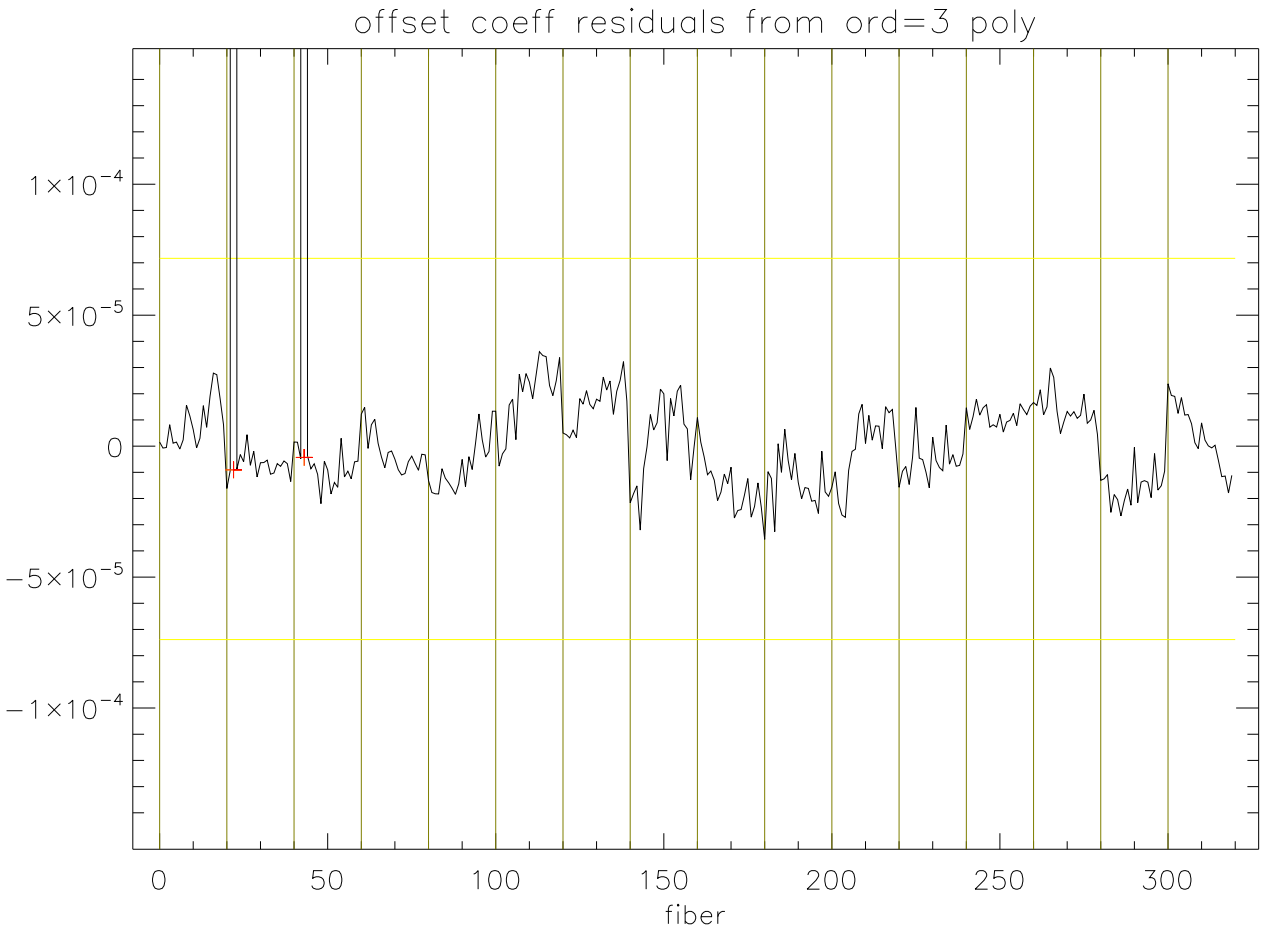
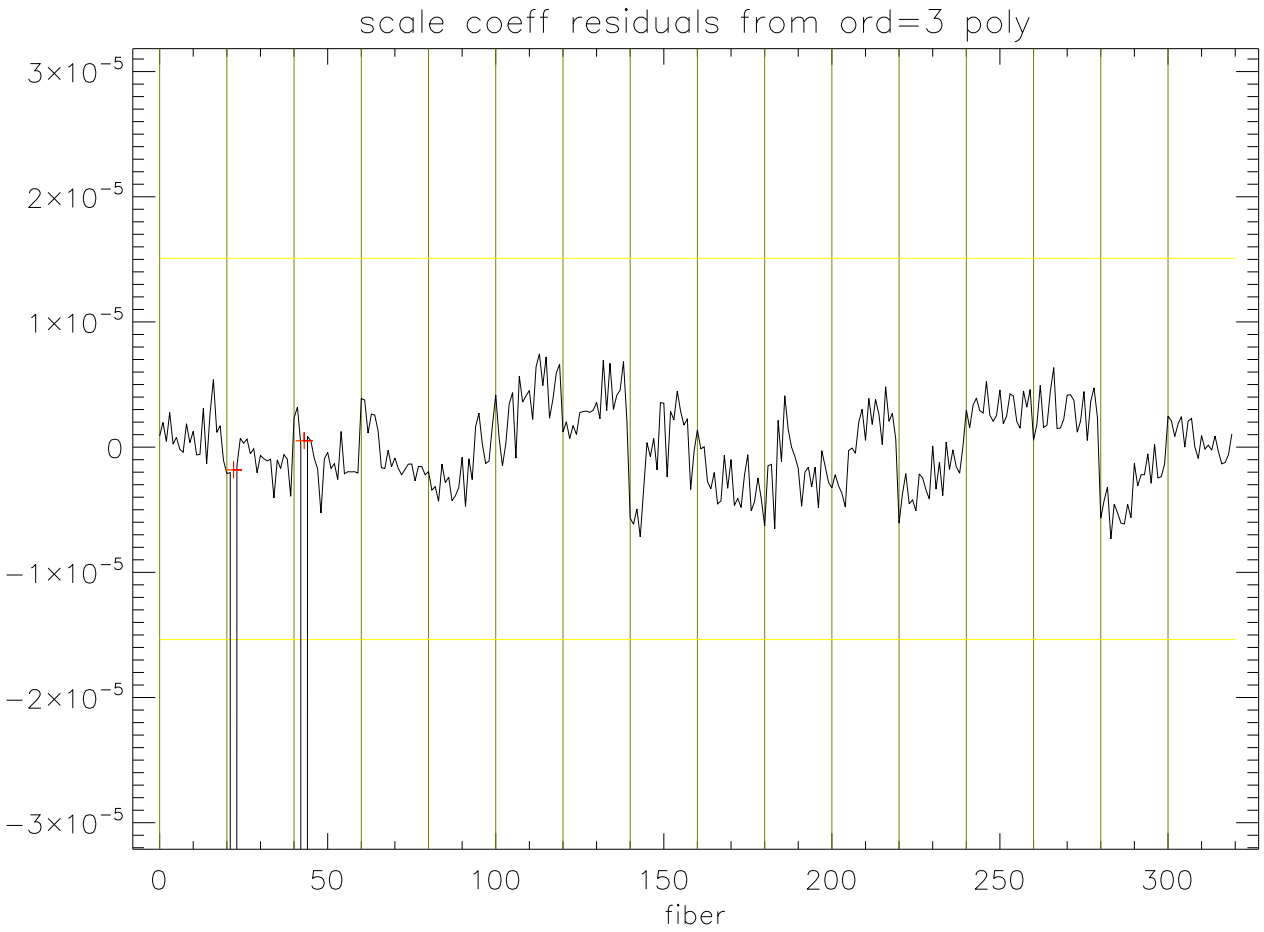
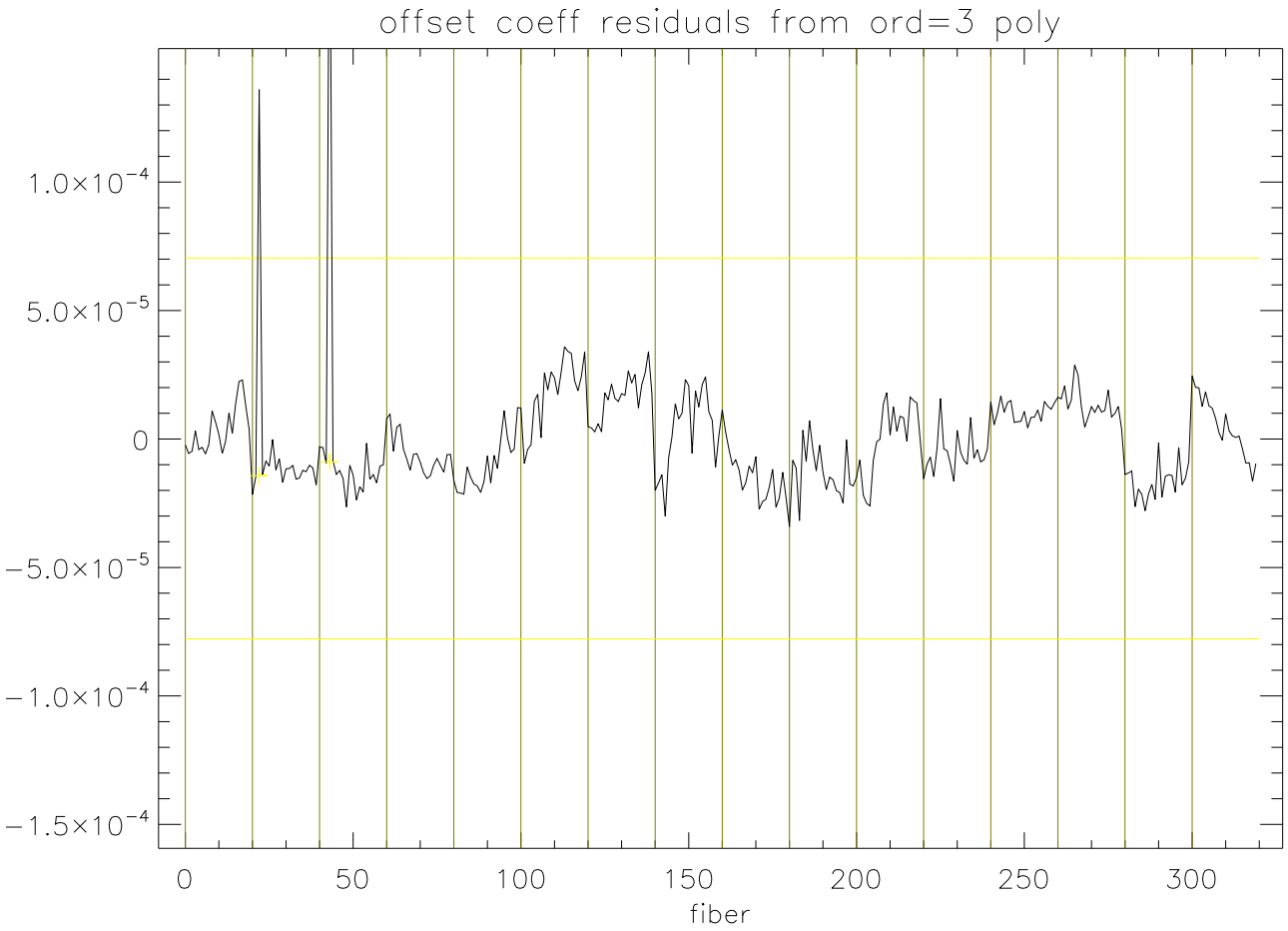
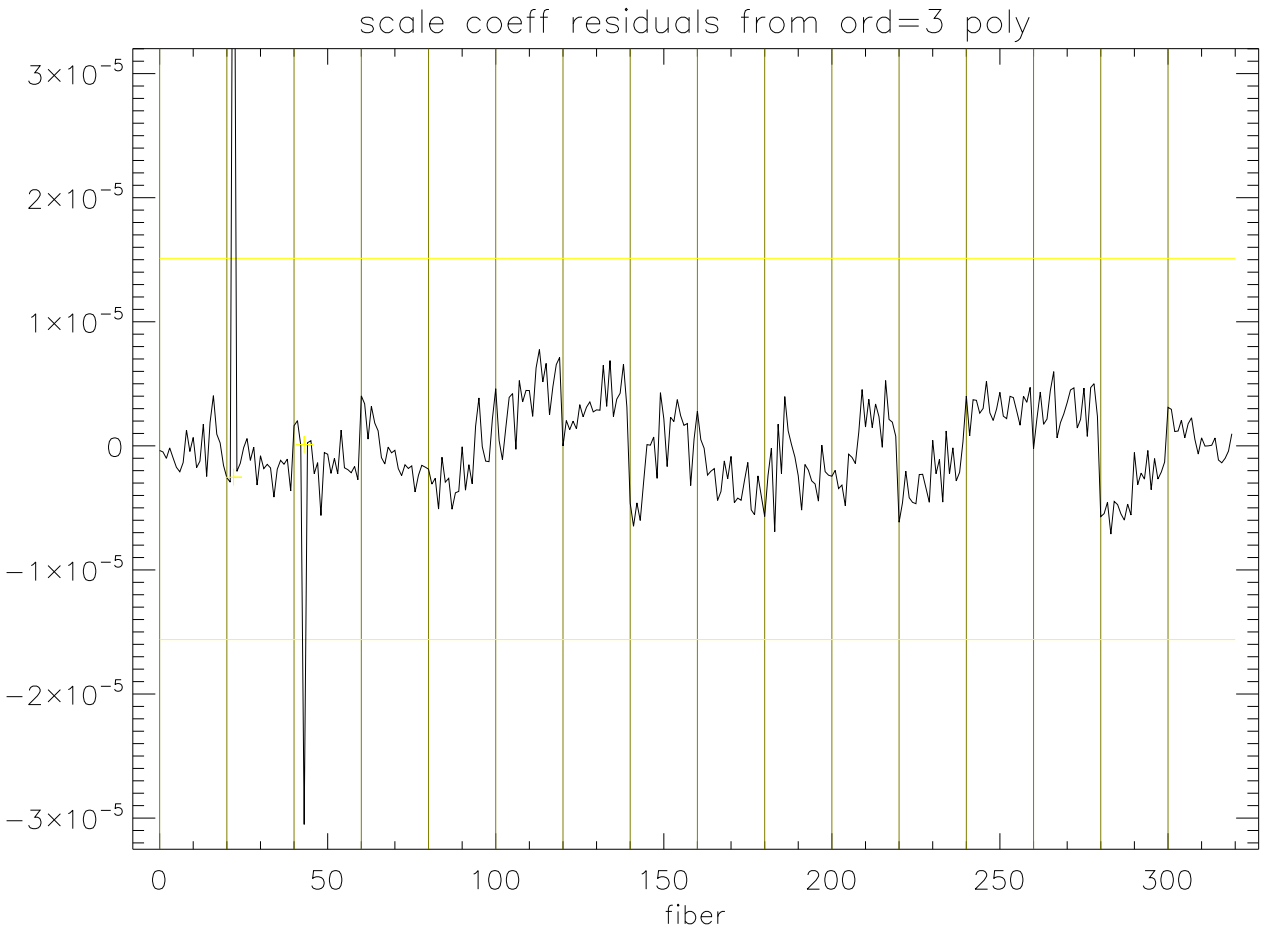
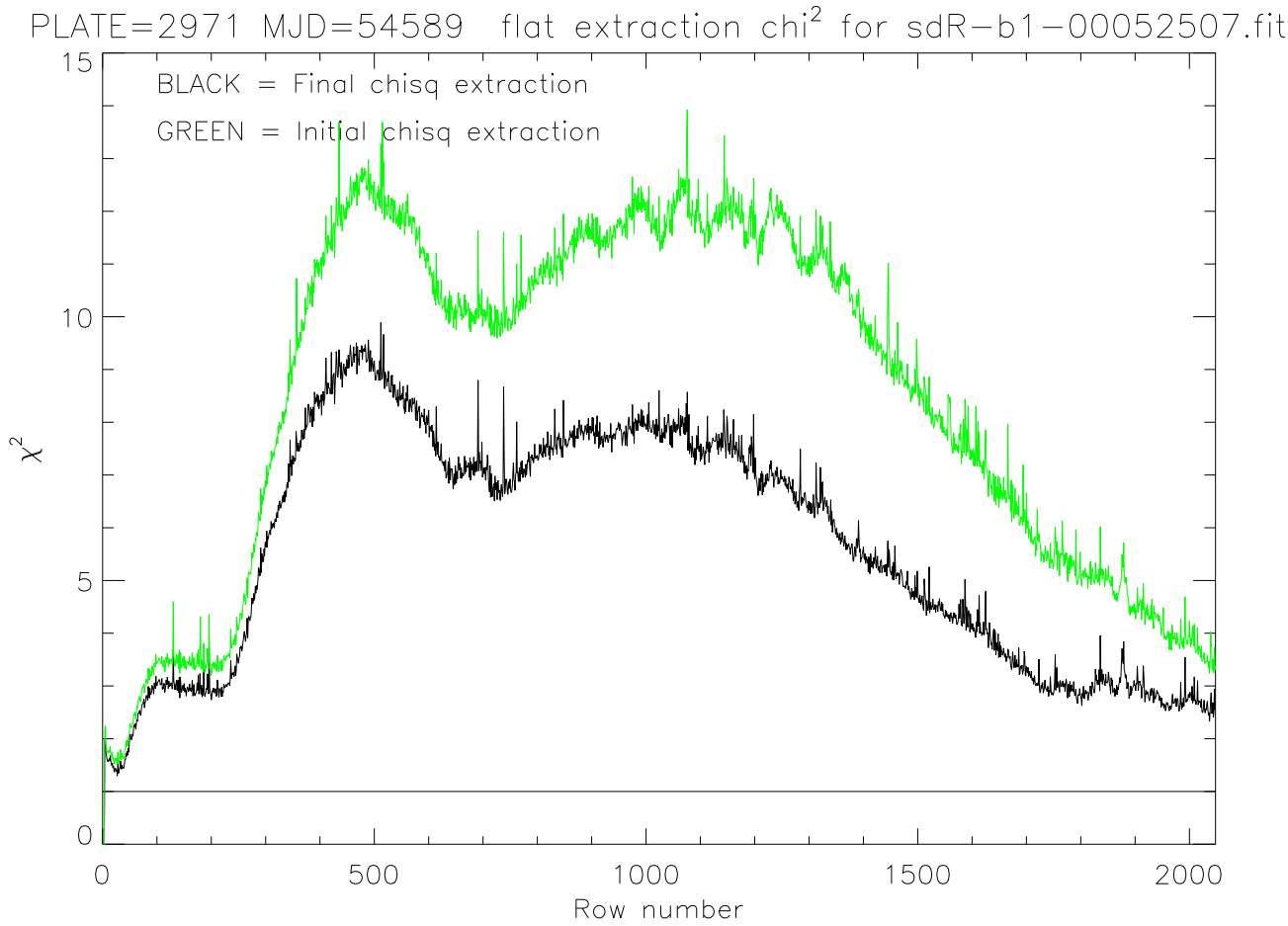
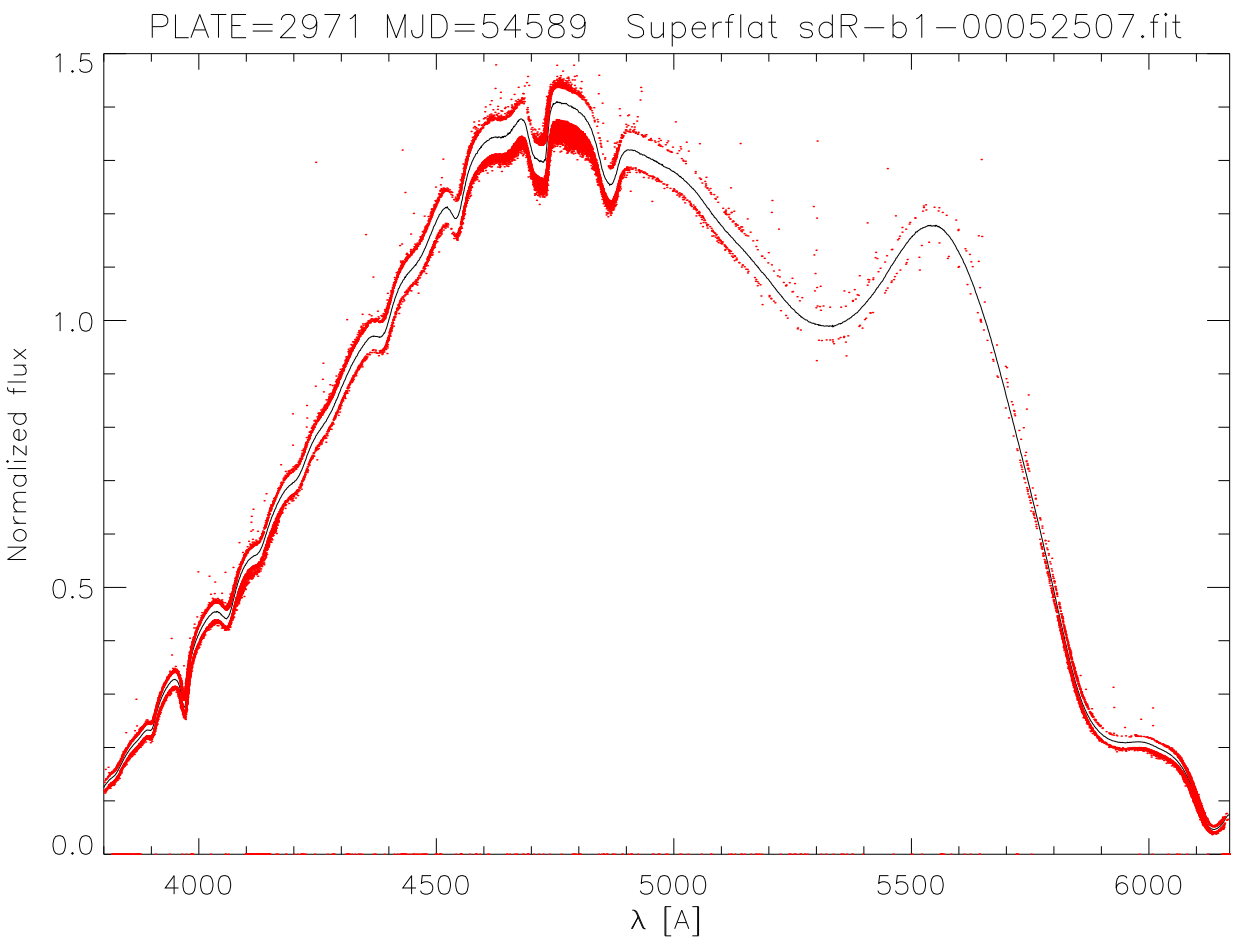

offset coeff residuals from ord=3 poly
1×10^-4
5×10^-5
0
−5×10^-5
−1×10^-4
0
50
100
150
200
250
300
fiber

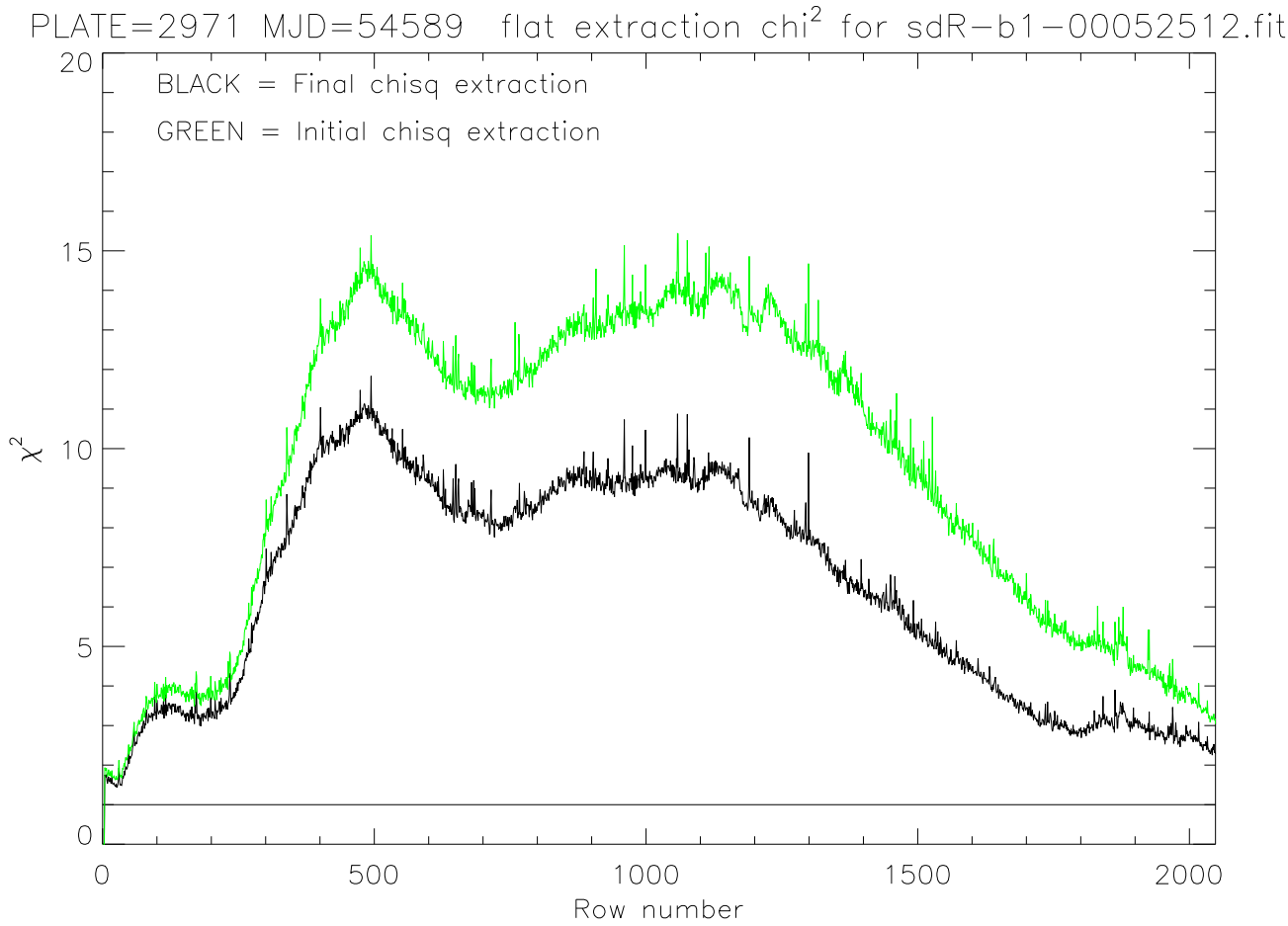

scale coeff residuals from ord=3 poly
3×10⁻⁵
2×10⁻⁵
1×10⁻⁵
0
−1×10⁻⁵
−2×10⁻⁵
−3×10⁻⁵
0
50
100
150
200
250
300
fiber

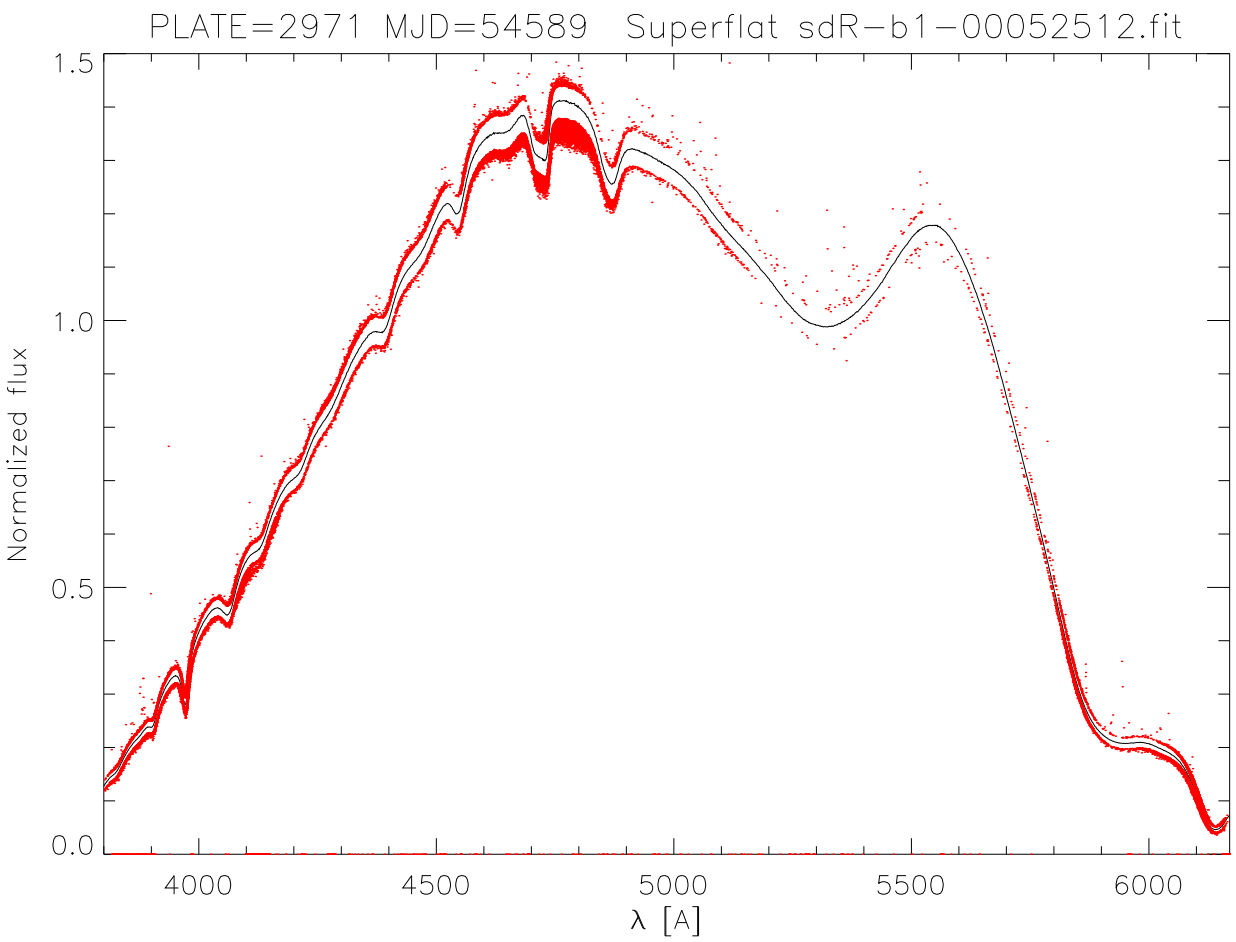

offset coeff residuals from ord=3 poly
1.0×10⁻⁴
5.0×10⁻⁵
0
−5.0×10⁻⁵
−1.0×10⁻⁴
−1.5×10⁻⁴
0
50
100
150
200
250
300
fiber

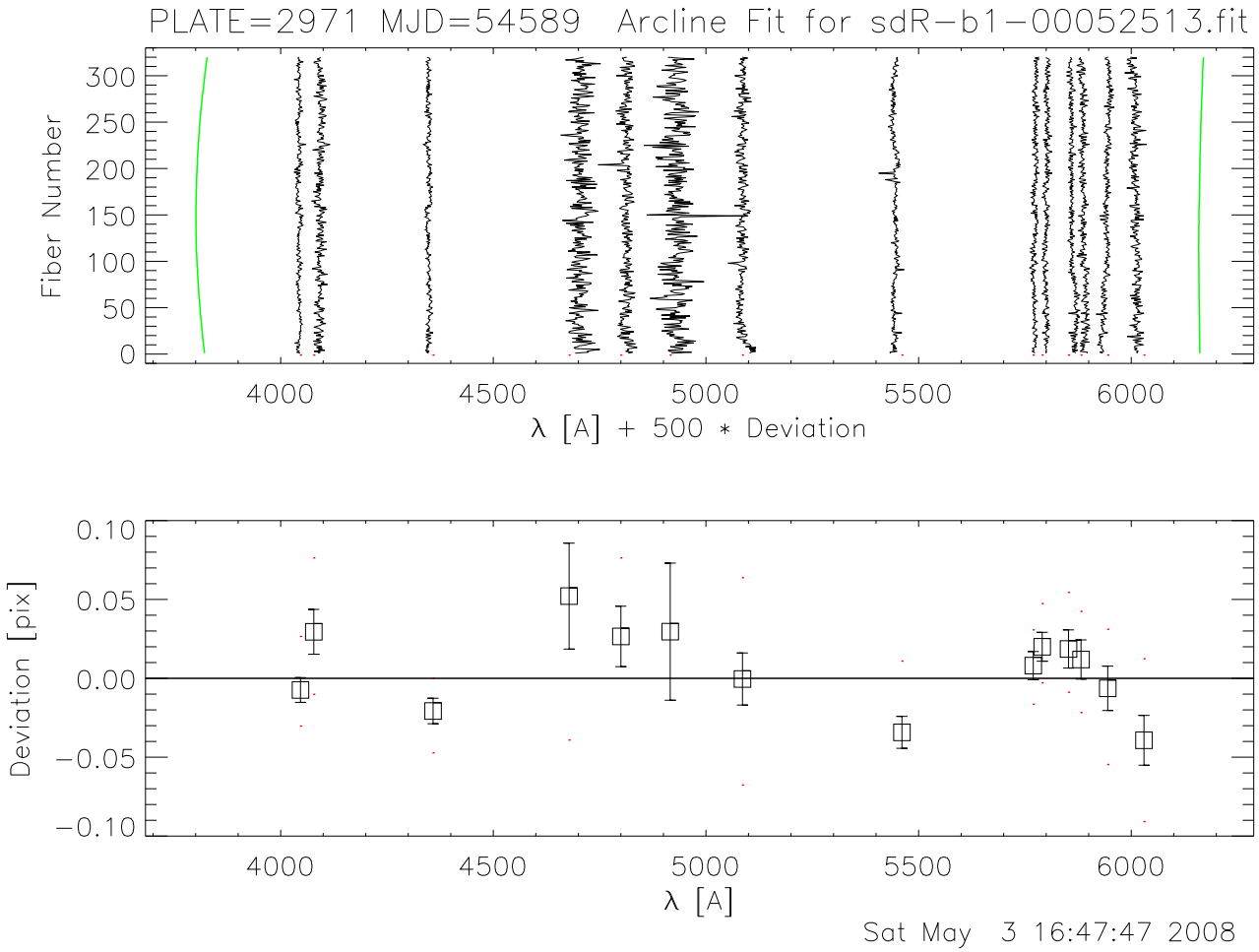

scale coeff residuals from ord=3 poly
3×10⁻⁵
2×10⁻⁵
1×10⁻⁵
0
−1×10⁻⁵
−2×10⁻⁵
−3×10⁻⁵
0
50
100
150
200
250
300
fiber

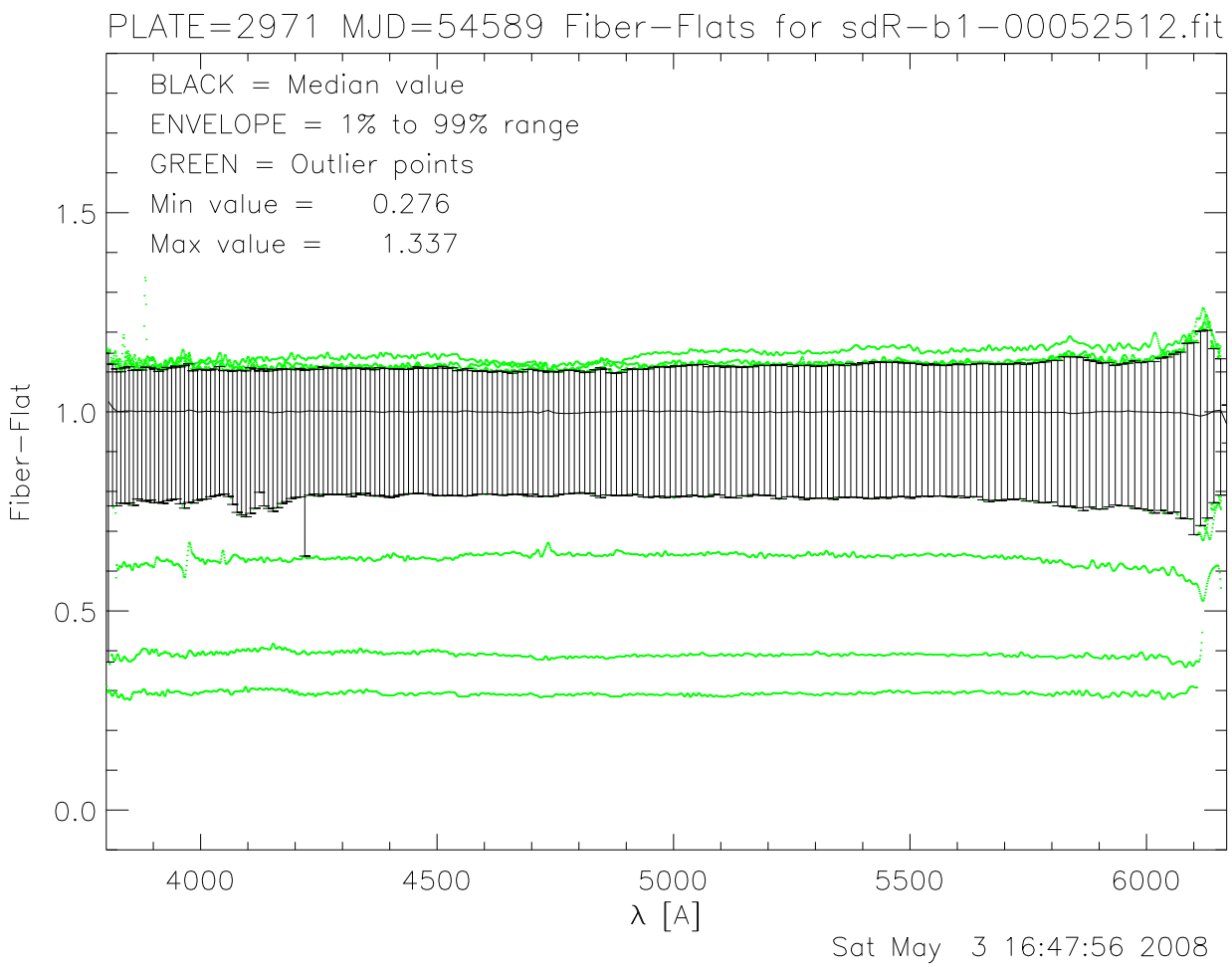

PLATE=2971 MJD=54589 flat extraction chi^2 for sdR−b1−00052507.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
5
10
15
0
500
1000
1500
2000

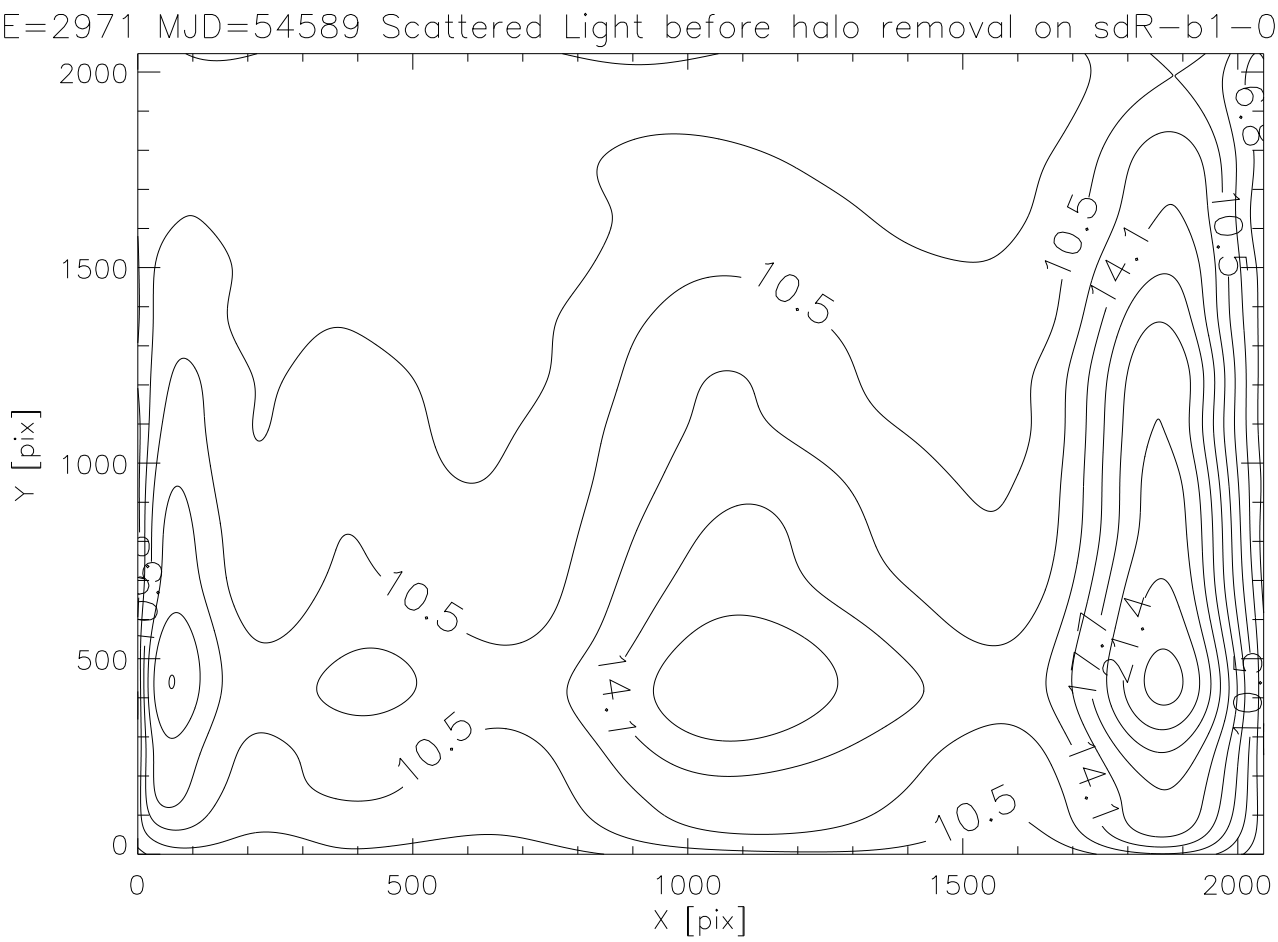

PLATE=2971 MJD=54589 Superflat sdR-b1-00052507.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

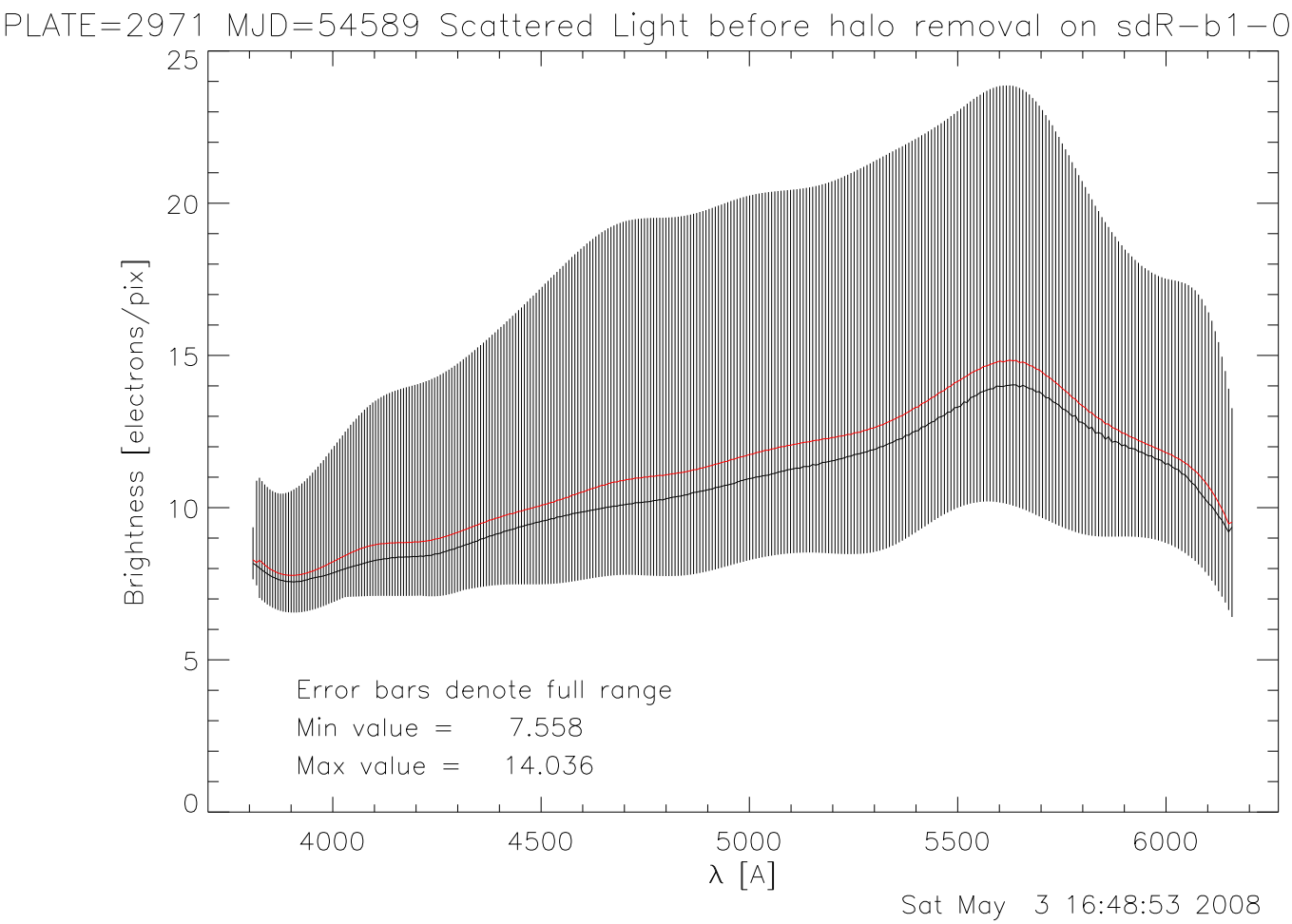

PLATE=2971 MJD=54589 flat extraction chi^2 for sdR−b1−00052512.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
5
10
15
20
0
500
1000
1500
2000

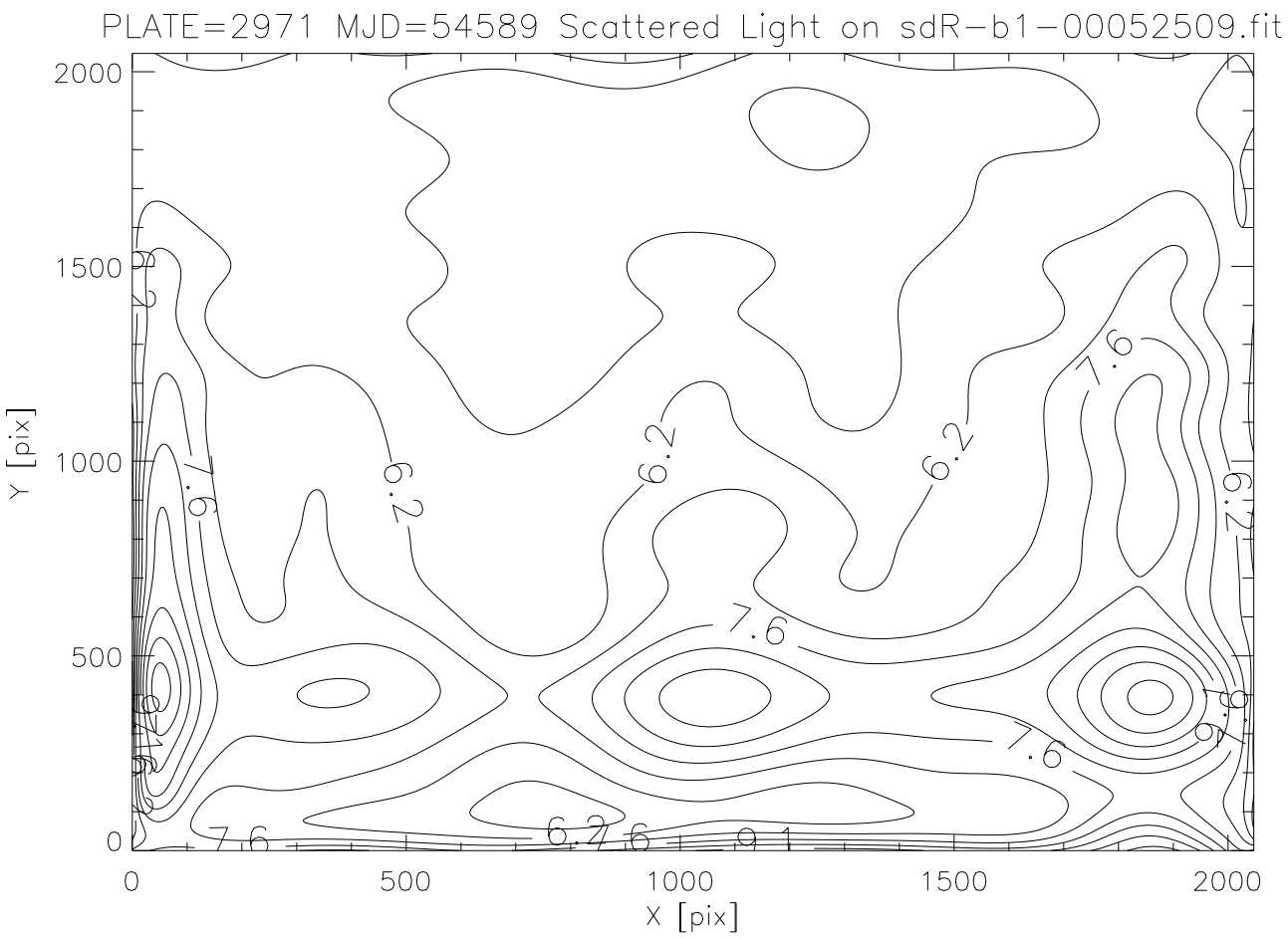

PLATE=2971 MJD=54589 Superflat sdR-b1-00052512.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

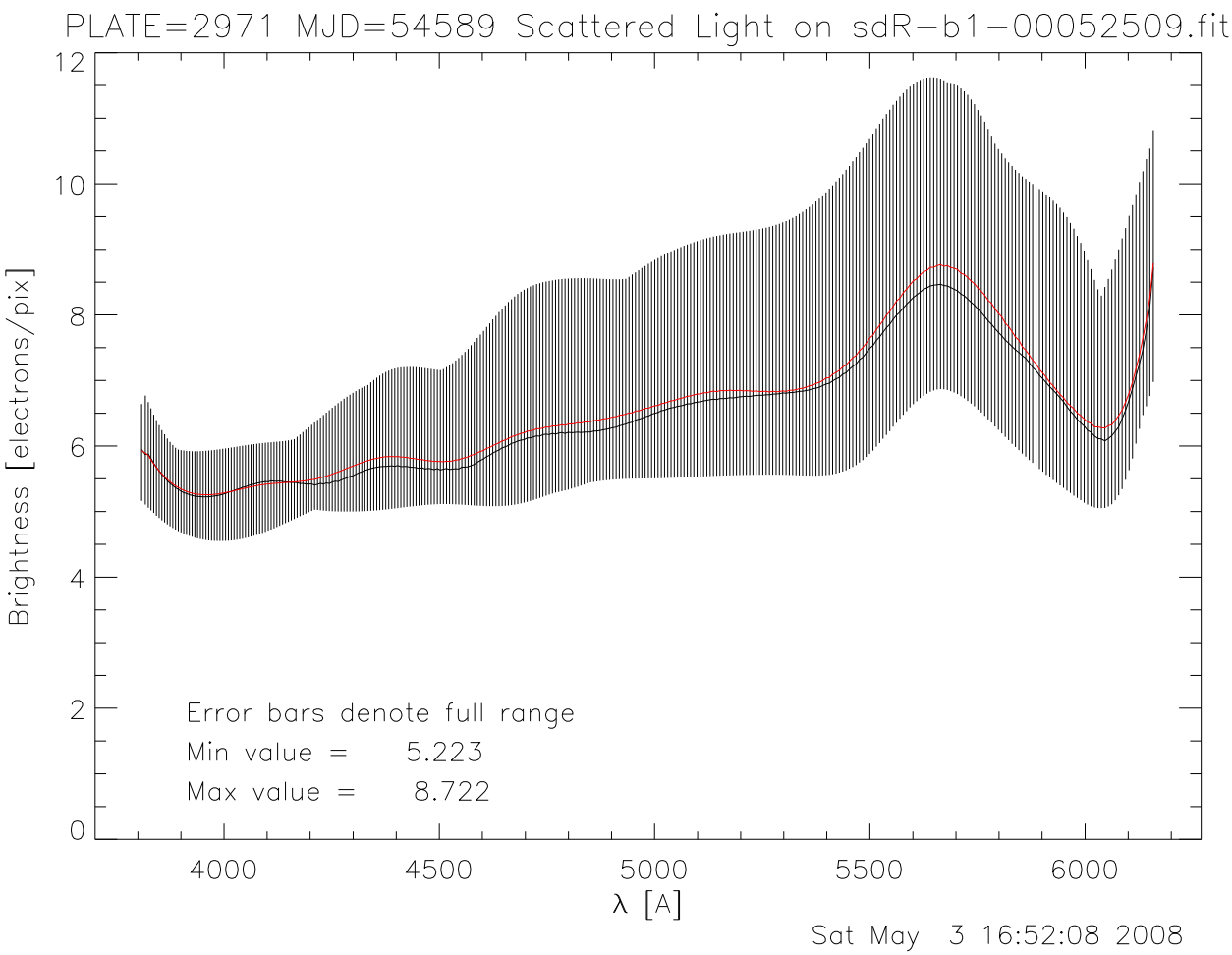

PLATE=2971 MJD=54589 Arcline Fit for sdR-b1-00052513.fit
Fiber Number
300
250
200
150
100
50
0
4000
4500
5000
5500
6000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
4000
4500
5000
5500
6000
λ [A]
Sat May 3 16:47:47 2008

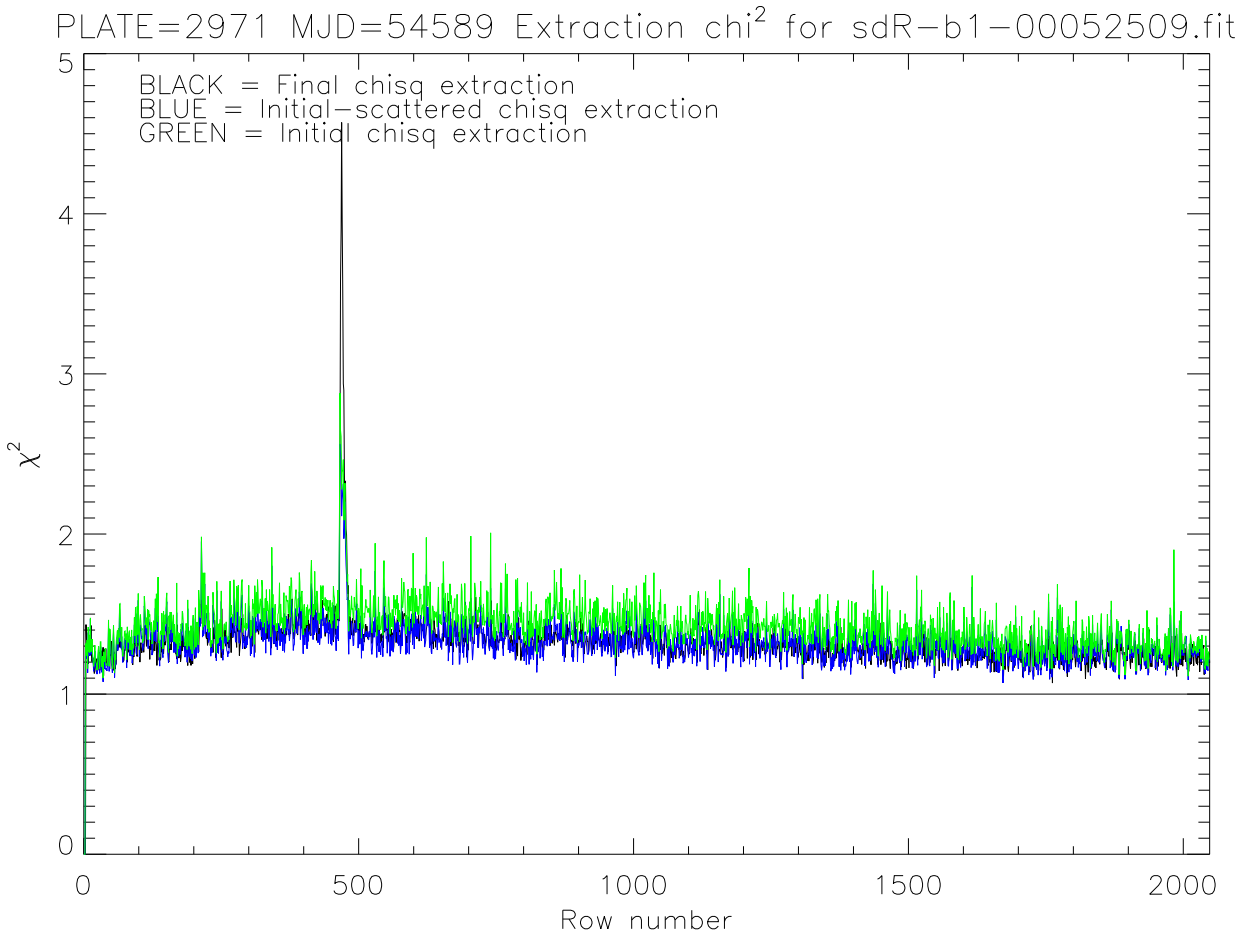

PLATE=2971 MJD=54589 Fiber-Flats for sdR-b1-00052512.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.276
Max value = 1.337
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Sat May 3 16:47:56 2008

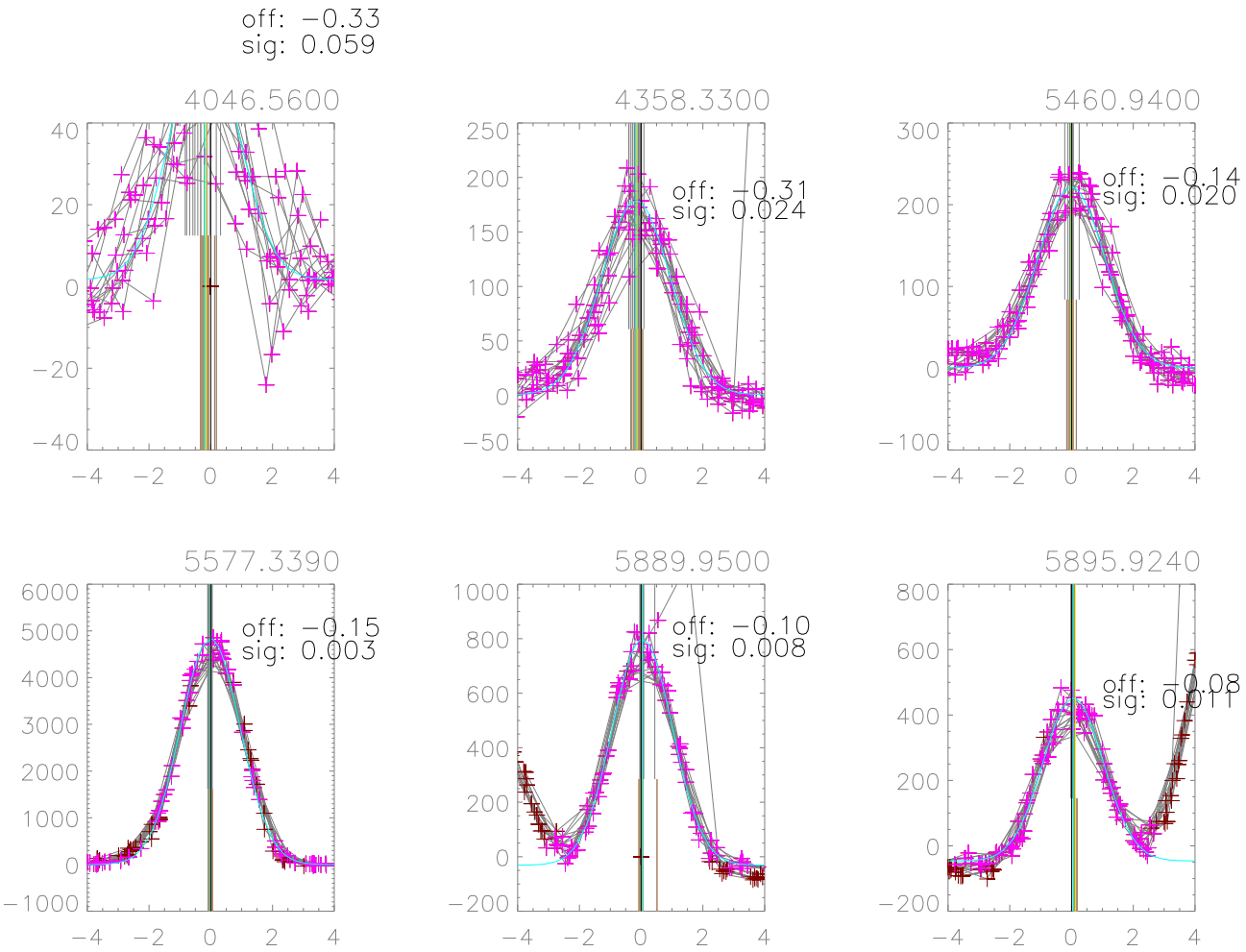

PLATE=2971 MJD=54589 Scattered Light before halo removal on sdR−b1−00052509.f
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
10.5
14.1
17.7
21.4
3.01
0.96
0.33
0

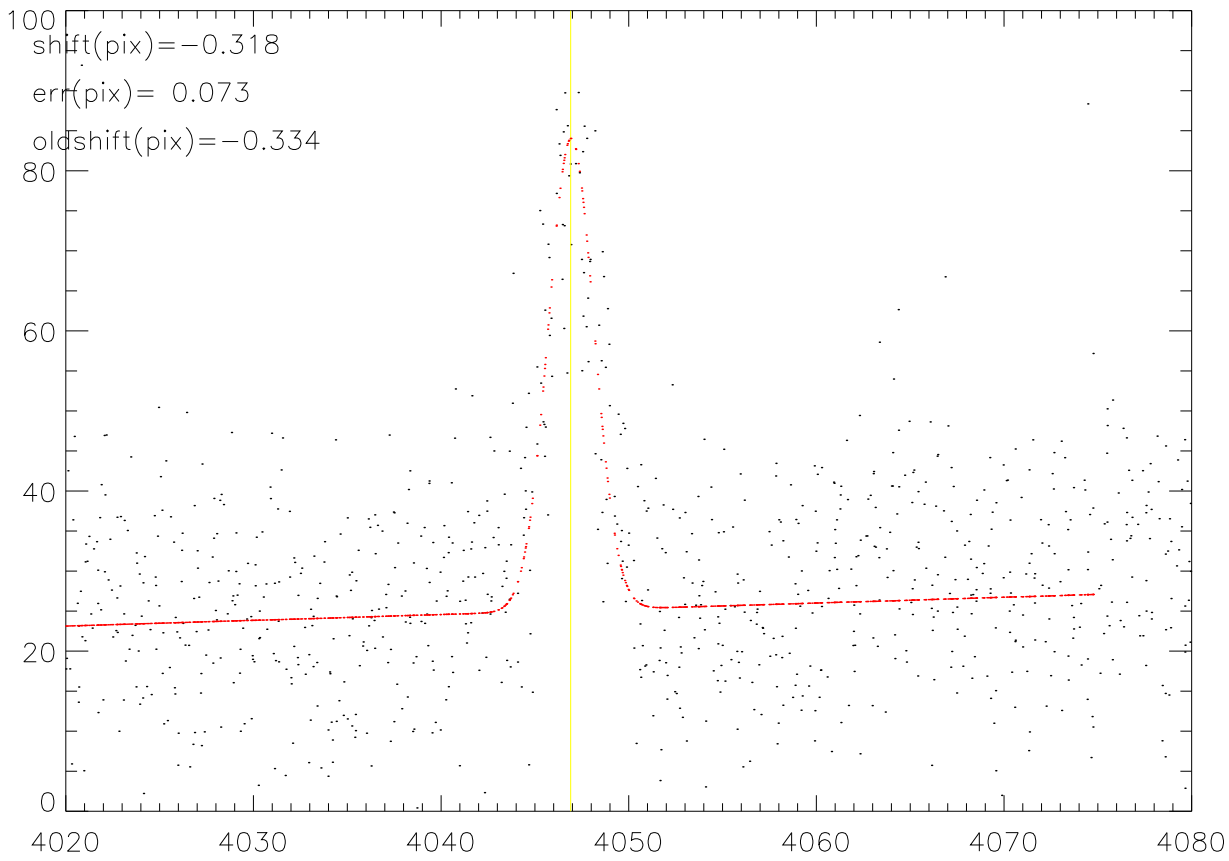

PLATE=2971 MJD=54589 Scattered Light before halo removal on sdR-b1-00052509.f
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 7.558
Max value = 14.036
Sat May 3 16:48:53 2008

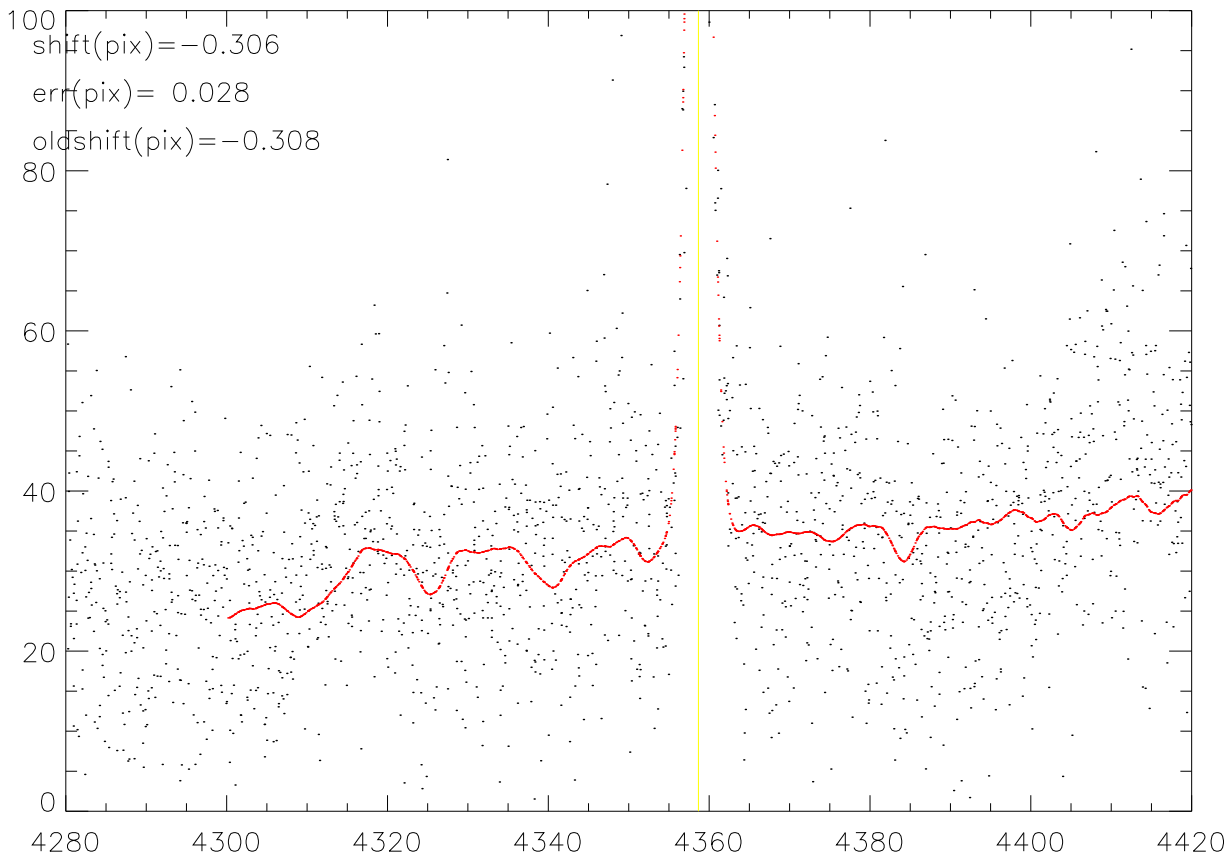

PLATE=2971 MJD=54589 Scattered Light on sdR-b1-00052509.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
7.6
6.2
9.1

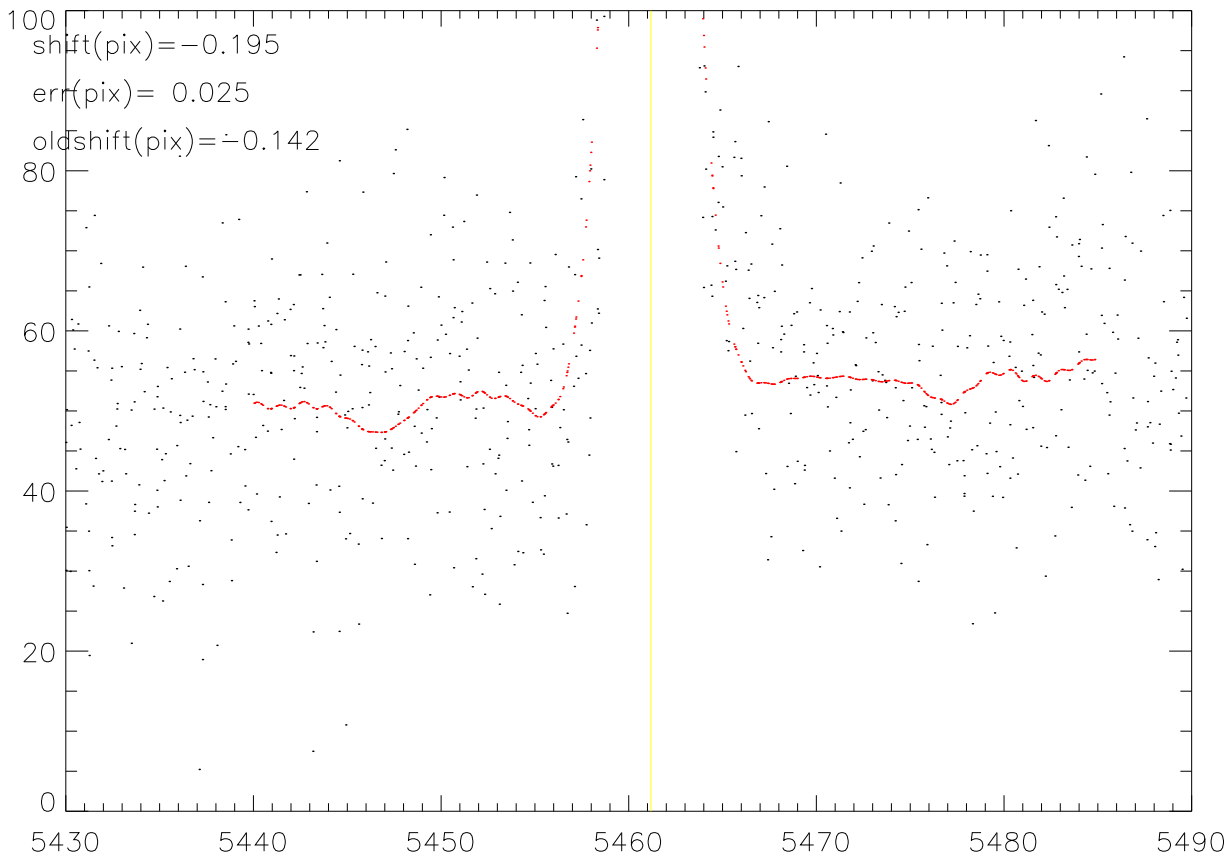

PLATE=2971 MJD=54589 Scattered Light on sdR-b1-00052509.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 5.223
Max value = 8.722
Sat May 3 16:52:08 2008

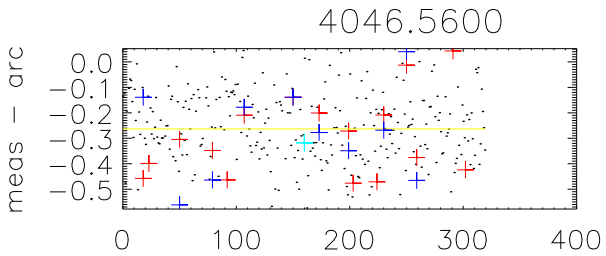

PLATE=2971 MJD=54589 Extraction chi^2 for sdR-b1-00052509.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
5
0
500
1000
1500
2000
Row number

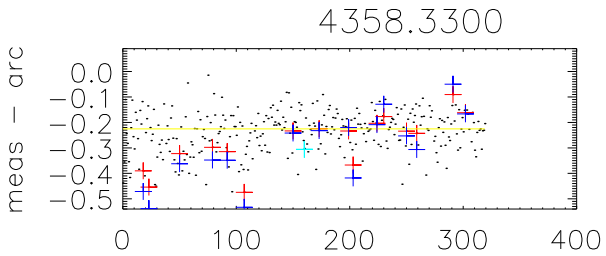

off: −0.33
sig: 0.059
4046.5600
4358.3300
off: −0.31
sig: 0.024
5460.9400
off: −0.14
sig: 0.020
5577.3390
off: −0.15
sig: 0.003
5889.9500
off: −0.10
sig: 0.008
5895.9240
off: −0.08
sig: 0.011

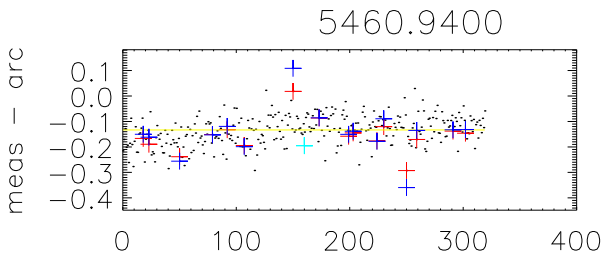

shift(pix)=−0.318
err(pix)= 0.073
oldshift(pix)=−0.334
100
80
60
40
20
0
4020
4030
4040
4050
4060
4070
4080

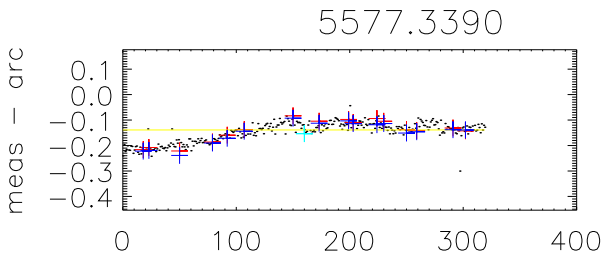

shift(pix)=−0.306
err(pix)= 0.028
oldshift(pix)=−0.308
100
80
60
40
20
0
4280
4300
4320
4340
4360
4380
4400
4420

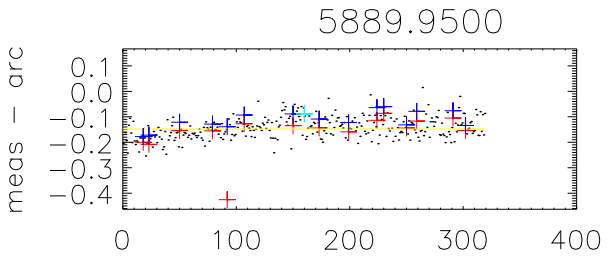

shift(pix)=−0.195
err(pix)= 0.025
oldshift(pix)=−0.142
100
80
60
40
20
0
5430
5440
5450
5460
5470
5480
5490

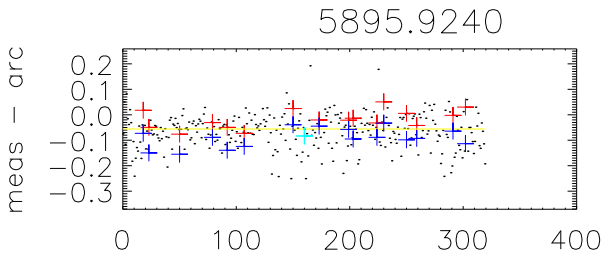

4046.5600
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

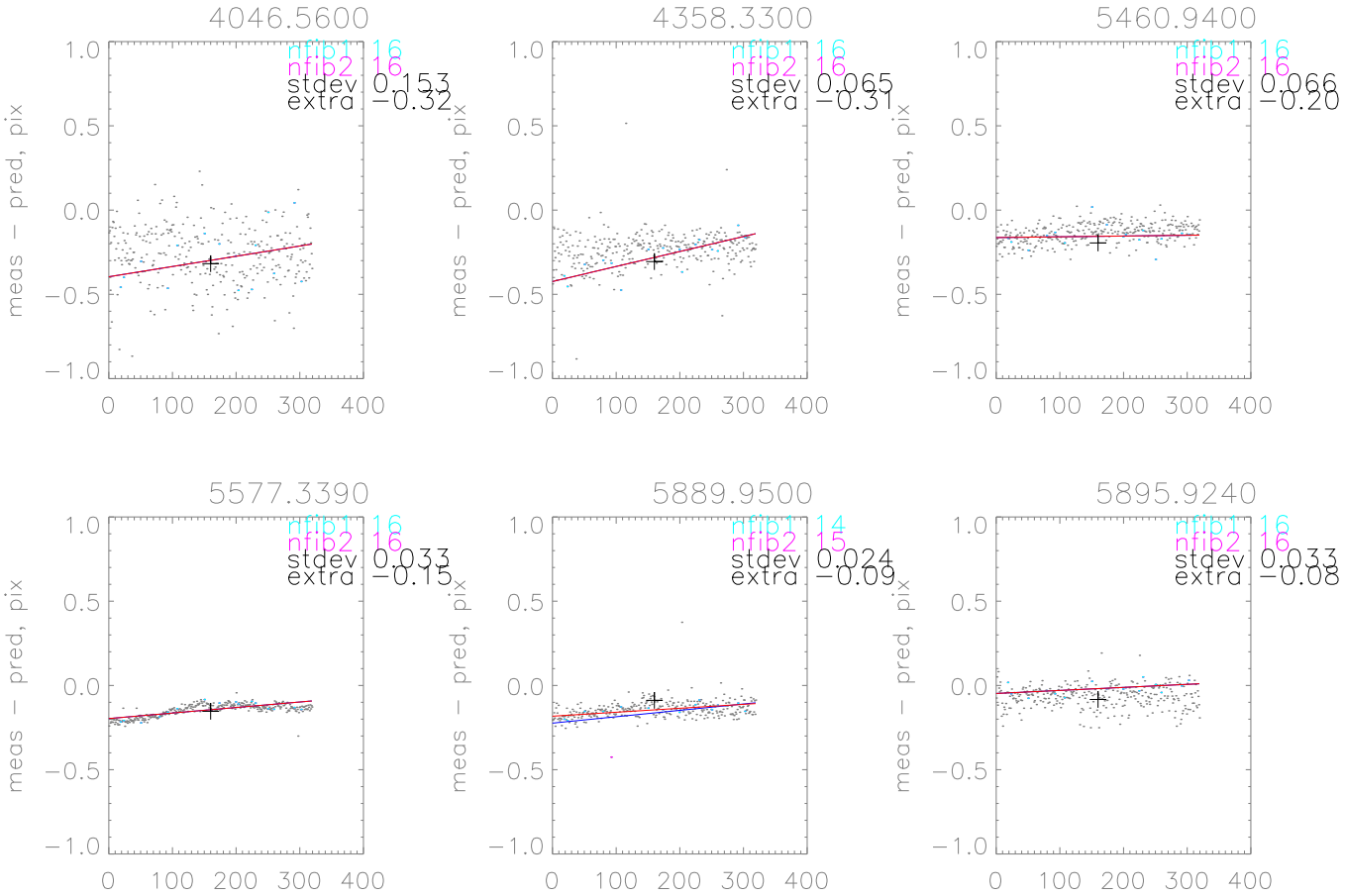

4358.3300
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

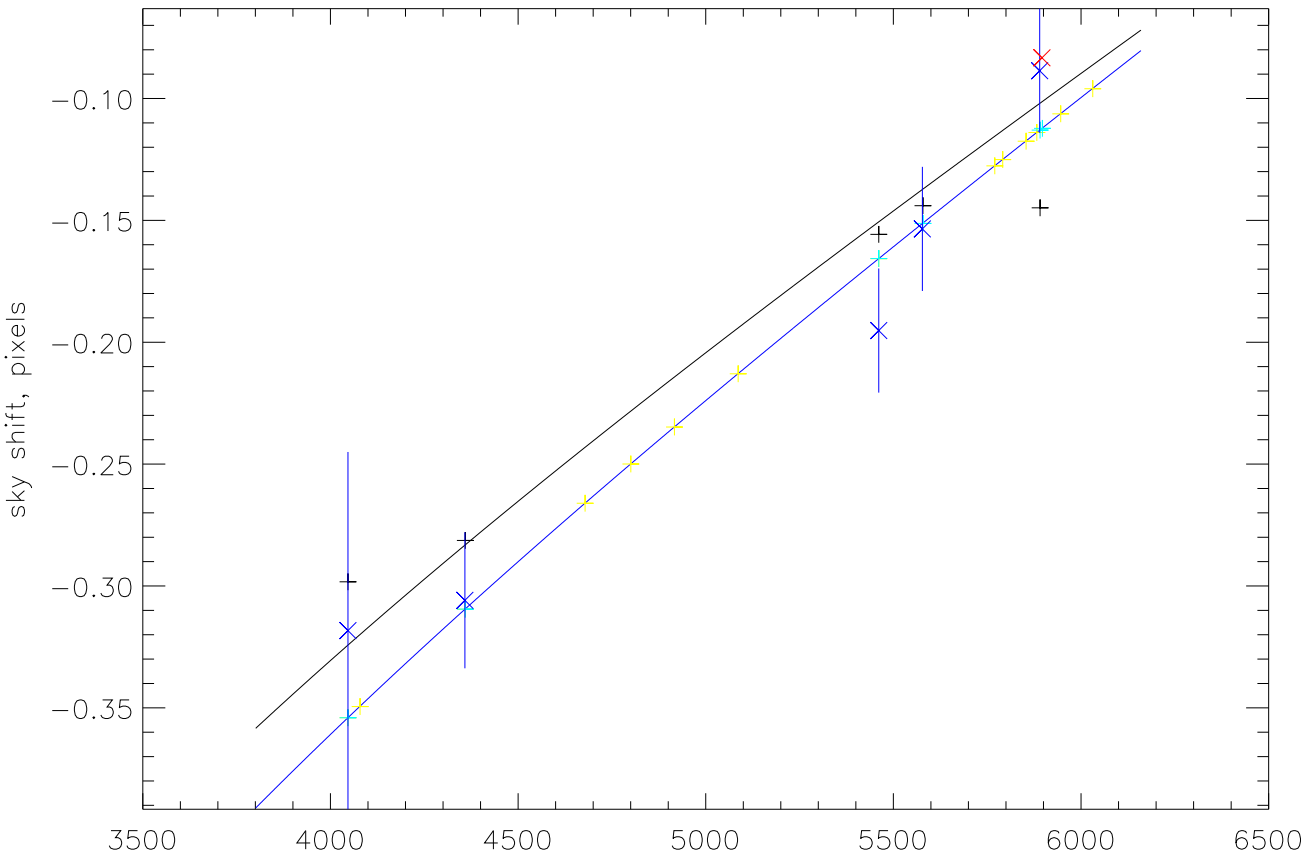

5460.9400
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

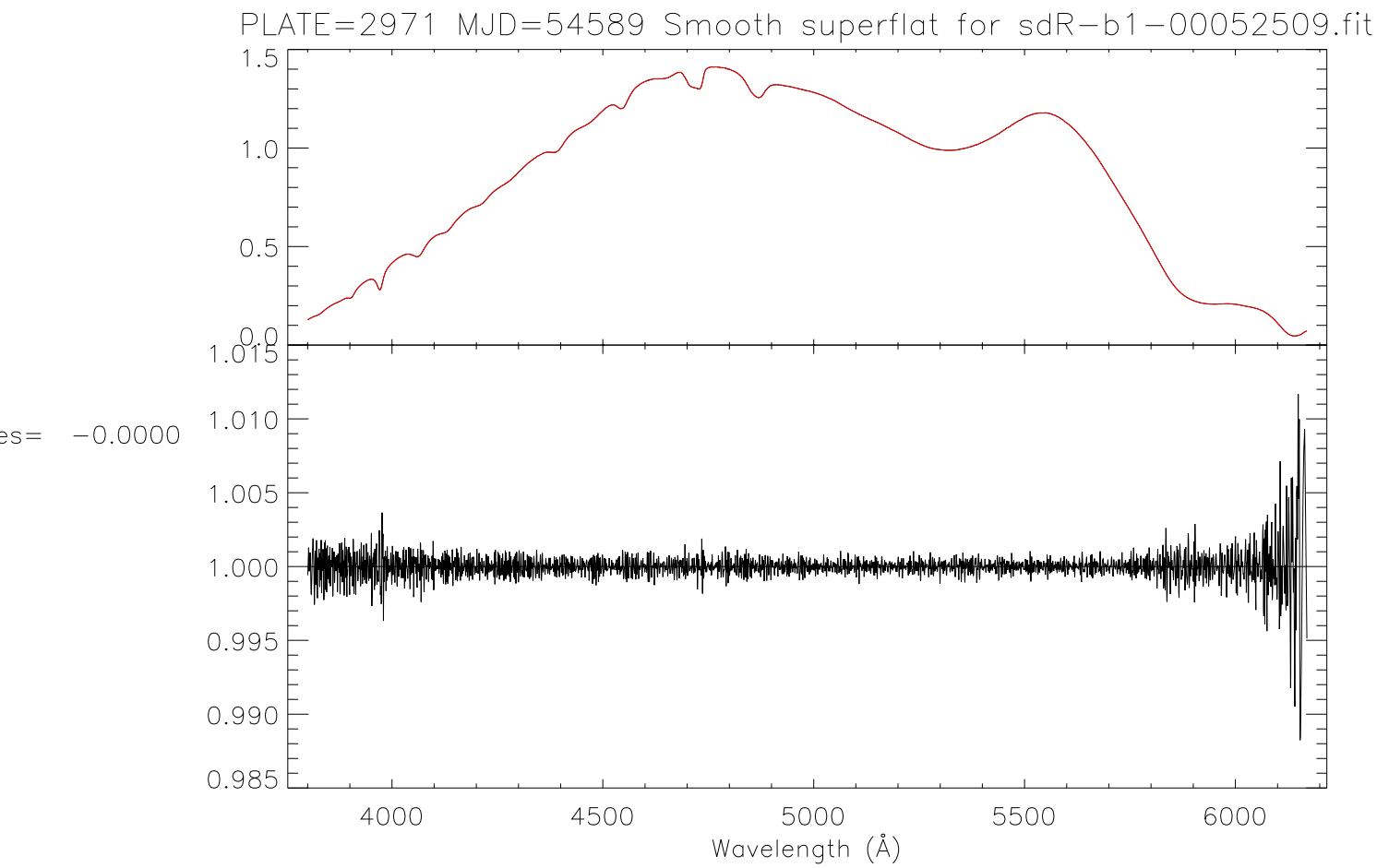

5577.3390
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400


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

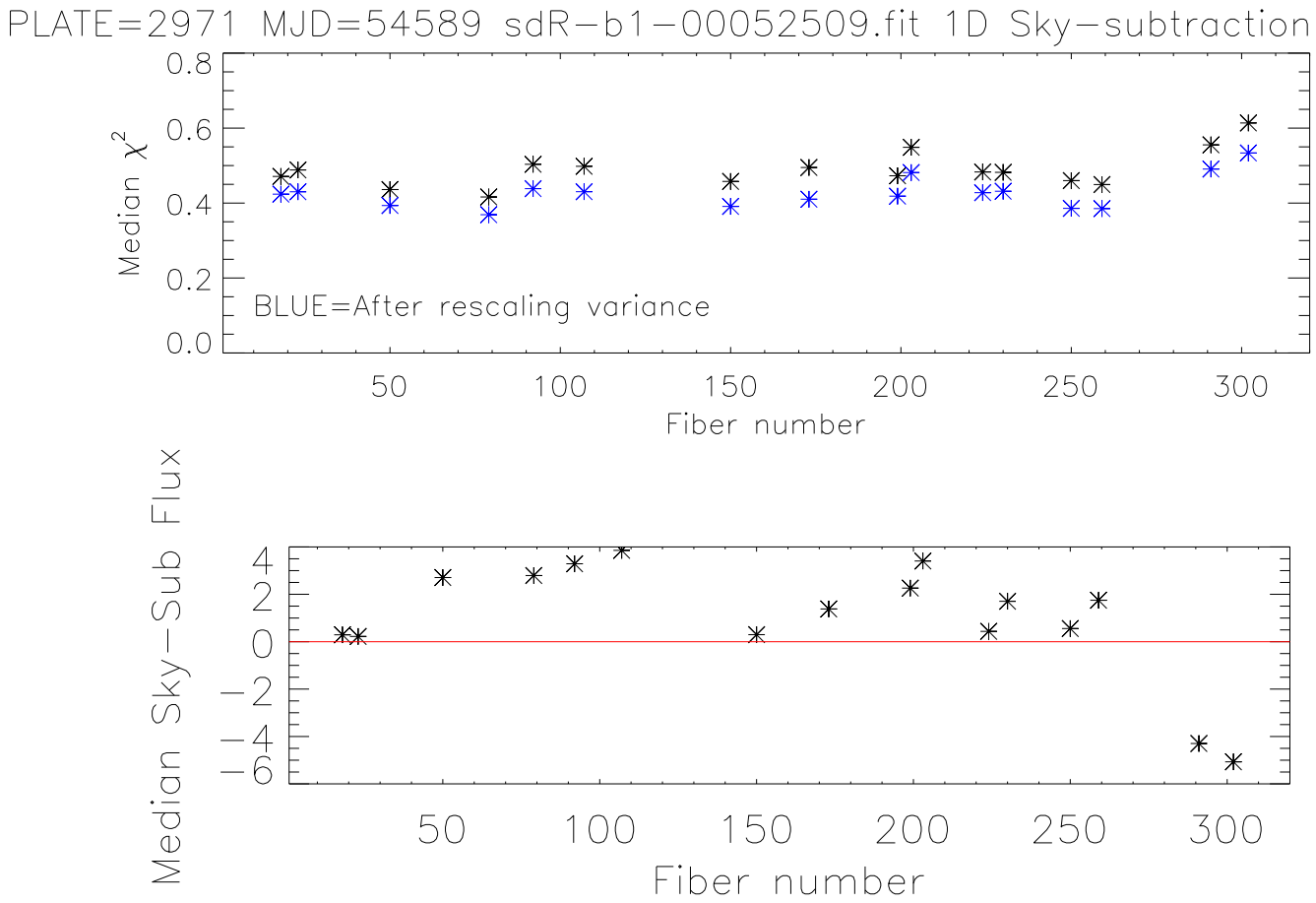

5895.9240
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

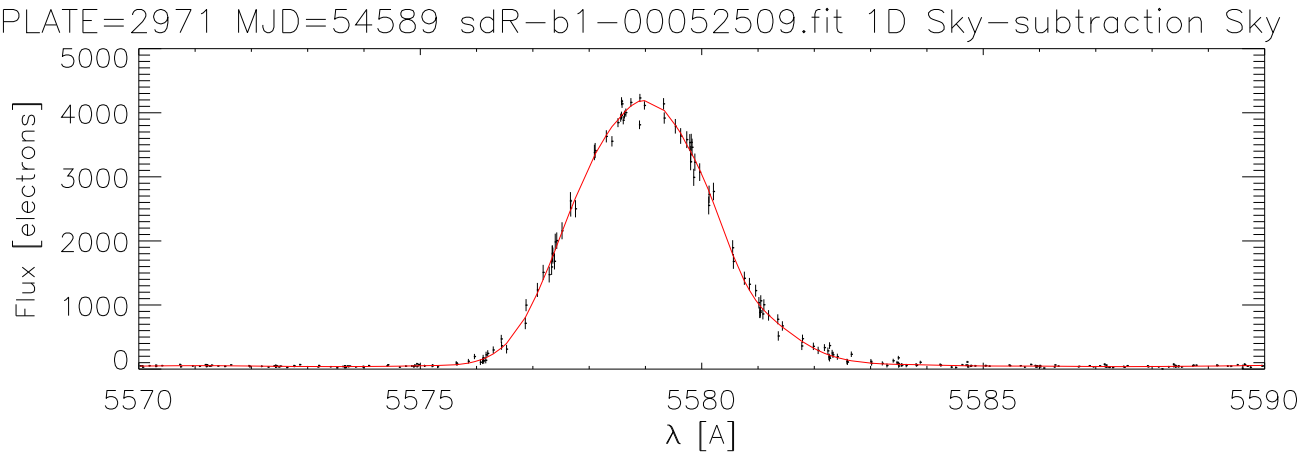

4046.5600
nfib1 16
nfib2 16
stdev 0.153
extra −0.32
4358.3300
nfib1 16
nfib2 16
stdev 0.065
extra −0.31
5460.9400
nfib1 16
nfib2 16
stdev 0.066
extra −0.20
5577.3390
nfib1 16
nfib2 16
stdev 0.033
extra −0.15
5889.9500
nfib1 14
nfib2 15
stdev 0.024
extra −0.09
5895.9240
nfib1 16
nfib2 16
stdev 0.033
extra −0.08
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

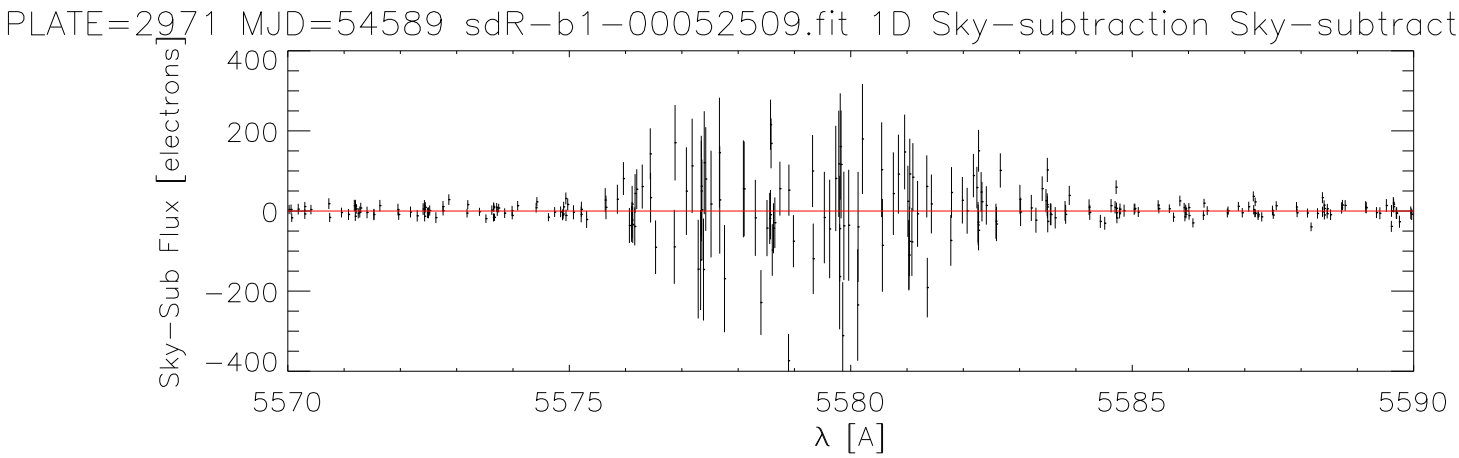

sky shift, pixels
−0.10
−0.15
−0.20
−0.25
−0.30
−0.35
3500
4000
4500
5000
5500
6000
6500

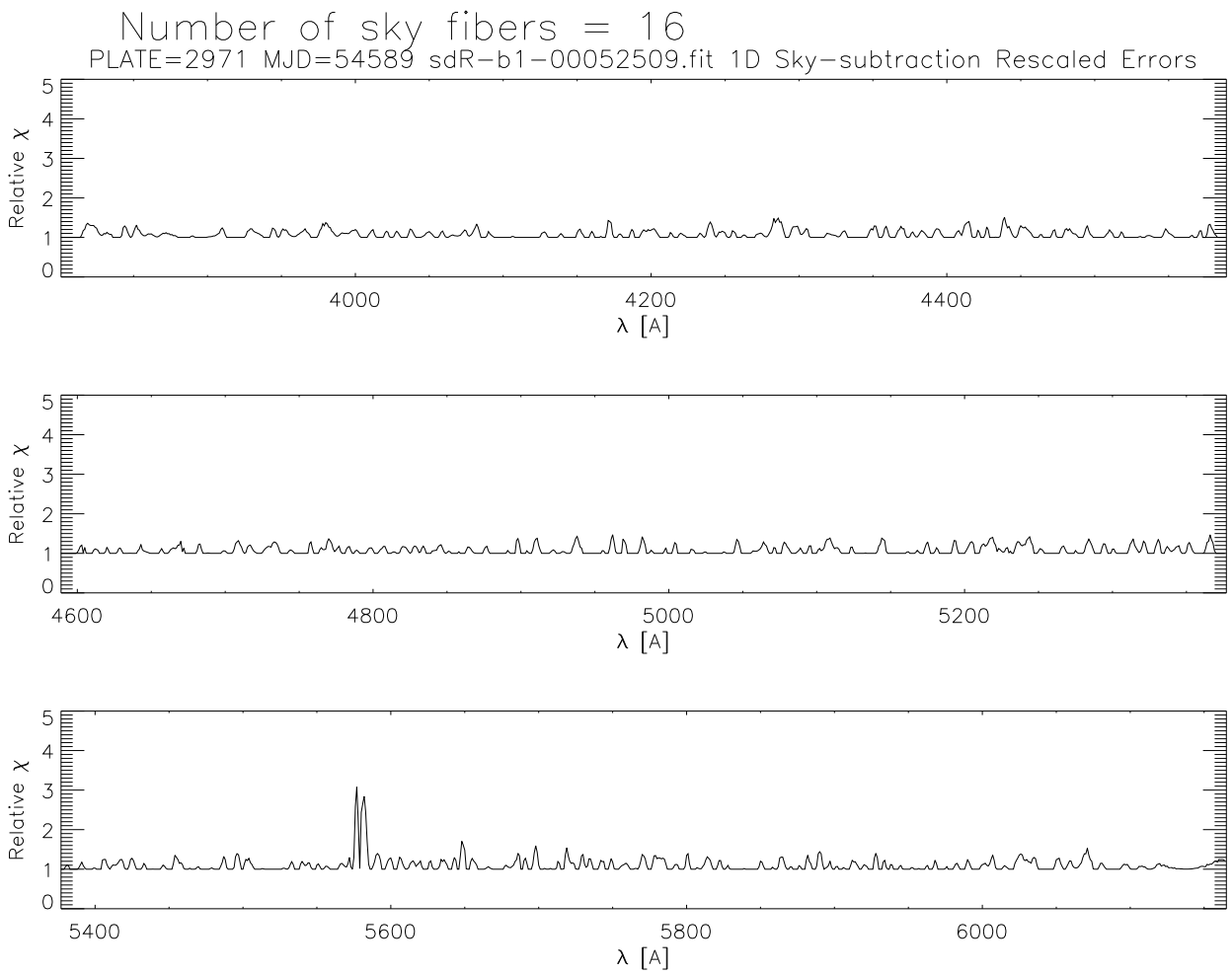

PLATE=2971 MJD=54589 Smooth superflat for sdR-b1-00052509.fit
1.5
1.0
0.5
0.0
1.015
1.010
1.005
1.000
0.995
0.990
0.985
4000
4500
5000
5500
6000
Wavelength (Å)

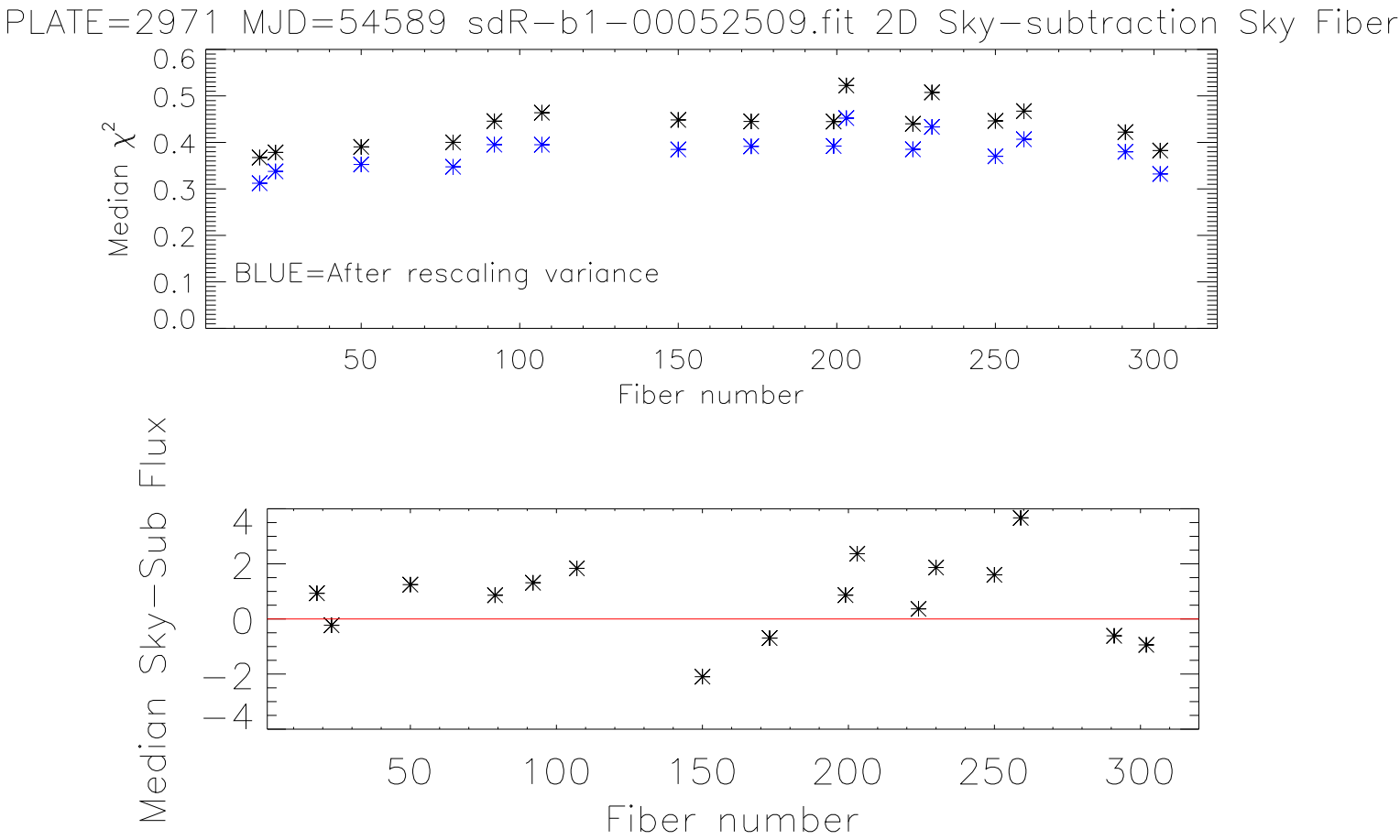
es= −0.0000

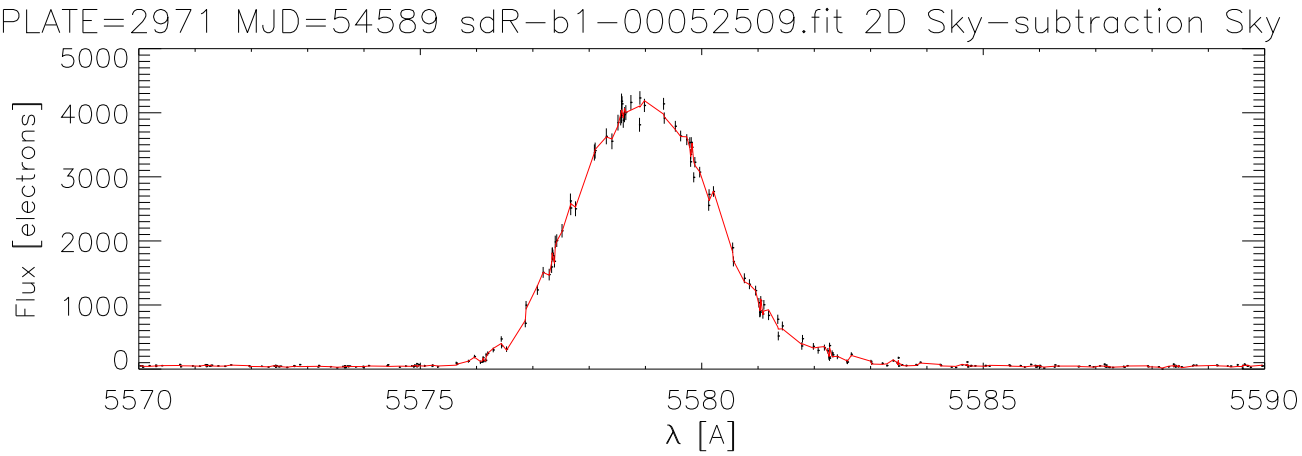

PLATE=2971 MJD=54589 sdR-b1-00052509.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-6
-4
-2
0
2
4
50
100
150
200
250
300
Fiber number

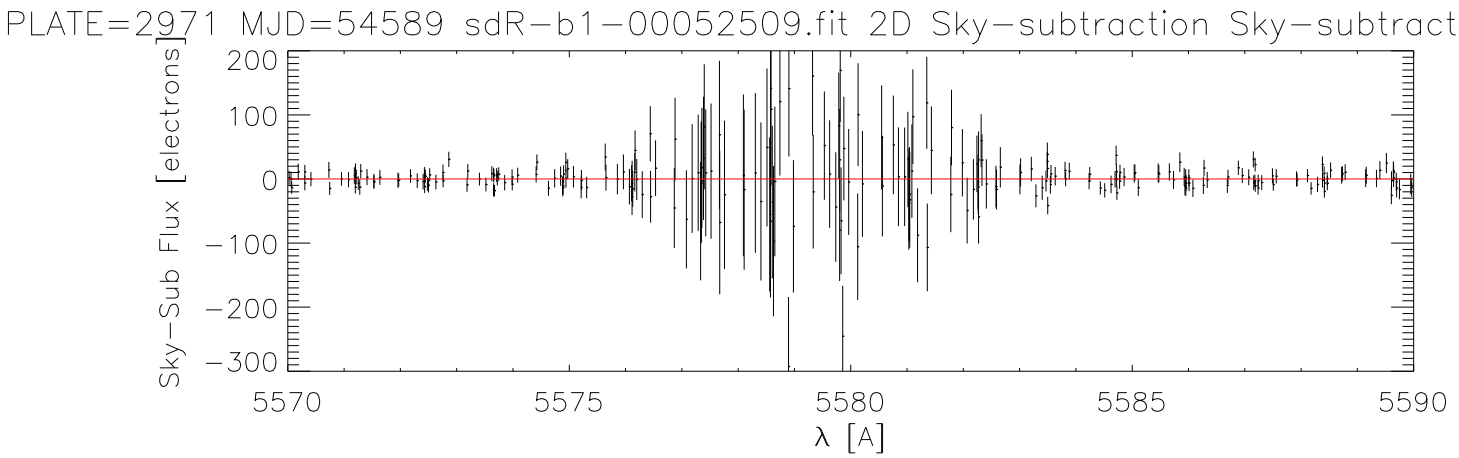

PLATE=2971 MJD=54589 sdR-b1-00052509.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

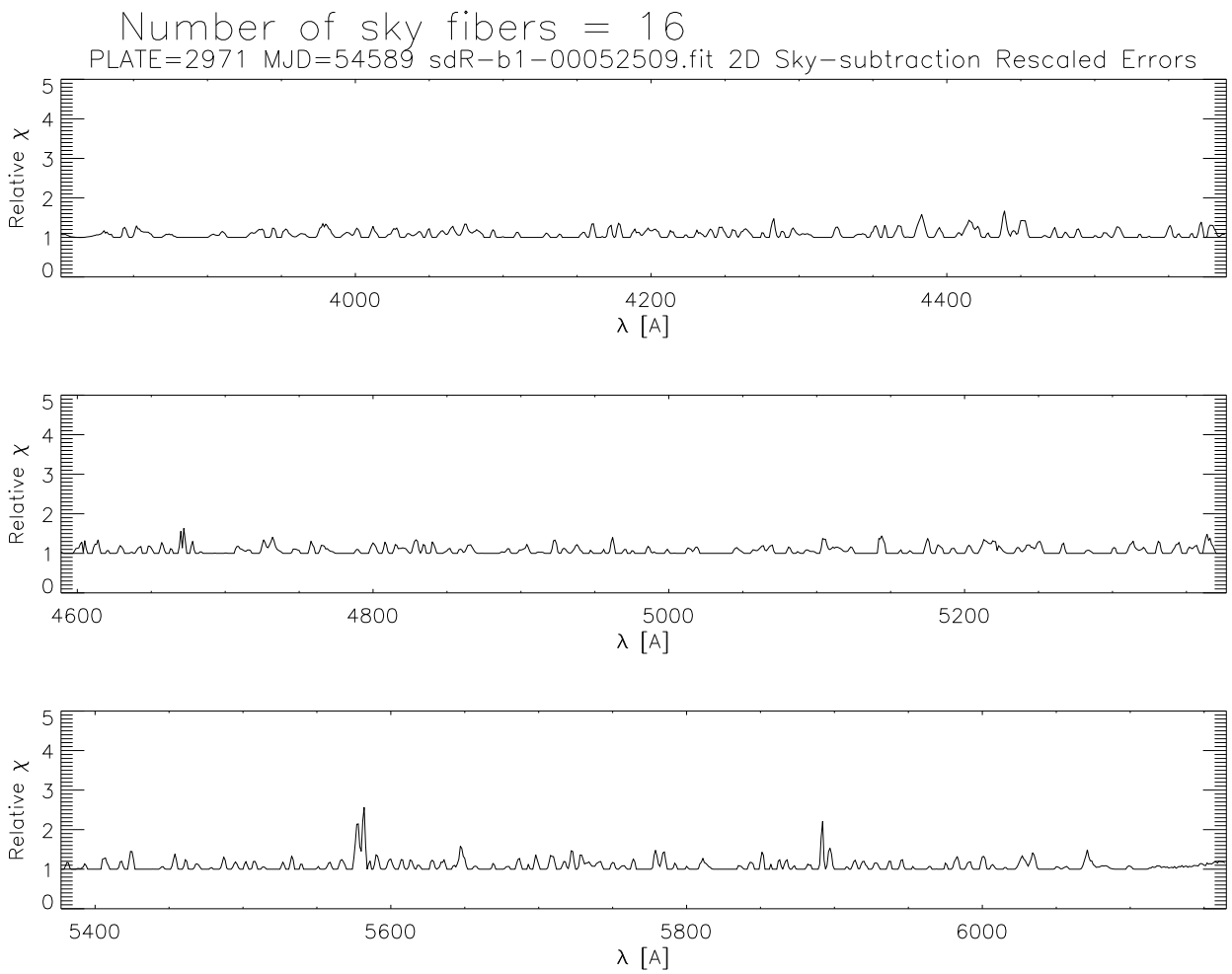

PLATE=2971 MJD=54589 sdR-b1-00052509.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
200
0
-200
-400
5570
5575
5580
5585
5590
λ [A]

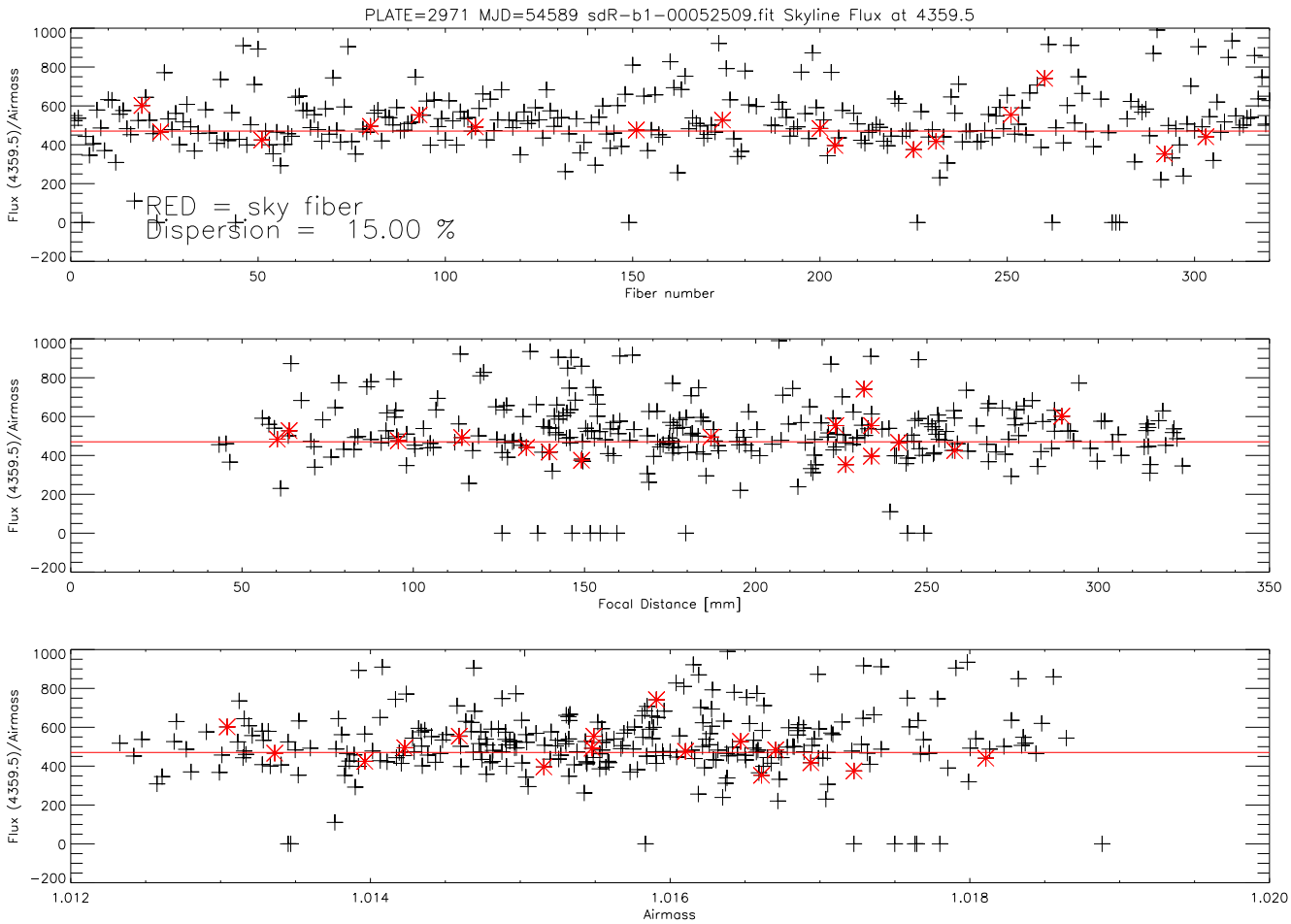

Number of sky fibers = 16
PLATE=2971 MJD=54589 sdR-b1-00052509.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

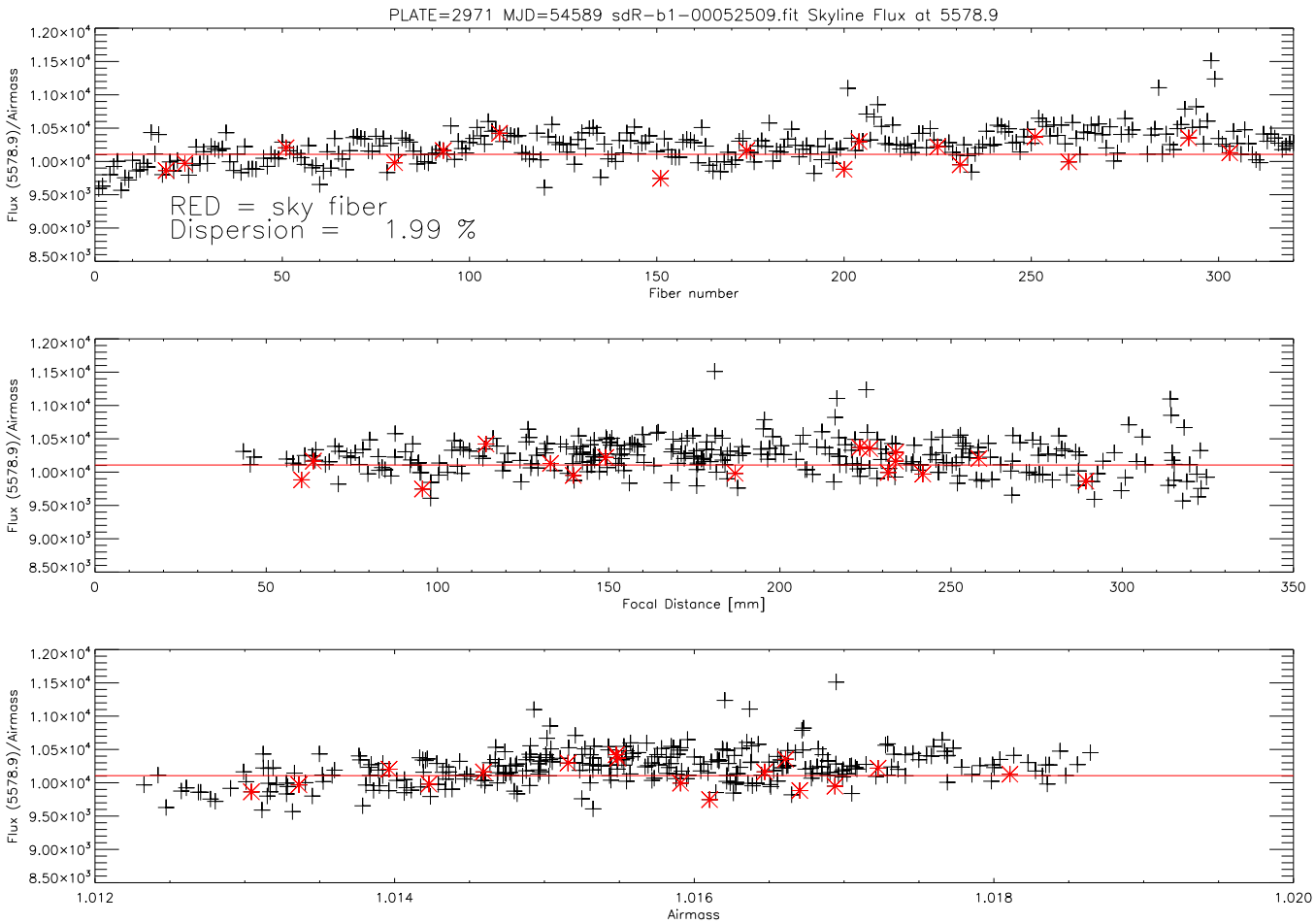

PLATE=2971 MJD=54589 sdR-b1-00052509.fit 2D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-4
-2
0
2
4
50
100
150
200
250
300
Fiber number

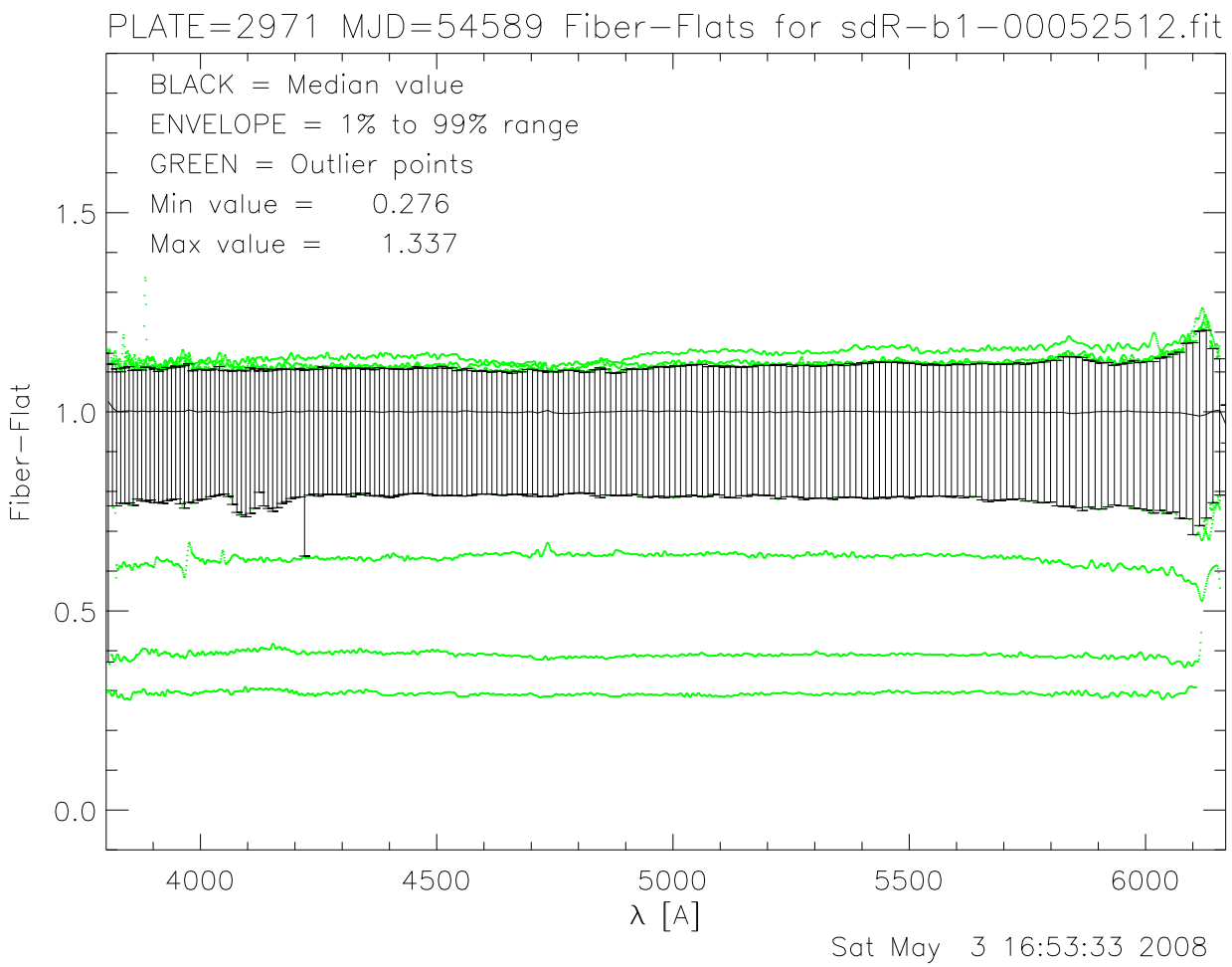

PLATE=2971 MJD=54589 sdR-b1-00052509.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

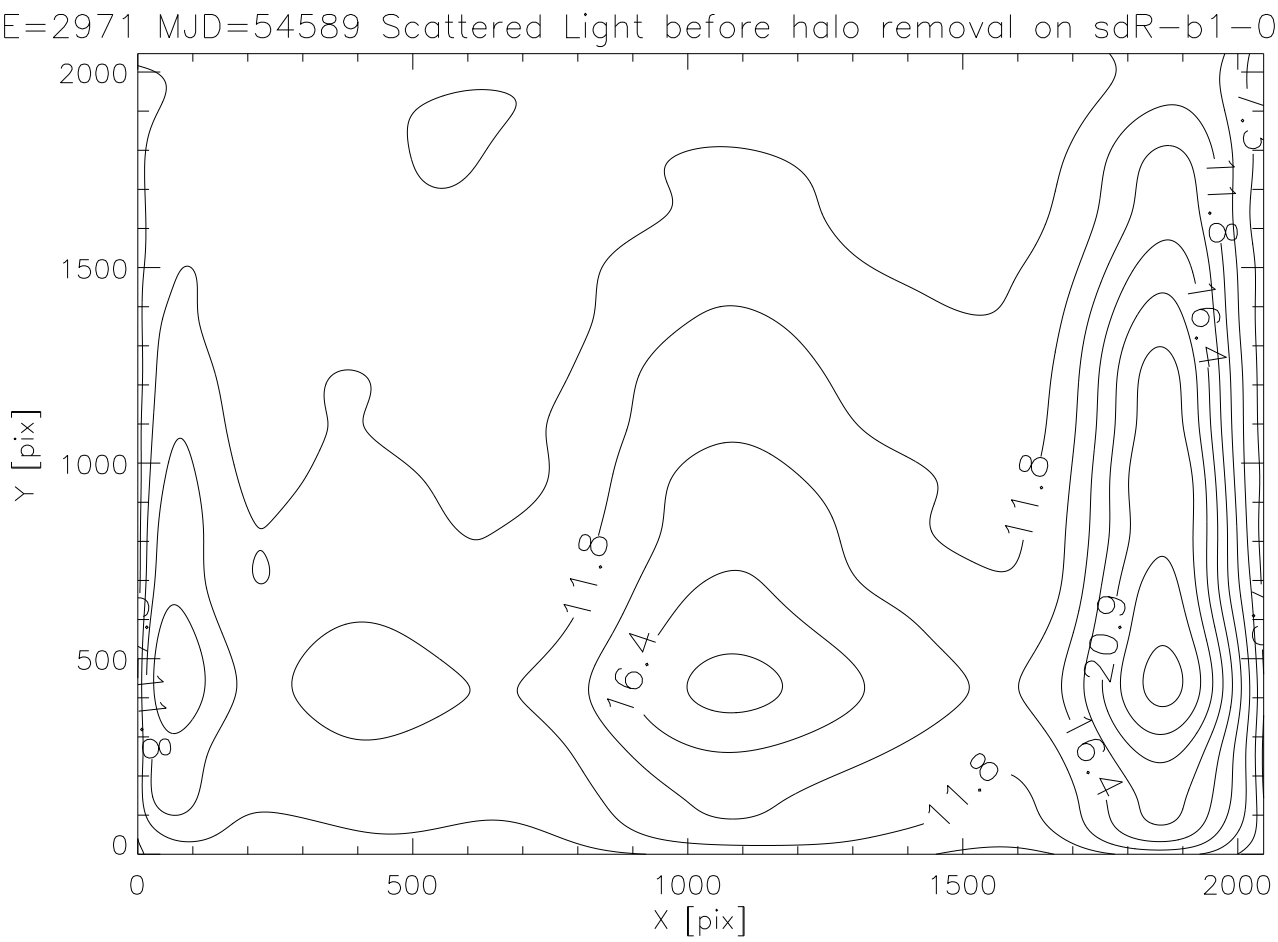

PLATE=2971 MJD=54589 sdR-b1-00052509.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
-300
5570
5575
5580
5585
5590
λ [A]

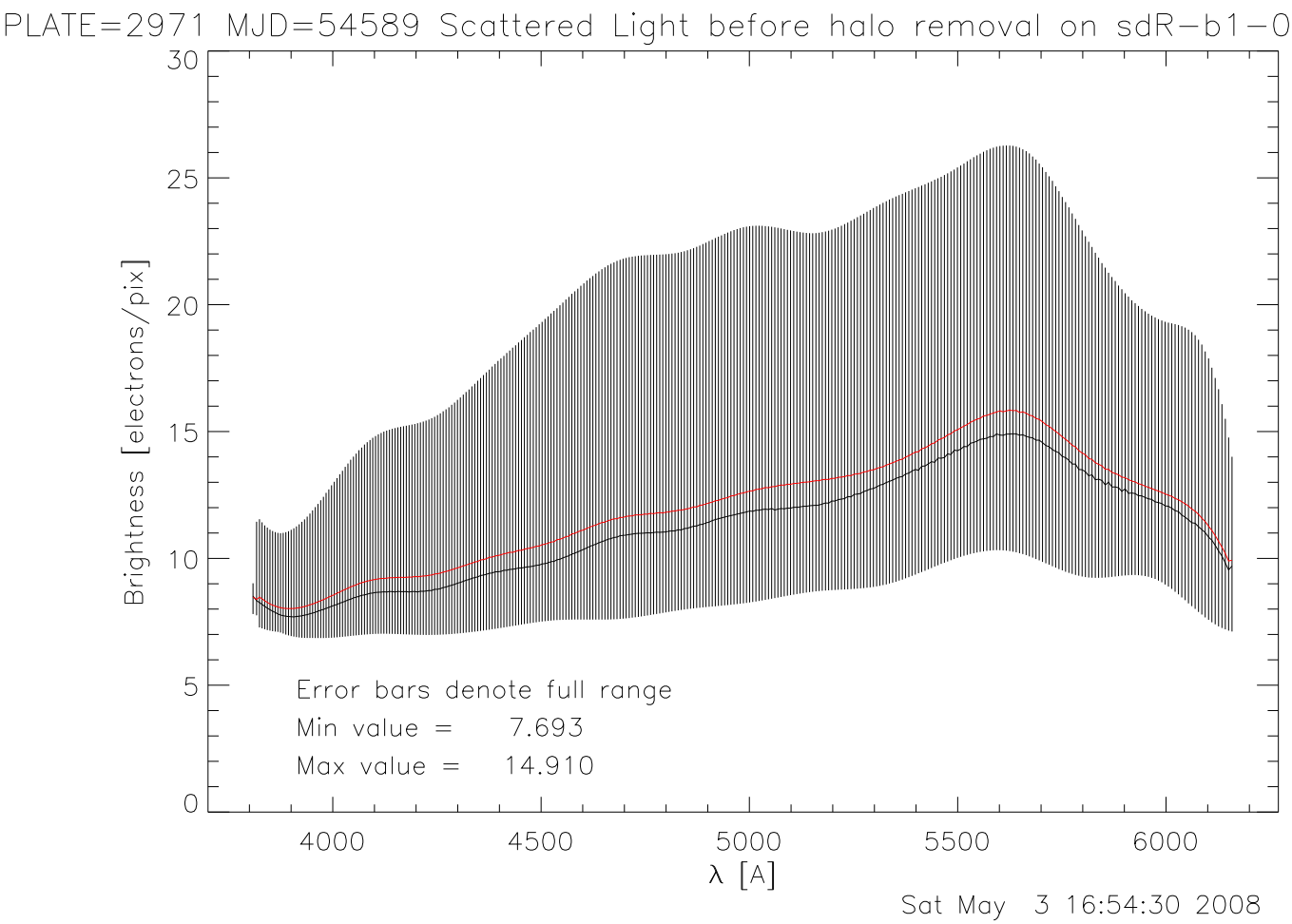

Number of sky fibers = 16
PLATE=2971 MJD=54589 sdR-b1-00052509.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

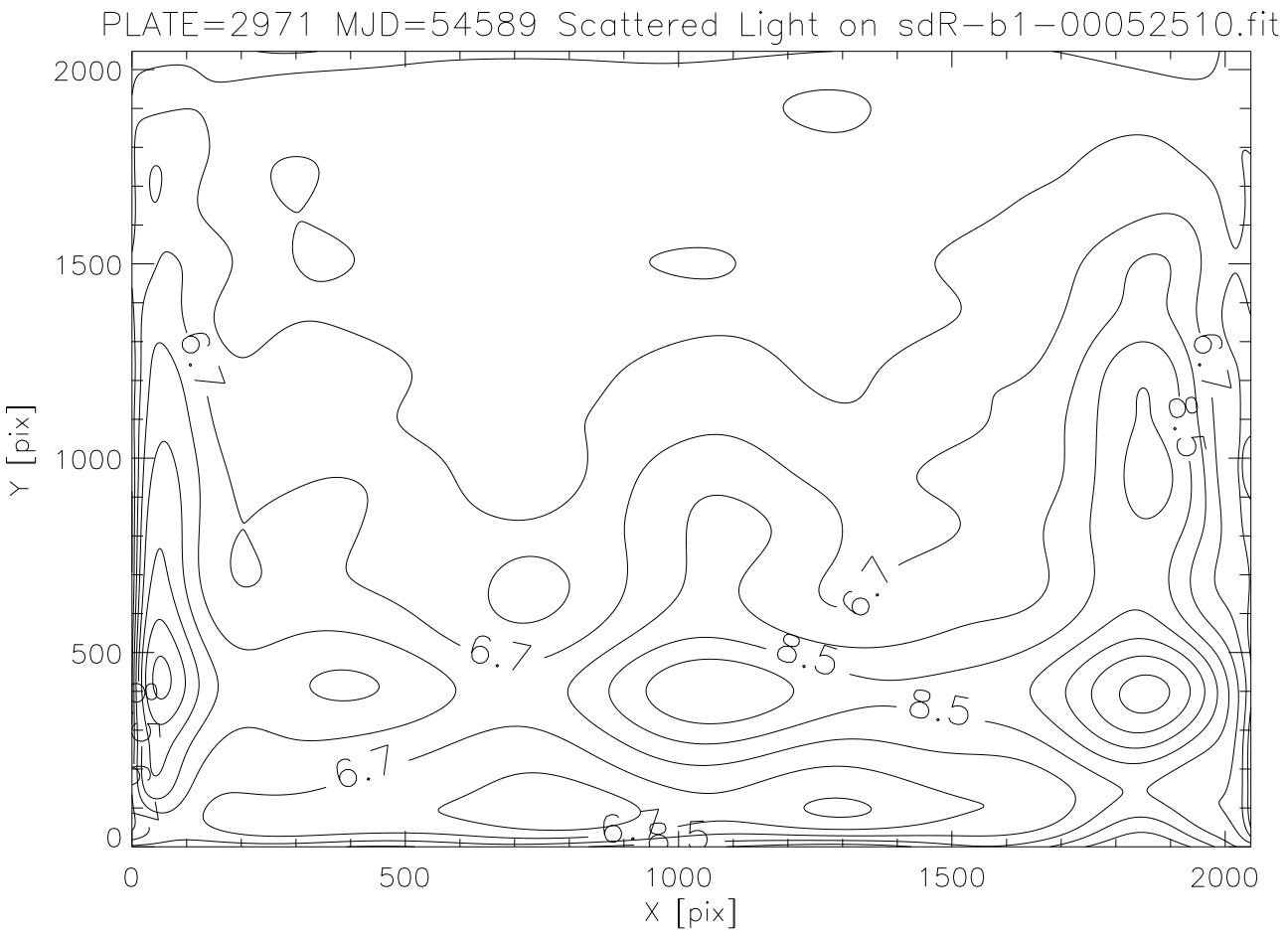

PLATE=2971 MJD=54589 sdR-b1-00052509.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 15.00 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

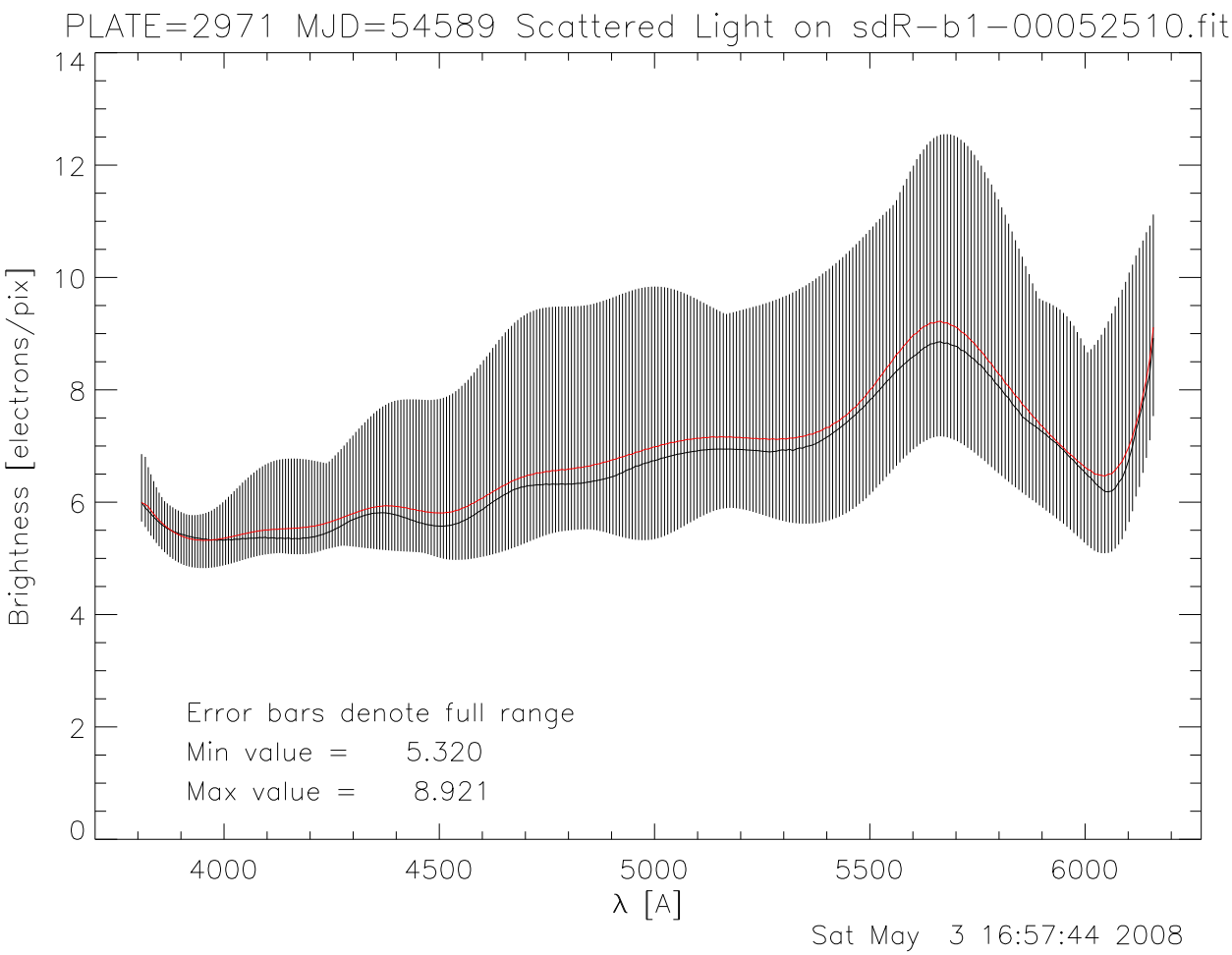

PLATE=2971 MJD=54589 sdR-b1-00052509.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 1.99 %
Fiber number
Flux (5578.9)/Airmass
Focal Distance [mm]
Flux (5578.9)/Airmass
Airmass

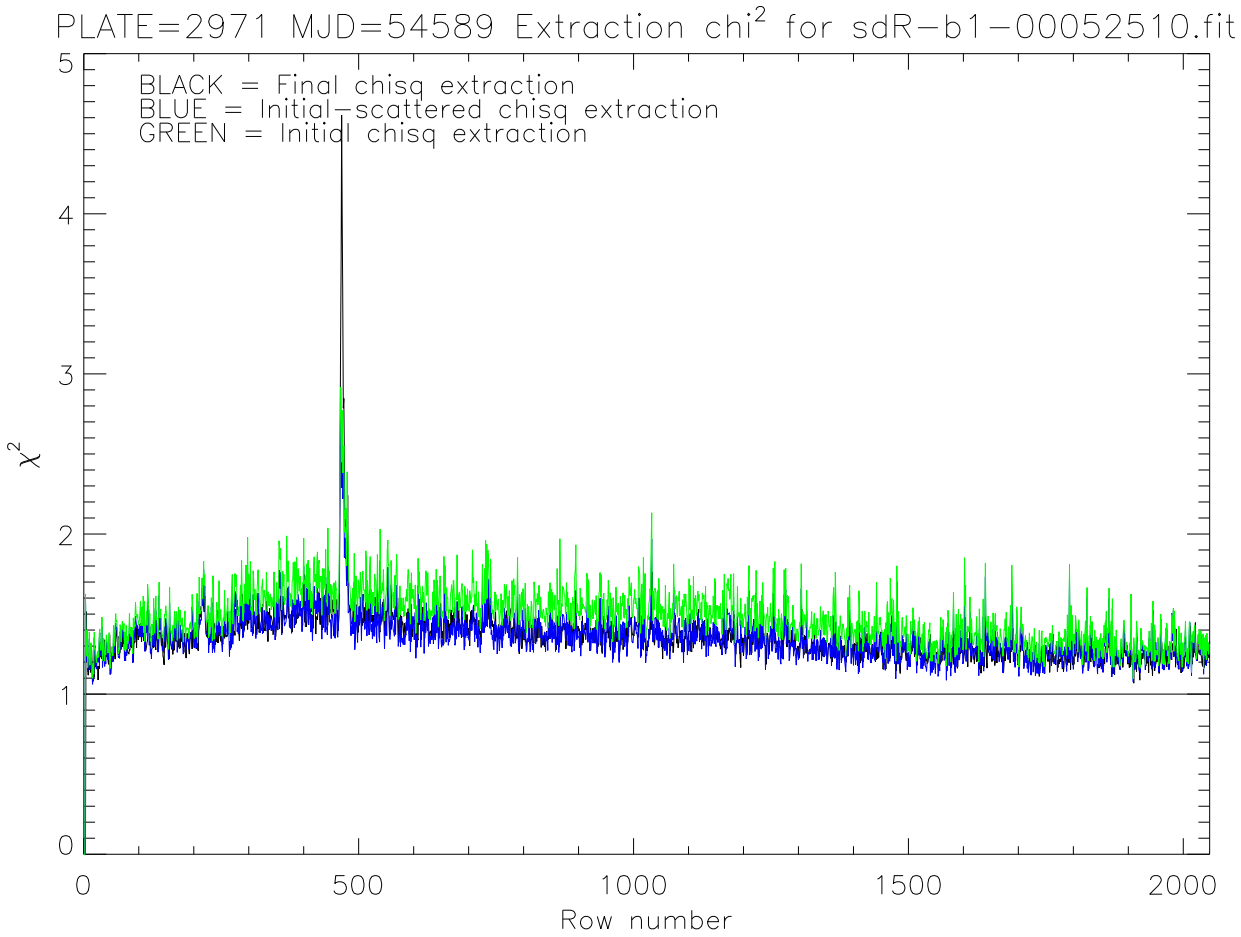

PLATE=2971 MJD=54589 Fiber−Flats for sdR−b1−00052512.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.276
Max value = 1.337
Fiber−Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Sat May 3 16:53:33 2008

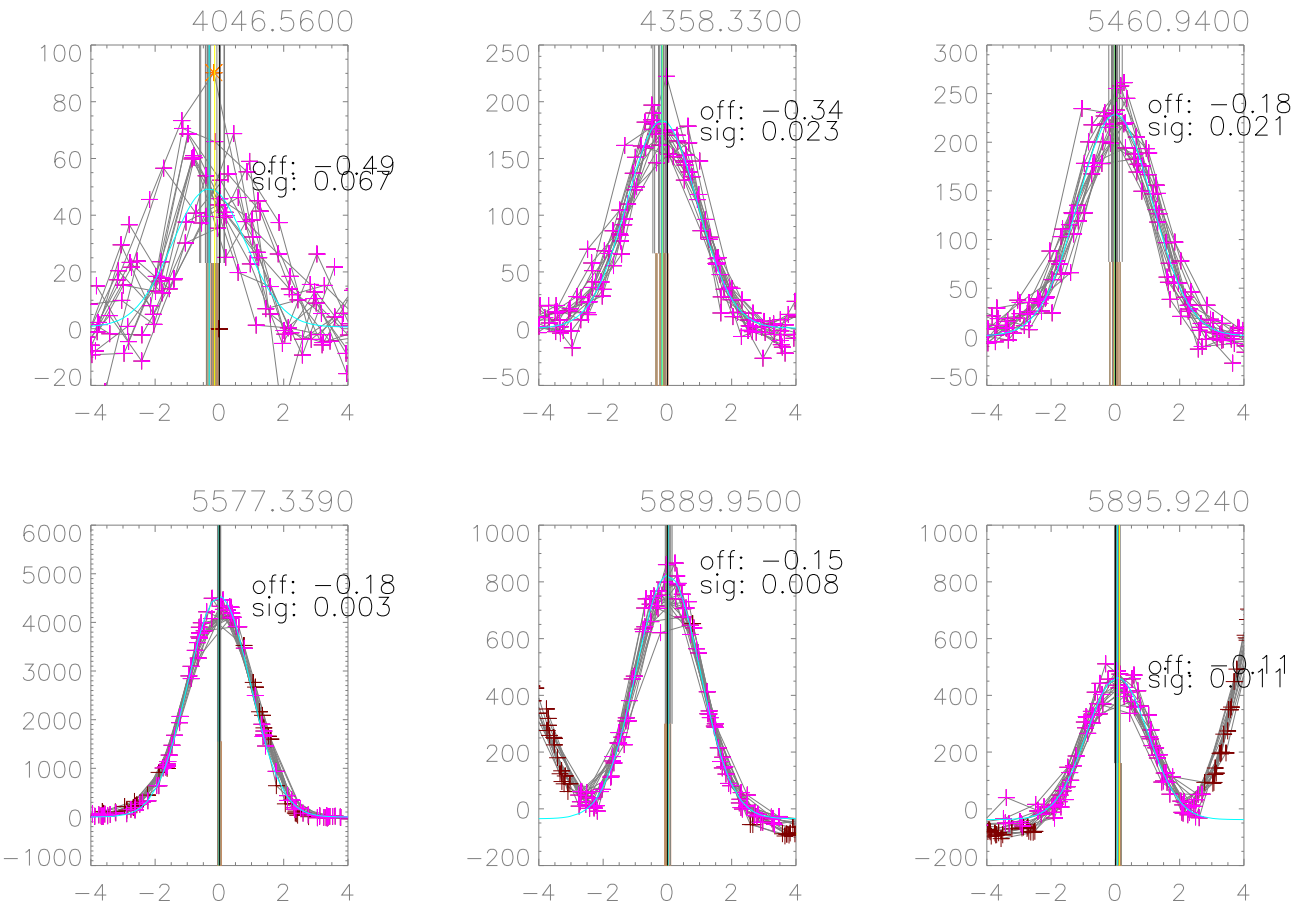

PLATE=2971 MJD=54589 Scattered Light before halo removal on sdR-b1-00052510.f
Y [pix]
X [pix]
0
500
1000
1500
2000
11.8
16.4
20.9

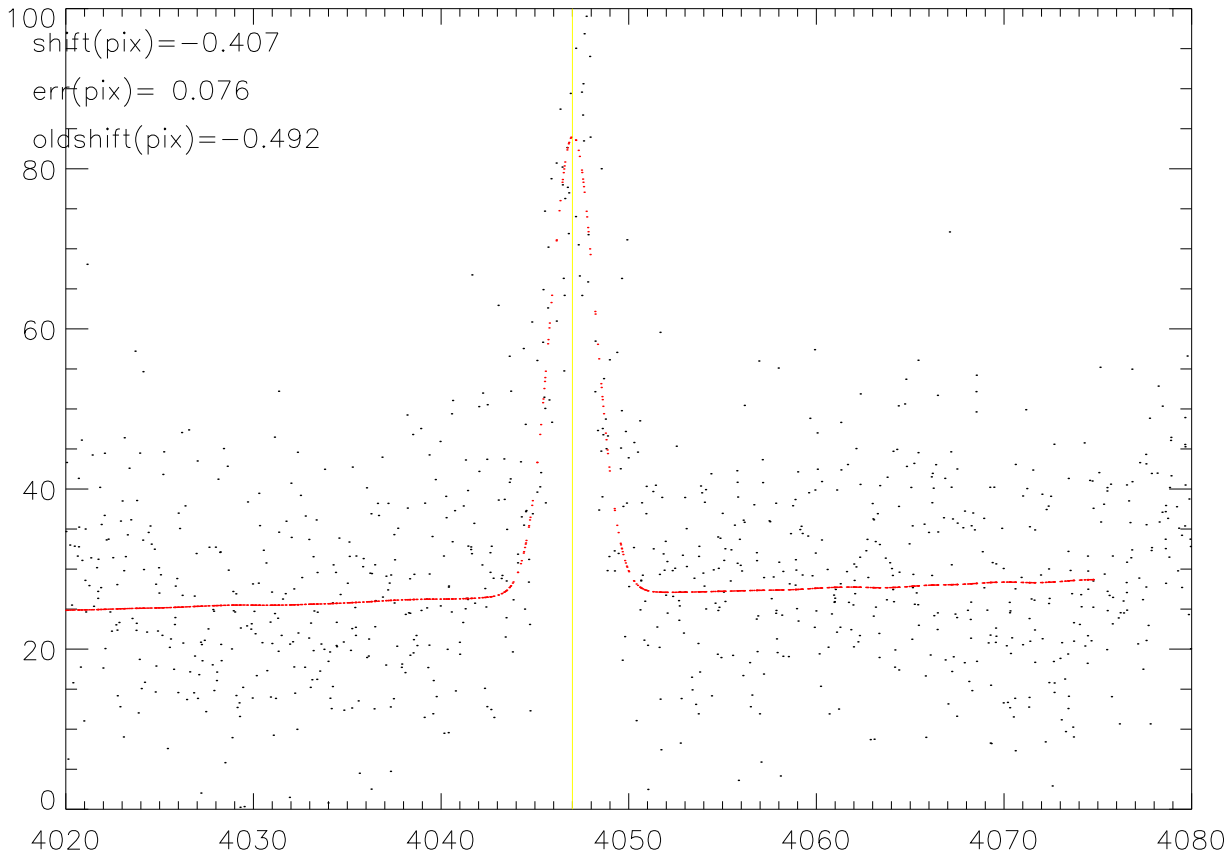

PLATE=2971 MJD=54589 Scattered Light before halo removal on sdR−b1−00052510.f
Brightness [electrons/pix]
30
25
20
15
10
5
0
Error bars denote full range
Min value = 7.693
Max value = 14.910
4000
4500
5000
5500
6000
λ [A]
Sat May 3 16:54:30 2008

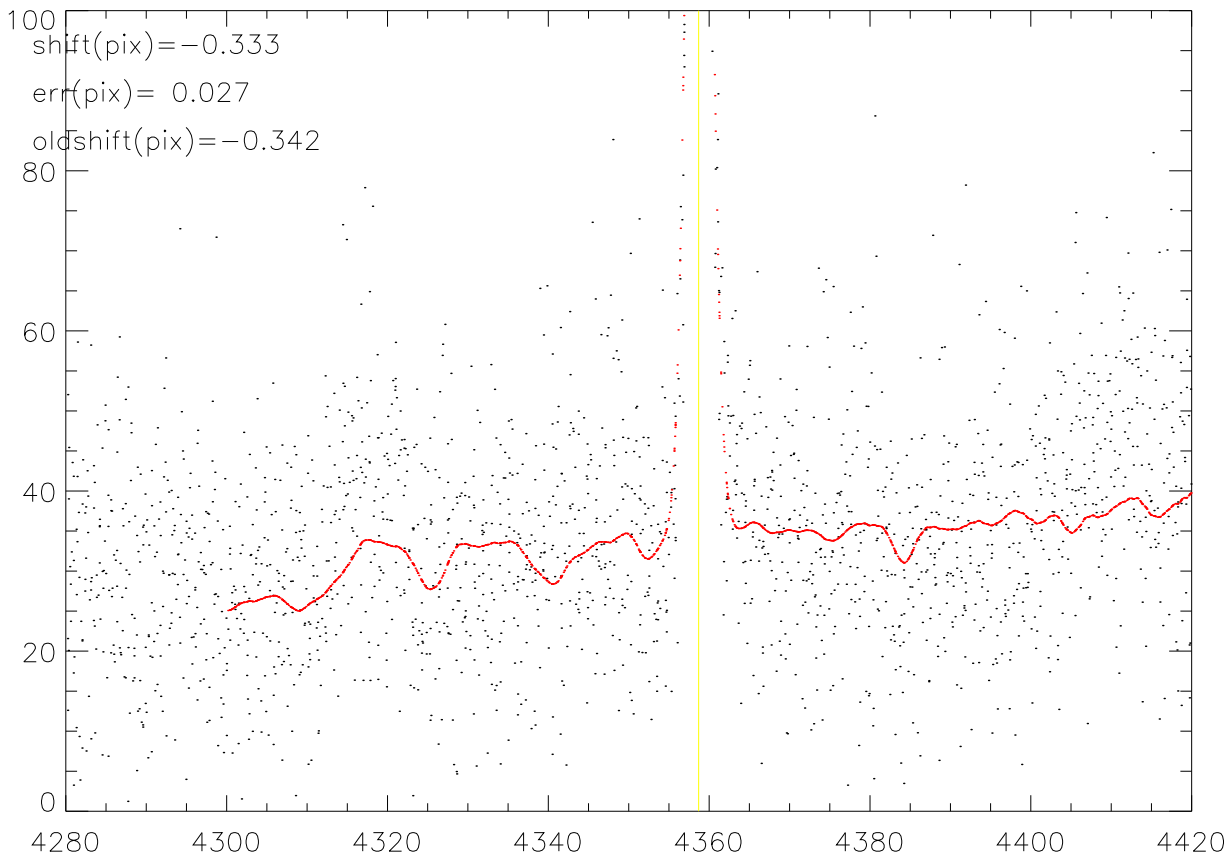

PLATE=2971 MJD=54589 Scattered Light on sdR-b1-00052510.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
6.7
8.5

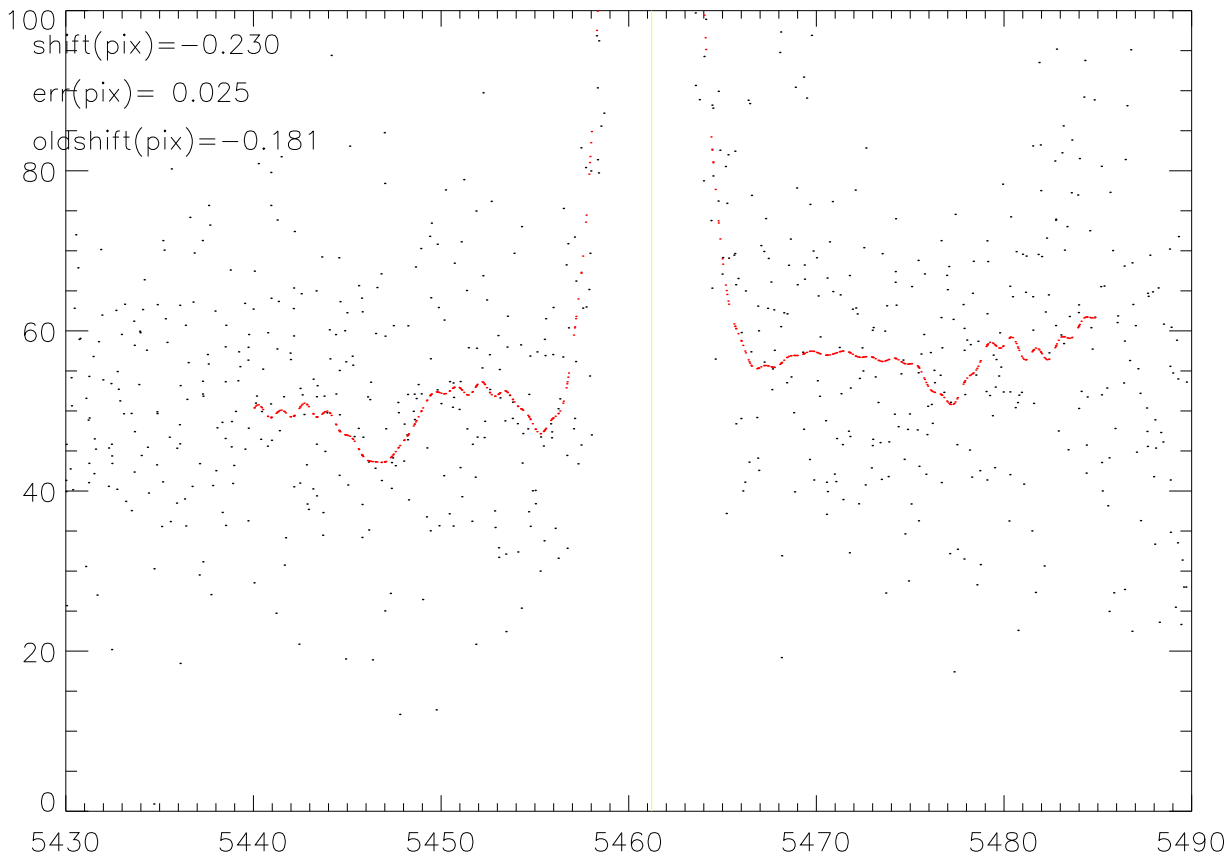

PLATE=2971 MJD=54589 Scattered Light on sdR-b1-00052510.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 5.320
Max value = 8.921
Sat May 3 16:57:44 2008

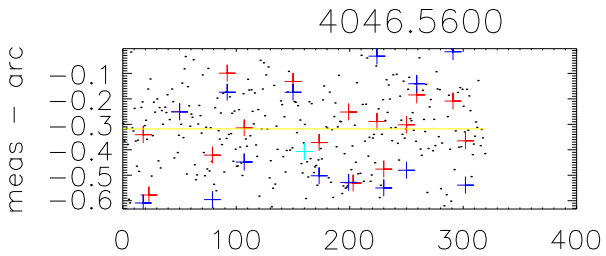

PLATE=2971 MJD=54589 Extraction chi^2 for sdR-b1-00052510.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
5
0
500
1000
1500
2000
Row number

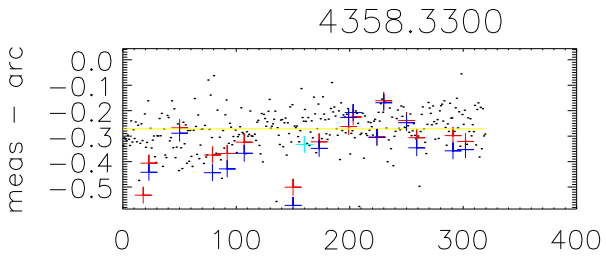

4046.5600
off: −0.49
sig: 0.067
4358.3300
off: −0.34
sig: 0.023
5460.9400
off: −0.18
sig: 0.021
5577.3390
off: −0.18
sig: 0.003
5889.9500
off: −0.15
sig: 0.008
5895.9240
off: −0.11
sig: 0.011

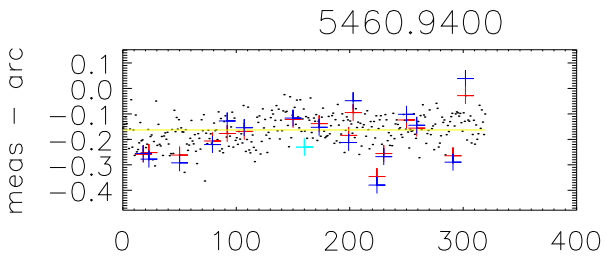

shift(pix)=−0.407
err(pix)= 0.076
oldshift(pix)=−0.492
100
80
60
40
20
0
4020
4030
4040
4050
4060
4070
4080

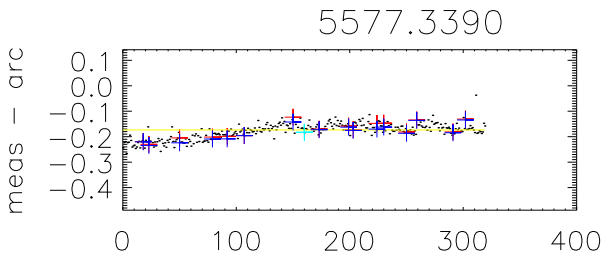

shift(pix)=−0.333
err(pix)= 0.027
oldshift(pix)=−0.342
100
80
60
40
20
0
4280
4300
4320
4340
4360
4380
4400
4420

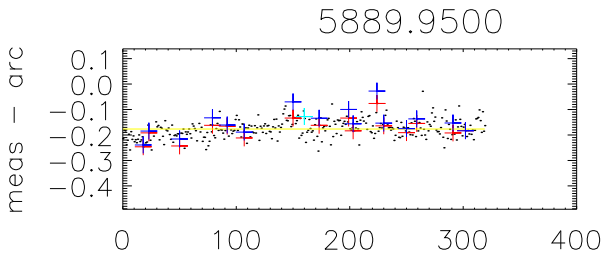

shift(pix)=−0.230
err(pix)= 0.025
oldshift(pix)=−0.181
100
80
60
40
20
0
5430
5440
5450
5460
5470
5480
5490

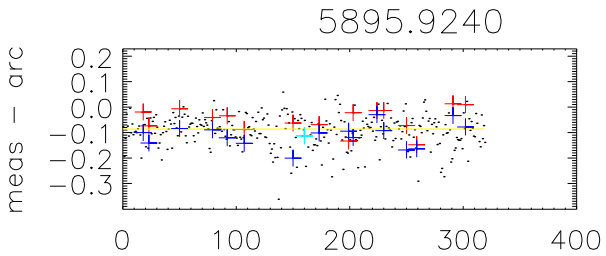

4046.5600
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

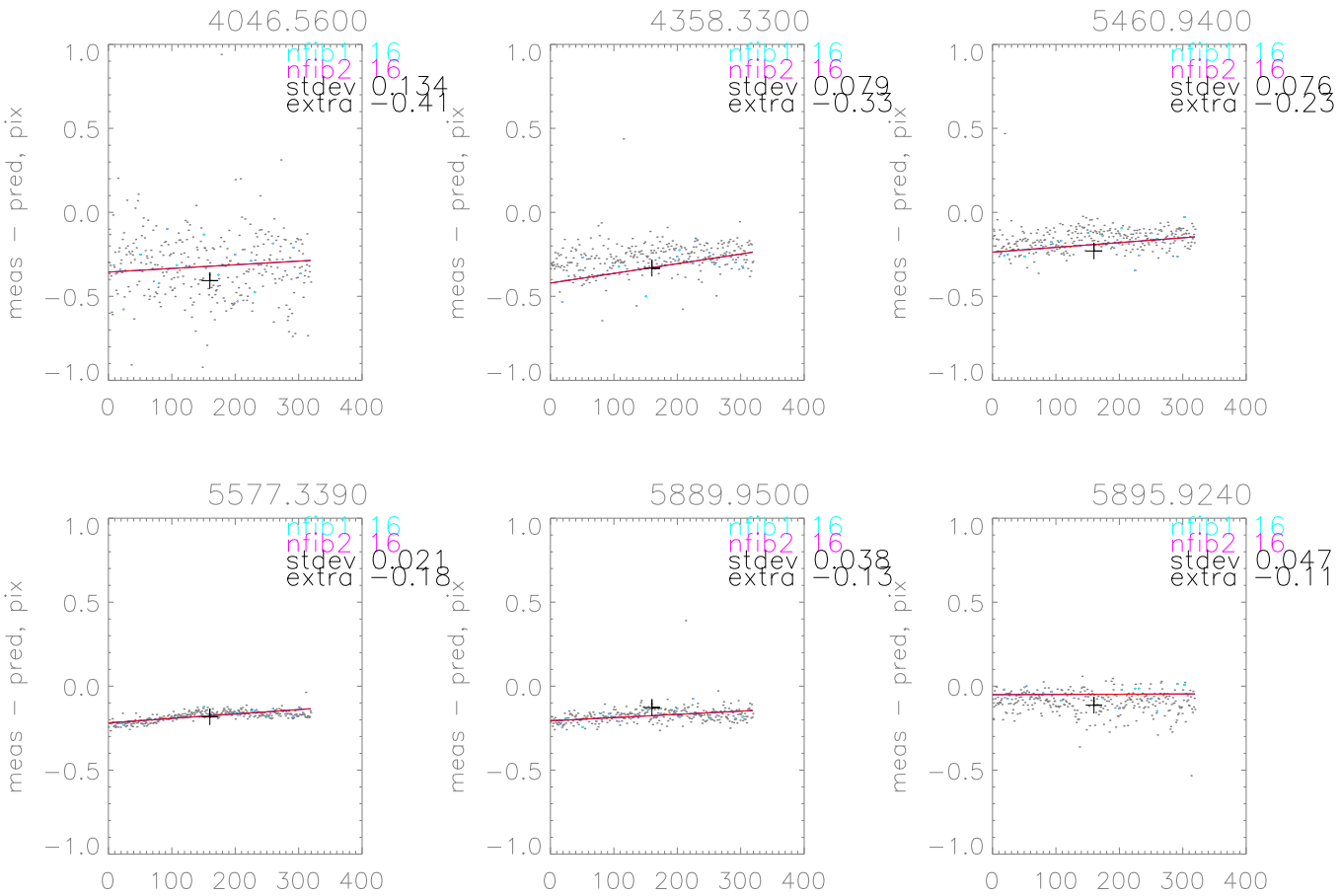

4358.3300
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

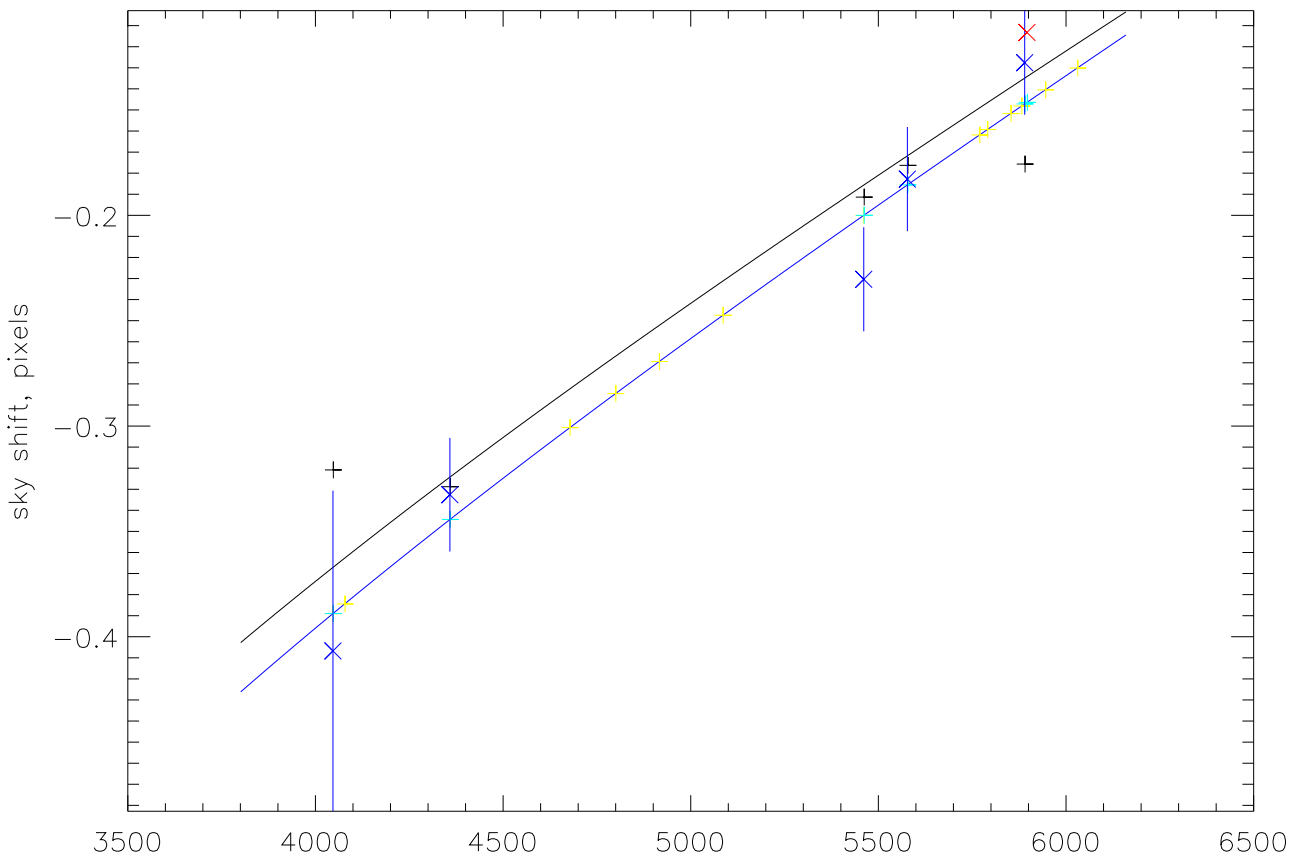

5460.9400
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

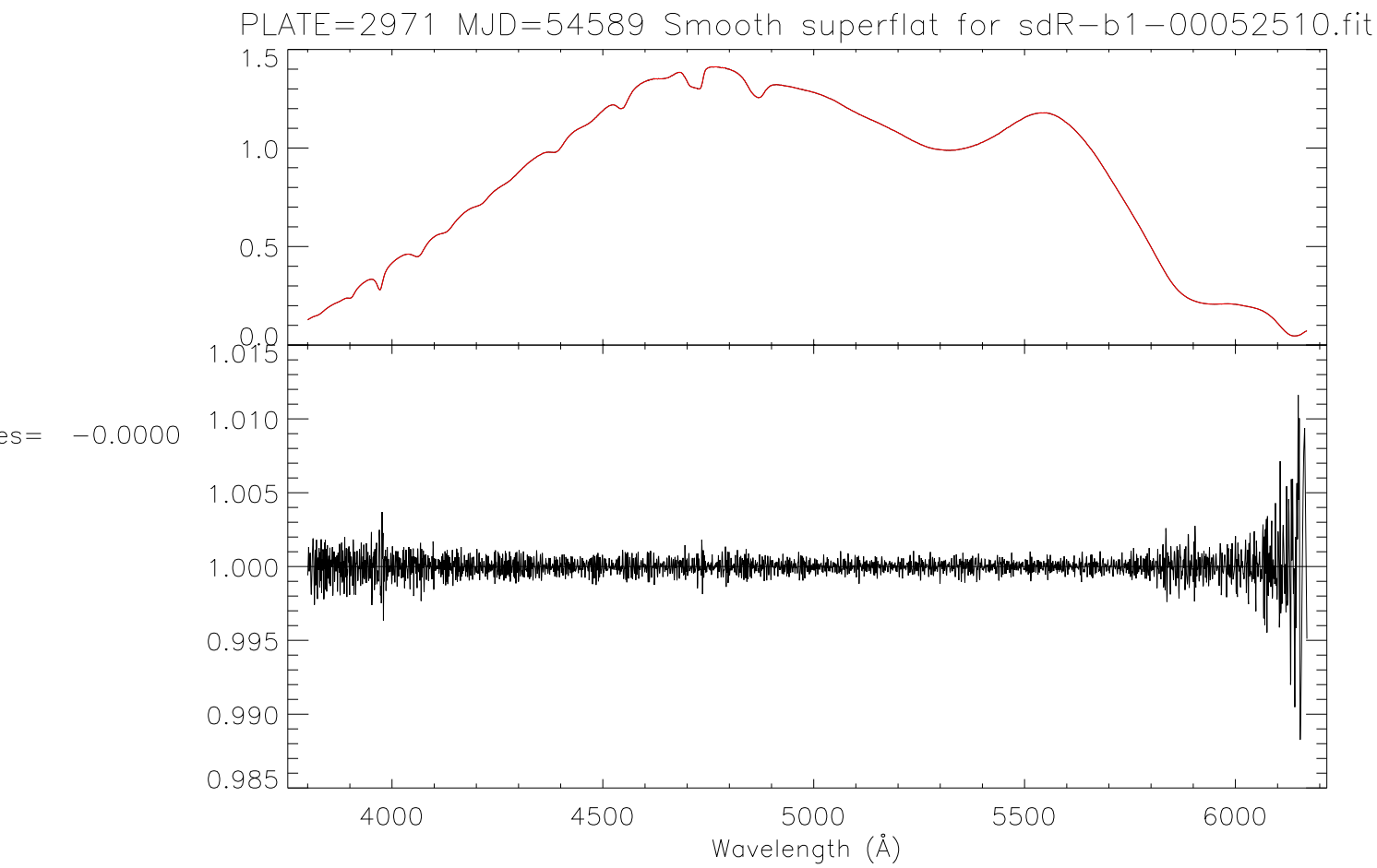

5577.3390
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

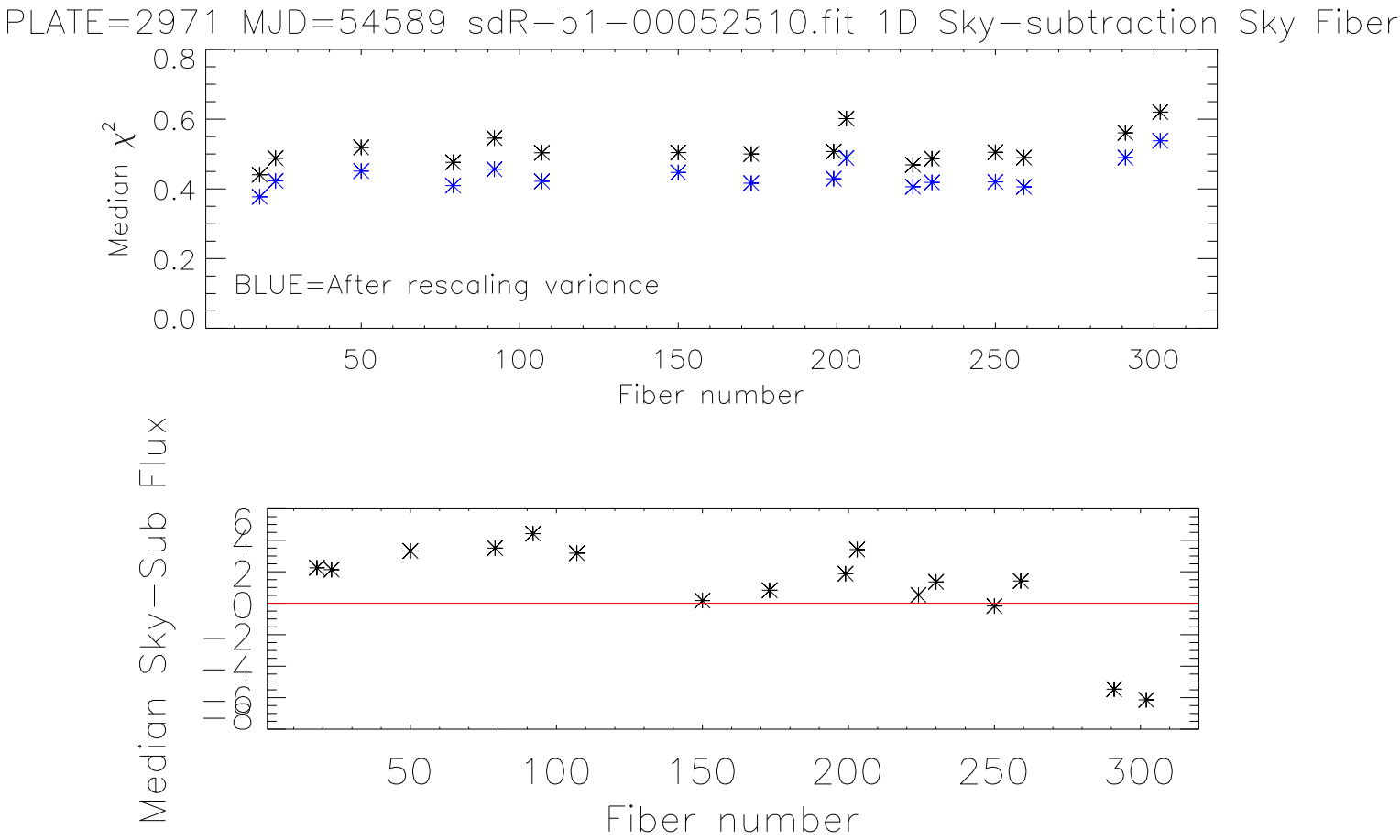

5889.9500
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

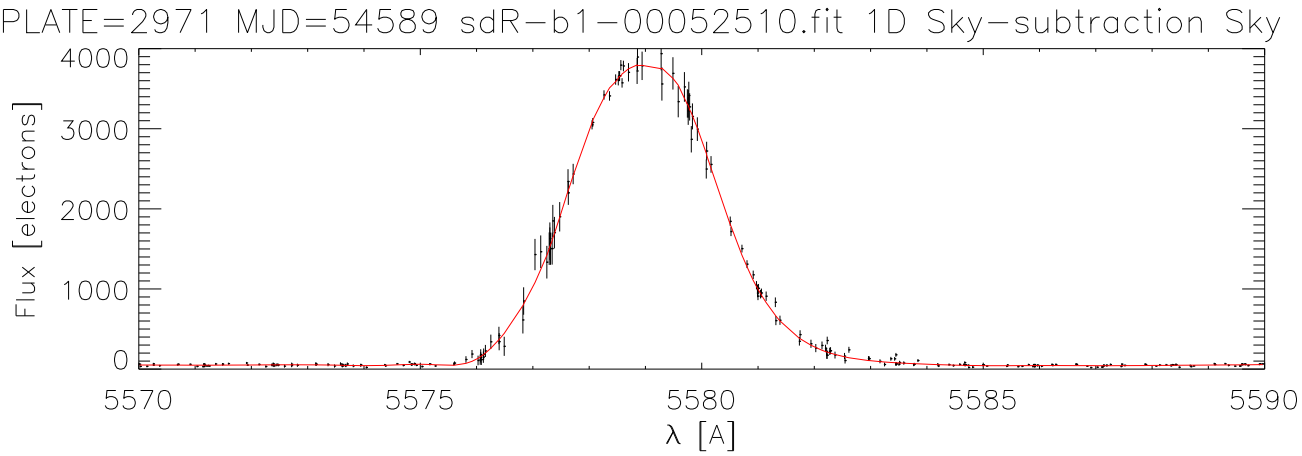

5895.9240
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

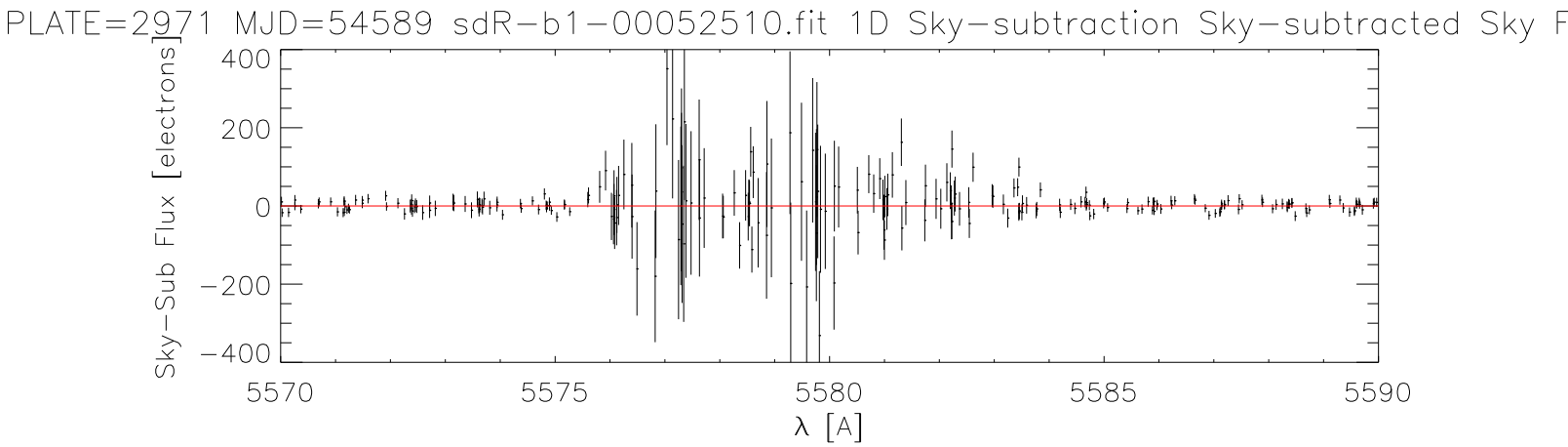

4046.5600
nfib1 16
nfib2 16
stdev 0.134
extra −0.41
4358.3300
nfib1 16
nfib2 16
stdev 0.079
extra −0.33
5460.9400
nfib1 16
nfib2 16
stdev 0.076
extra −0.23
5577.3390
nfib1 16
nfib2 16
stdev 0.021
extra −0.18
5889.9500
nfib1 16
nfib2 16
stdev 0.038
extra −0.13
5895.9240
nfib1 16
nfib2 16
stdev 0.047
extra −0.11
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

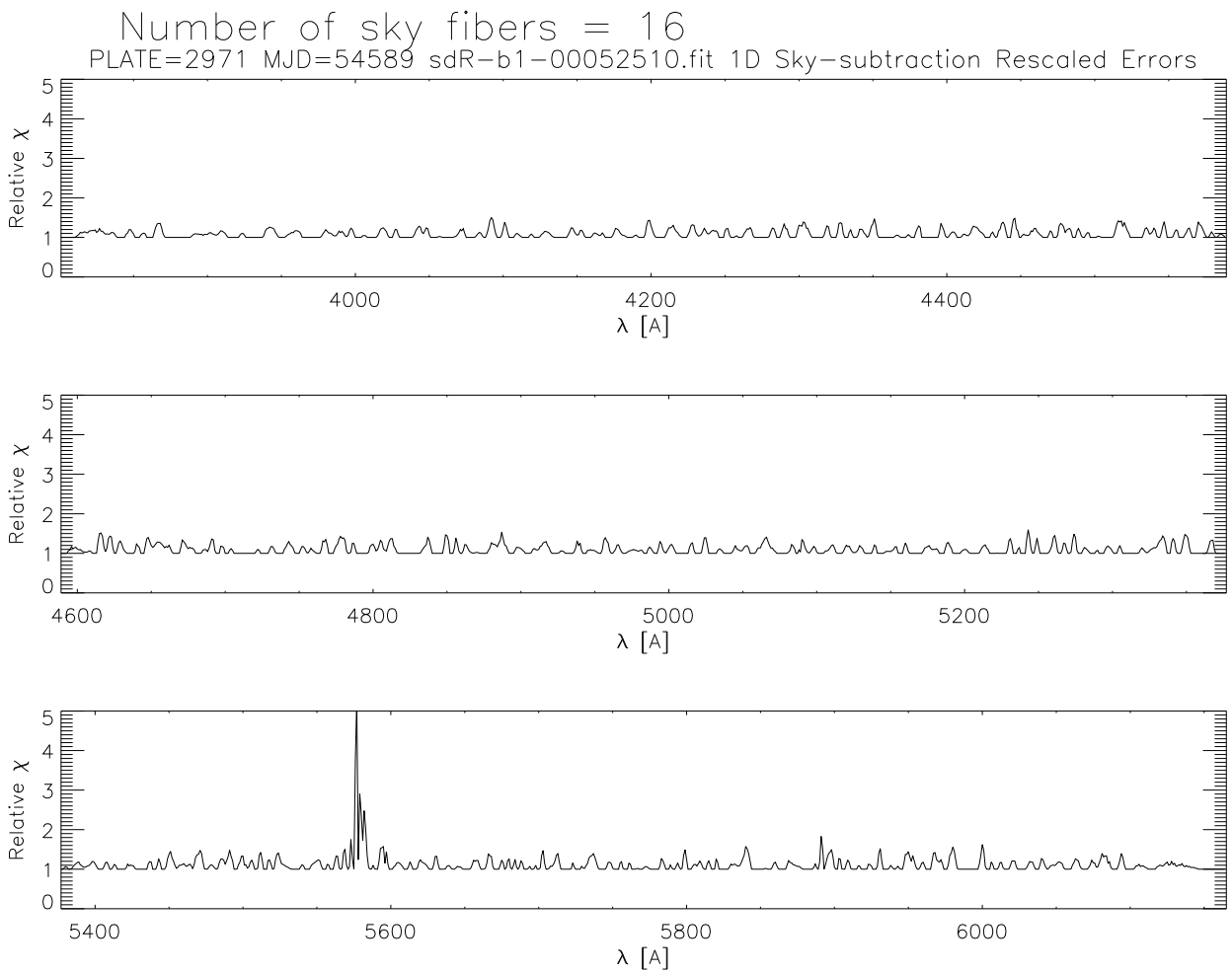

sky shift, pixels
−0.2
−0.3
−0.4
3500
4000
4500
5000
5500
6000
6500

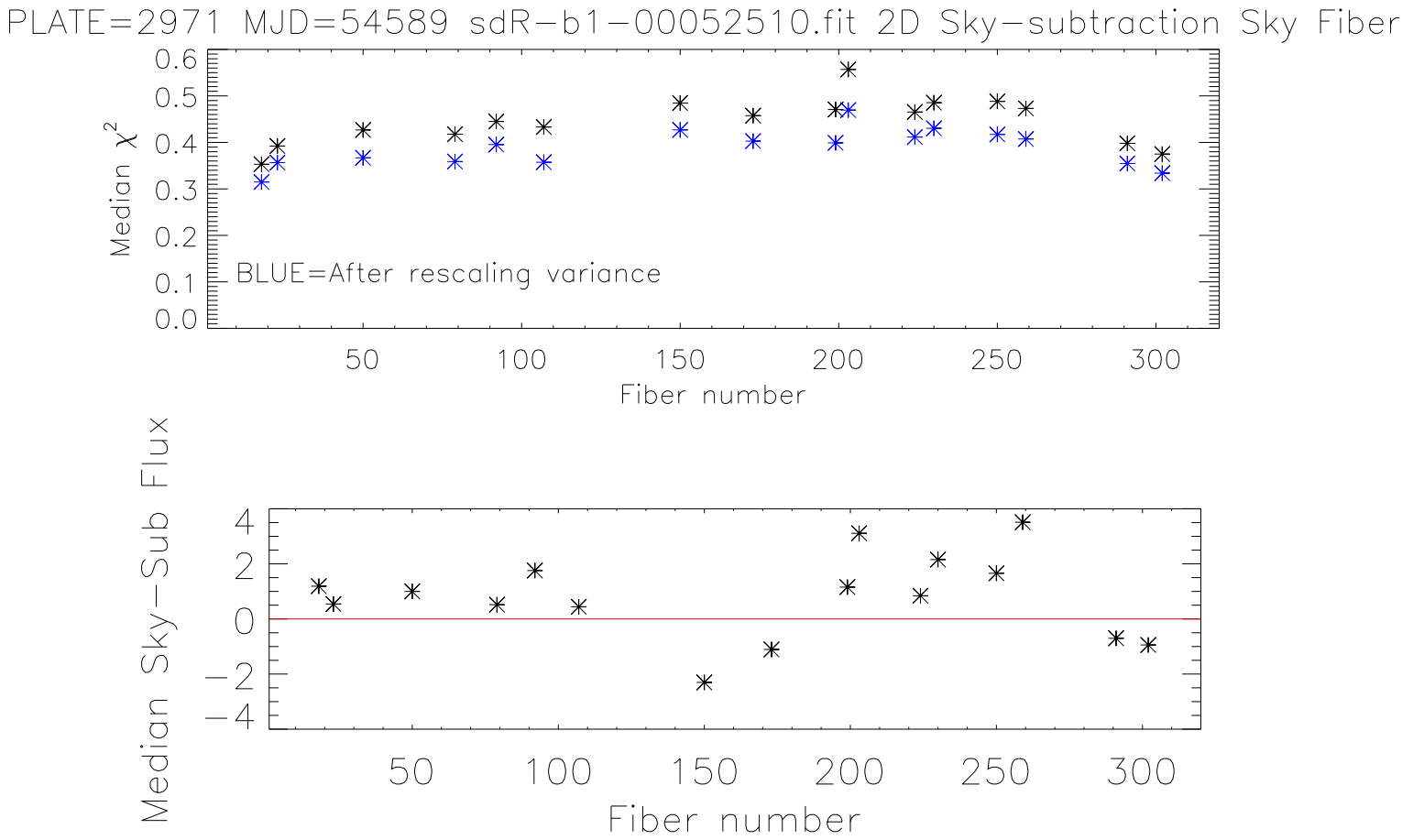

PLATE=2971 MJD=54589 Smooth superflat for sdR-b1-00052510.fit
1.5
1.0
0.5
0.0
1.015
1.010
1.005
1.000
0.995
0.990
0.985
es= −0.0000
4000
4500
5000
5500
6000
Wavelength (Å)

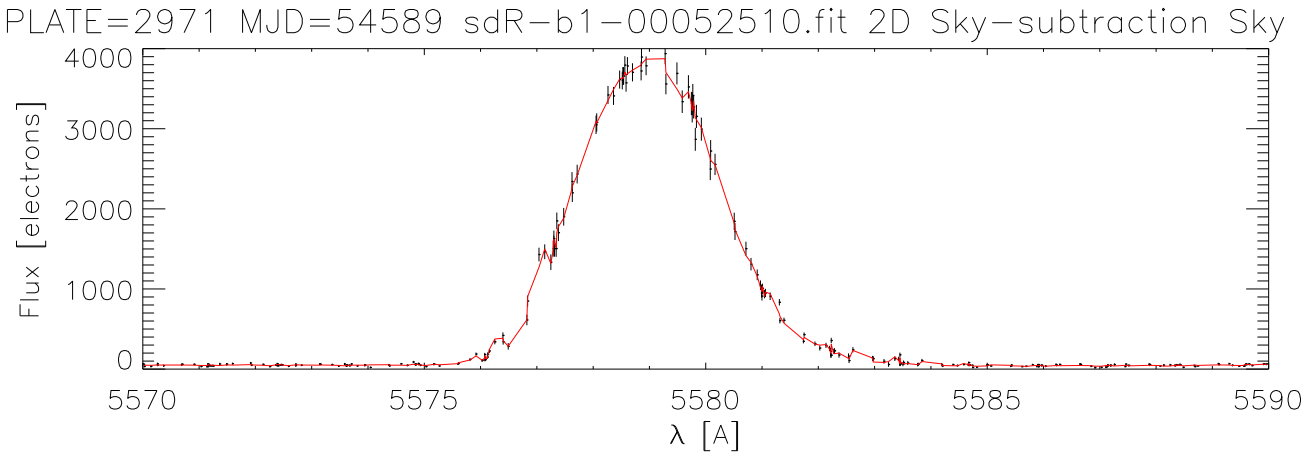

PLATE=2971 MJD=54589 sdR-b1-00052510.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-0.006
-0.004
-0.002
0.000
0.002
0.004
0.006
50
100
150
200
250
300
Fiber number

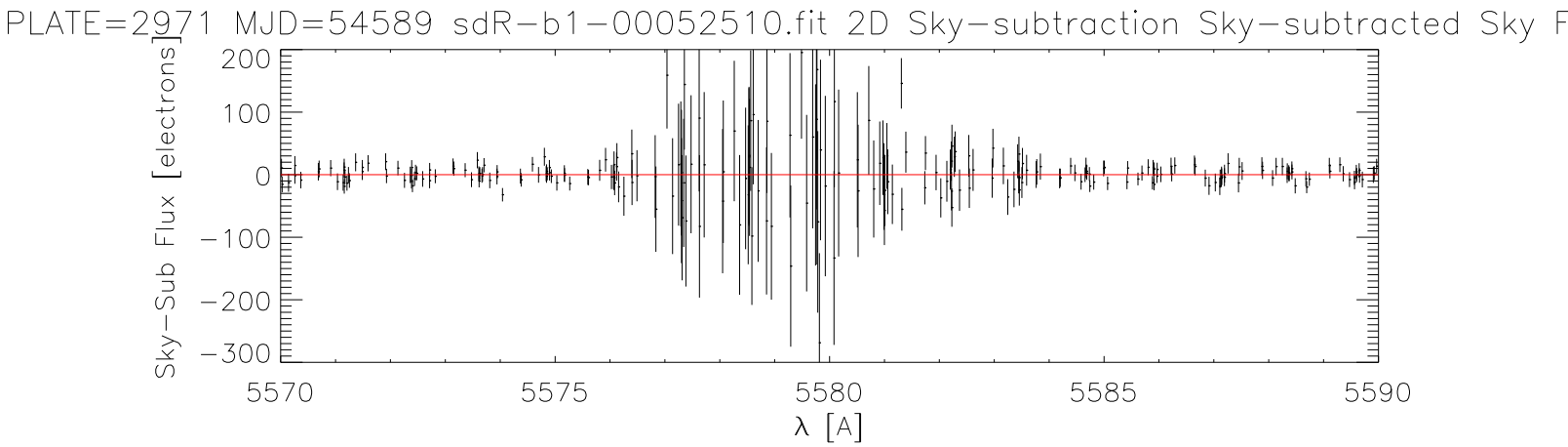

PLATE=2971 MJD=54589 sdR-b1-00052510.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

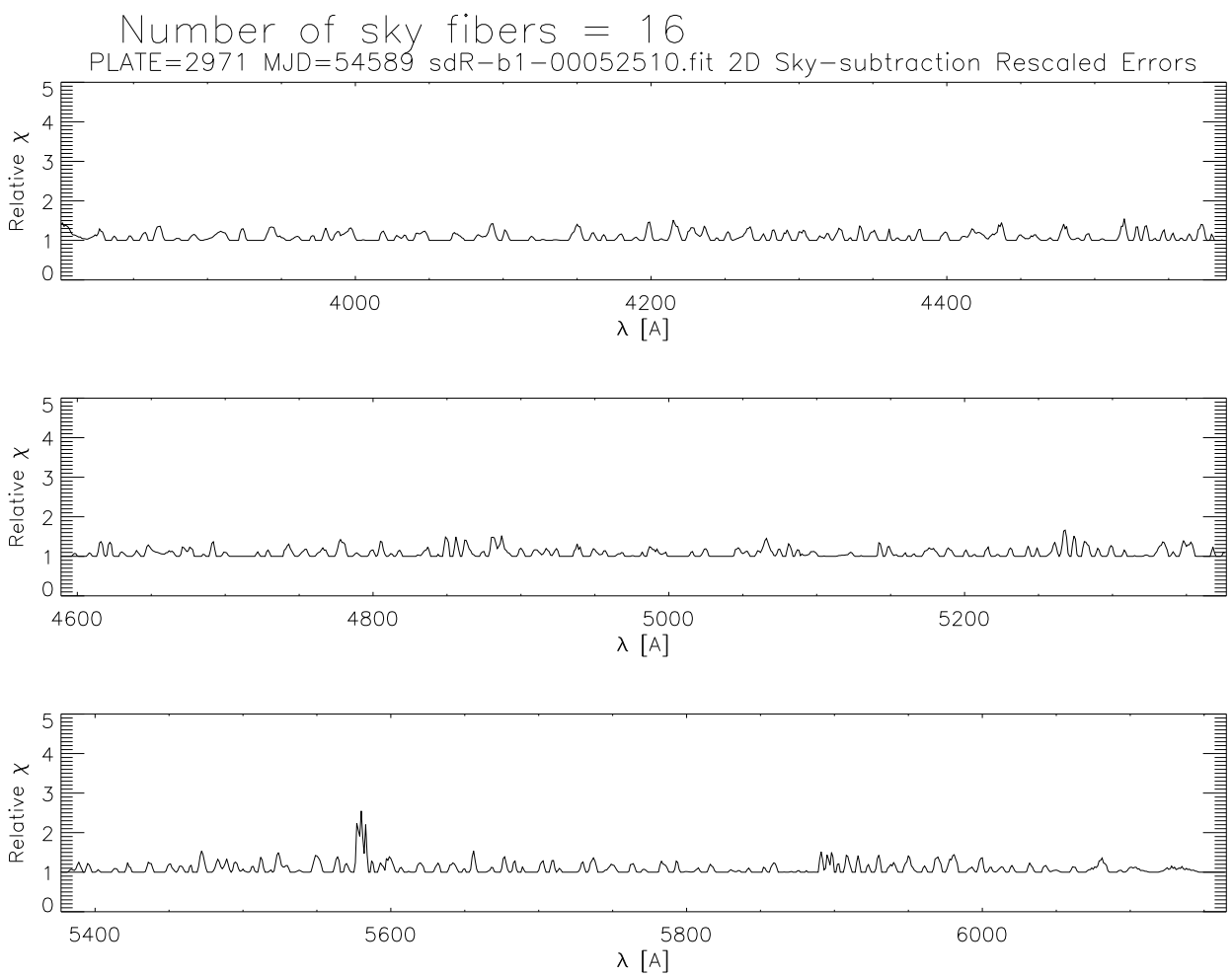

PLATE=2971 MJD=54589 sdR-b1-00052510.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
200
0
-200
-400
5570
5575
5580
5585
5590
λ [A]

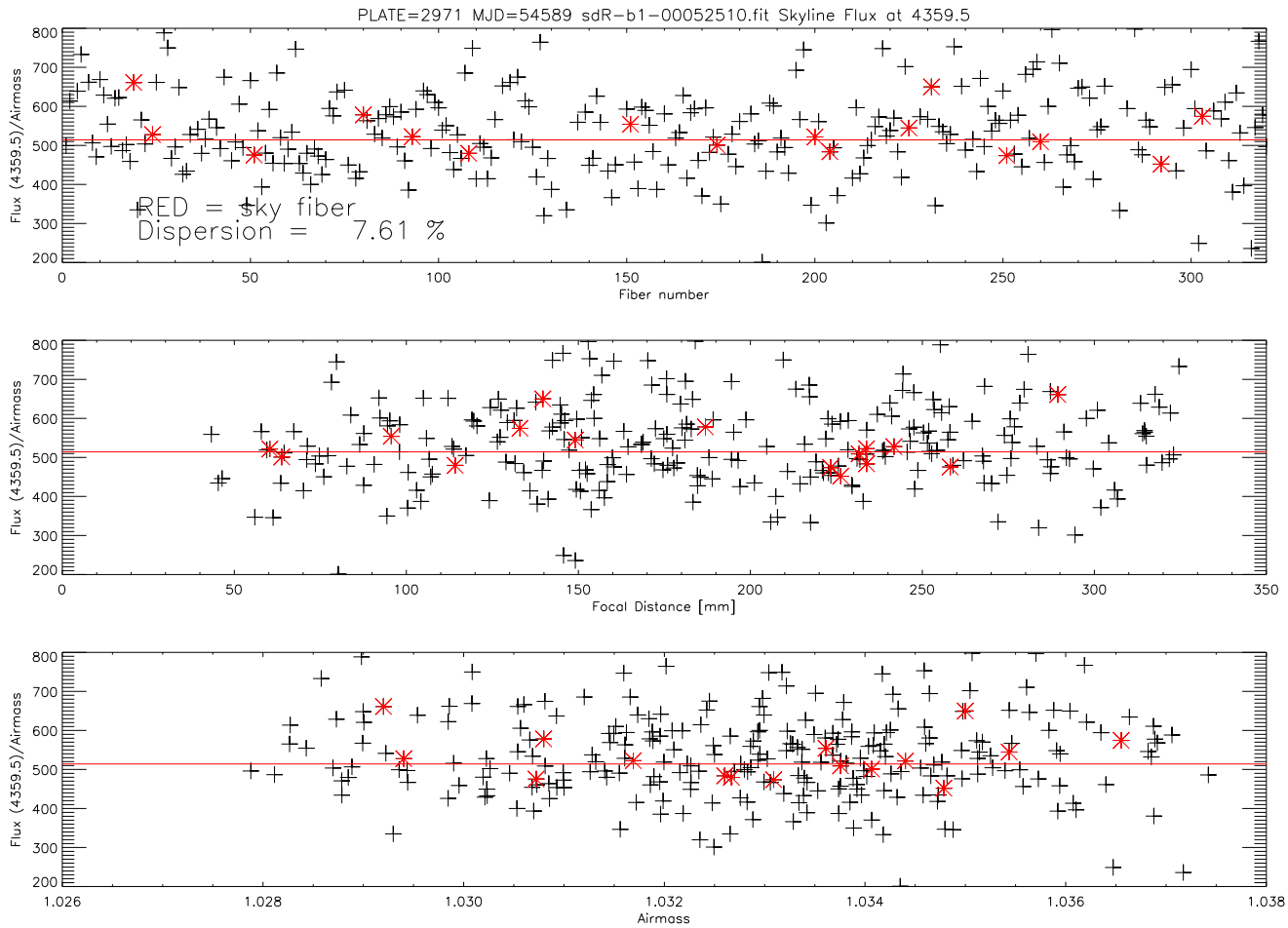

Number of sky fibers = 16
PLATE=2971 MJD=54589 sdR-b1-00052510.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

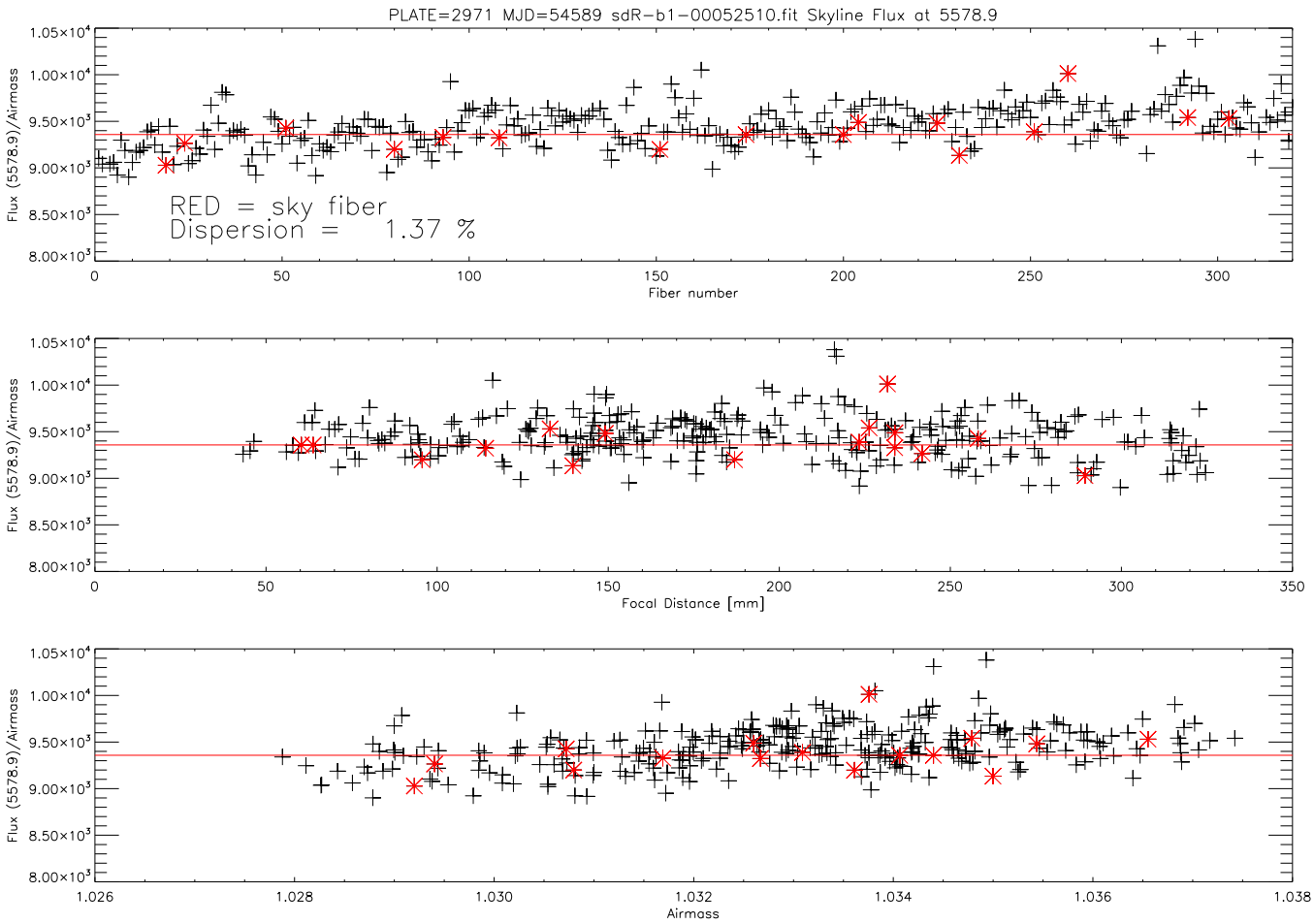

PLATE=2971 MJD=54589 sdR-b1-00052510.fit 2D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
4
2
0
-2
-4
50
100
150
200
250
300
Fiber number

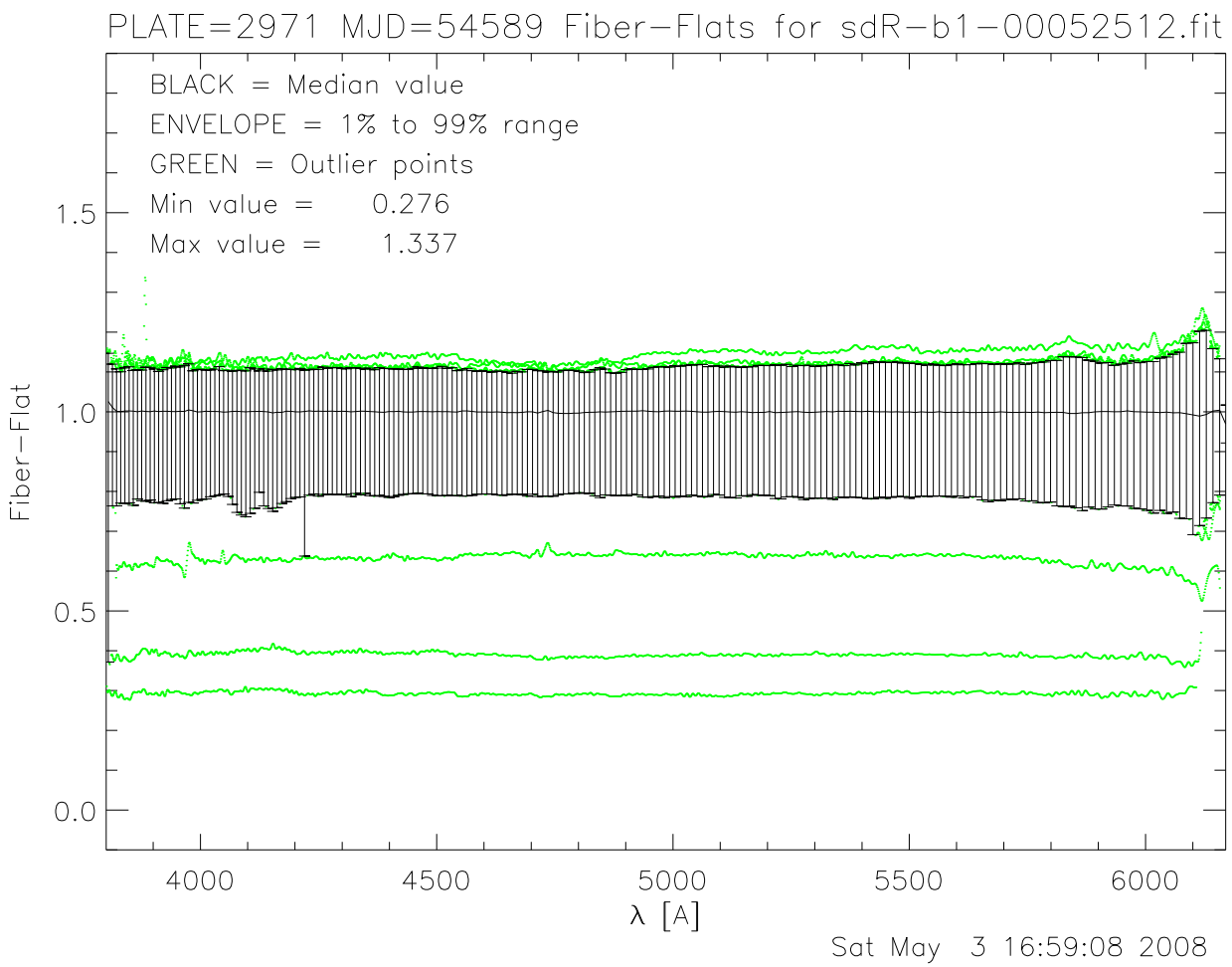

PLATE=2971 MJD=54589 sdR-b1-00052510.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

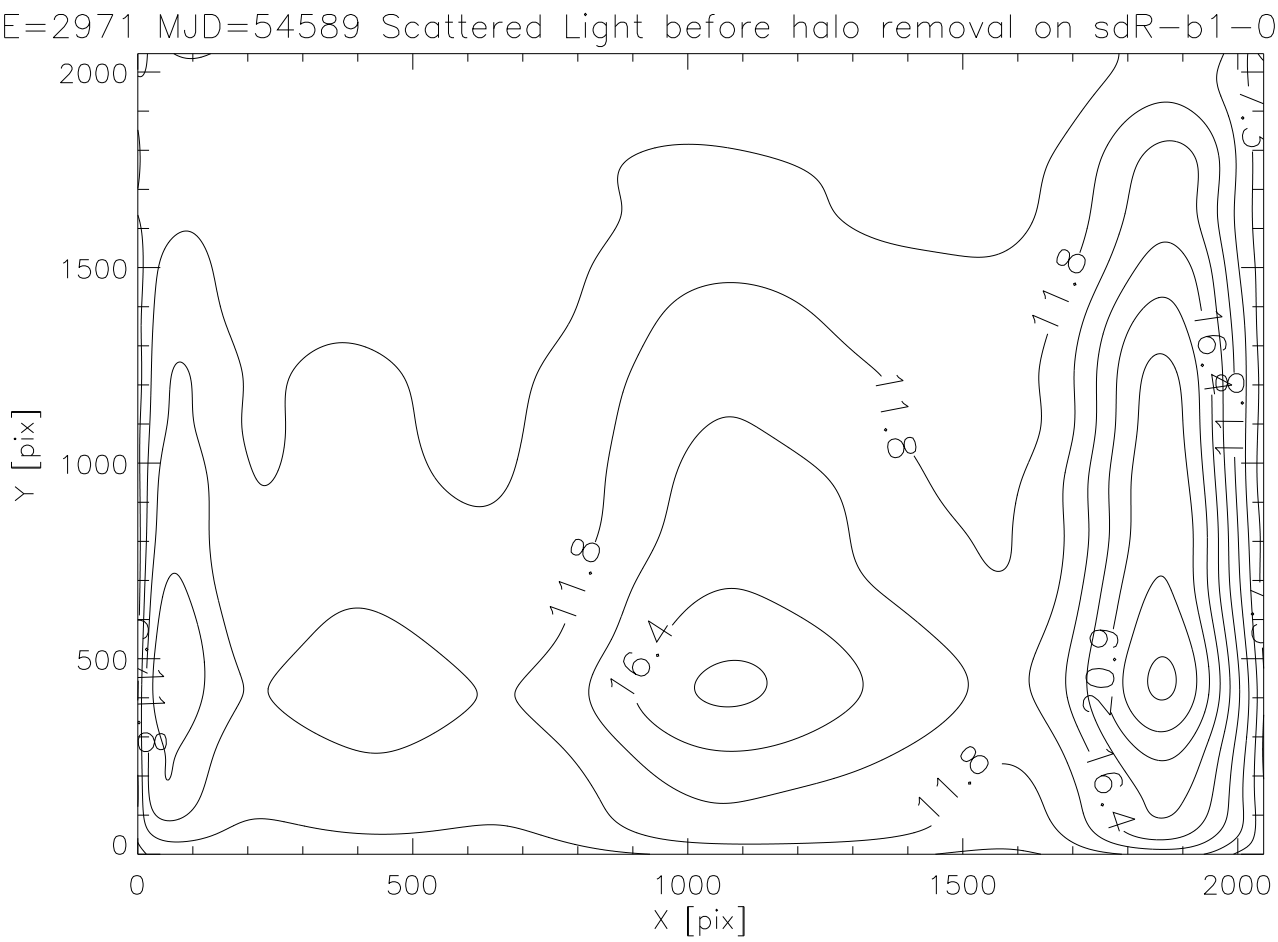

PLATE=2971 MJD=54589 sdR-b1-00052510.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
-300
5570
5575
5580
5585
5590
λ [A]

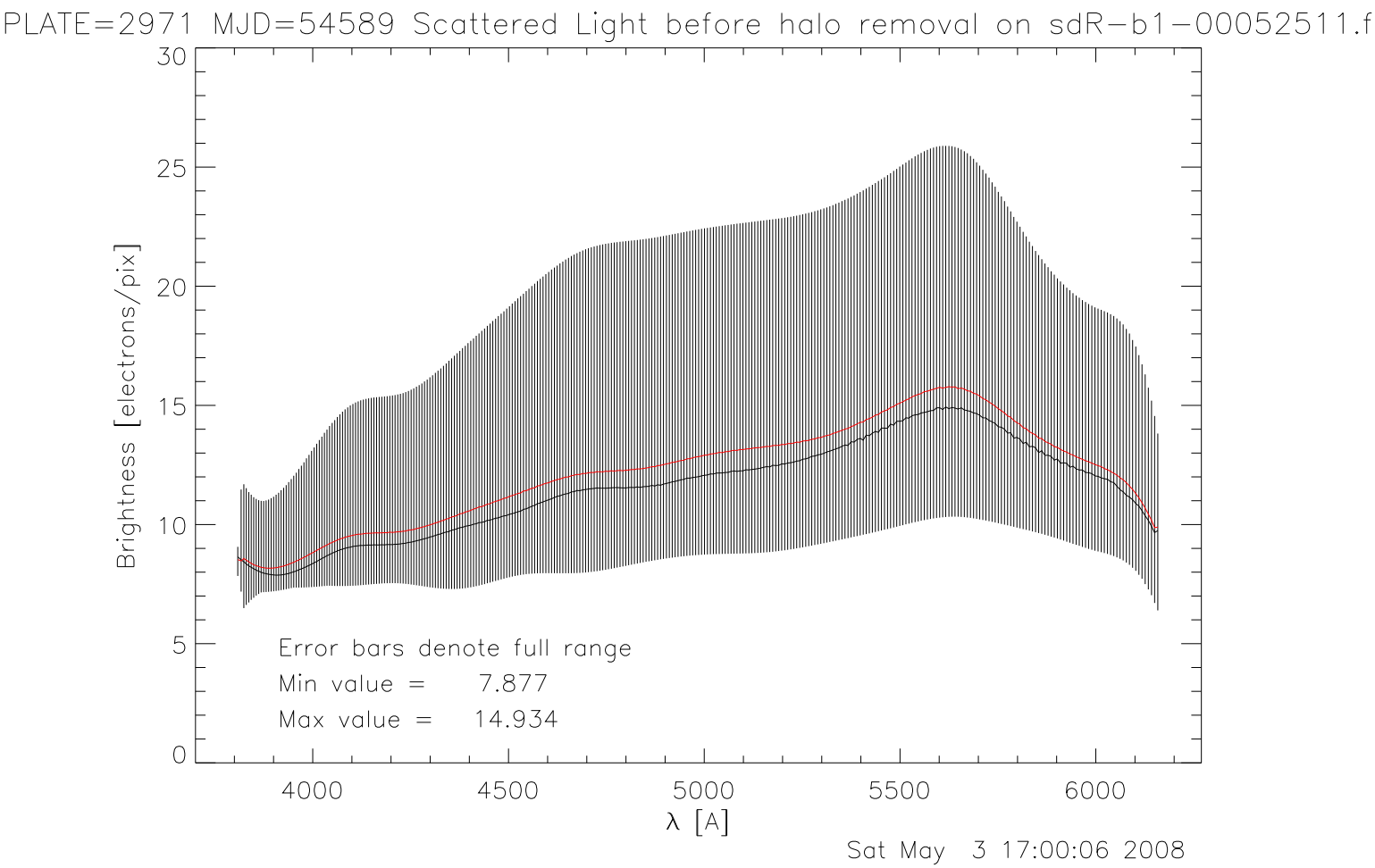

Number of sky fibers = 16
PLATE=2971 MJD=54589 sdR-b1-00052510.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

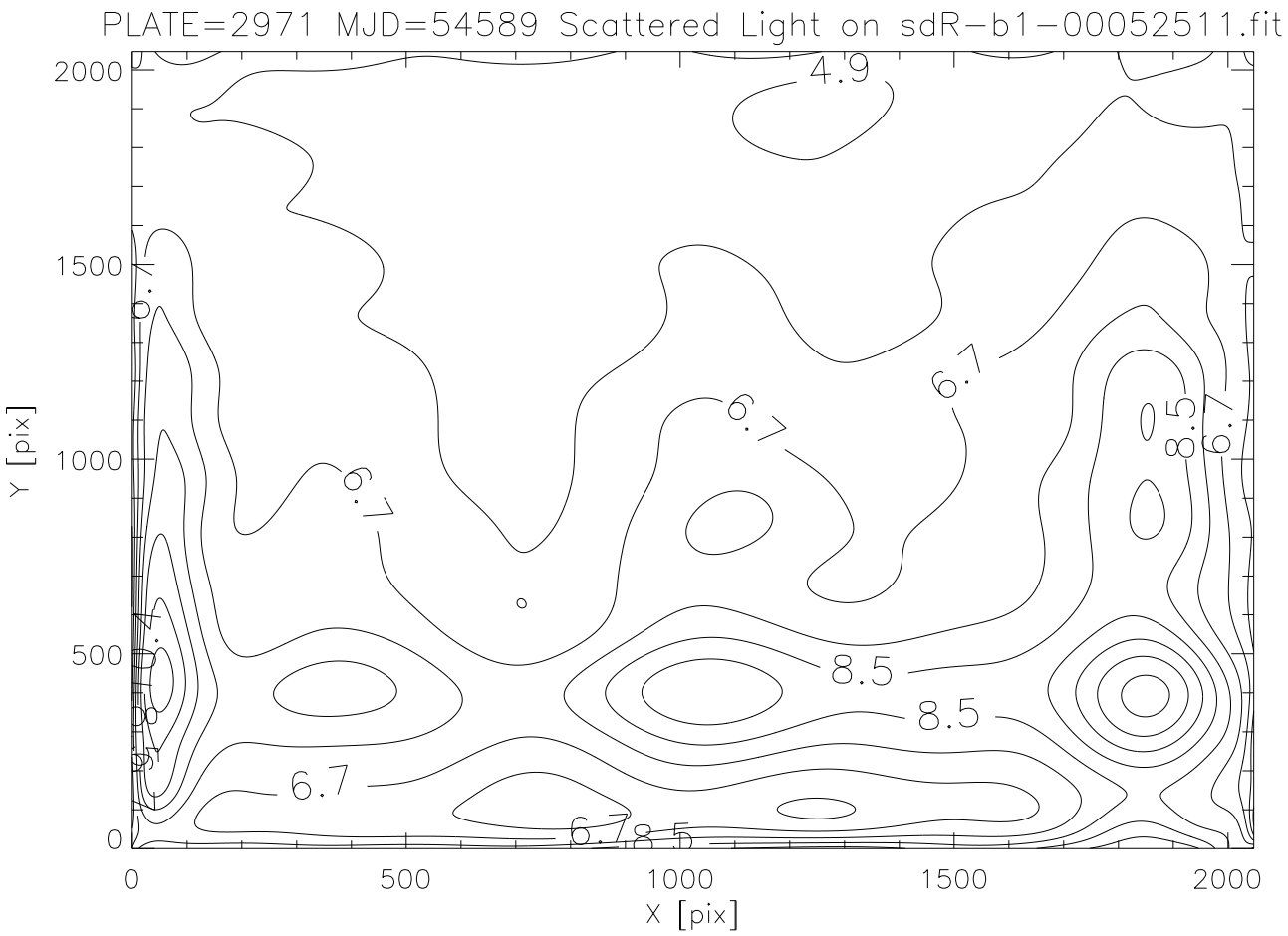

PLATE=2971 MJD=54589 sdR-b1-00052510.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 7.61 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

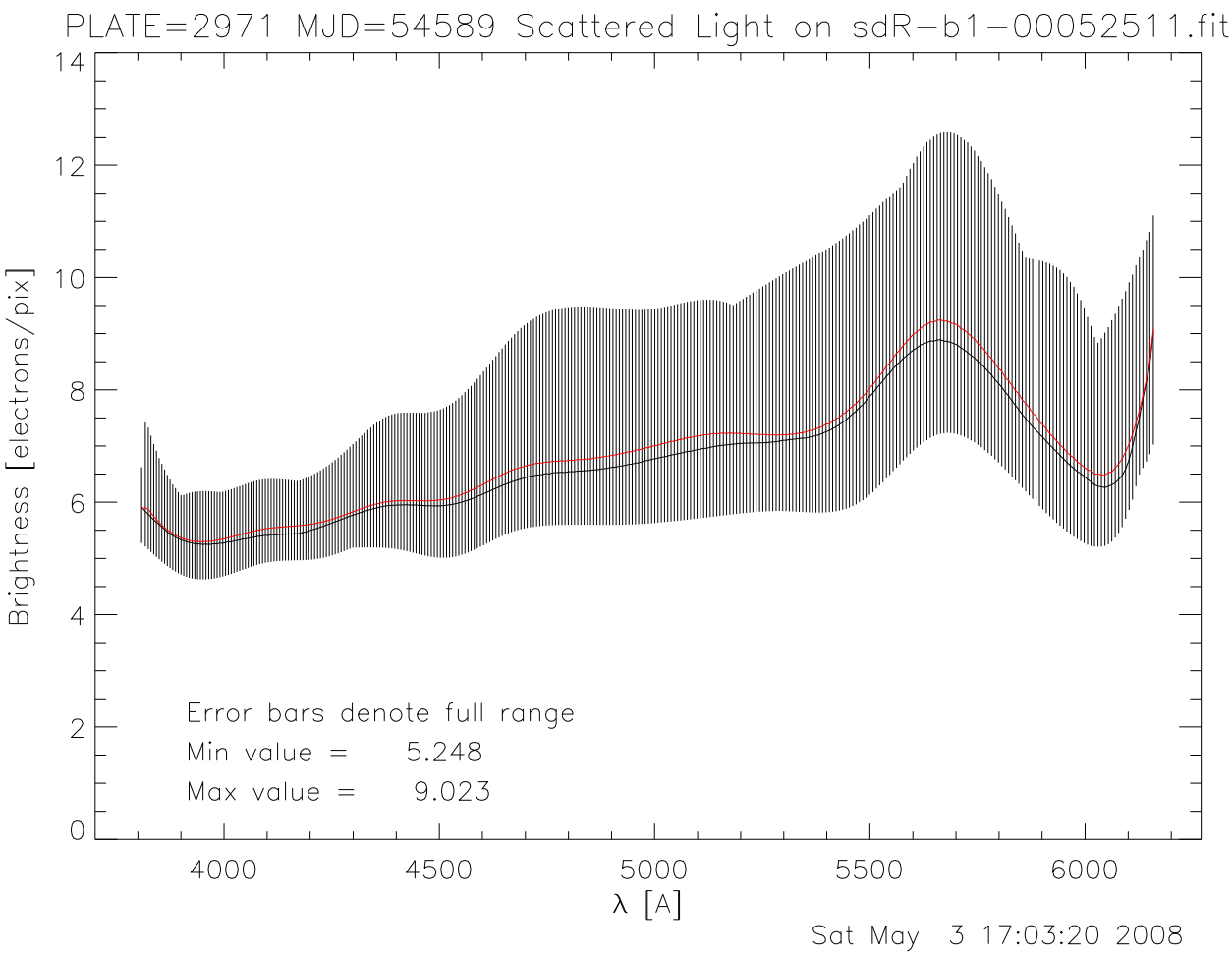

PLATE=2971 MJD=54589 sdR-b1-00052510.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 1.37 %
Fiber number
Focal Distance [mm]
Airmass

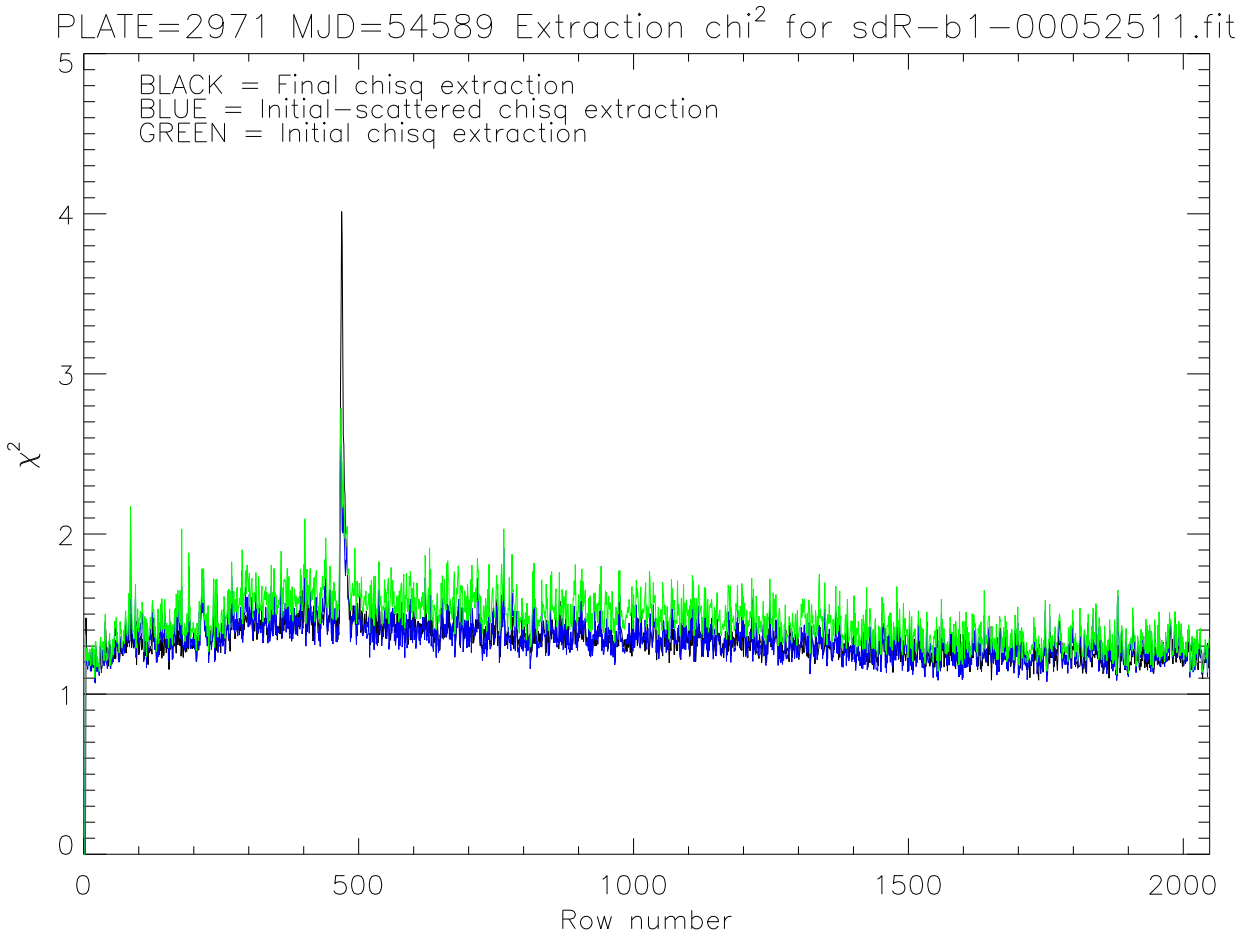

PLATE=2971 MJD=54589 Fiber−Flats for sdR−b1−00052512.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.276
Max value = 1.337
Fiber−Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Sat May 3 16:59:08 2008

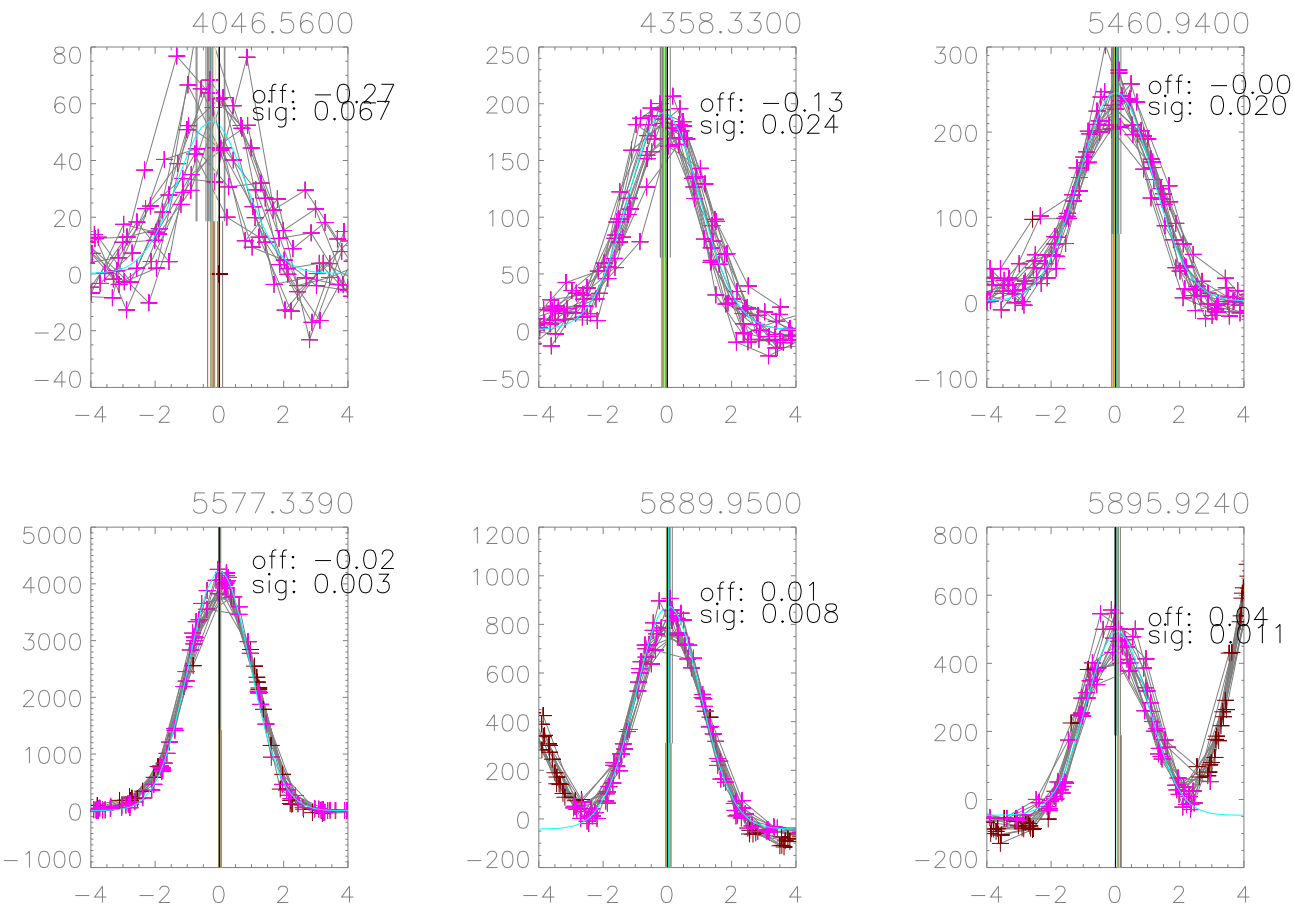

PLATE=2971 MJD=54589 Scattered Light before halo removal on sdR-b1-00052511.f
Y [pix]
X [pix]
0
500
1000
1500
2000
11.8
16.4
20.9

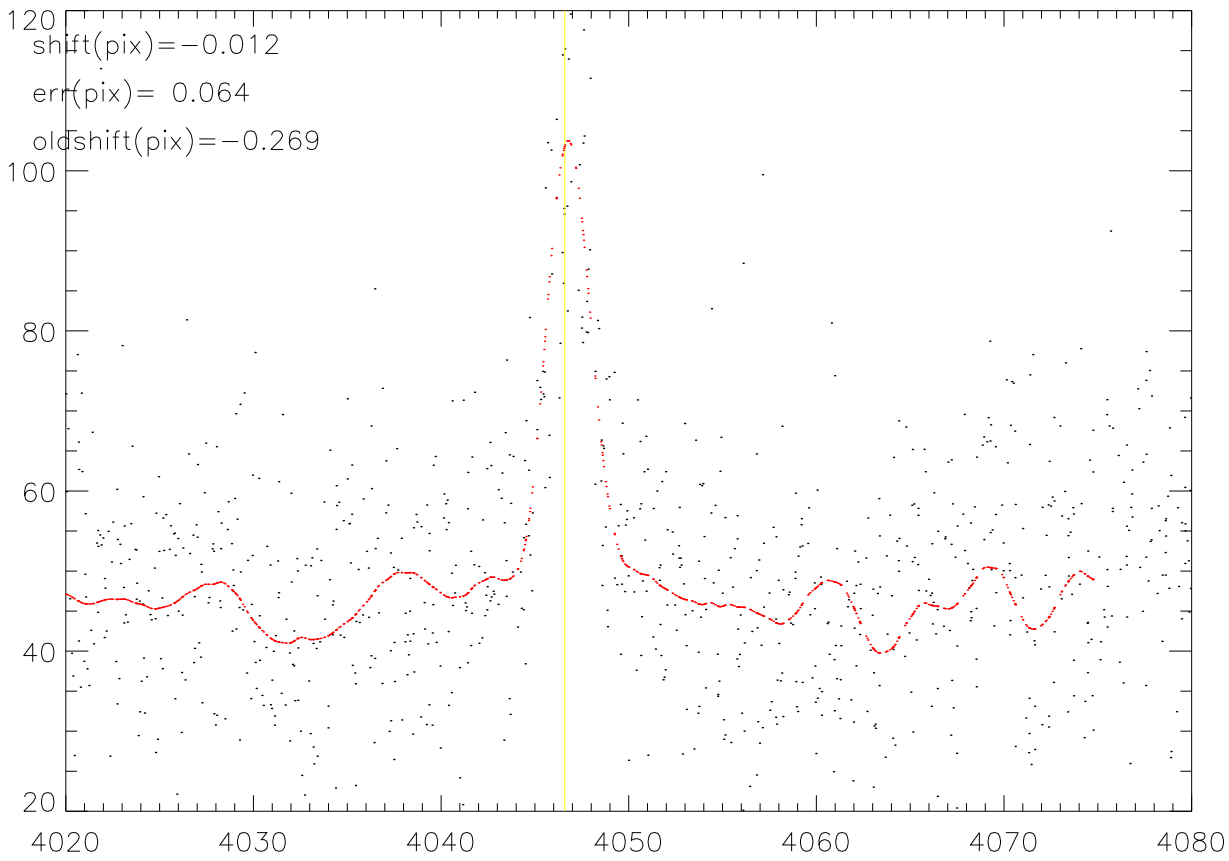

PLATE=2971 MJD=54589 Scattered Light before halo removal on sdR−b1−00052511.f
Brightness [electrons/pix]
30
25
20
15
10
5
0
Error bars denote full range
Min value = 7.877
Max value = 14.934
4000
4500
5000
5500
6000
λ [A]
Sat May 3 17:00:06 2008

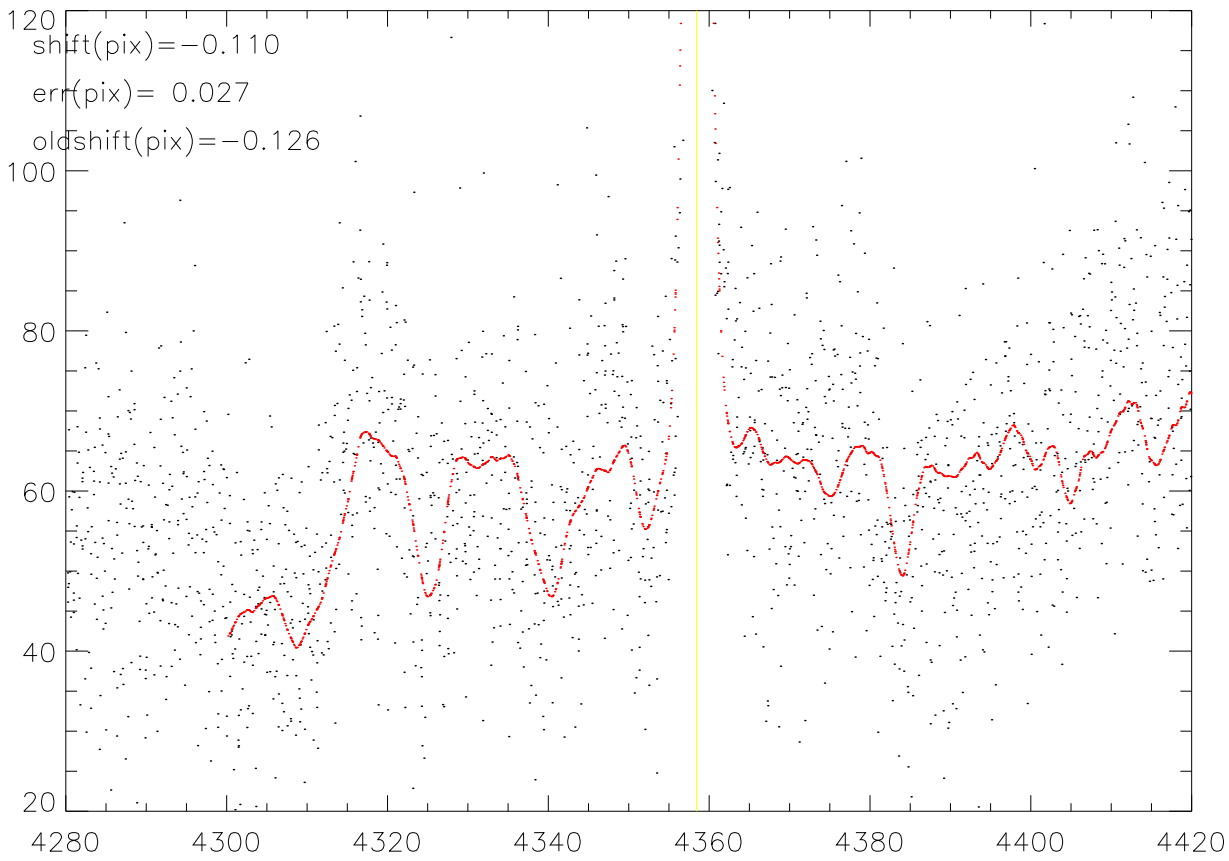

PLATE=2971 MJD=54589 Scattered Light on sdR-b1-00052511.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
4.9
6.7
8.5

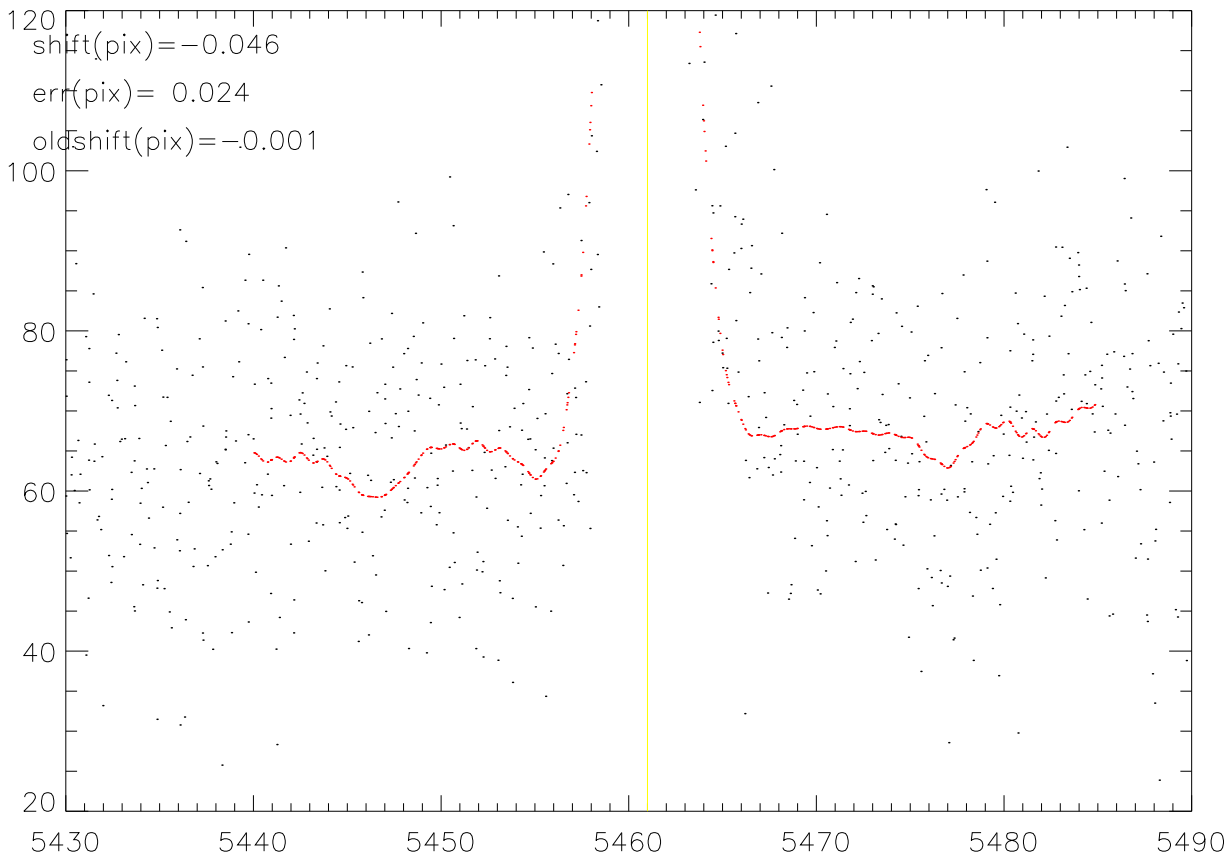

PLATE=2971 MJD=54589 Scattered Light on sdR-b1-00052511.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 5.248
Max value = 9.023
Sat May 3 17:03:20 2008

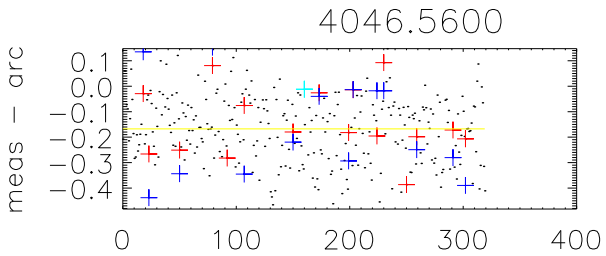

PLATE=2971 MJD=54589 Extraction chi^2 for sdR−b1−00052511.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
5
0
500
1000
1500
2000
Row number

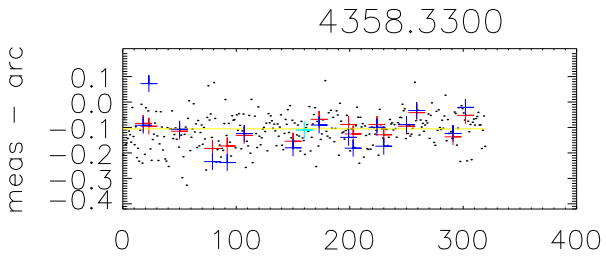

4046.5600
off: −0.27
sig: 0.067
4358.3300
off: −0.13
sig: 0.024
5460.9400
off: −0.00
sig: 0.020
5577.3390
off: −0.02
sig: 0.003
5889.9500
off: 0.01
sig: 0.008
5895.9240
off: 0.04
sig: 0.011

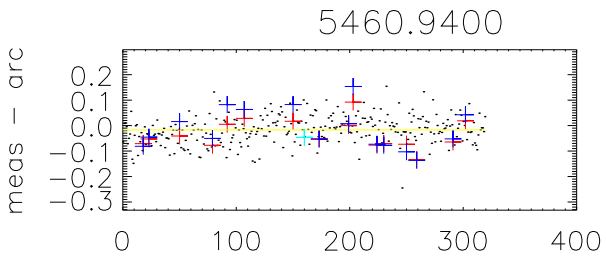

shift(pix)=−0.012
err(pix)= 0.064
oldshift(pix)=−0.269
120
100
80
60
40
20
4020
4030
4040
4050
4060
4070
4080

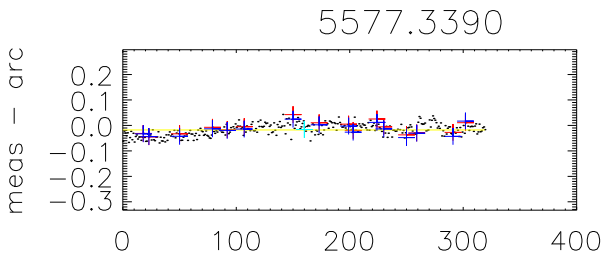

shift(pix)=−0.110
err(pix)= 0.027
oldshift(pix)=−0.126
120
100
80
60
40
20
4280
4300
4320
4340
4360
4380
4400
4420

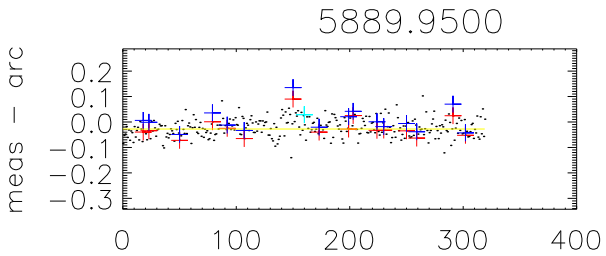

shift(pix)=−0.046
err(pix)= 0.024
oldshift(pix)=−0.001
120
100
80
60
40
20
5430
5440
5450
5460
5470
5480
5490

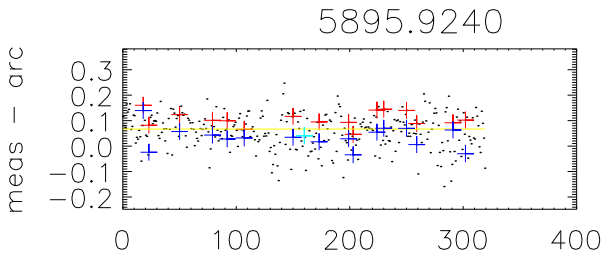

4046.5600
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

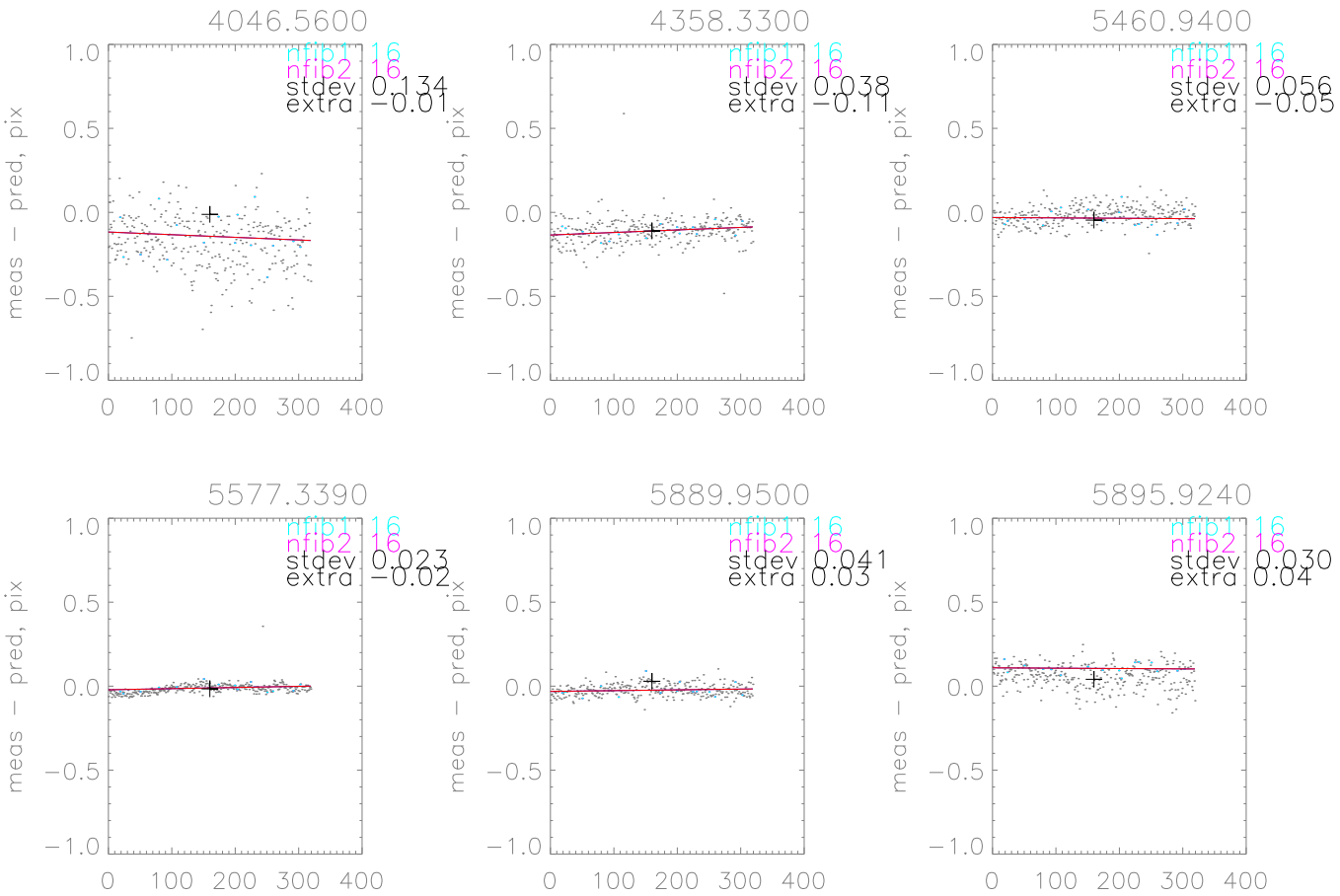

4358.3300
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

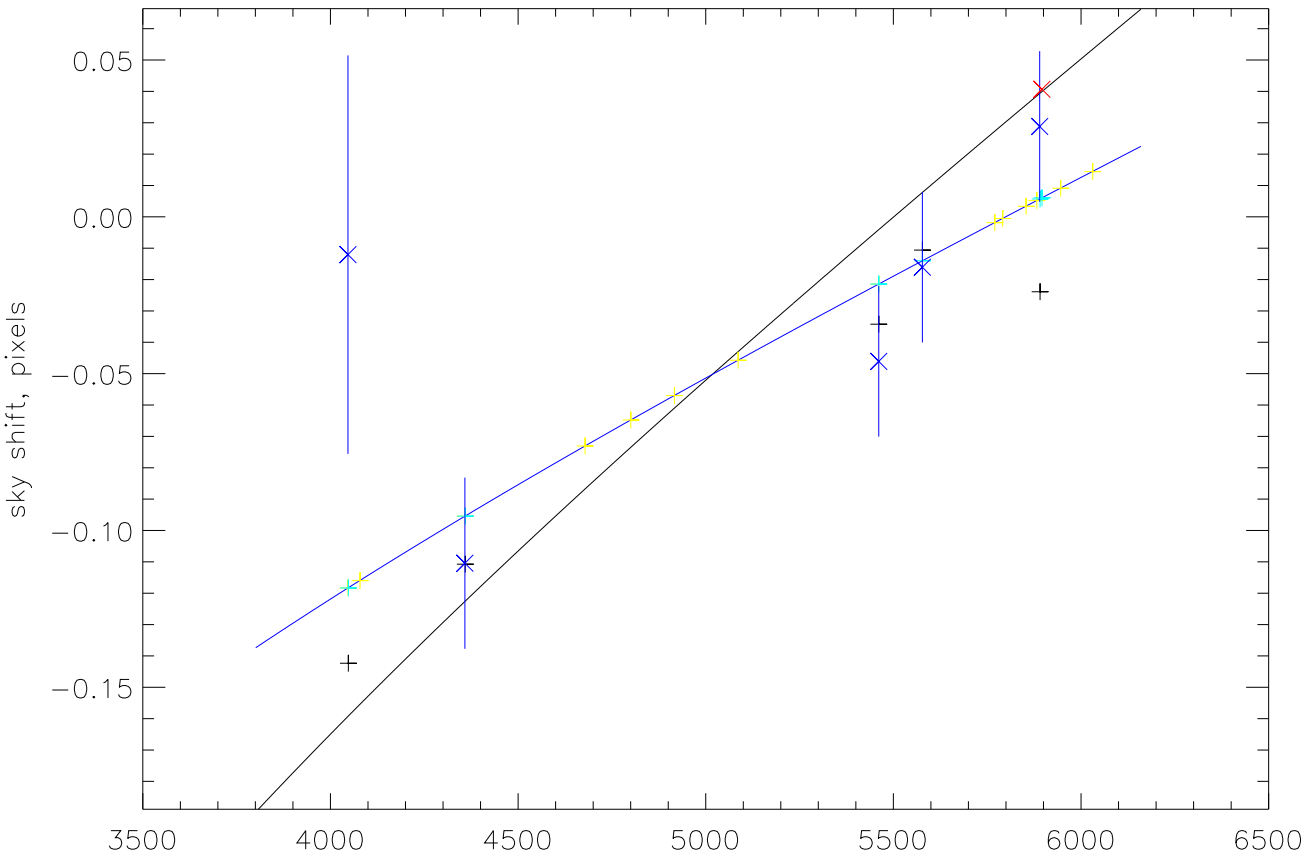

5460.9400
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

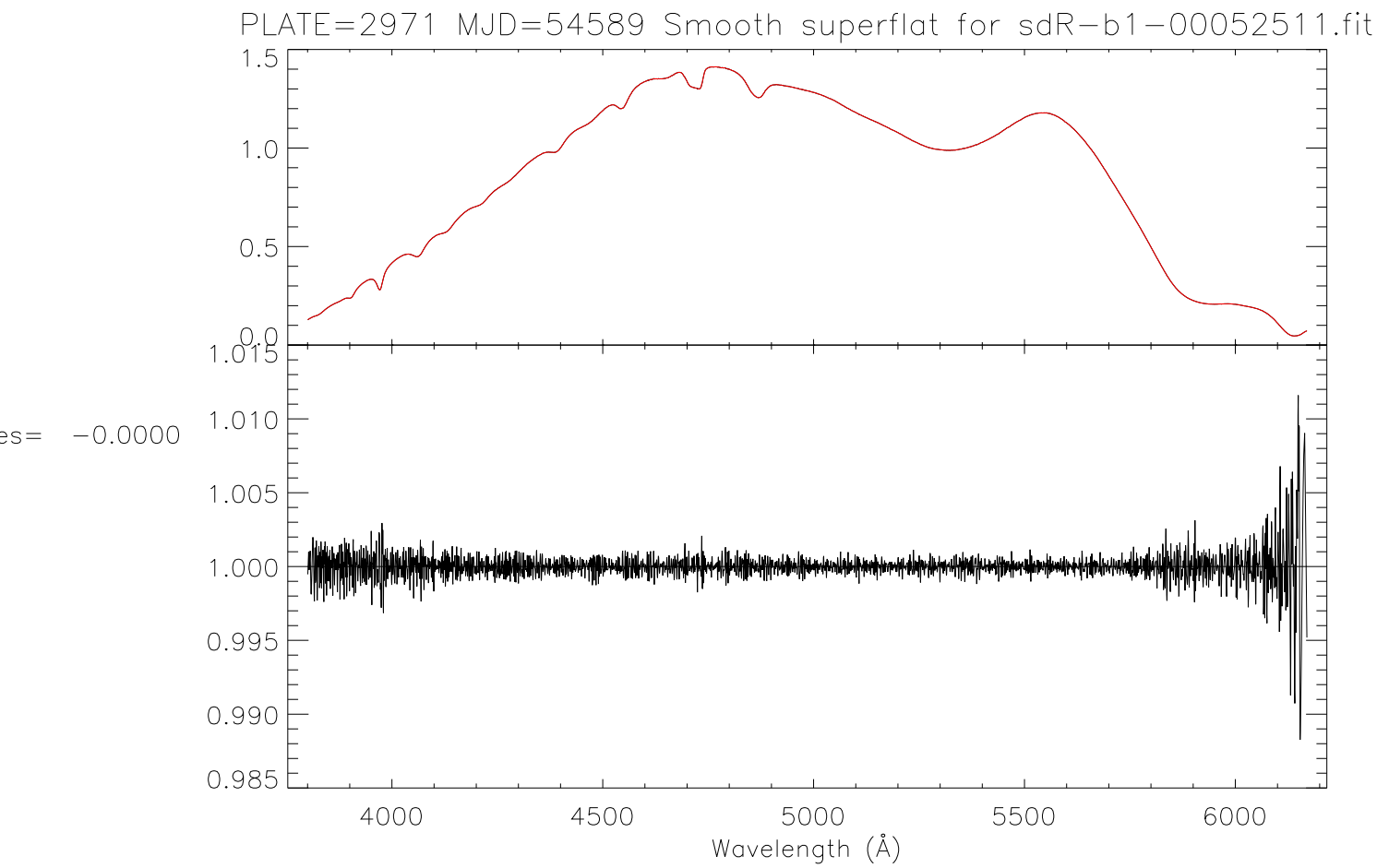

5577.3390
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

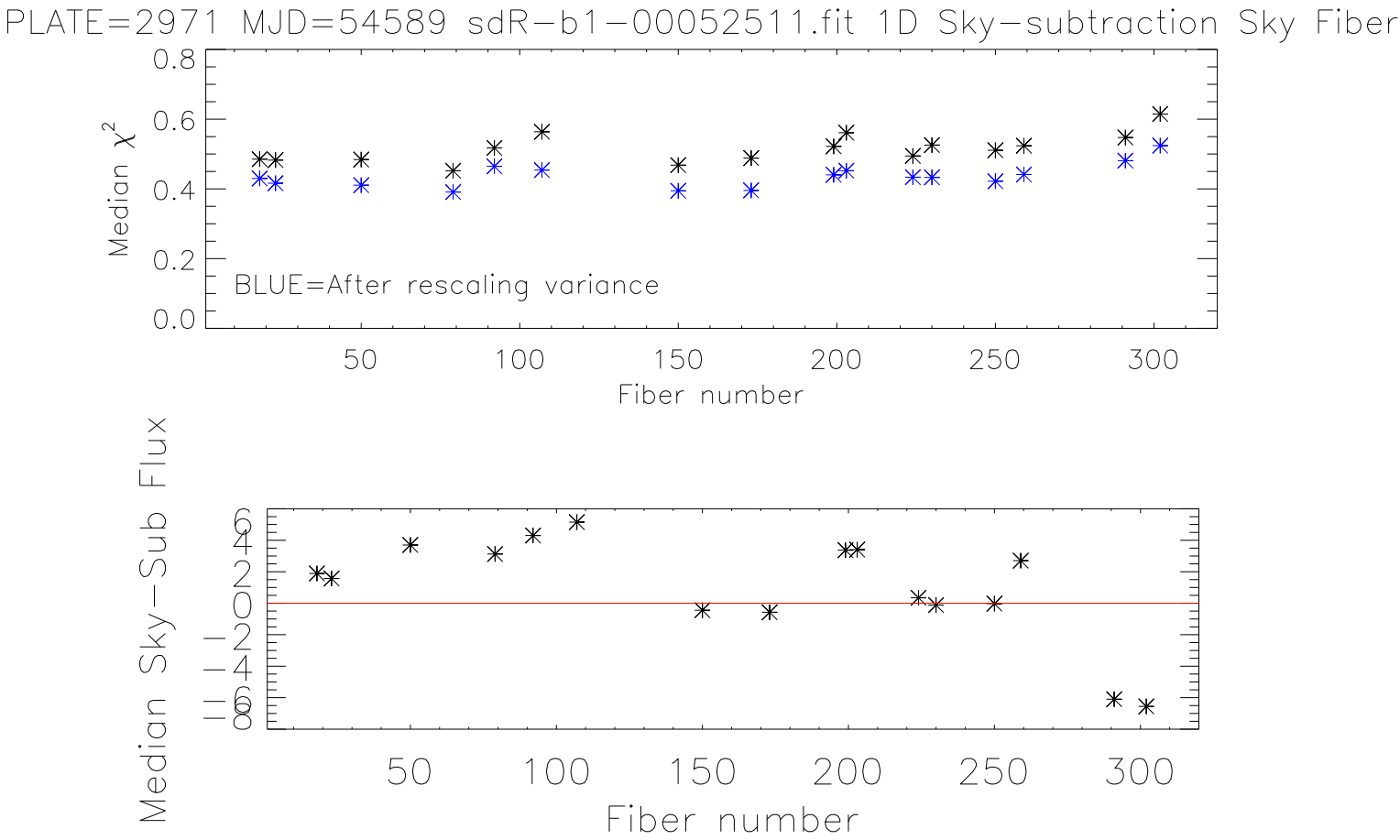

5889.9500
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

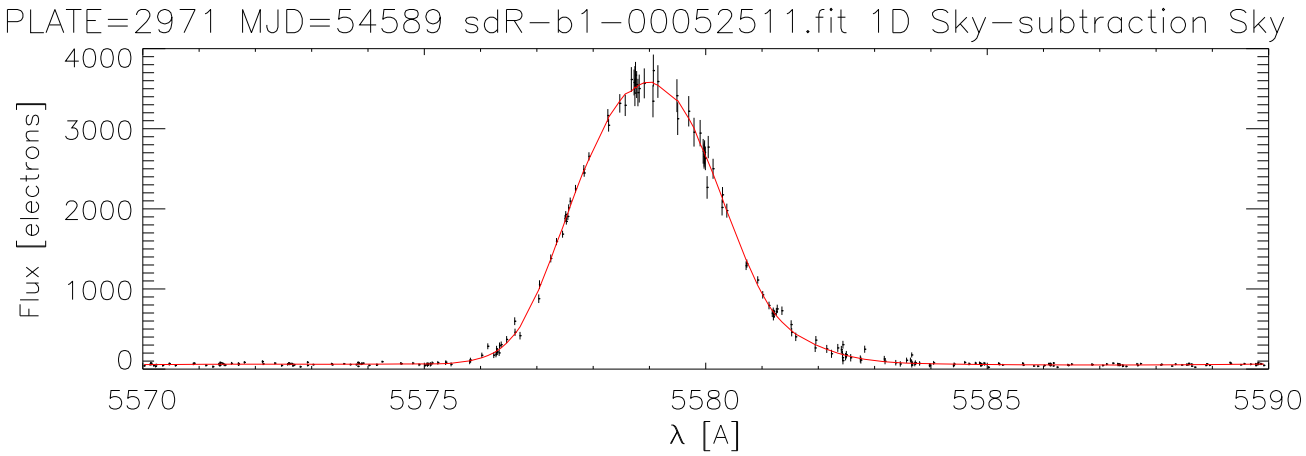

5895.9240
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

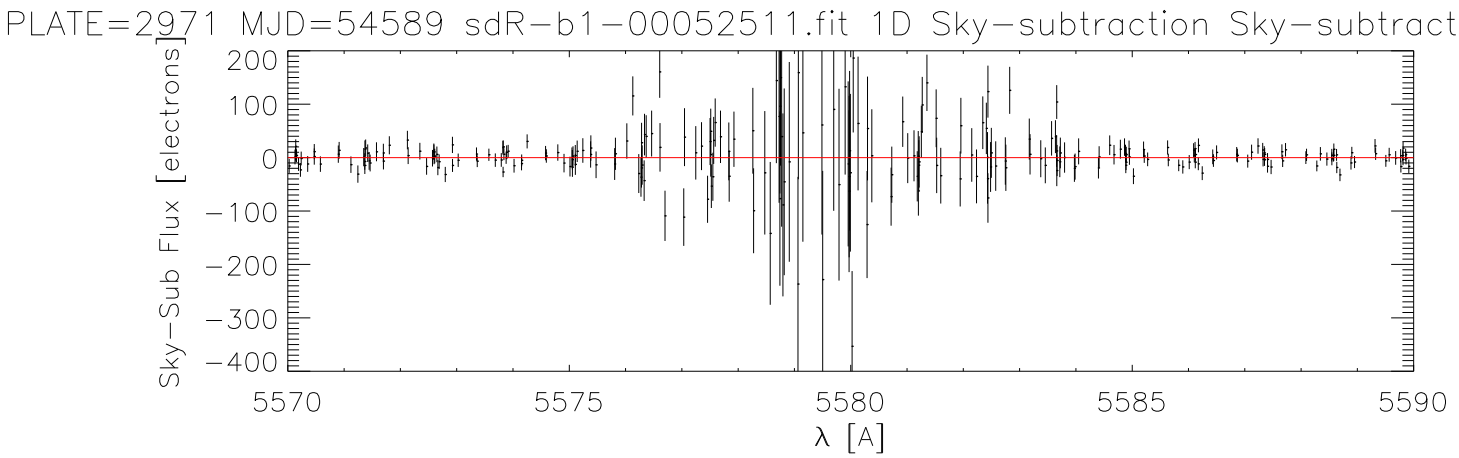

4046.5600
nfib1 16
nfib2 16
stdev 0.134
extra −0.01
4358.3300
nfib1 16
nfib2 16
stdev 0.038
extra −0.11
5460.9400
nfib1 16
nfib2 16
stdev 0.056
extra −0.05
5577.3390
nfib1 16
nfib2 16
stdev 0.023
extra −0.02
5889.9500
nfib1 16
nfib2 16
stdev 0.041
extra 0.03
5895.9240
nfib1 16
nfib2 16
stdev 0.030
extra 0.04
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

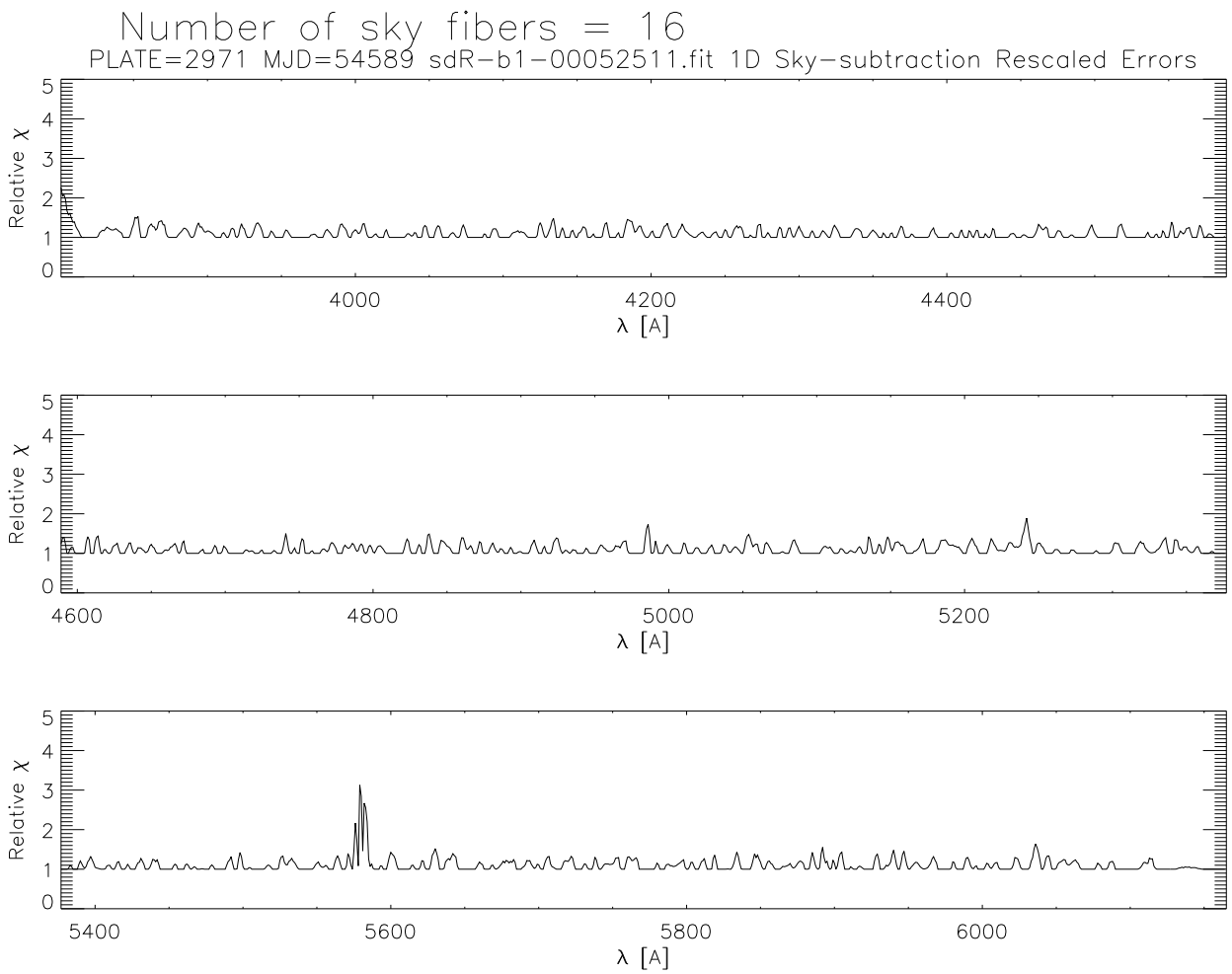

0.05
0.00
−0.05
−0.10
−0.15
sky shift, pixels
3500
4000
4500
5000
5500
6000
6500

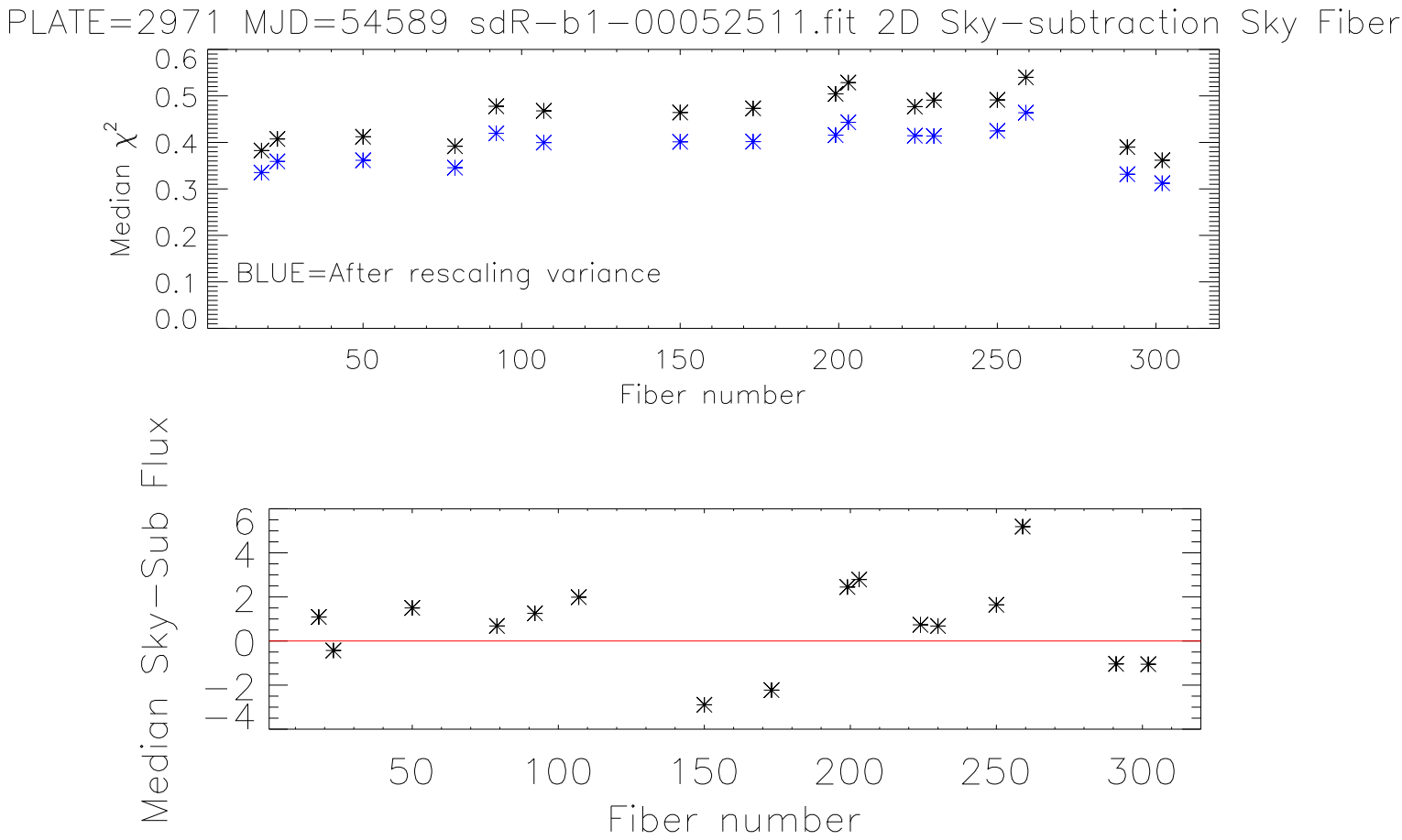

PLATE=2971 MJD=54589 Smooth superflat for sdR-b1-00052511.fit
1.5
1.0
0.5
0.0
1.015
1.010
1.005
1.000
0.995
0.990
0.985
es= −0.0000
4000
4500
5000
5500
6000
Wavelength (Å)

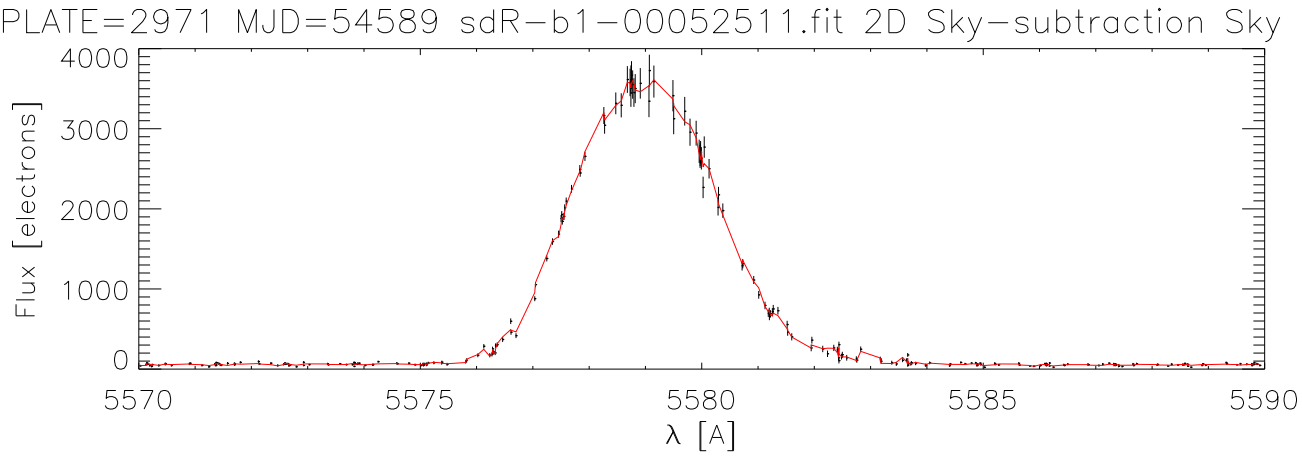

PLATE=2971 MJD=54589 sdR-b1-00052511.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-0.6
-0.4
-0.2
0.0
0.2
0.4
0.6
50
100
150
200
250
300
Fiber number

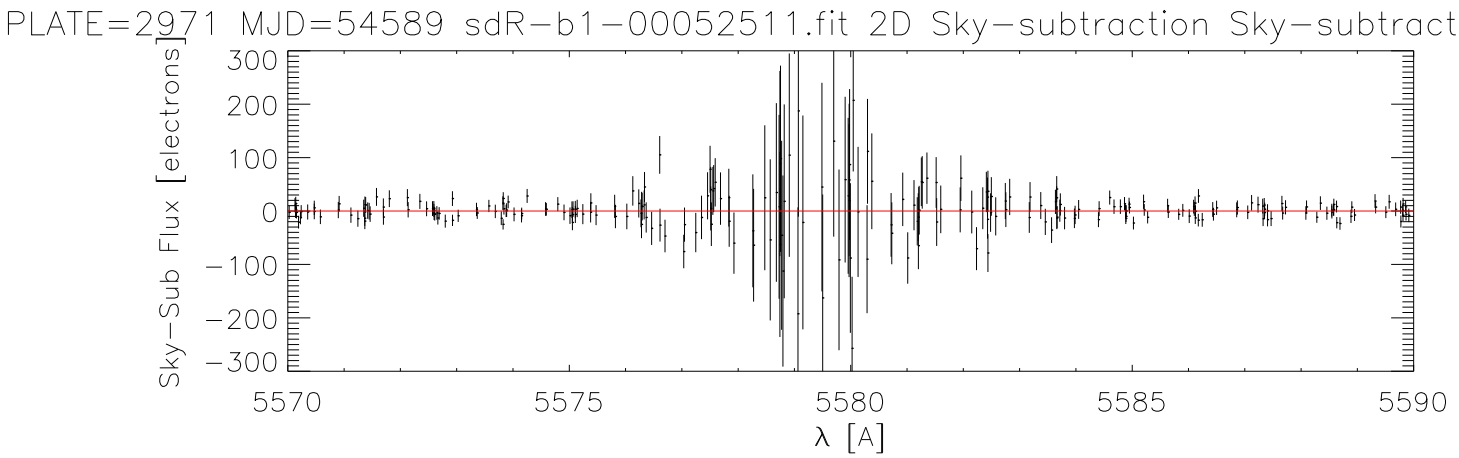

PLATE=2971 MJD=54589 sdR-b1-00052511.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

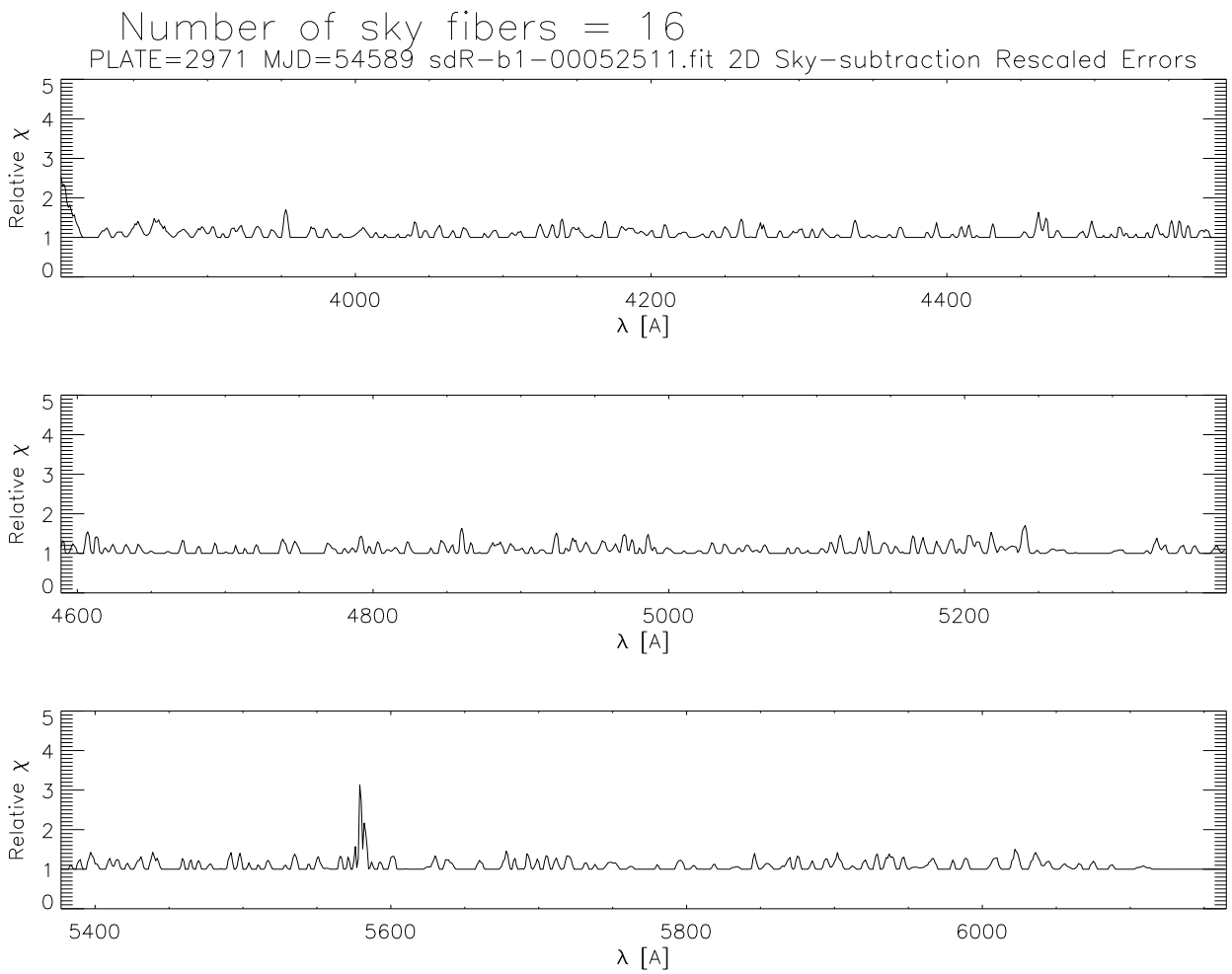

PLATE=2971 MJD=54589 sdR-b1-00052511.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
-300
-400
5570
5575
5580
5585
5590
λ [A]

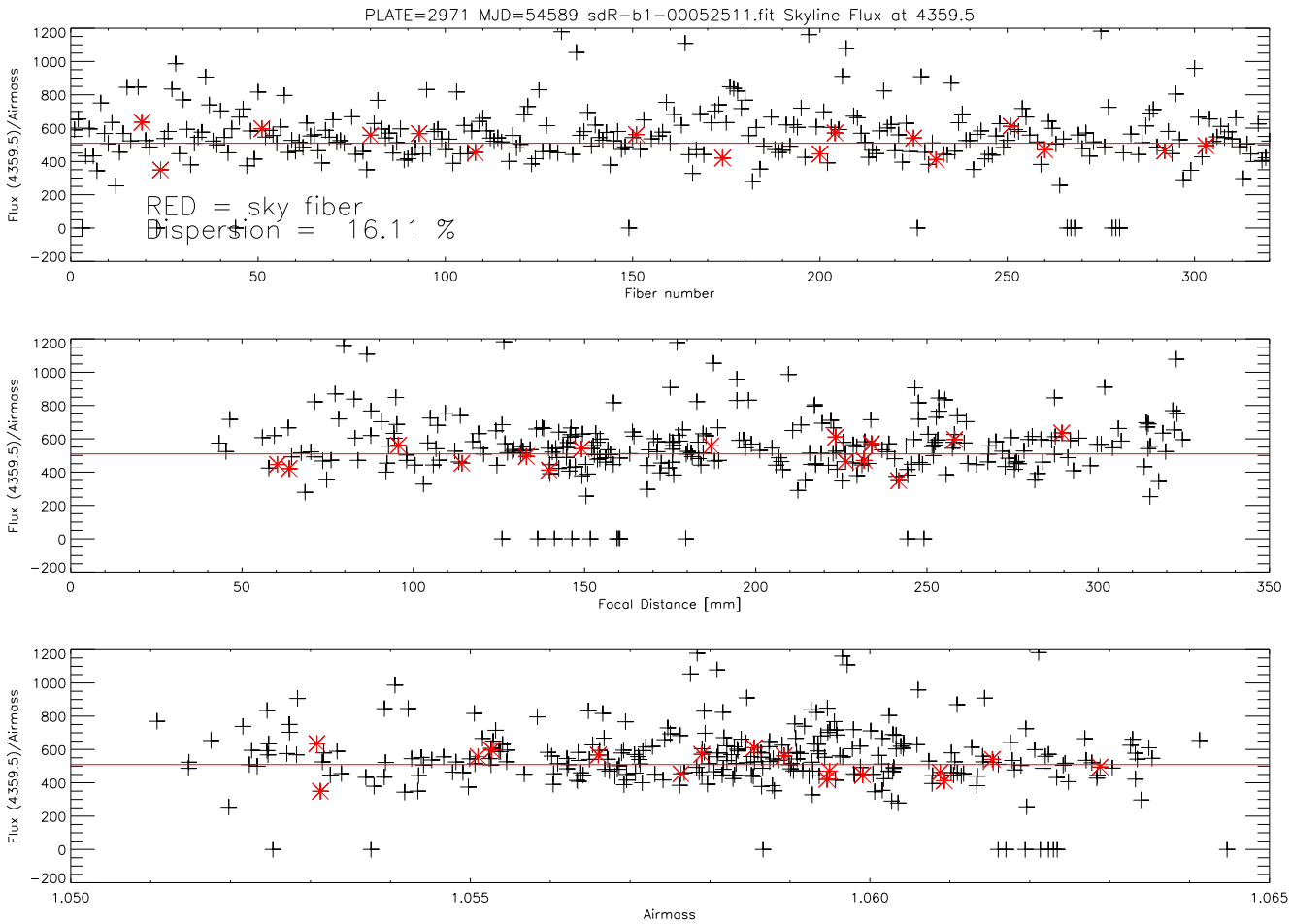

Number of sky fibers = 16
PLATE=2971 MJD=54589 sdR-b1-00052511.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

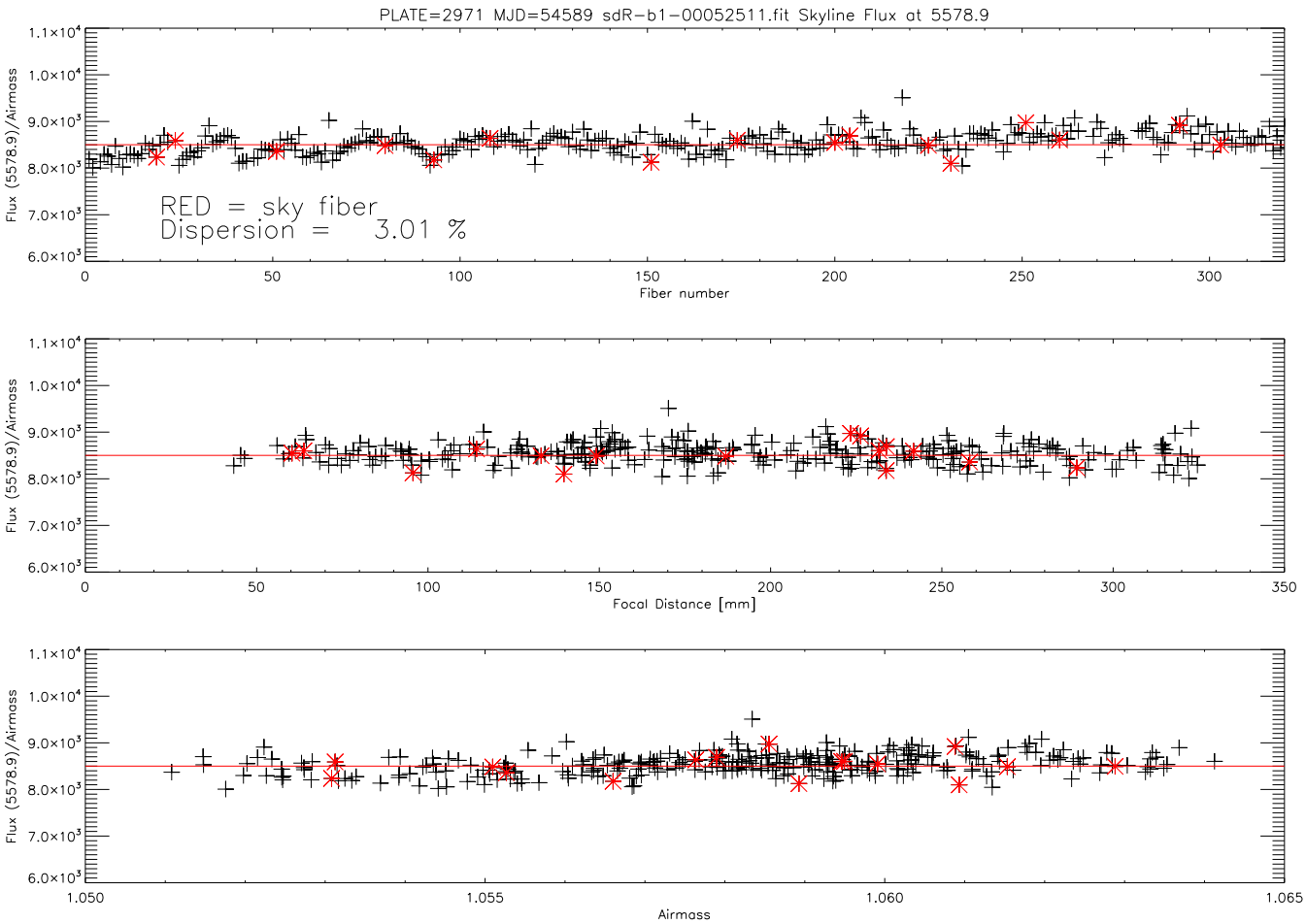

PLATE=2971 MJD=54589 sdR-b1-00052511.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

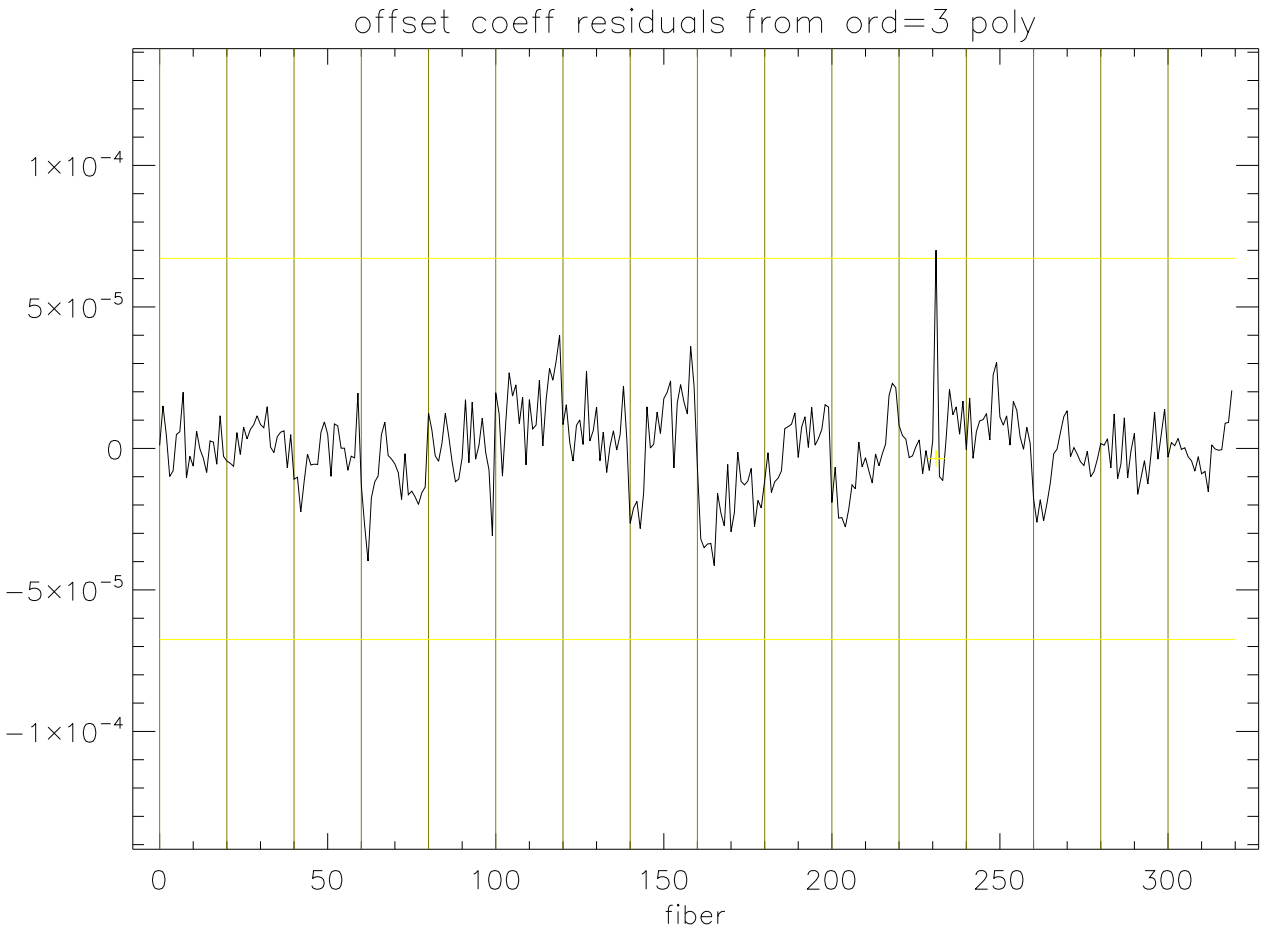

PLATE=2971 MJD=54589 sdR-b1-00052511.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

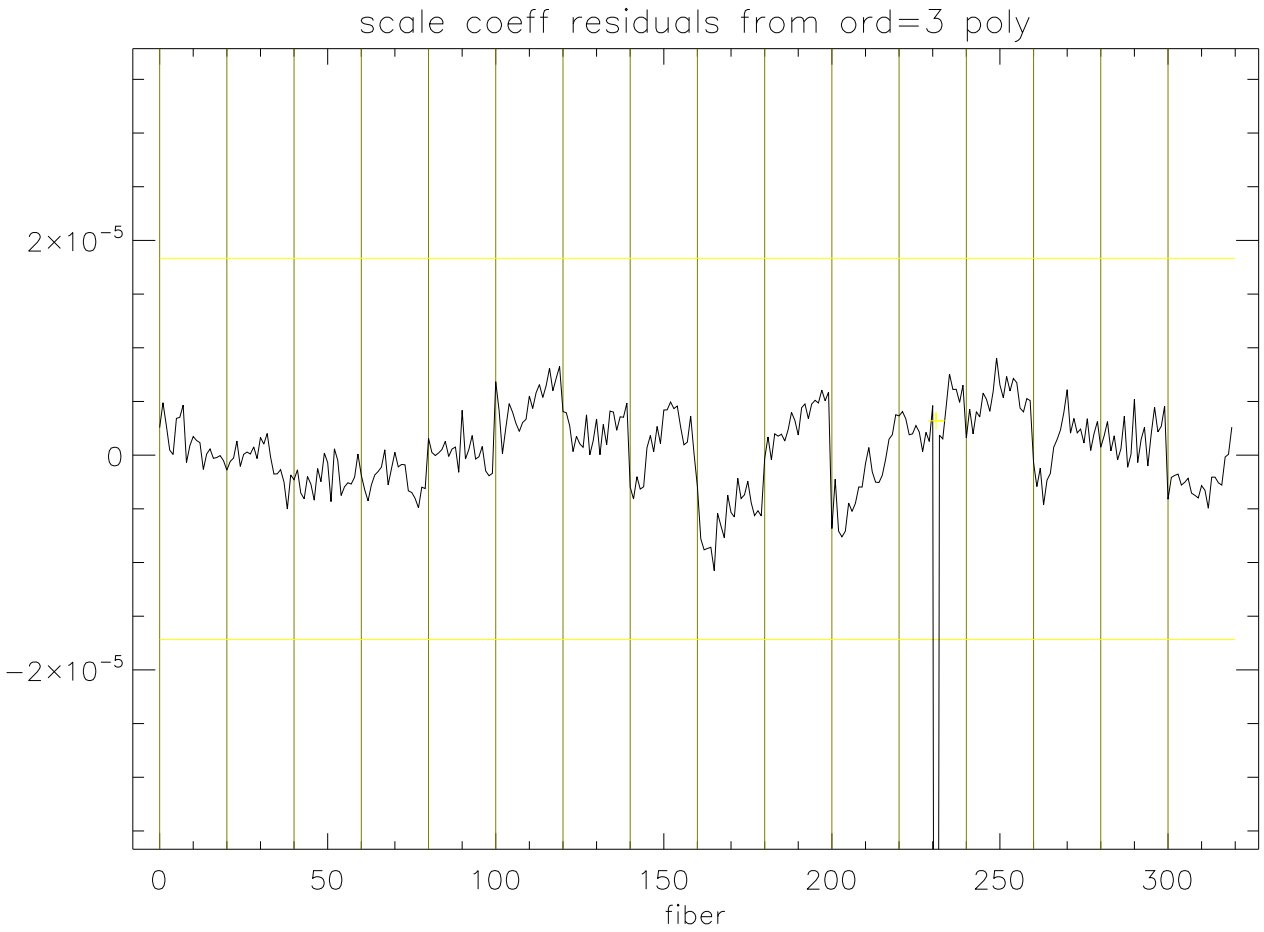

PLATE=2971 MJD=54589 sdR-b1-00052511.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
-300
5570
5575
5580
5585
5590
λ [A]

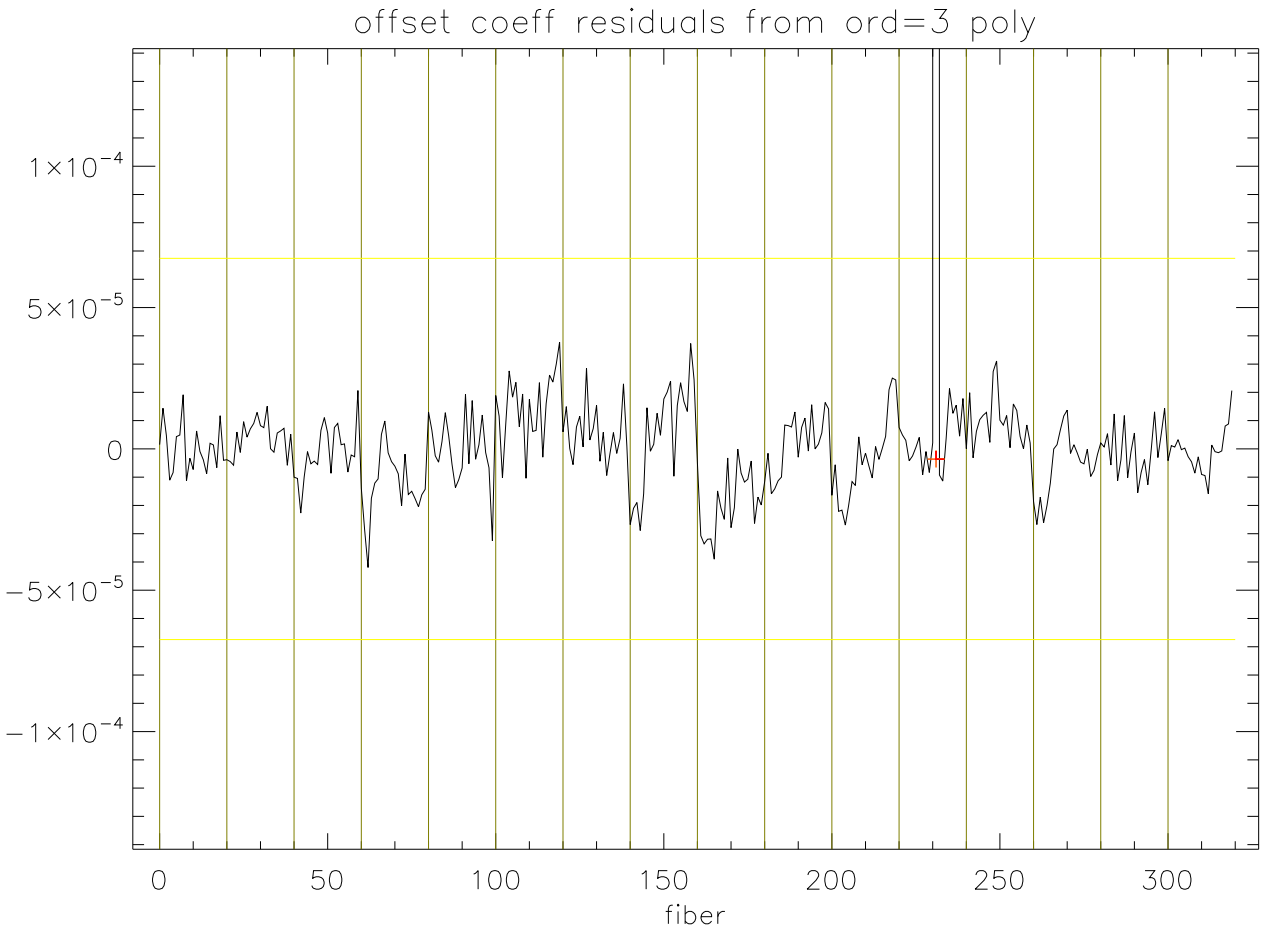

Number of sky fibers = 16
PLATE=2971 MJD=54589 sdR-b1-00052511.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

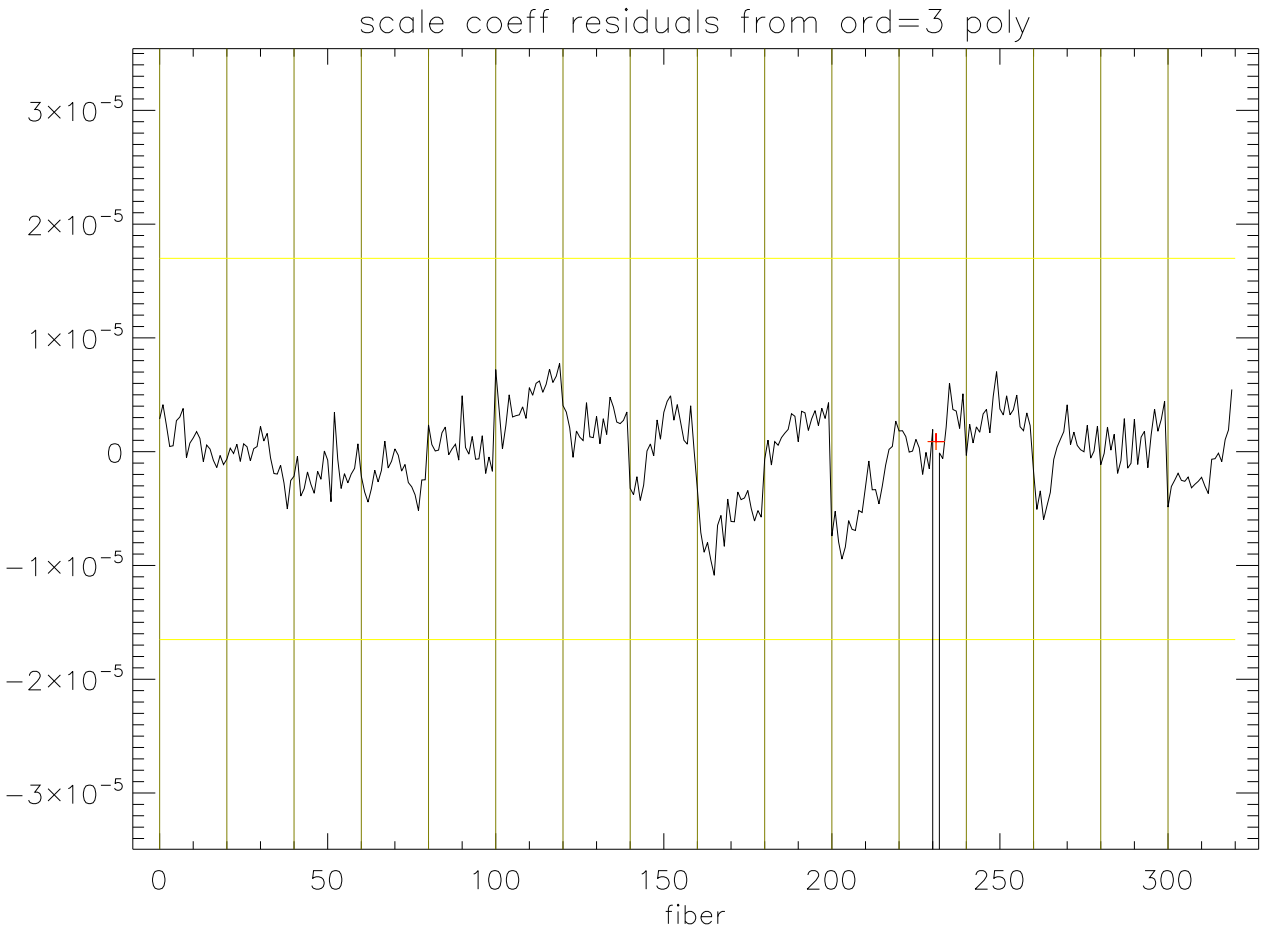

PLATE=2971 MJD=54589 sdR-b1-00052511.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 16.11 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

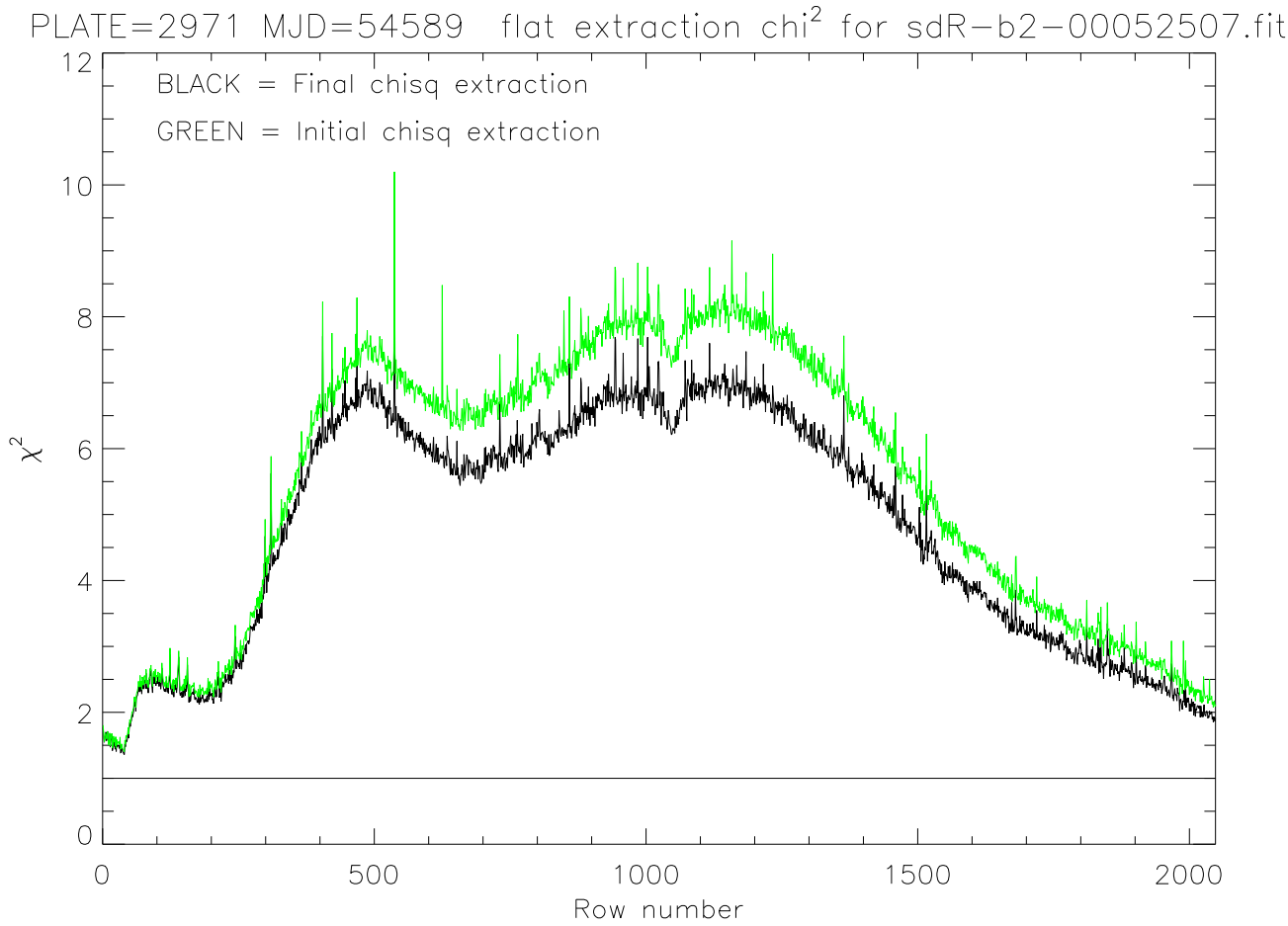

PLATE=2971 MJD=54589 sdR-b1-00052511.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 3.01 %
Fiber number
Flux (5578.9)/Airmass
Focal Distance [mm]
Flux (5578.9)/Airmass
Airmass

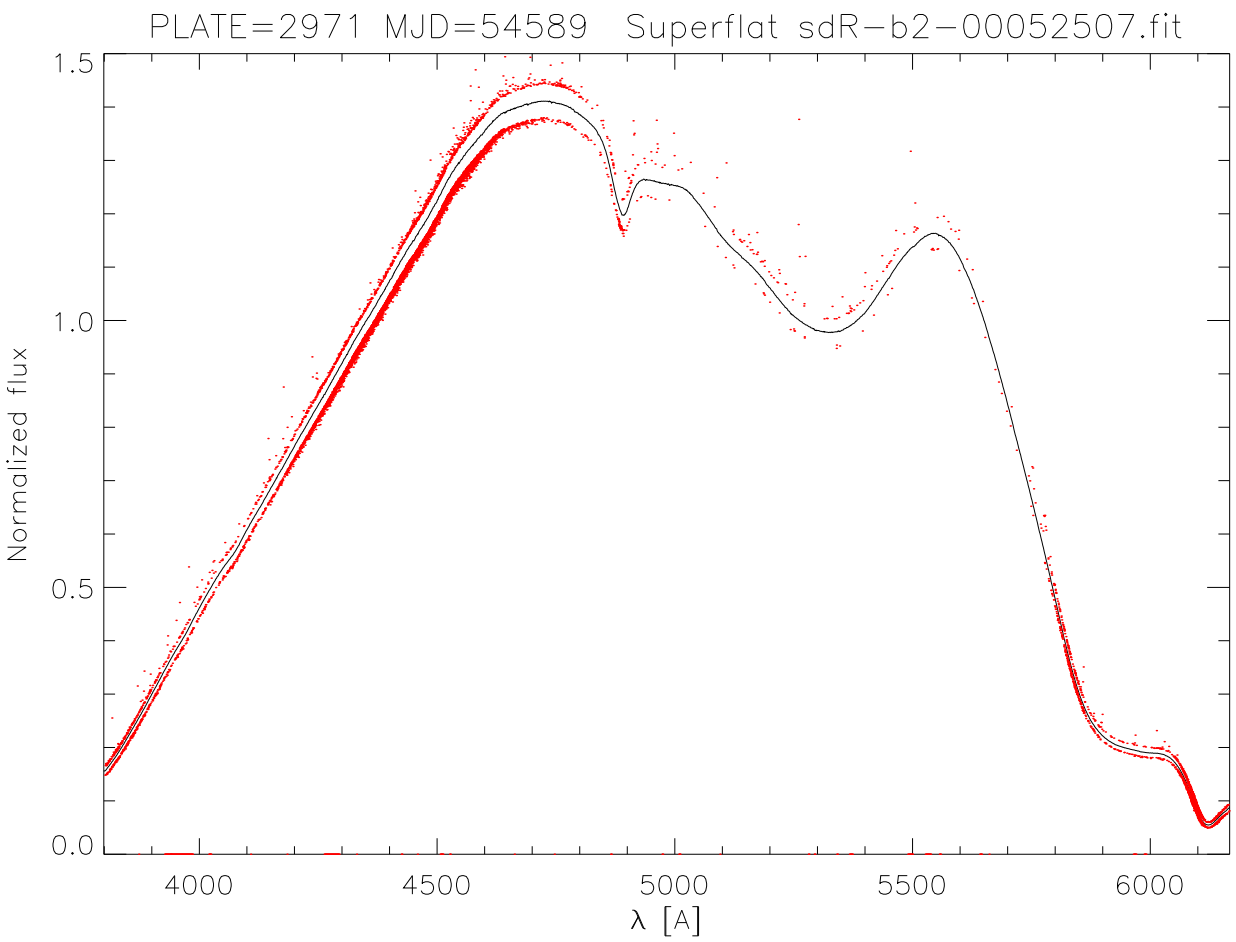

offset coeff residuals from ord=3 poly
1×10⁻⁴
5×10⁻⁵
0
−5×10⁻⁵
−1×10⁻⁴
0
50
100
150
200
250
300
fiber

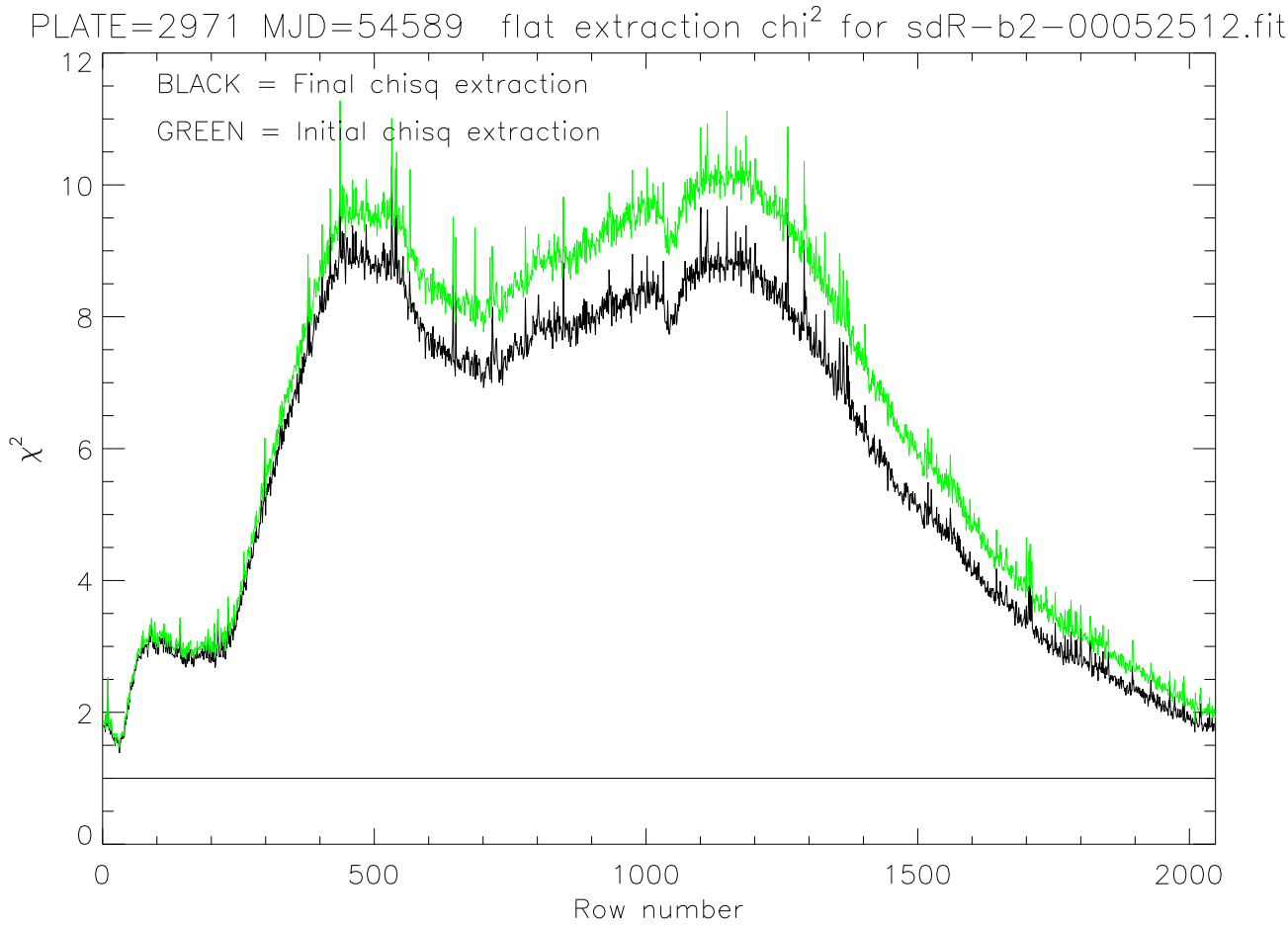

scale coeff residuals from ord=3 poly
2×10⁻⁵
0
−2×10⁻⁵
0
50
100
150
200
250
300
fiber

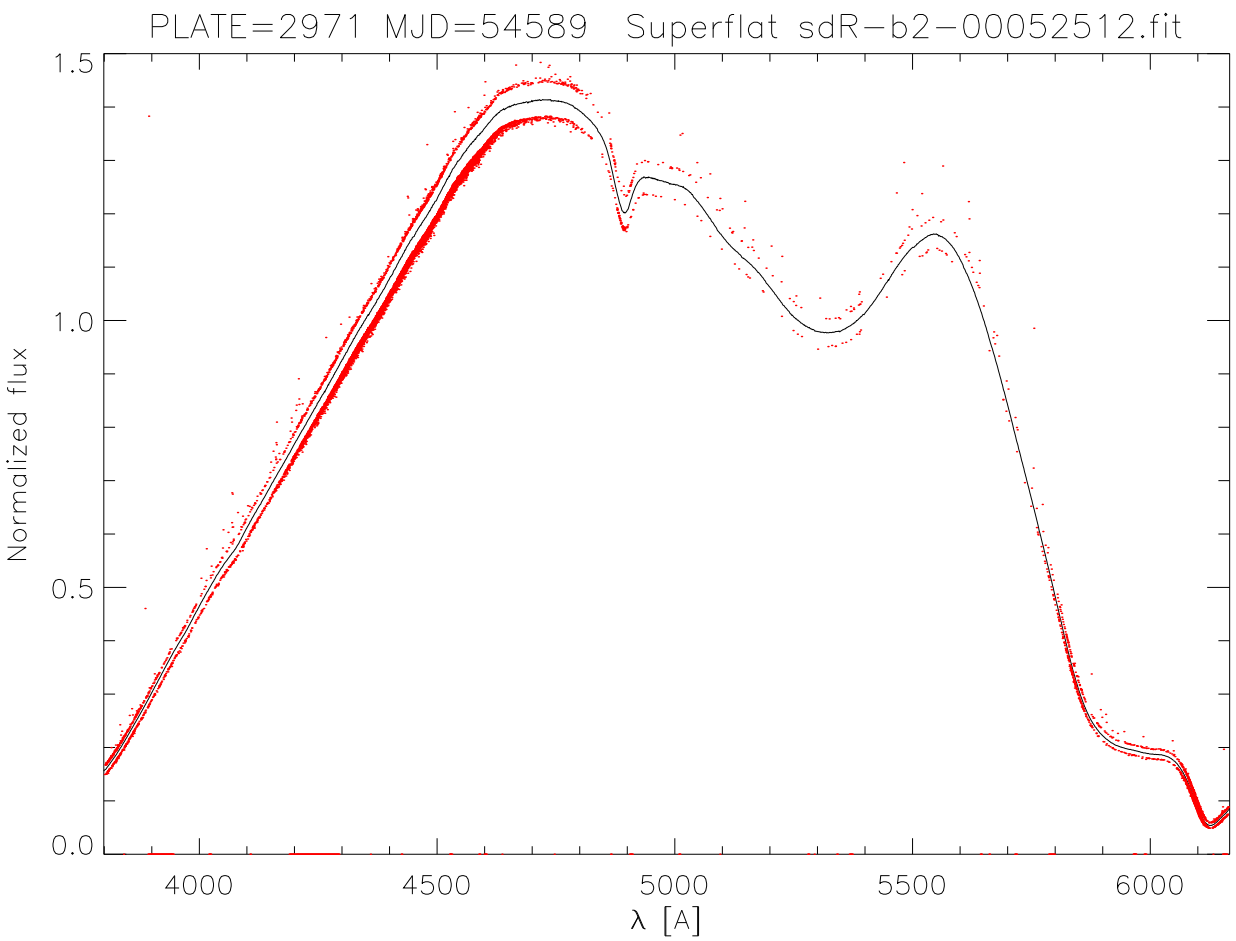

offset coeff residuals from ord=3 poly
1×10^-4
5×10^-5
0
−5×10^-5
−1×10^-4
0
50
100
150
200
250
300
fiber

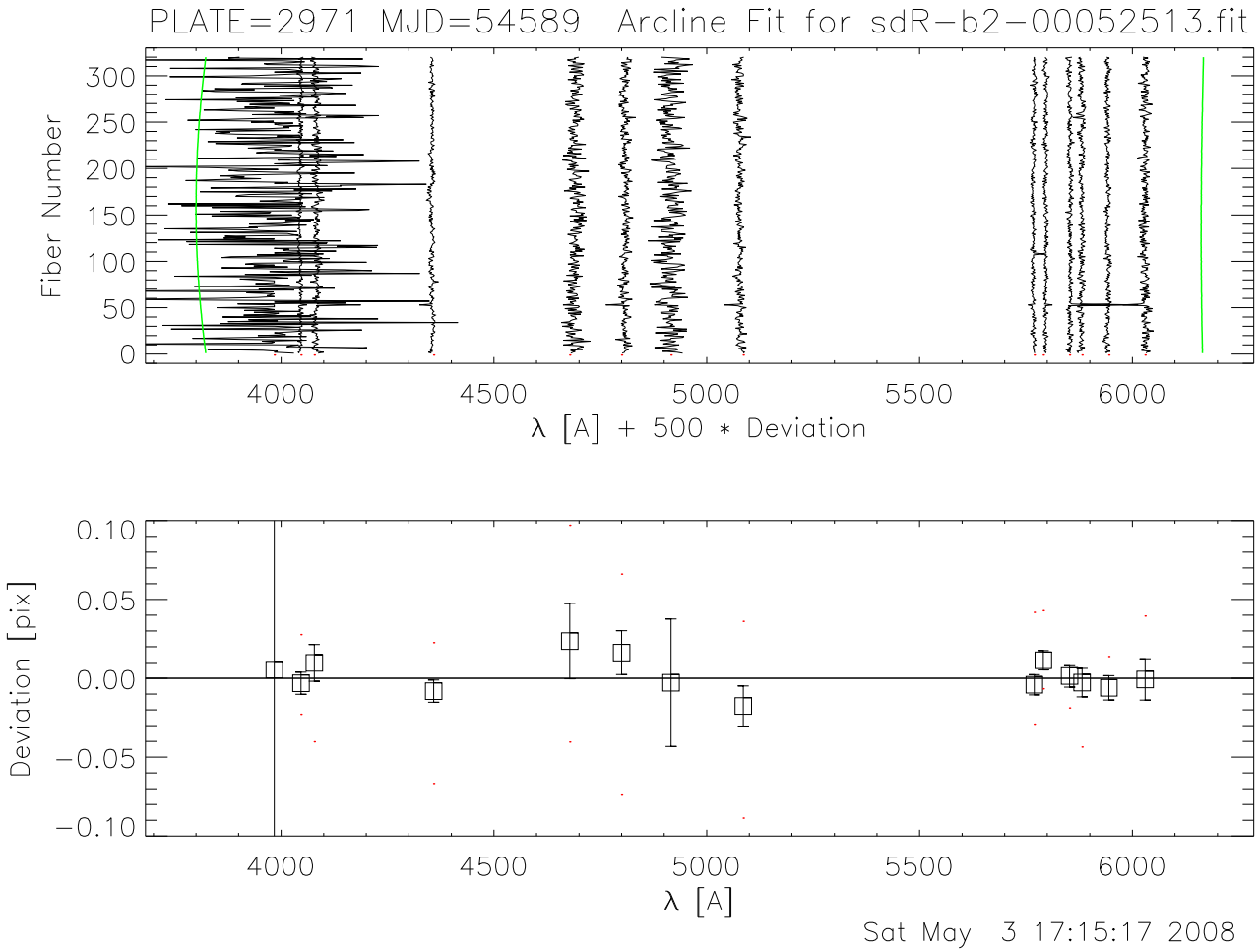

scale coeff residuals from ord=3 poly
3×10⁻⁵
2×10⁻⁵
1×10⁻⁵
0
−1×10⁻⁵
−2×10⁻⁵
−3×10⁻⁵
0
50
100
150
200
250
300
fiber

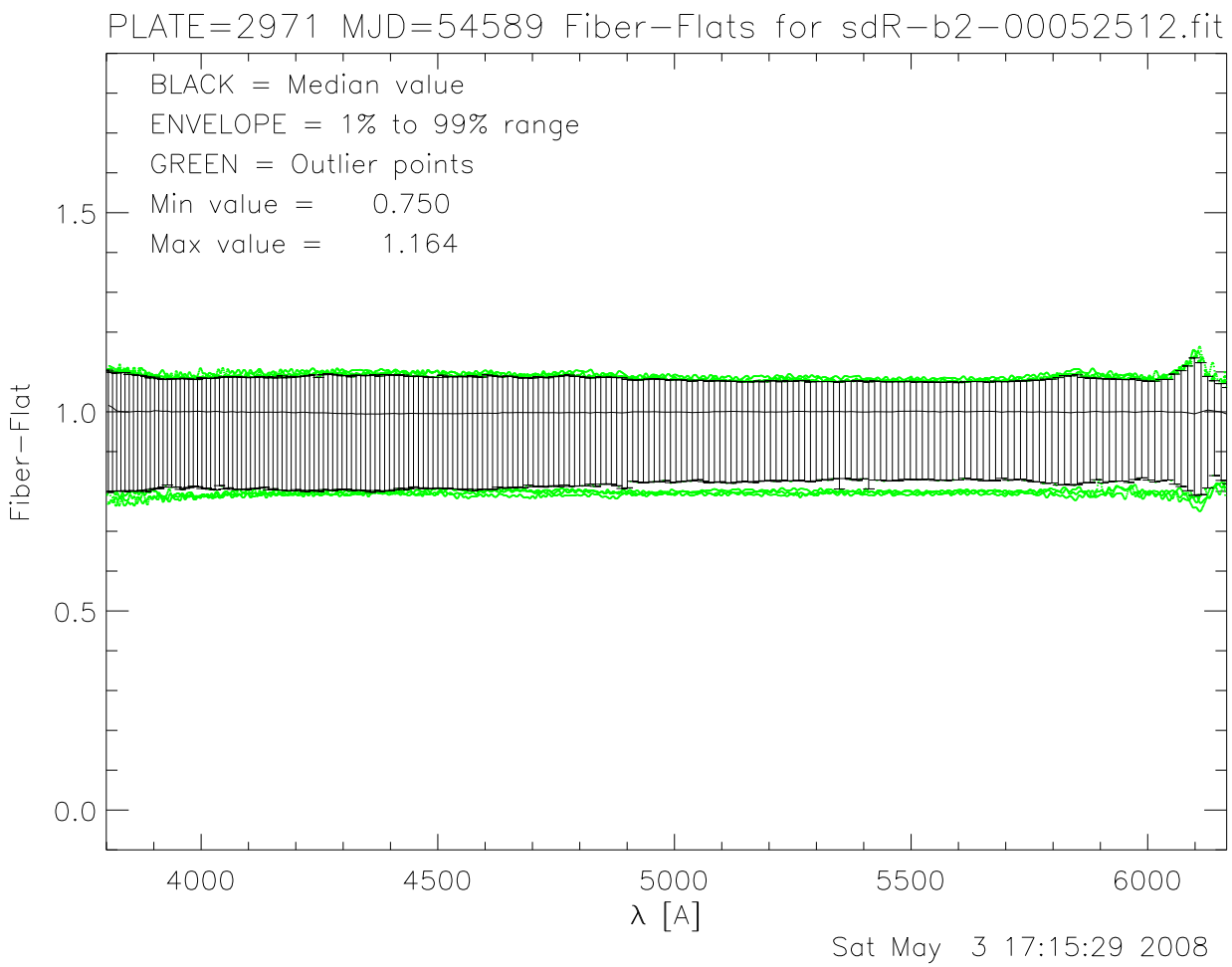

PLATE=2971 MJD=54589 flat extraction chi^2 for sdR−b2−00052507.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
2
4
6
8
10
12
0
500
1000
1500
2000

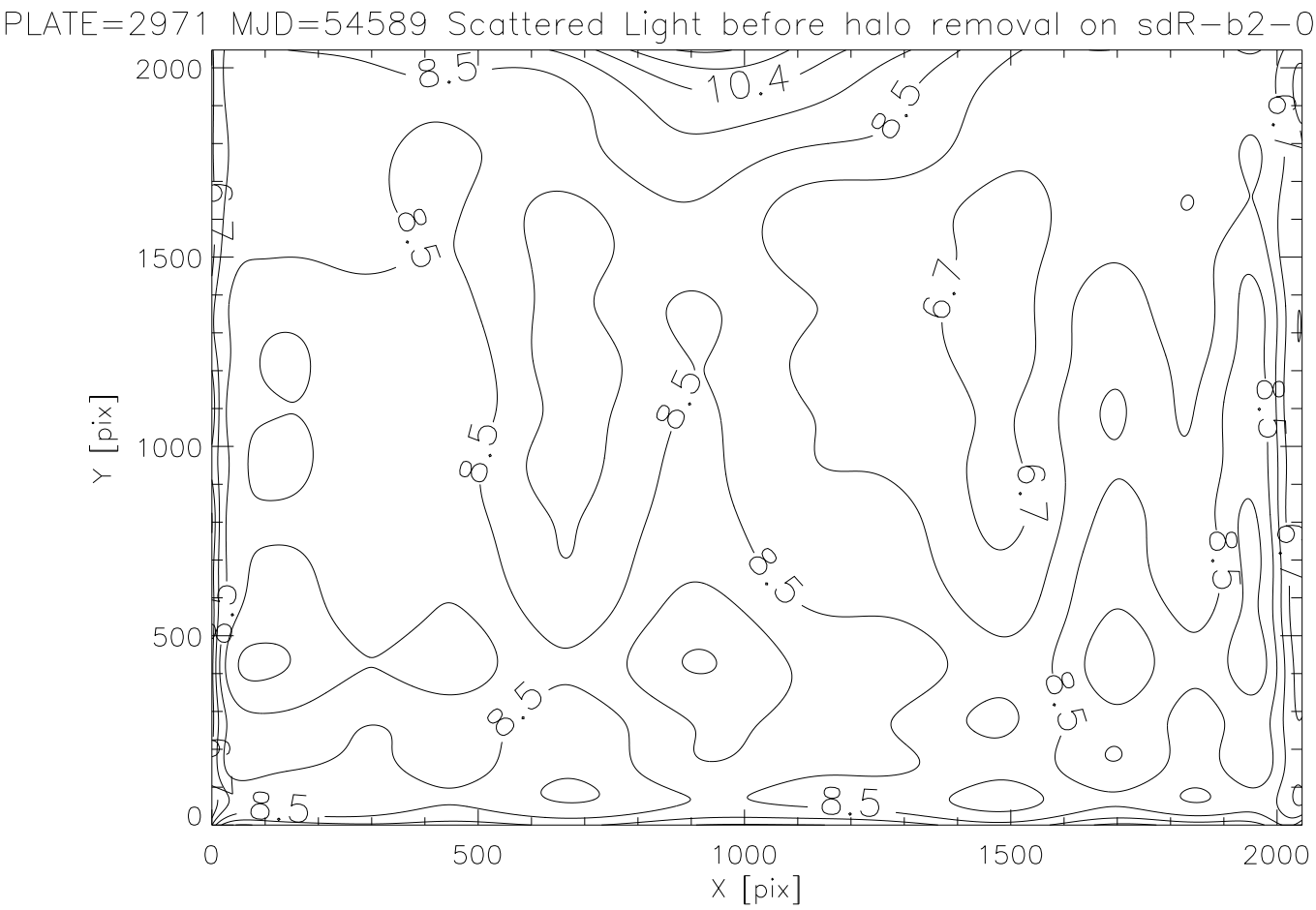

PLATE=2971 MJD=54589 Superflat sdR-b2-00052507.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

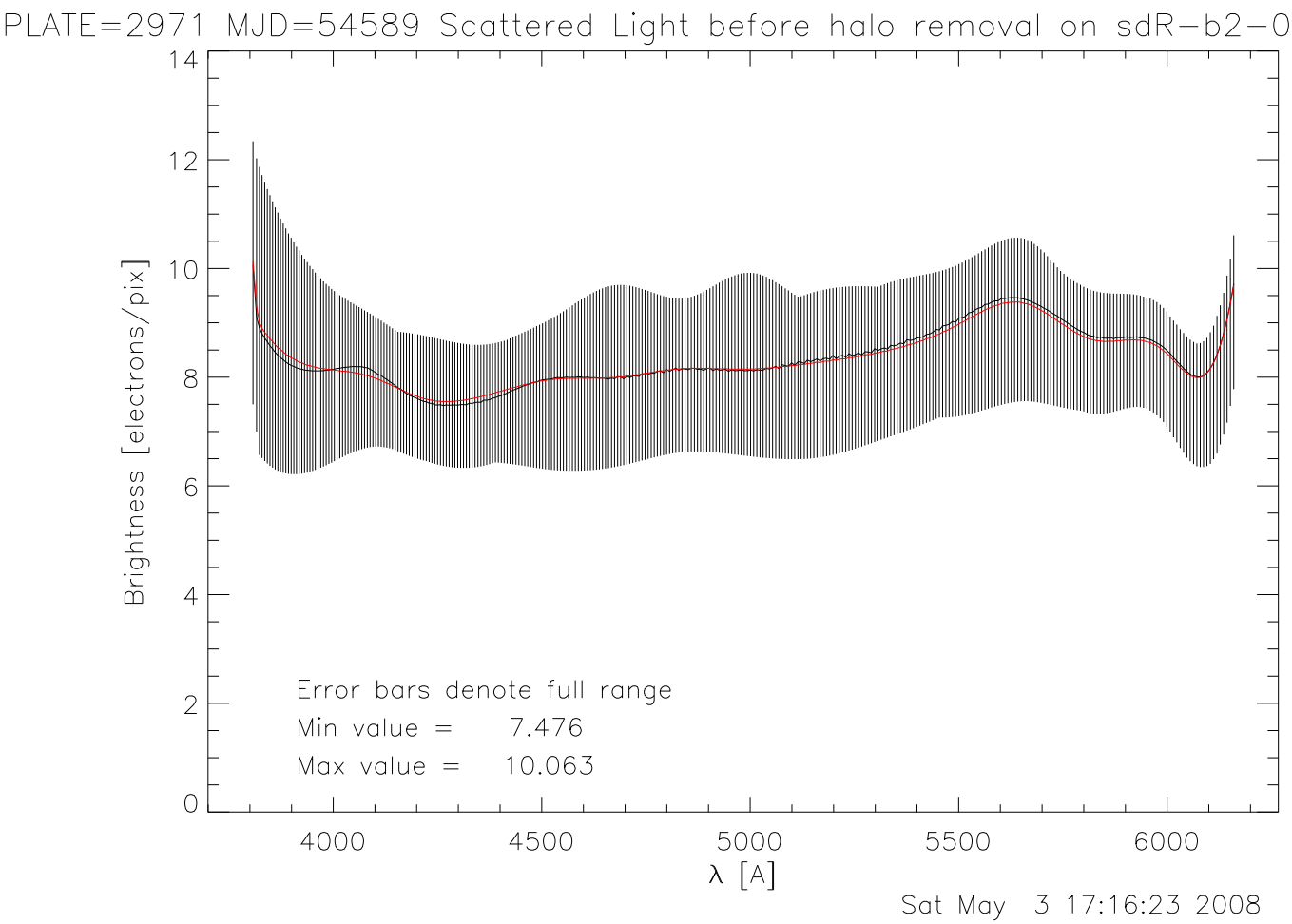

PLATE=2971 MJD=54589 flat extraction chi^2 for sdR−b2−00052512.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
2
4
6
8
10
12
0
500
1000
1500
2000

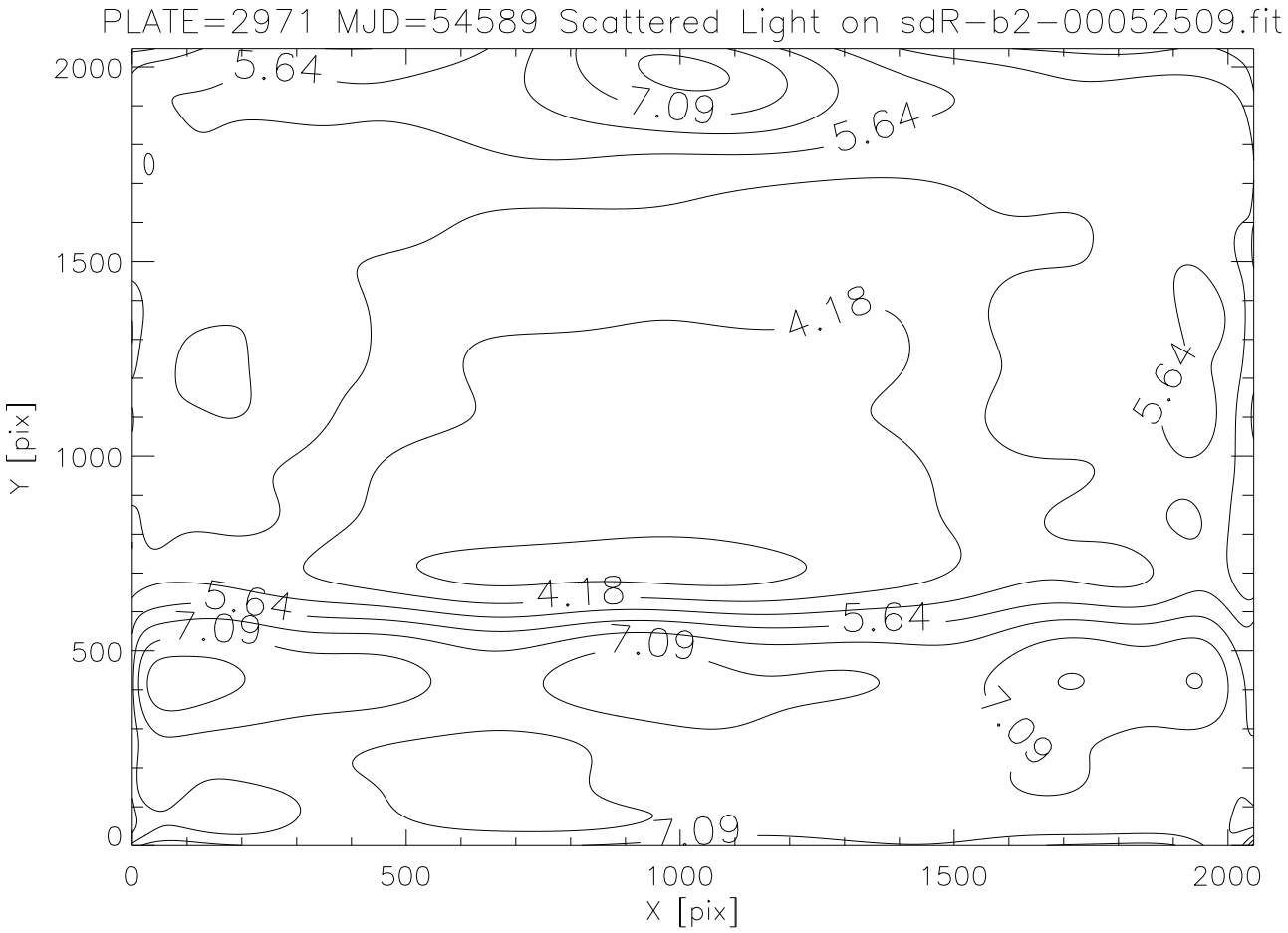

PLATE=2971 MJD=54589 Superflat sdR-b2-00052512.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

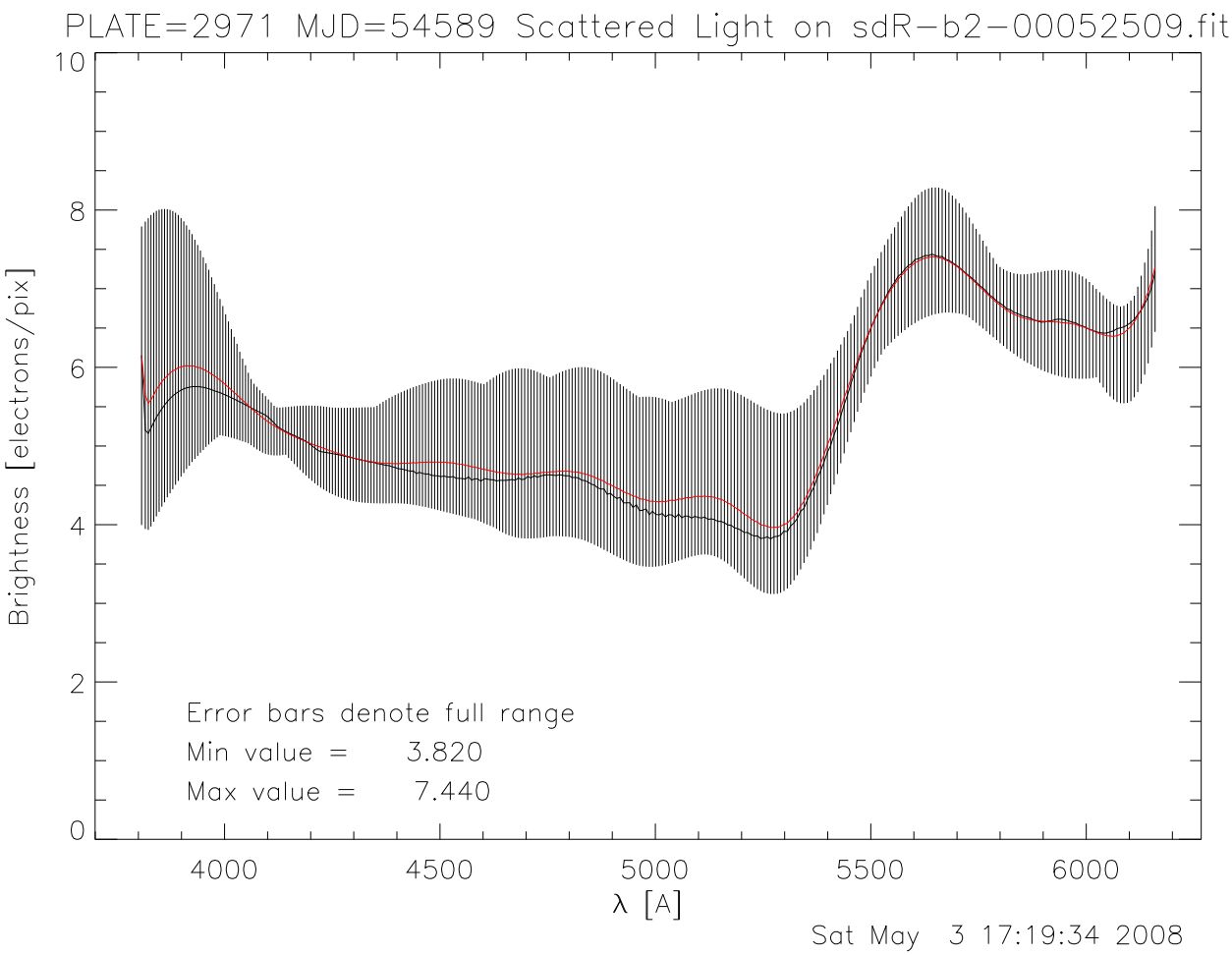

PLATE=2971 MJD=54589 Arcline Fit for sdR-b2-00052513.fit
Fiber Number
300
250
200
150
100
50
0
4000
4500
5000
5500
6000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
4000
4500
5000
5500
6000
λ [A]
Sat May 3 17:15:17 2008

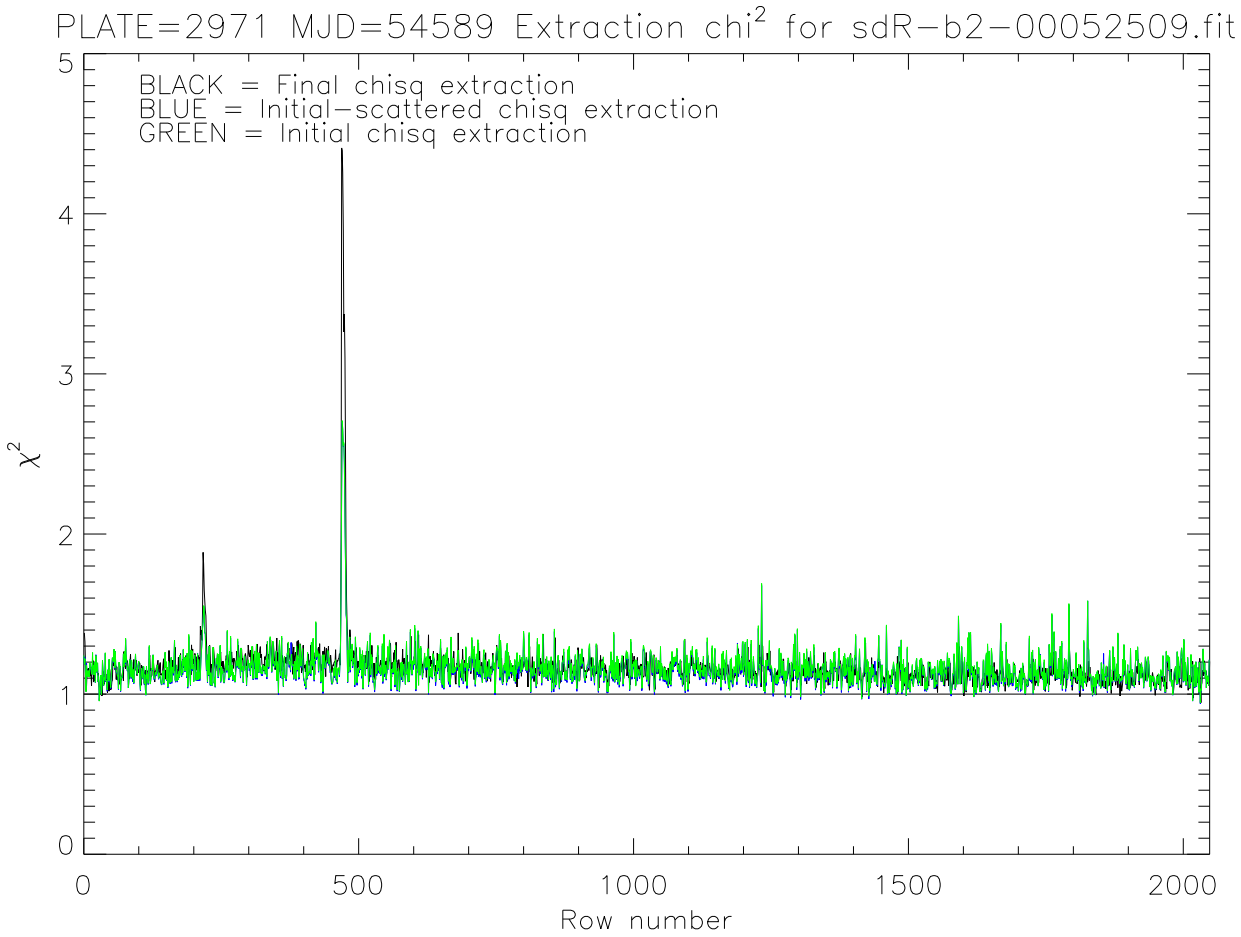

PLATE=2971 MJD=54589 Fiber-Flats for sdR-b2-00052512.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.750
Max value = 1.164
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Sat May 3 17:15:29 2008

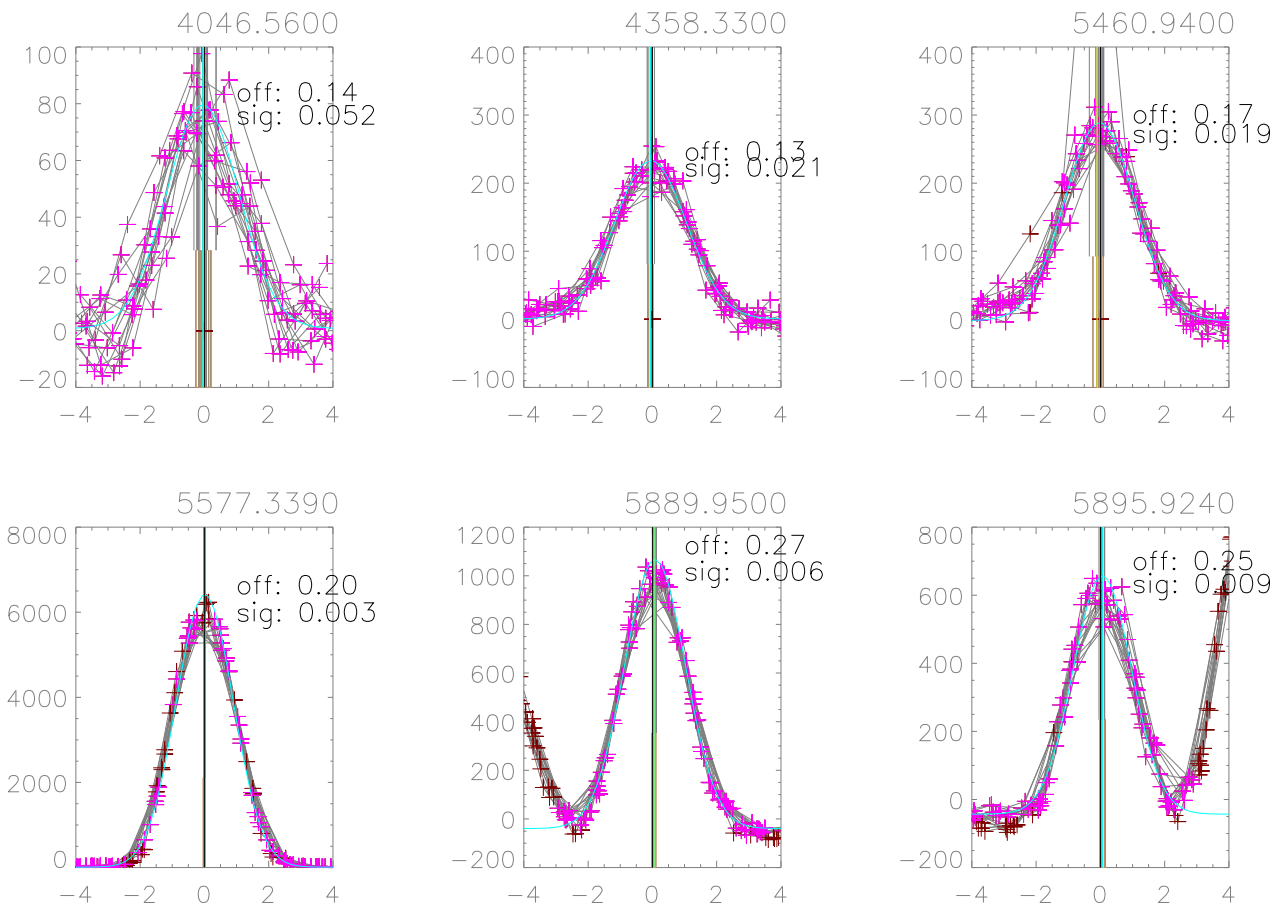

PLATE=2971 MJD=54589 Scattered Light before halo removal on sdR−b2−00052509.f
Y [pix]
X [pix]
0
500
1000
1500
2000
8.5
10.4
6.7
8.5

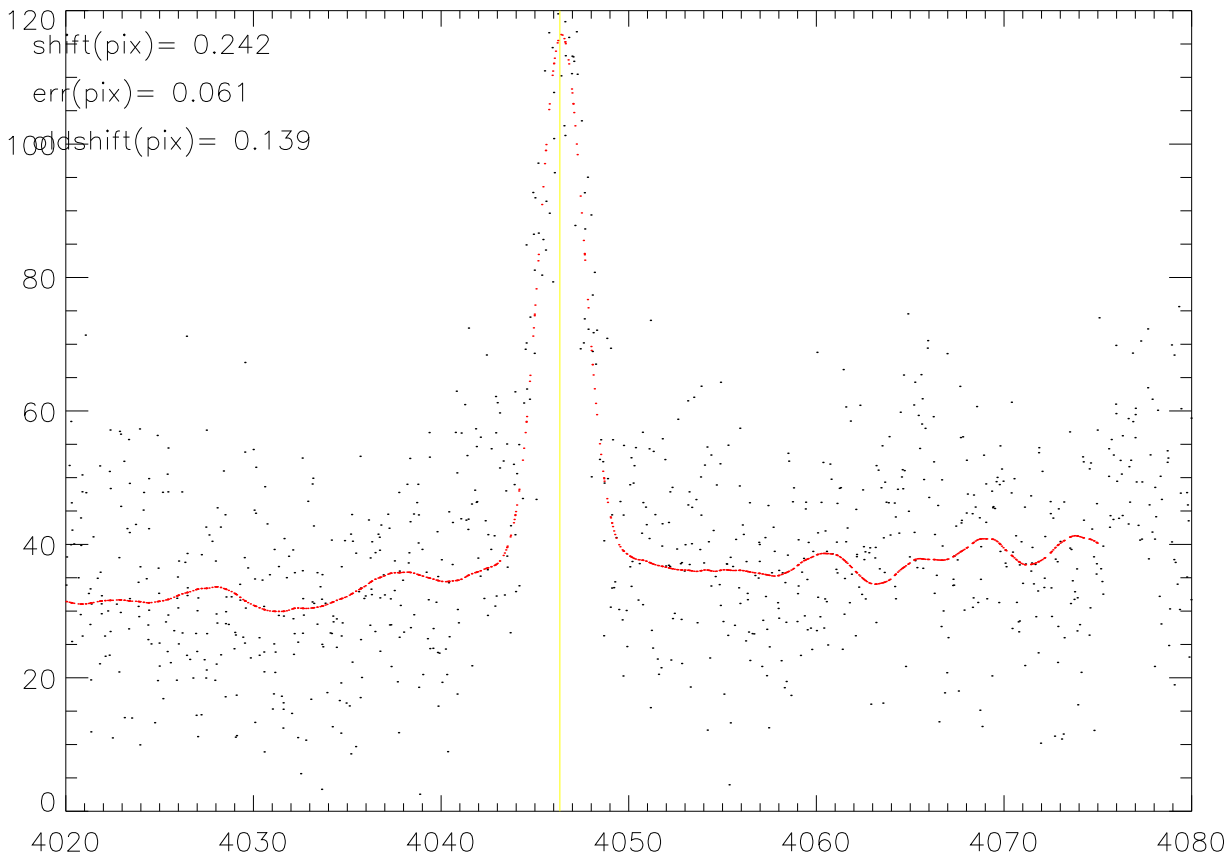

PLATE=2971 MJD=54589 Scattered Light before halo removal on sdR-b2-00052509.f
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 7.476
Max value = 10.063
Sat May 3 17:16:23 2008

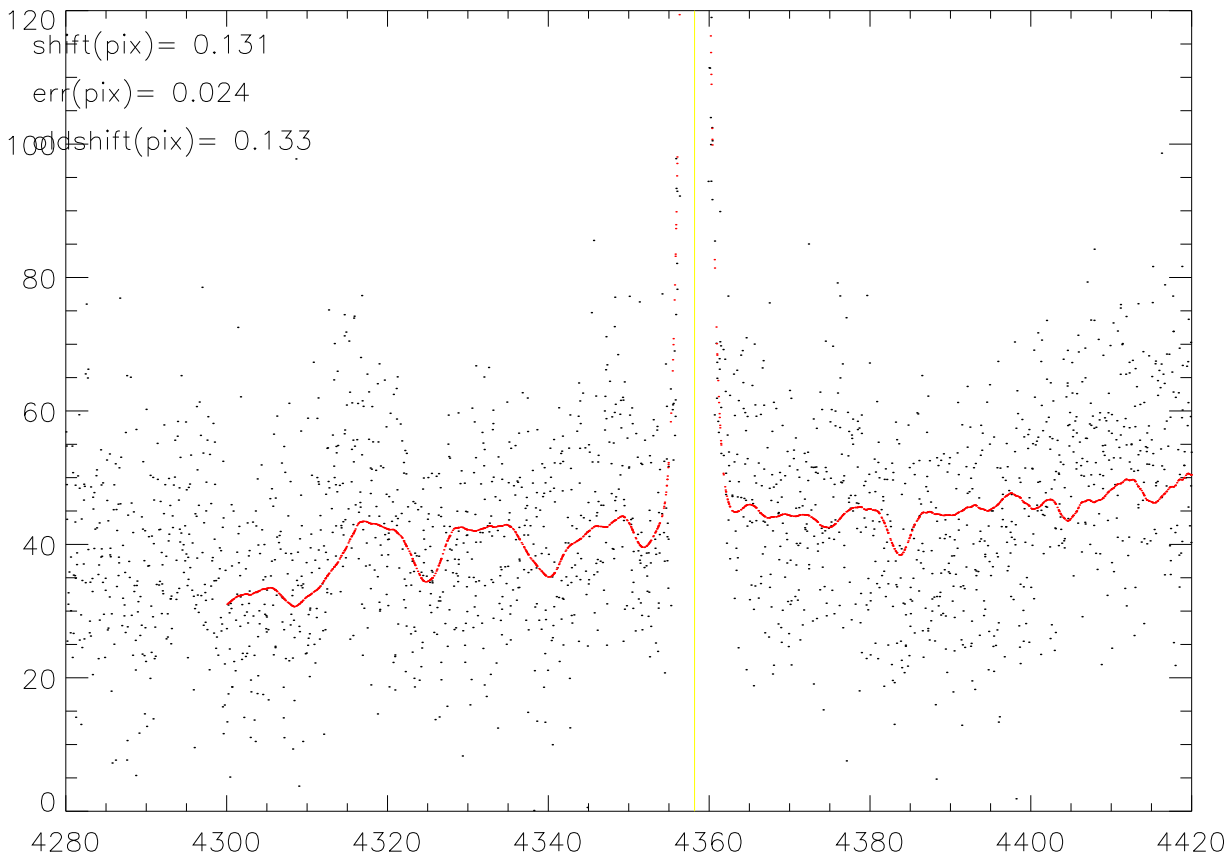

PLATE=2971 MJD=54589 Scattered Light on sdR-b2-00052509.fit
5.64
7.09
5.64
0
4.18
5.64
4.18
5.64
7.09
7.09
7.09
7.09
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]

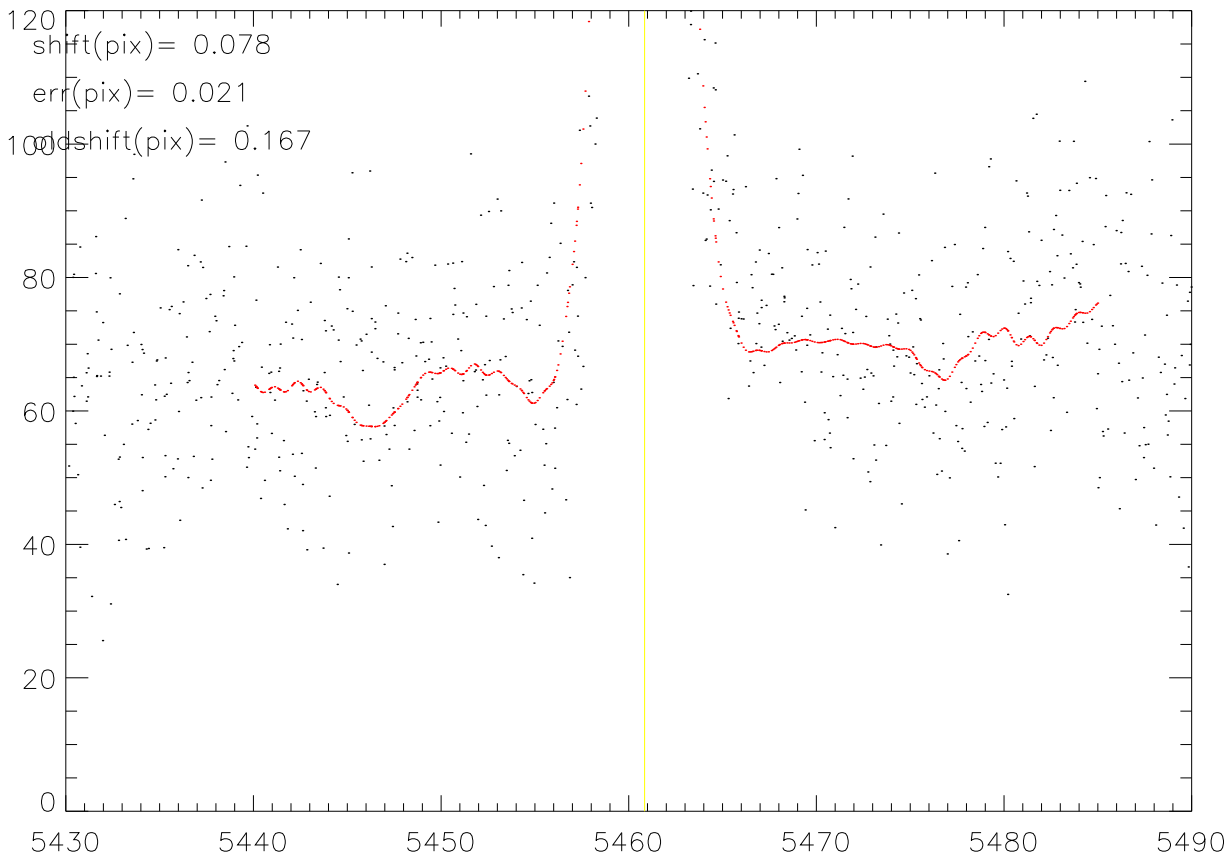

PLATE=2971 MJD=54589 Scattered Light on sdR-b2-00052509.fit
Brightness [electrons/pix]
10
8
6
4
2
0
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 3.820
Max value = 7.440
Sat May 3 17:19:34 2008

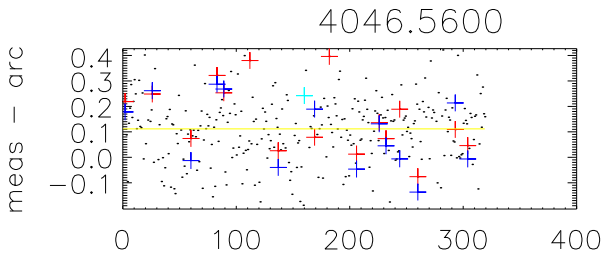

PLATE=2971 MJD=54589 Extraction chi^2 for sdR-b2-00052509.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
5
0
500
1000
1500
2000
Row number

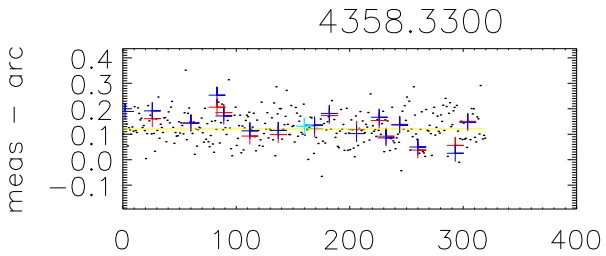

4046.5600
off: 0.14
sig: 0.052
4358.3300
off: 0.13
sig: 0.021
5460.9400
off: 0.17
sig: 0.019
5577.3390
off: 0.20
sig: 0.003
5889.9500
off: 0.27
sig: 0.006
5895.9240
off: 0.25
sig: 0.009

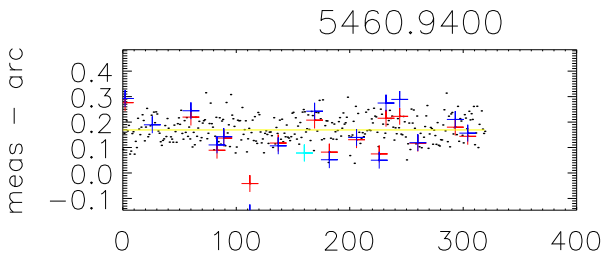

shift(pix)= 0.242
err(pix)= 0.061
oldshift(pix)= 0.139
120
100
80
60
40
20
0
4020
4030
4040
4050
4060
4070
4080

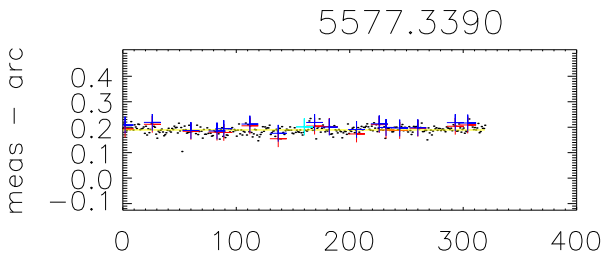

shift(pix)= 0.131
err(pix)= 0.024
oldshift(pix)= 0.133
120
100
80
60
40
20
0
4280
4300
4320
4340
4360
4380
4400
4420

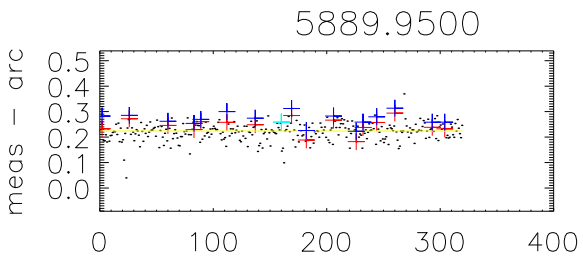

shift(pix)= 0.078
err(pix)= 0.021
oldshift(pix)= 0.167
120
100
80
60
40
20
0
5430
5440
5450
5460
5470
5480
5490

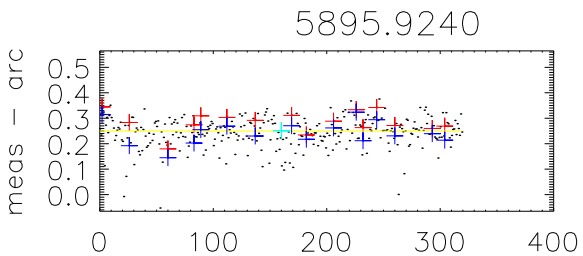

4046.5600
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

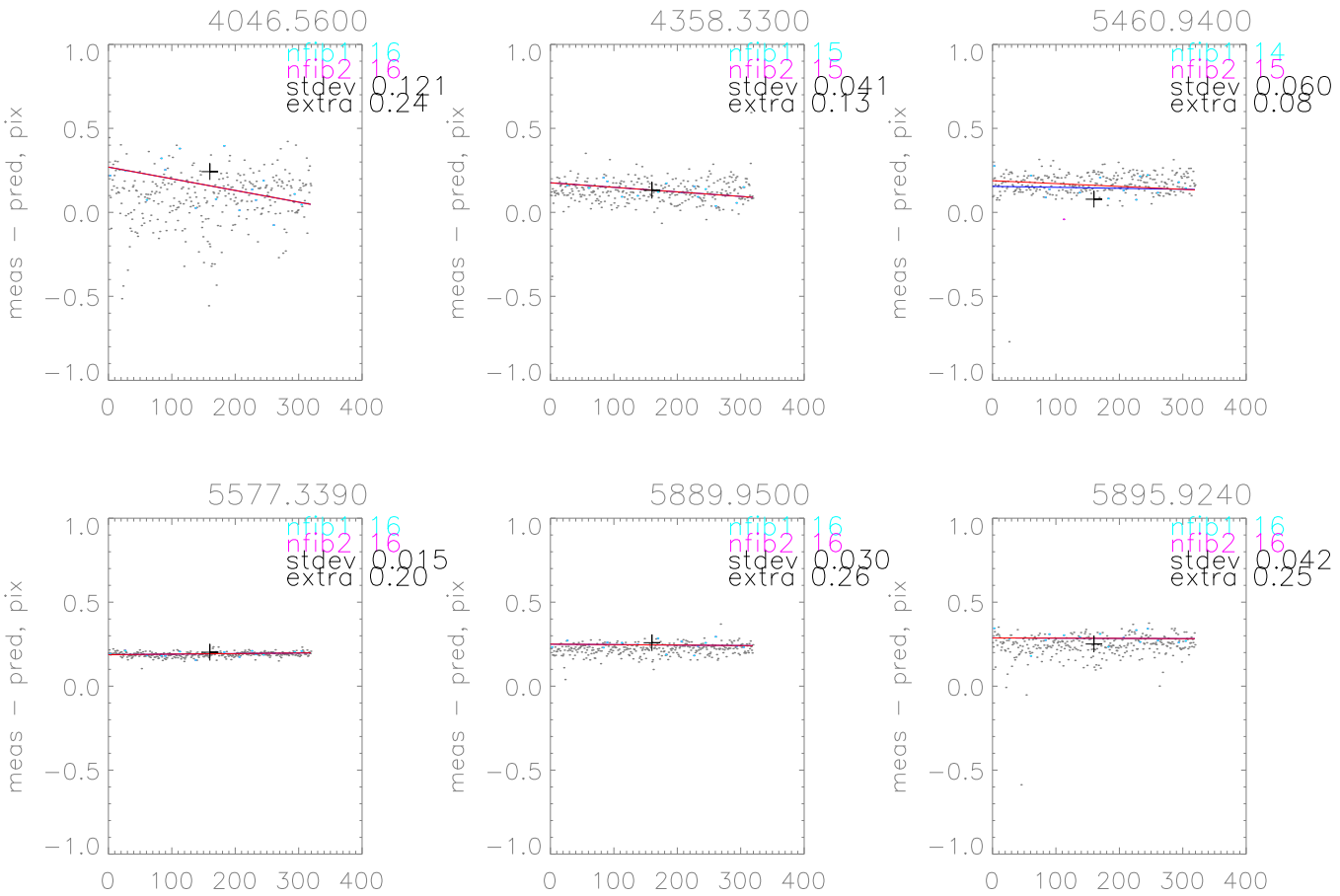

4358.3300
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

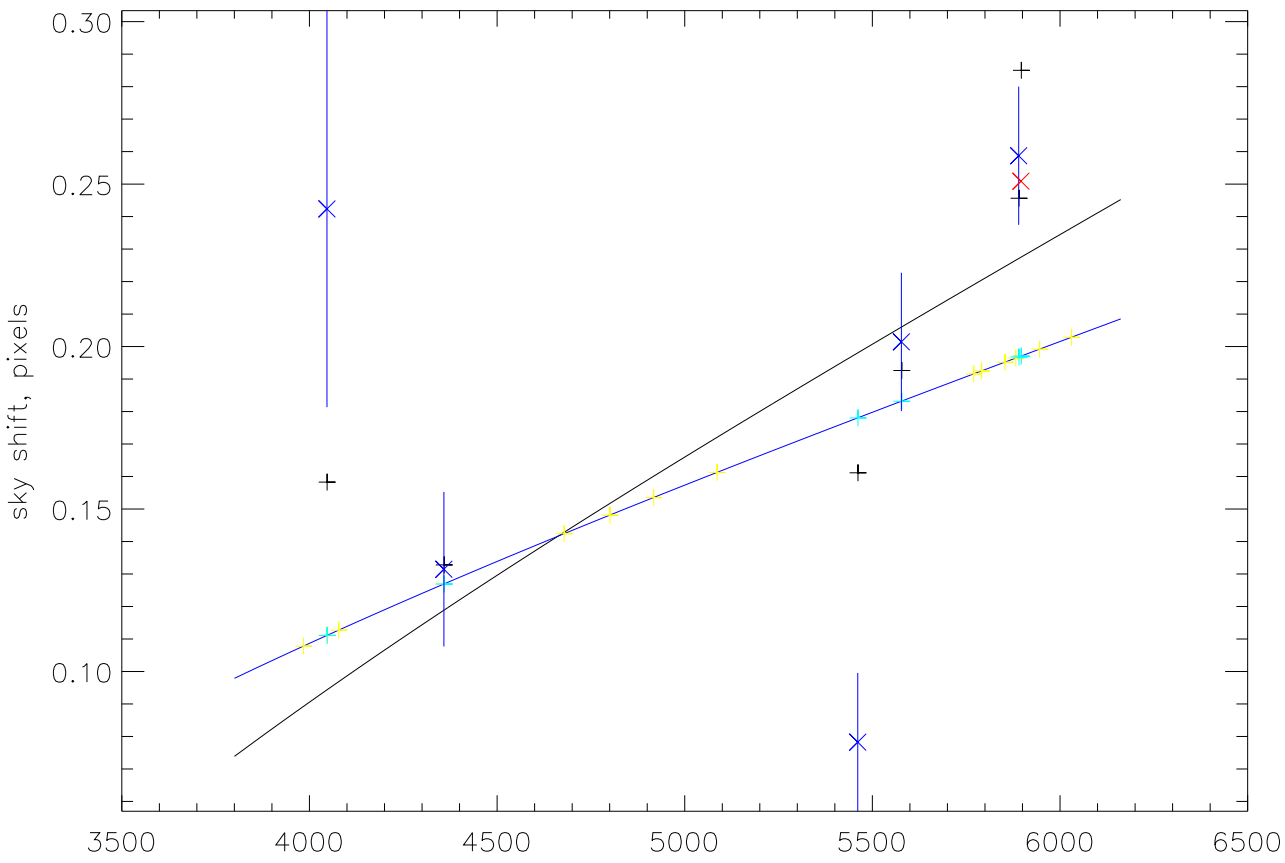

5460.9400
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

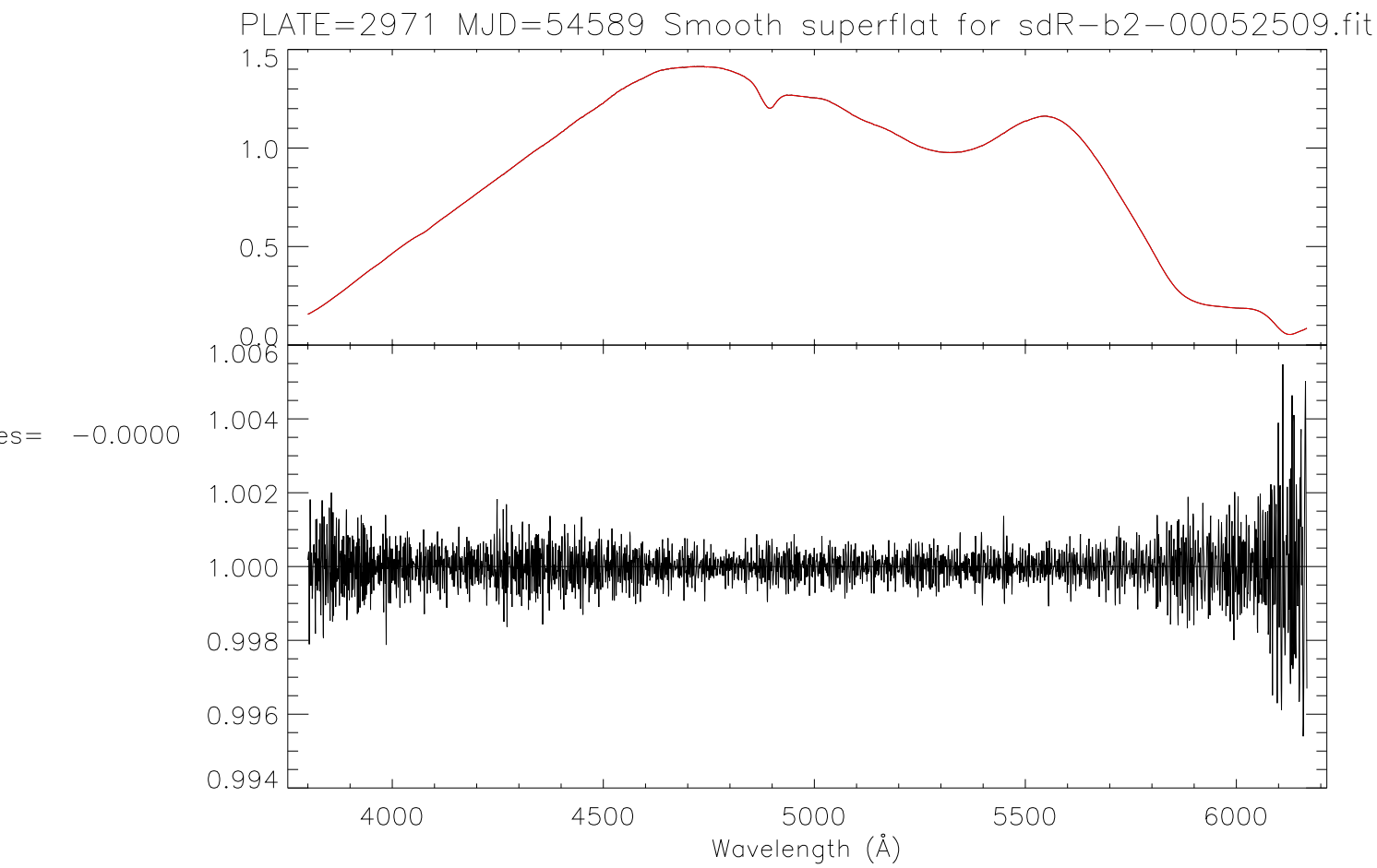

5577.3390
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

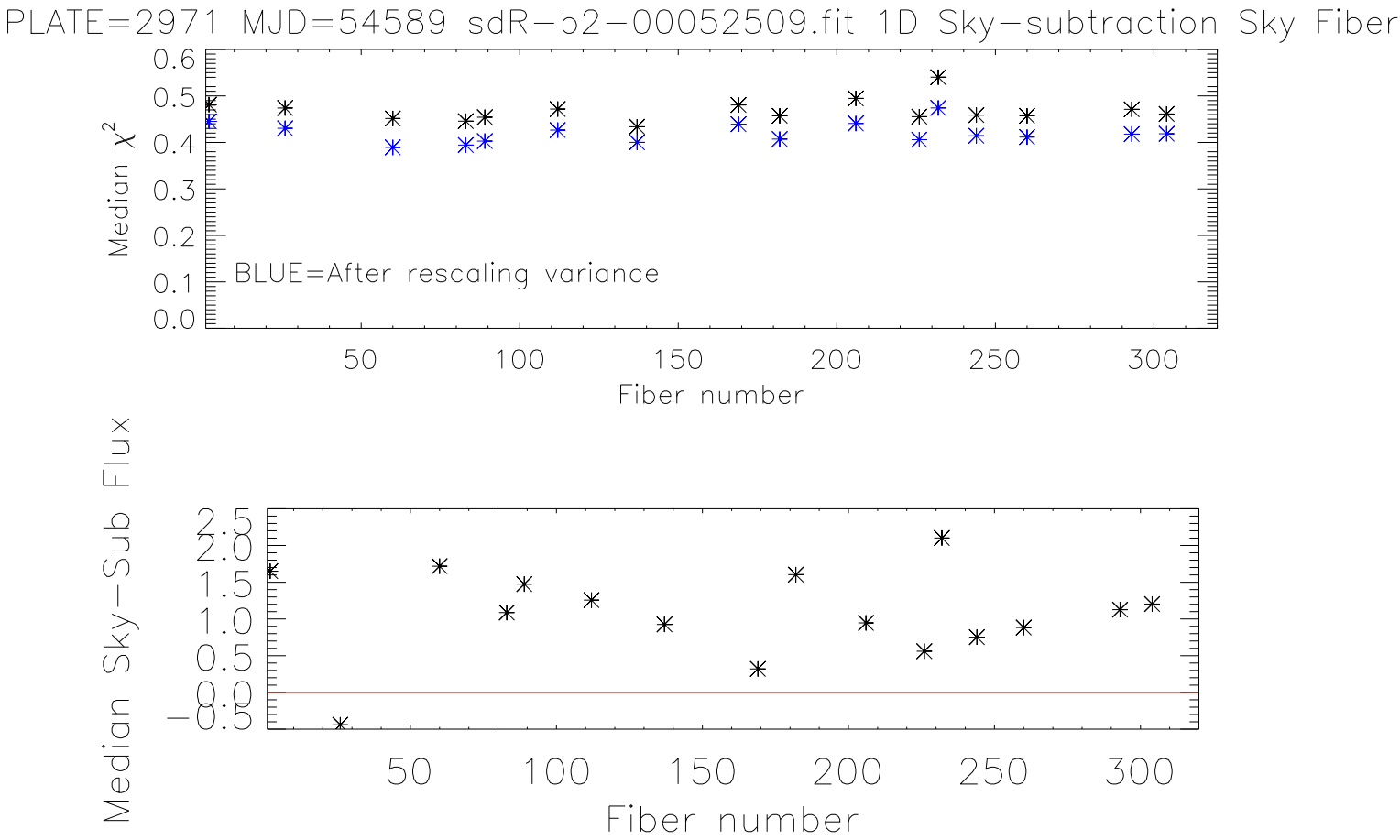

5889.9500
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

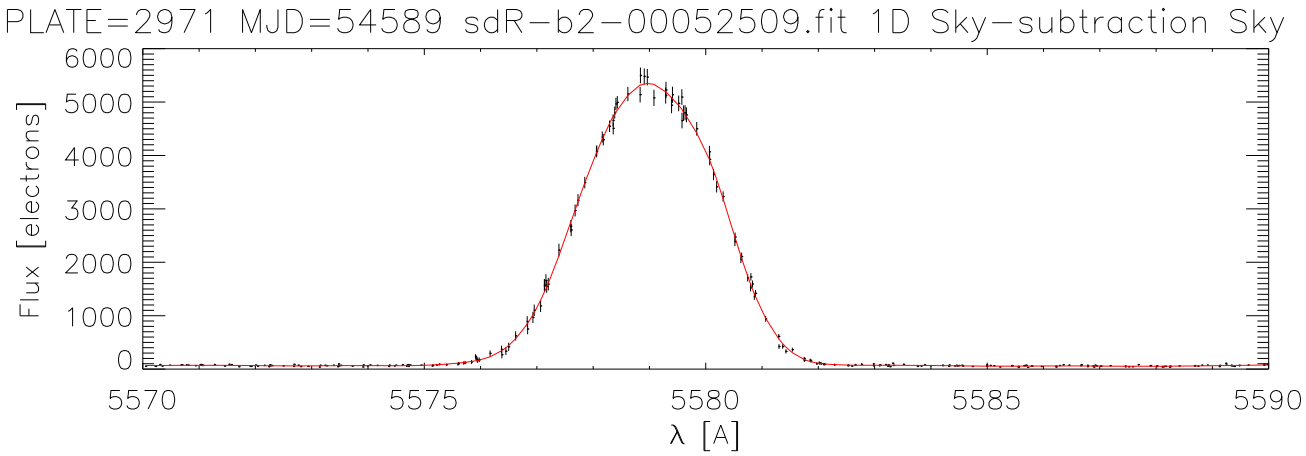

5895.9240
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

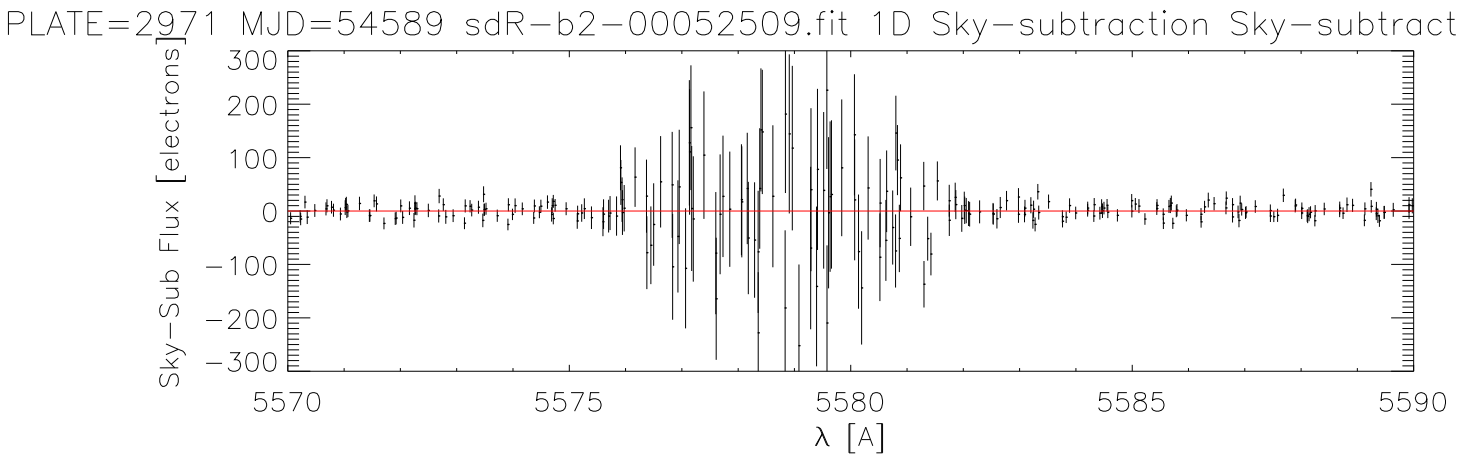

4046.5600
nfib1 16
nfib2 16
stdev 0.121
extra 0.24
4358.3300
nfib1 15
nfib2 15
stdev 0.041
extra 0.13
5460.9400
nfib1 14
nfib2 15
stdev 0.060
extra 0.08
5577.3390
nfib1 16
nfib2 16
stdev 0.015
extra 0.20
5889.9500
nfib1 16
nfib2 16
stdev 0.030
extra 0.26
5895.9240
nfib1 16
nfib2 16
stdev 0.042
extra 0.25
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

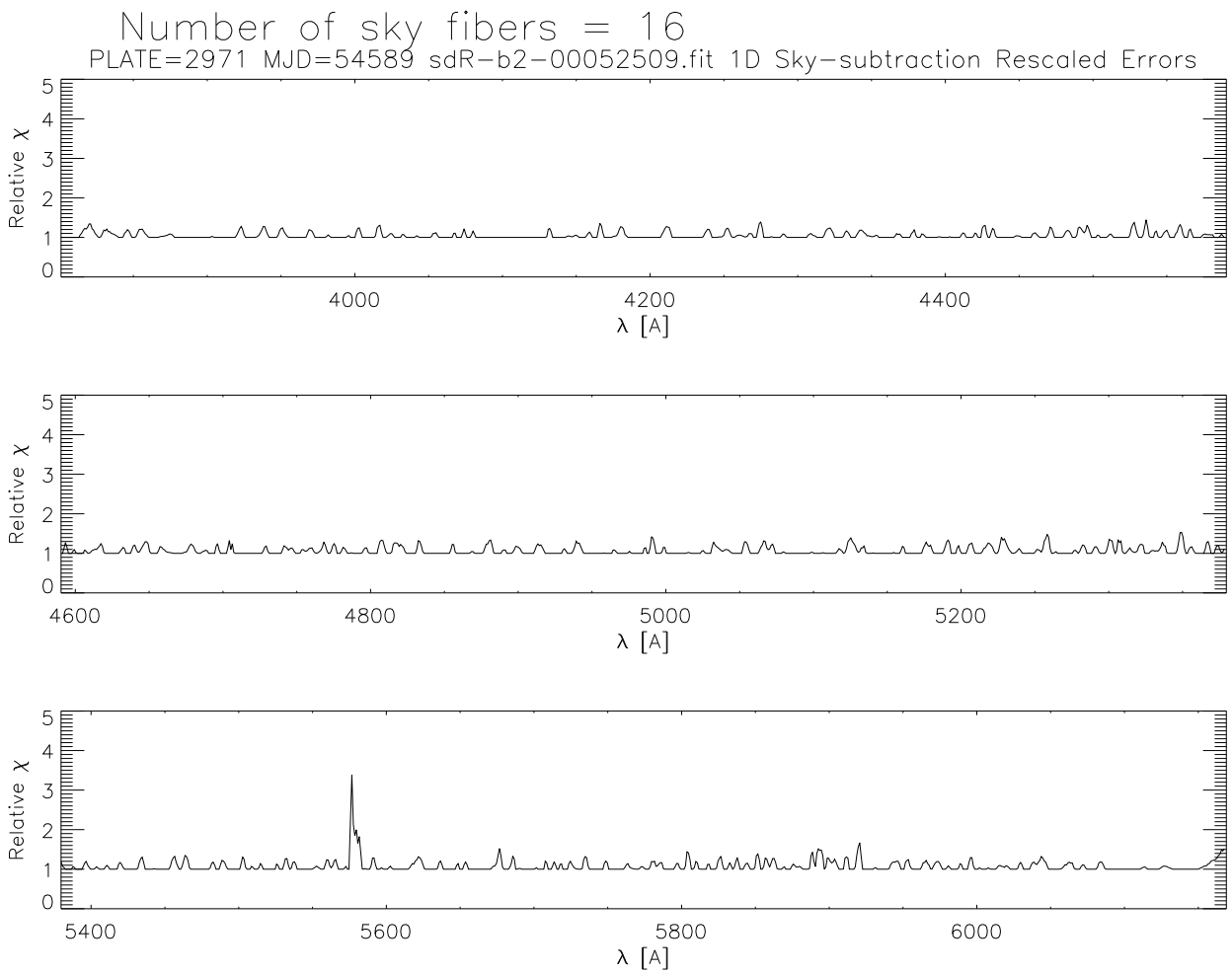

0.30
0.25
0.20
0.15
0.10
sky shift, pixels
3500
4000
4500
5000
5500
6000
6500

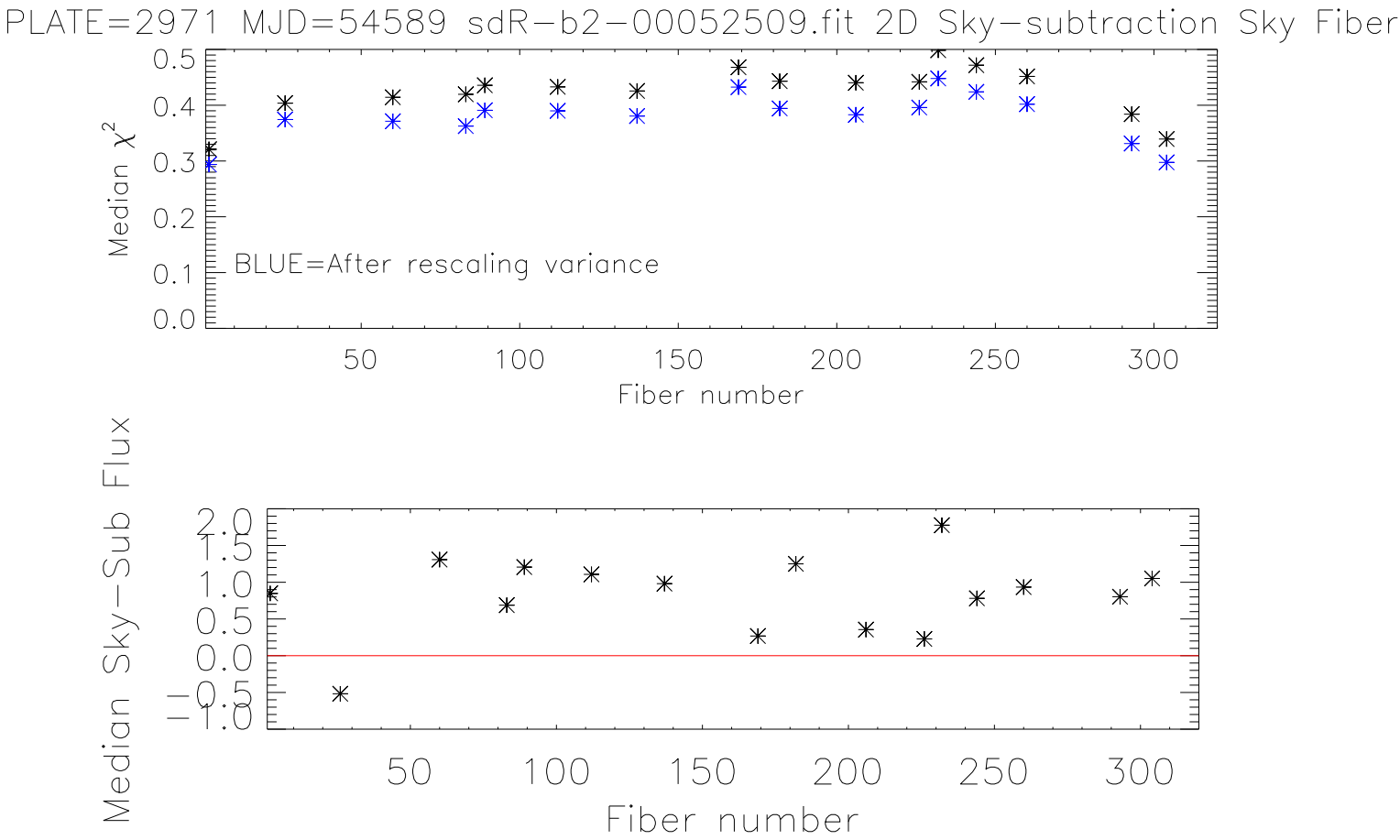

PLATE=2971 MJD=54589 Smooth superflat for sdR-b2-00052509.fit
1.5
1.0
0.5
0.0
1.006
1.004
1.002
1.000
0.998
0.996
0.994
es= -0.0000
4000
4500
5000
5500
6000
Wavelength (Å)

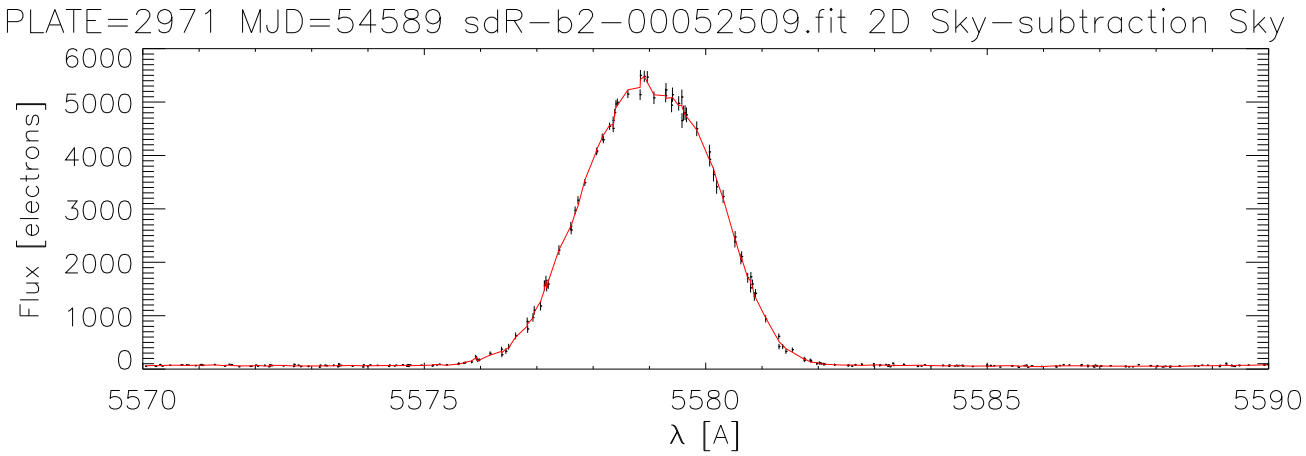

PLATE=2971 MJD=54589 sdR-b2-00052509.fit 1D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

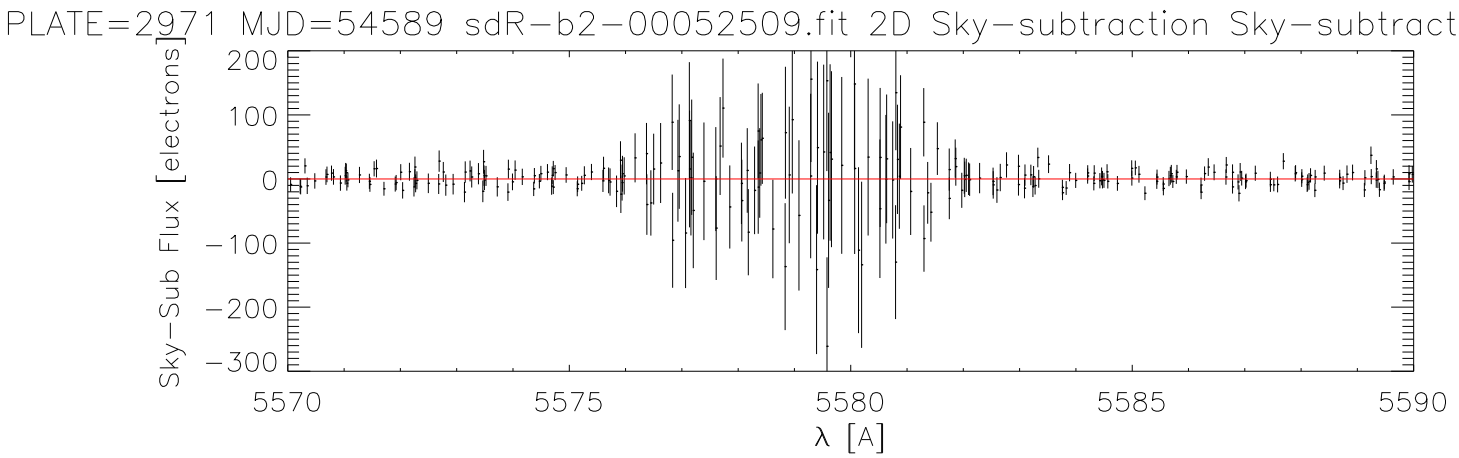

PLATE=2971 MJD=54589 sdR-b2-00052509.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
6000
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

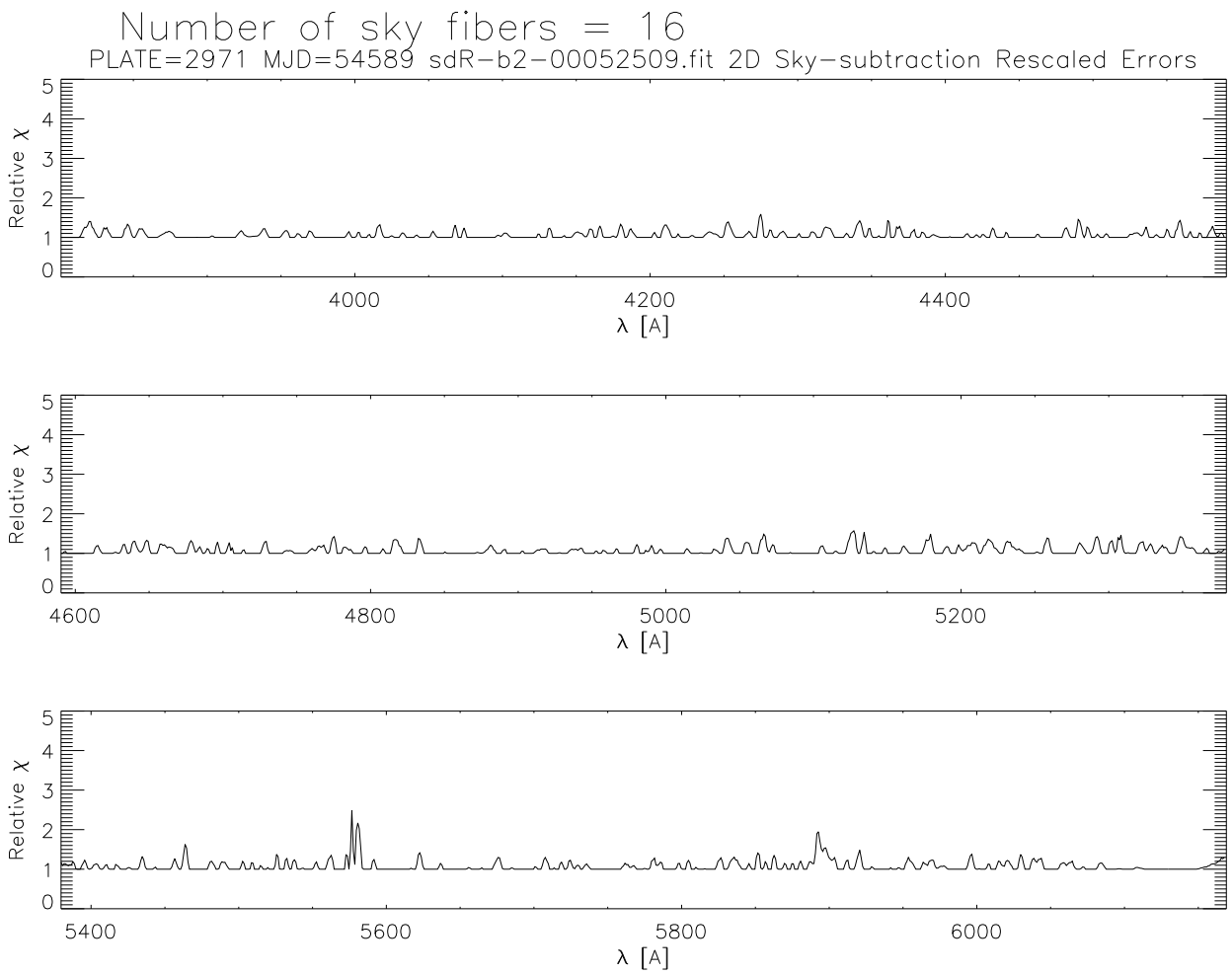

PLATE=2971 MJD=54589 sdR-b2-00052509.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
−100
−200
−300
5570
5575
5580
5585
5590
λ [A]

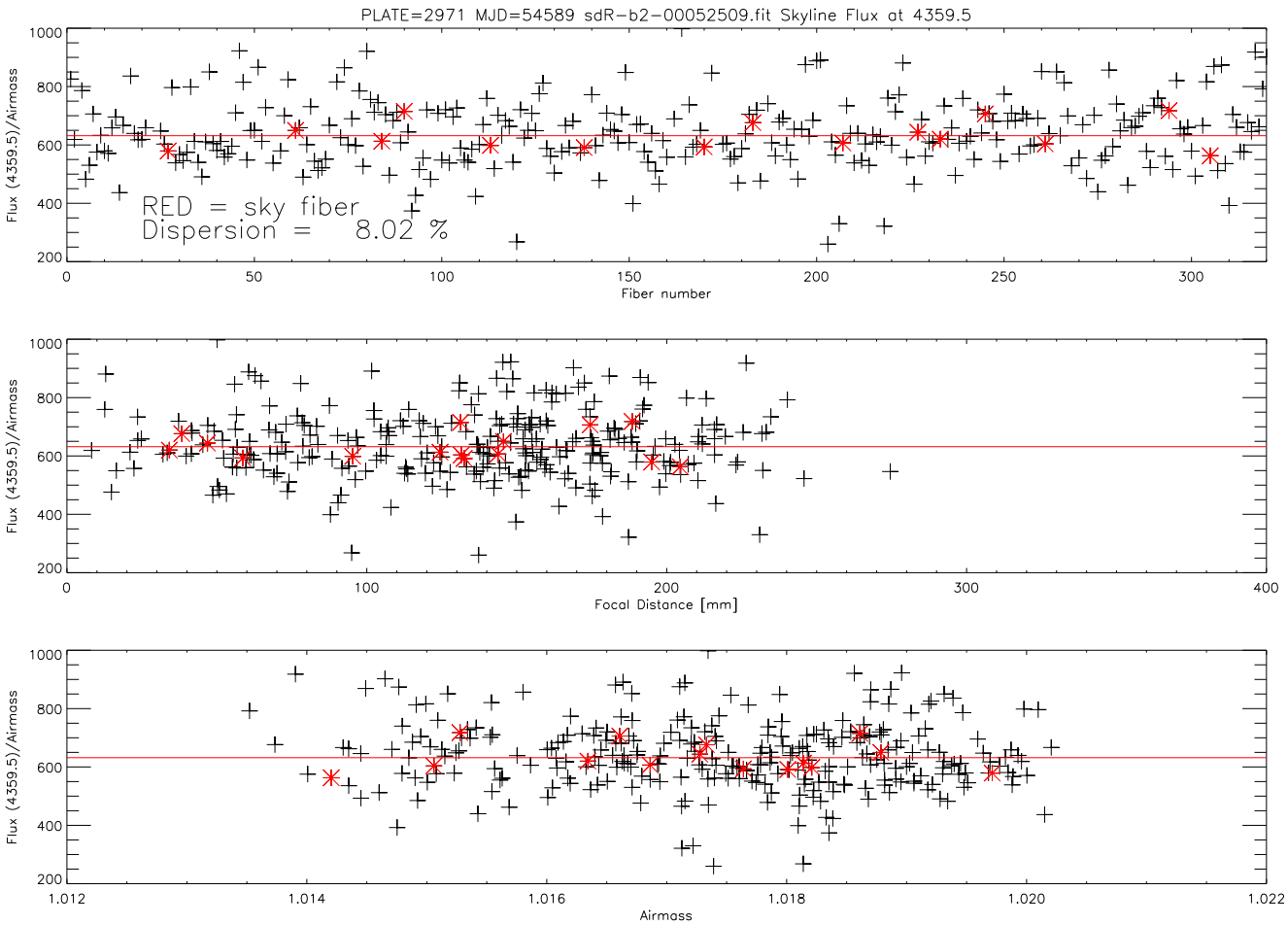

Number of sky fibers = 16
PLATE=2971 MJD=54589 sdR-b2-00052509.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

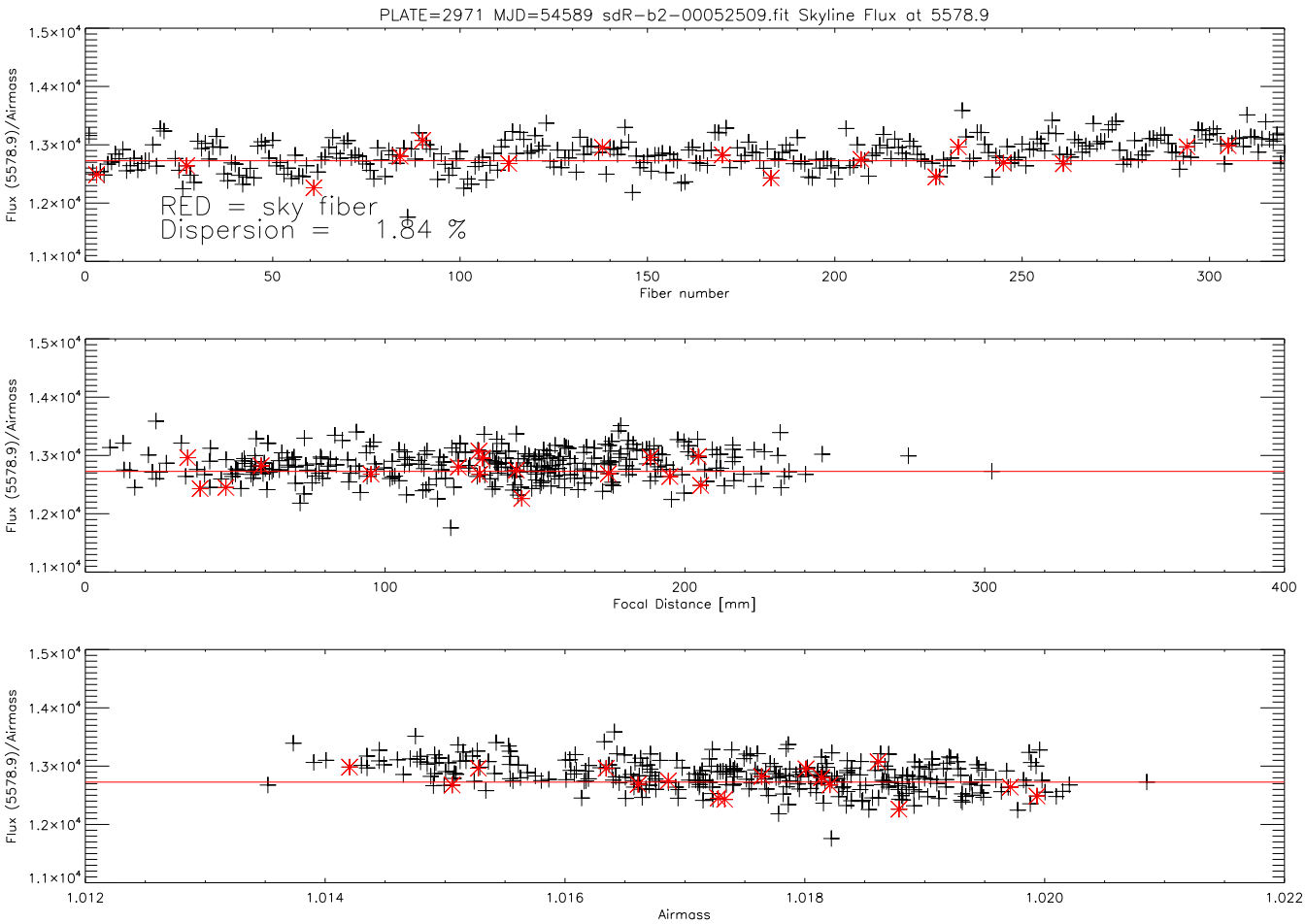

PLATE=2971 MJD=54589 sdR-b2-00052509.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

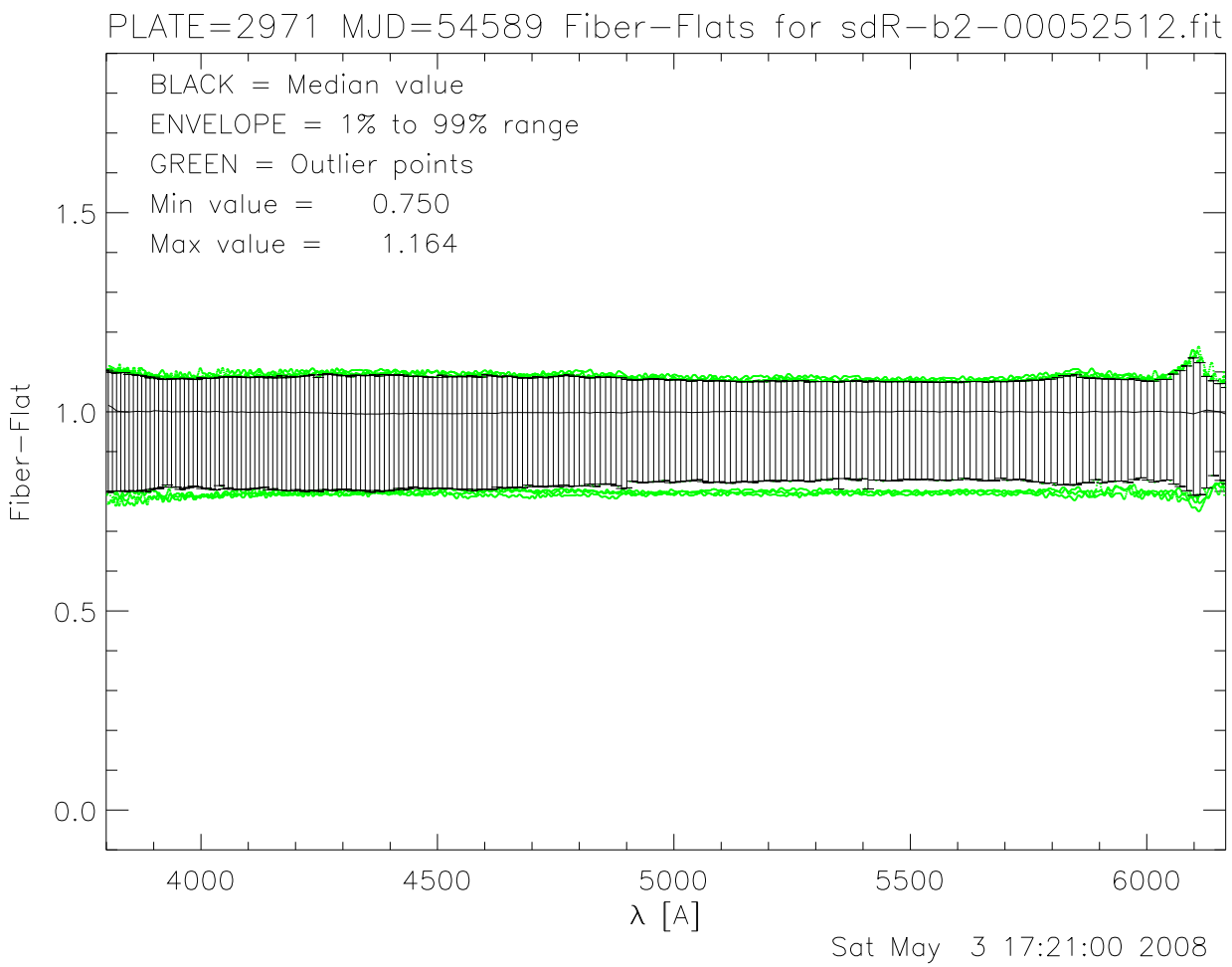

PLATE=2971 MJD=54589 sdR-b2-00052509.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
6000
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

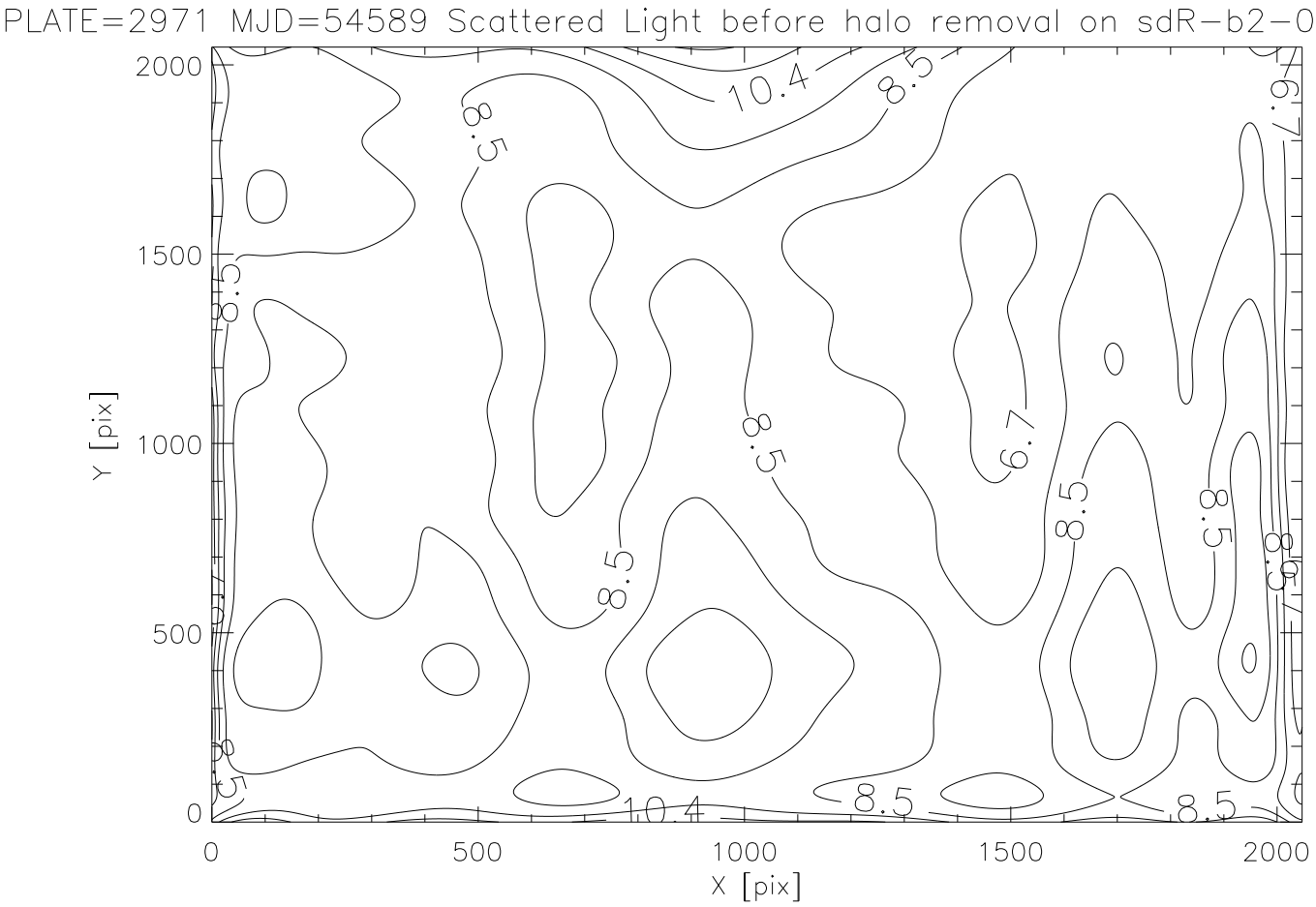

PLATE=2971 MJD=54589 sdR-b2-00052509.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
-300
5570
5575
5580
5585
5590
λ [A]

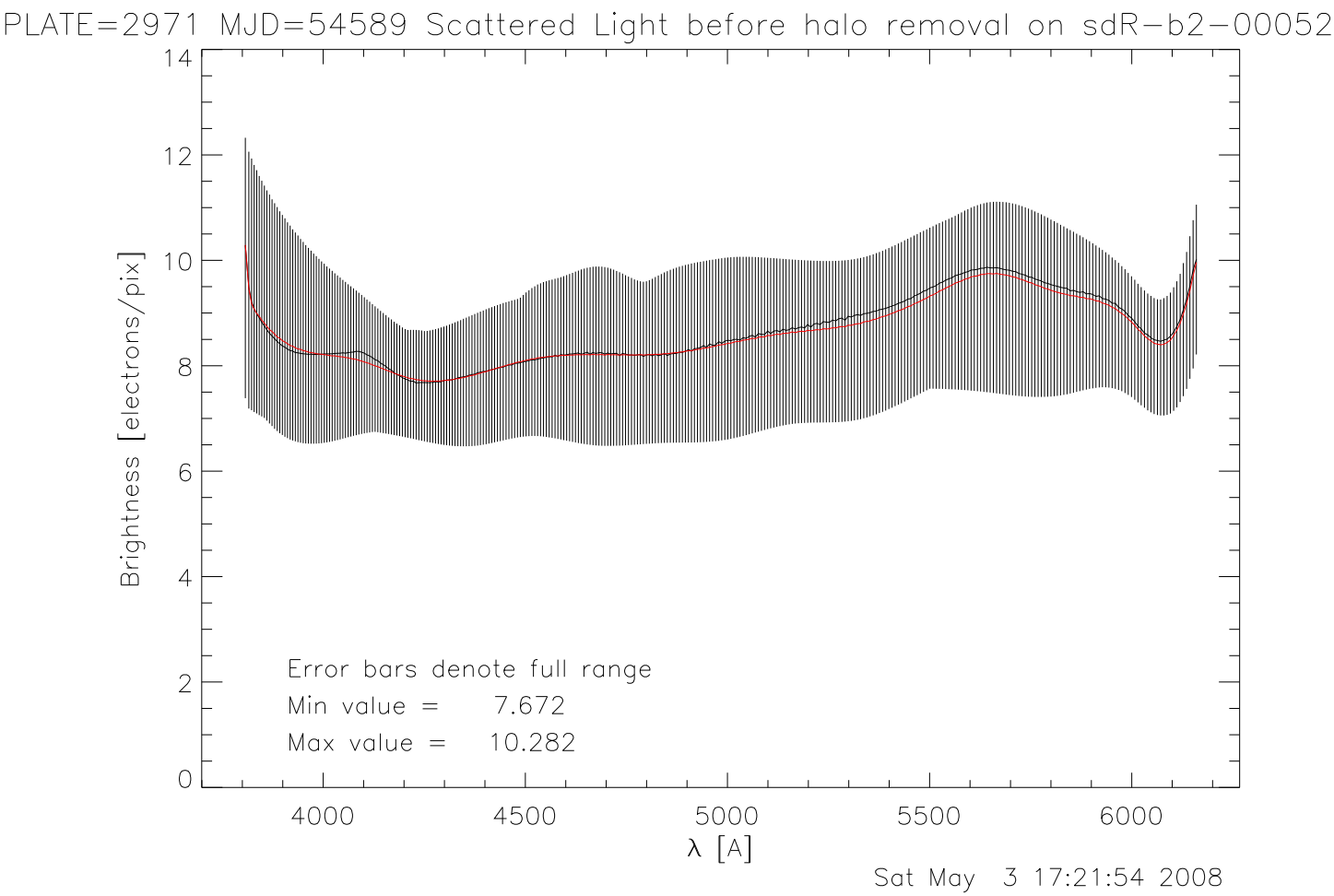

Number of sky fibers = 16
PLATE=2971 MJD=54589 sdR-b2-00052509.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

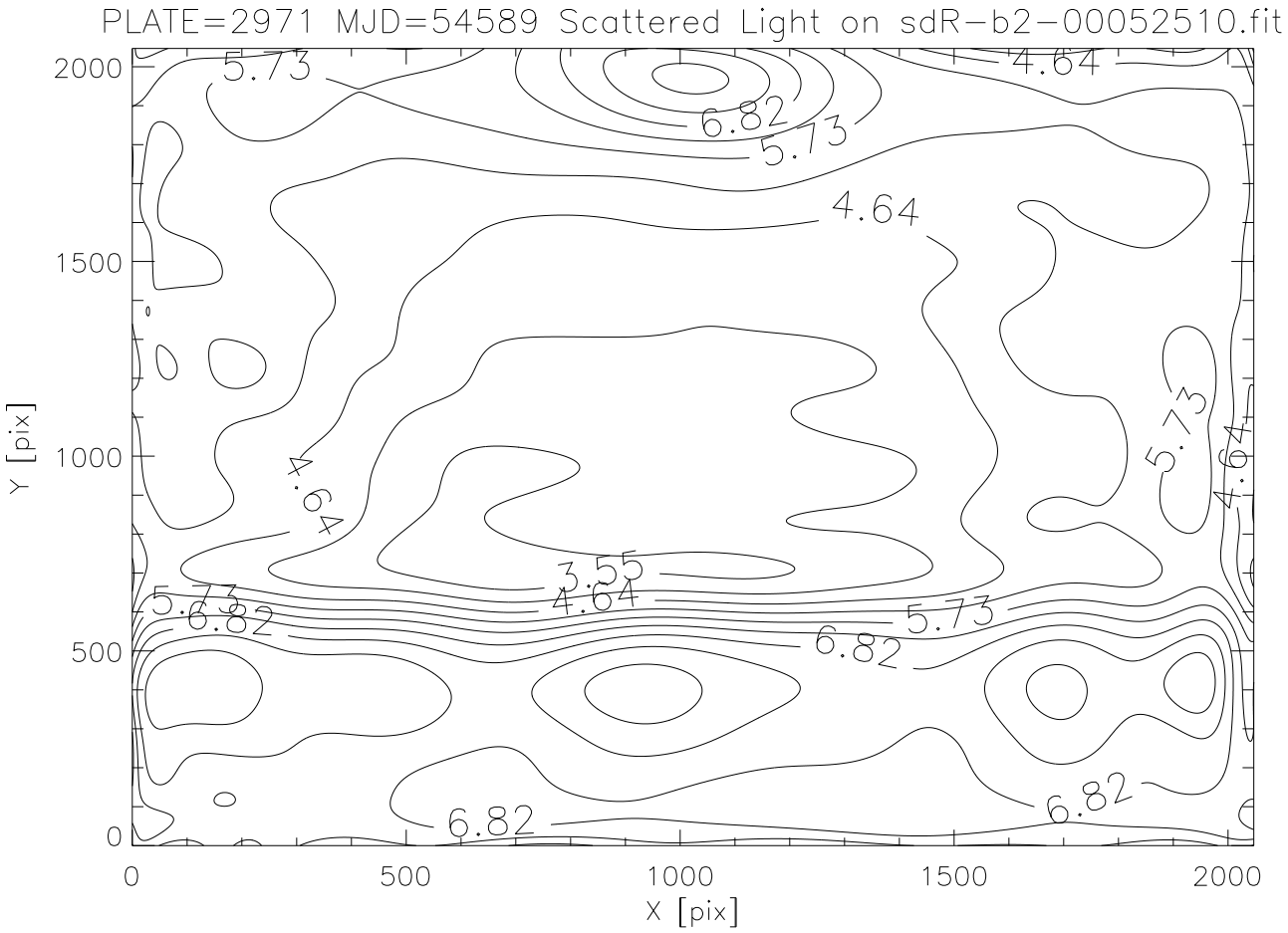

PLATE=2971 MJD=54589 sdR-b2-00052509.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 8.02 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

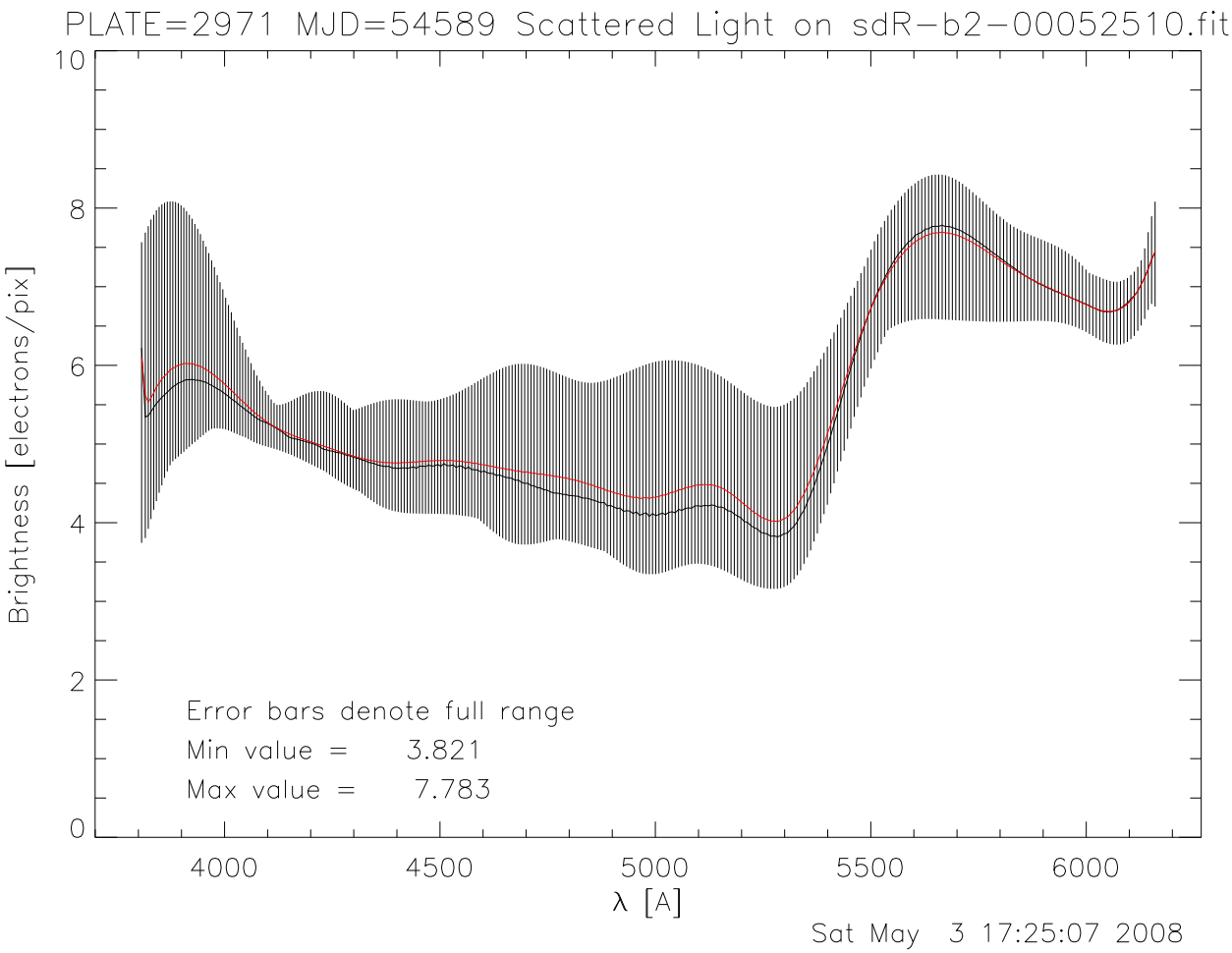

PLATE=2971 MJD=54589 sdR-b2-00052509.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
Fiber number
RED = sky fiber
Dispersion = 1.84 %
Flux (5578.9)/Airmass
Focal Distance [mm]
Flux (5578.9)/Airmass
Airmass

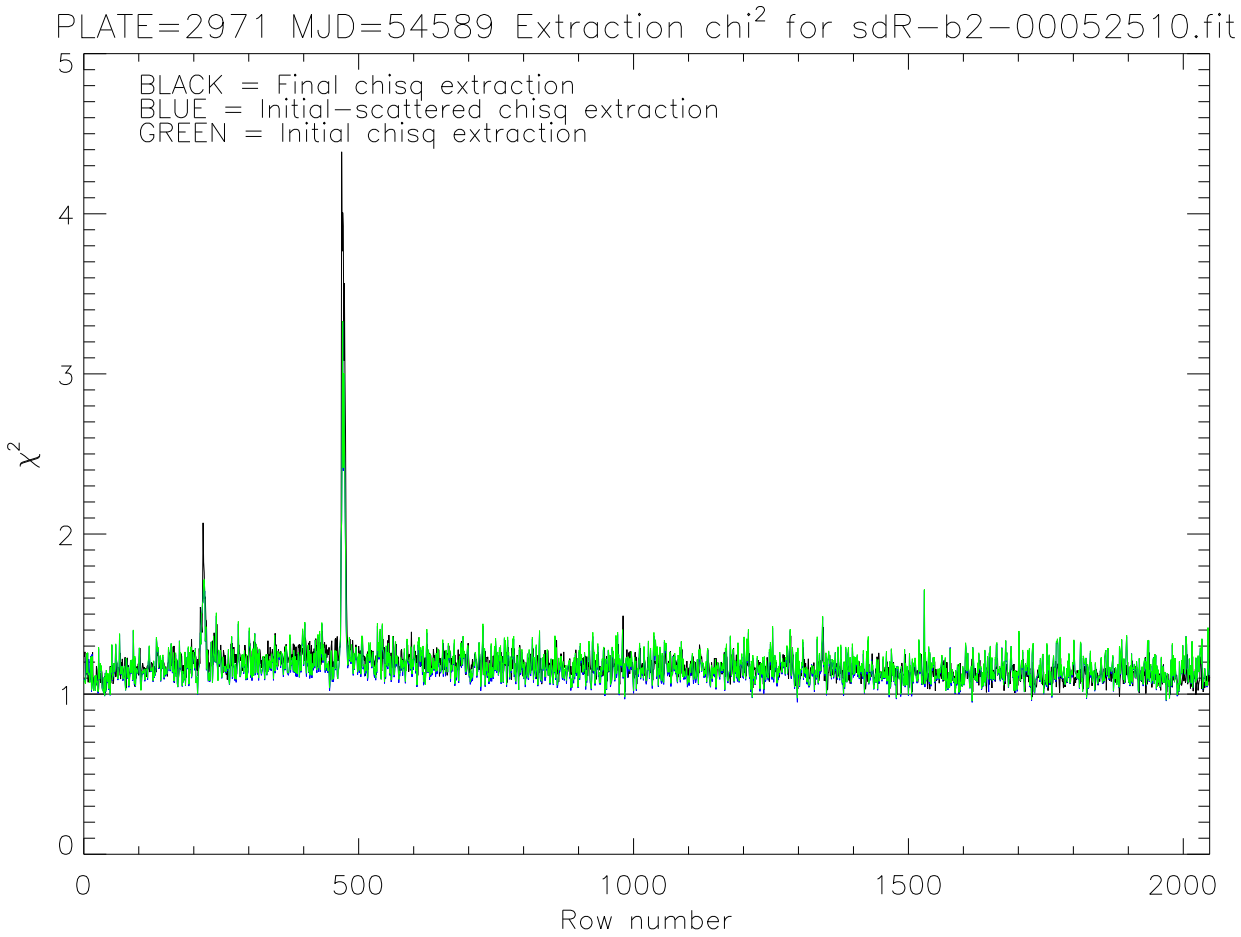

PLATE=2971 MJD=54589 Fiber-Flats for sdR-b2-00052512.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.750
Max value = 1.164
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Sat May 3 17:21:00 2008

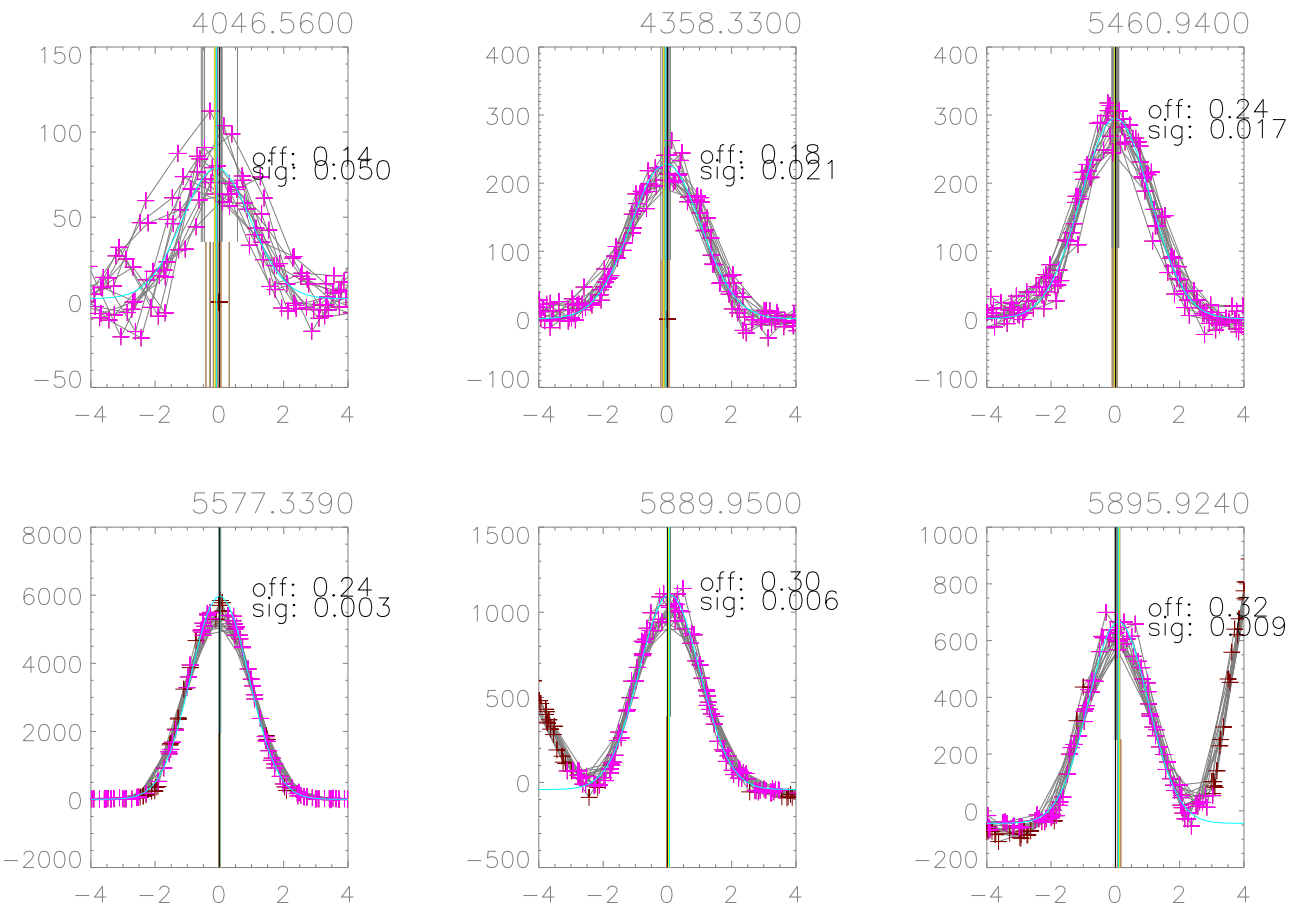

PLATE=2971 MJD=54589 Scattered Light before halo removal on sdR−b2−00052510.f
Y [pix]
X [pix]
0
500
1000
1500
2000
10.4
8.5
6.7
0

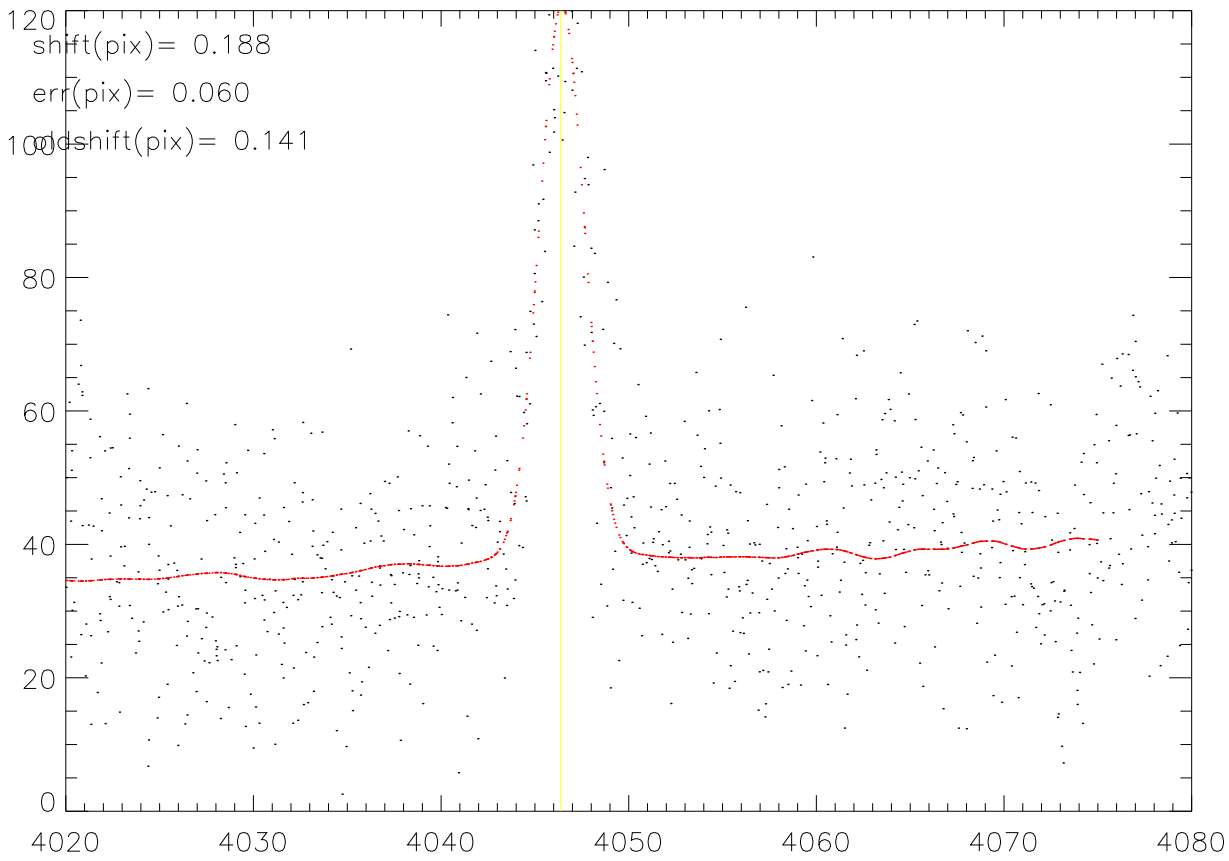

PLATE=2971 MJD=54589 Scattered Light before halo removal on sdR-b2-00052510.f
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 7.672
Max value = 10.282
Sat May 3 17:21:54 2008

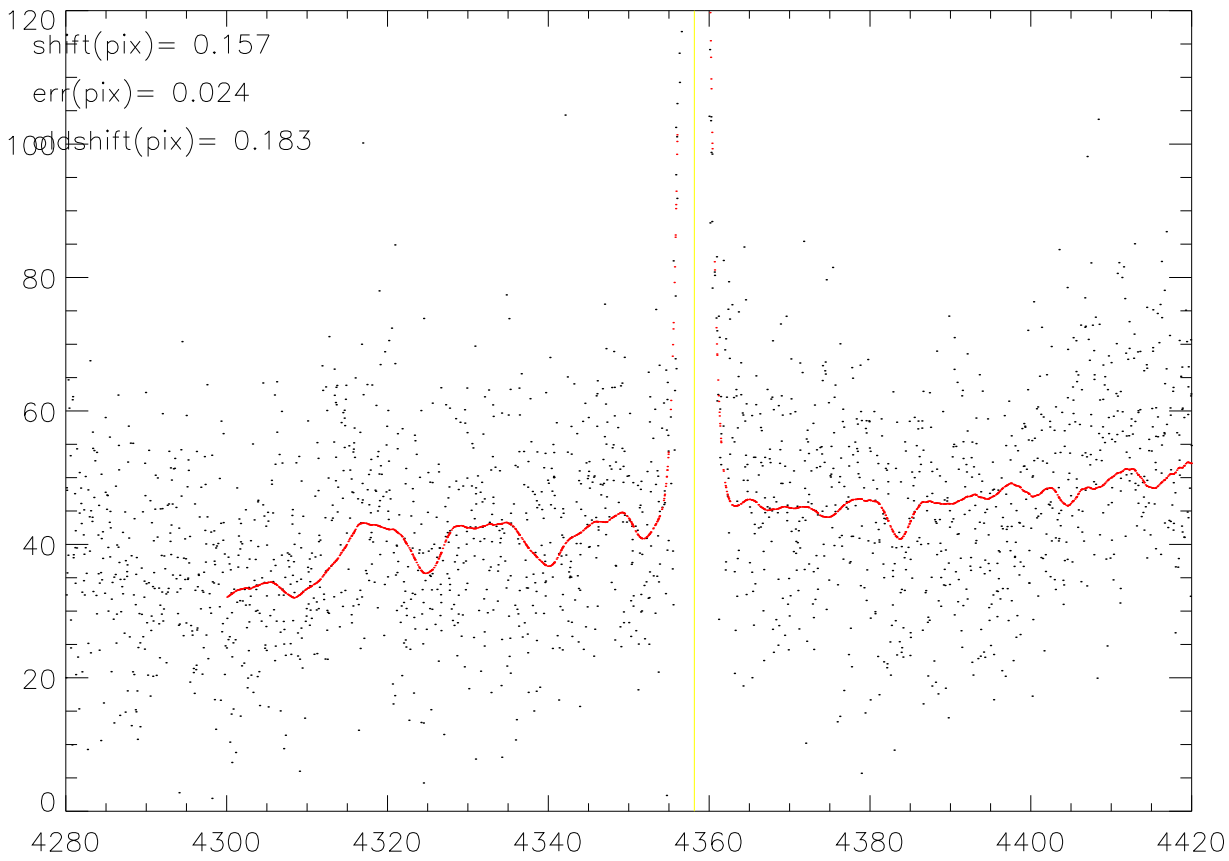

PLATE=2971 MJD=54589 Scattered Light on sdR-b2-00052510.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
5.73
6.82
4.64
3.55

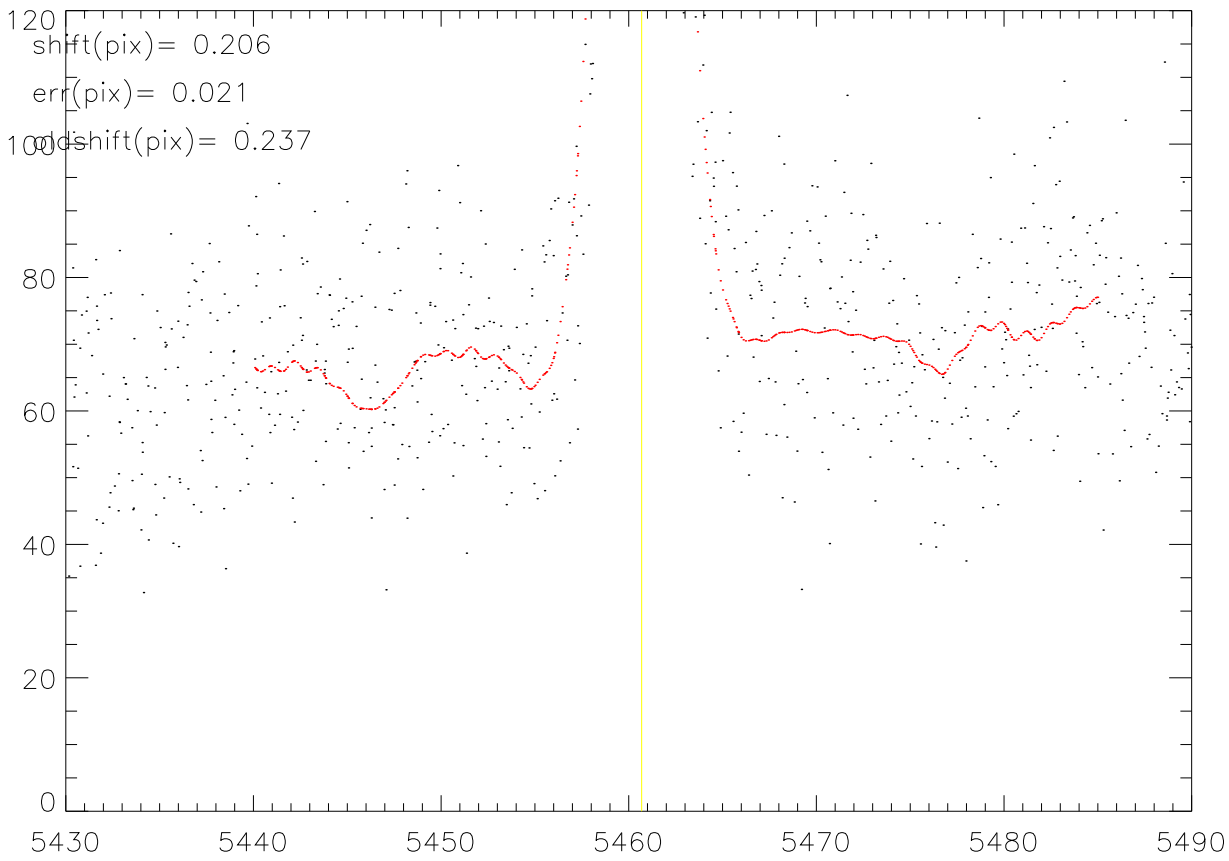

PLATE=2971 MJD=54589 Scattered Light on sdR-b2-00052510.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 3.821
Max value = 7.783
Sat May 3 17:25:07 2008

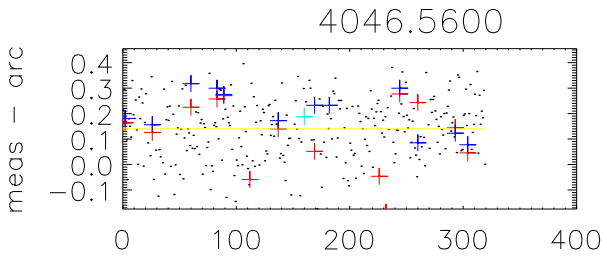

PLATE=2971 MJD=54589 Extraction chi^2 for sdR−b2−00052510.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
5
0
500
1000
1500
2000
Row number

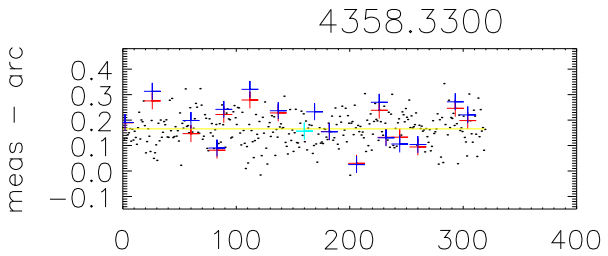

4046.5600
off: 0.14
sig: 0.050
4358.3300
off: 0.18
sig: 0.021
5460.9400
off: 0.24
sig: 0.017
5577.3390
off: 0.24
sig: 0.003
5889.9500
off: 0.30
sig: 0.006
5895.9240
off: 0.32
sig: 0.009

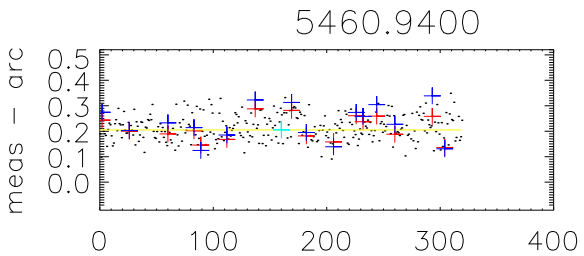

shift(pix)= 0.188
err(pix)= 0.060
oldshift(pix)= 0.141
120
100
80
60
40
20
0
4020
4030
4040
4050
4060
4070
4080

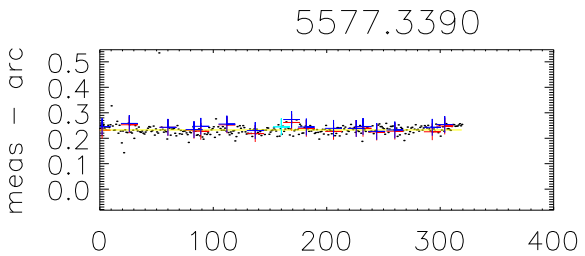

shift(pix)= 0.157
err(pix)= 0.024
oldshift(pix)= 0.183
120
100
80
60
40
20
0
4280
4300
4320
4340
4360
4380
4400
4420

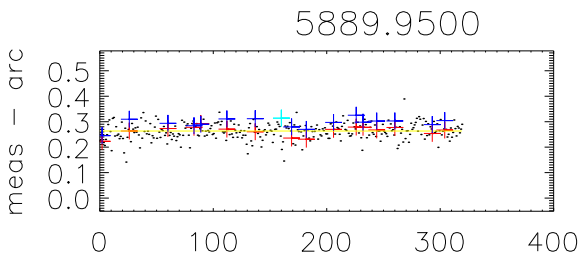

shift(pix)= 0.206
err(pix)= 0.021
oldshift(pix)= 0.237
120
100
80
60
40
20
0
5430
5440
5450
5460
5470
5480
5490

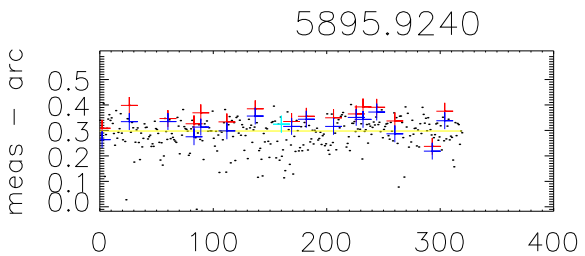

4046.5600
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

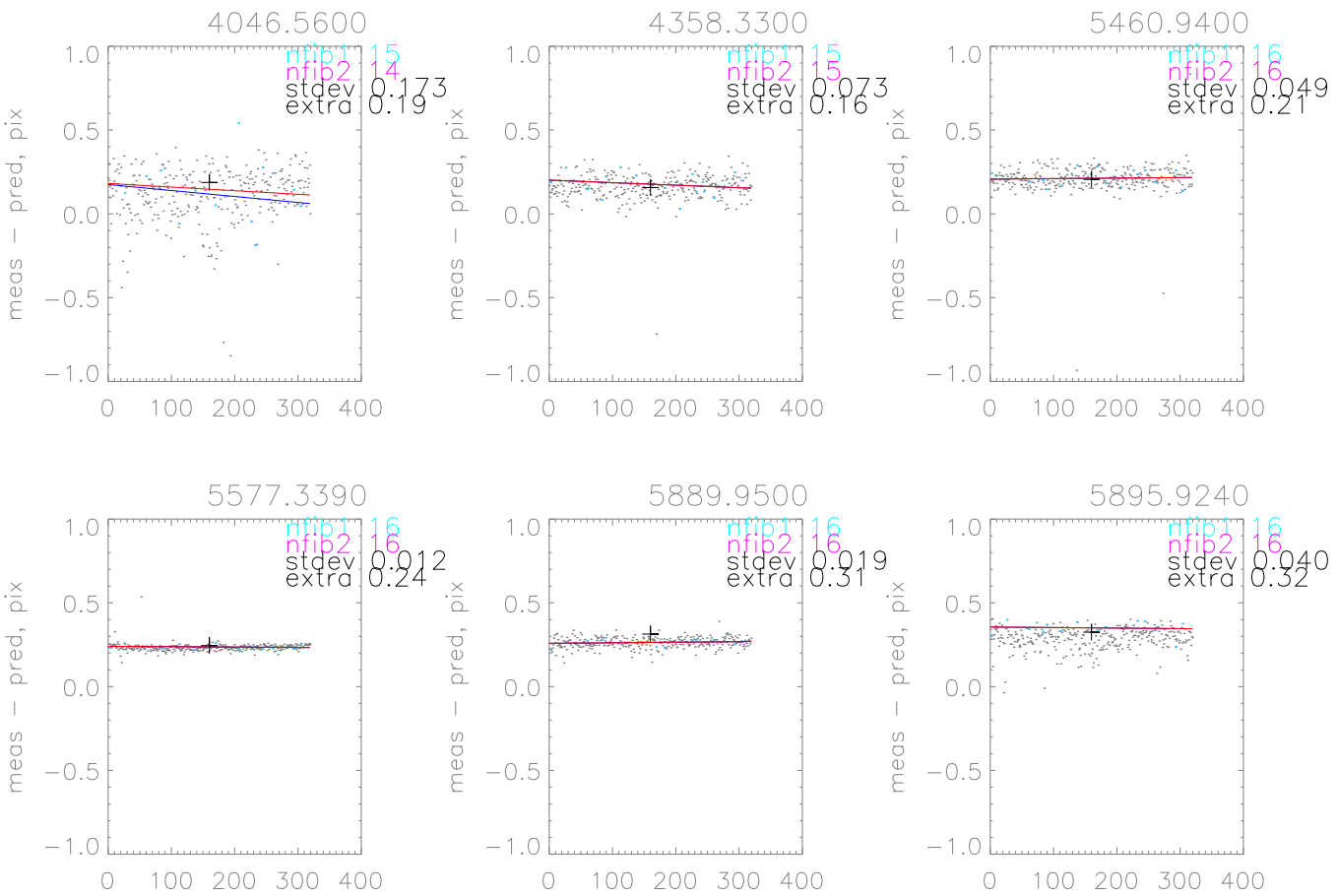

4358.3300
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

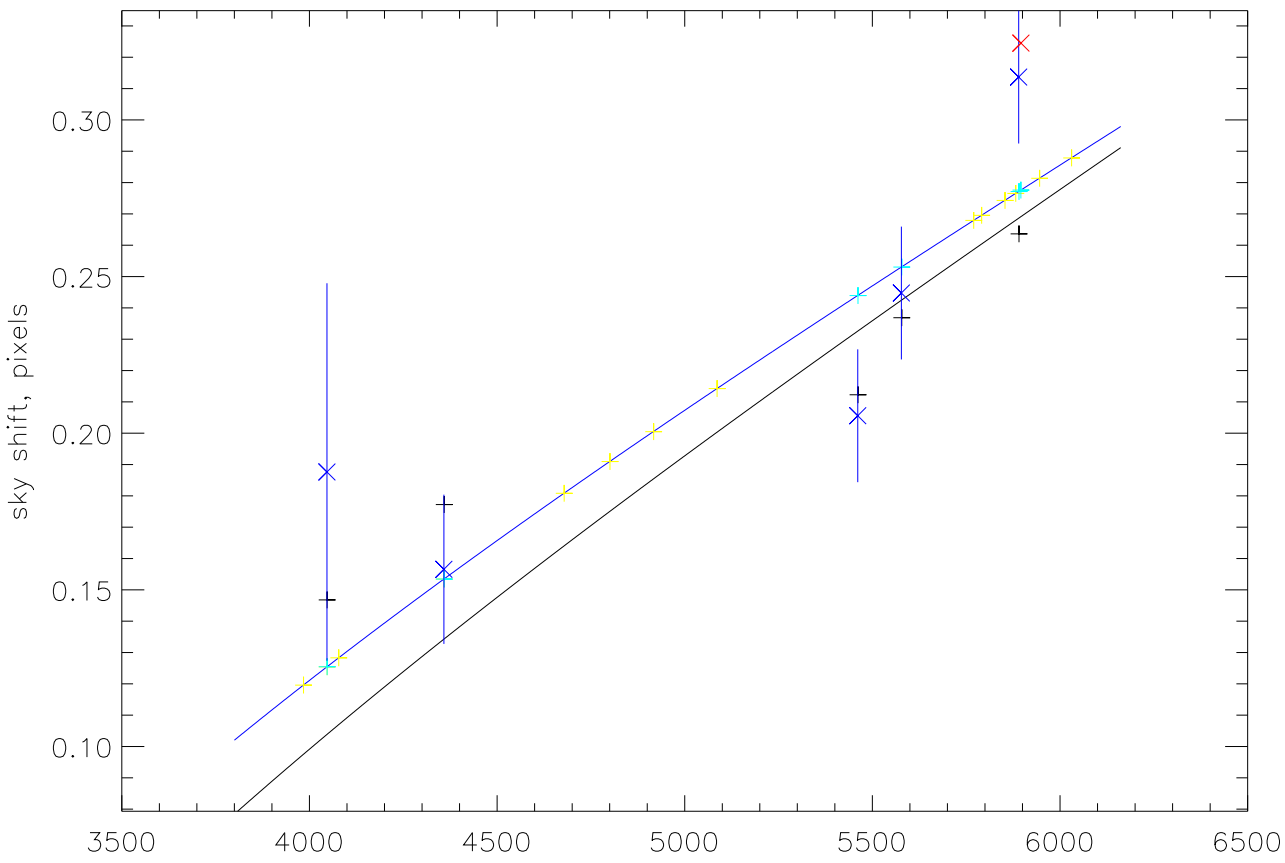

5460.9400
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

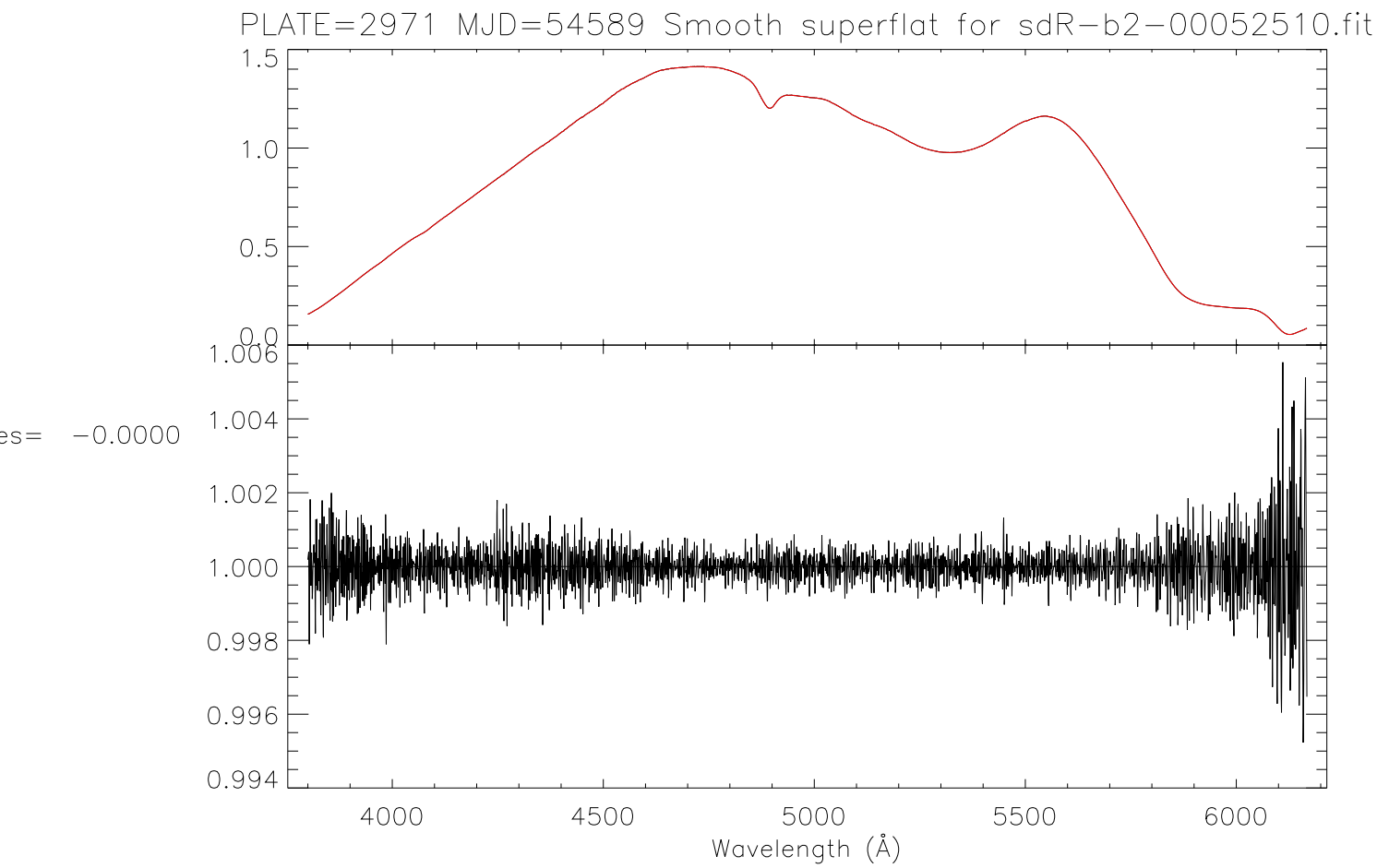

5577.3390
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400


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

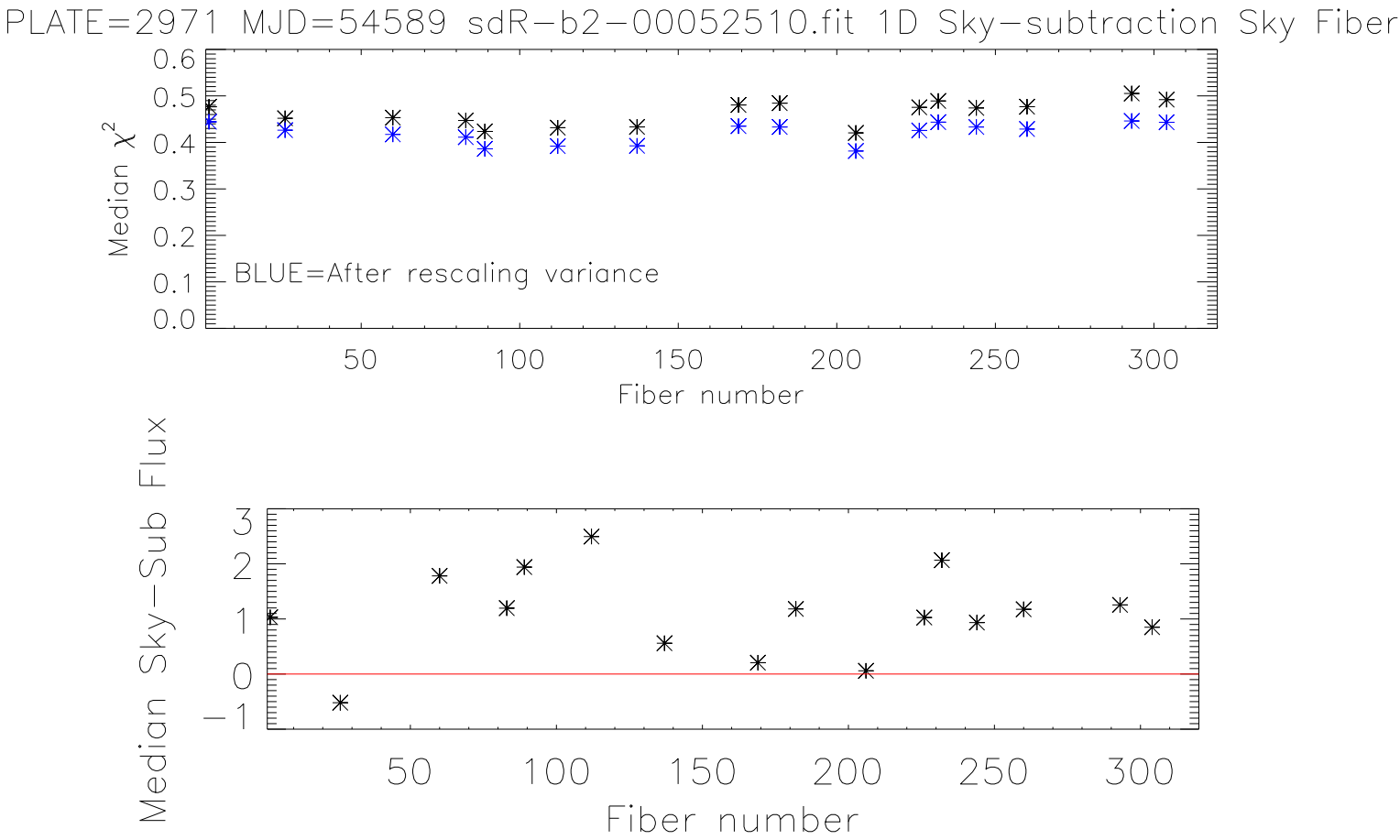

5895.9240
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

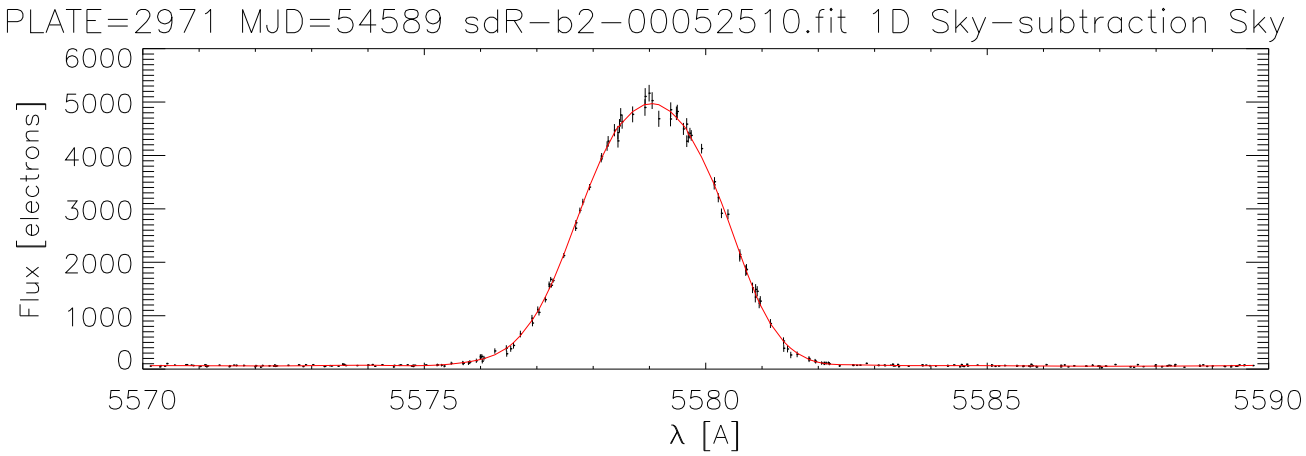

4046.5600
nfib1 15
nfib2 14
stdev 0.173
extra 0.19
4358.3300
nfib1 15
nfib2 15
stdev 0.073
extra 0.16
5460.9400
nfib1 16
nfib2 16
stdev 0.049
extra 0.21
5577.3390
nfib1 16
nfib2 16
stdev 0.012
extra 0.24
5889.9500
nfib1 16
nfib2 16
stdev 0.019
extra 0.31
5895.9240
nfib1 16
nfib2 16
stdev 0.040
extra 0.32
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

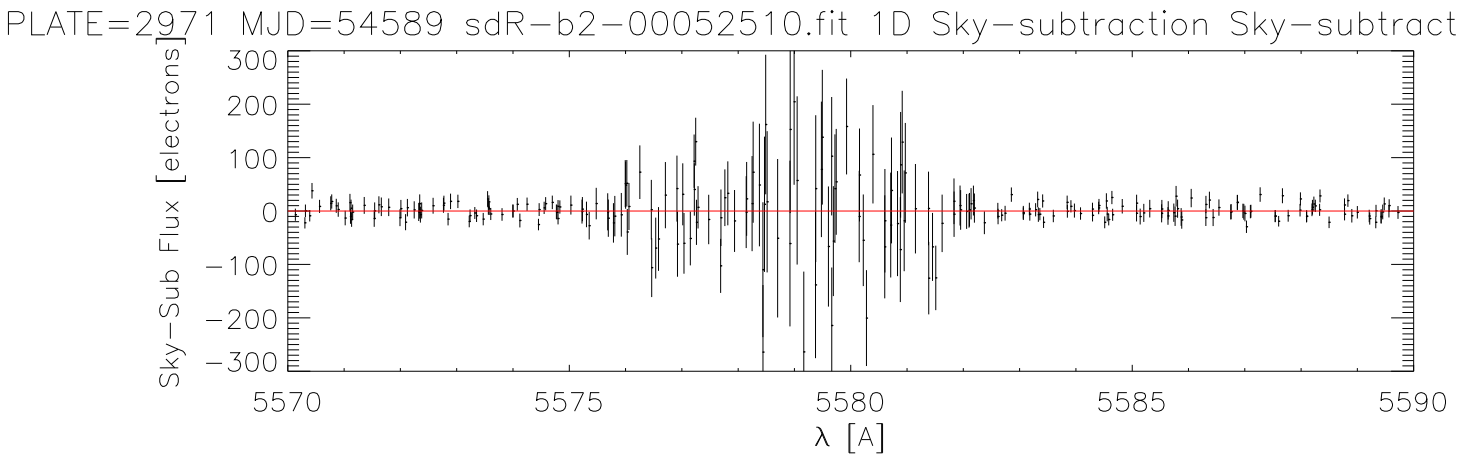

sky shift, pixels
0.30
0.25
0.20
0.15
0.10
3500
4000
4500
5000
5500
6000
6500

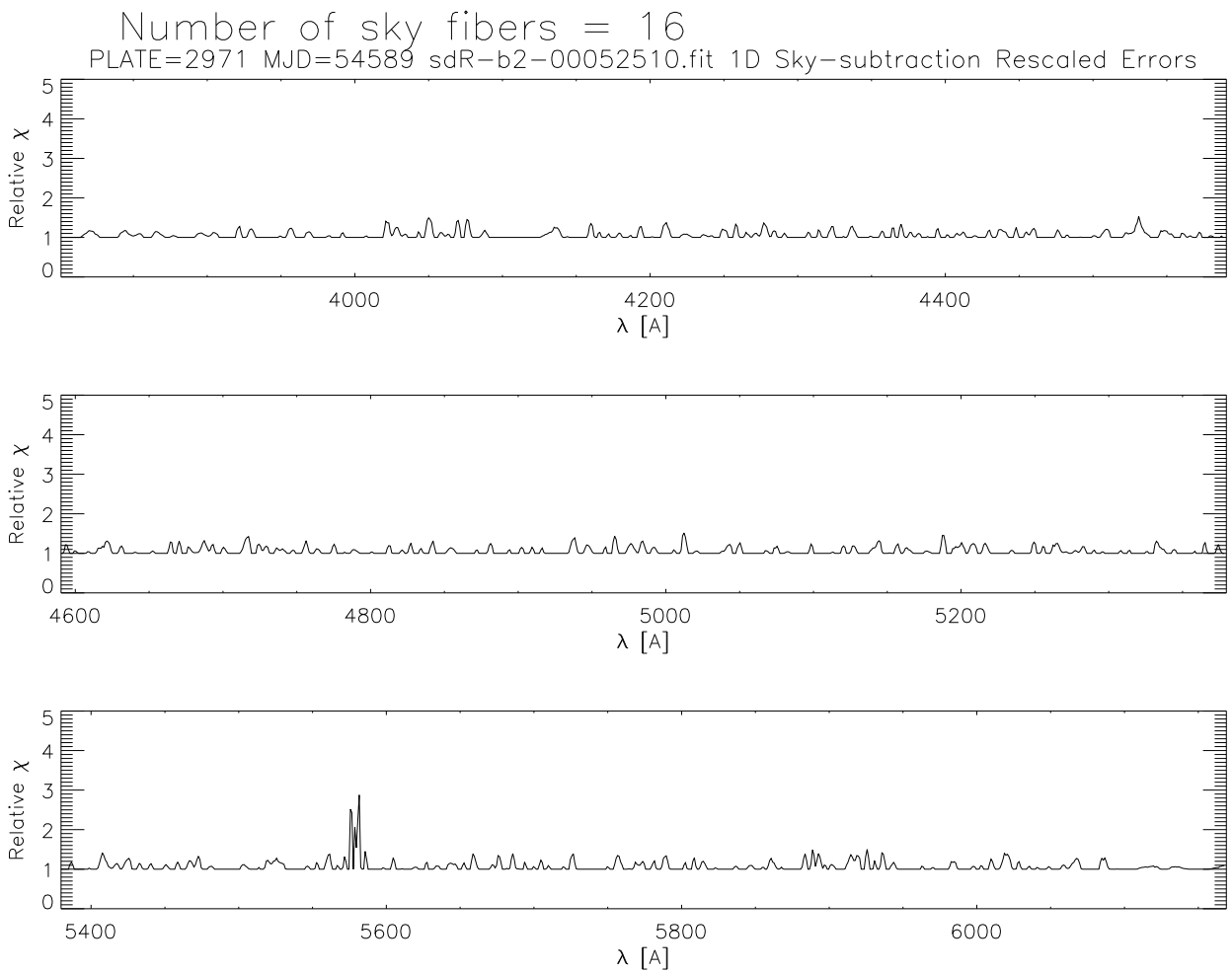

PLATE=2971 MJD=54589 Smooth superflat for sdR-b2-00052510.fit
1.5
1.0
0.5
0.0
1.006
1.004
1.002
1.000
0.998
0.996
0.994
4000
4500
5000
5500
6000
Wavelength (Å)

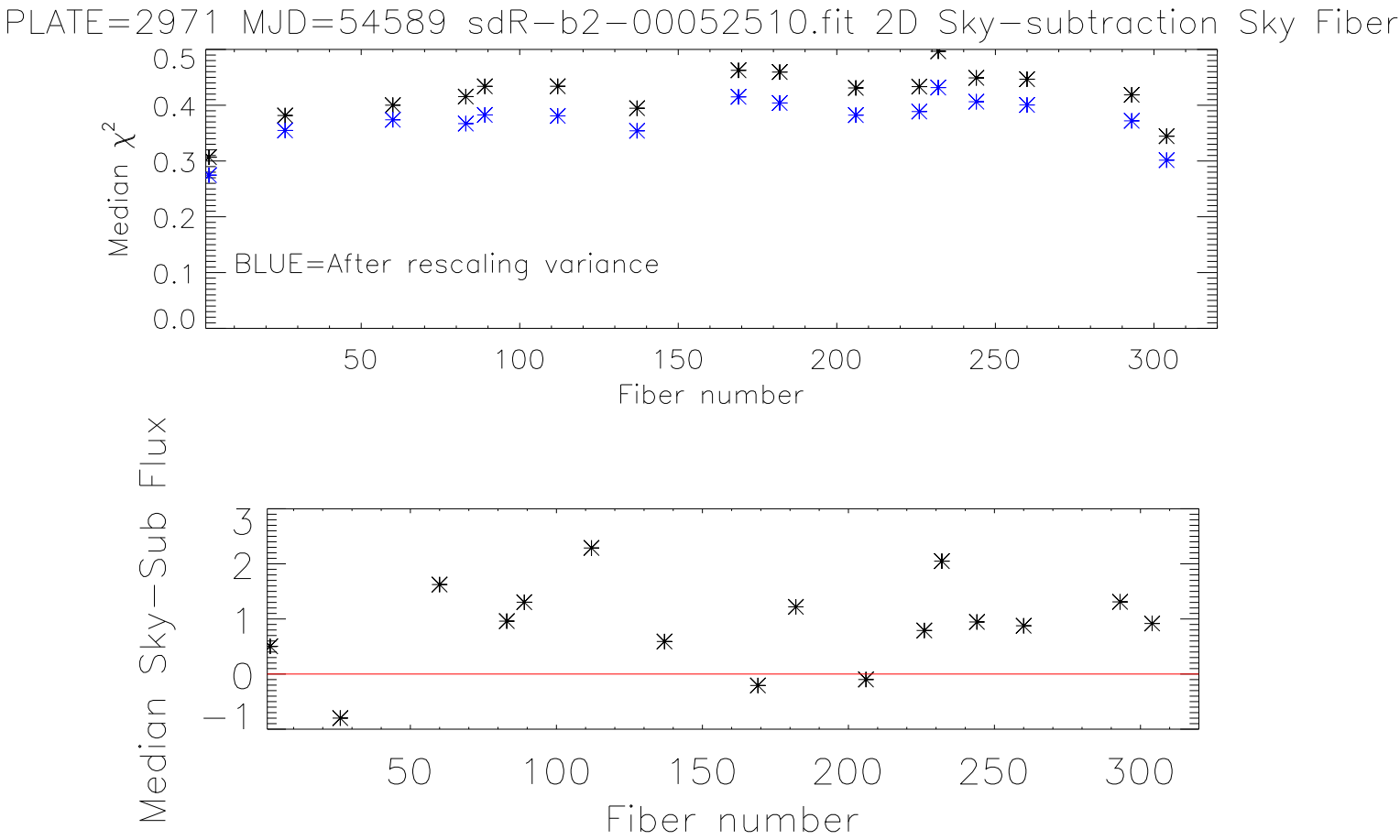
es= −0.0000

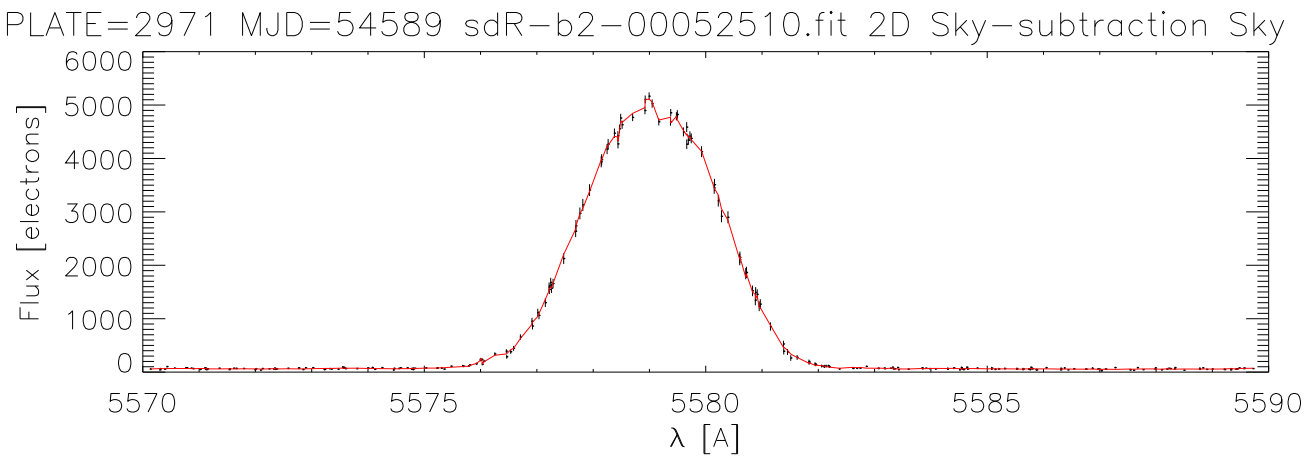

PLATE=2971 MJD=54589 sdR-b2-00052510.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
−1
0
1
2
3
50
100
150
200
250
300
Fiber number

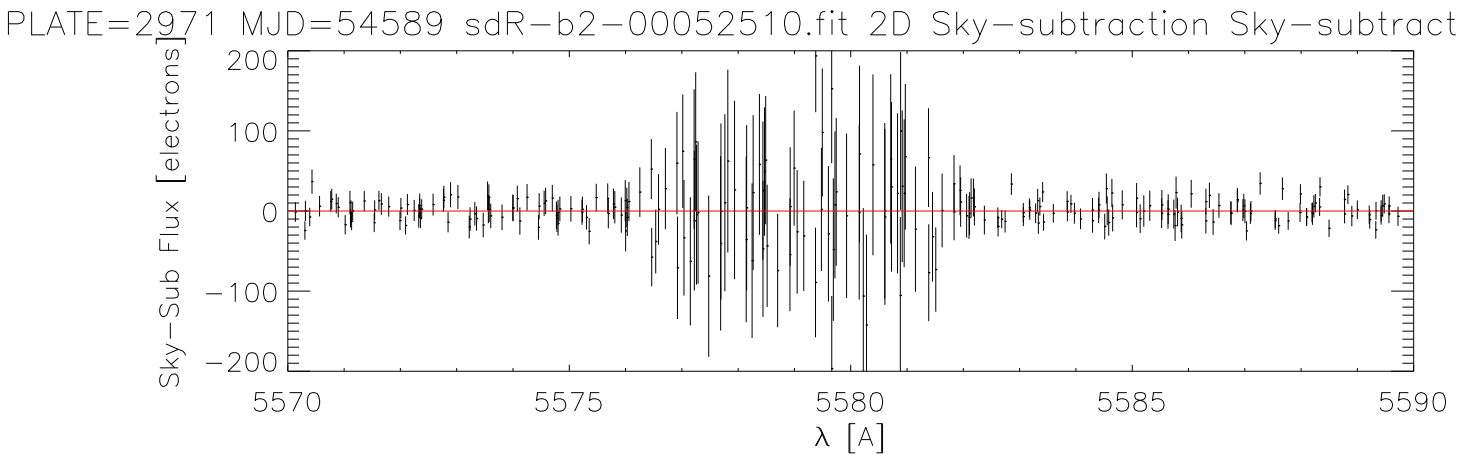

PLATE=2971 MJD=54589 sdR-b2-00052510.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
6000
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

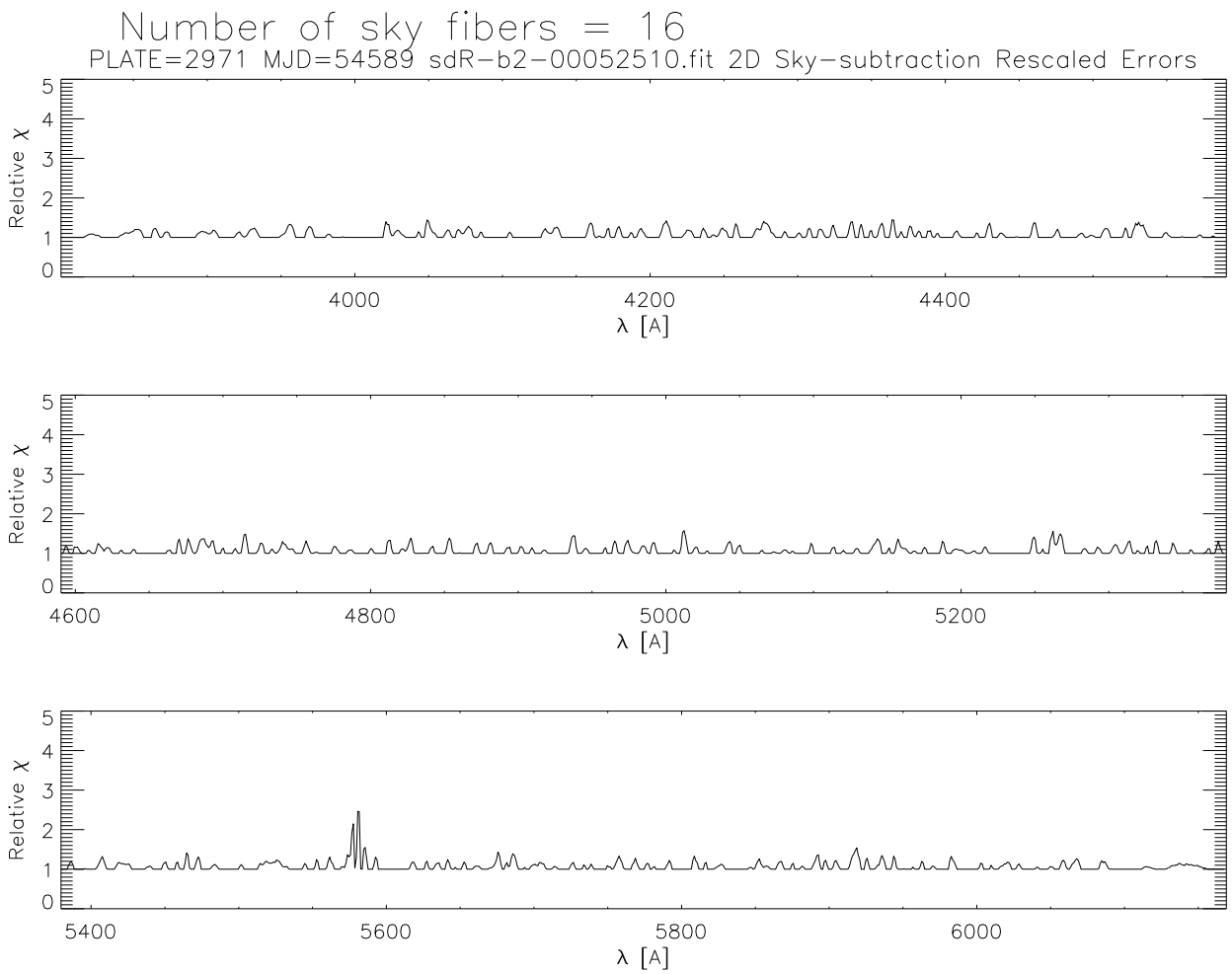

PLATE=2971 MJD=54589 sdR-b2-00052510.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
-300
5570
5575
5580
5585
5590
λ [A]

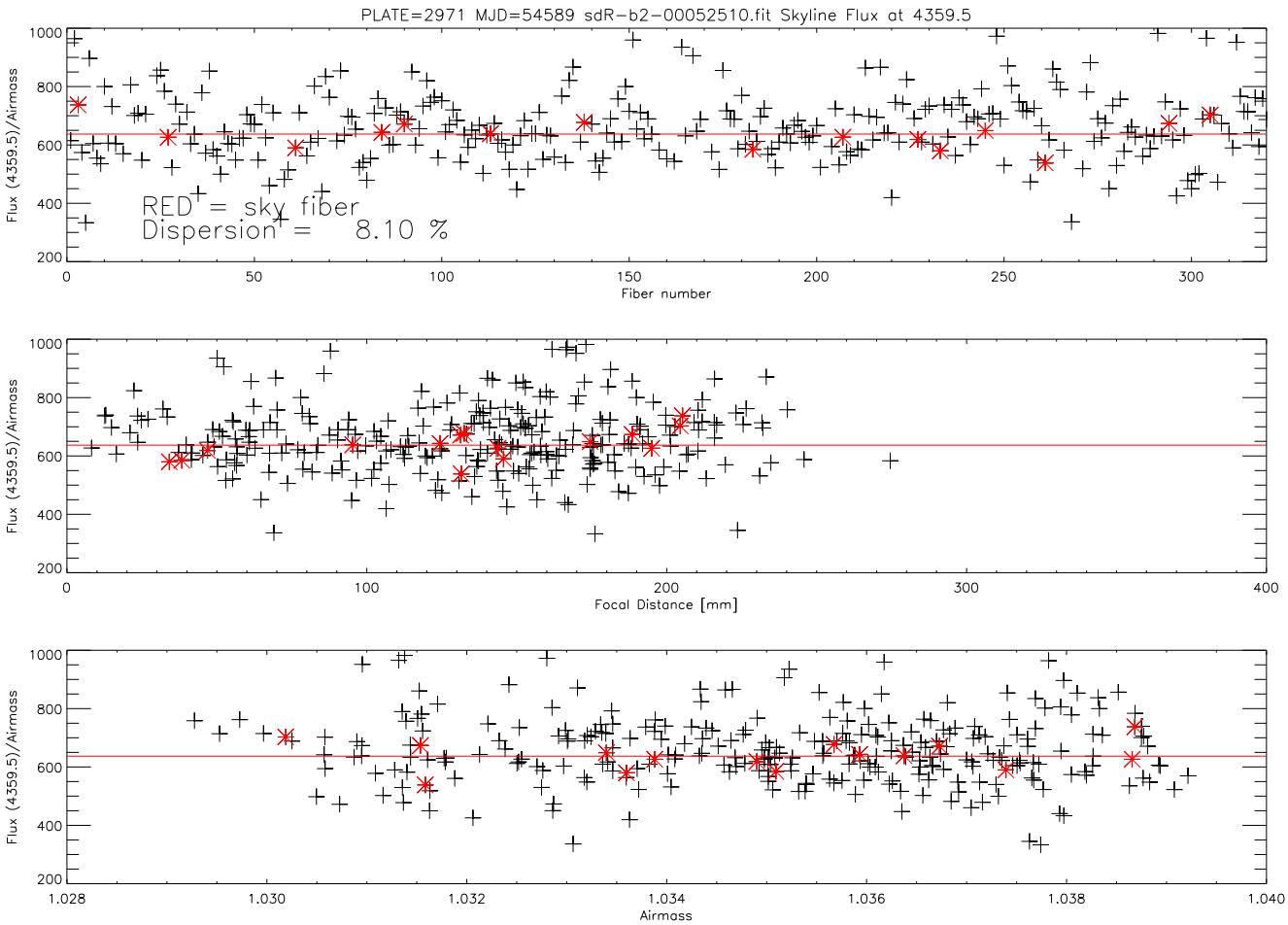

Number of sky fibers = 16
PLATE=2971 MJD=54589 sdR-b2-00052510.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

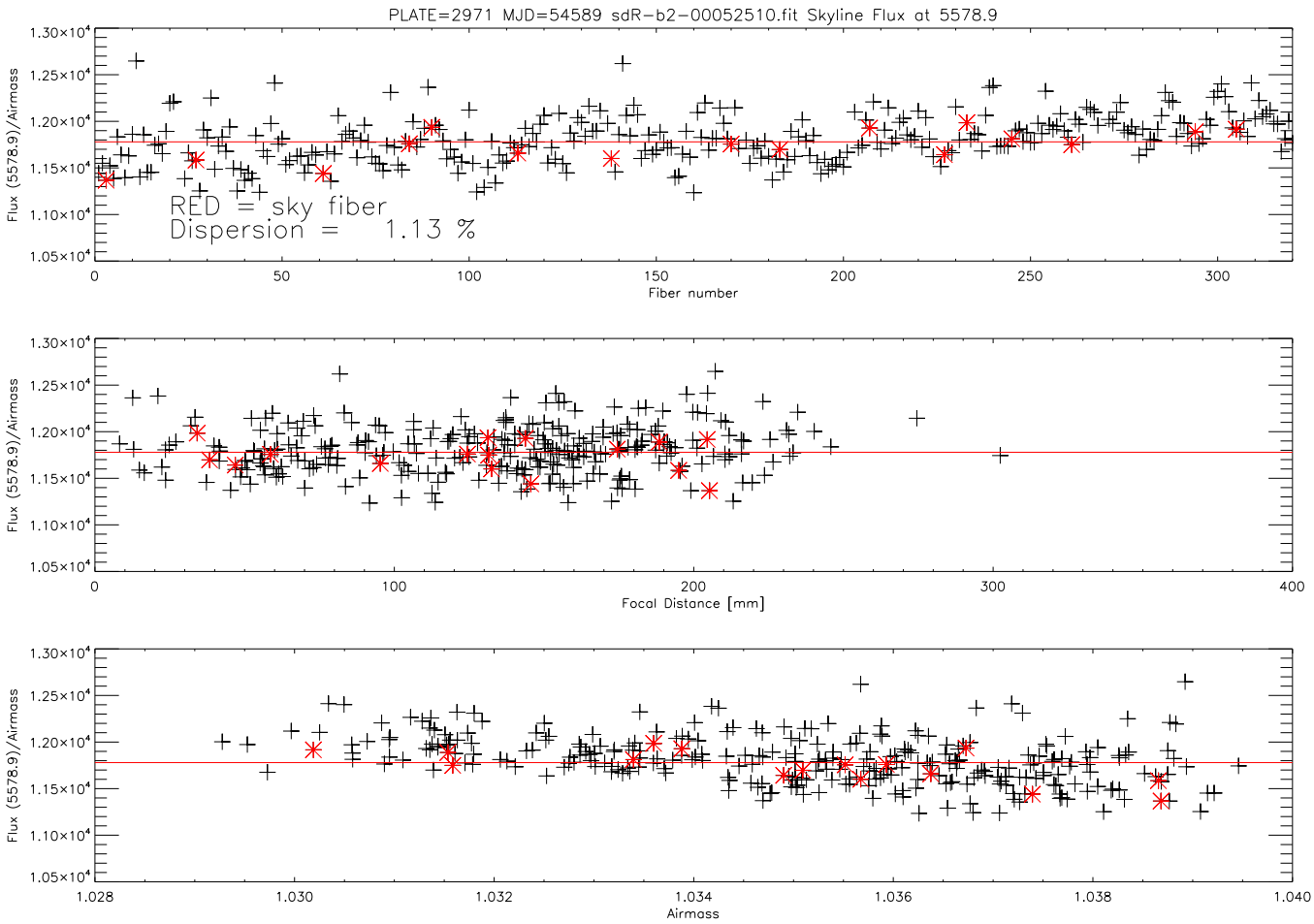

PLATE=2971 MJD=54589 sdR-b2-00052510.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

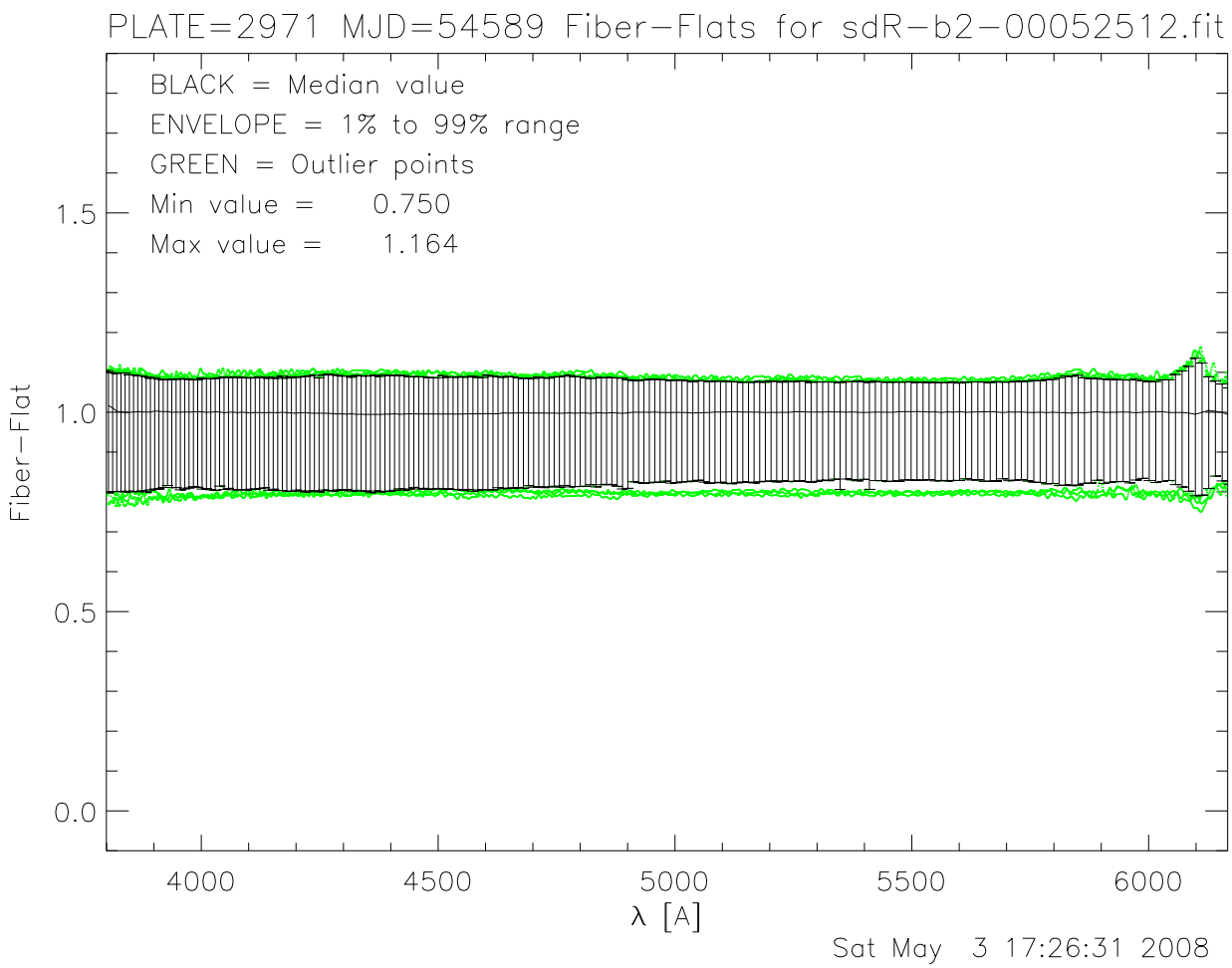

PLATE=2971 MJD=54589 sdR-b2-00052510.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
6000
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

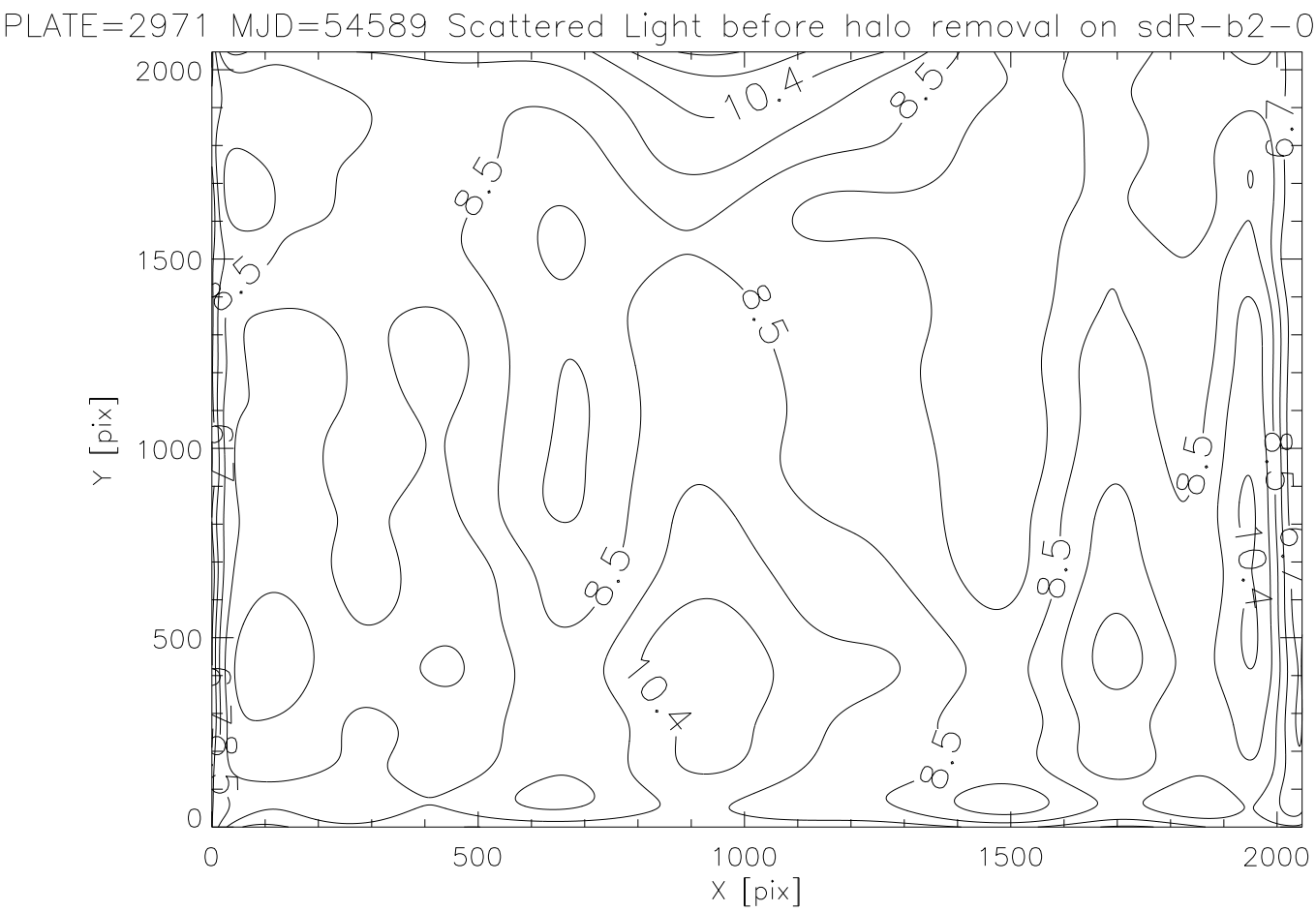

PLATE=2971 MJD=54589 sdR-b2-00052510.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
5570
5575
5580
5585
5590
λ [A]

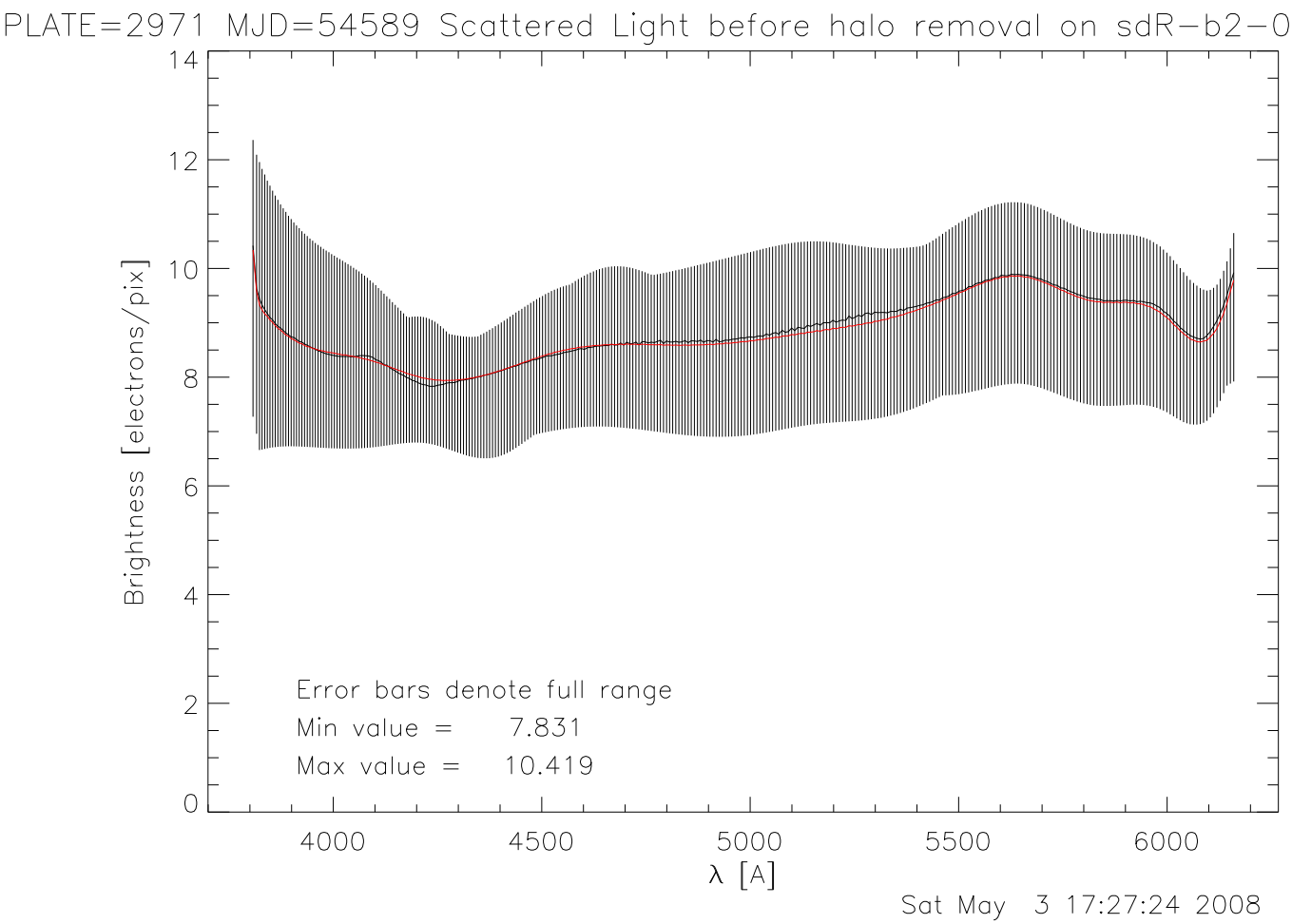

Number of sky fibers = 16
PLATE=2971 MJD=54589 sdR-b2-00052510.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

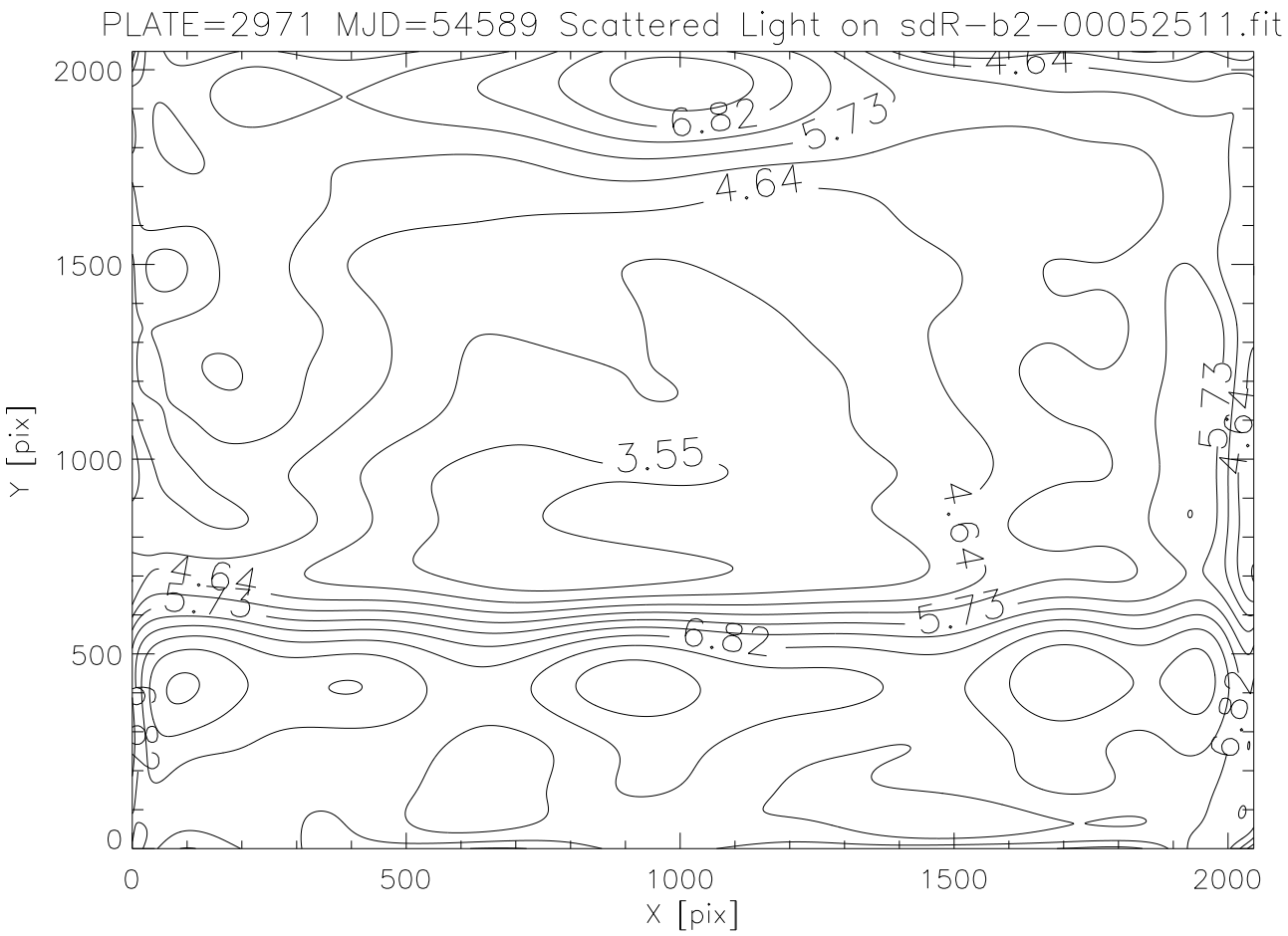

PLATE=2971 MJD=54589 sdR-b2-00052510.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
Fiber number
RED = sky fiber
Dispersion = 8.10 %
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

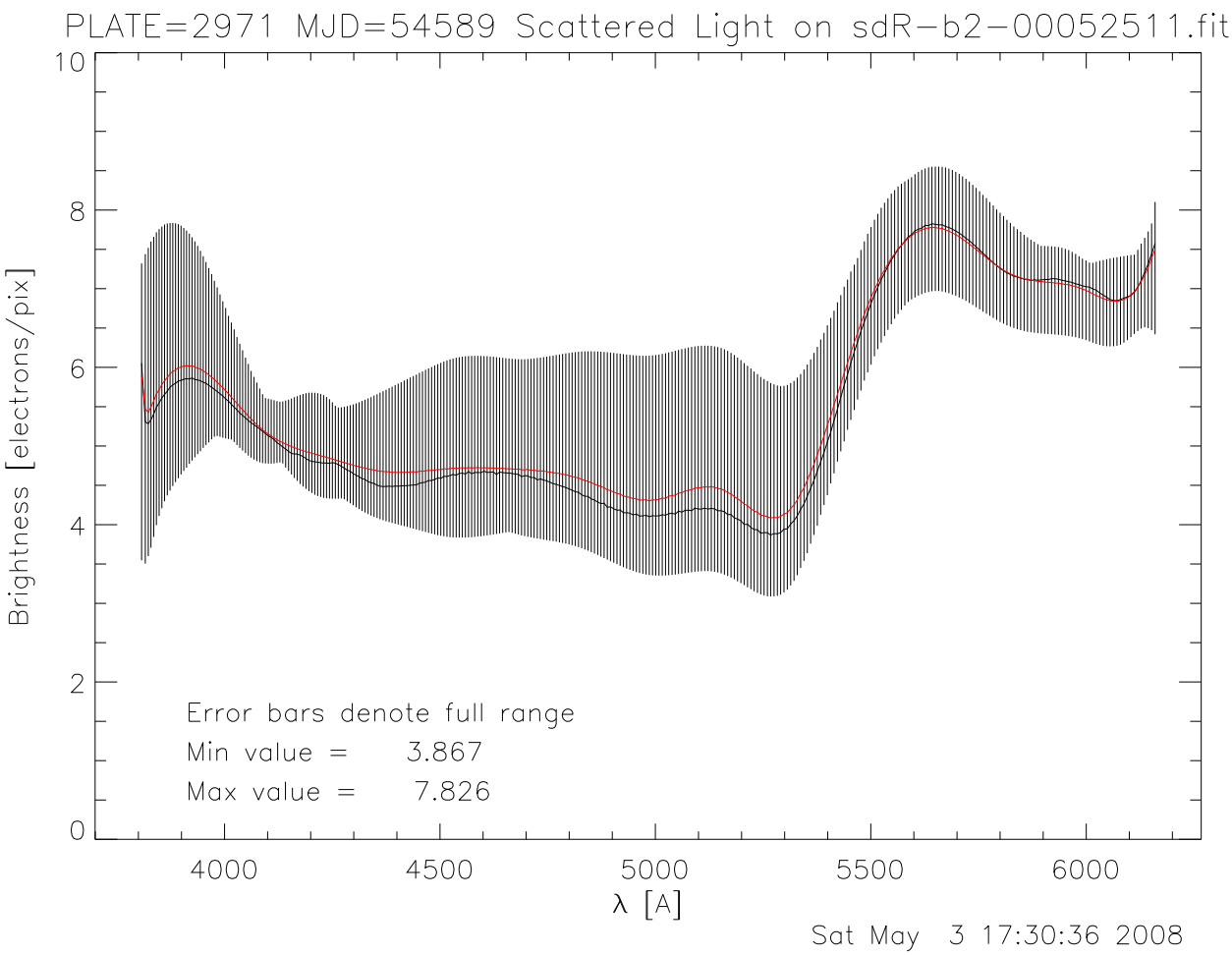

PLATE=2971 MJD=54589 sdR-b2-00052510.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
Fiber number
RED = sky fiber
Dispersion = 1.13 %
Flux (5578.9)/Airmass
Focal Distance [mm]
Flux (5578.9)/Airmass
Airmass

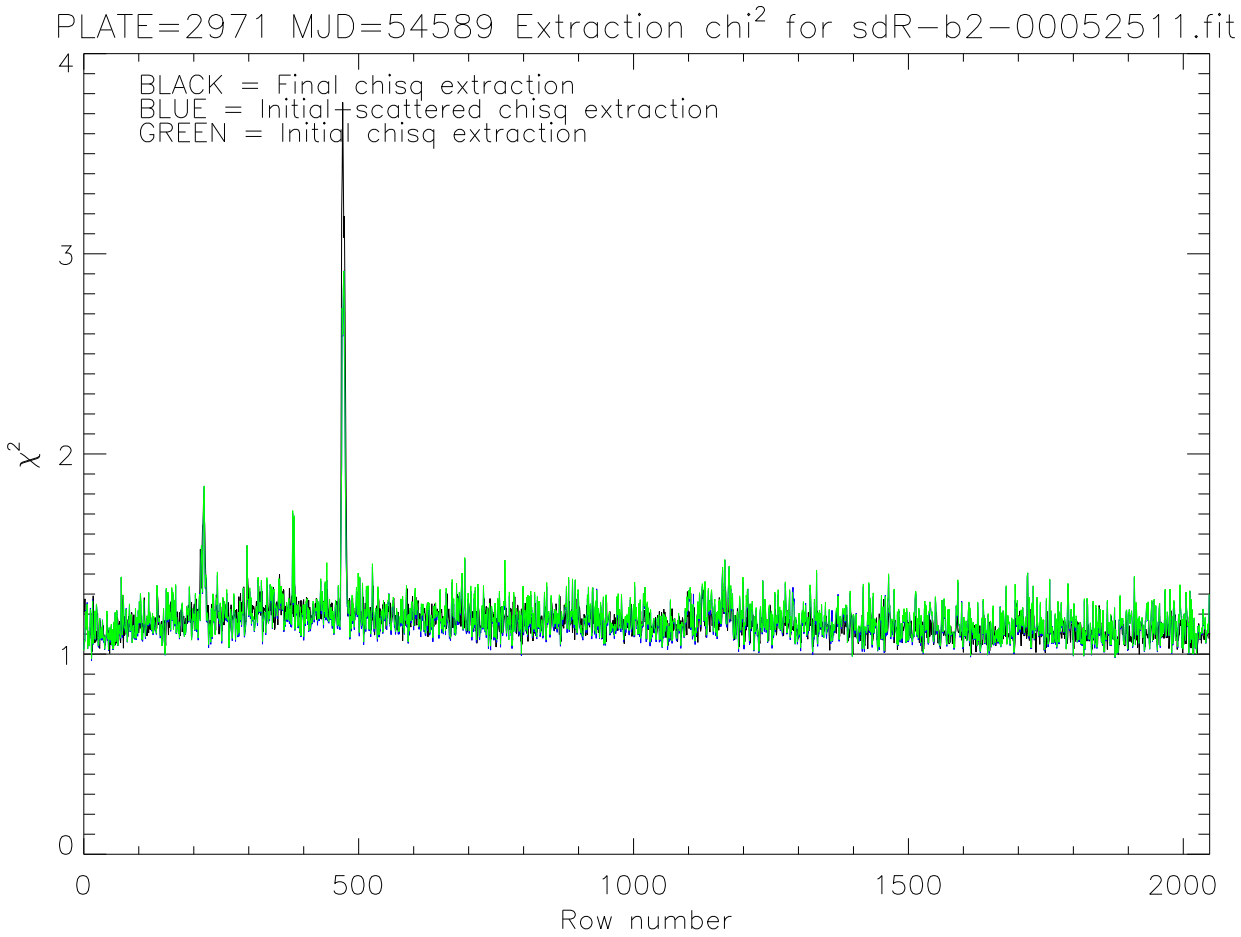

PLATE=2971 MJD=54589 Fiber-Flats for sdR-b2-00052512.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.750
Max value = 1.164
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Sat May 3 17:26:31 2008

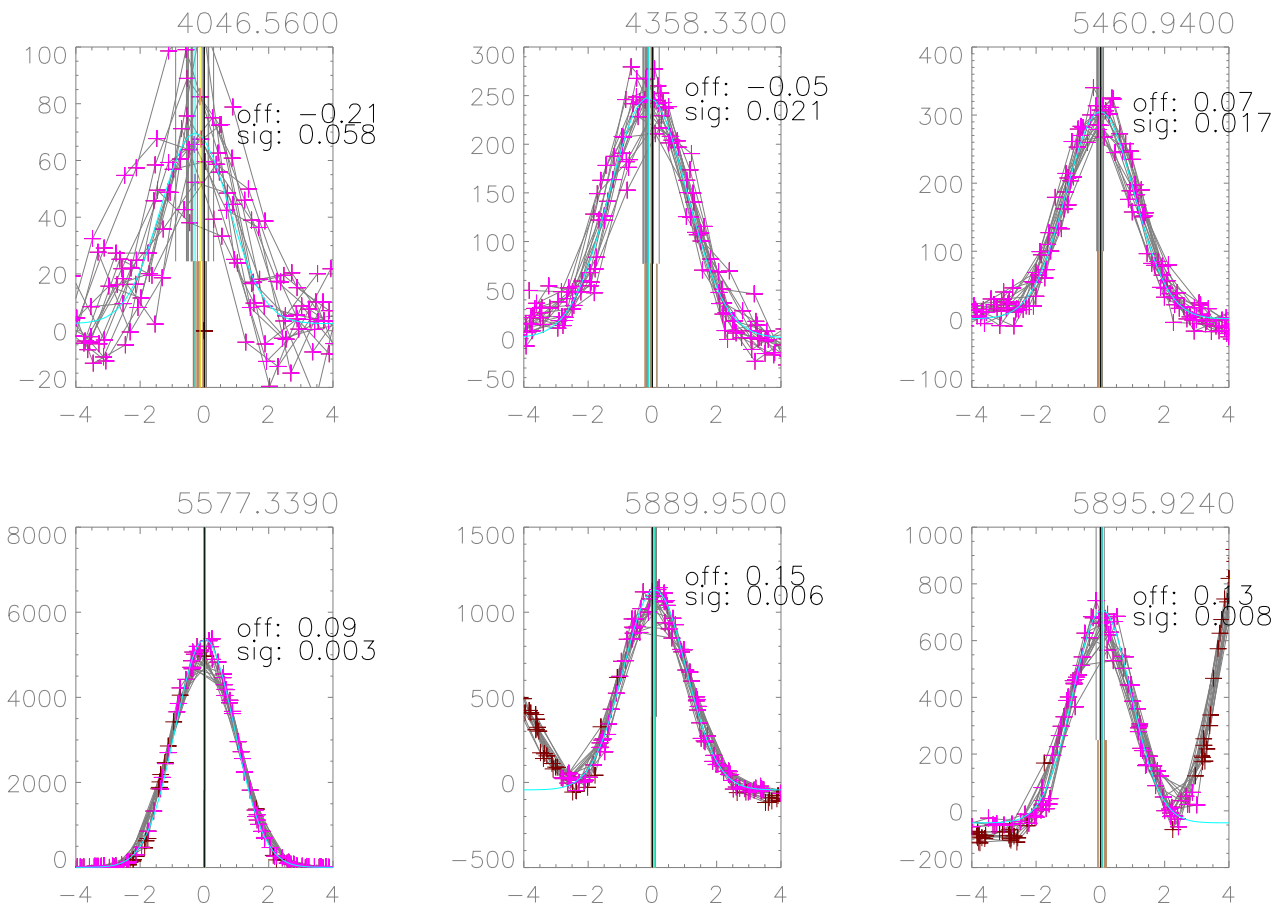

PLATE=2971 MJD=54589 Scattered Light before halo removal on sdR−b2−00052511.f
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
10.4
8.5
6.7

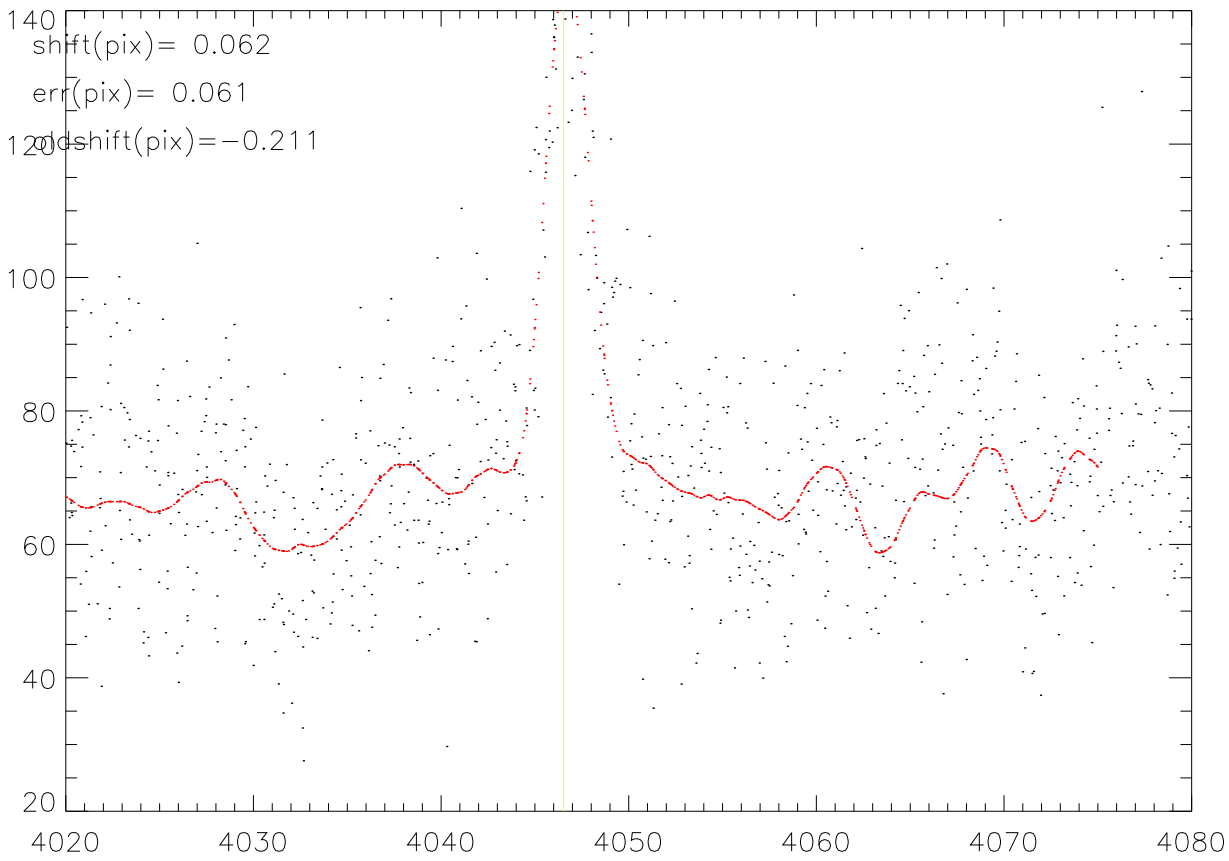

PLATE=2971 MJD=54589 Scattered Light before halo removal on sdR-b2-00052511.f
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 7.831
Max value = 10.419
Sat May 3 17:27:24 2008

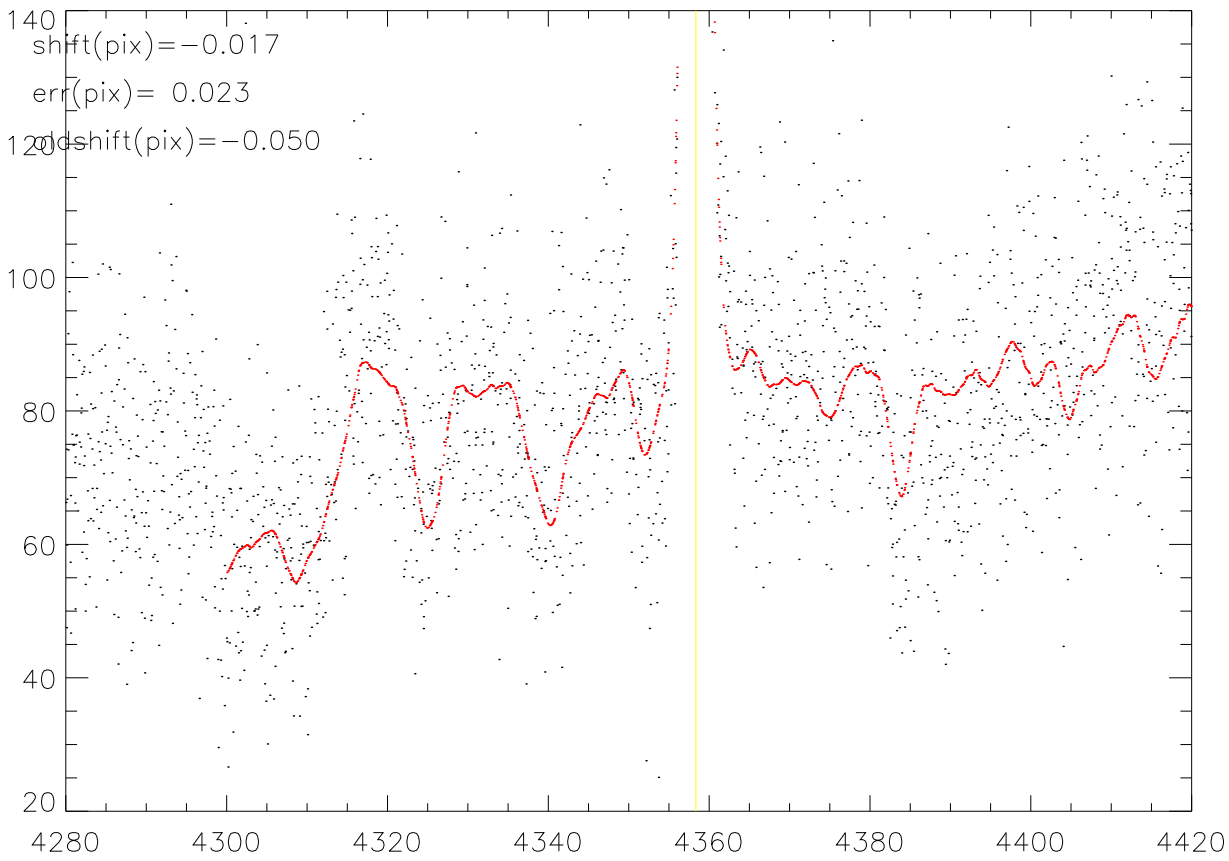

PLATE=2971 MJD=54589 Scattered Light on sdR-b2-00052511.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
6.82
5.73
4.64
3.55

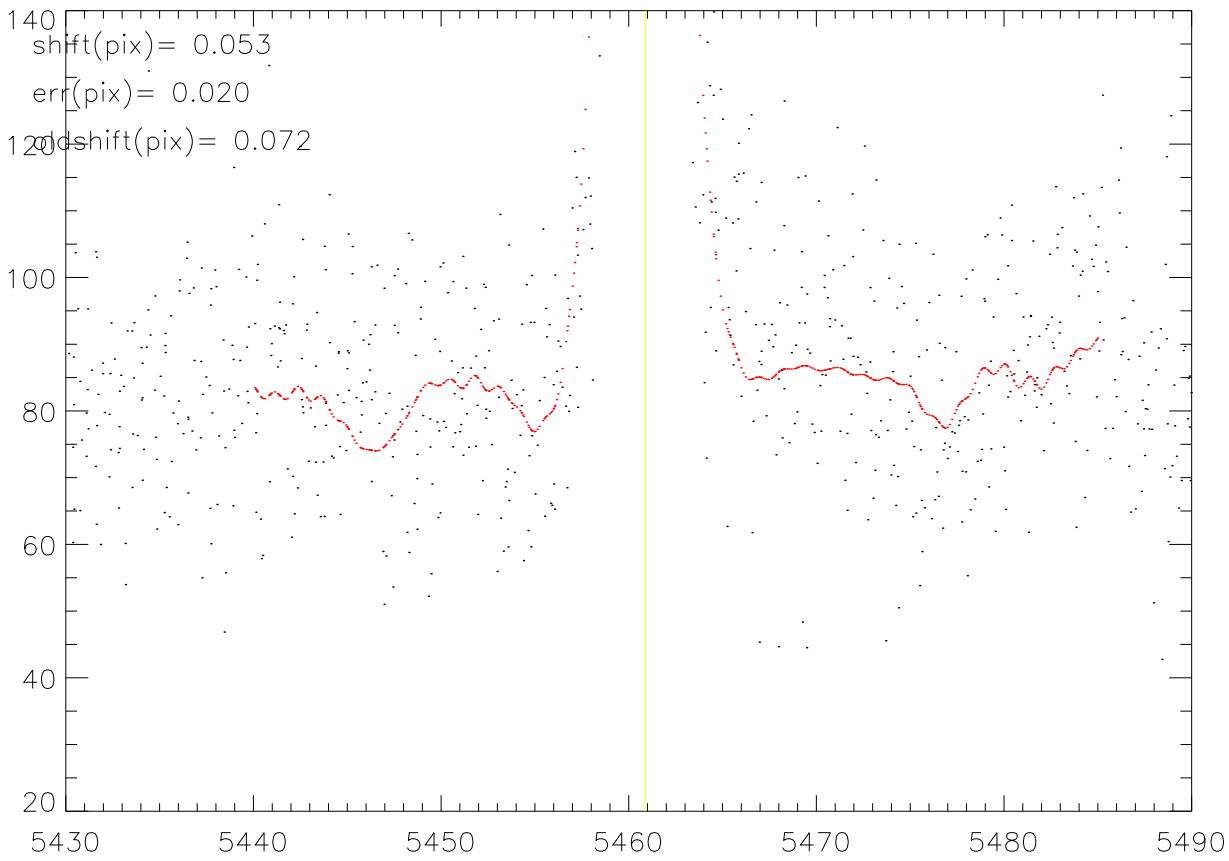

PLATE=2971 MJD=54589 Scattered Light on sdR-b2-00052511.fit
Brightness [electrons/pix]
10
8
6
4
2
0
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 3.867
Max value = 7.826
Sat May 3 17:30:36 2008

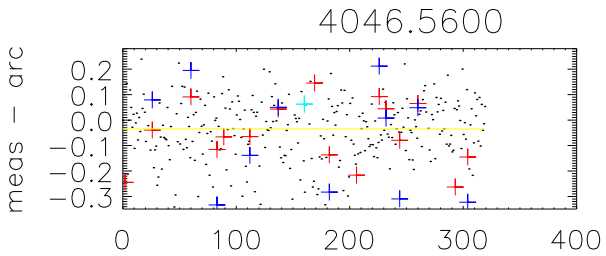

PLATE=2971 MJD=54589 Extraction chi^2 for sdR-b2-00052511.fit
BLACK = Final chisq extraction
BLUE = Initial+scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
0
500
1000
1500
2000
Row number

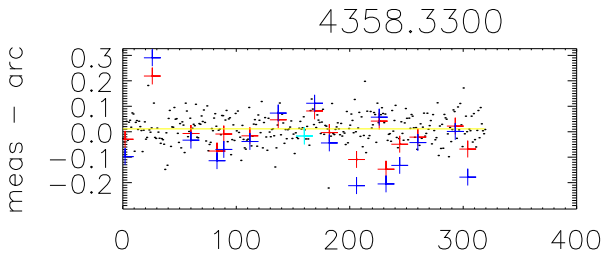

4046.5600
off: −0.21
sig: 0.058
4358.3300
off: −0.05
sig: 0.021
5460.9400
off: 0.07
sig: 0.017
5577.3390
off: 0.09
sig: 0.003
5889.9500
off: 0.15
sig: 0.006
5895.9240
off: 0.13
sig: 0.008

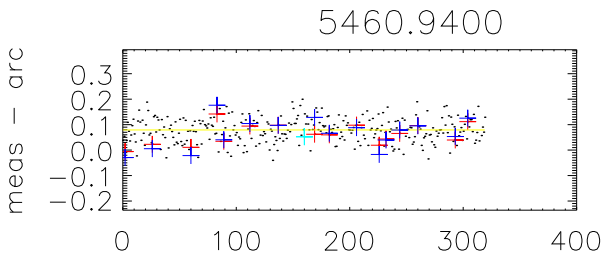

shift(pix)= 0.062
err(pix)= 0.061
oldshift(pix)=−0.211
140
120
100
80
60
40
20
4020
4030
4040
4050
4060
4070
4080

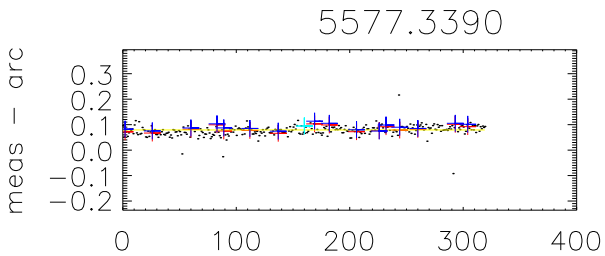

shift(pix)=−0.017
err(pix)= 0.023
oldshift(pix)=−0.050
140
120
100
80
60
40
20
4280
4300
4320
4340
4360
4380
4400
4420

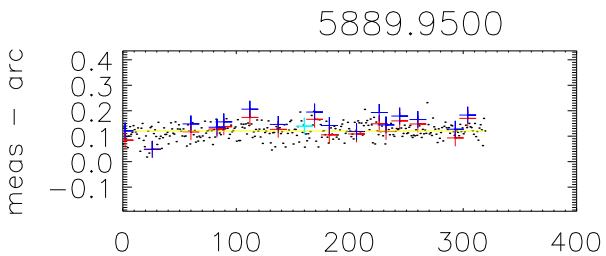

shift(pix)= 0.053
err(pix)= 0.020
oldshift(pix)= 0.072
140
120
100
80
60
40
20
5430
5440
5450
5460
5470
5480
5490

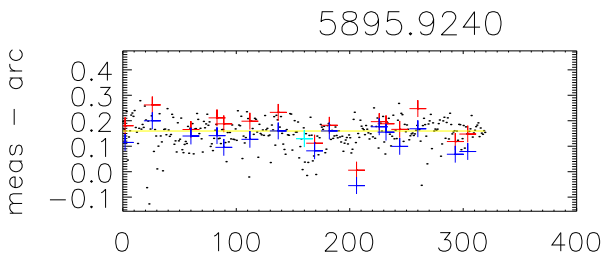

4046.5600
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

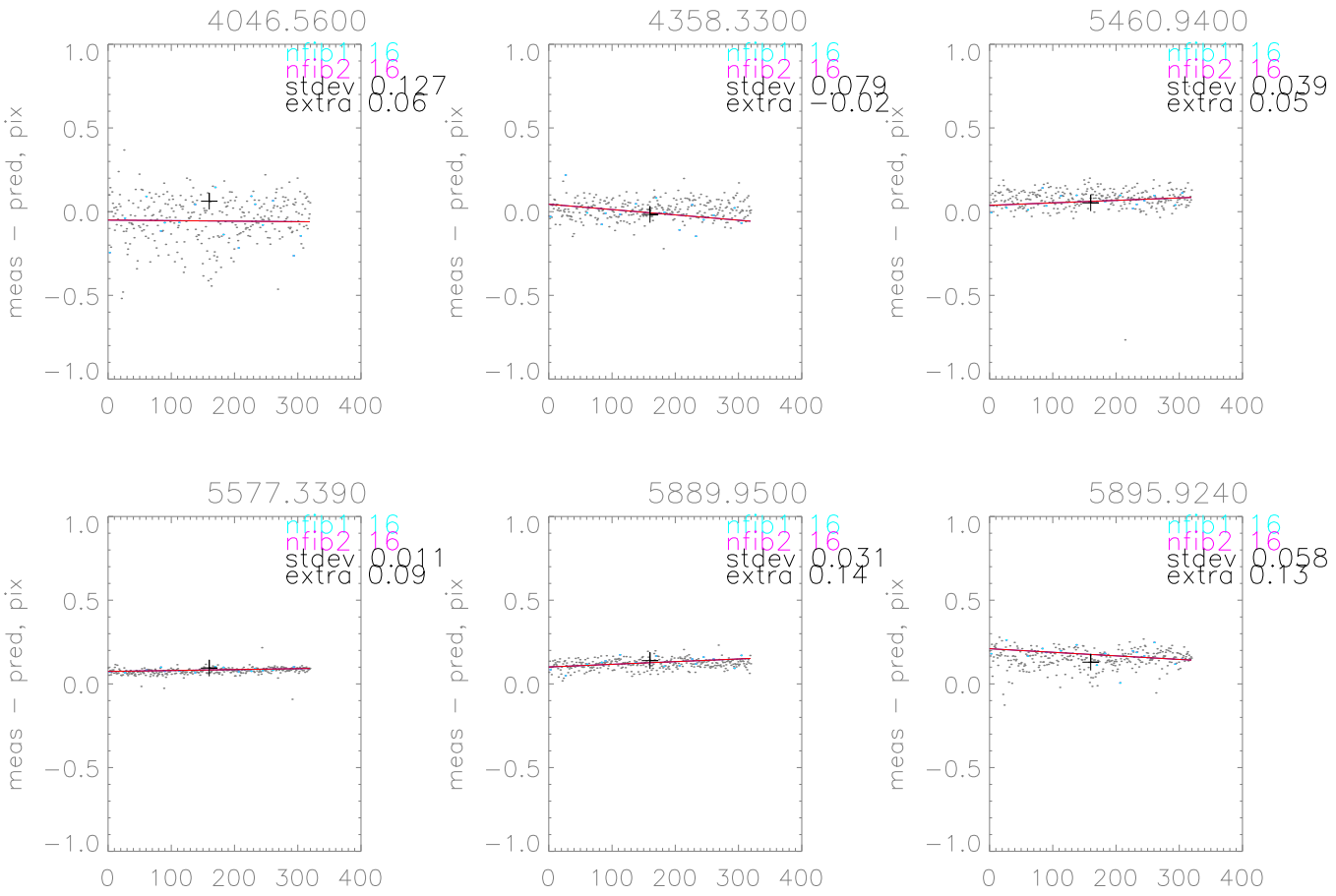

4358.3300
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

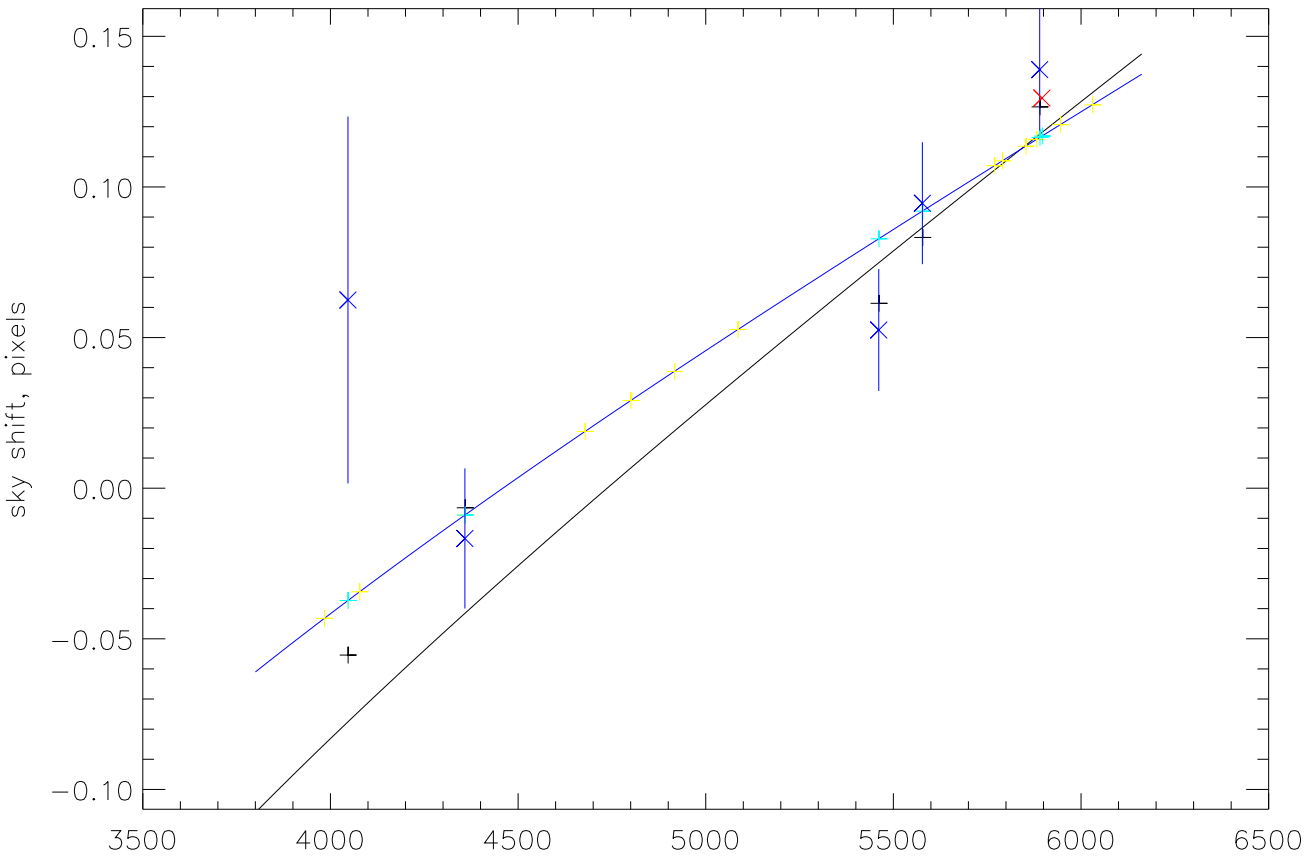

5460.9400
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

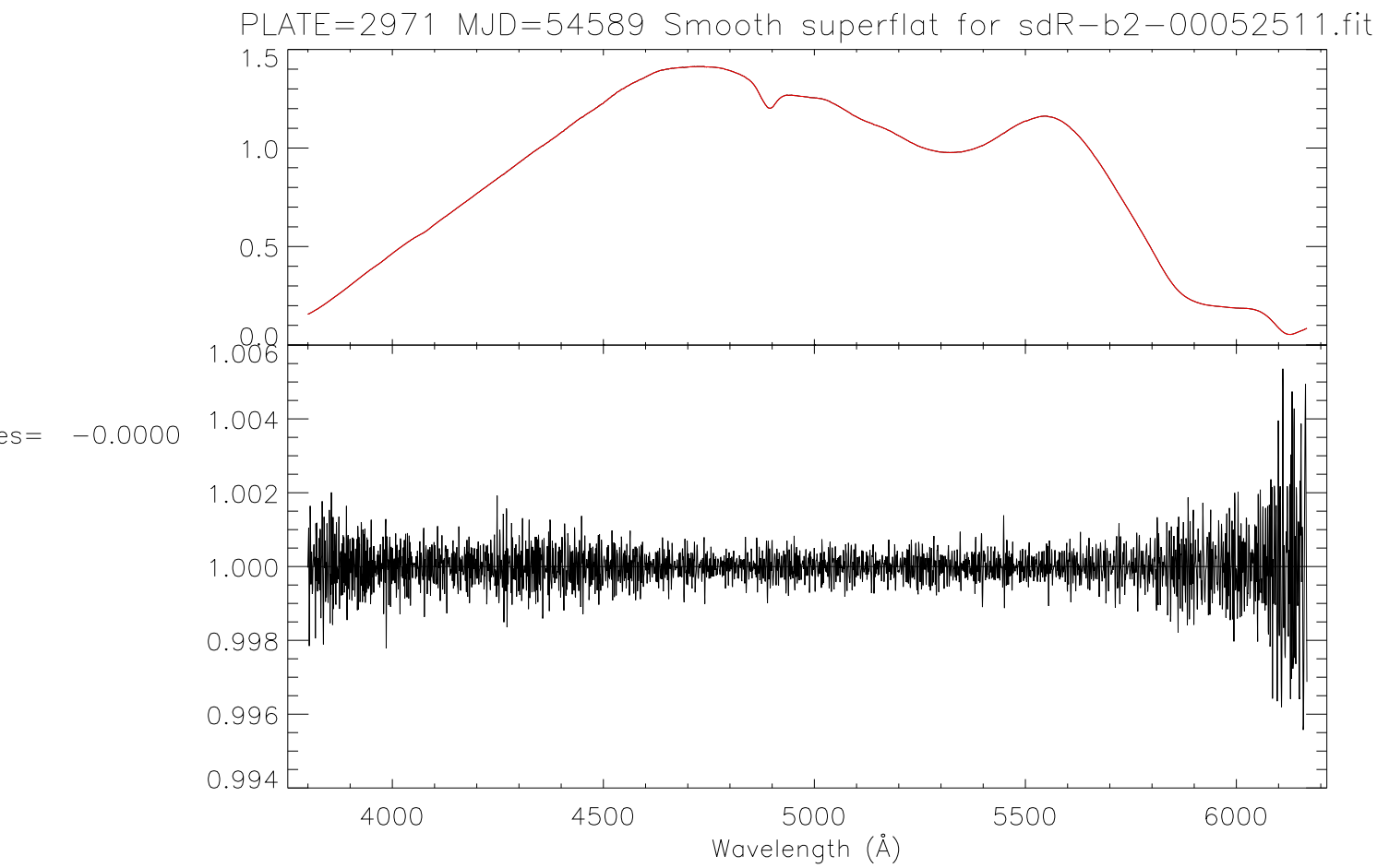

5577.3390
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400


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

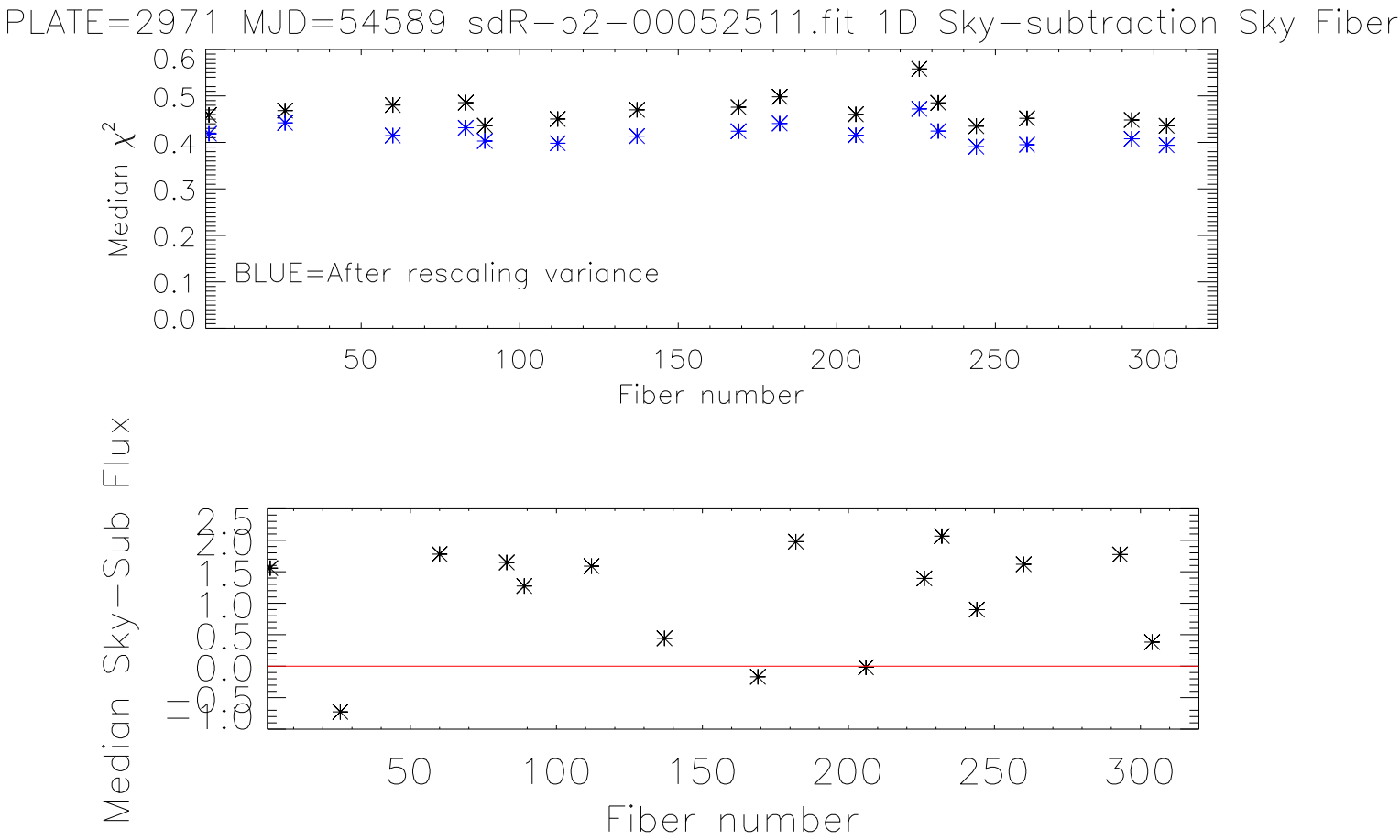

5895.9240
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

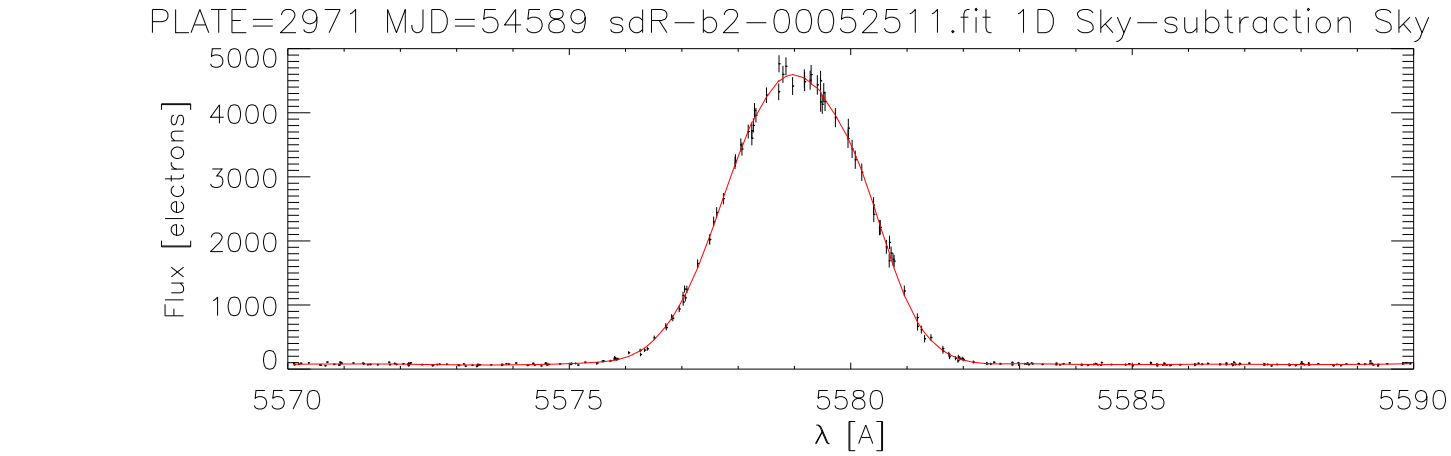

4046.5600
nfib1 16
nfib2 16
stdev 0.127
extra 0.06
4358.3300
nfib1 16
nfib2 16
stdev 0.079
extra −0.02
5460.9400
nfib1 16
nfib2 16
stdev 0.039
extra 0.05
5577.3390
nfib1 16
nfib2 16
stdev 0.011
extra 0.09
5889.9500
nfib1 16
nfib2 16
stdev 0.031
extra 0.14
5895.9240
nfib1 16
nfib2 16
stdev 0.058
extra 0.13
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

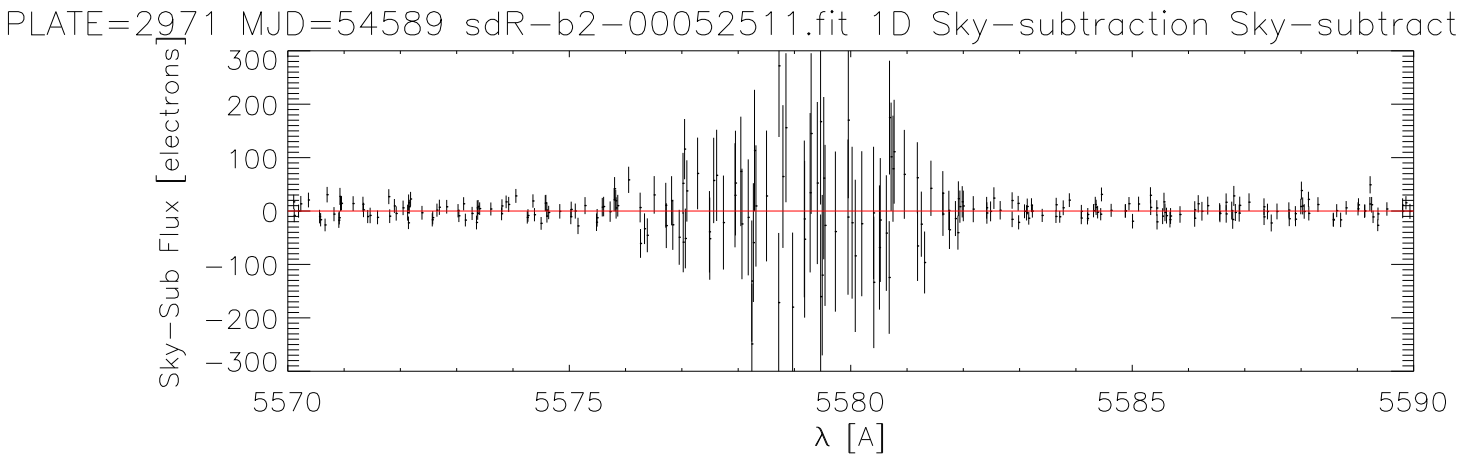

0.15
0.10
0.05
0.00
−0.05
−0.10
sky shift, pixels
3500
4000
4500
5000
5500
6000
6500

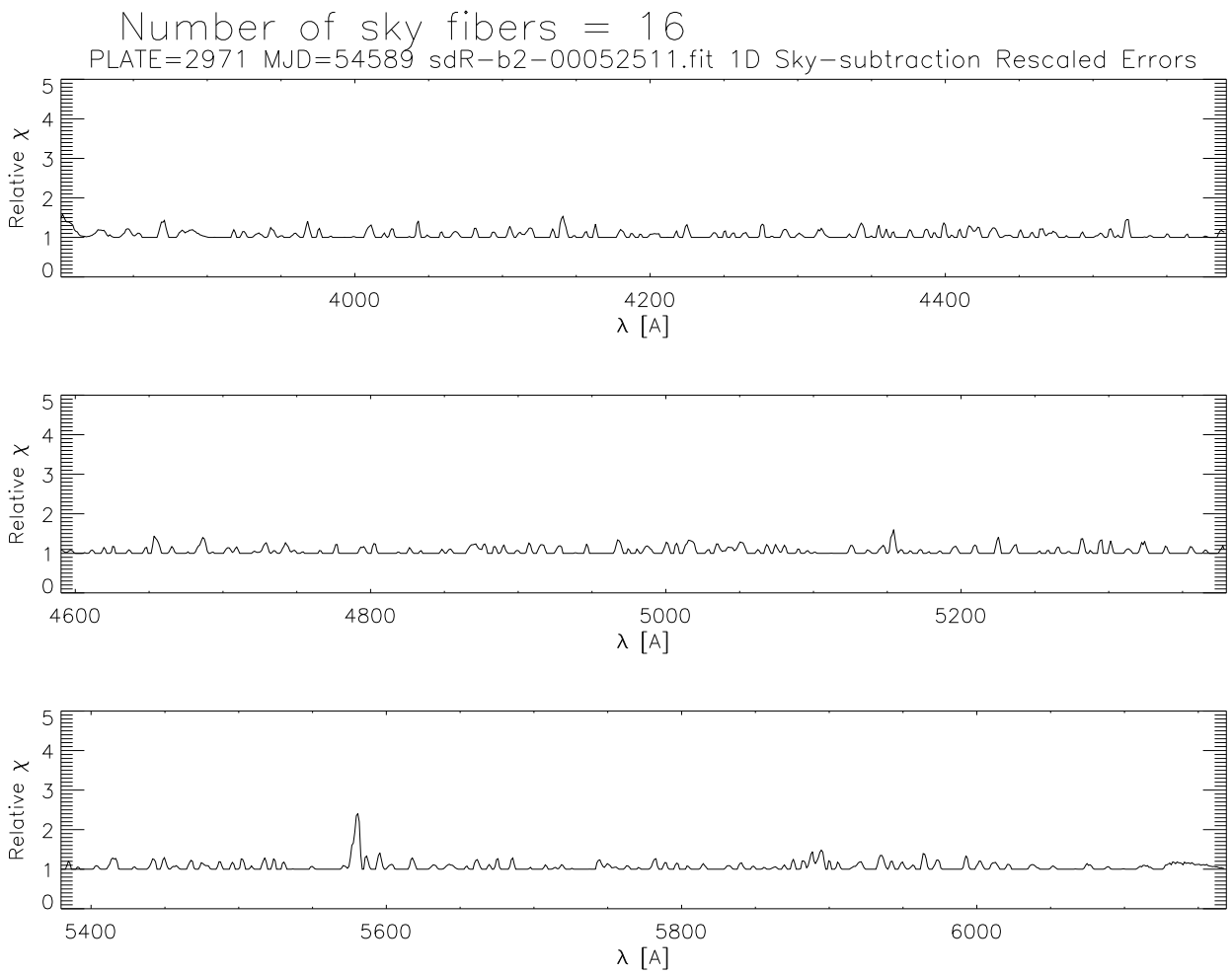

PLATE=2971 MJD=54589 Smooth superflat for sdR-b2-00052511.fit
1.5
1.0
0.5
0.0
1.006
1.004
1.002
1.000
0.998
0.996
0.994
4000
4500
5000
5500
6000
Wavelength (Å)

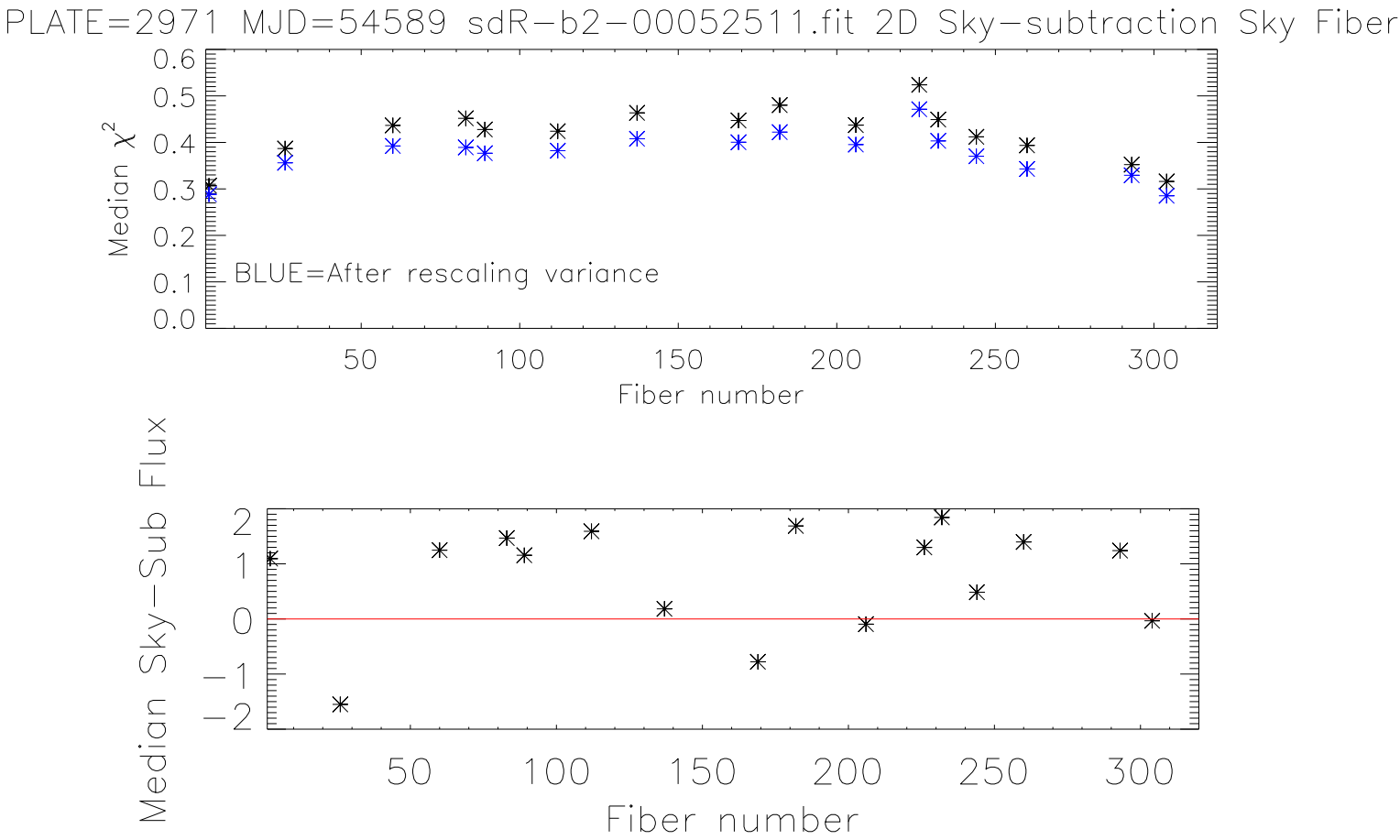
es= −0.0000

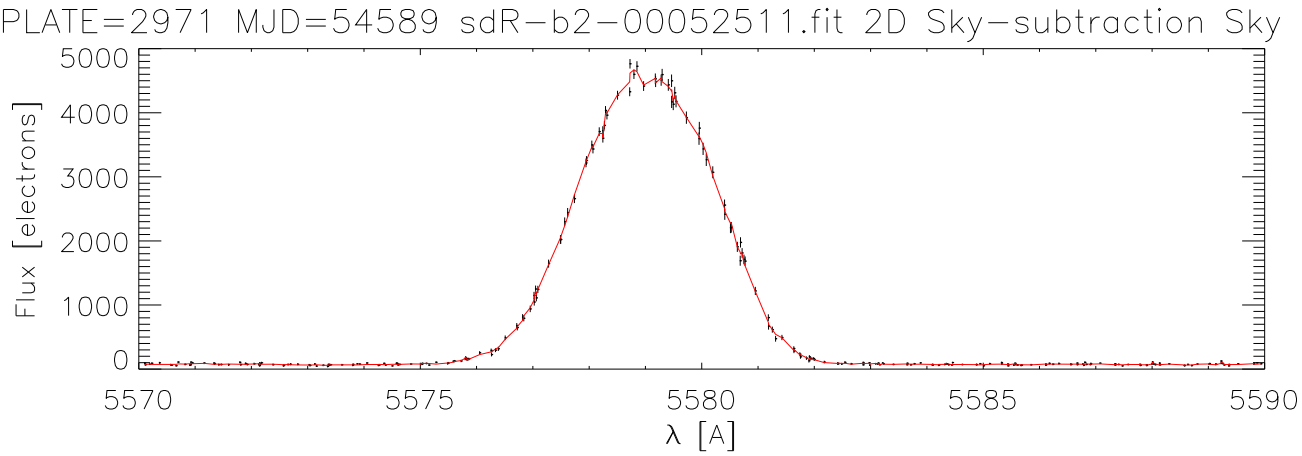

PLATE=2971 MJD=54589 sdR-b2-00052511.fit 1D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

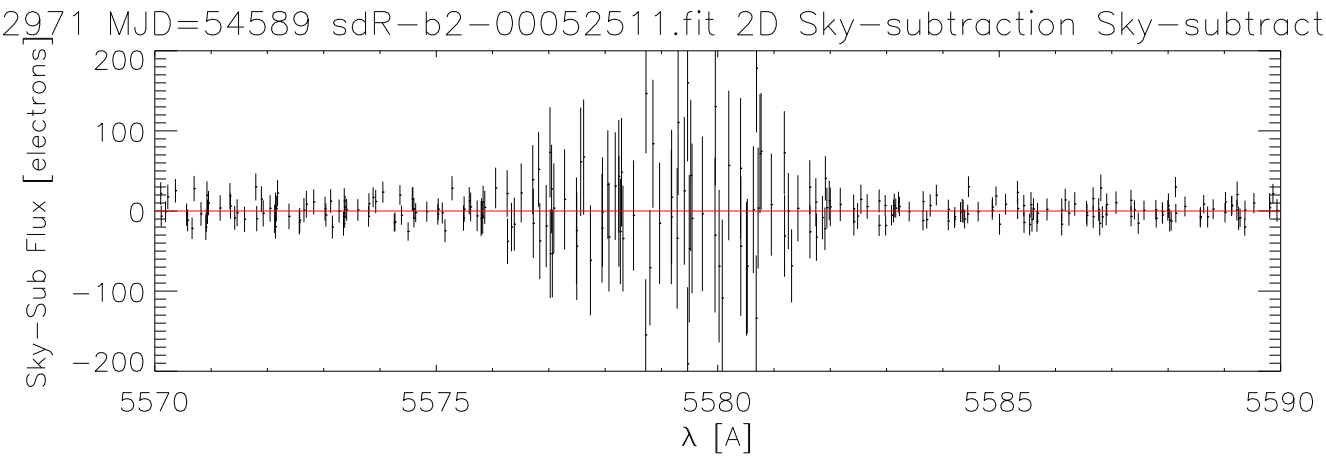

PLATE=2971 MJD=54589 sdR-b2-00052511.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

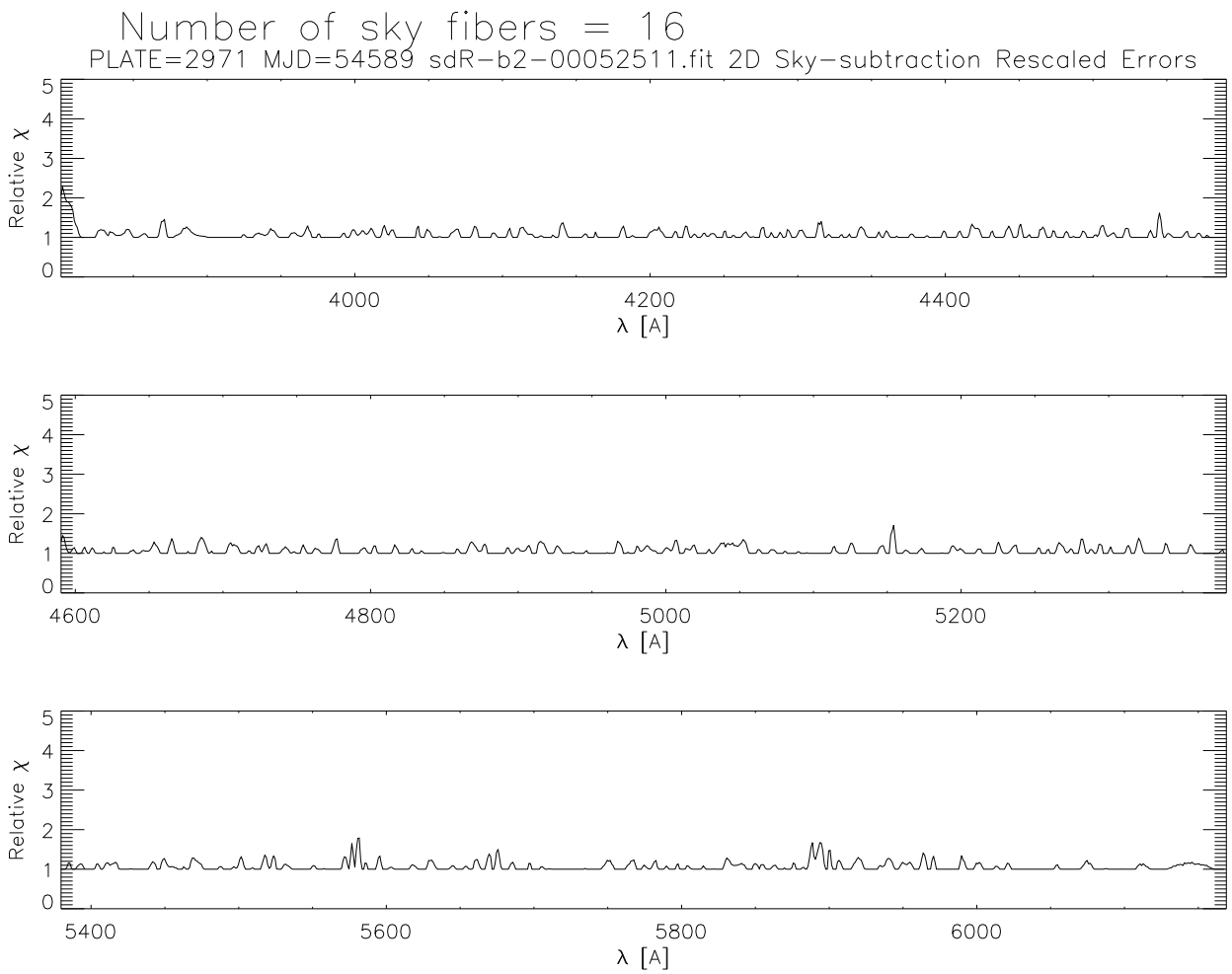

PLATE=2971 MJD=54589 sdR-b2-00052511.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
-300
5570
5575
5580
5585
5590
λ [A]

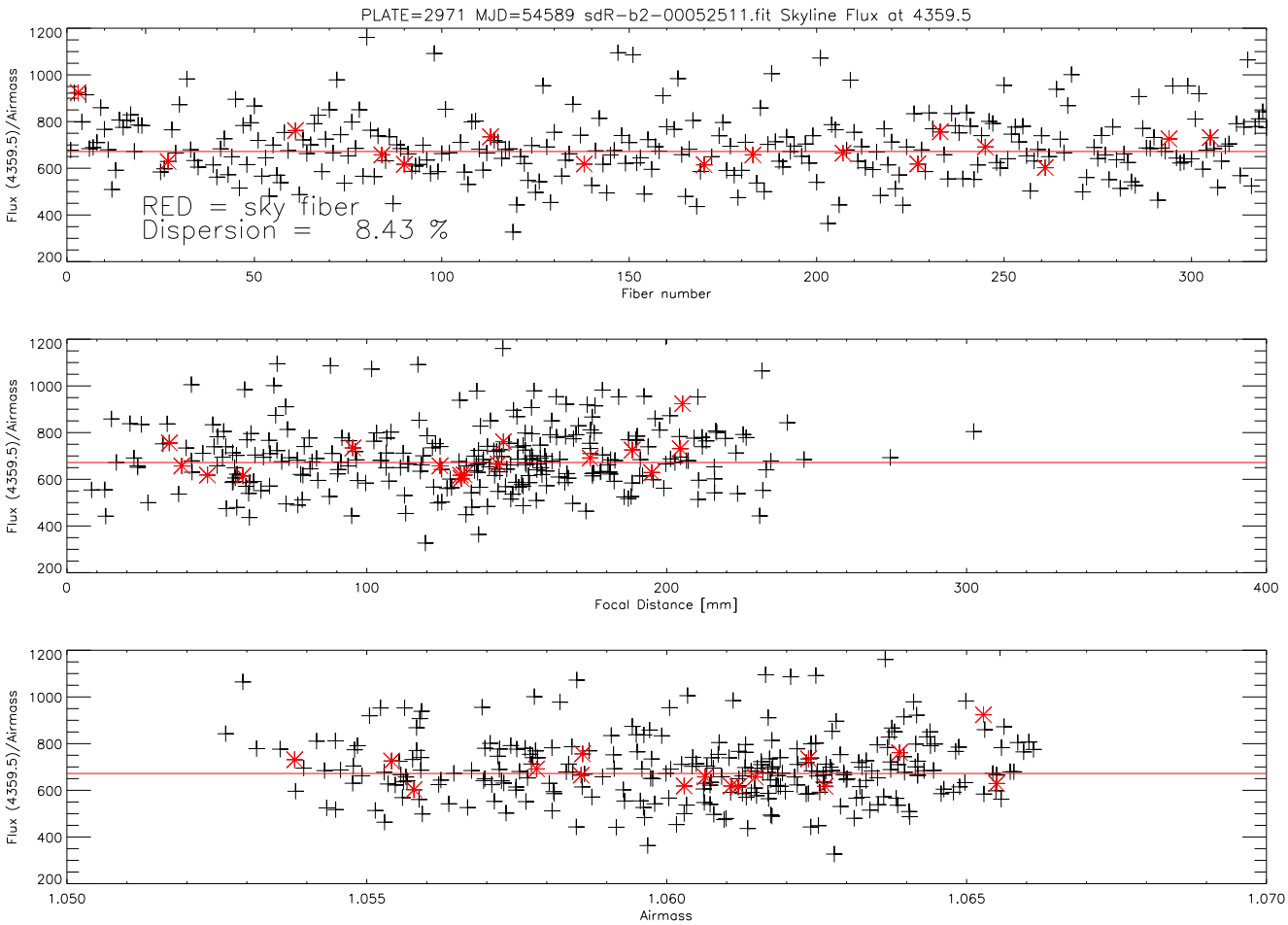

Number of sky fibers = 16
PLATE=2971 MJD=54589 sdR-b2-00052511.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

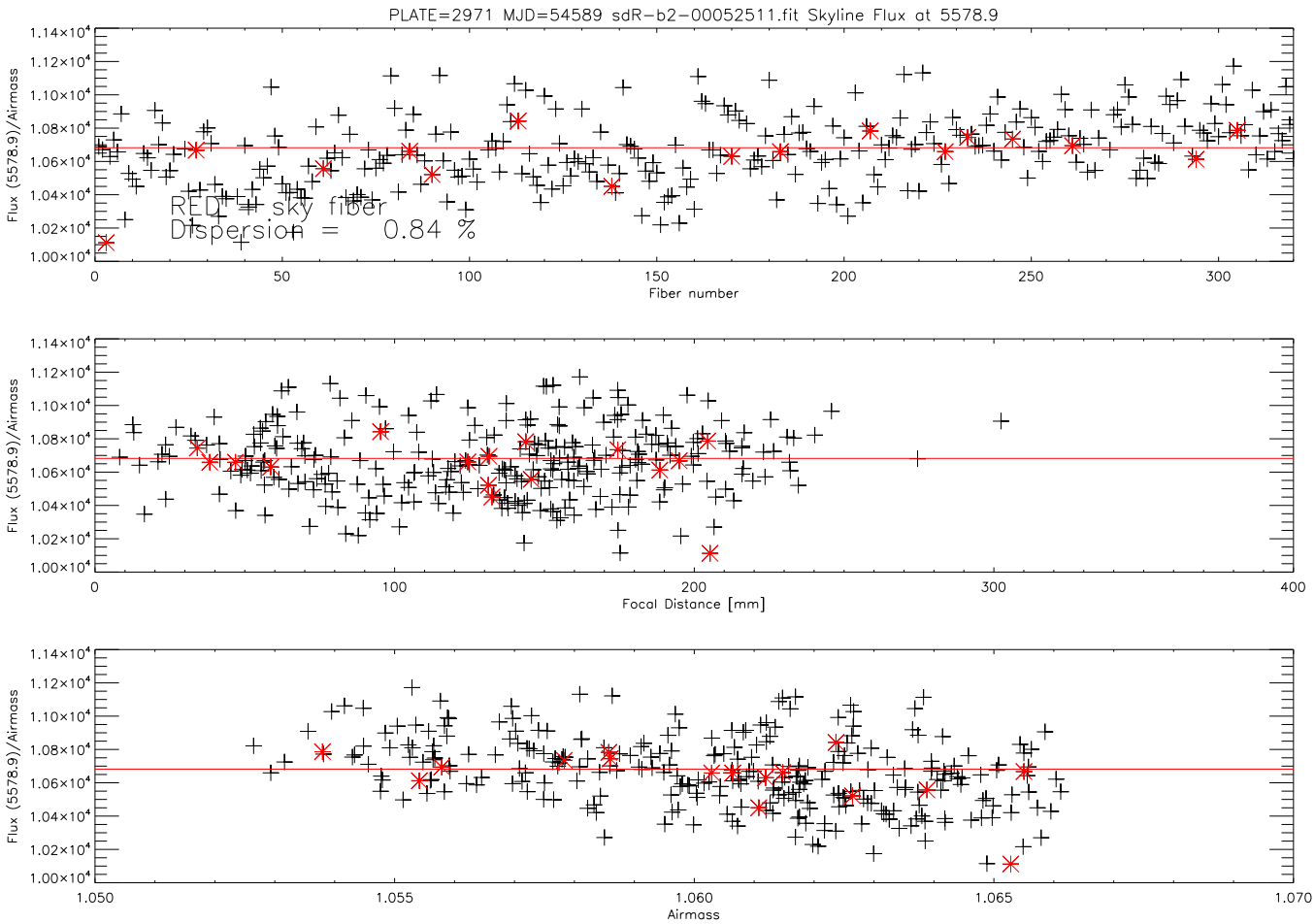

PLATE=2971 MJD=54589 sdR-b2-00052511.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

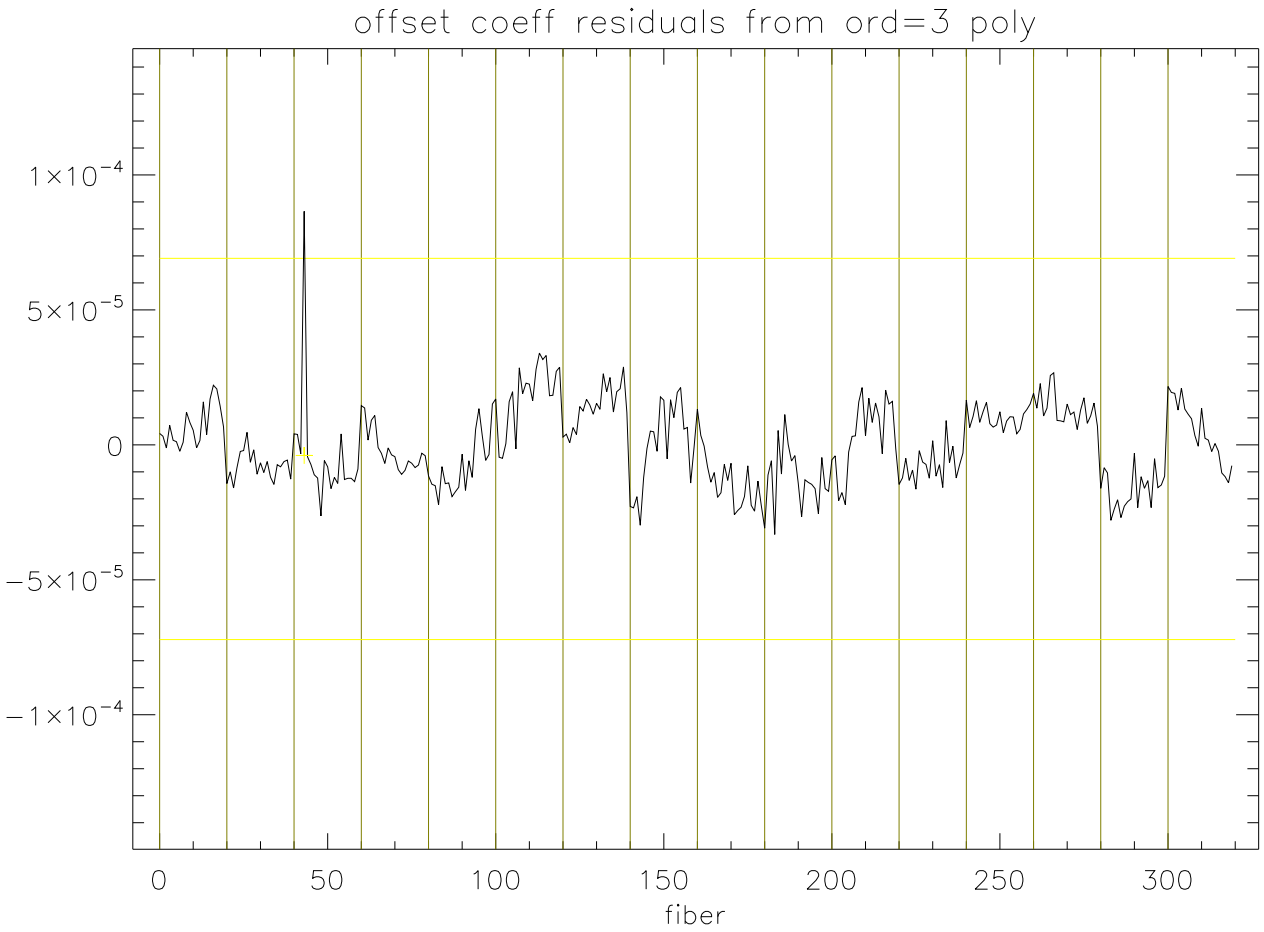

PLATE=2971 MJD=54589 sdR-b2-00052511.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

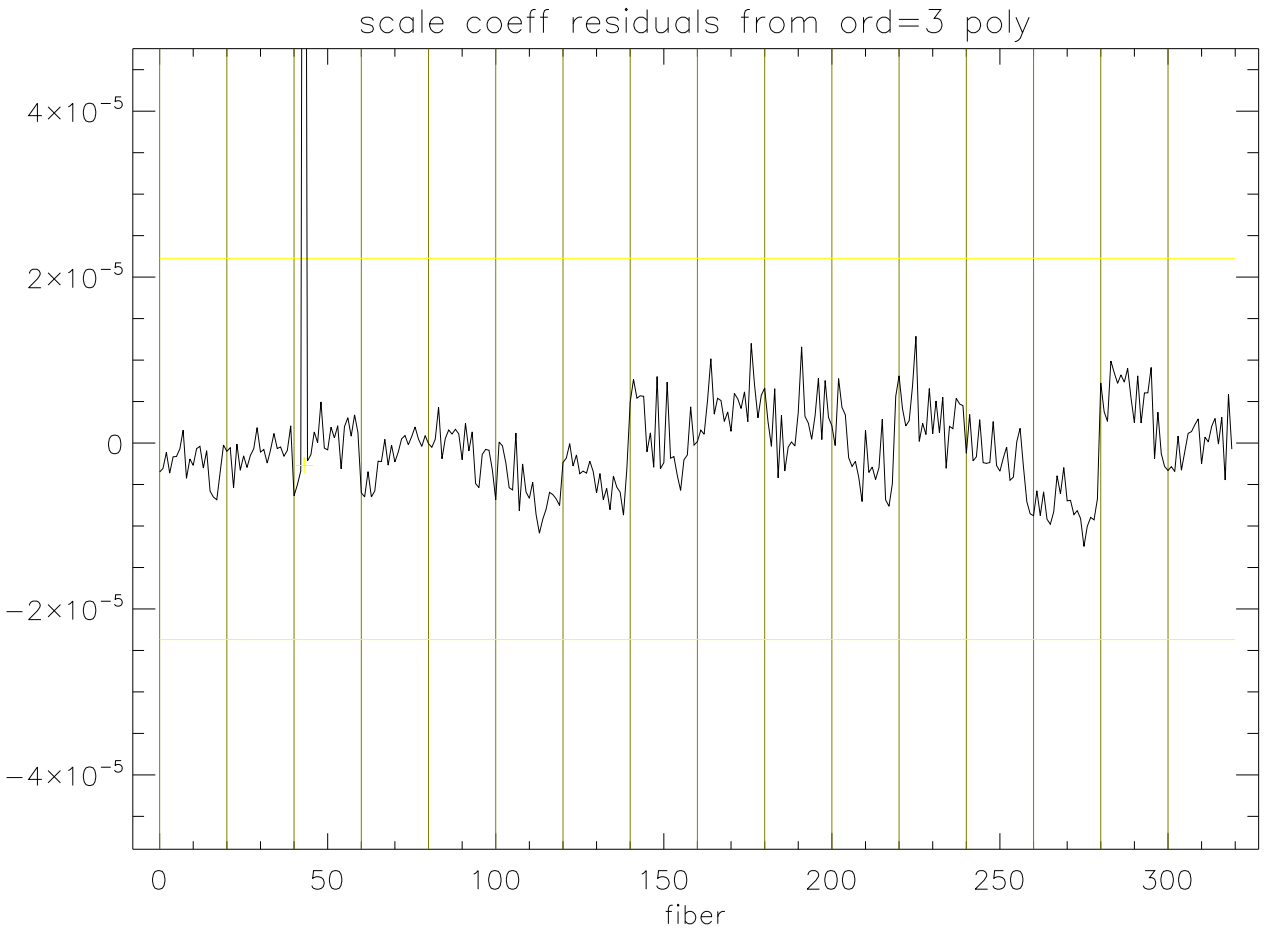

PLATE=2971 MJD=54589 sdR-b2-00052511.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
−100
−200
5570
5575
5580
5585
5590
λ [A]

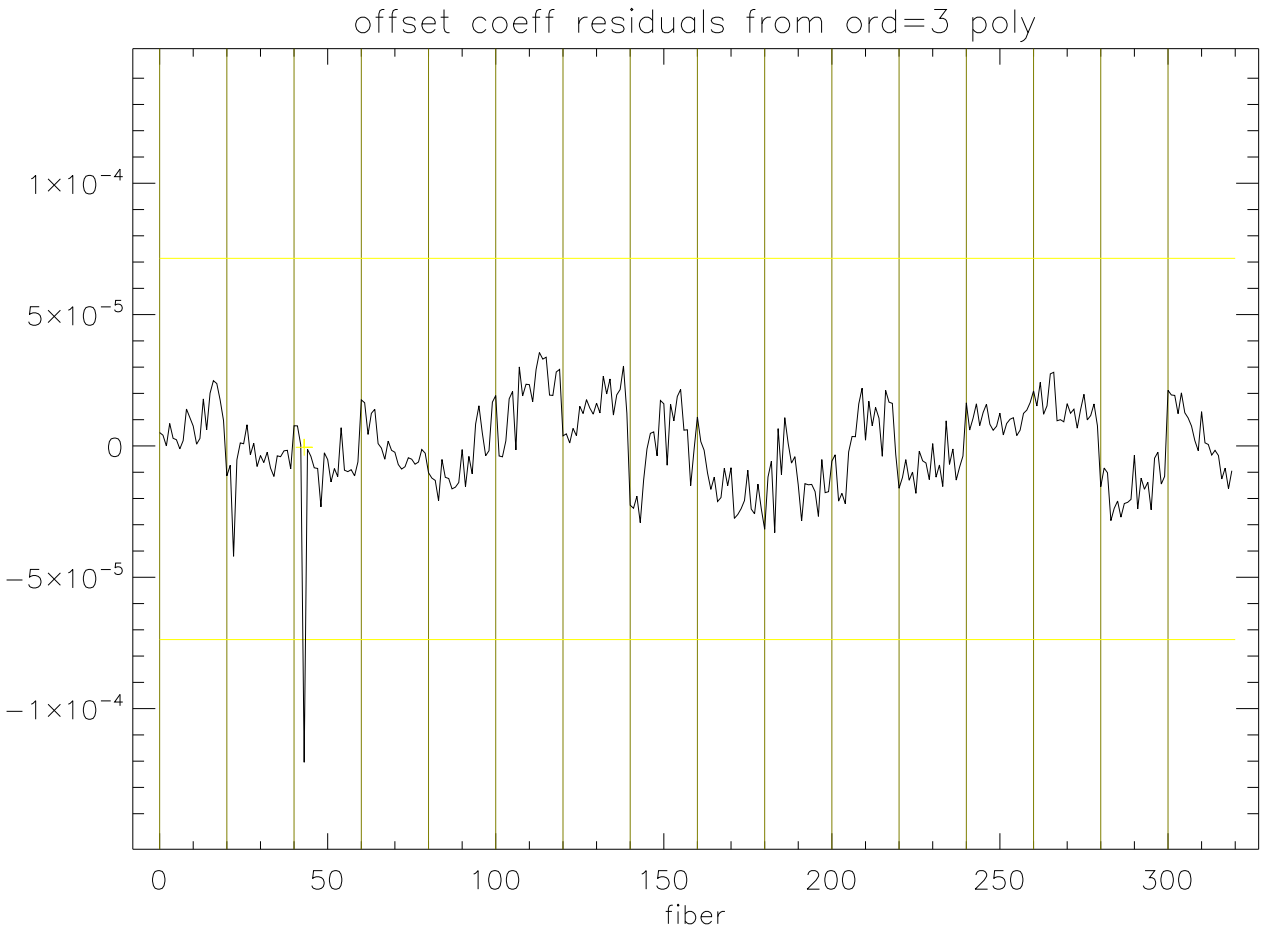

Number of sky fibers = 16
PLATE=2971 MJD=54589 sdR-b2-00052511.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

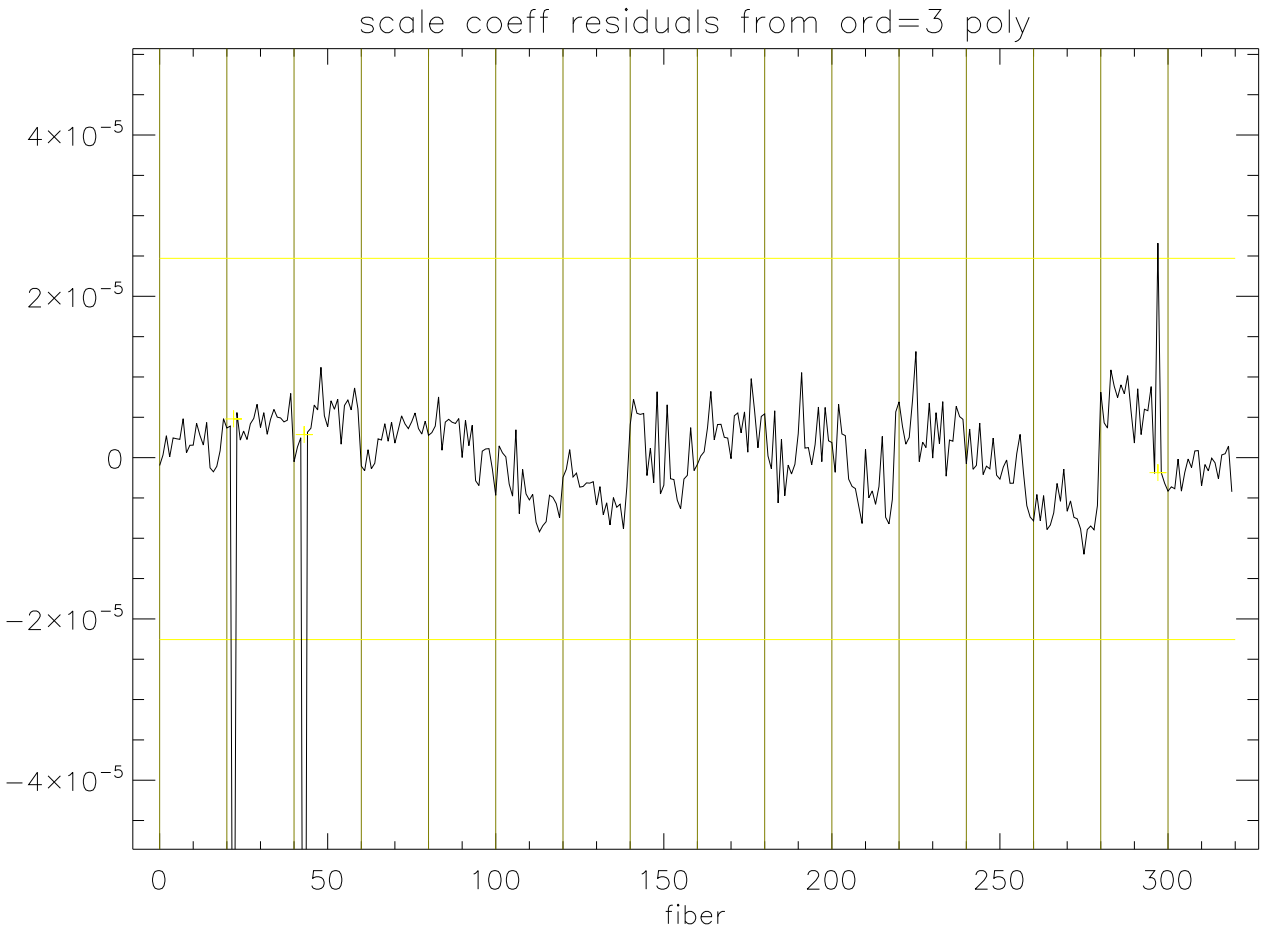

PLATE=2971 MJD=54589 sdR-b2-00052511.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
Fiber number
RED = sky fiber
Dispersion = 8.43 %
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

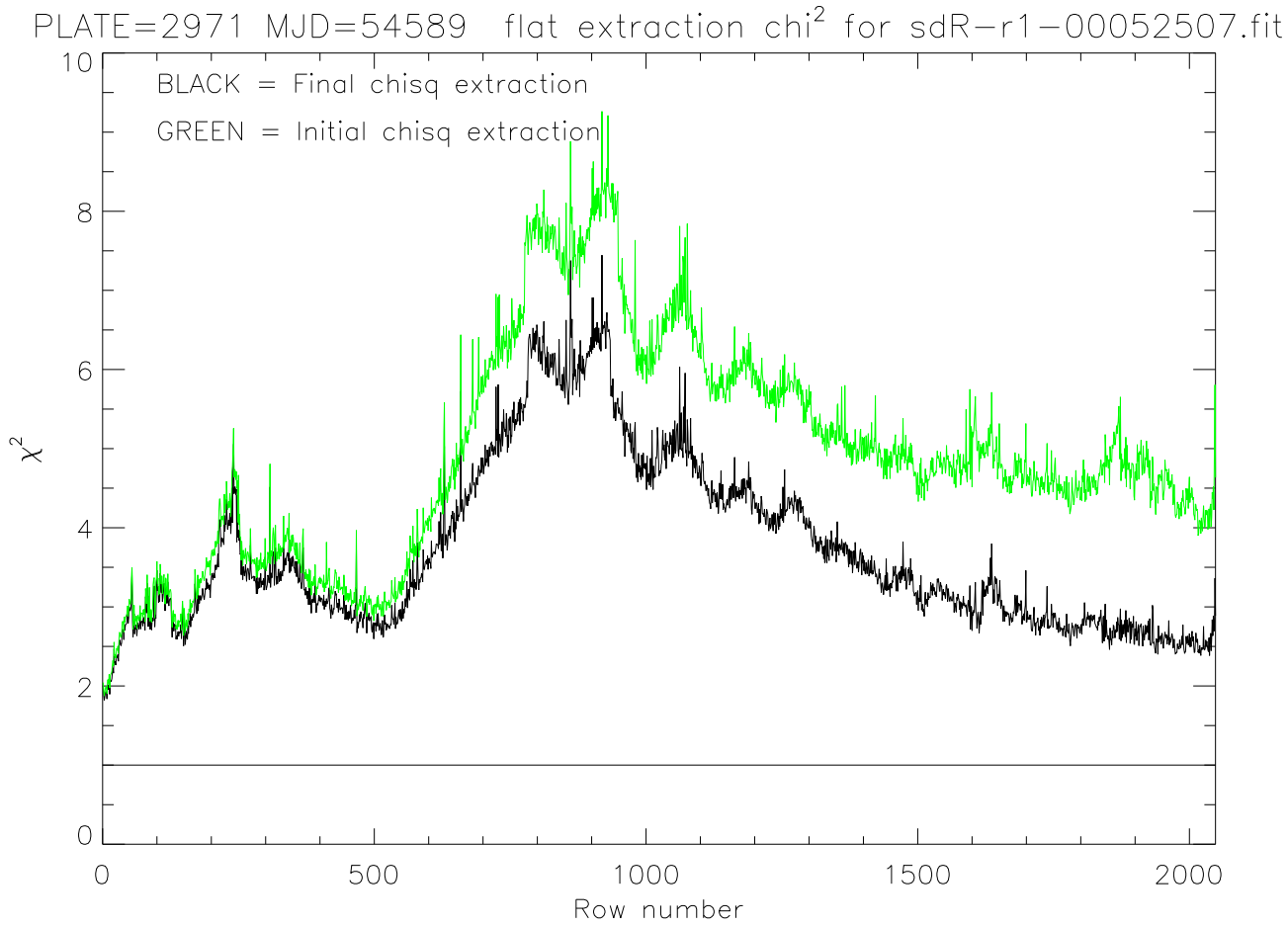

PLATE=2971 MJD=54589 sdR-b2-00052511.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
Fiber number
RED sky fiber
Dispersion = 0.84 %
Flux (5578.9)/Airmass
Focal Distance [mm]
Flux (5578.9)/Airmass
Airmass

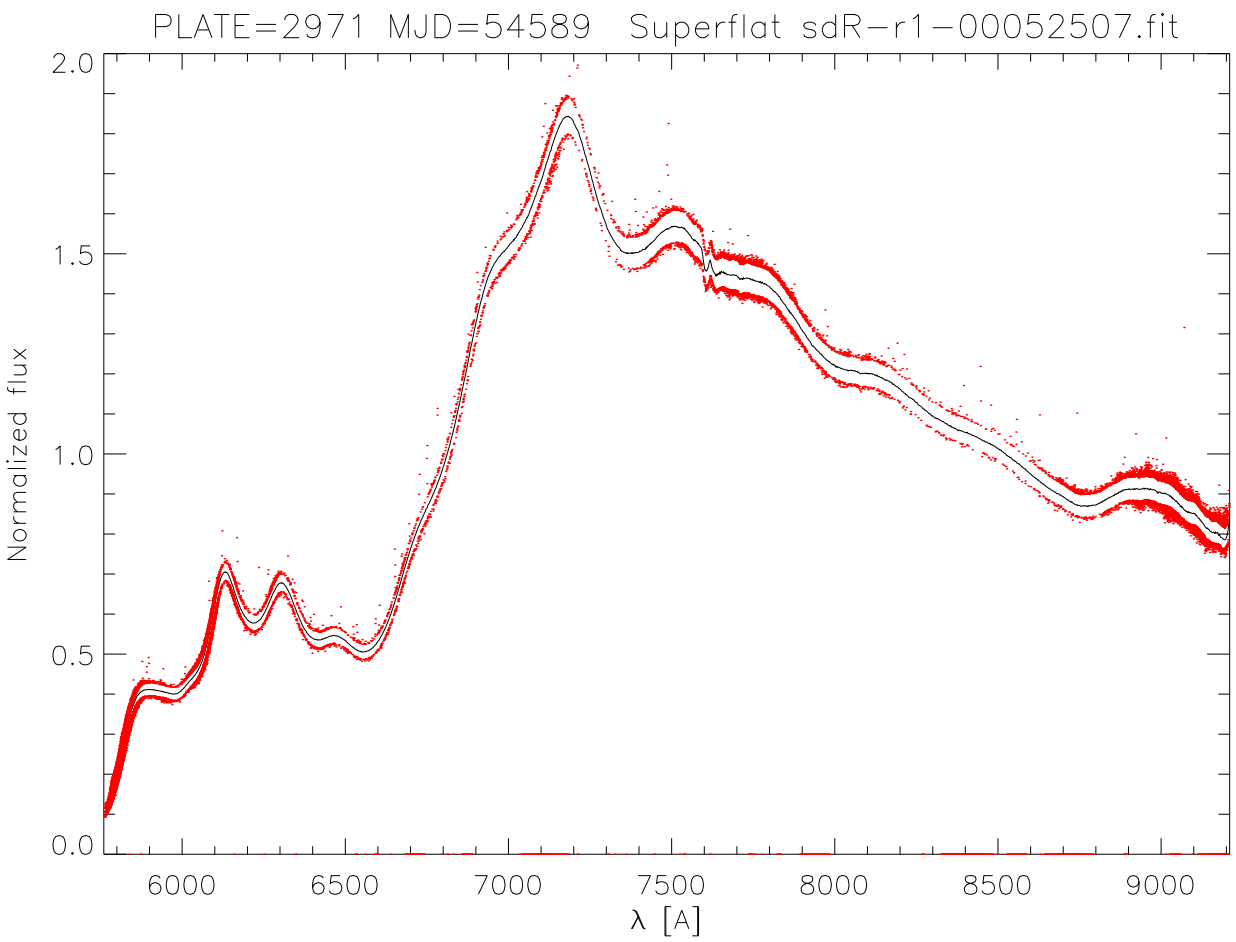

offset coeff residuals from ord=3 poly
1×10^-4
5×10^-5
0
−5×10^-5
−1×10^-4
0
50
100
150
200
250
300
fiber

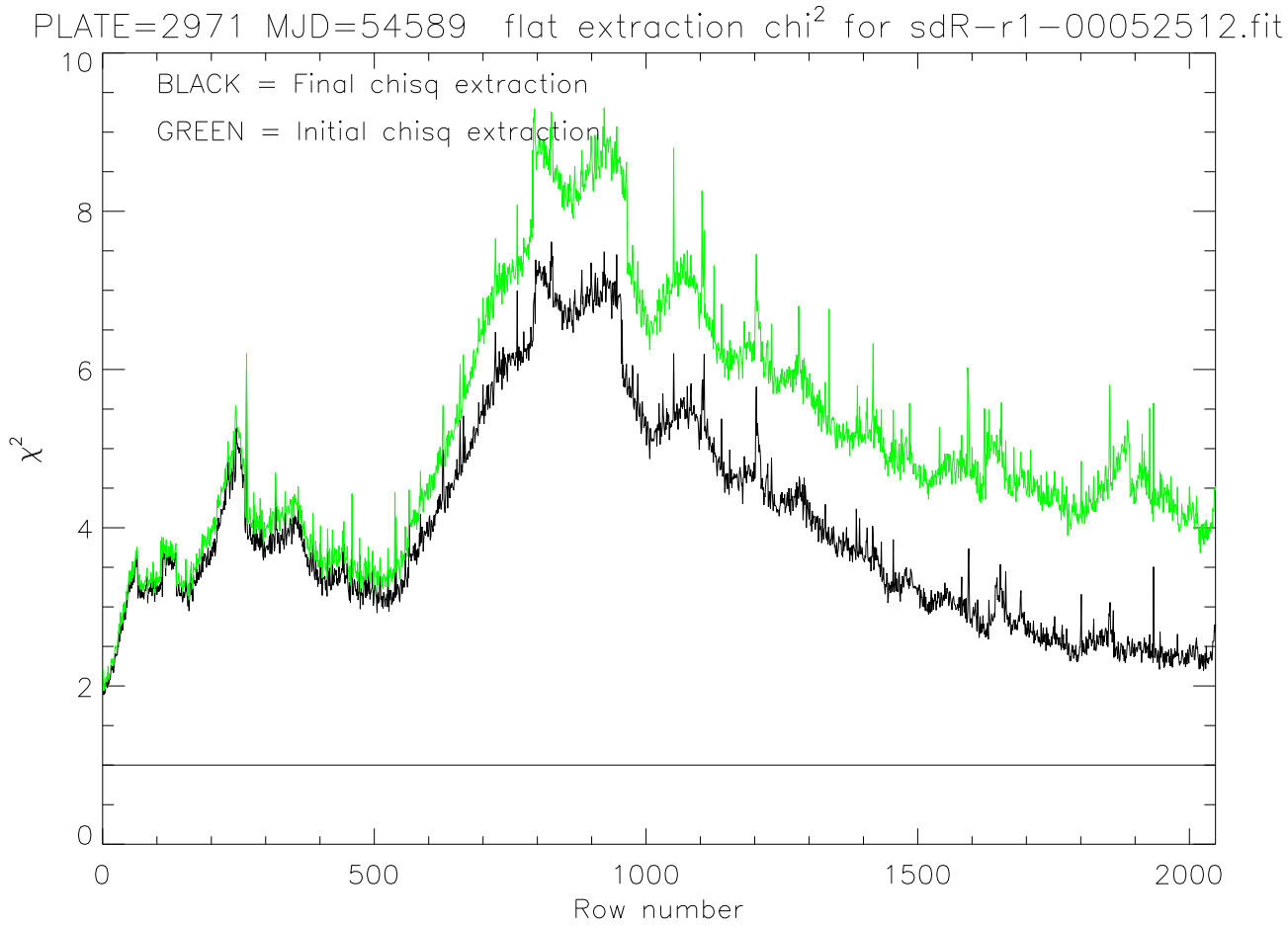

scale coeff residuals from ord=3 poly
4×10⁻⁵
2×10⁻⁵
0
−2×10⁻⁵
−4×10⁻⁵
0
50
100
150
200
250
300
fiber

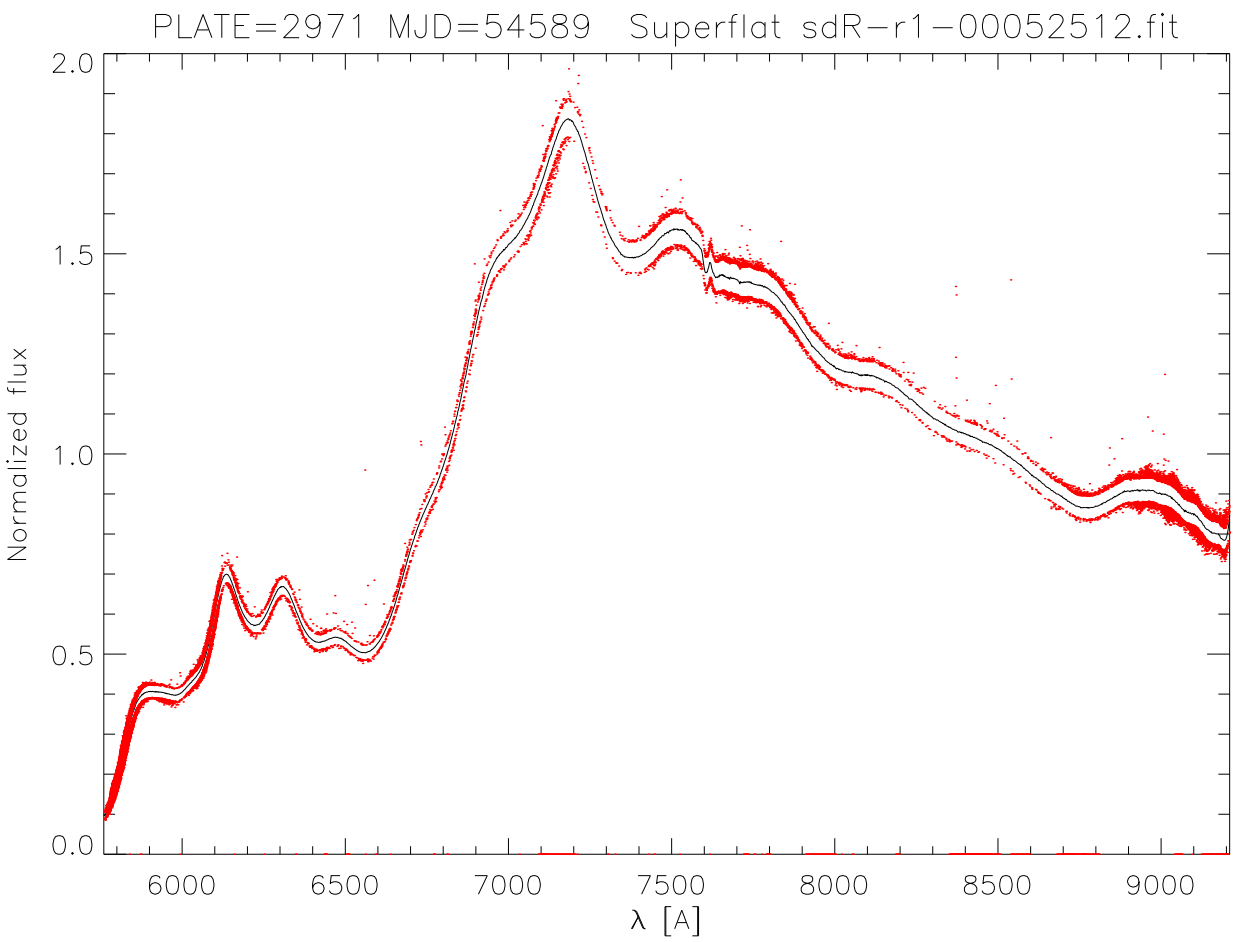

offset coeff residuals from ord=3 poly
1×10^-4
5×10^-5
0
−5×10^-5
−1×10^-4
0
50
100
150
200
250
300
fiber

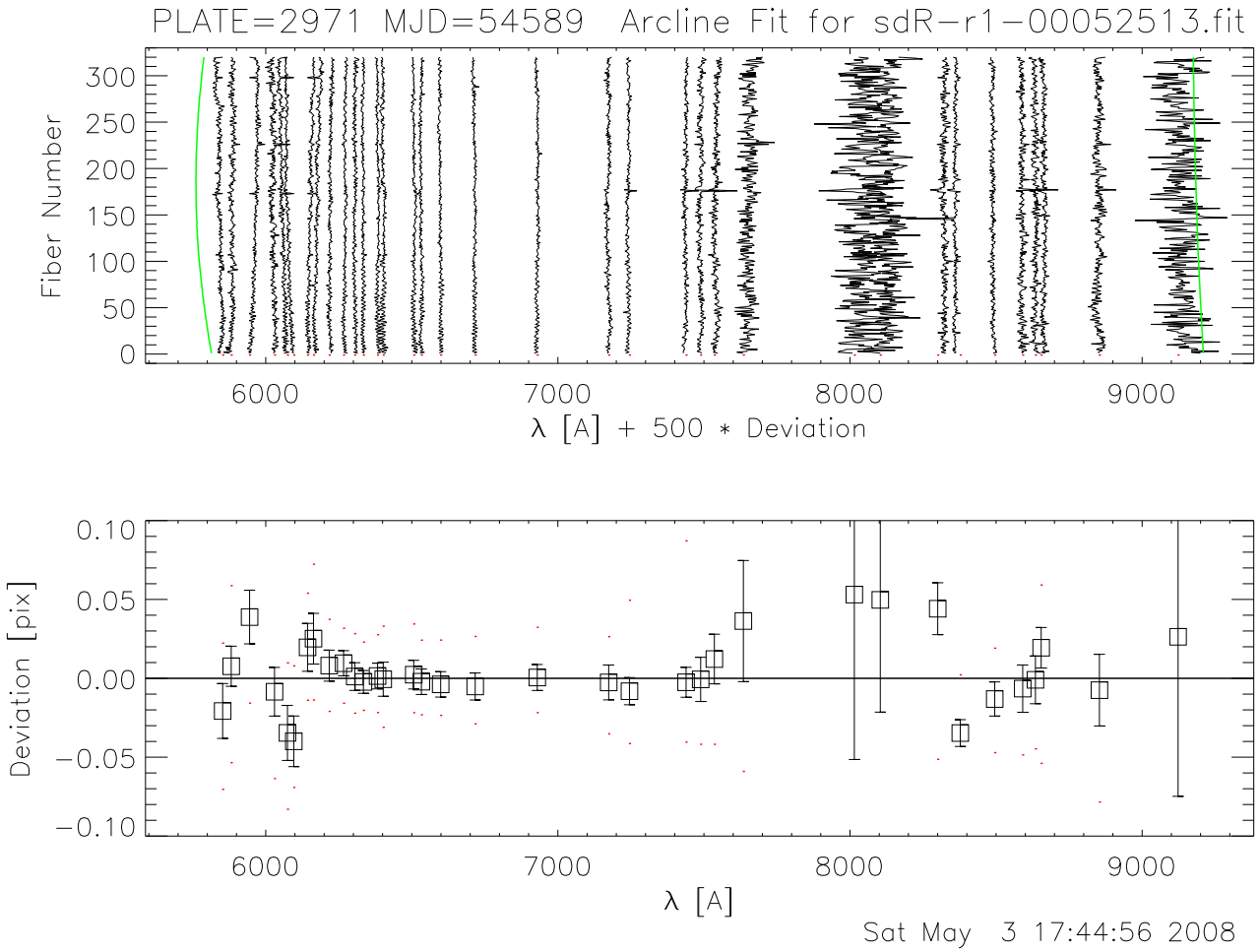

scale coeff residuals from ord=3 poly
4×10⁻⁵
2×10⁻⁵
0
−2×10⁻⁵
−4×10⁻⁵
0
50
100
150
200
250
300
fiber

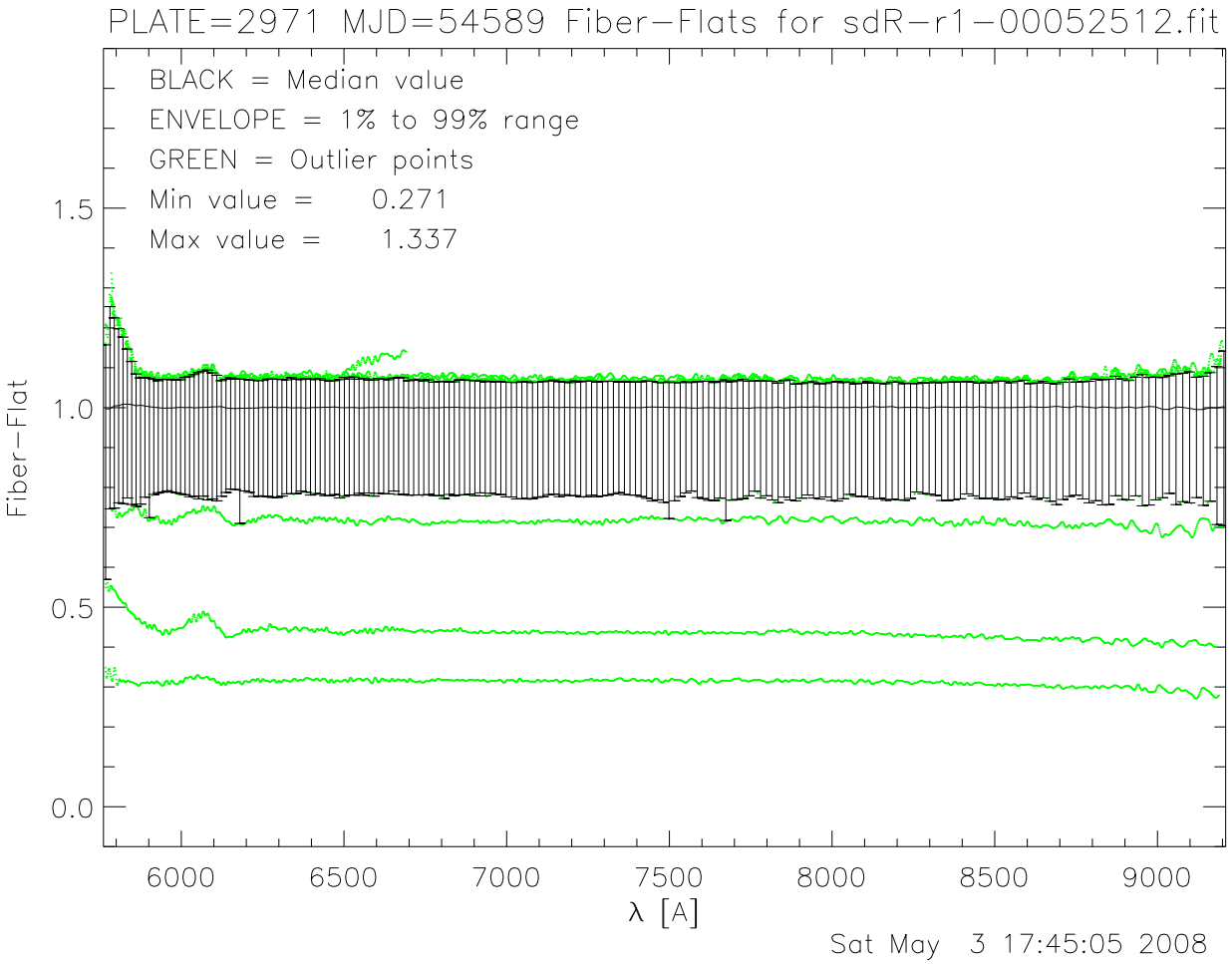

PLATE=2971 MJD=54589 flat extraction chi^2 for sdR−r1−00052507.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
2
4
6
8
10
0
500
1000
1500
2000

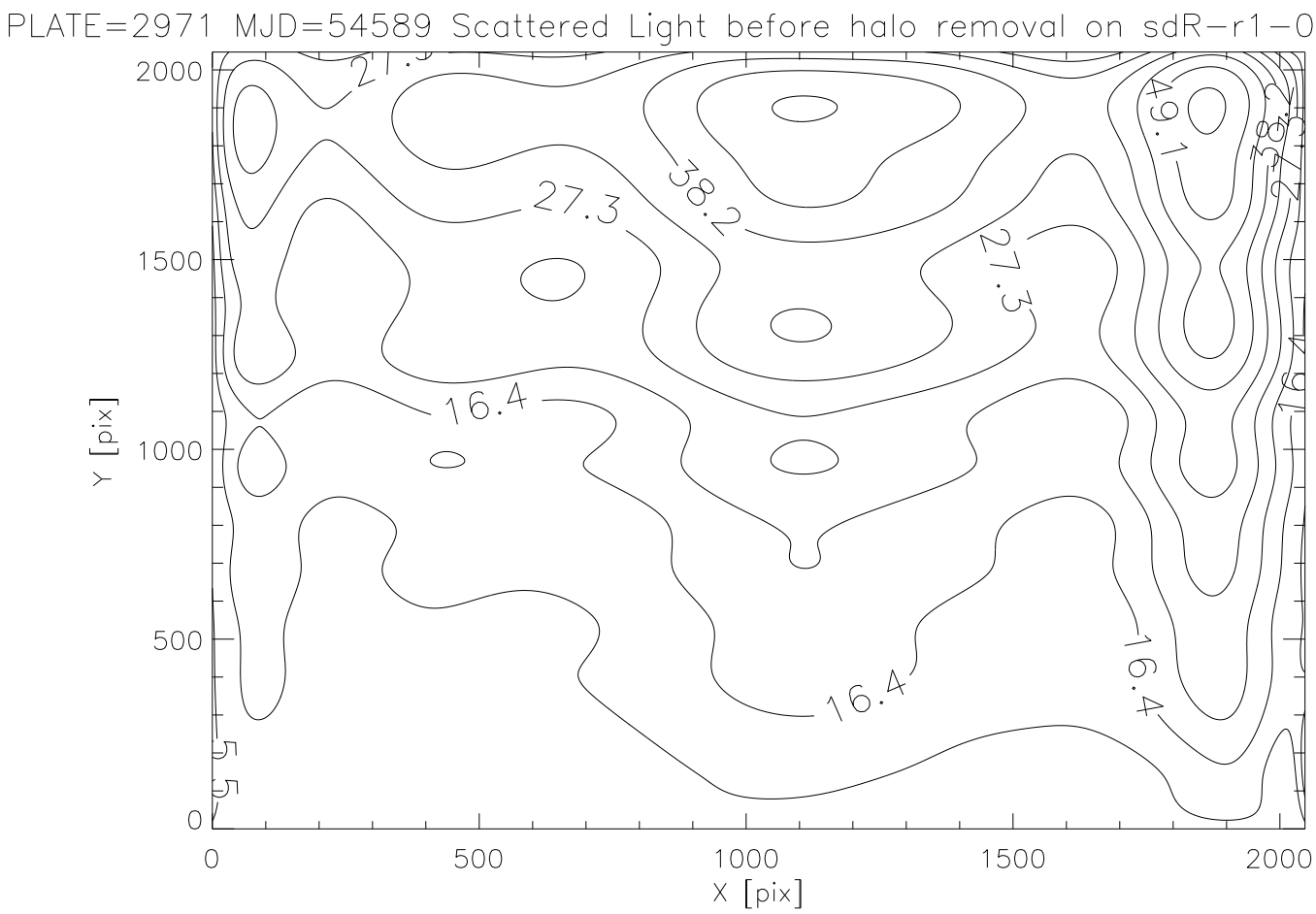

PLATE=2971 MJD=54589 Superflat sdR-r1-00052507.fit
Normalized flux
2.0
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

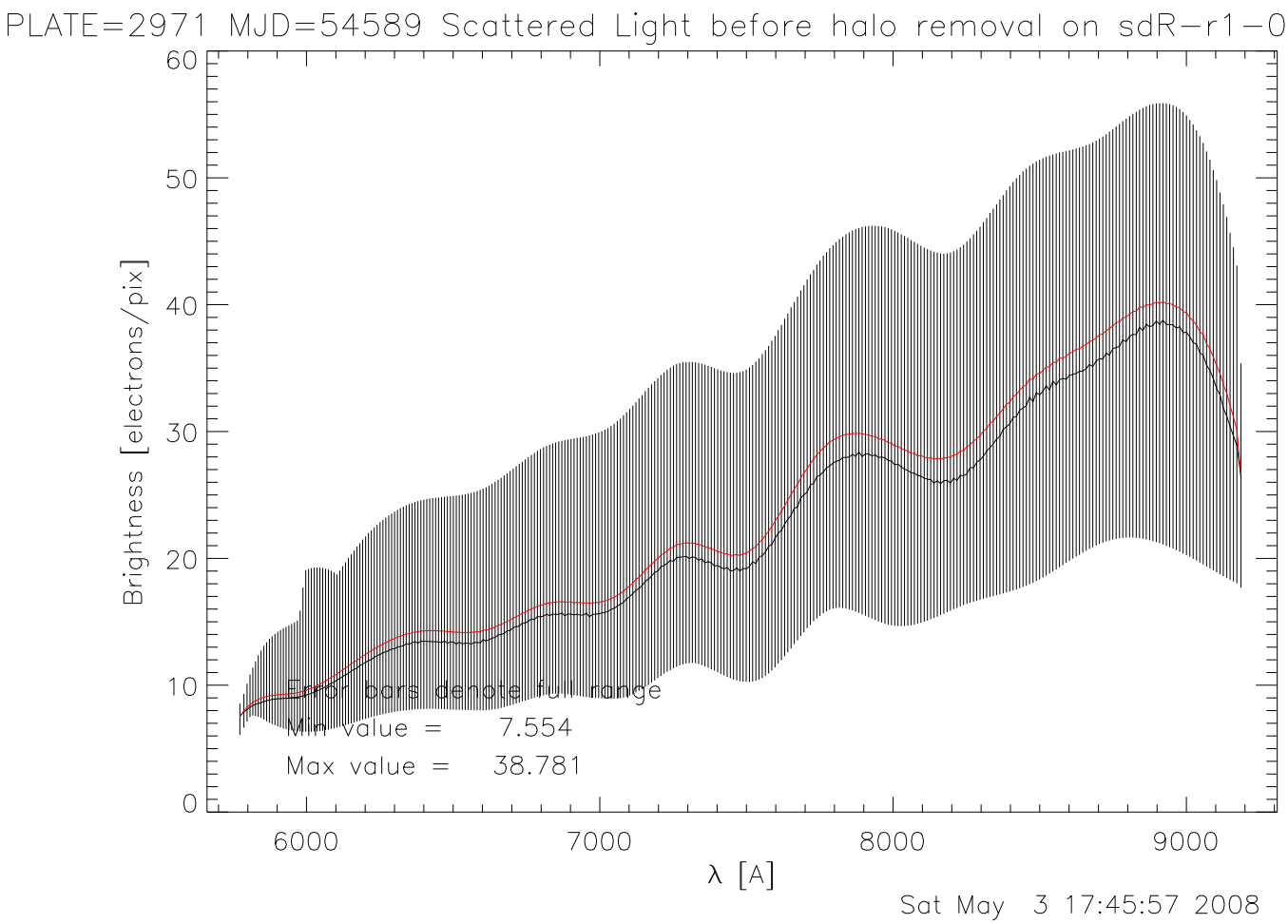

PLATE=2971 MJD=54589 flat extraction chi^2 for sdR−r1−00052512.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
2
4
6
8
10
0
500
1000
1500
2000

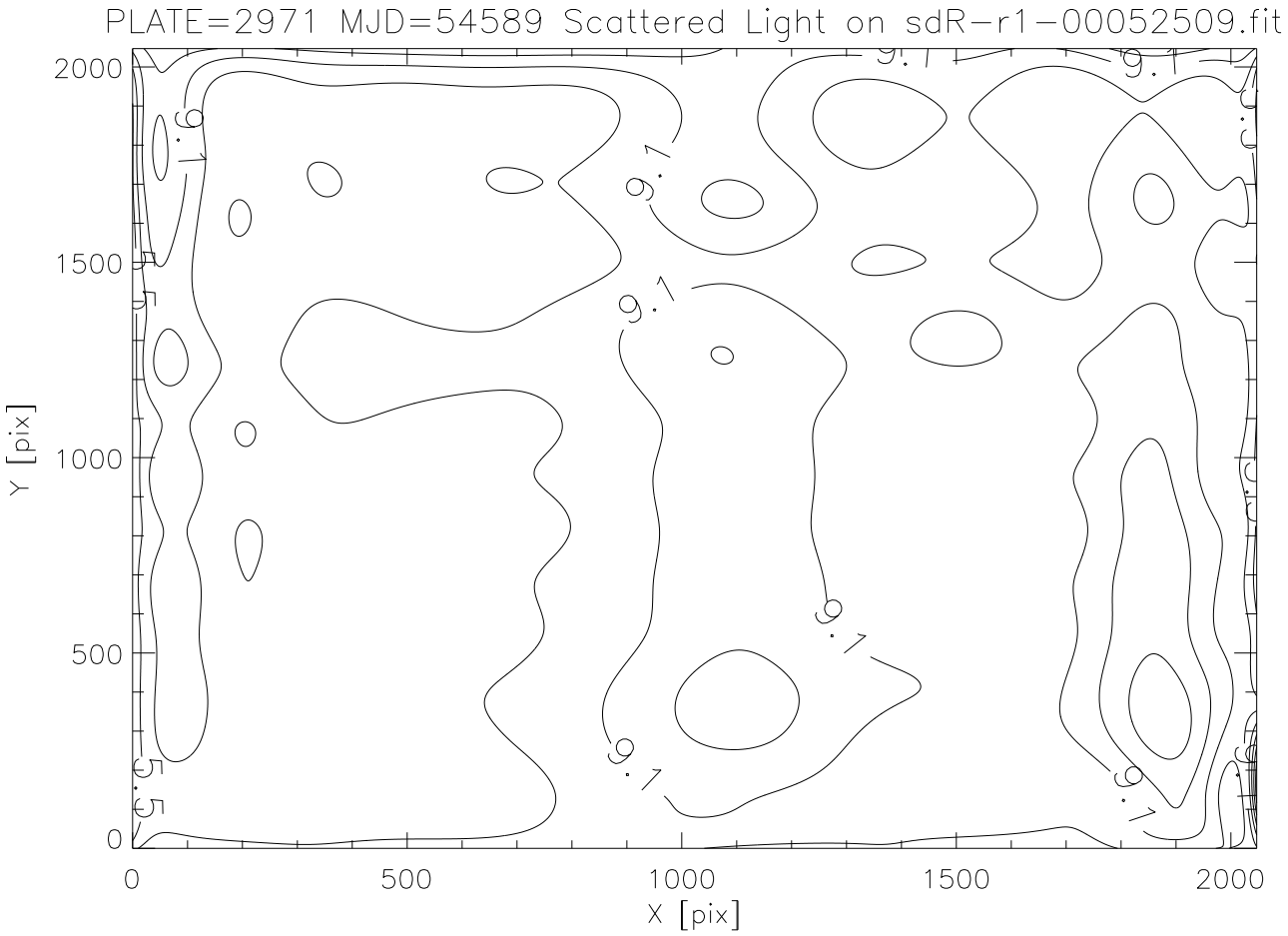

PLATE=2971 MJD=54589 Superflat sdR-r1-00052512.fit
Normalized flux
2.0
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

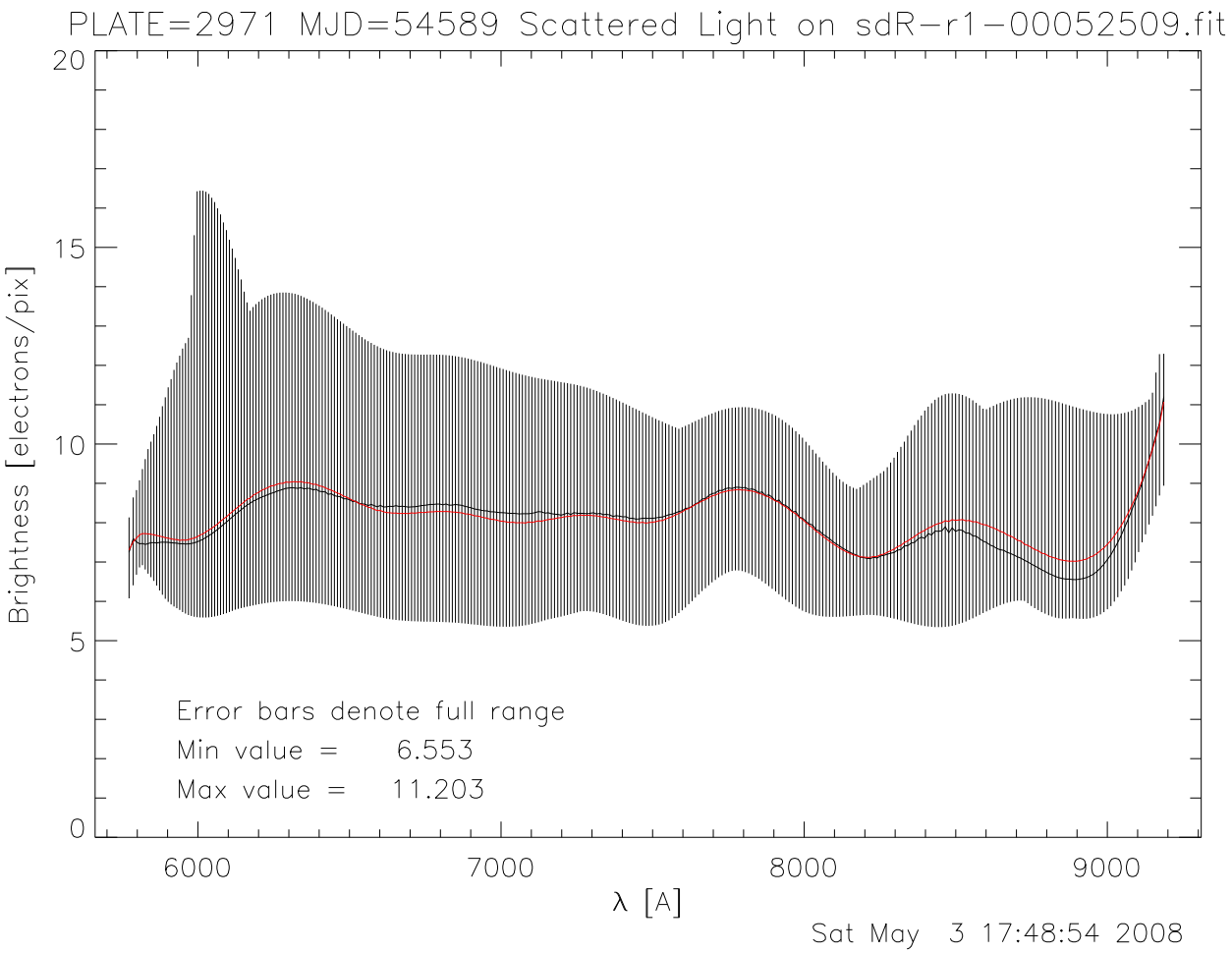

PLATE=2971 MJD=54589 Arcline Fit for sdR-r1-00052513.fit
Fiber Number
300
250
200
150
100
50
0
6000
7000
8000
9000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
6000
7000
8000
9000
λ [A]
Sat May 3 17:44:56 2008

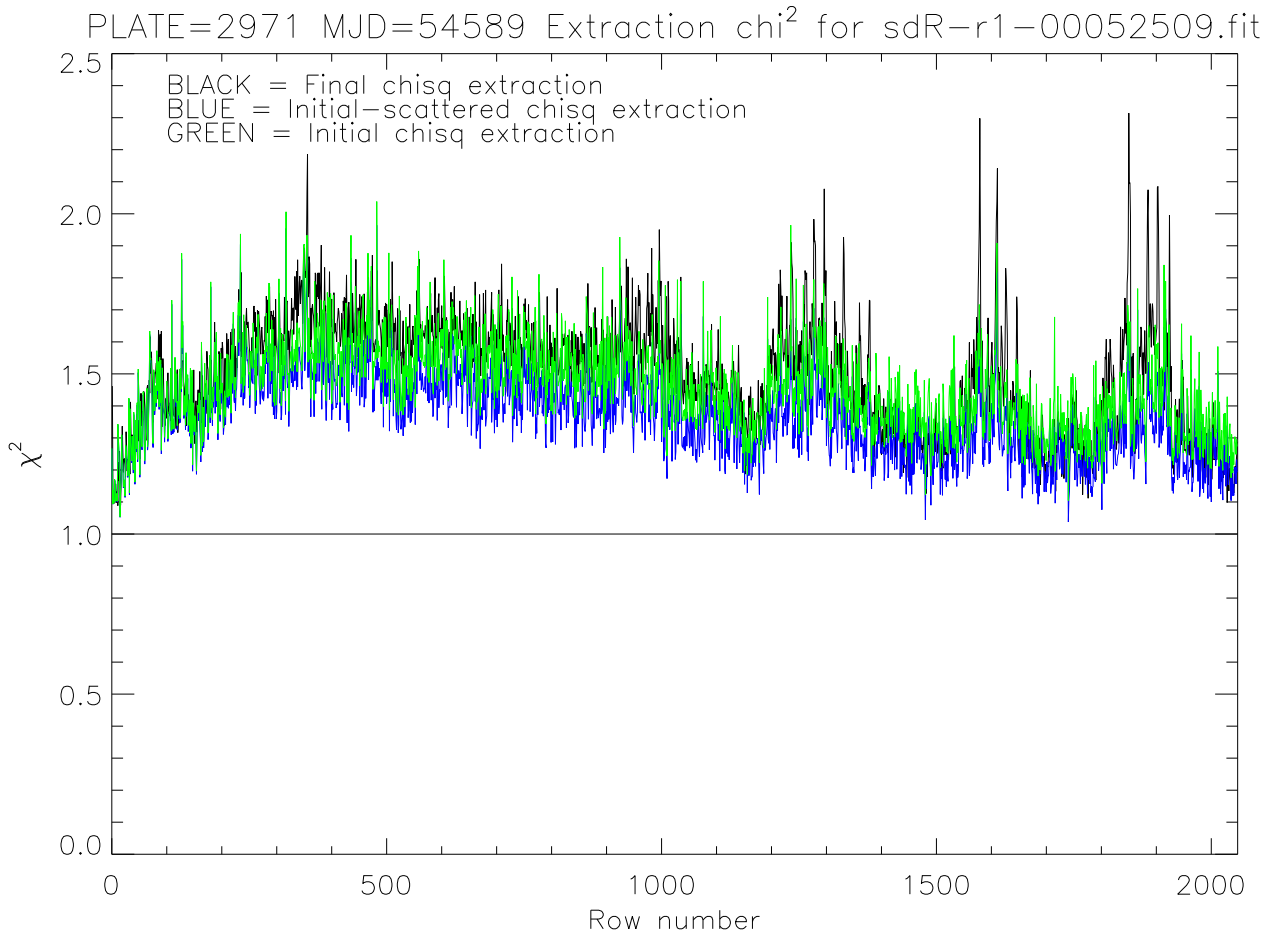

PLATE=2971 MJD=54589 Fiber−Flats for sdR−r1−00052512.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.271
Max value = 1.337
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sat May 3 17:45:05 2008

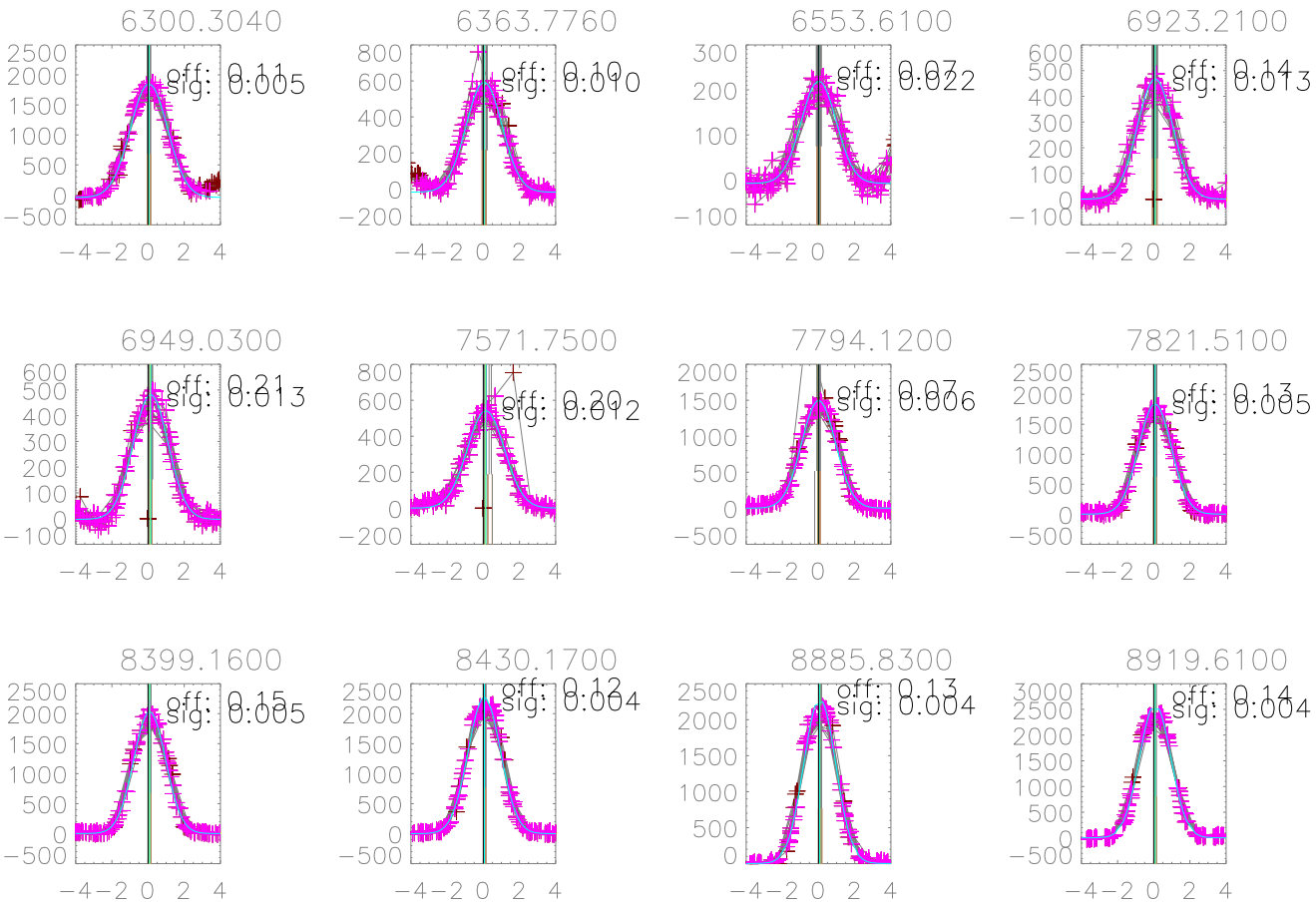

PLATE=2971 MJD=54589 Scattered Light before halo removal on sdR-r1-00052509.fi
27.3
38.2
49.1
16.4
5.5
Y [pix]
X [pix]
0
500
1000
1500
2000

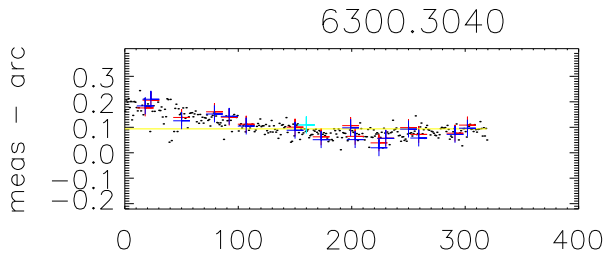

PLATE=2971 MJD=54589 Scattered Light before halo removal on sdR-r1-00052509.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 7.554
Max value = 38.781
Sat May 3 17:45:57 2008

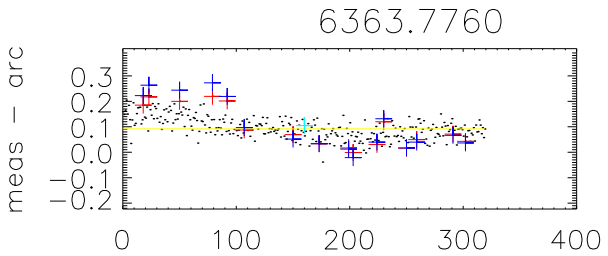

PLATE=2971 MJD=54589 Scattered Light on sdR-r1-00052509.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
9.1
5.5

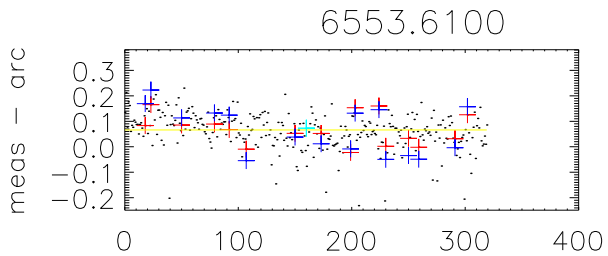

PLATE=2971 MJD=54589 Scattered Light on sdR-r1-00052509.fit
Brightness [electrons/pix]
20
15
10
5
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 6.553
Max value = 11.203
Sat May 3 17:48:54 2008

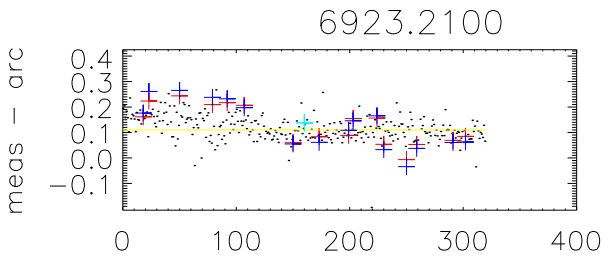

PLATE=2971 MJD=54589 Extraction chi^2 for sdR−r1−00052509.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
2.5
2.0
1.5
1.0
0.5
0.0
0
500
1000
1500
2000
Row number

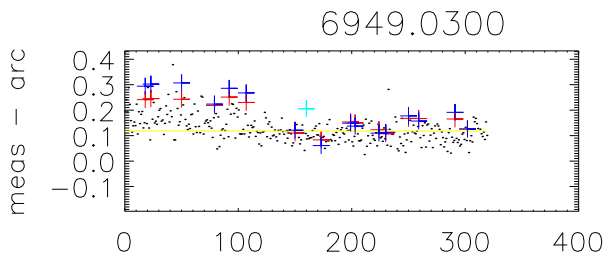

6300.3040
off: 0.11
sig: 0.005
6363.7760
off: 0.10
sig: 0.010
6553.6100
off: 0.07
sig: 0.022
6923.2100
off: 0.14
sig: 0.013
6949.0300
off: 0.21
sig: 0.013
7571.7500
off: 0.20
sig: 0.012
7794.1200
off: 0.07
sig: 0.006
7821.5100
off: 0.13
sig: 0.005
8399.1600
off: 0.15
sig: 0.005
8430.1700
off: 0.12
sig: 0.004
8885.8300
off: 0.13
sig: 0.004
8919.6100
off: 0.14
sig: 0.004

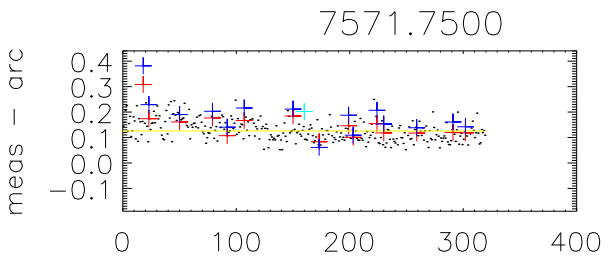

6300.3040
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

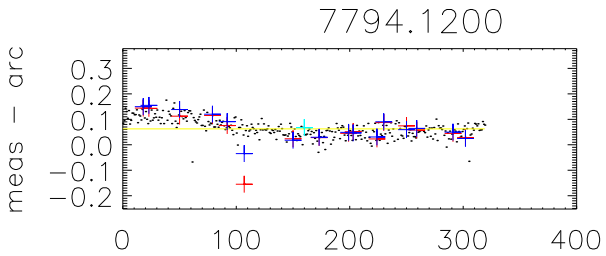

6363.7760
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

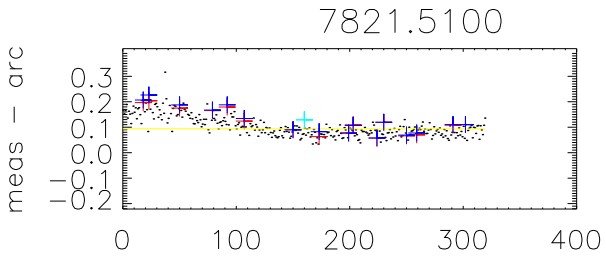

6553.6100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

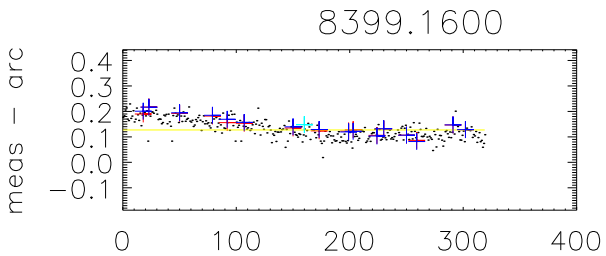

6923.2100
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

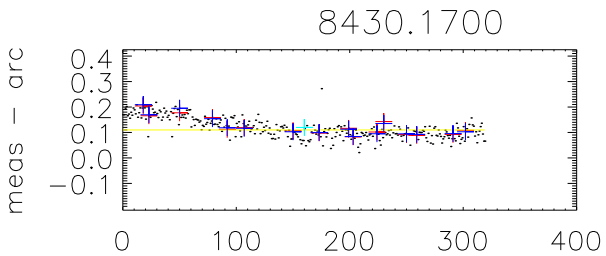

6949.0300
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

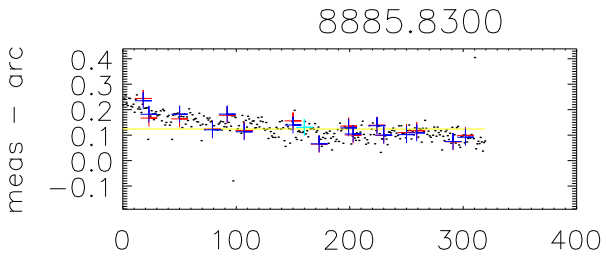

7571.7500
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

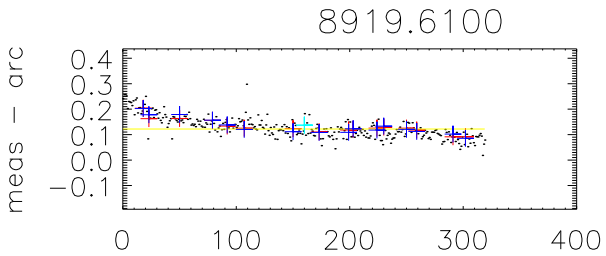

7794.1200
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

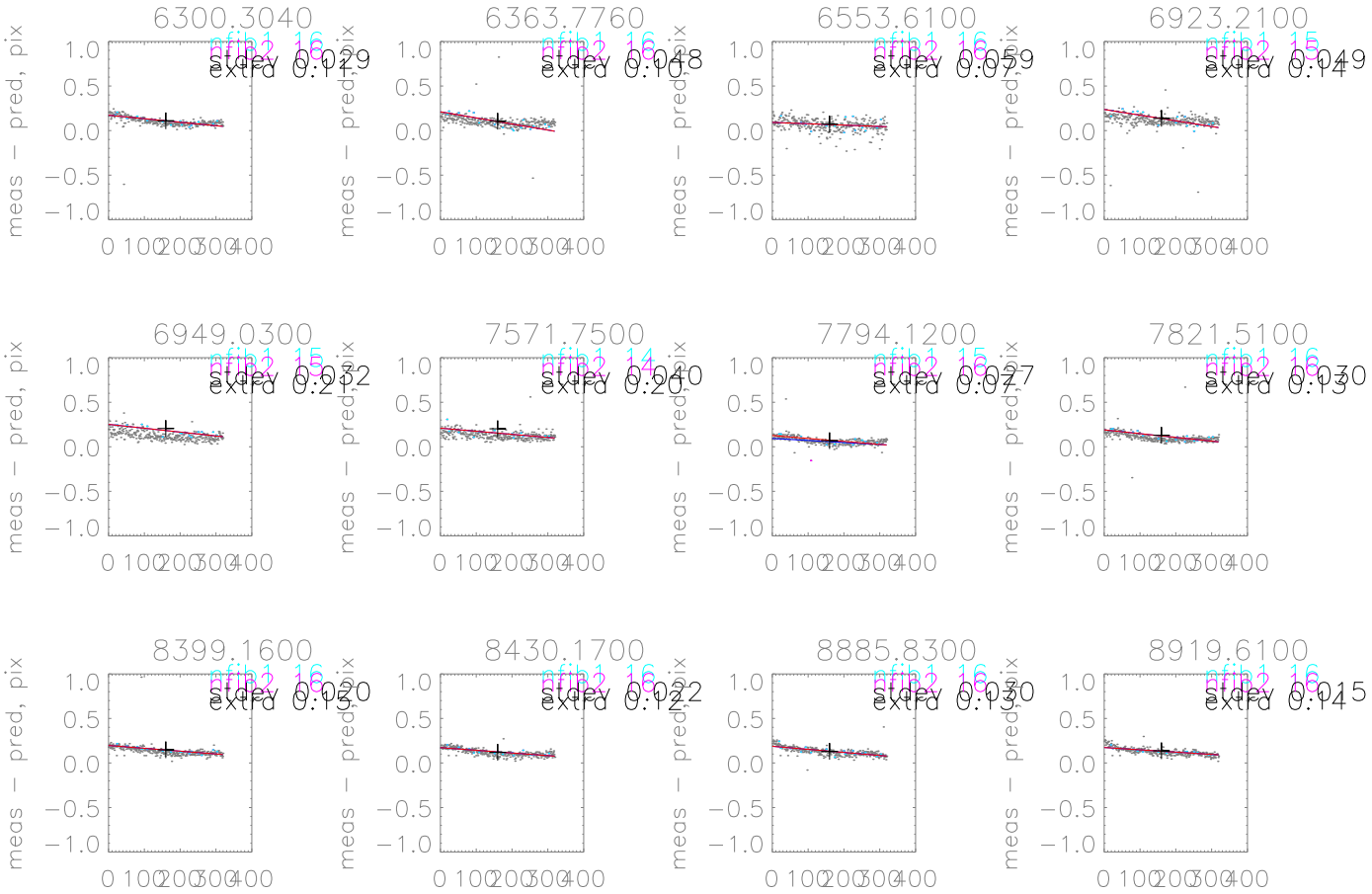

7821.5100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

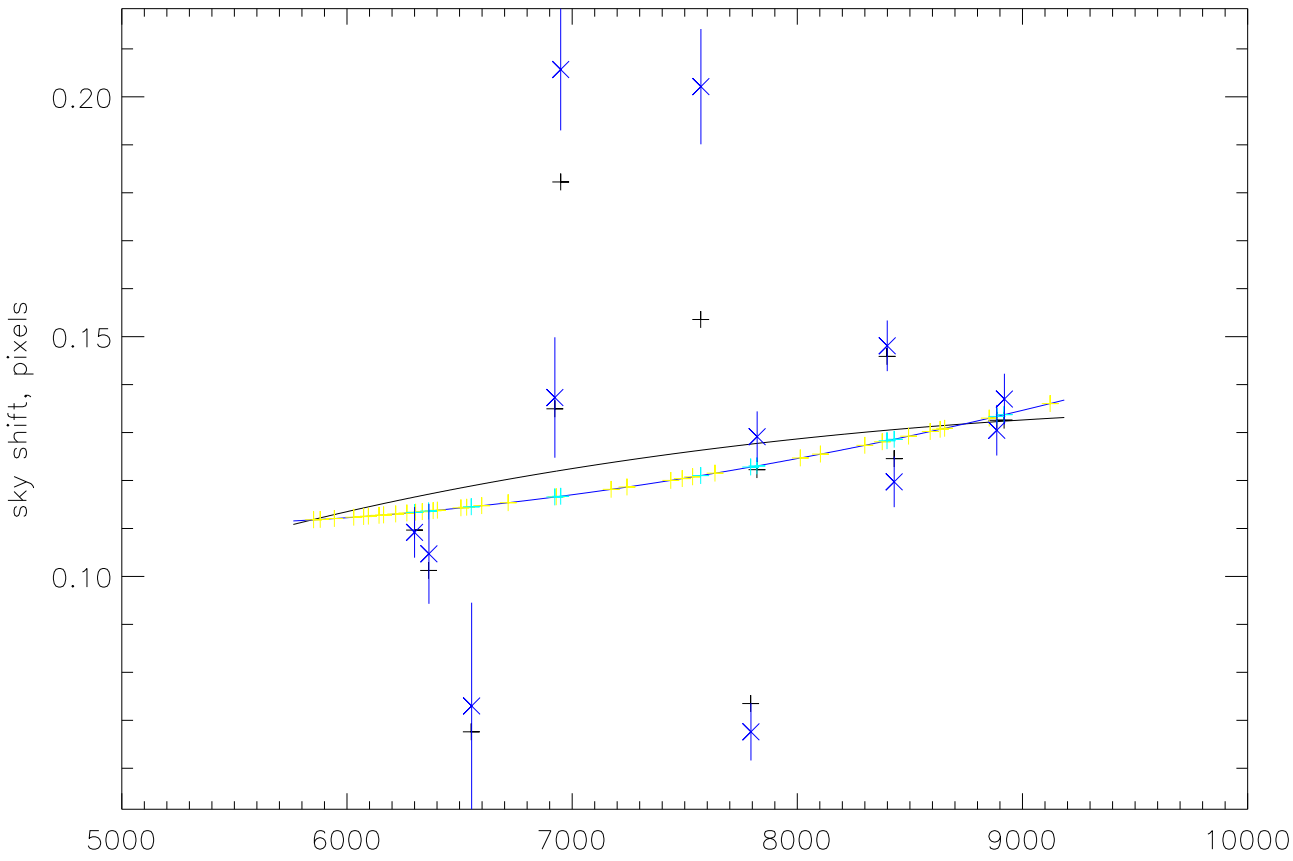

8399.1600
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

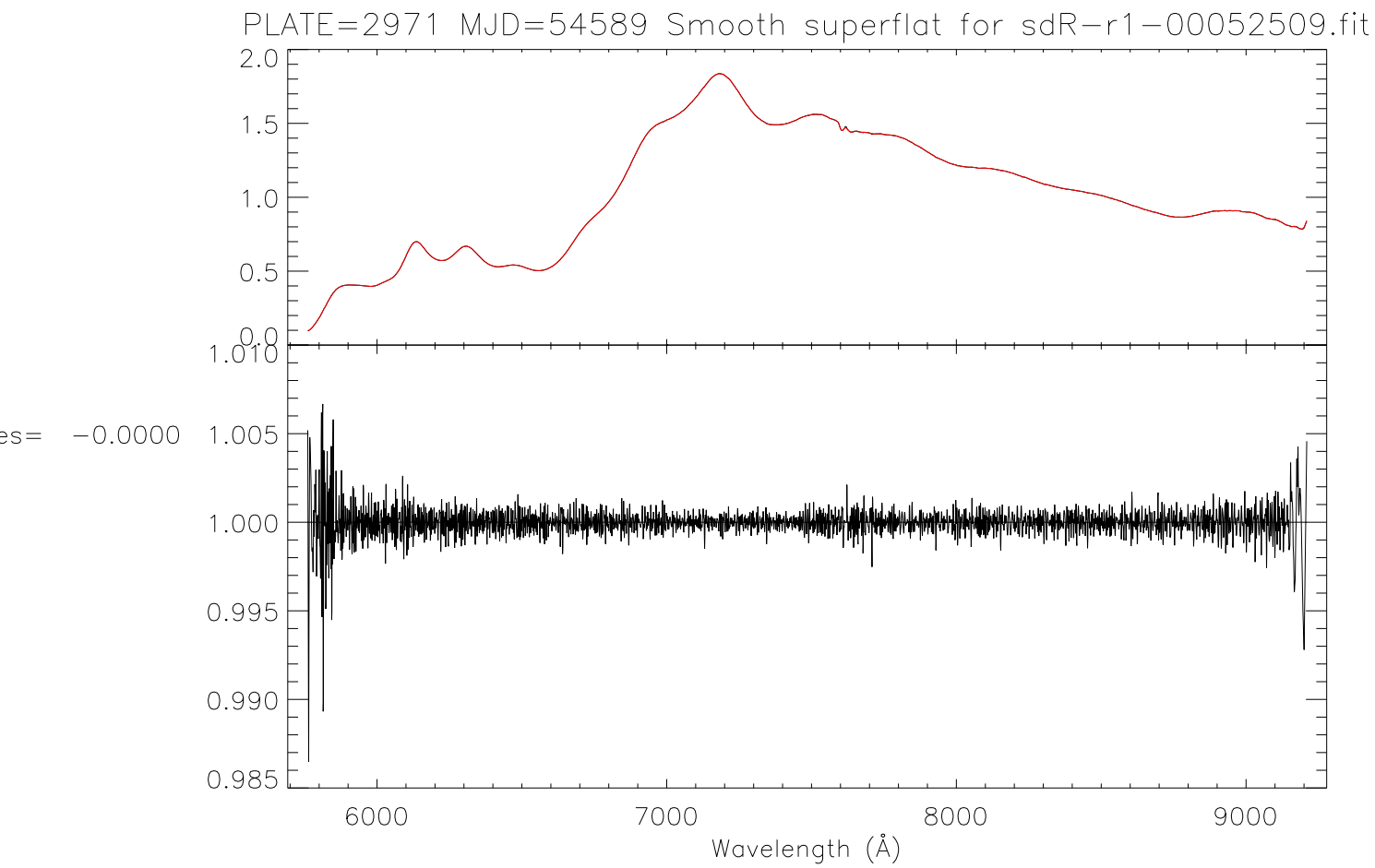

8430.1700
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

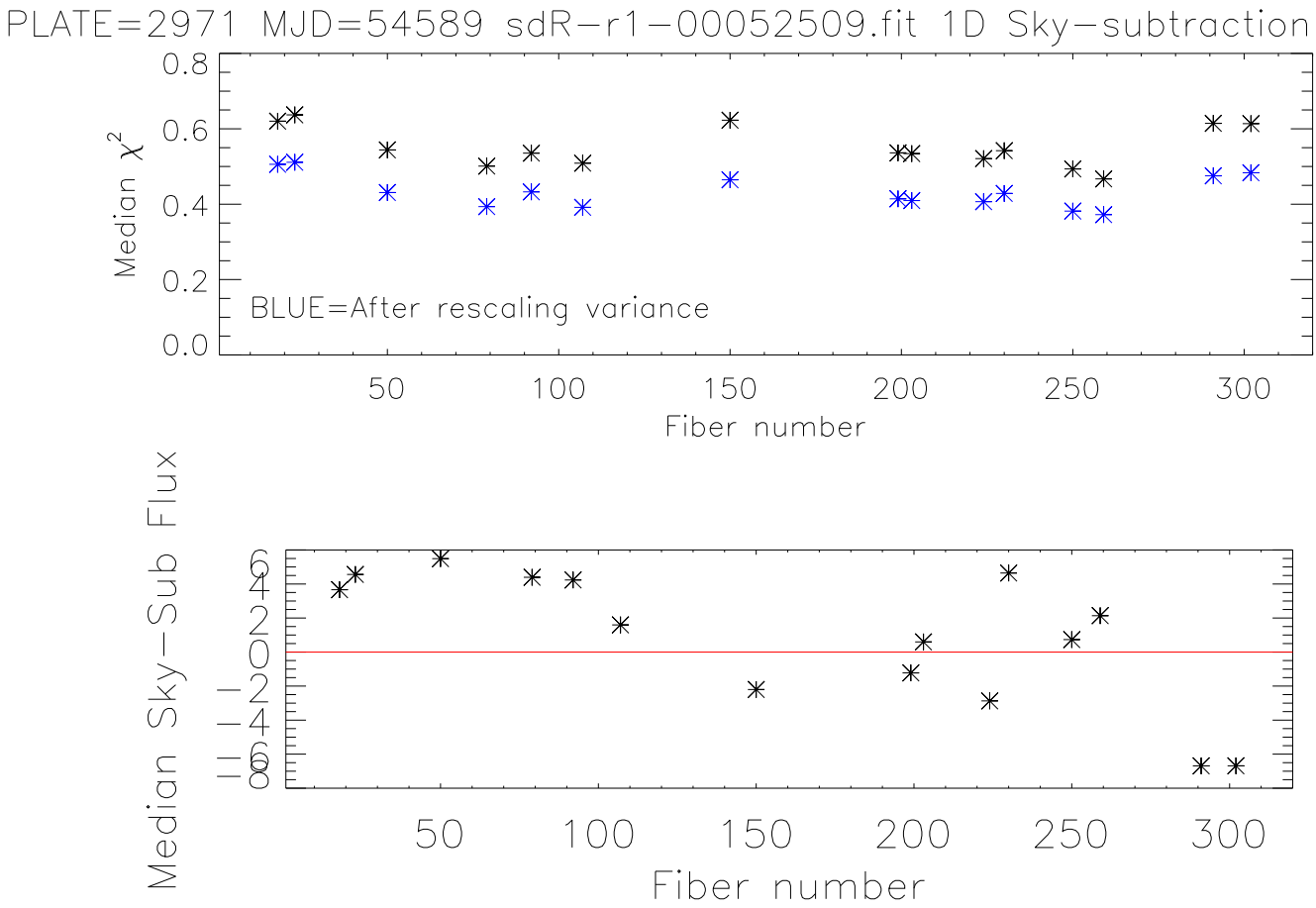

8885.8300
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400


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

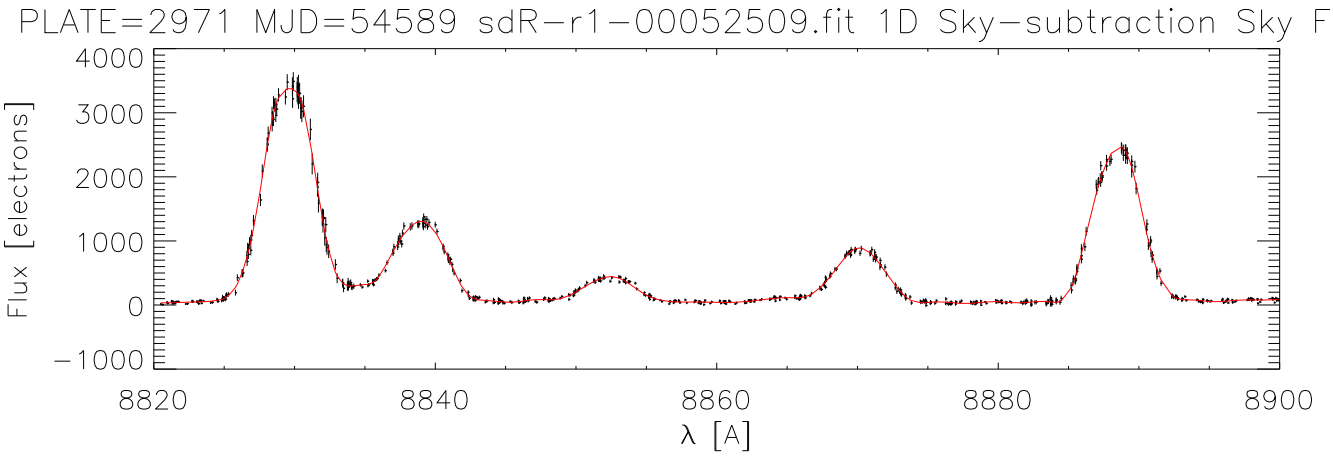

6300.3040
mfib1 16
mfib2 16
stdev 0.029
extra 0.12
6363.7760
mfib1 16
mfib2 16
stdev 0.048
extra 0.10
6553.6100
mfib1 16
mfib2 16
stdev 0.059
extra 0.07
6923.2100
mfib1 15
mfib2 16
stdev 0.049
extra 0.14
6949.0300
mfib1 15
mfib2 15
stdev 0.032
extra 0.21
7571.7500
mfib1 14
mfib2 16
stdev 0.040
extra 0.20
7794.1200
mfib1 15
mfib2 16
stdev 0.027
extra 0.07
7821.5100
mfib1 16
mfib2 16
stdev 0.030
extra 0.13
8399.1600
mfib1 16
mfib2 16
stdev 0.020
extra 0.13
8430.1700
mfib1 16
mfib2 16
stdev 0.022
extra 0.12
8885.8300
mfib1 16
mfib2 16
stdev 0.030
extra 0.13
8919.6100
mfib1 16
mfib2 16
stdev 0.015
extra 0.14
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

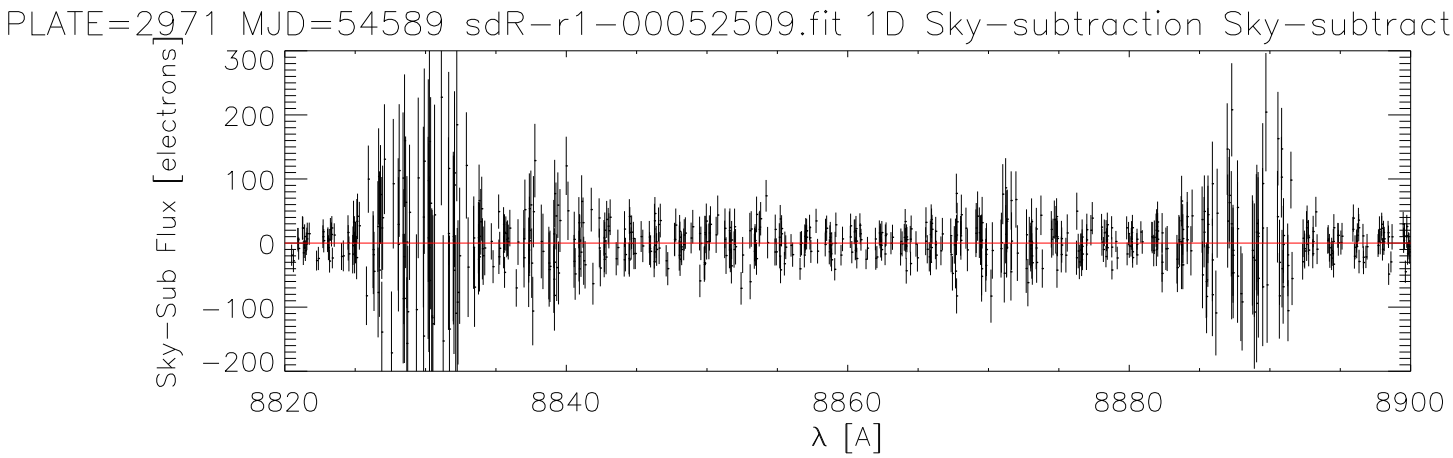

0.20
0.15
0.10
sky shift, pixels
5000
6000
7000
8000
9000
10000

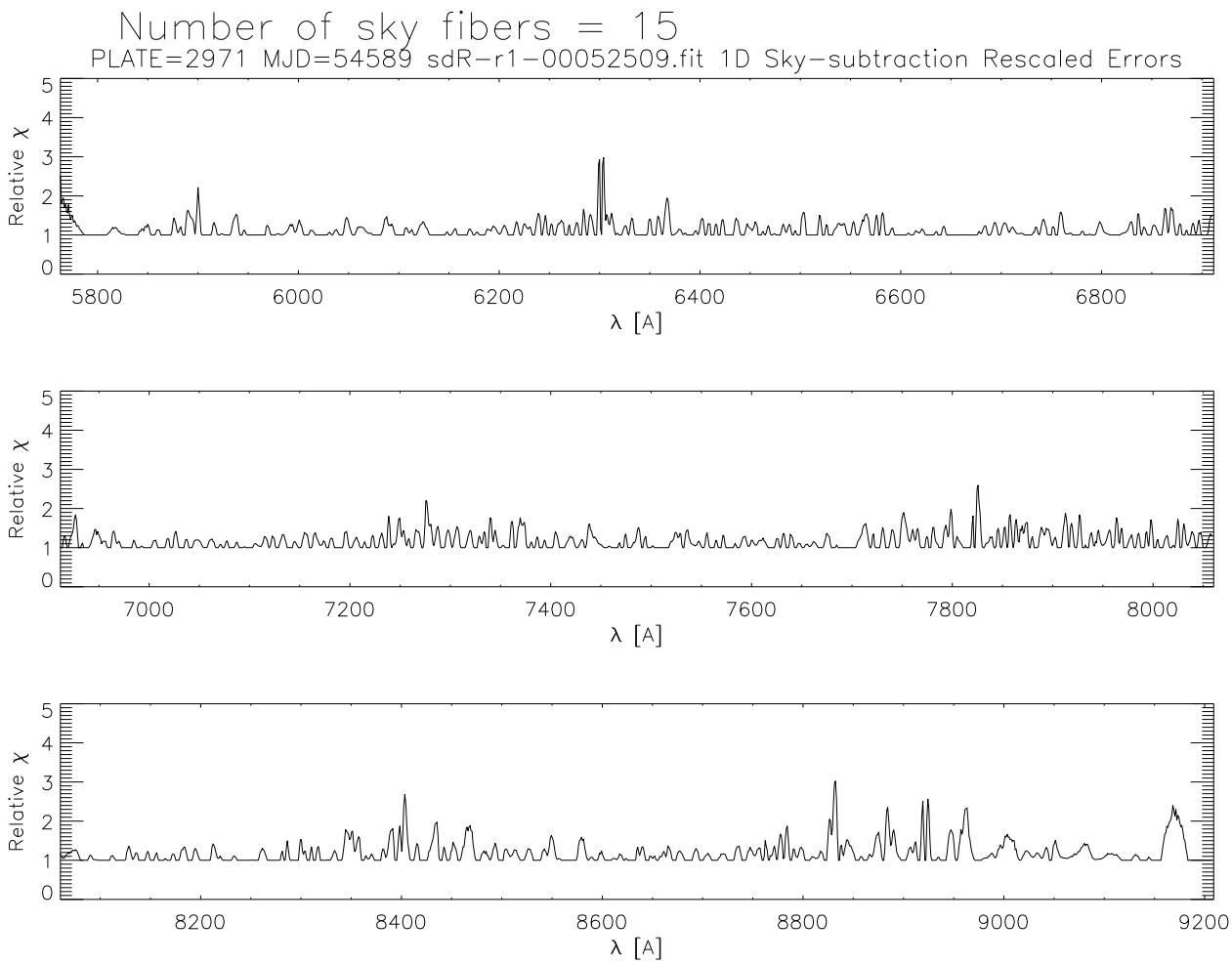

PLATE=2971 MJD=54589 Smooth superflat for sdR-r1-00052509.fit
2.0
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
0.985
es= −0.0000
6000
7000
8000
9000
Wavelength (Å)

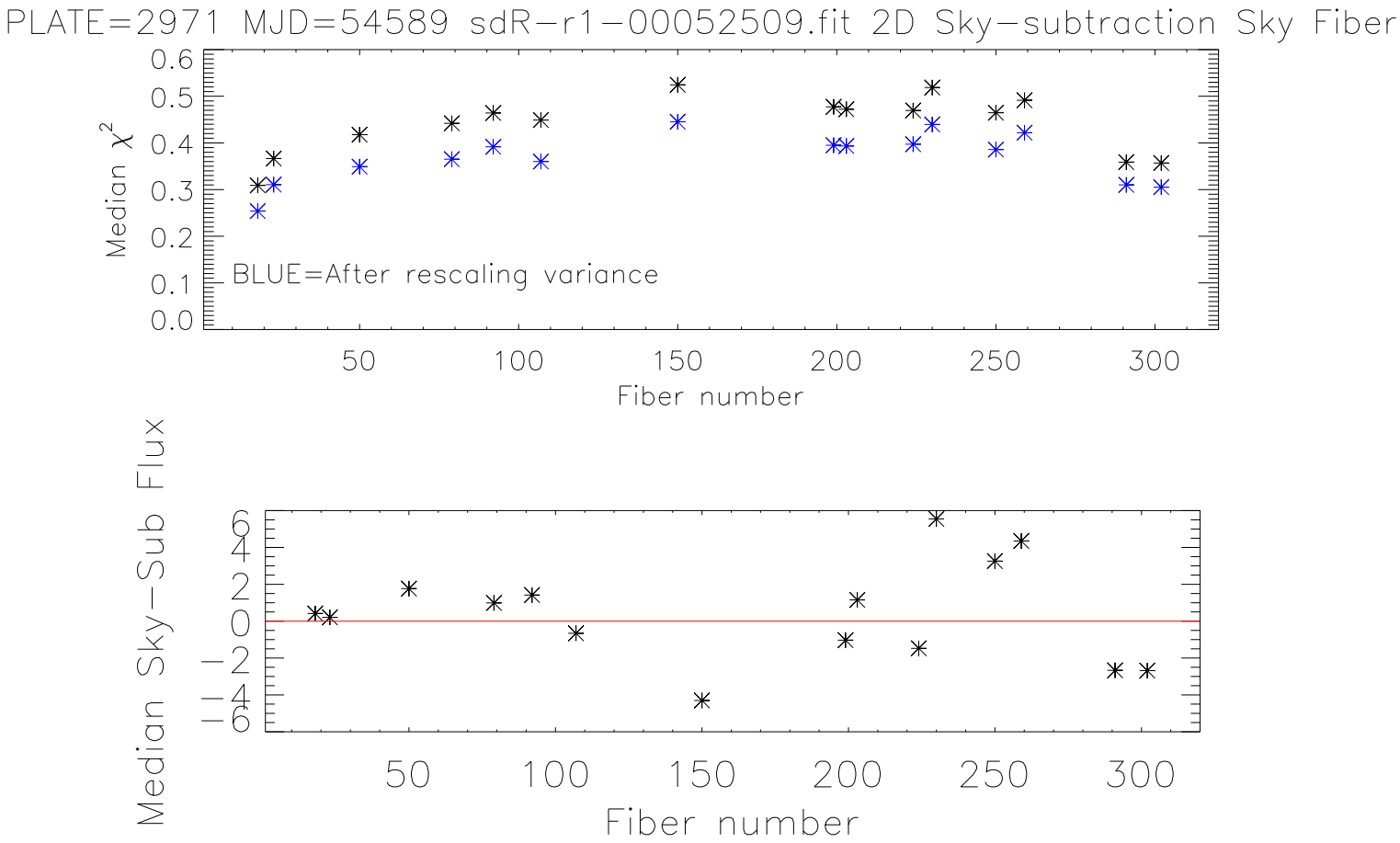

PLATE=2971 MJD=54589 sdR-r1-00052509.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number

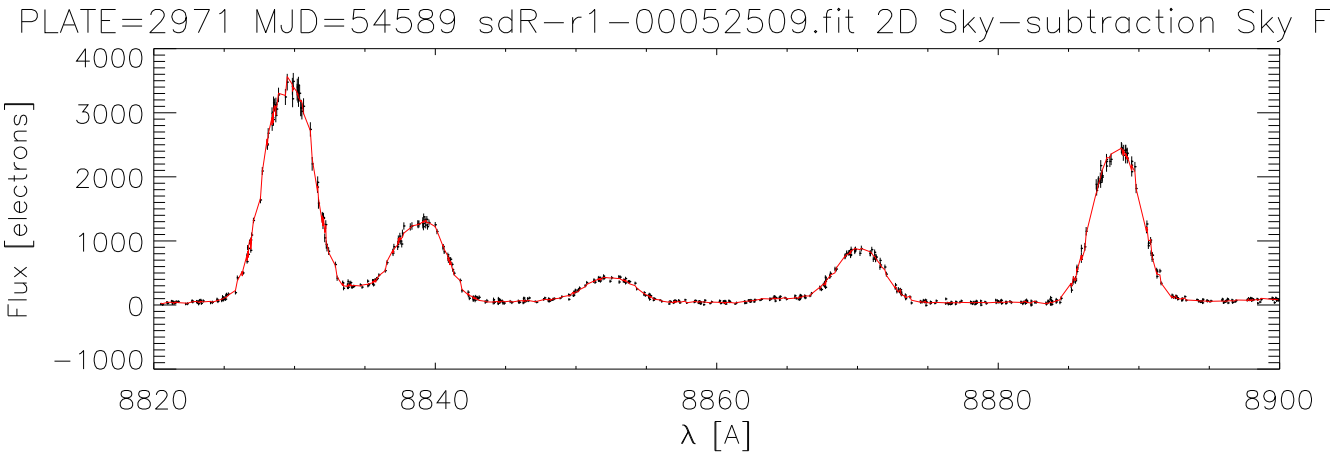
Median Sky-Sub Flux
-6e-11
-4e-11
-2e-11
0
2e-11
4e-11
6e-11
50
100
150
200
250
300
Fiber number

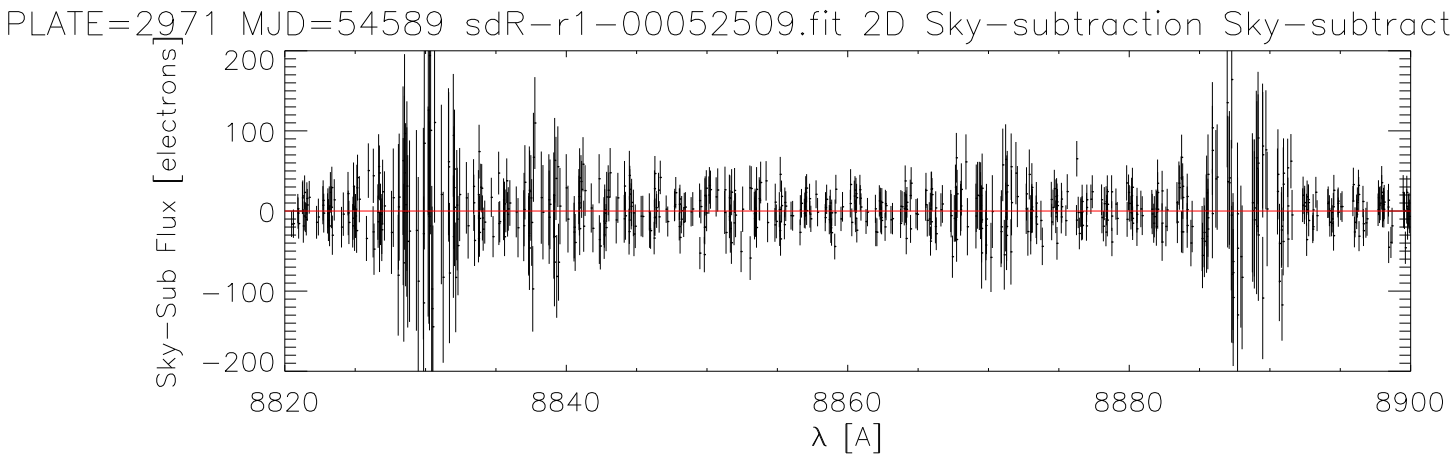

PLATE=2971 MJD=54589 sdR-r1-00052509.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
-1000
8820
8840
8860
8880
8900
λ [A]

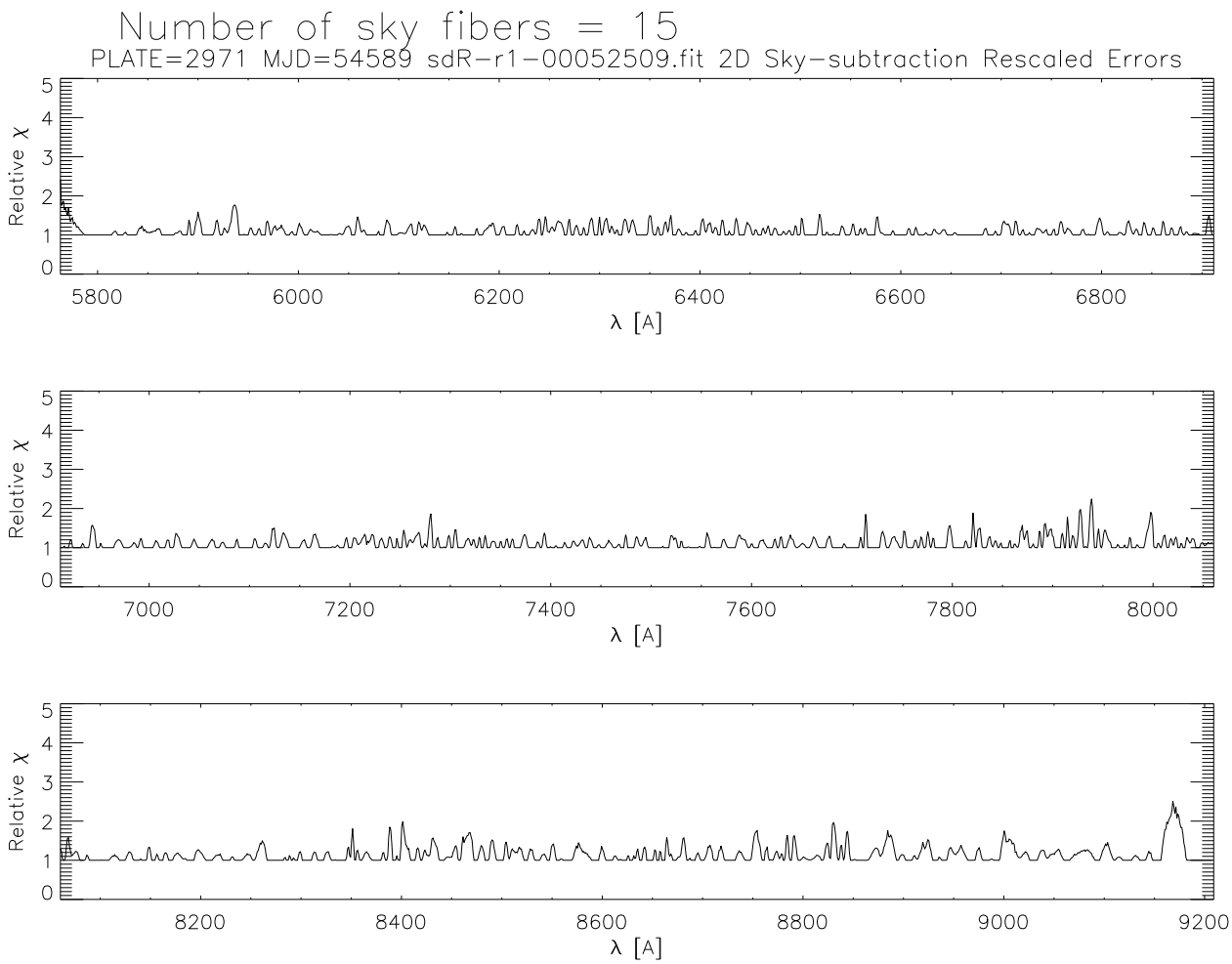

PLATE=2971 MJD=54589 sdR-r1-00052509.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
8820
8840
8860
8880
8900
λ [A]

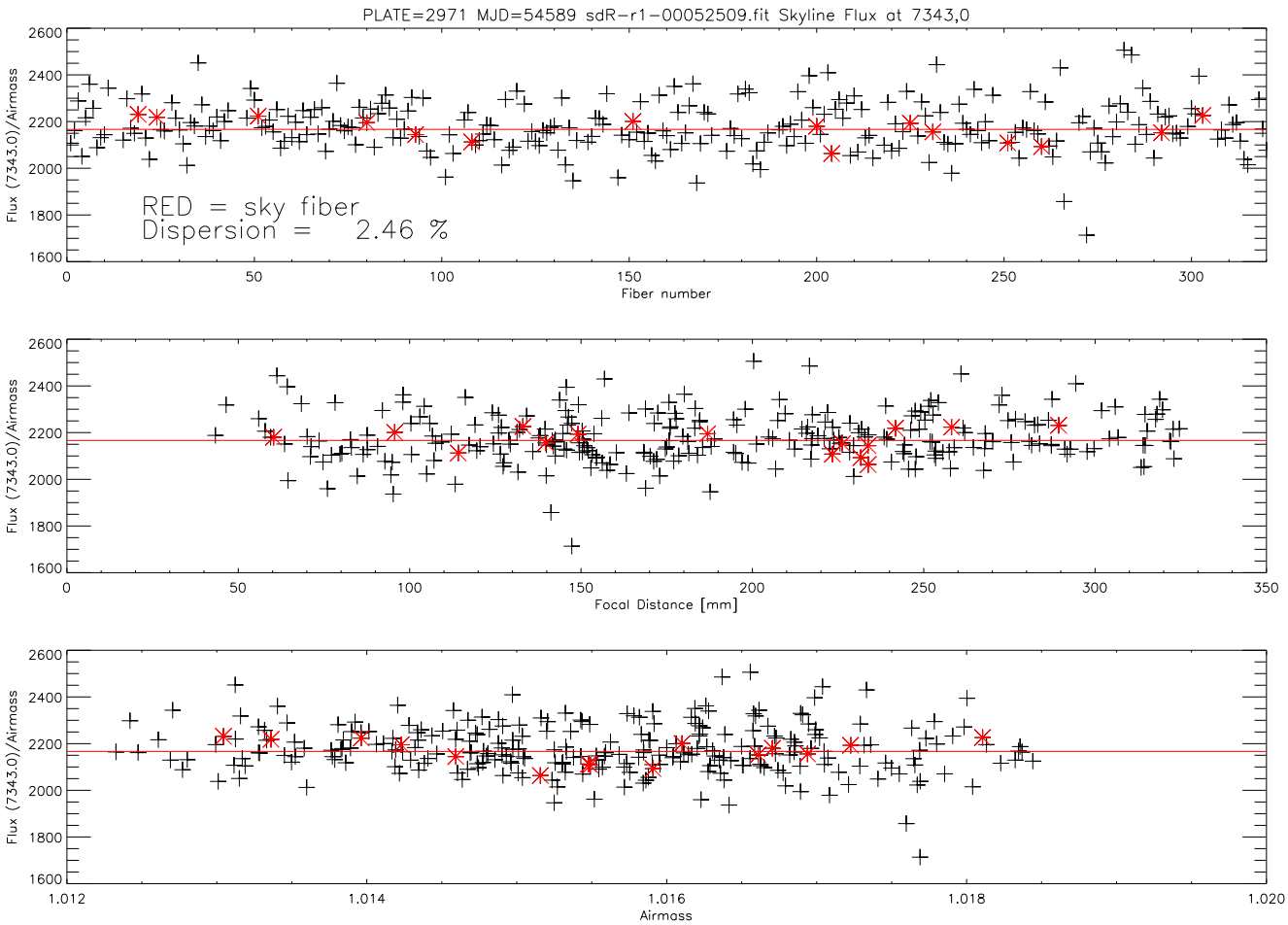

Number of sky fibers = 15
PLATE=2971 MJD=54589 sdR-r1-00052509.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

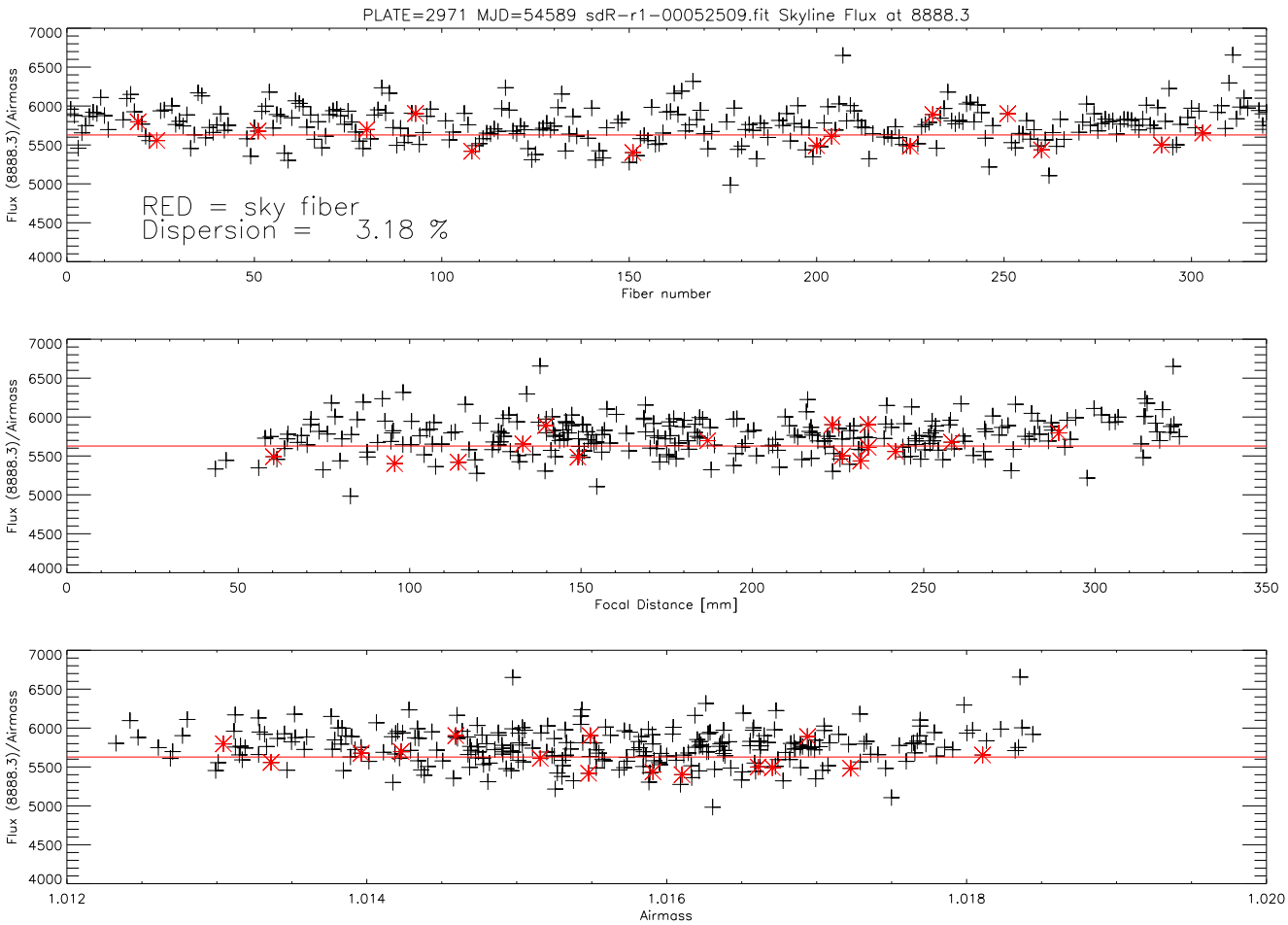

PLATE=2971 MJD=54589 sdR-r1-00052509.fit 2D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

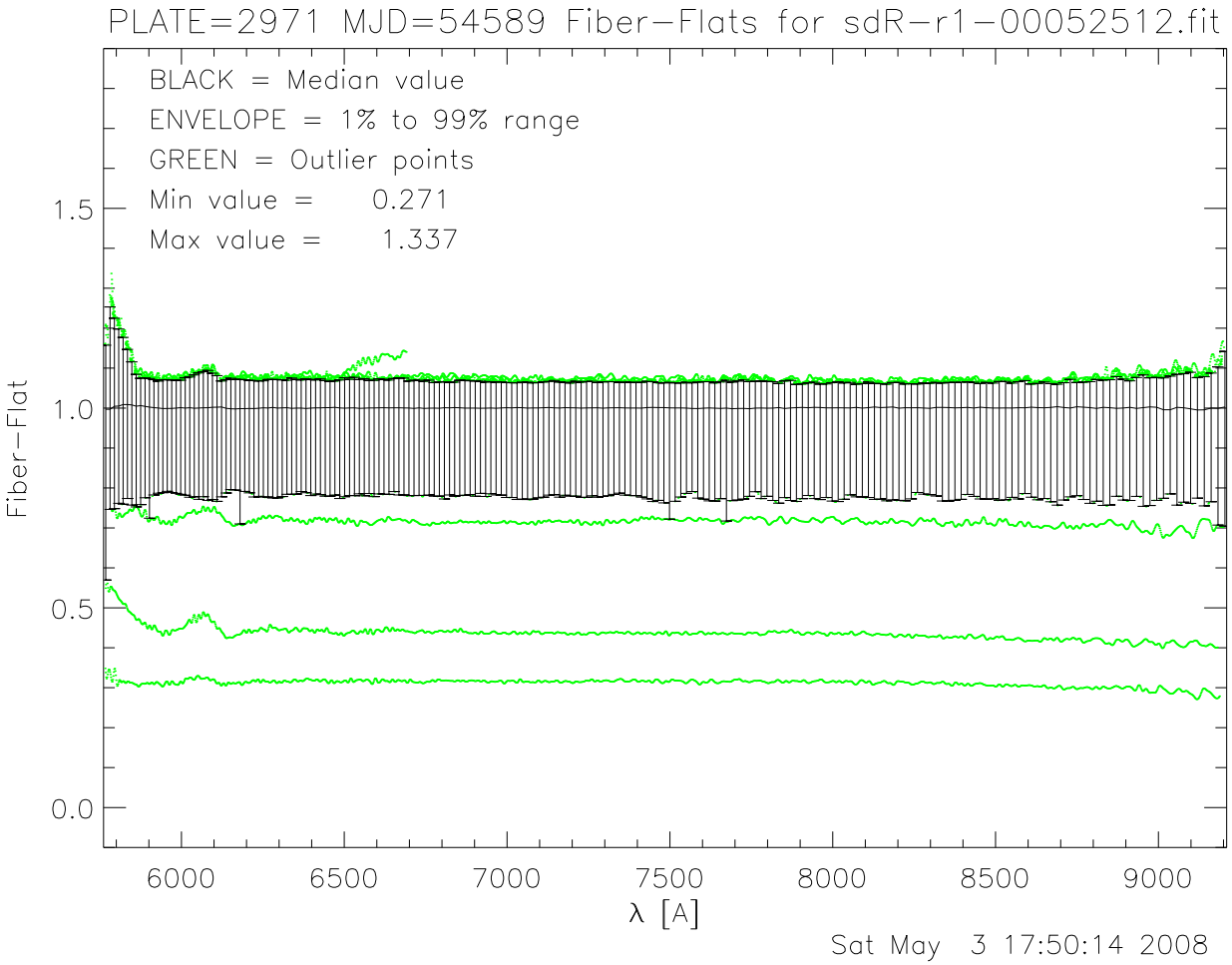

PLATE=2971 MJD=54589 sdR-r1-00052509.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
−1000
8820
8840
8860
8880
8900
λ [A]

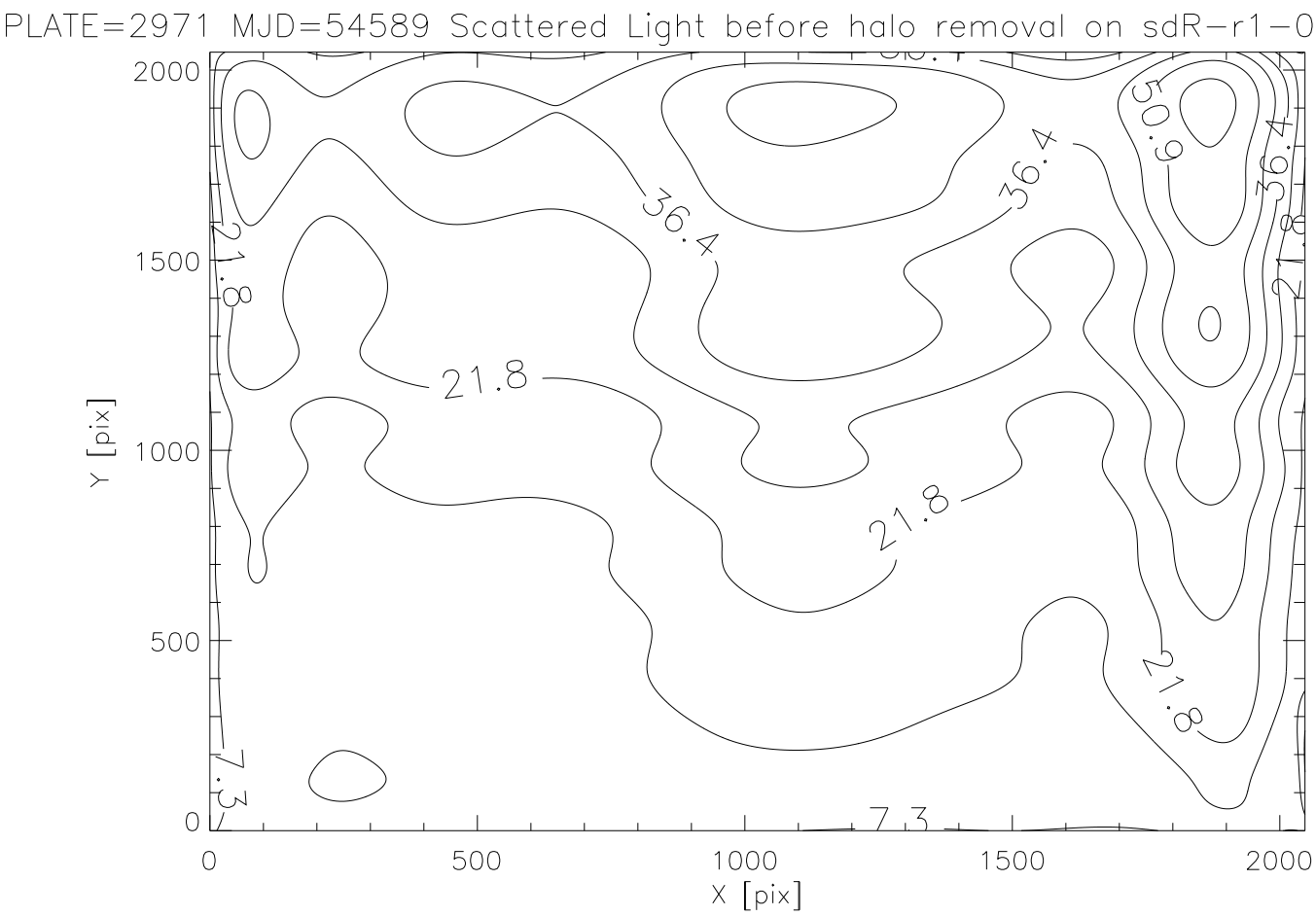

PLATE=2971 MJD=54589 sdR-r1-00052509.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
−100
−200
8820
8840
8860
8880
8900
λ [A]

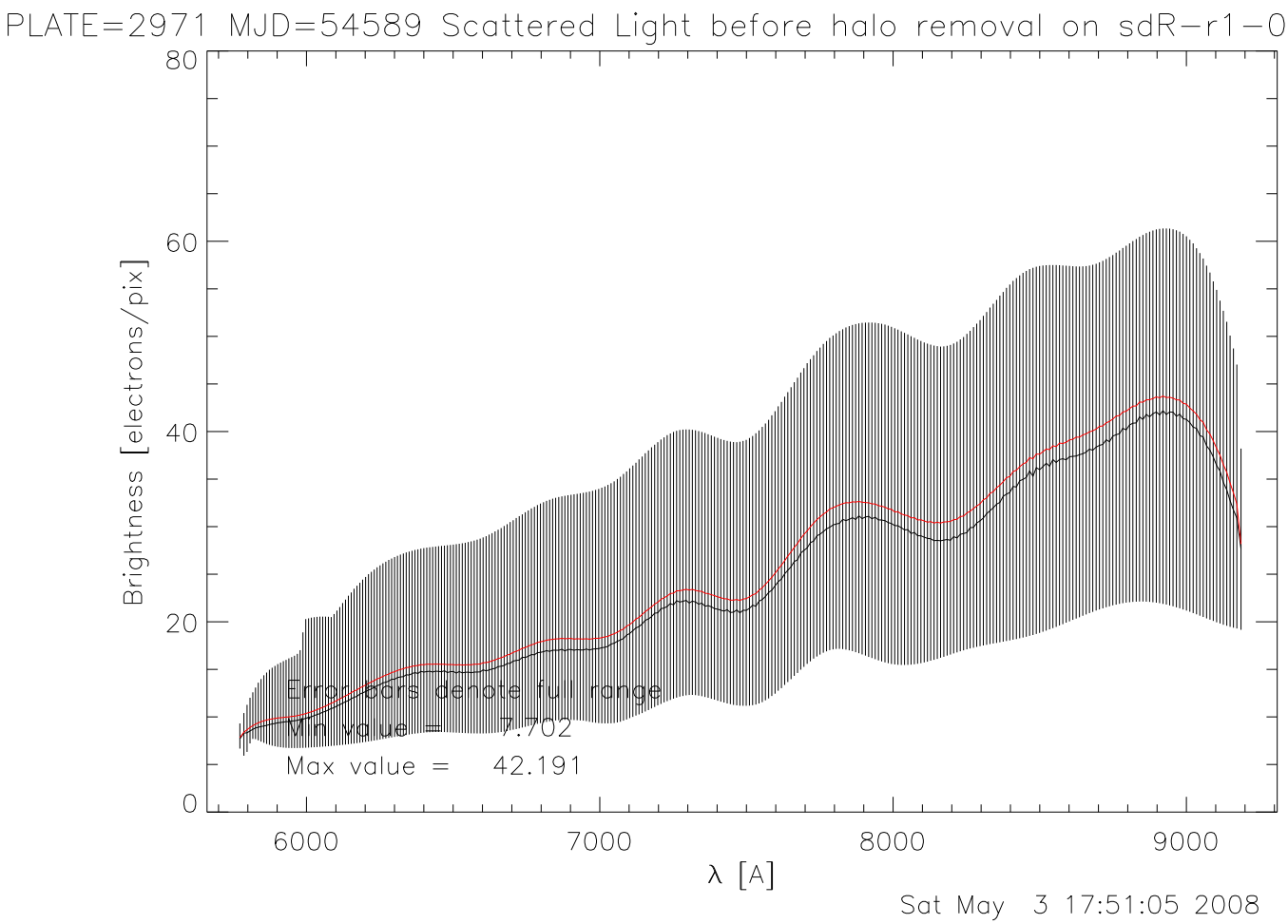

Number of sky fibers = 15
PLATE=2971 MJD=54589 sdR-r1-00052509.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

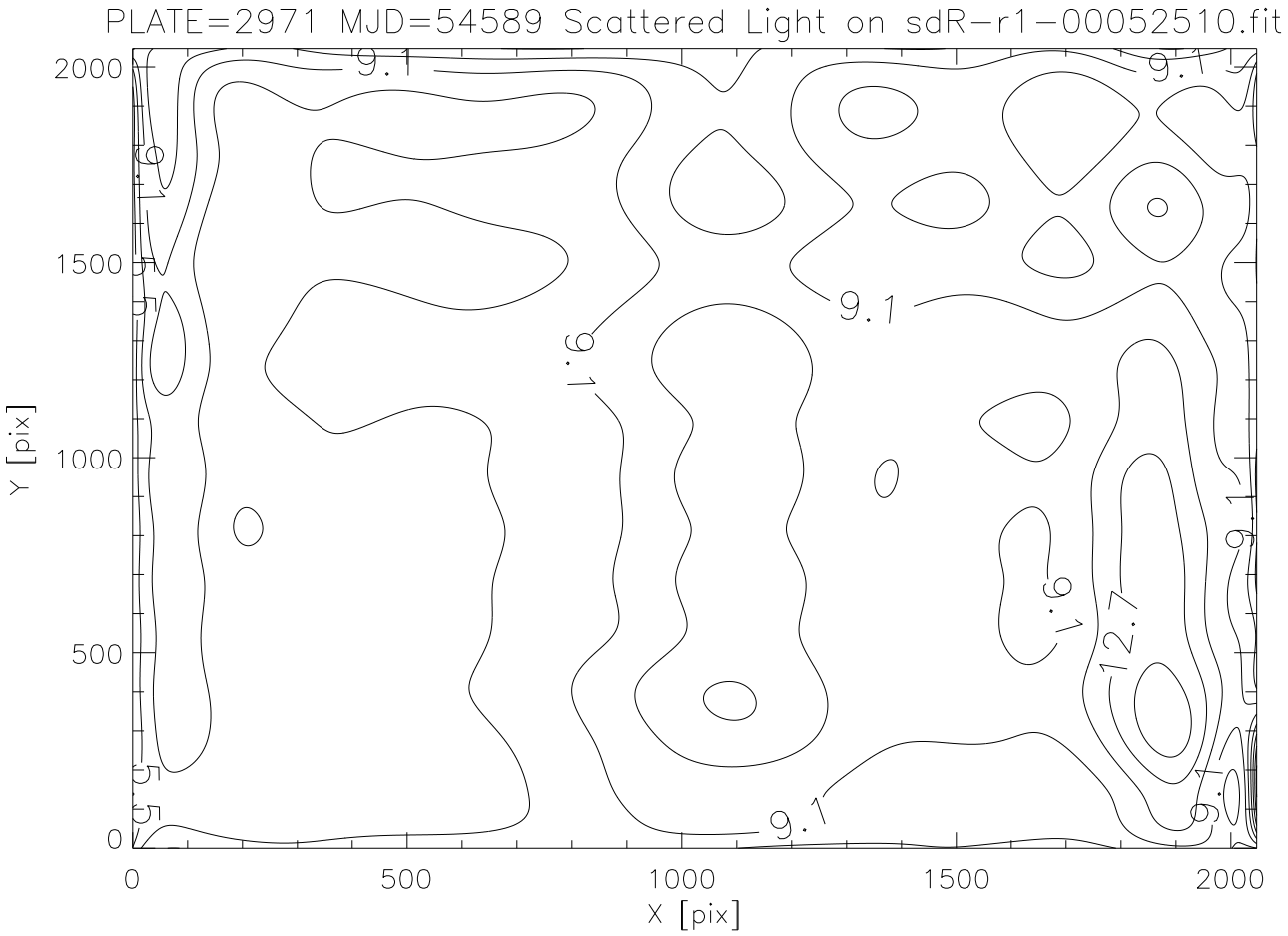

PLATE=2971 MJD=54589 sdR-r1-00052509.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 2.46 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

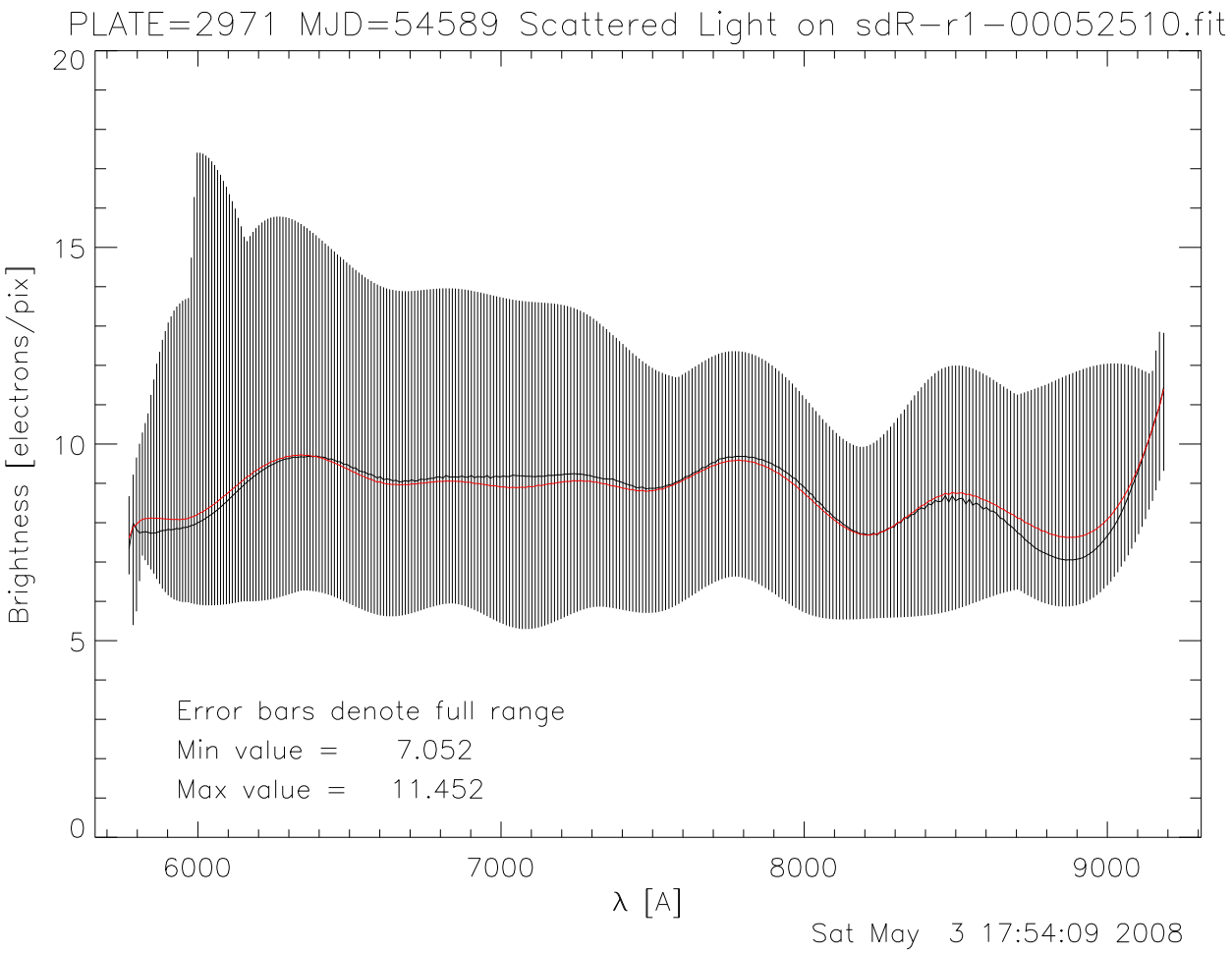

PLATE=2971 MJD=54589 sdR-r1-00052509.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 3.18 %
Fiber number
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass

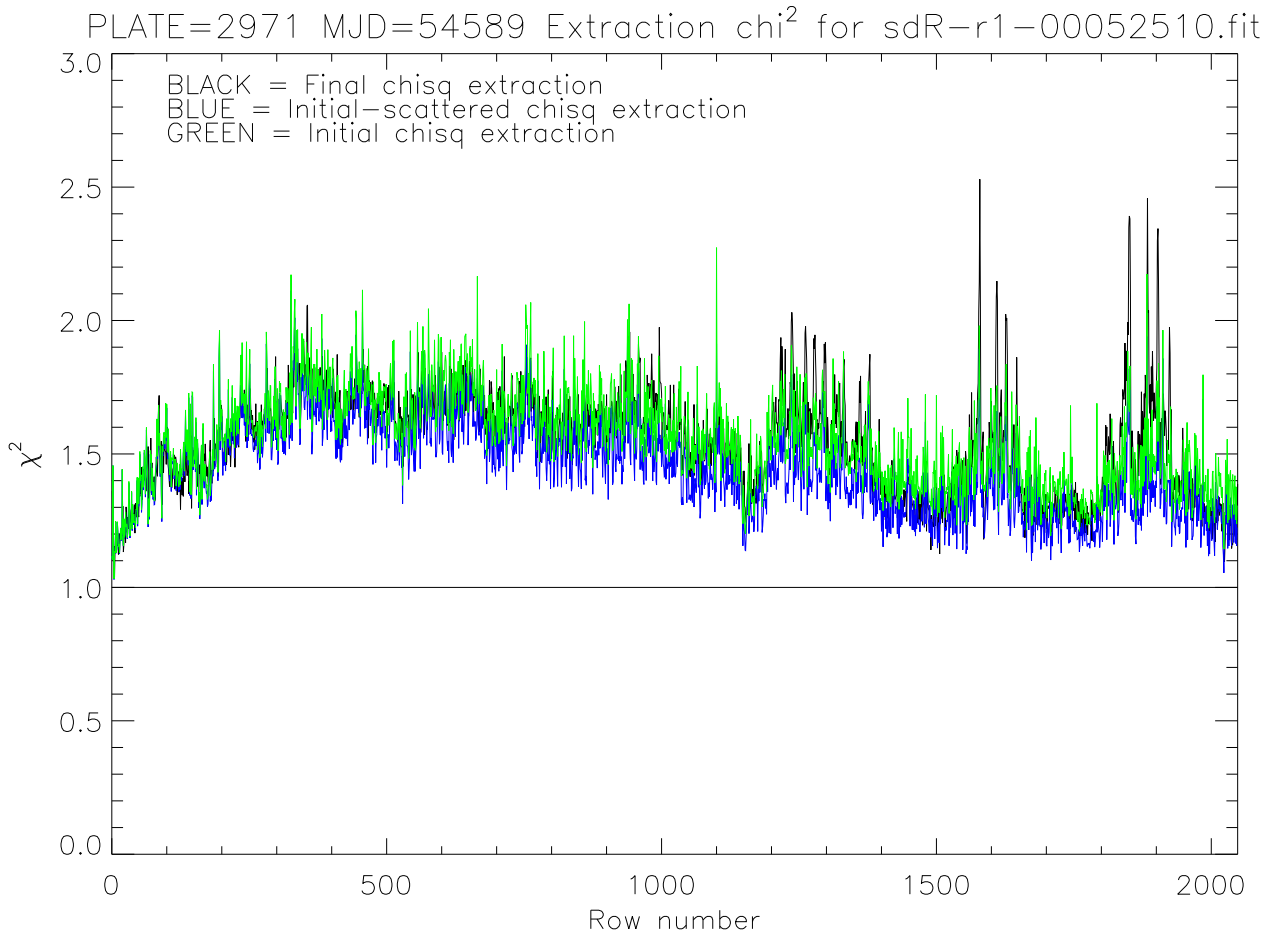

PLATE=2971 MJD=54589 Fiber−Flats for sdR−r1−00052512.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.271
Max value = 1.337
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sat May 3 17:50:14 2008

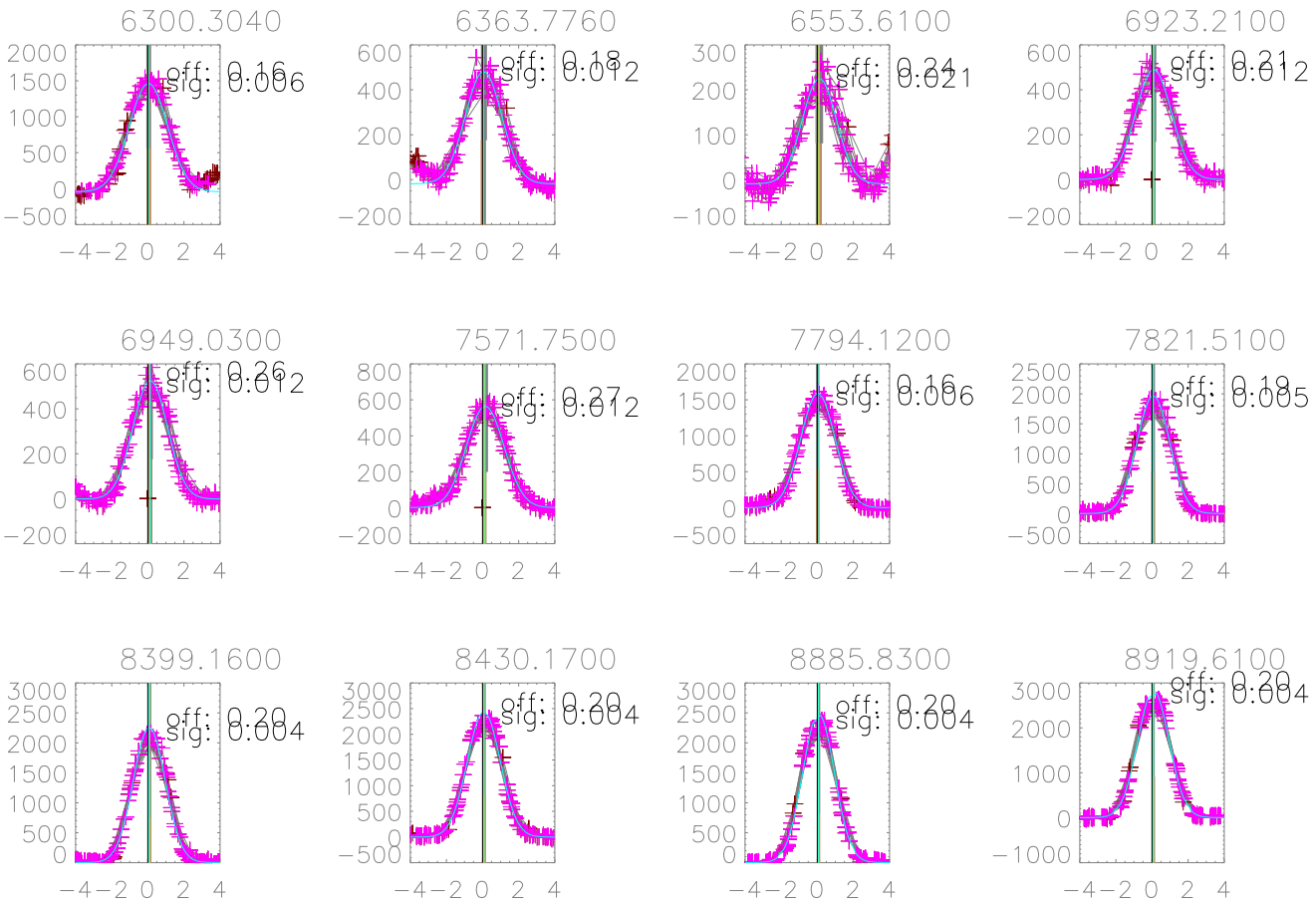

PLATE=2971 MJD=54589 Scattered Light before halo removal on sdR-r1-00052510.fi
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
36.4
21.8
7.3
50.9

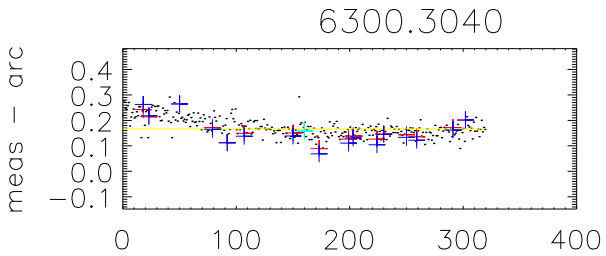

PLATE=2971 MJD=54589 Scattered Light before halo removal on sdR-r1-00052510.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 7.702
Max value = 42.191
Sat May 3 17:51:05 2008

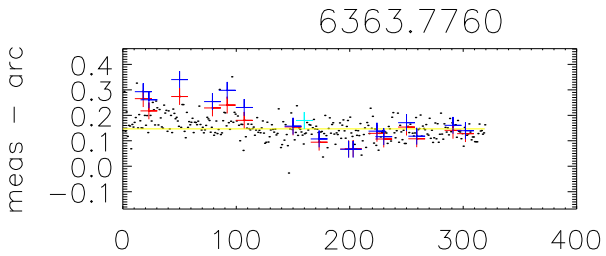

PLATE=2971 MJD=54589 Scattered Light on sdR-r1-00052510.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
9.1
0
12.7

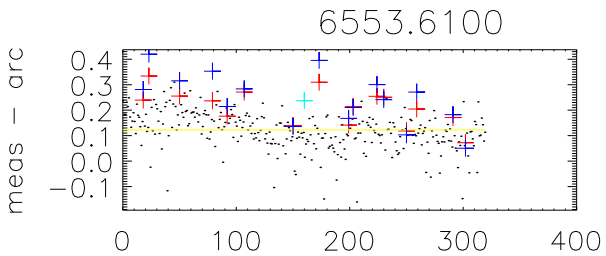

PLATE=2971 MJD=54589 Scattered Light on sdR-r1-00052510.fit
Brightness [electrons/pix]
20
15
10
5
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 7.052
Max value = 11.452
Sat May 3 17:54:09 2008

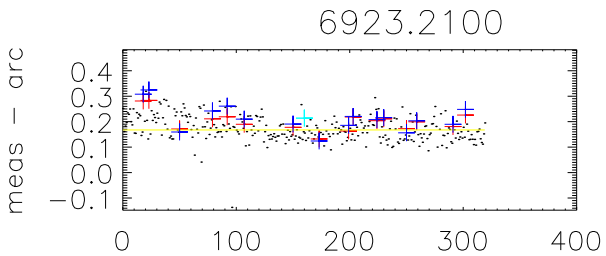

PLATE=2971 MJD=54589 Extraction chi^2 for sdR−r1−00052510.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
500
1000
1500
2000
Row number

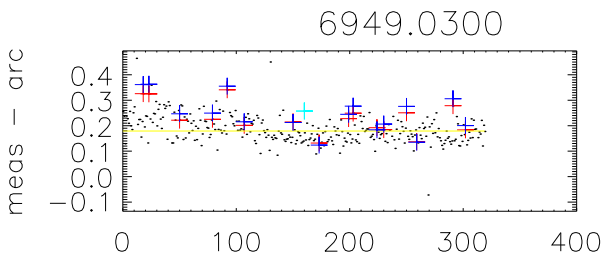

6300.3040
off: 0.16
sig: 0.006
6363.7760
off: 0.18
sig: 0.012
6553.6100
off: 0.24
sig: 0.021
6923.2100
off: 0.21
sig: 0.012
6949.0300
off: 0.26
sig: 0.012
7571.7500
off: 0.27
sig: 0.012
7794.1200
off: 0.16
sig: 0.006
7821.5100
off: 0.19
sig: 0.005
8399.1600
off: 0.20
sig: 0.004
8430.1700
off: 0.20
sig: 0.004
8885.8300
off: 0.20
sig: 0.004
8919.6100
off: 0.20
sig: 0.004

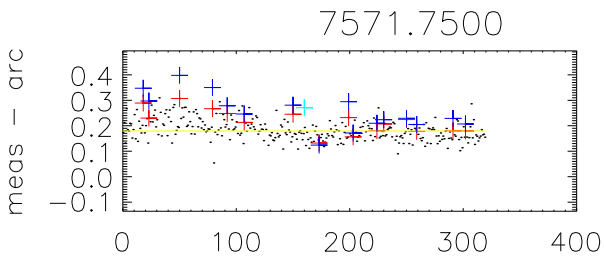

6300.3040
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

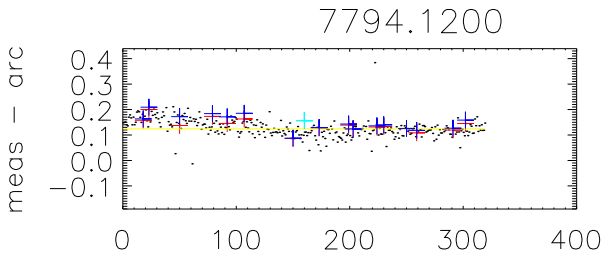

6363.7760
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

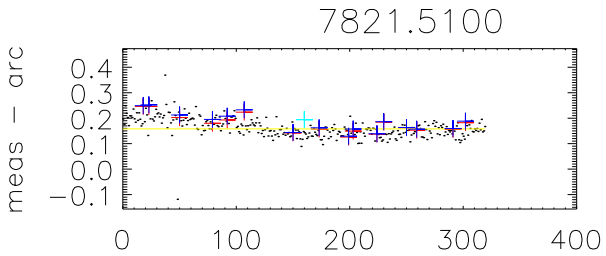

6553.6100
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

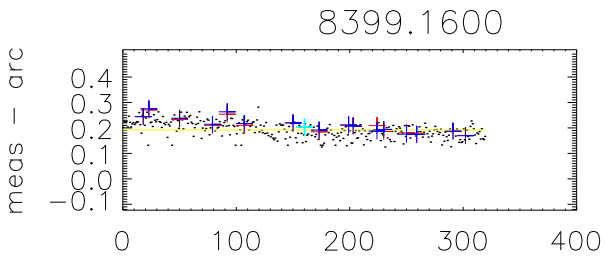

6923.2100
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

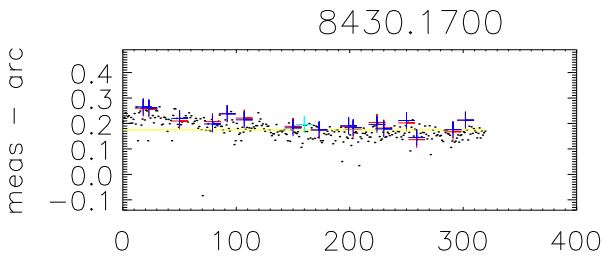

6949.0300
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

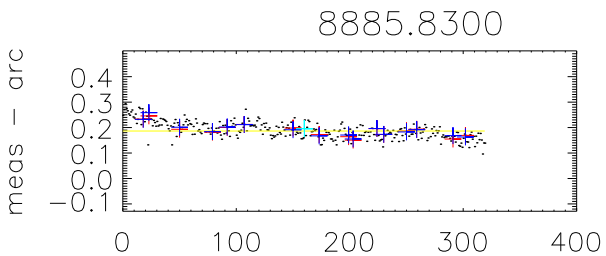

7571.7500
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

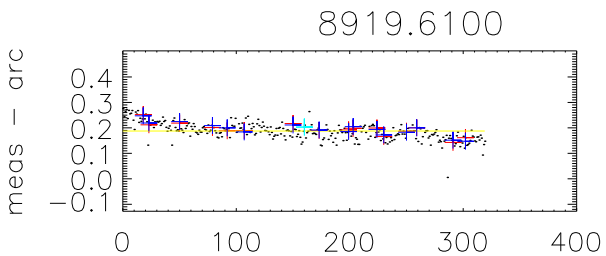

7794.1200
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

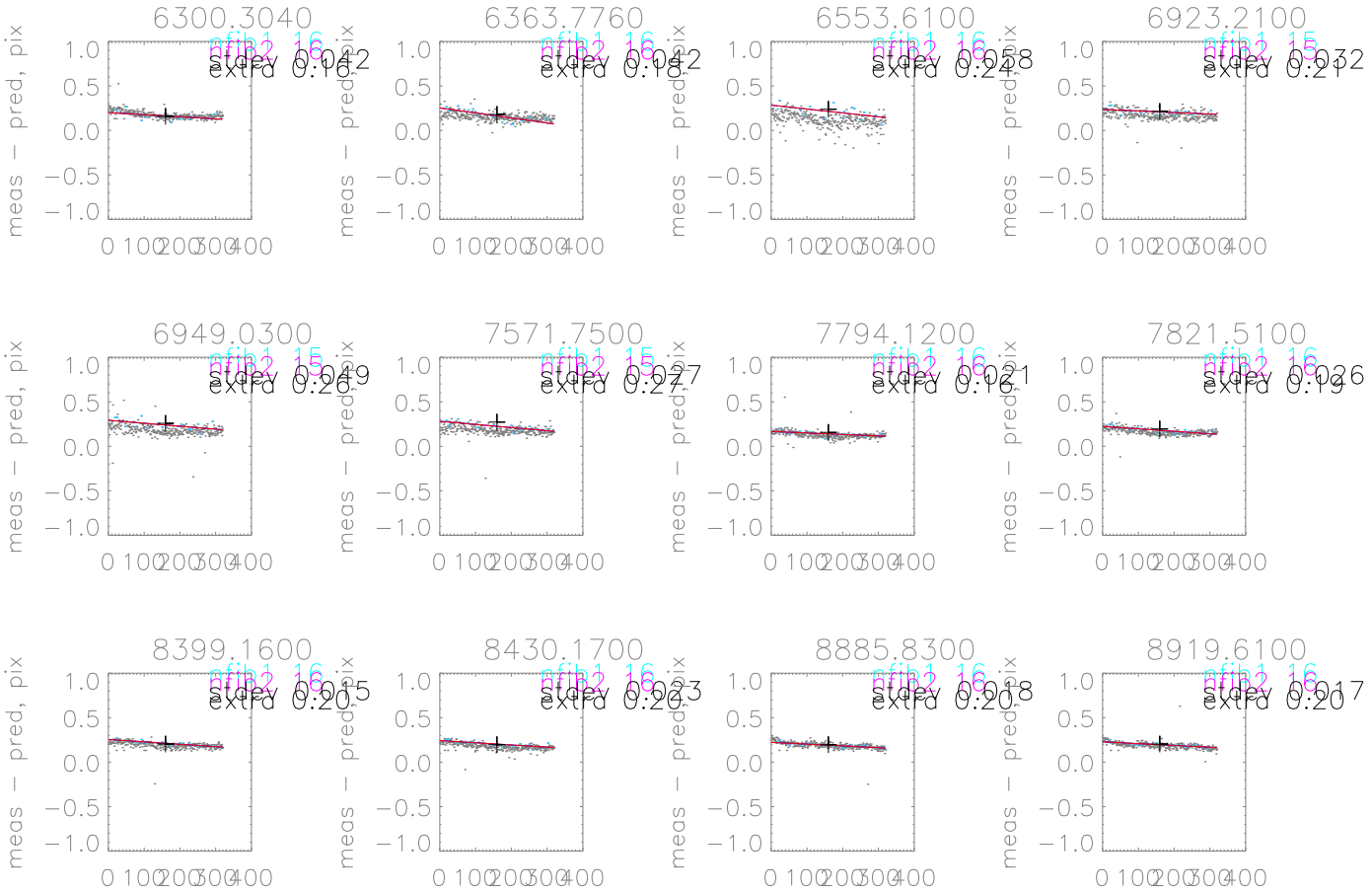

7821.5100
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

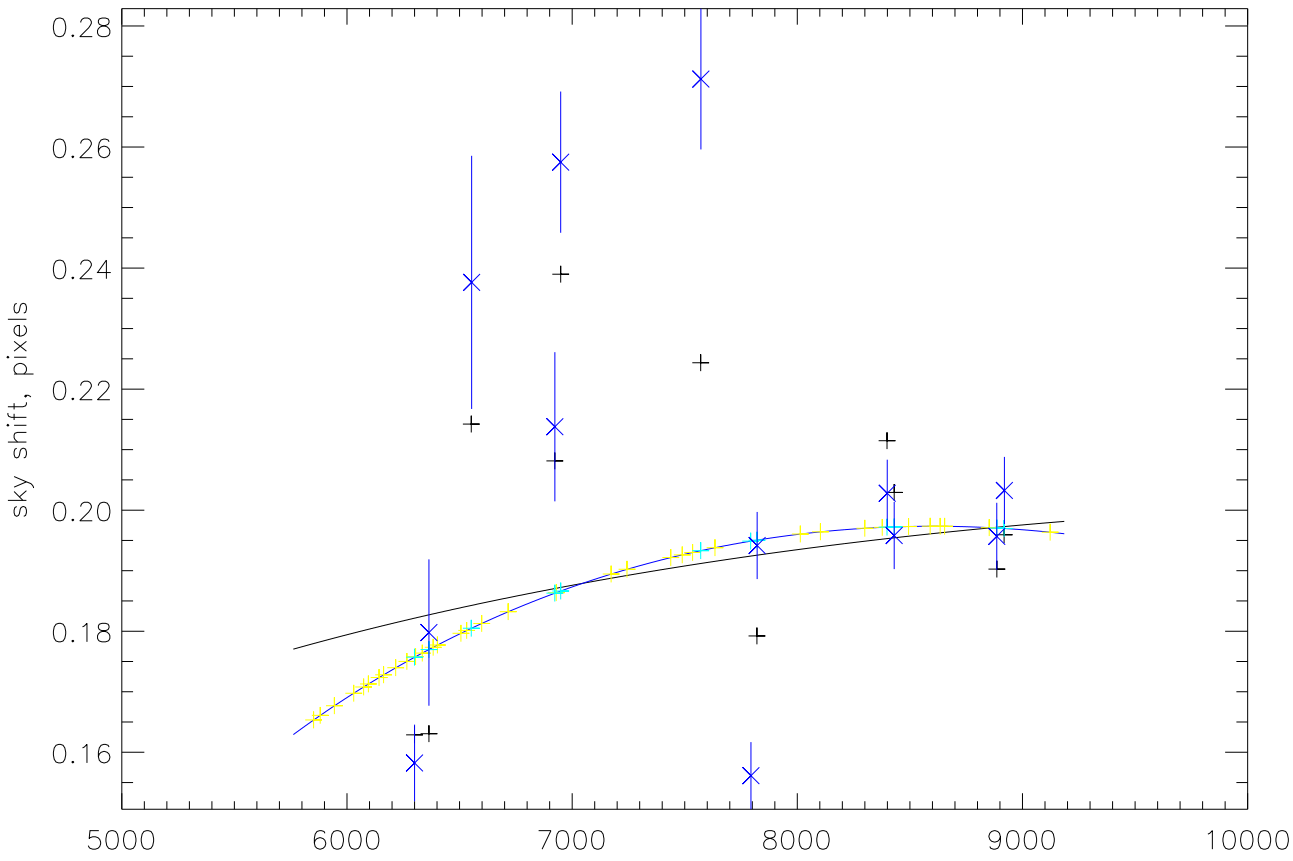

8399.1600
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

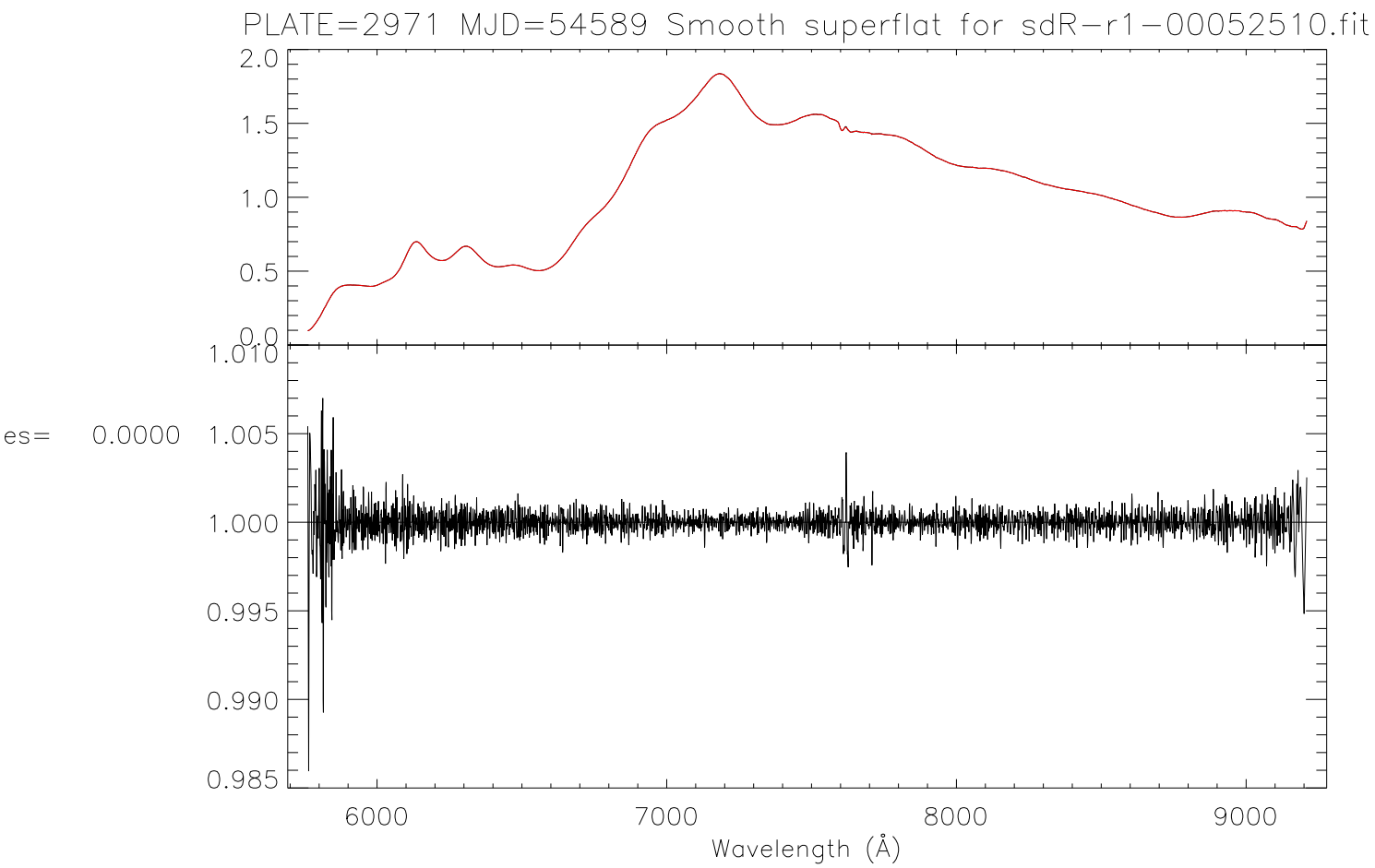

8430.1700
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400


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

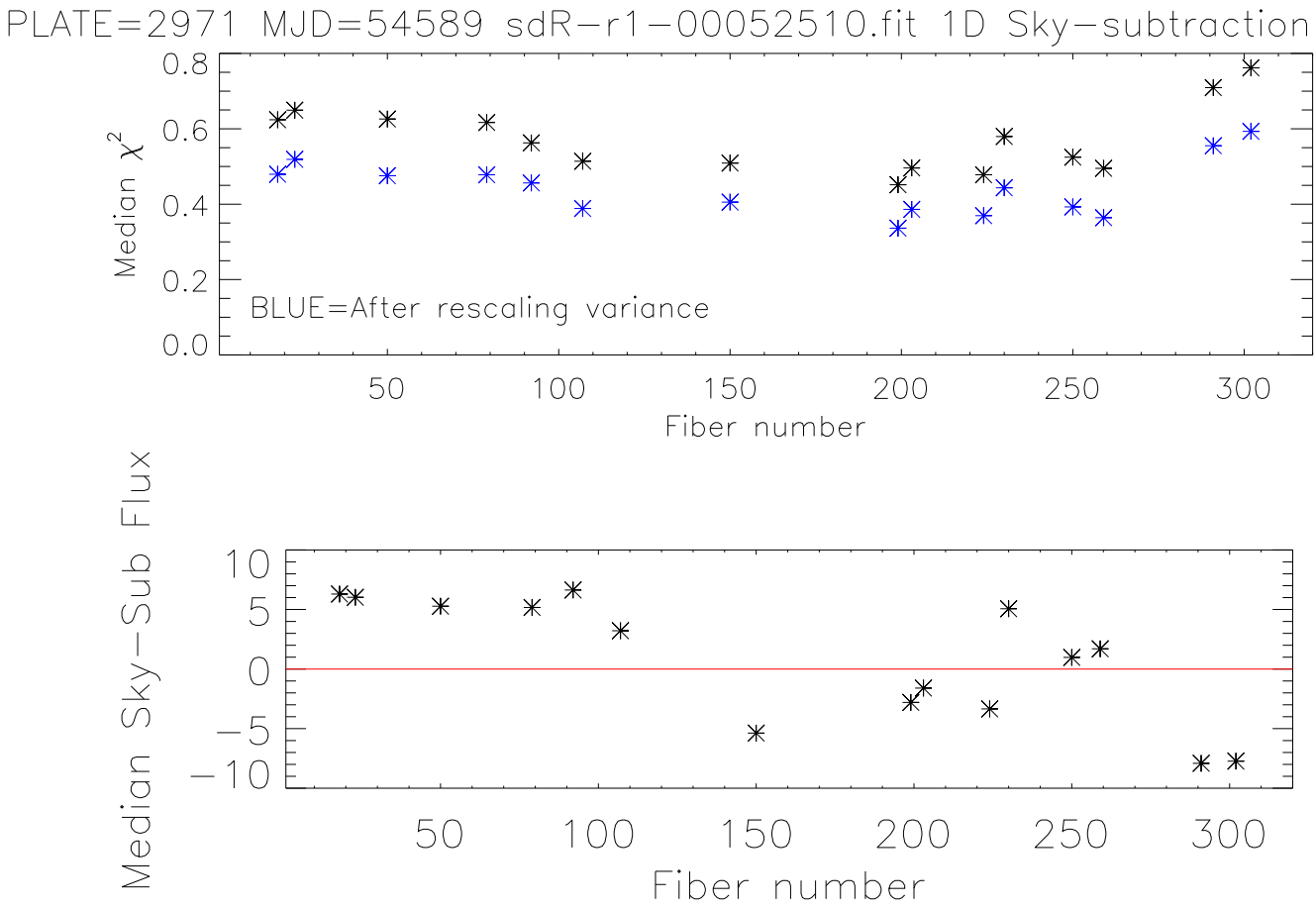

8919.6100
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

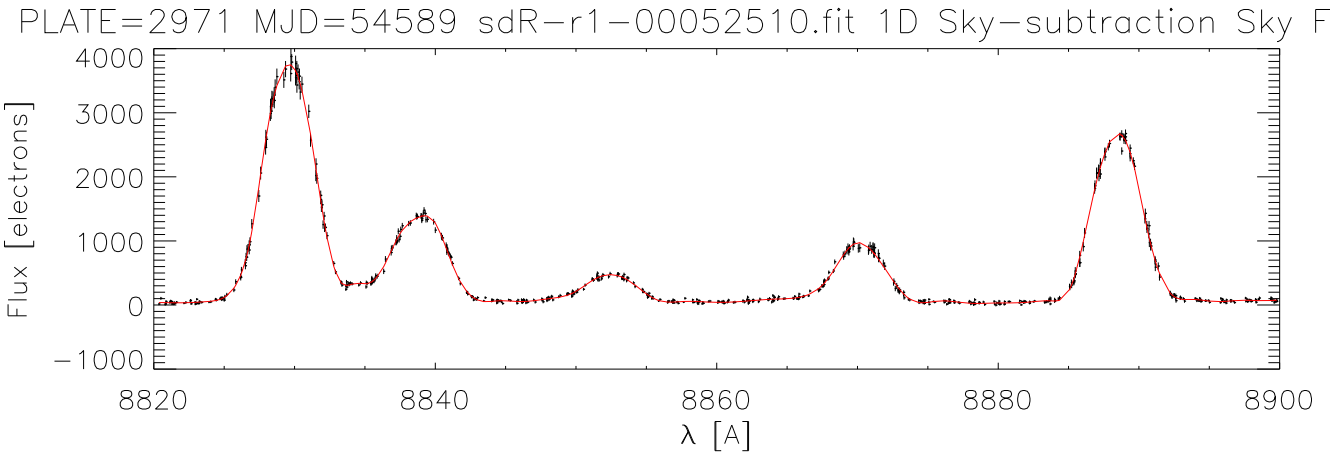

6300.3040
stdev 0.042
extra 0.162
6363.7760
stdev 0.042
extra 0.182
6553.6100
stdev 0.058
extra 0.248
6923.2100
stdev 0.032
extra 0.21
6949.0300
stdev 0.049
extra 0.269
7571.7500
stdev 0.027
extra 0.27
7794.1200
stdev 0.021
extra 0.161
7821.5100
stdev 0.026
extra 0.19
8399.1600
stdev 0.015
extra 0.205
8430.1700
stdev 0.023
extra 0.24
8885.8300
stdev 0.018
extra 0.208
8919.6100
stdev 0.017
extra 0.20
meas − pred, pix
mfhd2 16
mfhd1 15

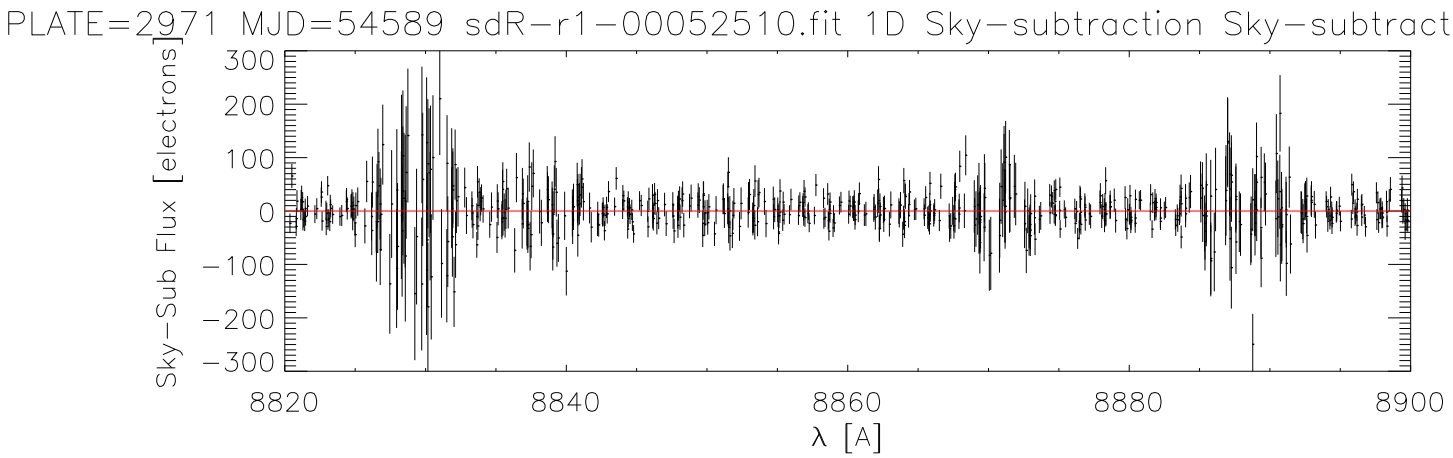

0.28
0.26
0.24
0.22
0.20
0.18
0.16
sky shift, pixels
5000
6000
7000
8000
9000
10000

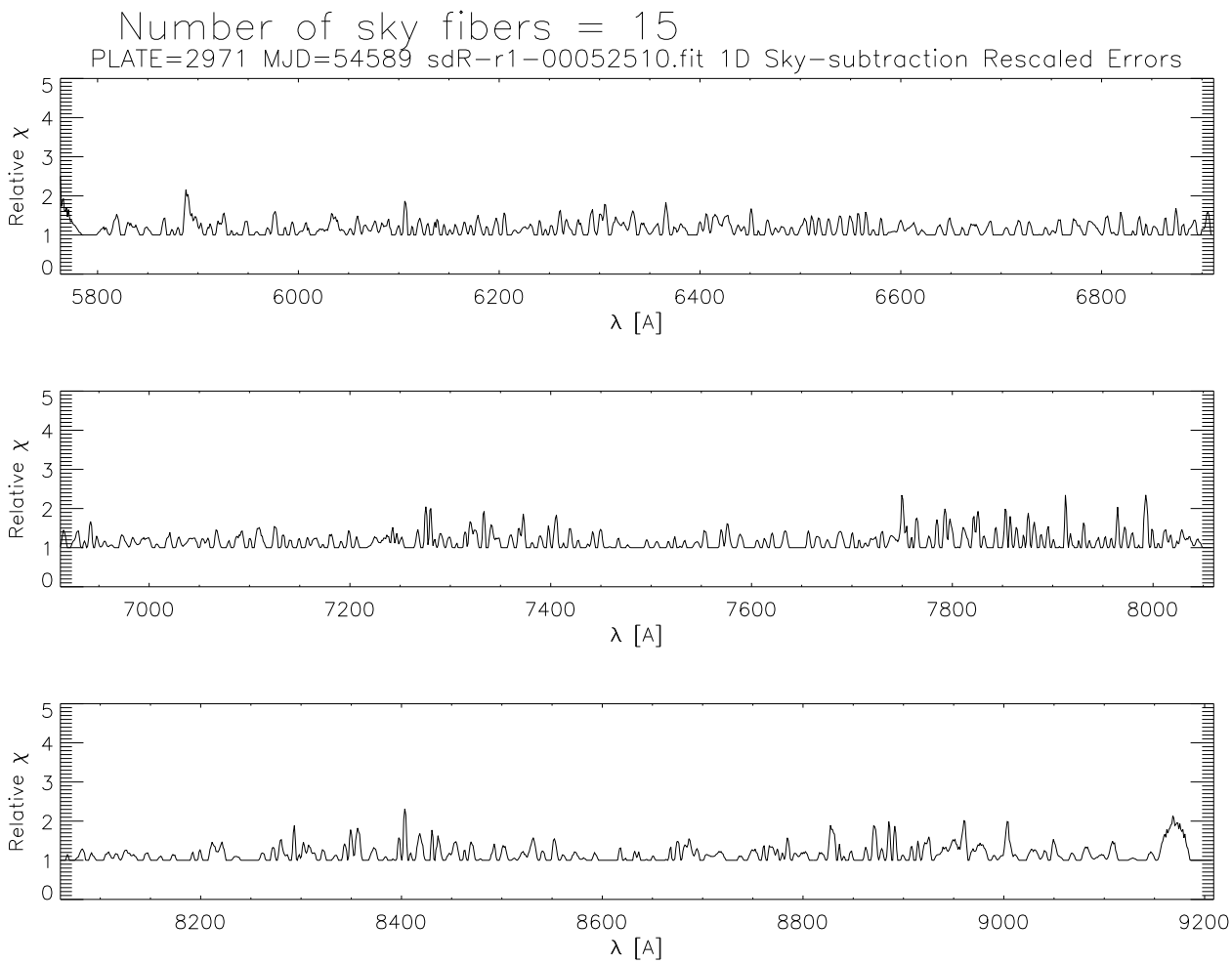

PLATE=2971 MJD=54589 Smooth superflat for sdR-r1-00052510.fit
2.0
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
0.985
6000
7000
8000
9000
Wavelength (Å)

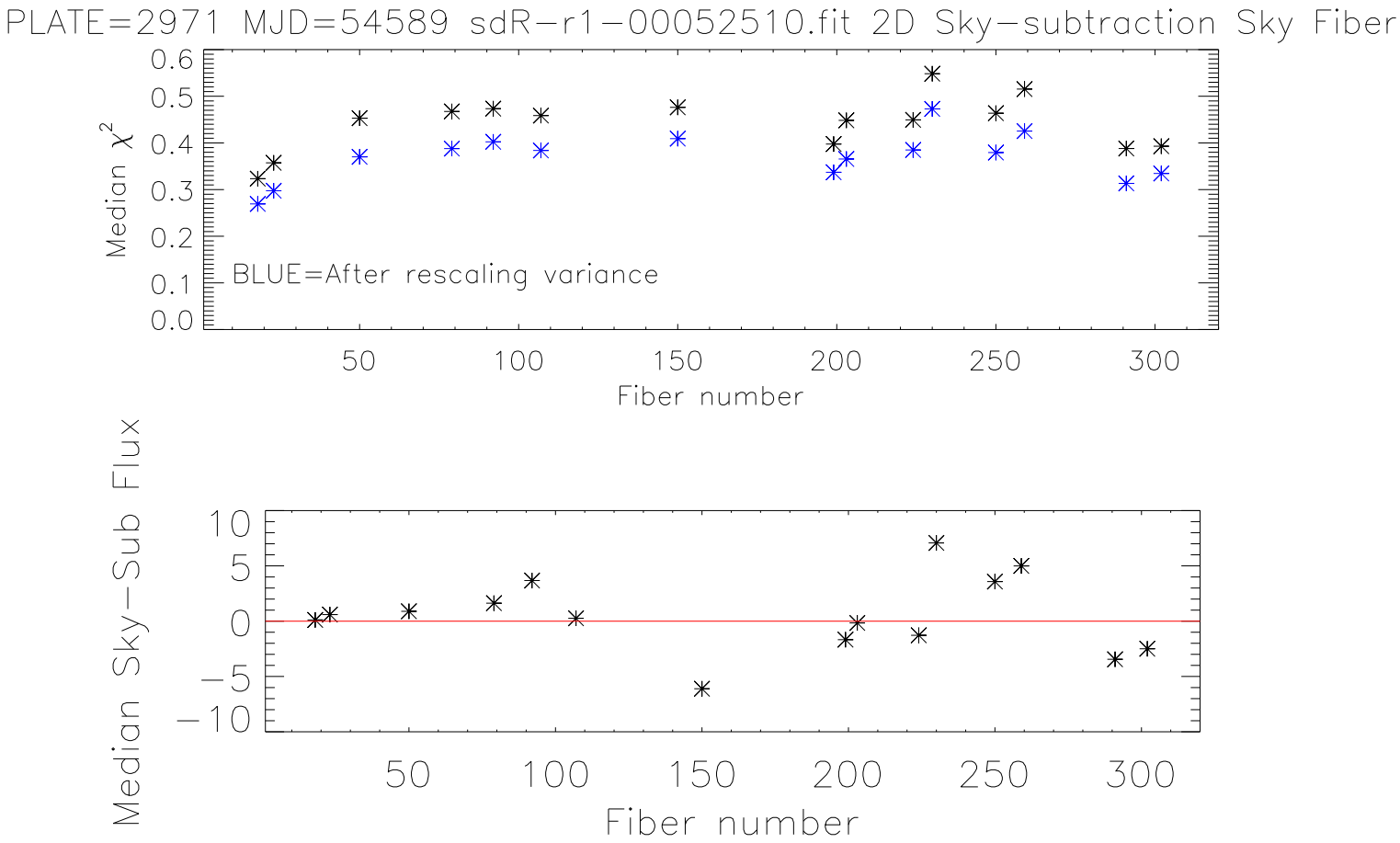
es= 0.0000

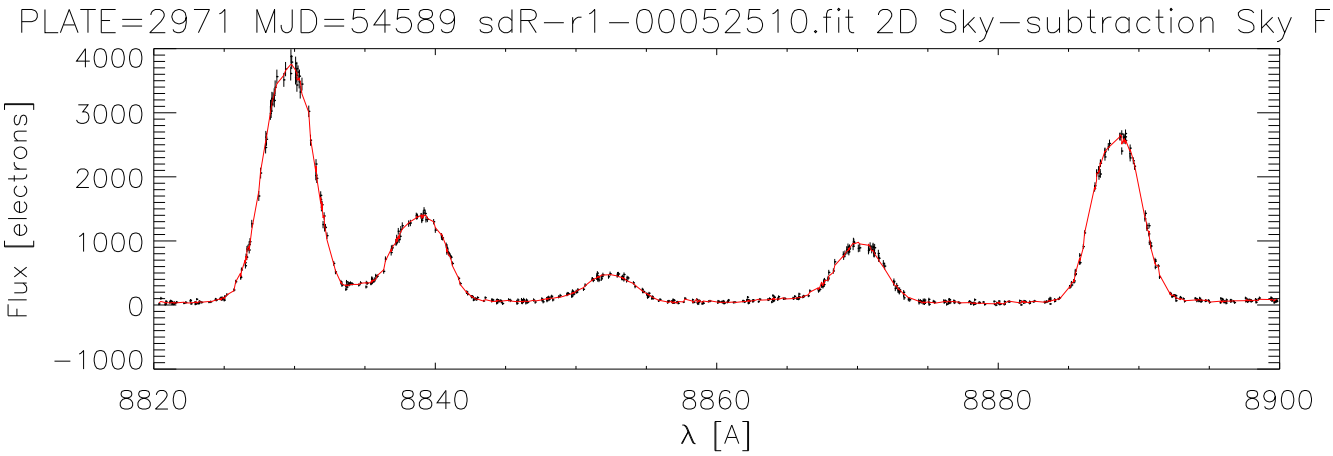

PLATE=2971 MJD=54589 sdR-r1-00052510.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
−5
−10
50
100
150
200
250
300
Fiber number

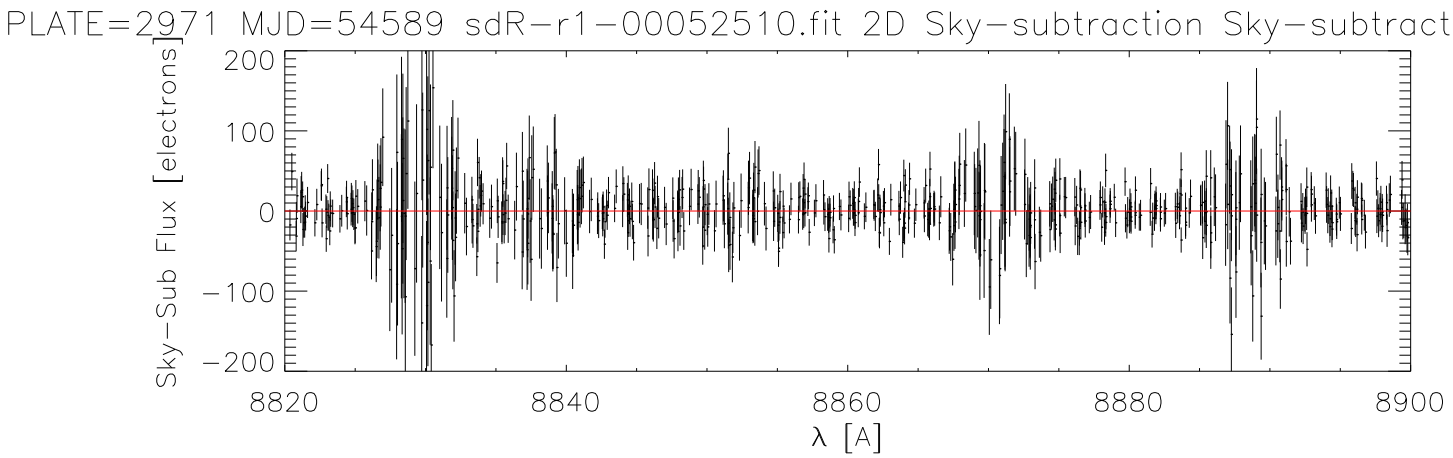

PLATE=2971 MJD=54589 sdR-r1-00052510.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
−1000
8820
8840
8860
8880
8900
λ [A]

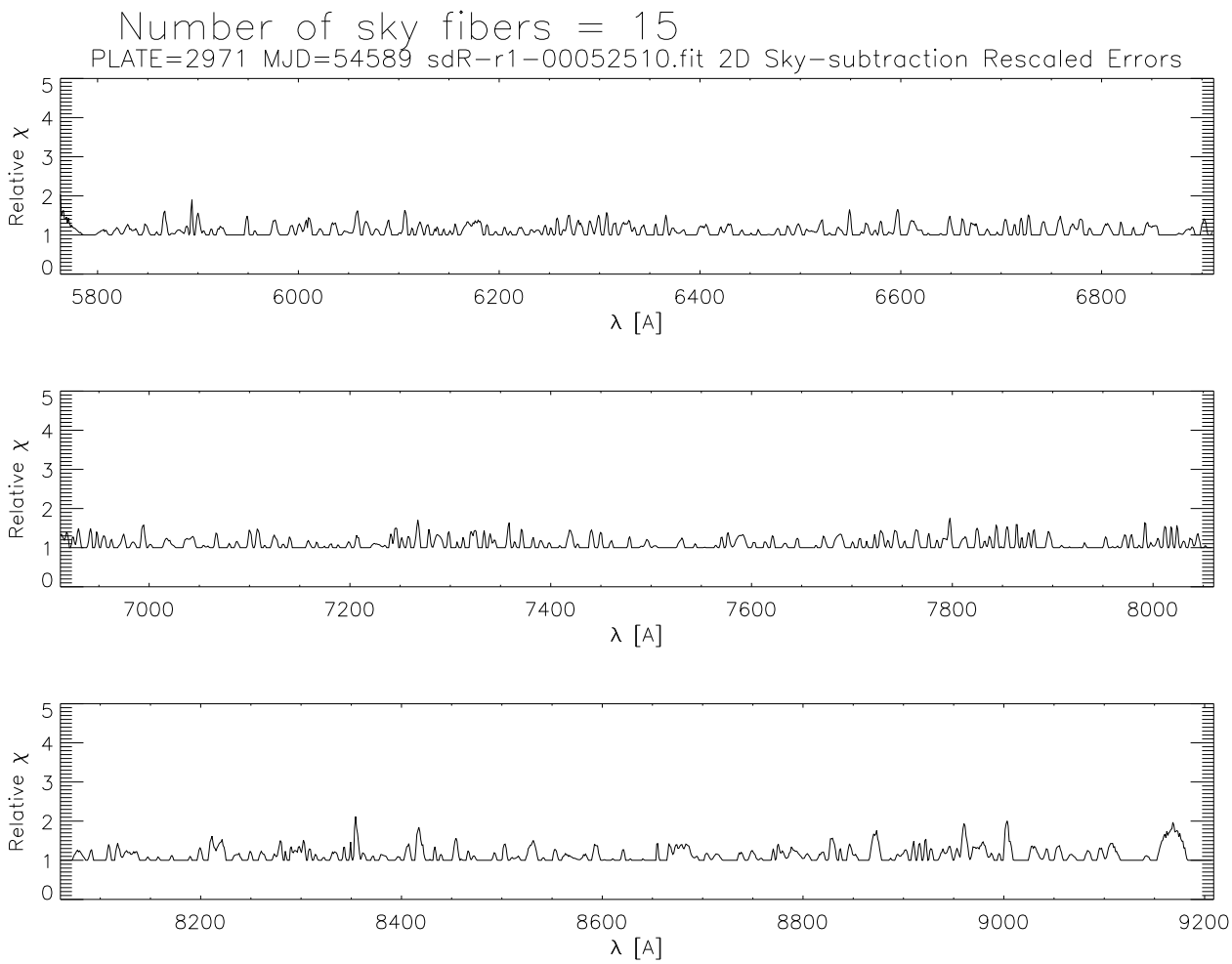

PLATE=2971 MJD=54589 sdR-r1-00052510.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
−100
−200
−300
8820
8840
8860
8880
8900
λ [A]

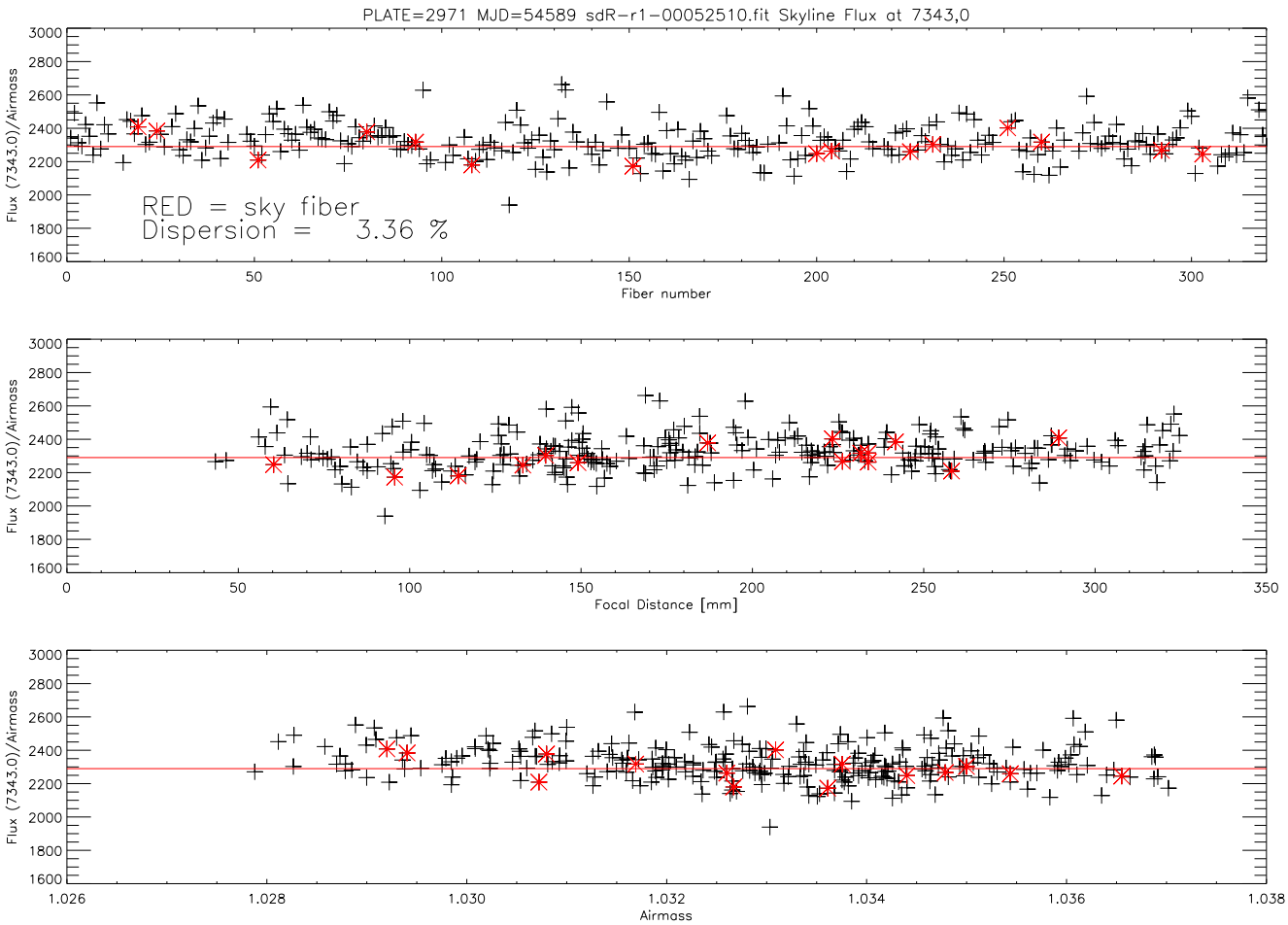

Number of sky fibers = 15
PLATE=2971 MJD=54589 sdR-r1-00052510.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

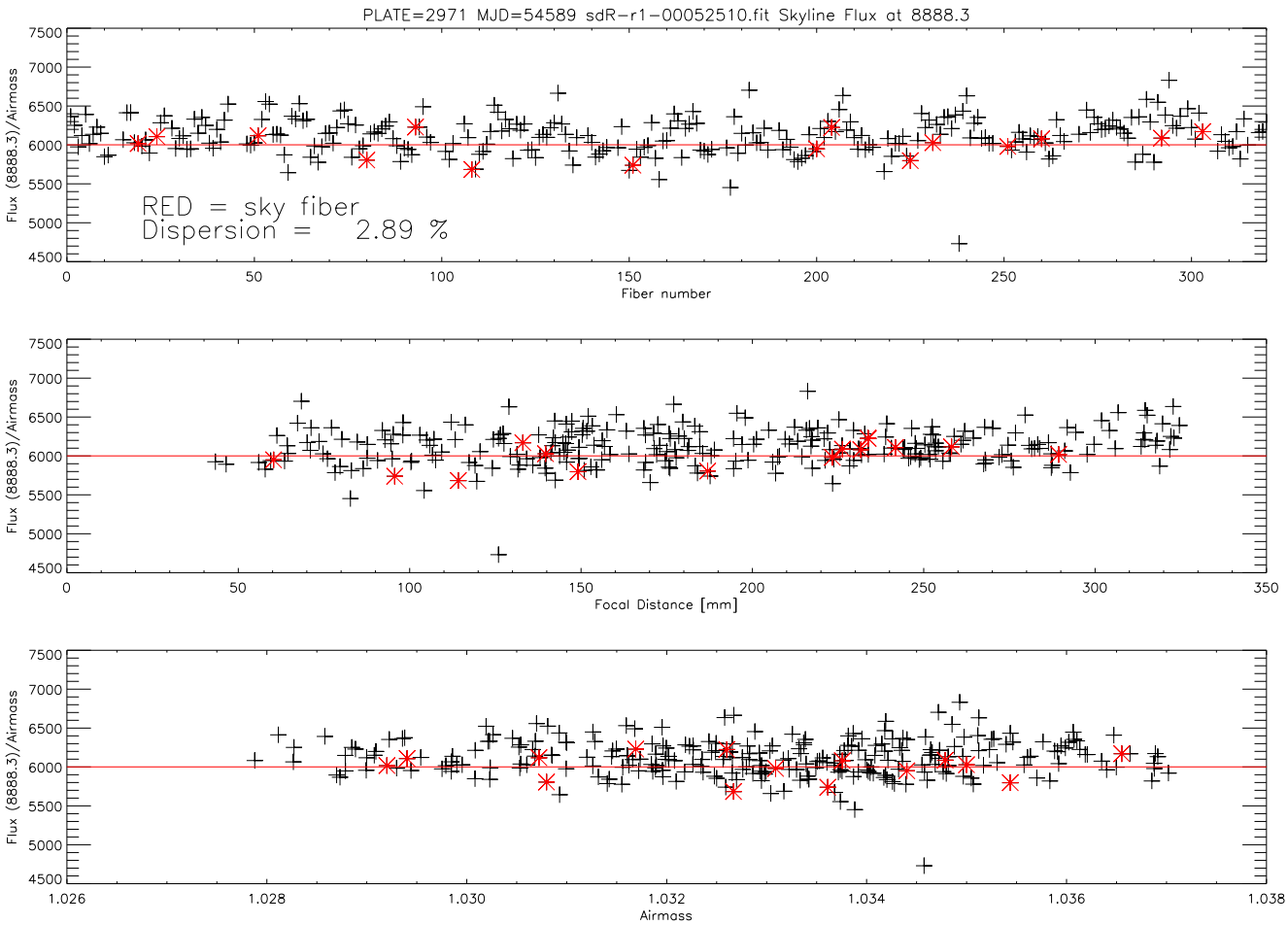

PLATE=2971 MJD=54589 sdR-r1-00052510.fit 2D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

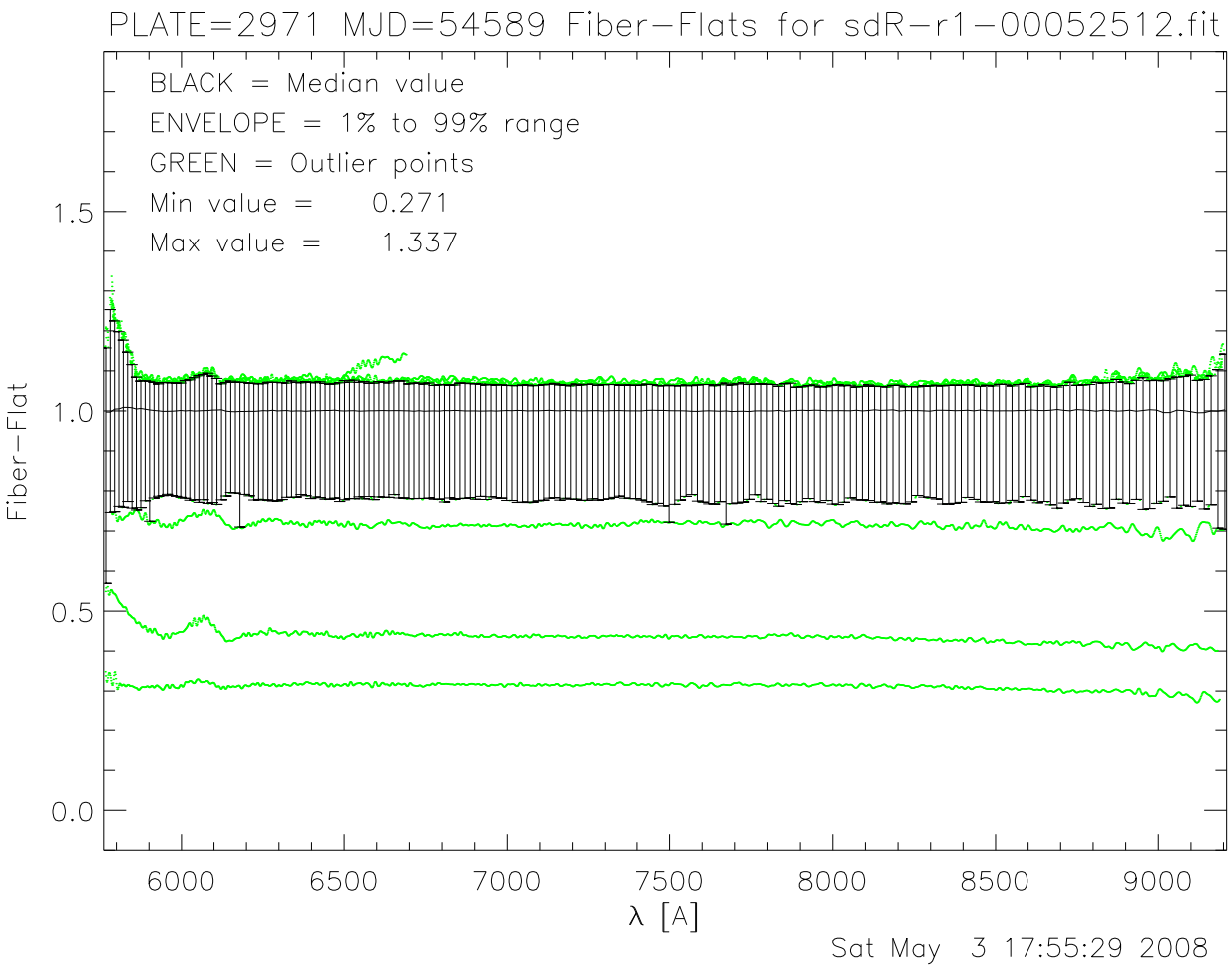

PLATE=2971 MJD=54589 sdR-r1-00052510.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
-1000
8820
8840
8860
8880
8900
λ [A]

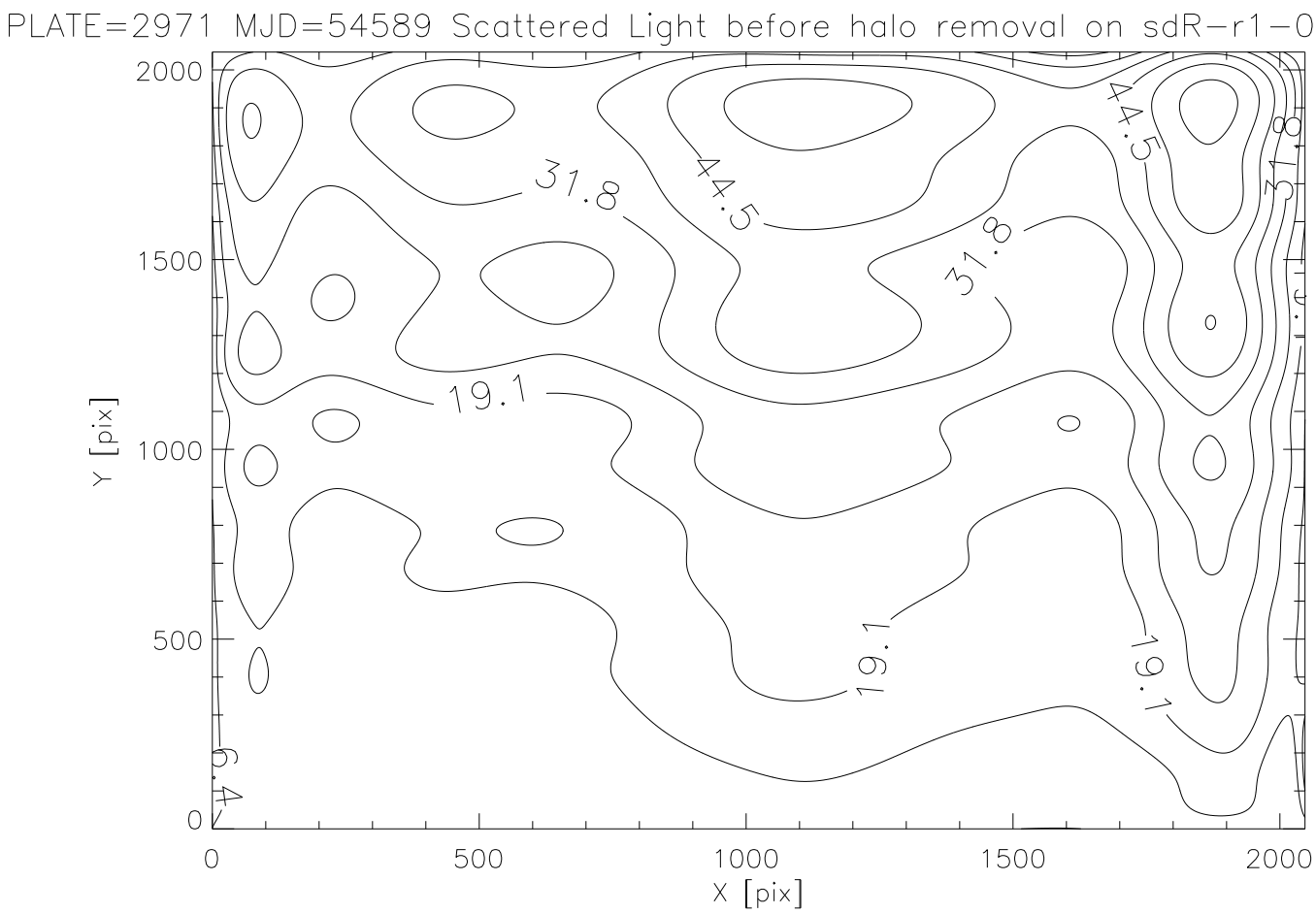

PLATE=2971 MJD=54589 sdR-r1-00052510.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
8820
8840
8860
8880
8900
λ [A]

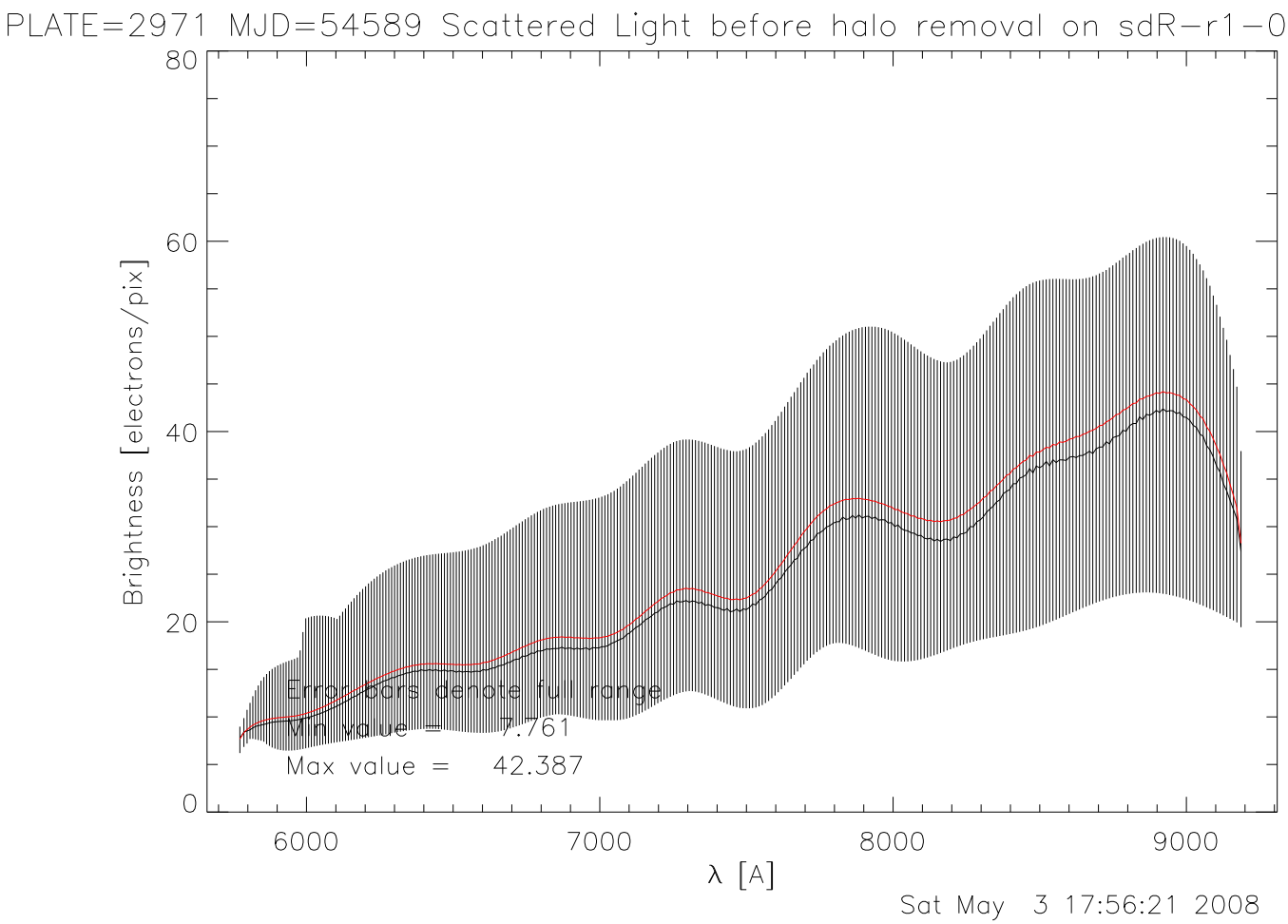

Number of sky fibers = 15
PLATE=2971 MJD=54589 sdR-r1-00052510.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

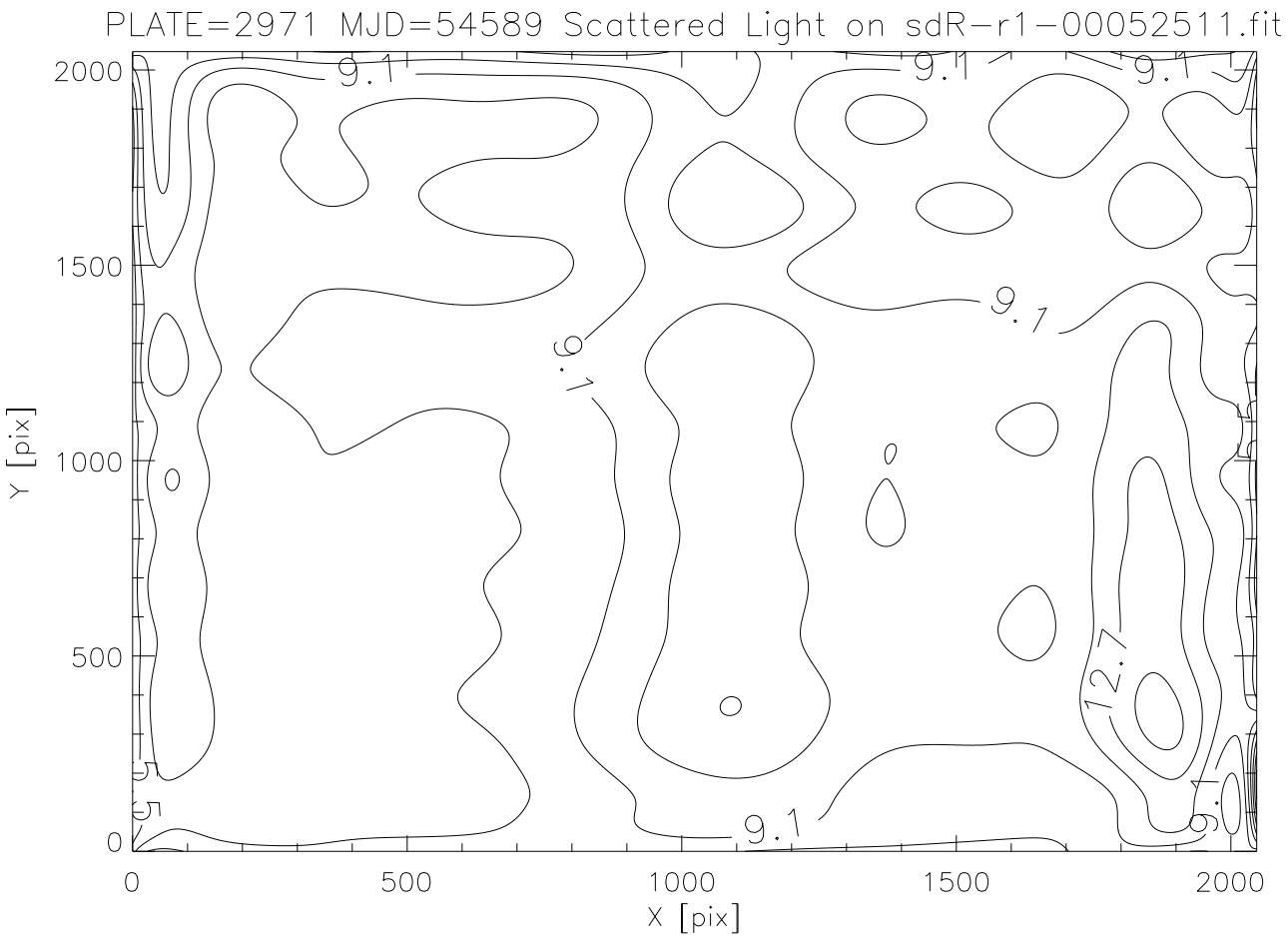

PLATE=2971 MJD=54589 sdR-r1-00052510.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 3.36 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

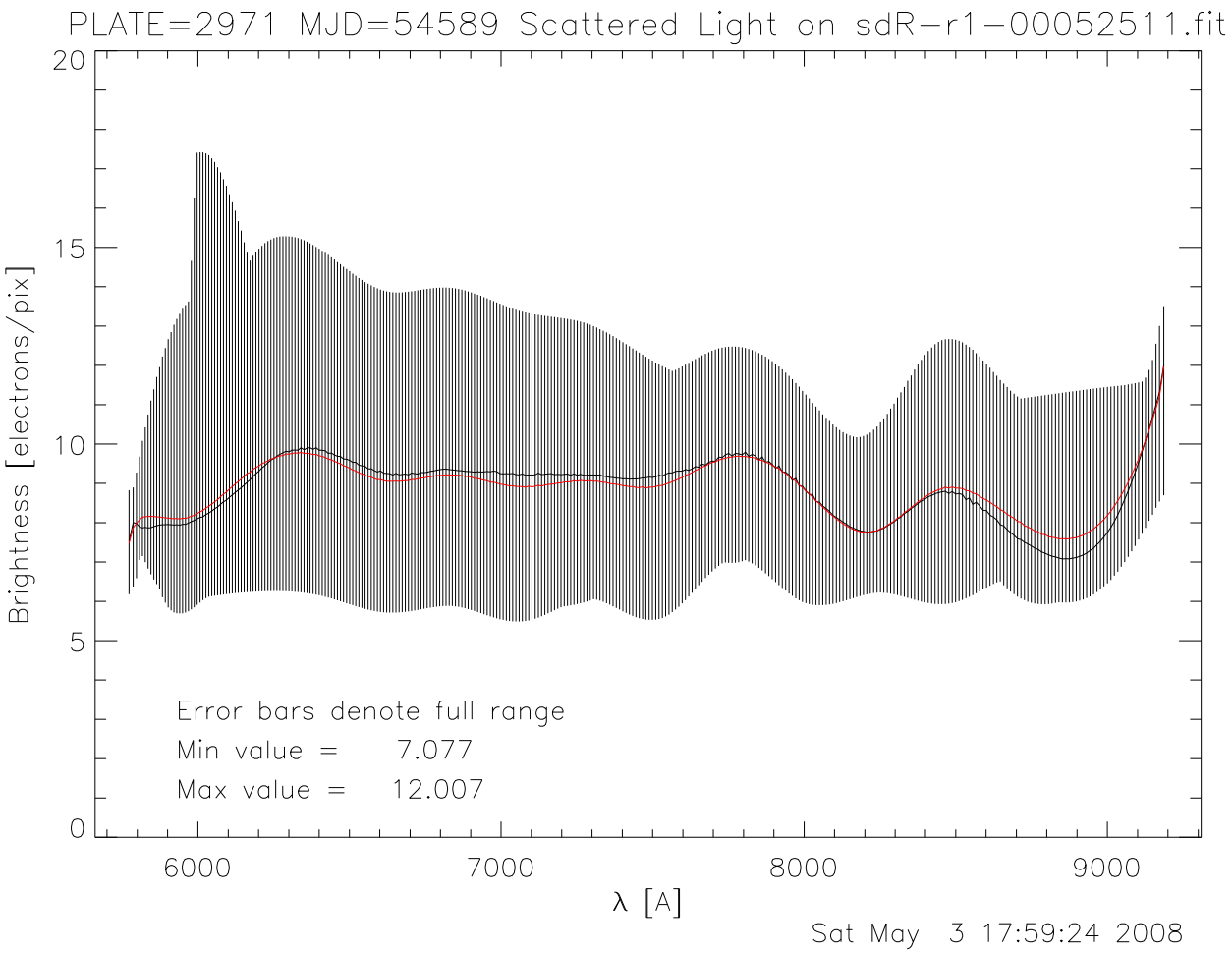

PLATE=2971 MJD=54589 sdR-r1-00052510.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 2.89 %
Fiber number
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass

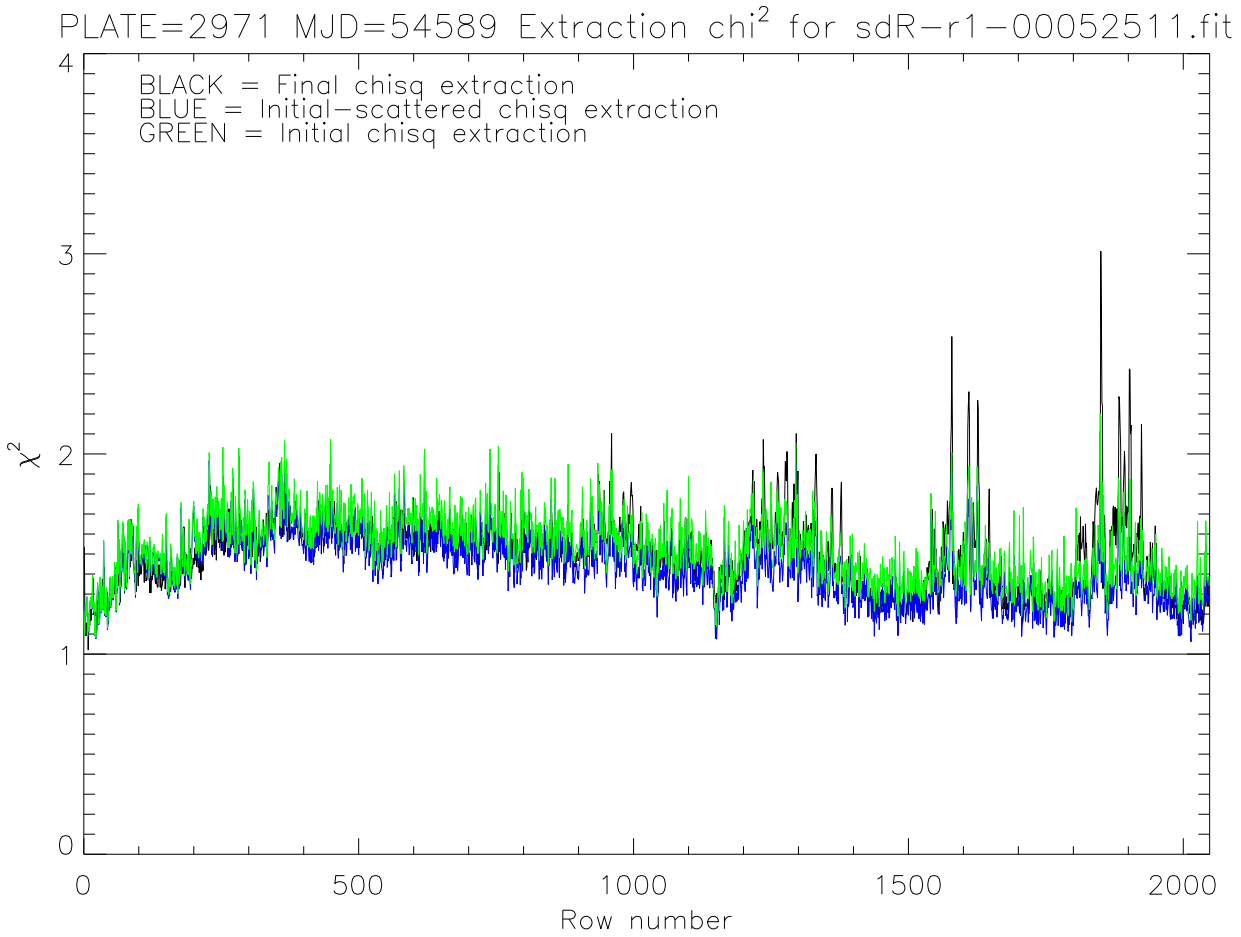

PLATE=2971 MJD=54589 Fiber−Flats for sdR−r1−00052512.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.271
Max value = 1.337
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sat May 3 17:55:29 2008

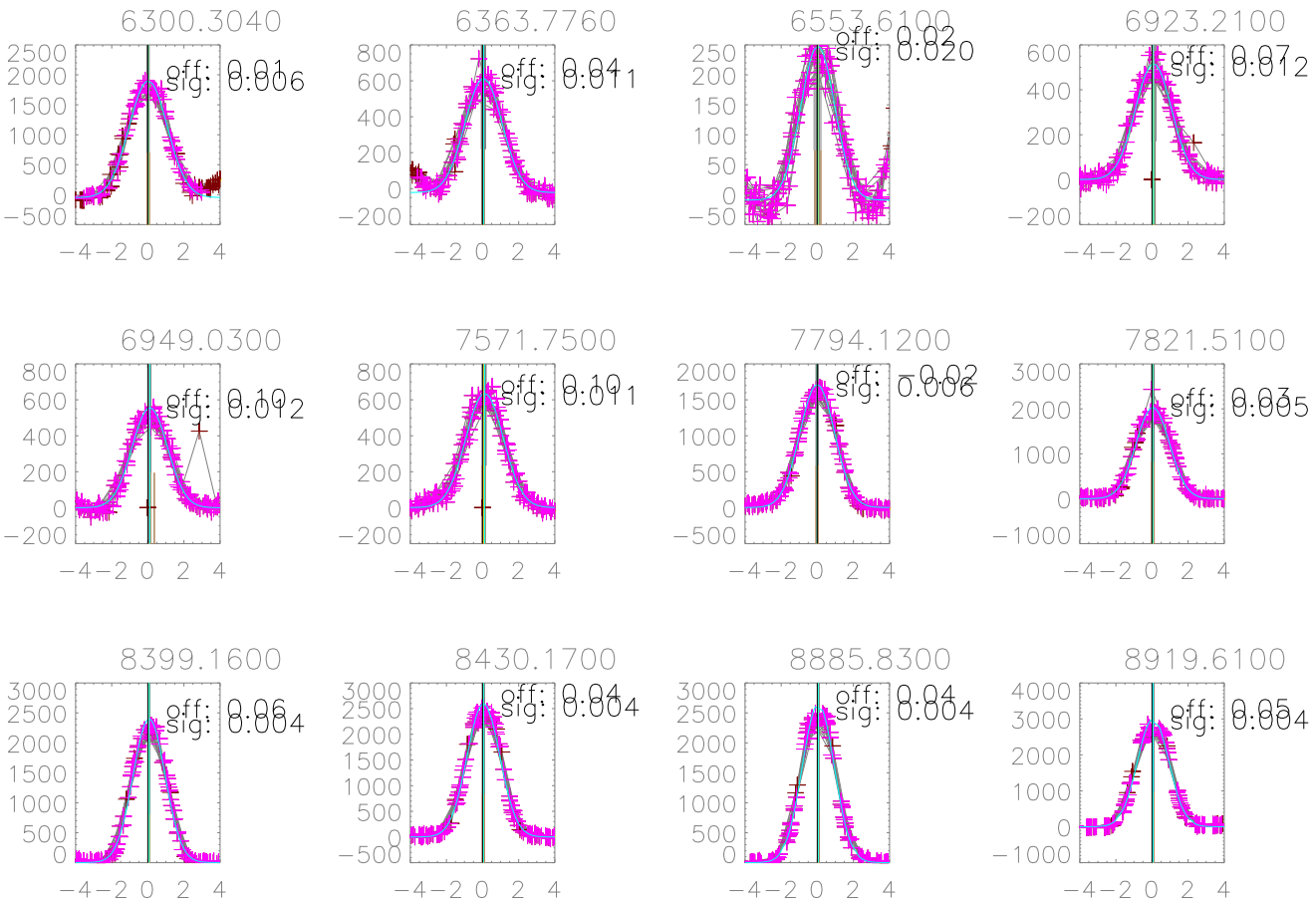

PLATE=2971 MJD=54589 Scattered Light before halo removal on sdR-r1-00052511.fi
Y [pix]
X [pix]
0
500
1000
1500
2000
0
31.8
44.5
19.1
6.4

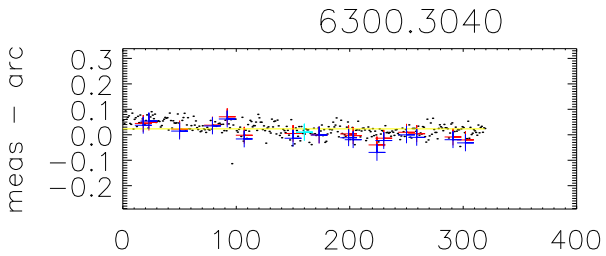

PLATE=2971 MJD=54589 Scattered Light before halo removal on sdR-r1-00052511.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 7.761
Max value = 42.387
Sat May 3 17:56:21 2008

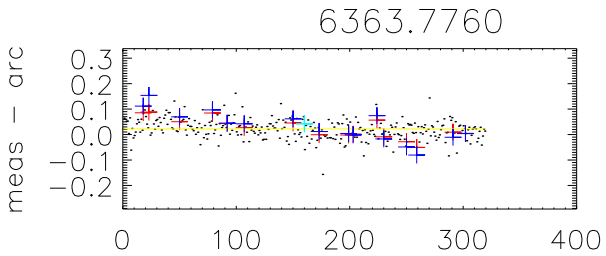

PLATE=2971 MJD=54589 Scattered Light on sdR-r1-00052511.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
9.1
0
12.7
5

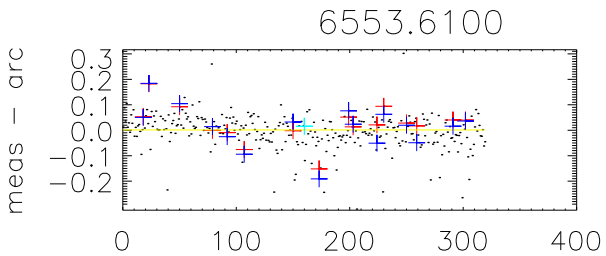

PLATE=2971 MJD=54589 Scattered Light on sdR-r1-00052511.fit
Brightness [electrons/pix]
20
15
10
5
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 7.077
Max value = 12.007
Sat May 3 17:59:24 2008

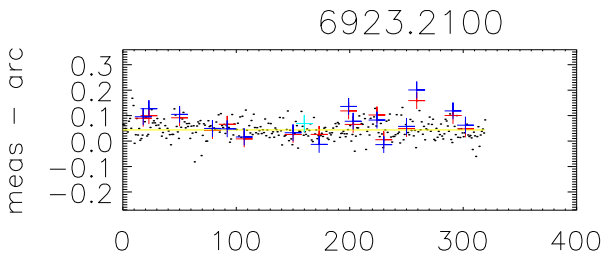

PLATE=2971 MJD=54589 Extraction chi^2 for sdR−r1−00052511.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
0
500
1000
1500
2000
Row number

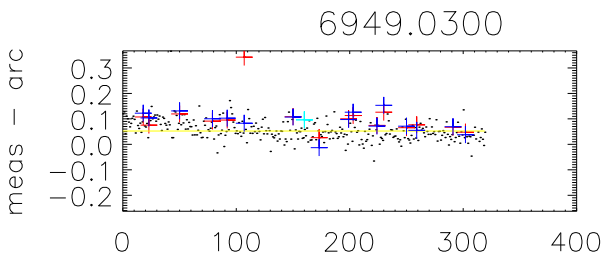

6300.3040
off: 0.01
sig: 0.006
6363.7760
off: 0.04
sig: 0.011
6553.6100
off: 0.02
sig: 0.020
6923.2100
off: 0.07
sig: 0.012
6949.0300
off: 0.10
sig: 0.012
7571.7500
off: 0.10
sig: 0.011
7794.1200
off: −0.02
sig: 0.006
7821.5100
off: 0.03
sig: 0.005
8399.1600
off: 0.06
sig: 0.004
8430.1700
off: 0.04
sig: 0.004
8885.8300
off: 0.04
sig: 0.004
8919.6100
off: 0.05
sig: 0.004

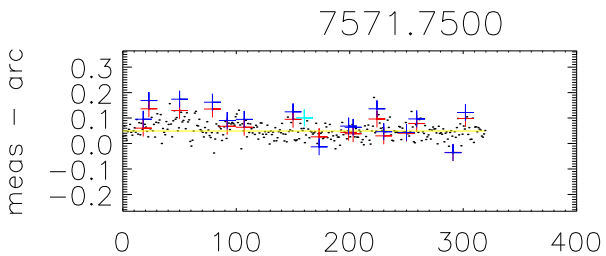

6300.3040
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

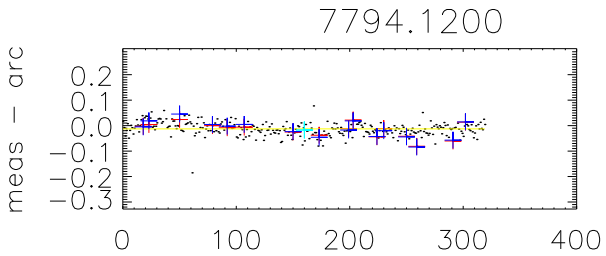

6363.7760
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

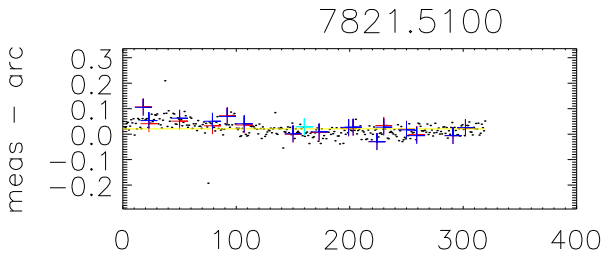

6553.6100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

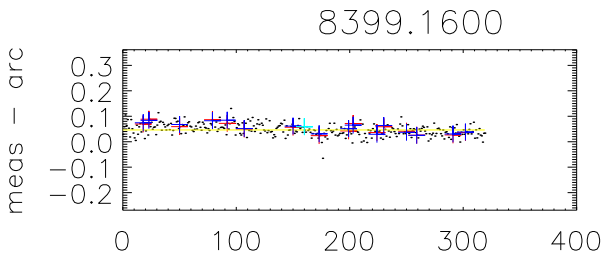

6923.2100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

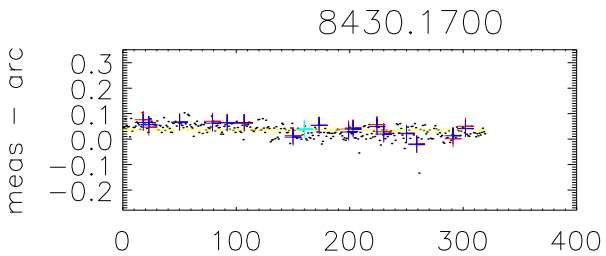

6949.0300
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

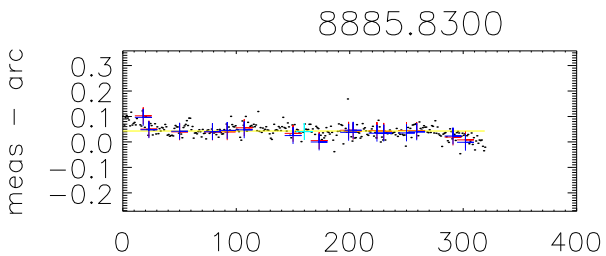

7571.7500
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

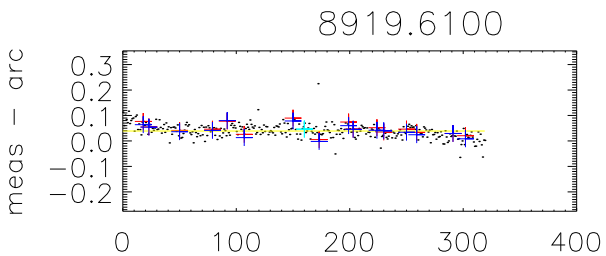

7794.1200
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

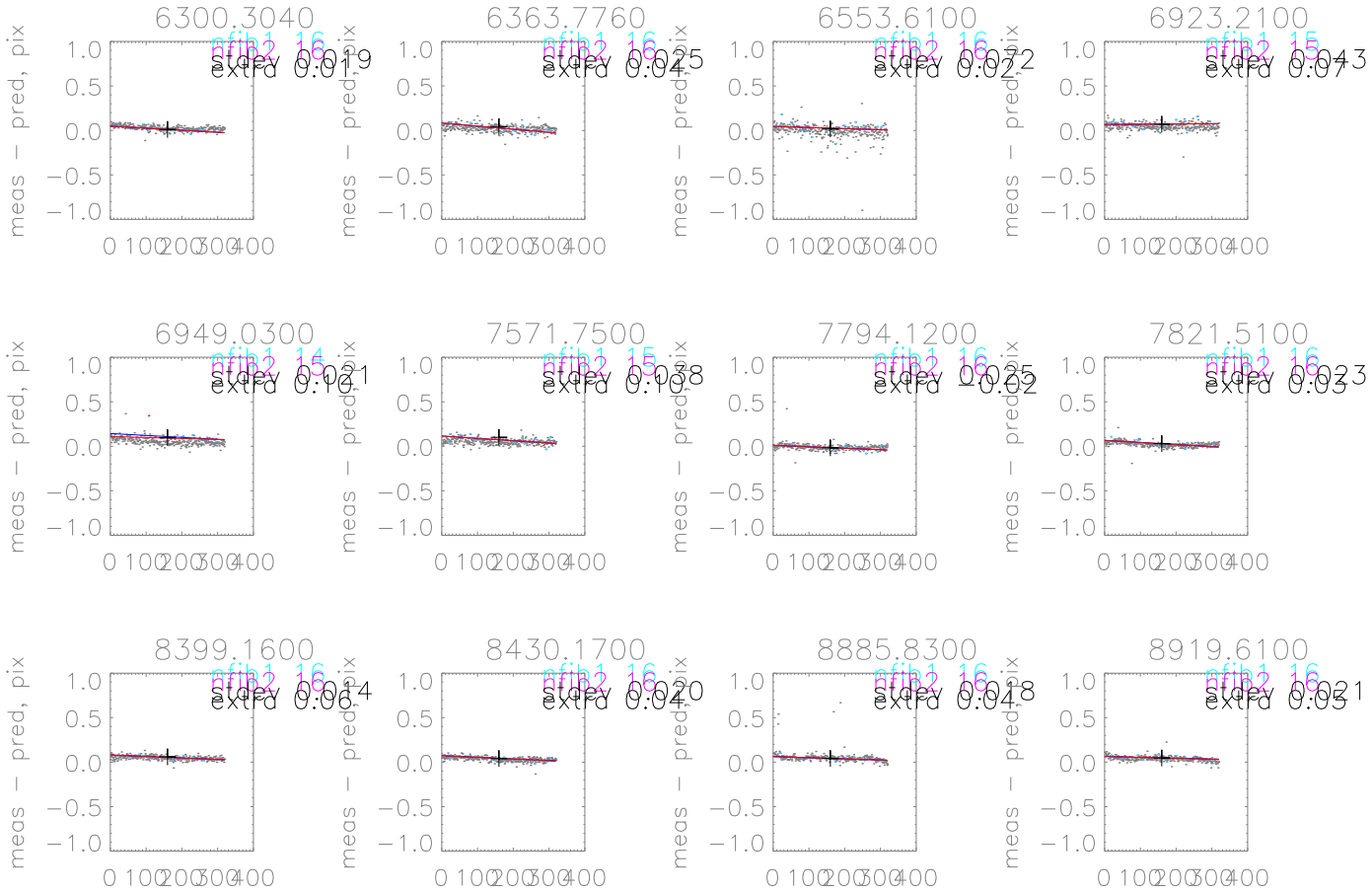

7821.5100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

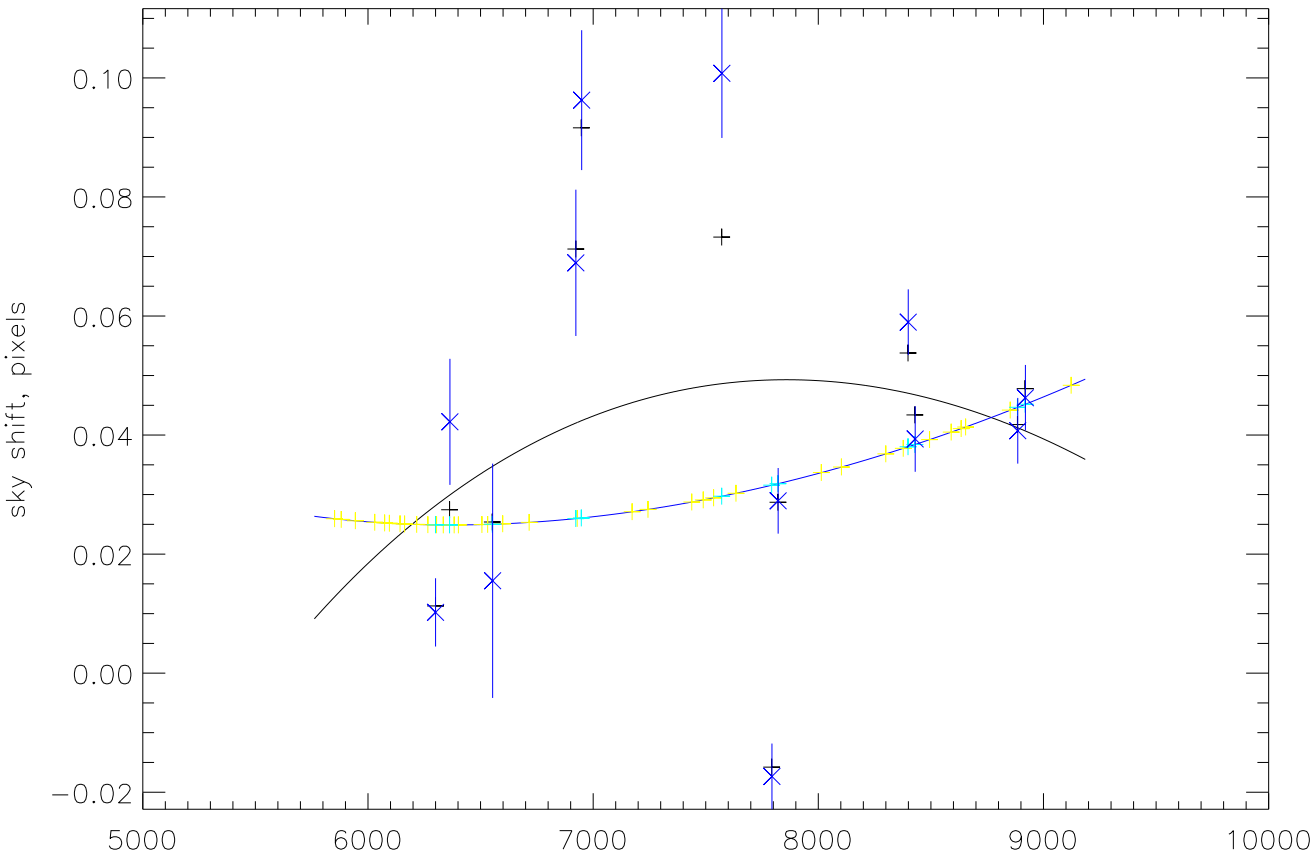

8399.1600
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

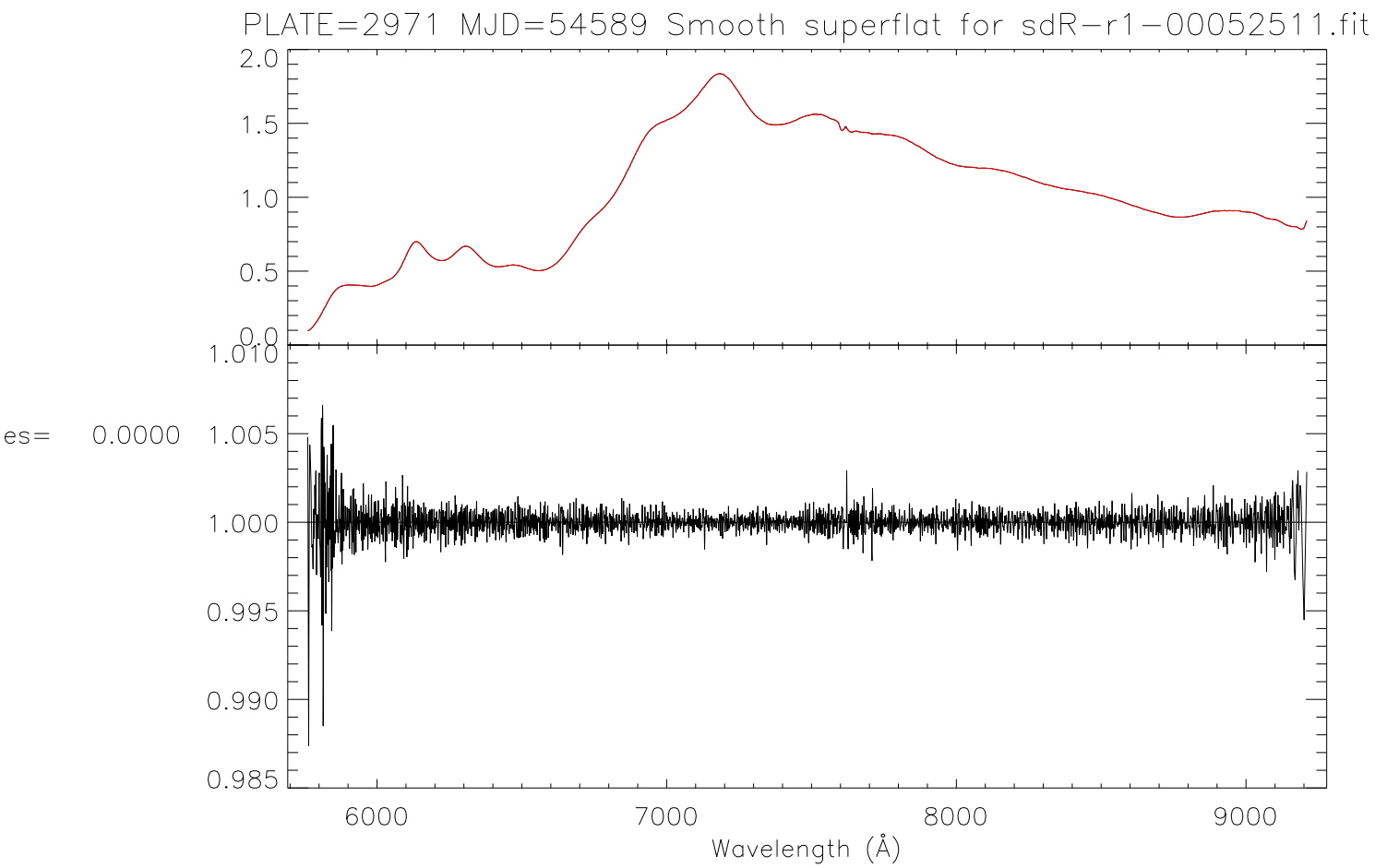

8430.1700
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400


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

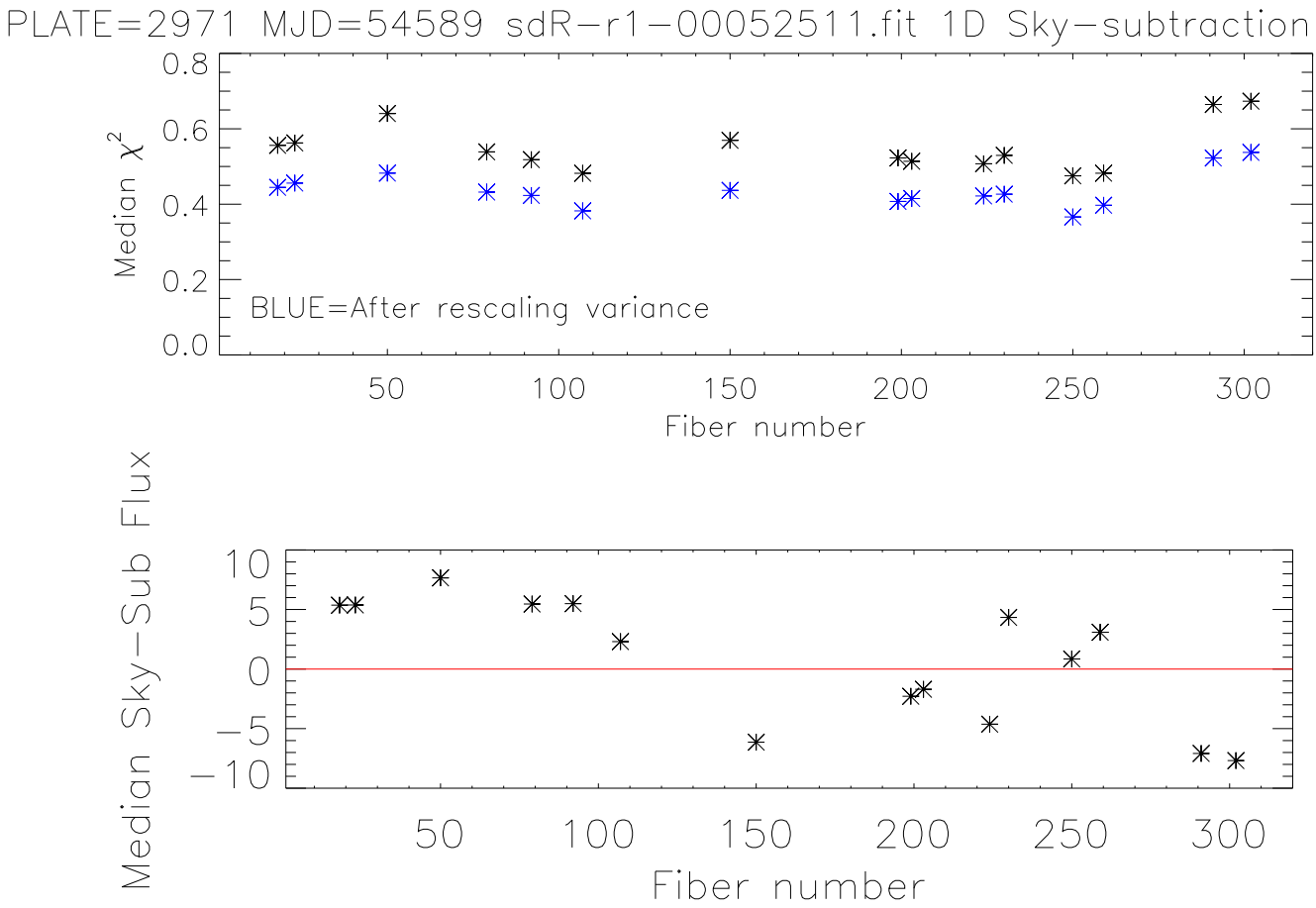

8919.6100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

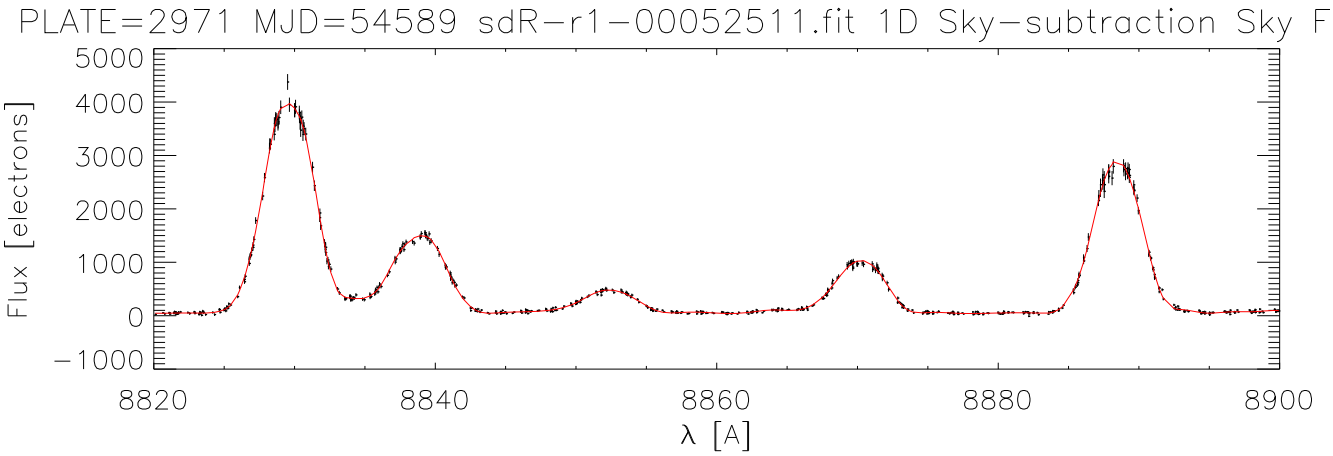

6300.3040
stdev 0.019
extra 0.01
6363.7760
stdev 0.025
extra 0.04
6553.6100
stdev 0.072
extra 0.02
6923.2100
stdev 0.043
extra 0.07
6949.0300
stdev 0.021
extra 0.10
7571.7500
stdev 0.038
extra 0.10
7794.1200
stdev 0.025
extra −0.02
7821.5100
stdev 0.023
extra 0.03
8399.1600
stdev 0.014
extra 0.06
8430.1700
stdev 0.020
extra 0.04
8885.8300
stdev 0.018
extra 0.04
8919.6100
stdev 0.021
extra 0.03
meas − pred, pix

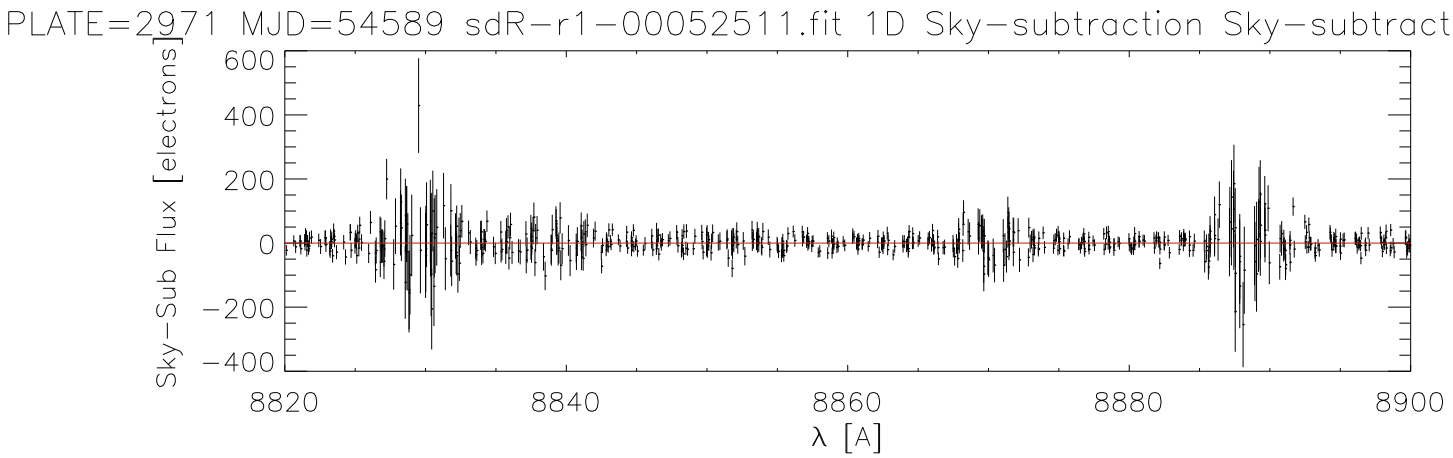

sky shift, pixels
0.10
0.08
0.06
0.04
0.02
0.00
−0.02
5000
6000
7000
8000
9000
10000

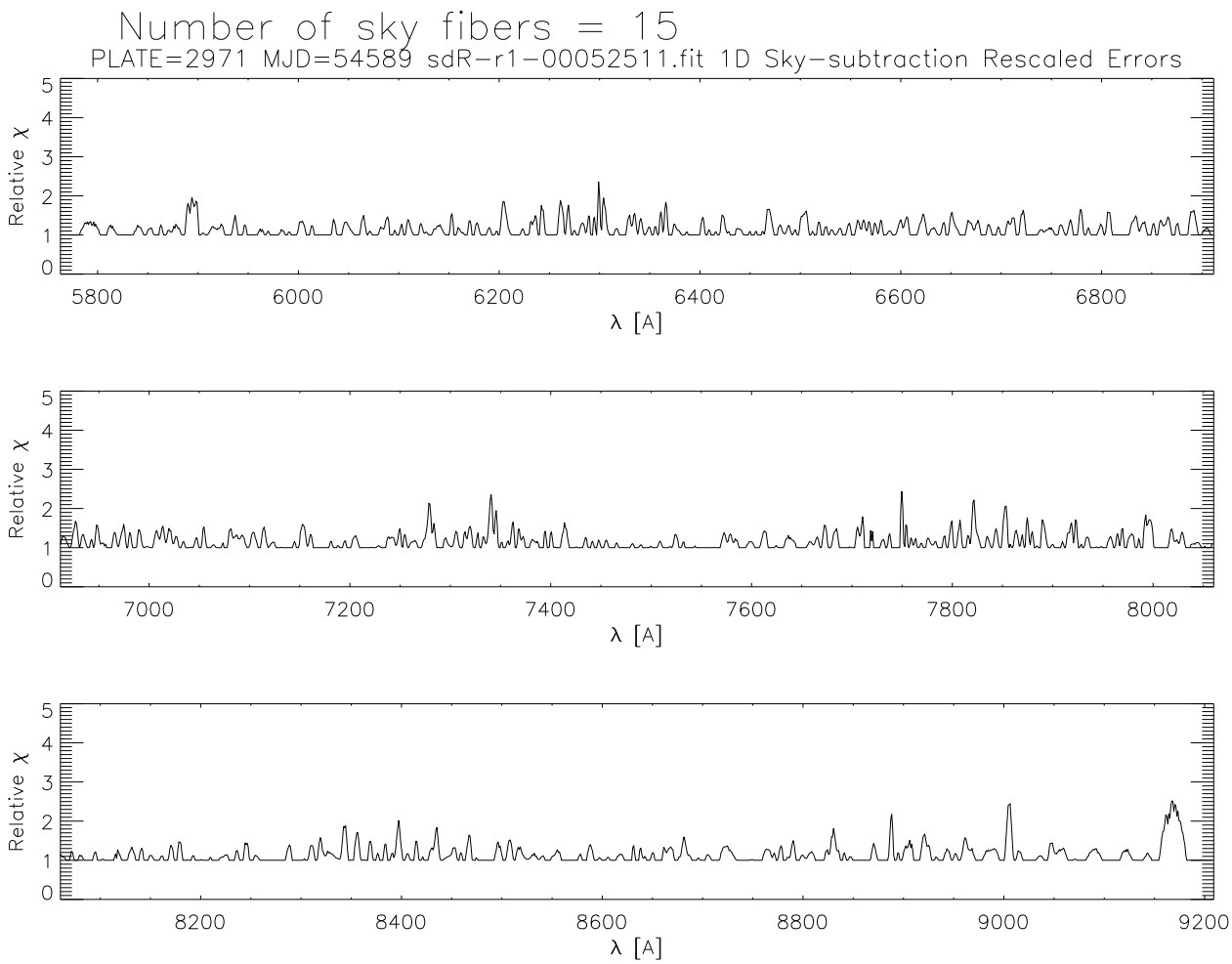

PLATE=2971 MJD=54589 Smooth superflat for sdR-r1-00052511.fit
2.0
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
0.985
6000
7000
8000
9000
Wavelength (Å)

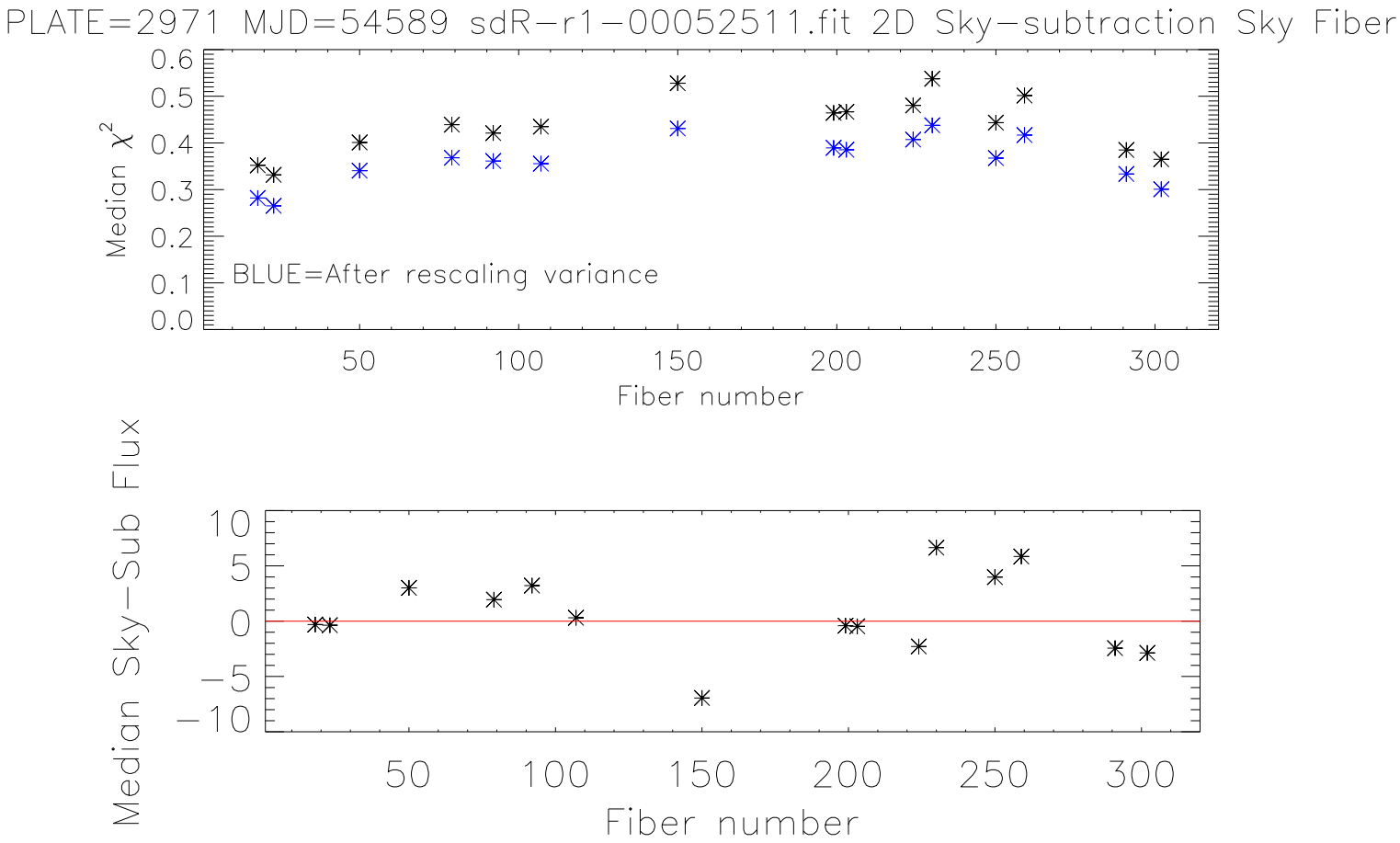
es= 0.0000

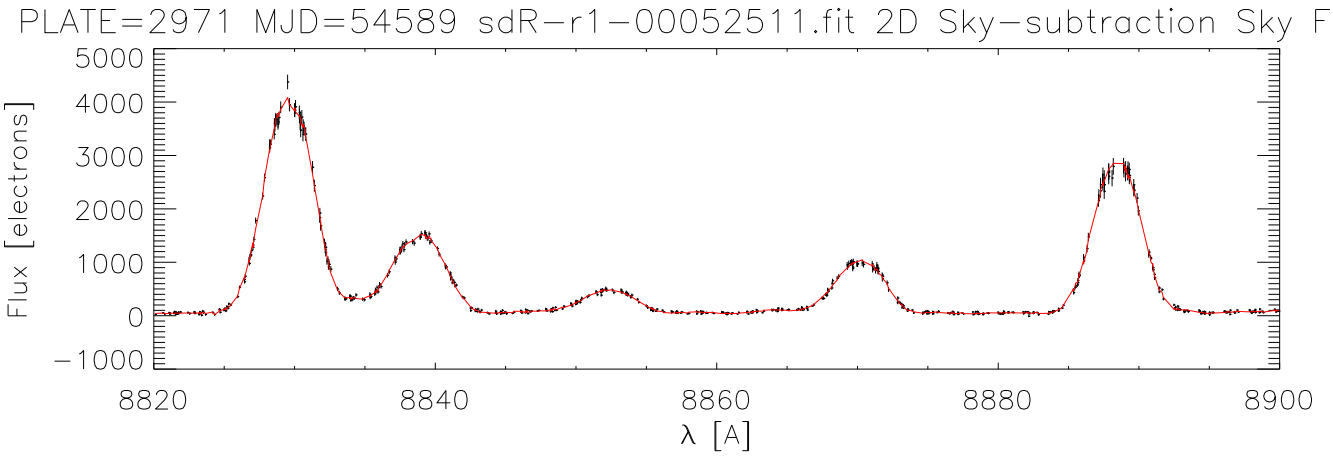

PLATE=2971 MJD=54589 sdR-r1-00052511.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
−5
−10
50
100
150
200
250
300
Fiber number

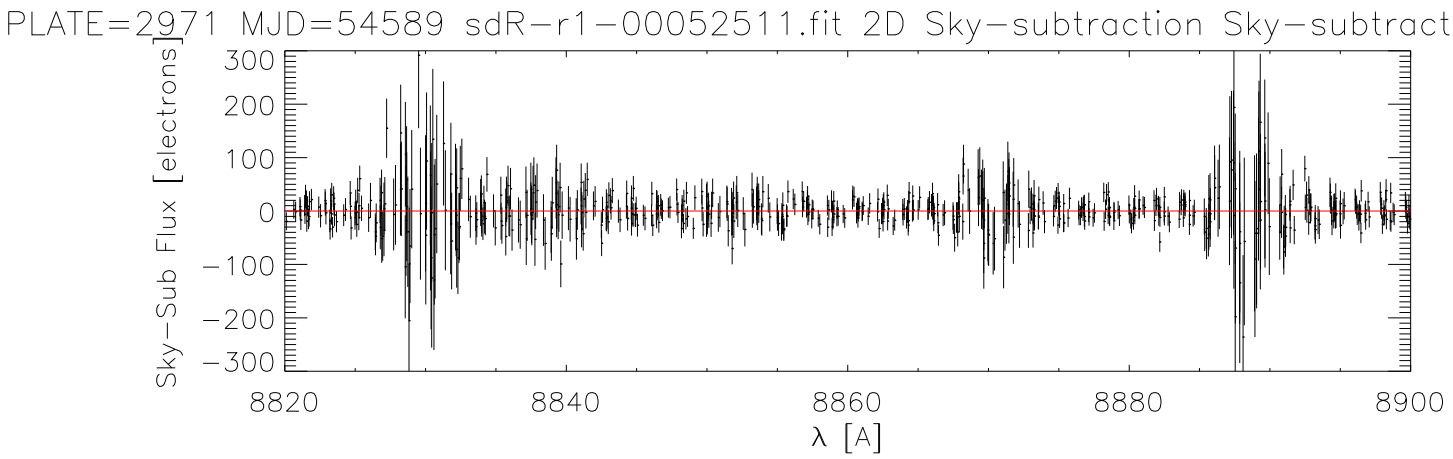

PLATE=2971 MJD=54589 sdR-r1-00052511.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
-1000
8820
8840
8860
8880
8900
λ [A]

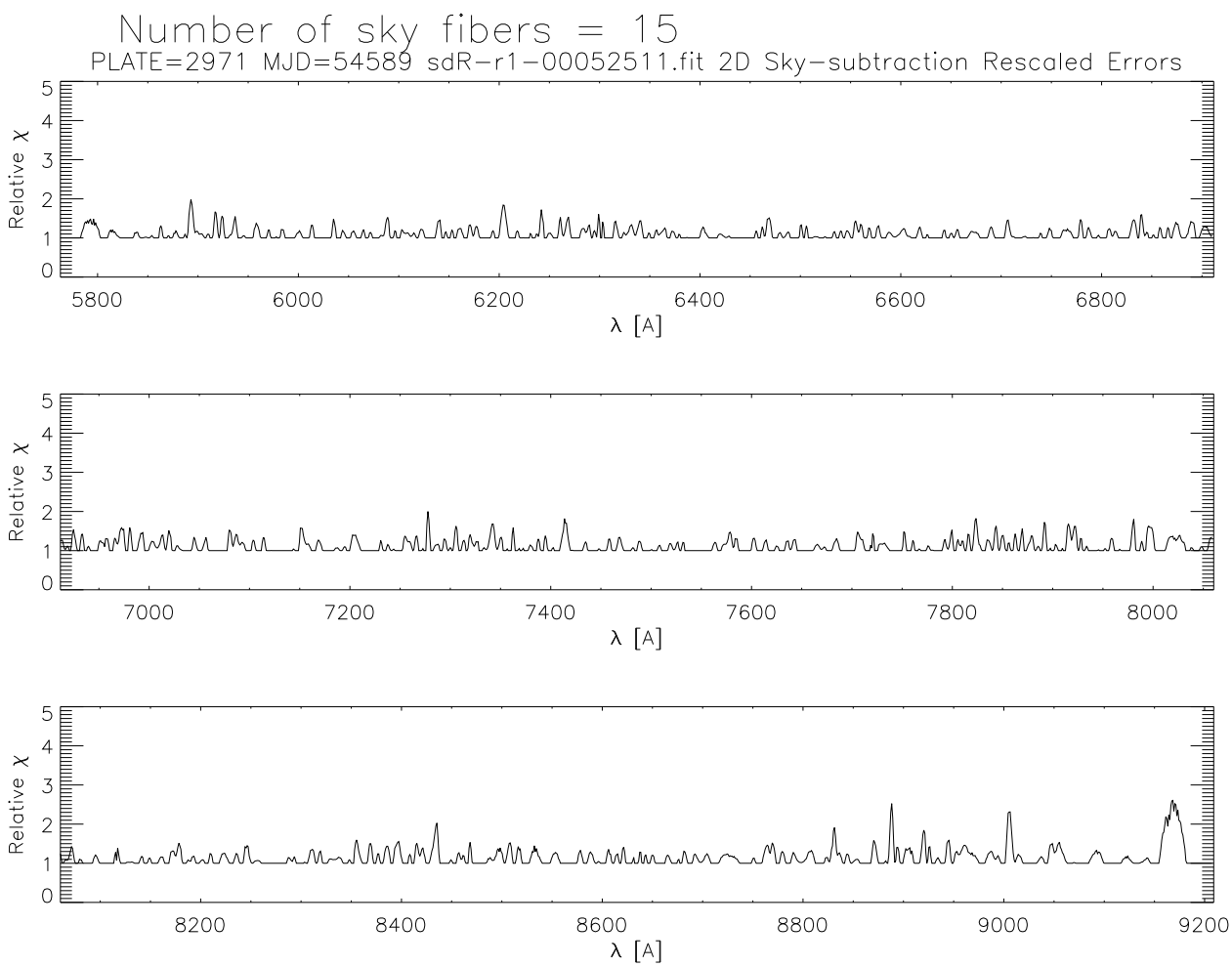

PLATE=2971 MJD=54589 sdR-r1-00052511.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
-200
-400
8820
8840
8860
8880
8900
λ [A]

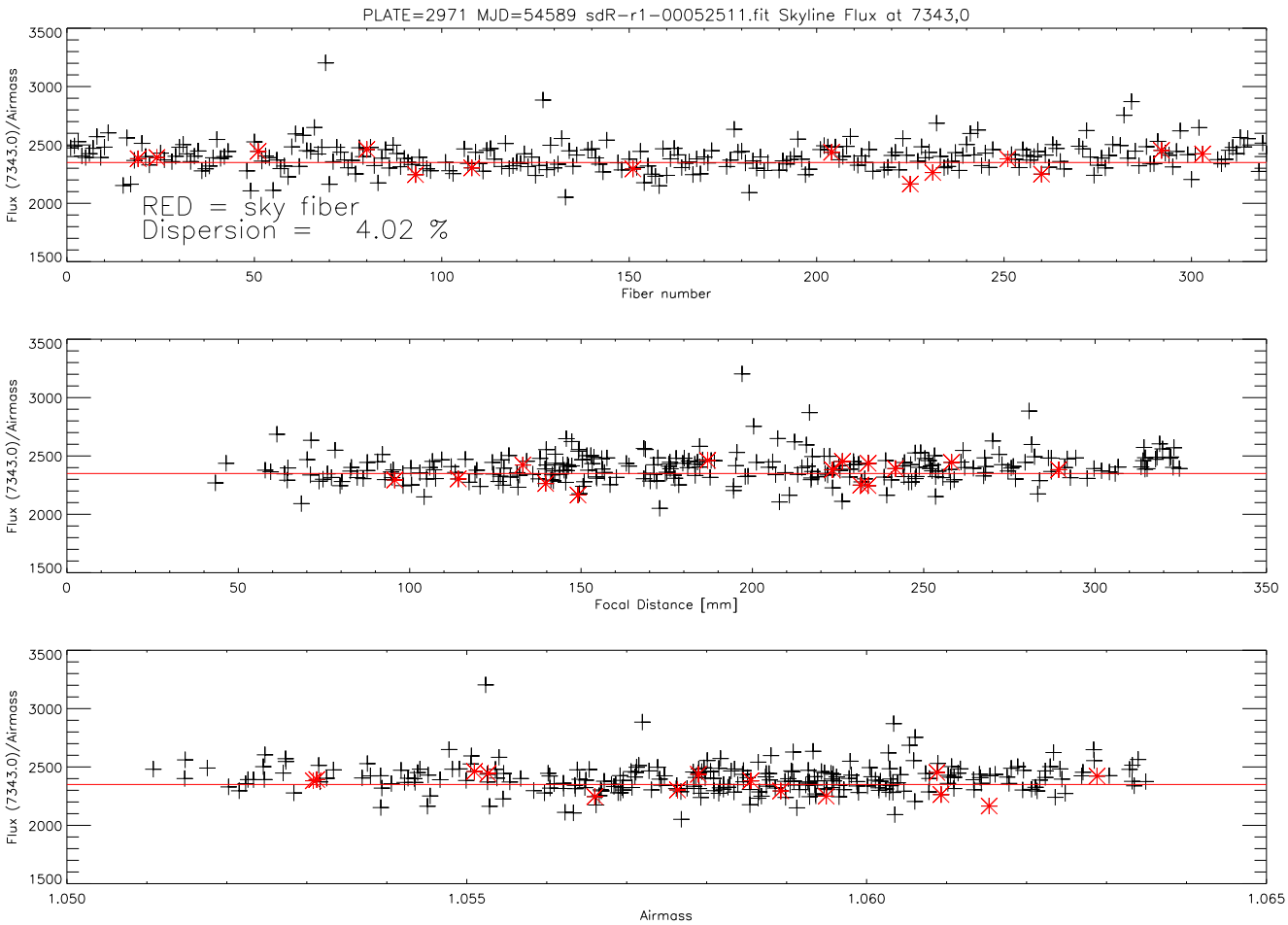

Number of sky fibers = 15
PLATE=2971 MJD=54589 sdR-r1-00052511.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

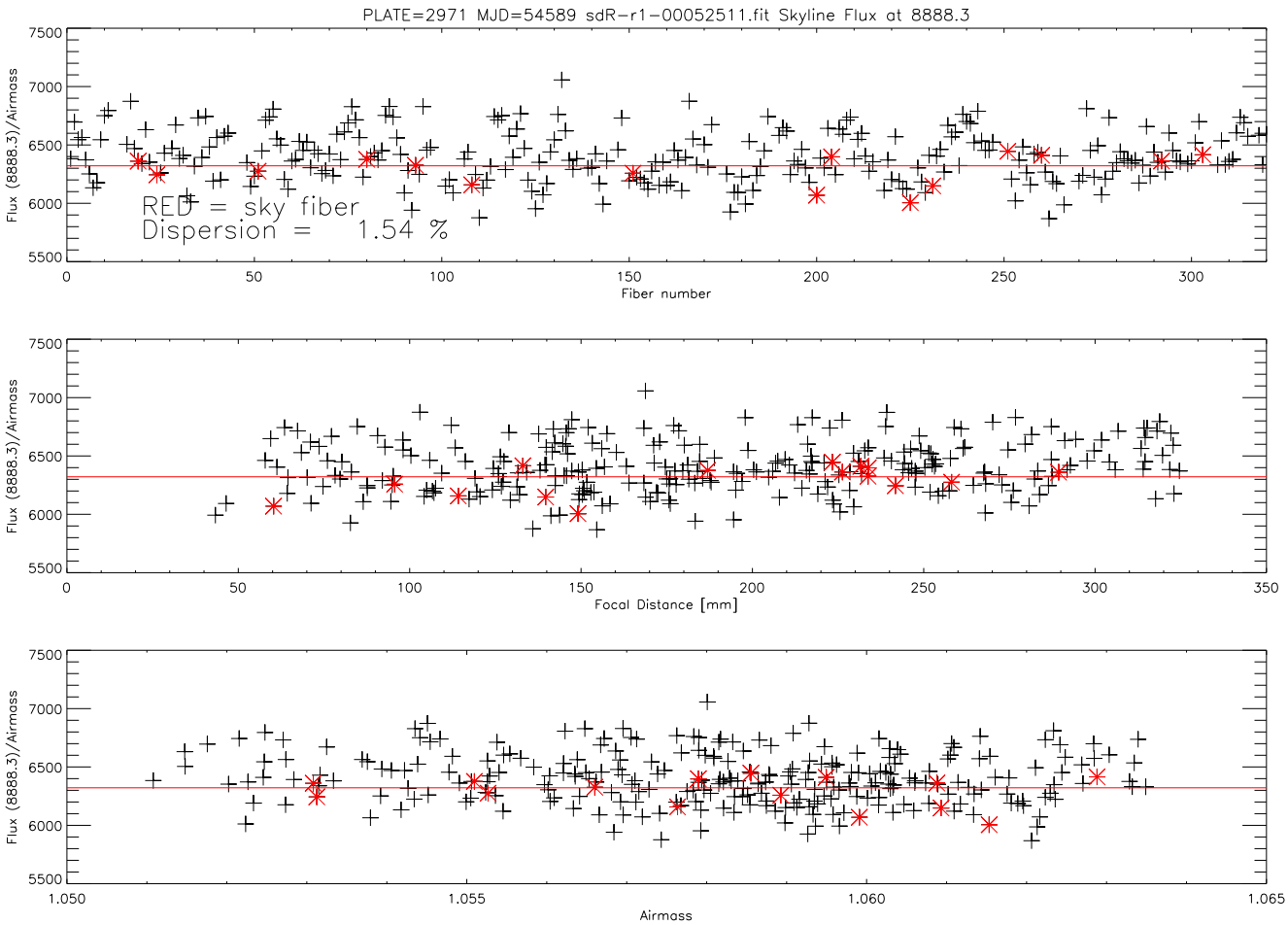

PLATE=2971 MJD=54589 sdR-r1-00052511.fit 2D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
−5
−10
50
100
150
200
250
300
Fiber number

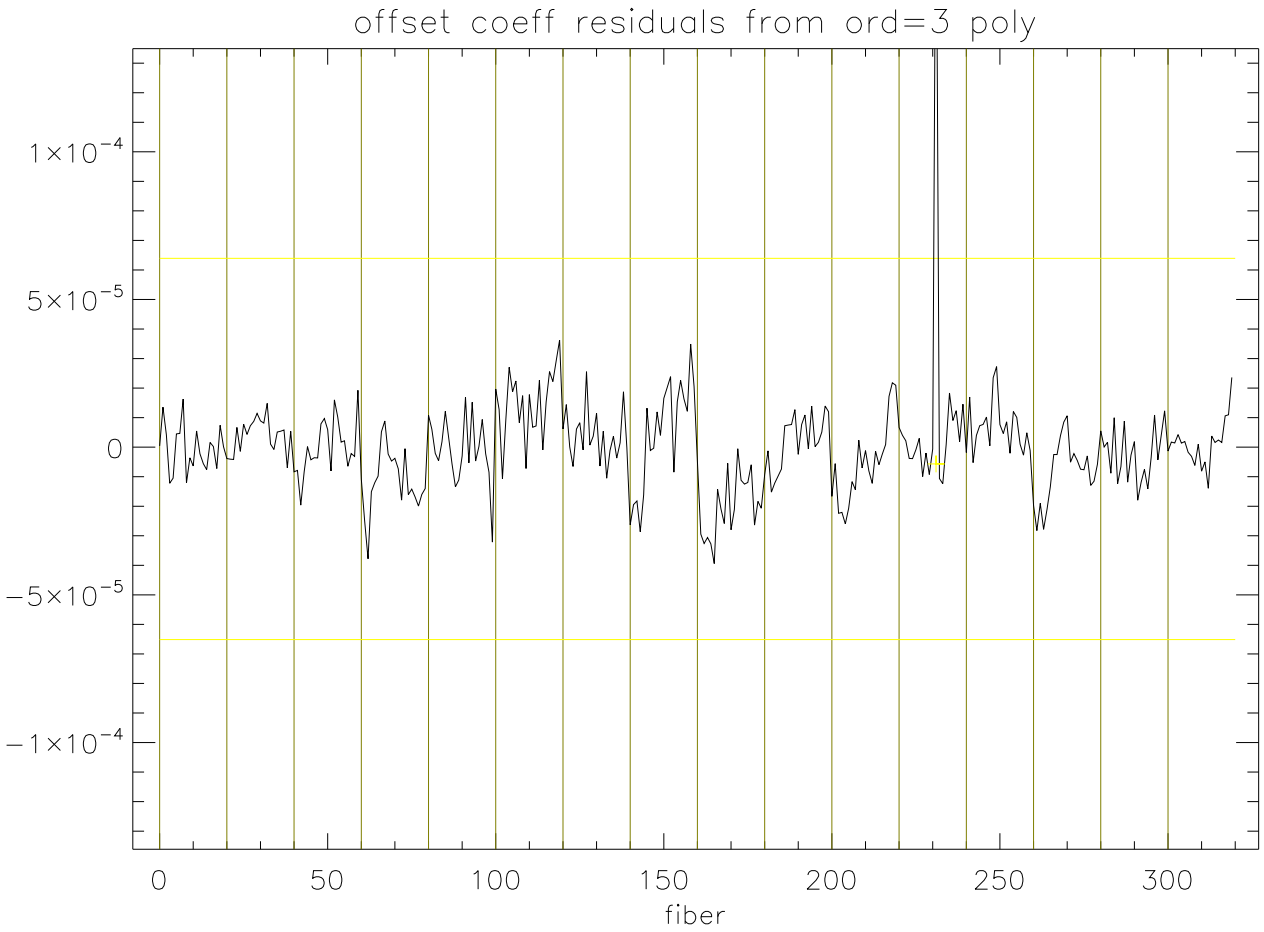

PLATE=2971 MJD=54589 sdR-r1-00052511.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
-1000
8820
8840
8860
8880
8900
λ [A]

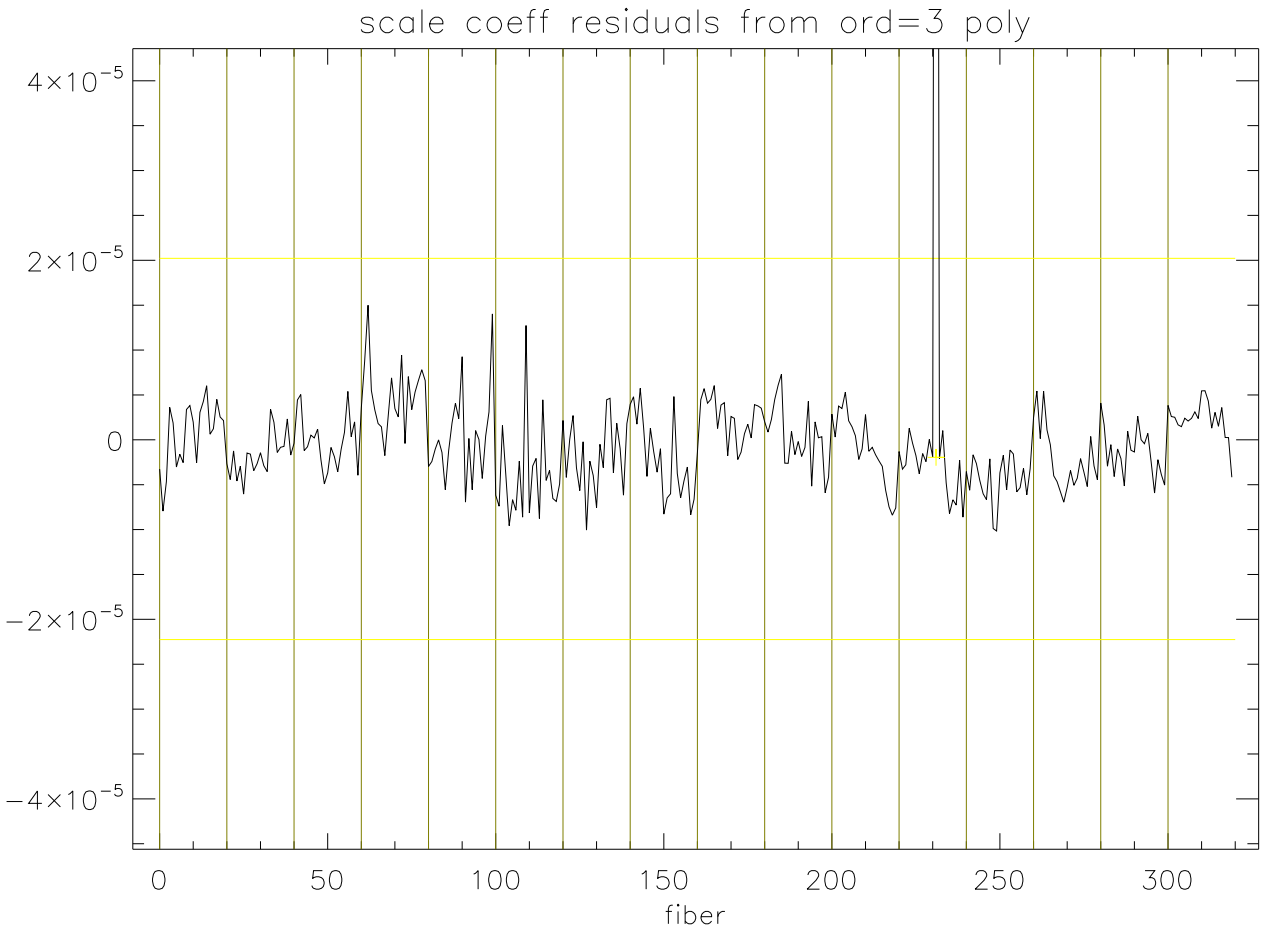

PLATE=2971 MJD=54589 sdR-r1-00052511.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
-300
8820
8840
8860
8880
8900
λ [A]

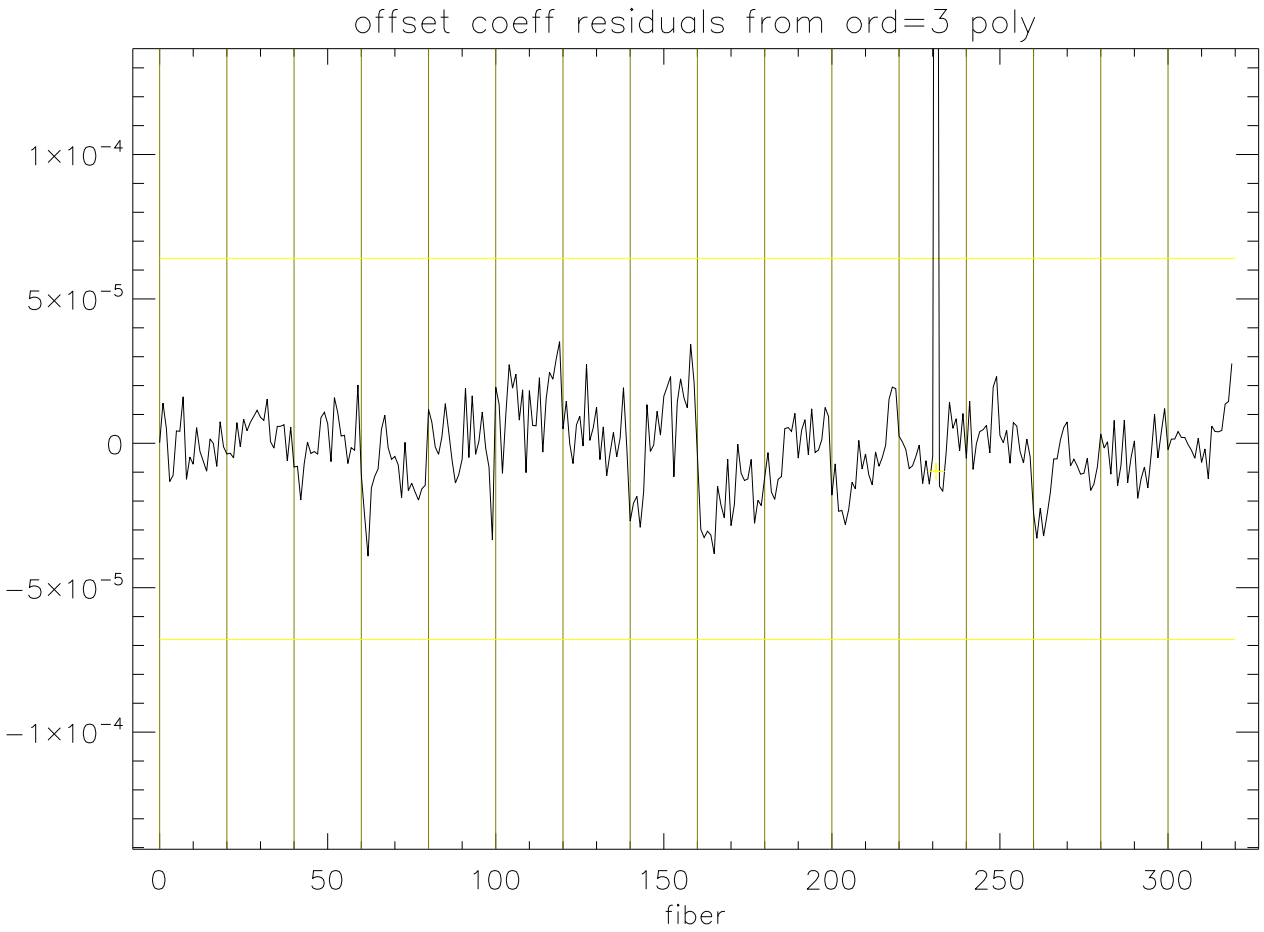

Number of sky fibers = 15
PLATE=2971 MJD=54589 sdR-r1-00052511.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

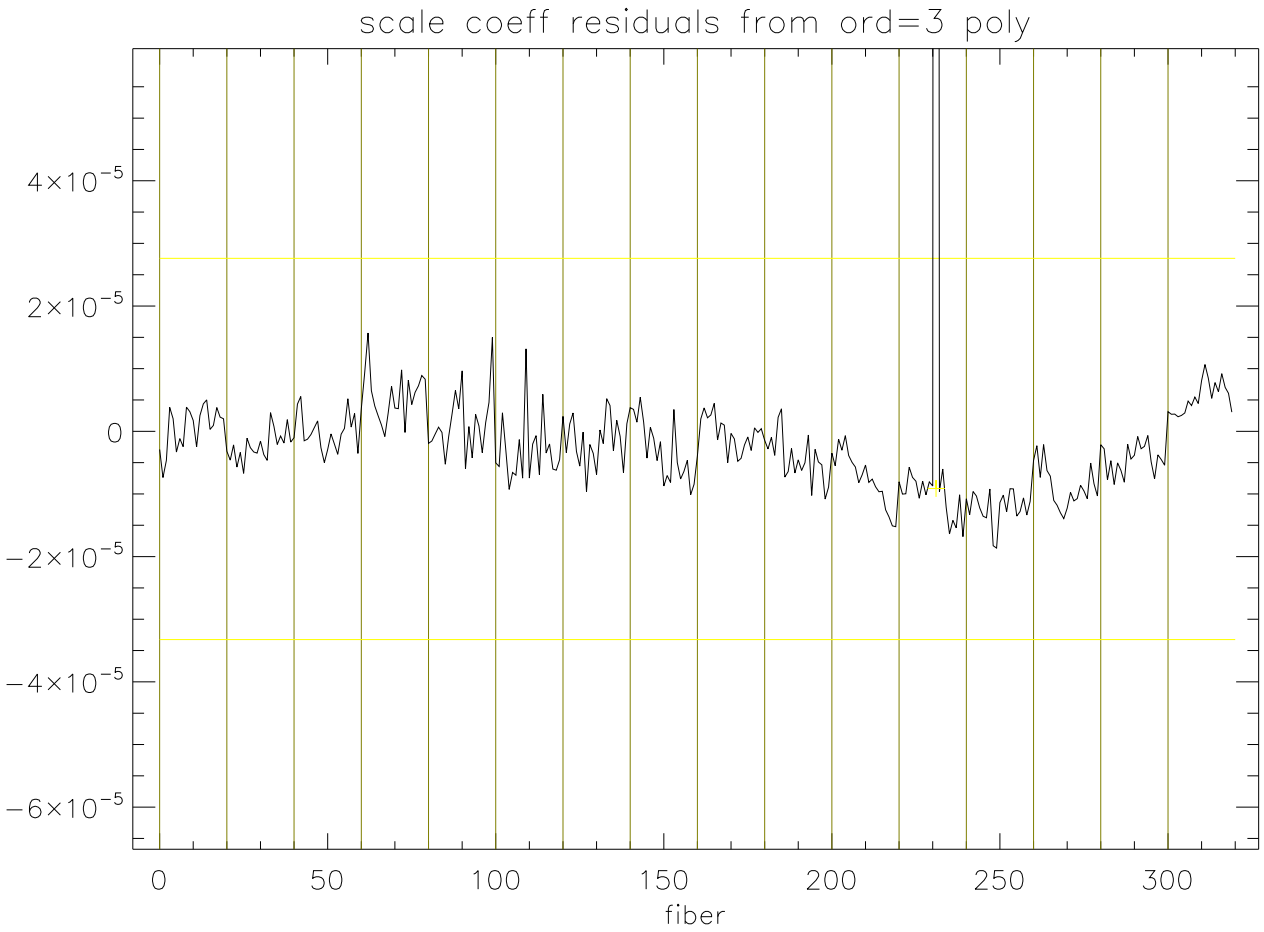

PLATE=2971 MJD=54589 sdR-r1-00052511.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 4.02 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

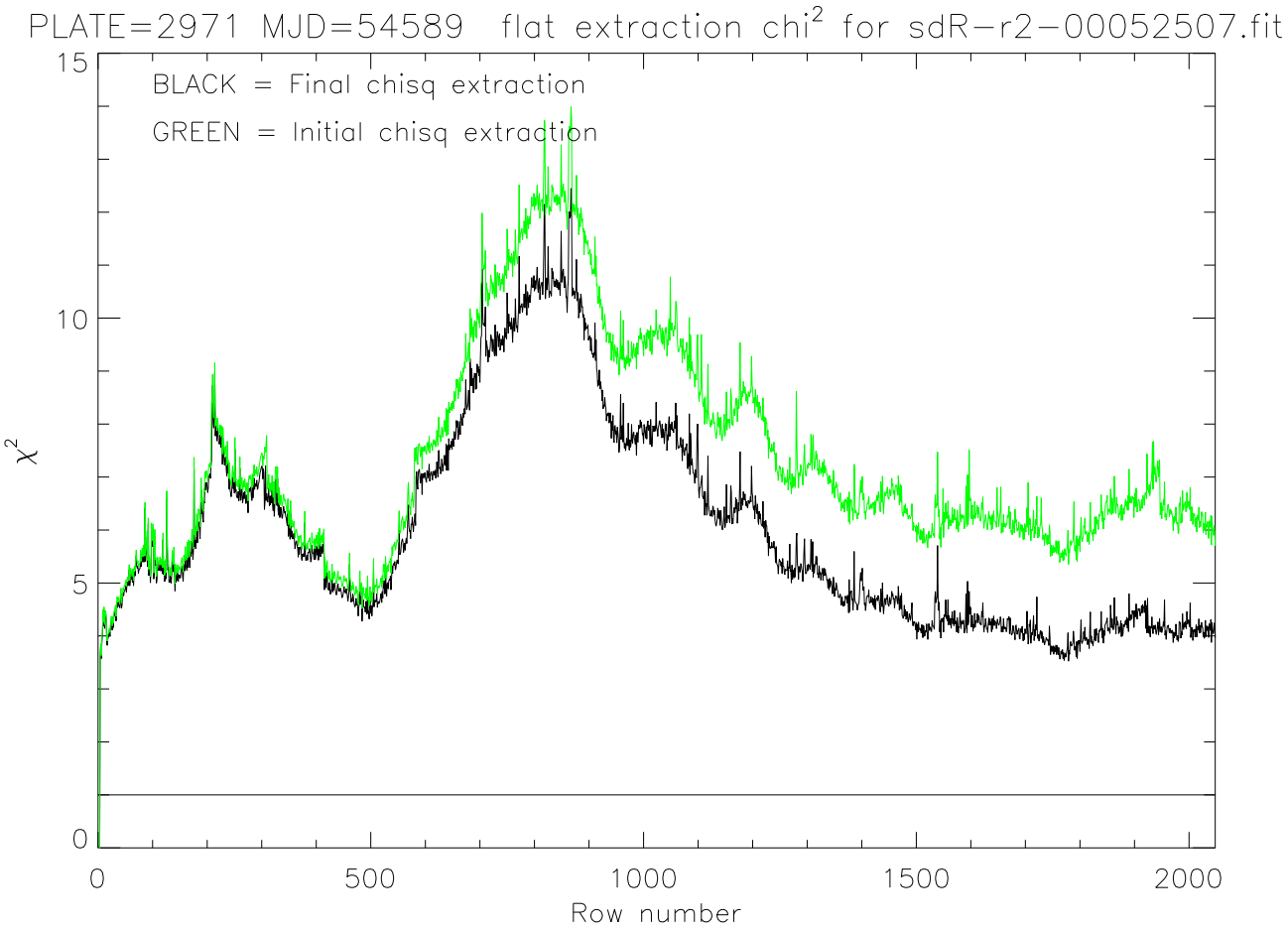

PLATE=2971 MJD=54589 sdR-r1-00052511.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
Fiber number
RED = sky fiber
Dispersion = 1.54 %
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass

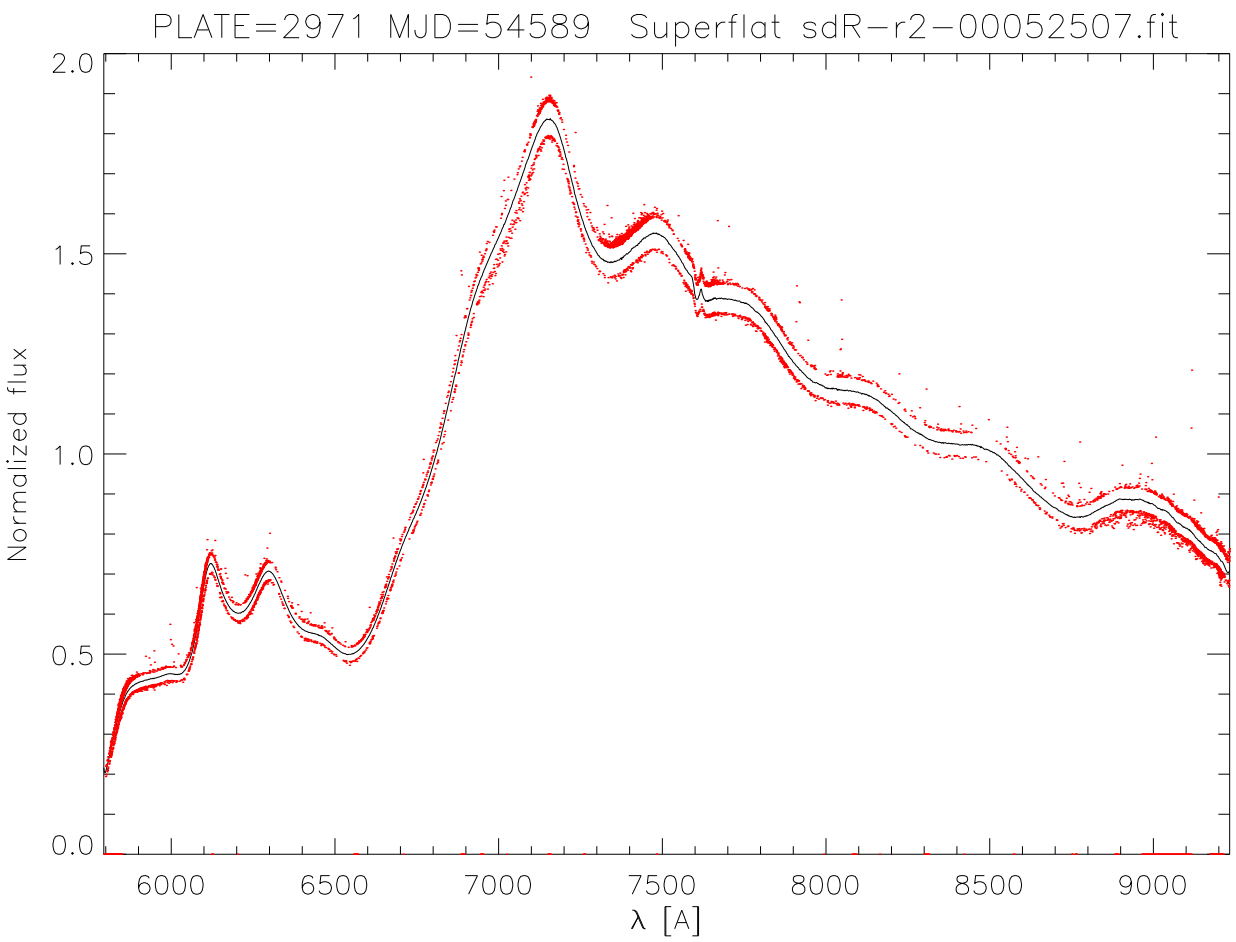

offset coeff residuals from ord=3 poly
1×10^-4
5×10^-5
0
−5×10^-5
−1×10^-4
0
50
100
150
200
250
300
fiber

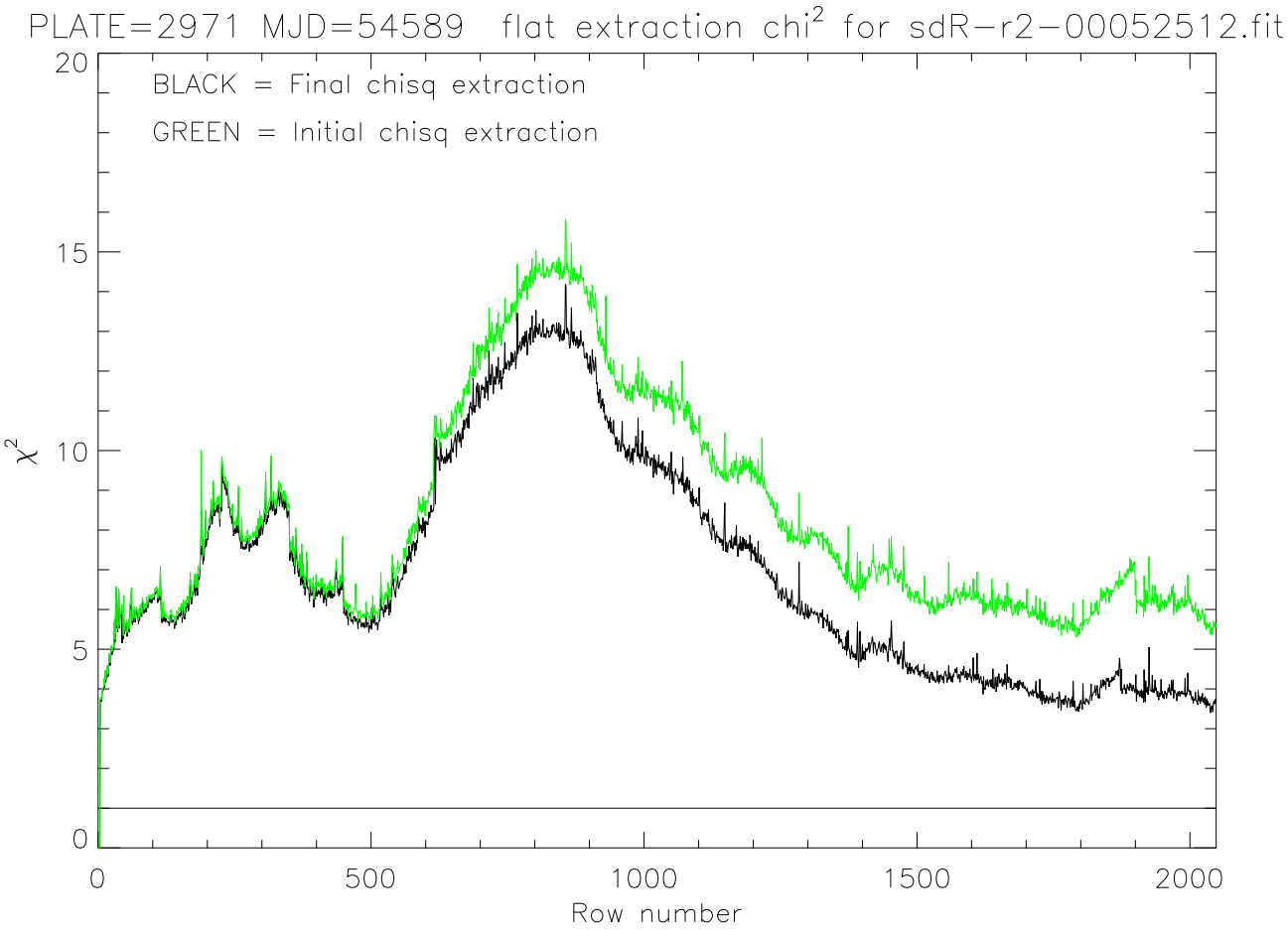

scale coeff residuals from ord=3 poly
4×10⁻⁵
2×10⁻⁵
0
−2×10⁻⁵
−4×10⁻⁵
0
50
100
150
200
250
300
fiber

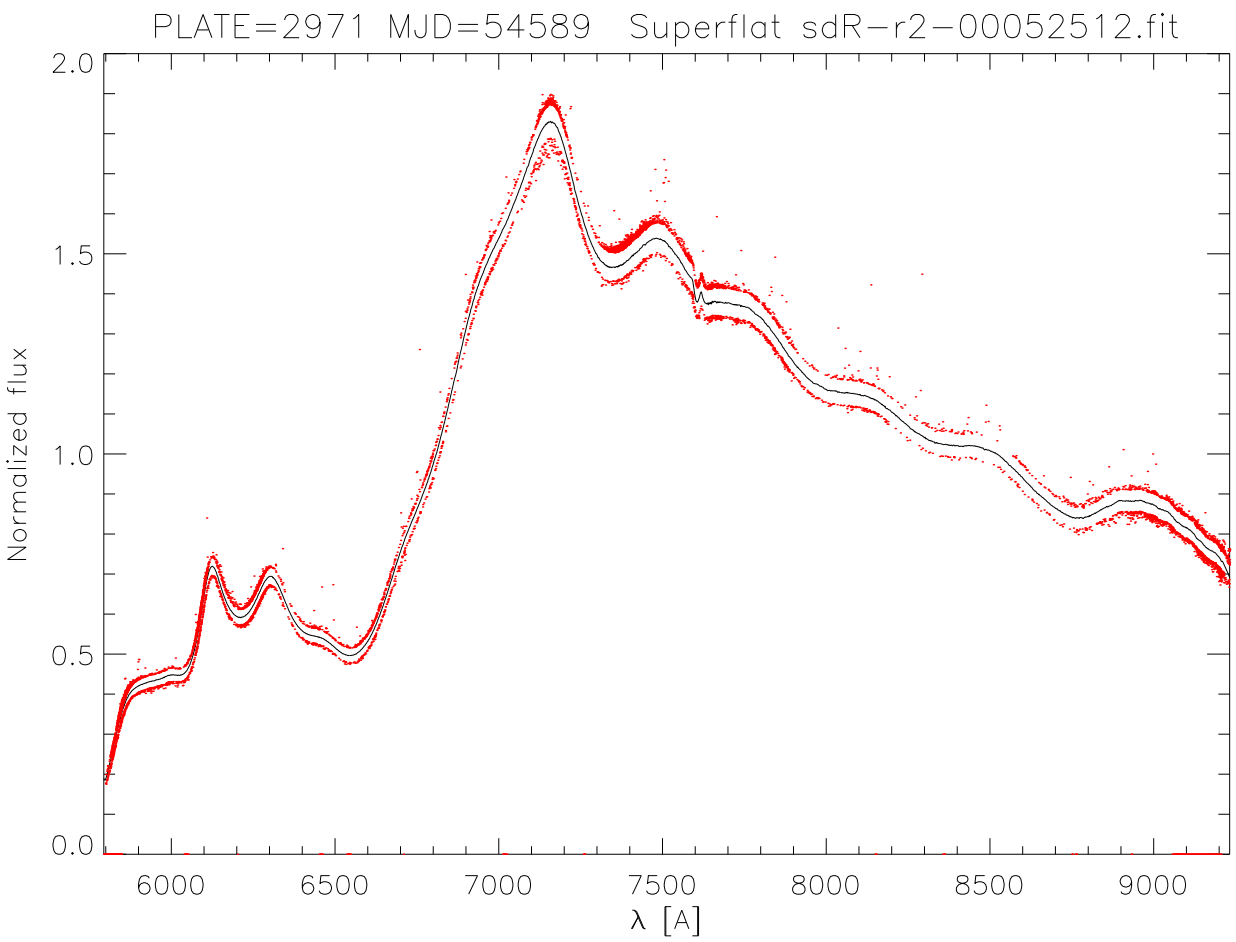

offset coeff residuals from ord=3 poly
1×10⁻⁴
5×10⁻⁵
0
−5×10⁻⁵
−1×10⁻⁴
0
50
100
150
200
250
300
fiber

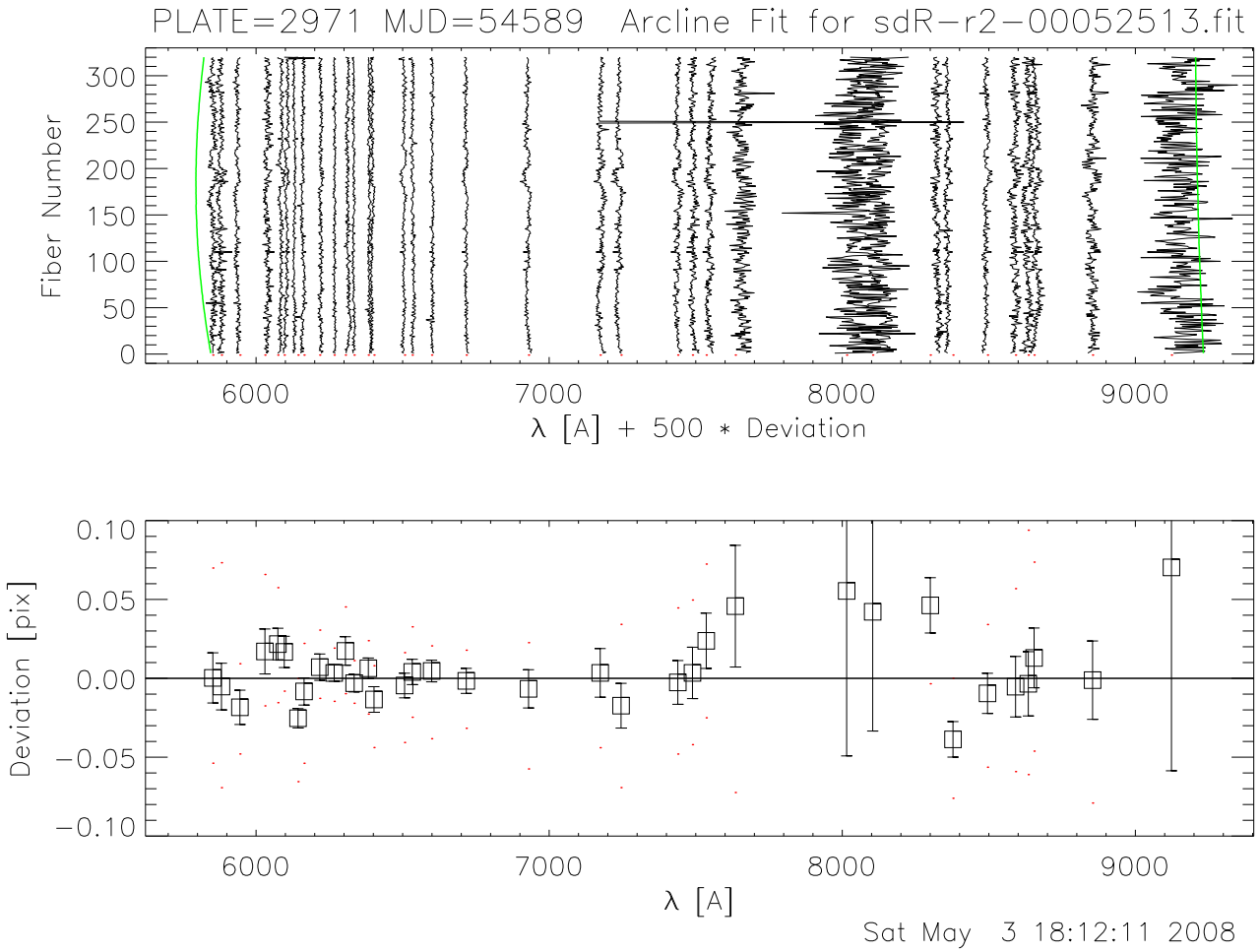

scale coeff residuals from ord=3 poly
4×10⁻⁵
2×10⁻⁵
0
−2×10⁻⁵
−4×10⁻⁵
−6×10⁻⁵
0
50
100
150
200
250
300
fiber

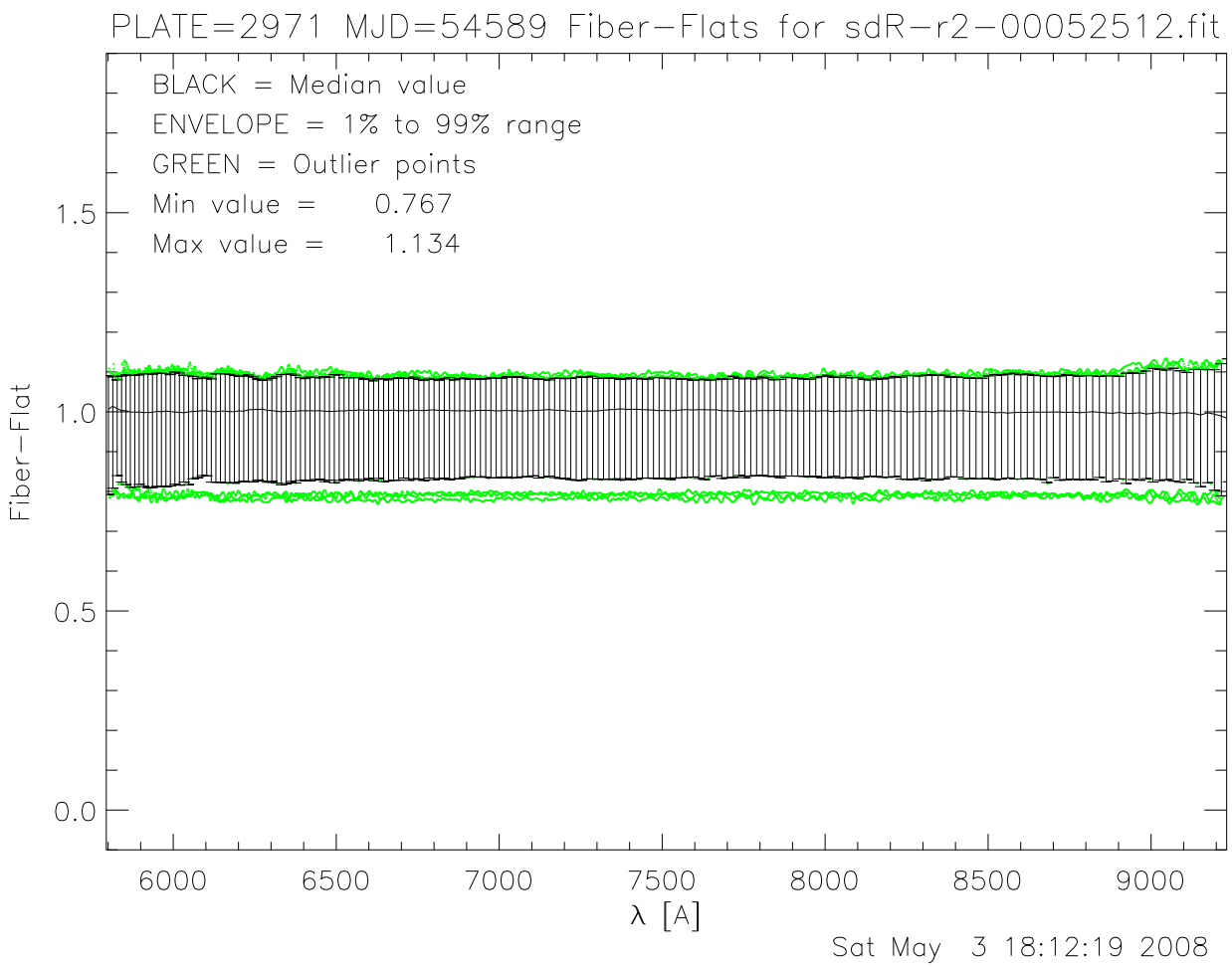

PLATE=2971 MJD=54589 flat extraction chi^2 for sdR−r2−00052507.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
5
10
15
0
500
1000
1500
2000

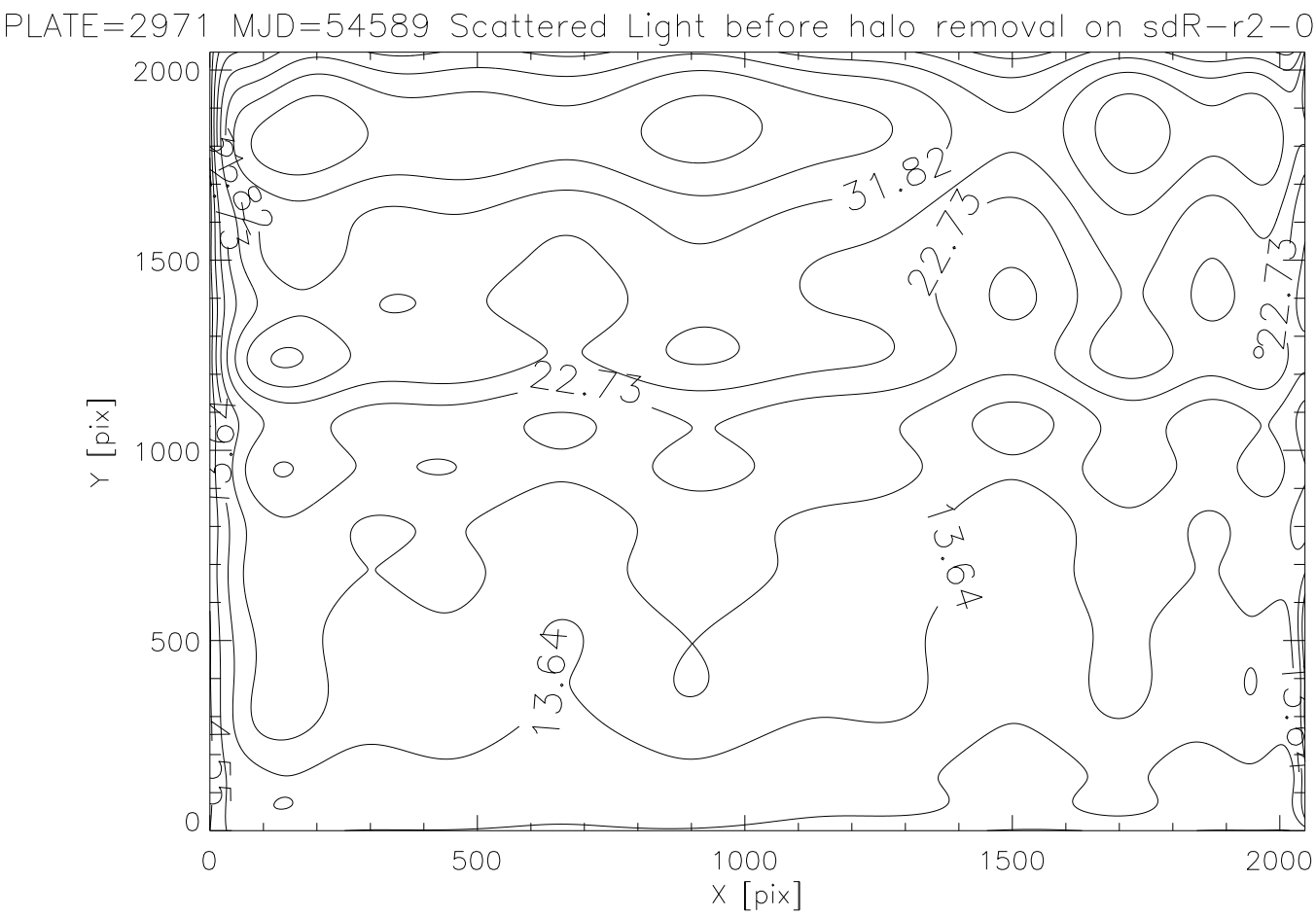

PLATE=2971 MJD=54589 Superflat sdR-r2-00052507.fit
Normalized flux
2.0
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

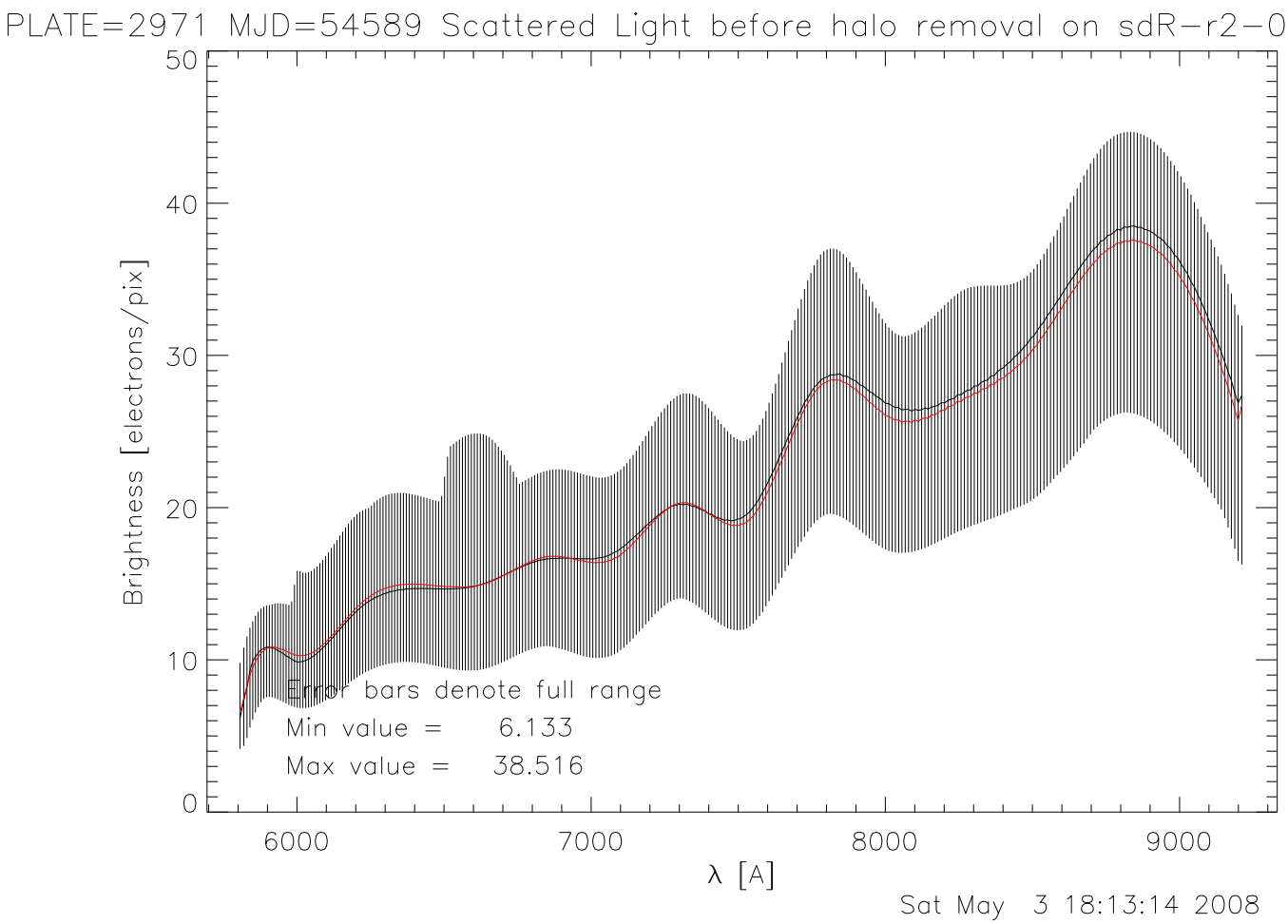

PLATE=2971 MJD=54589 flat extraction chi^2 for sdR−r2−00052512.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
0
5
10
15
20
0
500
1000
1500
2000
Row number

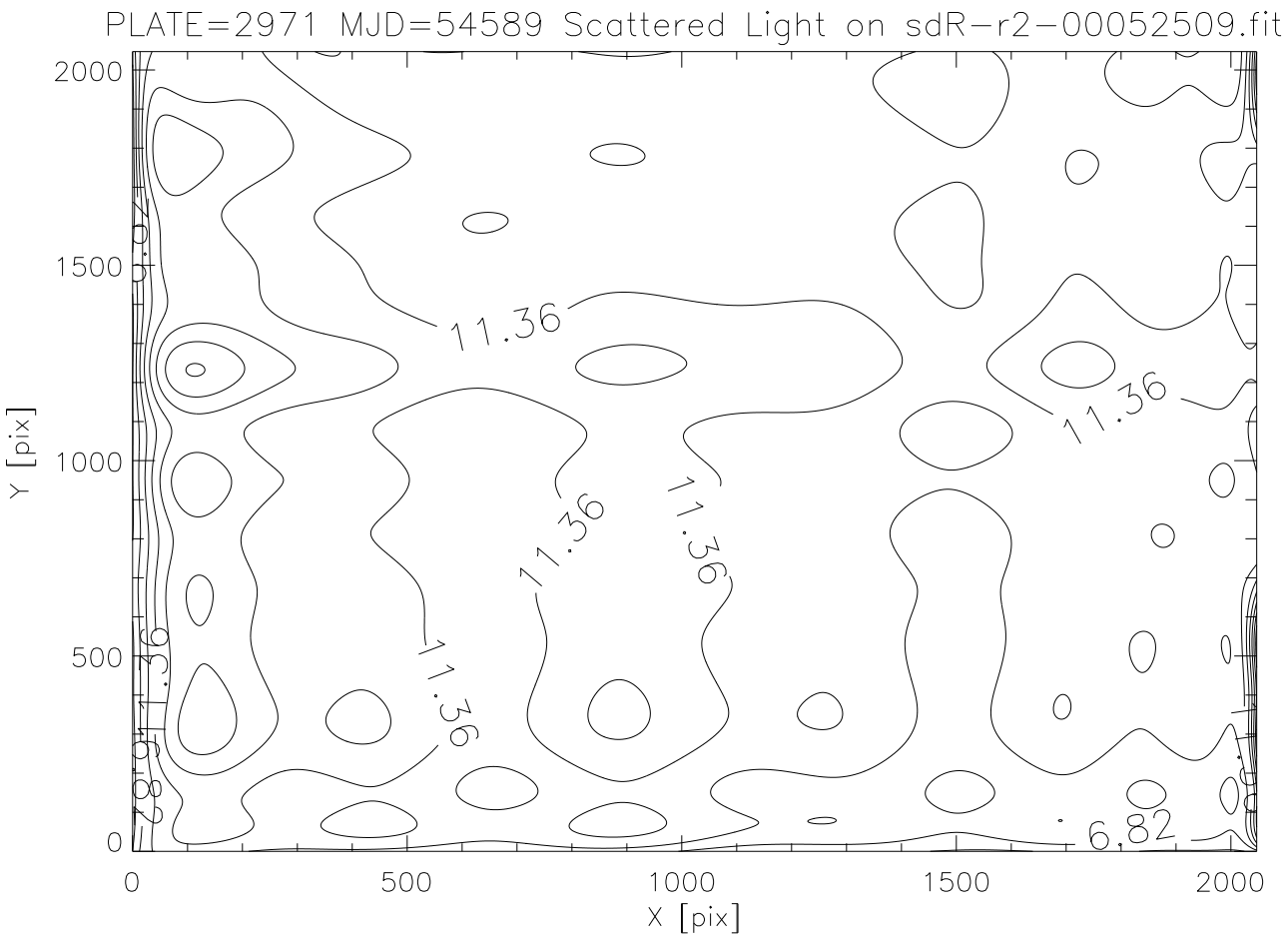

PLATE=2971 MJD=54589 Superflat sdR-r2-00052512.fit
Normalized flux
λ [A]
0.0
0.5
1.0
1.5
2.0
6000
6500
7000
7500
8000
8500
9000

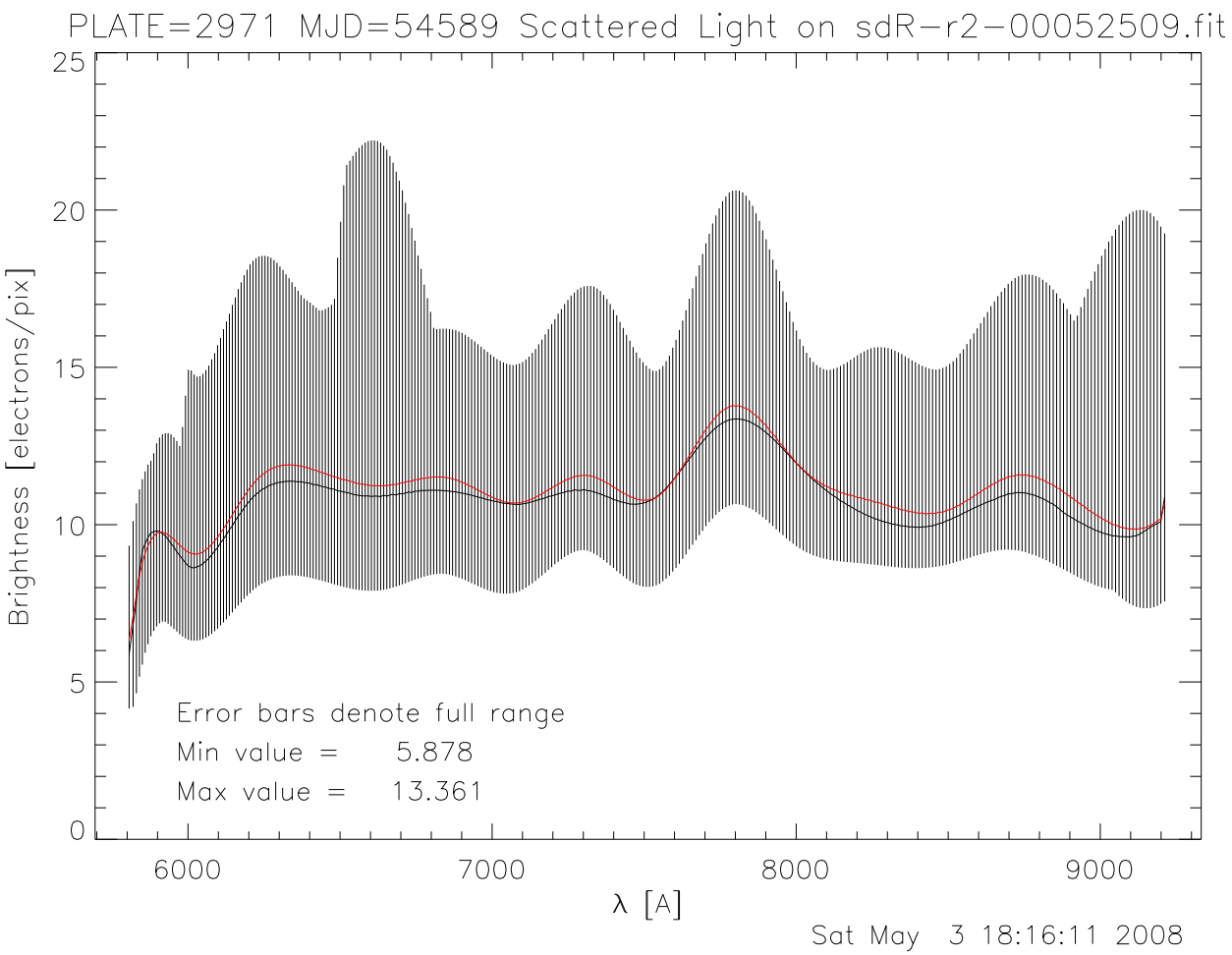

PLATE=2971 MJD=54589 Arcline Fit for sdR-r2-00052513.fit
Fiber Number
300
250
200
150
100
50
0
6000
7000
8000
9000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
6000
7000
8000
9000
λ [A]
Sat May 3 18:12:11 2008

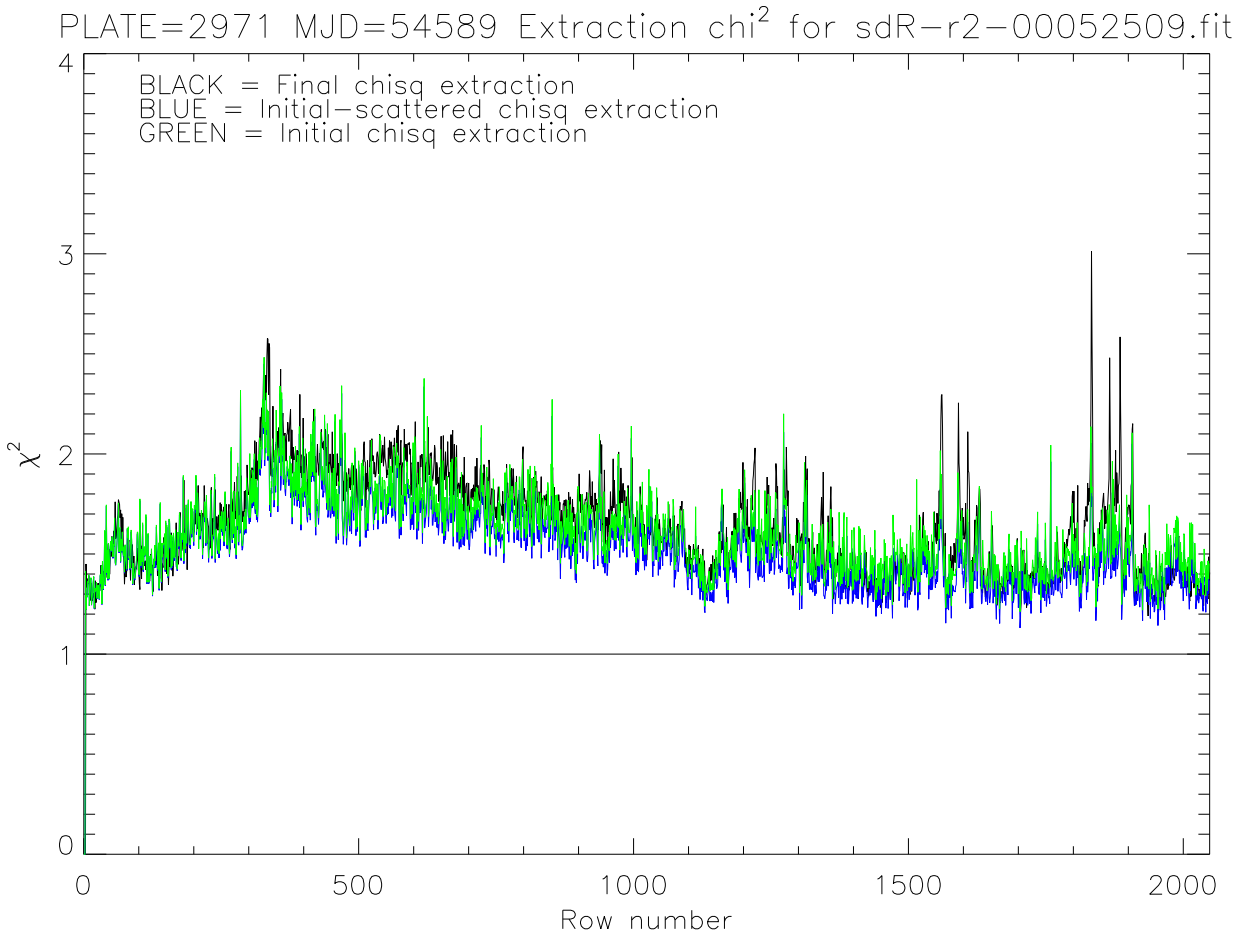

PLATE=2971 MJD=54589 Fiber−Flats for sdR−r2−00052512.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.767
Max value = 1.134
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sat May 3 18:12:19 2008

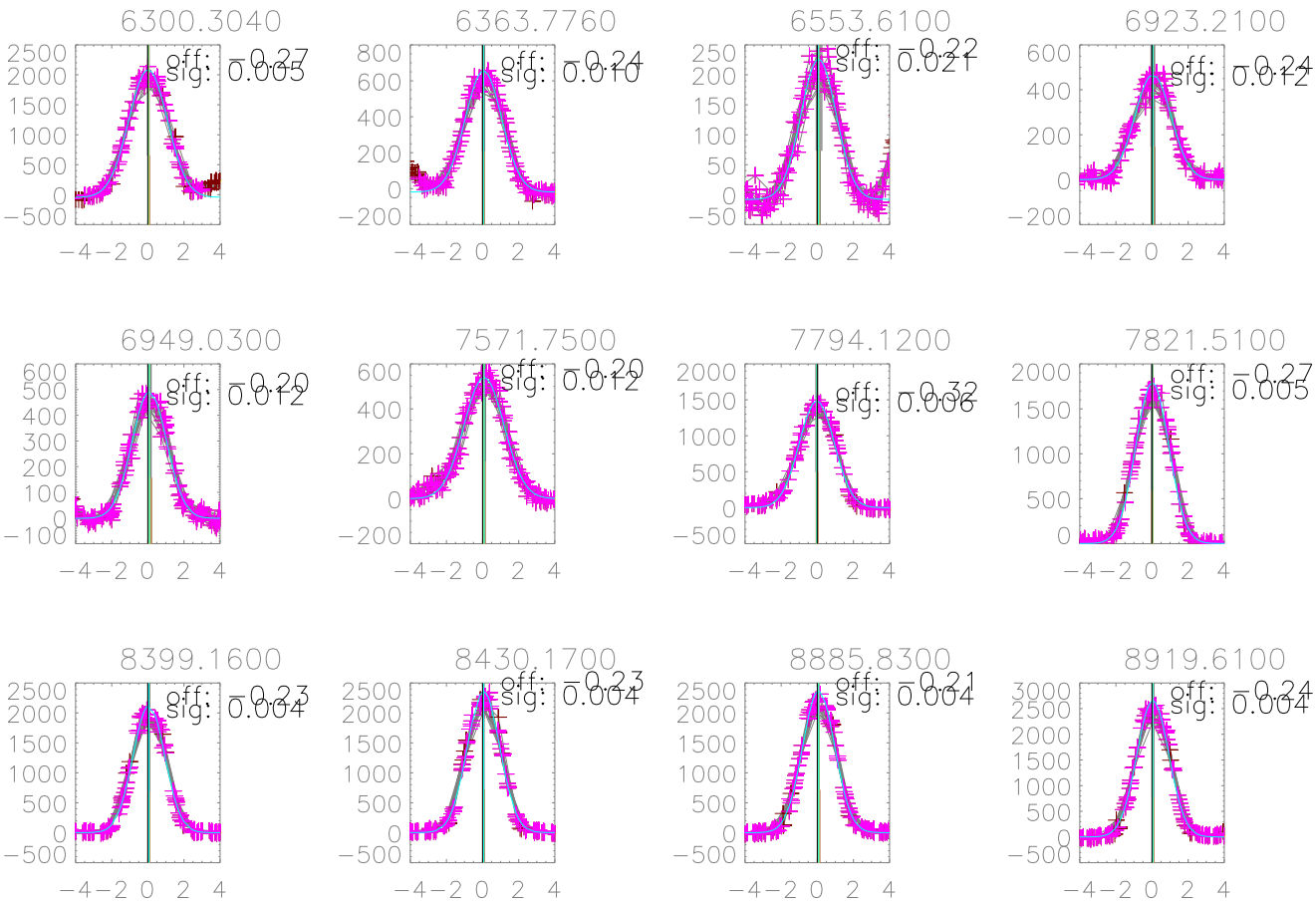

PLATE=2971 MJD=54589 Scattered Light before halo removal on sdR-r2-00052509.fi
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
31.82
22.73
22.73
22.73
13.64
13.64
13.64
0
0
0

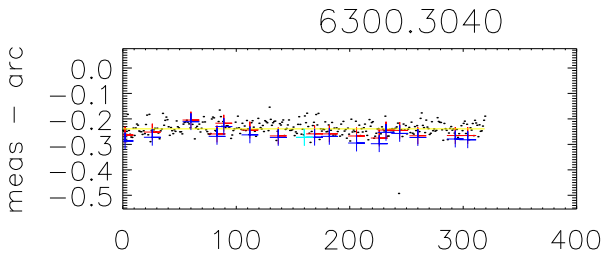

PLATE=2971 MJD=54589 Scattered Light before halo removal on sdR-r2-00052509.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 6.133
Max value = 38.516
Sat May 3 18:13:14 2008

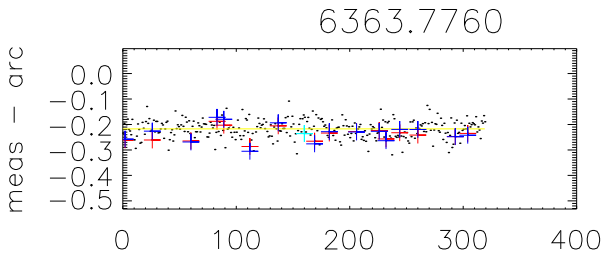

PLATE=2971 MJD=54589 Scattered Light on sdR-r2-00052509.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
11.36
6.82

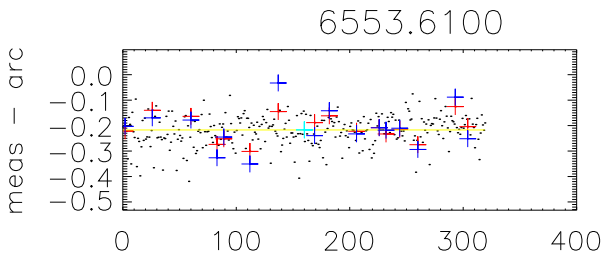

PLATE=2971 MJD=54589 Scattered Light on sdR-r2-00052509.fit
Brightness [electrons/pix]
25
20
15
10
5
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 5.878
Max value = 13.361
Sat May 3 18:16:11 2008

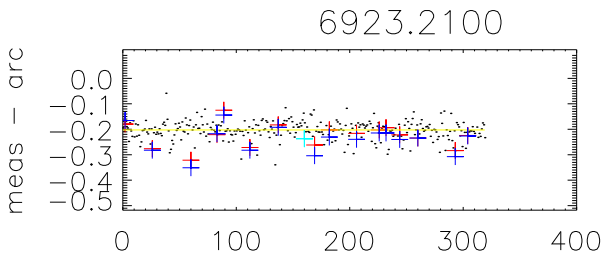

PLATE=2971 MJD=54589 Extraction chi^2 for sdR-r2-00052509.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
0
500
1000
1500
2000
Row number

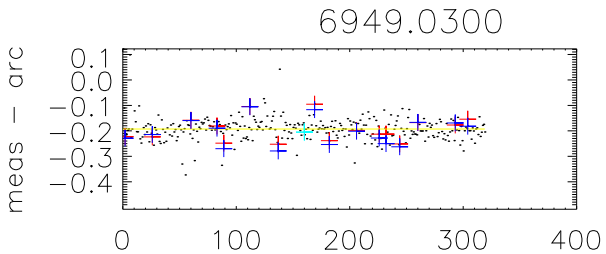

6300.3040
off: −0.27
sig: 0.005
6363.7760
off: −0.24
sig: 0.010
6553.6100
off: −0.22
sig: 0.021
6923.2100
off: −0.24
sig: 0.012
6949.0300
off: −0.20
sig: 0.012
7571.7500
off: −0.20
sig: 0.012
7794.1200
off: −0.32
sig: 0.006
7821.5100
off: −0.27
sig: 0.005
8399.1600
off: −0.23
sig: 0.004
8430.1700
off: −0.23
sig: 0.004
8885.8300
off: −0.21
sig: 0.004
8919.6100
off: −0.24
sig: 0.004

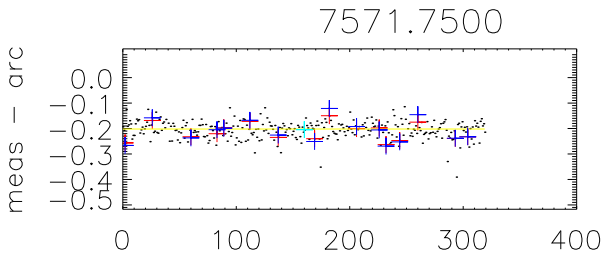

6300.3040
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

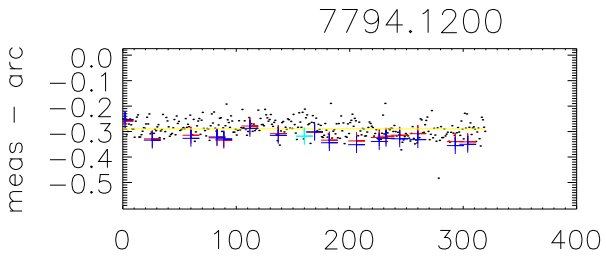

6363.7760
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

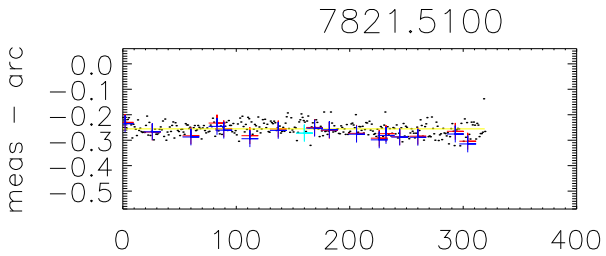

6553.6100
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

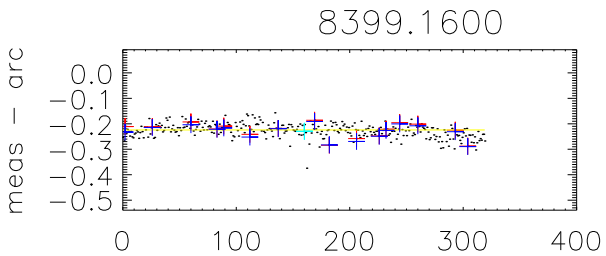

6923.2100
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

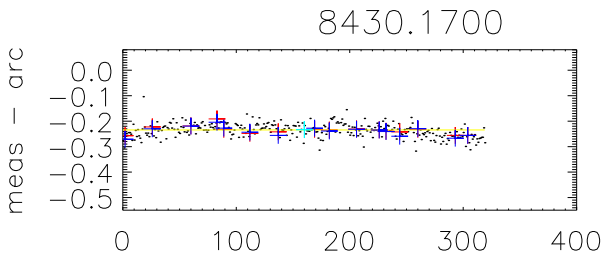

6949.0300
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

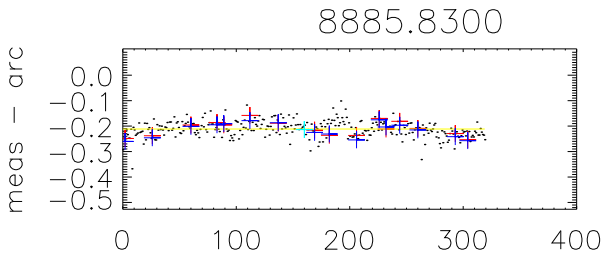

7571.7500
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

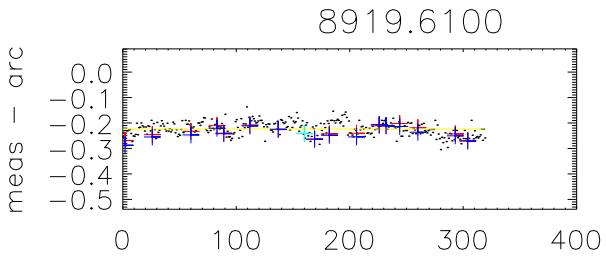

7794.1200
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

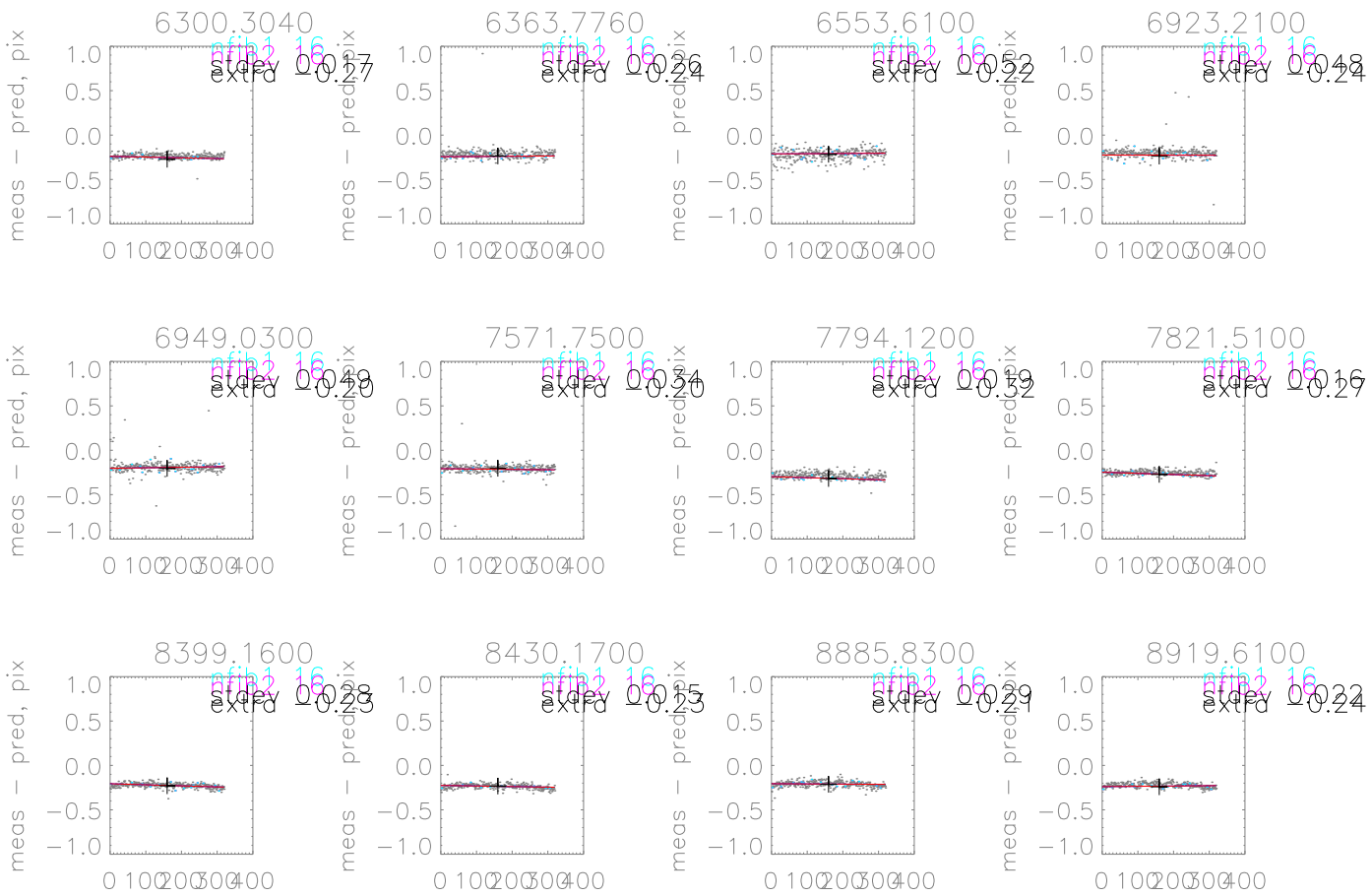

7821.5100
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

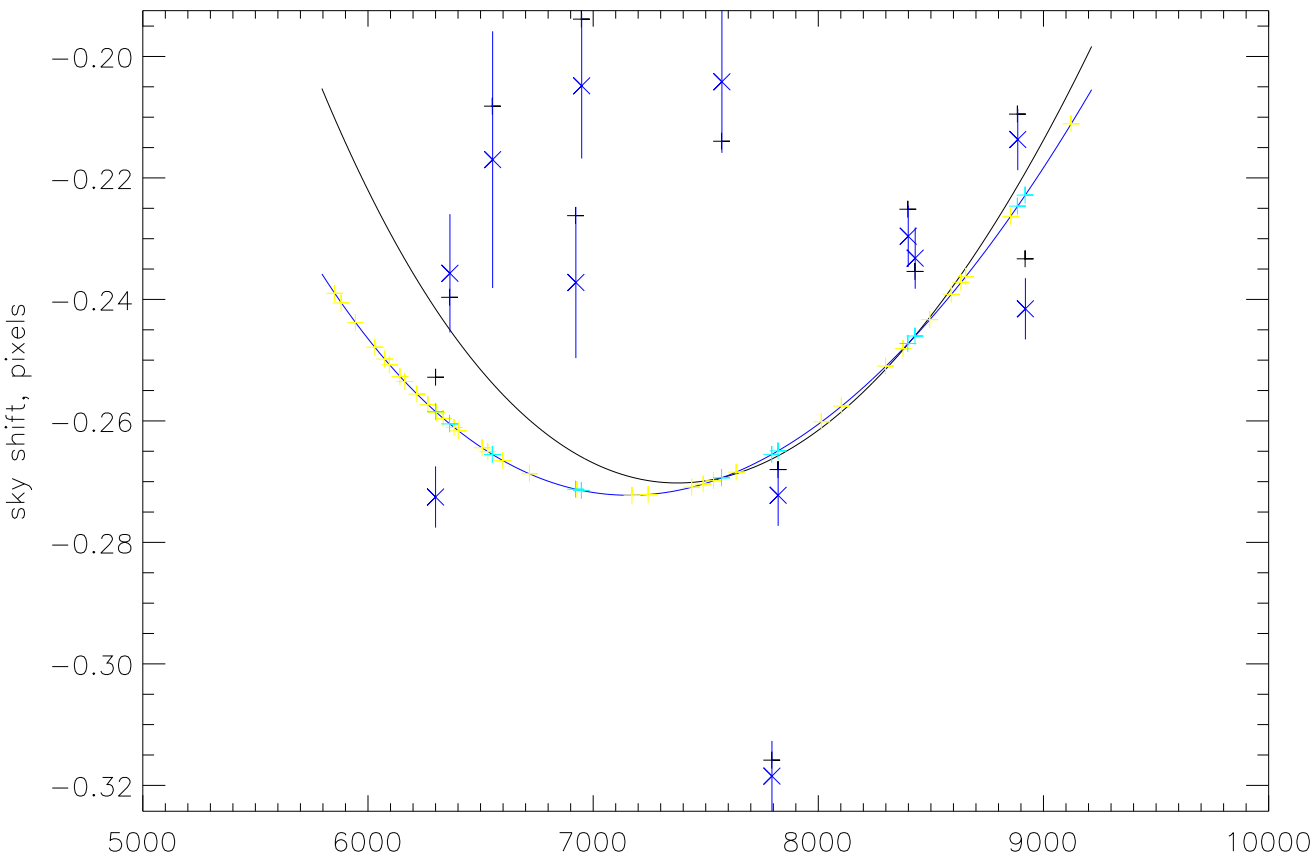

8399.1600
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

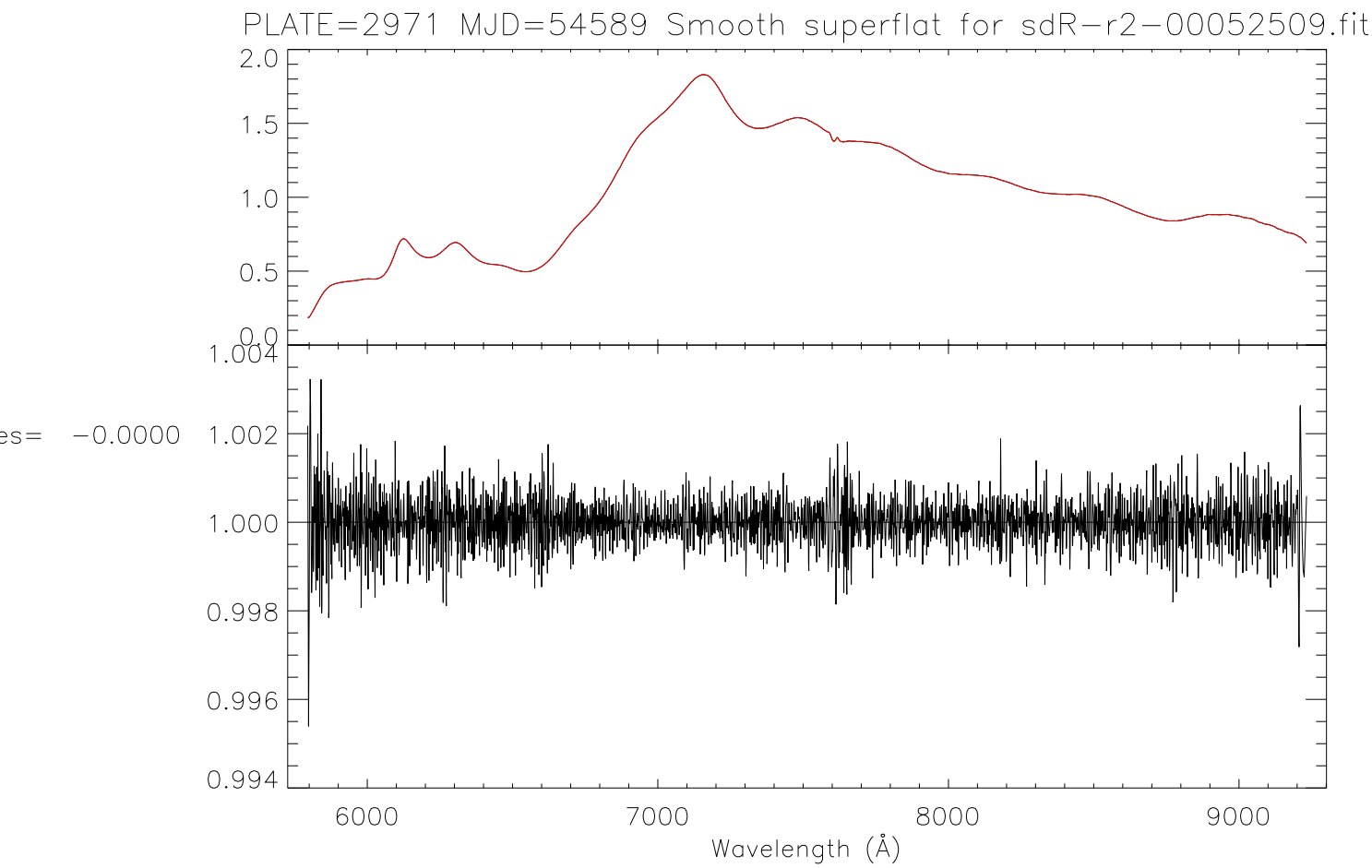

8430.1700
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

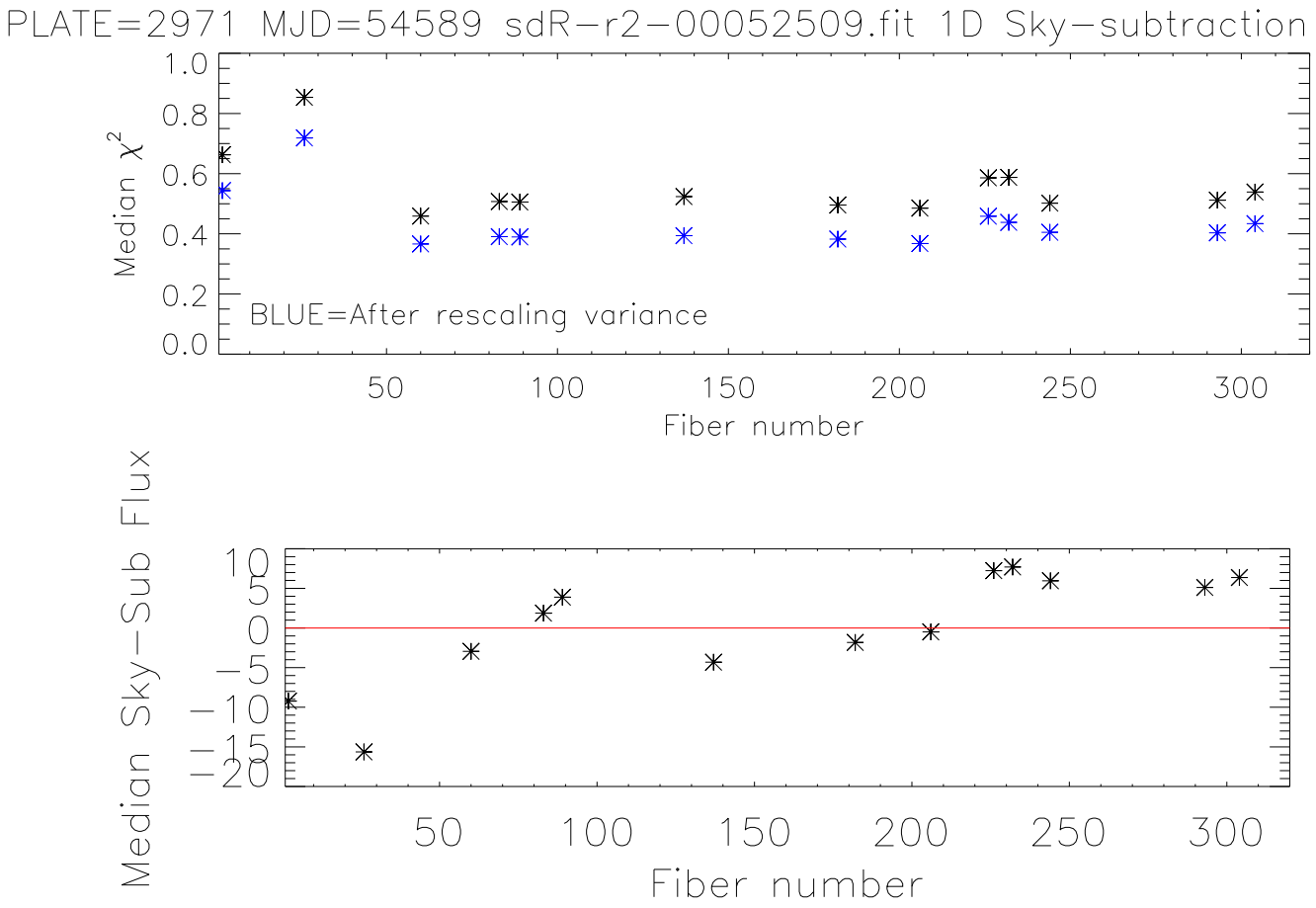

8885.8300
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

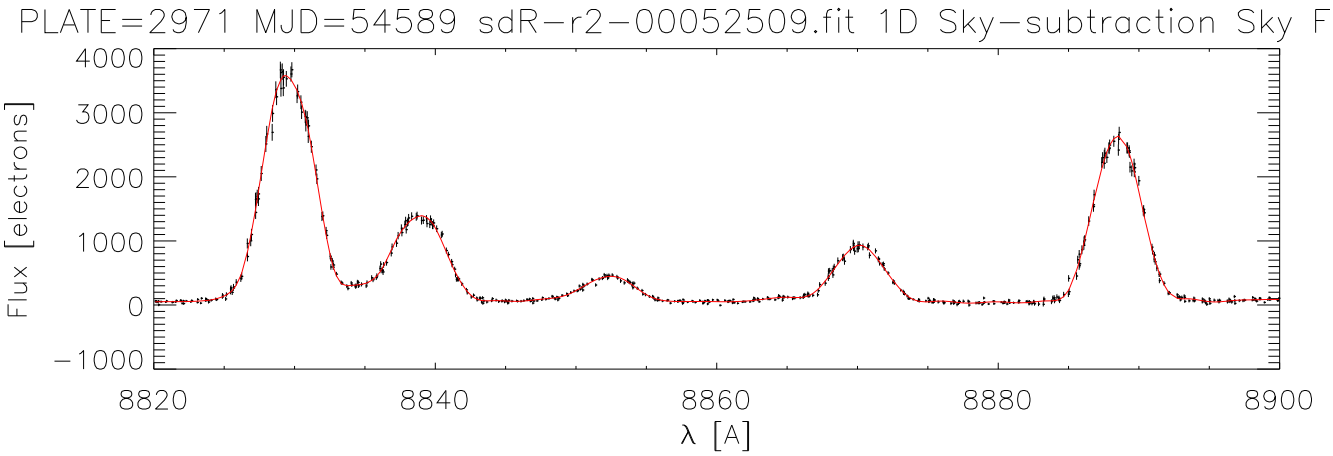

8919.6100
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

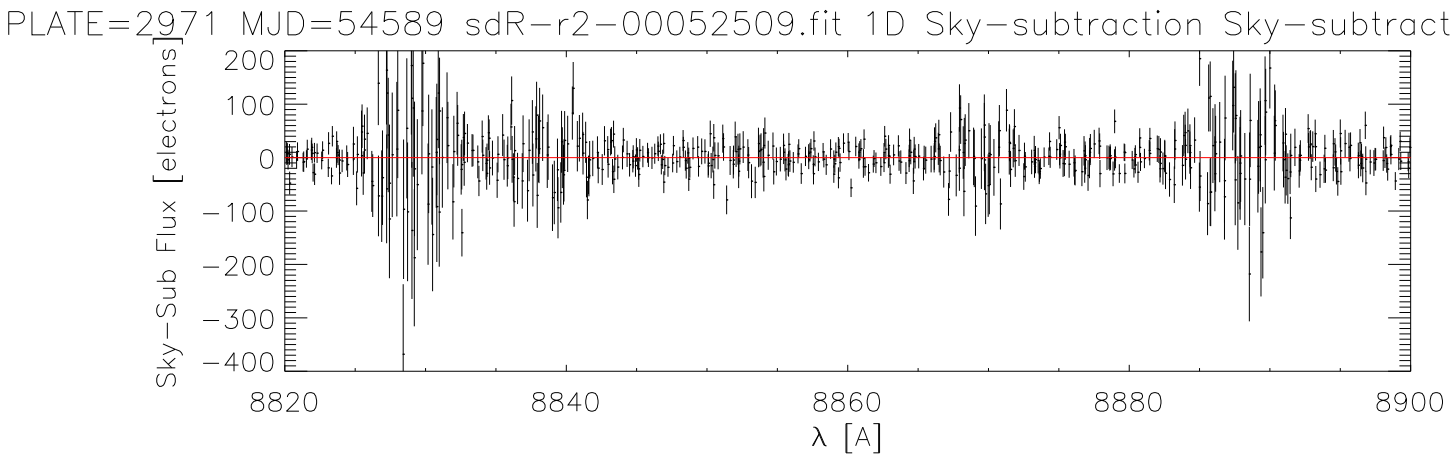

6300.3040
stdev 0.27
extra 0.17
6363.7760
stdev 0.24
extra 0.26
6553.6100
stdev 0.22
extra 0.52
6923.2100
stdev 0.24
extra 0.48
6949.0300
stdev 0.20
extra 0.49
7571.7500
stdev 0.20
extra 0.34
7794.1200
stdev 0.32
extra 0.19
7821.5100
stdev 0.27
extra 0.16
8399.1600
stdev 0.23
extra 0.28
8430.1700
stdev 0.23
extra 0.15
8885.8300
stdev 0.21
extra 0.29
8919.6100
stdev 0.24
extra 0.22
meas − pred, pix
mfib1 16
mfib2 16

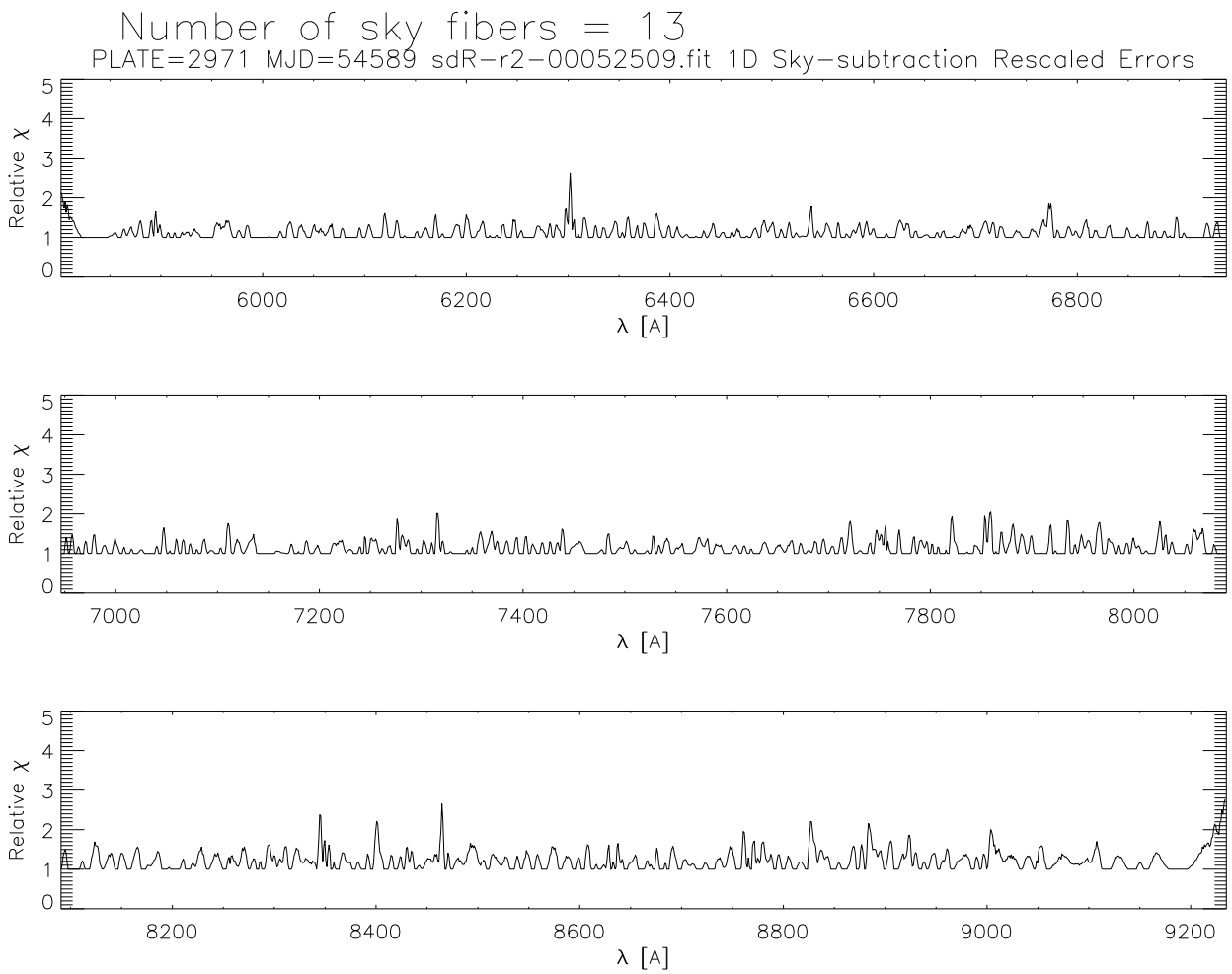

sky shift, pixels
−0.20
−0.22
−0.24
−0.26
−0.28
−0.30
−0.32
5000
6000
7000
8000
9000
10000

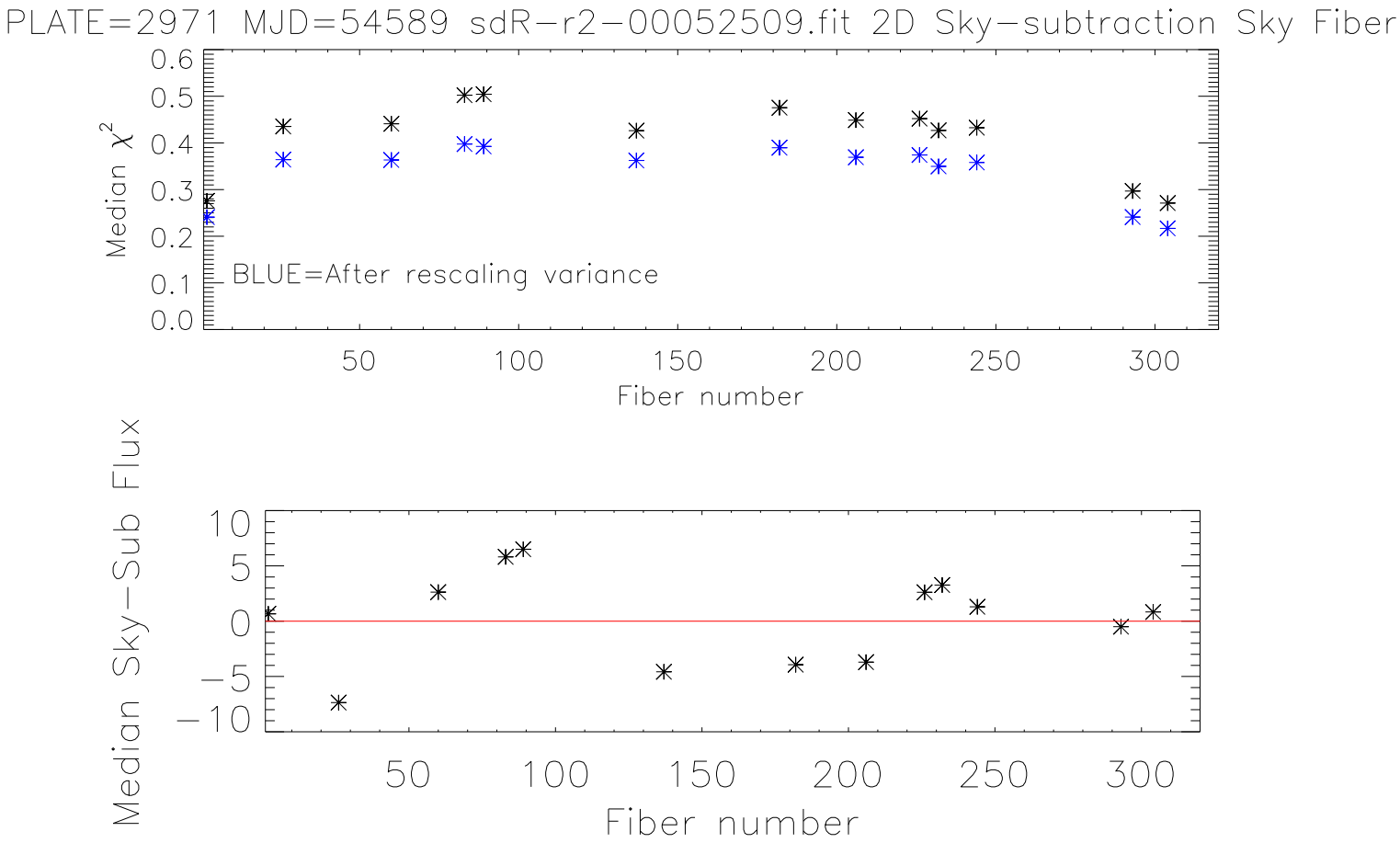

PLATE=2971 MJD=54589 Smooth superflat for sdR-r2-00052509.fit
2.0
1.5
1.0
0.5
0.0
1.004
es= −0.0000
1.002
1.000
0.998
0.996
0.994
6000
7000
8000
9000
Wavelength (Å)

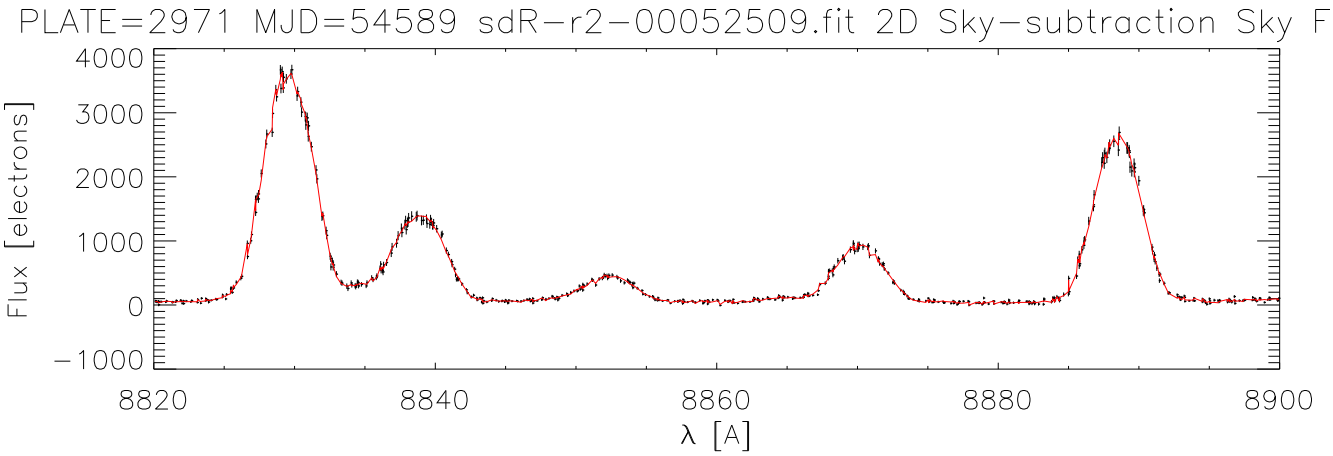

PLATE=2971 MJD=54589 sdR-r2-00052509.fit 1D Sky-subtraction Sky Fibers
Median χ^2
1.0
0.8
0.6
0.4
0.2
0.0
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
-5
-10
-15
-20
50
100
150
200
250
300
Fiber number

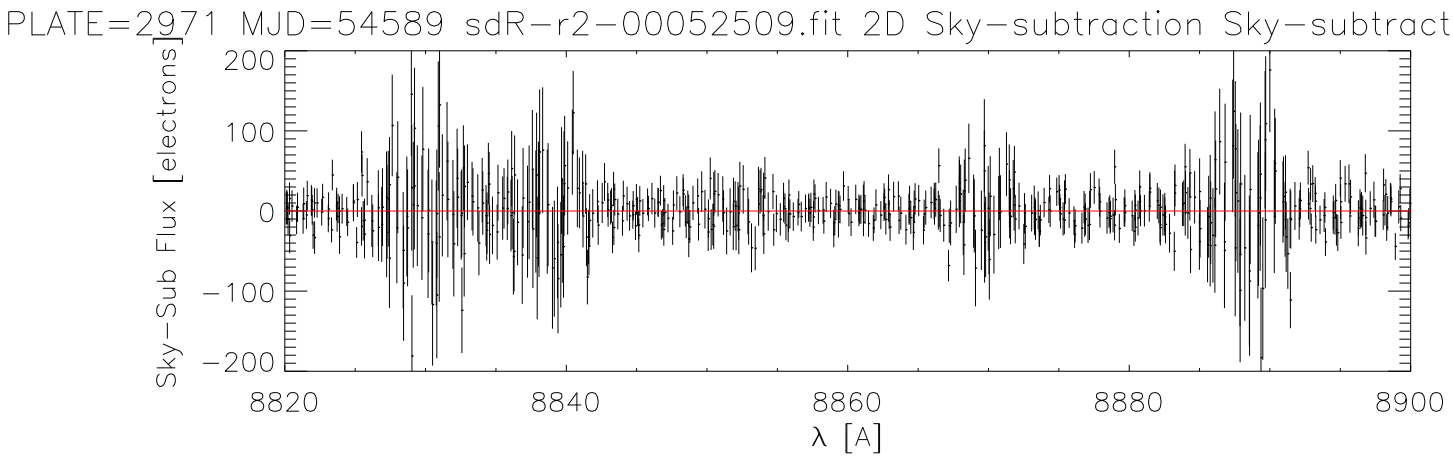

PLATE=2971 MJD=54589 sdR-r2-00052509.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
-1000
8820
8840
8860
8880
8900
λ [A]

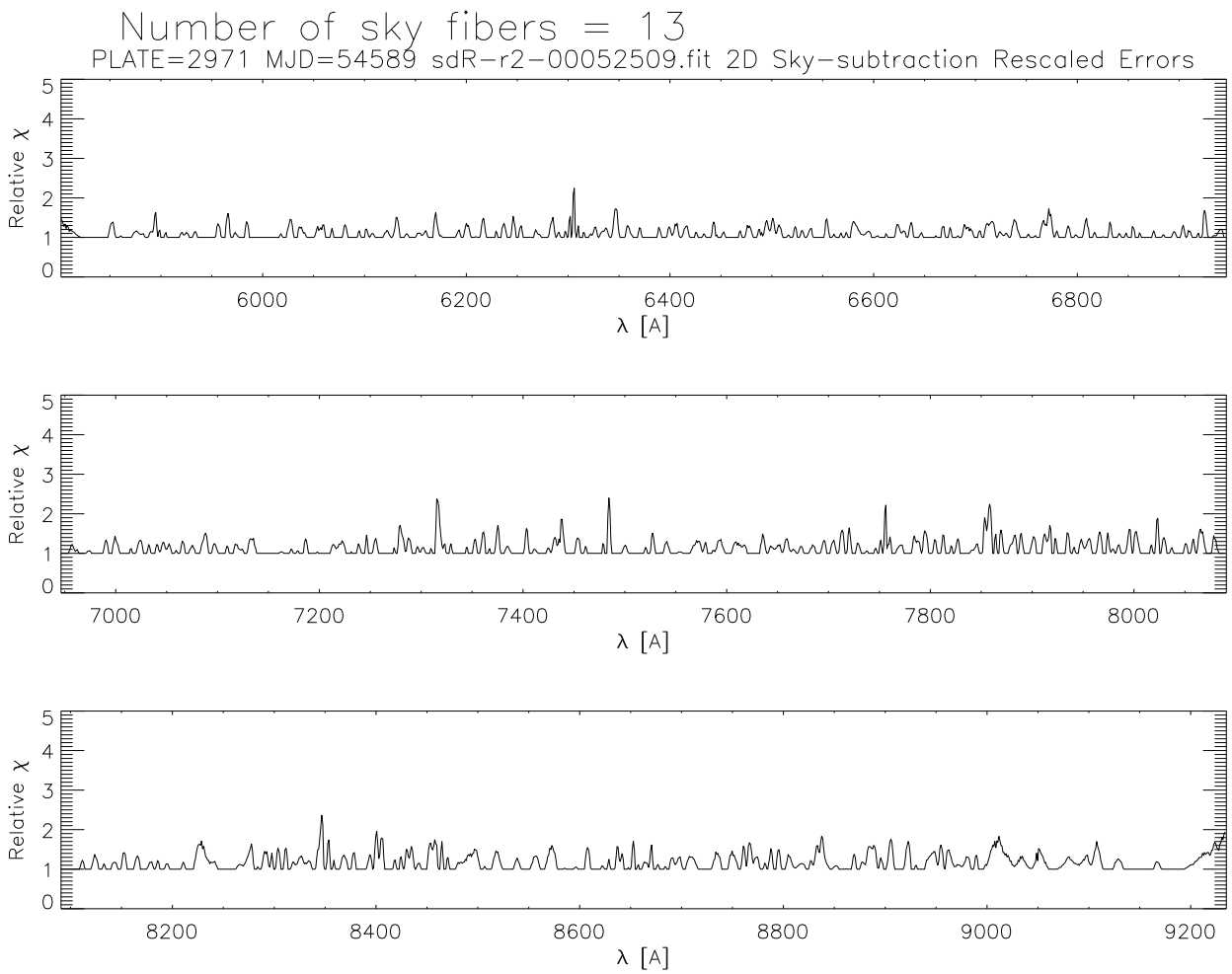

PLATE=2971 MJD=54589 sdR-r2-00052509.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
-300
-400
8820
8840
8860
8880
8900
λ [A]

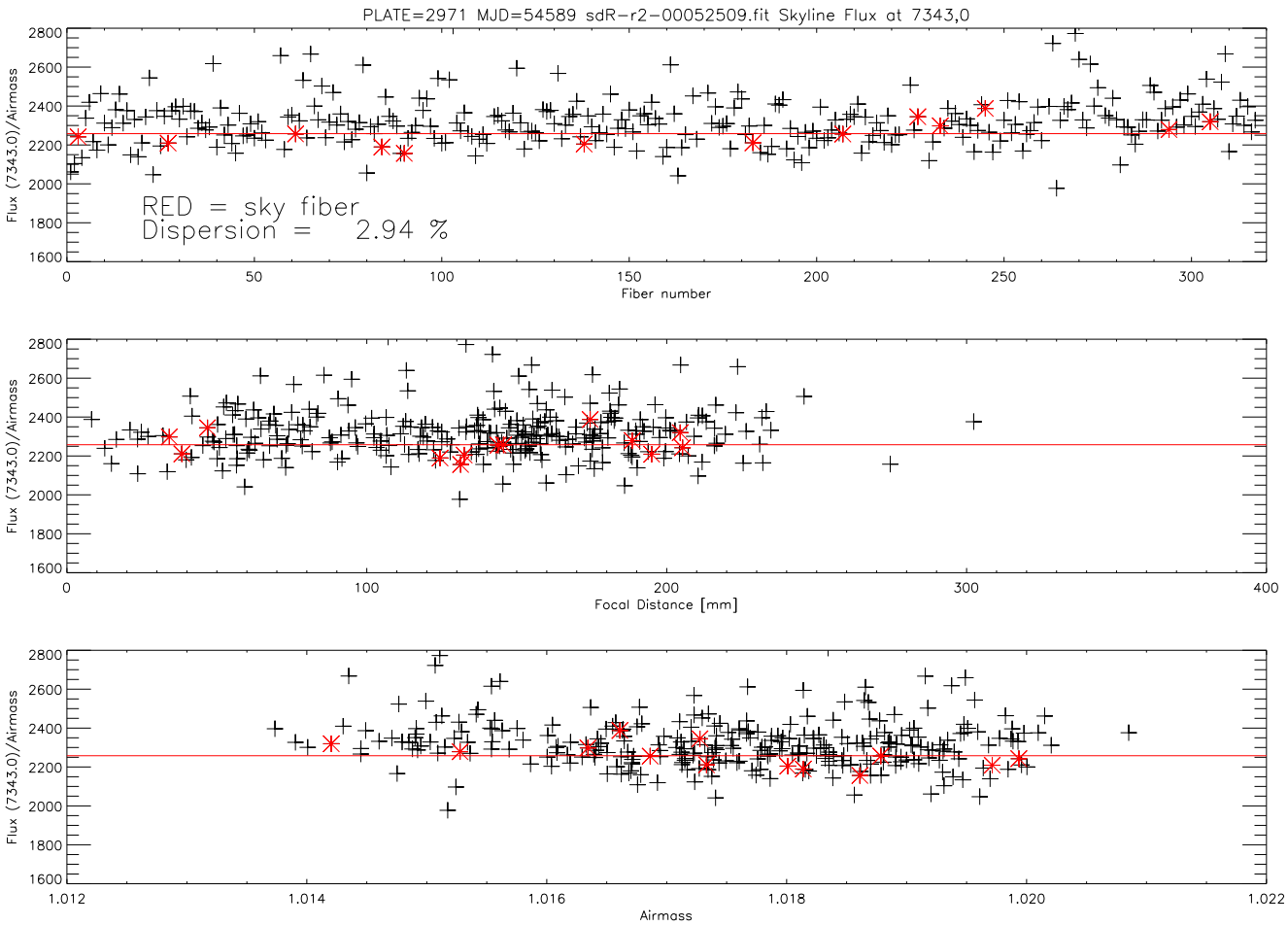

Number of sky fibers = 13
PLATE=2971 MJD=54589 sdR-r2-00052509.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

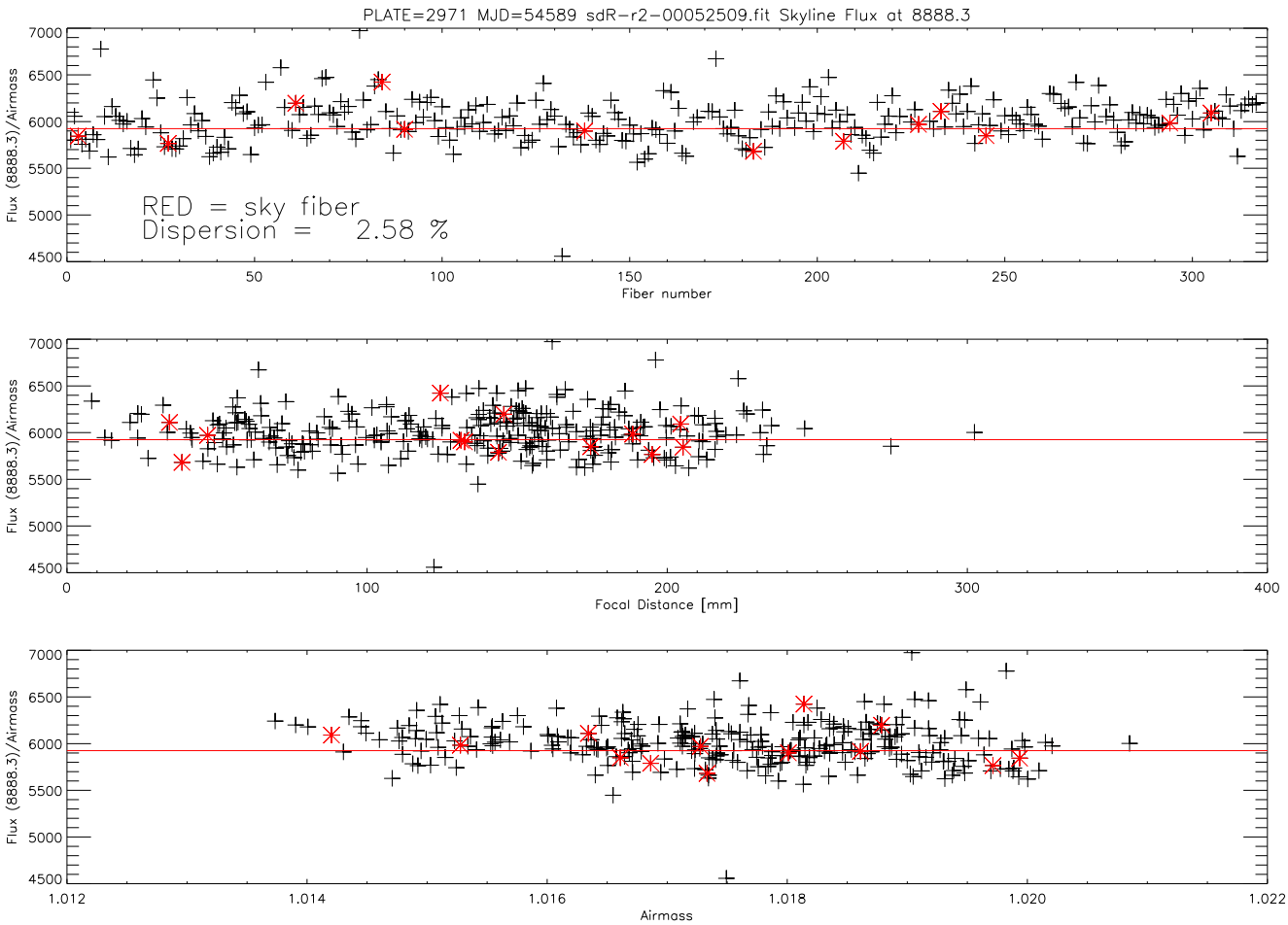

PLATE=2971 MJD=54589 sdR-r2-00052509.fit 2D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

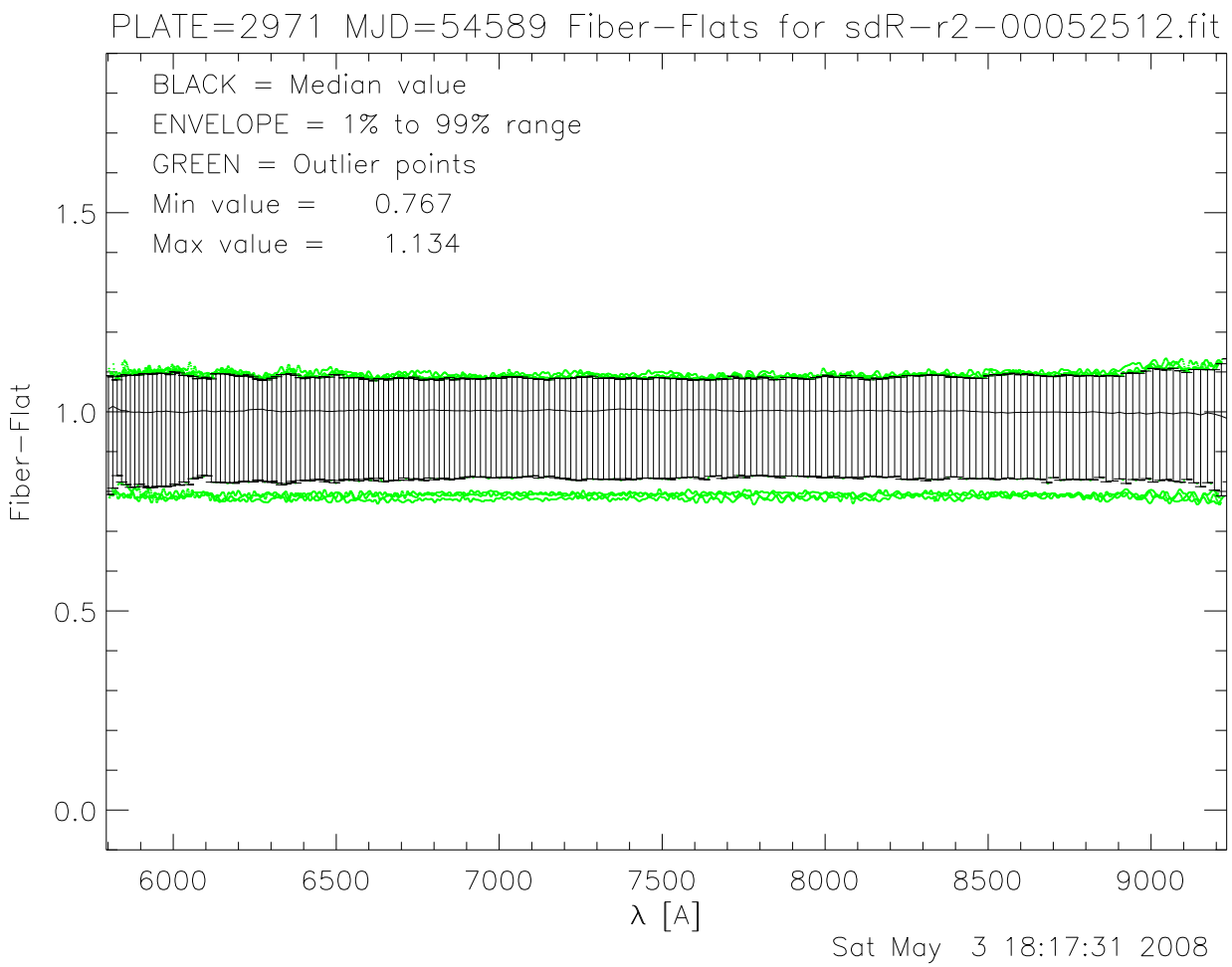

PLATE=2971 MJD=54589 sdR-r2-00052509.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
-1000
8820
8840
8860
8880
8900
λ [A]

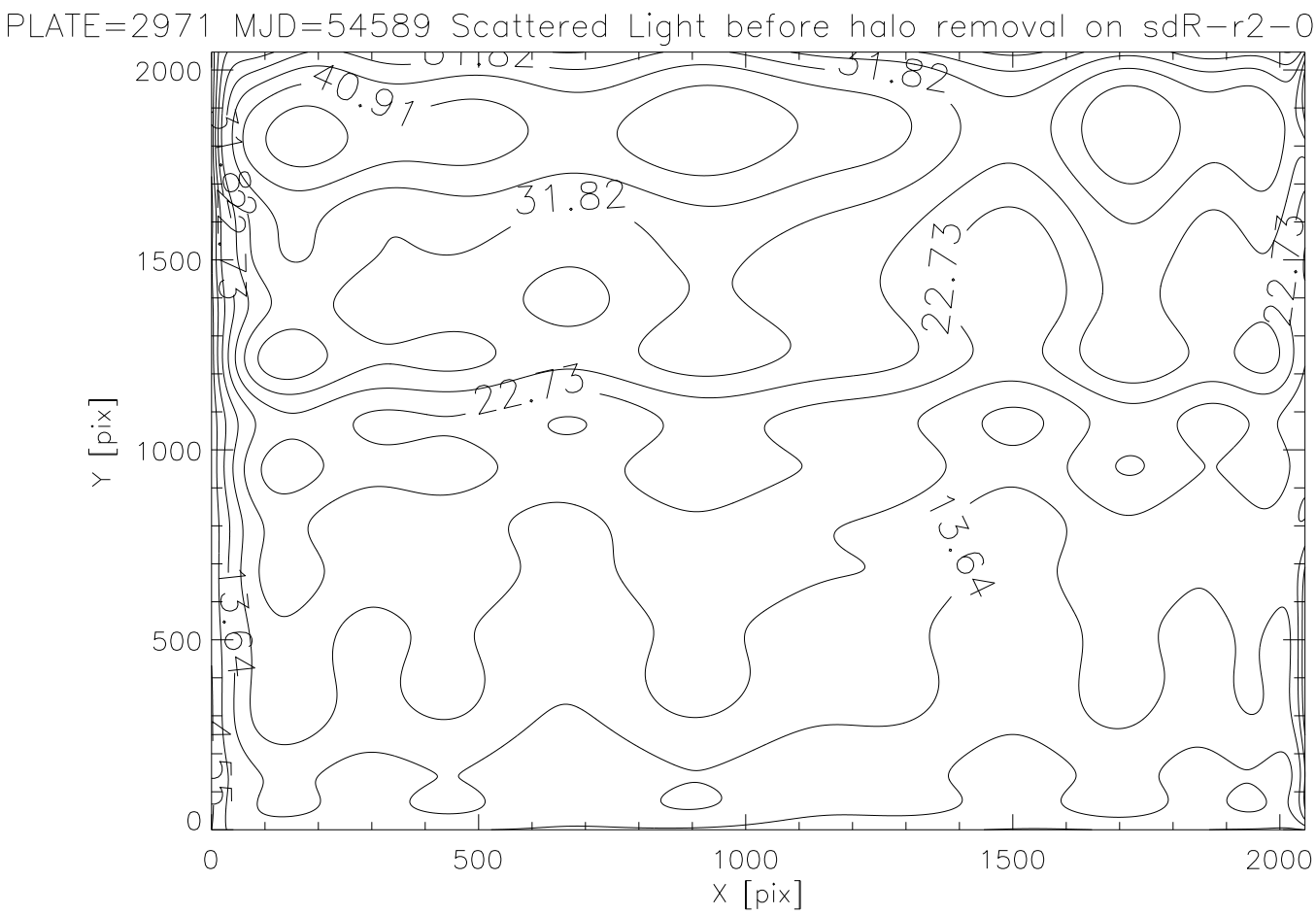

PLATE=2971 MJD=54589 sdR-r2-00052509.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
8820
8840
8860
8880
8900
λ [A]

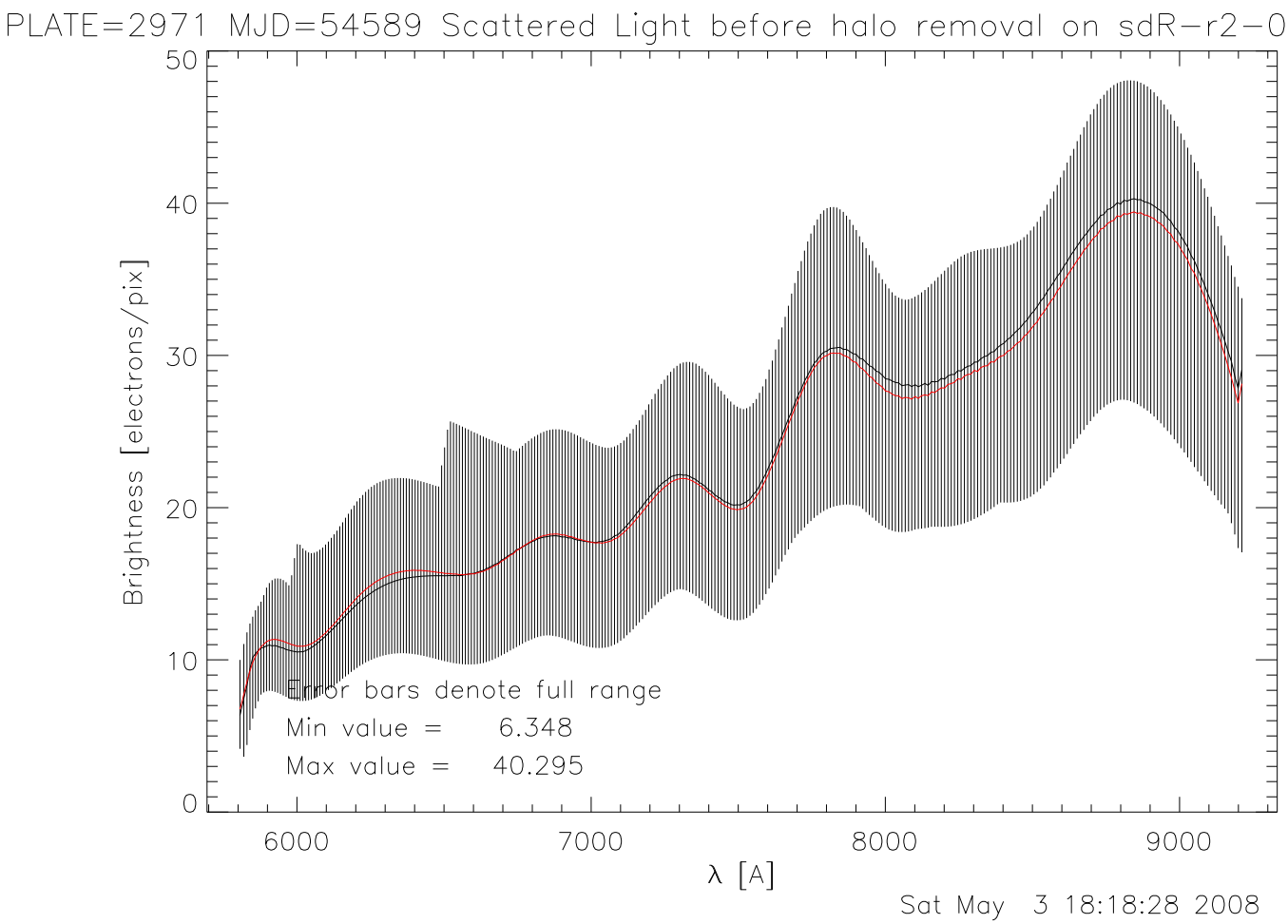

Number of sky fibers = 13
PLATE=2971 MJD=54589 sdR-r2-00052509.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

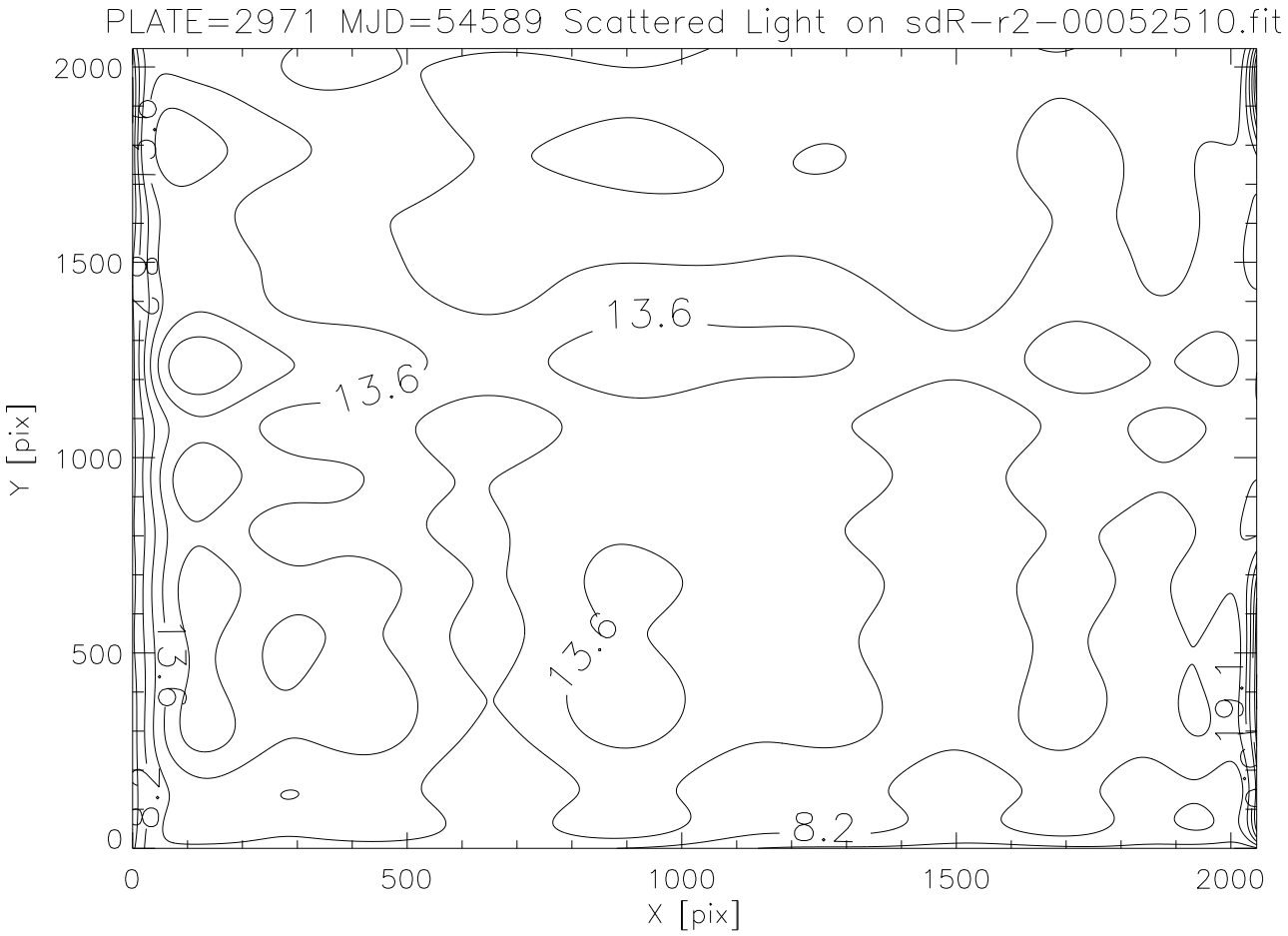

PLATE=2971 MJD=54589 sdR-r2-00052509.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 2.94 %
Fiber number
Focal Distance [mm]
Airmass

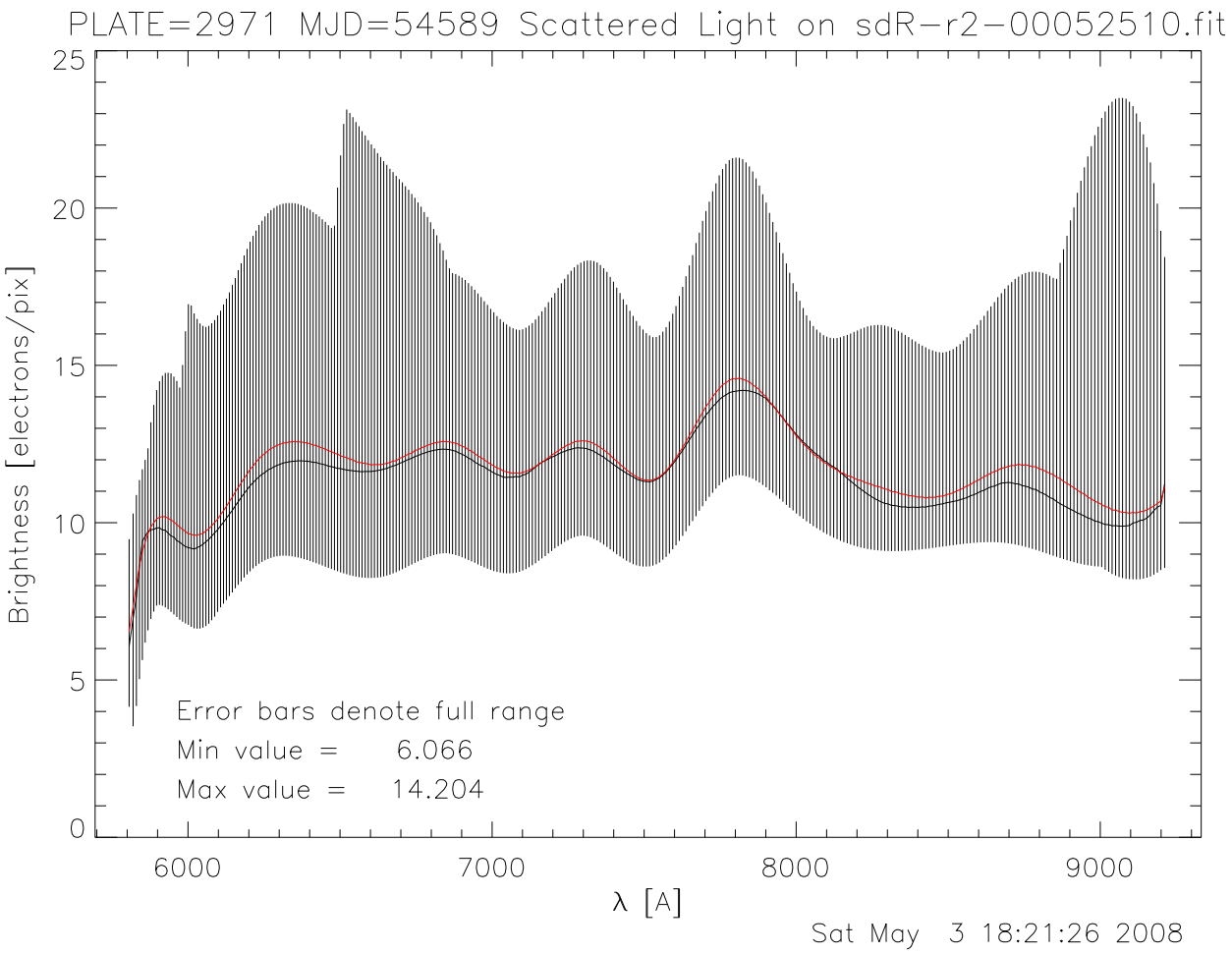

PLATE=2971 MJD=54589 sdR-r2-00052509.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 2.58 %
Fiber number
Focal Distance [mm]
Airmass

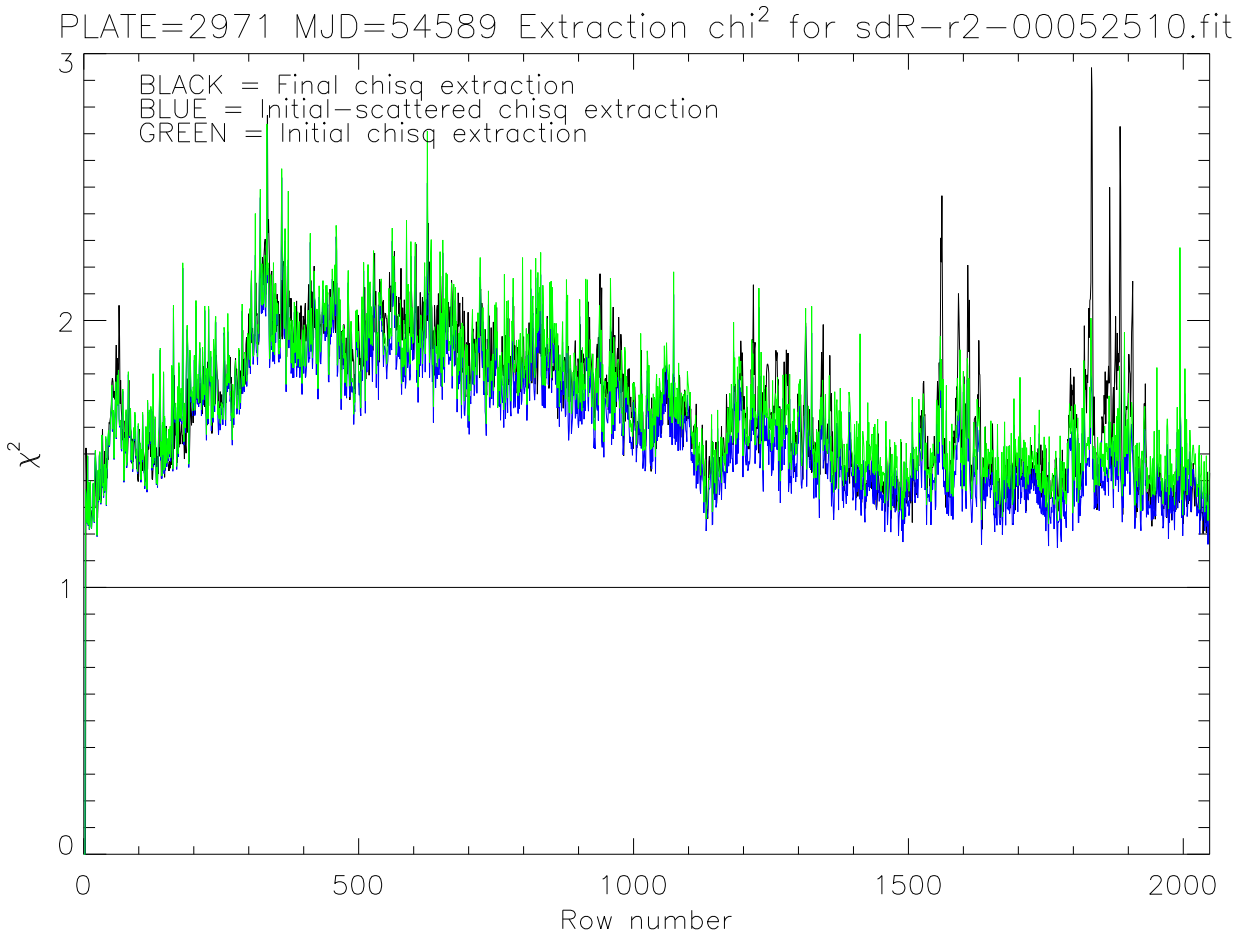

PLATE=2971 MJD=54589 Fiber−Flats for sdR−r2−00052512.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.767
Max value = 1.134
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sat May 3 18:17:31 2008

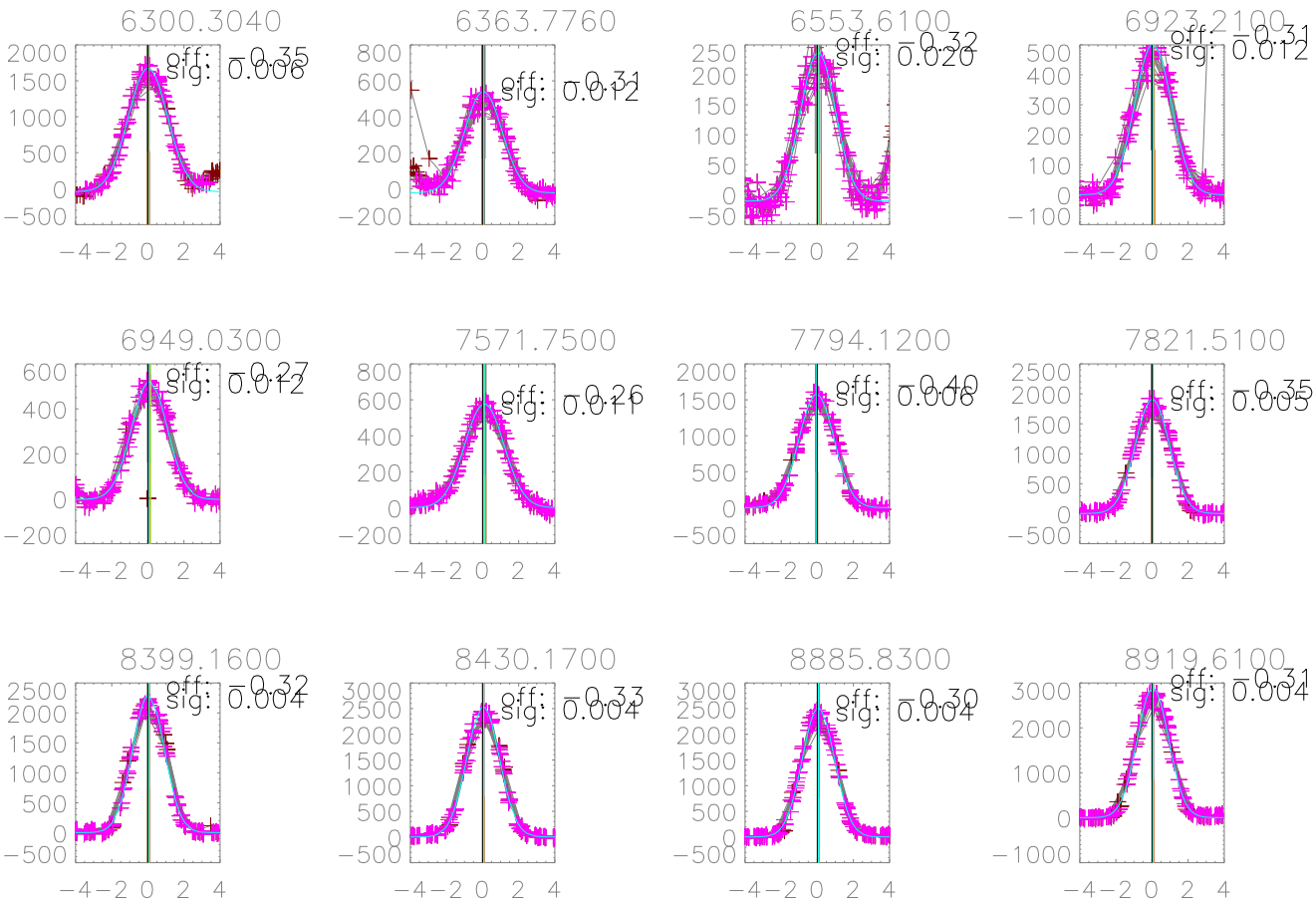

PLATE=2971 MJD=54589 Scattered Light before halo removal on sdR-r2-00052510.fi
40.91
31.82
31.82
22.73
22.73
13.64
13.64
4.55
Y [pix]
X [pix]
0
500
1000
1500
2000

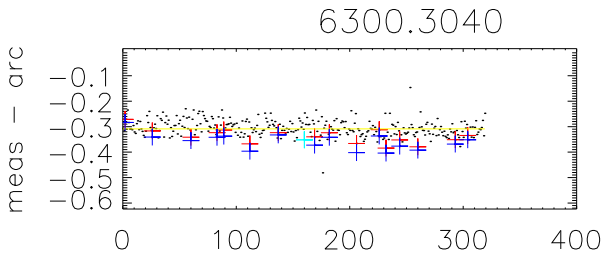

PLATE=2971 MJD=54589 Scattered Light before halo removal on sdR-r2-00052510.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 6.348
Max value = 40.295
Sat May 3 18:18:28 2008

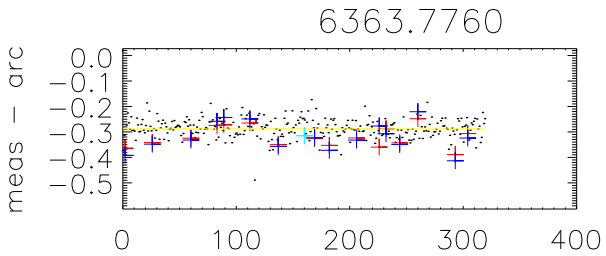

PLATE=2971 MJD=54589 Scattered Light on sdR-r2-00052510.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
13.6
8.2
19.1

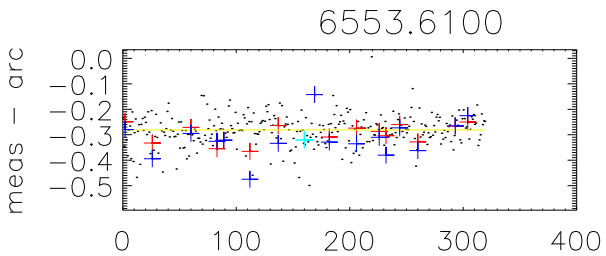

PLATE=2971 MJD=54589 Scattered Light on sdR-r2-00052510.fit
Brightness [electrons/pix]
25
20
15
10
5
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 6.066
Max value = 14.204
Sat May 3 18:21:26 2008

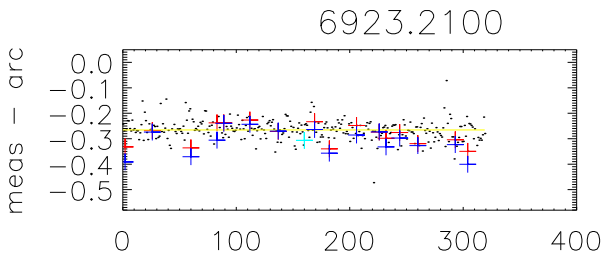

PLATE=2971 MJD=54589 Extraction chi^2 for sdR−r2−00052510.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
0
500
1000
1500
2000
Row number

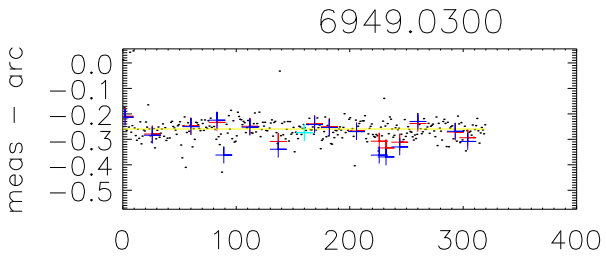

6300.3040
off: −0.35
sig: 0.008
6363.7760
off: −0.31
sig: 0.012
6553.6100
off: −0.32
sig: 0.020
6923.2100
off: −0.31
sig: 0.012
6949.0300
off: −0.27
sig: 0.012
7571.7500
off: −0.26
sig: 0.011
7794.1200
off: −0.40
sig: 0.006
7821.5100
off: −0.35
sig: 0.005
8399.1600
off: −0.32
sig: 0.004
8430.1700
off: −0.33
sig: 0.004
8885.8300
off: −0.30
sig: 0.004
8919.6100
off: −0.31
sig: 0.004

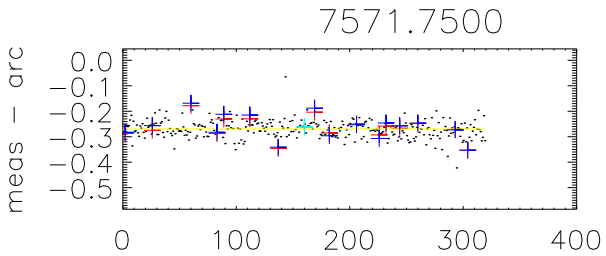

6300.3040
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

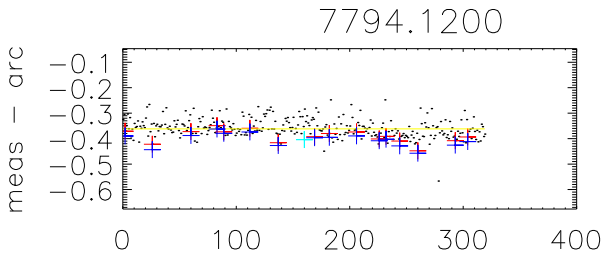

6363.7760
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

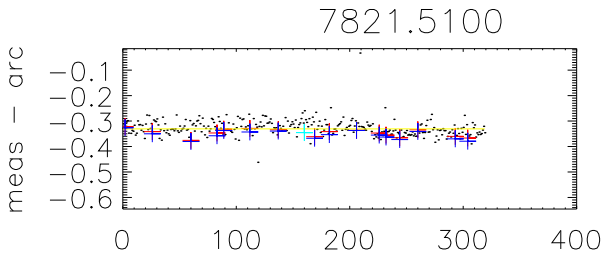

6553.6100
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

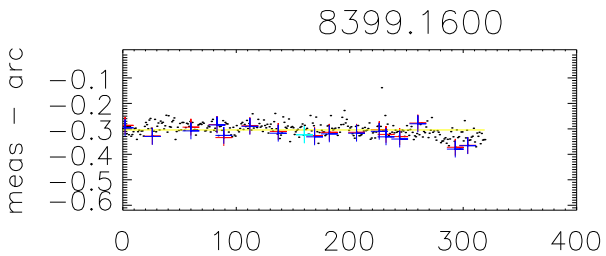

6923.2100
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

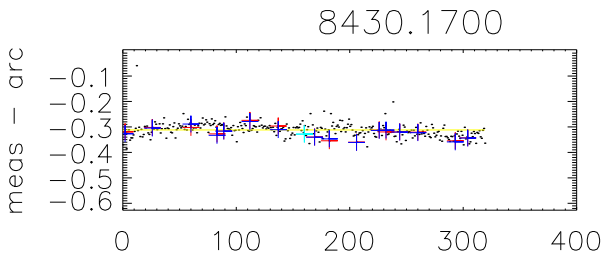

6949.0300
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

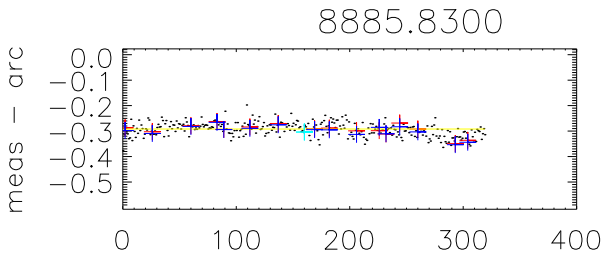

7571.7500
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

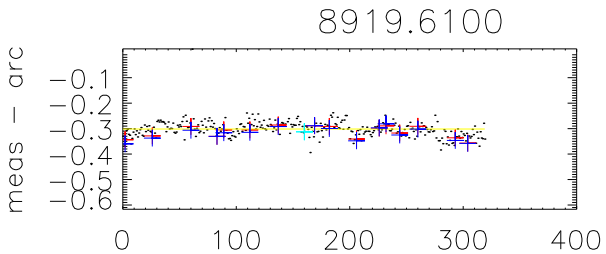

7794.1200
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

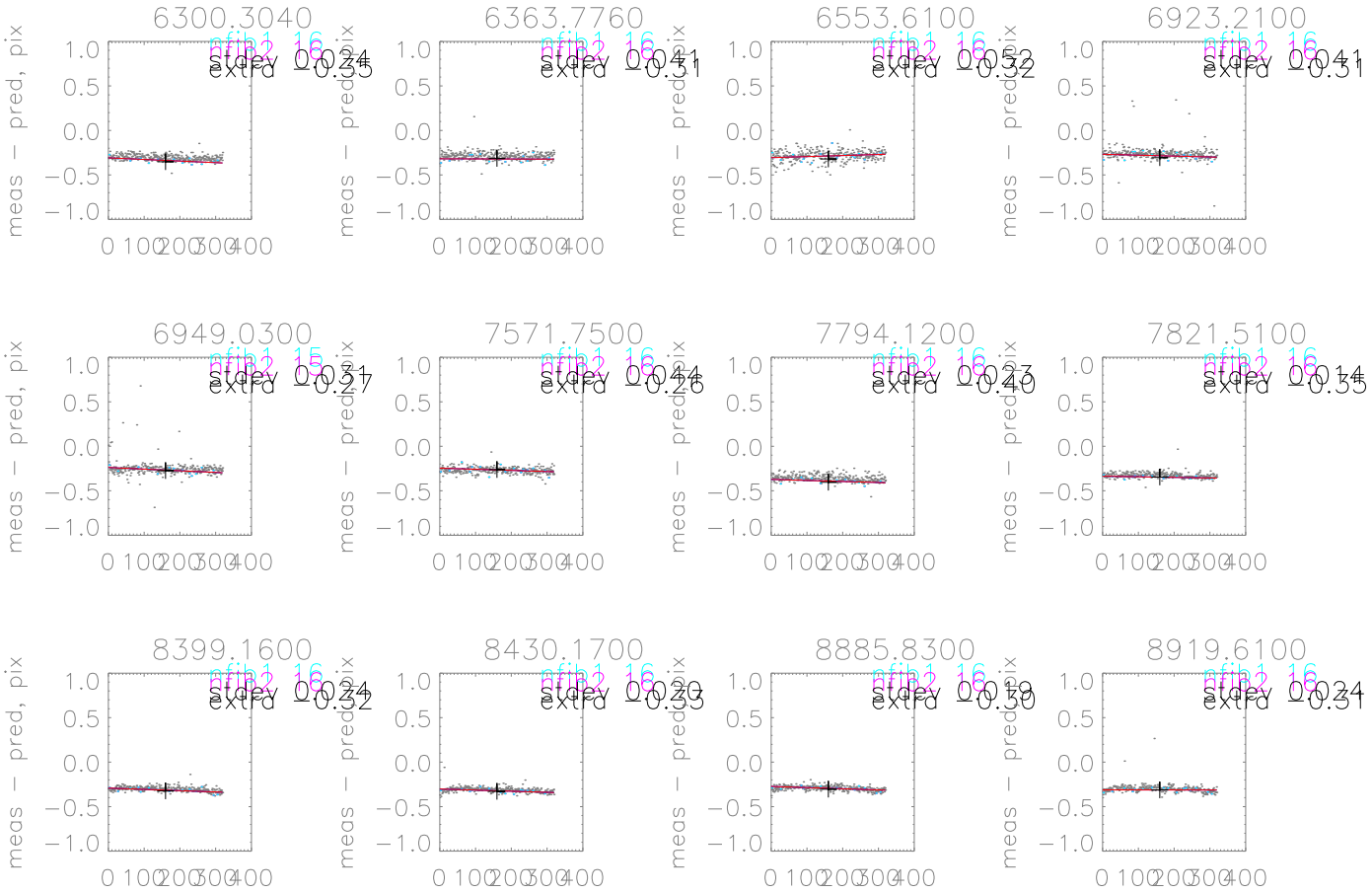

7821.5100
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

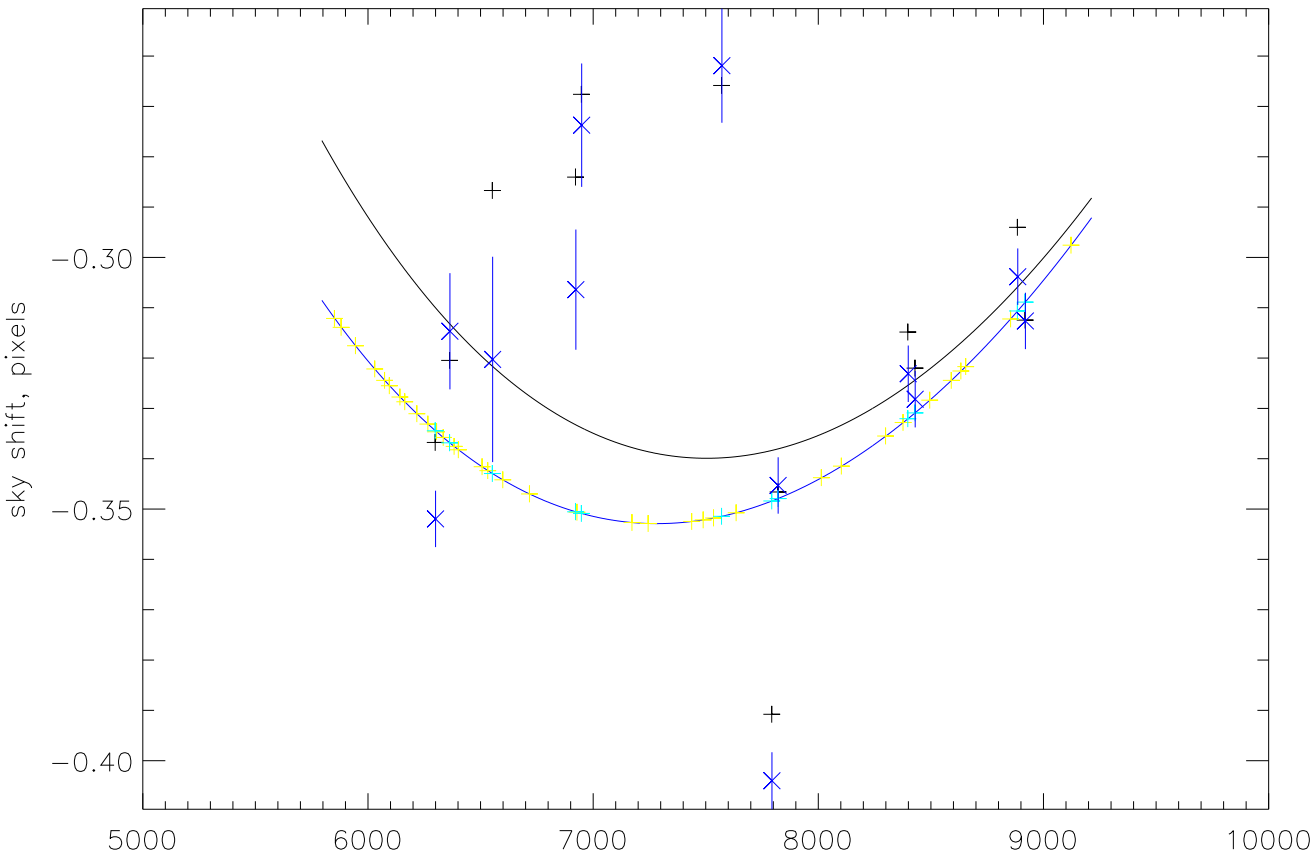

8399.1600
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

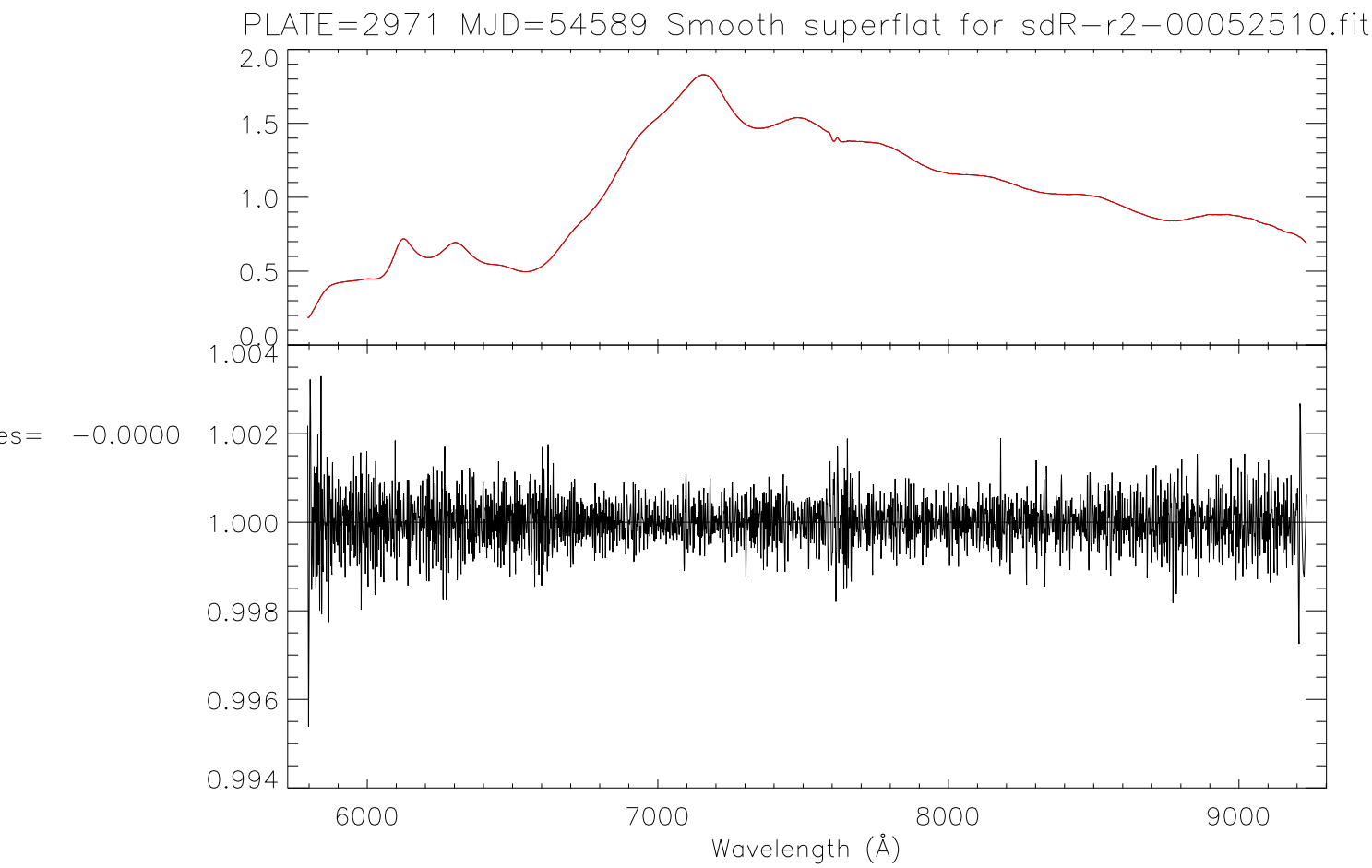

8430.1700
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

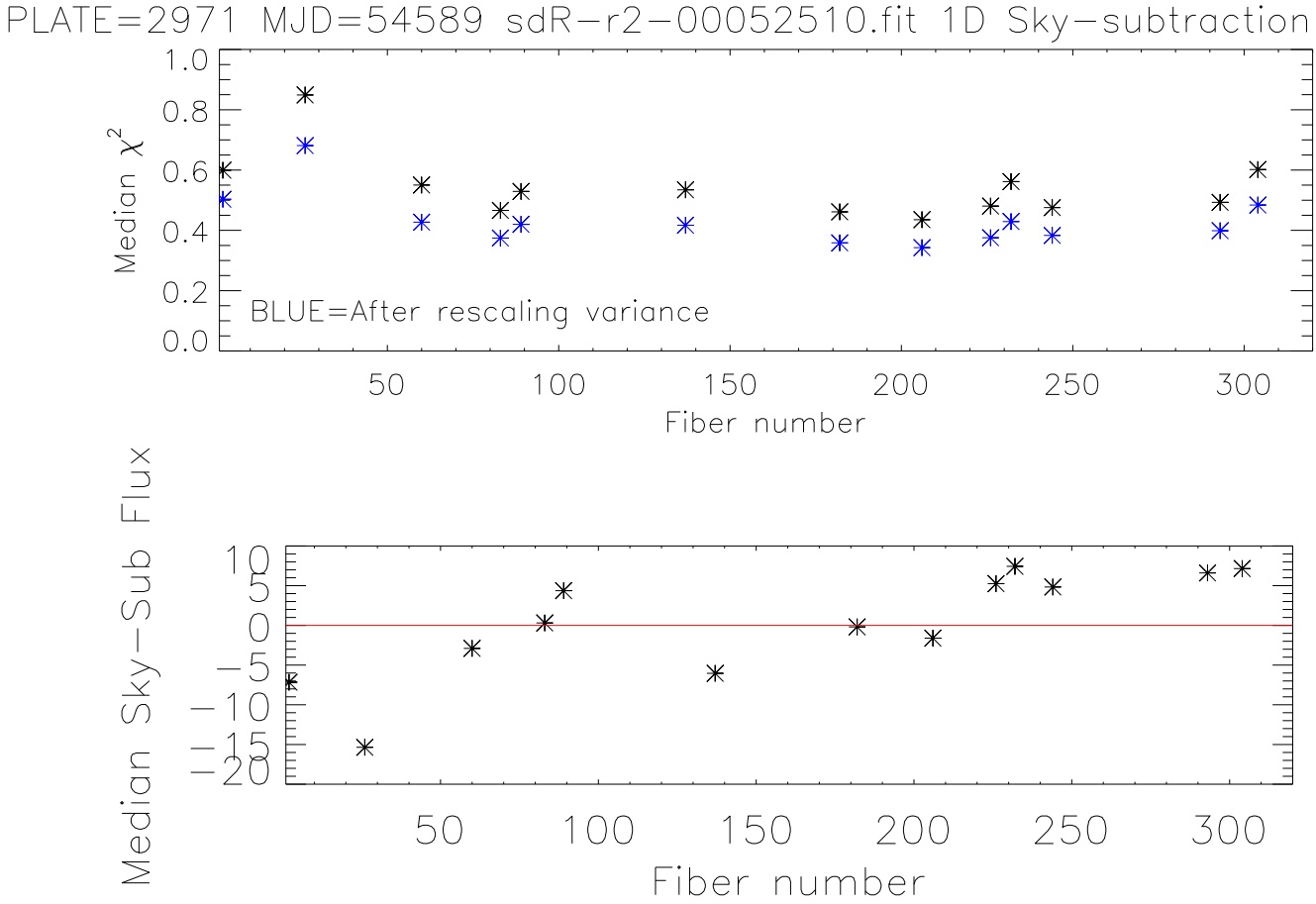

8885.8300
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

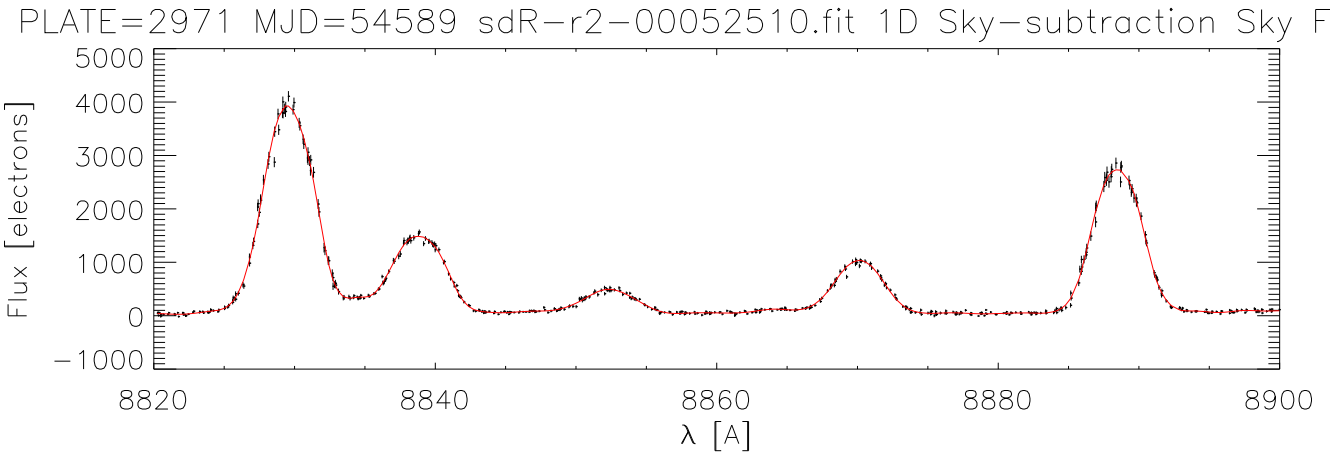

8919.6100
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

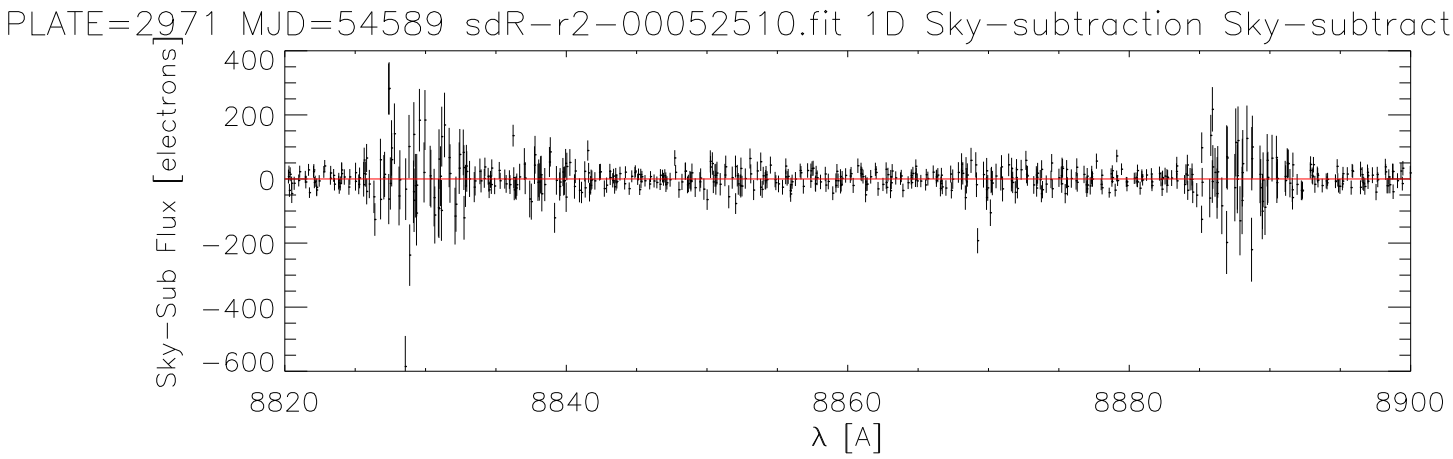

6300.3040
mfib1 16
mfib2 16
stdev 0.024
extrd −0.35
6363.7760
mfib1 16
mfib2 16
stdev 0.041
extrd −0.31
6553.6100
mfib1 16
mfib2 16
stdev 0.052
extrd −0.32
6923.2100
mfib1 16
mfib2 16
stdev 0.041
extrd −0.31
6949.0300
mfib1 15
mfib2 16
stdev 0.031
extrd −0.27
7571.7500
mfib1 16
mfib2 16
stdev 0.044
extrd −0.26
7794.1200
mfib1 16
mfib2 16
stdev 0.023
extrd −0.40
7821.5100
mfib1 16
mfib2 16
stdev 0.014
extrd −0.35
8399.1600
mfib1 16
mfib2 16
stdev 0.024
extrd −0.32
8430.1700
mfib1 16
mfib2 16
stdev 0.020
extrd −0.33
8885.8300
mfib1 16
mfib2 16
stdev 0.019
extrd −0.30
8919.6100
mfib1 16
mfib2 16
stdev 0.024
extrd −0.31
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400

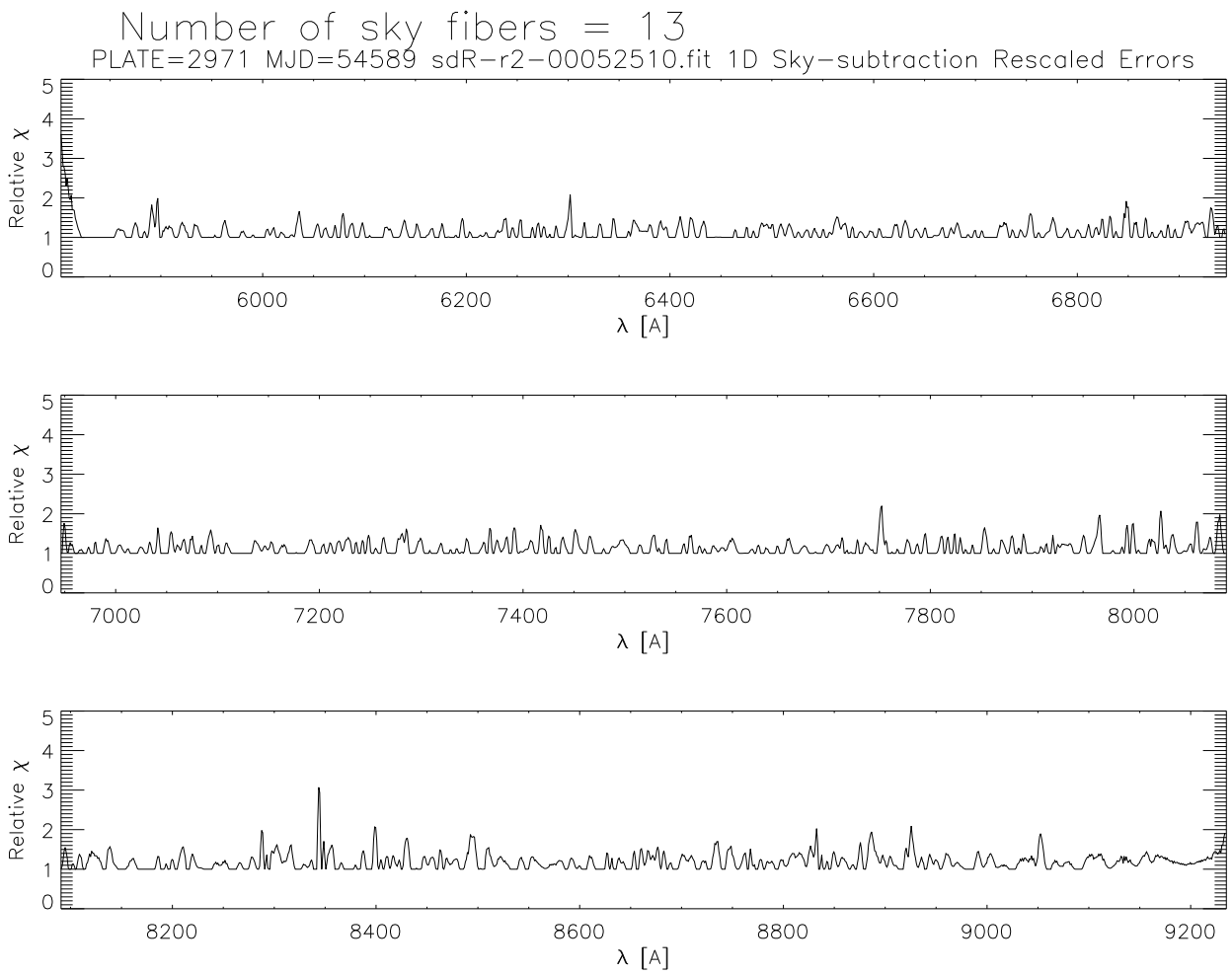

sky shift, pixels
−0.30
−0.35
−0.40
5000
6000
7000
8000
9000
10000

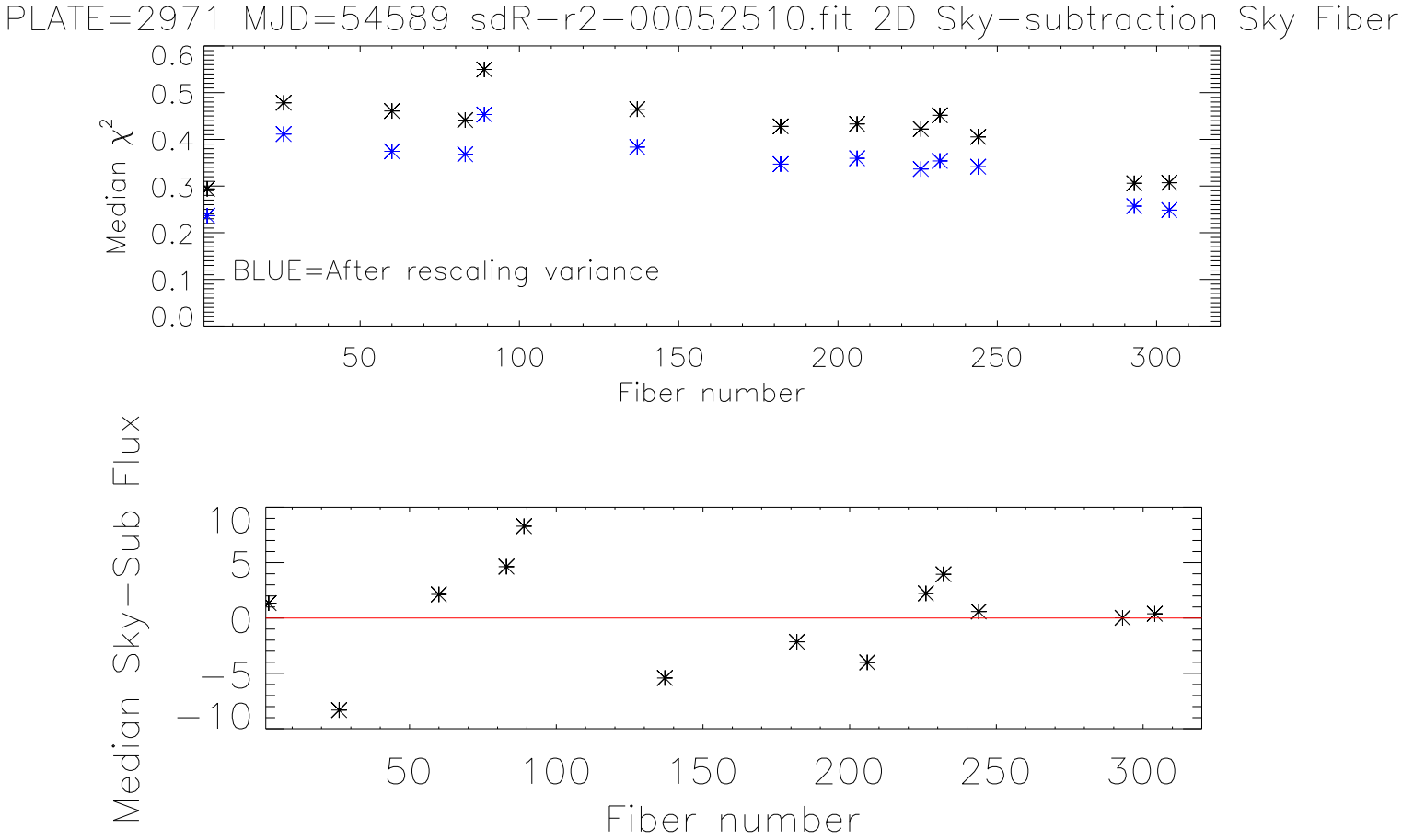

PLATE=2971 MJD=54589 Smooth superflat for sdR-r2-00052510.fit
2.0
1.5
1.0
0.5
0.0
1.004
1.002
1.000
0.998
0.996
0.994
es= −0.0000
6000
7000
8000
9000
Wavelength (Å)

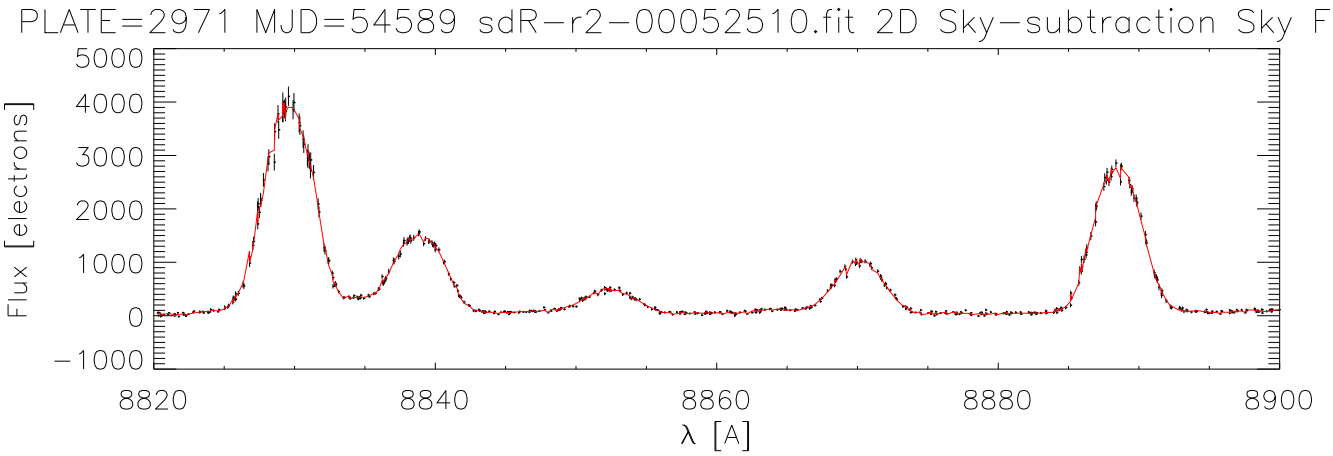

PLATE=2971 MJD=54589 sdR-r2-00052510.fit 1D Sky-subtraction Sky Fibers
Median χ^2
1.0
0.8
0.6
0.4
0.2
0.0
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
-5
-10
-15
-20
50
100
150
200
250
300
Fiber number

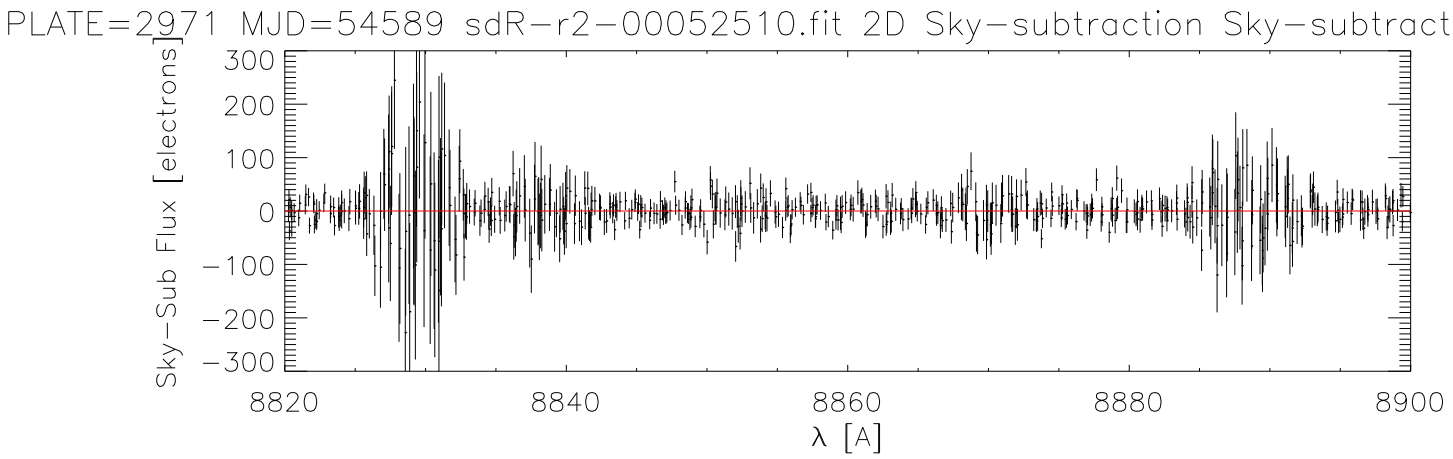

PLATE=2971 MJD=54589 sdR-r2-00052510.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
−1000
8820
8840
8860
8880
8900
λ [A]

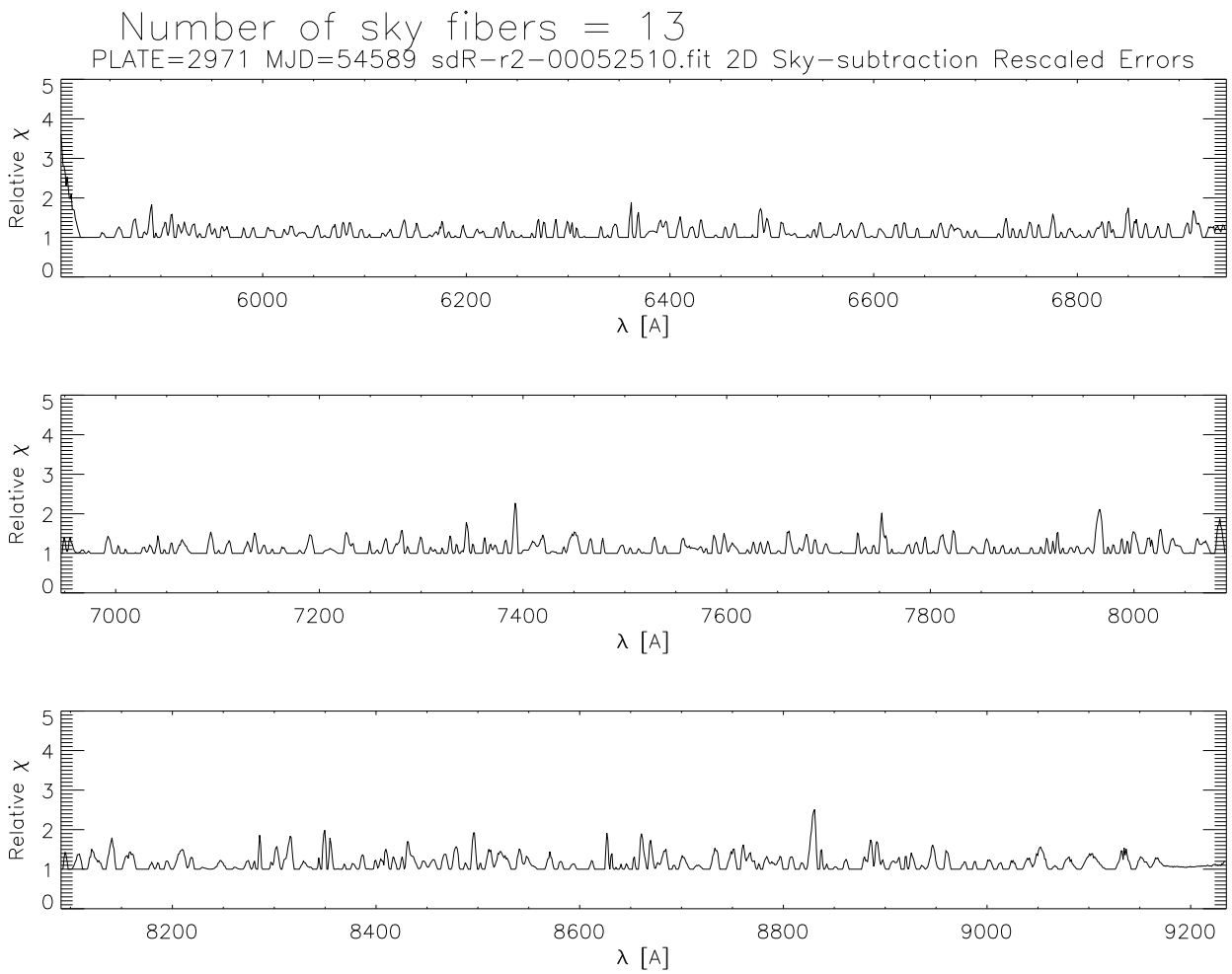

PLATE=2971 MJD=54589 sdR-r2-00052510.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
200
0
−200
−400
−600
8820
8840
8860
8880
8900
λ [A]

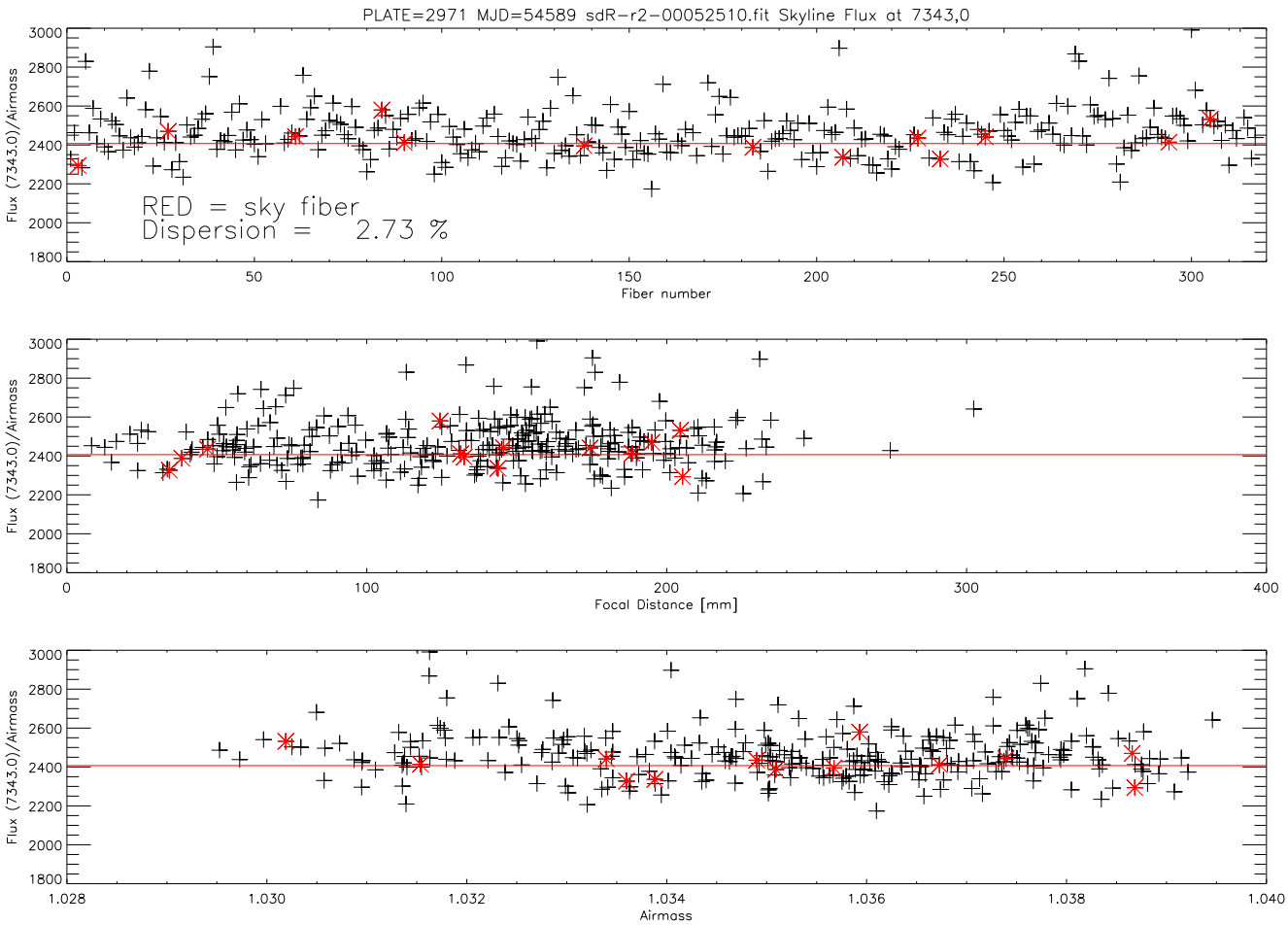

Number of sky fibers = 13
PLATE=2971 MJD=54589 sdR-r2-00052510.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

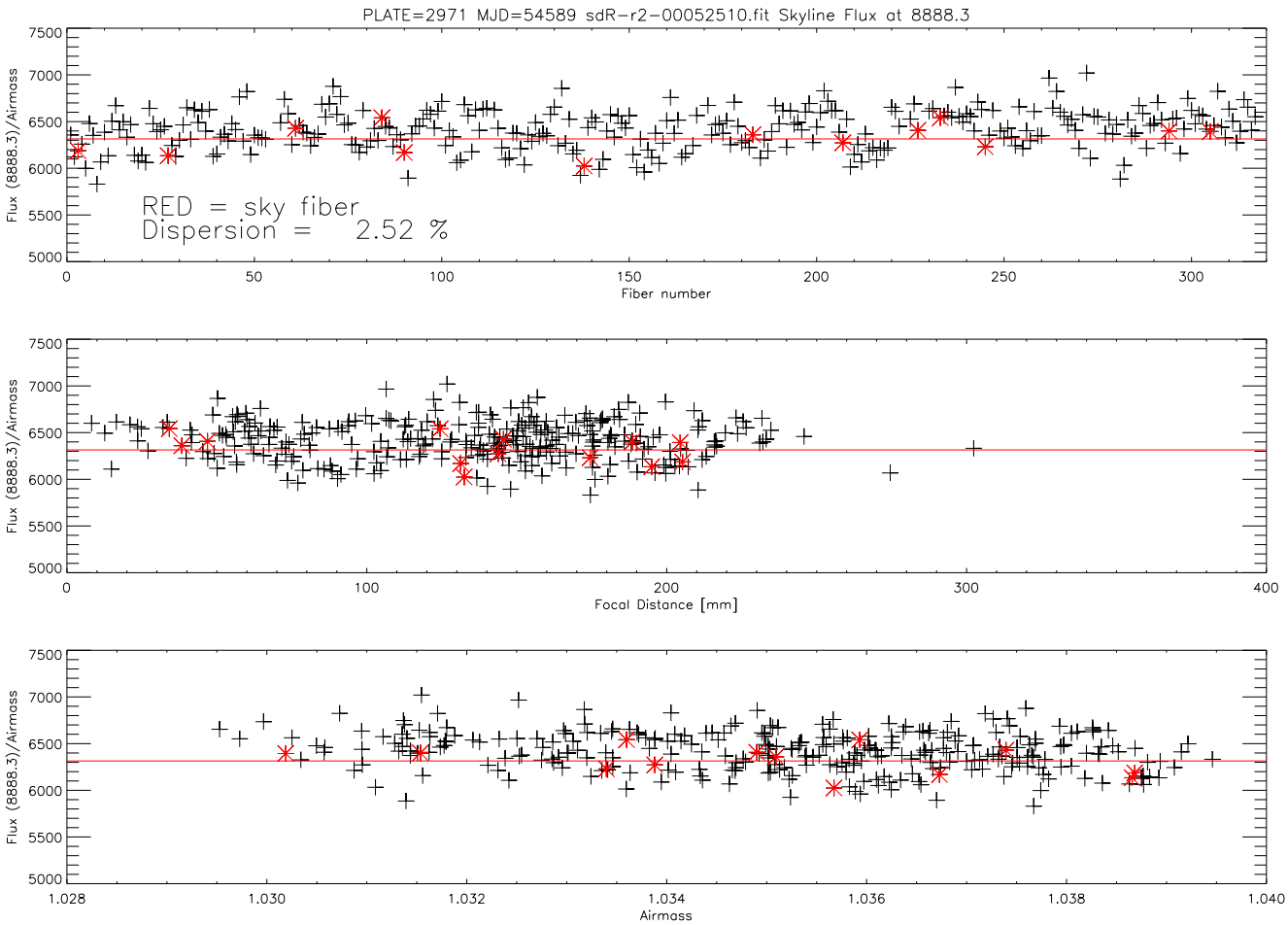

PLATE=2971 MJD=54589 sdR-r2-00052510.fit 2D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

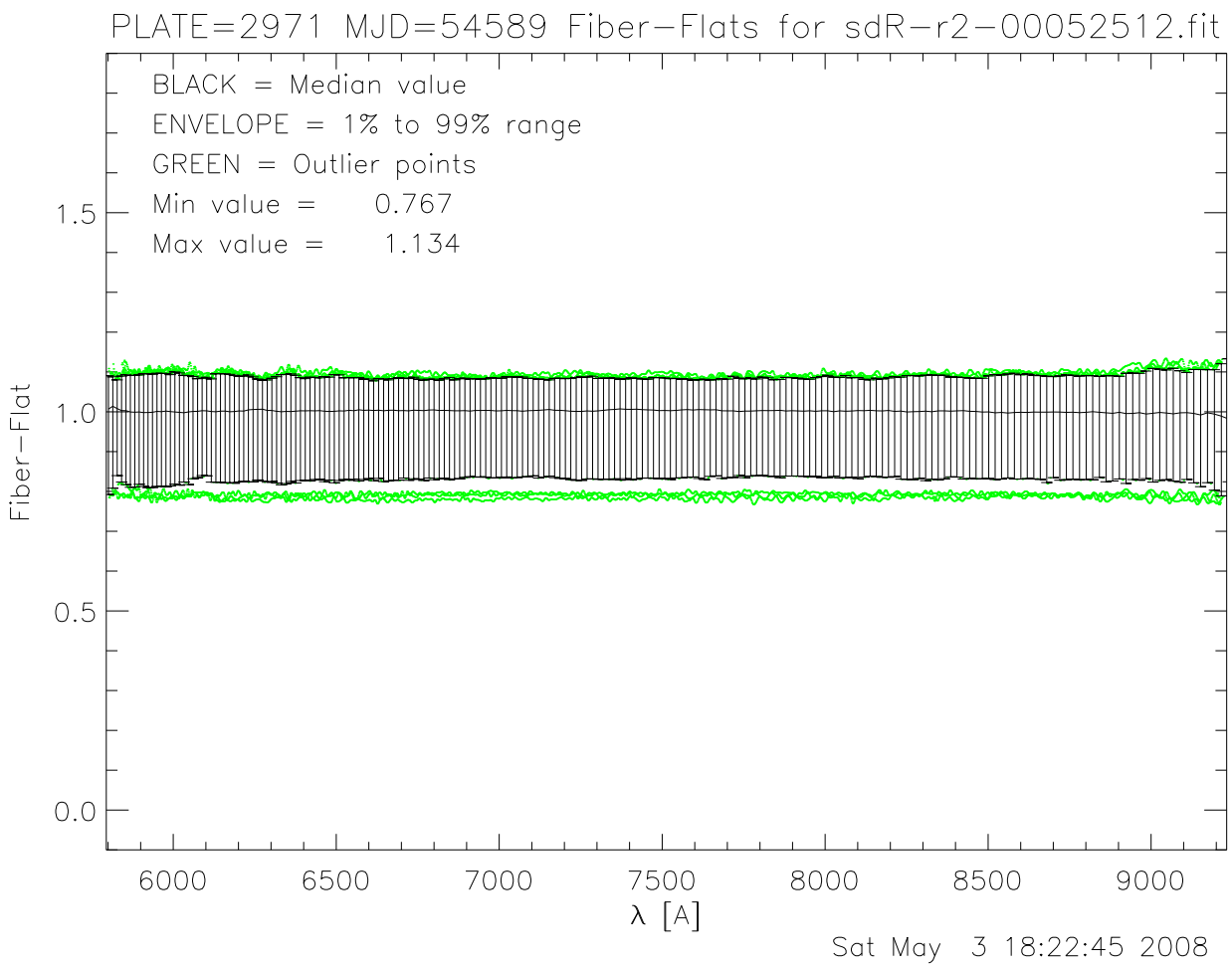

PLATE=2971 MJD=54589 sdR-r2-00052510.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
-1000
8820
8840
8860
8880
8900
λ [A]

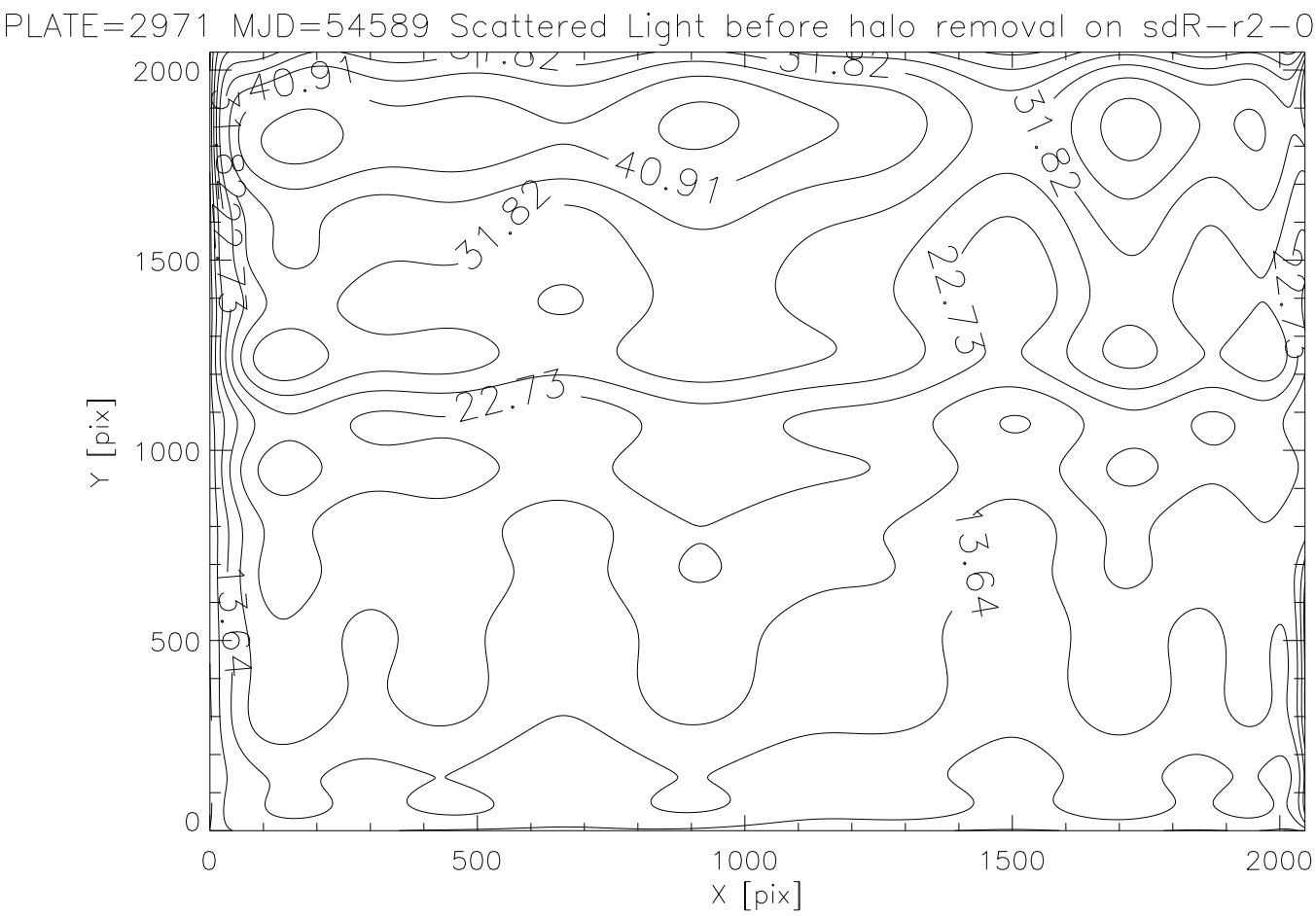

PLATE=2971 MJD=54589 sdR-r2-00052510.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
-300
8820
8840
8860
8880
8900
λ [A]

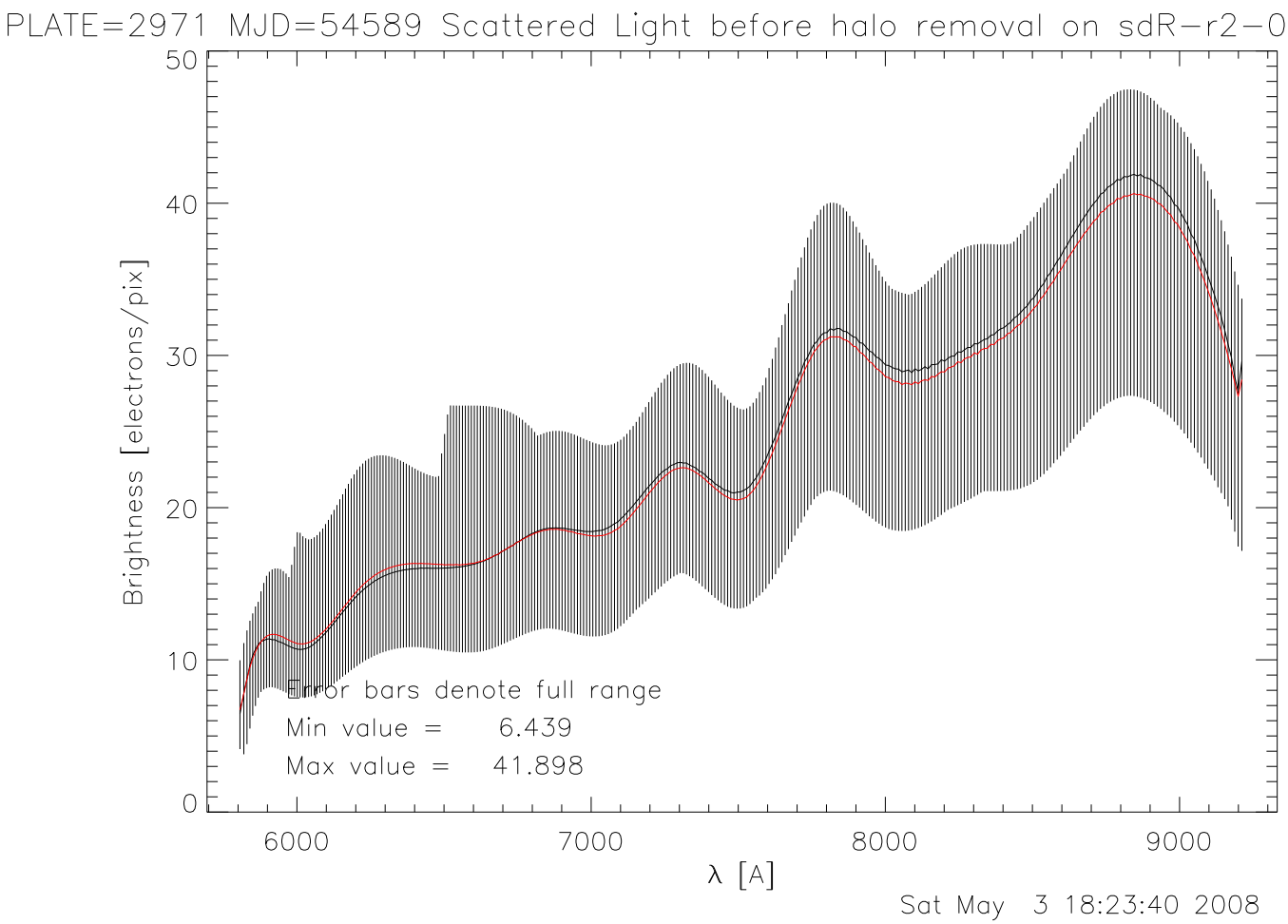

Number of sky fibers = 13
PLATE=2971 MJD=54589 sdR-r2-00052510.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

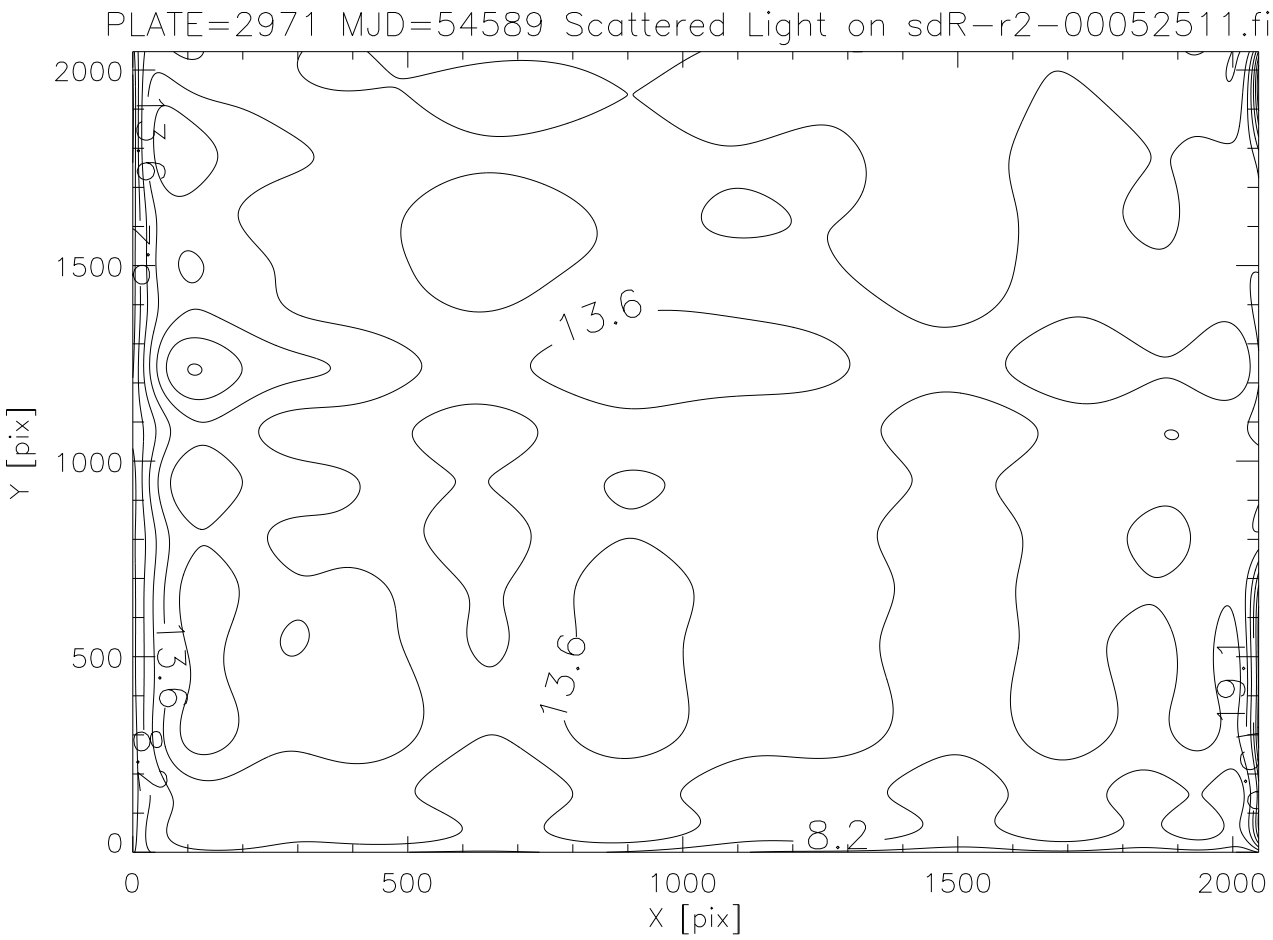

PLATE=2971 MJD=54589 sdR-r2-00052510.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 2.73 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

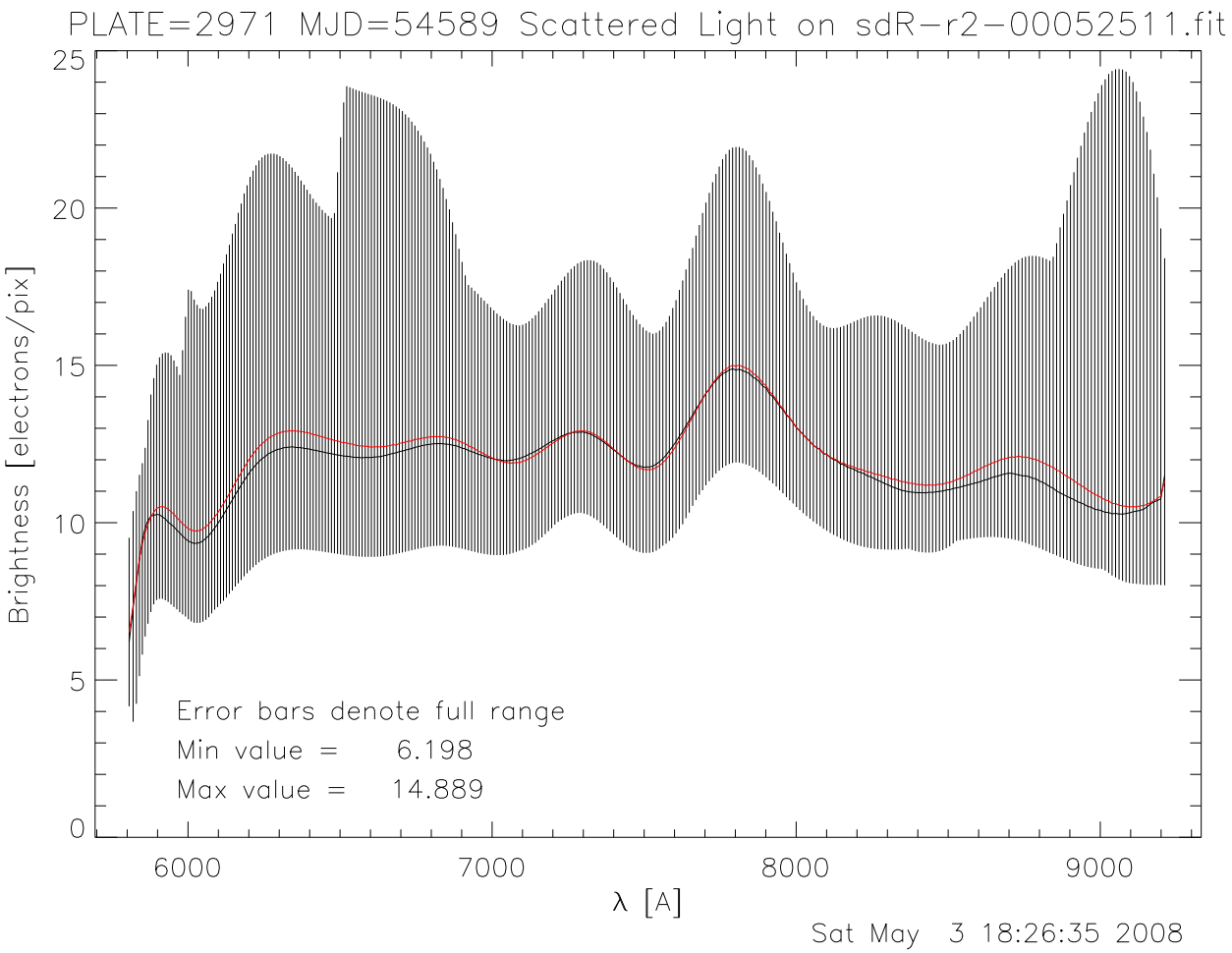

PLATE=2971 MJD=54589 sdR-r2-00052510.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 2.52 %
Fiber number
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass

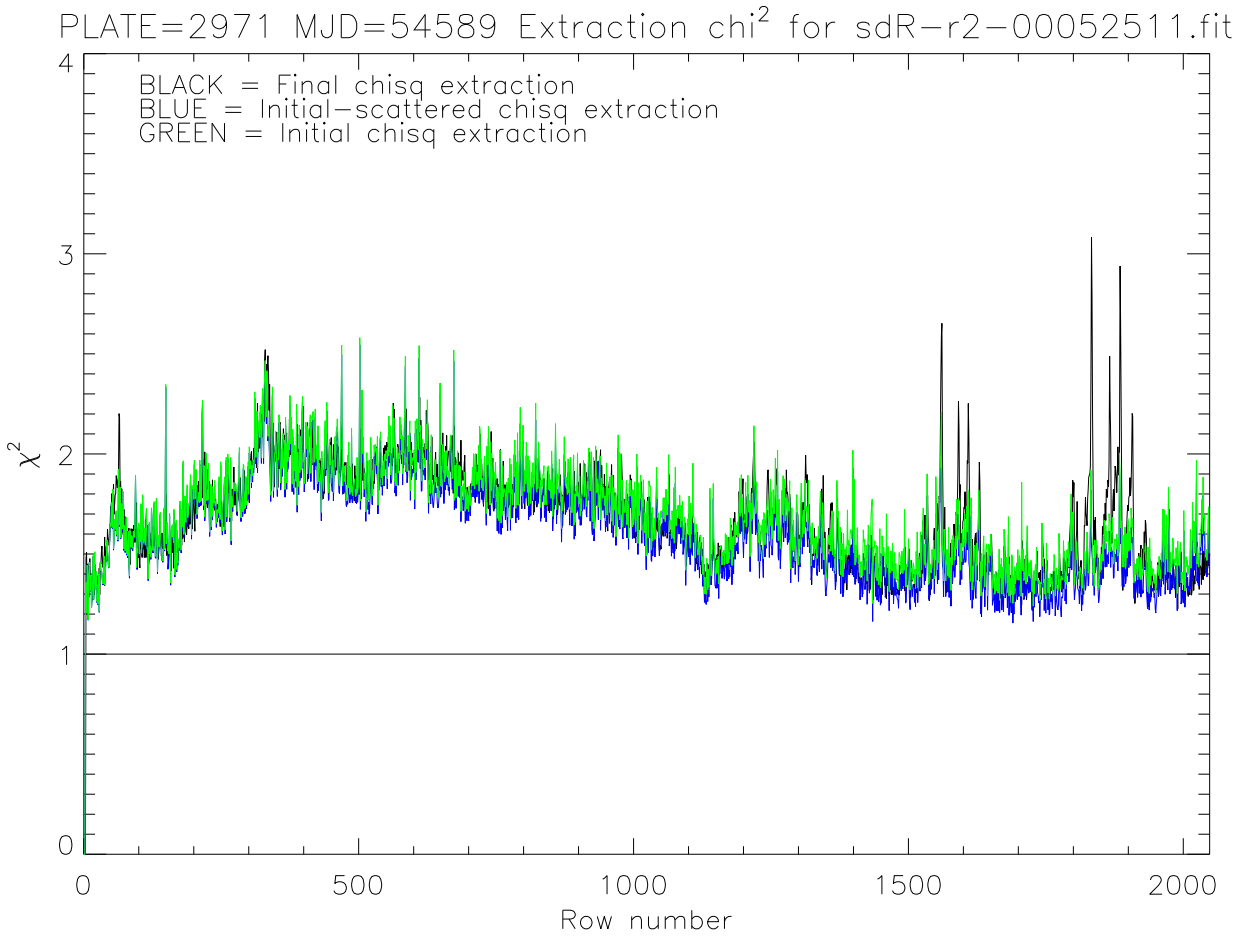

PLATE=2971 MJD=54589 Fiber−Flats for sdR−r2−00052512.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.767
Max value = 1.134
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sat May 3 18:22:45 2008

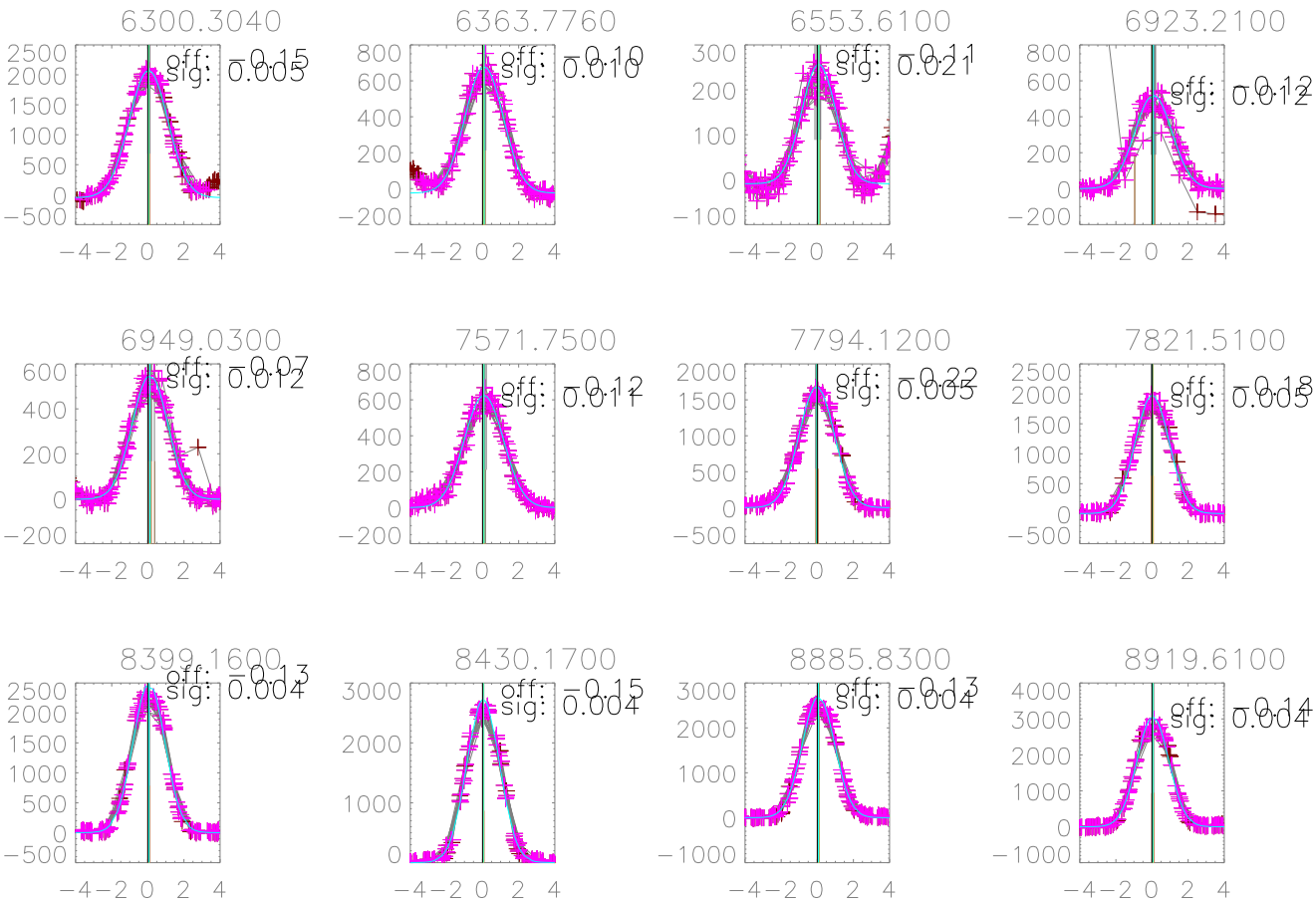

PLATE=2971 MJD=54589 Scattered Light before halo removal on sdR−r2−00052511.fi
40.91
31.82
22.73
13.64
Y [pix]
X [pix]
0
500
1000
1500
2000

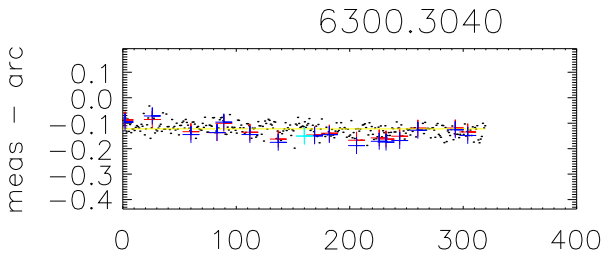

PLATE=2971 MJD=54589 Scattered Light before halo removal on sdR-r2-00052511.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 6.439
Max value = 41.898
Sat May 3 18:23:40 2008

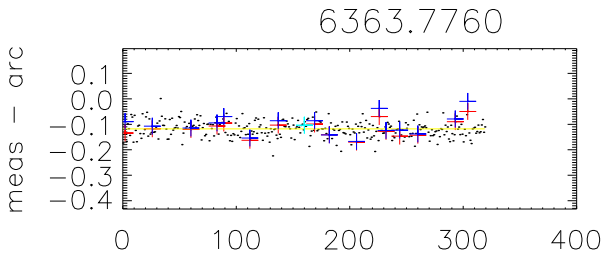

PLATE=2971 MJD=54589 Scattered Light on sdR-r2-00052511.fit
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
13.6
13.6
13.6
8.2
19.1

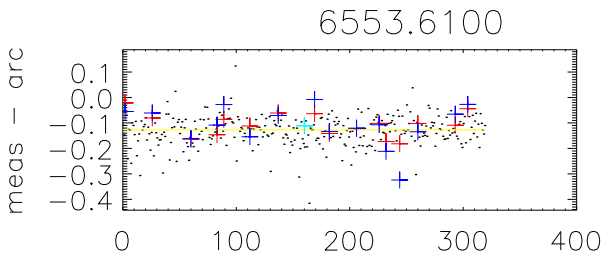

PLATE=2971 MJD=54589 Scattered Light on sdR-r2-00052511.fit
Brightness [electrons/pix]
25
20
15
10
5
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 6.198
Max value = 14.889
Sat May 3 18:26:35 2008

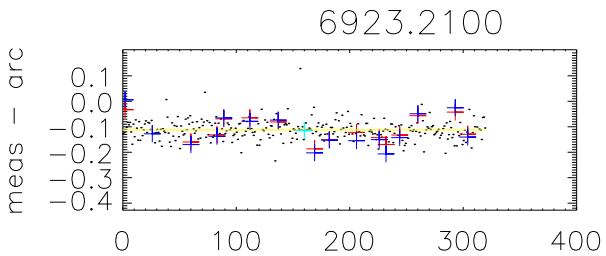

PLATE=2971 MJD=54589 Extraction chi^2 for sdR-r2-00052511.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
0
500
1000
1500
2000
Row number

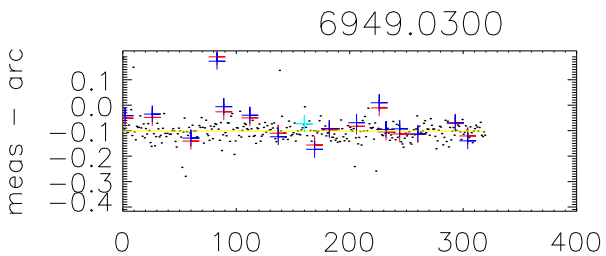

6300.3040
off: −0.15
sig: 0.005
6363.7760
off: −0.10
sig: 0.010
6553.6100
off: −0.11
sig: 0.021
6923.2100
off: −0.12
sig: 0.012
6949.0300
off: −0.07
sig: 0.012
7571.7500
off: −0.12
sig: 0.011
7794.1200
off: −0.22
sig: 0.005
7821.5100
off: −0.18
sig: 0.005
8399.1600
off: −0.13
sig: 0.004
8430.1700
off: −0.15
sig: 0.004
8885.8300
off: −0.13
sig: 0.004
8919.6100
off: −0.14
sig: 0.004

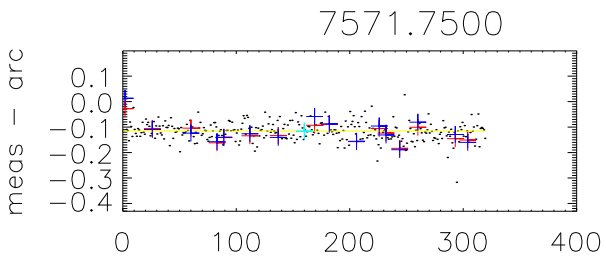

6300.3040
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

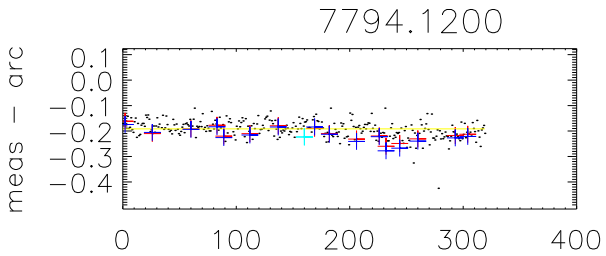

6363.7760
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

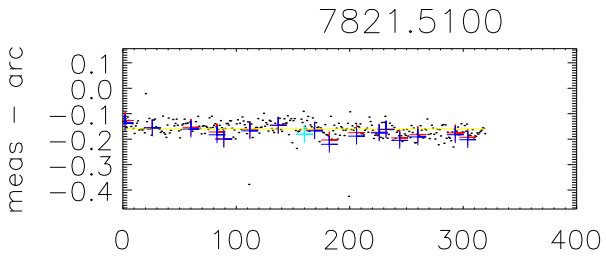

6553.6100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

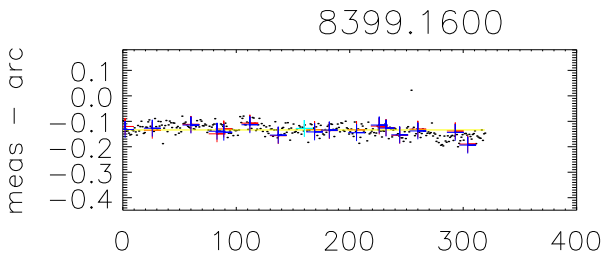

6923.2100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

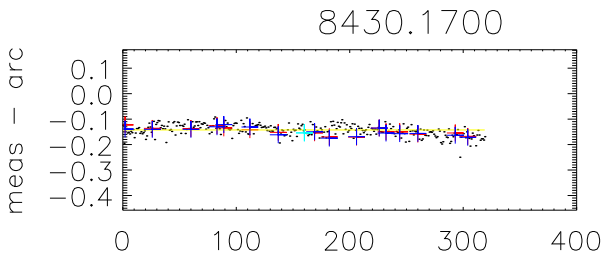

6949.0300
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

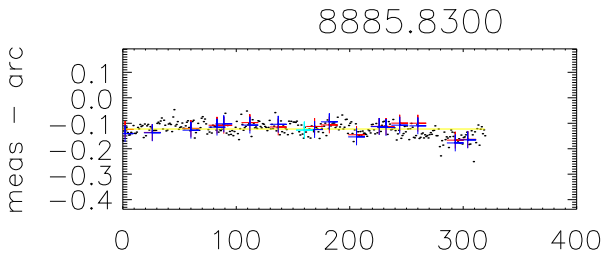

7571.7500
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

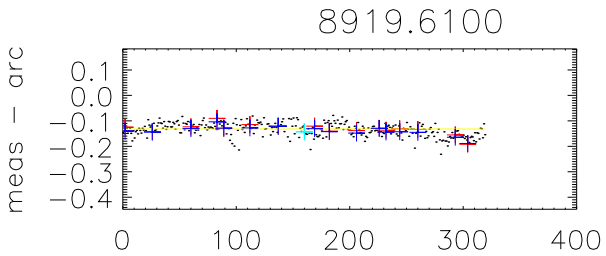

7794.1200
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

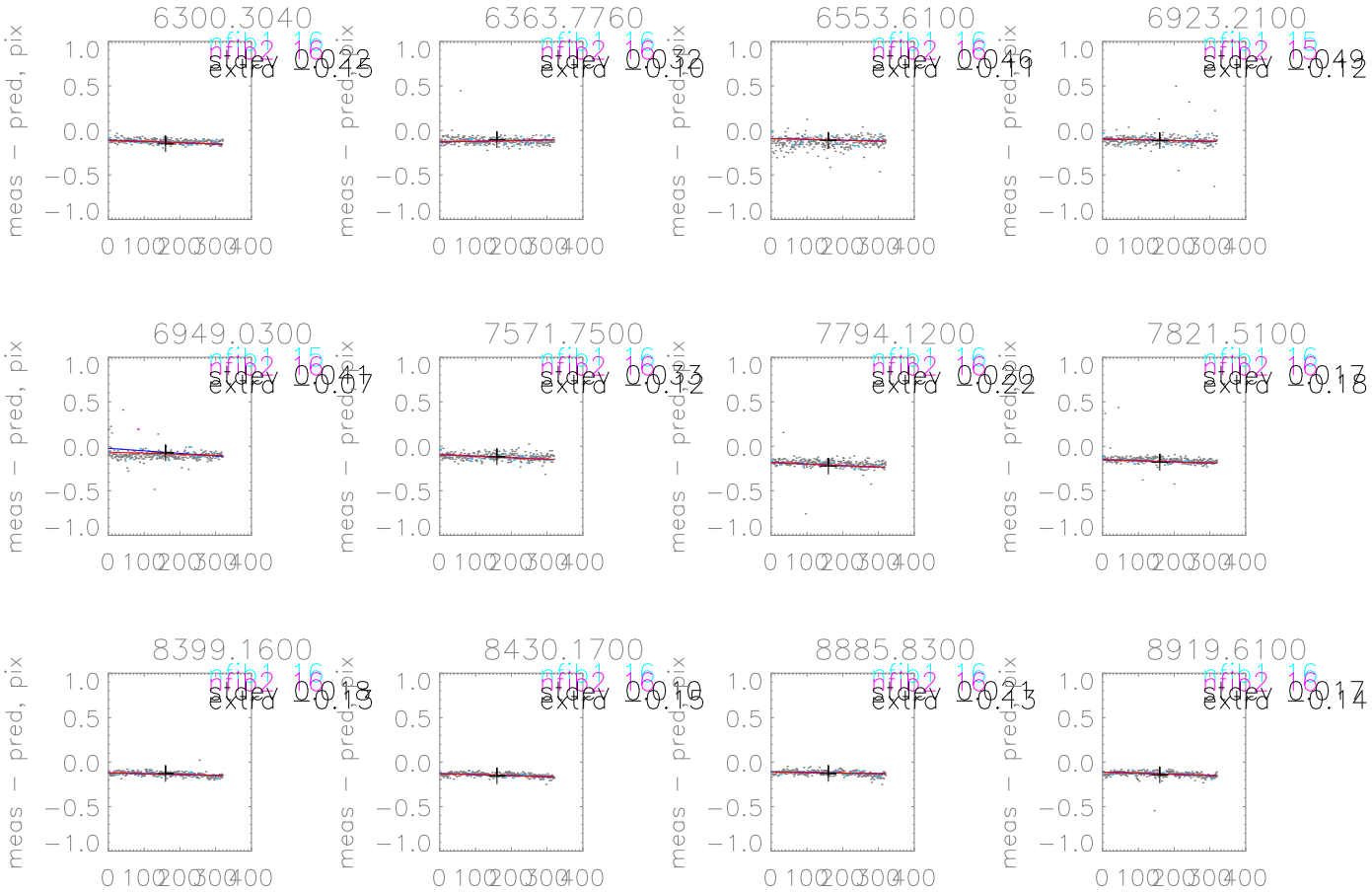

7821.5100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

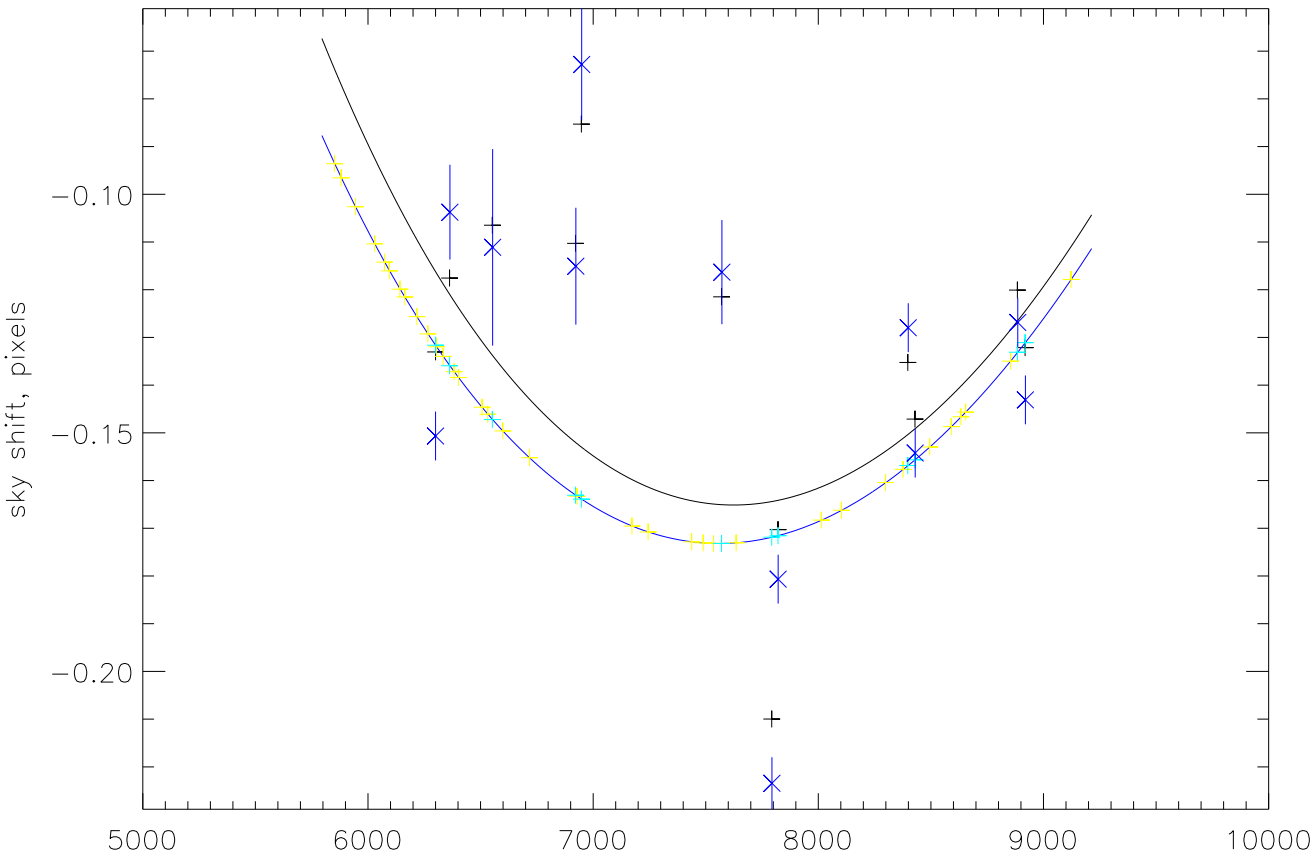

8399.1600
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

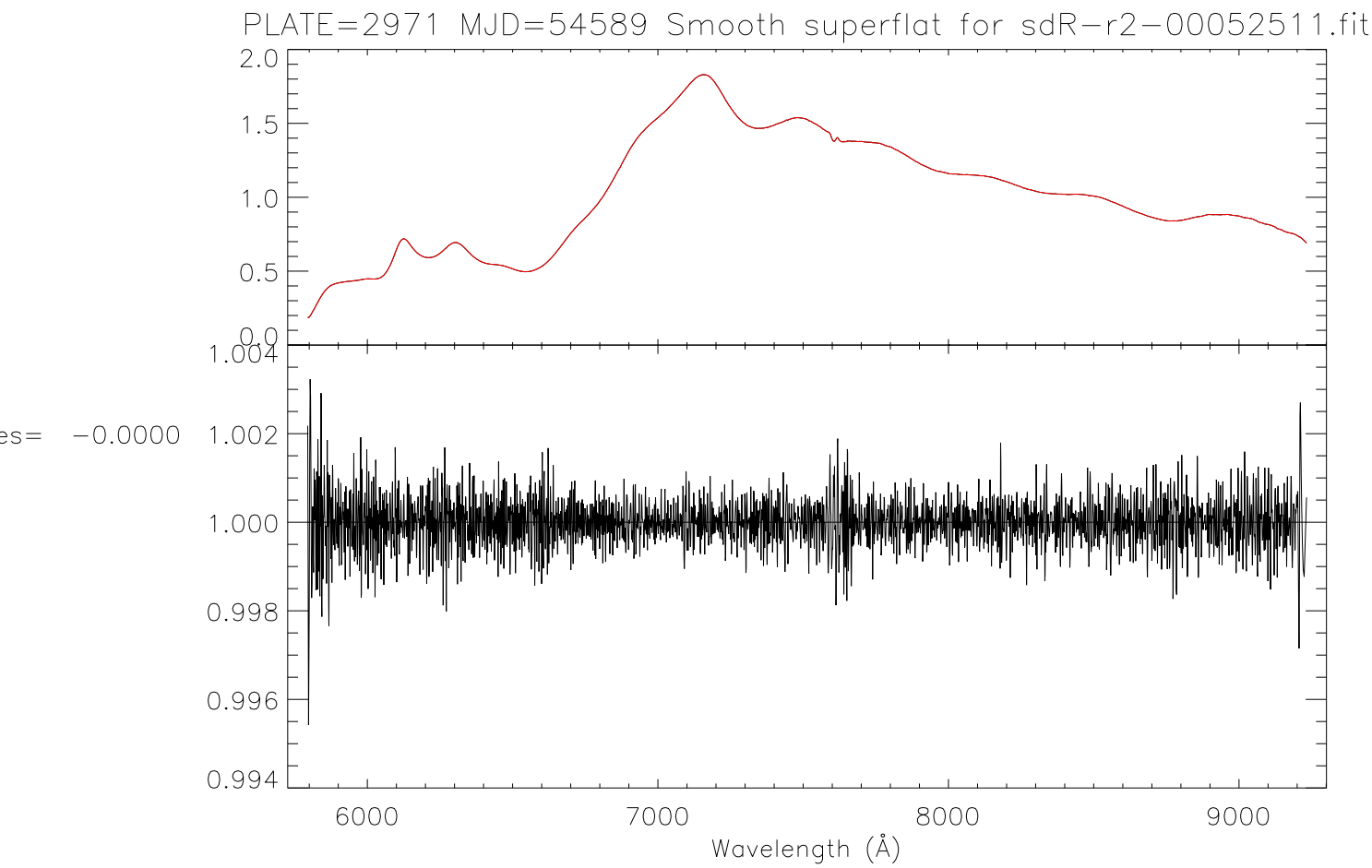

8430.1700
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

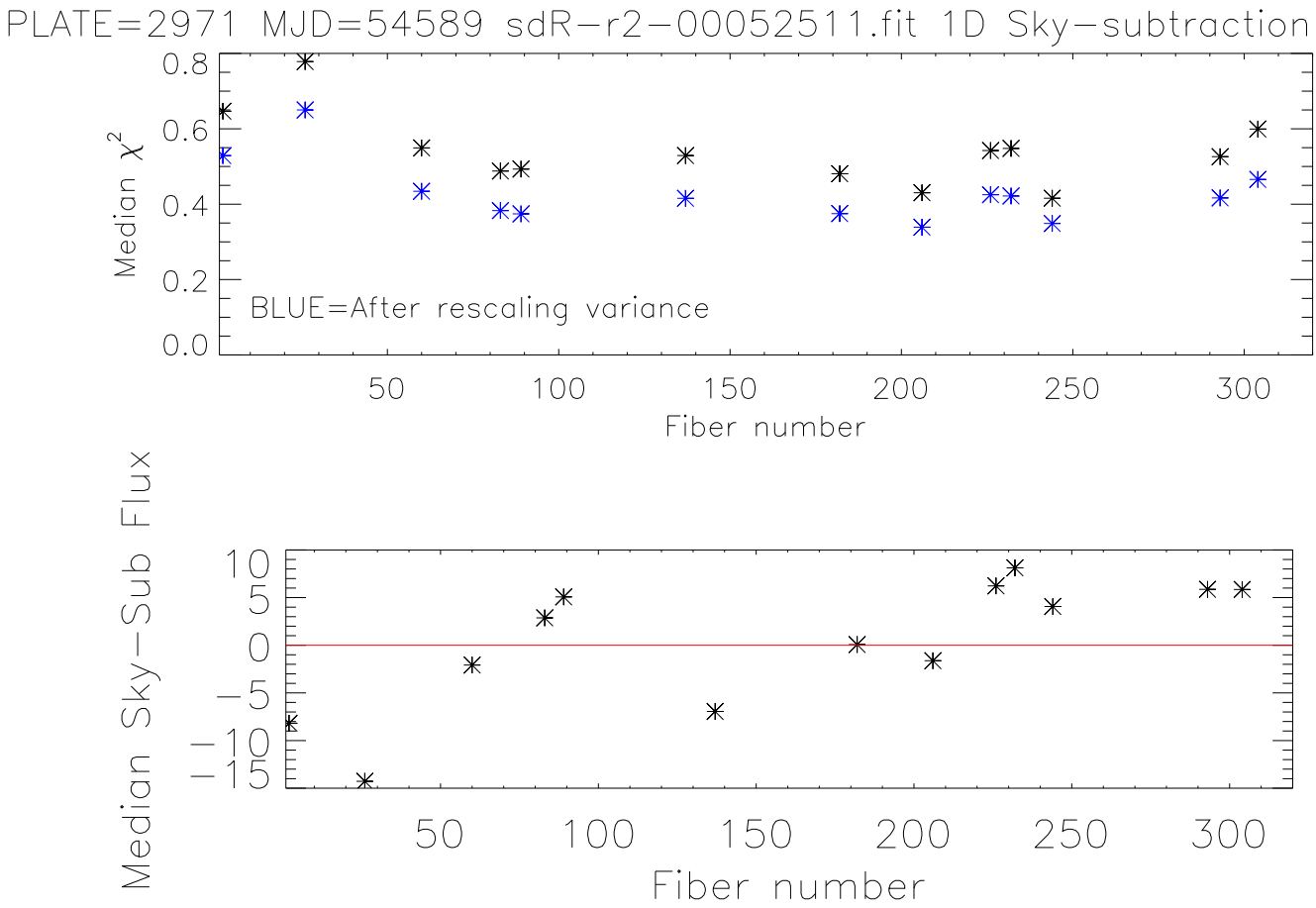

8885.8300
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

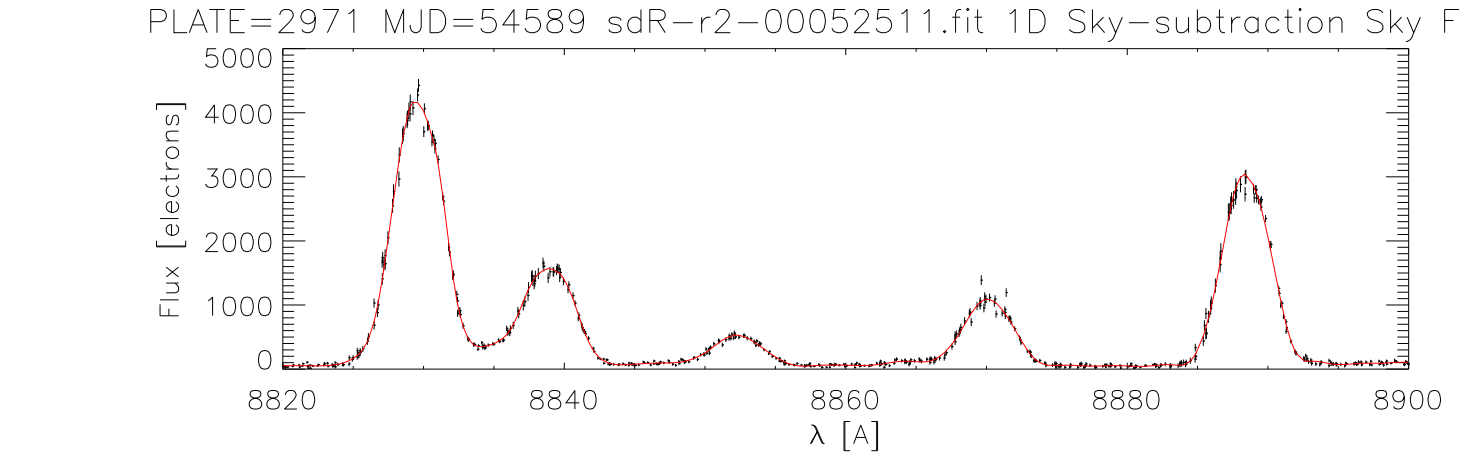

8919.6100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

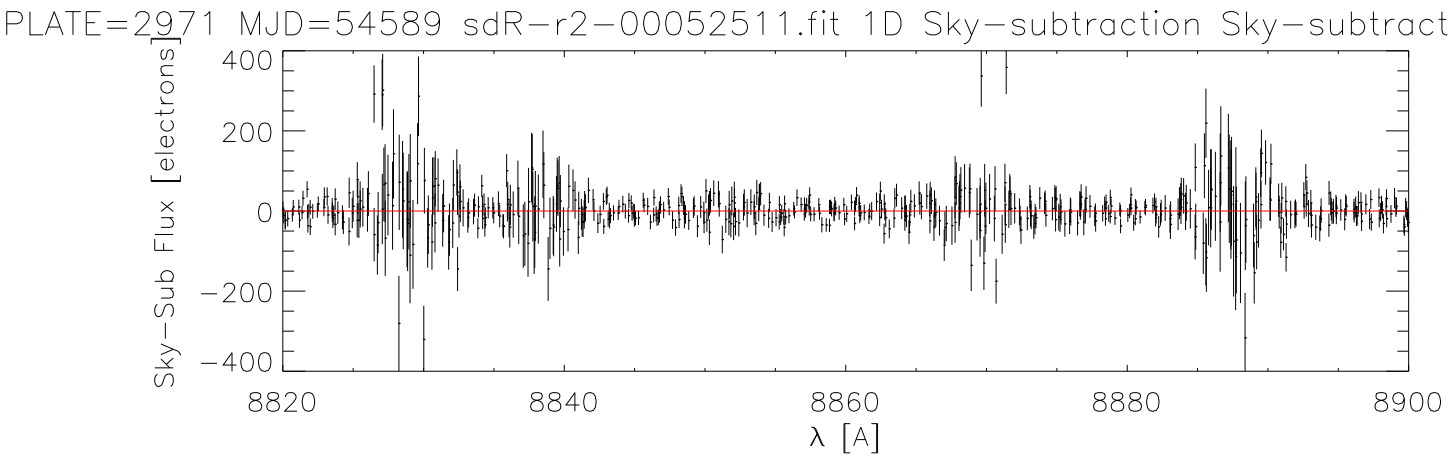

6300.3040
stdev 0.022
extra 0.45
6363.7760
stdev 0.032
extra 0.50
6553.6100
stdev 0.046
extra 0.41
6923.2100
stdev 0.049
extra 0.12
6949.0300
stdev 0.041
extra 0.07
7571.7500
stdev 0.033
extra 0.12
7794.1200
stdev 0.030
extra 0.22
7821.5100
stdev 0.017
extra 0.18
8399.1600
stdev 0.018
extra 0.13
8430.1700
stdev 0.019
extra 0.15
8885.8300
stdev 0.021
extra 0.43
8919.6100
stdev 0.017
extra 0.14
meas − pred, pix
mfhd1 16
mfhd2 15

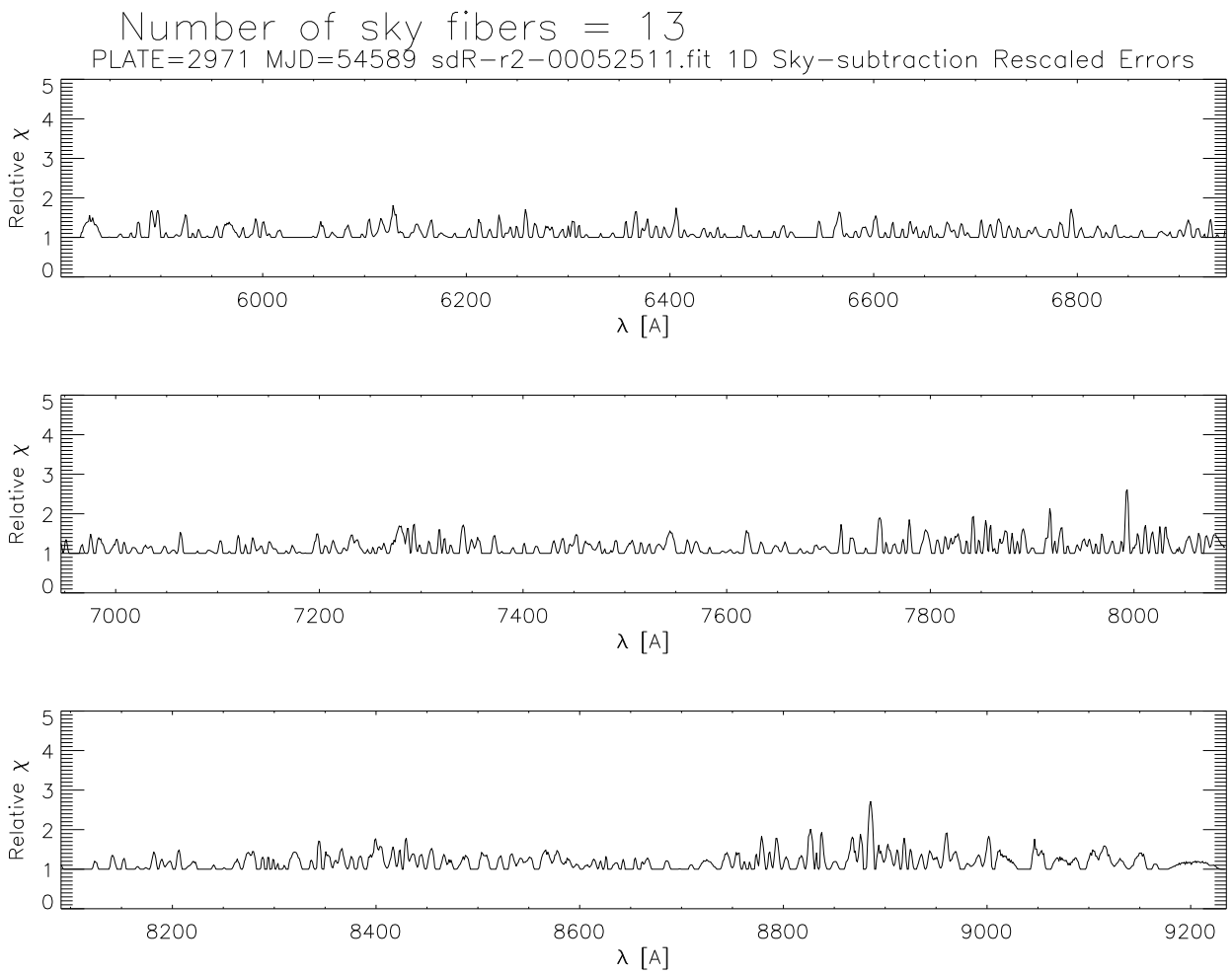

sky shift, pixels
−0.10
−0.15
−0.20
5000
6000
7000
8000
9000
10000

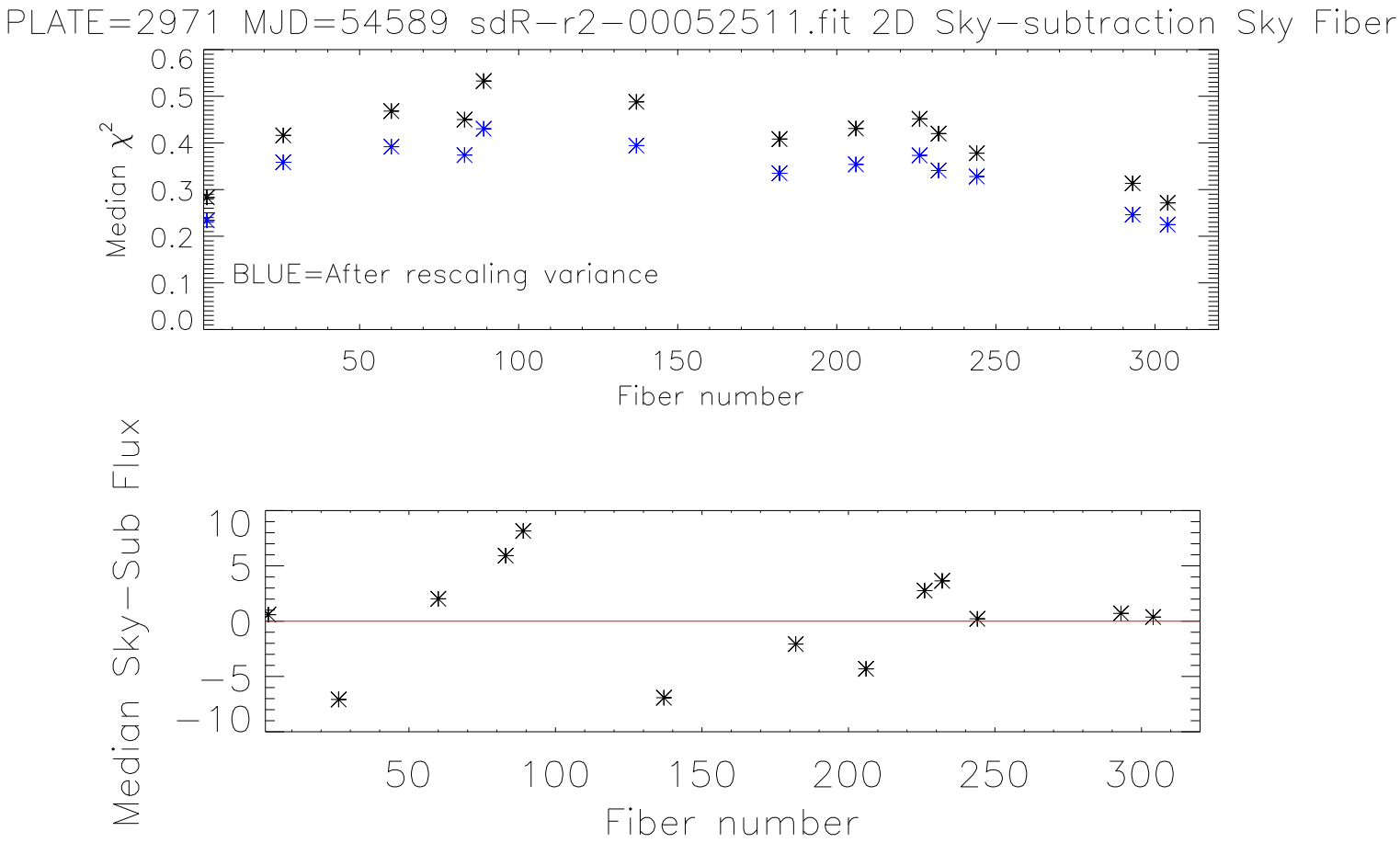

PLATE=2971 MJD=54589 Smooth superflat for sdR-r2-00052511.fit
2.0
1.5
1.0
0.5
0.0
1.004
1.002
1.000
0.998
0.996
0.994
es= −0.0000
6000
7000
8000
9000
Wavelength (Å)

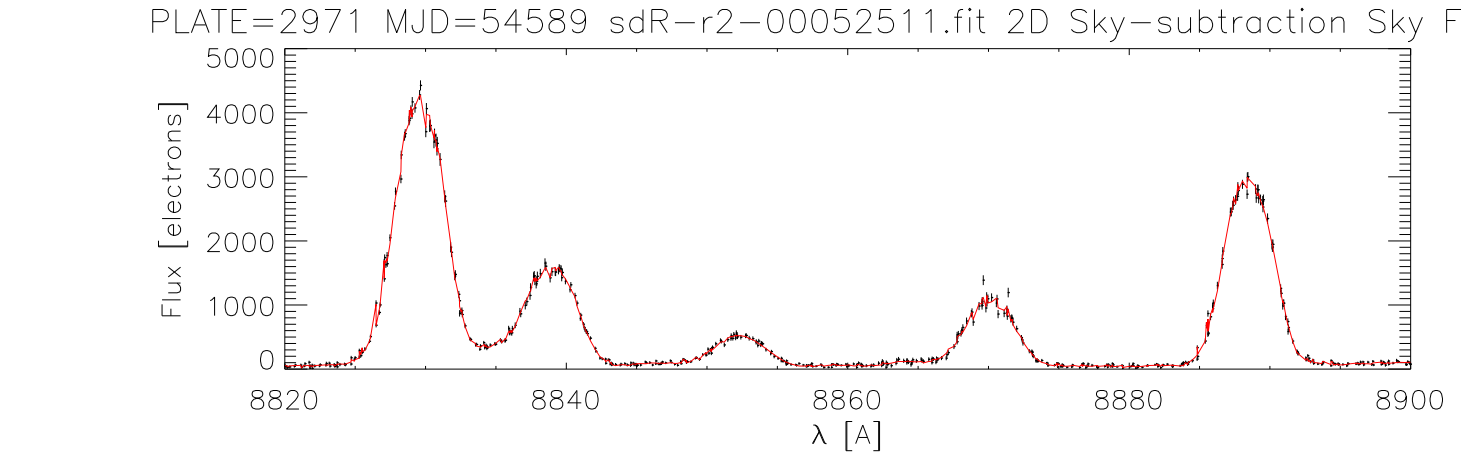

PLATE=2971 MJD=54589 sdR-r2-00052511.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
-5
-10
-15
50
100
150
200
250
300
Fiber number

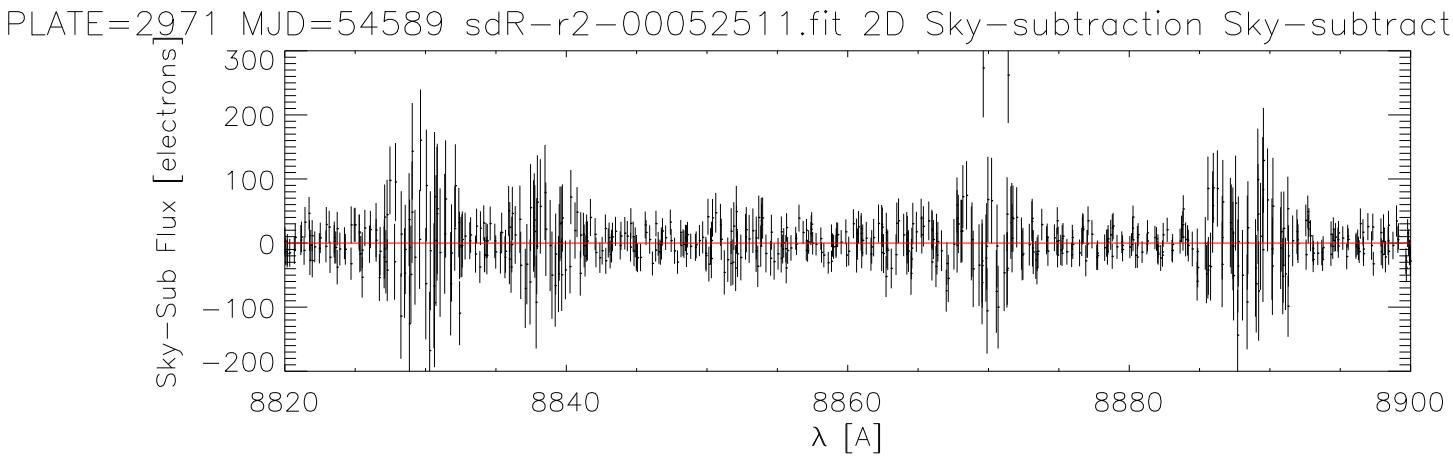

PLATE=2971 MJD=54589 sdR-r2-00052511.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

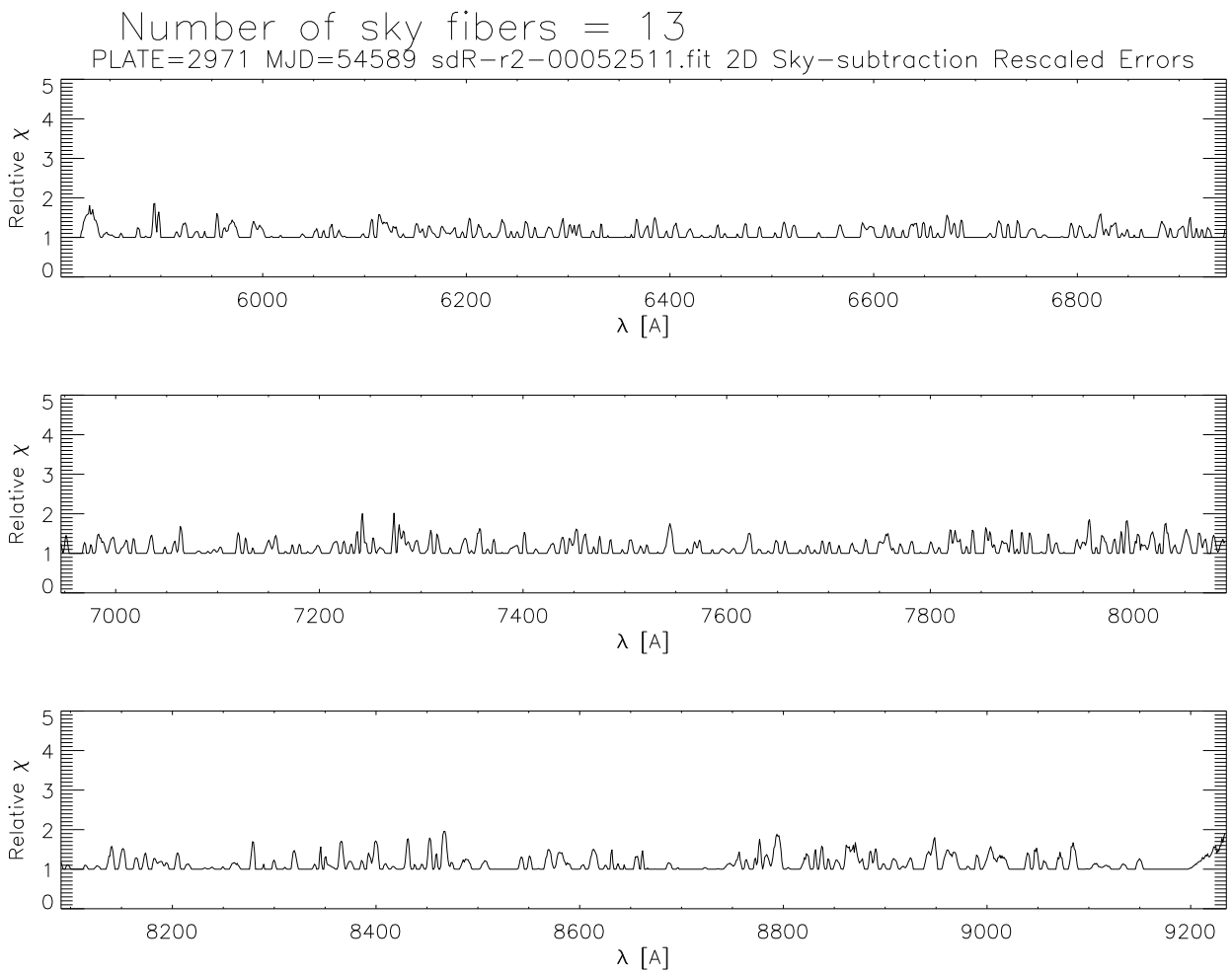

PLATE=2971 MJD=54589 sdR-r2-00052511.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
200
0
-200
-400
8820
8840
8860
8880
8900
λ [A]

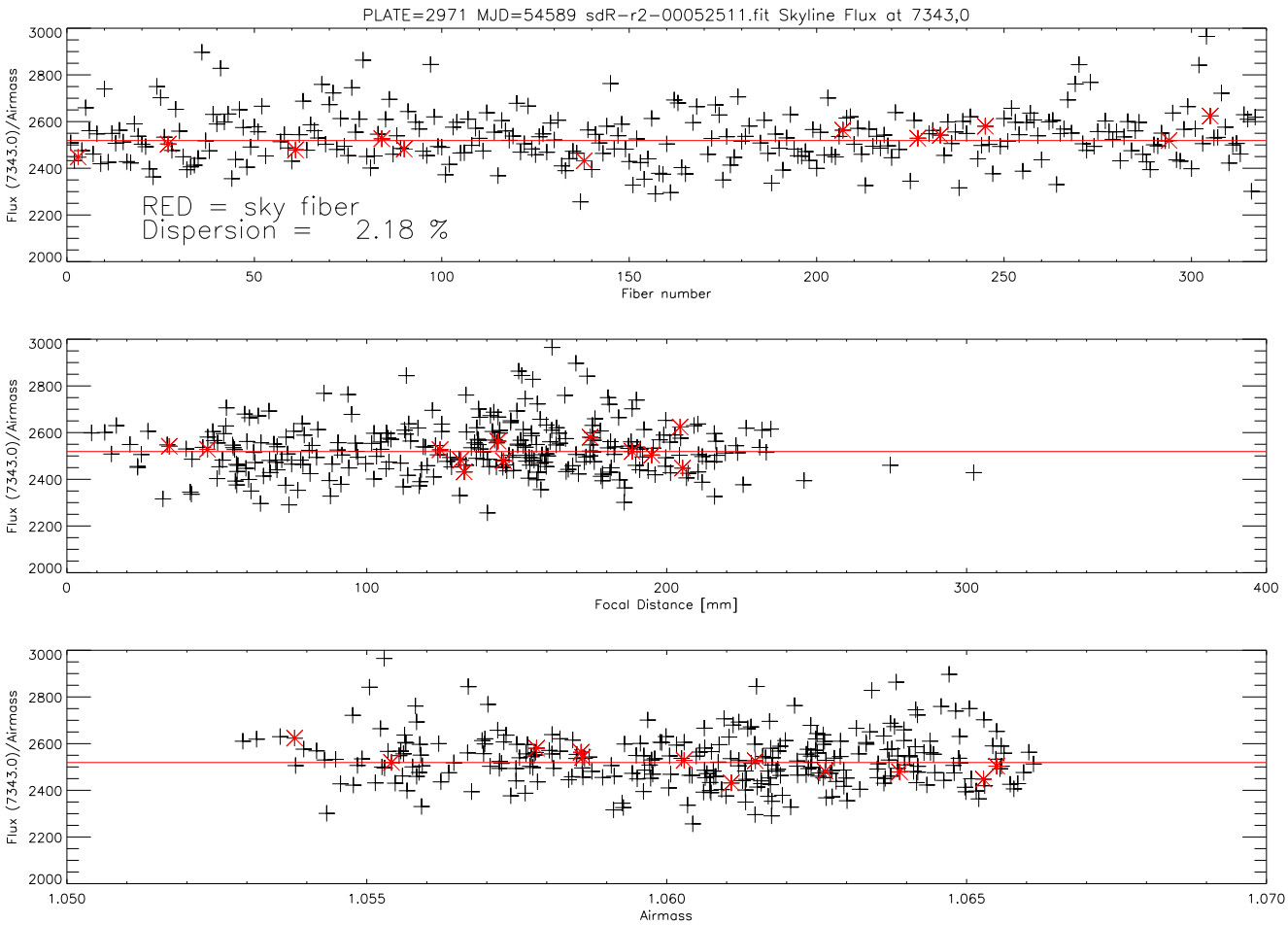

Number of sky fibers = 13
PLATE=2971 MJD=54589 sdR-r2-00052511.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

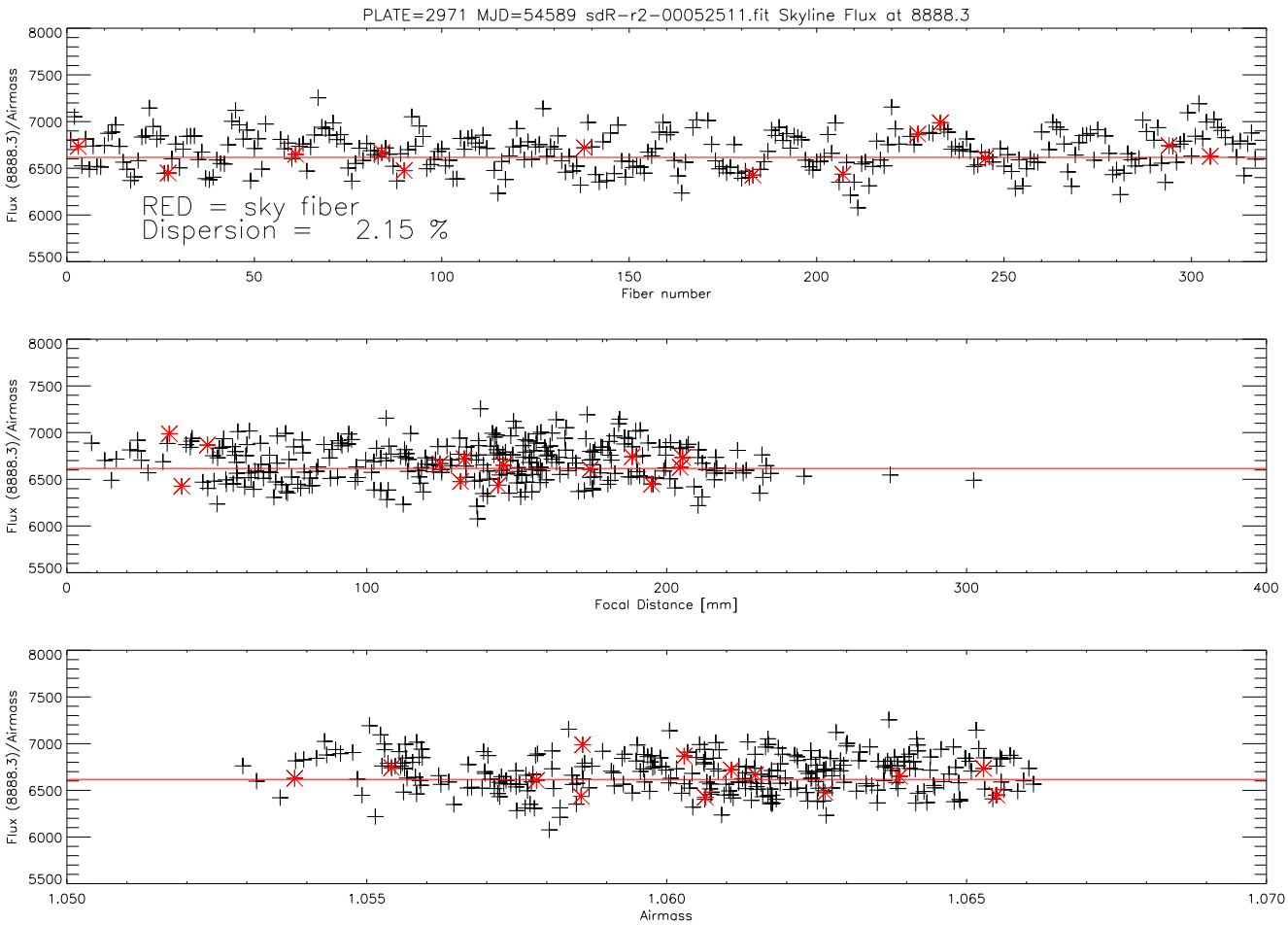

PLATE=2971 MJD=54589 sdR-r2-00052511.fit 2D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
−5
−10
50
100
150
200
250
300
Fiber number


PLATE=2971 MJD=54589 sdR-r2-00052511.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]


PLATE=2971 MJD=54589 sdR-r2-00052511.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
8820
8840
8860
8880
8900
λ [A]


Number of sky fibers = 13
PLATE=2971 MJD=54589 sdR-r2-00052511.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5


PLATE=2971 MJD=54589 sdR-r2-00052511.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 2.18 %
Fiber number
Focal Distance [mm]
Airmass


PLATE=2971 MJD=54589 sdR-r2-00052511.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 2.15 %
Fiber number
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass