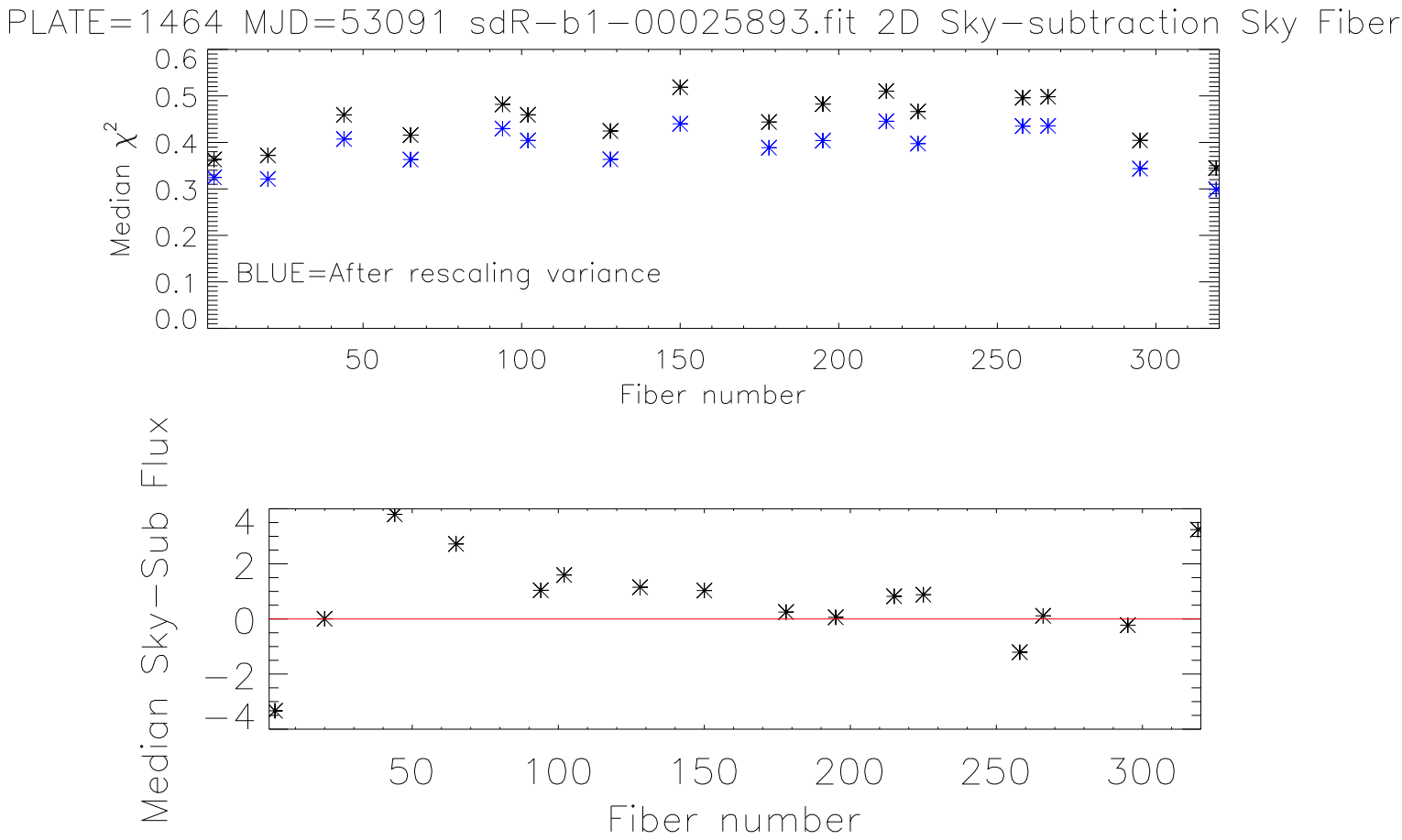

PLATE=1464 MJD=53091 Smooth superflat for sdR-b1-00025893.fit
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
es= -0.0000
4000
4500
5000
5500
6000
Wavelength (Å)

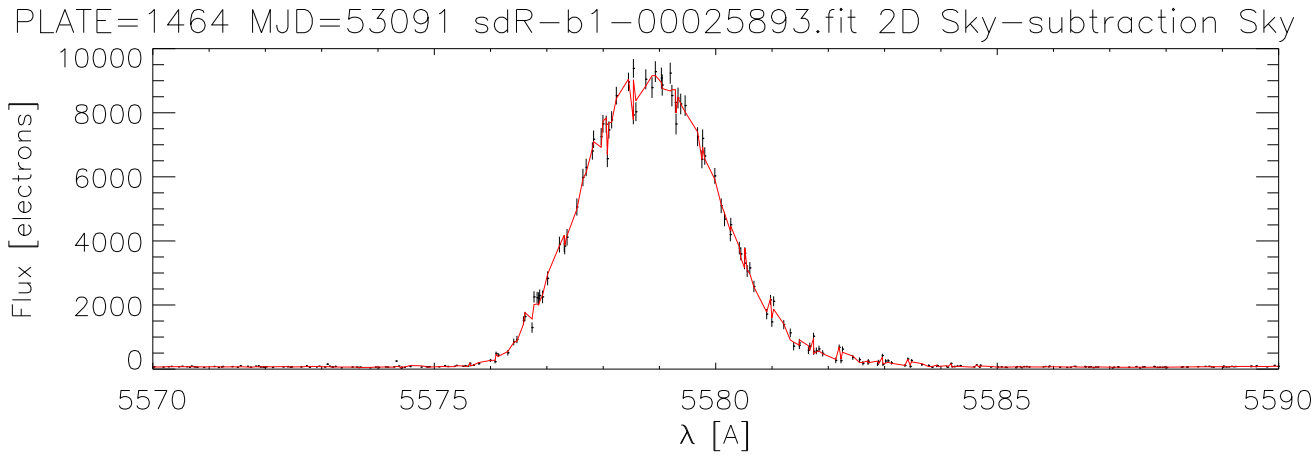

PLATE=1464 MJD=53091 sdR-b1-00025893.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
5
0
-5
-10
-15
50
100
150
200
250
300
Fiber number

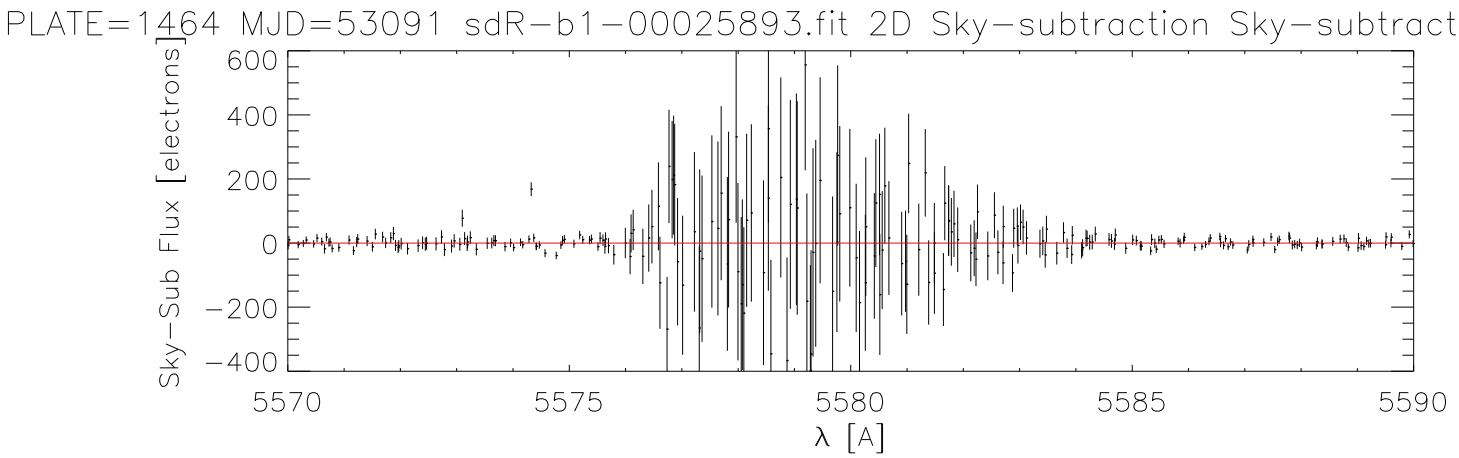

PLATE=1464 MJD=53091 sdR-b1-00025893.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
10000
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

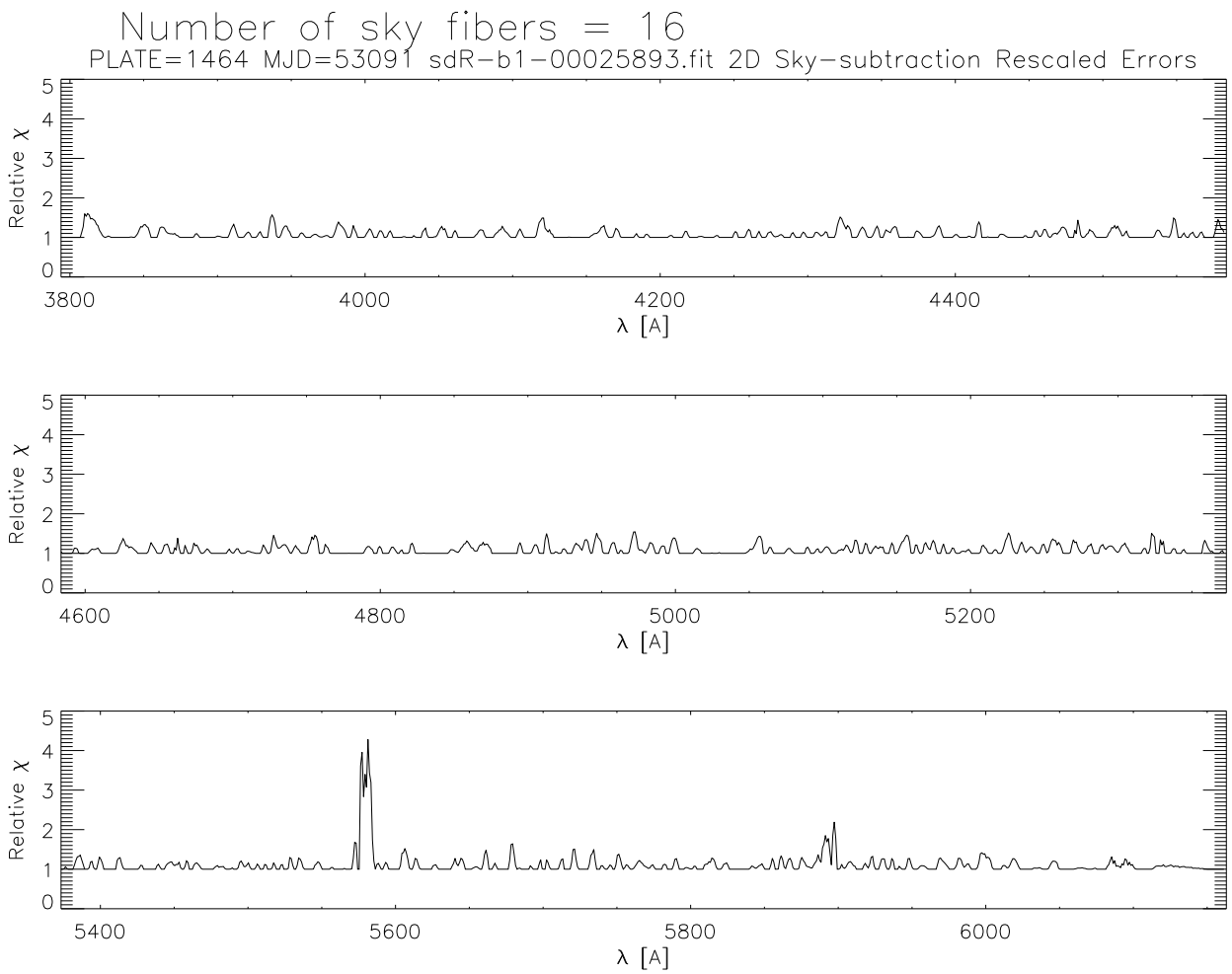

PLATE=1464 MJD=53091 sdR-b1-00025893.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
1000
500
0
-500
-1000
-1500
5570
5575
5580
5585
5590
λ [A]

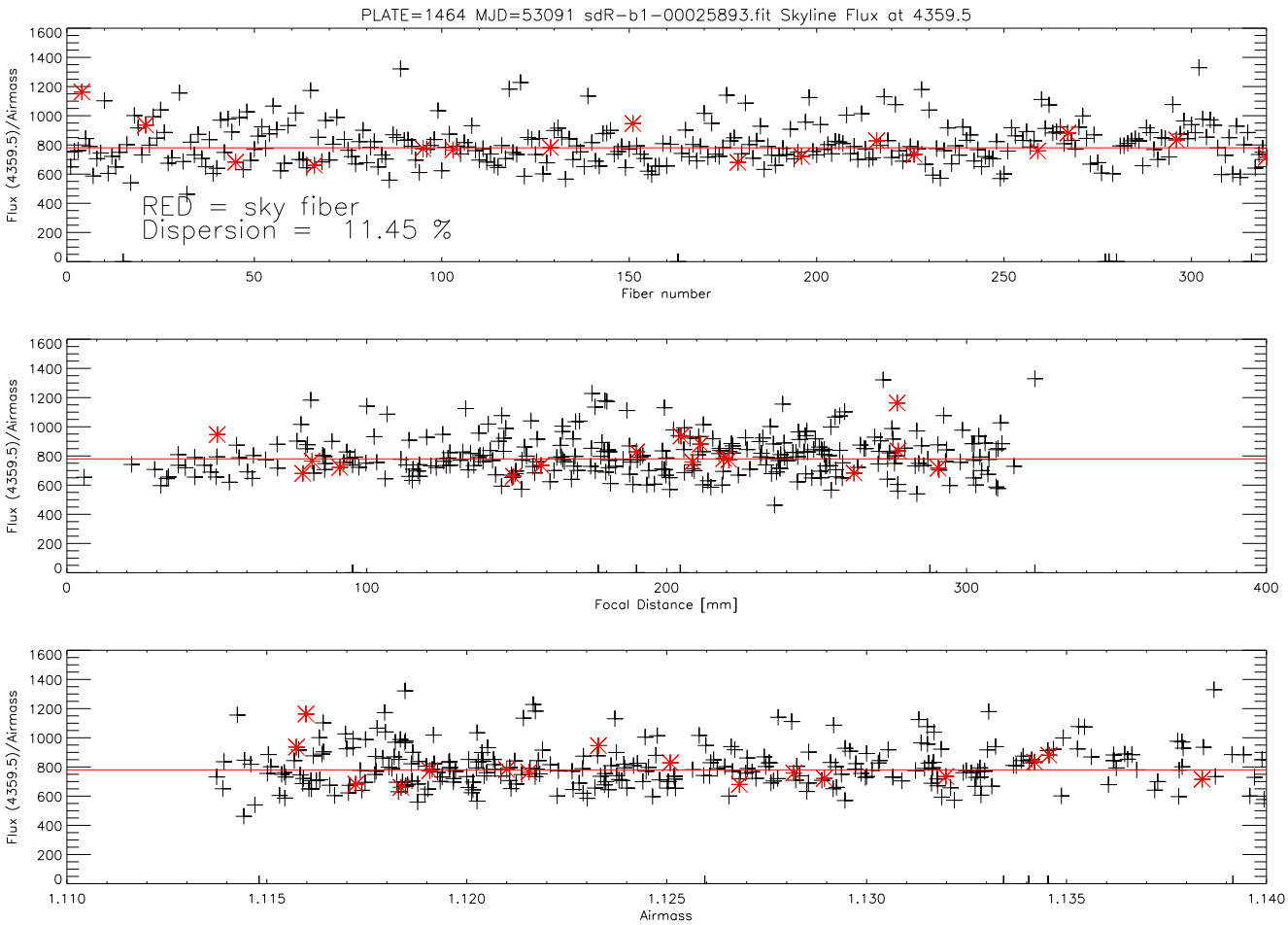

Number of sky fibers = 16
PLATE=1464 MJD=53091 sdR-b1-00025893.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

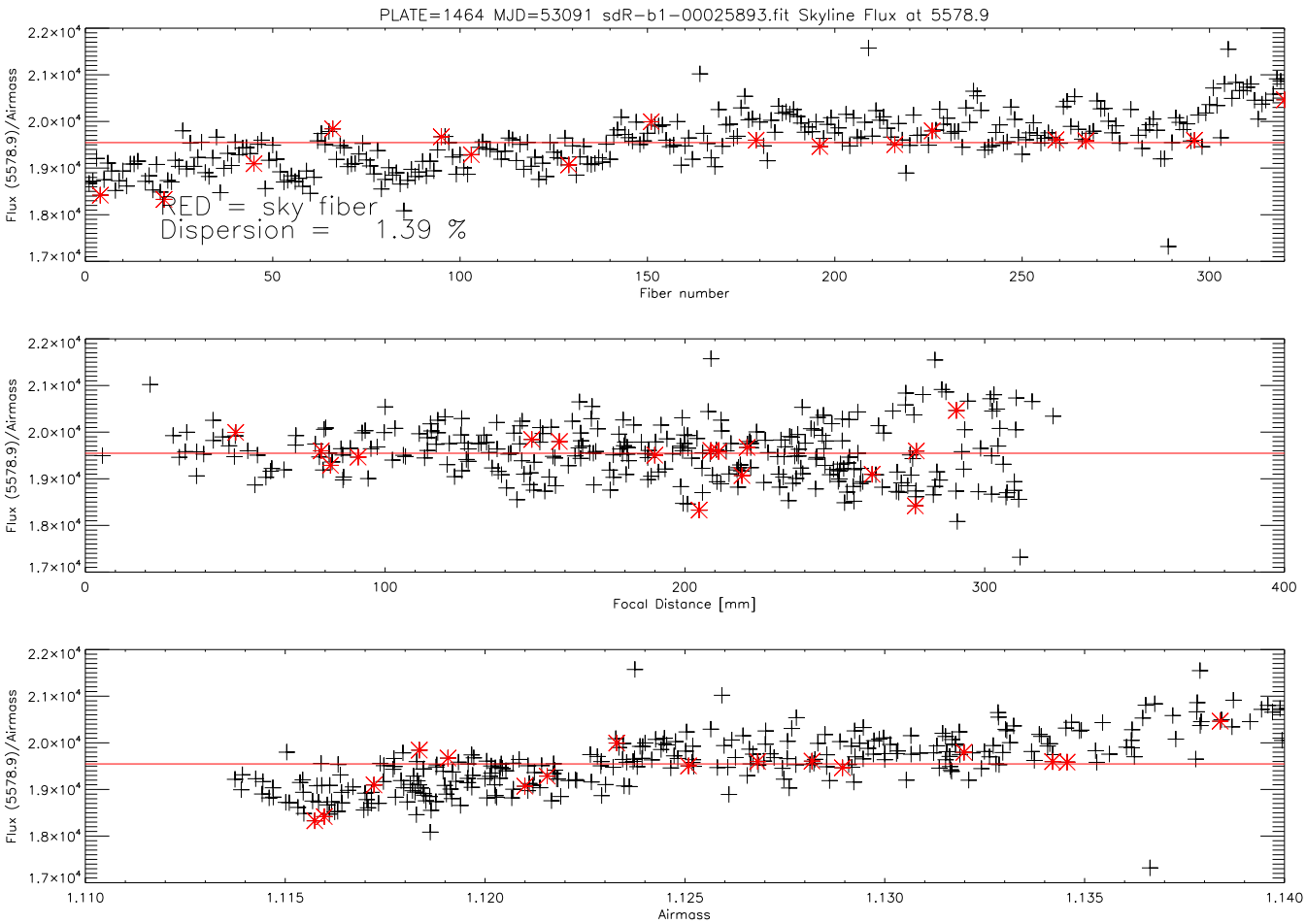

PLATE=1464 MJD=53091 sdR-b1-00025893.fit 2D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-4
-2
0
2
4
50
100
150
200
250
300
Fiber number

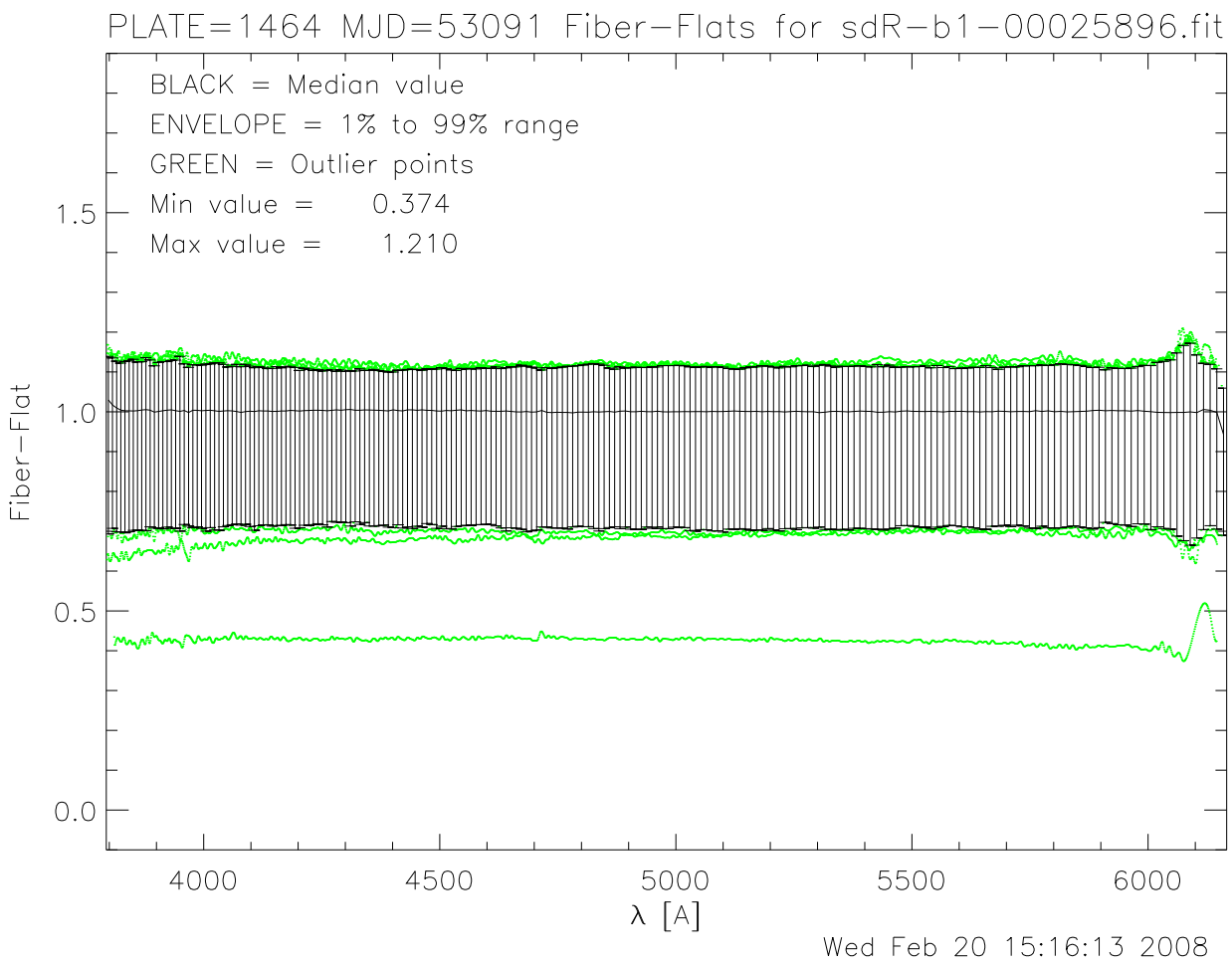

PLATE=1464 MJD=53091 sdR-b1-00025893.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
10000
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

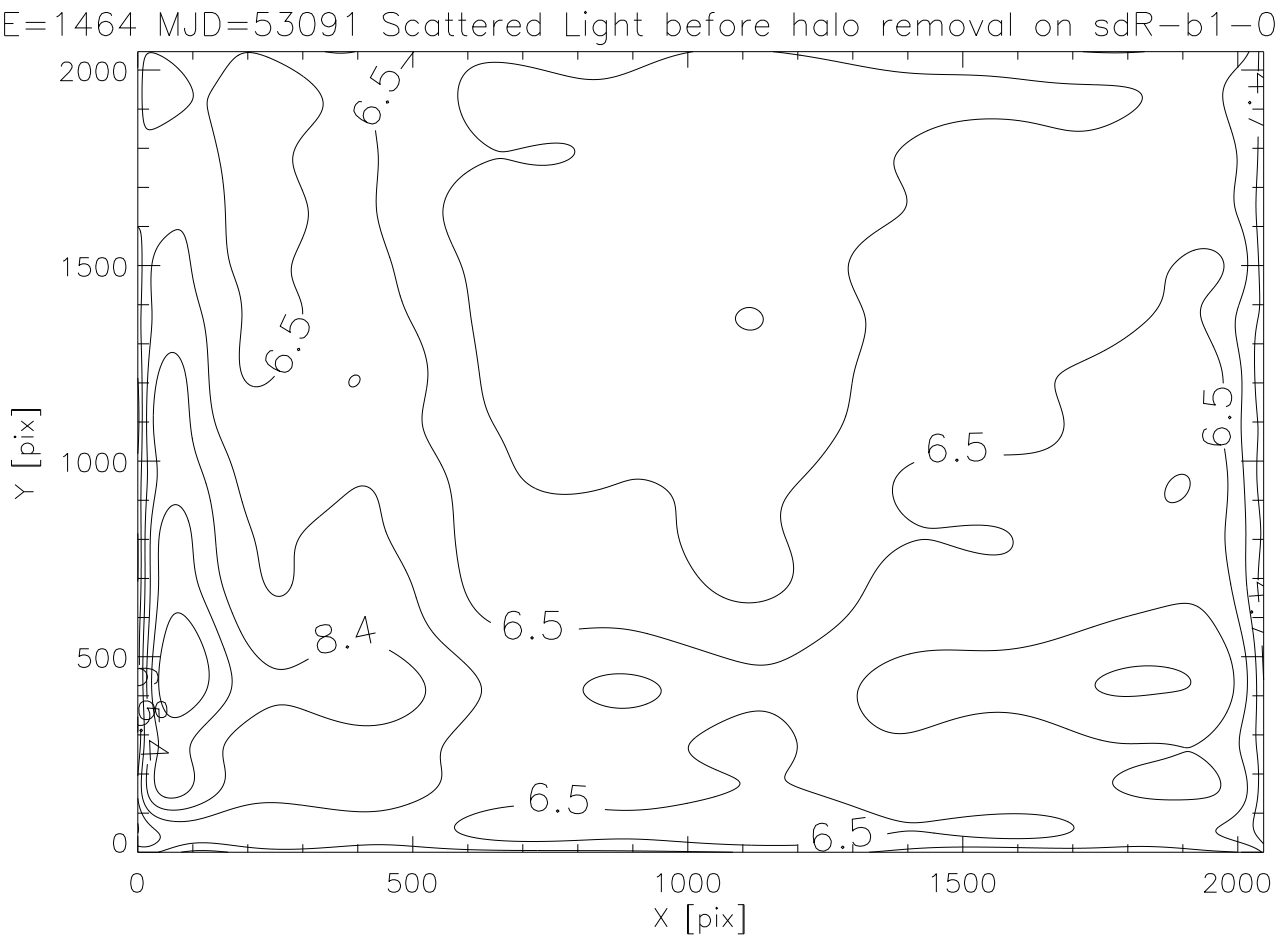

PLATE=1464 MJD=53091 sdR-b1-00025893.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
-200
-400
5570
5575
5580
5585
5590
λ [A]

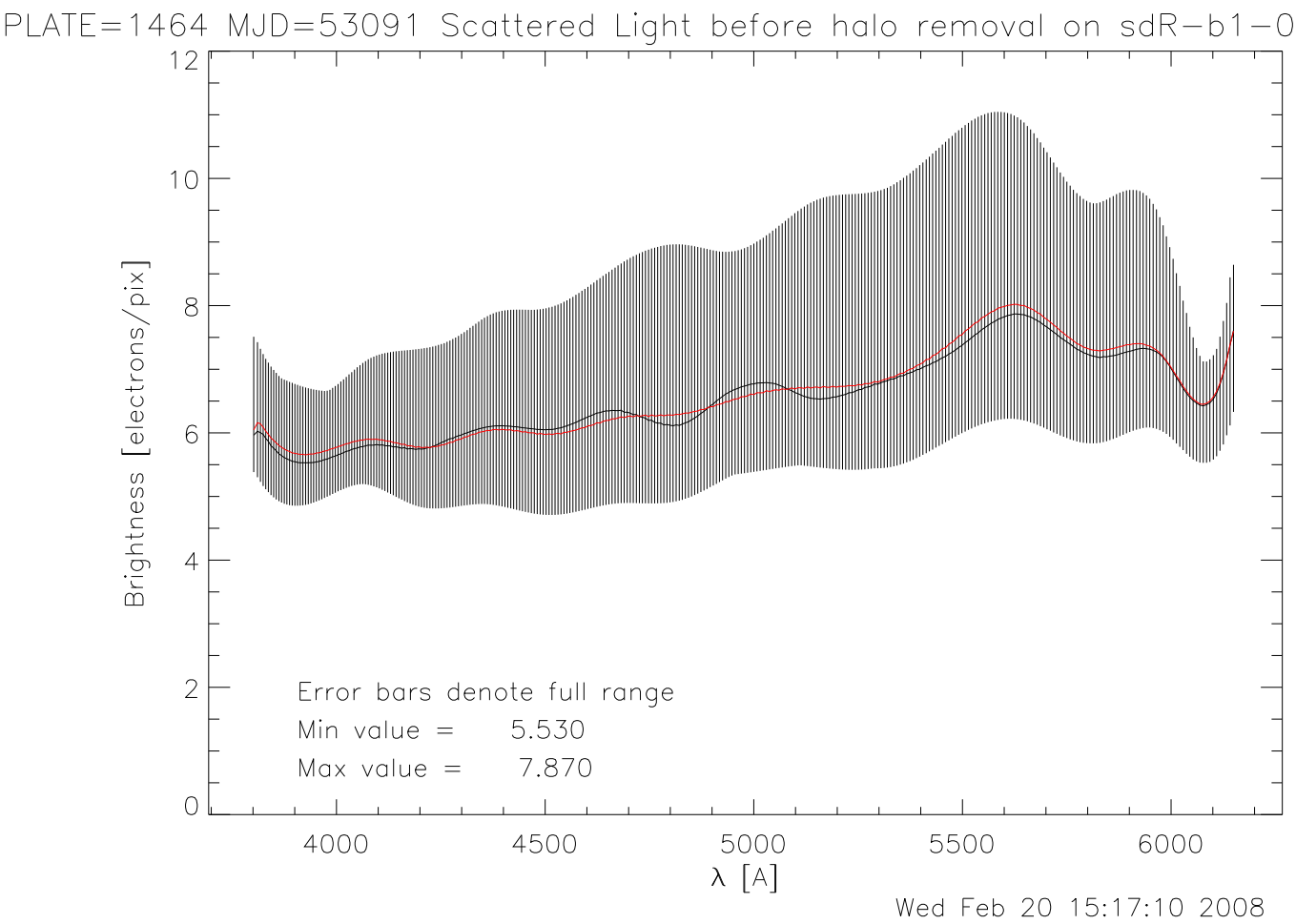

Number of sky fibers = 16
PLATE=1464 MJD=53091 sdR-b1-00025893.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

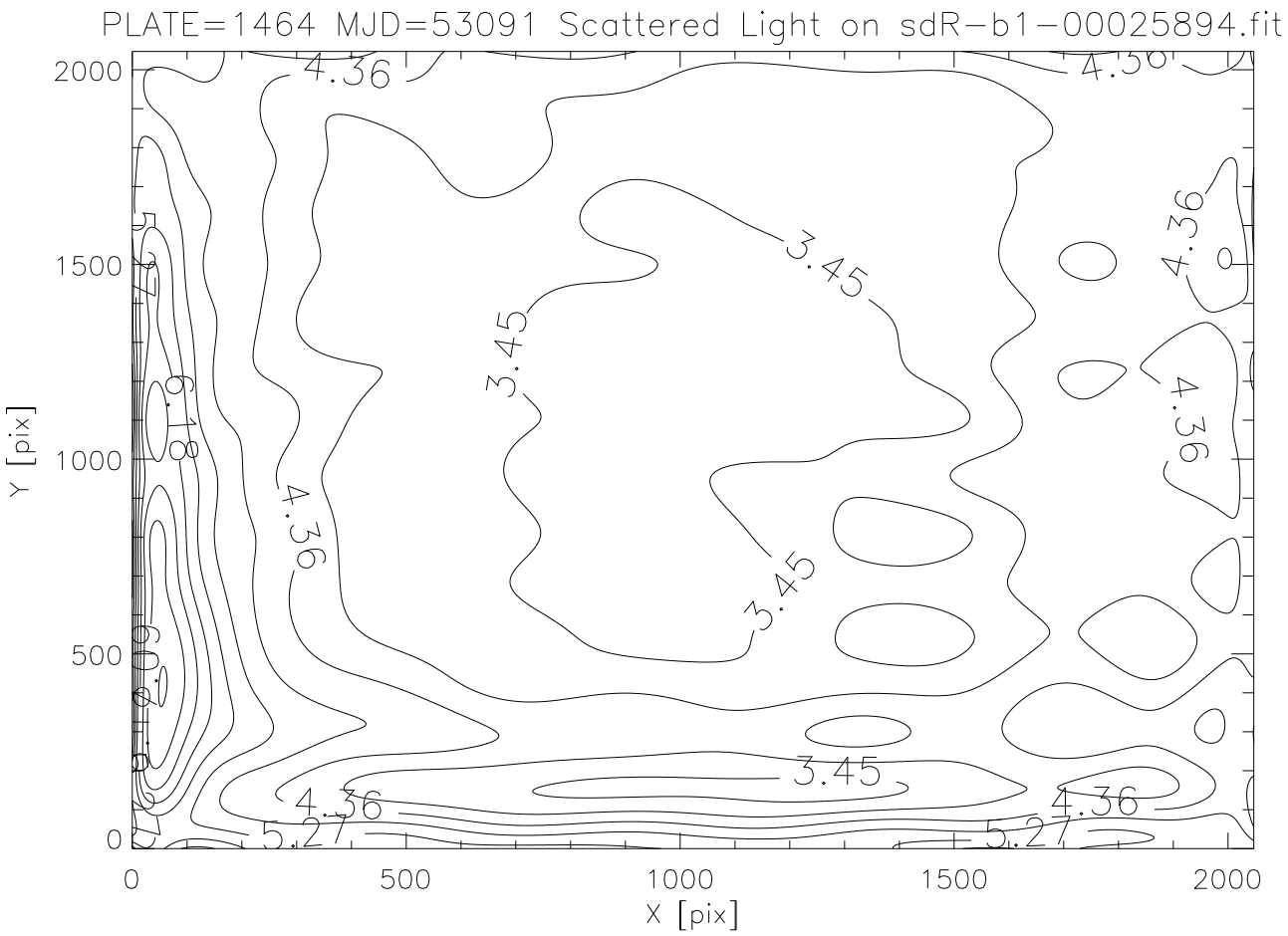

PLATE=1464 MJD=53091 sdR-b1-00025893.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 11.45 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

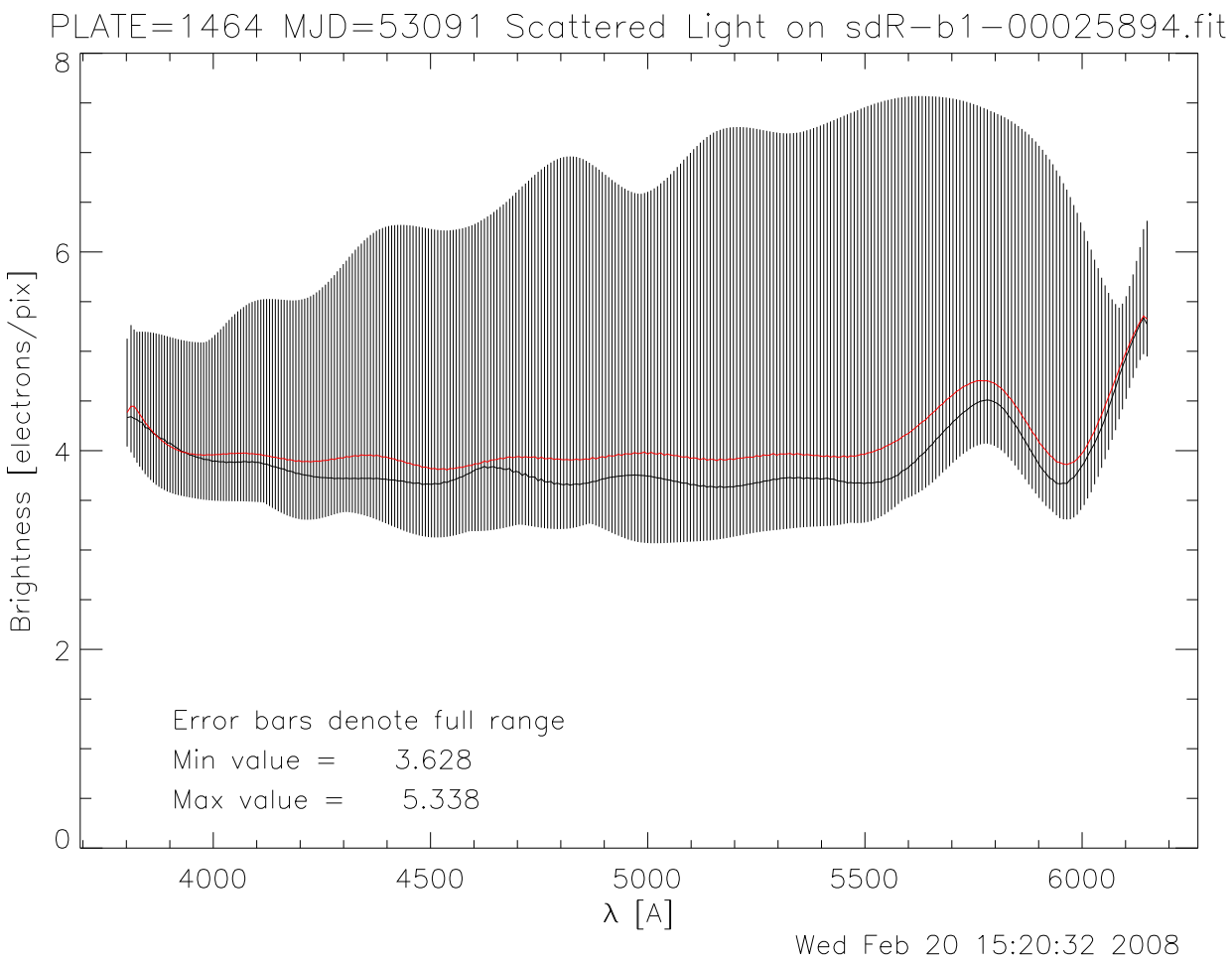

PLATE=1464 MJD=53091 sdR-b1-00025893.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
Fiber number
RED = sky fiber
Dispersion = 1.39 %
Focal Distance [mm]
Airmass

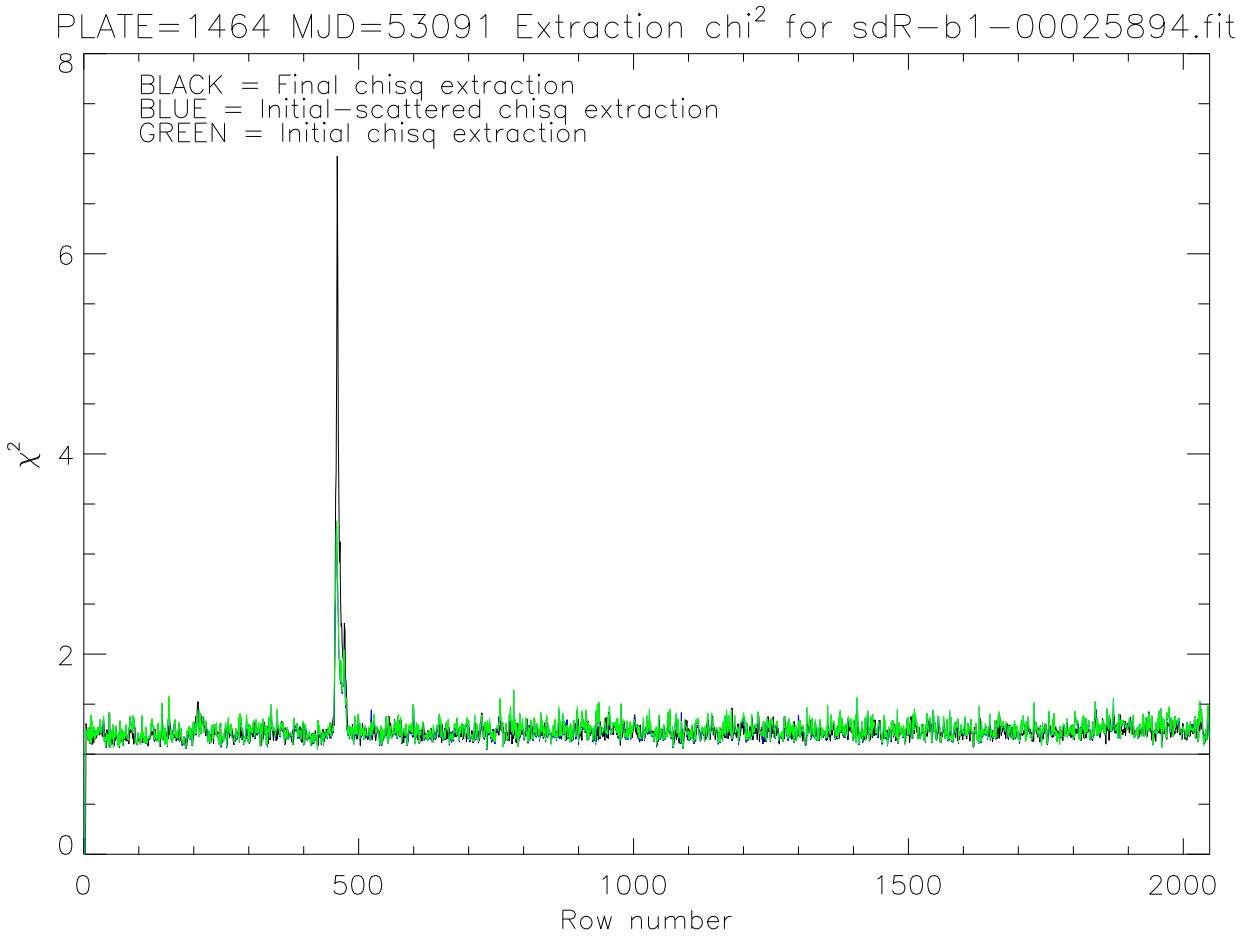

PLATE=1464 MJD=53091 Fiber-Flats for sdR-b1-00025896.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.374
Max value = 1.210
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Wed Feb 20 15:16:13 2008

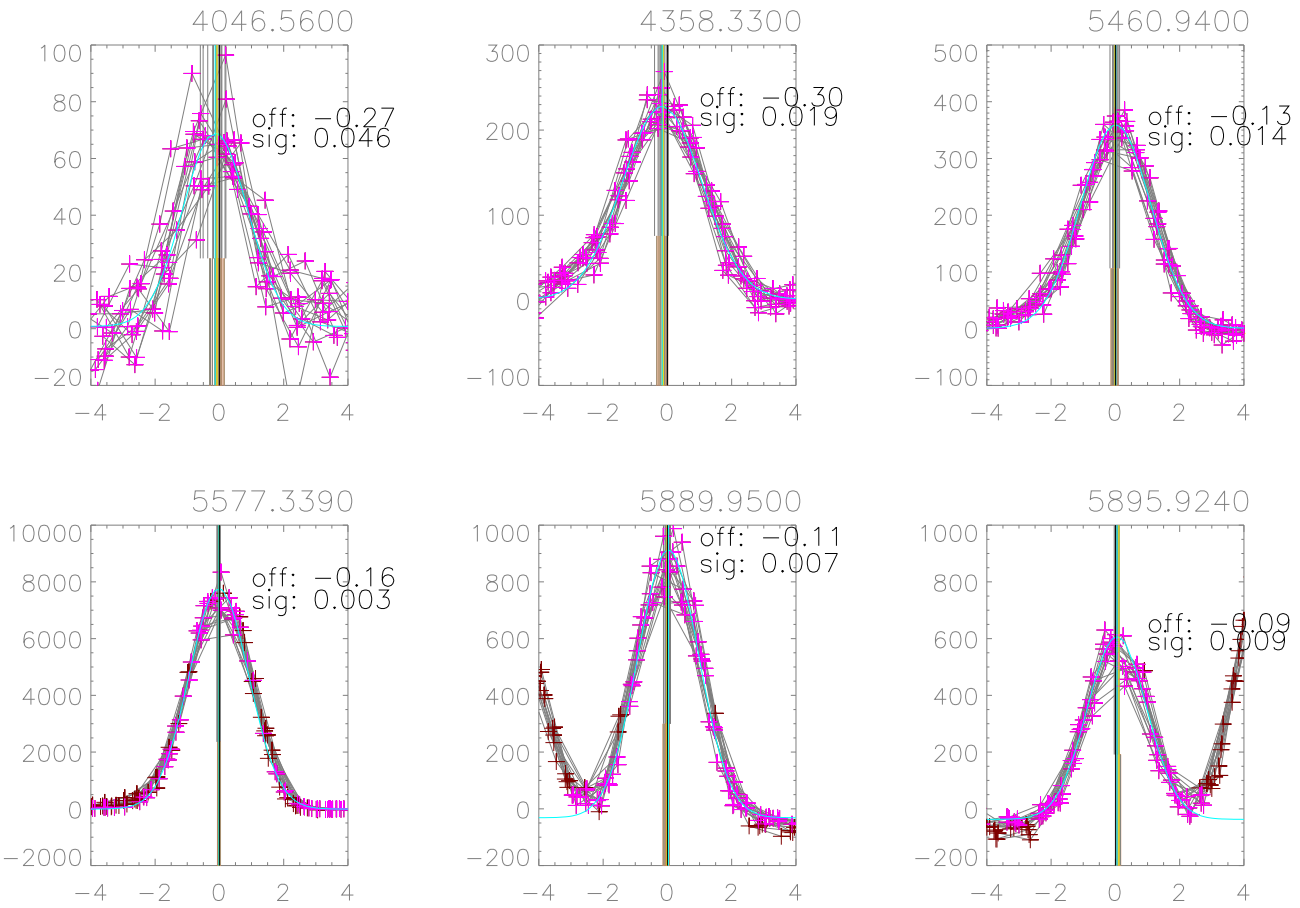

PLATE=1464 MJD=53091 Scattered Light before halo removal on sdR−b1−00025894.f
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
6.5
6.5
6.5
6.5
6.5
6.5
8.4

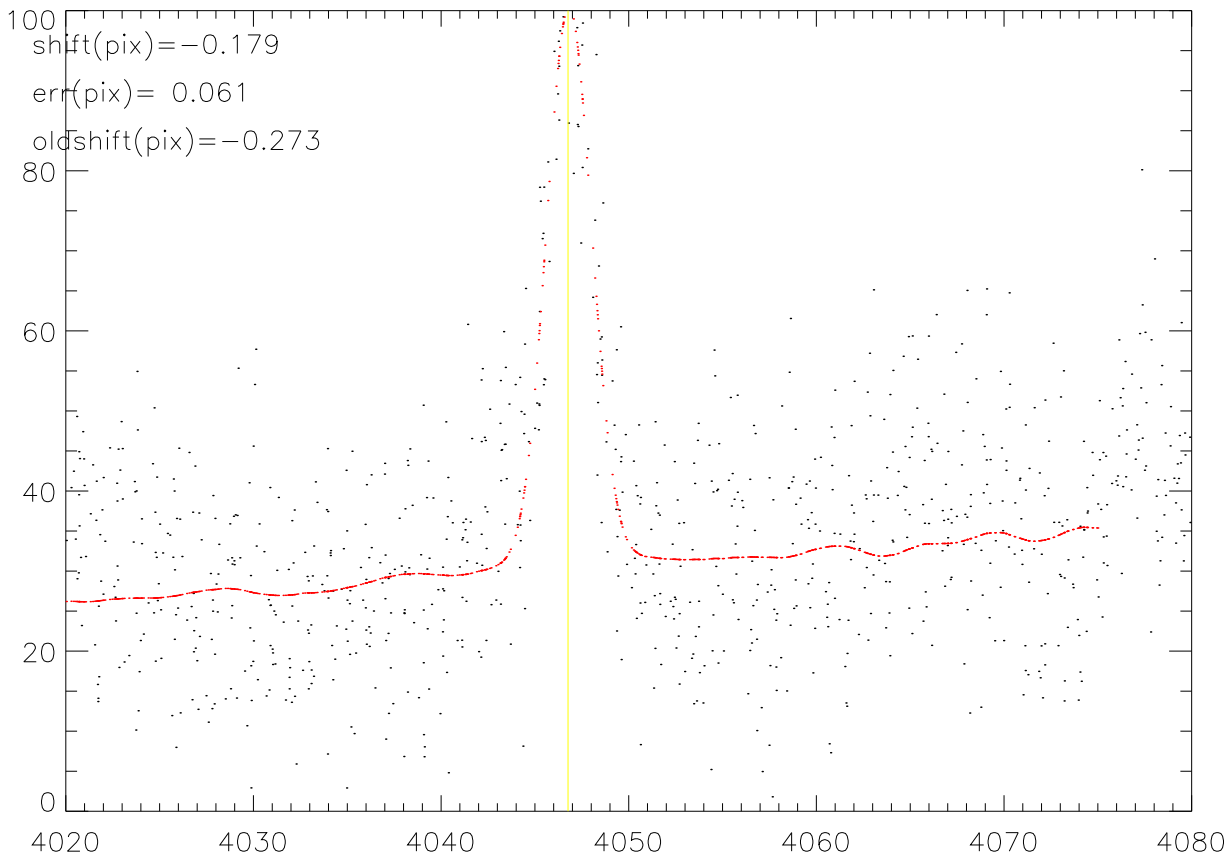

PLATE=1464 MJD=53091 Scattered Light before halo removal on sdR-b1-00025894.f
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 5.530
Max value = 7.870
Wed Feb 20 15:17:10 2008

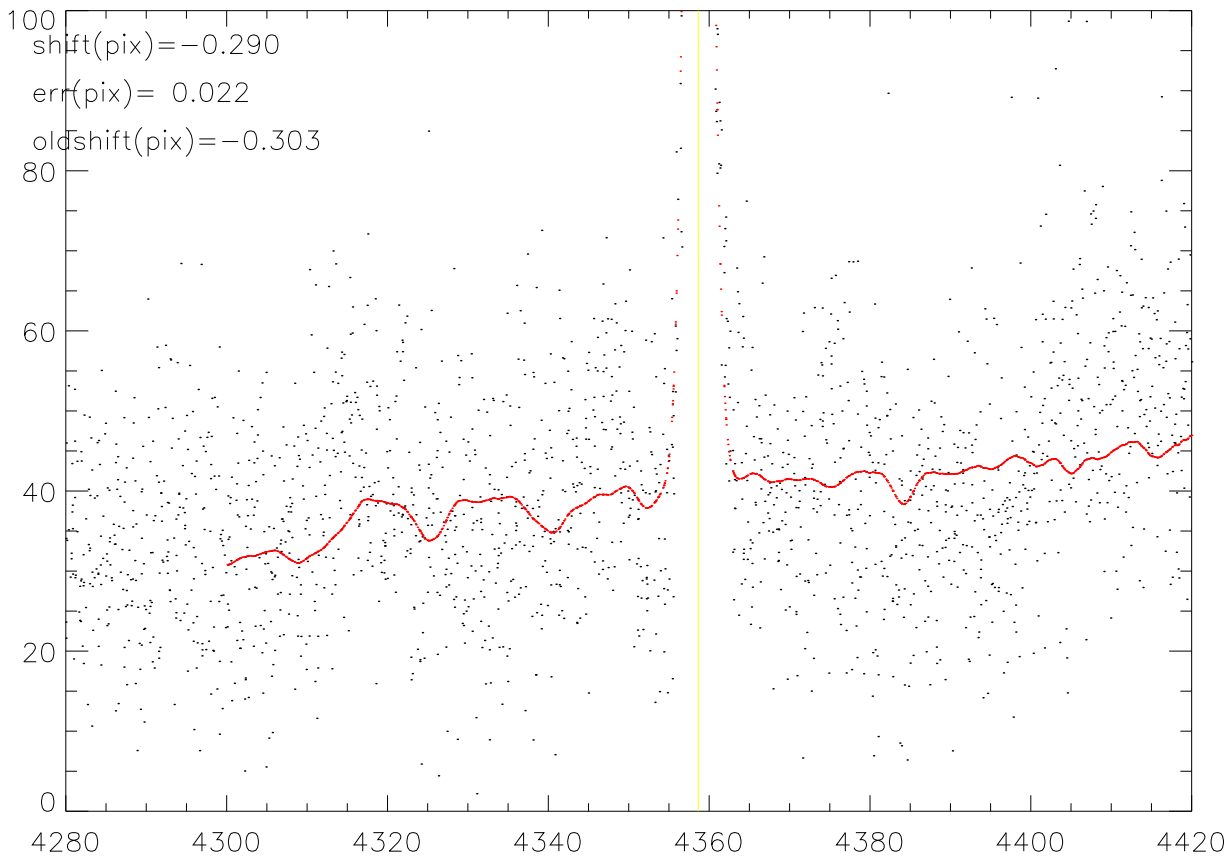

PLATE=1464 MJD=53091 Scattered Light on sdR-b1-00025894.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
4.36
3.45
5.27
6.18

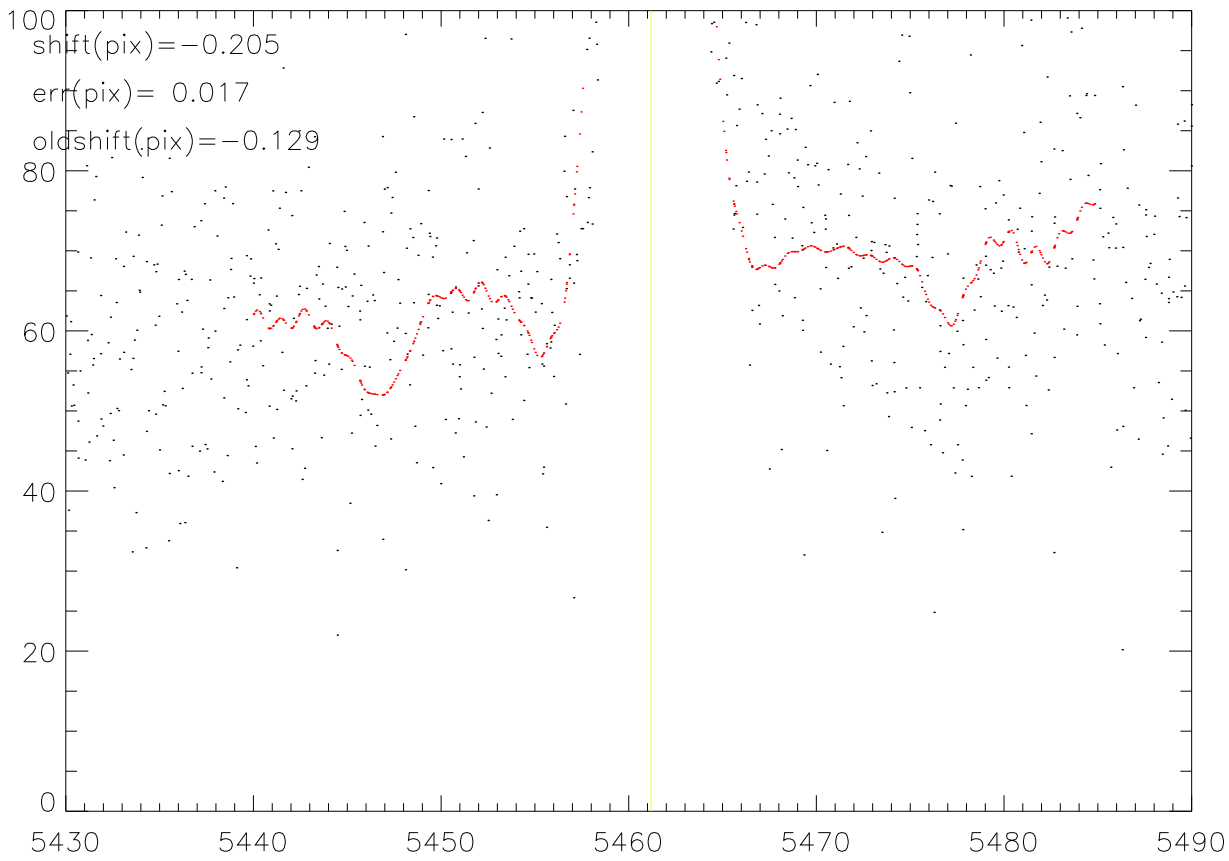

PLATE=1464 MJD=53091 Scattered Light on sdR-b1-00025894.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 3.628
Max value = 5.338
Wed Feb 20 15:20:32 2008

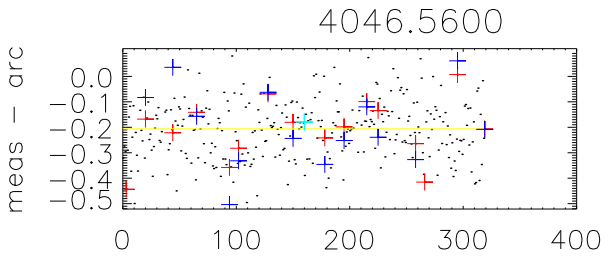

PLATE=1464 MJD=53091 Extraction chi^2 for sdR-b1-00025894.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
0
500
1000
1500
2000
Row number

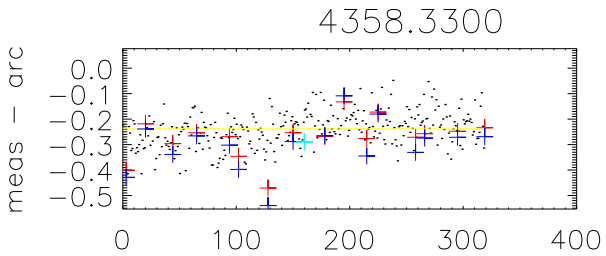

4046.5600
off: −0.27
sig: 0.046
4358.3300
off: −0.30
sig: 0.019
5460.9400
off: −0.13
sig: 0.014
5577.3390
off: −0.16
sig: 0.003
5889.9500
off: −0.11
sig: 0.007
5895.9240
off: −0.09
sig: 0.009

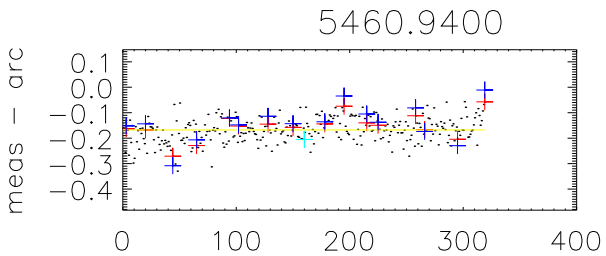

shift(pix)=−0.179
err(pix)= 0.061
oldshift(pix)=−0.273
100
80
60
40
20
0
4020
4030
4040
4050
4060
4070
4080

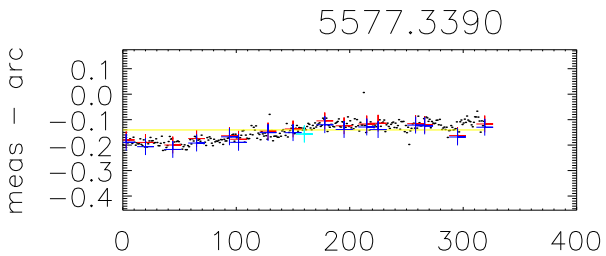

shift(pix)=−0.290
err(pix)= 0.022
oldshift(pix)=−0.303
100
80
60
40
20
0
4280
4300
4320
4340
4360
4380
4400
4420

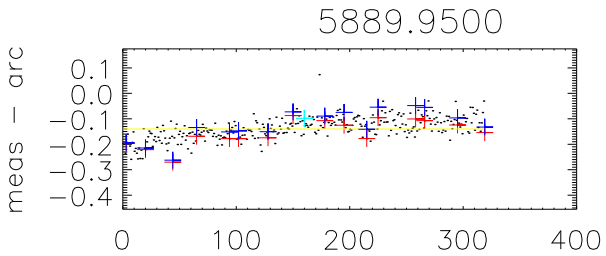

shift(pix)=−0.205
err(pix)= 0.017
oldshift(pix)=−0.129
100
80
60
40
20
0
5430
5440
5450
5460
5470
5480
5490

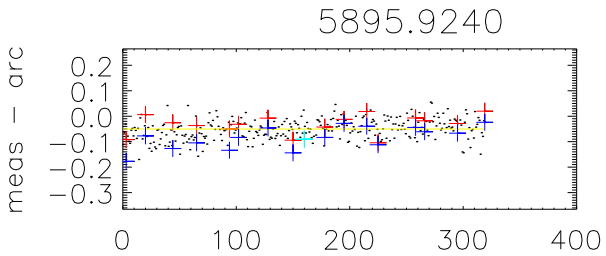

4046.5600
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

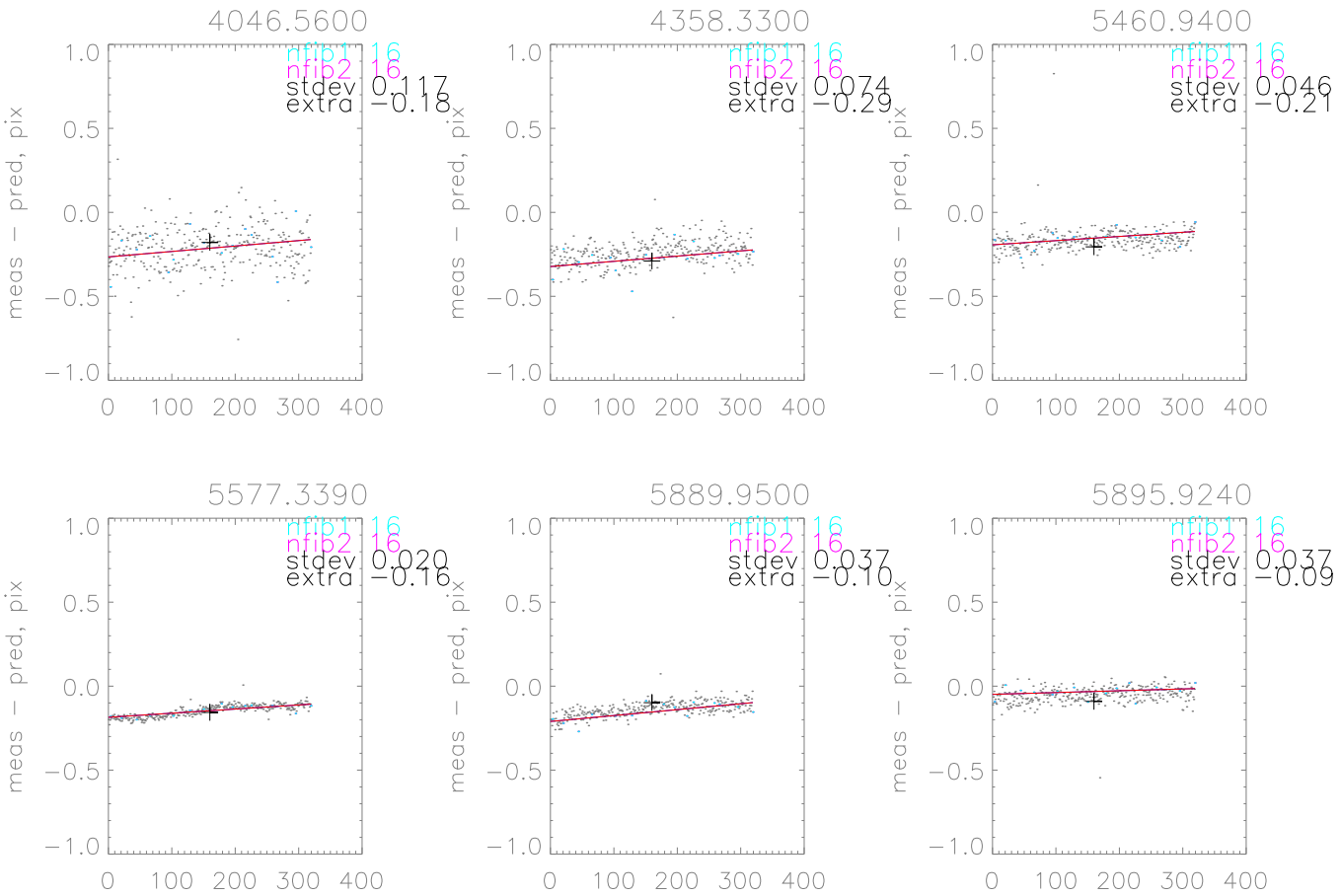

4358.3300
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

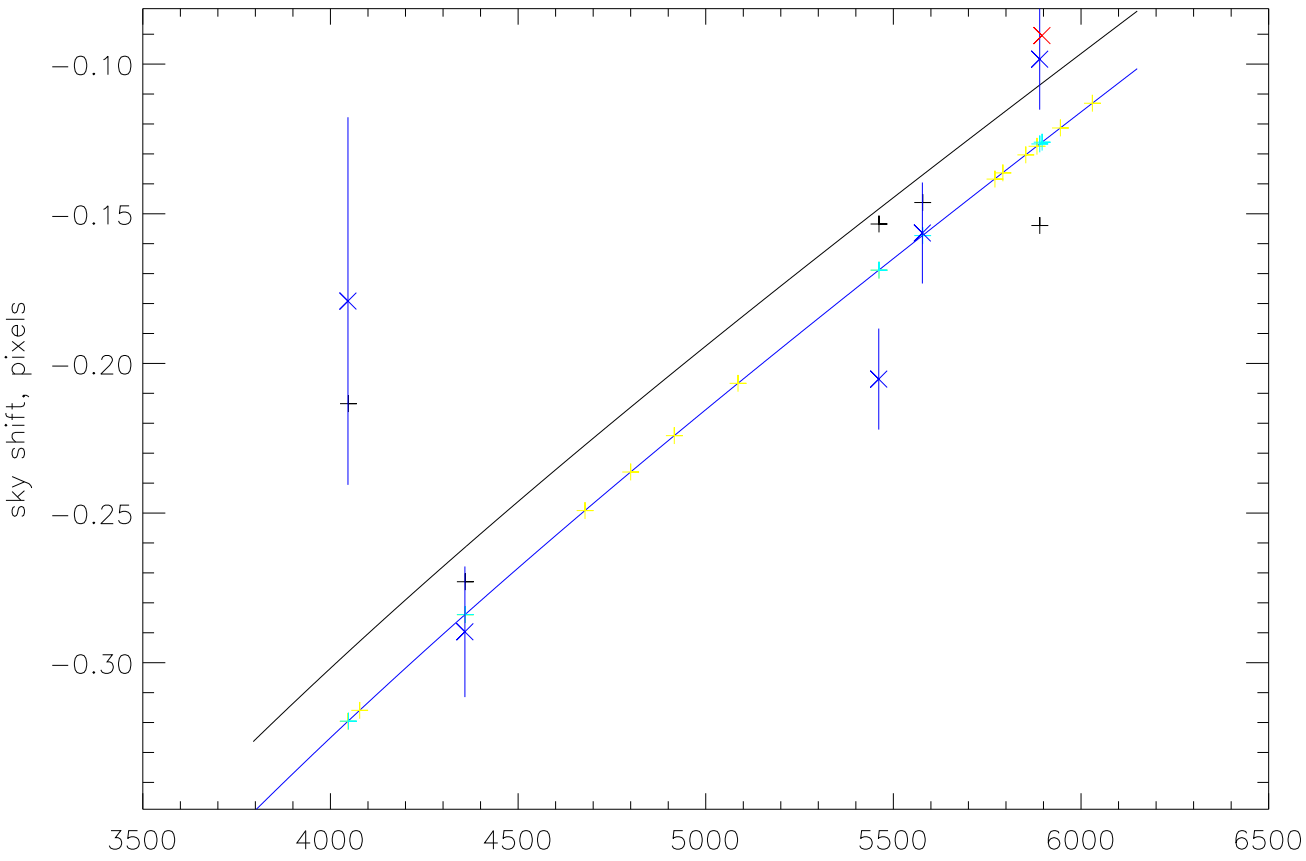

5460.9400
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

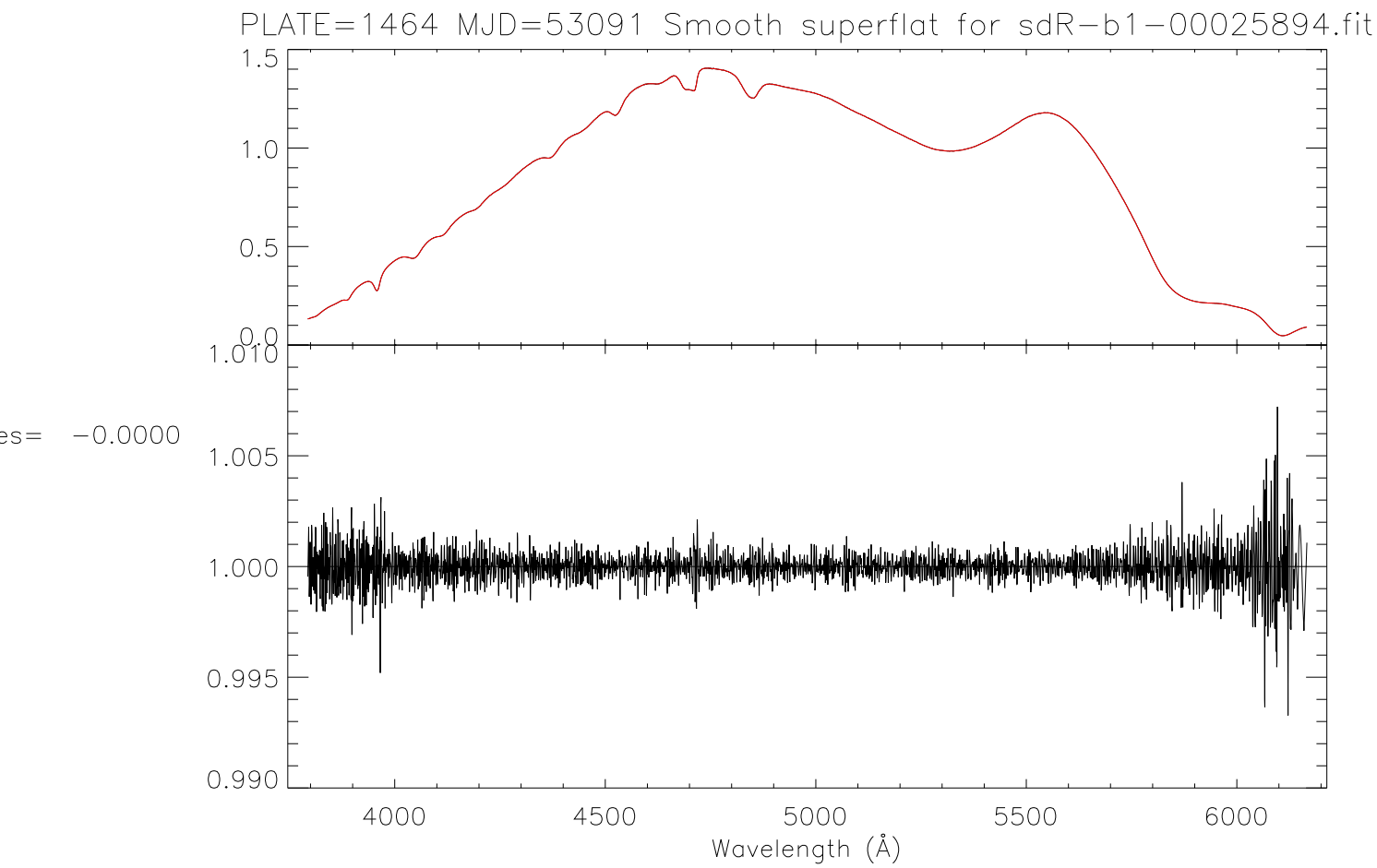

5577.3390
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

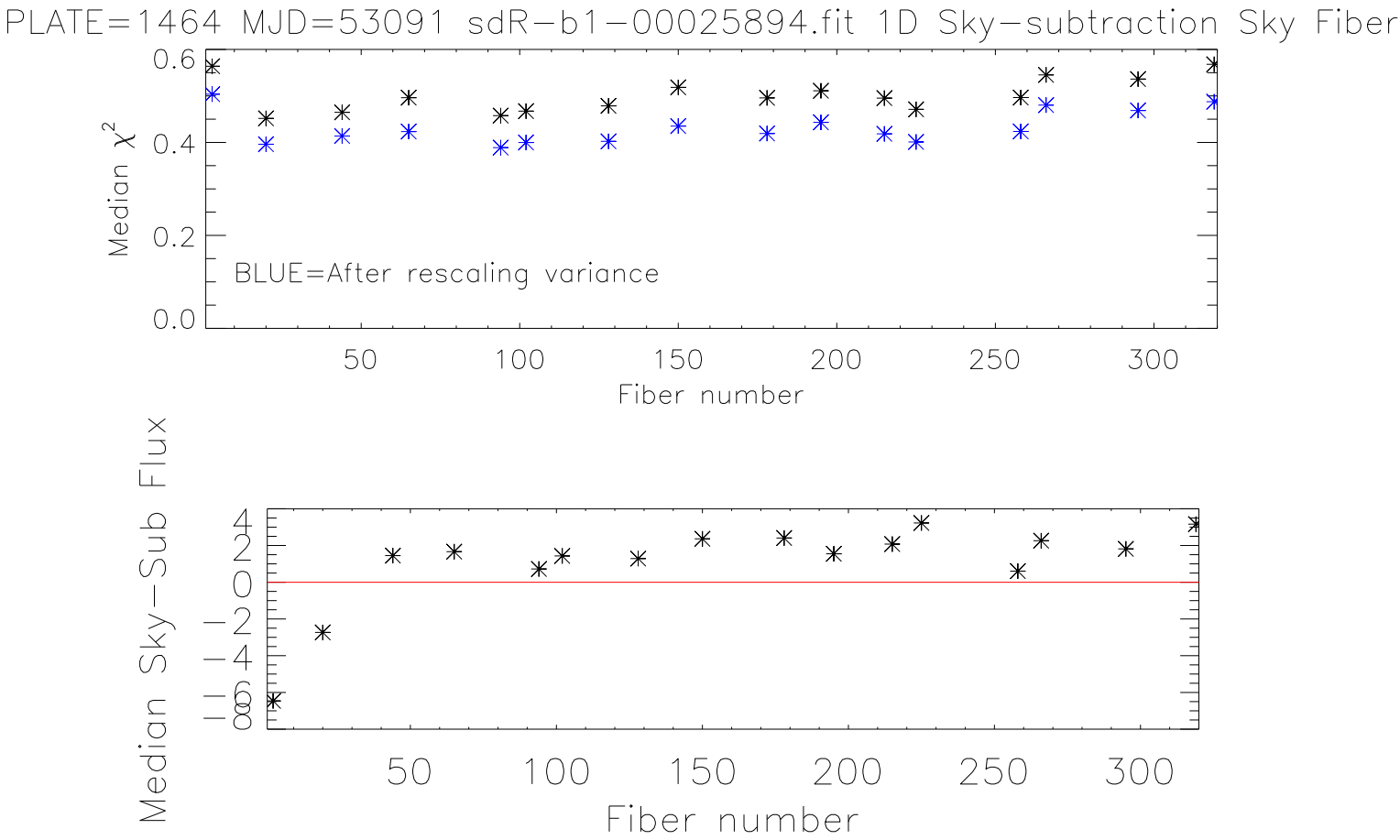

5889.9500
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

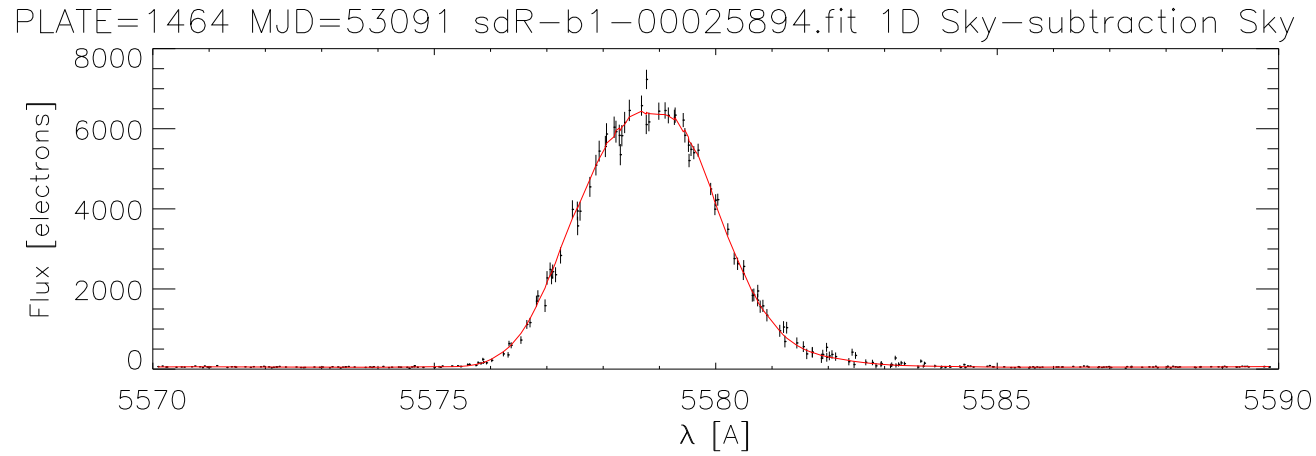

5895.9240
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

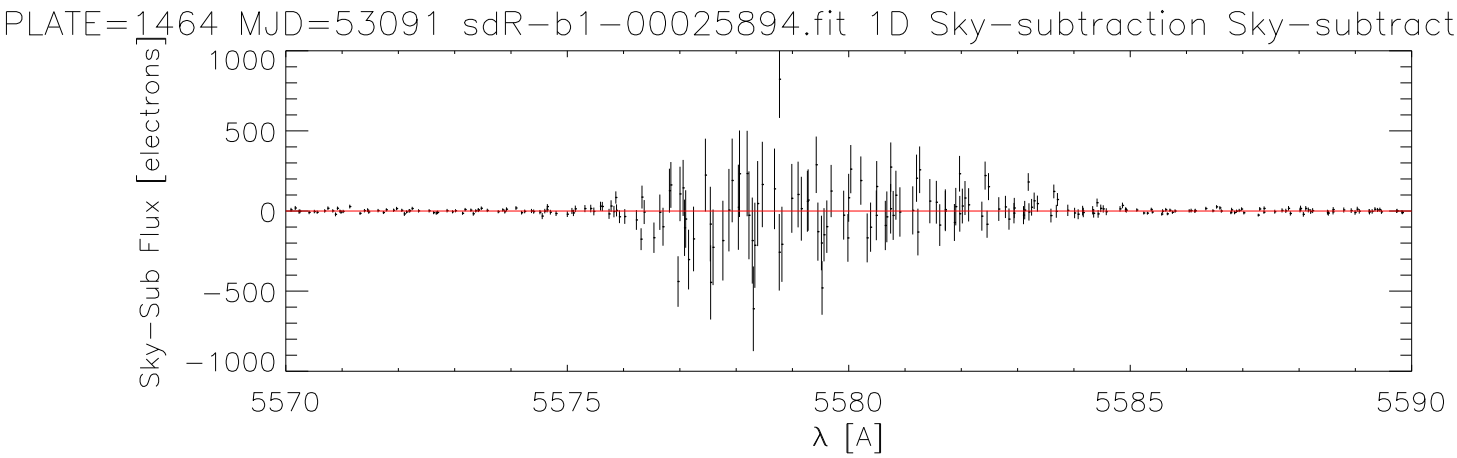

4046.5600
nfib1 16
nfib2 16
stdev 0.117
extra −0.18
4358.3300
nfib1 16
nfib2 16
stdev 0.074
extra −0.29
5460.9400
nfib1 16
nfib2 16
stdev 0.046
extra −0.21
5577.3390
nfib1 16
nfib2 16
stdev 0.020
extra −0.16
5889.9500
nfib1 16
nfib2 16
stdev 0.037
extra −0.10
5895.9240
nfib1 16
nfib2 16
stdev 0.037
extra −0.09
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

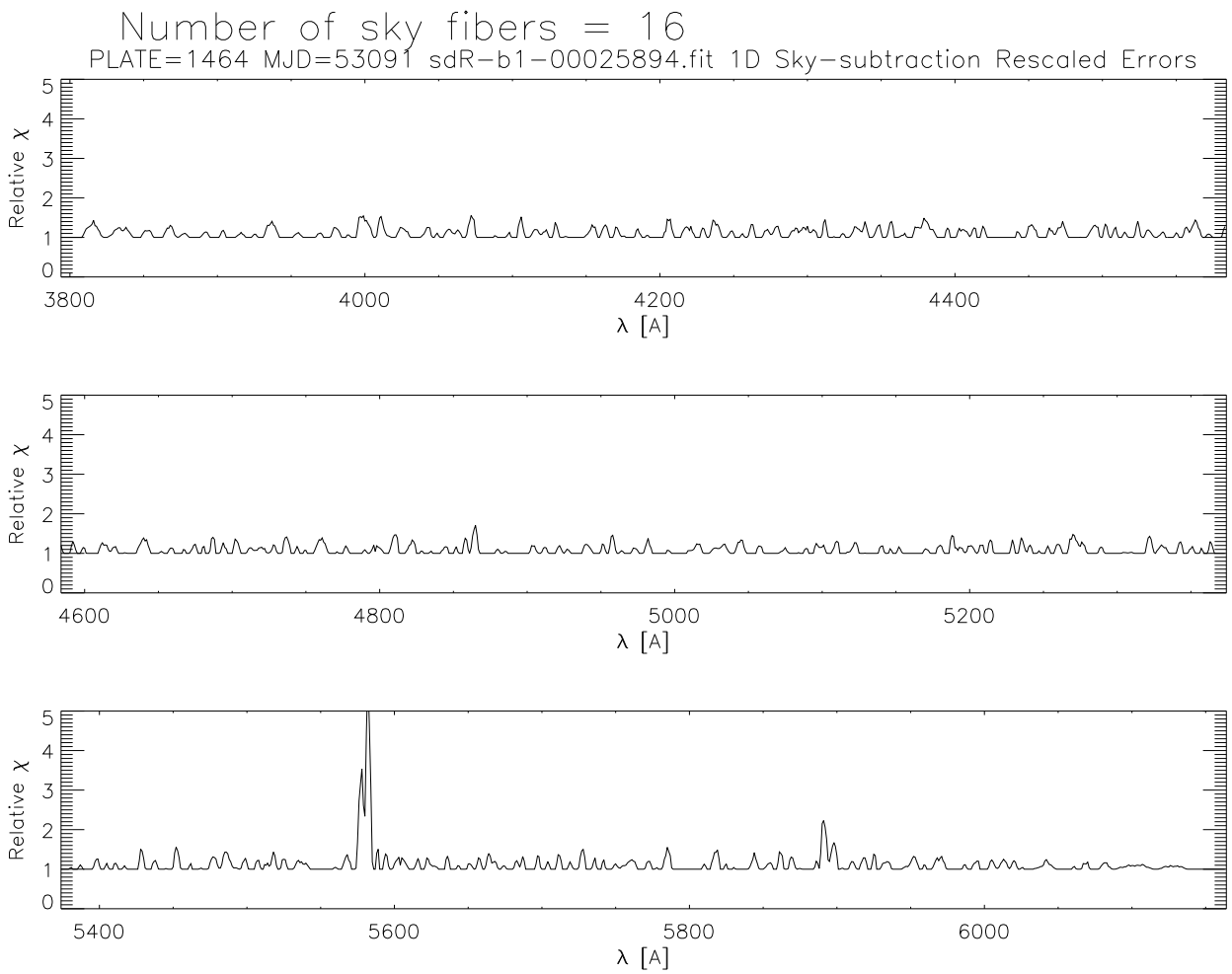

−0.10
−0.15
−0.20
−0.25
−0.30
sky shift, pixels
3500
4000
4500
5000
5500
6000
6500

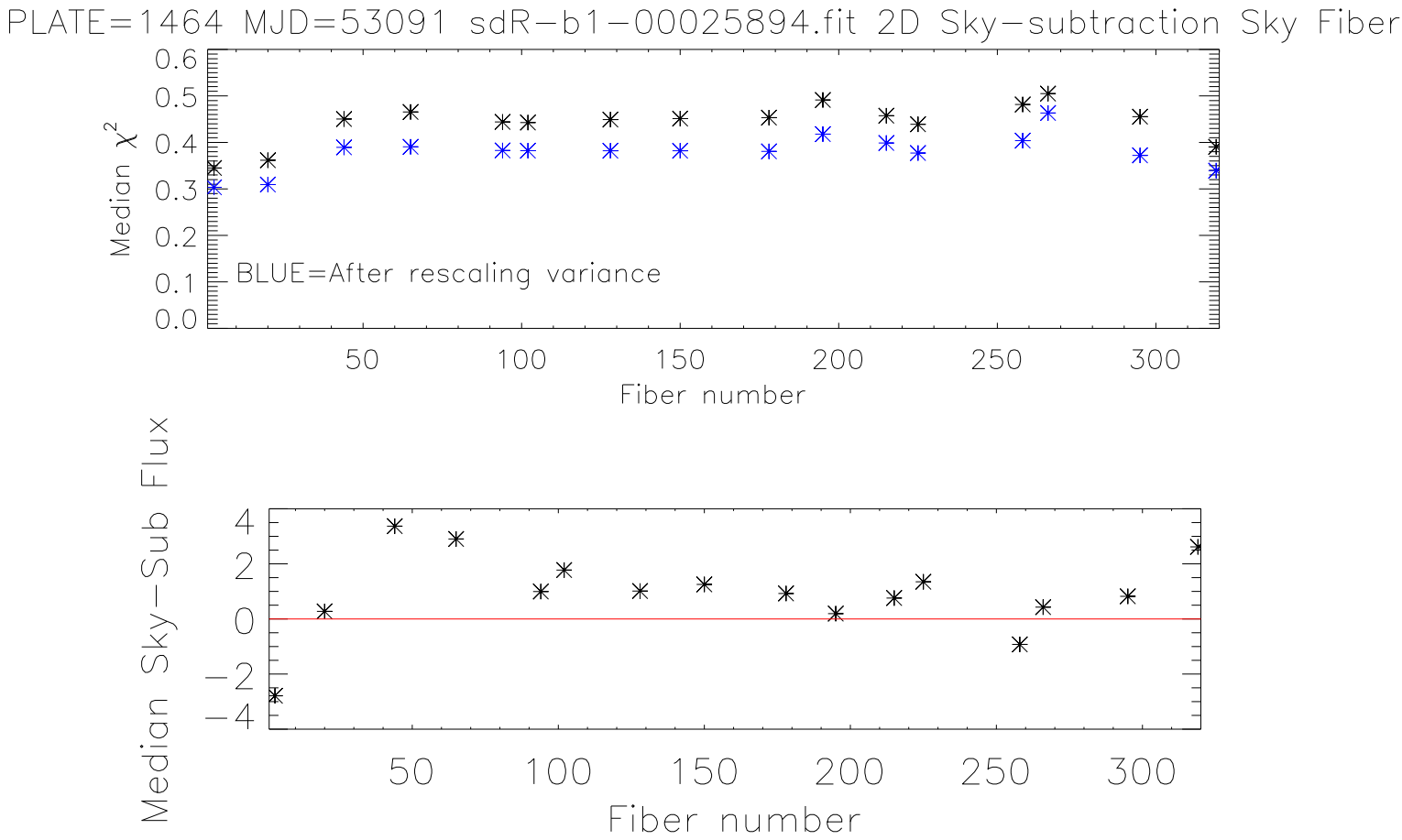

PLATE=1464 MJD=53091 Smooth superflat for sdR-b1-00025894.fit
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
es= -0.0000
4000
4500
5000
5500
6000
Wavelength (Å)

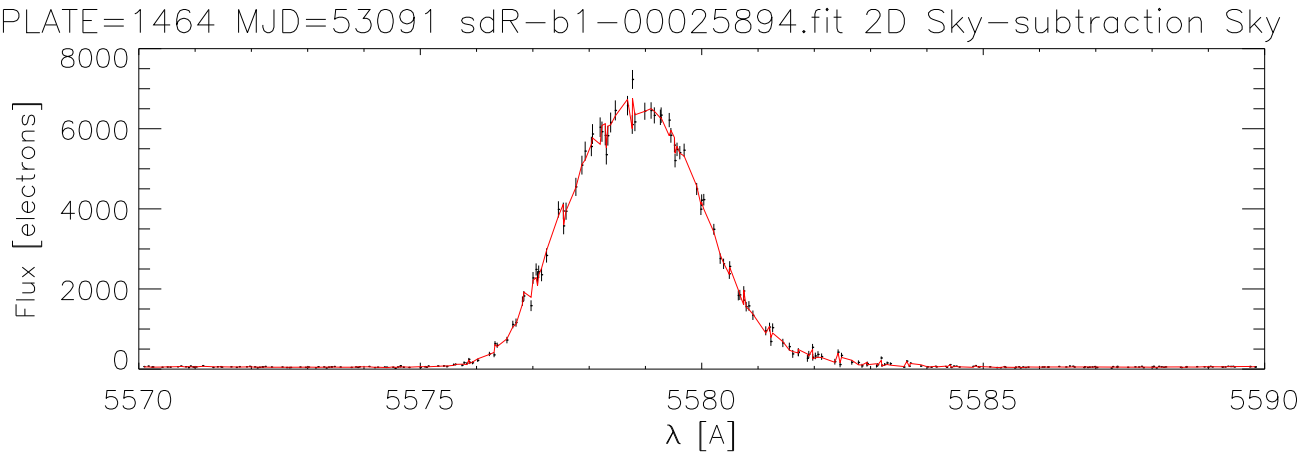

PLATE=1464 MJD=53091 sdR-b1-00025894.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.2
0.4
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-0.6
-0.4
-0.2
0.0
0.2
0.4
50
100
150
200
250
300
Fiber number

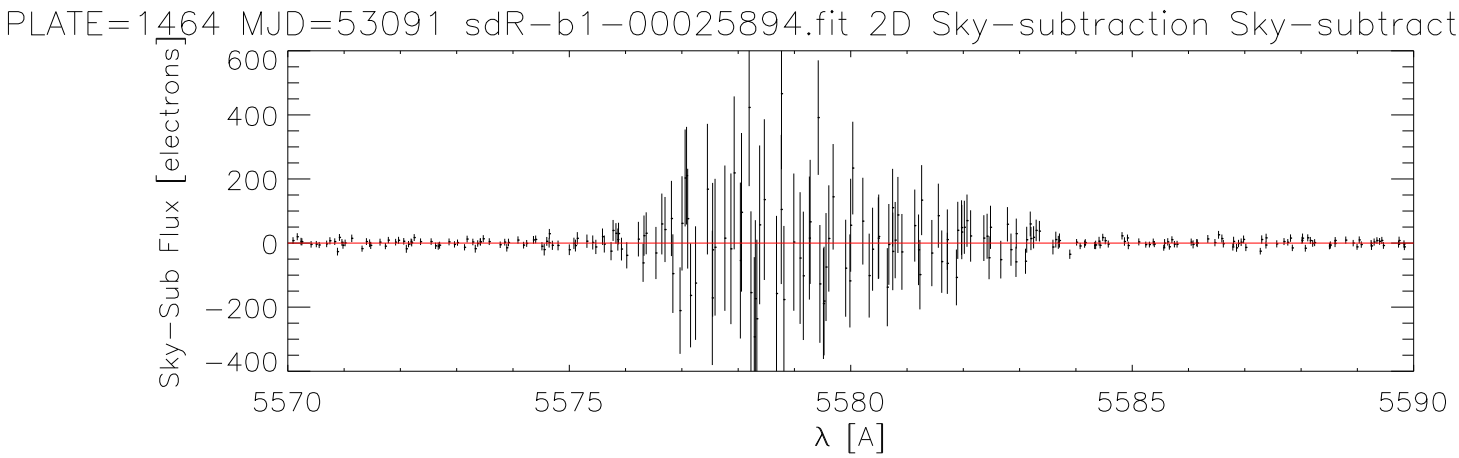

PLATE=1464 MJD=53091 sdR-b1-00025894.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

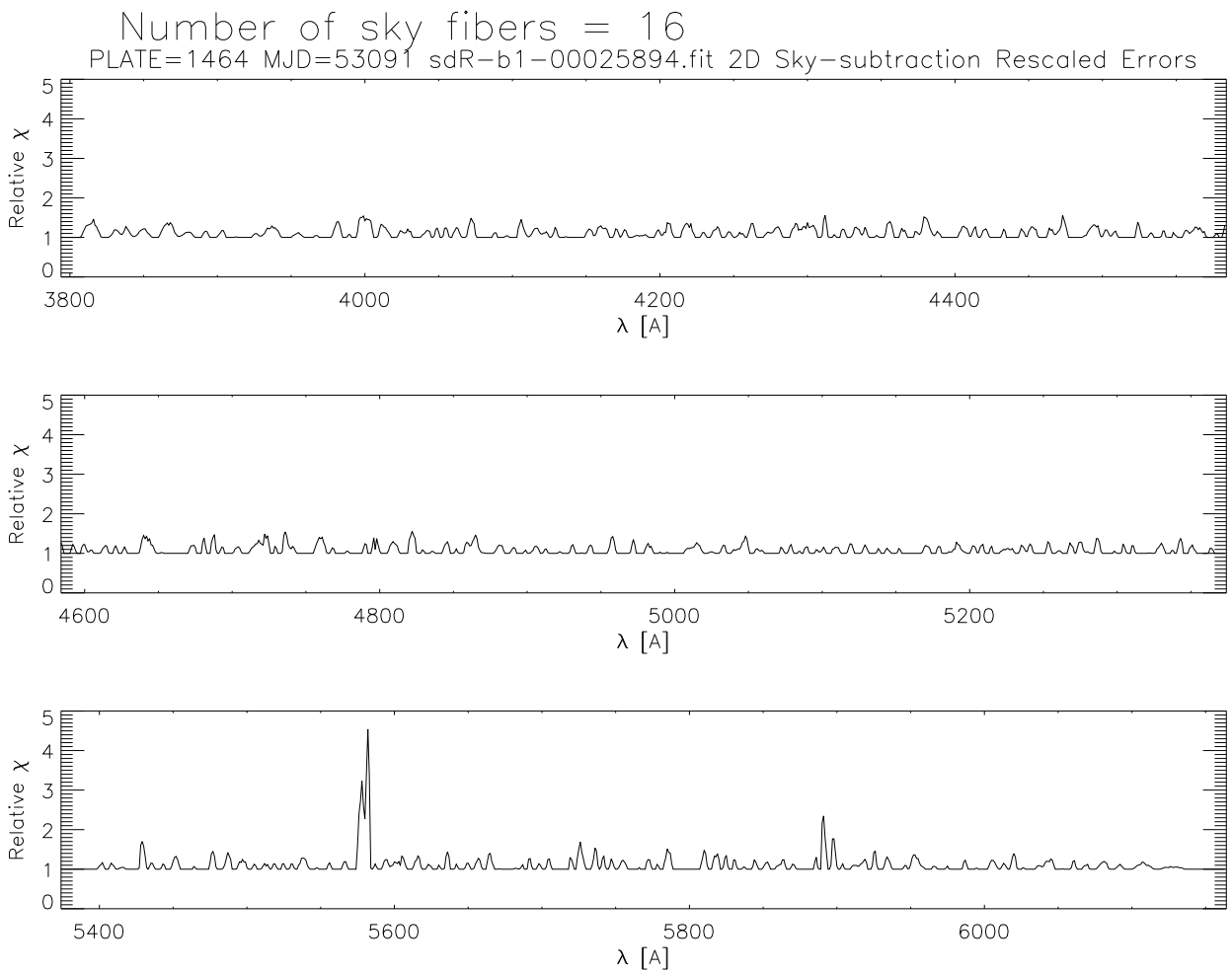

PLATE=1464 MJD=53091 sdR-b1-00025894.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
1000
500
0
-500
-1000
5570
5575
5580
5585
5590
λ [A]

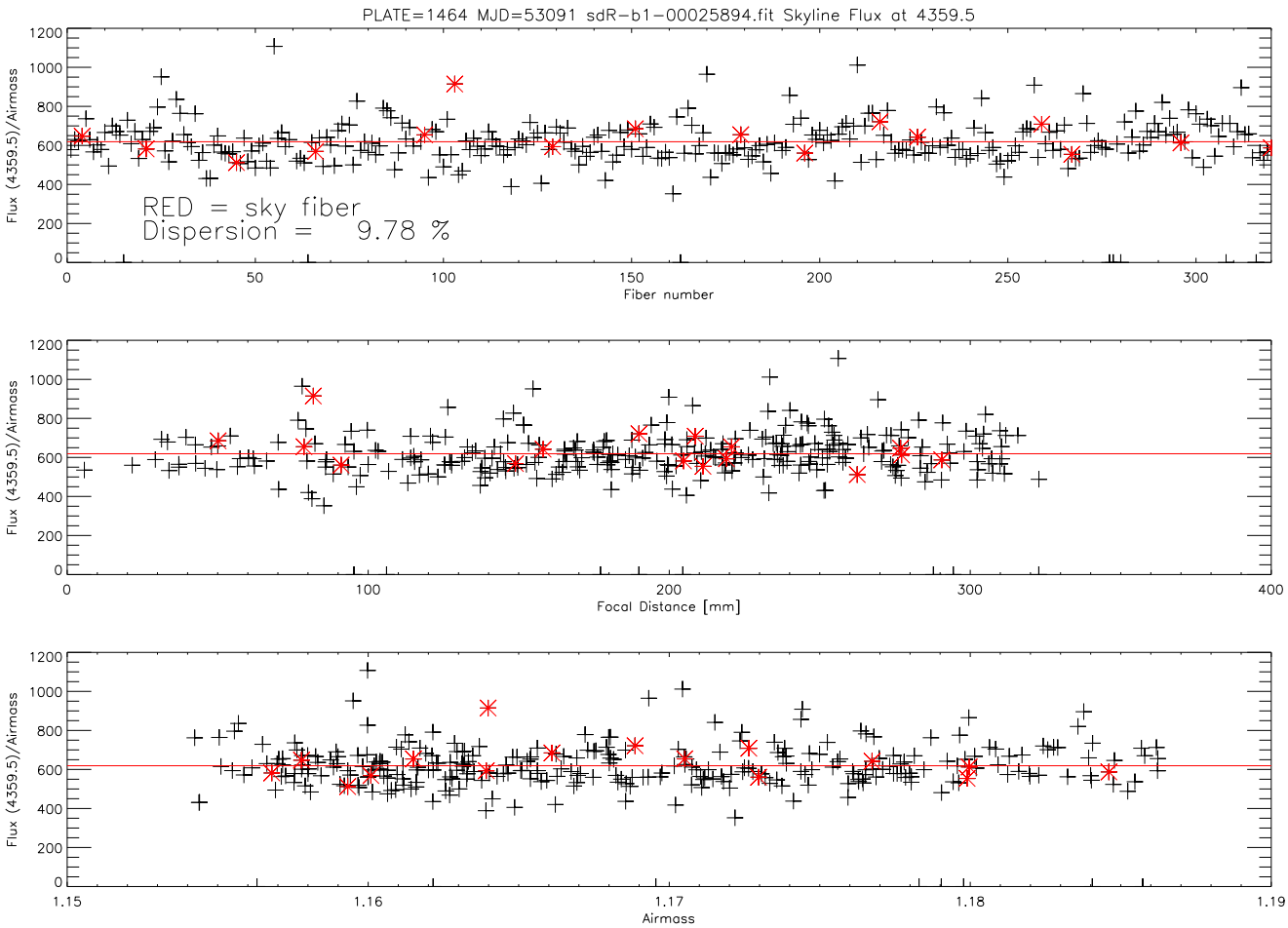

Number of sky fibers = 16
PLATE=1464 MJD=53091 sdR-b1-00025894.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

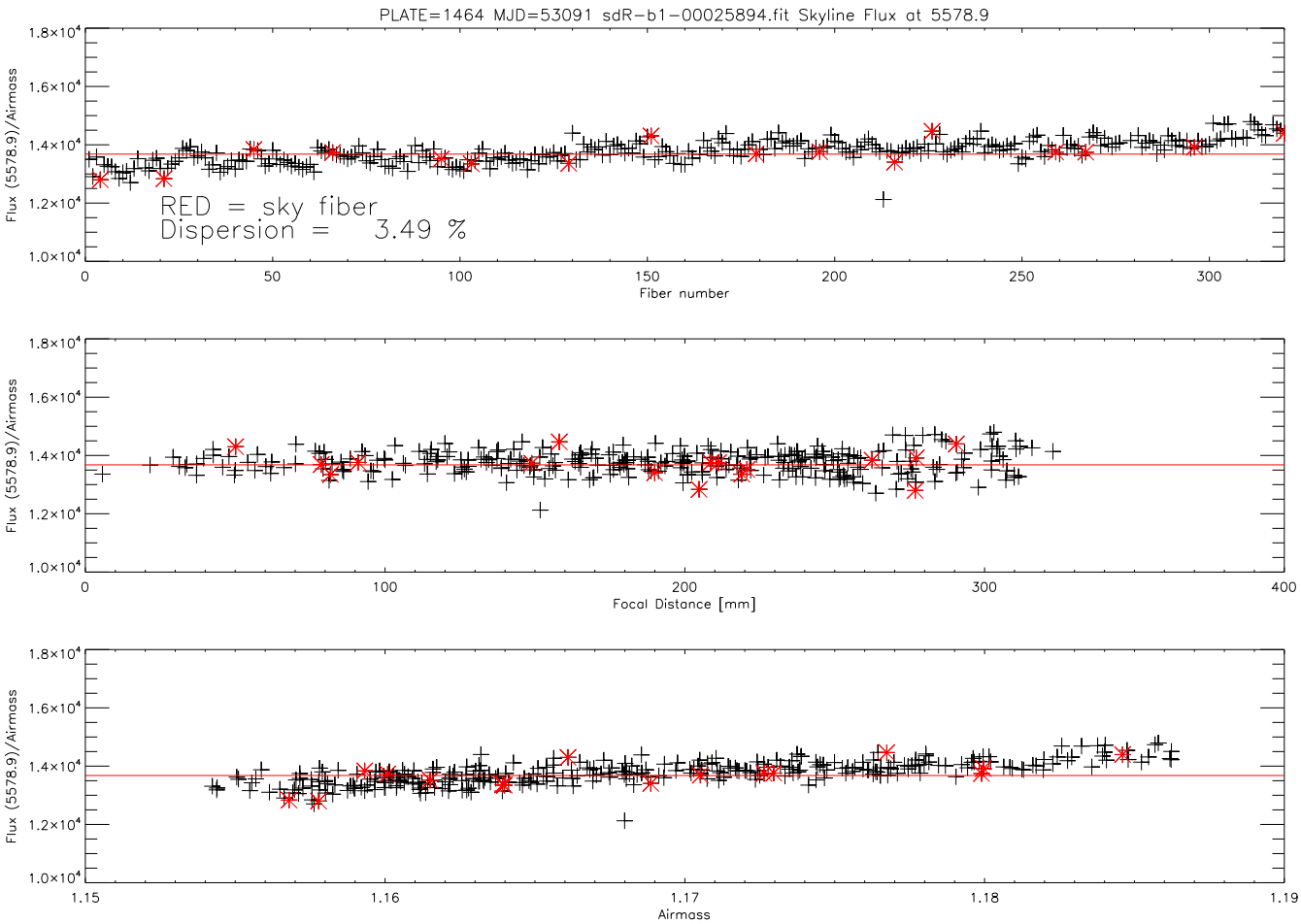

PLATE=1464 MJD=53091 sdR-b1-00025894.fit 2D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-4
-2
0
2
4
50
100
150
200
250
300
Fiber number

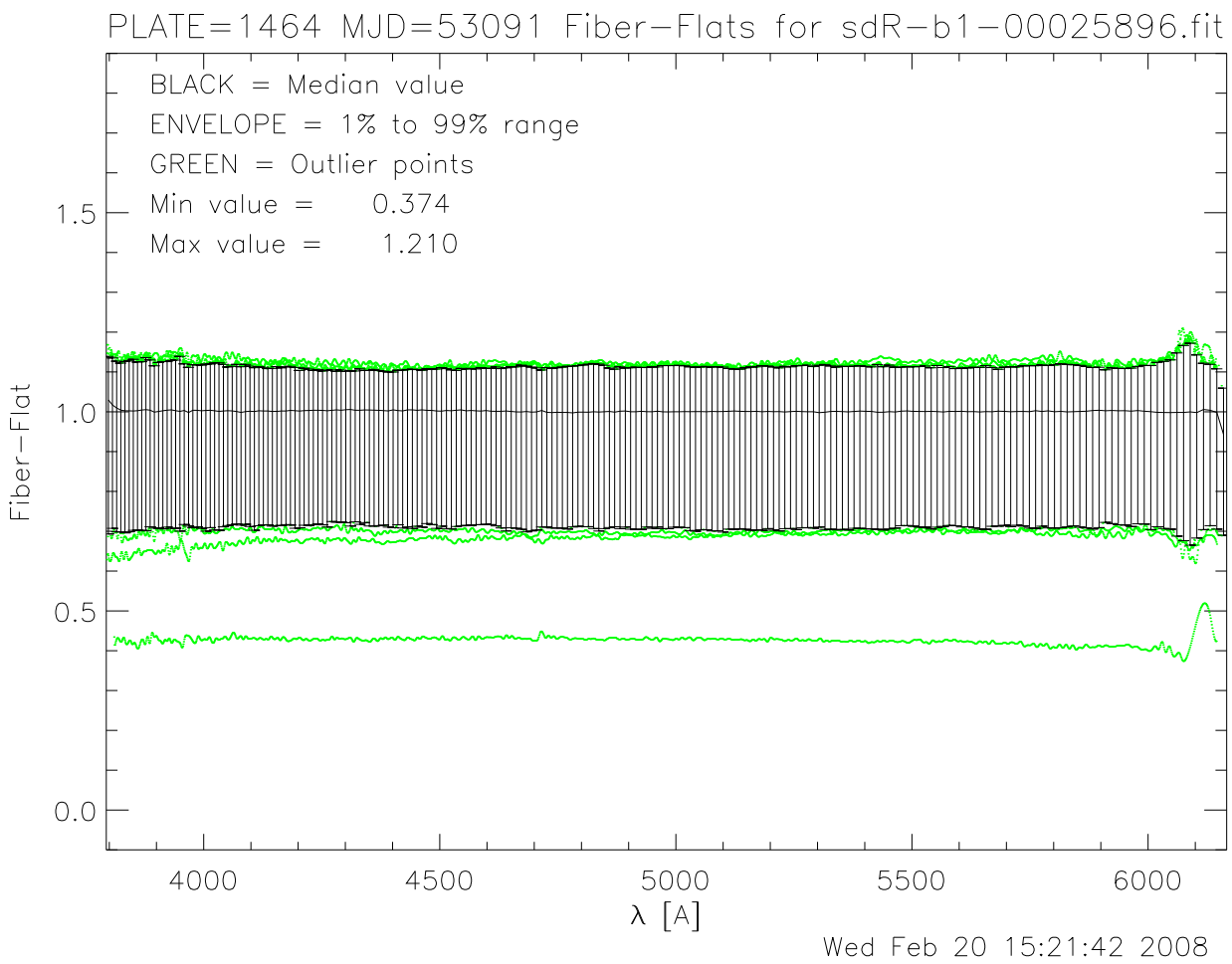

PLATE=1464 MJD=53091 sdR-b1-00025894.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

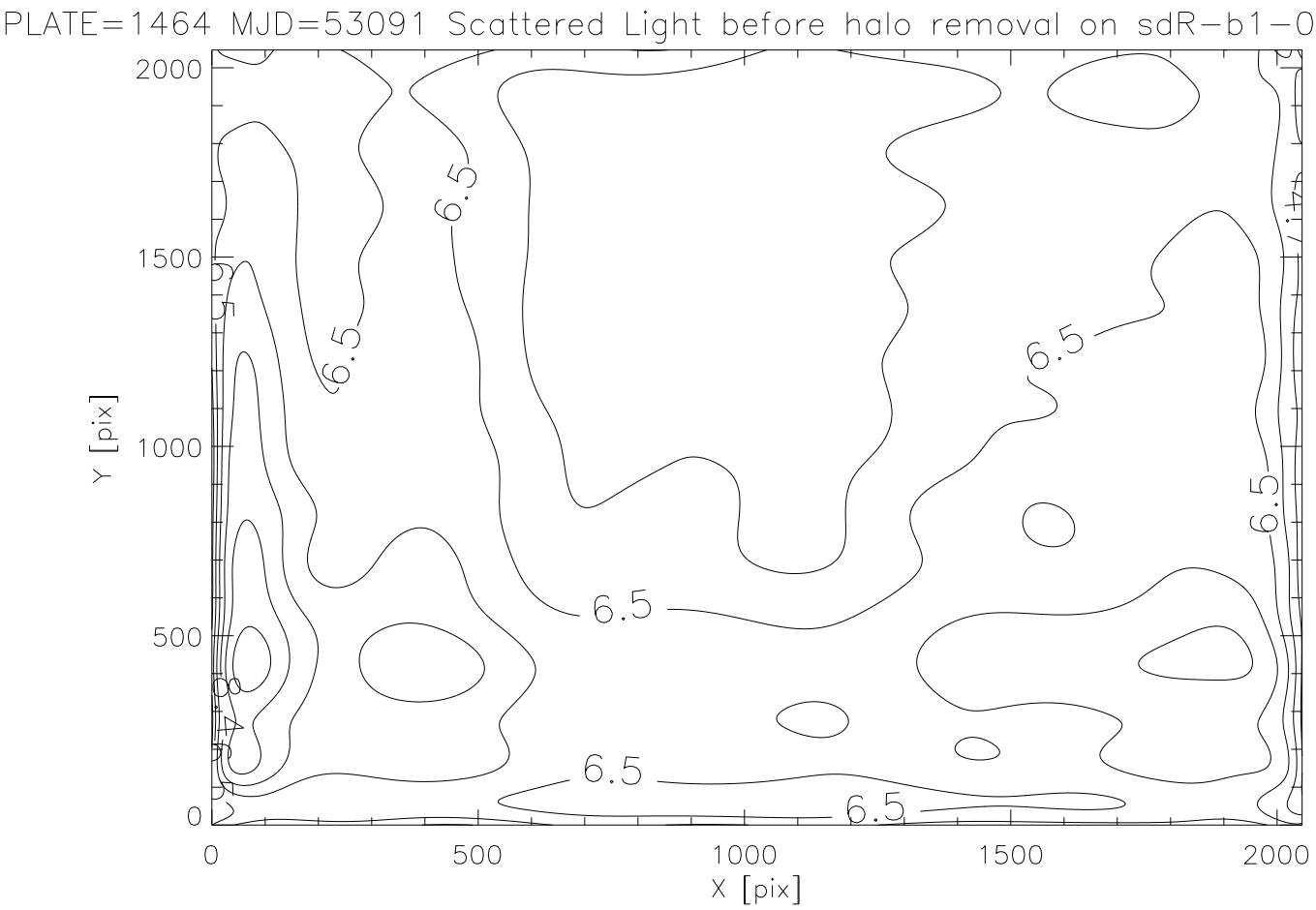

PLATE=1464 MJD=53091 sdR-b1-00025894.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
-200
-400
5570
5575
5580
5585
5590
λ [A]

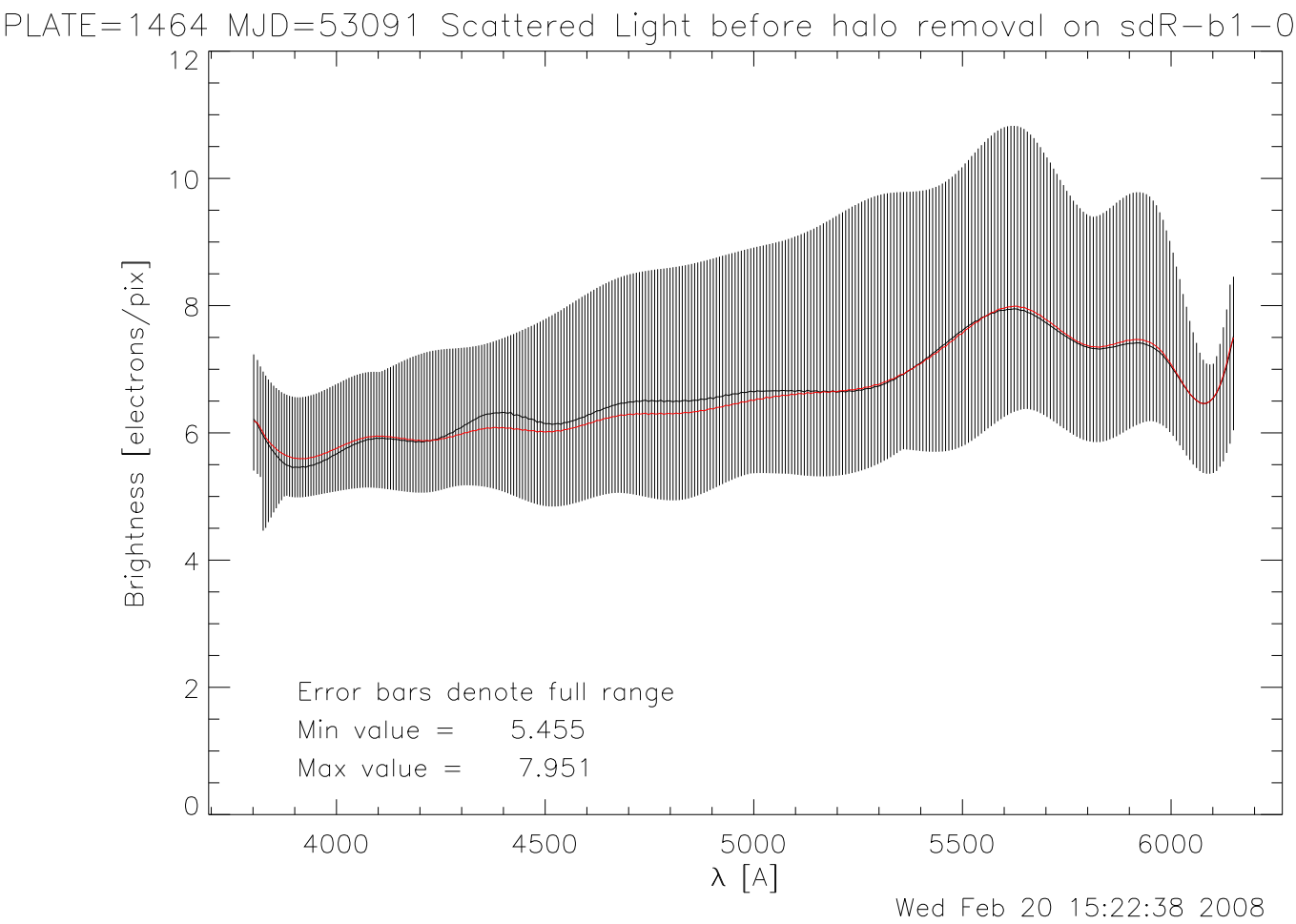

Number of sky fibers = 16
PLATE=1464 MJD=53091 sdR-b1-00025894.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

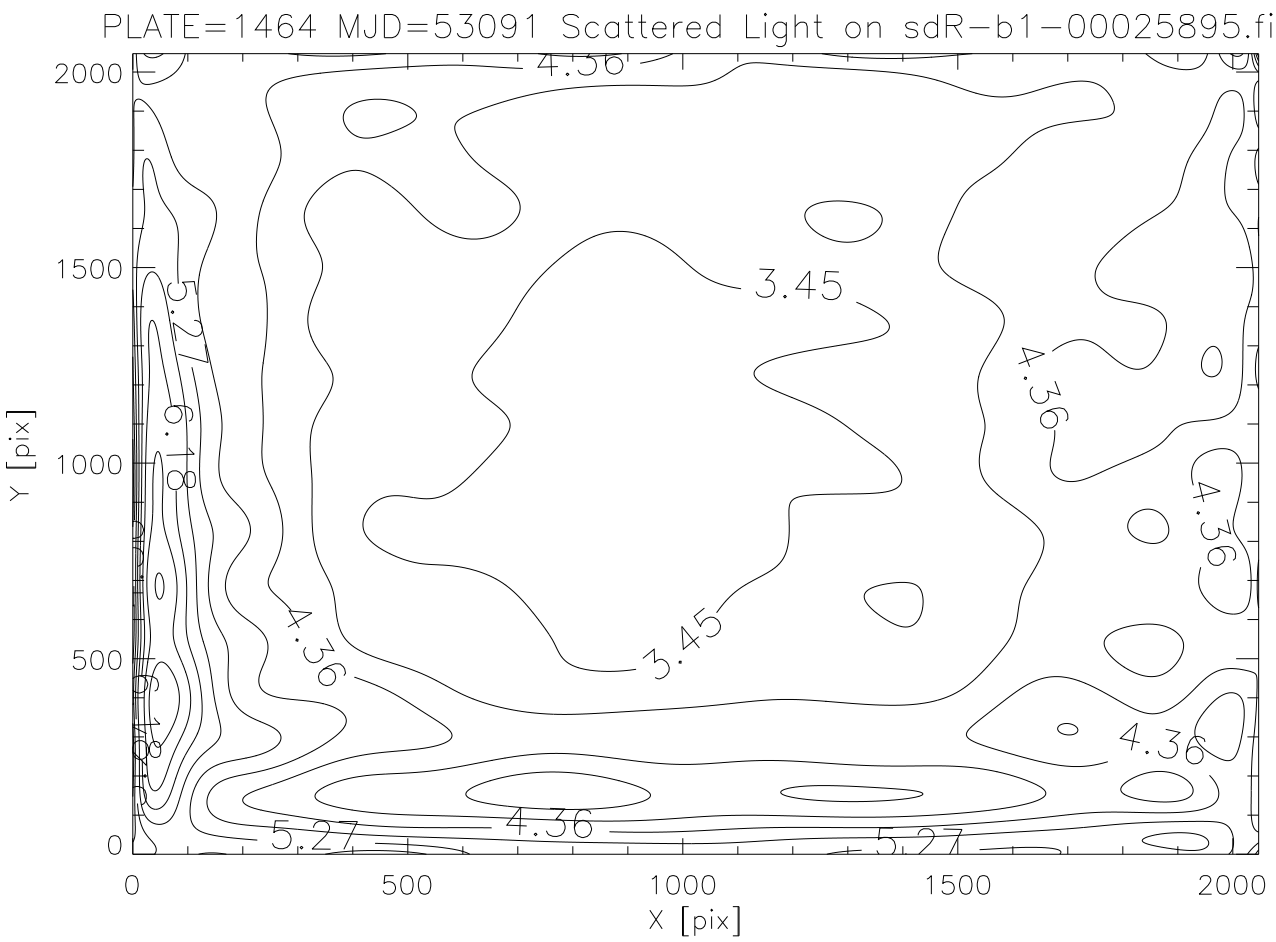

PLATE=1464 MJD=53091 sdR-b1-00025894.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 9.78 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

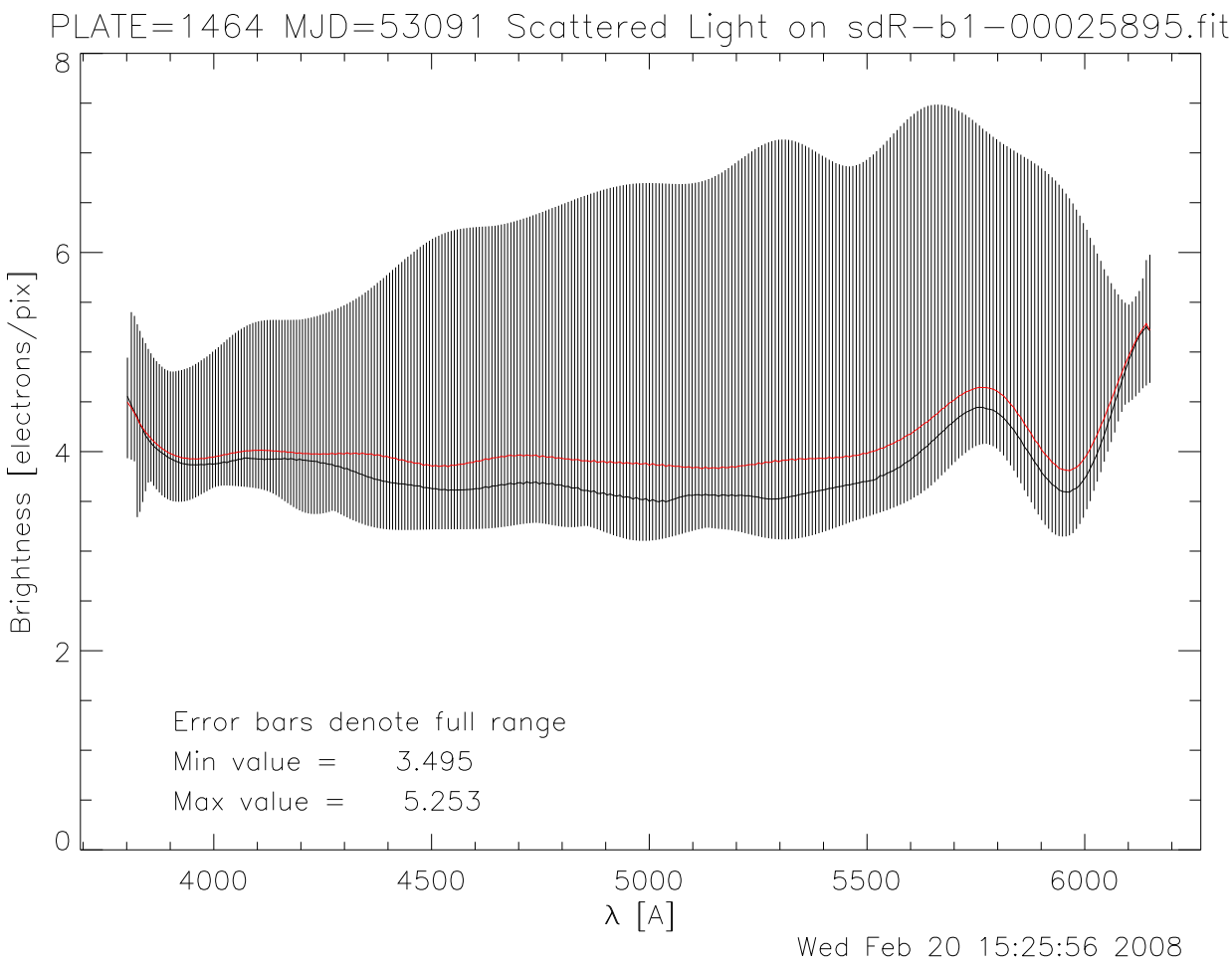

PLATE=1464 MJD=53091 sdR-b1-00025894.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 3.49 %
Fiber number
Focal Distance [mm]
Airmass


PLATE=1464 MJD=53091 Fiber-Flats for sdR-b1-00025896.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.374
Max value = 1.210
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Wed Feb 20 15:21:42 2008


PLATE=1464 MJD=53091 Scattered Light before halo removal on sdR-b1-00025895.f
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
6.5
6.5
6.5
6.5
6.5
6.5
6.5
6.5
6.5


PLATE=1464 MJD=53091 Scattered Light before halo removal on sdR-b1-00025895.f
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 5.455
Max value = 7.951
Wed Feb 20 15:22:38 2008


PLATE=1464 MJD=53091 Scattered Light on sdR-b1-00025895.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
4.36
3.45
5.27
6.18
4.36
3.45
4.36
4.36
5.27
4.36
5.27


PLATE=1464 MJD=53091 Scattered Light on sdR-b1-00025895.fit
Brightness [electrons/pix]
0
2
4
6
8
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 3.495
Max value = 5.253
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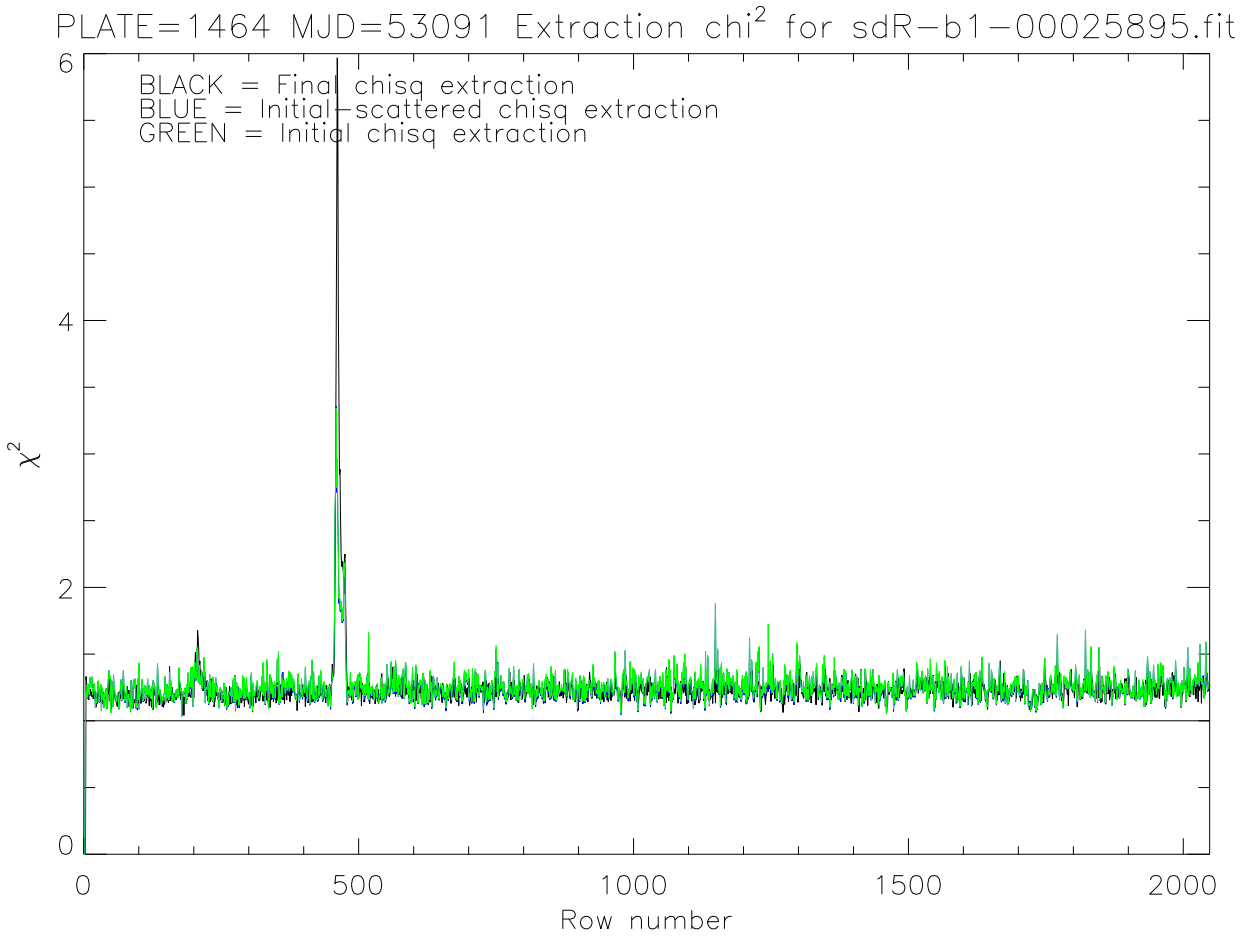
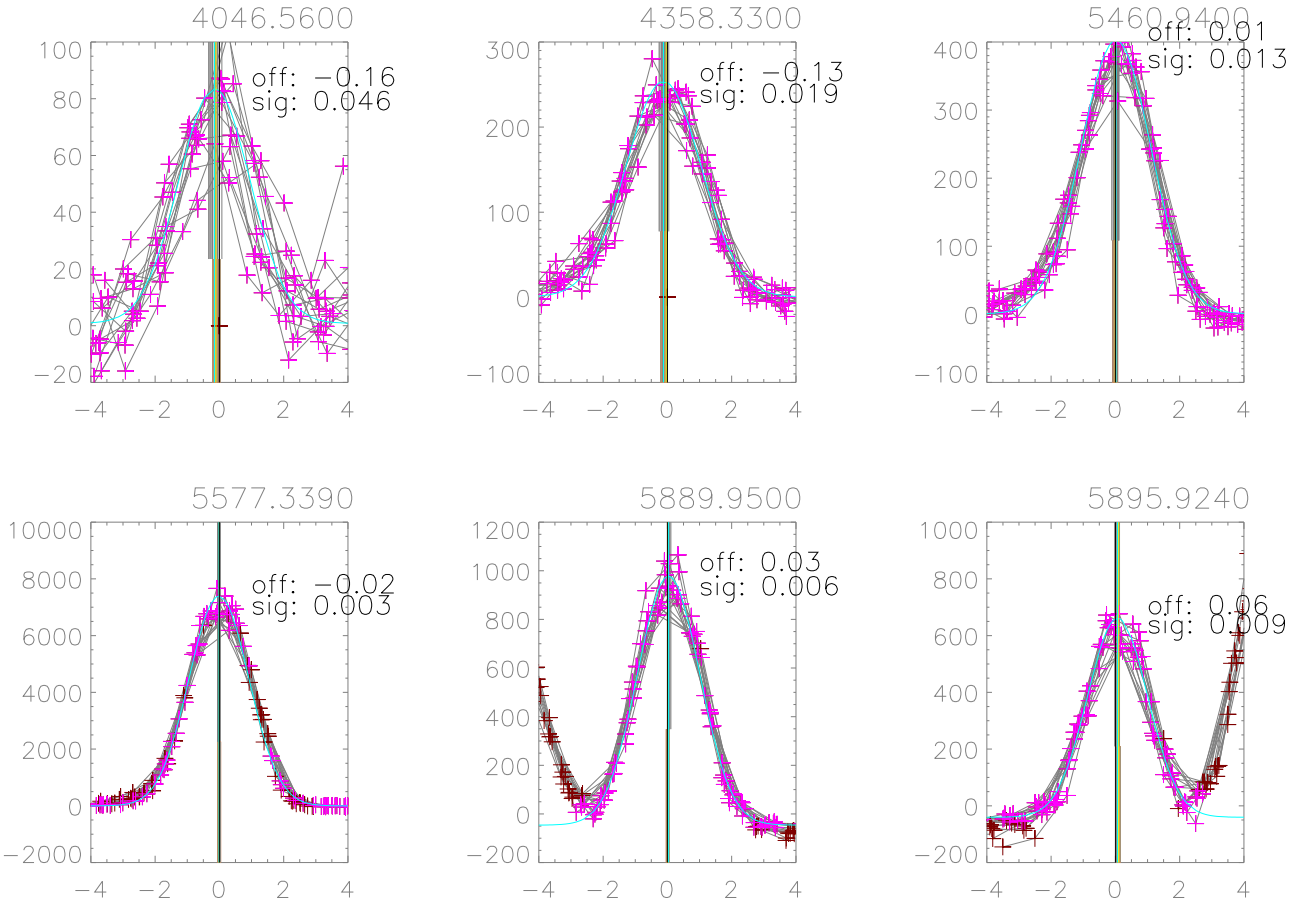
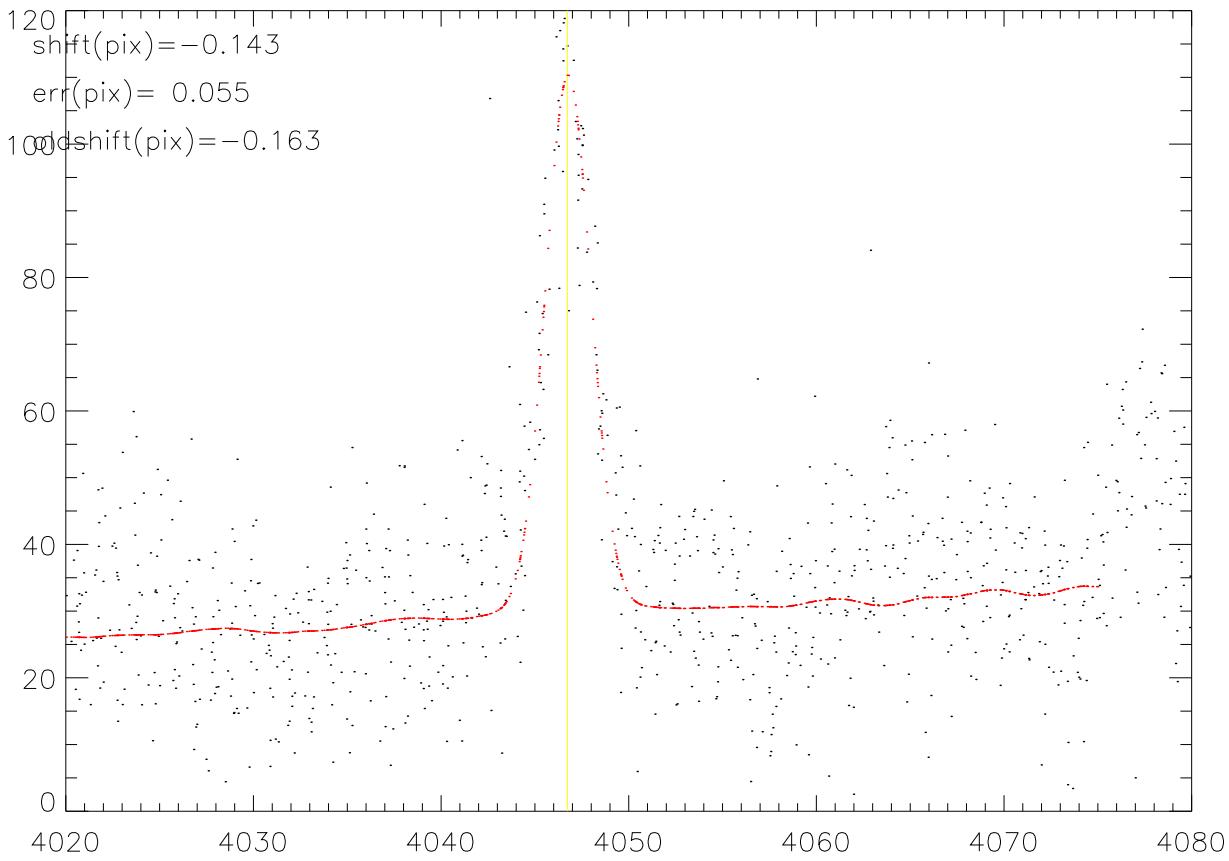
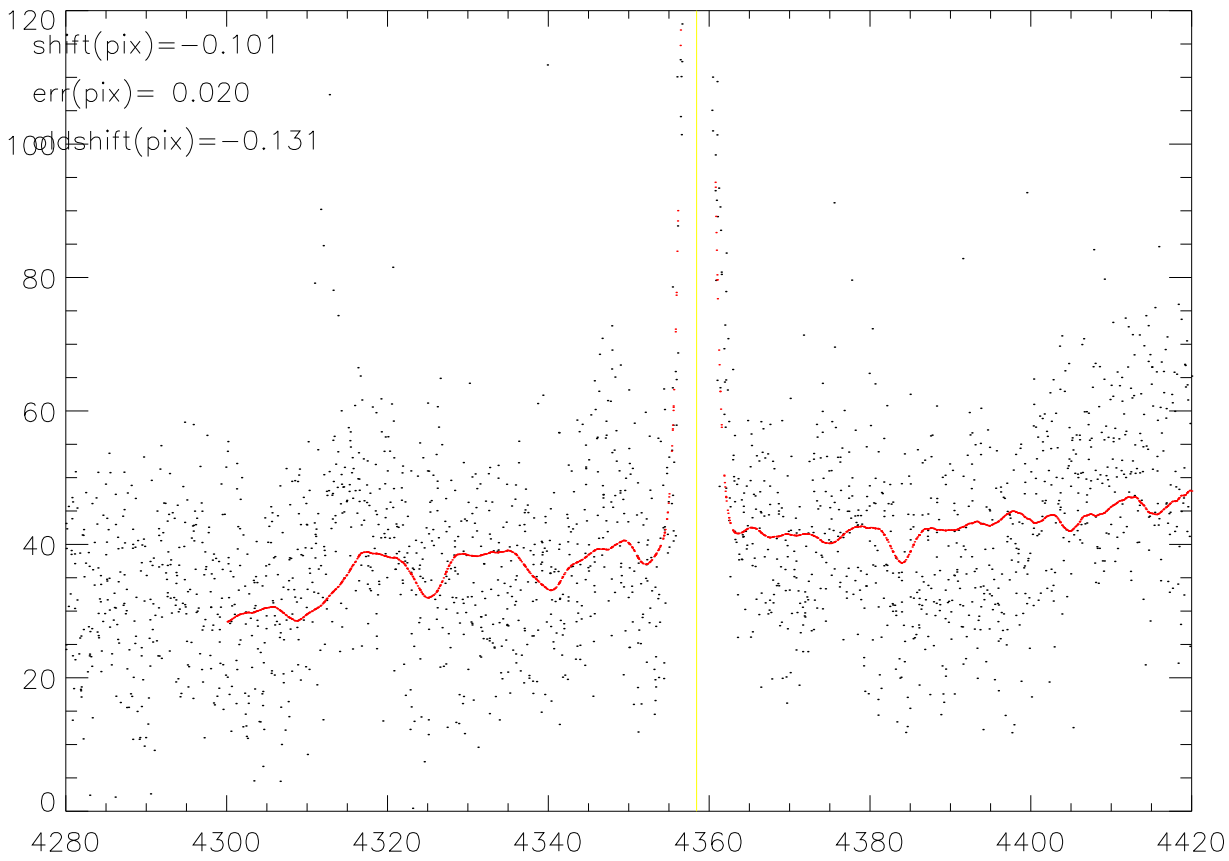
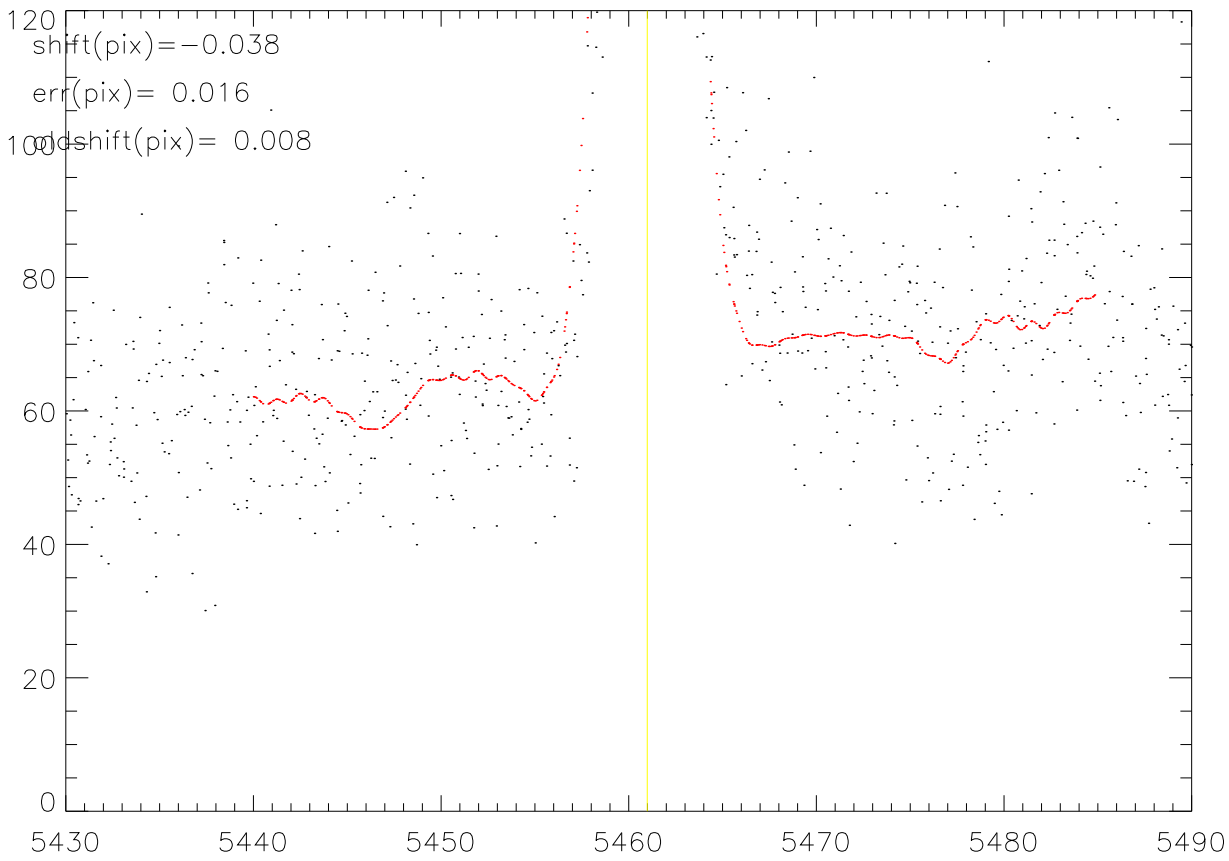
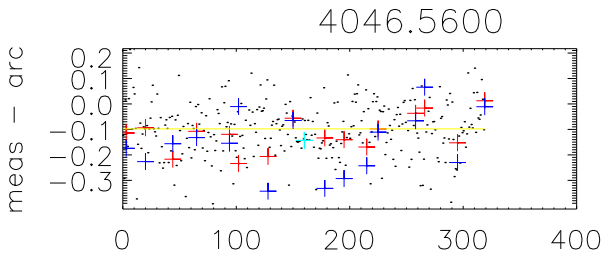

PLATE=1464 MJD=53091 Extraction chi^2 for sdR-b1-00025895.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
0
500
1000
1500
2000
Row number

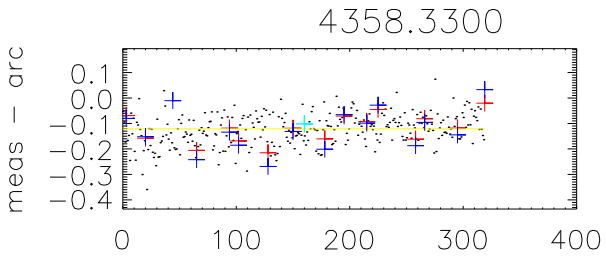

4046.5600
off: −0.16
sig: 0.046
4358.3300
off: −0.13
sig: 0.019
5460.9400
off: 0.01
sig: 0.013
5577.3390
off: −0.02
sig: 0.003
5889.9500
off: 0.03
sig: 0.006
5895.9240
off: 0.06
sig: 0.009

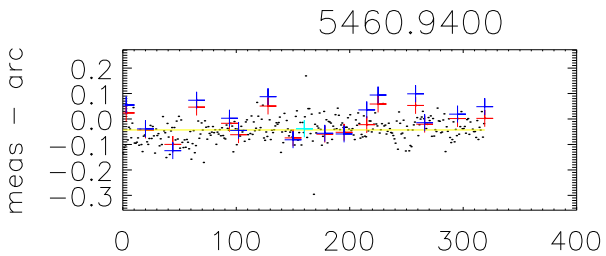

shift(pix)=−0.143
err(pix)= 0.055
oldshift(pix)=−0.163
120
100
80
60
40
20
0
4020
4030
4040
4050
4060
4070
4080

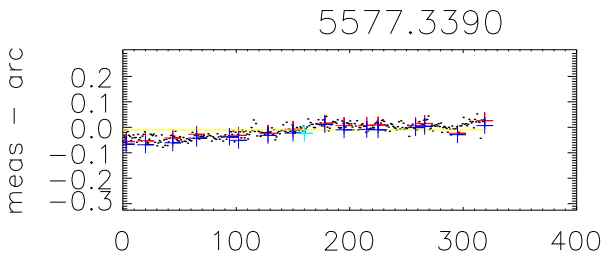

shift(pix)=−0.101
err(pix)= 0.020
oldshift(pix)=−0.131
120
100
80
60
40
20
0
4280
4300
4320
4340
4360
4380
4400
4420

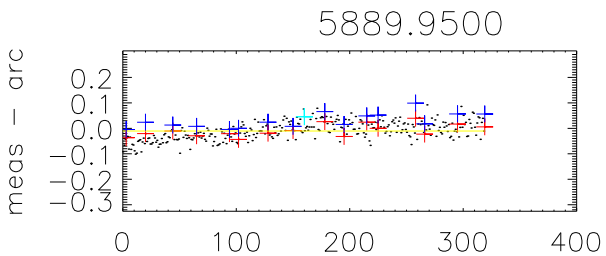

shift(pix)=−0.038
err(pix)= 0.016
oldshift(pix)= 0.008
120
100
80
60
40
20
0
5430
5440
5450
5460
5470
5480
5490

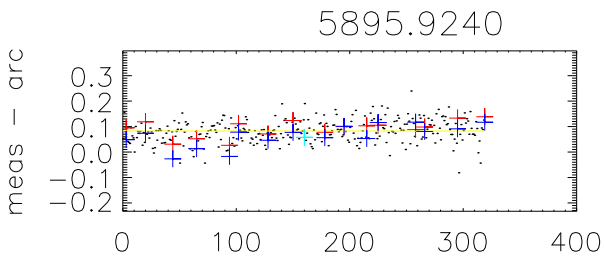

4046.5600
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

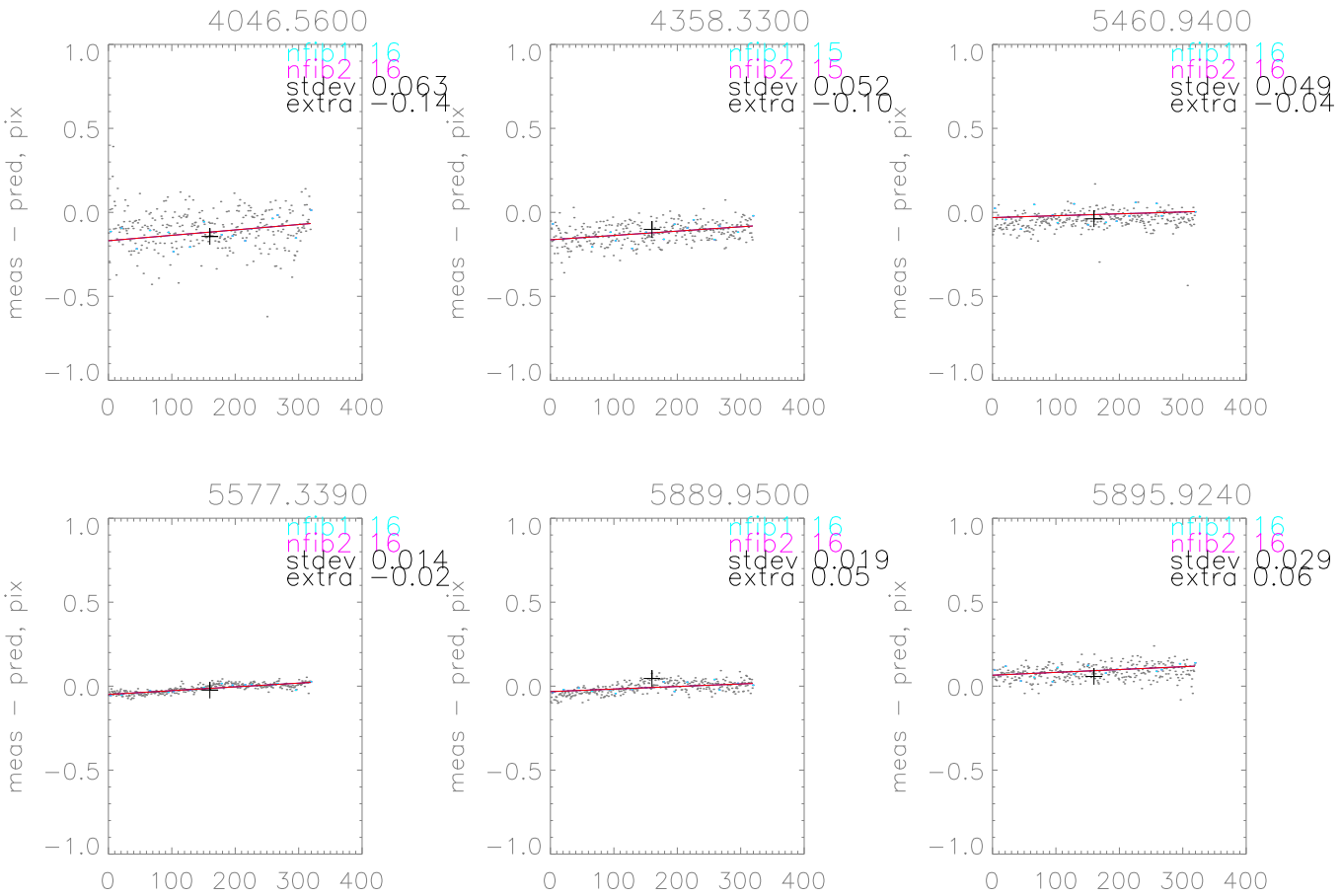

4358.3300
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

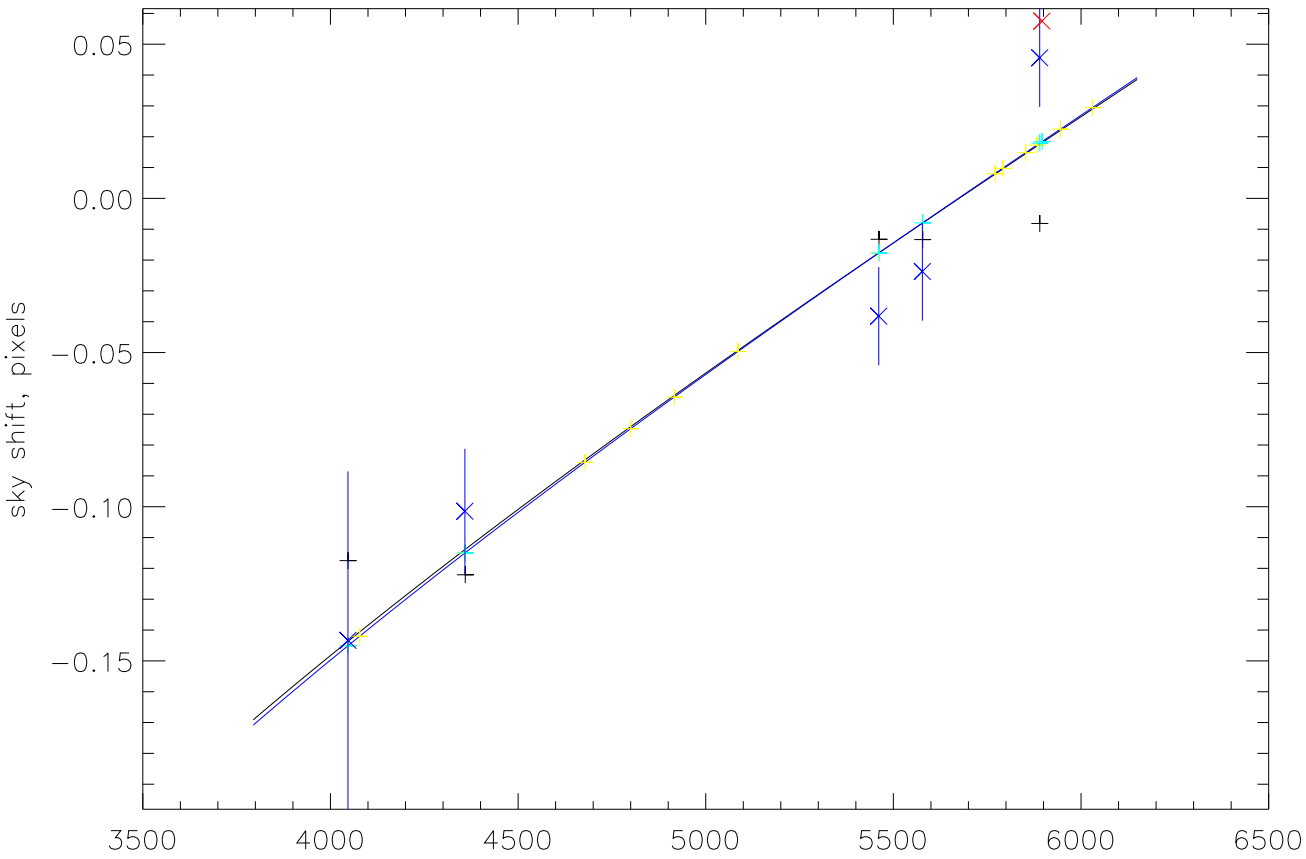

5460.9400
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

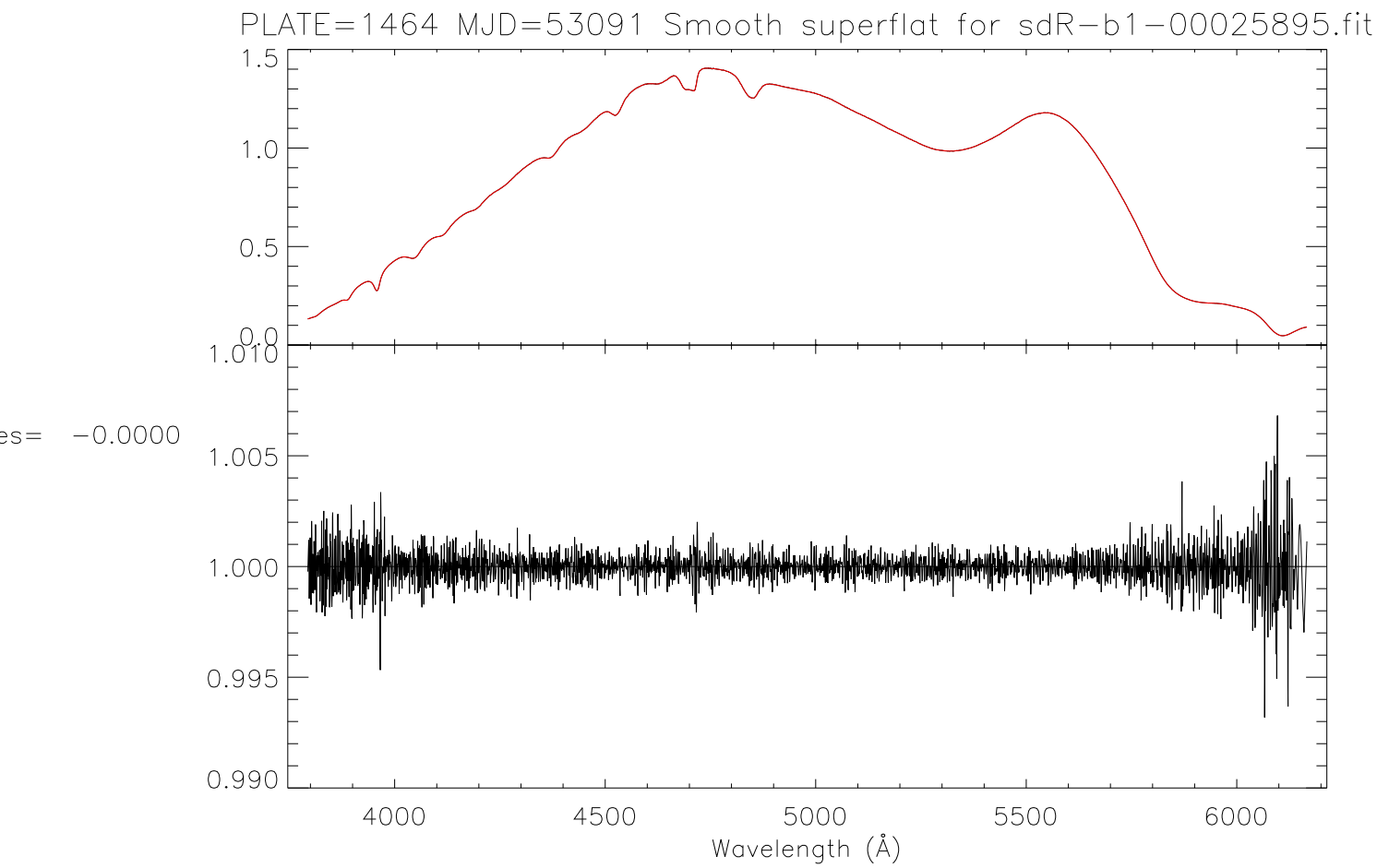

5577.3390
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400


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

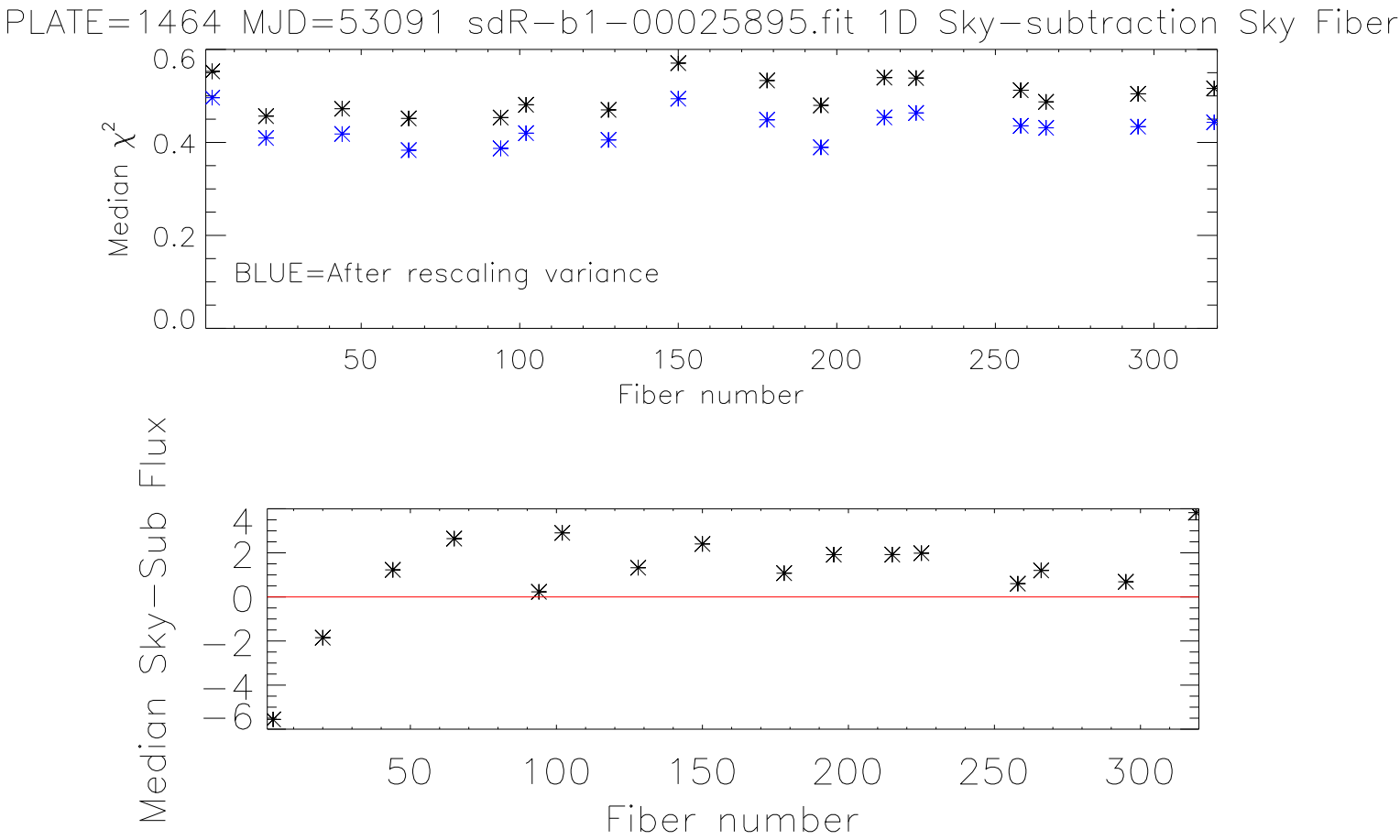

5895.9240
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

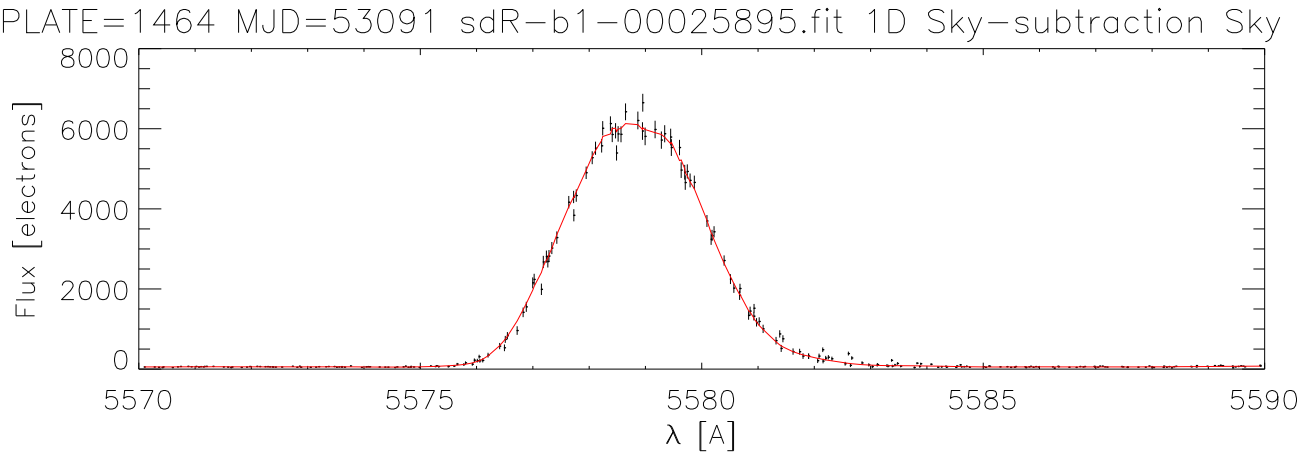

4046.5600
nfib1 16
nfib2 16
stdev 0.063
extra −0.14
4358.3300
nfib1 15
nfib2 15
stdev 0.052
extra −0.10
5460.9400
nfib1 16
nfib2 16
stdev 0.049
extra −0.04
5577.3390
nfib1 16
nfib2 16
stdev 0.014
extra −0.02
5889.9500
nfib1 16
nfib2 16
stdev 0.019
extra 0.05
5895.9240
nfib1 16
nfib2 16
stdev 0.029
extra 0.06
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

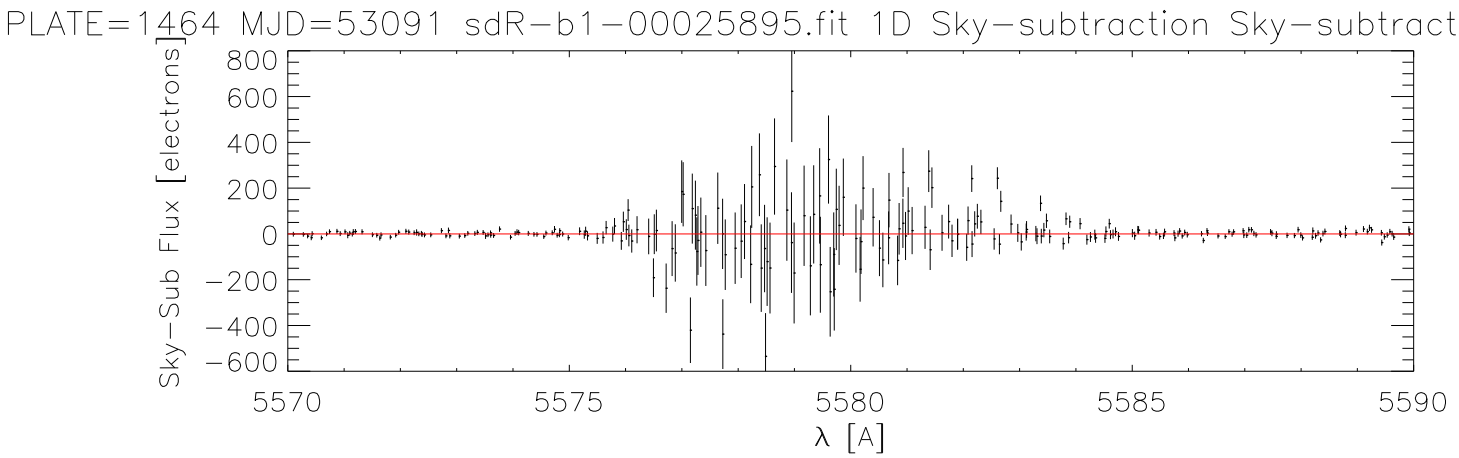

0.05
0.00
−0.05
−0.10
−0.15
sky shift, pixels
3500
4000
4500
5000
5500
6000
6500

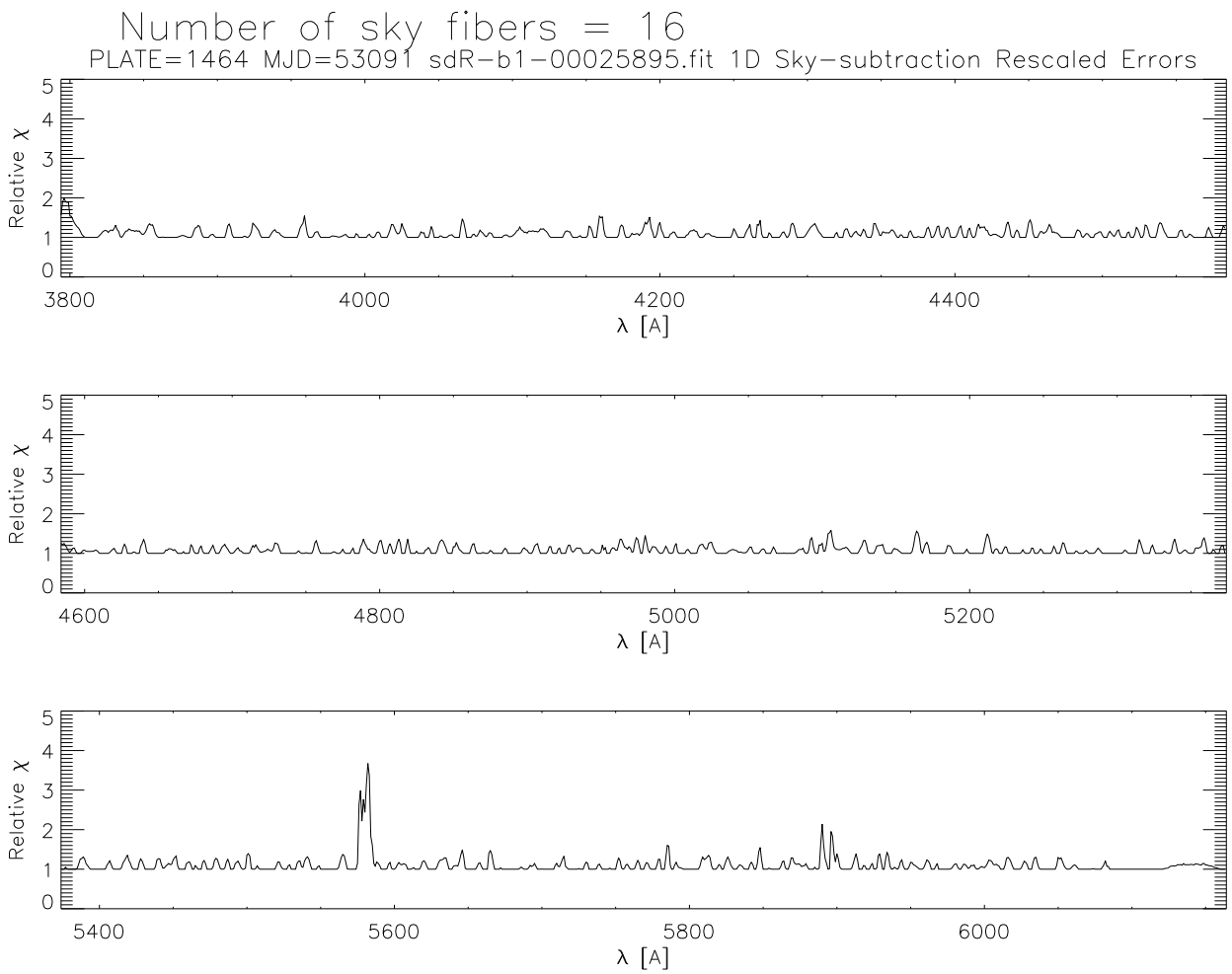

PLATE=1464 MJD=53091 Smooth superflat for sdR-b1-00025895.fit
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
4000
4500
5000
5500
6000
Wavelength (Å)

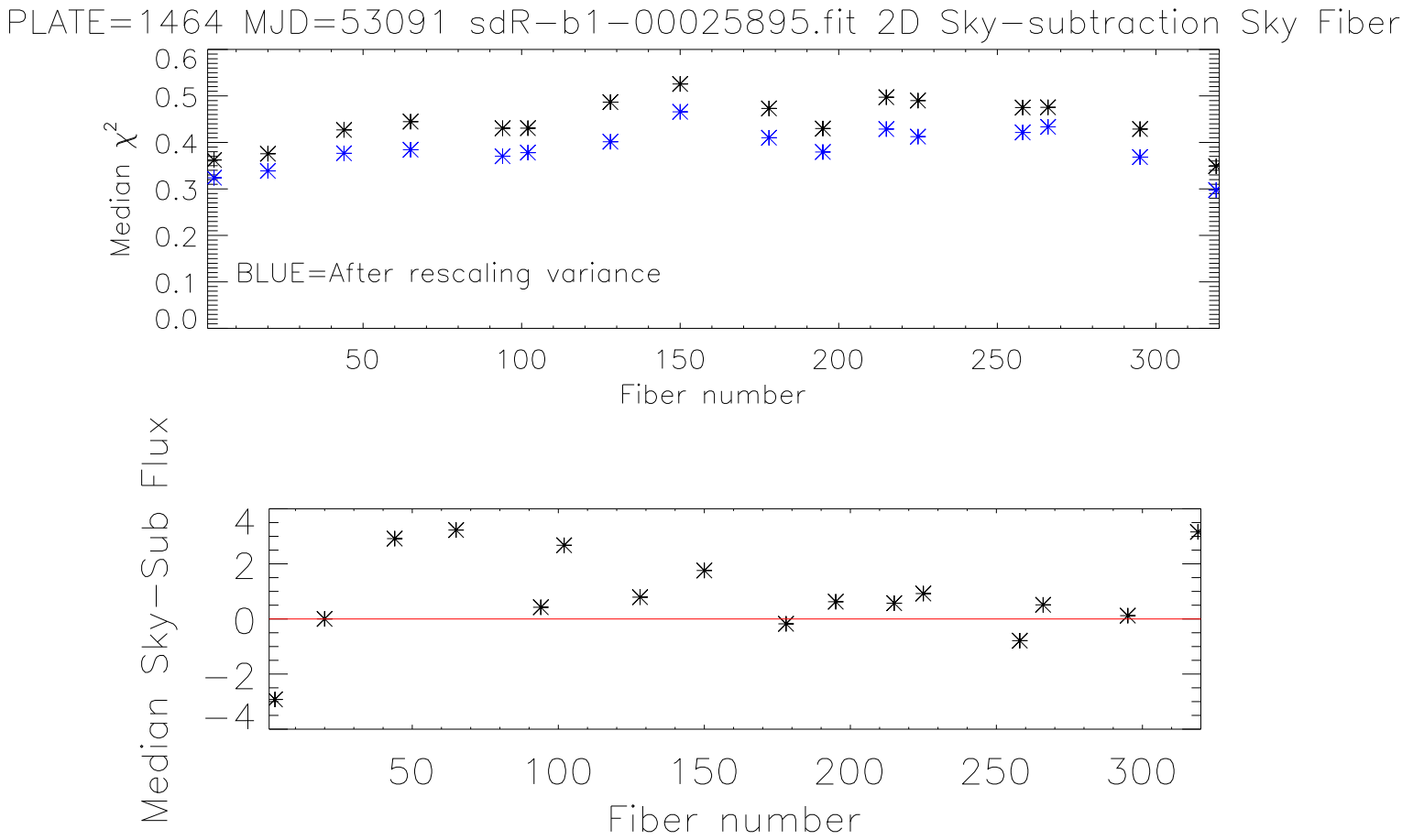
es= −0.0000

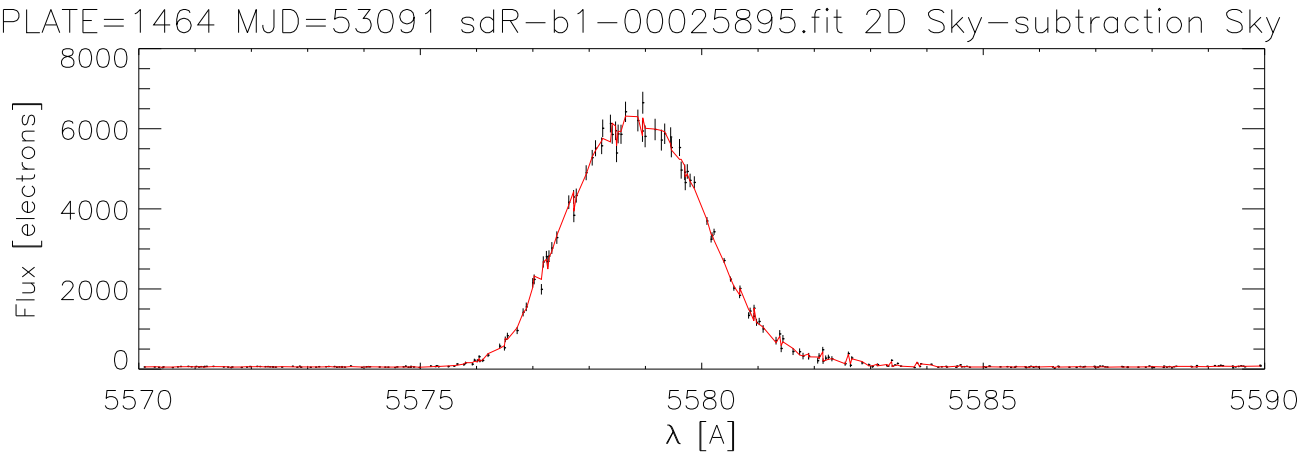

PLATE=1464 MJD=53091 sdR-b1-00025895.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.2
0.4
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-6
-4
-2
0
2
4
50
100
150
200
250
300
Fiber number

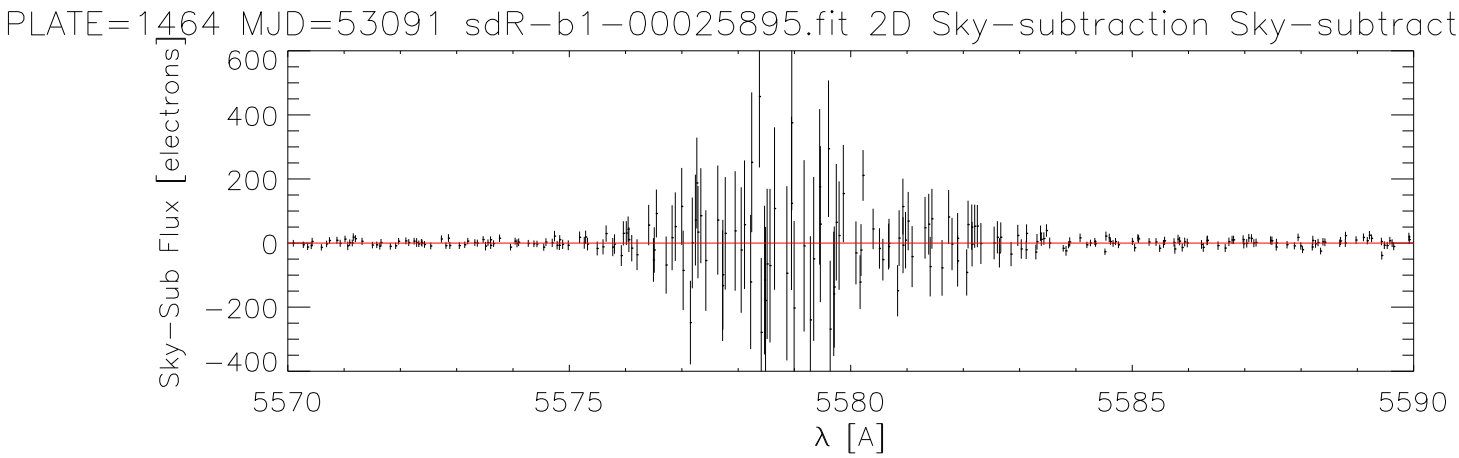

PLATE=1464 MJD=53091 sdR-b1-00025895.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

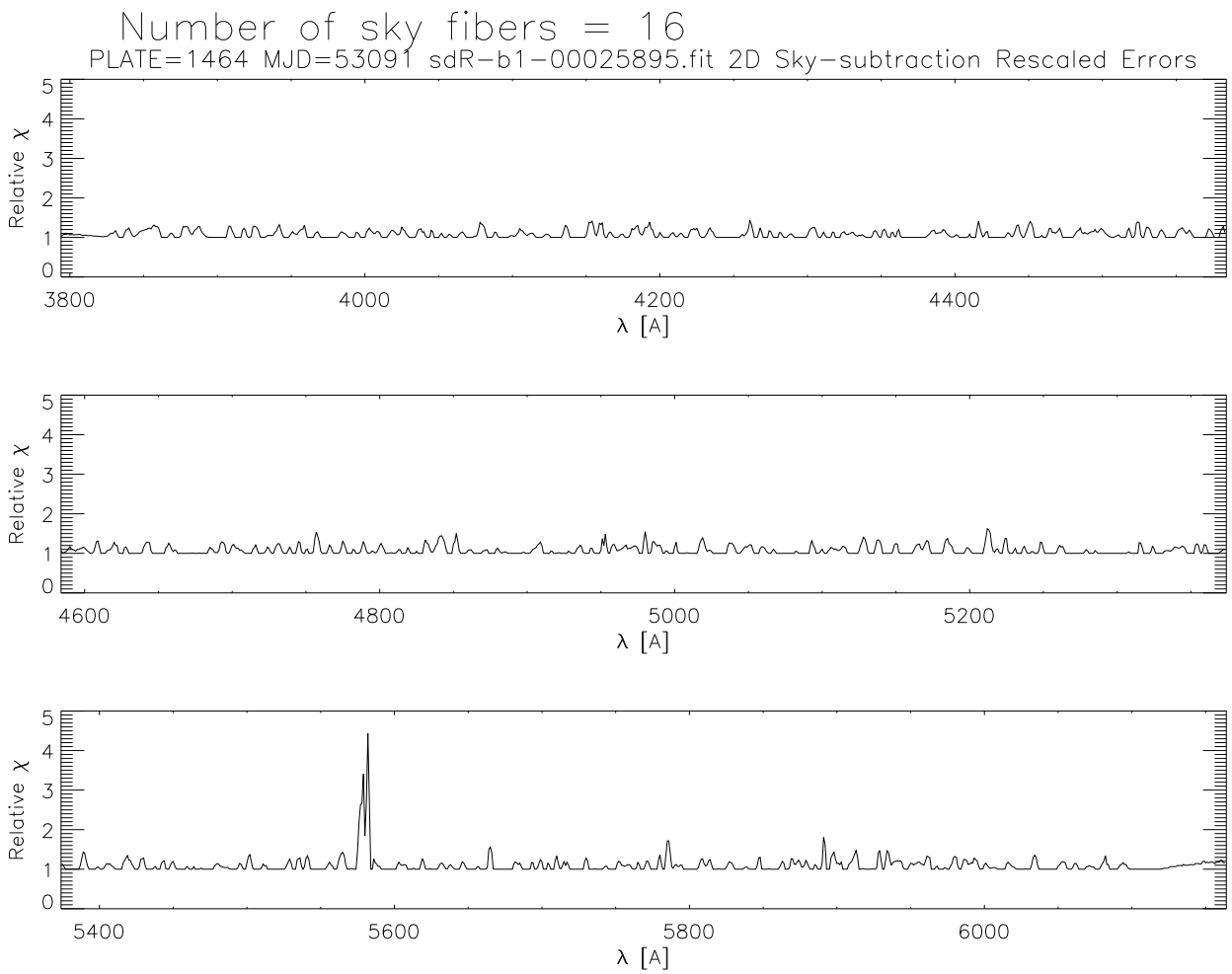

PLATE=1464 MJD=53091 sdR-b1-00025895.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
800
600
400
200
0
-200
-400
-600
5570
5575
5580
5585
5590
λ [A]

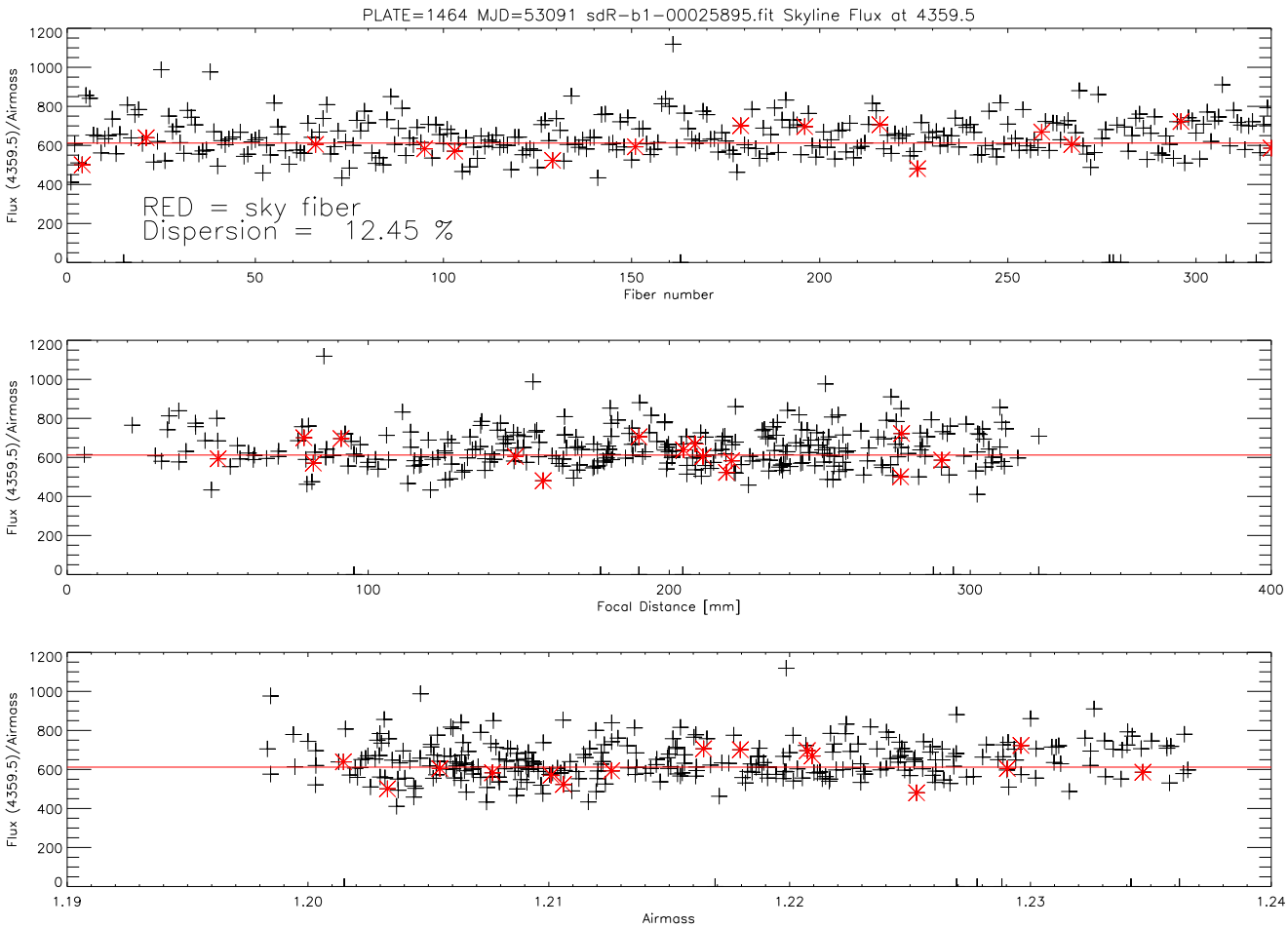

Number of sky fibers = 16
PLATE=1464 MJD=53091 sdR-b1-00025895.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

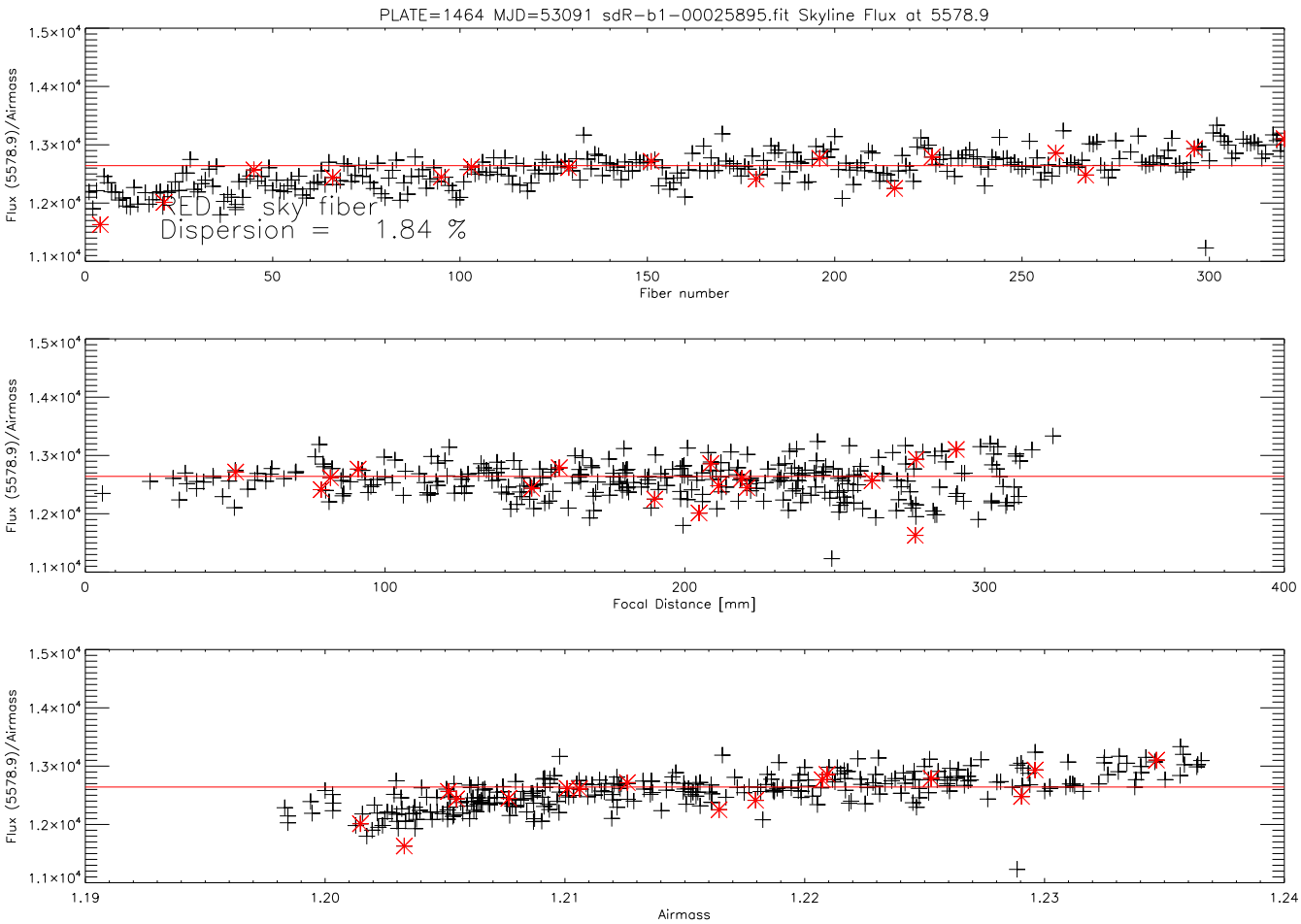

PLATE=1464 MJD=53091 sdR-b1-00025895.fit 2D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-4
-2
0
2
4
50
100
150
200
250
300
Fiber number

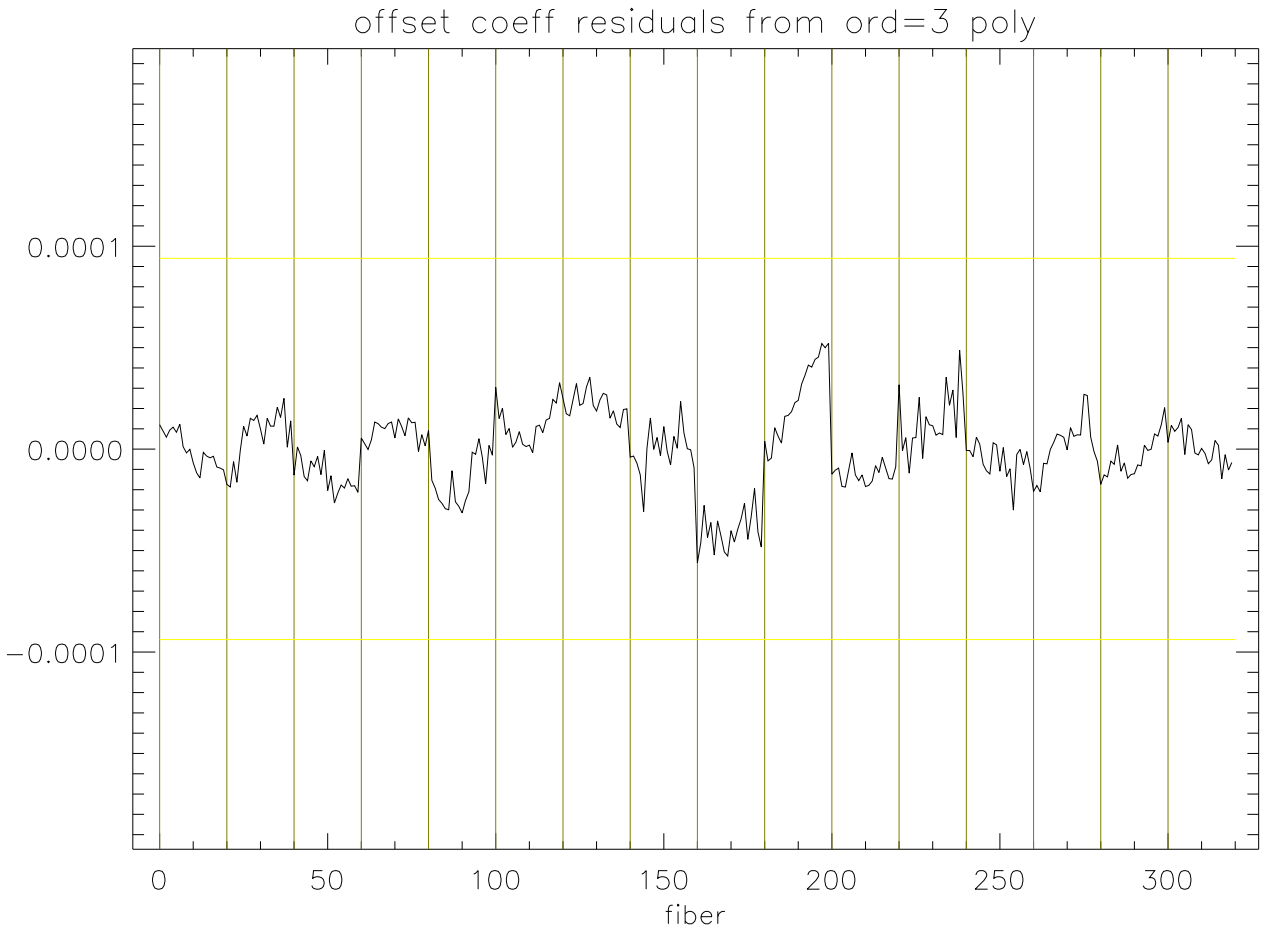

PLATE=1464 MJD=53091 sdR-b1-00025895.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

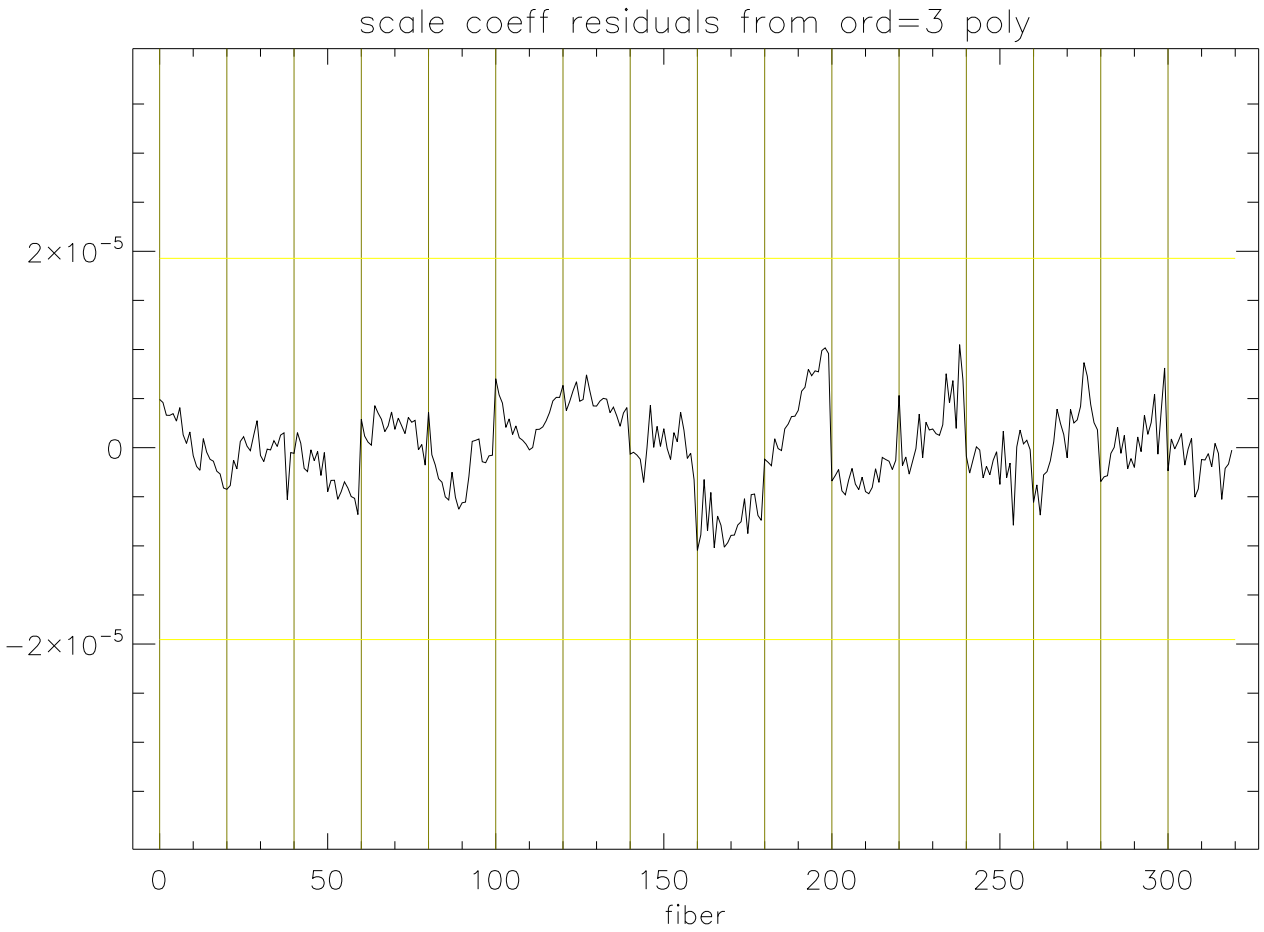

PLATE=1464 MJD=53091 sdR-b1-00025895.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
-200
-400
5570
5575
5580
5585
5590
λ [A]

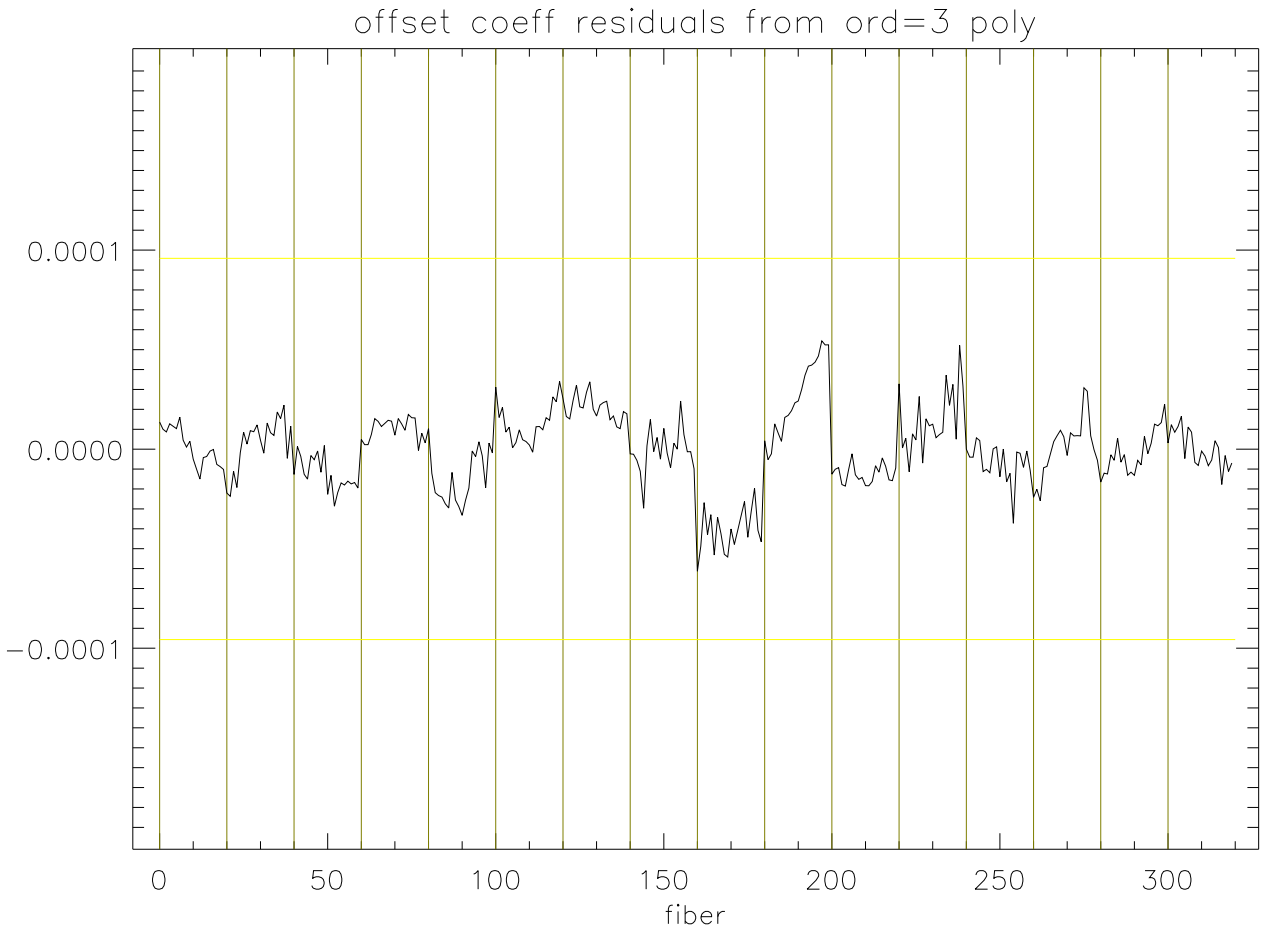

Number of sky fibers = 16
PLATE=1464 MJD=53091 sdR-b1-00025895.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

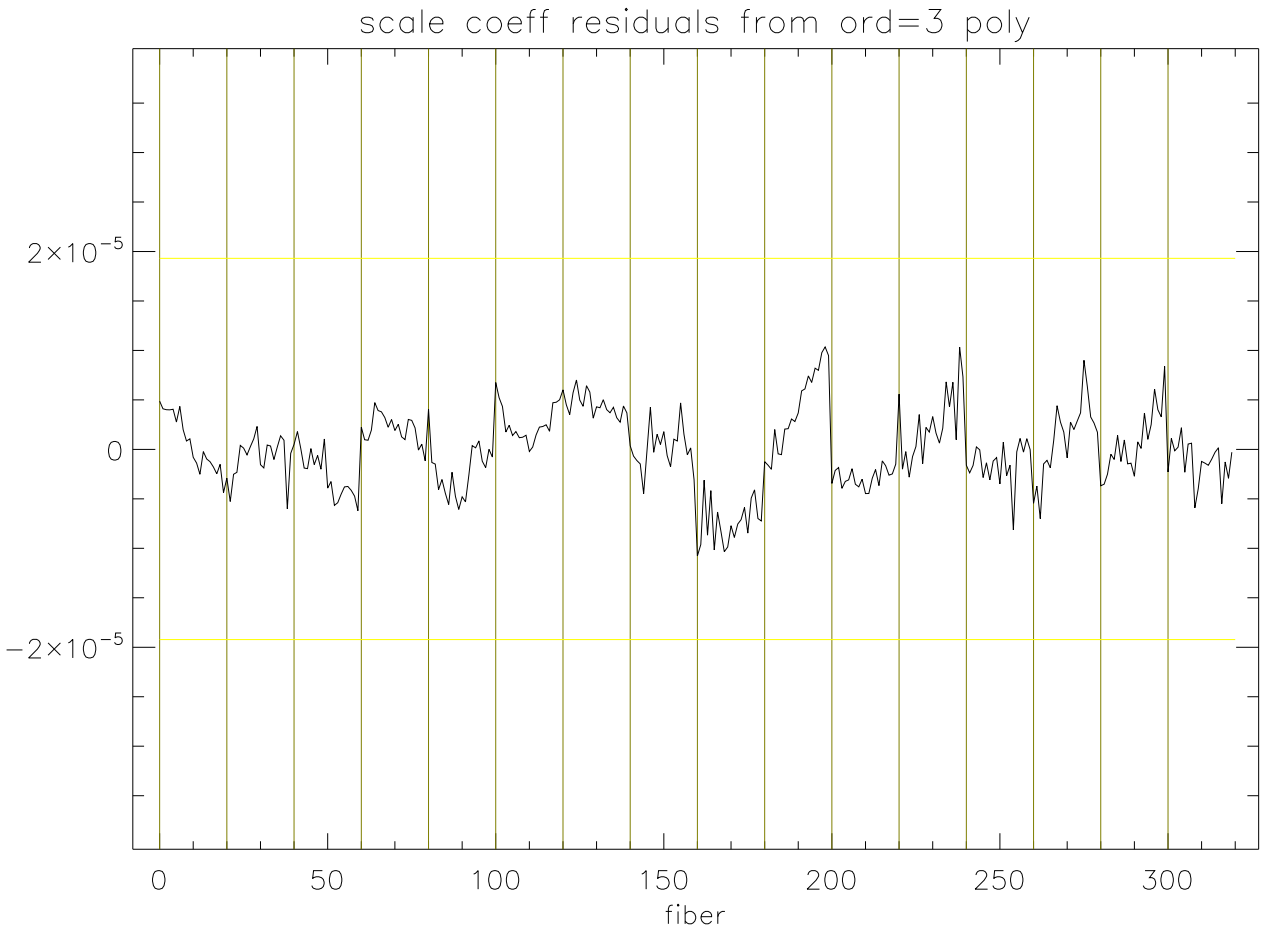

PLATE=1464 MJD=53091 sdR-b1-00025895.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 12.45 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

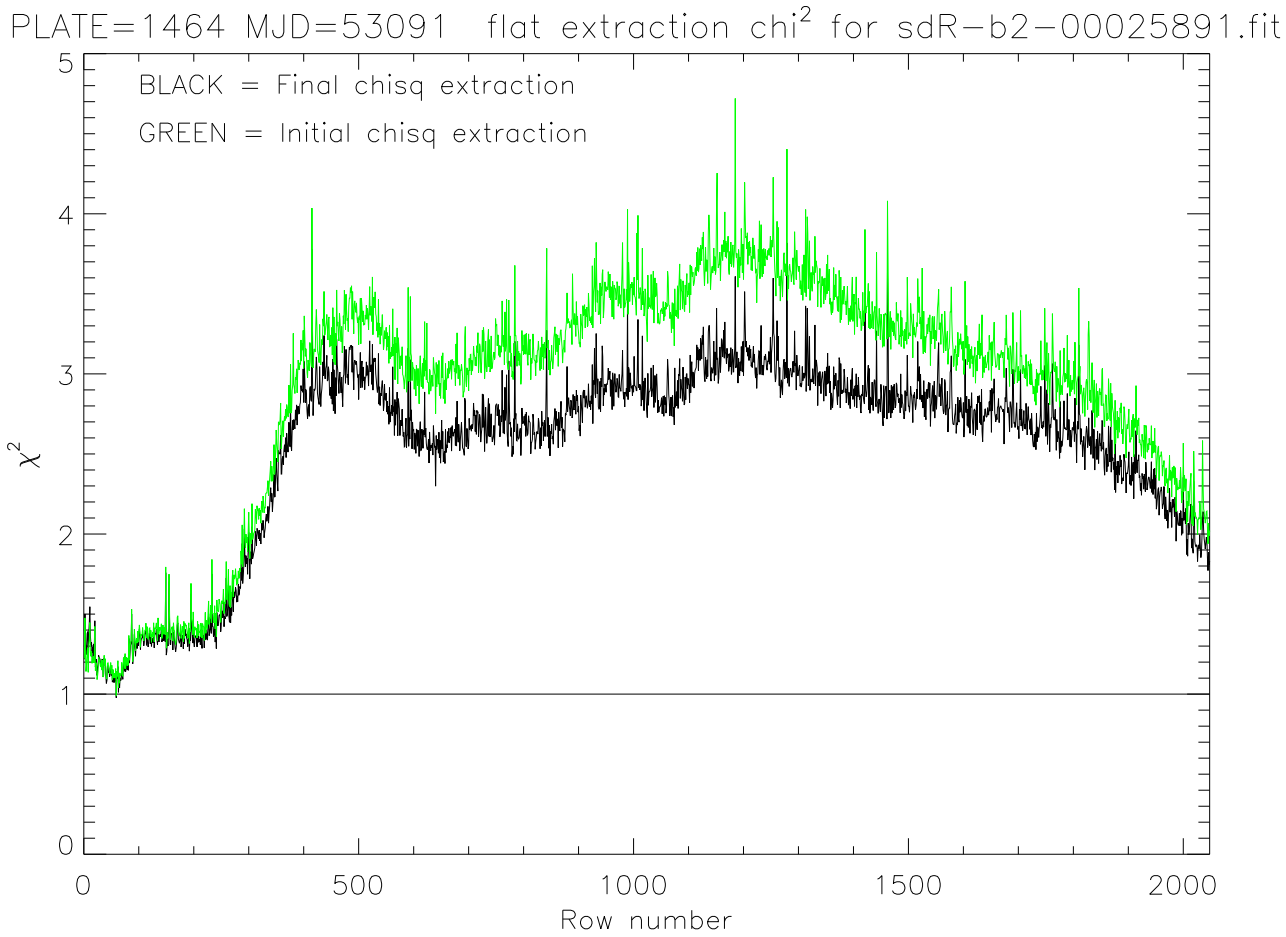

PLATE=1464 MJD=53091 sdR-b1-00025895.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
Fiber number
RED: sky fiber
Dispersion = 1.84 %
Focal Distance [mm]
Airmass

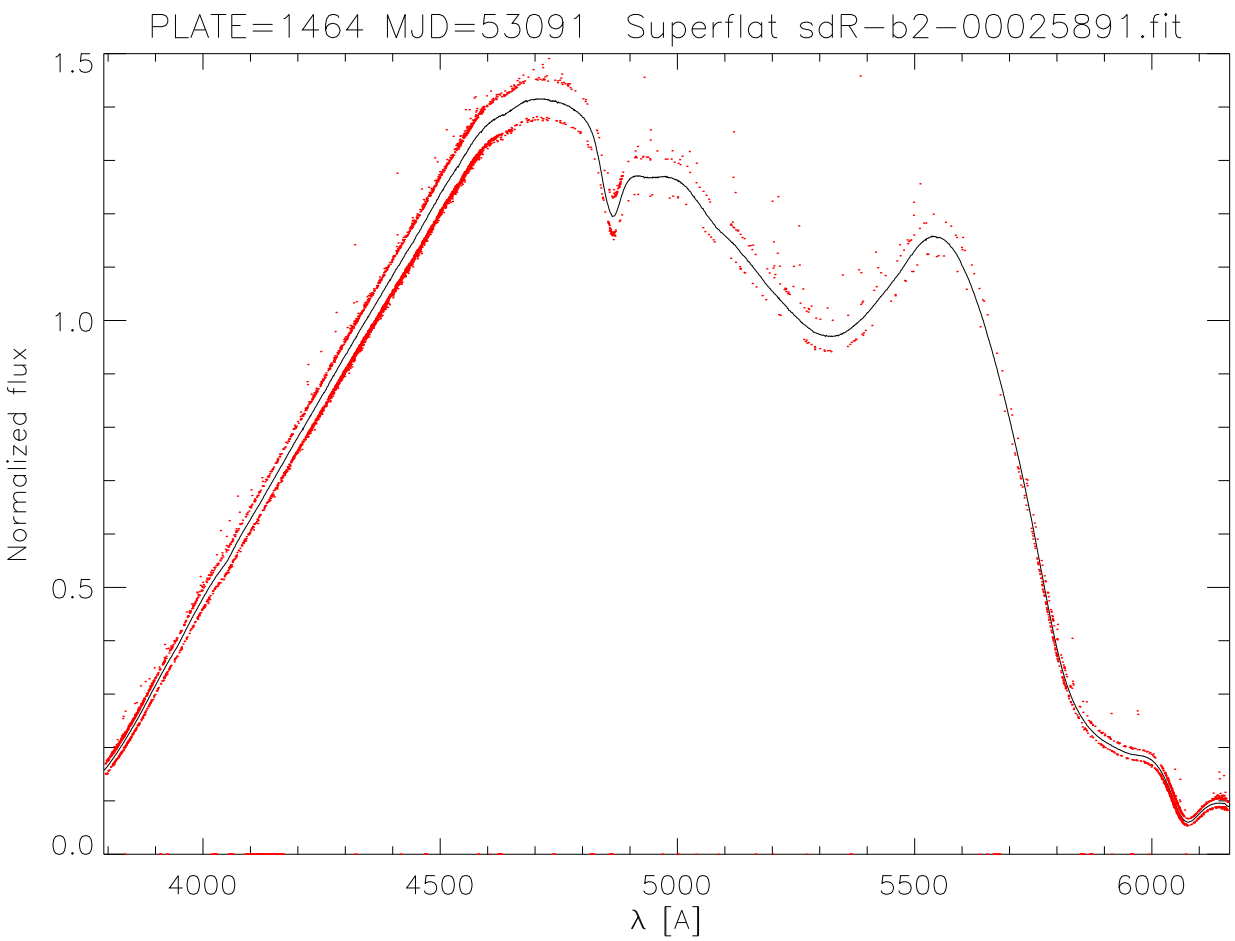

offset coeff residuals from ord=3 poly
0.0001
0.0000
−0.0001
0
50
100
150
200
250
300
fiber

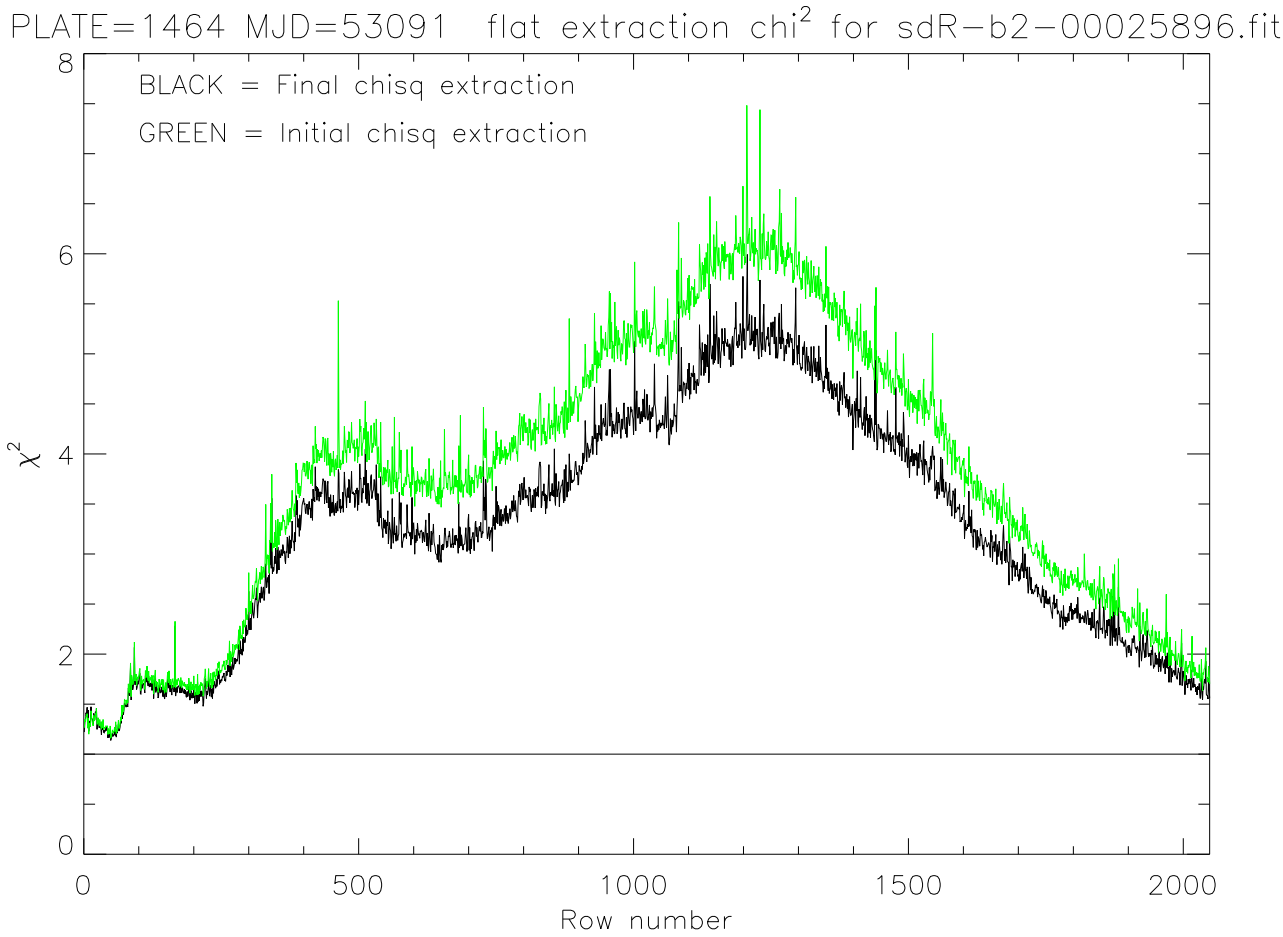

scale coeff residuals from ord=3 poly
2×10⁻⁵
0
−2×10⁻⁵
0
50
100
150
200
250
300
fiber

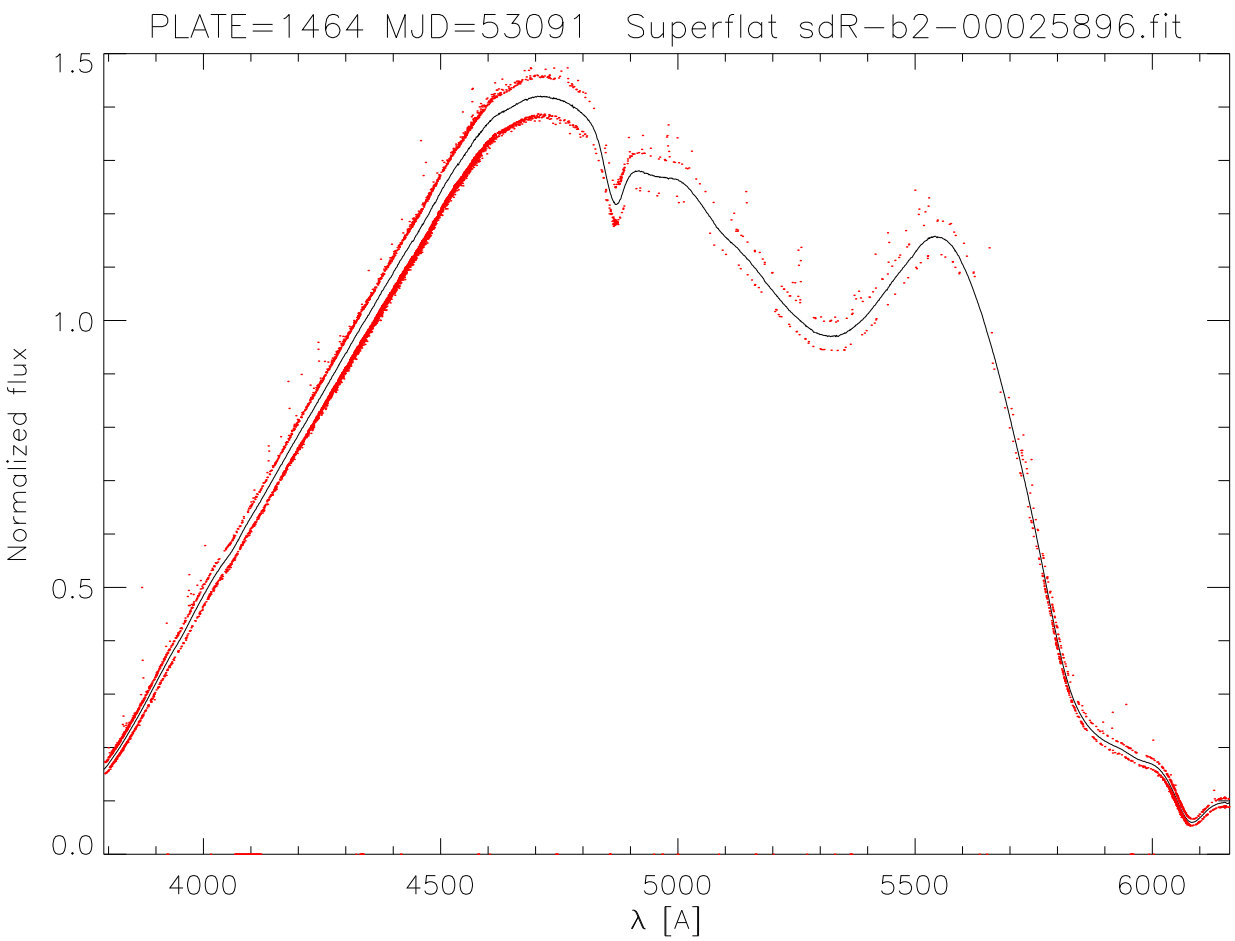

offset coeff residuals from ord=3 poly
0.0001
0.0000
−0.0001
0
50
100
150
200
250
300
fiber

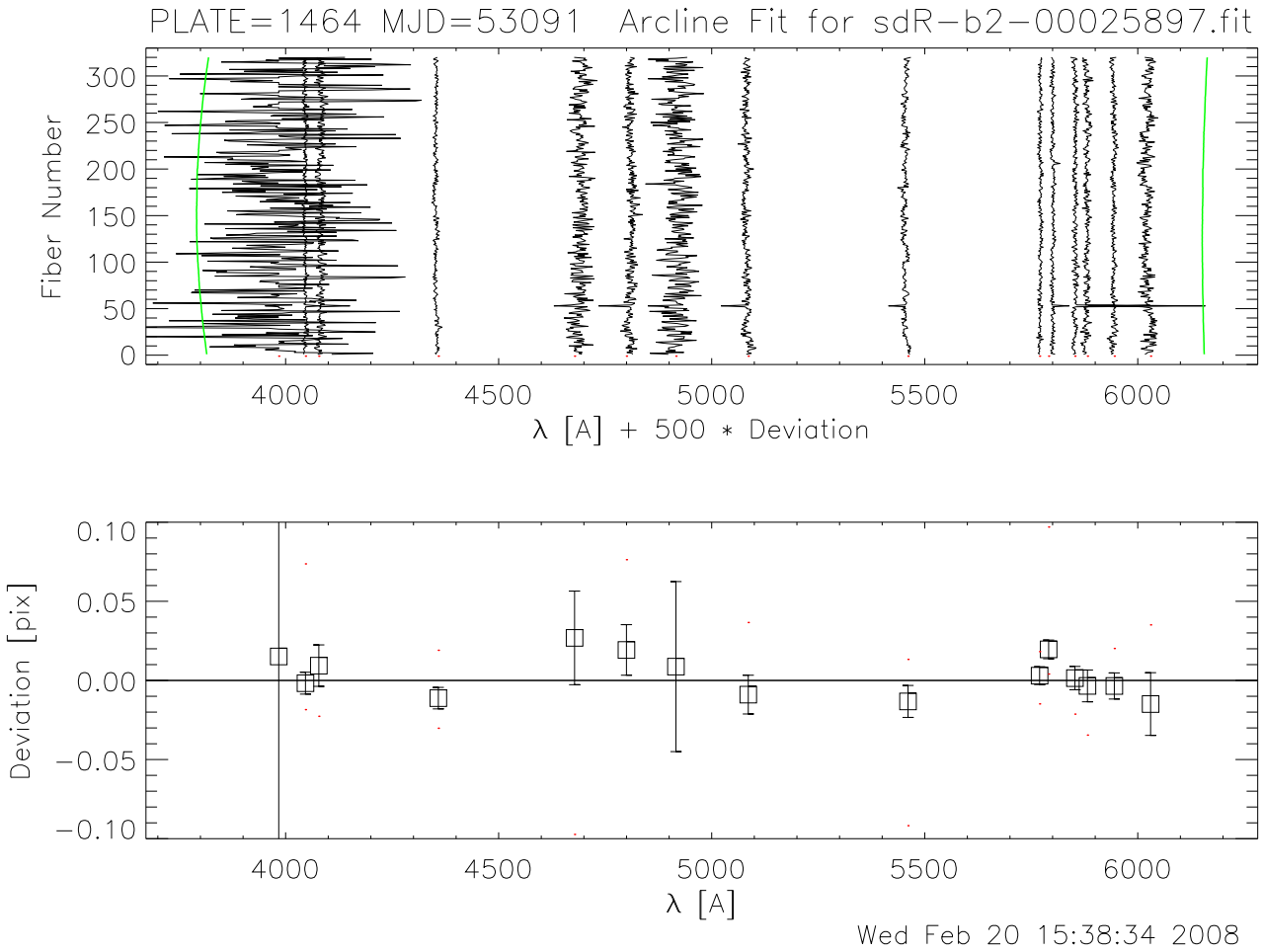

scale coeff residuals from ord=3 poly
2×10^-5
0
−2×10^-5
0
50
100
150
200
250
300
fiber


PLATE=1464 MJD=53091 flat extraction chi^2 for sdR-b2-00025891.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
1
2
3
4
5
0
500
1000
1500
2000


PLATE=1464 MJD=53091 Superflat sdR-b2-00025891.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]


PLATE=1464 MJD=53091 flat extraction chi^2 for sdR−b2−00025896.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
0
500
1000
1500
2000
Row number


PLATE=1464 MJD=53091 Superflat sdR-b2-00025896.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]


PLATE=1464 MJD=53091 Arcline Fit for sdR-b2-00025897.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]
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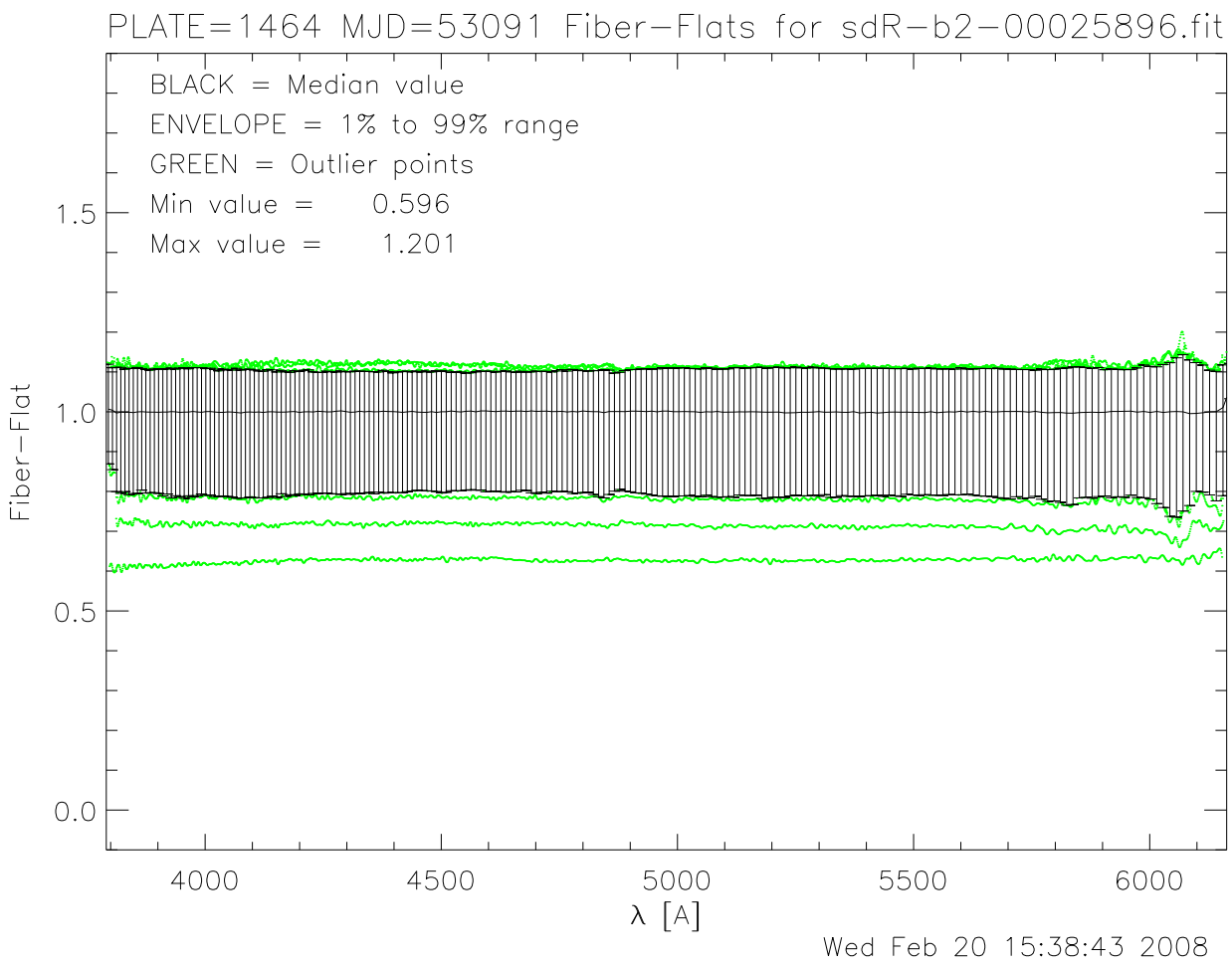
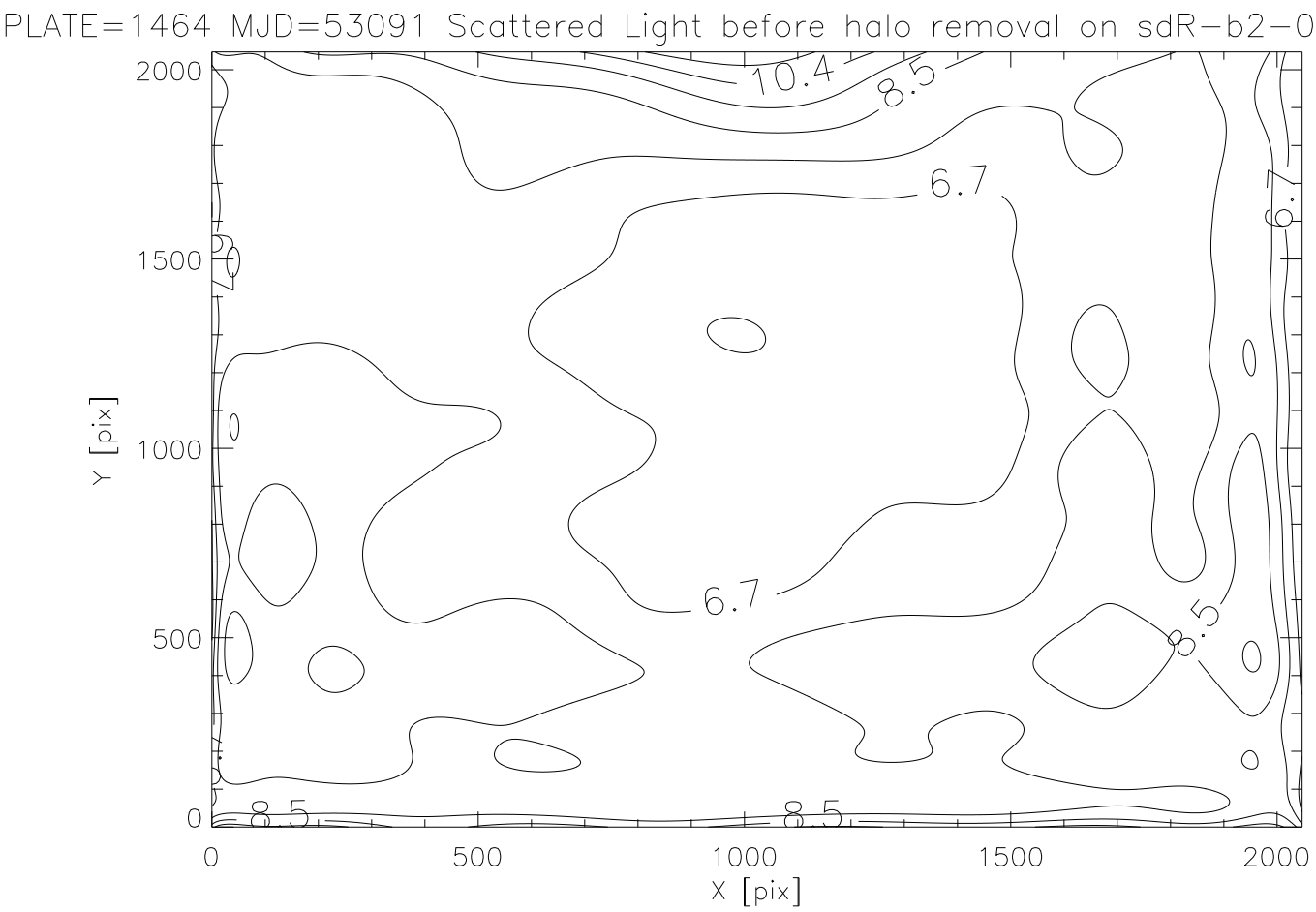
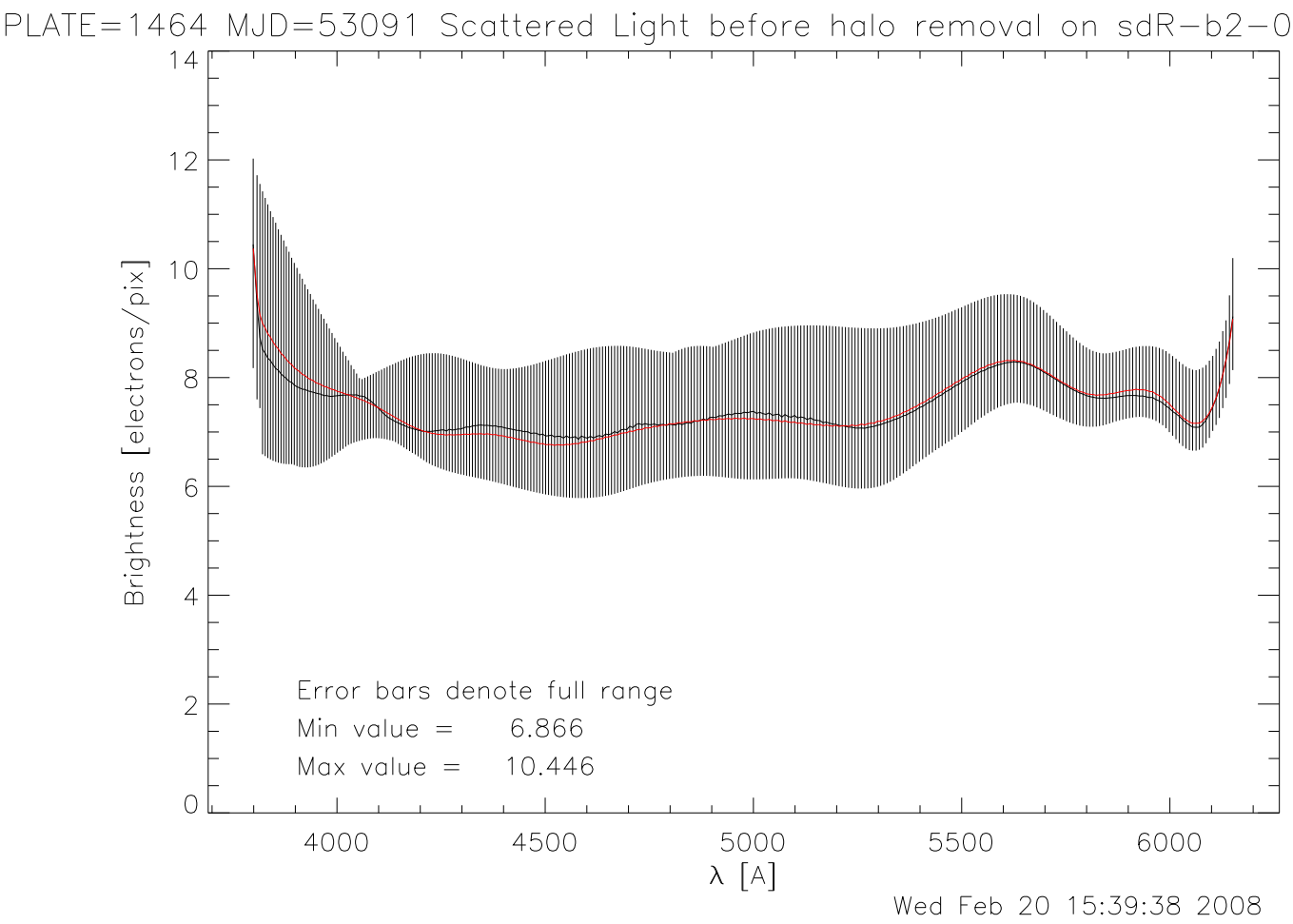
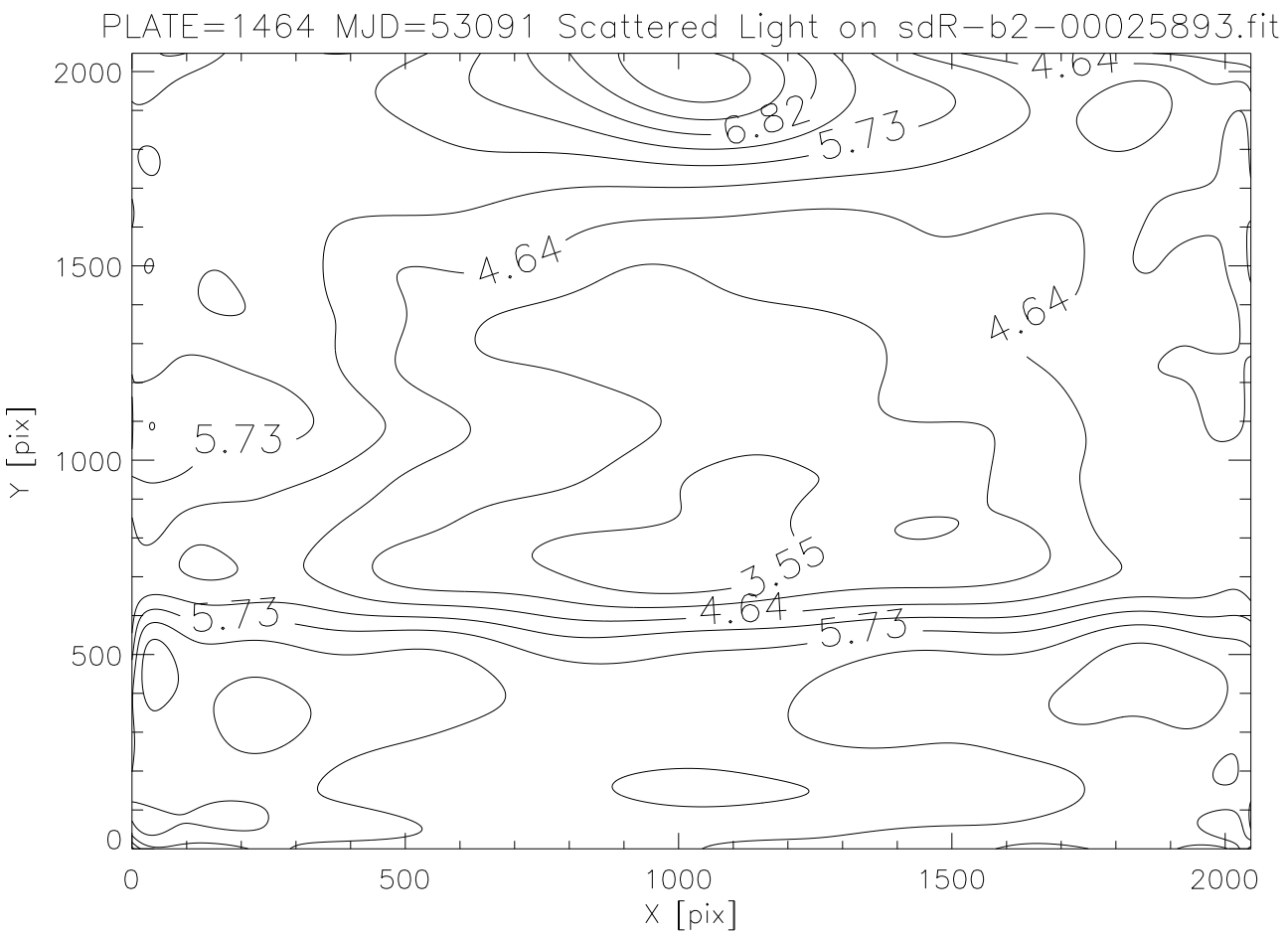
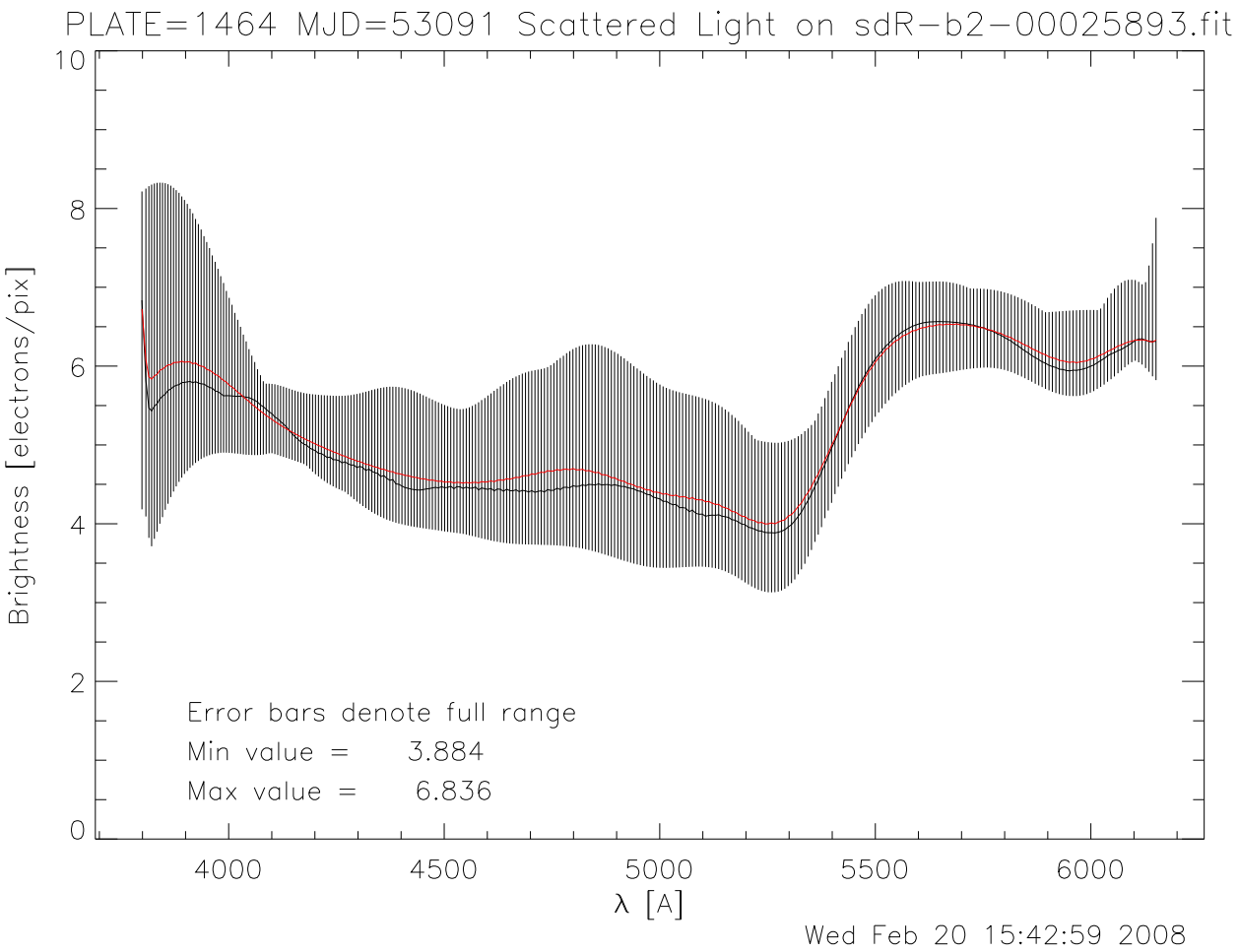
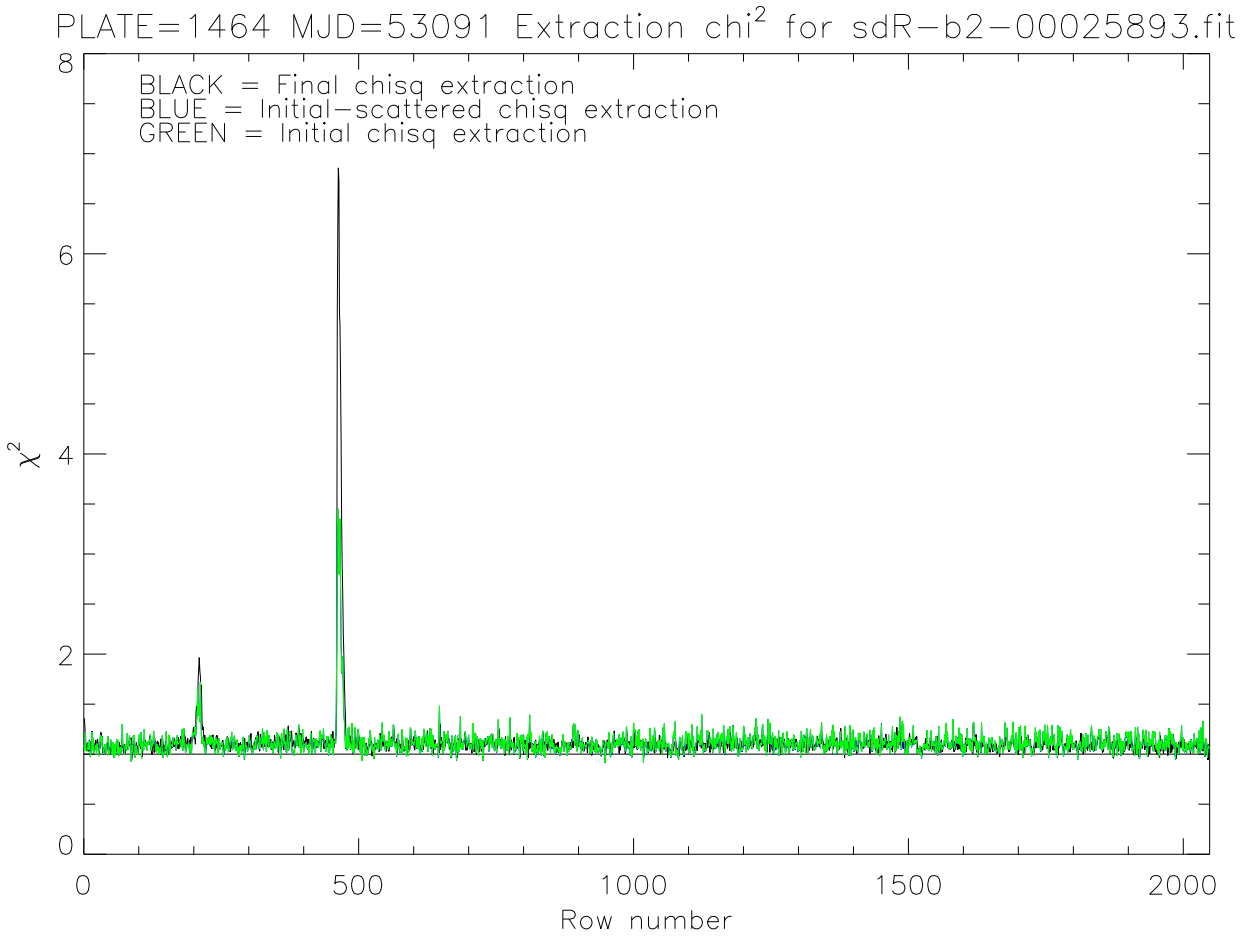

PLATE=1464 MJD=53091 Fiber-Flats for sdR-b2-00025896.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.596
Max value = 1.201
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Wed Feb 20 15:38:43 2008

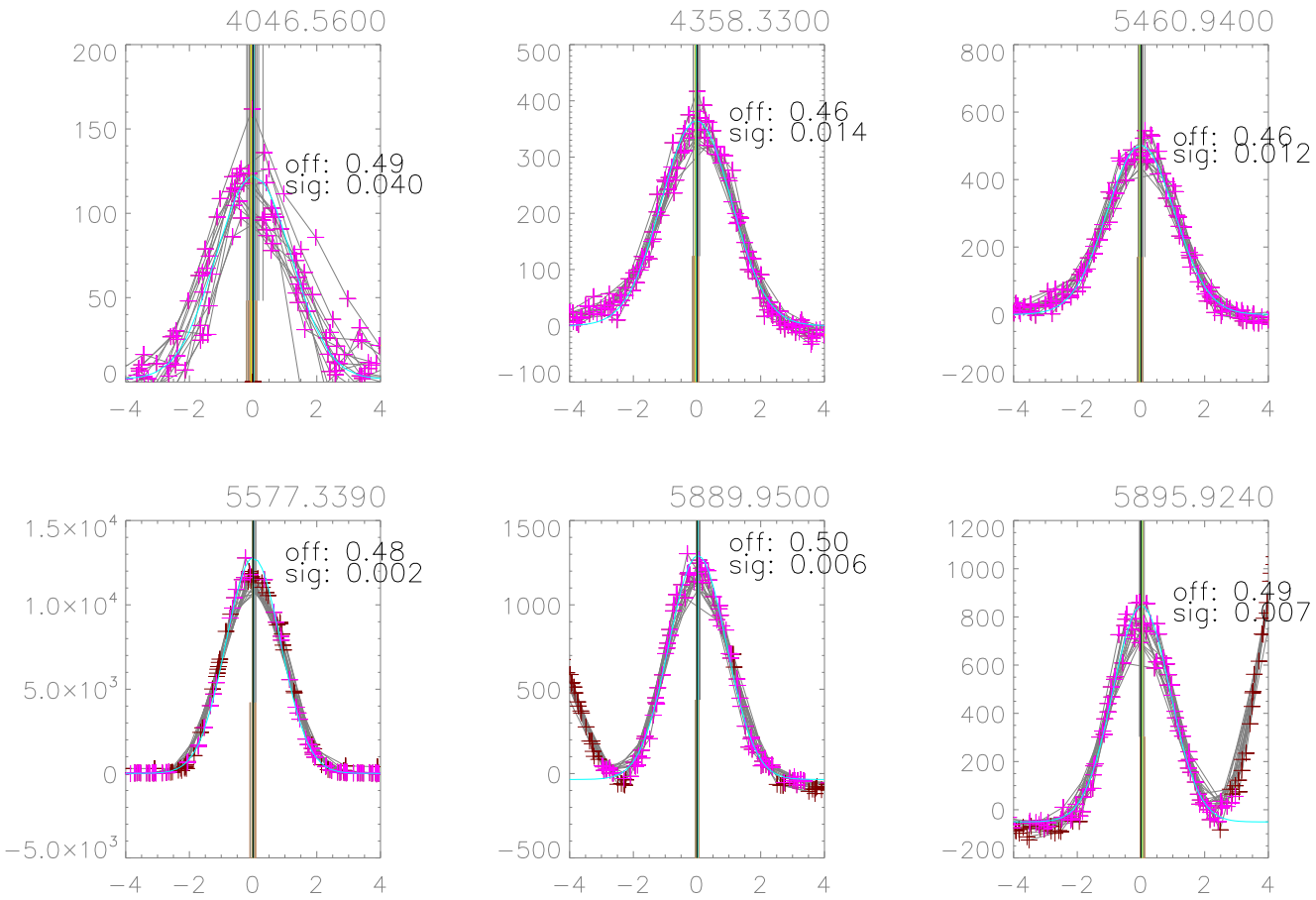

PLATE=1464 MJD=53091 Scattered Light before halo removal on sdR-b2-00025893.f
10.4
8.5
6.7
6.7
6.7
8.5
8.5
8.5
0
0
0
0
0
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]

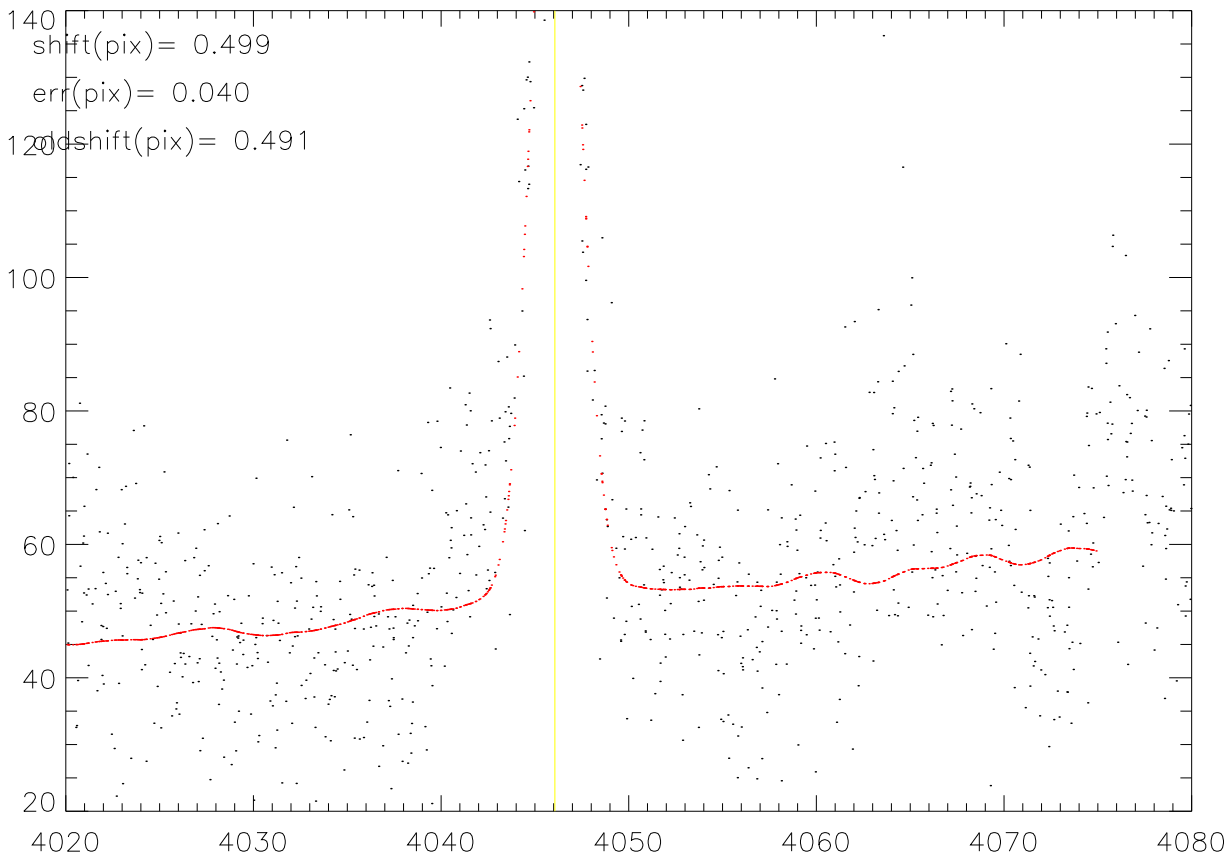

PLATE=1464 MJD=53091 Scattered Light before halo removal on sdR-b2-00025893.f
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 6.866
Max value = 10.446
Wed Feb 20 15:39:38 2008

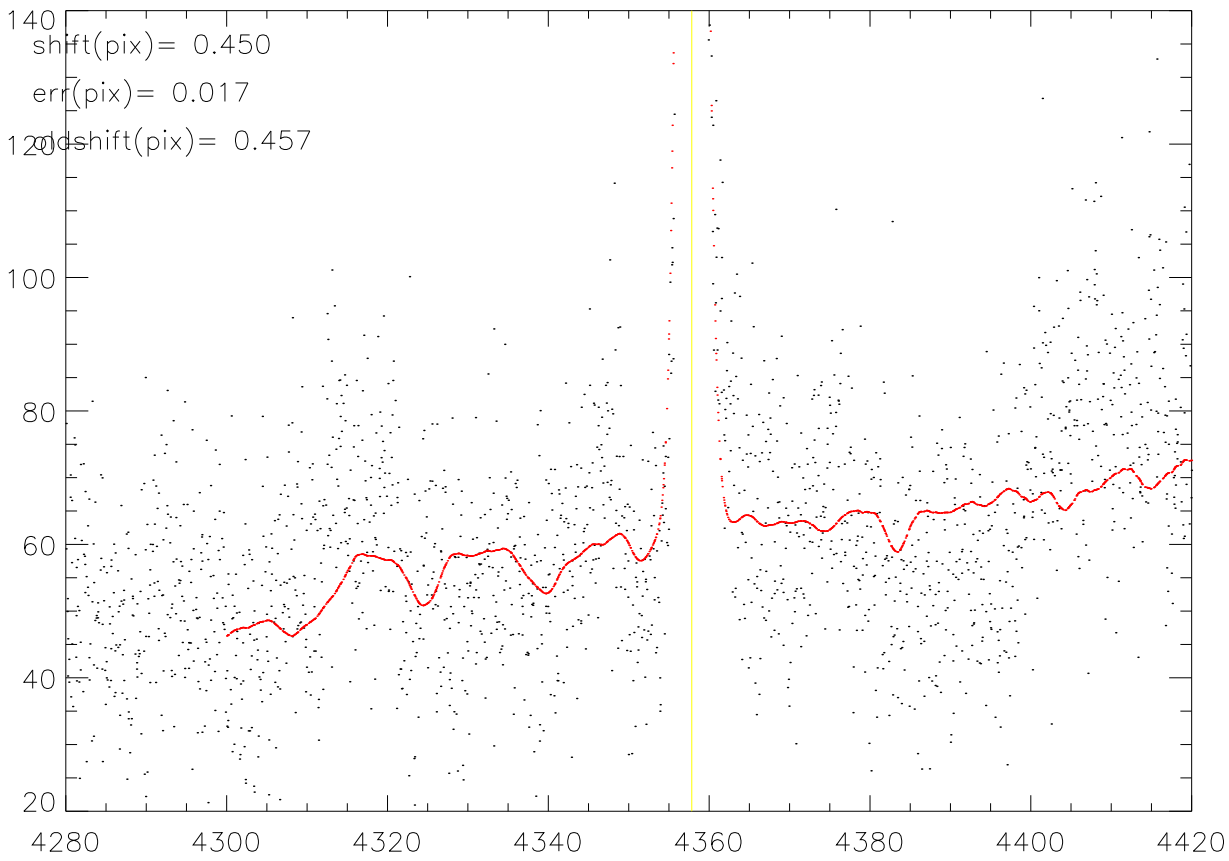

PLATE=1464 MJD=53091 Scattered Light on sdR-b2-00025893.fit
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
6.82
5.73
4.64
4.64
4.64
5.73
3.55
4.64
5.73
5.73

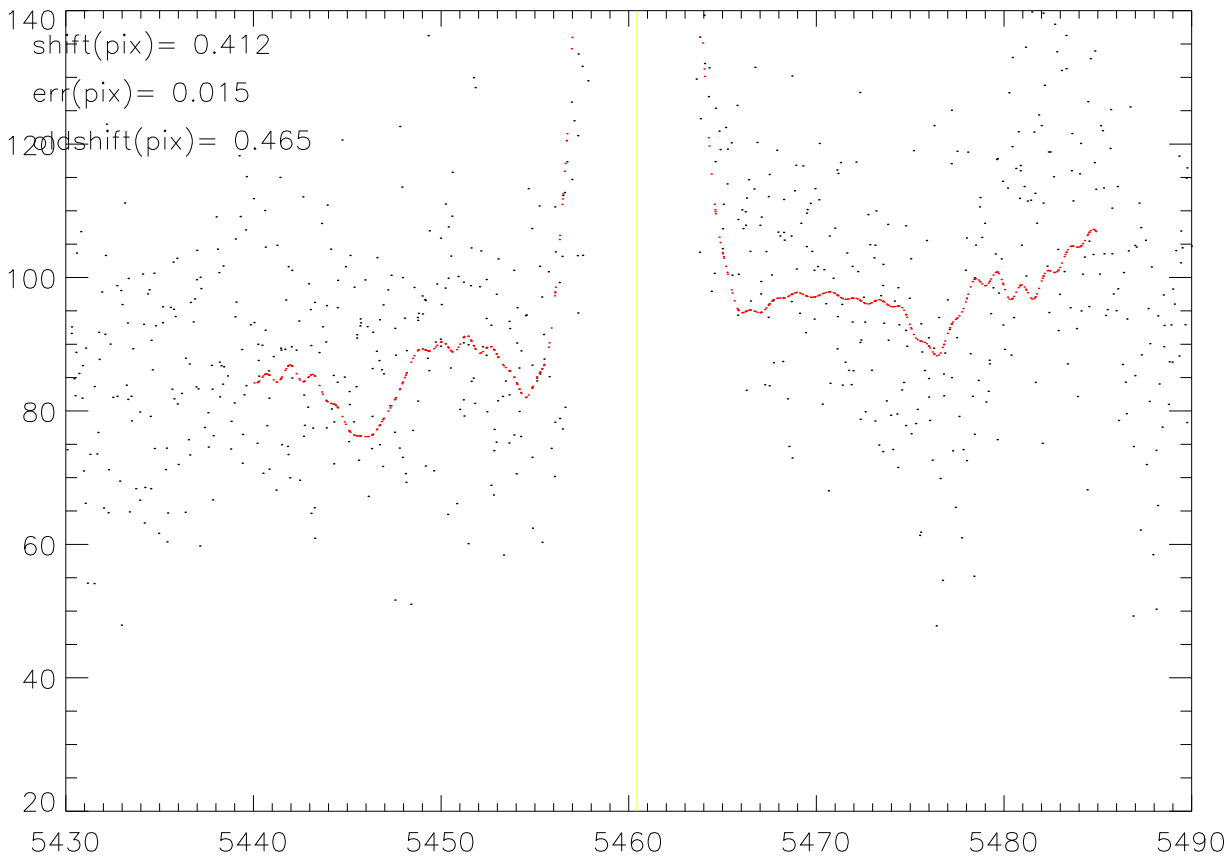

PLATE=1464 MJD=53091 Scattered Light on sdR-b2-00025893.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 3.884
Max value = 6.836
Wed Feb 20 15:42:59 2008

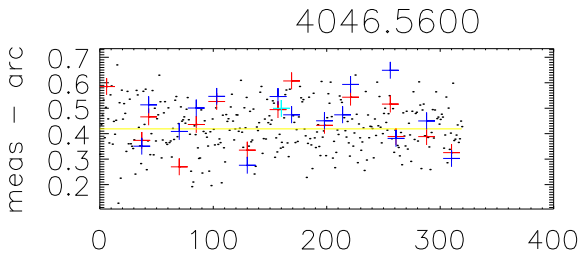

PLATE=1464 MJD=53091 Extraction chi^2 for sdR-b2-00025893.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
0
500
1000
1500
2000
Row number

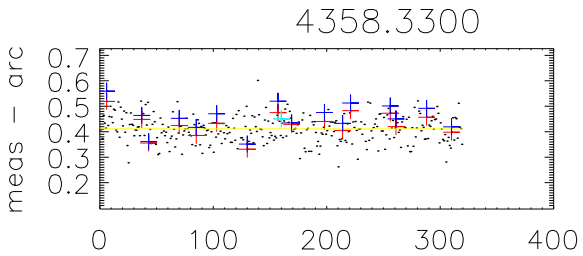

4046.5600
off: 0.49
sig: 0.040
4358.3300
off: 0.46
sig: 0.014
5460.9400
off: 0.46
sig: 0.012
5577.3390
off: 0.48
sig: 0.002
5889.9500
off: 0.50
sig: 0.006
5895.9240
off: 0.49
sig: 0.007

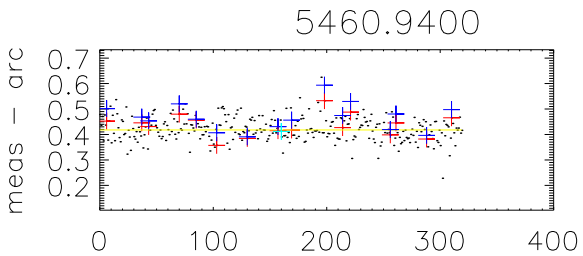

shift(pix)= 0.499
err(pix)= 0.040
oldshift(pix)= 0.491
140
120
100
80
60
40
20
4020
4030
4040
4050
4060
4070
4080

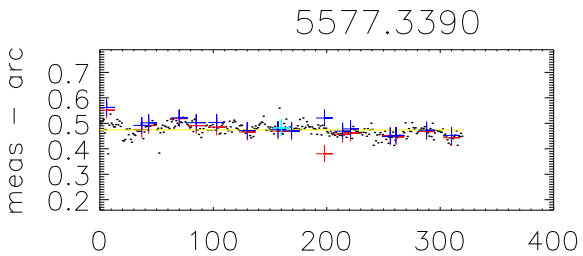

shift(pix)= 0.450
err(pix)= 0.017
oldshift(pix)= 0.457
140
120
100
80
60
40
20
4280
4300
4320
4340
4360
4380
4400
4420

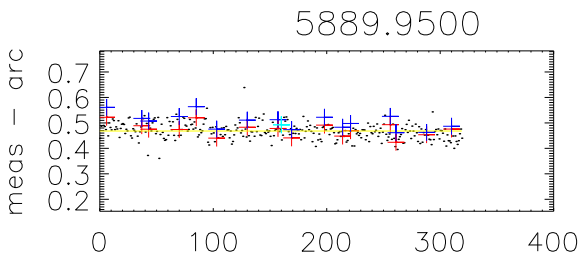

shift(pix)= 0.412
err(pix)= 0.015
oldshift(pix)= 0.465
140
120
100
80
60
40
20
5430
5440
5450
5460
5470
5480
5490

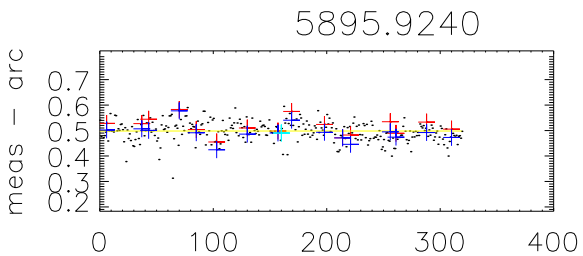

4046.5600
meas − arc
0.7
0.6
0.5
0.4
0.3
0.2
0
100
200
300
400

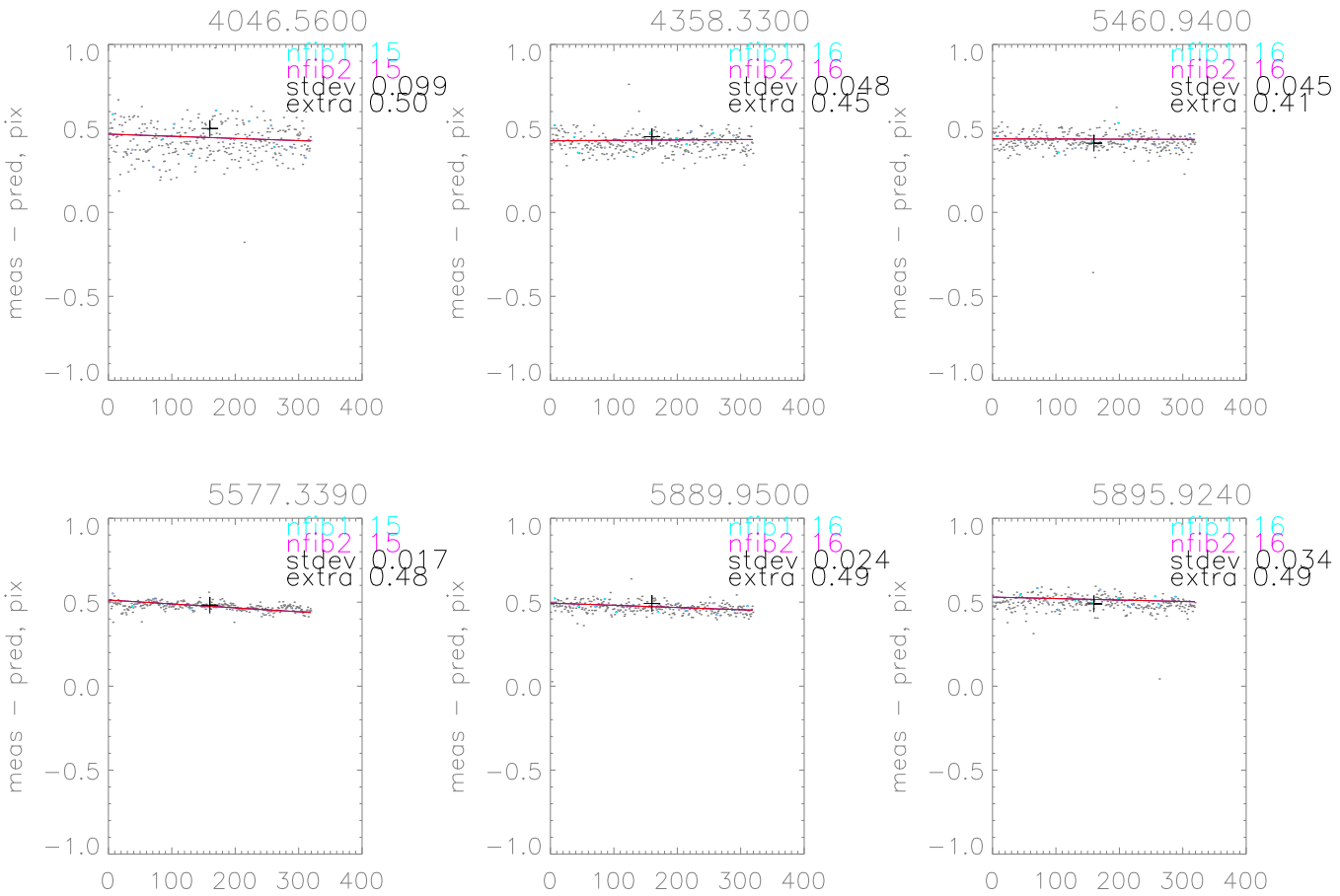

4358.3300
meas − arc
0.7
0.6
0.5
0.4
0.3
0.2
0
100
200
300
400

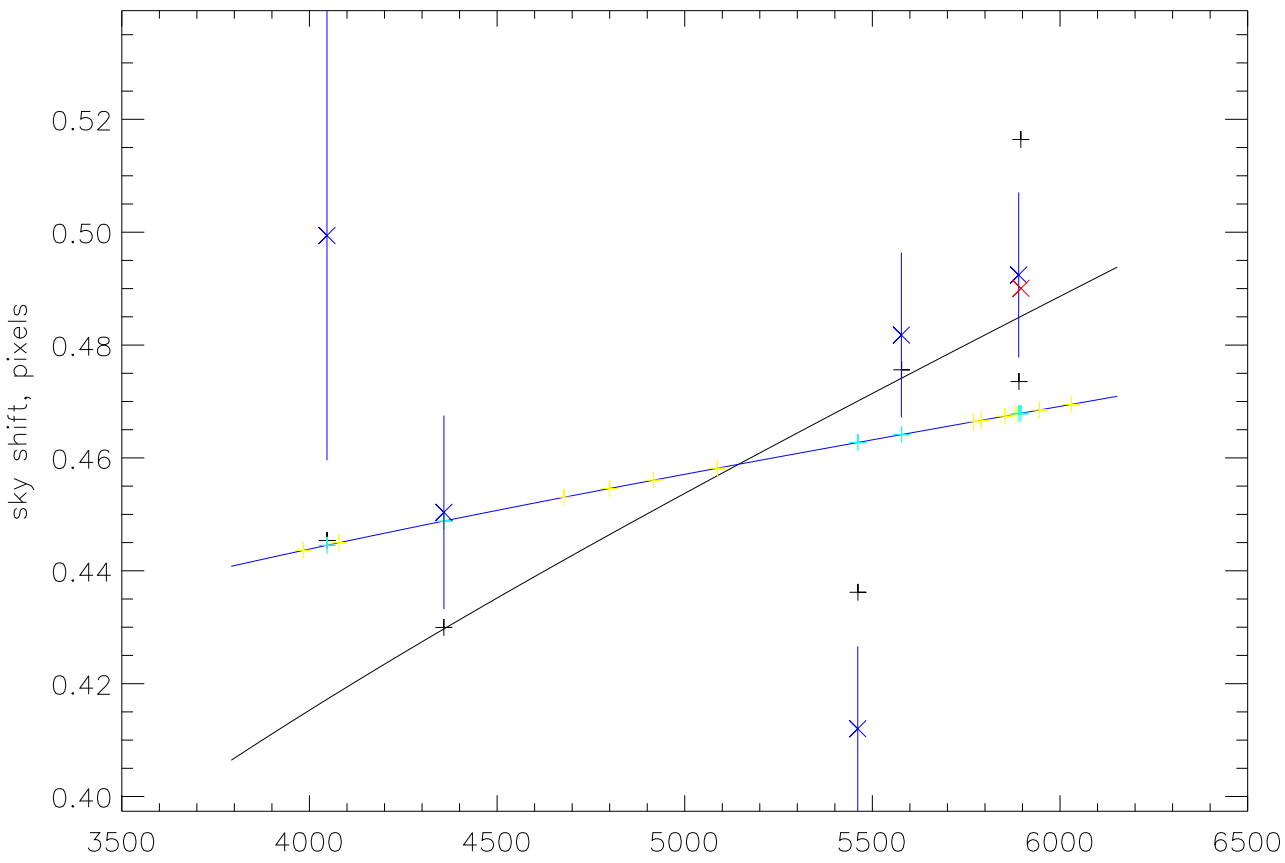

5460.9400
meas − arc
0.7
0.6
0.5
0.4
0.3
0.2
0
100
200
300
400

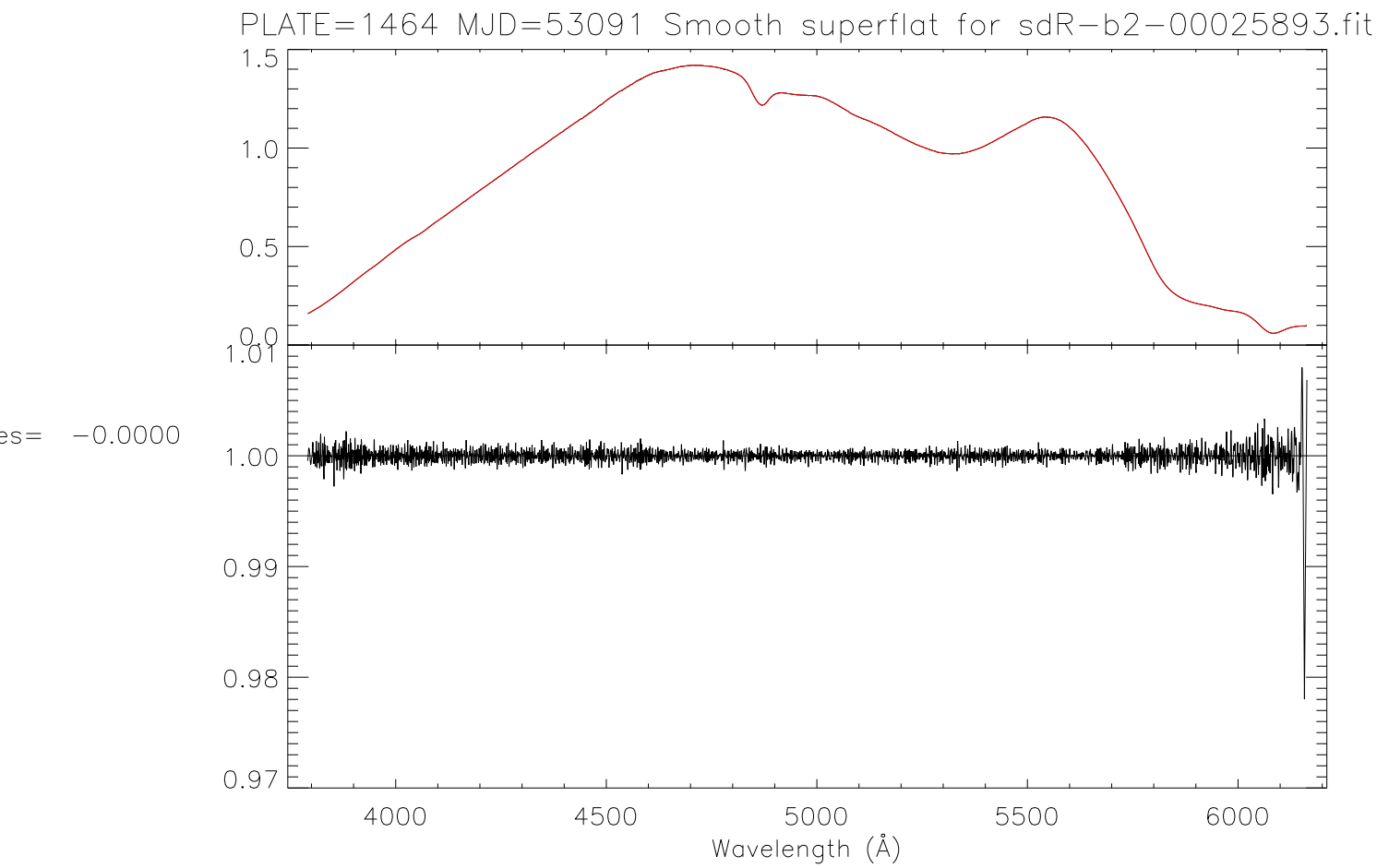

5577.3390
meas − arc
0.7
0.6
0.5
0.4
0.3
0.2
0
100
200
300
400


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

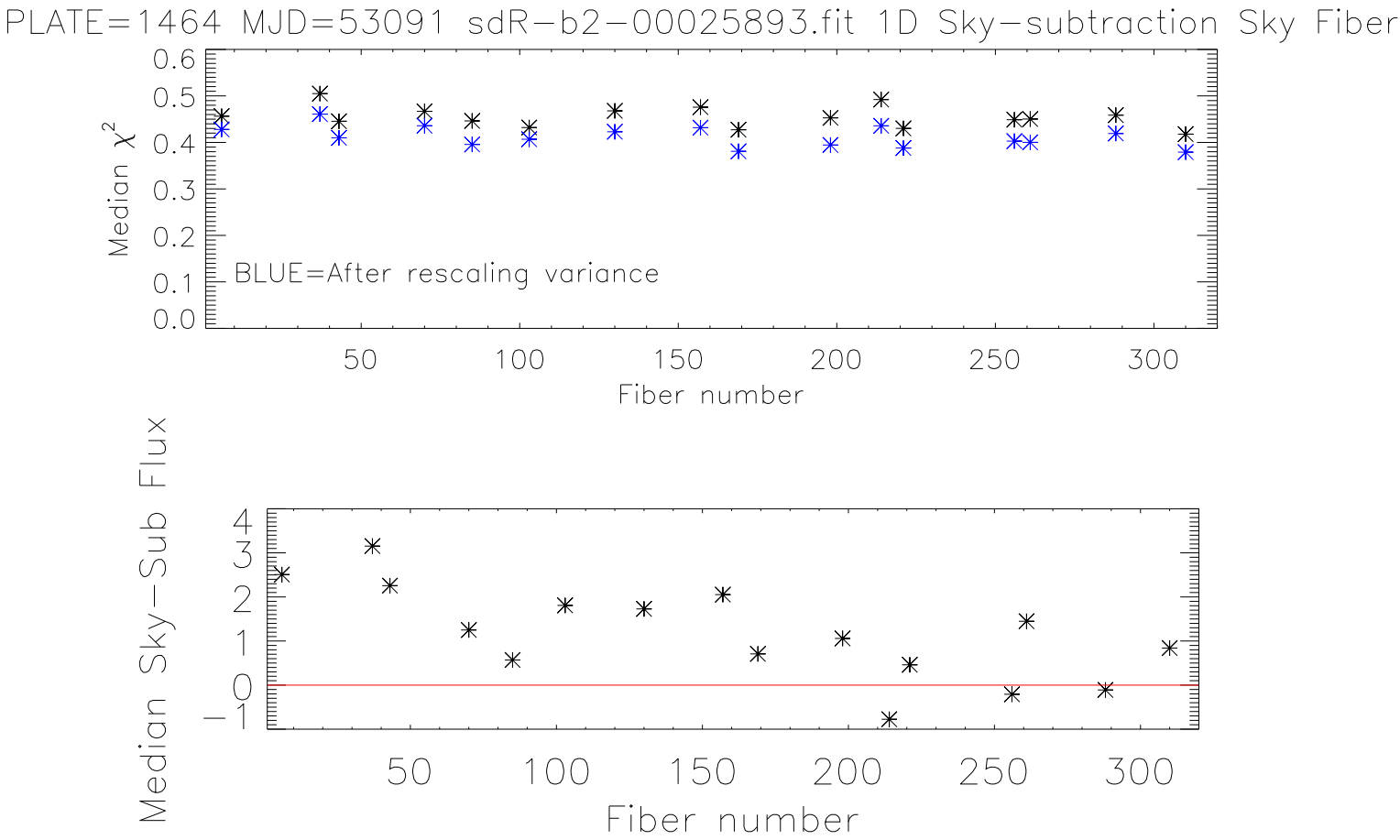

5895.9240
meas − arc
0.7
0.6
0.5
0.4
0.3
0.2
0
100
200
300
400

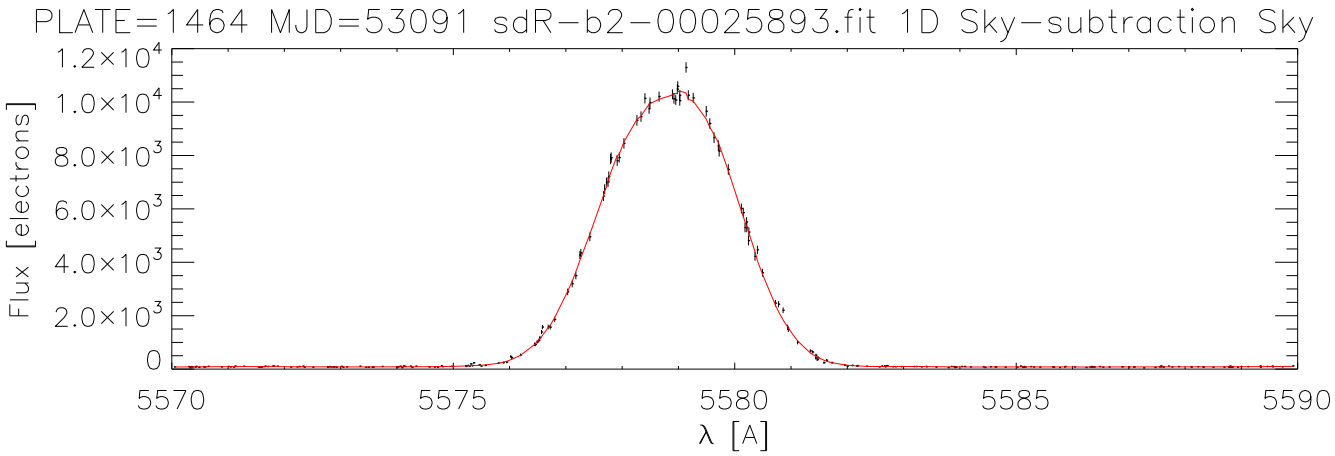

4046.5600
nfib1 15
nfib2 15
stdev 0.099
extra 0.50
4358.3300
nfib1 16
nfib2 16
stdev 0.048
extra 0.45
5460.9400
nfib1 16
nfib2 16
stdev 0.045
extra 0.41
5577.3390
nfib1 15
nfib2 15
stdev 0.017
extra 0.48
5889.9500
nfib1 16
nfib2 16
stdev 0.024
extra 0.49
5895.9240
nfib1 16
nfib2 16
stdev 0.034
extra 0.49
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

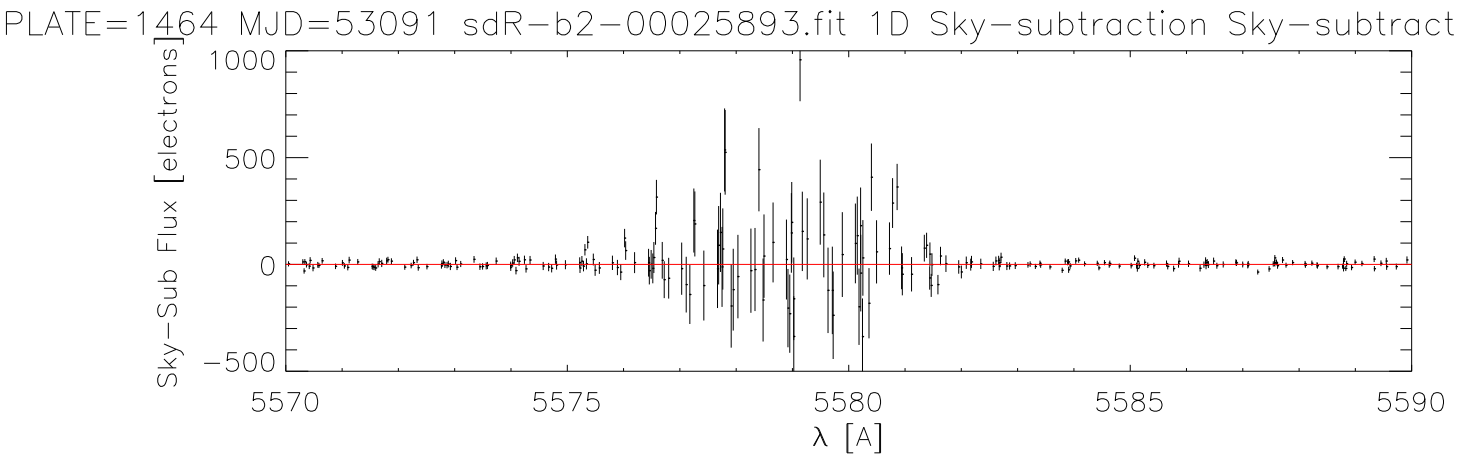

sky shift, pixels
0.52
0.50
0.48
0.46
0.44
0.42
0.40
3500
4000
4500
5000
5500
6000
6500

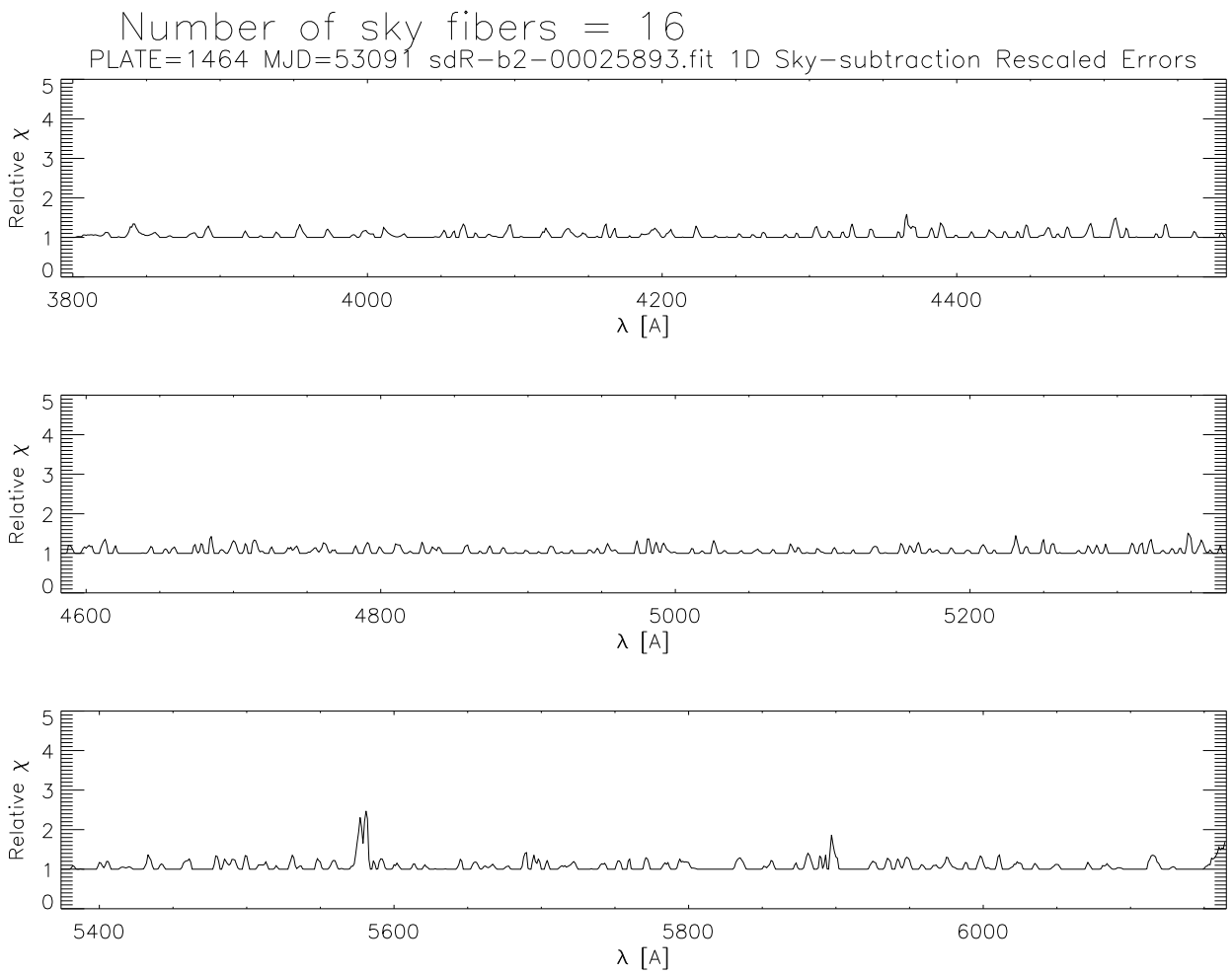

PLATE=1464 MJD=53091 Smooth superflat for sdR-b2-00025893.fit
1.5
1.0
0.5
0.0
1.01
1.00
0.99
0.98
0.97
4000
4500
5000
5500
6000
Wavelength (Å)

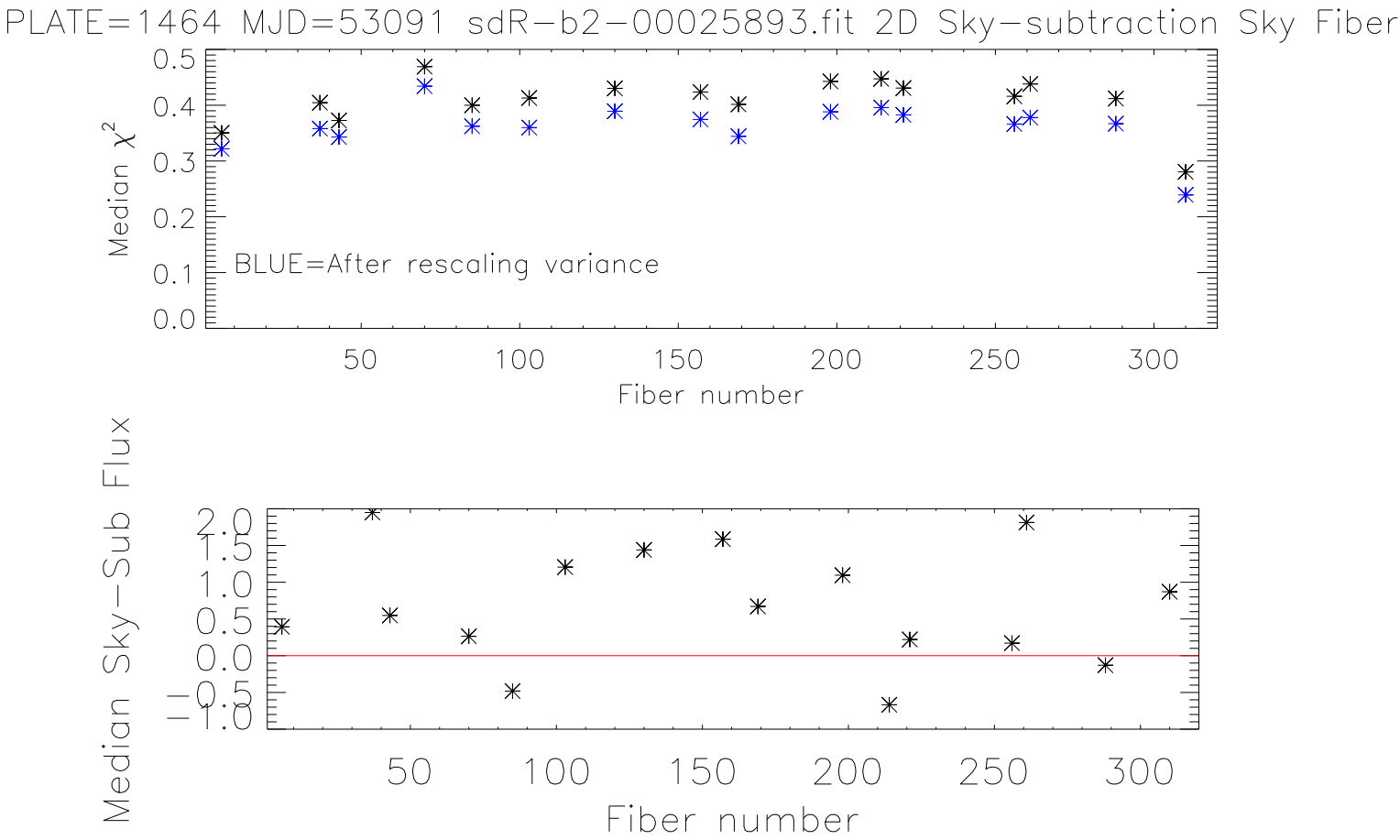
es= −0.0000

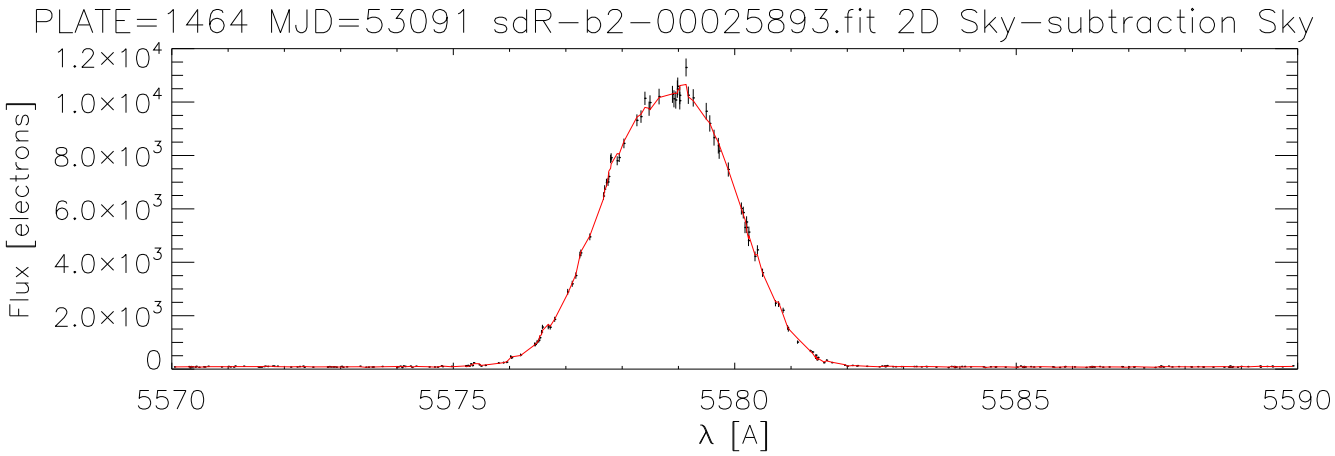

PLATE=1464 MJD=53091 sdR-b2-00025893.fit 1D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

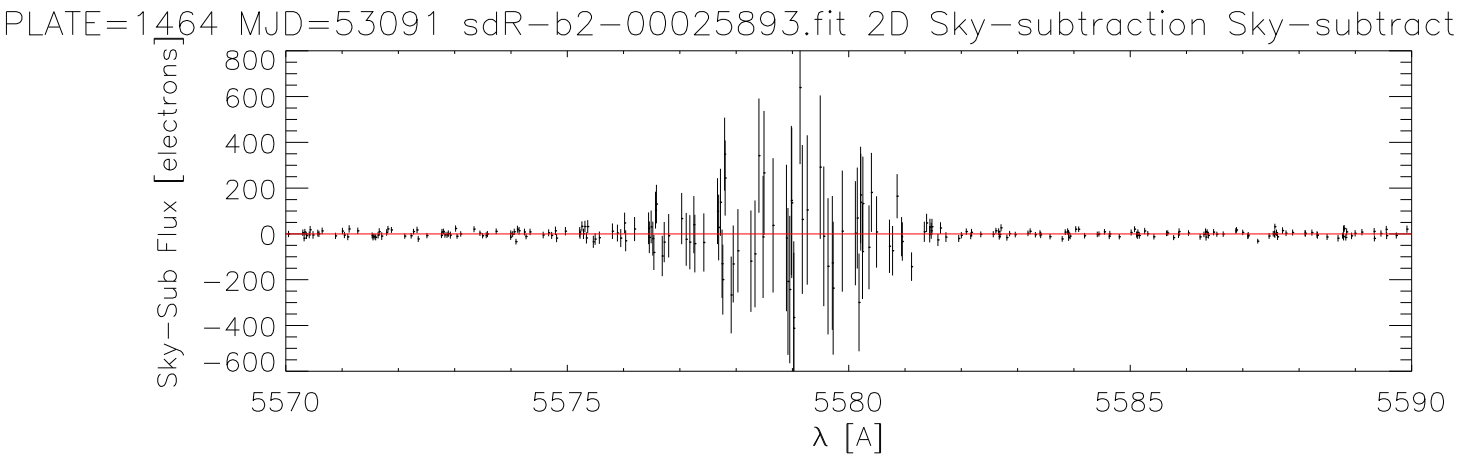

PLATE=1464 MJD=53091 sdR-b2-00025893.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
1.2×10^4
1.0×10^4
8.0×10^3
6.0×10^3
4.0×10^3
2.0×10^3
0
5570
5575
5580
5585
5590
λ [A]

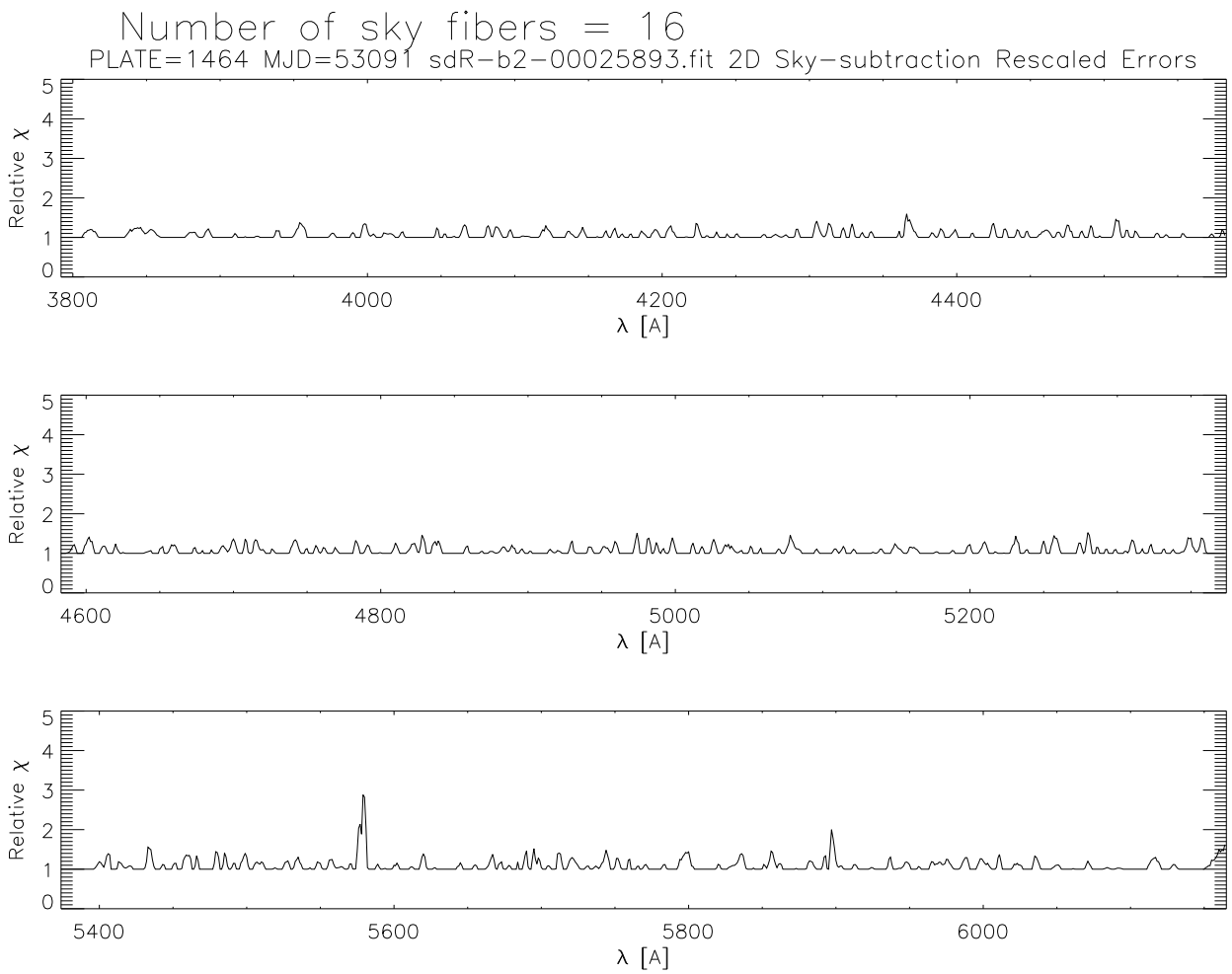

PLATE=1464 MJD=53091 sdR-b2-00025893.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
1000
500
0
−500
5570
5575
5580
5585
5590
λ [A]

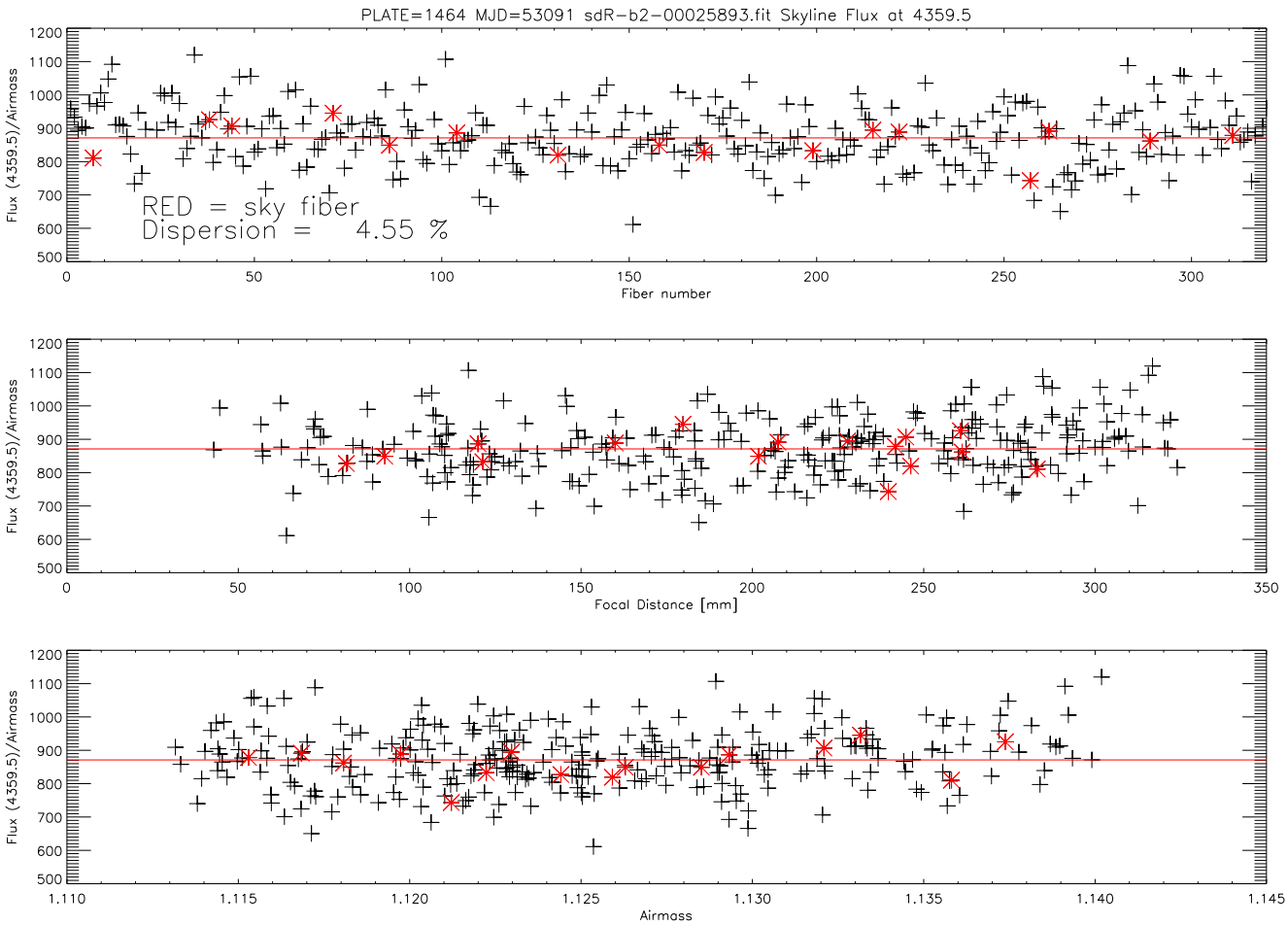

Number of sky fibers = 16
PLATE=1464 MJD=53091 sdR-b2-00025893.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

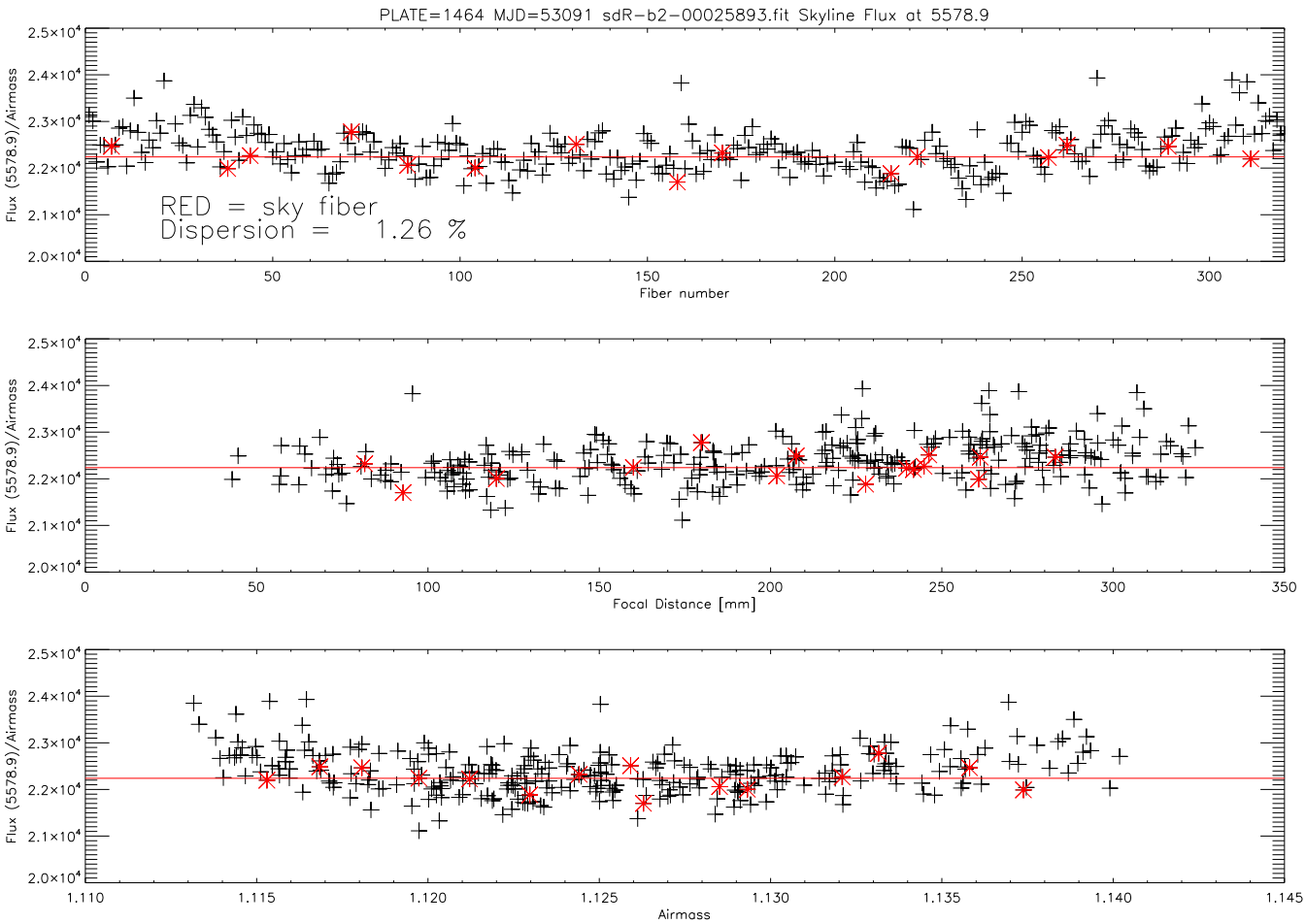

PLATE=1464 MJD=53091 sdR-b2-00025893.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

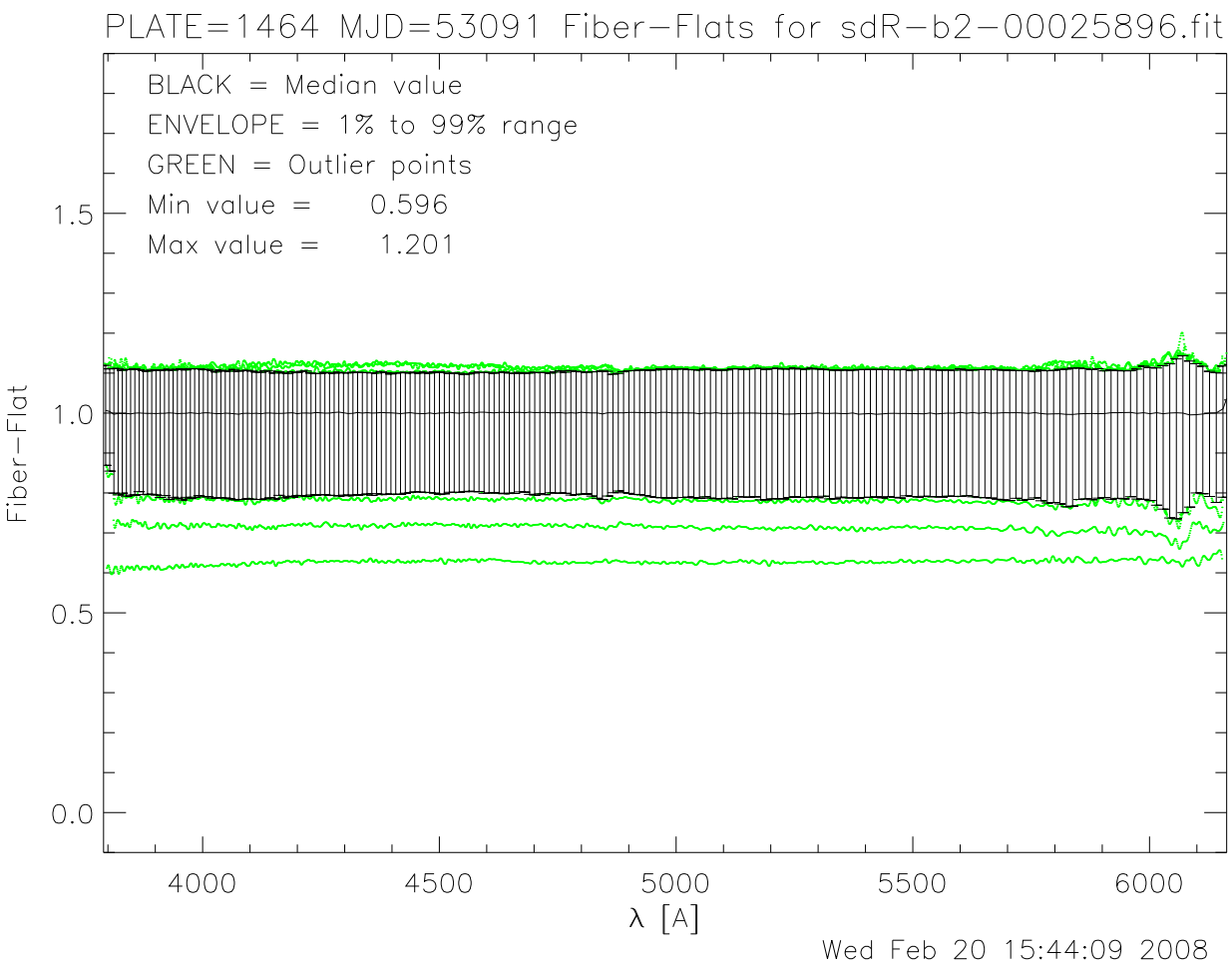

PLATE=1464 MJD=53091 sdR-b2-00025893.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
1.2×10^4
1.0×10^4
8.0×10^3
6.0×10^3
4.0×10^3
2.0×10^3
0
5570
5575
5580
5585
5590
λ [A]

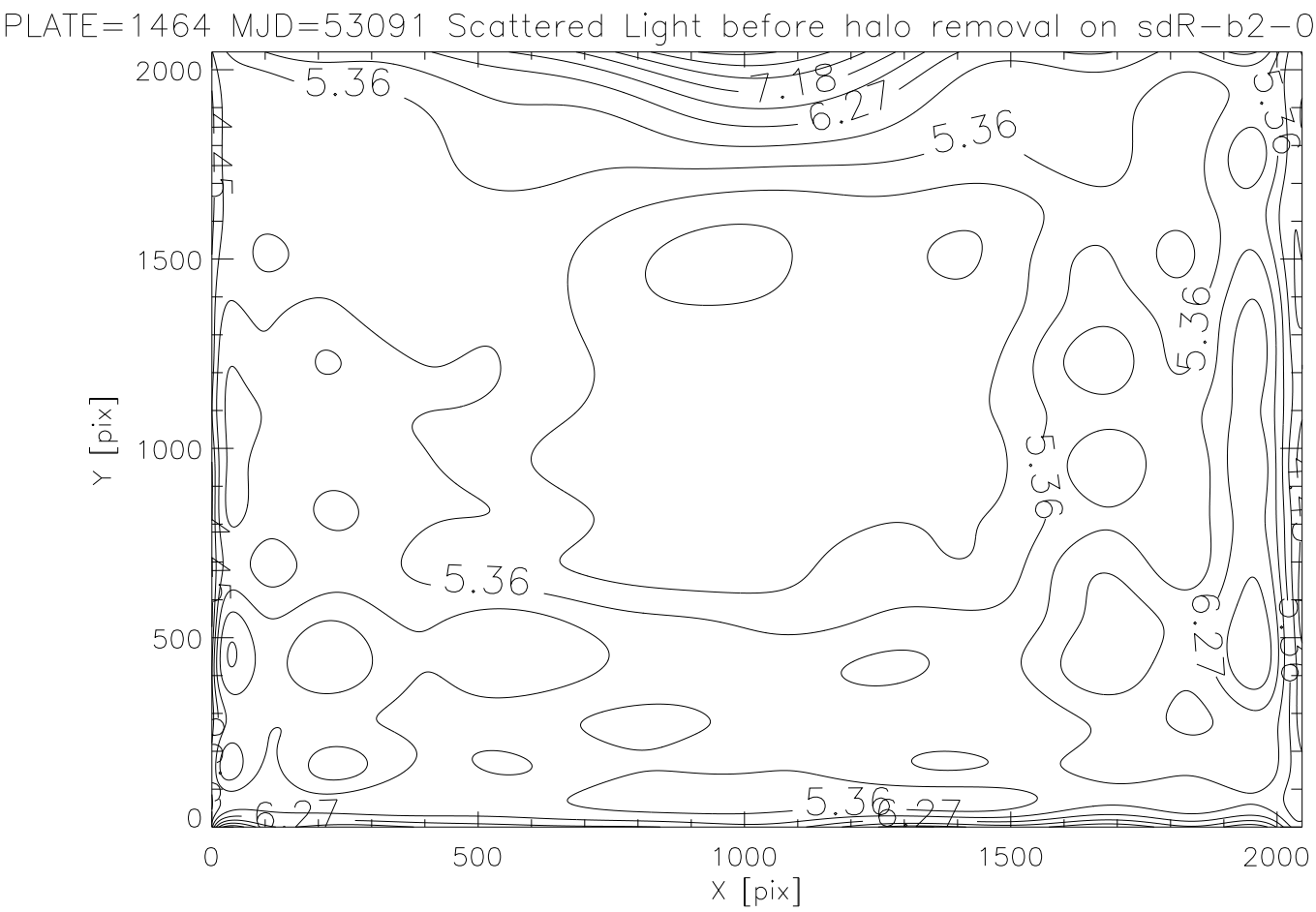

PLATE=1464 MJD=53091 sdR-b2-00025893.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
800
600
400
200
0
-200
-400
-600
5570
5575
5580
5585
5590
λ [A]

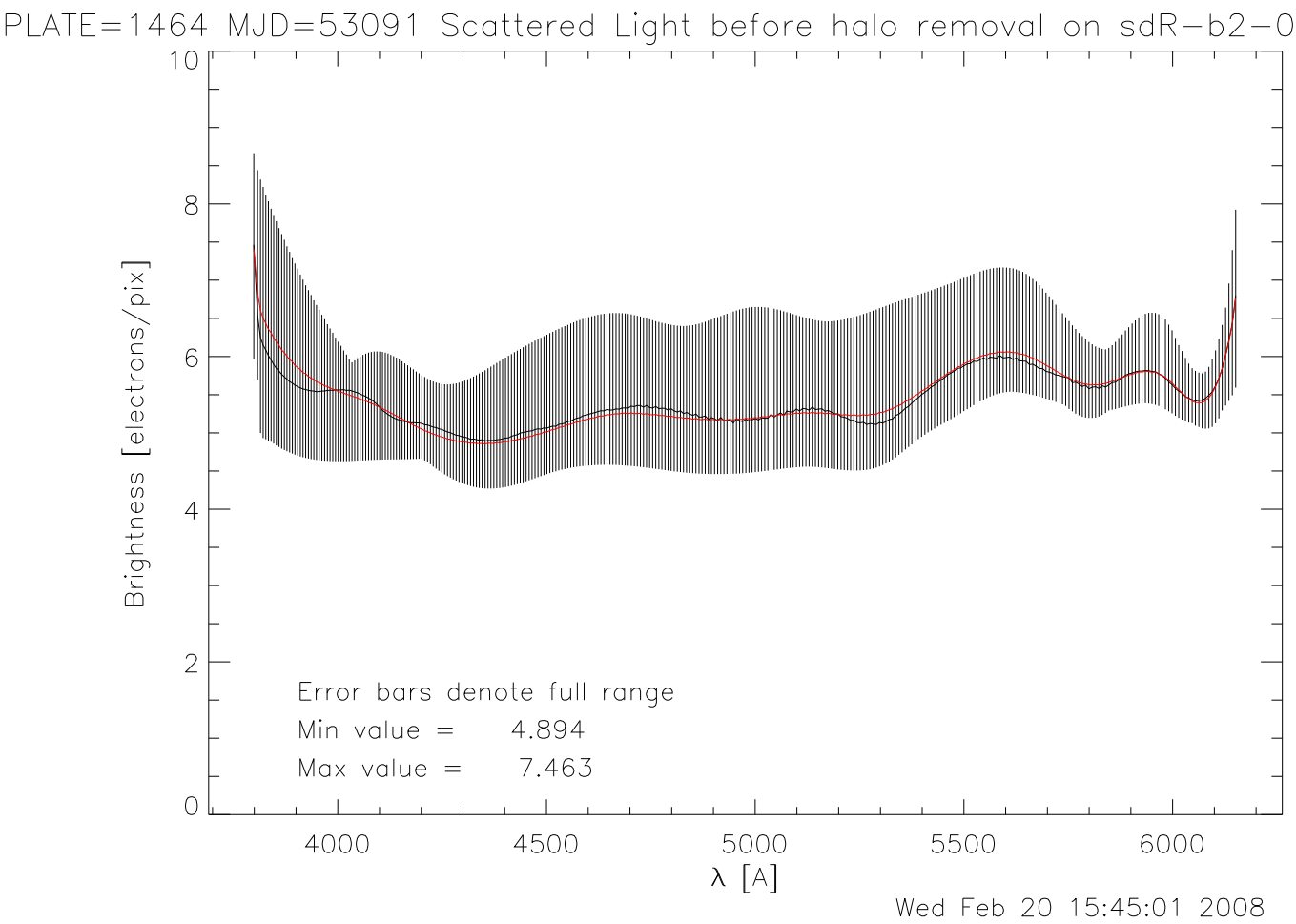

Number of sky fibers = 16
PLATE=1464 MJD=53091 sdR-b2-00025893.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

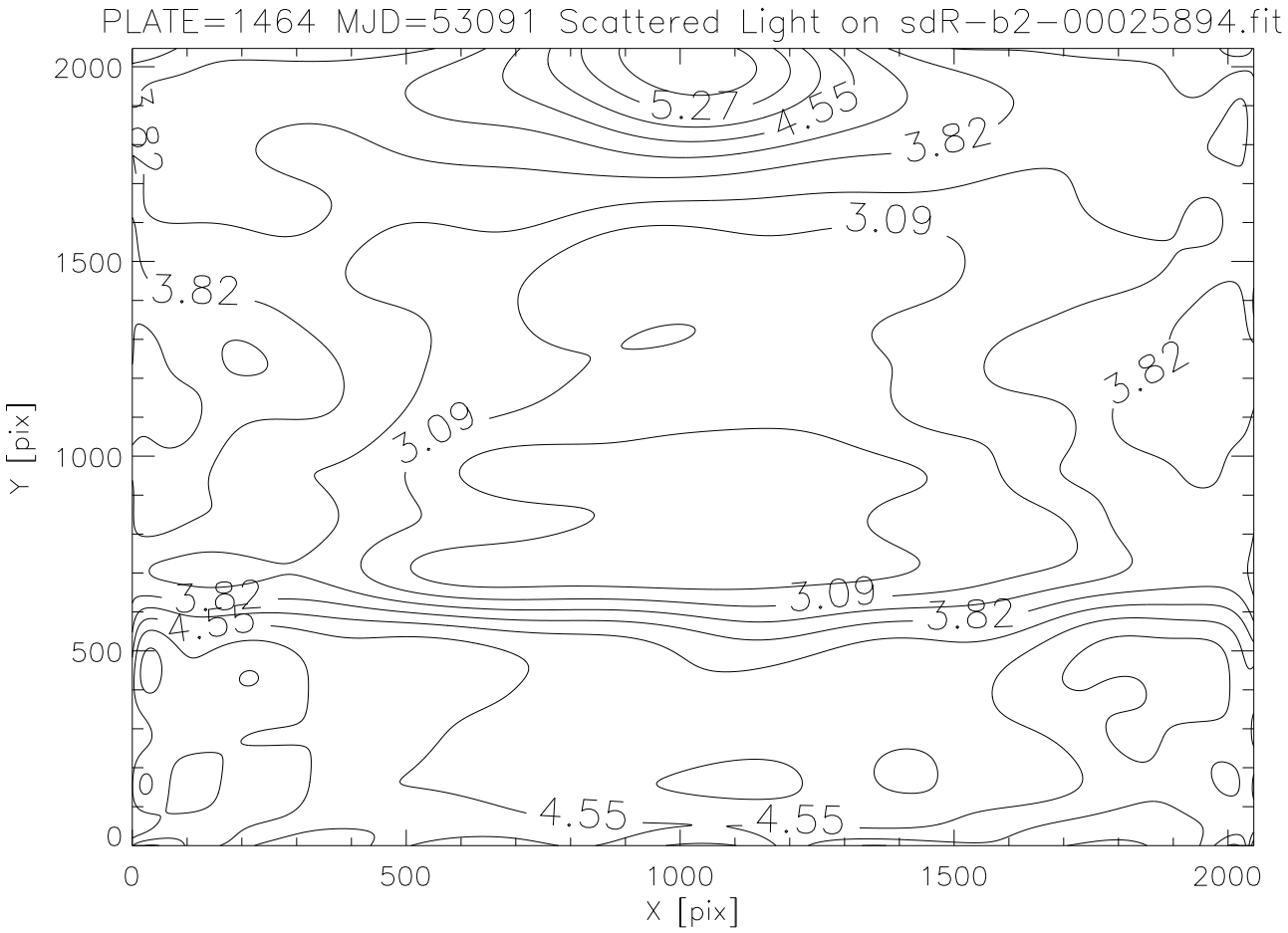

PLATE=1464 MJD=53091 sdR-b2-00025893.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
Fiber number
RED = sky fiber
Dispersion = 4.55 %
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

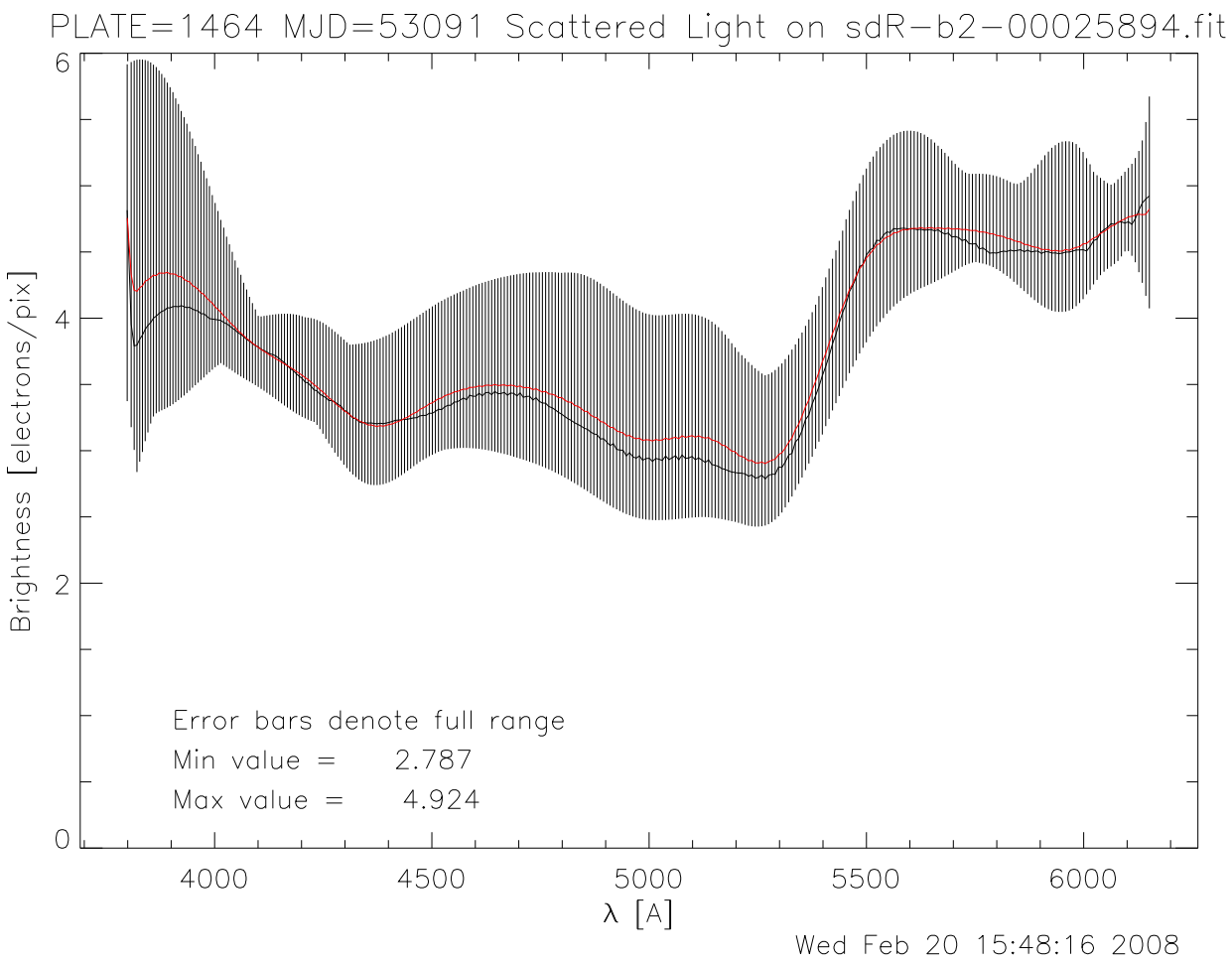

PLATE=1464 MJD=53091 sdR-b2-00025893.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 1.26 %
Fiber number
Focal Distance [mm]
Airmass

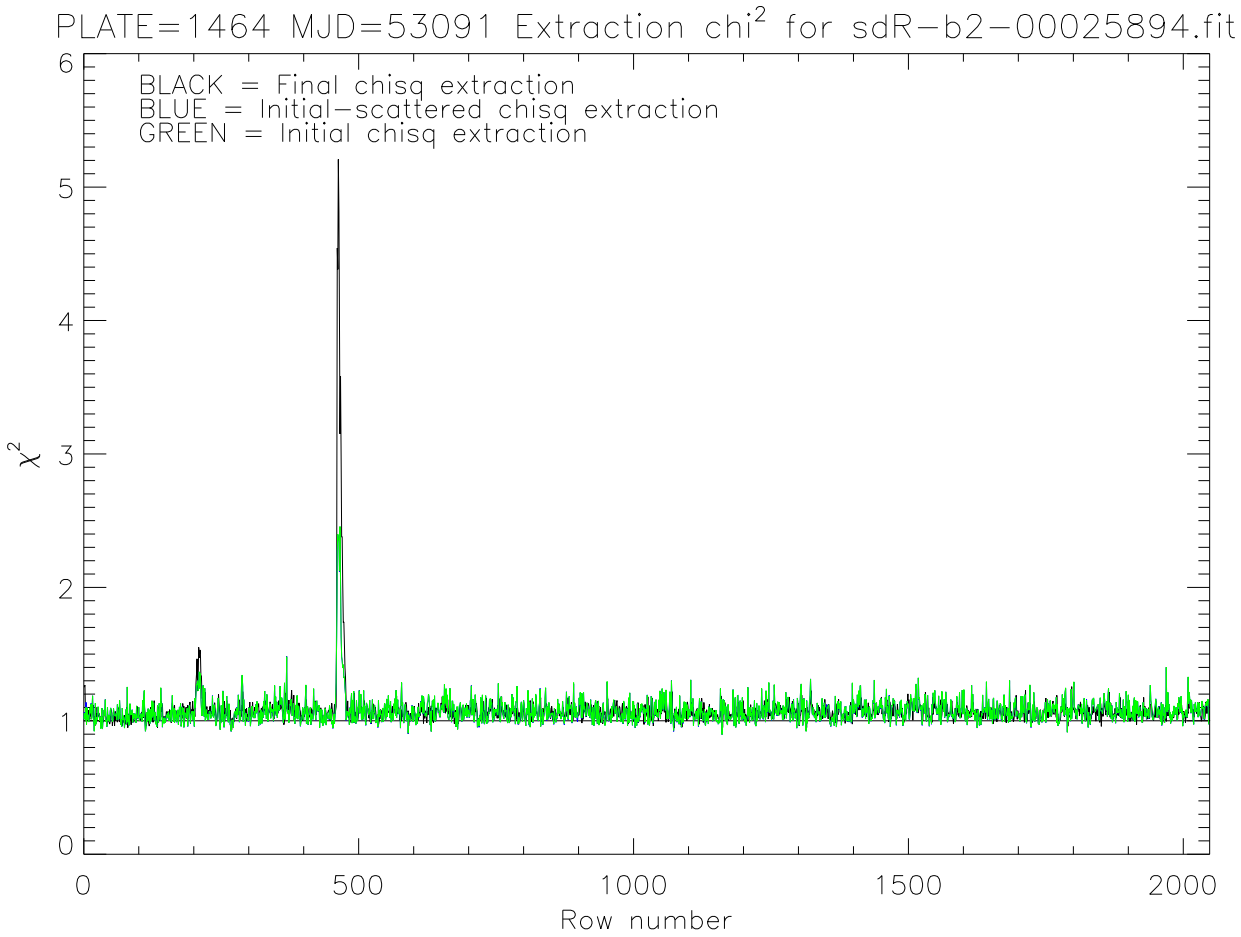

PLATE=1464 MJD=53091 Fiber-Flats for sdR-b2-00025896.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.596
Max value = 1.201
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Wed Feb 20 15:44:09 2008

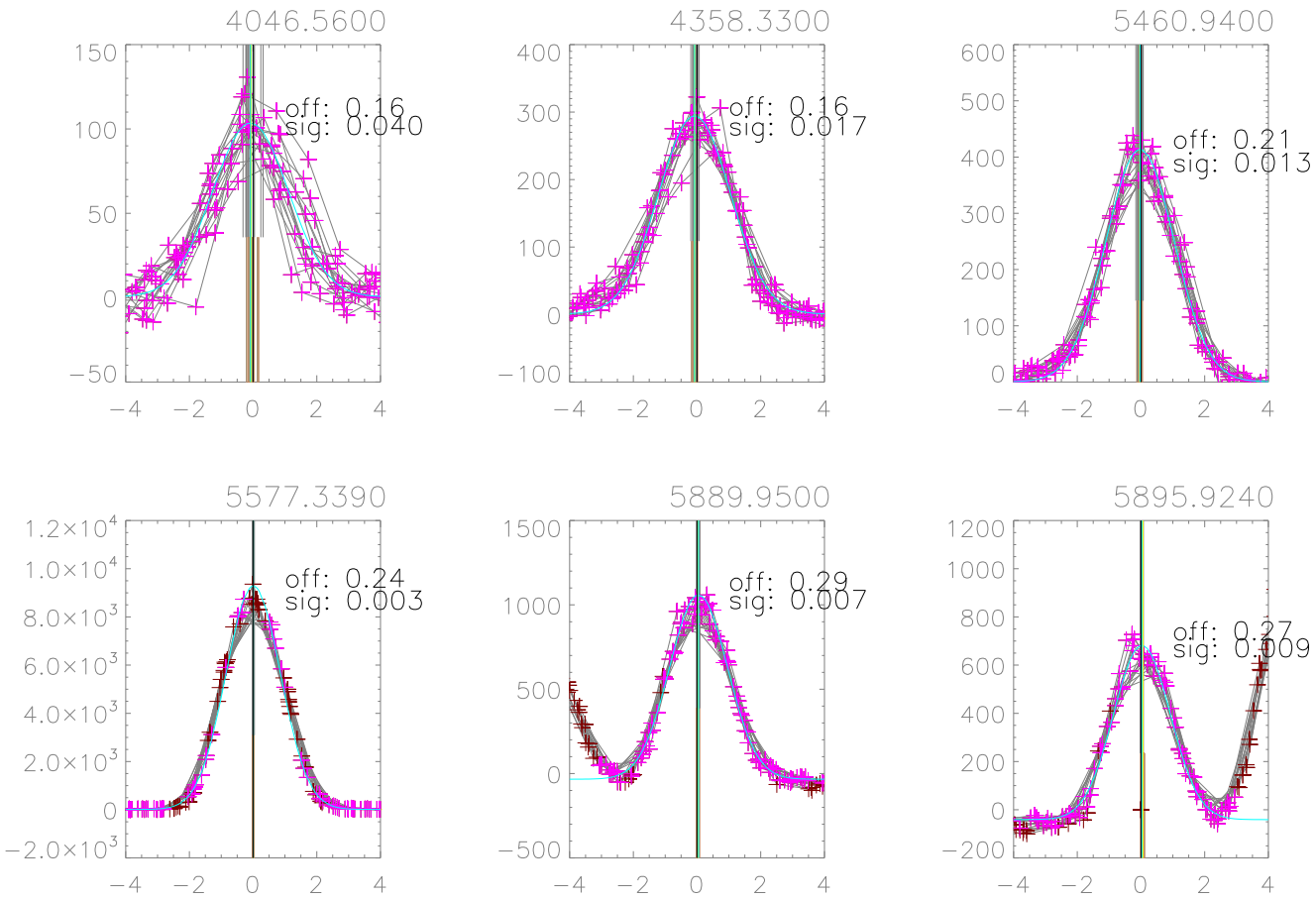

PLATE=1464 MJD=53091 Scattered Light before halo removal on sdR-b2-00025894.f
5.36
7.18
6.27
5.36
5.36
5.36
5.36
6.27
6.27
5.36
6.27
2000
1500
1000
500
0
0
500
1000
1500
2000
Y [pix]
X [pix]

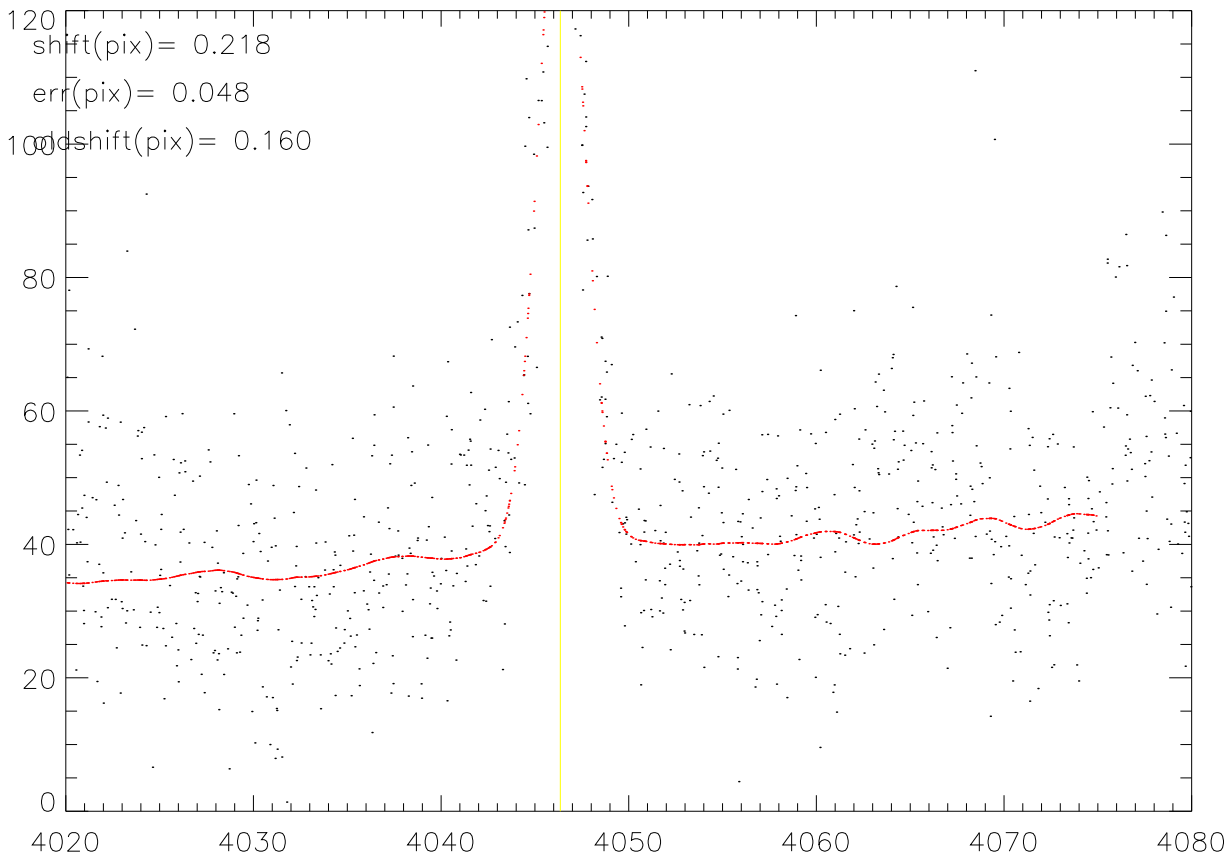

PLATE=1464 MJD=53091 Scattered Light before halo removal on sdR-b2-00025894.f
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 4.894
Max value = 7.463
Wed Feb 20 15:45:01 2008

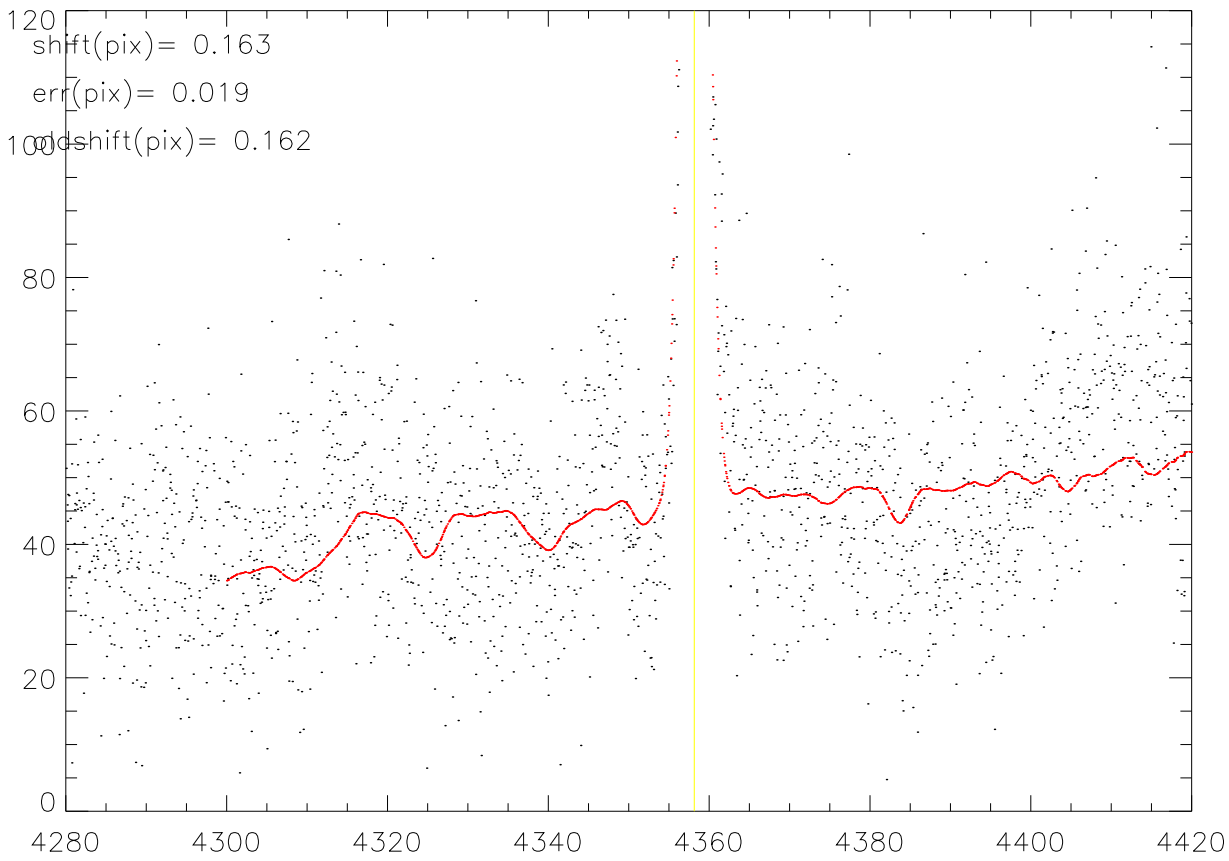

PLATE=1464 MJD=53091 Scattered Light on sdR-b2-00025894.fit
5.27
4.55
3.82
3.09
3.82
3.82
3.09
3.82
3.09
3.82
4.55
4.55
4.55
Y [pix]
X [pix]
0
500
1000
1500
2000

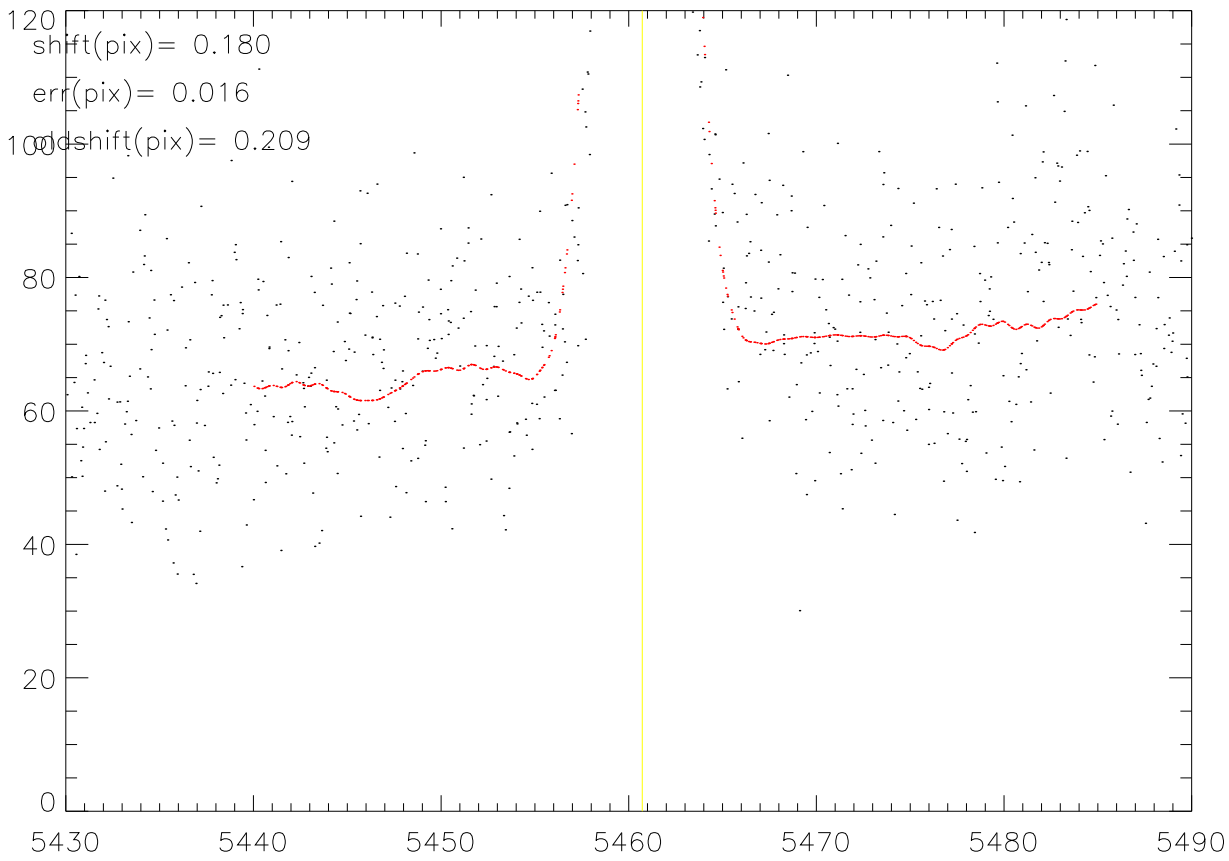

PLATE=1464 MJD=53091 Scattered Light on sdR-b2-00025894.fit
Brightness [electrons/pix]
0
2
4
6
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 2.787
Max value = 4.924
Wed Feb 20 15:48:16 2008

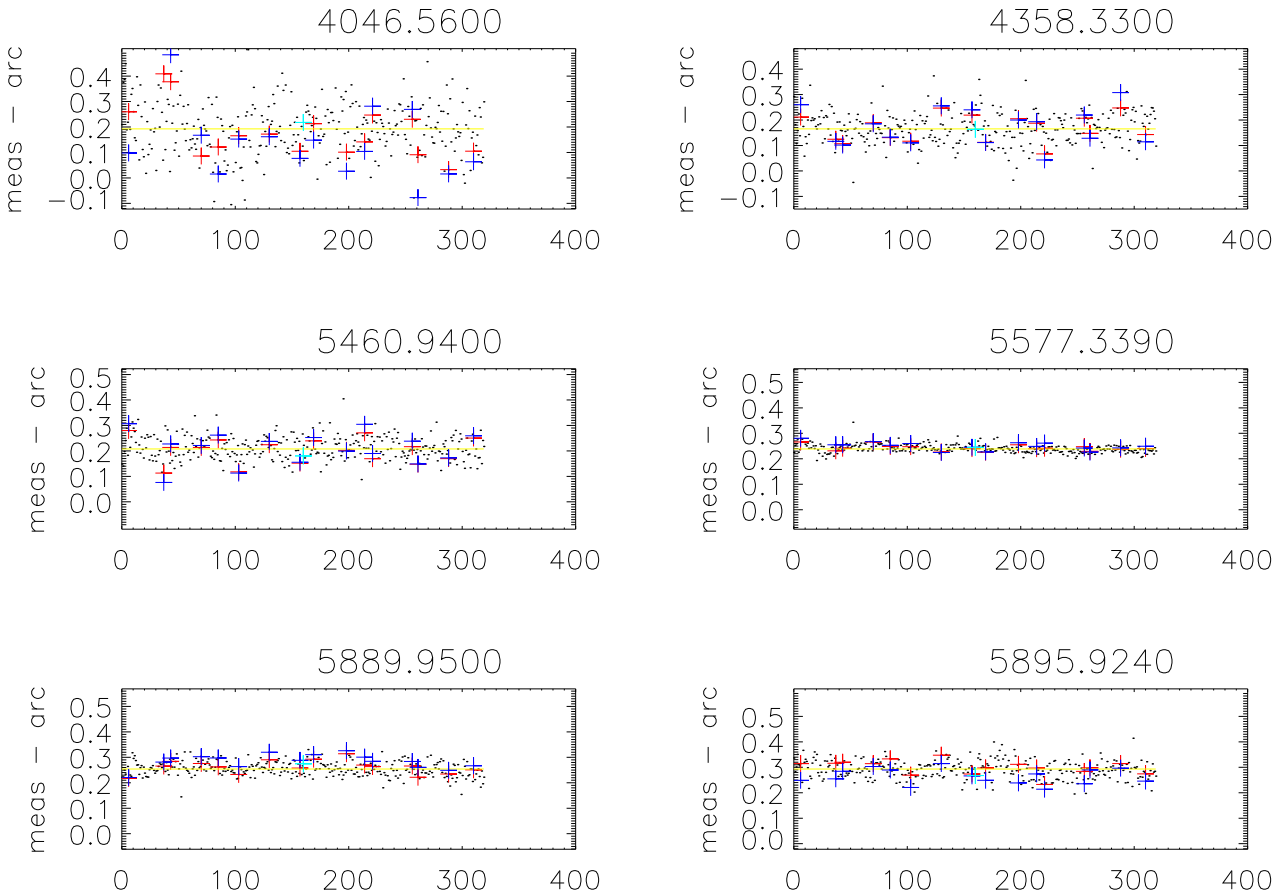

PLATE=1464 MJD=53091 Extraction chi^2 for sdR-b2-00025894.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
5
6
0
500
1000
1500
2000
Row number

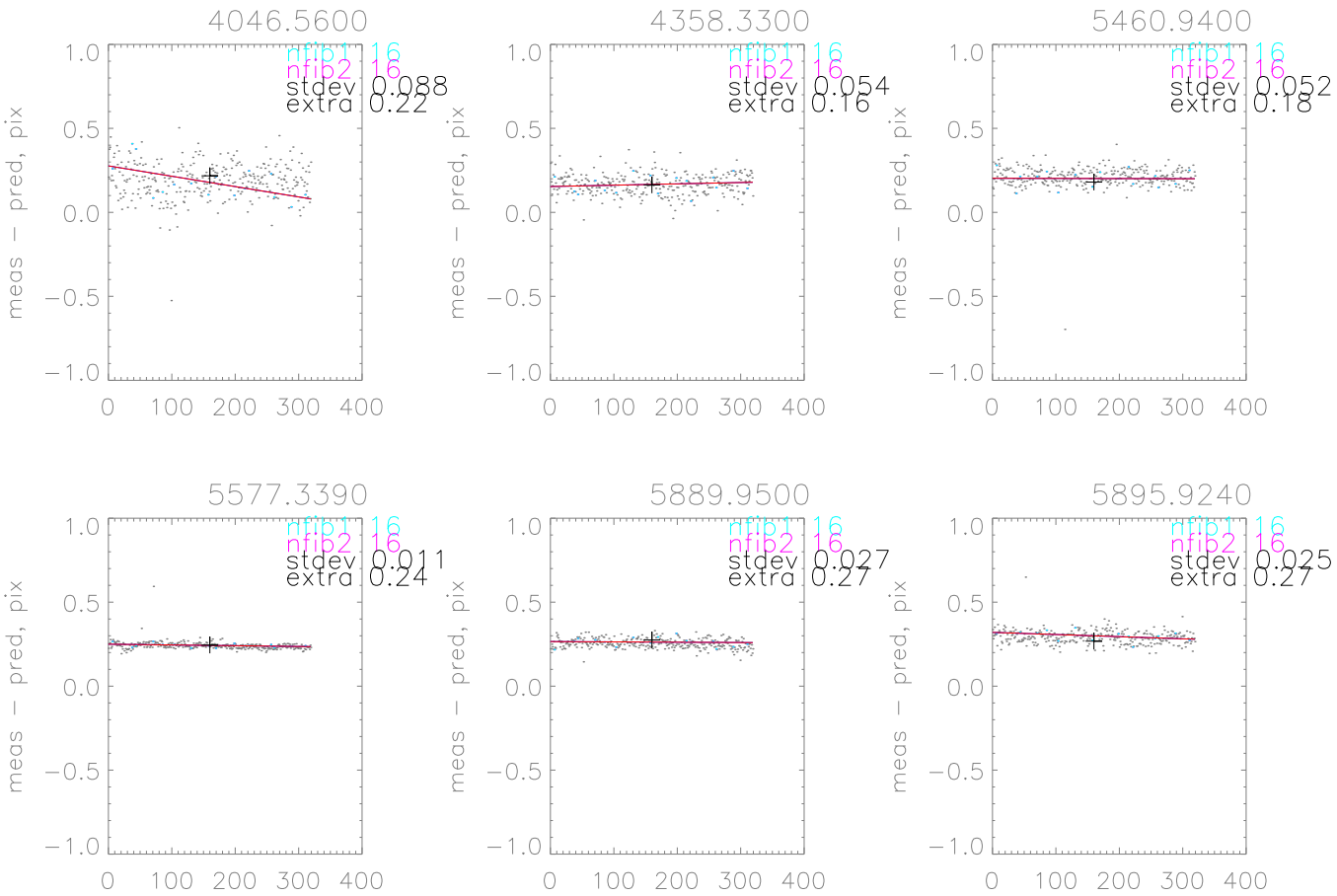

4046.5600
off: 0.16
sig: 0.040
4358.3300
off: 0.16
sig: 0.017
5460.9400
off: 0.21
sig: 0.013
5577.3390
off: 0.24
sig: 0.003
5889.9500
off: 0.29
sig: 0.007
5895.9240
off: 0.27
sig: 0.009

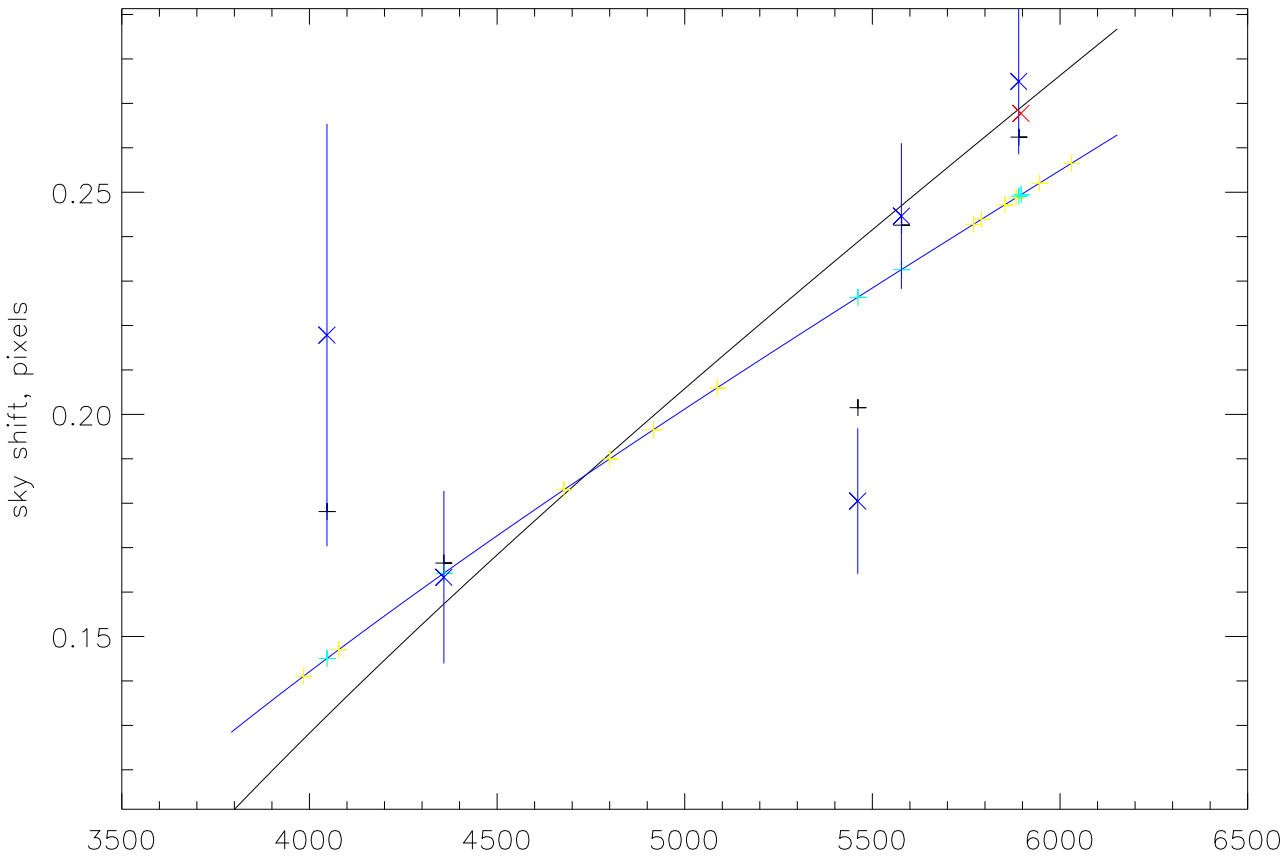

shift(pix)= 0.218
err(pix)= 0.048
oldshift(pix)= 0.160
120
100
80
60
40
20
0
4020
4030
4040
4050
4060
4070
4080

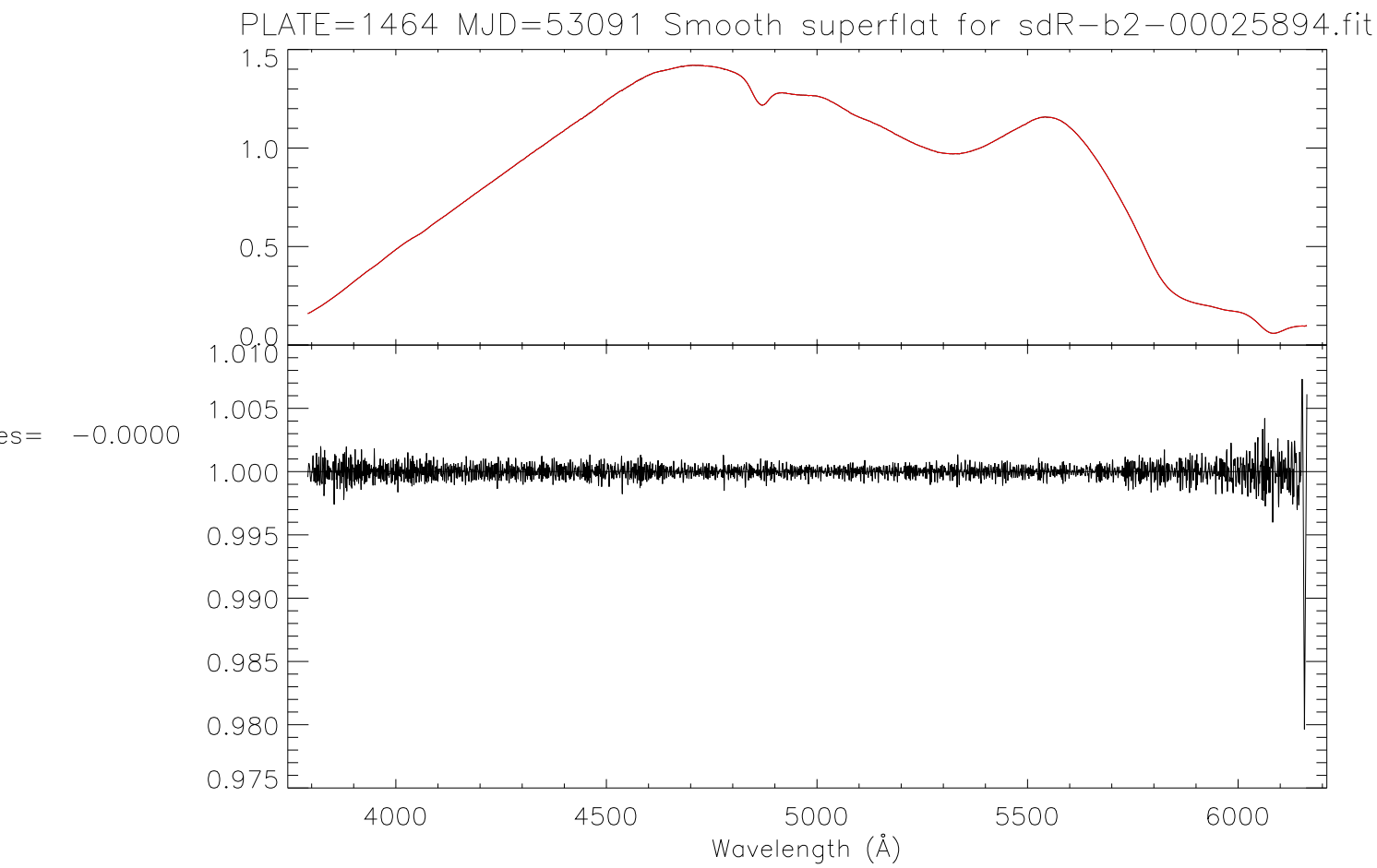

shift(pix)= 0.163
err(pix)= 0.019
oldshift(pix)= 0.162
120
100
80
60
40
20
0
4280
4300
4320
4340
4360
4380
4400
4420


shift(pix)= 0.180
err(pix)= 0.016
oldshift(pix)= 0.209
120
100
80
60
40
20
0
5430
5440
5450
5460
5470
5480
5490

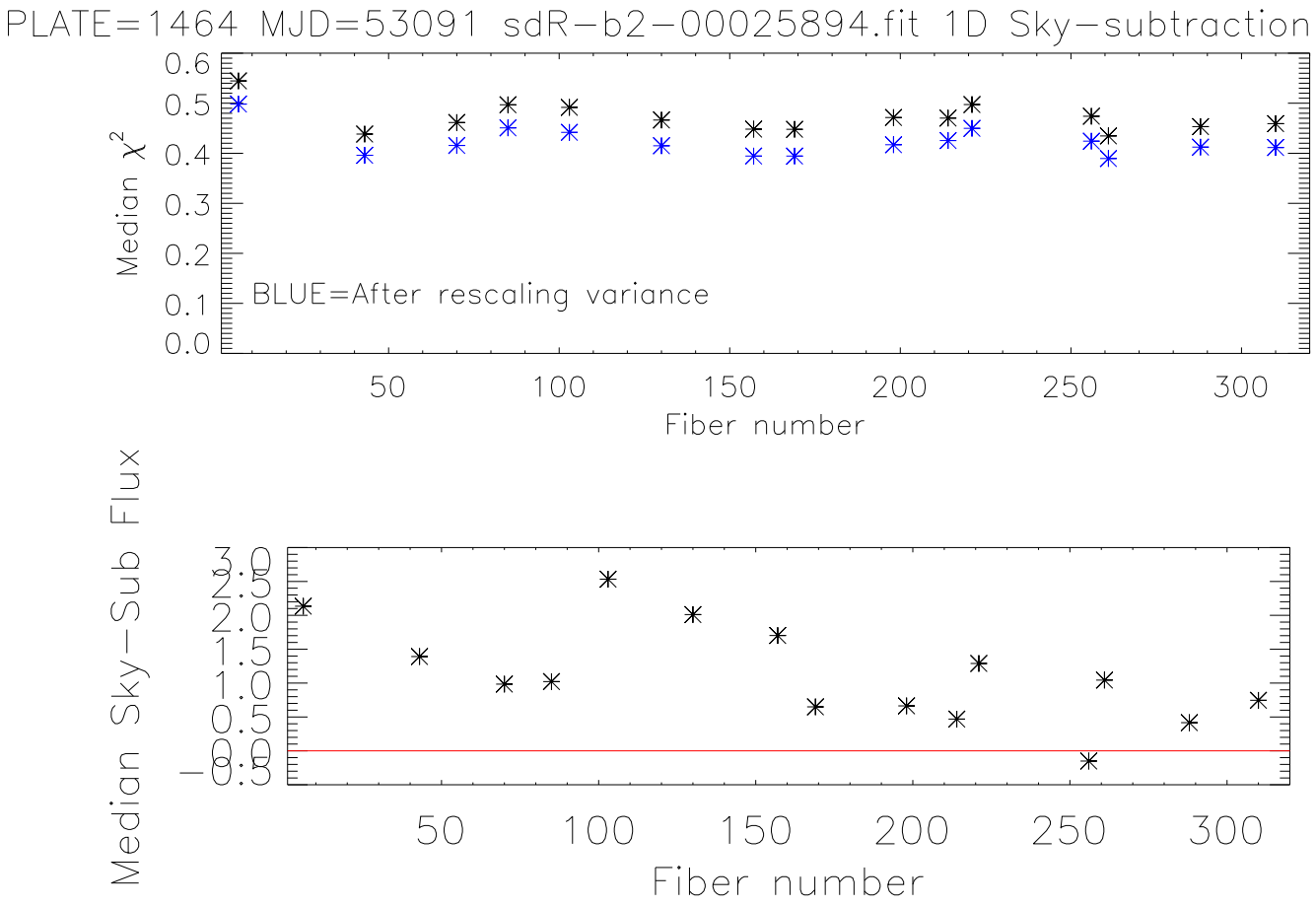

4046.5600
4358.3300
5460.9400
5577.3390
5889.9500
5895.9240
meas − arc
0
100
200
300
400

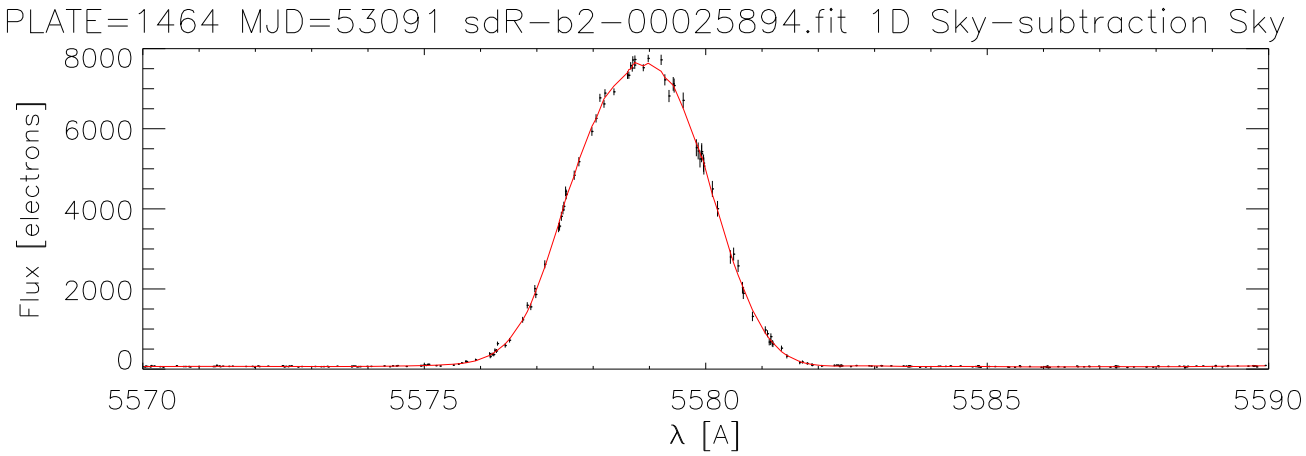

4046.5600
nfib1 16
nfib2 16
stdev 0.088
extra 0.22
4358.3300
nfib1 16
nfib2 16
stdev 0.054
extra 0.16
5460.9400
nfib1 16
nfib2 16
stdev 0.052
extra 0.18
5577.3390
nfib1 16
nfib2 16
stdev 0.011
extra 0.24
5889.9500
nfib1 16
nfib2 16
stdev 0.027
extra 0.27
5895.9240
nfib1 16
nfib2 16
stdev 0.025
extra 0.27
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

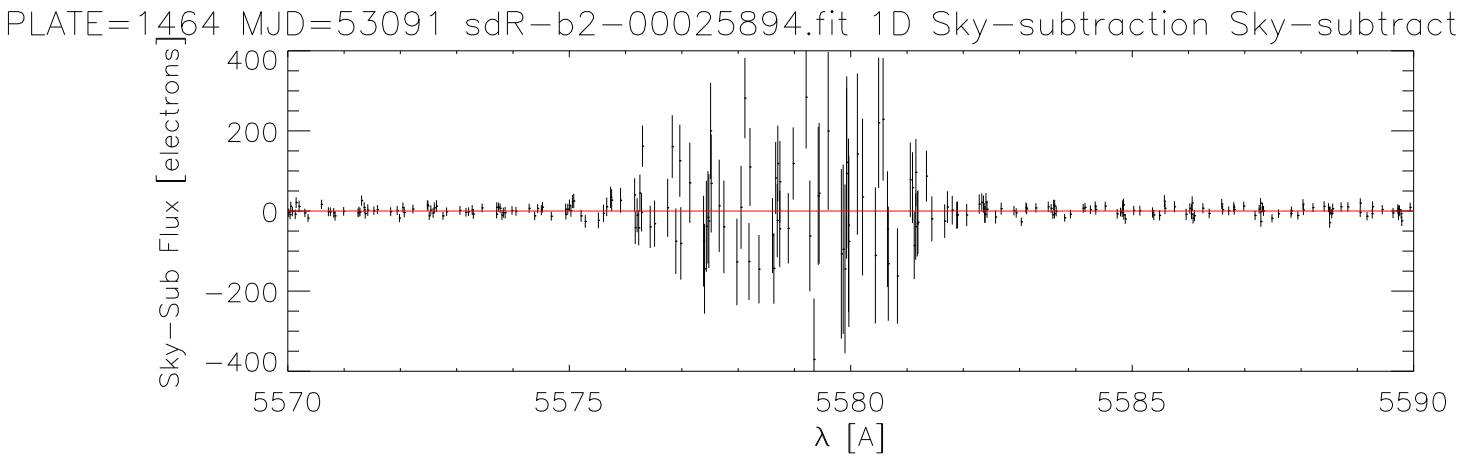

sky shift, pixels
0.25
0.20
0.15
3500
4000
4500
5000
5500
6000
6500

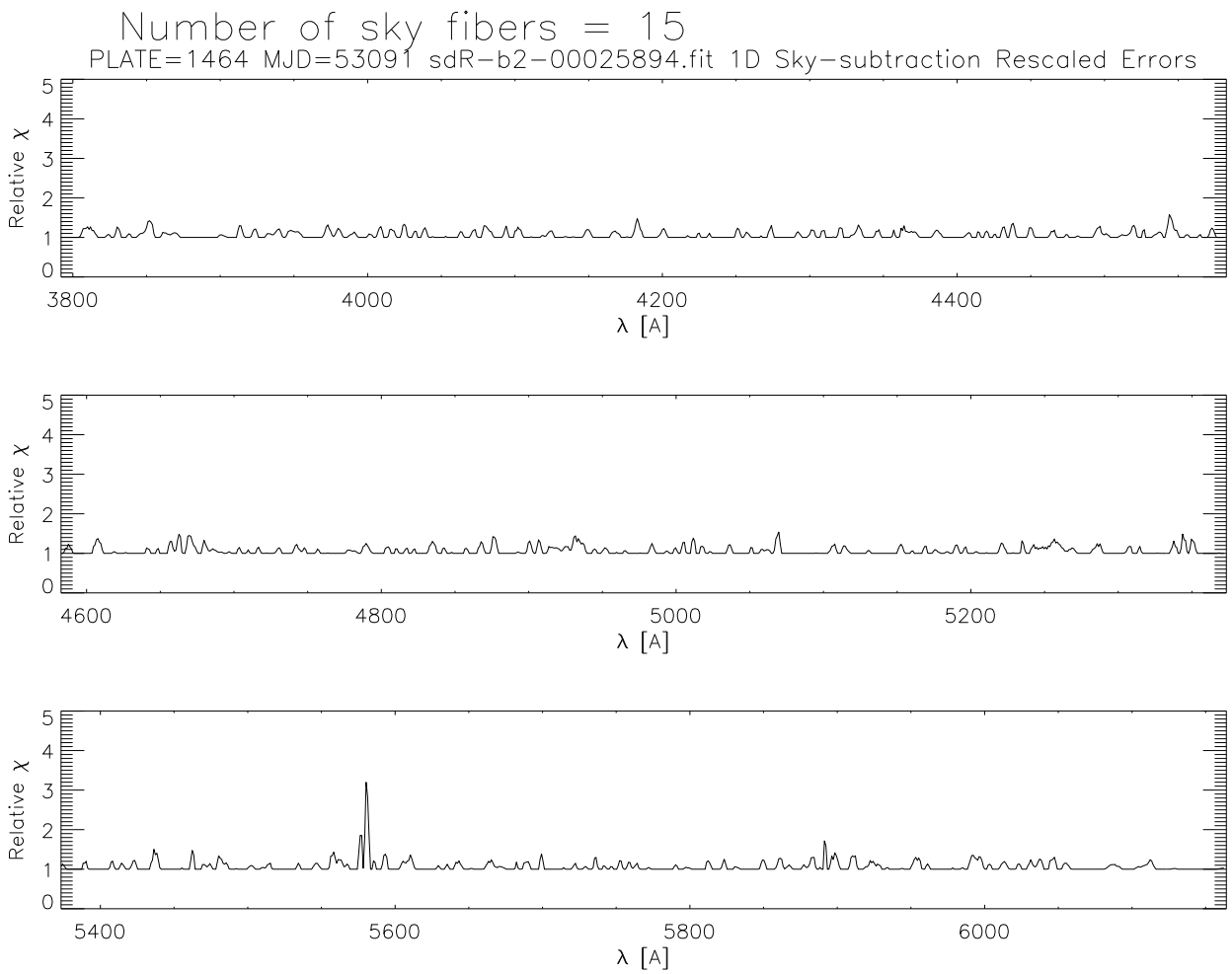

PLATE=1464 MJD=53091 Smooth superflat for sdR-b2-00025894.fit
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
0.985
0.980
0.975
4000
4500
5000
5500
6000
Wavelength (Å)

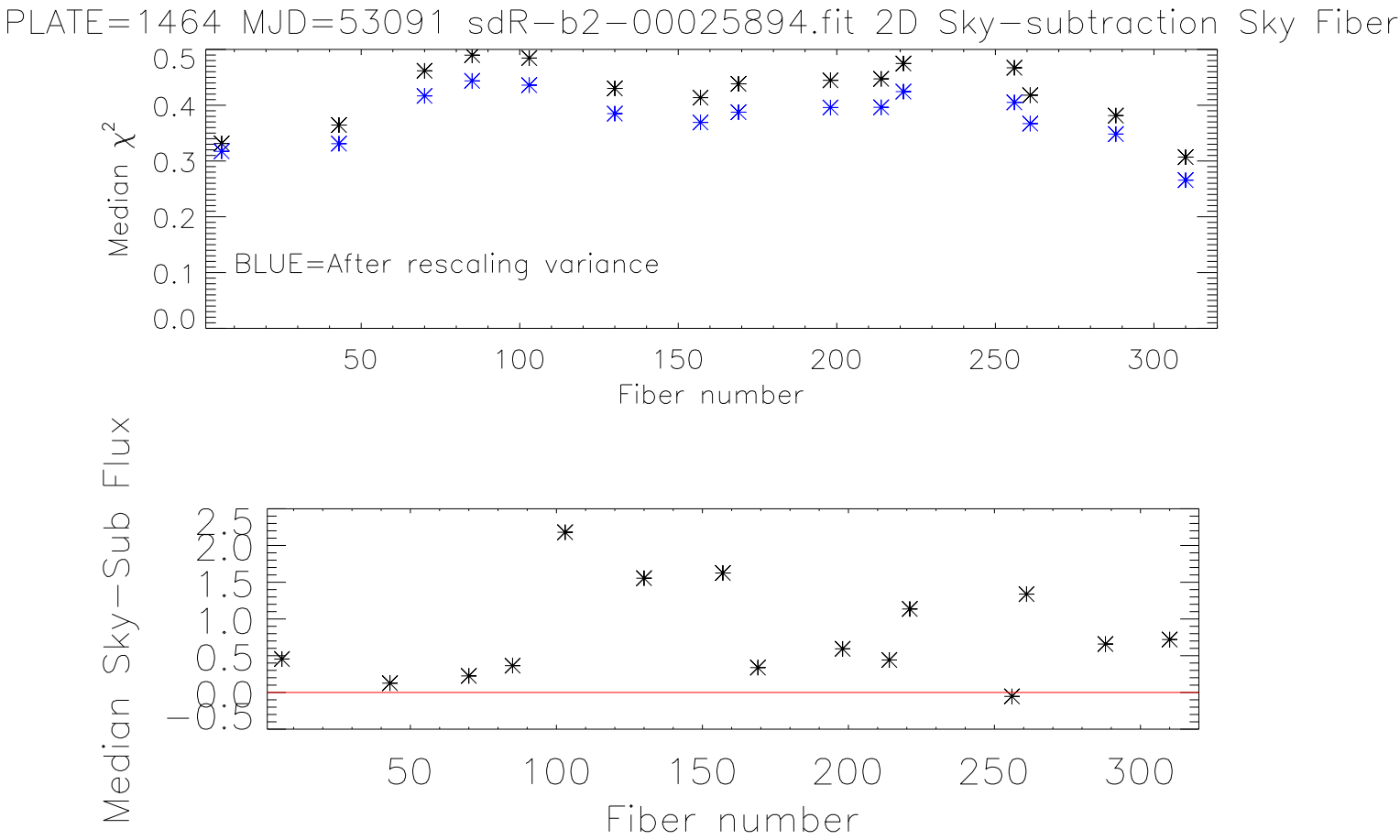
es= −0.0000

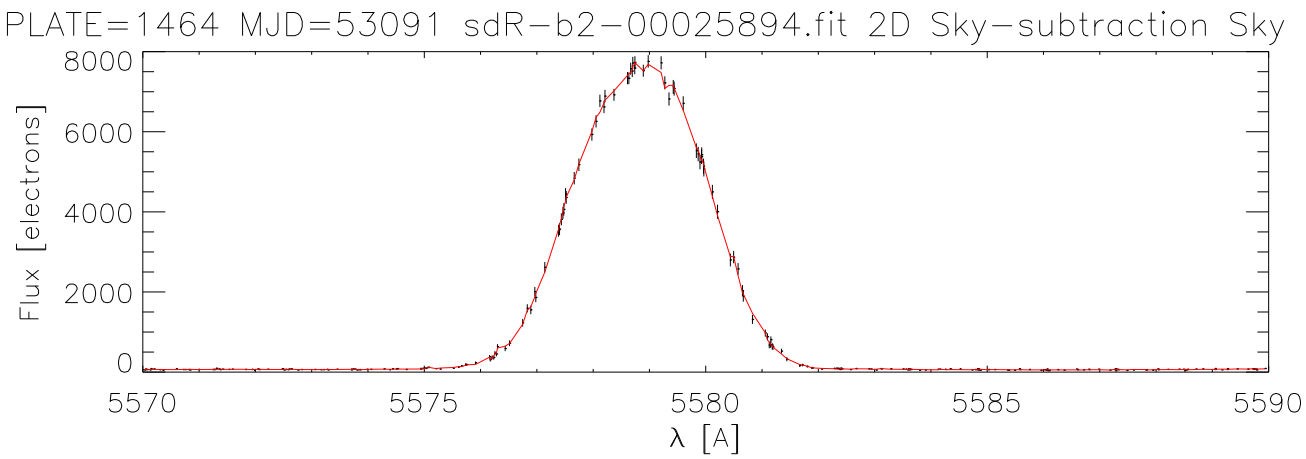

PLATE=1464 MJD=53091 sdR-b2-00025894.fit 1D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

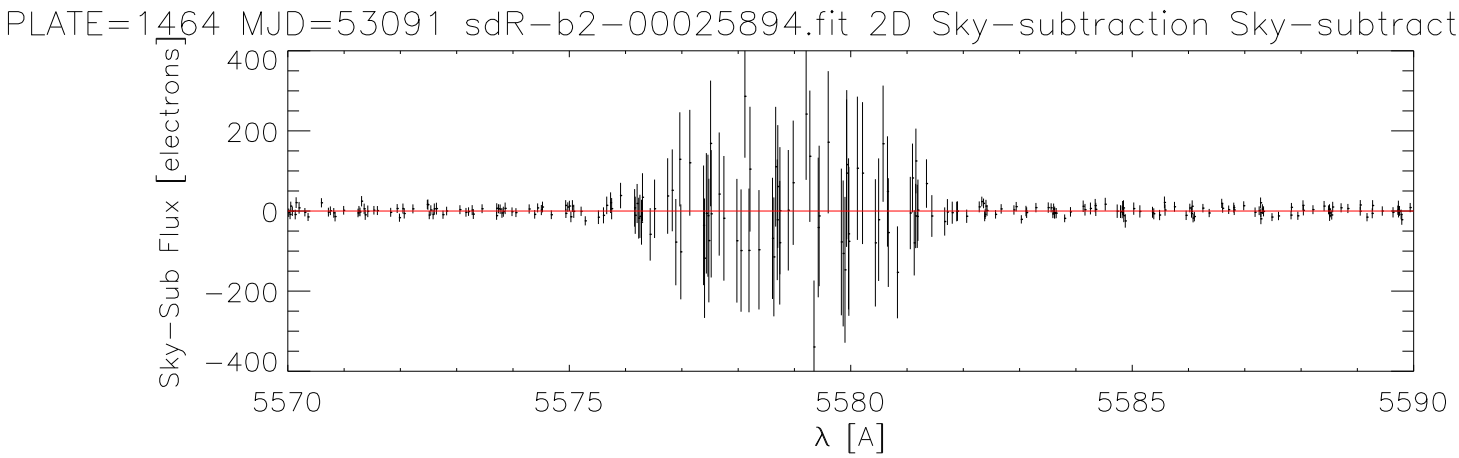

PLATE=1464 MJD=53091 sdR-b2-00025894.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

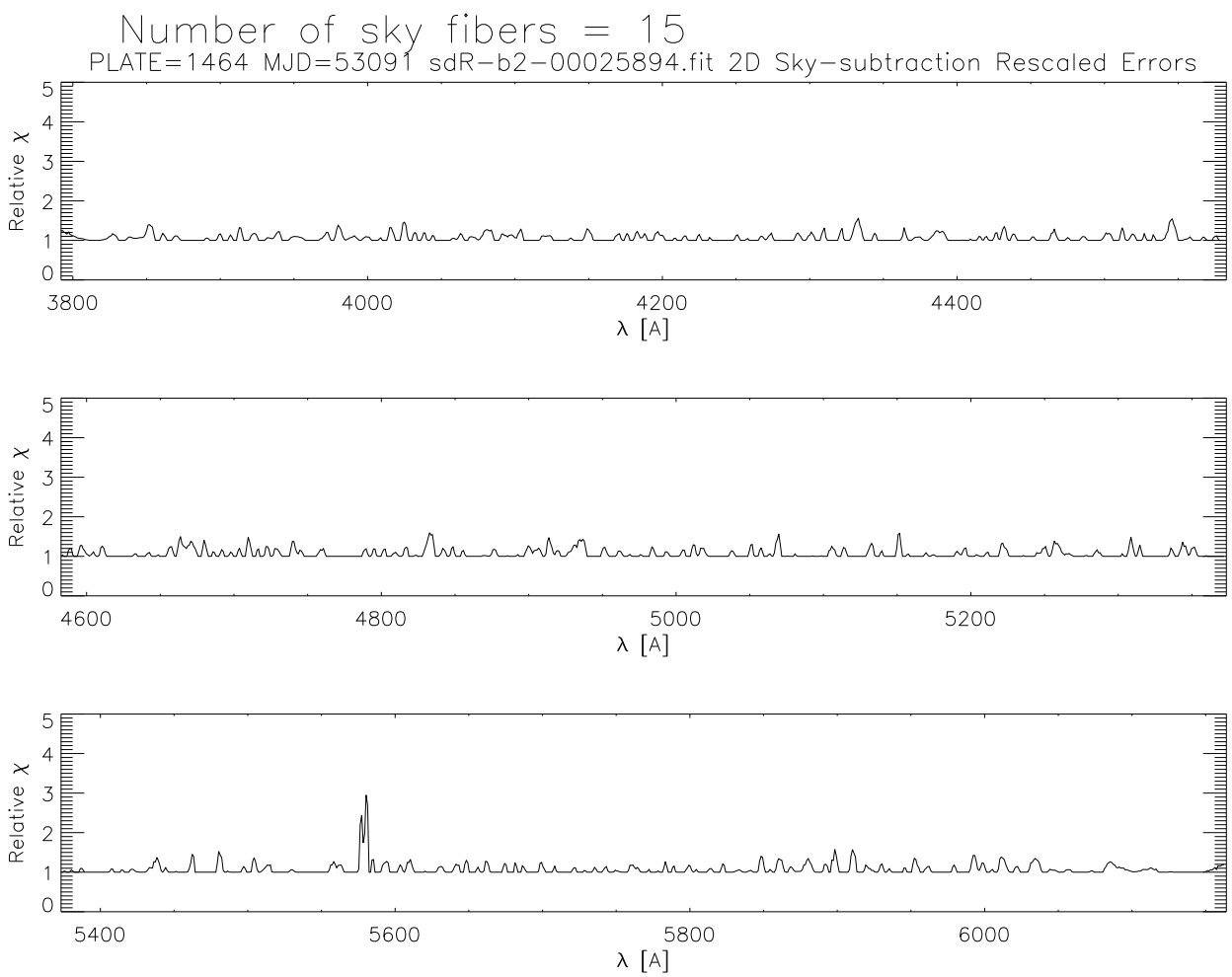

PLATE=1464 MJD=53091 sdR-b2-00025894.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
200
0
-200
-400
5570
5575
5580
5585
5590
λ [A]

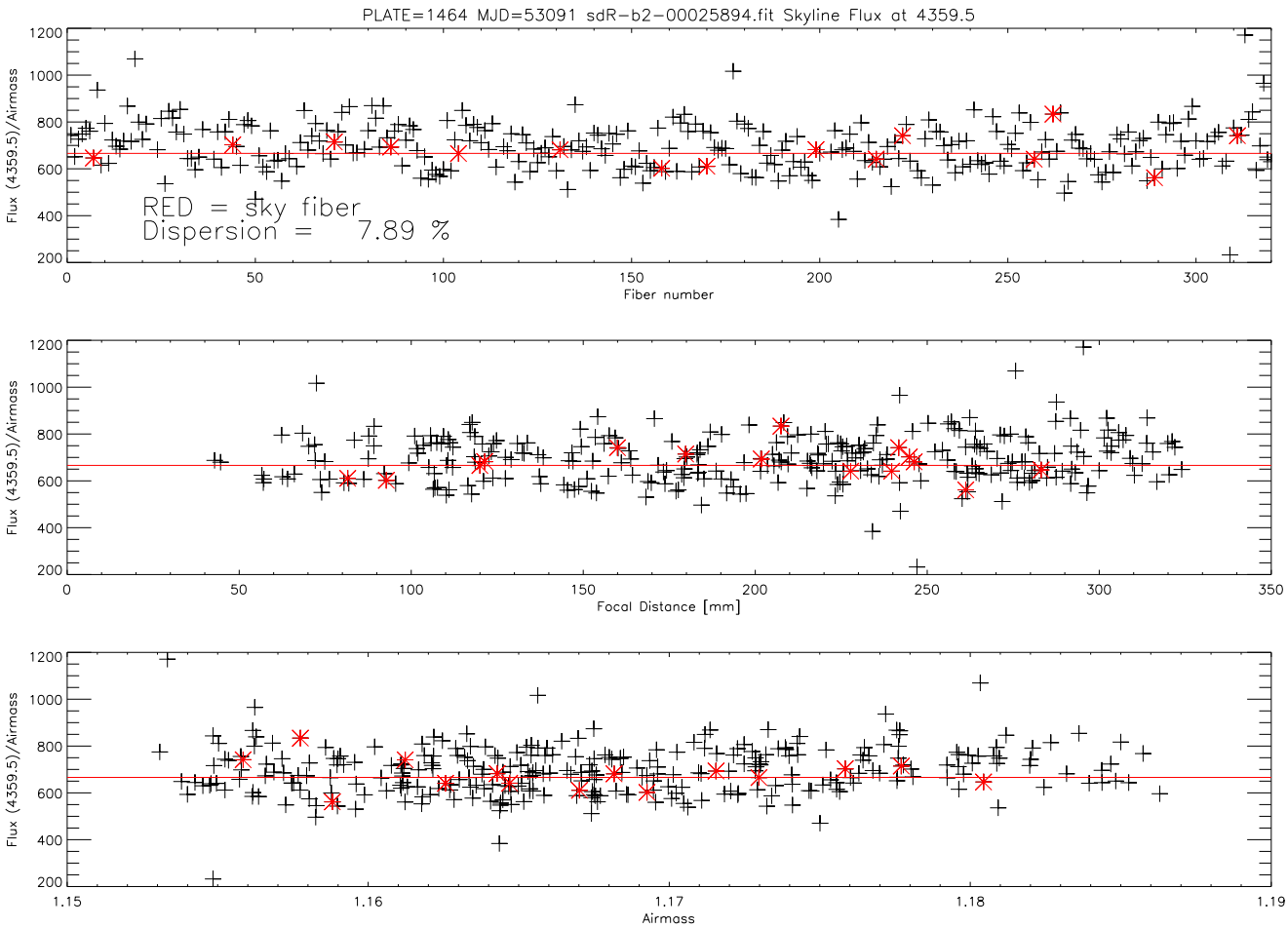

Number of sky fibers = 15
PLATE=1464 MJD=53091 sdR-b2-00025894.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

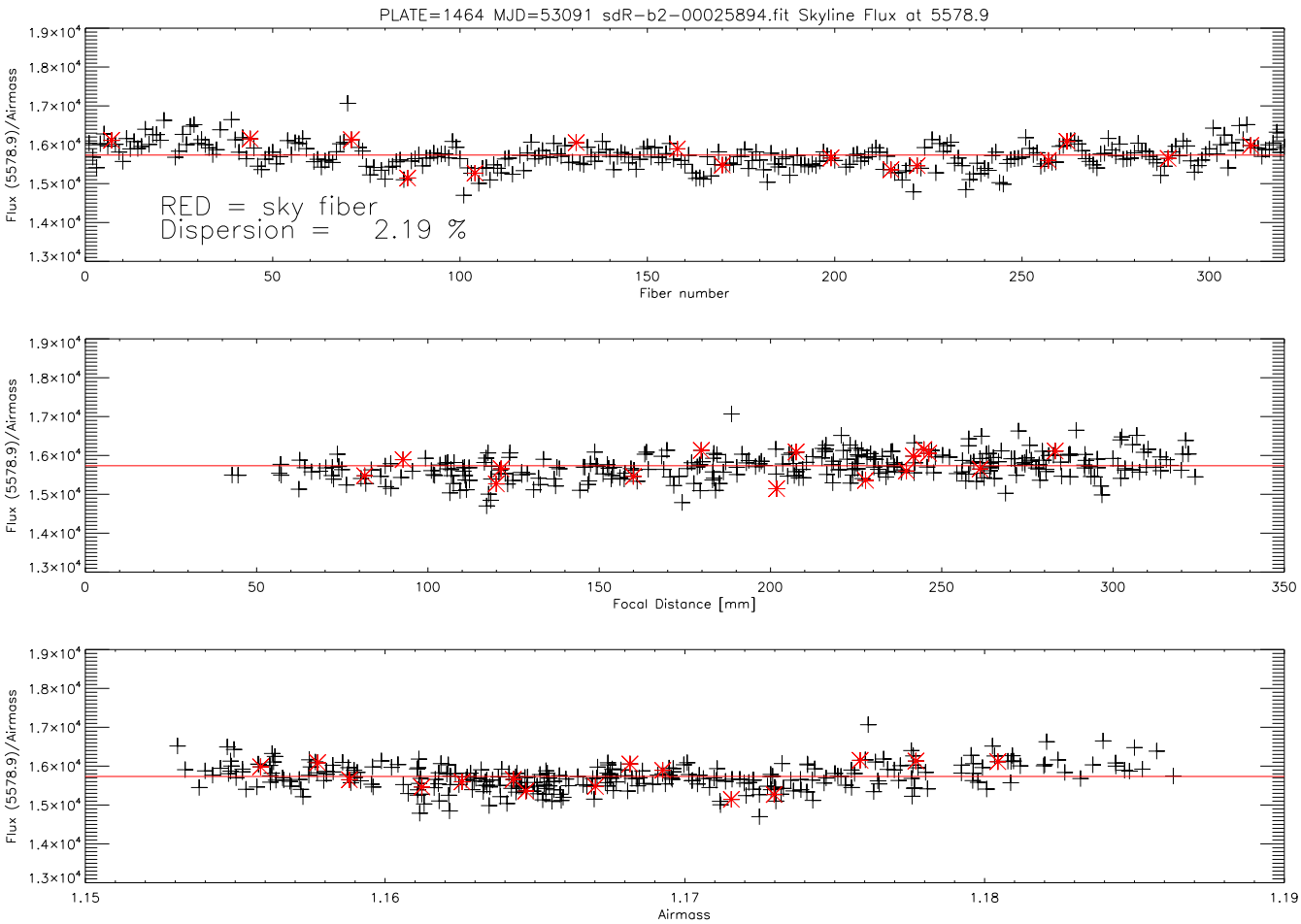

PLATE=1464 MJD=53091 sdR-b2-00025894.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

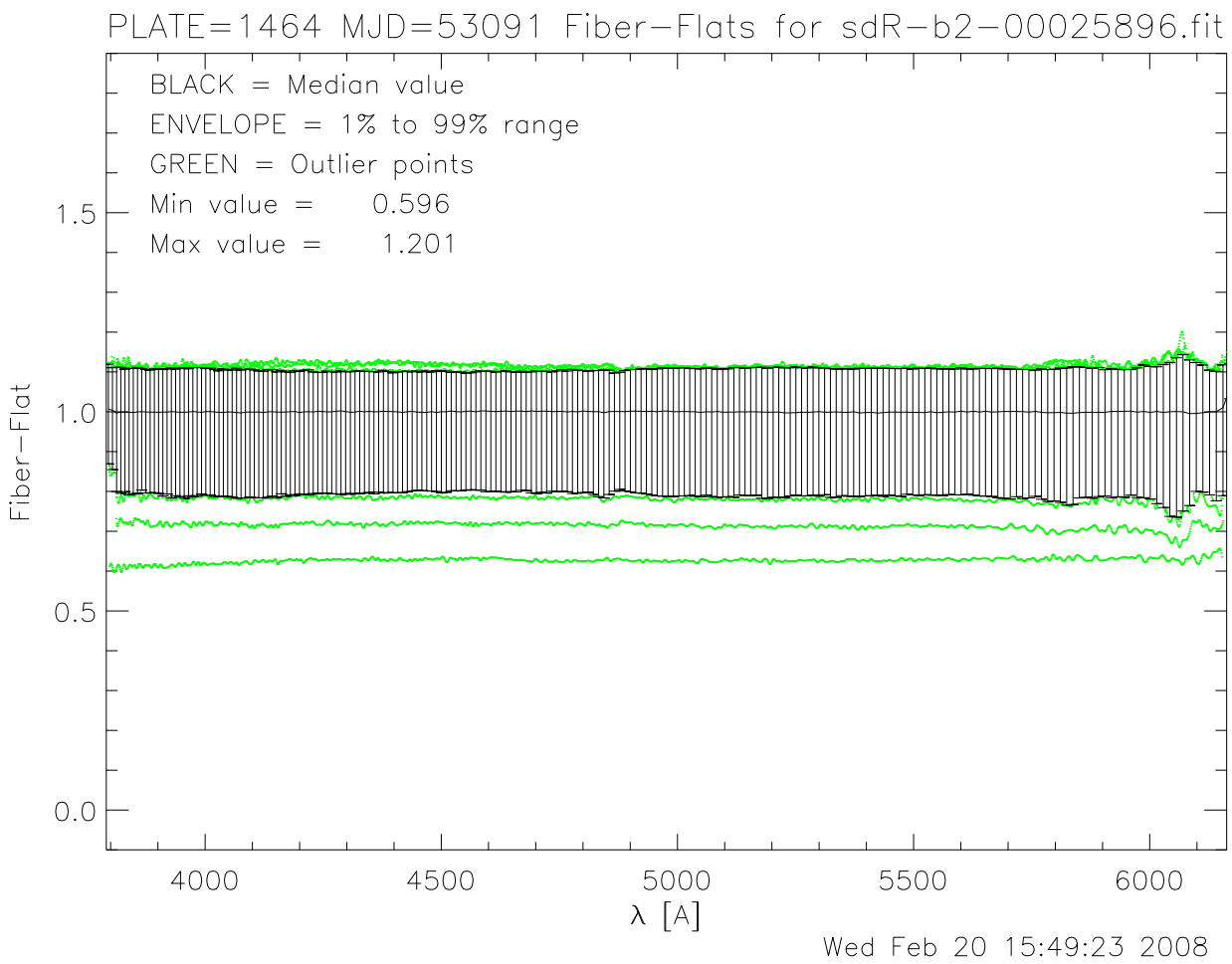

PLATE=1464 MJD=53091 sdR-b2-00025894.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

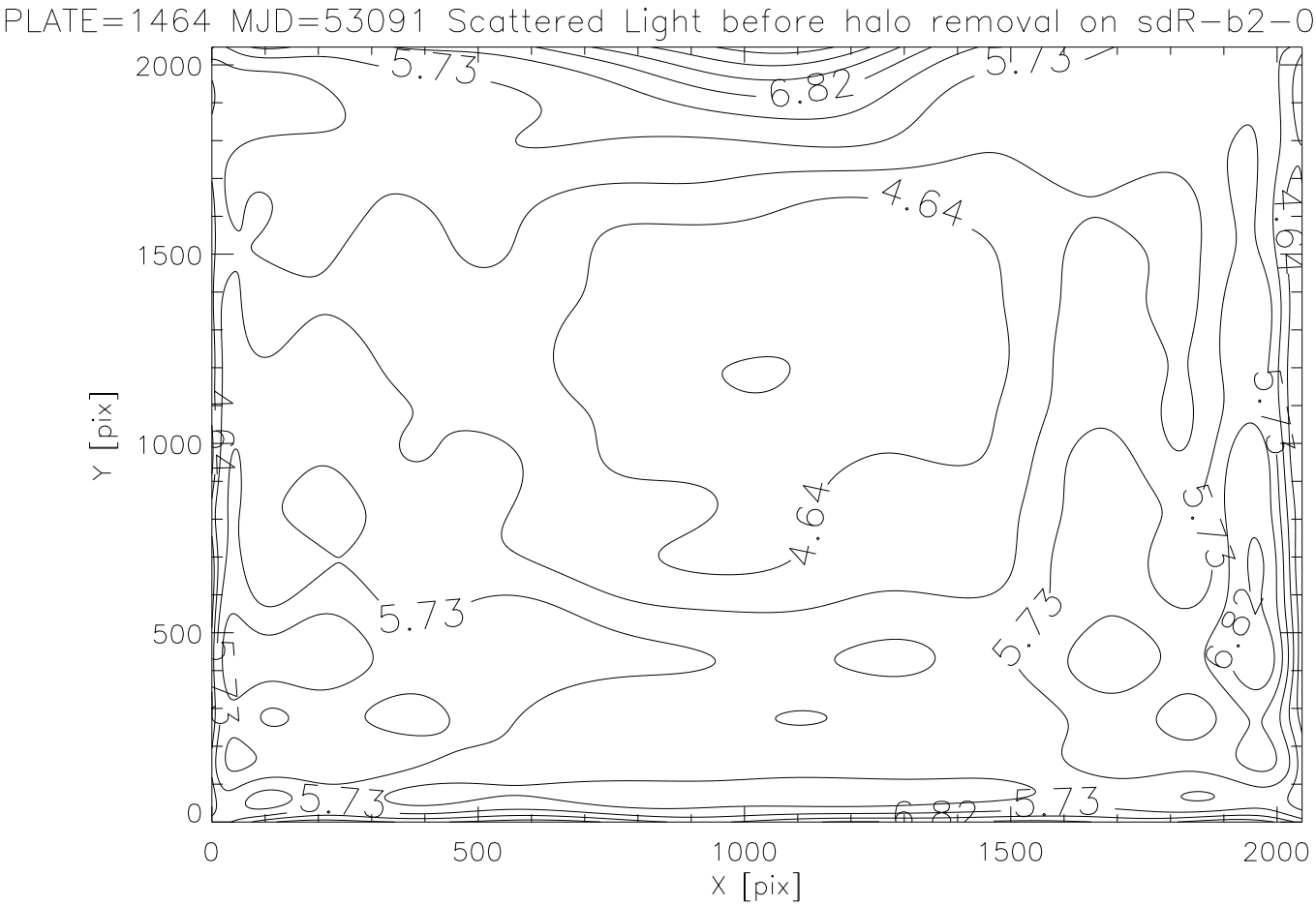

PLATE=1464 MJD=53091 sdR-b2-00025894.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
200
0
-200
-400
5570
5575
5580
5585
5590
λ [A]

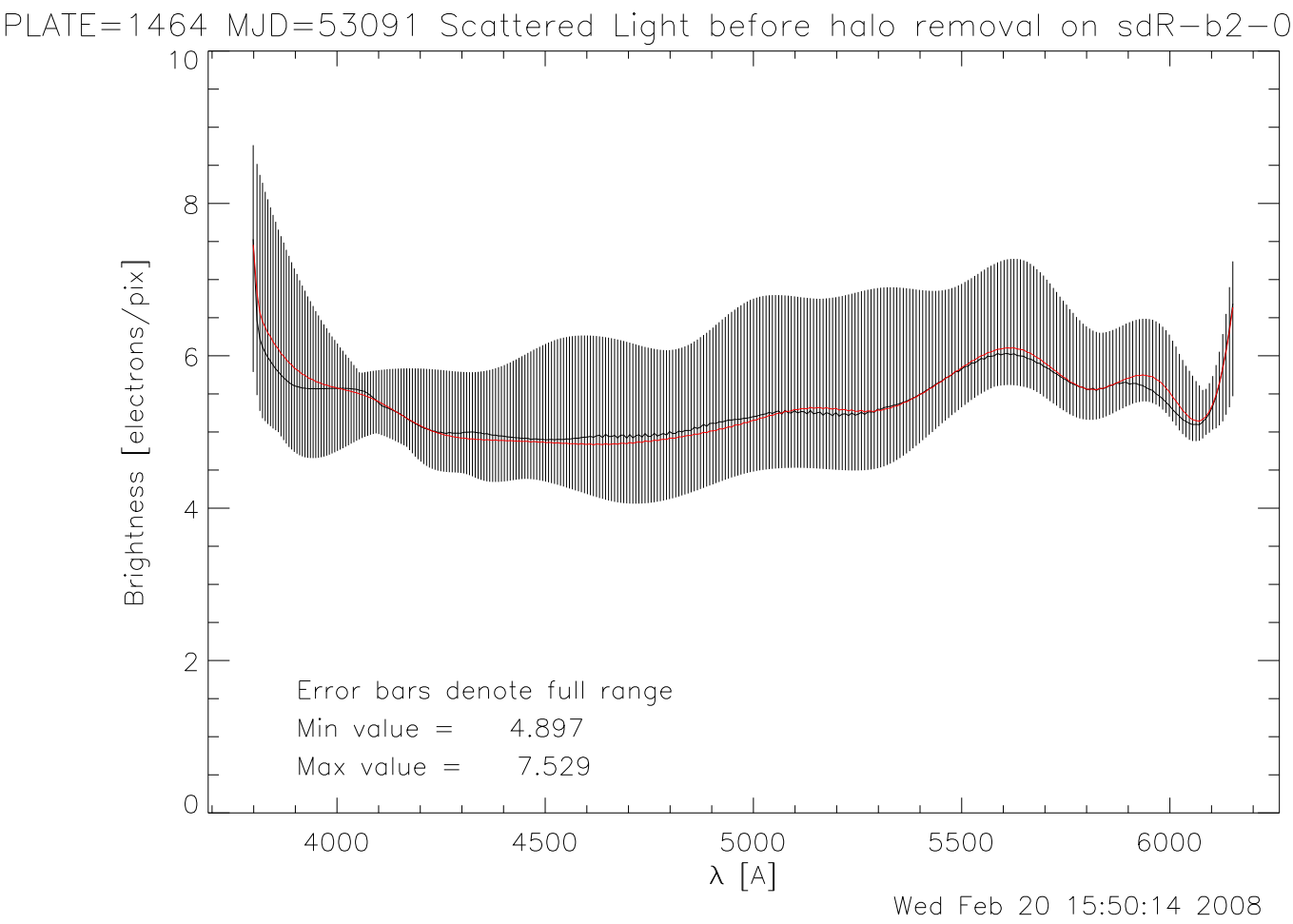

Number of sky fibers = 15
PLATE=1464 MJD=53091 sdR-b2-00025894.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

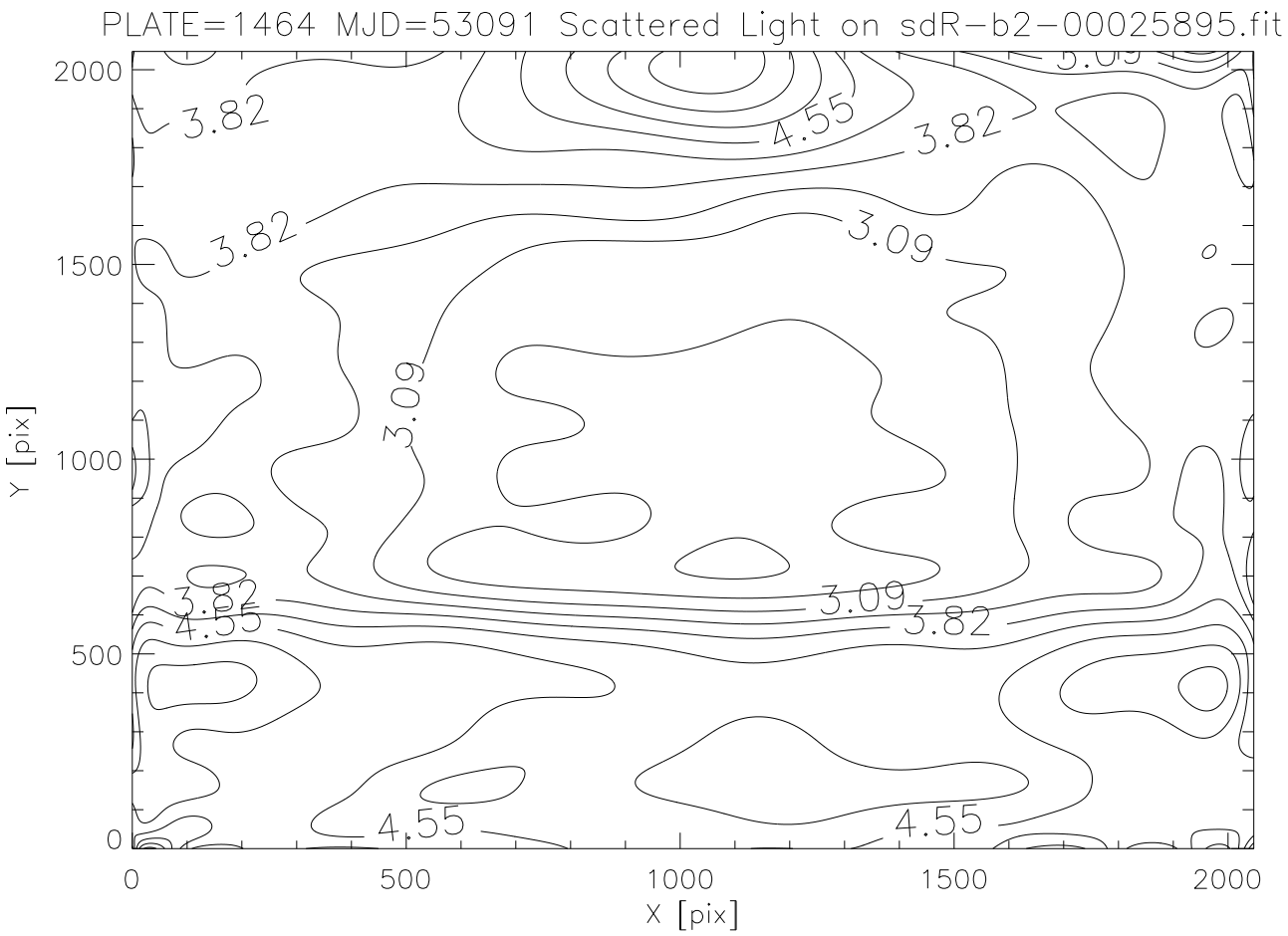

PLATE=1464 MJD=53091 sdR-b2-00025894.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 7.89 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

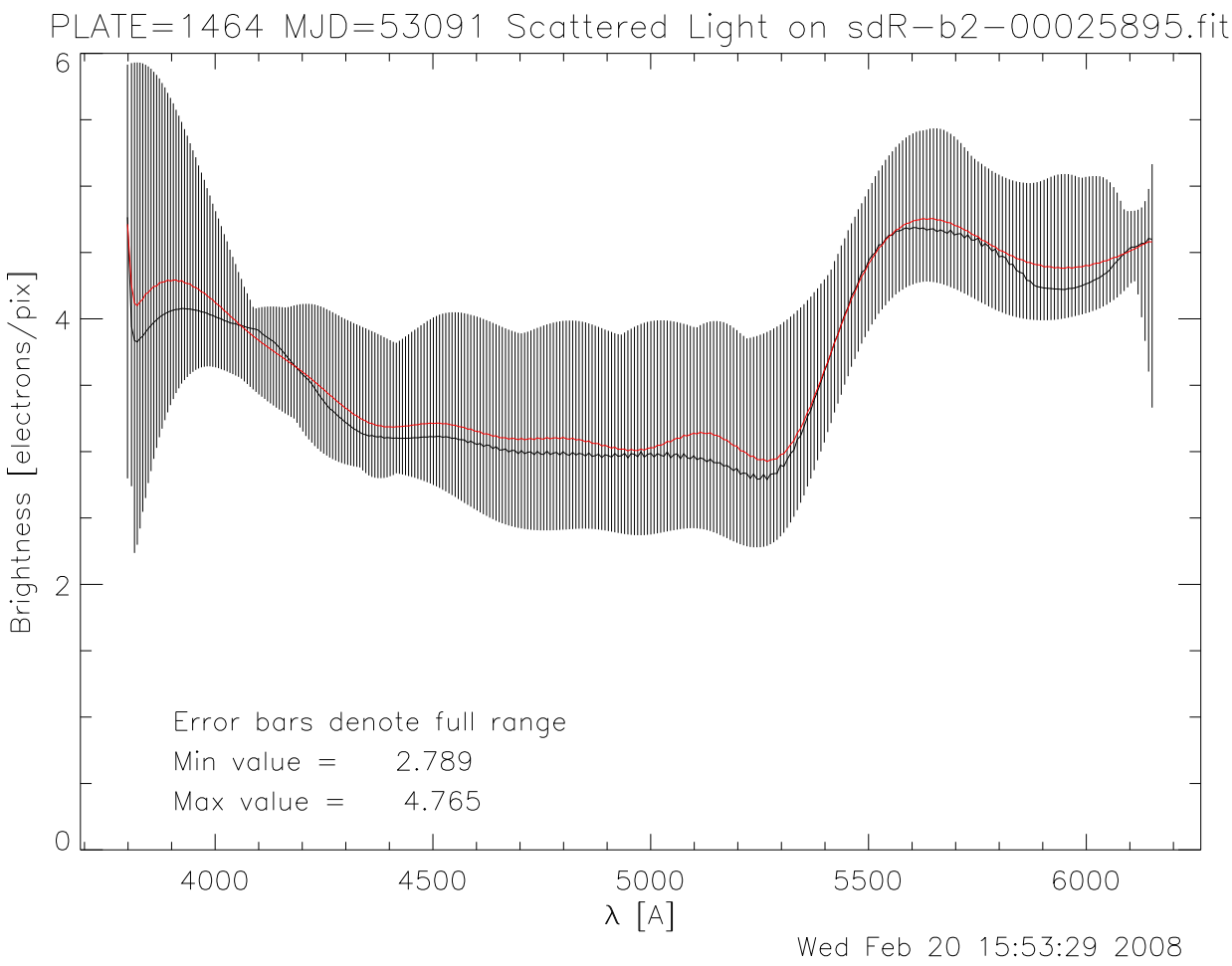

PLATE=1464 MJD=53091 sdR-b2-00025894.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 2.19 %
Fiber number
Focal Distance [mm]
Airmass

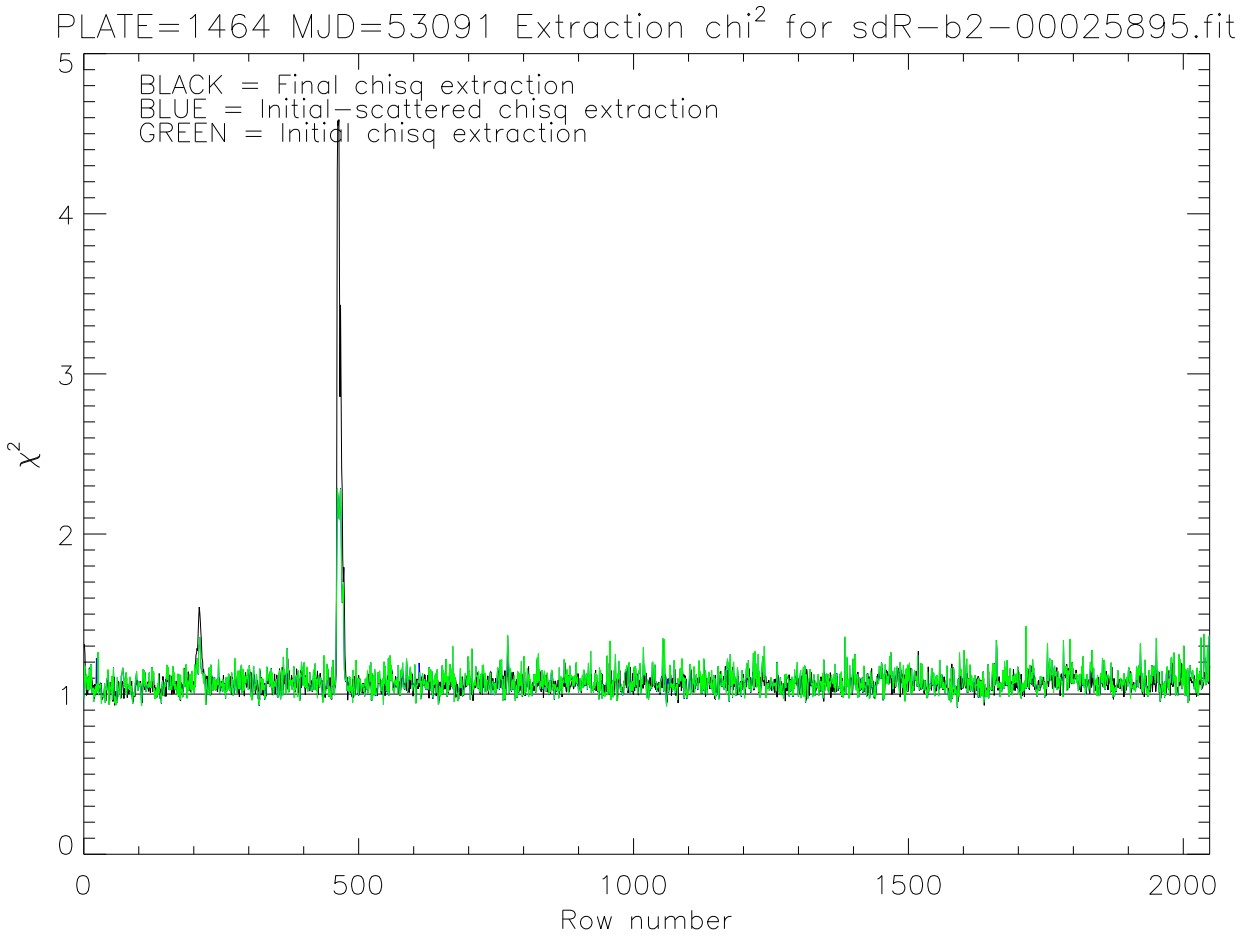

PLATE=1464 MJD=53091 Fiber-Flats for sdR-b2-00025896.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.596
Max value = 1.201
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Wed Feb 20 15:49:23 2008

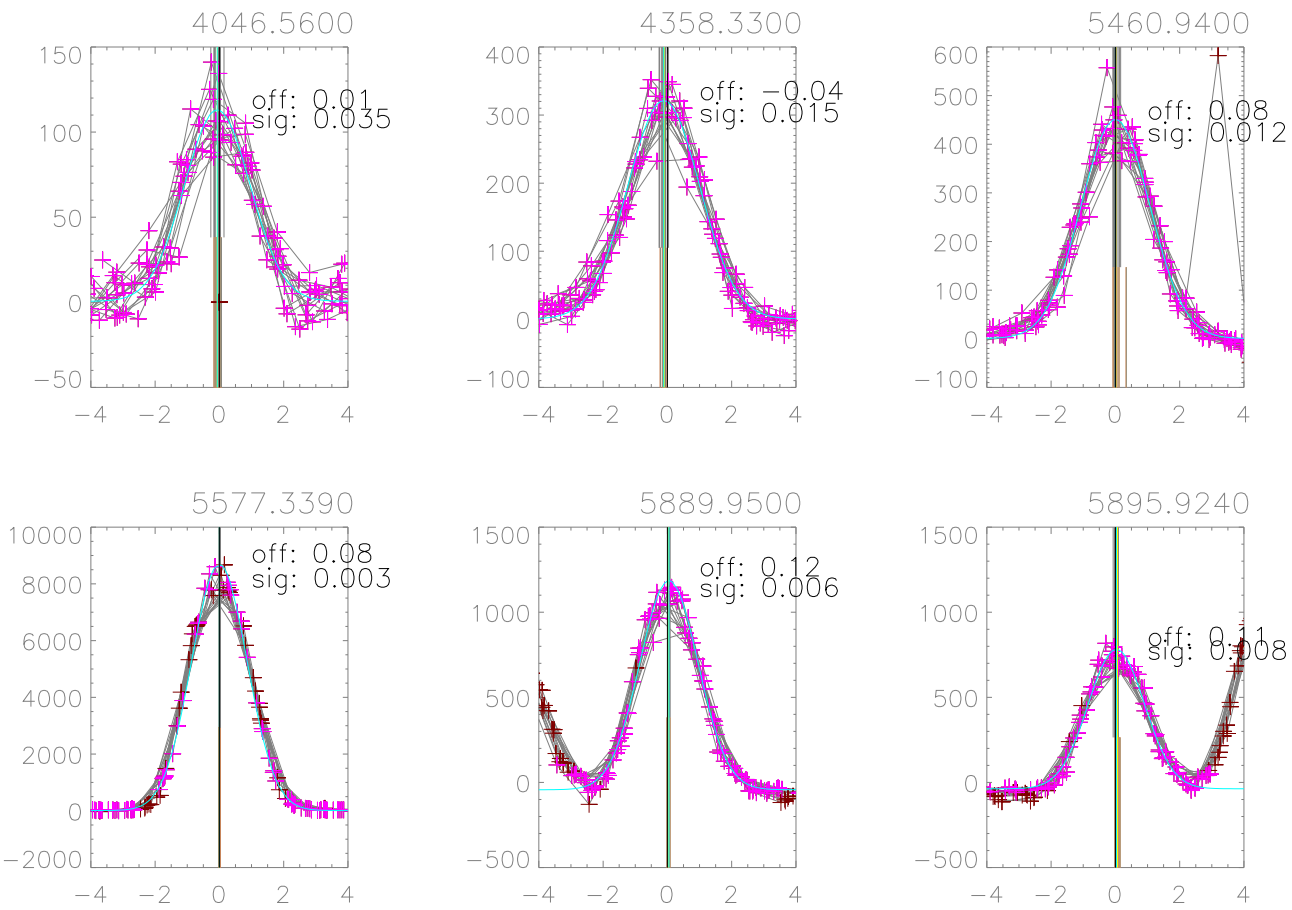

PLATE=1464 MJD=53091 Scattered Light before halo removal on sdR-b2-00025895.f
Y [pix]
X [pix]
0
500
1000
1500
2000
5.73
6.82
4.64

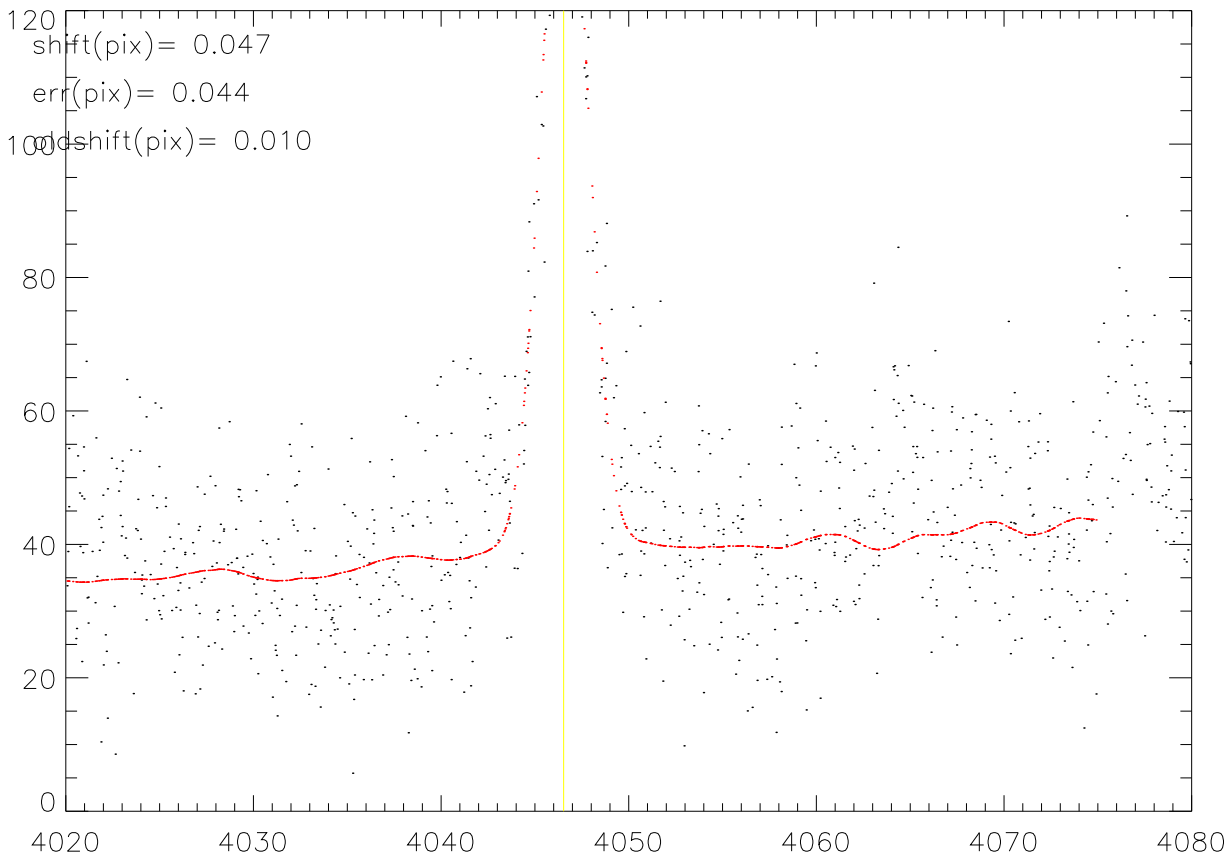

PLATE=1464 MJD=53091 Scattered Light before halo removal on sdR-b2-00025895.f
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 4.897
Max value = 7.529
Wed Feb 20 15:50:14 2008

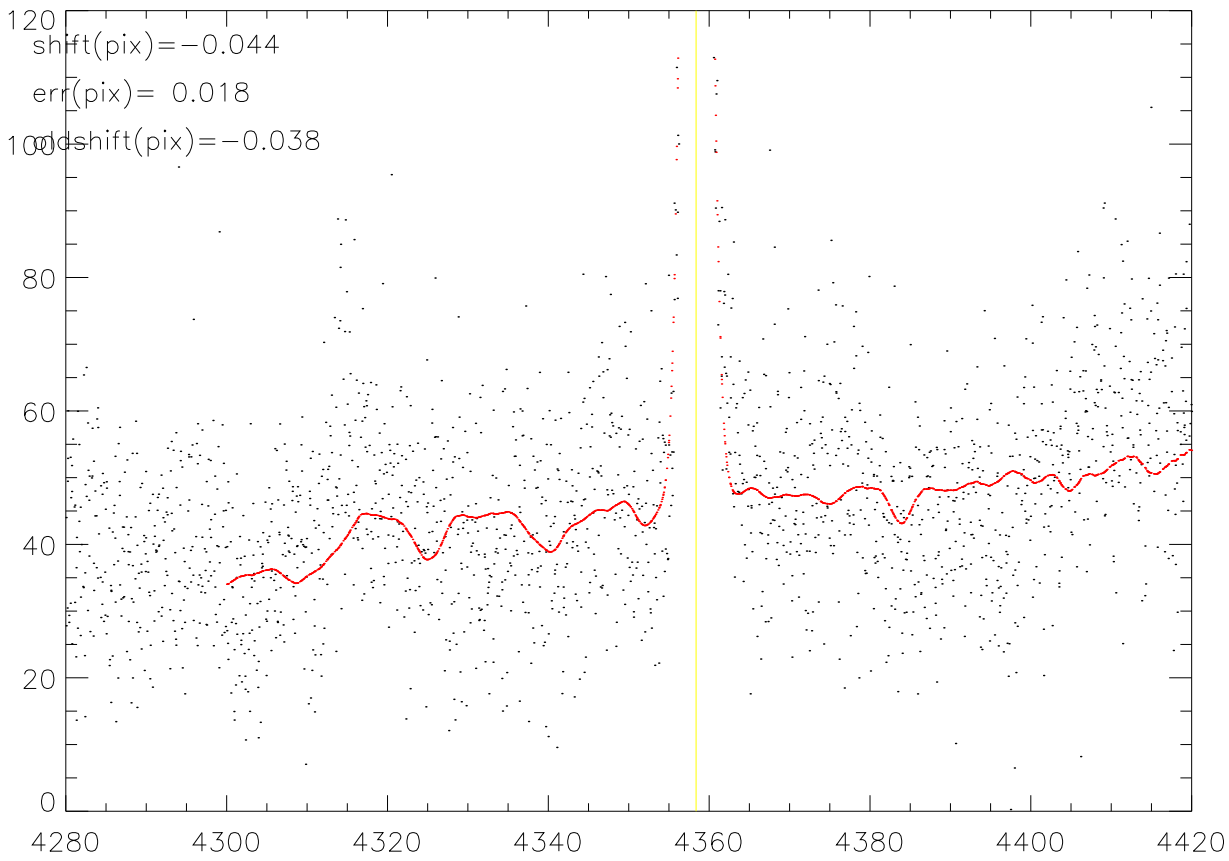

PLATE=1464 MJD=53091 Scattered Light on sdR-b2-00025895.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
3.82
4.55
3.09

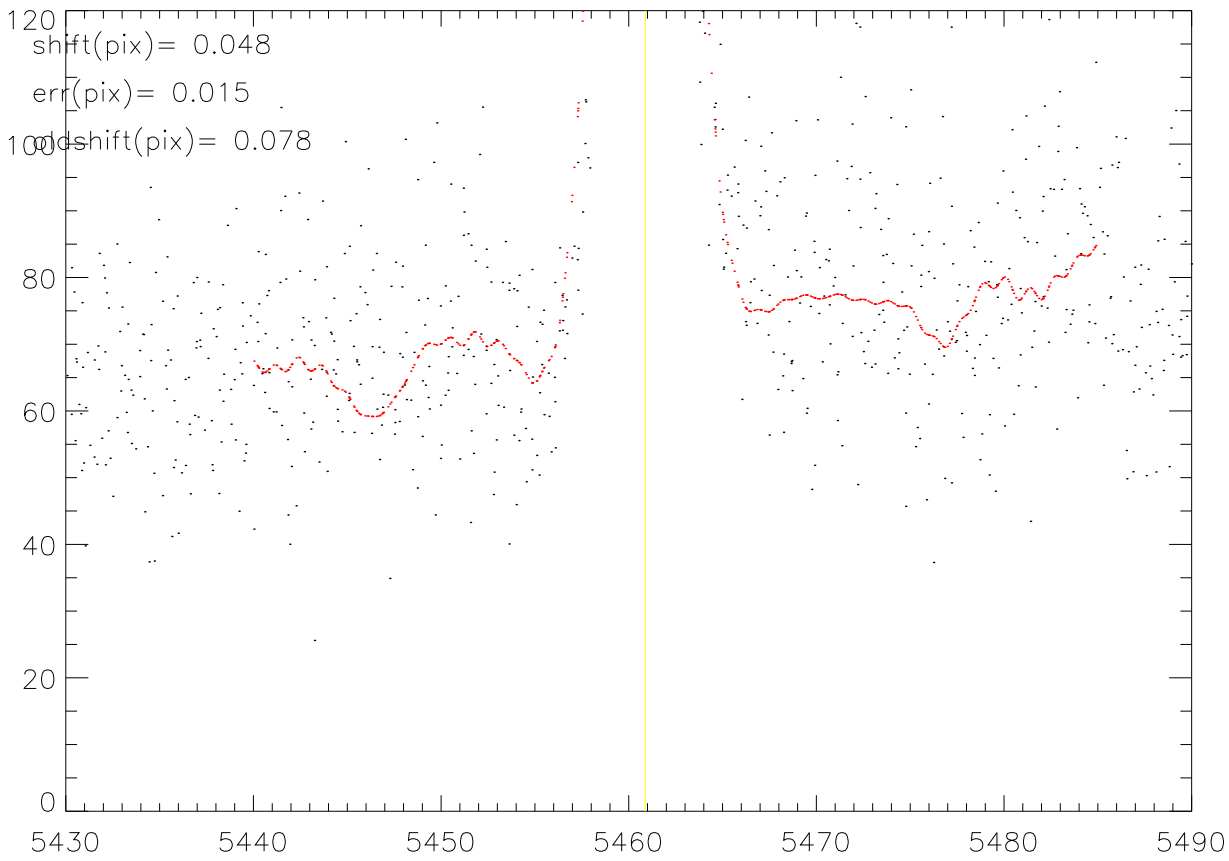

PLATE=1464 MJD=53091 Scattered Light on sdR-b2-00025895.fit
Brightness [electrons/pix]
0
2
4
6
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 2.789
Max value = 4.765
Wed Feb 20 15:53:29 2008

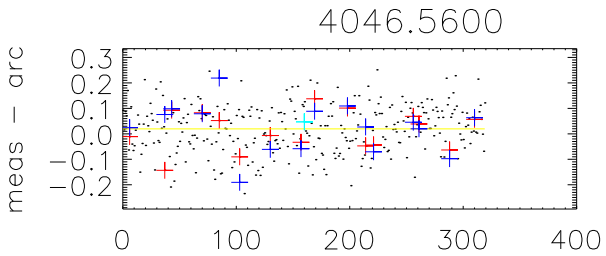

PLATE=1464 MJD=53091 Extraction chi^2 for sdR-b2-00025895.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
5
0
500
1000
1500
2000
Row number

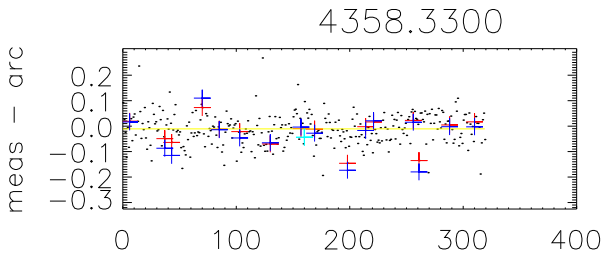

4046.5600
off: 0.01
sig: 0.035
4358.3300
off: −0.04
sig: 0.015
5460.9400
off: 0.08
sig: 0.012
5577.3390
off: 0.08
sig: 0.003
5889.9500
off: 0.12
sig: 0.006
5895.9240
off: 0.11
sig: 0.008

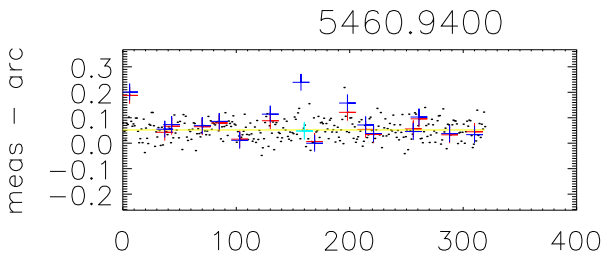

shift(pix)= 0.047
err(pix)= 0.044
oldshift(pix)= 0.010
120
100
80
60
40
20
0
4020
4030
4040
4050
4060
4070
4080

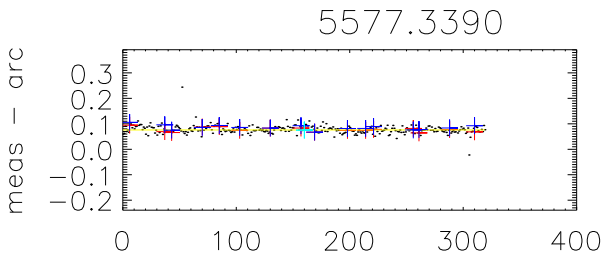

shift(pix)=−0.044
err(pix)= 0.018
oldshift(pix)=−0.038
120
100
80
60
40
20
0
4280
4300
4320
4340
4360
4380
4400
4420

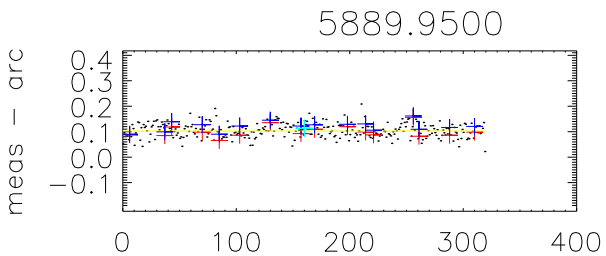

shift(pix)= 0.048
err(pix)= 0.015
oldshift(pix)= 0.078
120
100
80
60
40
20
0
5430
5440
5450
5460
5470
5480
5490

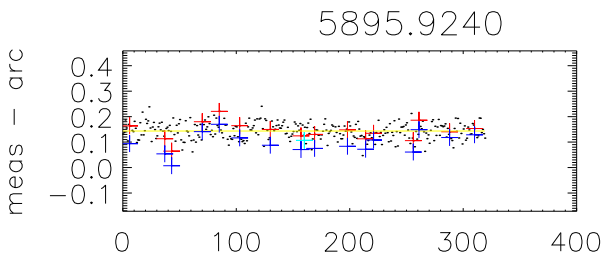

4046.5600
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

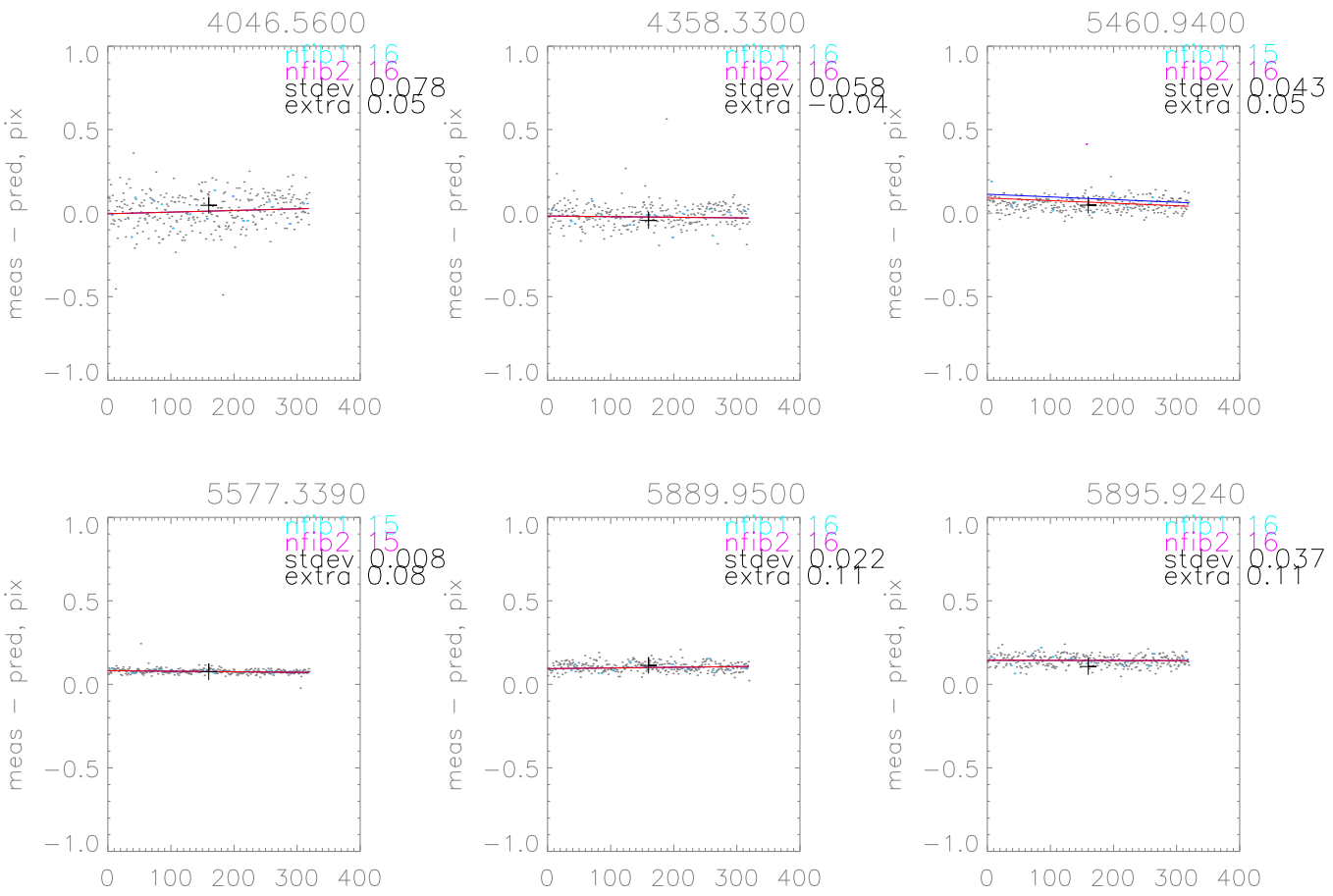

4358.3300
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

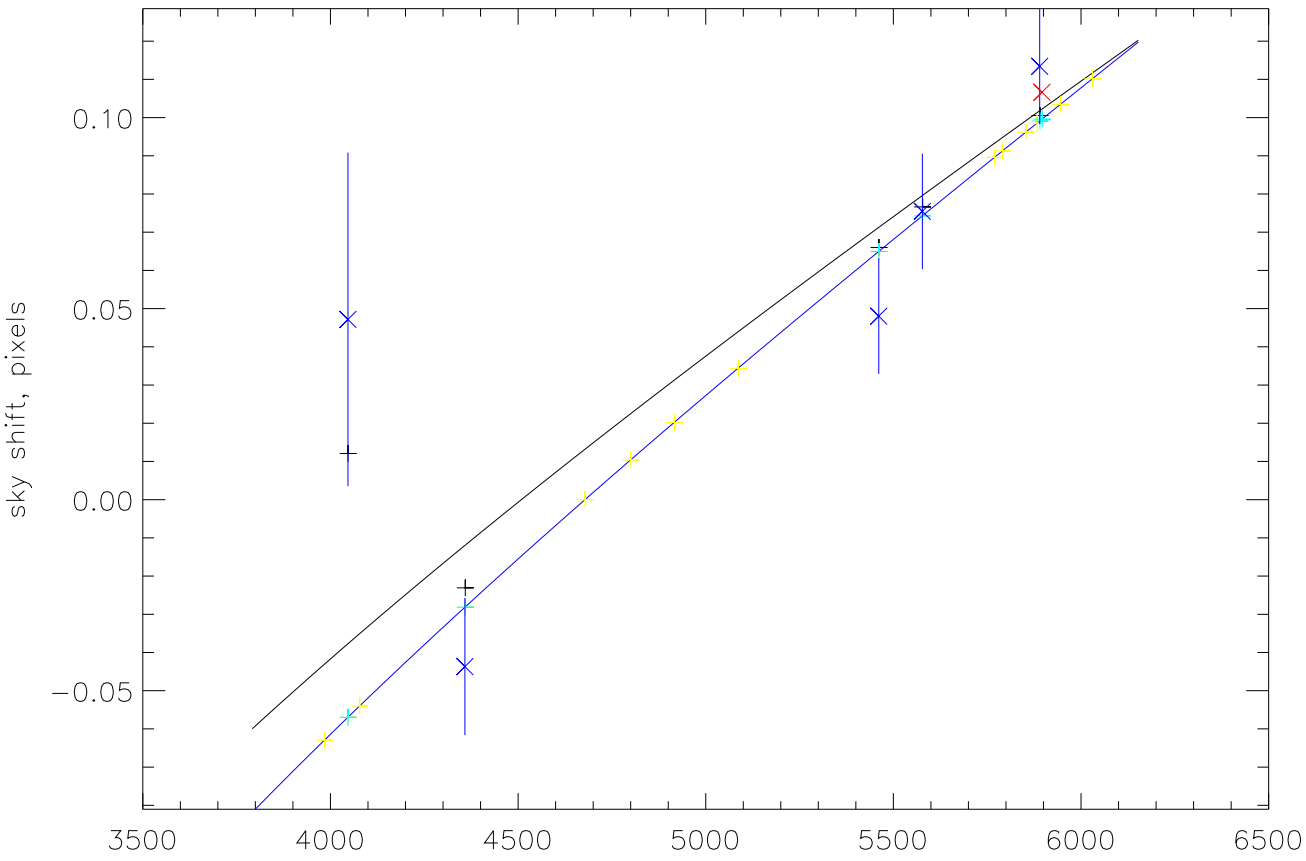

5460.9400
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

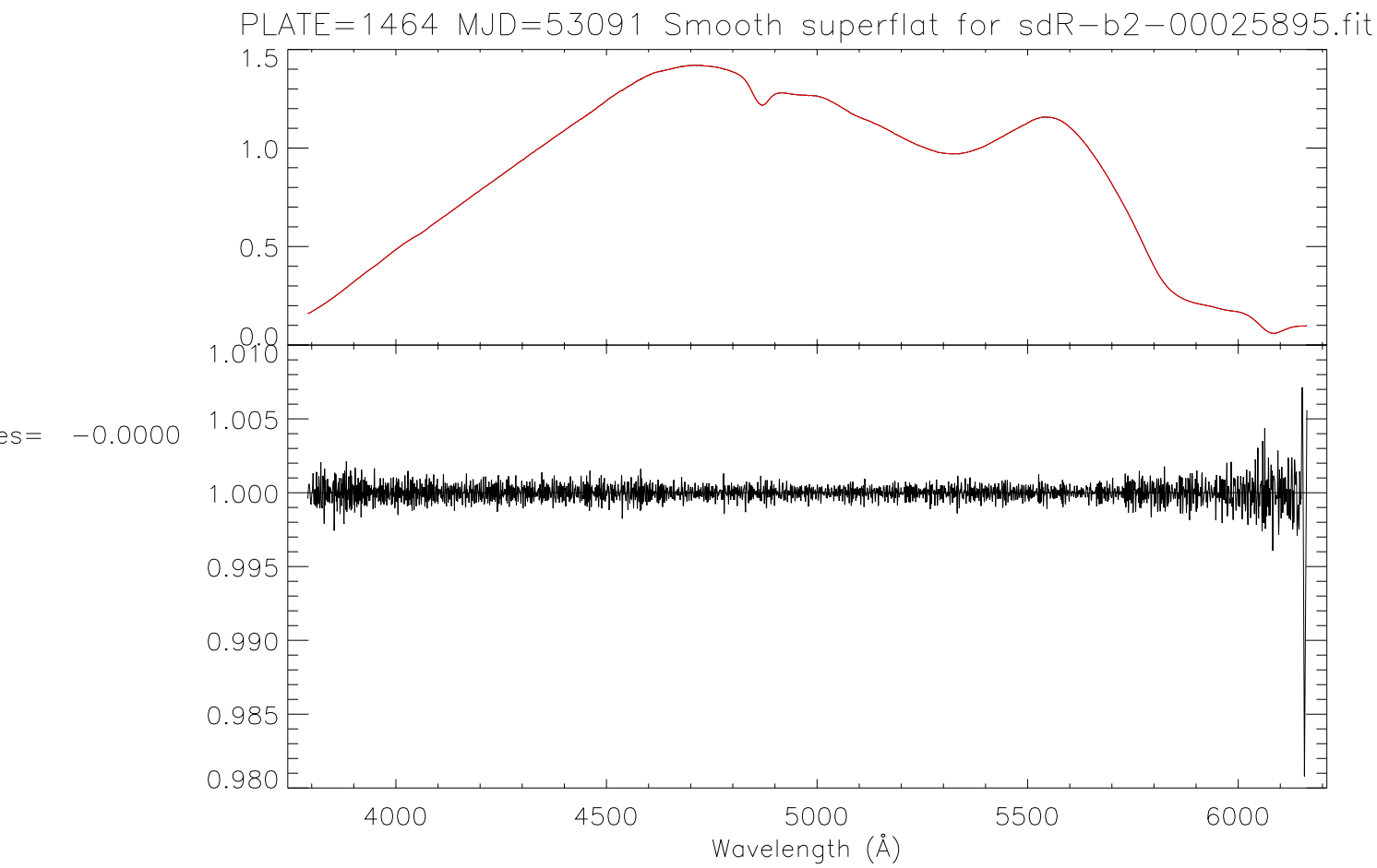

5577.3390
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

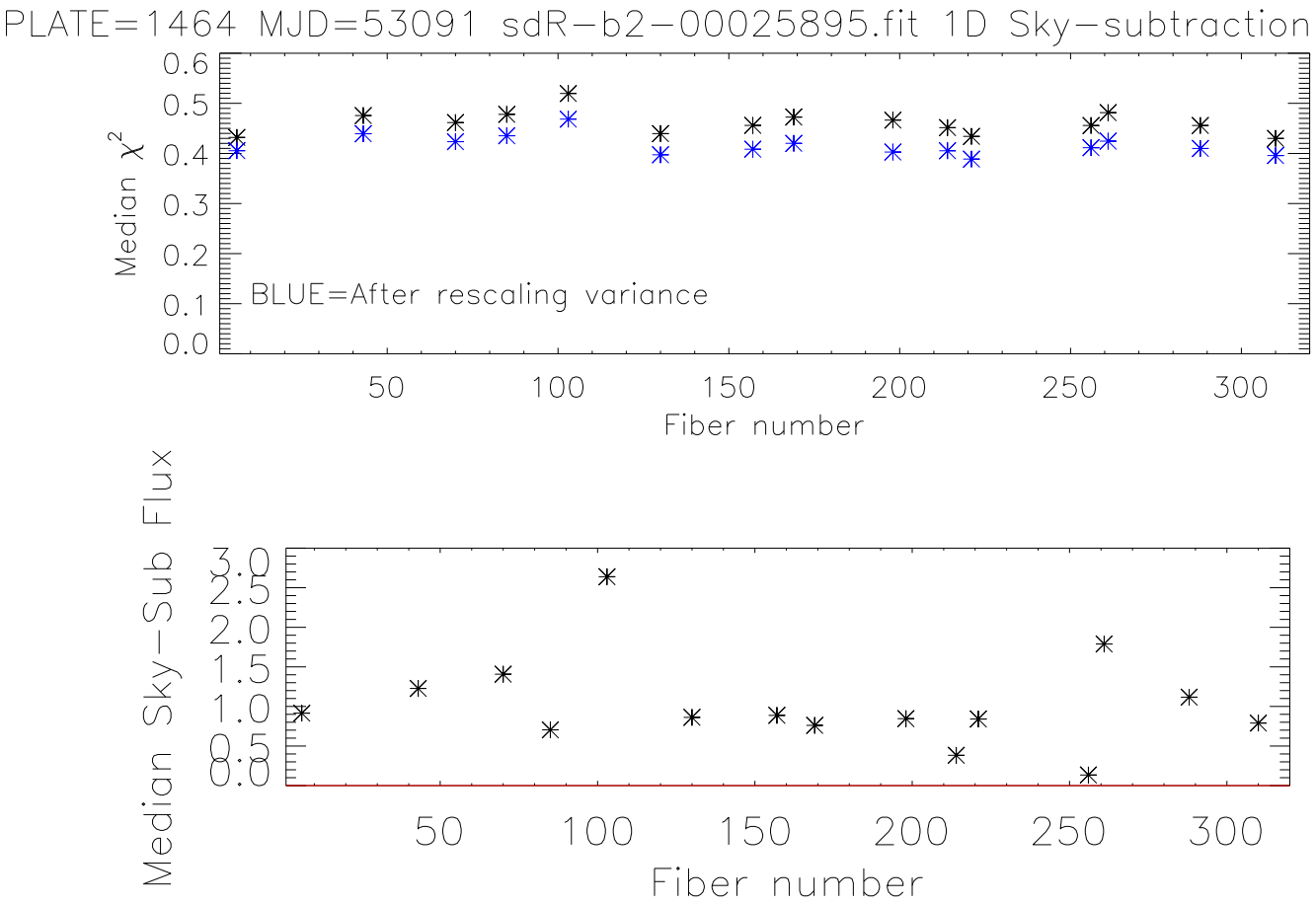

5889.9500
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

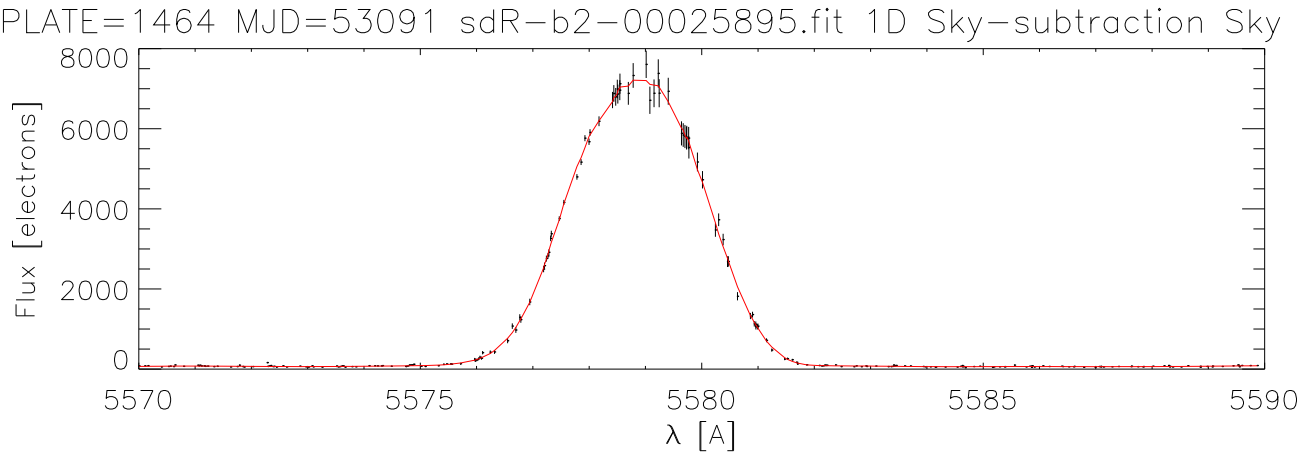

5895.9240
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

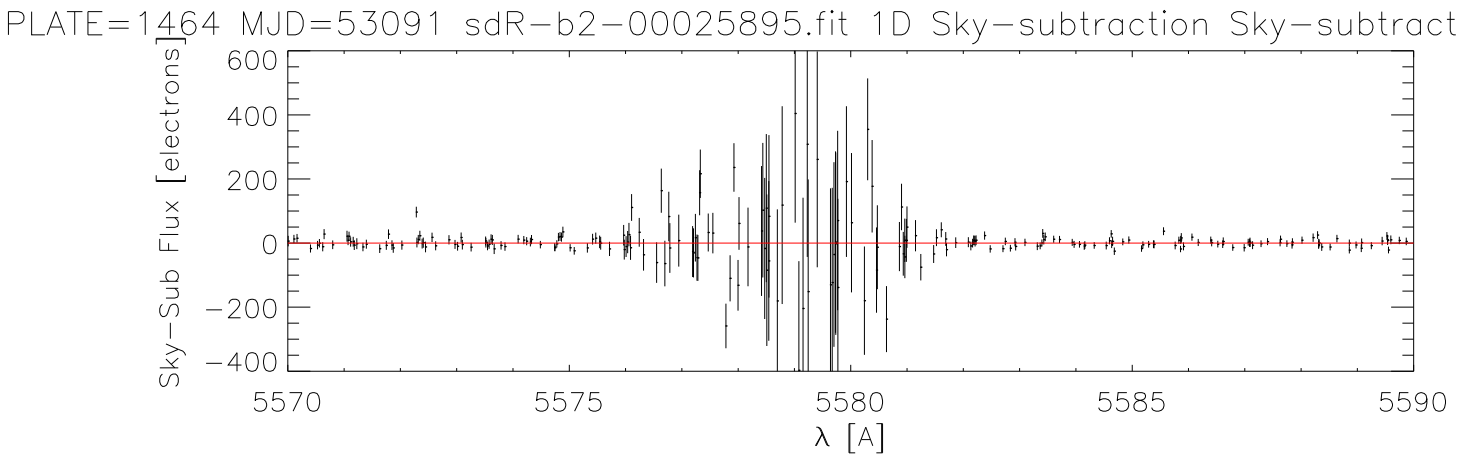

4046.5600
nfib1 16
nfib2 16
stdev 0.078
extra 0.05
4358.3300
nfib1 16
nfib2 16
stdev 0.058
extra −0.04
5460.9400
nfib1 15
nfib2 16
stdev 0.043
extra 0.05
5577.3390
nfib1 15
nfib2 15
stdev 0.008
extra 0.08
5889.9500
nfib1 16
nfib2 16
stdev 0.022
extra 0.11
5895.9240
nfib1 16
nfib2 16
stdev 0.037
extra 0.11
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

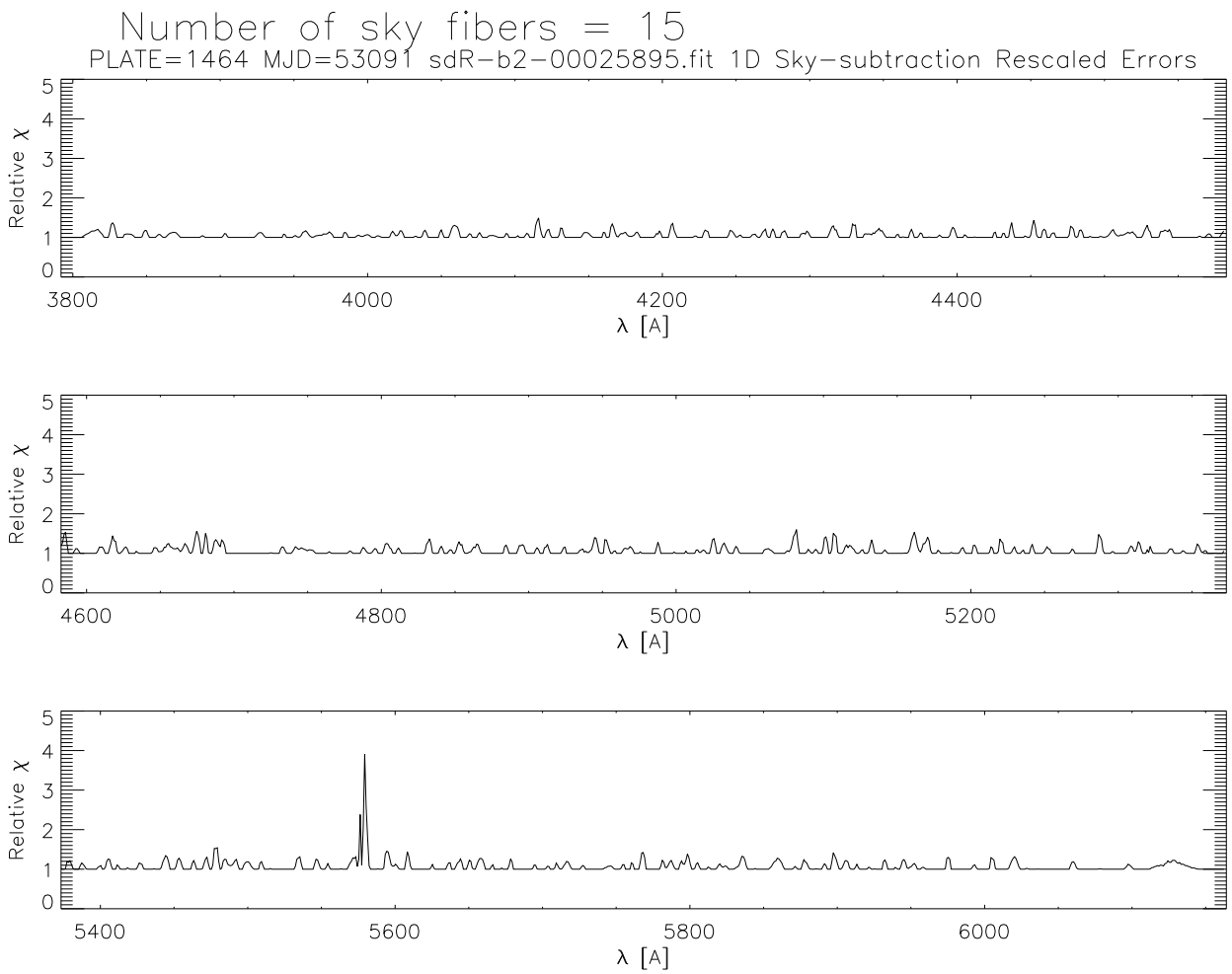

sky shift, pixels
0.10
0.05
0.00
−0.05
3500
4000
4500
5000
5500
6000
6500

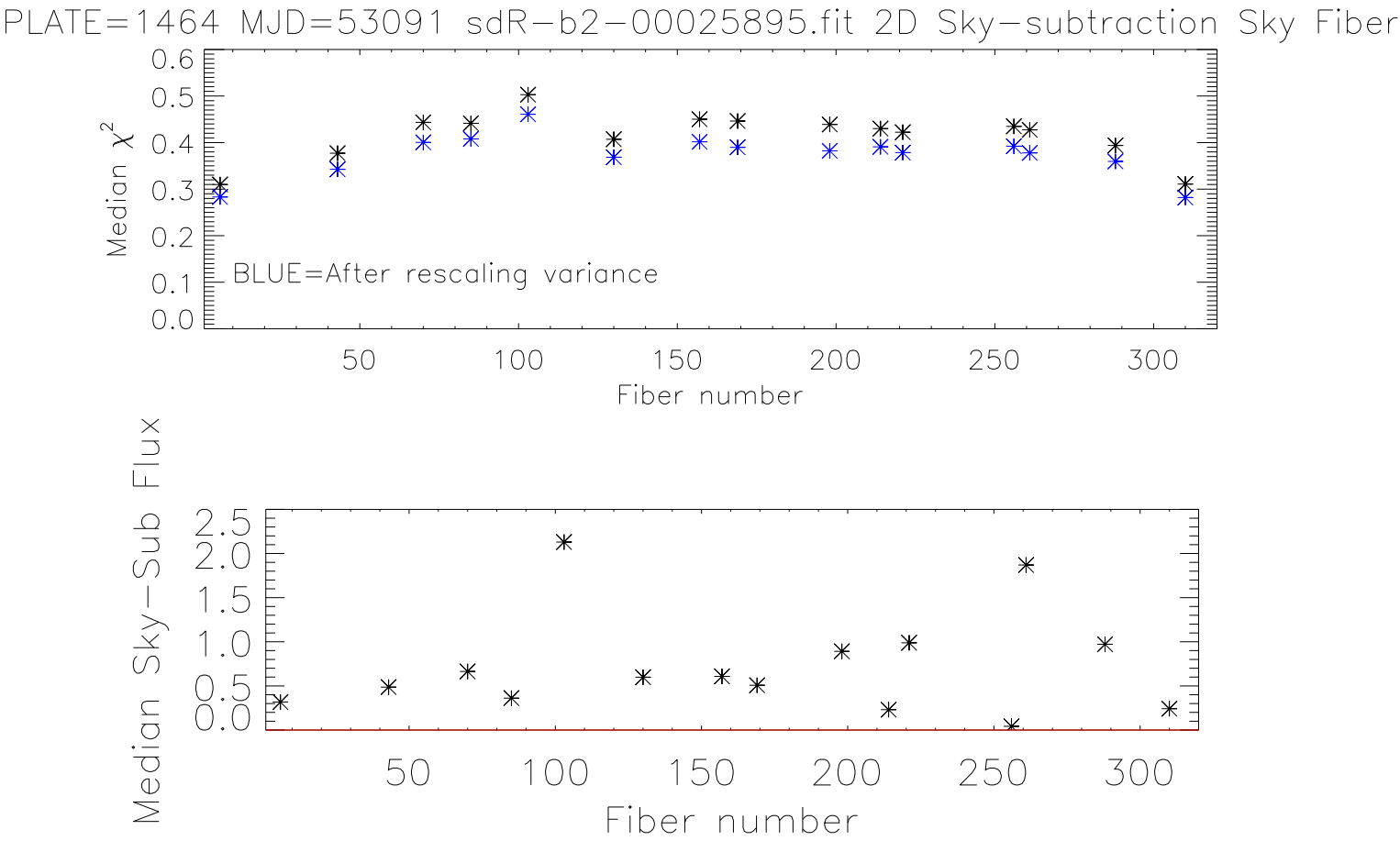

PLATE=1464 MJD=53091 Smooth superflat for sdR-b2-00025895.fit
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
0.985
0.980
es= −0.0000
4000
4500
5000
5500
6000
Wavelength (Å)

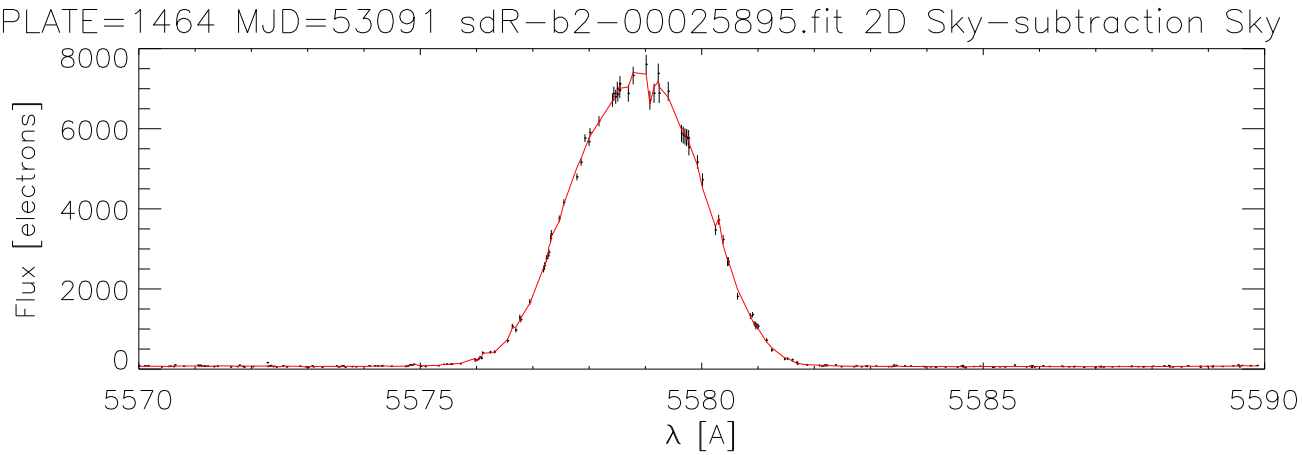

PLATE=1464 MJD=53091 sdR-b2-00025895.fit 1D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

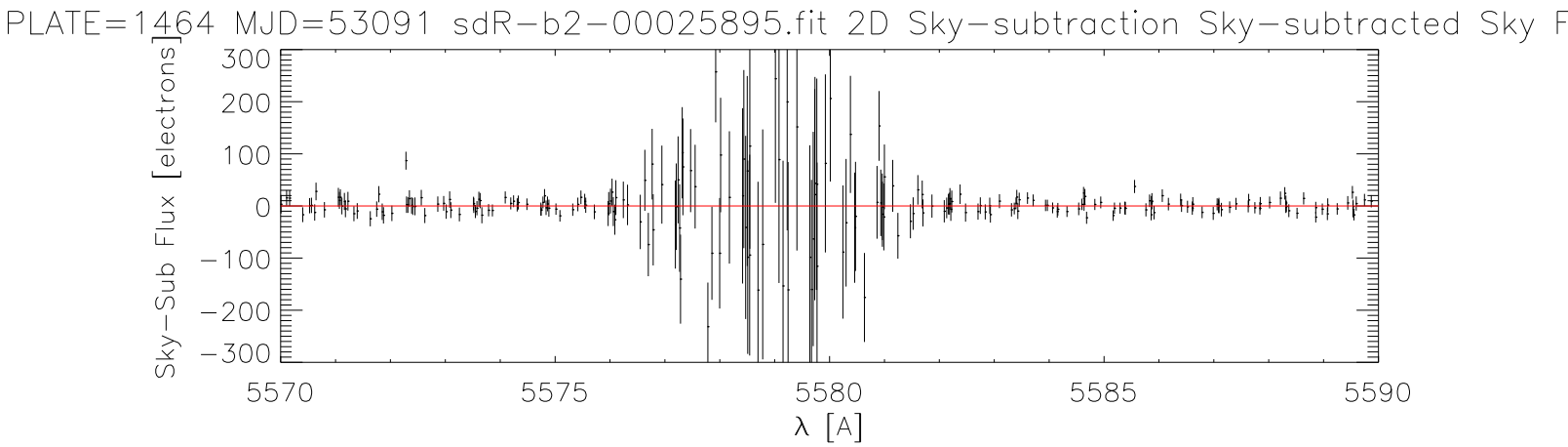

PLATE=1464 MJD=53091 sdR-b2-00025895.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

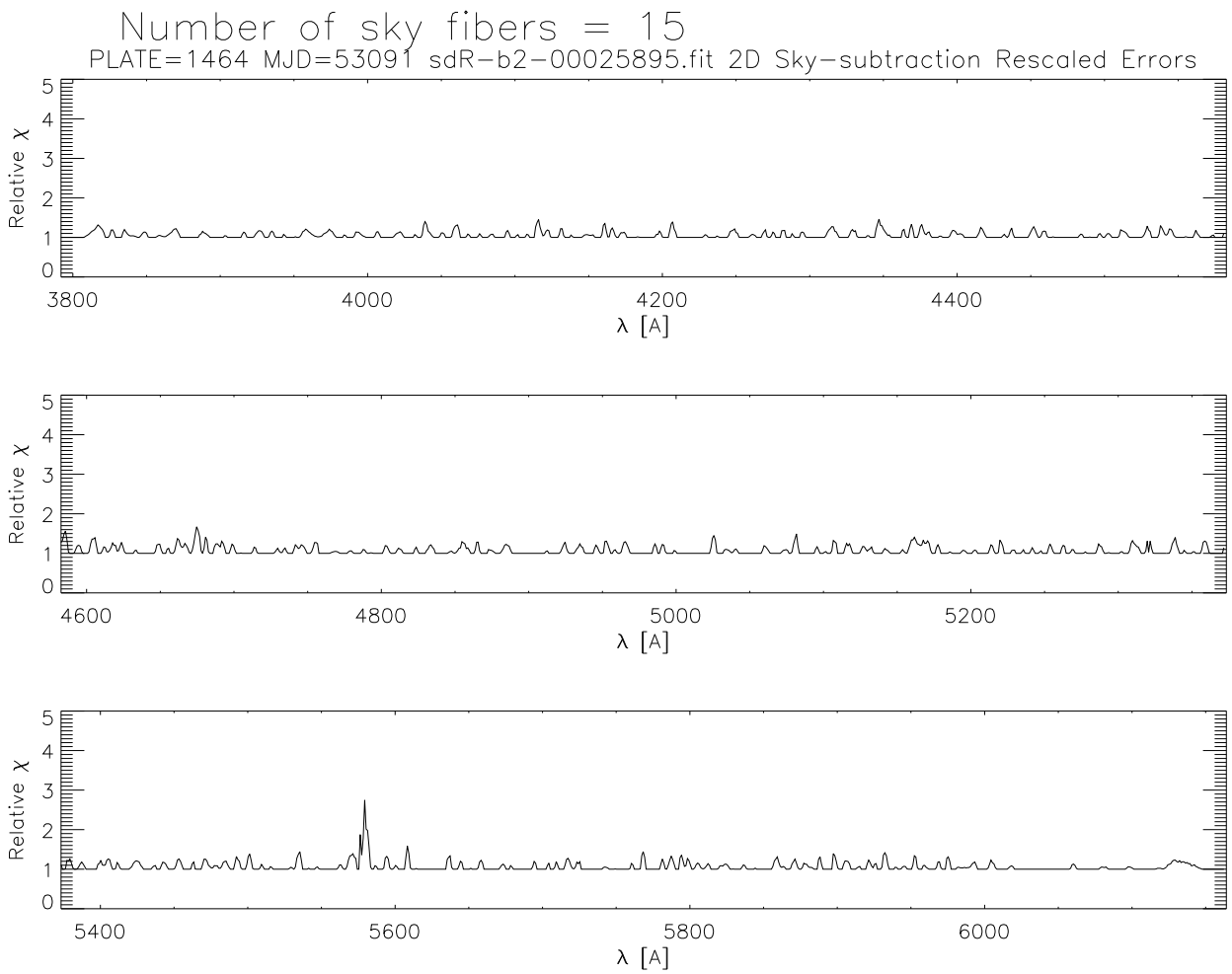

PLATE=1464 MJD=53091 sdR-b2-00025895.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
-200
-400
5570
5575
5580
5585
5590
λ [A]

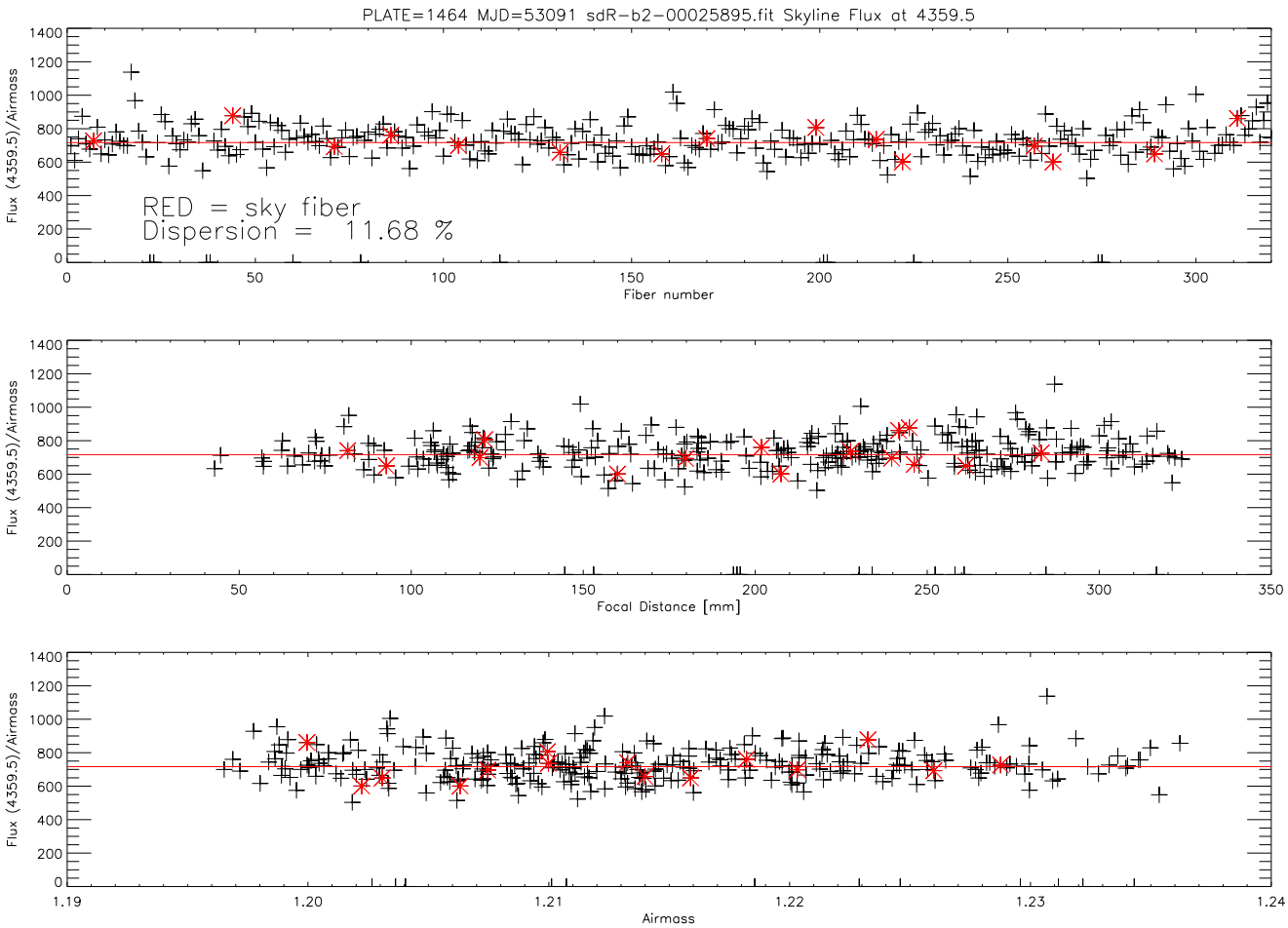

Number of sky fibers = 15
PLATE=1464 MJD=53091 sdR-b2-00025895.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

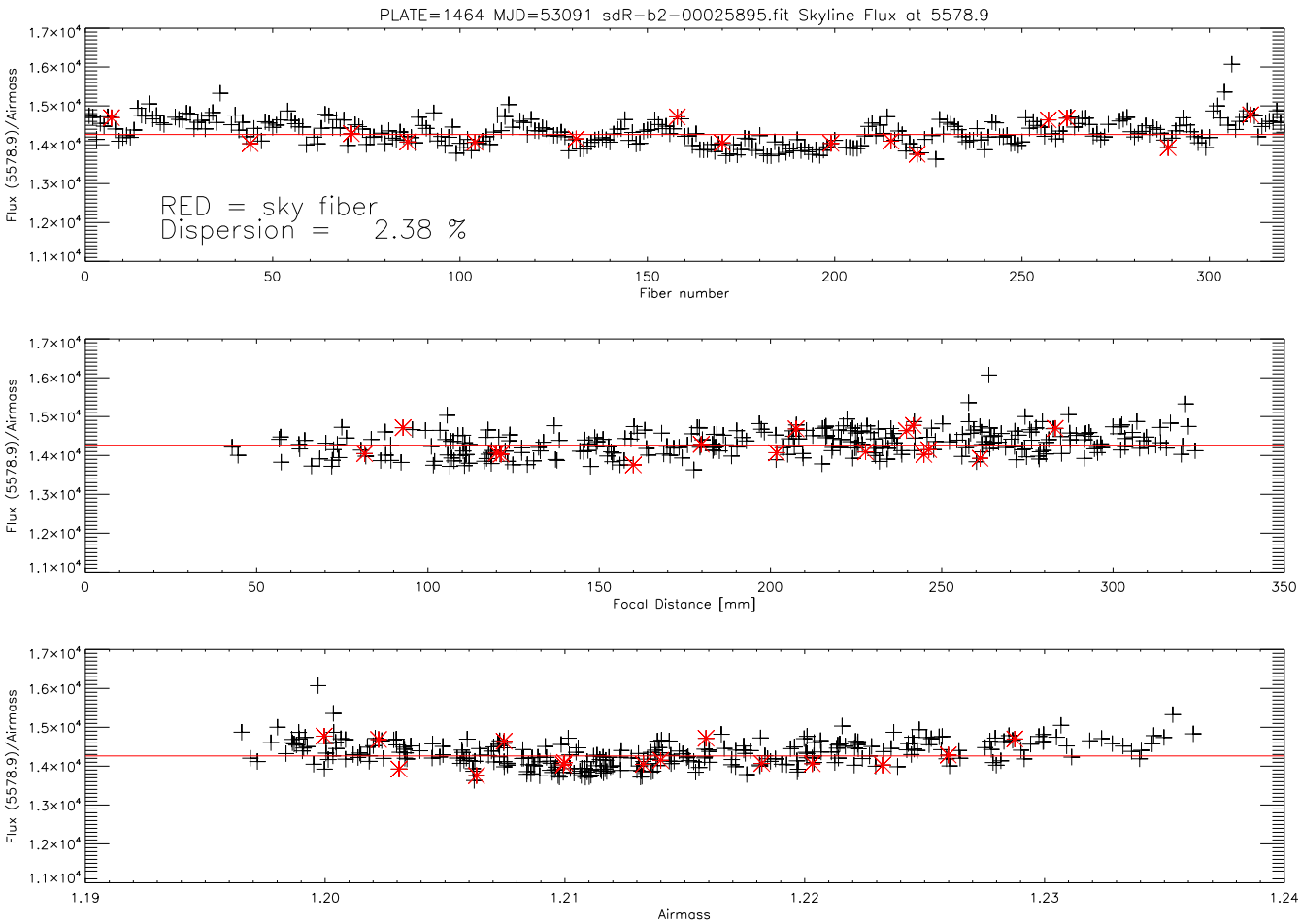

PLATE=1464 MJD=53091 sdR-b2-00025895.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

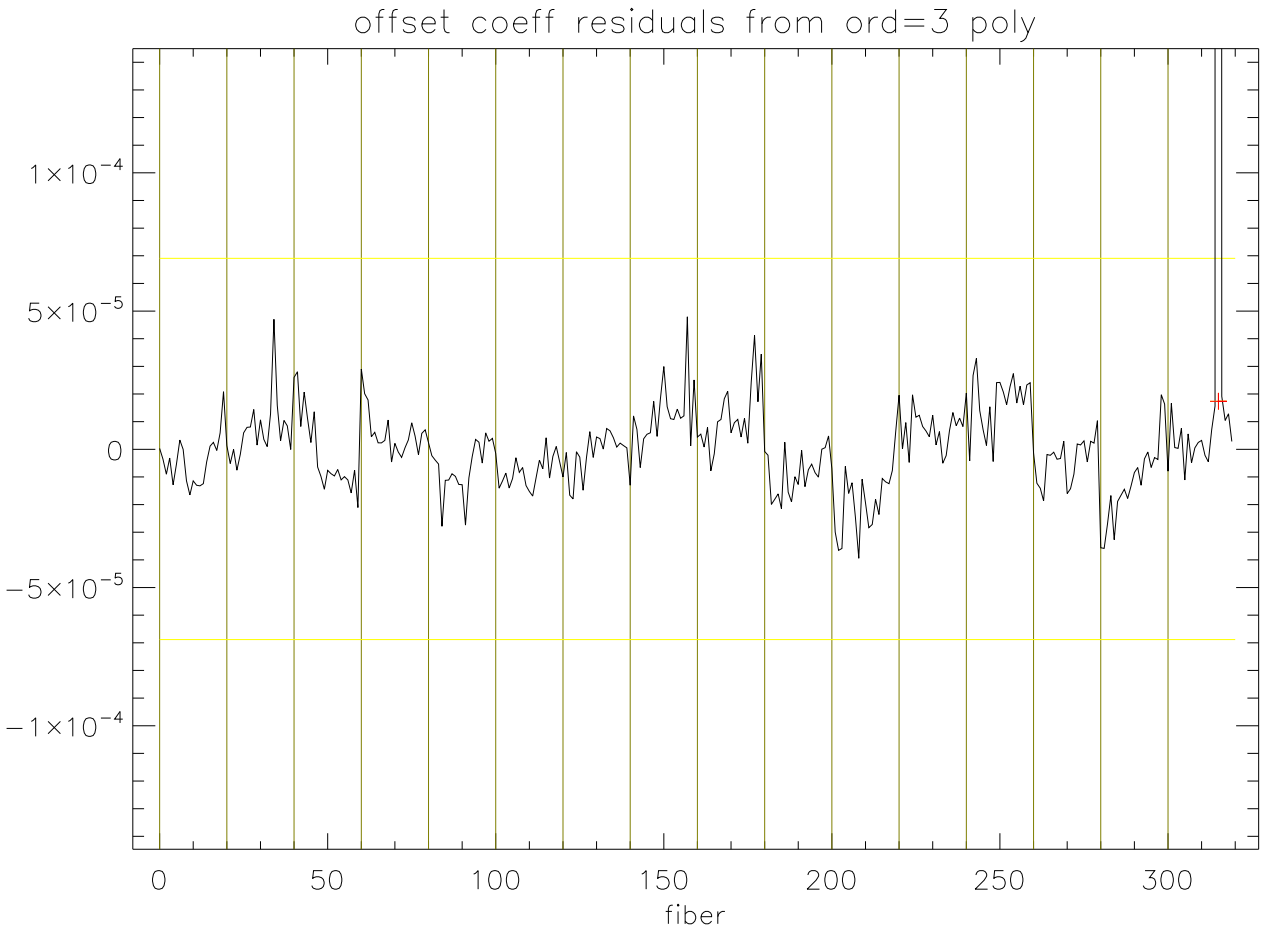

PLATE=1464 MJD=53091 sdR-b2-00025895.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

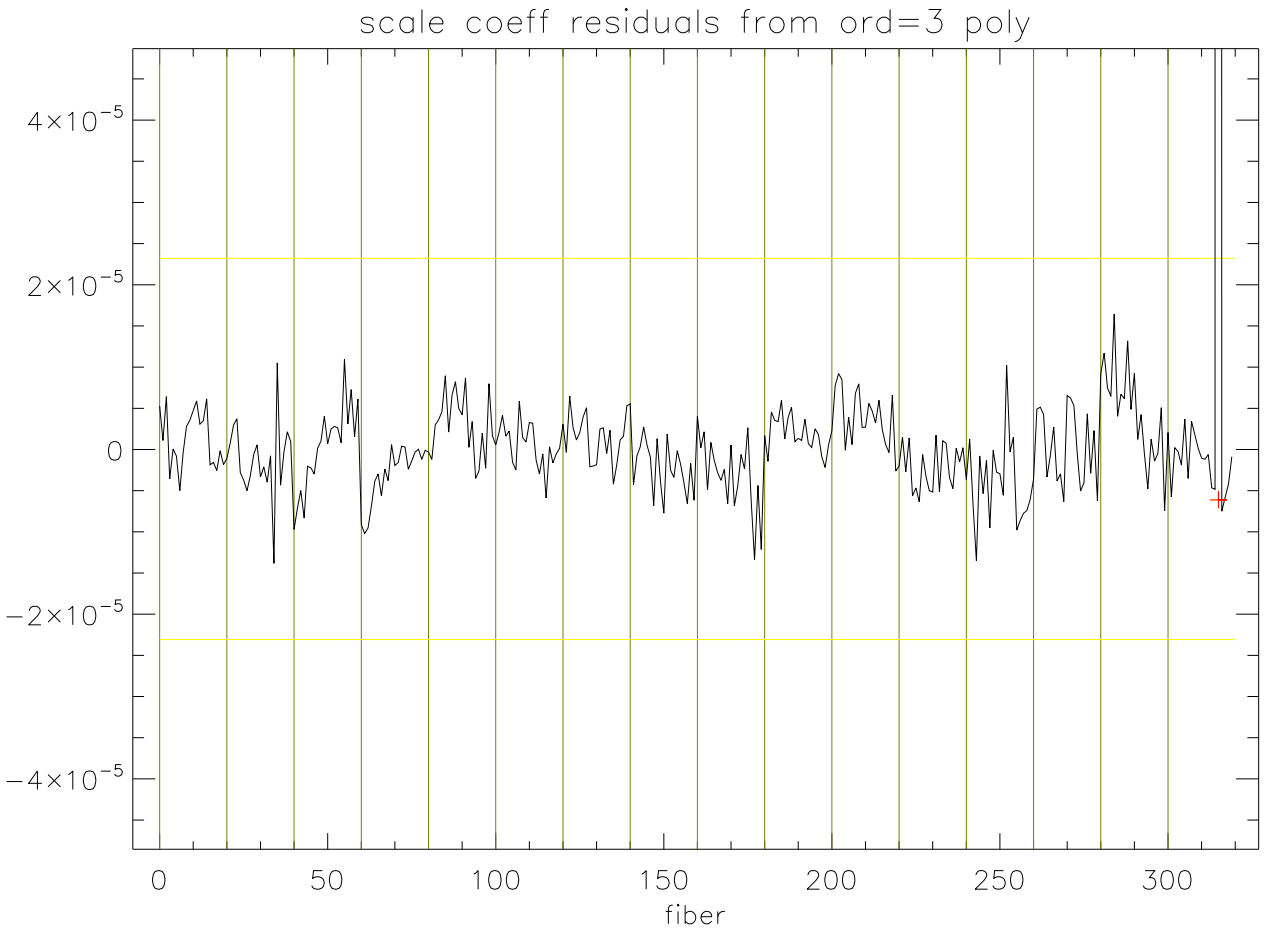

PLATE=1464 MJD=53091 sdR-b2-00025895.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
-300
5570
5575
5580
5585
5590
λ [A]

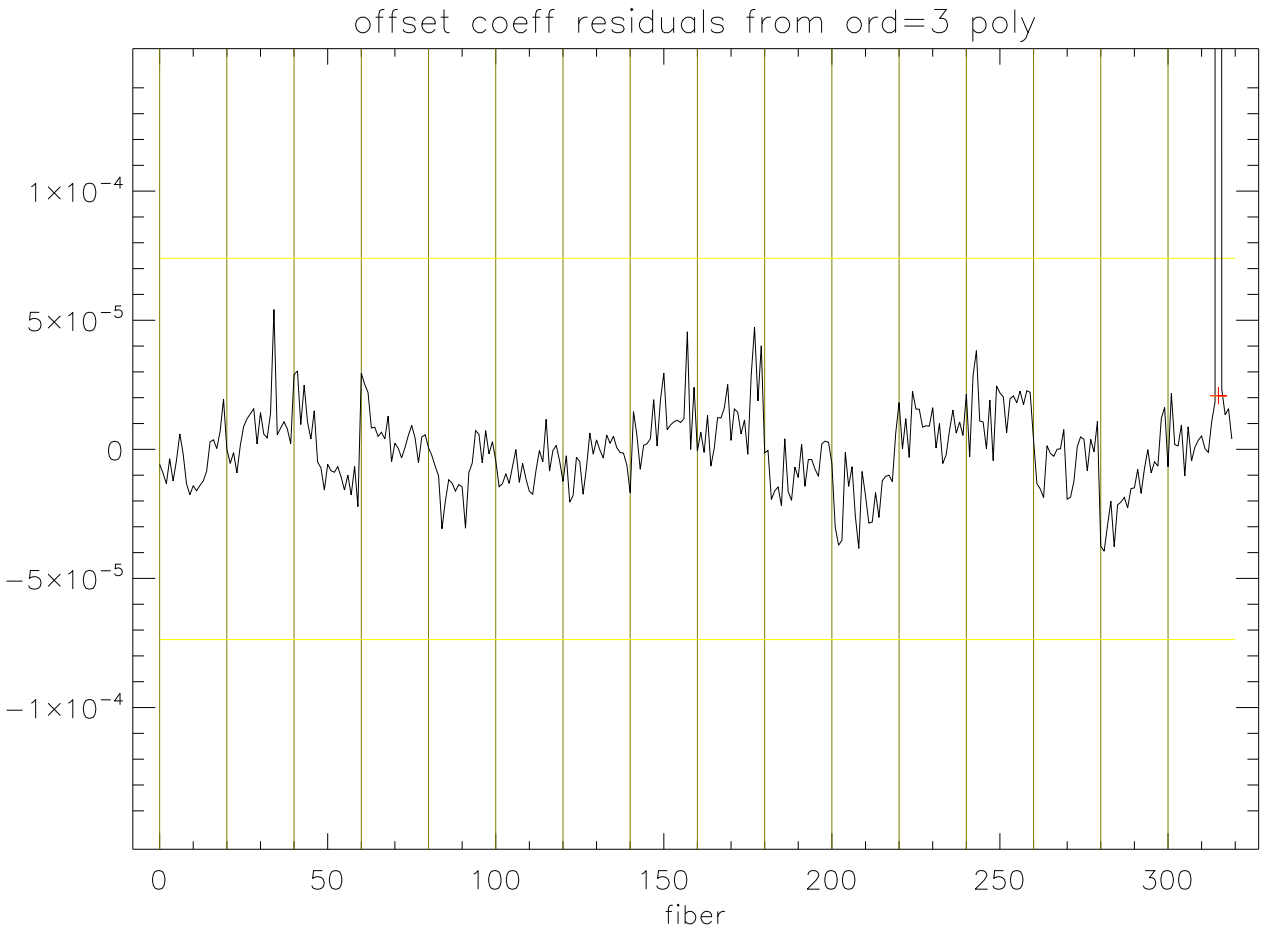

Number of sky fibers = 15
PLATE=1464 MJD=53091 sdR-b2-00025895.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

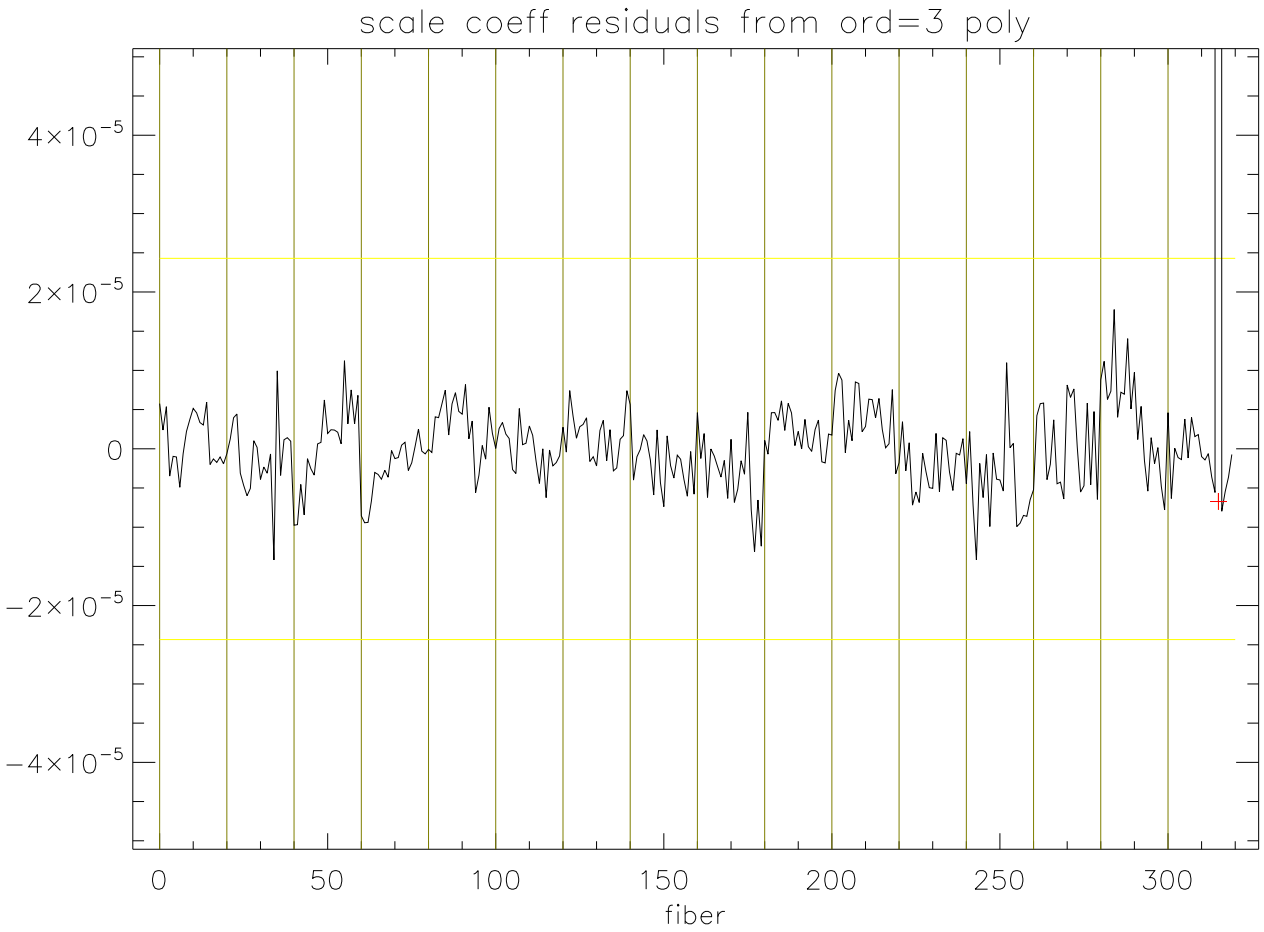

PLATE=1464 MJD=53091 sdR-b2-00025895.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 11.68 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

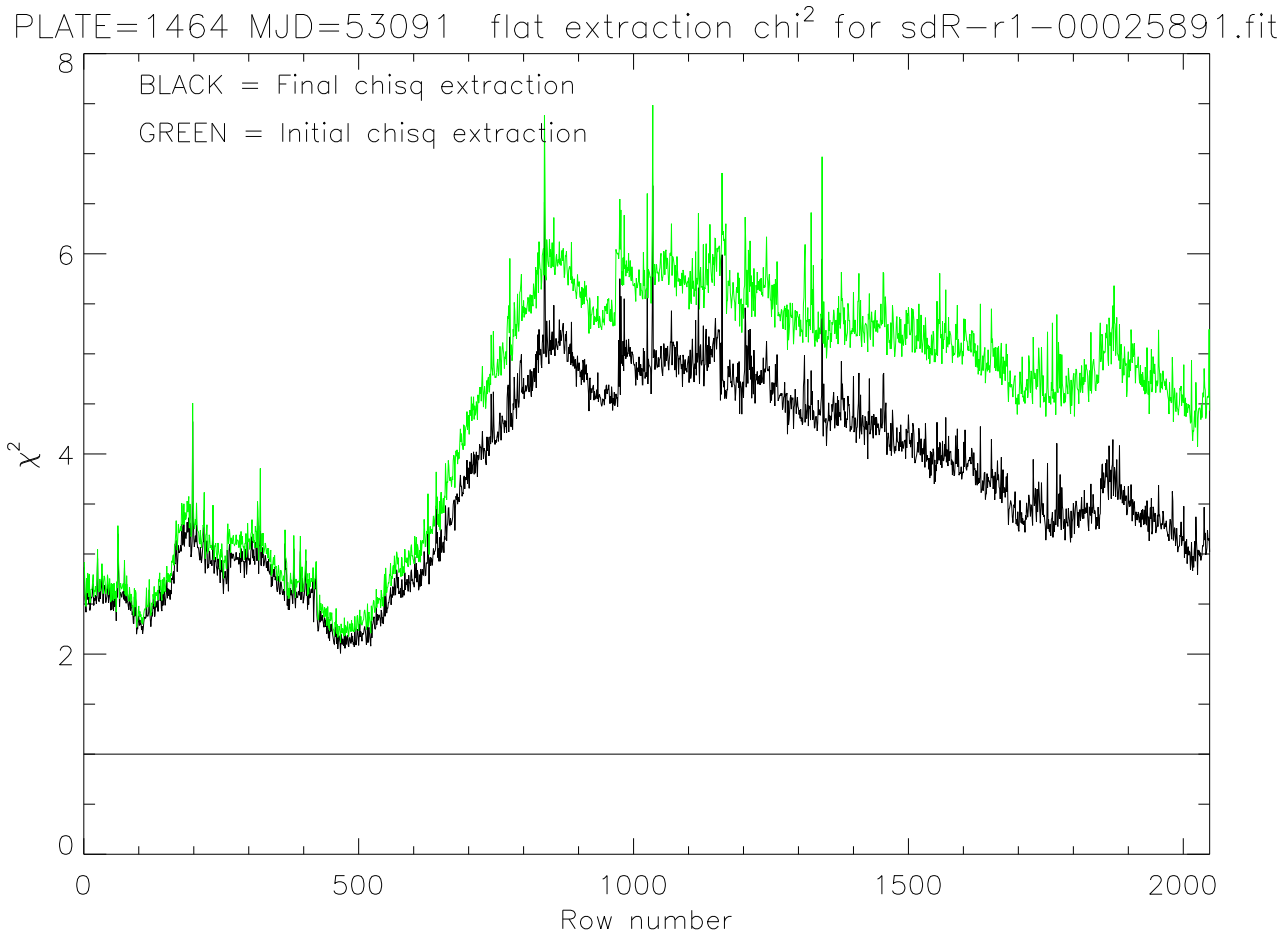

PLATE=1464 MJD=53091 sdR-b2-00025895.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 2.38 %
Fiber number
Focal Distance [mm]
Airmass

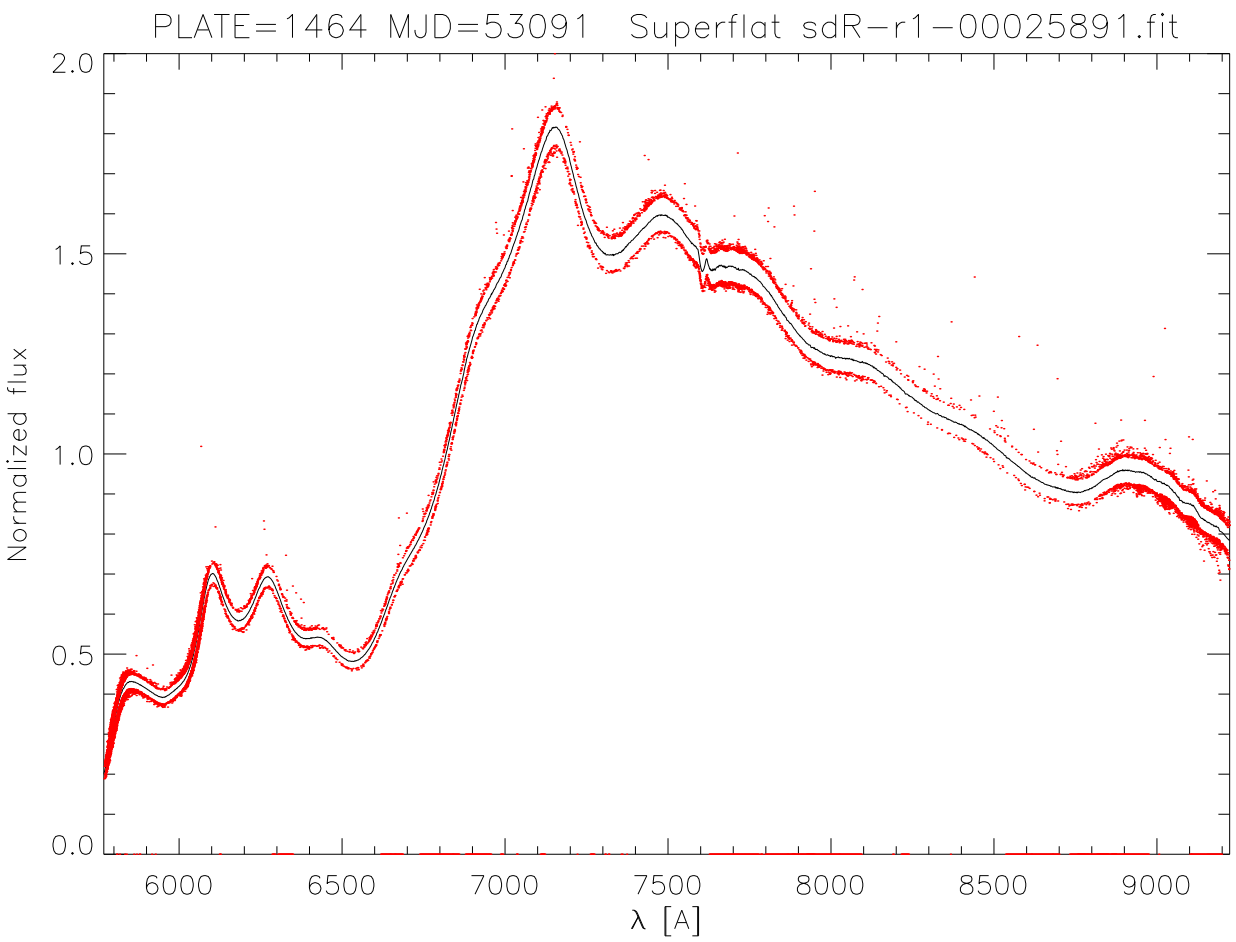

offset coeff residuals from ord=3 poly
1×10^-4
5×10^-5
0
−5×10^-5
−1×10^-4
0
50
100
150
200
250
300
fiber

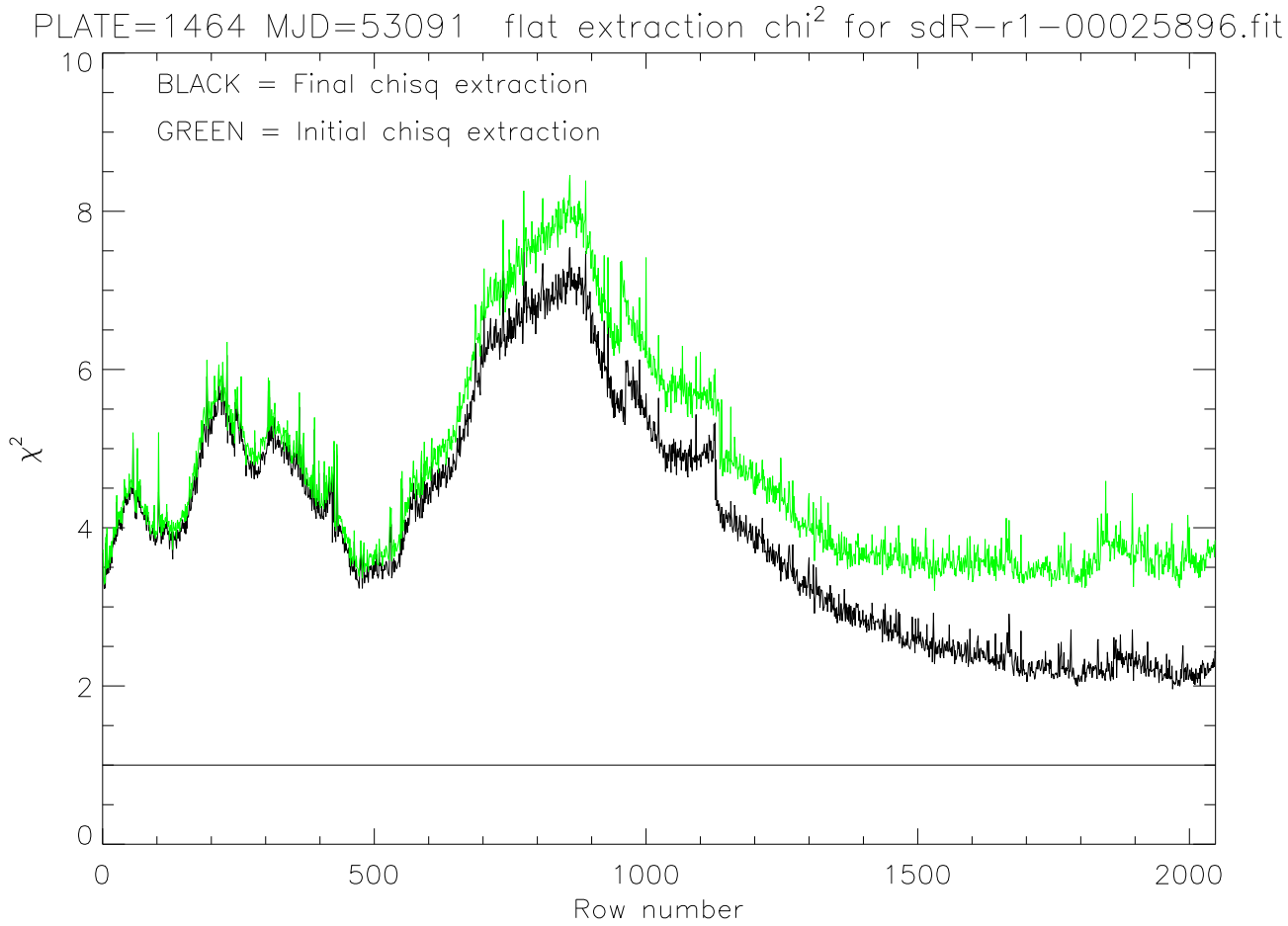

scale coeff residuals from ord=3 poly
4×10⁻⁵
2×10⁻⁵
0
−2×10⁻⁵
−4×10⁻⁵
0
50
100
150
200
250
300
fiber

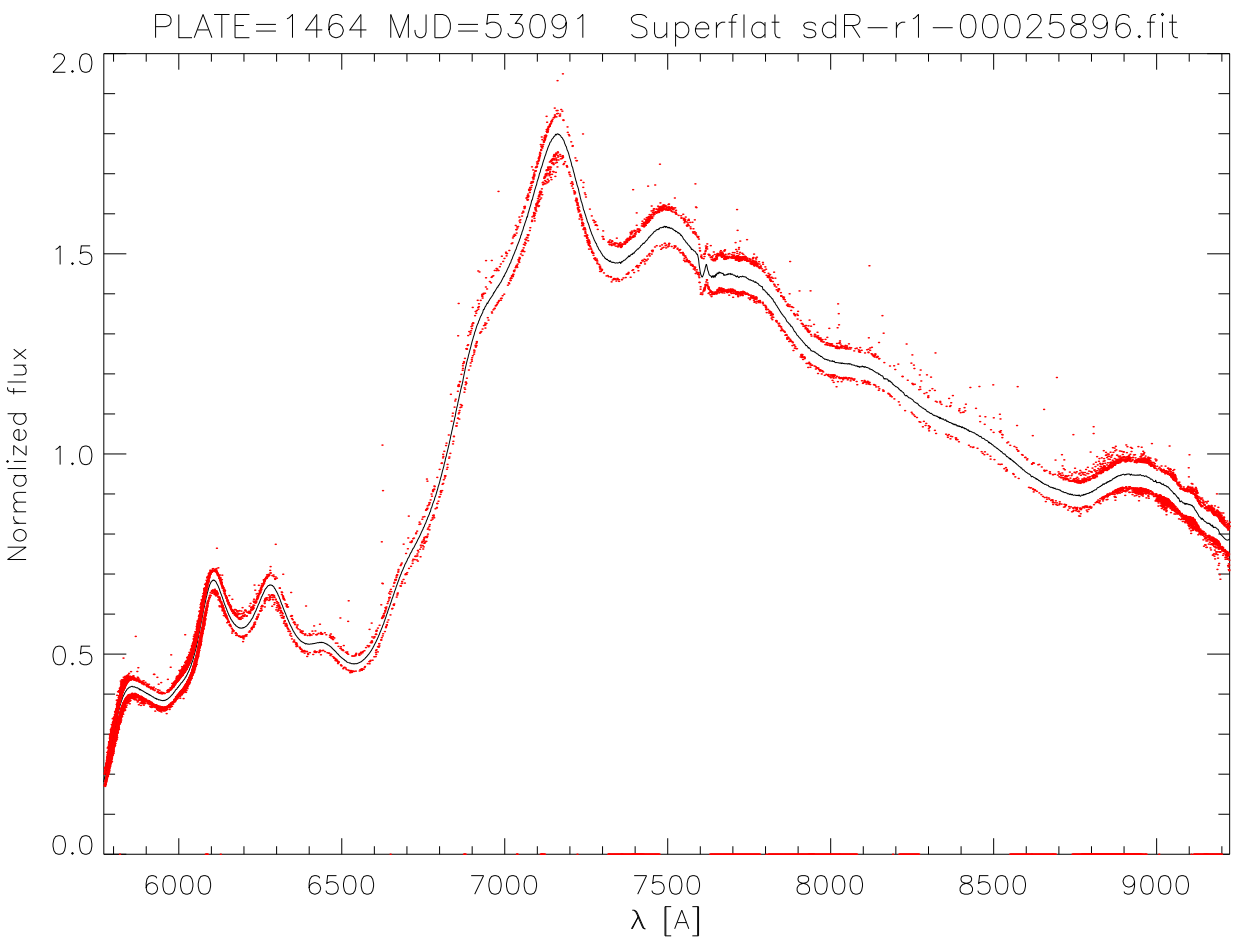

offset coeff residuals from ord=3 poly
1×10^-4
5×10^-5
0
−5×10^-5
−1×10^-4
0
50
100
150
200
250
300
fiber

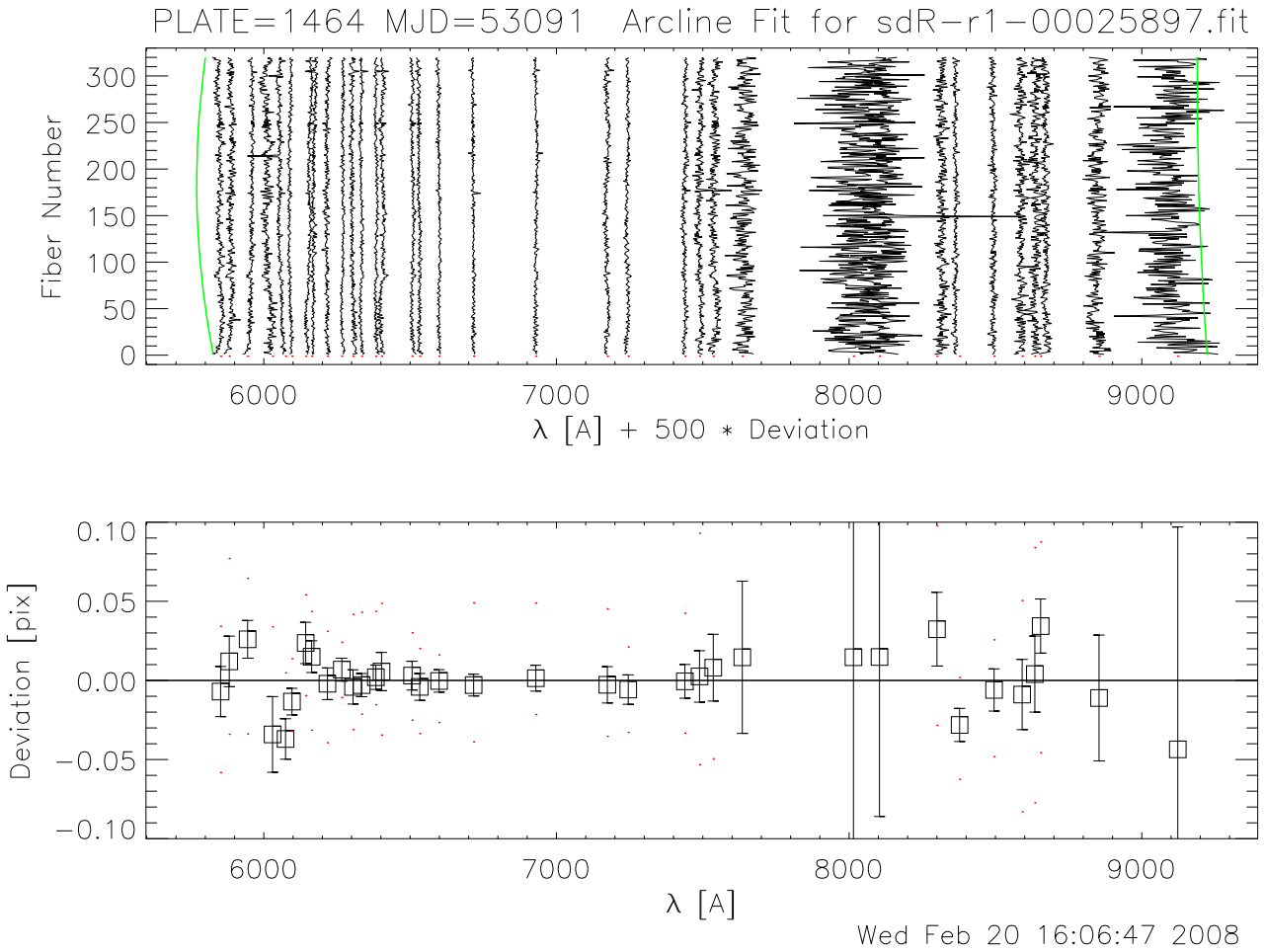

scale coeff residuals from ord=3 poly
4×10⁻⁵
2×10⁻⁵
0
−2×10⁻⁵
−4×10⁻⁵
0
50
100
150
200
250
300
fiber

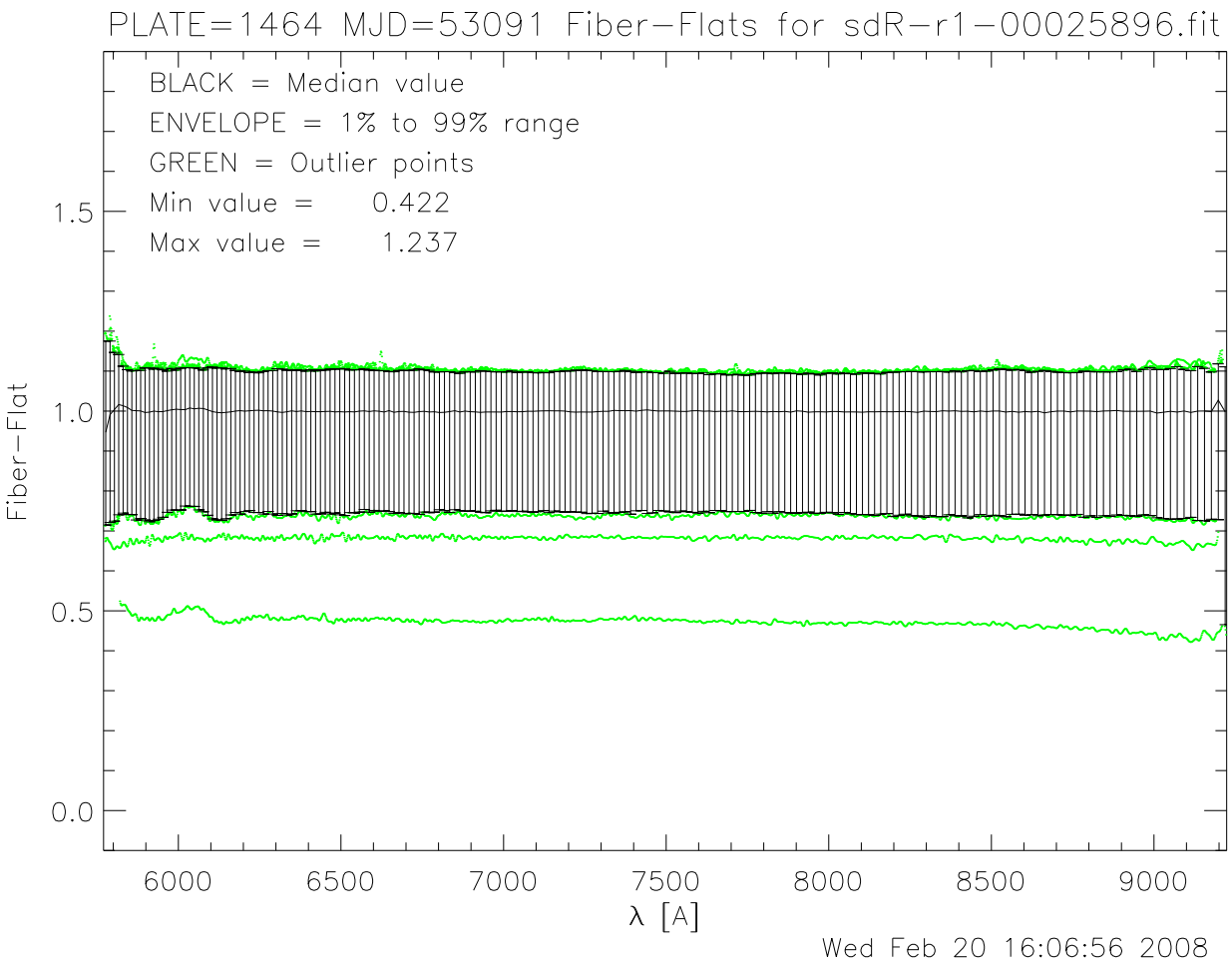

PLATE=1464 MJD=53091 flat extraction chi^2 for sdR−r1−00025891.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
0
500
1000
1500
2000
Row number

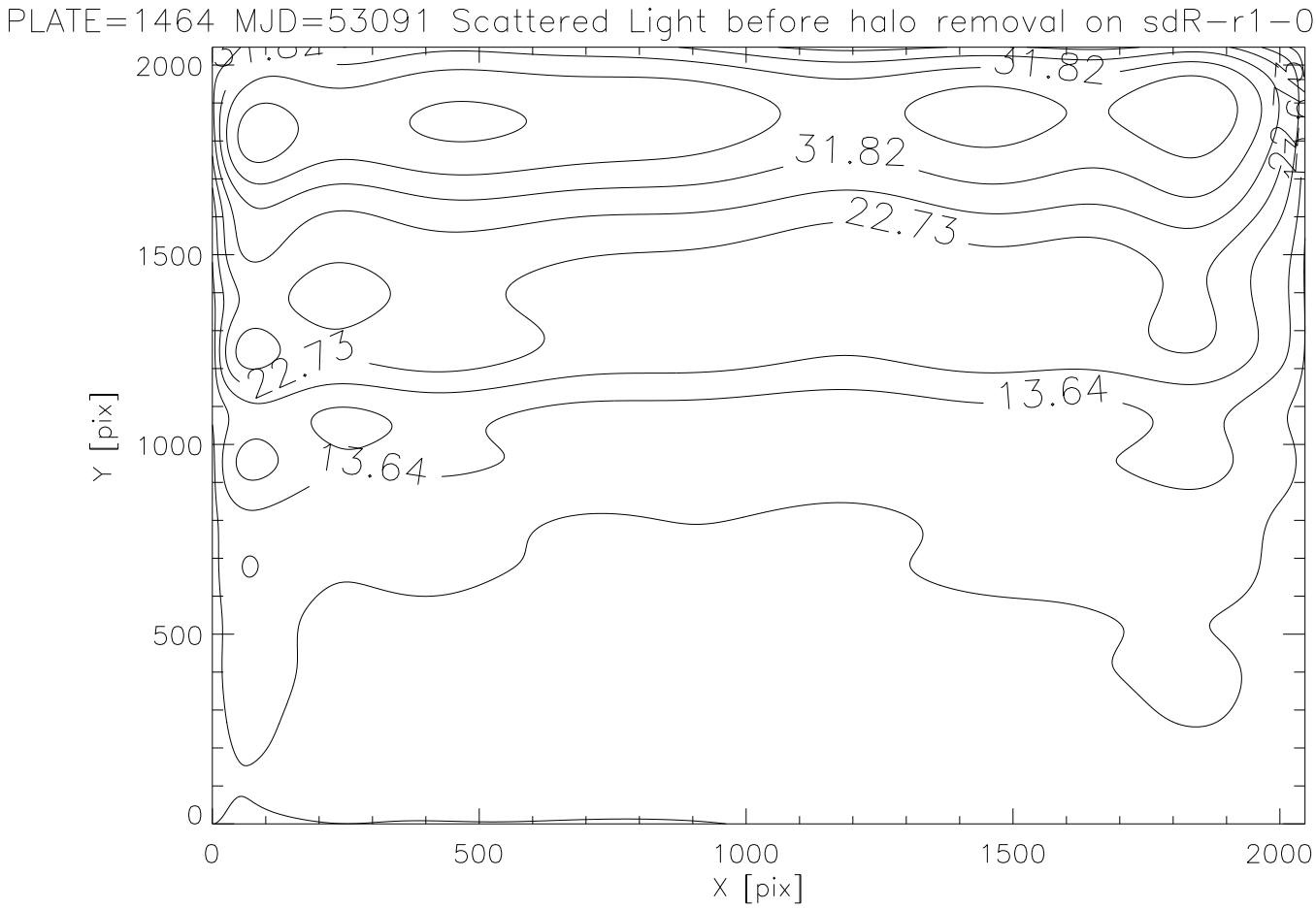

PLATE=1464 MJD=53091 Superflat sdR-r1-00025891.fit
Normalized flux
2.0
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

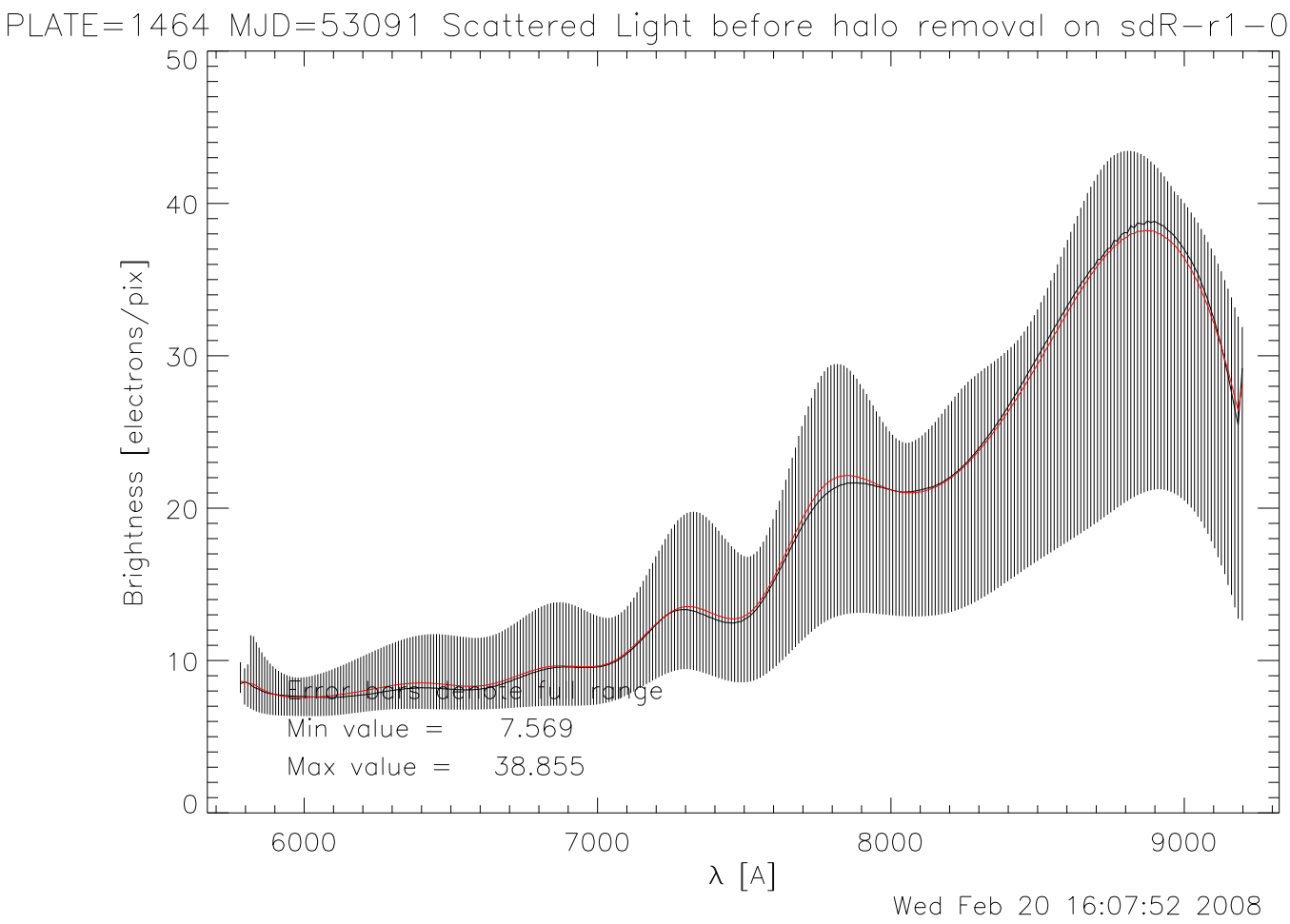

PLATE=1464 MJD=53091 flat extraction chi^2 for sdR−r1−00025896.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
2
4
6
8
10
0
500
1000
1500
2000

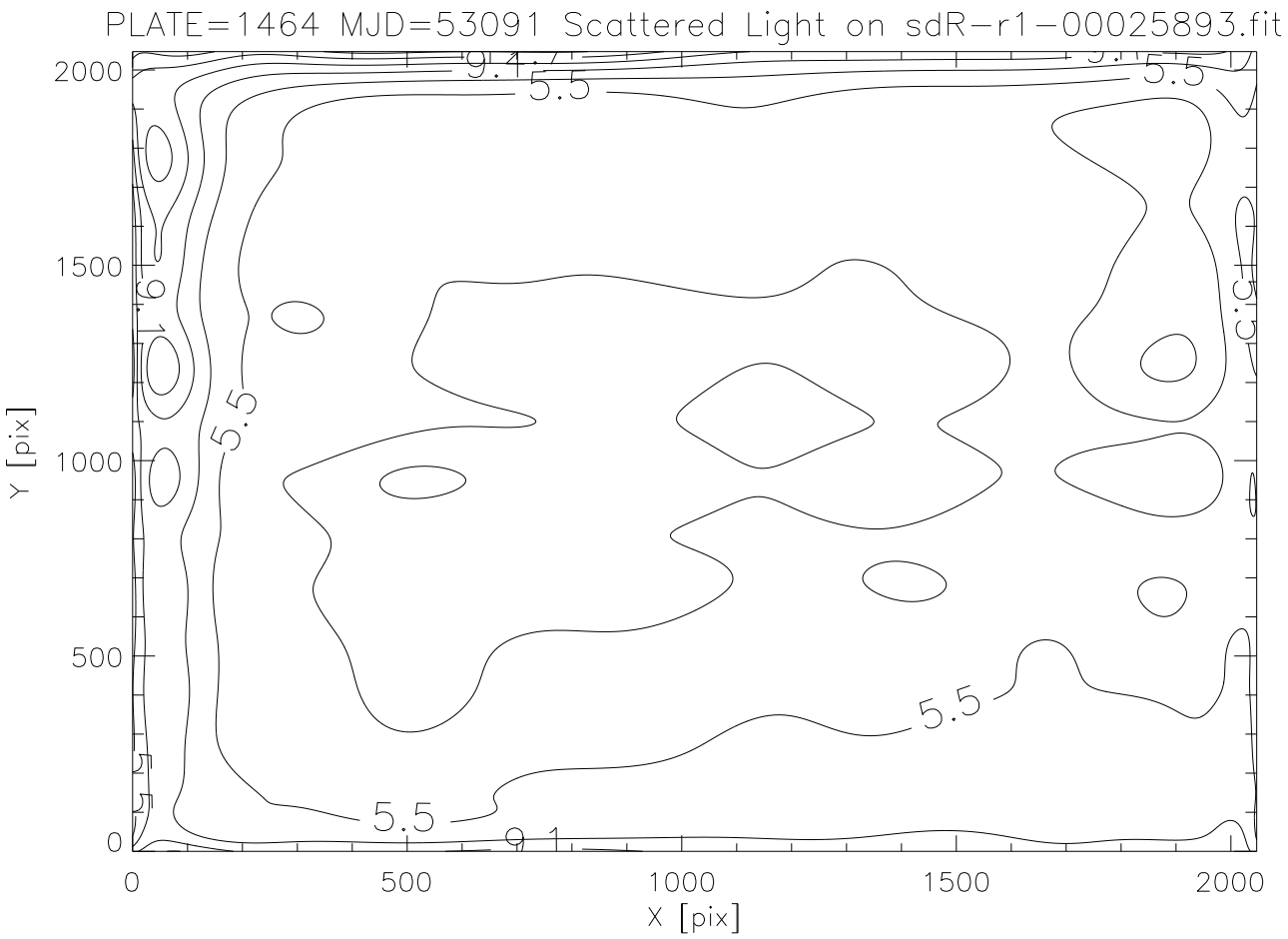

PLATE=1464 MJD=53091 Superflat sdR-r1-00025896.fit
Normalized flux
2.0
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

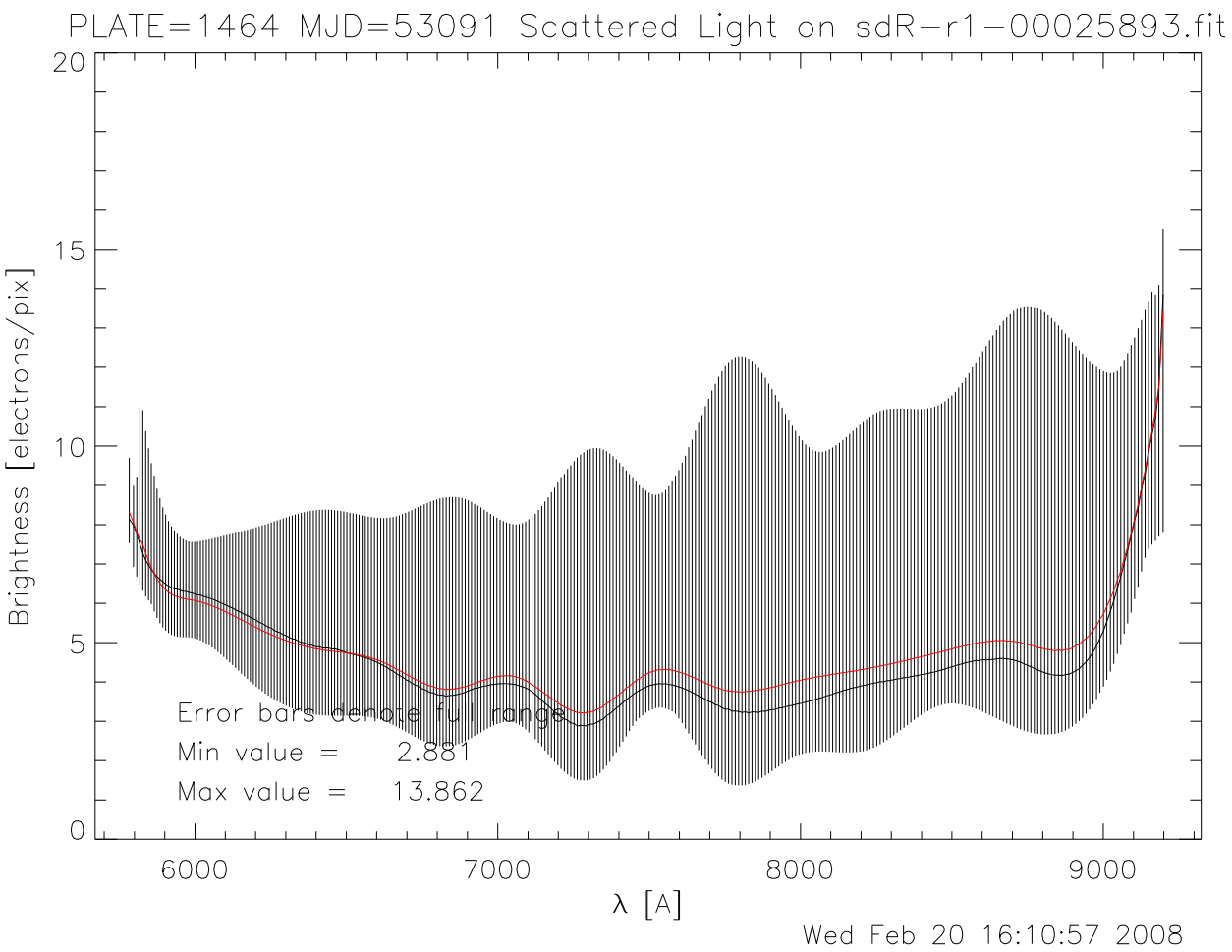

PLATE=1464 MJD=53091 Arcline Fit for sdR-r1-00025897.fit
Fiber Number
300
250
200
150
100
50
0
6000
7000
8000
9000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
6000
7000
8000
9000
λ [A]
Wed Feb 20 16:06:47 2008

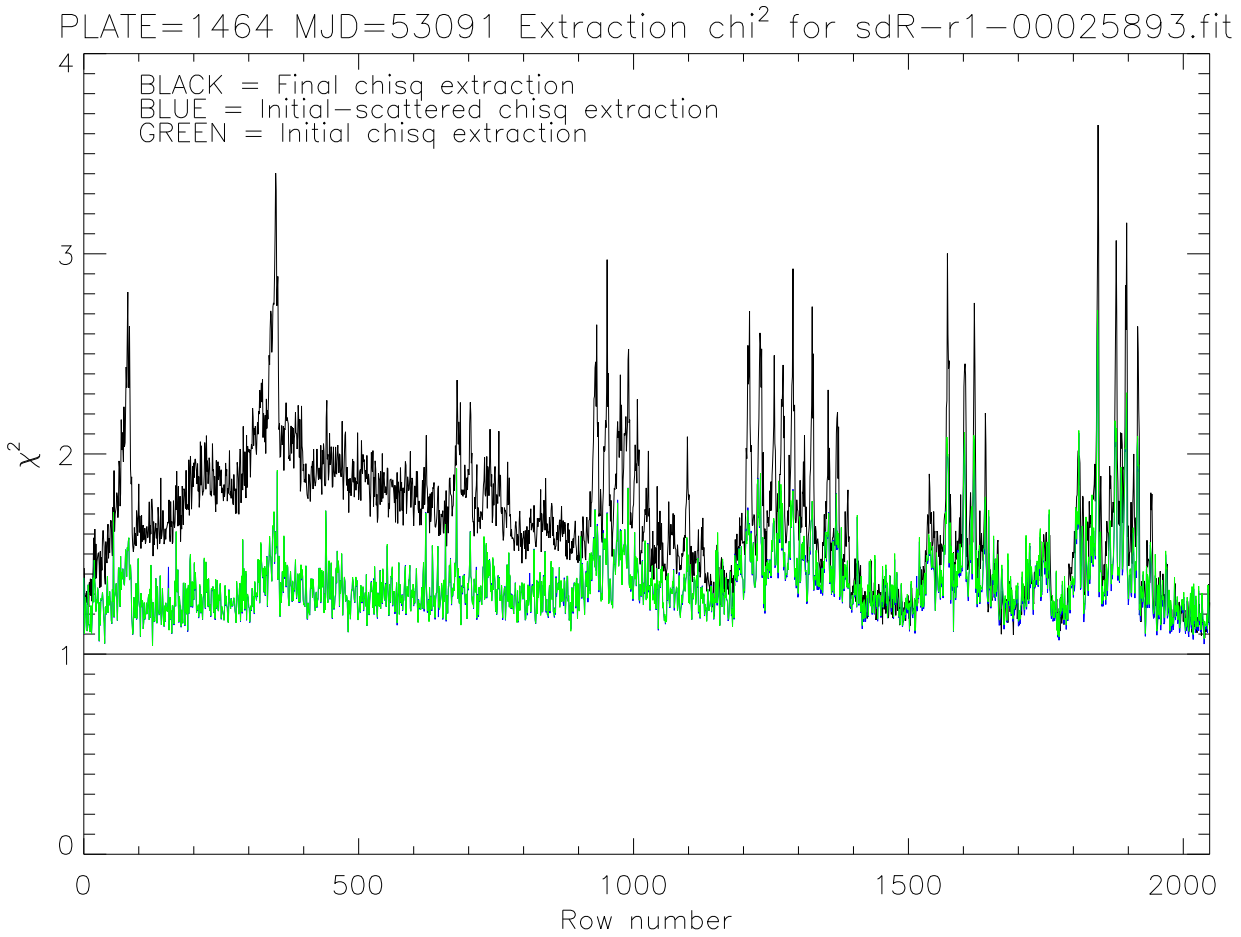

PLATE=1464 MJD=53091 Fiber−Flats for sdR−r1−00025896.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.422
Max value = 1.237
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Wed Feb 20 16:06:56 2008

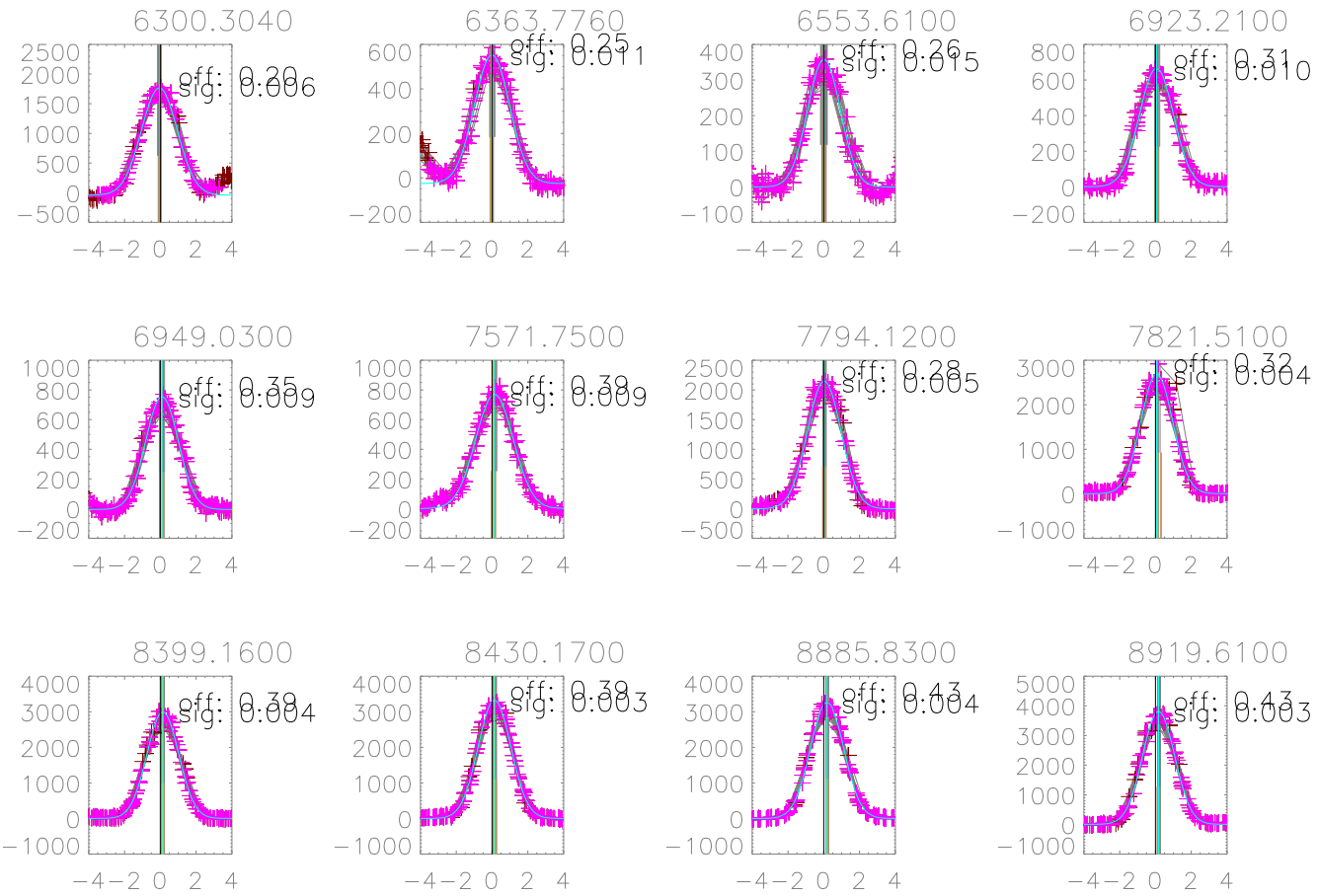

PLATE=1464 MJD=53091 Scattered Light before halo removal on sdR-r1-00025893.fi
31.82
31.82
22.73
22.73
13.64
13.64
0
Y [pix]
X [pix]
0
500
1000
1500
2000

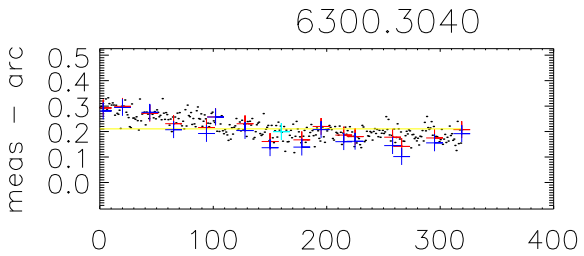

PLATE=1464 MJD=53091 Scattered Light before halo removal on sdR-r1-00025893.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 7.569
Max value = 38.855
Wed Feb 20 16:07:52 2008

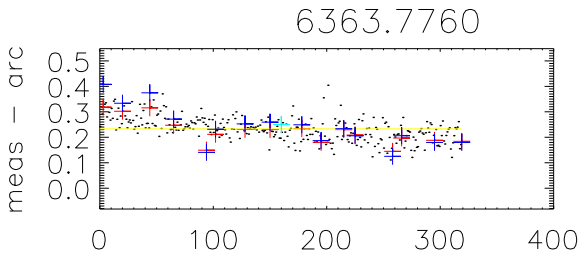

PLATE=1464 MJD=53091 Scattered Light on sdR−r1−00025893.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
5.5
9.1

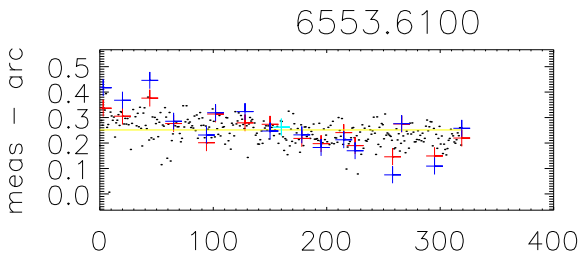

PLATE=1464 MJD=53091 Scattered Light on sdR-r1-00025893.fit
Brightness [electrons/pix]
20
15
10
5
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 2.881
Max value = 13.862
Wed Feb 20 16:10:57 2008

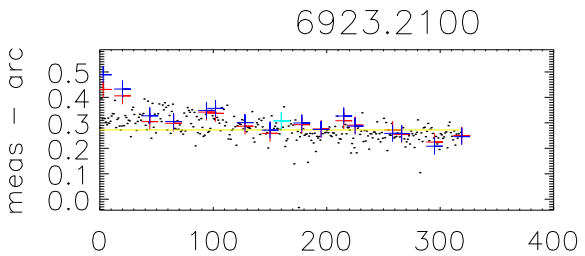

PLATE=1464 MJD=53091 Extraction chi^2 for sdR−r1−00025893.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
0
500
1000
1500
2000
Row number

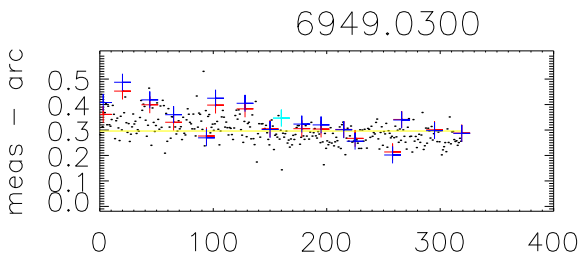

6300.3040
off: 0.20
sig: 0.006
6363.7760
off: 0.25
sig: 0.011
6553.6100
off: 0.26
sig: 0.015
6923.2100
off: 0.31
sig: 0.010
6949.0300
off: 0.35
sig: 0.009
7571.7500
off: 0.39
sig: 0.009
7794.1200
off: 0.28
sig: 0.005
7821.5100
off: 0.32
sig: 0.004
8399.1600
off: 0.39
sig: 0.004
8430.1700
off: 0.39
sig: 0.003
8885.8300
off: 0.43
sig: 0.004
8919.6100
off: 0.43
sig: 0.003

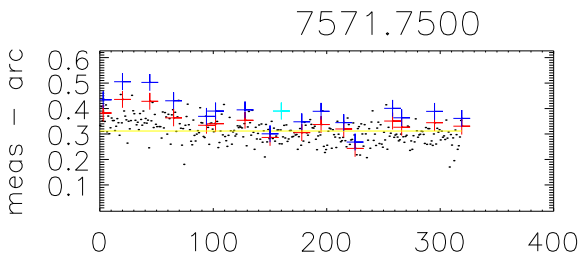

6300.3040
meas − arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400

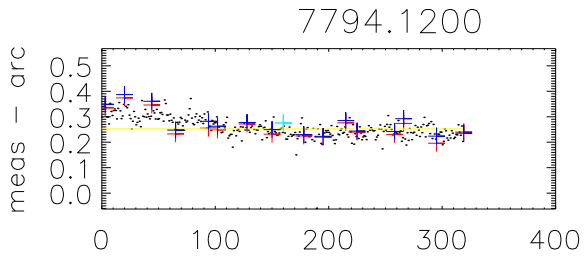

6363.7760
meas − arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400

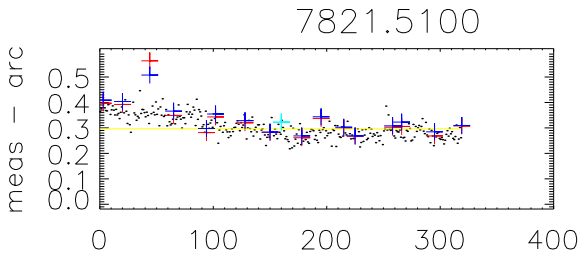

6553.6100
meas − arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400

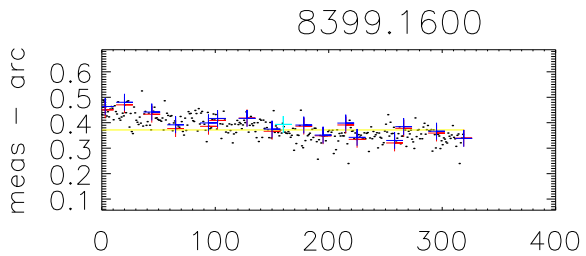

6923.2100
meas − arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400

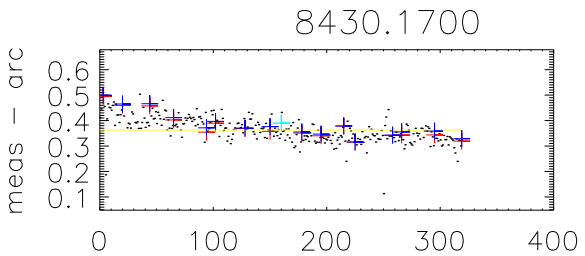

6949.0300
meas − arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400

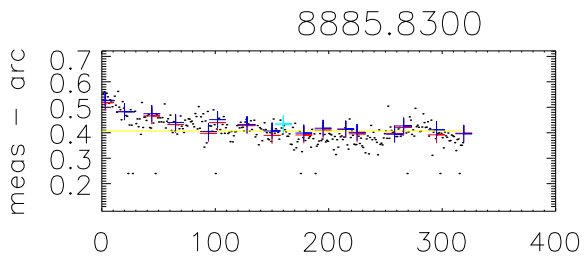

7571.7500
meas − arc
0.1
0.2
0.3
0.4
0.5
0.6
0
100
200
300
400

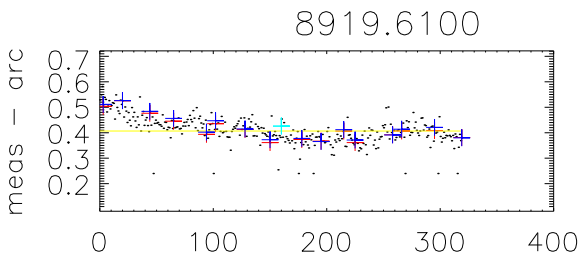

7794.1200
meas − arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400

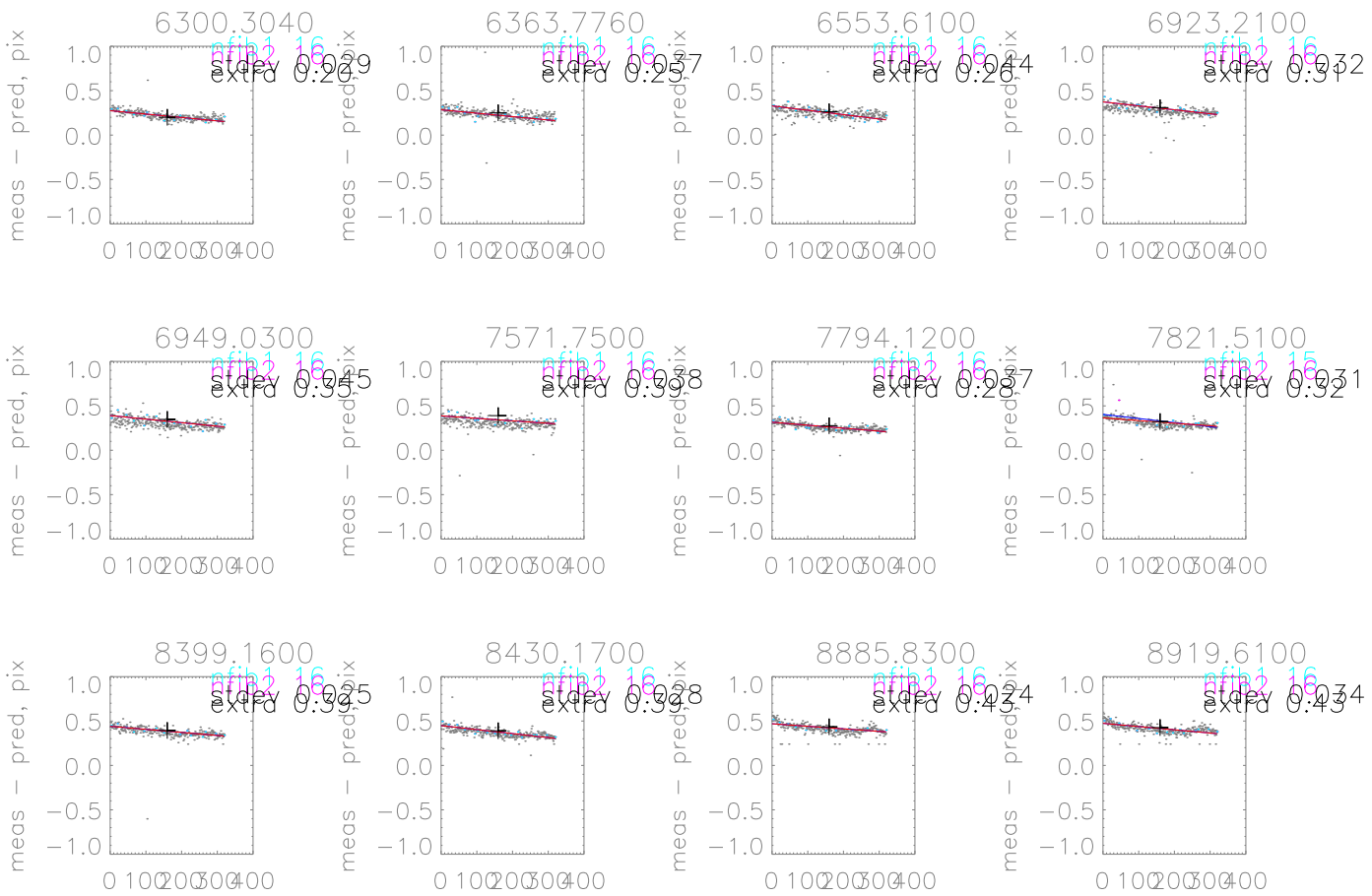

7821.5100
meas − arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400

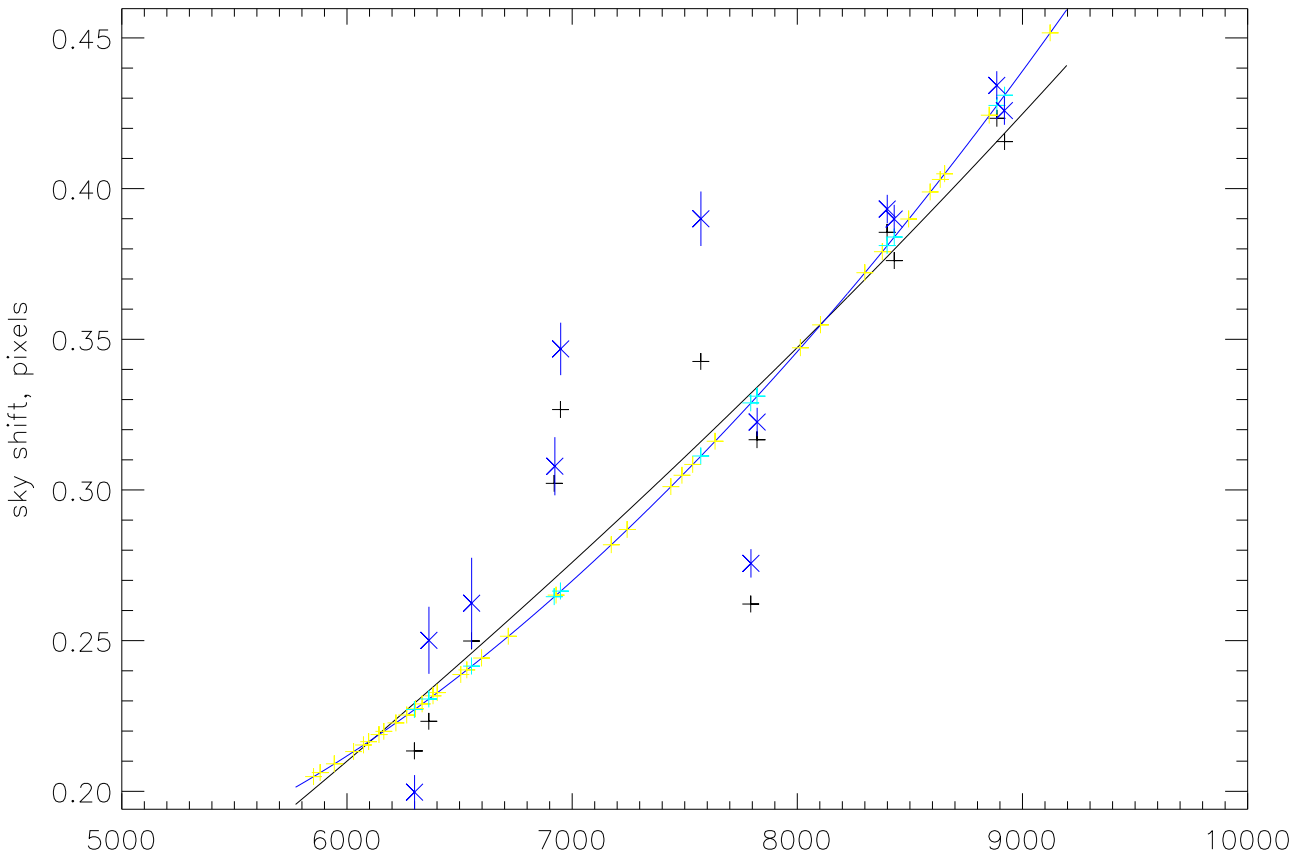

8399.1600
meas − arc
0.1
0.2
0.3
0.4
0.5
0.6
0
100
200
300
400

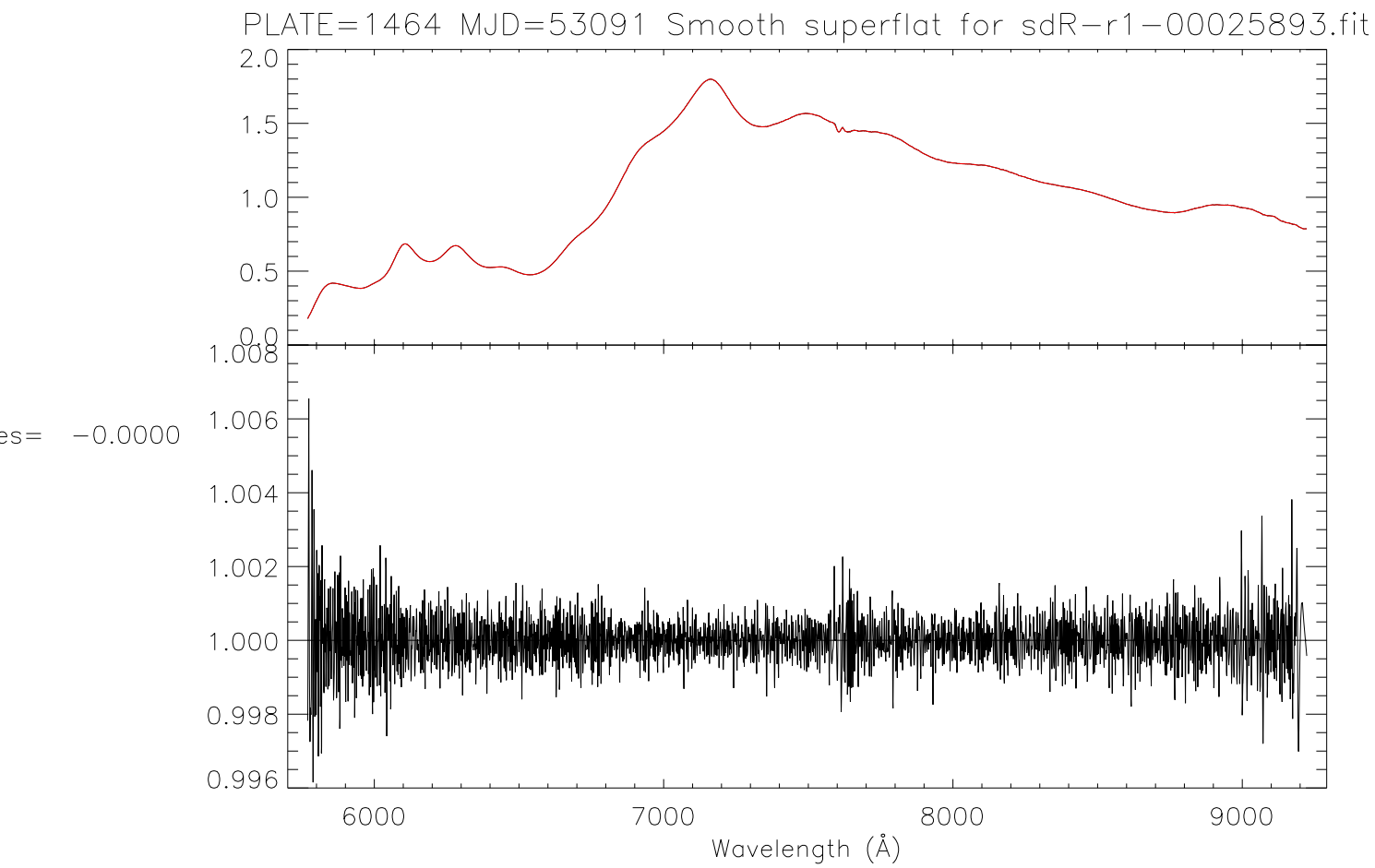

8430.1700
meas − arc
0.1
0.2
0.3
0.4
0.5
0.6
0
100
200
300
400

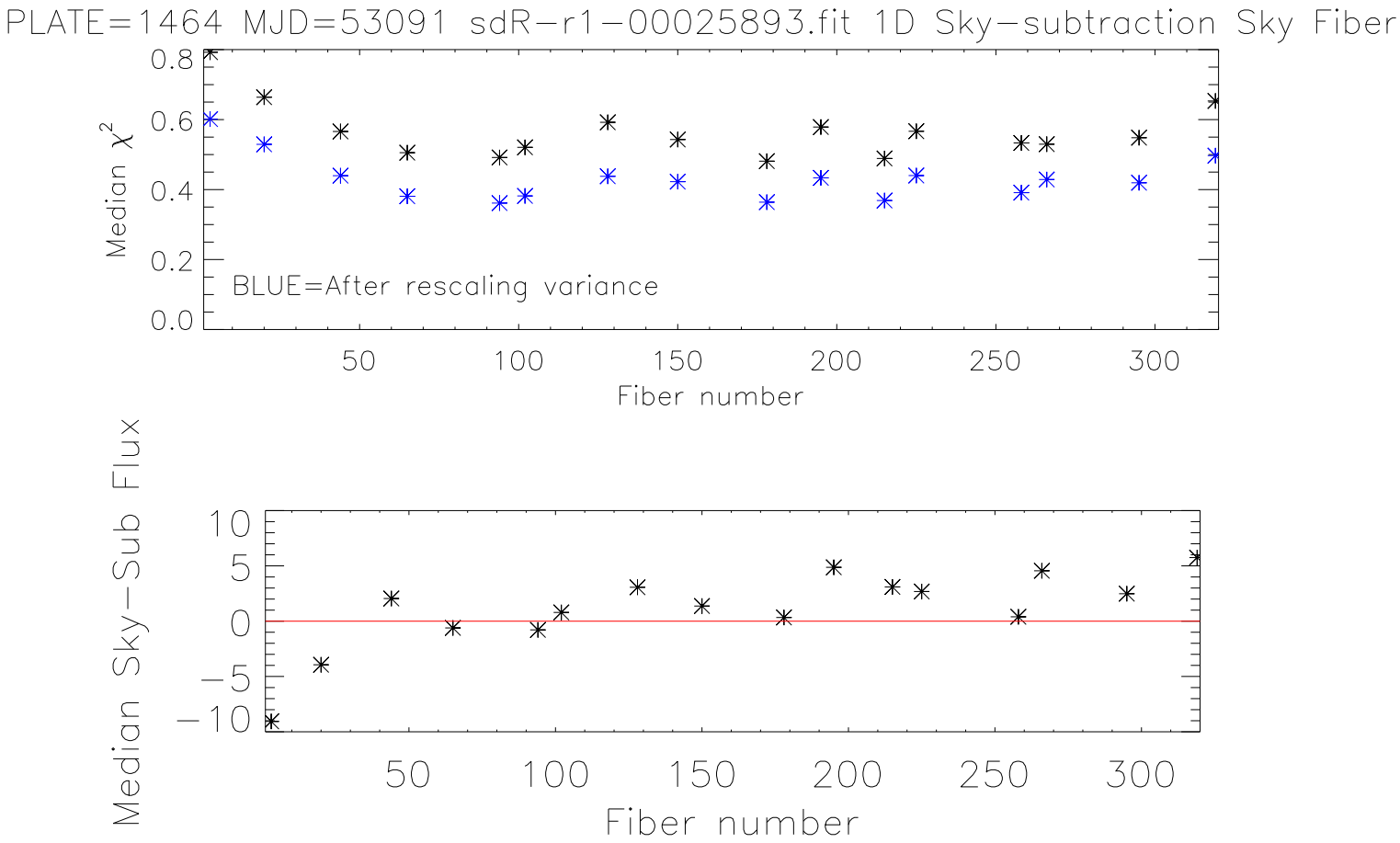

8885.8300
meas − arc
0.2
0.3
0.4
0.5
0.6
0.7
0
100
200
300
400

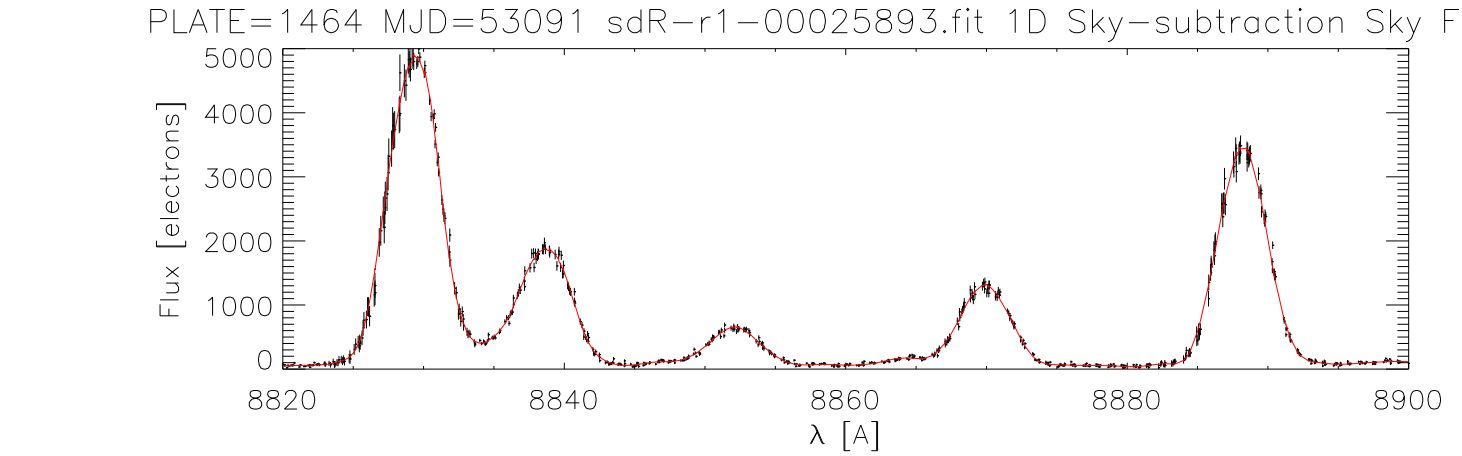

8919.6100
meas − arc
0.2
0.3
0.4
0.5
0.6
0.7
0
100
200
300
400

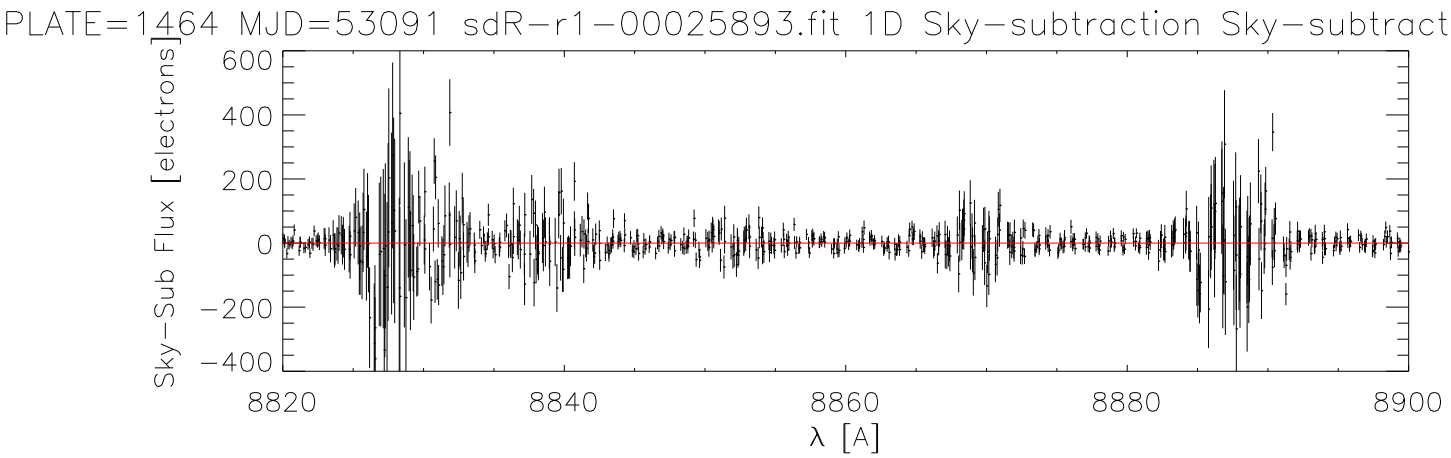

6300.3040
stdev 0.029
extra 0.26
6363.7760
stdev 0.037
extra 0.25
6553.6100
stdev 0.044
extra 0.26
6923.2100
stdev 0.032
extra 0.31
6949.0300
stdev 0.045
extra 0.35
7571.7500
stdev 0.038
extra 0.39
7794.1200
stdev 0.037
extra 0.28
7821.5100
stdev 0.031
extra 0.32
8399.1600
stdev 0.025
extra 0.39
8430.1700
stdev 0.028
extra 0.39
8885.8300
stdev 0.024
extra 0.43
8919.6100
stdev 0.034
extra 0.43
meas − pred, pix
mfib2 16
mfib1 16

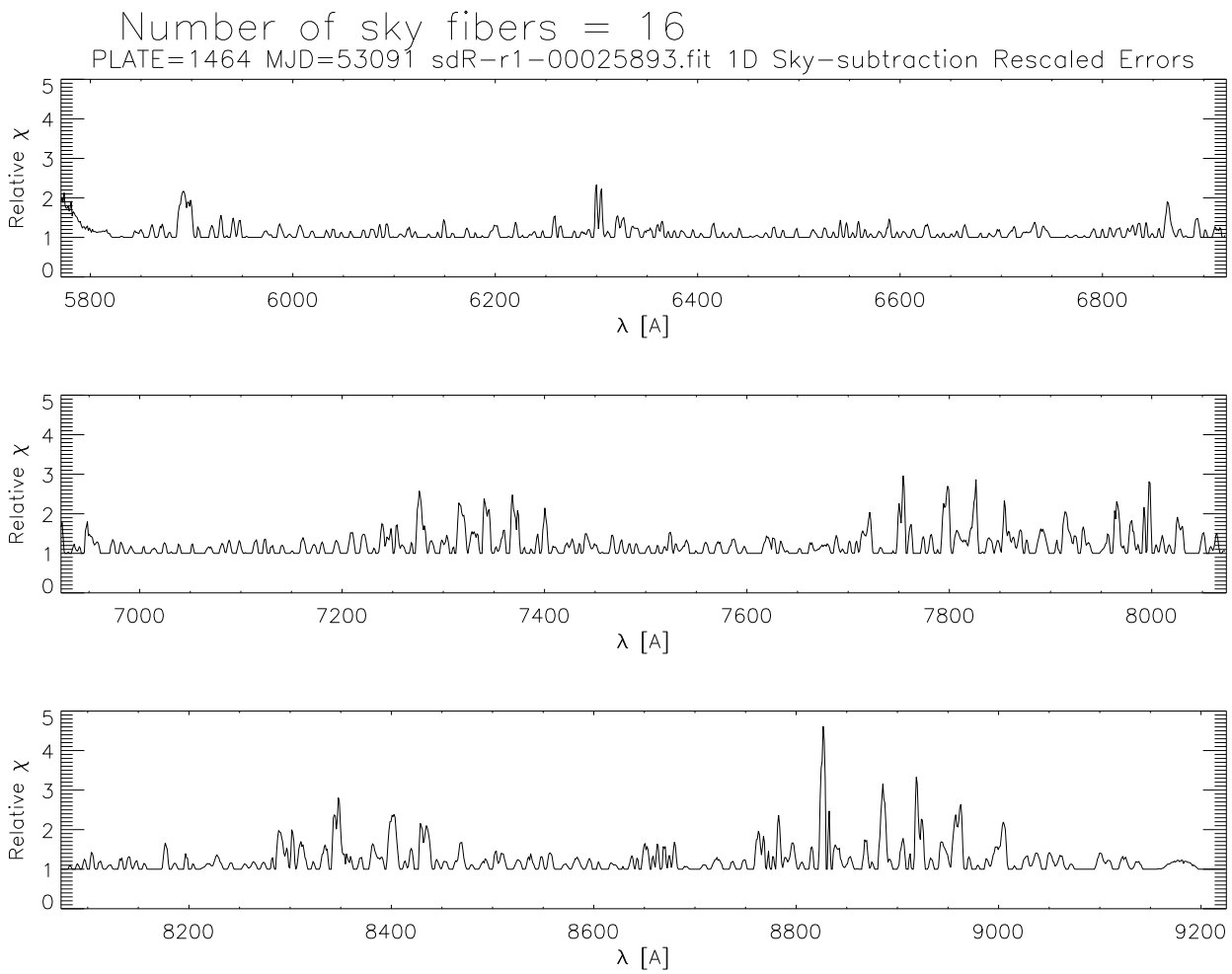

sky shift, pixels
0.45
0.40
0.35
0.30
0.25
0.20
5000
6000
7000
8000
9000
10000

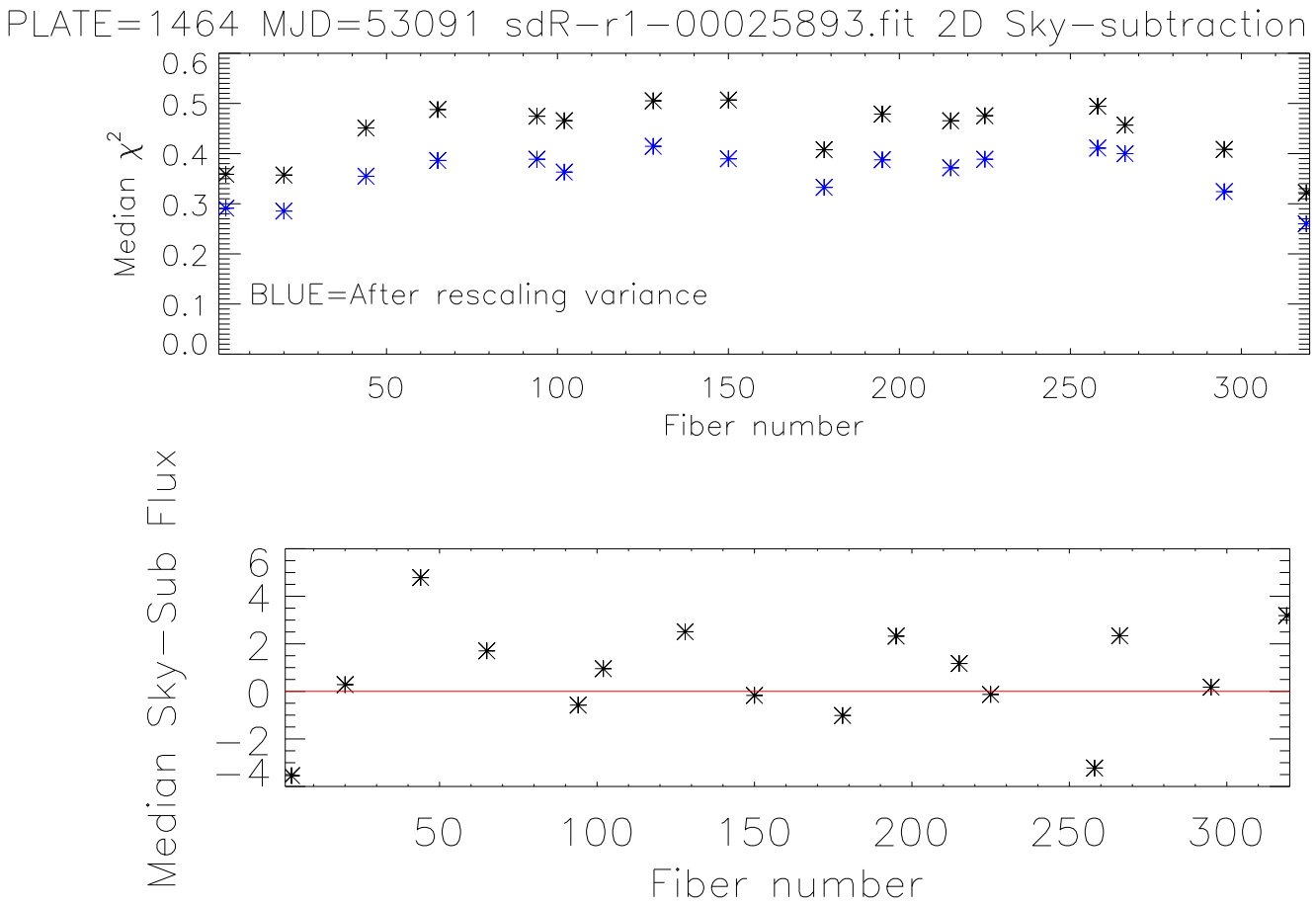

PLATE=1464 MJD=53091 Smooth superflat for sdR-r1-00025893.fit
2.0
1.5
1.0
0.5
0.0
1.008
1.006
1.004
1.002
1.000
0.998
0.996
es= −0.0000
6000
7000
8000
9000
Wavelength (Å)

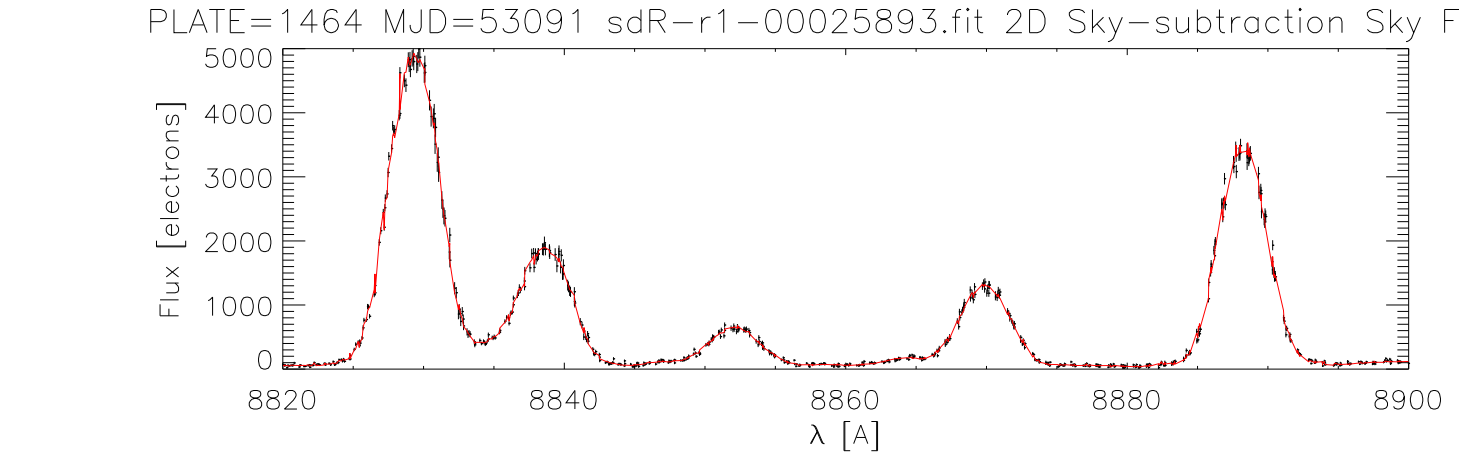

PLATE=1464 MJD=53091 sdR-r1-00025893.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
−5
−10
50
100
150
200
250
300
Fiber number

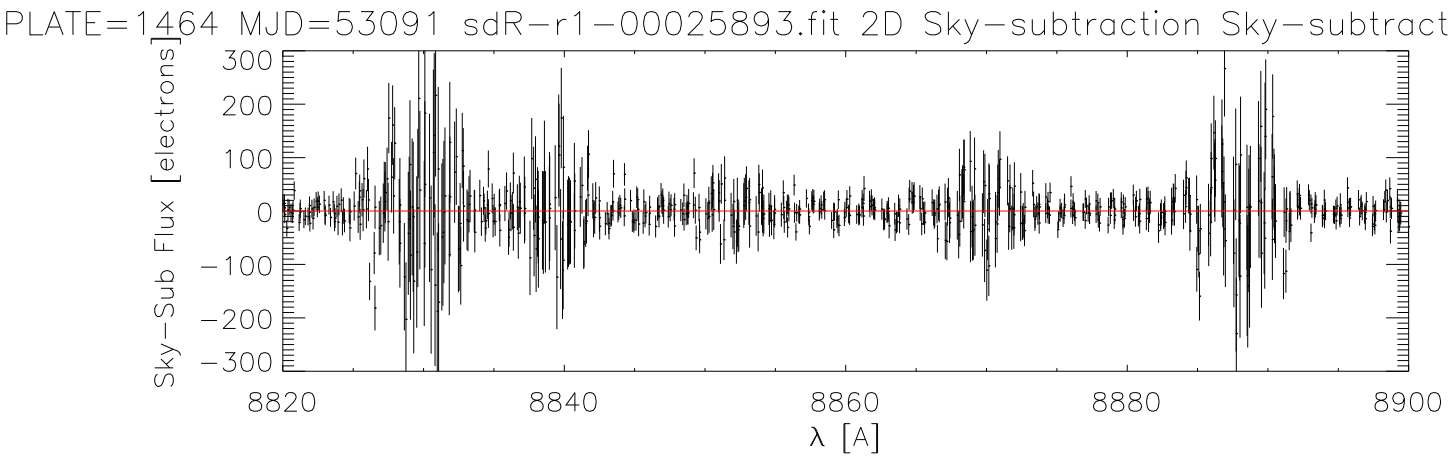

PLATE=1464 MJD=53091 sdR-r1-00025893.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

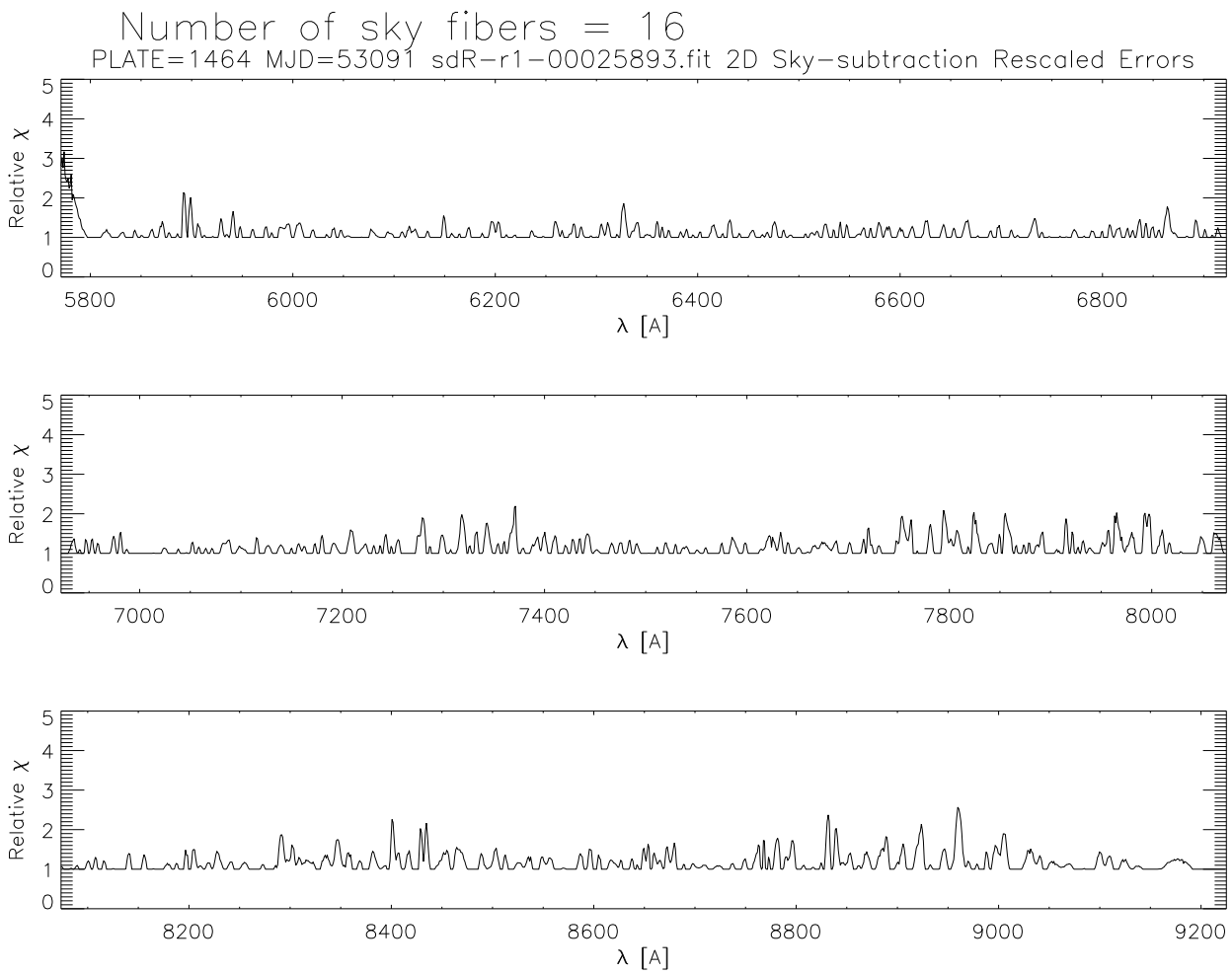

PLATE=1464 MJD=53091 sdR-r1-00025893.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
-200
-400
8820
8840
8860
8880
8900
λ [A]

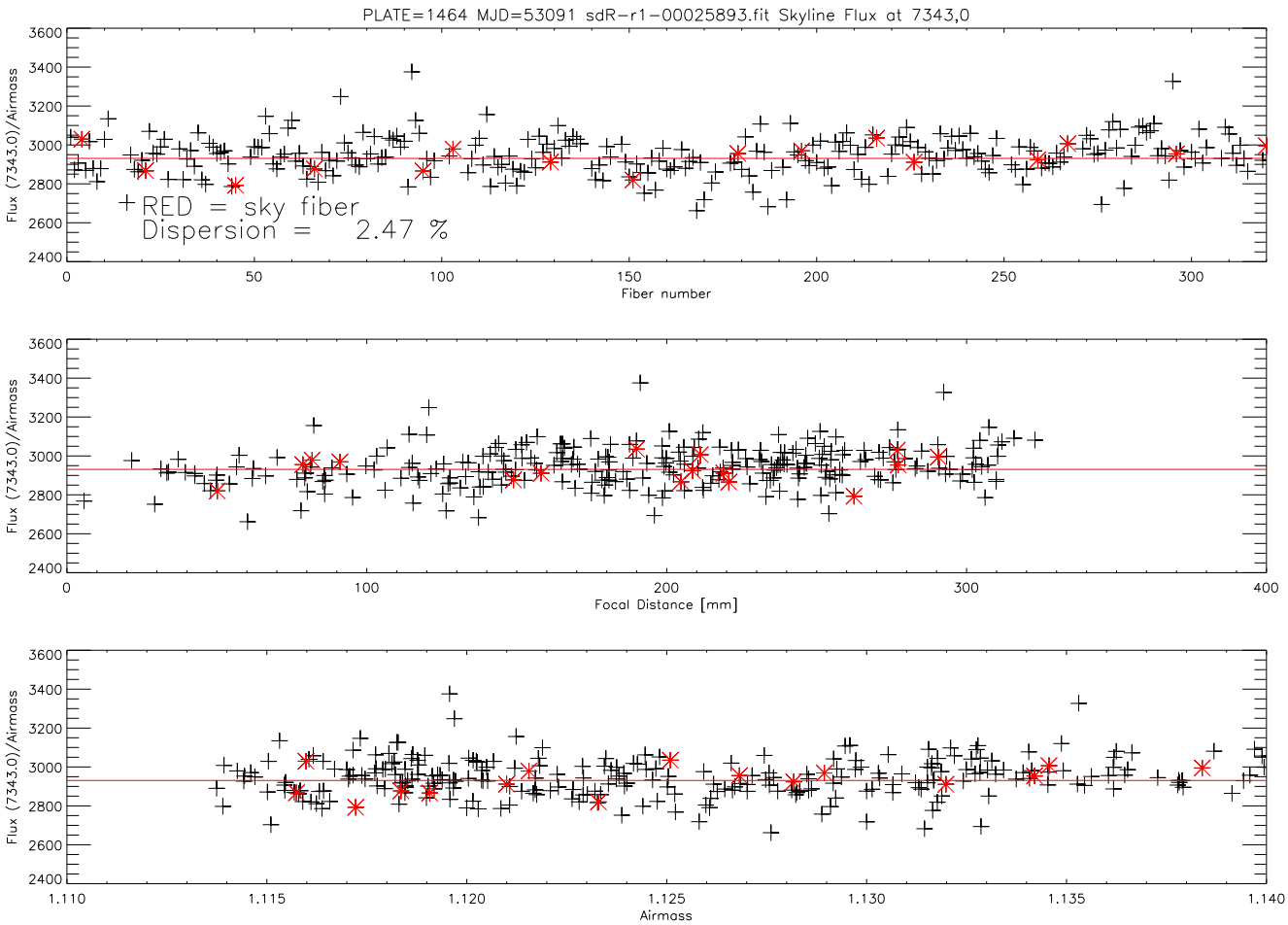

Number of sky fibers = 16
PLATE=1464 MJD=53091 sdR-r1-00025893.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

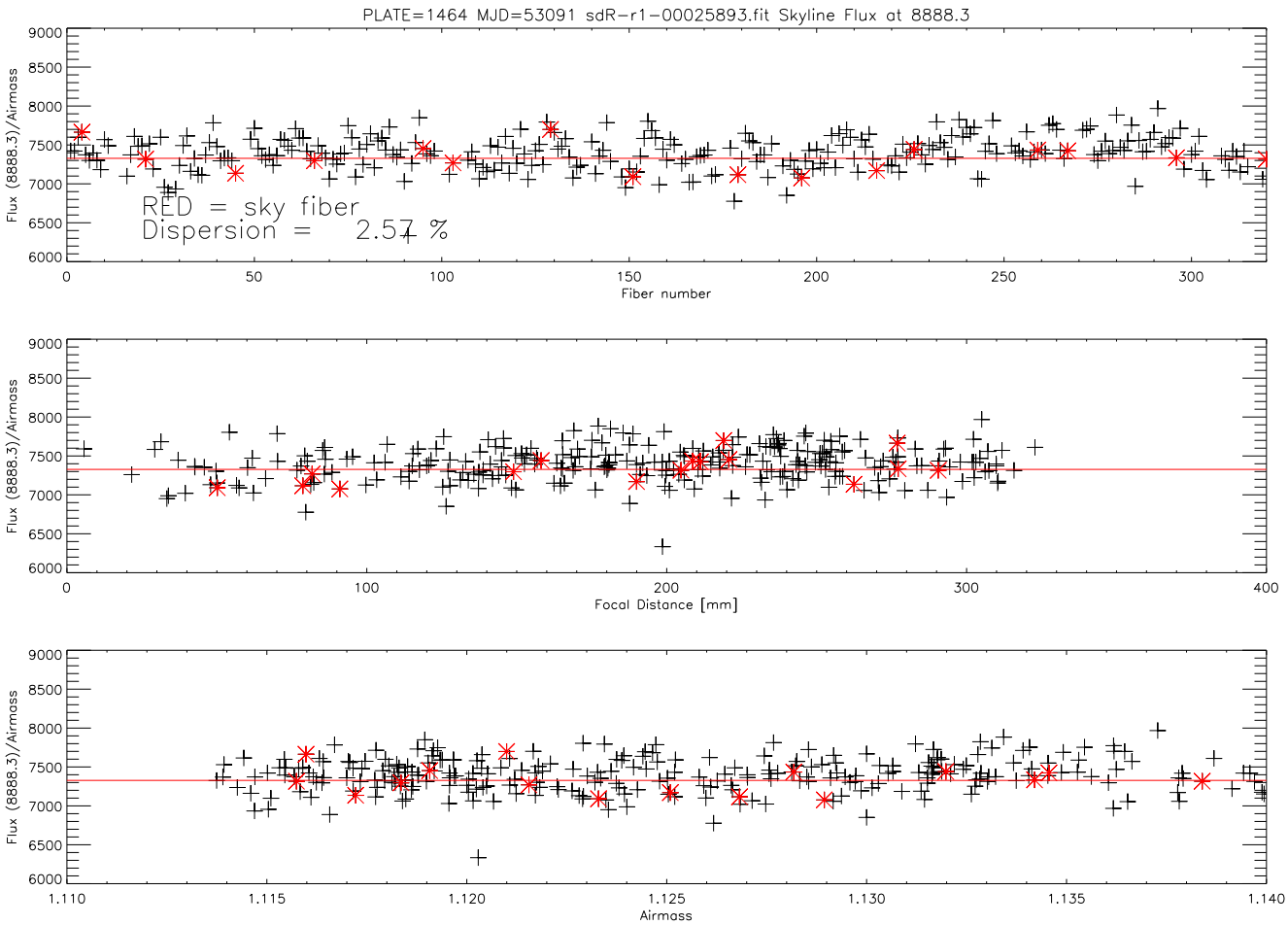

PLATE=1464 MJD=53091 sdR-r1-00025893.fit 2D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

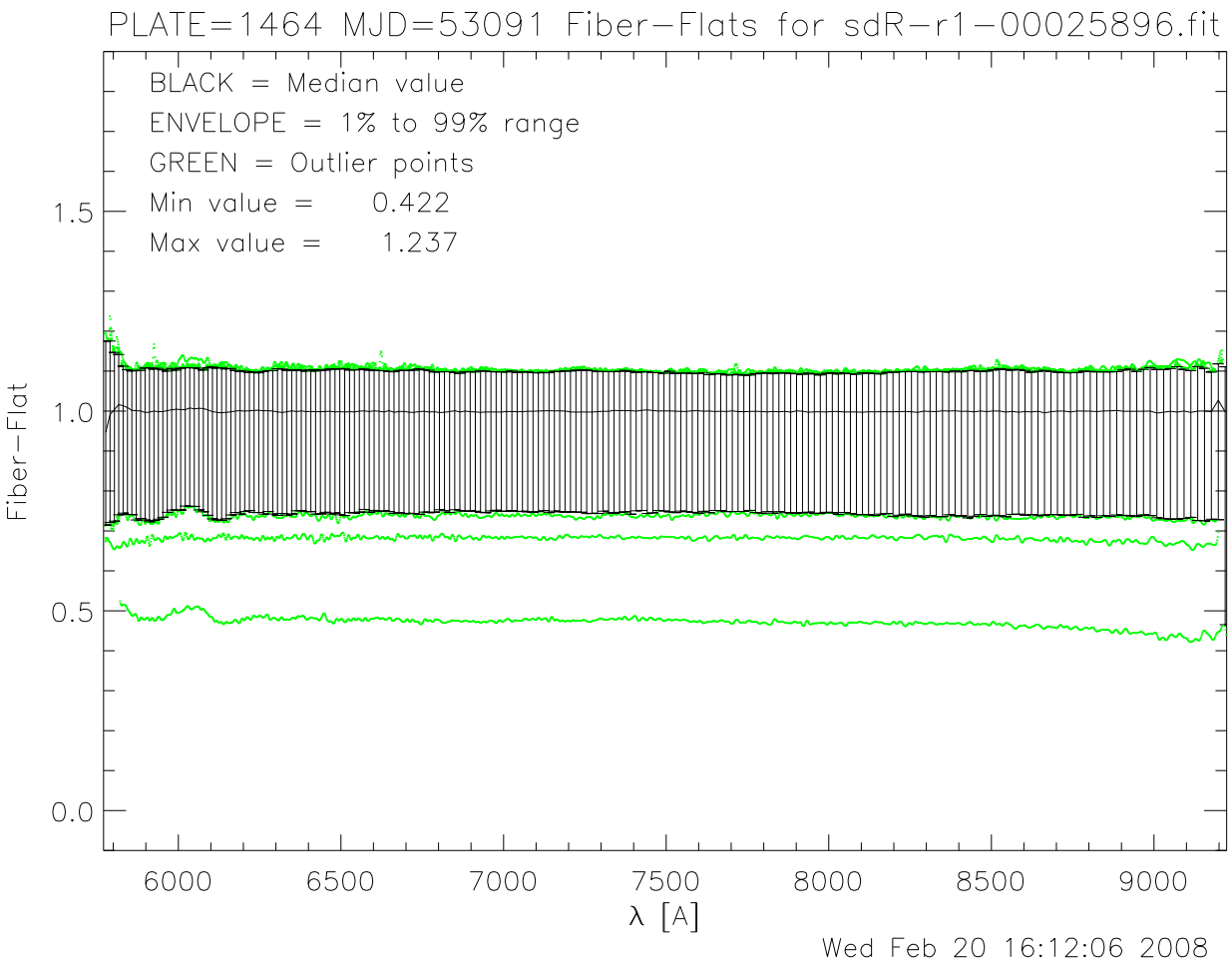

PLATE=1464 MJD=53091 sdR-r1-00025893.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

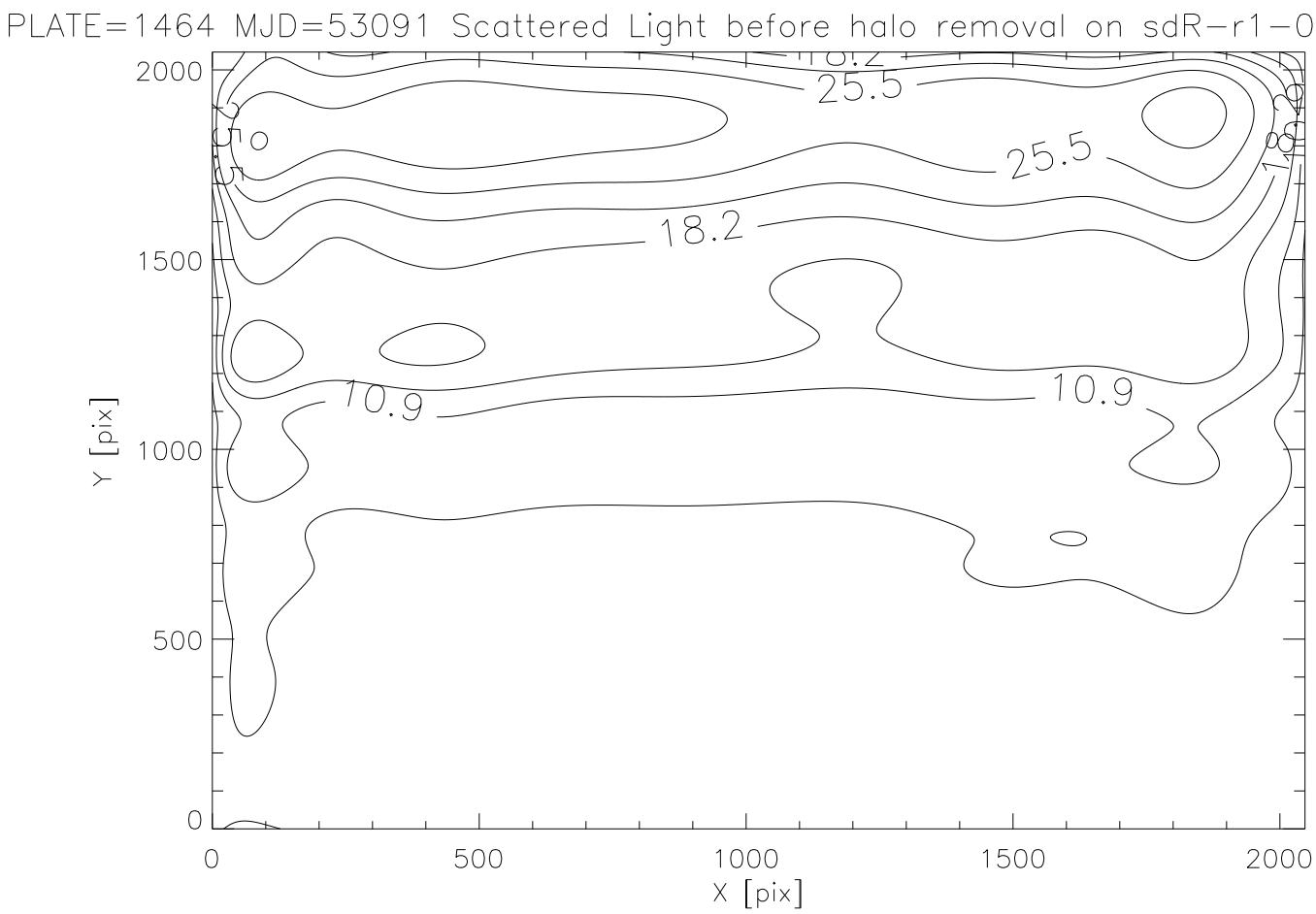

PLATE=1464 MJD=53091 sdR-r1-00025893.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
-300
8820
8840
8860
8880
8900
λ [A]

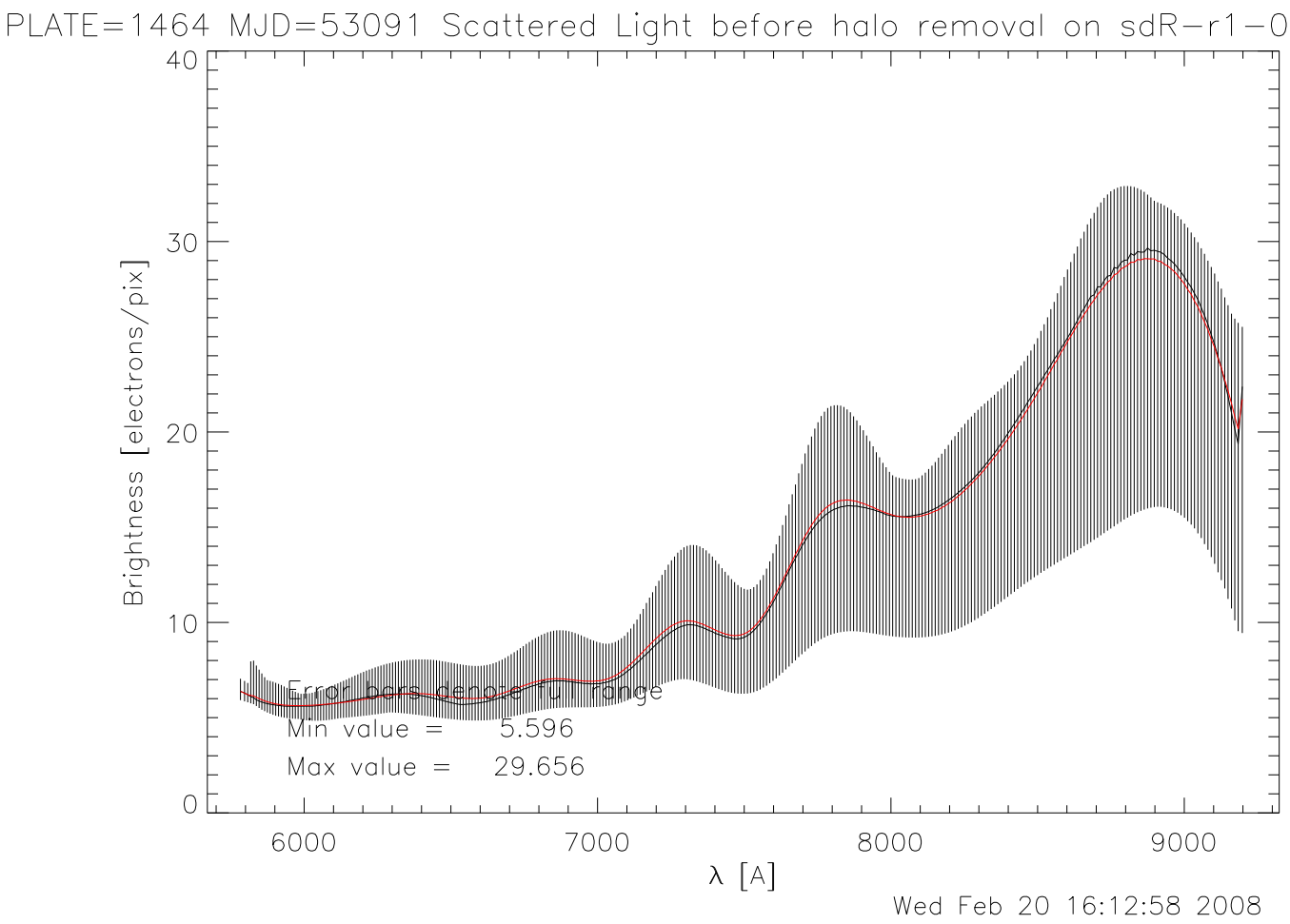

Number of sky fibers = 16
PLATE=1464 MJD=53091 sdR-r1-00025893.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

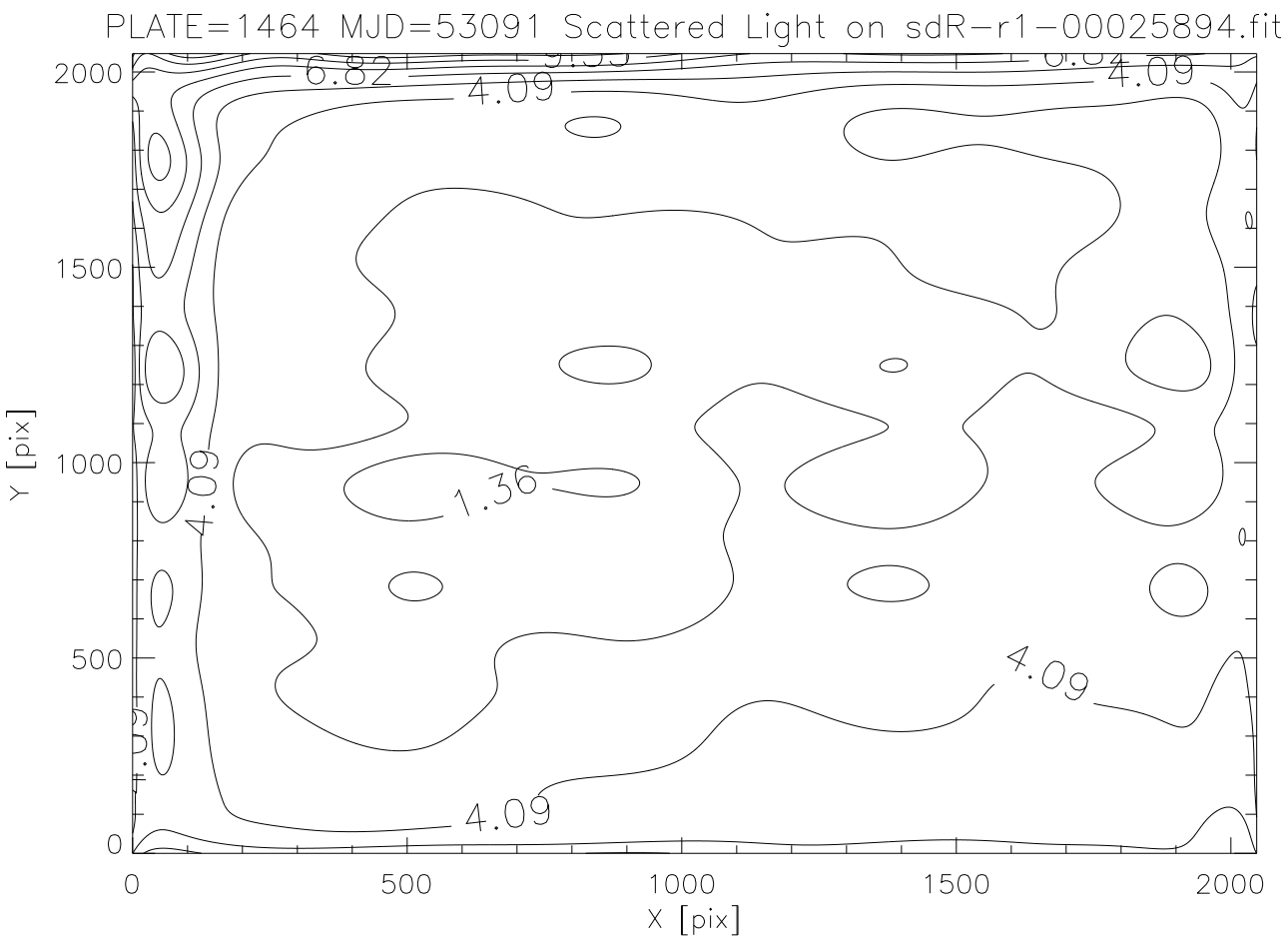

PLATE=1464 MJD=53091 sdR-r1-00025893.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 2.47 %
Fiber number
Focal Distance [mm]
Airmass

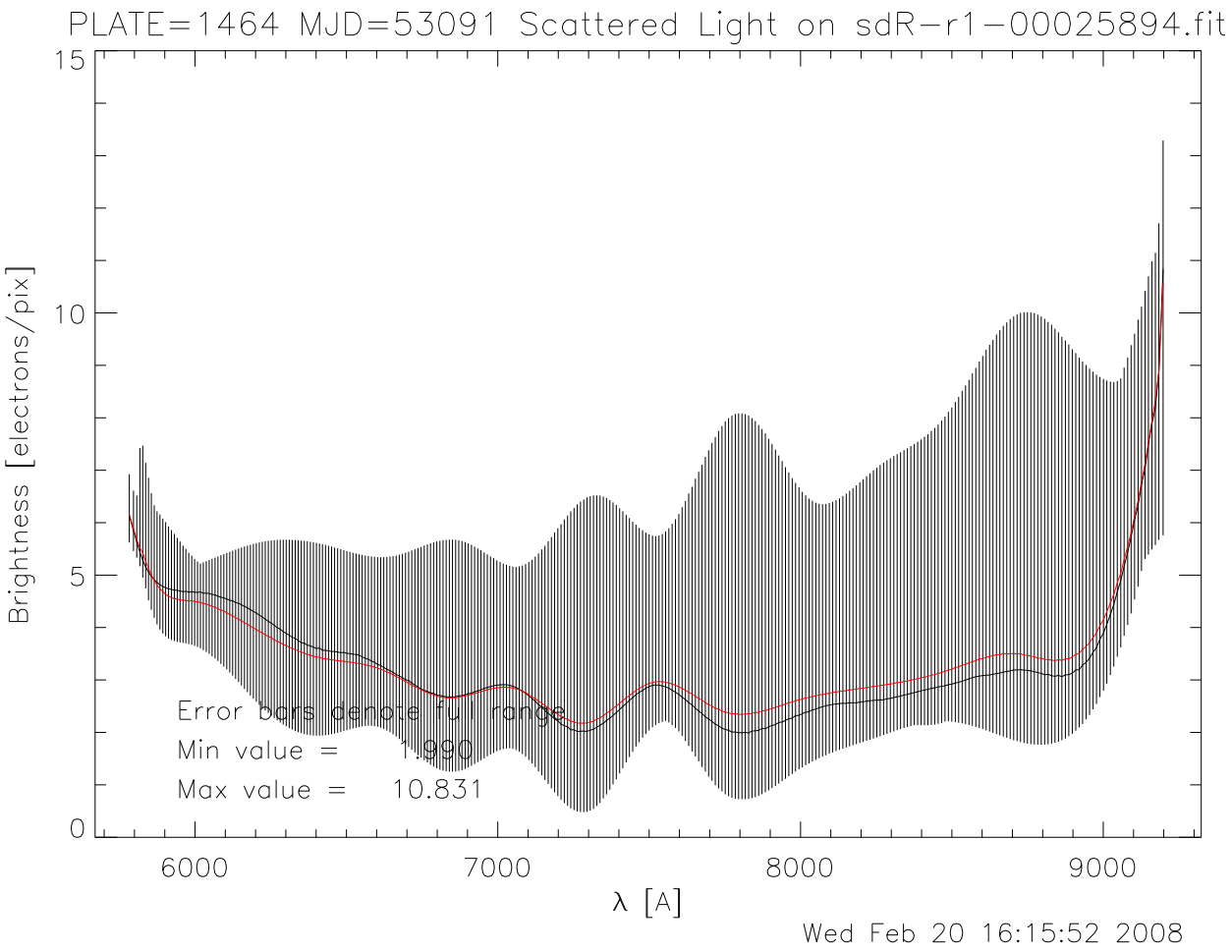

PLATE=1464 MJD=53091 sdR-r1-00025893.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 2.57 %
Fiber number
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass

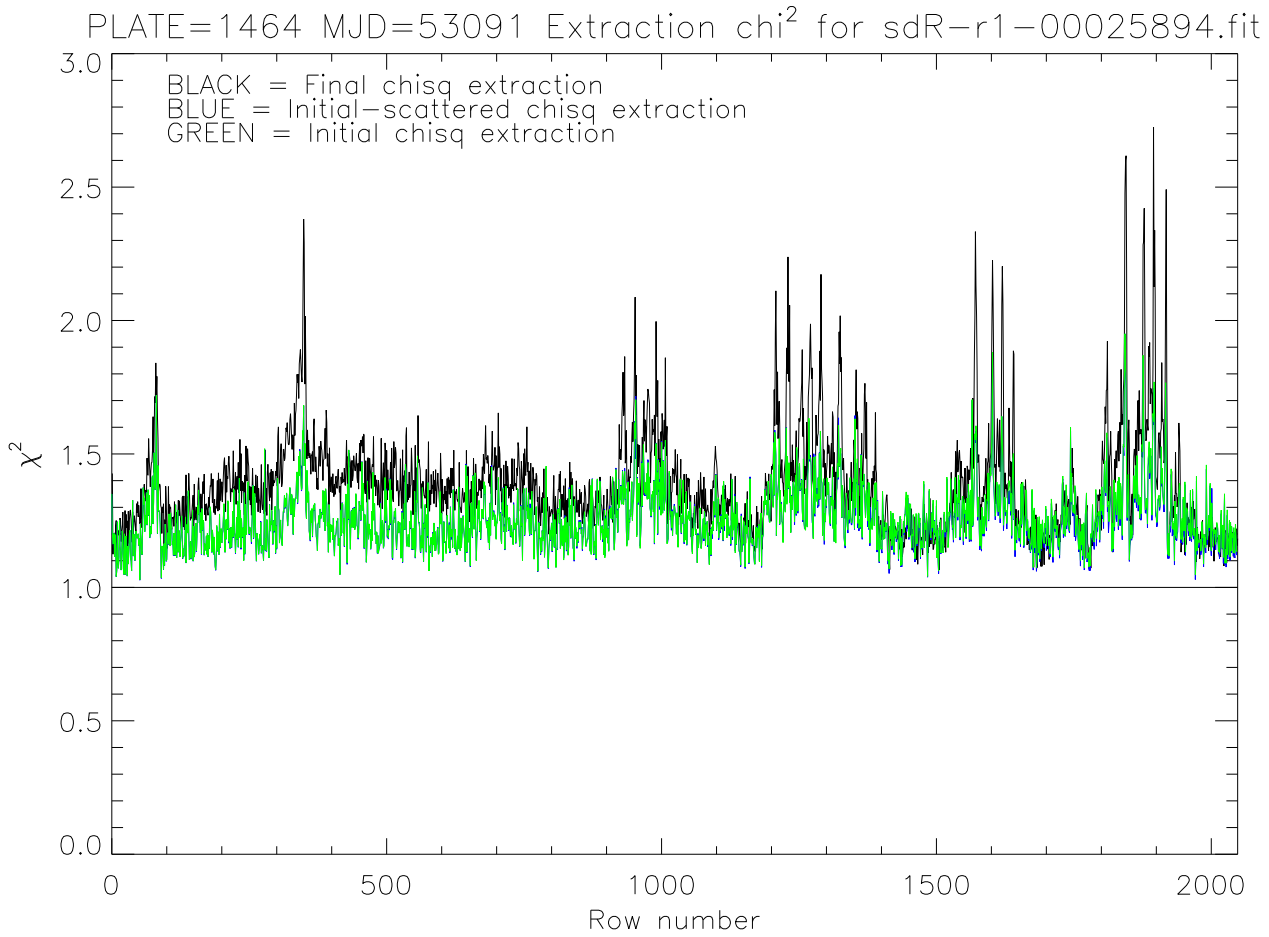

PLATE=1464 MJD=53091 Fiber−Flats for sdR−r1−00025896.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.422
Max value = 1.237
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Wed Feb 20 16:12:06 2008

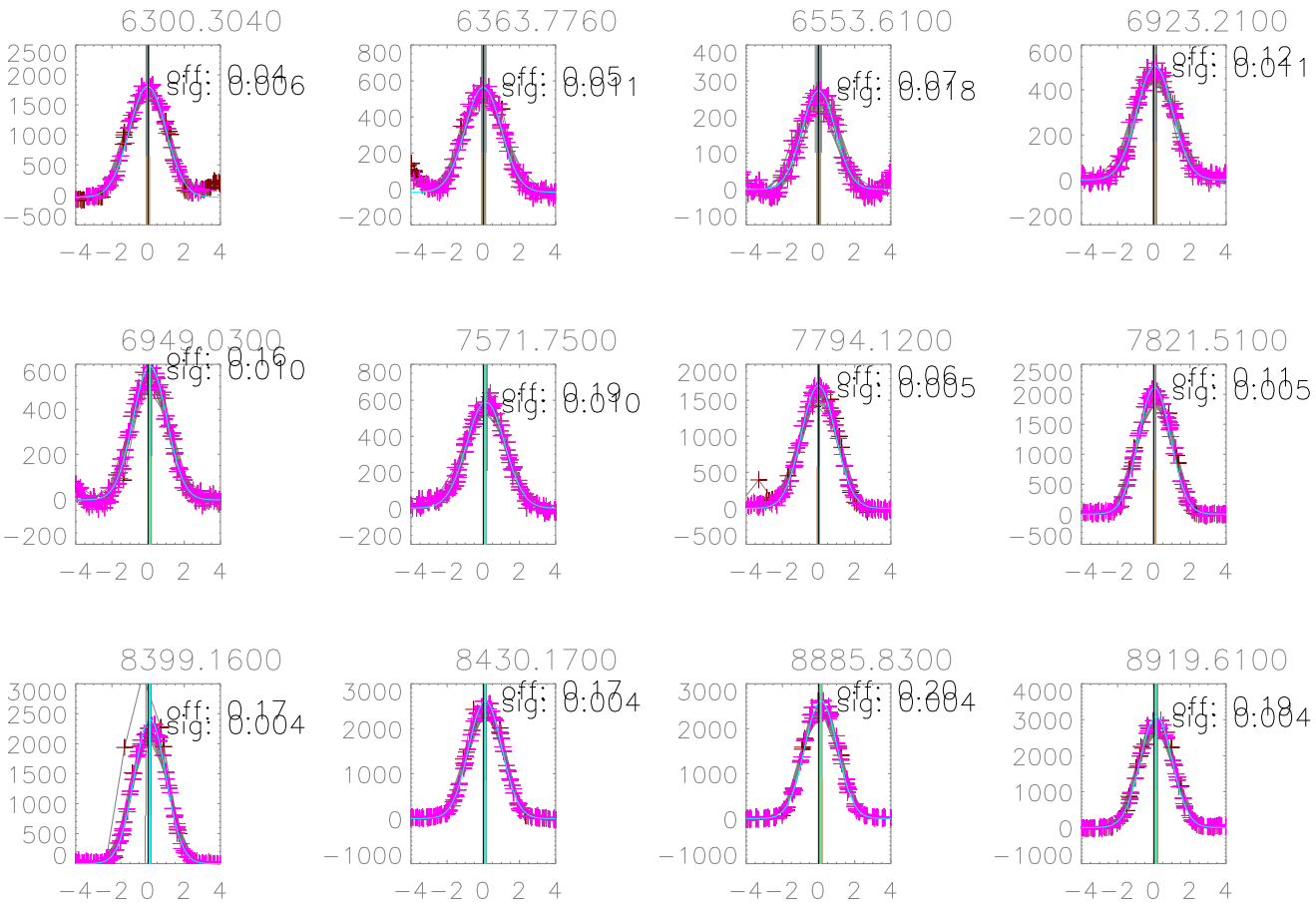

PLATE=1464 MJD=53091 Scattered Light before halo removal on sdR-r1-00025894.fi
25.5
25.5
18.2
10.9
10.9
Y [pix]
X [pix]
0
500
1000
1500
2000

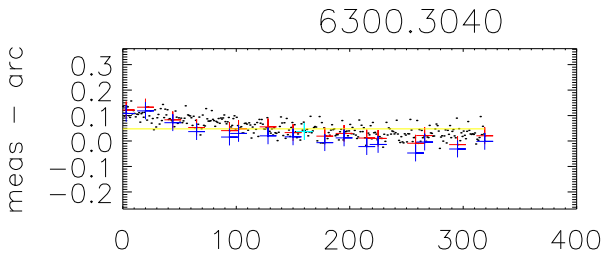

PLATE=1464 MJD=53091 Scattered Light before halo removal on sdR-r1-00025894.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 5.596
Max value = 29.656
Wed Feb 20 16:12:58 2008

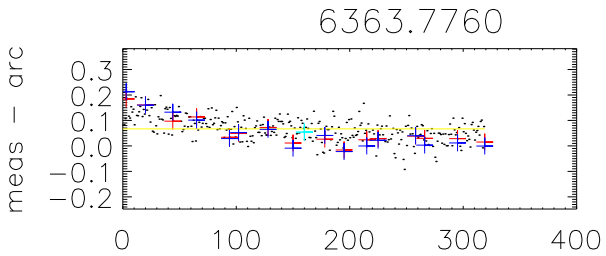

PLATE=1464 MJD=53091 Scattered Light on sdR-r1-00025894.fit
6.82
4.09
4.09
4.09
1.36
4.09
4.09
4.09
Y [pix]
X [pix]
0
500
1000
1500
2000

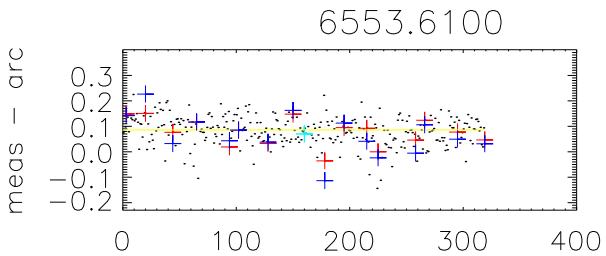

PLATE=1464 MJD=53091 Scattered Light on sdR-r1-00025894.fit
Brightness [electrons/pix]
15
10
5
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 1.990
Max value = 10.831
Wed Feb 20 16:15:52 2008

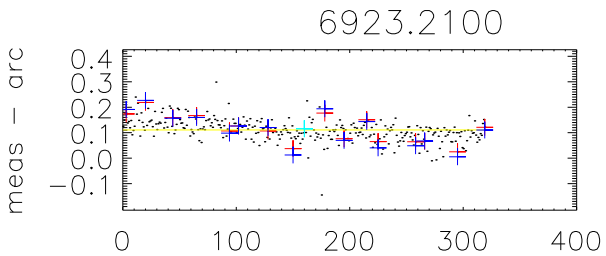

PLATE=1464 MJD=53091 Extraction chi^2 for sdR-r1-00025894.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
500
1000
1500
2000
Row number

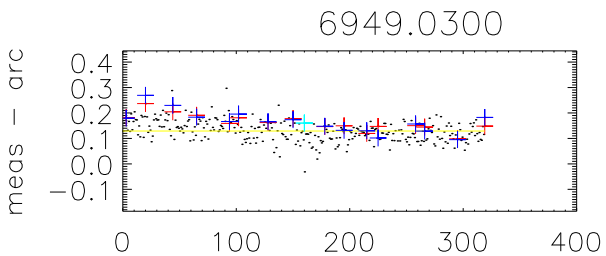

6300.3040
off: 0.04
sig: 0.006
6363.7760
off: 0.05
sig: 0.011
6553.6100
off: 0.07
sig: 0.018
6923.2100
off: 0.12
sig: 0.011
6949.0300
off: 0.16
sig: 0.010
7571.7500
off: 0.19
sig: 0.010
7794.1200
off: 0.06
sig: 0.005
7821.5100
off: 0.11
sig: 0.005
8399.1600
off: 0.17
sig: 0.004
8430.1700
off: 0.17
sig: 0.004
8885.8300
off: 0.20
sig: 0.004
8919.6100
off: 0.19
sig: 0.004

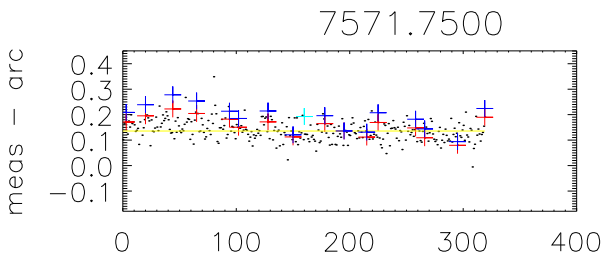

6300.3040
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

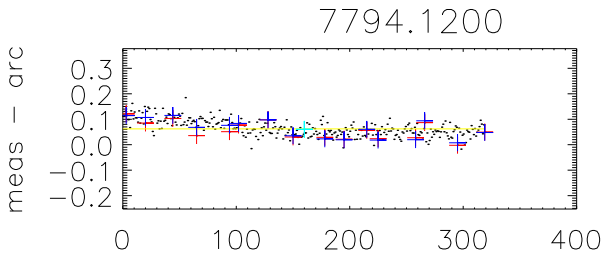

6363.7760
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

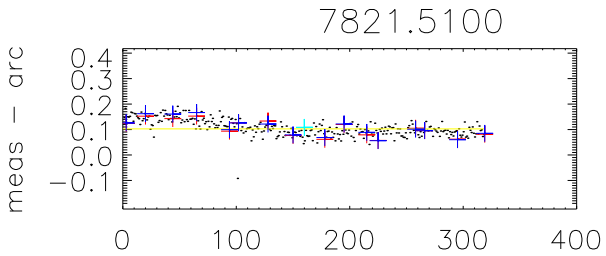

6553.6100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

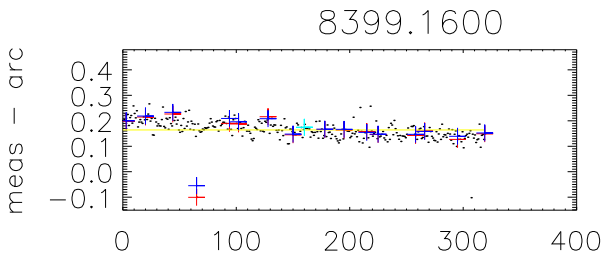

6923.2100
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

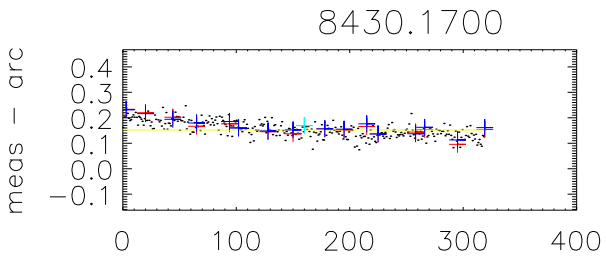

6949.0300
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

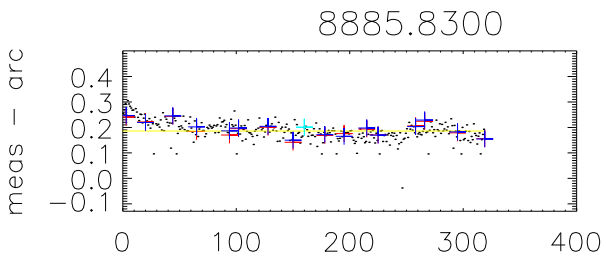

7571.7500
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

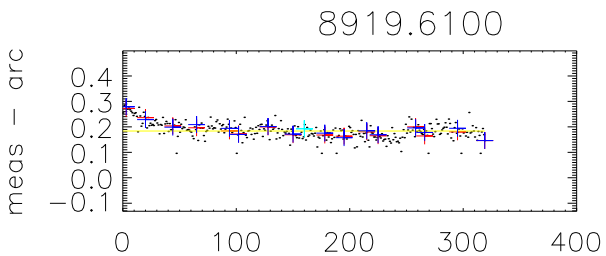

7794.1200
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

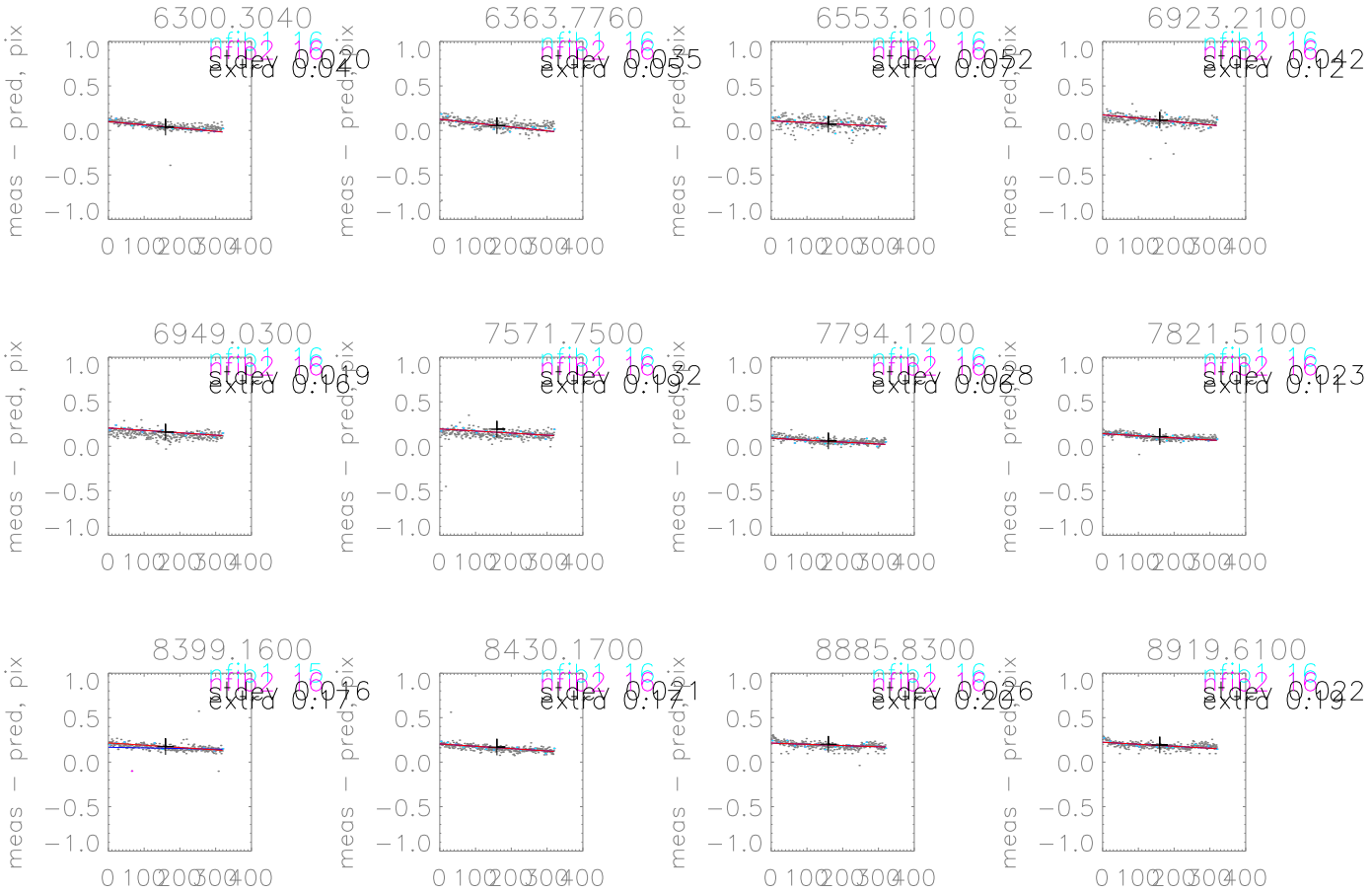

7821.5100
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

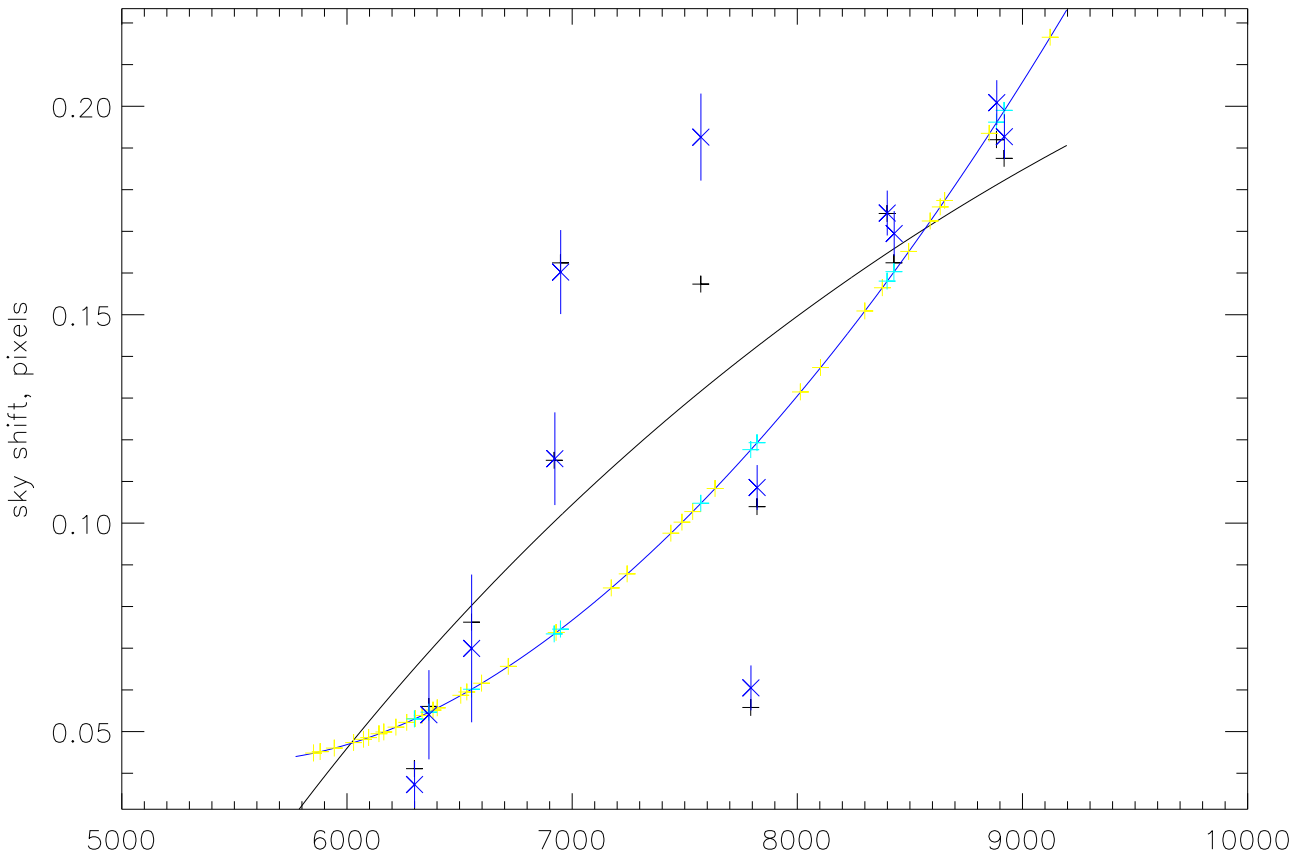

8399.1600
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

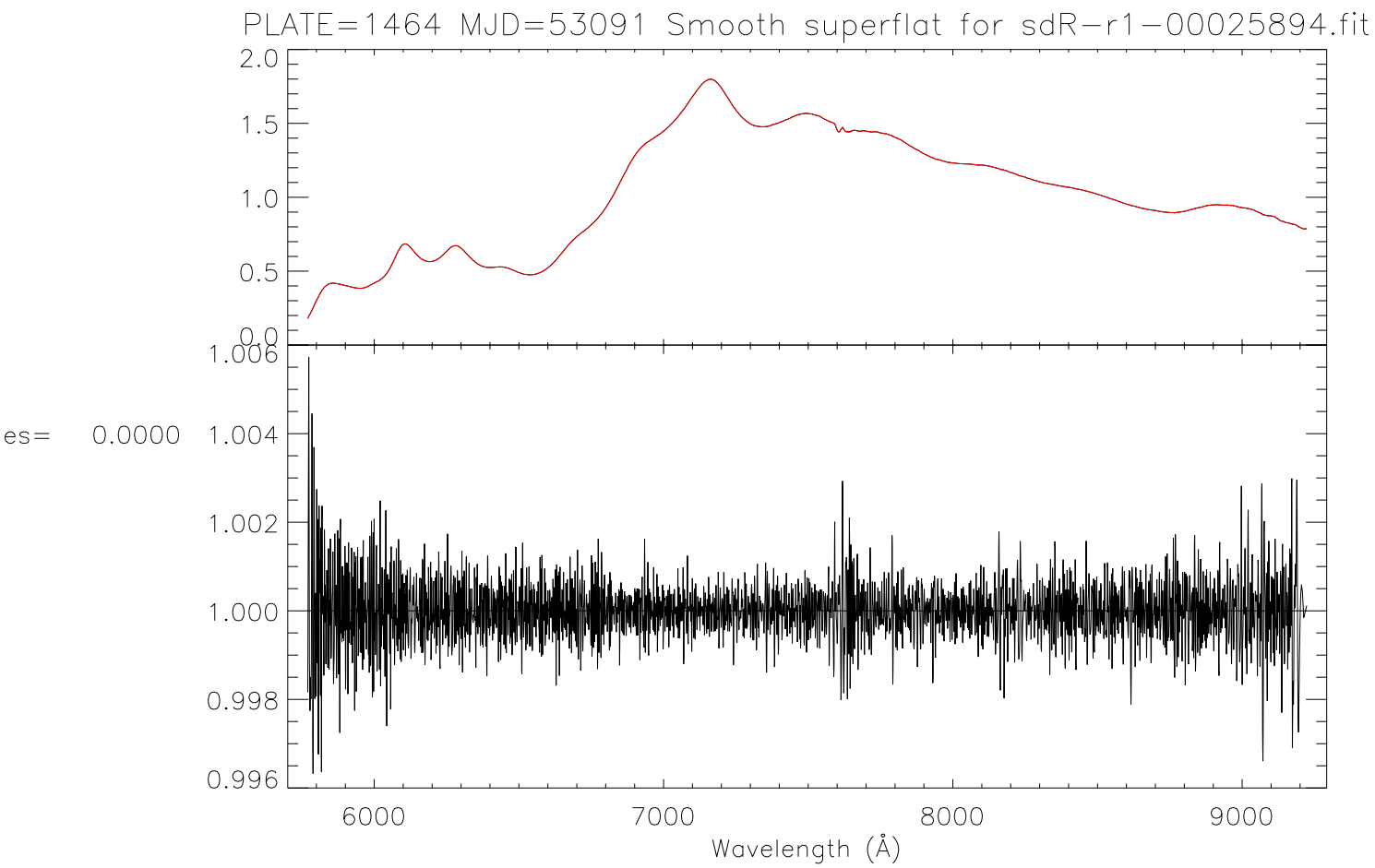

8430.1700
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400


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

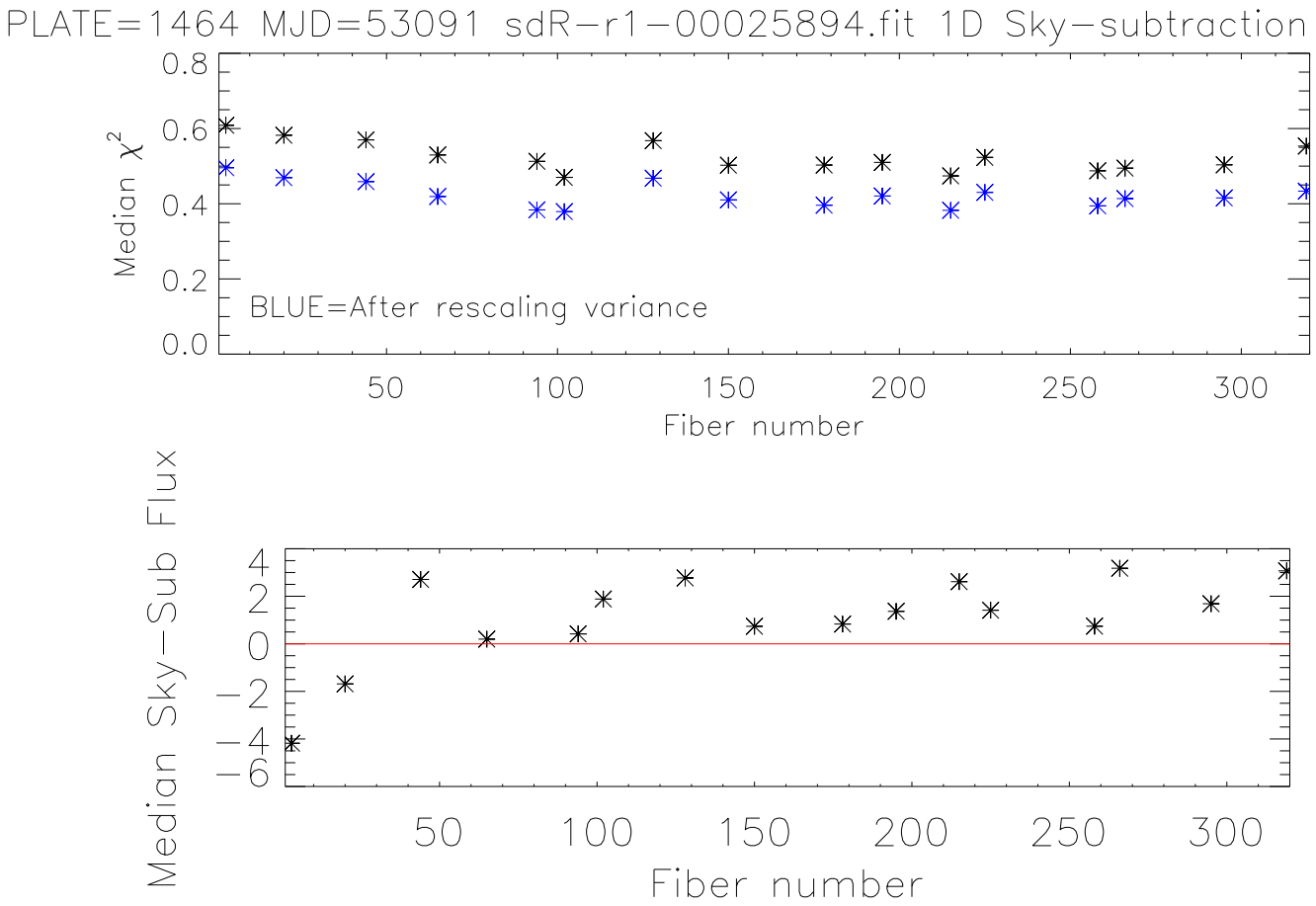

8919.6100
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

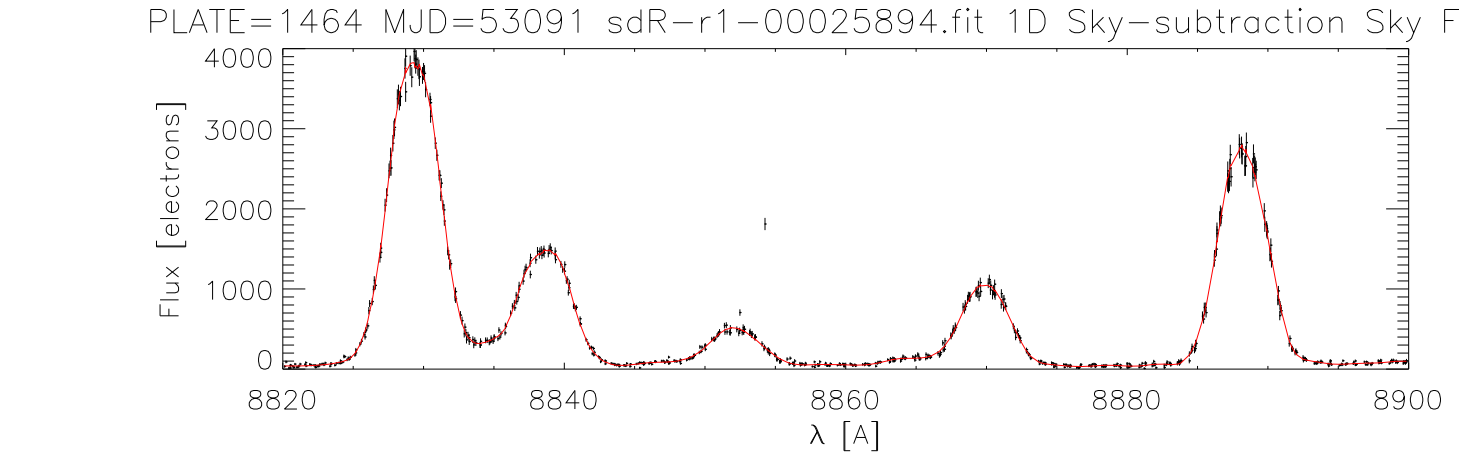

6300.3040
stdev 0.020
extra 0.04
6363.7760
stdev 0.035
extra 0.055
6553.6100
stdev 0.052
extra 0.072
6923.2100
stdev 0.042
extra 0.12
6949.0300
stdev 0.019
extra 0.16
7571.7500
stdev 0.032
extra 0.092
7794.1200
stdev 0.028
extra 0.06
7821.5100
stdev 0.023
extra 0.11
8399.1600
stdev 0.076
extra 0.17
8430.1700
stdev 0.021
extra 0.17
8885.8300
stdev 0.026
extra 0.24
8919.6100
stdev 0.032
extra 0.13
meas − pred, pix
mfhd2 16
mfhd1 16
mfhd1 15

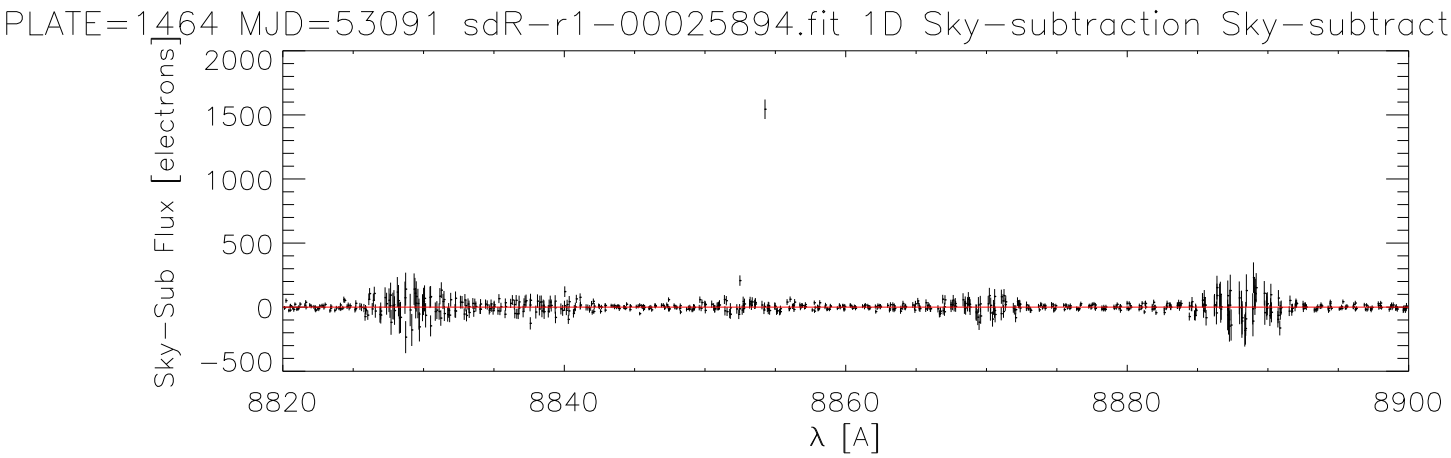

sky shift, pixels
0.20
0.15
0.10
0.05
5000
6000
7000
8000
9000
10000

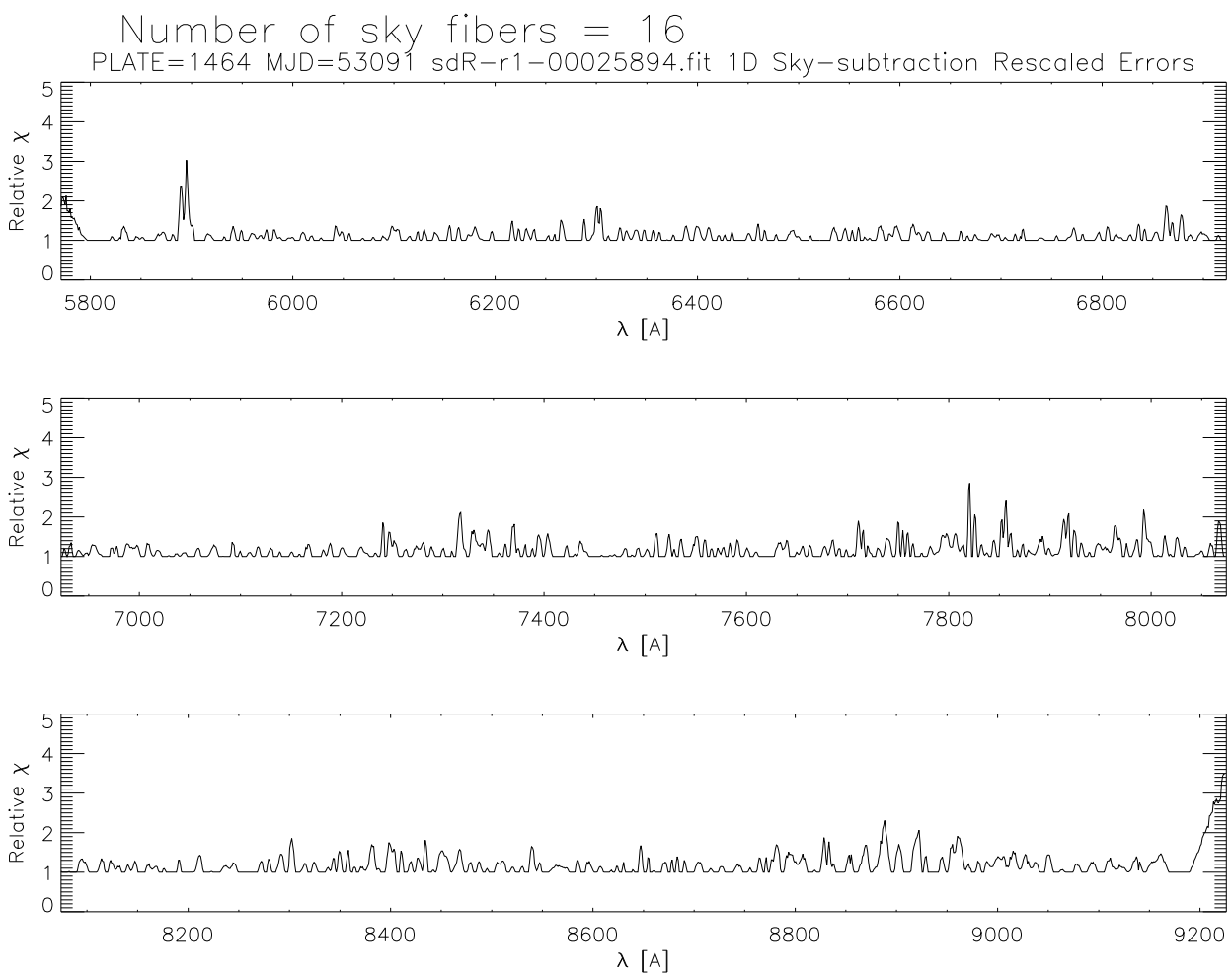

PLATE=1464 MJD=53091 Smooth superflat for sdR-r1-00025894.fit
2.0
1.5
1.0
0.5
0.0
1.006
1.004
1.002
1.000
0.998
0.996
6000
7000
8000
9000
Wavelength (Å)

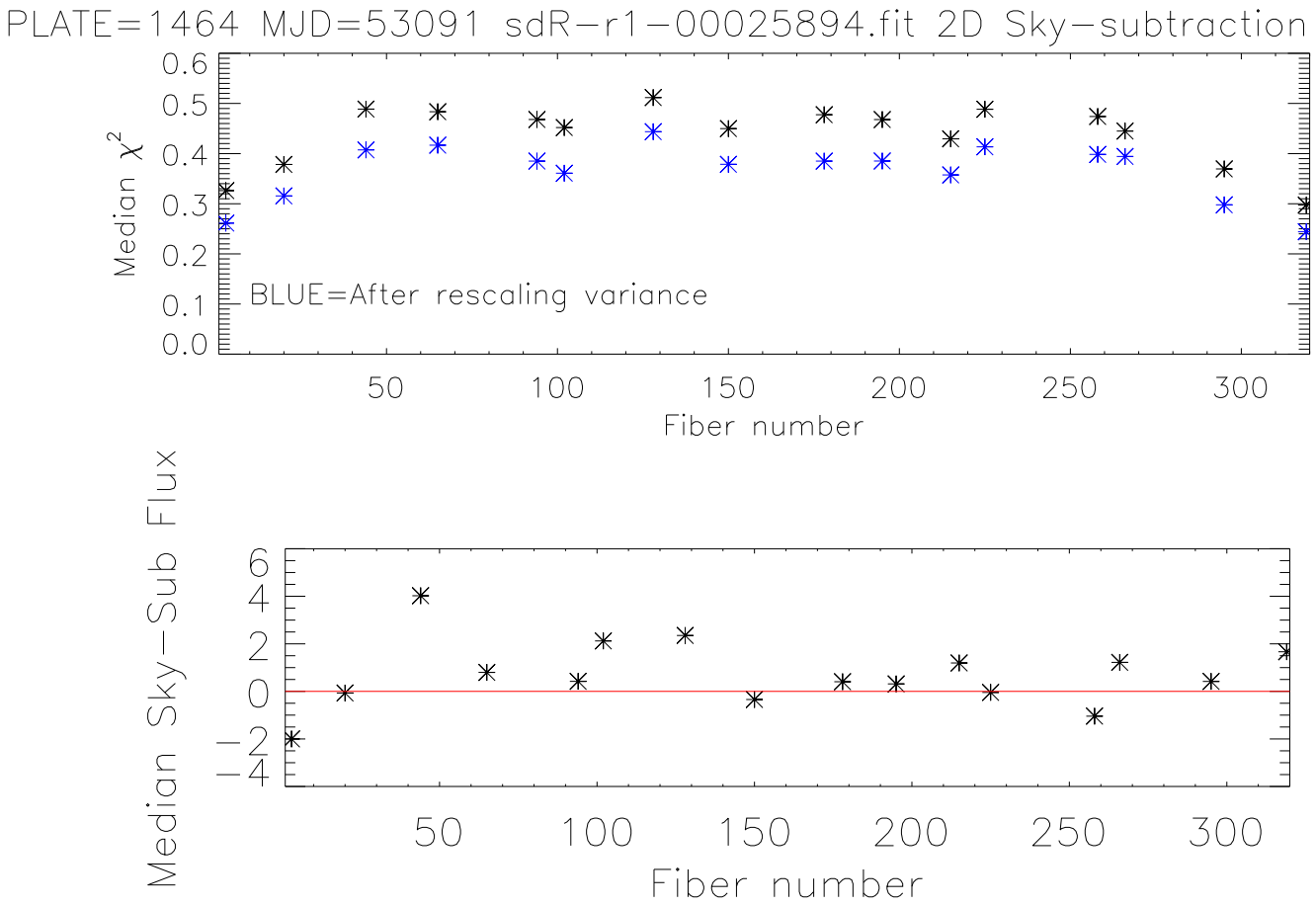
es= 0.0000

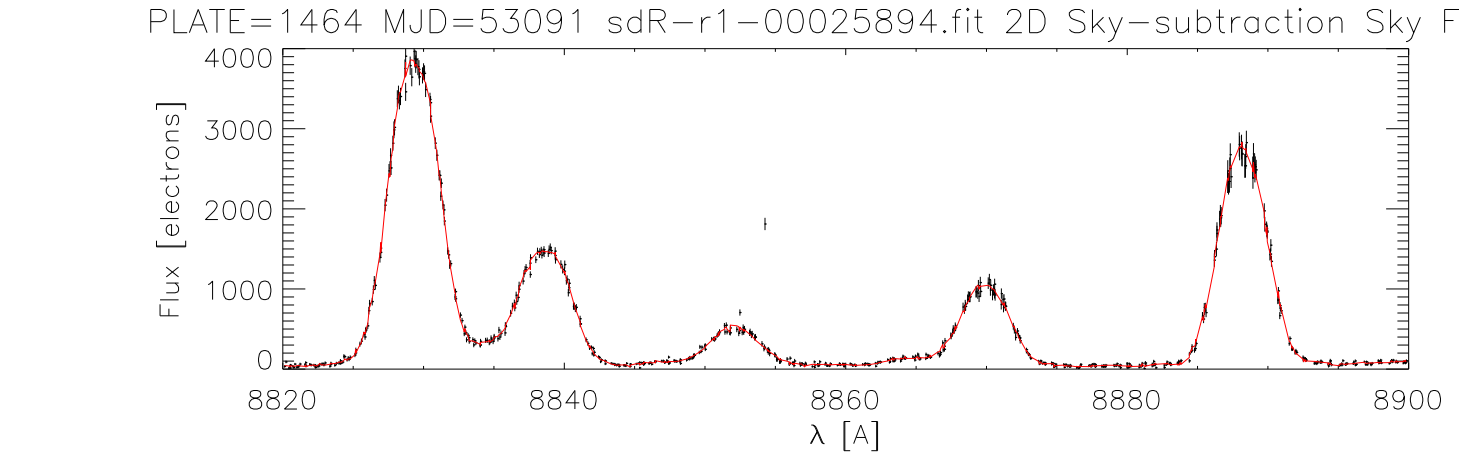

PLATE=1464 MJD=53091 sdR-r1-00025894.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-6
-4
-2
0
2
4
50
100
150
200
250
300
Fiber number

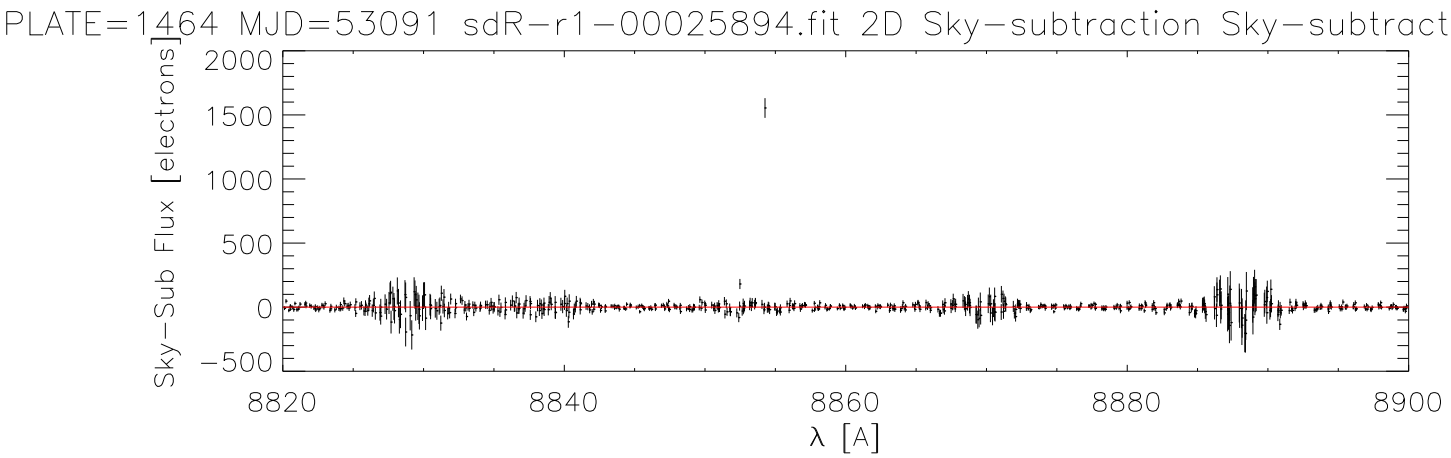

PLATE=1464 MJD=53091 sdR-r1-00025894.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

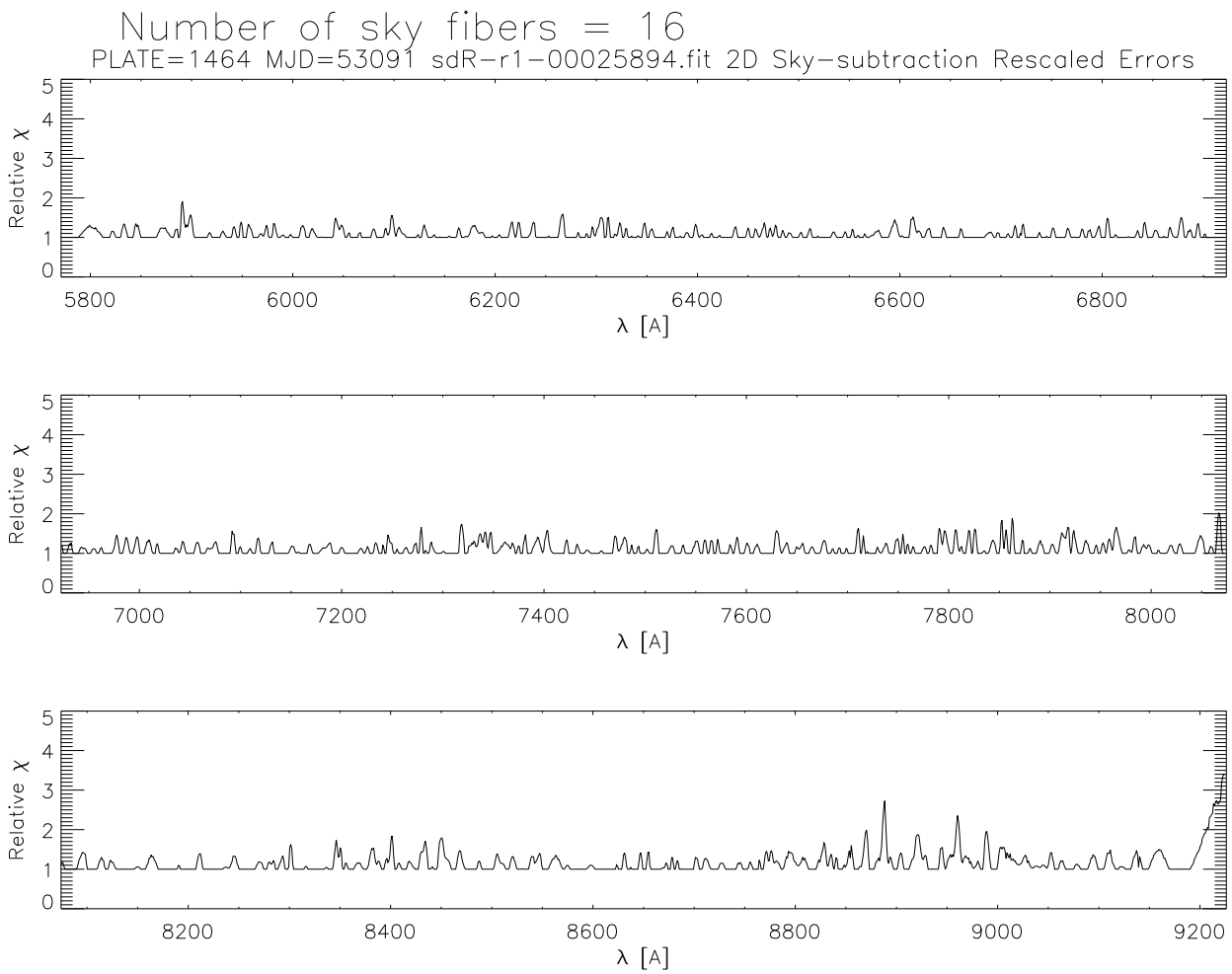

PLATE=1464 MJD=53091 sdR-r1-00025894.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
2000
1500
1000
500
0
-500
8820
8840
8860
8880
8900
λ [A]

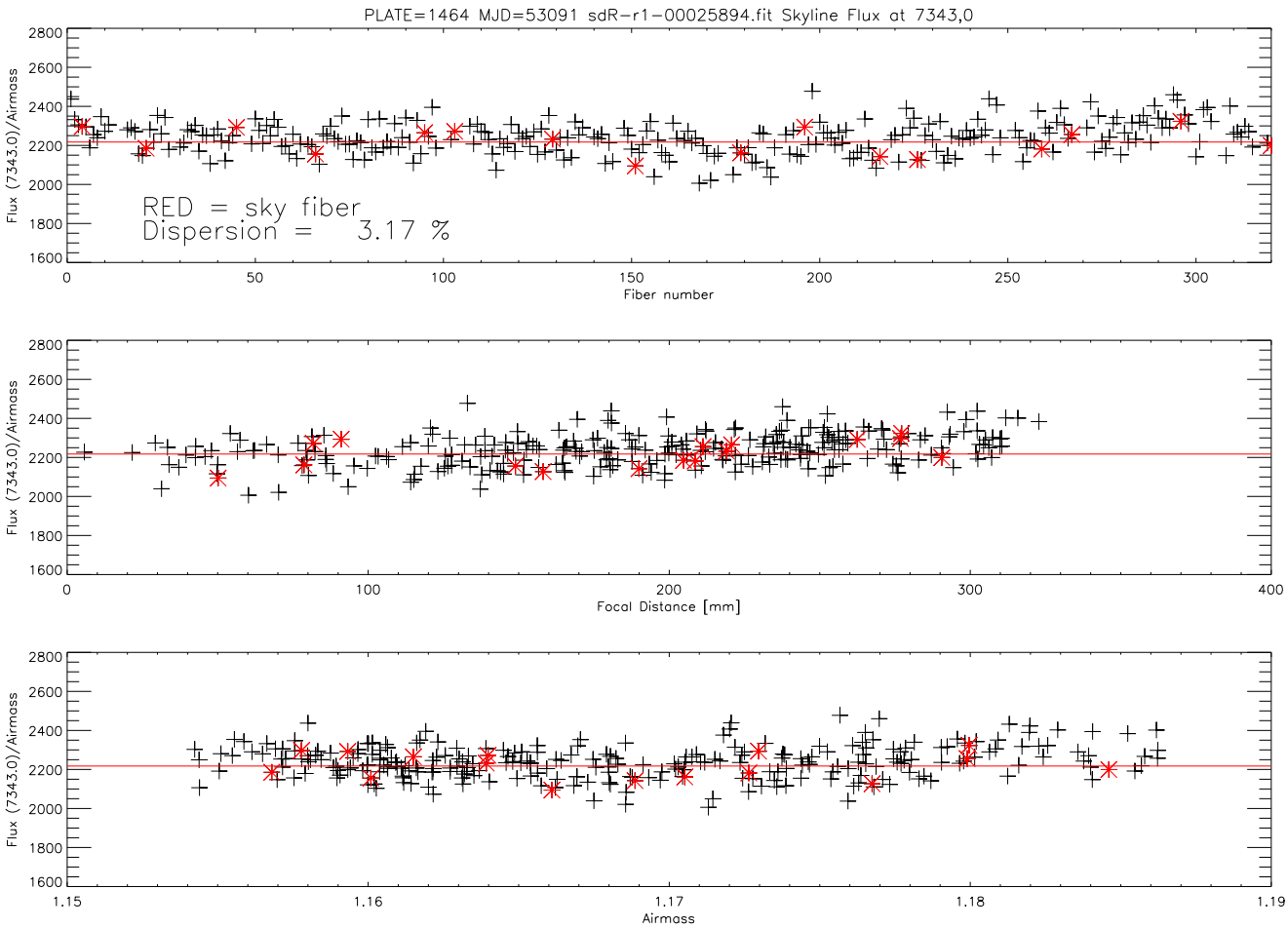

Number of sky fibers = 16
PLATE=1464 MJD=53091 sdR-r1-00025894.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

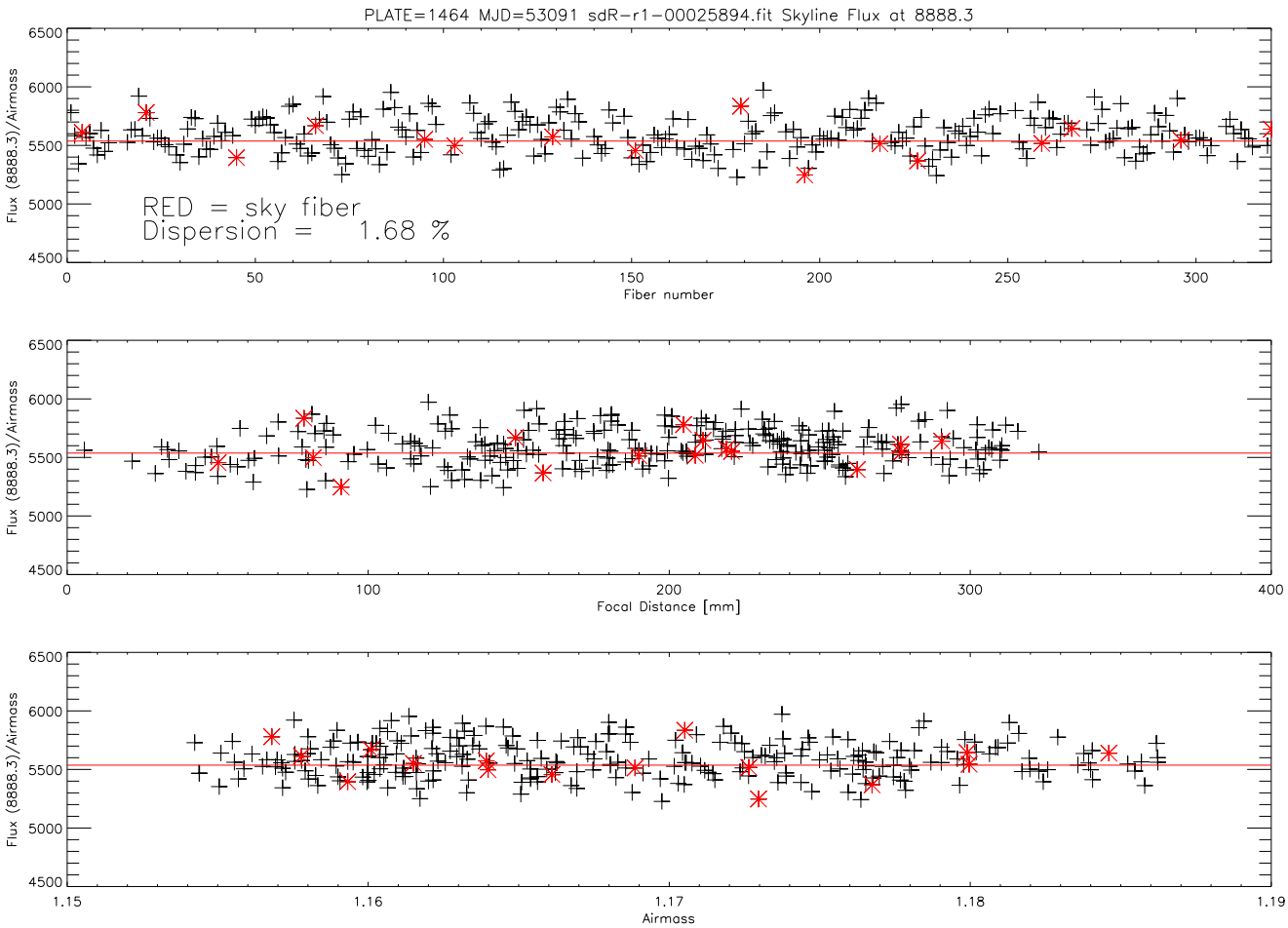

PLATE=1464 MJD=53091 sdR-r1-00025894.fit 2D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

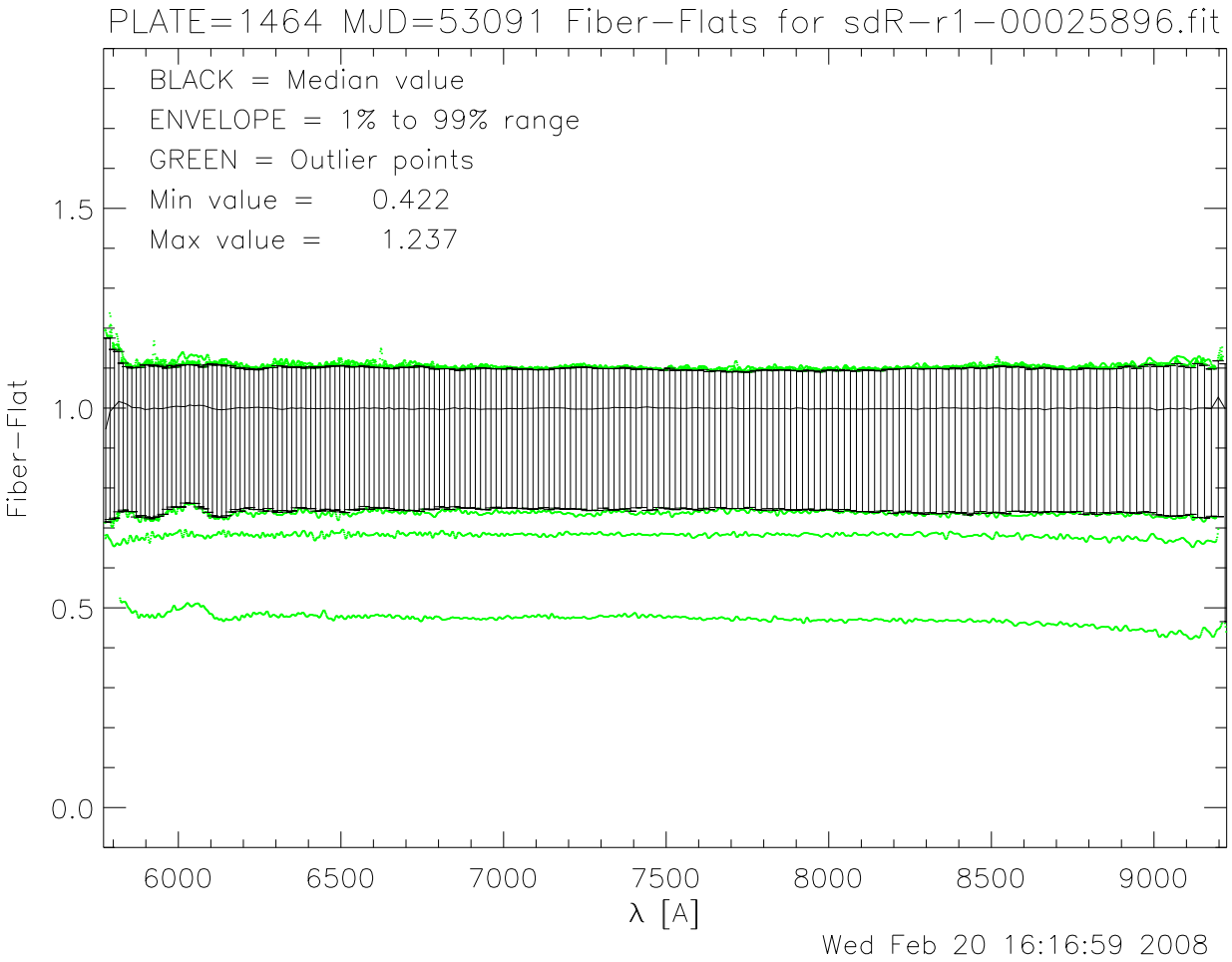

PLATE=1464 MJD=53091 sdR-r1-00025894.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

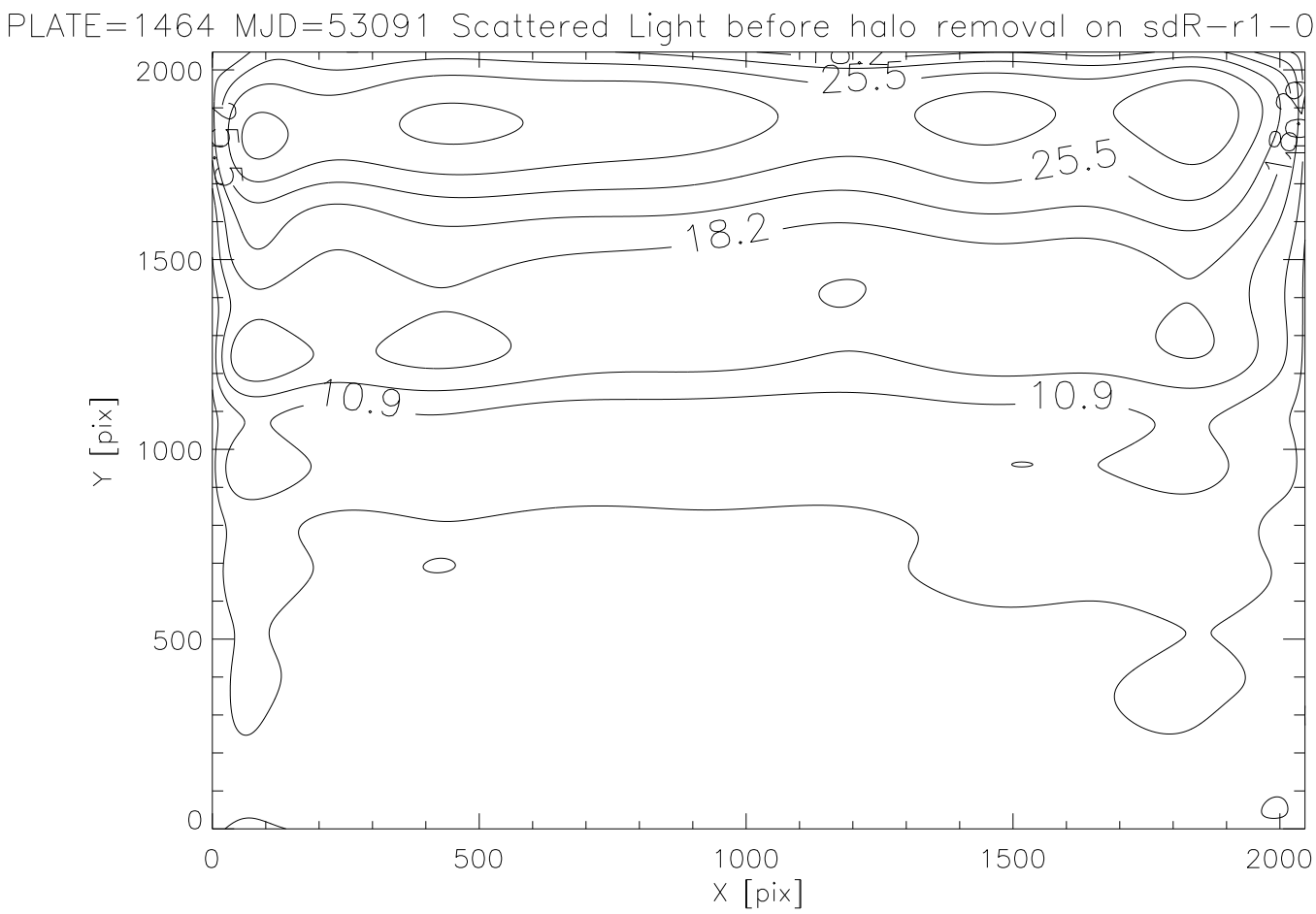

PLATE=1464 MJD=53091 sdR-r1-00025894.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
2000
1500
1000
500
0
-500
8820
8840
8860
8880
8900
λ [A]

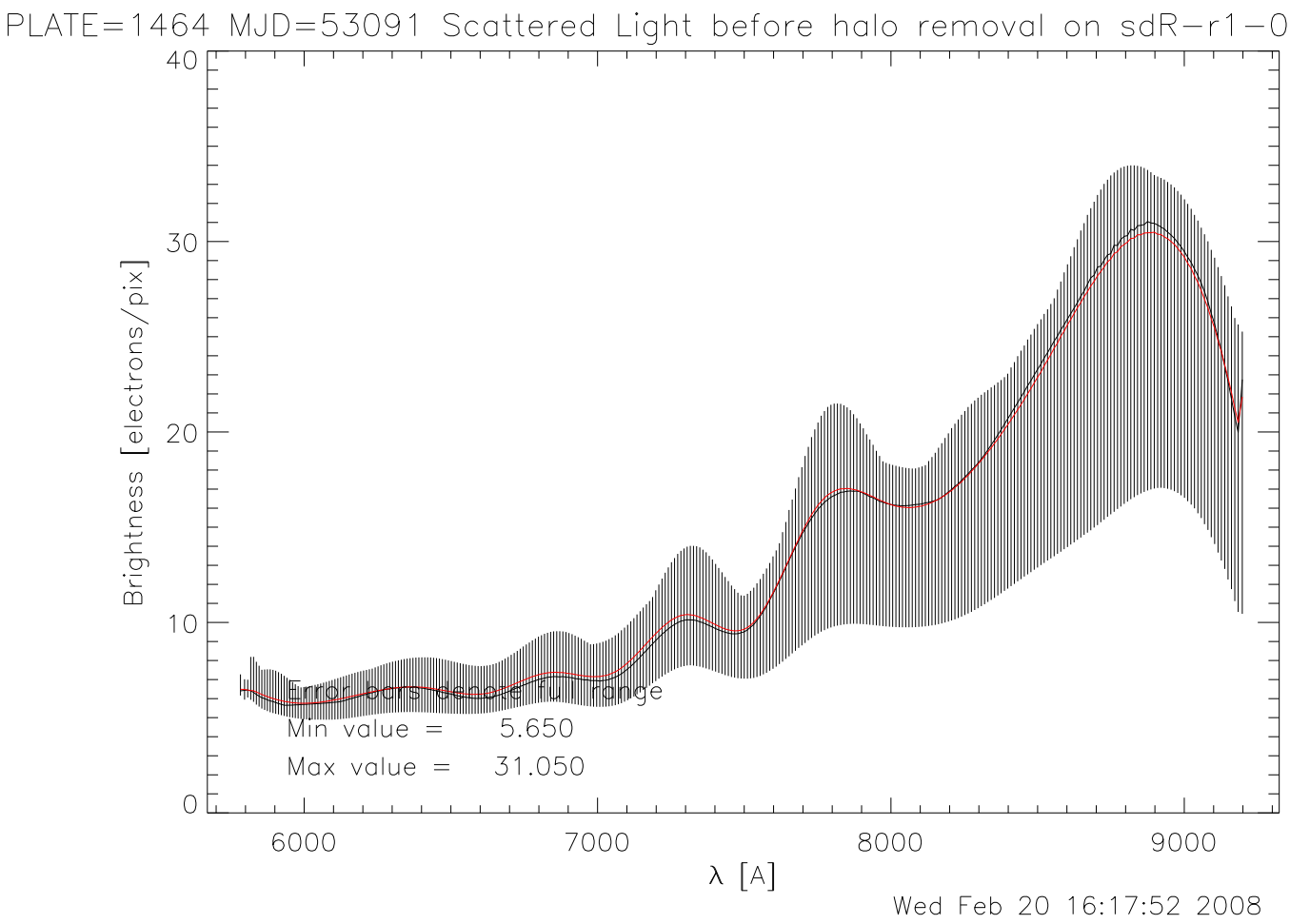

Number of sky fibers = 16
PLATE=1464 MJD=53091 sdR-r1-00025894.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

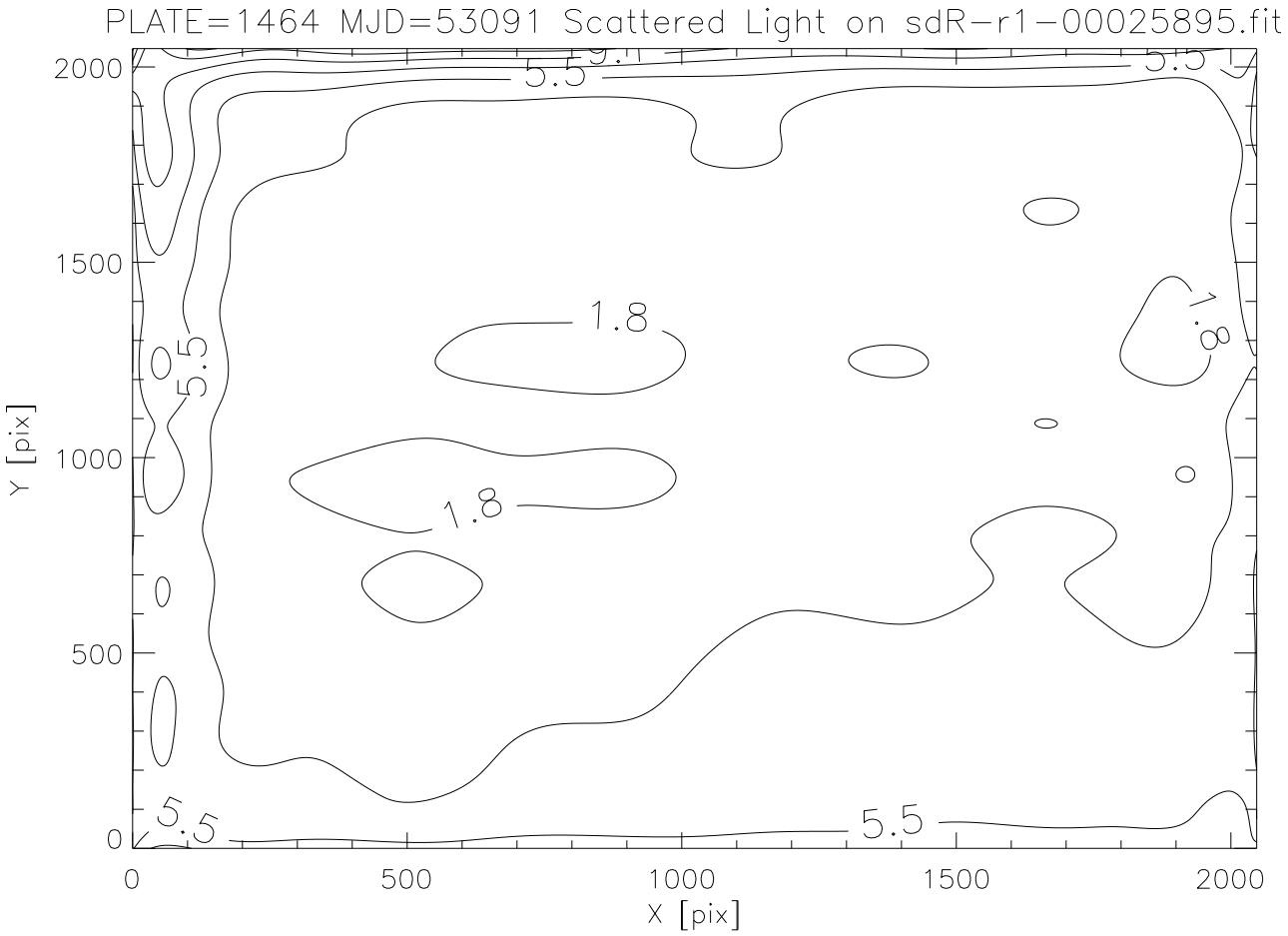

PLATE=1464 MJD=53091 sdR-r1-00025894.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 3.17 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

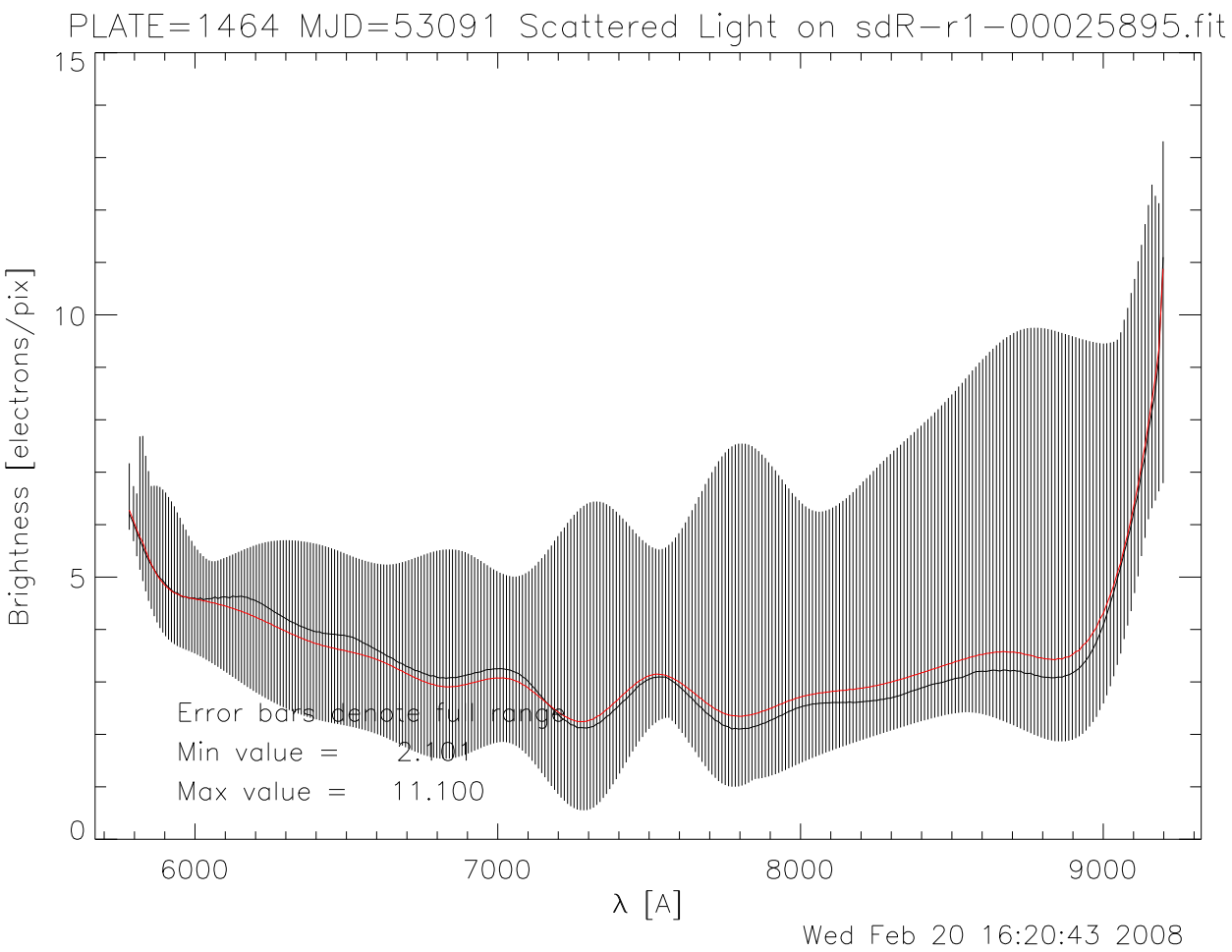

PLATE=1464 MJD=53091 sdR-r1-00025894.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 1.68 %
Fiber number
Focal Distance [mm]
Airmass

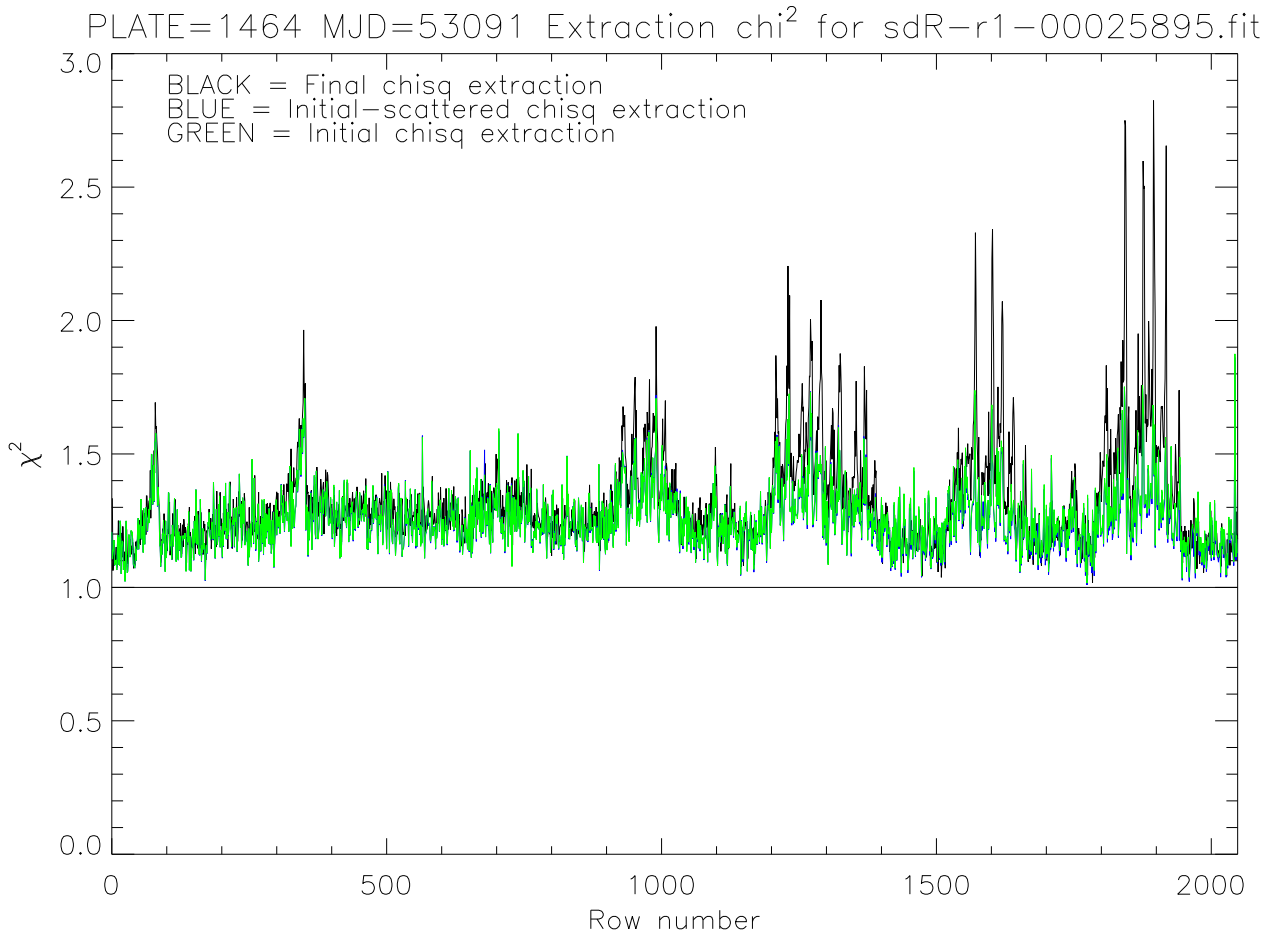

PLATE=1464 MJD=53091 Fiber−Flats for sdR−r1−00025896.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.422
Max value = 1.237
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Wed Feb 20 16:16:59 2008

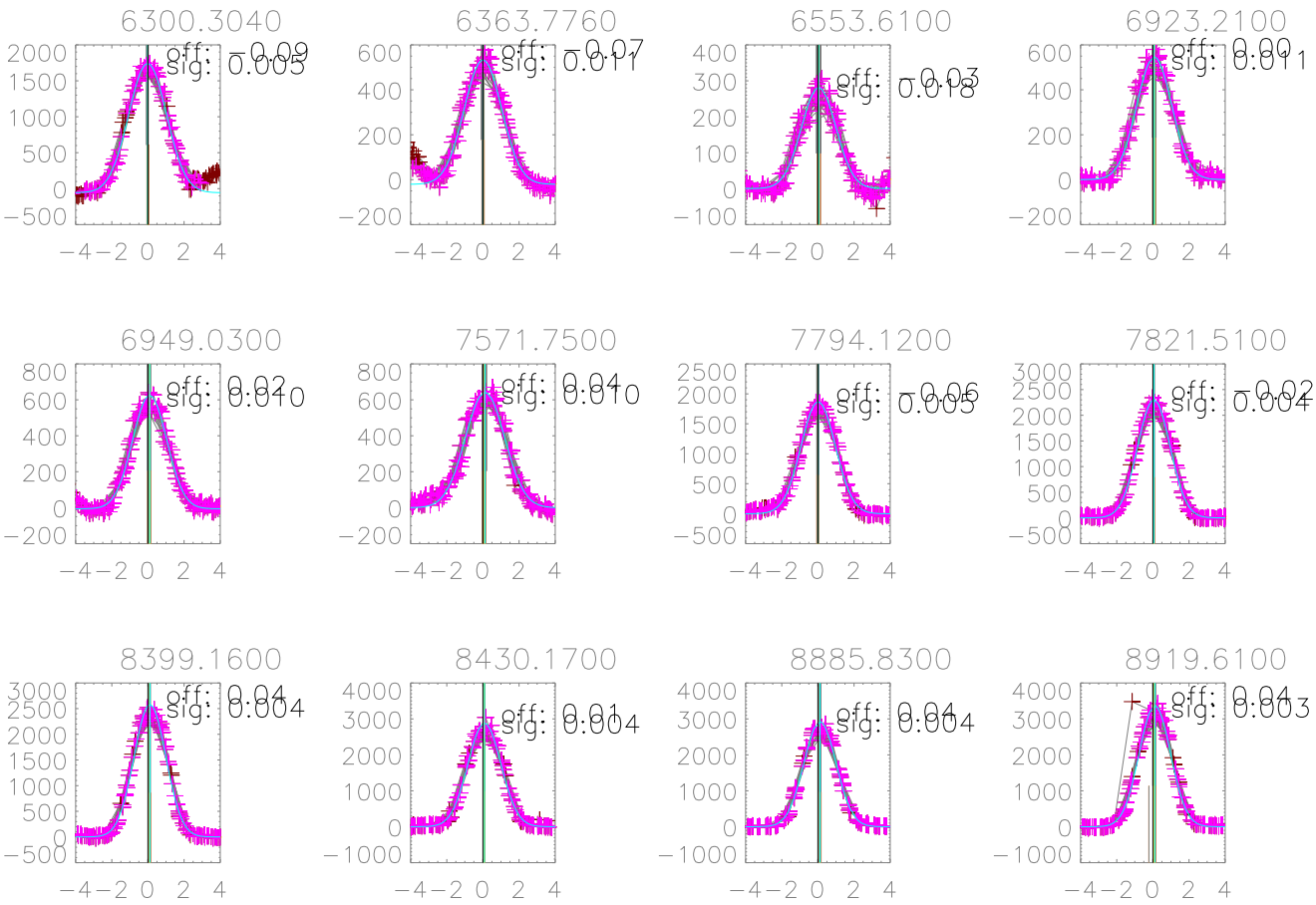

PLATE=1464 MJD=53091 Scattered Light before halo removal on sdR-r1-00025895.fi
25.5
25.5
18.2
10.9
10.9
0
Y [pix]
X [pix]
0
500
1000
1500
2000

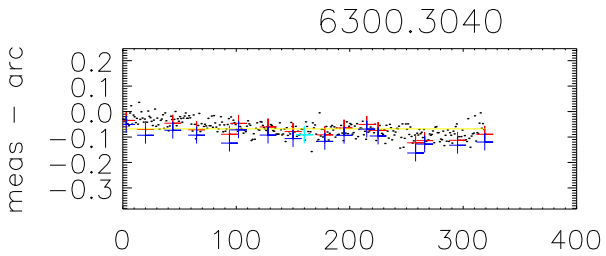

PLATE=1464 MJD=53091 Scattered Light before halo removal on sdR-r1-00025895.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 5.650
Max value = 31.050
Wed Feb 20 16:17:52 2008

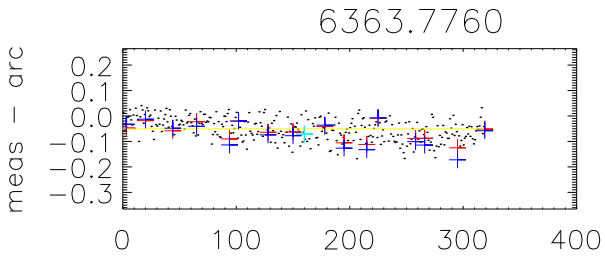

PLATE=1464 MJD=53091 Scattered Light on sdR-r1-00025895.fit
5.5
5.5
1.8
1.8
1.8
0
0
0
5.5
5.5
5.5
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]

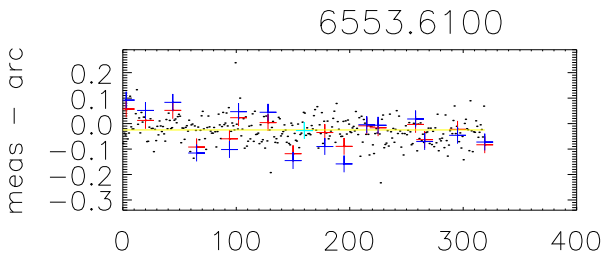

PLATE=1464 MJD=53091 Scattered Light on sdR-r1-00025895.fit
Brightness [electrons/pix]
15
10
5
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 2.101
Max value = 11.100
Wed Feb 20 16:20:43 2008

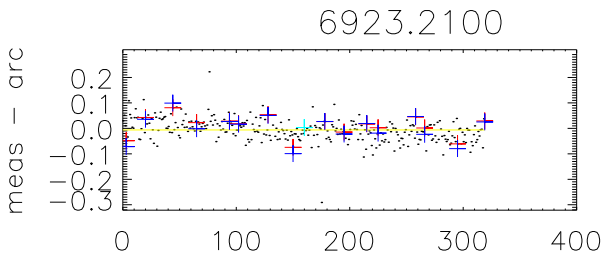

PLATE=1464 MJD=53091 Extraction chi^2 for sdR−r1−00025895.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
500
1000
1500
2000
Row number

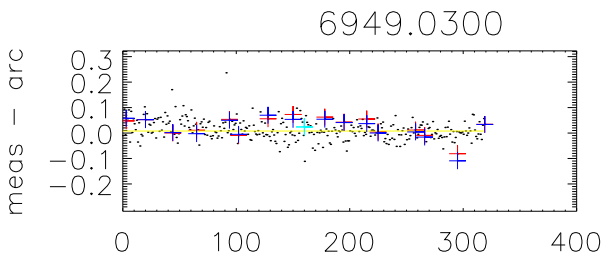

6300.3040
off: −0.09
sig: 0.005
6363.7760
off: −0.07
sig: 0.011
6553.6100
off: −0.03
sig: 0.018
6923.2100
off: 0.00
sig: 0.011
6949.0300
off: 0.02
sig: 0.010
7571.7500
off: 0.04
sig: 0.010
7794.1200
off: −0.06
sig: 0.005
7821.5100
off: −0.02
sig: 0.004
8399.1600
off: 0.04
sig: 0.004
8430.1700
off: 0.01
sig: 0.004
8885.8300
off: 0.04
sig: 0.004
8919.6100
off: 0.04
sig: 0.003

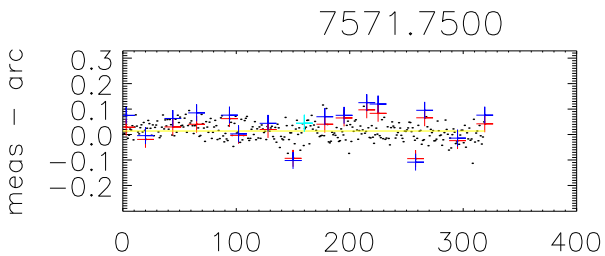

6300.3040
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

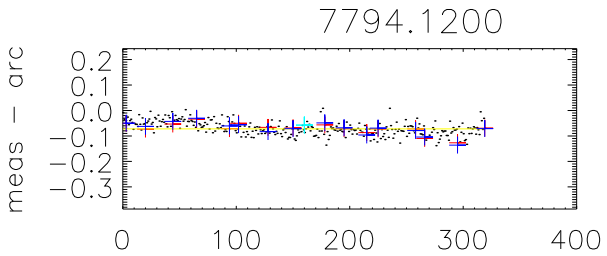

6363.7760
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

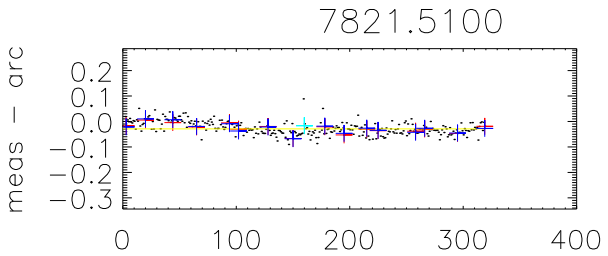

6553.6100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

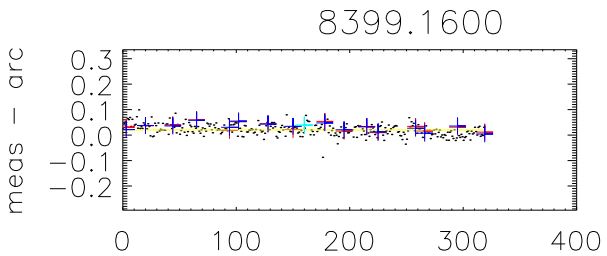

6923.2100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

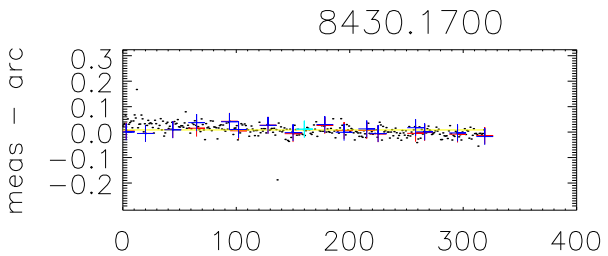

6949.0300
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

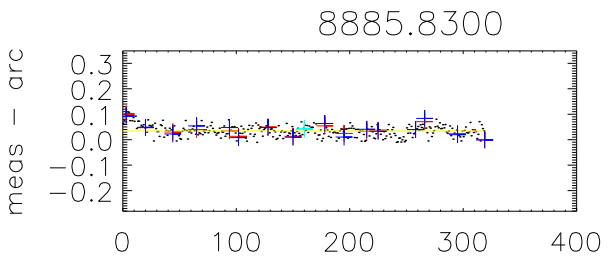

7571.7500
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

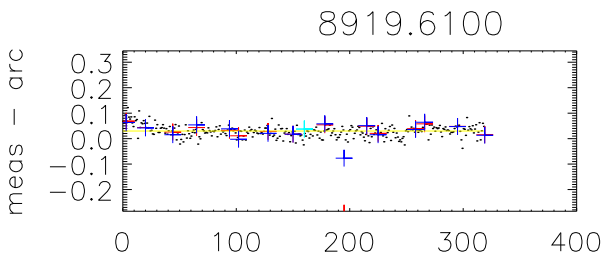

7794.1200
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

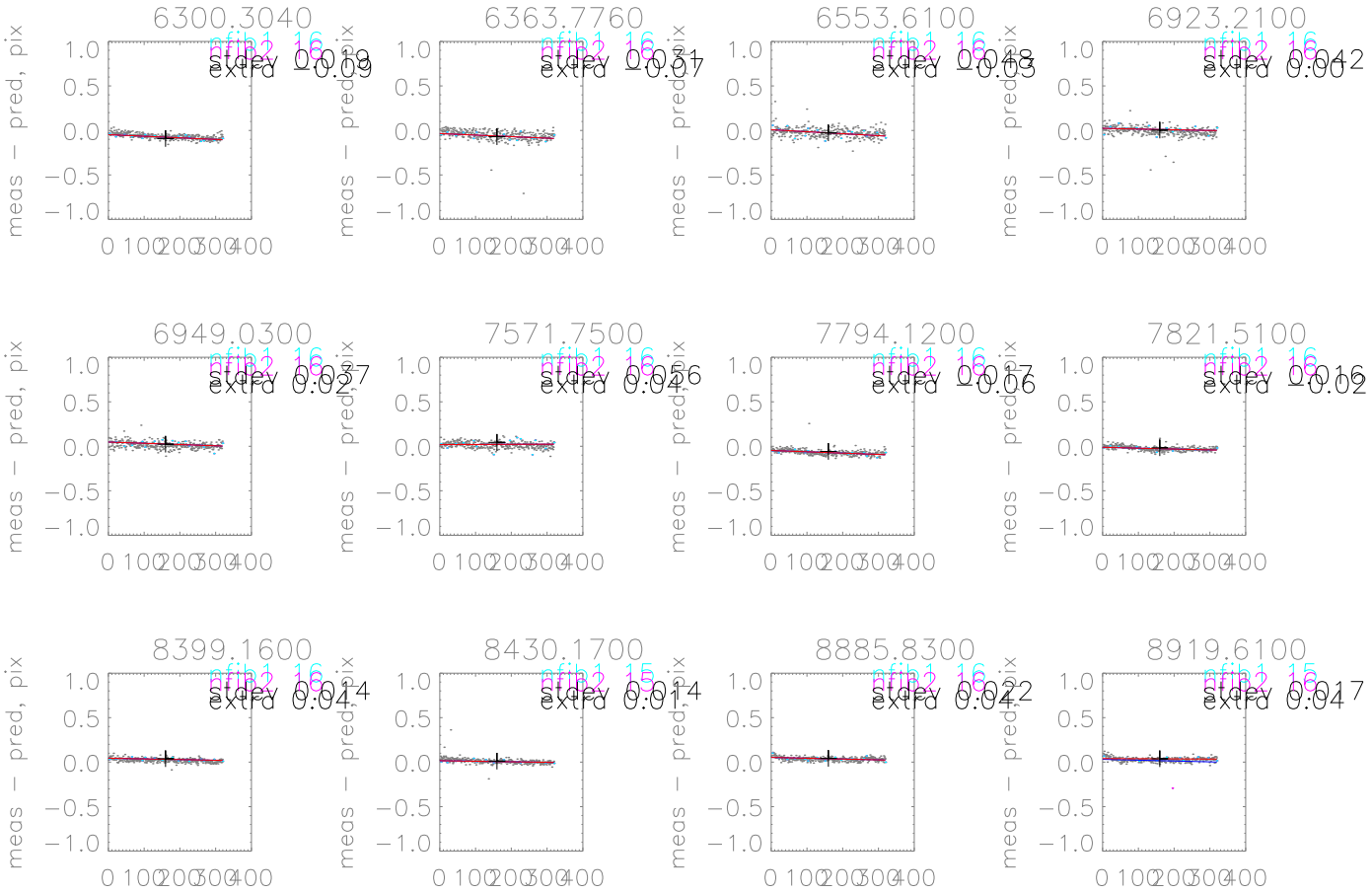

7821.5100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

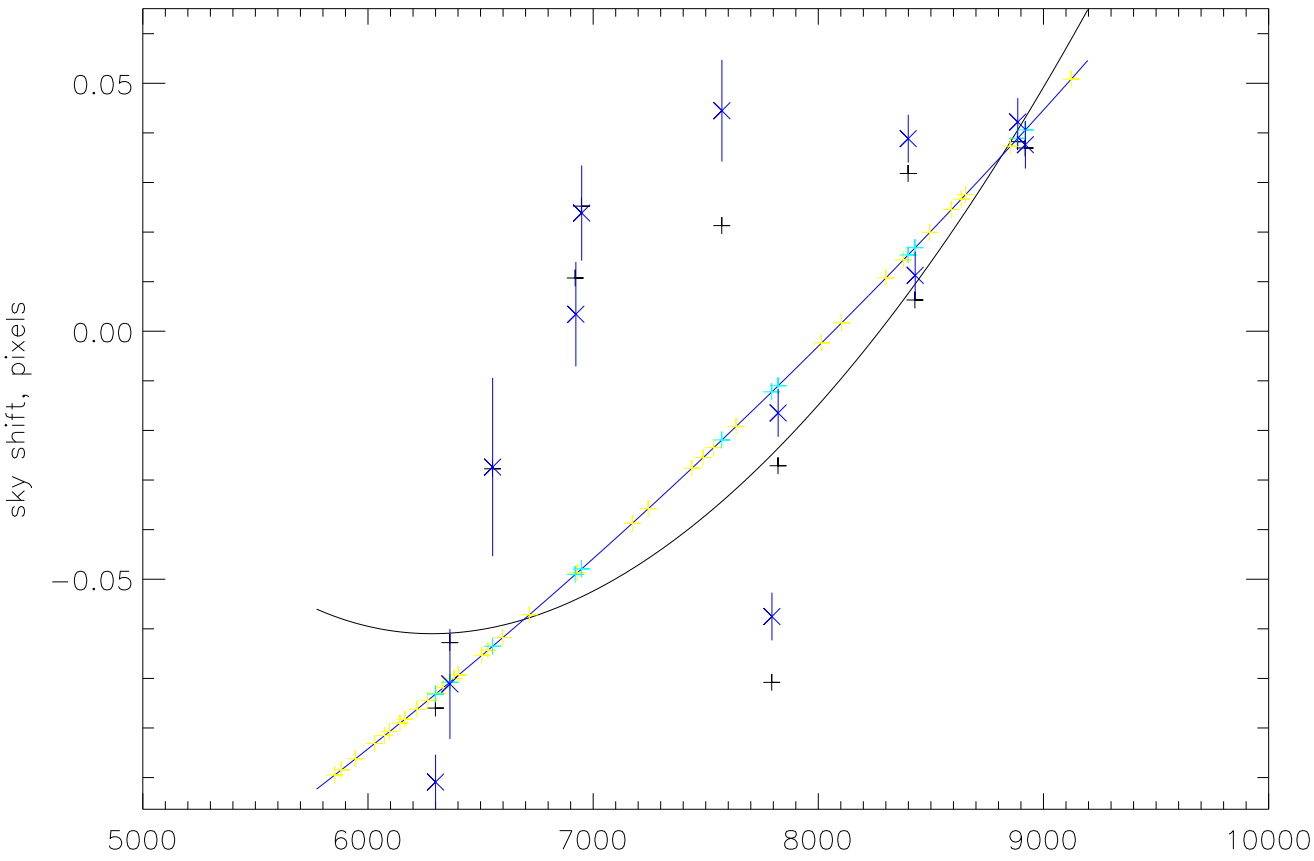

8399.1600
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

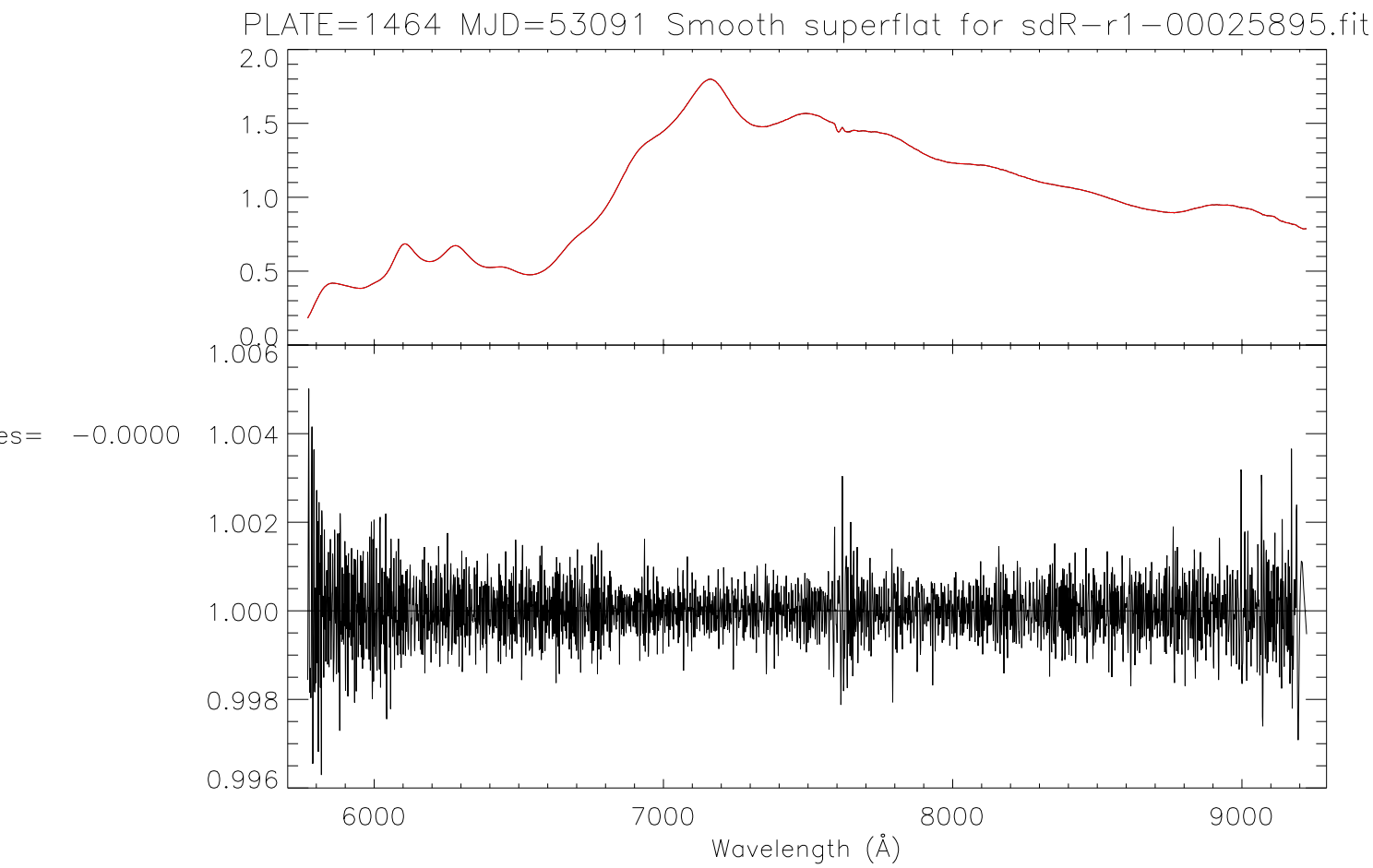

8430.1700
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

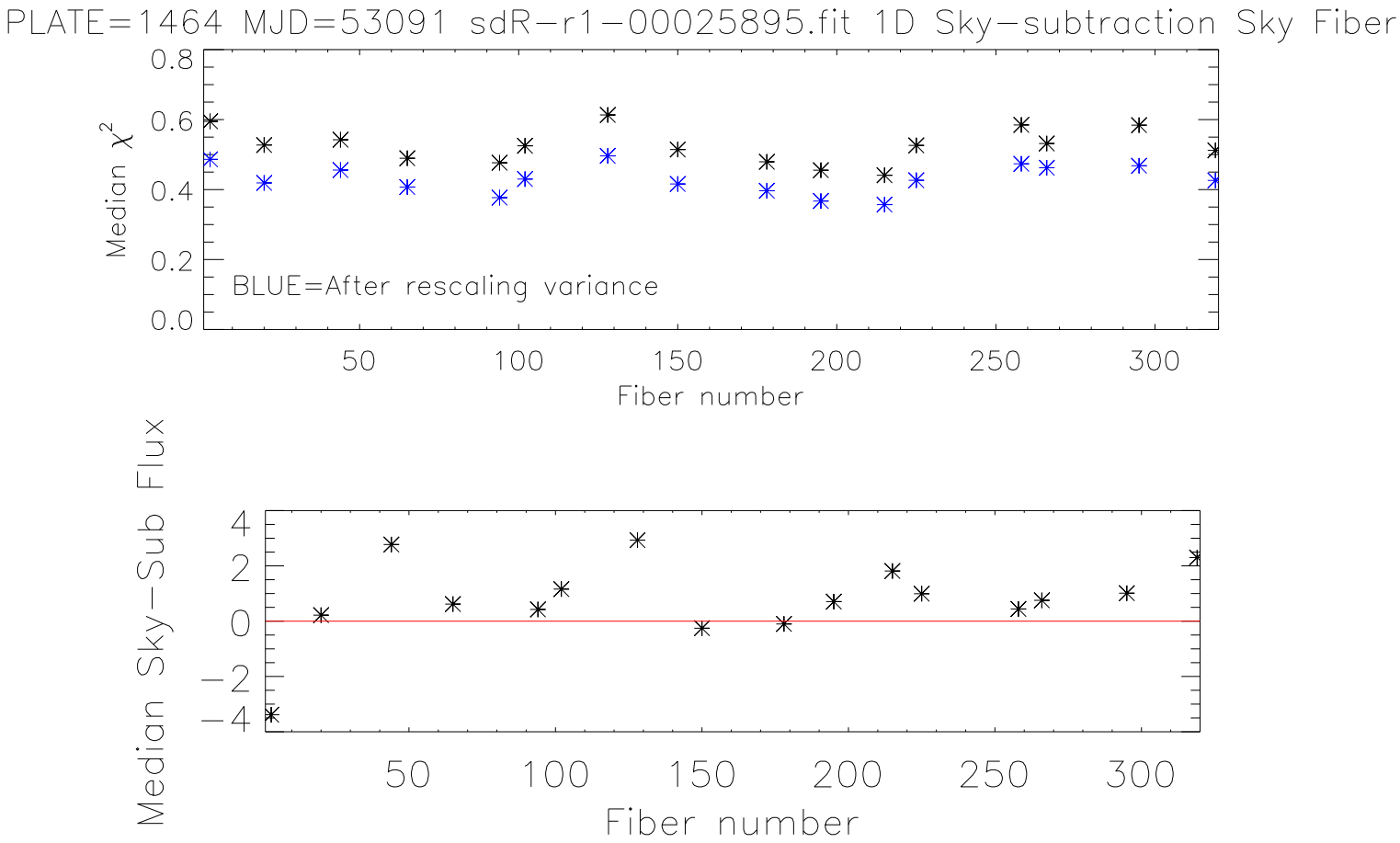

8885.8300
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

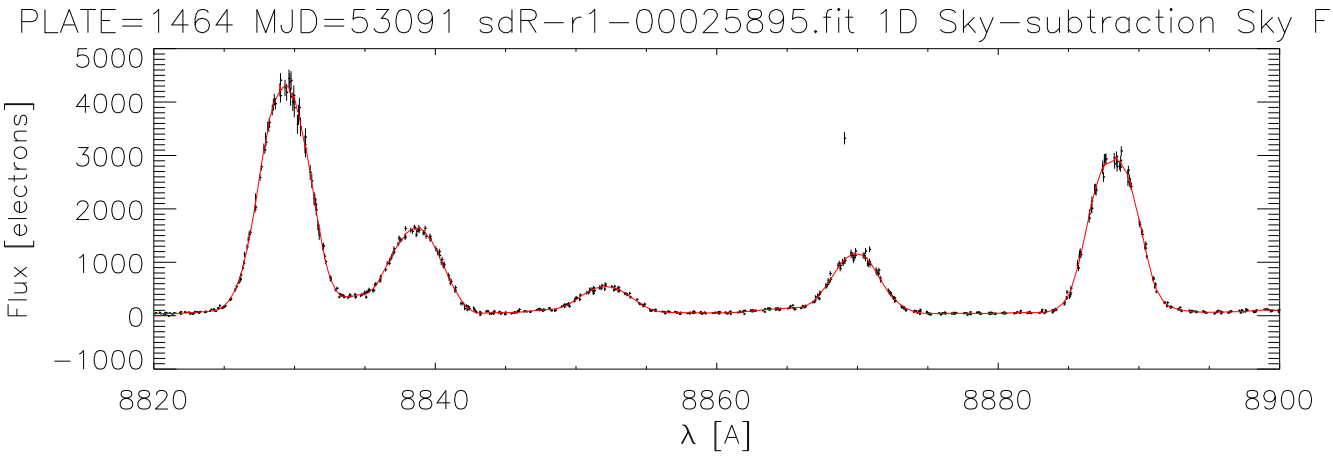

8919.6100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

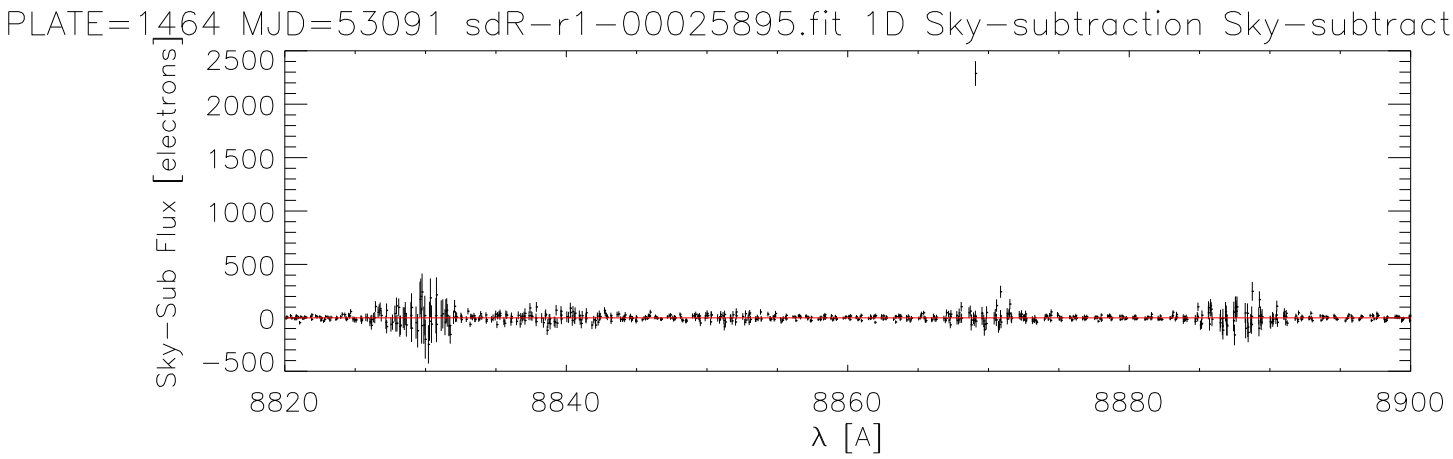

6300.3040
stdev 0.019
extra −0.09
6363.7760
stdev 0.031
extra −0.07
6553.6100
stdev 0.048
extra −0.03
6923.2100
stdev 0.042
extra 0.00
6949.0300
stdev 0.037
extra 0.02
7571.7500
stdev 0.056
extra 0.04
7794.1200
stdev 0.017
extra −0.06
7821.5100
stdev 0.016
extra −0.02
8399.1600
stdev 0.014
extra 0.04
8430.1700
stdev 0.014
extra 0.01
8885.8300
stdev 0.022
extra 0.04
8919.6100
stdev 0.017
extra 0.04
meas − pred, pix

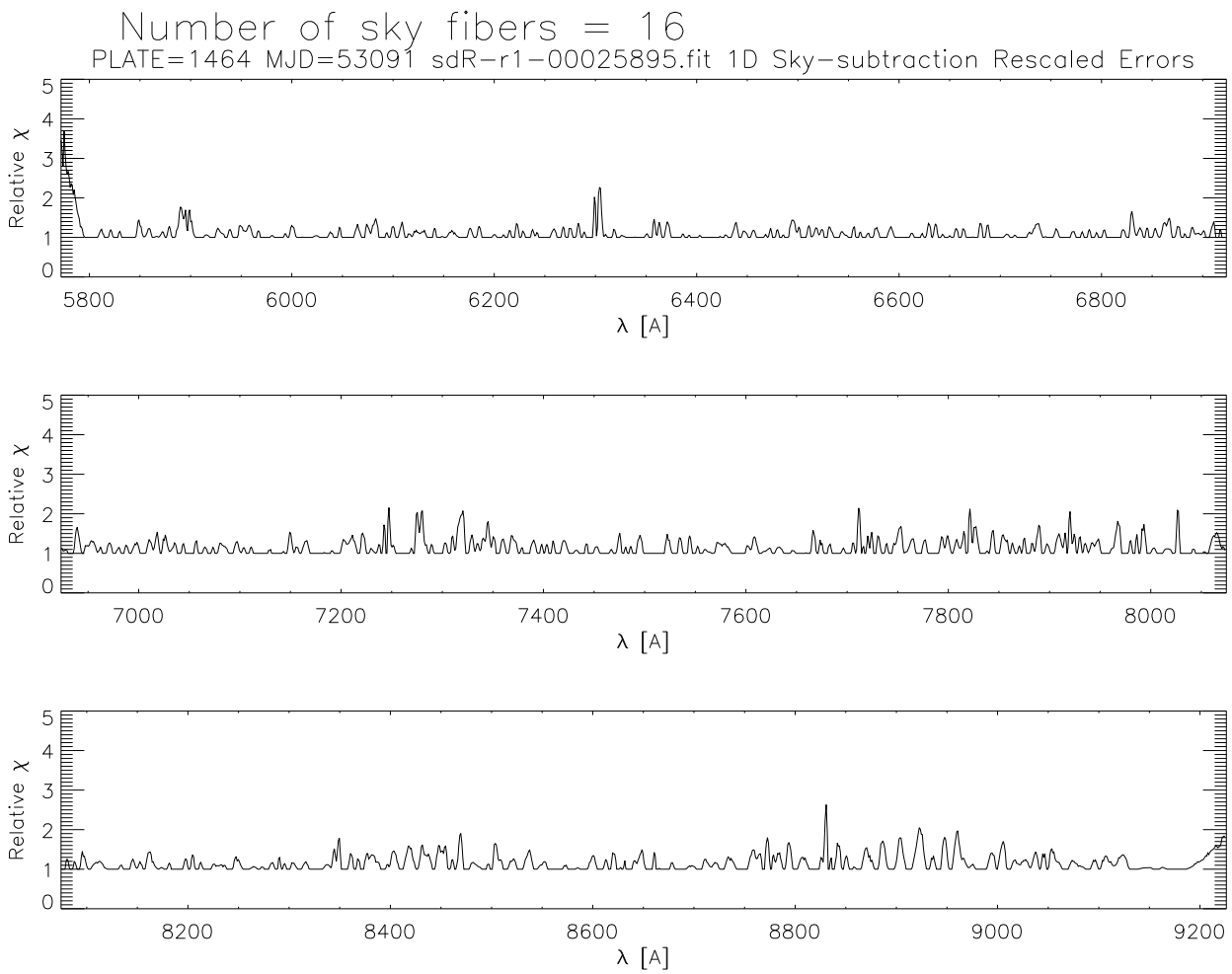

0.05
0.00
−0.05
sky shift, pixels
5000
6000
7000
8000
9000
10000

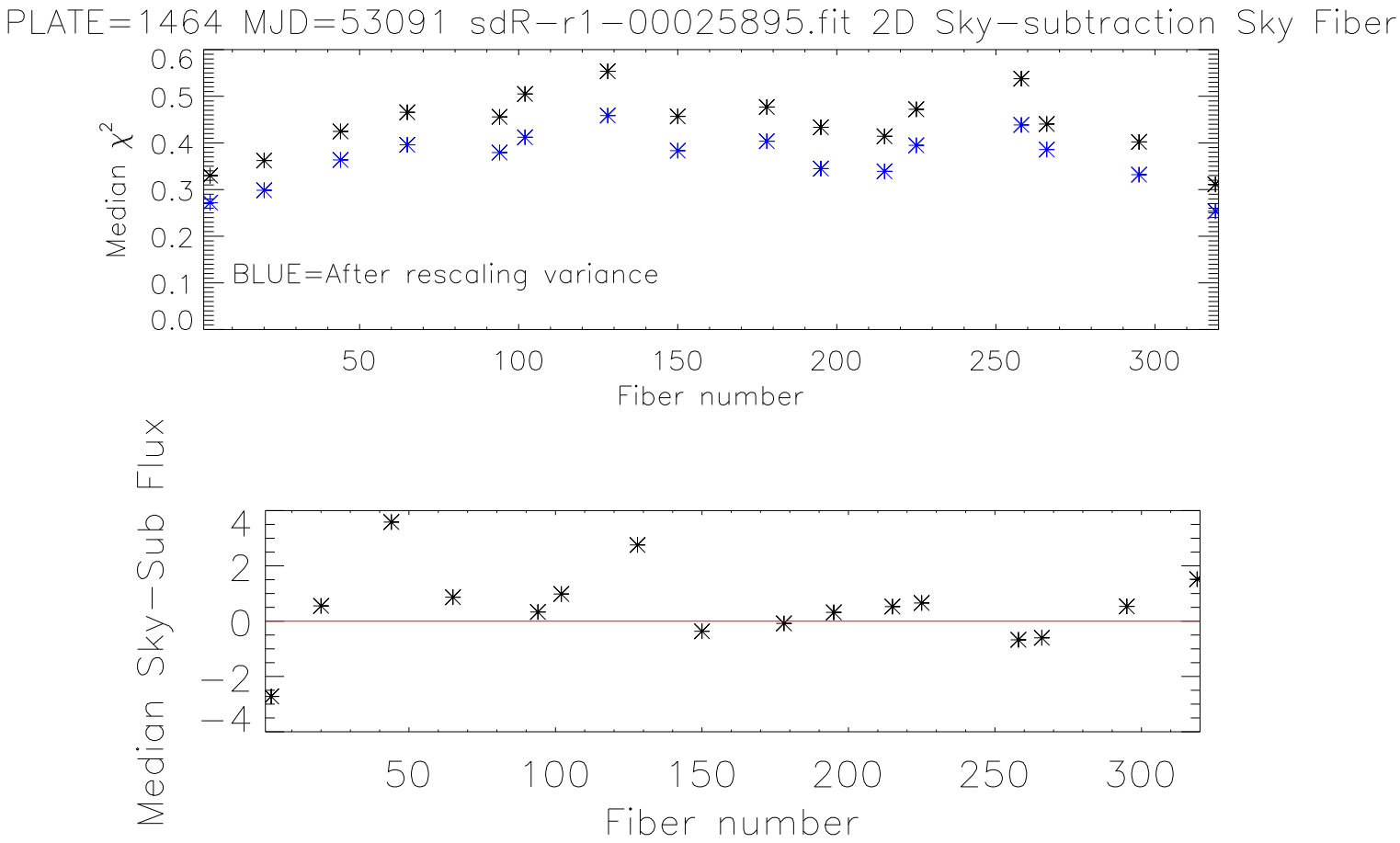

PLATE=1464 MJD=53091 Smooth superflat for sdR-r1-00025895.fit
2.0
1.5
1.0
0.5
0.0
es= −0.0000
1.006
1.004
1.002
1.000
0.998
0.996
6000
7000
8000
9000
Wavelength (Å)

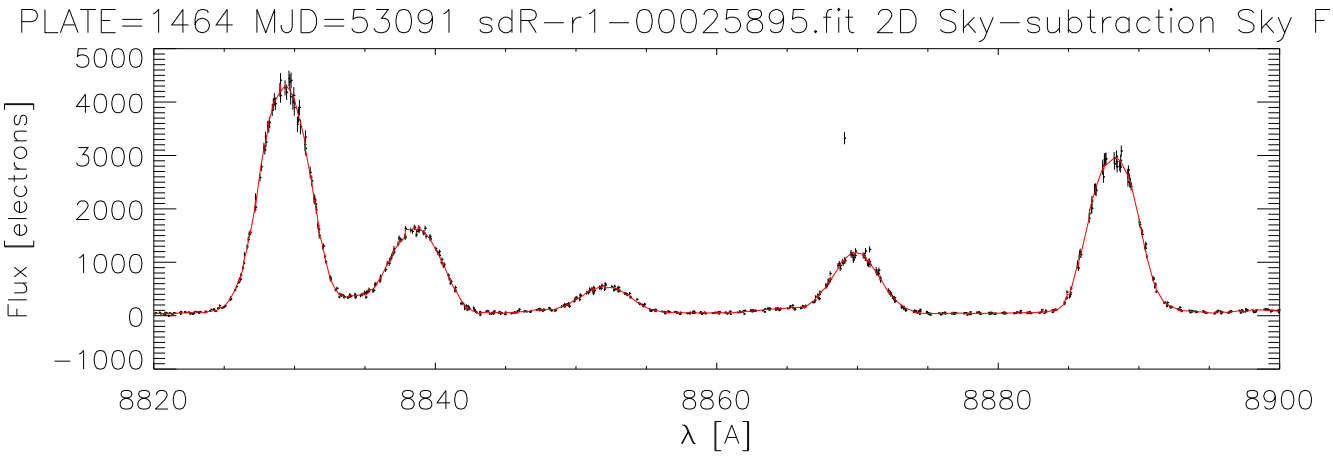

PLATE=1464 MJD=53091 sdR-r1-00025895.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-4
-2
0
2
4
50
100
150
200
250
300
Fiber number

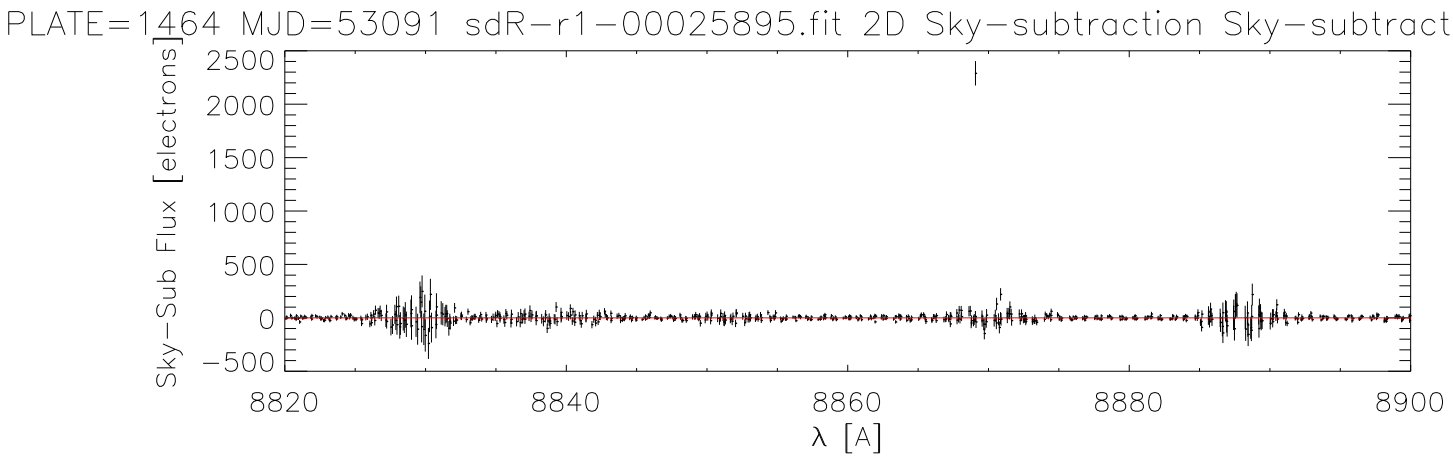

PLATE=1464 MJD=53091 sdR-r1-00025895.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
−1000
8820
8840
8860
8880
8900
λ [A]

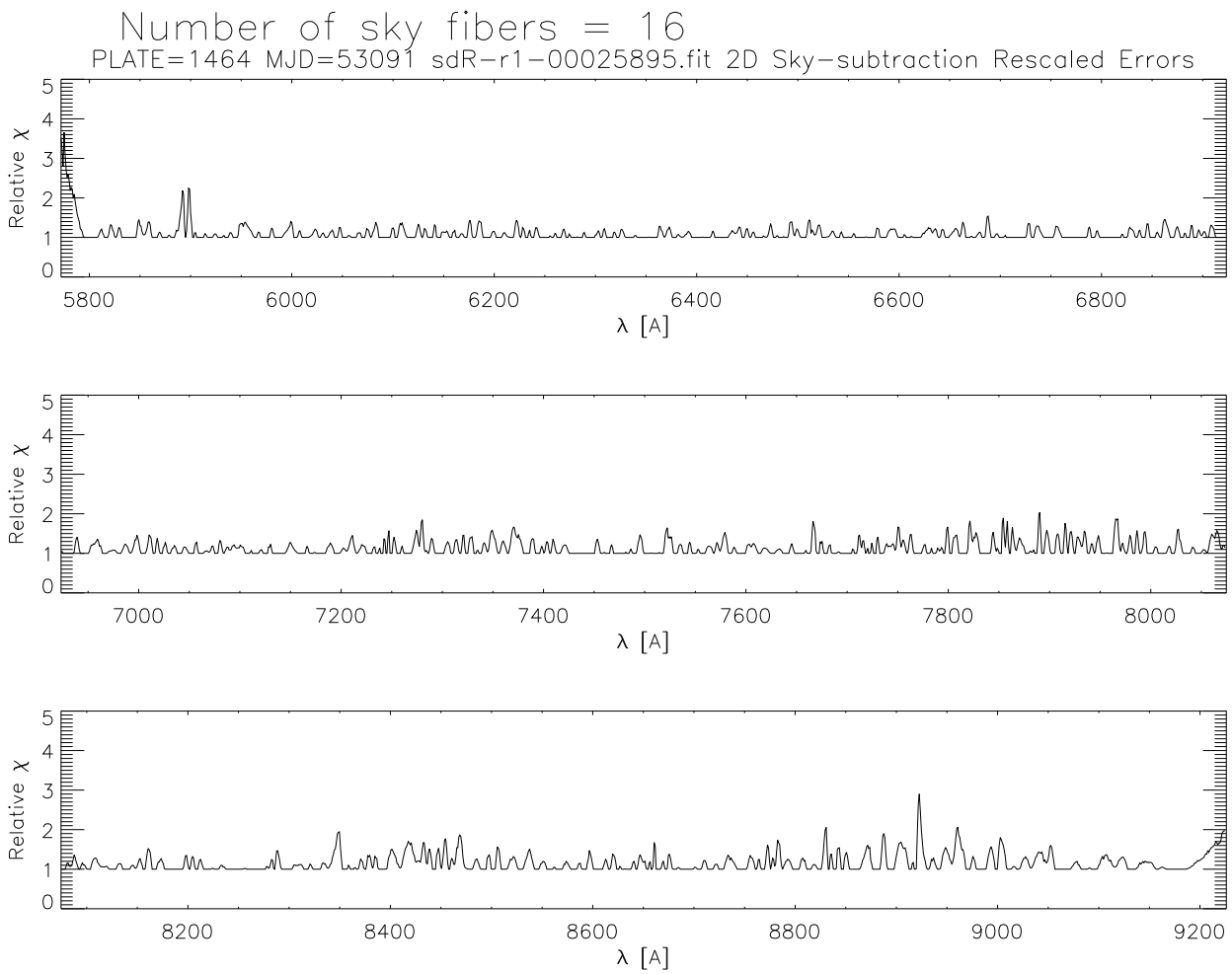

PLATE=1464 MJD=53091 sdR-r1-00025895.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
2500
2000
1500
1000
500
0
−500
8820
8840
8860
8880
8900
λ [A]

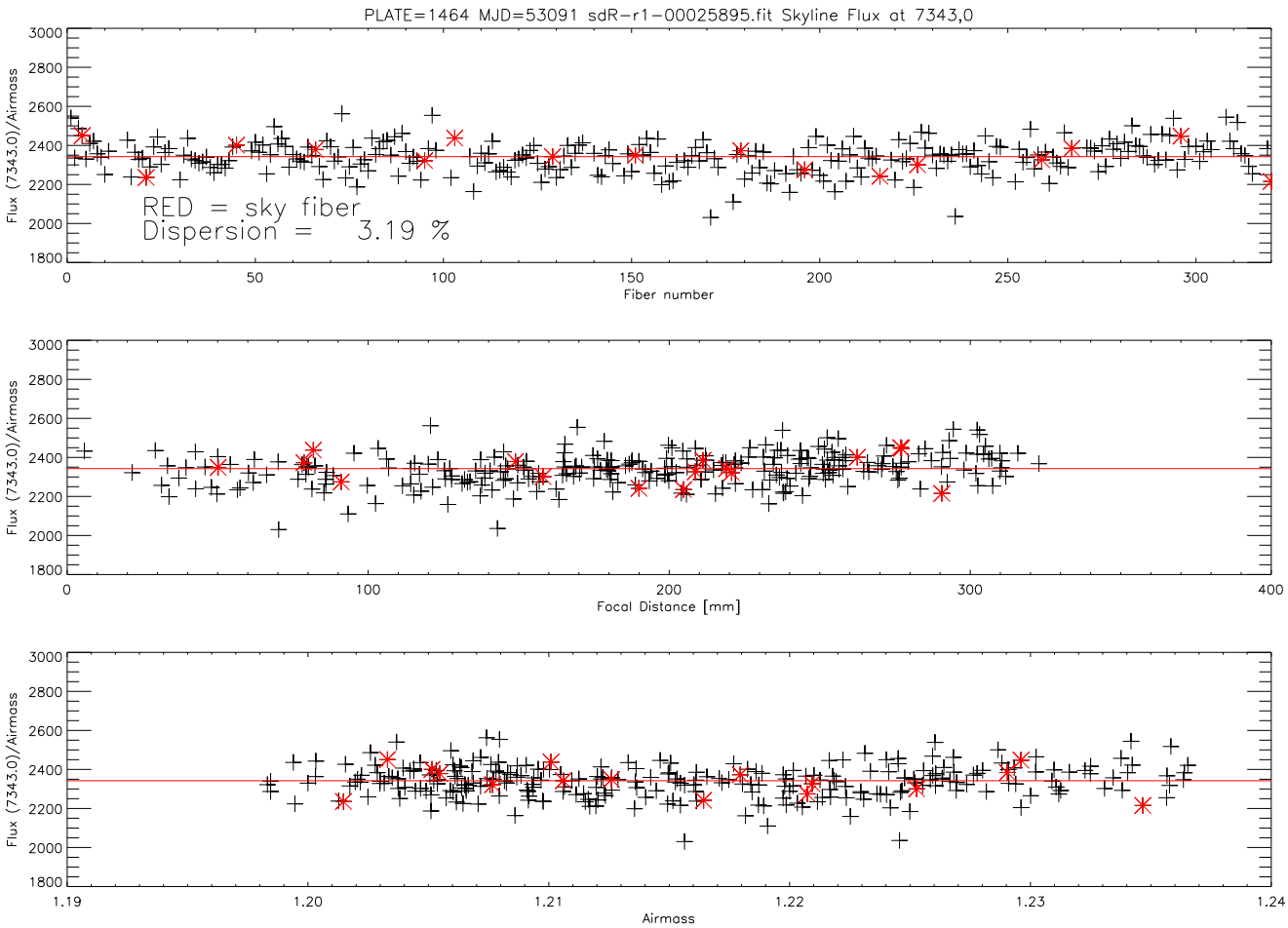

Number of sky fibers = 16
PLATE=1464 MJD=53091 sdR-r1-00025895.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

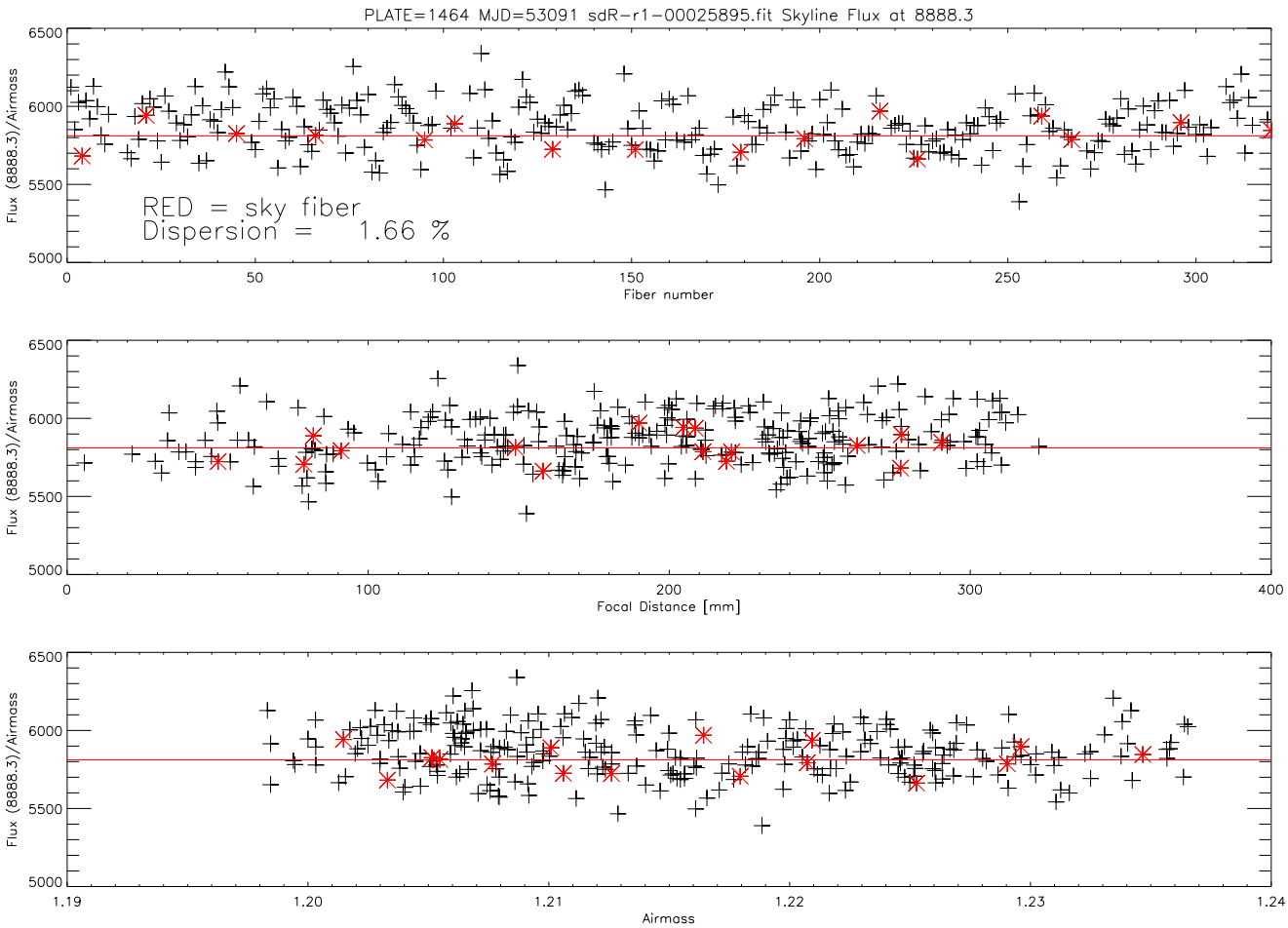

PLATE=1464 MJD=53091 sdR-r1-00025895.fit 2D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-4
-2
0
2
4
50
100
150
200
250
300
Fiber number

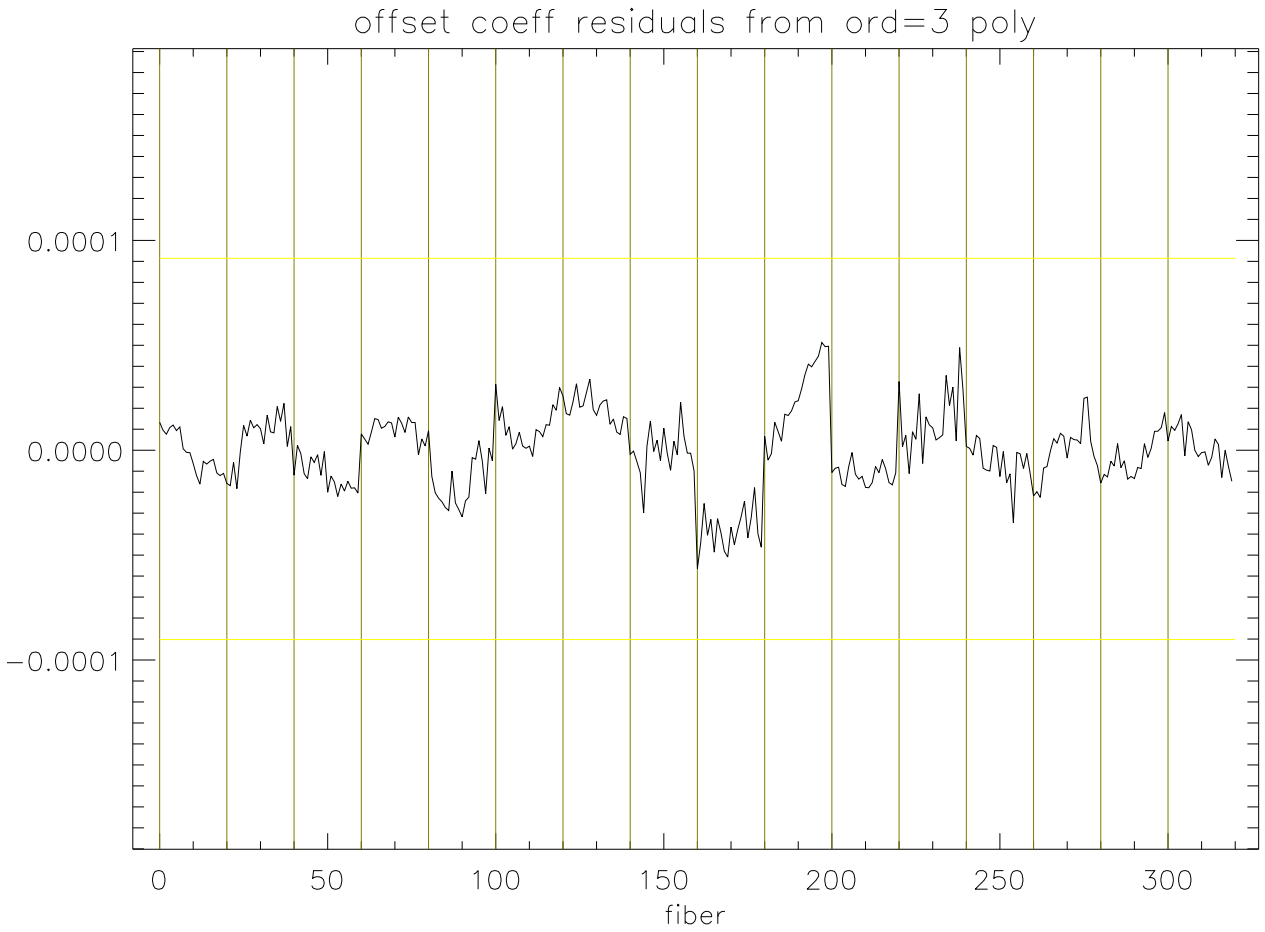

PLATE=1464 MJD=53091 sdR-r1-00025895.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
-1000
8820
8840
8860
8880
8900
λ [A]

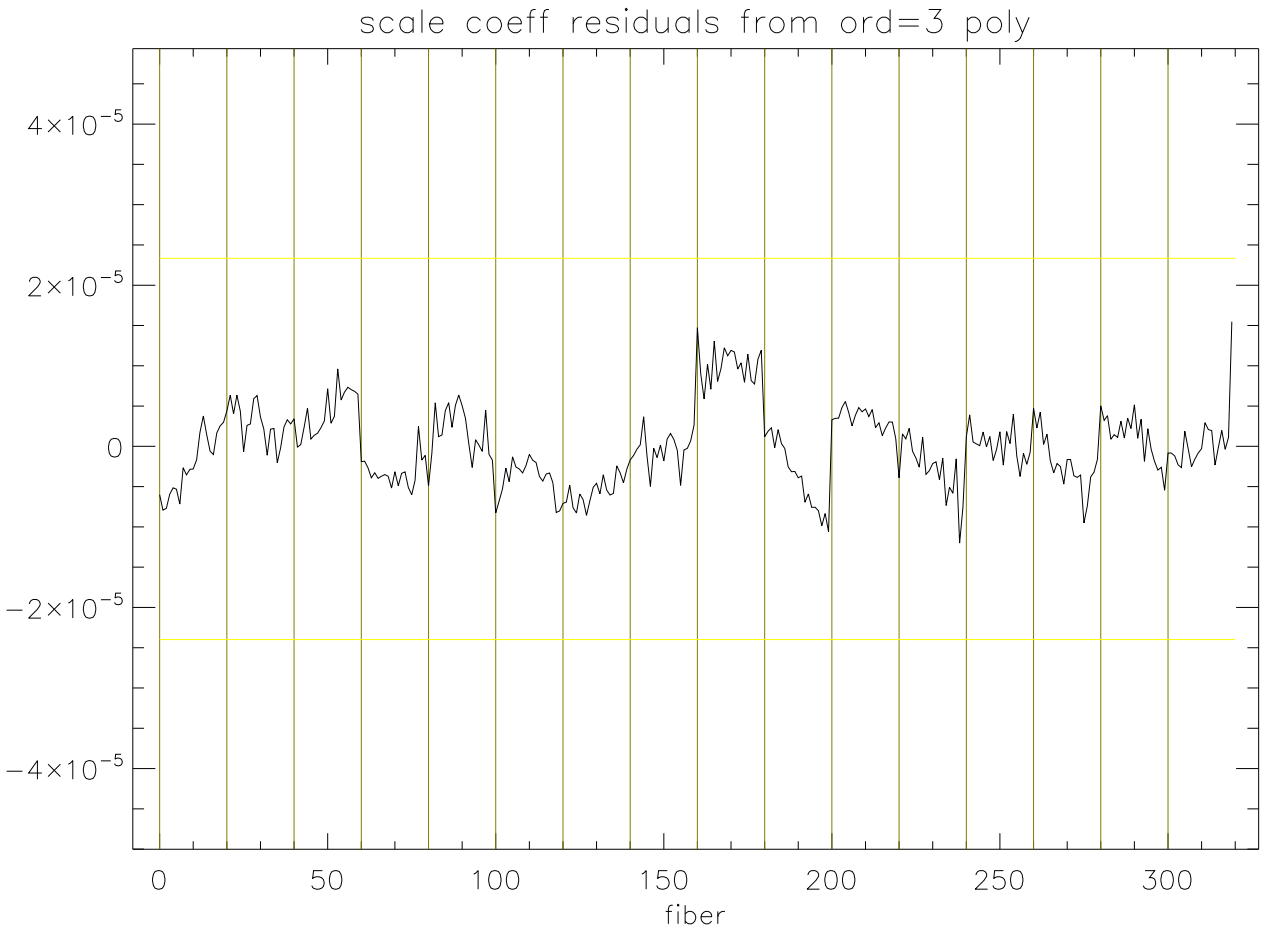

PLATE=1464 MJD=53091 sdR-r1-00025895.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
2500
2000
1500
1000
500
0
-500
8820
8840
8860
8880
8900
λ [A]

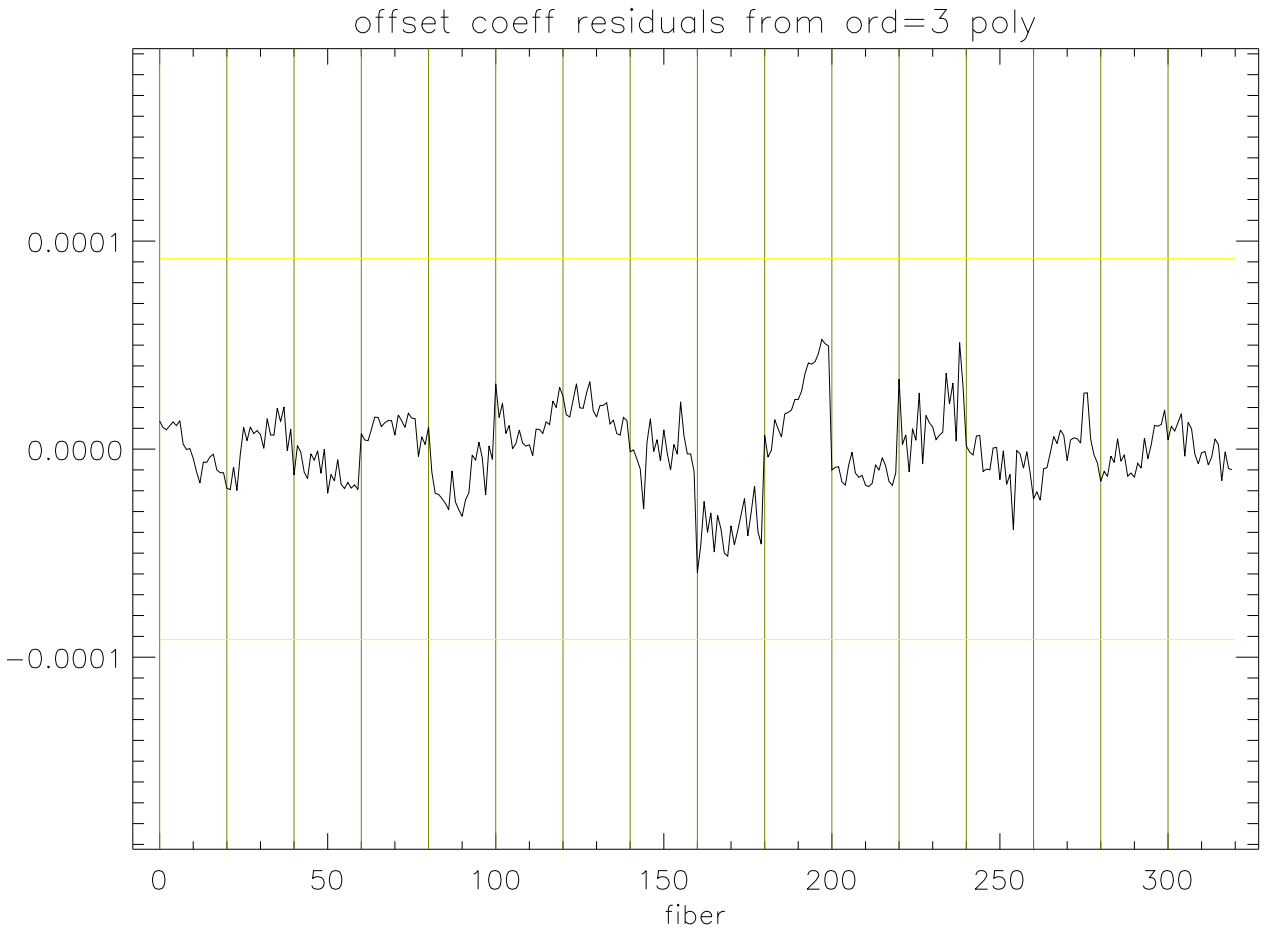

Number of sky fibers = 16
PLATE=1464 MJD=53091 sdR-r1-00025895.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

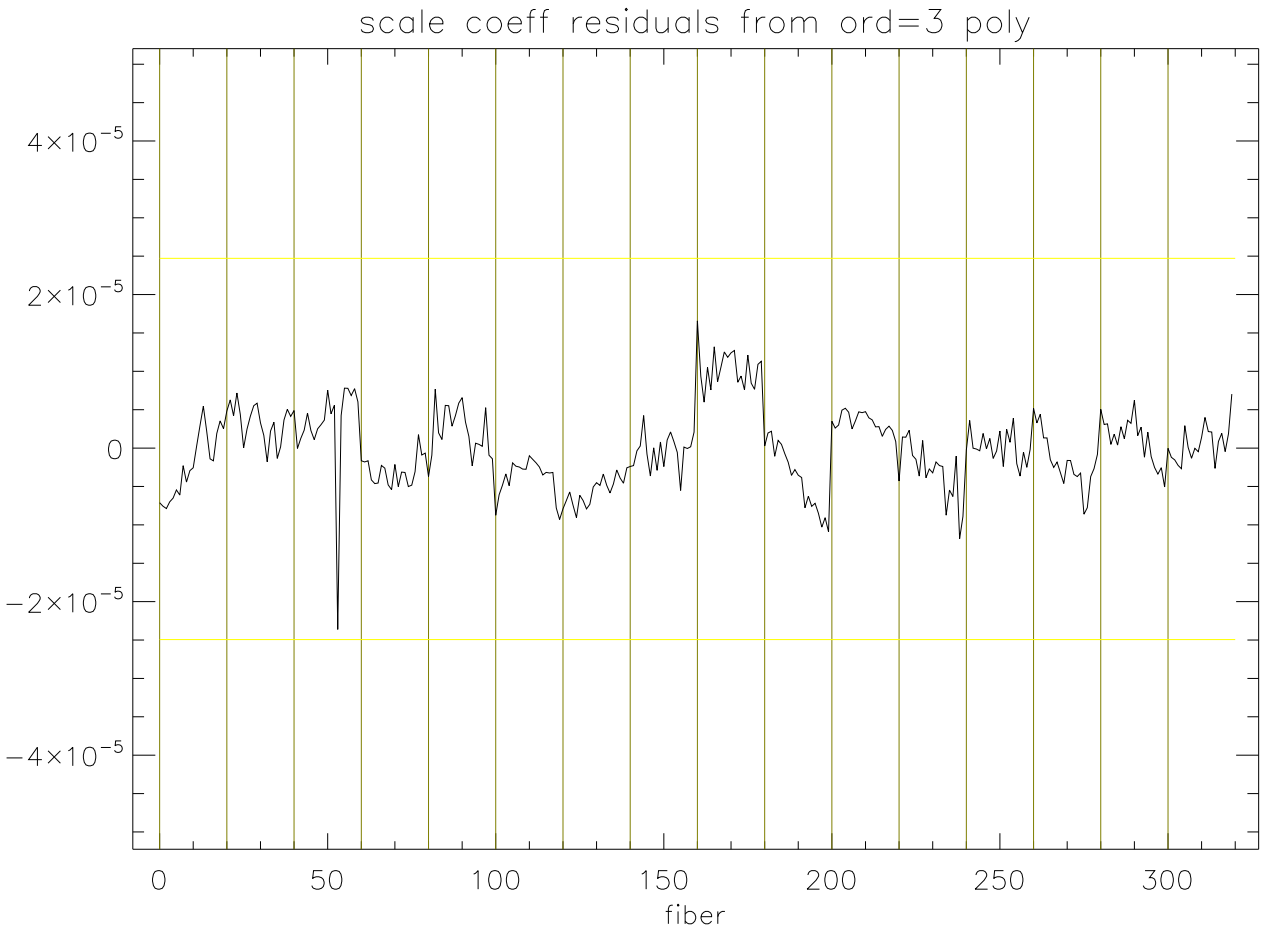

PLATE=1464 MJD=53091 sdR-r1-00025895.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 3.19 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

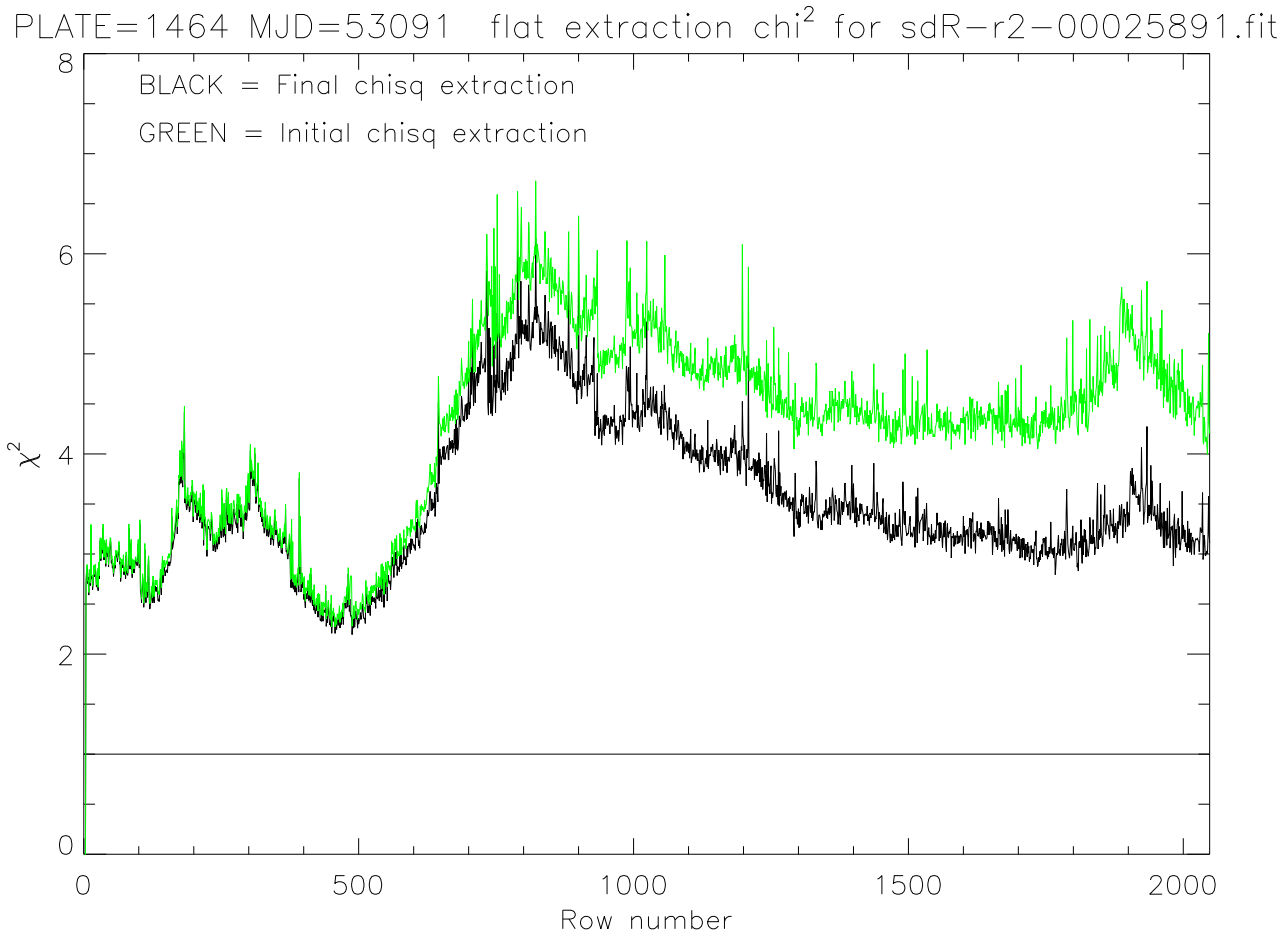

PLATE=1464 MJD=53091 sdR-r1-00025895.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 1.66 %
Fiber number
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass

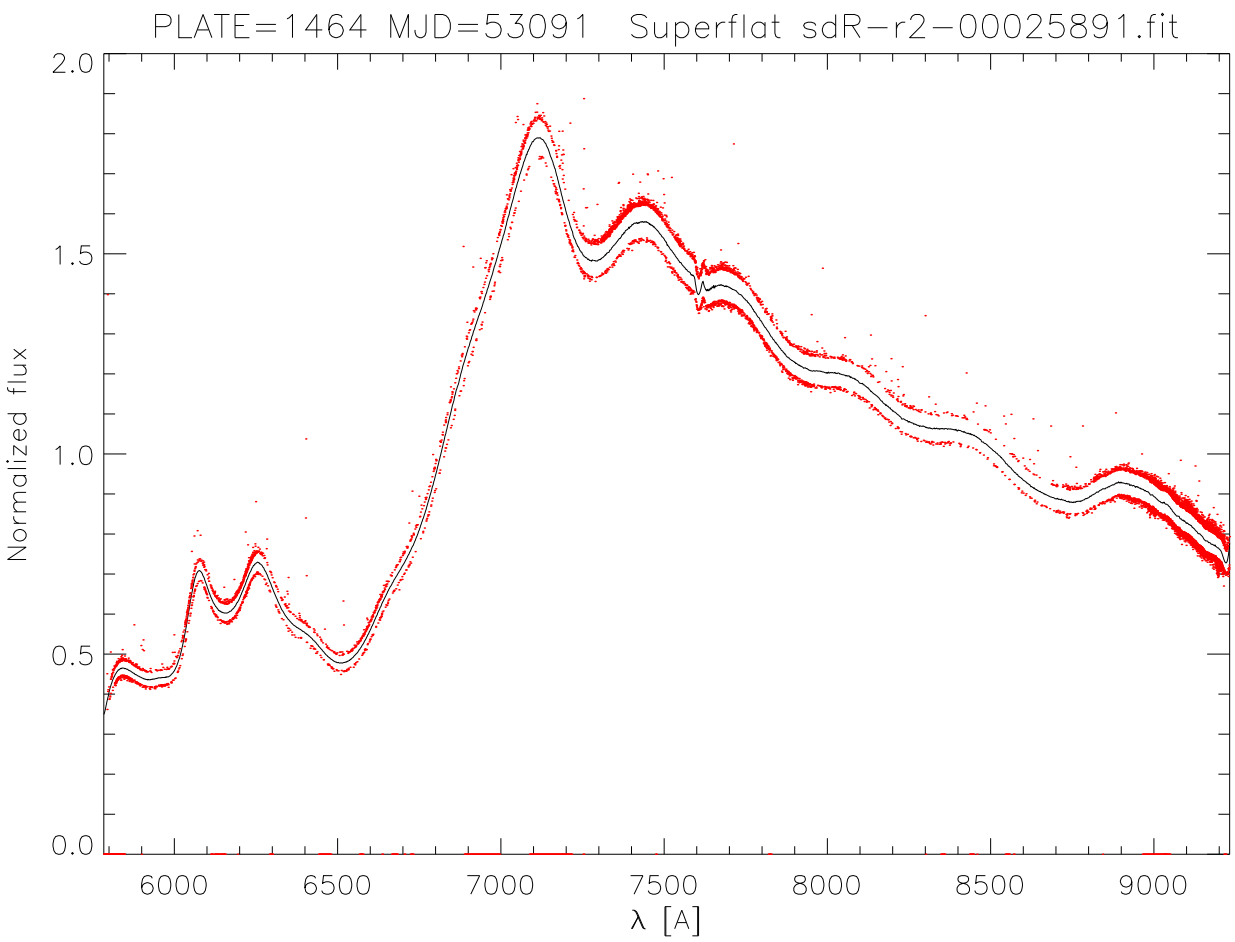

offset coeff residuals from ord=3 poly
0.0001
0.0000
−0.0001
0
50
100
150
200
250
300
fiber

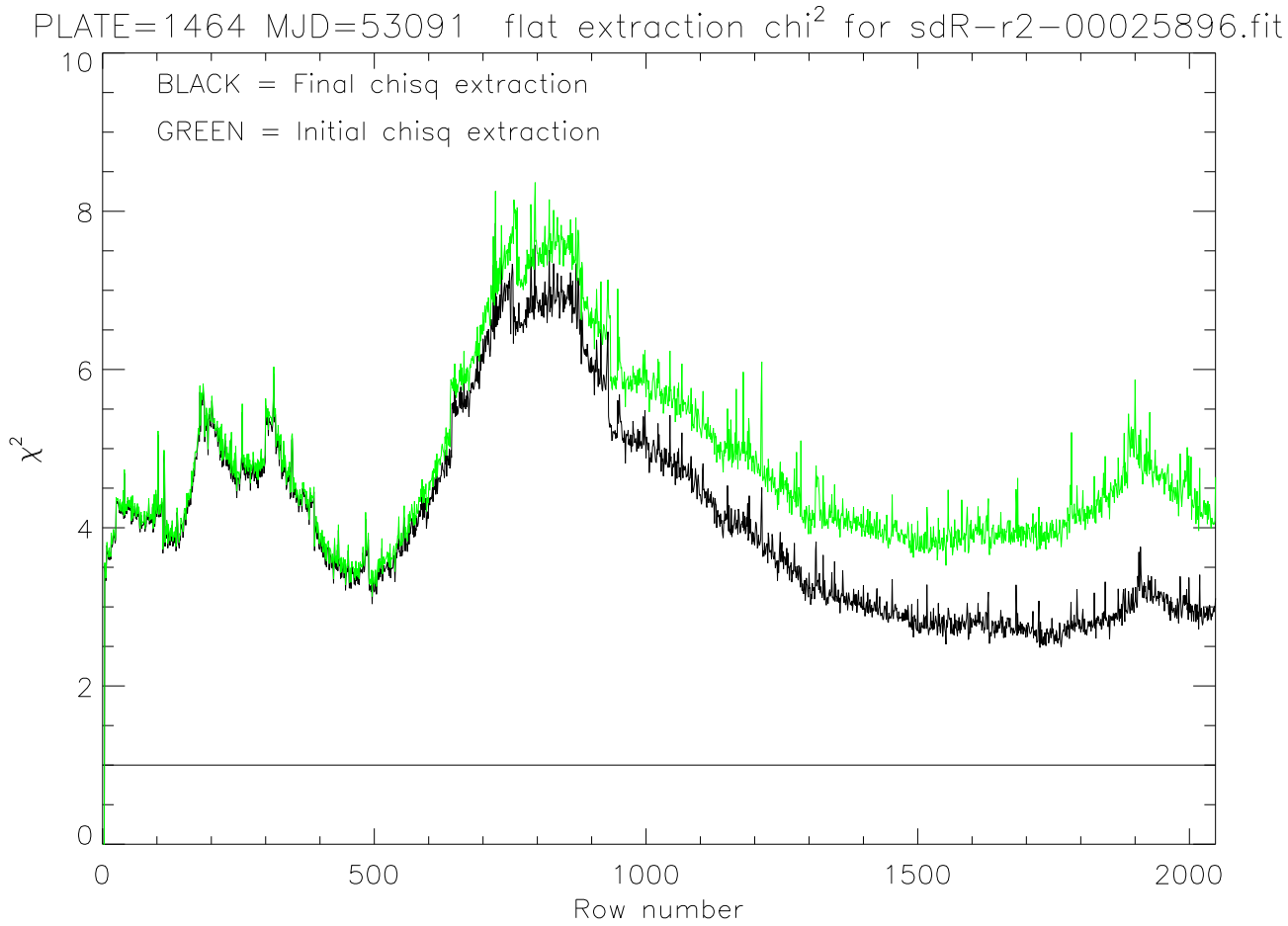

scale coeff residuals from ord=3 poly
4×10⁻⁵
2×10⁻⁵
0
−2×10⁻⁵
−4×10⁻⁵
0
50
100
150
200
250
300
fiber

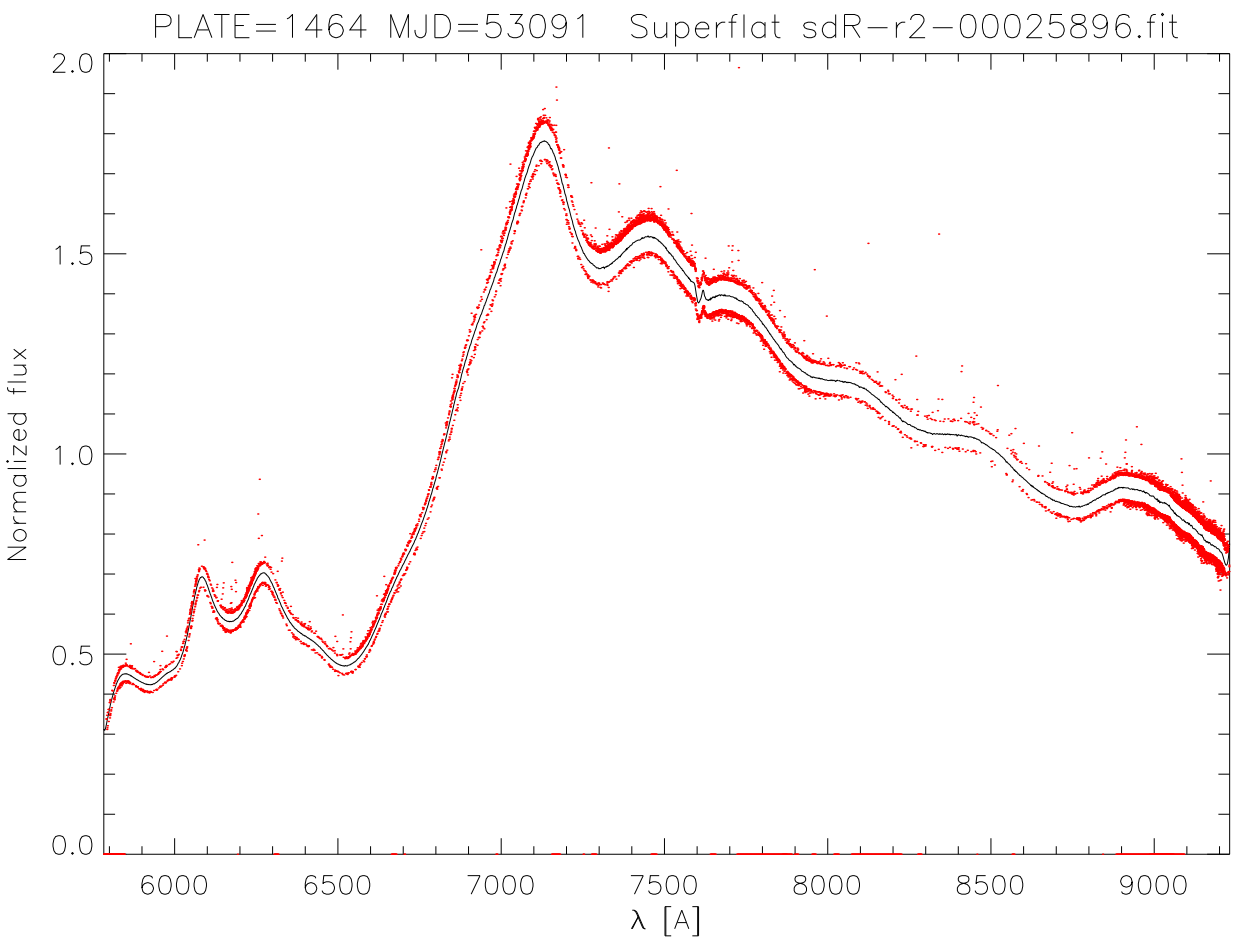

offset coeff residuals from ord=3 poly
0.0001
0.0000
−0.0001
0
50
100
150
200
250
300
fiber

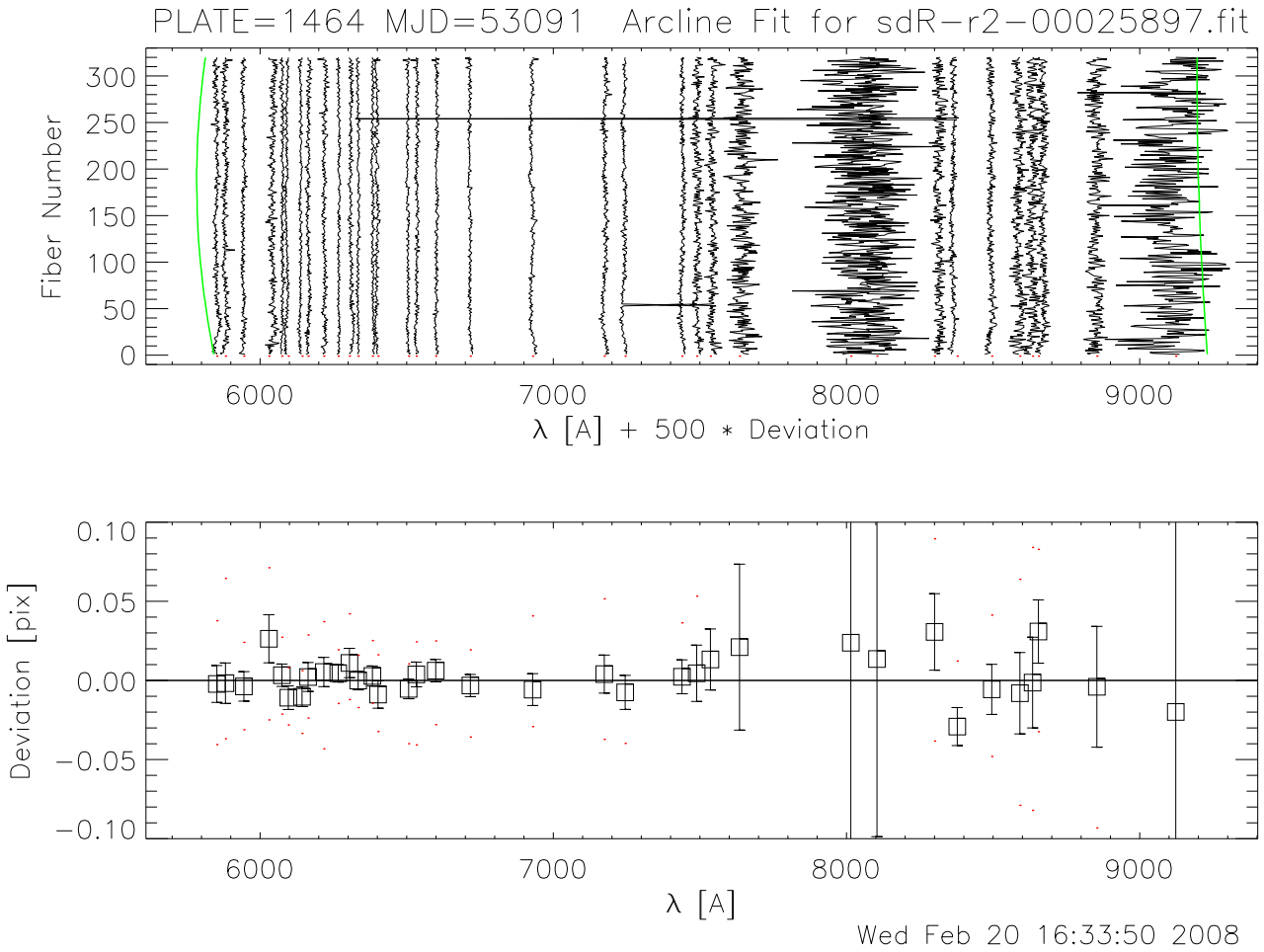

scale coeff residuals from ord=3 poly
4×10⁻⁵
2×10⁻⁵
0
−2×10⁻⁵
−4×10⁻⁵
0
50
100
150
200
250
300
fiber

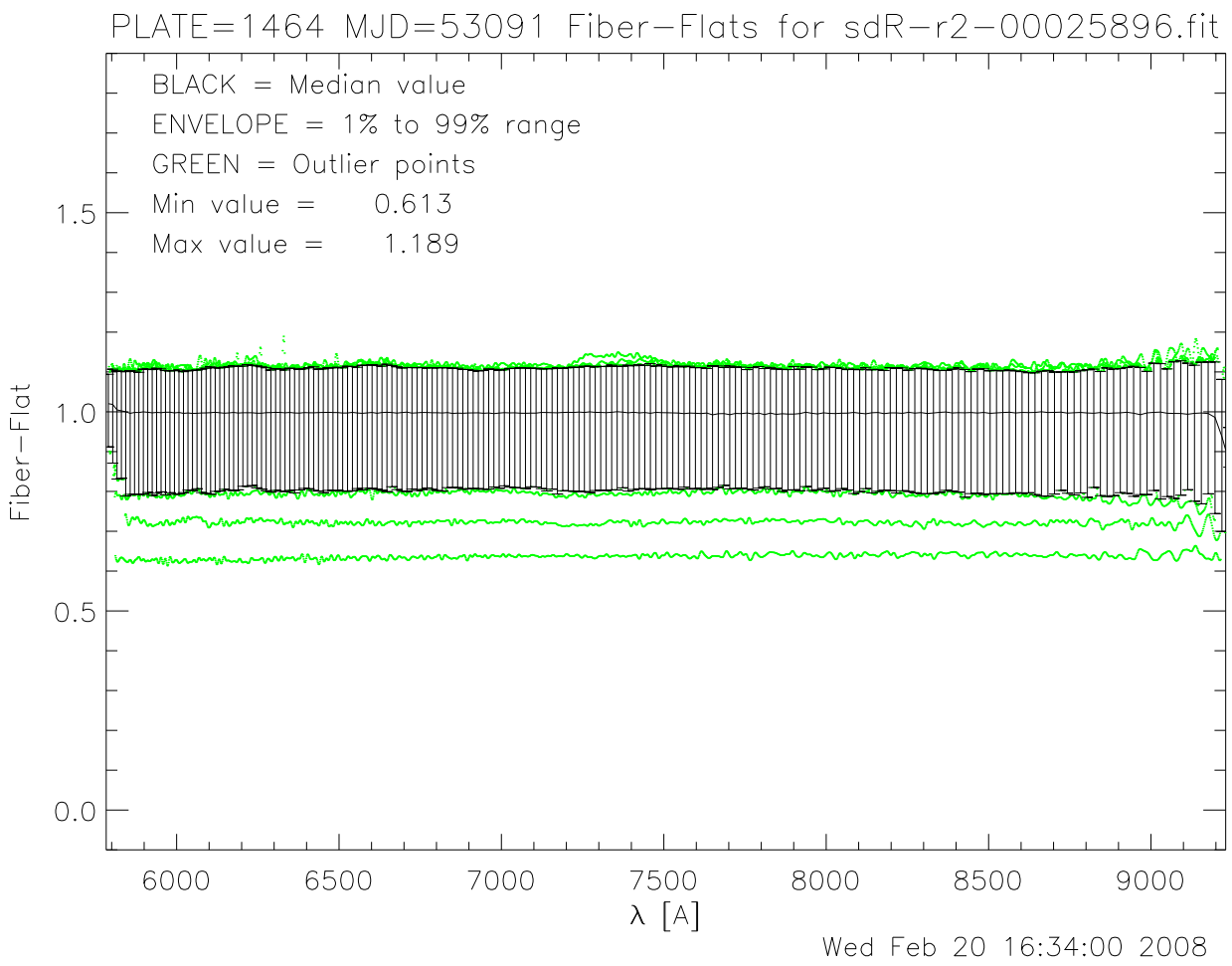

PLATE=1464 MJD=53091 flat extraction chi^2 for sdR−r2−00025891.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
0
500
1000
1500
2000
Row number

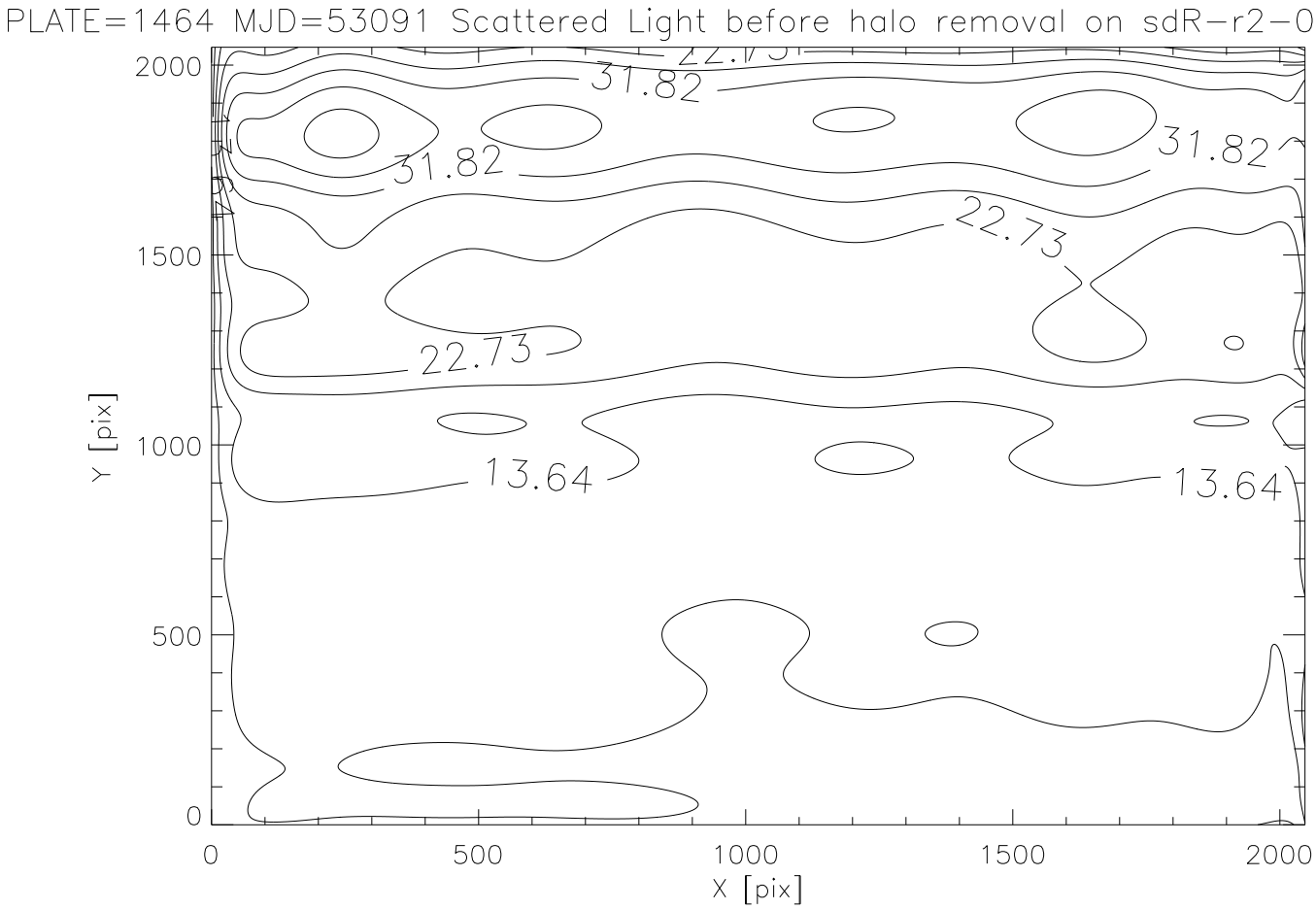

PLATE=1464 MJD=53091 Superflat sdR-r2-00025891.fit
Normalized flux
2.0
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

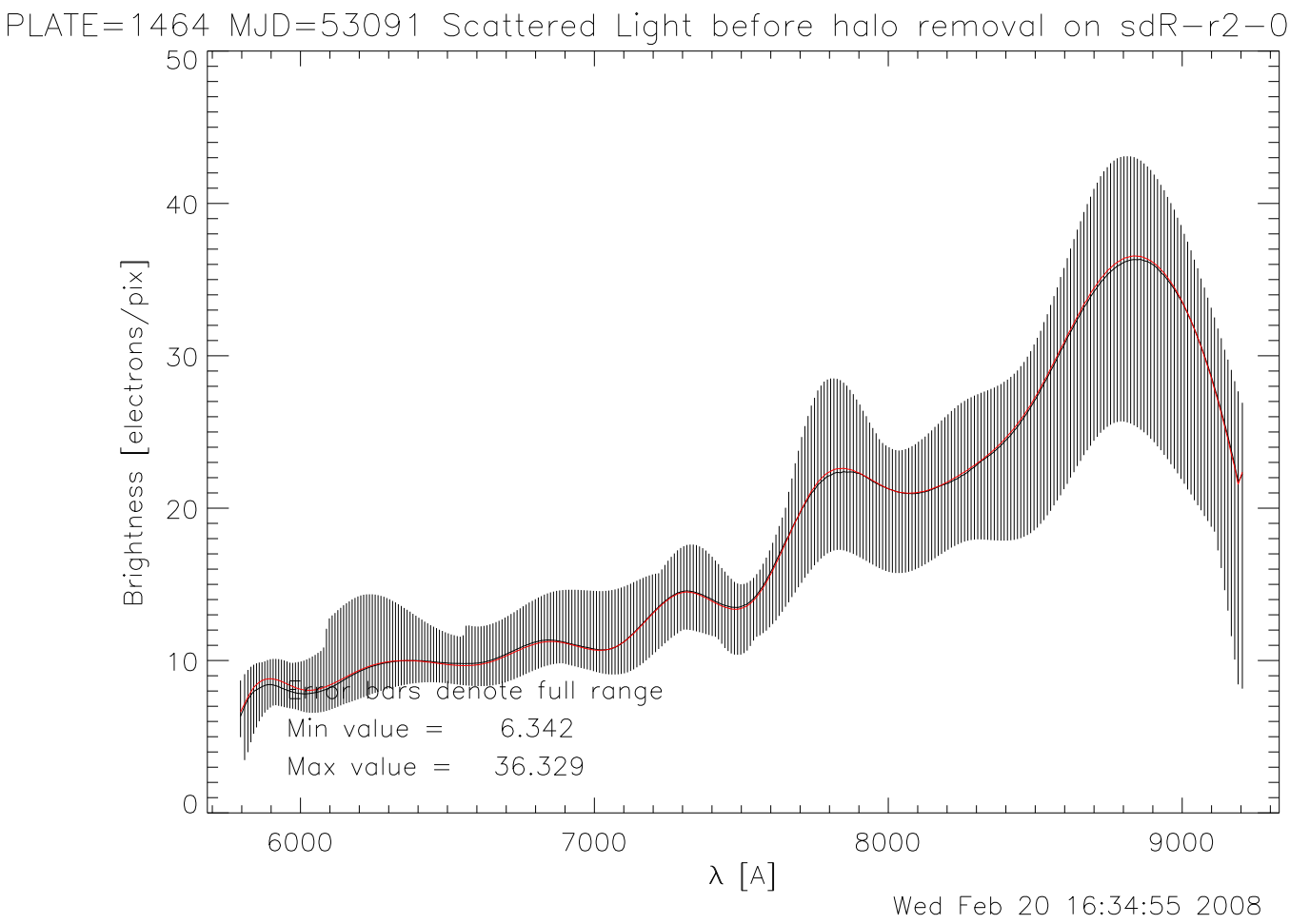

PLATE=1464 MJD=53091 flat extraction chi^2 for sdR−r2−00025896.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
2
4
6
8
10
0
500
1000
1500
2000

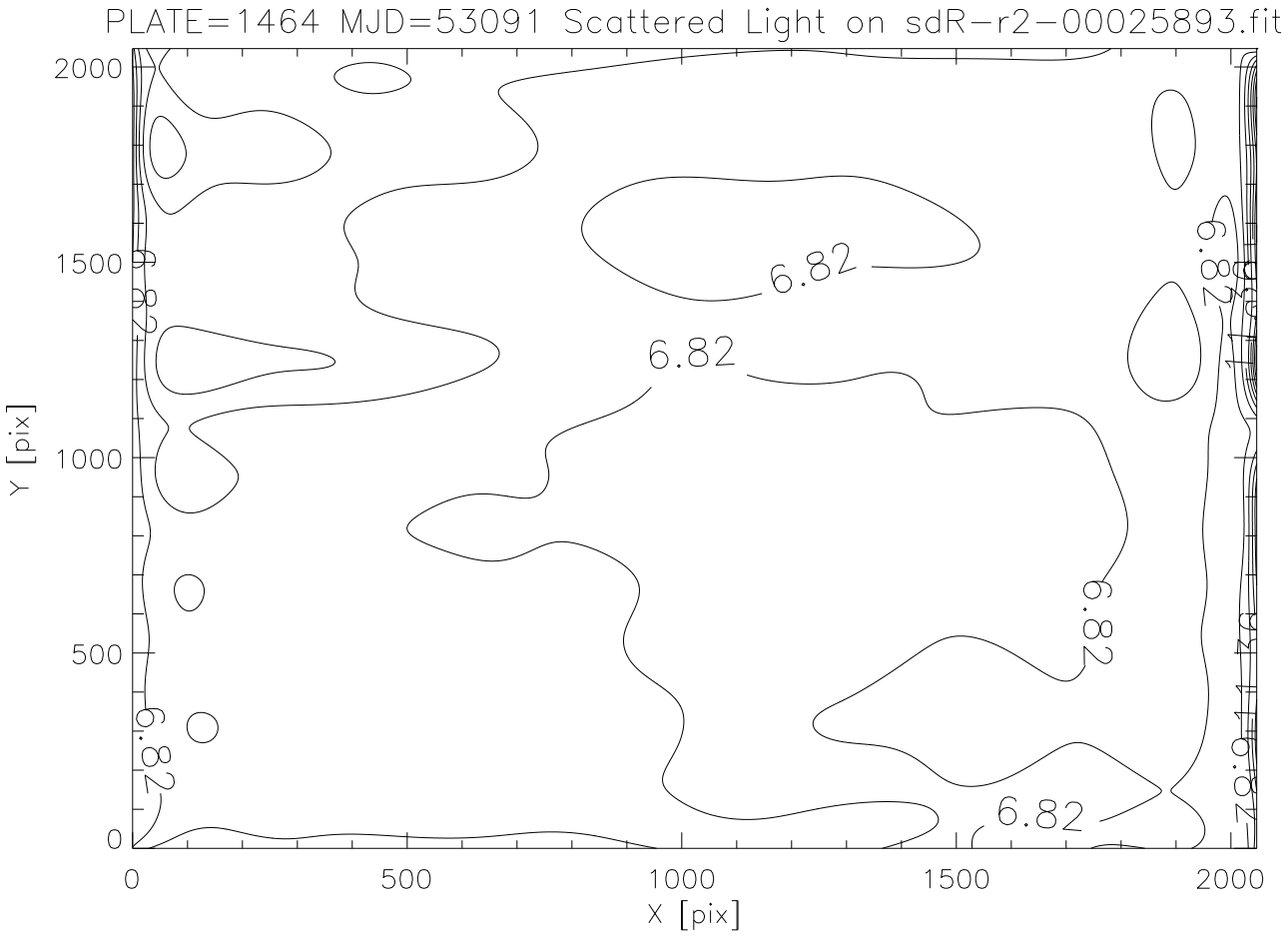

PLATE=1464 MJD=53091 Superflat sdR-r2-00025896.fit
Normalized flux
2.0
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

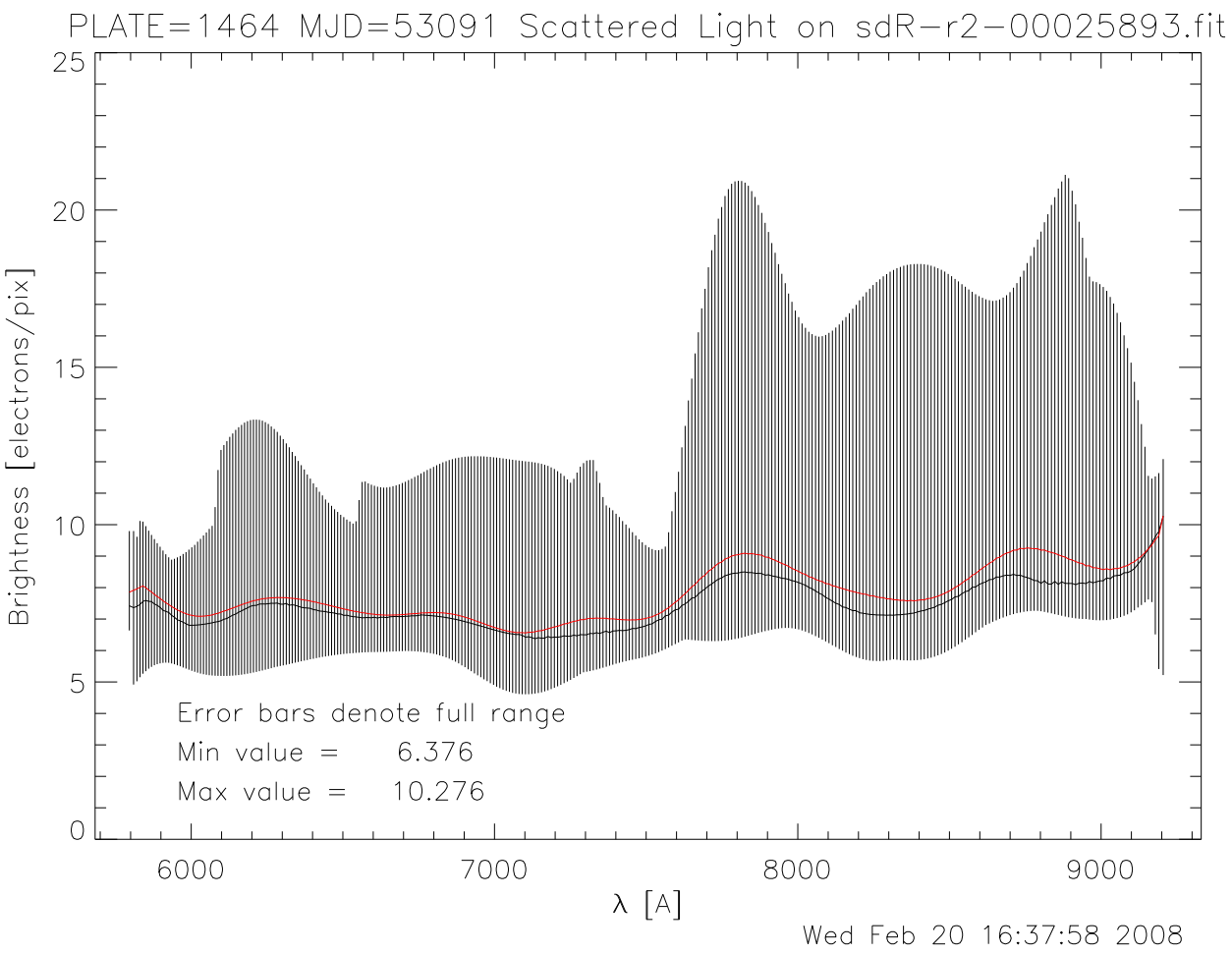

PLATE=1464 MJD=53091 Arcline Fit for sdR-r2-00025897.fit
Fiber Number
300
250
200
150
100
50
0
6000
7000
8000
9000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
6000
7000
8000
9000
λ [A]
Wed Feb 20 16:33:50 2008

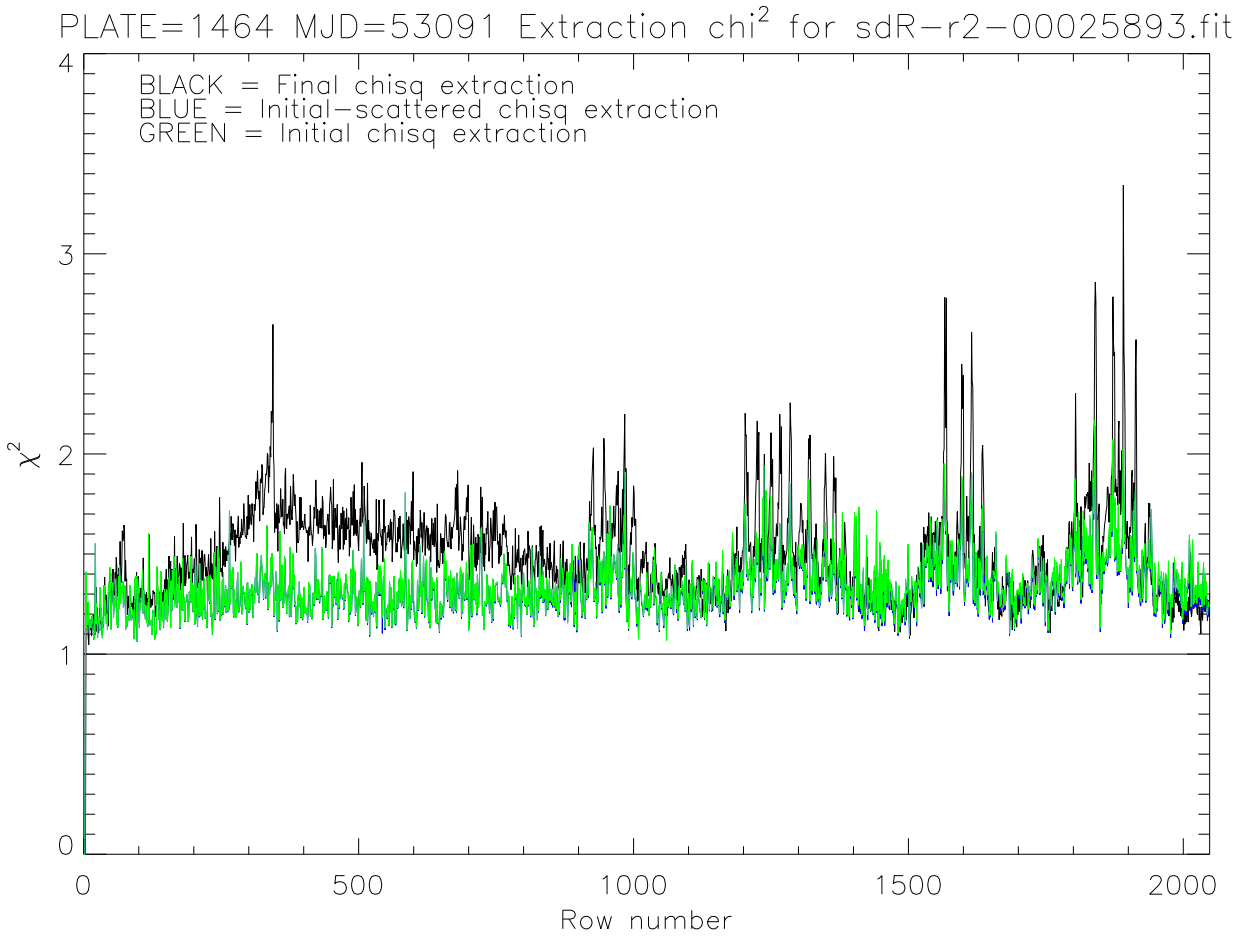

PLATE=1464 MJD=53091 Fiber−Flats for sdR−r2−00025896.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.613
Max value = 1.189
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Wed Feb 20 16:34:00 2008

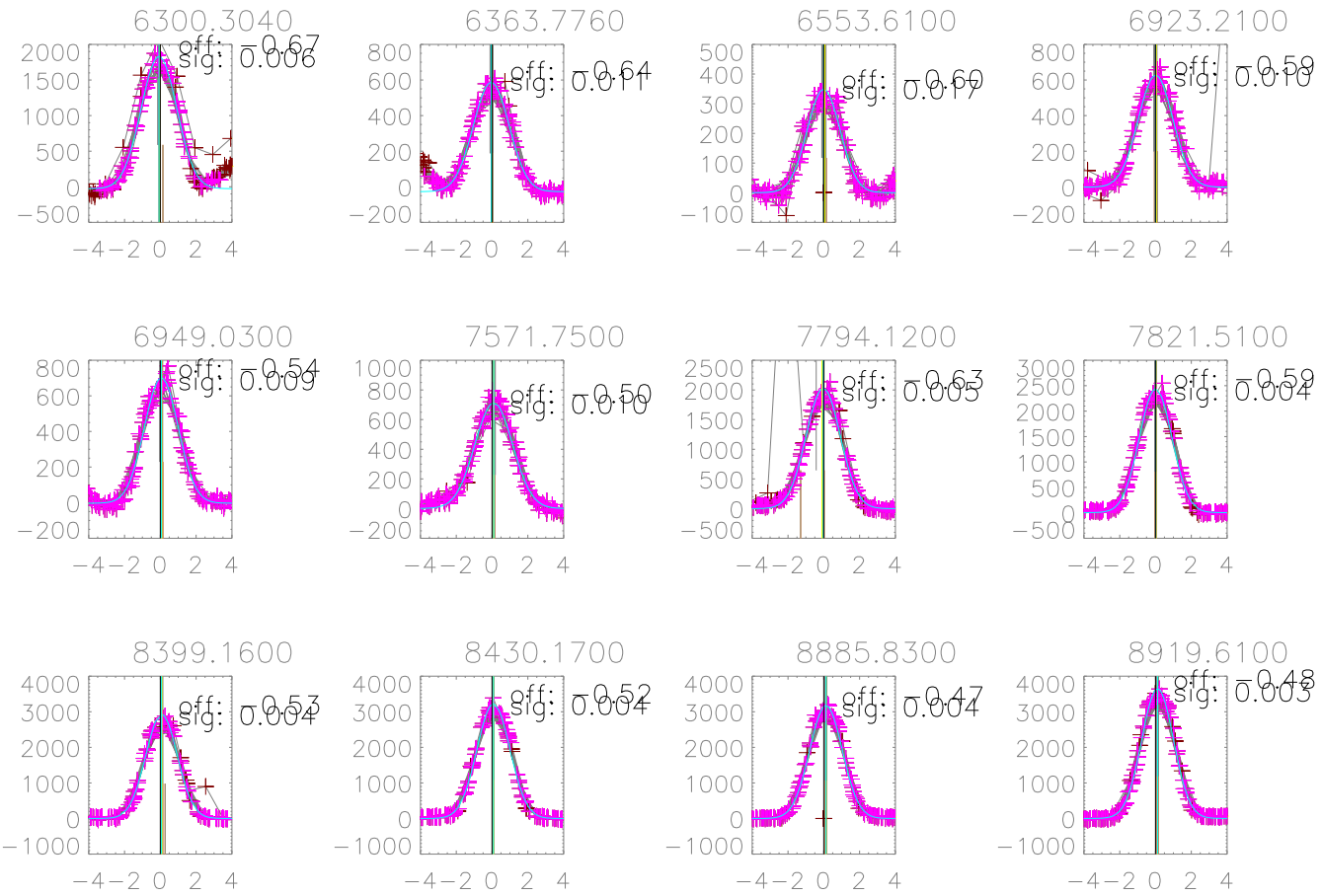

PLATE=1464 MJD=53091 Scattered Light before halo removal on sdR-r2-00025893.fi
31.82
31.82
31.82
22.73
22.73
13.64
13.64
Y [pix]
X [pix]
0
500
1000
1500
2000

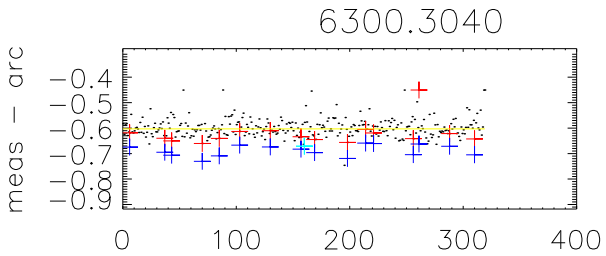

PLATE=1464 MJD=53091 Scattered Light before halo removal on sdR-r2-00025893.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 6.342
Max value = 36.329
Wed Feb 20 16:34:55 2008

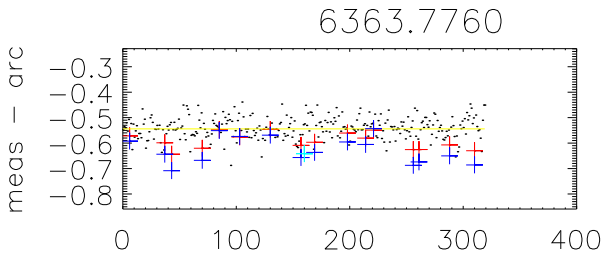

PLATE=1464 MJD=53091 Scattered Light on sdR-r2-00025893.fit
6.82
6.82
6.82

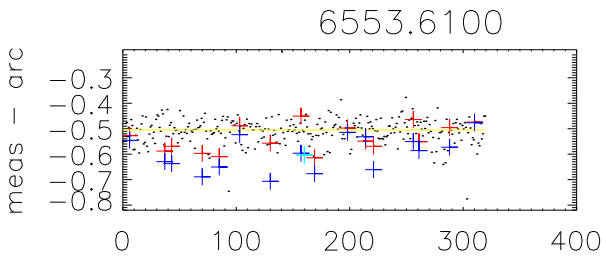

PLATE=1464 MJD=53091 Scattered Light on sdR-r2-00025893.fit
Brightness [electrons/pix]
25
20
15
10
5
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 6.376
Max value = 10.276
Wed Feb 20 16:37:58 2008

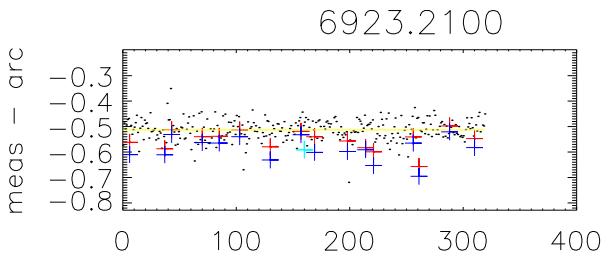

PLATE=1464 MJD=53091 Extraction chi^2 for sdR-r2-00025893.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
0
500
1000
1500
2000
Row number

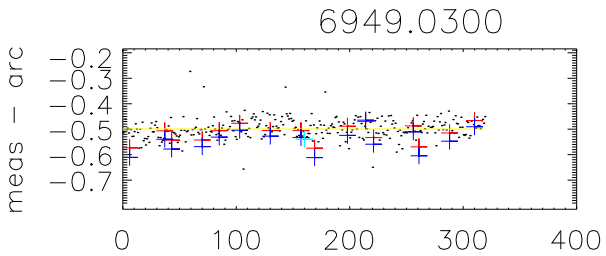

6300.3040
off: −0.67
sig: 0.006
6363.7760
off: −0.64
sig: 0.011
6553.6100
off: −0.69
sig: 0.017
6923.2100
off: −0.59
sig: 0.010
6949.0300
off: −0.54
sig: 0.009
7571.7500
off: −0.50
sig: 0.010
7794.1200
off: −0.63
sig: 0.005
7821.5100
off: −0.59
sig: 0.004
8399.1600
off: −0.53
sig: 0.004
8430.1700
off: −0.52
sig: 0.004
8885.8300
off: −0.47
sig: 0.004
8919.6100
off: −0.48
sig: 0.003

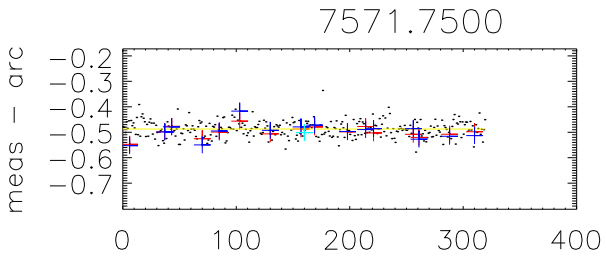

6300.3040
meas − arc
−0.4
−0.5
−0.6
−0.7
−0.8
−0.9
0
100
200
300
400

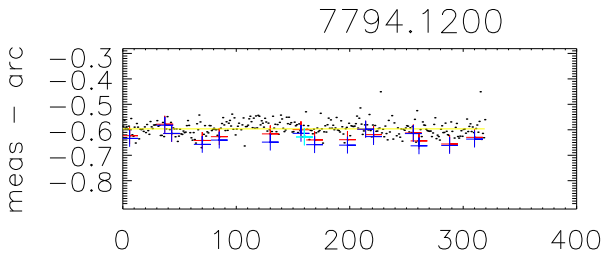

6363.7760
meas − arc
−0.3
−0.4
−0.5
−0.6
−0.7
−0.8
0
100
200
300
400

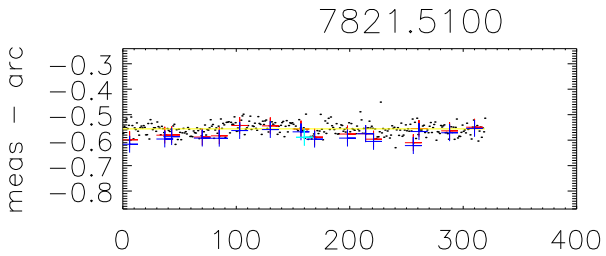

6553.6100
meas − arc
−0.3
−0.4
−0.5
−0.6
−0.7
−0.8
0
100
200
300
400

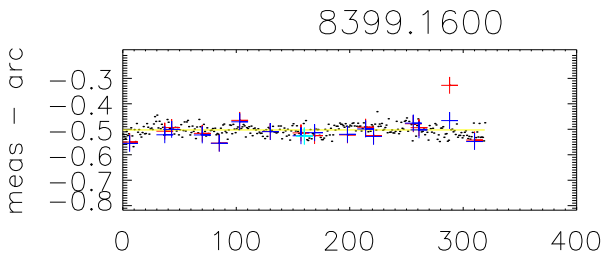

6923.2100
meas − arc
−0.3
−0.4
−0.5
−0.6
−0.7
−0.8
0
100
200
300
400

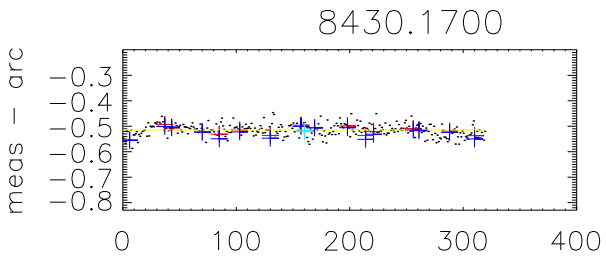

6949.0300
meas − arc
−0.2
−0.3
−0.4
−0.5
−0.6
−0.7
0
100
200
300
400

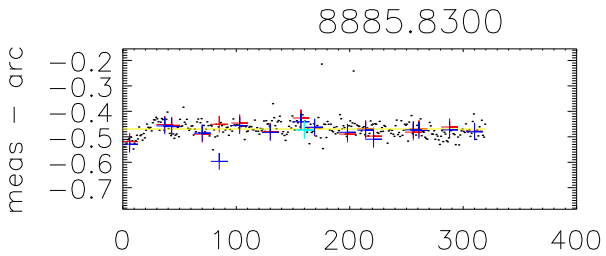

7571.7500
meas − arc
−0.2
−0.3
−0.4
−0.5
−0.6
−0.7
0
100
200
300
400

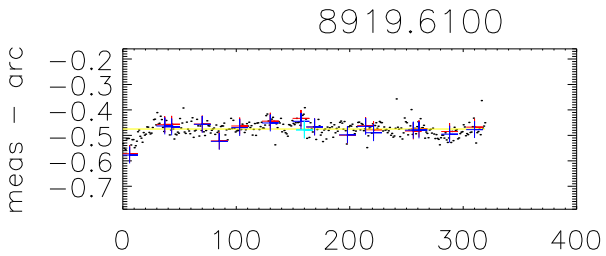

7794.1200
meas − arc
−0.3
−0.4
−0.5
−0.6
−0.7
−0.8
0
100
200
300
400

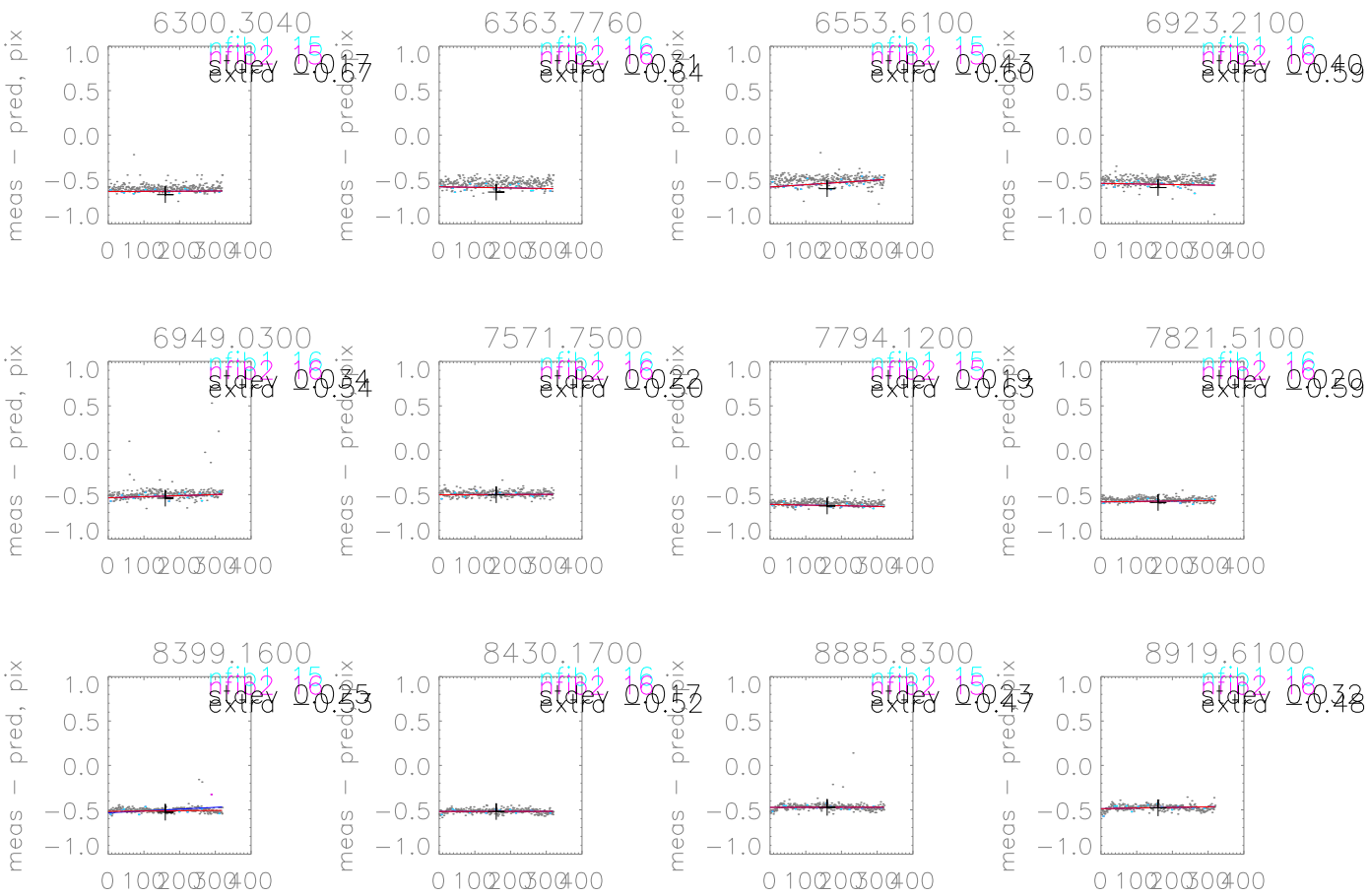

7821.5100
meas − arc
−0.3
−0.4
−0.5
−0.6
−0.7
−0.8
0
100
200
300
400

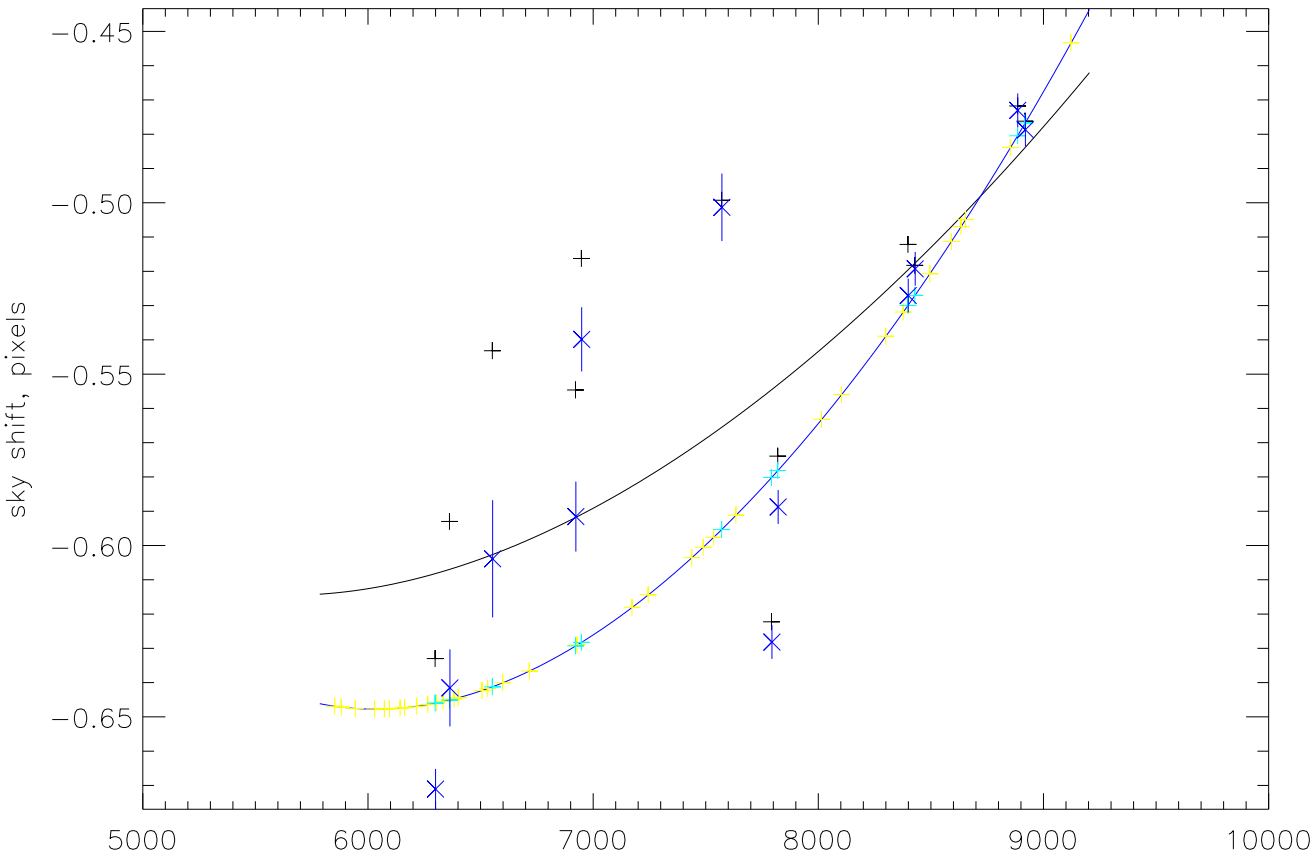

8399.1600
meas − arc
−0.3
−0.4
−0.5
−0.6
−0.7
−0.8
0
100
200
300
400

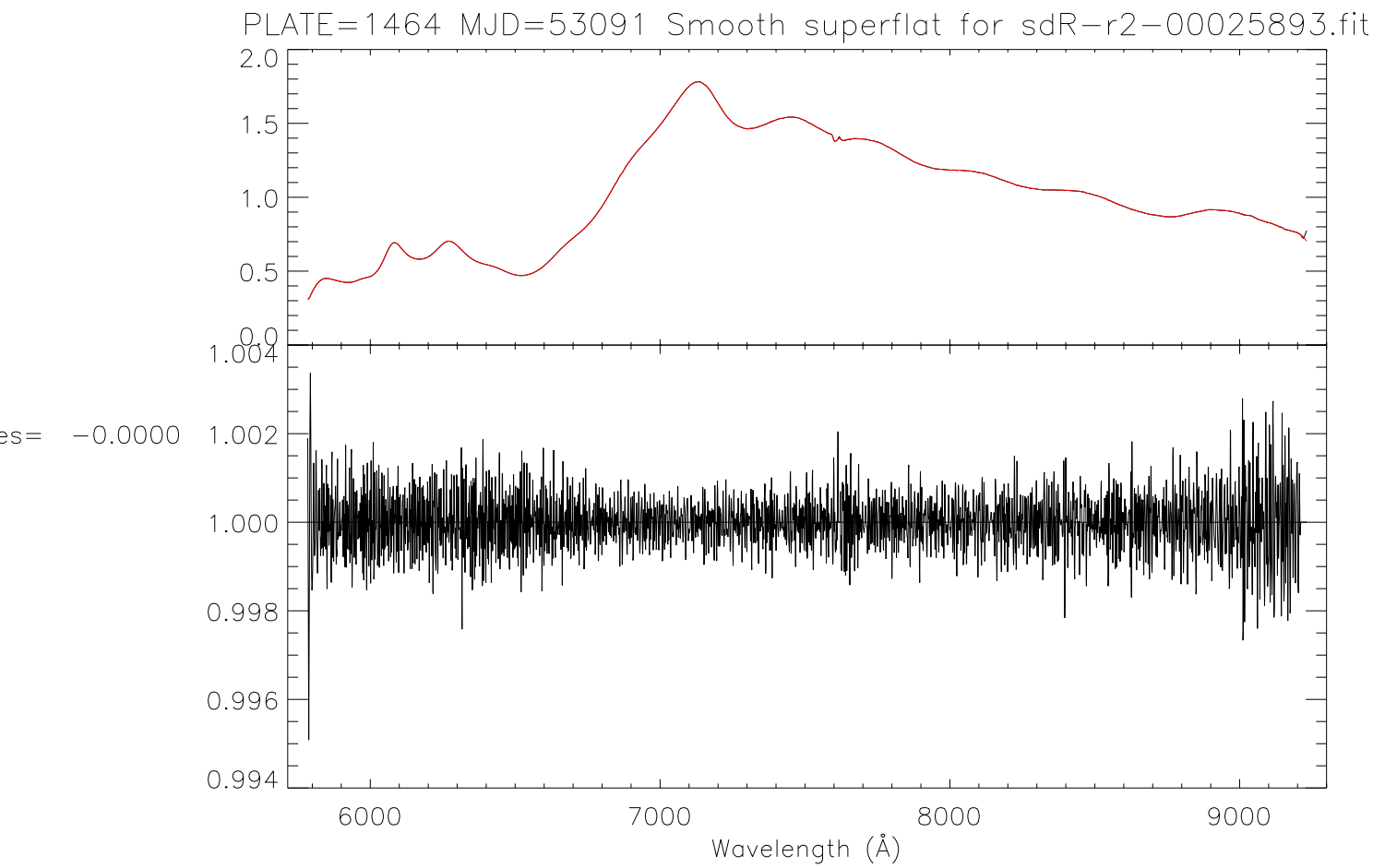

8430.1700
meas − arc
−0.3
−0.4
−0.5
−0.6
−0.7
−0.8
0
100
200
300
400

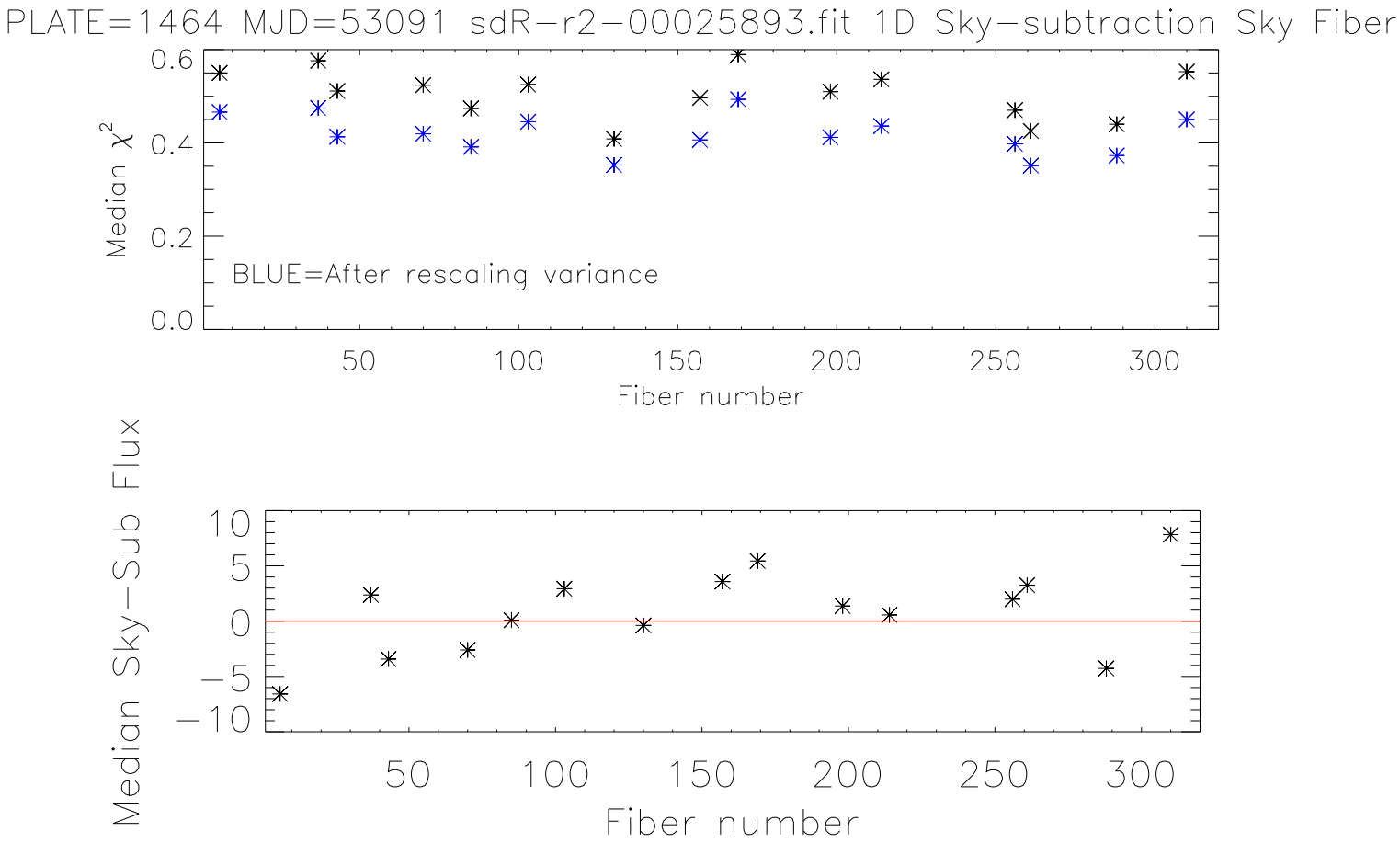

8885.8300
meas − arc
−0.2
−0.3
−0.4
−0.5
−0.6
−0.7
0
100
200
300
400

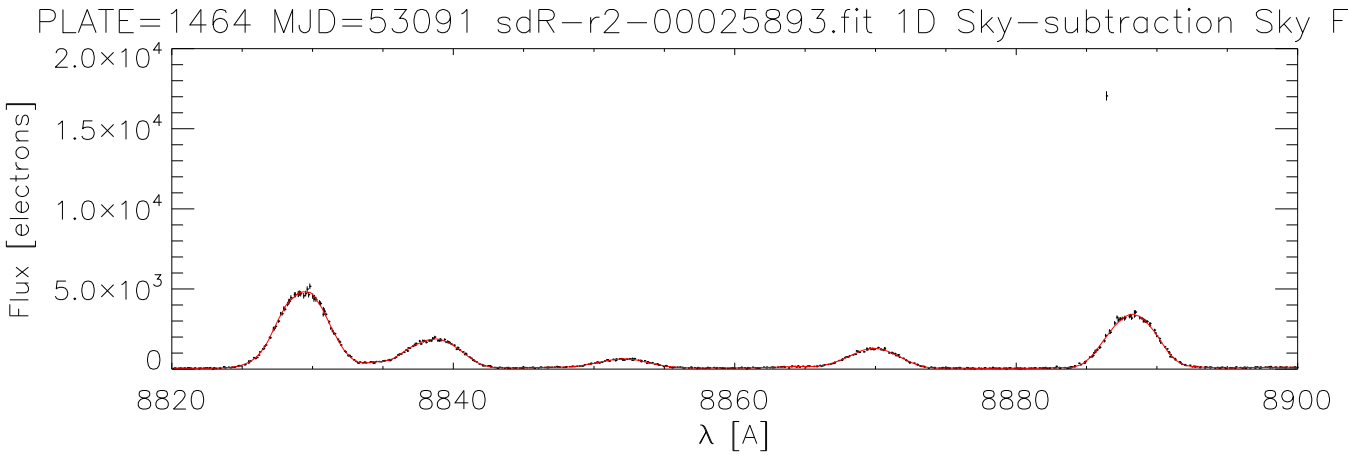

8919.6100
meas − arc
−0.2
−0.3
−0.4
−0.5
−0.6
−0.7
0
100
200
300
400

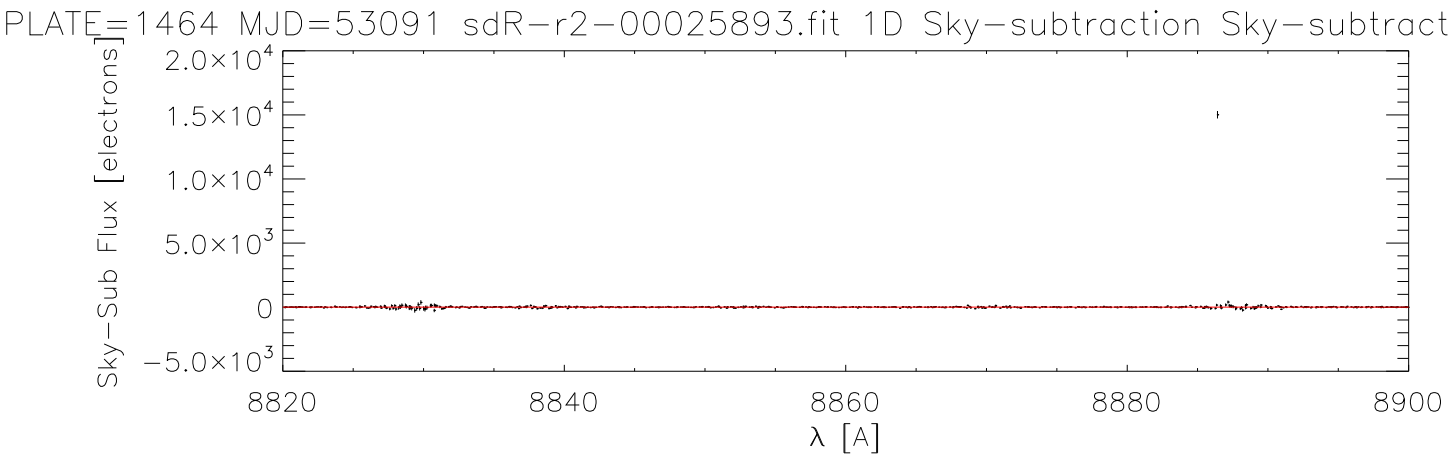

6300.3040
stdev 0.017
extra −0.67
6363.7760
stdev 0.031
extra −0.64
6553.6100
stdev 0.043
extra −0.60
6923.2100
stdev 0.040
extra −0.59
6949.0300
stdev 0.034
extra −0.54
7571.7500
stdev 0.022
extra −0.56
7794.1200
stdev 0.019
extra −0.63
7821.5100
stdev 0.020
extra −0.59
8399.1600
stdev 0.025
extra −0.53
8430.1700
stdev 0.017
extra −0.52
8885.8300
stdev 0.023
extra −0.47
8919.6100
stdev 0.032
extra −0.48
meas − pred, pix
mfib1 16
mfib2 15

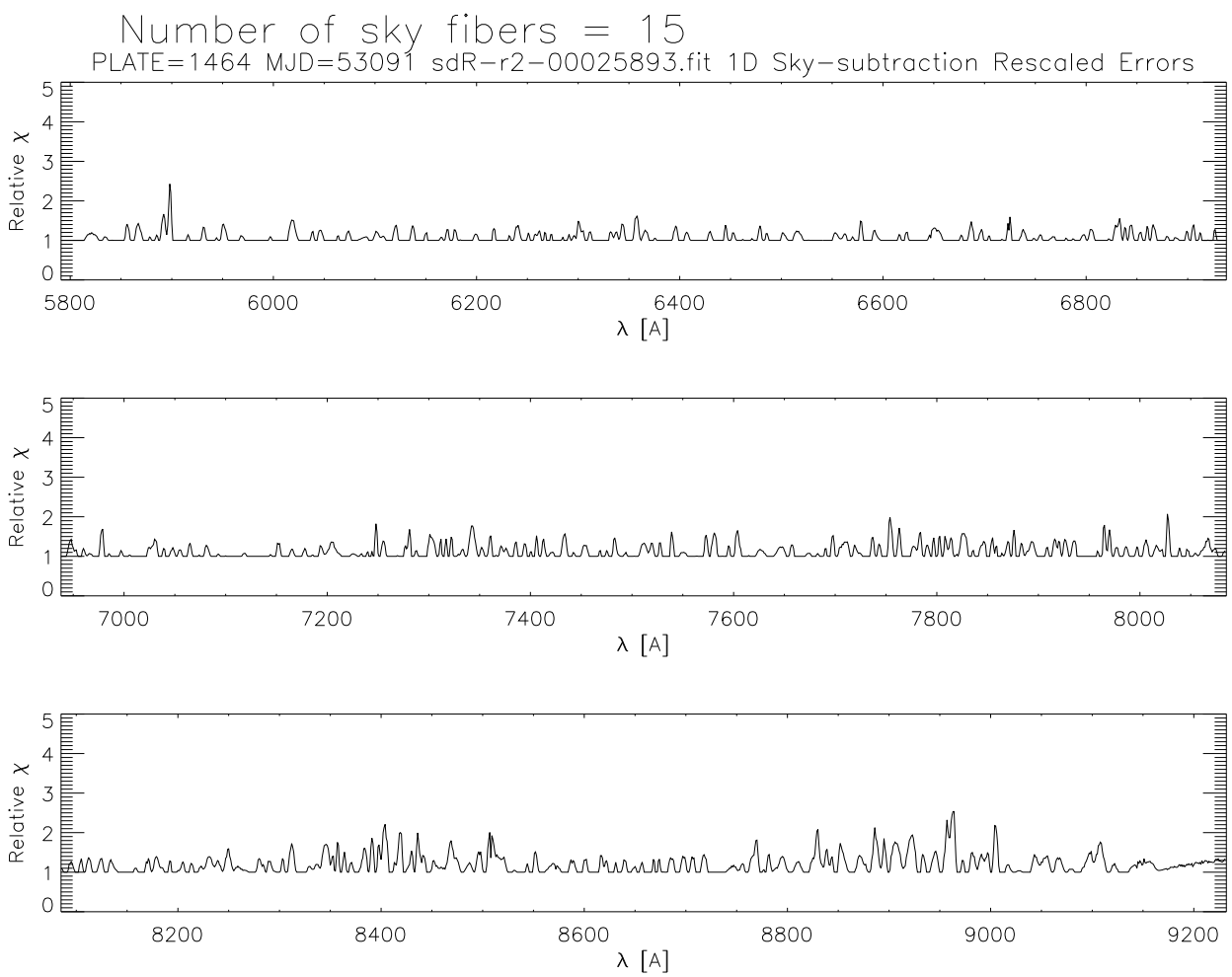

−0.45
−0.50
−0.55
−0.60
−0.65
sky shift, pixels
5000
6000
7000
8000
9000
10000

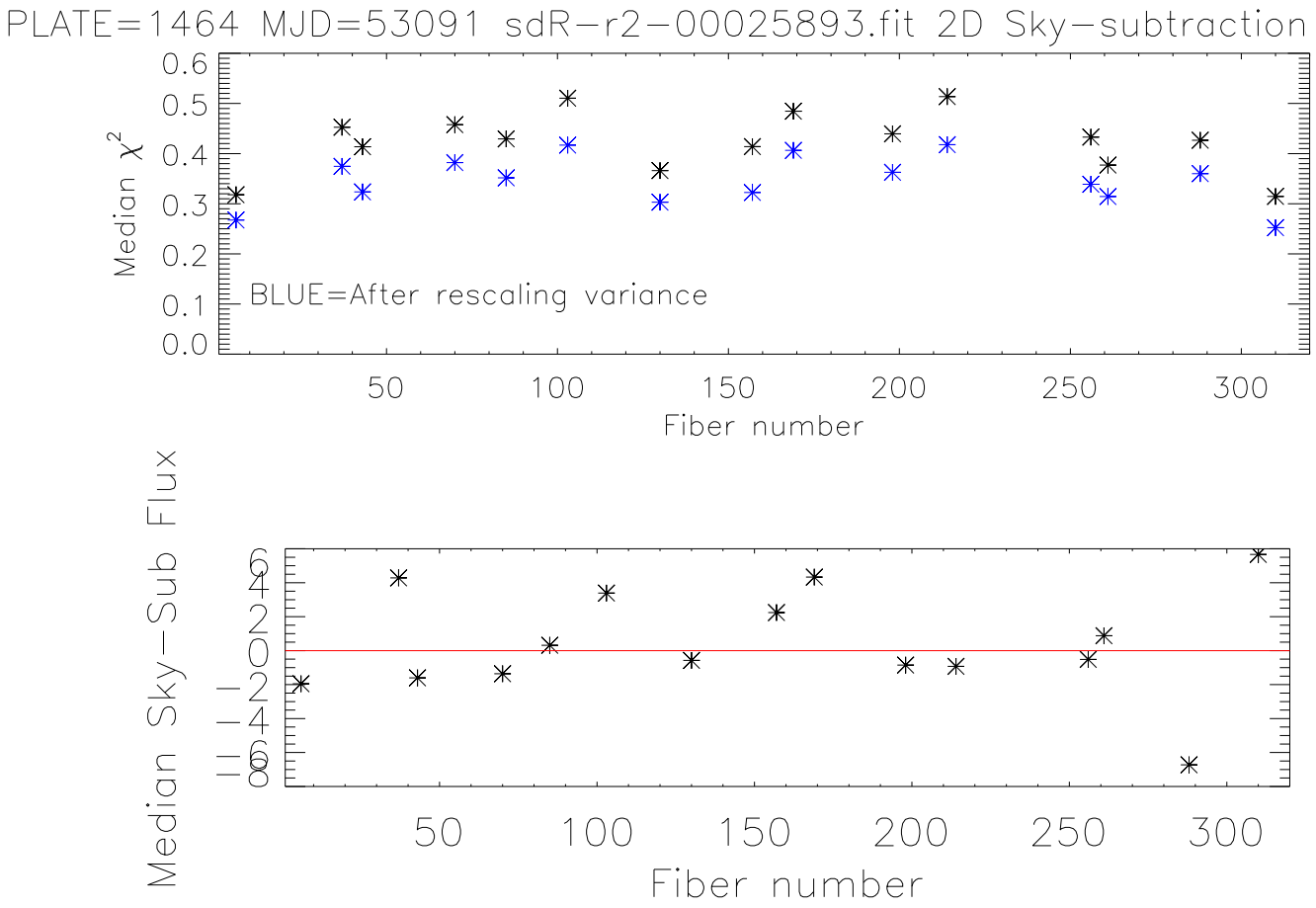

PLATE=1464 MJD=53091 Smooth superflat for sdR-r2-00025893.fit
2.0
1.5
1.0
0.5
0.0
1.004
1.002
1.000
0.998
0.996
0.994
es= −0.0000
6000
7000
8000
9000
Wavelength (Å)

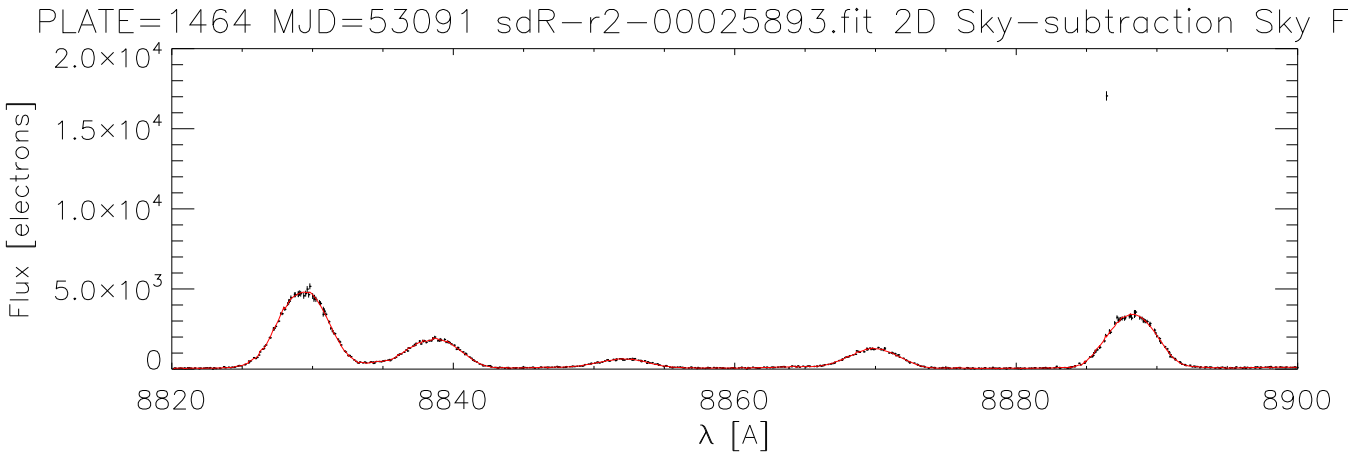

PLATE=1464 MJD=53091 sdR-r2-00025893.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
−5
−10
50
100
150
200
250
300
Fiber number

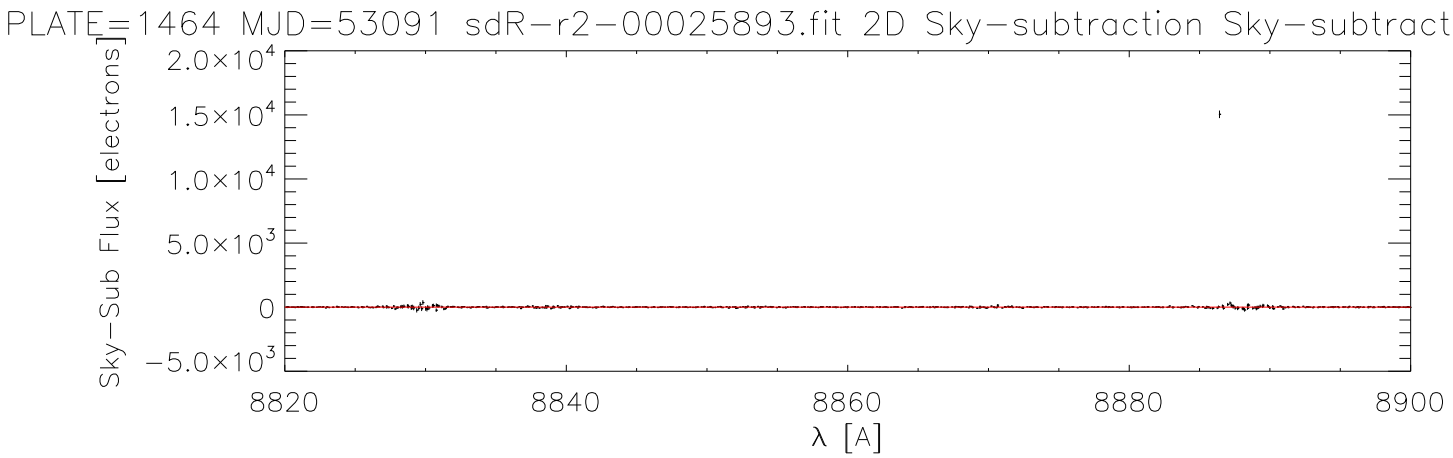

PLATE=1464 MJD=53091 sdR-r2-00025893.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
2.0×10^4
1.5×10^4
1.0×10^4
5.0×10^3
0
8820
8840
8860
8880
8900
λ [A]

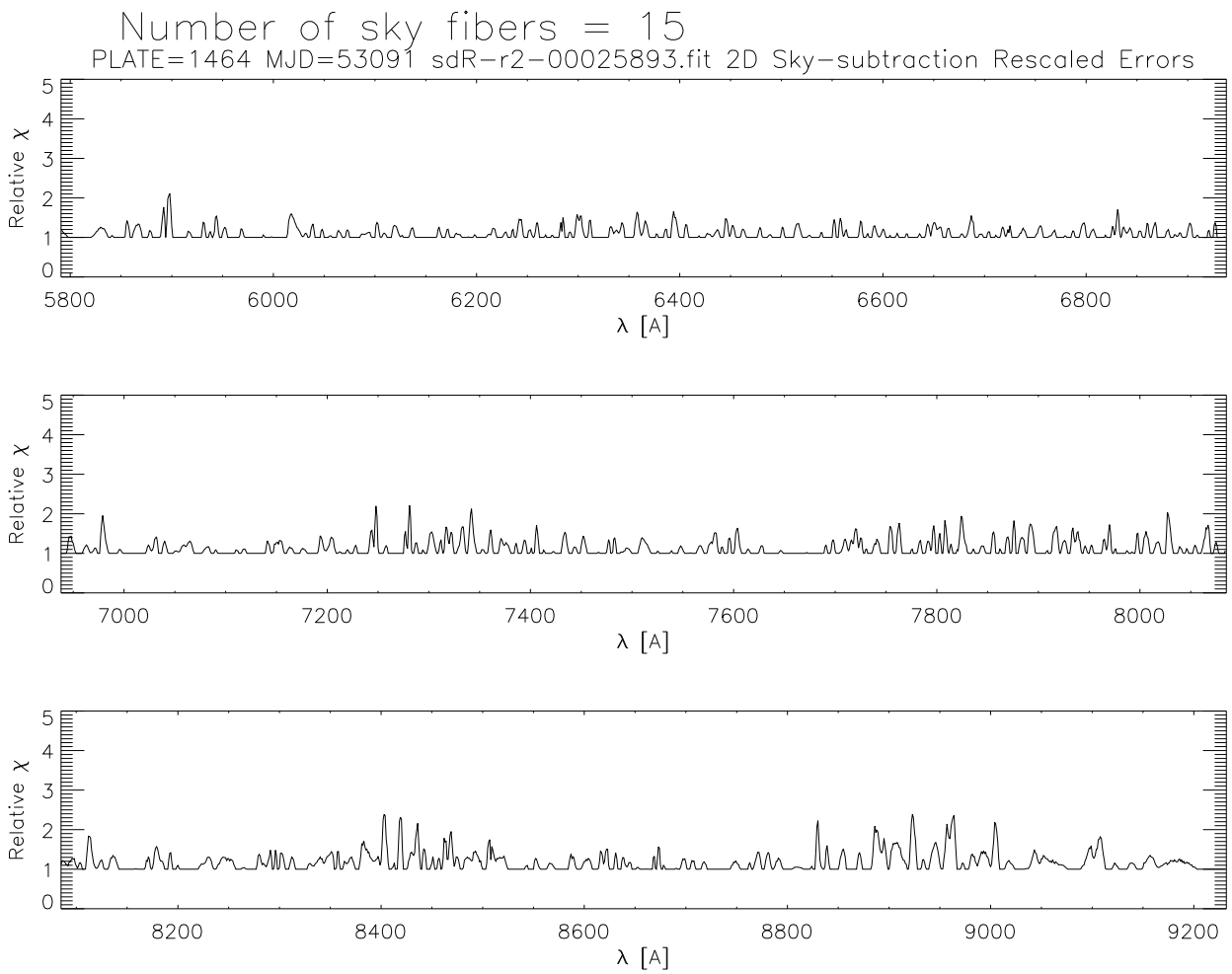

PLATE=1464 MJD=53091 sdR-r2-00025893.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
2.0×10^4
1.5×10^4
1.0×10^4
5.0×10^3
0
-5.0×10^3
8820
8840
8860
8880
8900
λ [A]

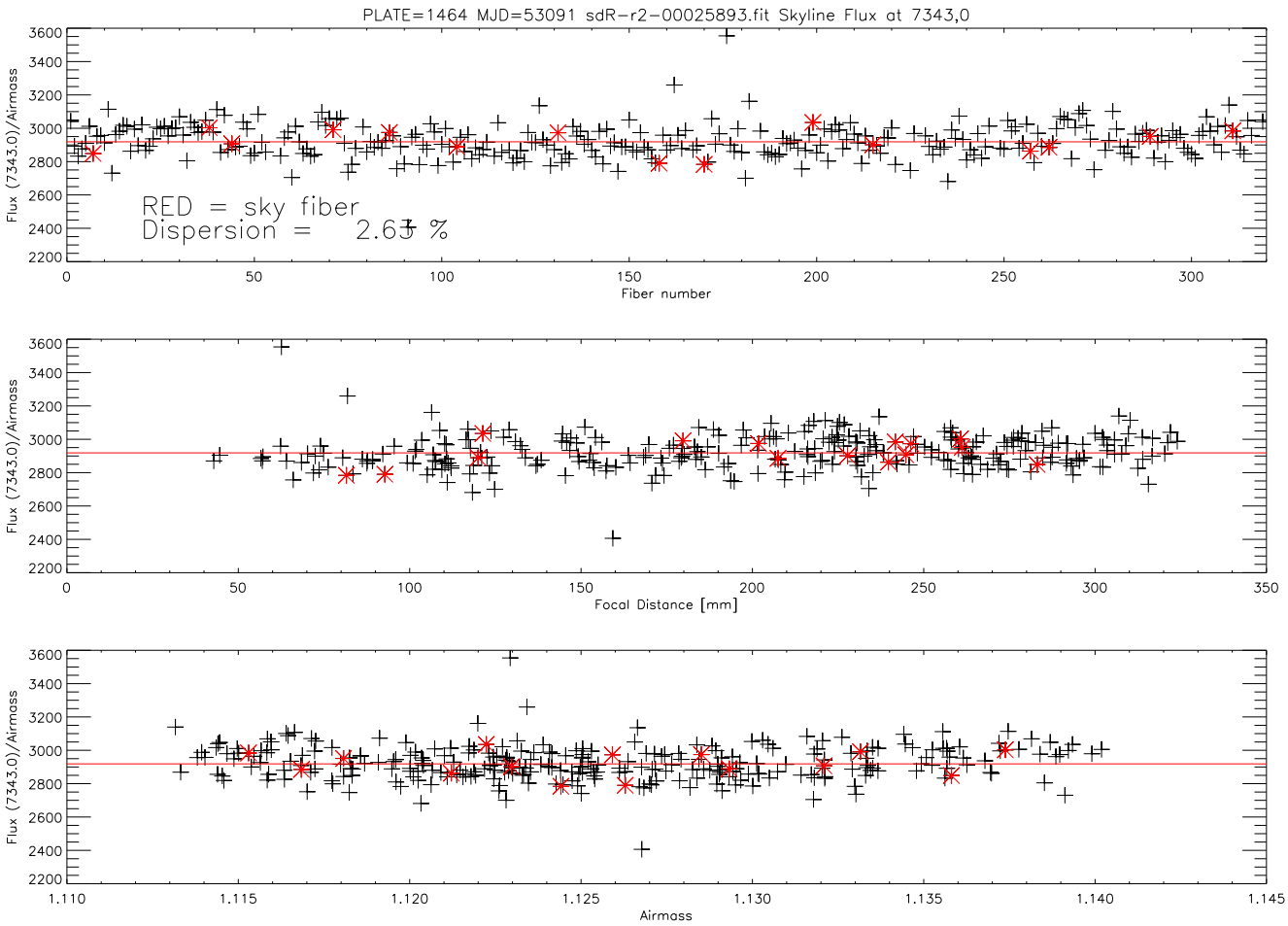

Number of sky fibers = 15
PLATE=1464 MJD=53091 sdR-r2-00025893.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

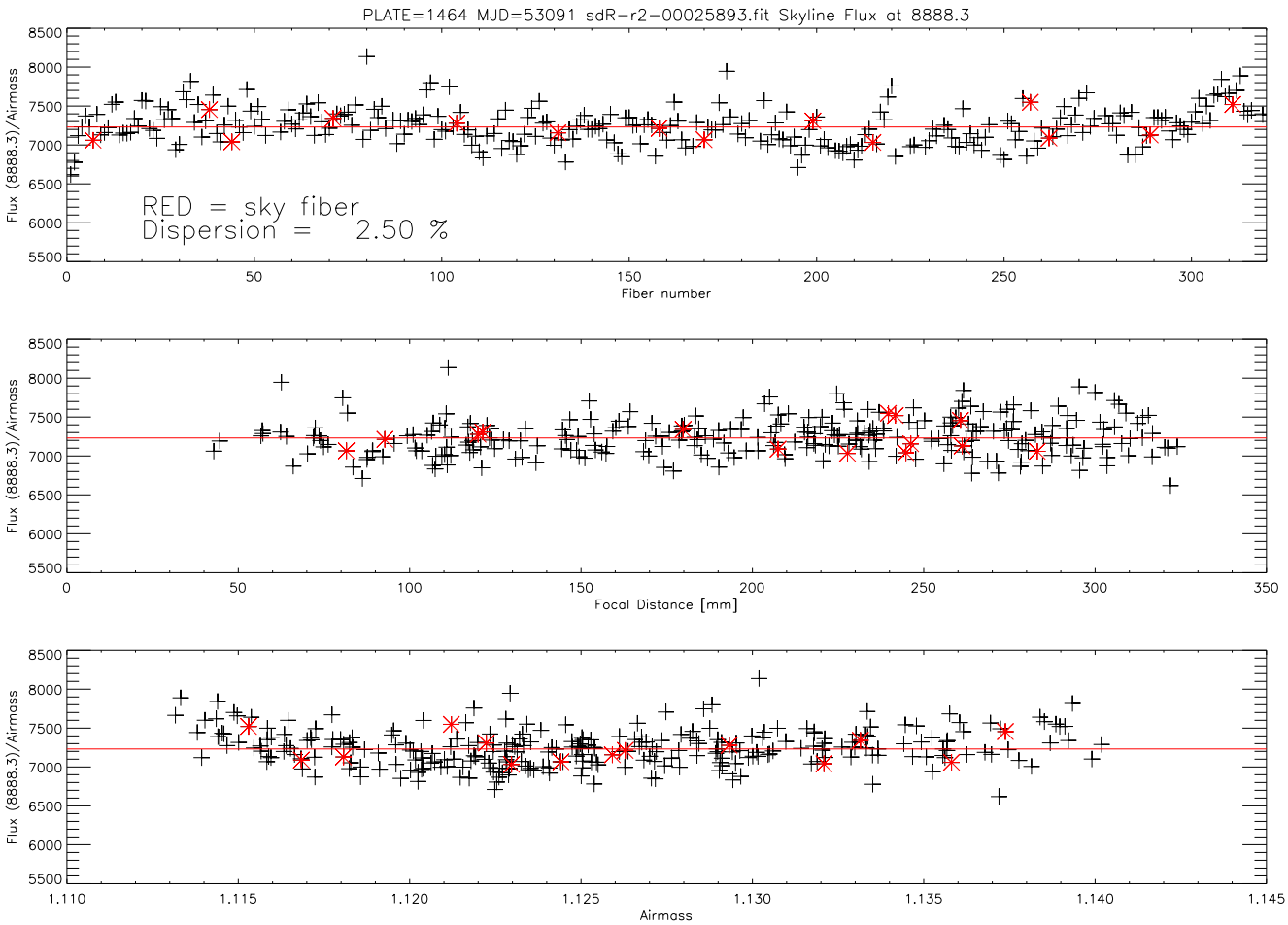

PLATE=1464 MJD=53091 sdR-r2-00025893.fit 2D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-0.0006
-0.0004
-0.0002
0.0000
0.0002
0.0004
0.0006
50
100
150
200
250
300
Fiber number

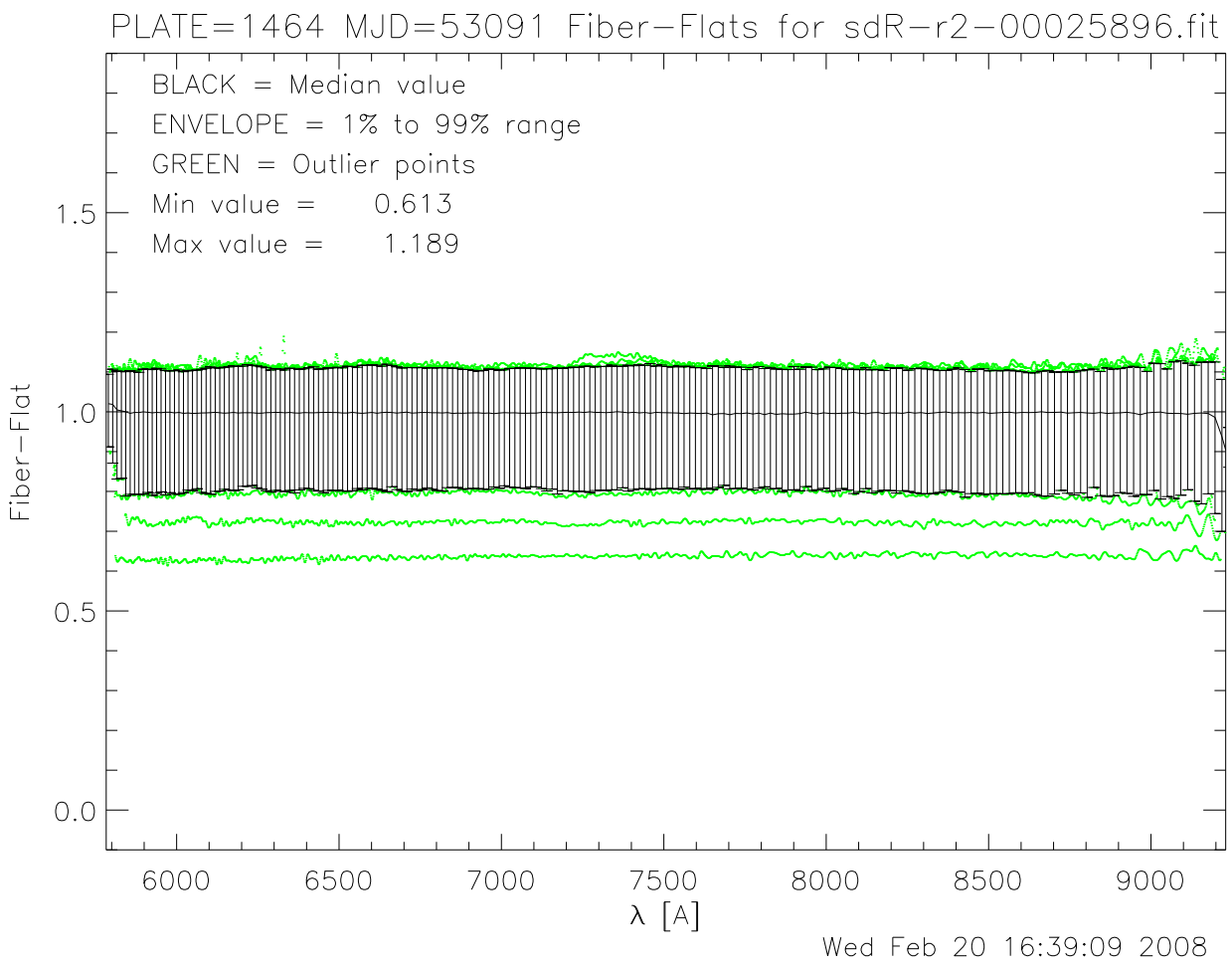

PLATE=1464 MJD=53091 sdR-r2-00025893.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
2.0×10^4
1.5×10^4
1.0×10^4
5.0×10^3
0
8820
8840
8860
8880
8900
λ [A]

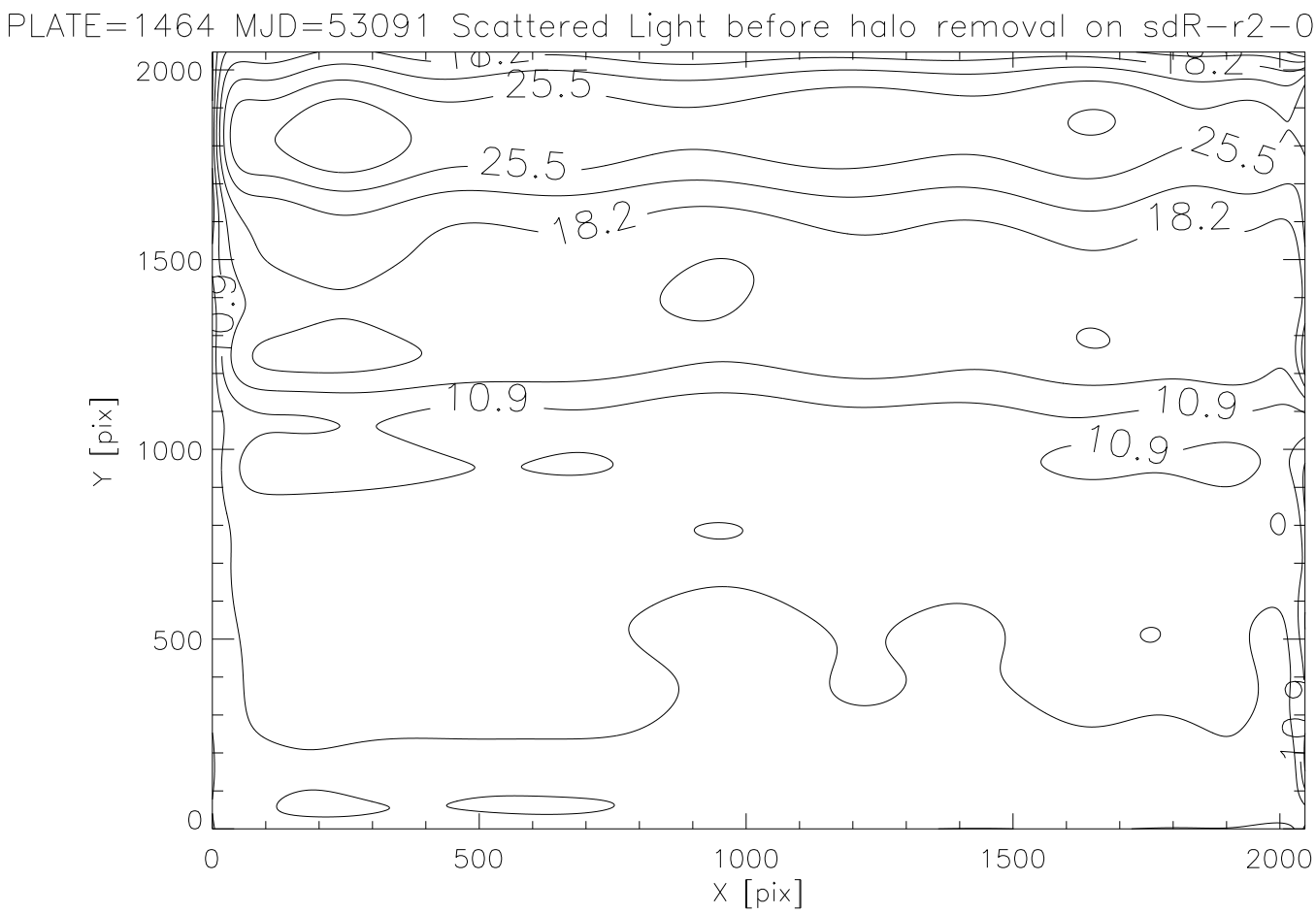

PLATE=1464 MJD=53091 sdR-r2-00025893.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
2.0×10^4
1.5×10^4
1.0×10^4
5.0×10^3
0
-5.0×10^3
8820
8840
8860
8880
8900
λ [A]

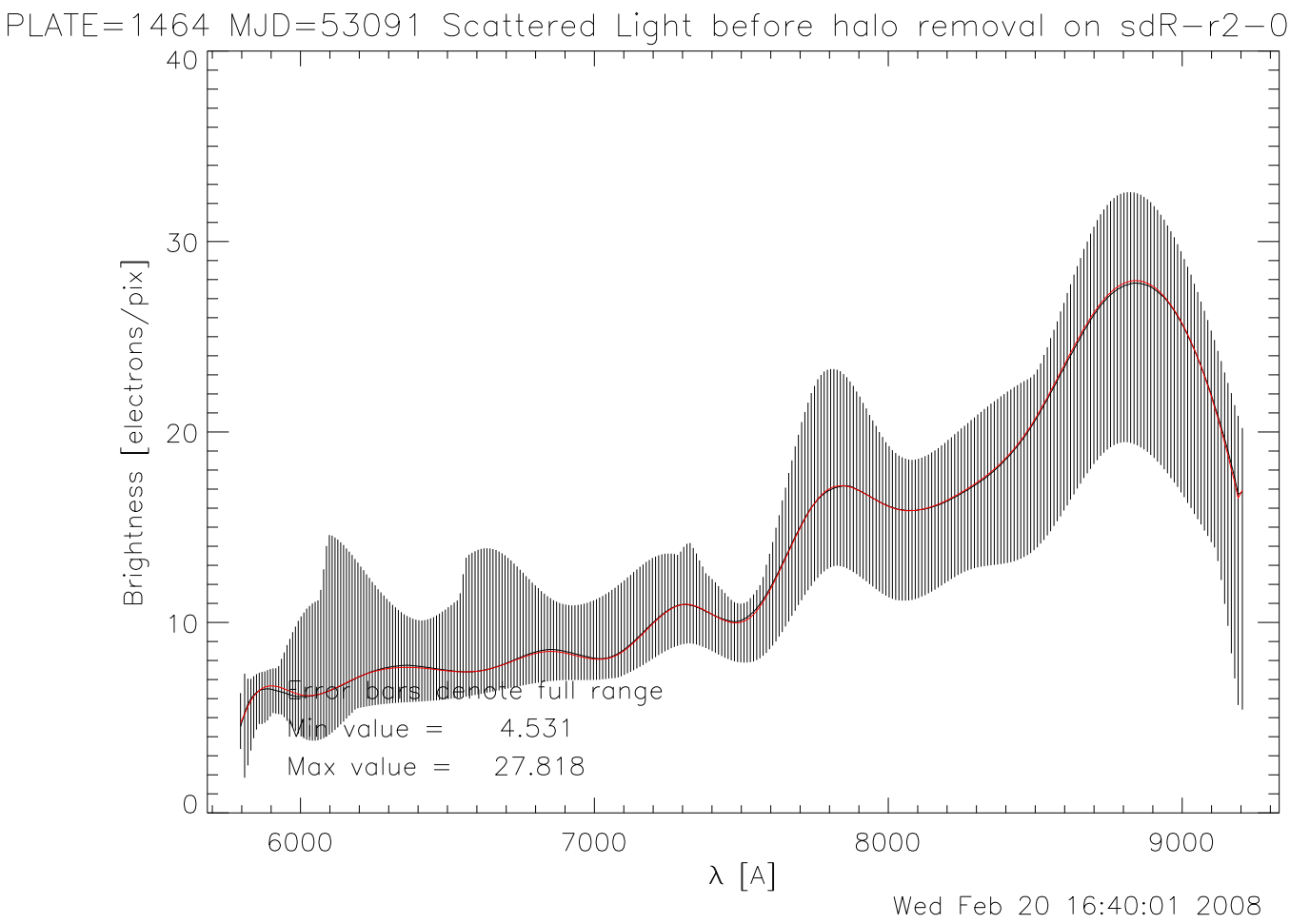

Number of sky fibers = 15
PLATE=1464 MJD=53091 sdR-r2-00025893.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

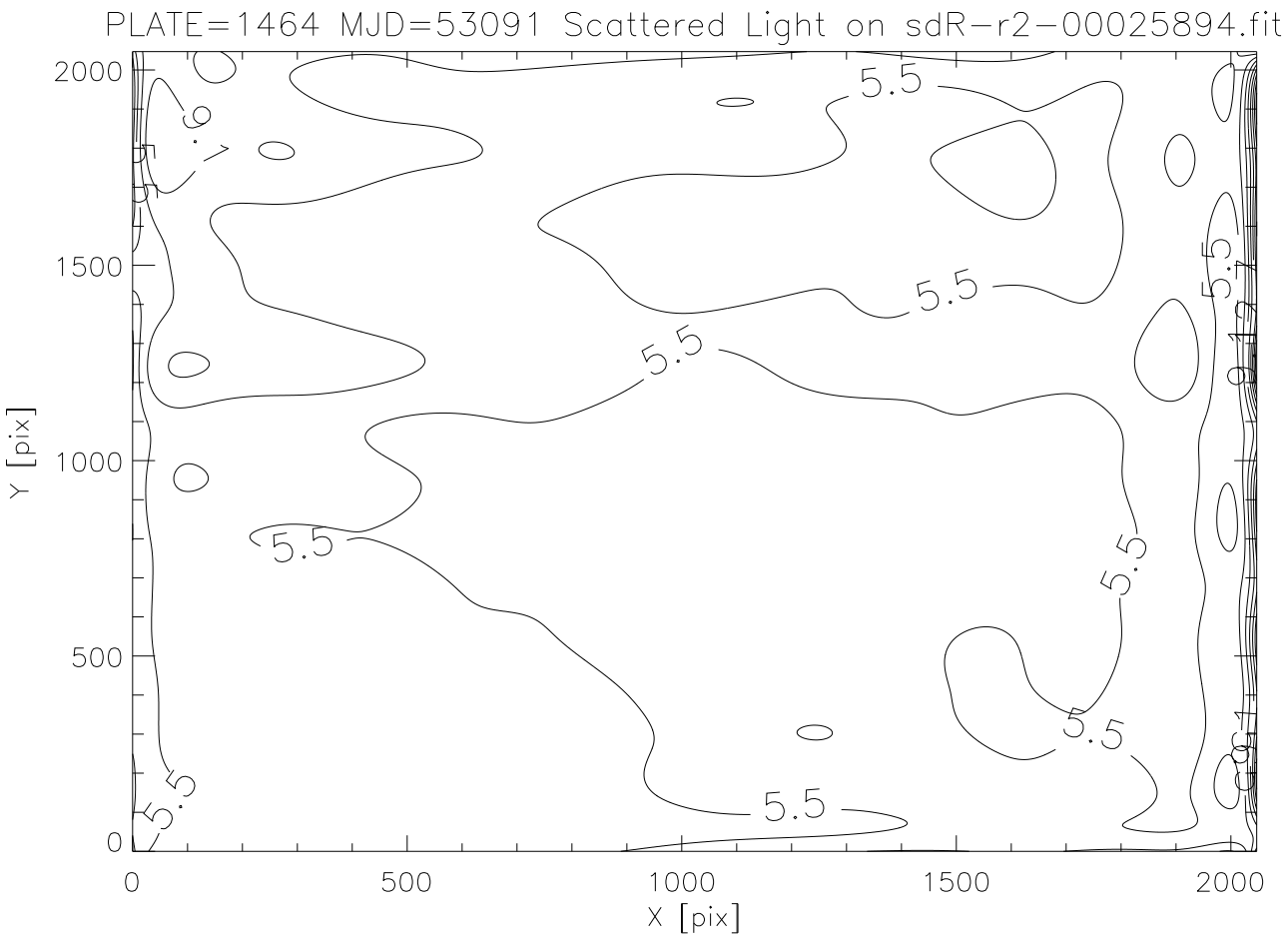

PLATE=1464 MJD=53091 sdR-r2-00025893.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 2.63 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

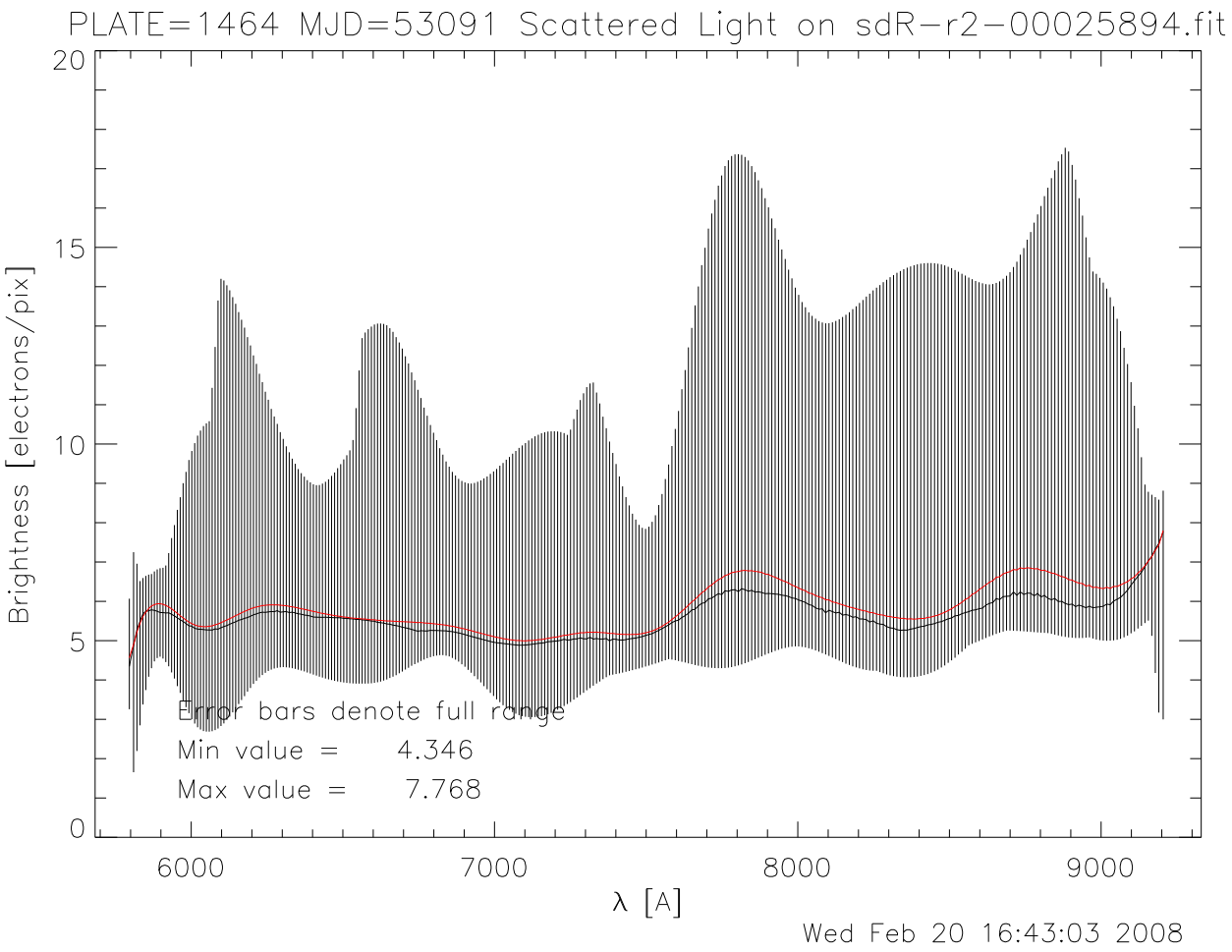

PLATE=1464 MJD=53091 sdR-r2-00025893.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 2.50 %
Fiber number
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass

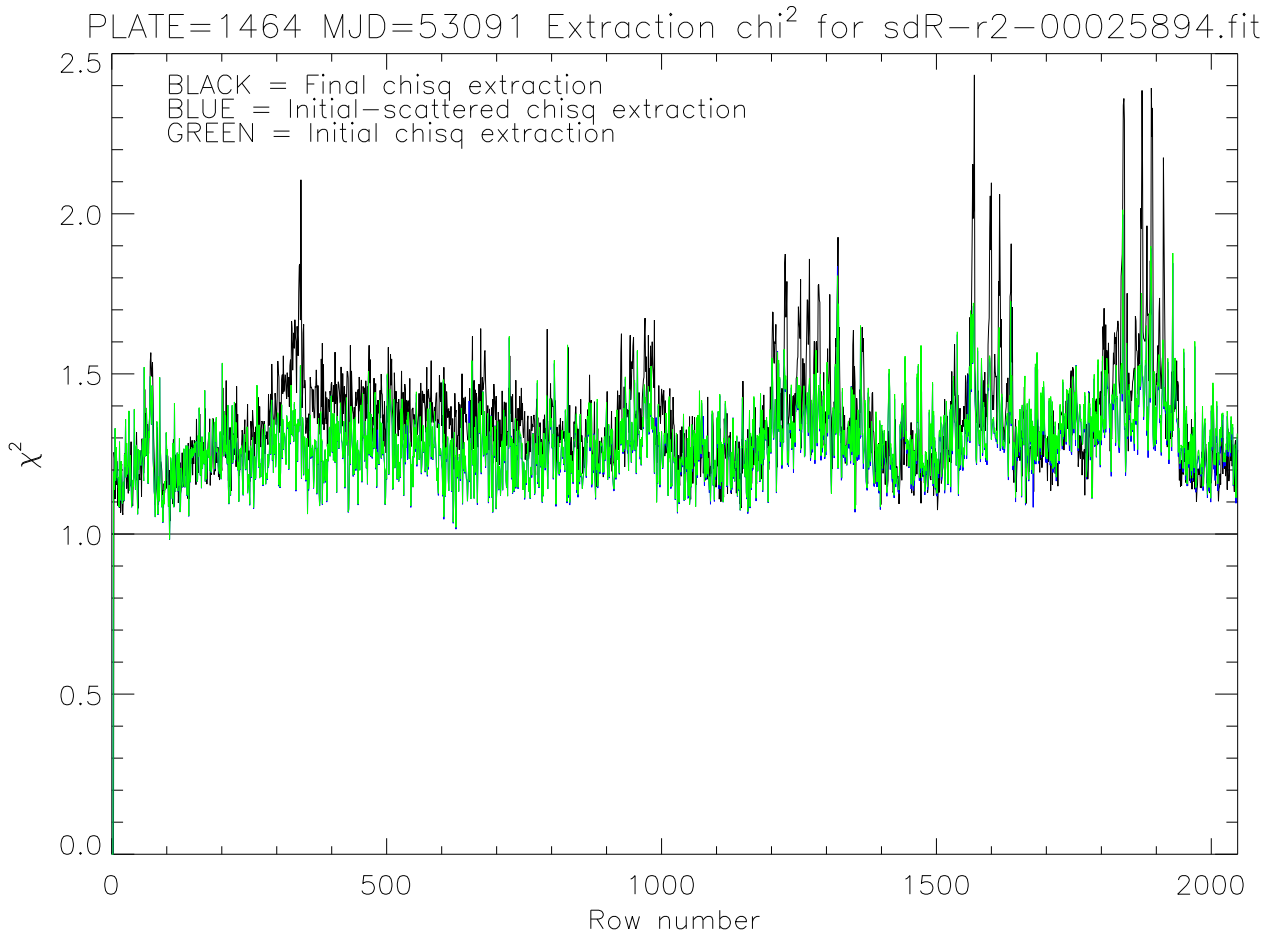

PLATE=1464 MJD=53091 Fiber−Flats for sdR−r2−00025896.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.613
Max value = 1.189
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Wed Feb 20 16:39:09 2008

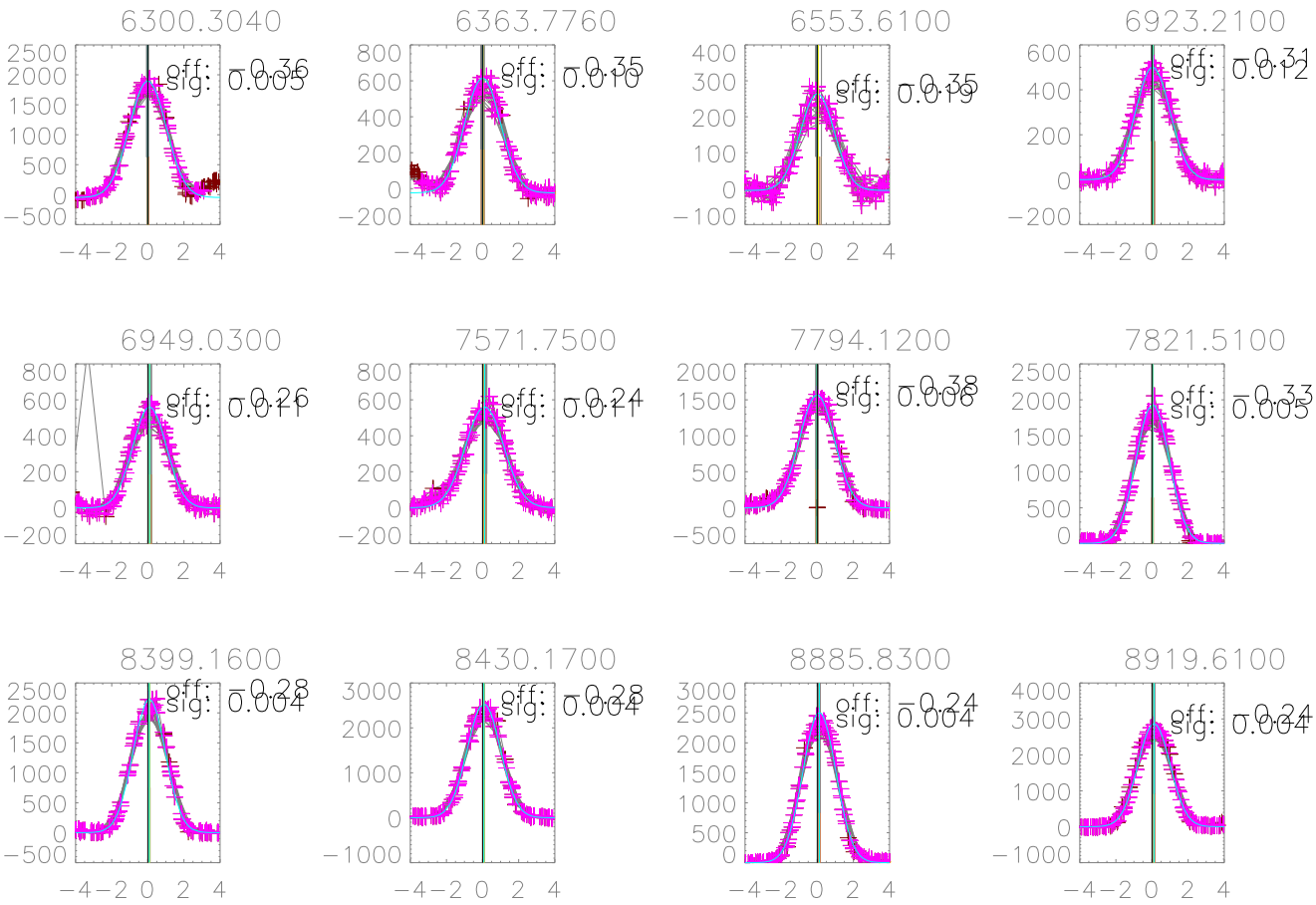

PLATE=1464 MJD=53091 Scattered Light before halo removal on sdR-r2-00025894.fi
25.5
25.5
25.5
18.2
18.2
18.2
10.9
10.9
10.9
10.9
0
10.9
Y [pix]
X [pix]
0
500
1000
1500
2000

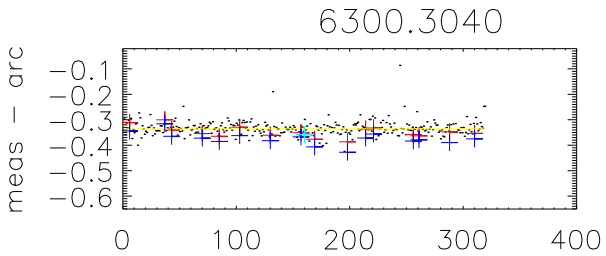

PLATE=1464 MJD=53091 Scattered Light before halo removal on sdR-r2-00025894.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 4.531
Max value = 27.818
Wed Feb 20 16:40:01 2008

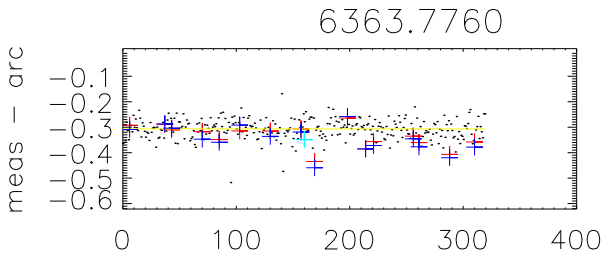

PLATE=1464 MJD=53091 Scattered Light on sdR-r2-00025894.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
5.5
0

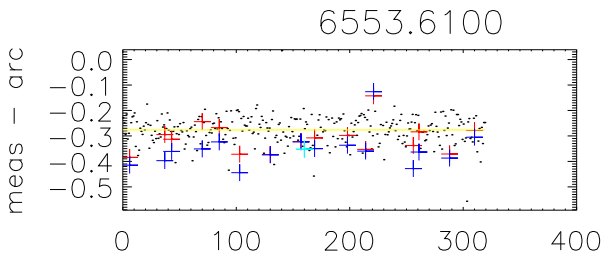

PLATE=1464 MJD=53091 Scattered Light on sdR-r2-00025894.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 4.346
Max value = 7.768
Wed Feb 20 16:43:03 2008

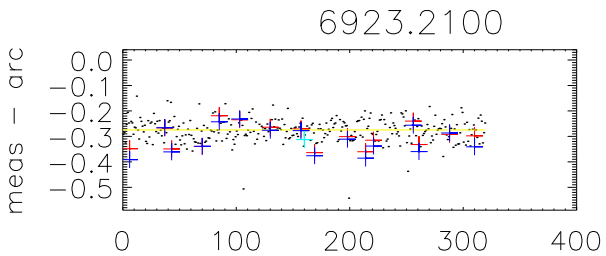

PLATE=1464 MJD=53091 Extraction chi^2 for sdR−r2−00025894.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
2.5
2.0
1.5
1.0
0.5
0.0
0
500
1000
1500
2000
Row number

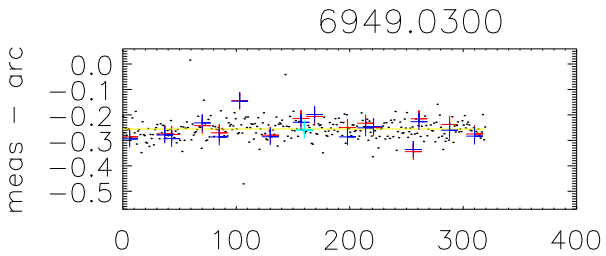

6300.3040
off: −0.36
sig: 0.005
6363.7760
off: −0.35
sig: 0.010
6553.6100
off: −0.35
sig: 0.019
6923.2100
off: −0.31
sig: 0.012
6949.0300
off: −0.26
sig: 0.011
7571.7500
off: −0.24
sig: 0.011
7794.1200
off: −0.38
sig: 0.008
7821.5100
off: −0.33
sig: 0.005
8399.1600
off: −0.28
sig: 0.004
8430.1700
off: −0.28
sig: 0.004
8885.8300
off: −0.24
sig: 0.004
8919.6100
off: −0.24
sig: 0.004

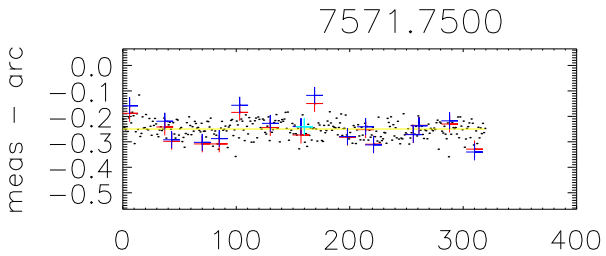

6300.3040
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

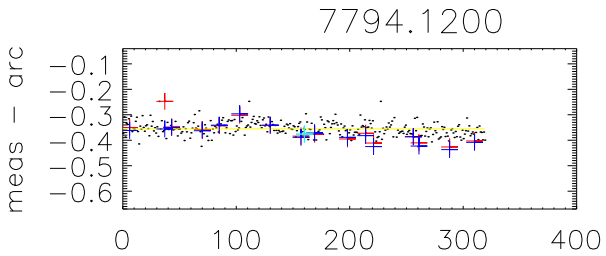

6363.7760
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

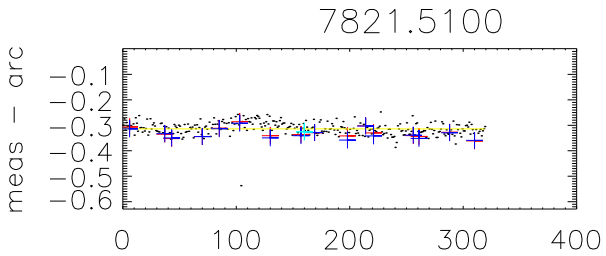

6553.6100
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

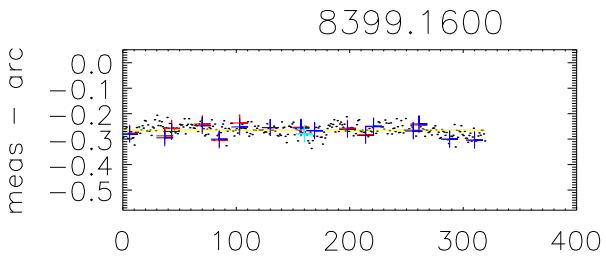

6923.2100
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

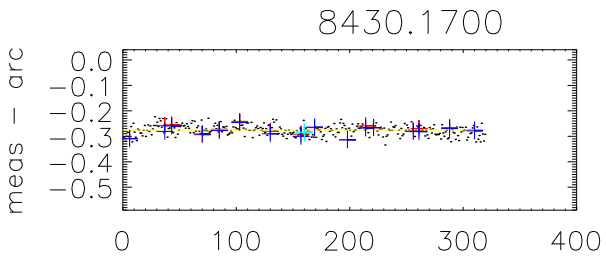

6949.0300
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

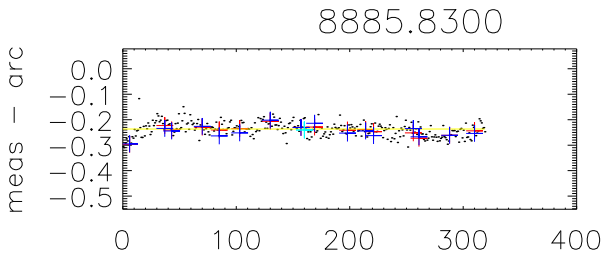

7571.7500
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

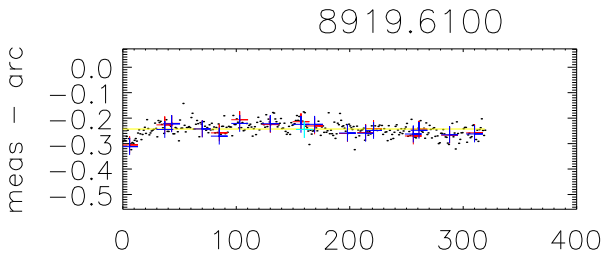

7794.1200
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

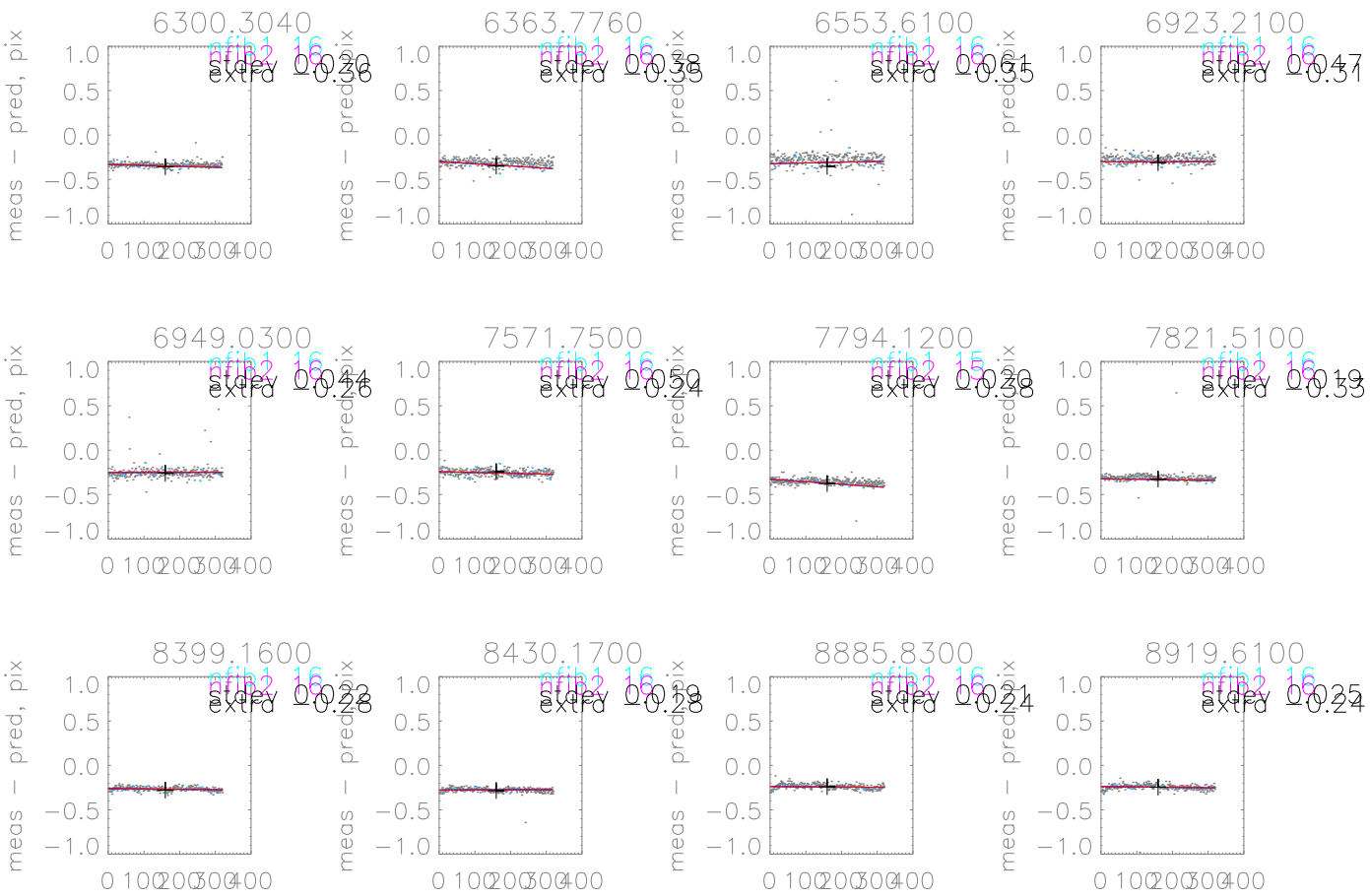

7821.5100
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

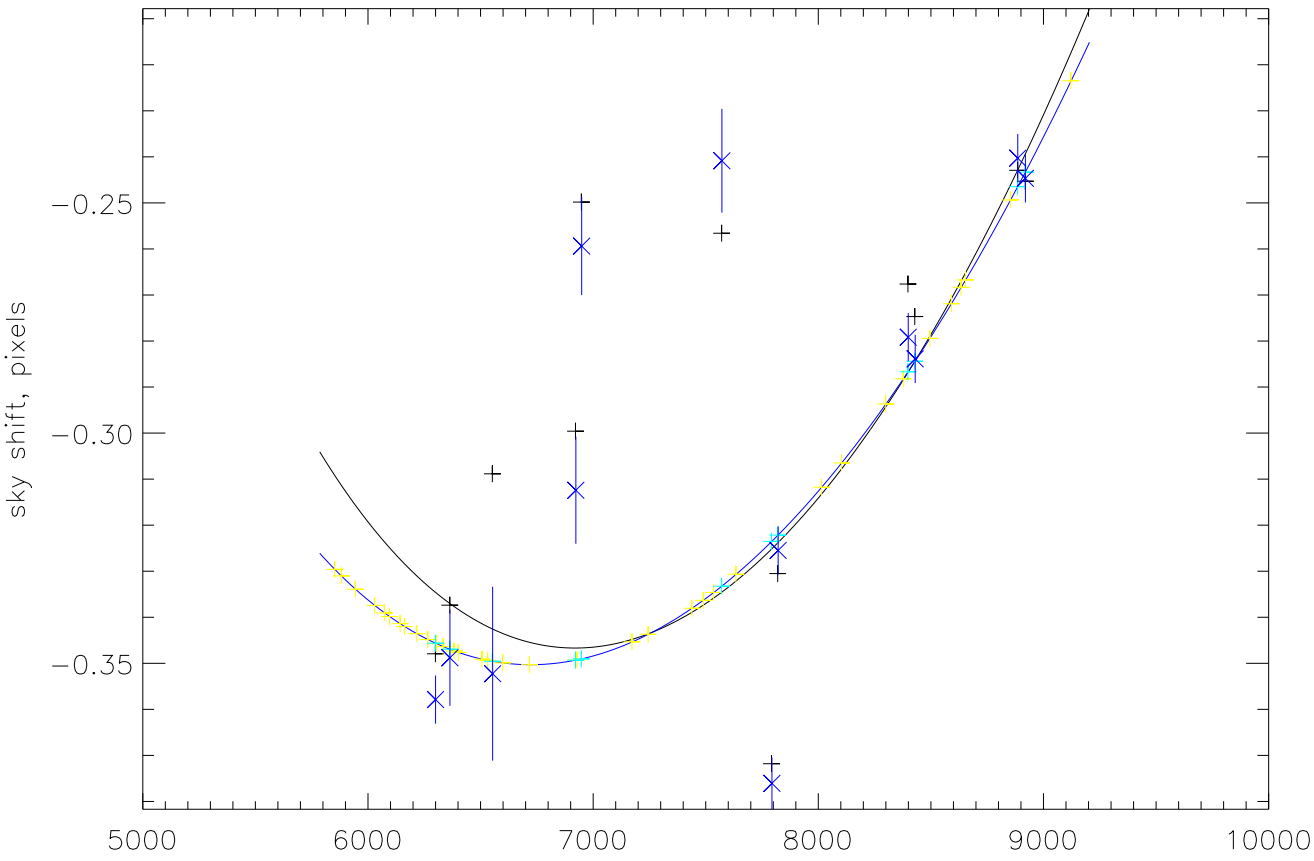

8399.1600
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

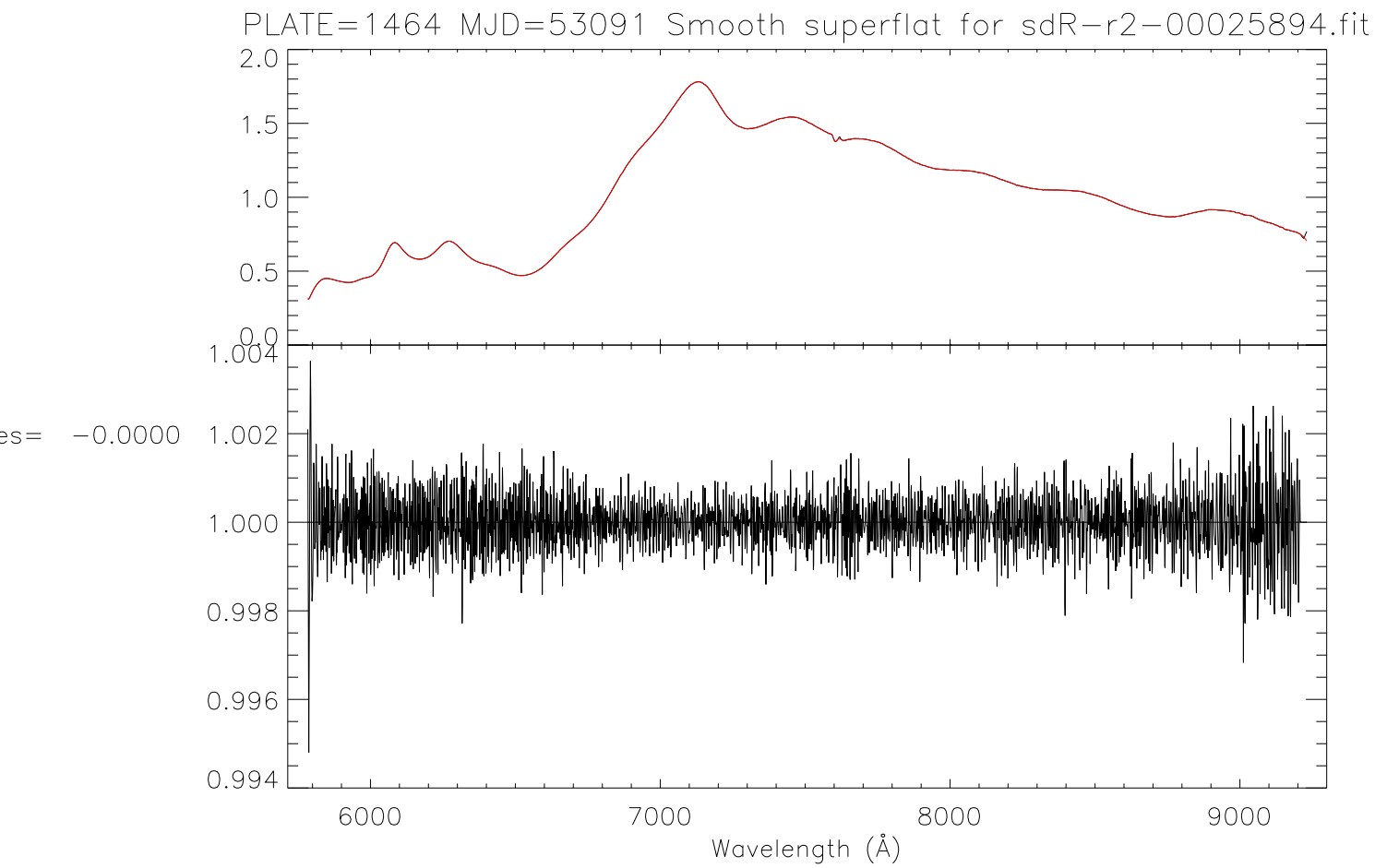

8430.1700
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

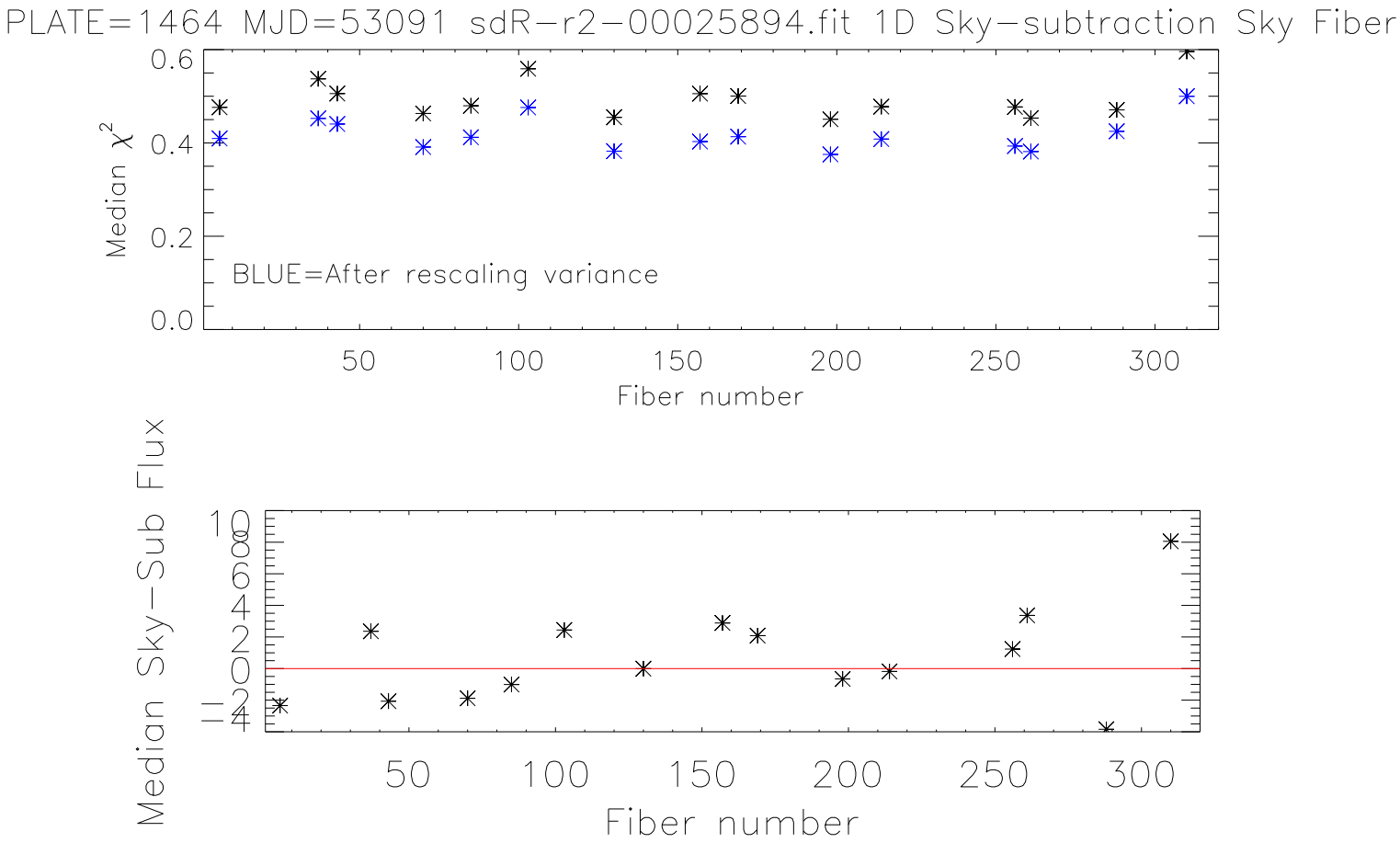

8885.8300
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

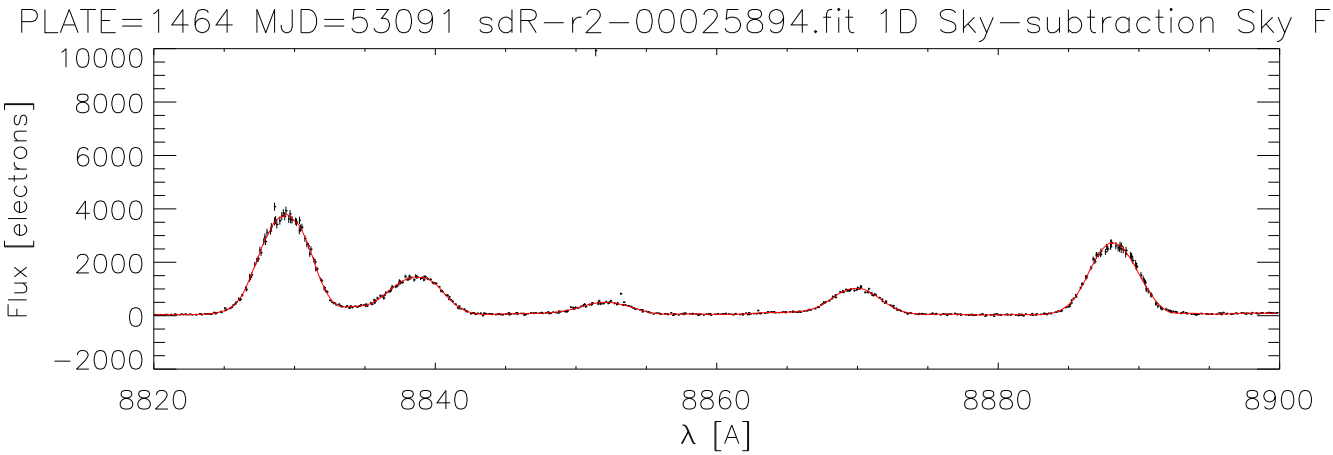

8919.6100
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

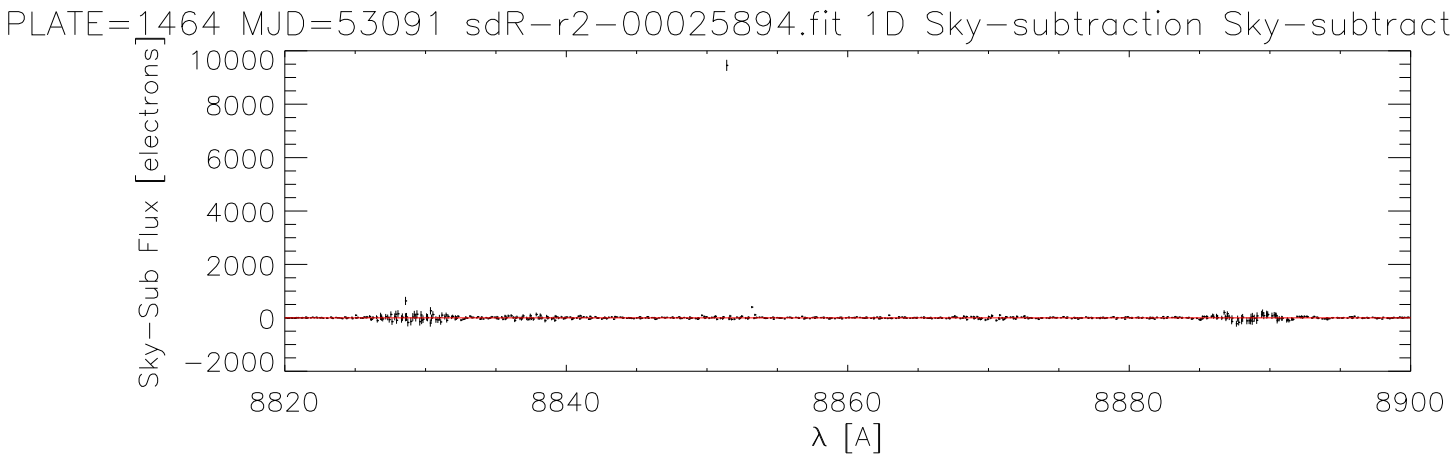

6300.3040
stdev 0.020
extra −0.36
6363.7760
stdev 0.038
extra −0.35
6553.6100
stdev 0.061
extra −0.55
6923.2100
stdev 0.047
extra −0.31
6949.0300
stdev 0.044
extra −0.26
7571.7500
stdev 0.050
extra −0.24
7794.1200
stdev 0.030
extra −0.38
7821.5100
stdev 0.019
extra −0.33
8399.1600
stdev 0.022
extra −0.28
8430.1700
stdev 0.019
extra −0.28
8885.8300
stdev 0.021
extra −0.24
8919.6100
stdev 0.025
extra −0.24
meas − pred, pix
meas − pred, pix

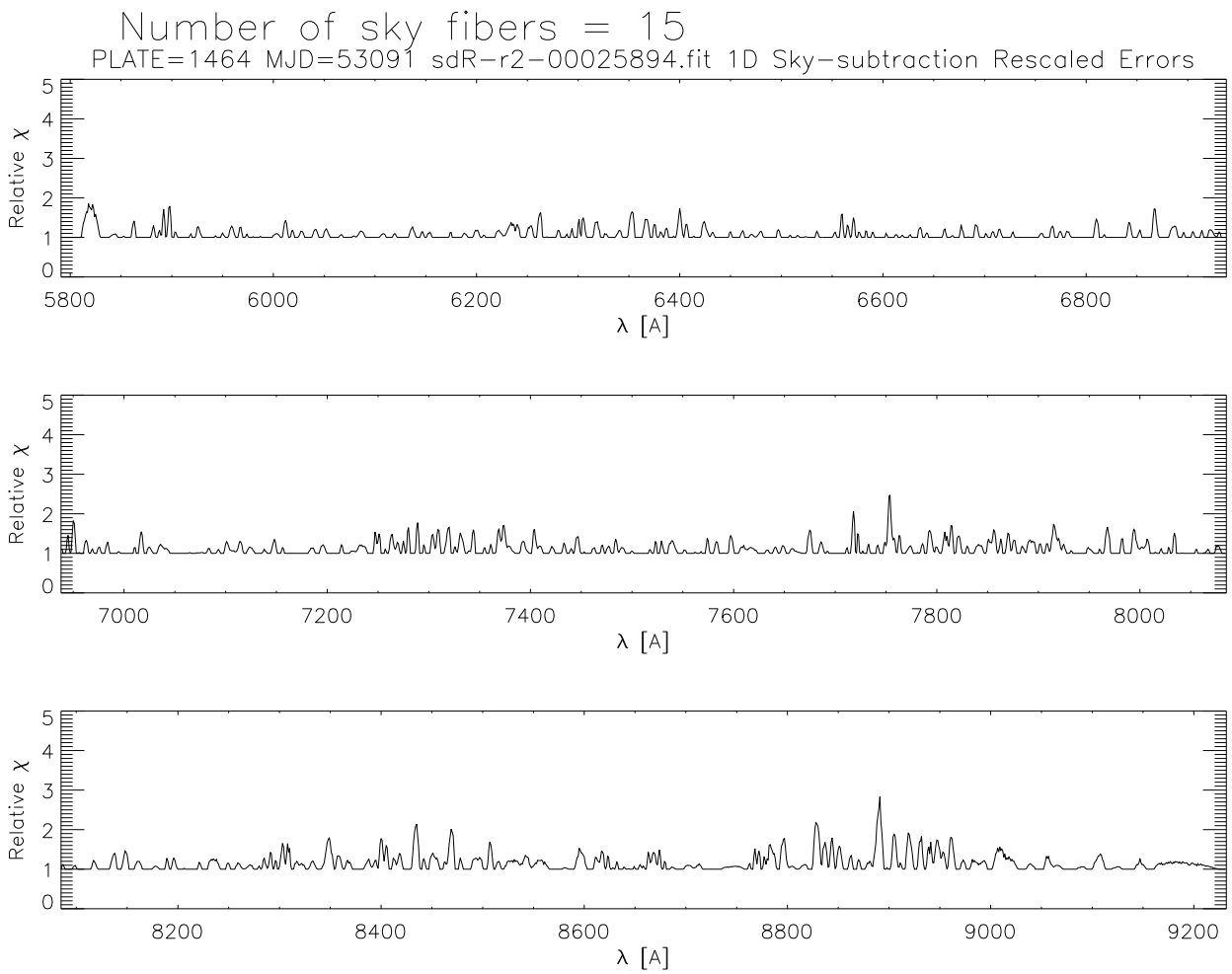

sky shift, pixels
−0.25
−0.30
−0.35
5000
6000
7000
8000
9000
10000

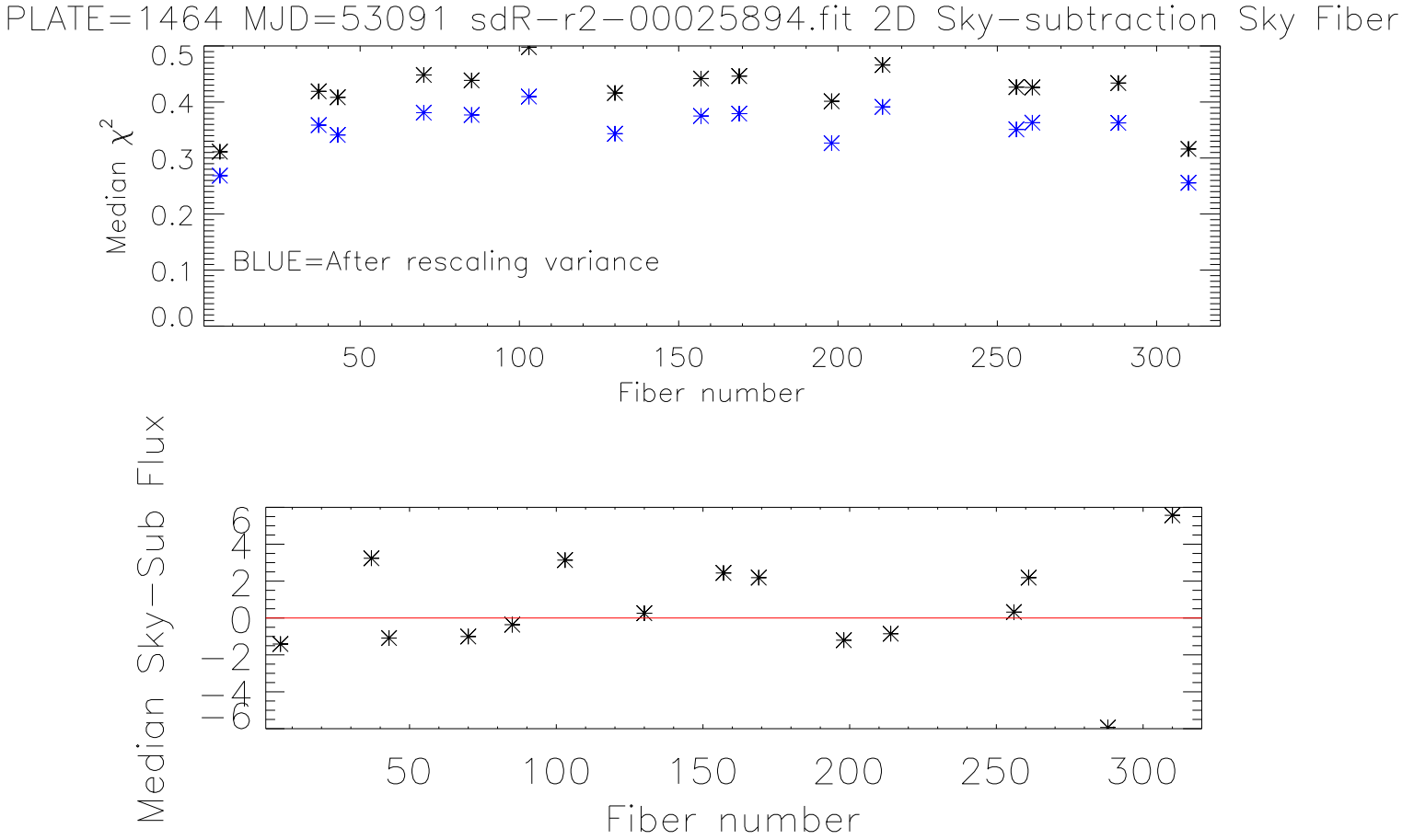

PLATE=1464 MJD=53091 Smooth superflat for sdR-r2-00025894.fit
2.0
1.5
1.0
0.5
0.0
1.004
1.002
1.000
0.998
0.996
0.994
es= −0.0000
6000
7000
8000
9000
Wavelength (Å)

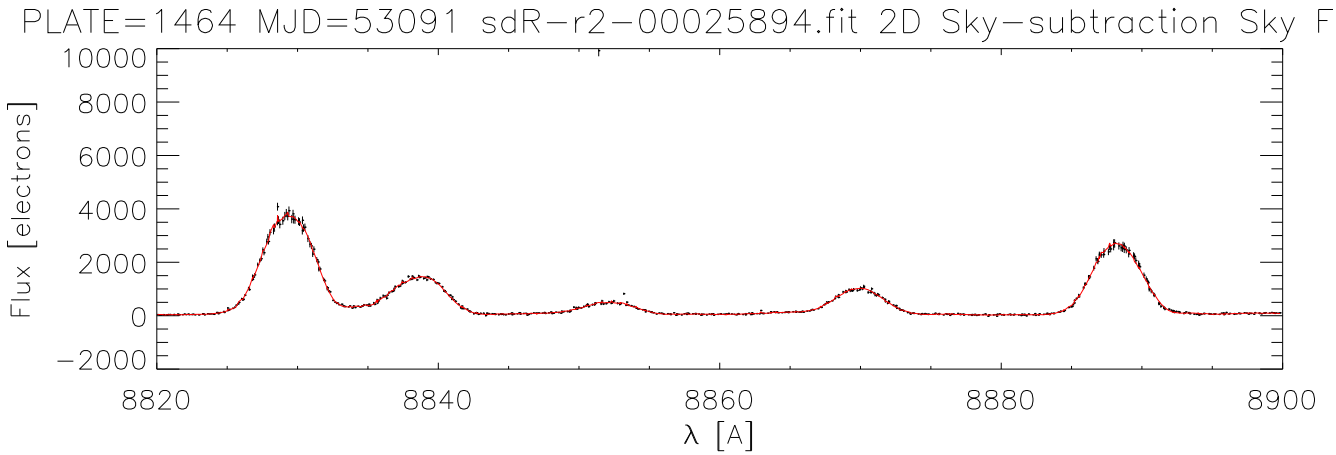

PLATE=1464 MJD=53091 sdR-r2-00025894.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-10
-8
-6
-4
-2
0
2
4
6
8
10
50
100
150
200
250
300
Fiber number

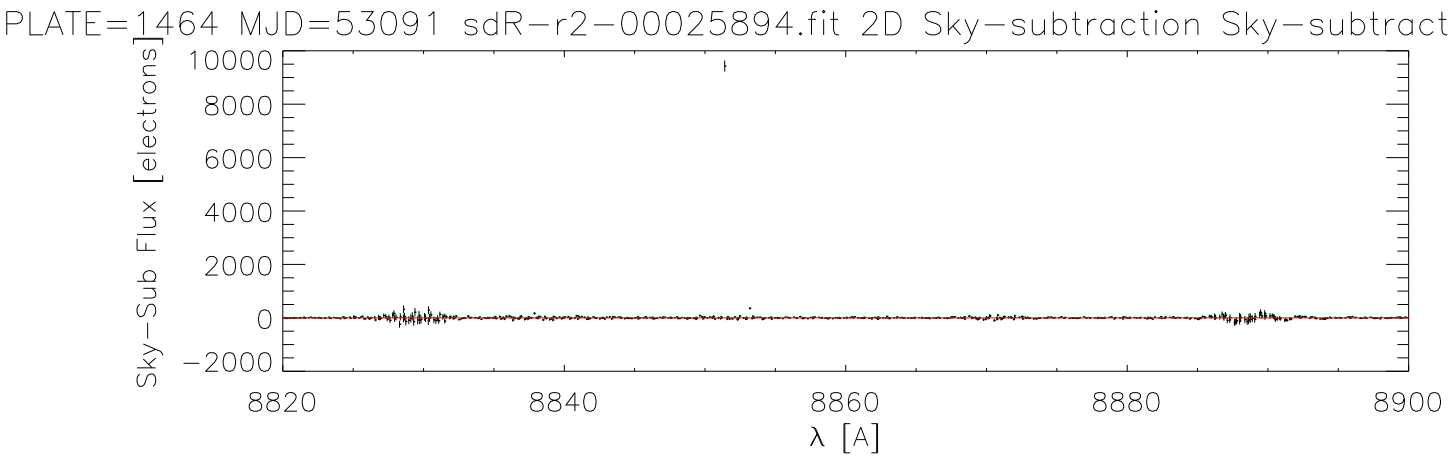

PLATE=1464 MJD=53091 sdR-r2-00025894.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
10000
8000
6000
4000
2000
0
-2000
8820
8840
8860
8880
8900
λ [A]

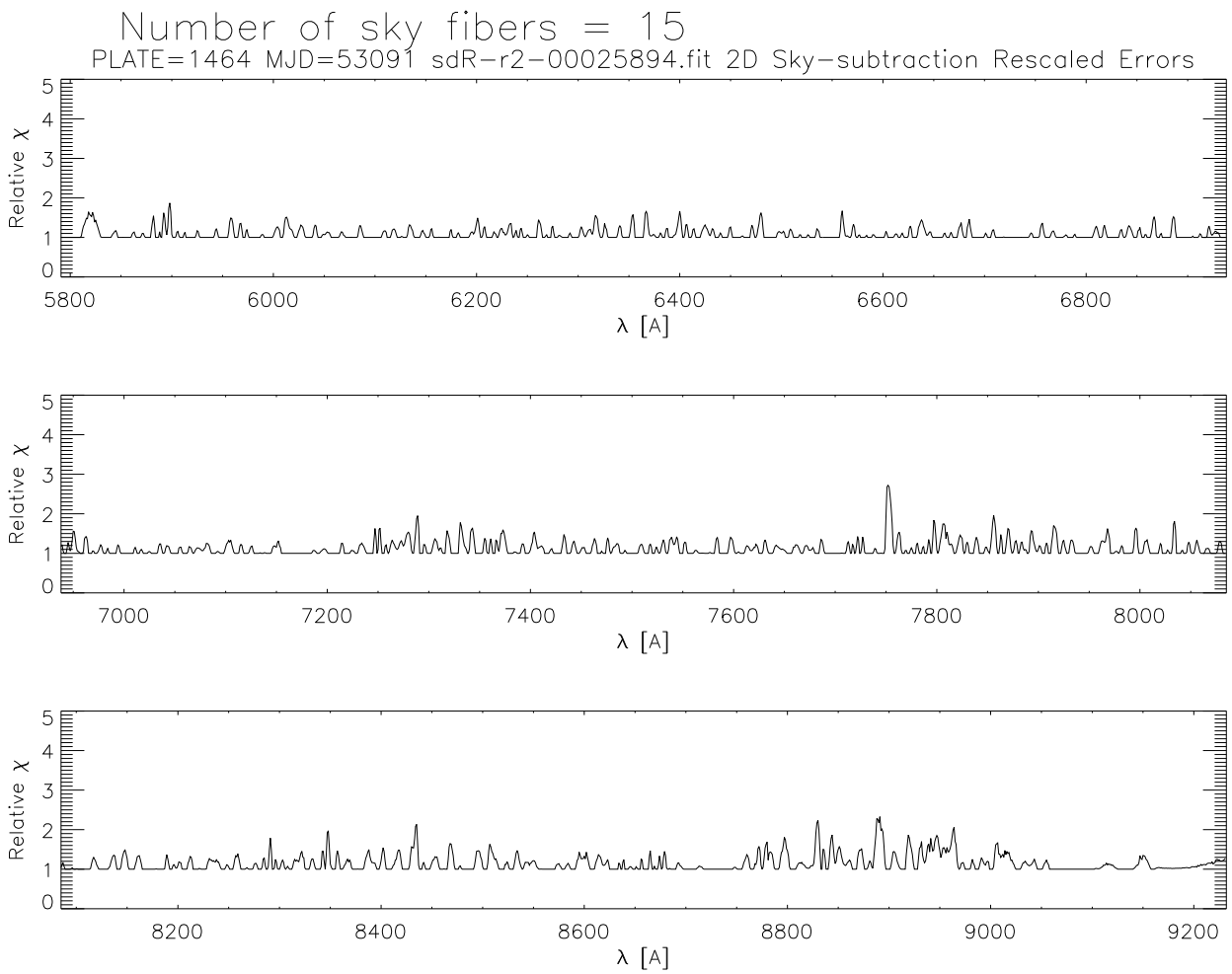

PLATE=1464 MJD=53091 sdR-r2-00025894.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
10000
8000
6000
4000
2000
0
-2000
8820
8840
8860
8880
8900
λ [A]

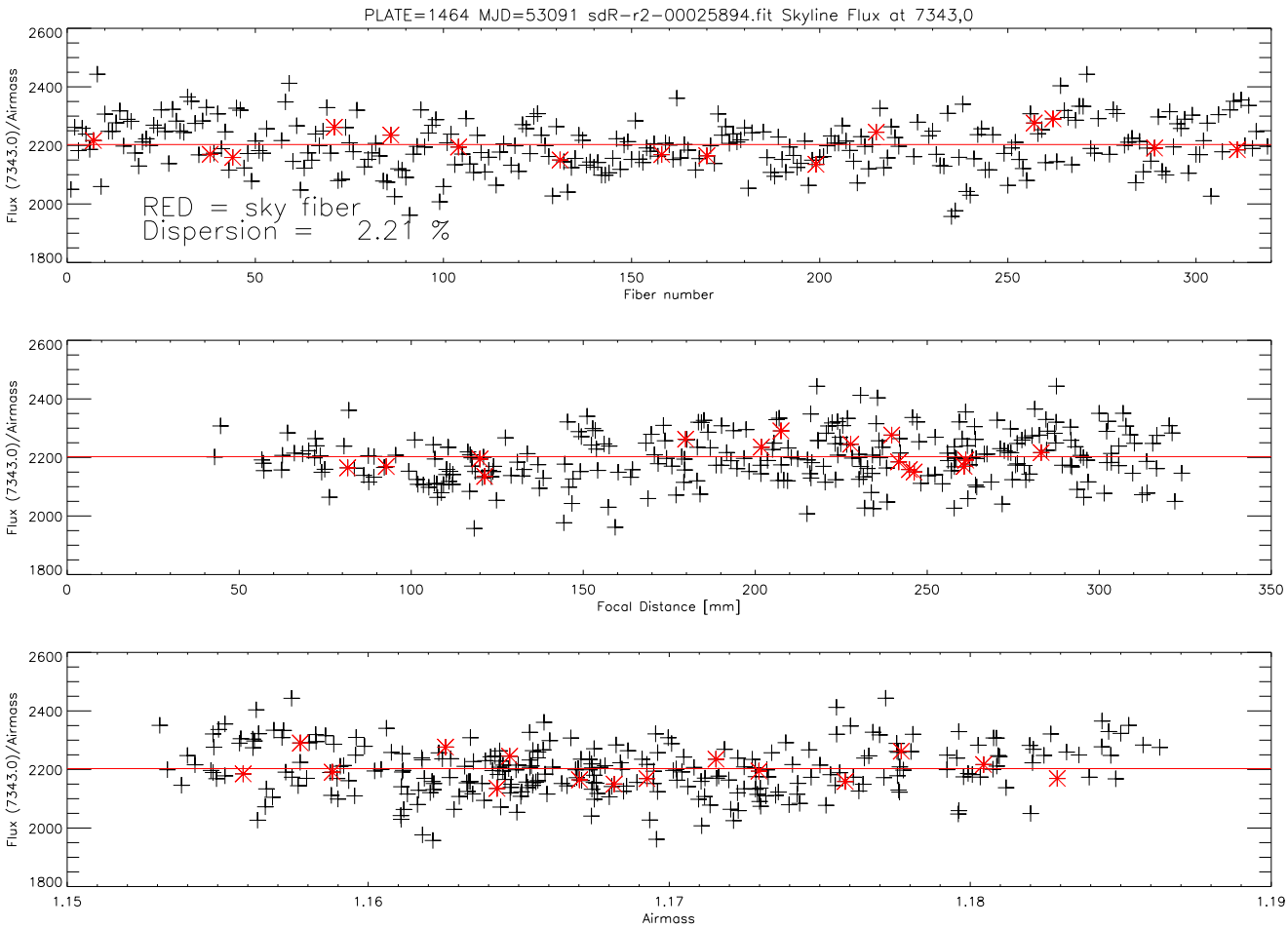

Number of sky fibers = 15
PLATE=1464 MJD=53091 sdR-r2-00025894.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

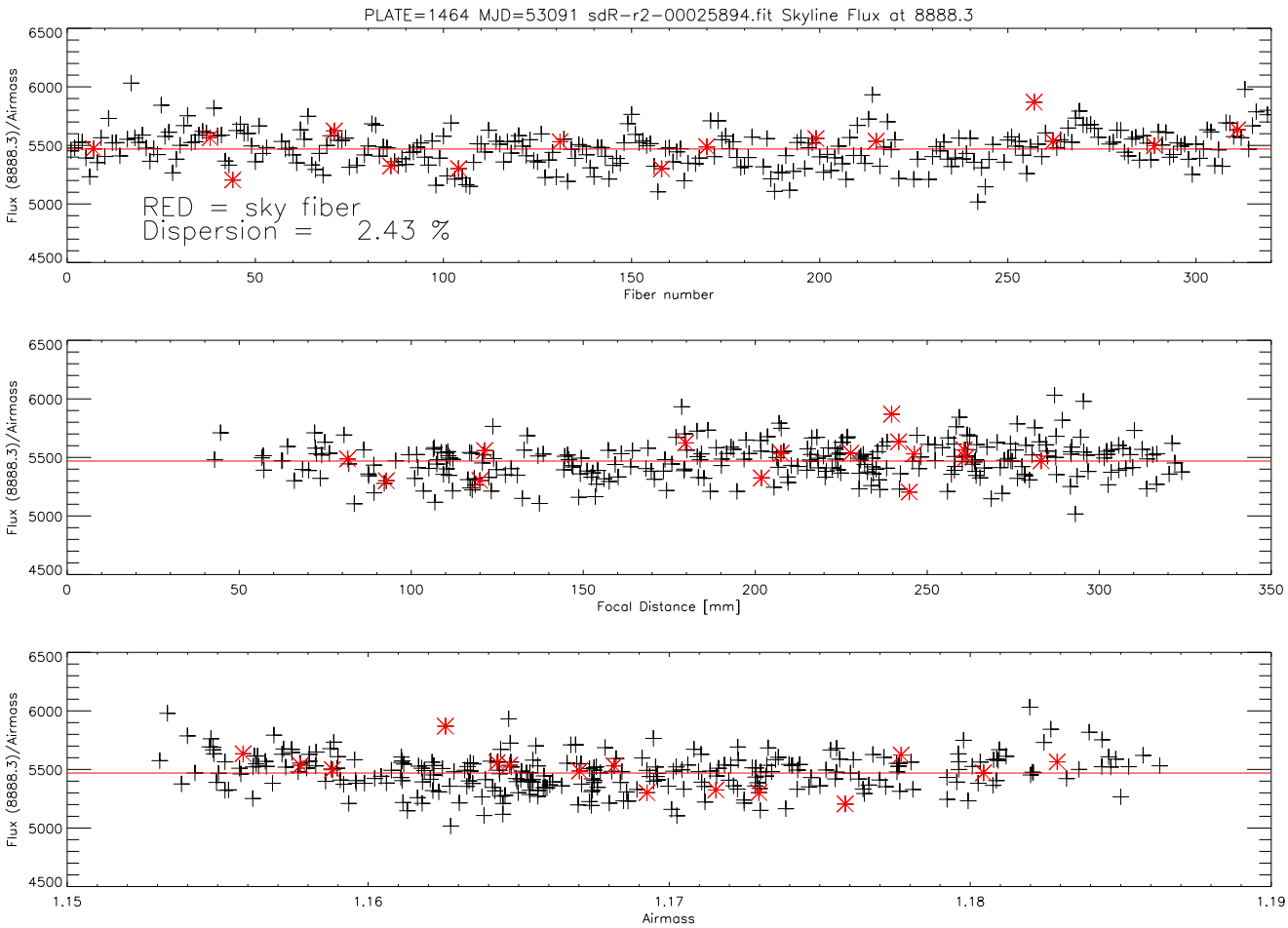

PLATE=1464 MJD=53091 sdR-r2-00025894.fit 2D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-6
-4
-2
0
2
4
6
50
100
150
200
250
300
Fiber number

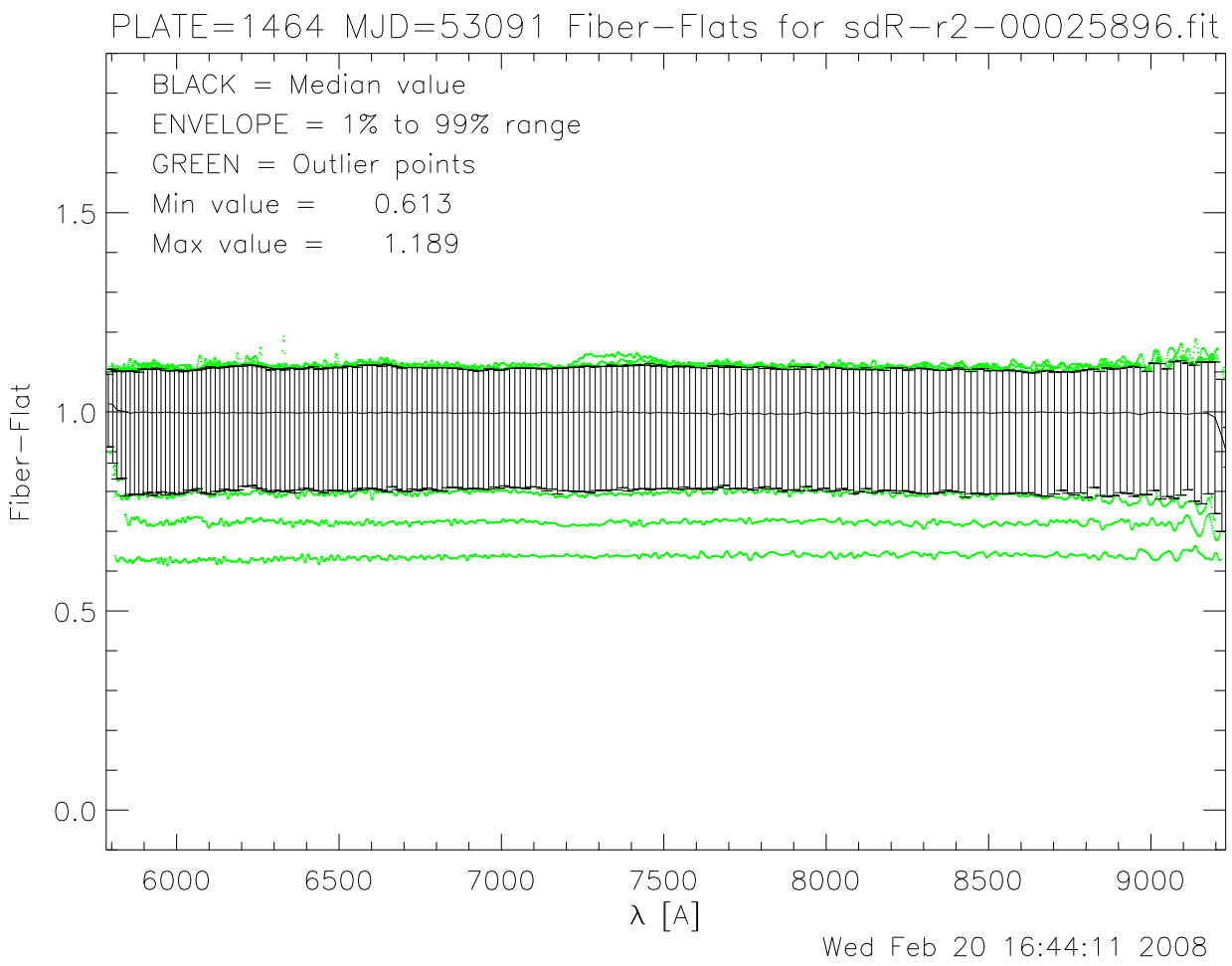

PLATE=1464 MJD=53091 sdR-r2-00025894.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
10000
8000
6000
4000
2000
0
-2000
8820
8840
8860
8880
8900
λ [A]

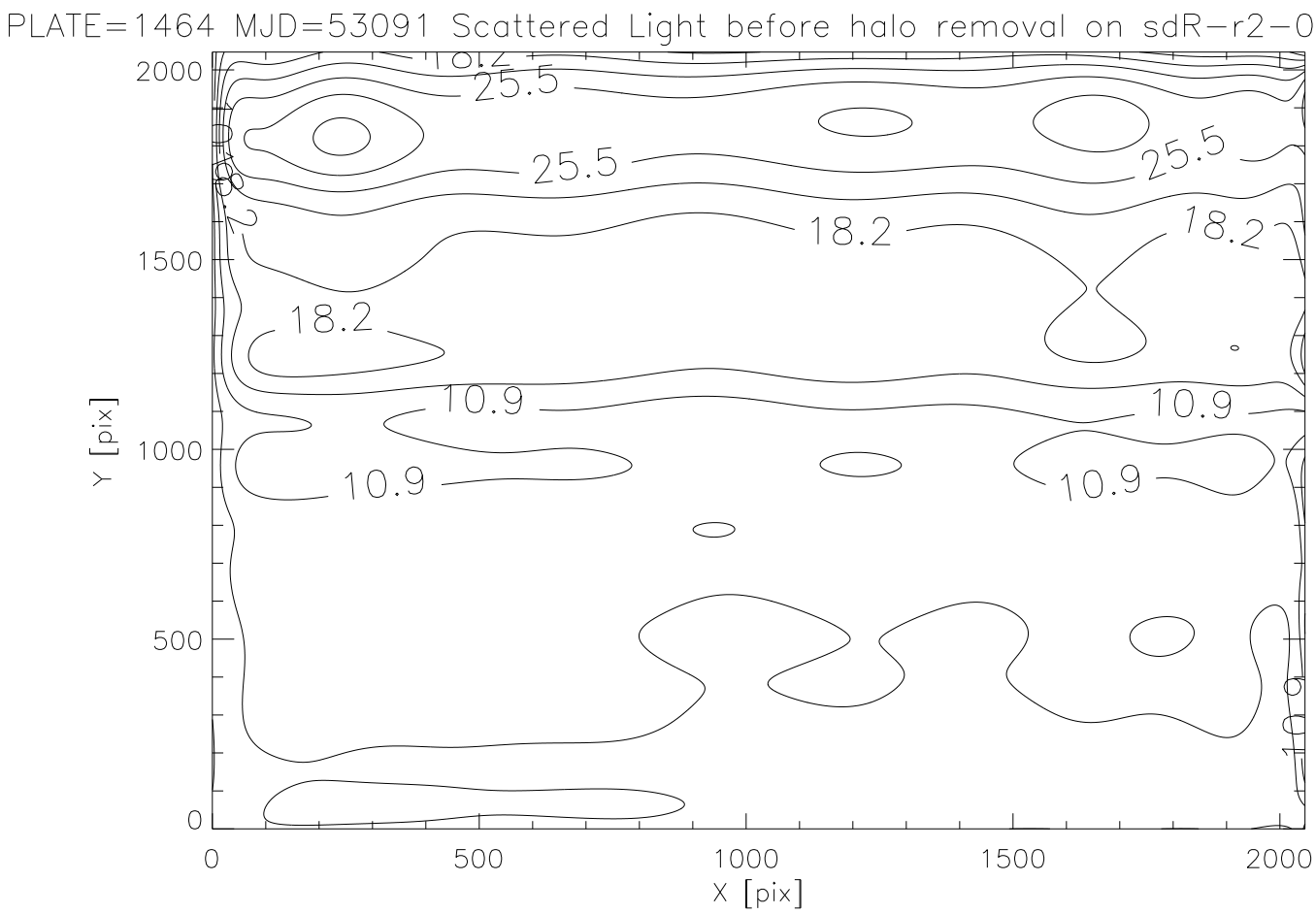

PLATE=1464 MJD=53091 sdR-r2-00025894.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
10000
8000
6000
4000
2000
0
-2000
8820
8840
8860
8880
8900
λ [A]

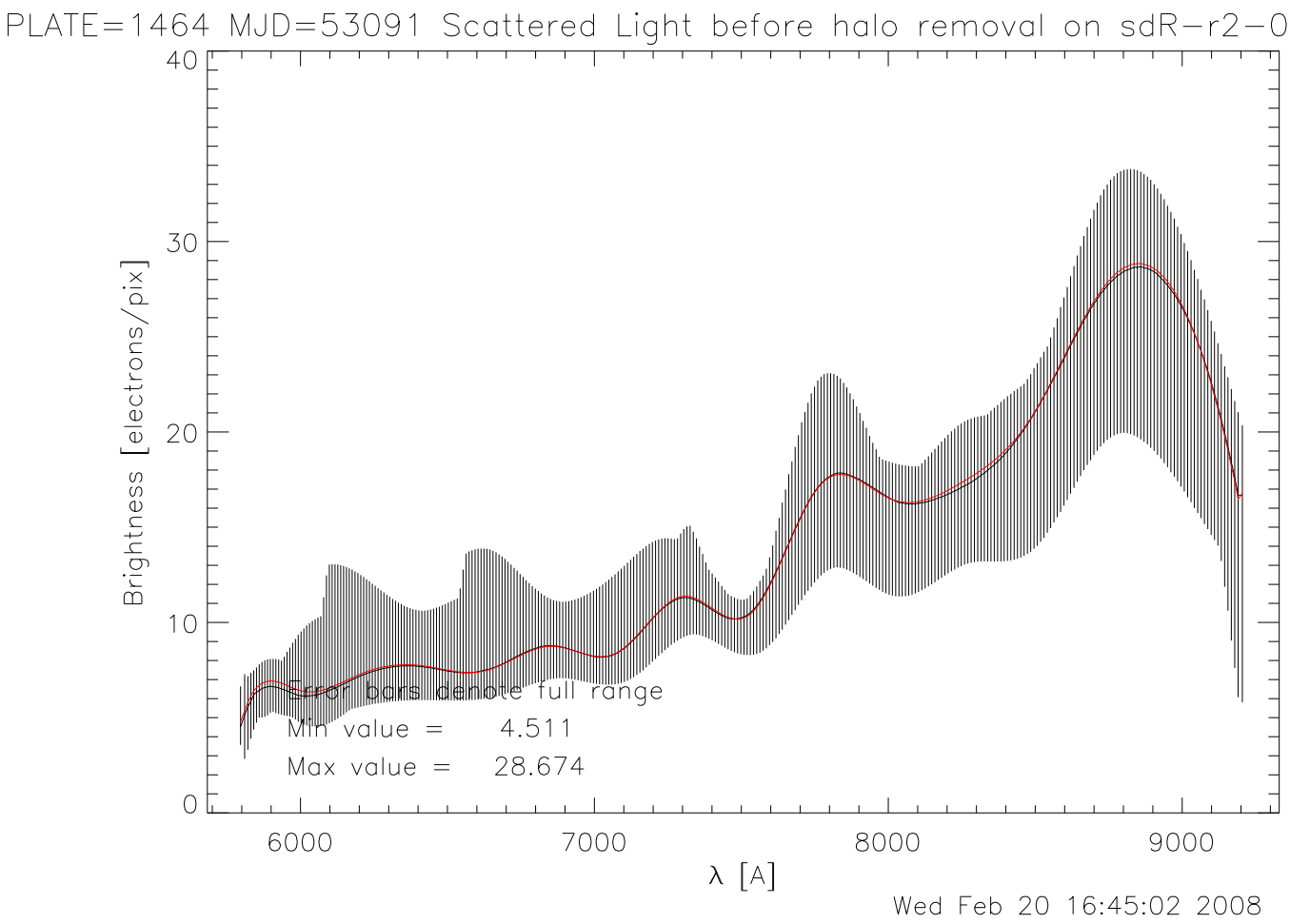

Number of sky fibers = 15
PLATE=1464 MJD=53091 sdR-r2-00025894.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

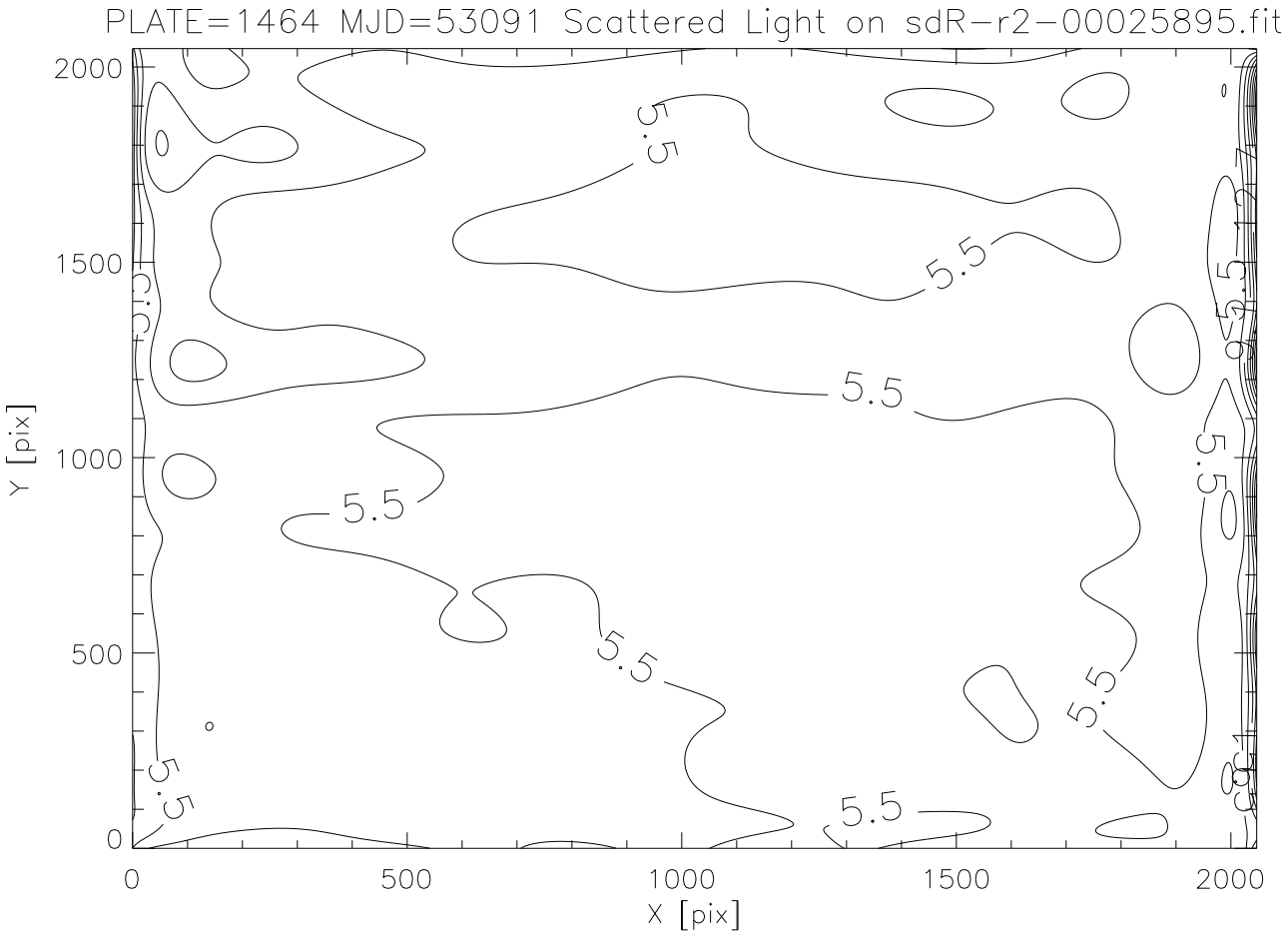

PLATE=1464 MJD=53091 sdR-r2-00025894.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 2.21 %
Fiber number
Focal Distance [mm]
Airmass

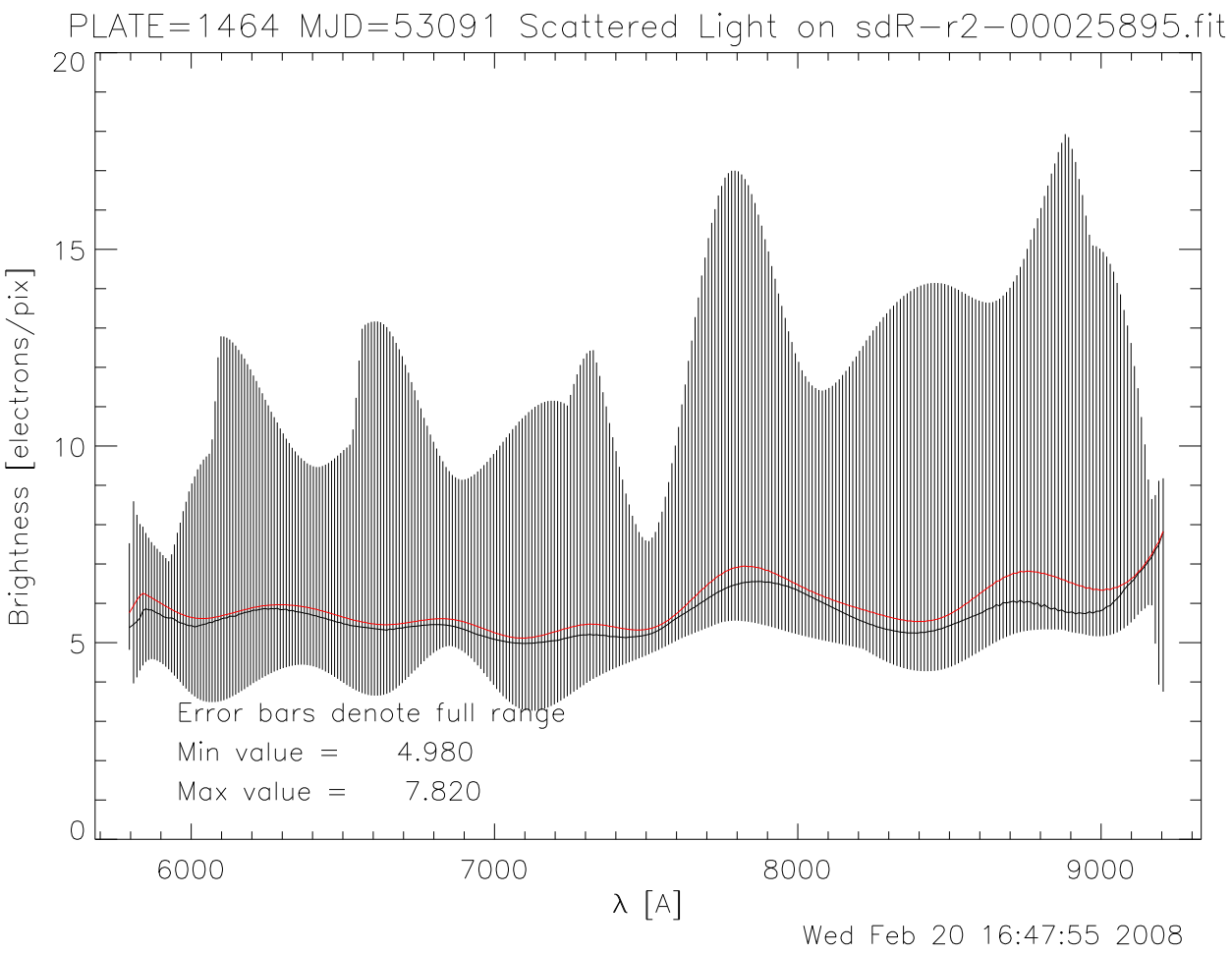

PLATE=1464 MJD=53091 sdR-r2-00025894.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 2.43 %
Fiber number
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass

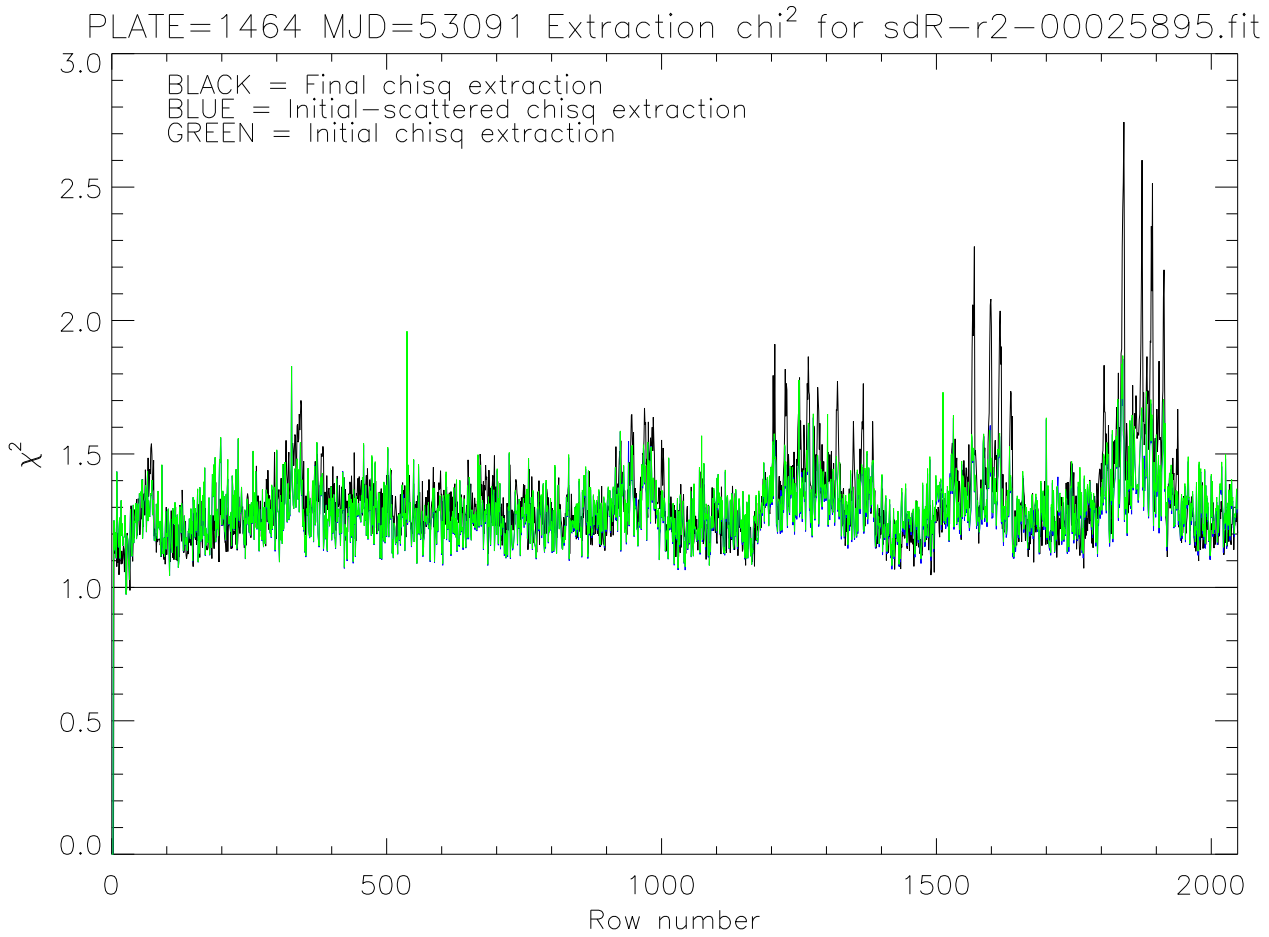

PLATE=1464 MJD=53091 Fiber−Flats for sdR−r2−00025896.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.613
Max value = 1.189
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Wed Feb 20 16:44:11 2008

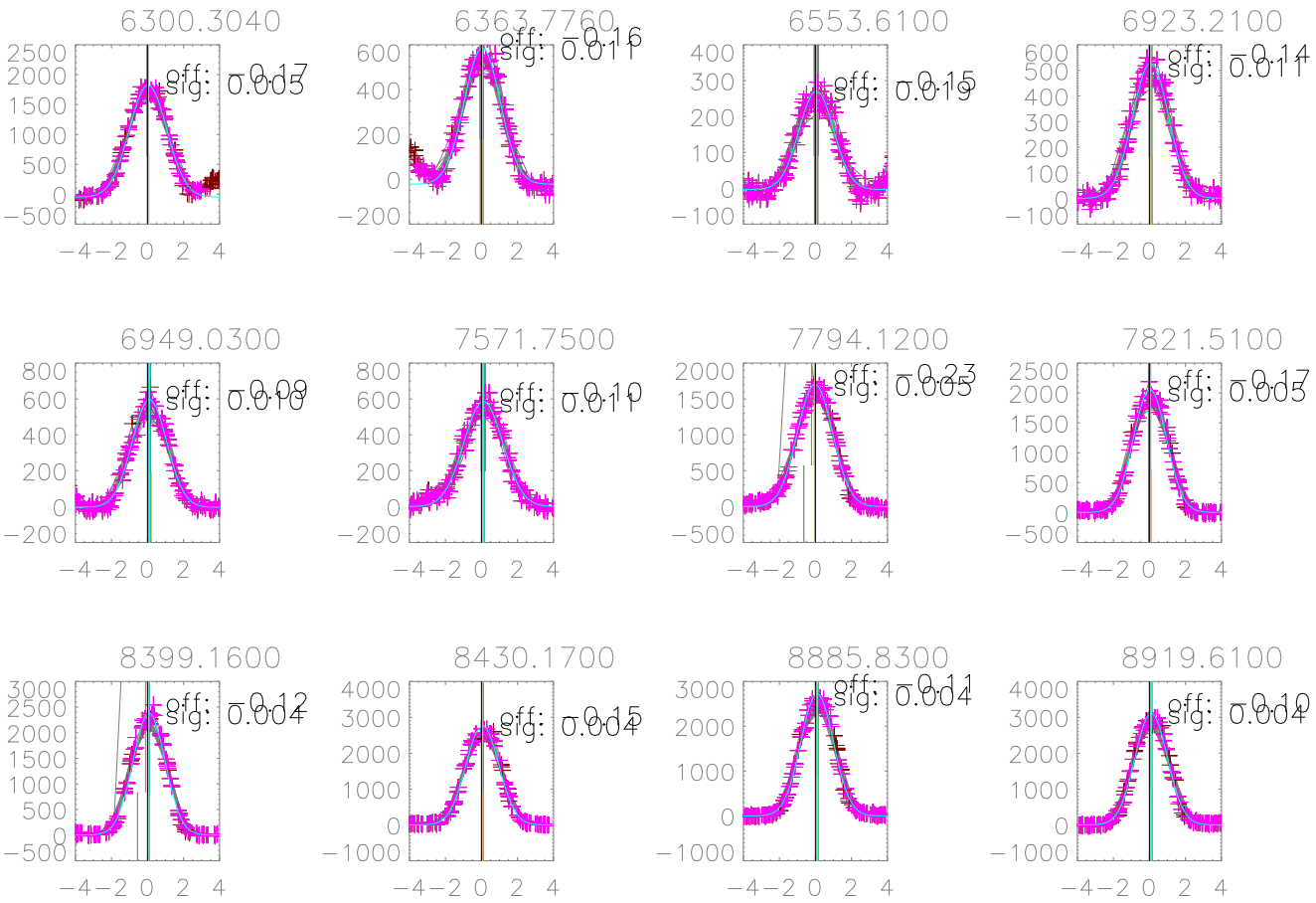

PLATE=1464 MJD=53091 Scattered Light before halo removal on sdR-r2-00025895.fi
25.5
25.5
25.5
18.2
18.2
18.2
10.9
10.9
10.9
10.9
Y [pix]
X [pix]
0
500
1000
1500
2000

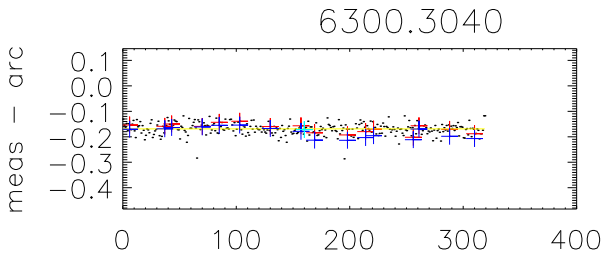

PLATE=1464 MJD=53091 Scattered Light before halo removal on sdR-r2-00025895.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 4.511
Max value = 28.674
Wed Feb 20 16:45:02 2008

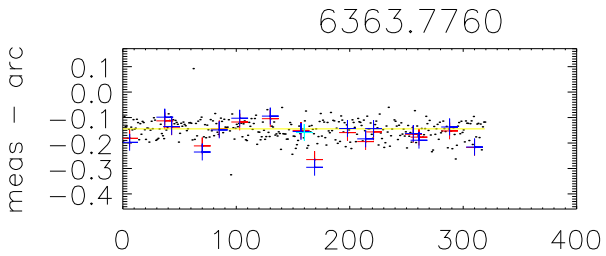

PLATE=1464 MJD=53091 Scattered Light on sdR-r2-00025895.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
5.5

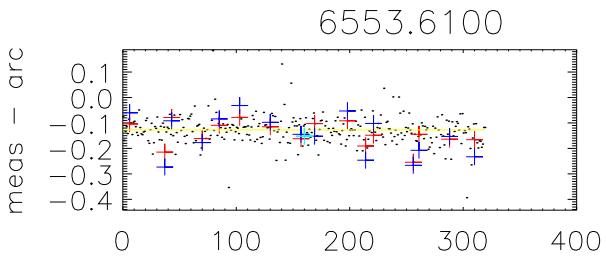

PLATE=1464 MJD=53091 Scattered Light on sdR-r2-00025895.fit
Brightness [electrons/pix]
20
15
10
5
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 4.980
Max value = 7.820
Wed Feb 20 16:47:55 2008

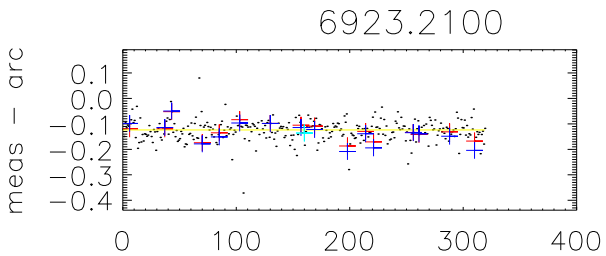

PLATE=1464 MJD=53091 Extraction chi^2 for sdR−r2−00025895.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
500
1000
1500
2000
Row number

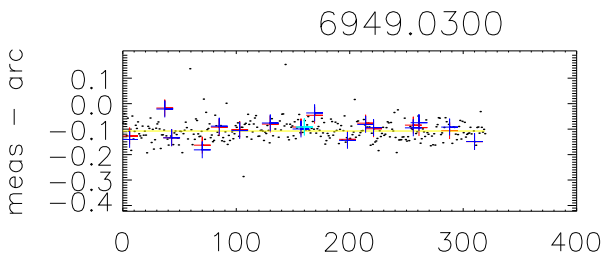

6300.3040
off: −0.17
sig: 0.003
6363.7760
off: −0.16
sig: 0.011
6553.6100
off: −0.15
sig: 0.019
6923.2100
off: −0.14
sig: 0.011
6949.0300
off: −0.09
sig: 0.010
7571.7500
off: −0.10
sig: 0.011
7794.1200
off: −0.23
sig: 0.005
7821.5100
off: −0.17
sig: 0.003
8399.1600
off: −0.12
sig: 0.004
8430.1700
off: −0.15
sig: 0.004
8885.8300
off: −0.11
sig: 0.004
8919.6100
off: −0.10
sig: 0.004

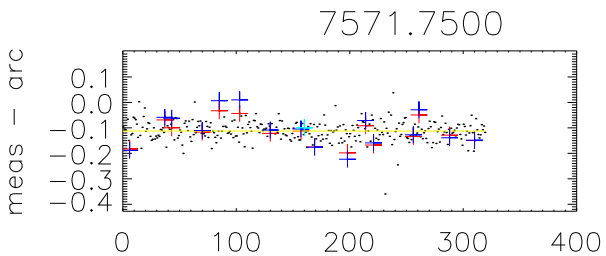

6300.3040
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

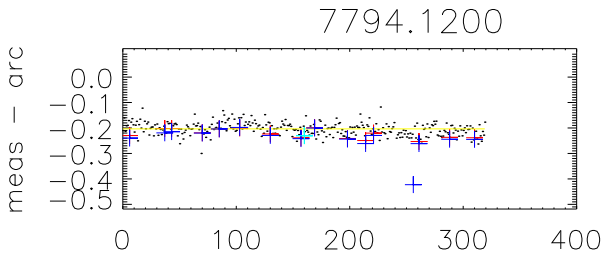

6363.7760
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

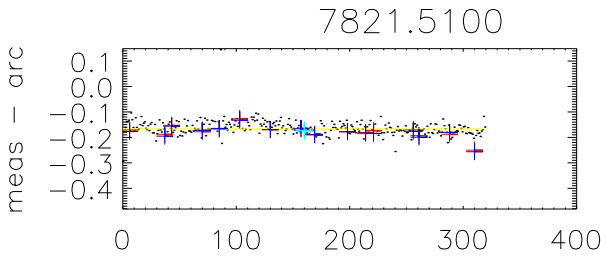

6553.6100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

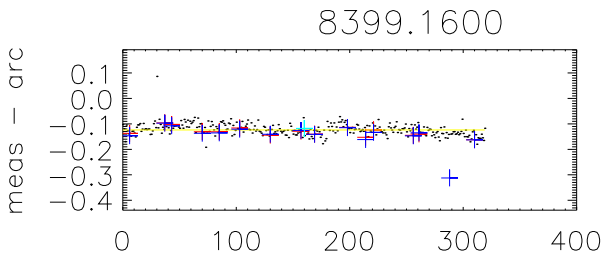

6923.2100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

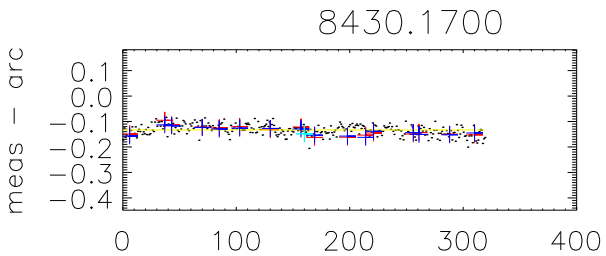

6949.0300
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

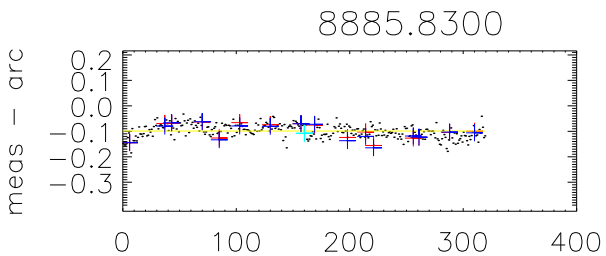

7571.7500
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

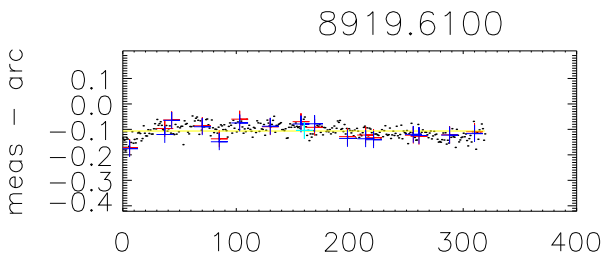

7794.1200
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

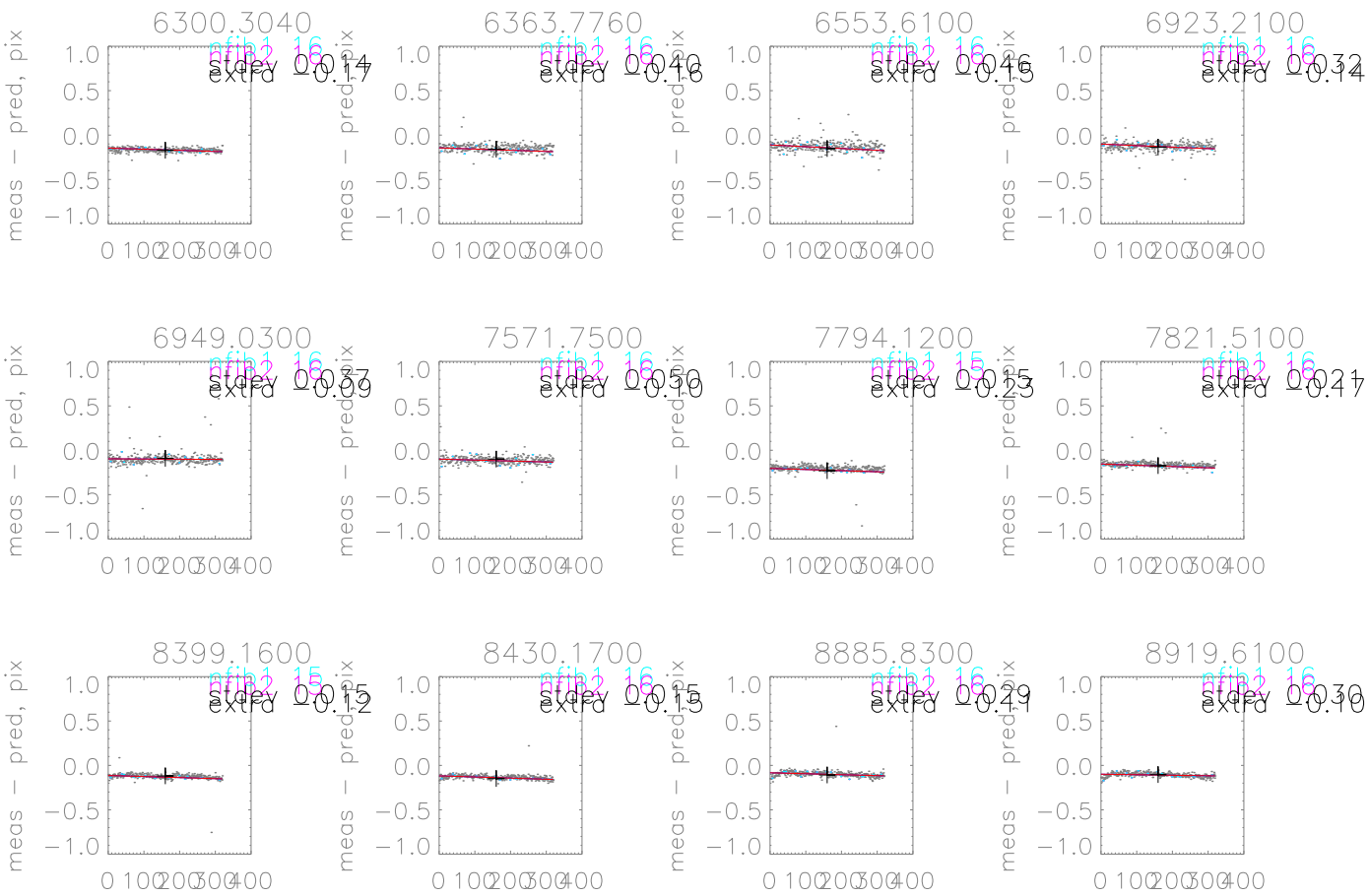

7821.5100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

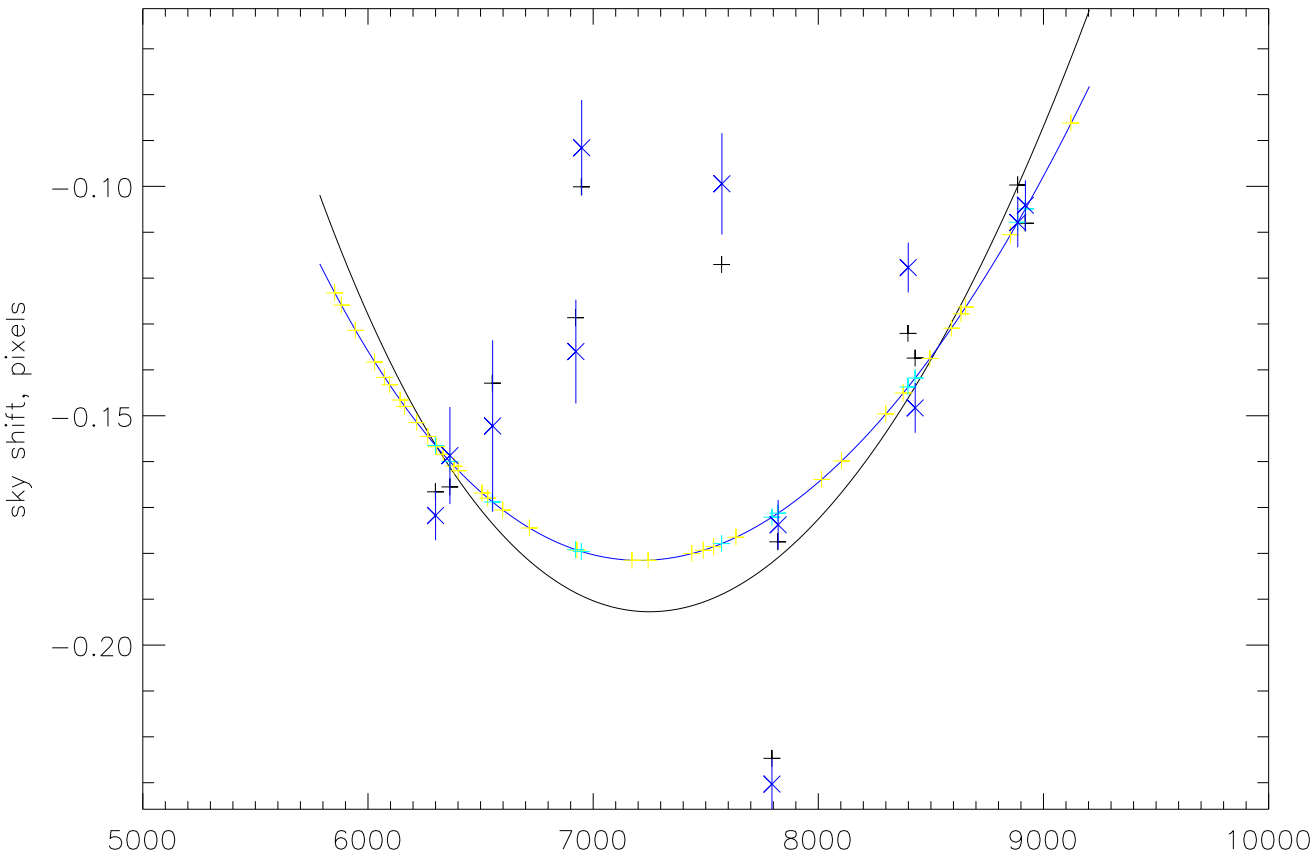

8399.1600
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

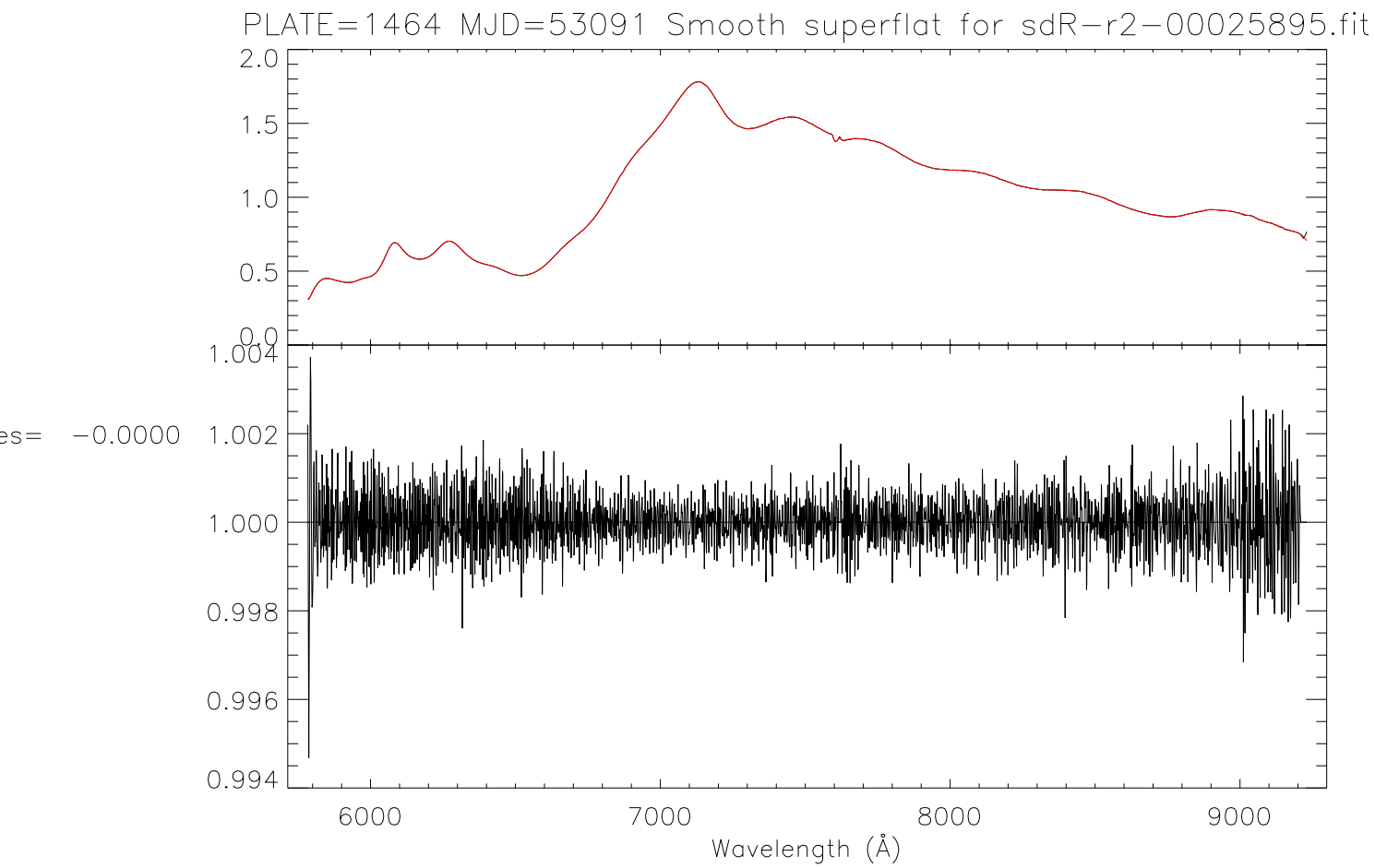

8430.1700
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

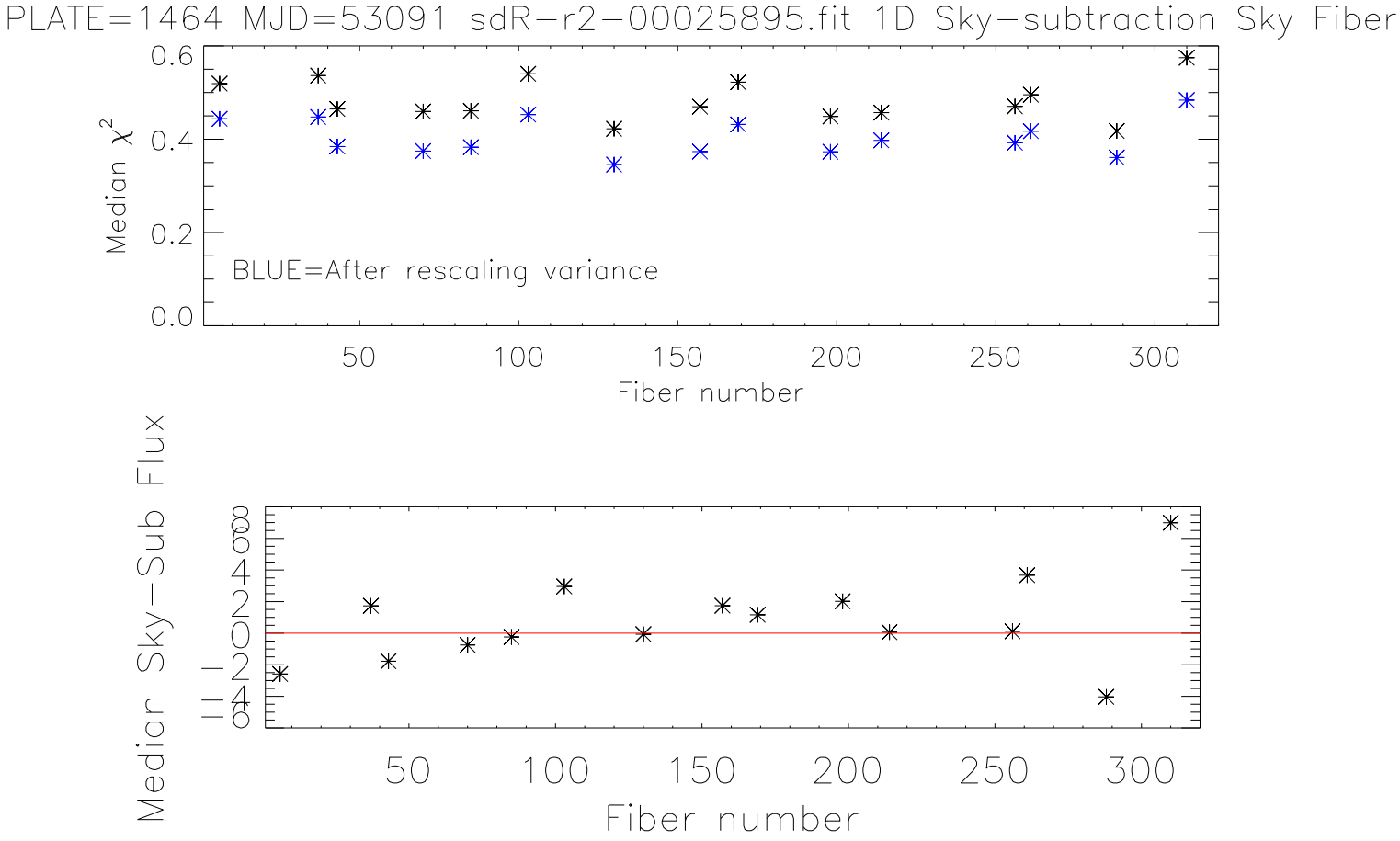

8885.8300
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

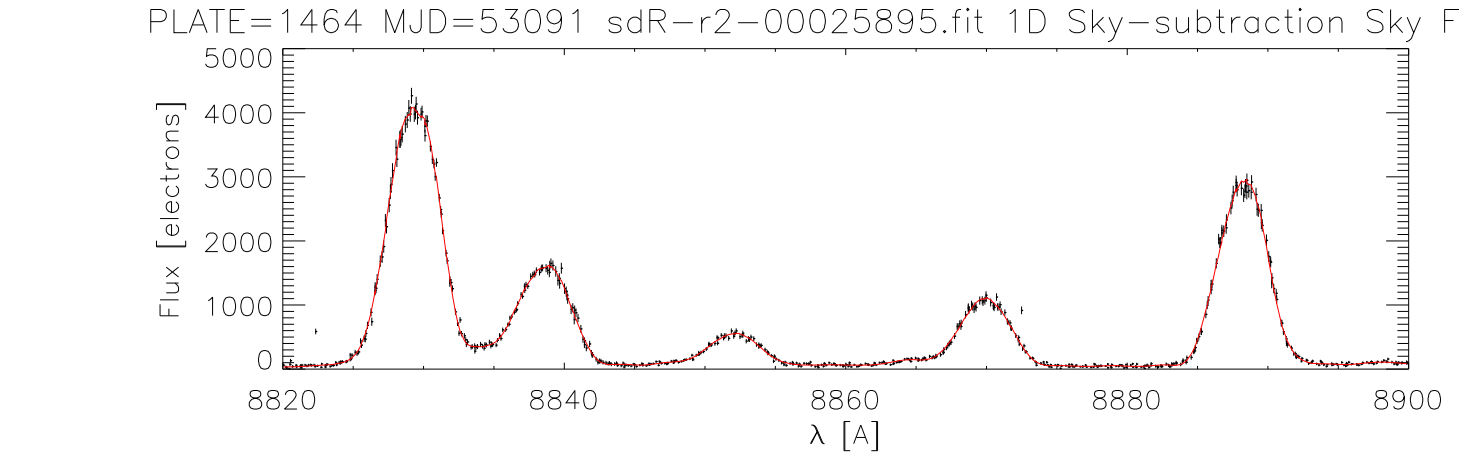

8919.6100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

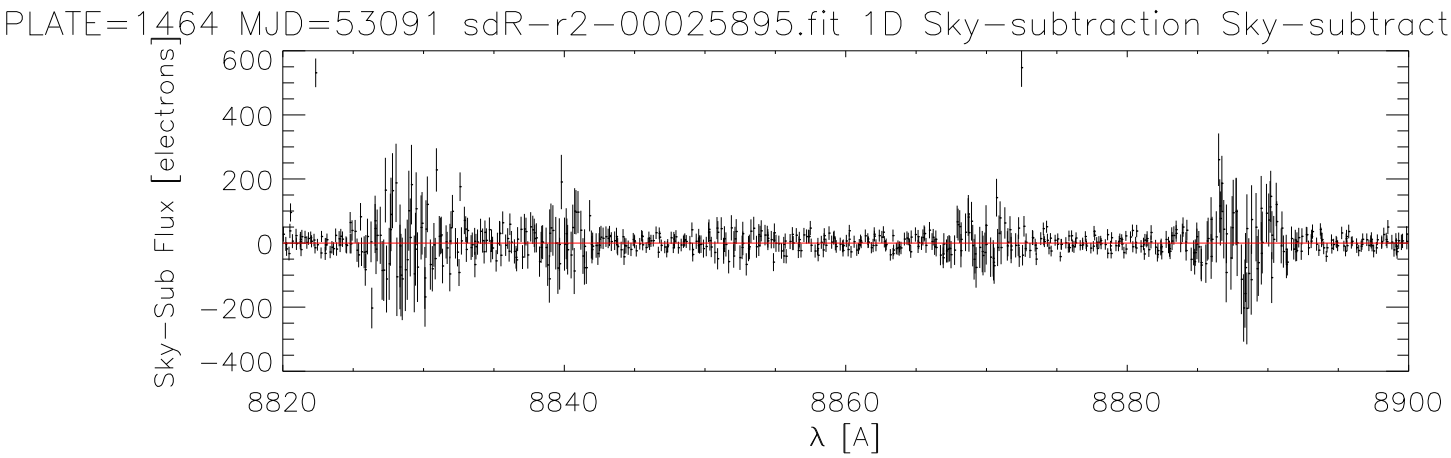

6300.3040
mfib1 16
mfib2 16
stdev 0.014
extra 0.17
6363.7760
mfib1 16
mfib2 16
stdev 0.040
extra 0.16
6553.6100
mfib1 16
mfib2 16
stdev 0.046
extra 0.15
6923.2100
mfib1 16
mfib2 16
stdev 0.032
extra 0.14
6949.0300
mfib1 16
mfib2 16
stdev 0.037
extra 0.09
7571.7500
mfib1 16
mfib2 16
stdev 0.050
extra 0.10
7794.1200
mfib1 15
mfib2 16
stdev 0.045
extra 0.23
7821.5100
mfib1 16
mfib2 16
stdev 0.021
extra 0.17
8399.1600
mfib1 15
mfib2 15
stdev 0.015
extra 0.12
8430.1700
mfib1 16
mfib2 16
stdev 0.015
extra 0.15
8885.8300
mfib1 16
mfib2 16
stdev 0.029
extra 0.11
8919.6100
mfib1 16
mfib2 16
stdev 0.030
extra 0.10
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

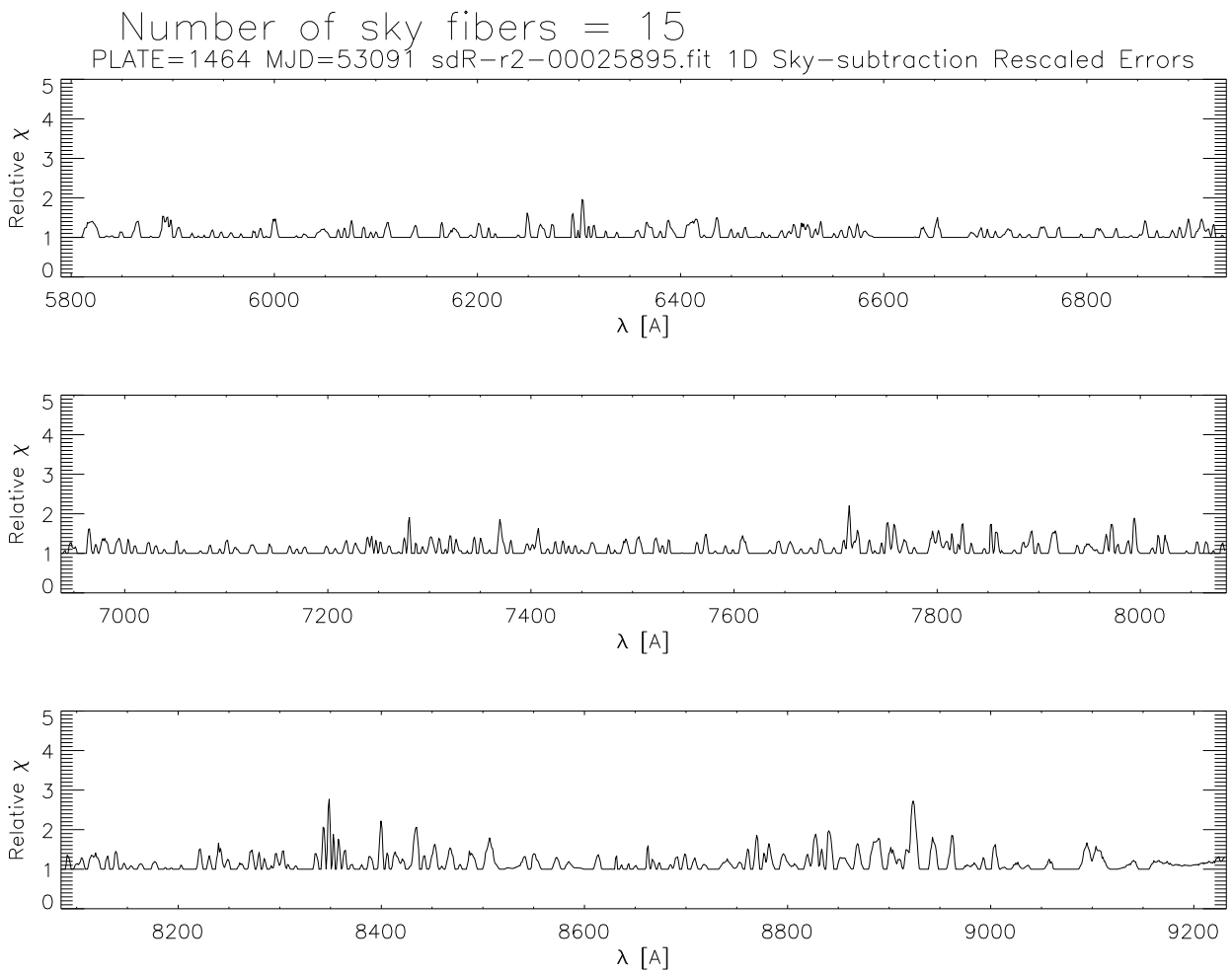

sky shift, pixels
−0.10
−0.15
−0.20
5000
6000
7000
8000
9000
10000

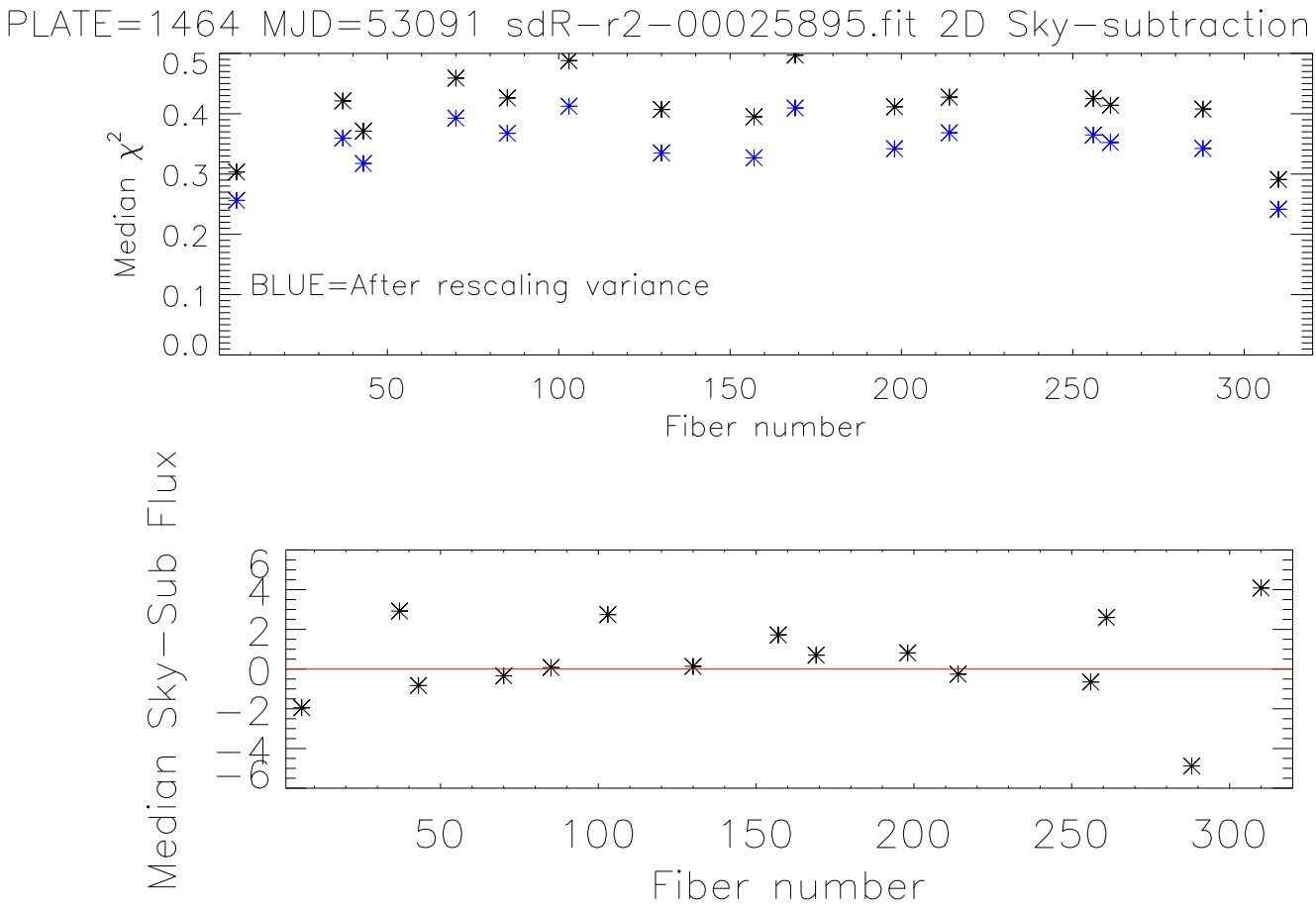

PLATE=1464 MJD=53091 Smooth superflat for sdR-r2-00025895.fit
2.0
1.5
1.0
0.5
0.0
1.004
1.002
1.000
0.998
0.996
0.994
es= −0.0000
6000
7000
8000
9000
Wavelength (Å)

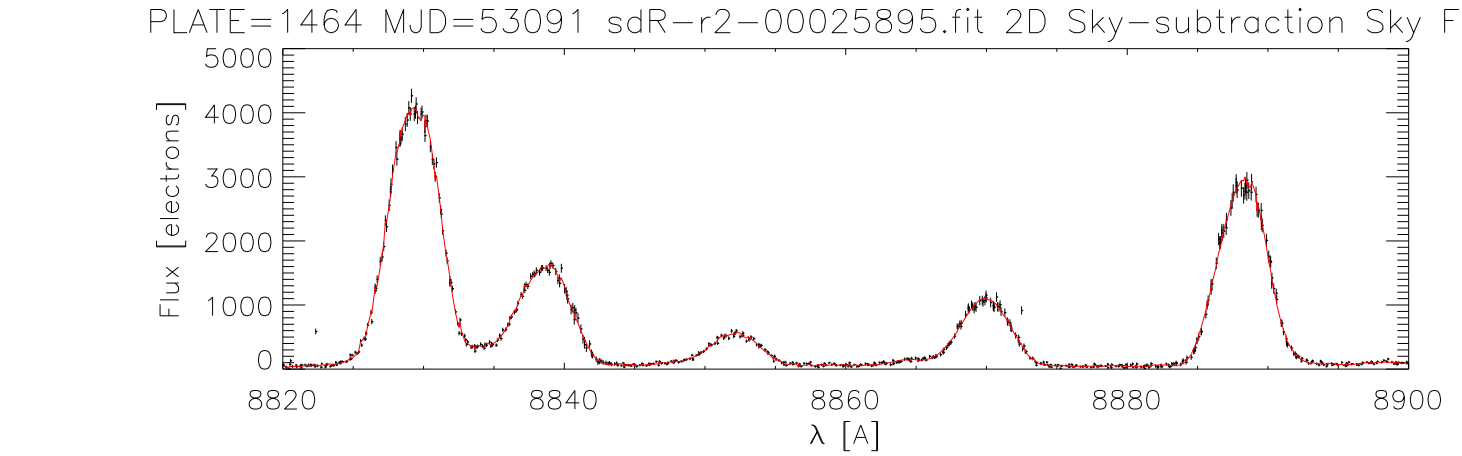

PLATE=1464 MJD=53091 sdR-r2-00025895.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-11
-6
-4
-2
0
2
4
6
8
50
100
150
200
250
300
Fiber number

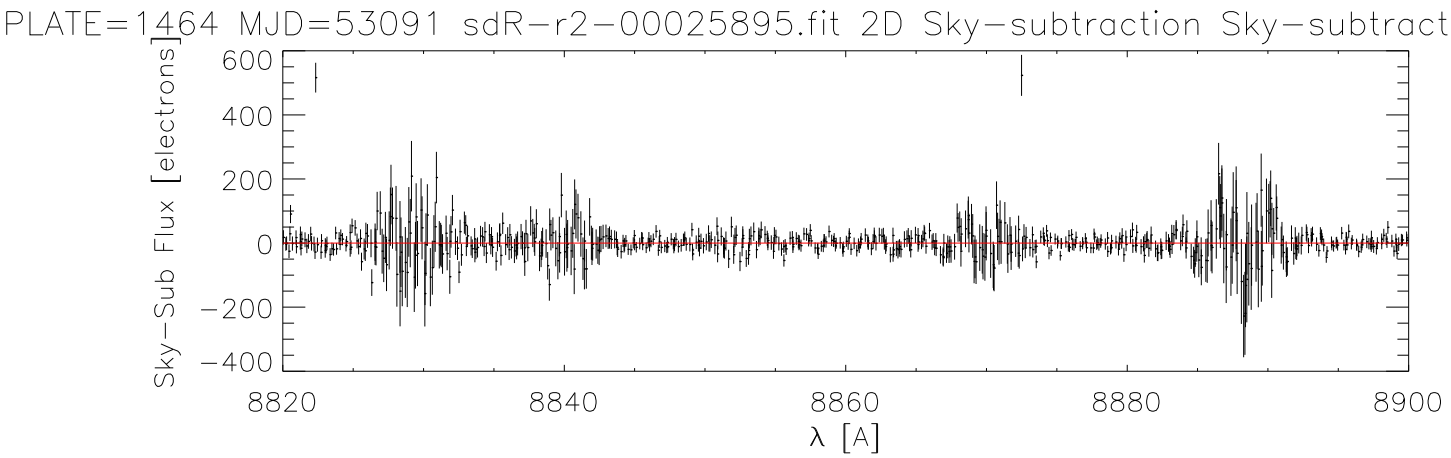

PLATE=1464 MJD=53091 sdR-r2-00025895.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

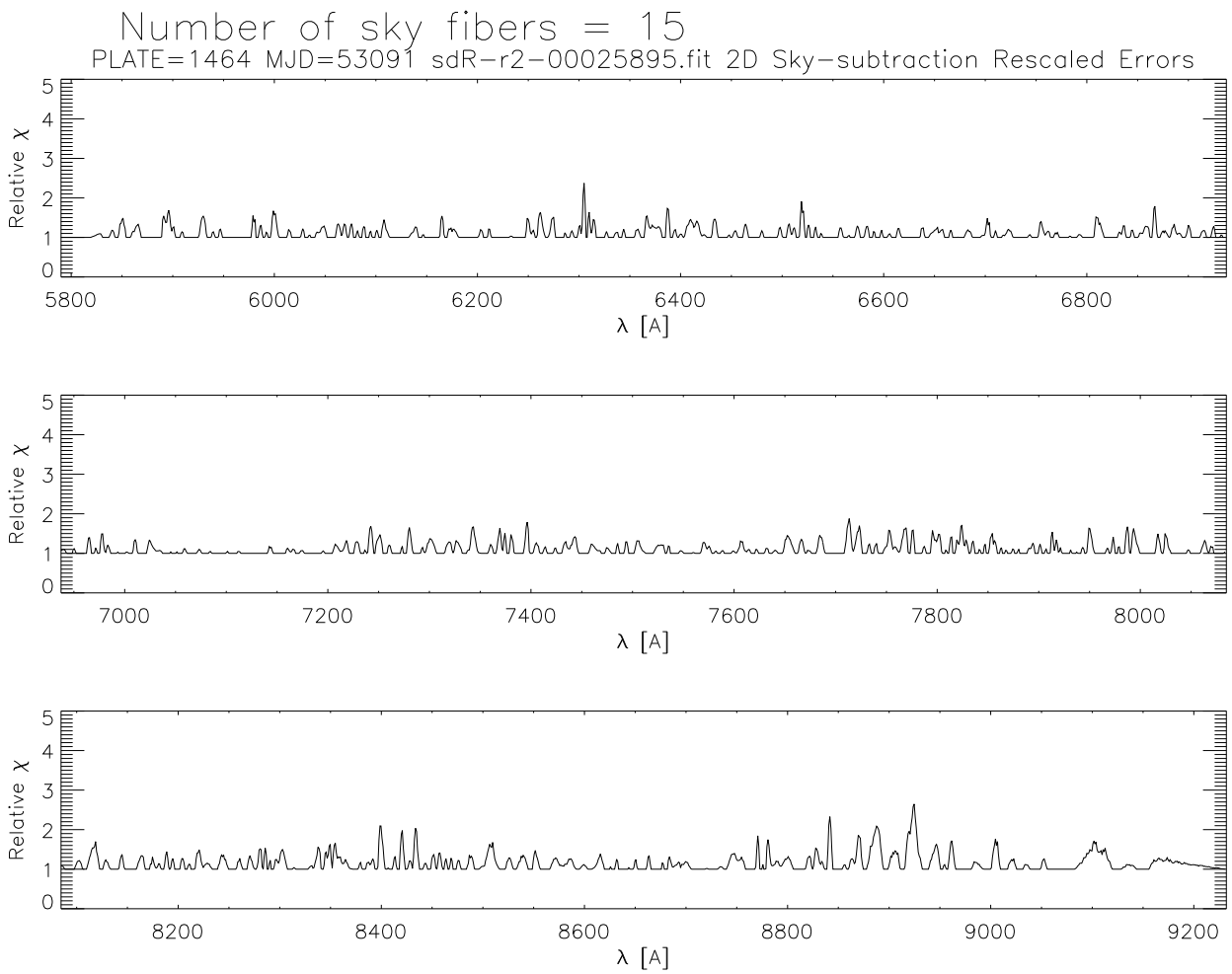

PLATE=1464 MJD=53091 sdR-r2-00025895.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
-200
-400
8820
8840
8860
8880
8900
λ [A]

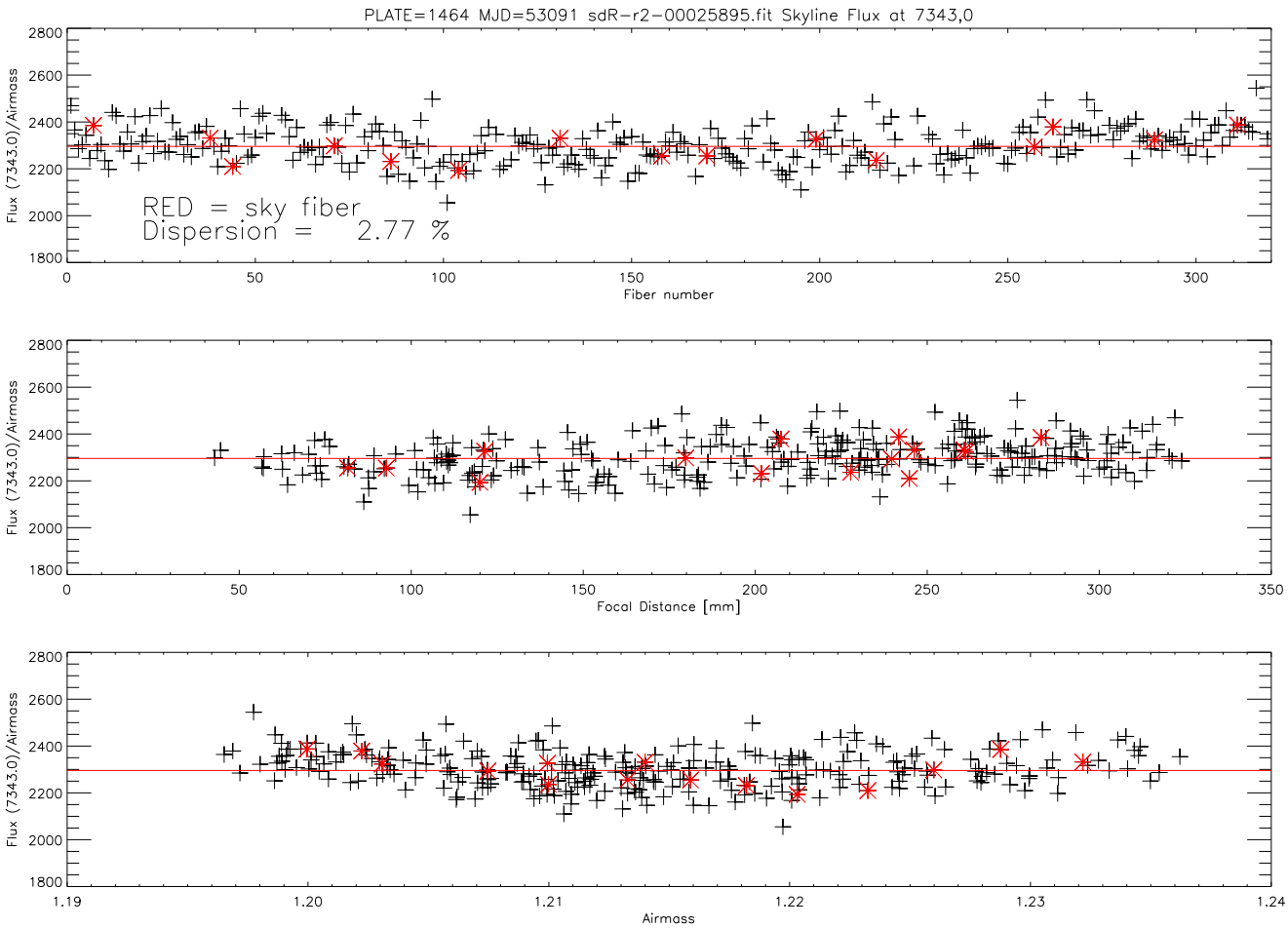

Number of sky fibers = 15
PLATE=1464 MJD=53091 sdR-r2-00025895.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

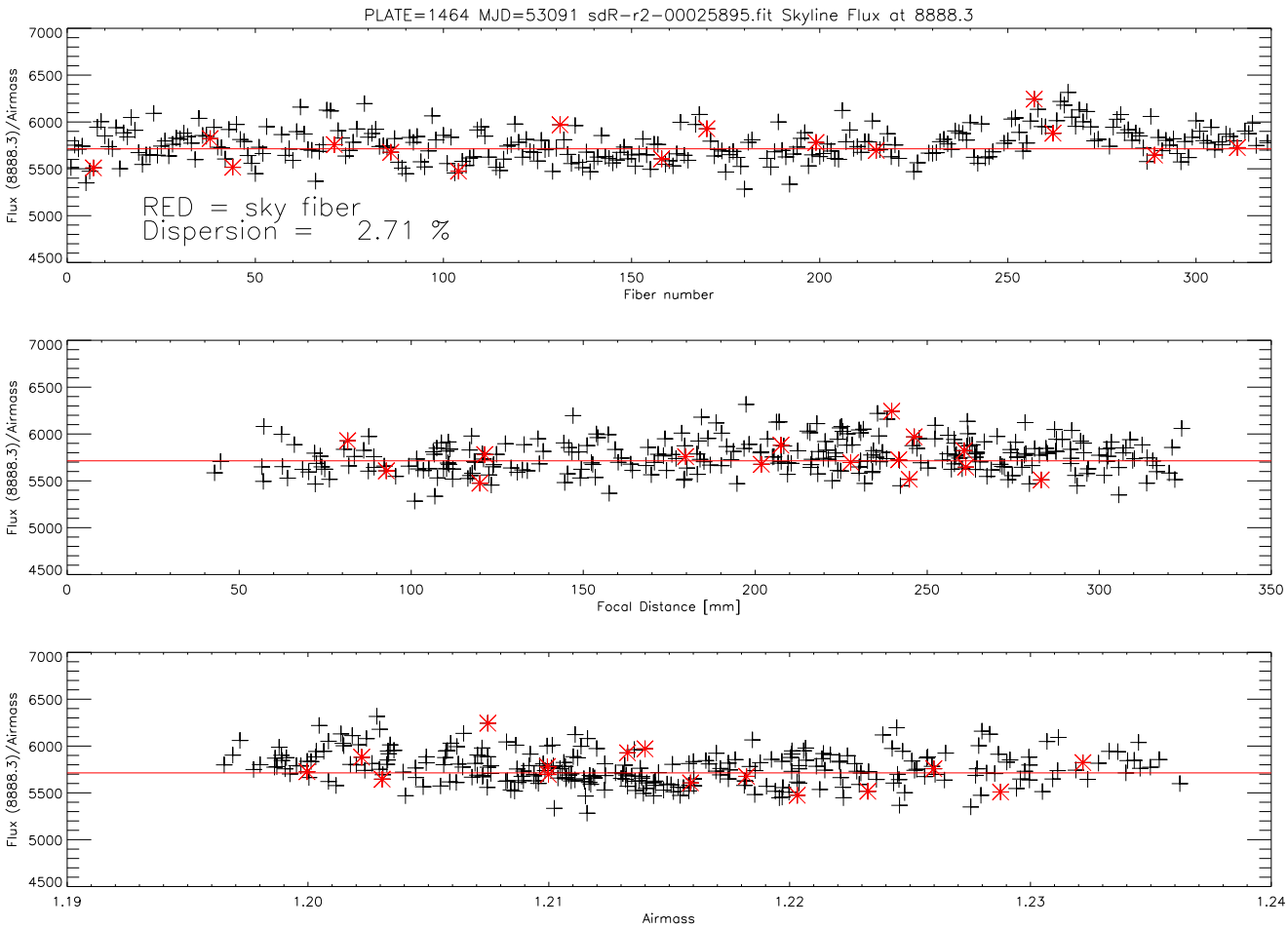

PLATE=1464 MJD=53091 sdR-r2-00025895.fit 2D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-6
-4
-2
0
2
4
6
50
100
150
200
250
300
Fiber number


PLATE=1464 MJD=53091 sdR-r2-00025895.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]


PLATE=1464 MJD=53091 sdR-r2-00025895.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
-200
-400
8820
8840
8860
8880
8900
λ [A]


Number of sky fibers = 15
PLATE=1464 MJD=53091 sdR-r2-00025895.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=1464 MJD=53091 sdR-r2-00025895.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 2.77 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass


PLATE=1464 MJD=53091 sdR-r2-00025895.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 2.71 %
Fiber number
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass