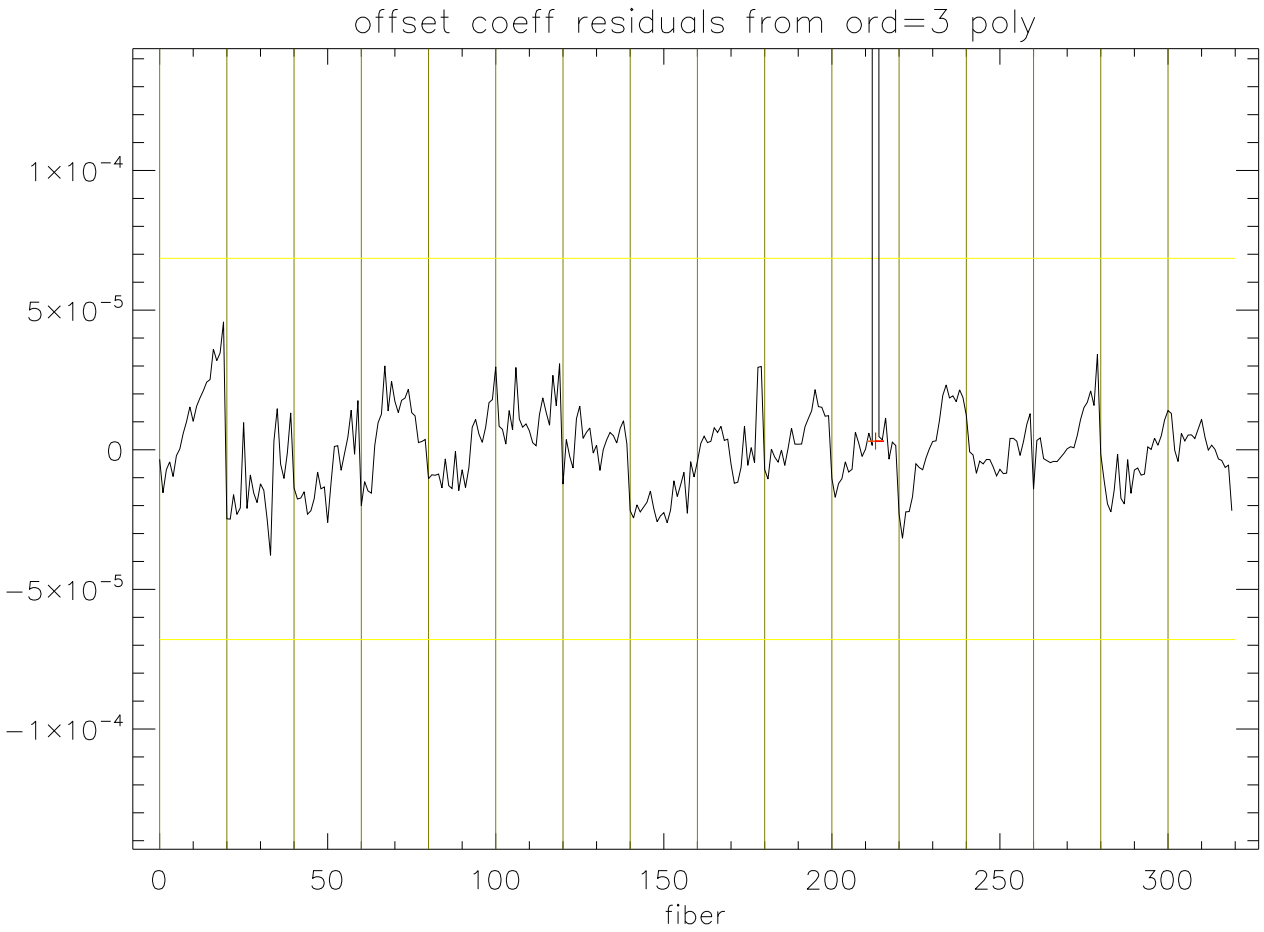
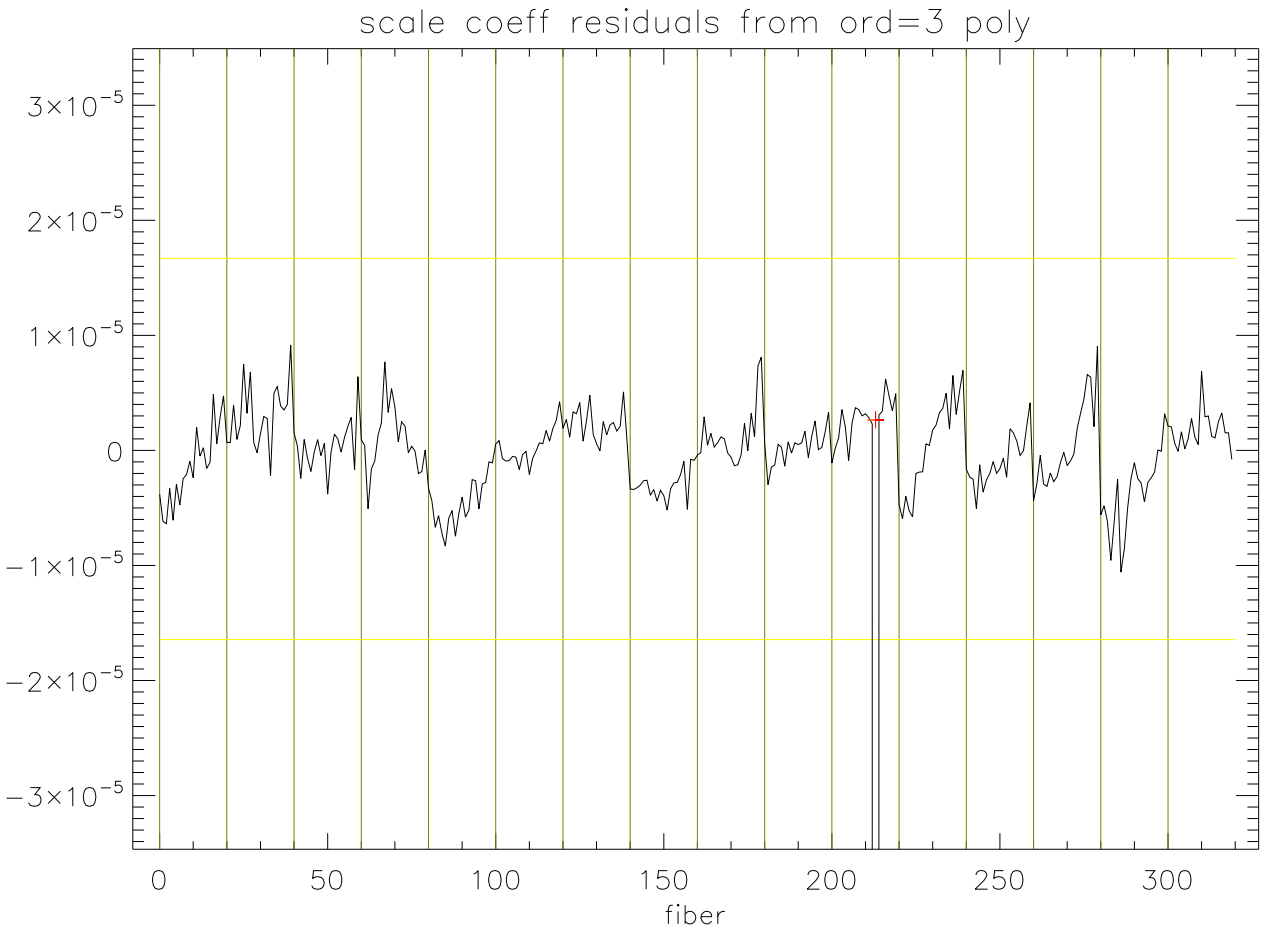
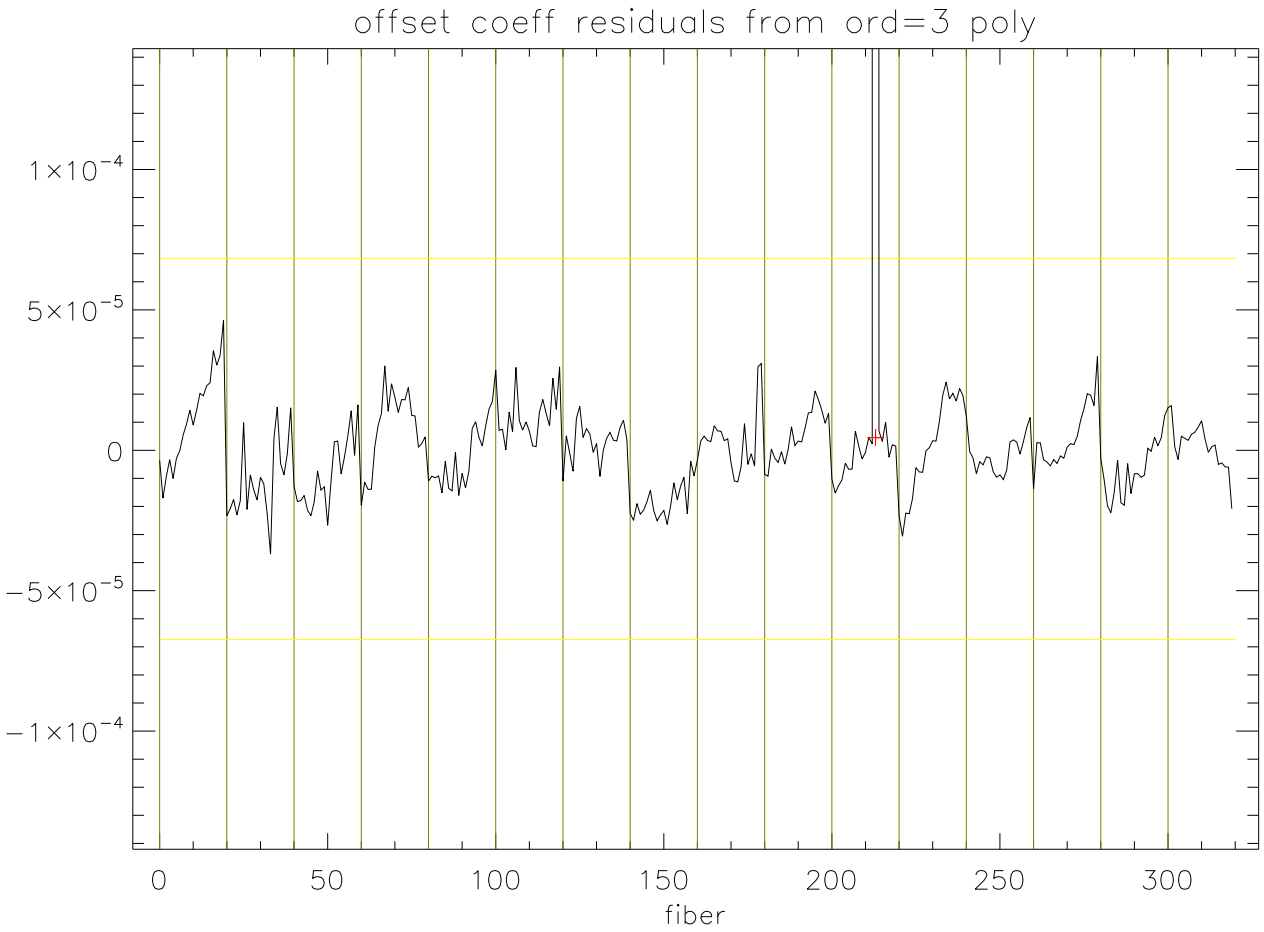
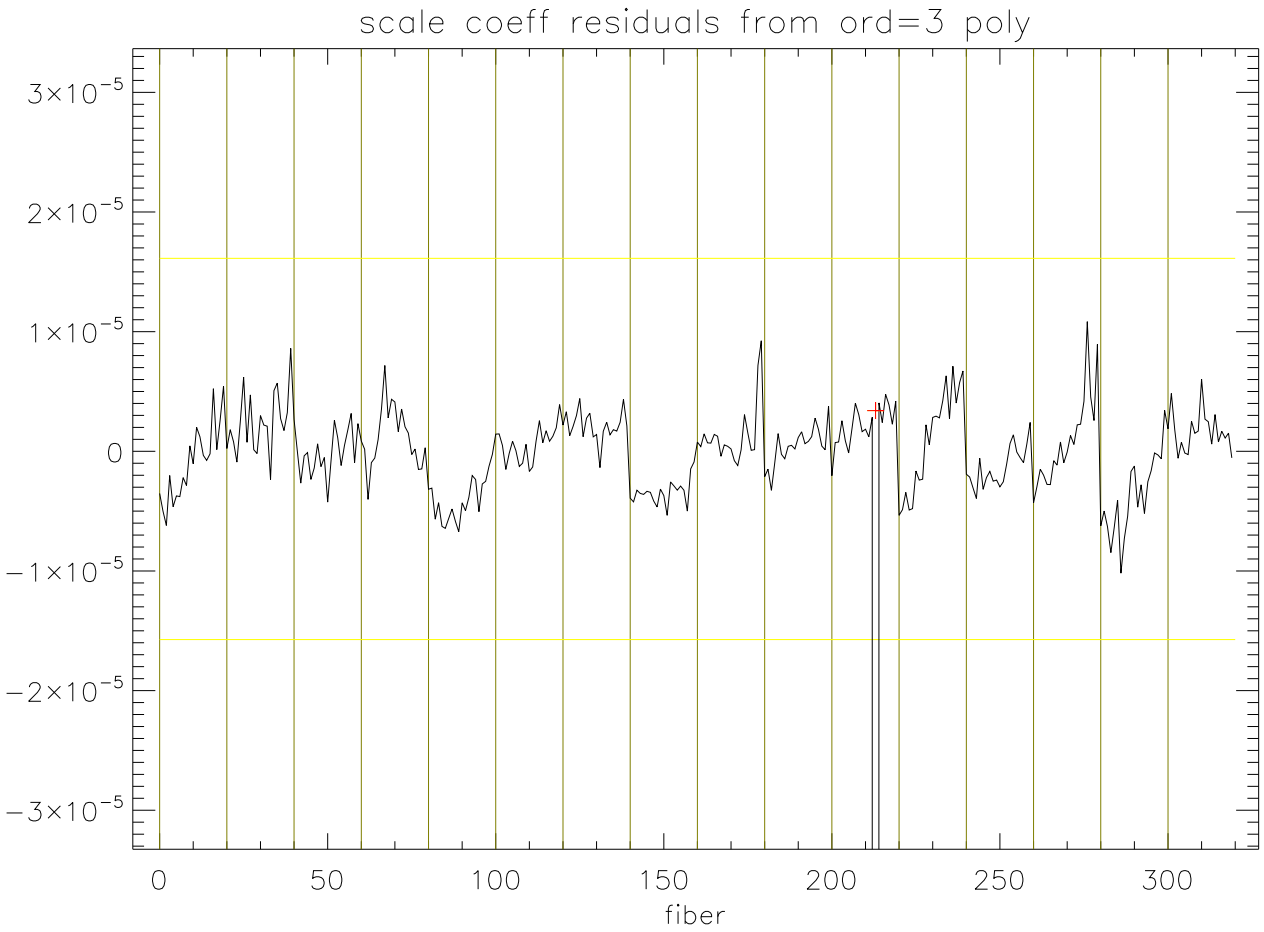
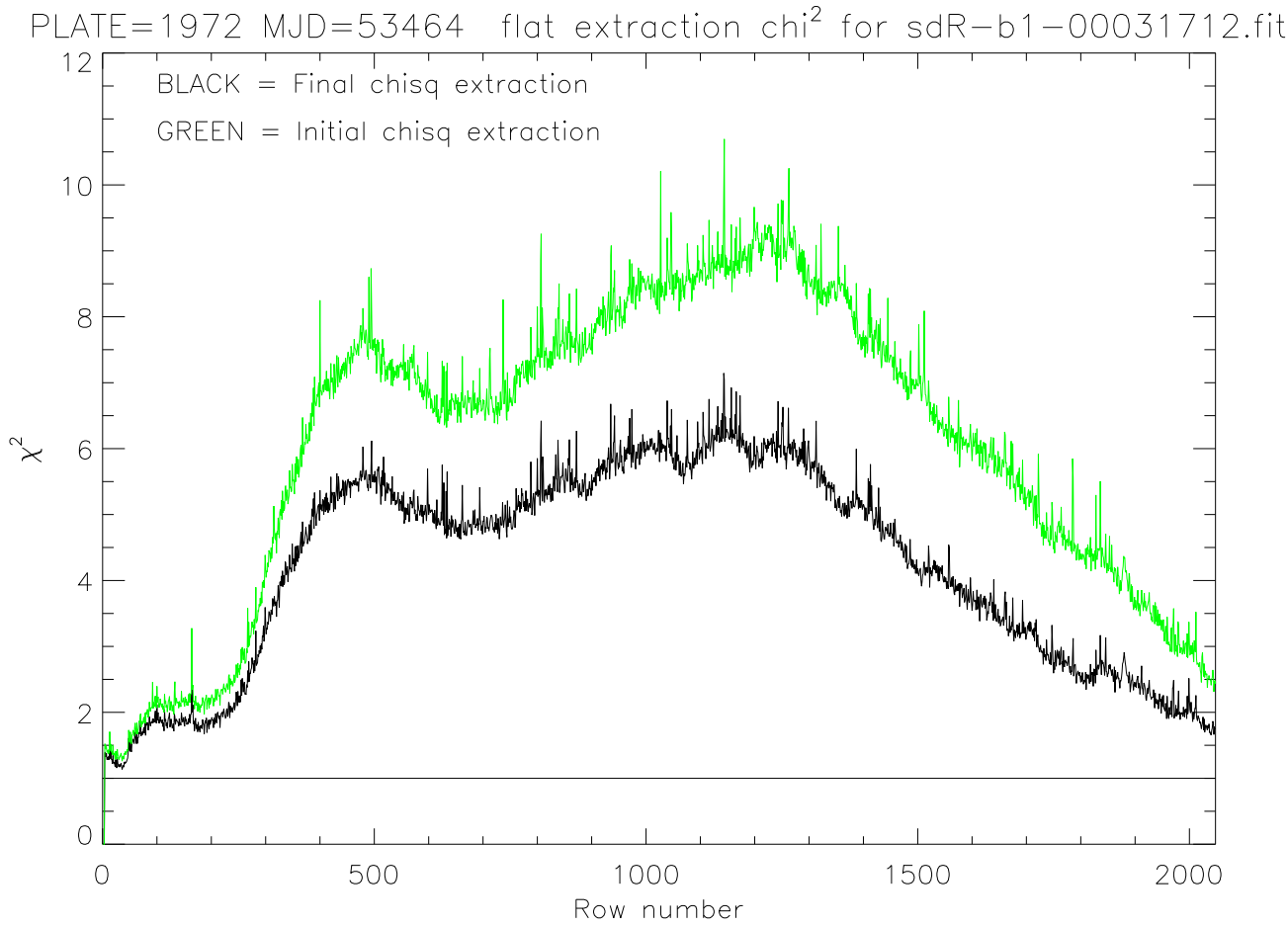
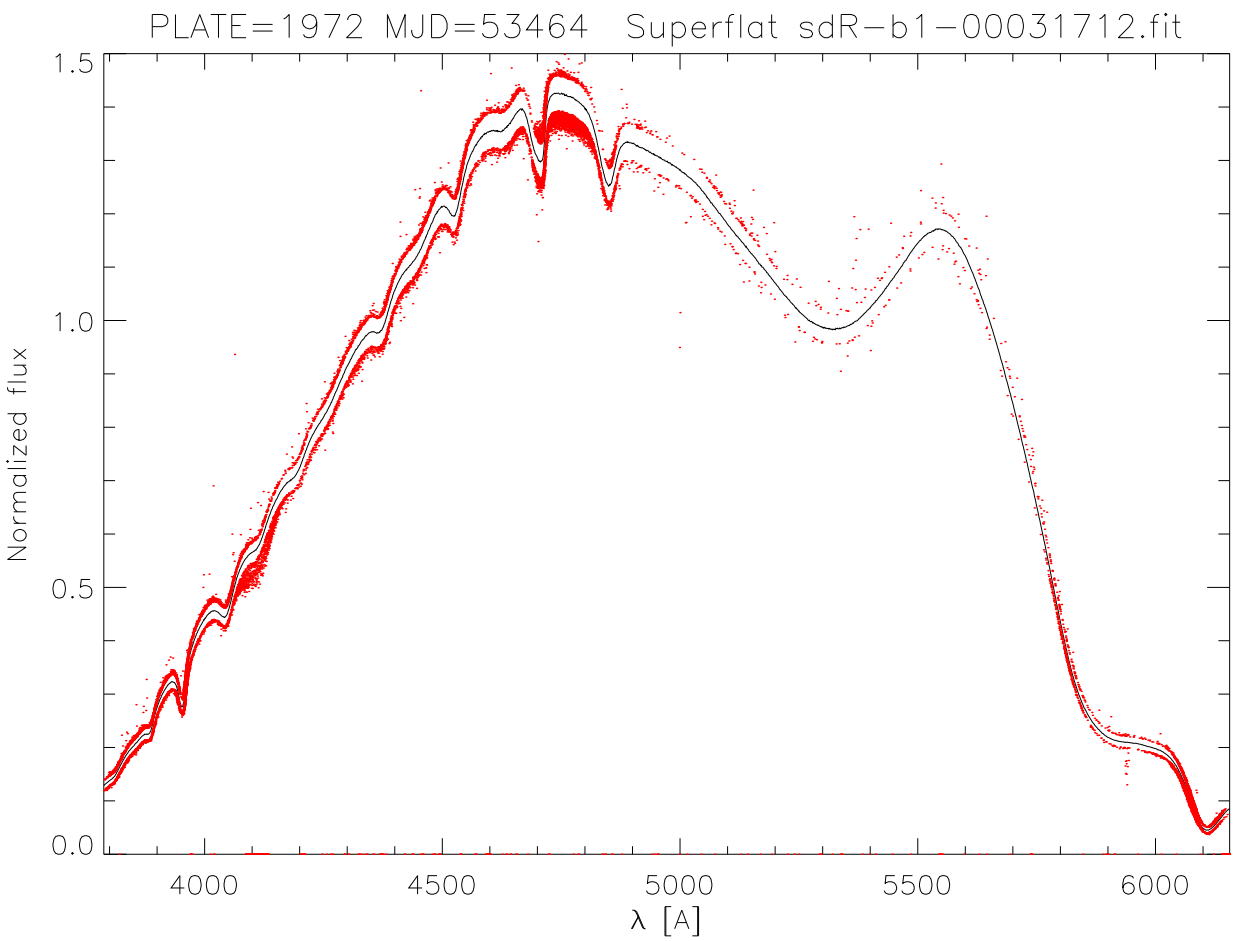

offset coeff residuals from ord=3 poly
1×10^-4
5×10^-5
0
−5×10^-5
−1×10^-4
0
50
100
150
200
250
300
fiber

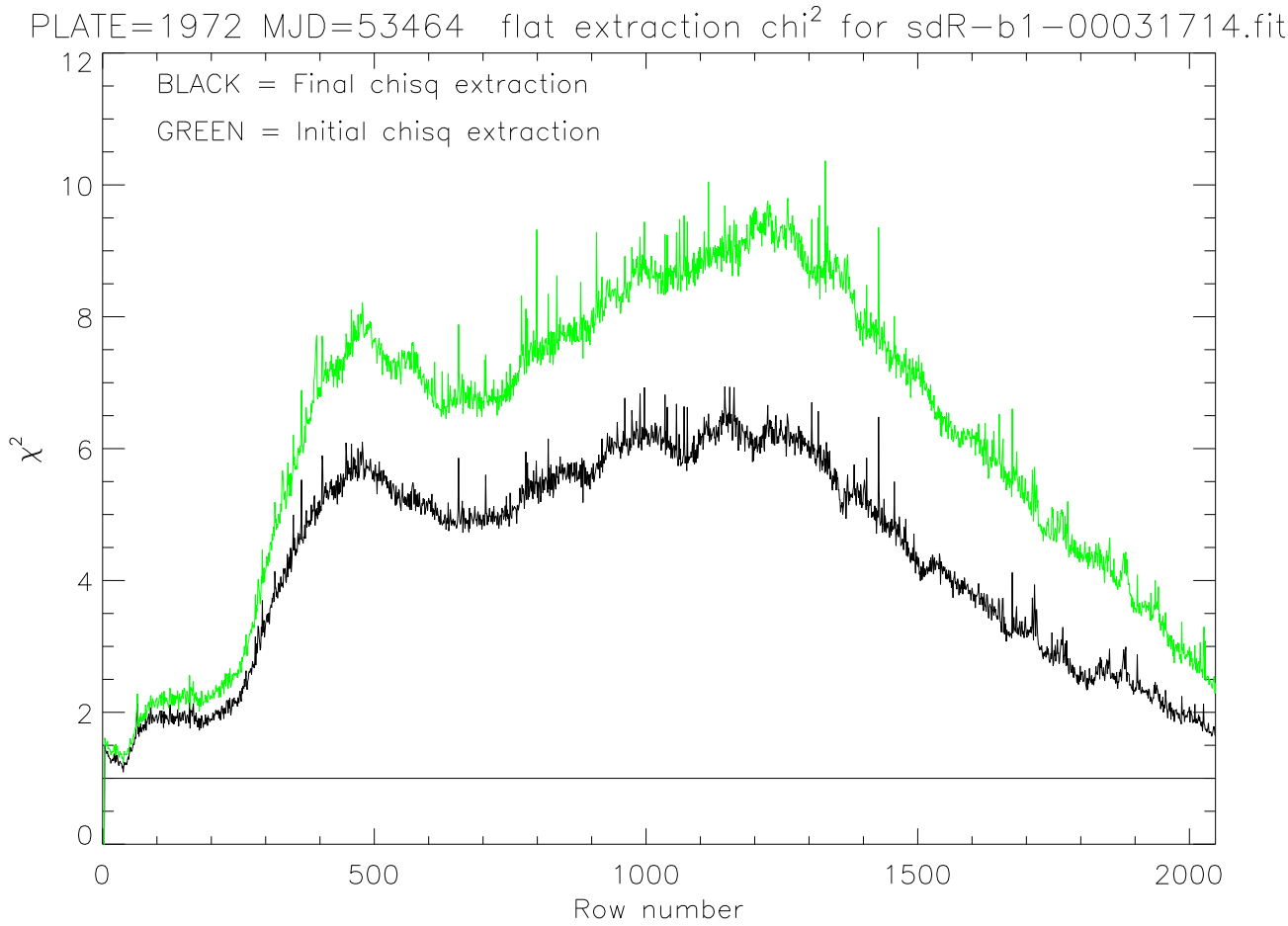

scale coeff residuals from ord=3 poly
3×10⁻⁵
2×10⁻⁵
1×10⁻⁵
0
−1×10⁻⁵
−2×10⁻⁵
−3×10⁻⁵
0
50
100
150
200
250
300
fiber

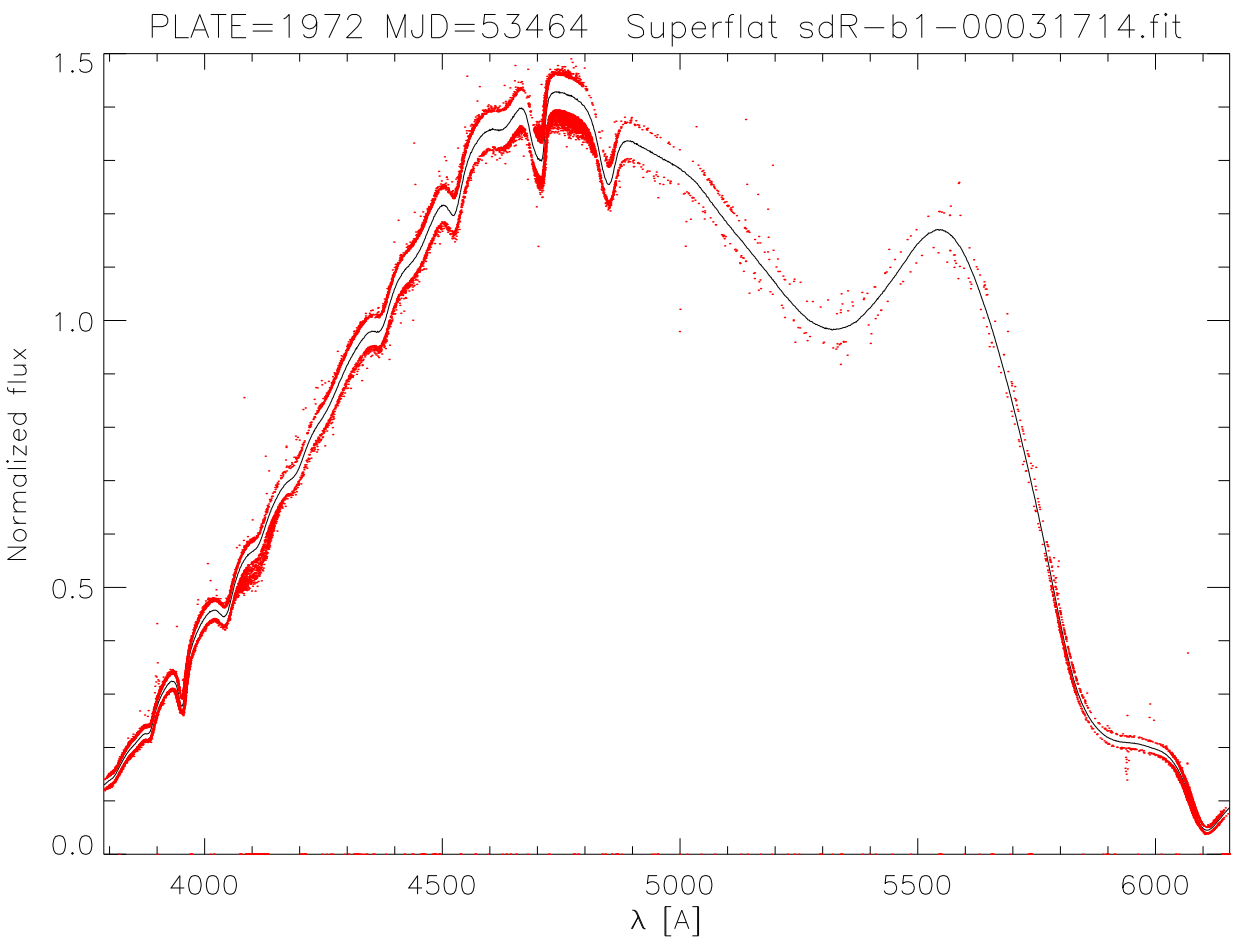

offset coeff residuals from ord=3 poly
1×10^-4
5×10^-5
0
−5×10^-5
−1×10^-4
0
50
100
150
200
250
300
fiber

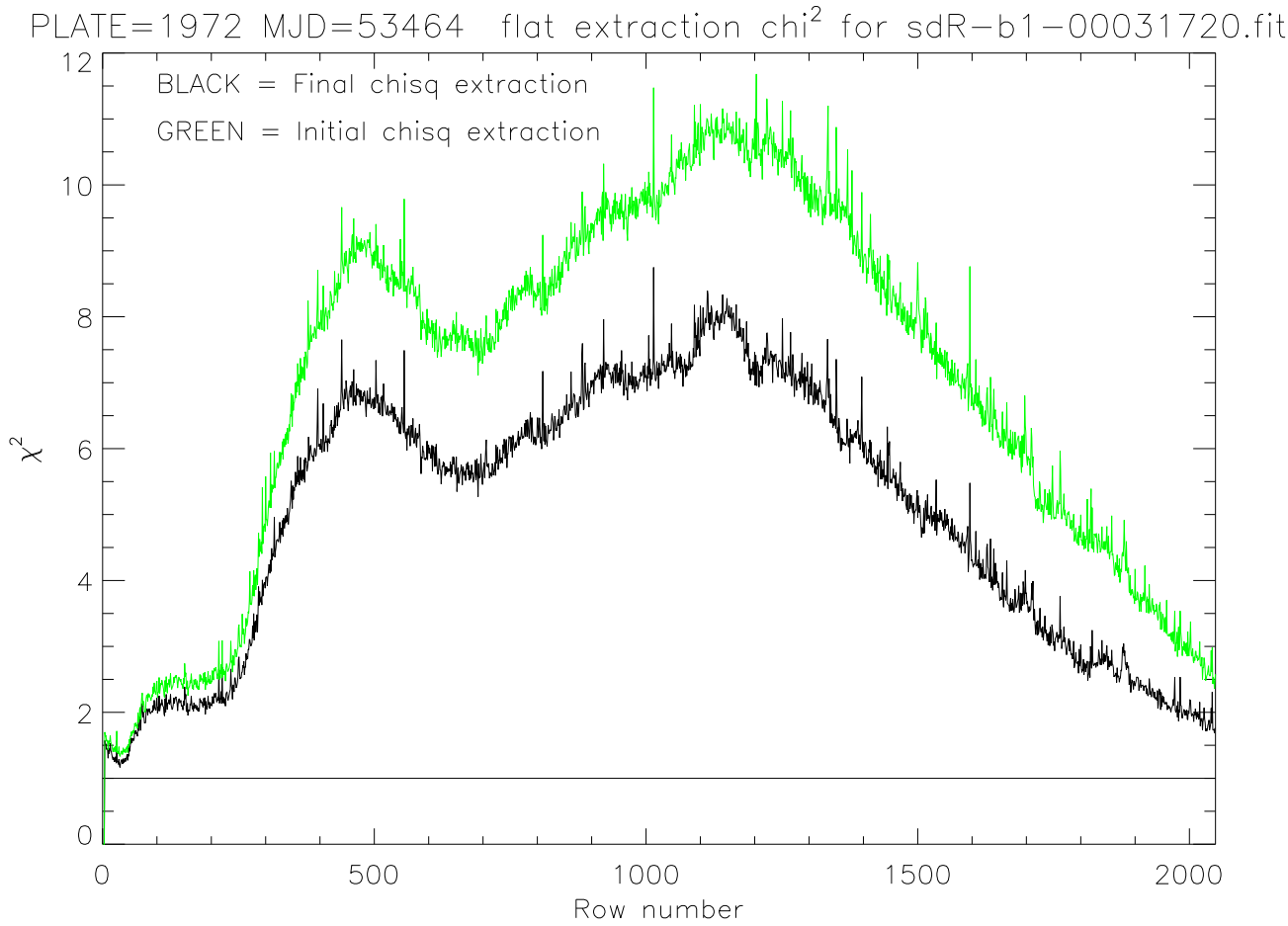

scale coeff residuals from ord=3 poly
3×10⁻⁵
2×10⁻⁵
1×10⁻⁵
0
−1×10⁻⁵
−2×10⁻⁵
−3×10⁻⁵
0
50
100
150
200
250
300
fiber

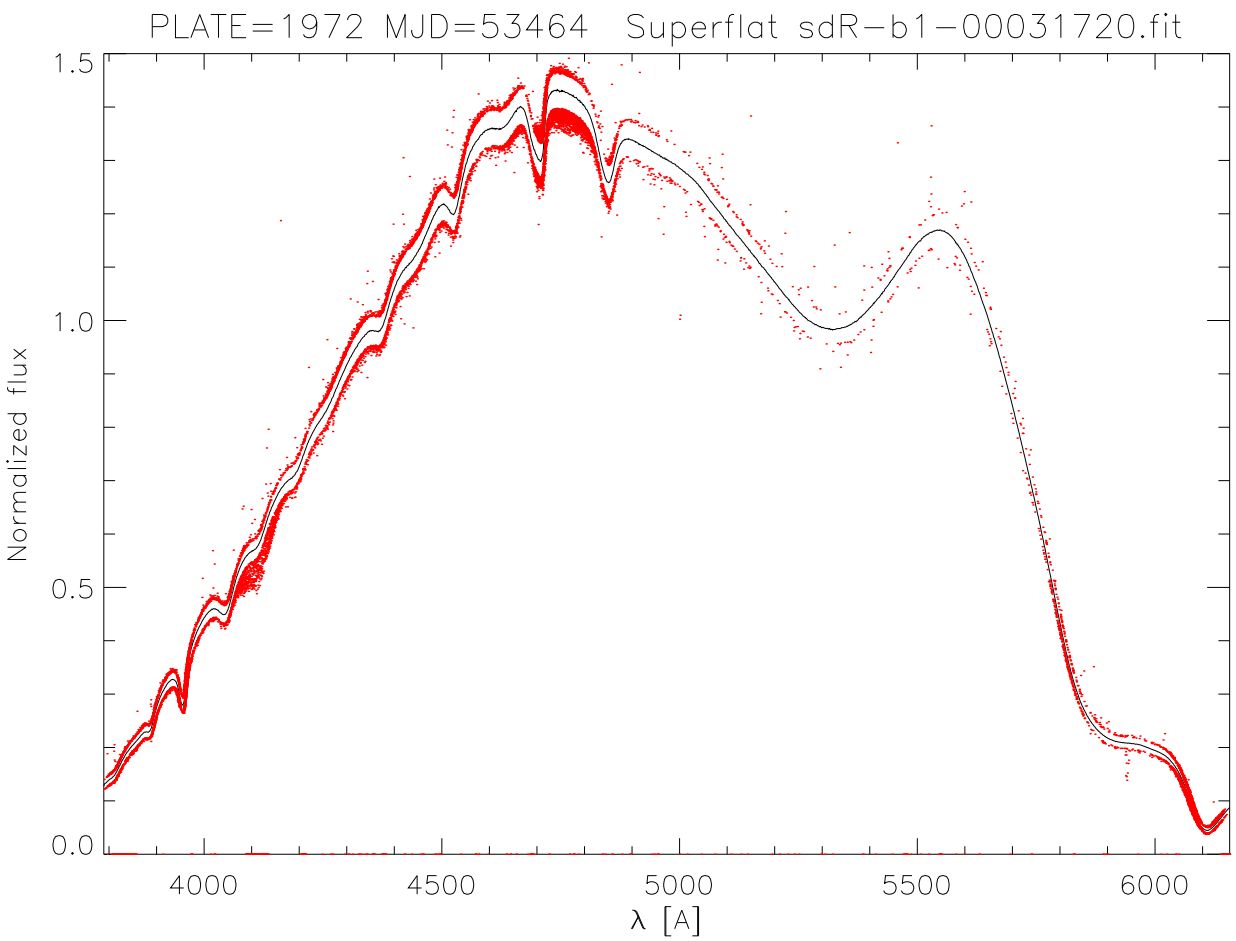

PLATE=1972 MJD=53464 flat extraction chi^2 for sdR−b1−00031712.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
2
4
6
8
10
12
0
500
1000
1500
2000

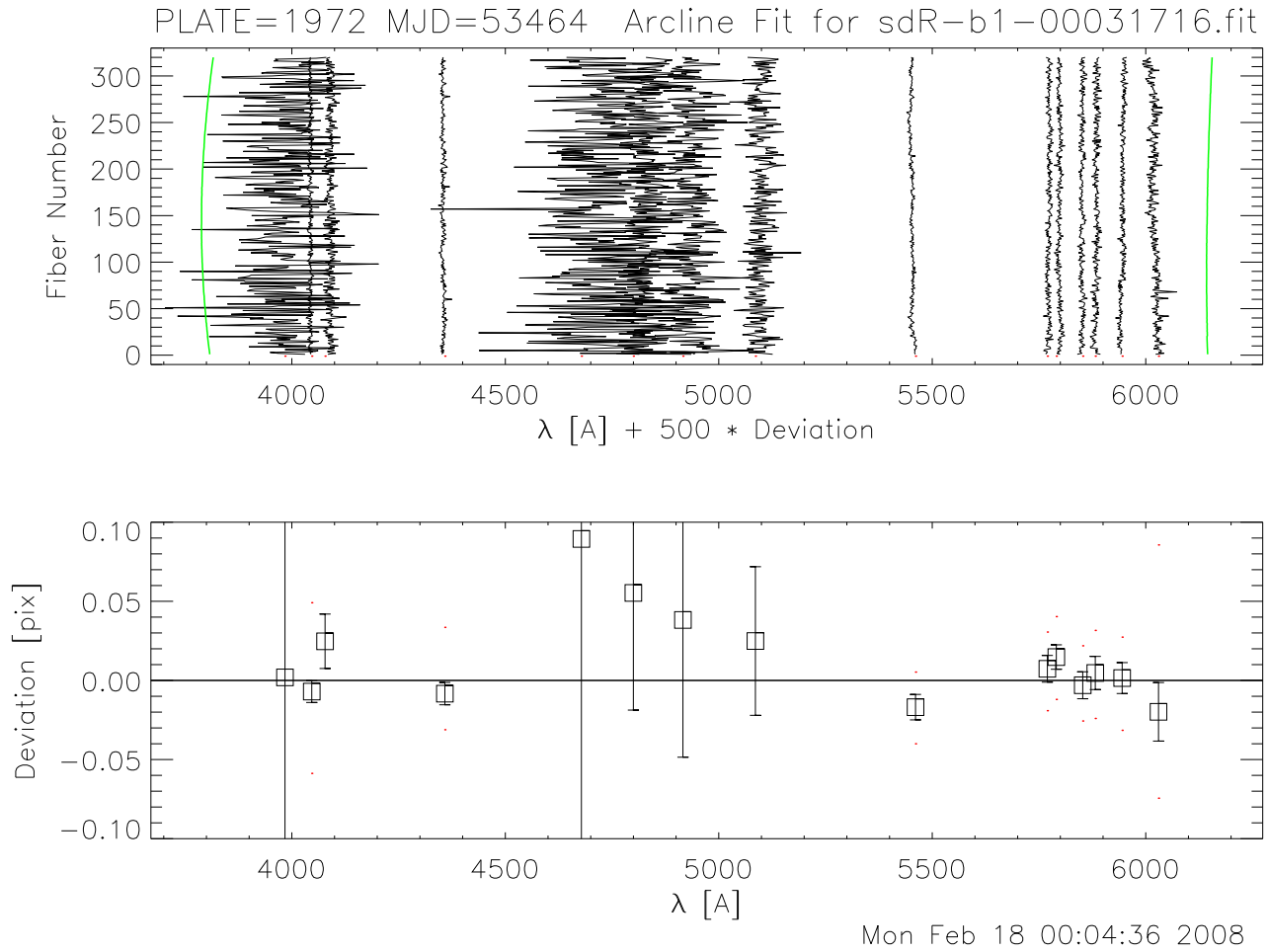

PLATE=1972 MJD=53464 Superflat sdR-b1-00031712.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

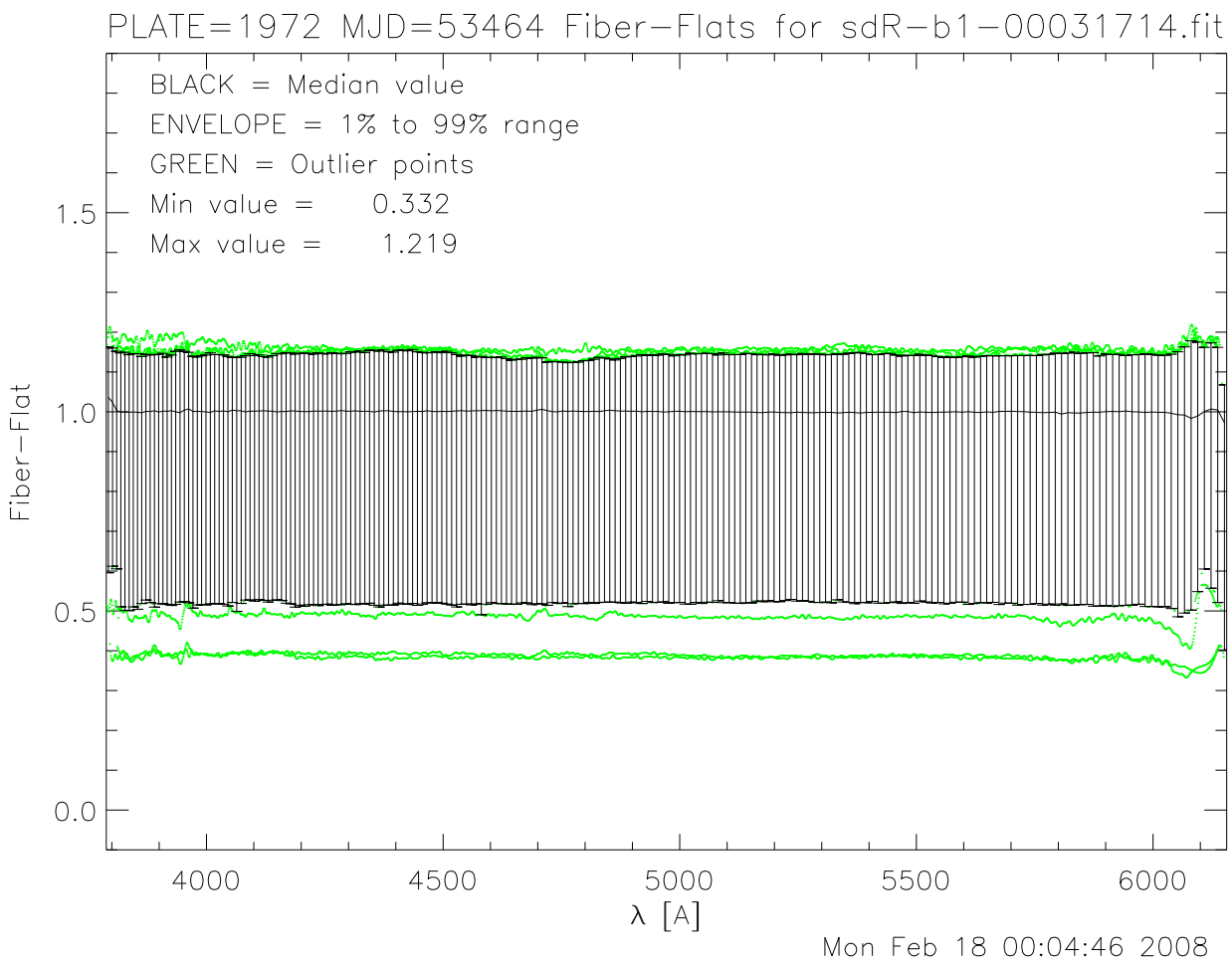

PLATE=1972 MJD=53464 flat extraction chi^2 for sdR−b1−00031714.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
2
4
6
8
10
12
0
500
1000
1500
2000

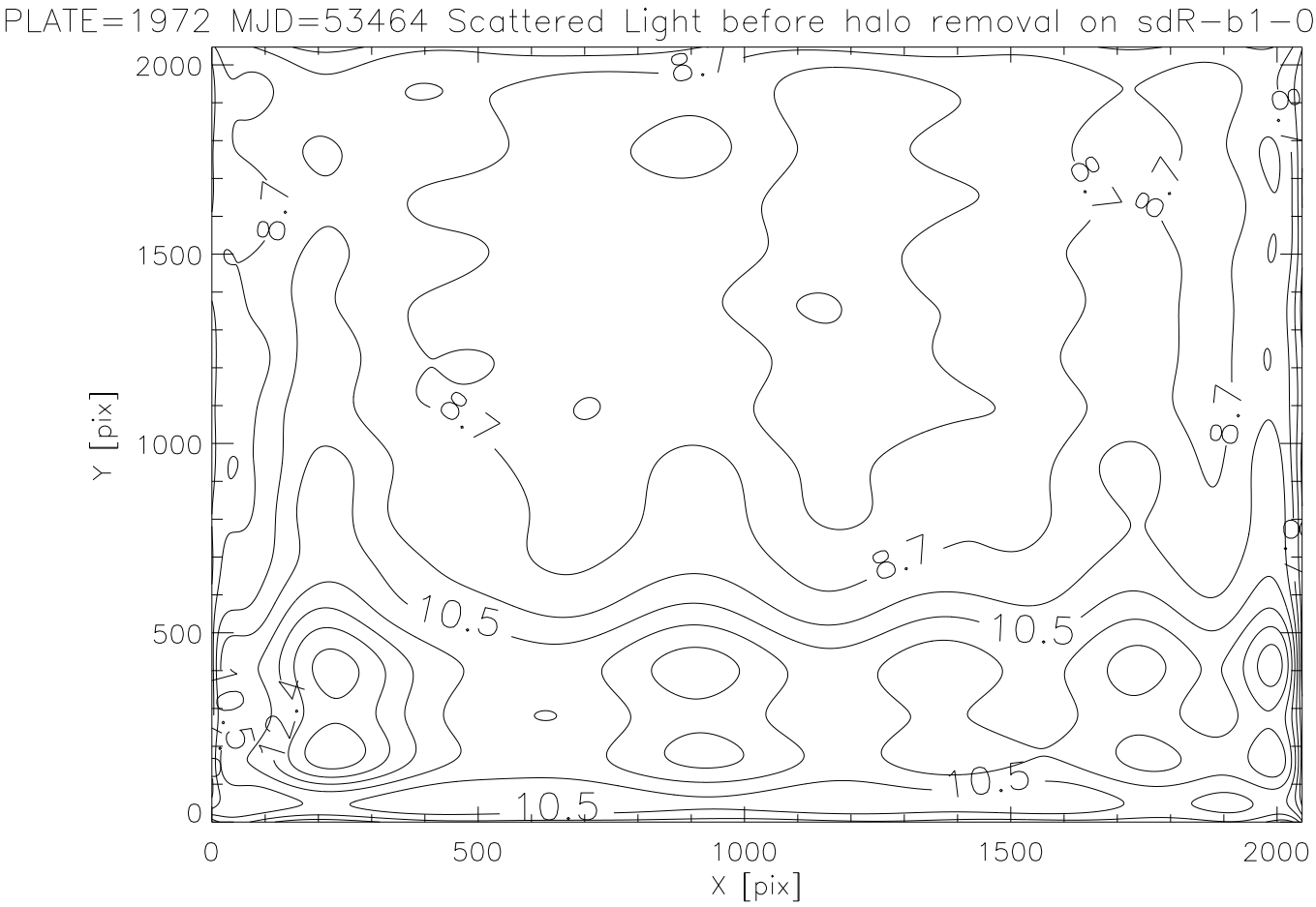

PLATE=1972 MJD=53464 Superflat sdR-b1-00031714.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

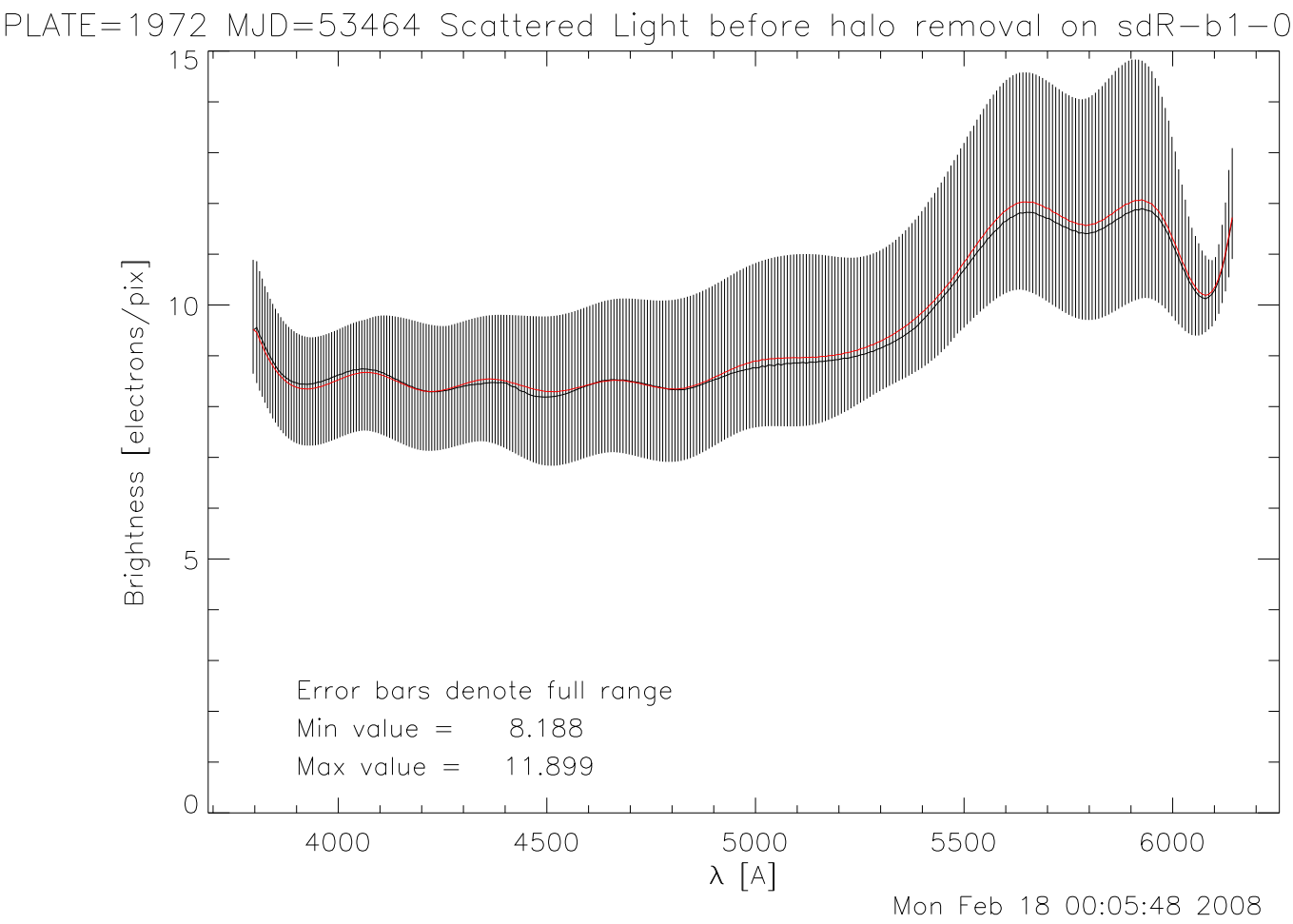

PLATE=1972 MJD=53464 flat extraction chi^2 for sdR−b1−00031720.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
2
4
6
8
10
12
0
500
1000
1500
2000

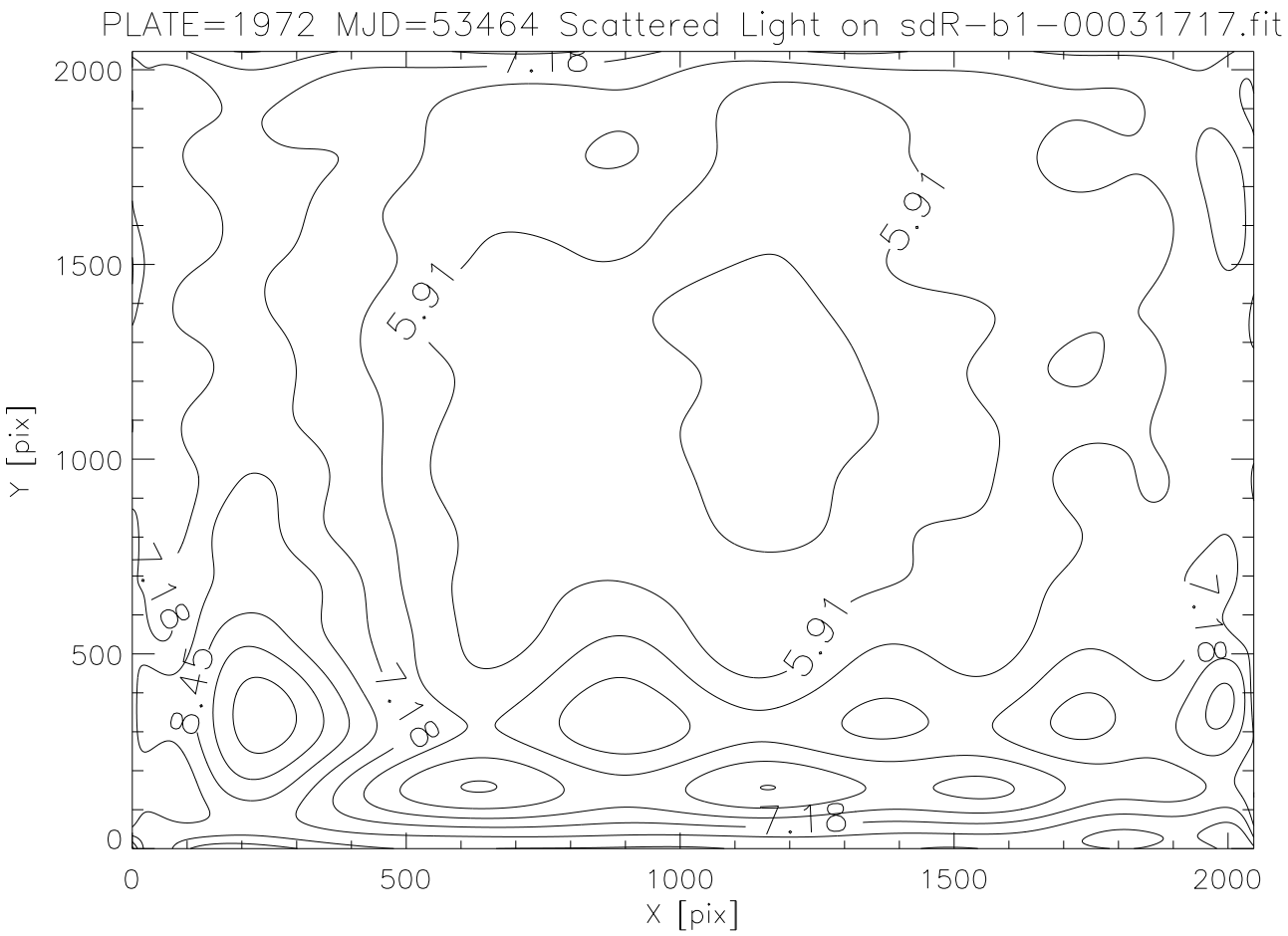

PLATE=1972 MJD=53464 Superflat sdR-b1-00031720.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

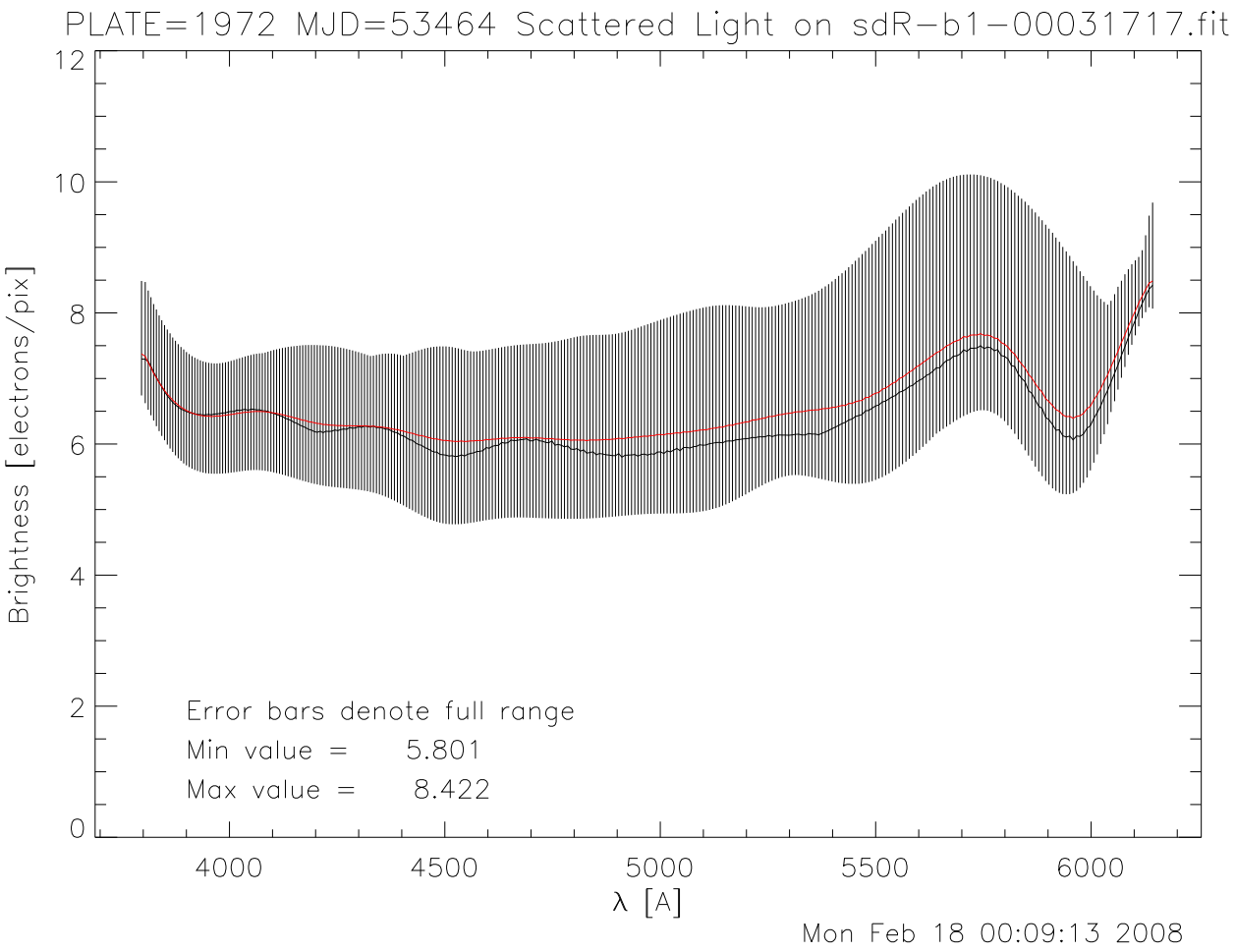

PLATE=1972 MJD=53464 Arcline Fit for sdR-b1-00031716.fit
Fiber Number
300
250
200
150
100
50
0
4000
4500
5000
5500
6000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
4000
4500
5000
5500
6000
λ [A]
Mon Feb 18 00:04:36 2008

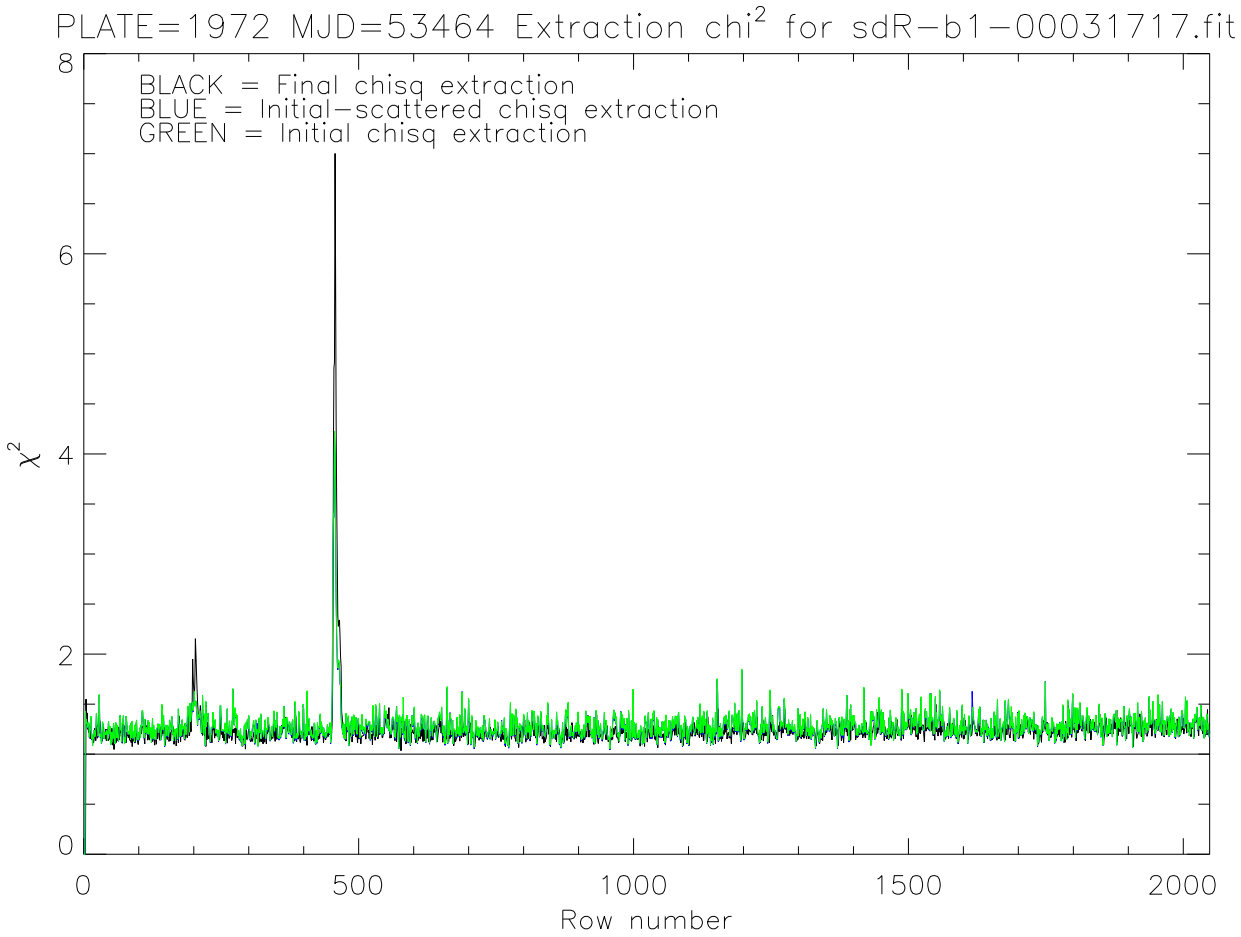

PLATE=1972 MJD=53464 Fiber−Flats for sdR−b1−00031714.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.332
Max value = 1.219
Fiber−Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Mon Feb 18 00:04:46 2008

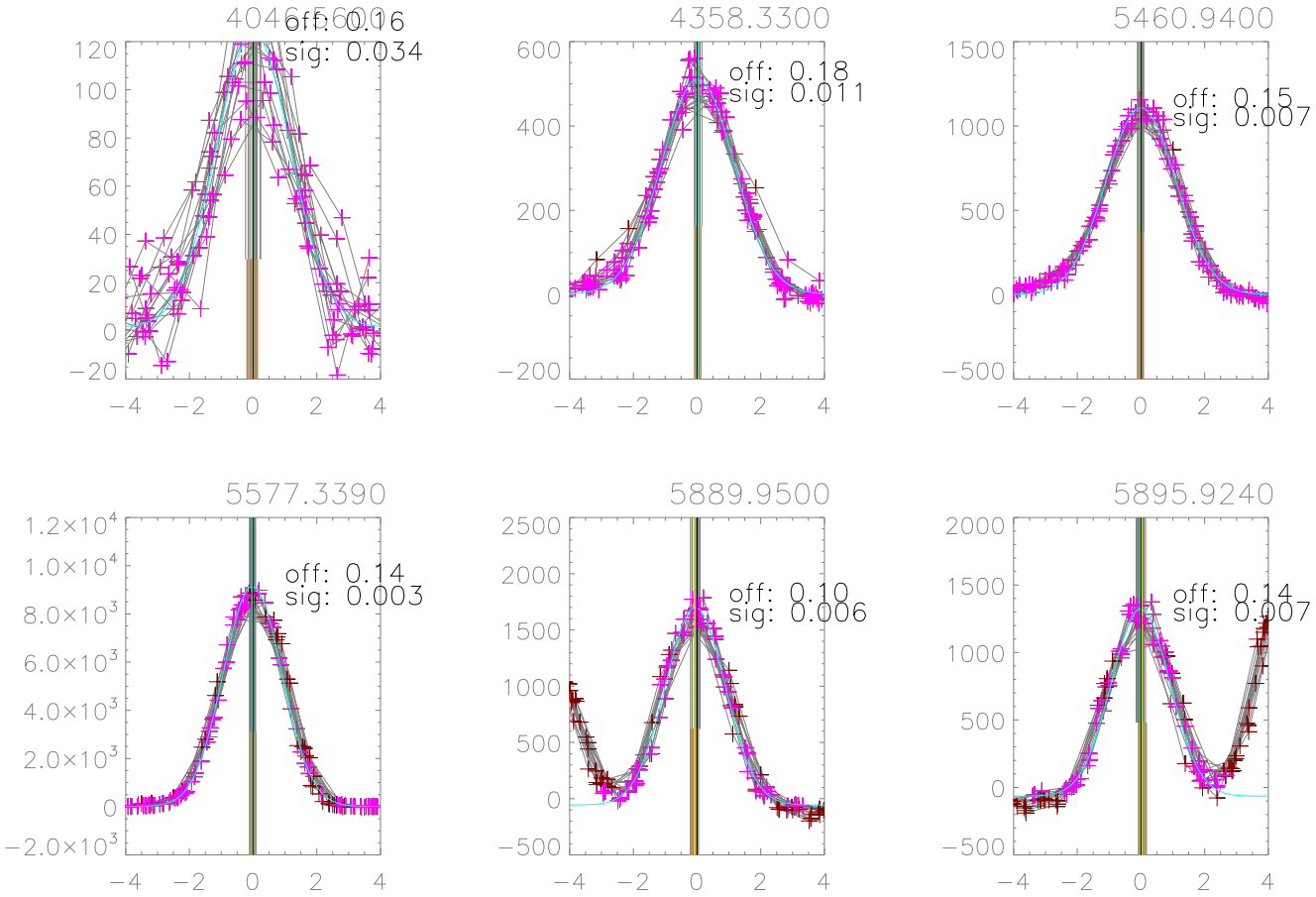

PLATE=1972 MJD=53464 Scattered Light before halo removal on sdR-b1-00031717.f
Y [pix]
X [pix]
0
500
1000
1500
2000
8.7
10.5
12.4

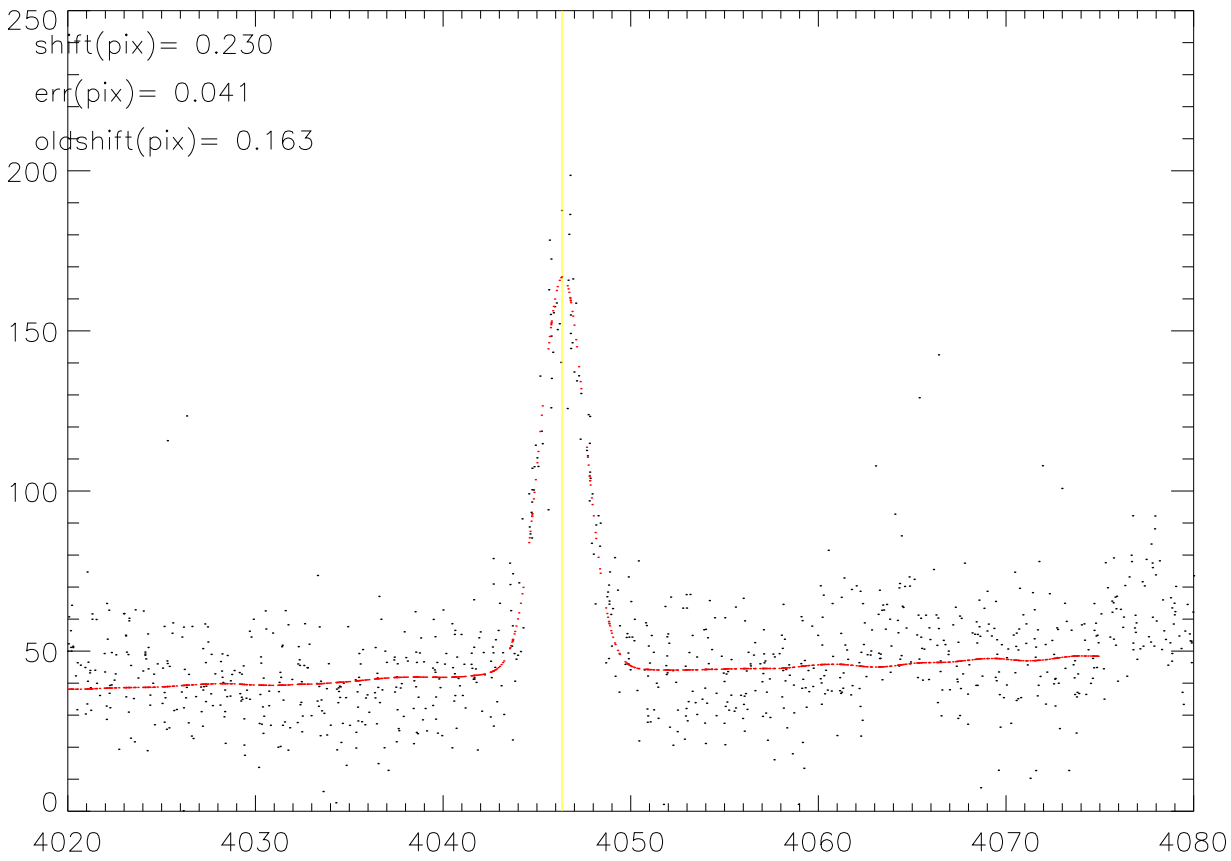

PLATE=1972 MJD=53464 Scattered Light before halo removal on sdR-b1-00031717.f
Brightness [electrons/pix]
15
10
5
0
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 8.188
Max value = 11.899
Mon Feb 18 00:05:48 2008

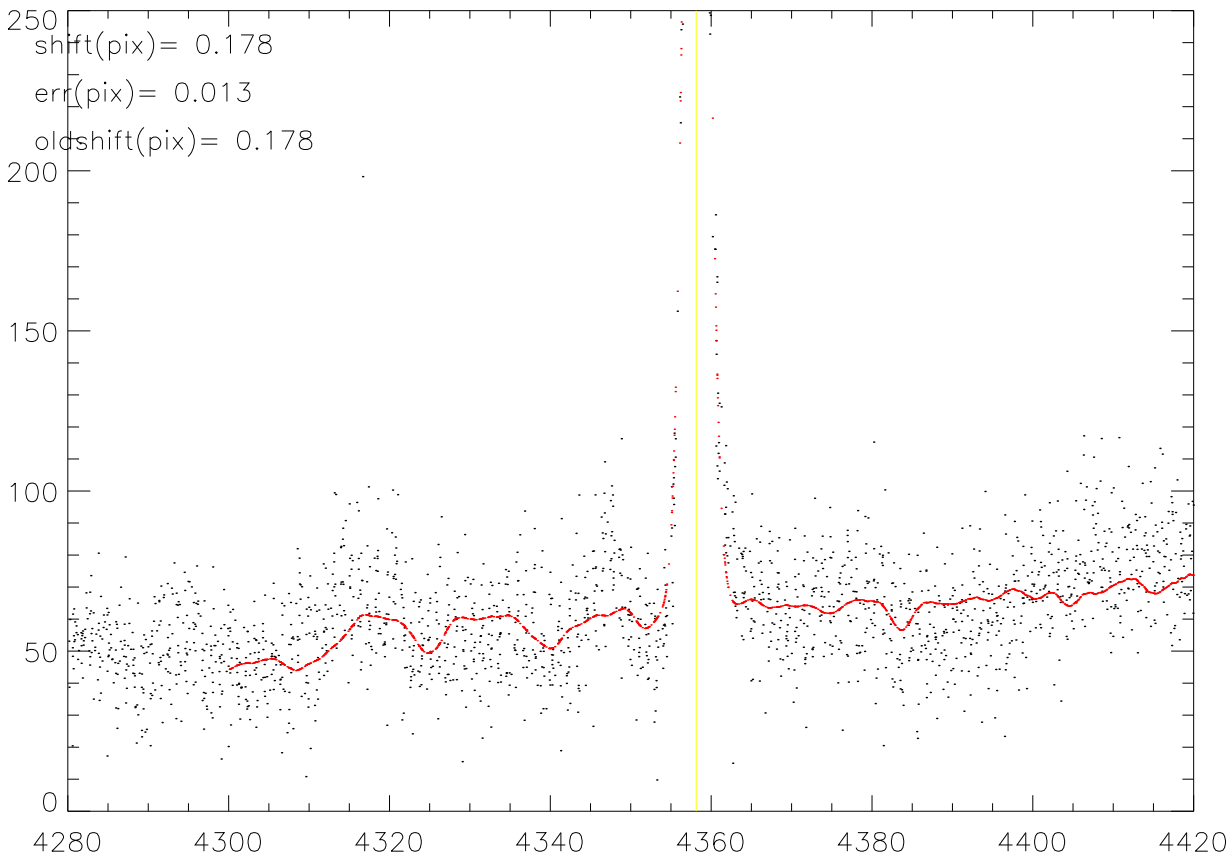

PLATE=1972 MJD=53464 Scattered Light on sdR-b1-00031717.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
7.18
5.91
8.45

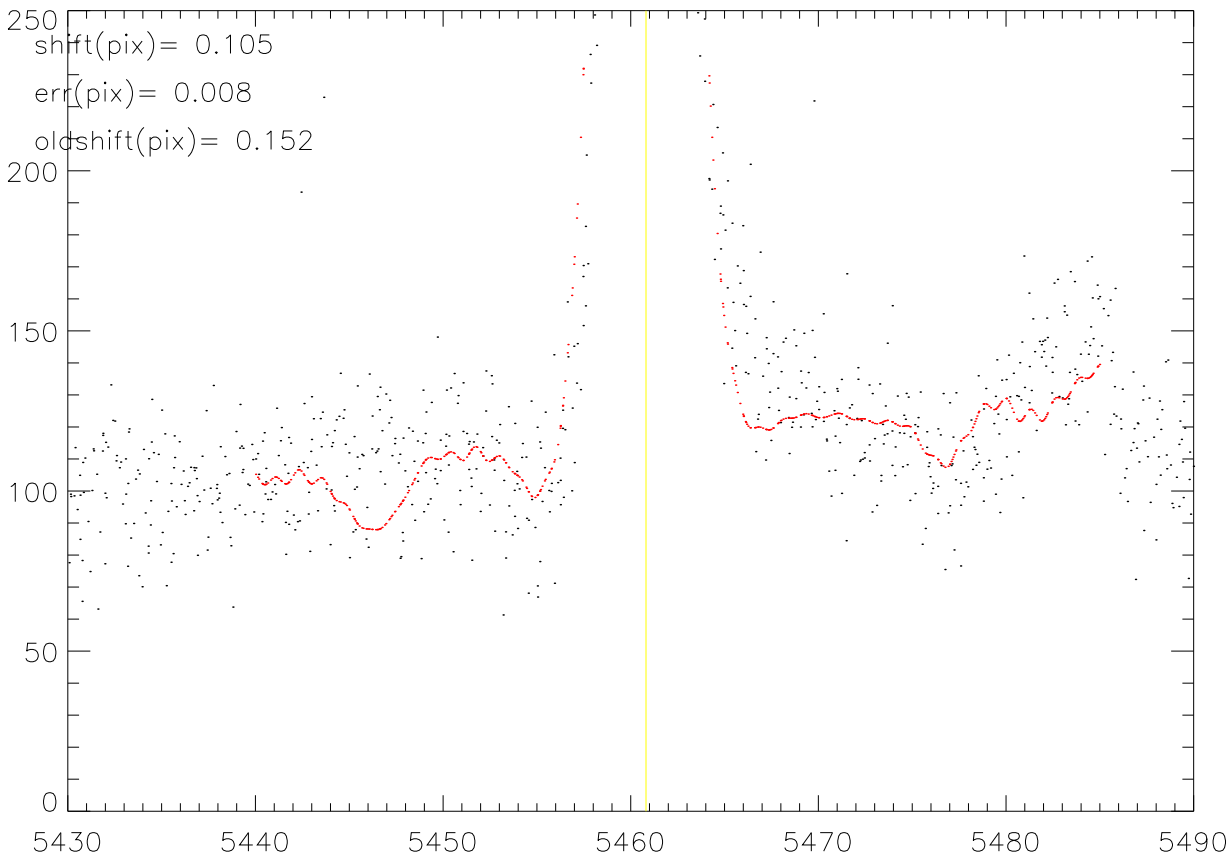

PLATE=1972 MJD=53464 Scattered Light on sdR-b1-00031717.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 5.801
Max value = 8.422
Mon Feb 18 00:09:13 2008

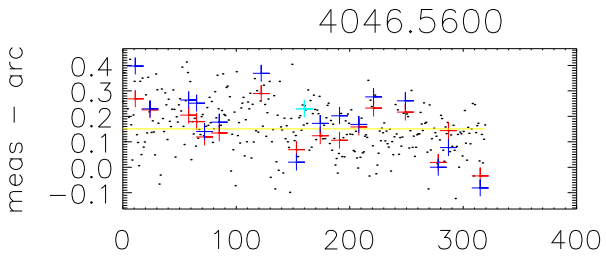

PLATE=1972 MJD=53464 Extraction chi^2 for sdR-b1-00031717.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
0
500
1000
1500
2000
Row number

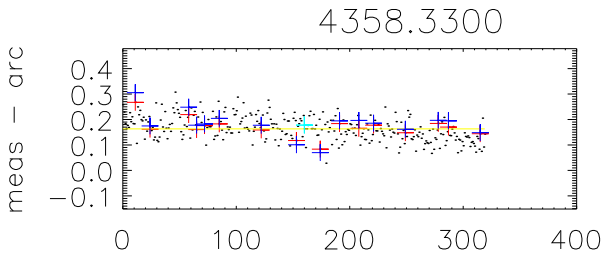

4046.5600
off: 0.16
sig: 0.034
4358.3300
off: 0.18
sig: 0.011
5460.9400
off: 0.15
sig: 0.007
5577.3390
off: 0.14
sig: 0.003
5889.9500
off: 0.10
sig: 0.006
5895.9240
off: 0.14
sig: 0.007

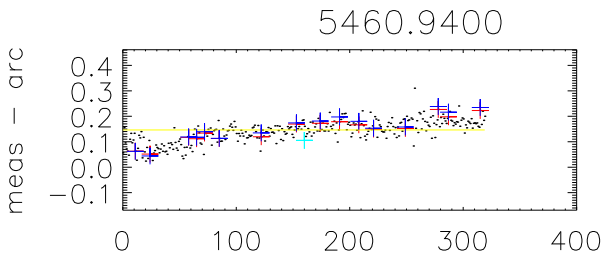

shift(pix)= 0.230
err(pix)= 0.041
oldshift(pix)= 0.163
250
200
150
100
50
0
4020
4030
4040
4050
4060
4070
4080

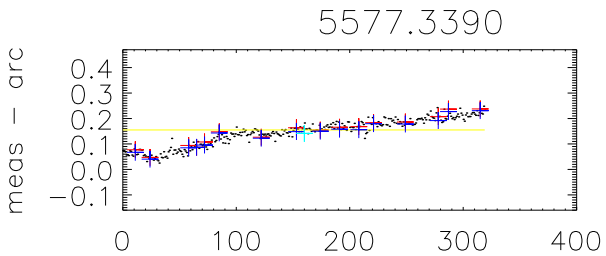

shift(pix)= 0.178
err(pix)= 0.013
oldshift(pix)= 0.178
250
200
150
100
50
0
4280
4300
4320
4340
4360
4380
4400
4420

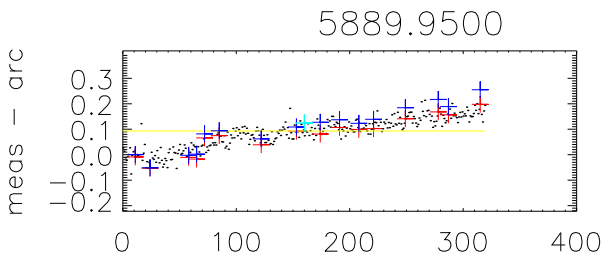

shift(pix)= 0.105
err(pix)= 0.008
oldshift(pix)= 0.152
250
200
150
100
50
0
5430
5440
5450
5460
5470
5480
5490

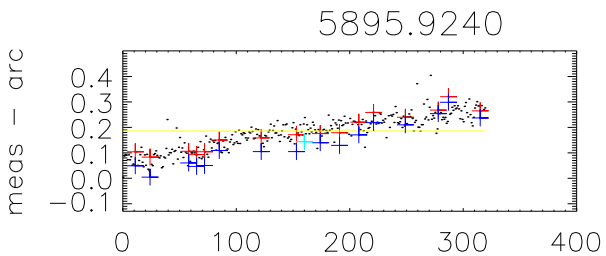

4046.5600
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

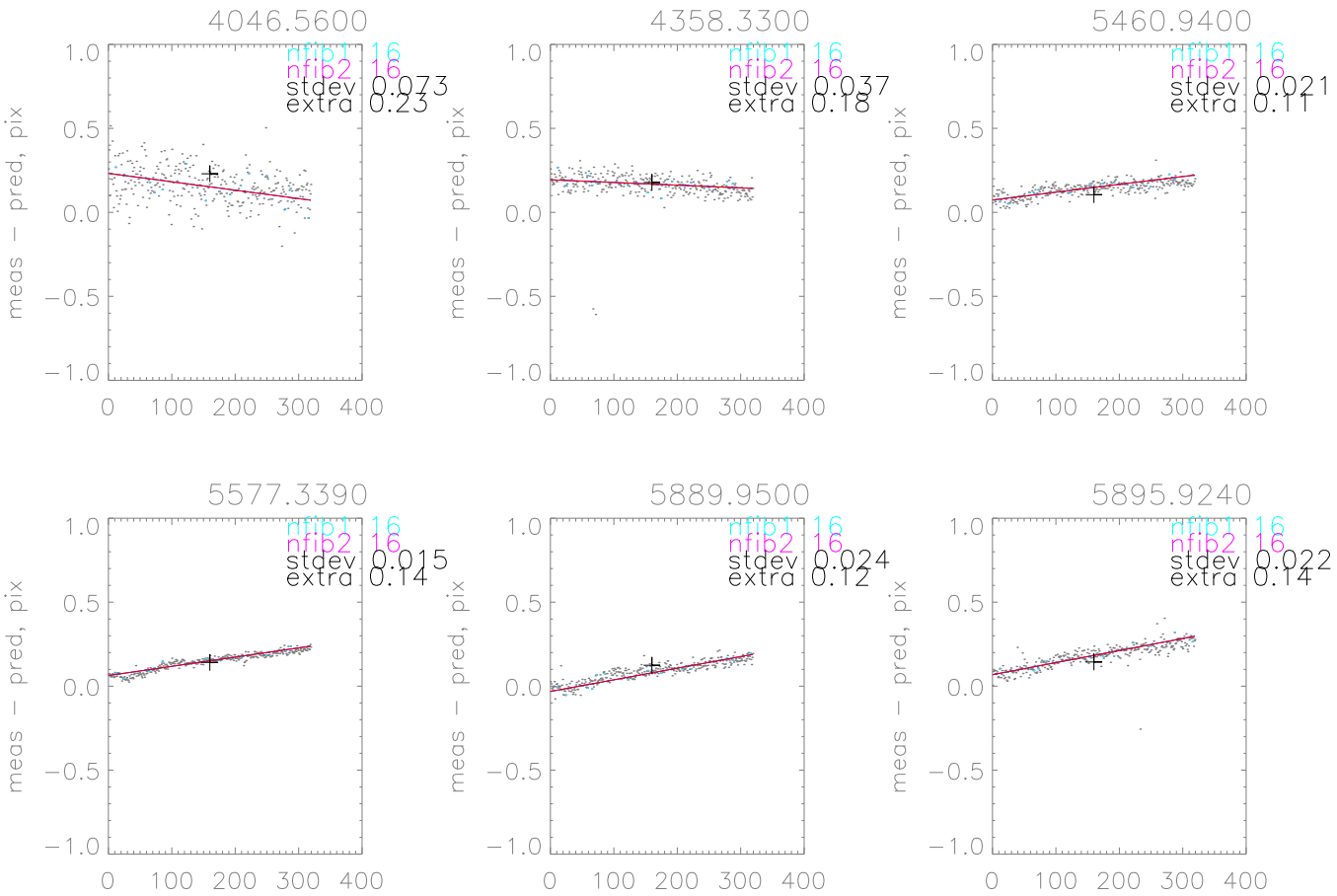

4358.3300
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

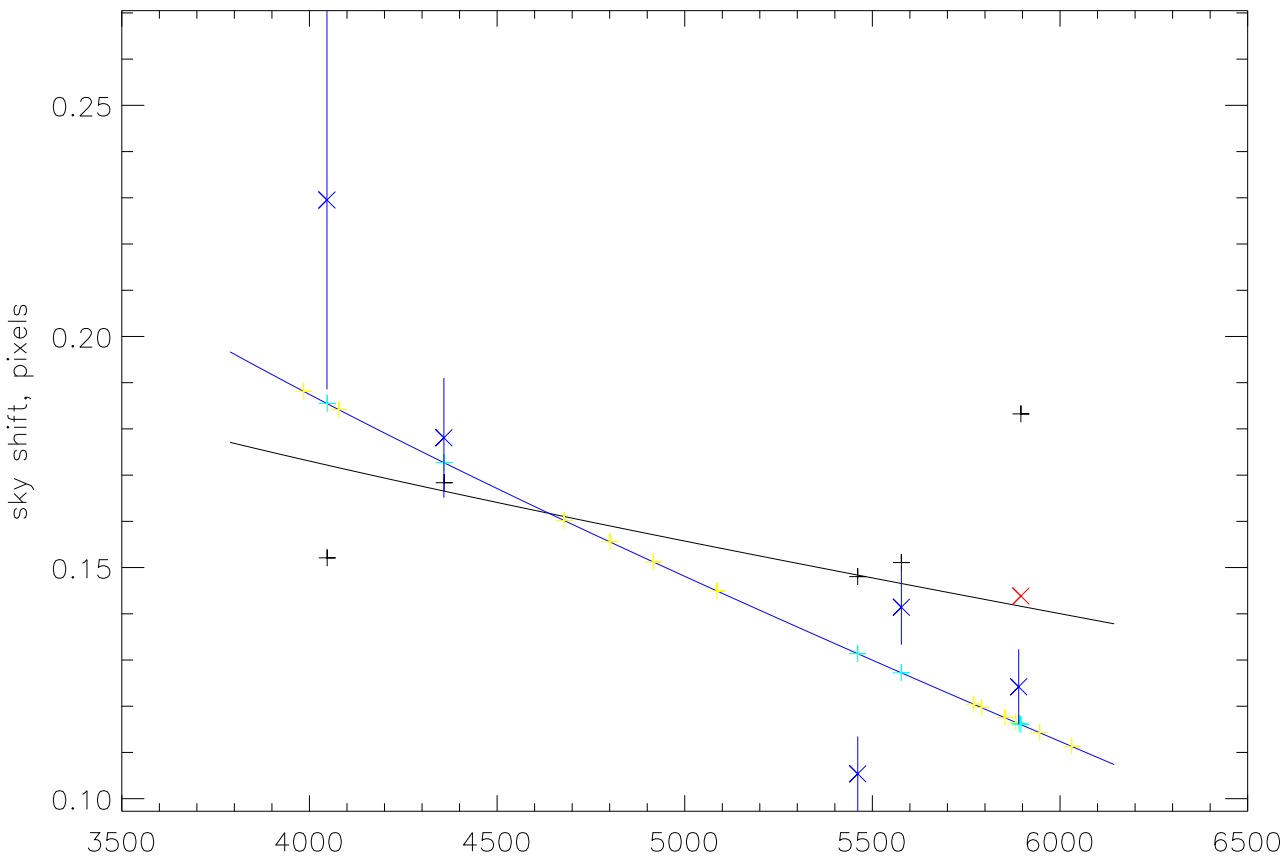

5460.9400
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400


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

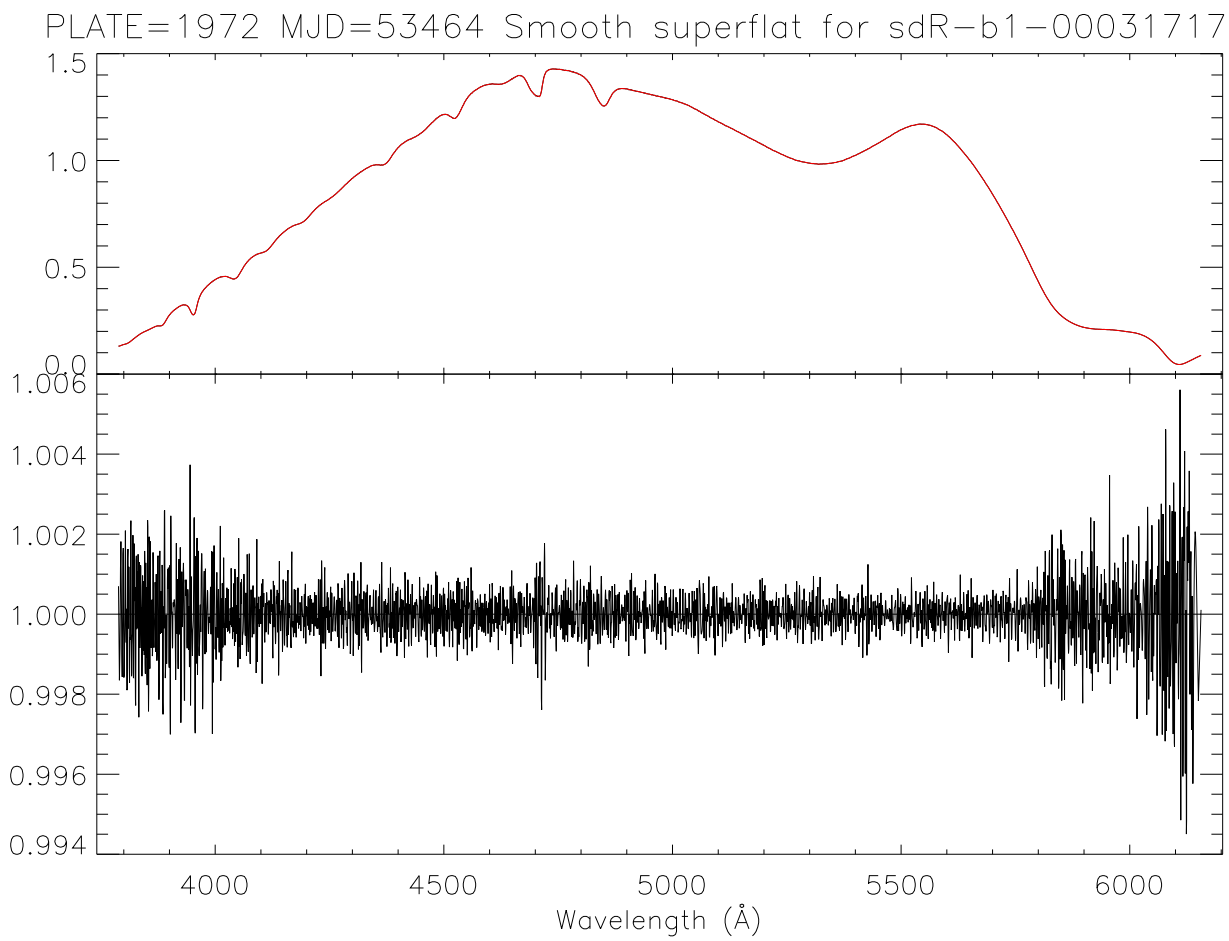

5889.9500
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

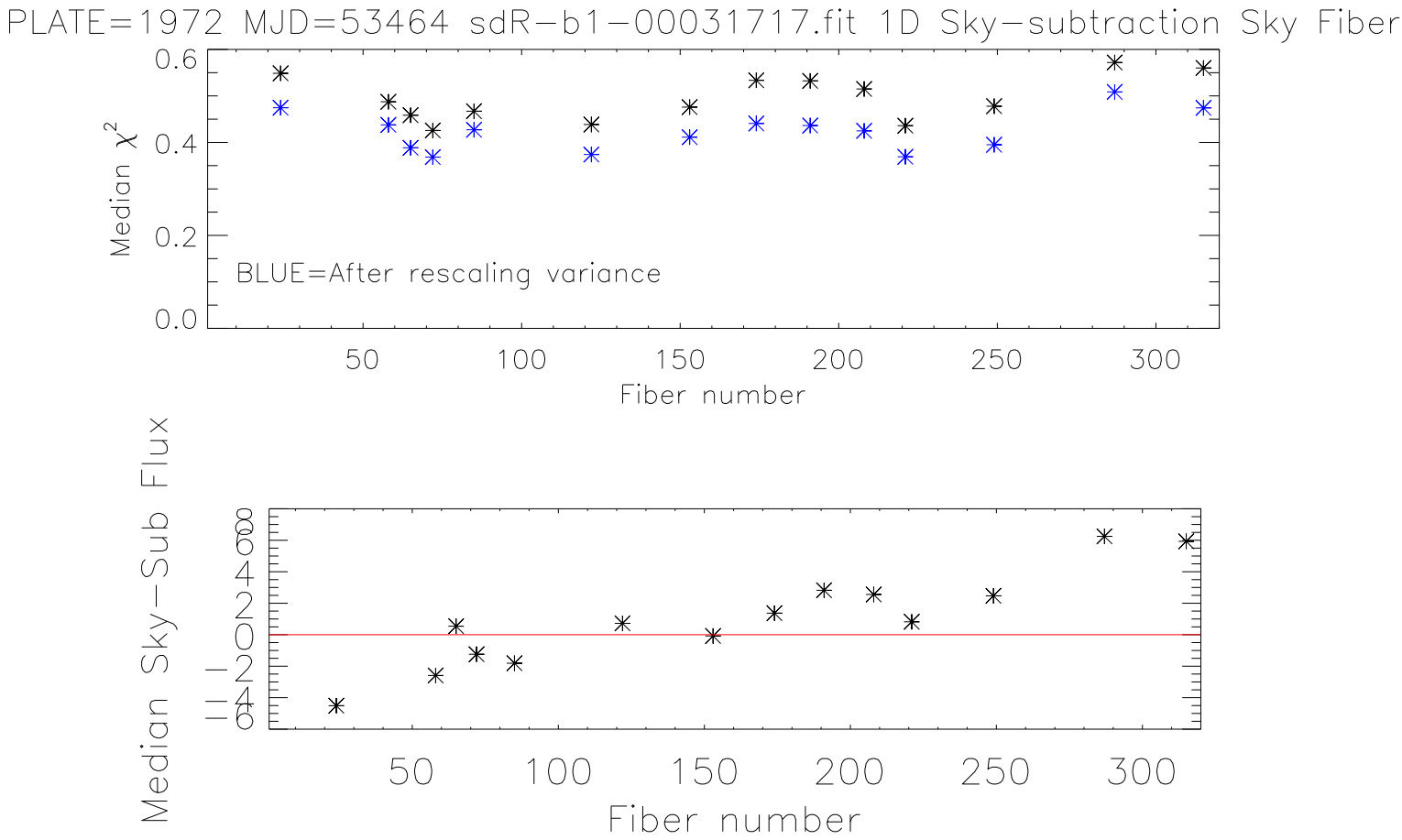

5895.9240
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

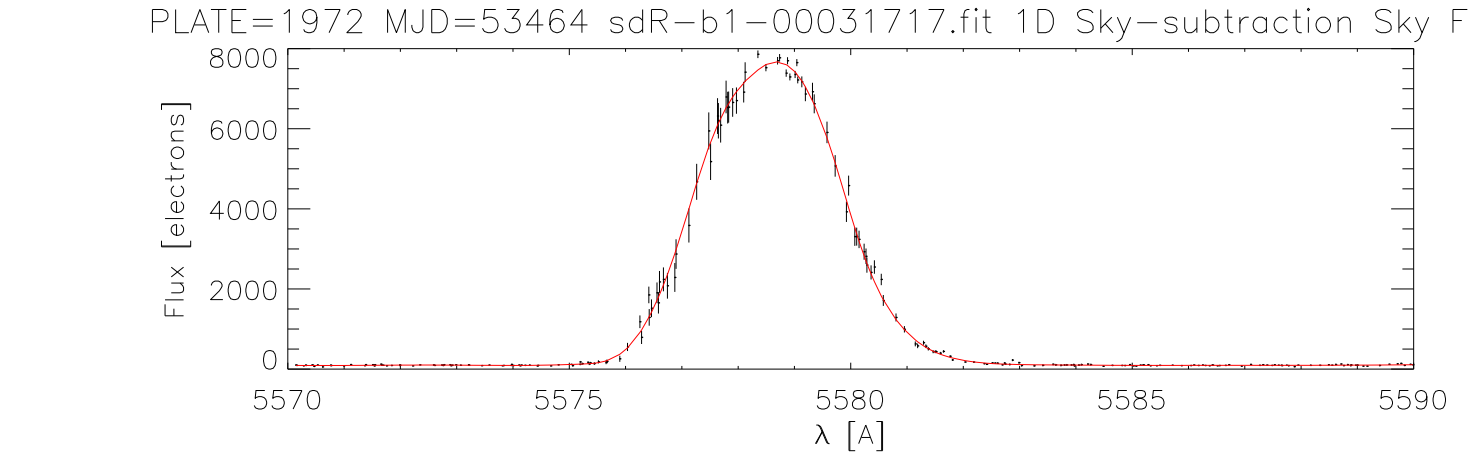

4046.5600
nfib1 16
nfib2 16
stdev 0.073
extra 0.23
4358.3300
nfib1 16
nfib2 16
stdev 0.037
extra 0.18
5460.9400
nfib1 16
nfib2 16
stdev 0.021
extra 0.11
5577.3390
nfib1 16
nfib2 16
stdev 0.015
extra 0.14
5889.9500
nfib1 16
nfib2 16
stdev 0.024
extra 0.12
5895.9240
nfib1 16
nfib2 16
stdev 0.022
extra 0.14
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

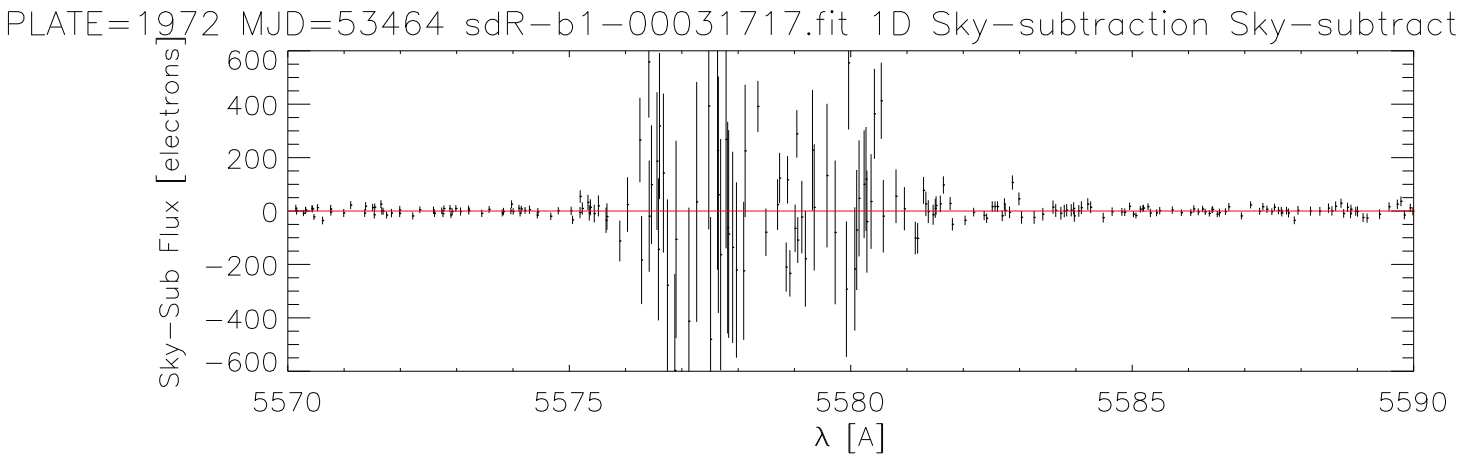

sky shift, pixels
0.25
0.20
0.15
0.10
3500
4000
4500
5000
5500
6000
6500

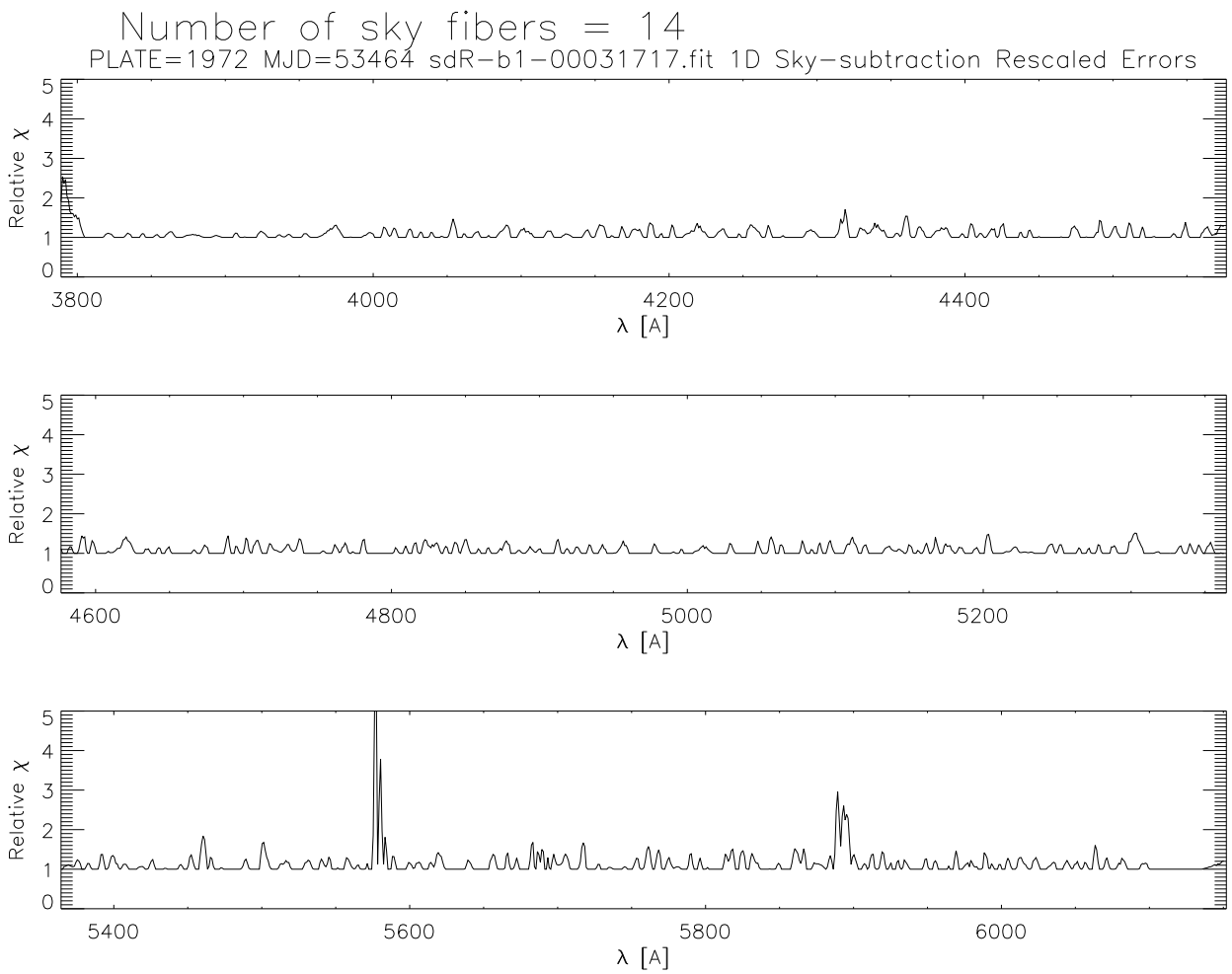
es= 0.0000

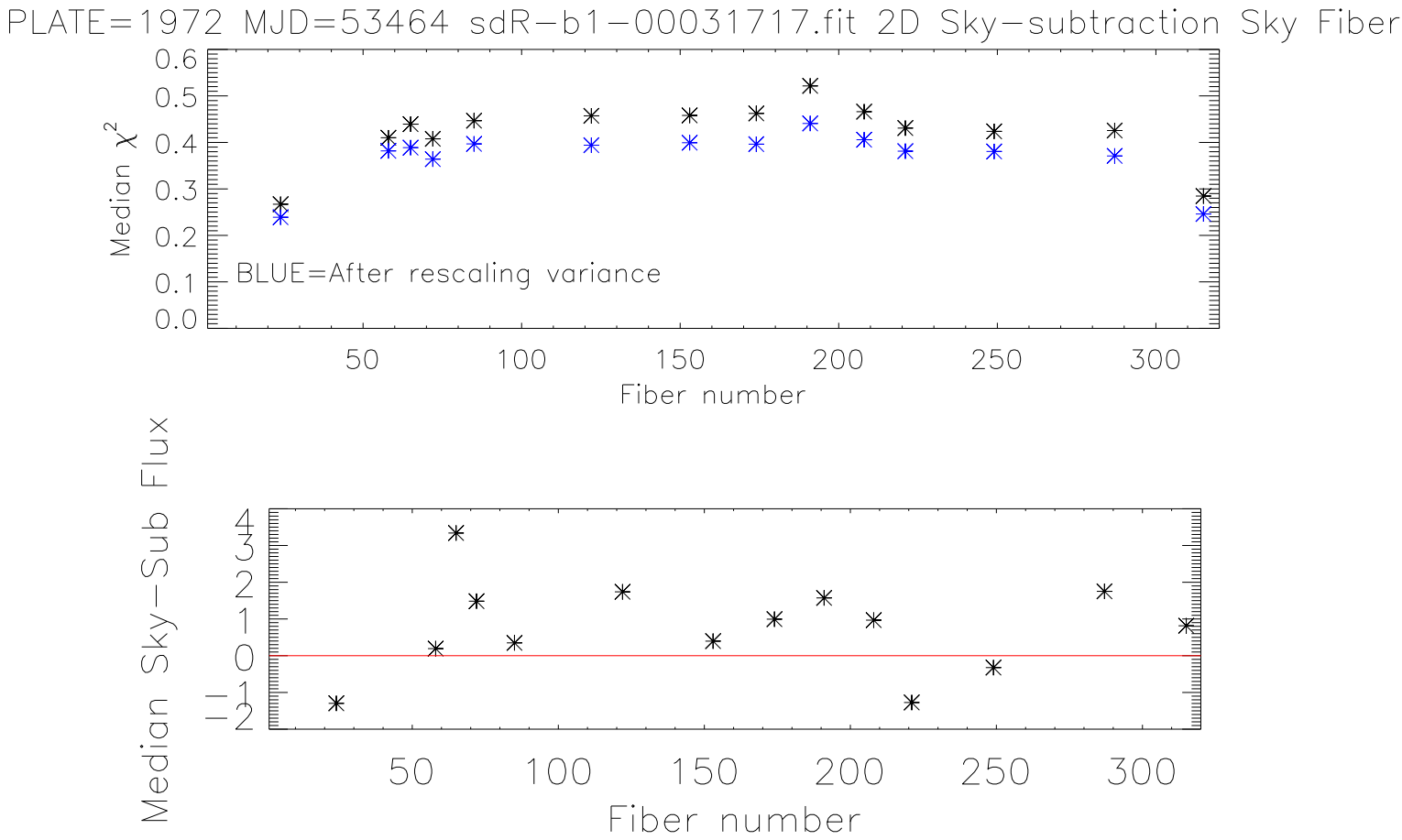

PLATE=1972 MJD=53464 Smooth superflat for sdR-b1-00031717.fit
1.5
1.0
0.5
0.0
1.006
1.004
1.002
1.000
0.998
0.996
0.994
4000
4500
5000
5500
6000
Wavelength (Å)

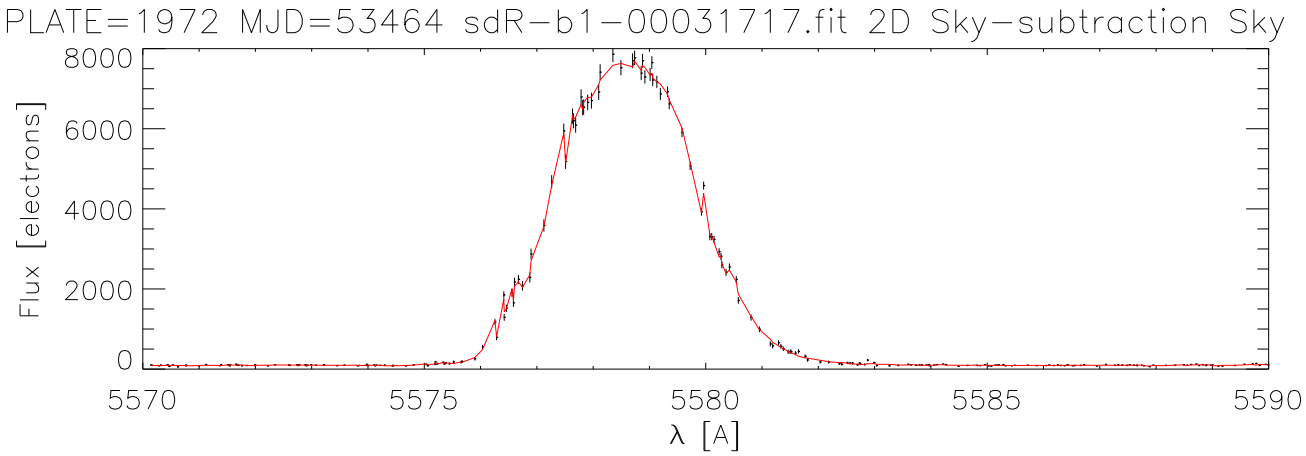

PLATE=1972 MJD=53464 sdR-b1-00031717.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.2
0.4
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-11
-6
-4
-2
0
2
4
6
8
50
100
150
200
250
300
Fiber number

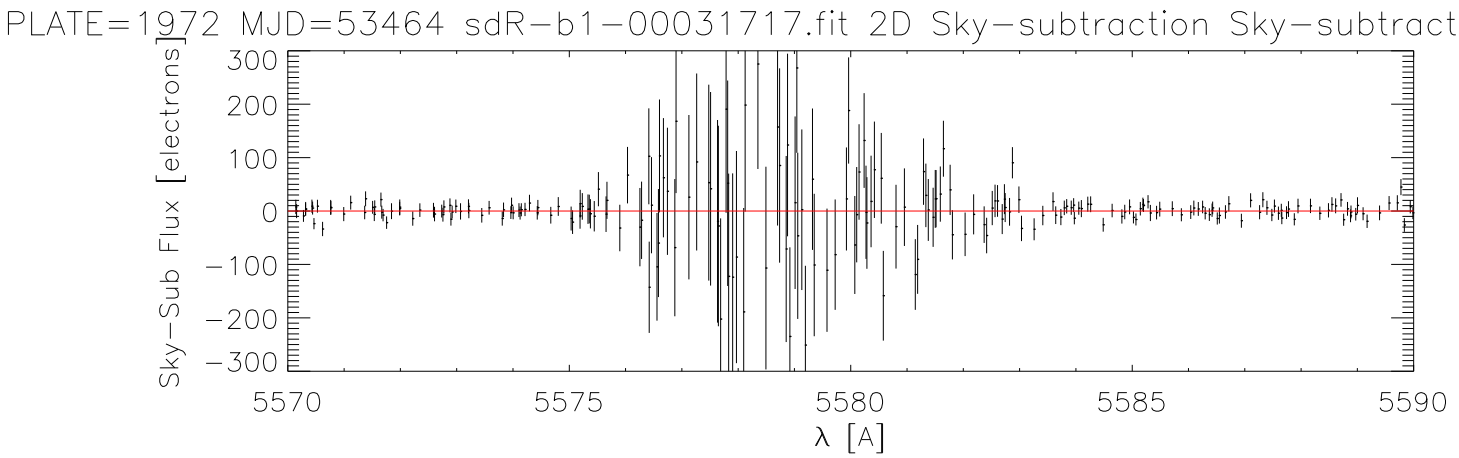

PLATE=1972 MJD=53464 sdR-b1-00031717.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

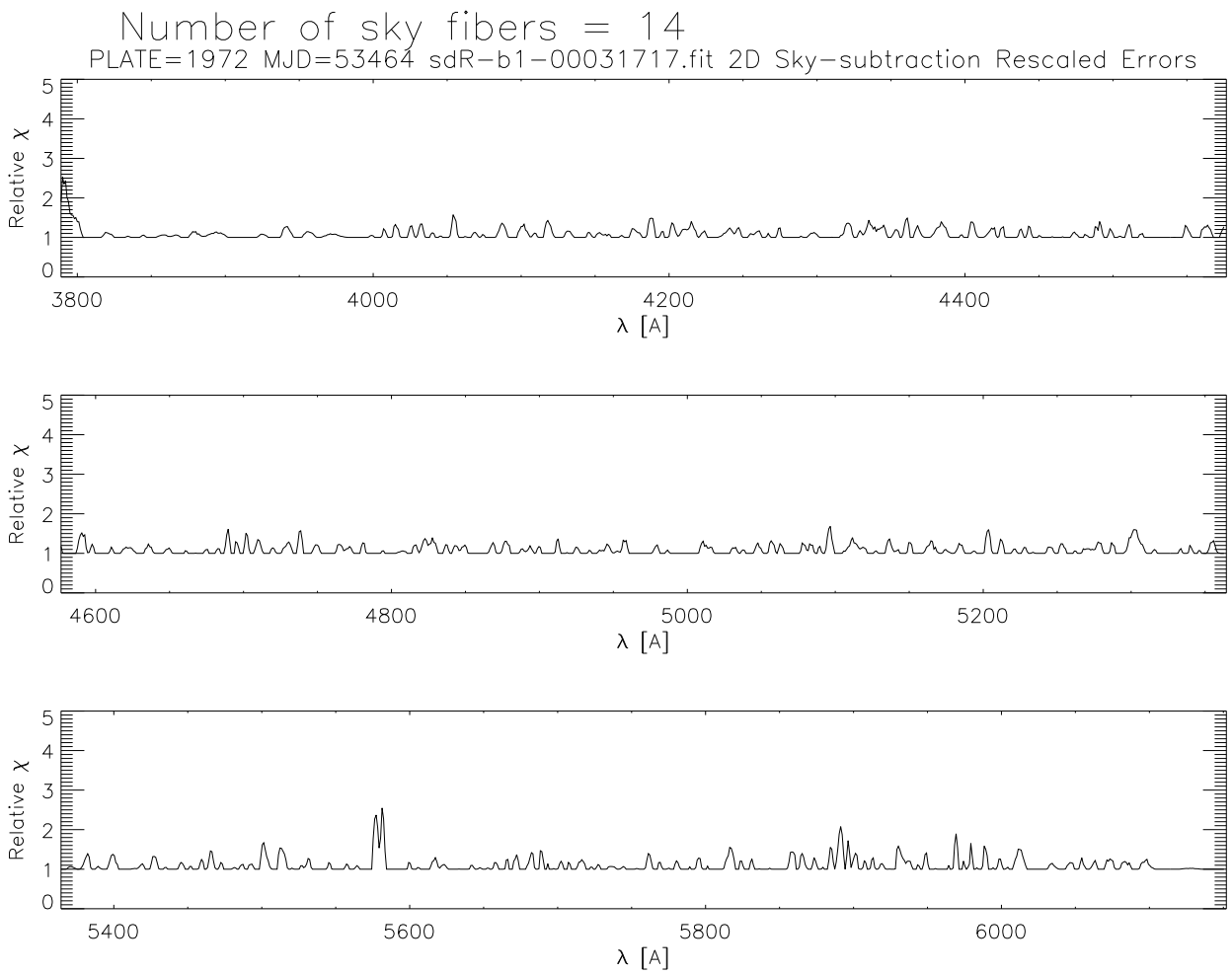

PLATE=1972 MJD=53464 sdR-b1-00031717.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
-200
-400
-600
5570
5575
5580
5585
5590
λ [A]

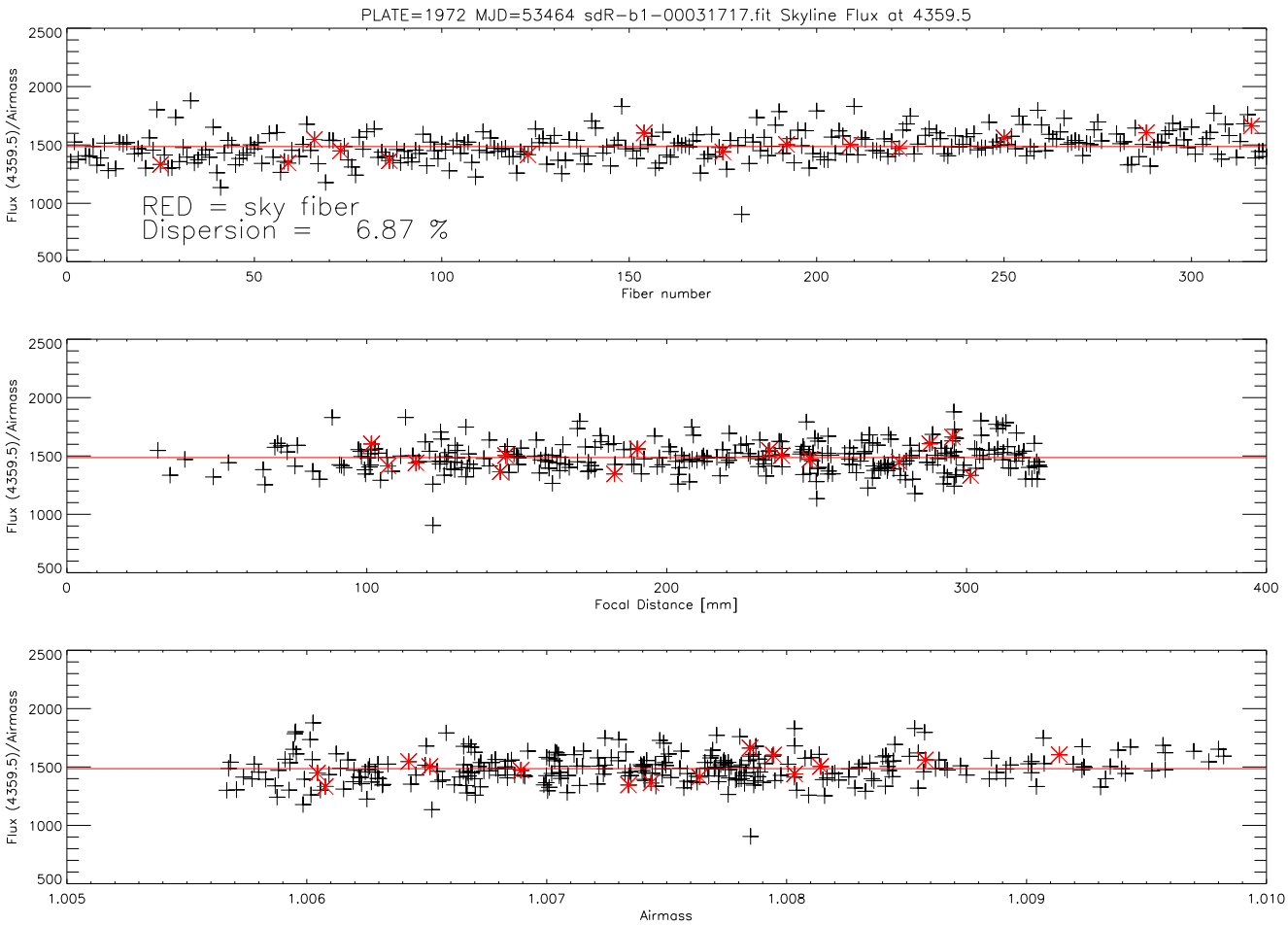

Number of sky fibers = 14
PLATE=1972 MJD=53464 sdR-b1-00031717.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

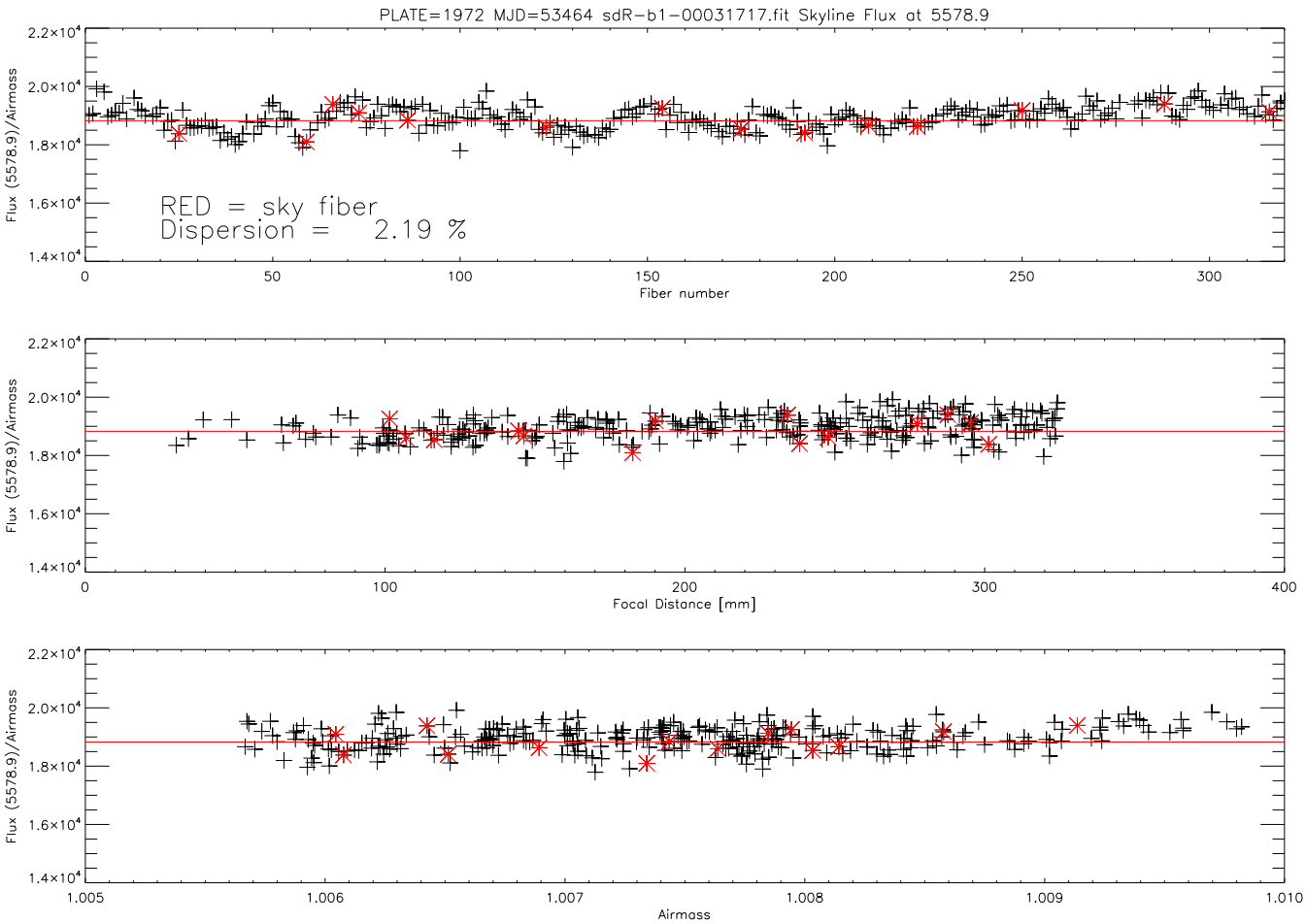

PLATE=1972 MJD=53464 sdR-b1-00031717.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

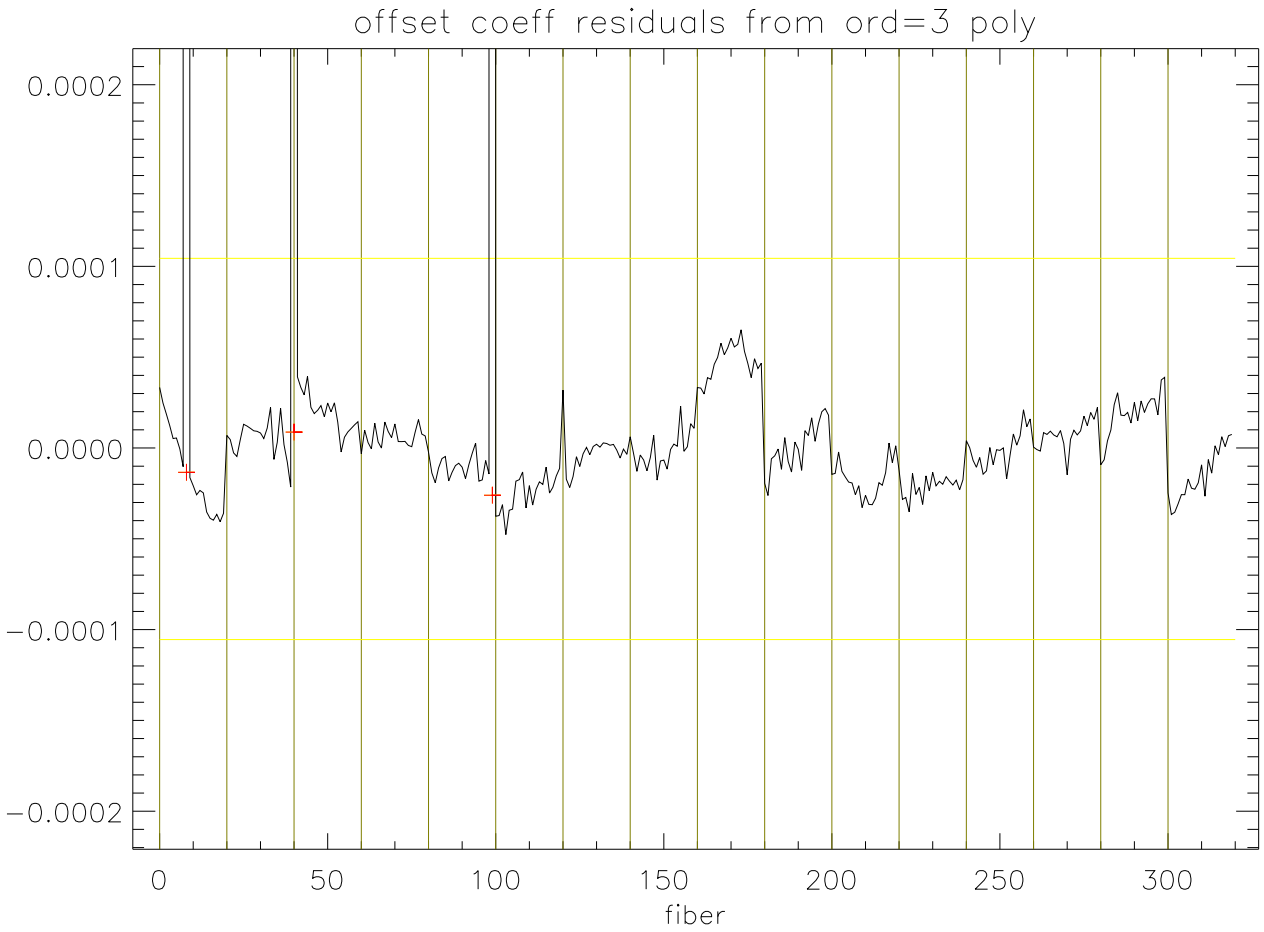

PLATE=1972 MJD=53464 sdR-b1-00031717.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

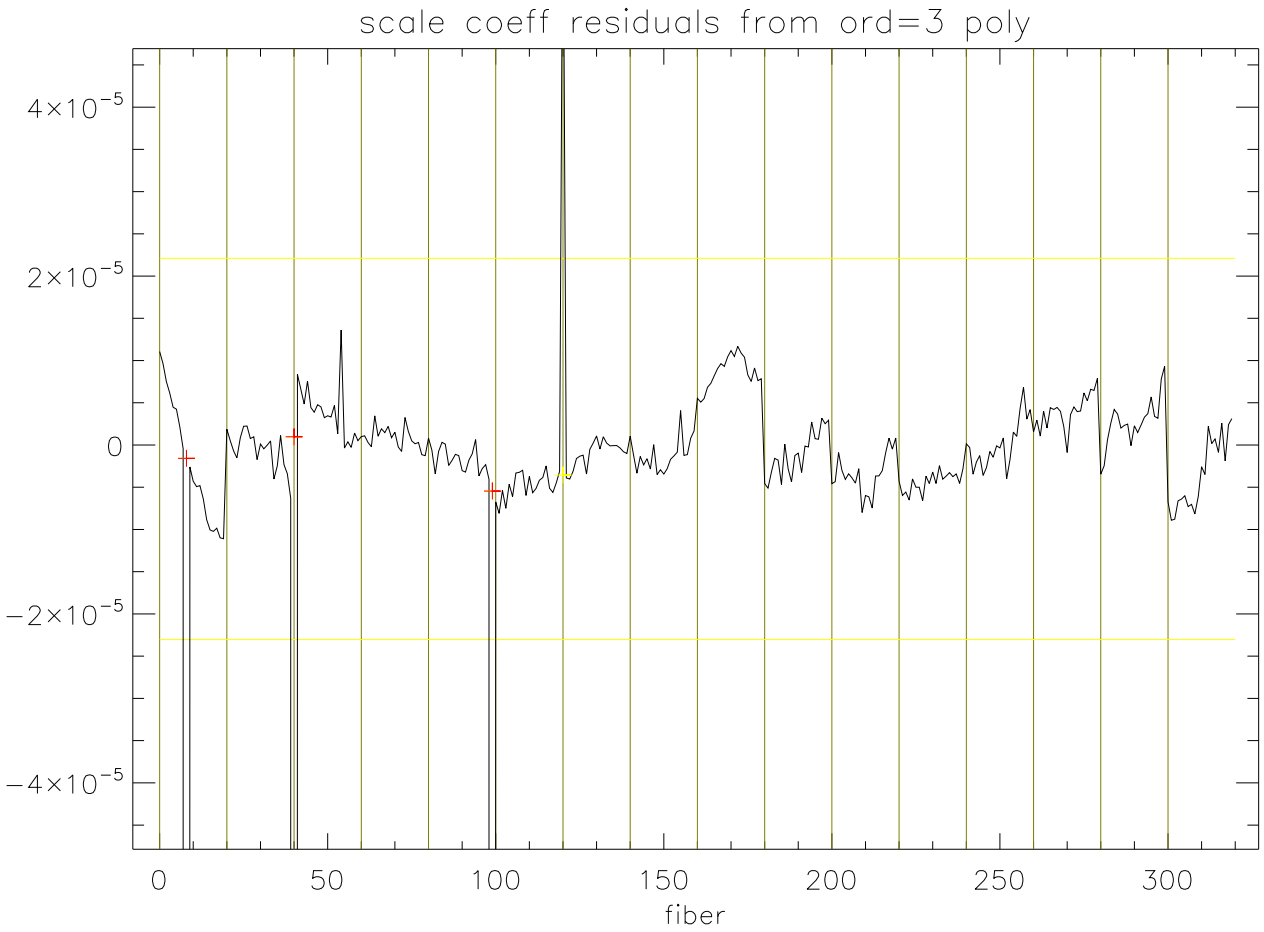

PLATE=1972 MJD=53464 sdR-b1-00031717.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
-300
5570
5575
5580
5585
5590
λ [A]

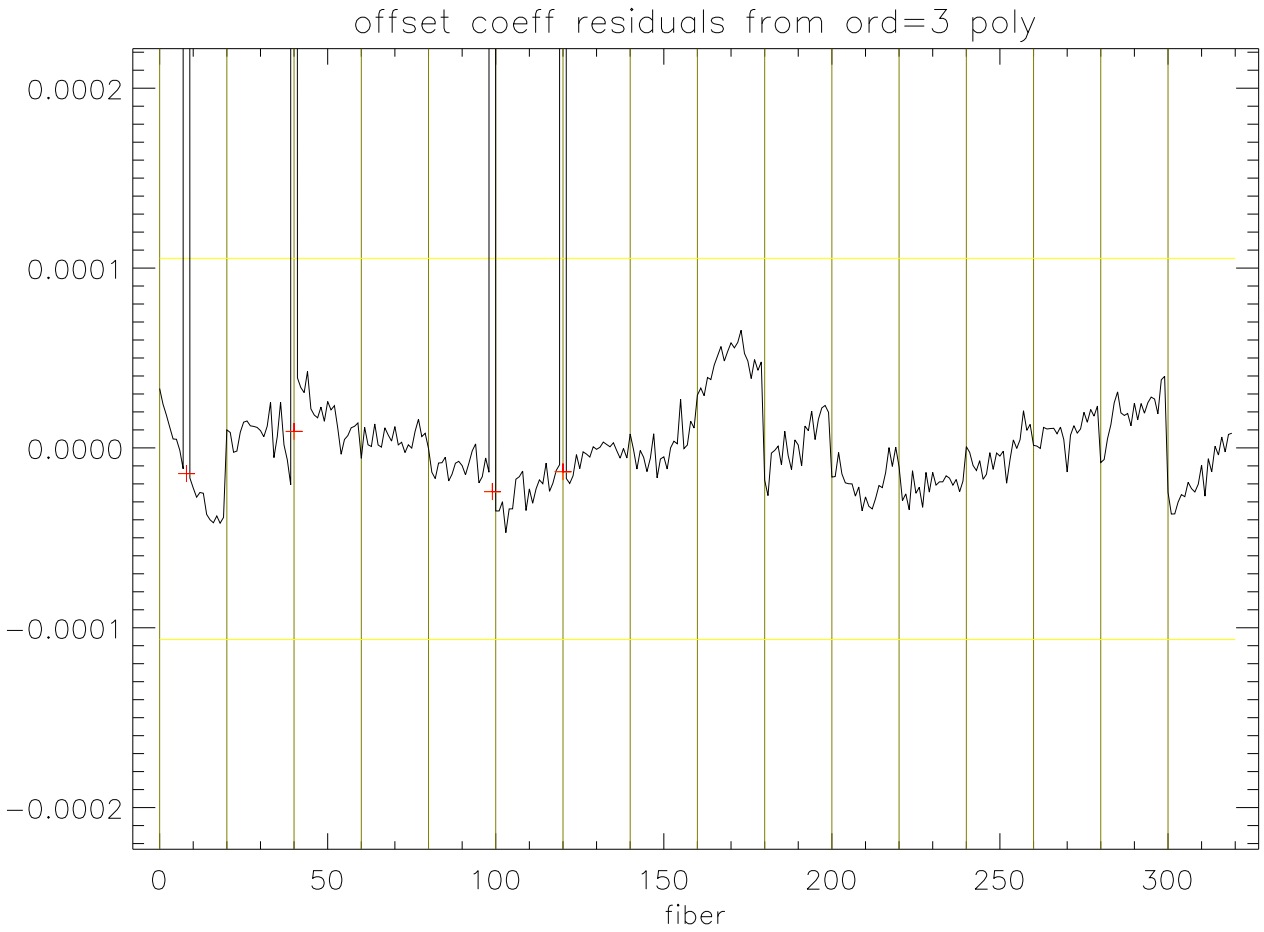

Number of sky fibers = 14
PLATE=1972 MJD=53464 sdR-b1-00031717.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

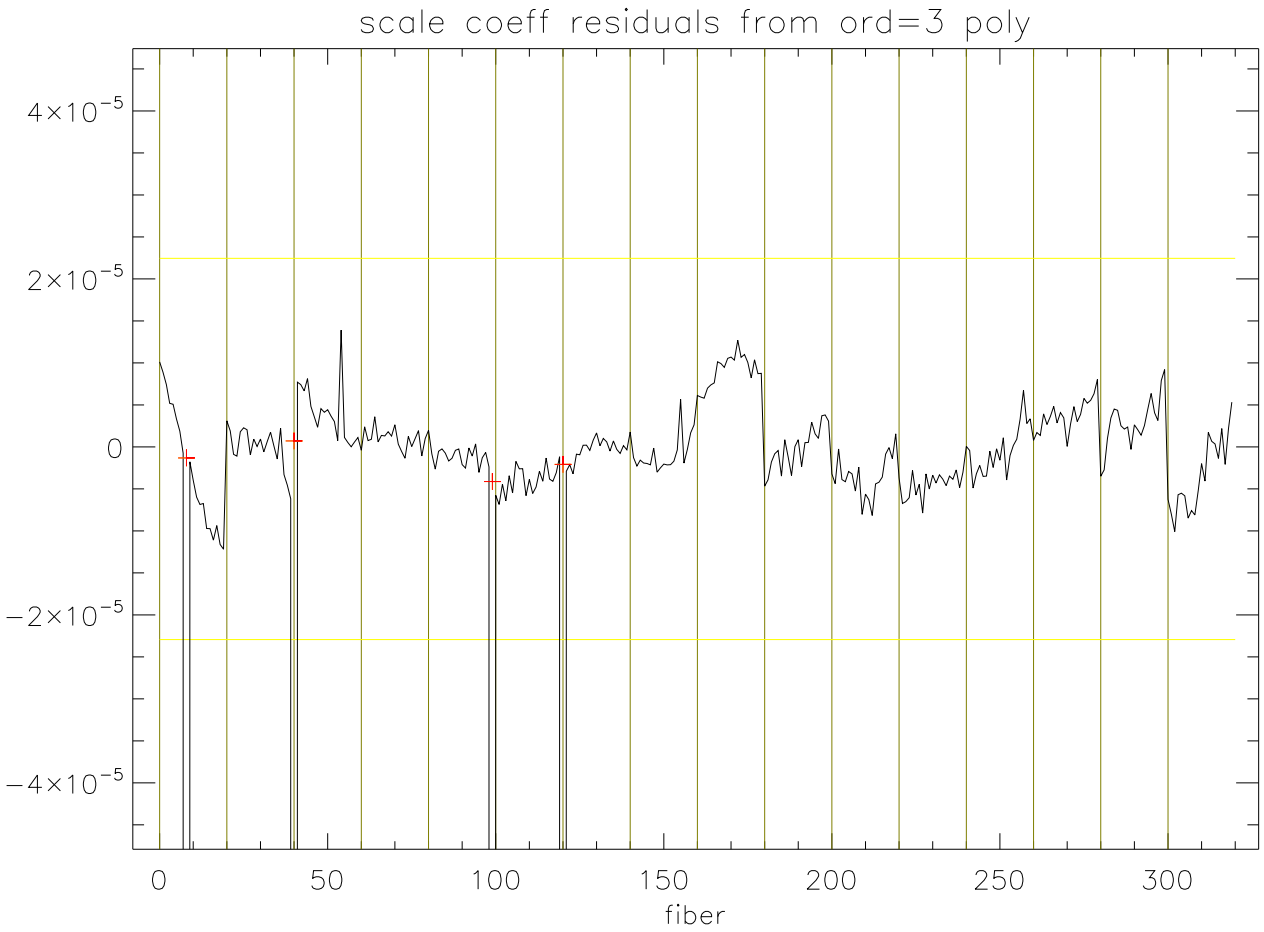

PLATE=1972 MJD=53464 sdR-b1-00031717.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 6.87 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

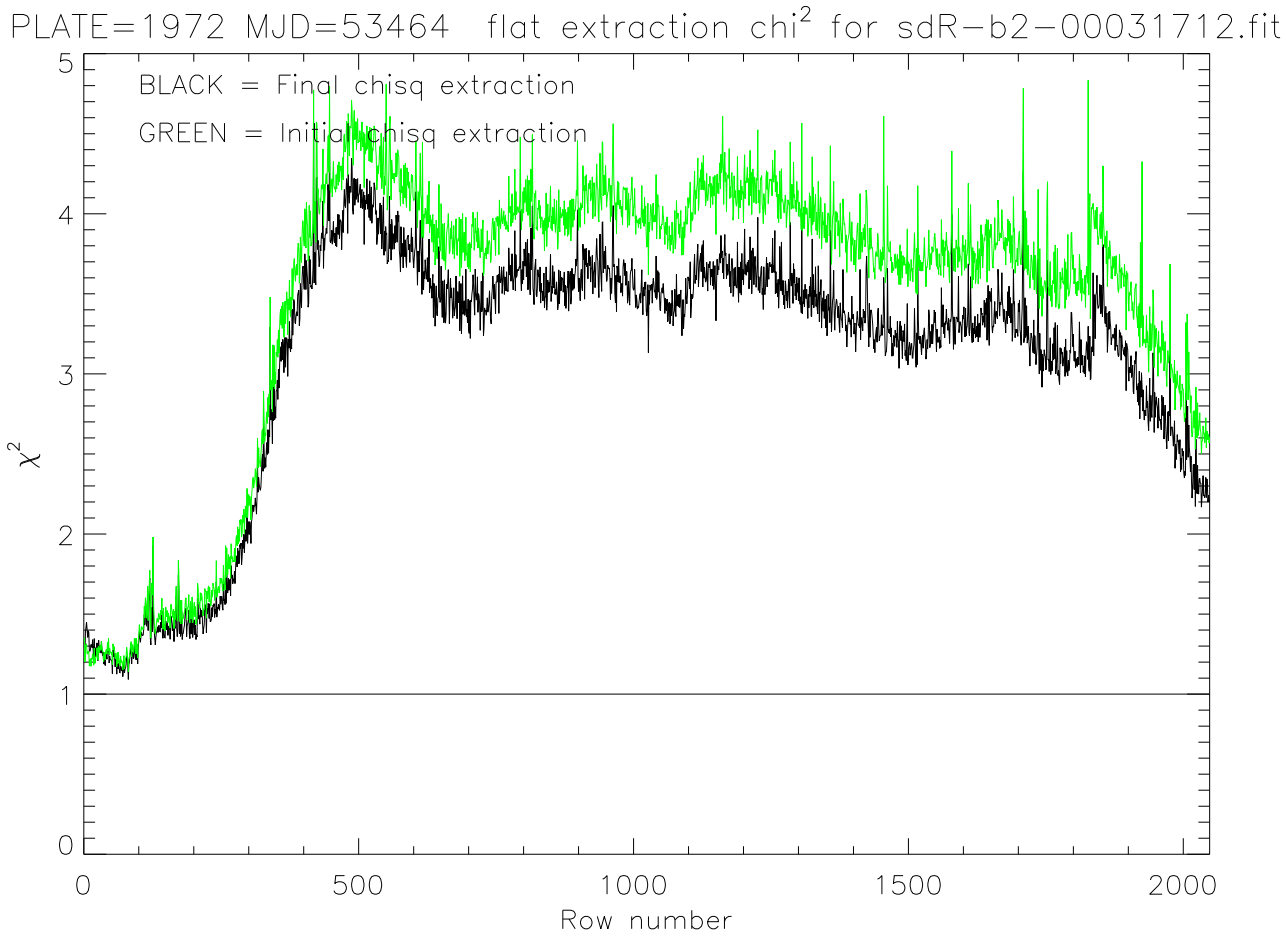

PLATE=1972 MJD=53464 sdR-b1-00031717.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 2.19 %
Fiber number
Focal Distance [mm]
Airmass

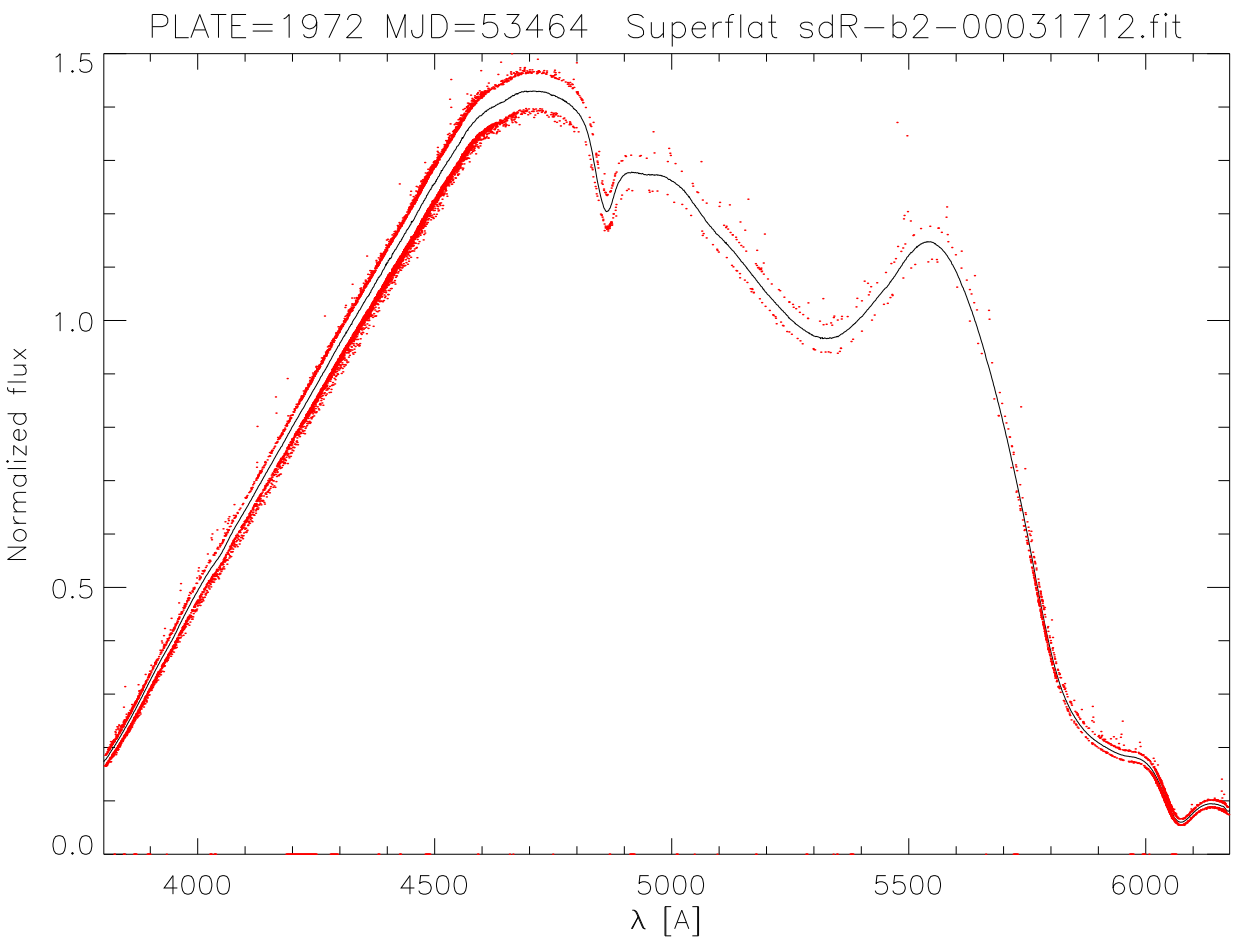

offset coeff residuals from ord=3 poly
0.0002
0.0001
0.0000
−0.0001
−0.0002
0
50
100
150
200
250
300
fiber

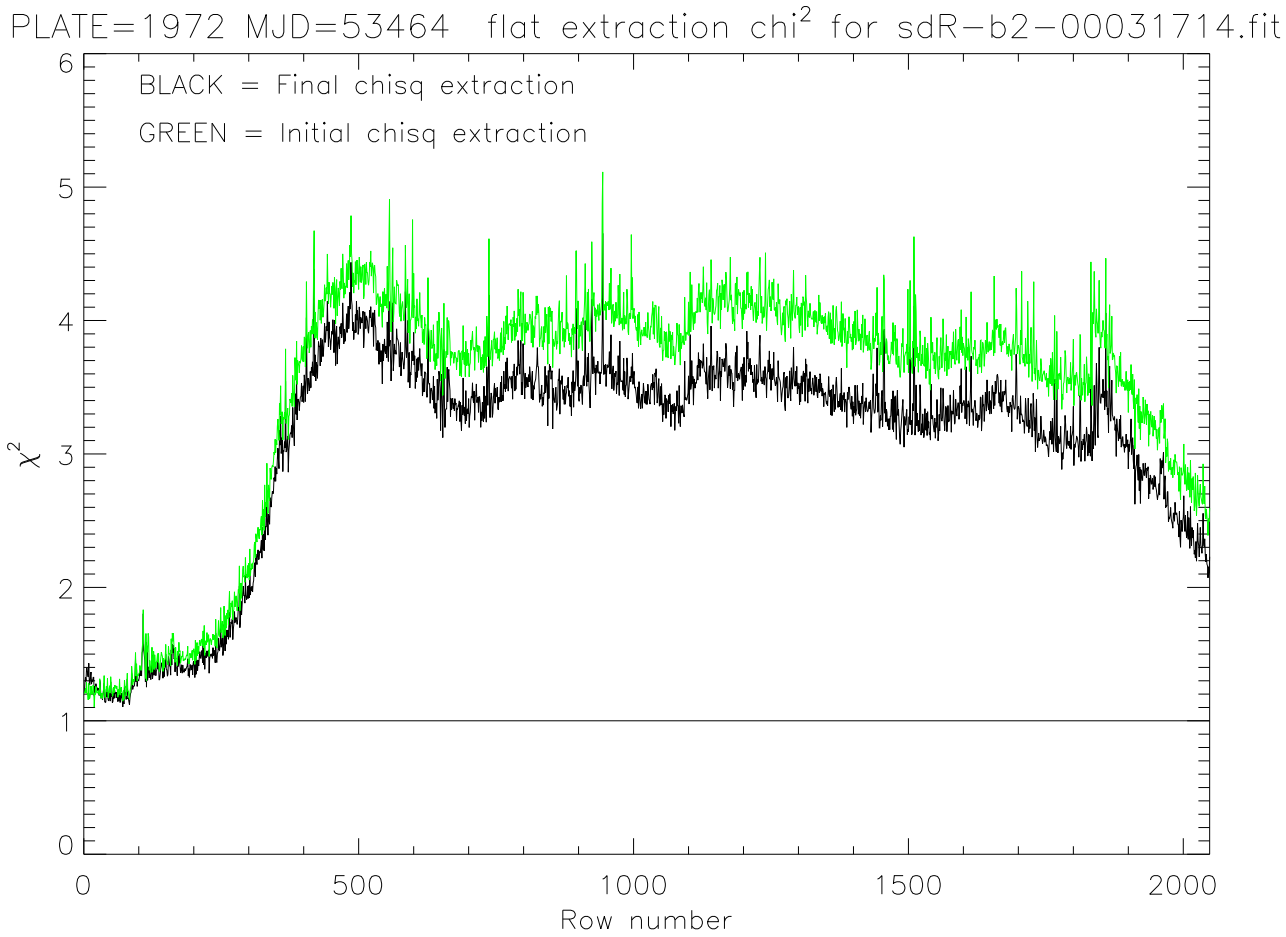

scale coeff residuals from ord=3 poly
4×10⁻⁵
2×10⁻⁵
0
−2×10⁻⁵
−4×10⁻⁵
0
50
100
150
200
250
300
fiber

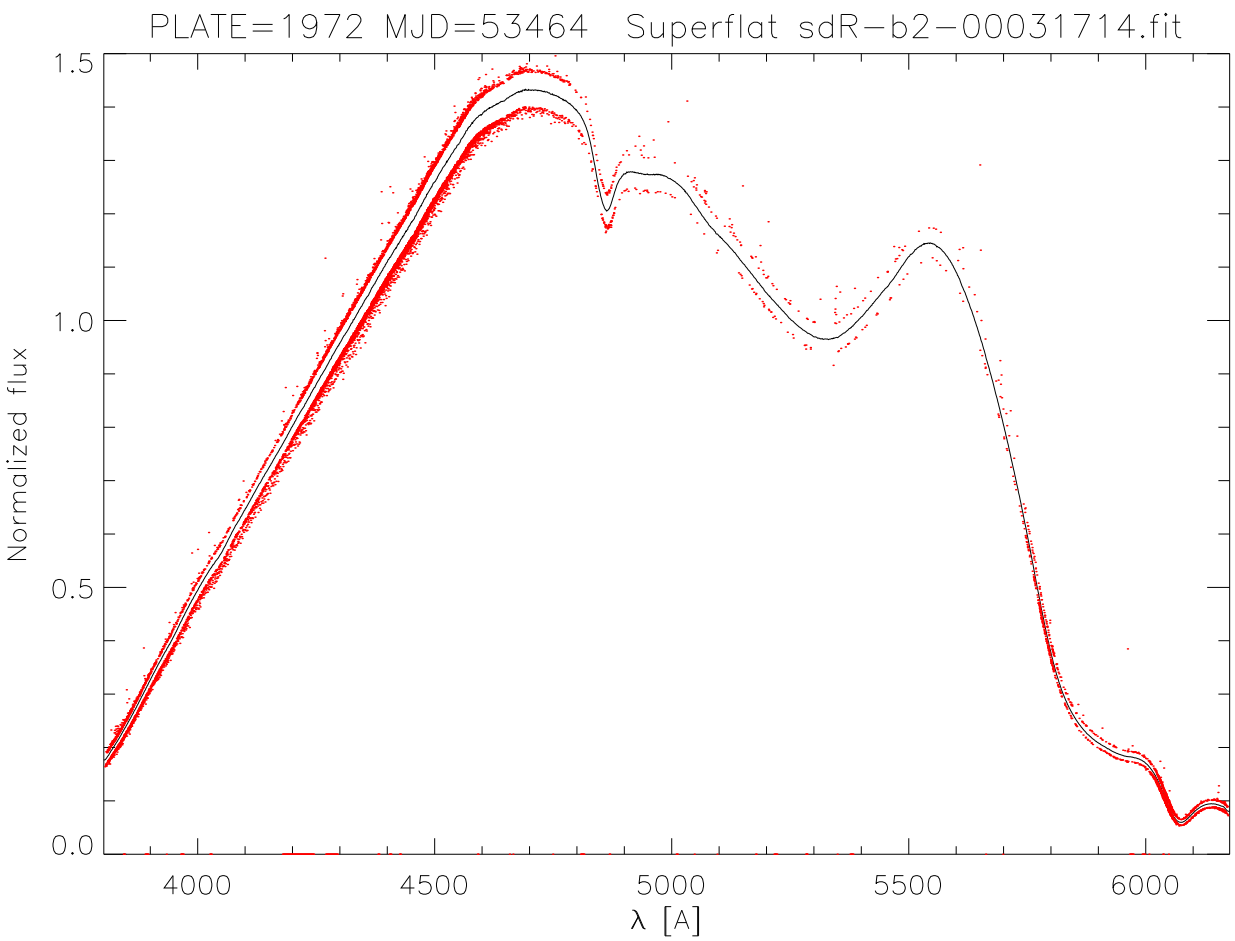

offset coeff residuals from ord=3 poly
0.0002
0.0001
0.0000
−0.0001
−0.0002
0
50
100
150
200
250
300
fiber

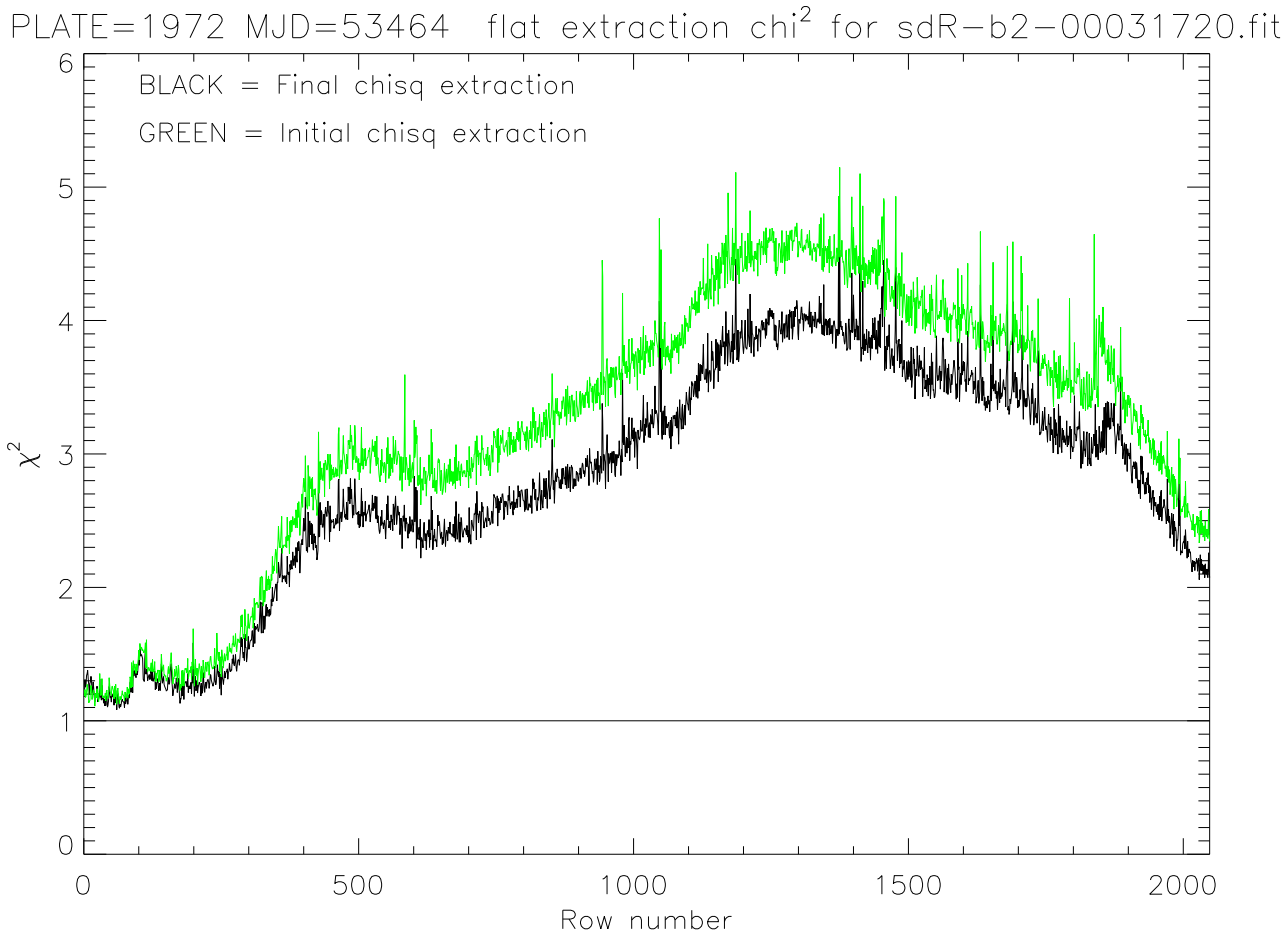

scale coeff residuals from ord=3 poly
4×10⁻⁵
2×10⁻⁵
0
−2×10⁻⁵
−4×10⁻⁵
0
50
100
150
200
250
300
fiber

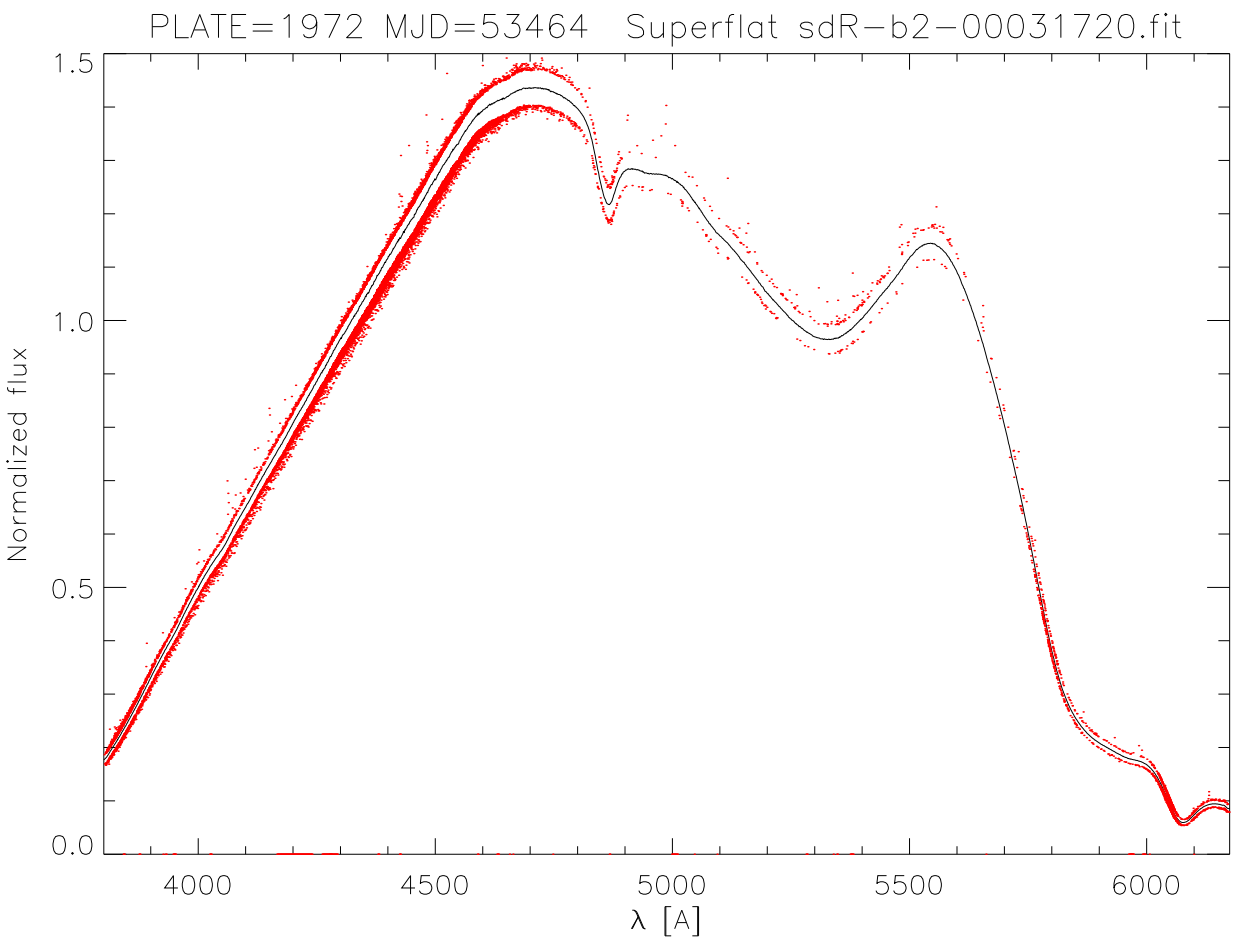

PLATE=1972 MJD=53464 flat extraction chi^2 for sdR−b2−00031712.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
1
2
3
4
5
0
500
1000
1500
2000

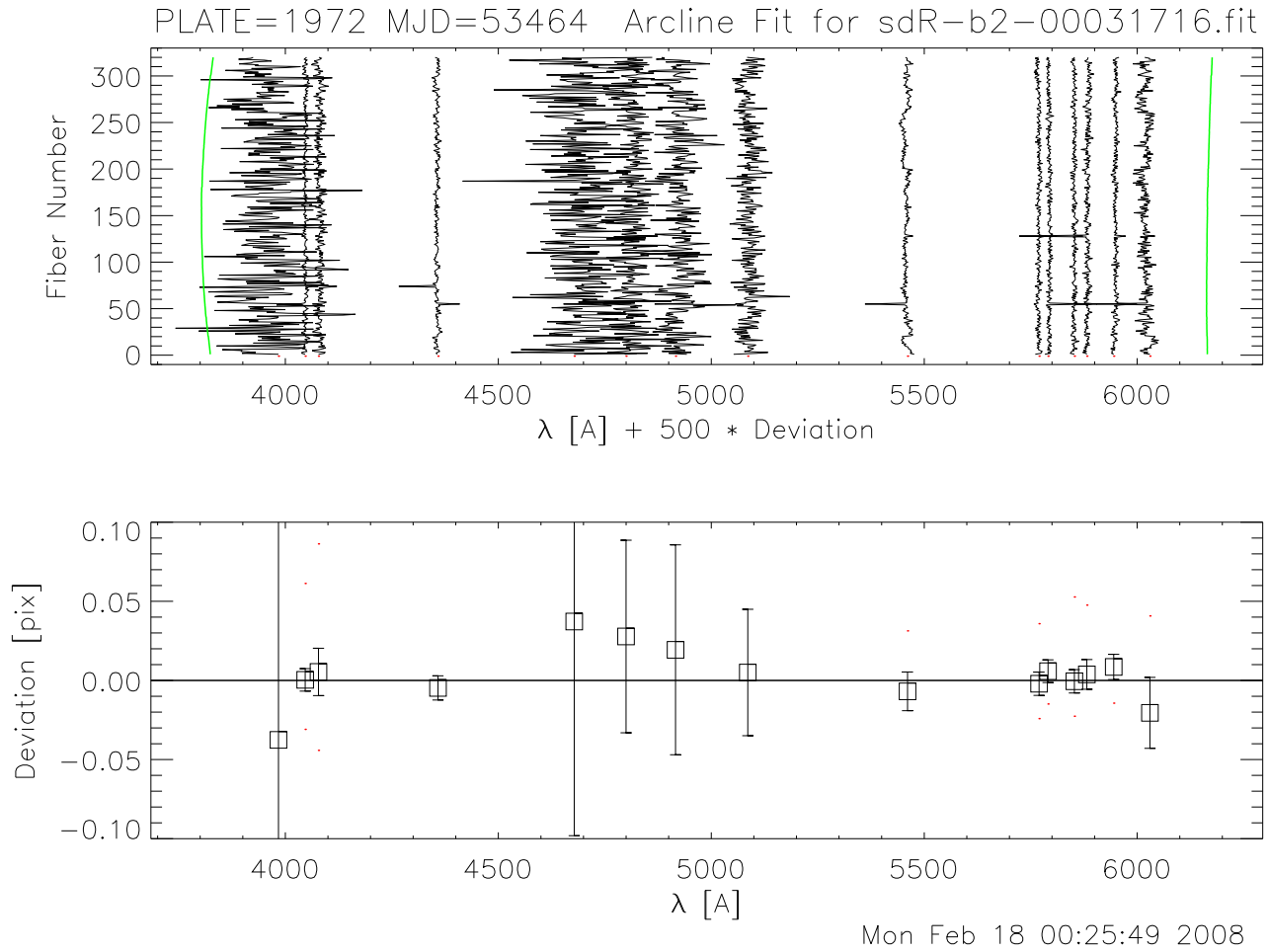

PLATE=1972 MJD=53464 Superflat sdR-b2-00031712.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

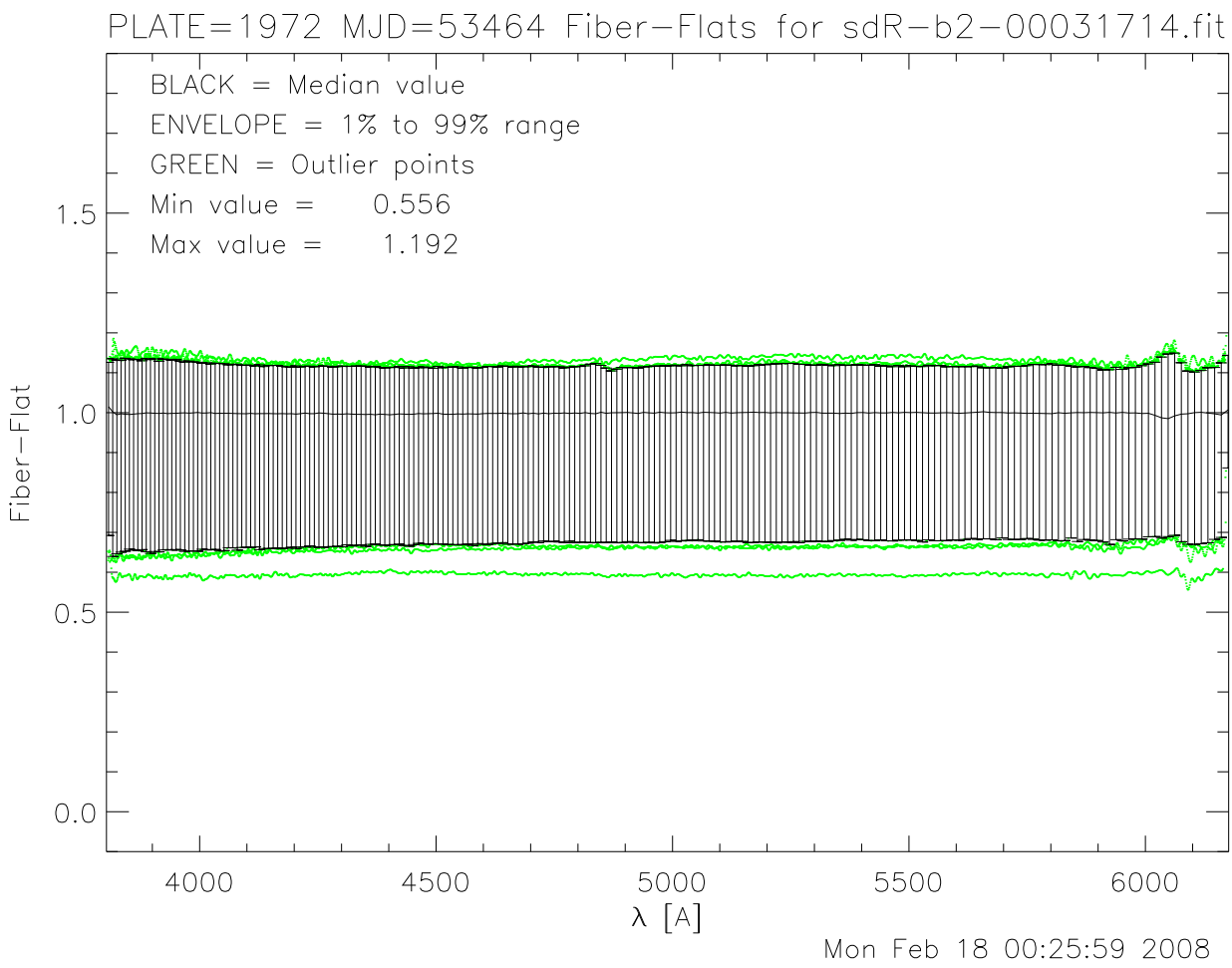

PLATE=1972 MJD=53464 flat extraction chi^2 for sdR−b2−00031714.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
1
2
3
4
5
6
0
500
1000
1500
2000

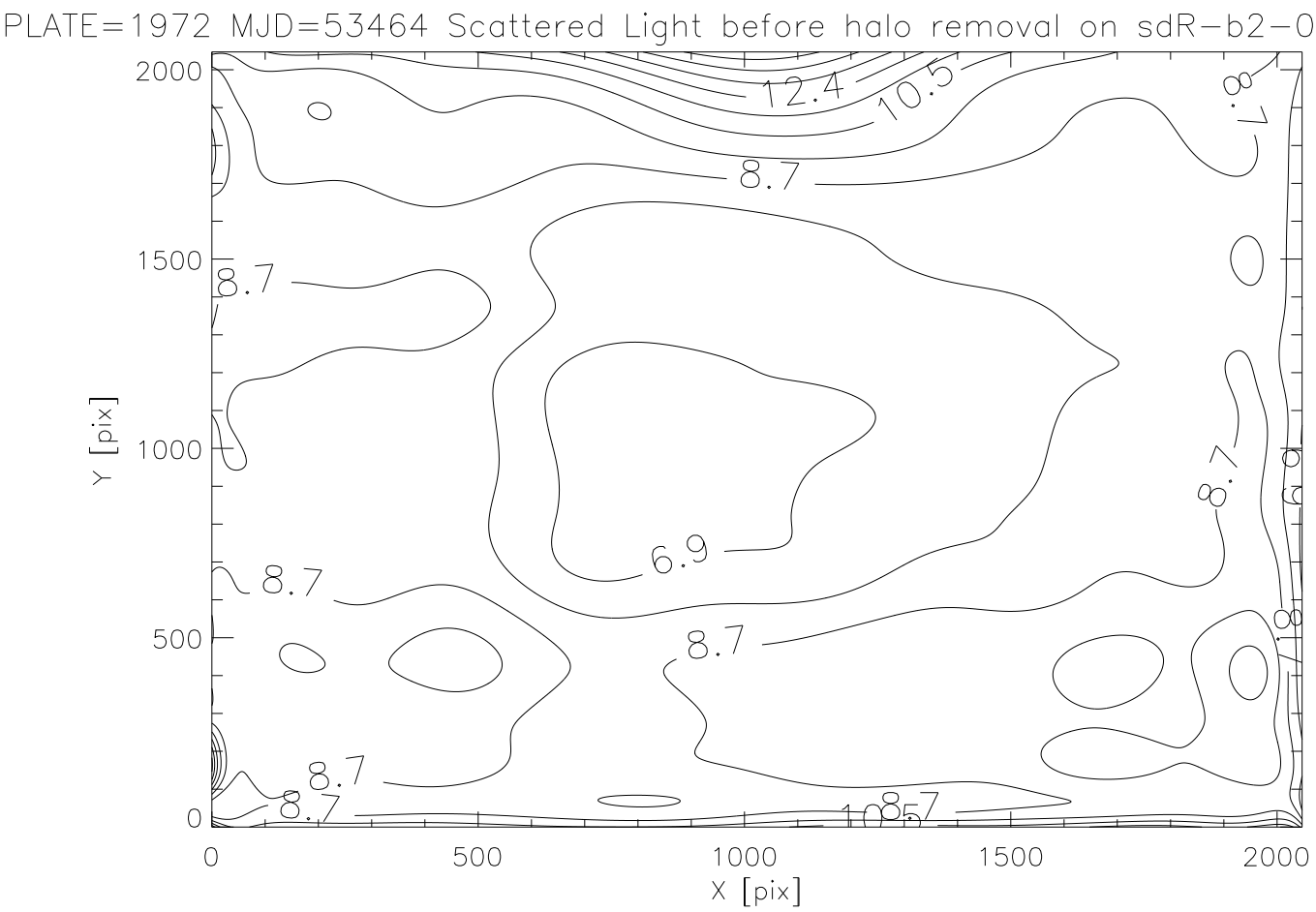

PLATE=1972 MJD=53464 Superflat sdR-b2-00031714.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

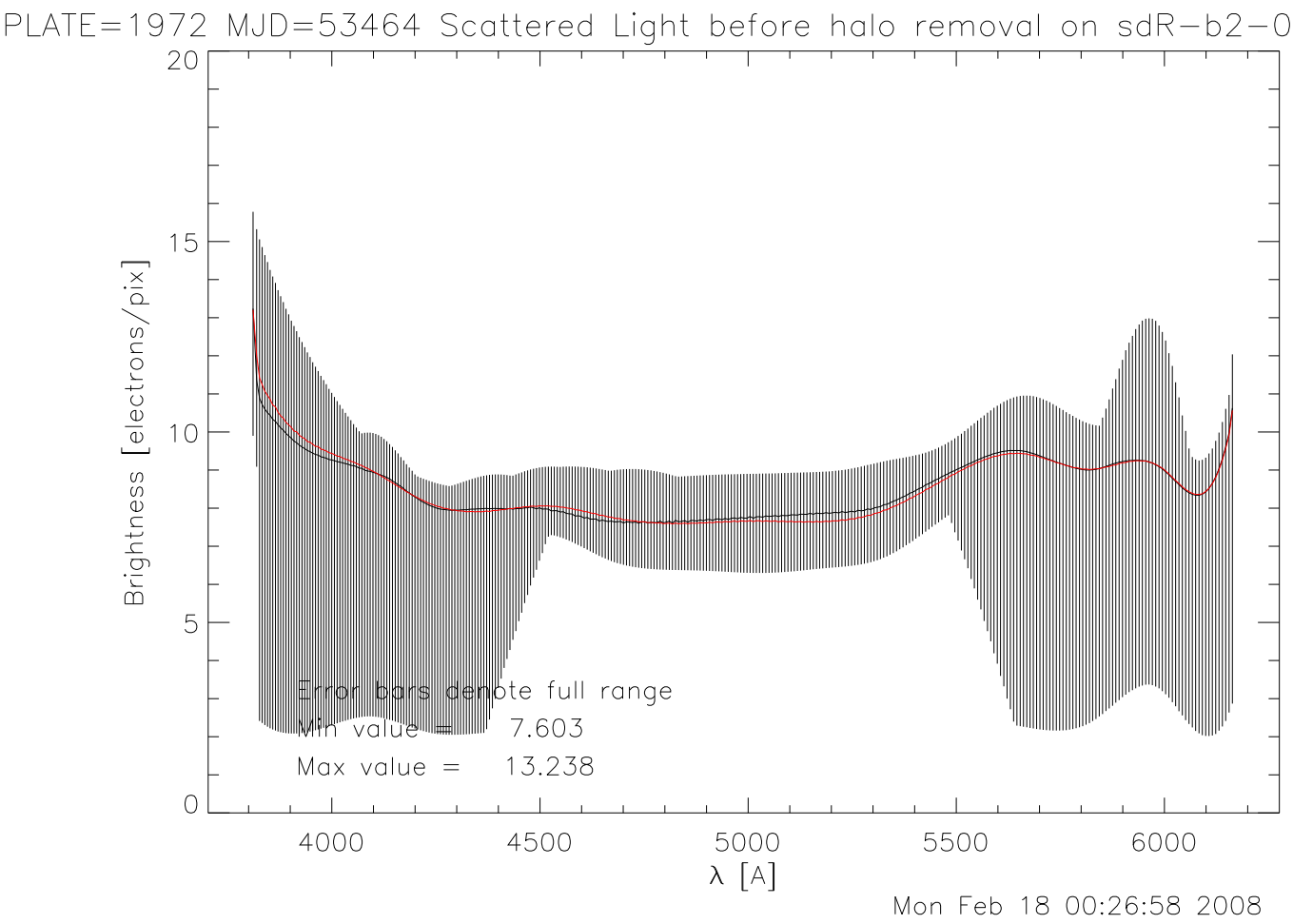

PLATE=1972 MJD=53464 flat extraction chi^2 for sdR−b2−00031720.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
1
2
3
4
5
6
0
500
1000
1500
2000

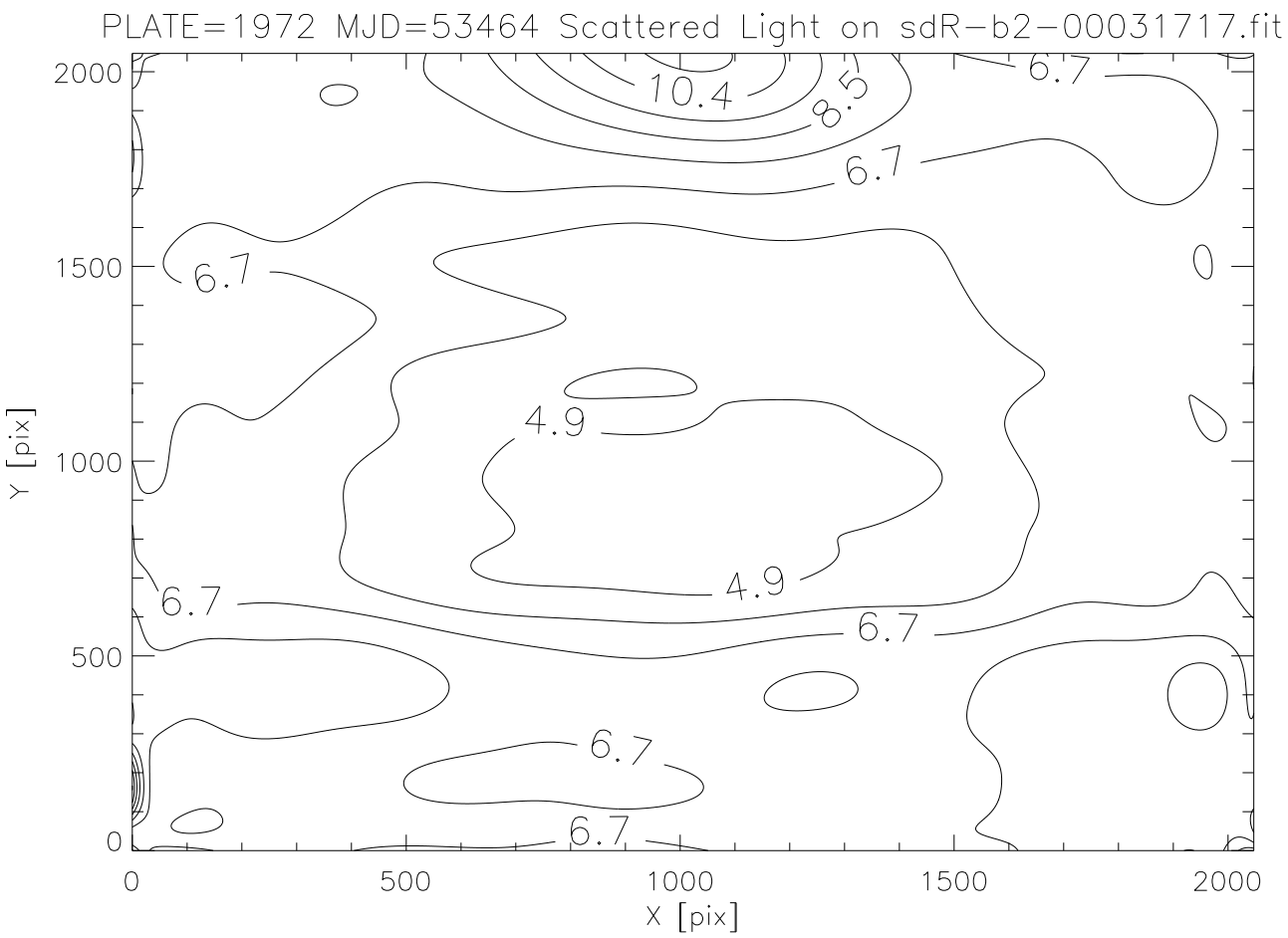

PLATE=1972 MJD=53464 Superflat sdR-b2-00031720.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

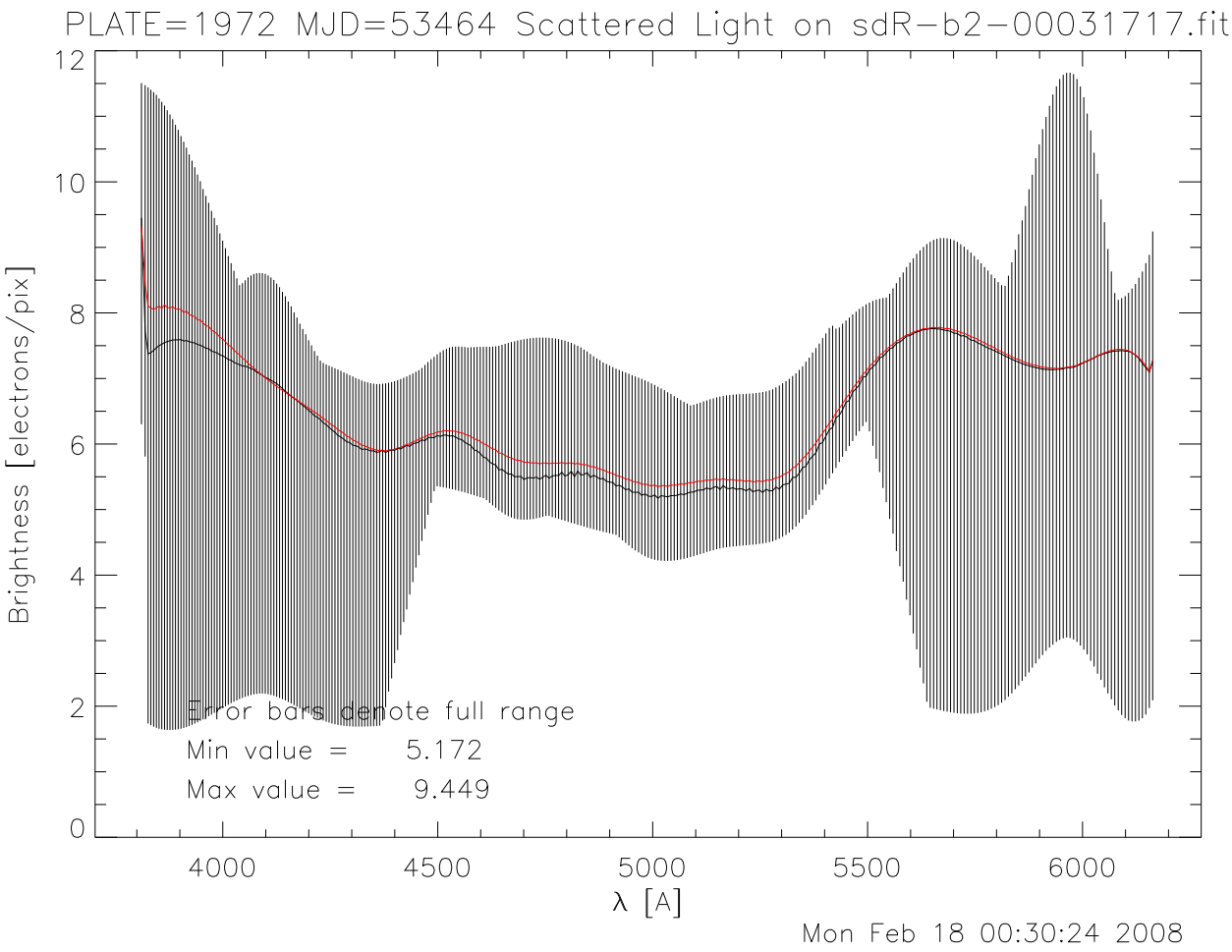

PLATE=1972 MJD=53464 Arcline Fit for sdR-b2-00031716.fit
Fiber Number
300
250
200
150
100
50
0
4000
4500
5000
5500
6000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
4000
4500
5000
5500
6000
λ [A]
Mon Feb 18 00:25:49 2008

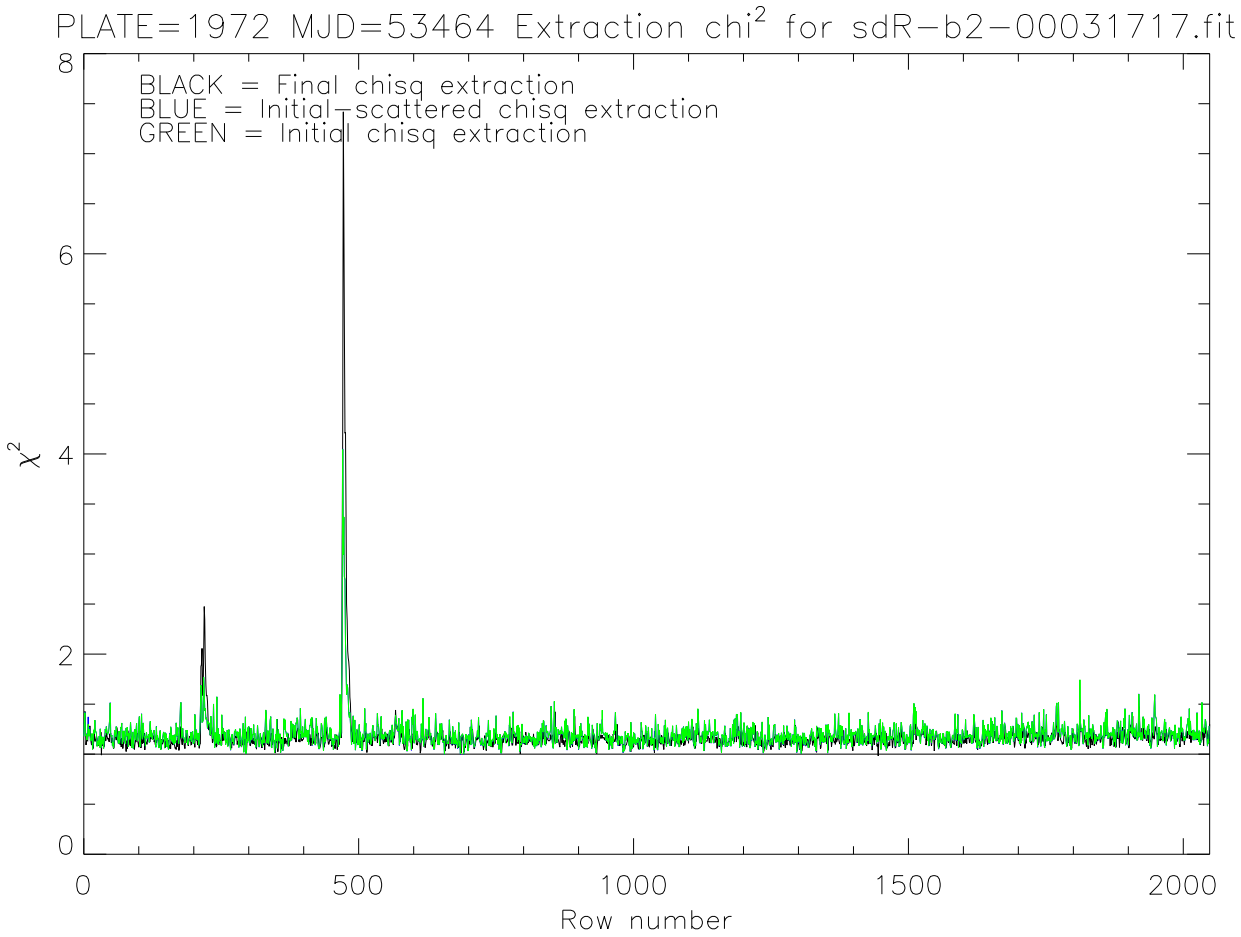

PLATE=1972 MJD=53464 Fiber-Flats for sdR-b2-00031714.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.556
Max value = 1.192
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Mon Feb 18 00:25:59 2008

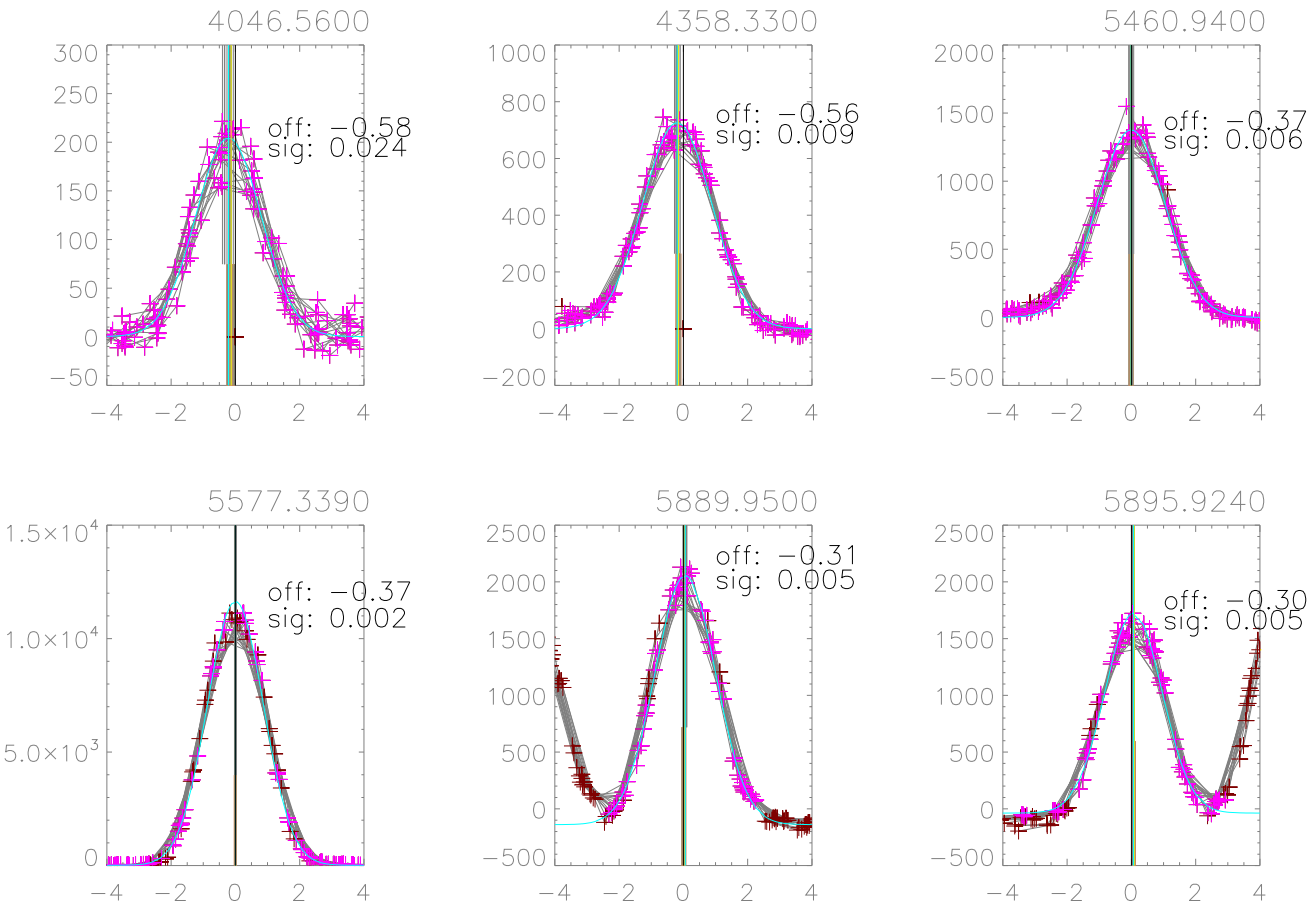

PLATE=1972 MJD=53464 Scattered Light before halo removal on sdR-b2-00031717.f
12.4
10.5
8.7
6.9
Y [pix]
X [pix]
0
500
1000
1500
2000

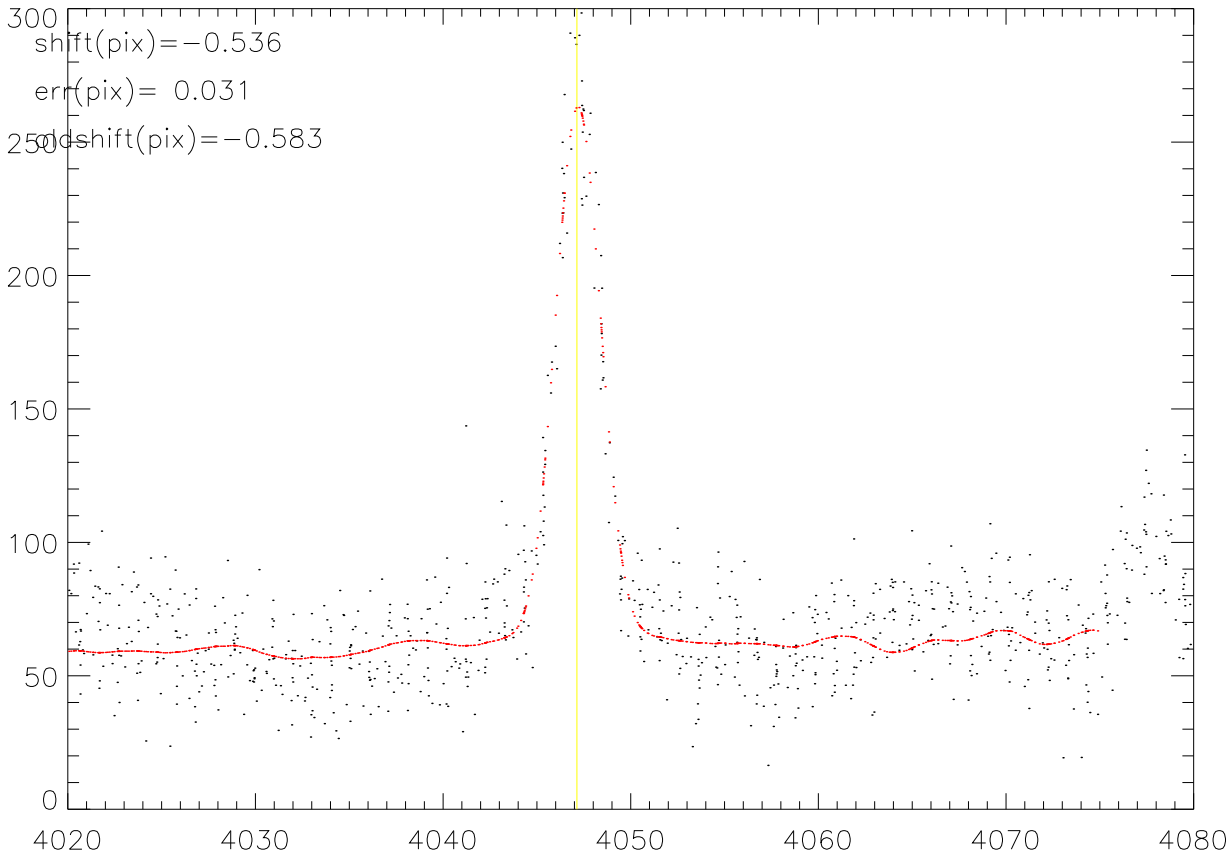

PLATE=1972 MJD=53464 Scattered Light before halo removal on sdR-b2-00031717.f
Brightness [electrons/pix]
20
15
10
5
0
Error bars denote full range
Min value = 7.603
Max value = 13.238
4000
4500
5000
5500
6000
λ [A]
Mon Feb 18 00:26:58 2008

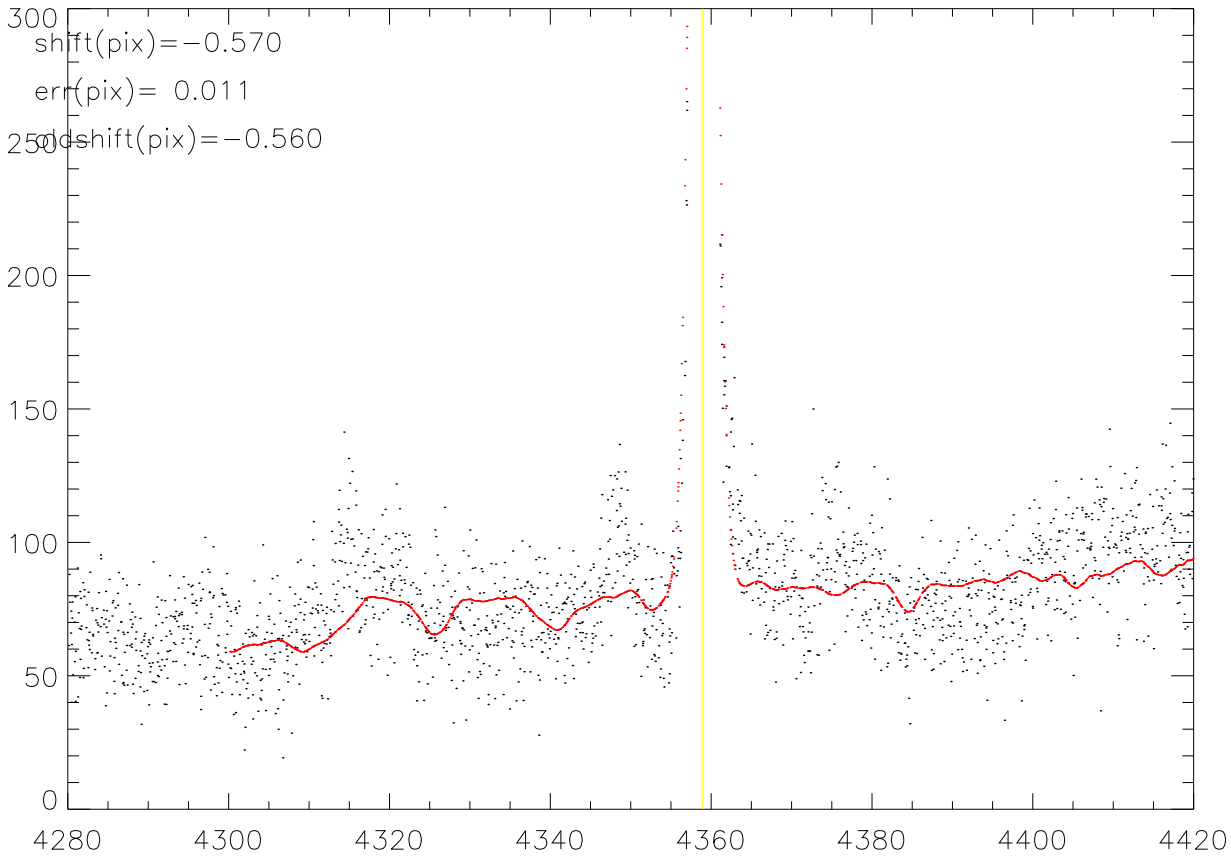

PLATE=1972 MJD=53464 Scattered Light on sdR-b2-00031717.fit
10.4
8.5
6.7
6.7
6.7
0
4.9
4.9
6.7
6.7
6.7
6.7
Y [pix]
X [pix]
0
500
1000
1500
2000

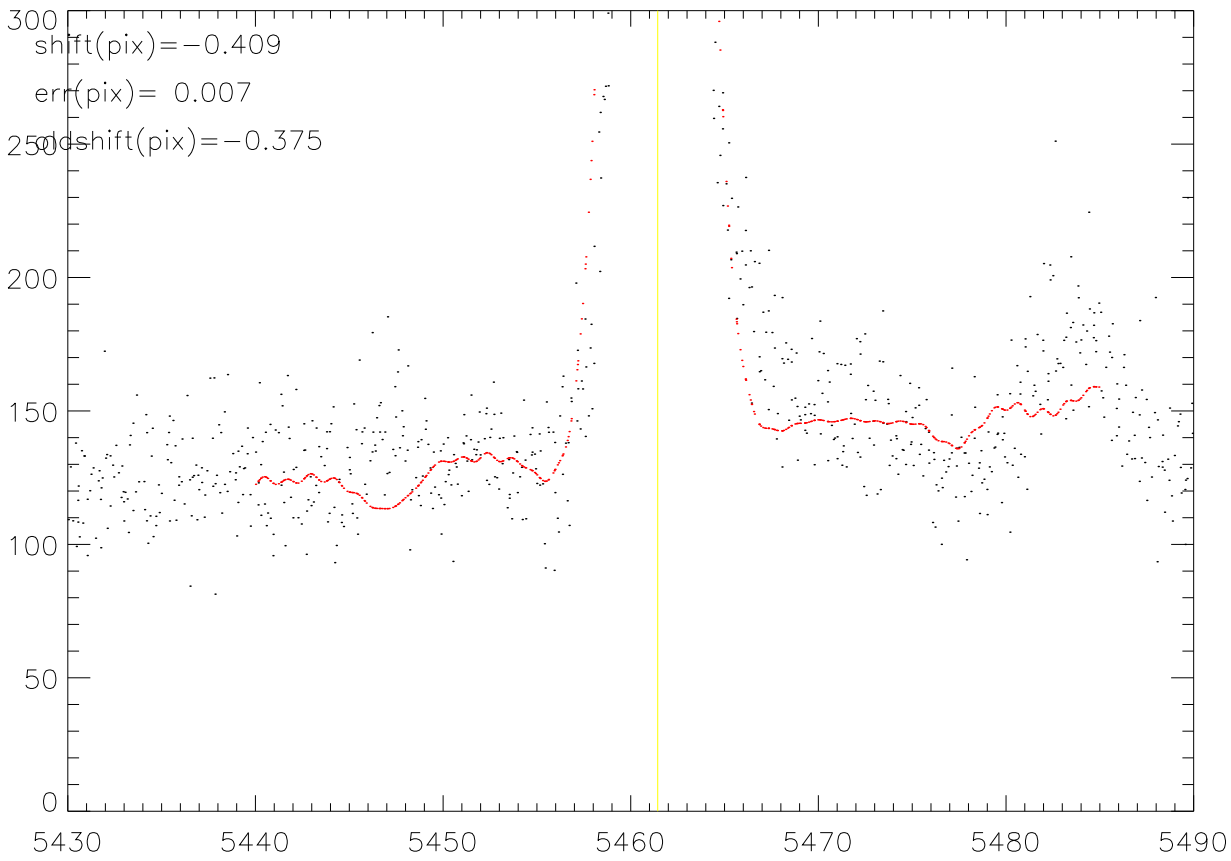

PLATE=1972 MJD=53464 Scattered Light on sdR-b2-00031717.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 5.172
Max value = 9.449
Mon Feb 18 00:30:24 2008

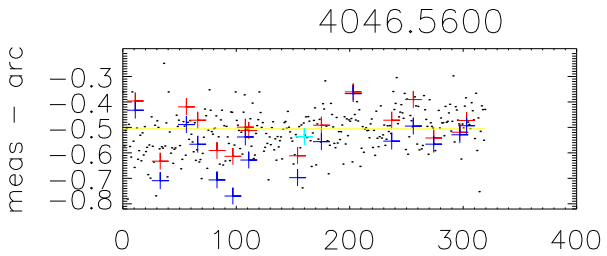

PLATE=1972 MJD=53464 Extraction chi^2 for sdR-b2-00031717.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
0
500
1000
1500
2000
Row number

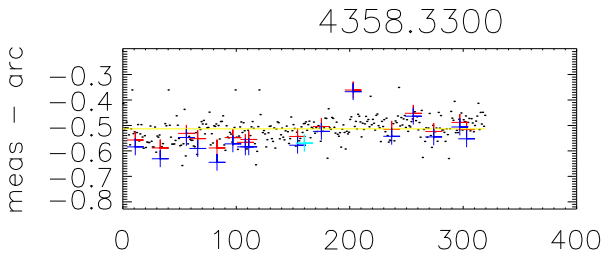

4046.5600
off: −0.58
sig: 0.024
4358.3300
off: −0.56
sig: 0.009
5460.9400
off: −0.37
sig: 0.006
5577.3390
off: −0.37
sig: 0.002
5889.9500
off: −0.31
sig: 0.005
5895.9240
off: −0.30
sig: 0.005

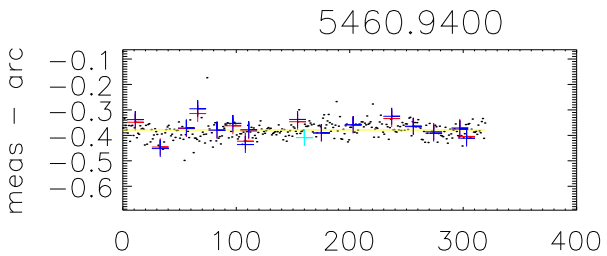

shift(pix)=−0.536
err(pix)= 0.031
oldshift(pix)=−0.583
300
250
200
150
100
50
0
4020
4030
4040
4050
4060
4070
4080

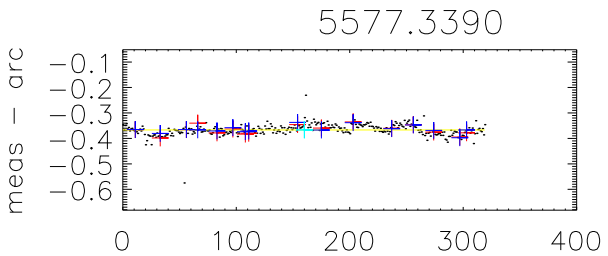

shift(pix)=−0.570
err(pix)= 0.011
oldshift(pix)=−0.560
300
250
200
150
100
50
0
4280
4300
4320
4340
4360
4380
4400
4420

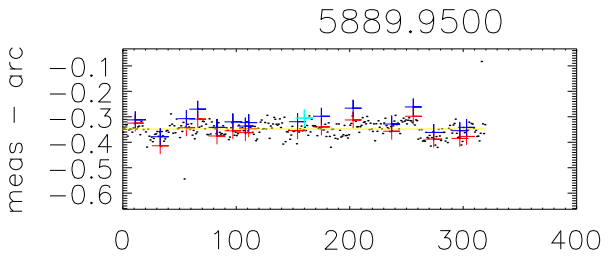

shift(pix)=−0.409
err(pix)= 0.007
oldshift(pix)=−0.375
300
250
200
150
100
50
0
5430
5440
5450
5460
5470
5480
5490

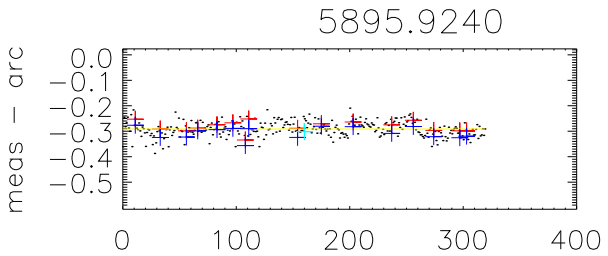

4046.5600
meas − arc
−0.3
−0.4
−0.5
−0.6
−0.7
−0.8
0
100
200
300
400

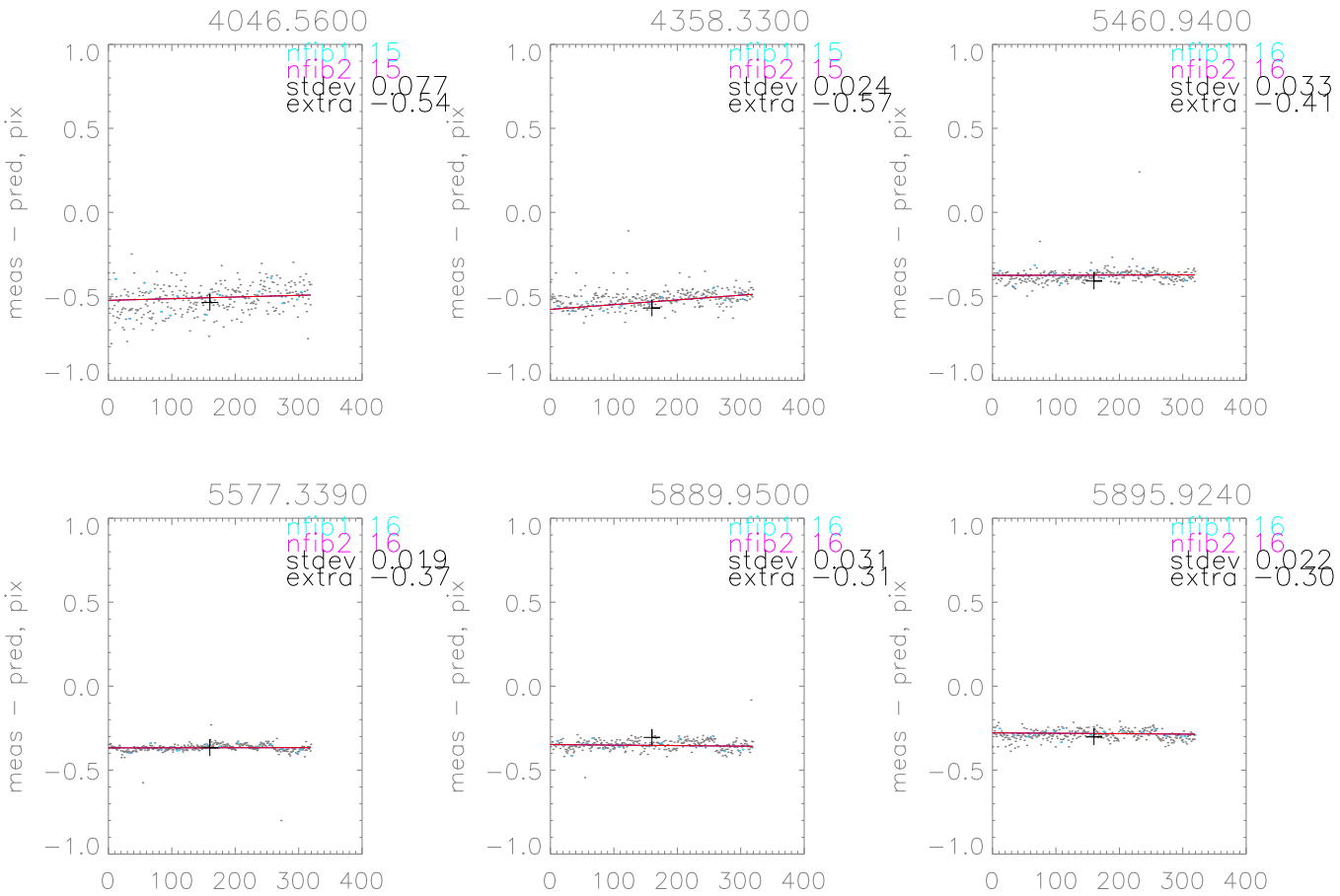

4358.3300
meas − arc
−0.3
−0.4
−0.5
−0.6
−0.7
−0.8
0
100
200
300
400

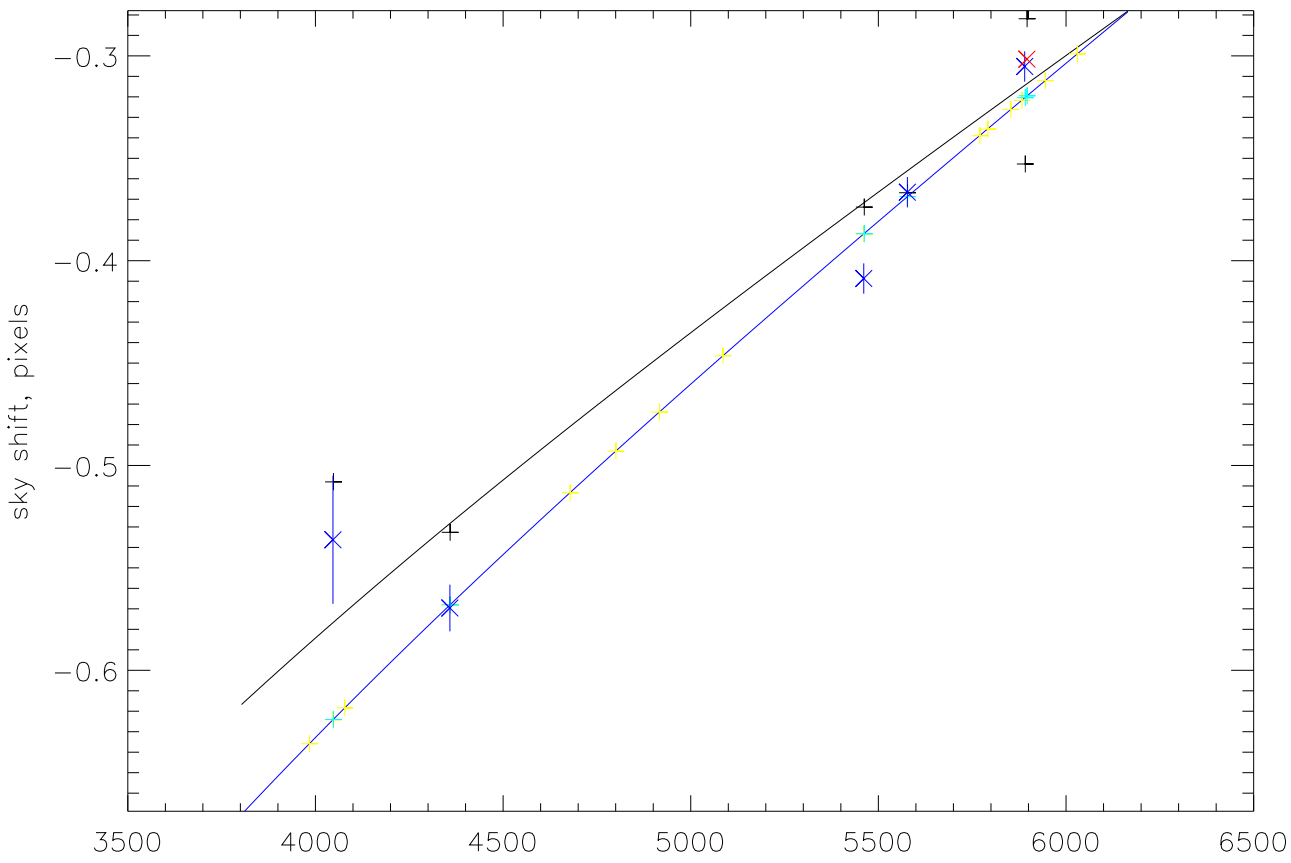

5460.9400
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400


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

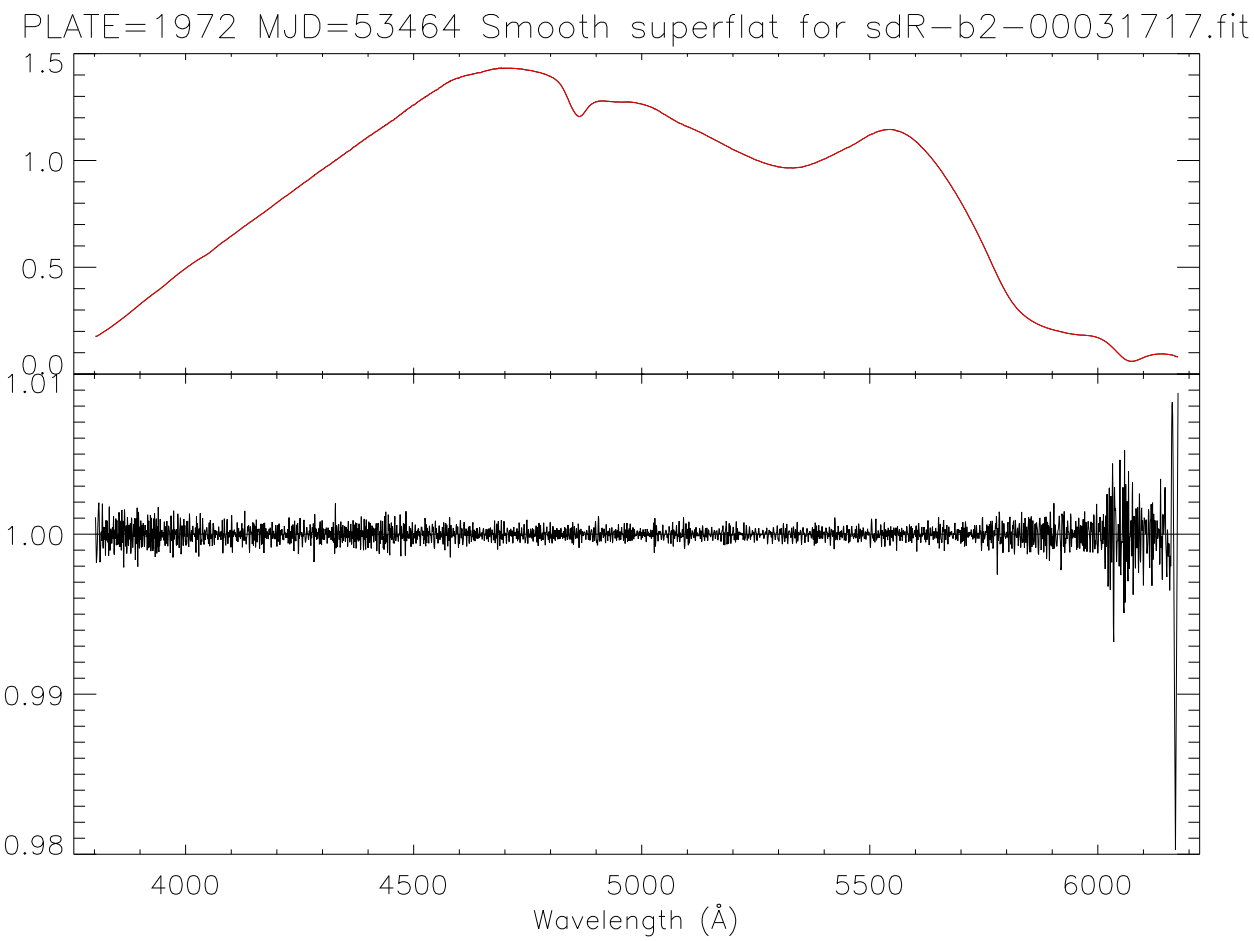

5889.9500
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

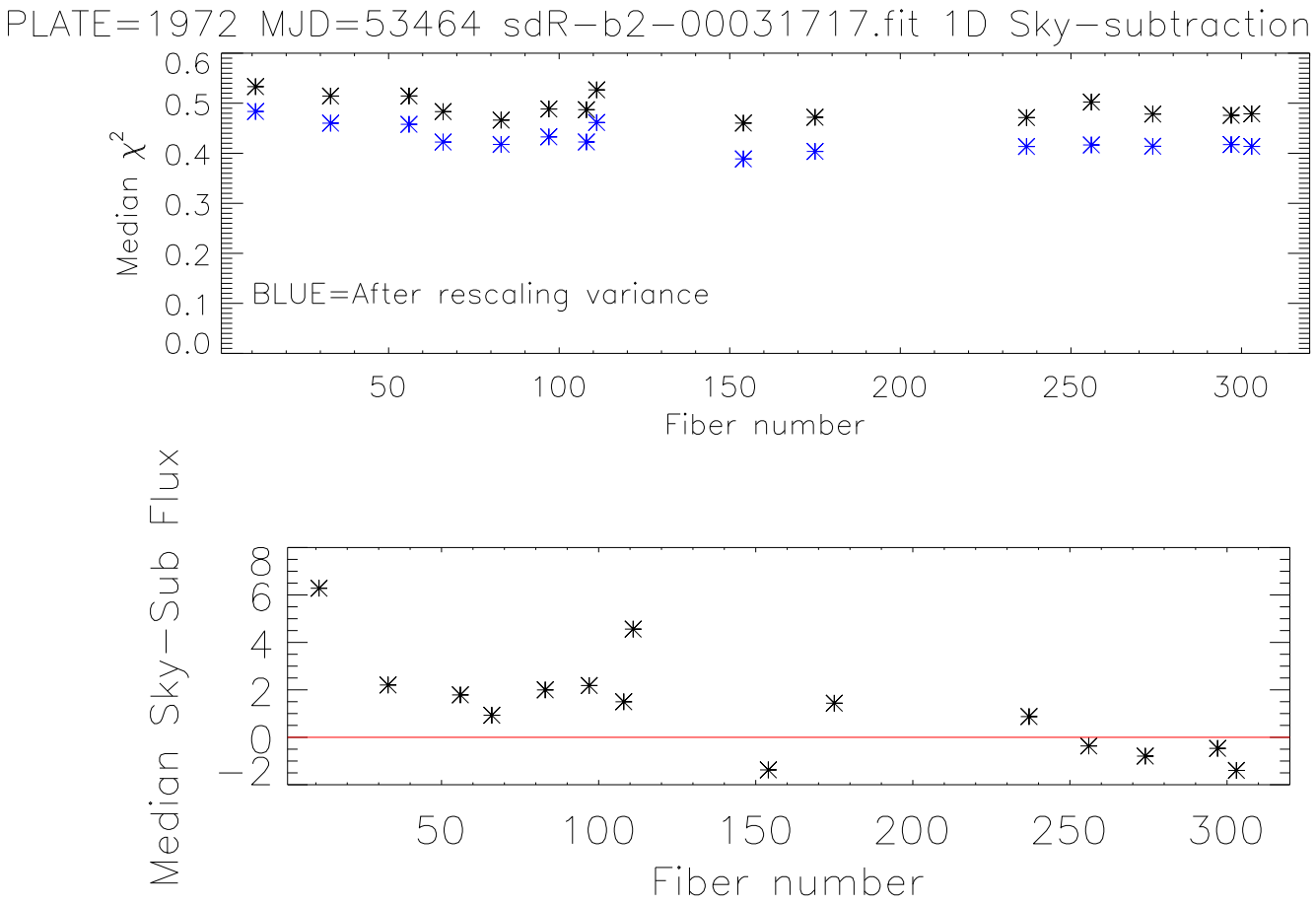

5895.9240
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

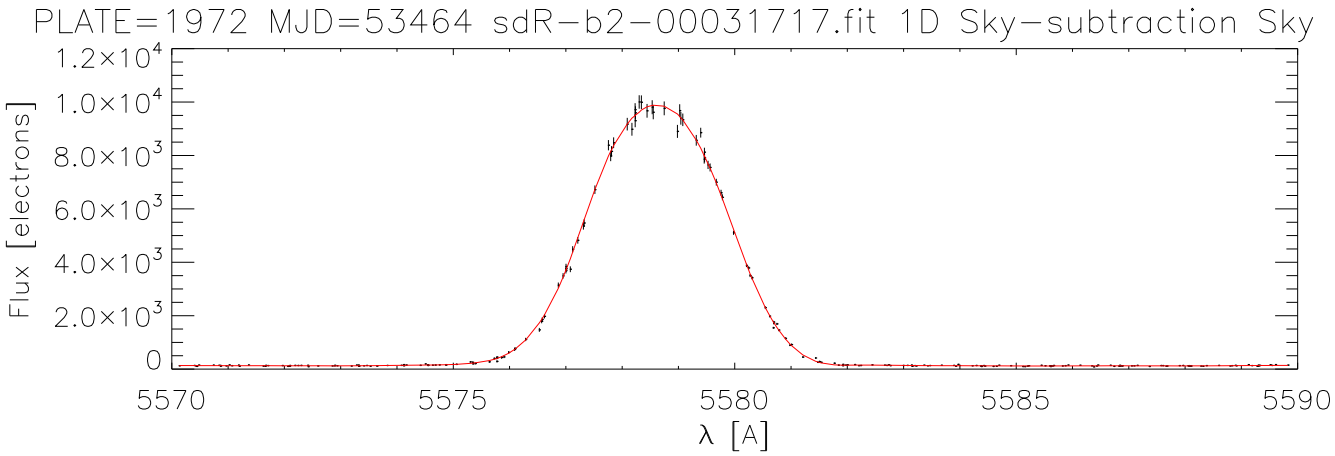

4046.5600
nfib1 15
nfib2 15
stdev 0.077
extra −0.54
4358.3300
nfib1 15
nfib2 15
stdev 0.024
extra −0.57
5460.9400
nfib1 16
nfib2 16
stdev 0.033
extra −0.41
5577.3390
nfib1 16
nfib2 16
stdev 0.019
extra −0.37
5889.9500
nfib1 16
nfib2 16
stdev 0.031
extra −0.31
5895.9240
nfib1 16
nfib2 16
stdev 0.022
extra −0.30
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

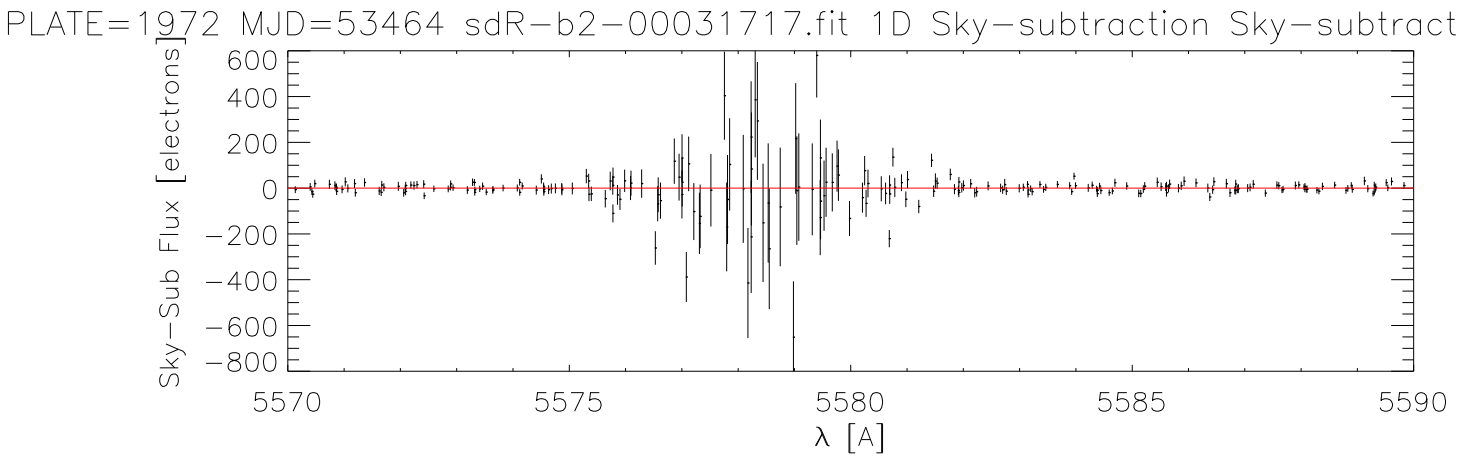

−0.3
−0.4
−0.5
−0.6
sky shift, pixels
3500
4000
4500
5000
5500
6000
6500

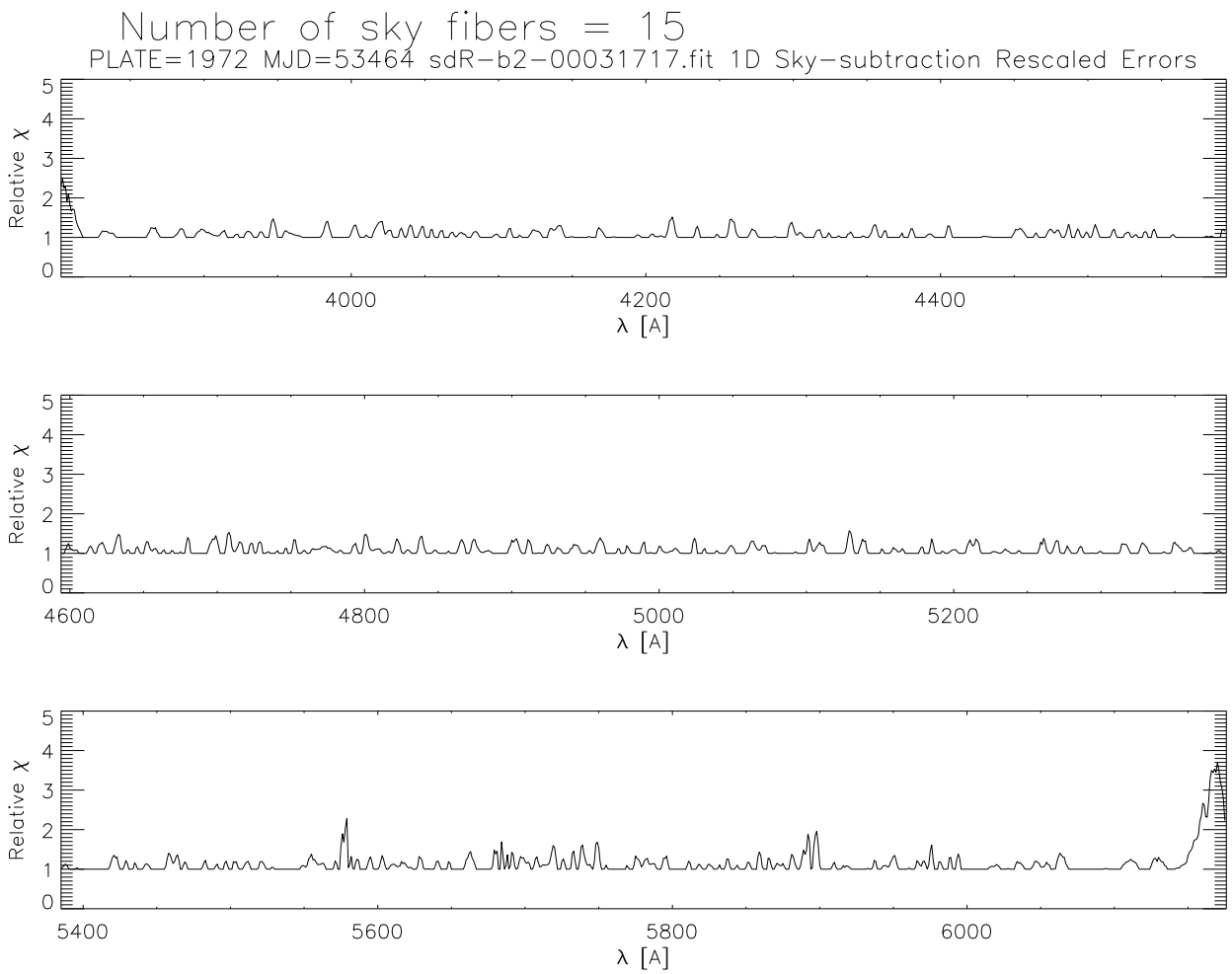
es= −0.0000

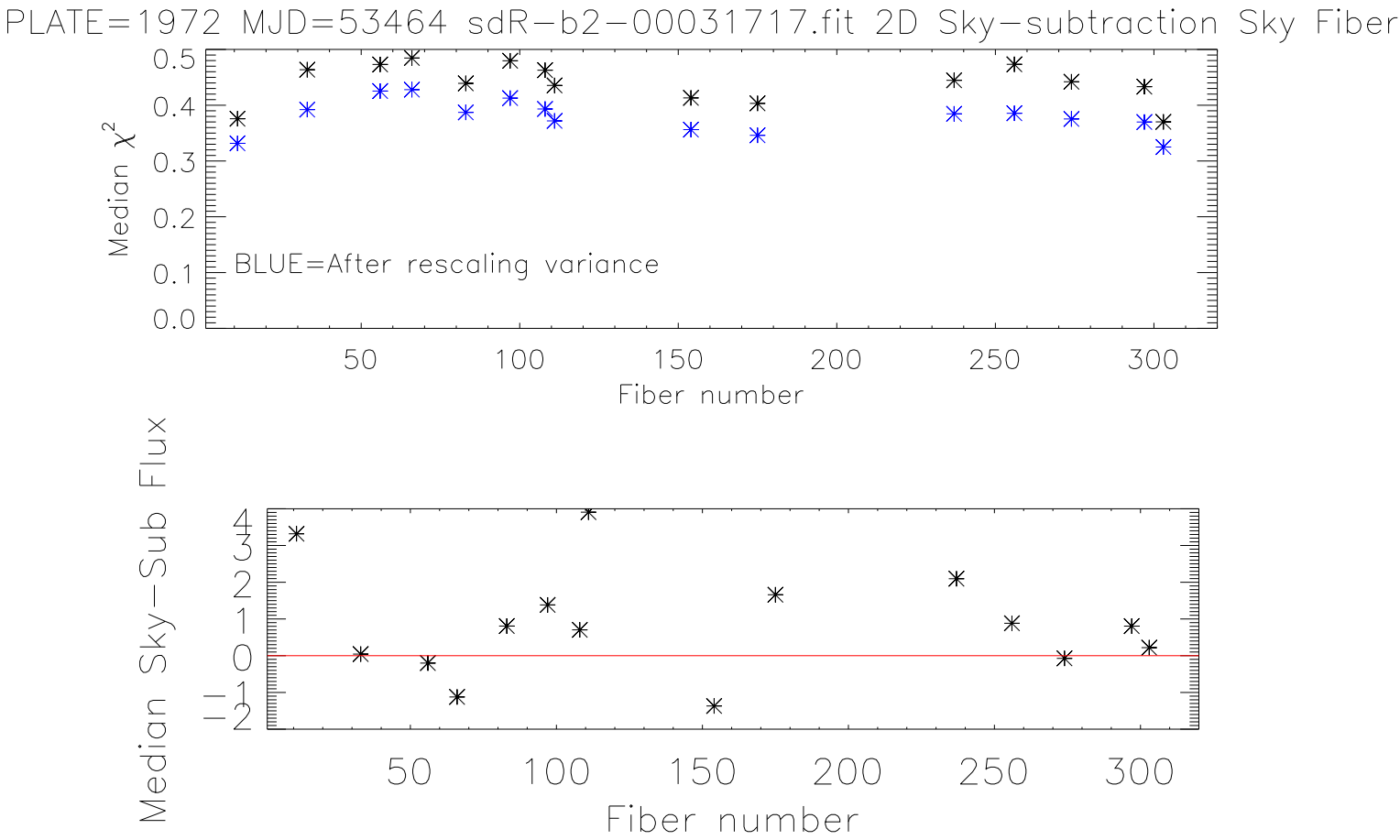

PLATE=1972 MJD=53464 Smooth superflat for sdR−b2−00031717.fit
1.5
1.0
0.5
0.0
1.01
1.00
0.99
0.98
4000
4500
5000
5500
6000
Wavelength (Å)

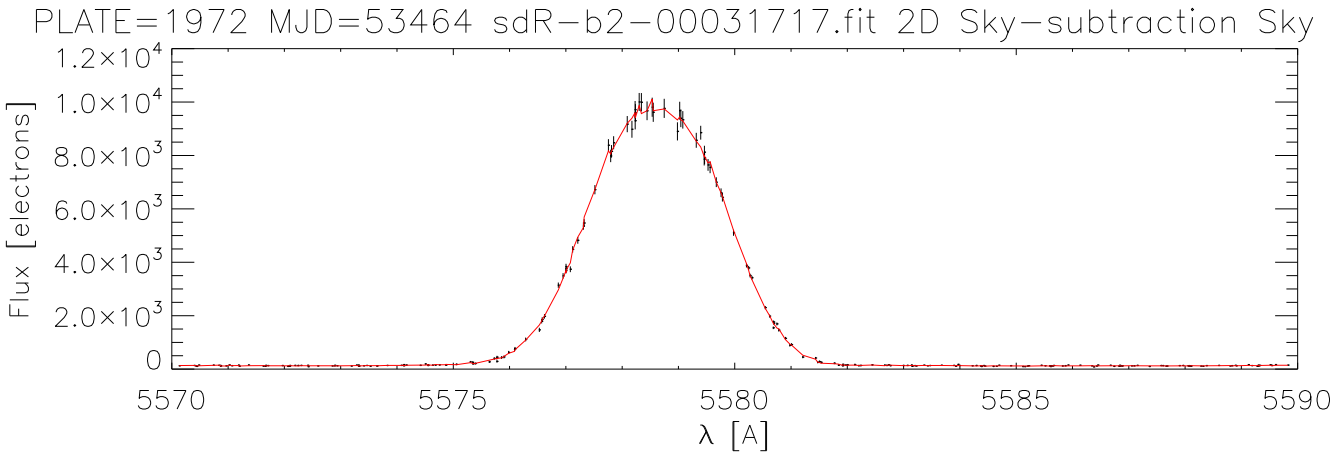

PLATE=1972 MJD=53464 sdR-b2-00031717.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-2
0
2
4
6
8
50
100
150
200
250
300
Fiber number

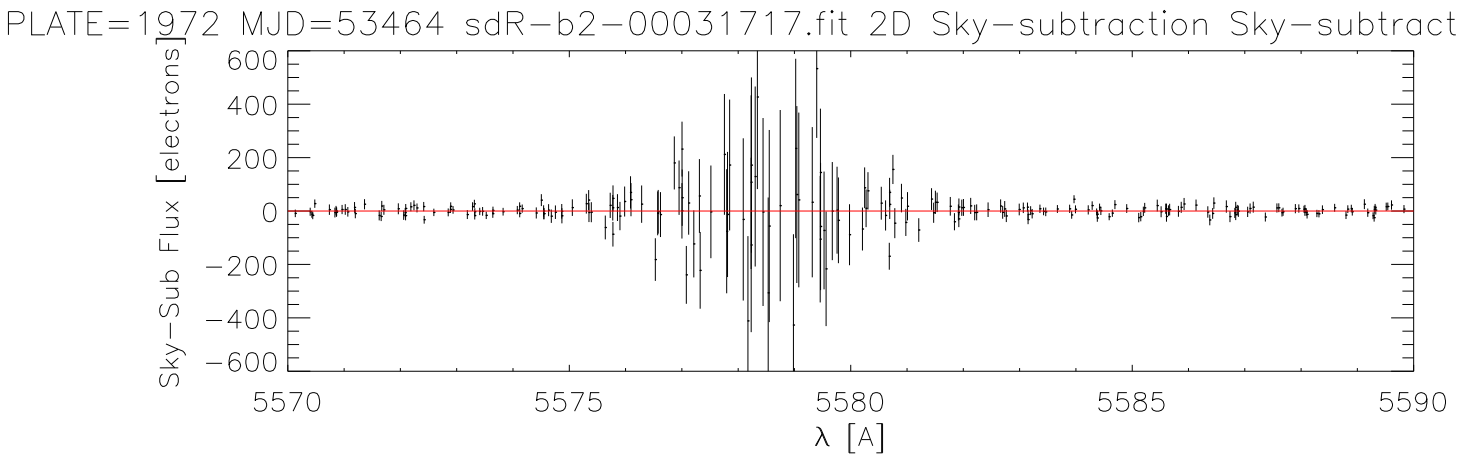

PLATE=1972 MJD=53464 sdR-b2-00031717.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
1.2×10^4
1.0×10^4
8.0×10^3
6.0×10^3
4.0×10^3
2.0×10^3
0
5570
5575
5580
5585
5590
λ [A]

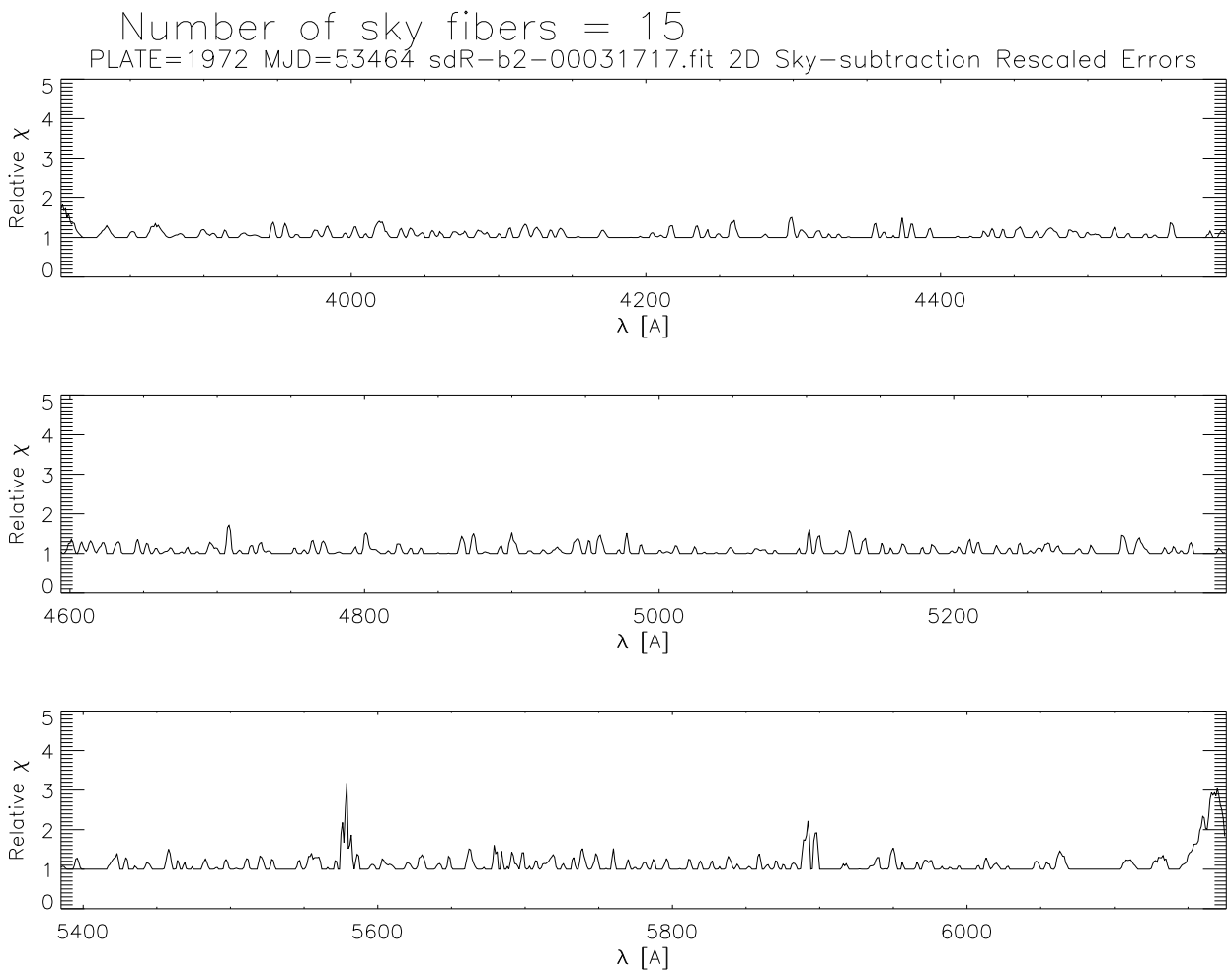

PLATE=1972 MJD=53464 sdR-b2-00031717.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
−200
−400
−600
−800
5570
5575
5580
5585
5590
λ [A]

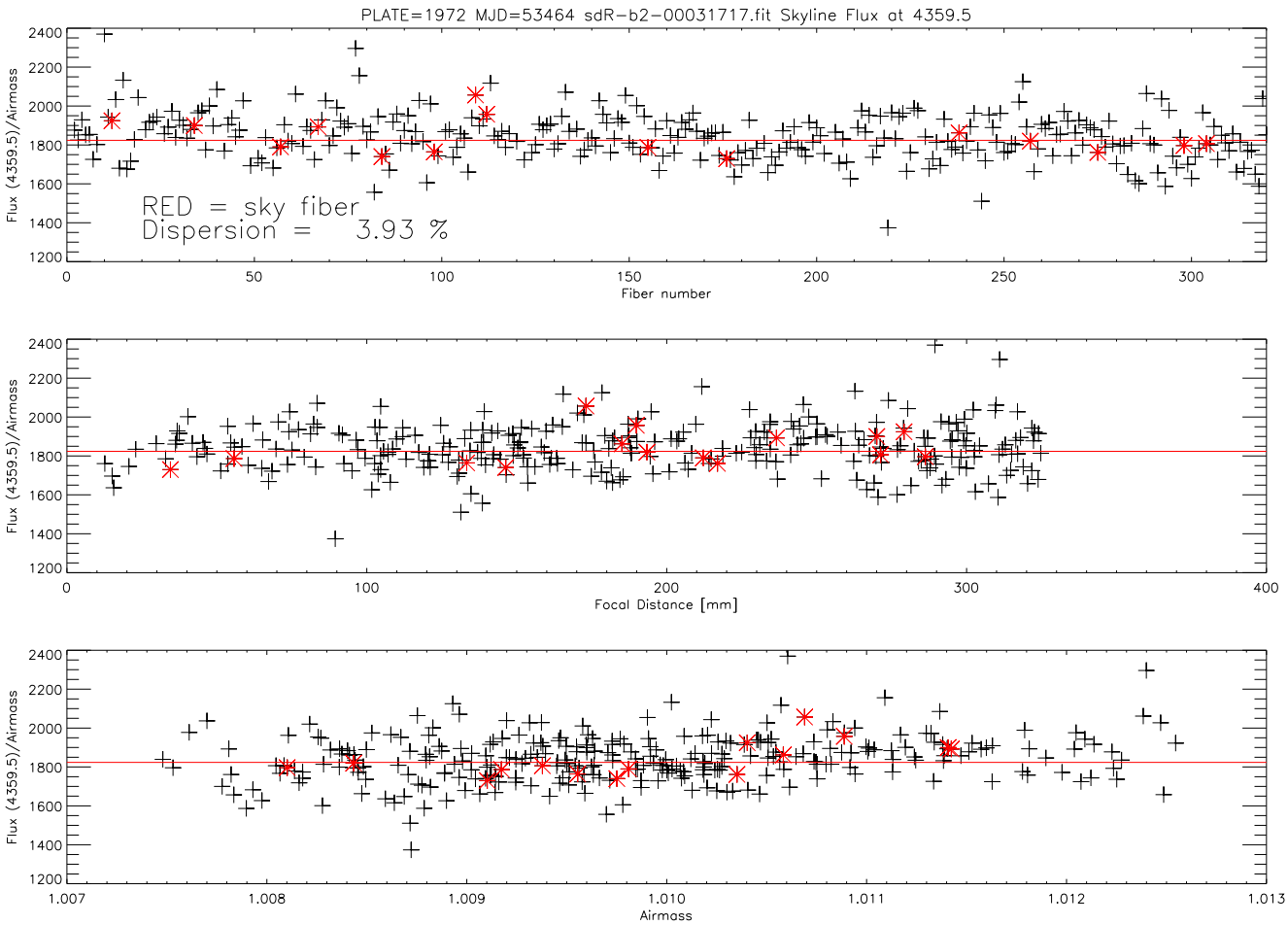

Number of sky fibers = 15
PLATE=1972 MJD=53464 sdR-b2-00031717.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

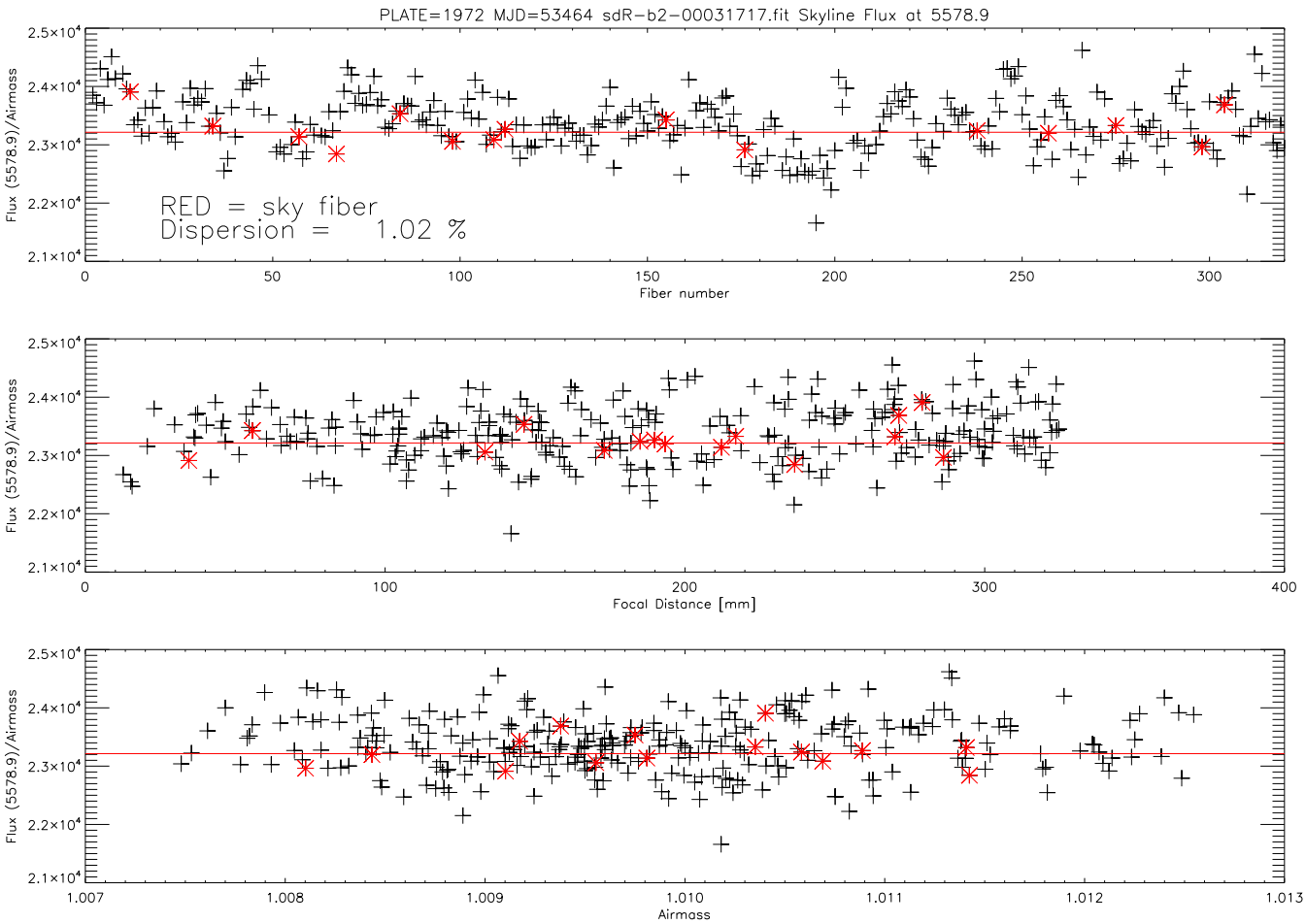

PLATE=1972 MJD=53464 sdR-b2-00031717.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

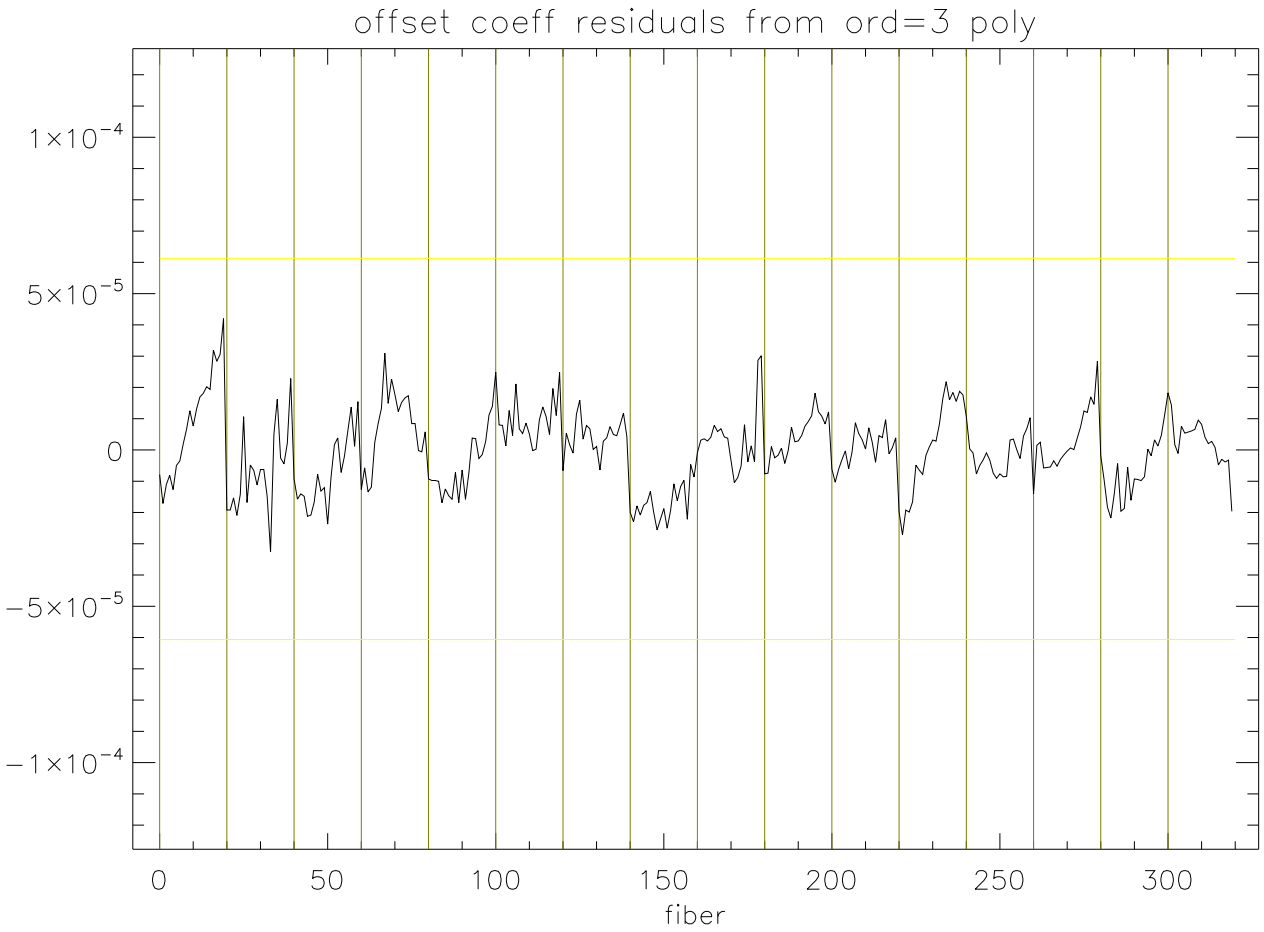

PLATE=1972 MJD=53464 sdR-b2-00031717.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
1.2×10^4
1.0×10^4
8.0×10^3
6.0×10^3
4.0×10^3
2.0×10^3
0
5570
5575
5580
5585
5590
λ [A]

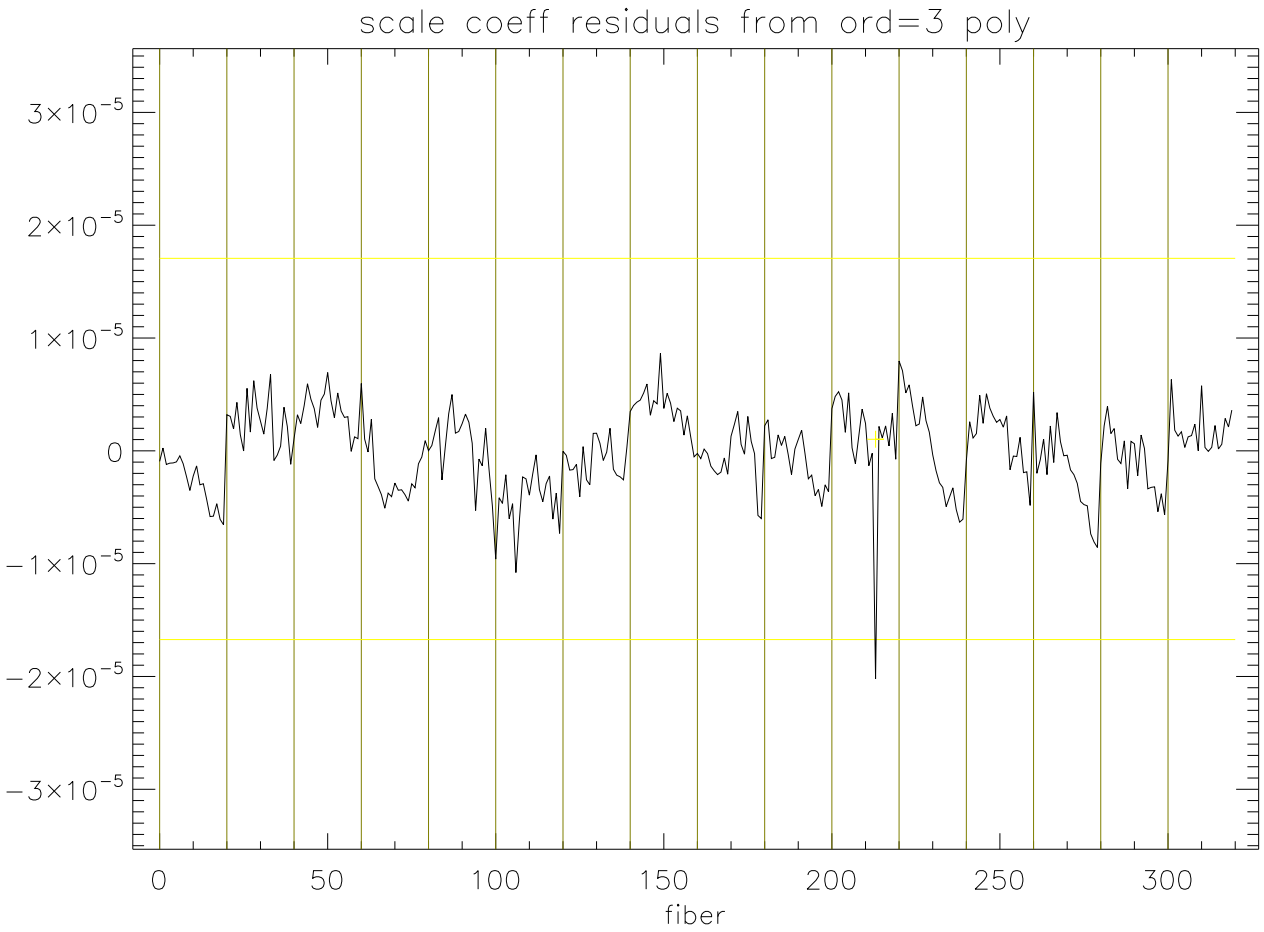

PLATE=1972 MJD=53464 sdR-b2-00031717.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
−200
−400
−600
5570
5575
5580
5585
5590
λ [A]

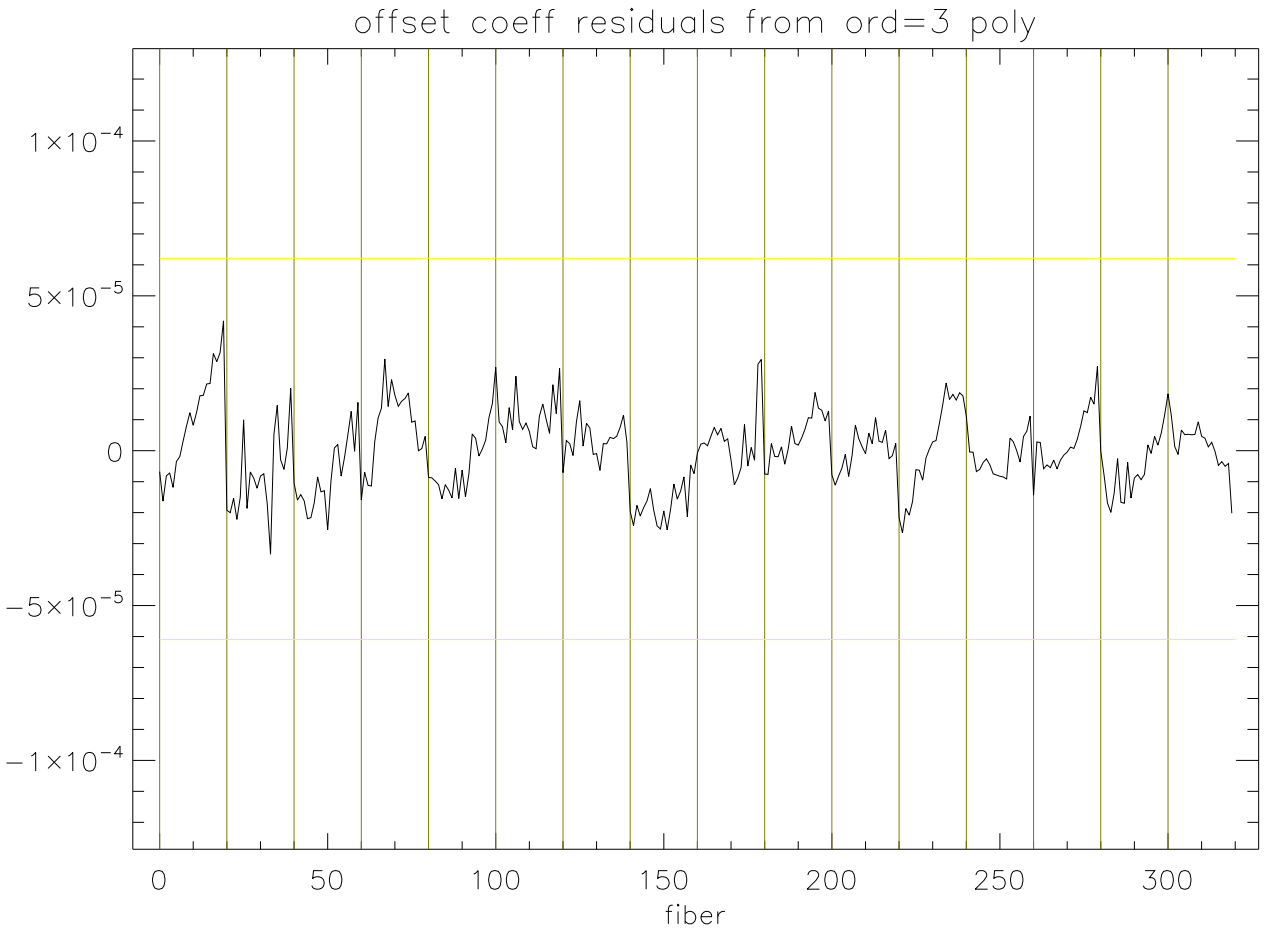

Number of sky fibers = 15
PLATE=1972 MJD=53464 sdR-b2-00031717.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

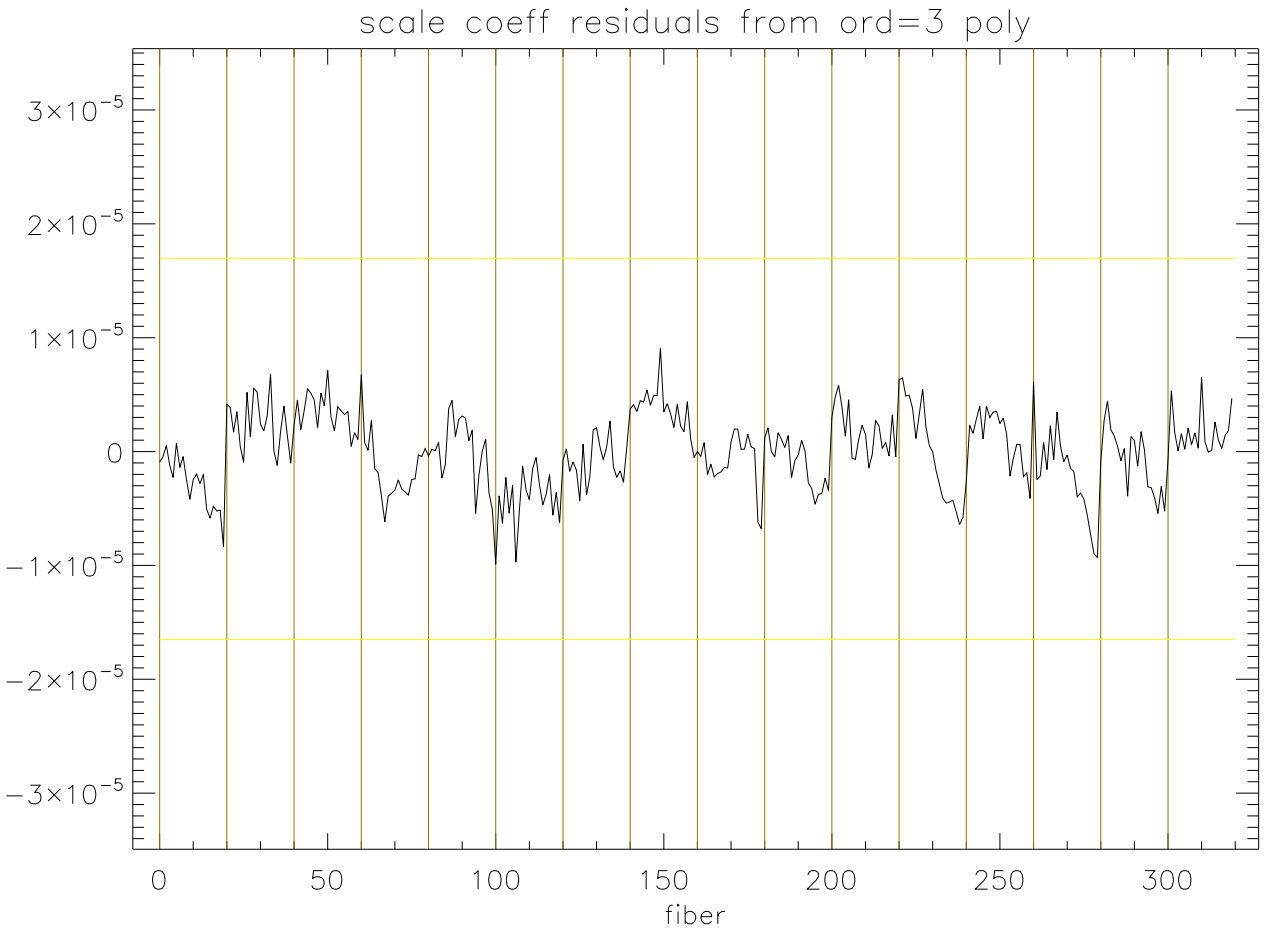

PLATE=1972 MJD=53464 sdR-b2-00031717.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 3.93 %
Fiber number
Focal Distance [mm]
Airmass

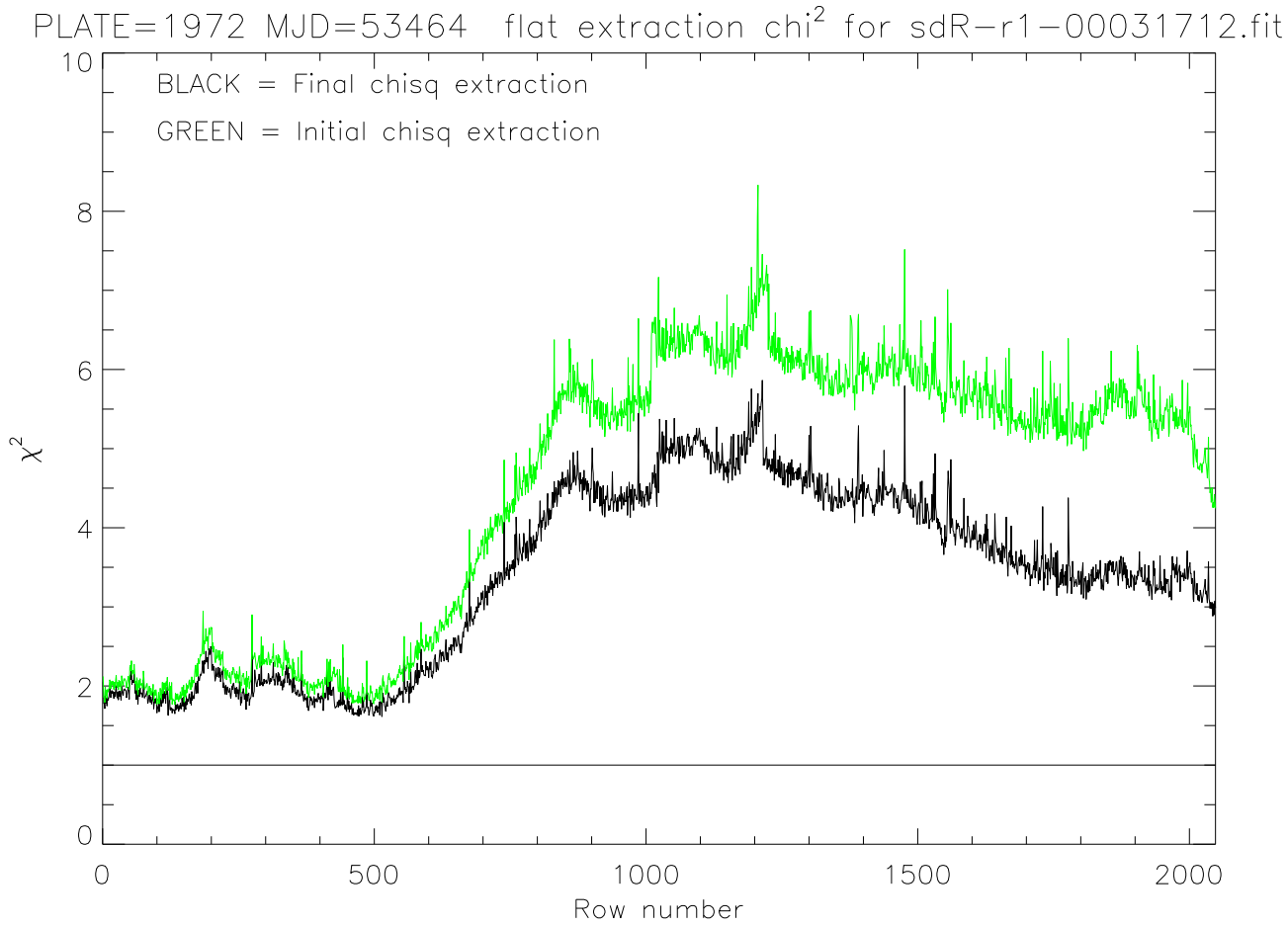

PLATE=1972 MJD=53464 sdR-b2-00031717.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 1.02 %
Fiber number
Focal Distance [mm]
Airmass

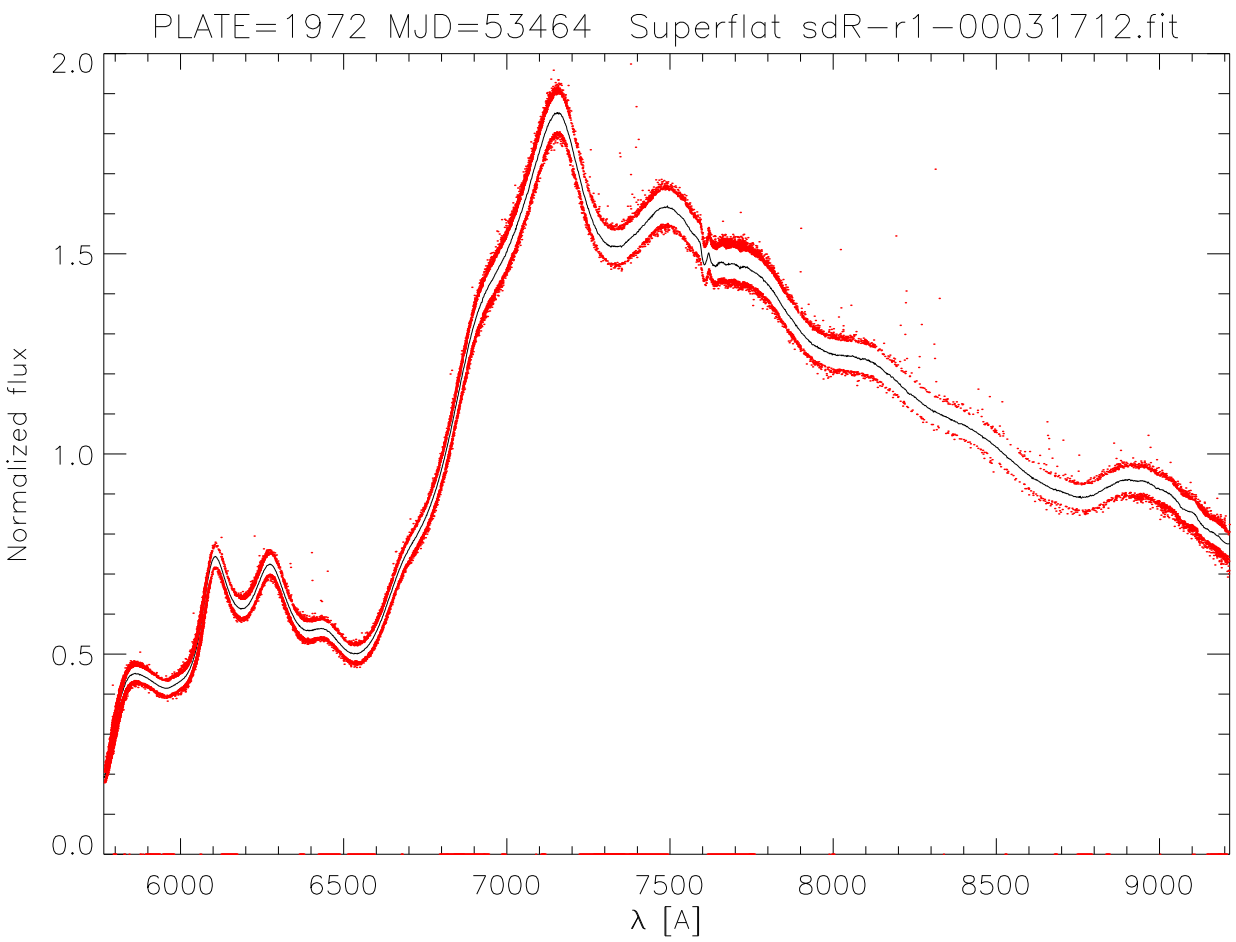

offset coeff residuals from ord=3 poly
1×10^-4
5×10^-5
0
−5×10^-5
−1×10^-4
0
50
100
150
200
250
300
fiber

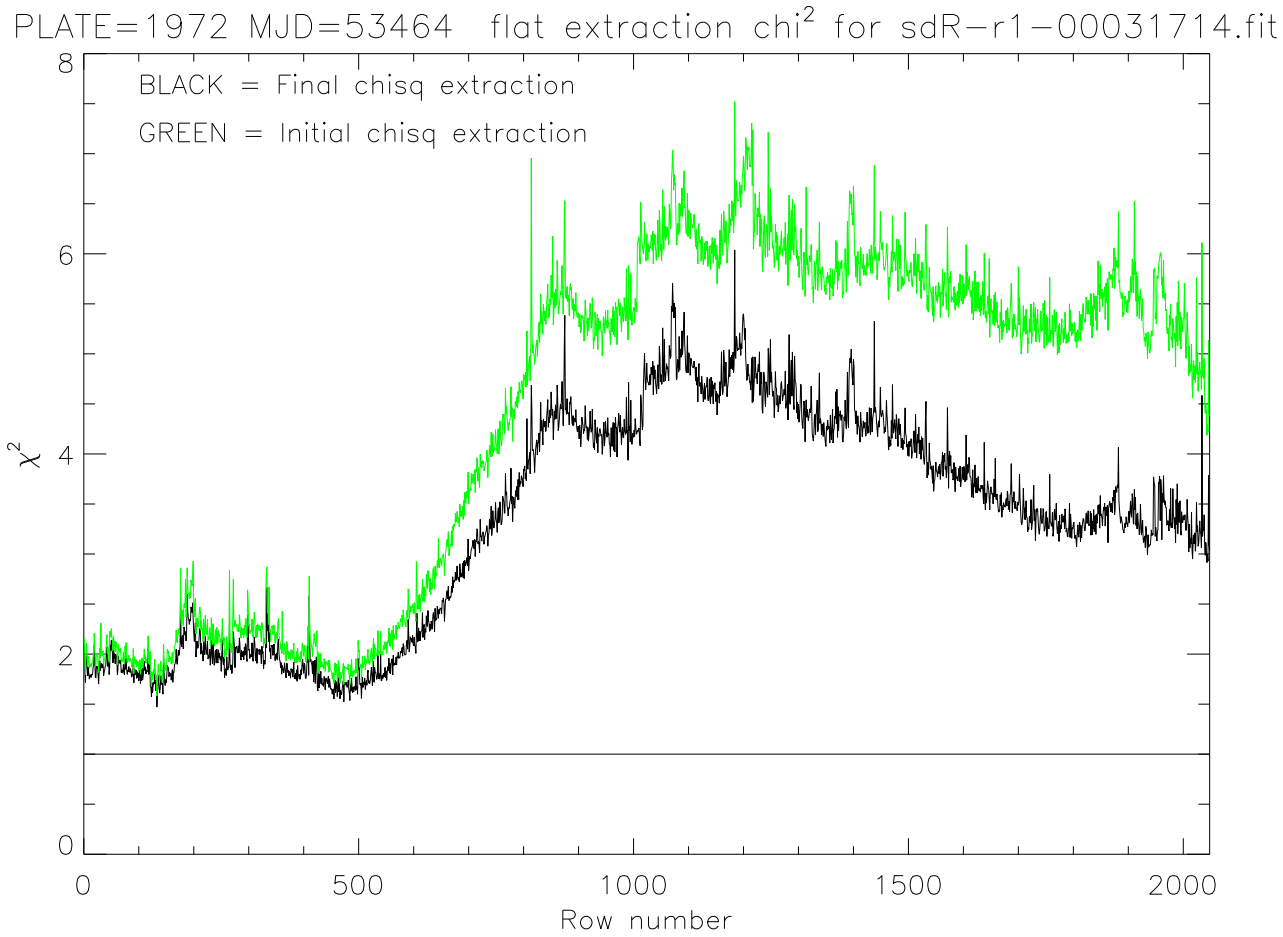

scale coeff residuals from ord=3 poly
3×10⁻⁵
2×10⁻⁵
1×10⁻⁵
0
−1×10⁻⁵
−2×10⁻⁵
−3×10⁻⁵
0
50
100
150
200
250
300
fiber

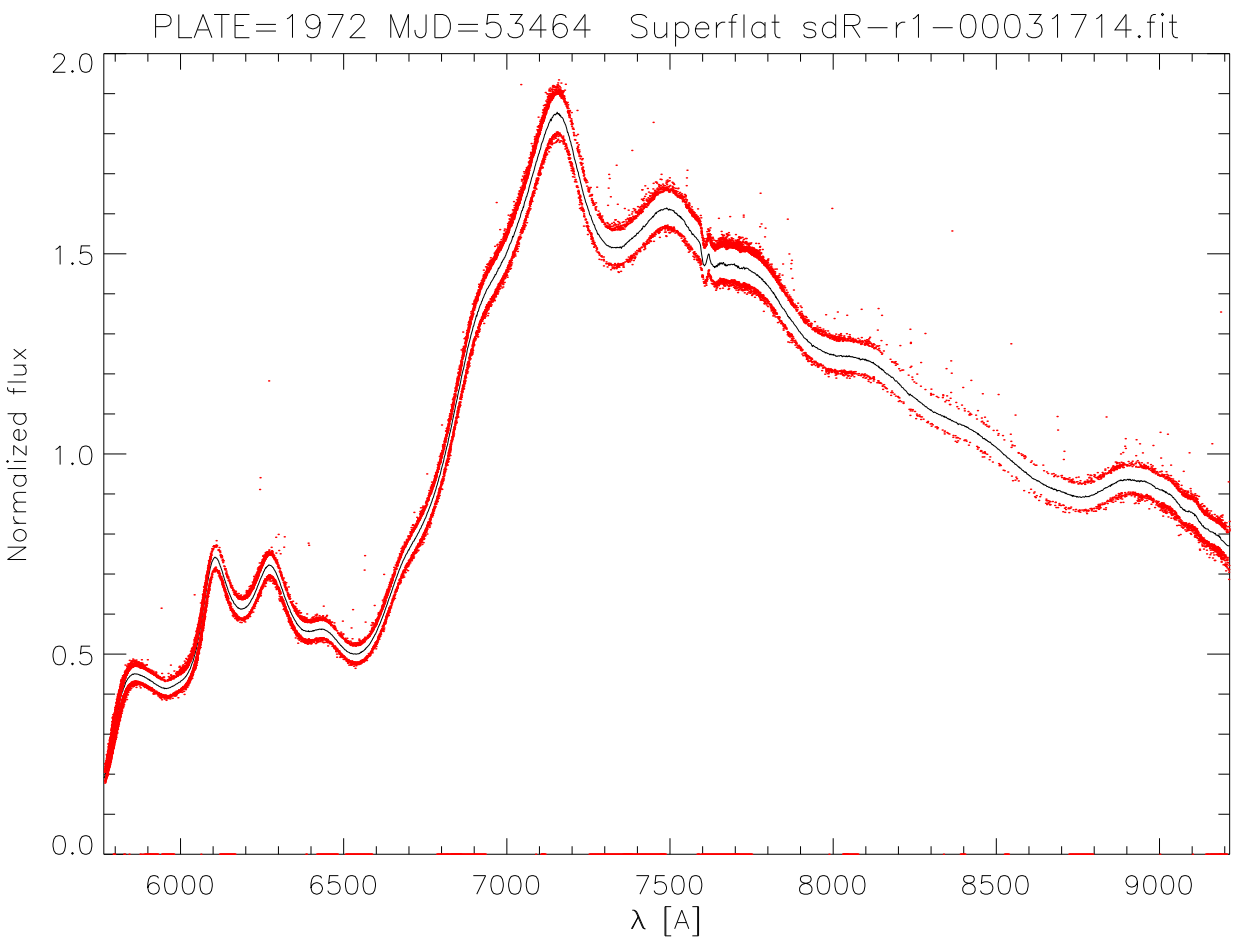

offset coeff residuals from ord=3 poly
1×10^-4
5×10^-5
0
−5×10^-5
−1×10^-4
0
50
100
150
200
250
300
fiber

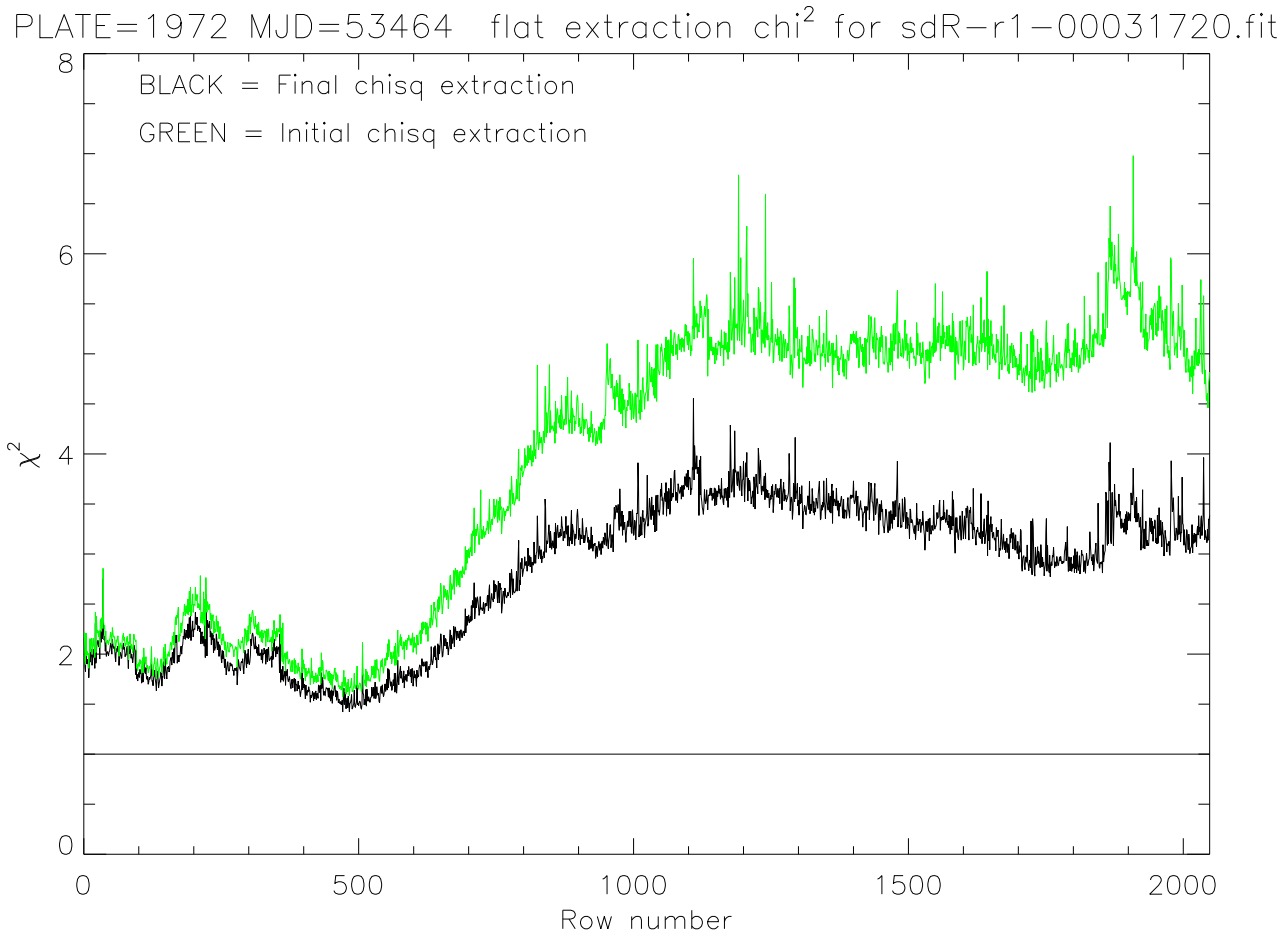

scale coeff residuals from ord=3 poly
3×10⁻⁵
2×10⁻⁵
1×10⁻⁵
0
−1×10⁻⁵
−2×10⁻⁵
−3×10⁻⁵
0
50
100
150
200
250
300
fiber

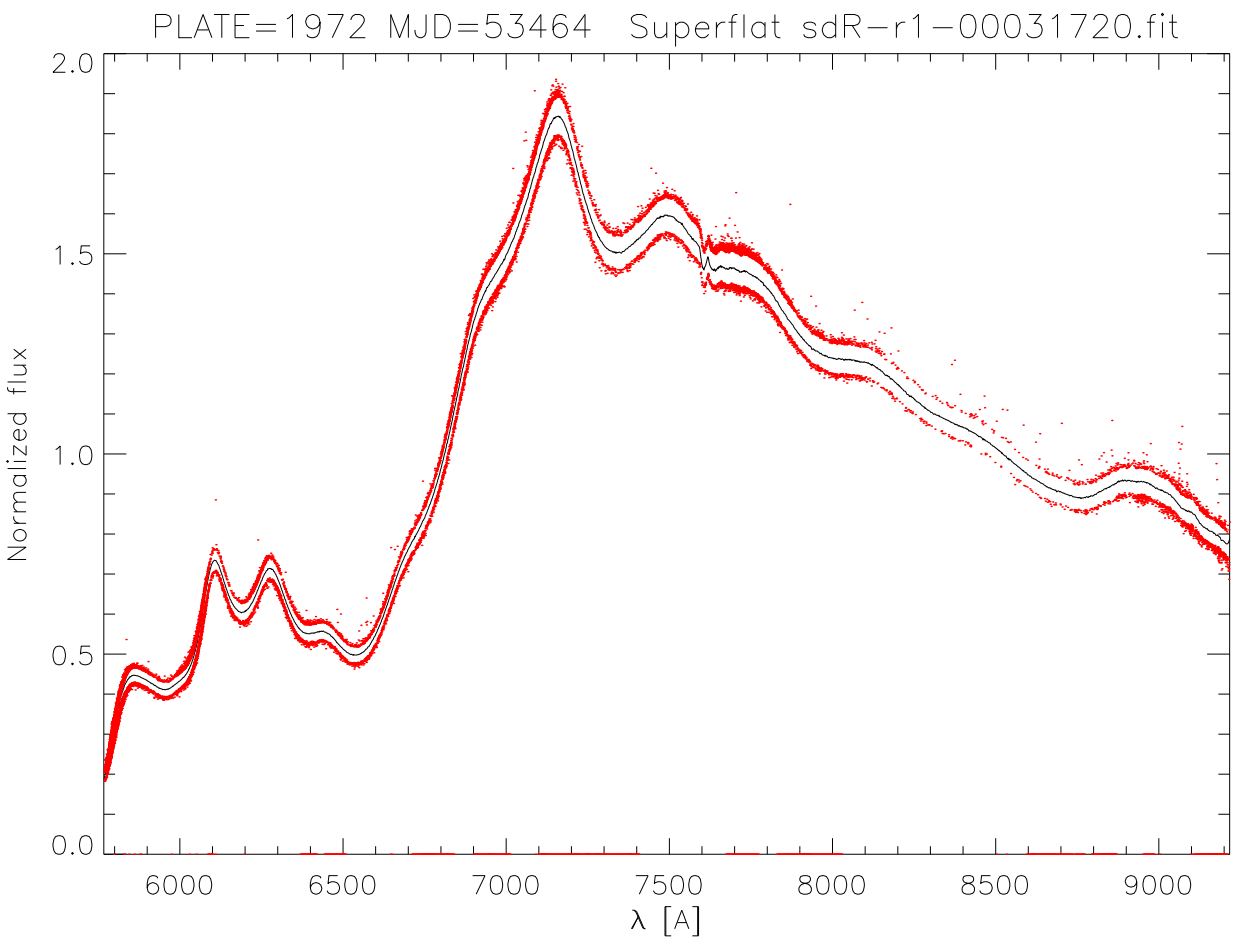

PLATE=1972 MJD=53464 flat extraction chi^2 for sdR−r1−00031712.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
2
4
6
8
10
0
500
1000
1500
2000

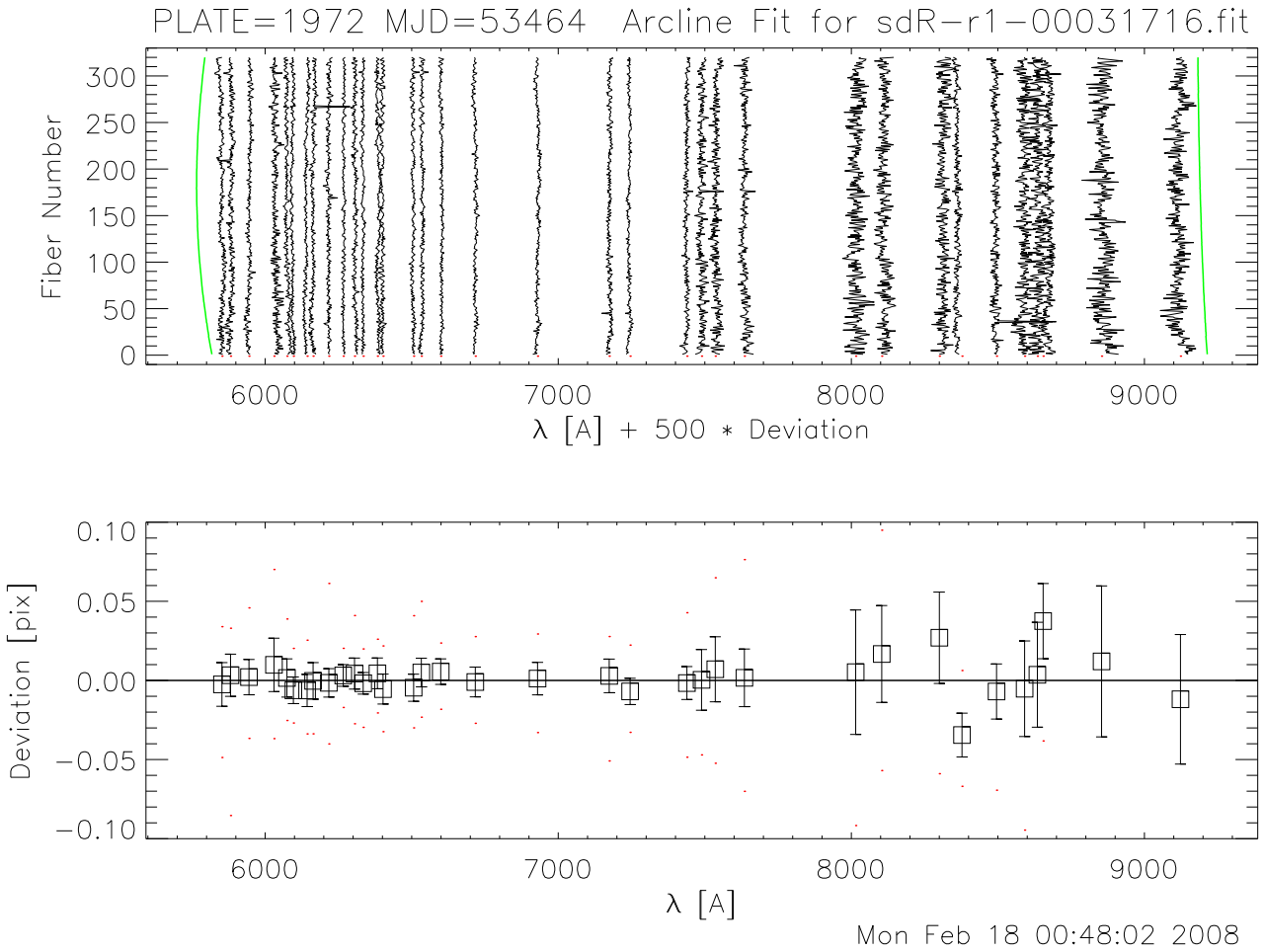

PLATE=1972 MJD=53464 Superflat sdR-r1-00031712.fit
Normalized flux
2.0
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

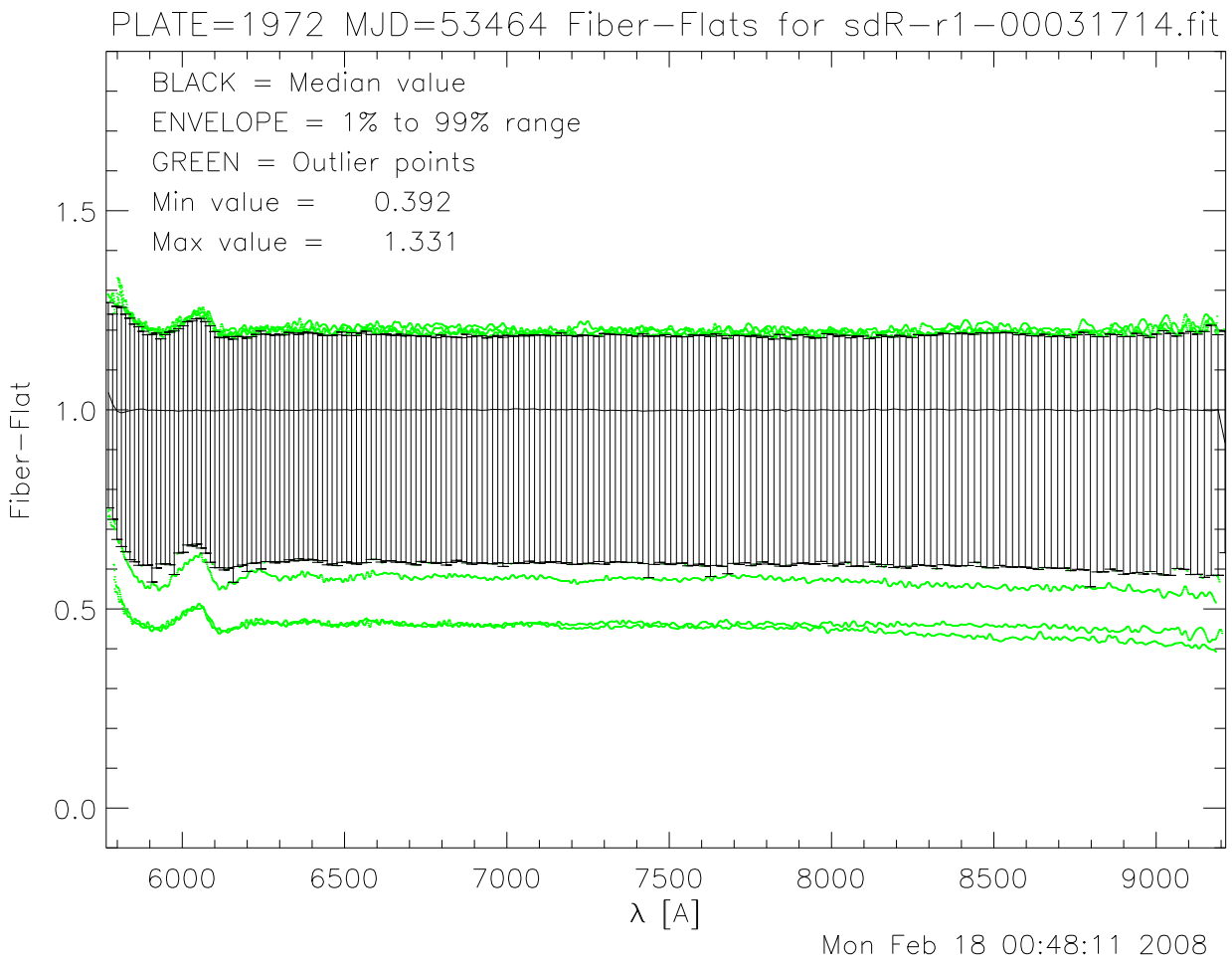

PLATE=1972 MJD=53464 flat extraction chi^2 for sdR−r1−00031714.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
0
500
1000
1500
2000
Row number

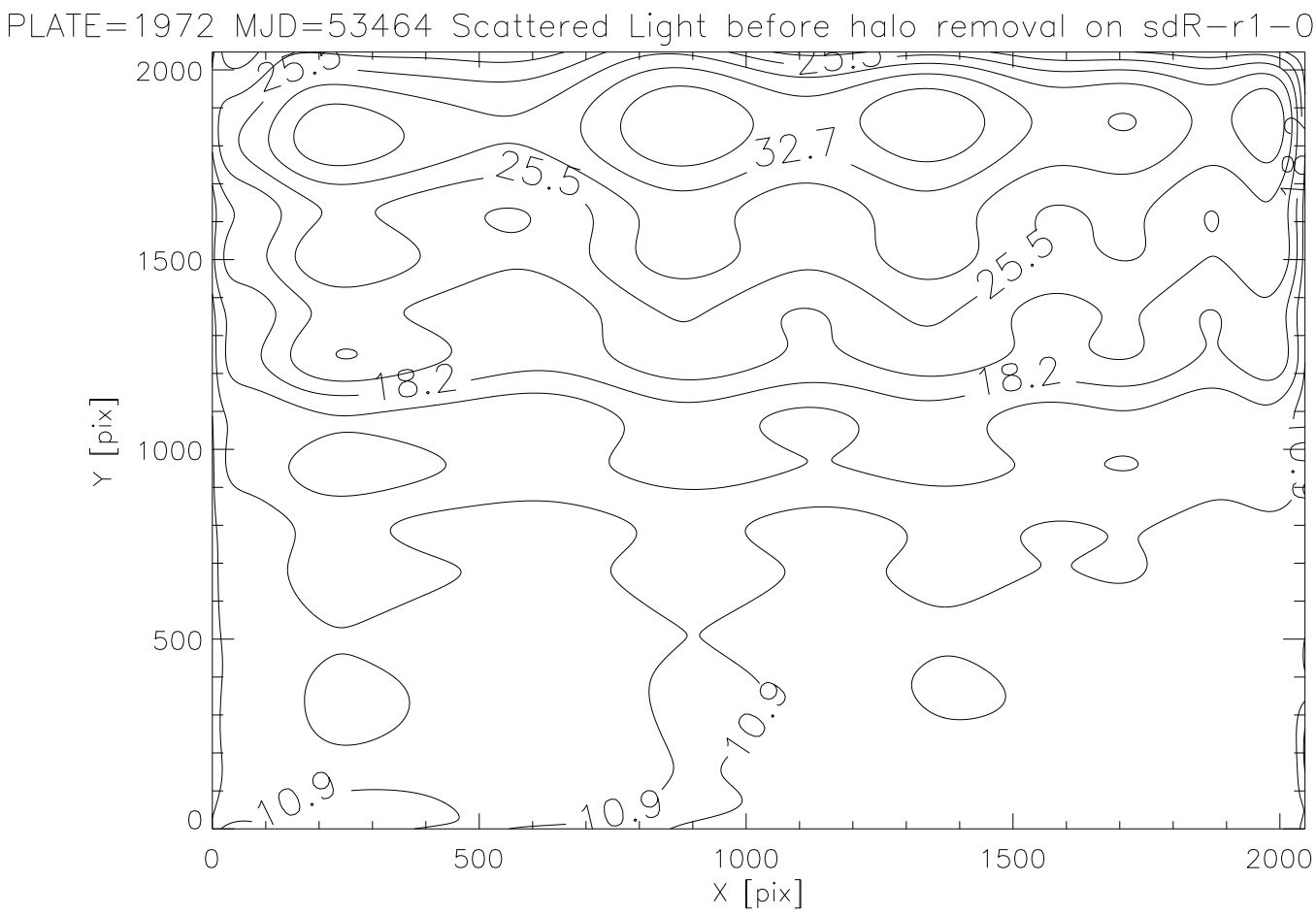

PLATE=1972 MJD=53464 Superflat sdR-r1-00031714.fit
Normalized flux
2.0
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

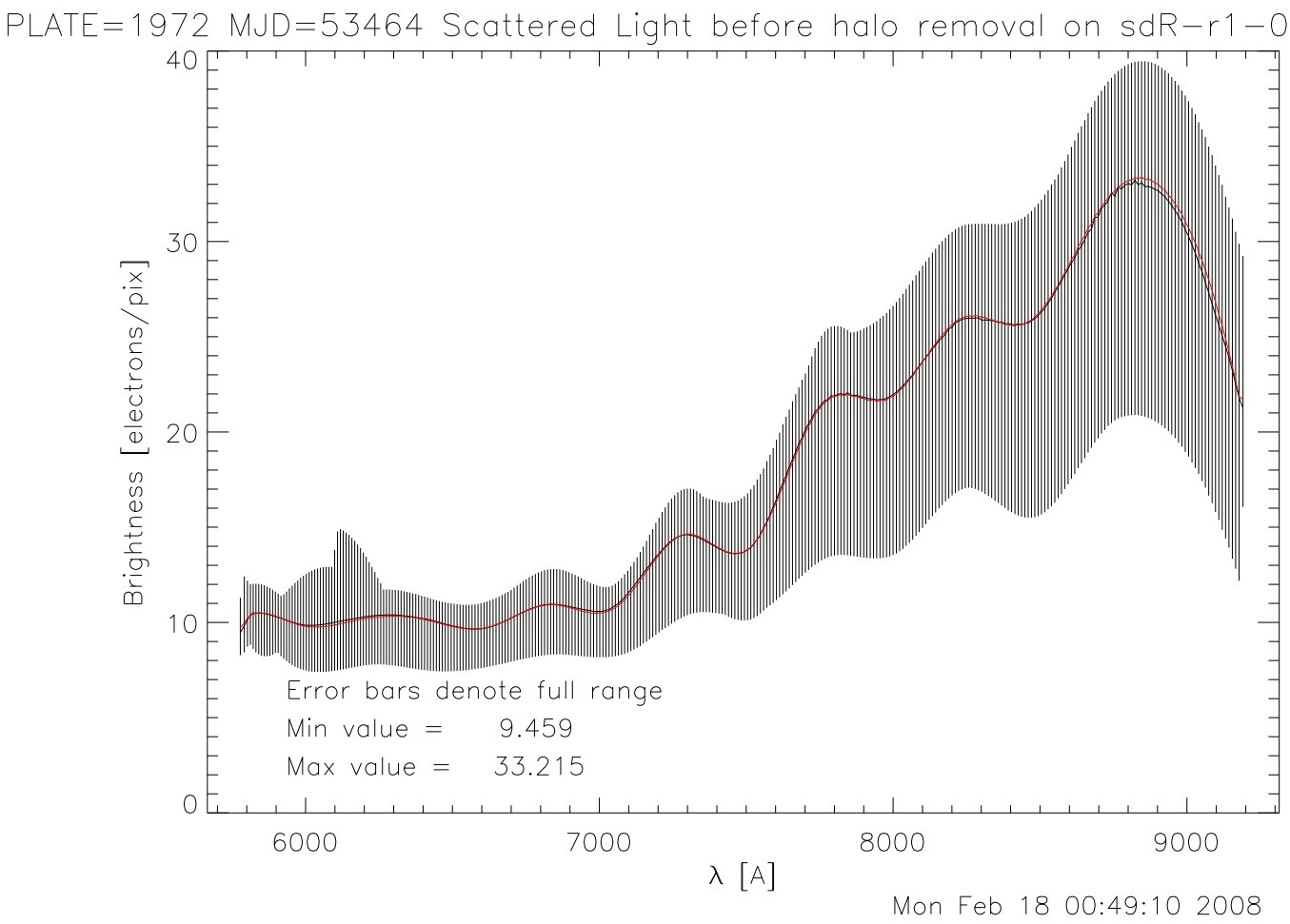

PLATE=1972 MJD=53464 flat extraction chi^2 for sdR−r1−00031720.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
0
500
1000
1500
2000
Row number

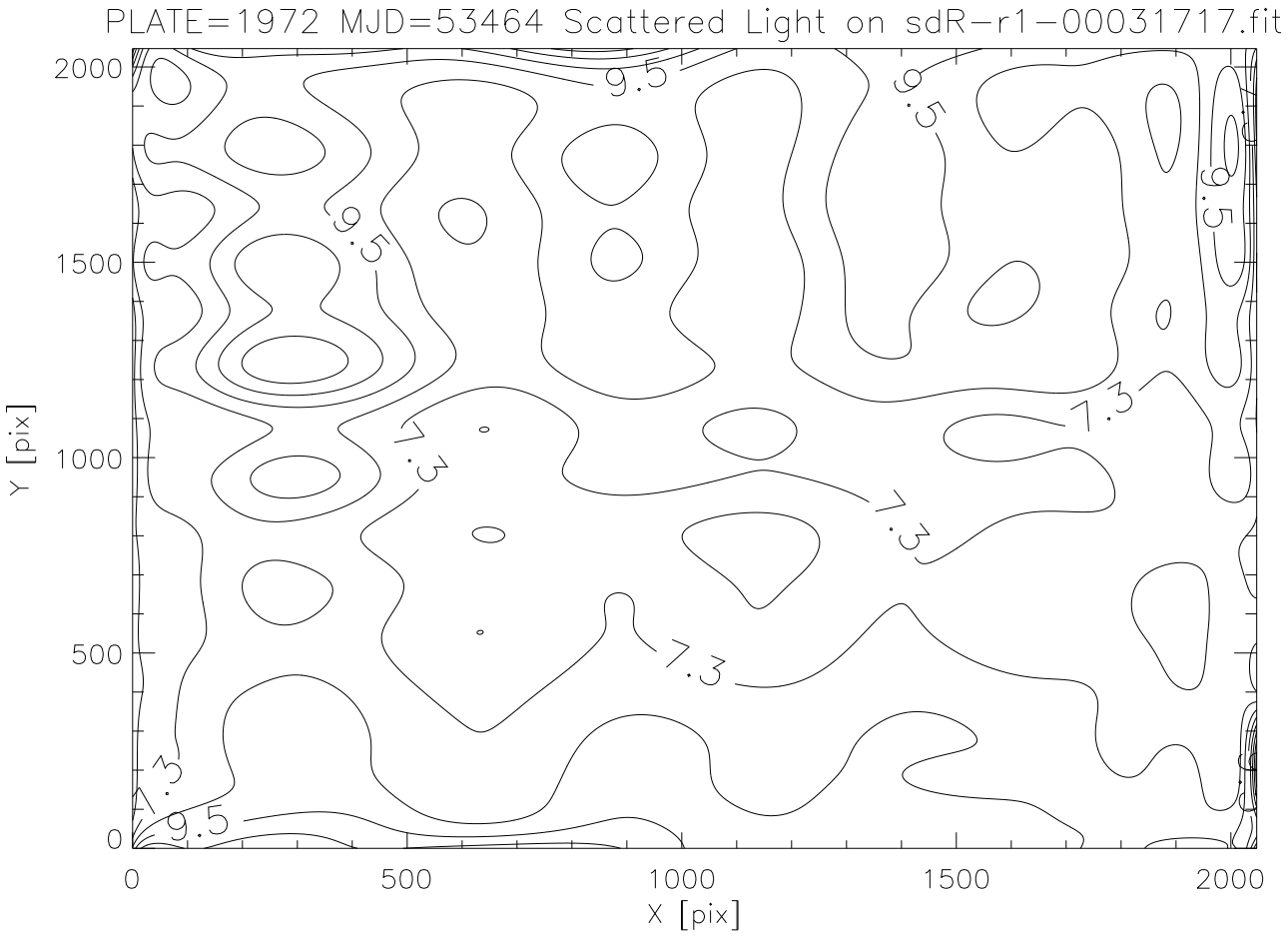

PLATE=1972 MJD=53464 Superflat sdR-r1-00031720.fit
Normalized flux
2.0
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

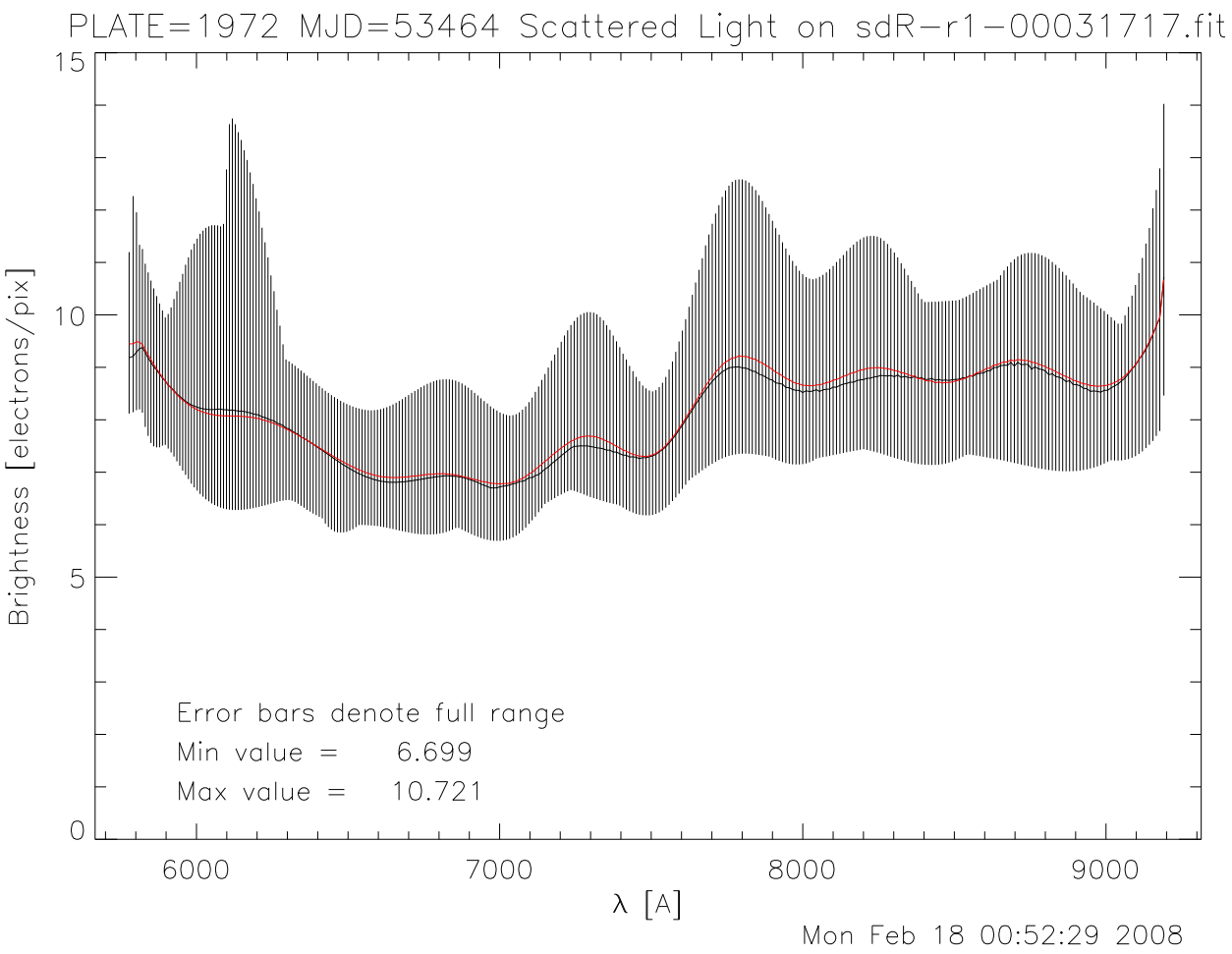

PLATE=1972 MJD=53464 Arcline Fit for sdR-r1-00031716.fit
Fiber Number
300
250
200
150
100
50
0
6000
7000
8000
9000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
6000
7000
8000
9000
λ [A]
Mon Feb 18 00:48:02 2008

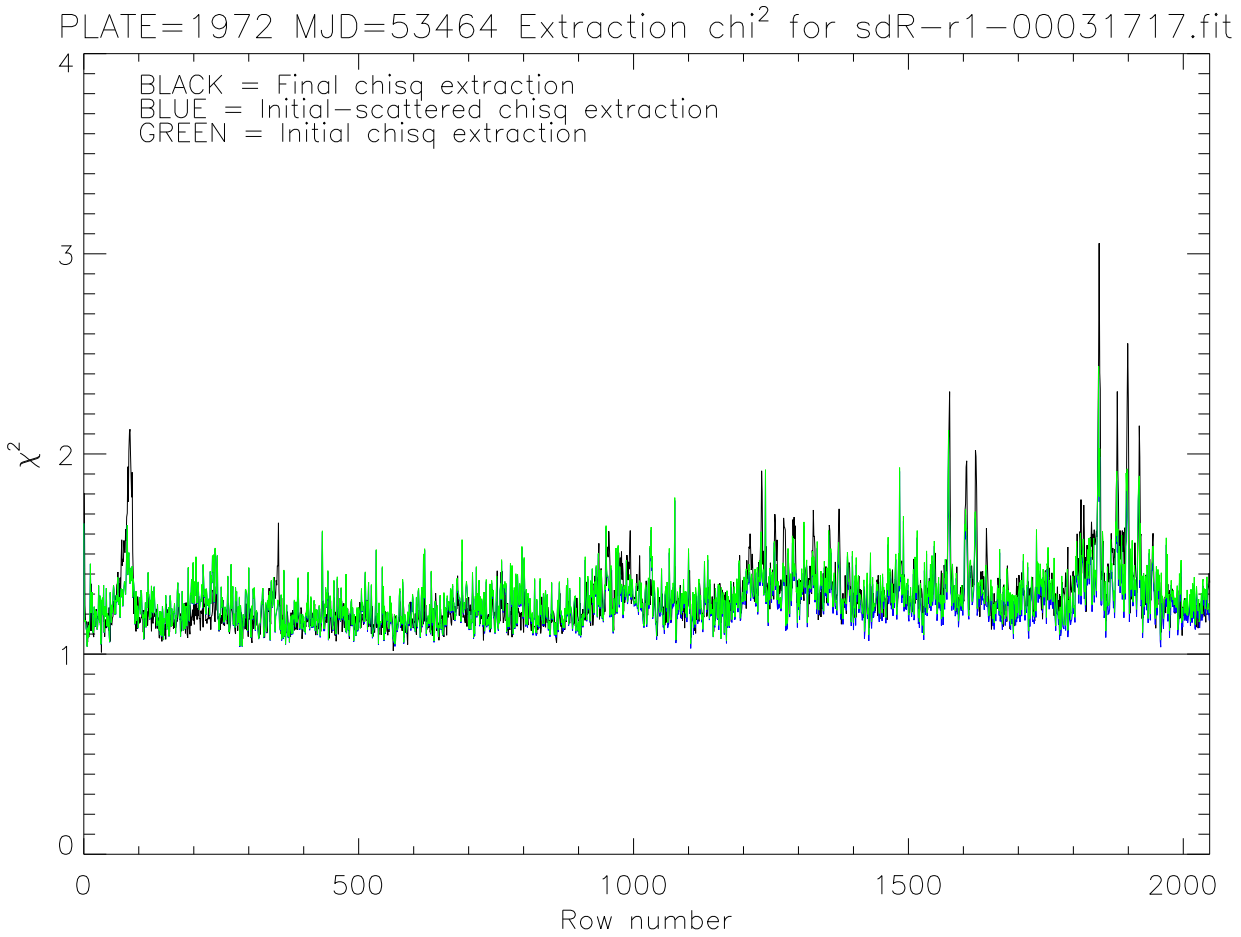

PLATE=1972 MJD=53464 Fiber−Flats for sdR−r1−00031714.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.392
Max value = 1.331
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Mon Feb 18 00:48:11 2008

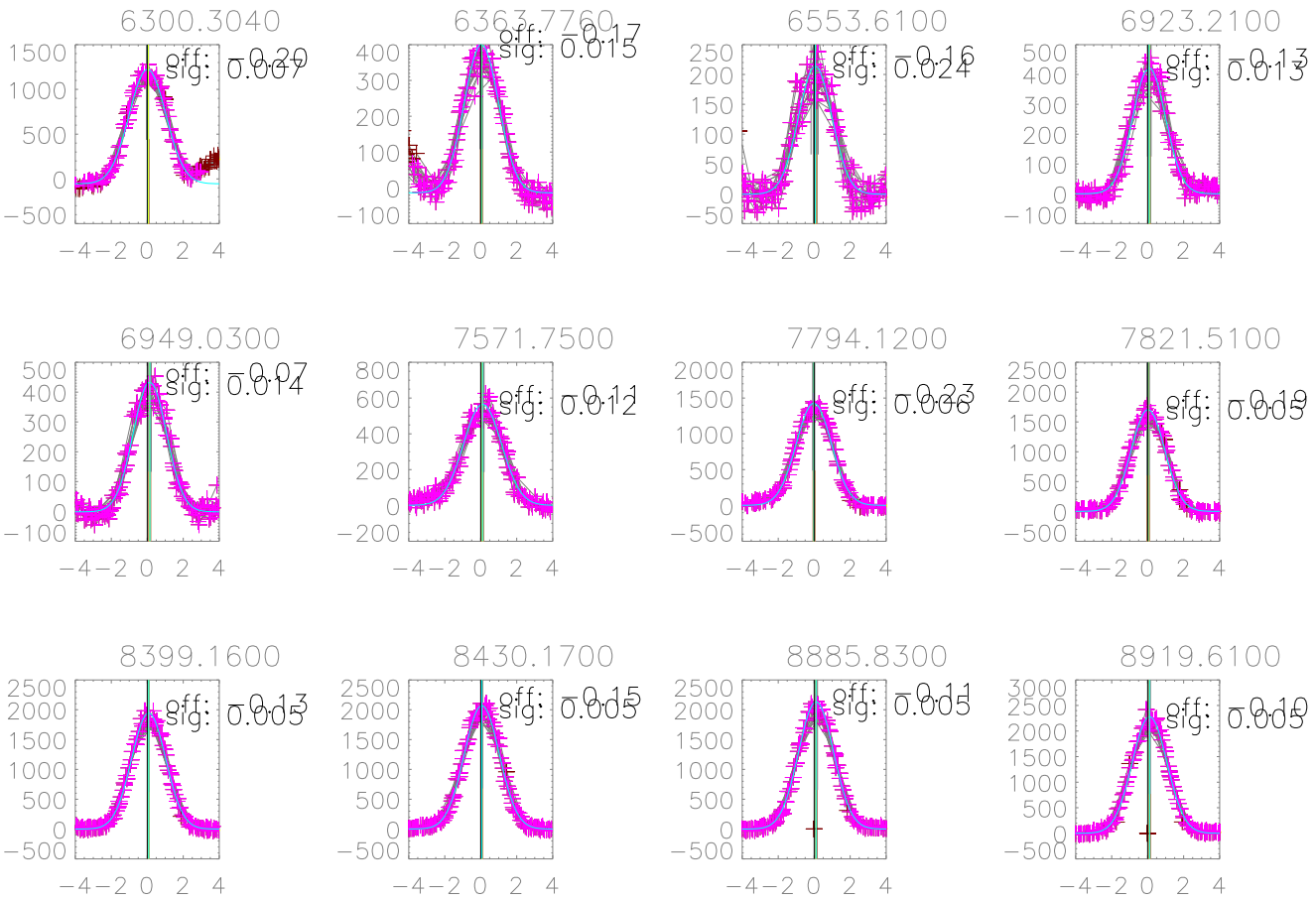

PLATE=1972 MJD=53464 Scattered Light before halo removal on sdR-r1-00031717.fi
25.5
32.7
25.5
0
25.5
18.2
18.2
10.9
10.9
10.9
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]

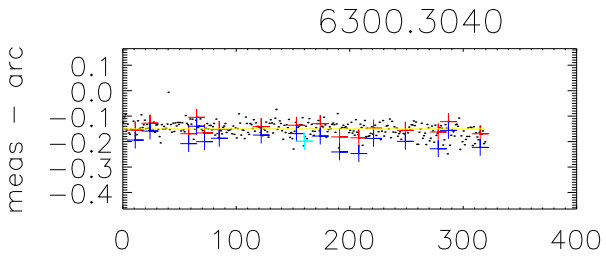

PLATE=1972 MJD=53464 Scattered Light before halo removal on sdR-r1-00031717.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 9.459
Max value = 33.215
Mon Feb 18 00:49:10 2008

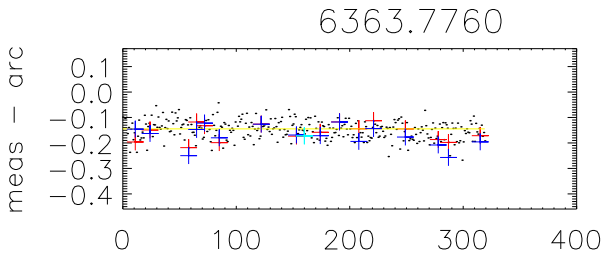

PLATE=1972 MJD=53464 Scattered Light on sdR-r1-00031717.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
9.5
7.3
0

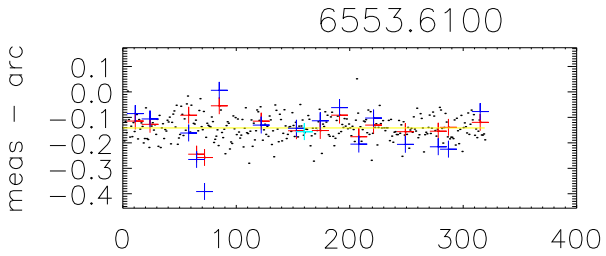

PLATE=1972 MJD=53464 Scattered Light on sdR-r1-00031717.fit
Brightness [electrons/pix]
15
10
5
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 6.699
Max value = 10.721
Mon Feb 18 00:52:29 2008

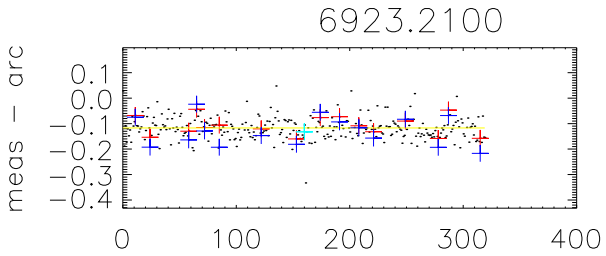

PLATE=1972 MJD=53464 Extraction chi^2 for sdR−r1−00031717.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
0
500
1000
1500
2000
Row number

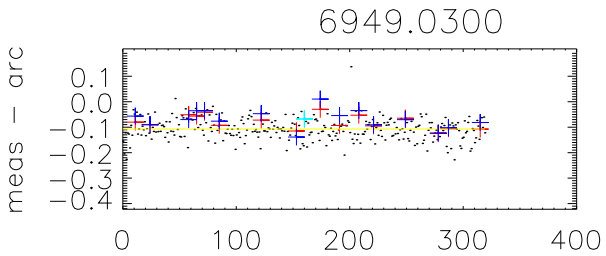

6300.3040
off: −0.20
sig: 0.007
6363.7760
off: −0.17
sig: 0.015
6553.6100
off: −0.16
sig: 0.024
6923.2100
off: −0.13
sig: 0.013
6949.0300
off: −0.07
sig: 0.014
7571.7500
off: −0.11
sig: 0.012
7794.1200
off: −0.23
sig: 0.006
7821.5100
off: −0.19
sig: 0.005
8399.1600
off: −0.13
sig: 0.005
8430.1700
off: −0.15
sig: 0.005
8885.8300
off: −0.11
sig: 0.005
8919.6100
off: −0.19
sig: 0.005

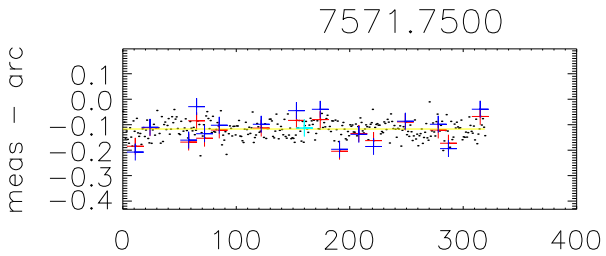

6300.3040
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

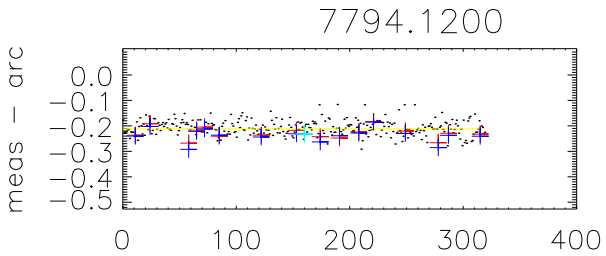

6363.7760
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

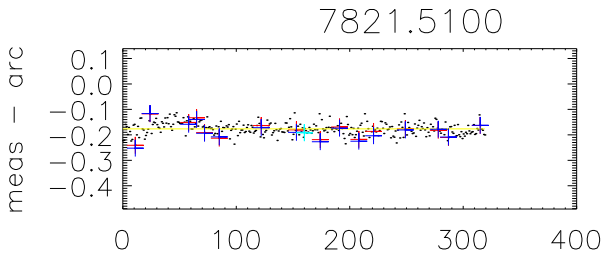

6553.6100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

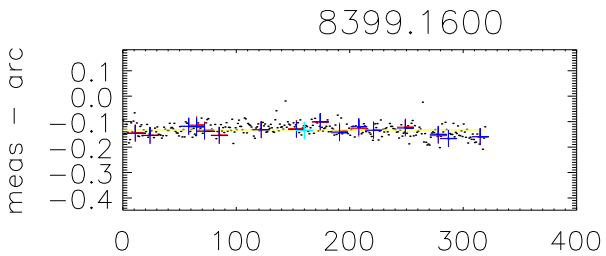

6923.2100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

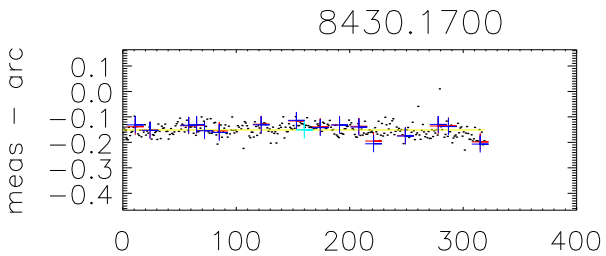

6949.0300
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

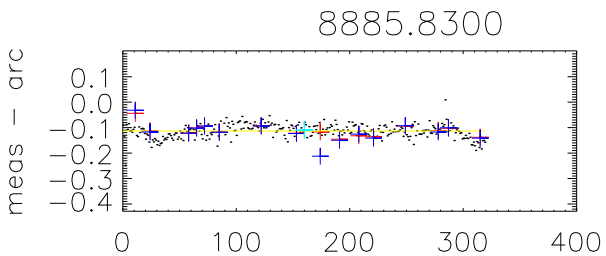

7571.7500
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

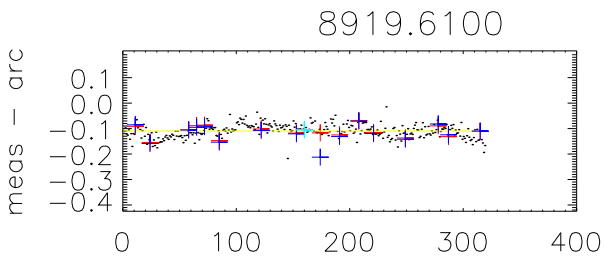

7794.1200
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

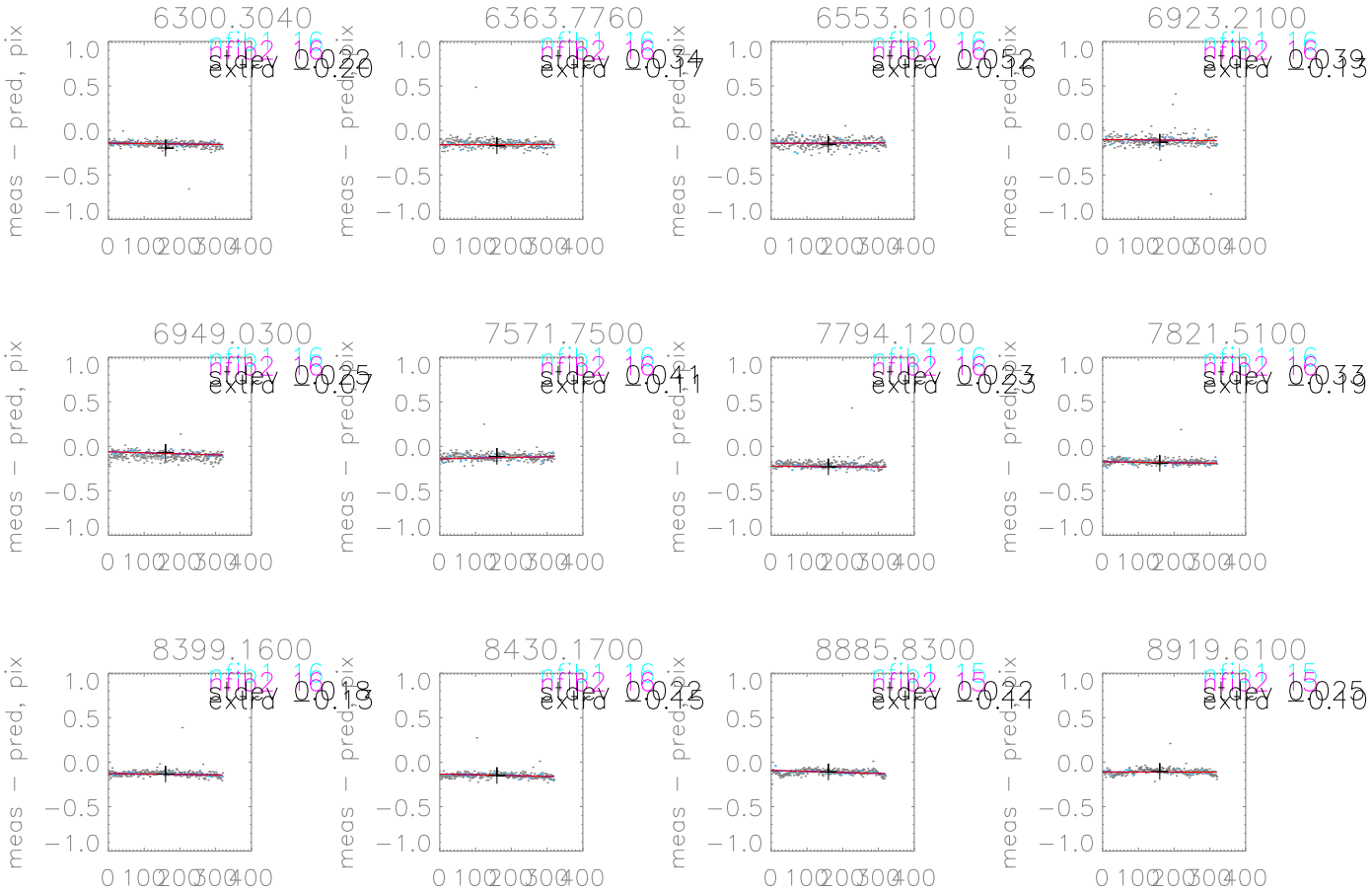

7821.5100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

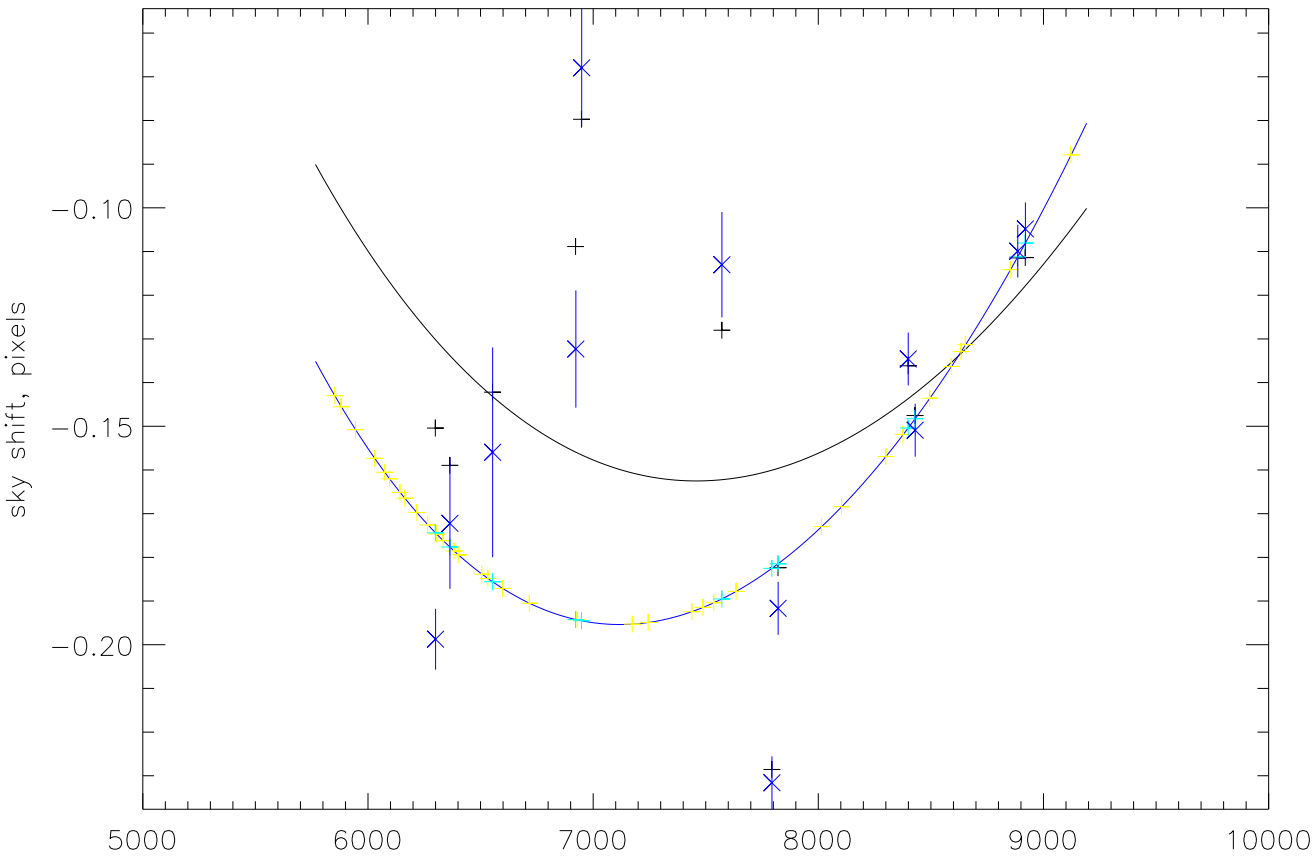

8399.1600
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400


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

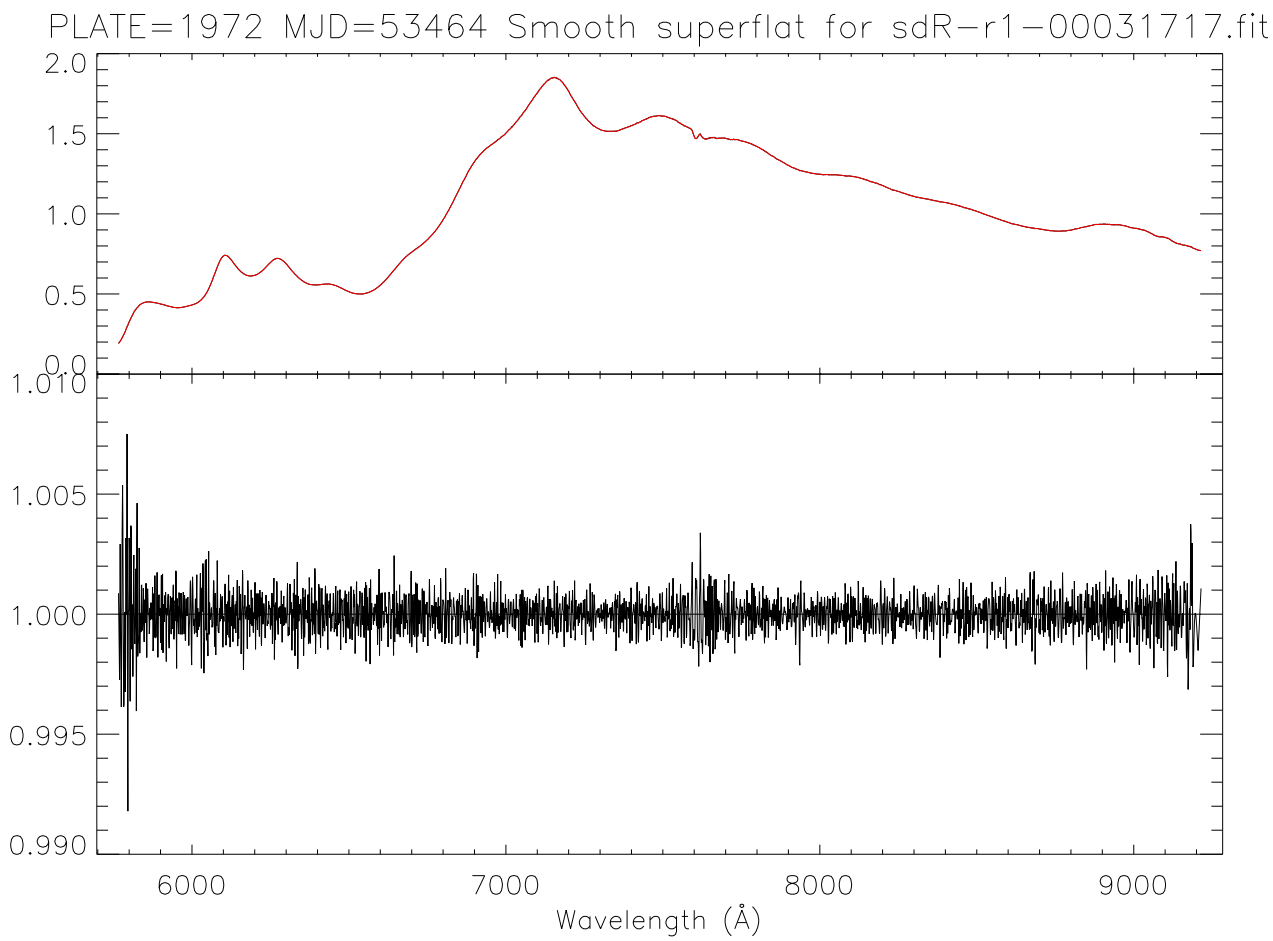

8885.8300
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

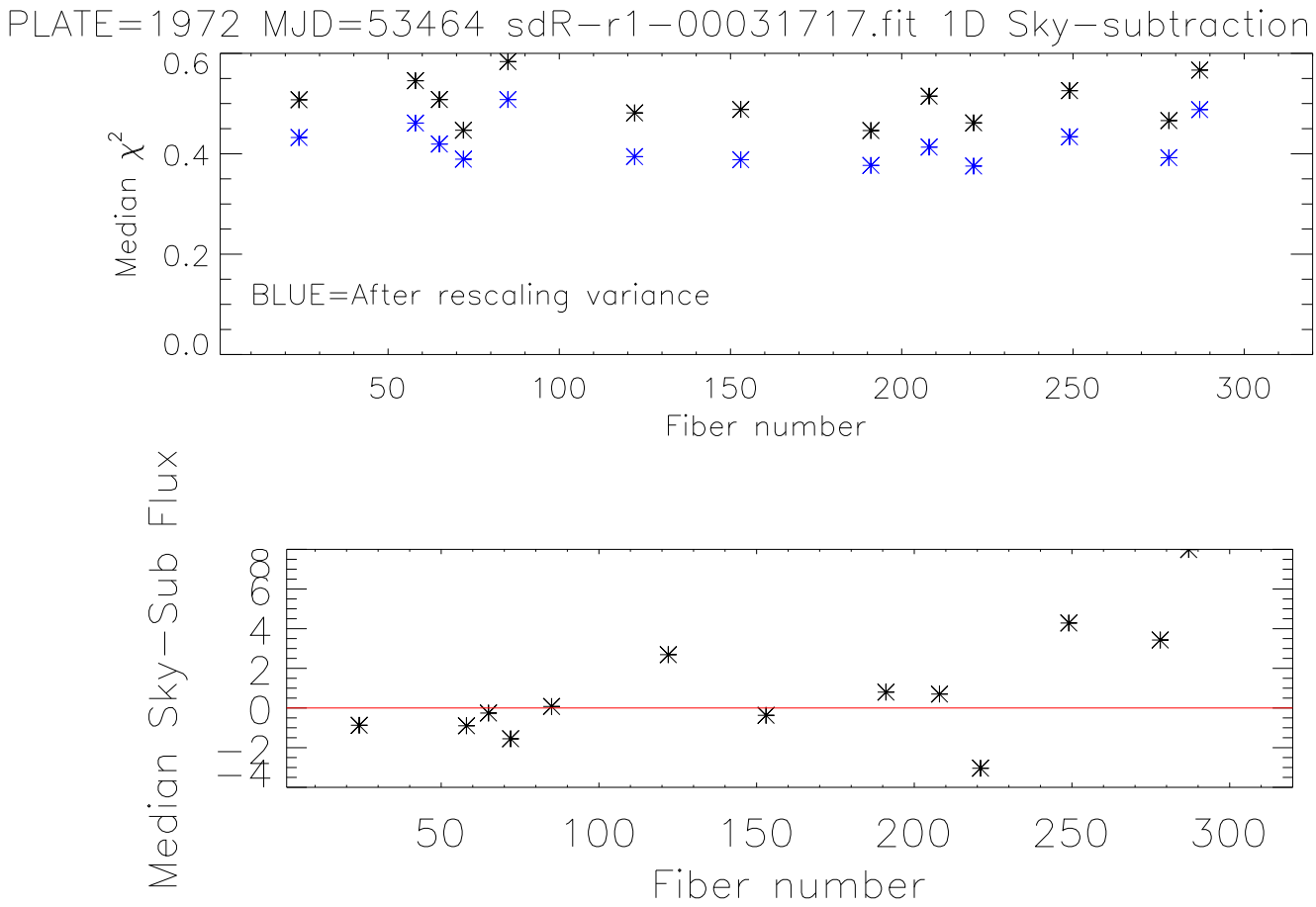

8919.6100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

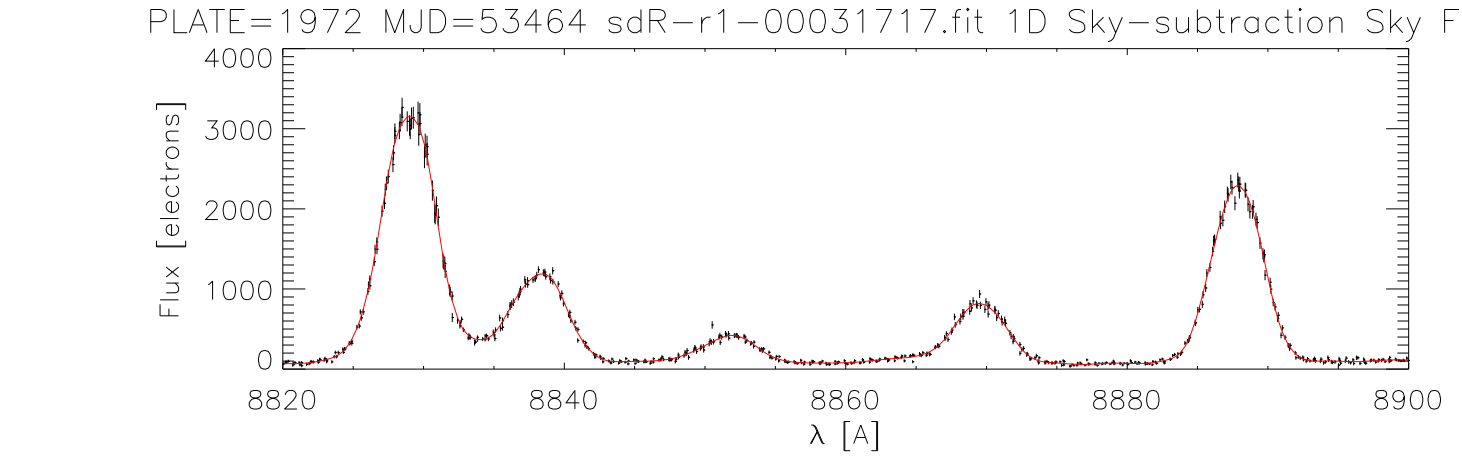

6300.3040
6363.7760
6553.6100
6923.2100
6949.0300
7571.7500
7794.1200
7821.5100
8399.1600
8430.1700
8885.8300
8919.6100
meas − pred, pix
mfhs1 16
mfhs2 16
mfhs2 15
stdev 0.022
extra 0.20
stdev 0.034
extra 0.17
stdev 0.052
extra 0.16
stdev 0.039
extra 0.13
stdev 0.025
extra 0.07
stdev 0.041
extra 0.11
stdev 0.023
extra 0.23
stdev 0.033
extra 0.19
stdev 0.018
extra 0.13
stdev 0.022
extra 0.45
stdev 0.022
extra 0.44
stdev 0.025
extra 0.40

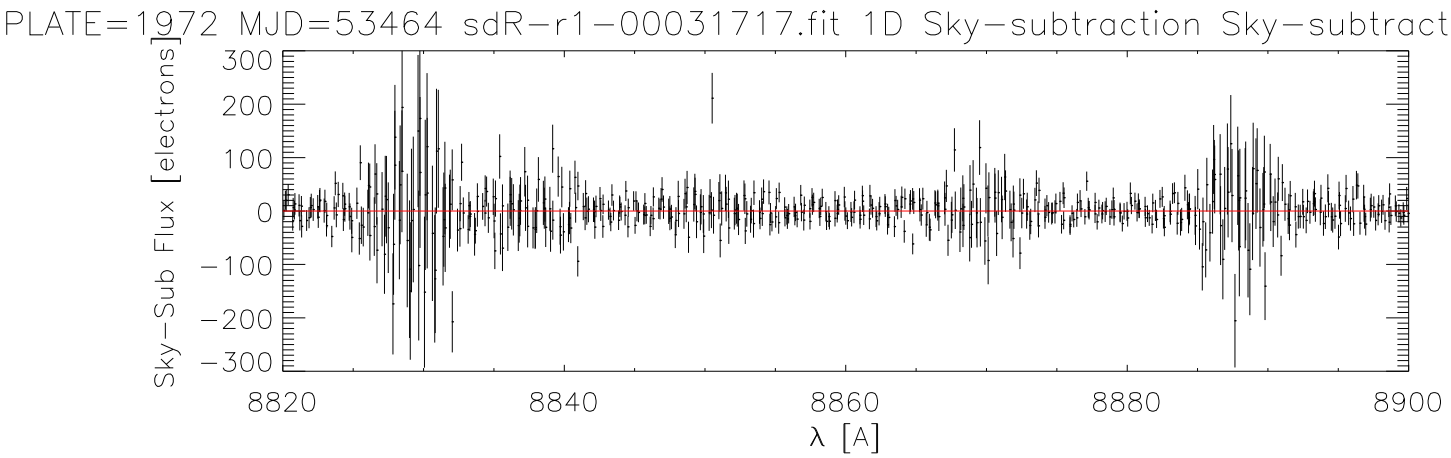

sky shift, pixels
−0.10
−0.15
−0.20
5000
6000
7000
8000
9000
10000

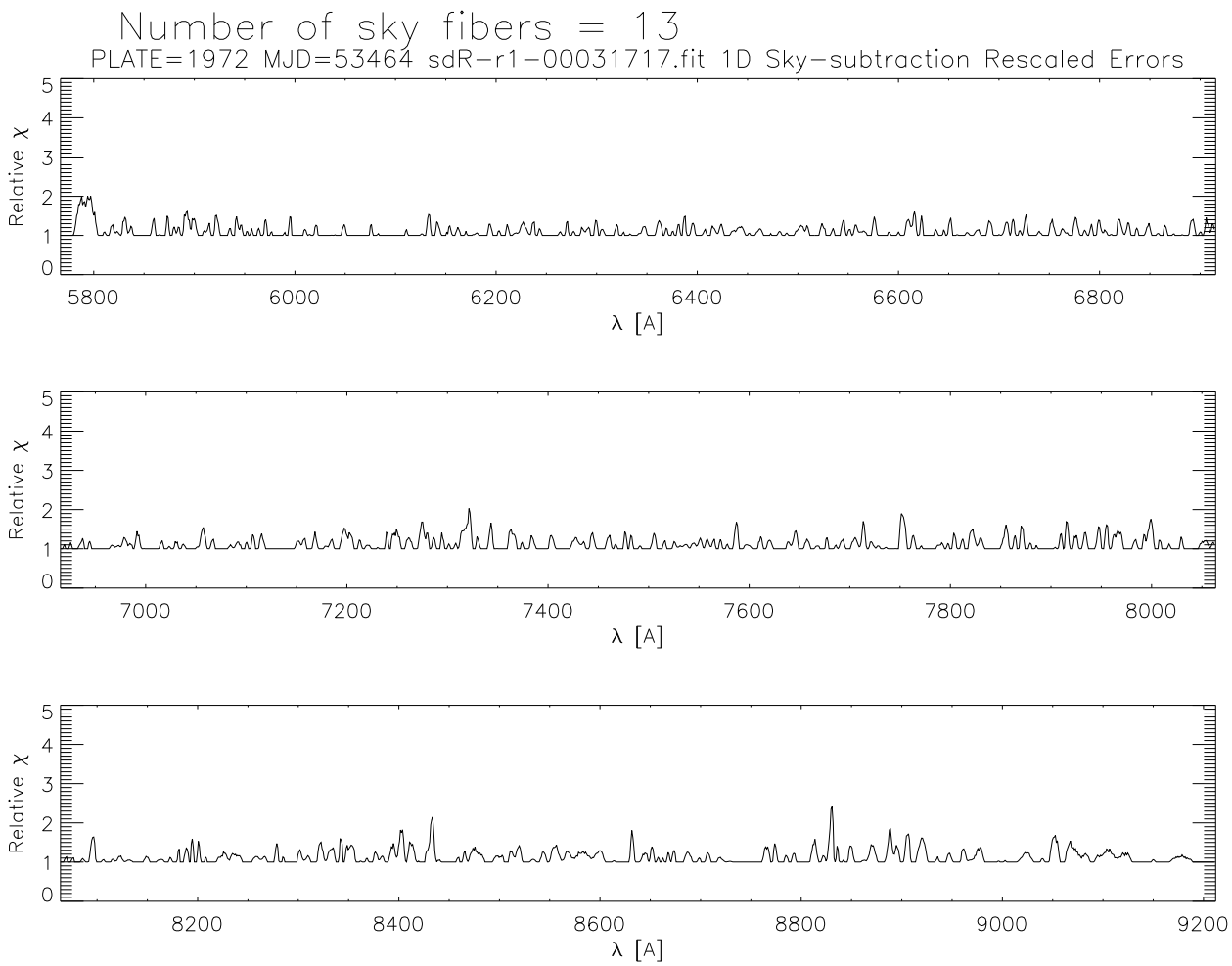
es= 0.0000

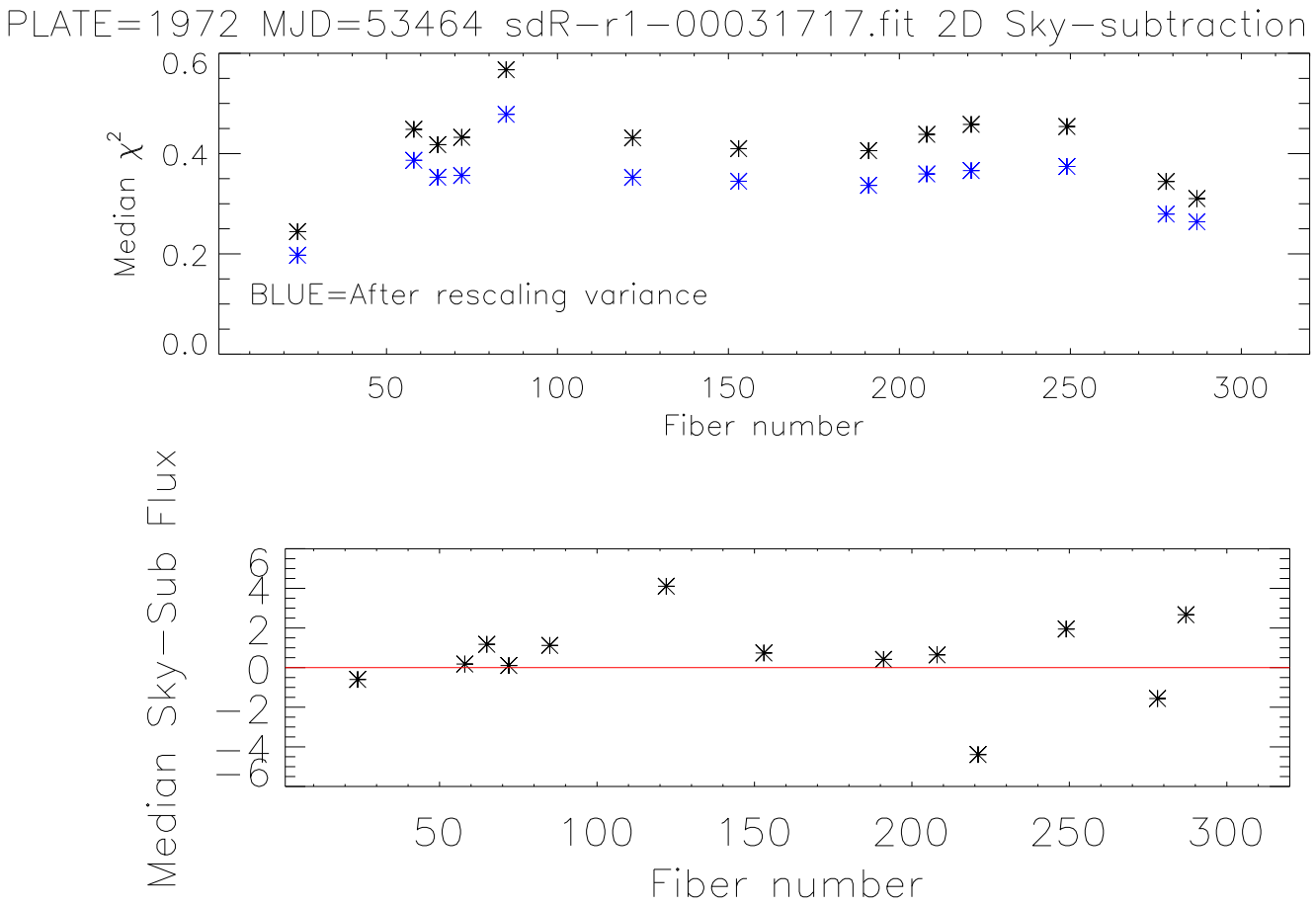

PLATE=1972 MJD=53464 Smooth superflat for sdR-r1-00031717.fit
2.0
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
6000
7000
8000
9000
Wavelength (Å)

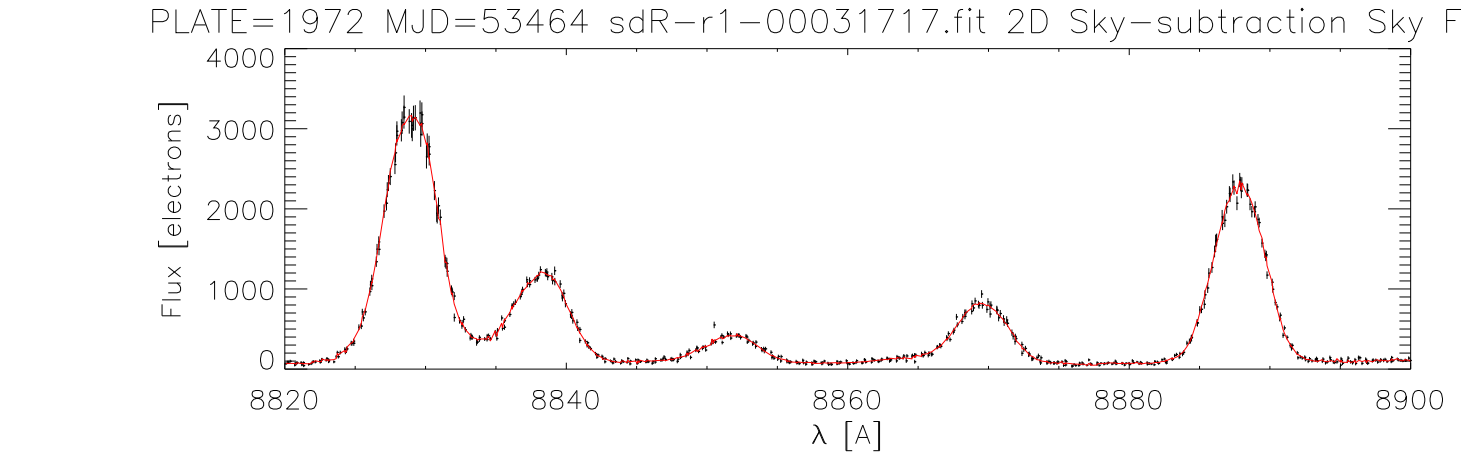

PLATE=1972 MJD=53464 sdR-r1-00031717.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-4
-2
0
2
4
6
8
50
100
150
200
250
300
Fiber number

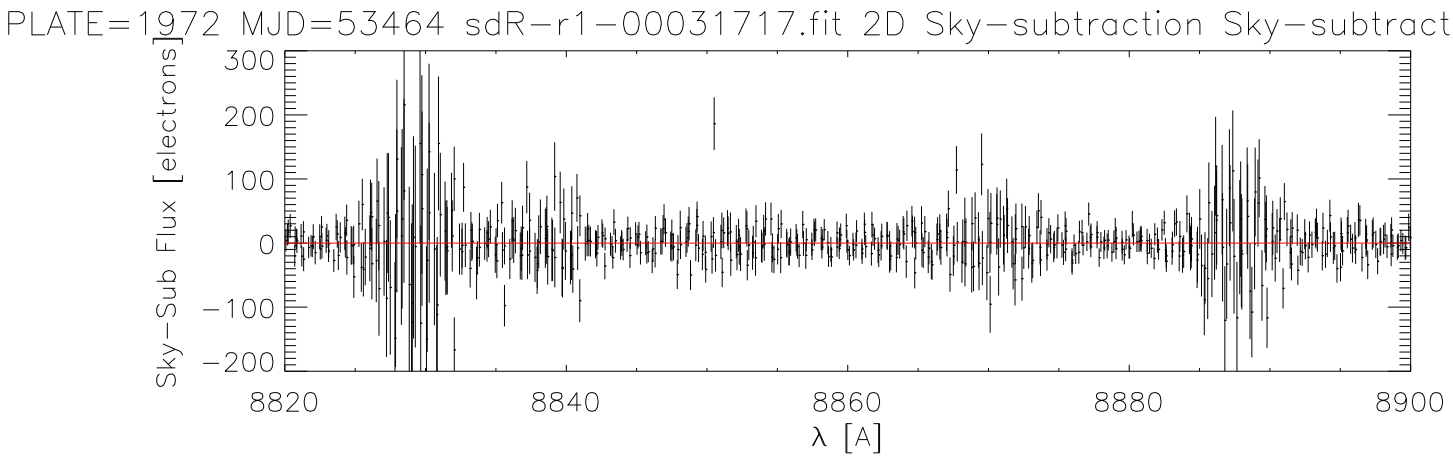

PLATE=1972 MJD=53464 sdR-r1-00031717.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

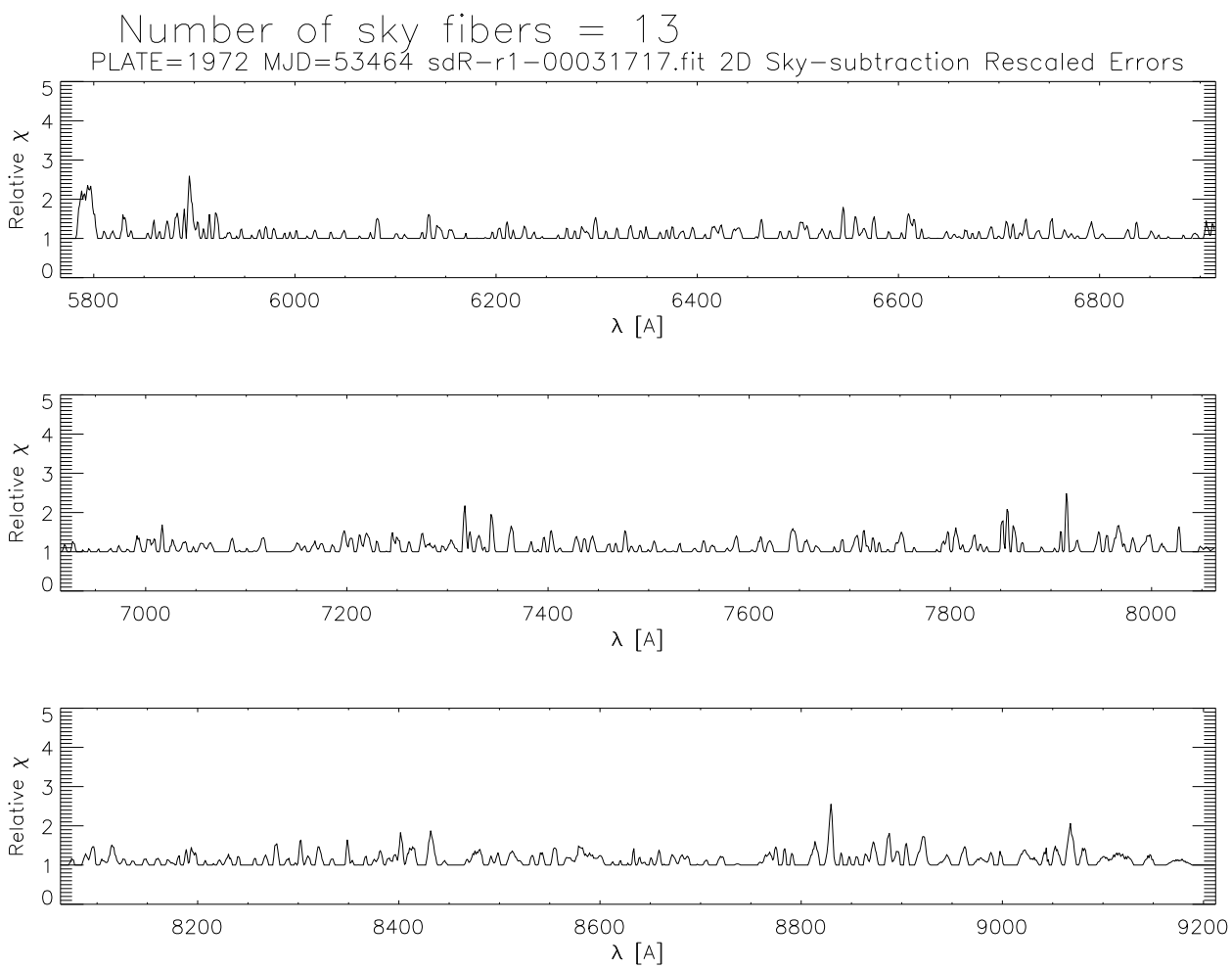

PLATE=1972 MJD=53464 sdR-r1-00031717.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
-300
8820
8840
8860
8880
8900
λ [A]

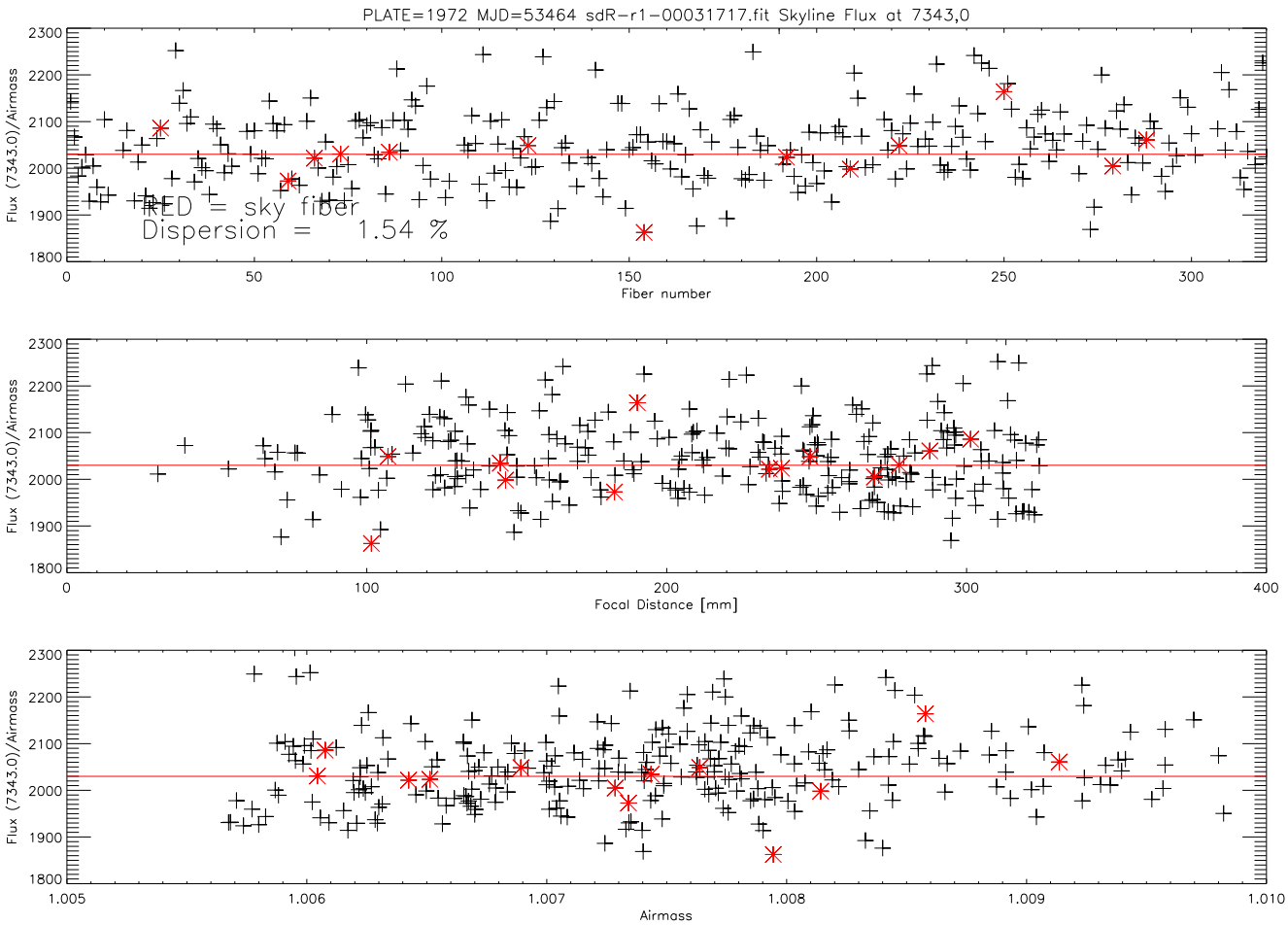

Number of sky fibers = 13
PLATE=1972 MJD=53464 sdR-r1-00031717.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

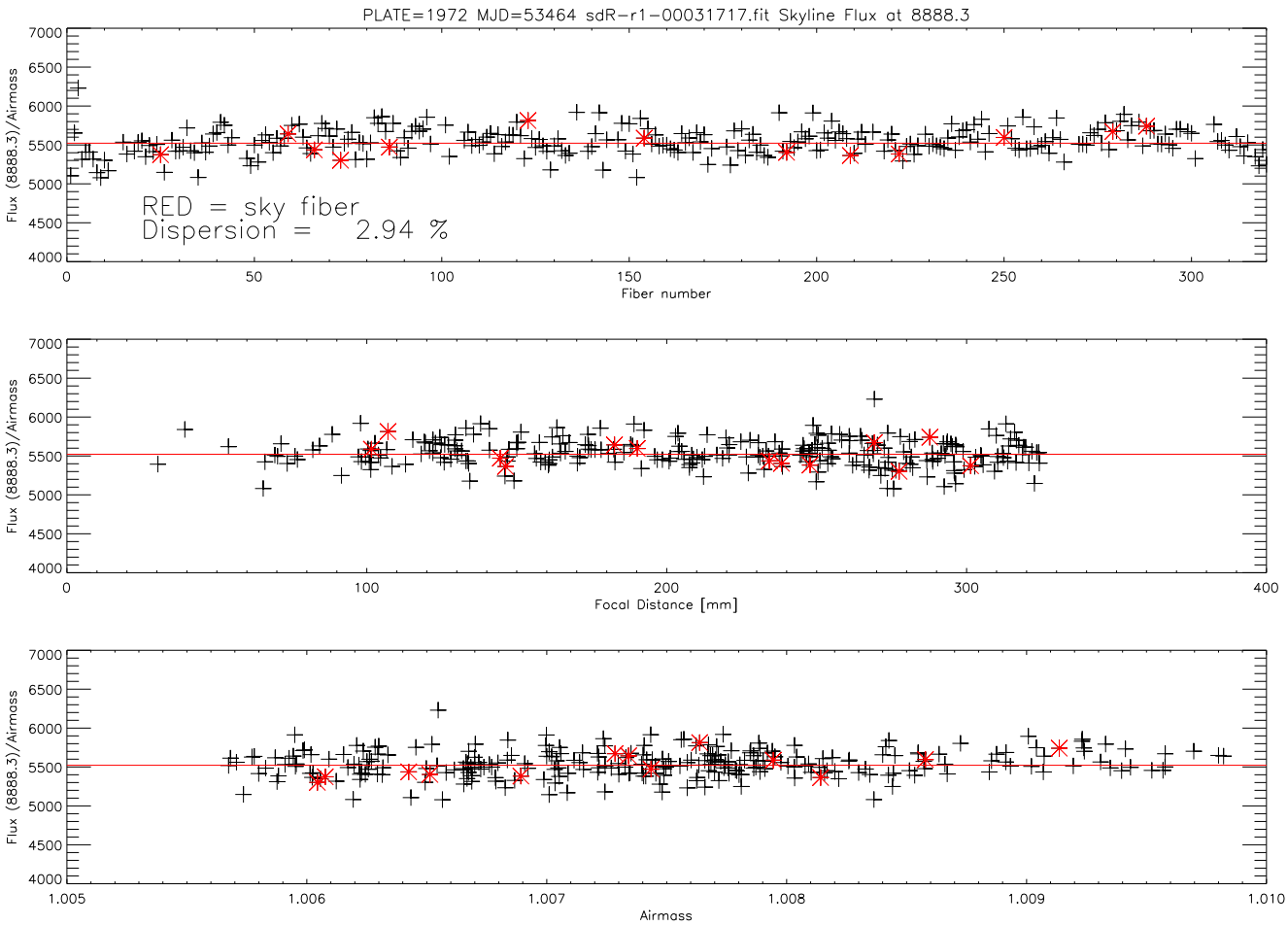

PLATE=1972 MJD=53464 sdR-r1-00031717.fit 2D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-6
-4
-2
0
2
4
6
50
100
150
200
250
300
Fiber number

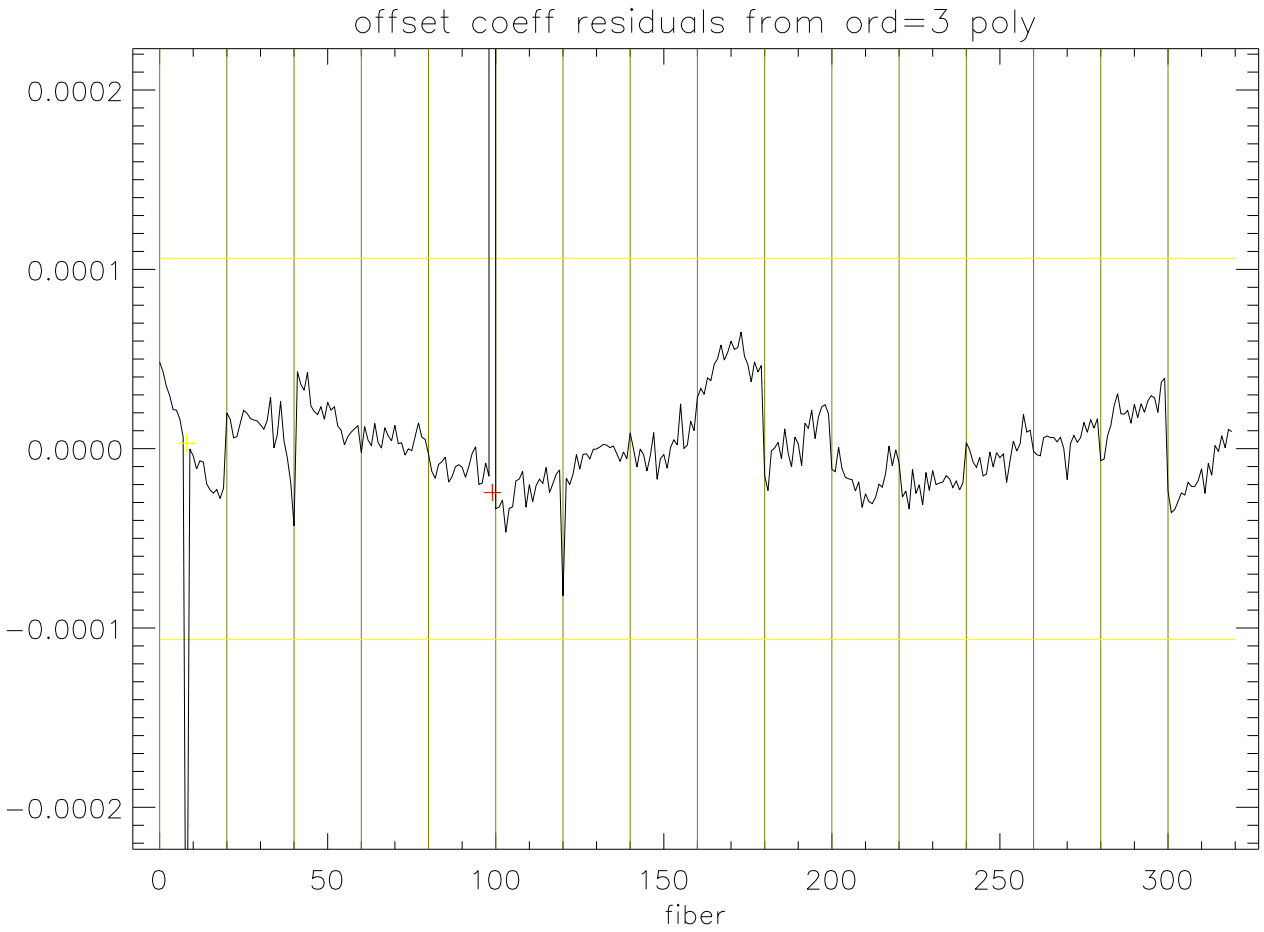

PLATE=1972 MJD=53464 sdR-r1-00031717.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

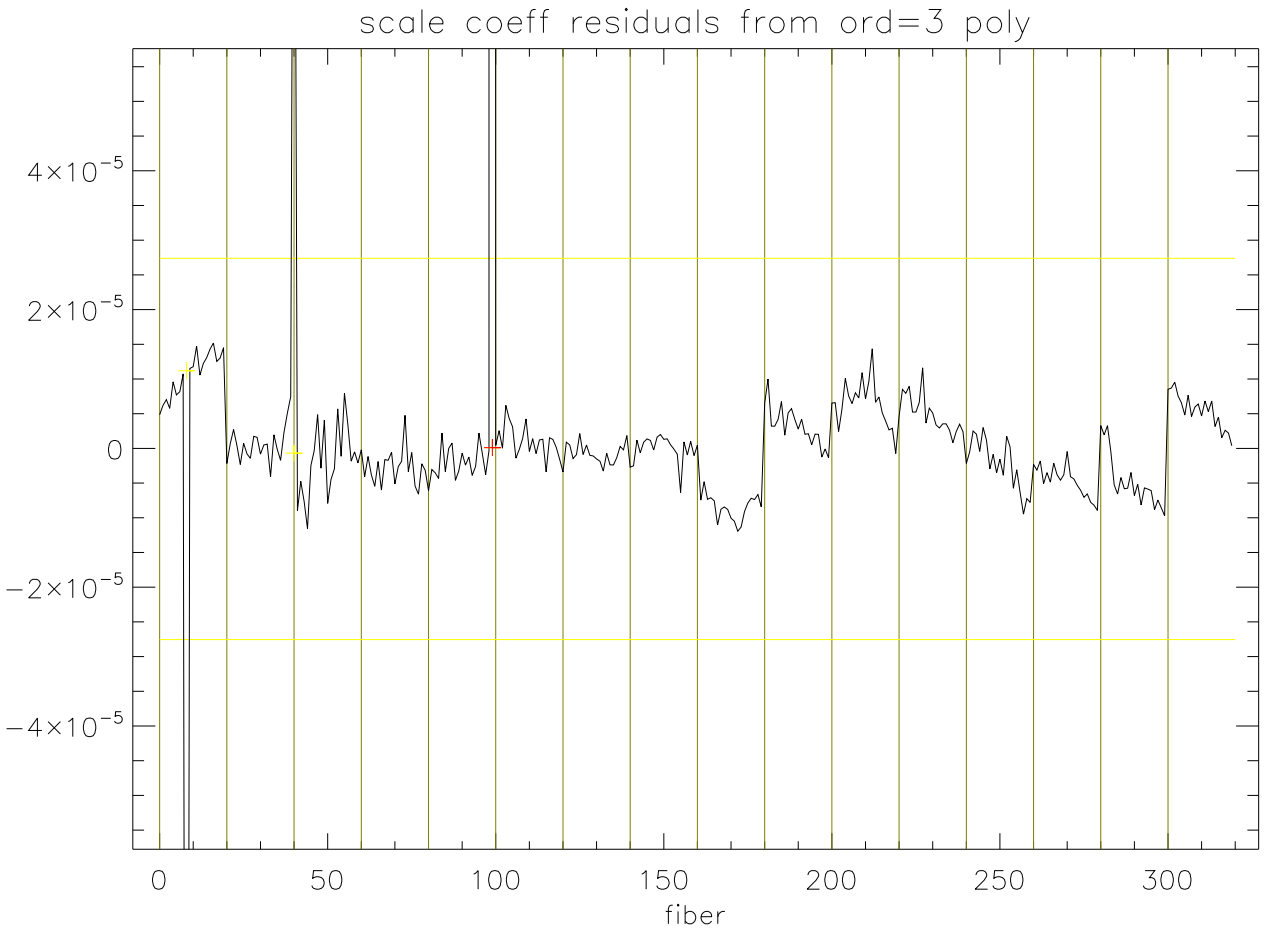

PLATE=1972 MJD=53464 sdR-r1-00031717.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
8820
8840
8860
8880
8900
λ [A]

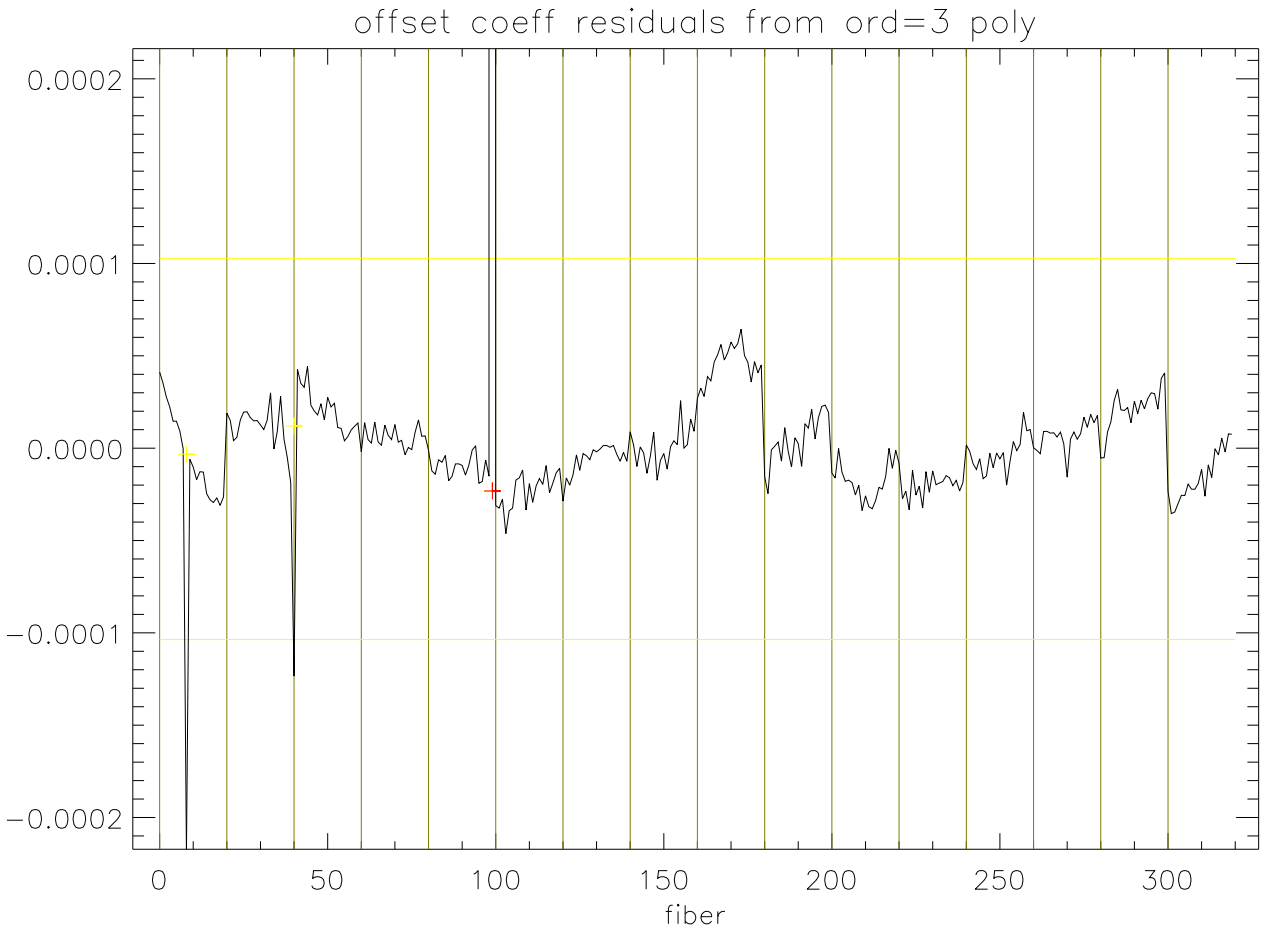

Number of sky fibers = 13
PLATE=1972 MJD=53464 sdR-r1-00031717.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

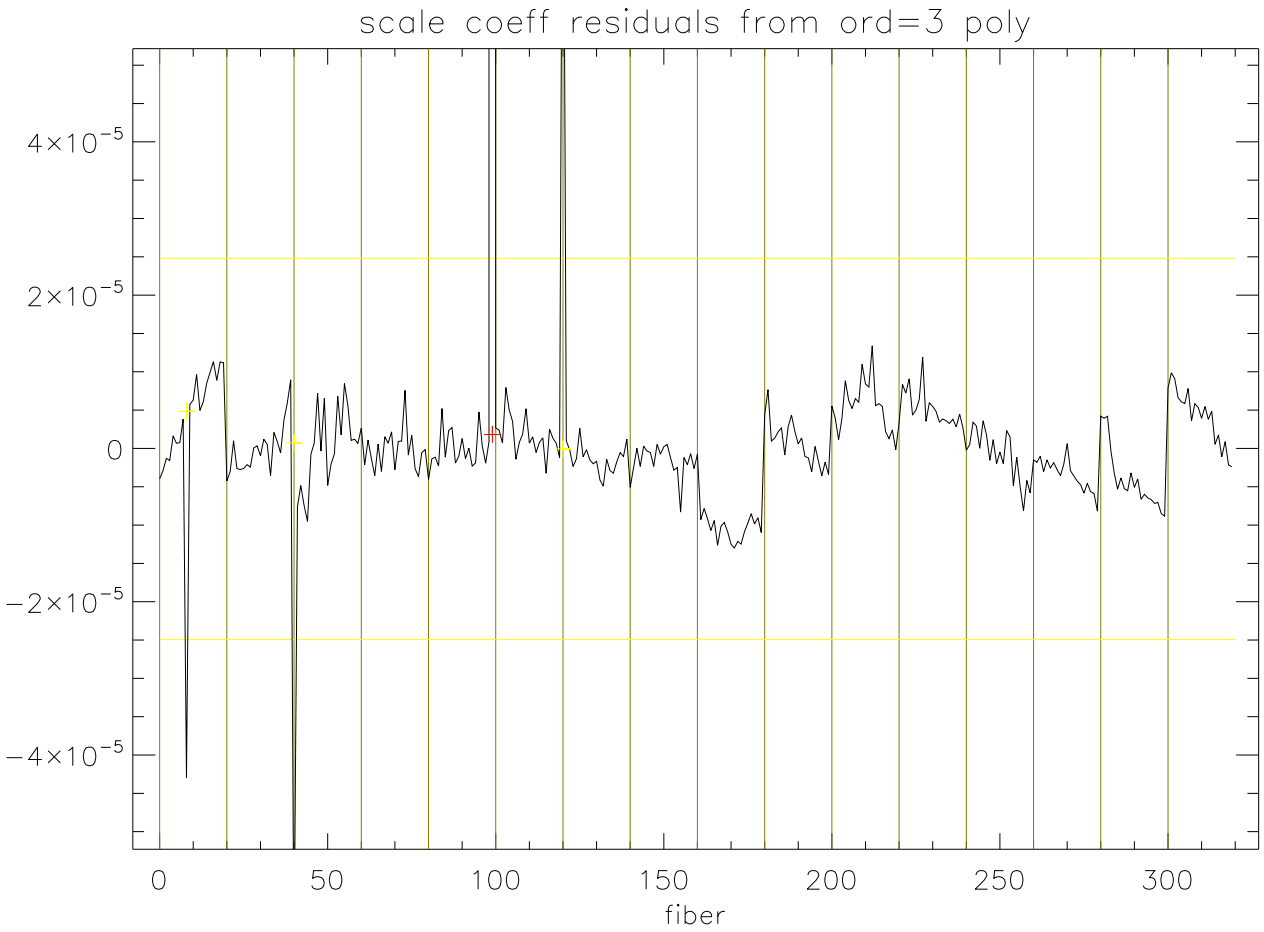

PLATE=1972 MJD=53464 sdR-r1-00031717.fit Skyline Flux at 7343,0
RED = sky fiber
Dispersion = 1.54 %
Flux (7343.0)/Airmass
Fiber number
Focal Distance [mm]
Airmass

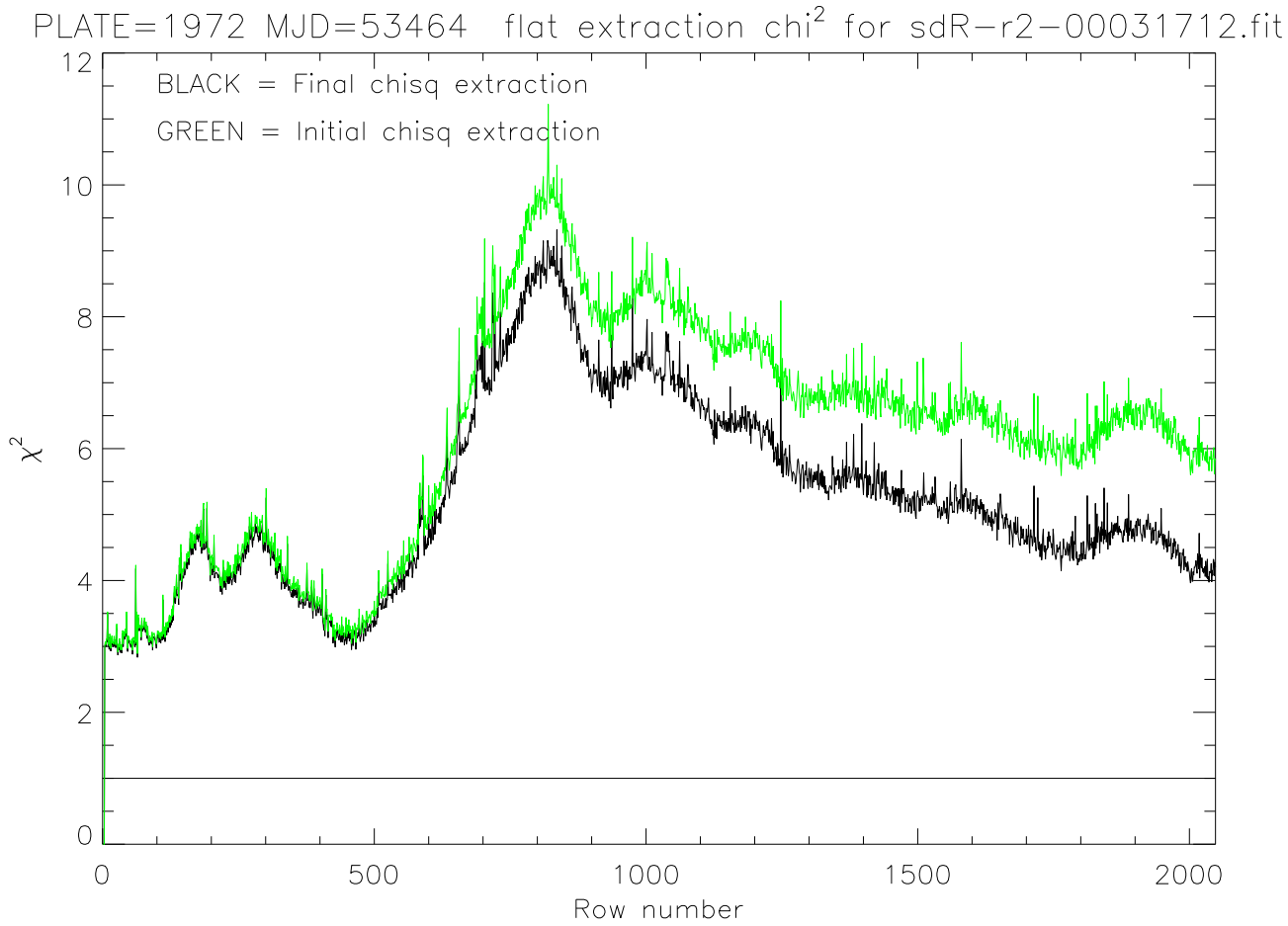

PLATE=1972 MJD=53464 sdR-r1-00031717.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 2.94 %
Fiber number
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass

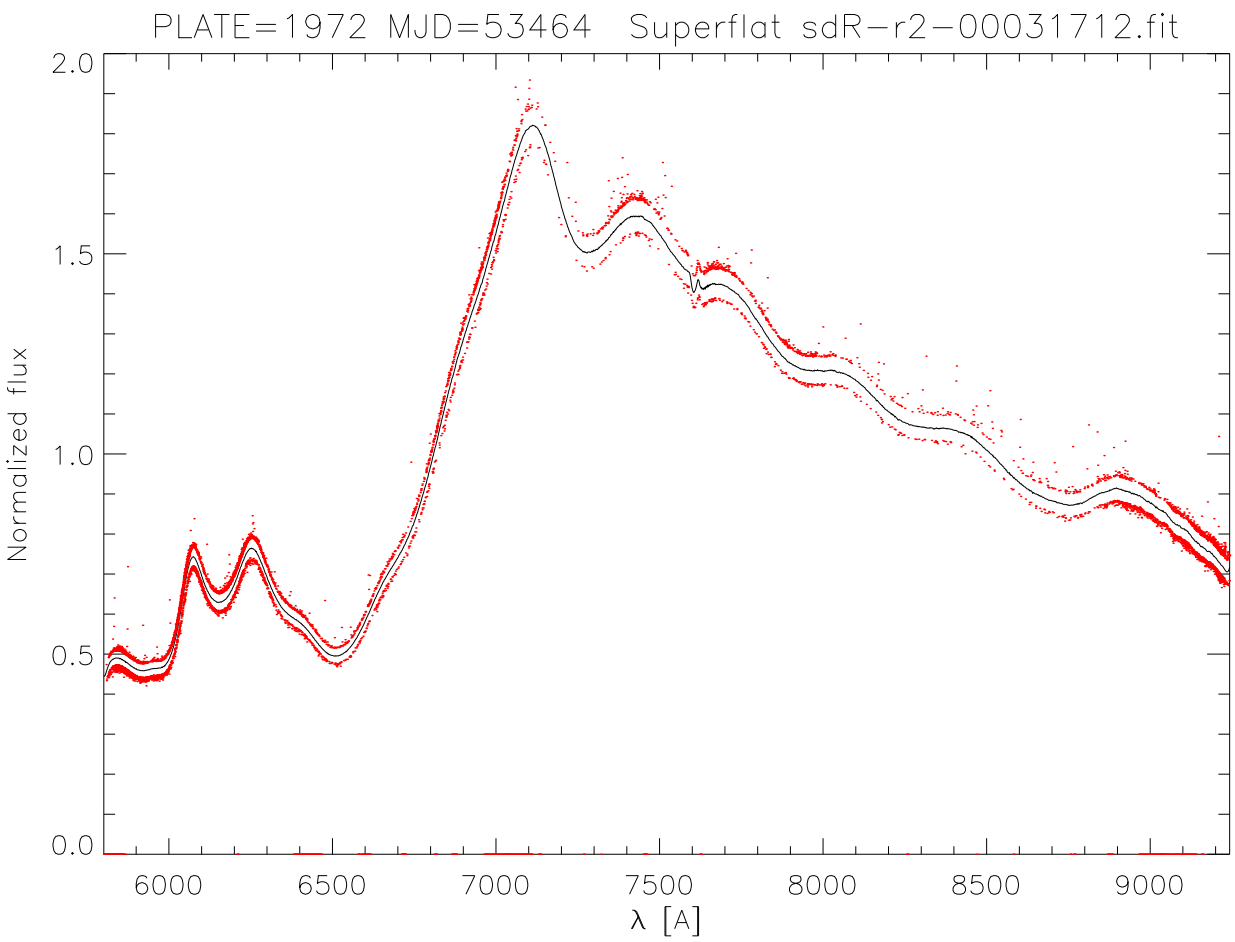

offset coeff residuals from ord=3 poly
0.0002
0.0001
0.0000
−0.0001
−0.0002
0
50
100
150
200
250
300
fiber

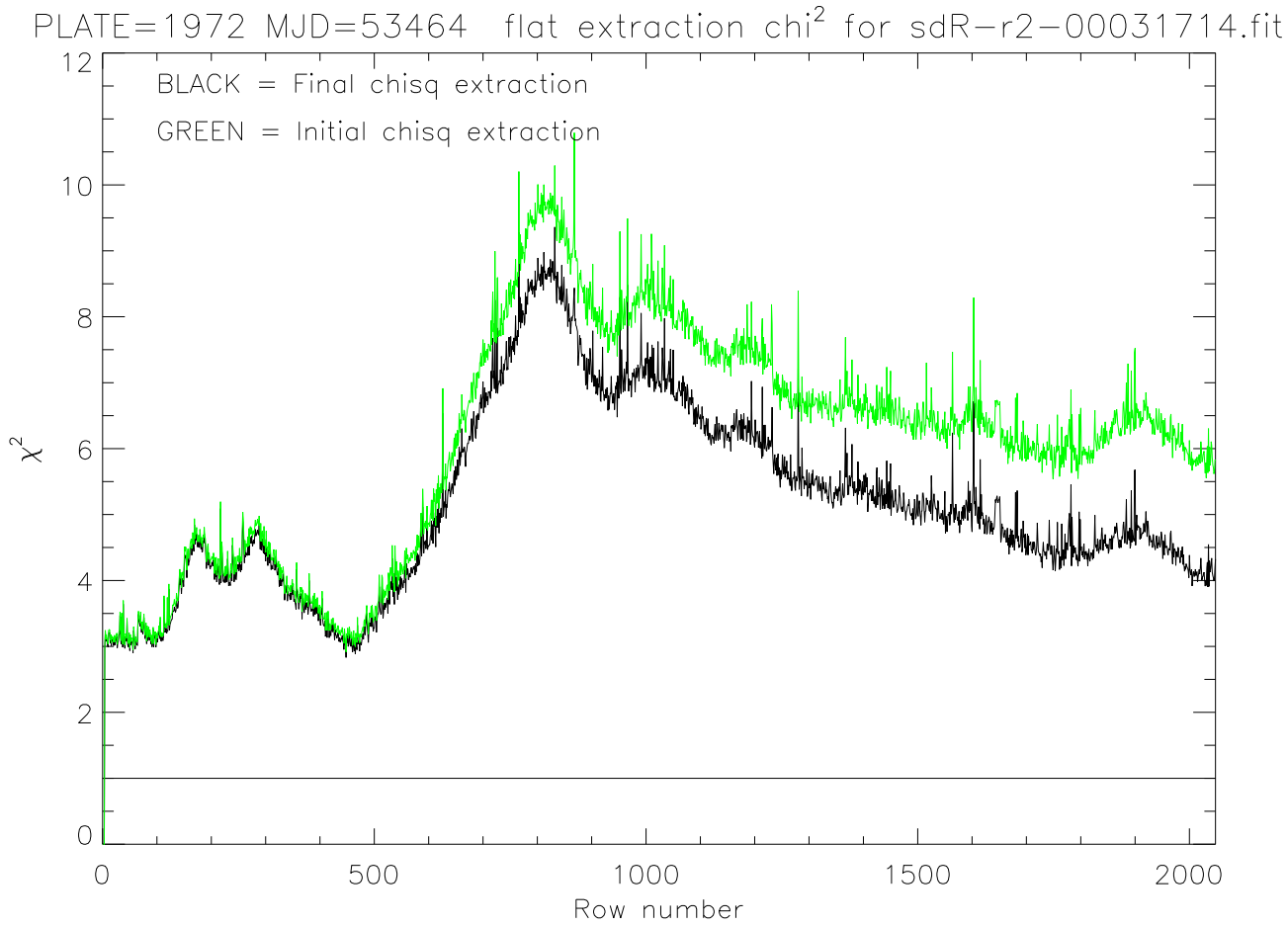

scale coeff residuals from ord=3 poly
4×10⁻⁵
2×10⁻⁵
0
−2×10⁻⁵
−4×10⁻⁵
0
50
100
150
200
250
300
fiber

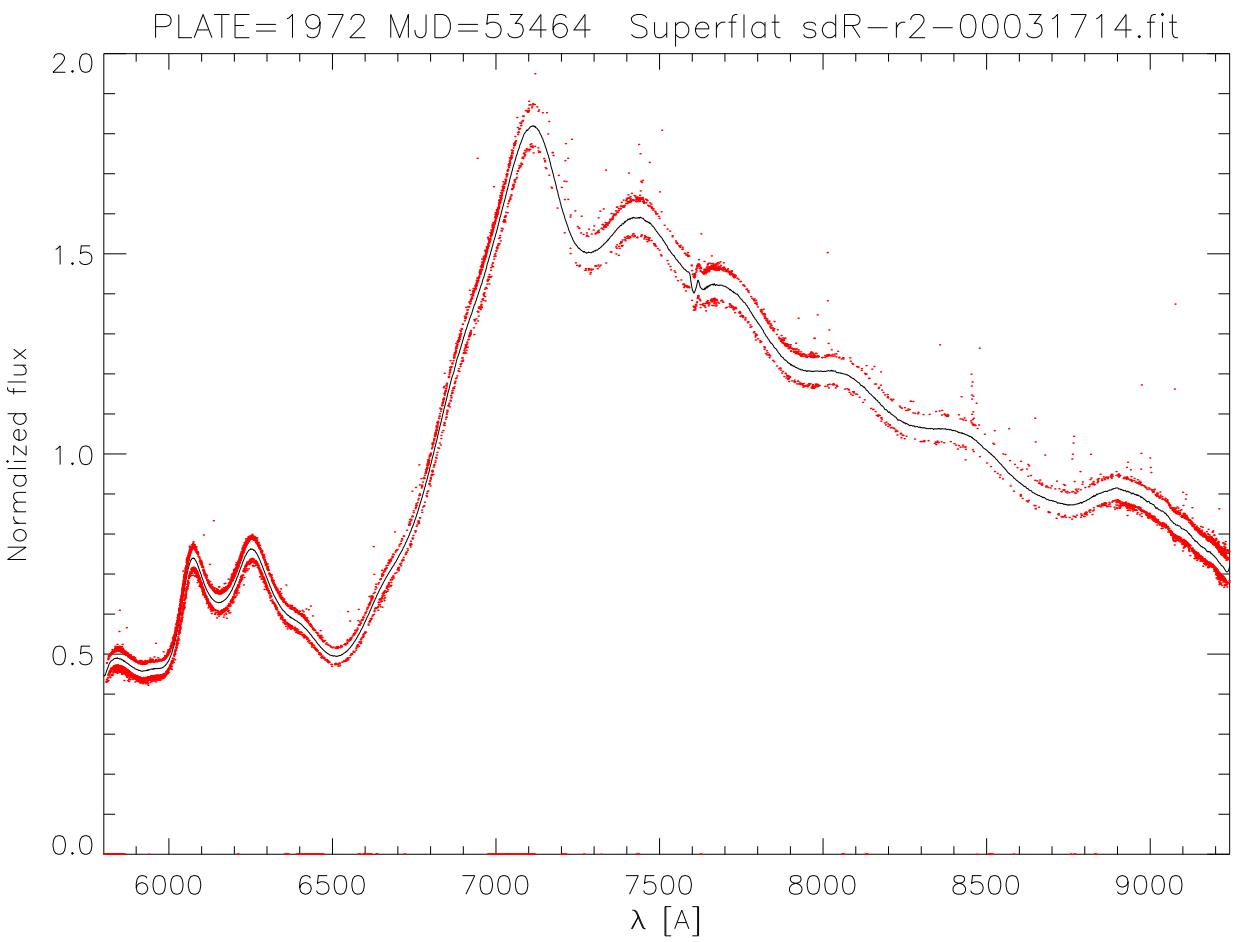

offset coeff residuals from ord=3 poly
0.0002
0.0001
0.0000
−0.0001
−0.0002
0
50
100
150
200
250
300
fiber

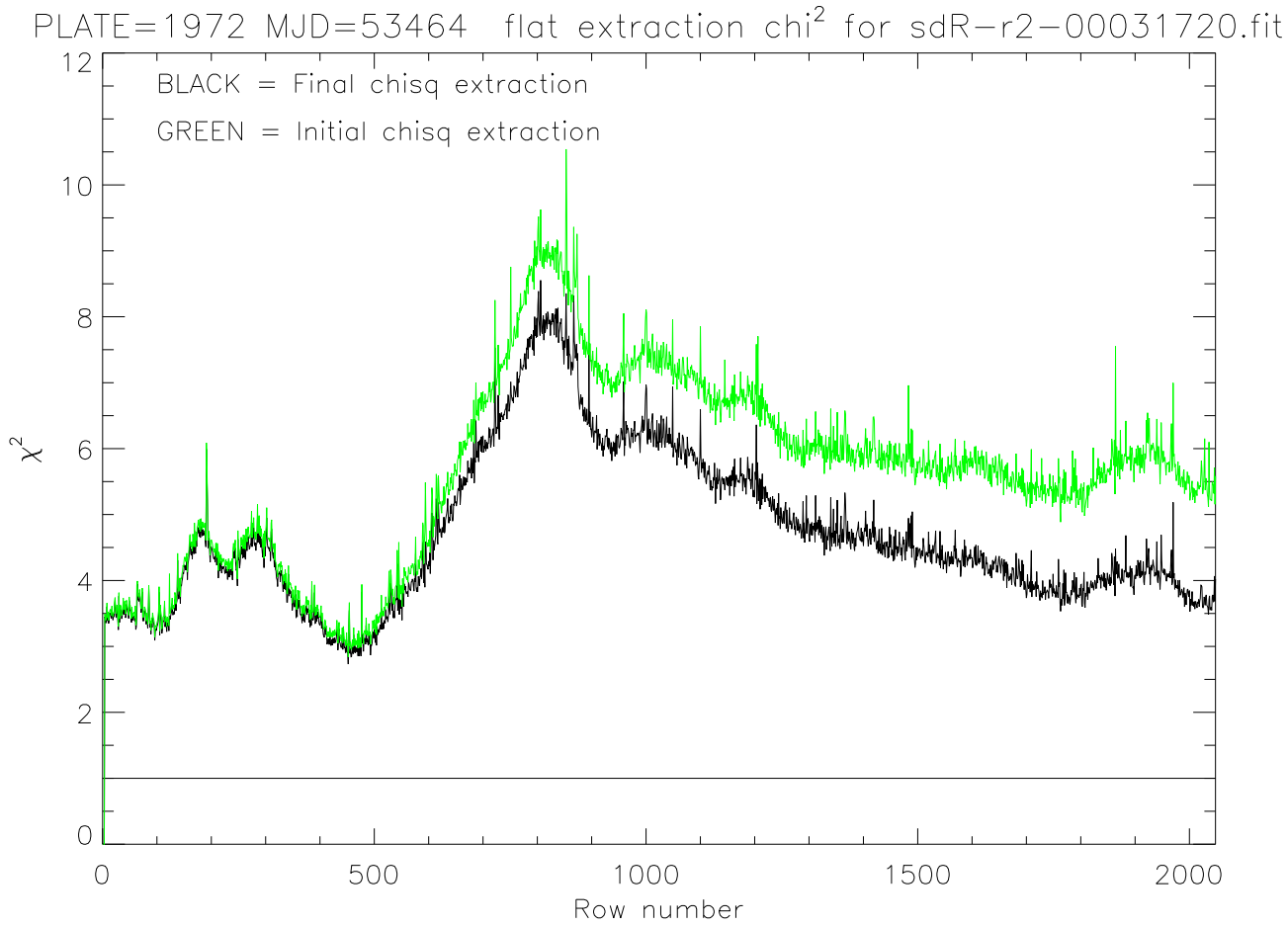

scale coeff residuals from ord=3 poly
4×10⁻⁵
2×10⁻⁵
0
−2×10⁻⁵
−4×10⁻⁵
0
50
100
150
200
250
300
fiber

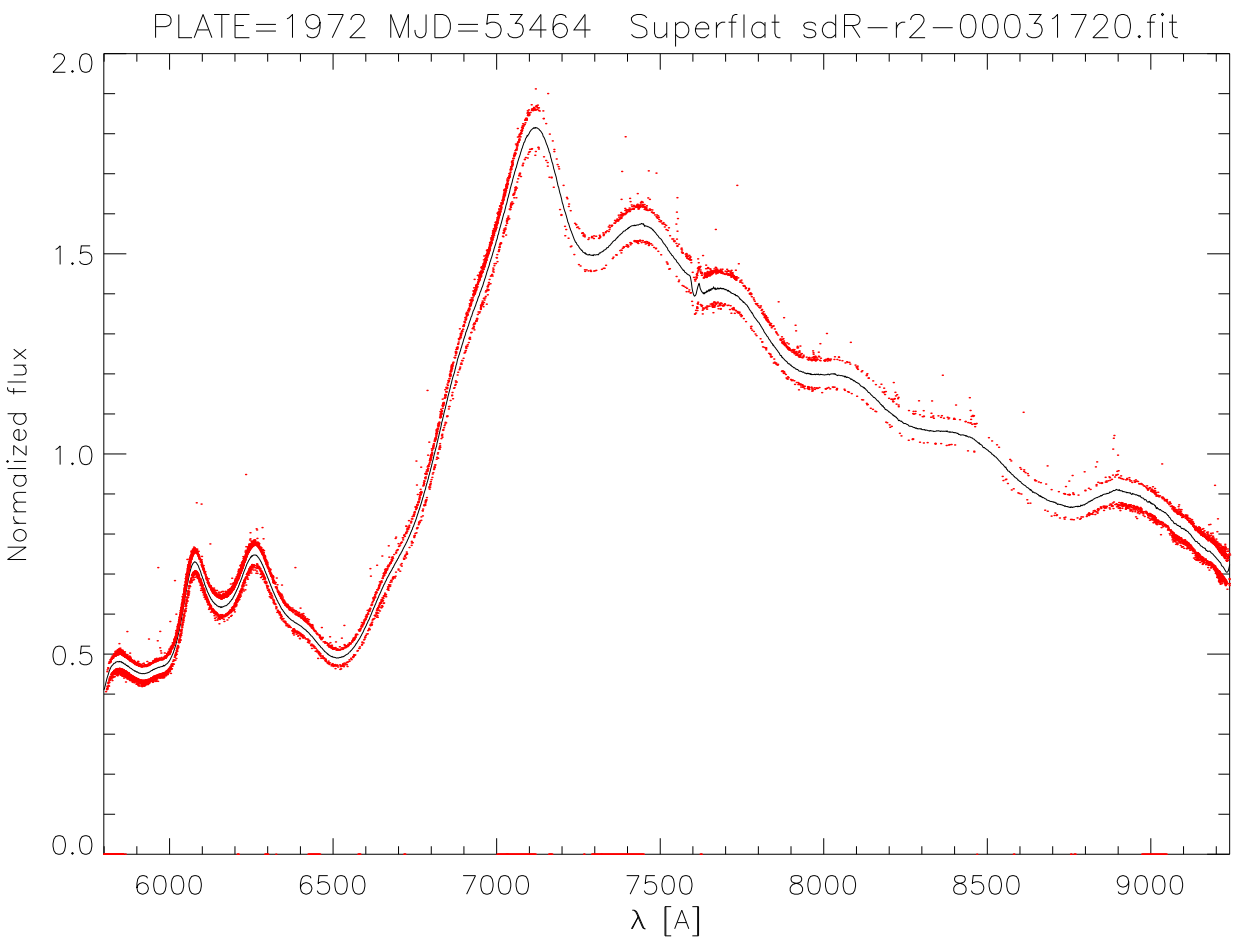

PLATE=1972 MJD=53464 flat extraction chi^2 for sdR−r2−00031712.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
2
4
6
8
10
12
0
500
1000
1500
2000

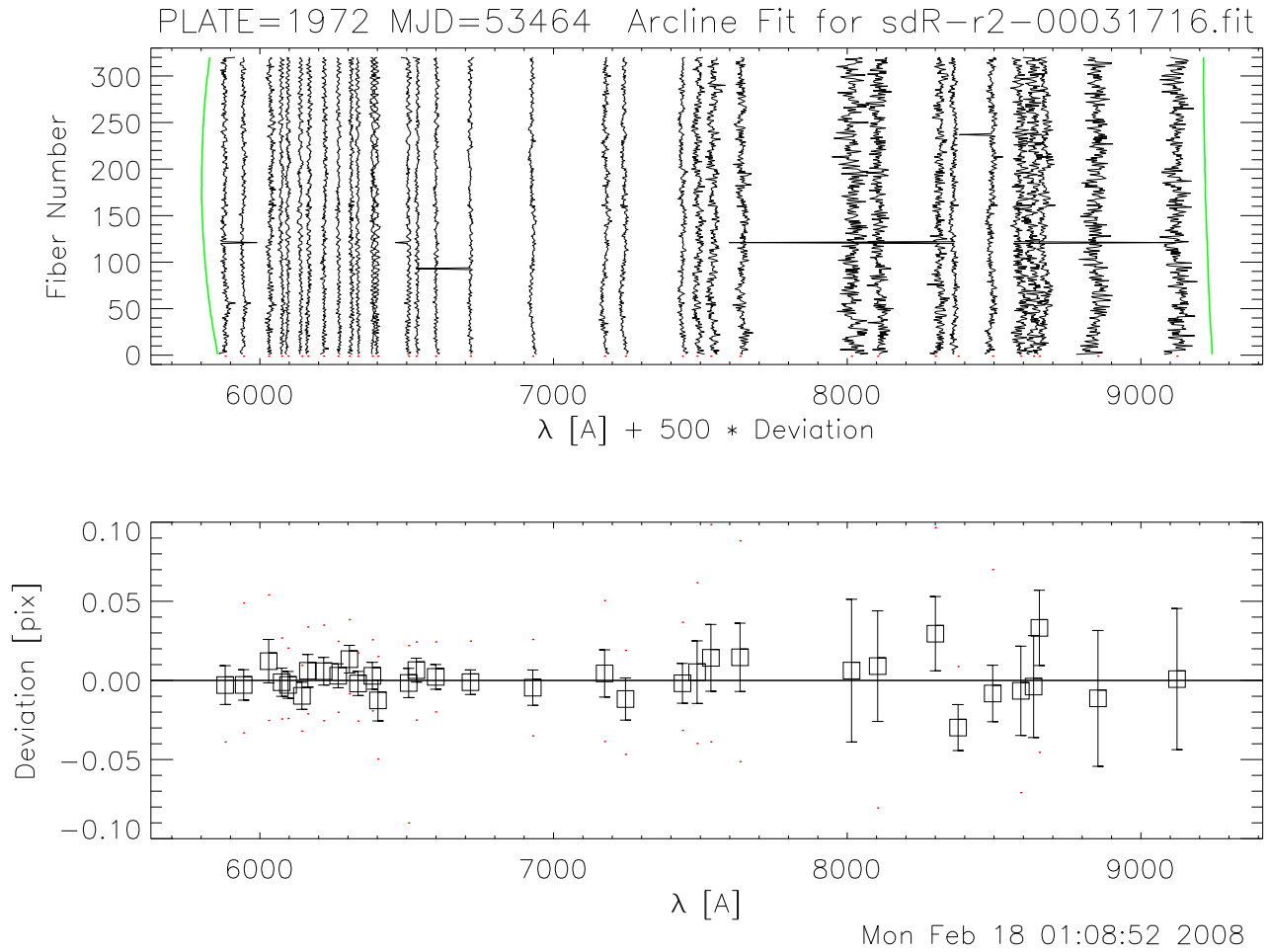

PLATE=1972 MJD=53464 Superflat sdR-r2-00031712.fit
Normalized flux
2.0
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

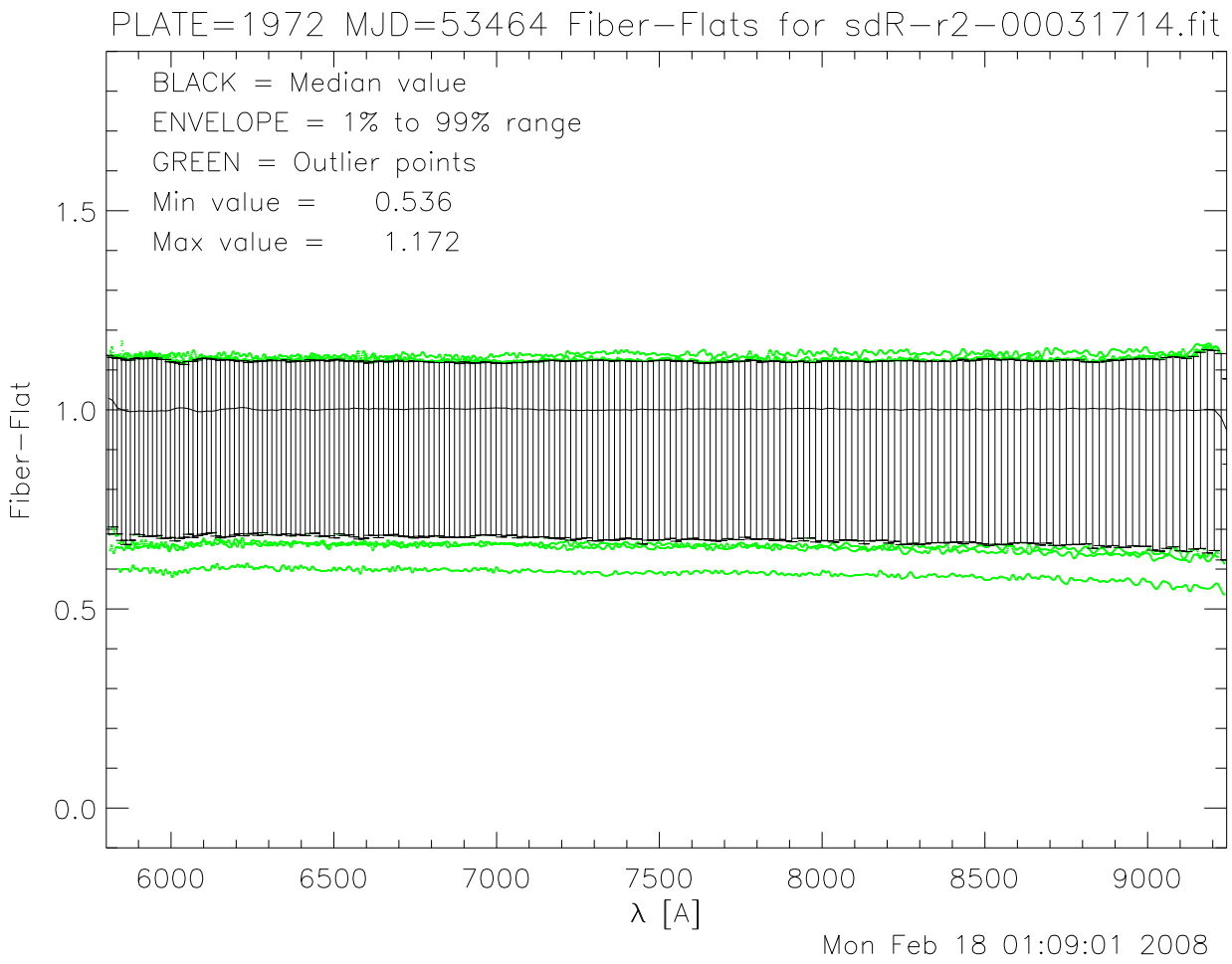

PLATE=1972 MJD=53464 flat extraction chi^2 for sdR−r2−00031714.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
2
4
6
8
10
12
0
500
1000
1500
2000

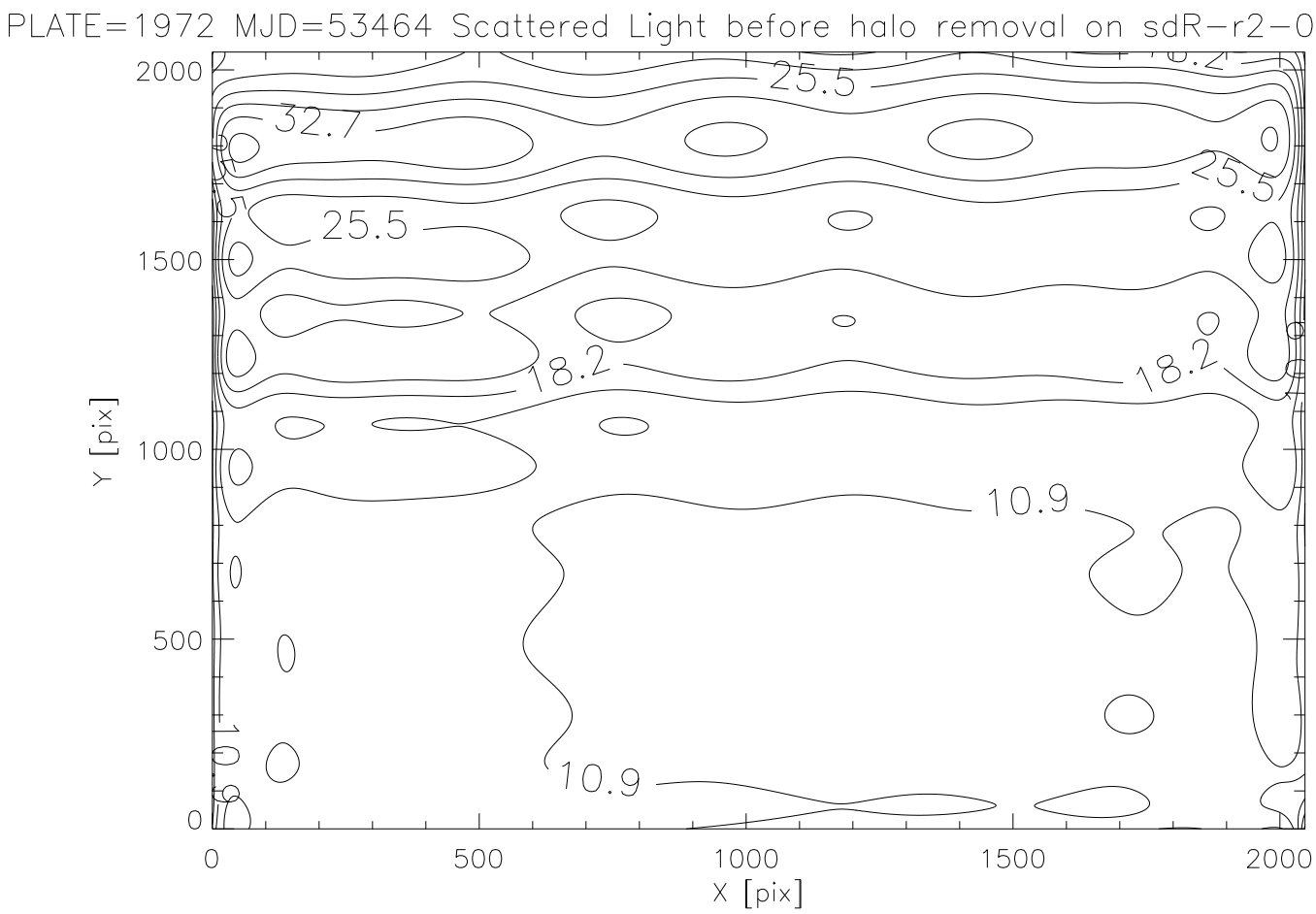

PLATE=1972 MJD=53464 Superflat sdR-r2-00031714.fit
Normalized flux
2.0
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

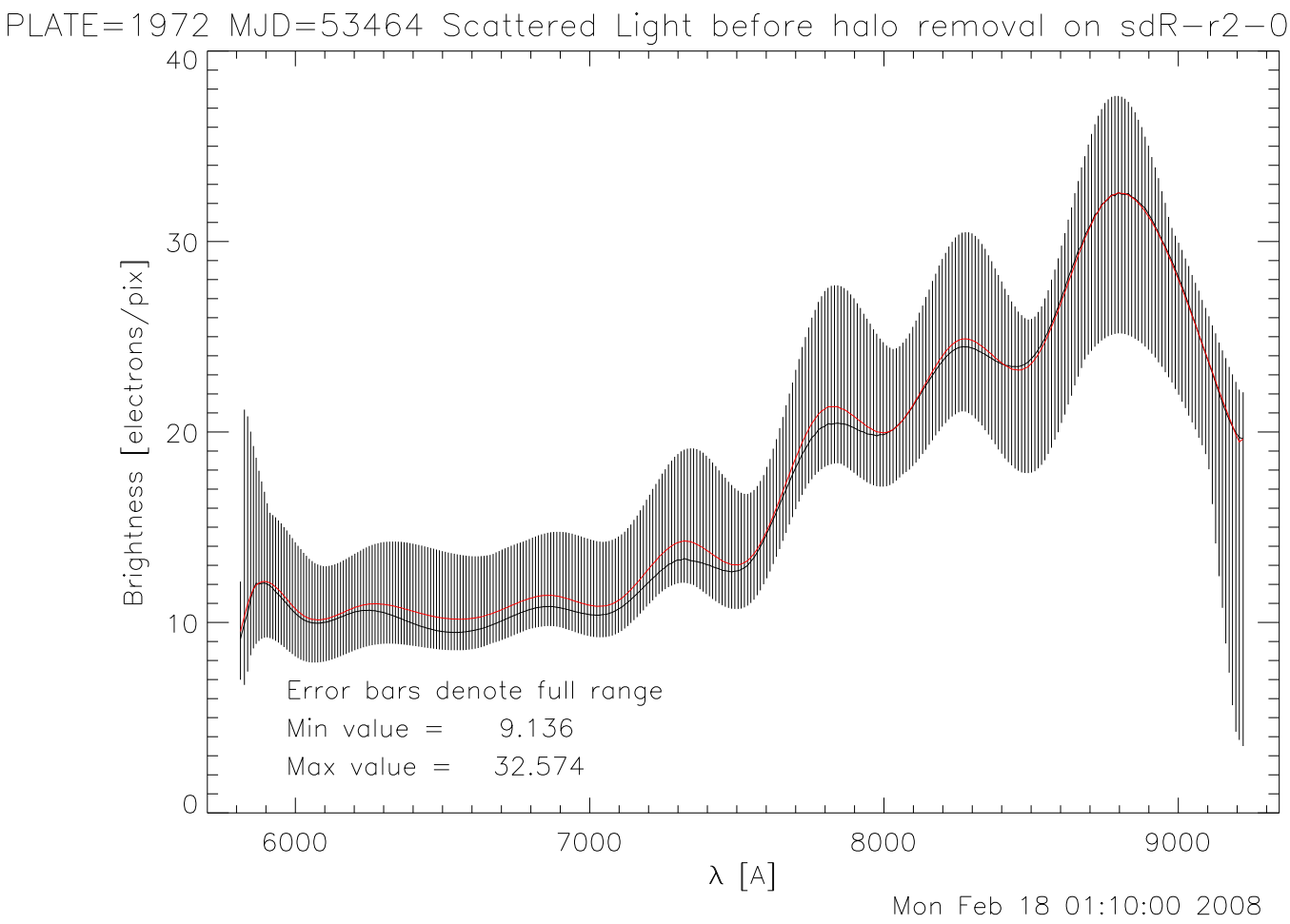

PLATE=1972 MJD=53464 flat extraction chi^2 for sdR−r2−00031720.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
2
4
6
8
10
12
0
500
1000
1500
2000

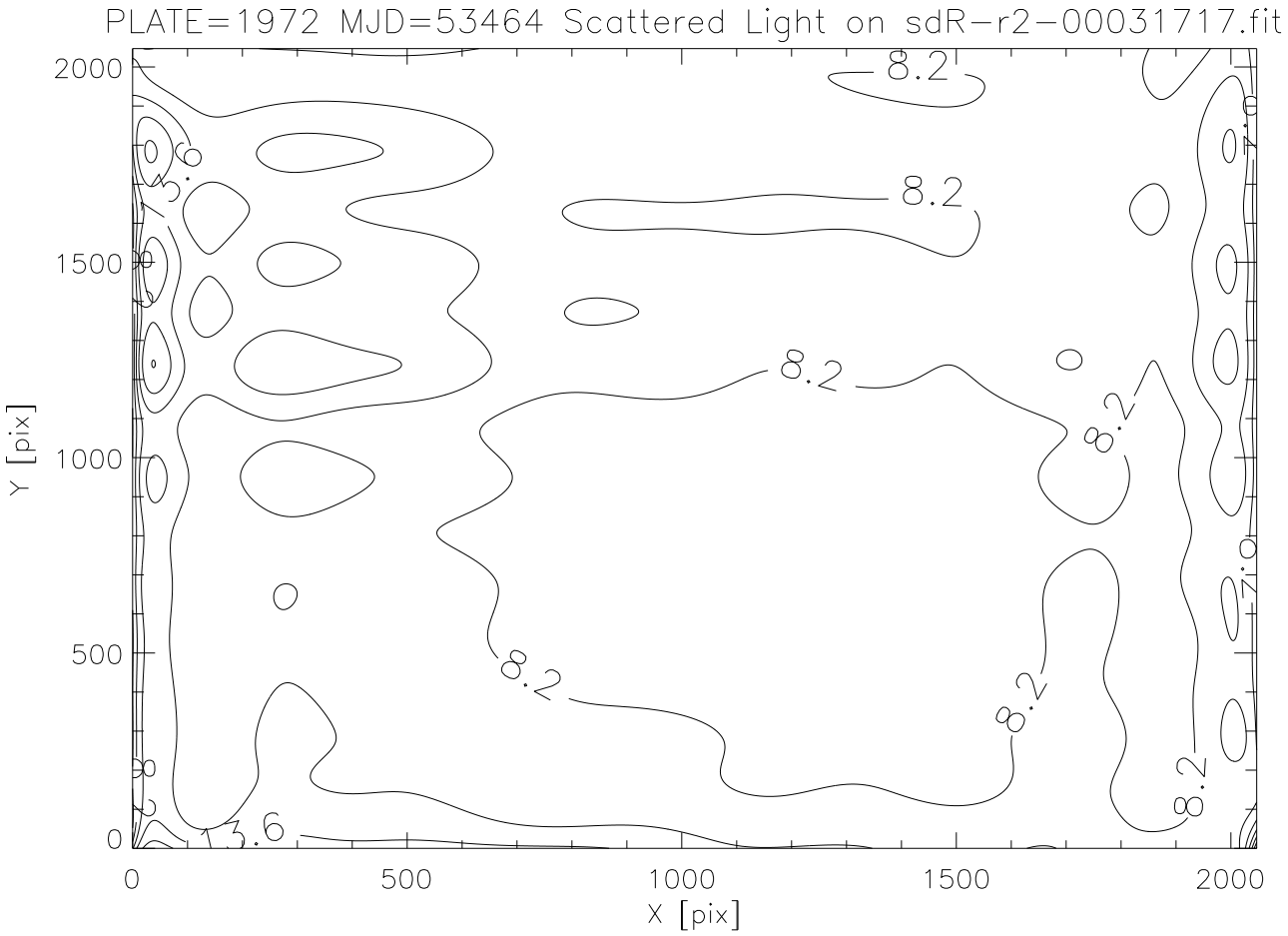

PLATE=1972 MJD=53464 Superflat sdR-r2-00031720.fit
Normalized flux
2.0
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

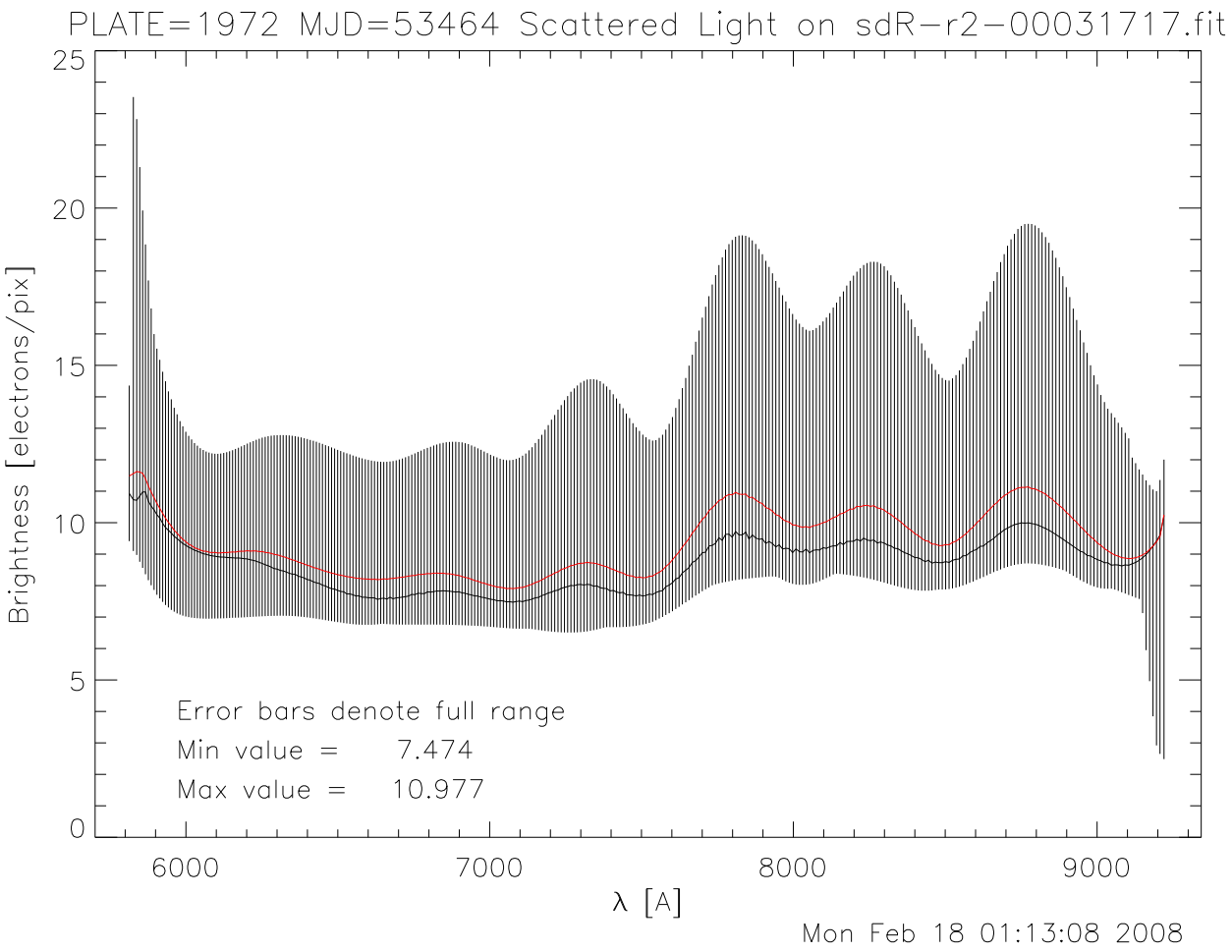

PLATE=1972 MJD=53464 Arcline Fit for sdR-r2-00031716.fit
Fiber Number
300
250
200
150
100
50
0
6000
7000
8000
9000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
6000
7000
8000
9000
λ [A]
Mon Feb 18 01:08:52 2008

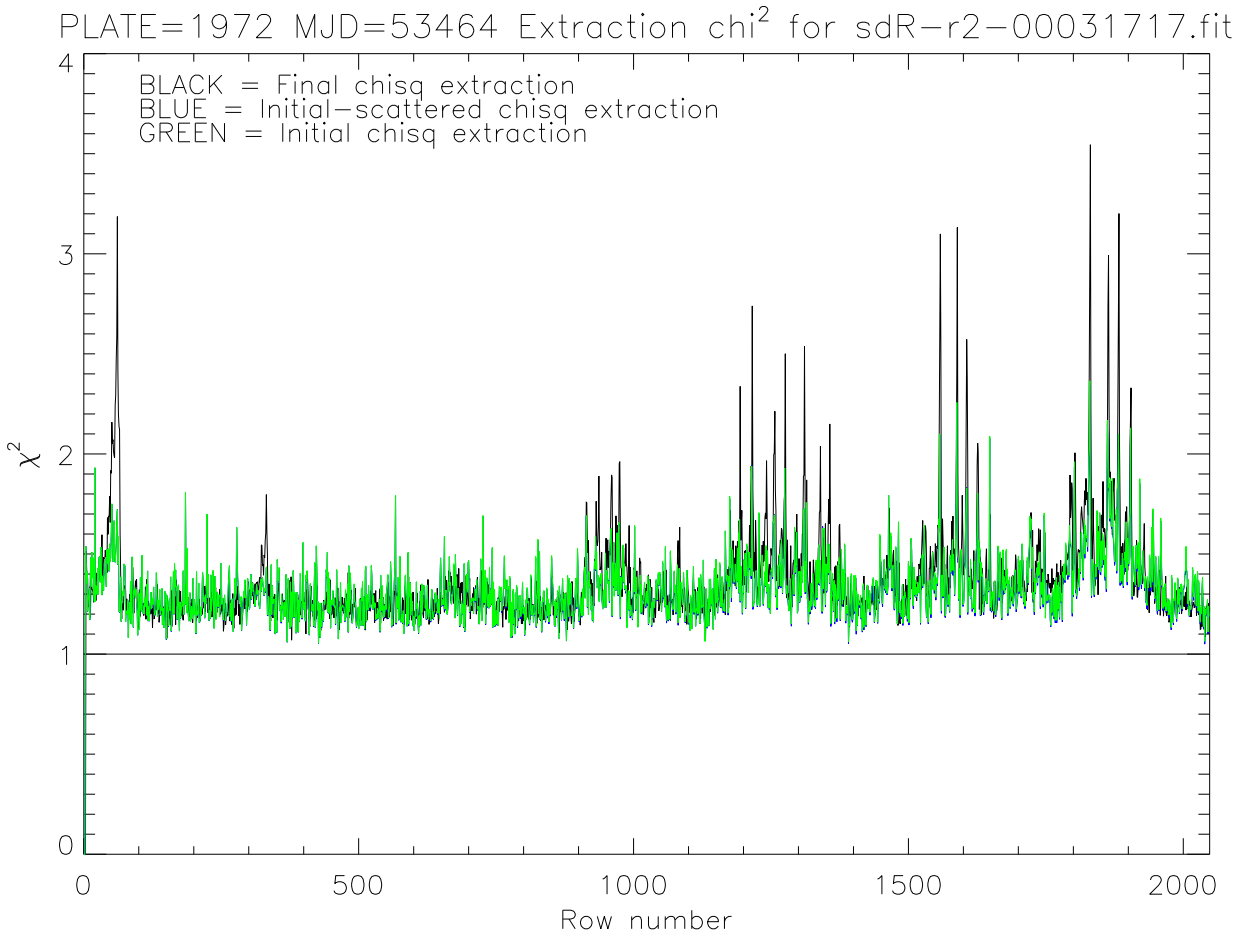

PLATE=1972 MJD=53464 Fiber−Flats for sdR−r2−00031714.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.536
Max value = 1.172
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Mon Feb 18 01:09:01 2008

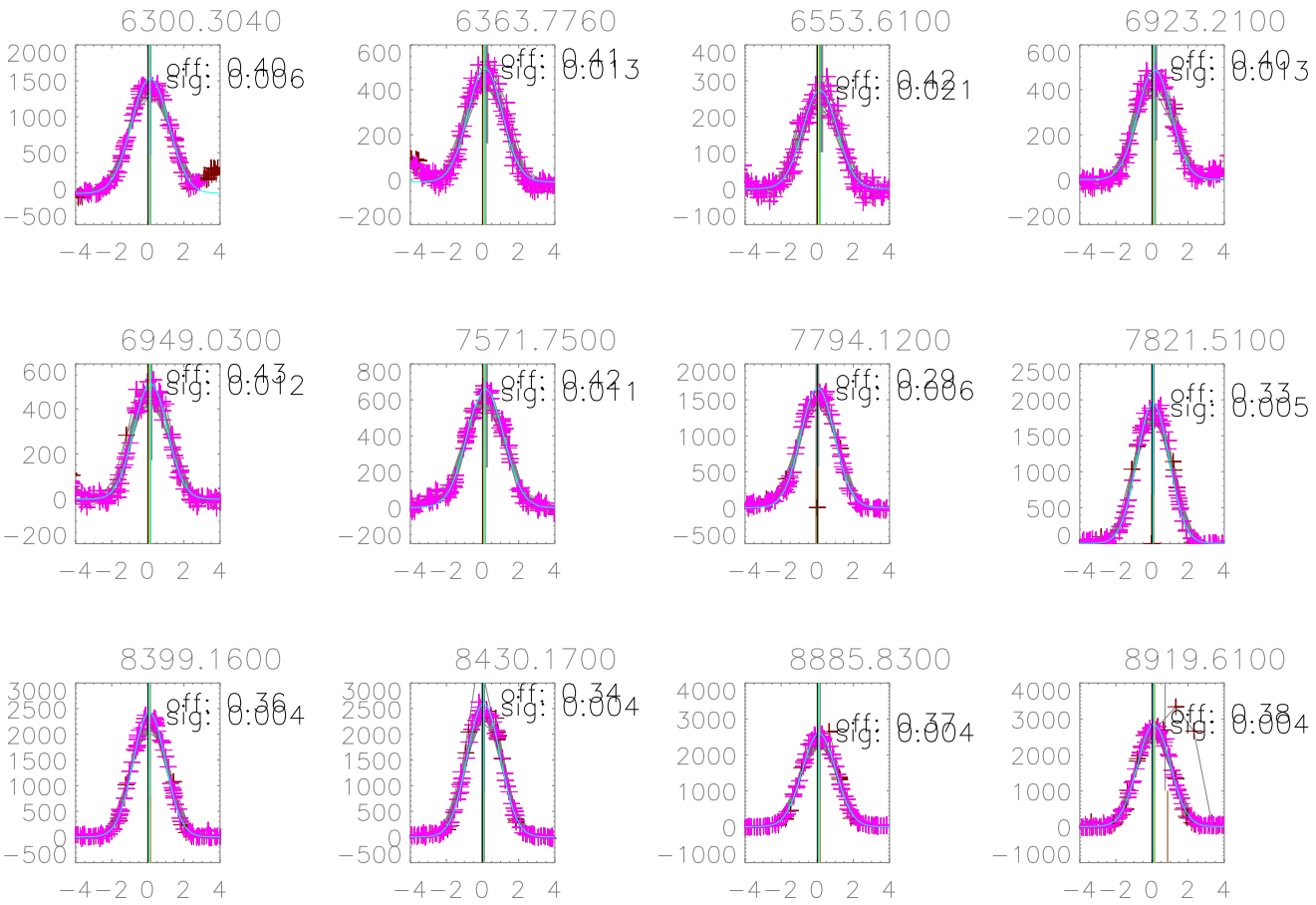

PLATE=1972 MJD=53464 Scattered Light before halo removal on sdR-r2-00031717.fi
25.5
32.7
25.5
25.5
18.2
18.2
10.9
10.9
0
0
0

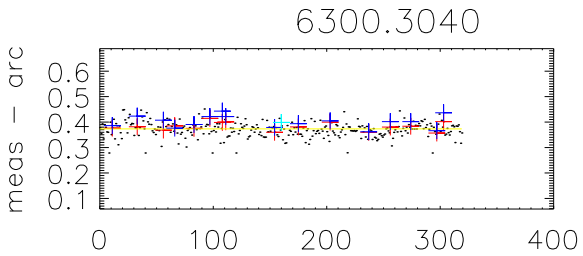

PLATE=1972 MJD=53464 Scattered Light before halo removal on sdR-r2-00031717.fi
Brightness [electrons/pix]
40
30
20
10
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 9.136
Max value = 32.574
Mon Feb 18 01:10:00 2008

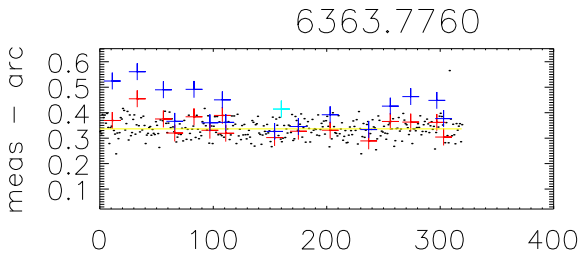

PLATE=1972 MJD=53464 Scattered Light on sdR-r2-00031717.fit
8.2
8.2
8.2
8.2
8.2
8.2
13.6
0
500
1000
1500
2000
X [pix]
Y [pix]

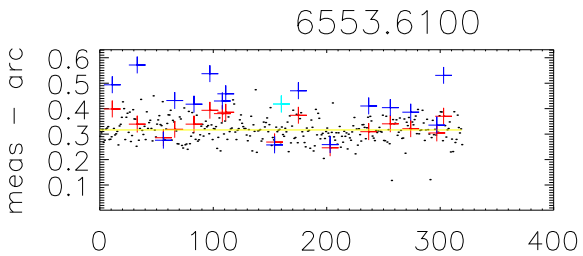

PLATE=1972 MJD=53464 Scattered Light on sdR-r2-00031717.fit
Brightness [electrons/pix]
25
20
15
10
5
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 7.474
Max value = 10.977
Mon Feb 18 01:13:08 2008

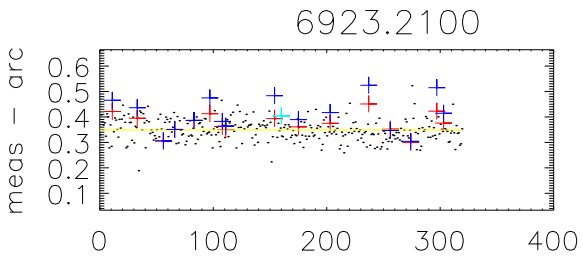

PLATE=1972 MJD=53464 Extraction chi^2 for sdR−r2−00031717.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
0
500
1000
1500
2000
Row number

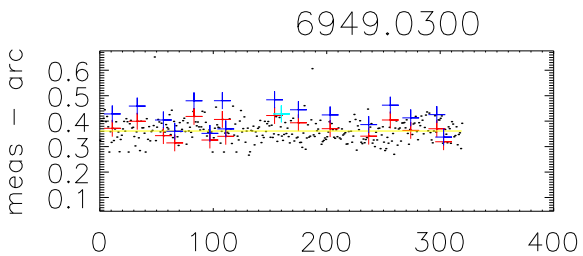

6300.3040
off: 0.40
sig: 0.006
6363.7760
off: 0.41
sig: 0.013
6553.6100
off: 0.42
sig: 0.021
6923.2100
off: 0.40
sig: 0.013
6949.0300
off: 0.43
sig: 0.012
7571.7500
off: 0.42
sig: 0.011
7794.1200
off: 0.28
sig: 0.006
7821.5100
off: 0.33
sig: 0.005
8399.1600
off: 0.36
sig: 0.004
8430.1700
off: 0.34
sig: 0.004
8885.8300
off: 0.37
sig: 0.004
8919.6100
off: 0.38
sig: 0.004

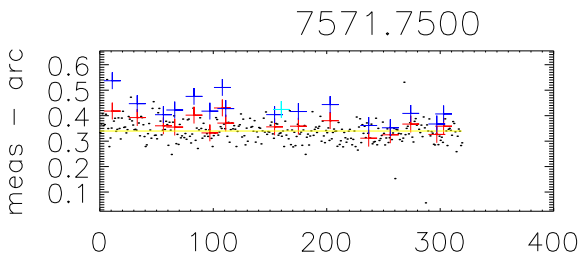

6300.3040
meas − arc
0.1
0.2
0.3
0.4
0.5
0.6
0
100
200
300
400

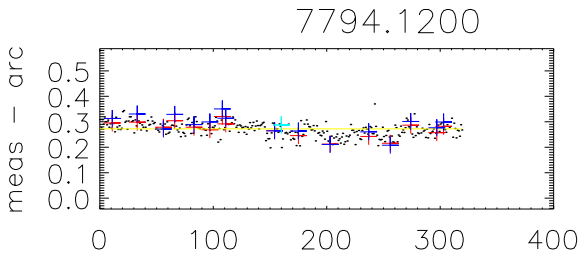

6363.7760
meas − arc
0.1
0.2
0.3
0.4
0.5
0.6
0
100
200
300
400

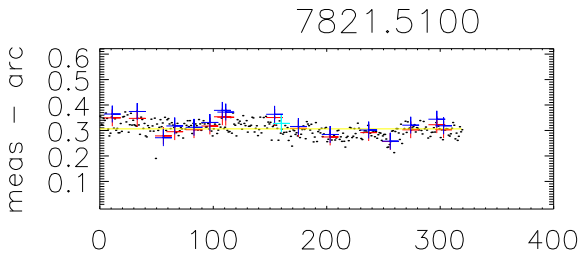

6553.6100
meas − arc
0.1
0.2
0.3
0.4
0.5
0.6
0
100
200
300
400

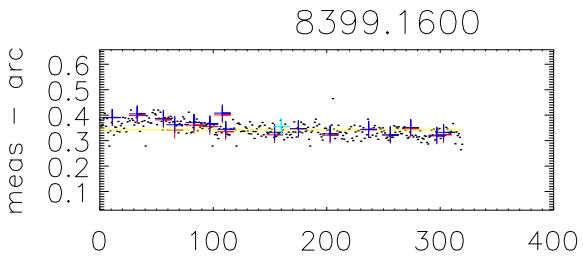

6923.2100
meas − arc
0.1
0.2
0.3
0.4
0.5
0.6
0
100
200
300
400

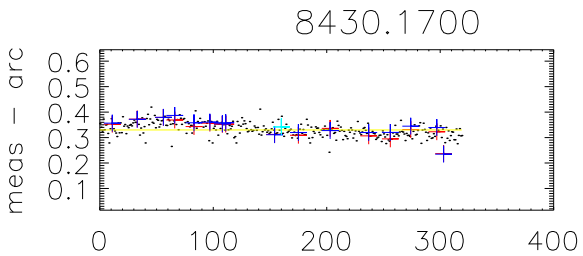

6949.0300
meas − arc
0.1
0.2
0.3
0.4
0.5
0.6
0
100
200
300
400

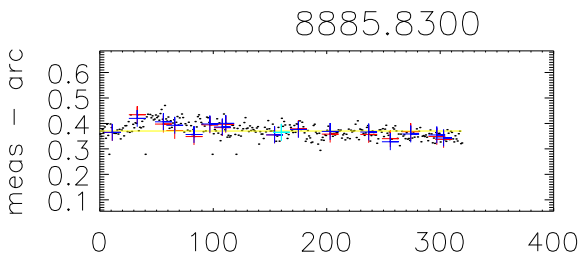

7571.7500
meas − arc
0.1
0.2
0.3
0.4
0.5
0.6
0
100
200
300
400

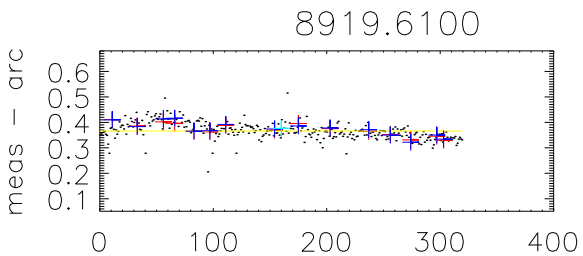

7794.1200
meas − arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400

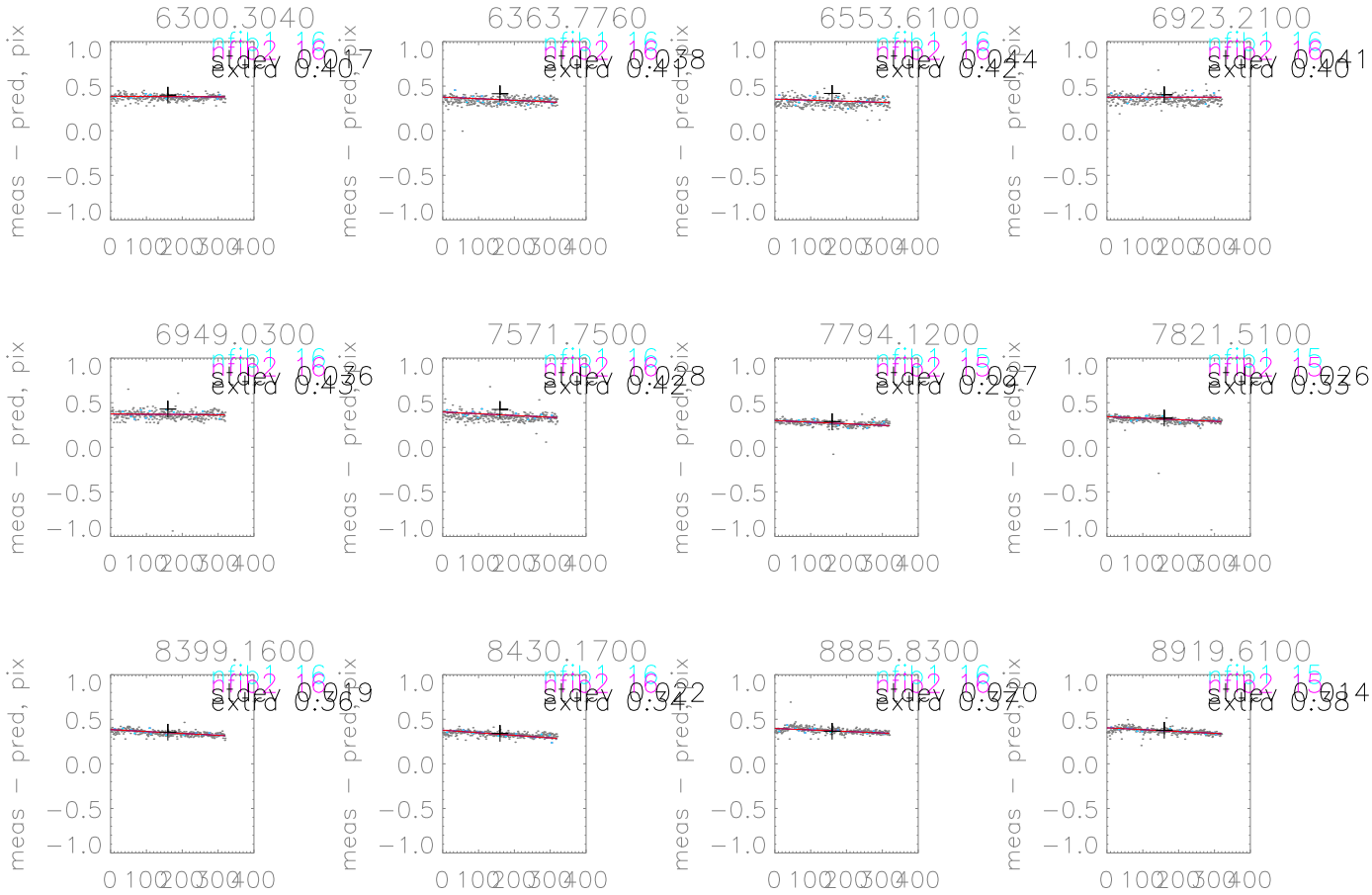

7821.5100
meas − arc
0.1
0.2
0.3
0.4
0.5
0.6
0
100
200
300
400

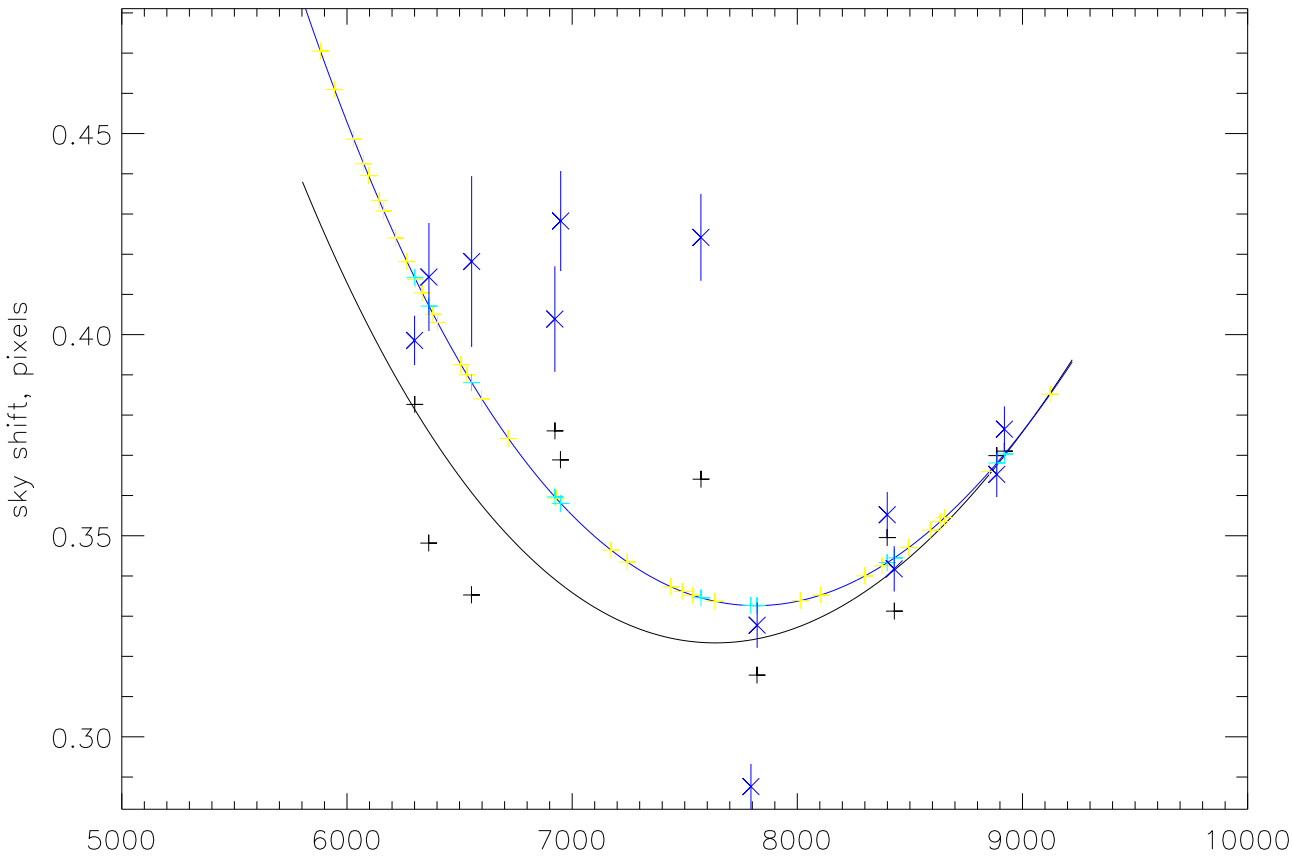

8399.1600
meas − arc
0.1
0.2
0.3
0.4
0.5
0.6
0
100
200
300
400

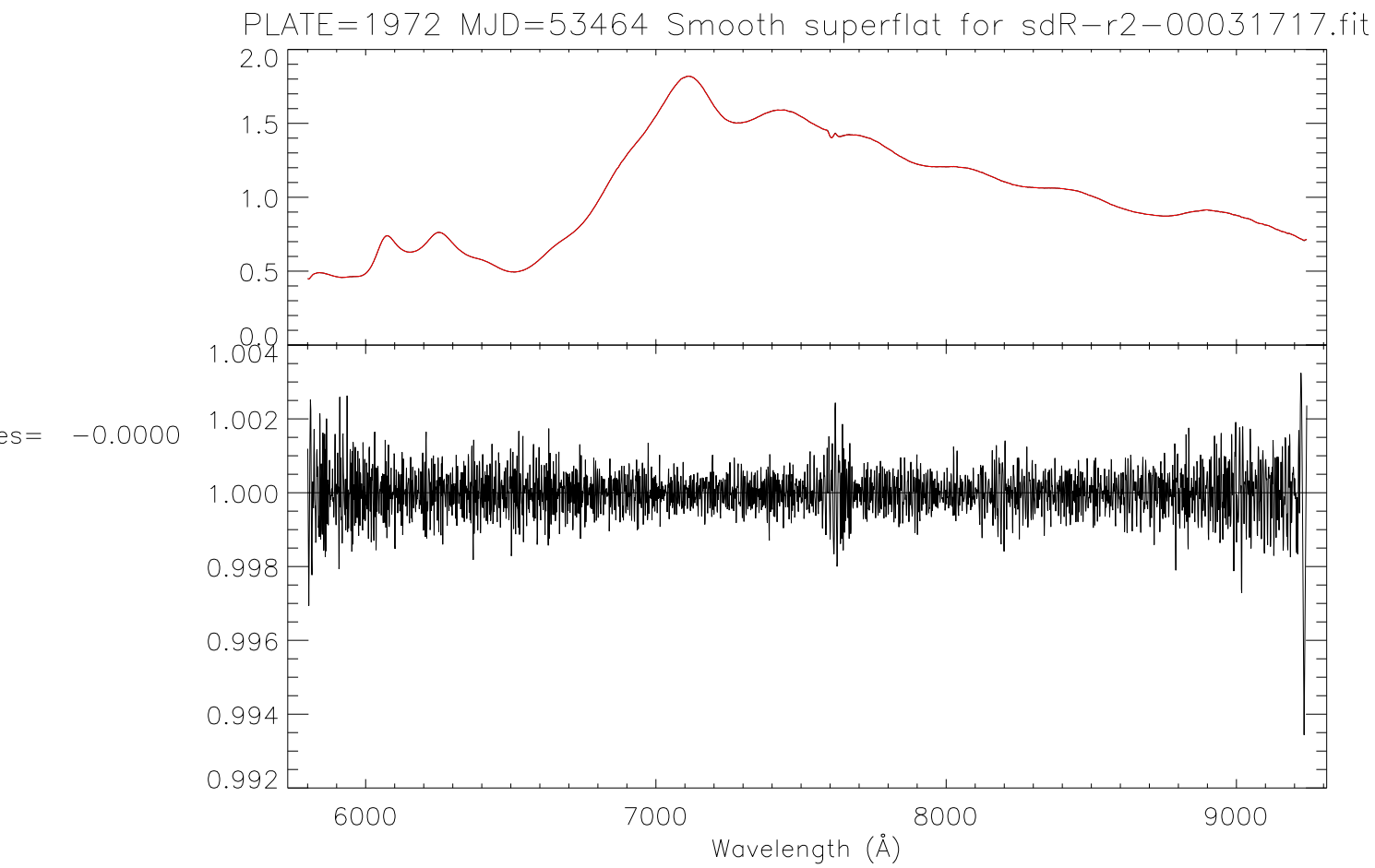

8430.1700
meas − arc
0.1
0.2
0.3
0.4
0.5
0.6
0
100
200
300
400

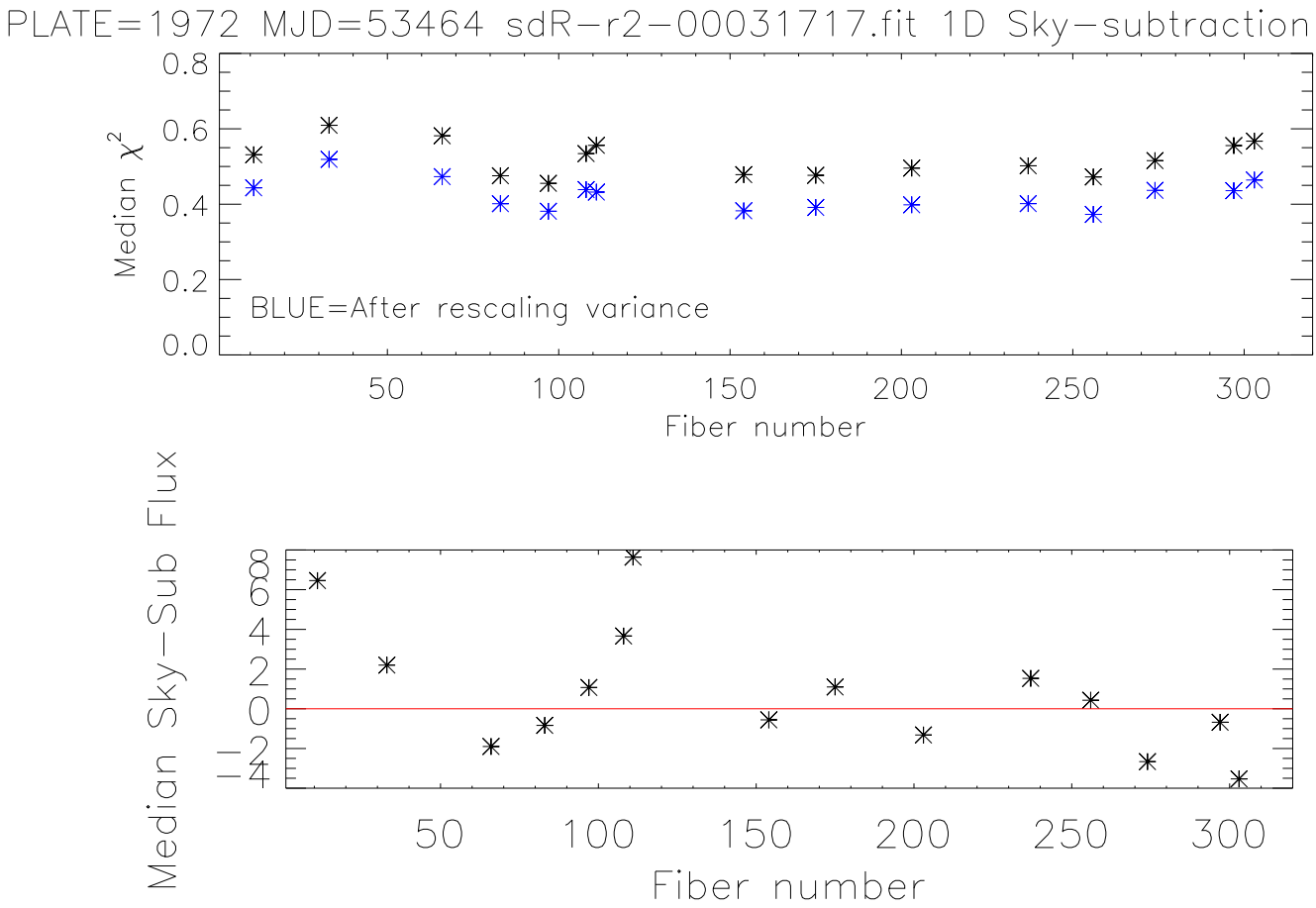

8885.8300
meas − arc
0.1
0.2
0.3
0.4
0.5
0.6
0
100
200
300
400


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

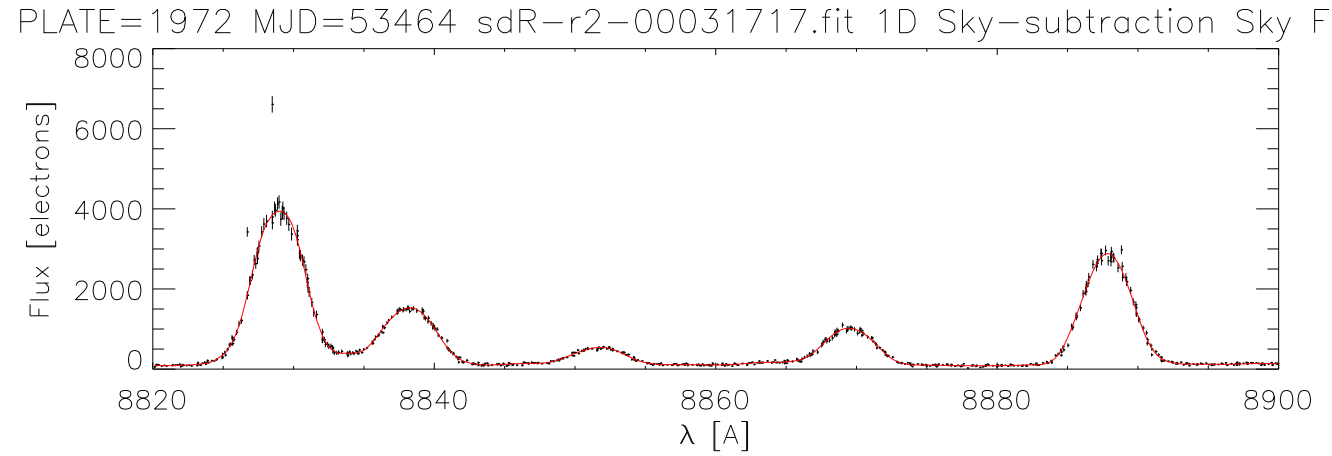

6300.3040
mfhd1 16
mfhd2 16
stdev 0.417
extra 0.40
6363.7760
mfhd1 16
mfhd2 16
stdev 0.418
extra 0.41
6553.6100
mfhd1 16
mfhd2 16
stdev 0.414
extra 0.42
6923.2100
mfhd1 16
mfhd2 16
stdev 0.411
extra 0.40
6949.0300
mfhd1 16
mfhd2 16
stdev 0.436
extra 0.43
7571.7500
mfhd1 16
mfhd2 16
stdev 0.428
extra 0.42
7794.1200
mfhd1 15
mfhd2 16
stdev 0.327
extra 0.29
7821.5100
mfhd1 15
mfhd2 16
stdev 0.326
extra 0.33
8399.1600
mfhd1 16
mfhd2 16
stdev 0.349
extra 0.36
8430.1700
mfhd1 16
mfhd2 16
stdev 0.322
extra 0.34
8885.8300
mfhd1 16
mfhd2 16
stdev 0.320
extra 0.37
8919.6100
mfhd1 15
mfhd2 16
stdev 0.314
extra 0.38
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

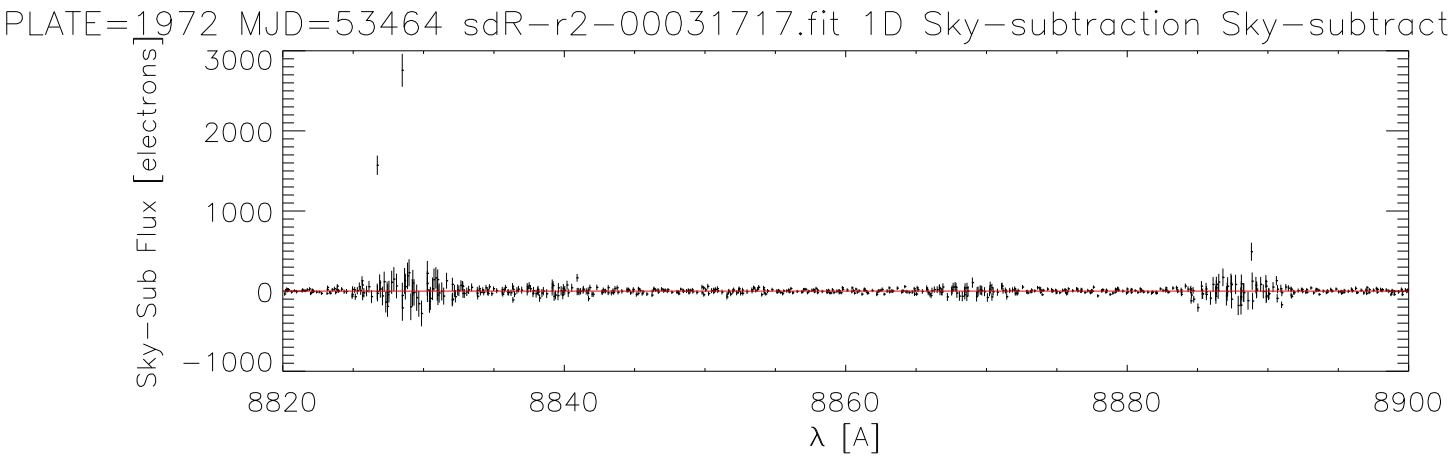

sky shift, pixels
0.45
0.40
0.35
0.30
5000
6000
7000
8000
9000
10000

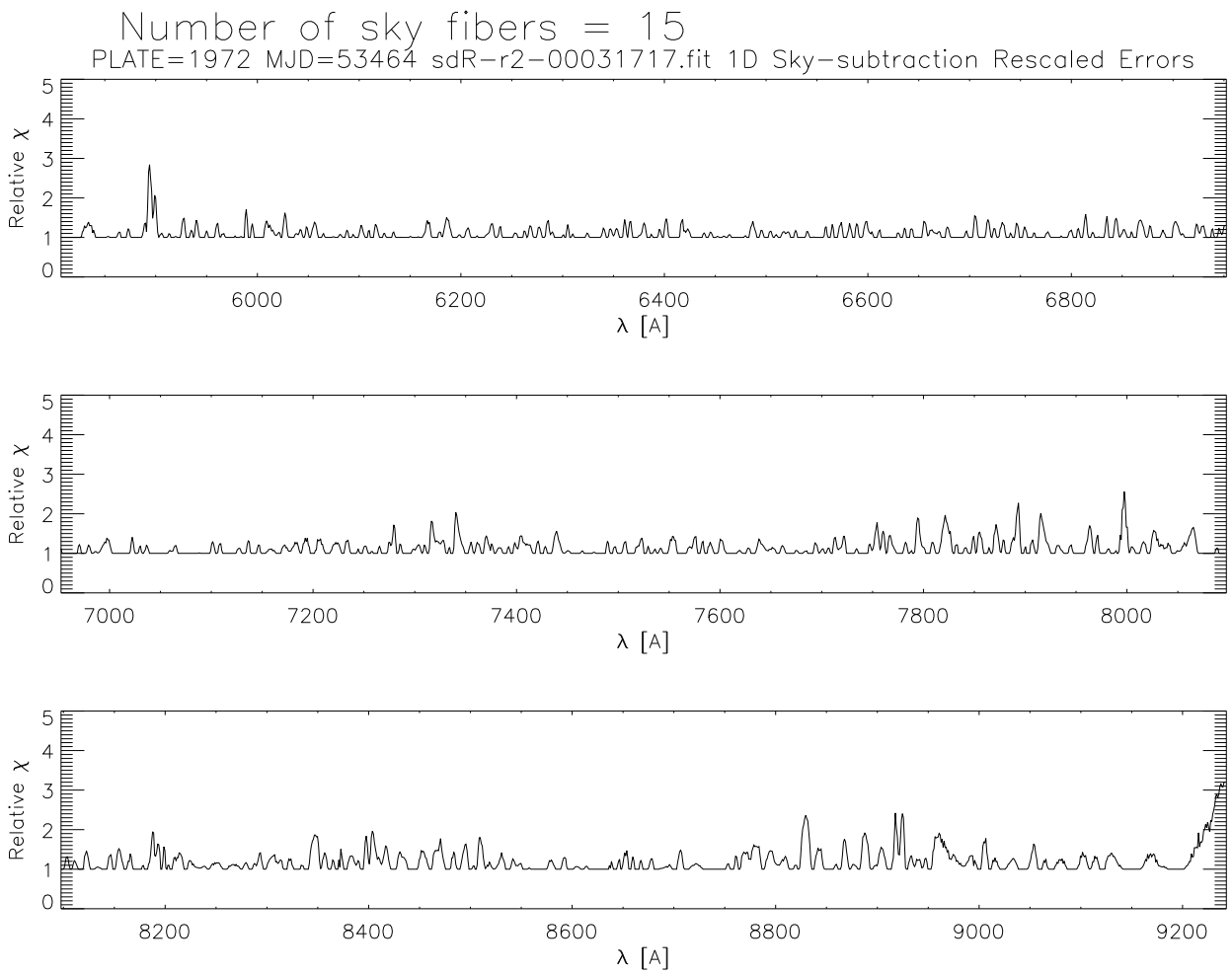

PLATE=1972 MJD=53464 Smooth superflat for sdR-r2-00031717.fit
2.0
1.5
1.0
0.5
0.0
1.004
1.002
1.000
0.998
0.996
0.994
0.992
es= −0.0000
6000
7000
8000
9000
Wavelength (Å)

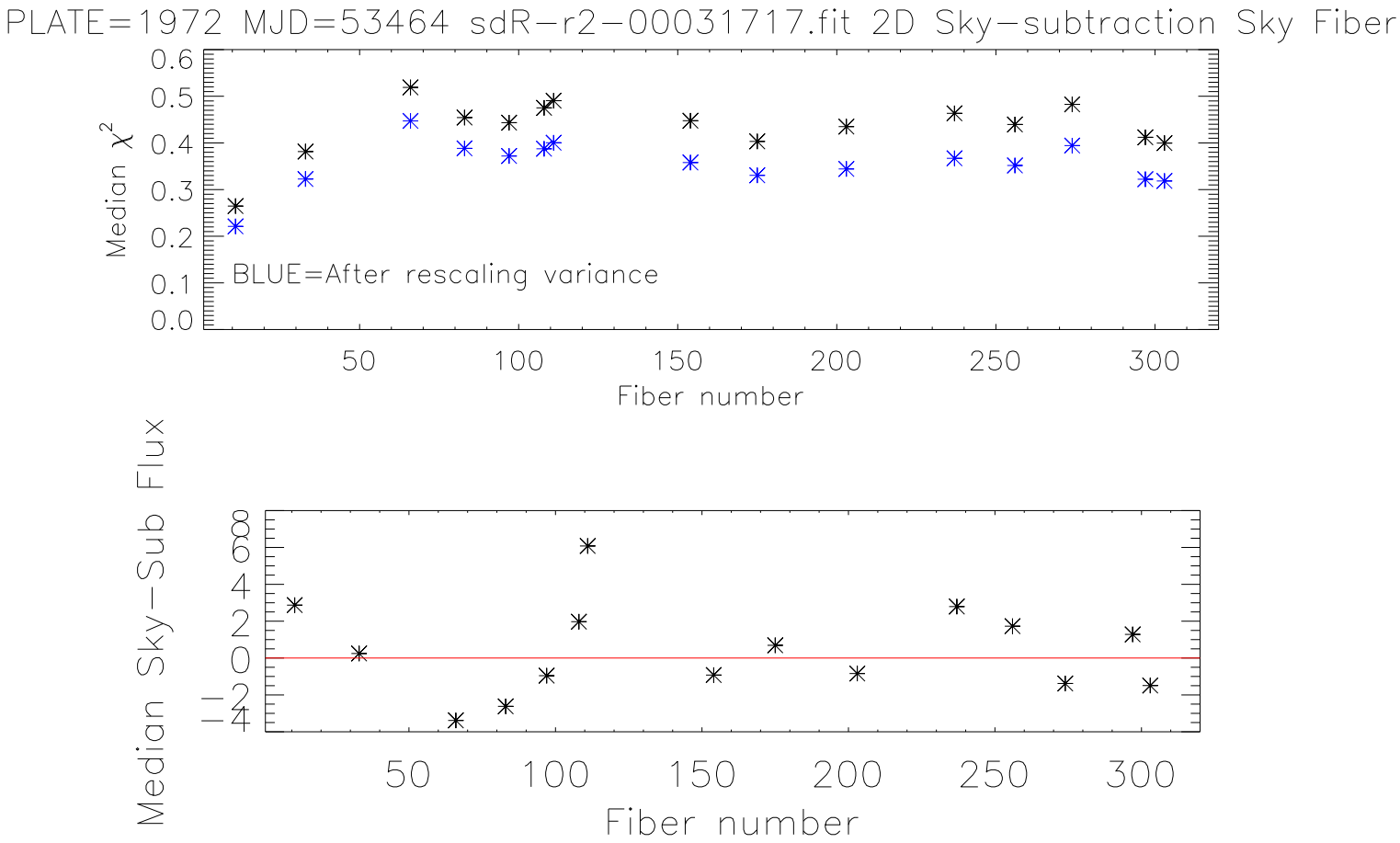

PLATE=1972 MJD=53464 sdR-r2-00031717.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number

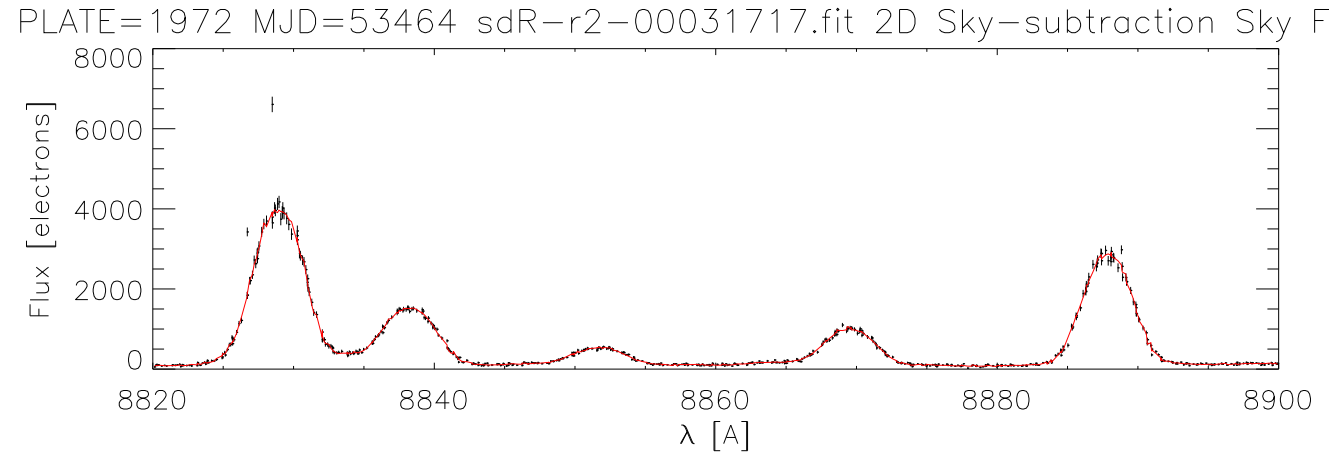
Median Sky-Sub Flux
-4
-2
0
2
4
6
8
50
100
150
200
250
300
Fiber number

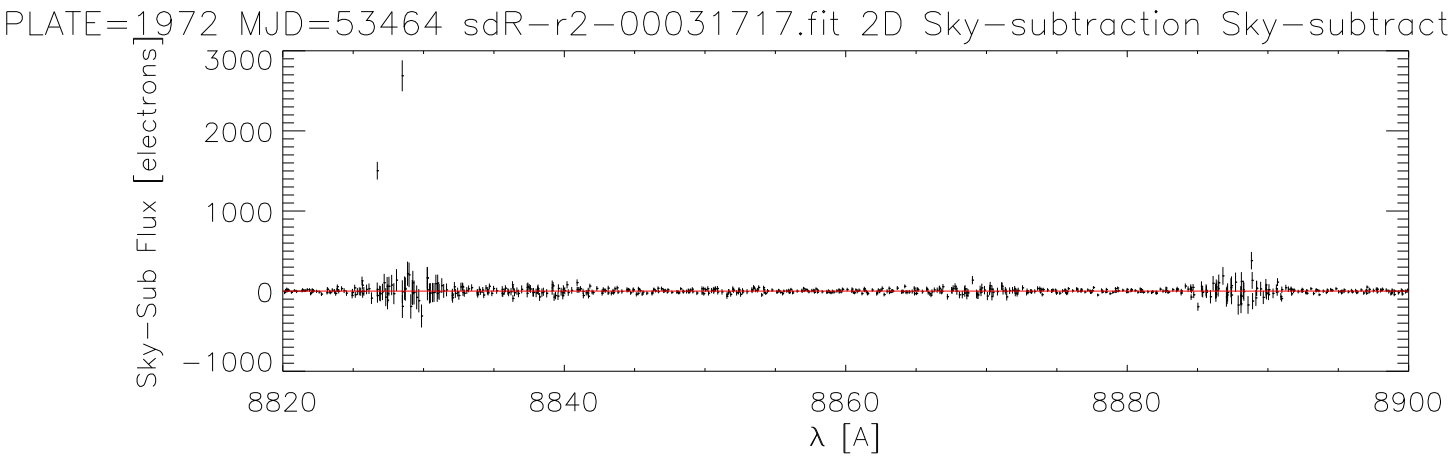

PLATE=1972 MJD=53464 sdR-r2-00031717.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
8820
8840
8860
8880
8900
λ [A]

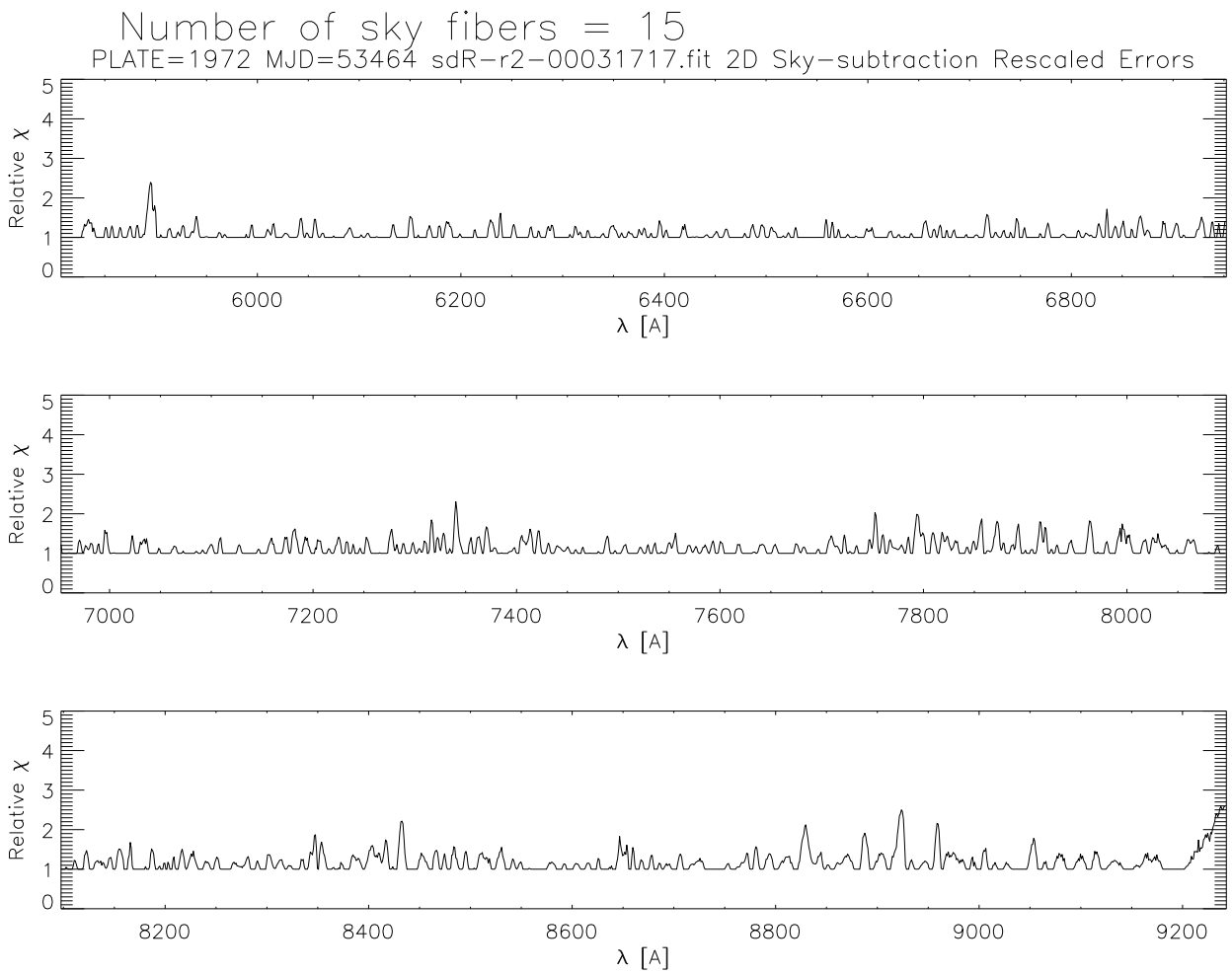

PLATE=1972 MJD=53464 sdR-r2-00031717.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
3000
2000
1000
0
-1000
8820
8840
8860
8880
8900
λ [A]

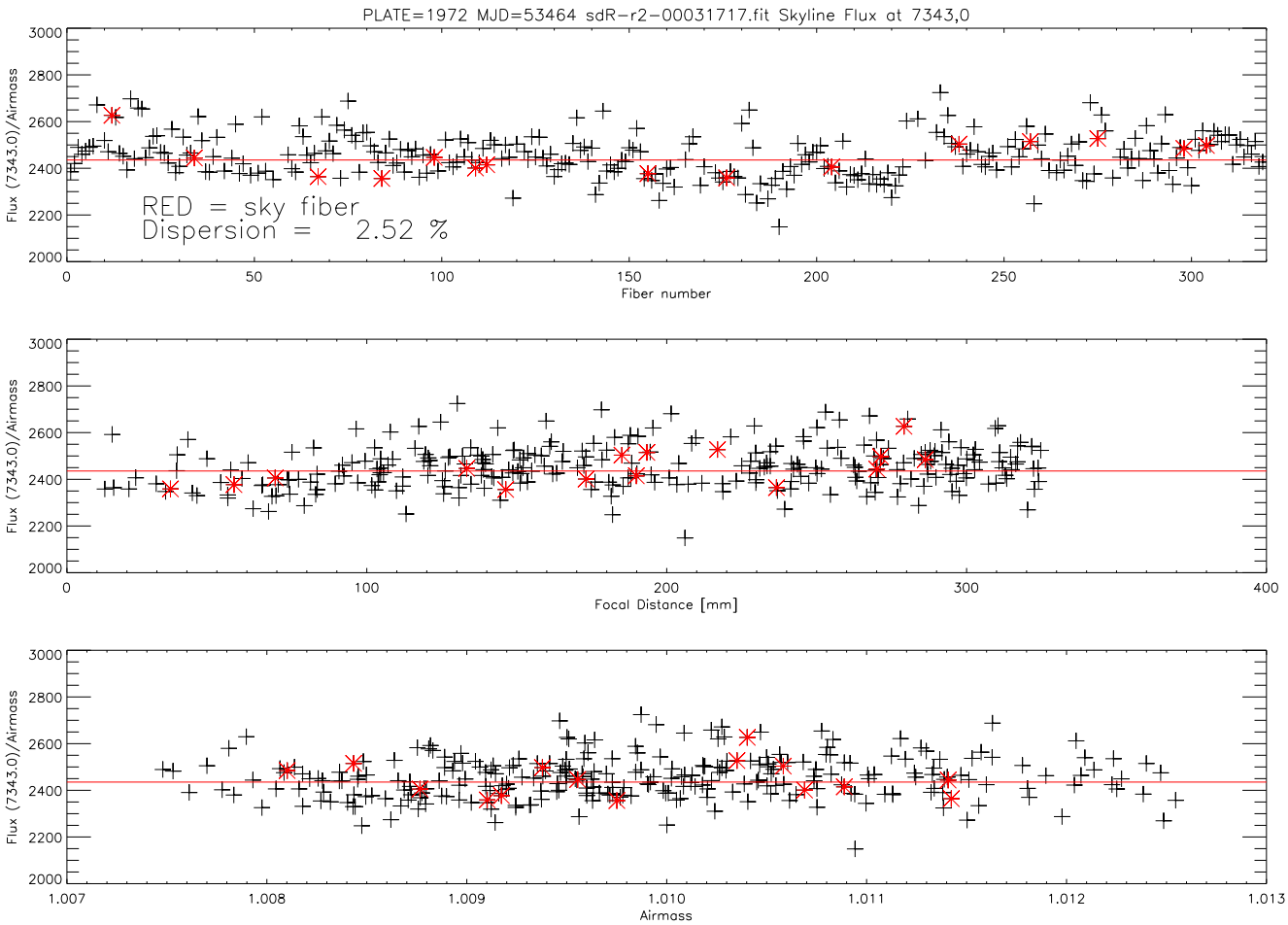

Number of sky fibers = 15
PLATE=1972 MJD=53464 sdR-r2-00031717.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

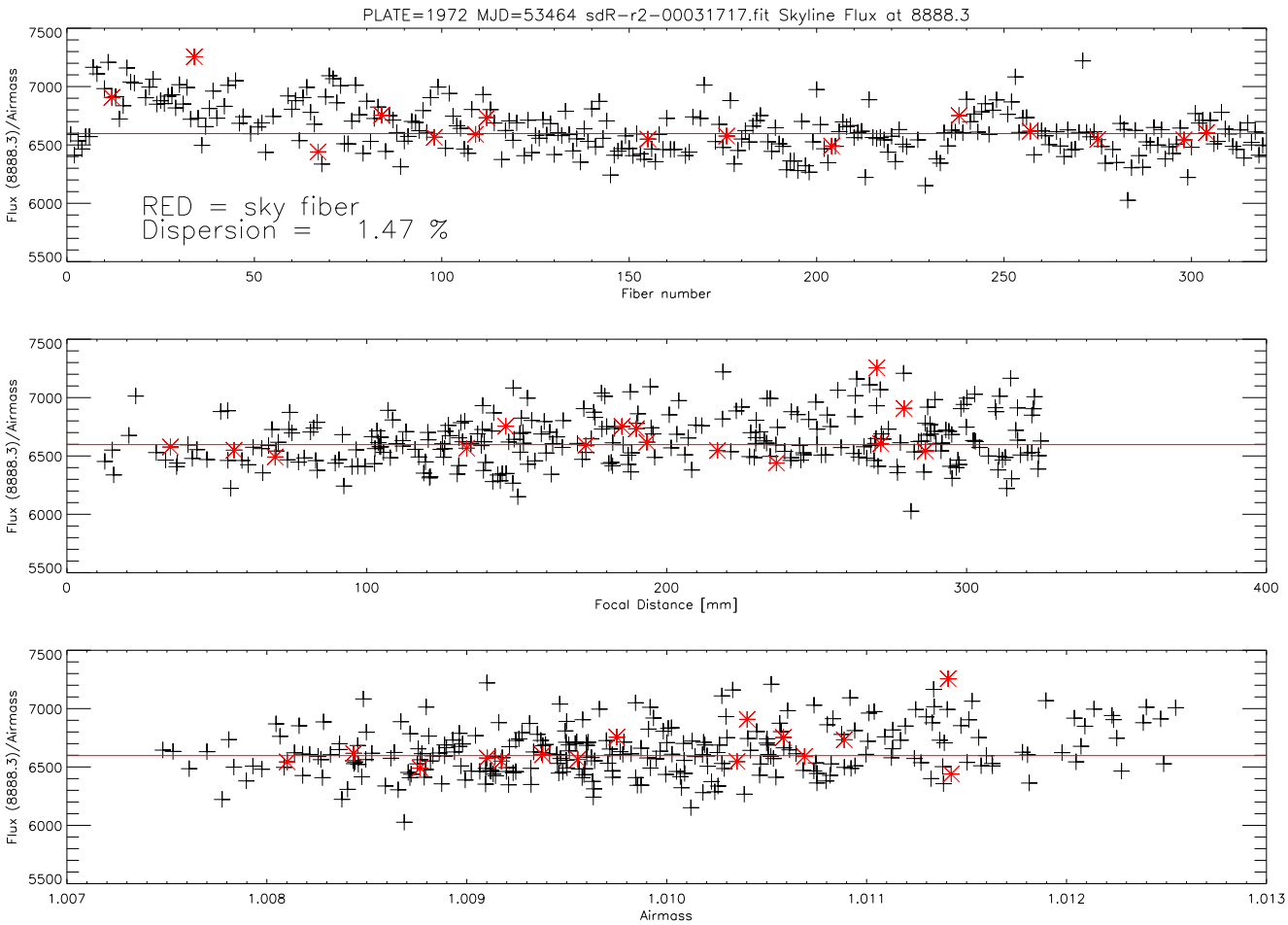

PLATE=1972 MJD=53464 sdR-r2-00031717.fit 2D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-4
-2
0
2
4
6
8
50
100
150
200
250
300
Fiber number


PLATE=1972 MJD=53464 sdR-r2-00031717.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
8820
8840
8860
8880
8900
λ [A]


PLATE=1972 MJD=53464 sdR-r2-00031717.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
3000
2000
1000
0
-1000
8820
8840
8860
8880
8900
λ [A]


Number of sky fibers = 15
PLATE=1972 MJD=53464 sdR-r2-00031717.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=1972 MJD=53464 sdR-r2-00031717.fit Skyline Flux at 7343.0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 2.52 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass


PLATE=1972 MJD=53464 sdR-r2-00031717.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 1.47 %
Fiber number
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass