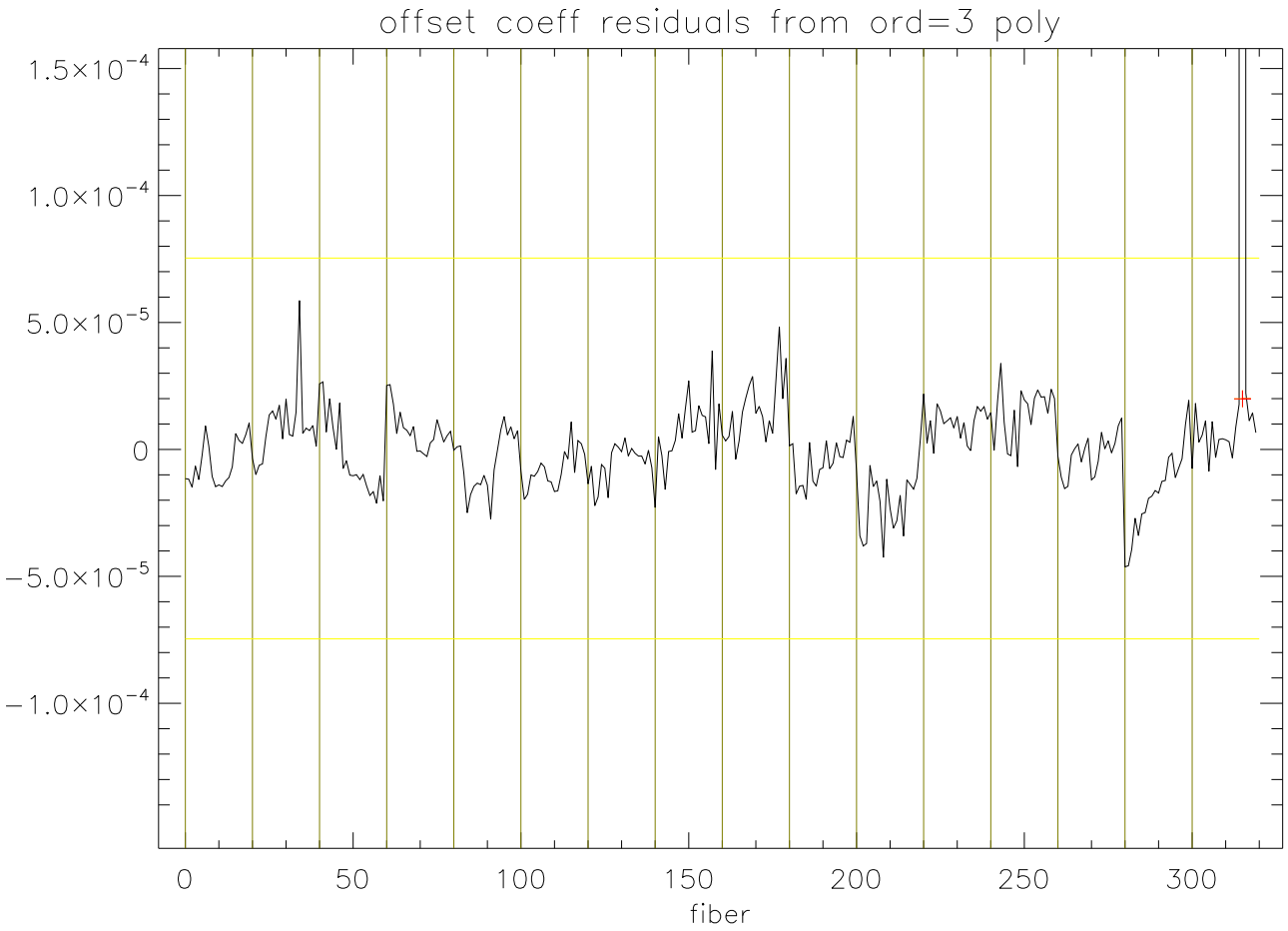
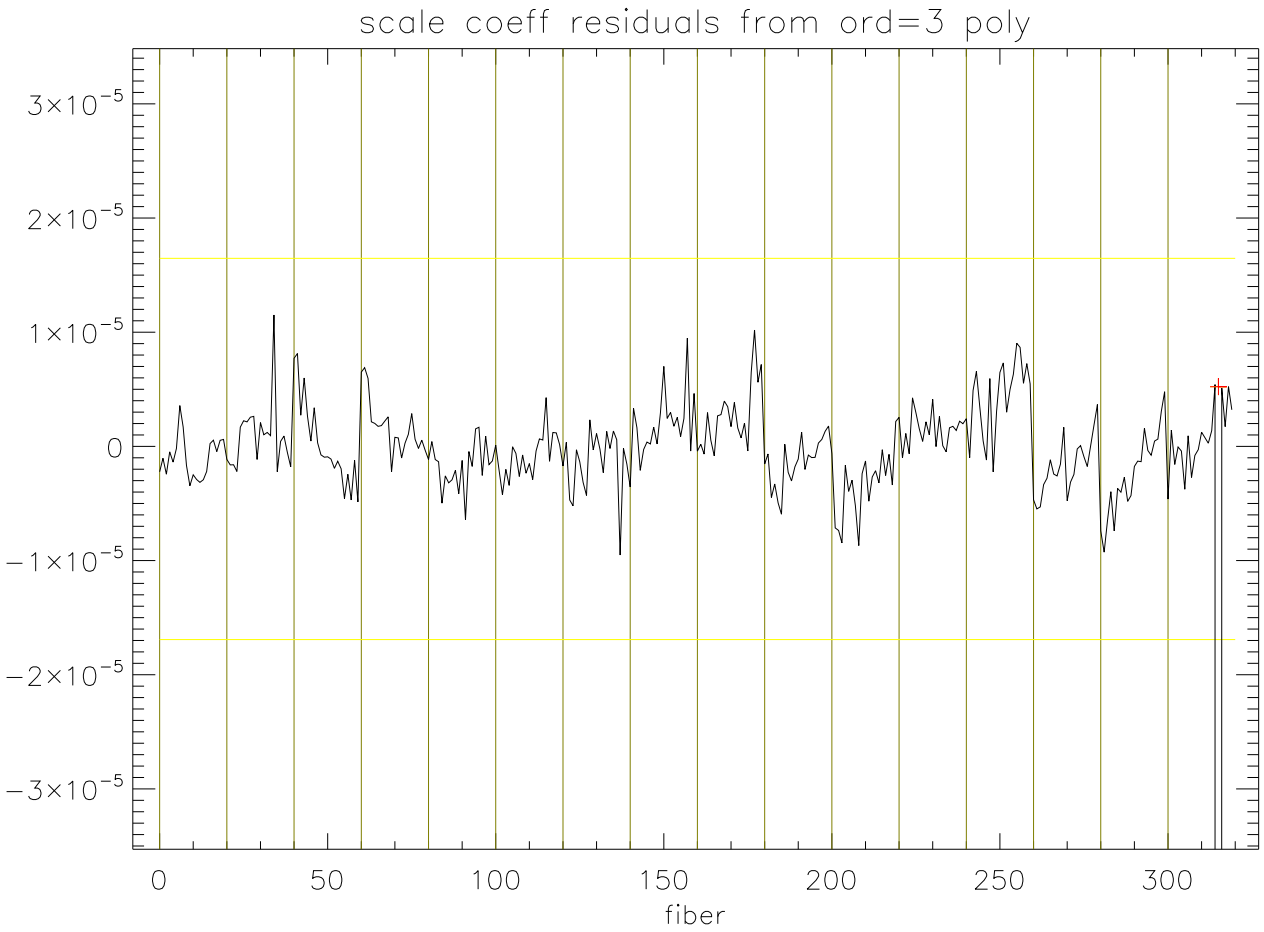
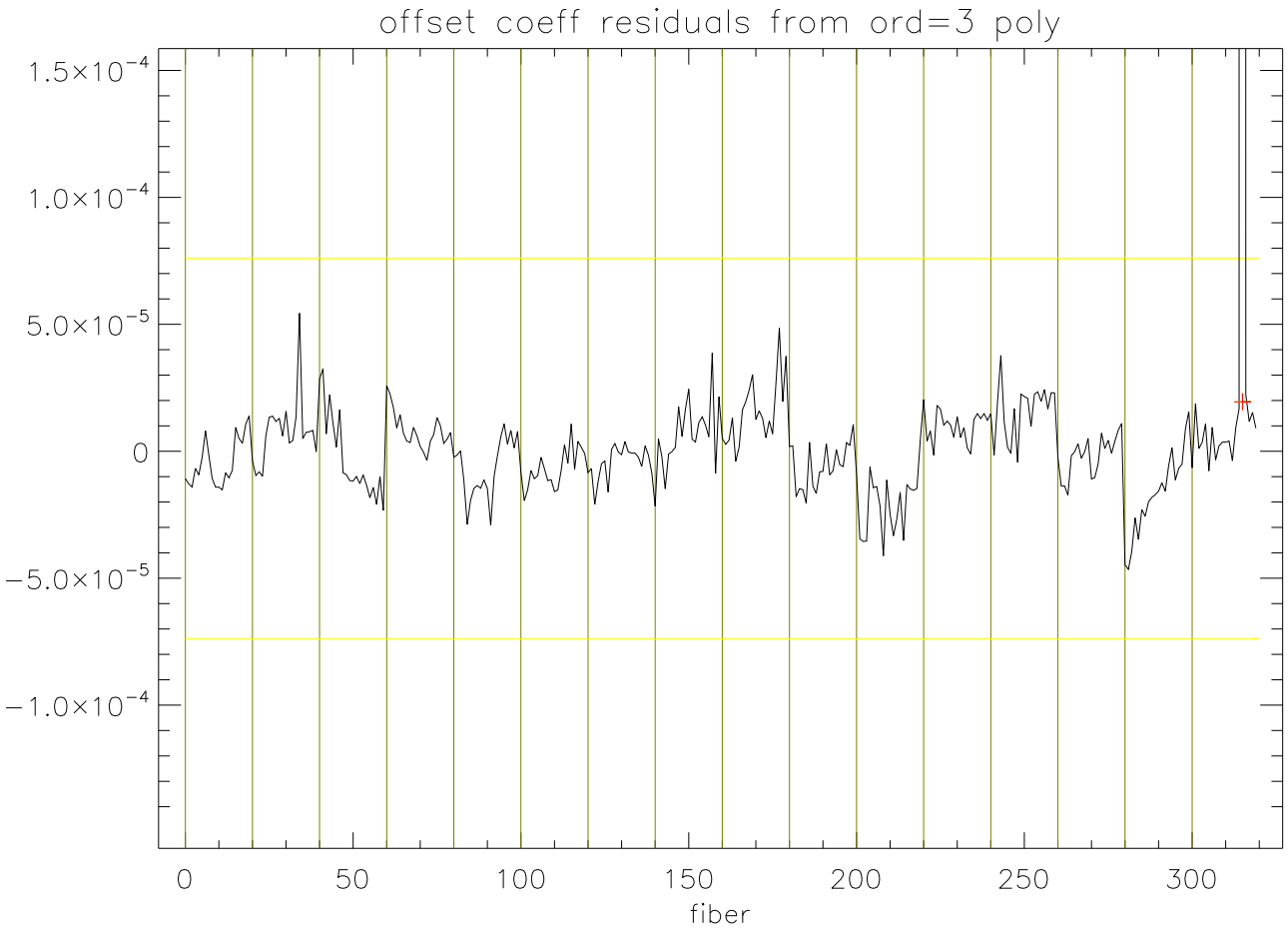
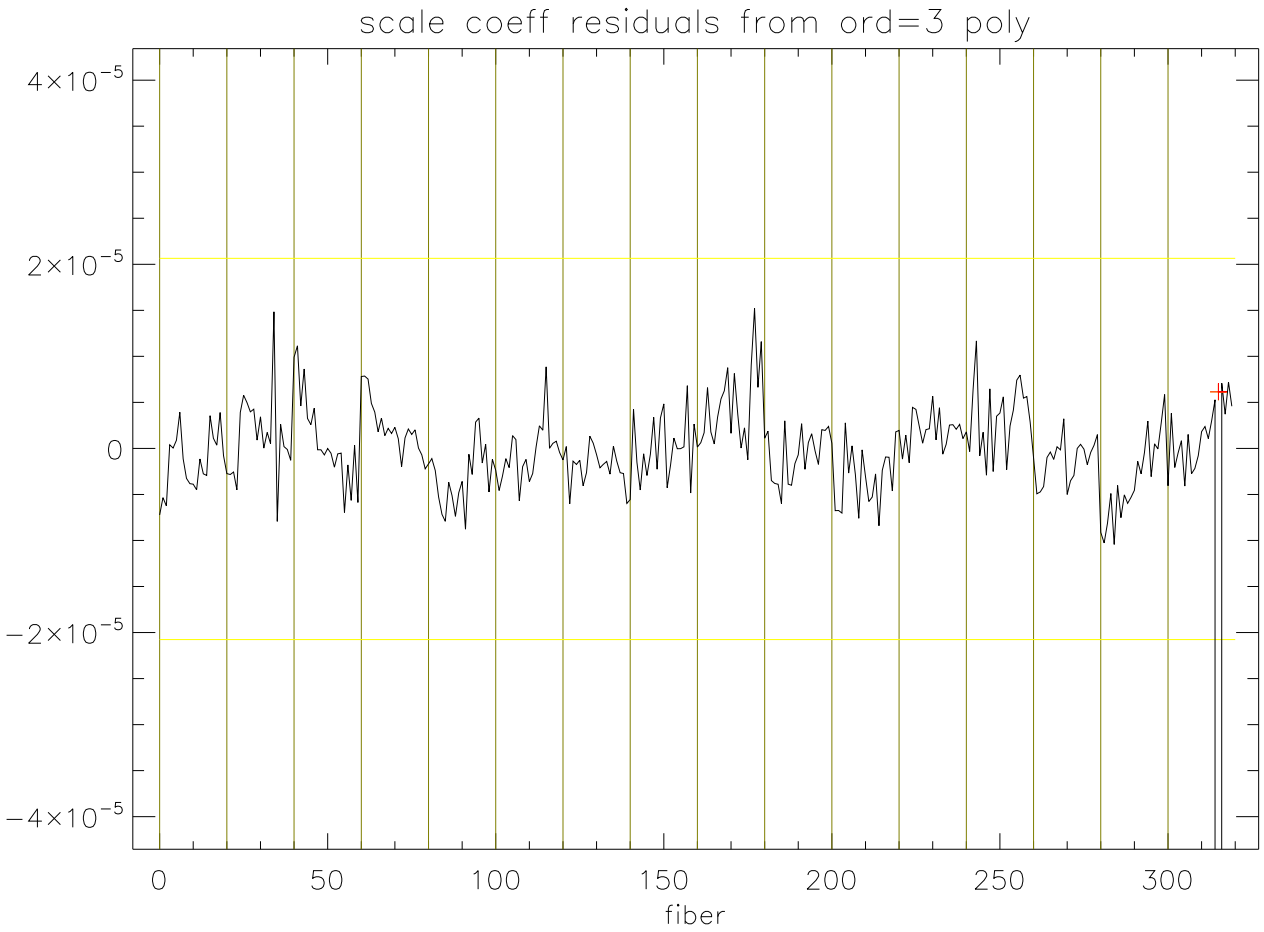
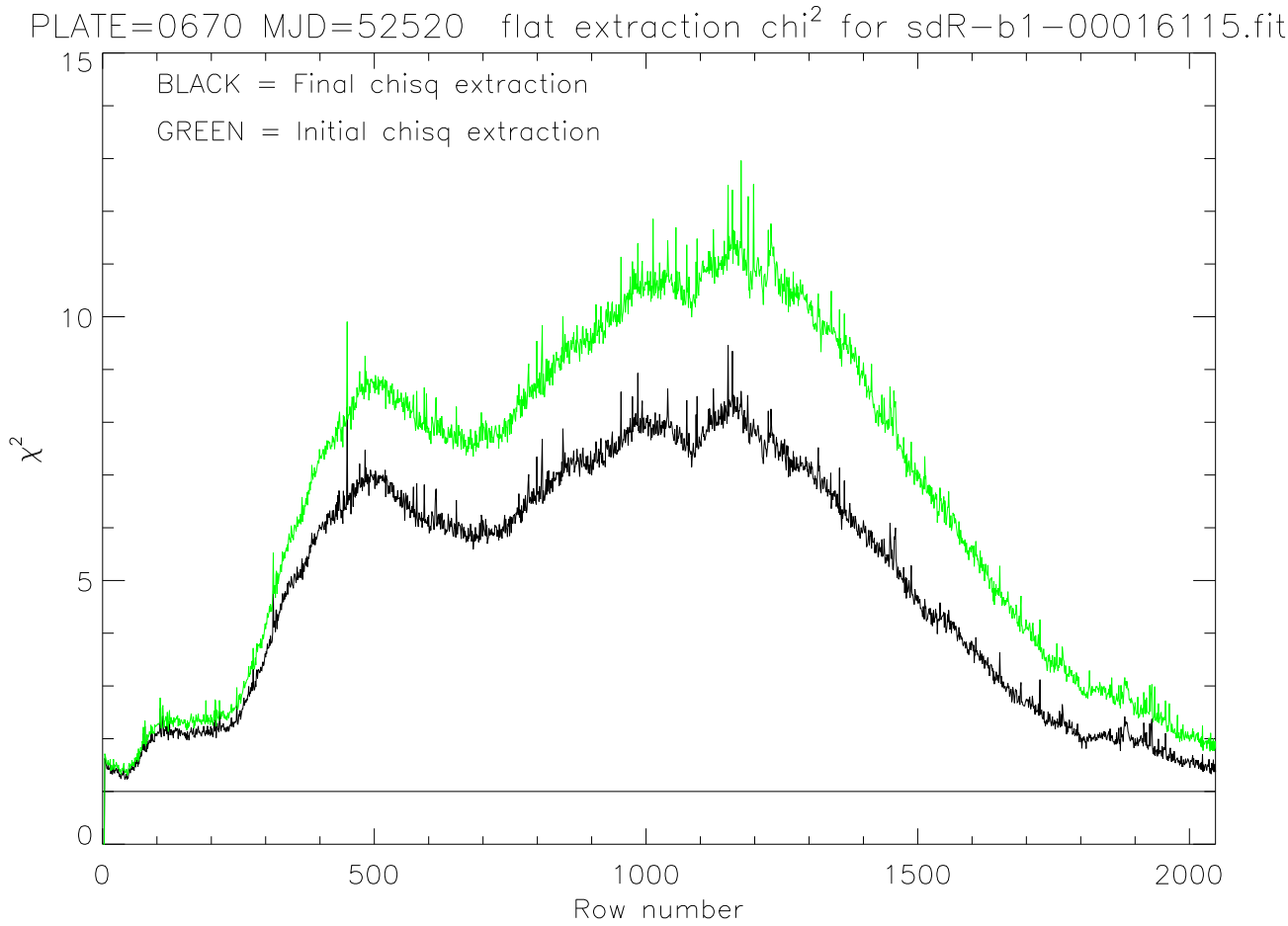
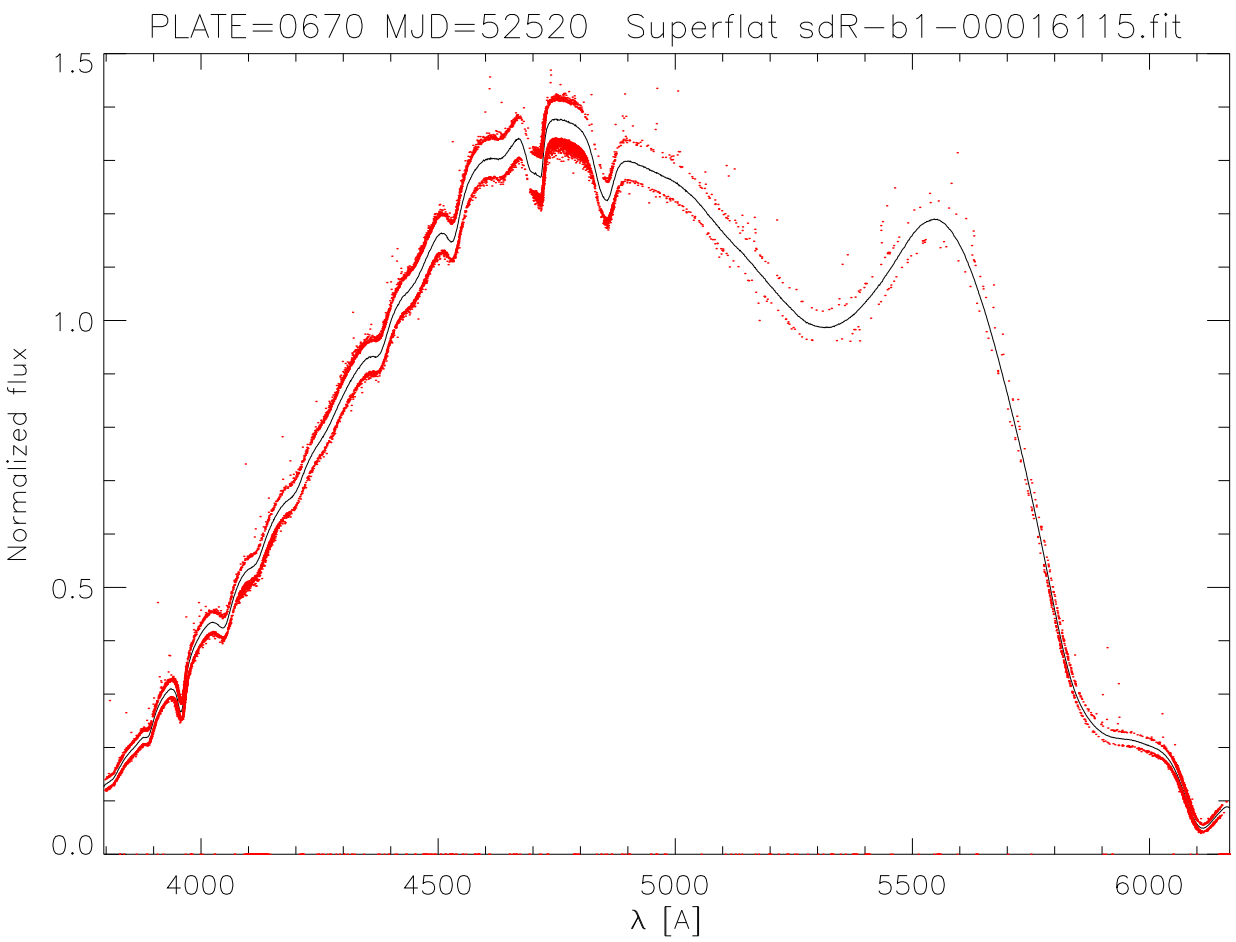

offset coeff residuals from ord=3 poly
1.5×10⁻⁴
1.0×10⁻⁴
5.0×10⁻⁵
0
−5.0×10⁻⁵
−1.0×10⁻⁴
0
50
100
150
200
250
300
fiber

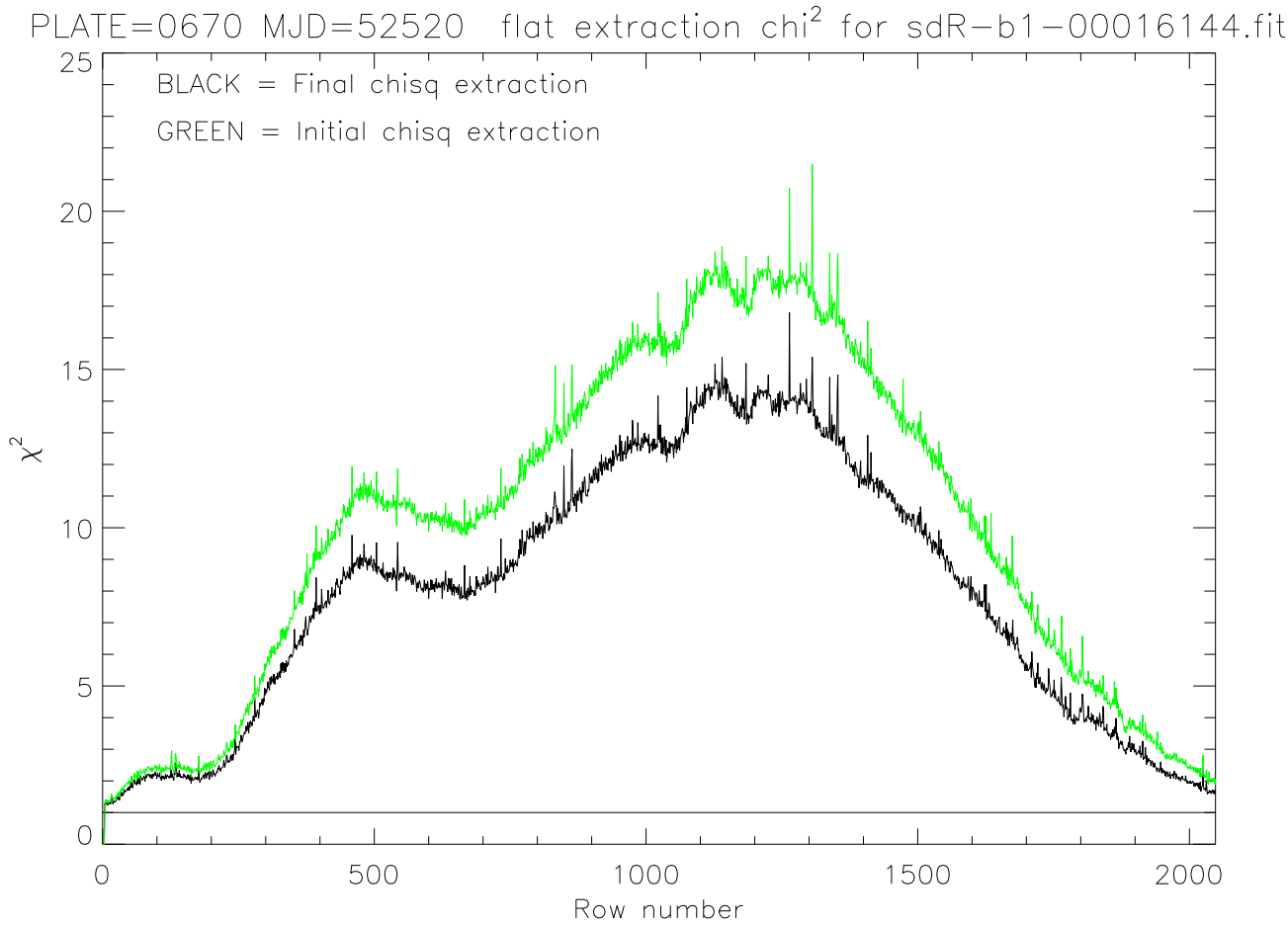

scale coeff residuals from ord=3 poly
3×10⁻⁵
2×10⁻⁵
1×10⁻⁵
0
−1×10⁻⁵
−2×10⁻⁵
−3×10⁻⁵
0
50
100
150
200
250
300
fiber

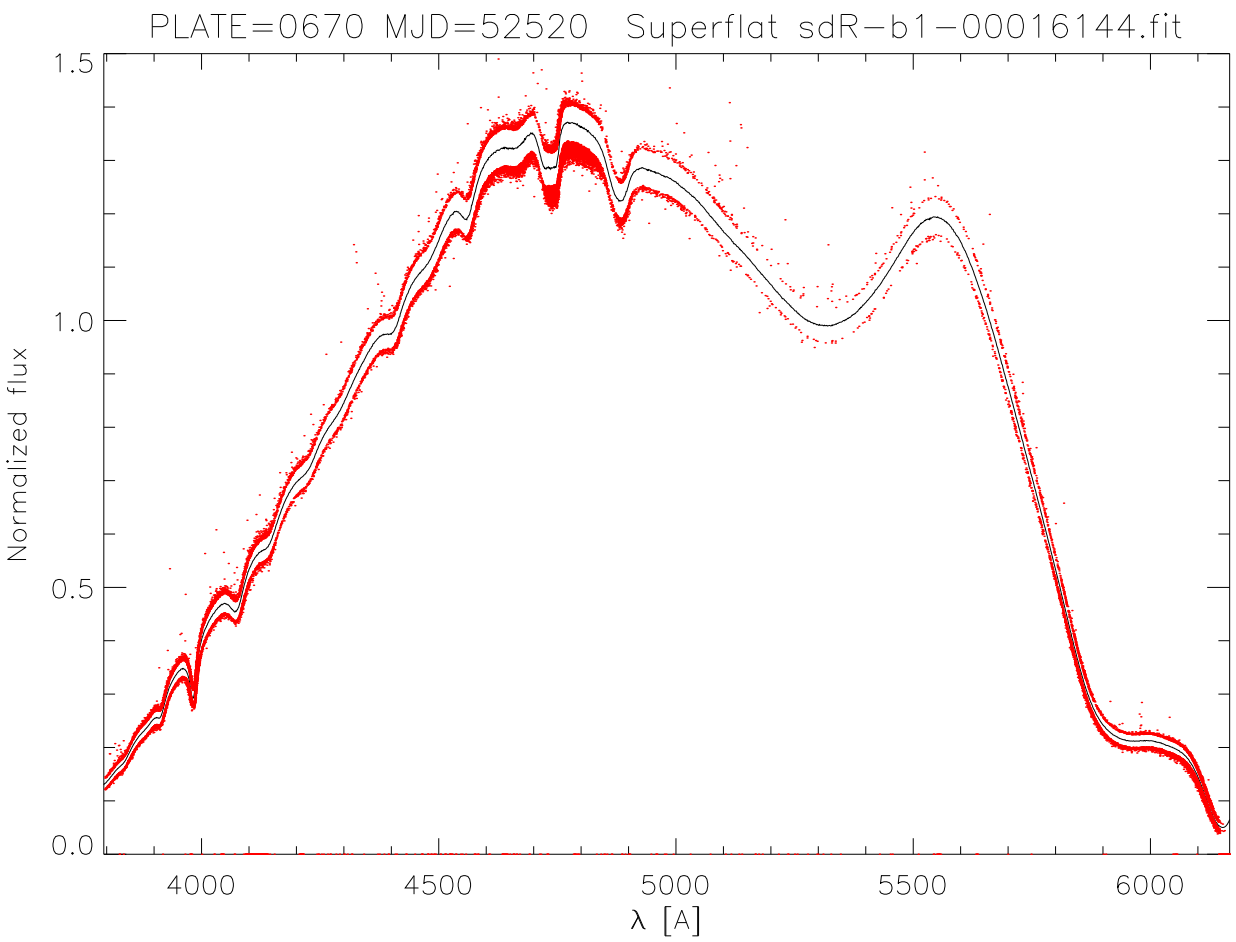

offset coeff residuals from ord=3 poly
1.5×10⁻⁴
1.0×10⁻⁴
5.0×10⁻⁵
0
−5.0×10⁻⁵
−1.0×10⁻⁴
0
50
100
150
200
250
300
fiber

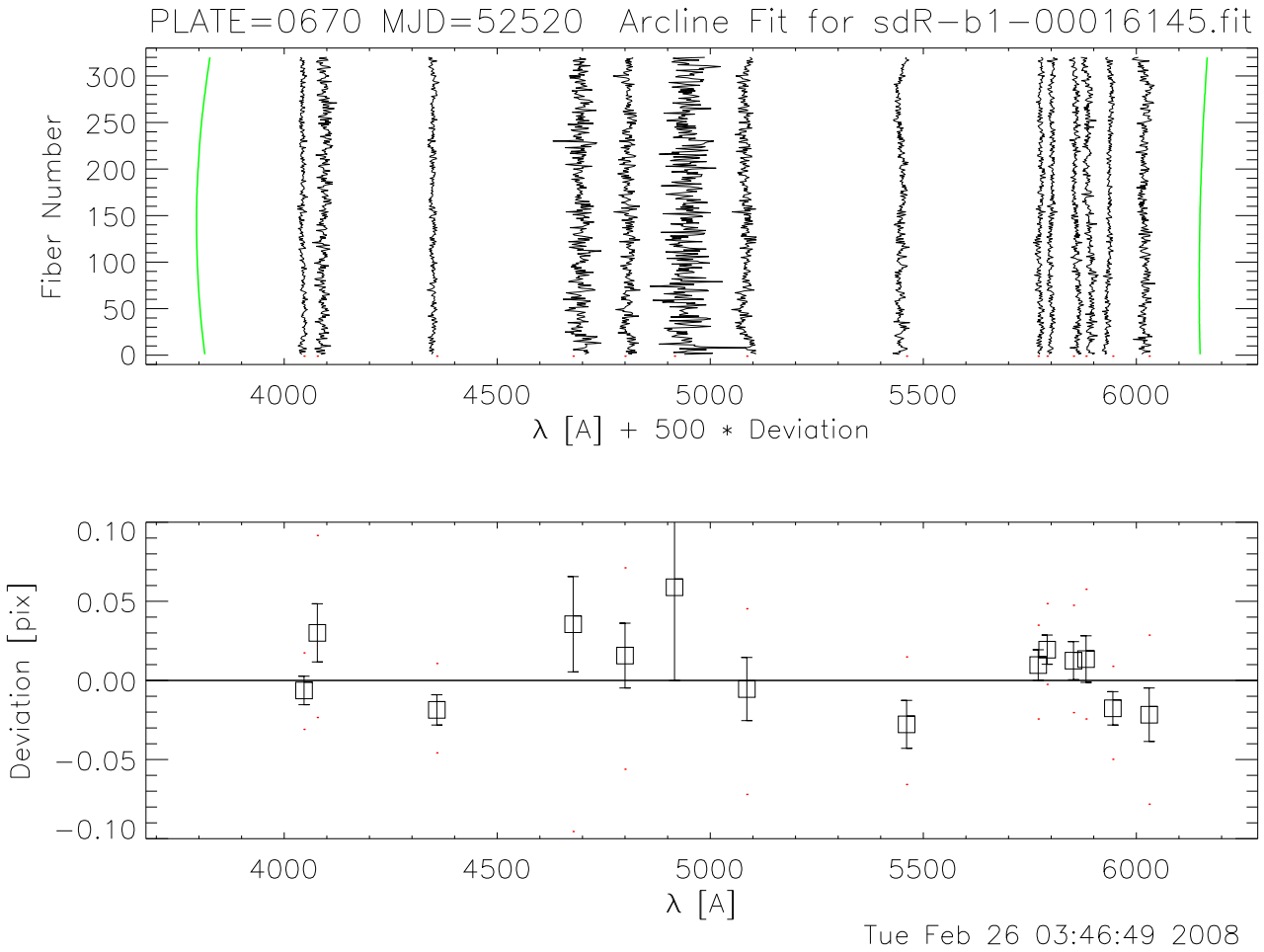

scale coeff residuals from ord=3 poly
4×10^-5
2×10^-5
0
−2×10^-5
−4×10^-5
0
50
100
150
200
250
300
fiber

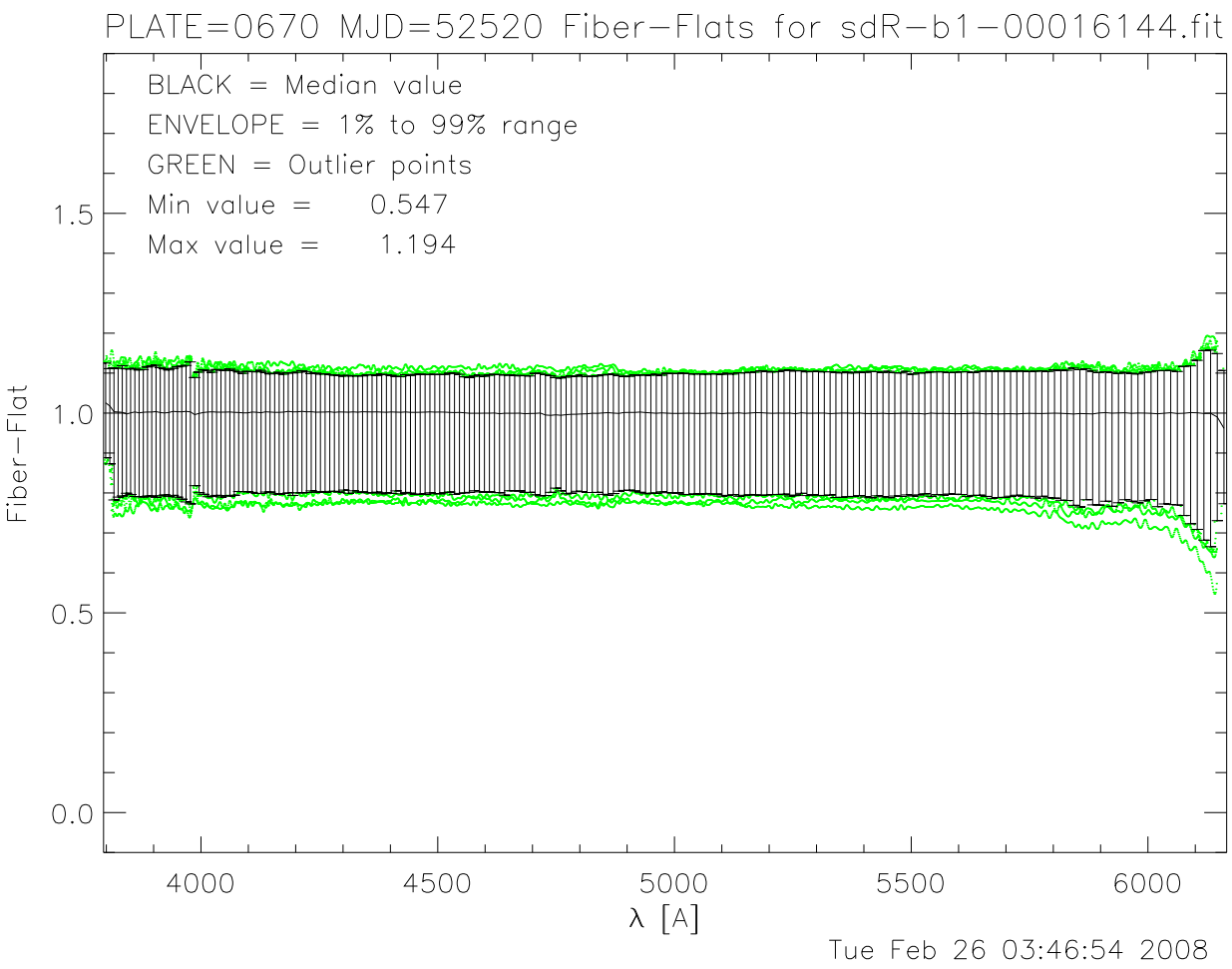

PLATE=0670 MJD=52520 flat extraction chi^2 for sdR−b1−00016115.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
0
5
10
15
0
500
1000
1500
2000
Row number

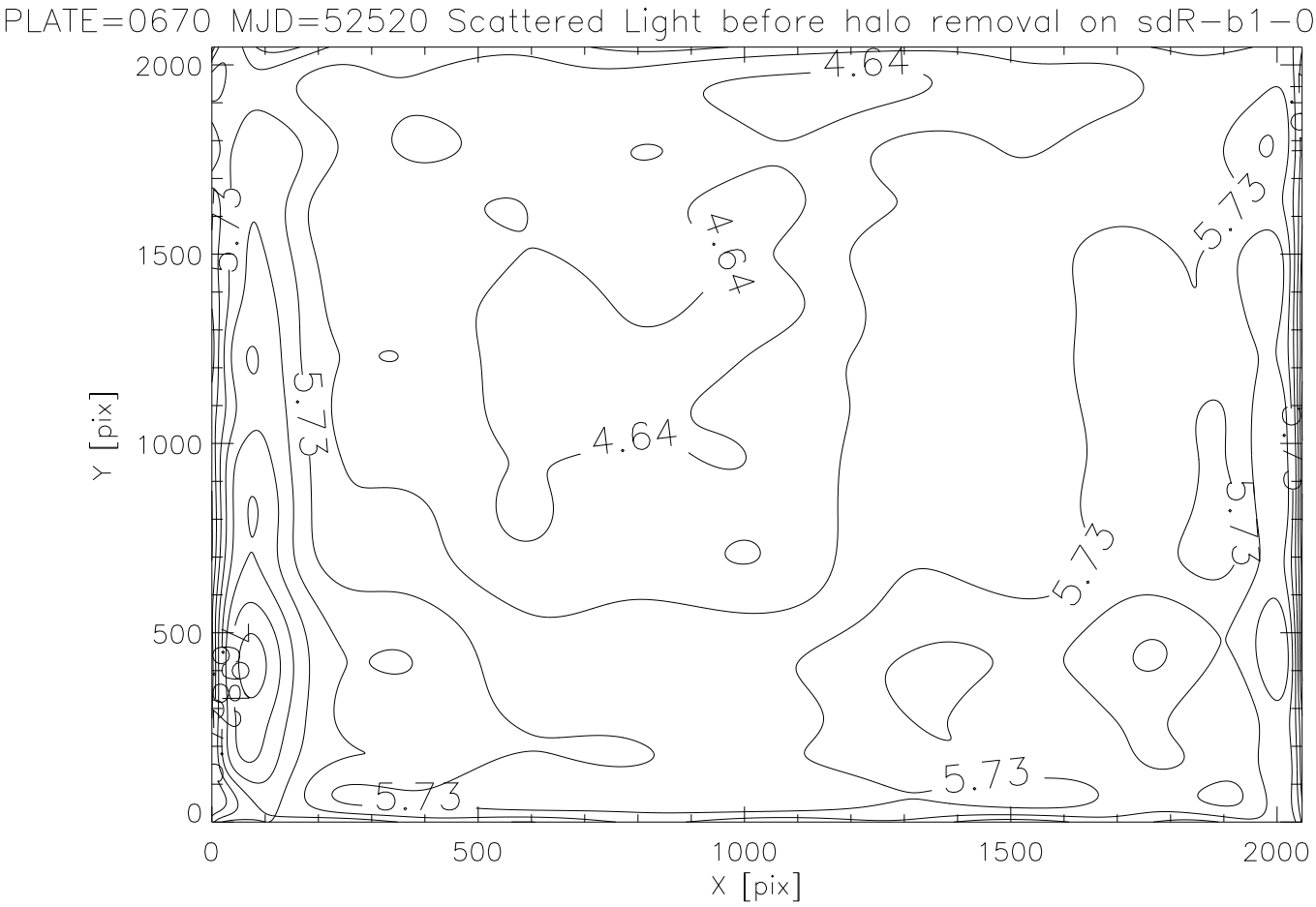

PLATE=0670 MJD=52520 Superflat sdR-b1-00016115.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

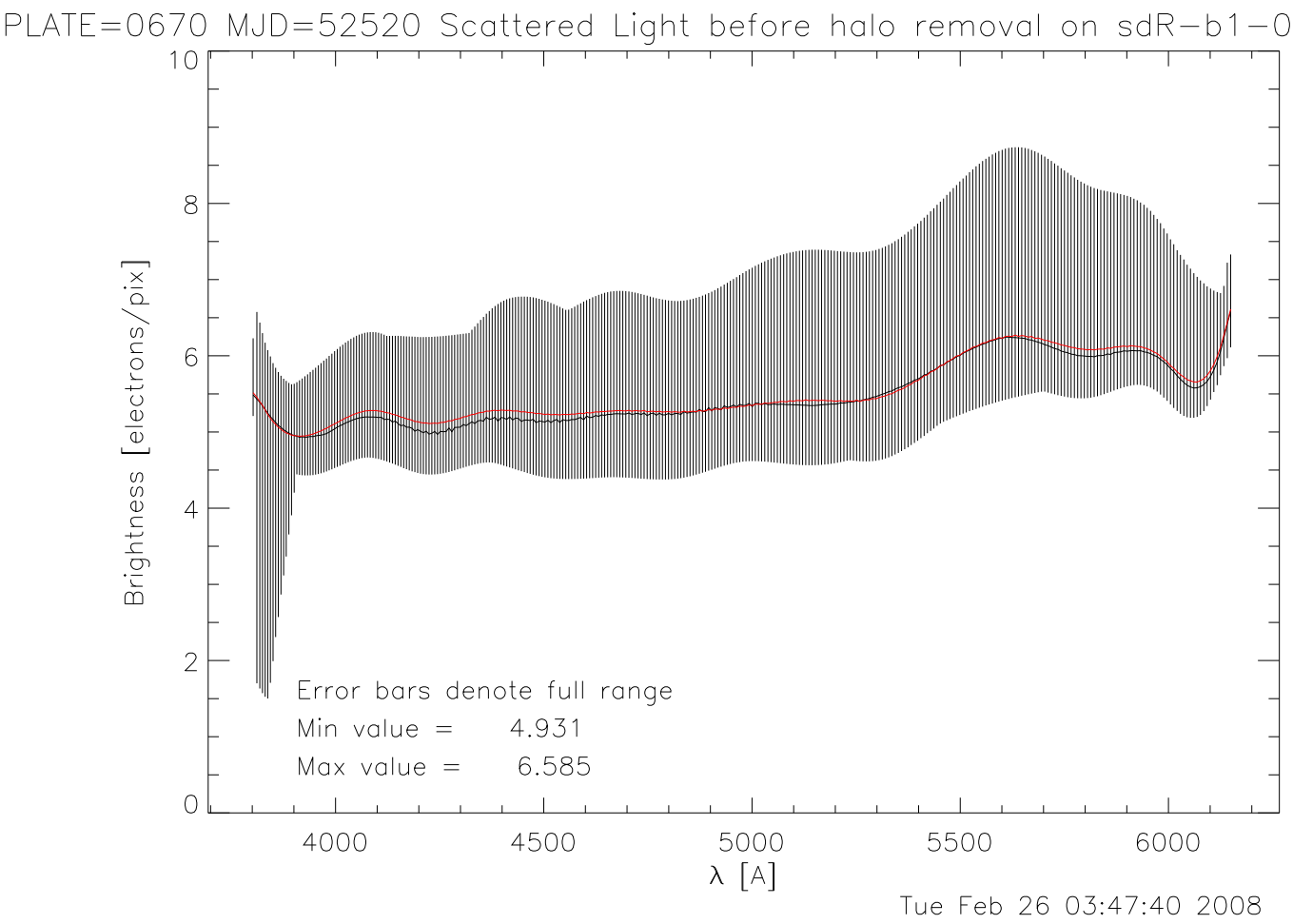

PLATE=0670 MJD=52520 flat extraction chi^2 for sdR−b1−00016144.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
5
10
15
20
25
0
500
1000
1500
2000

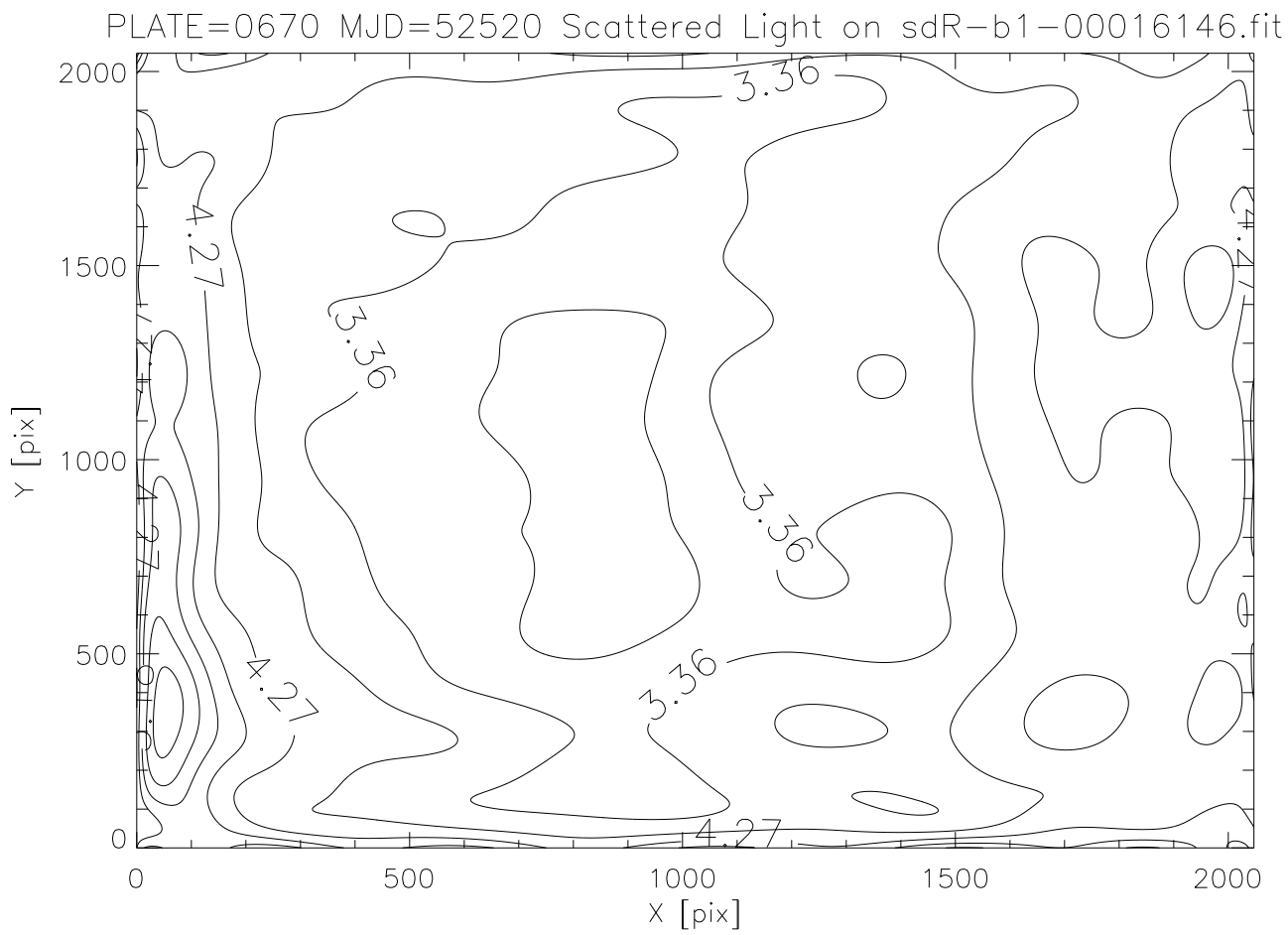

PLATE=0670 MJD=52520 Superflat sdR-b1-00016144.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

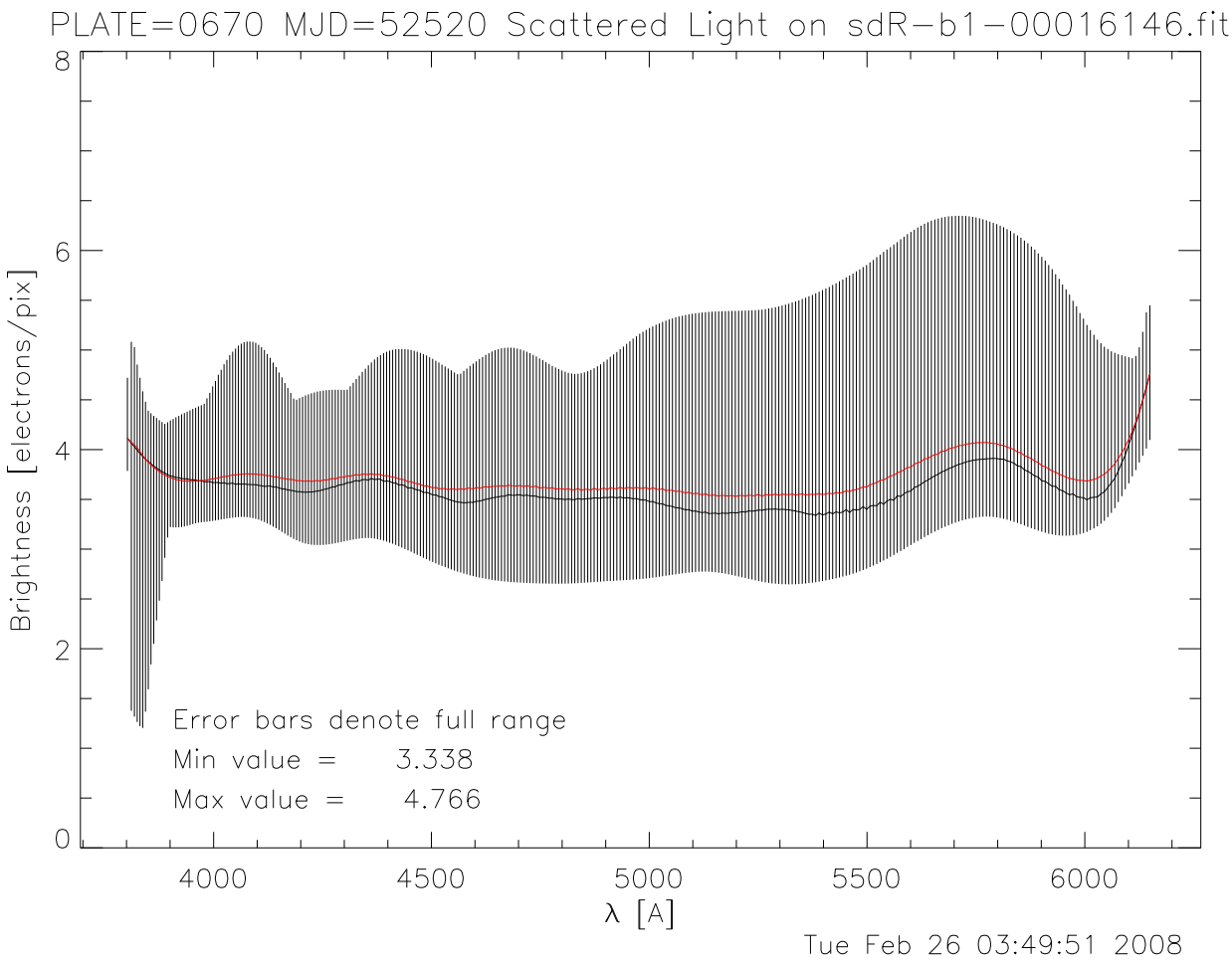

PLATE=0670 MJD=52520 Arcline Fit for sdR-b1-00016145.fit
Fiber Number
300
250
200
150
100
50
0
4000
4500
5000
5500
6000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
4000
4500
5000
5500
6000
λ [A]
Tue Feb 26 03:46:49 2008

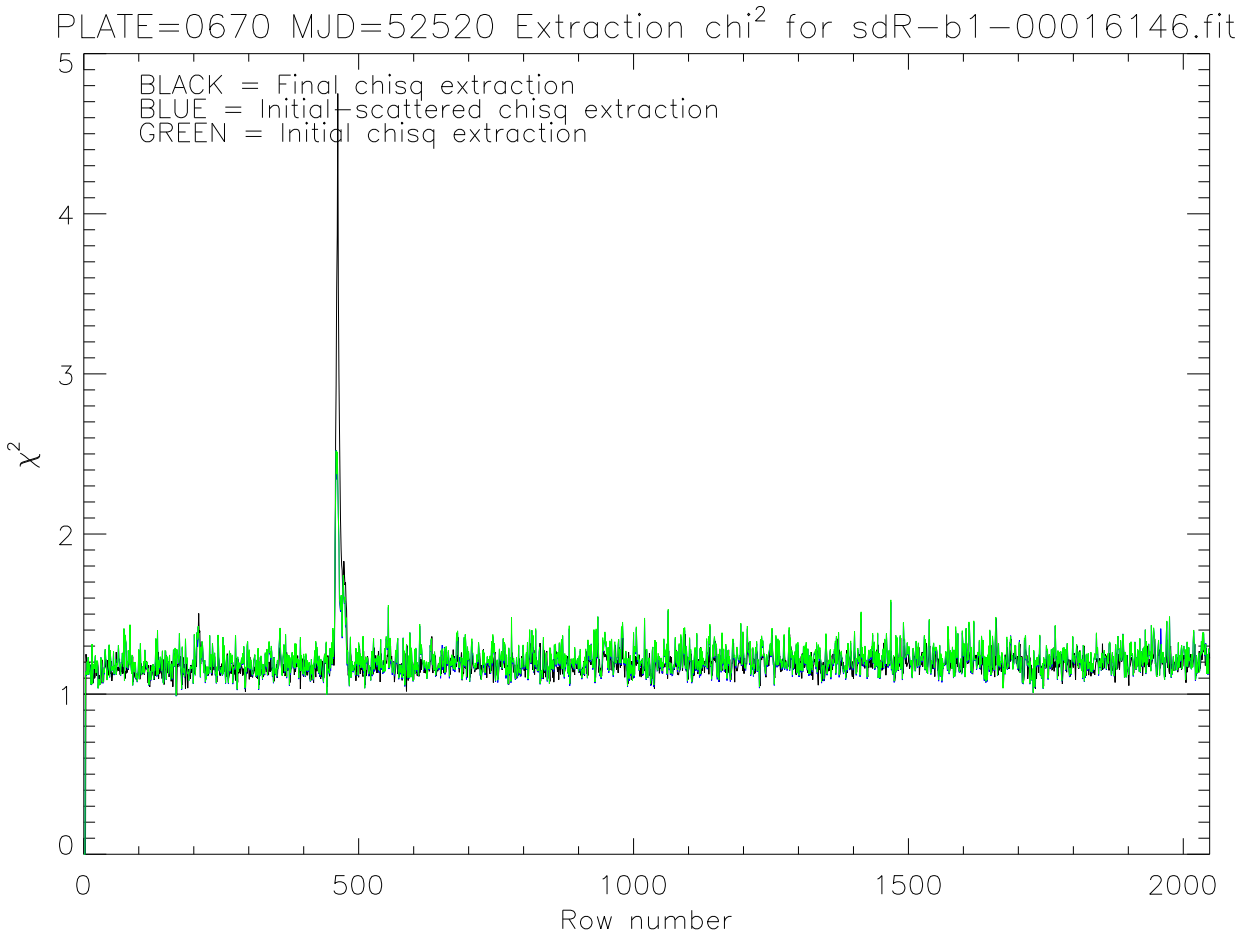

PLATE=0670 MJD=52520 Fiber-Flats for sdR-b1-00016144.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.547
Max value = 1.194
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Tue Feb 26 03:46:54 2008

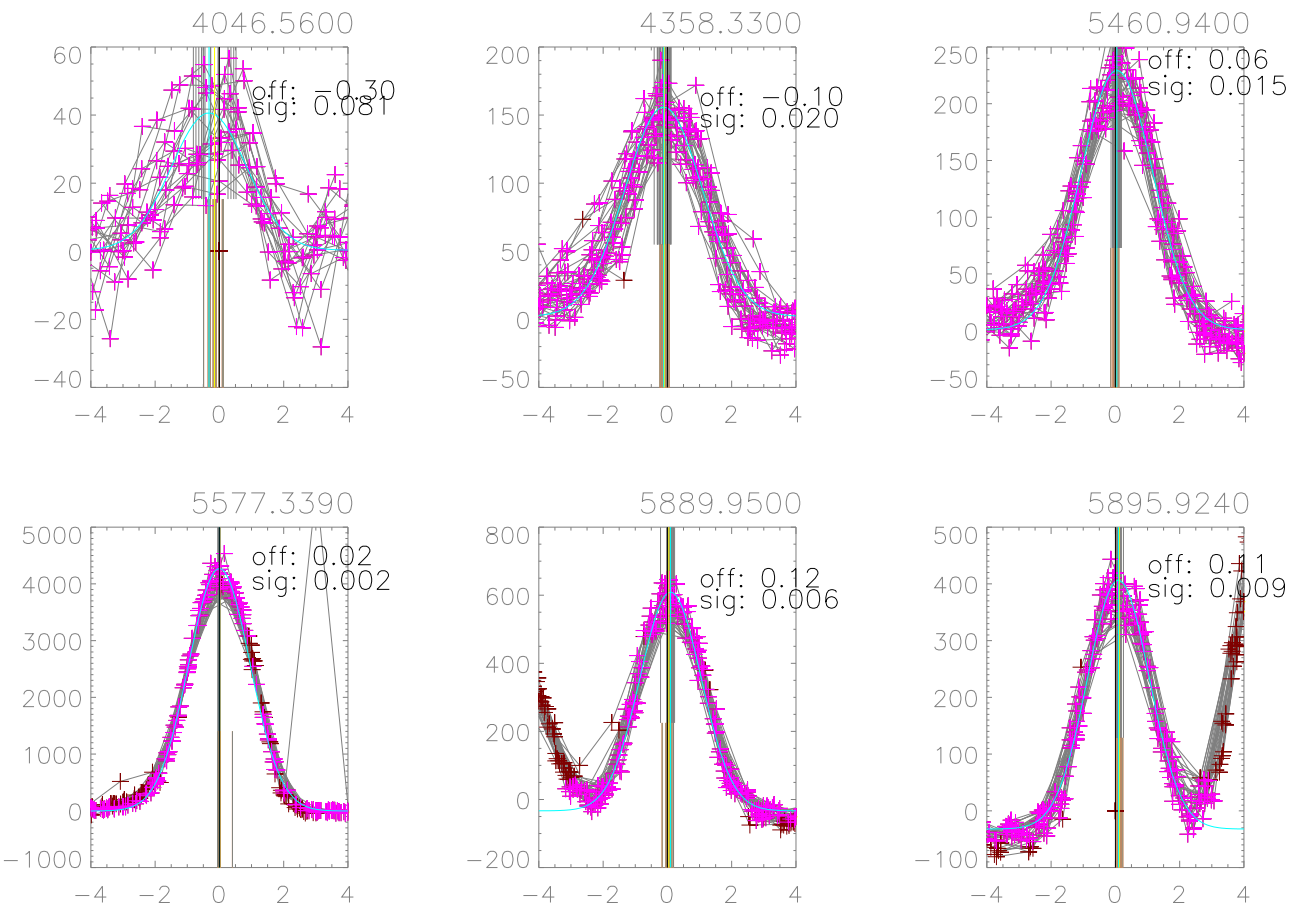

PLATE=0670 MJD=52520 Scattered Light before halo removal on sdR−b1−00016146.f
4.64
5.73
Y [pix]
X [pix]
0
500
1000
1500
2000

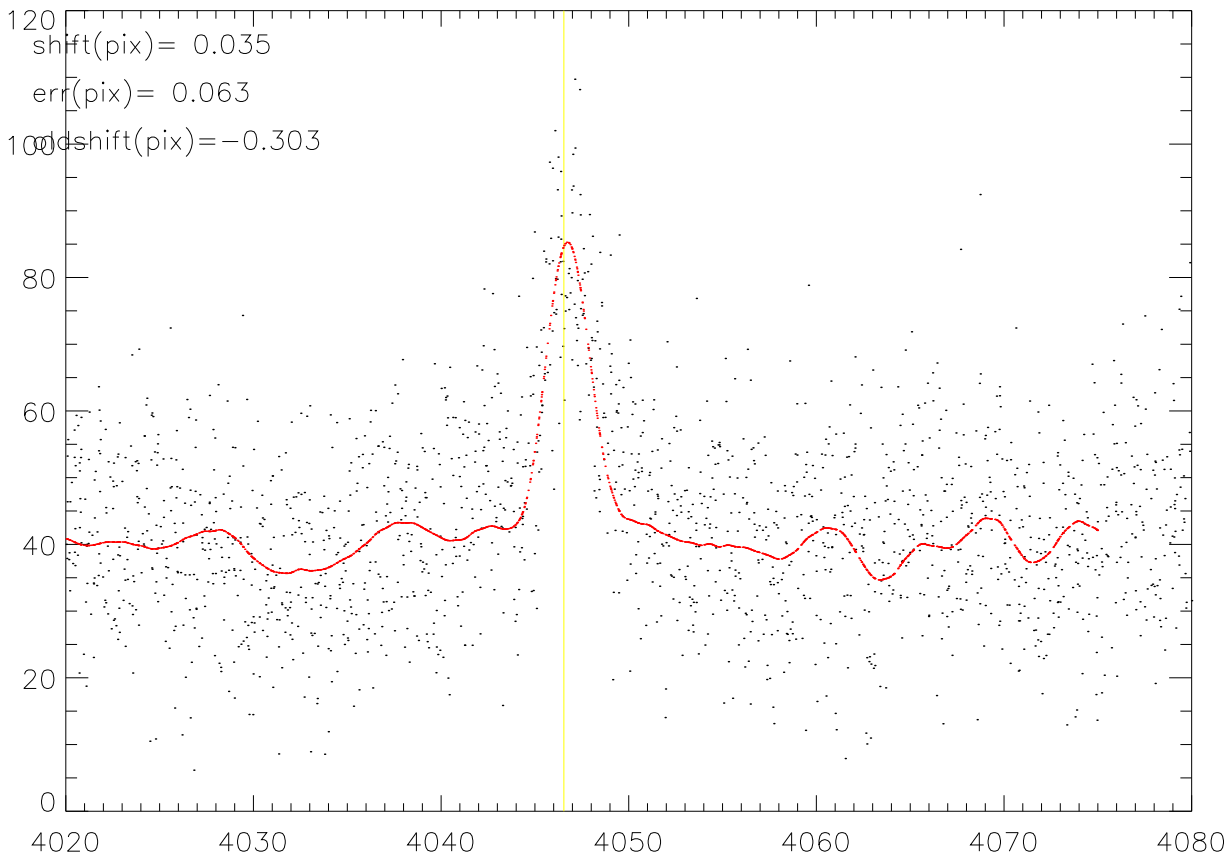

PLATE=0670 MJD=52520 Scattered Light before halo removal on sdR-b1-00016146.f
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 4.931
Max value = 6.585
Tue Feb 26 03:47:40 2008

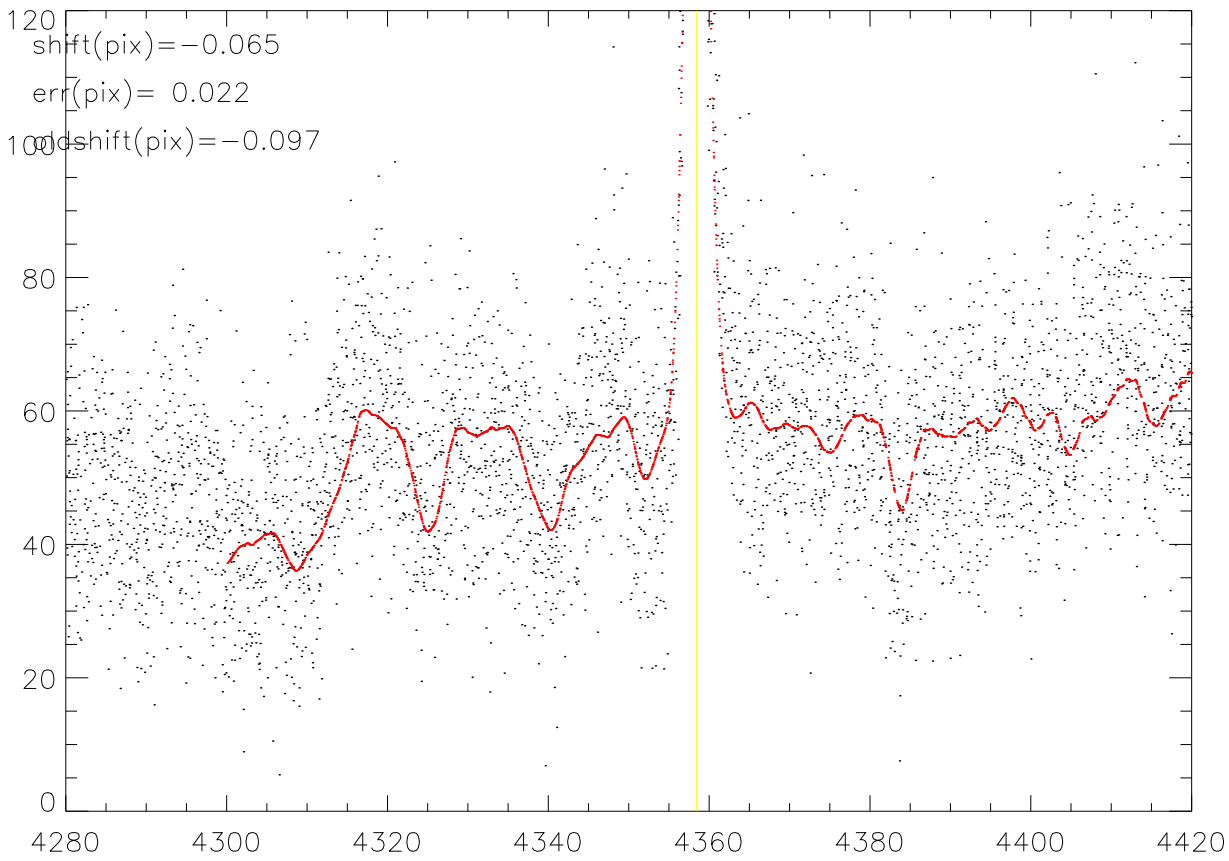

PLATE=0670 MJD=52520 Scattered Light on sdR-b1-00016146.fit
3.36
4.27
3.36
3.36
3.36
4.27
4.27
4.27
4.27
Y [pix]
X [pix]
0
500
1000
1500
2000

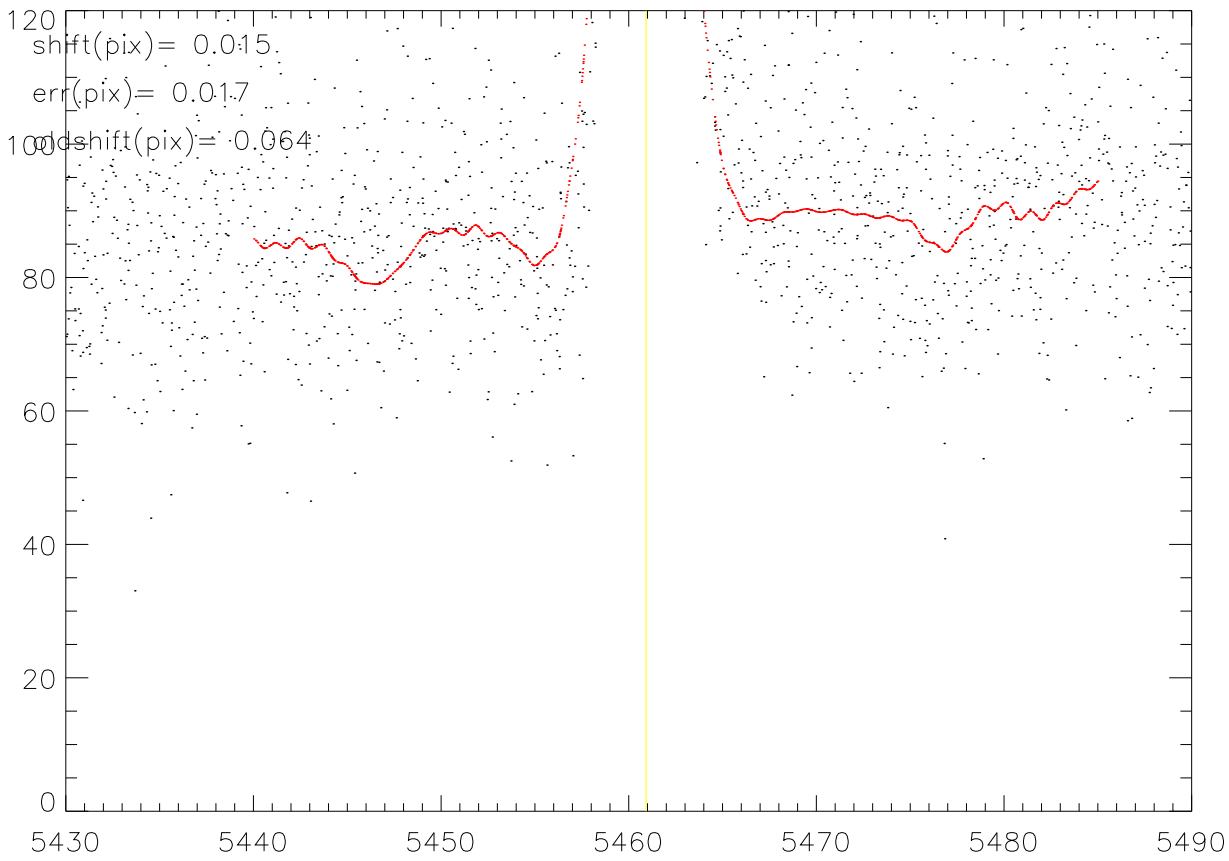

PLATE=0670 MJD=52520 Scattered Light on sdR-b1-00016146.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 3.338
Max value = 4.766
Tue Feb 26 03:49:51 2008

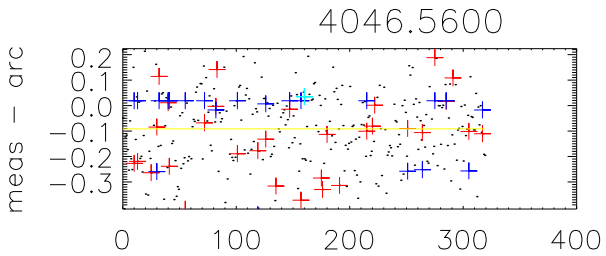

PLATE=0670 MJD=52520 Extraction chi^2 for sdR-b1-00016146.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
5
0
500
1000
1500
2000
Row number

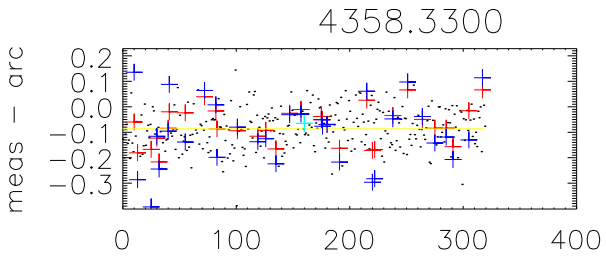

4046.5600
off: −0.30
sig: 0.081
4358.3300
off: −0.10
sig: 0.020
5460.9400
off: 0.06
sig: 0.015
5577.3390
off: 0.02
sig: 0.002
5889.9500
off: 0.12
sig: 0.006
5895.9240
off: 0.11
sig: 0.009

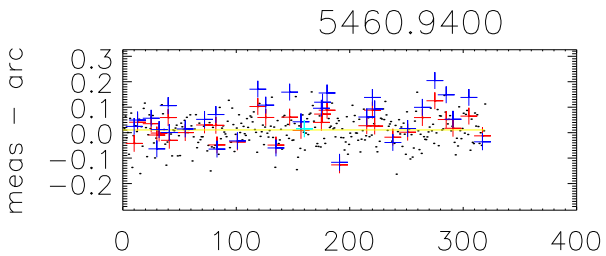

shift(pix)= 0.035
err(pix)= 0.063
oldshift(pix)=−0.303
120
100
80
60
40
20
0
4020
4030
4040
4050
4060
4070
4080

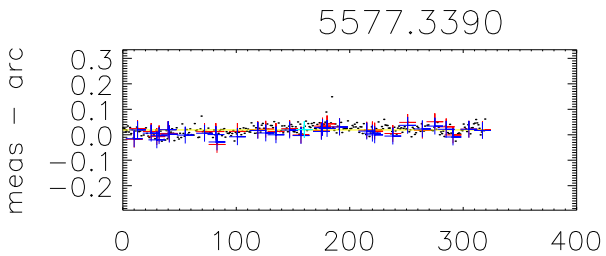

shift(pix)=−0.065
err(pix)= 0.022
oldshift(pix)=−0.097
120
100
80
60
40
20
0
4280
4300
4320
4340
4360
4380
4400
4420

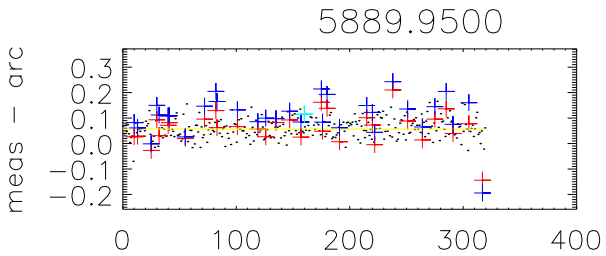

shift(pix)= 0.015
err(pix)= 0.017
oldshift(pix)= 0.064
120
100
80
60
40
20
0
5430
5440
5450
5460
5470
5480
5490

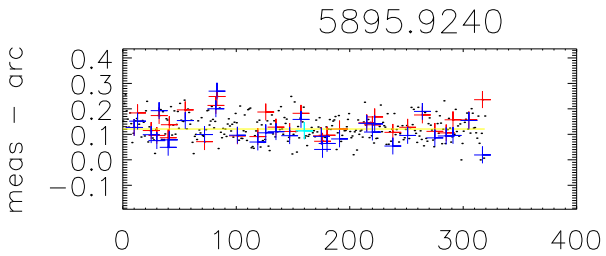

4046.5600
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

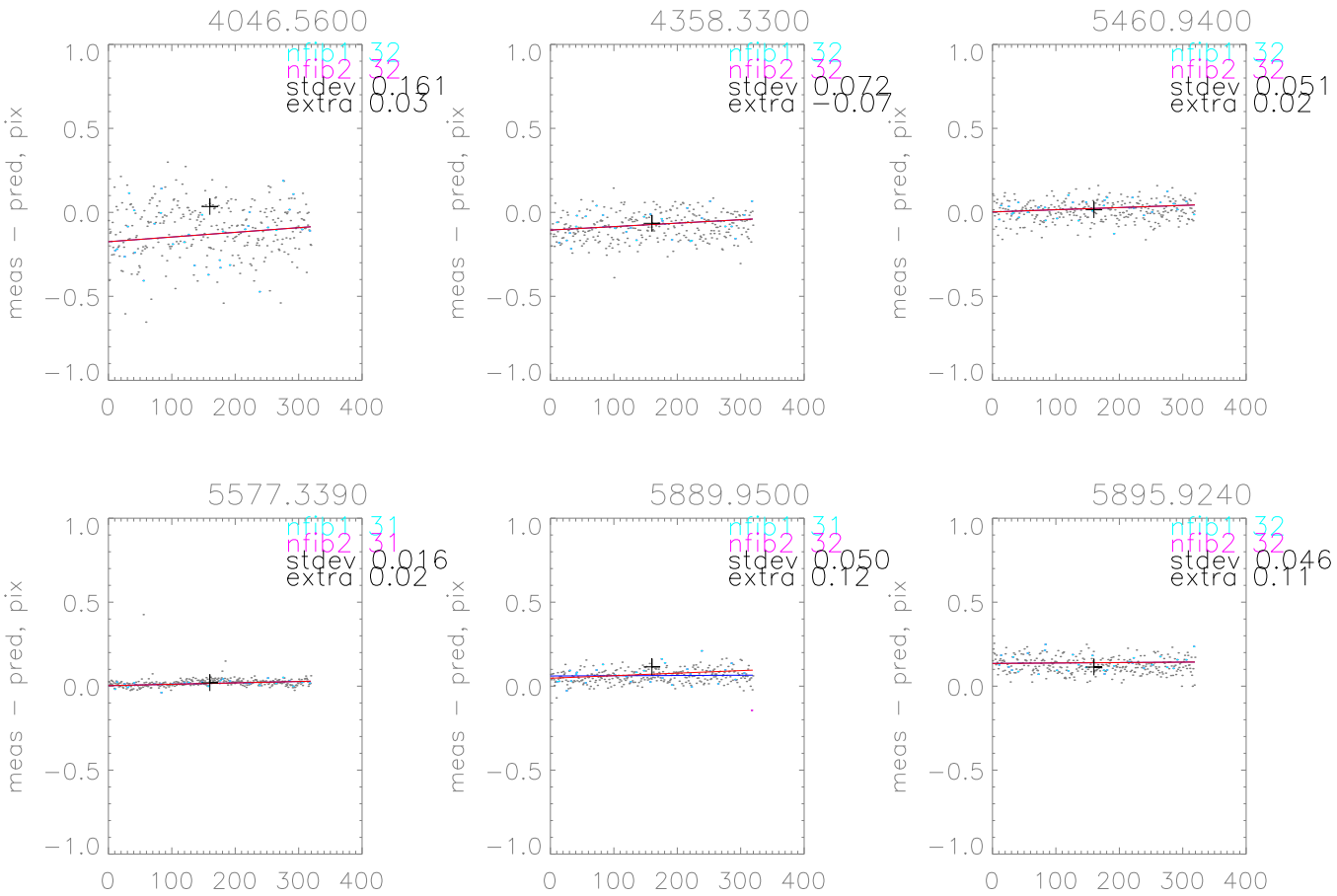

4358.3300
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

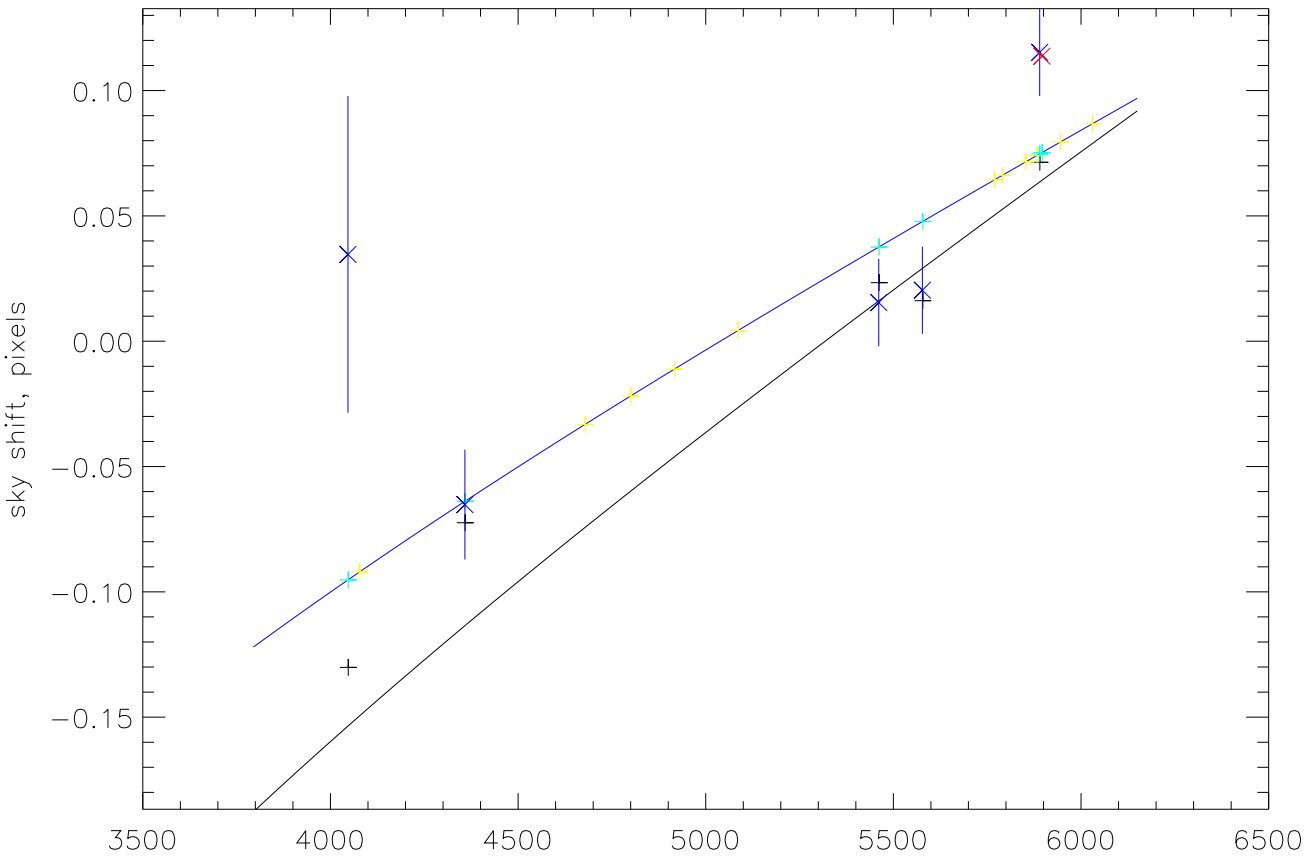

5460.9400
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400


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

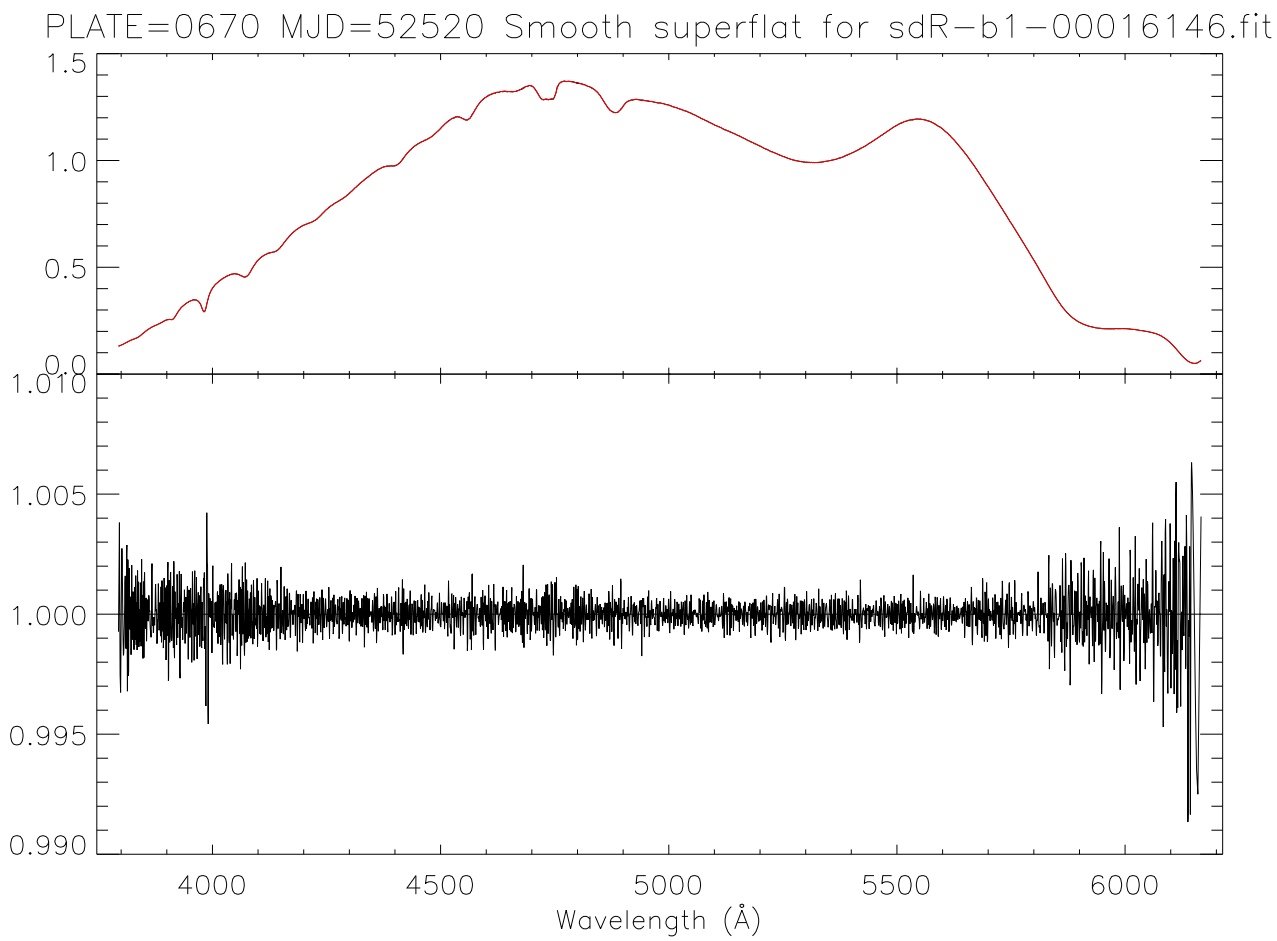

5889.9500
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

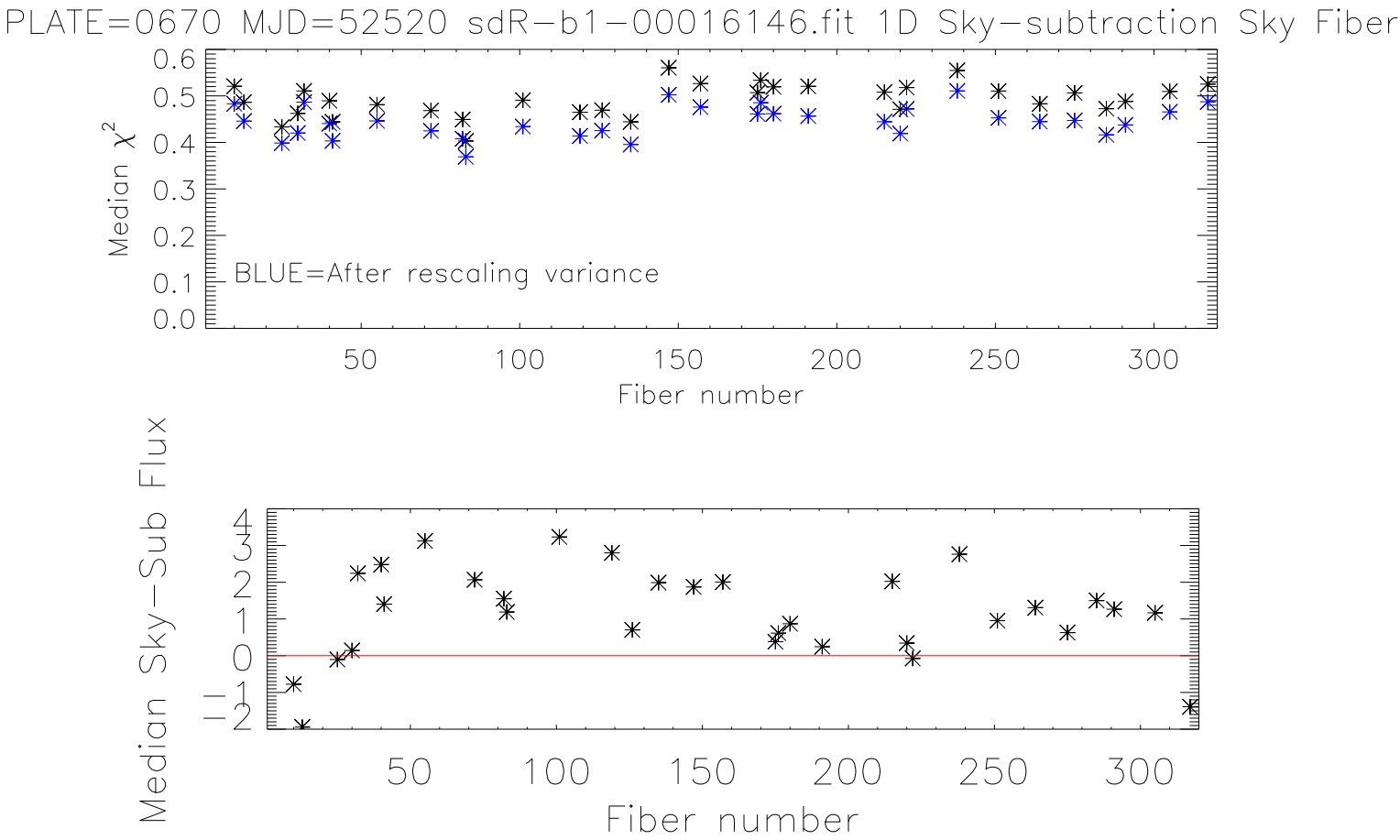

5895.9240
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

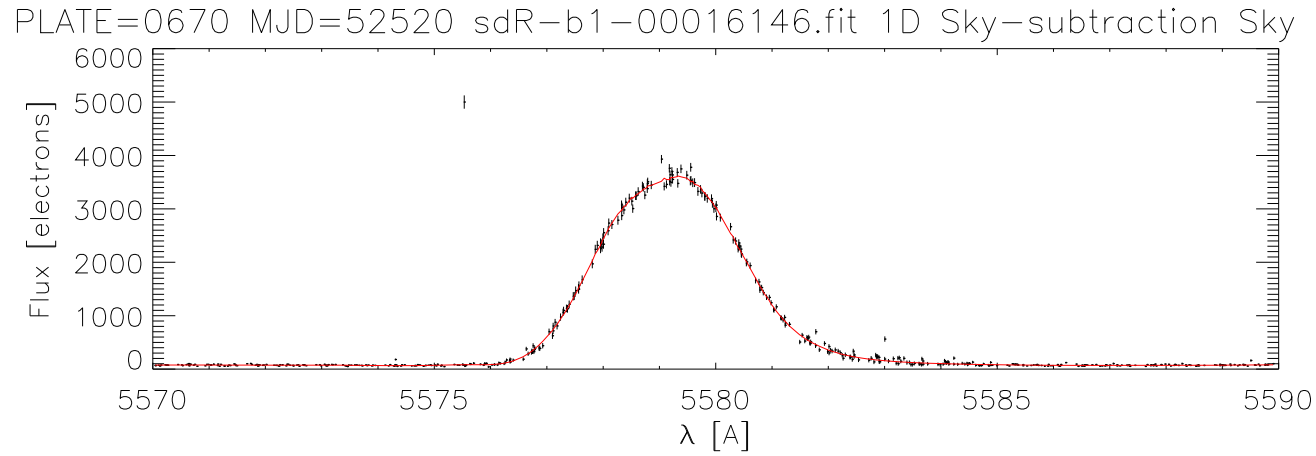

4046.5600
nfib1 32
nfib2 32
stdev 0.161
extra 0.03
4358.3300
nfib1 32
nfib2 32
stdev 0.072
extra −0.07
5460.9400
nfib1 32
nfib2 32
stdev 0.051
extra 0.02
5577.3390
nfib1 31
nfib2 31
stdev 0.016
extra 0.02
5889.9500
nfib1 31
nfib2 32
stdev 0.050
extra 0.12
5895.9240
nfib1 32
nfib2 32
stdev 0.046
extra 0.11
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

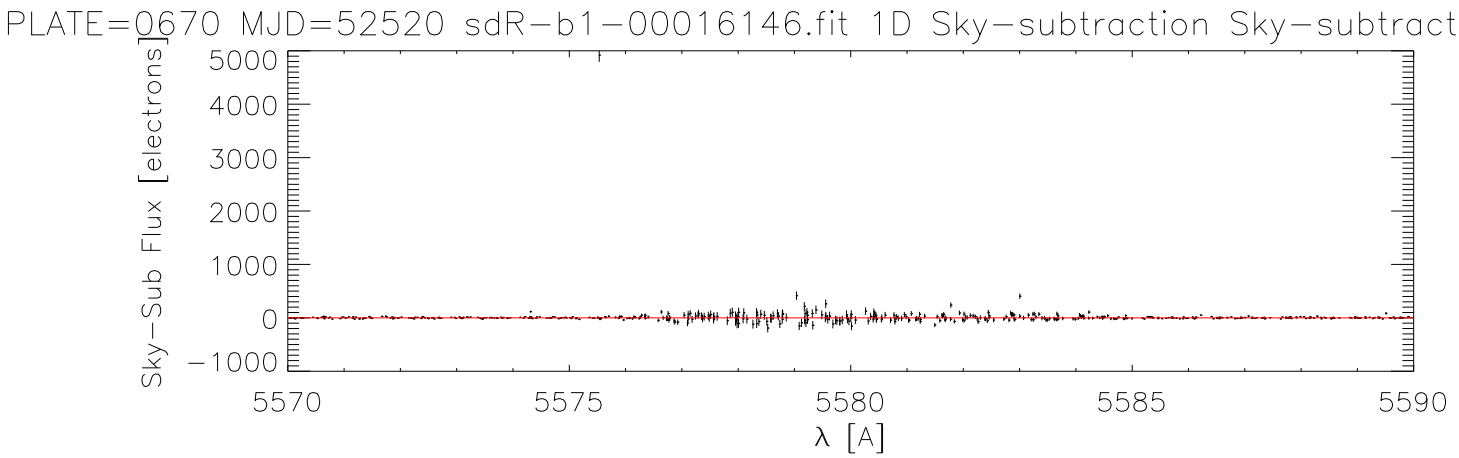

sky shift, pixels
0.10
0.05
0.00
−0.05
−0.10
−0.15
3500
4000
4500
5000
5500
6000
6500

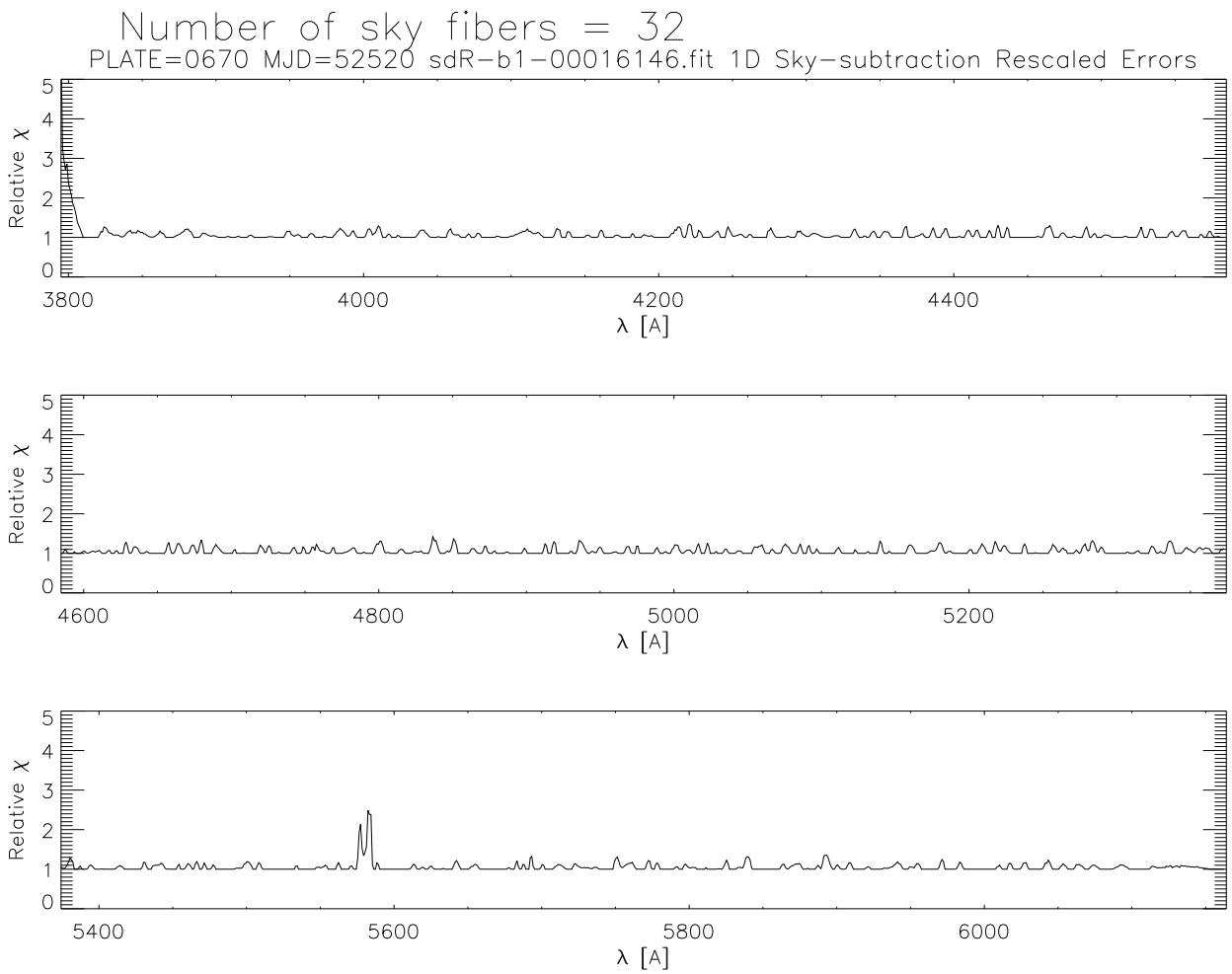
es= 0.0000

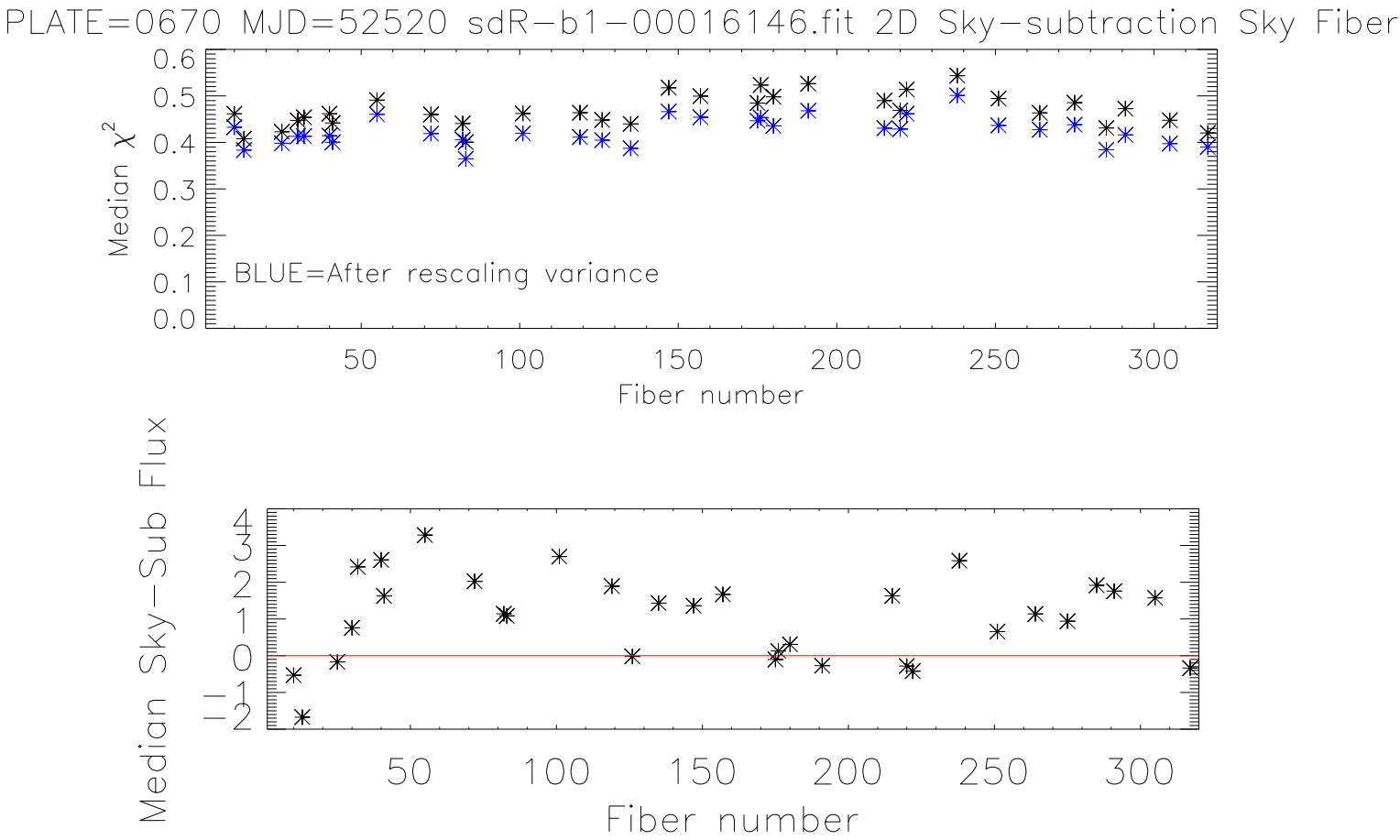

PLATE=0670 MJD=52520 Smooth superflat for sdR-b1-00016146.fit
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
4000
4500
5000
5500
6000
Wavelength (Å)

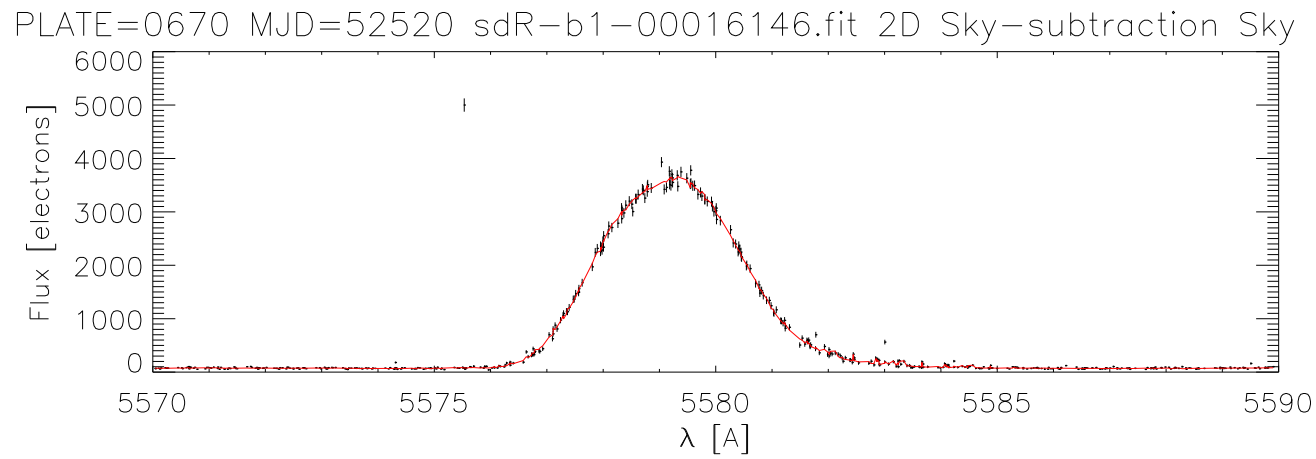

PLATE=0670 MJD=52520 sdR-b1-00016146.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-2
-1
0
1
2
3
4
50
100
150
200
250
300
Fiber number

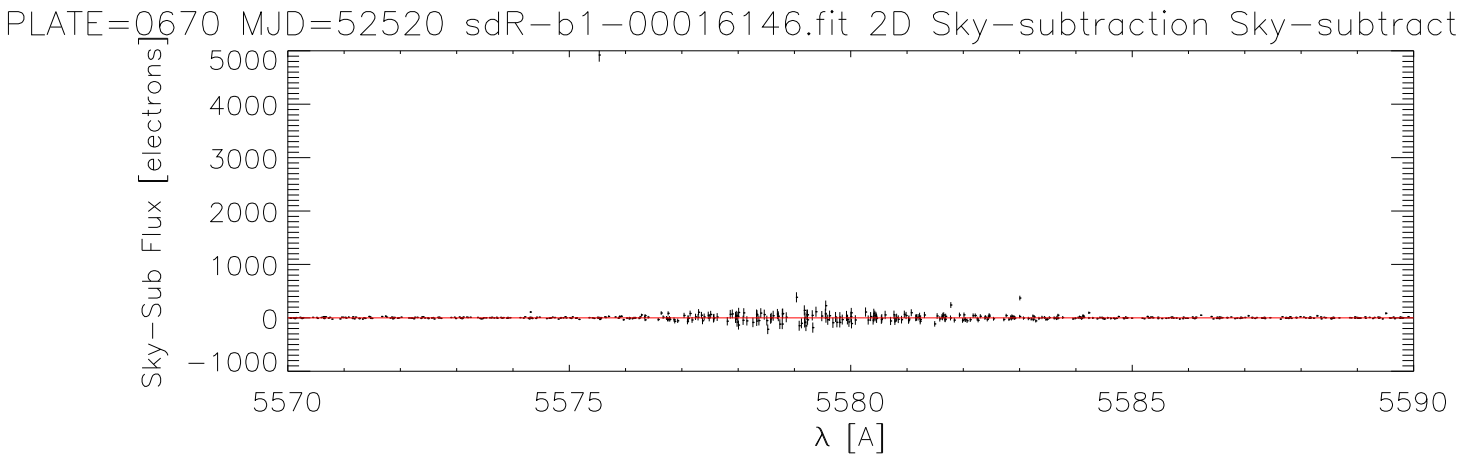

PLATE=0670 MJD=52520 sdR-b1-00016146.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
6000
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

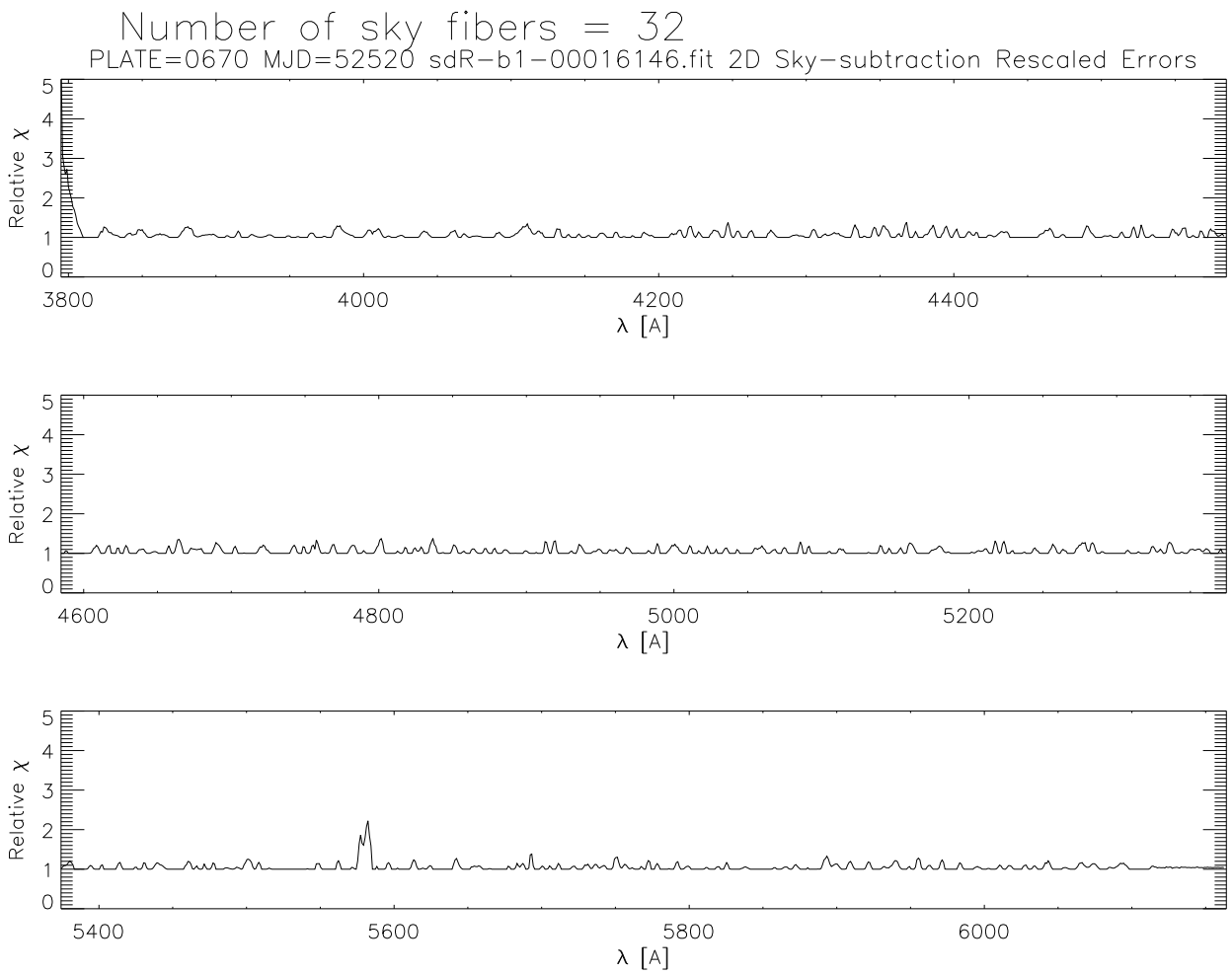

PLATE=0670 MJD=52520 sdR-b1-00016146.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
5000
4000
3000
2000
1000
0
-1000
5570
5575
5580
5585
5590
λ [A]

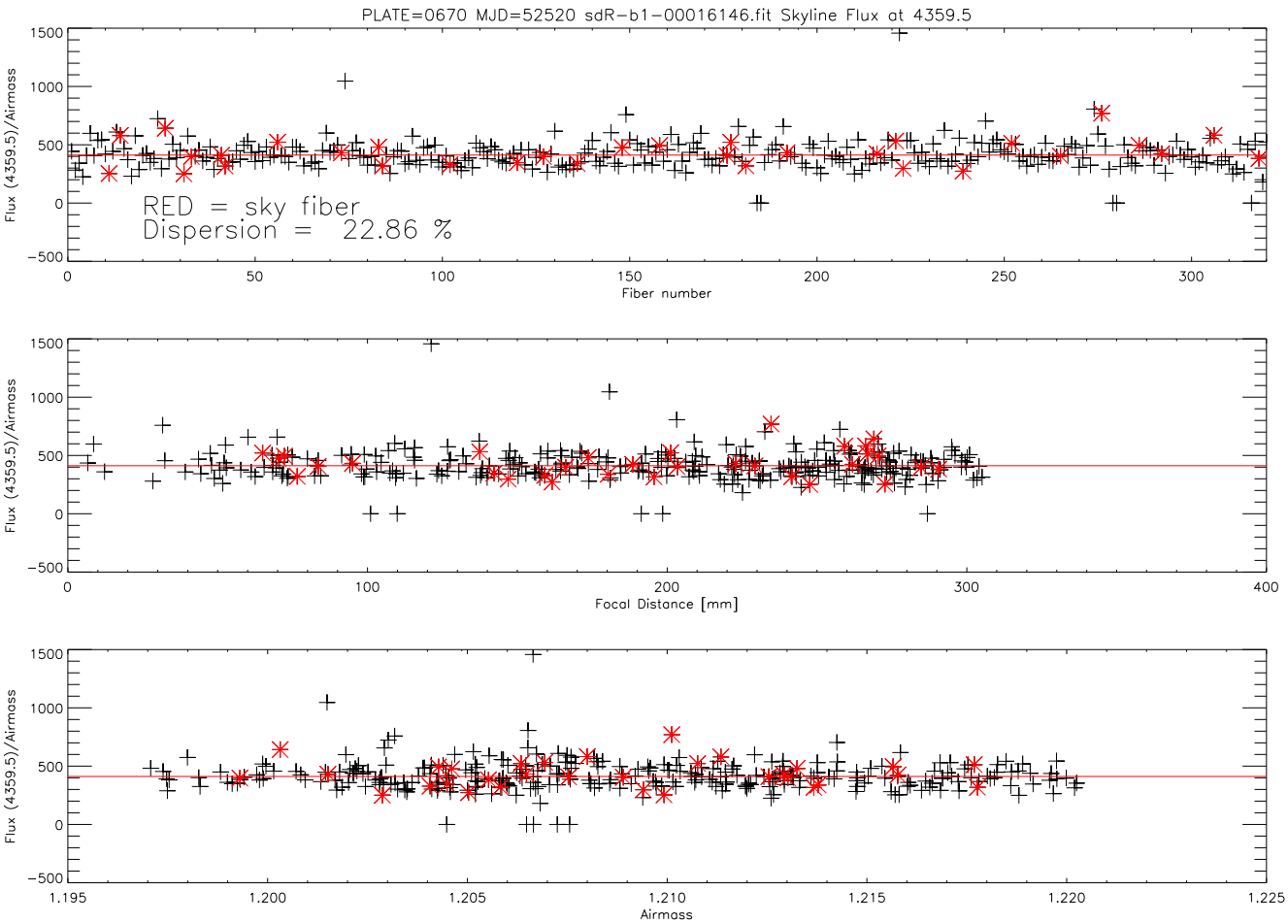

Number of sky fibers = 32
PLATE=0670 MJD=52520 sdR-b1-00016146.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

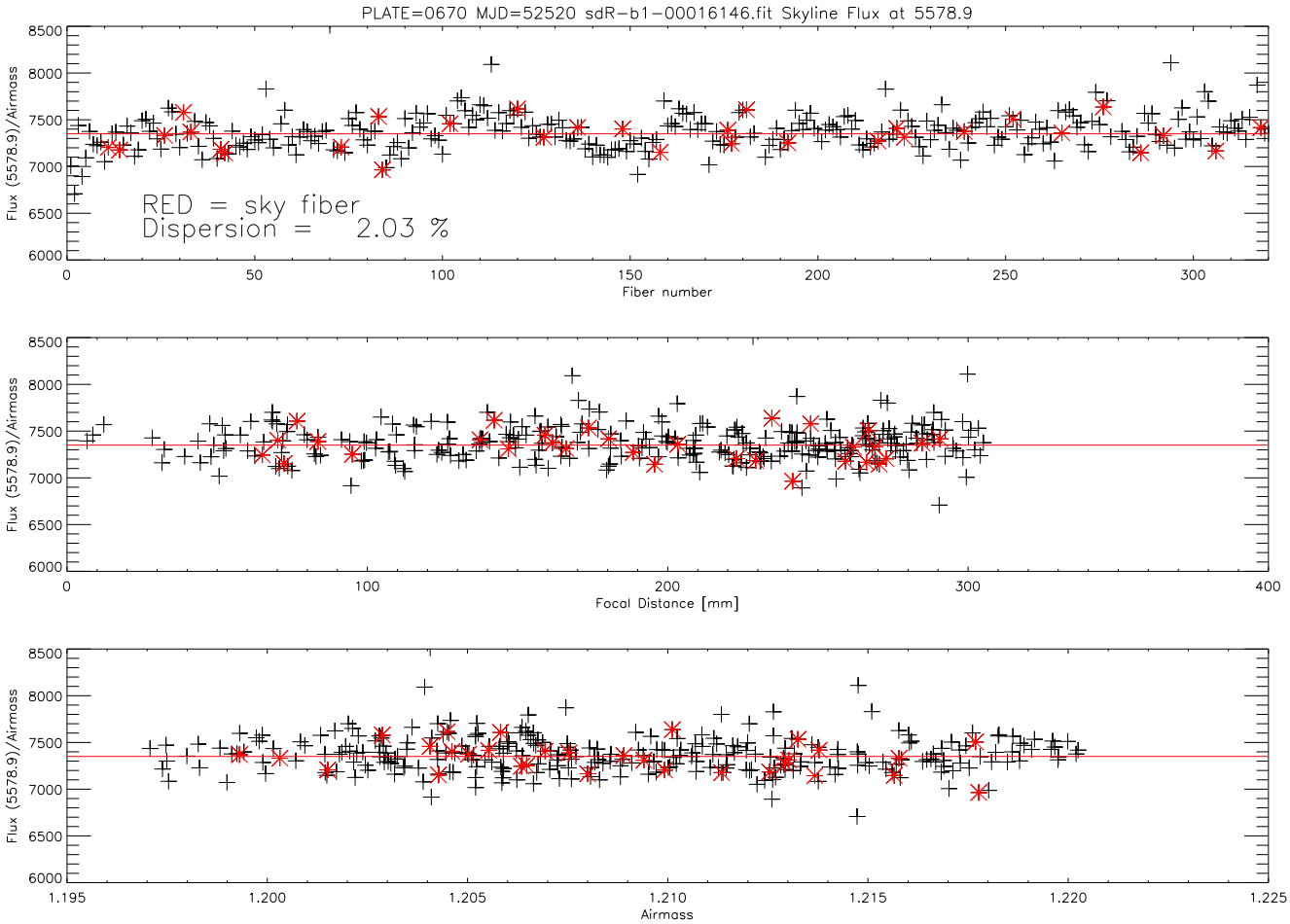

PLATE=0670 MJD=52520 sdR-b1-00016146.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

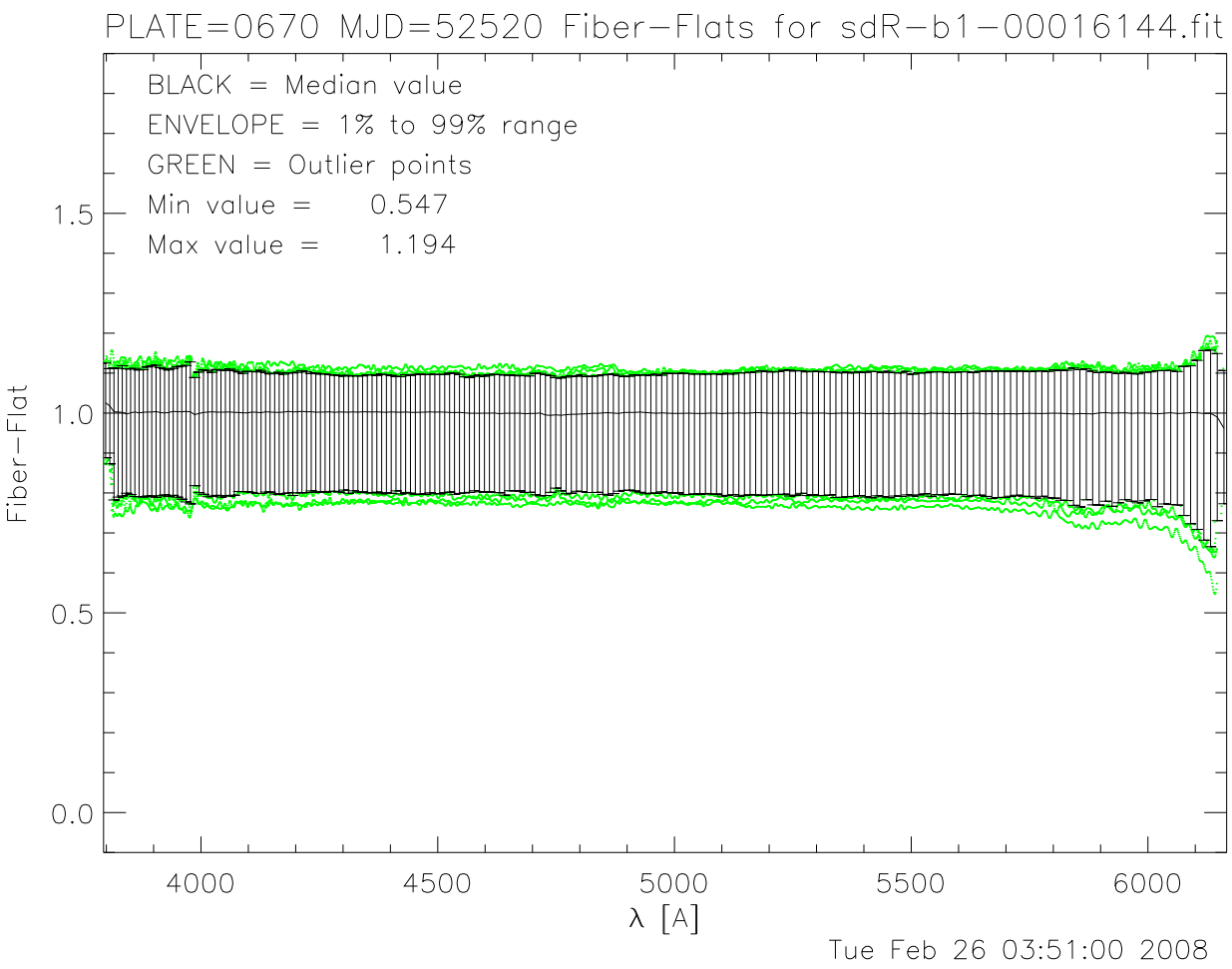

PLATE=0670 MJD=52520 sdR-b1-00016146.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
6000
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

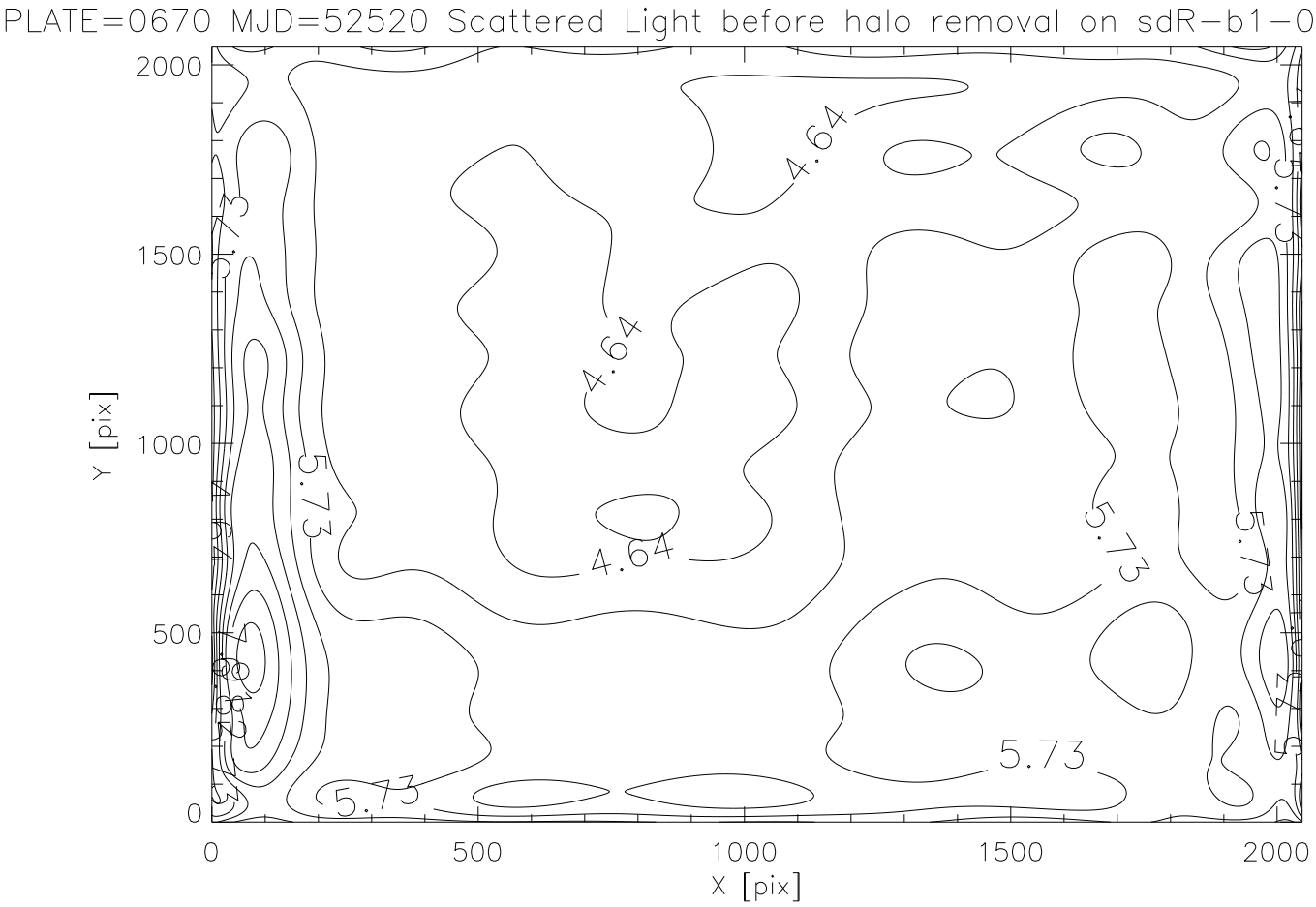

PLATE=0670 MJD=52520 sdR-b1-00016146.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
5000
4000
3000
2000
1000
0
-1000
5570
5575
5580
5585
5590
λ [A]

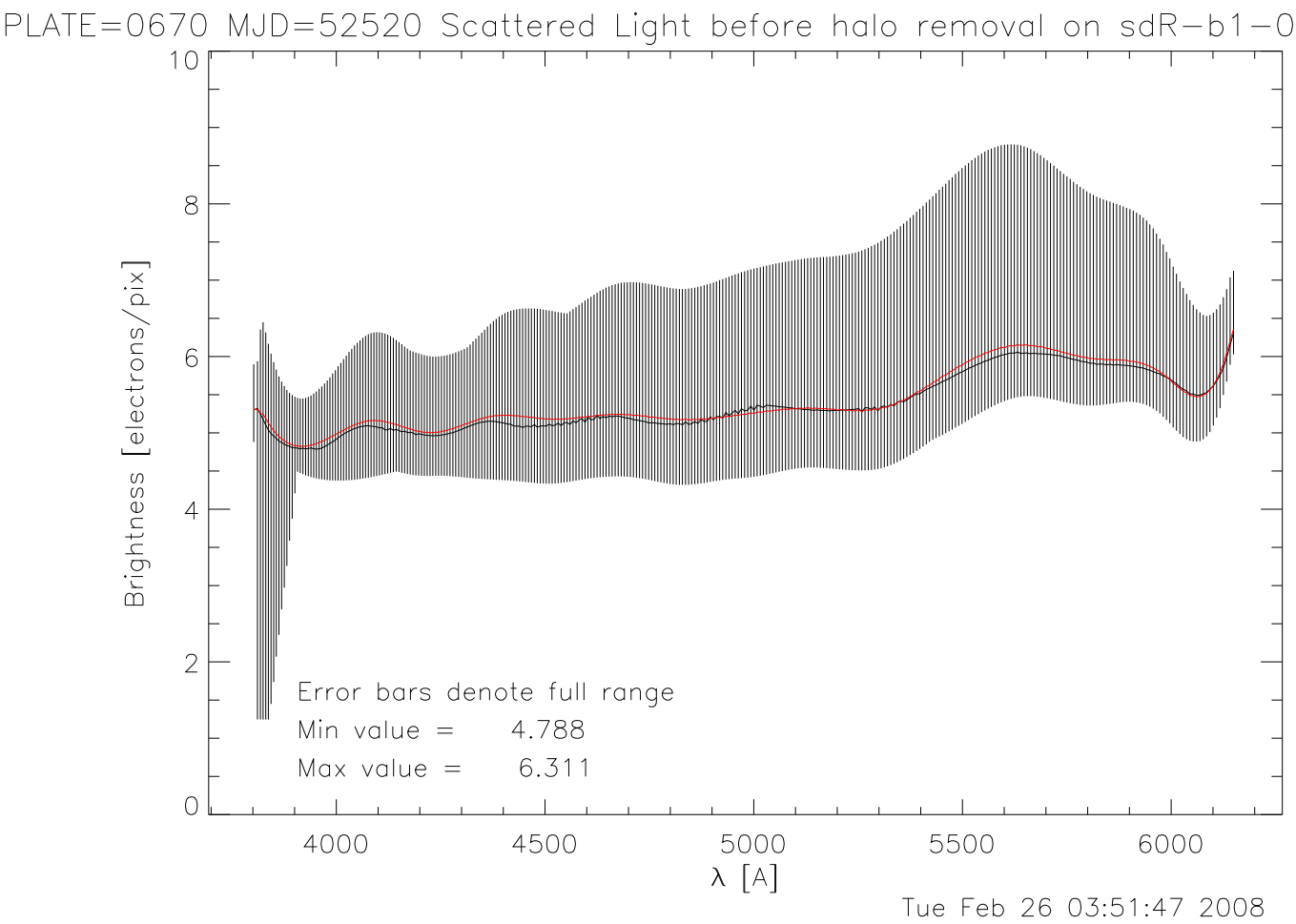

Number of sky fibers = 32
PLATE=0670 MJD=52520 sdR-b1-00016146.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

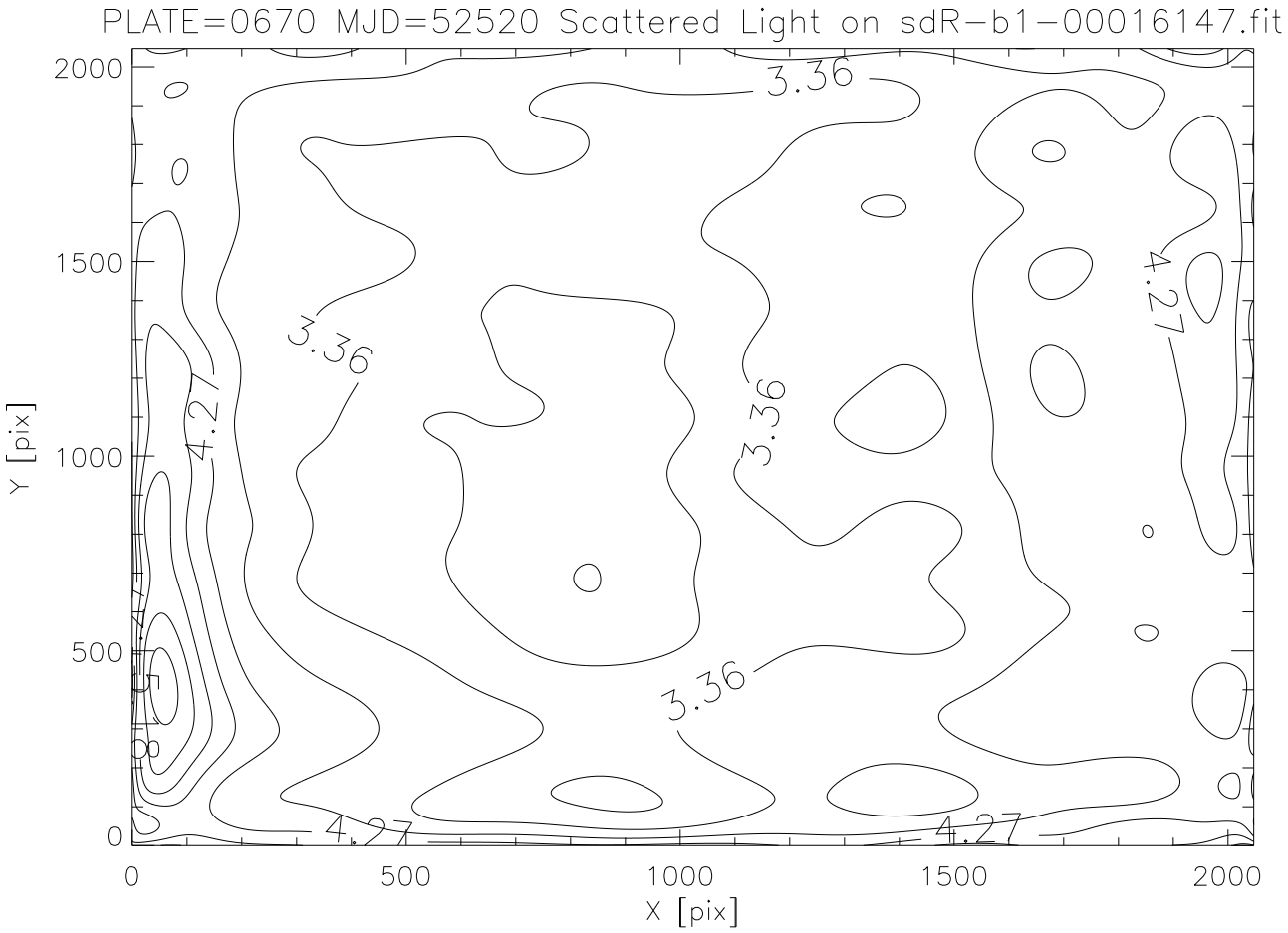

PLATE=0670 MJD=52520 sdR-b1-00016146.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
Fiber number
RED = sky fiber
Dispersion = 22.86 %
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

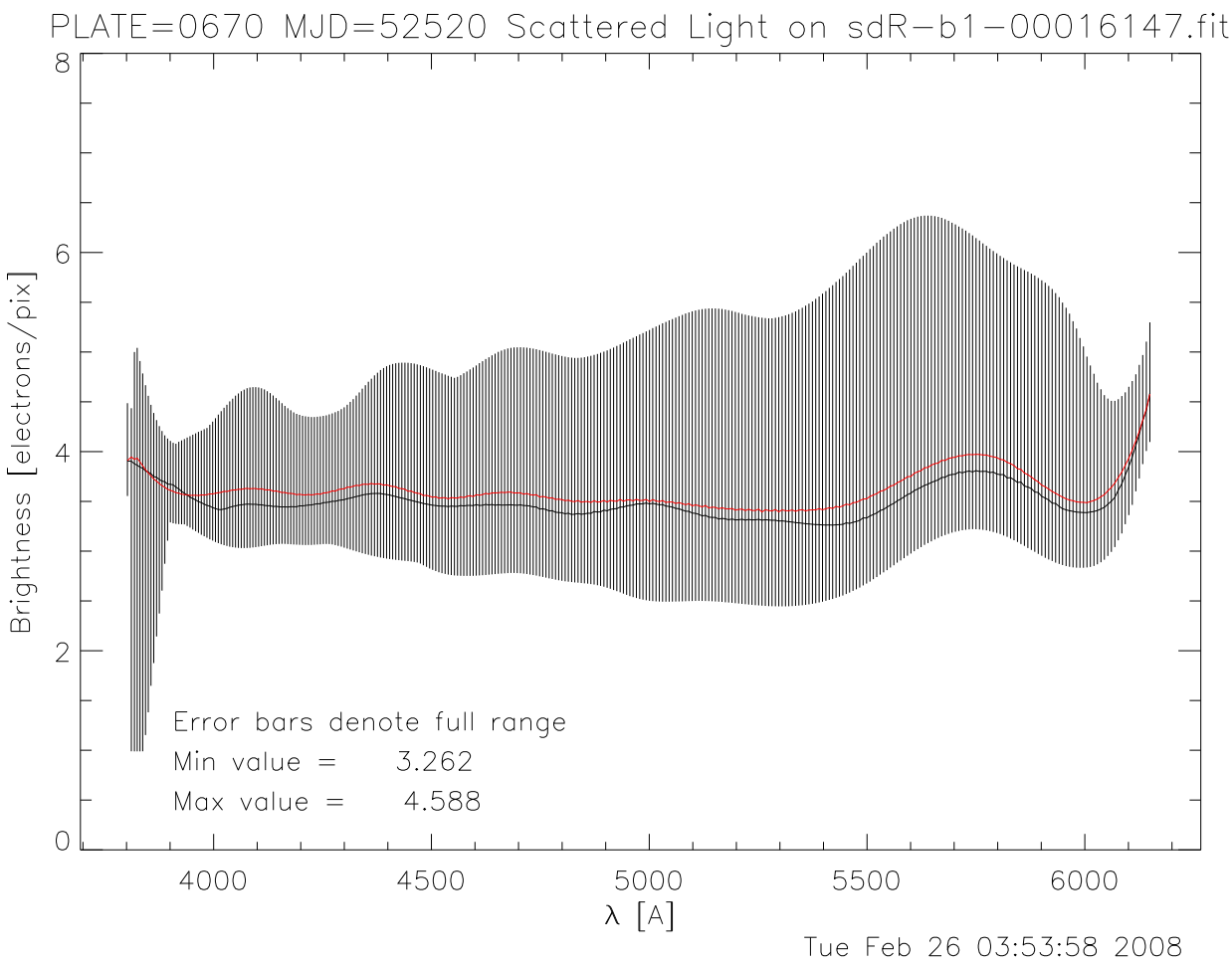

PLATE=0670 MJD=52520 sdR-b1-00016146.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 2.03 %
Fiber number
Flux (5578.9)/Airmass
Focal Distance [mm]
Flux (5578.9)/Airmass
Airmass

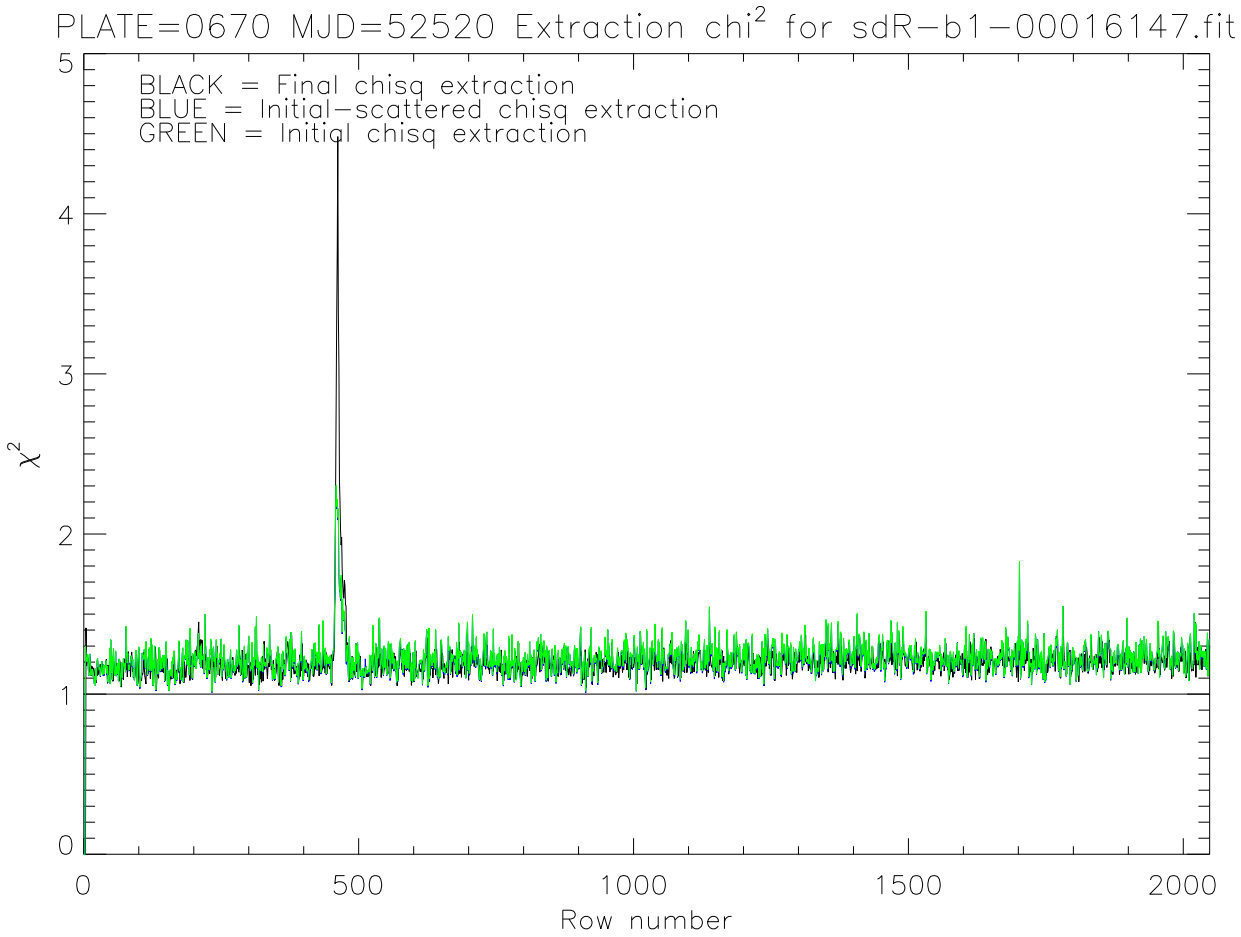

PLATE=0670 MJD=52520 Fiber-Flats for sdR-b1-00016144.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.547
Max value = 1.194
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Tue Feb 26 03:51:00 2008

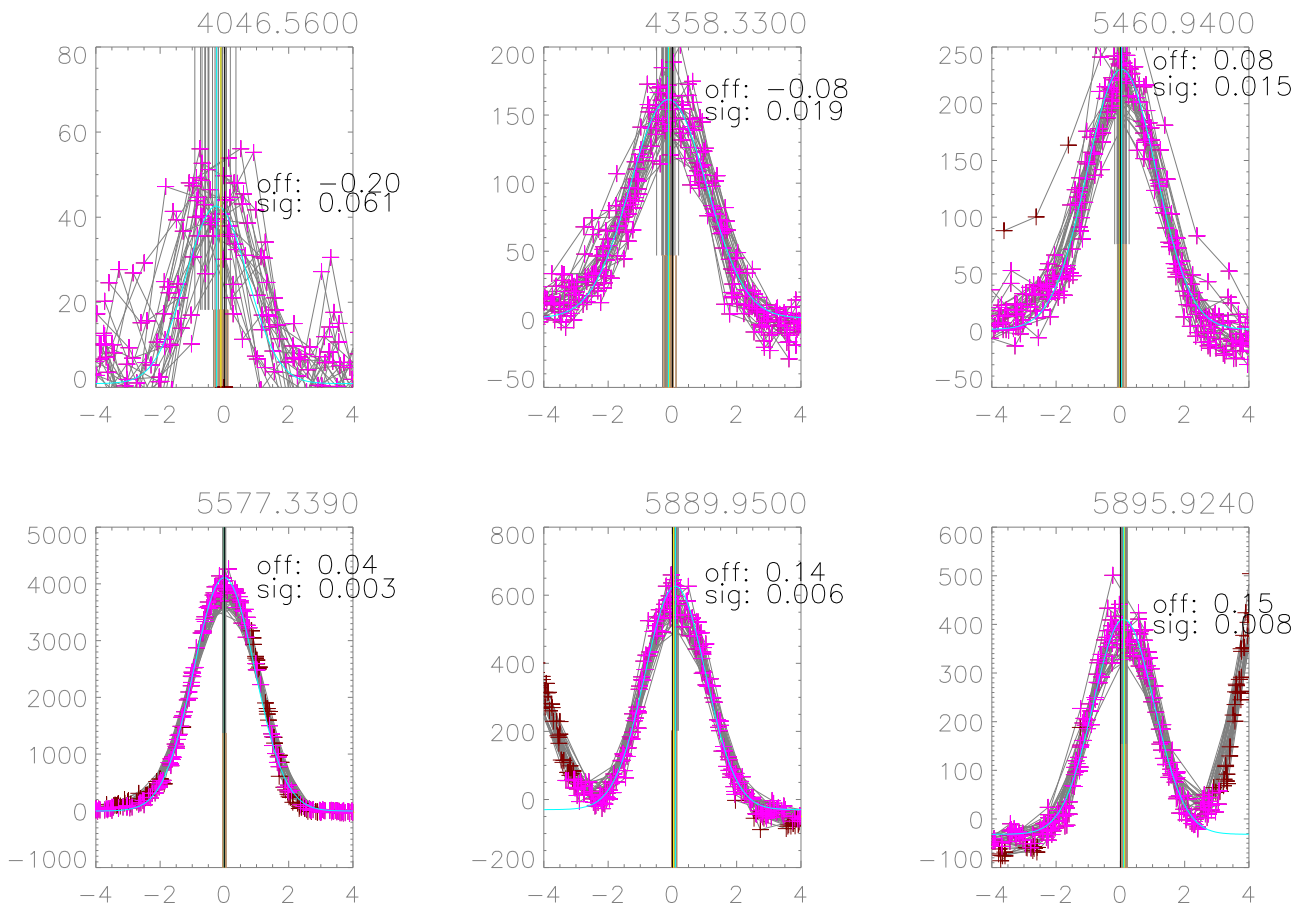

PLATE=0670 MJD=52520 Scattered Light before halo removal on sdR−b1−00016147.f
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
4.64
4.64
4.64
5.73
5.73
5.73
5.73
5.73
5.73

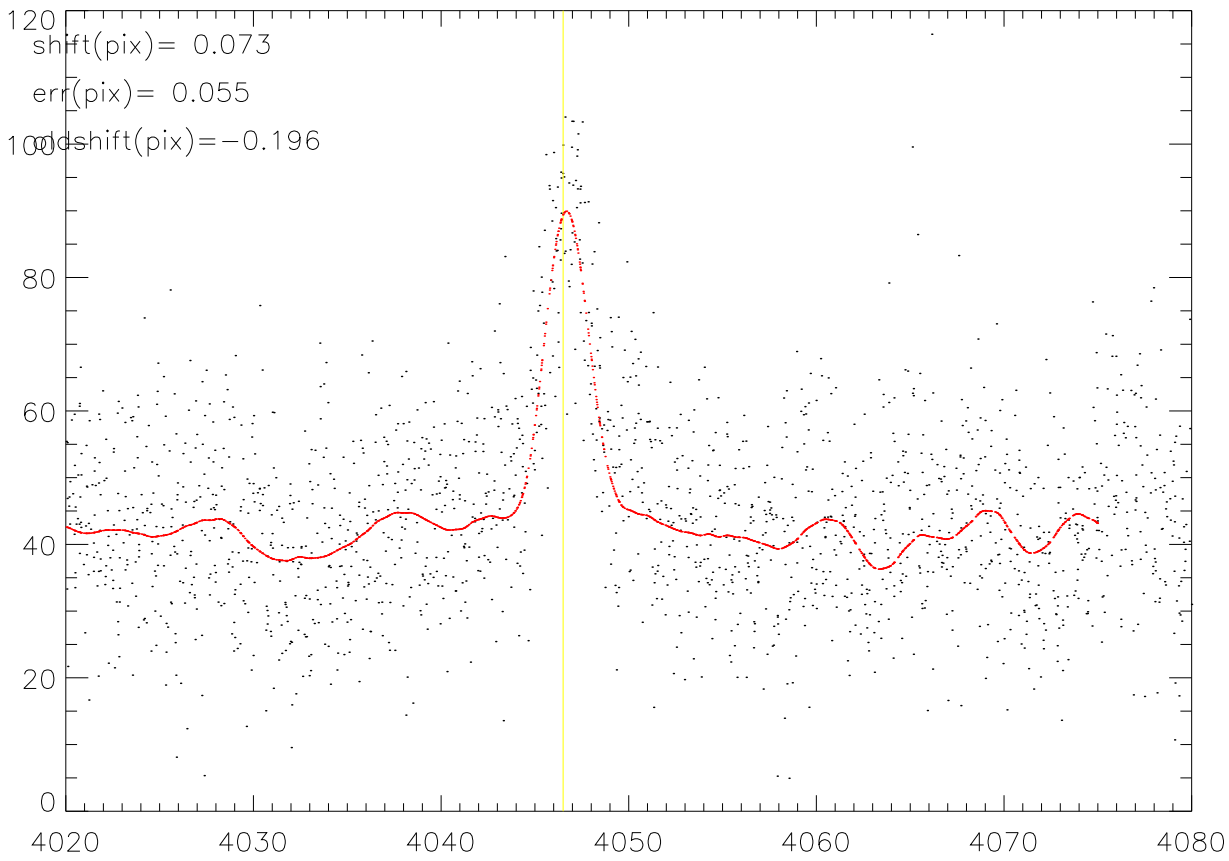

PLATE=0670 MJD=52520 Scattered Light before halo removal on sdR-b1-00016147.f
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 4.788
Max value = 6.311
Tue Feb 26 03:51:47 2008

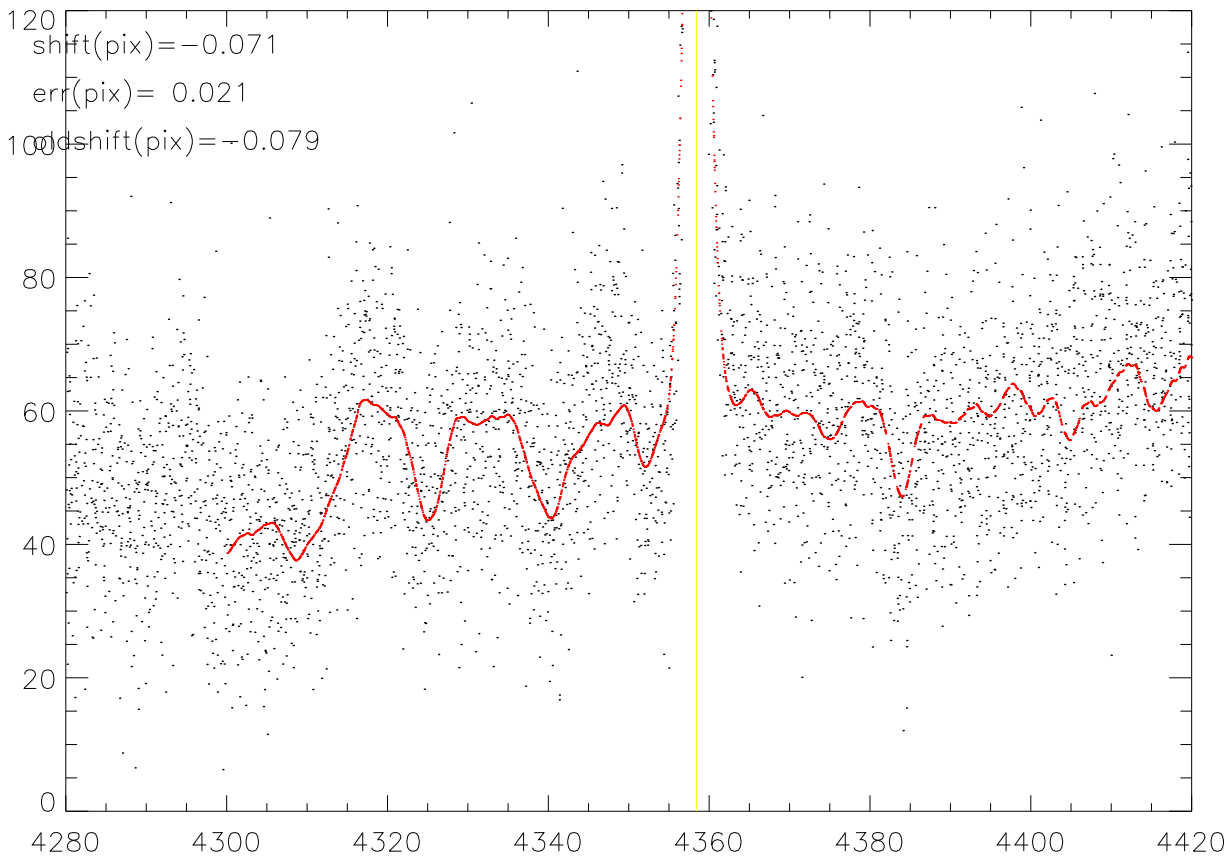

PLATE=0670 MJD=52520 Scattered Light on sdR-b1-00016147.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
3.36
4.27

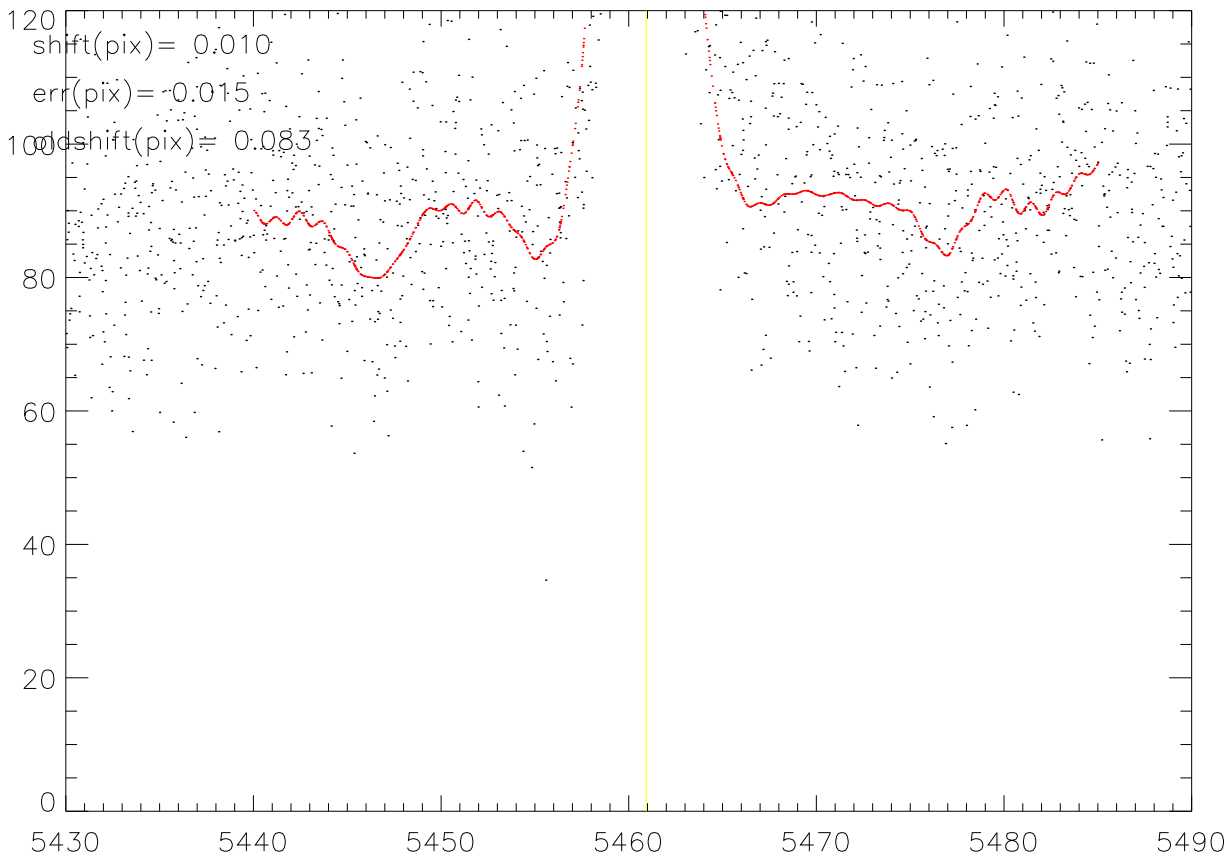

PLATE=0670 MJD=52520 Scattered Light on sdR-b1-00016147.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 3.262
Max value = 4.588
Tue Feb 26 03:53:58 2008

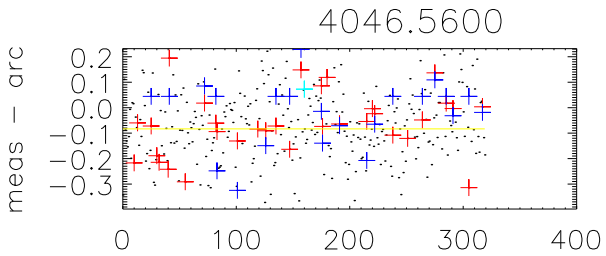

PLATE=0670 MJD=52520 Extraction chi^2 for sdR-b1-00016147.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
5
0
500
1000
1500
2000
Row number

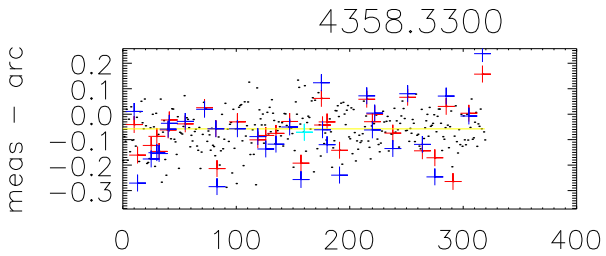

4046.5600
off: −0.20
sig: 0.061
4358.3300
off: −0.08
sig: 0.019
5460.9400
off: 0.08
sig: 0.015
5577.3390
off: 0.04
sig: 0.003
5889.9500
off: 0.14
sig: 0.006
5895.9240
off: 0.15
sig: 0.008

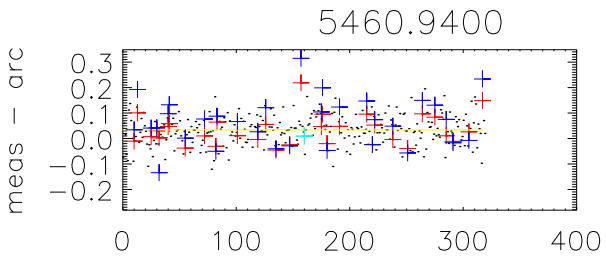

shift(pix)= 0.073
err(pix)= 0.055
oldshift(pix)=−0.196
120
100
80
60
40
20
0
4020
4030
4040
4050
4060
4070
4080

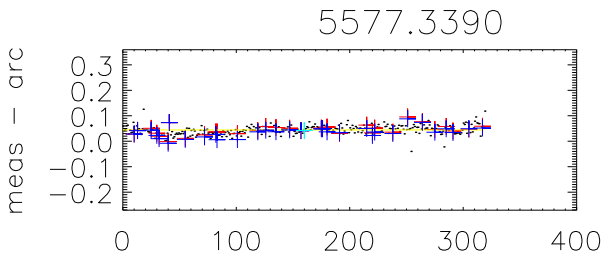

shift(pix)=−0.071
err(pix)= 0.021
oldshift(pix)=−0.079
120
100
80
60
40
20
0
4280
4300
4320
4340
4360
4380
4400
4420

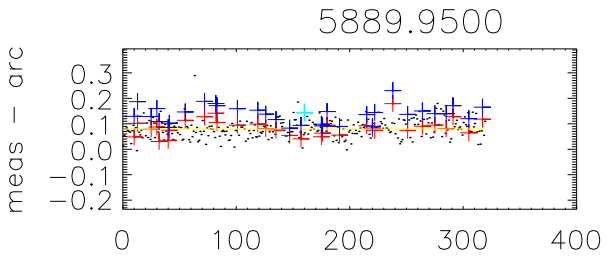

shift(pix)= 0.010
err(pix)= 0.015
oldshift(pix)= 0.083
120
100
80
60
40
20
0
5430
5440
5450
5460
5470
5480
5490

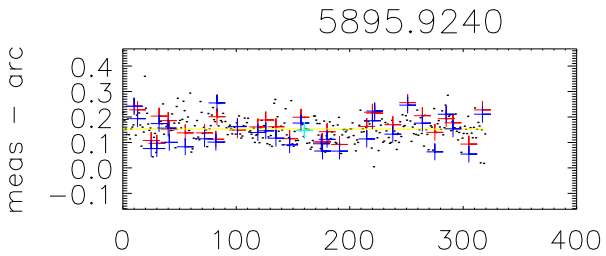

4046.5600
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

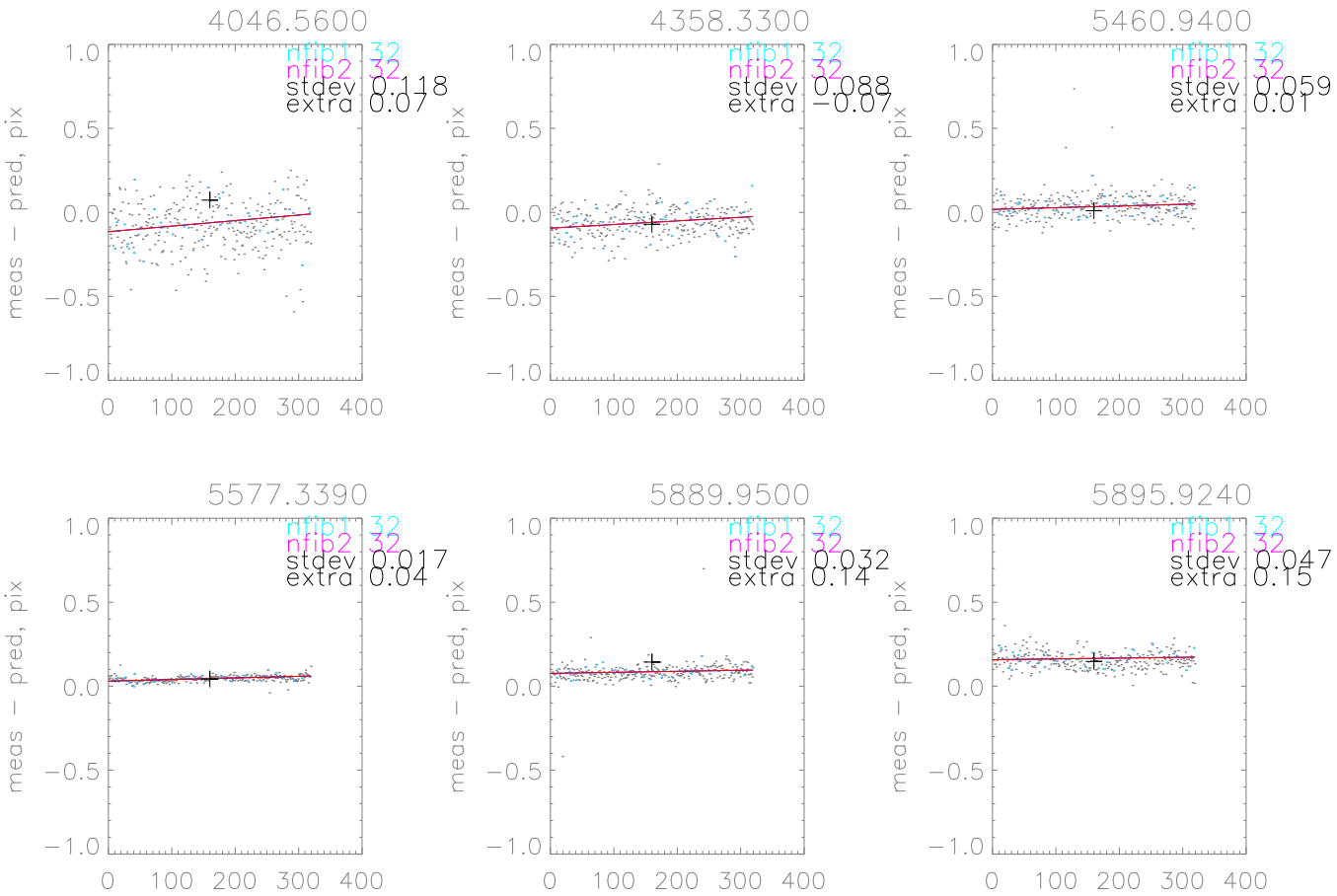

4358.3300
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

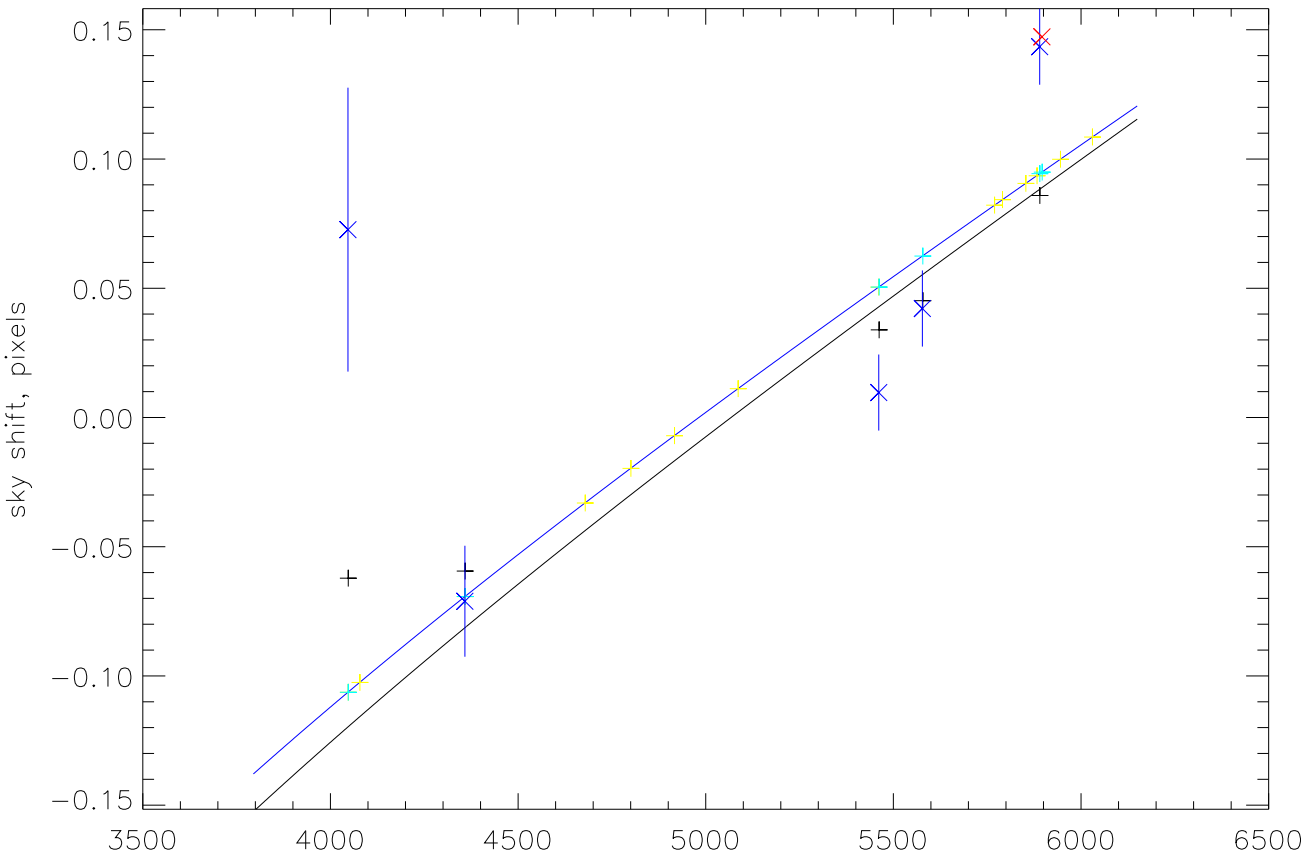

5460.9400
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400


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

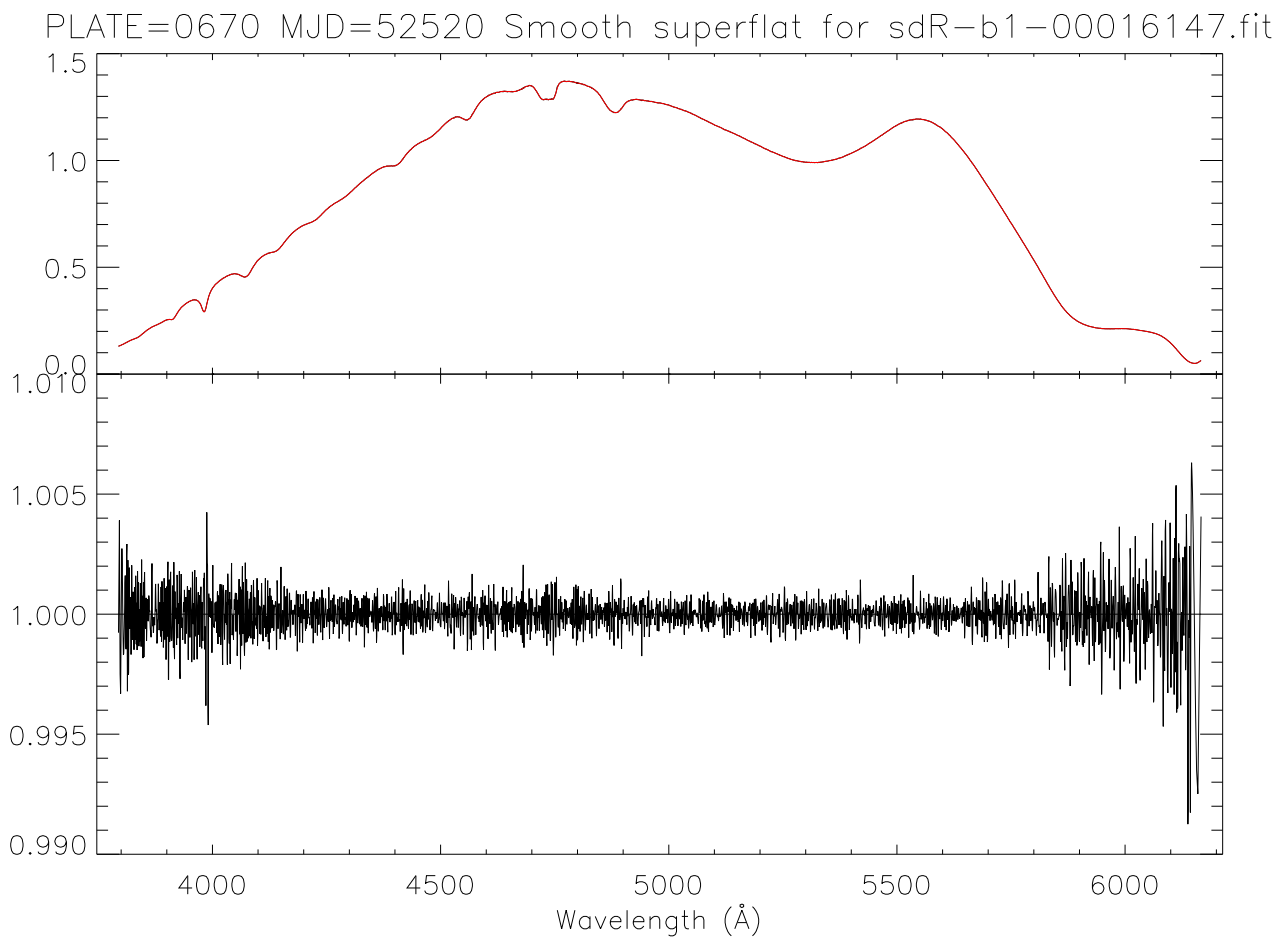

5889.9500
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

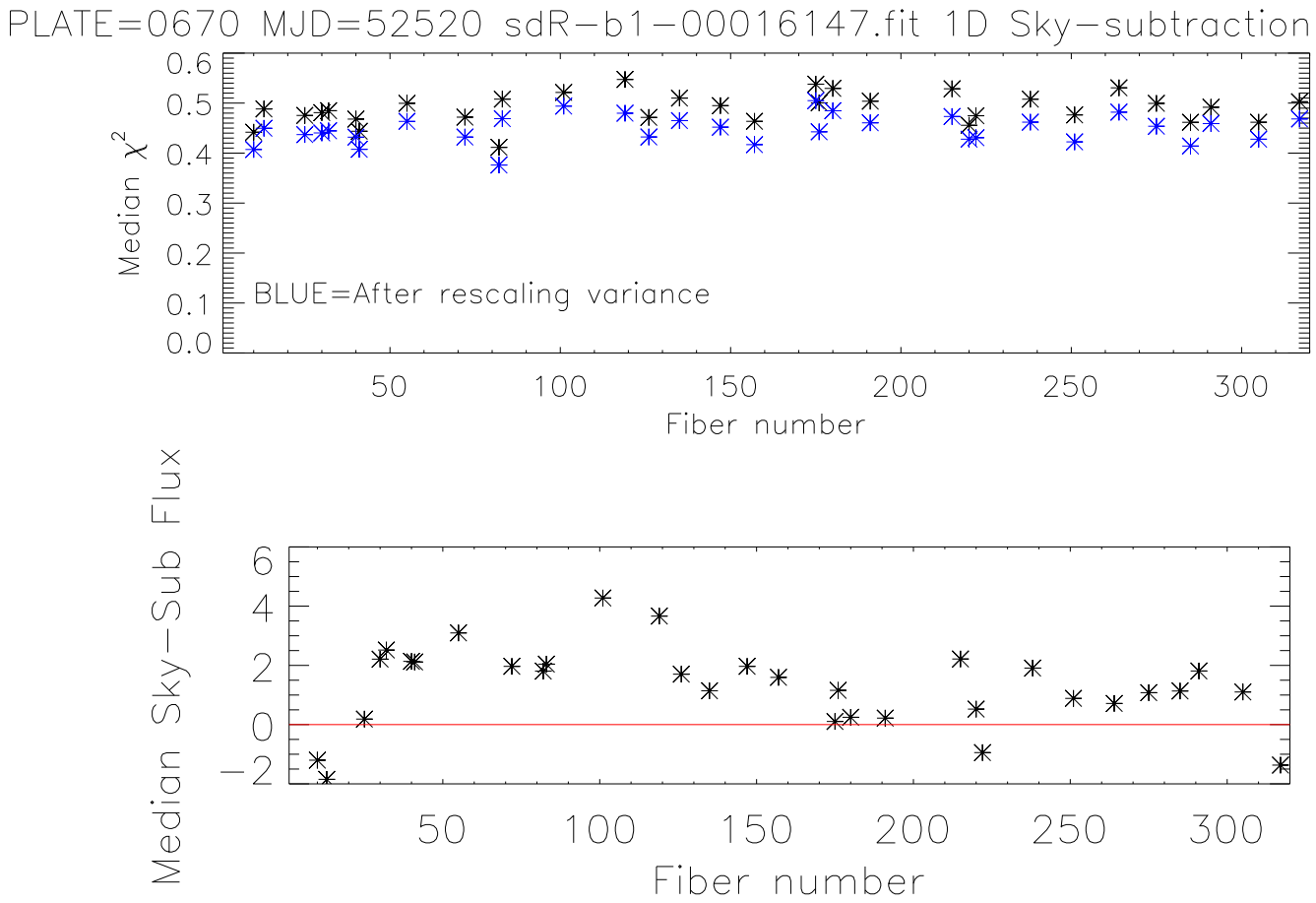

5895.9240
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

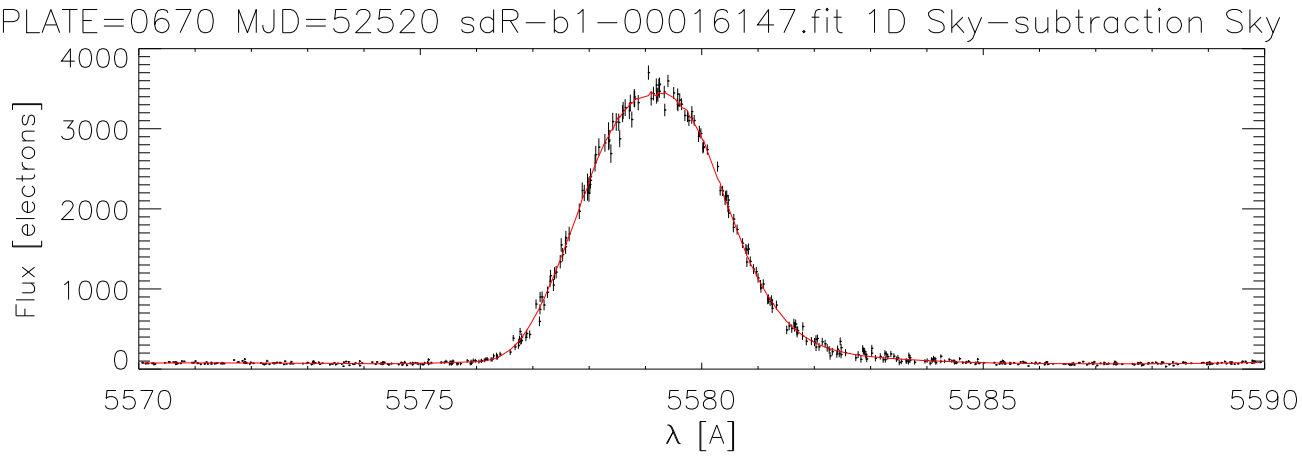

4046.5600
nfib1 32
nfib2 32
stdev 0.118
extra 0.07
4358.3300
nfib1 32
nfib2 32
stdev 0.088
extra −0.07
5460.9400
nfib1 32
nfib2 32
stdev 0.059
extra 0.01
5577.3390
nfib1 32
nfib2 32
stdev 0.017
extra 0.04
5889.9500
nfib1 32
nfib2 32
stdev 0.032
extra 0.14
5895.9240
nfib1 32
nfib2 32
stdev 0.047
extra 0.15
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

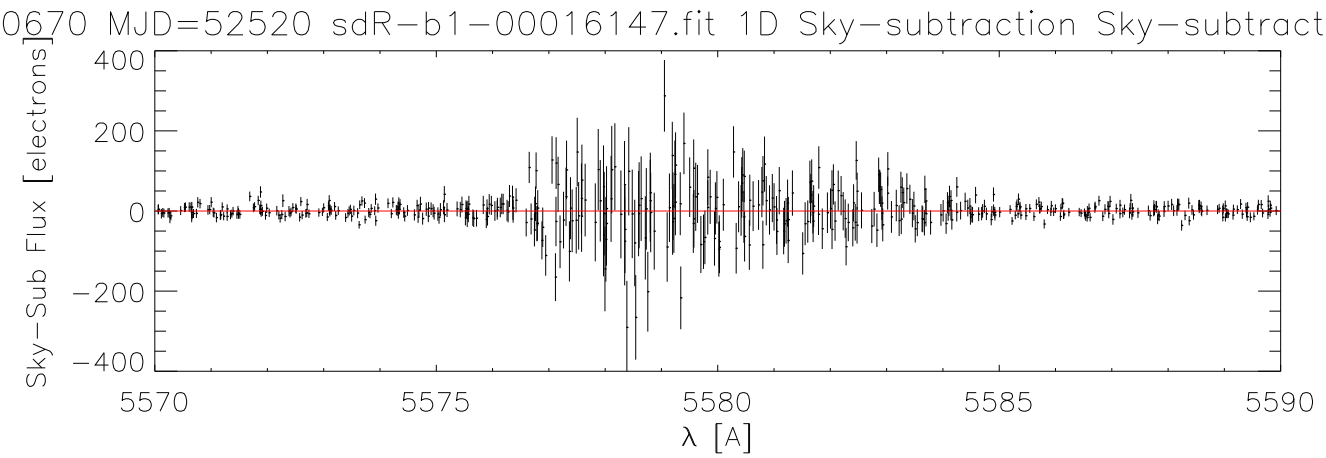

sky shift, pixels
0.15
0.10
0.05
0.00
−0.05
−0.10
−0.15
3500
4000
4500
5000
5500
6000
6500

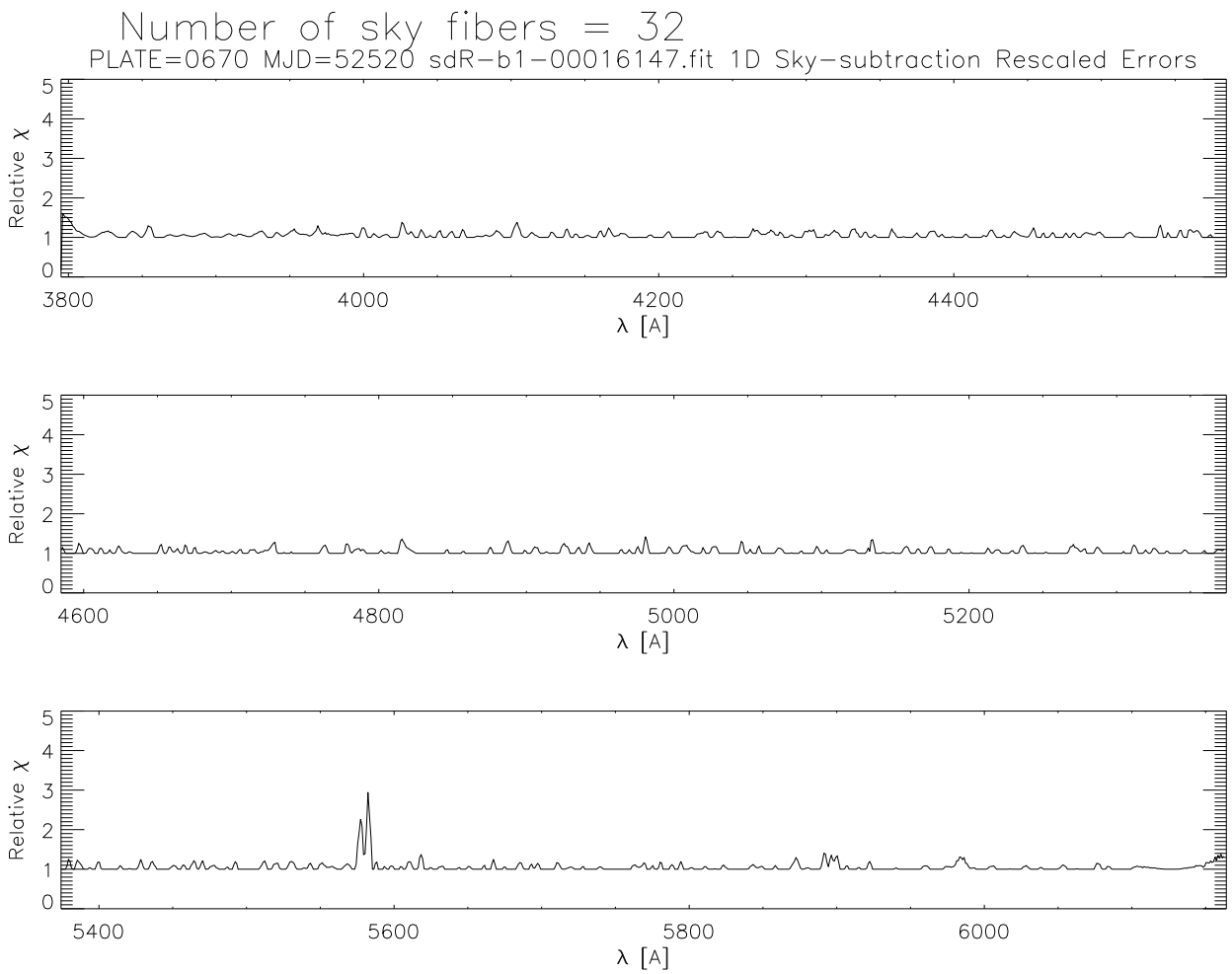
es= 0.0000

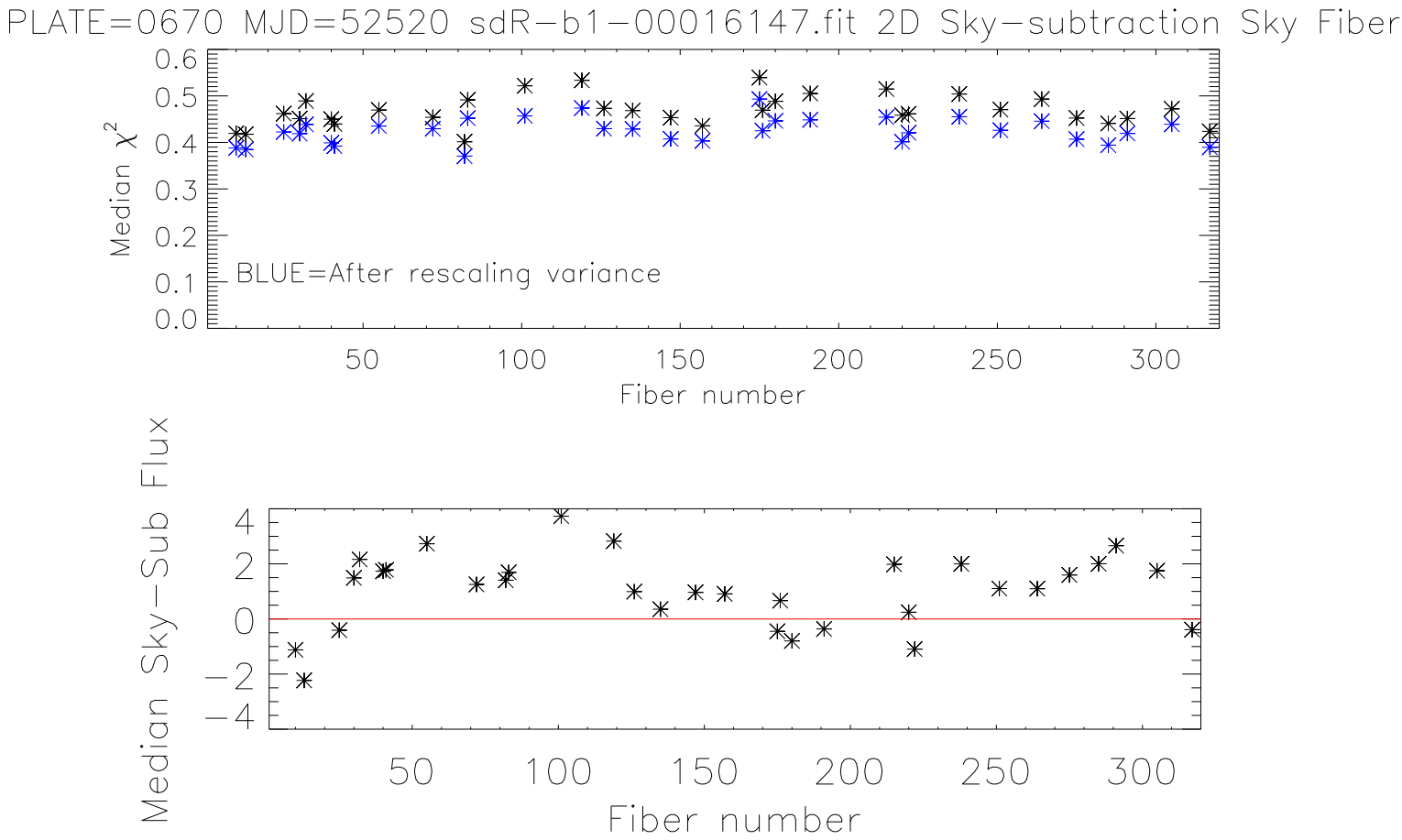

PLATE=0670 MJD=52520 Smooth superflat for sdR-b1-00016147.fit
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
4000
4500
5000
5500
6000
Wavelength (Å)

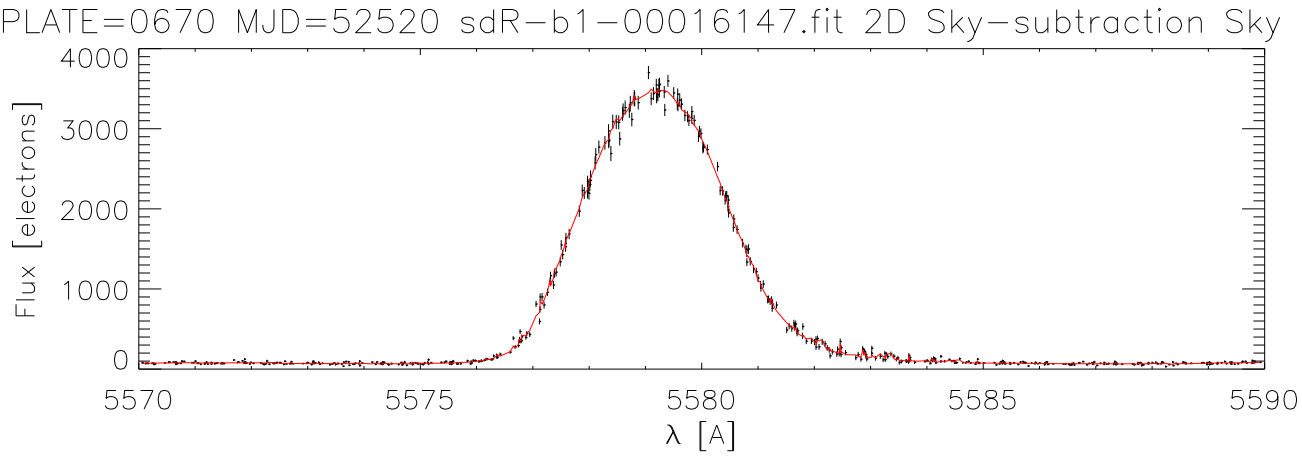

PLATE=0670 MJD=52520 sdR-b1-00016147.fit 1D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

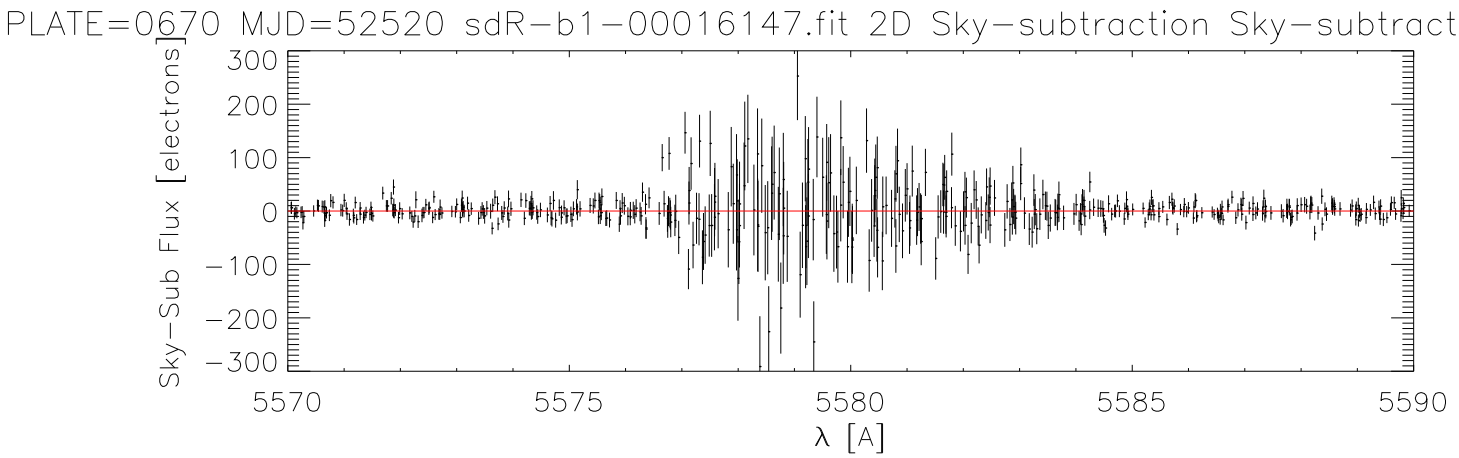

PLATE=0670 MJD=52520 sdR-b1-00016147.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

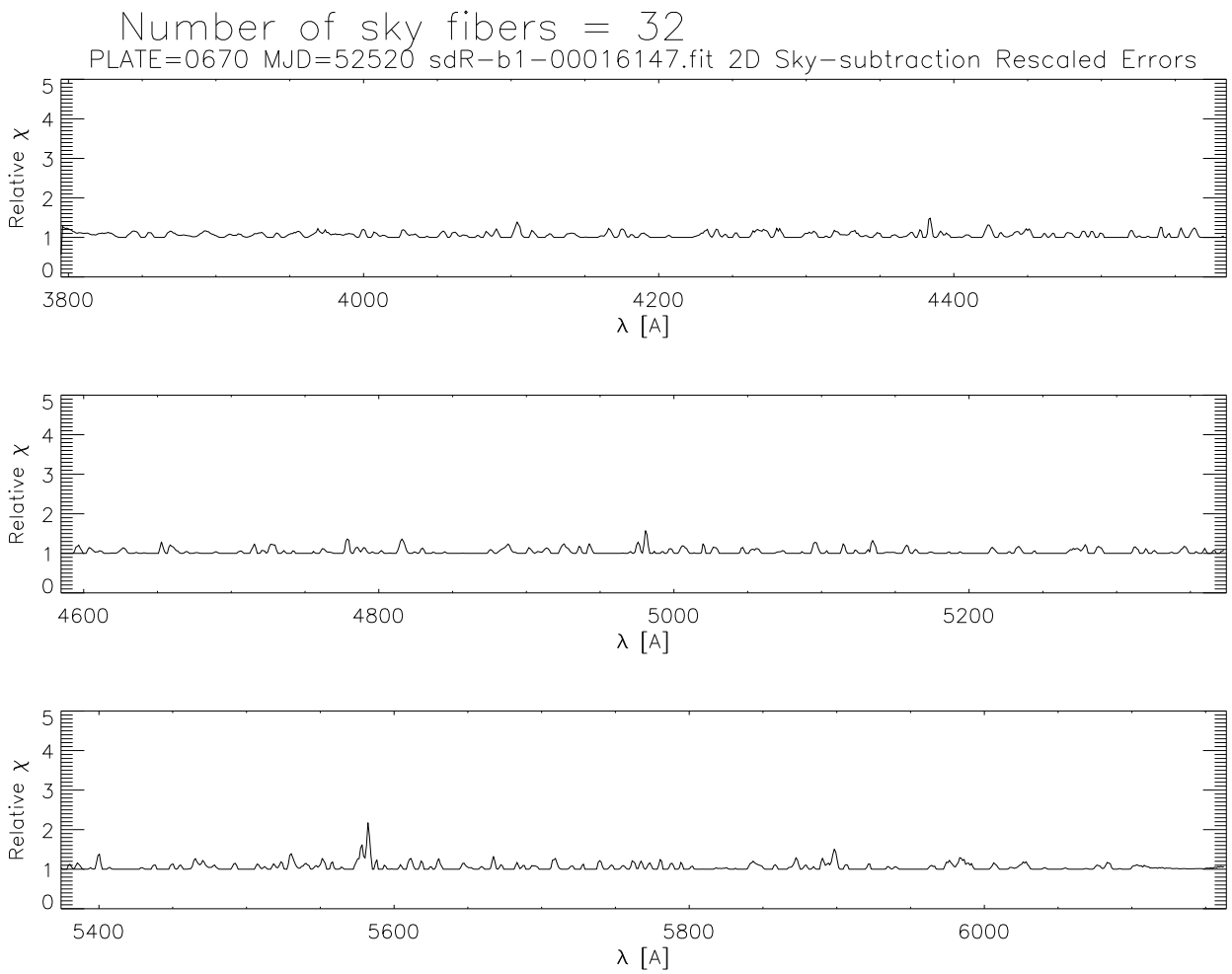

PLATE=0670 MJD=52520 sdR-b1-00016147.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
200
0
-200
-400
5570
5575
5580
5585
5590
λ [A]

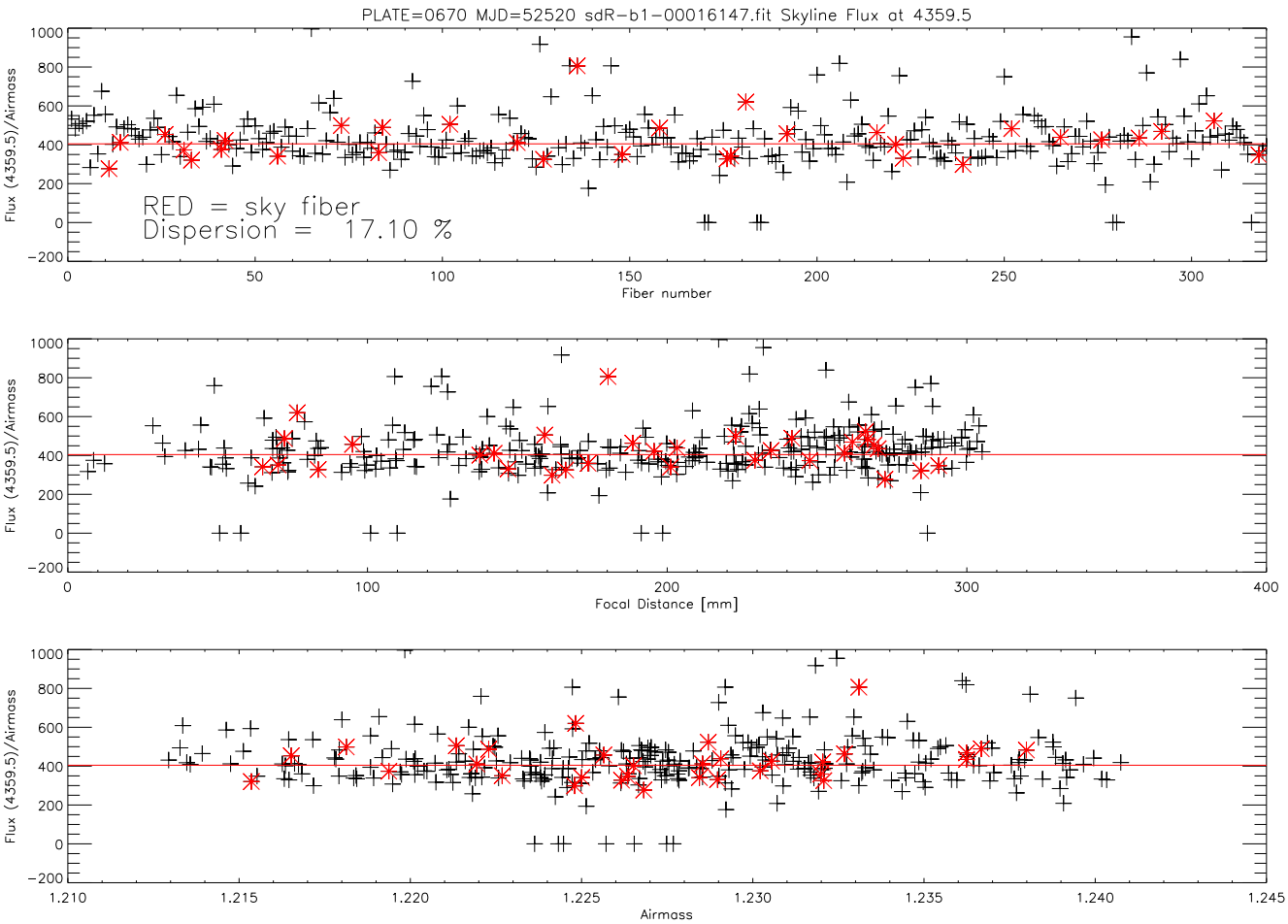

Number of sky fibers = 32
PLATE=0670 MJD=52520 sdR-b1-00016147.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

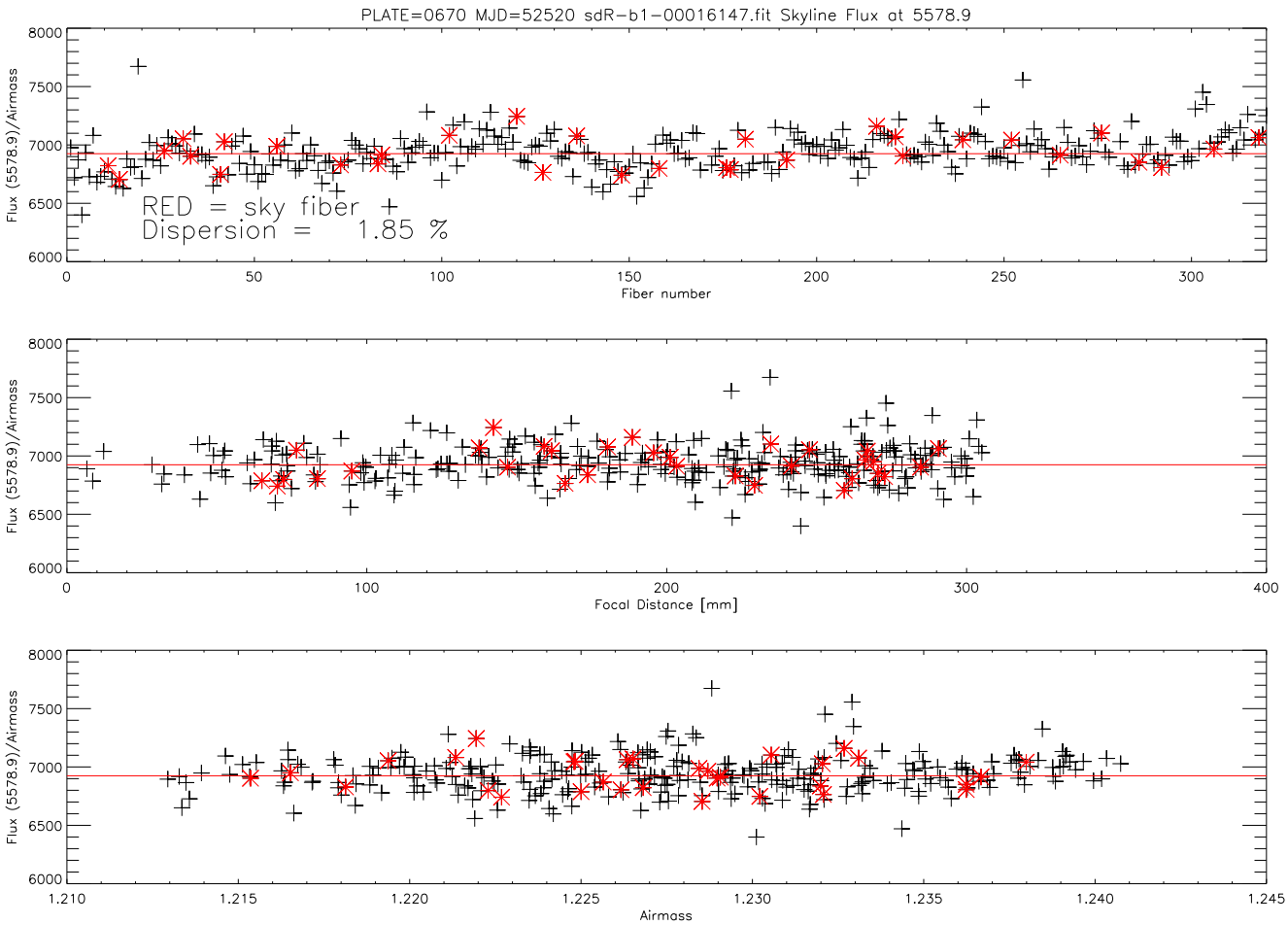

PLATE=0670 MJD=52520 sdR-b1-00016147.fit 2D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-4
-2
0
2
4
50
100
150
200
250
300
Fiber number

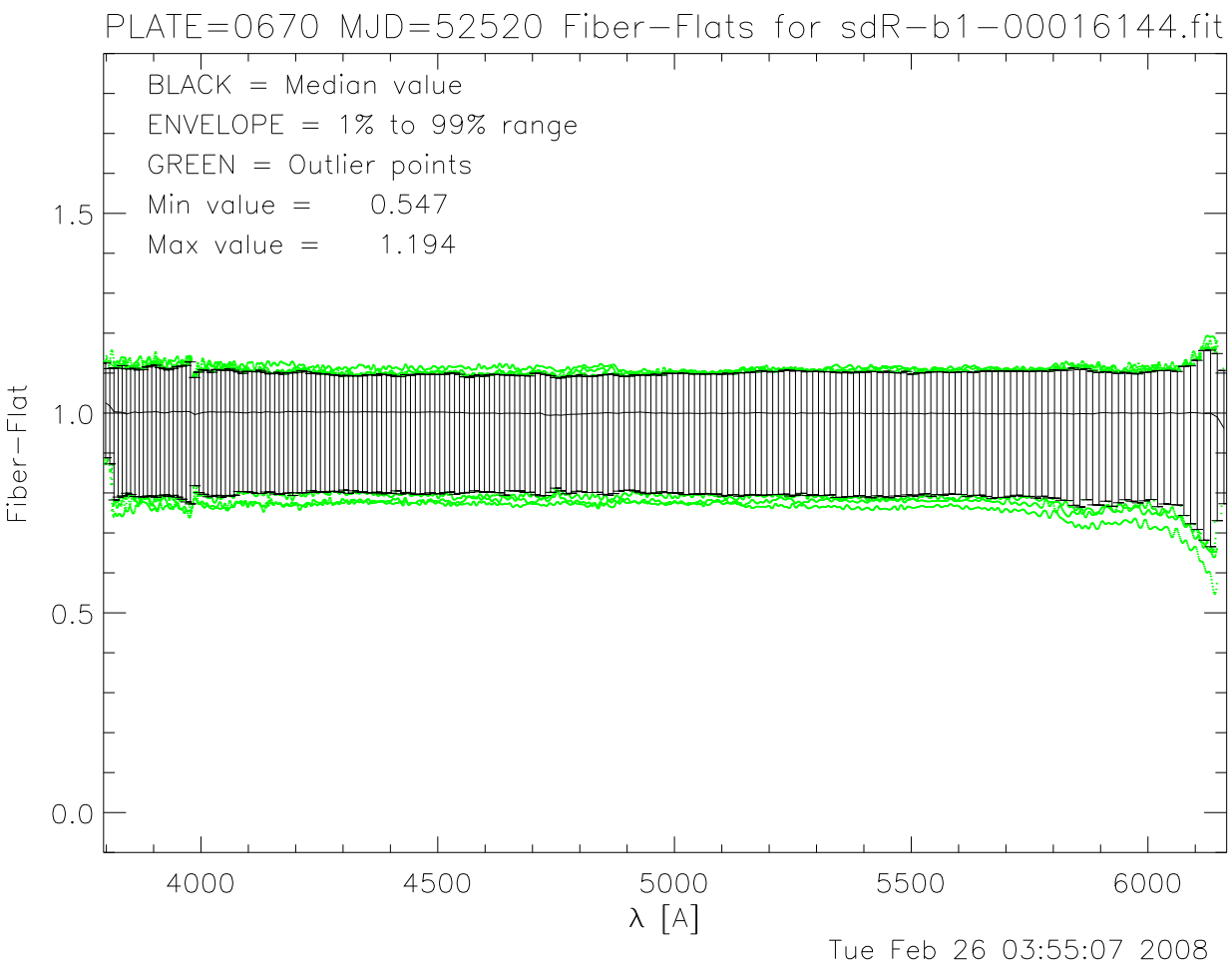

PLATE=0670 MJD=52520 sdR-b1-00016147.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

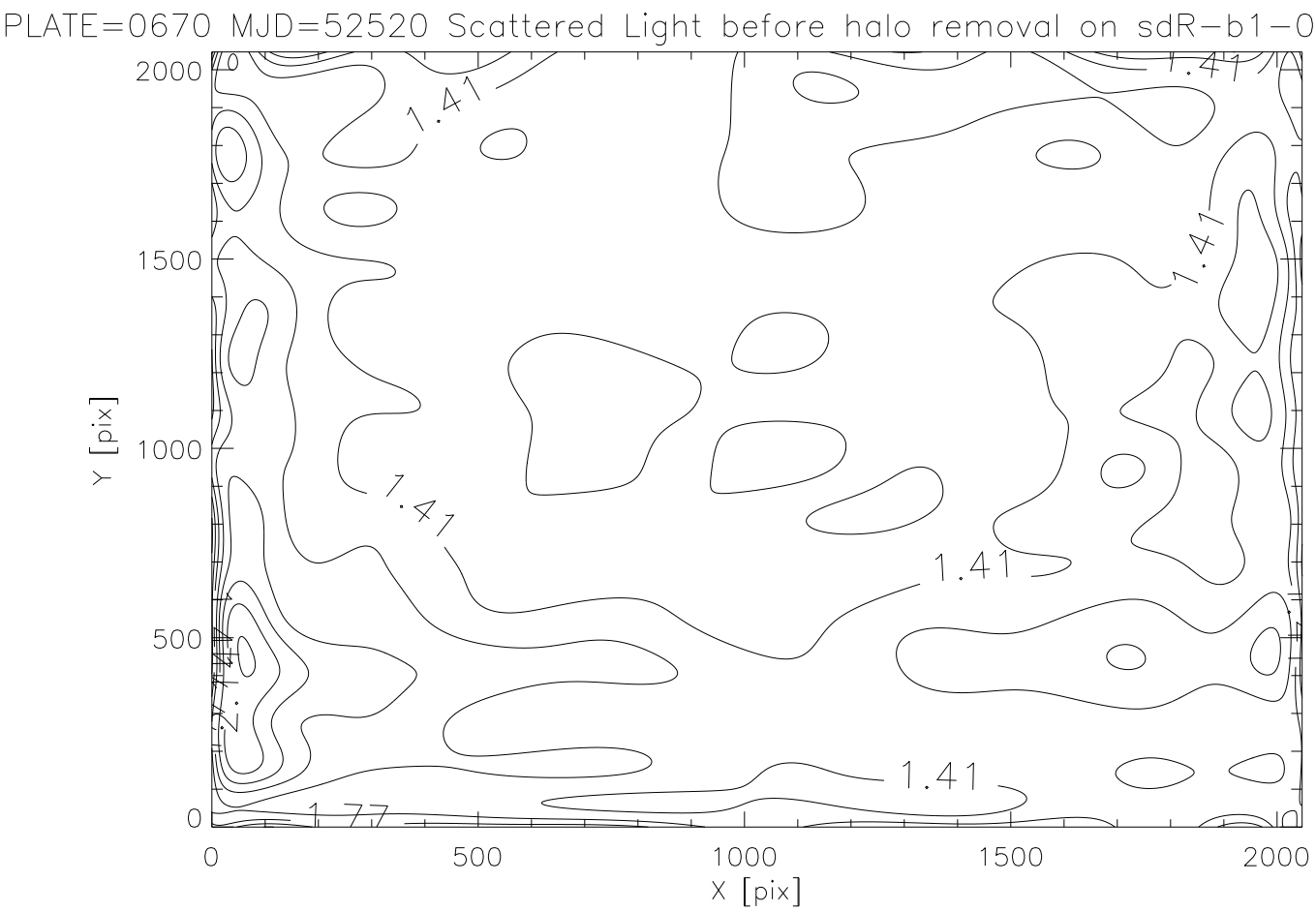

PLATE=0670 MJD=52520 sdR-b1-00016147.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
-300
5570
5575
5580
5585
5590
λ [A]

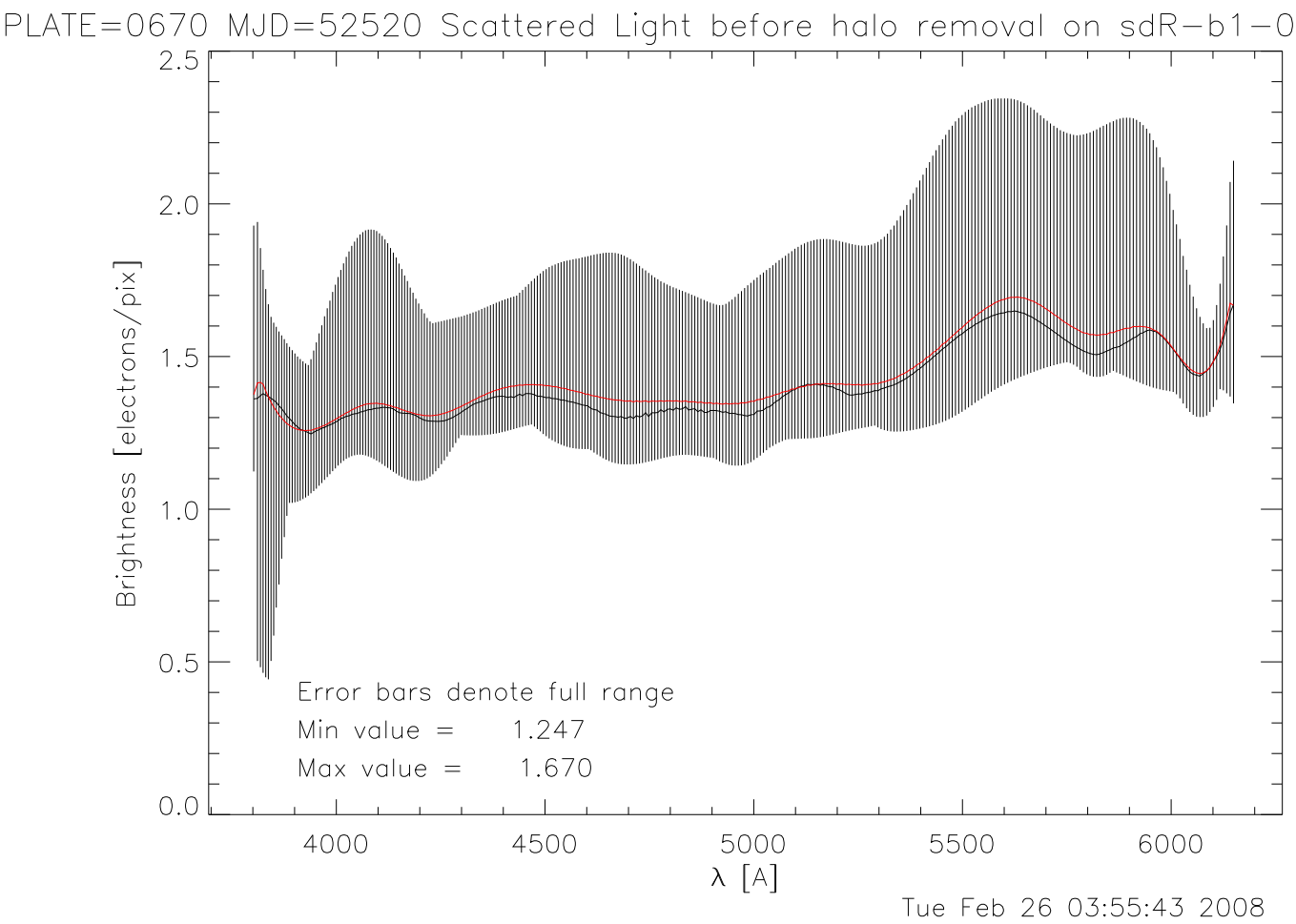

Number of sky fibers = 32
PLATE=0670 MJD=52520 sdR-b1-00016147.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

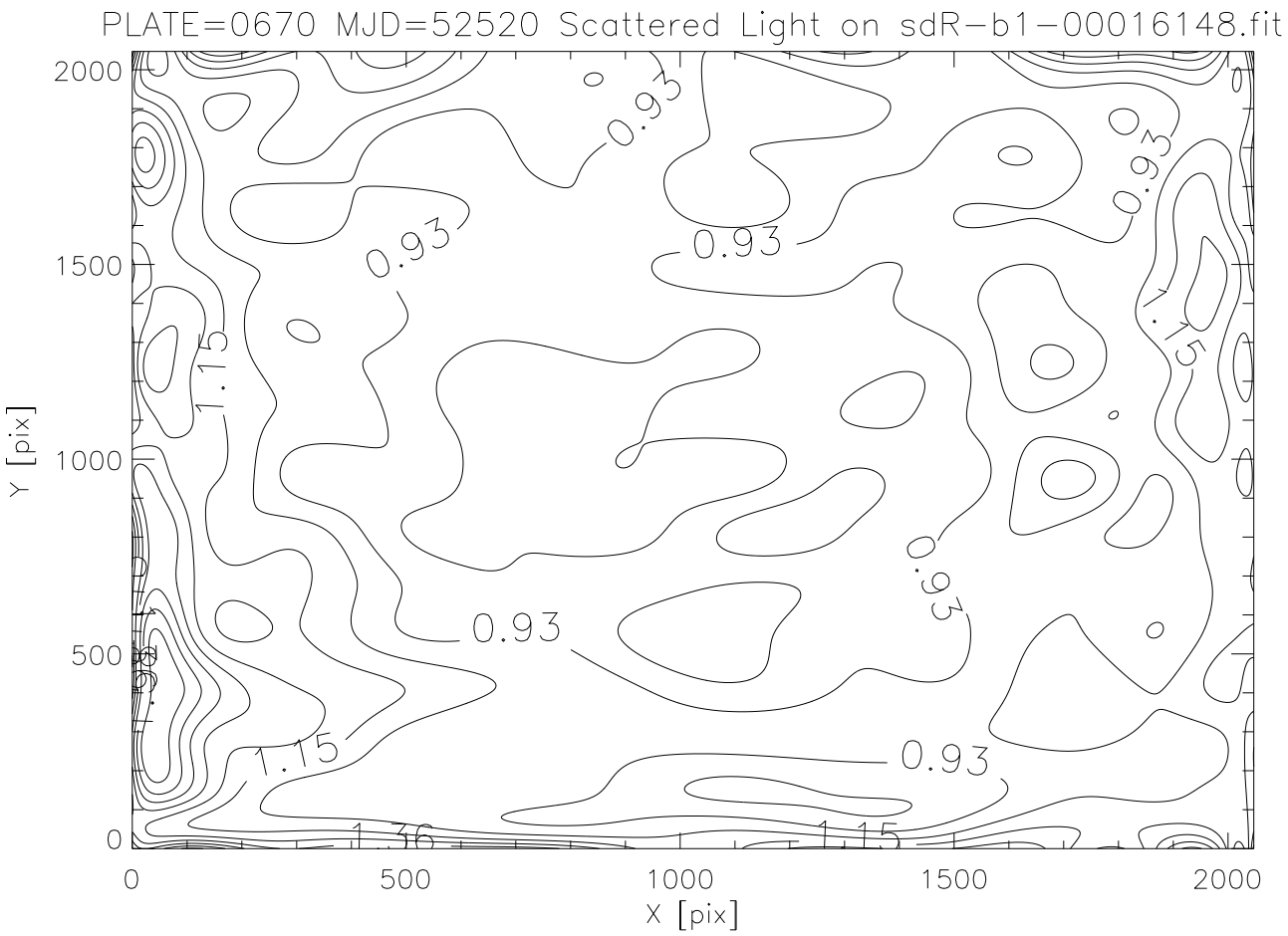

PLATE=0670 MJD=52520 sdR-b1-00016147.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 17.10 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

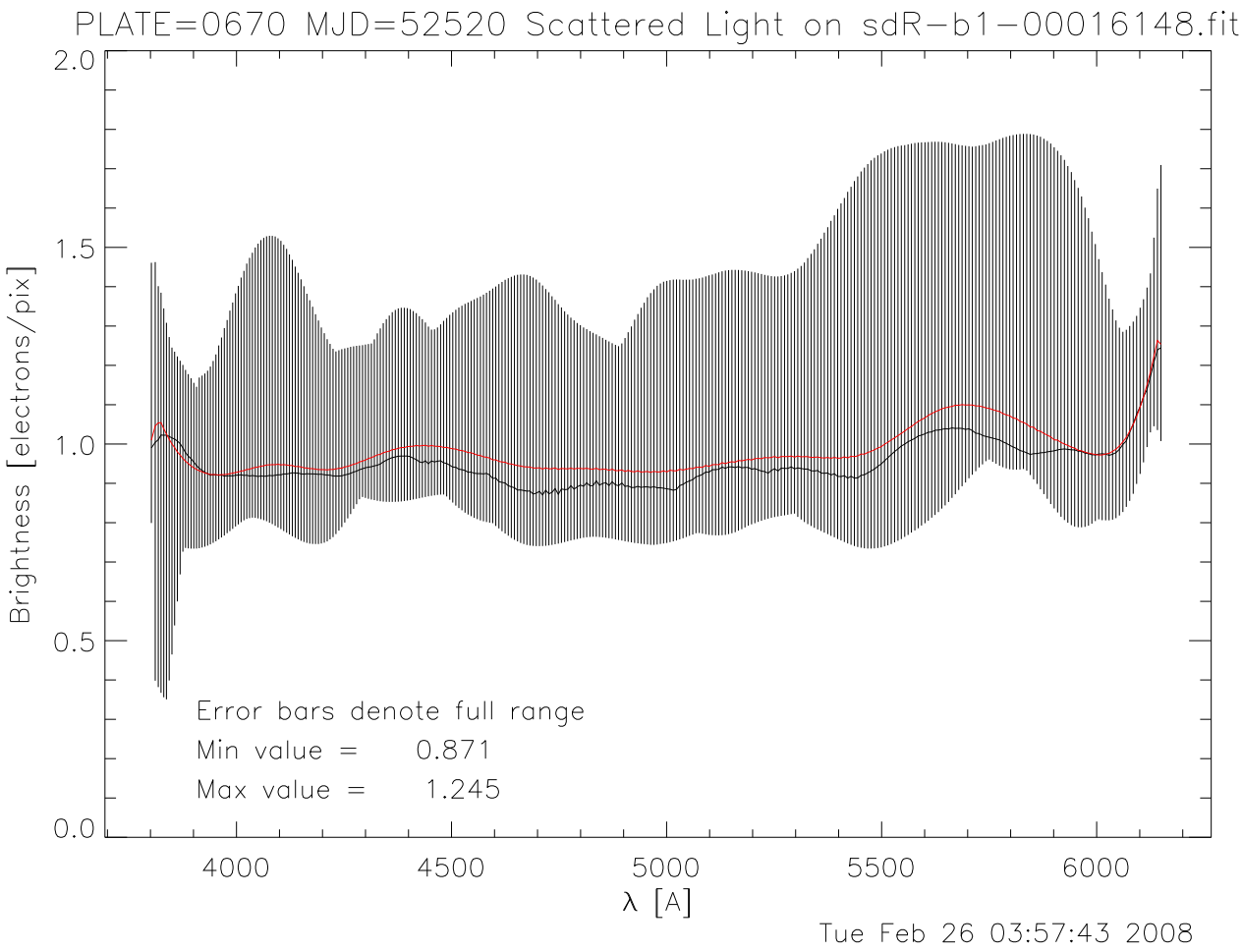

PLATE=0670 MJD=52520 sdR-b1-00016147.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber +
Dispersion = 1.85 %
Fiber number
Flux (5578.9)/Airmass
Focal Distance [mm]
Flux (5578.9)/Airmass
Airmass

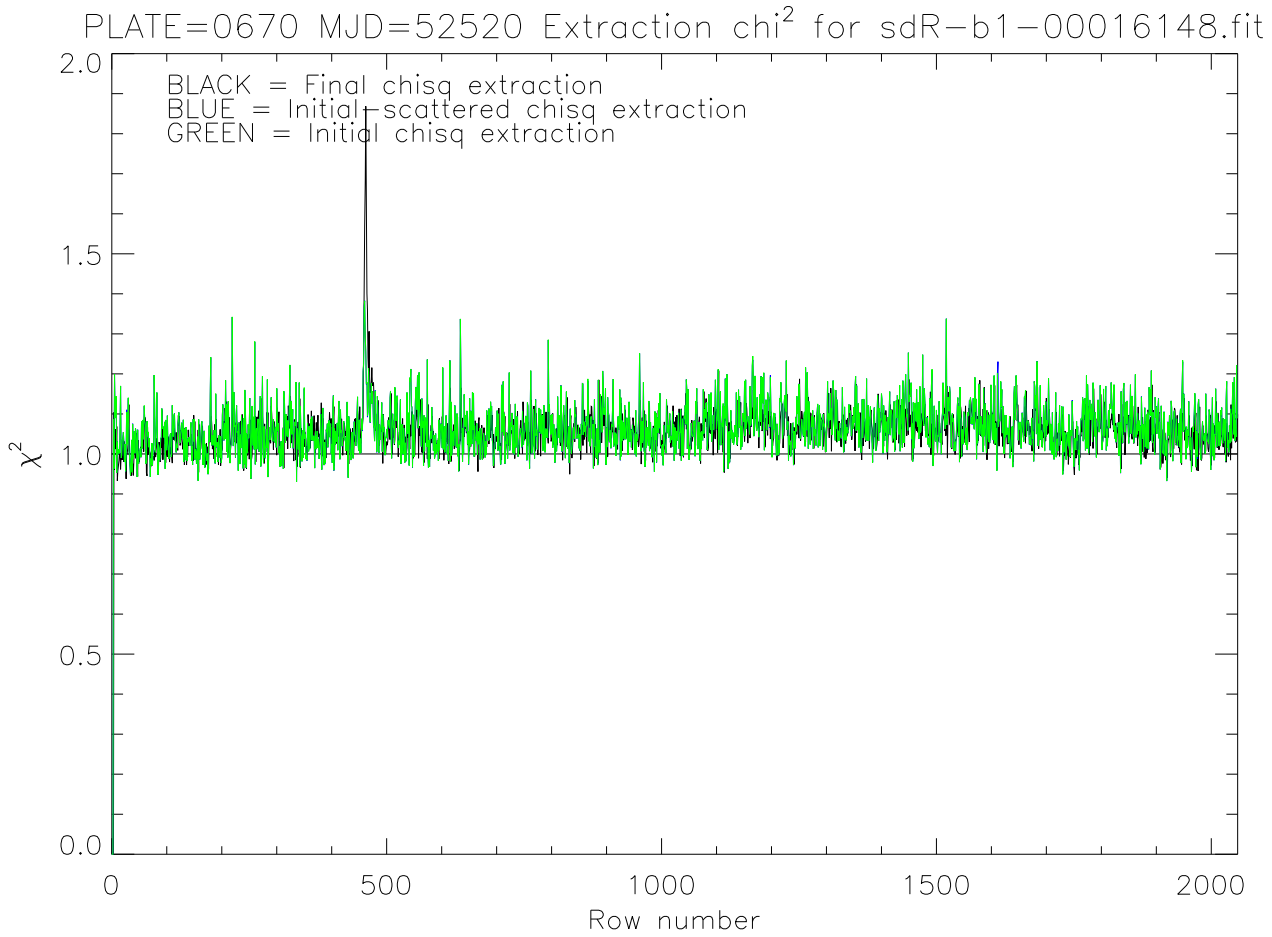

PLATE=0670 MJD=52520 Fiber-Flats for sdR-b1-00016144.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.547
Max value = 1.194
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Tue Feb 26 03:55:07 2008

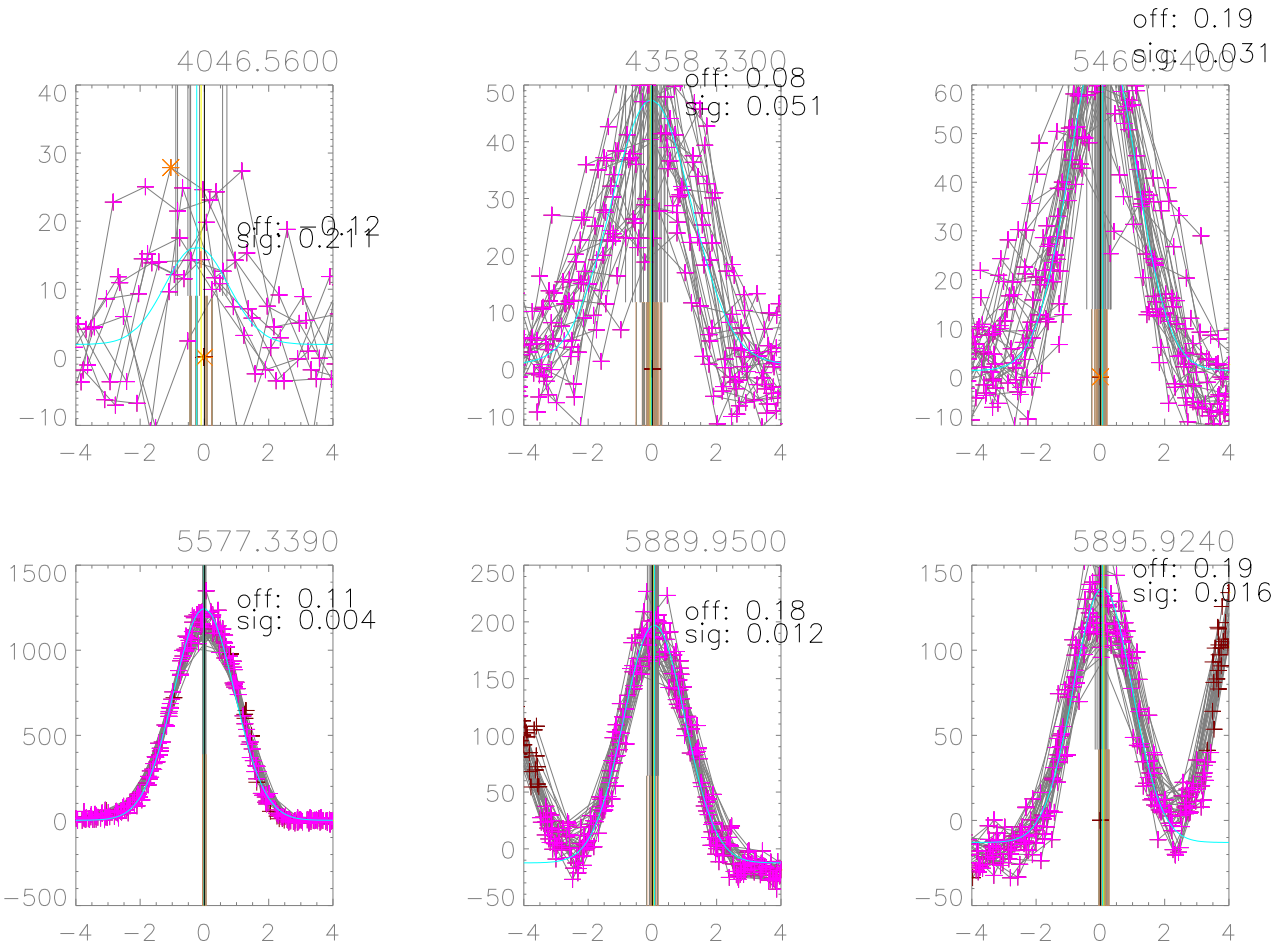

PLATE=0670 MJD=52520 Scattered Light before halo removal on sdR−b1−00016148.f
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
1.41
1.41
1.41
1.41
1.41
1.41
1.41
1.77

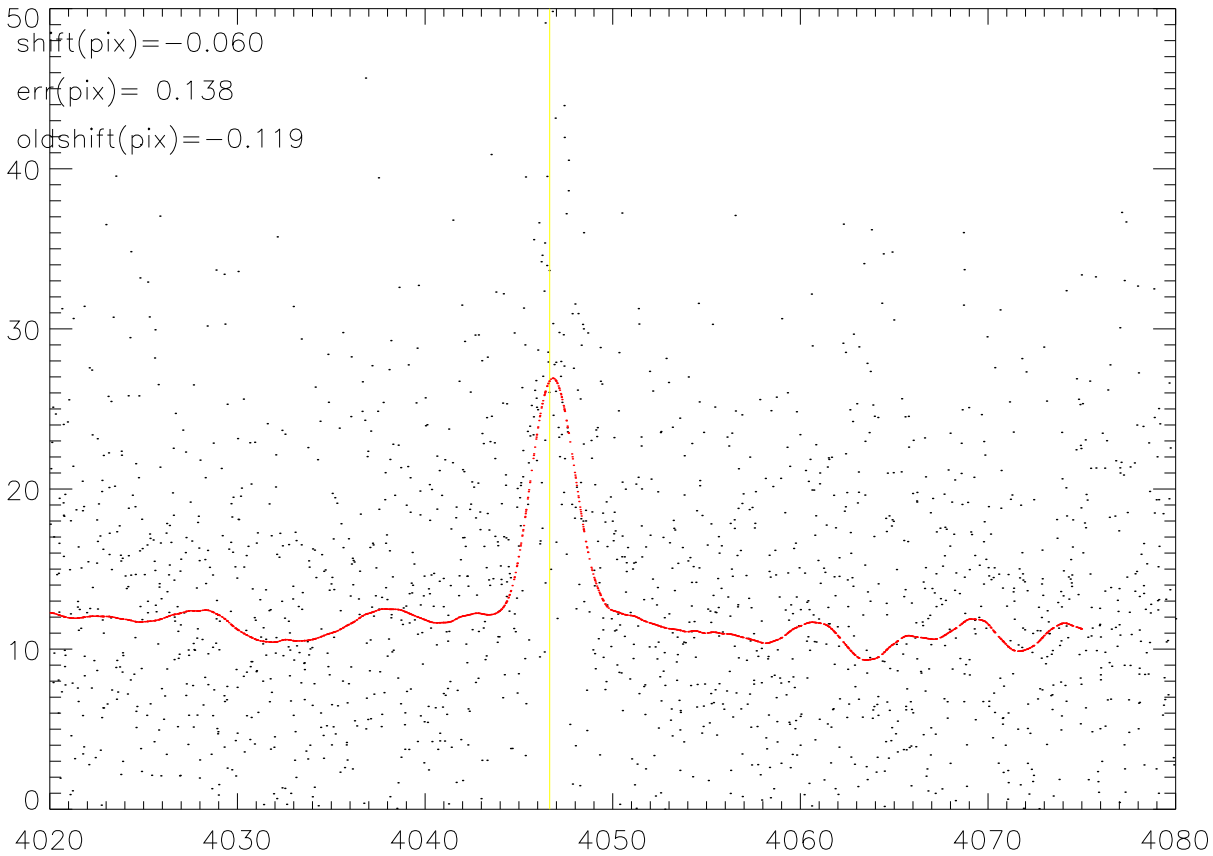

PLATE=0670 MJD=52520 Scattered Light before halo removal on sdR-b1-00016148.f
Brightness [electrons/pix]
2.5
2.0
1.5
1.0
0.5
0.0
Error bars denote full range
Min value = 1.247
Max value = 1.670
4000
4500
5000
5500
6000
λ [A]
Tue Feb 26 03:55:43 2008

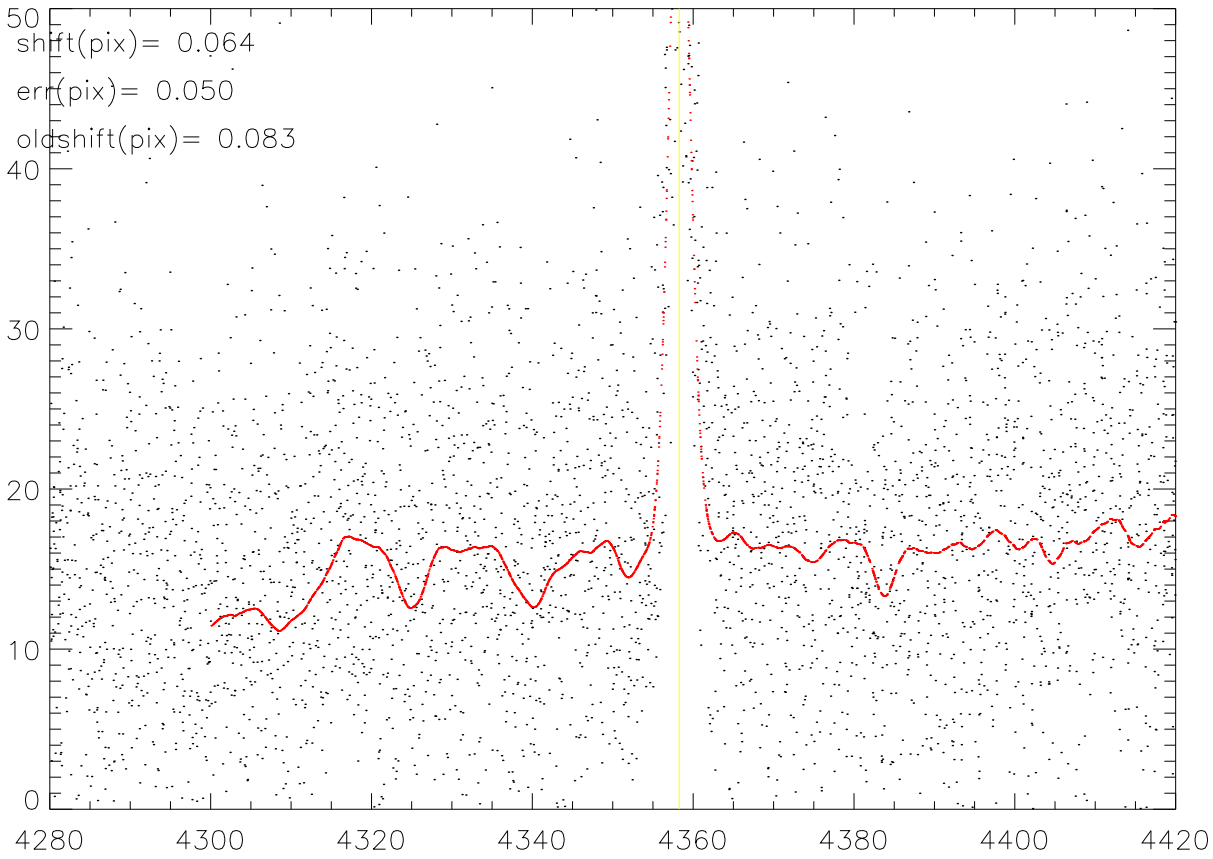

PLATE=0670 MJD=52520 Scattered Light on sdR-b1-00016148.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
0.93
1.15
1.36

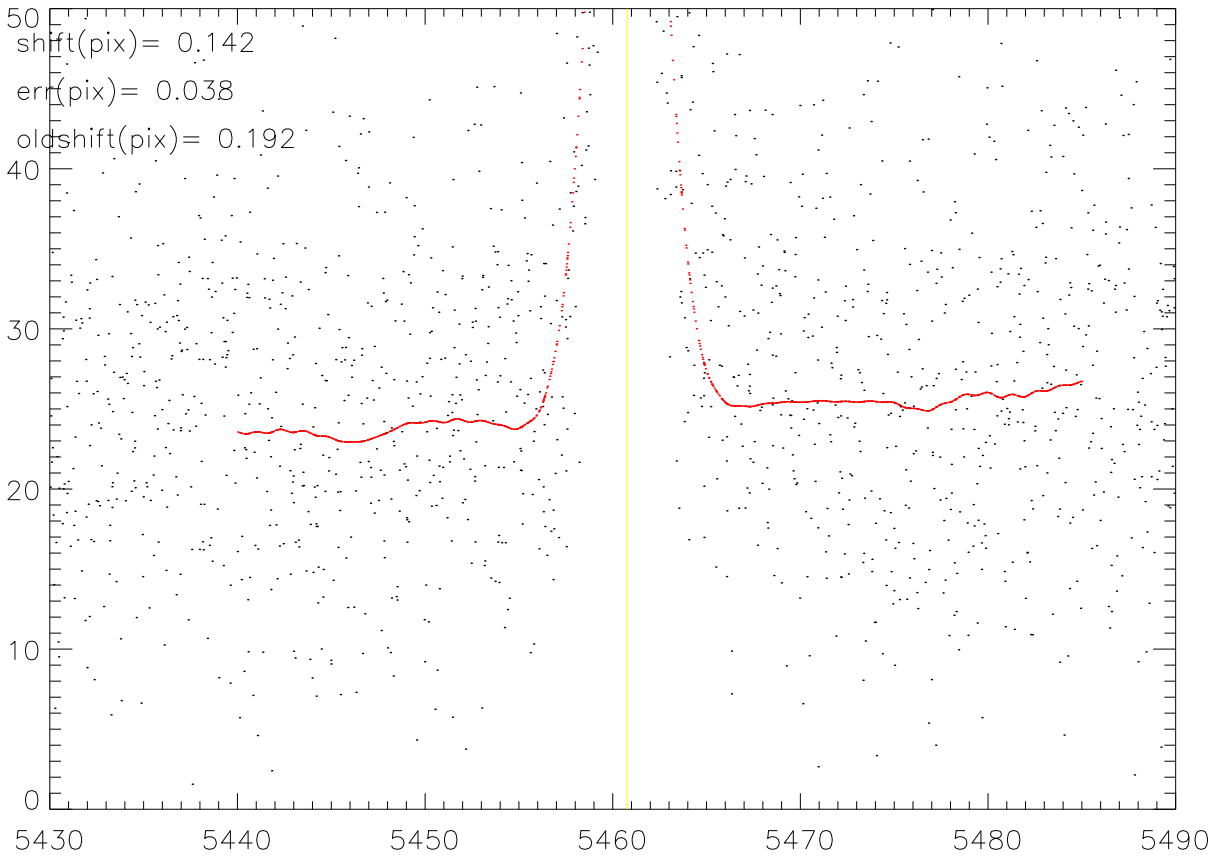

PLATE=0670 MJD=52520 Scattered Light on sdR-b1-00016148.fit
Brightness [electrons/pix]
2.0
1.5
1.0
0.5
0.0
Error bars denote full range
Min value = 0.871
Max value = 1.245
4000
4500
5000
5500
6000
λ [A]
Tue Feb 26 03:57:43 2008

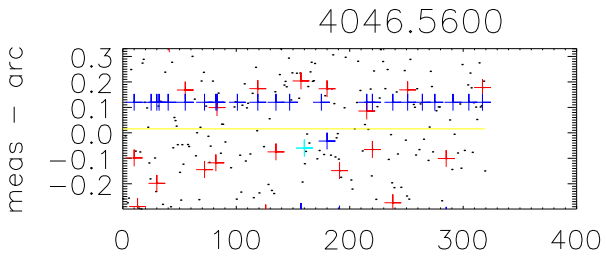

PLATE=0670 MJD=52520 Extraction chi^2 for sdR-b1-00016148.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
2.0
1.5
1.0
0.5
0.0
0
500
1000
1500
2000
Row number

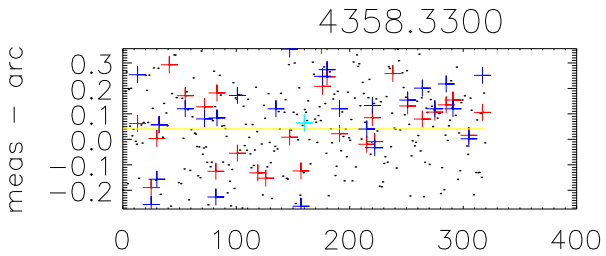

4046.5600
off: -0.12
sig: 0.211
4358.3300
off: 0.08
sig: 0.051
5469.9400
off: 0.19
sig: 0.031
5577.3390
off: 0.11
sig: 0.004
5889.9500
off: 0.18
sig: 0.012
5895.9240
off: 0.19
sig: 0.016

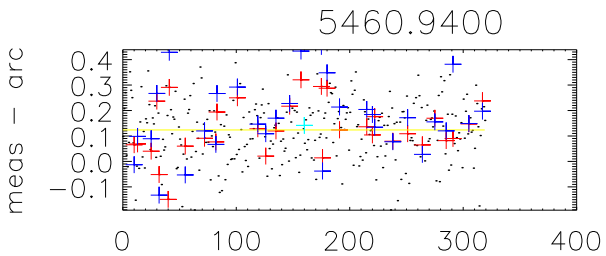

shift(pix)=−0.060
err(pix)= 0.138
oldshift(pix)=−0.119
50
40
30
20
10
0
4020
4030
4040
4050
4060
4070
4080

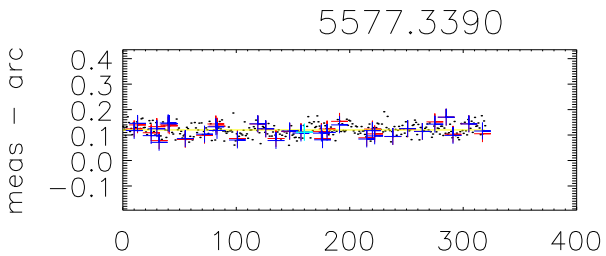

shift(pix)= 0.064
err(pix)= 0.050
oldshift(pix)= 0.083
50
40
30
20
10
0
4280
4300
4320
4340
4360
4380
4400
4420

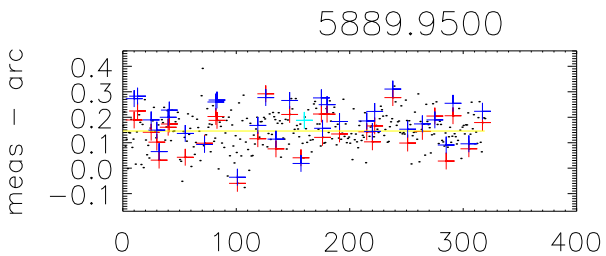

shift(pix)= 0.142
err(pix)= 0.038
oldshift(pix)= 0.192
50
40
30
20
10
0
5430
5440
5450
5460
5470
5480
5490

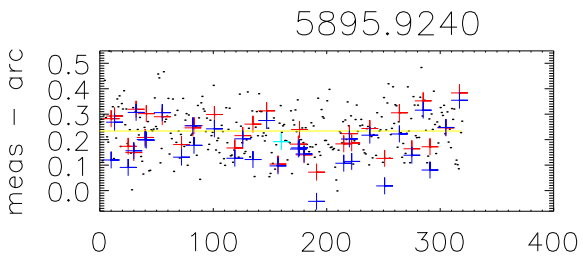

4046.5600
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

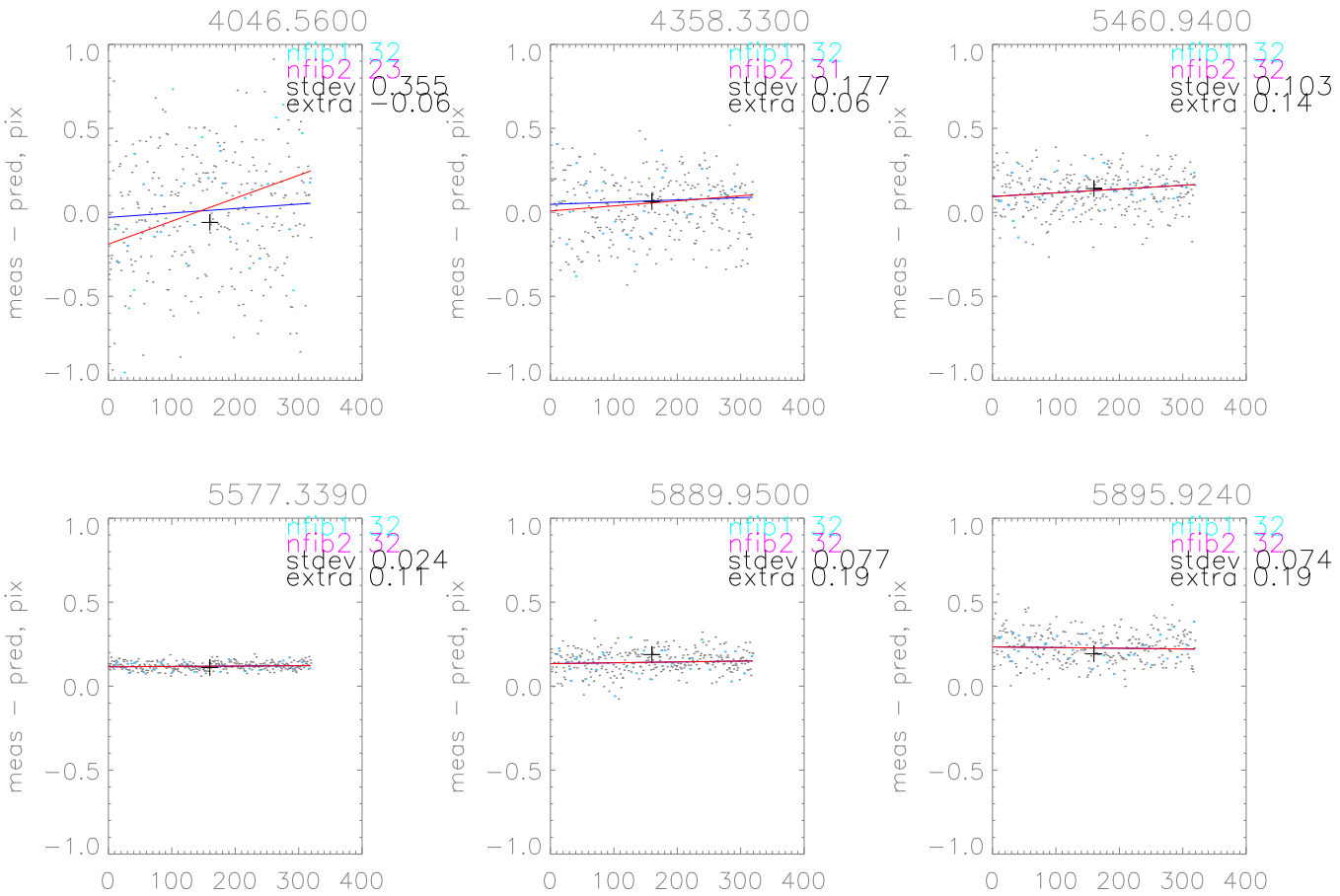

4358.3300
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

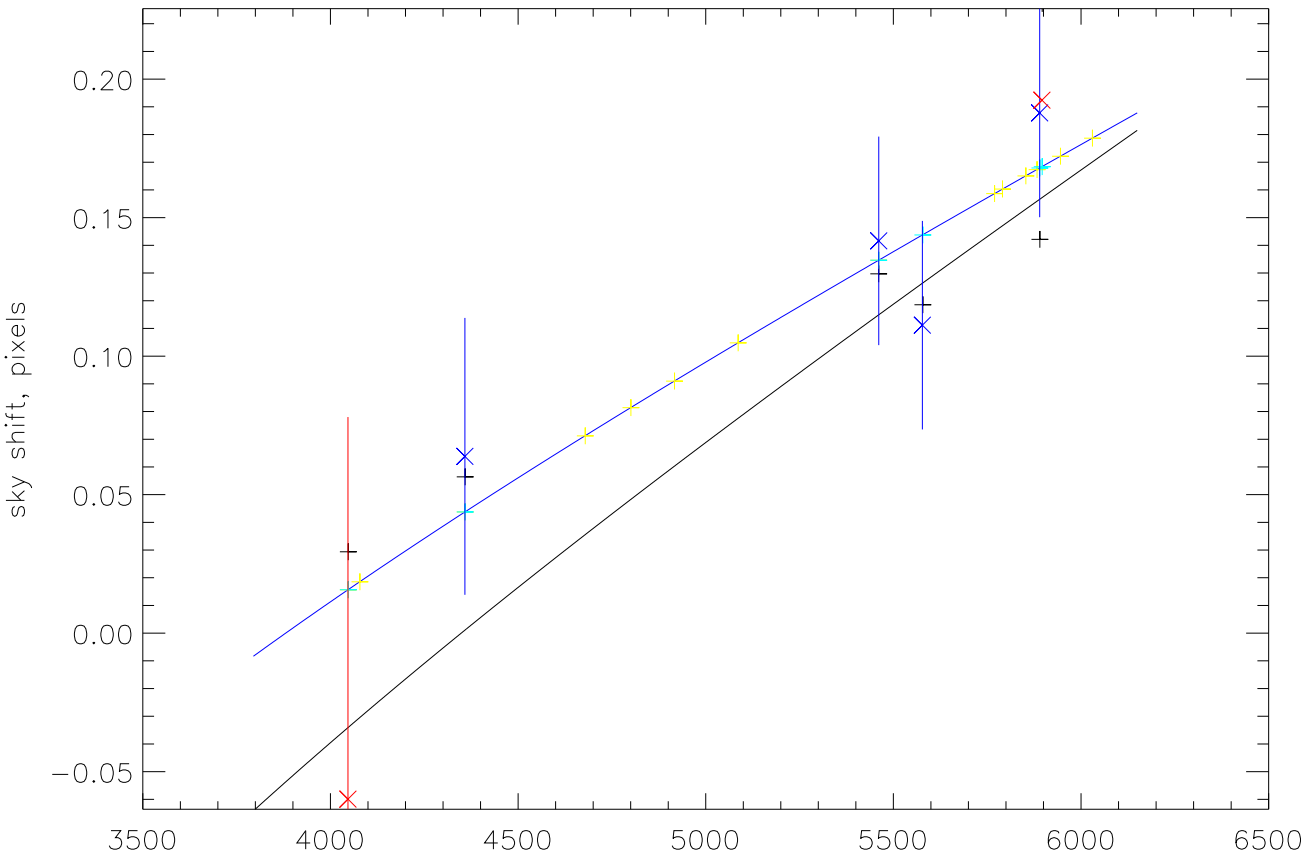

5460.9400
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400


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

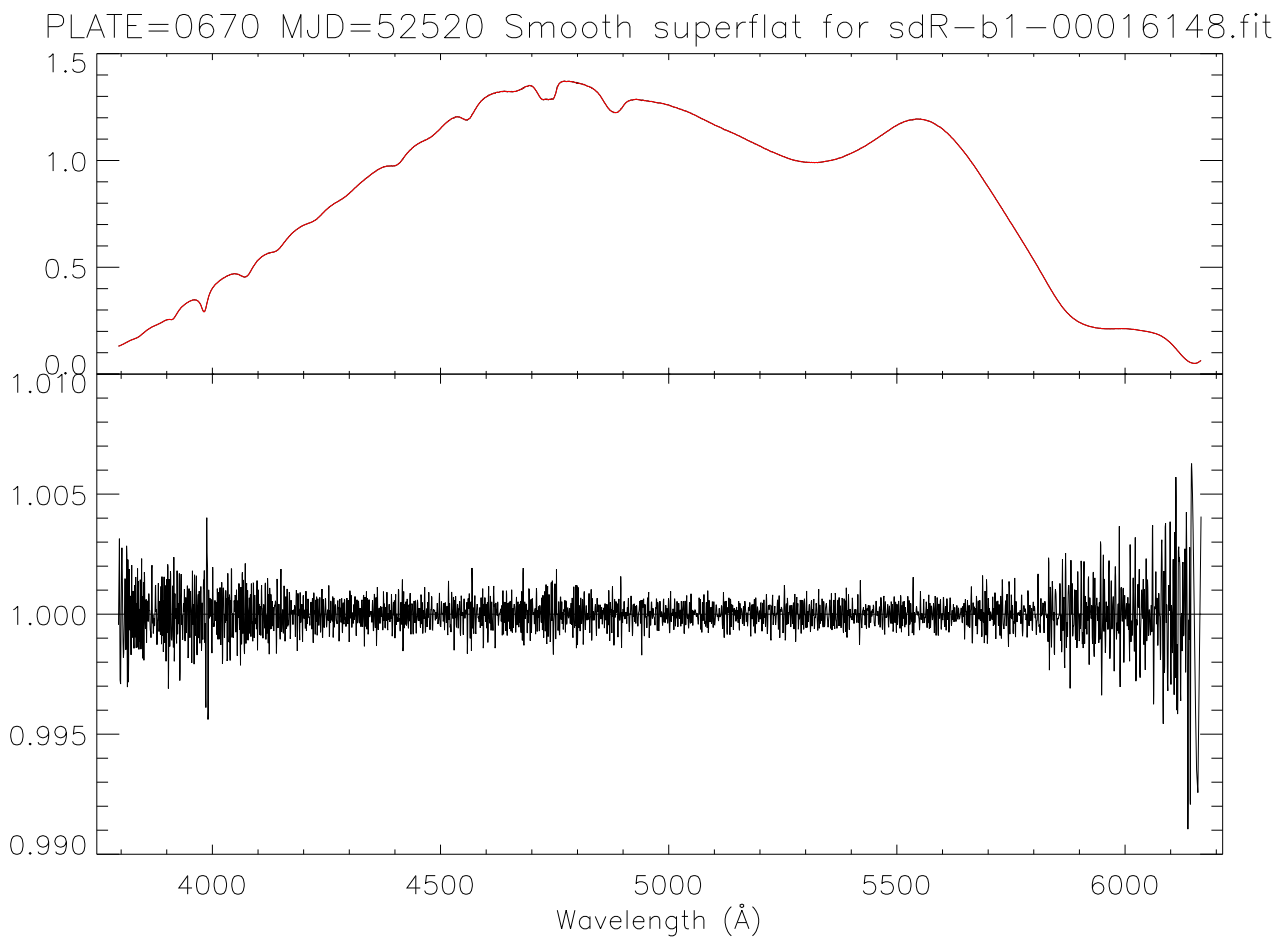

5889.9500
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

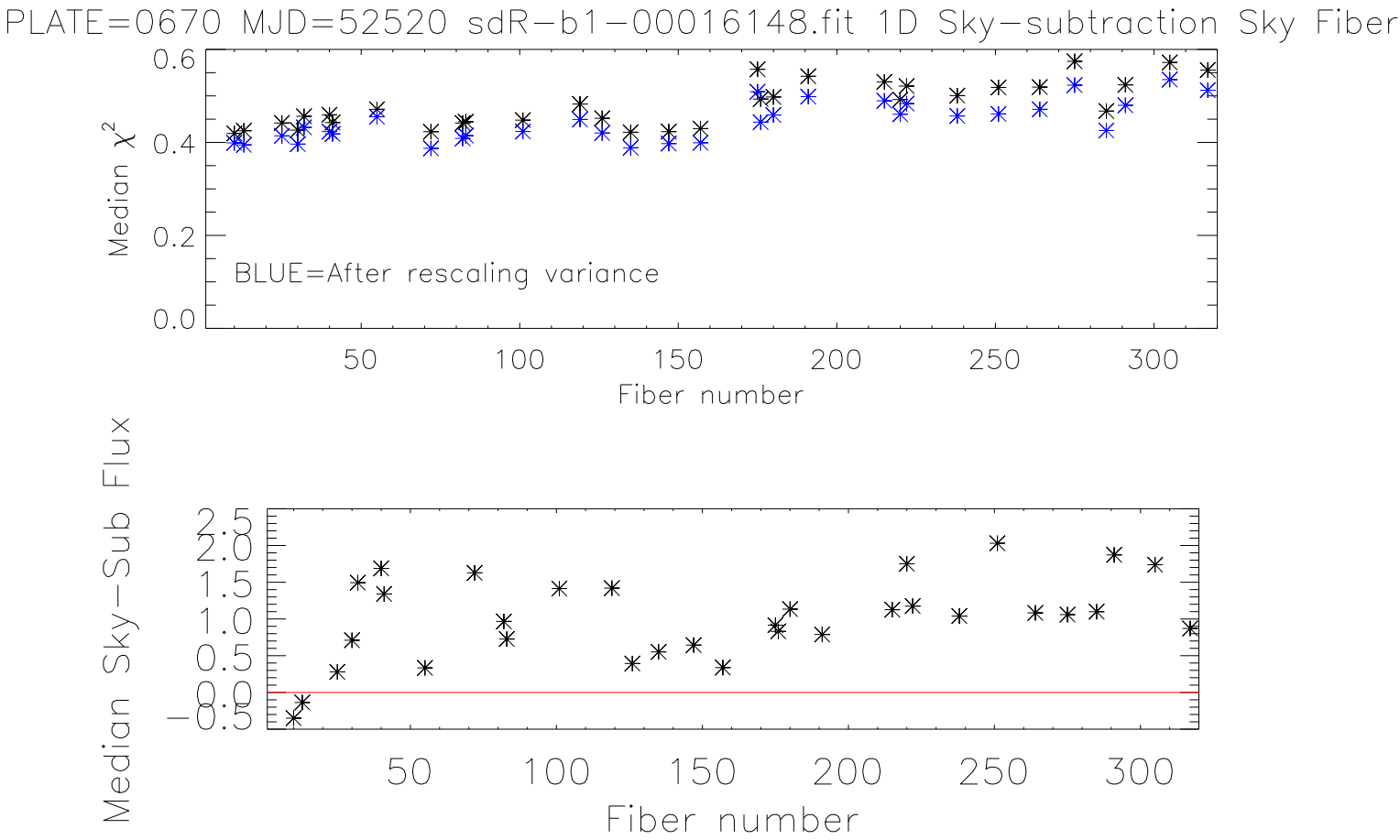

5895.9240
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

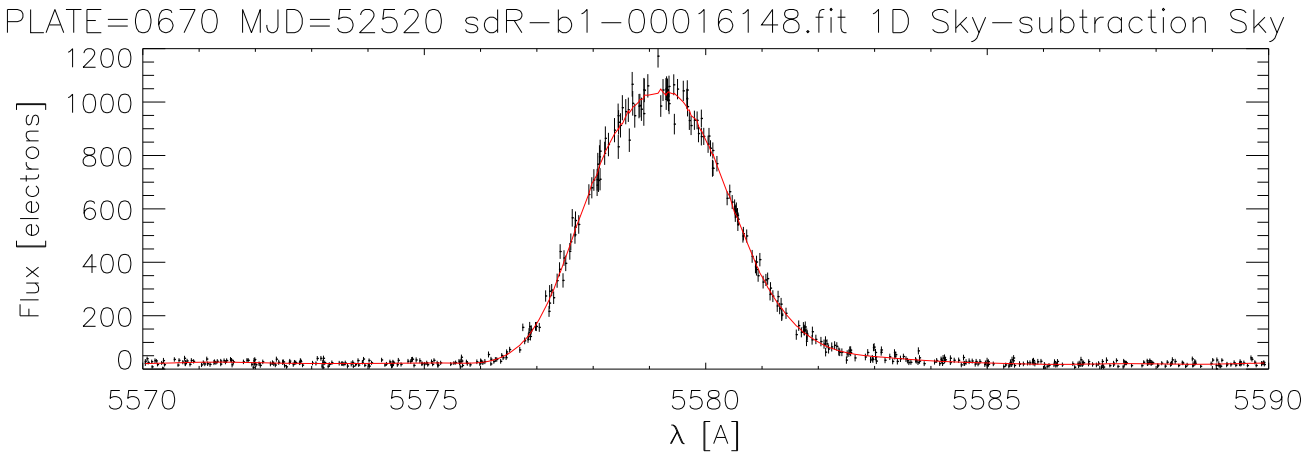

4046.5600
nfib1 32
nfib2 23
stdev 0.355
extra −0.06
4358.3300
nfib1 32
nfib2 31
stdev 0.177
extra 0.06
5460.9400
nfib1 32
nfib2 32
stdev 0.103
extra 0.14
5577.3390
nfib1 32
nfib2 32
stdev 0.024
extra 0.11
5889.9500
nfib1 32
nfib2 32
stdev 0.077
extra 0.19
5895.9240
nfib1 32
nfib2 32
stdev 0.074
extra 0.19
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

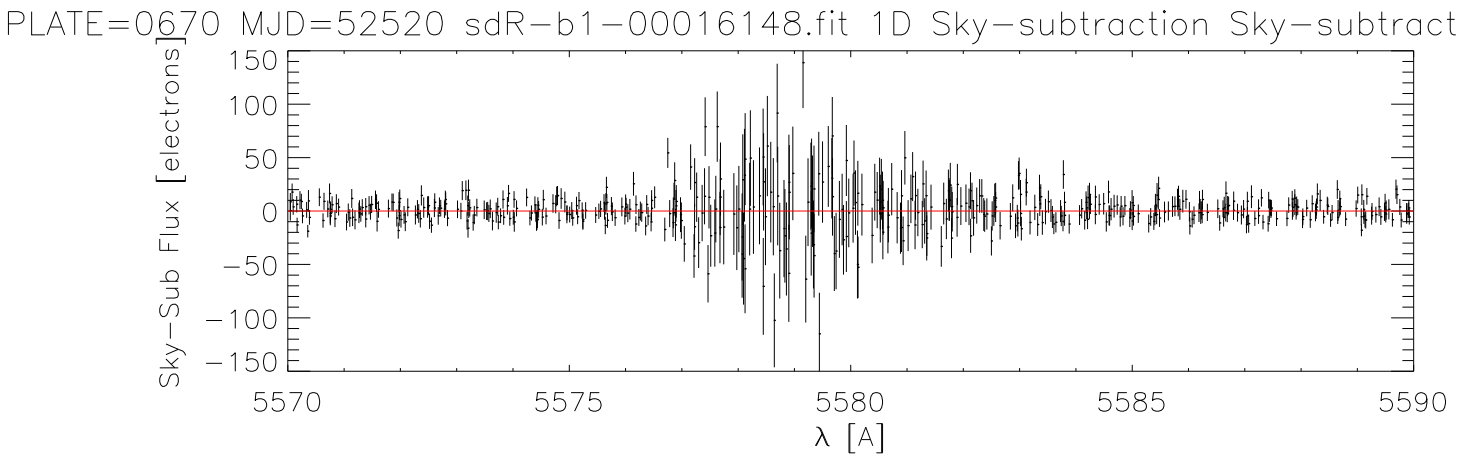

sky shift, pixels
0.20
0.15
0.10
0.05
0.00
−0.05
3500
4000
4500
5000
5500
6000
6500

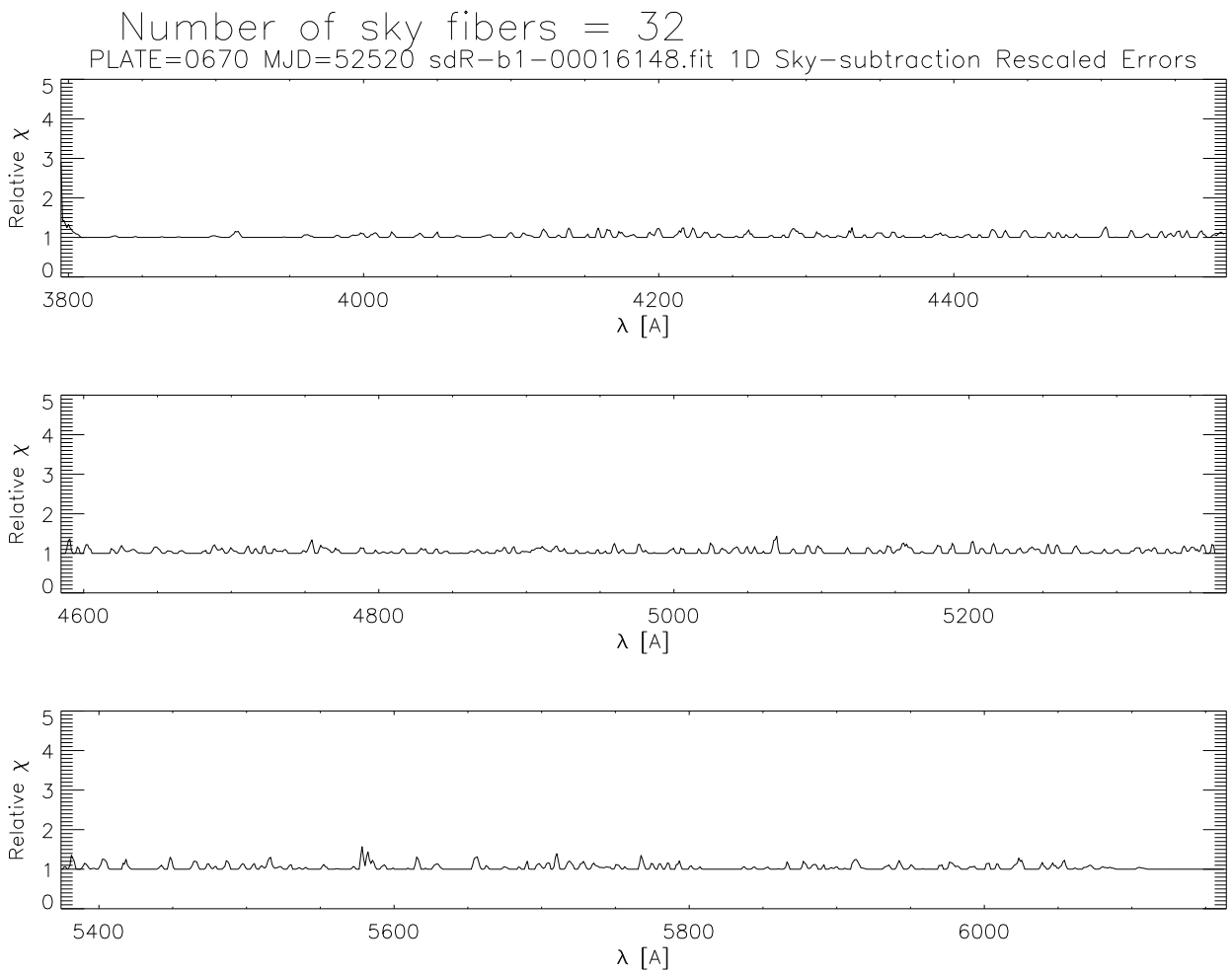
es= 0.0000

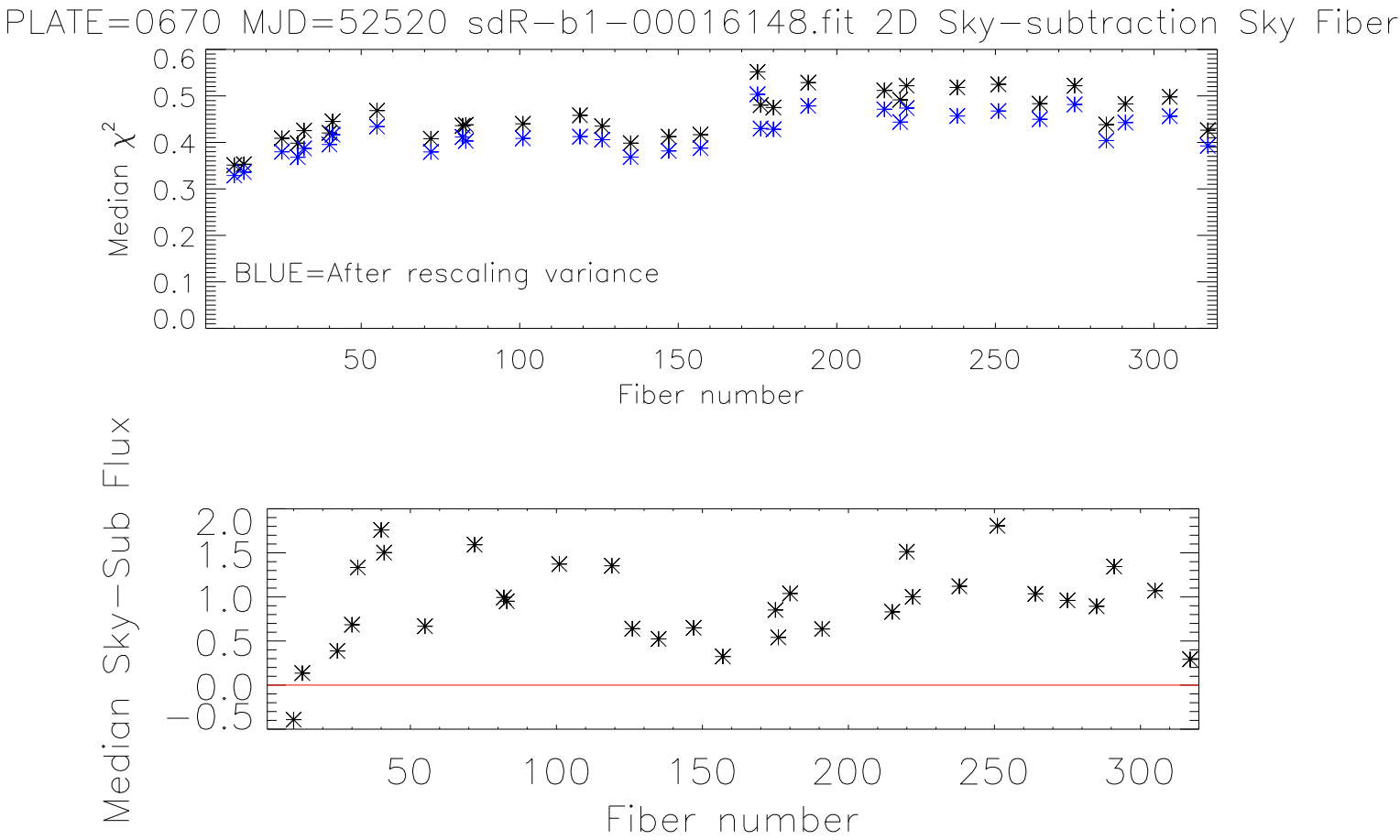

PLATE=0670 MJD=52520 Smooth superflat for sdR-b1-00016148.fit
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
4000
4500
5000
5500
6000
Wavelength (Å)

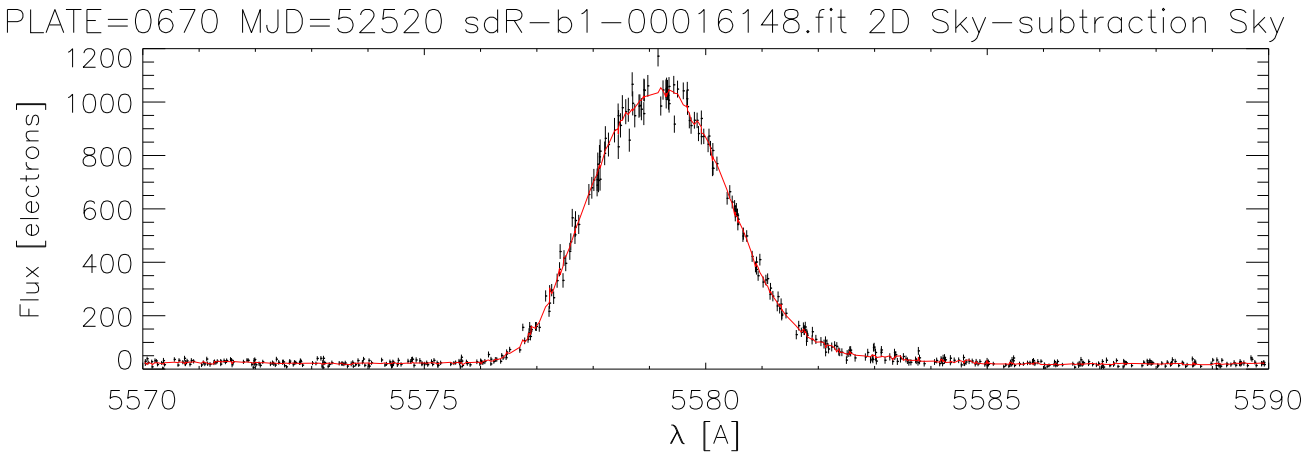

PLATE=0670 MJD=52520 sdR-b1-00016148.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.2
0.4
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-0.5
0.0
0.5
1.0
1.5
2.0
2.5
50
100
150
200
250
300
Fiber number

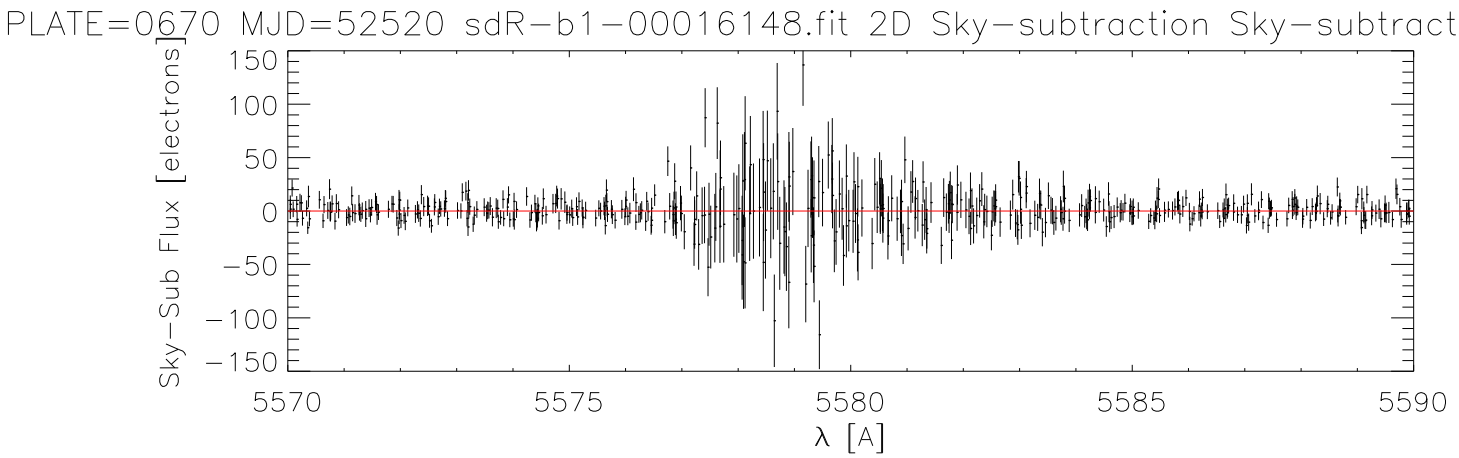

PLATE=0670 MJD=52520 sdR-b1-00016148.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
1200
1000
800
600
400
200
0
5570
5575
5580
5585
5590
λ [A]

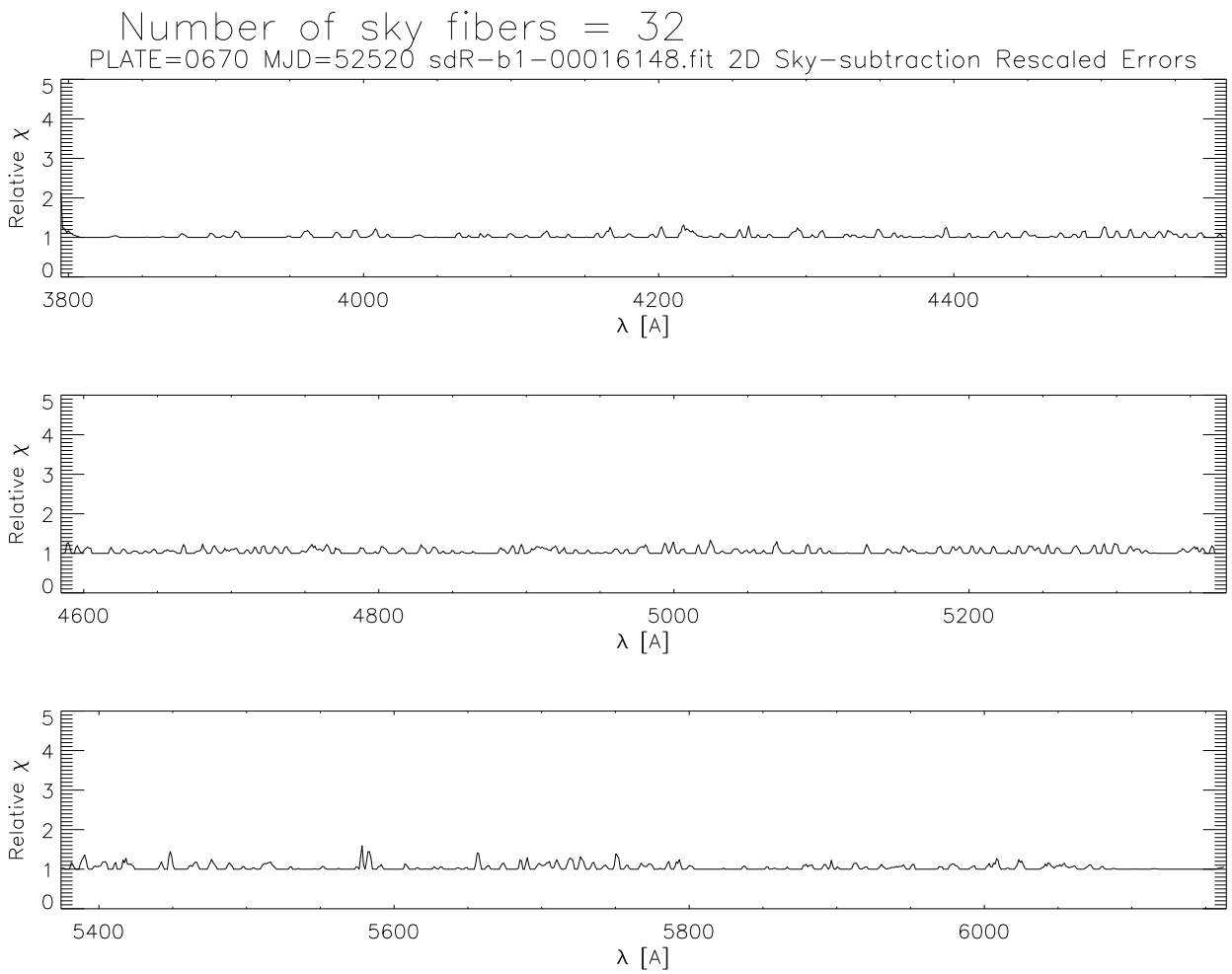

PLATE=0670 MJD=52520 sdR-b1-00016148.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
150
100
50
0
-50
-100
-150
5570
5575
5580
5585
5590
λ [A]

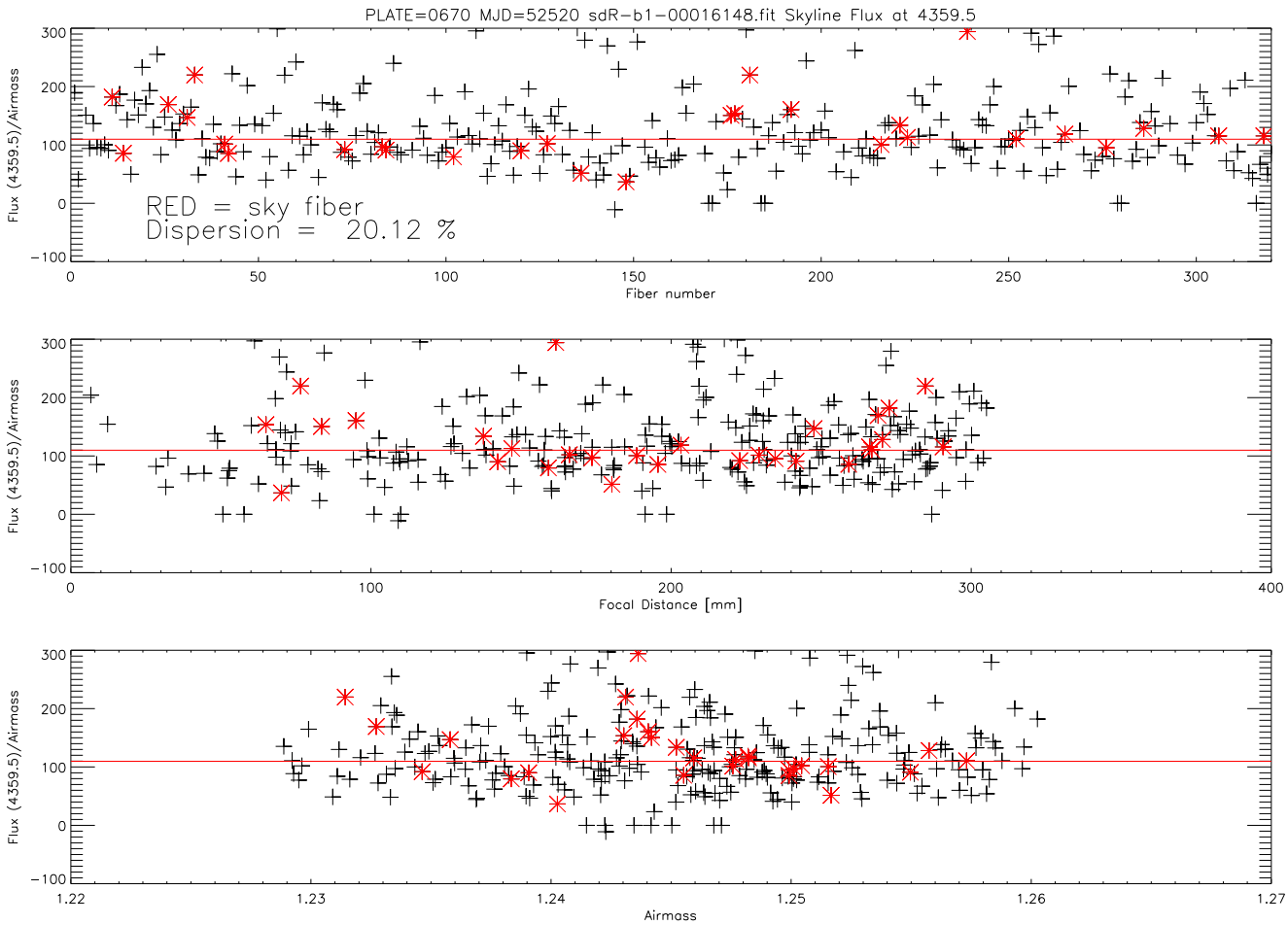

Number of sky fibers = 32
PLATE=0670 MJD=52520 sdR-b1-00016148.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

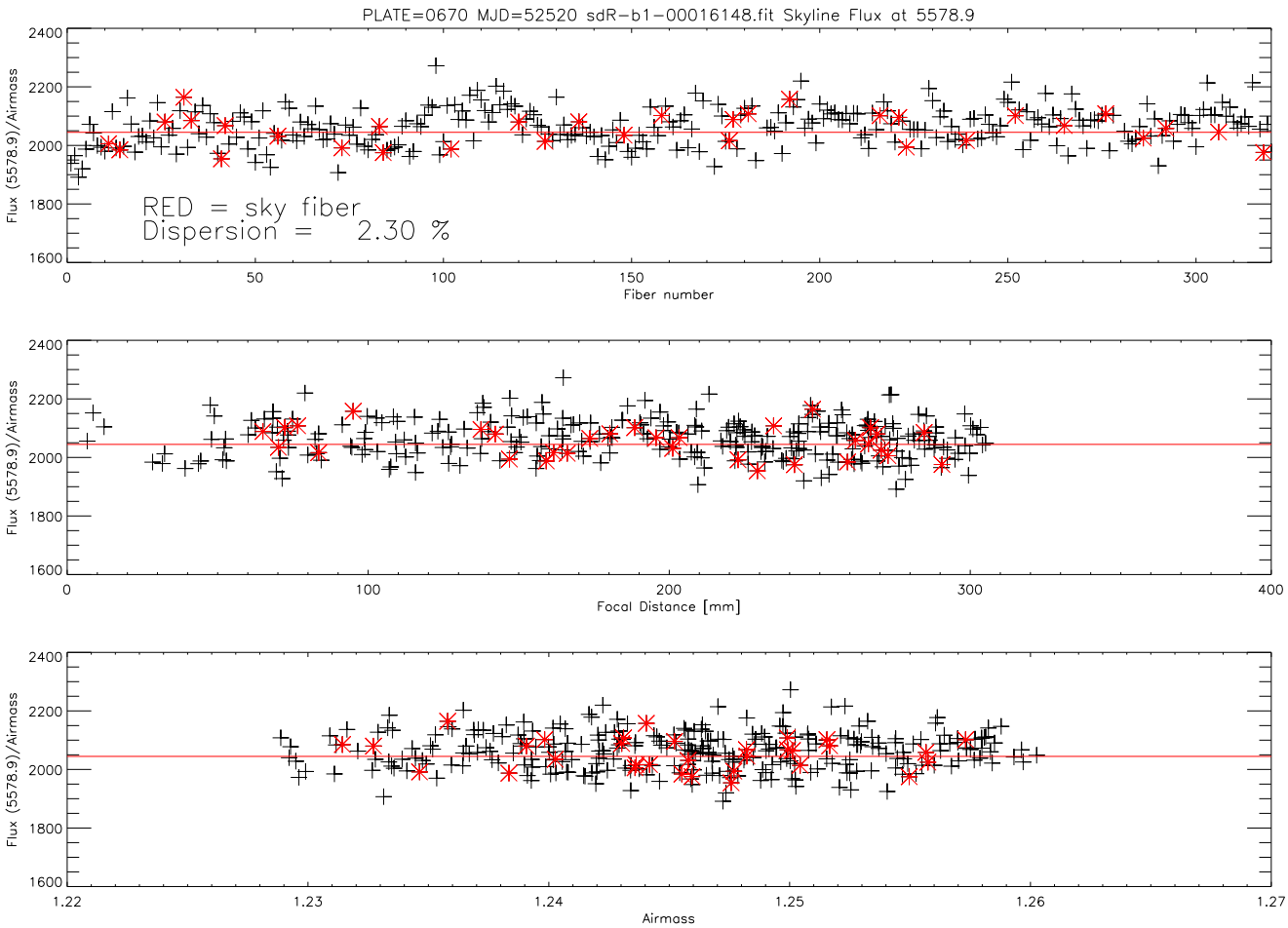

PLATE=0670 MJD=52520 sdR-b1-00016148.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

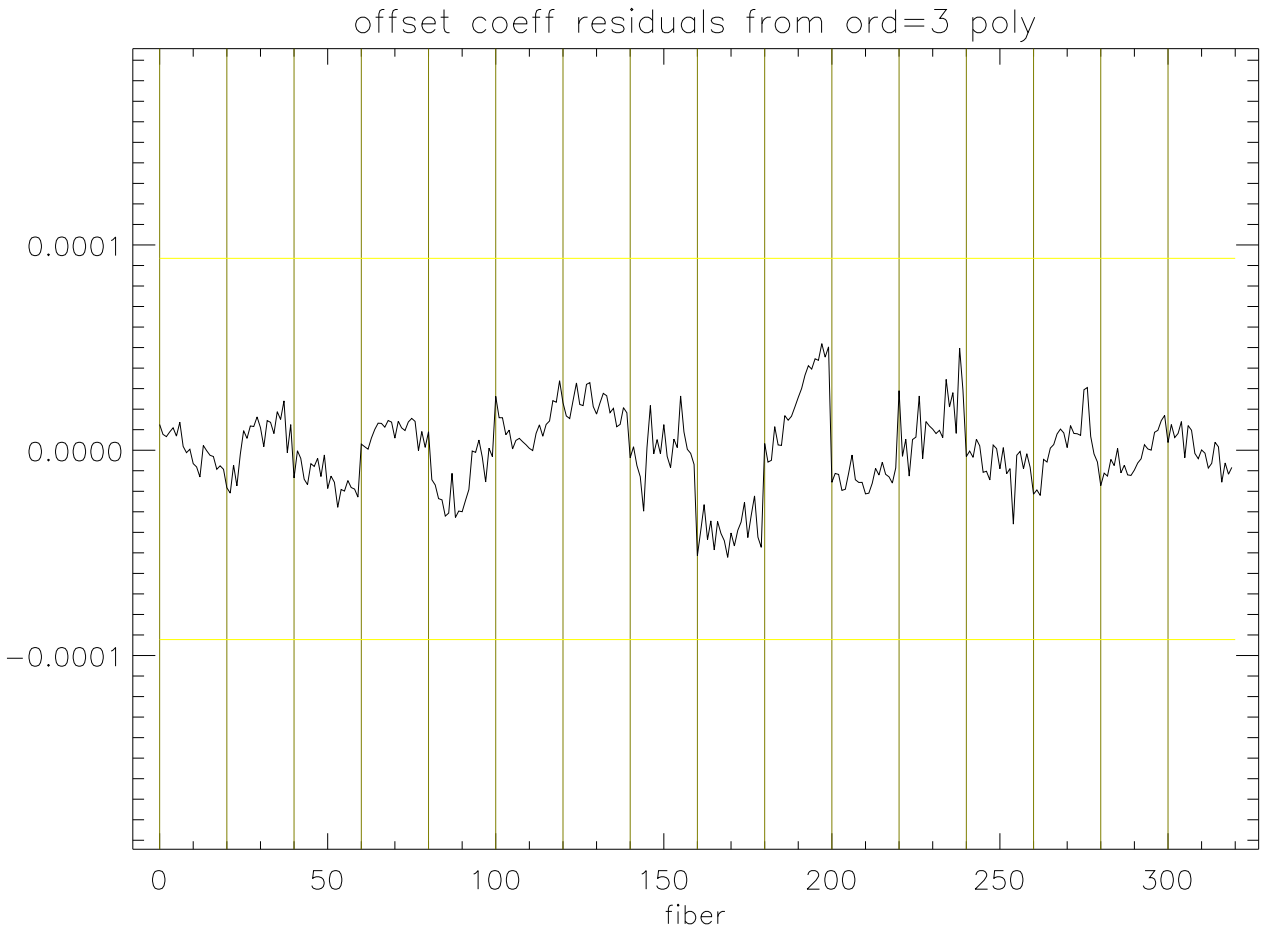

PLATE=0670 MJD=52520 sdR-b1-00016148.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
1200
1000
800
600
400
200
0
5570
5575
5580
5585
5590
λ [A]

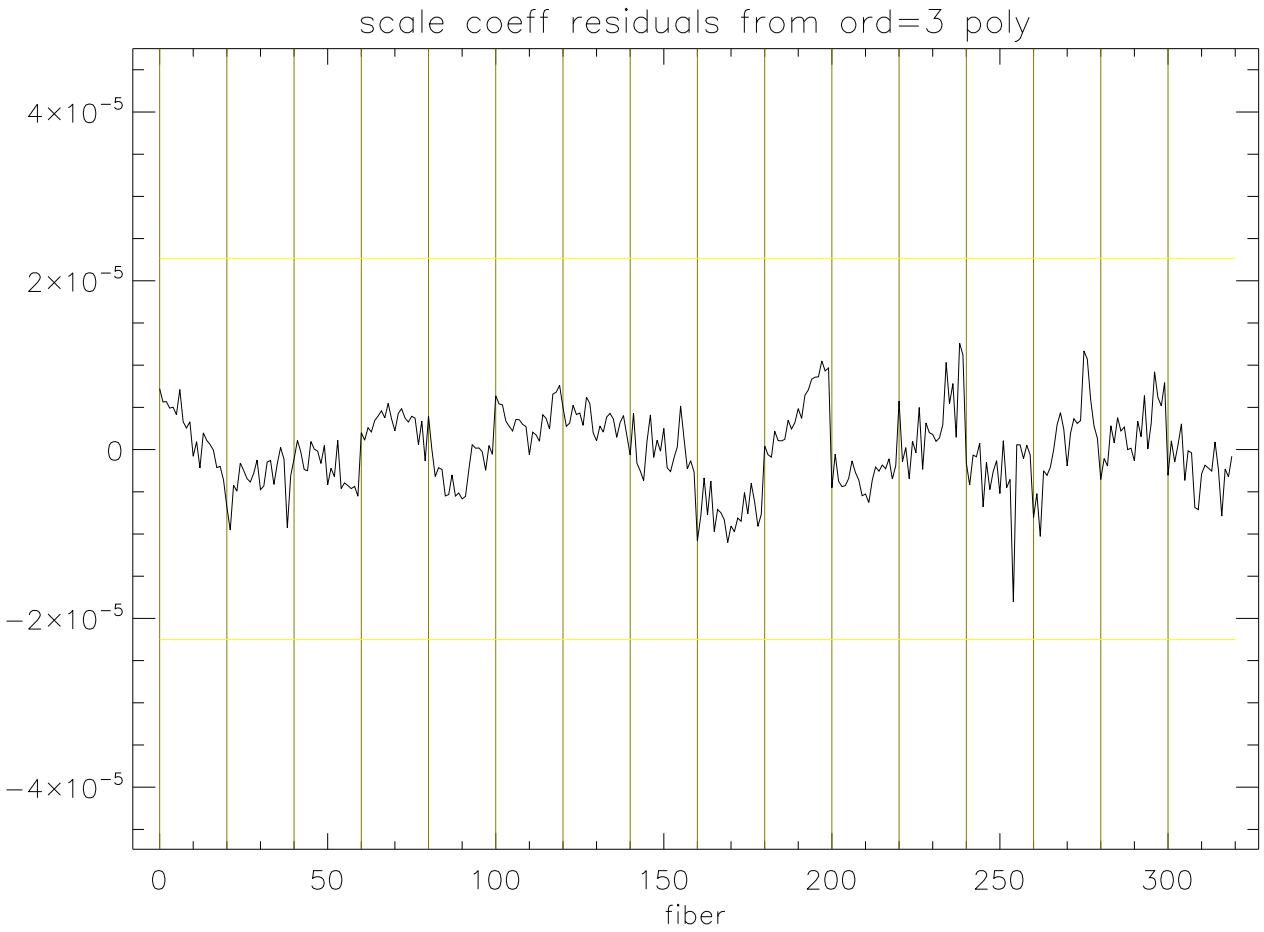

PLATE=0670 MJD=52520 sdR-b1-00016148.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
150
100
50
0
-50
-100
-150
5570
5575
5580
5585
5590
λ [A]

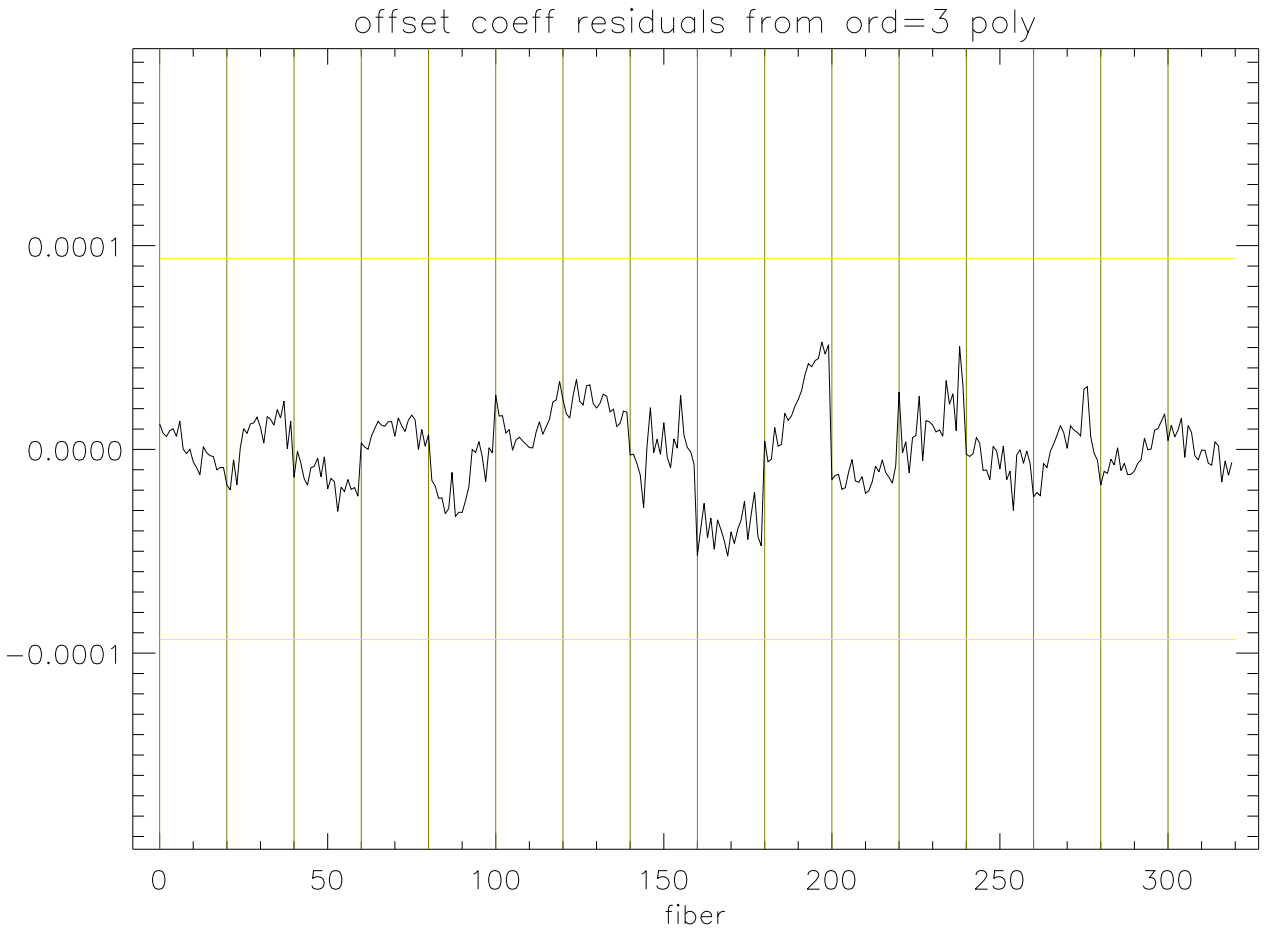

Number of sky fibers = 32
PLATE=0670 MJD=52520 sdR-b1-00016148.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

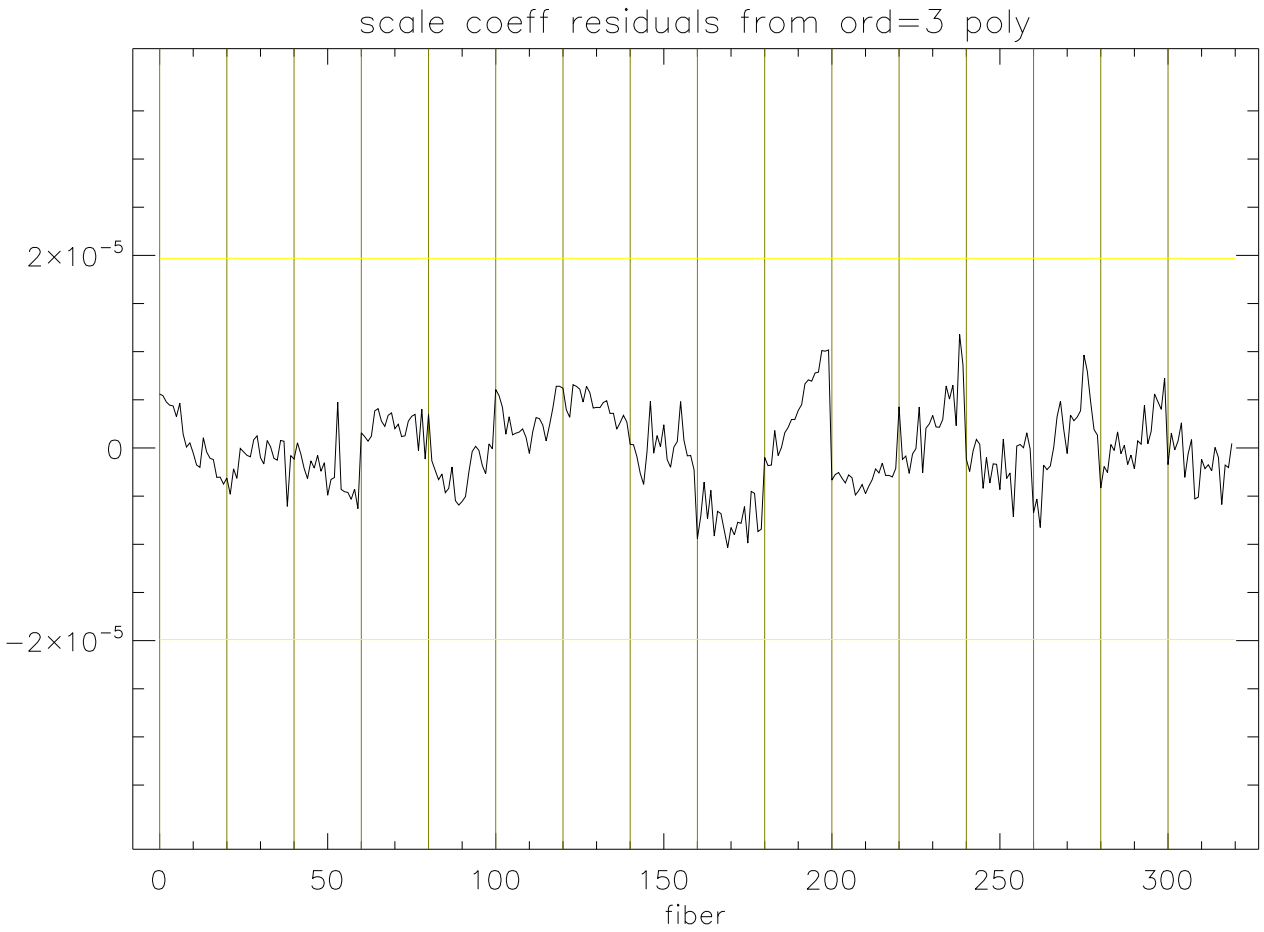

PLATE=0670 MJD=52520 sdR-b1-00016148.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 20.12 %
Fiber number
Focal Distance [mm]
Airmass

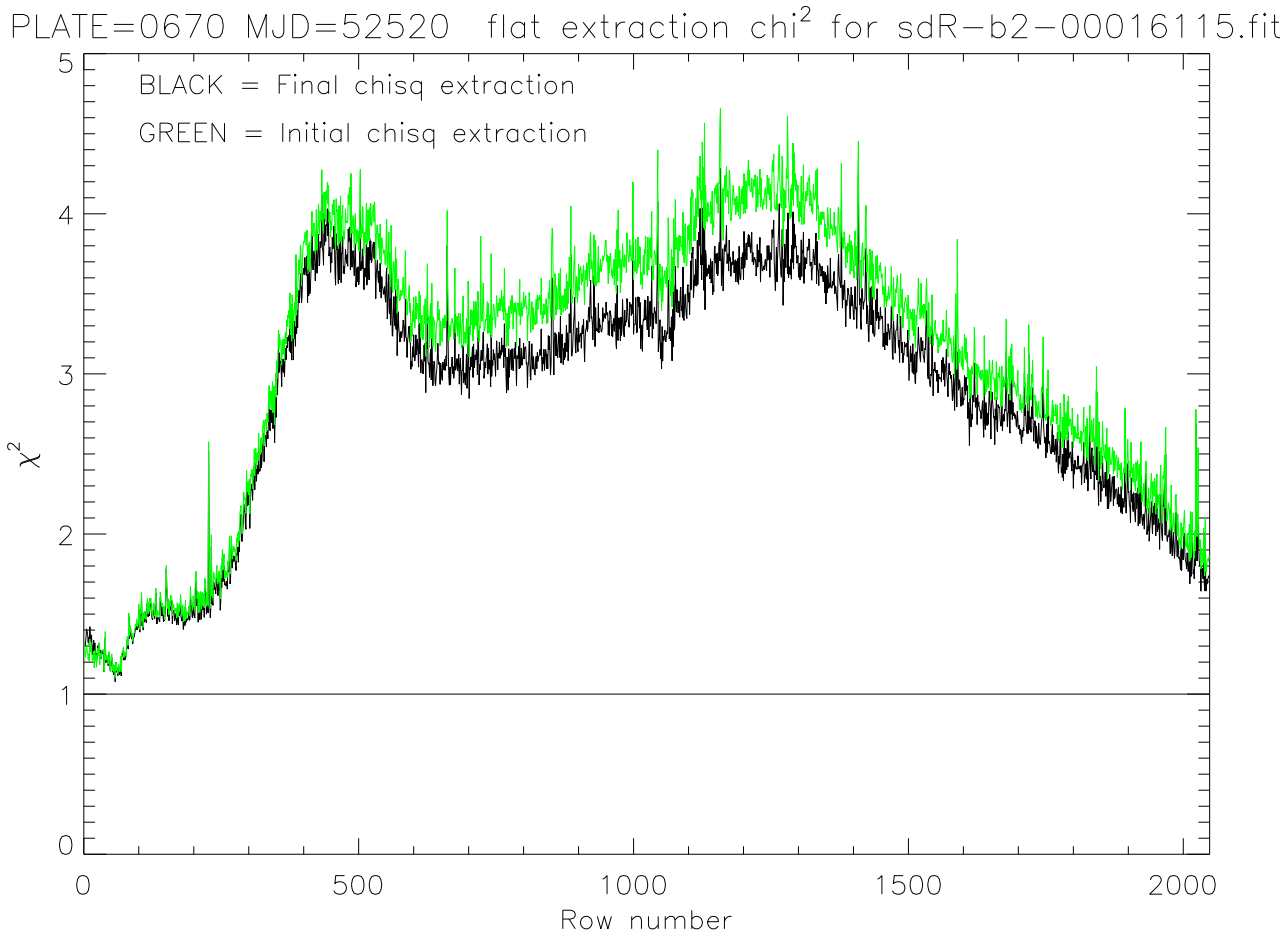

PLATE=0670 MJD=52520 sdR-b1-00016148.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 2.30 %
Fiber number
Focal Distance [mm]
Airmass

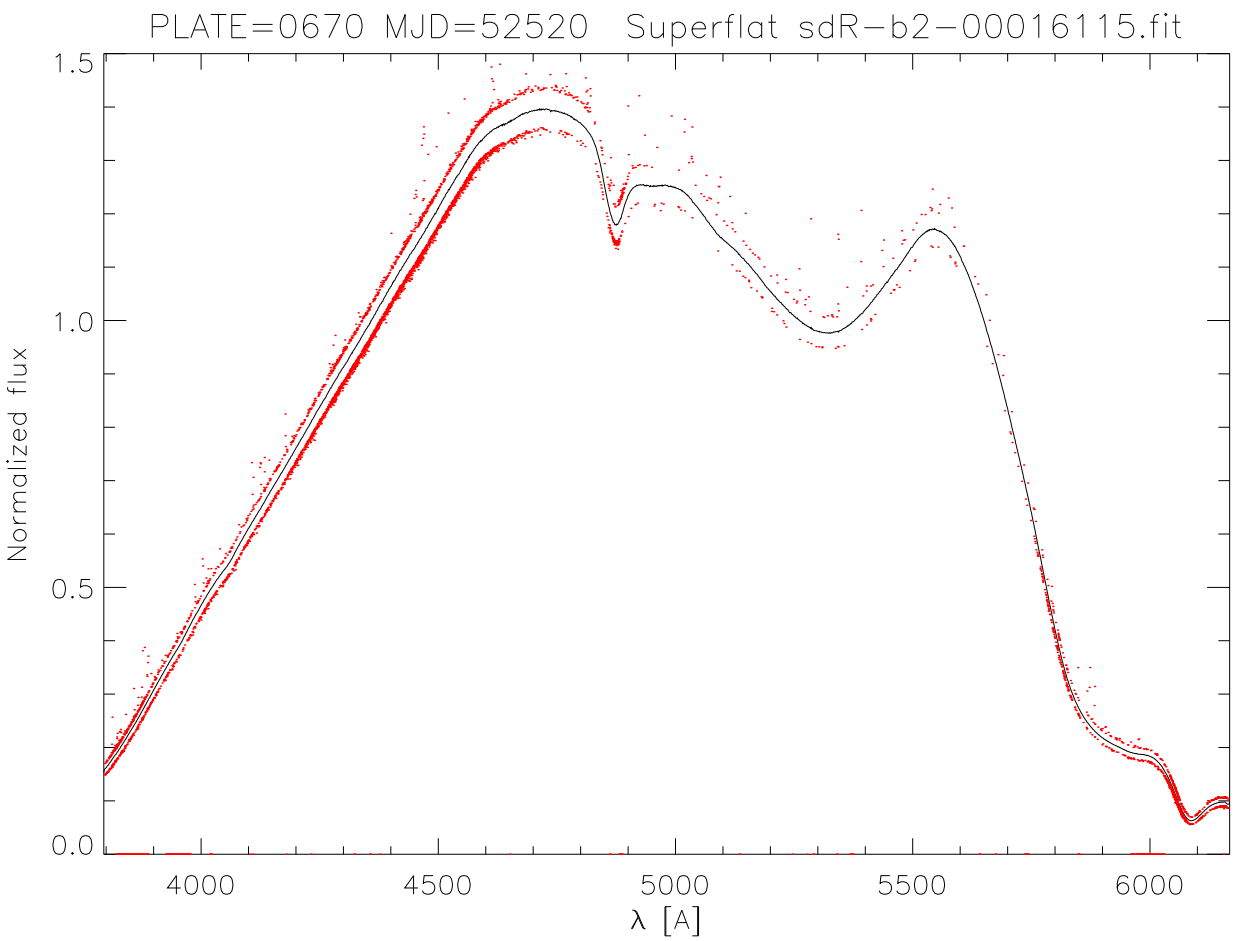

offset coeff residuals from ord=3 poly
0.0001
0.0000
−0.0001
0
50
100
150
200
250
300
fiber

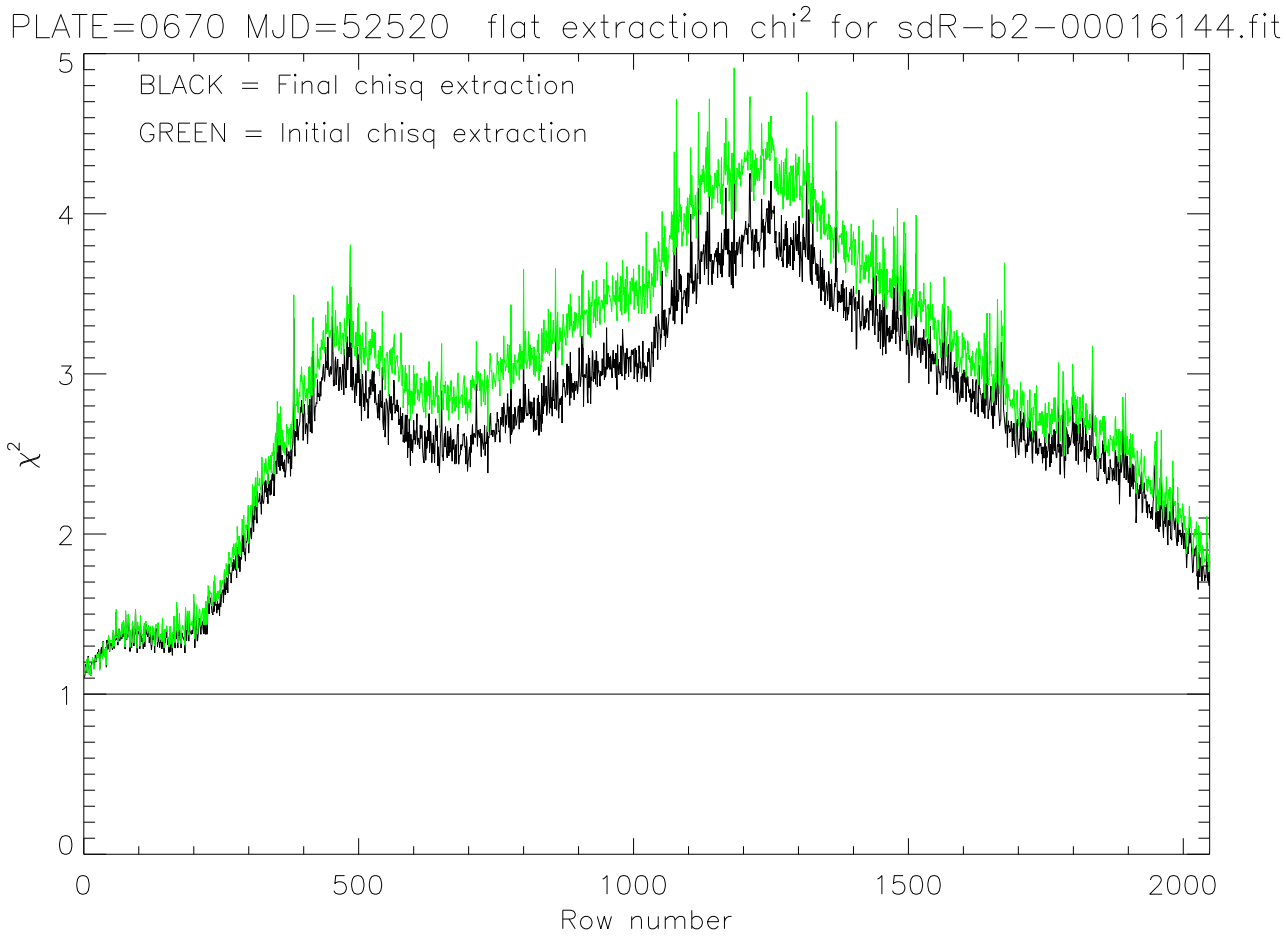

scale coeff residuals from ord=3 poly
4×10⁻⁵
2×10⁻⁵
0
−2×10⁻⁵
−4×10⁻⁵
0
50
100
150
200
250
300
fiber

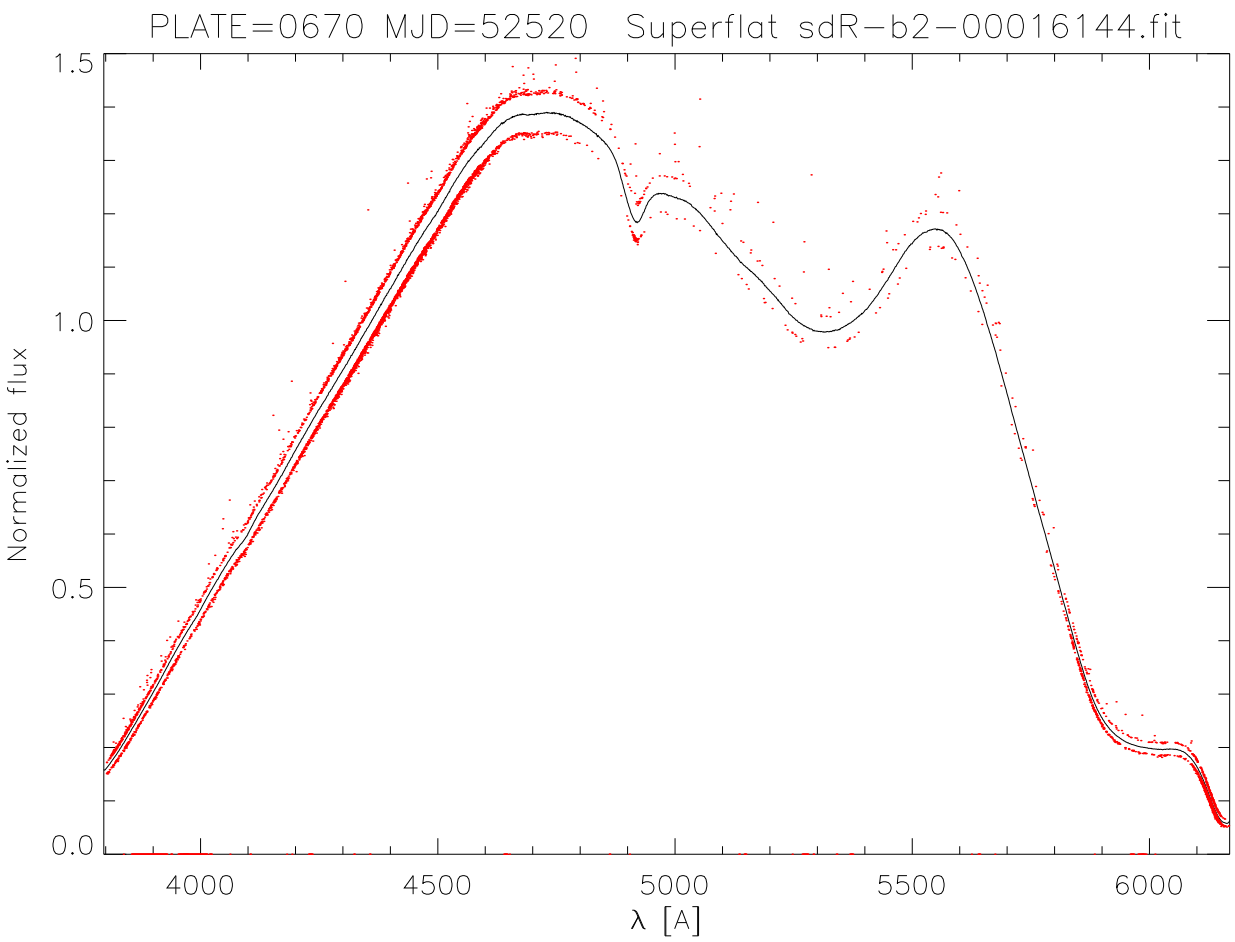

offset coeff residuals from ord=3 poly
0.0001
0.0000
−0.0001
0
50
100
150
200
250
300
fiber

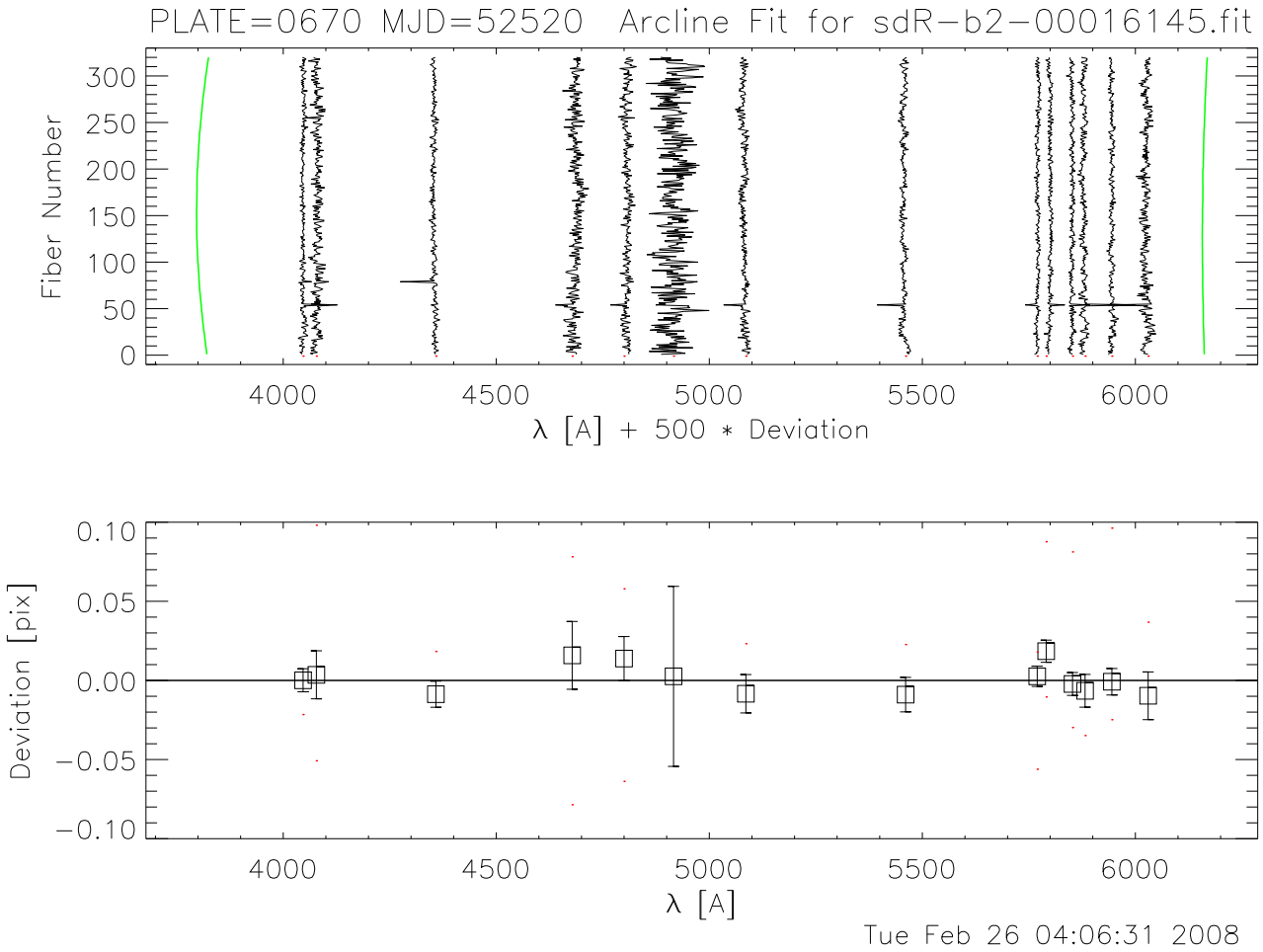

scale coeff residuals from ord=3 poly
2×10⁻⁵
0
−2×10⁻⁵
0
50
100
150
200
250
300
fiber

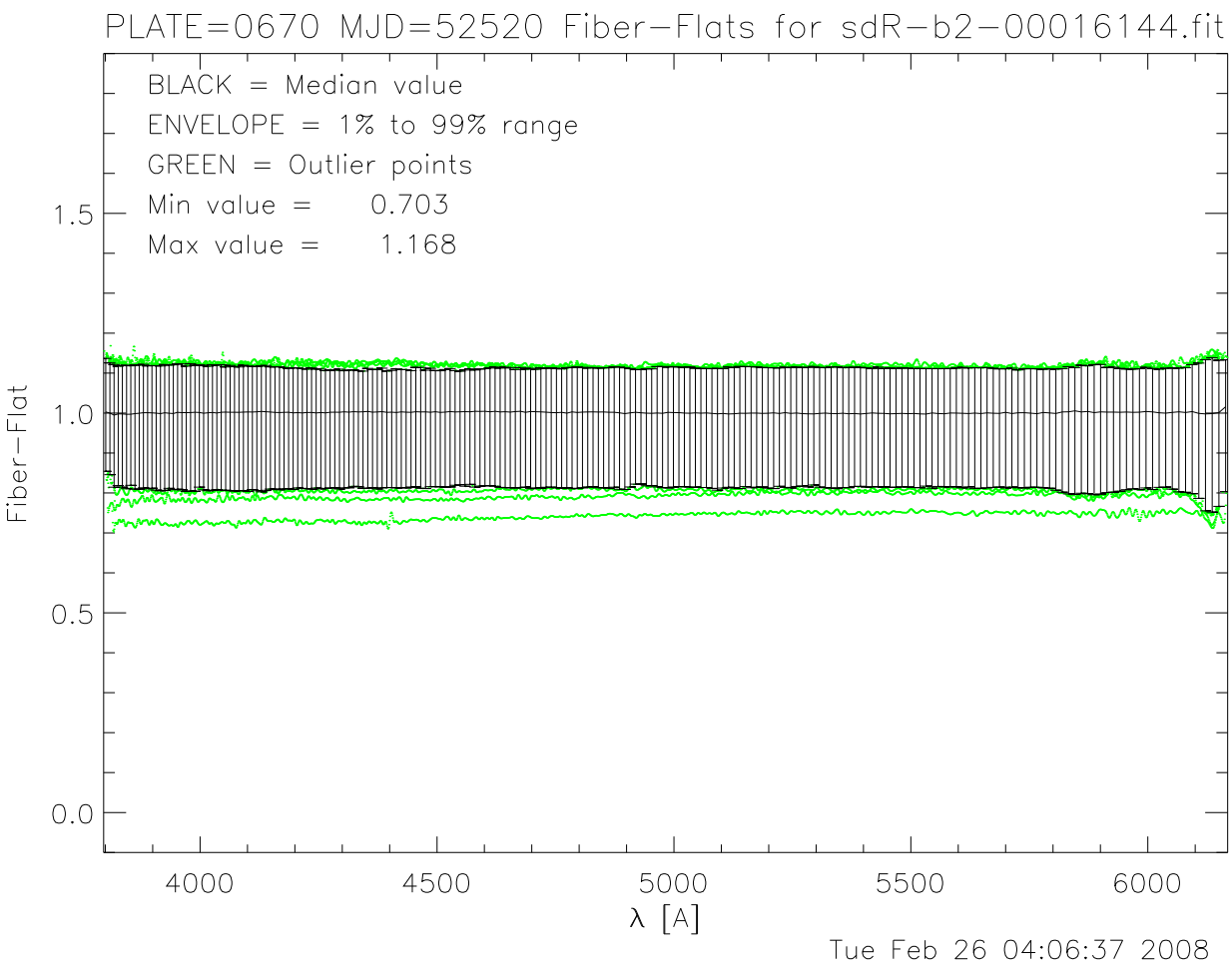

PLATE=0670 MJD=52520 flat extraction chi^2 for sdR−b2−00016115.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
5
0
500
1000
1500
2000
Row number

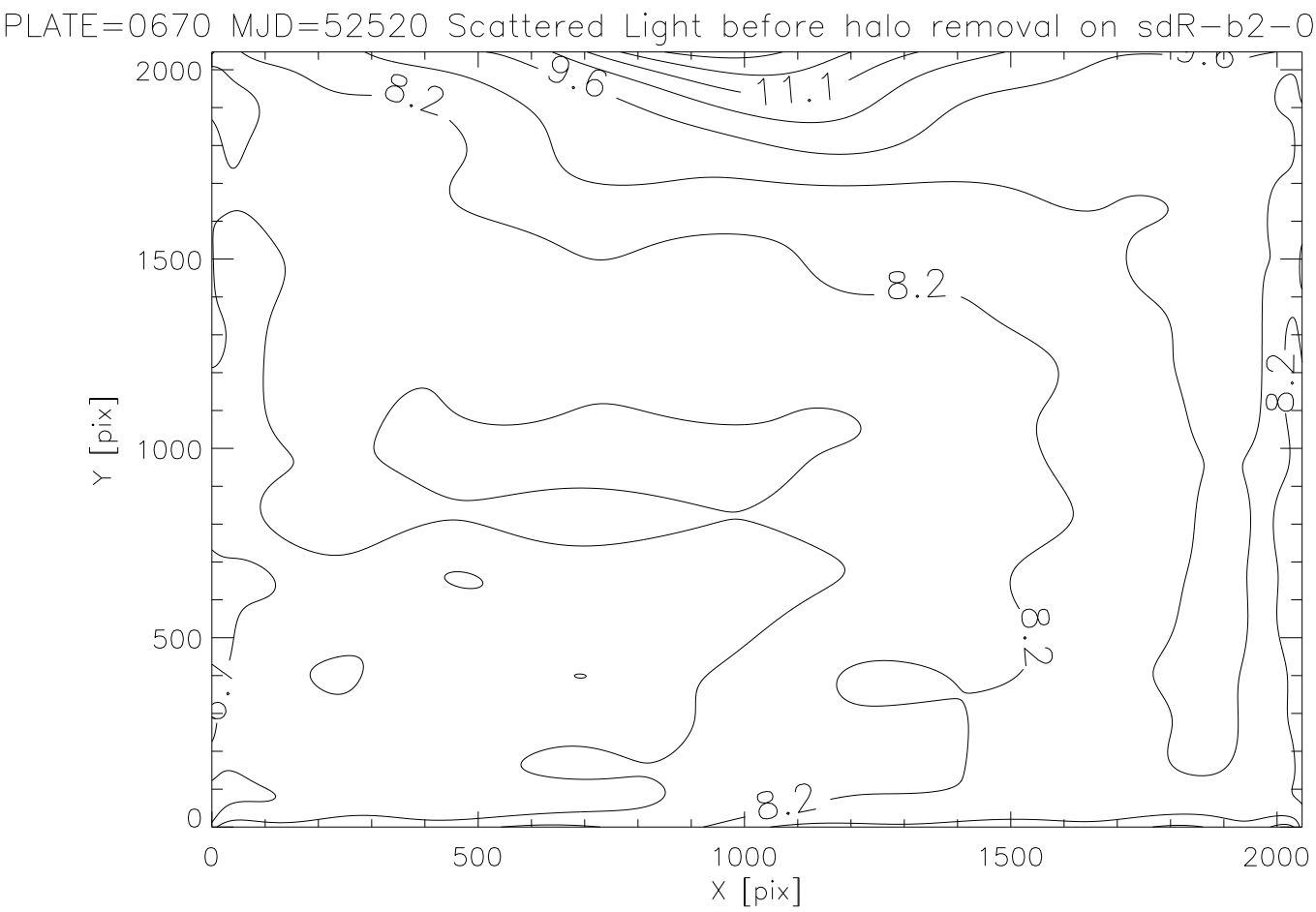

PLATE=0670 MJD=52520 Superflat sdR-b2-00016115.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

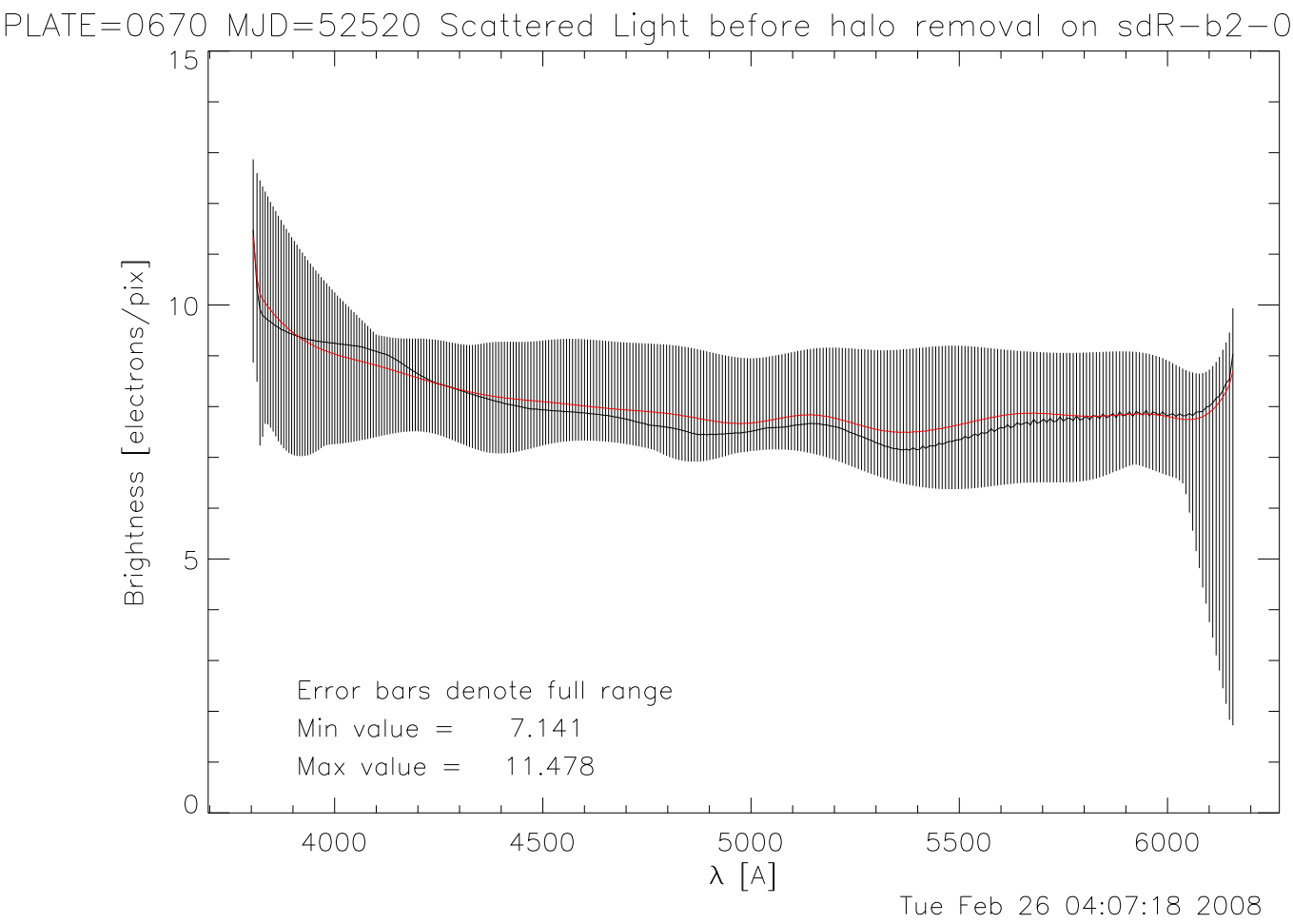

PLATE=0670 MJD=52520 flat extraction chi^2 for sdR−b2−00016144.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
5
0
500
1000
1500
2000
Row number

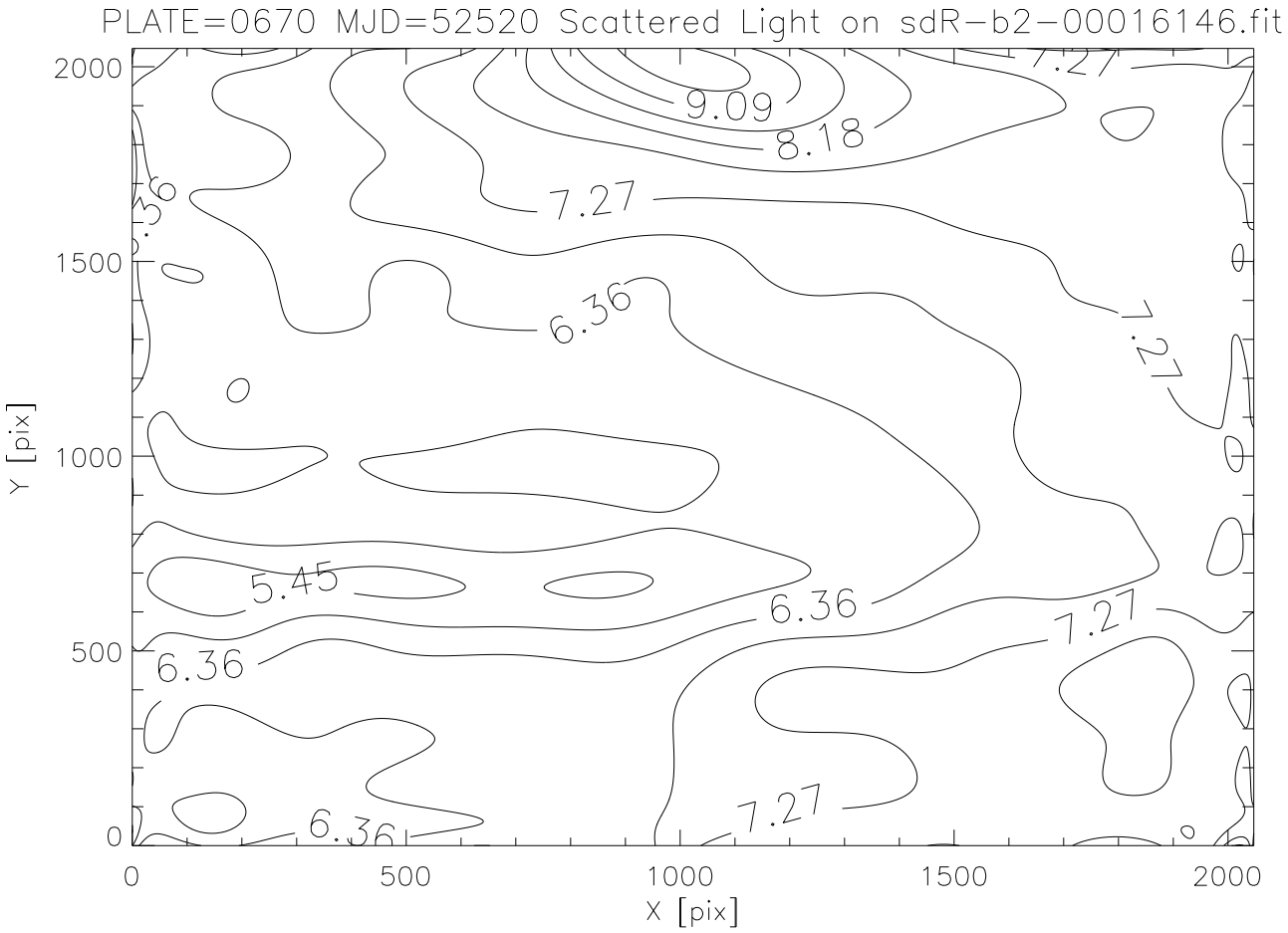

PLATE=0670 MJD=52520 Superflat sdR-b2-00016144.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

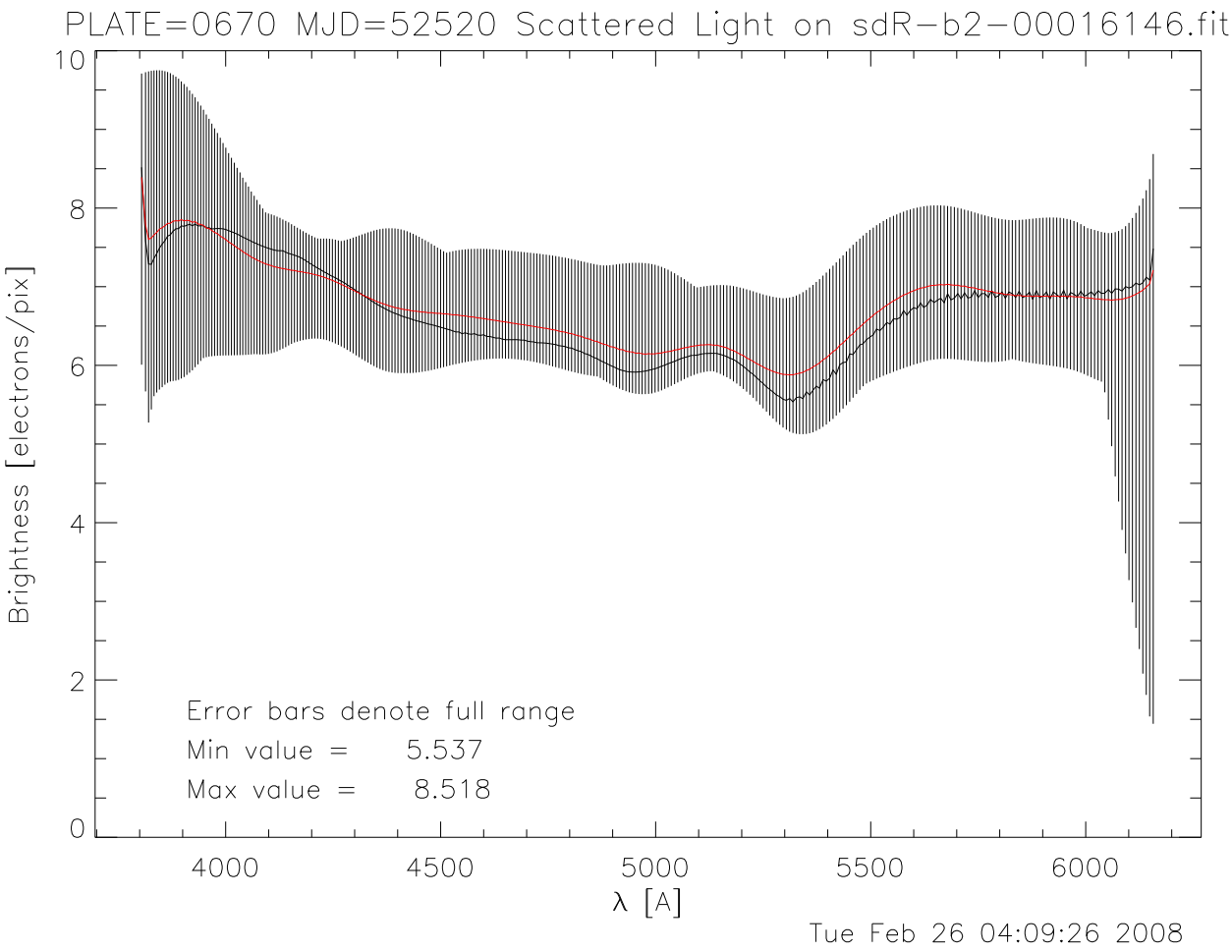

PLATE=0670 MJD=52520 Arcline Fit for sdR-b2-00016145.fit
Fiber Number
300
250
200
150
100
50
0
4000
4500
5000
5500
6000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
4000
4500
5000
5500
6000
λ [A]
Tue Feb 26 04:06:31 2008

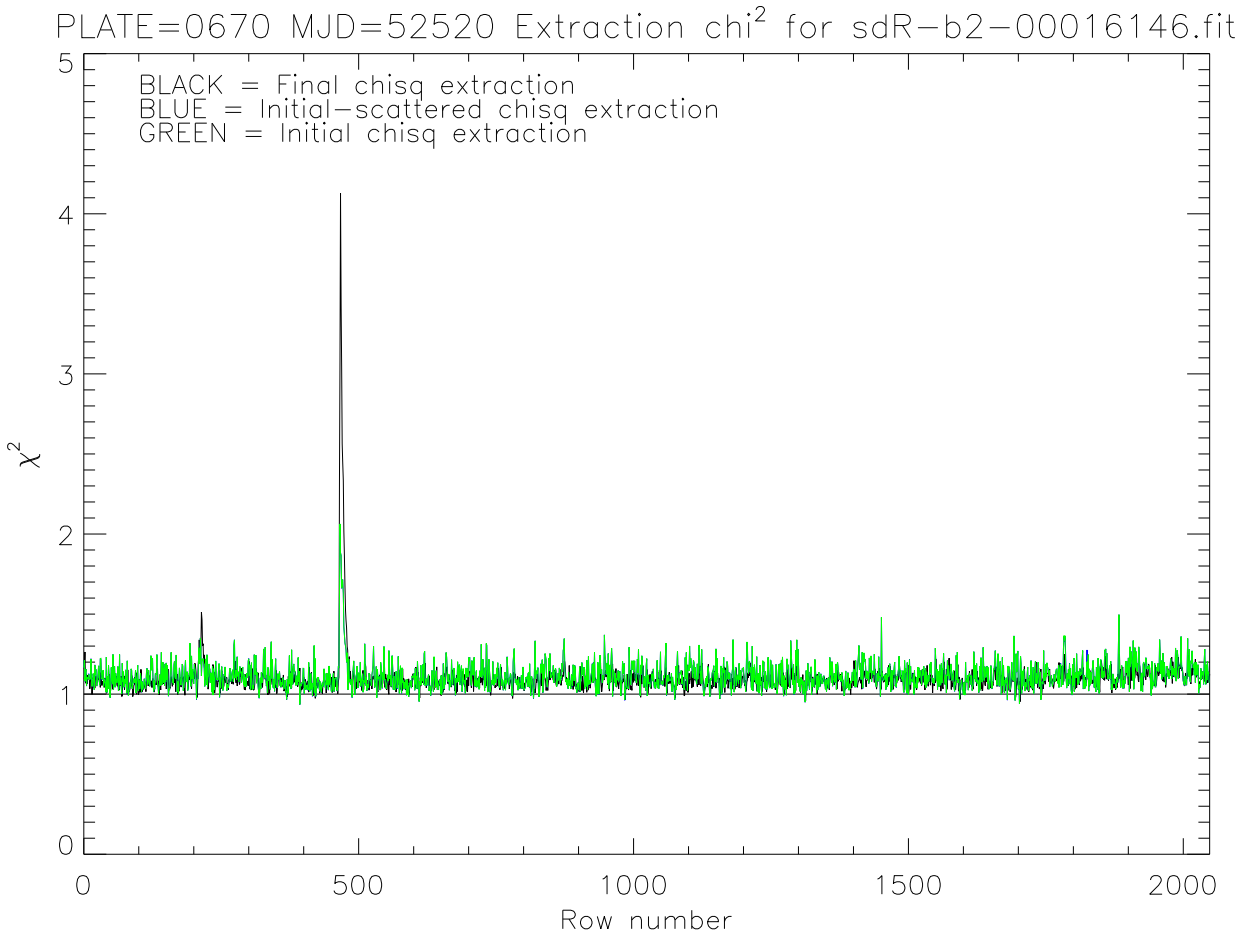

PLATE=0670 MJD=52520 Fiber-Flats for sdR-b2-00016144.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.703
Max value = 1.168
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Tue Feb 26 04:06:37 2008

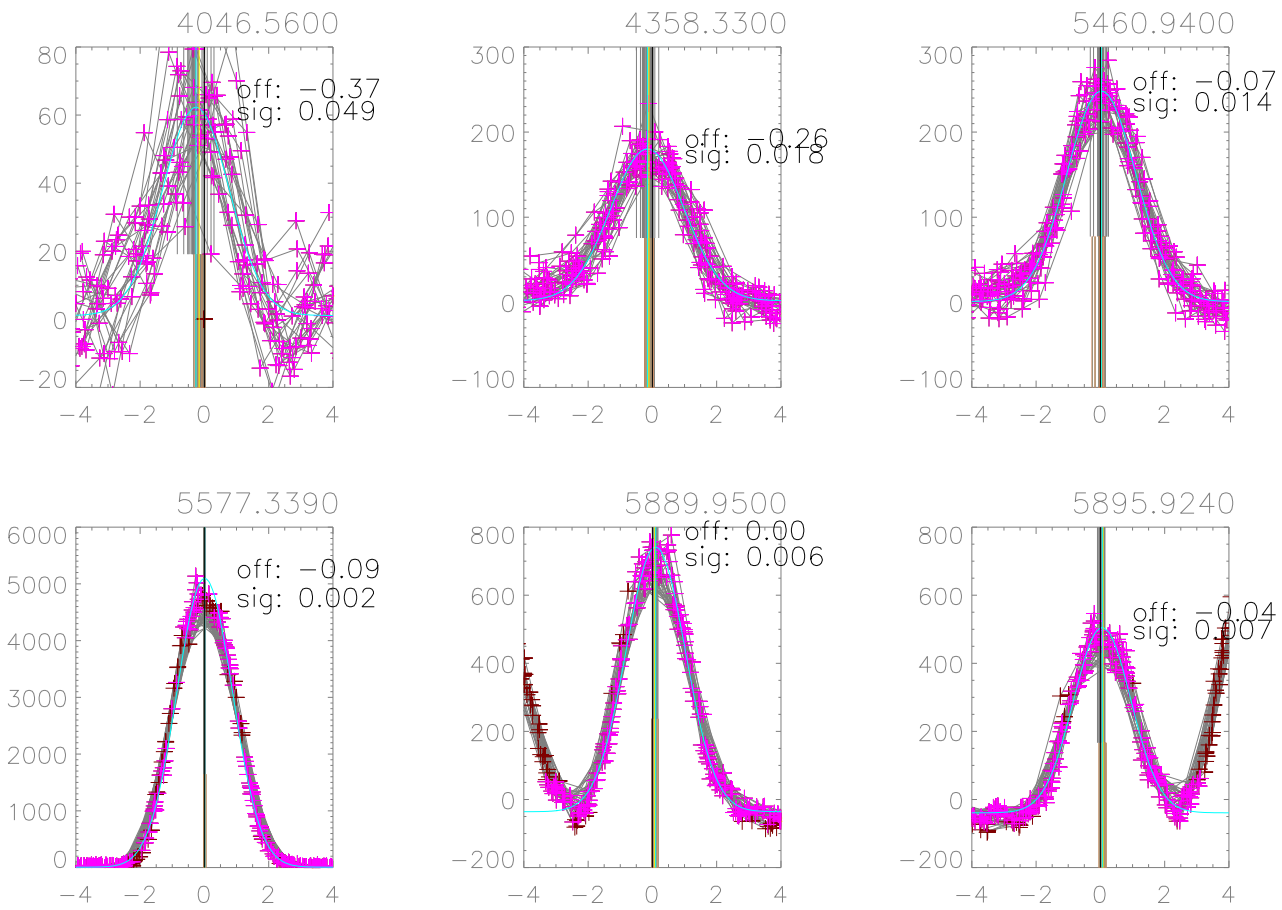

PLATE=0670 MJD=52520 Scattered Light before halo removal on sdR-b2-00016146.f
8.2
9.6
11.1
8.2
8.2
8.2
8.2
9.6
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]

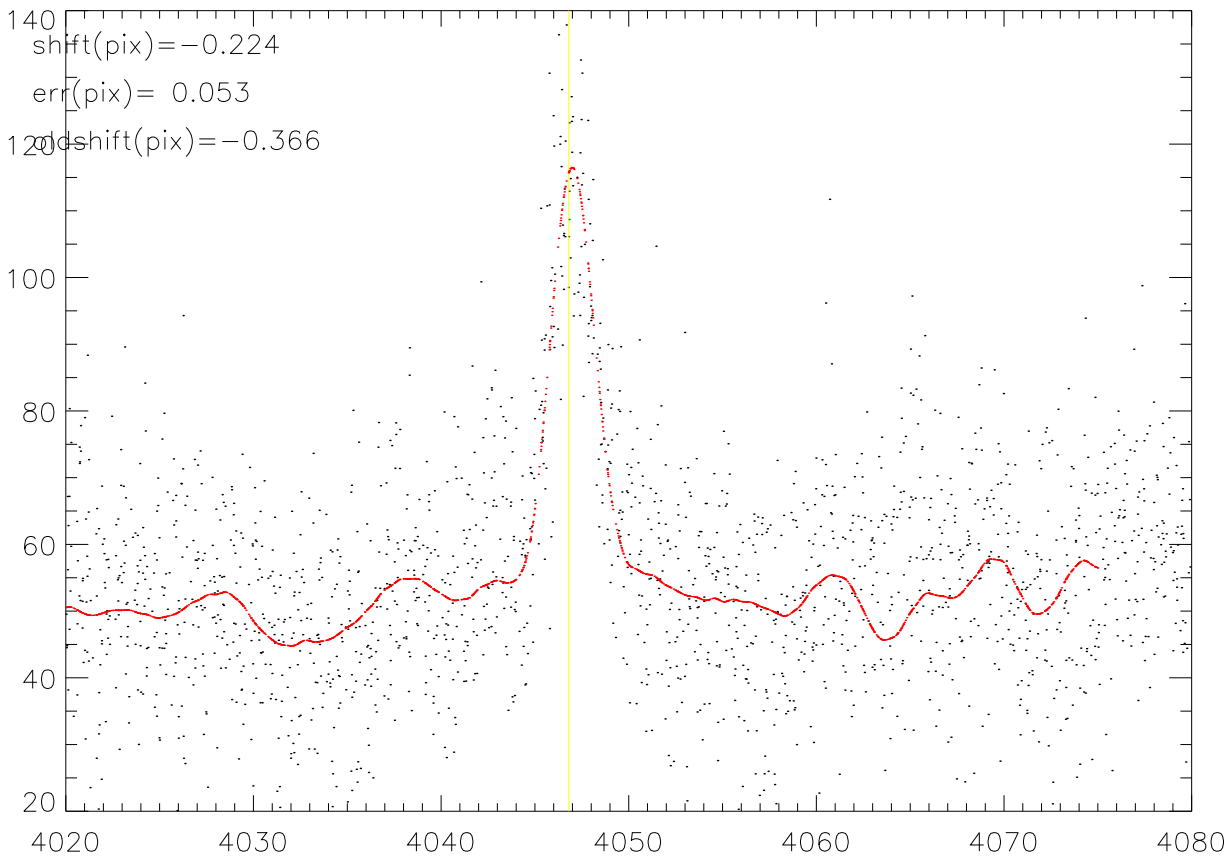

PLATE=0670 MJD=52520 Scattered Light before halo removal on sdR-b2-00016146.f
Brightness [electrons/pix]
15
10
5
0
Error bars denote full range
Min value = 7.141
Max value = 11.478
4000
4500
5000
5500
6000
λ [A]
Tue Feb 26 04:07:18 2008

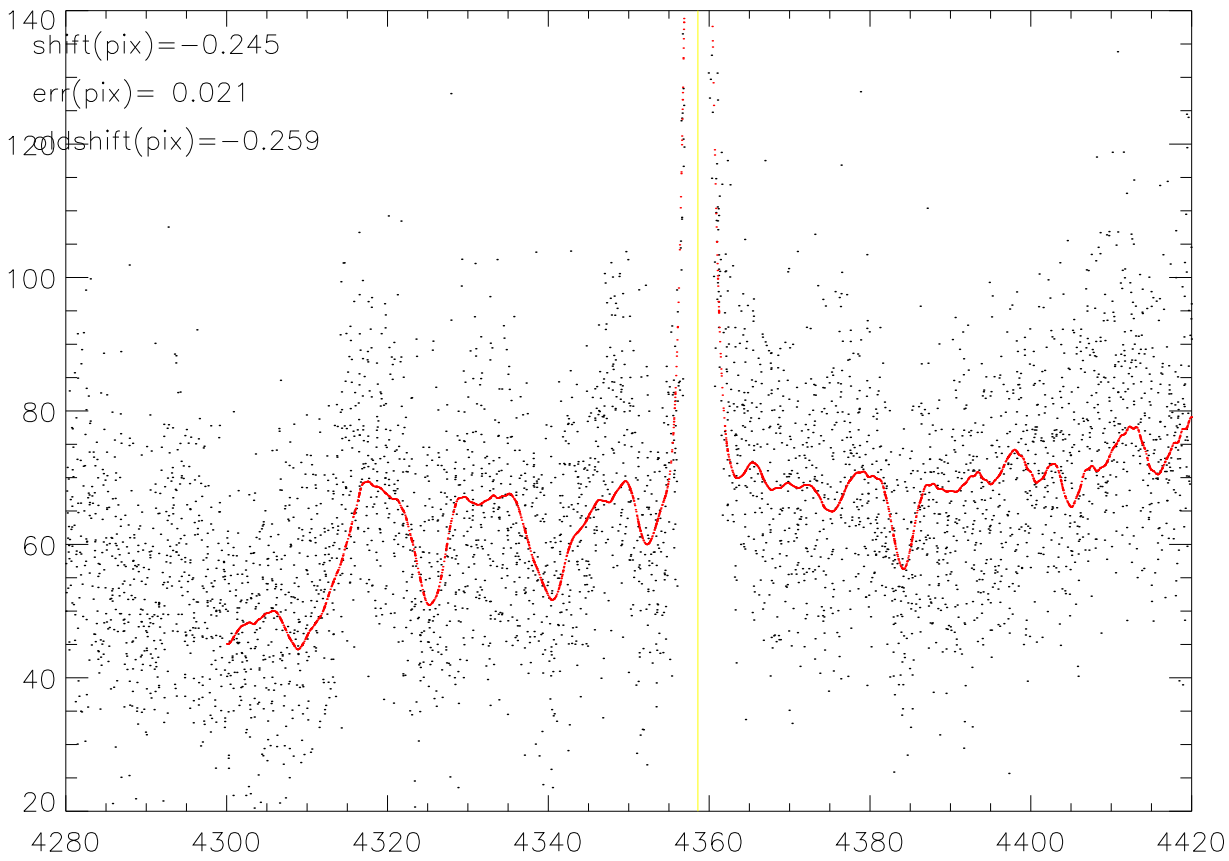

PLATE=0670 MJD=52520 Scattered Light on sdR-b2-00016146.fit
9.09
8.18
7.27
6.36
5.45
0
Y [pix]
X [pix]
2000
1500
1000
500
0

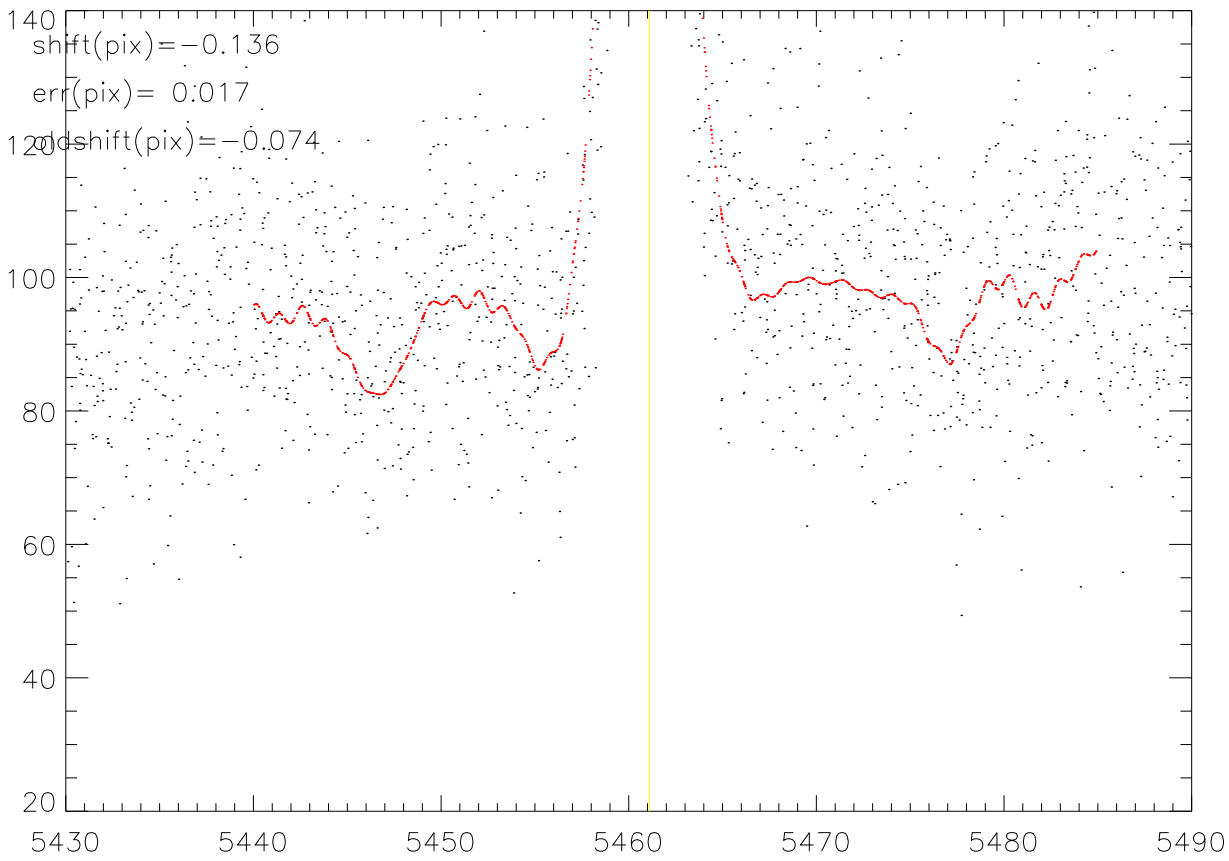

PLATE=0670 MJD=52520 Scattered Light on sdR-b2-00016146.fit
Brightness [electrons/pix]
10
8
6
4
2
0
Error bars denote full range
Min value = 5.537
Max value = 8.518
4000
4500
5000
5500
6000
λ [A]
Tue Feb 26 04:09:26 2008

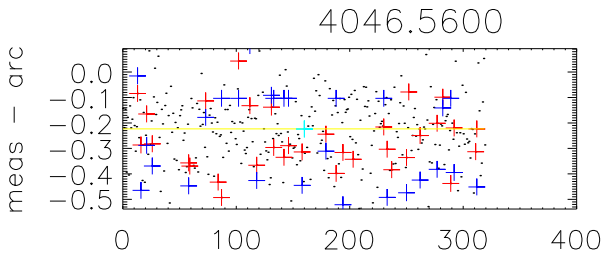

PLATE=0670 MJD=52520 Extraction chi^2 for sdR-b2-00016146.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
5
0
500
1000
1500
2000
Row number

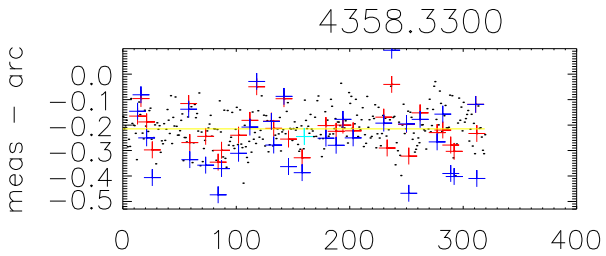

4046.5600
off: −0.37
sig: 0.049
4358.3300
off: −0.26
sig: 0.018
5460.9400
off: −0.07
sig: 0.014
5577.3390
off: −0.09
sig: 0.002
5889.9500
off: 0.00
sig: 0.006
5895.9240
off: −0.04
sig: 0.007

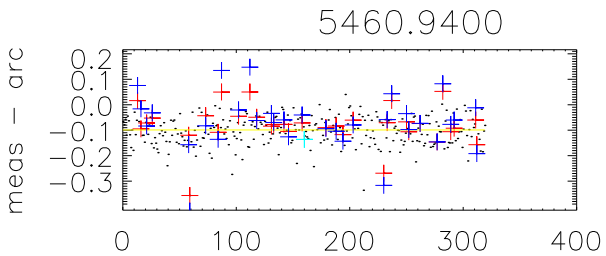

shift(pix)=−0.224
err(pix)= 0.053
oldshift(pix)=−0.366
140
120
100
80
60
40
20
4020
4030
4040
4050
4060
4070
4080

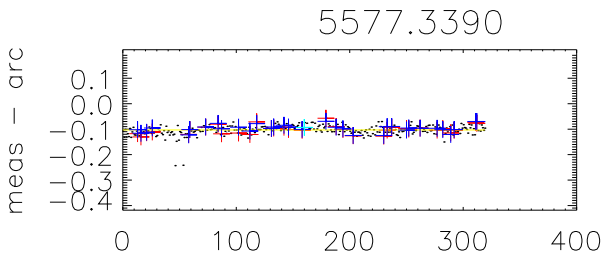

shift(pix)=−0.245
err(pix)= 0.021
oldshift(pix)=−0.259
140
120
100
80
60
40
20
4280
4300
4320
4340
4360
4380
4400
4420

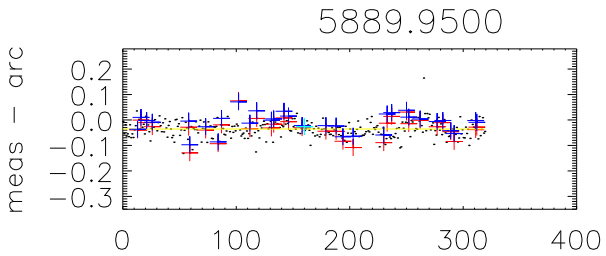

shift(pix)=−0.136
err(pix)= 0.017
oldshift(pix)=−0.074
140
120
100
80
60
40
20
5430
5440
5450
5460
5470
5480
5490

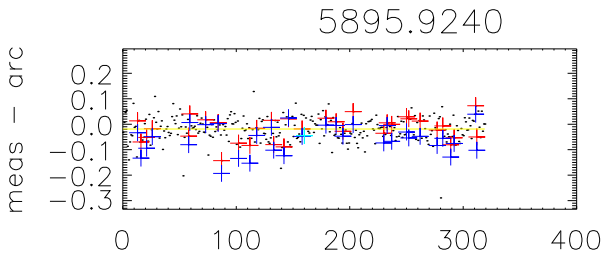

4046.5600
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

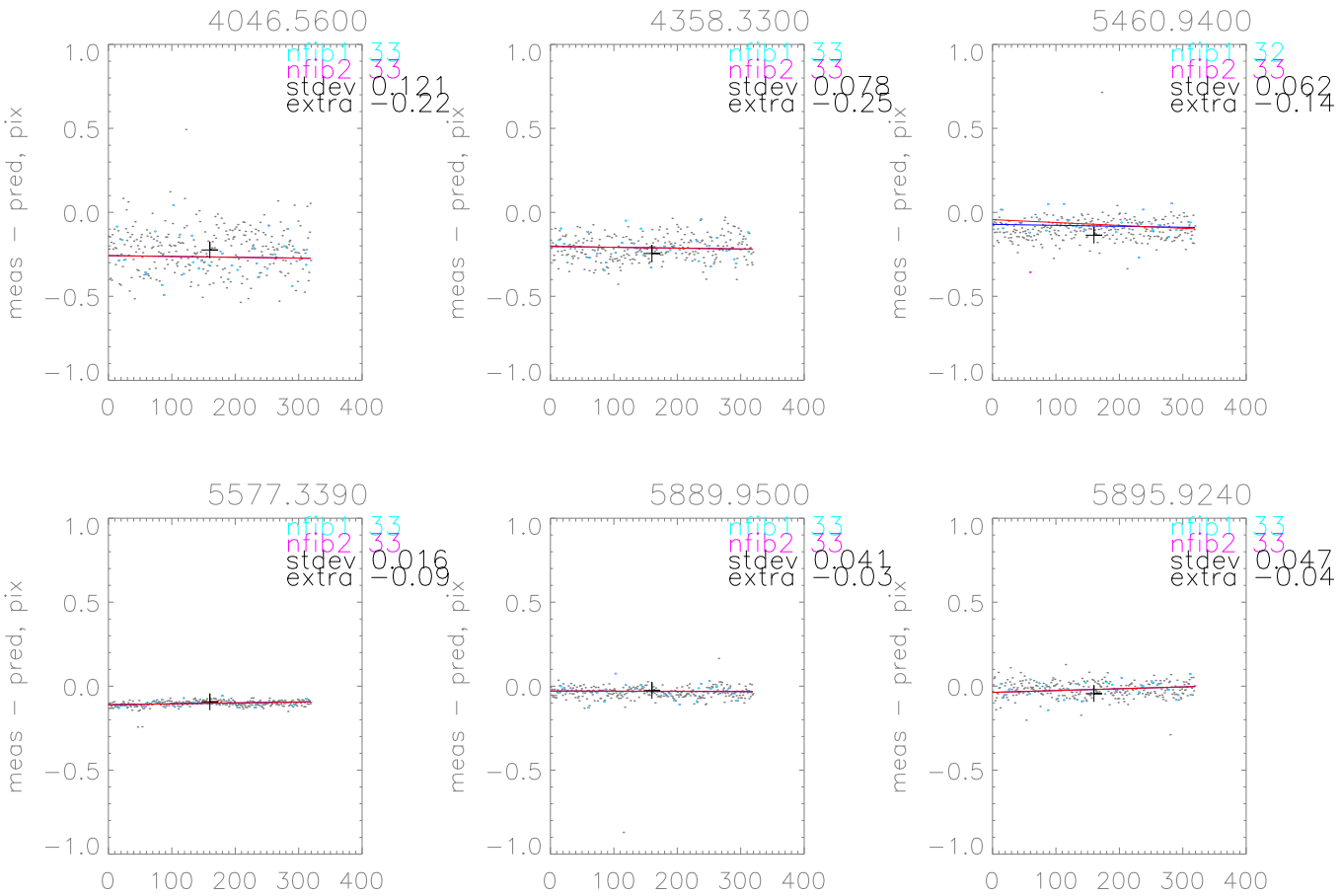

4358.3300
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

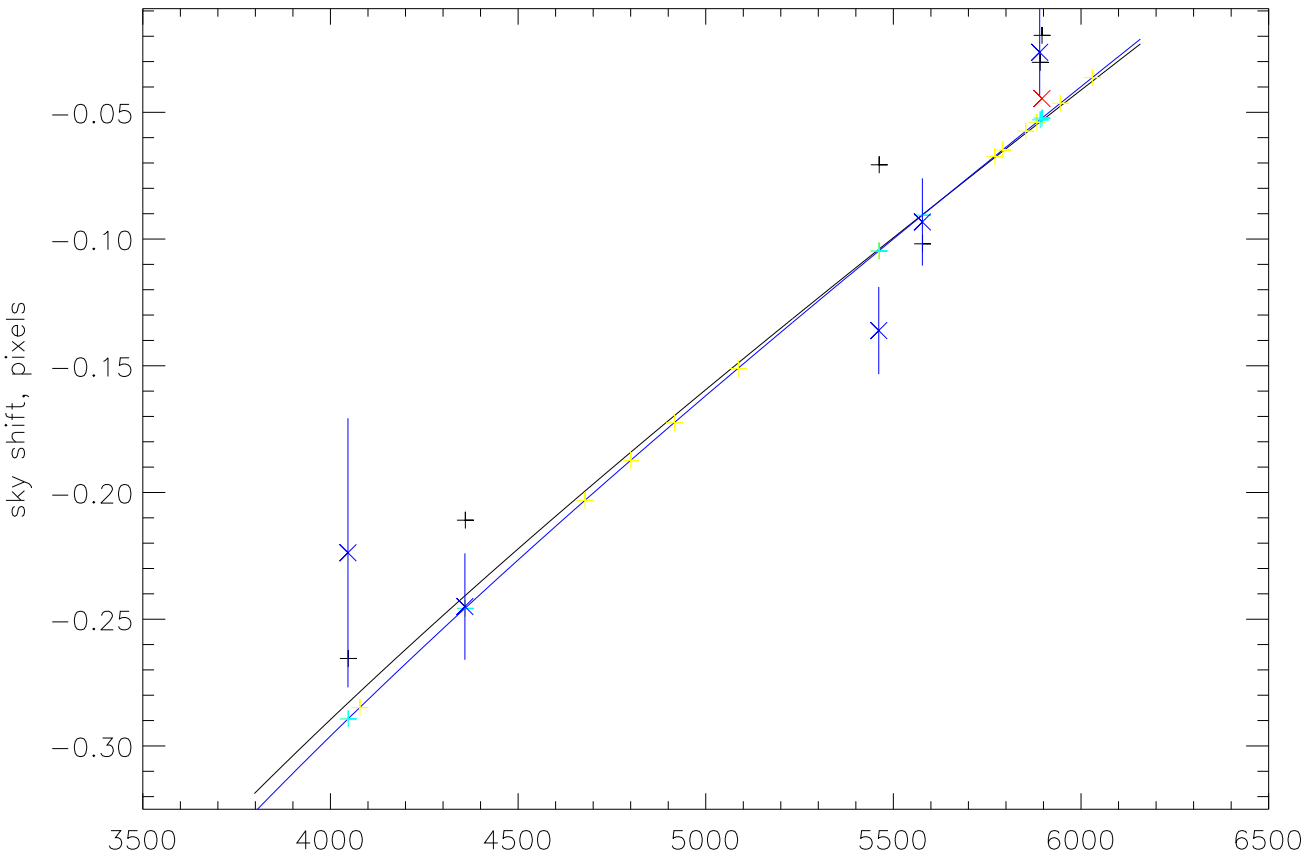

5460.9400
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

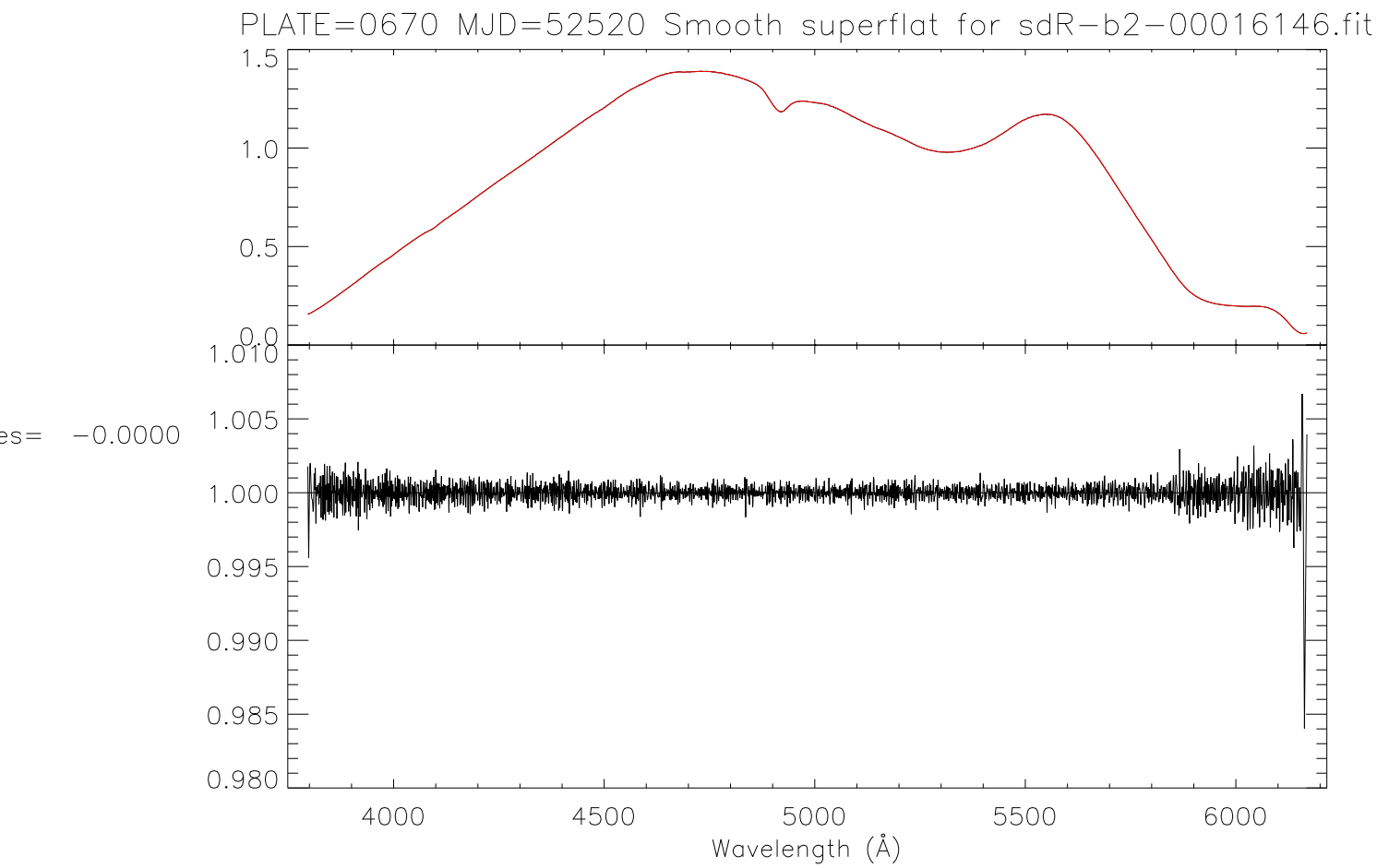

5577.3390
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

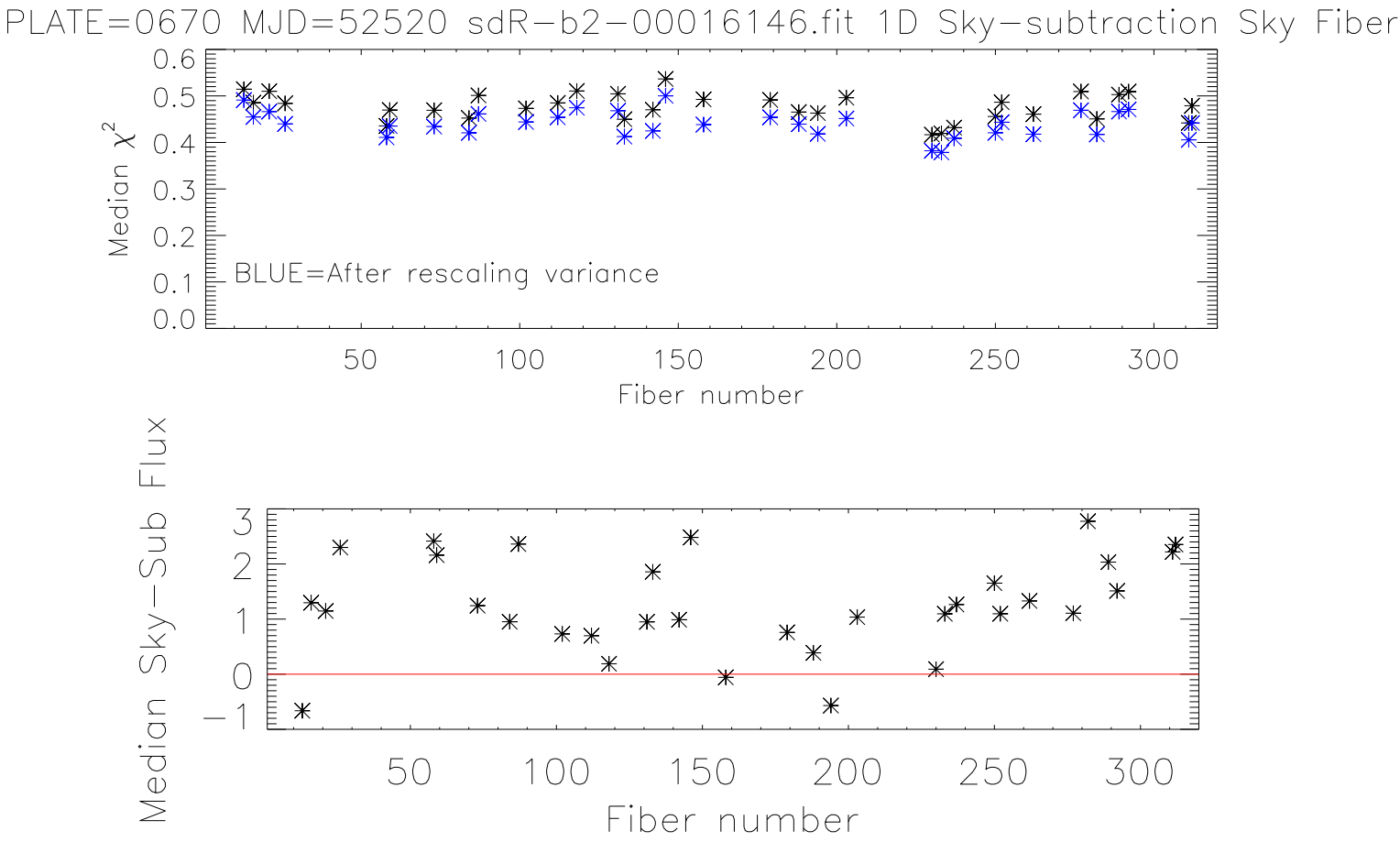

5889.9500
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

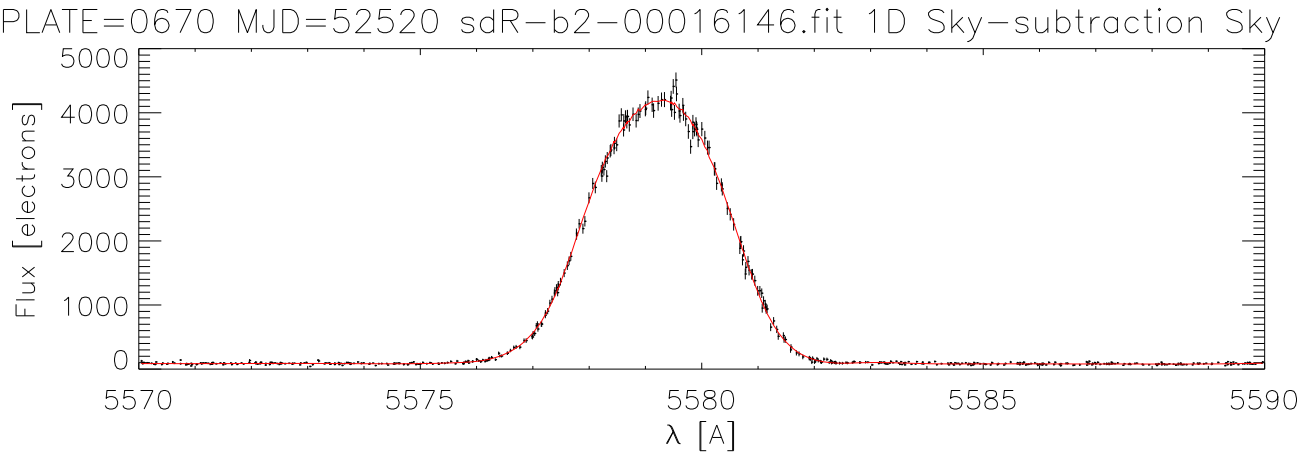

5895.9240
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

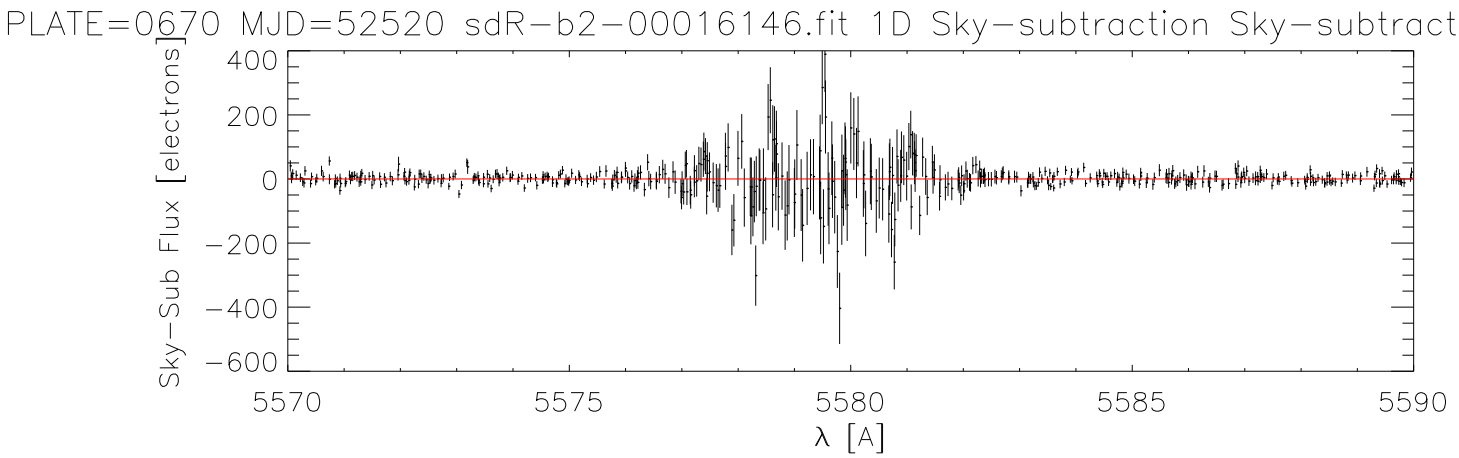

4046.5600
nfib1 33
nfib2 33
stdev 0.121
extra −0.22
4358.3300
nfib1 33
nfib2 33
stdev 0.078
extra −0.25
5460.9400
nfib1 32
nfib2 33
stdev 0.062
extra −0.14
5577.3390
nfib1 33
nfib2 33
stdev 0.016
extra −0.09
5889.9500
nfib1 33
nfib2 33
stdev 0.041
extra −0.03
5895.9240
nfib1 33
nfib2 33
stdev 0.047
extra −0.04
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

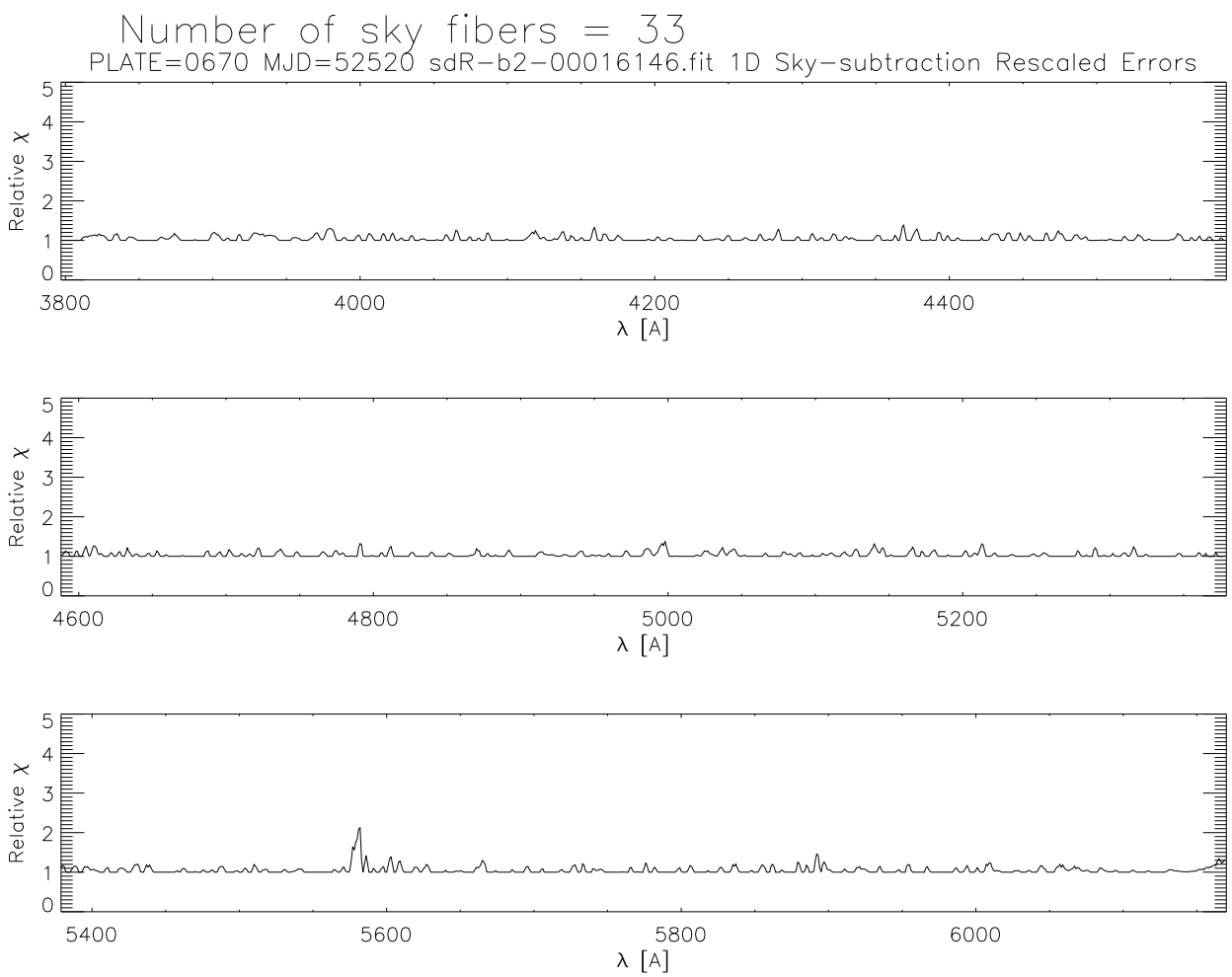

sky shift, pixels
−0.05
−0.10
−0.15
−0.20
−0.25
−0.30
3500
4000
4500
5000
5500
6000
6500

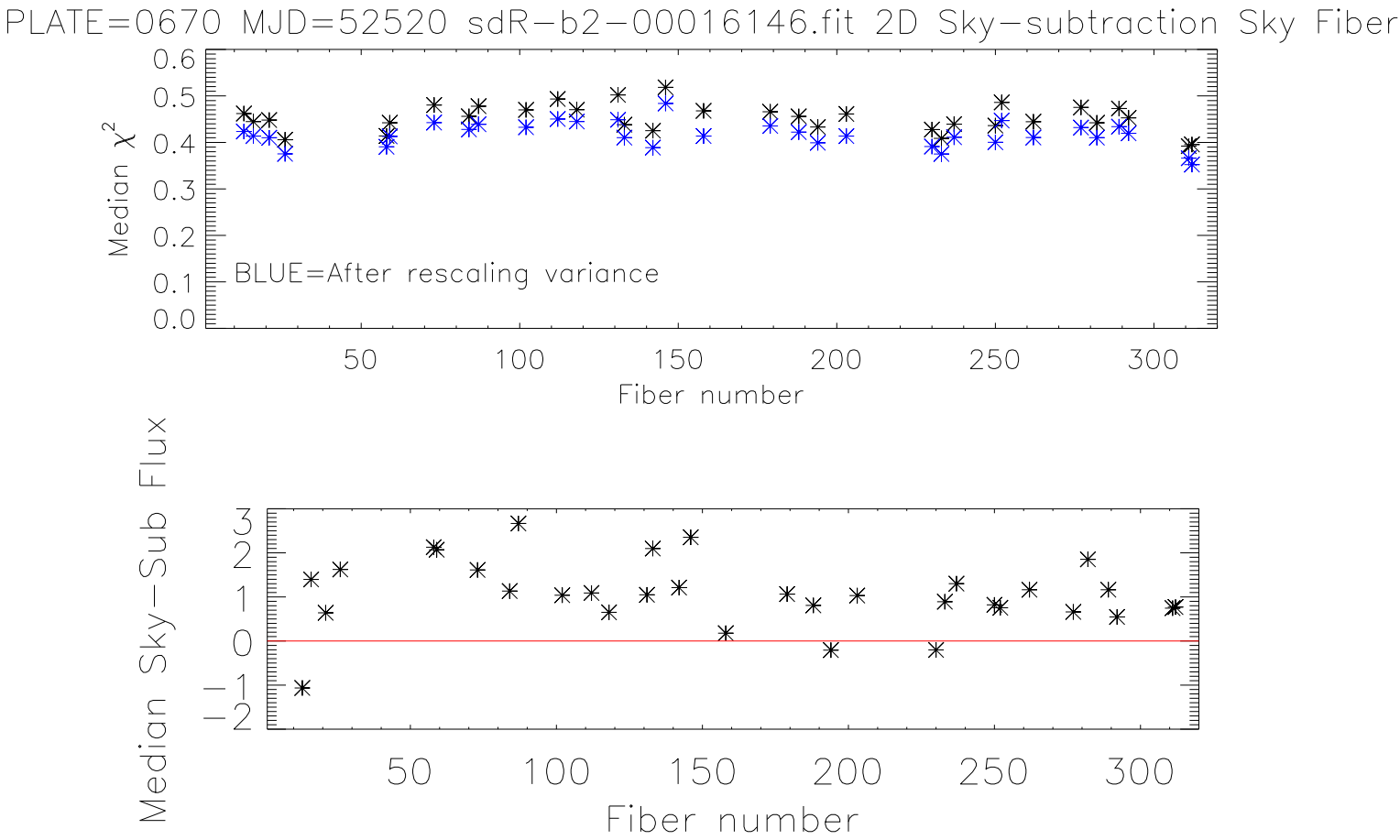

PLATE=0670 MJD=52520 Smooth superflat for sdR-b2-00016146.fit
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
0.985
0.980
es= −0.0000
4000
4500
5000
5500
6000
Wavelength (Å)

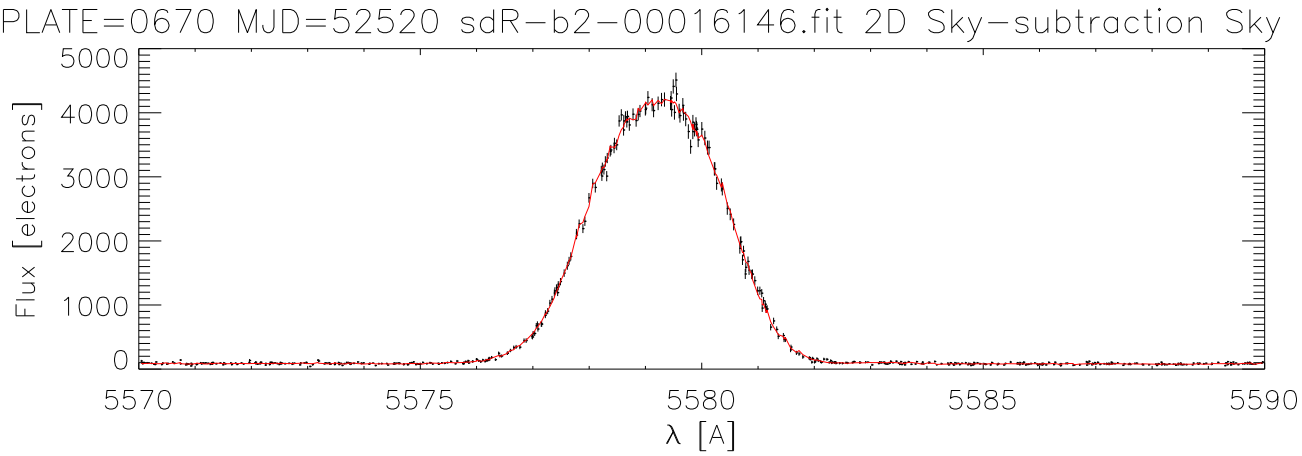

PLATE=0670 MJD=52520 sdR-b2-00016146.fit 1D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

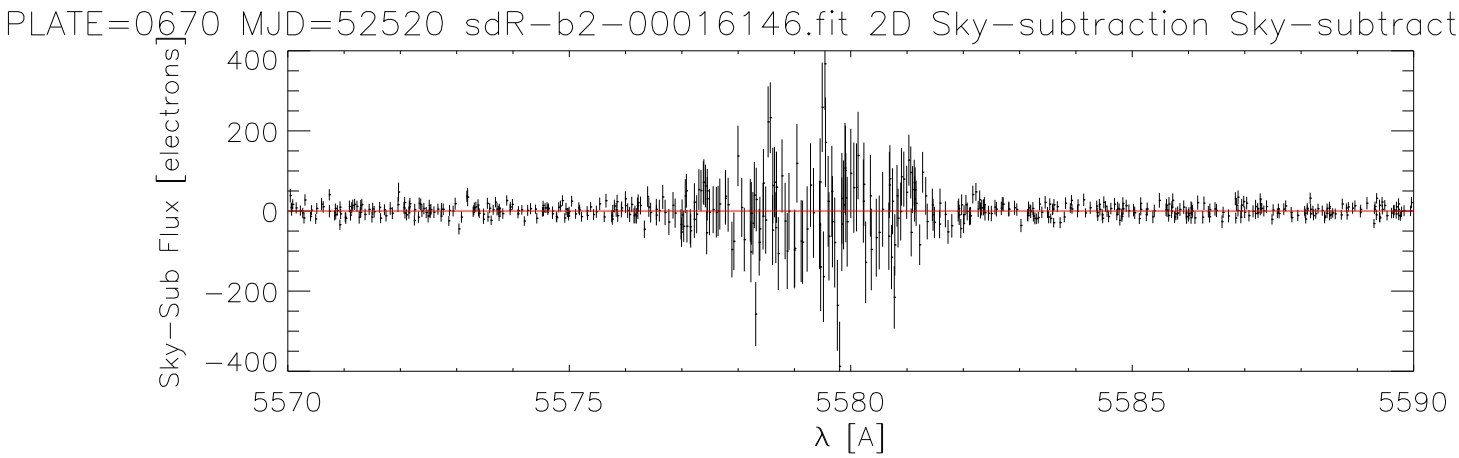

PLATE=0670 MJD=52520 sdR-b2-00016146.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

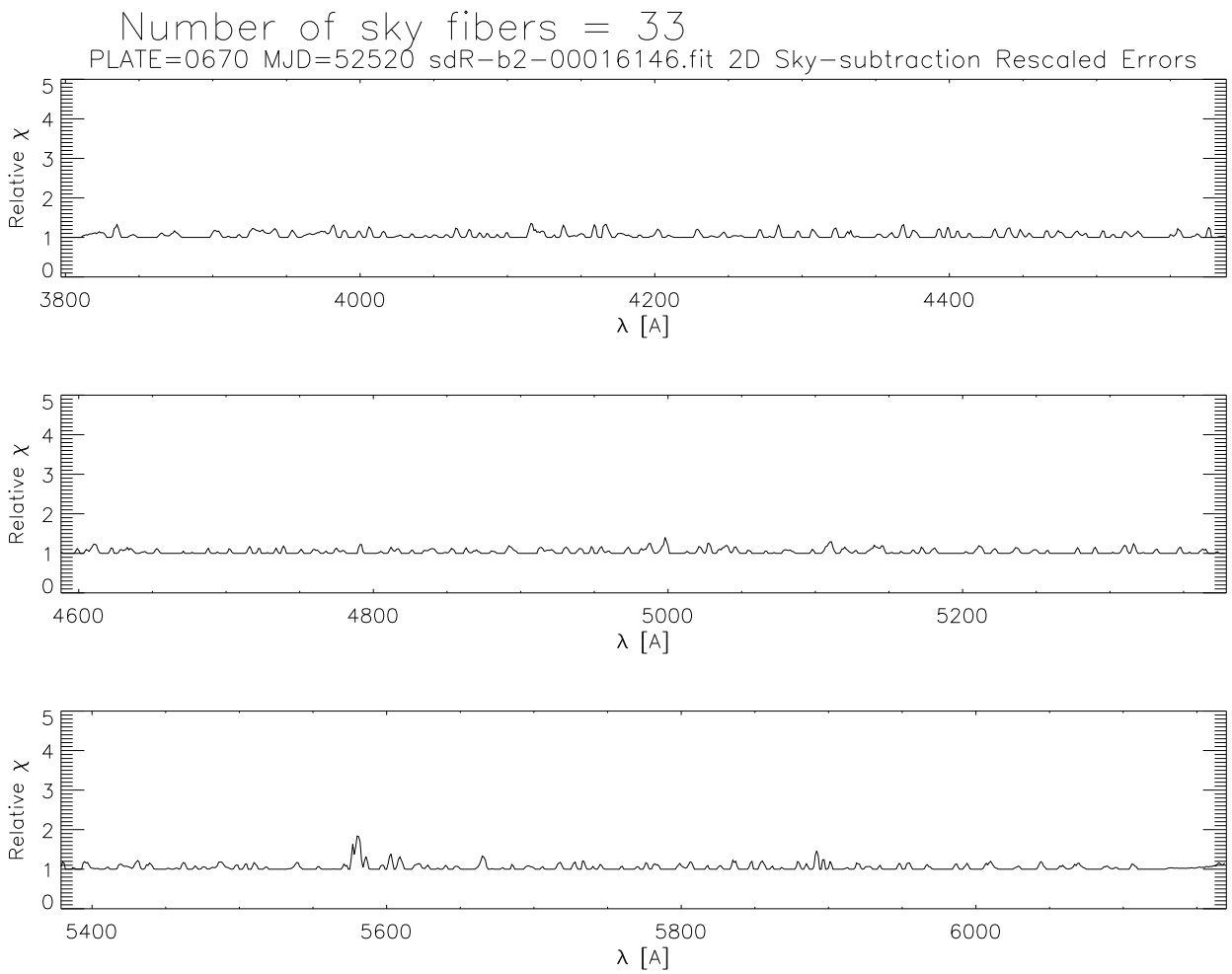

PLATE=0670 MJD=52520 sdR-b2-00016146.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
200
0
-200
-400
-600
5570
5575
5580
5585
5590
λ [A]

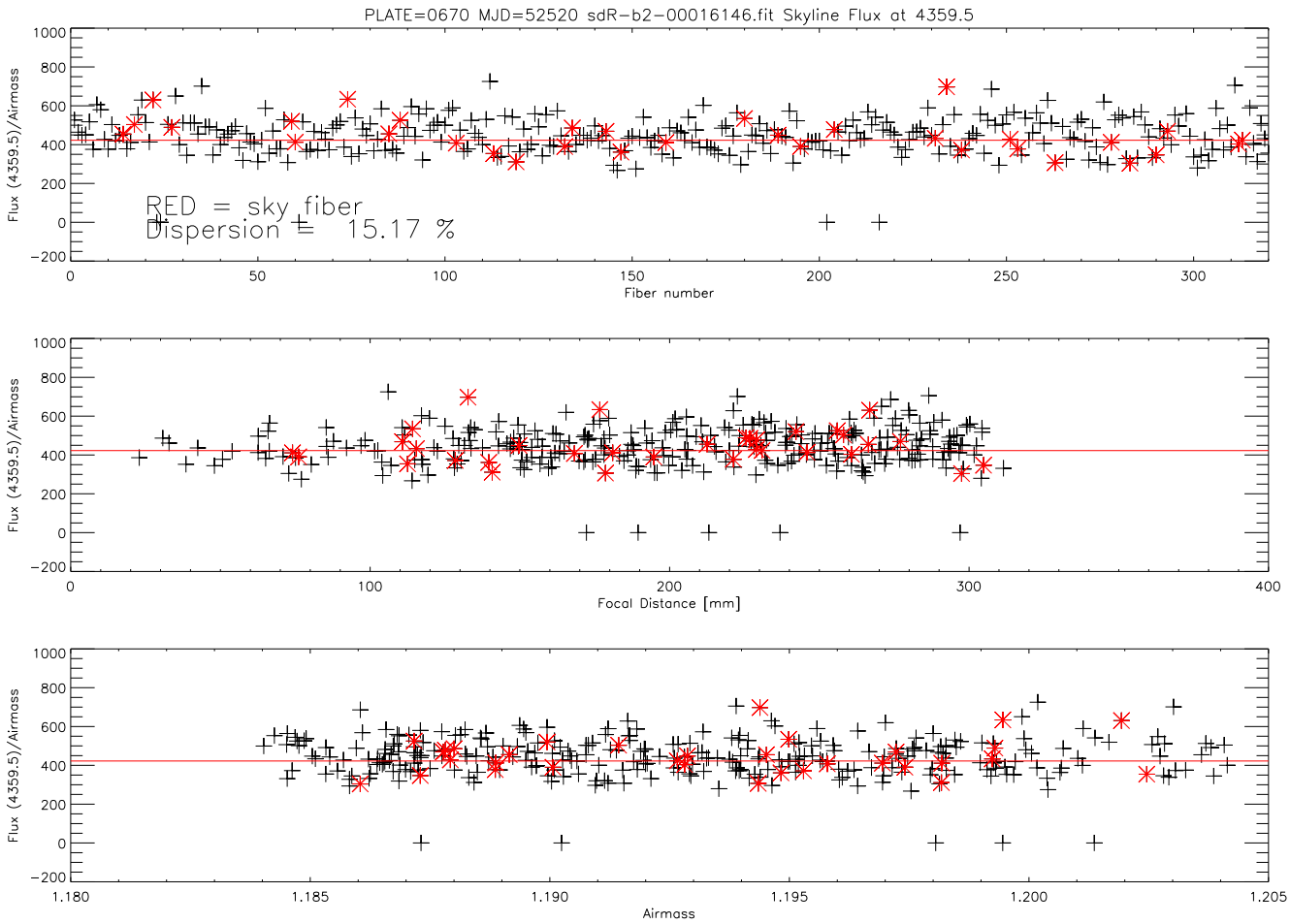

Number of sky fibers = 33
PLATE=0670 MJD=52520 sdR-b2-00016146.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

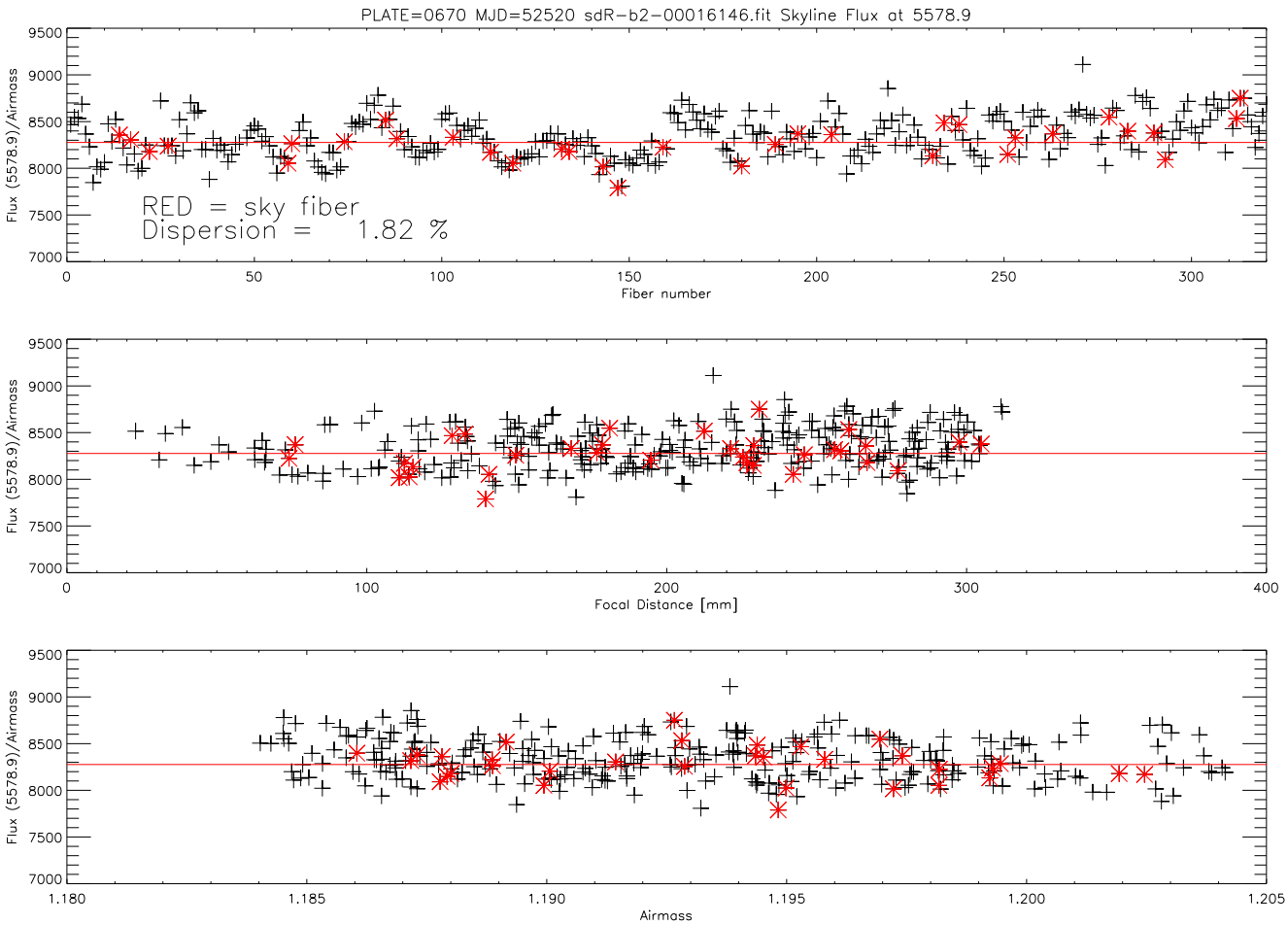

PLATE=0670 MJD=52520 sdR-b2-00016146.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

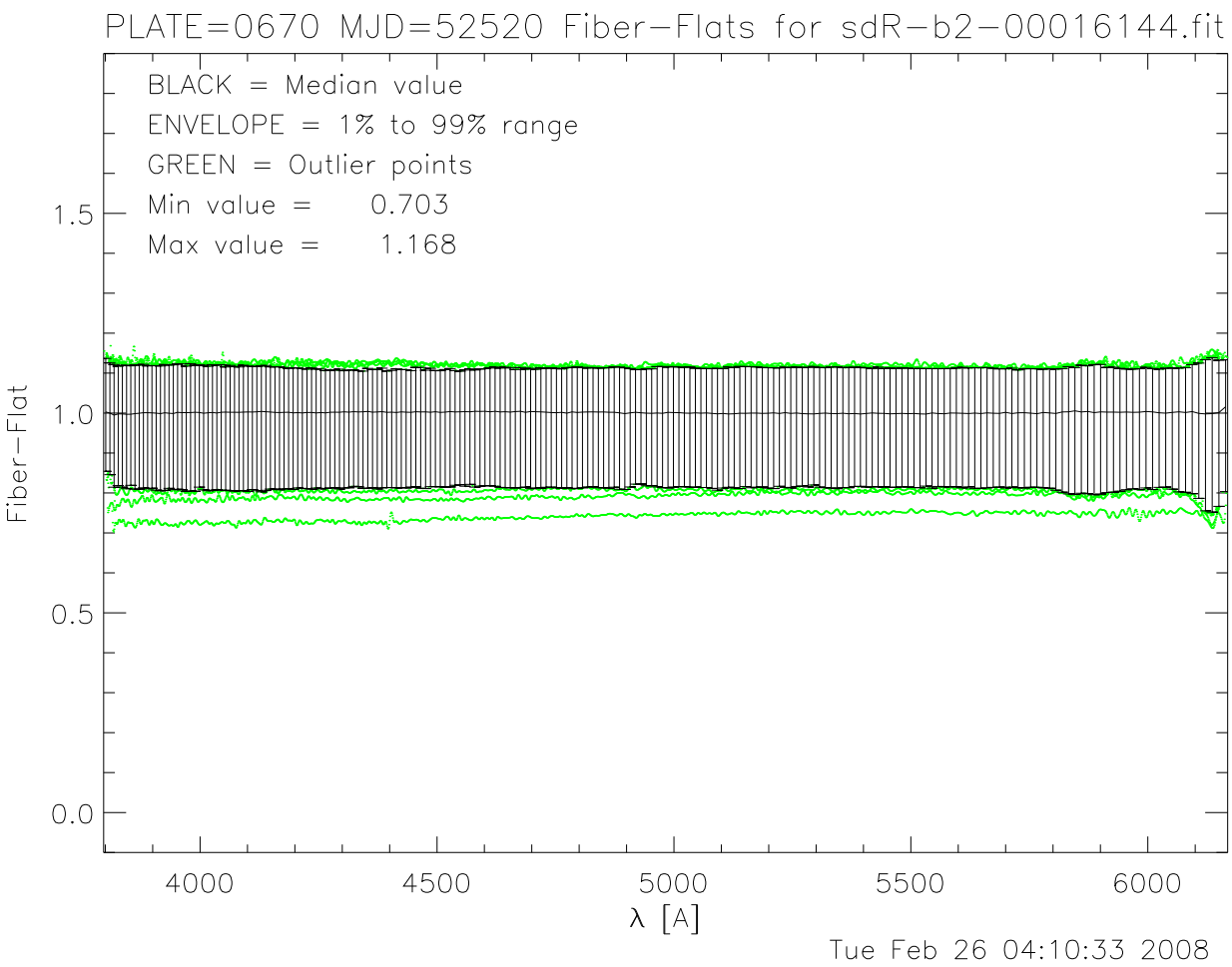

PLATE=0670 MJD=52520 sdR-b2-00016146.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]


PLATE=0670 MJD=52520 sdR-b2-00016146.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
200
0
-200
-400
5570
5575
5580
5585
5590
λ [A]


Number of sky fibers = 33
PLATE=0670 MJD=52520 sdR-b2-00016146.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=0670 MJD=52520 sdR-b2-00016146.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 15.17 %
Fiber number
Focal Distance [mm]
Airmass


PLATE=0670 MJD=52520 sdR-b2-00016146.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 1.82 %
Fiber number
Focal Distance [mm]
Airmass


PLATE=0670 MJD=52520 Fiber-Flats for sdR-b2-00016144.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.703
Max value = 1.168
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
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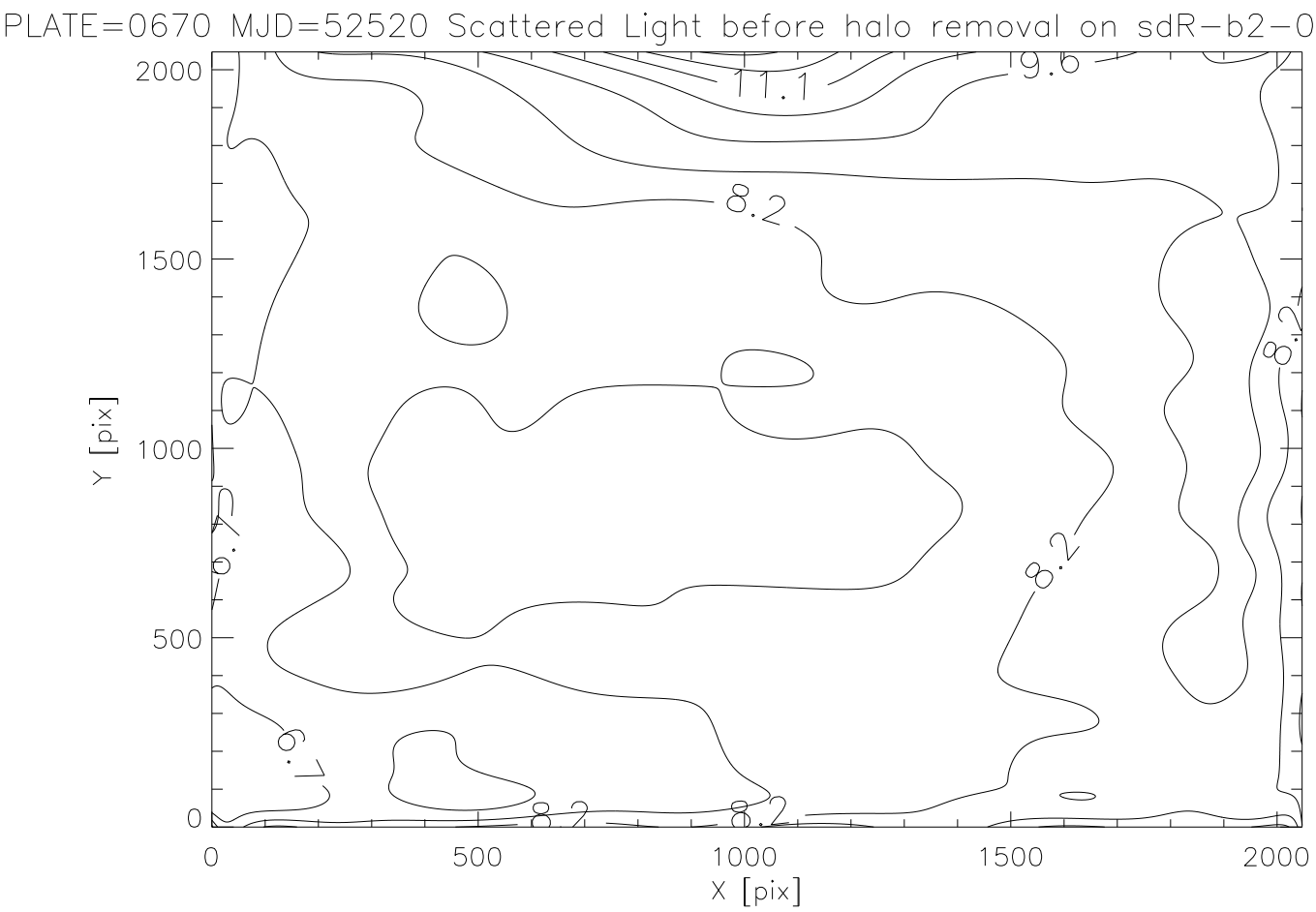
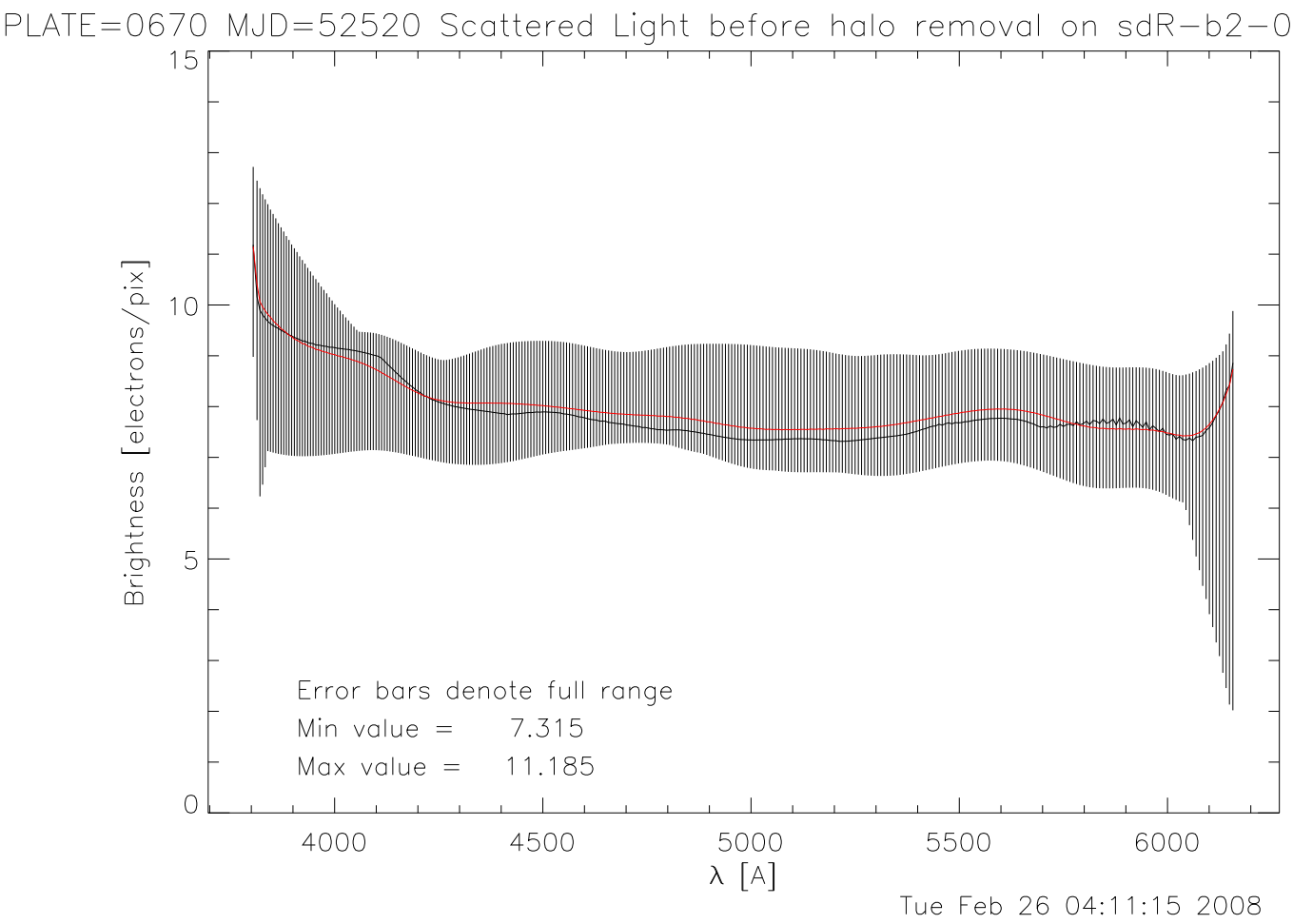
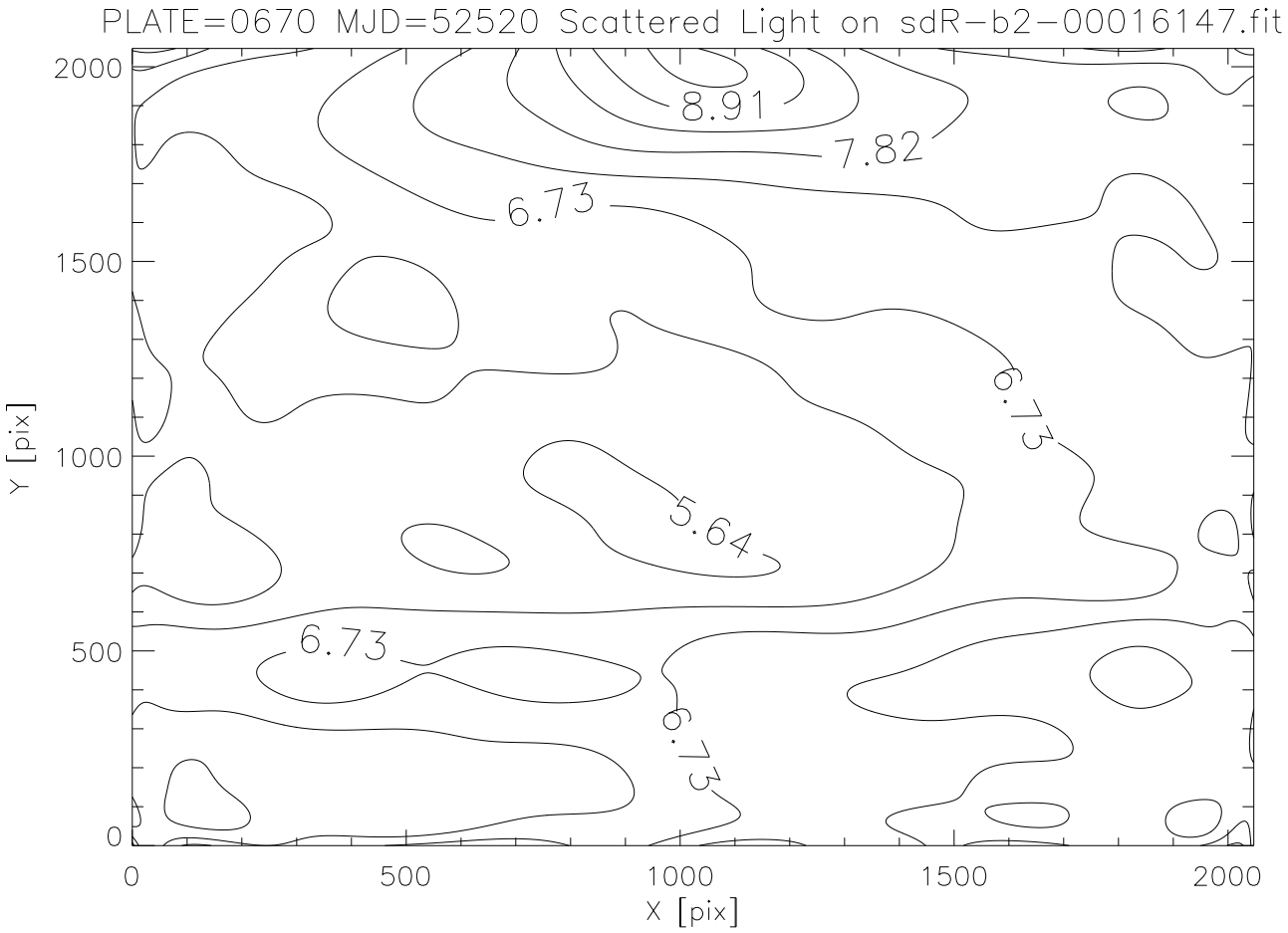
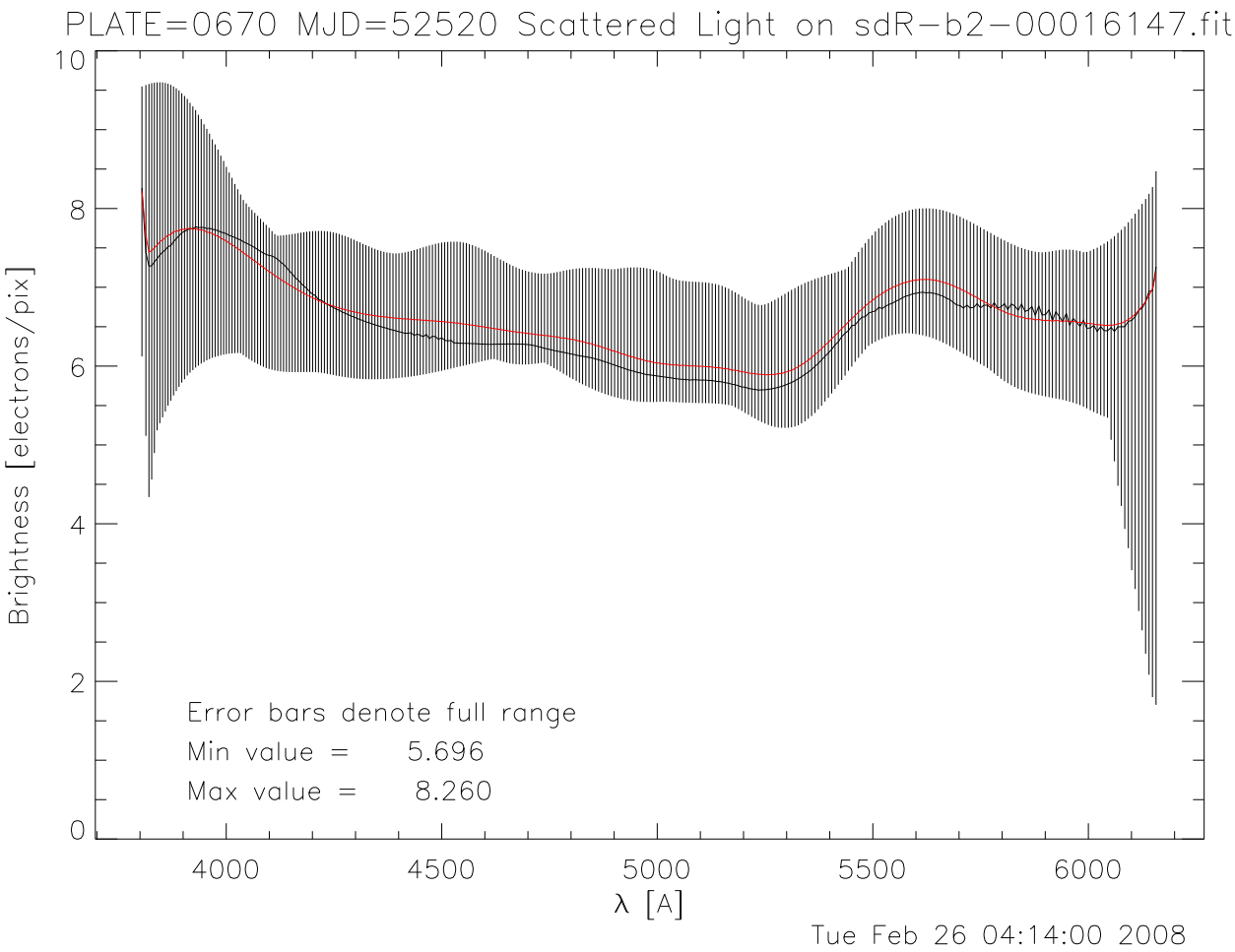
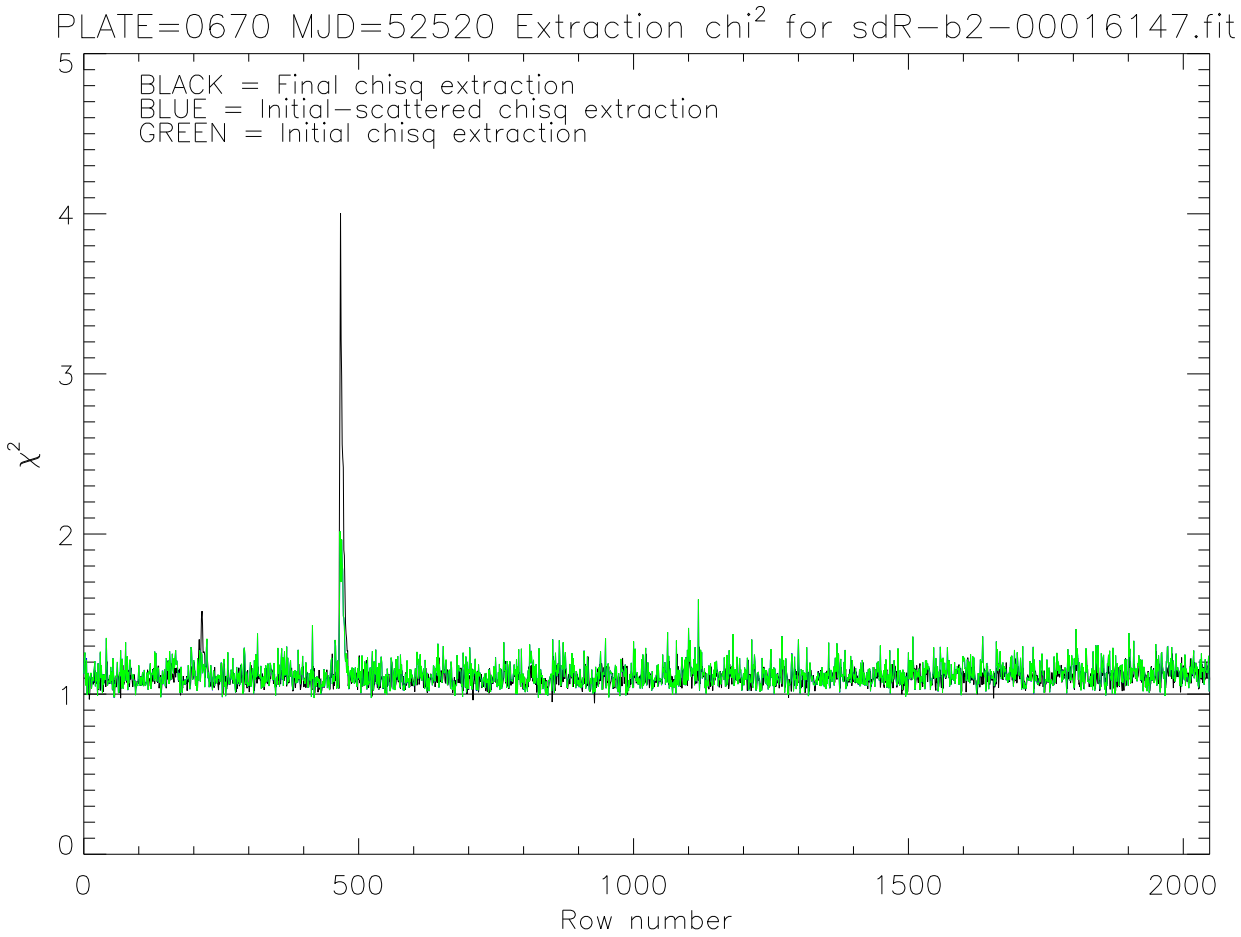
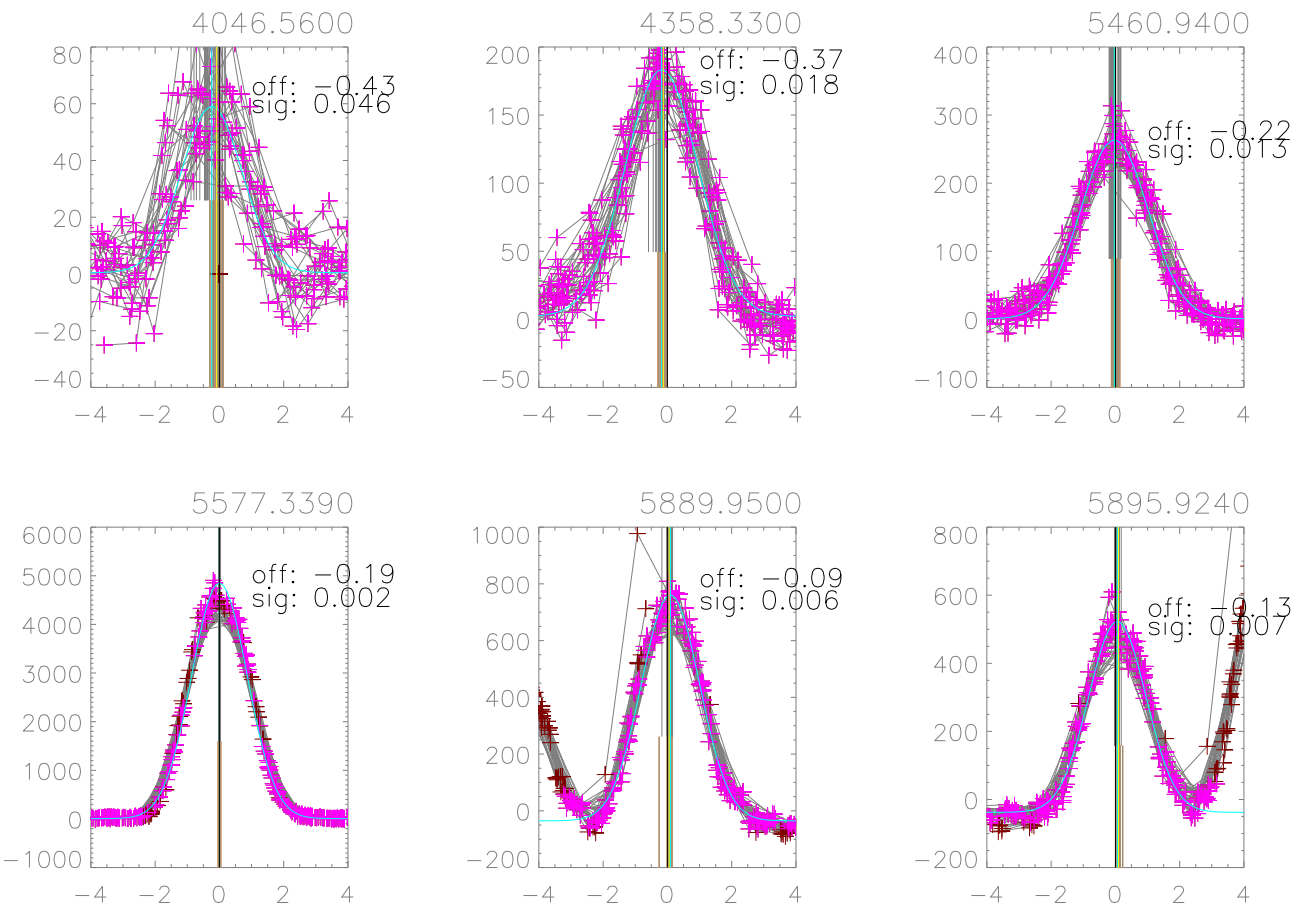

PLATE=0670 MJD=52520 Scattered Light before halo removal on sdR-b2-00016147.f
11.1
9.6
8.2
8.2
8.2
6.7
6.7
8.2
8.2
2000
1500
1000
500
0
0
500
1000
1500
2000
Y [pix]
X [pix]

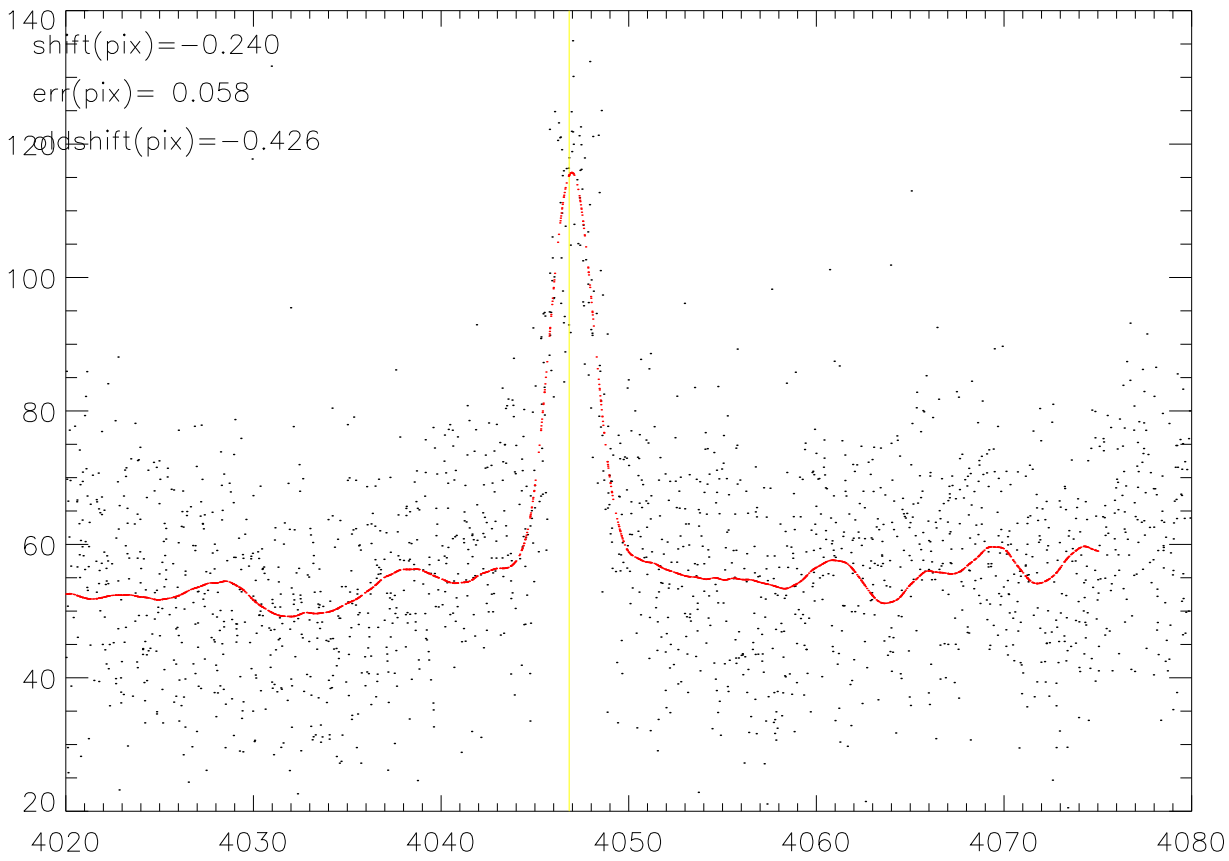

PLATE=0670 MJD=52520 Scattered Light before halo removal on sdR-b2-00016147.f
Brightness [electrons/pix]
15
10
5
0
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 7.315
Max value = 11.185
Tue Feb 26 04:11:15 2008

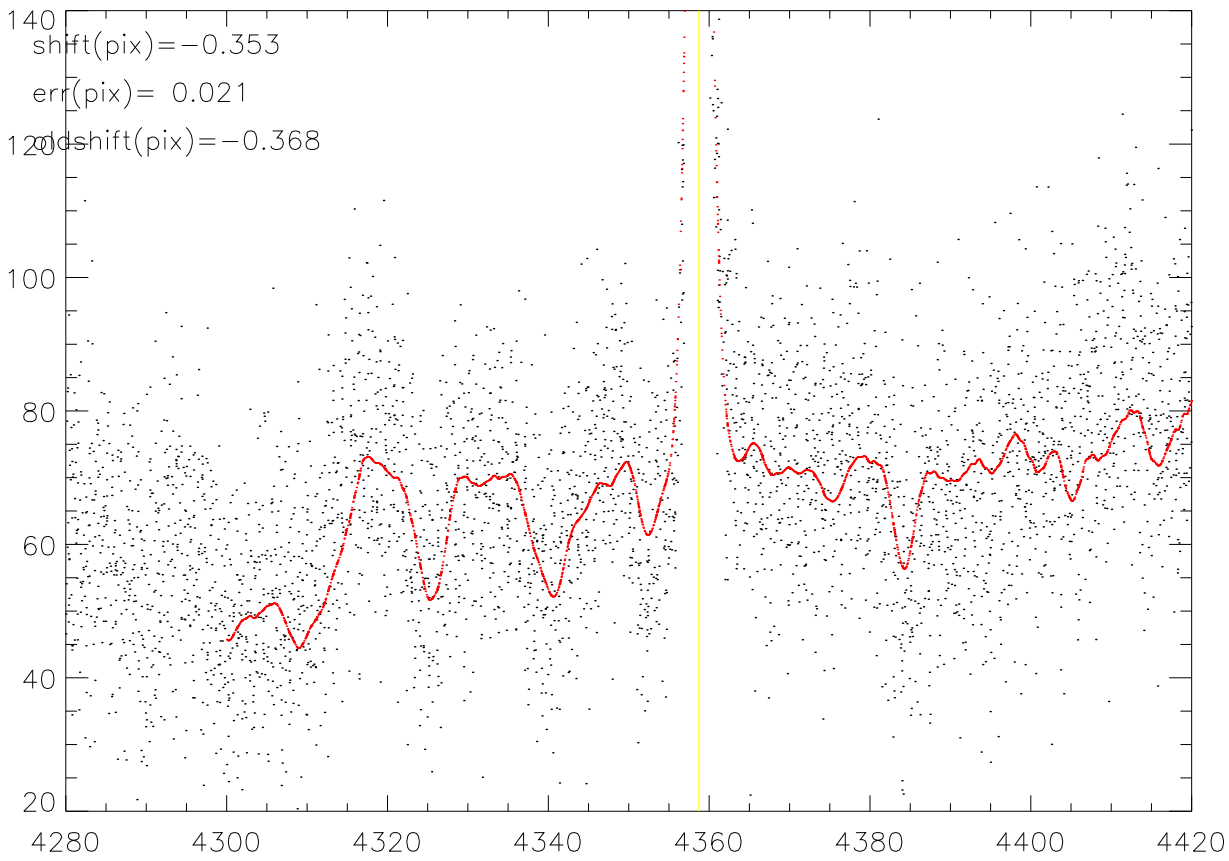

PLATE=0670 MJD=52520 Scattered Light on sdR-b2-00016147.fit
8.91
7.82
6.73
6.73
5.64
6.73
6.73
Y [pix]
X [pix]
0
500
1000
1500
2000

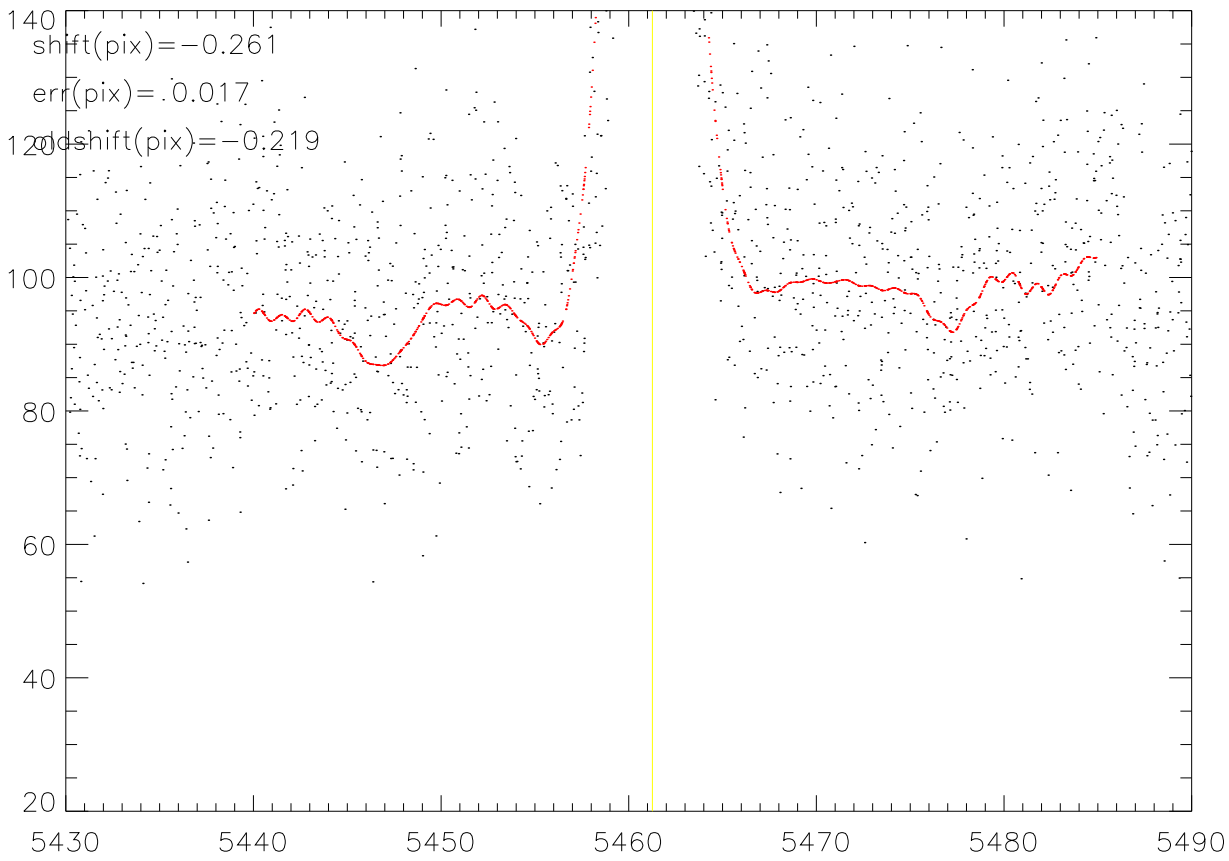

PLATE=0670 MJD=52520 Scattered Light on sdR-b2-00016147.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 5.696
Max value = 8.260
Tue Feb 26 04:14:00 2008

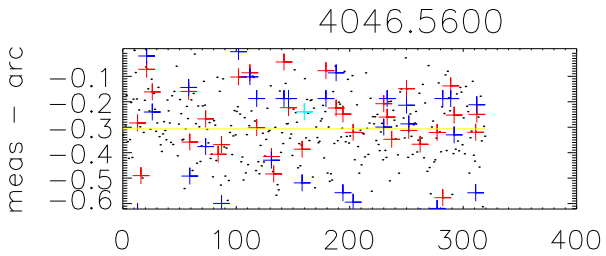

PLATE=0670 MJD=52520 Extraction chi^2 for sdR-b2-00016147.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
5
0
500
1000
1500
2000
Row number

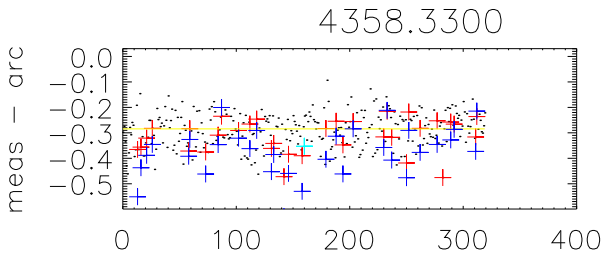

4046.5600
off: −0.43
sig: 0.046
4358.3300
off: −0.37
sig: 0.018
5460.9400
off: −0.22
sig: 0.013
5577.3390
off: −0.19
sig: 0.002
5889.9500
off: −0.09
sig: 0.006
5895.9240
off: −0.13
sig: 0.007

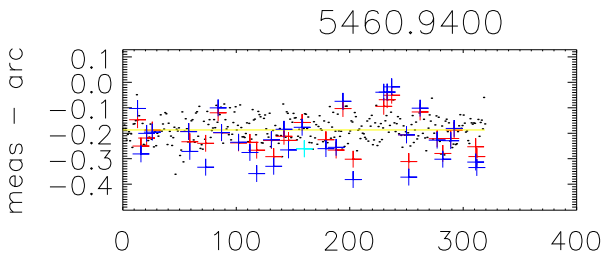

shift(pix)=−0.240
err(pix)= 0.058
oldshift(pix)=−0.426
140
120
100
80
60
40
20
4020
4030
4040
4050
4060
4070
4080

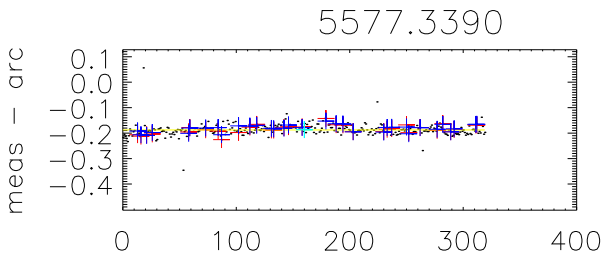

shift(pix)=−0.353
err(pix)= 0.021
oldshift(pix)=−0.368
140
120
100
80
60
40
20
4280
4300
4320
4340
4360
4380
4400
4420

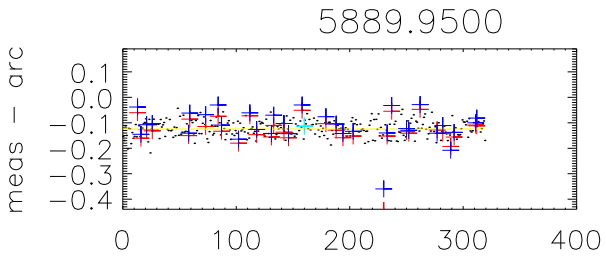

shift(pix)=−0.261
err(pix)= 0.017
oldshift(pix)=−0.219
140
120
100
80
60
40
20
5430
5440
5450
5460
5470
5480
5490

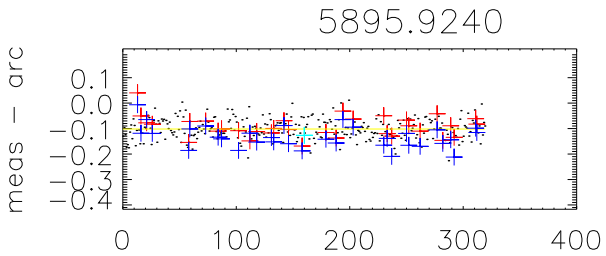

4046.5600
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

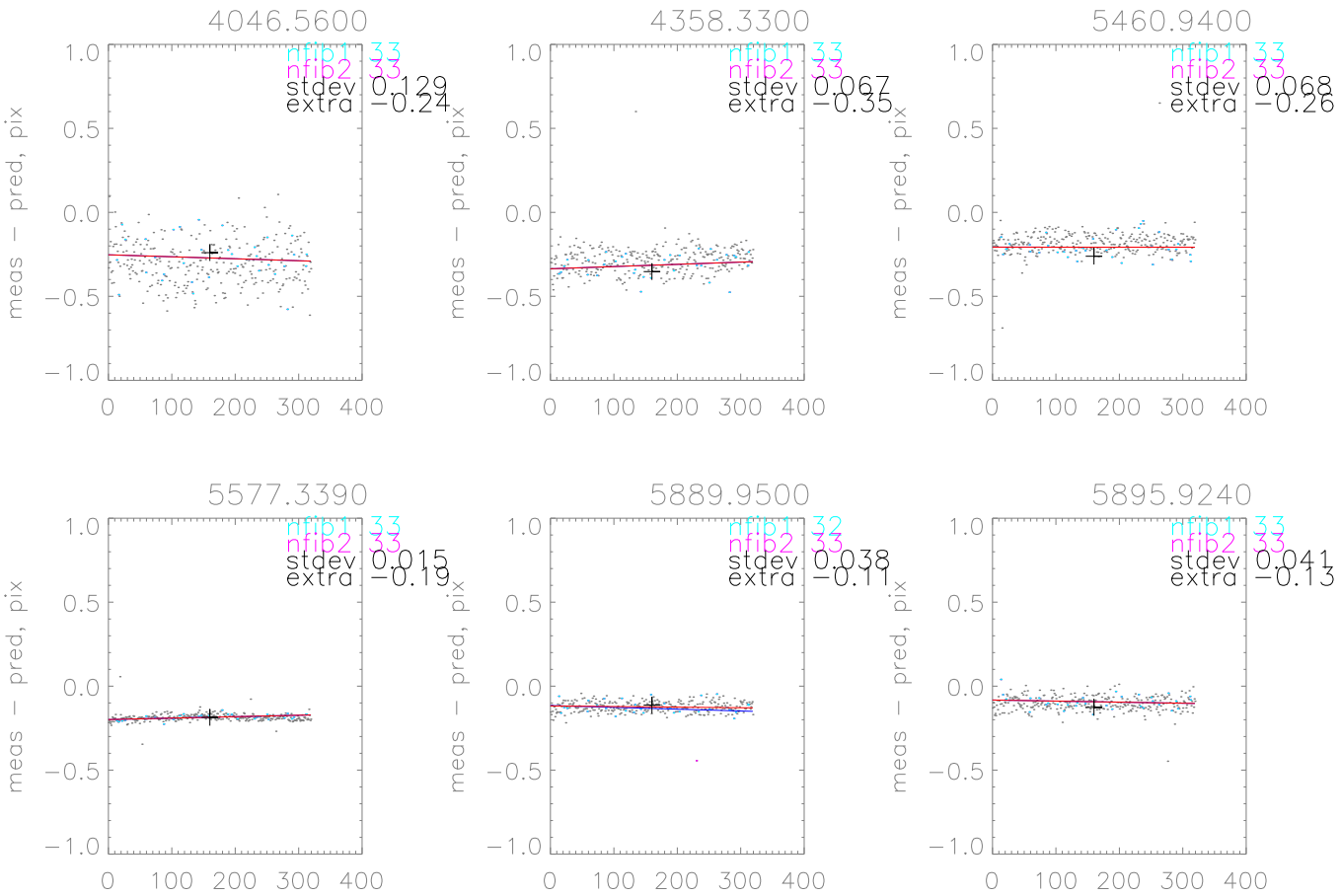

4358.3300
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

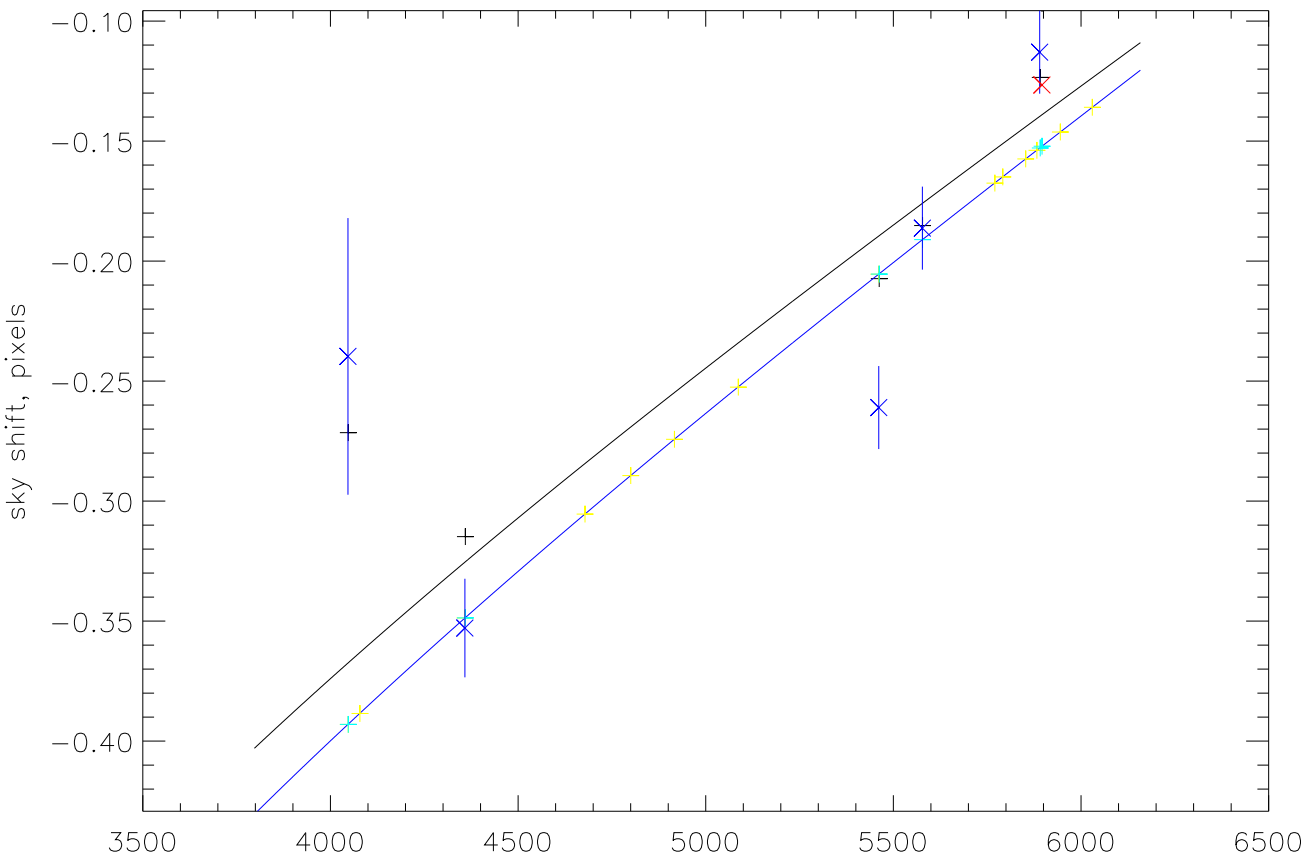

5460.9400
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

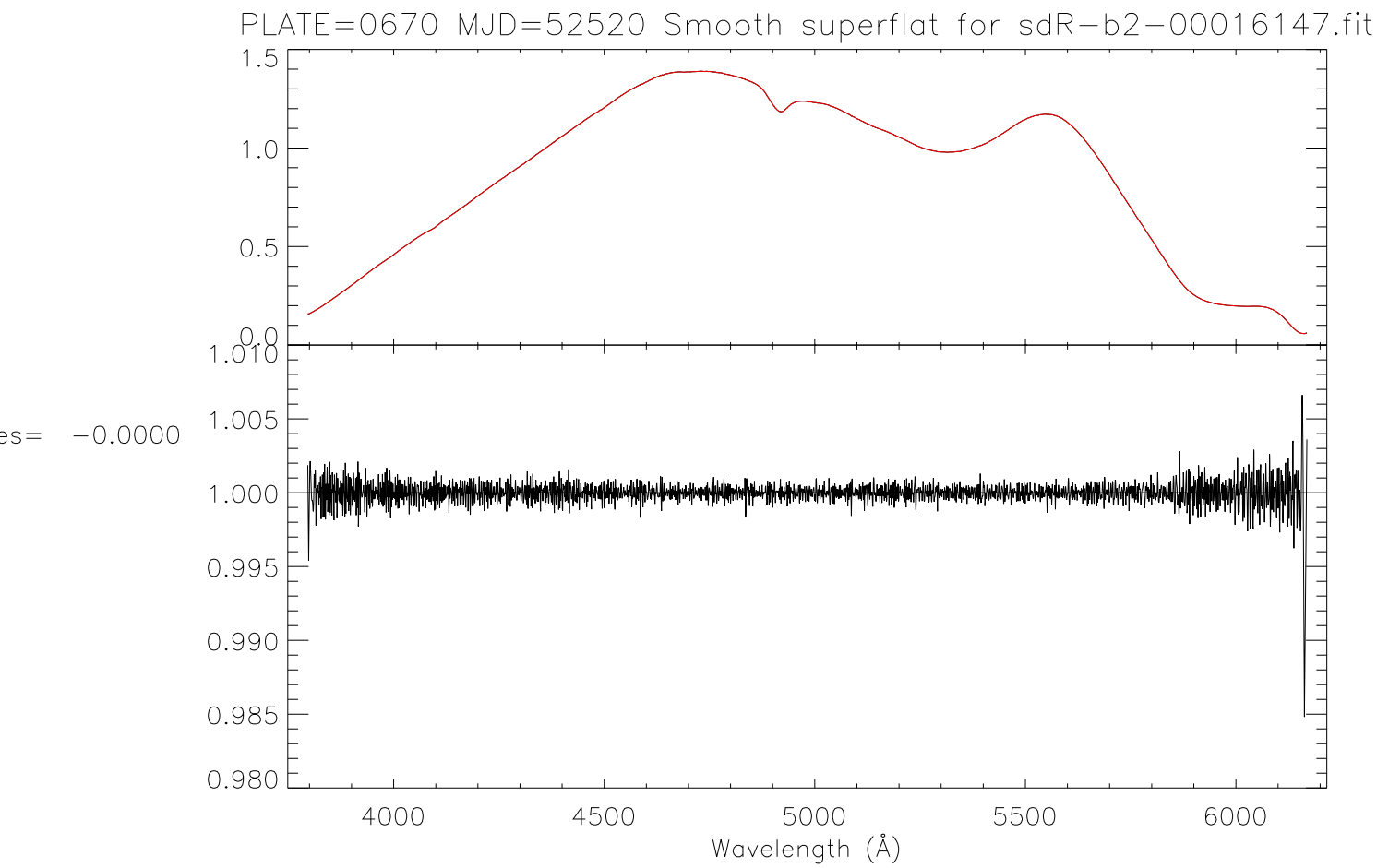

5577.3390
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400


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

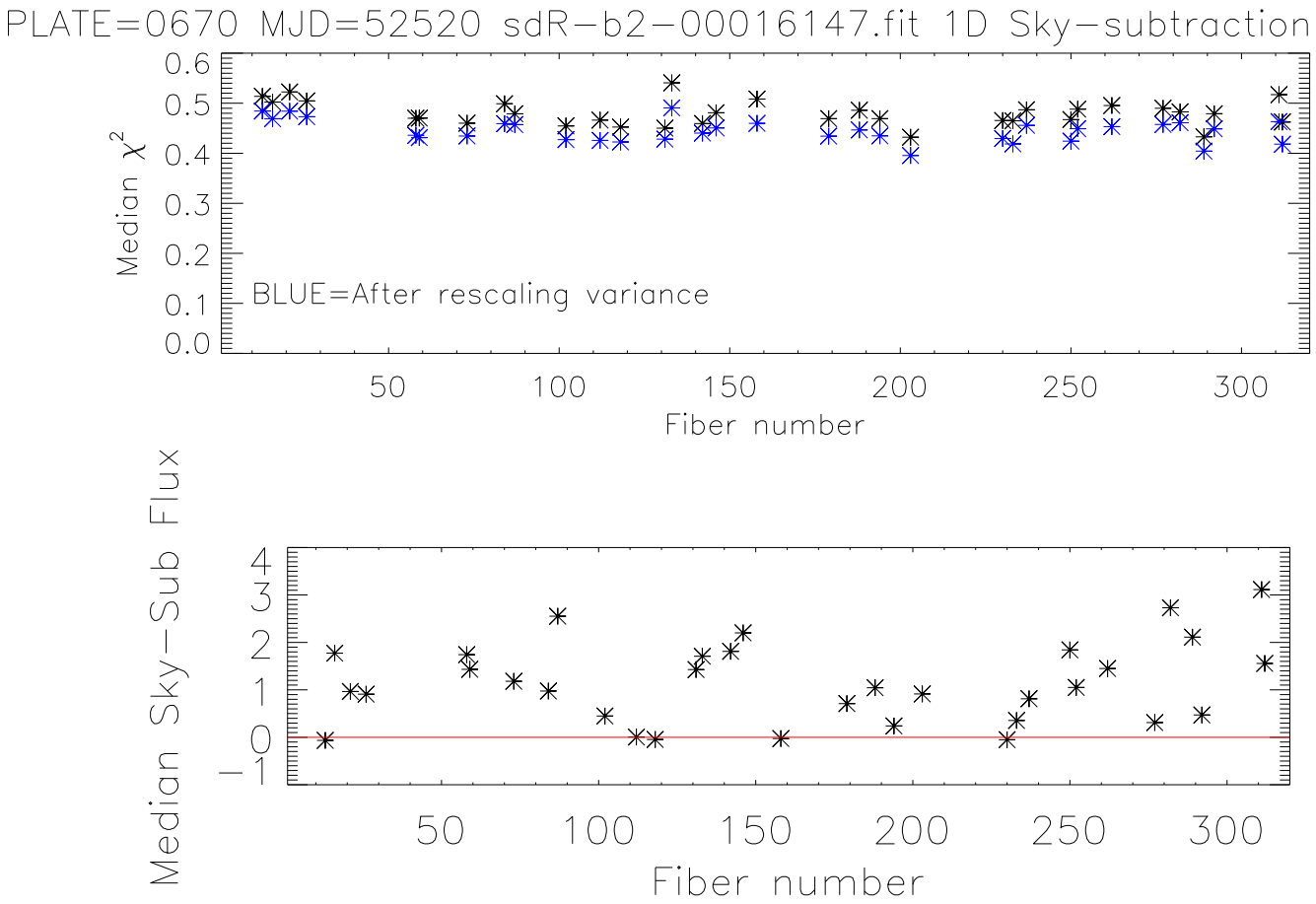

5895.9240
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

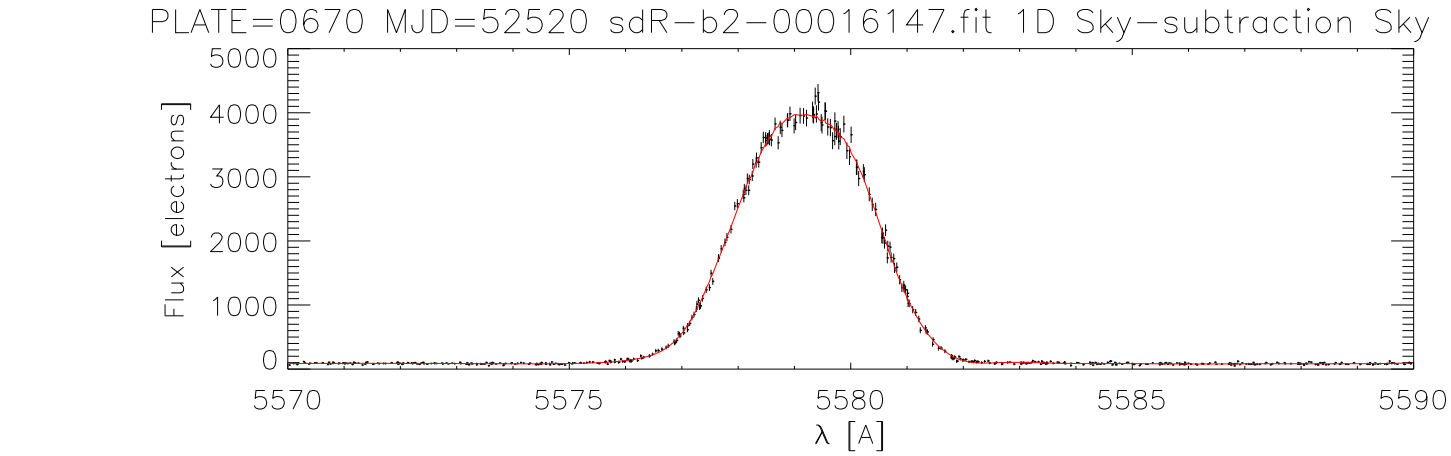

4046.5600
nfib1 33
nfib2 33
stdev 0.129
extra −0.24
4358.3300
nfib1 33
nfib2 33
stdev 0.067
extra −0.35
5460.9400
nfib1 33
nfib2 33
stdev 0.068
extra −0.26
5577.3390
nfib1 33
nfib2 33
stdev 0.015
extra −0.19
5889.9500
nfib1 32
nfib2 33
stdev 0.038
extra −0.11
5895.9240
nfib1 33
nfib2 33
stdev 0.041
extra −0.13
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

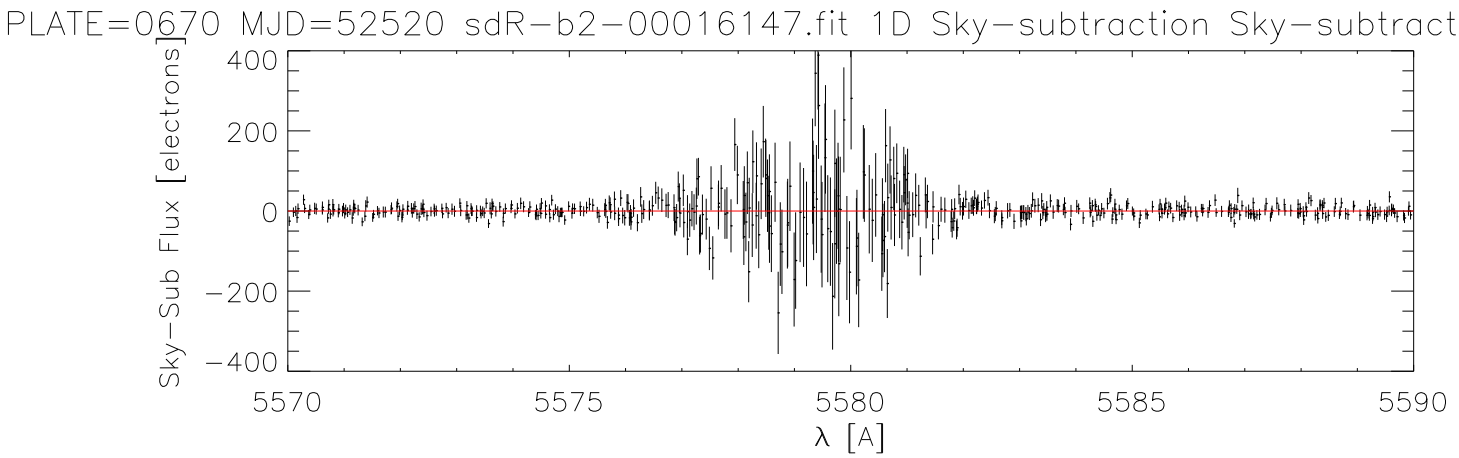

−0.10
−0.15
−0.20
−0.25
−0.30
−0.35
−0.40
sky shift, pixels
3500
4000
4500
5000
5500
6000
6500

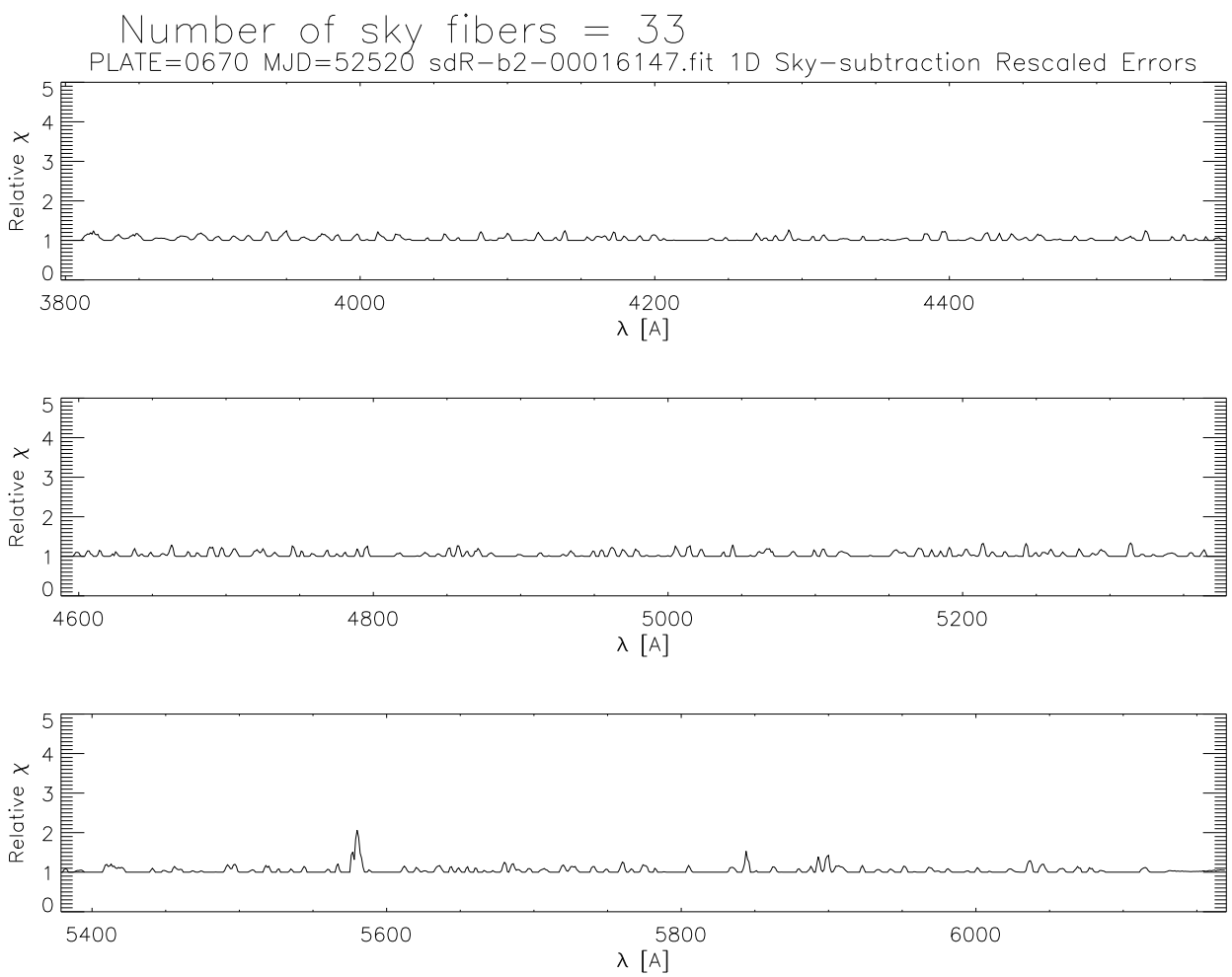

PLATE=0670 MJD=52520 Smooth superflat for sdR-b2-00016147.fit
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
0.985
0.980
4000
4500
5000
5500
6000
Wavelength (Å)

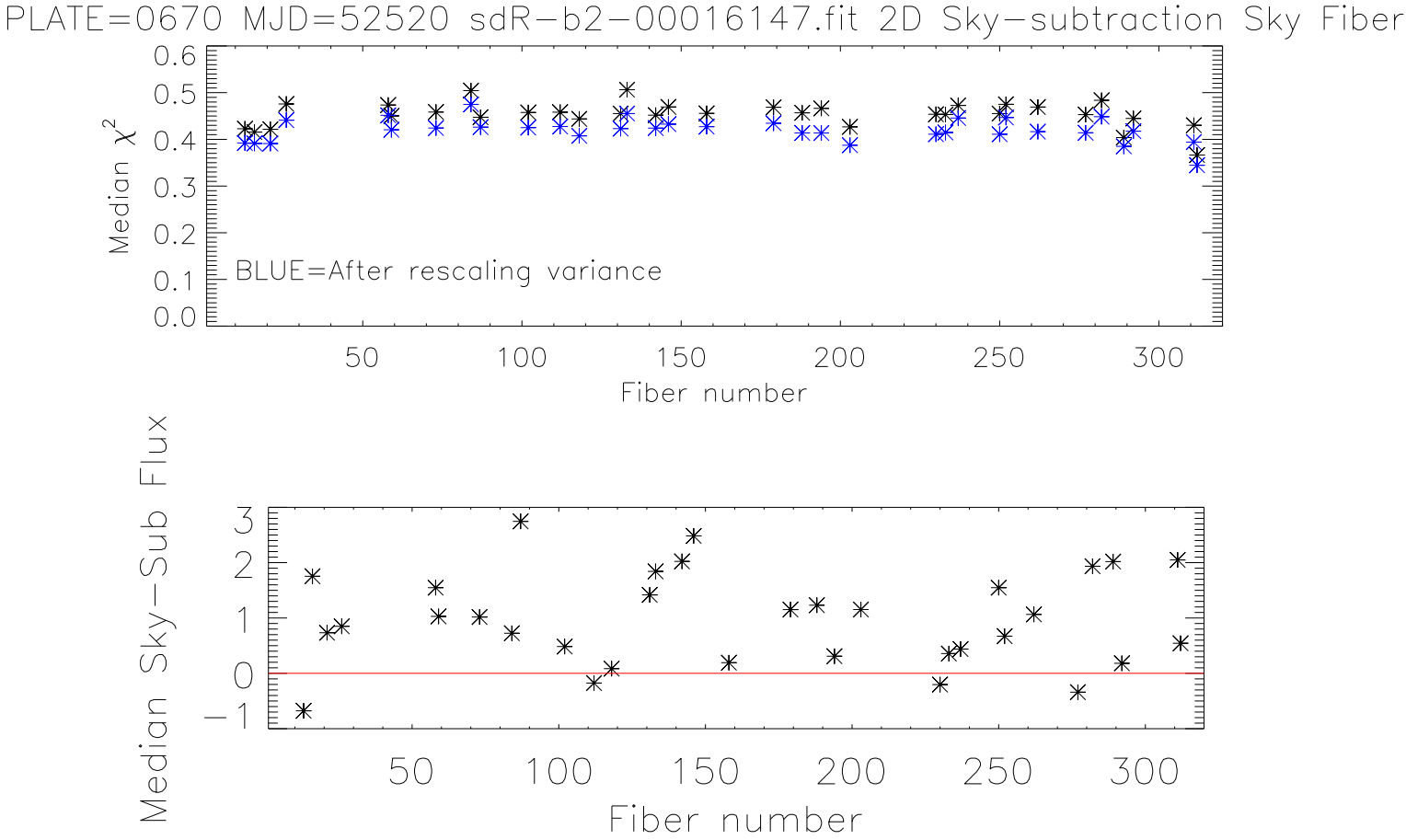
es= −0.0000

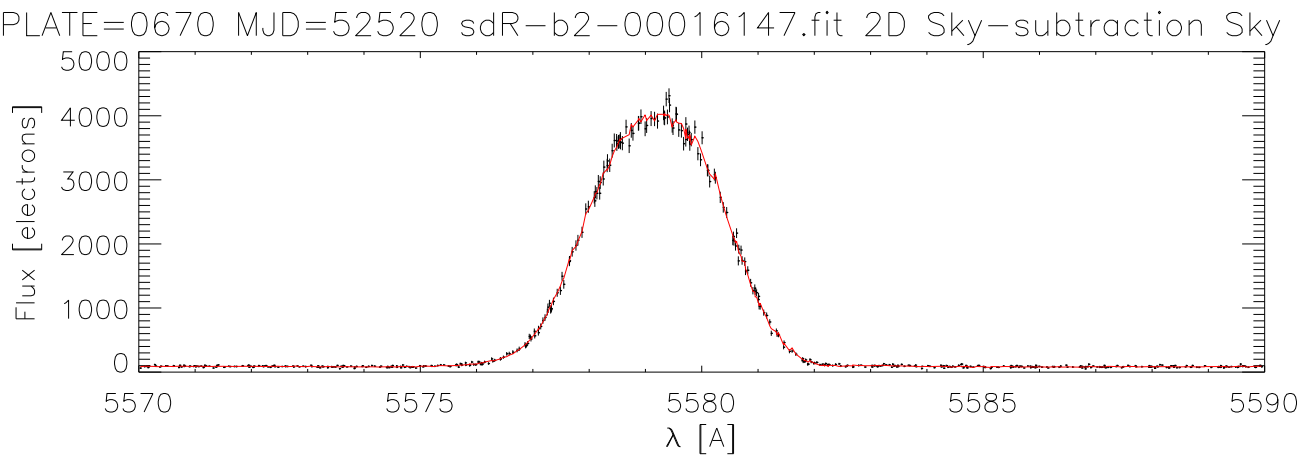

PLATE=0670 MJD=52520 sdR-b2-00016147.fit 1D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

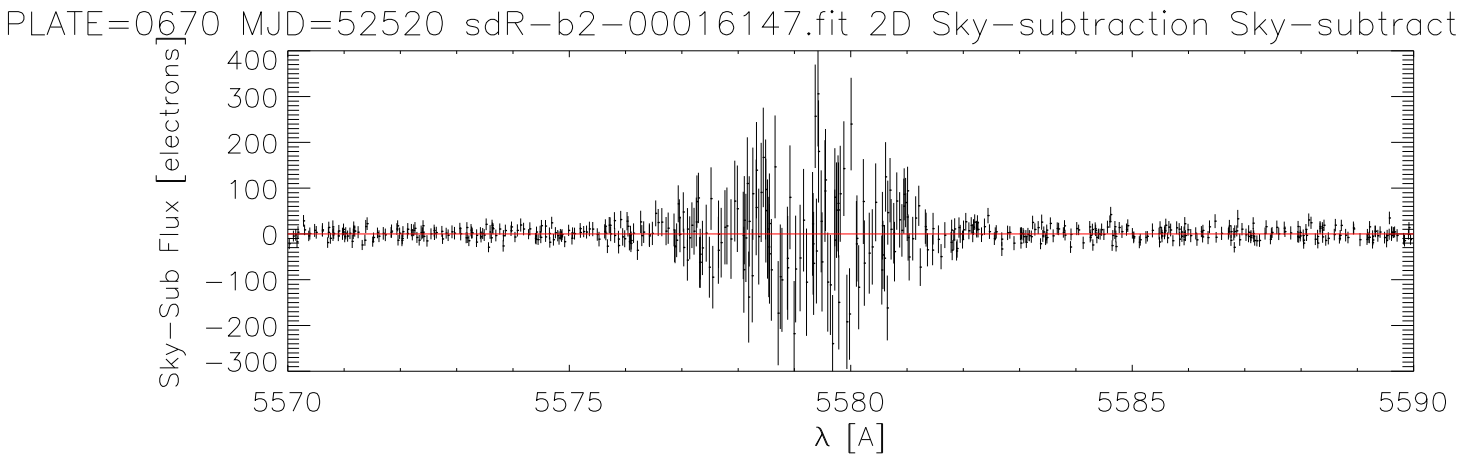

PLATE=0670 MJD=52520 sdR-b2-00016147.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

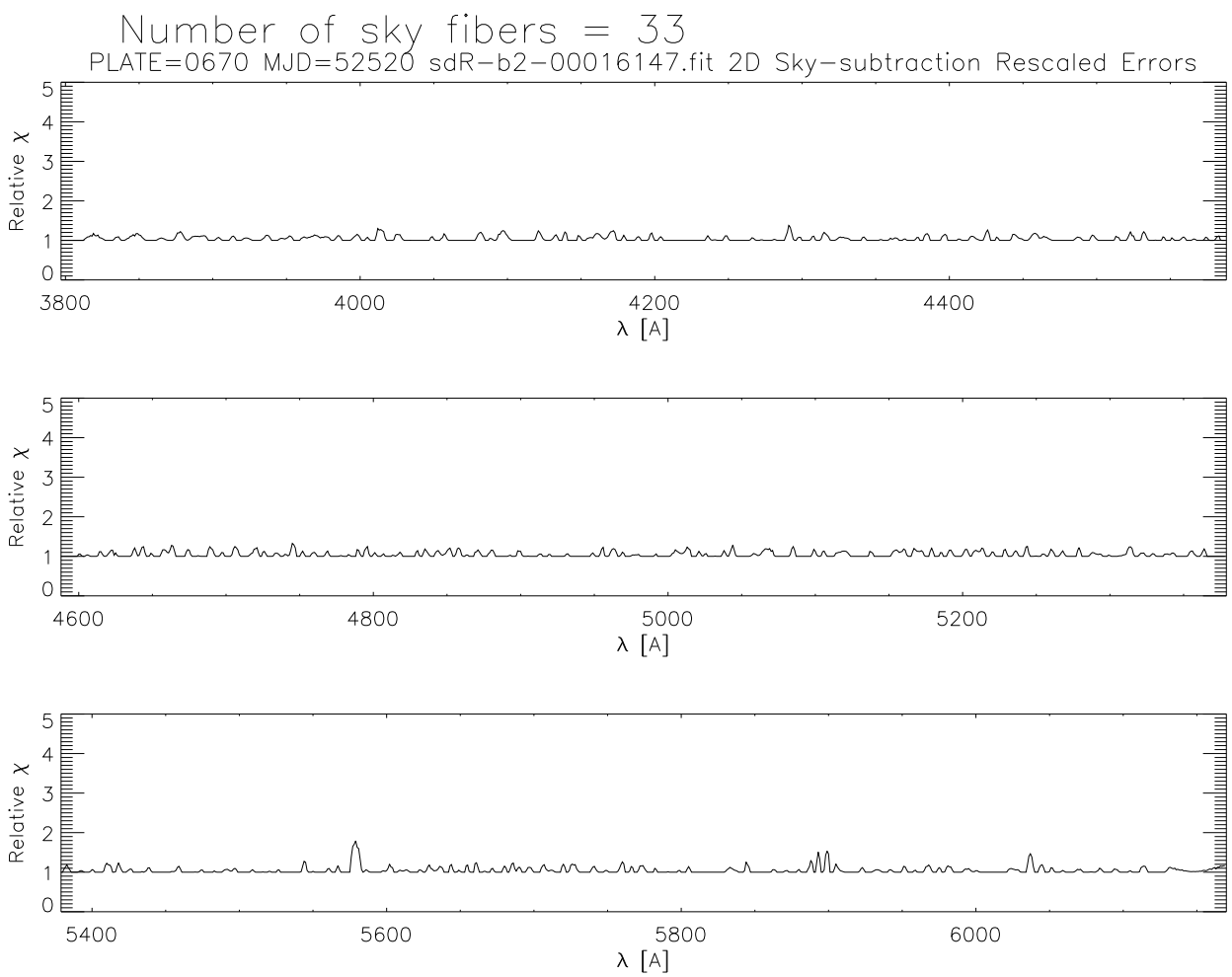

PLATE=0670 MJD=52520 sdR-b2-00016147.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
200
0
-200
-400
5570
5575
5580
5585
5590
λ [A]

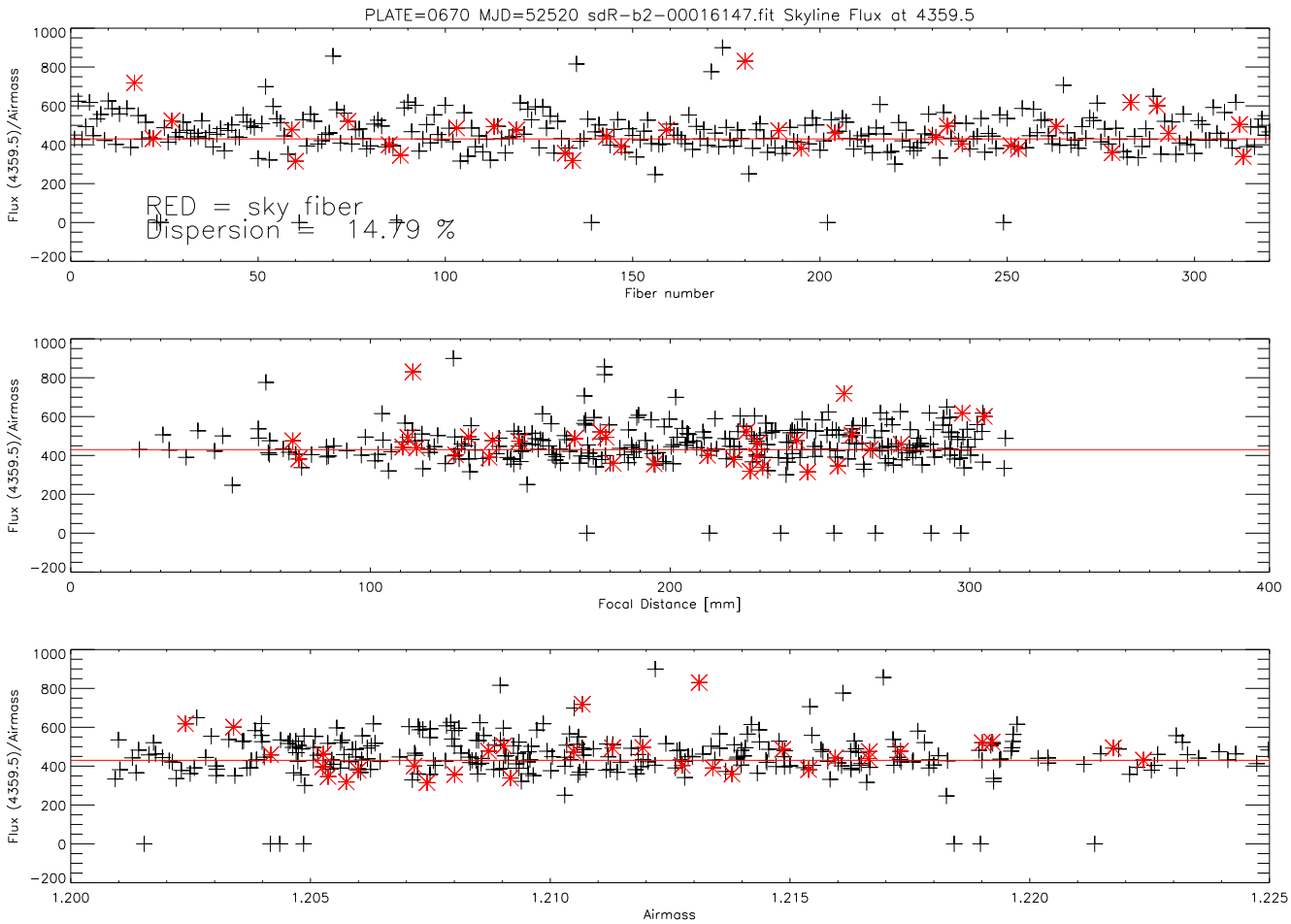

Number of sky fibers = 33
PLATE=0670 MJD=52520 sdR-b2-00016147.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

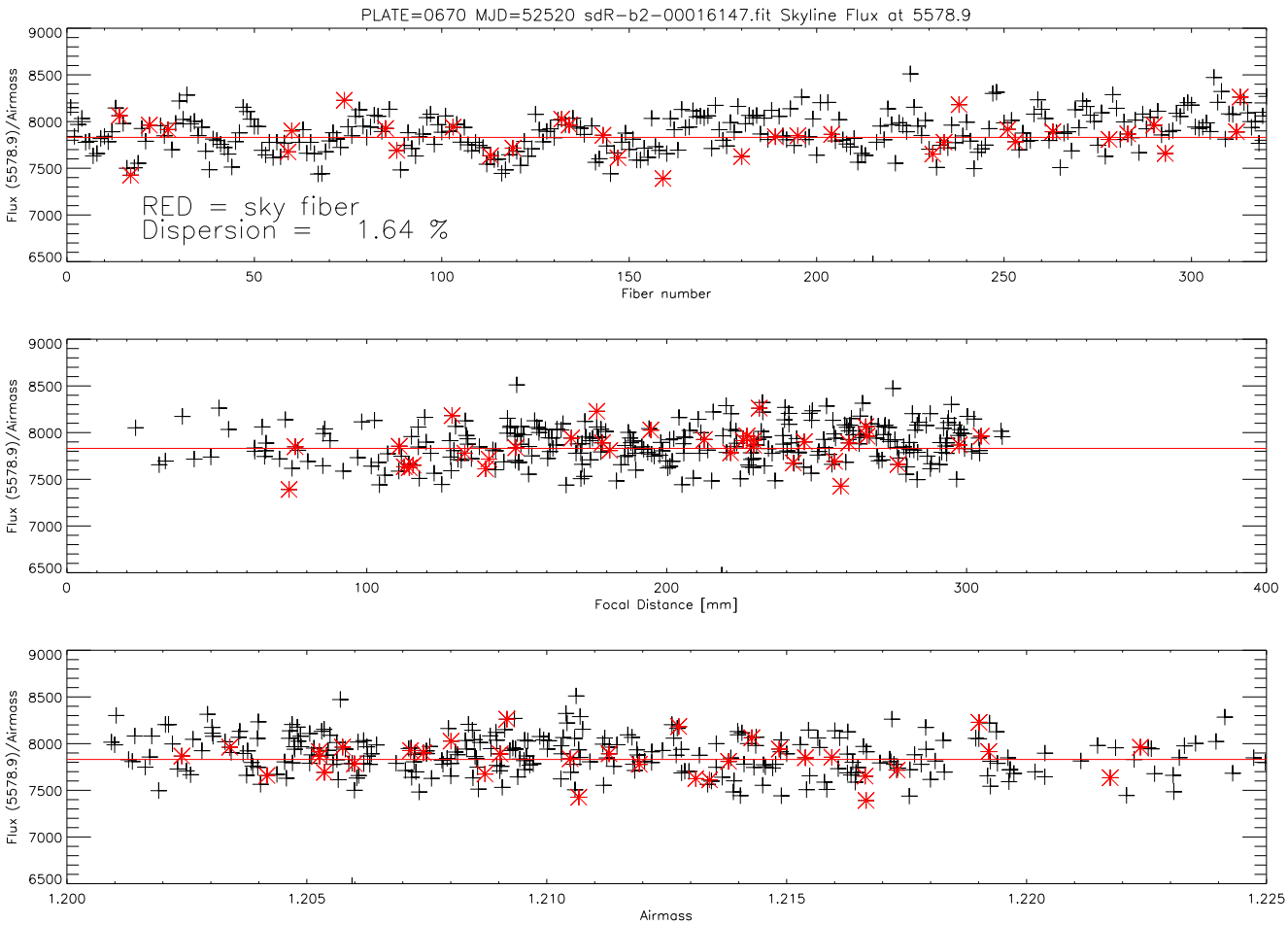

PLATE=0670 MJD=52520 sdR-b2-00016147.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

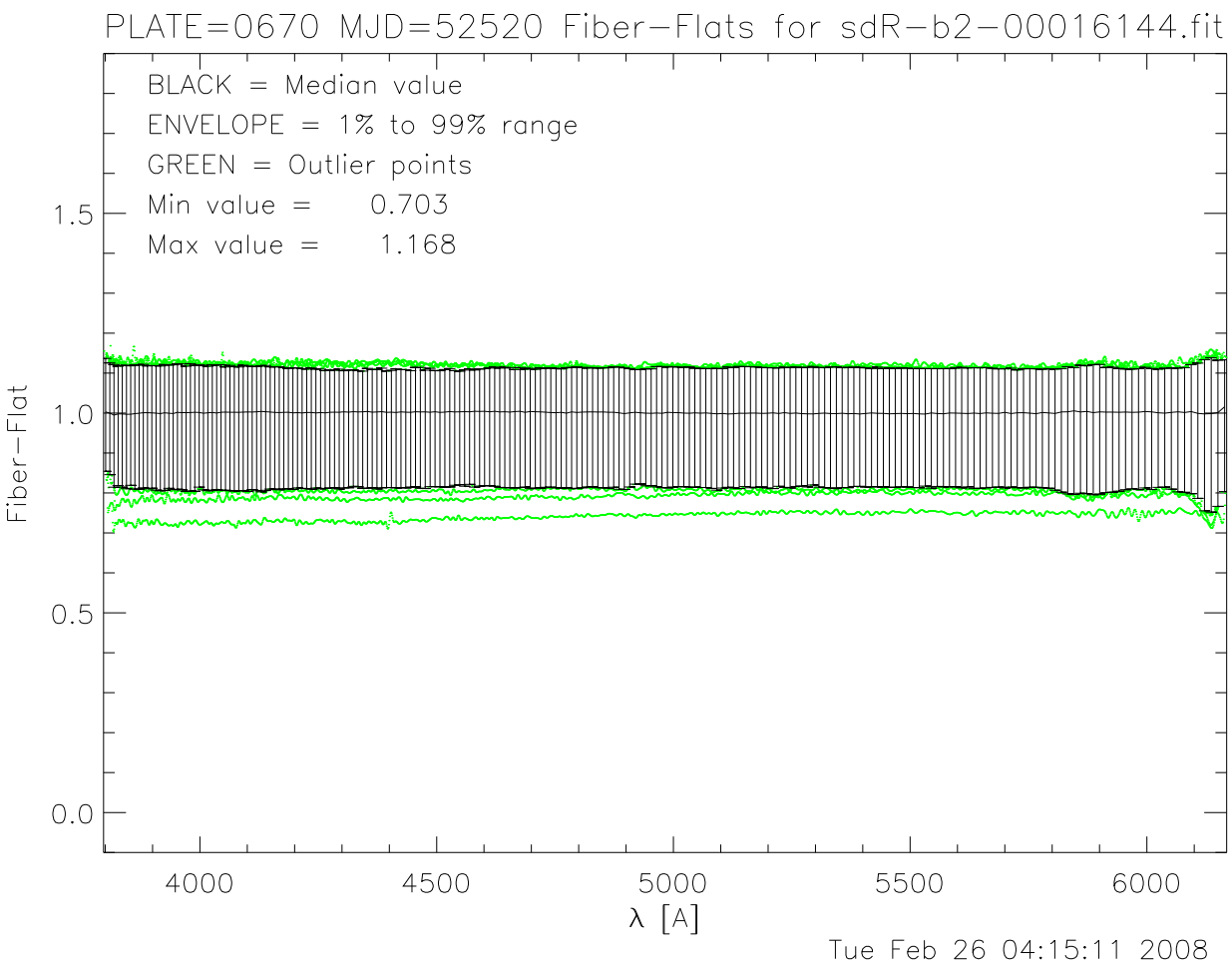

PLATE=0670 MJD=52520 sdR-b2-00016147.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

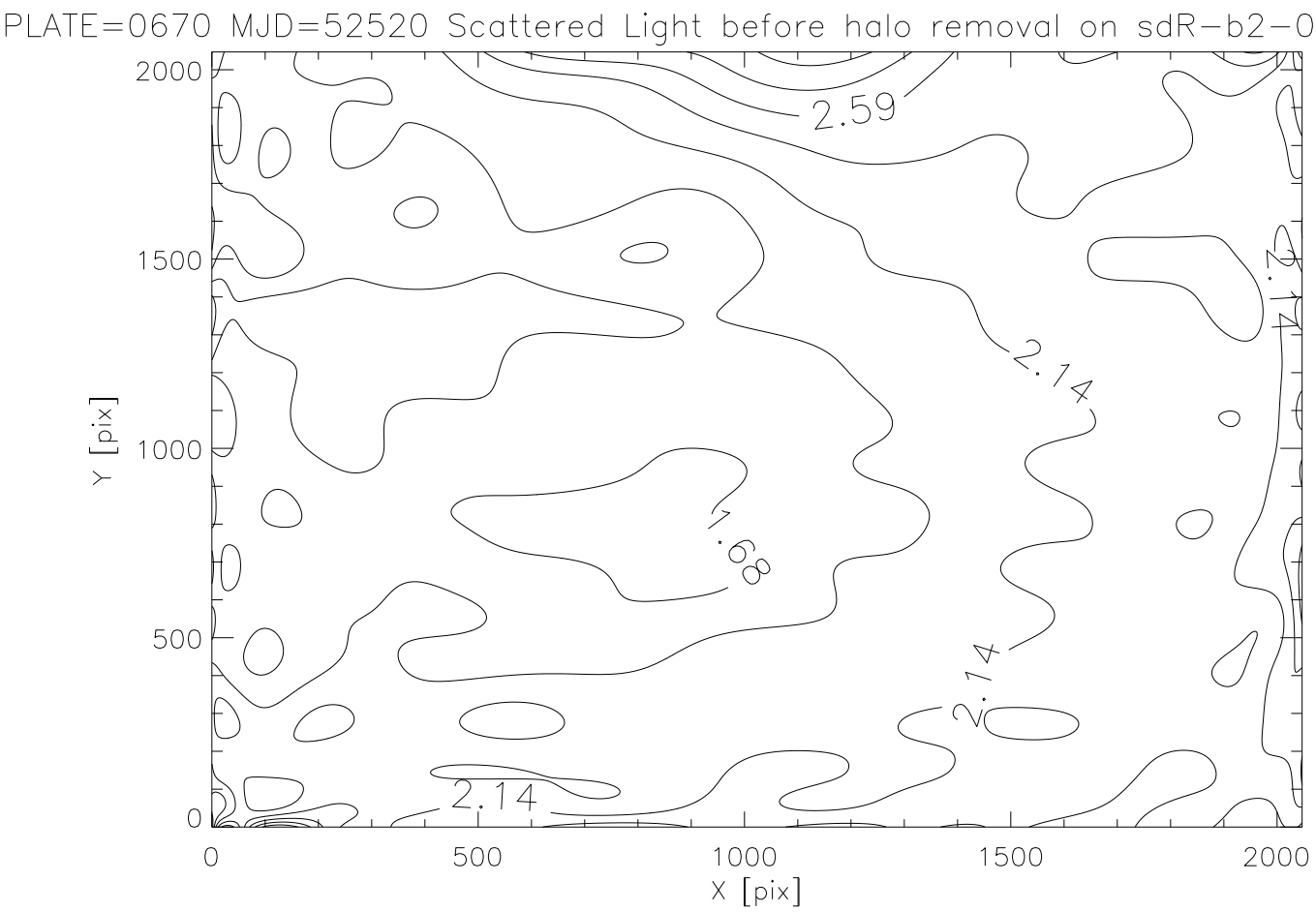

PLATE=0670 MJD=52520 sdR-b2-00016147.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
300
200
100
0
-100
-200
-300
5570
5575
5580
5585
5590
λ [A]

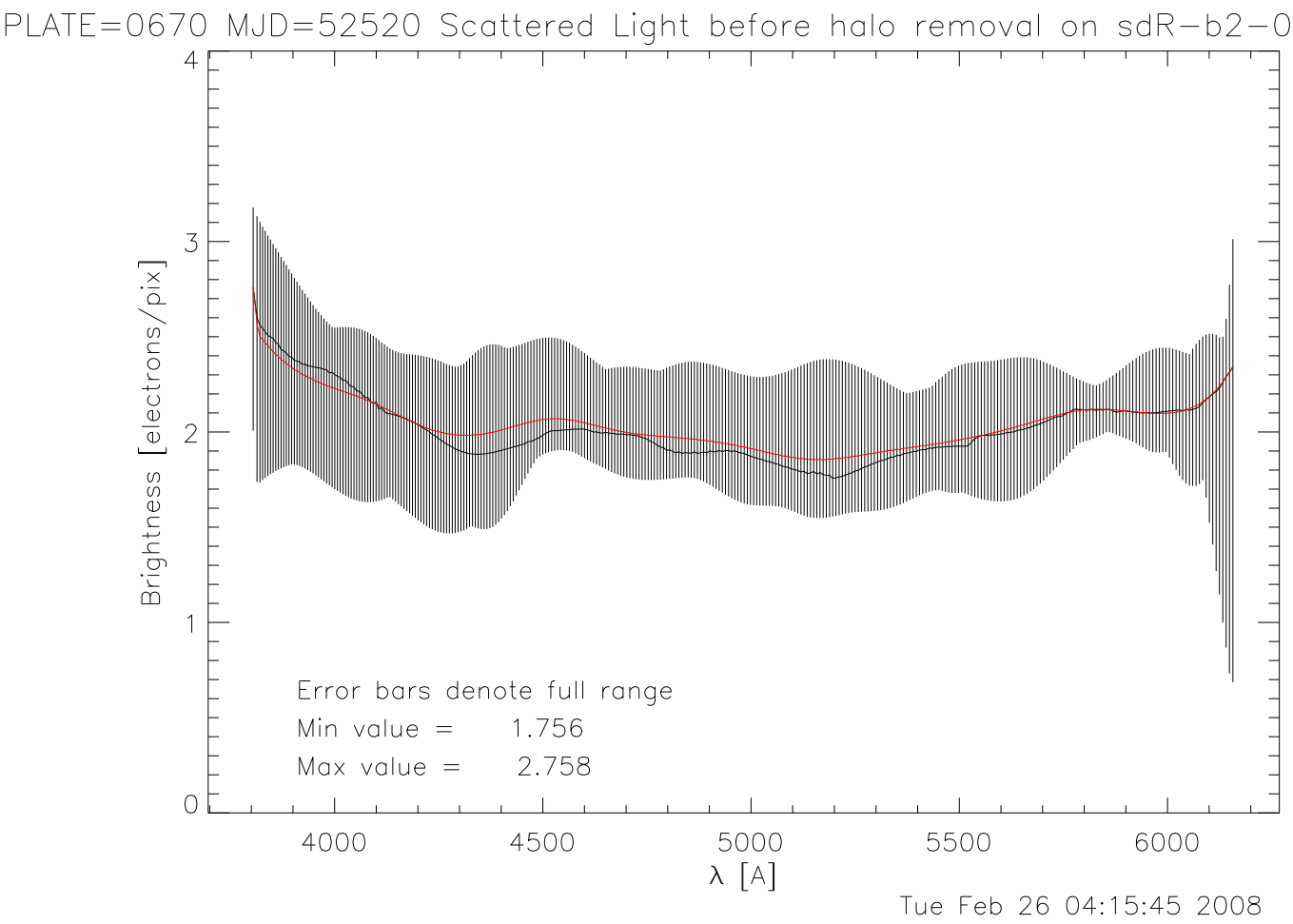

Number of sky fibers = 33
PLATE=0670 MJD=52520 sdR-b2-00016147.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

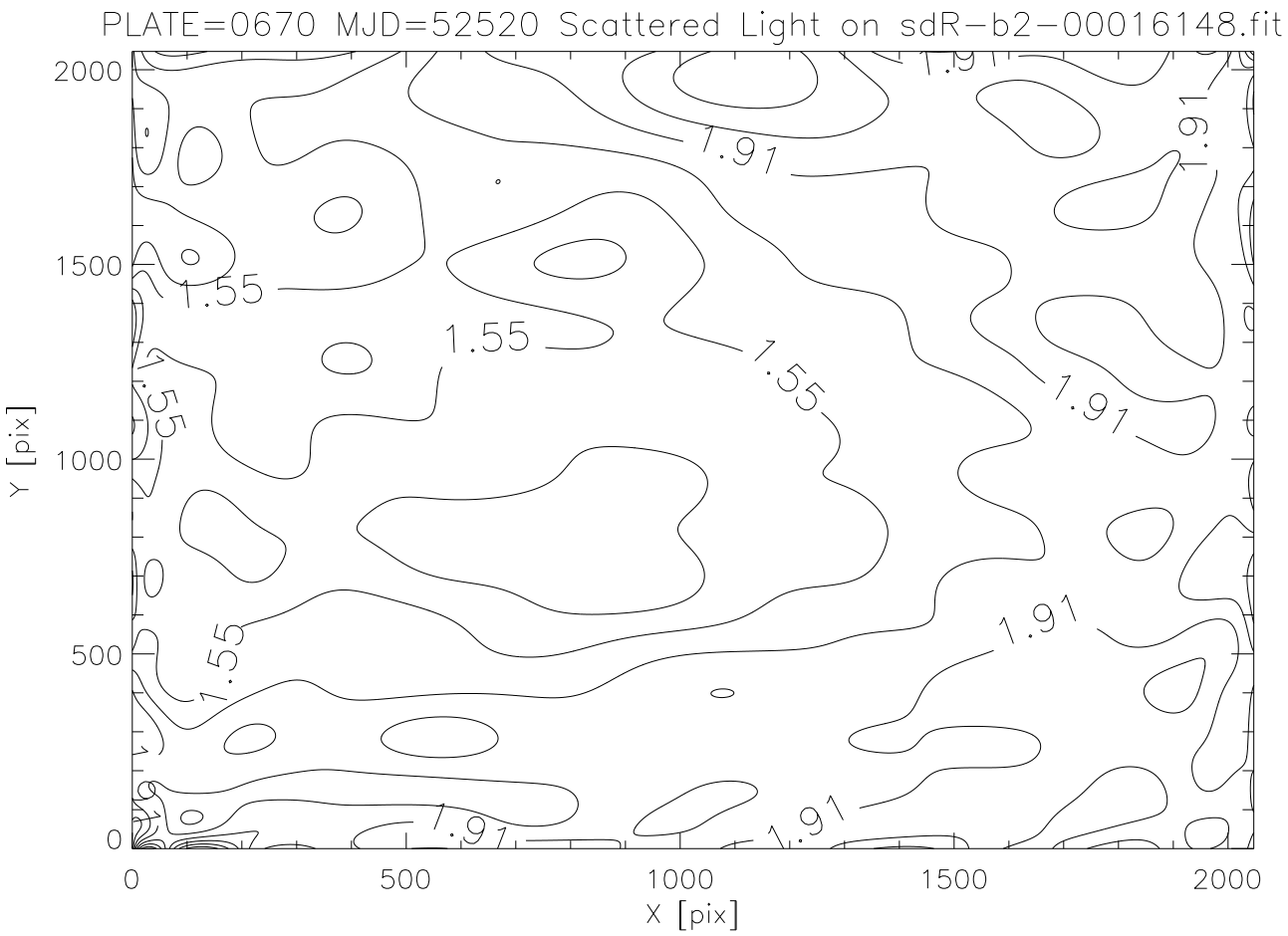

PLATE=0670 MJD=52520 sdR-b2-00016147.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 14.79 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

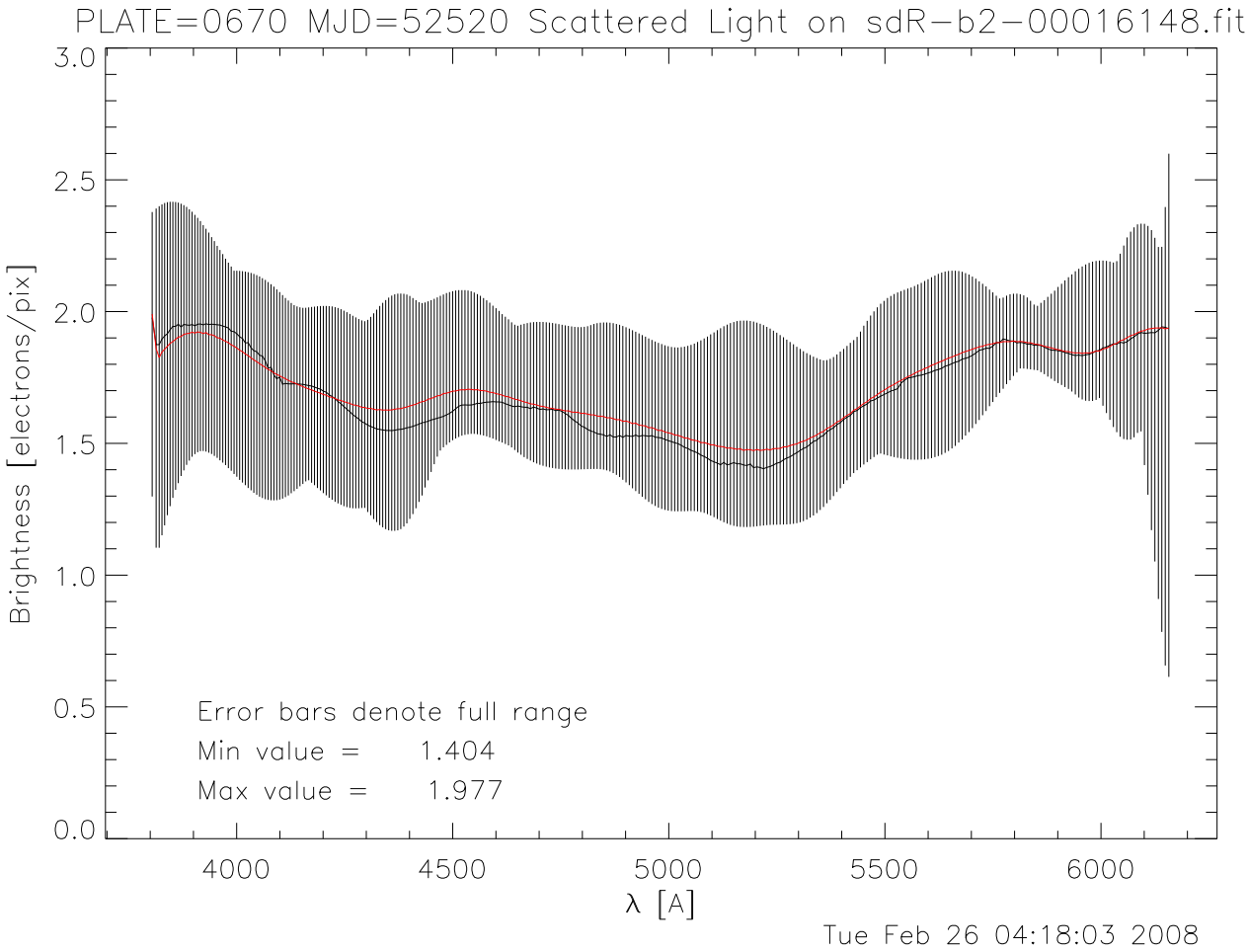

PLATE=0670 MJD=52520 sdR-b2-00016147.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 1.64 %
Fiber number
Flux (5578.9)/Airmass
Focal Distance [mm]
Flux (5578.9)/Airmass
Airmass

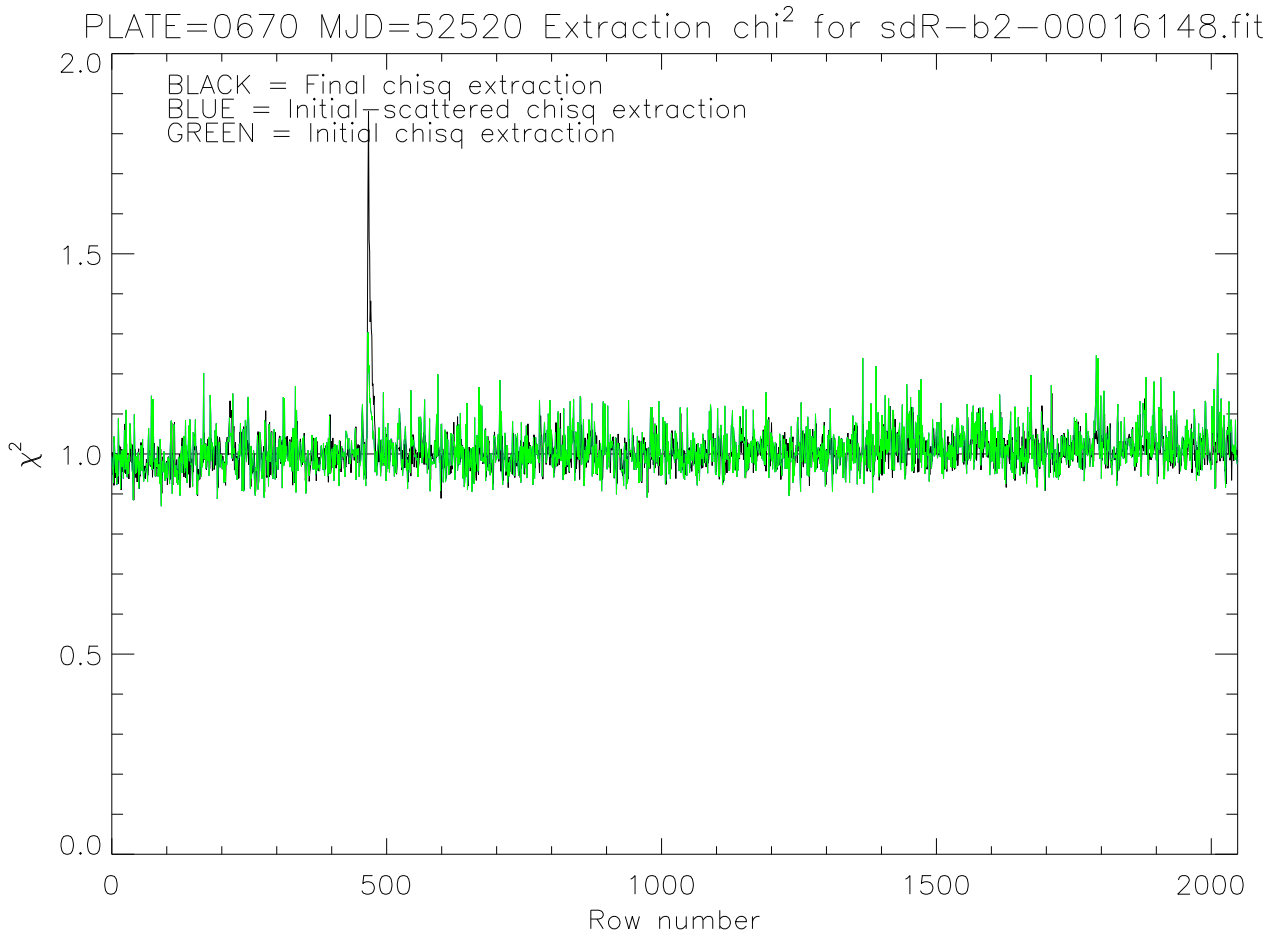

PLATE=0670 MJD=52520 Fiber-Flats for sdR-b2-00016144.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.703
Max value = 1.168
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Tue Feb 26 04:15:11 2008

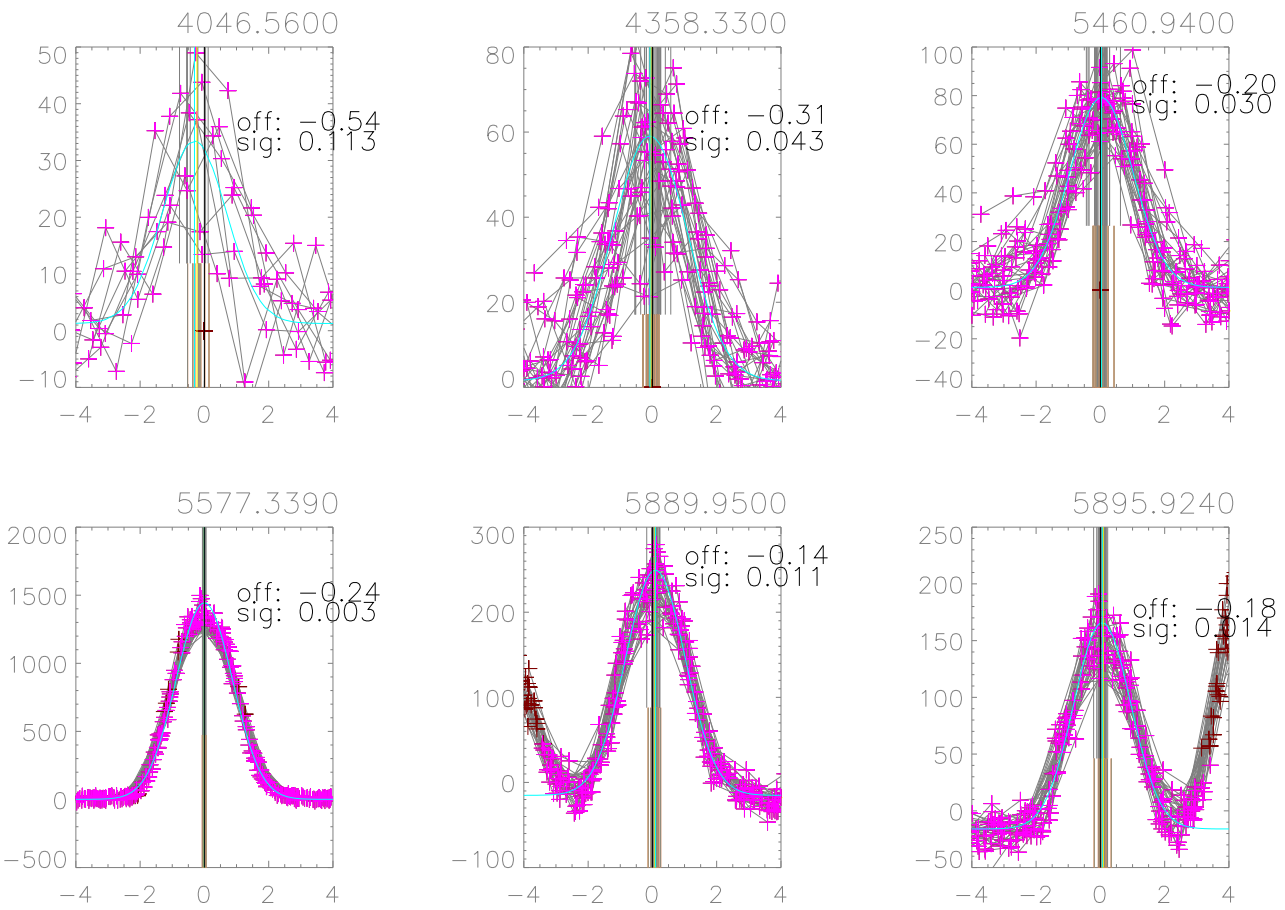

PLATE=0670 MJD=52520 Scattered Light before halo removal on sdR-b2-00016148.f
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
2.59
2.14
2.14
1.68
2.14
2.14

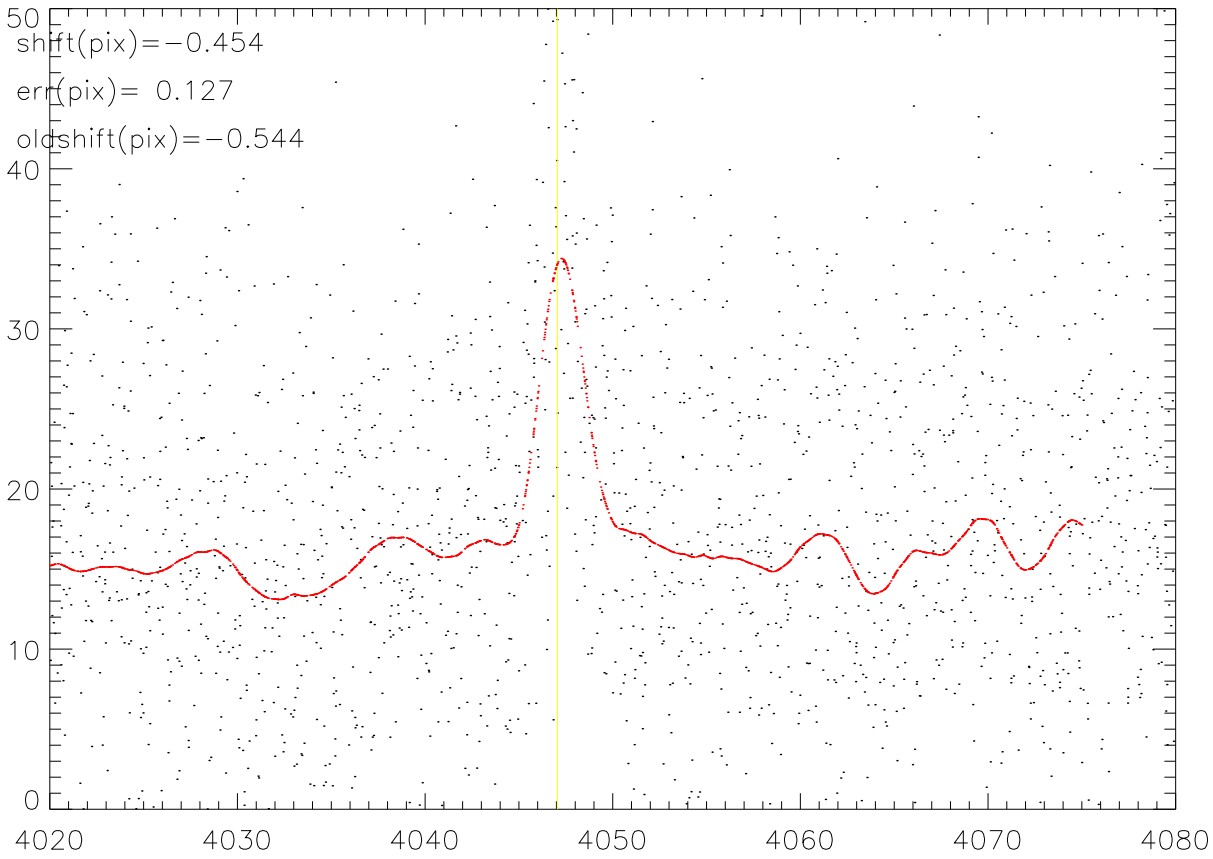

PLATE=0670 MJD=52520 Scattered Light before halo removal on sdR-b2-00016148.f
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 1.756
Max value = 2.758
Tue Feb 26 04:15:45 2008

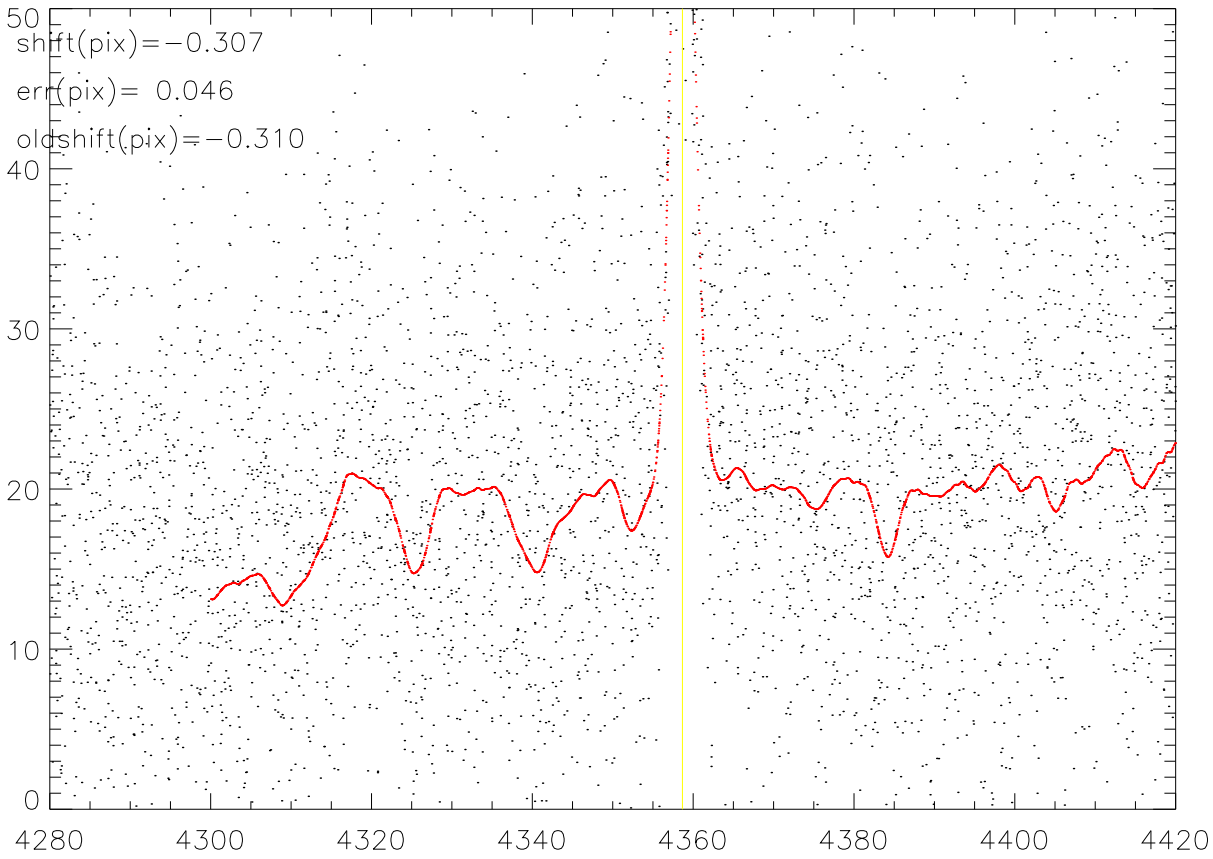

PLATE=0670 MJD=52520 Scattered Light on sdR-b2-00016148.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
1.55
1.91

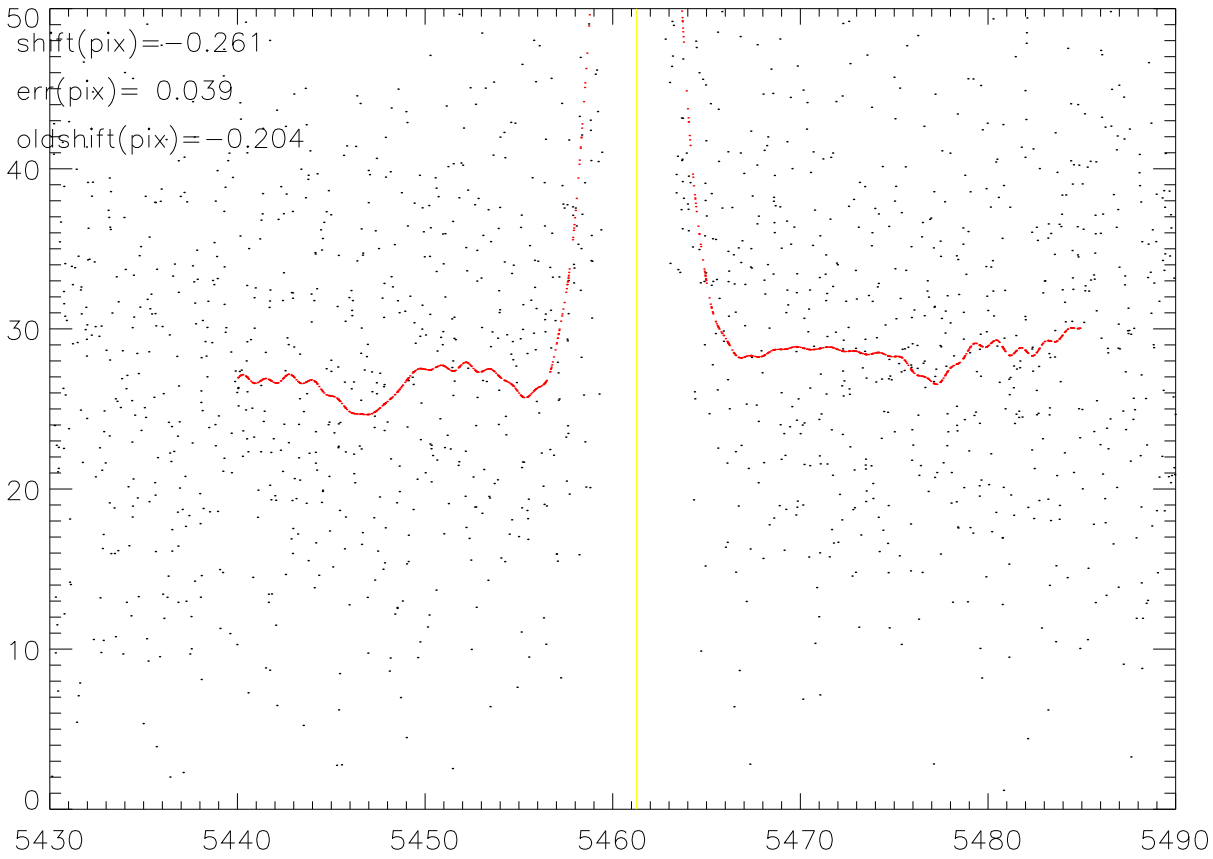

PLATE=0670 MJD=52520 Scattered Light on sdR-b2-00016148.fit
Brightness [electrons/pix]
3.0
2.5
2.0
1.5
1.0
0.5
0.0
Error bars denote full range
Min value = 1.404
Max value = 1.977
4000
4500
5000
5500
6000
λ [A]
Tue Feb 26 04:18:03 2008

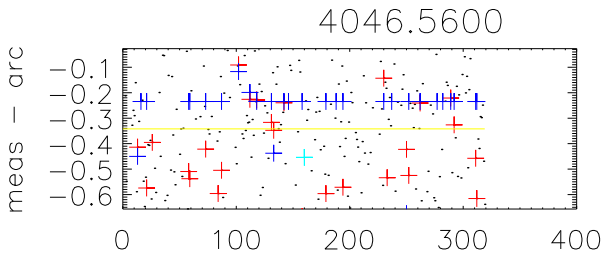

PLATE=0670 MJD=52520 Extraction chi^2 for sdR-b2-00016148.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
2.0
1.5
1.0
0.5
0.0
0
500
1000
1500
2000
Row number

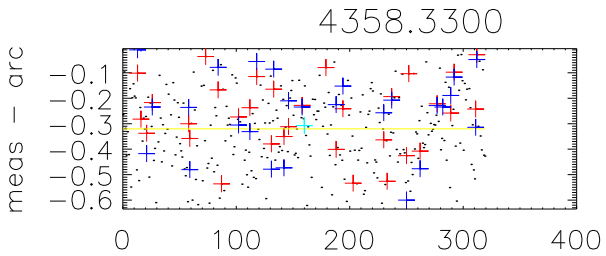

4046.5600
off: −0.54
sig: 0.113
4358.3300
off: −0.31
sig: 0.043
5460.9400
off: −0.20
sig: 0.030
5577.3390
off: −0.24
sig: 0.003
5889.9500
off: −0.14
sig: 0.011
5895.9240
off: −0.18
sig: 0.014

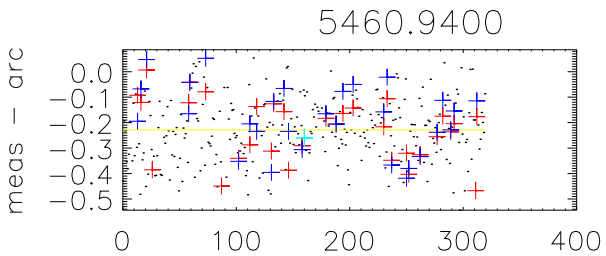

shift(pix)=−0.454
err(pix)= 0.127
oldshift(pix)=−0.544
50
40
30
20
10
0
4020
4030
4040
4050
4060
4070
4080

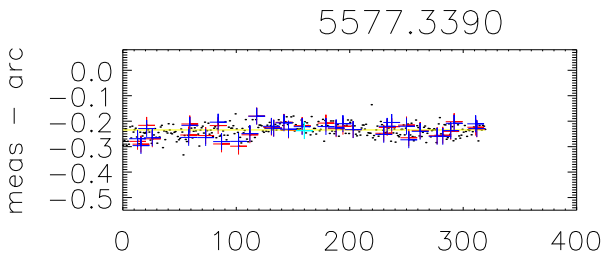

shift(pix)=−0.307
err(pix)= 0.046
oldshift(pix)=−0.310
50
40
30
20
10
0
4280
4300
4320
4340
4360
4380
4400
4420

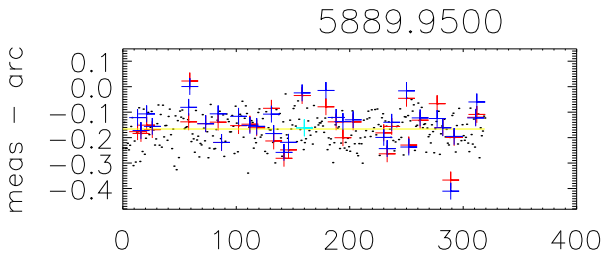

shift(pix)=-0.261
err(pix)= 0.039
oldshift(pix)=-0.204
50
40
30
20
10
0
5430
5440
5450
5460
5470
5480
5490

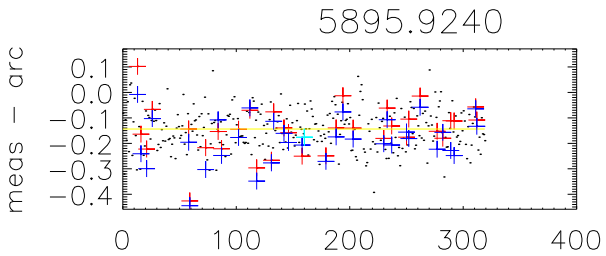

4046.5600
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

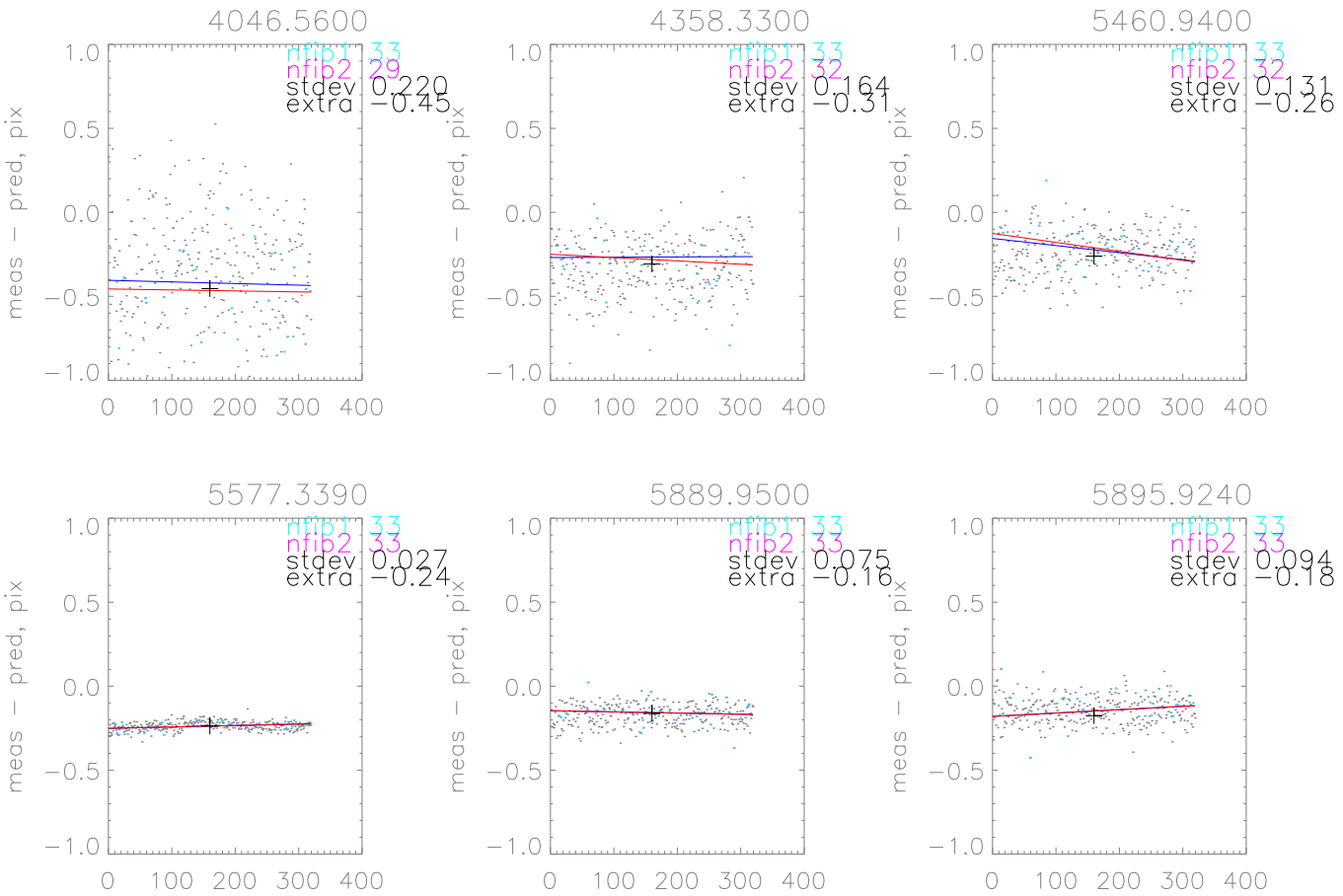

4358.3300
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

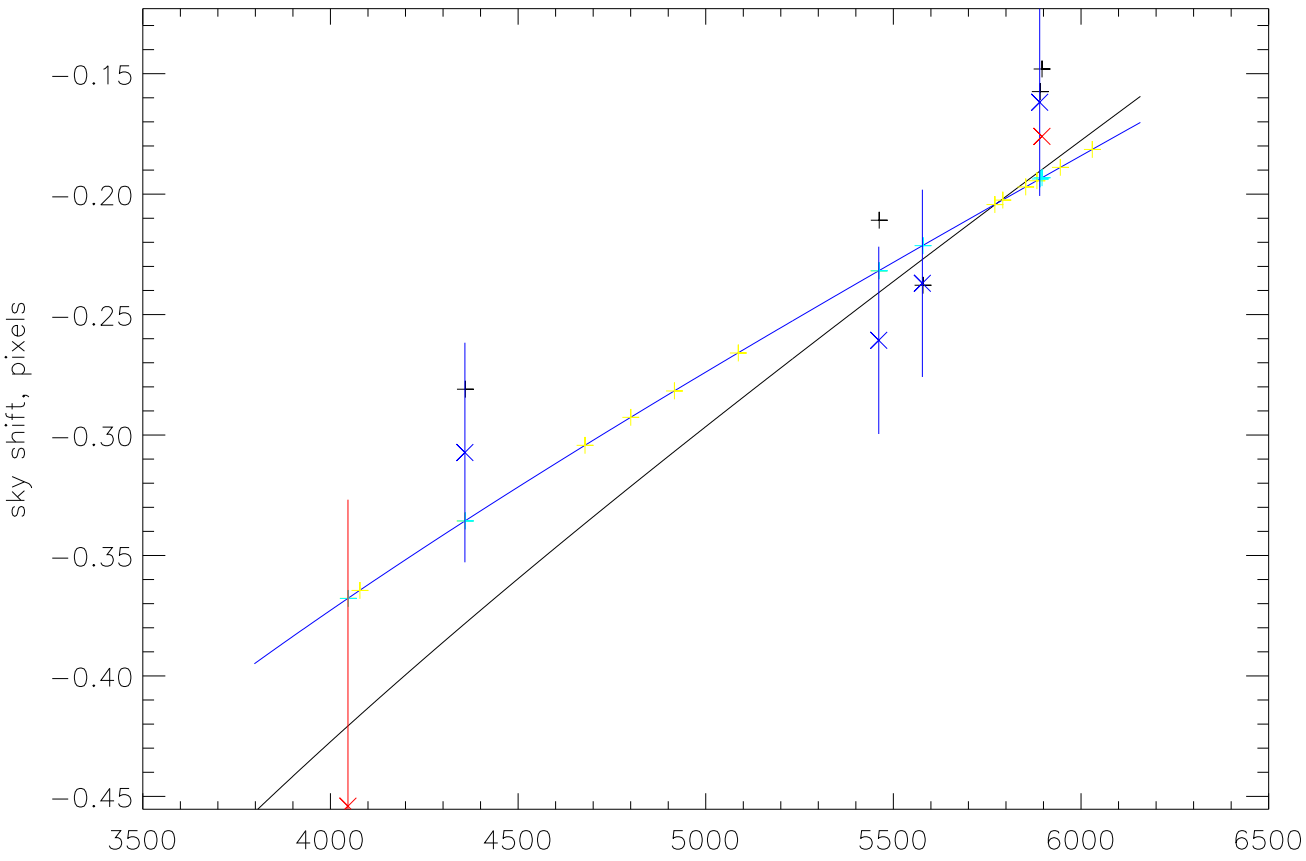

5460.9400
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

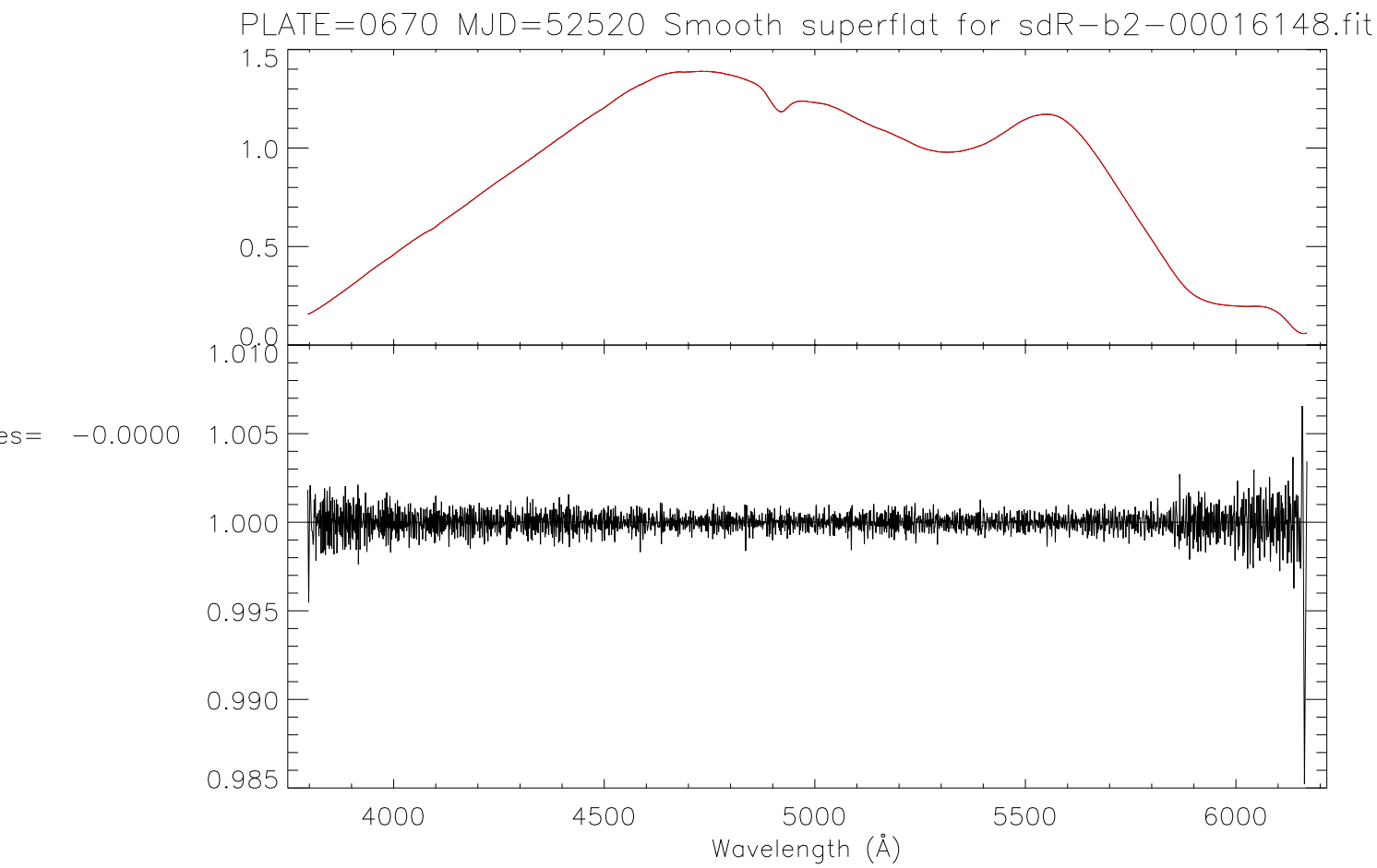

5577.3390
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

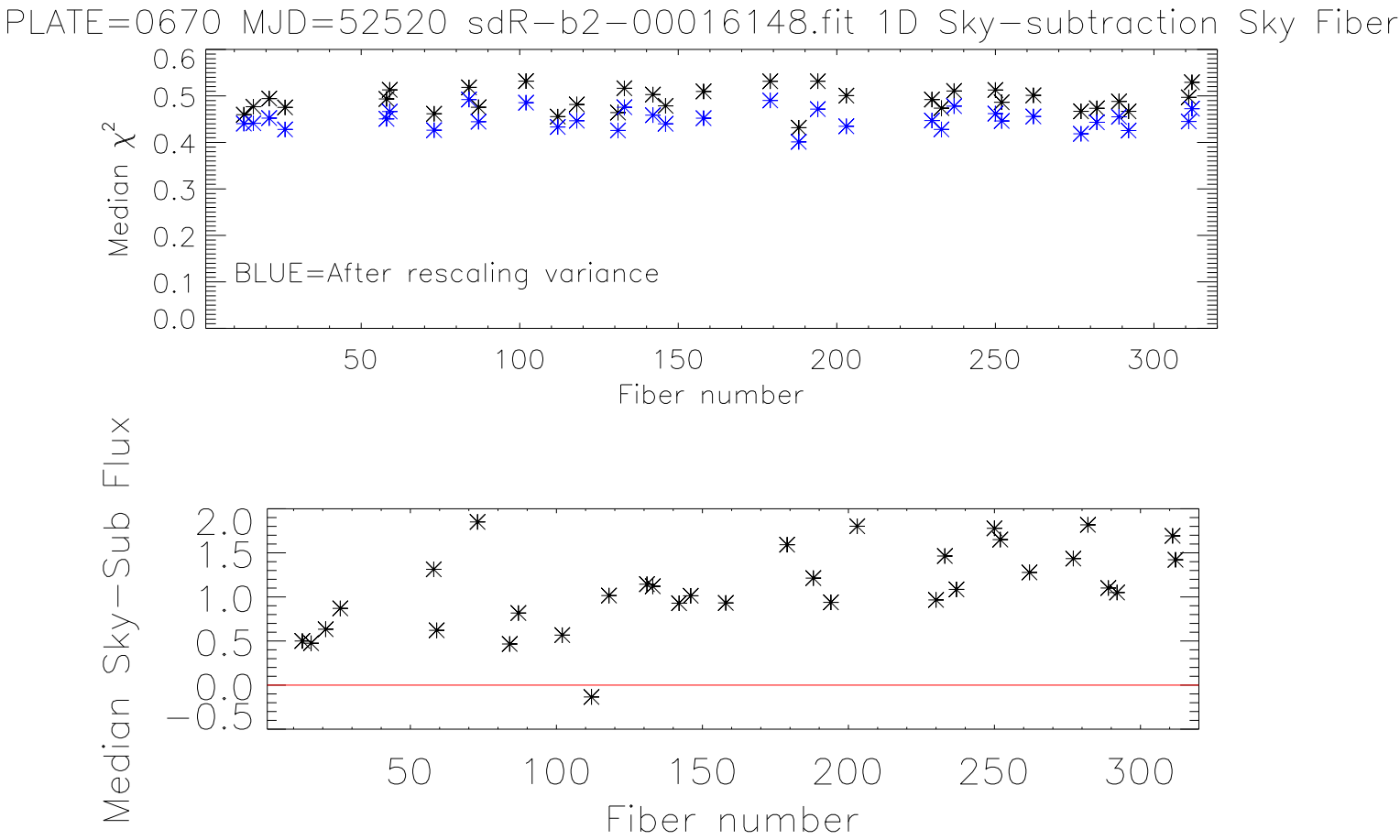

5889.9500
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

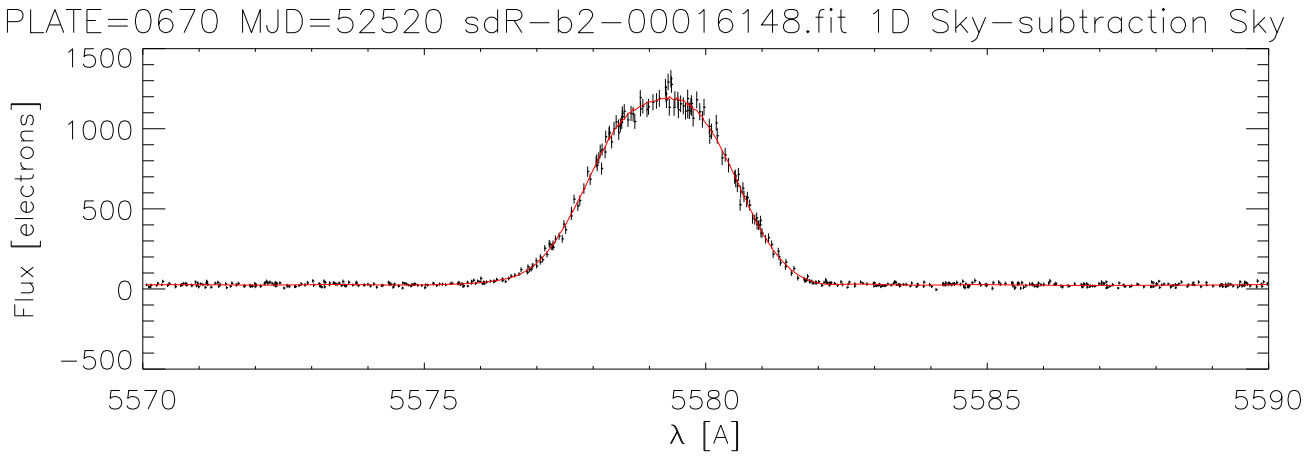

5895.9240
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

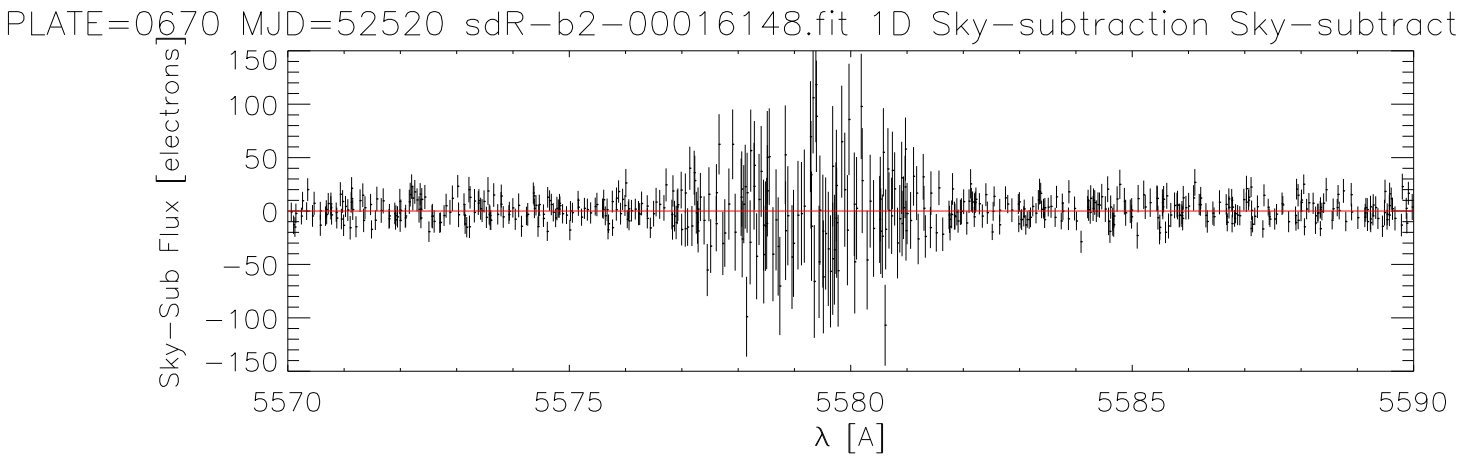

4046.5600
nfib1 33
nfib2 29
stdev 0.220
extra −0.45
4358.3300
nfib1 33
nfib2 32
stdev 0.164
extra −0.31
5460.9400
nfib1 33
nfib2 32
stdev 0.131
extra −0.26
5577.3390
nfib1 33
nfib2 33
stdev 0.027
extra −0.24
5889.9500
nfib1 33
nfib2 33
stdev 0.075
extra −0.16
5895.9240
nfib1 33
nfib2 33
stdev 0.094
extra −0.18
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

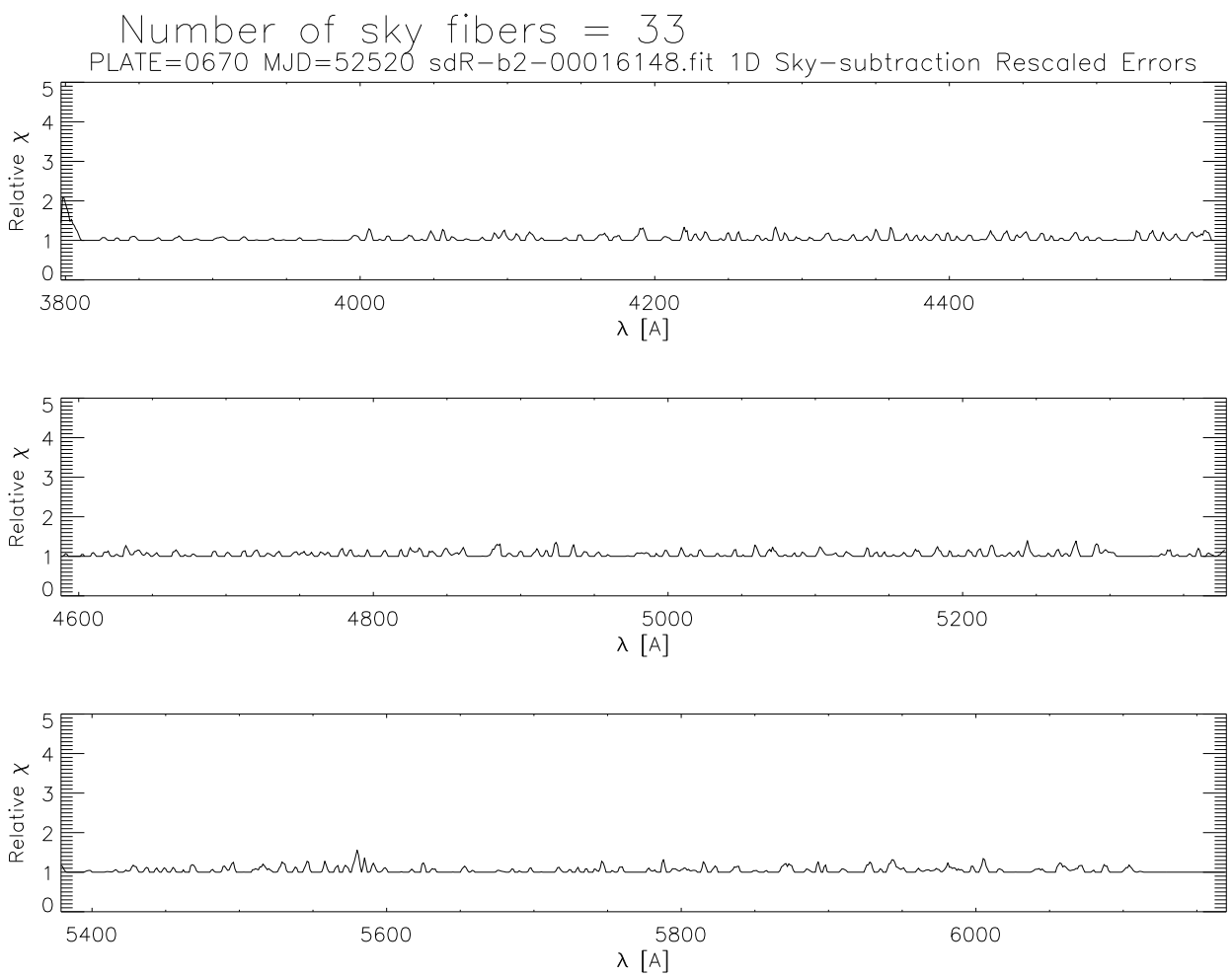

sky shift, pixels
−0.15
−0.20
−0.25
−0.30
−0.35
−0.40
−0.45
3500
4000
4500
5000
5500
6000
6500

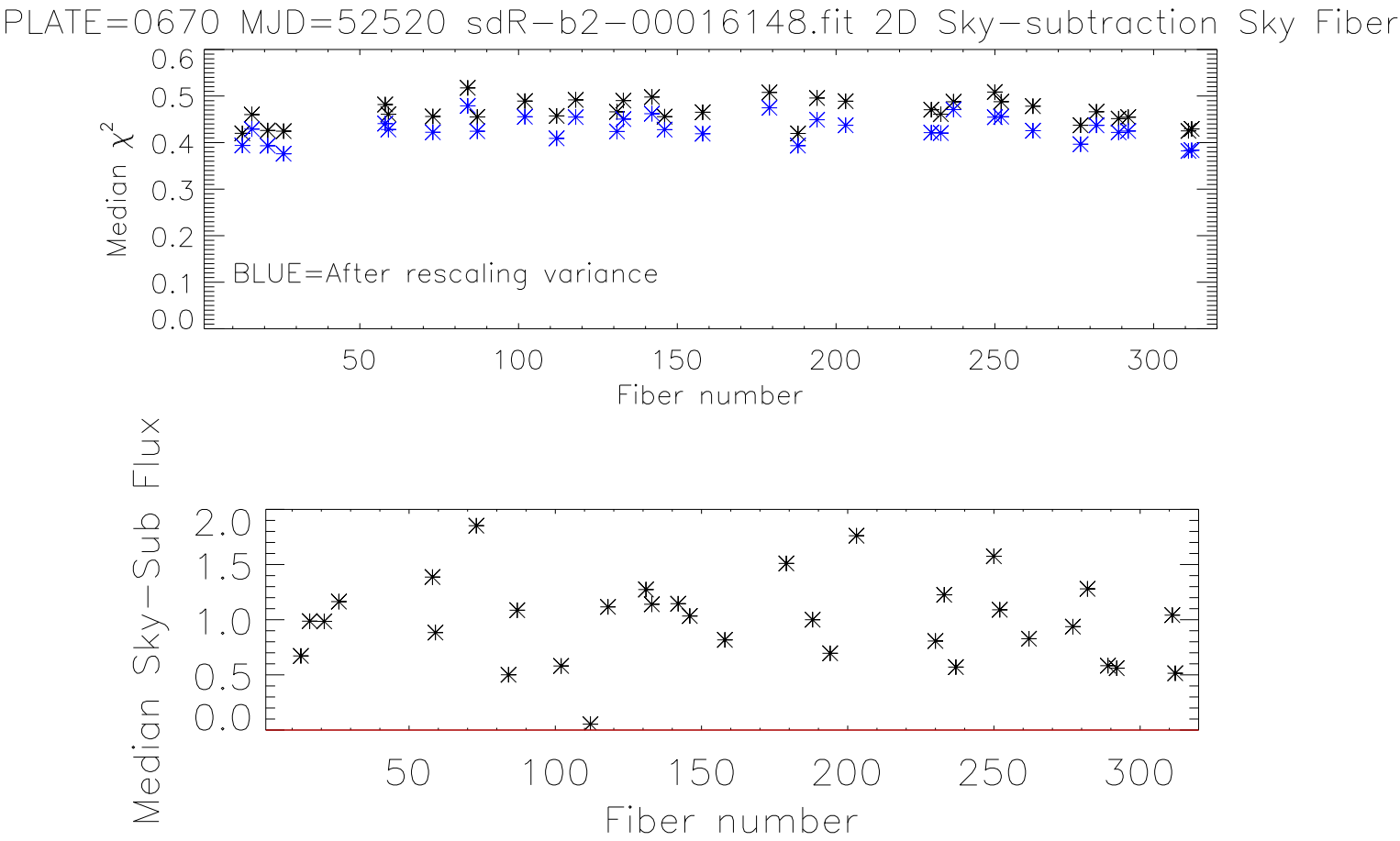

PLATE=0670 MJD=52520 Smooth superflat for sdR-b2-00016148.fit
1.5
1.0
0.5
0.0
1.010
es= −0.0000
1.005
1.000
0.995
0.990
0.985
4000
4500
5000
5500
6000
Wavelength (Å)

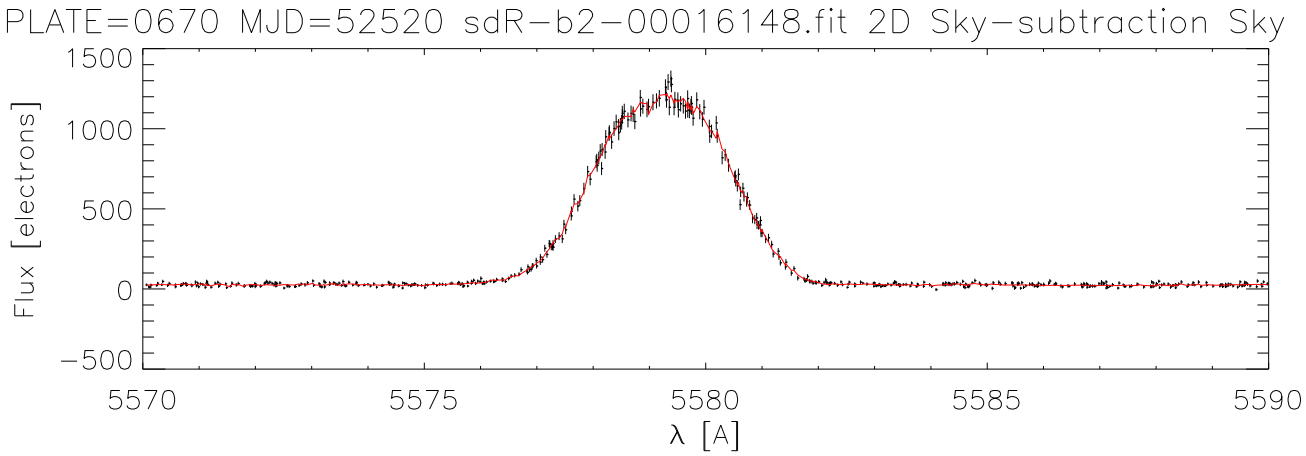

PLATE=0670 MJD=52520 sdR-b2-00016148.fit 1D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

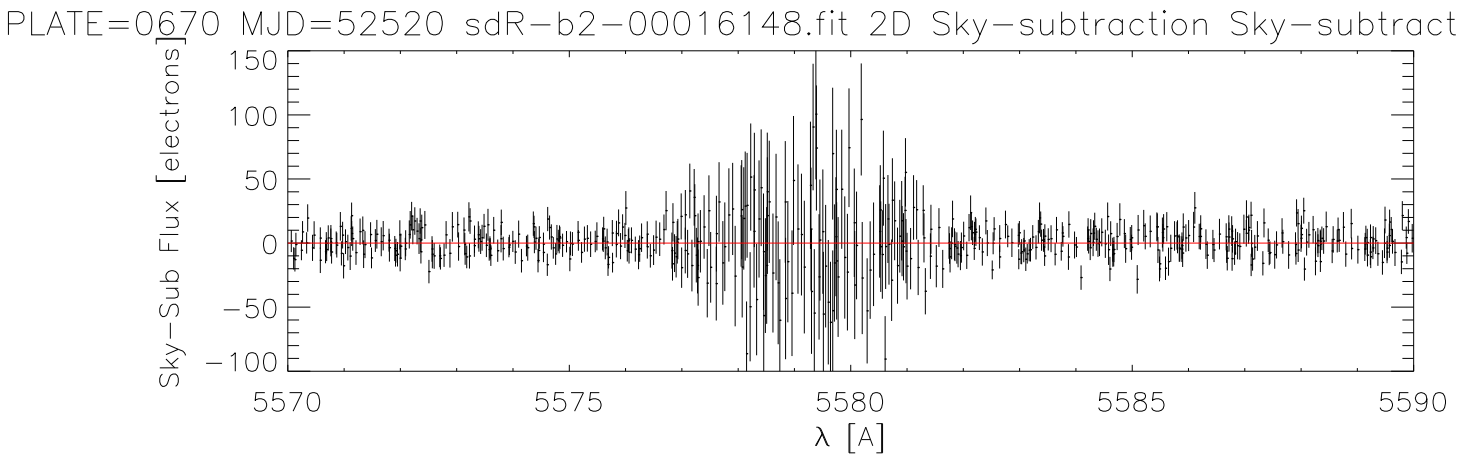

PLATE=0670 MJD=52520 sdR-b2-00016148.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
1500
1000
500
0
-500
5570
5575
5580
5585
5590
λ [A]

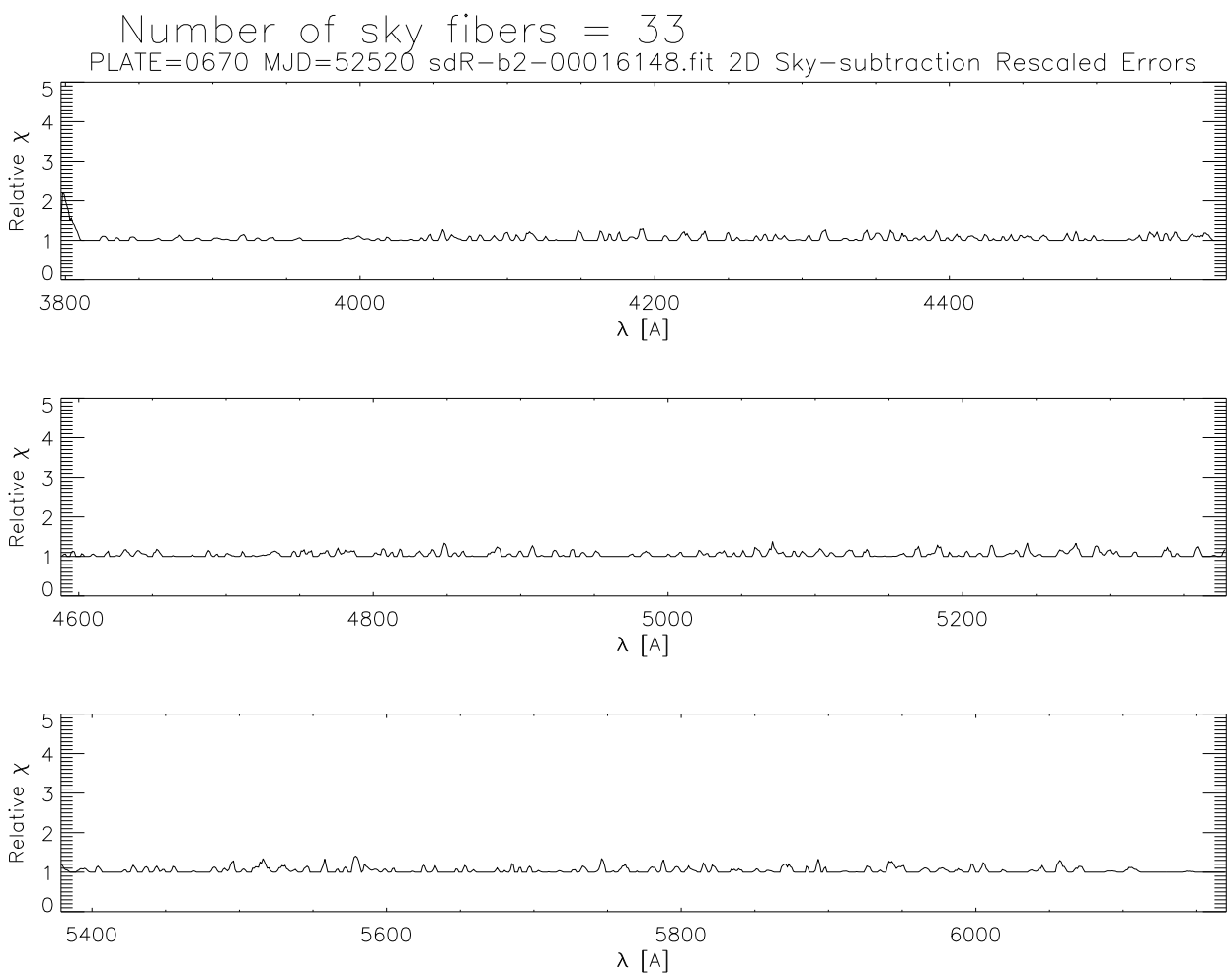

PLATE=0670 MJD=52520 sdR-b2-00016148.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
150
100
50
0
-50
-100
-150
5570
5575
5580
5585
5590
λ [A]

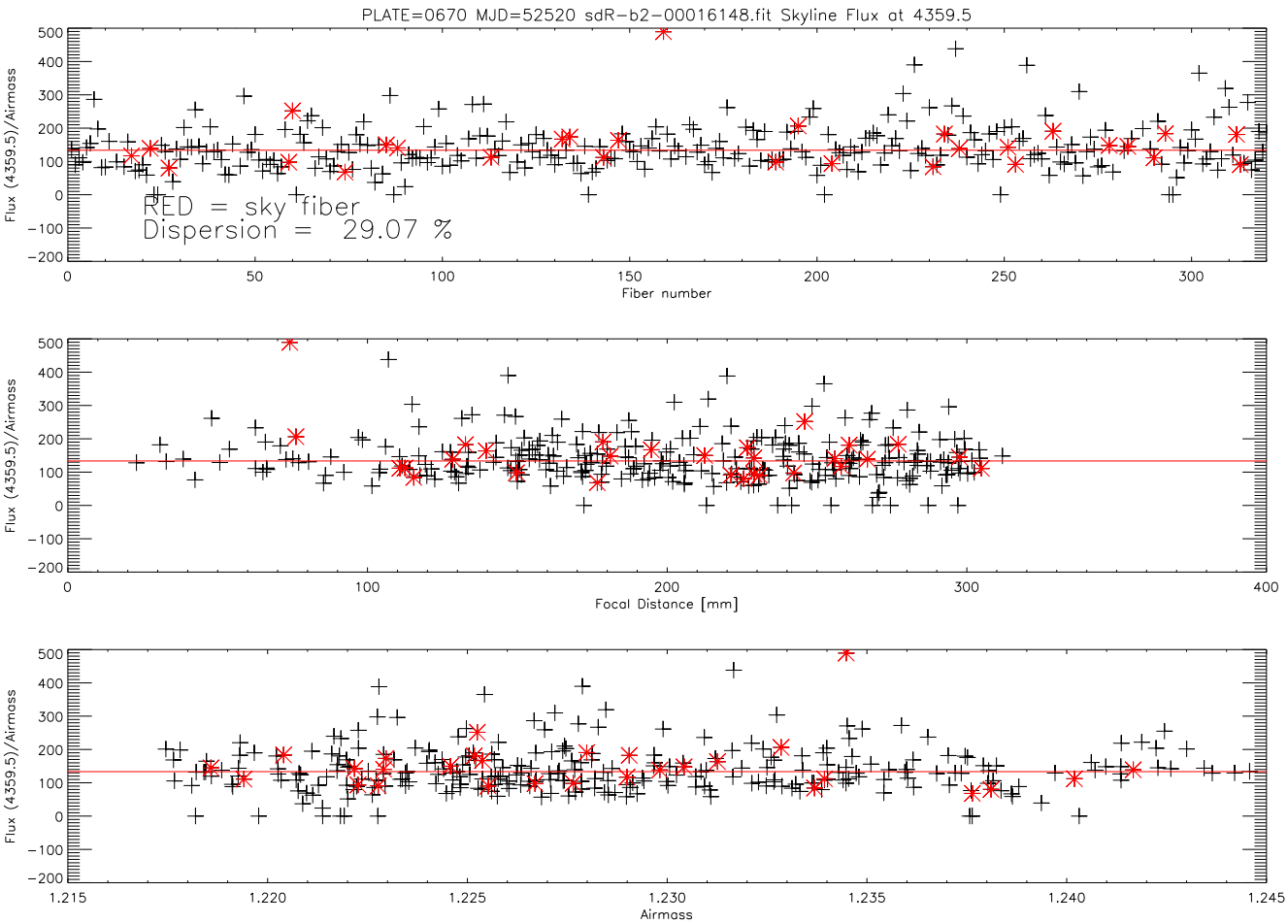

Number of sky fibers = 33
PLATE=0670 MJD=52520 sdR-b2-00016148.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

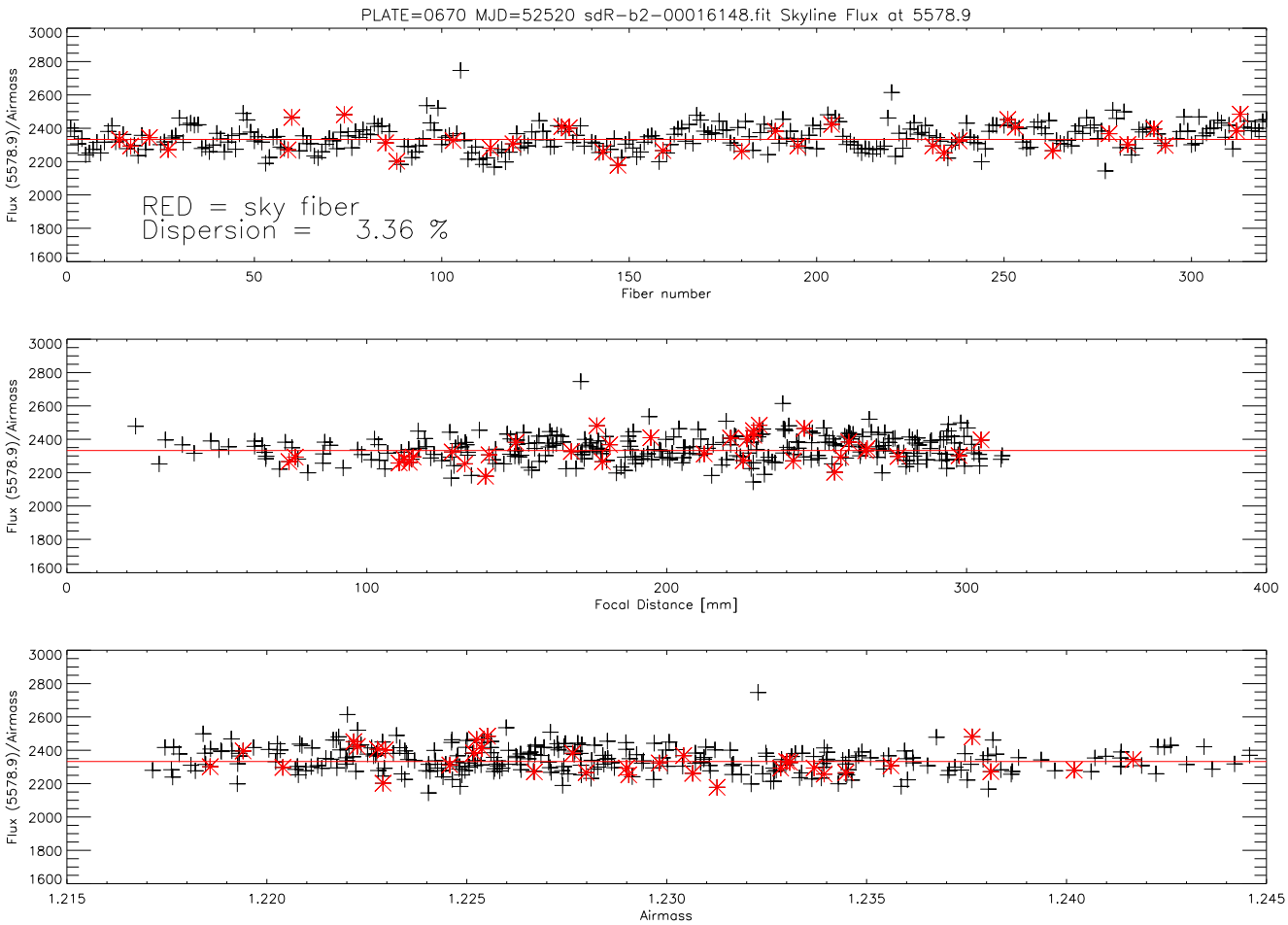

PLATE=0670 MJD=52520 sdR-b2-00016148.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

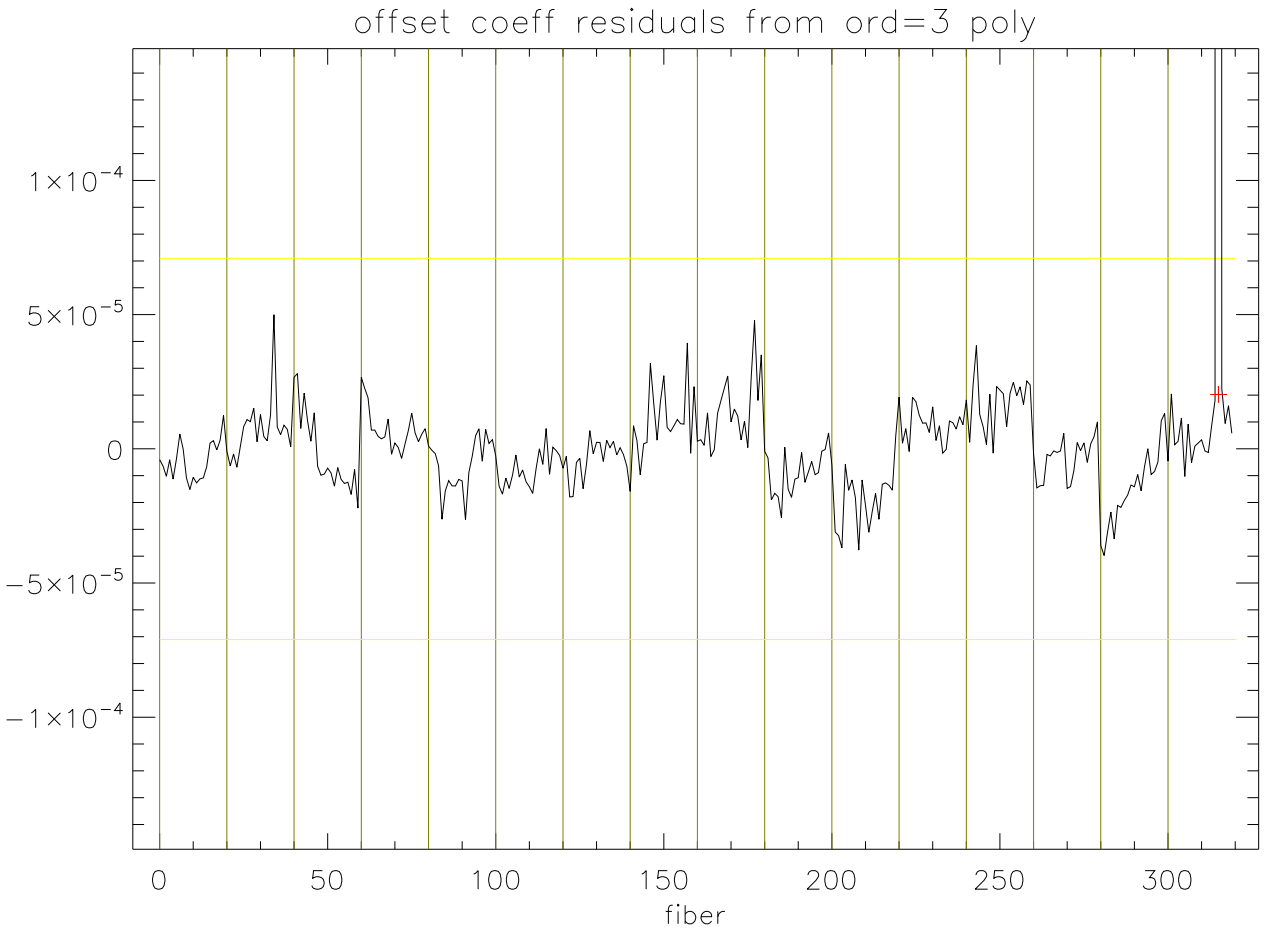

PLATE=0670 MJD=52520 sdR-b2-00016148.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
1500
1000
500
0
-500
5570
5575
5580
5585
5590
λ [A]

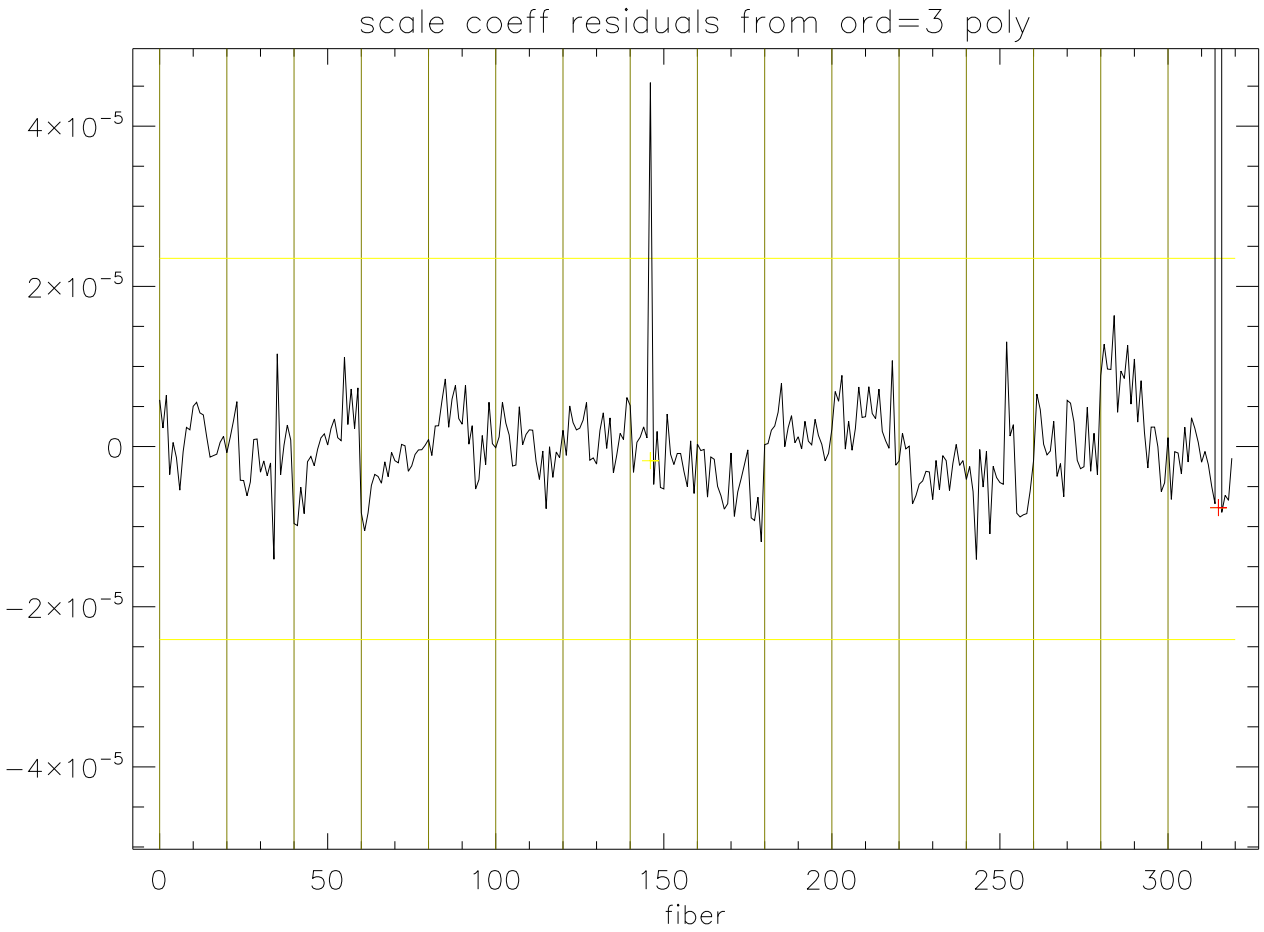

PLATE=0670 MJD=52520 sdR-b2-00016148.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
150
100
50
0
-50
-100
5570
5575
5580
5585
5590
λ [A]

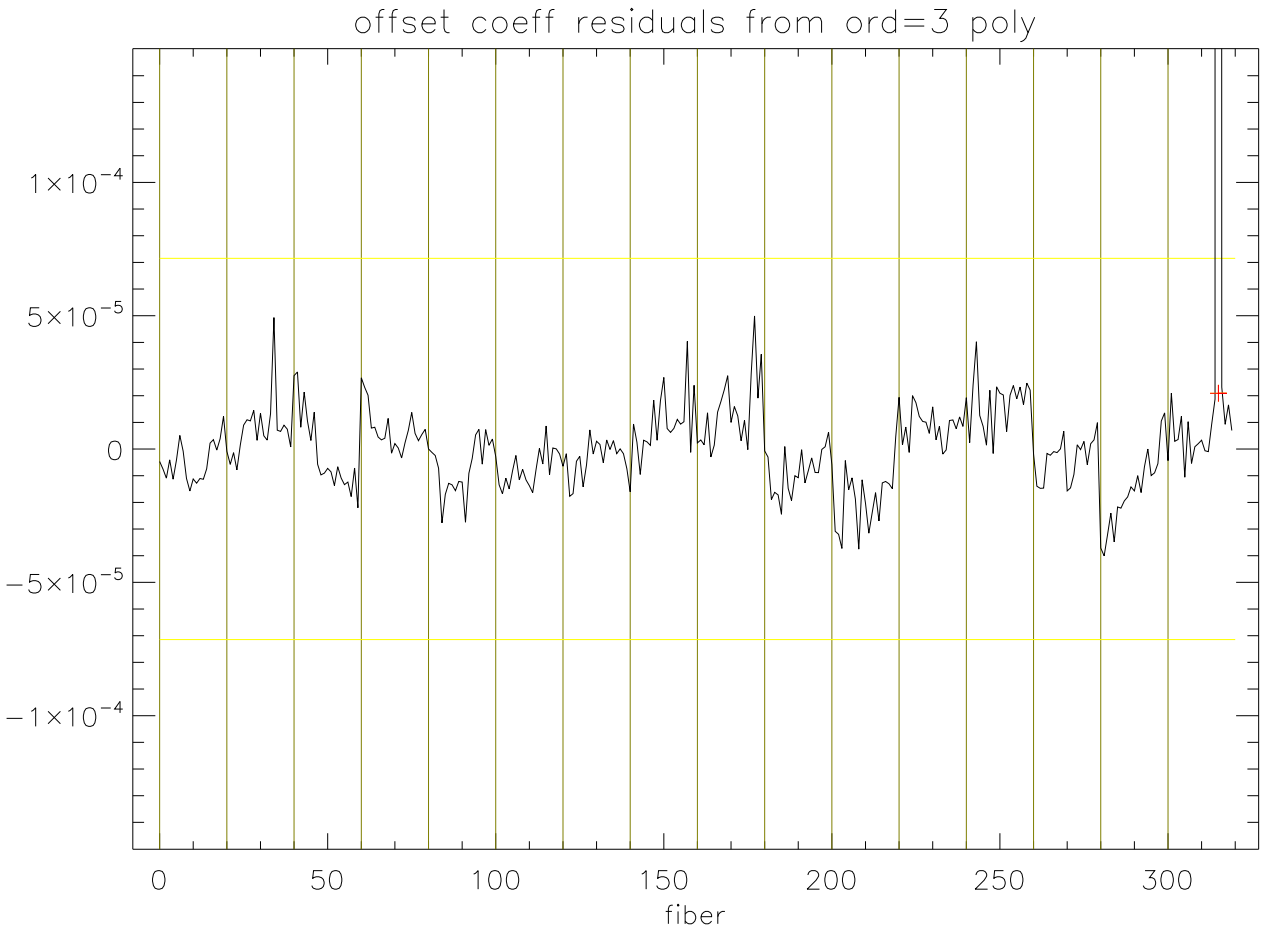

Number of sky fibers = 33
PLATE=0670 MJD=52520 sdR-b2-00016148.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

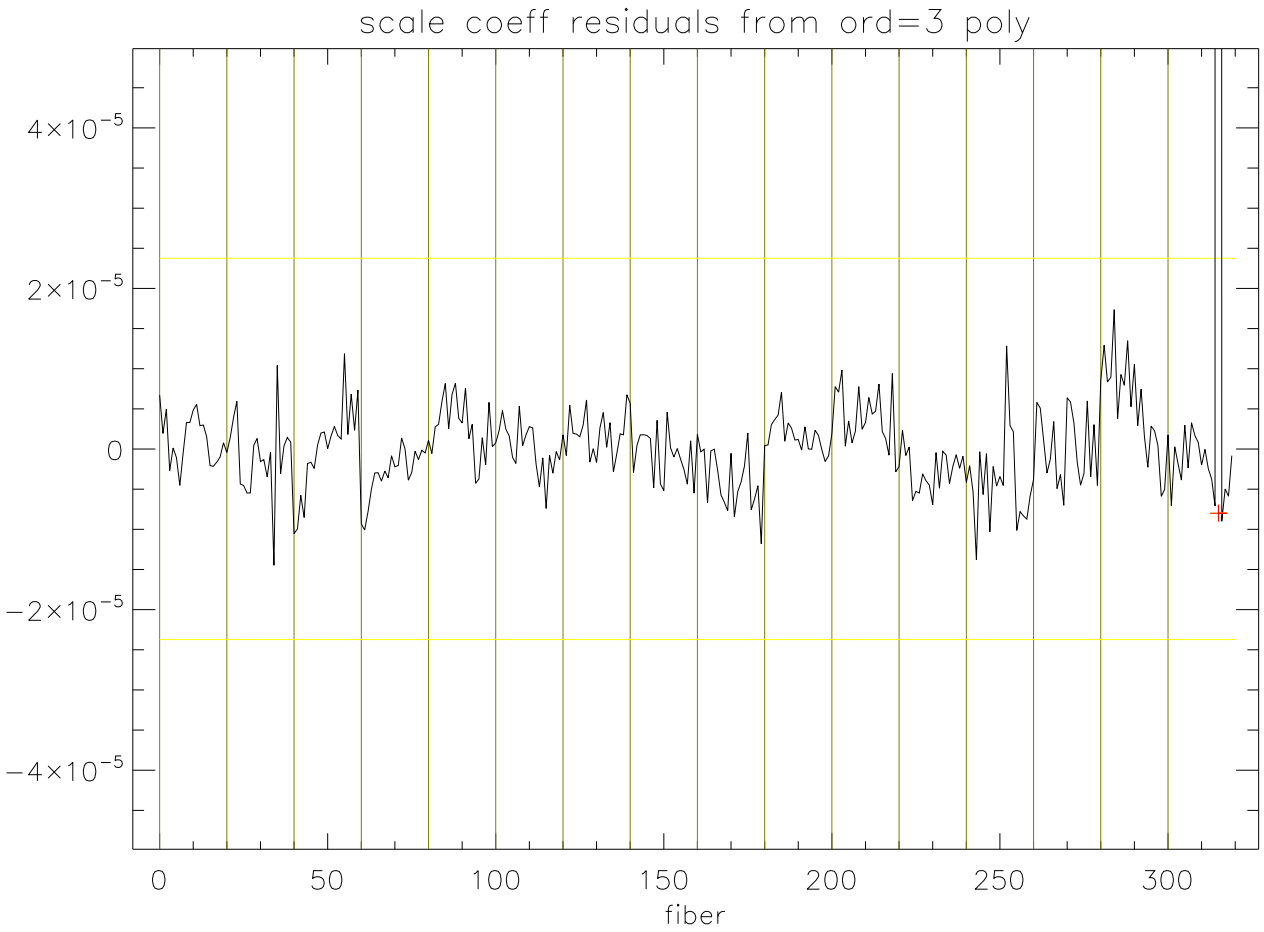

PLATE=0670 MJD=52520 sdR-b2-00016148.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 29.07 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

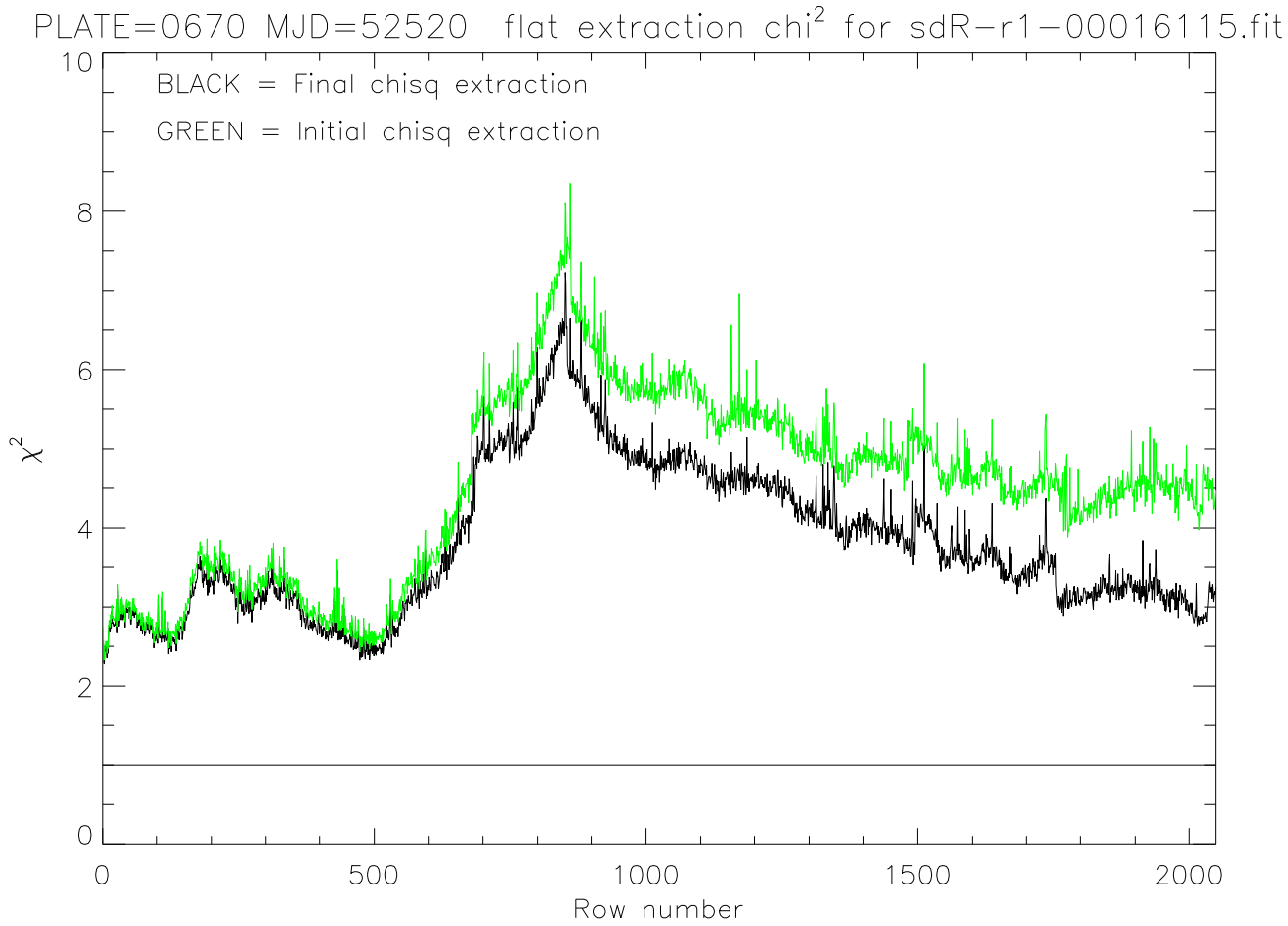

PLATE=0670 MJD=52520 sdR-b2-00016148.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 3.36 %
Fiber number
Flux (5578.9)/Airmass
Focal Distance [mm]
Flux (5578.9)/Airmass
Airmass

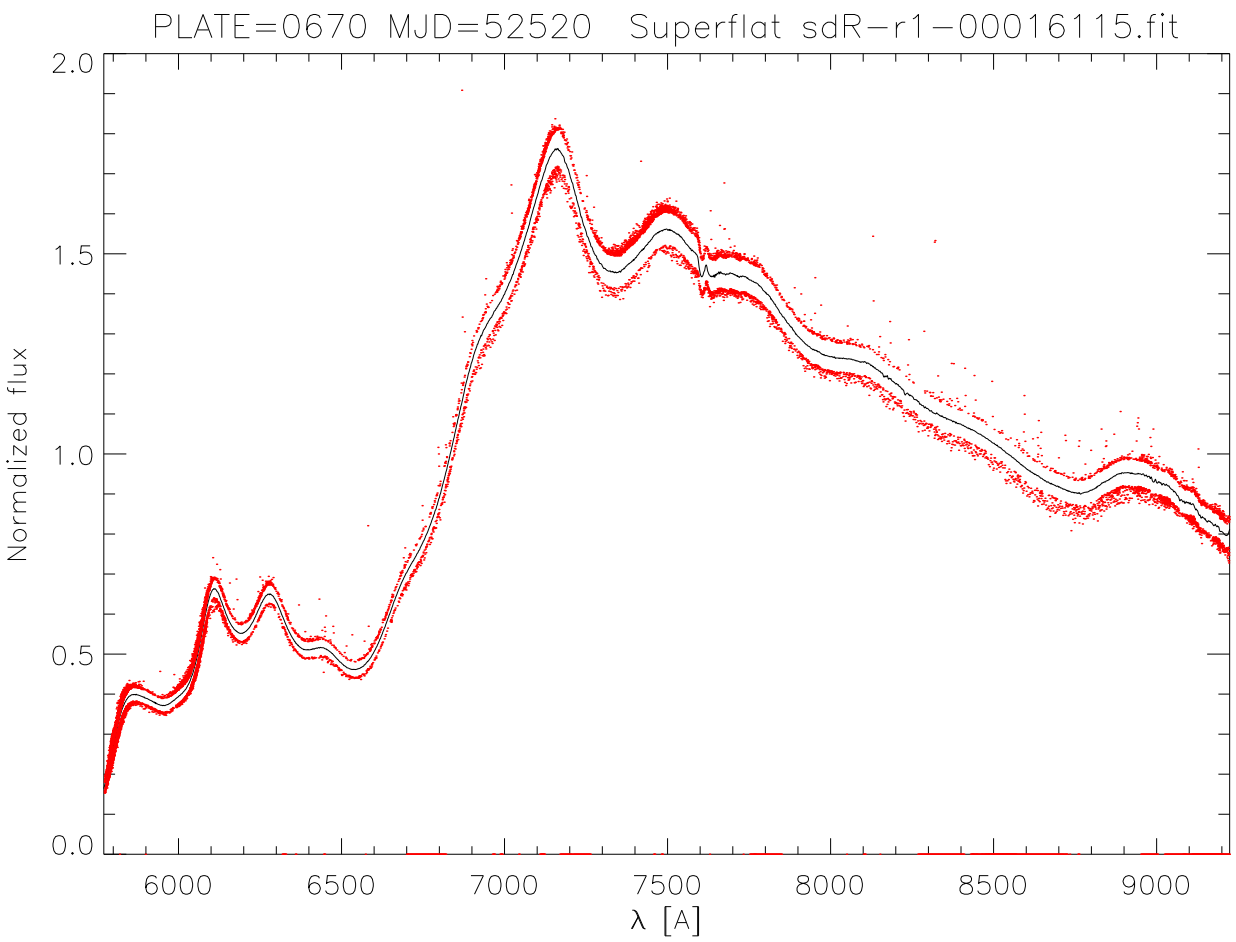

offset coeff residuals from ord=3 poly
1×10^-4
5×10^-5
0
−5×10^-5
−1×10^-4
0
50
100
150
200
250
300
fiber

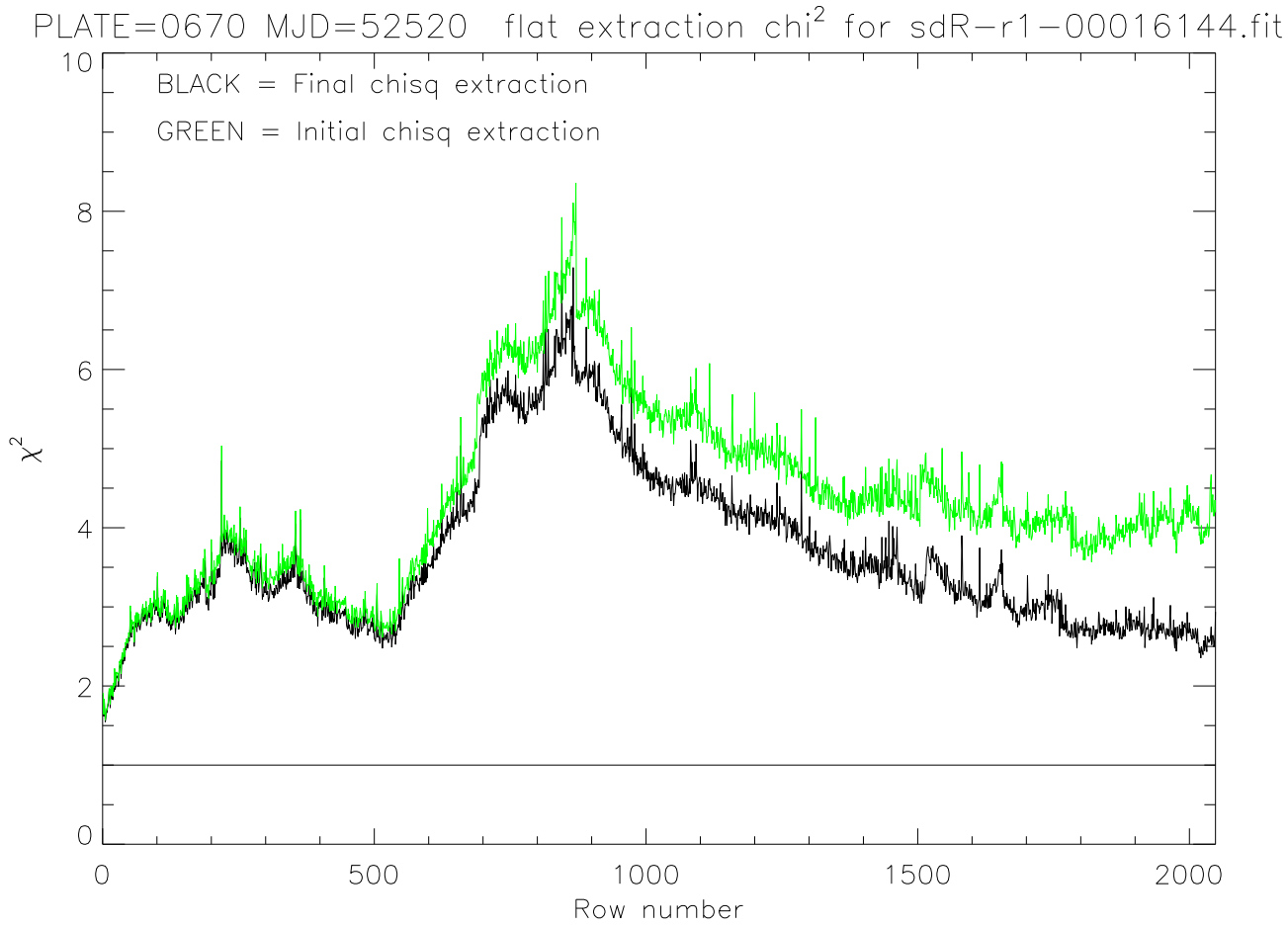

scale coeff residuals from ord=3 poly
4×10⁻⁵
2×10⁻⁵
0
−2×10⁻⁵
−4×10⁻⁵
0
50
100
150
200
250
300
fiber

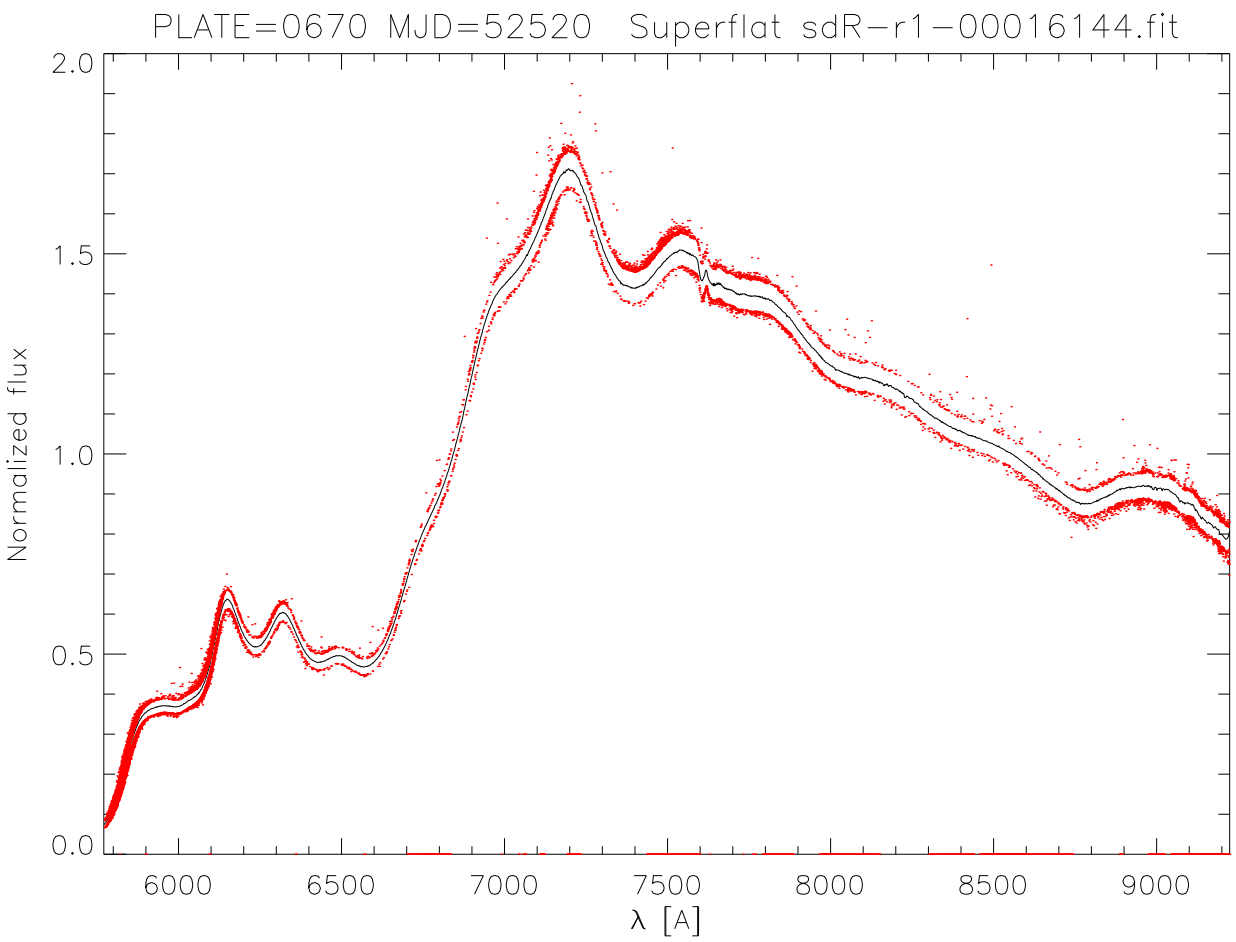

offset coeff residuals from ord=3 poly
1×10⁻⁴
5×10⁻⁵
0
−5×10⁻⁵
−1×10⁻⁴
0
50
100
150
200
250
300
fiber

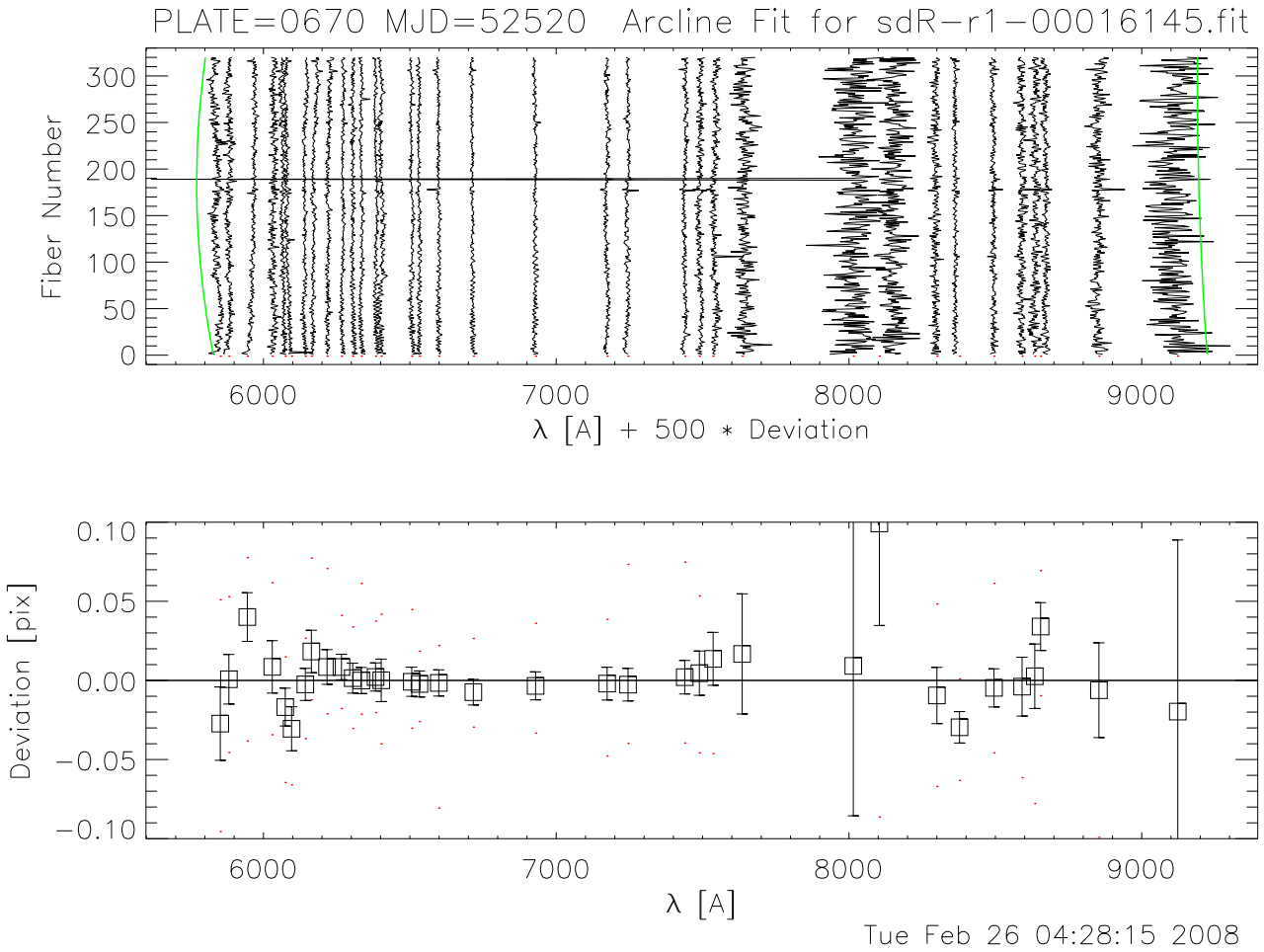

scale coeff residuals from ord=3 poly
4×10⁻⁵
2×10⁻⁵
0
−2×10⁻⁵
−4×10⁻⁵
0
50
100
150
200
250
300
fiber

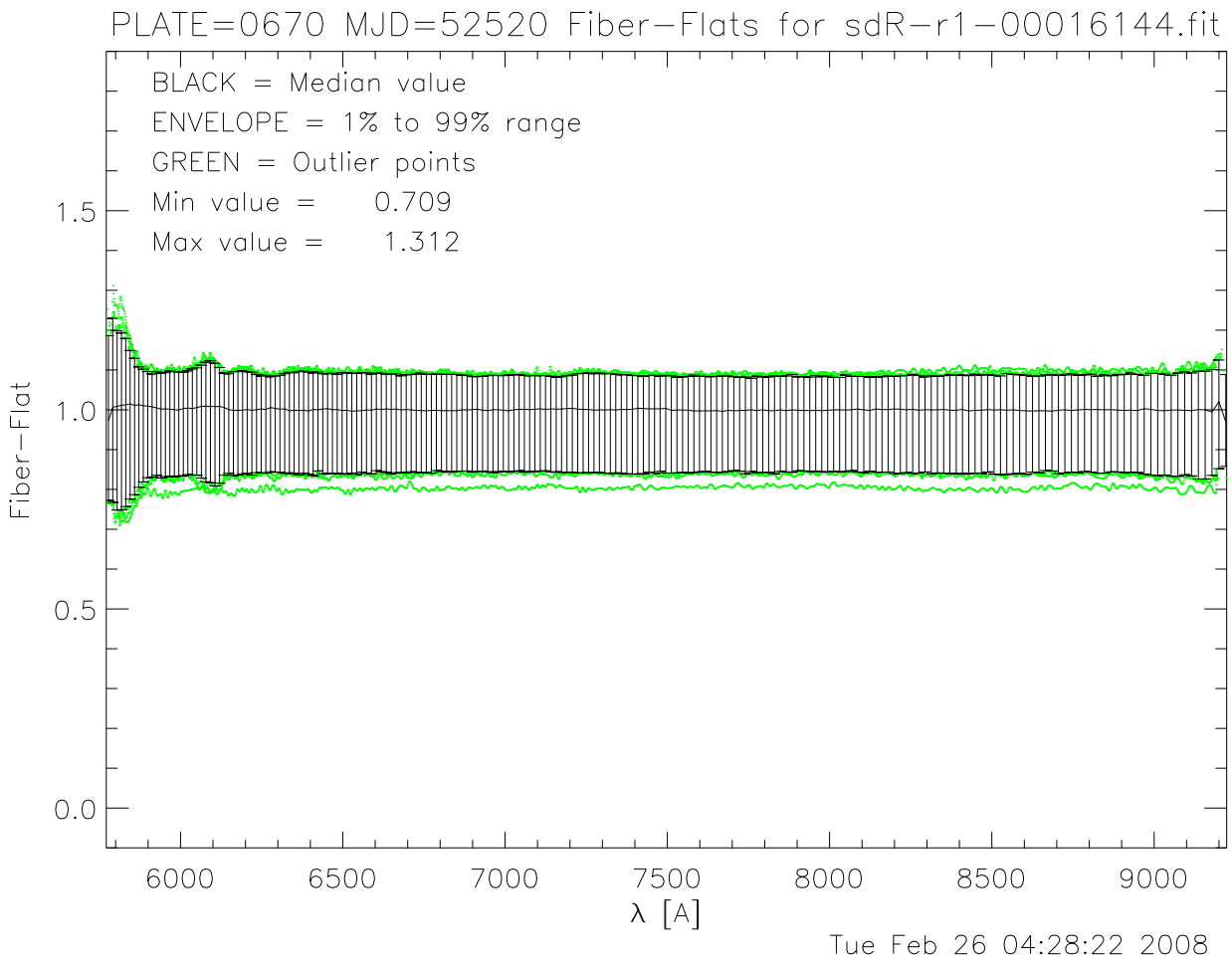

PLATE=0670 MJD=52520 flat extraction chi^2 for sdR−r1−00016115.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
2
4
6
8
10
0
500
1000
1500
2000

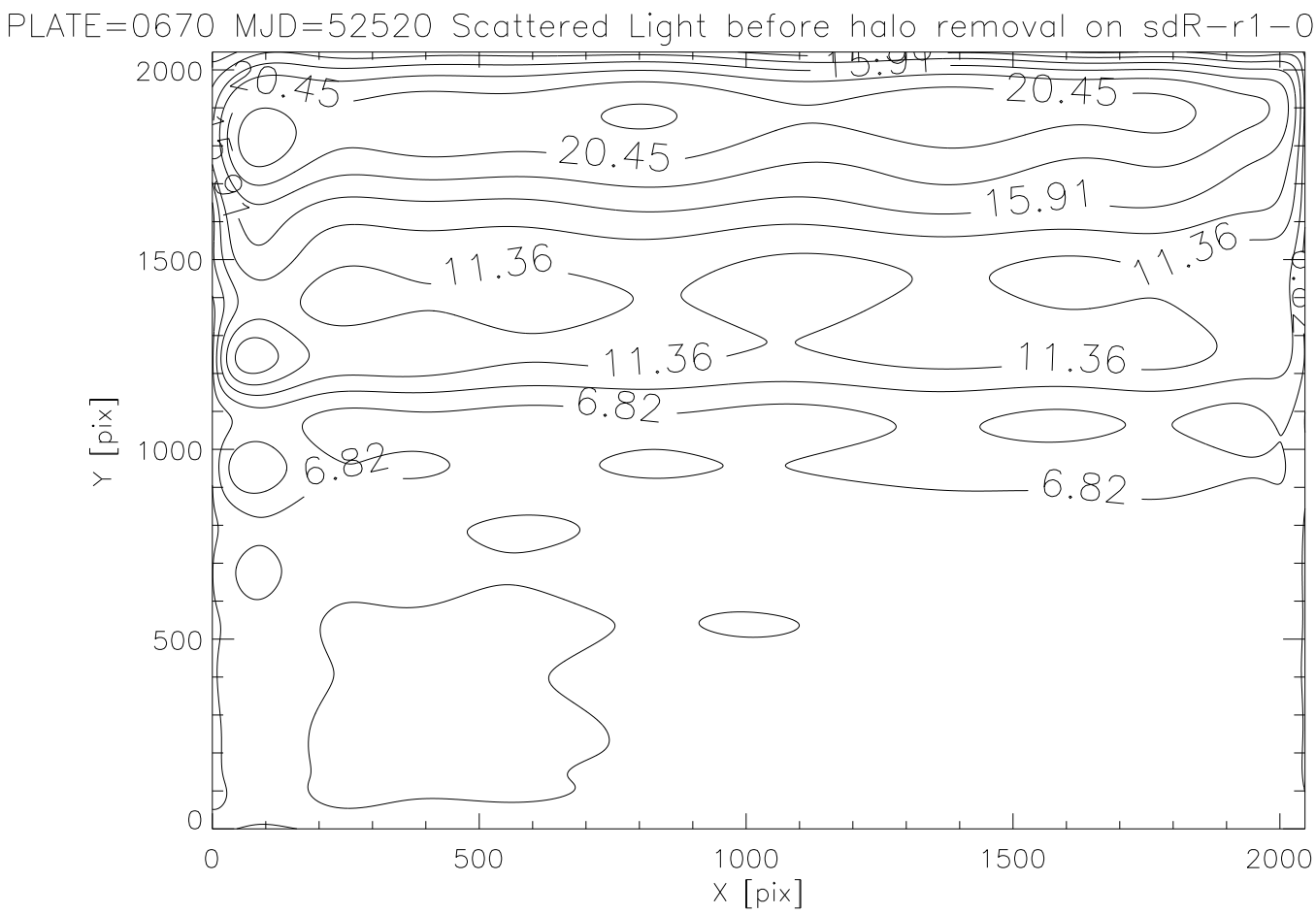

PLATE=0670 MJD=52520 Superflat sdR-r1-00016115.fit
Normalized flux
2.0
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

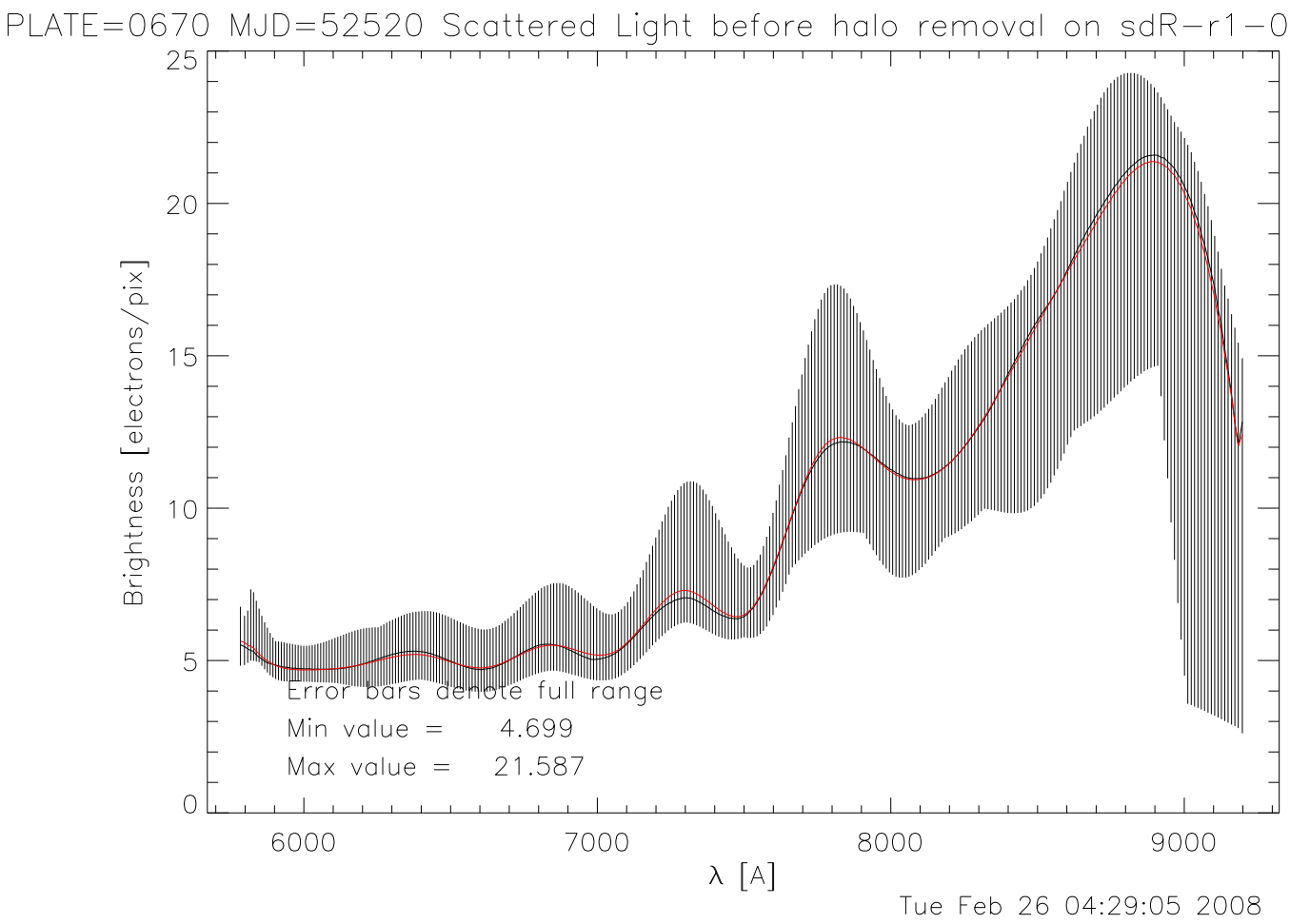

PLATE=0670 MJD=52520 flat extraction chi^2 for sdR−r1−00016144.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
2
4
6
8
10
0
500
1000
1500
2000

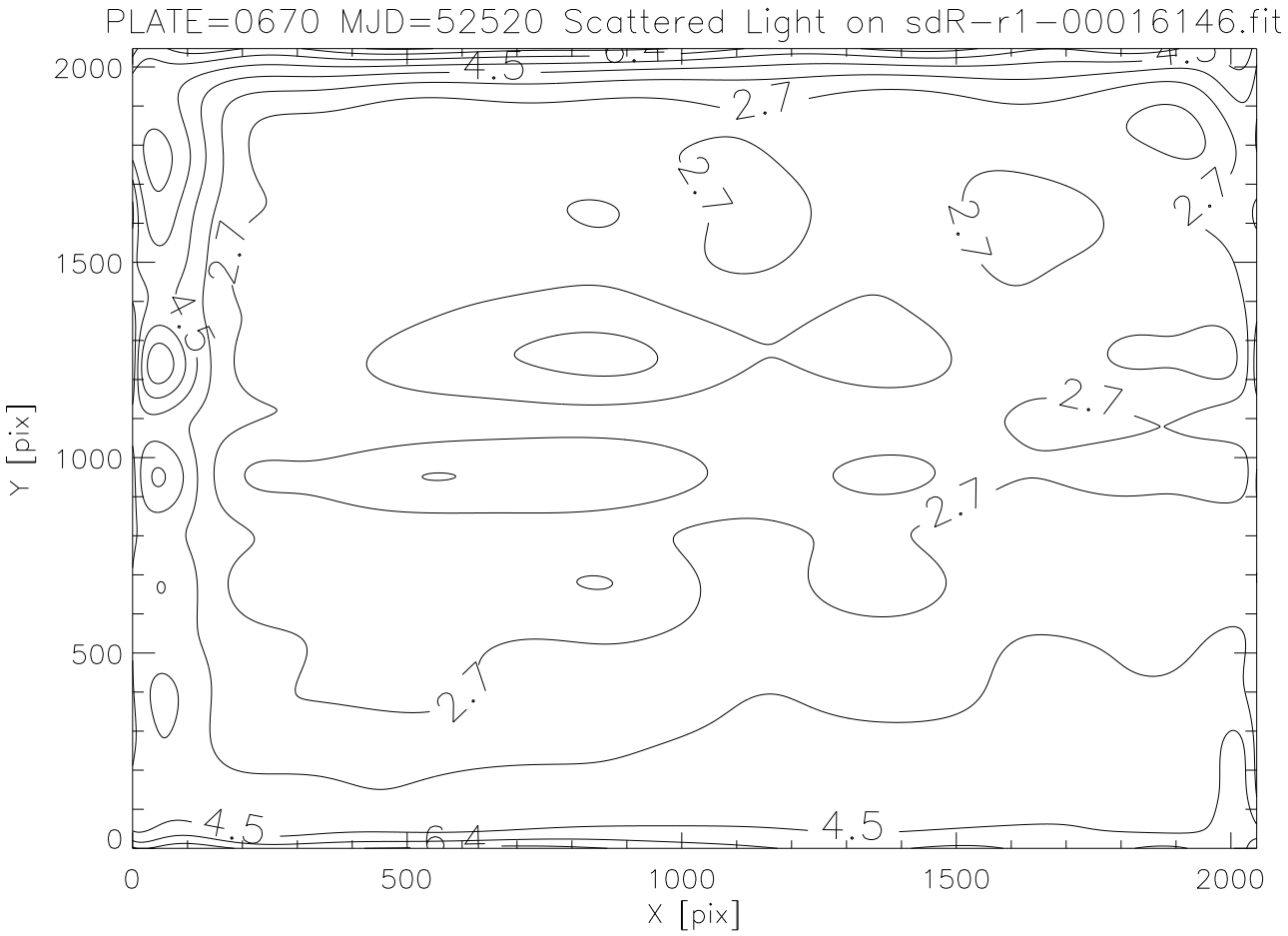

PLATE=0670 MJD=52520 Superflat sdR-r1-00016144.fit
Normalized flux
2.0
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

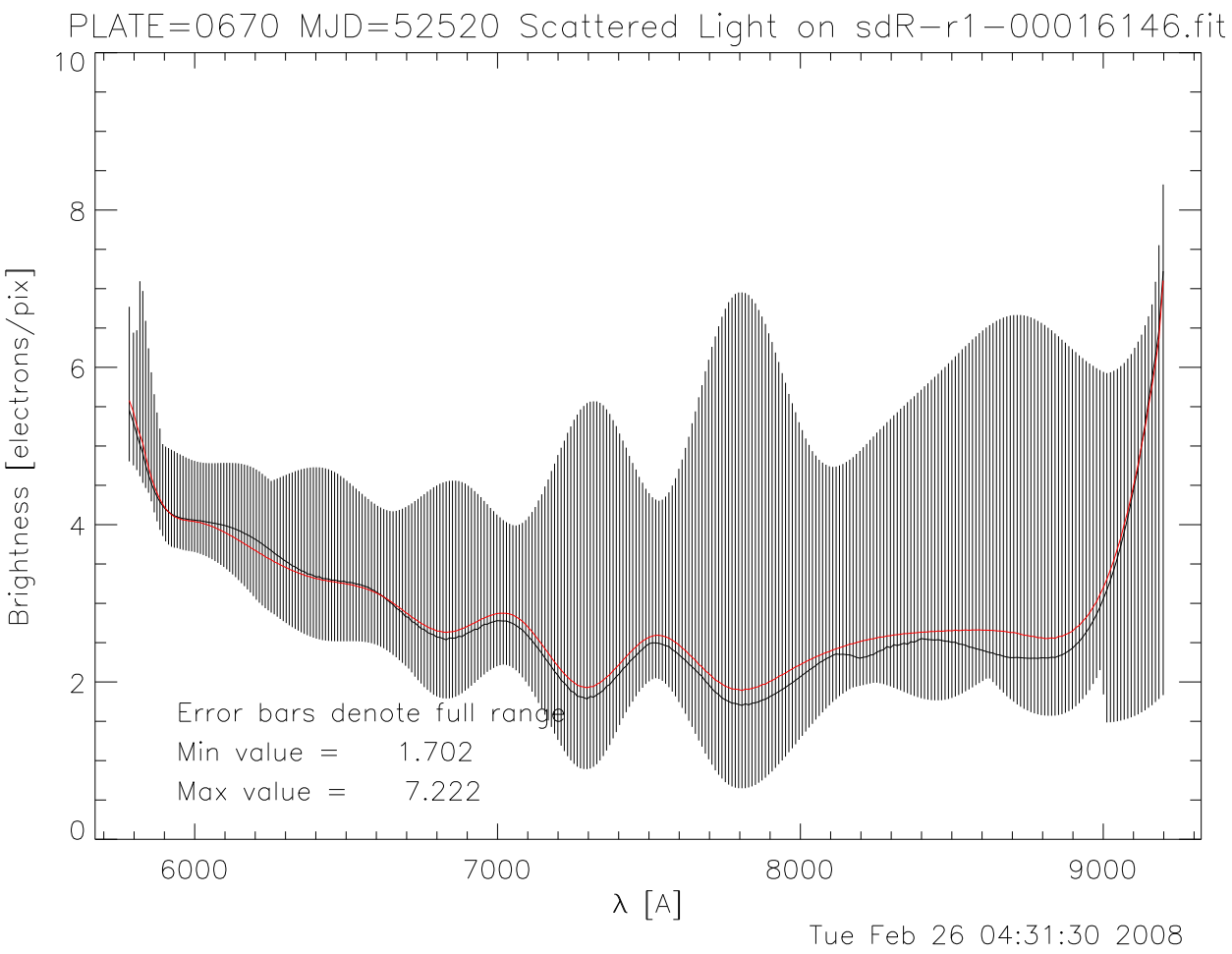

PLATE=0670 MJD=52520 Arcline Fit for sdR-r1-00016145.fit
Fiber Number
300
250
200
150
100
50
0
6000
7000
8000
9000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
6000
7000
8000
9000
λ [A]
Tue Feb 26 04:28:15 2008

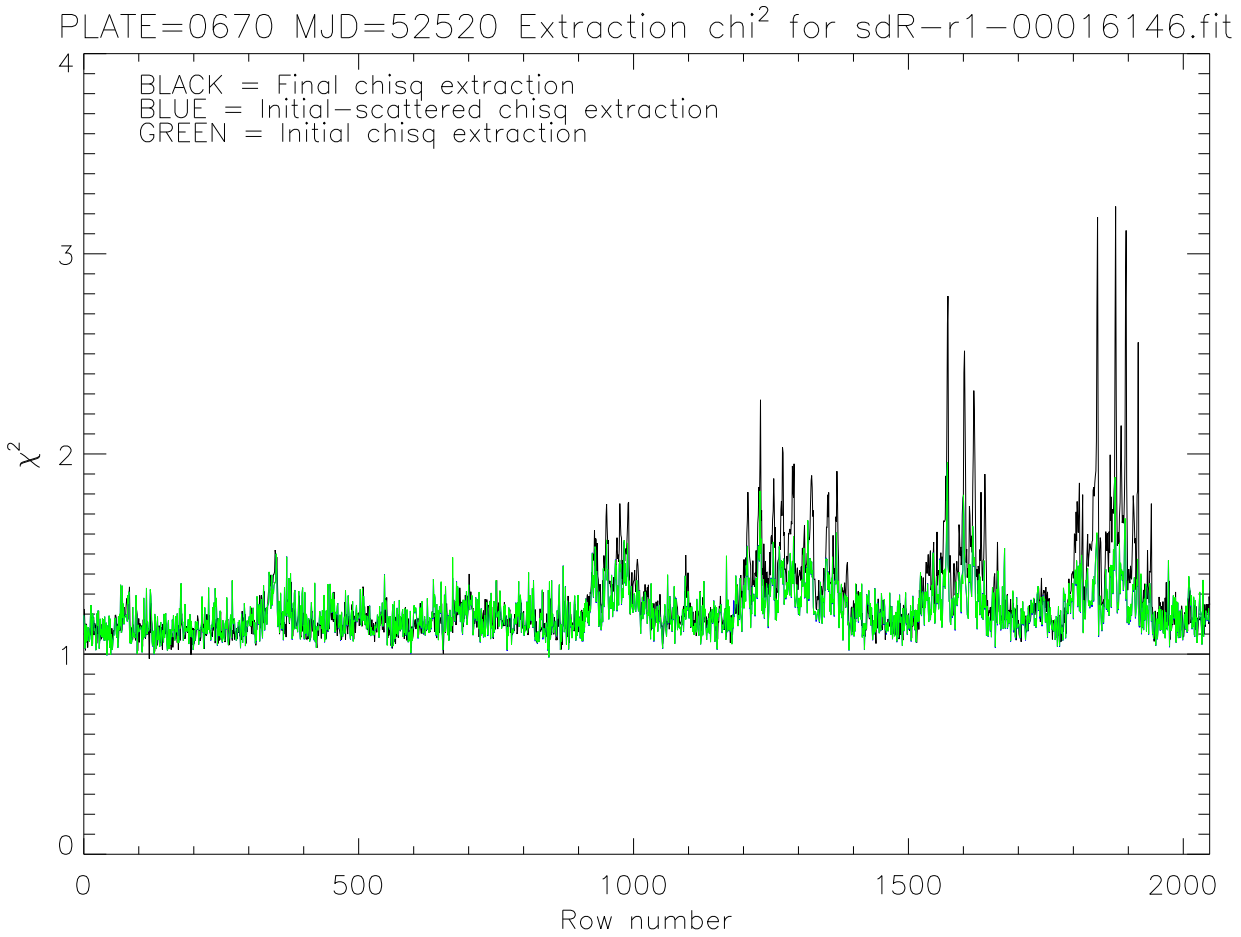

PLATE=0670 MJD=52520 Fiber-Flats for sdR-r1-00016144.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.709
Max value = 1.312
Fiber-Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Tue Feb 26 04:28:22 2008

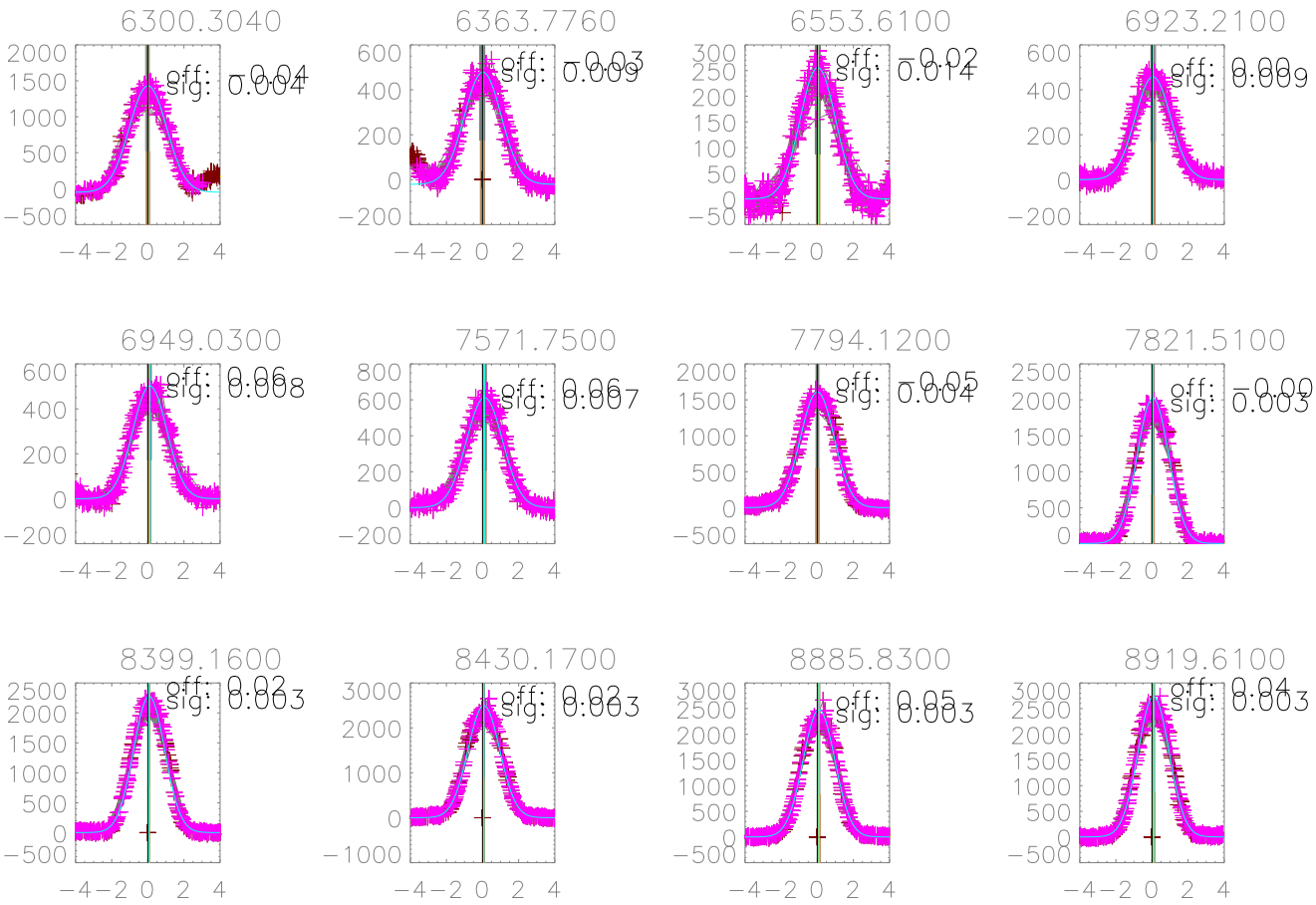

PLATE=0670 MJD=52520 Scattered Light before halo removal on sdR-r1-00016146.fi
20.45
20.45
20.45
15.91
11.36
11.36
11.36
11.36
6.82
6.82
6.82
Y [pix]
X [pix]
0
500
1000
1500
2000

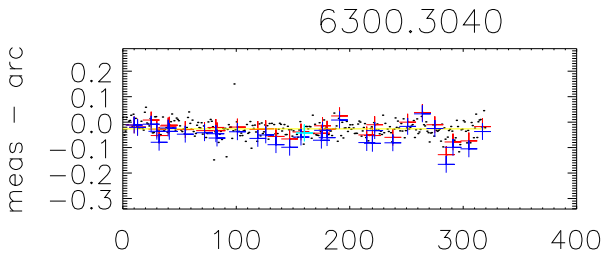

PLATE=0670 MJD=52520 Scattered Light before halo removal on sdR-r1-00016146.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 4.699
Max value = 21.587
Tue Feb 26 04:29:05 2008

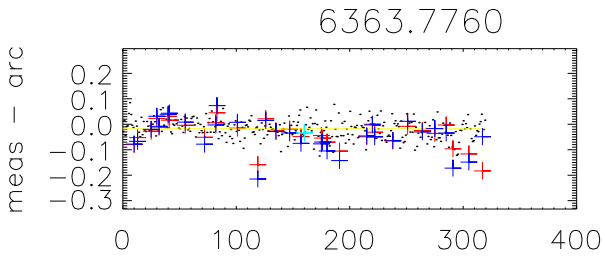

PLATE=0670 MJD=52520 Scattered Light on sdR-r1-00016146.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
4.5
2.7
6.4

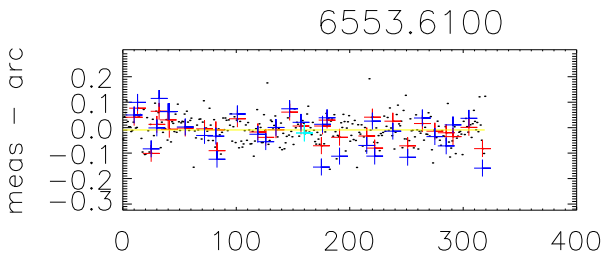

PLATE=0670 MJD=52520 Scattered Light on sdR-r1-00016146.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 1.702
Max value = 7.222
Tue Feb 26 04:31:30 2008

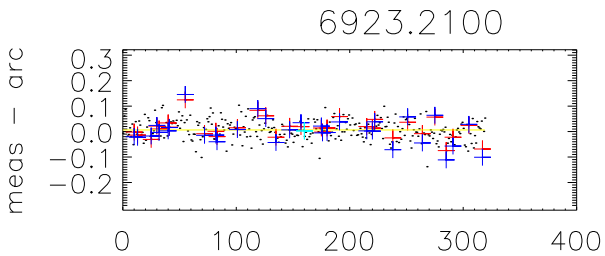

PLATE=0670 MJD=52520 Extraction chi^2 for sdR−r1−00016146.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
0
500
1000
1500
2000
Row number

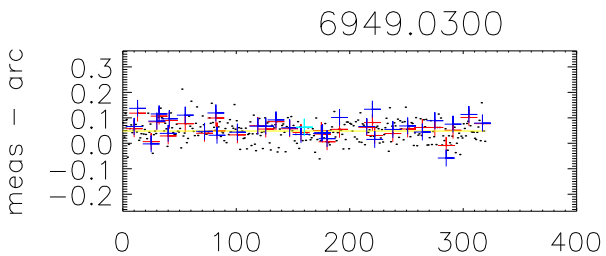

6300.3040
off: −0.04
sig: 0.004
6363.7760
off: −0.03
sig: 0.009
6553.6100
off: −0.02
sig: 0.014
6923.2100
off: 0.00
sig: 0.009
6949.0300
off: 0.06
sig: 0.008
7571.7500
off: 0.06
sig: 0.007
7794.1200
off: −0.05
sig: 0.004
7821.5100
off: −0.00
sig: 0.003
8399.1600
off: 0.02
sig: 0.003
8430.1700
off: 0.02
sig: 0.003
8885.8300
off: 0.05
sig: 0.003
8919.6100
off: 0.04
sig: 0.003

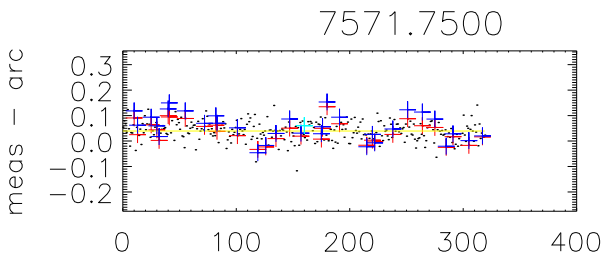

6300.3040
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

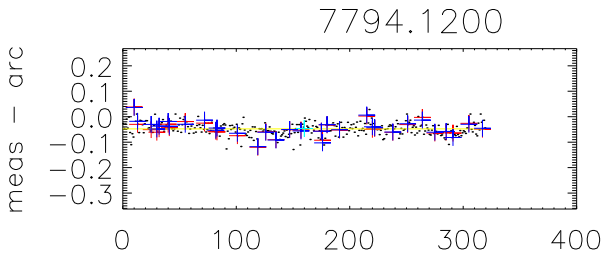

6363.7760
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

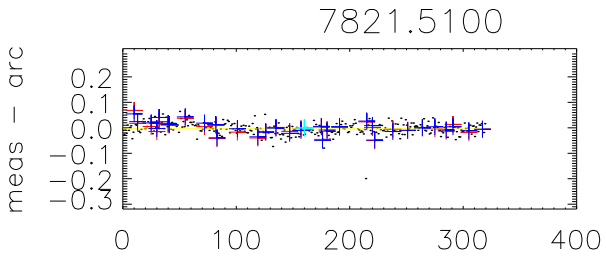

6553.6100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

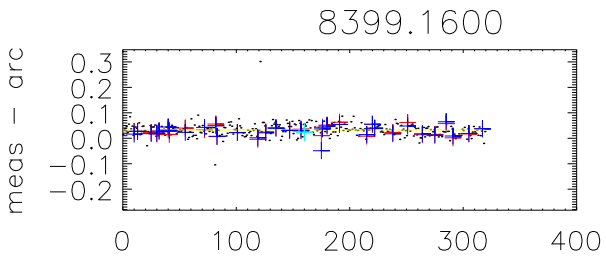

6923.2100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

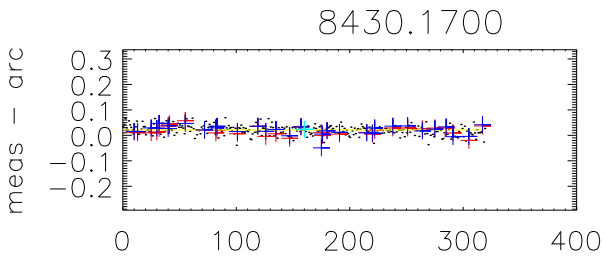

6949.0300
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

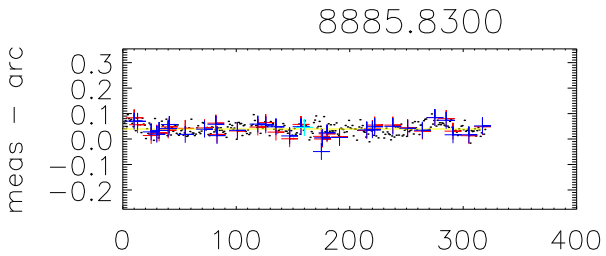

7571.7500
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

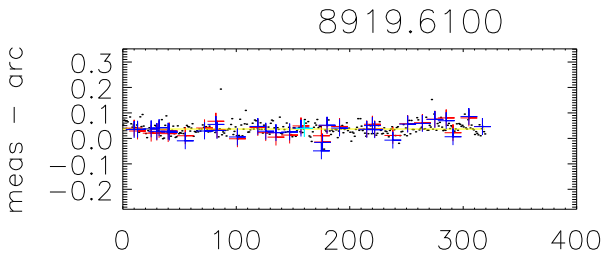

7794.1200
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

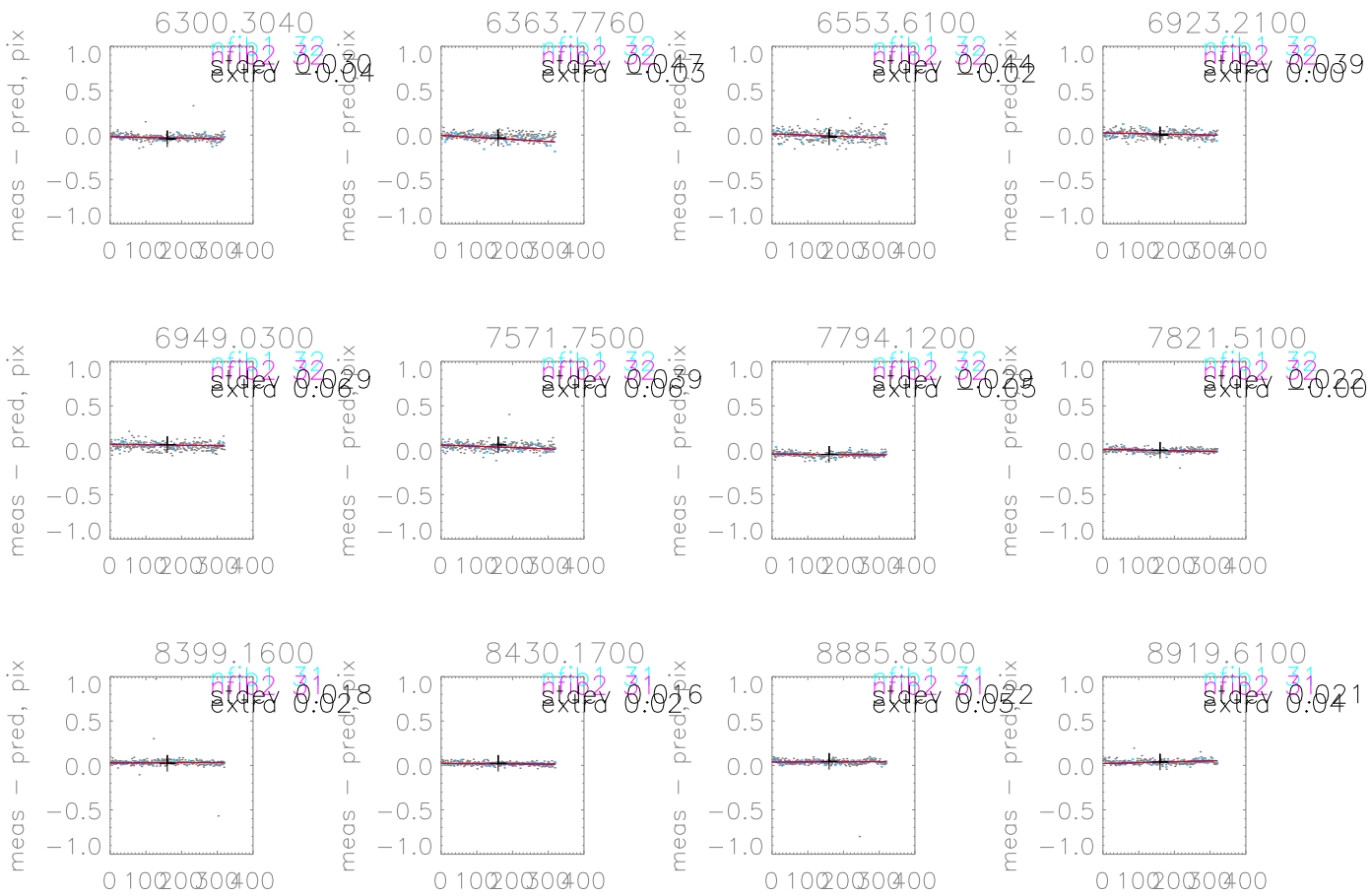

7821.5100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

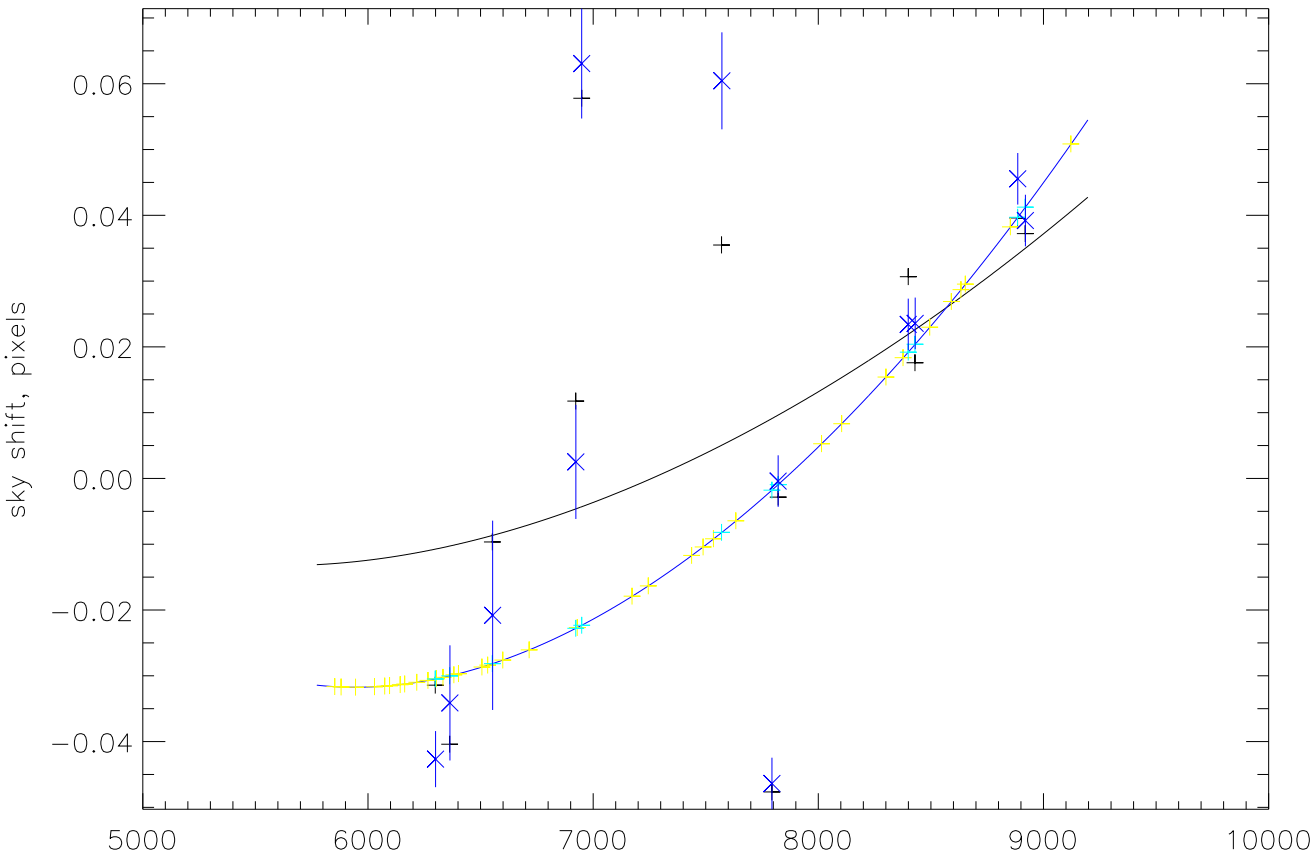

8399.1600
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400


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

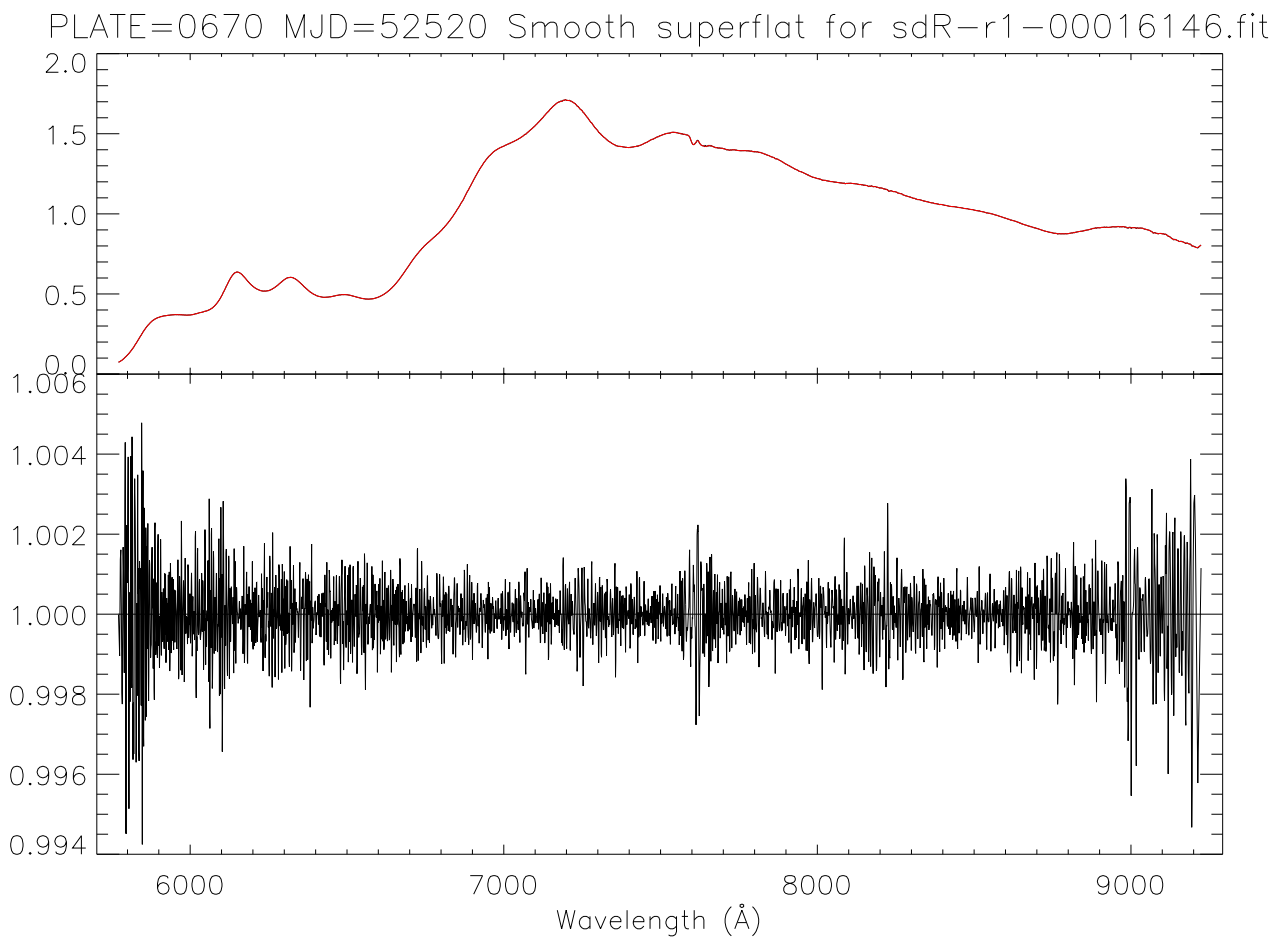

8885.8300
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

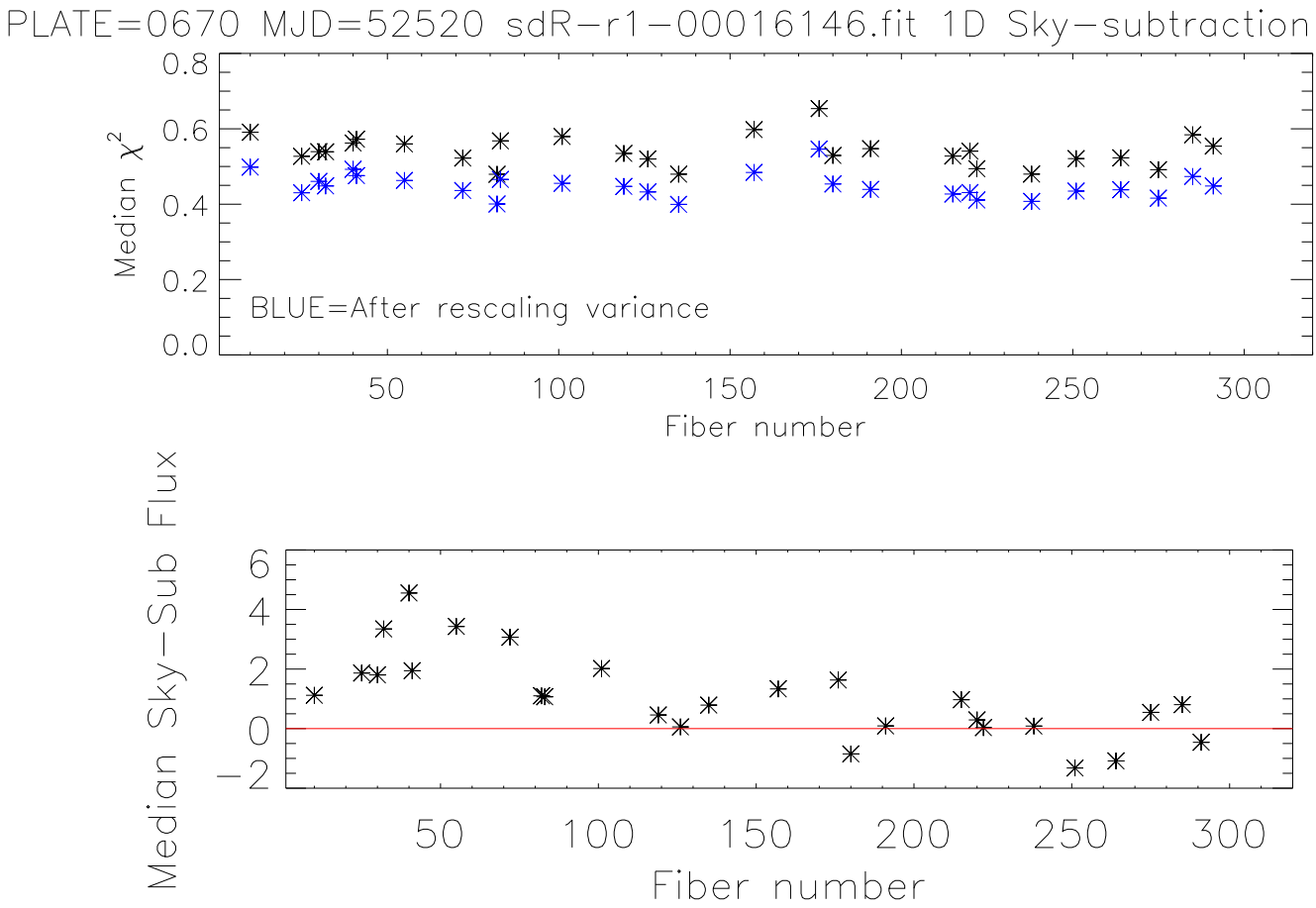

8919.6100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

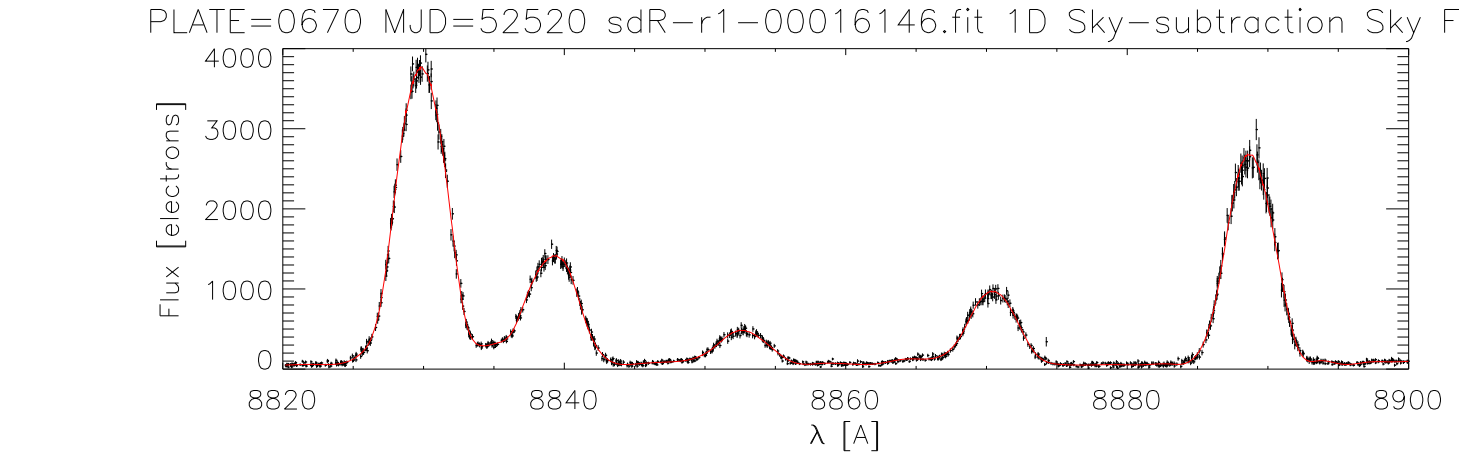

6300.3040
stdev 0.030
extra −0.04
6363.7760
stdev 0.047
extra −0.03
6553.6100
stdev 0.044
extra −0.02
6923.2100
stdev 0.039
extra 0.00
6949.0300
stdev 0.029
extra 0.06
7571.7500
stdev 0.039
extra 0.06
7794.1200
stdev 0.029
extra −0.05
7821.5100
stdev 0.022
extra −0.00
8399.1600
stdev 0.018
extra 0.02
8430.1700
stdev 0.016
extra 0.02
8885.8300
stdev 0.022
extra 0.03
8919.6100
stdev 0.021
extra 0.04
meas − pred, pix
mfib1 32
mfib2 32
mfib1 31
mfib2 31

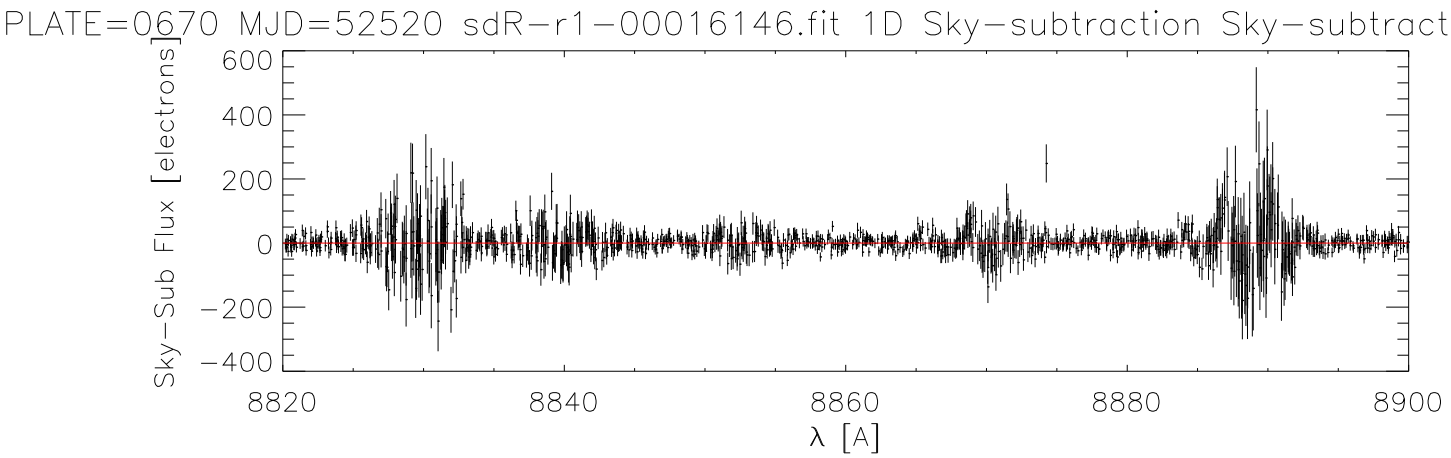

sky shift, pixels
0.06
0.04
0.02
0.00
−0.02
−0.04
5000
6000
7000
8000
9000
10000

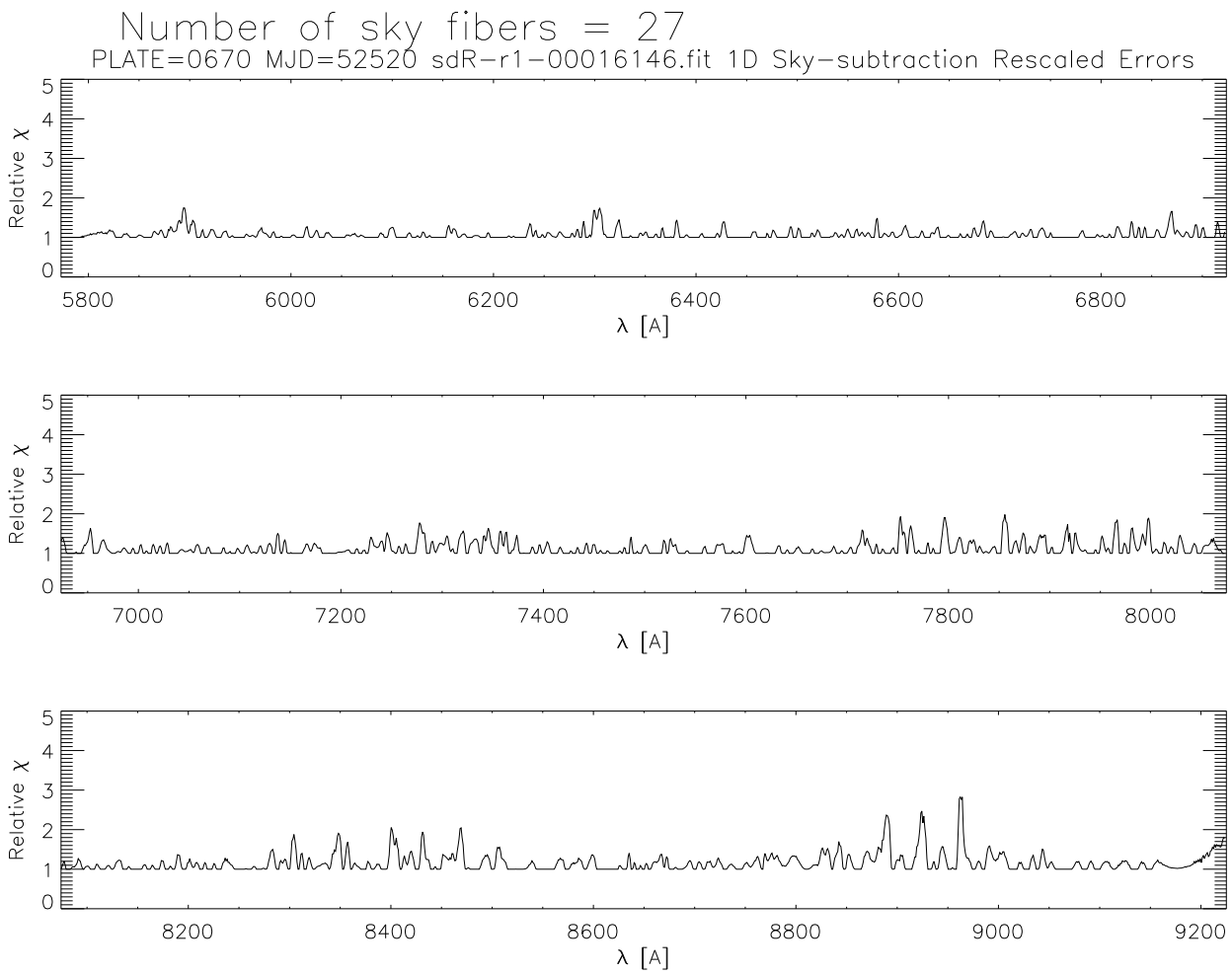
es= 0.0000

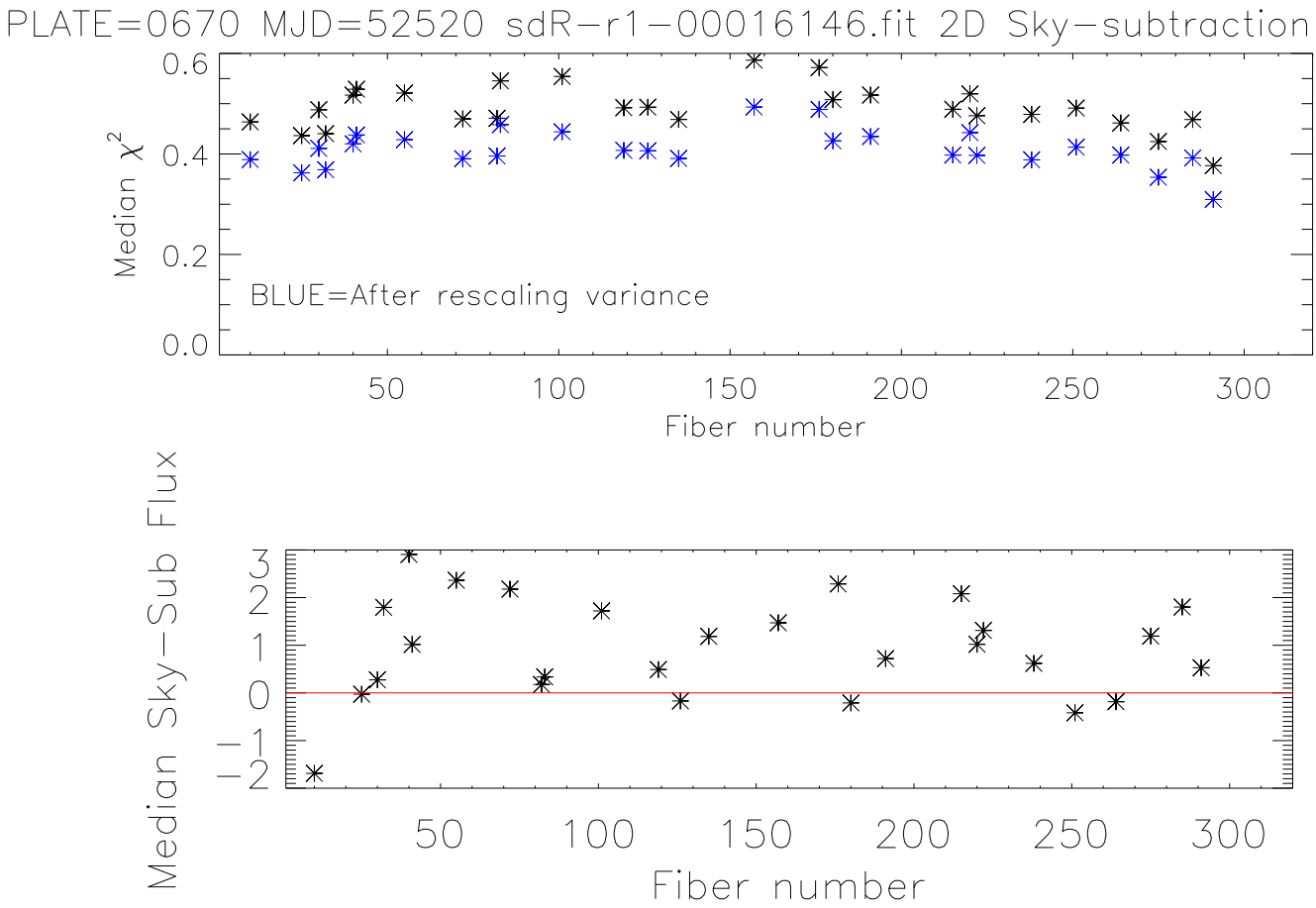

PLATE=0670 MJD=52520 Smooth superflat for sdR-r1-00016146.fit
2.0
1.5
1.0
0.5
0.0
1.006
1.004
1.002
1.000
0.998
0.996
0.994
6000
7000
8000
9000
Wavelength (Å)

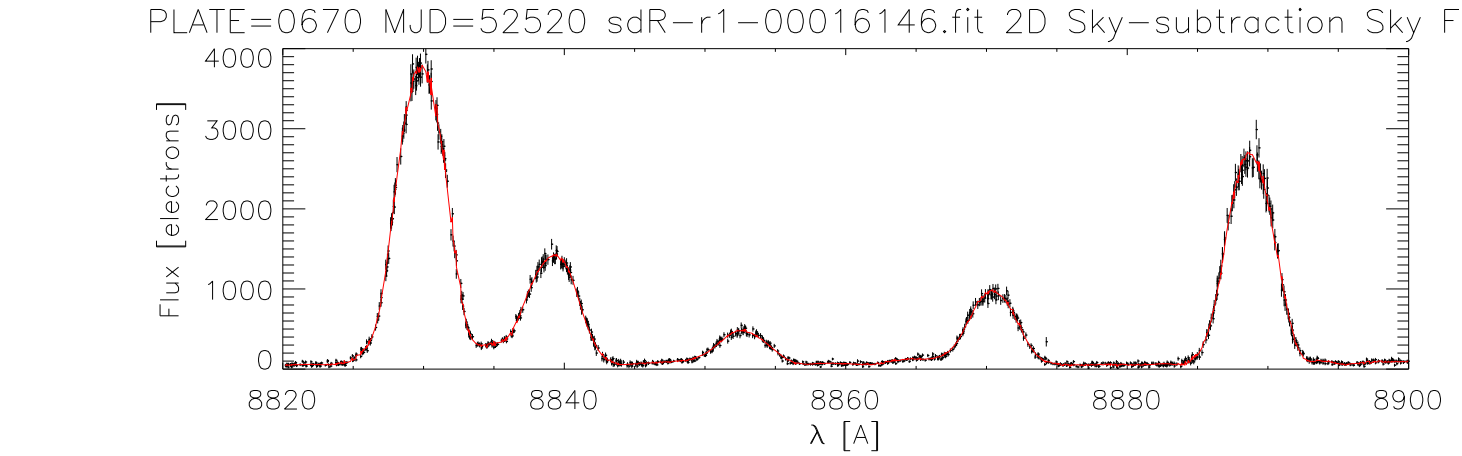

PLATE=0670 MJD=52520 sdR-r1-00016146.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
−2
0
2
4
6
50
100
150
200
250
300
Fiber number

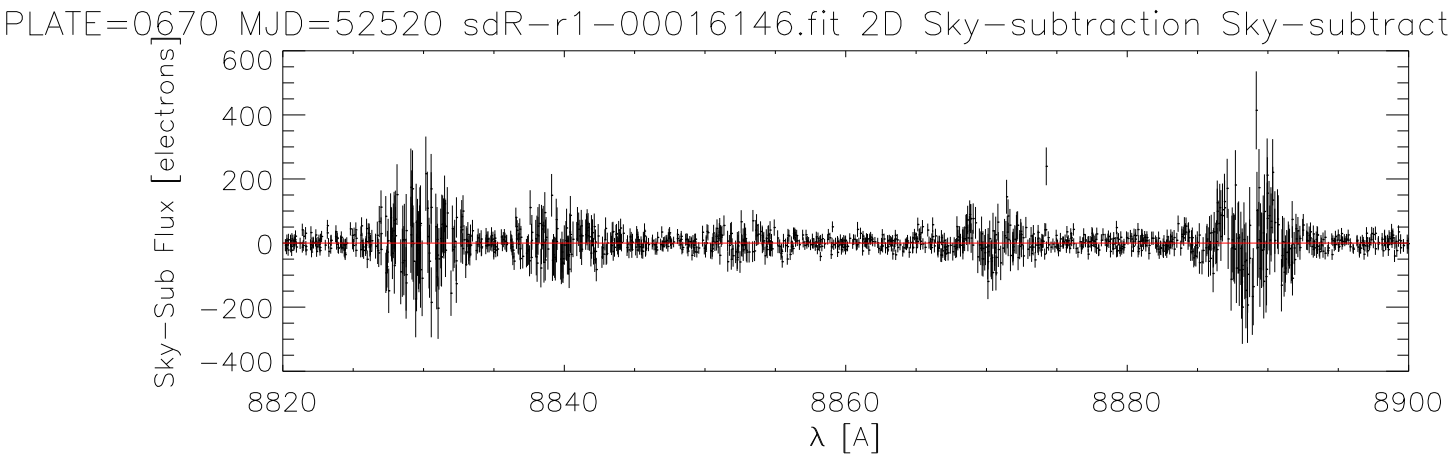

PLATE=0670 MJD=52520 sdR-r1-00016146.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

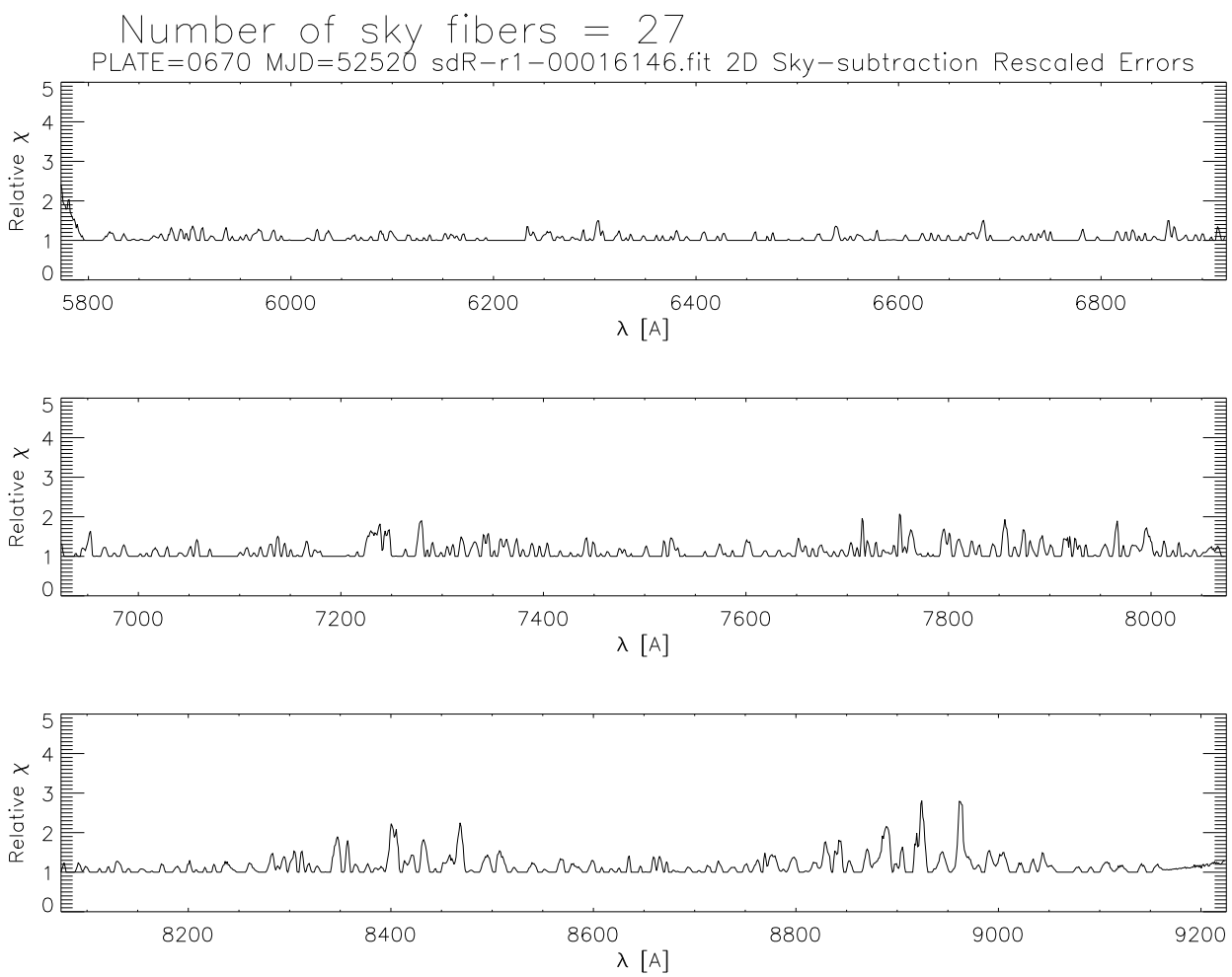

PLATE=0670 MJD=52520 sdR-r1-00016146.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
-200
-400
8820
8840
8860
8880
8900
λ [A]

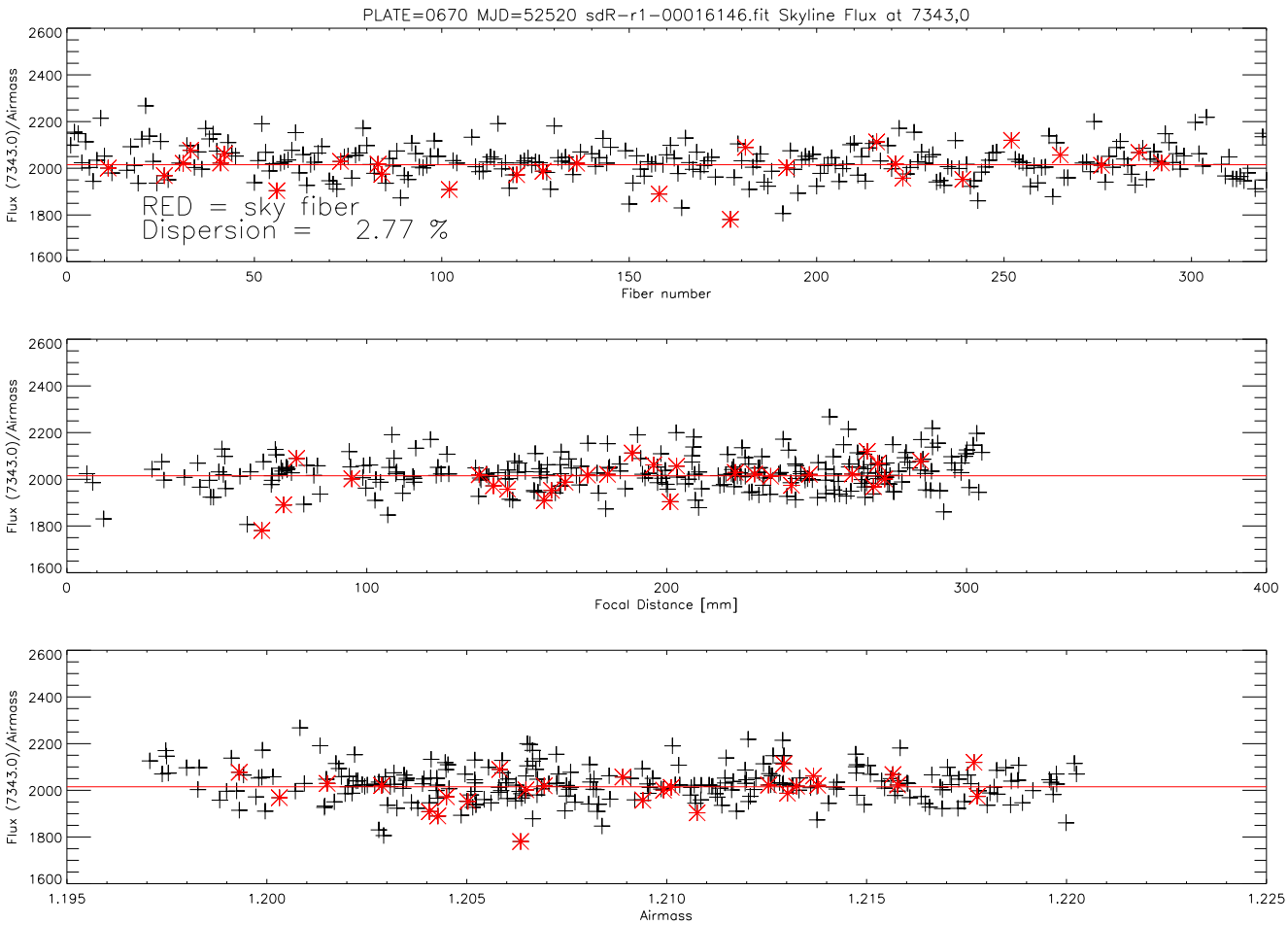

Number of sky fibers = 27
PLATE=0670 MJD=52520 sdR-r1-00016146.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

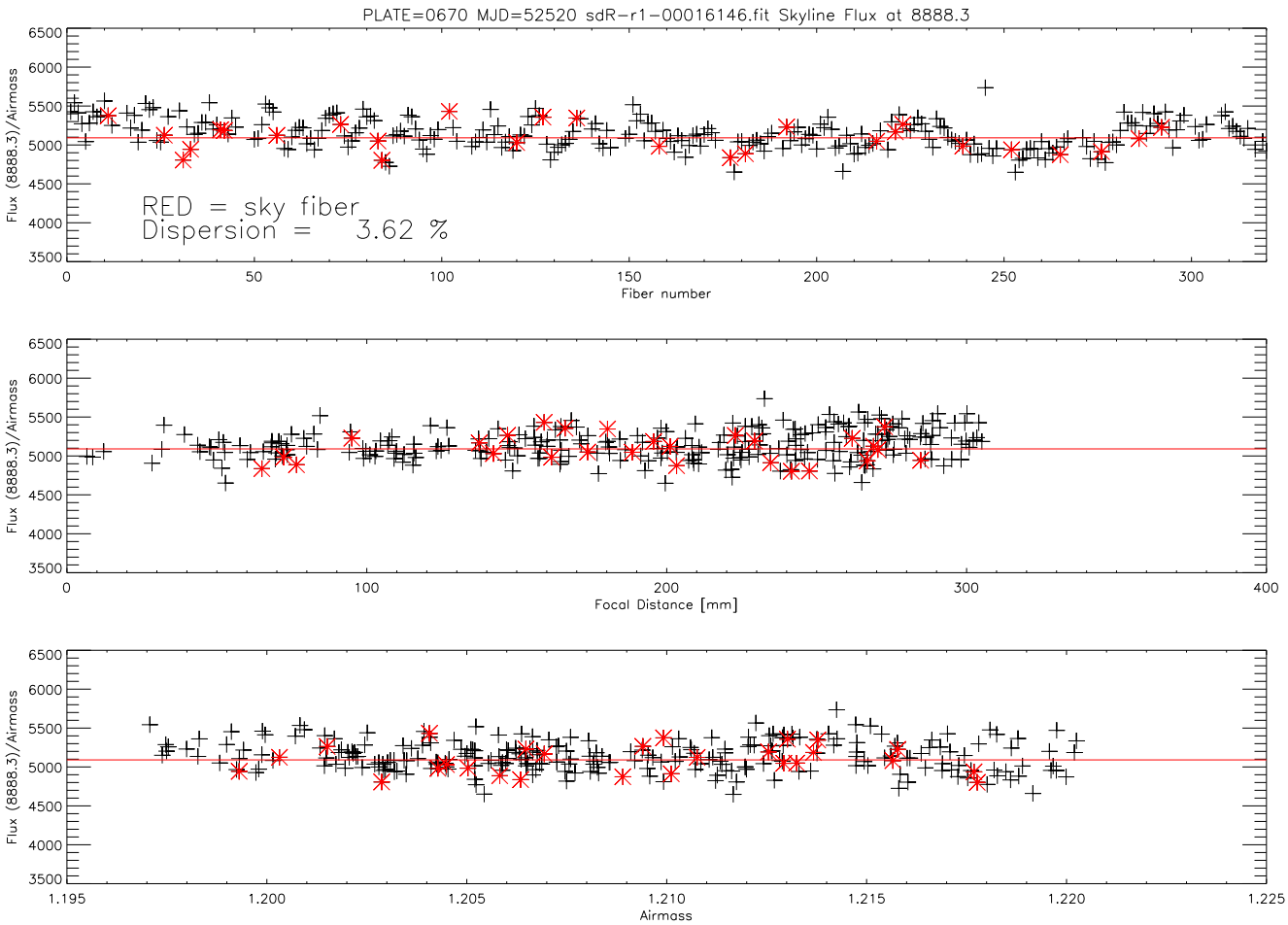

PLATE=0670 MJD=52520 sdR-r1-00016146.fit 2D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-2
-1
0
1
2
3
50
100
150
200
250
300
Fiber number

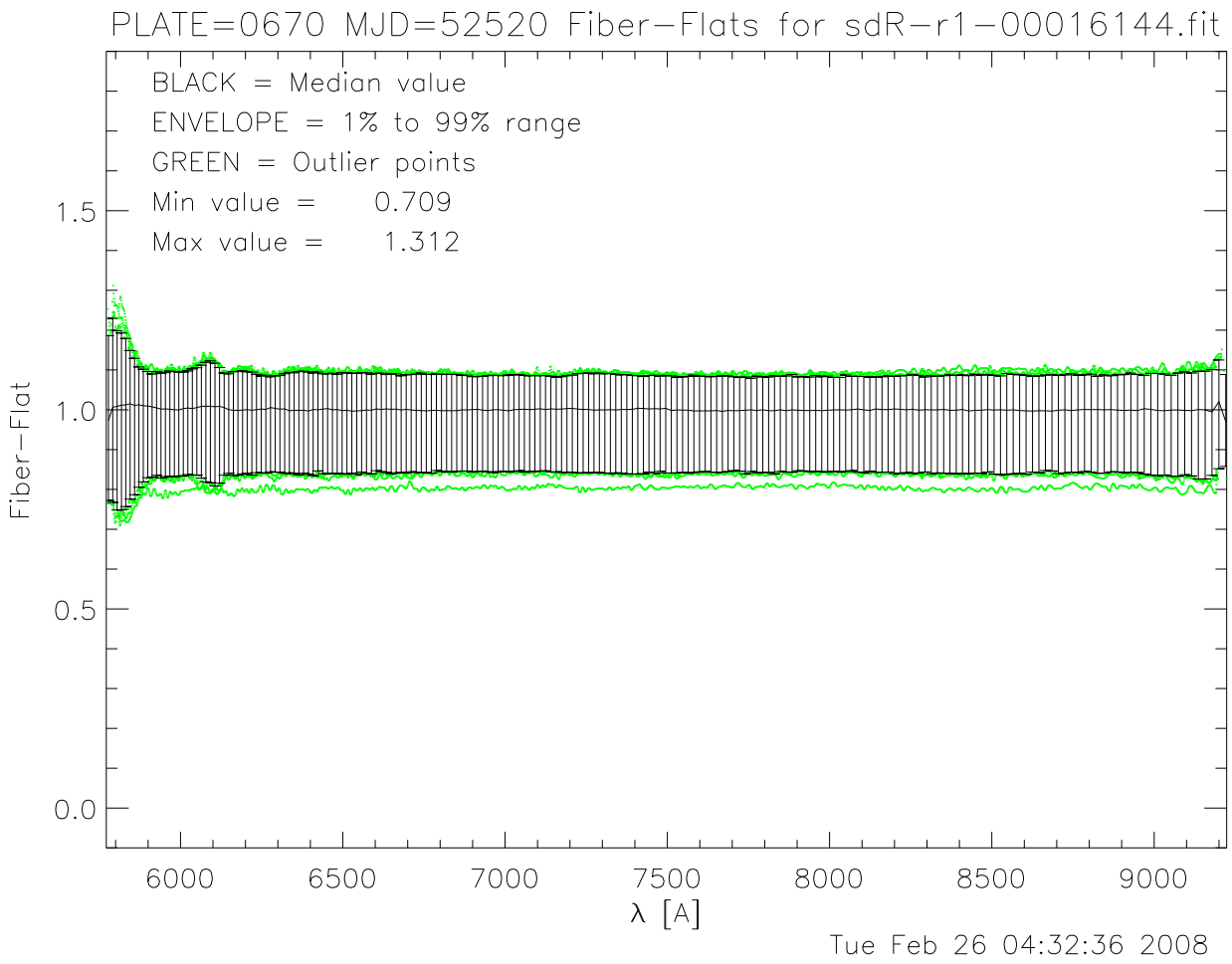

PLATE=0670 MJD=52520 sdR-r1-00016146.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

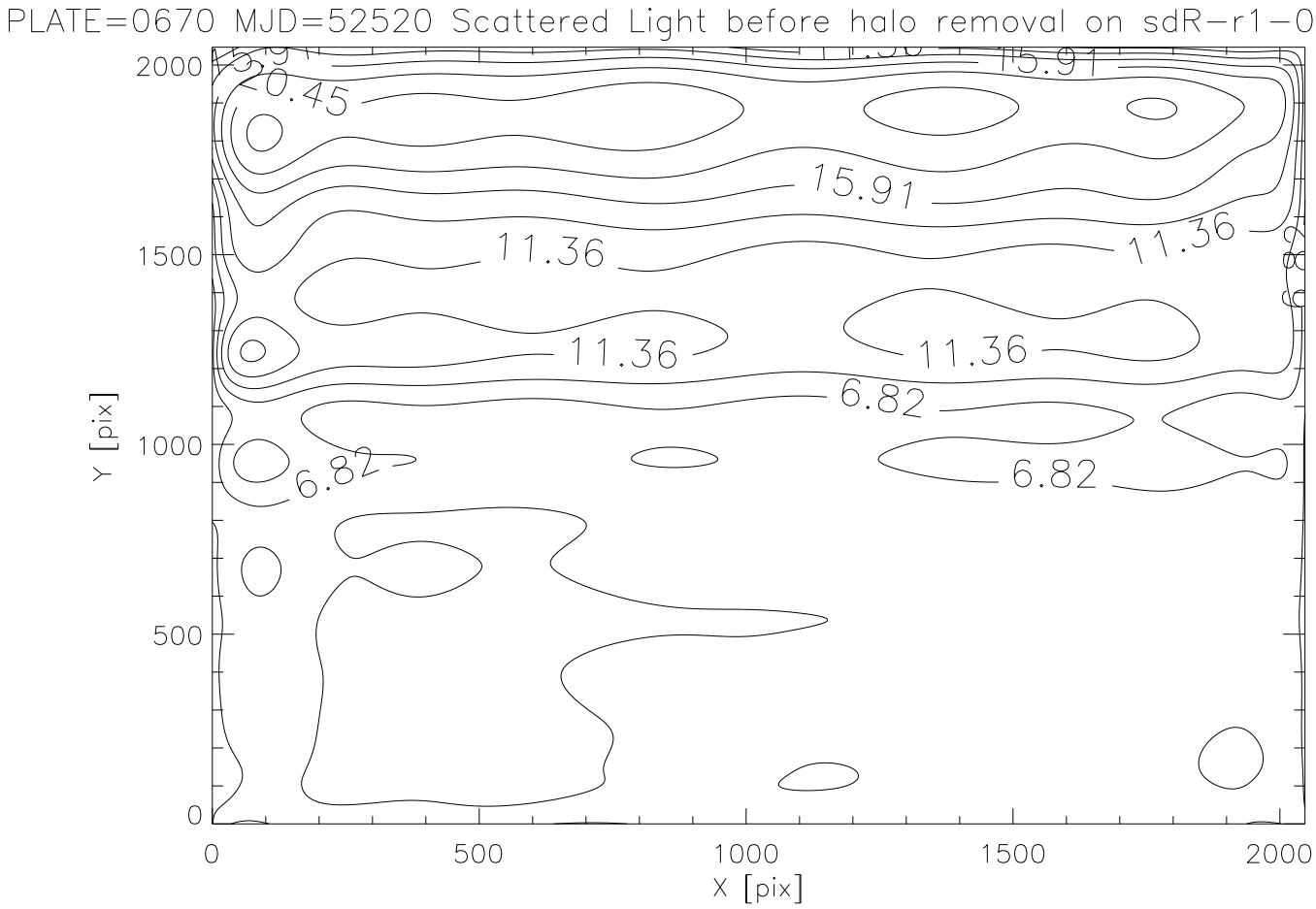

PLATE=0670 MJD=52520 sdR-r1-00016146.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
-200
-400
8820
8840
8860
8880
8900
λ [A]

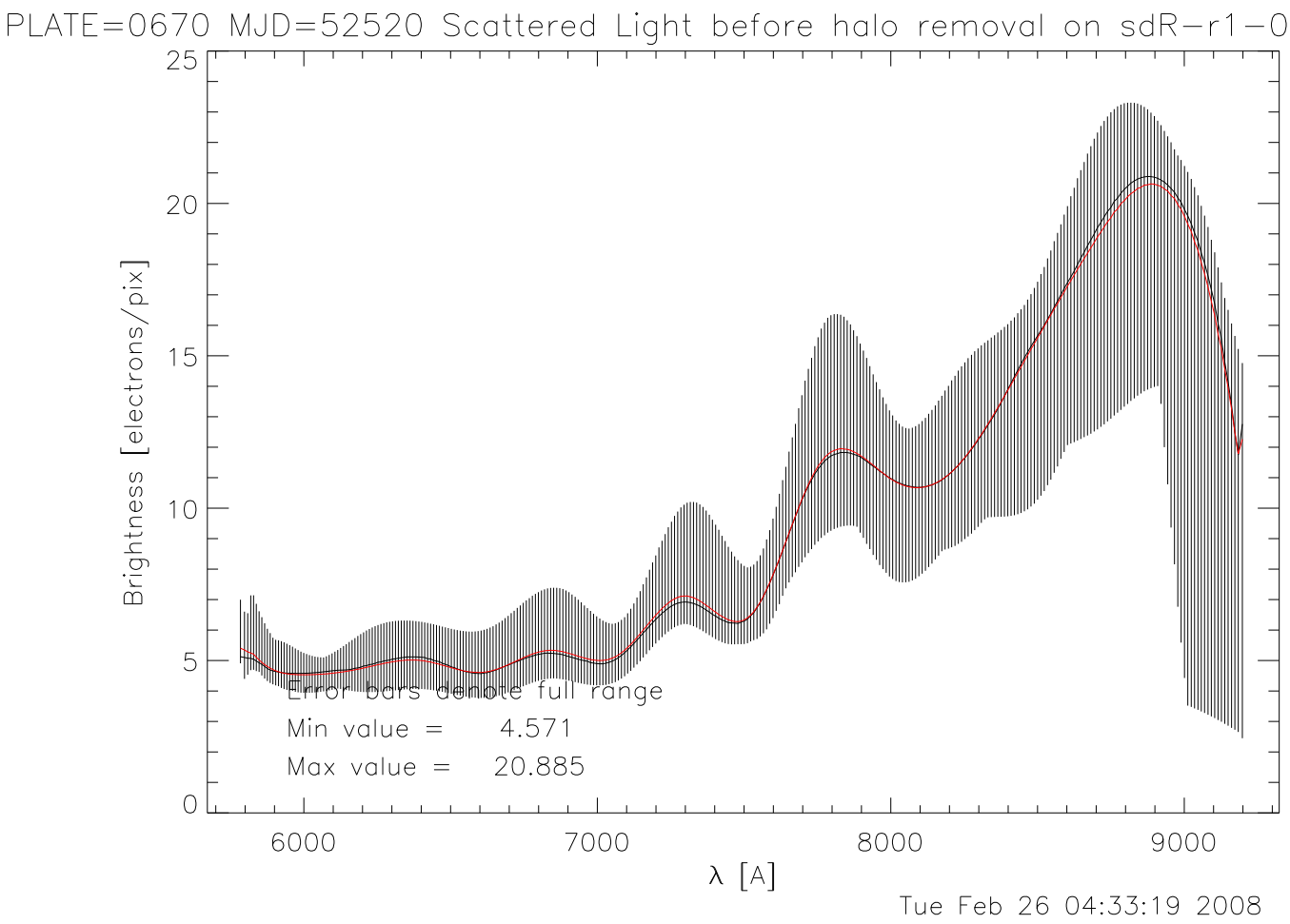

Number of sky fibers = 27
PLATE=0670 MJD=52520 sdR-r1-00016146.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

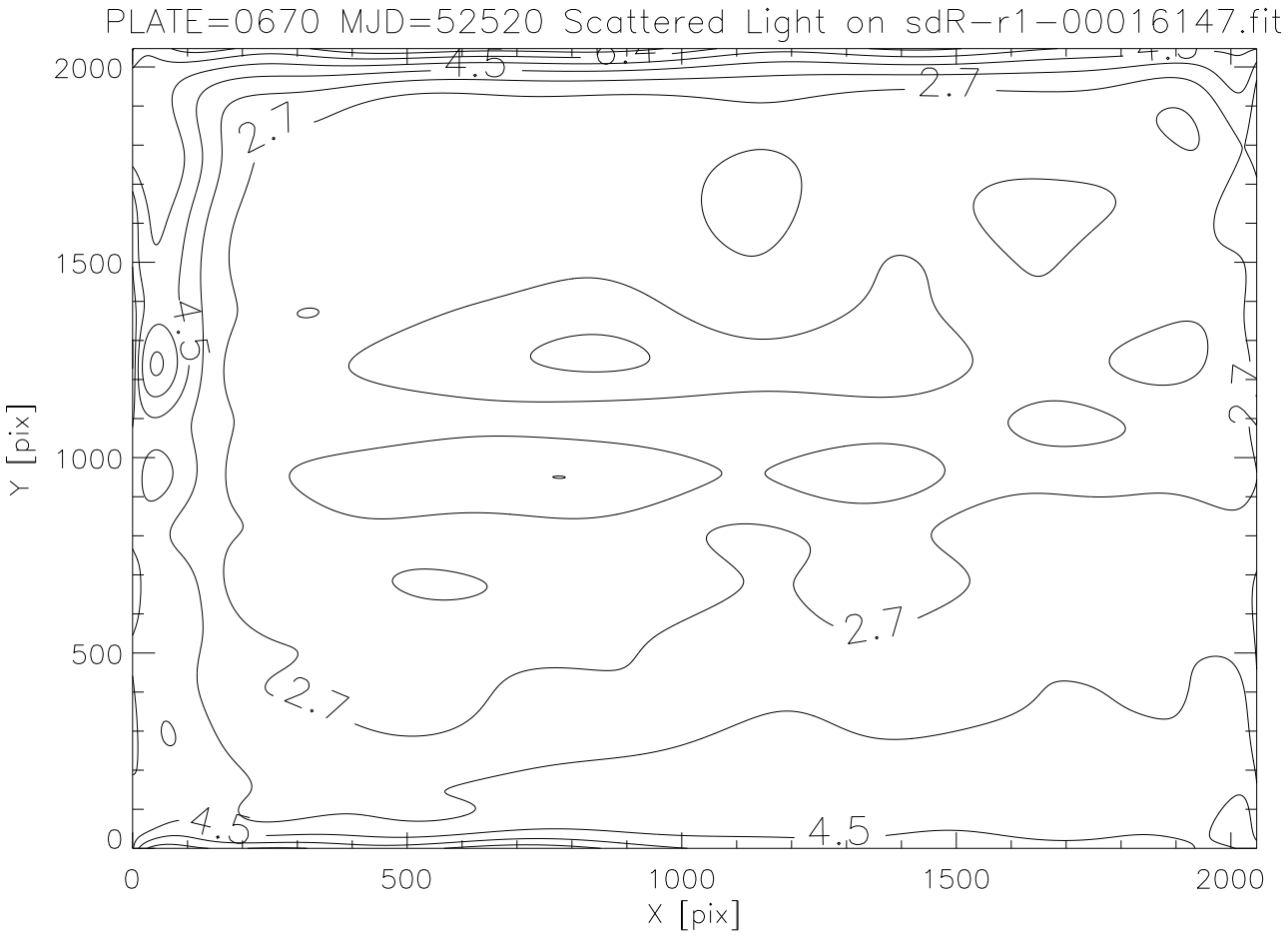

PLATE=0670 MJD=52520 sdR-r1-00016146.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 2.77 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

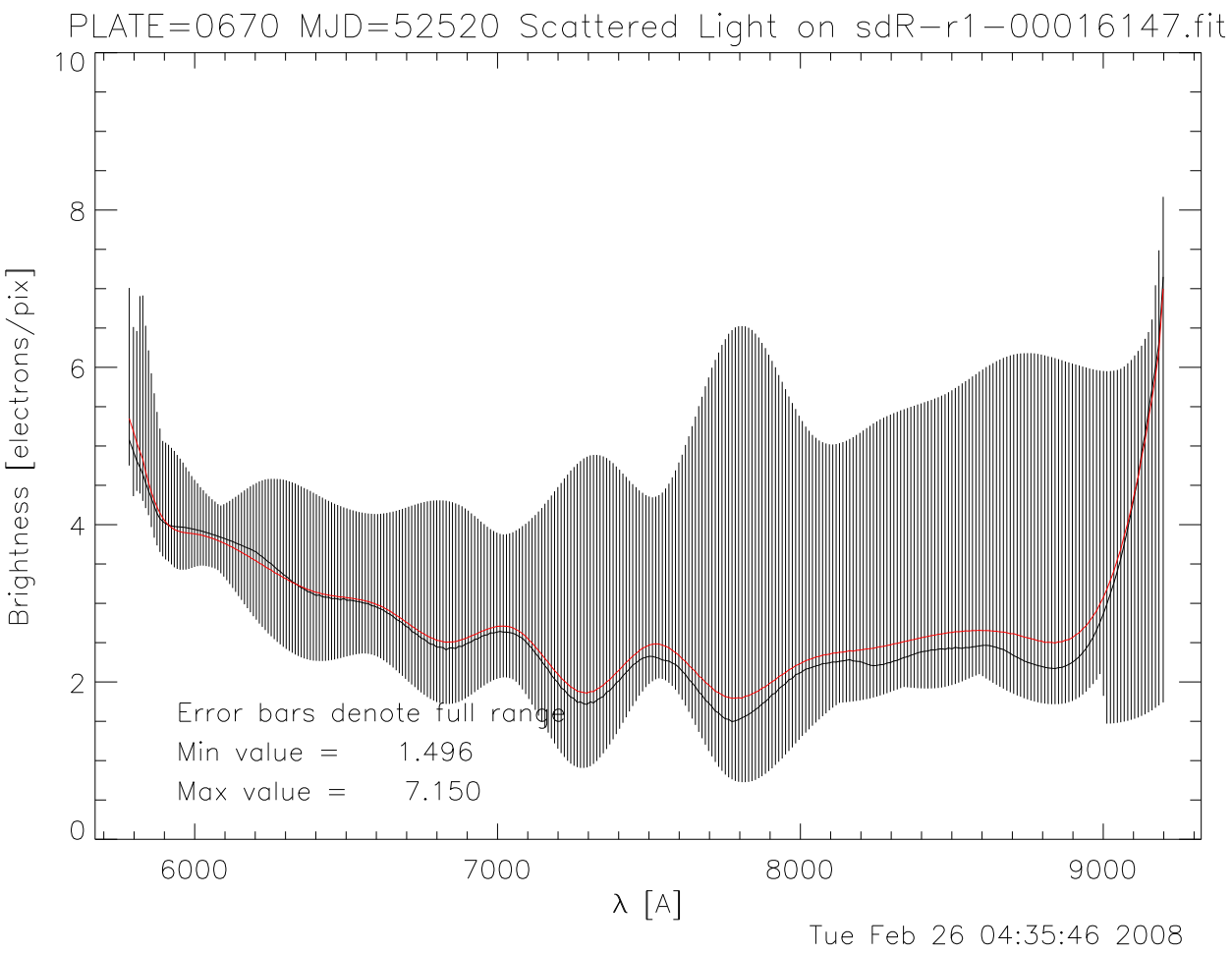

PLATE=0670 MJD=52520 sdR-r1-00016146.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 3.62 %
Fiber number
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass

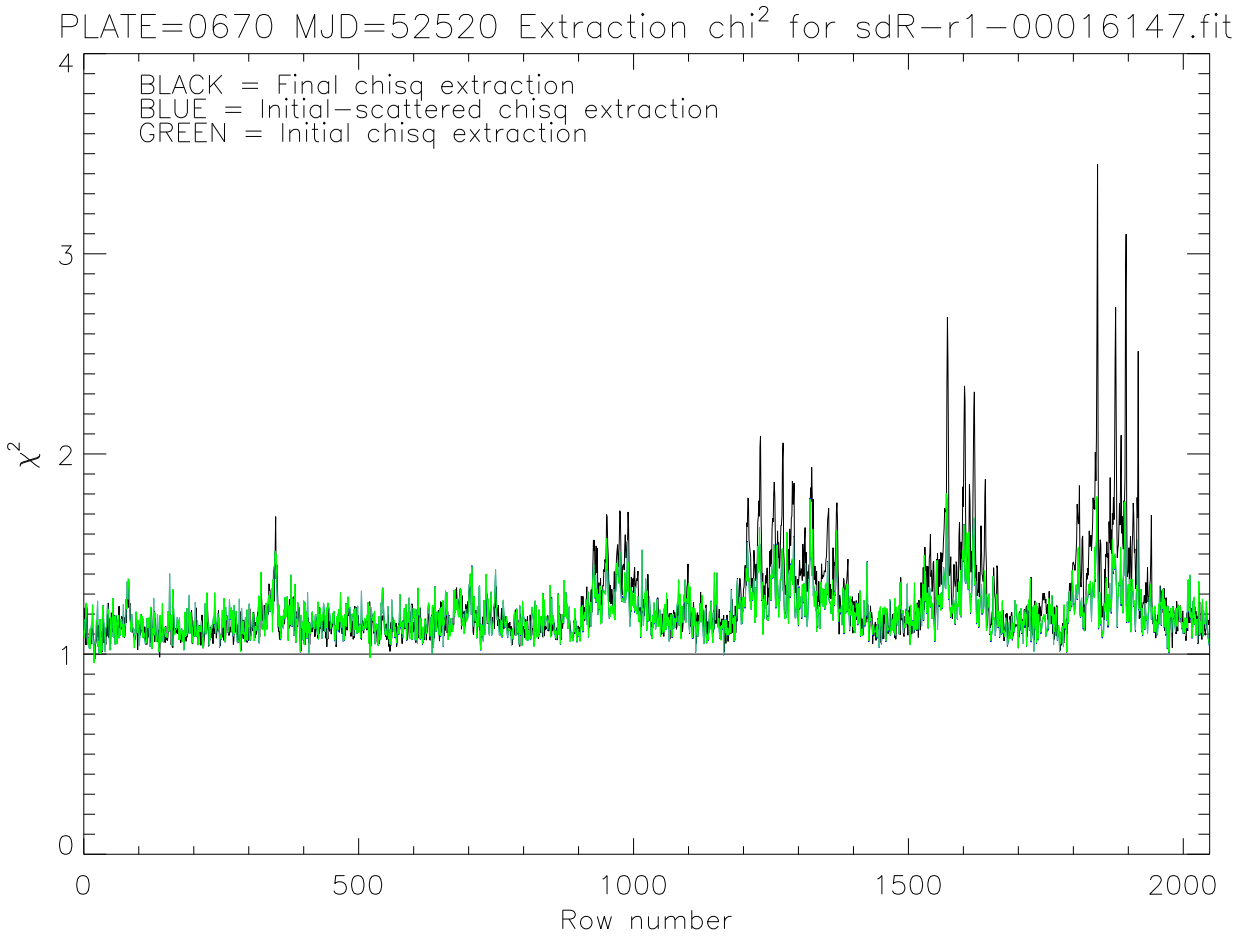

PLATE=0670 MJD=52520 Fiber−Flats for sdR−r1−00016144.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.709
Max value = 1.312
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Tue Feb 26 04:32:36 2008

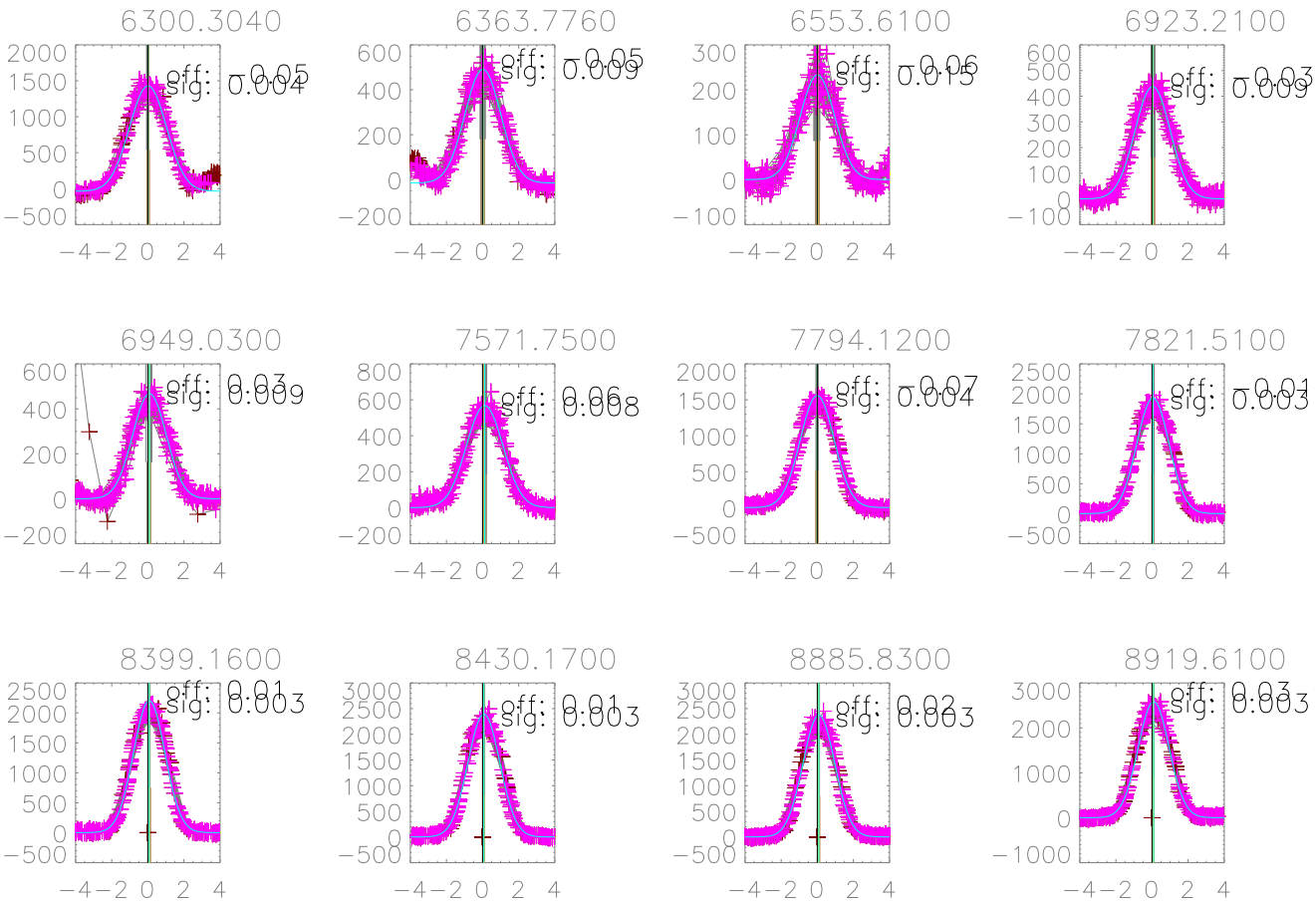

PLATE=0670 MJD=52520 Scattered Light before halo removal on sdR−r1−00016147.fi
20.45
15.91
15.91
11.36
11.36
11.36
11.36
6.82
6.82
6.82
Y [pix]
X [pix]
0
500
1000
1500
2000

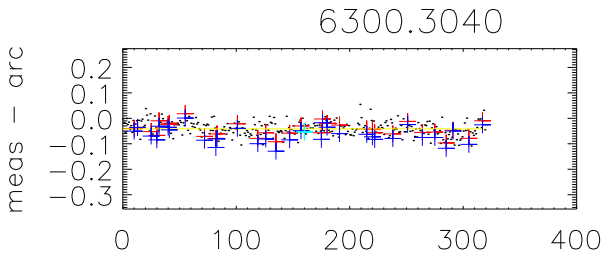

PLATE=0670 MJD=52520 Scattered Light before halo removal on sdR-r1-00016147.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 4.571
Max value = 20.885
Tue Feb 26 04:33:19 2008

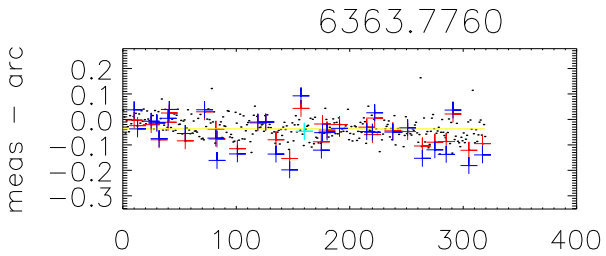

PLATE=0670 MJD=52520 Scattered Light on sdR-r1-00016147.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
4.5
2.7
0

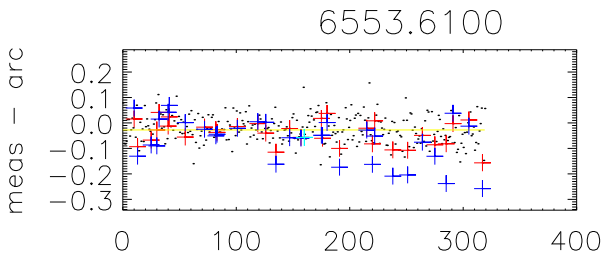

PLATE=0670 MJD=52520 Scattered Light on sdR-r1-00016147.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 1.496
Max value = 7.150
Tue Feb 26 04:35:46 2008

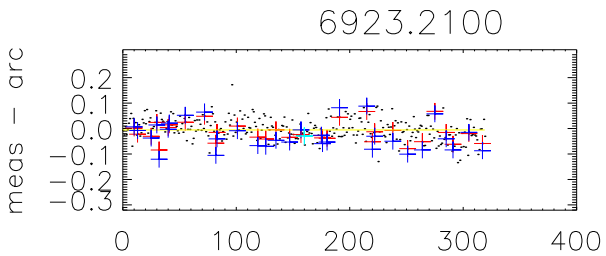

PLATE=0670 MJD=52520 Extraction chi^2 for sdR−r1−00016147.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
0
500
1000
1500
2000
Row number

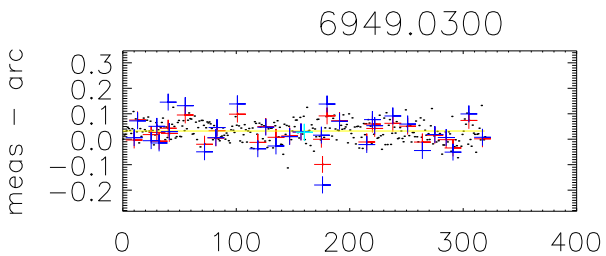

6300.3040
off: −0.05
sig: 0.004
6363.7760
off: −0.05
sig: 0.009
6553.6100
off: −0.06
sig: 0.015
6923.2100
off: −0.03
sig: 0.009
6949.0300
off: 0.03
sig: 0.009
7571.7500
off: 0.06
sig: 0.008
7794.1200
off: −0.07
sig: 0.004
7821.5100
off: −0.01
sig: 0.003
8399.1600
off: 0.01
sig: 0.003
8430.1700
off: 0.01
sig: 0.003
8885.8300
off: 0.02
sig: 0.003
8919.6100
off: 0.03
sig: 0.003

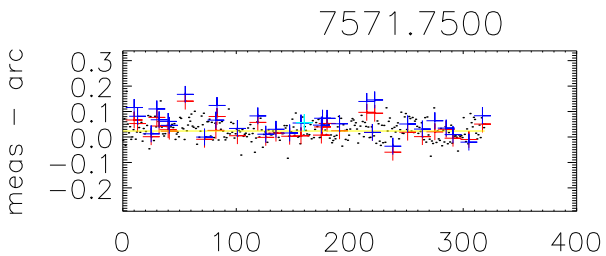

6300.3040
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

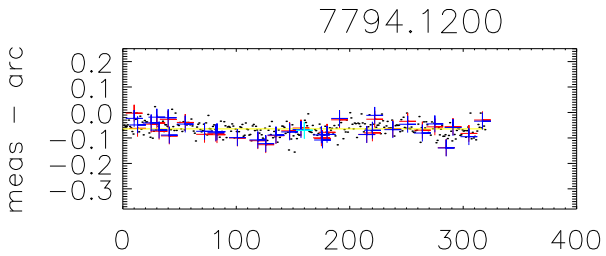

6363.7760
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

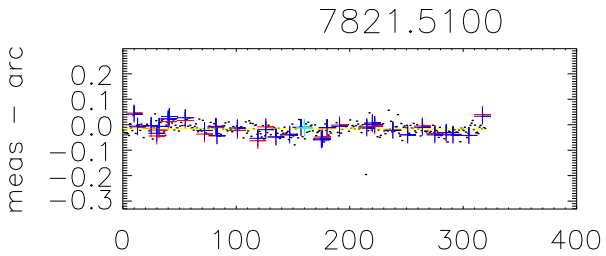

6553.6100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

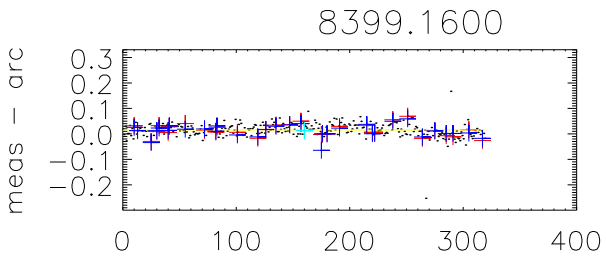

6923.2100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

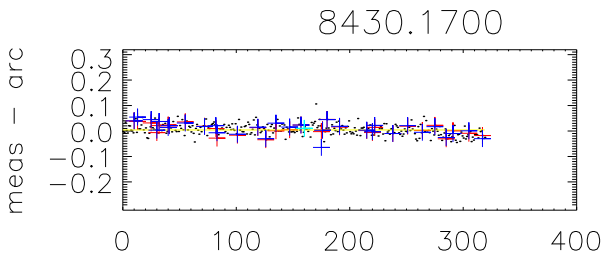

6949.0300
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

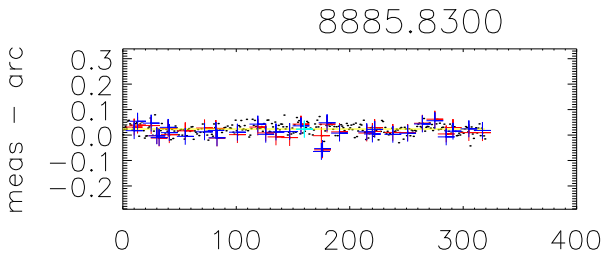

7571.7500
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

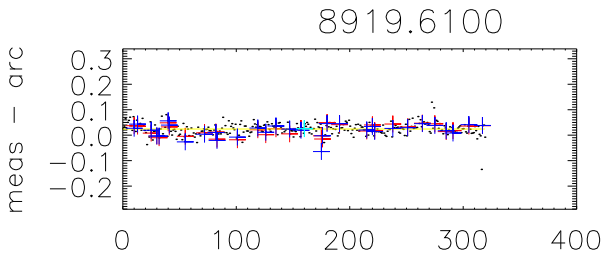

7794.1200
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

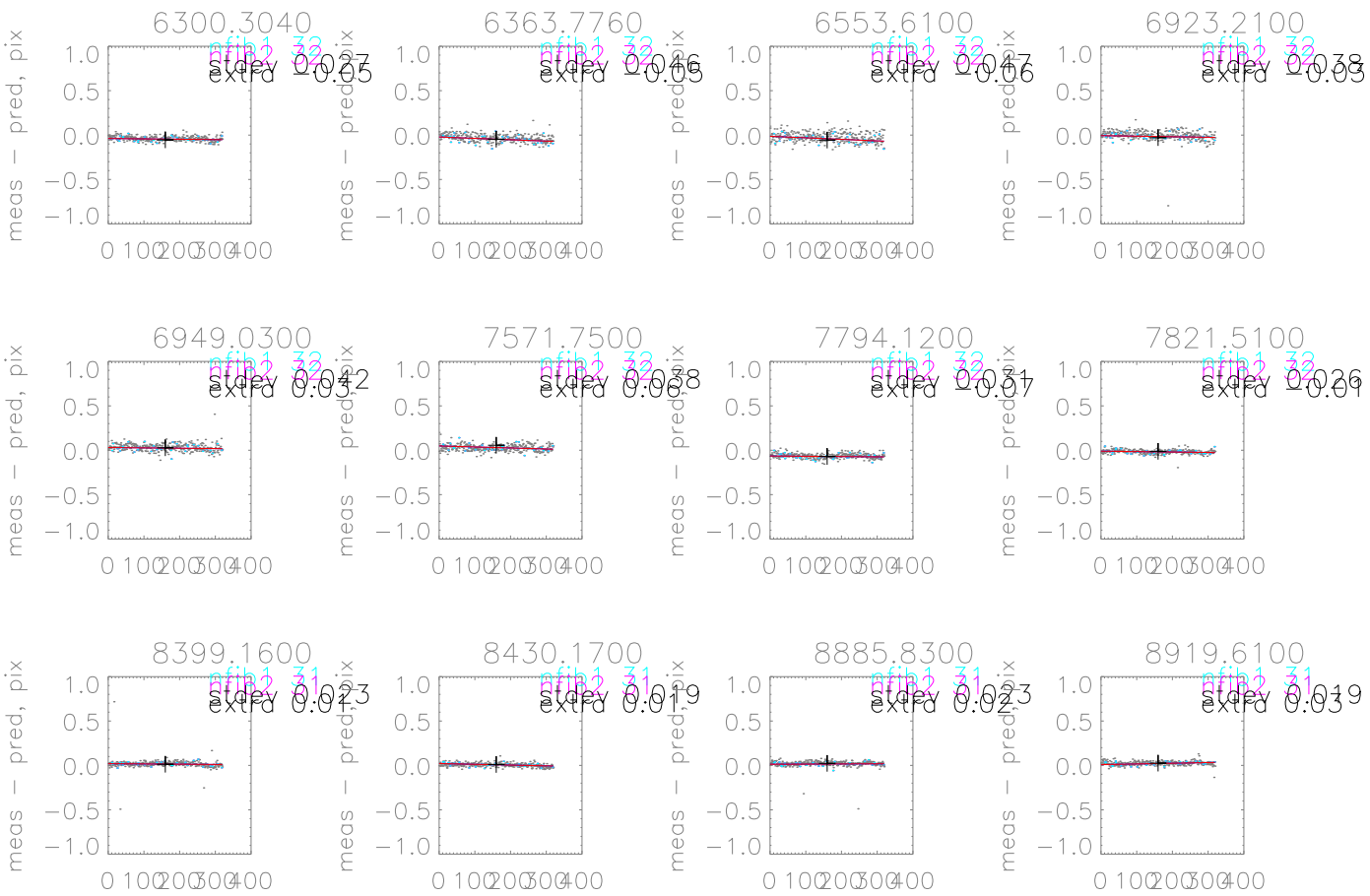

7821.5100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

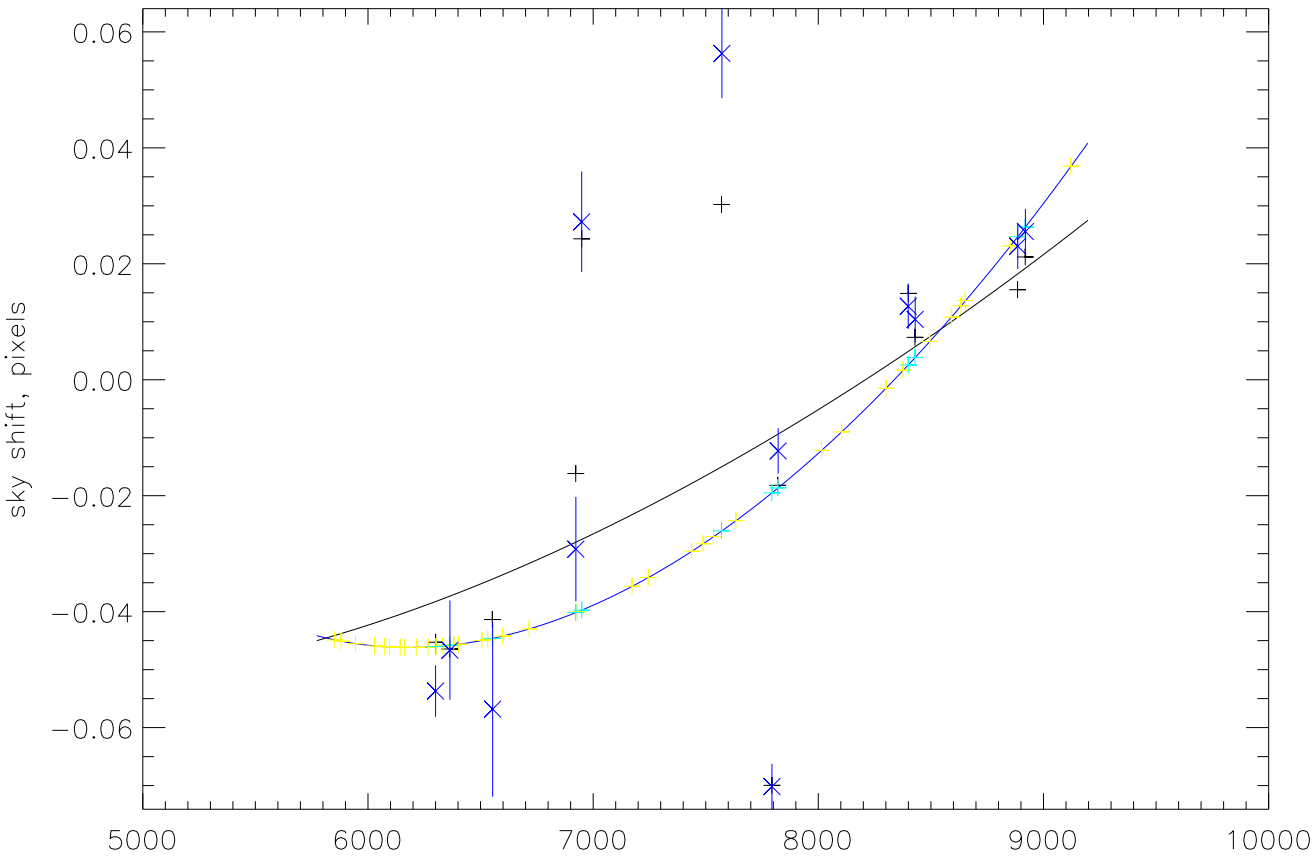

8399.1600
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400


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

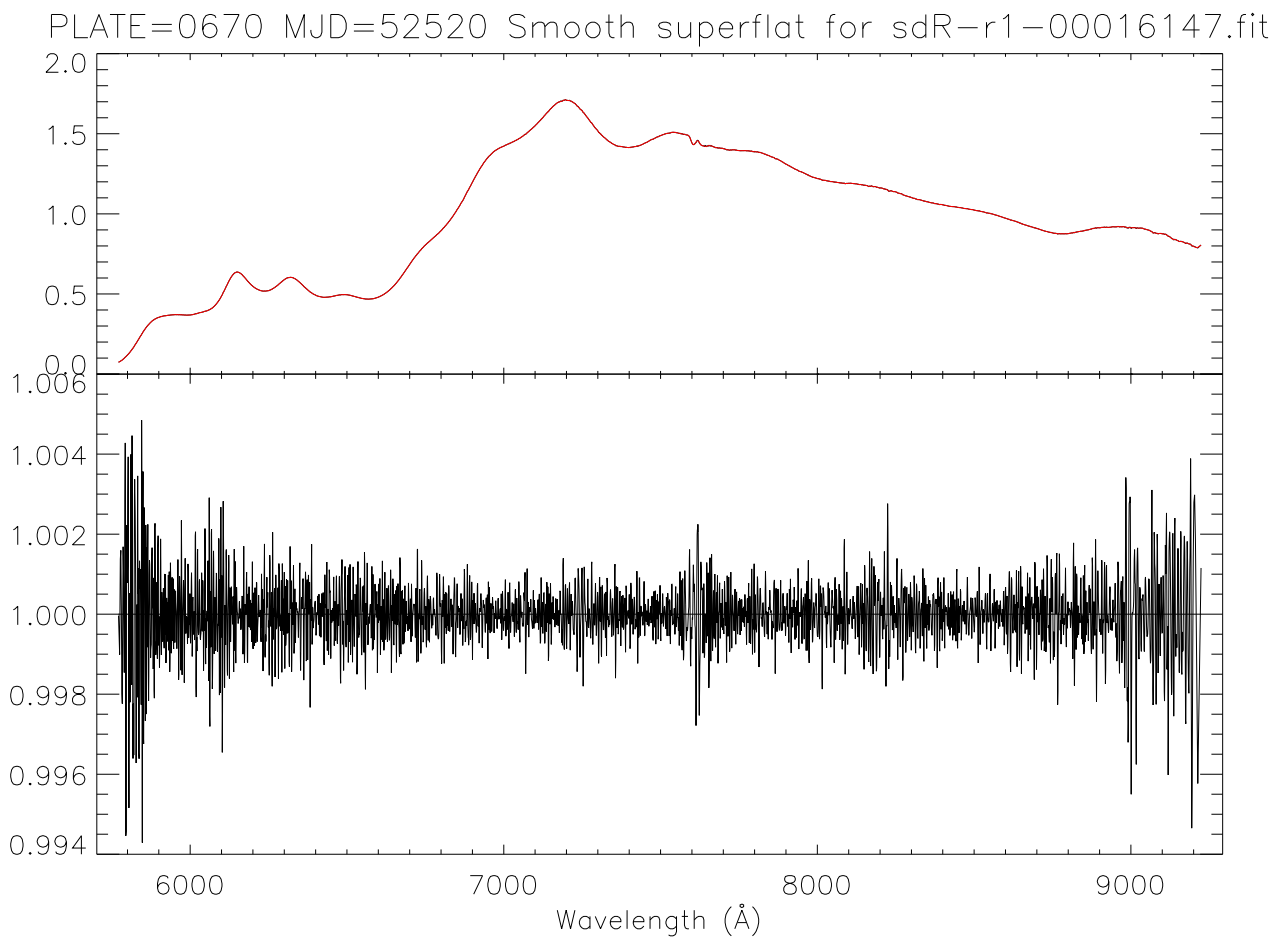

8885.8300
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

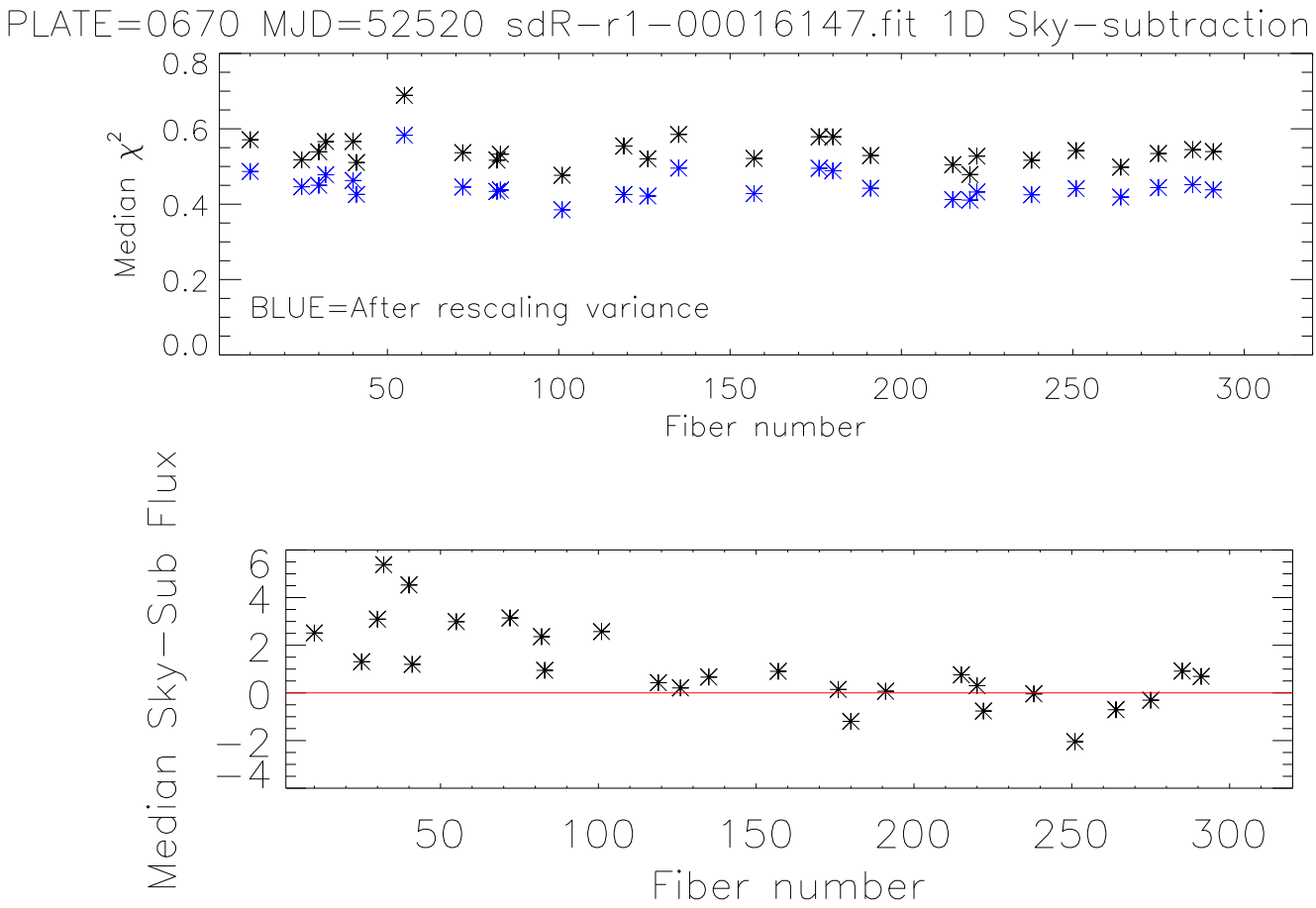

8919.6100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

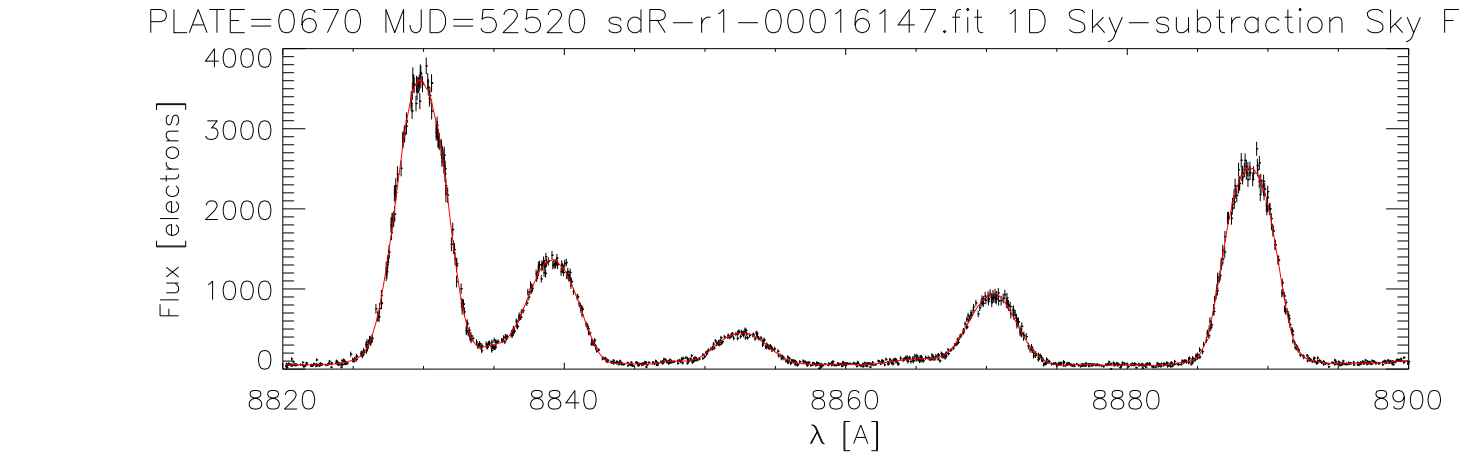

6300.3040
stdev 0.027
extra −0.05
6363.7760
stdev 0.046
extra −0.05
6553.6100
stdev 0.047
extra −0.06
6923.2100
stdev 0.038
extra −0.03
6949.0300
stdev 0.042
extra 0.03
7571.7500
stdev 0.038
extra 0.06
7794.1200
stdev 0.031
extra −0.07
7821.5100
stdev 0.026
extra −0.01
8399.1600
stdev 0.023
extra 0.01
8430.1700
stdev 0.019
extra 0.01
8885.8300
stdev 0.023
extra 0.02
8919.6100
stdev 0.019
extra 0.03
meas − pred, pix
mfib1 32
mfib2 32
mfib1 31
mfib2 31

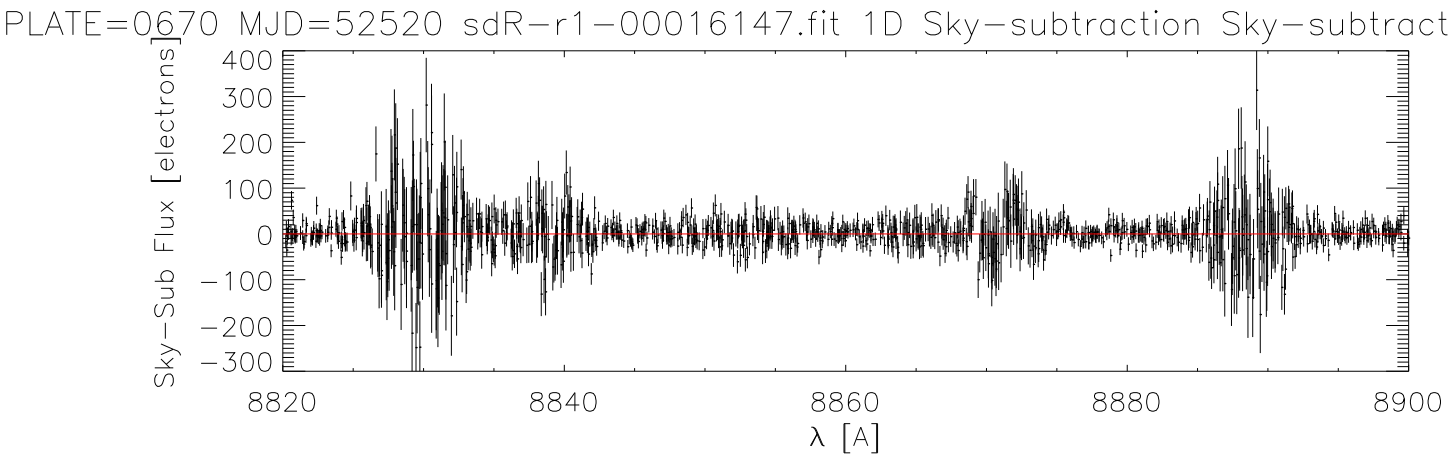

0.06
0.04
0.02
0.00
−0.02
−0.04
−0.06
sky shift, pixels
5000
6000
7000
8000
9000
10000

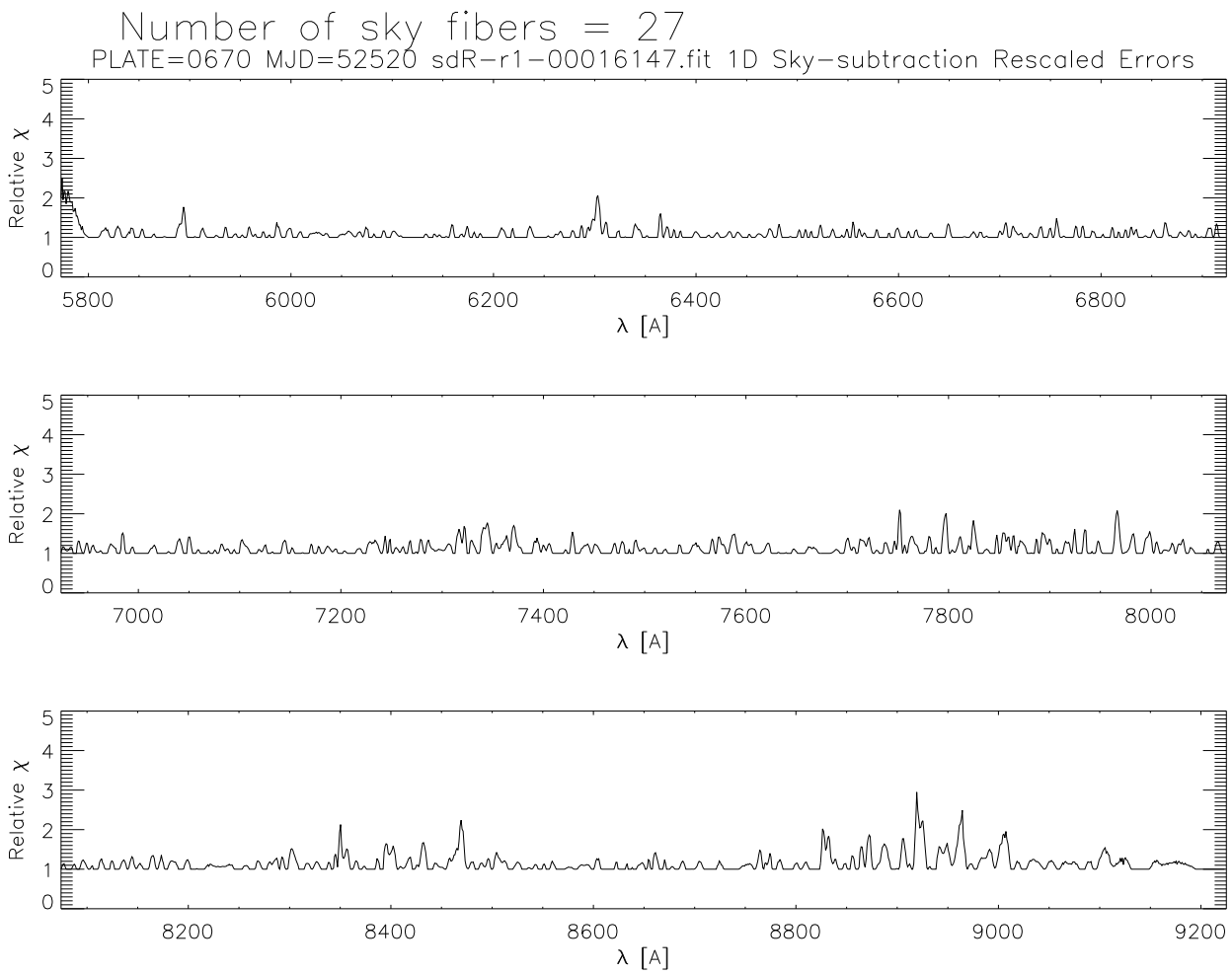
es= 0.0000

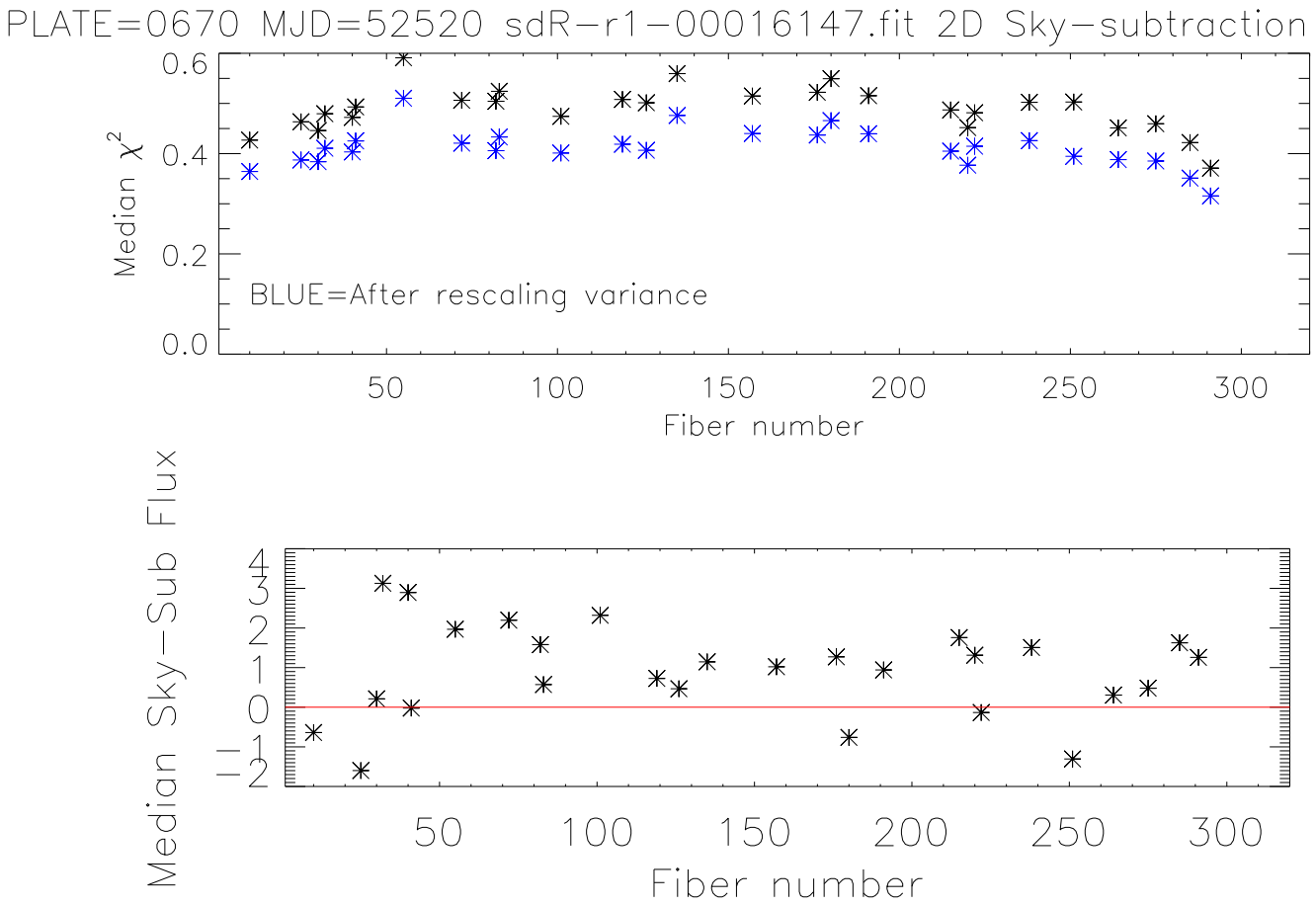

PLATE=0670 MJD=52520 Smooth superflat for sdR-r1-00016147.fit
2.0
1.5
1.0
0.5
0.0
1.006
1.004
1.002
1.000
0.998
0.996
0.994
6000
7000
8000
9000
Wavelength (Å)

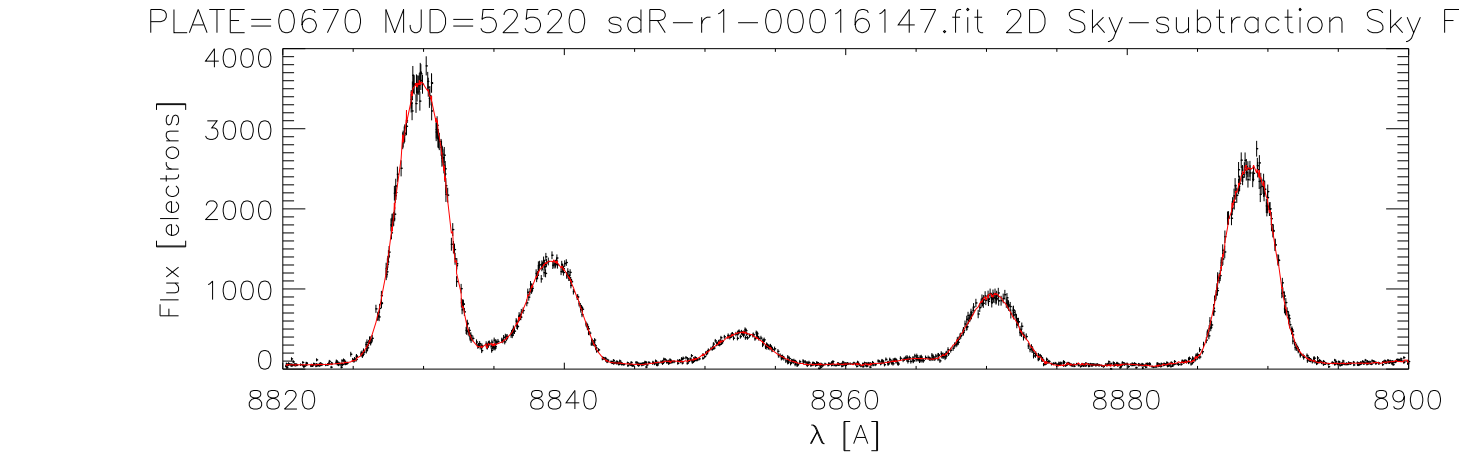

PLATE=0670 MJD=52520 sdR-r1-00016147.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-4
-2
0
2
4
6
50
100
150
200
250
300
Fiber number

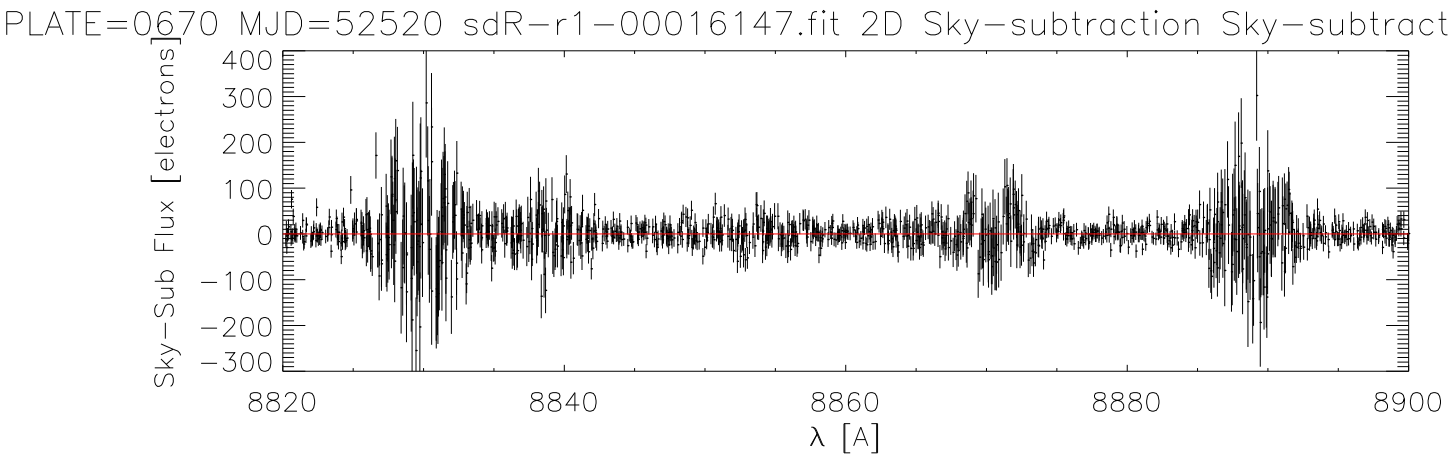

PLATE=0670 MJD=52520 sdR-r1-00016147.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

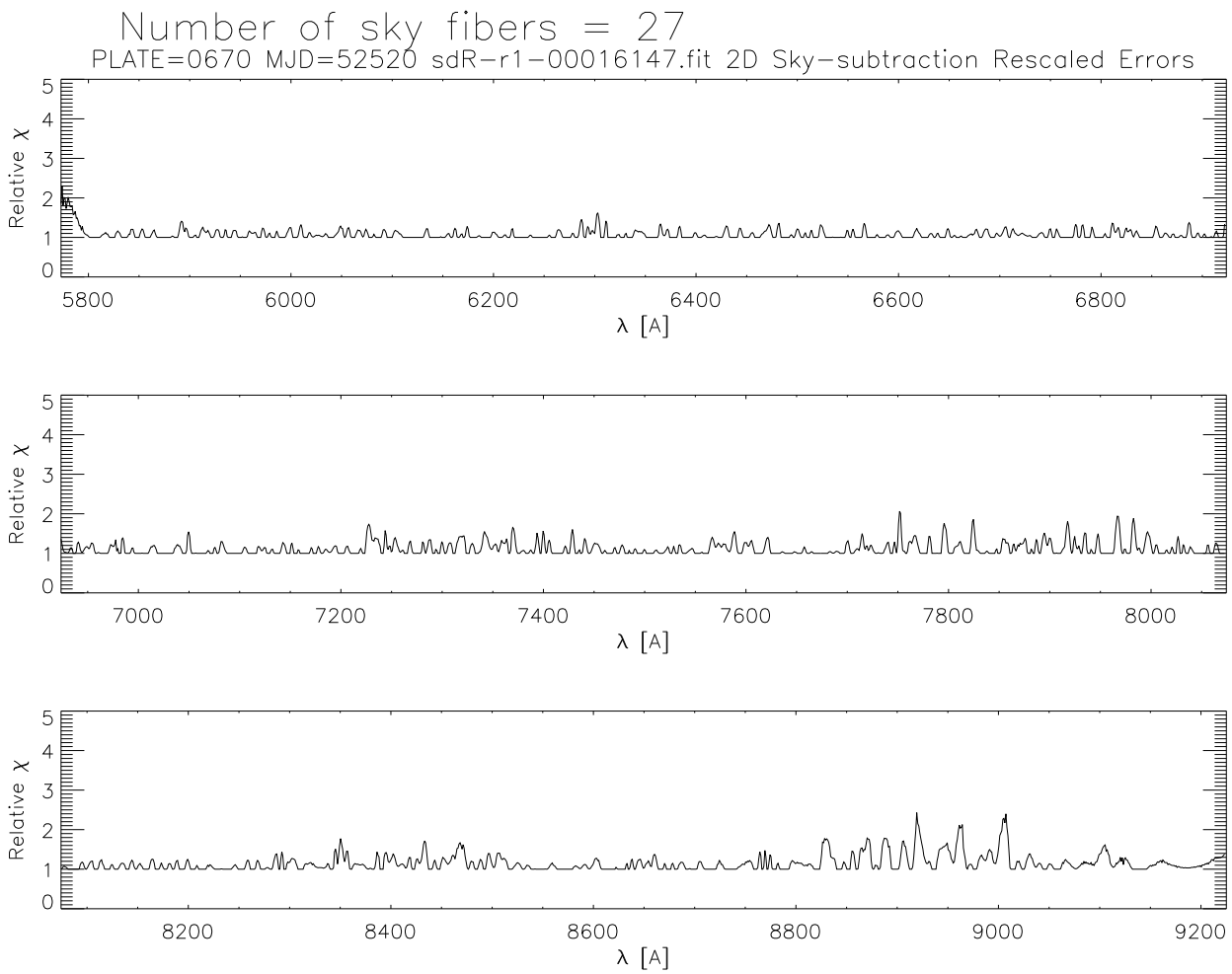

PLATE=0670 MJD=52520 sdR-r1-00016147.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
300
200
100
0
-100
-200
-300
8820
8840
8860
8880
8900
λ [A]

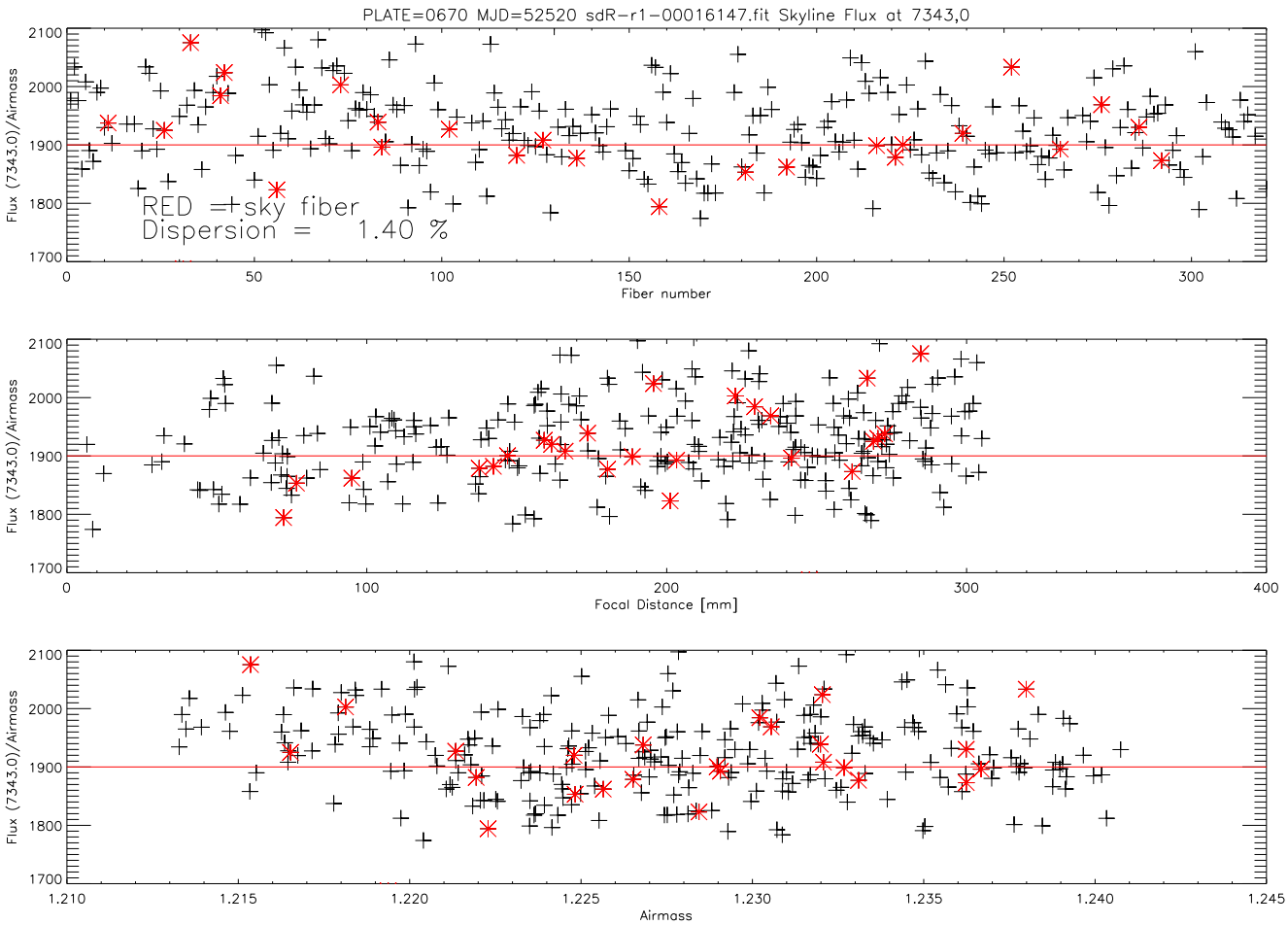

Number of sky fibers = 27
PLATE=0670 MJD=52520 sdR-r1-00016147.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

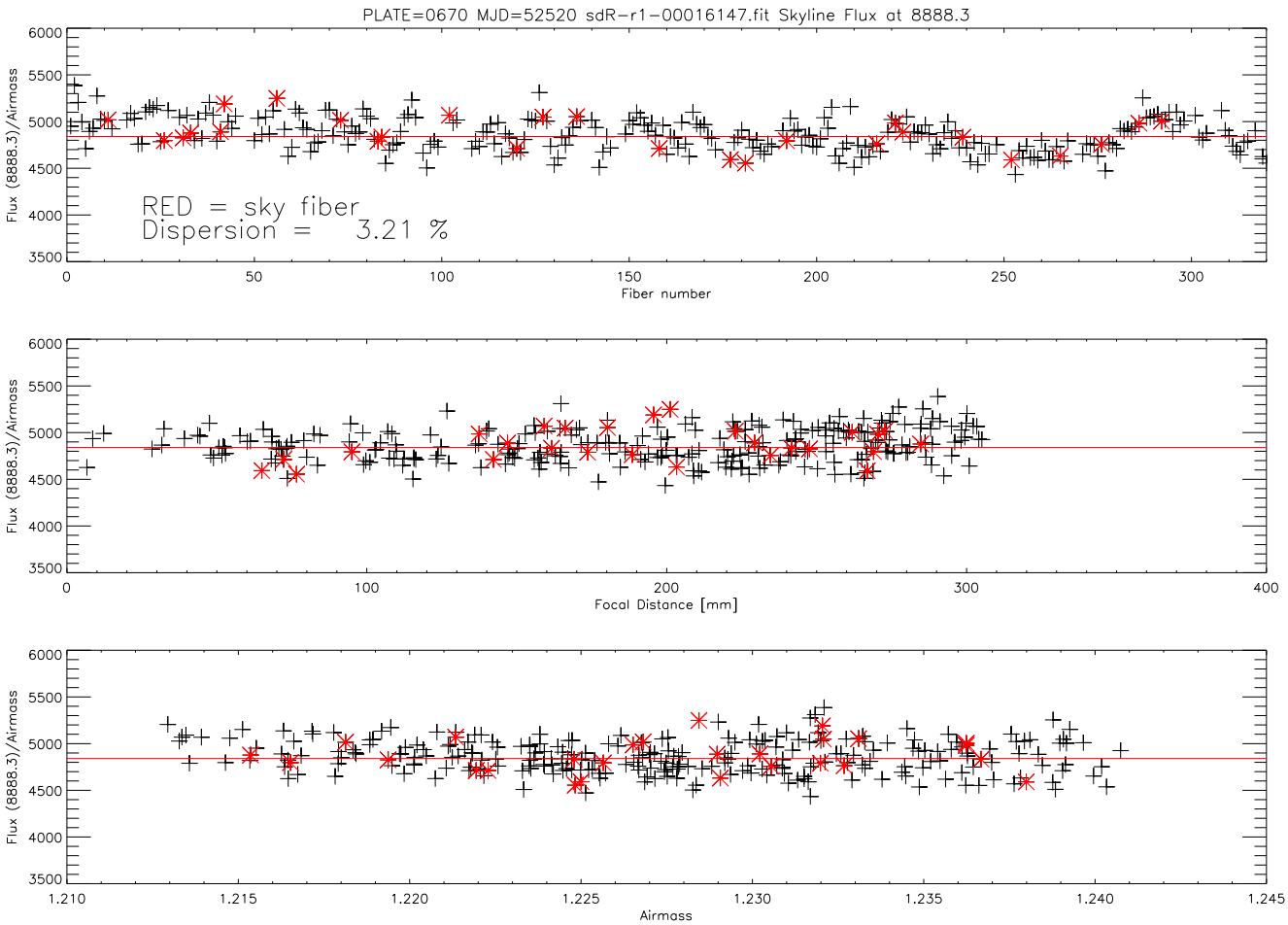

PLATE=0670 MJD=52520 sdR-r1-00016147.fit 2D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-2
-1
0
1
2
3
4
50
100
150
200
250
300
Fiber number

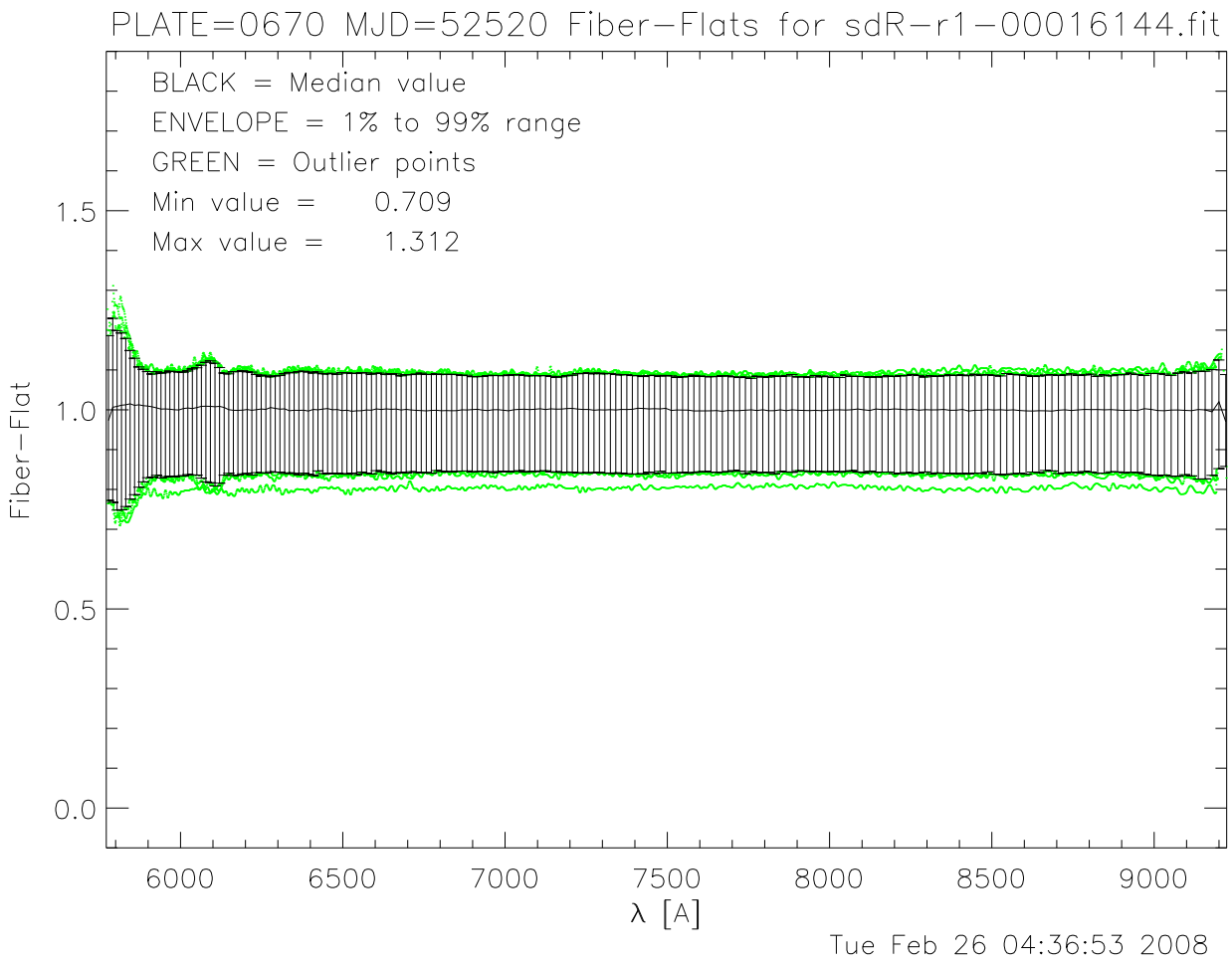

PLATE=0670 MJD=52520 sdR-r1-00016147.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

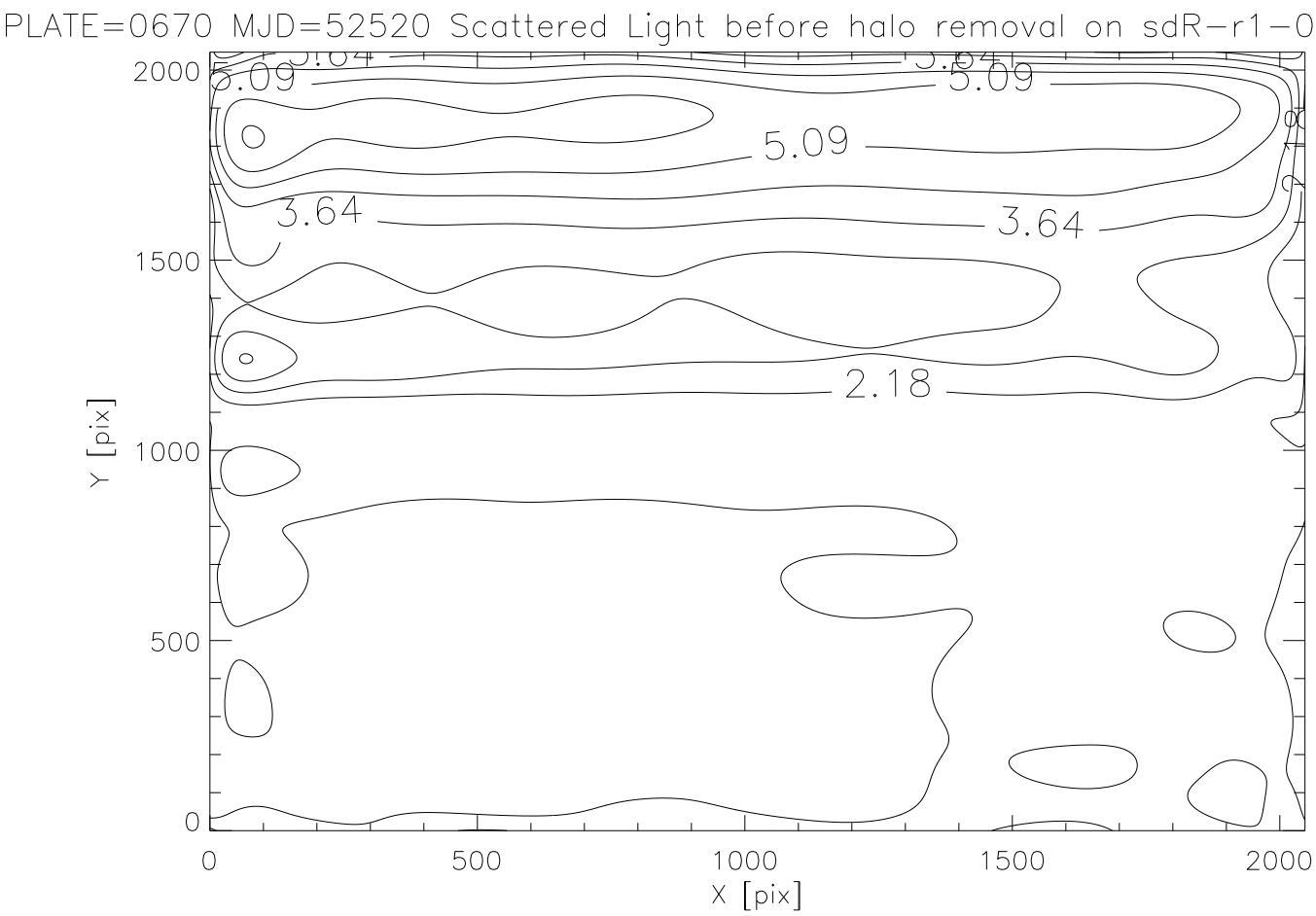

PLATE=0670 MJD=52520 sdR-r1-00016147.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
300
200
100
0
-100
-200
-300
8820
8840
8860
8880
8900
λ [A]

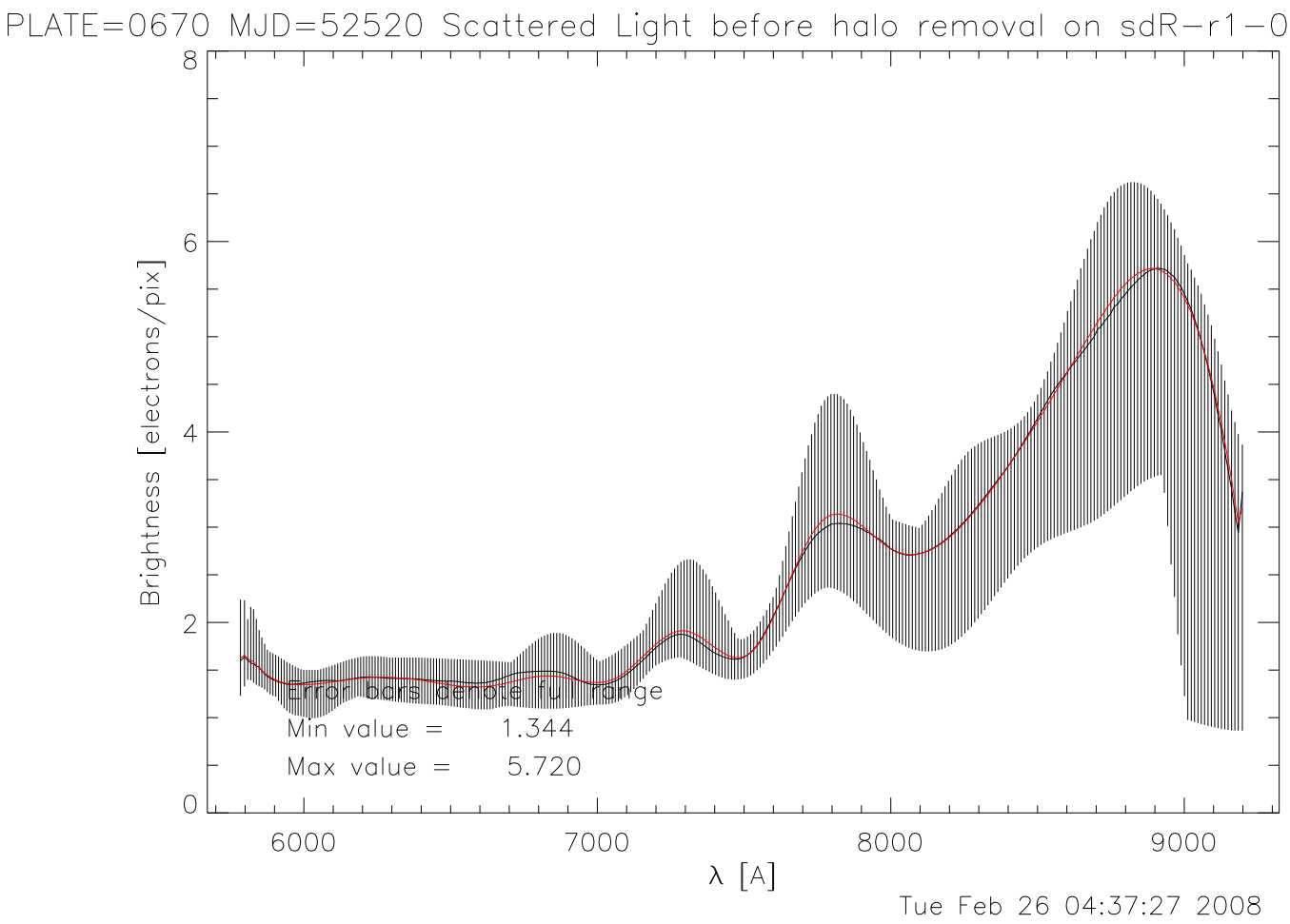

Number of sky fibers = 27
PLATE=0670 MJD=52520 sdR-r1-00016147.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

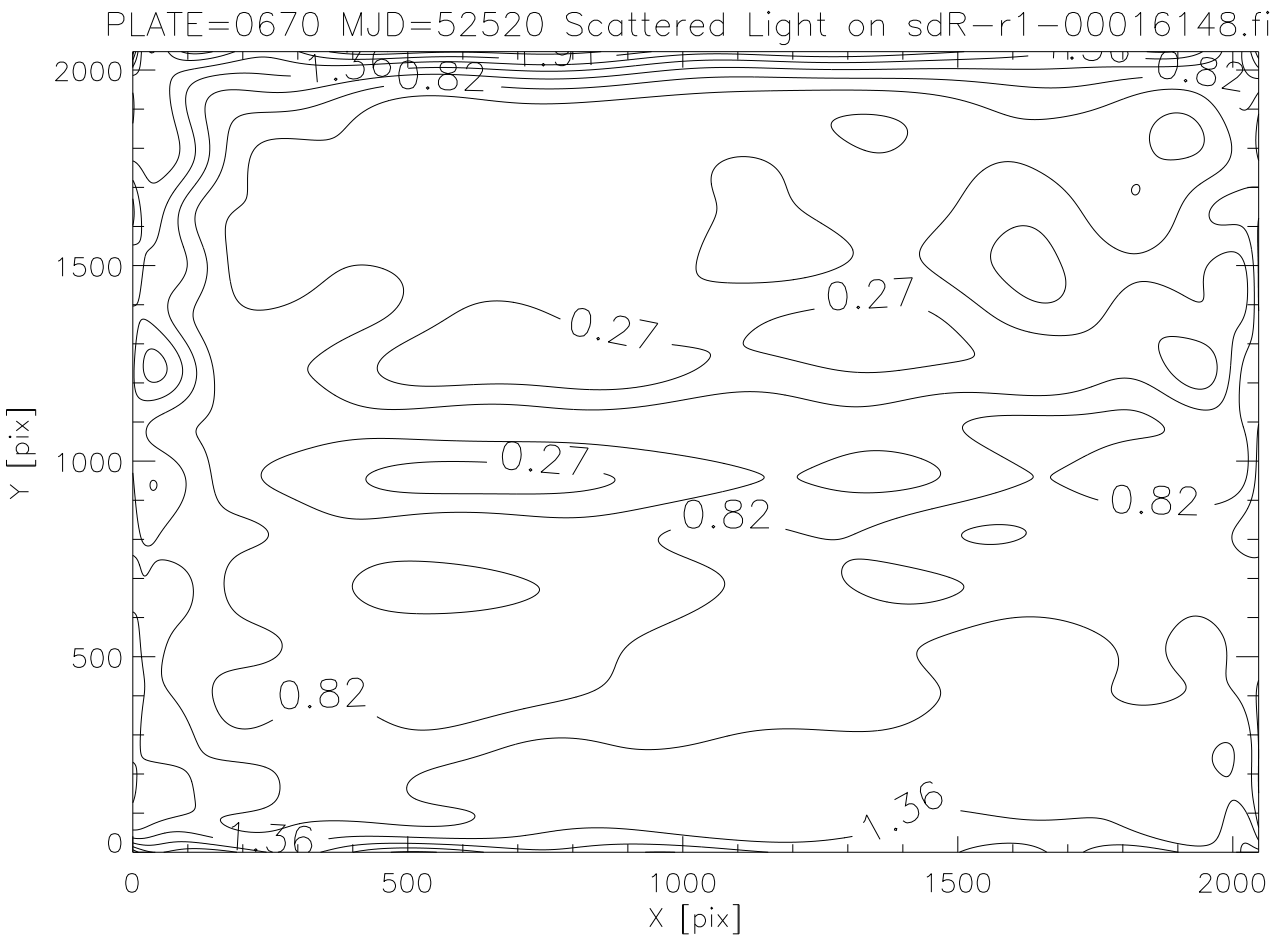

PLATE=0670 MJD=52520 sdR-r1-00016147.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
Fiber number
RED =+sky fiber
Dispersion = 1.40 %
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

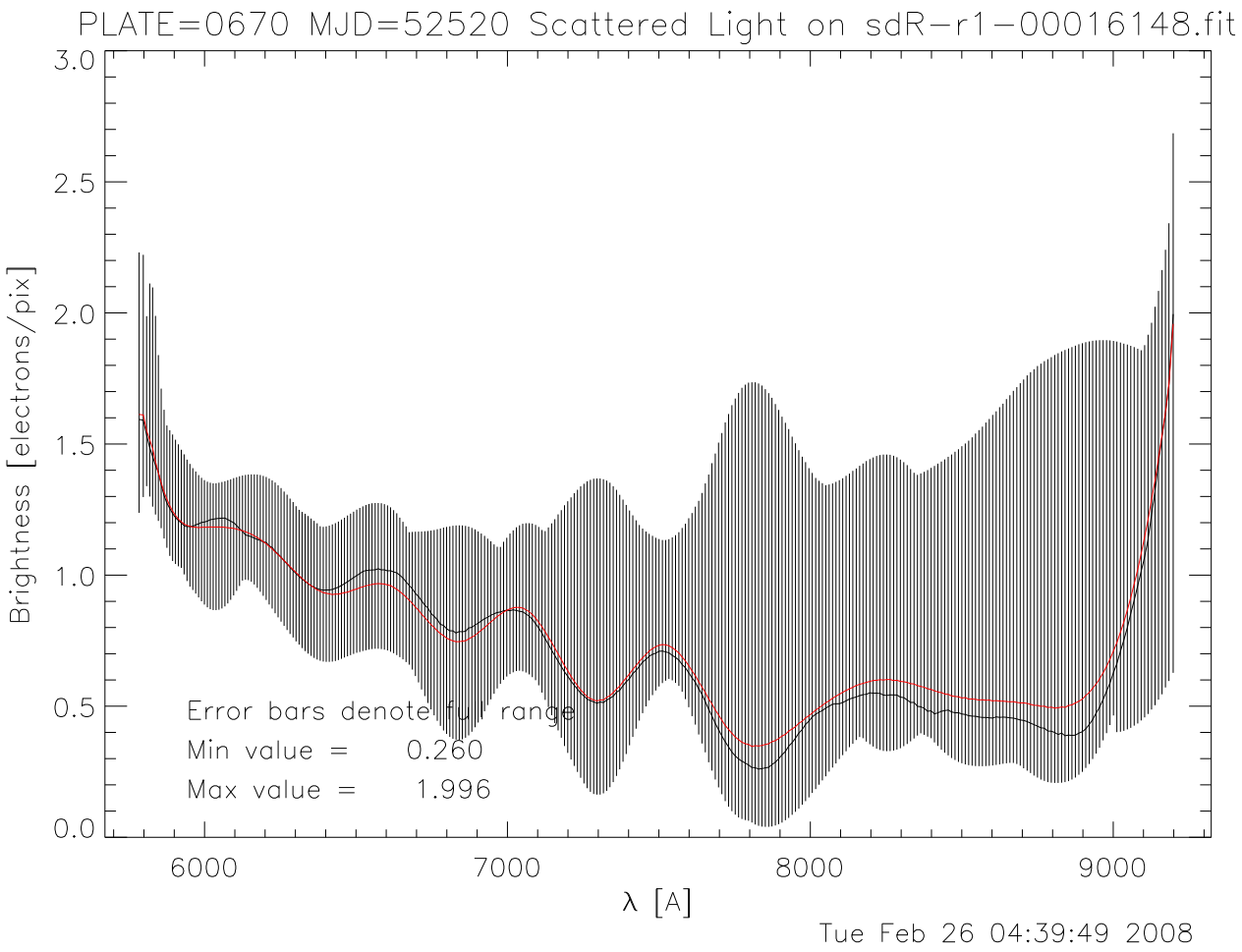

PLATE=0670 MJD=52520 sdR-r1-00016147.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 3.21 %
Fiber number
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass

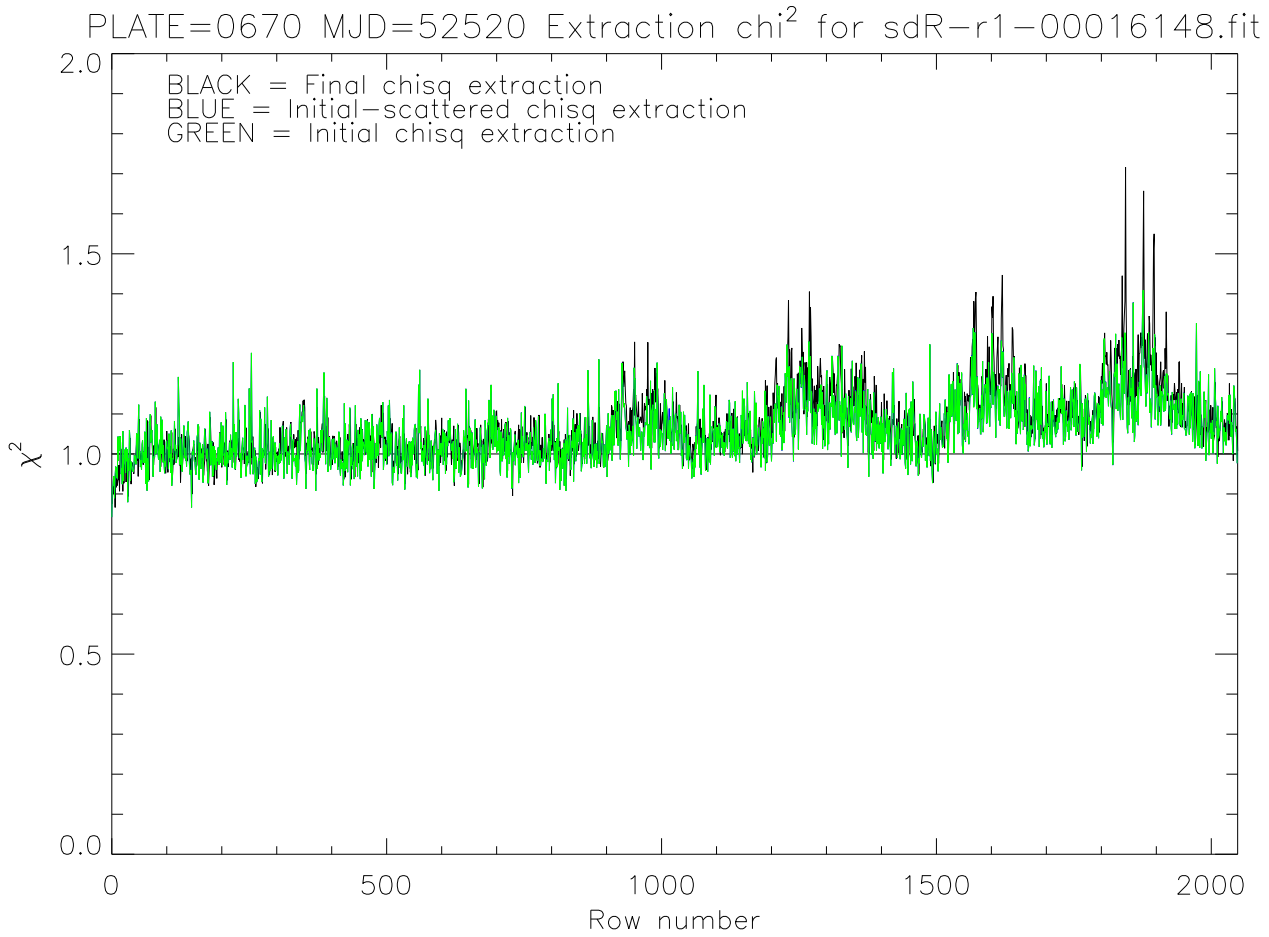

PLATE=0670 MJD=52520 Fiber−Flats for sdR−r1−00016144.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.709
Max value = 1.312
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Tue Feb 26 04:36:53 2008

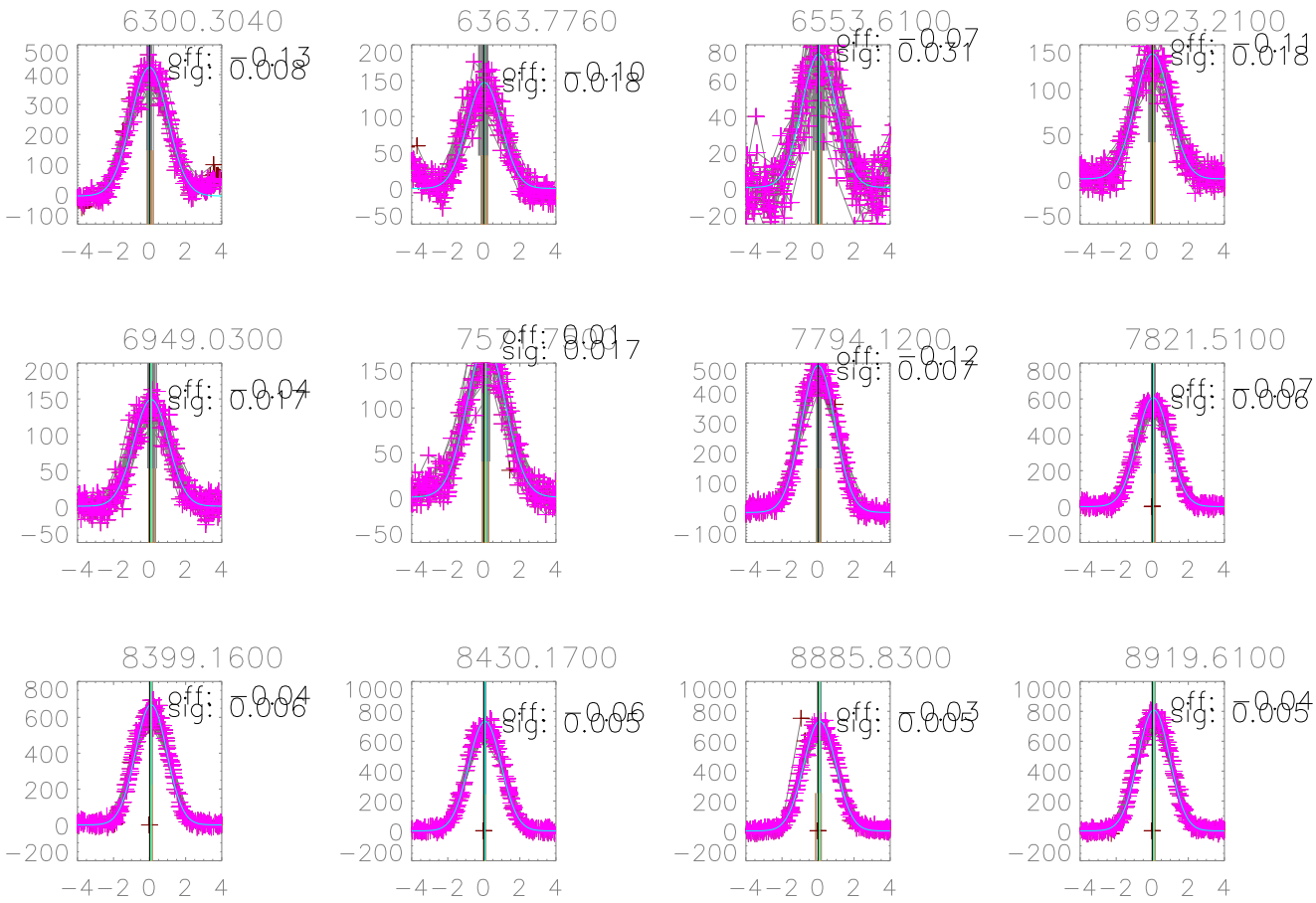

PLATE=0670 MJD=52520 Scattered Light before halo removal on sdR-r1-00016148.fi
5.09
5.09
5.09
3.64
3.64
2.18
Y [pix]
X [pix]
0
500
1000
1500
2000

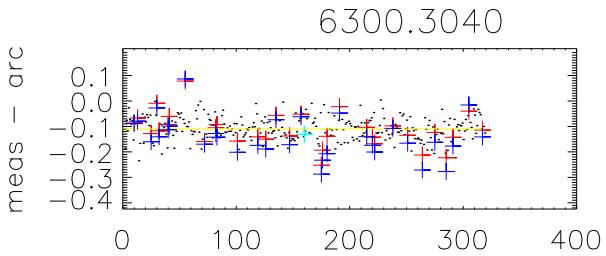

PLATE=0670 MJD=52520 Scattered Light before halo removal on sdR-r1-00016148.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 1.344
Max value = 5.720
Tue Feb 26 04:37:27 2008

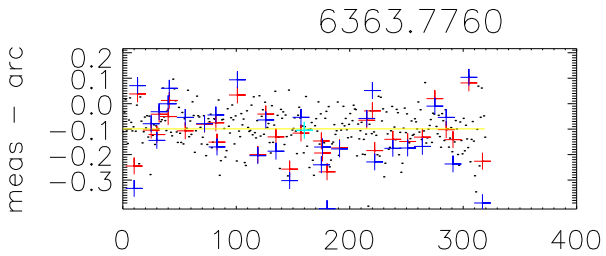

PLATE=0670 MJD=52520 Scattered Light on sdR−r1−00016148.fit
1.36
0.82
0.27
0.82
0.27
0.27
0.82
0.82
0
1.36
1.36
0
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]

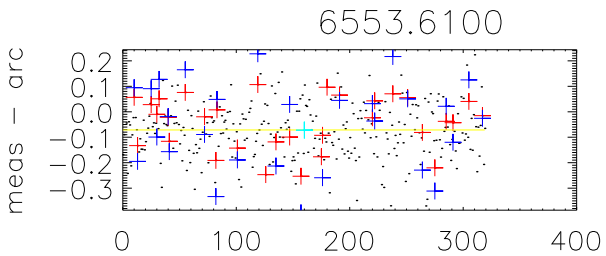

PLATE=0670 MJD=52520 Scattered Light on sdR-r1-00016148.fit
Brightness [electrons/pix]
3.0
2.5
2.0
1.5
1.0
0.5
0.0
Error bars denote full range
Min value = 0.260
Max value = 1.996
6000
7000
8000
9000
λ [A]
Tue Feb 26 04:39:49 2008

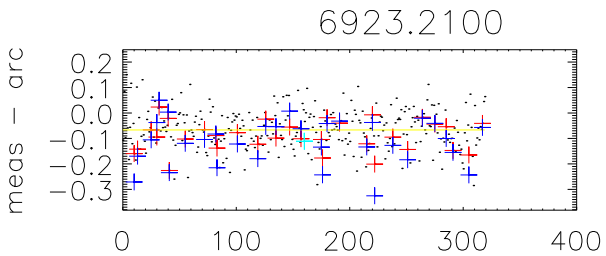

PLATE=0670 MJD=52520 Extraction chi^2 for sdR−r1−00016148.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
2.0
1.5
1.0
0.5
0.0
0
500
1000
1500
2000
Row number

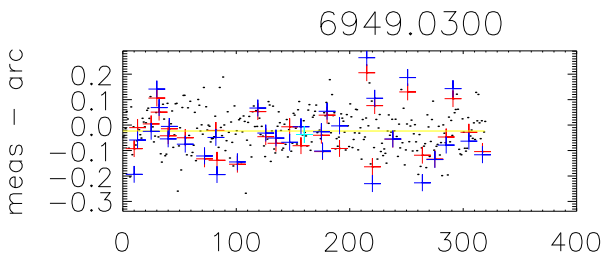

6300.3040
off: −0.13
sig: 0.008
6363.7760
off: −0.10
sig: 0.018
6553.6100
off: −0.07
sig: 0.031
6923.2100
off: −0.11
sig: 0.018
6949.0300
off: −0.04
sig: 0.017
7531.7900
off: −0.01
sig: 0.017
7794.1200
off: −0.12
sig: 0.007
7821.5100
off: −0.07
sig: 0.006
8399.1600
off: −0.04
sig: 0.006
8430.1700
off: −0.06
sig: 0.005
8885.8300
off: −0.03
sig: 0.005
8919.6100
off: −0.04
sig: 0.005

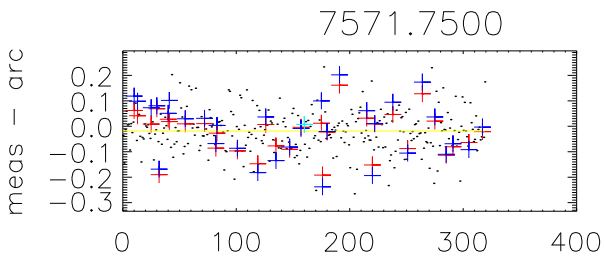

6300.3040
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

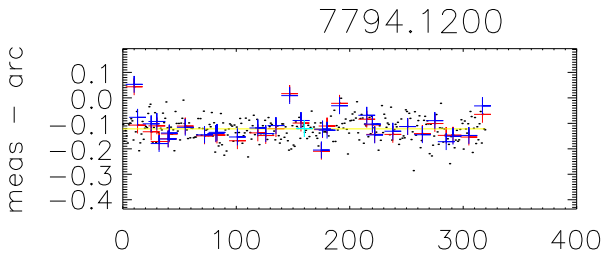

6363.7760
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

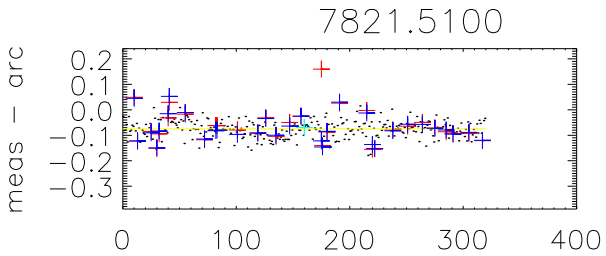

6553.6100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

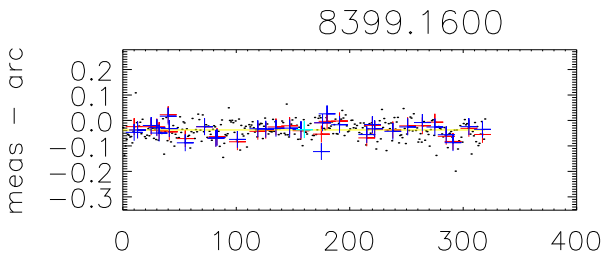

6923.2100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

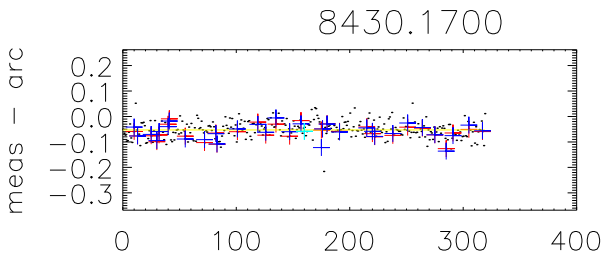

6949.0300
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

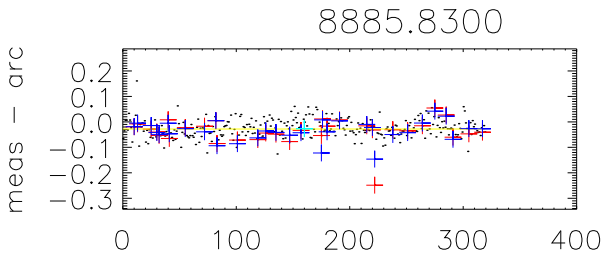

7571.7500
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

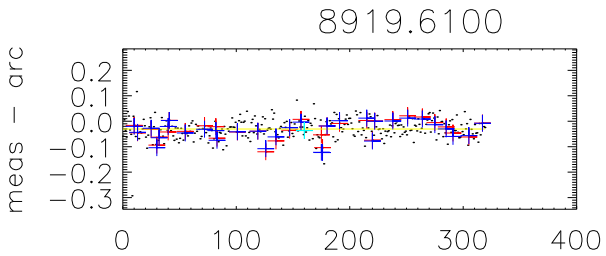

7794.1200
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

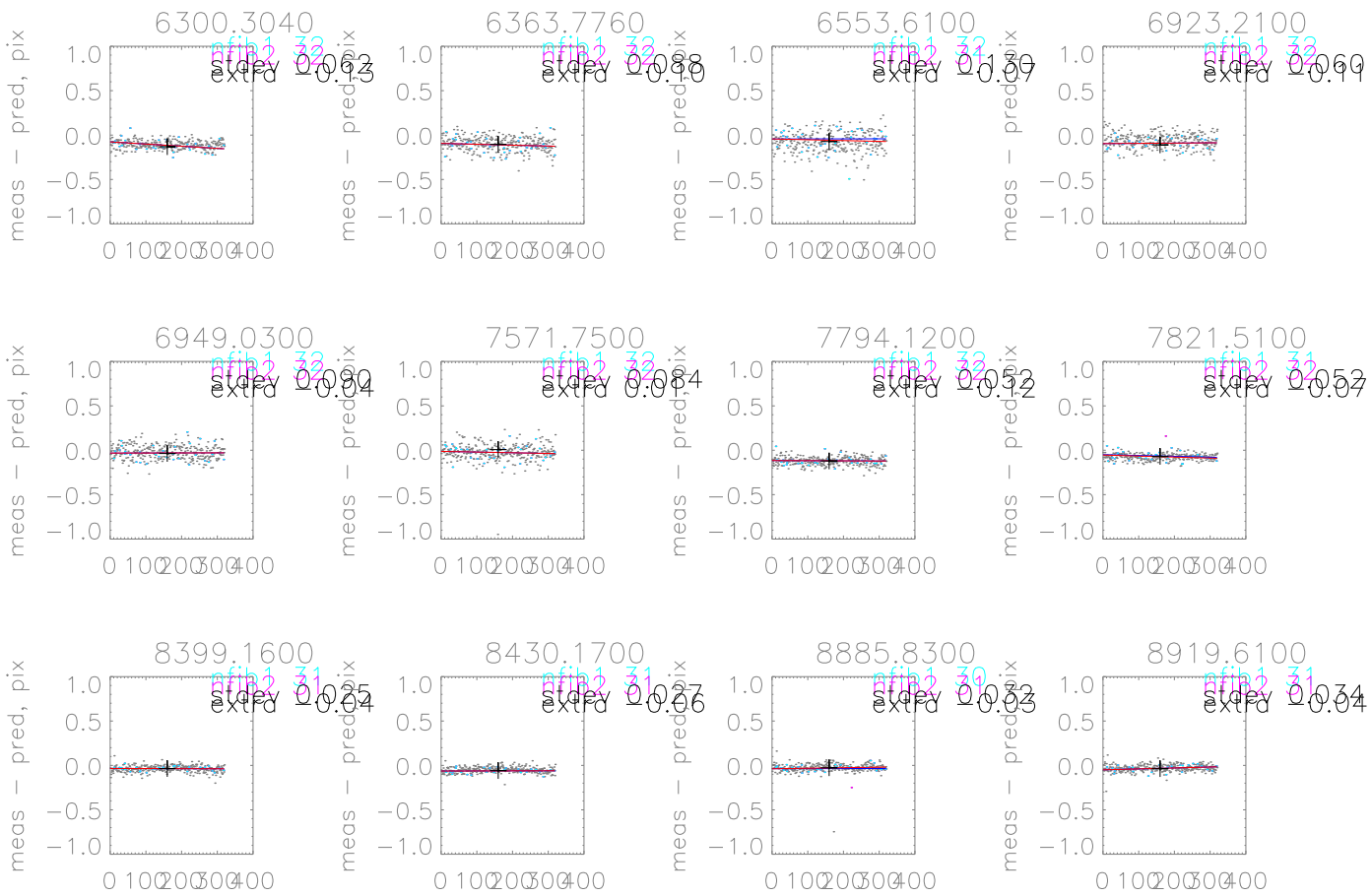

7821.5100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

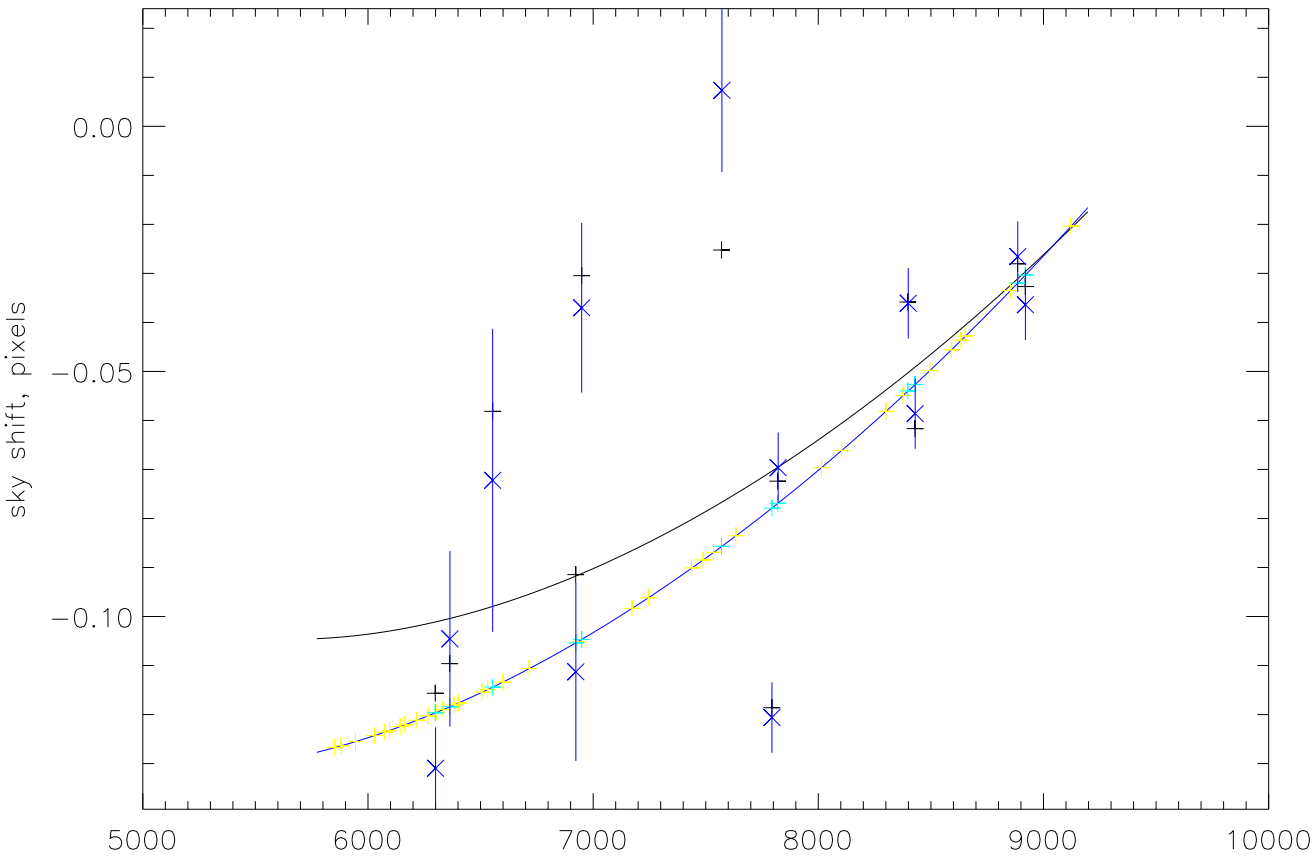

8399.1600
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

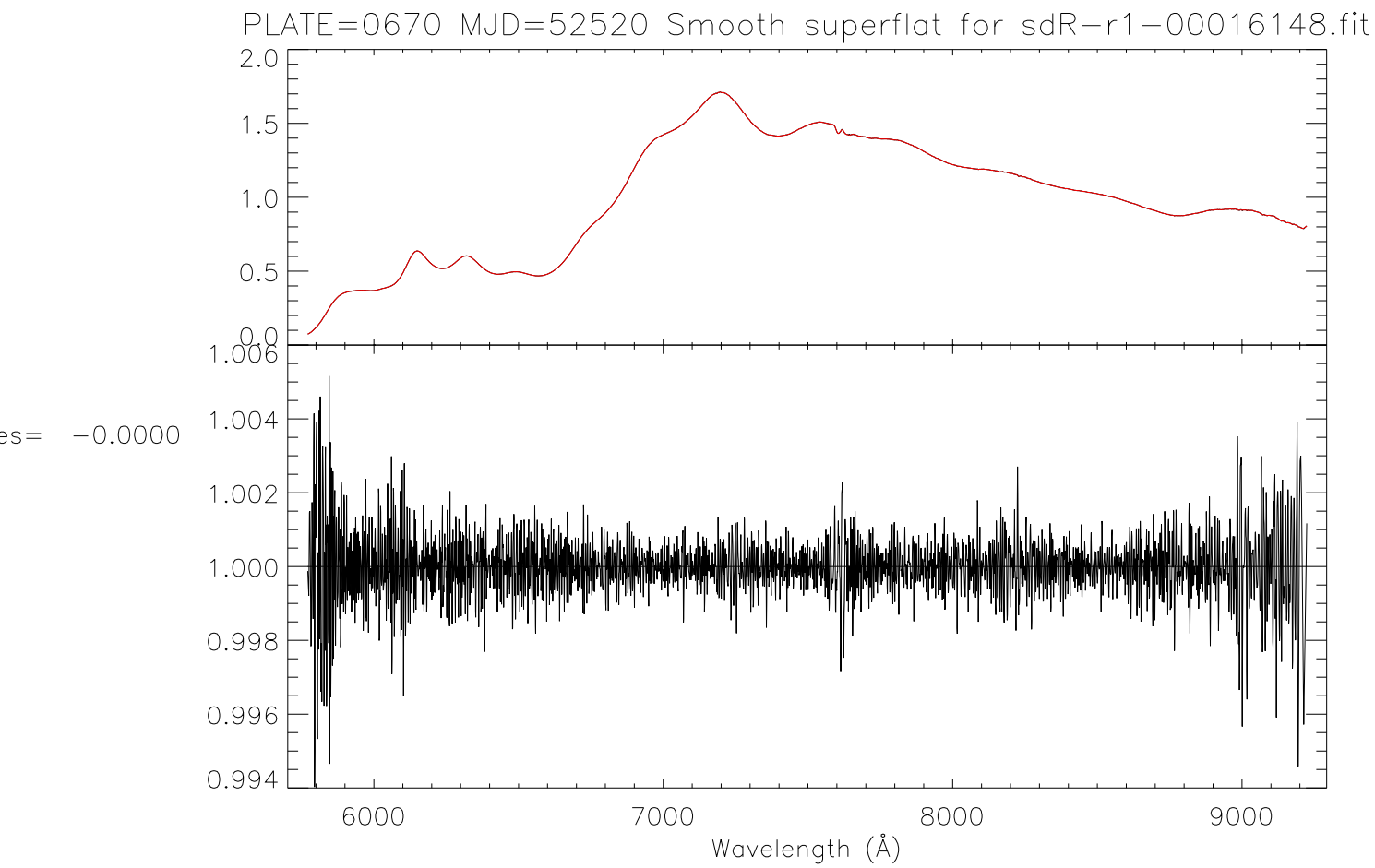

8430.1700
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

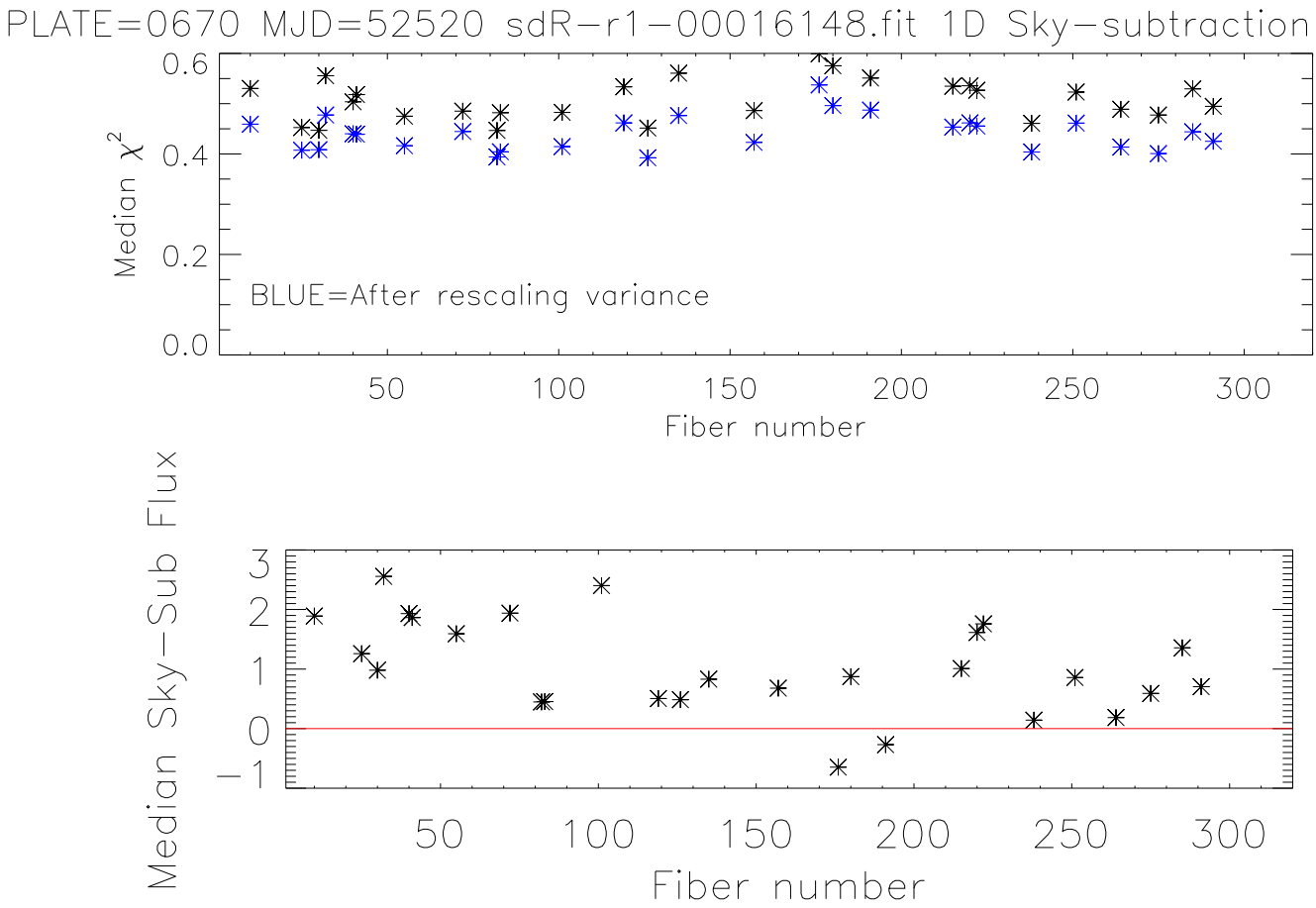

8885.8300
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

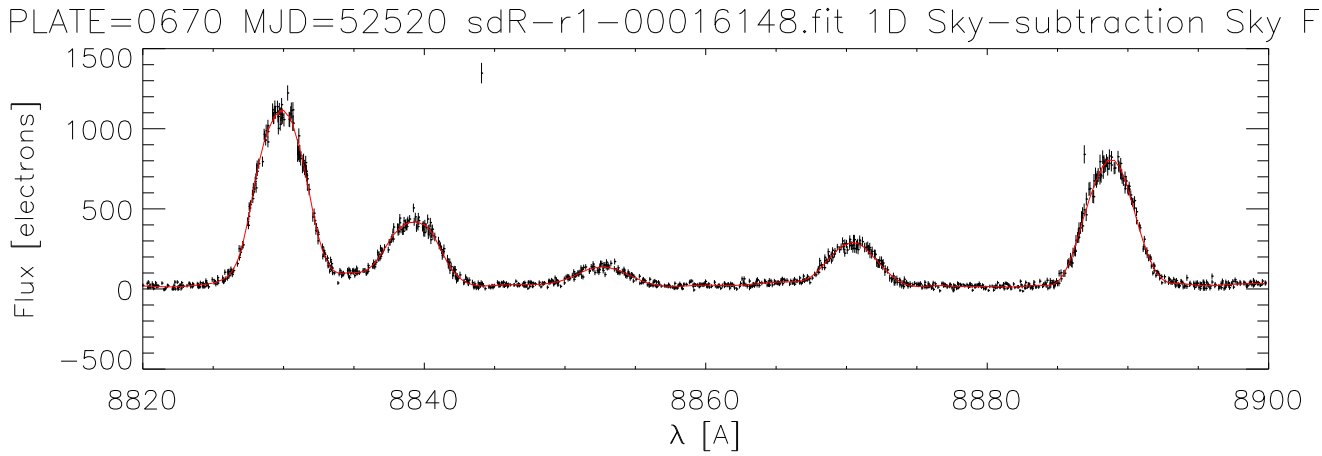

8919.6100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

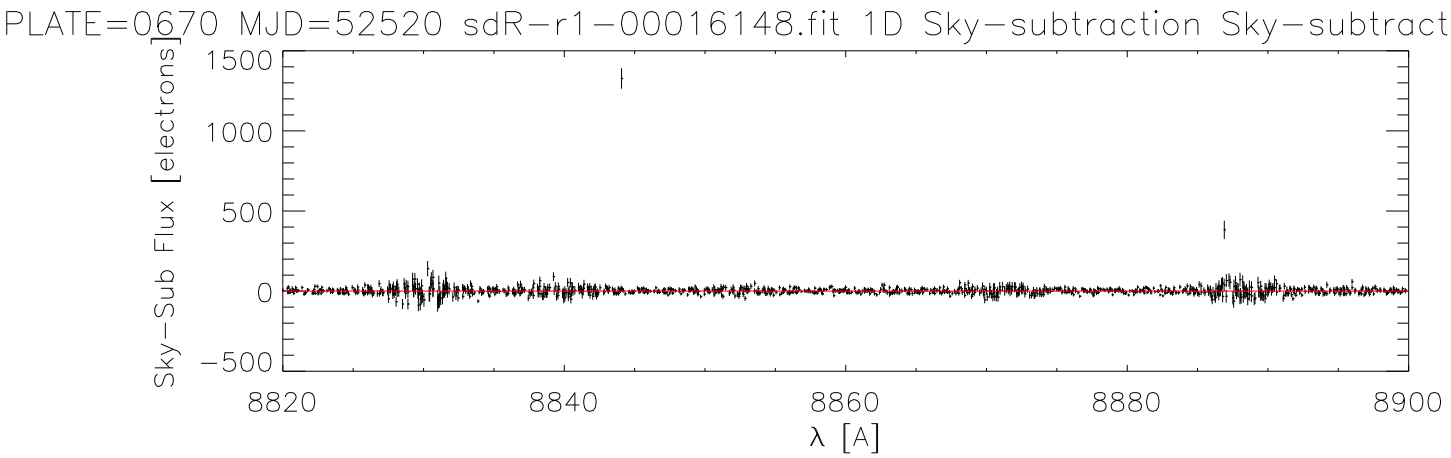

6300.3040
mfib1 32
mfib2 32
stdev 0.062
extra −0.03
6363.7760
mfib1 32
mfib2 32
stdev 0.088
extra −0.00
6553.6100
mfib1 32
mfib2 31
stdev 0.130
extra −0.07
6923.2100
mfib1 32
mfib2 32
stdev 0.060
extra −0.11
6949.0300
mfib1 32
mfib2 32
stdev 0.080
extra −0.04
7571.7500
mfib1 32
mfib2 32
stdev 0.084
extra 0.001
7794.1200
mfib1 32
mfib2 32
stdev 0.052
extra −0.12
7821.5100
mfib1 31
mfib2 32
stdev 0.052
extra −0.07
8399.1600
mfib1 31
mfib2 31
stdev 0.025
extra −0.04
8430.1700
mfib1 31
mfib2 31
stdev 0.027
extra −0.06
8885.8300
mfib1 30
mfib2 31
stdev 0.032
extra −0.03
8919.6100
mfib1 31
mfib2 31
stdev 0.034
extra −0.04
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400

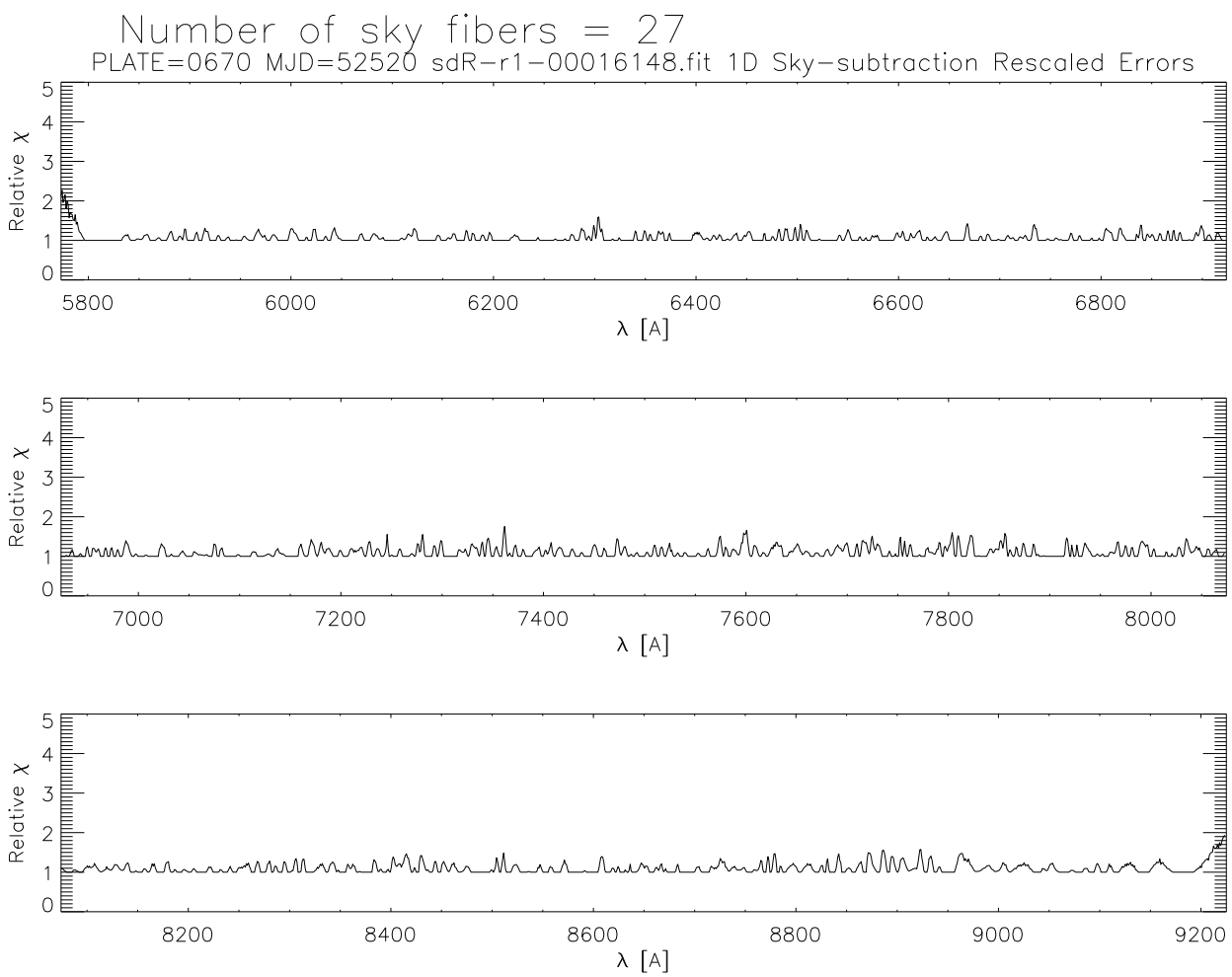

0.00
−0.05
−0.10
sky shift, pixels
5000
6000
7000
8000
9000
10000

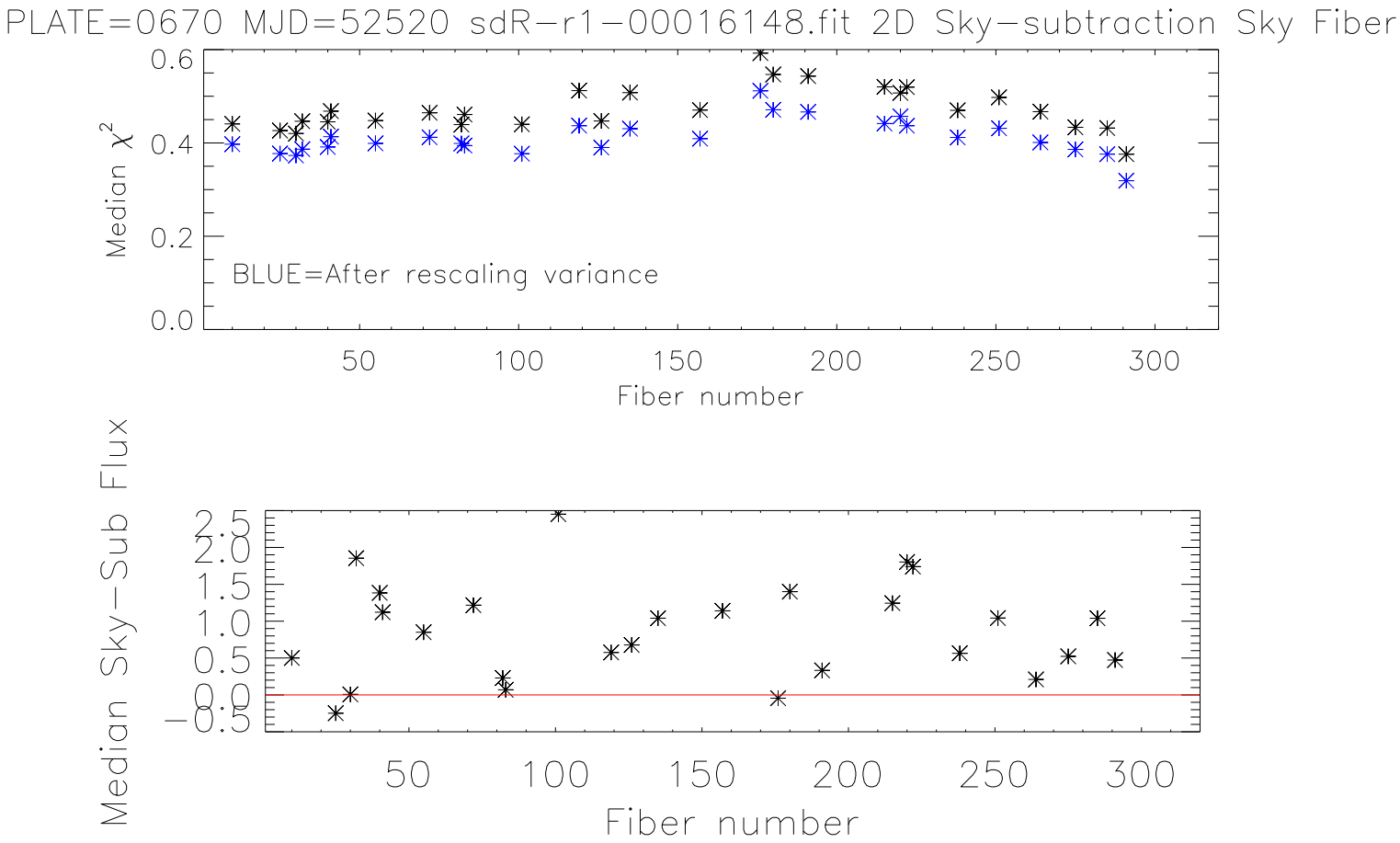

PLATE=0670 MJD=52520 Smooth superflat for sdR-r1-00016148.fit
2.0
1.5
1.0
0.5
0.0
1.006
1.004
1.002
1.000
0.998
0.996
0.994
es= −0.0000
6000
7000
8000
9000
Wavelength (Å)

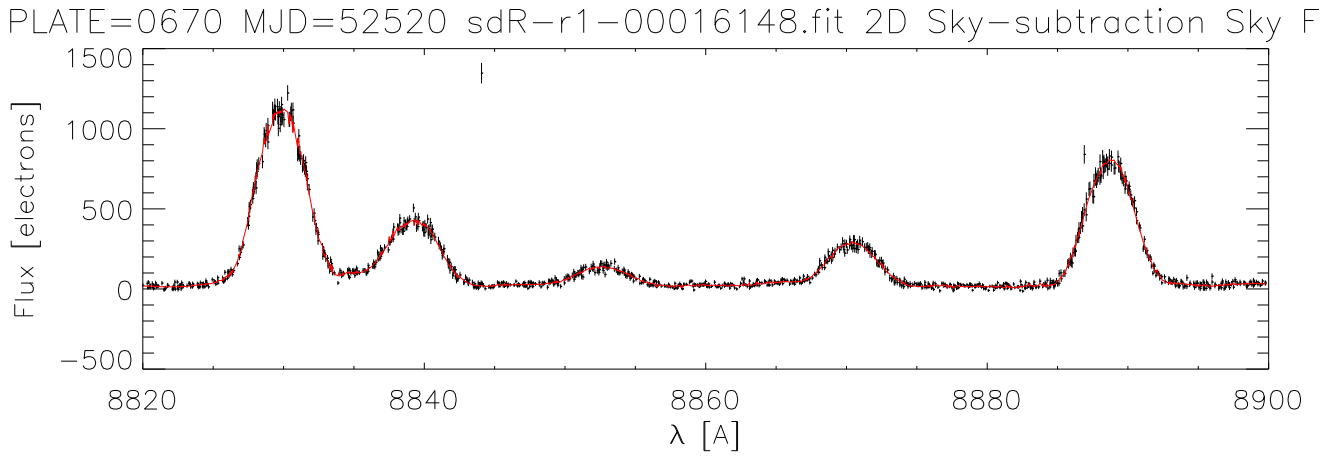

PLATE=0670 MJD=52520 sdR-r1-00016148.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
−1
0
1
2
3
50
100
150
200
250
300
Fiber number

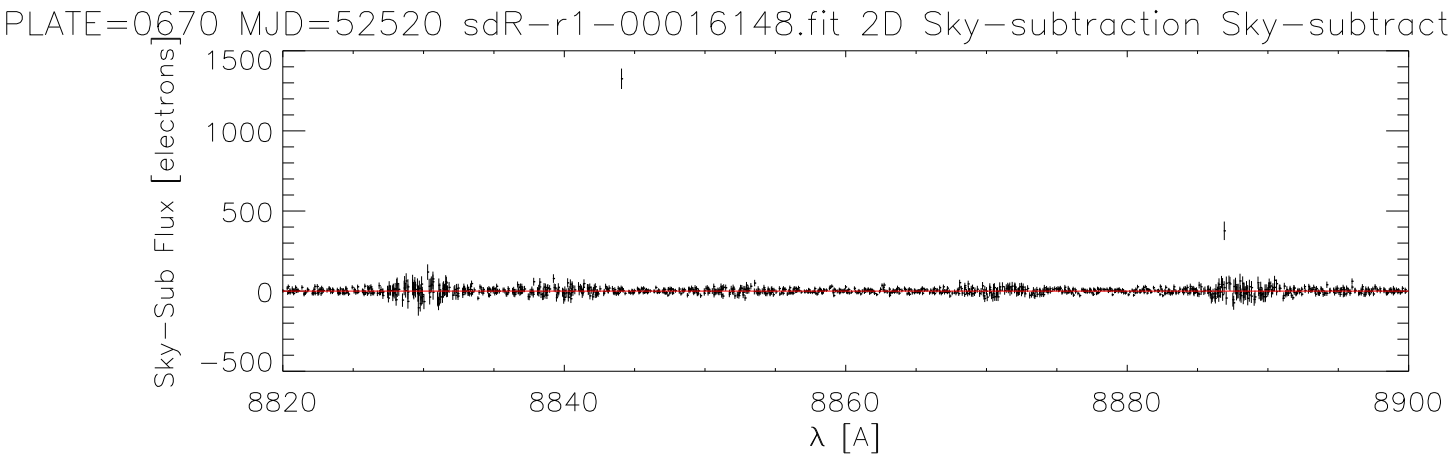

PLATE=0670 MJD=52520 sdR-r1-00016148.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
1500
1000
500
0
-500
8820
8840
8860
8880
8900
λ [A]

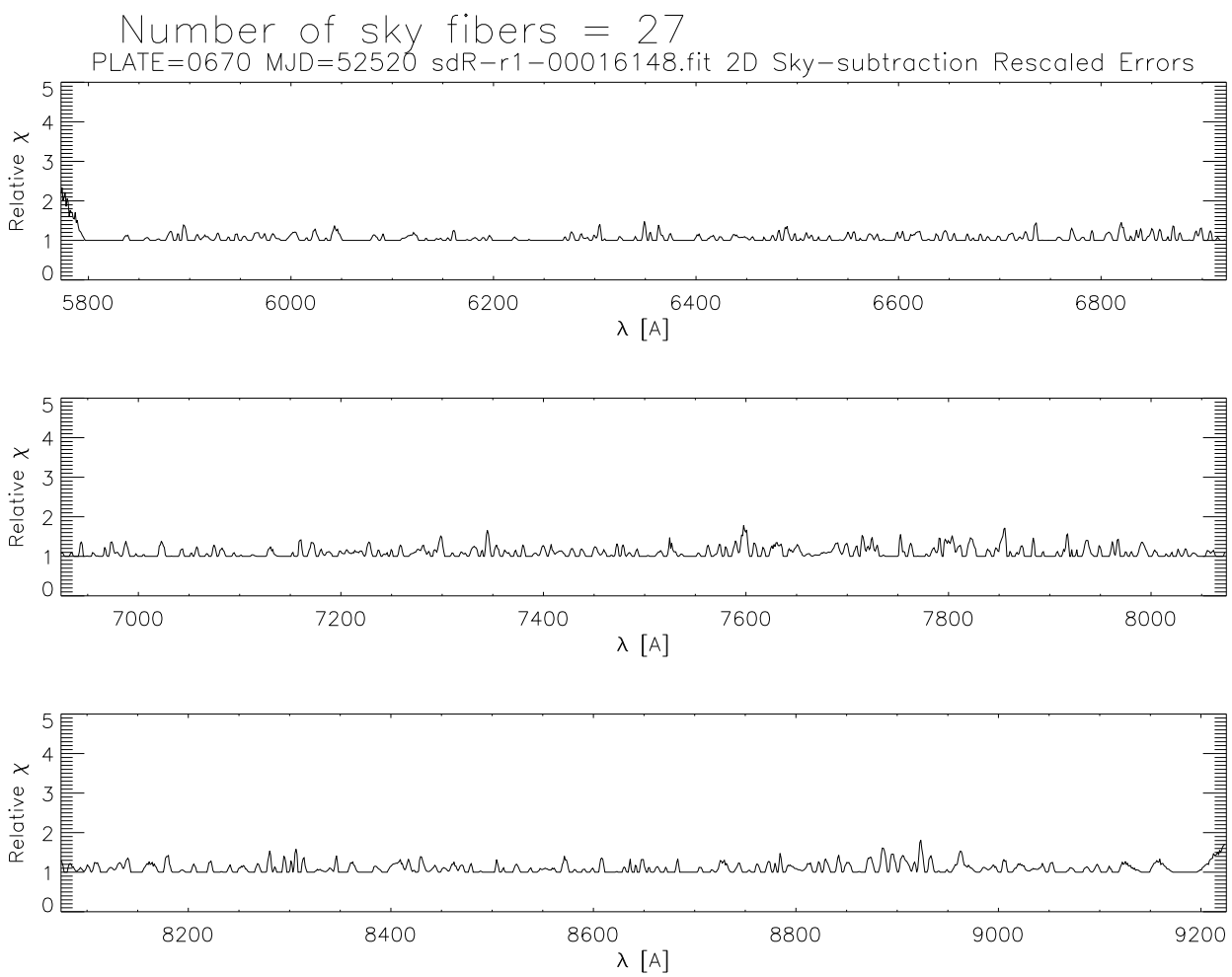

PLATE=0670 MJD=52520 sdR-r1-00016148.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
1500
1000
500
0
-500
8820
8840
8860
8880
8900
λ [A]

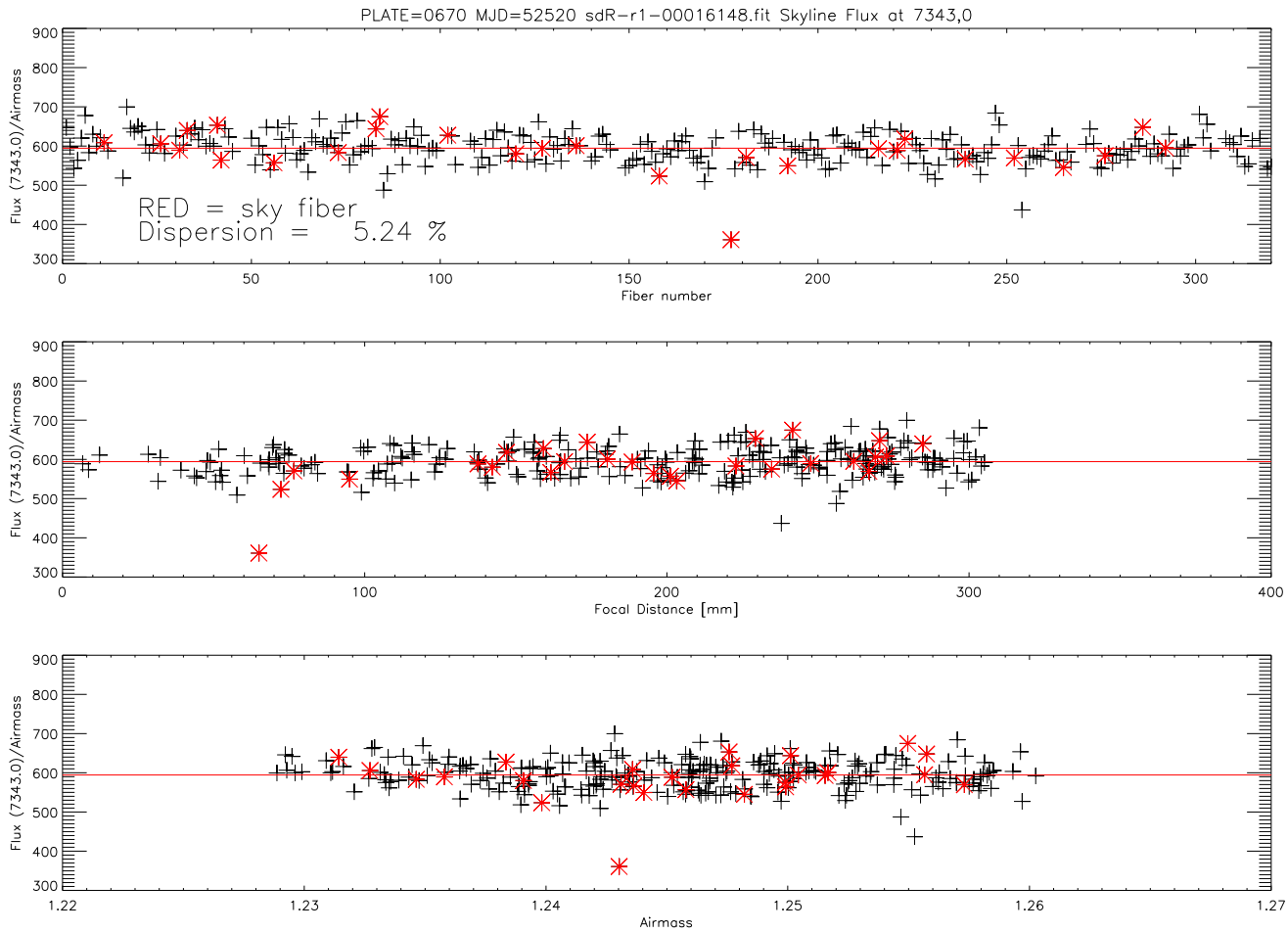

Number of sky fibers = 27
PLATE=0670 MJD=52520 sdR-r1-00016148.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

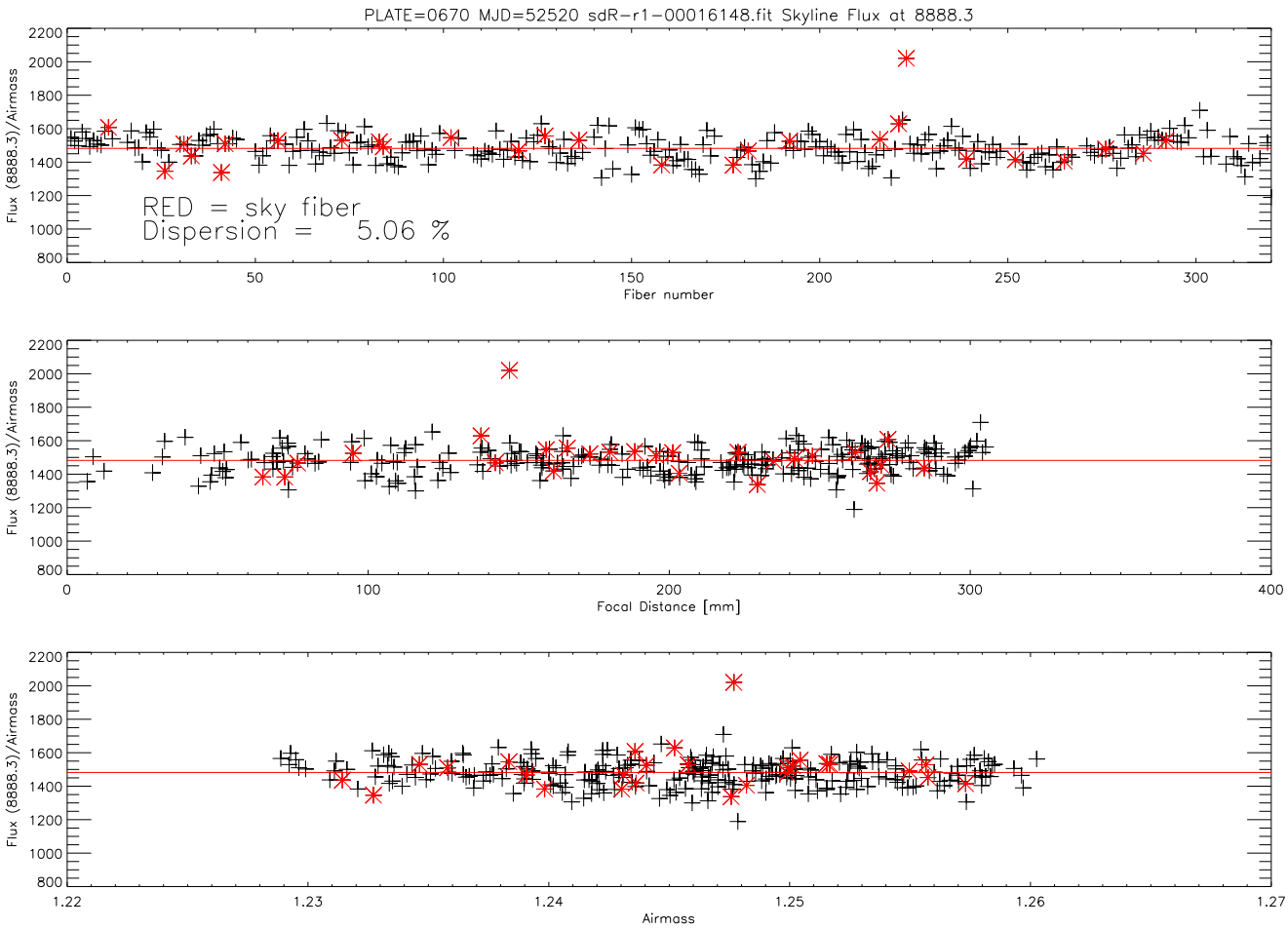

PLATE=0670 MJD=52520 sdR-r1-00016148.fit 2D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-0.5
0.0
0.5
1.0
1.5
2.0
2.5
50
100
150
200
250
300
Fiber number

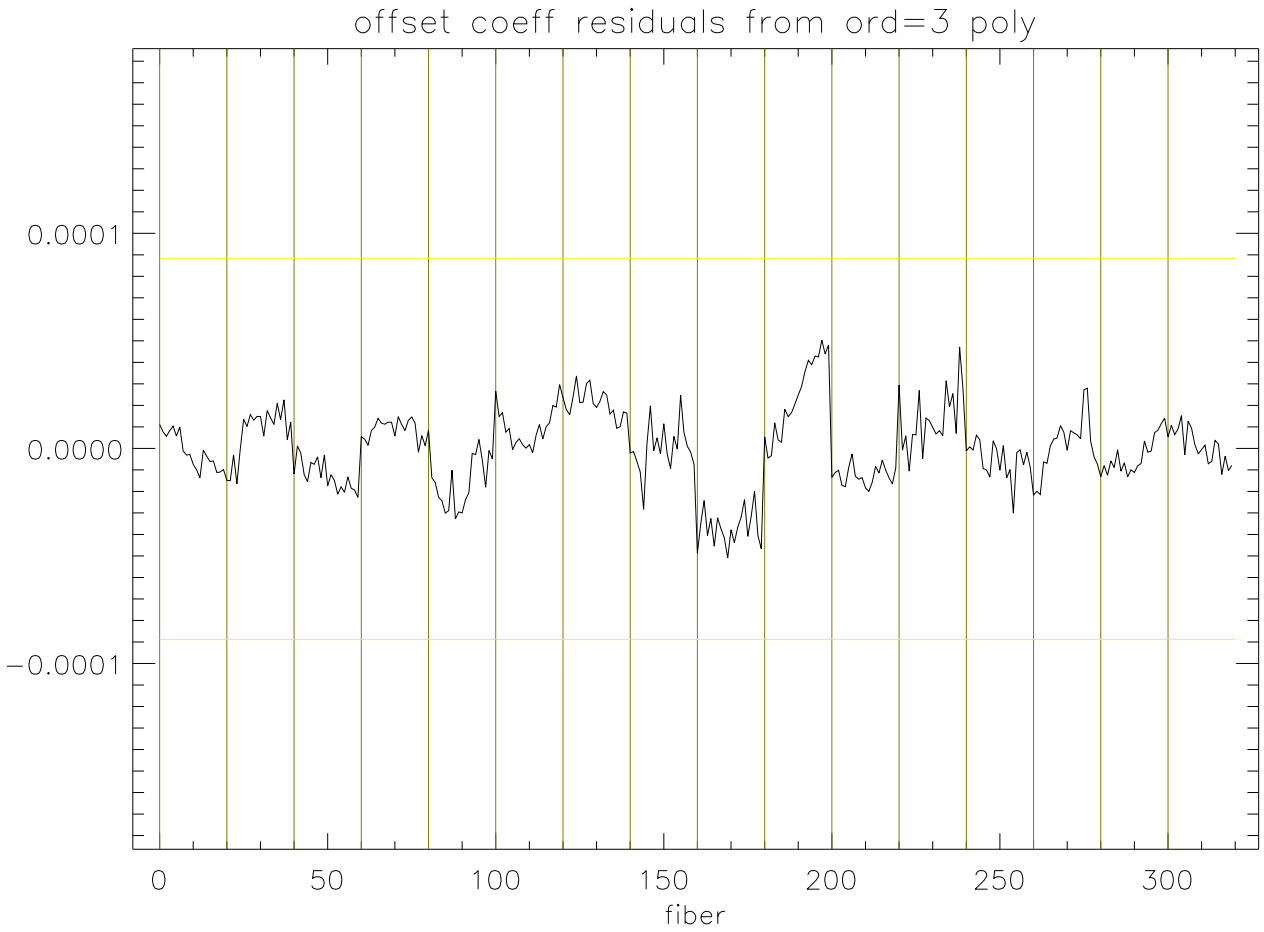

PLATE=0670 MJD=52520 sdR-r1-00016148.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
1500
1000
500
0
-500
8820
8840
8860
8880
8900
λ [A]

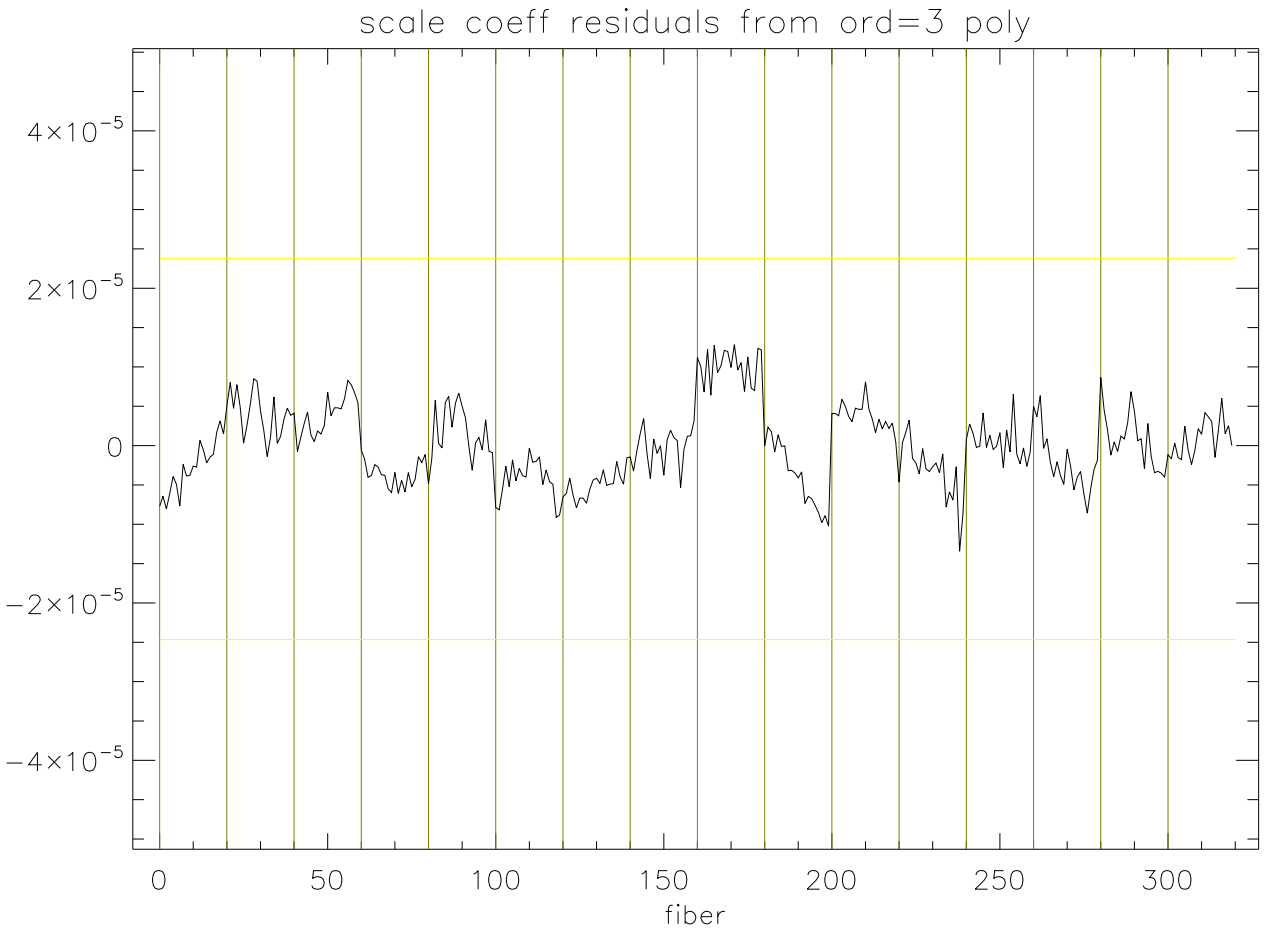

PLATE=0670 MJD=52520 sdR-r1-00016148.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
1500
1000
500
0
-500
8820
8840
8860
8880
8900
λ [A]

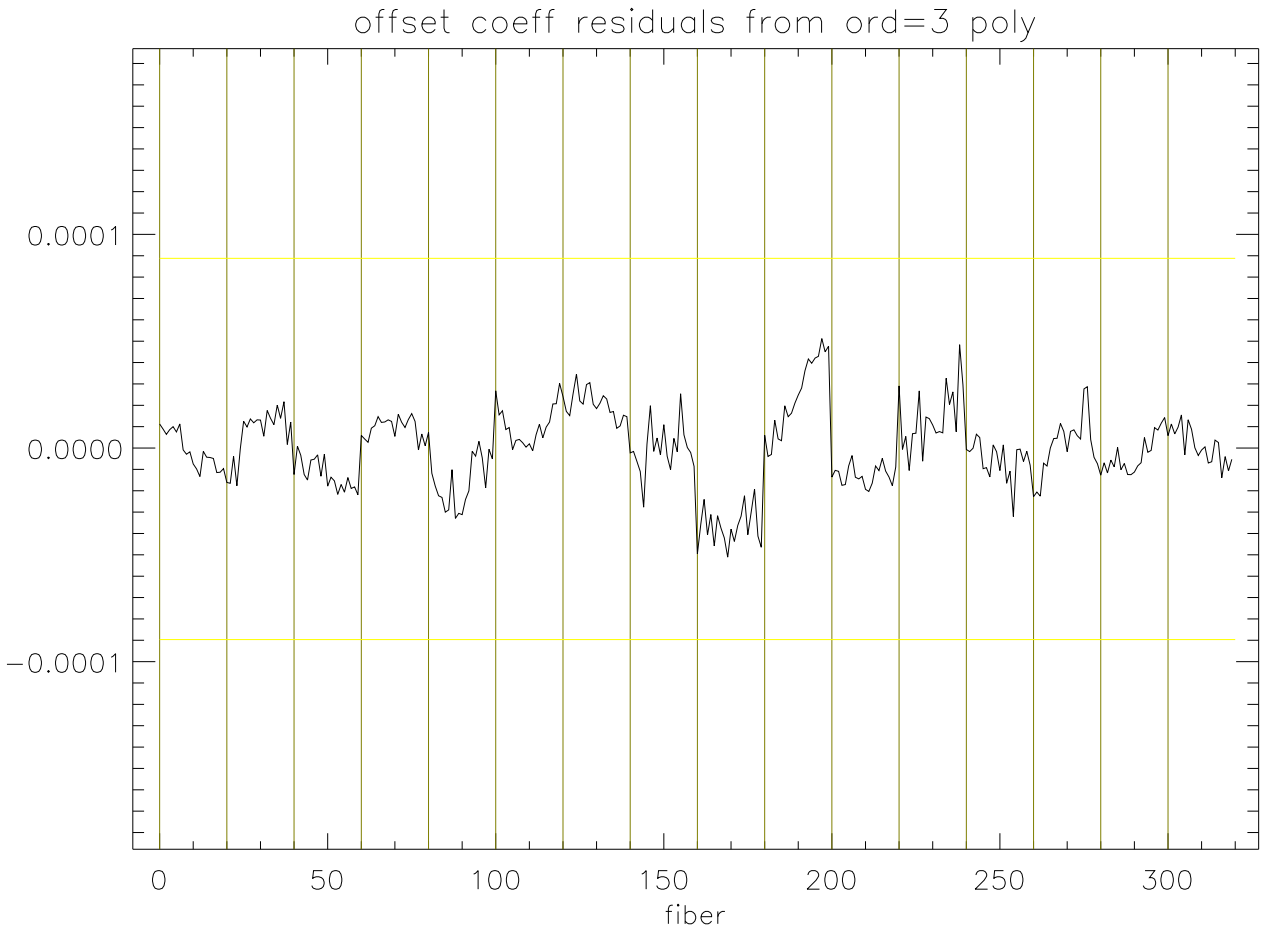

Number of sky fibers = 27
PLATE=0670 MJD=52520 sdR-r1-00016148.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

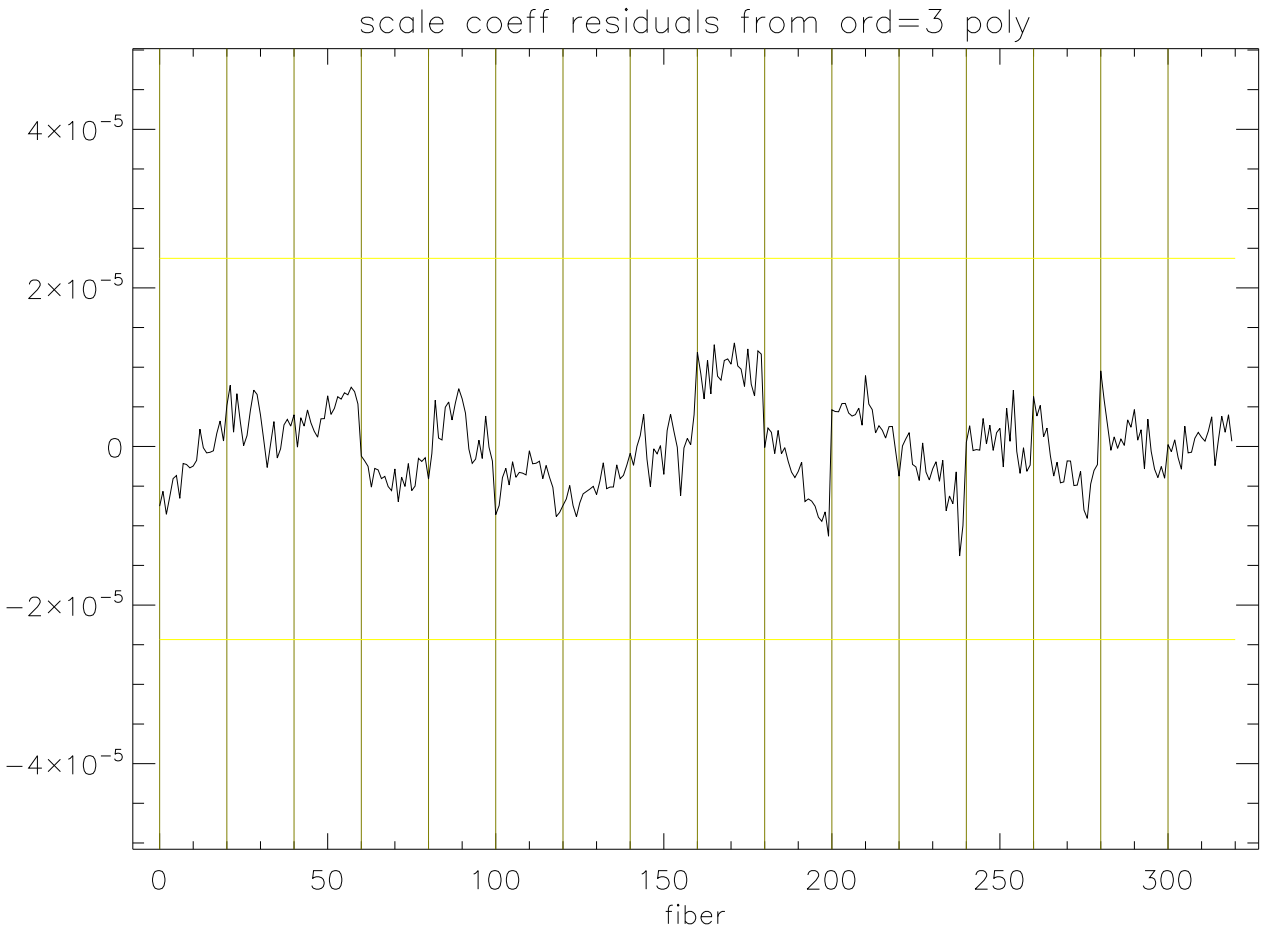

PLATE=0670 MJD=52520 sdR-r1-00016148.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 5.24 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

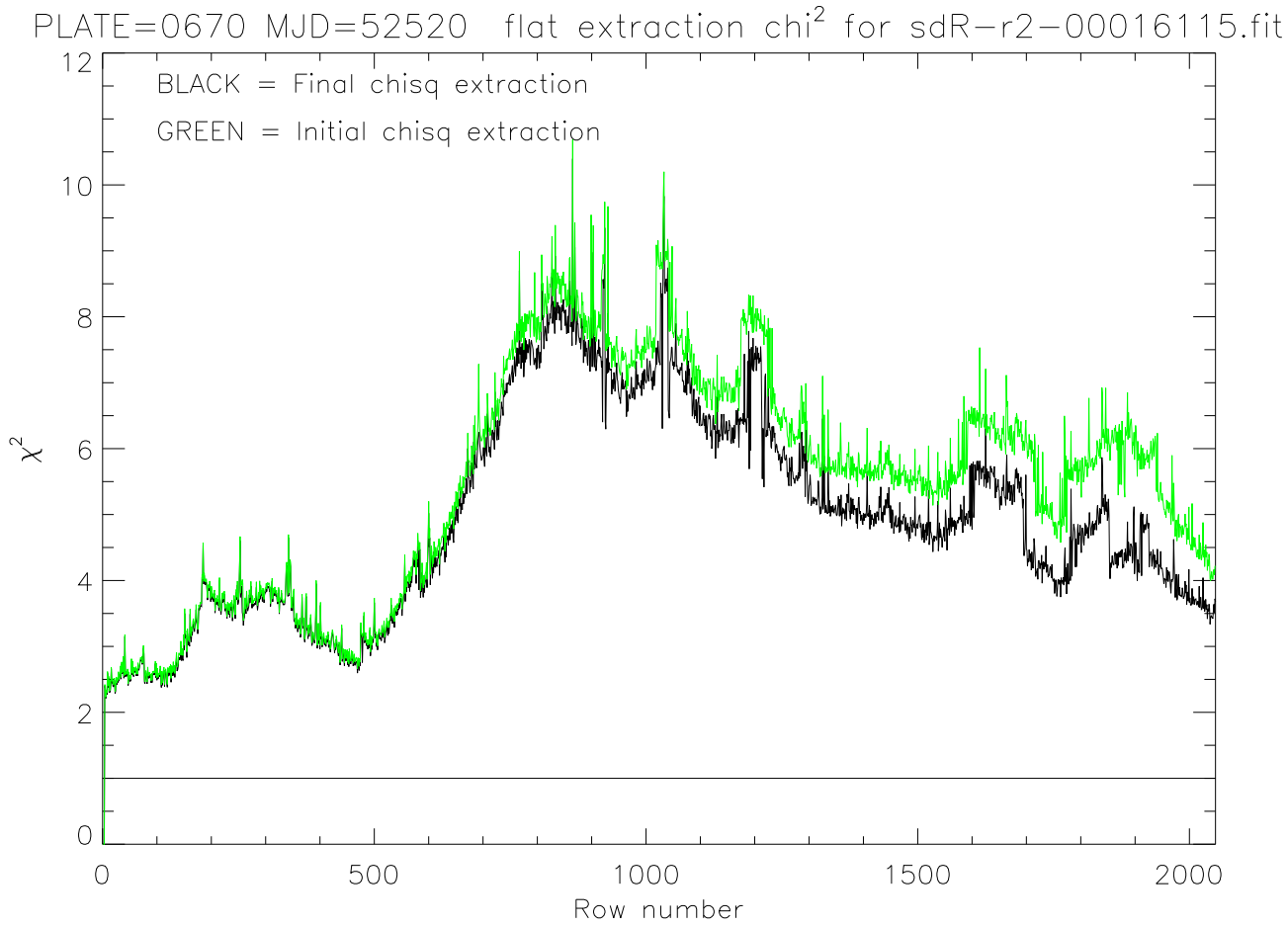

PLATE=0670 MJD=52520 sdR-r1-00016148.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 5.06 %
Fiber number
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass

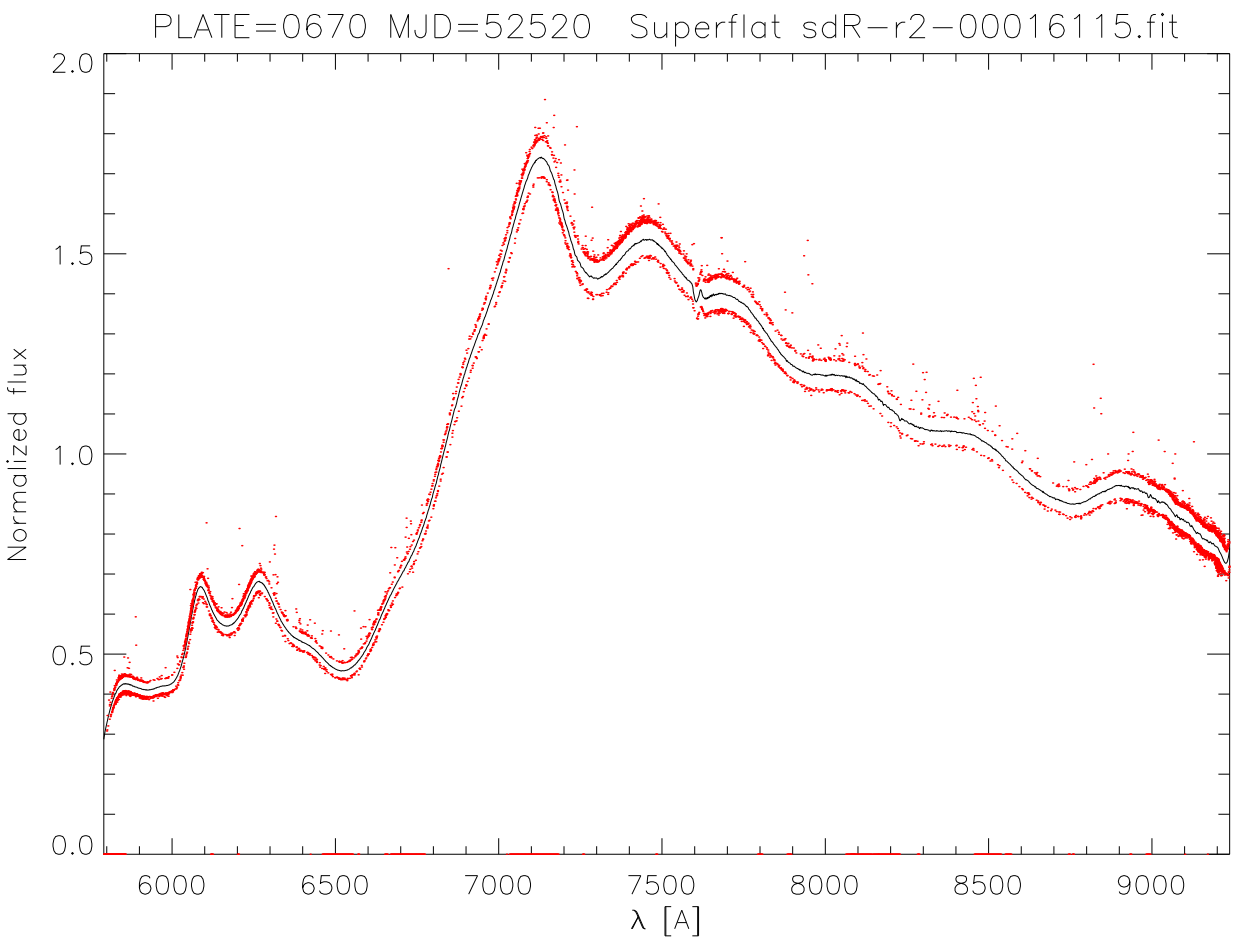

offset coeff residuals from ord=3 poly
0.0001
0.0000
−0.0001
0
50
100
150
200
250
300
fiber

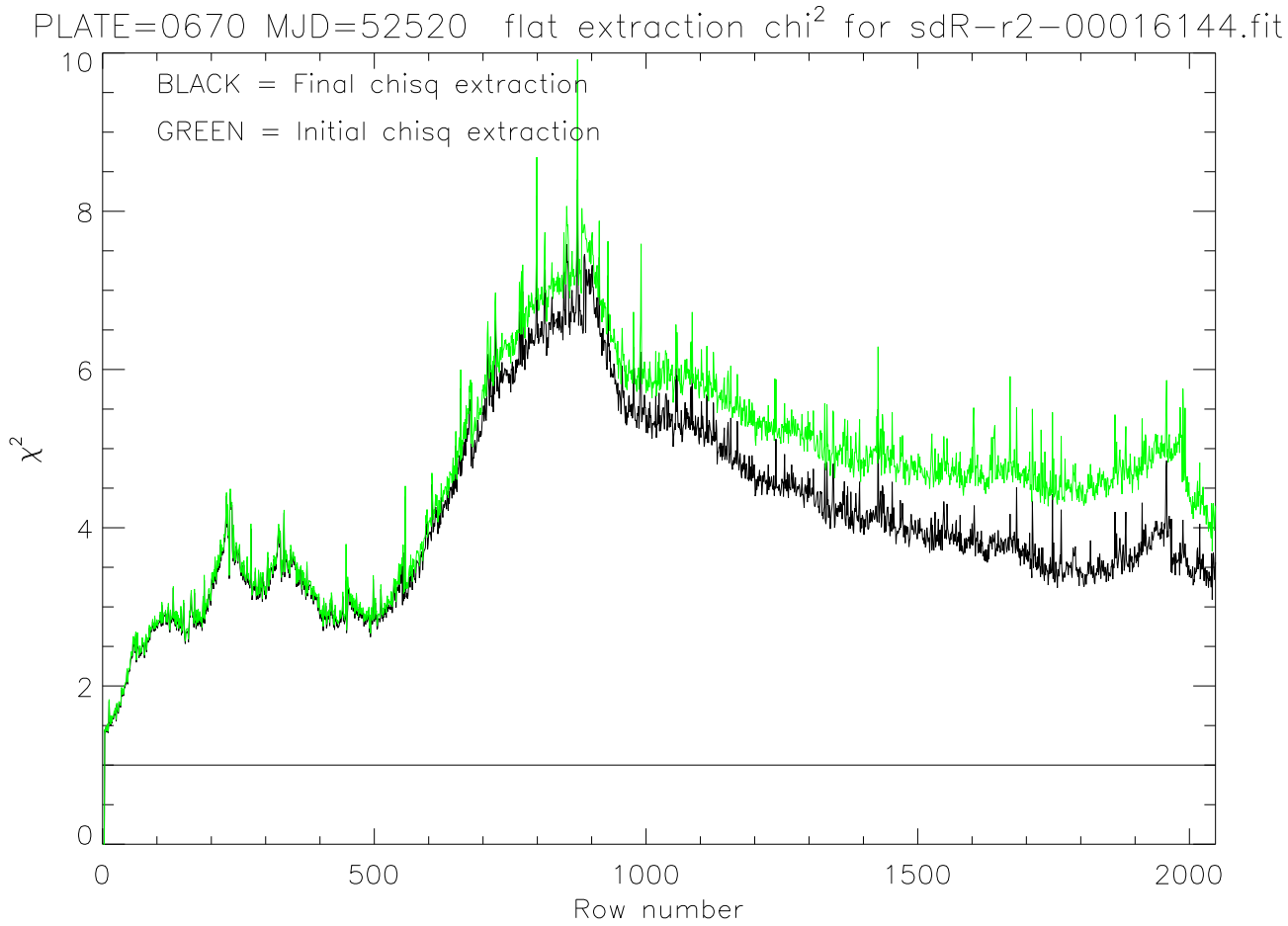

scale coeff residuals from ord=3 poly
4×10⁻⁵
2×10⁻⁵
0
−2×10⁻⁵
−4×10⁻⁵
0
50
100
150
200
250
300
fiber

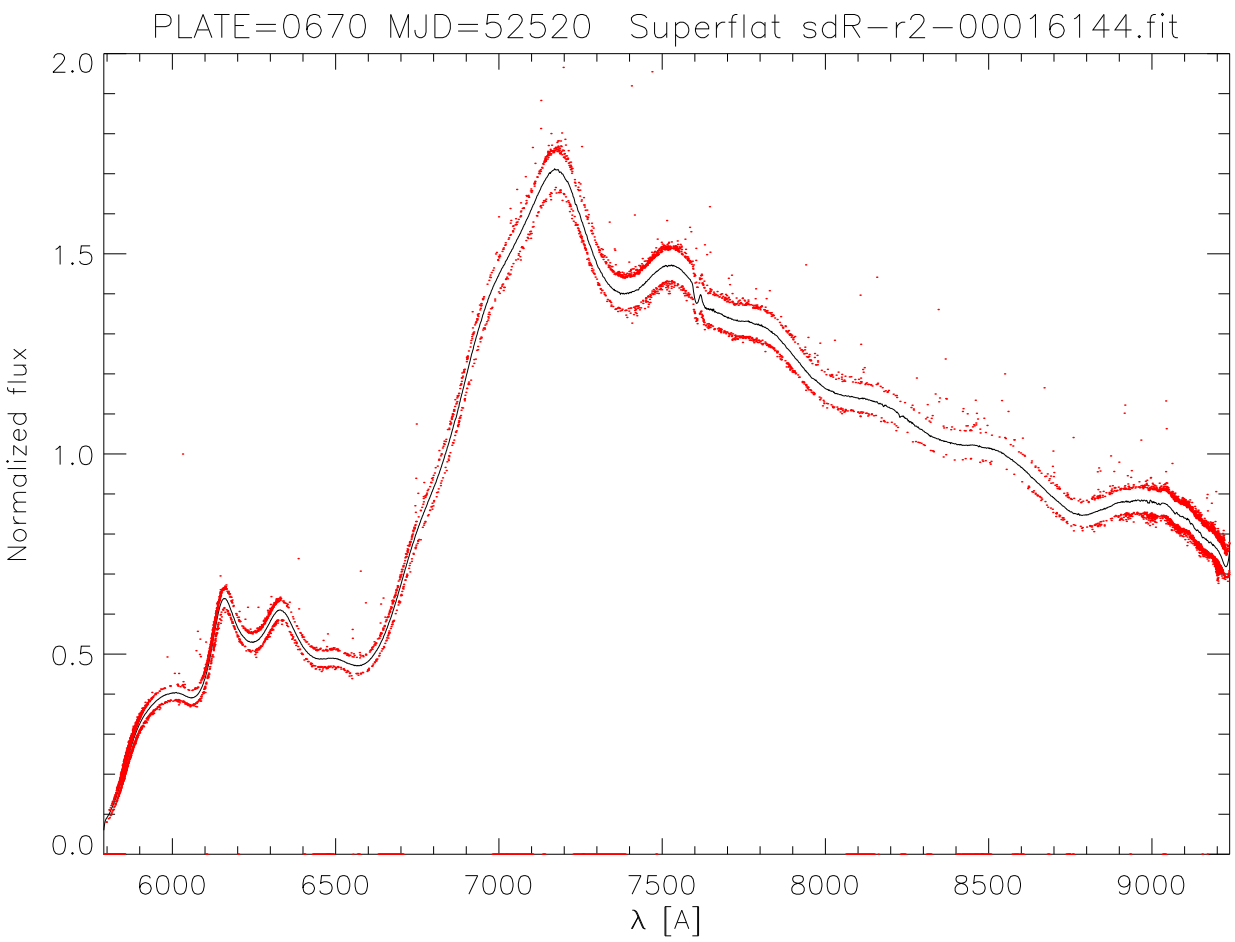

offset coeff residuals from ord=3 poly
0.0001
0.0000
−0.0001
0
50
100
150
200
250
300
fiber

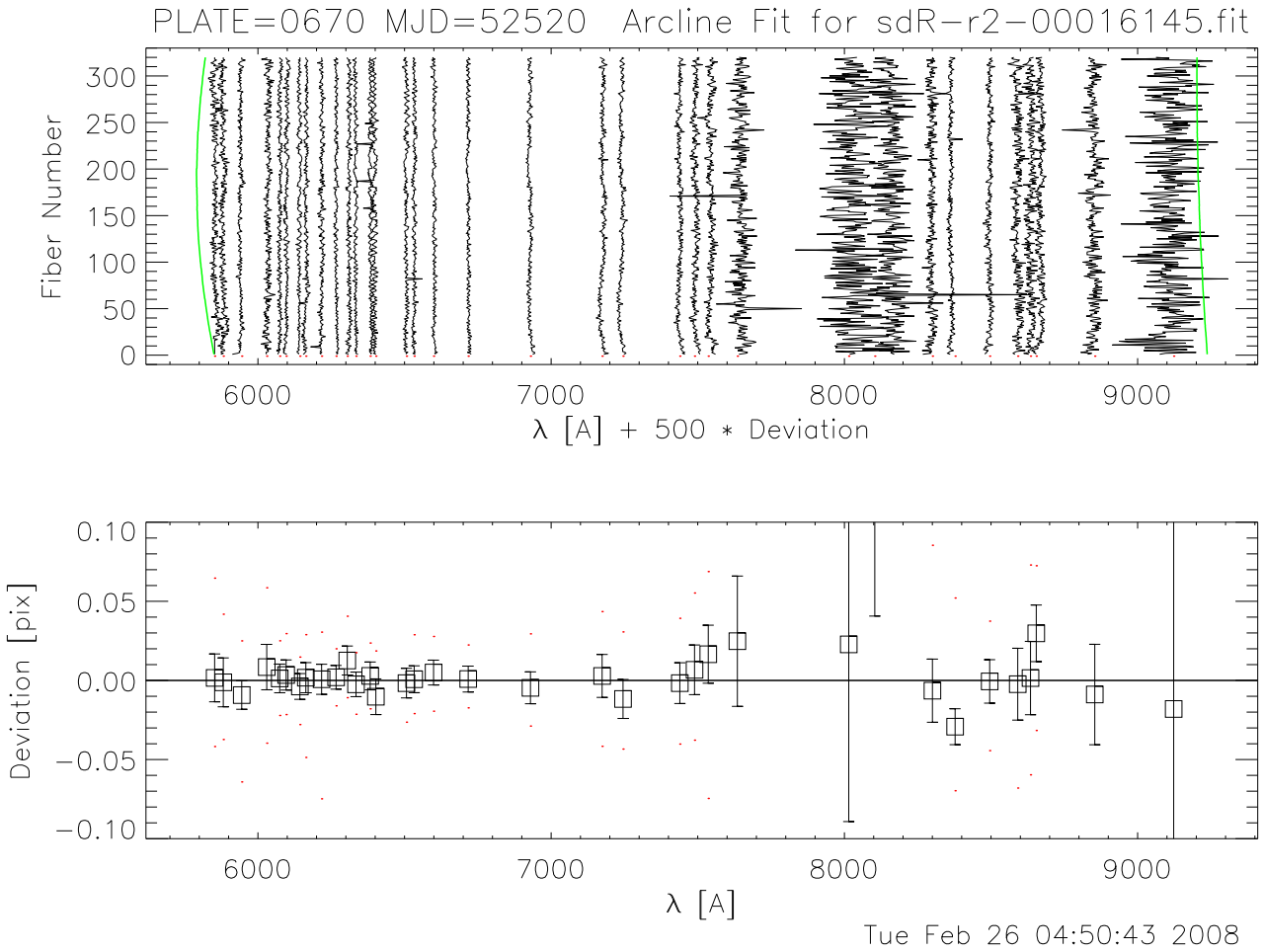

scale coeff residuals from ord=3 poly
4×10⁻⁵
2×10⁻⁵
0
−2×10⁻⁵
−4×10⁻⁵
0
50
100
150
200
250
300
fiber

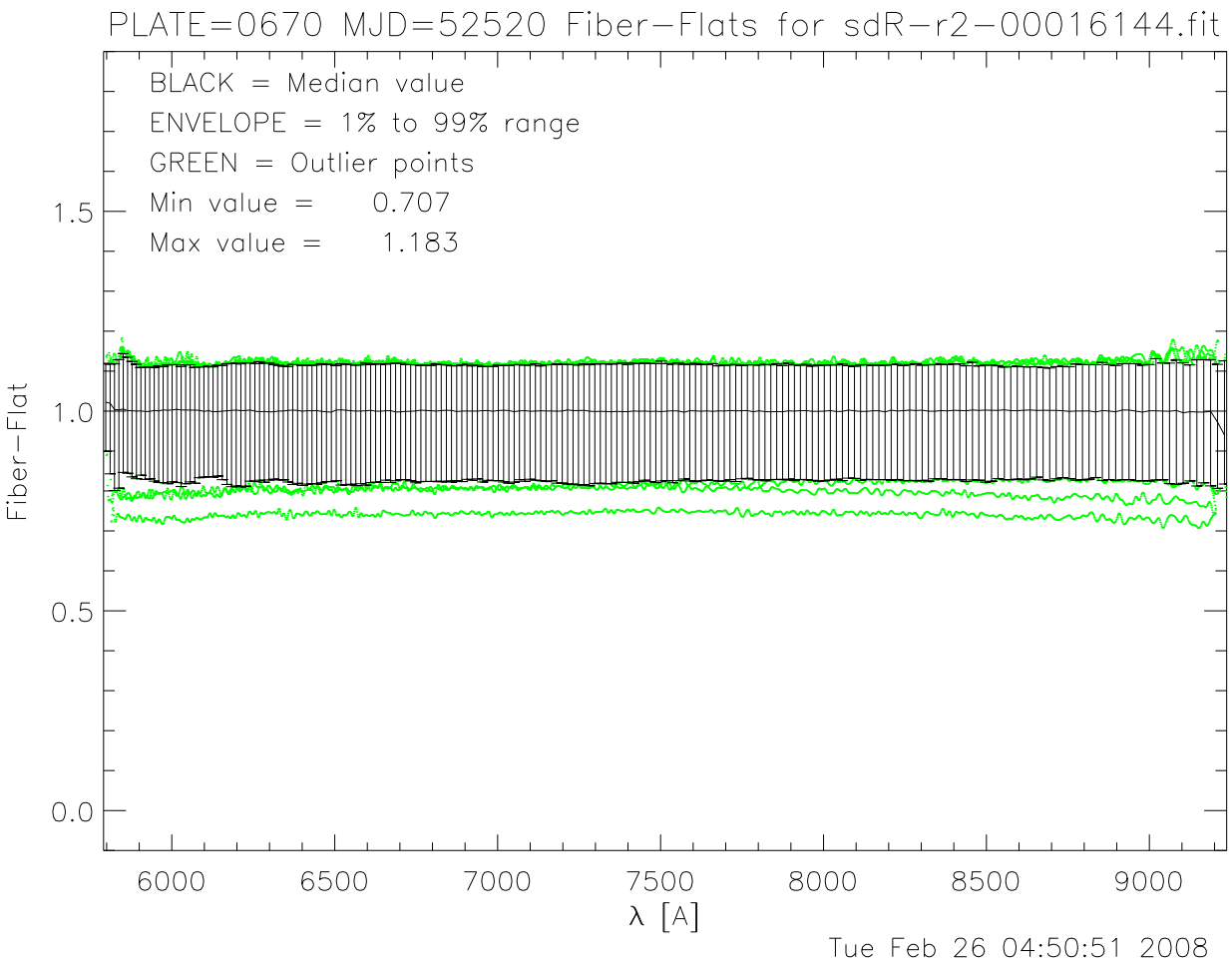

PLATE=0670 MJD=52520 flat extraction chi^2 for sdR−r2−00016115.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
2
4
6
8
10
12
0
500
1000
1500
2000

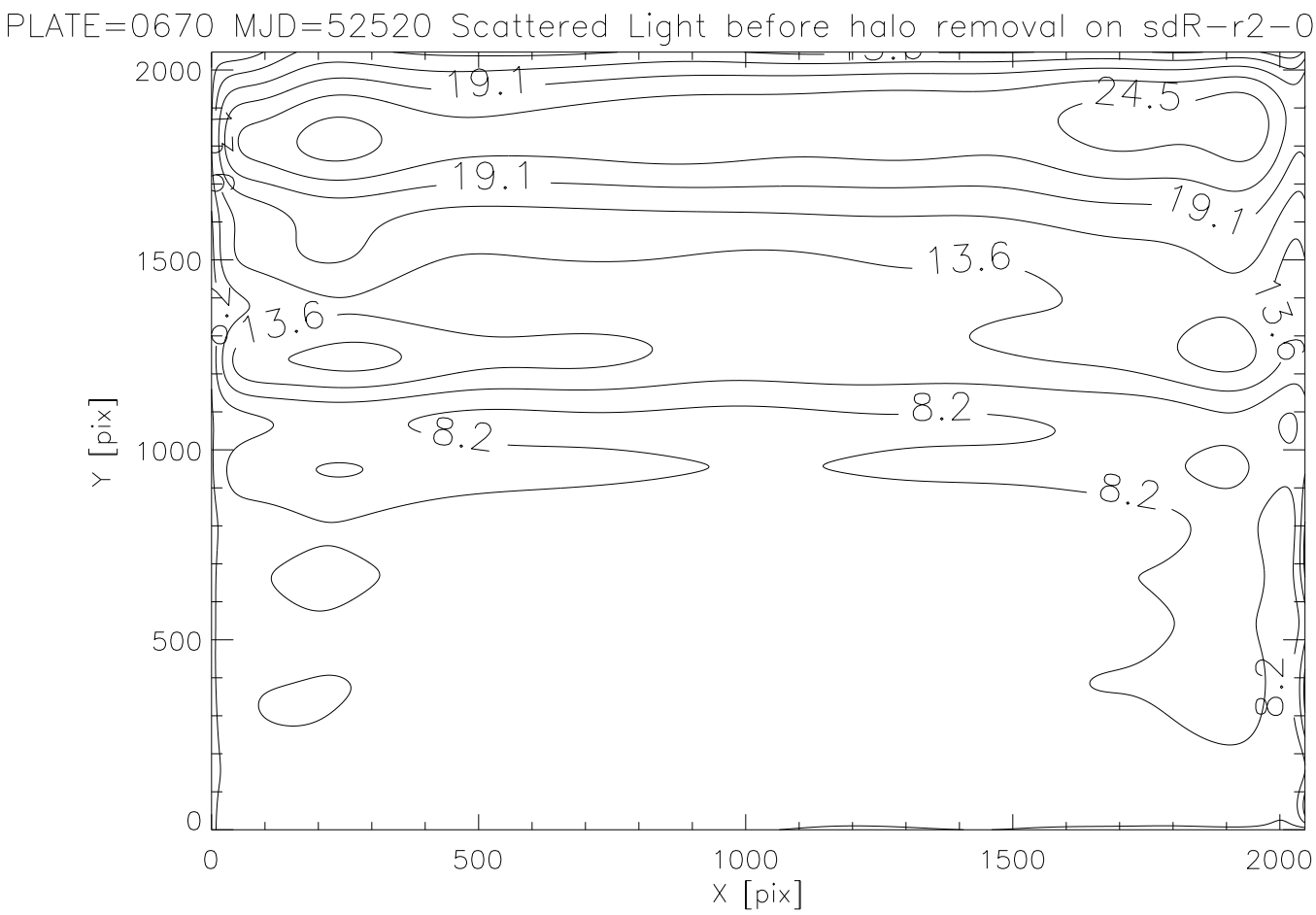

PLATE=0670 MJD=52520 Superflat sdR-r2-00016115.fit
Normalized flux
2.0
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

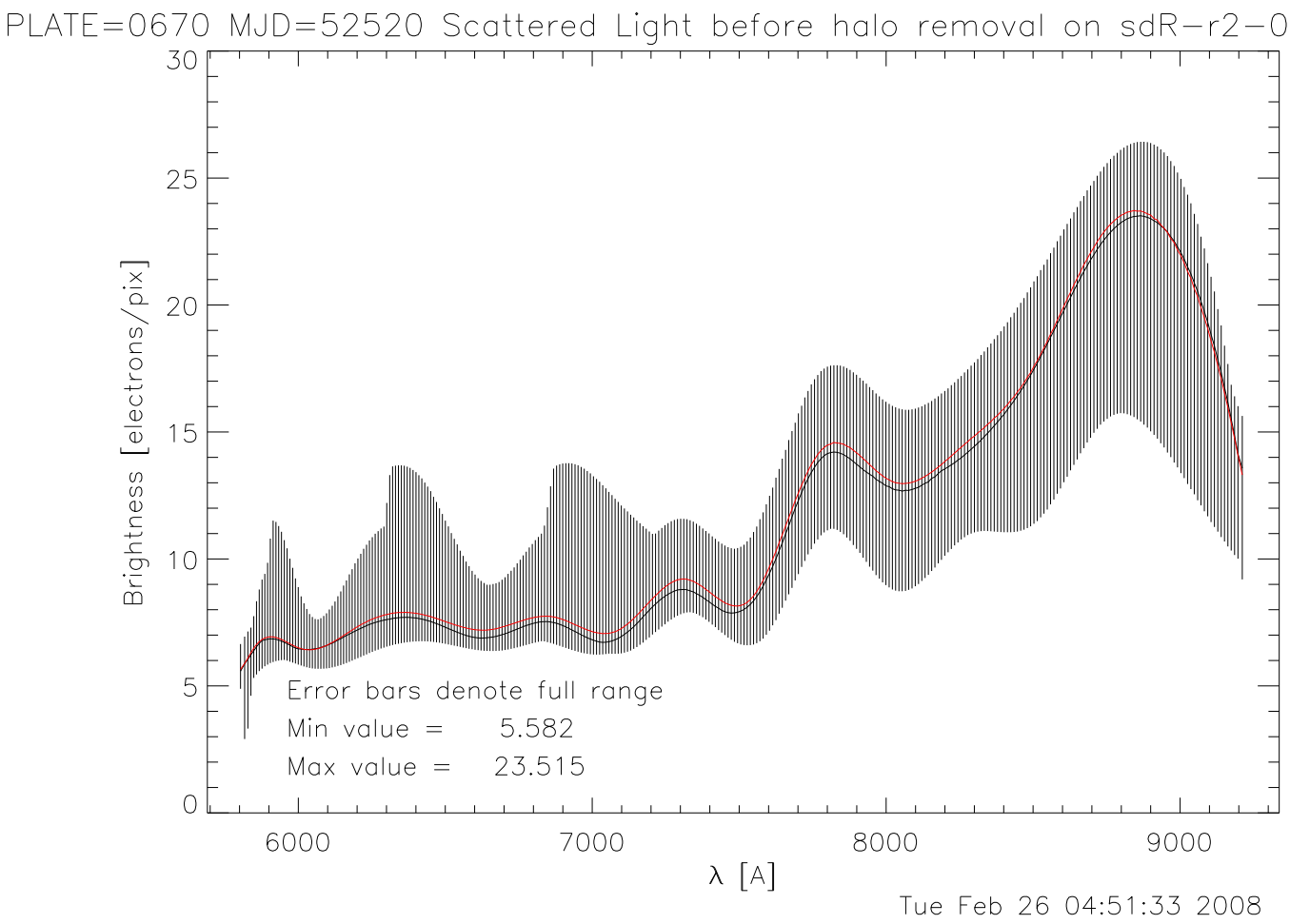

PLATE=0670 MJD=52520 flat extraction chi^2 for sdR−r2−00016144.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
2
4
6
8
10
0
500
1000
1500
2000

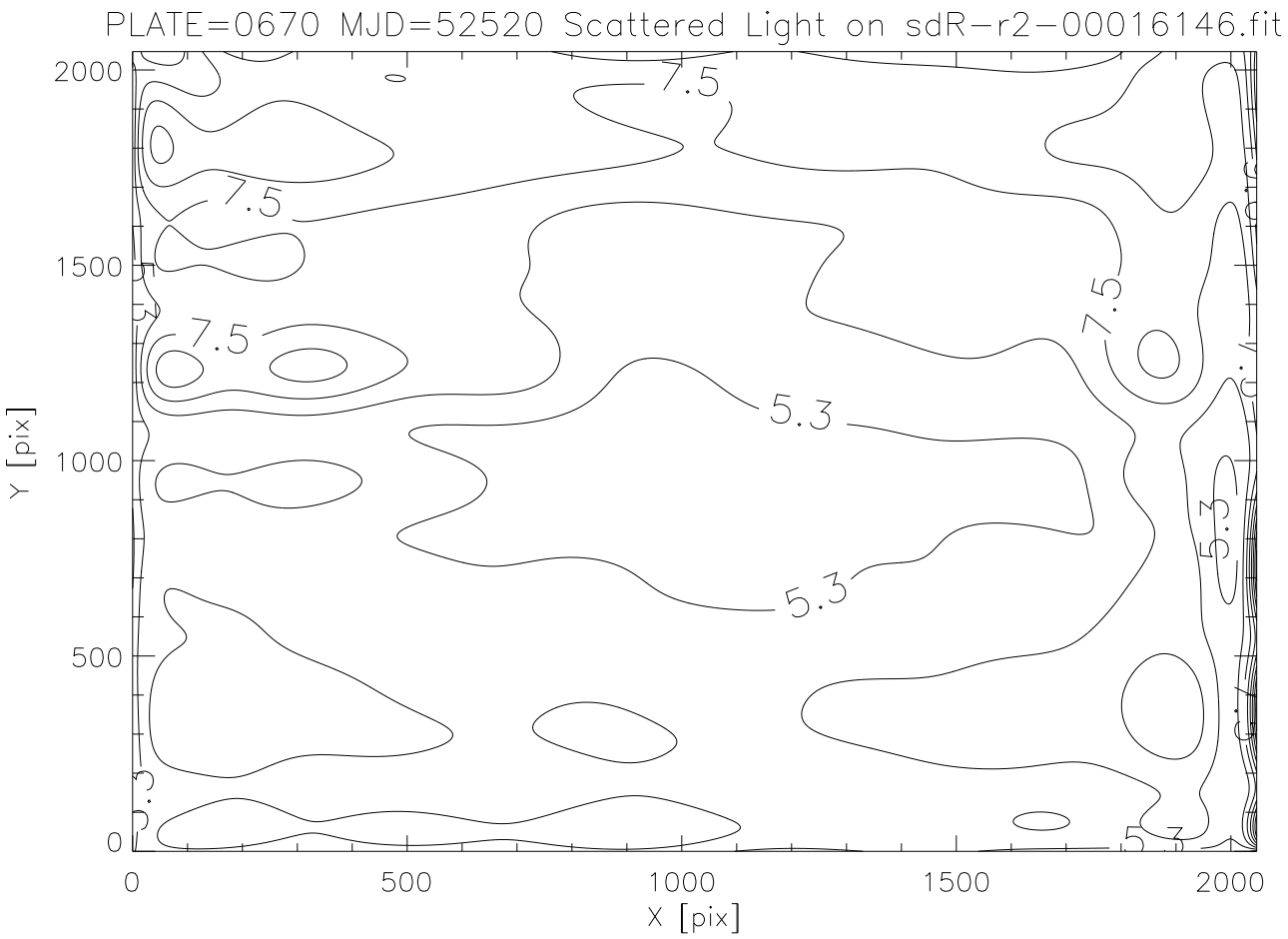

PLATE=0670 MJD=52520 Superflat sdR-r2-00016144.fit
Normalized flux
2.0
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

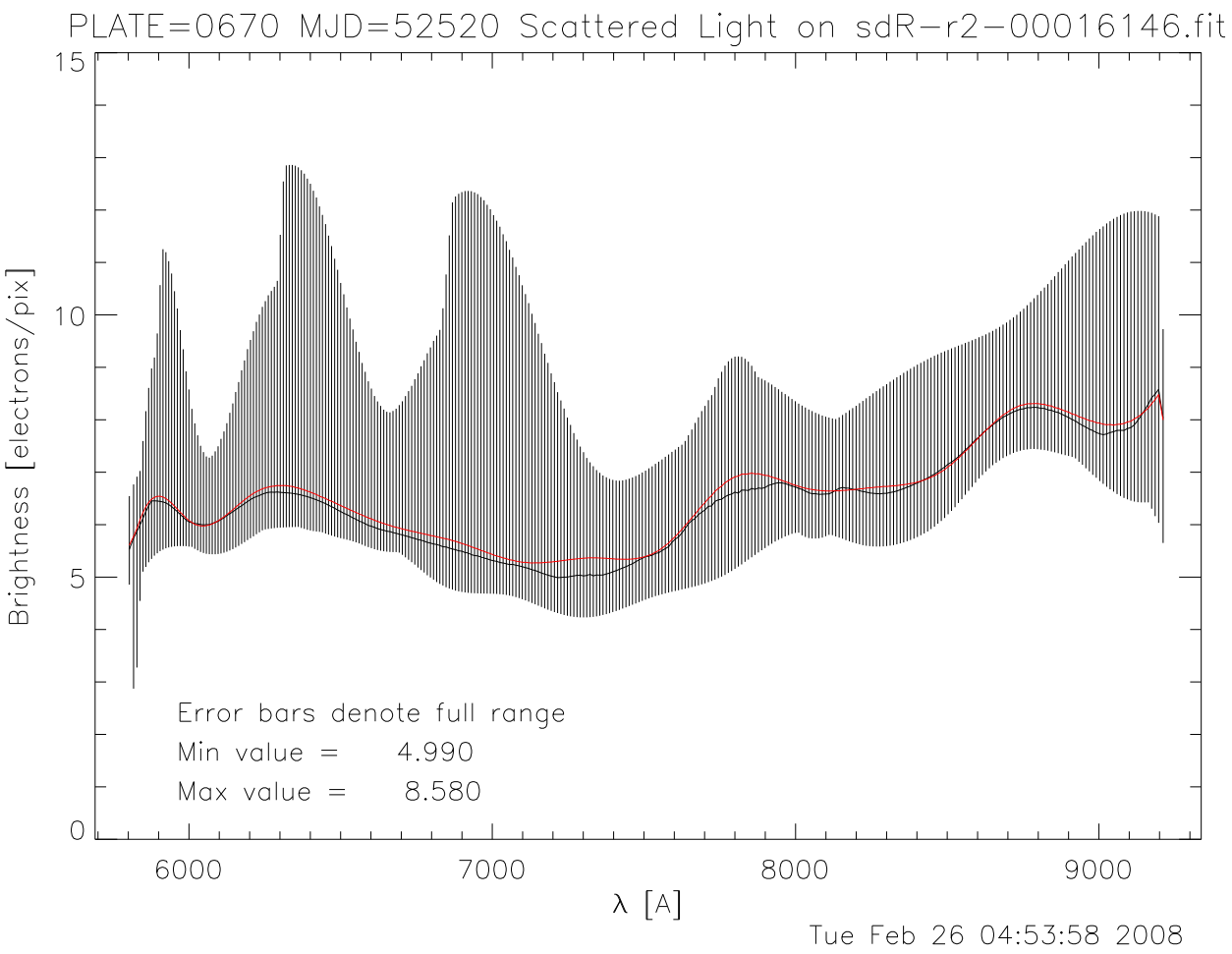

PLATE=0670 MJD=52520 Arcline Fit for sdR-r2-00016145.fit
Fiber Number
300
250
200
150
100
50
0
6000
7000
8000
9000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
6000
7000
8000
9000
λ [A]
Tue Feb 26 04:50:43 2008

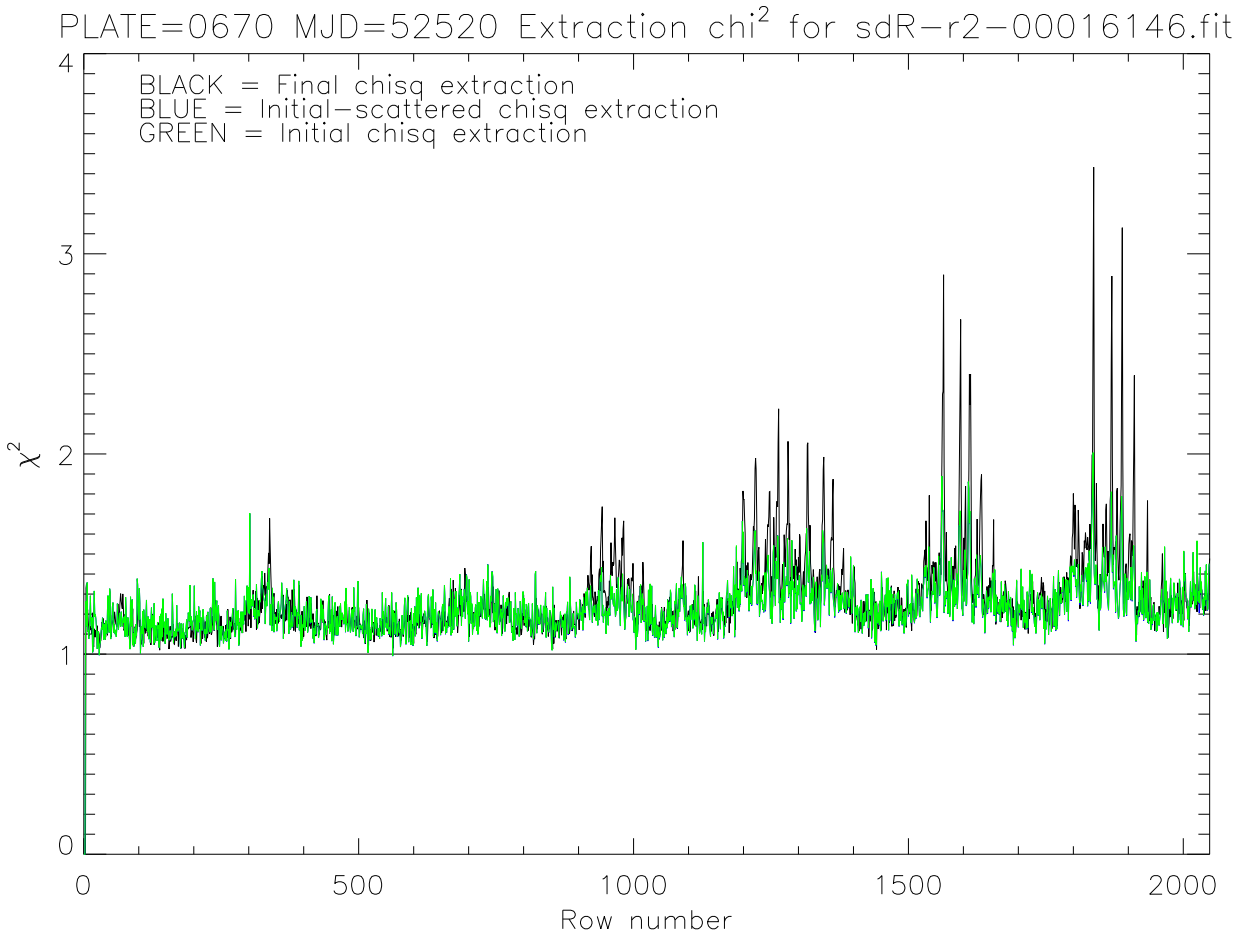

PLATE=0670 MJD=52520 Fiber-Flats for sdR-r2-00016144.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.707
Max value = 1.183
Fiber-Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Tue Feb 26 04:50:51 2008

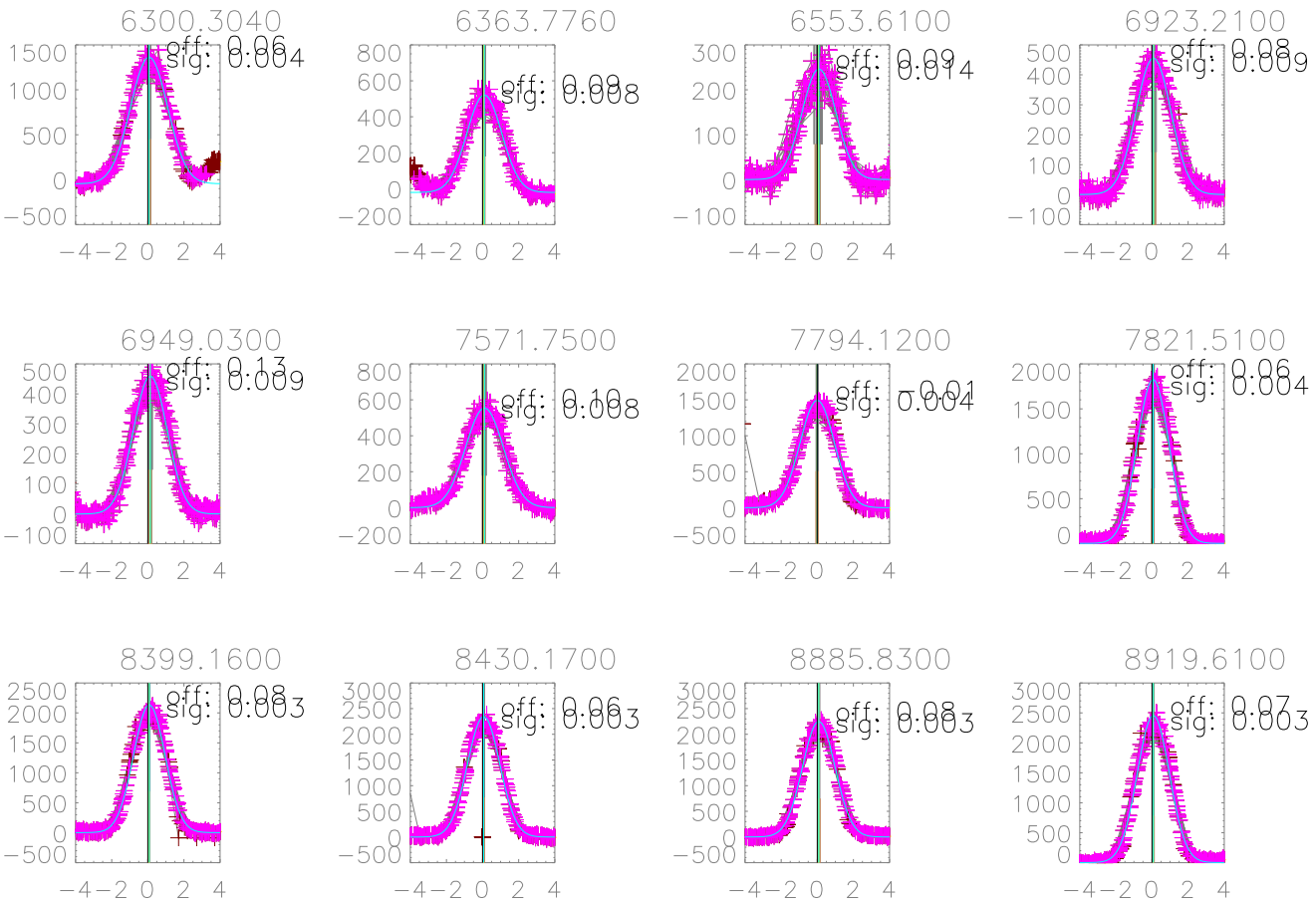

PLATE=0670 MJD=52520 Scattered Light before halo removal on sdR-r2-00016146.fi
19.1
24.5
19.1
19.1
13.6
13.6
13.6
8.2
8.2
8.2
8.2
Y [pix]
X [pix]
0
500
1000
1500
2000

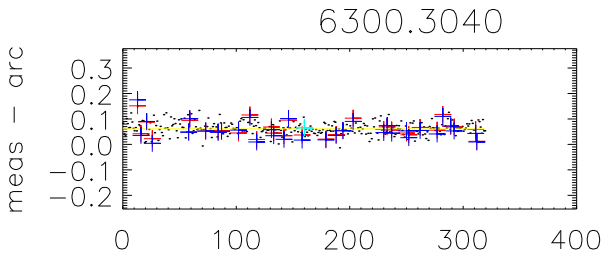

PLATE=0670 MJD=52520 Scattered Light before halo removal on sdR-r2-00016146.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 5.582
Max value = 23.515
Tue Feb 26 04:51:33 2008

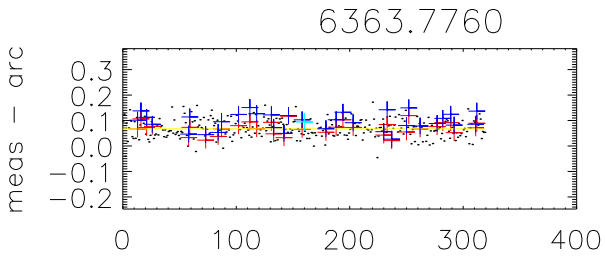

PLATE=0670 MJD=52520 Scattered Light on sdR-r2-00016146.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
7.5
5.3

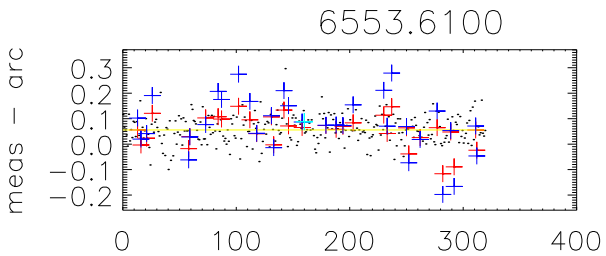

PLATE=0670 MJD=52520 Scattered Light on sdR-r2-00016146.fit
Brightness [electrons/pix]
15
10
5
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 4.990
Max value = 8.580
Tue Feb 26 04:53:58 2008

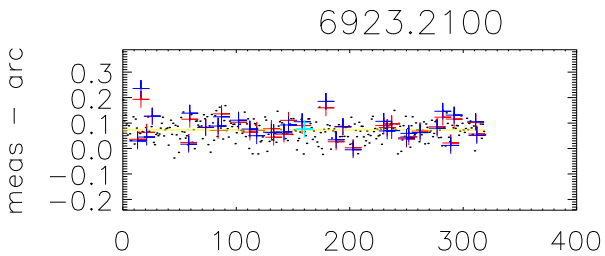

PLATE=0670 MJD=52520 Extraction chi^2 for sdR−r2−00016146.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
0
500
1000
1500
2000
Row number

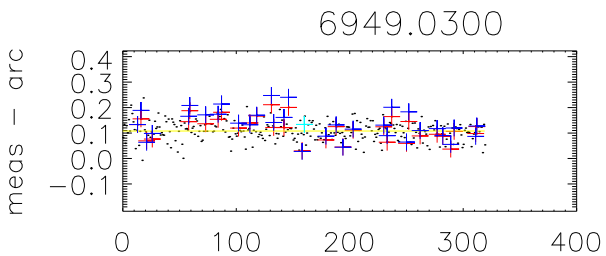

6300.3040
off: 0.06
sig: 0.004
6363.7760
off: 0.09
sig: 0.008
6553.6100
off: 0.09
sig: 0.014
6923.2100
off: 0.08
sig: 0.009
6949.0300
off: 0.13
sig: 0.009
7571.7500
off: 0.10
sig: 0.008
7794.1200
off: -0.01
sig: 0.004
7821.5100
off: 0.06
sig: 0.004
8399.1600
off: 0.08
sig: 0.003
8430.1700
off: 0.06
sig: 0.003
8885.8300
off: 0.08
sig: 0.003
8919.6100
off: 0.07
sig: 0.003

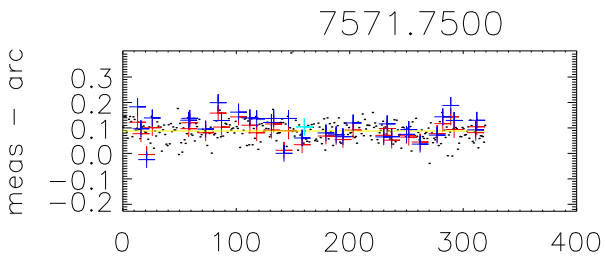

6300.3040
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

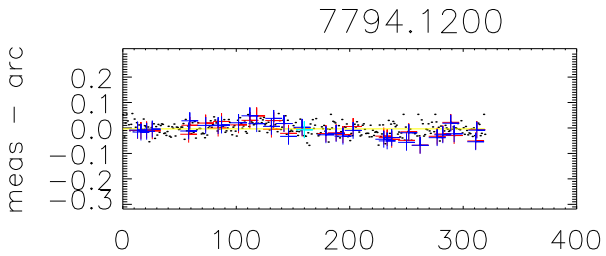

6363.7760
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

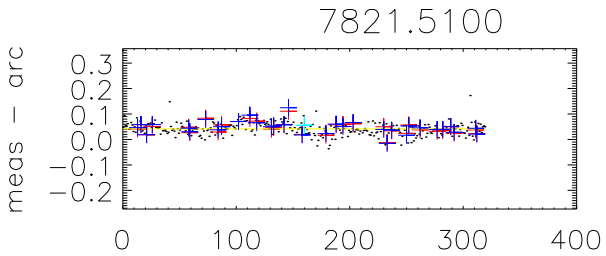

6553.6100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

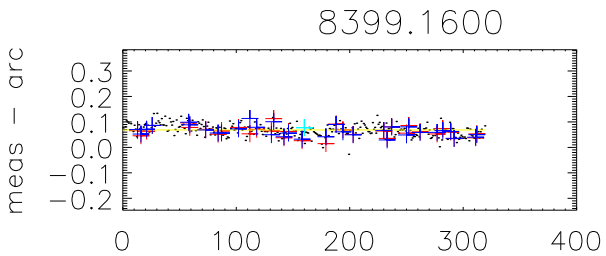

6923.2100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

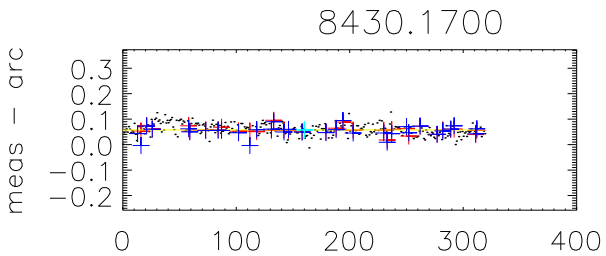

6949.0300
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

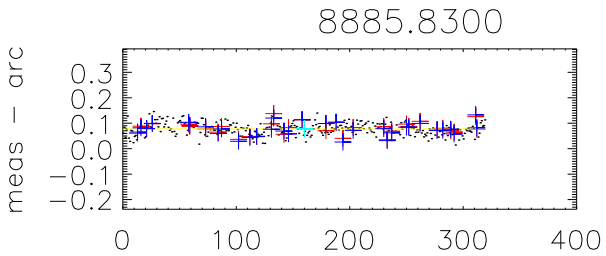

7571.7500
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

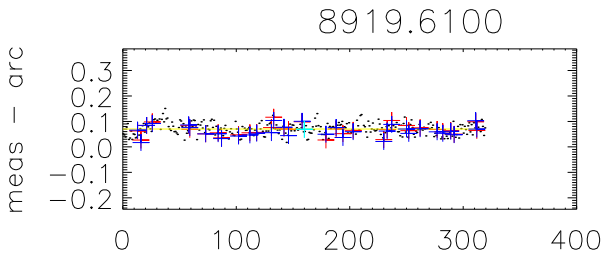

7794.1200
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

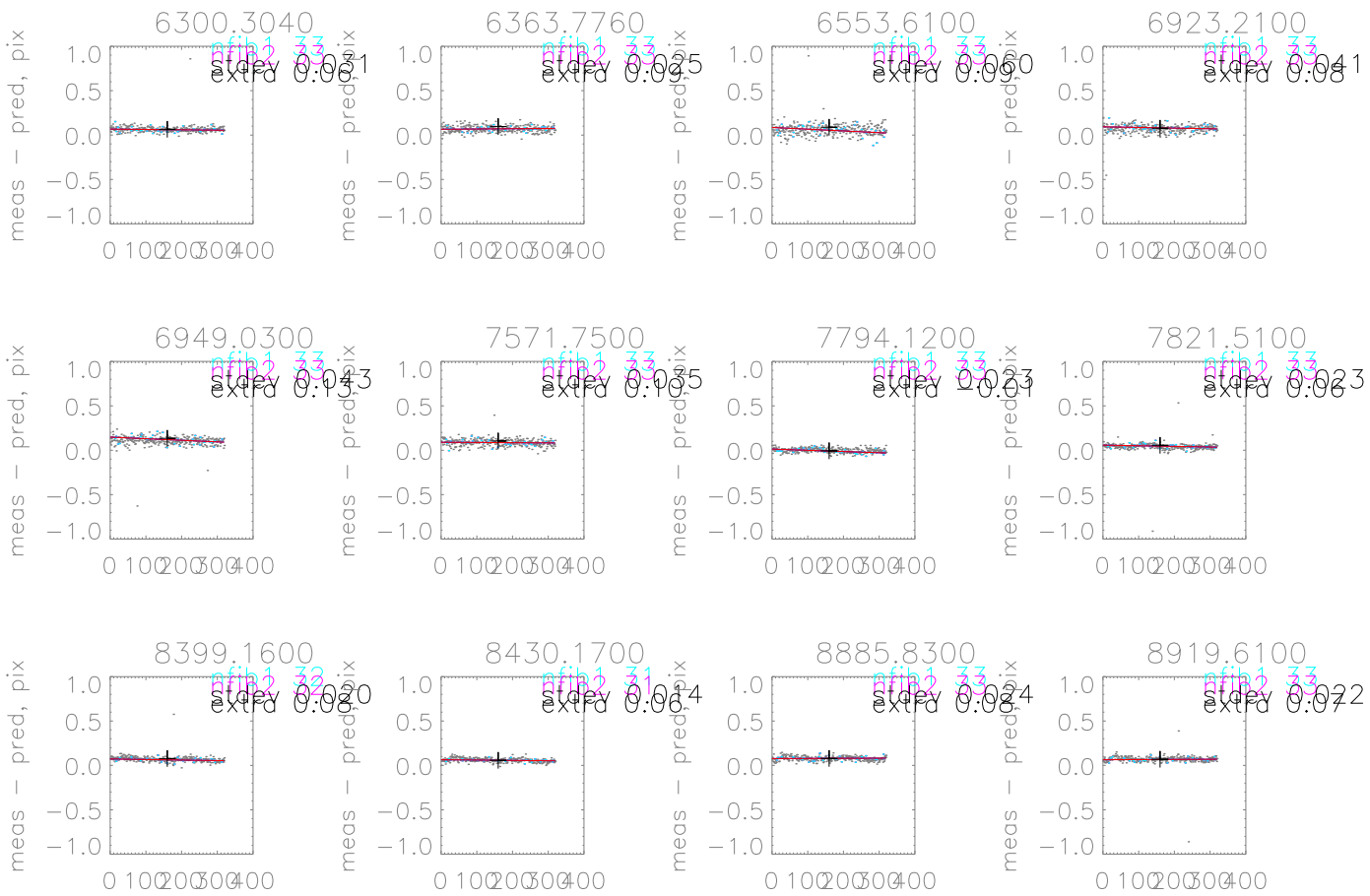

7821.5100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

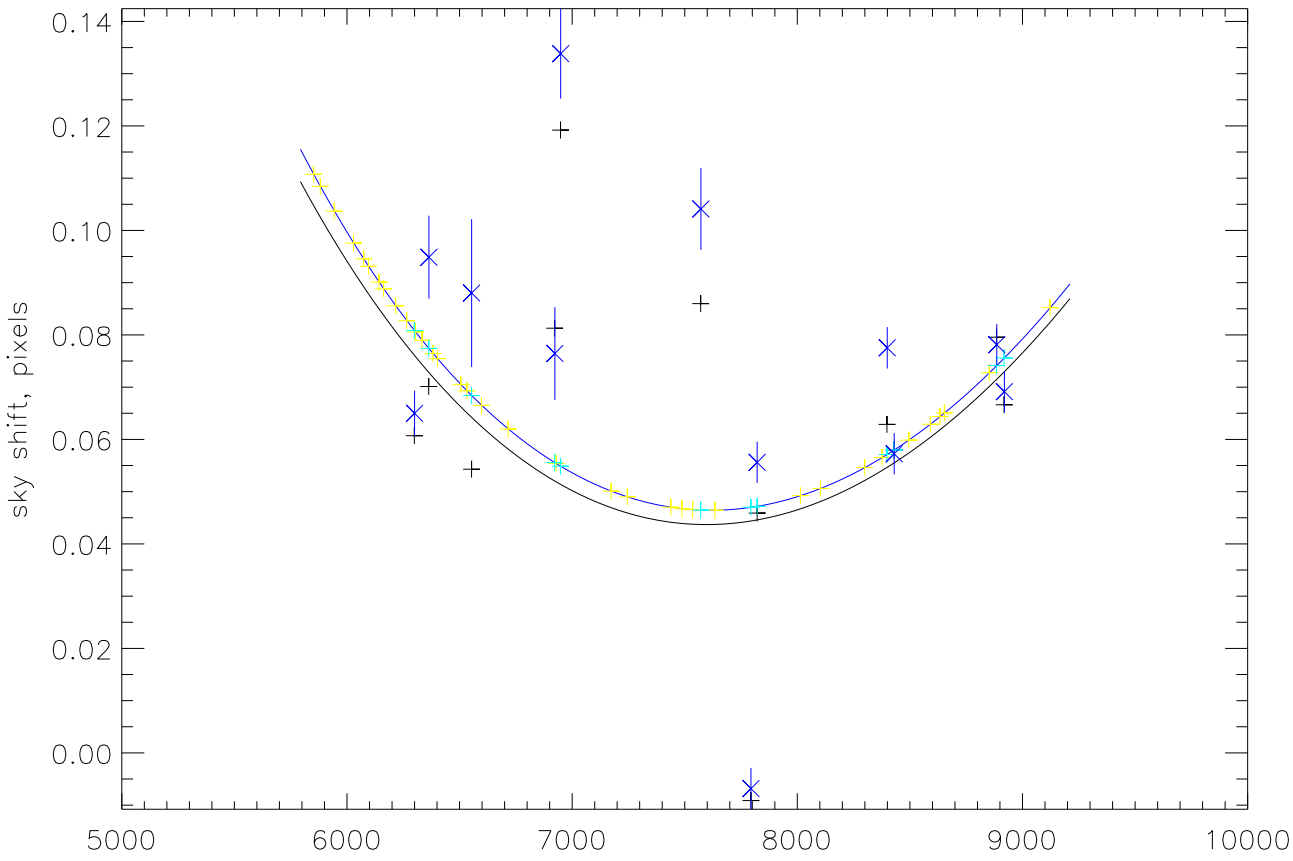

8399.1600
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400


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

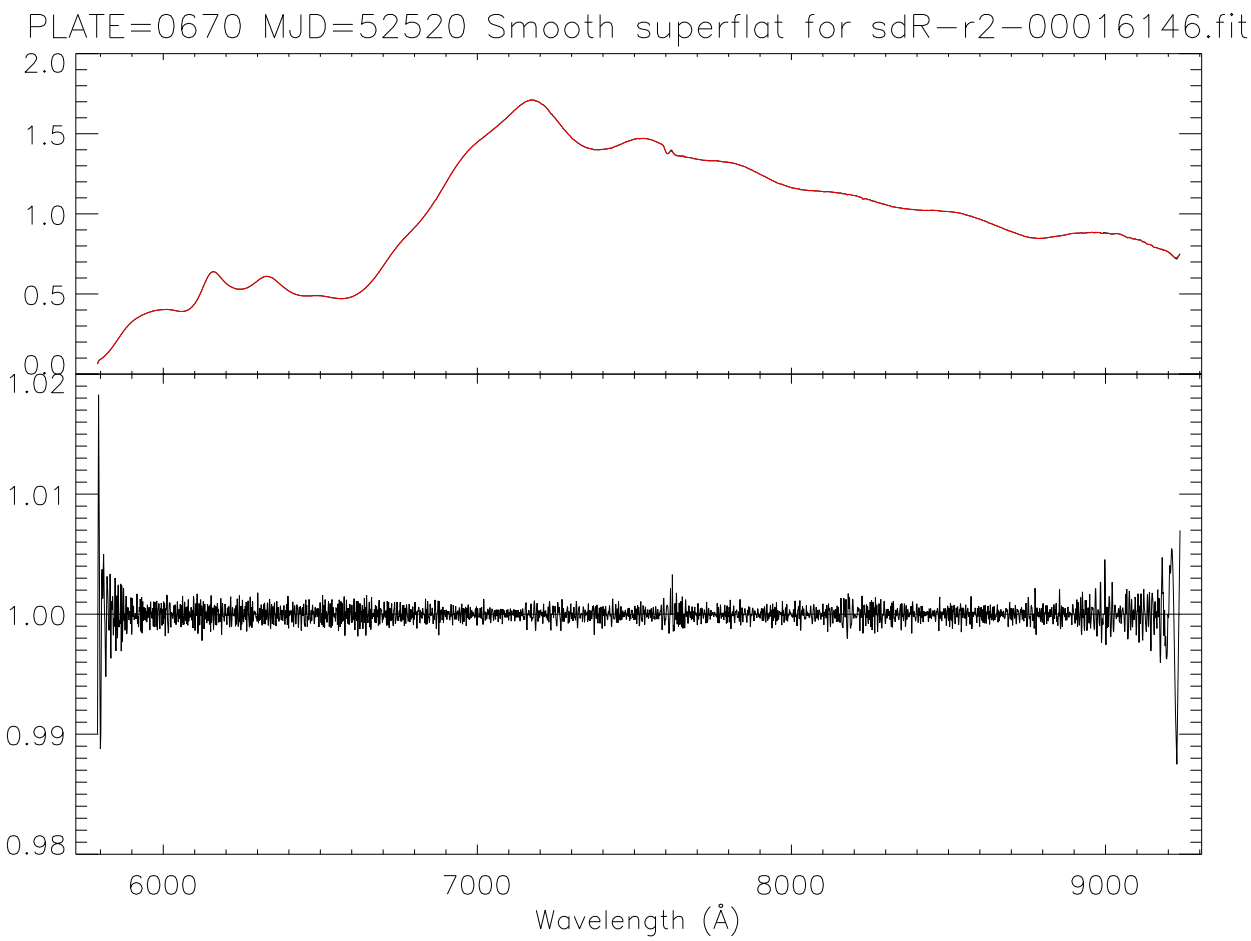

8885.8300
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

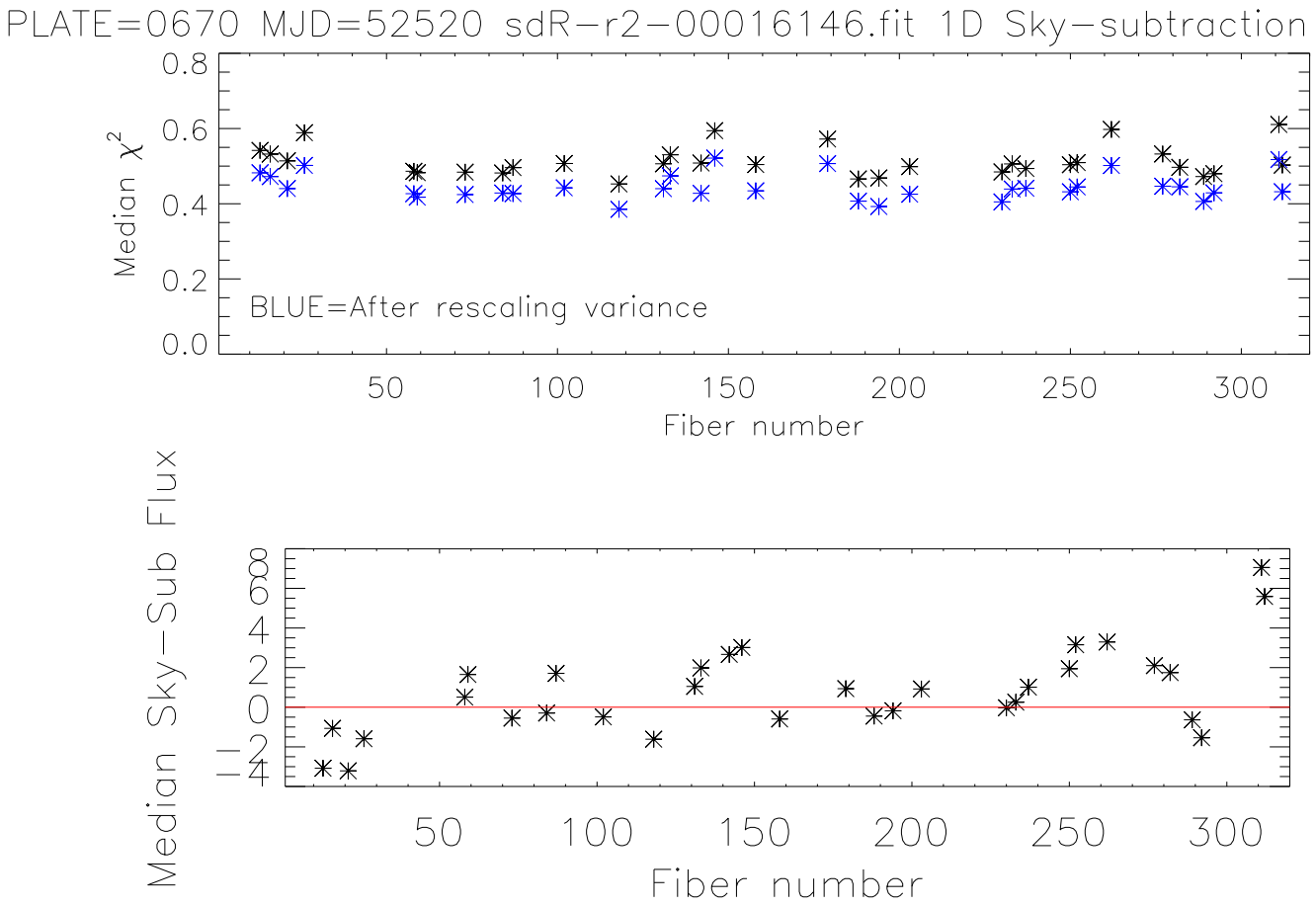

8919.6100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

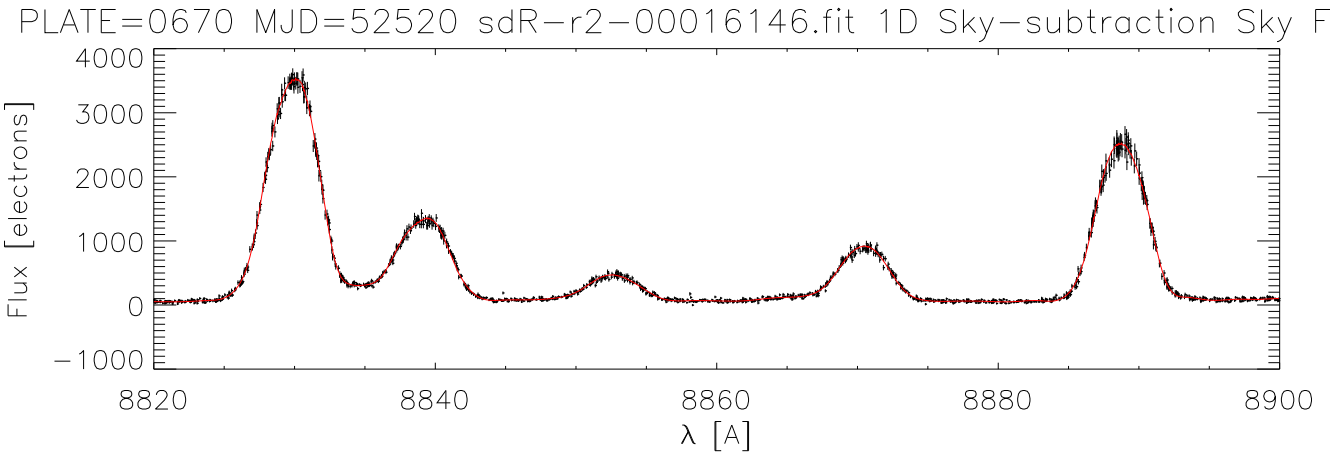

6300.3040
mfib1 33
mfib2 33
stdev 0.031
extra 0.06
6363.7760
mfib1 33
mfib2 33
stdev 0.025
extra 0.04
6553.6100
mfib1 33
mfib2 33
stdev 0.060
extra 0.09
6923.2100
mfib1 33
mfib2 33
stdev 0.041
extra 0.08
6949.0300
mfib1 33
mfib2 33
stdev 0.043
extra 0.13
7571.7500
mfib1 33
mfib2 33
stdev 0.035
extra 0.10
7794.1200
mfib1 33
mfib2 33
stdev 0.023
extra −0.01
7821.5100
mfib1 33
mfib2 33
stdev 0.023
extra 0.06
8399.1600
mfib1 32
mfib2 32
stdev 0.020
extra 0.08
8430.1700
mfib1 31
mfib2 31
stdev 0.014
extra 0.06
8885.8300
mfib1 33
mfib2 33
stdev 0.024
extra 0.08
8919.6100
mfib1 33
mfib2 33
stdev 0.022
extra 0.07
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400

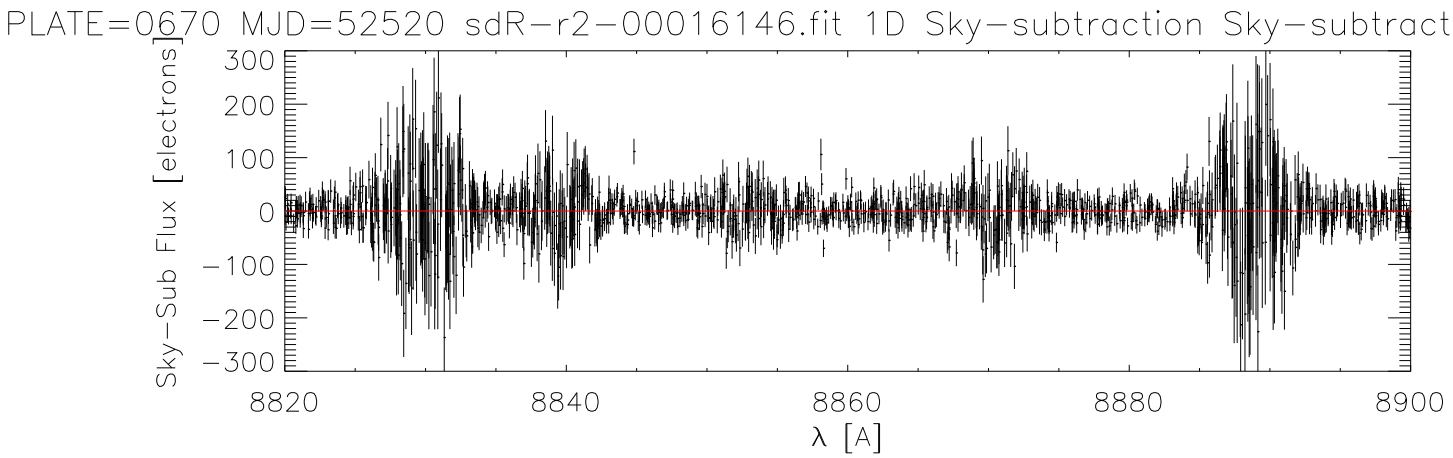

0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.00
sky shift, pixels
5000
6000
7000
8000
9000
10000

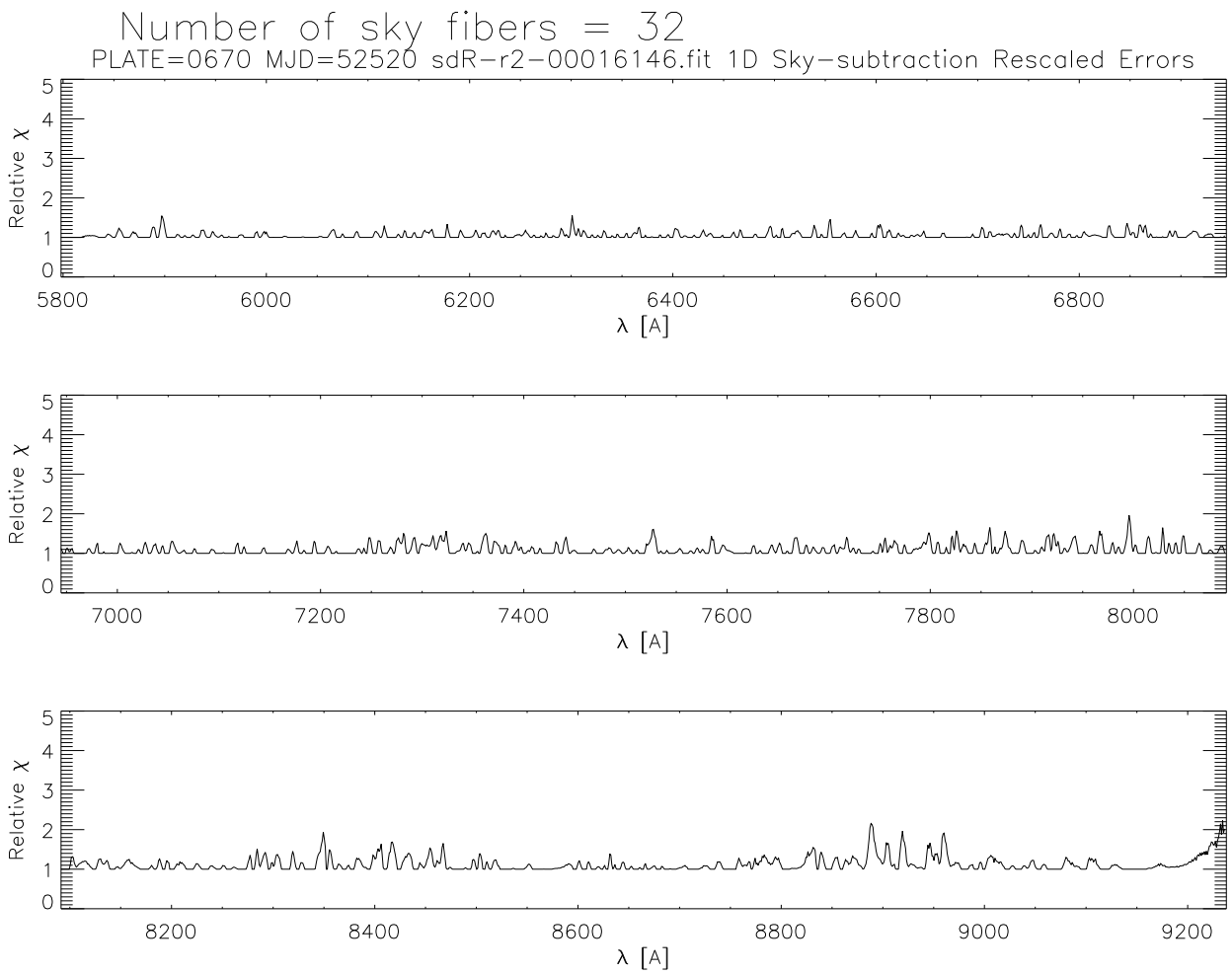
es= −0.0000

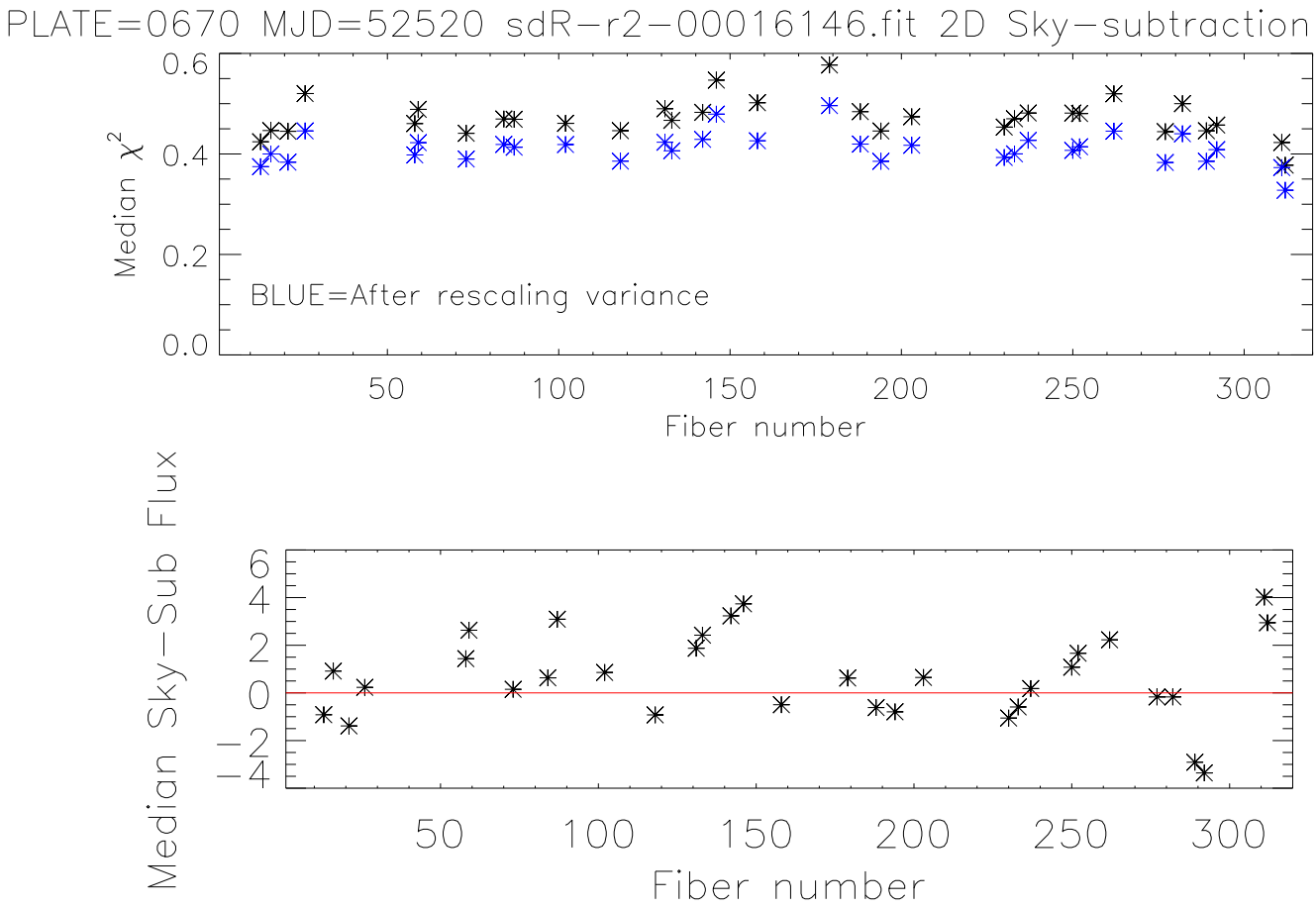

PLATE=0670 MJD=52520 Smooth superflat for sdR−r2−00016146.fit
2.0
1.5
1.0
0.5
0.0
1.02
1.01
1.00
0.99
0.98
6000
7000
8000
9000
Wavelength (Å)

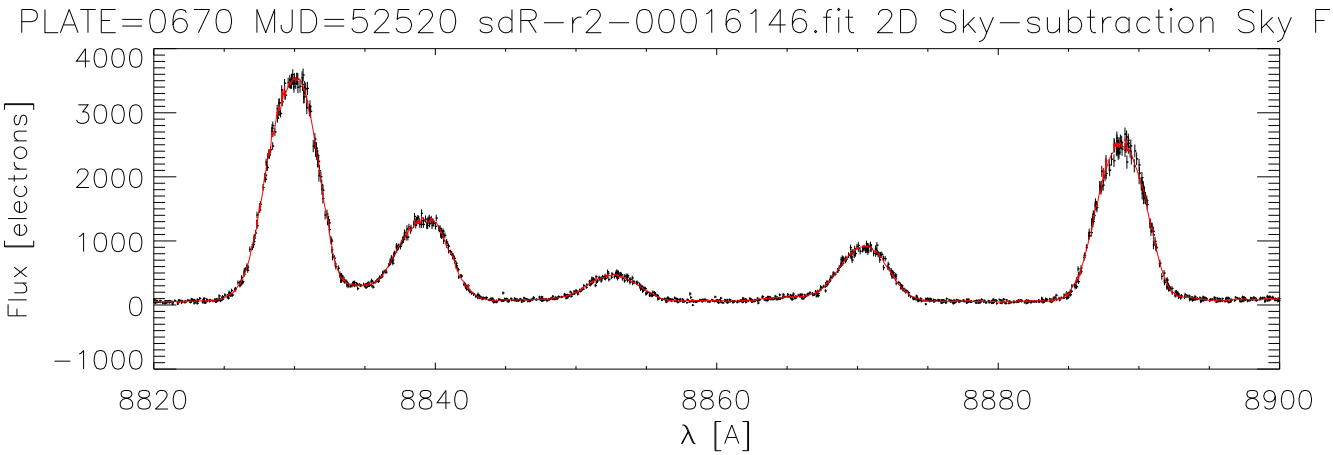

PLATE=0670 MJD=52520 sdR-r2-00016146.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-4
-2
0
2
4
6
8
50
100
150
200
250
300
Fiber number

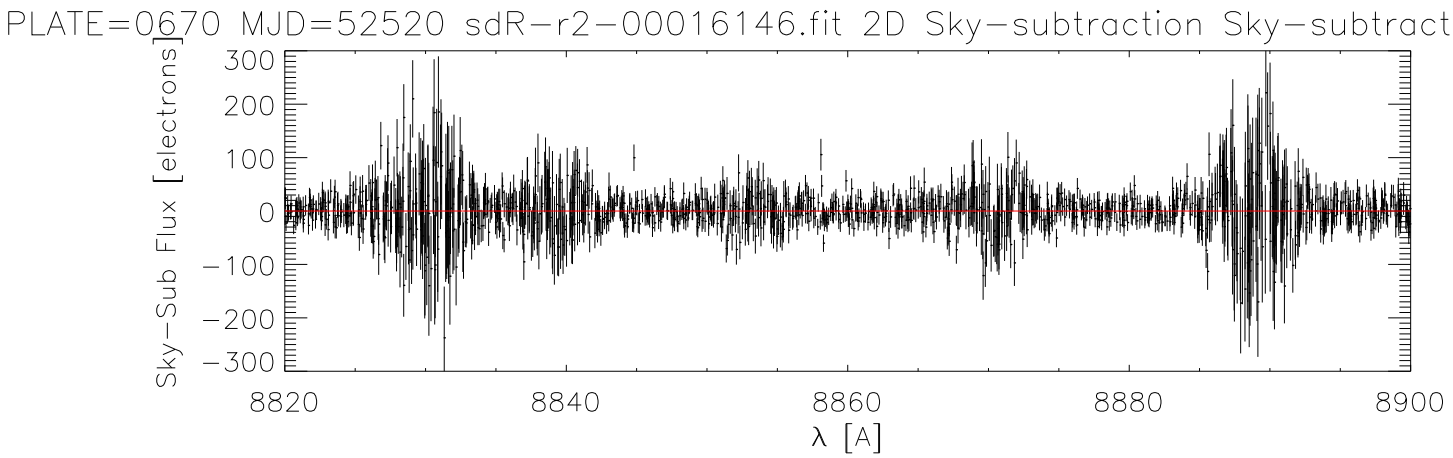

PLATE=0670 MJD=52520 sdR-r2-00016146.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
-1000
8820
8840
8860
8880
8900
λ [A]

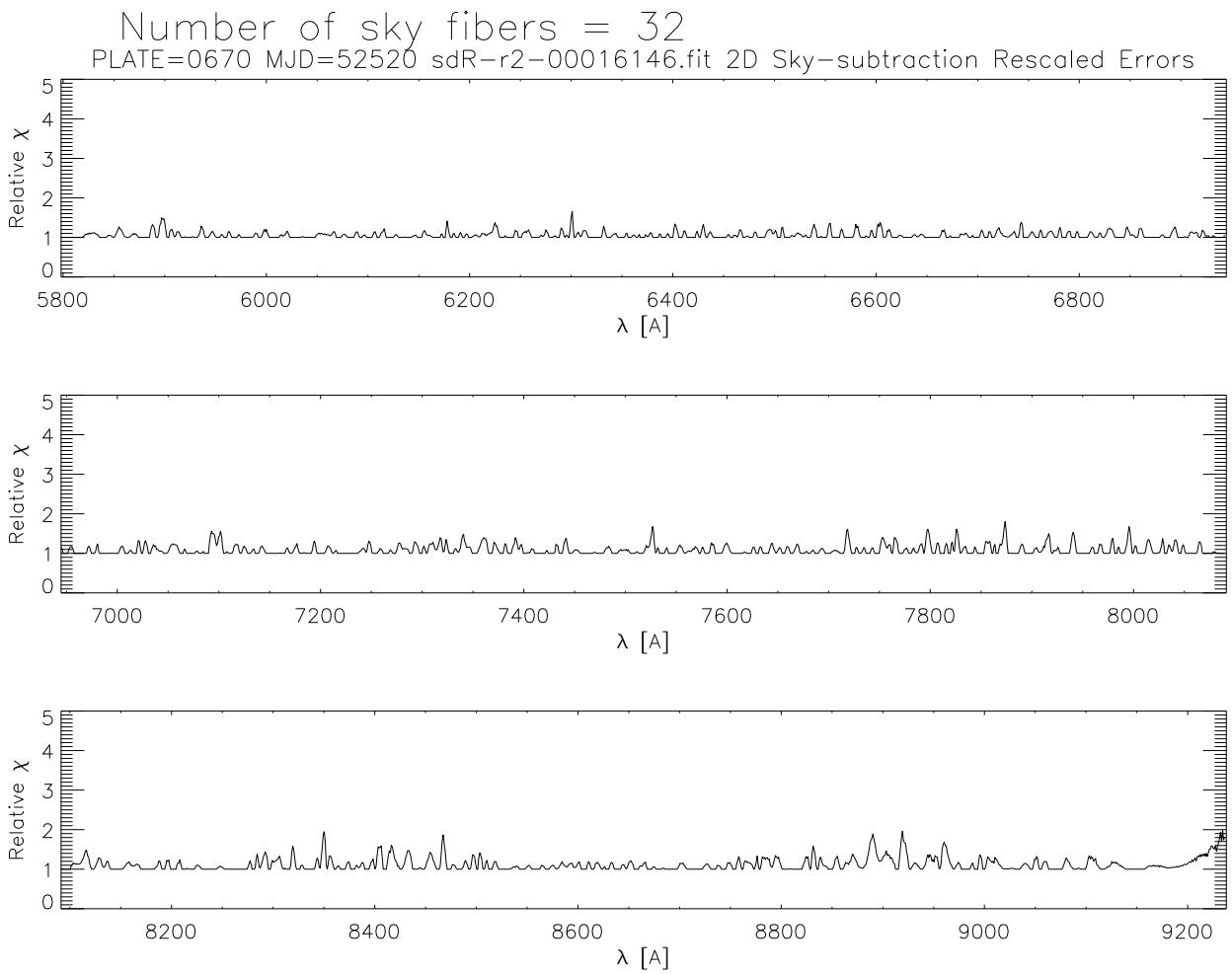

PLATE=0670 MJD=52520 sdR-r2-00016146.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
-300
8820
8840
8860
8880
8900
λ [A]

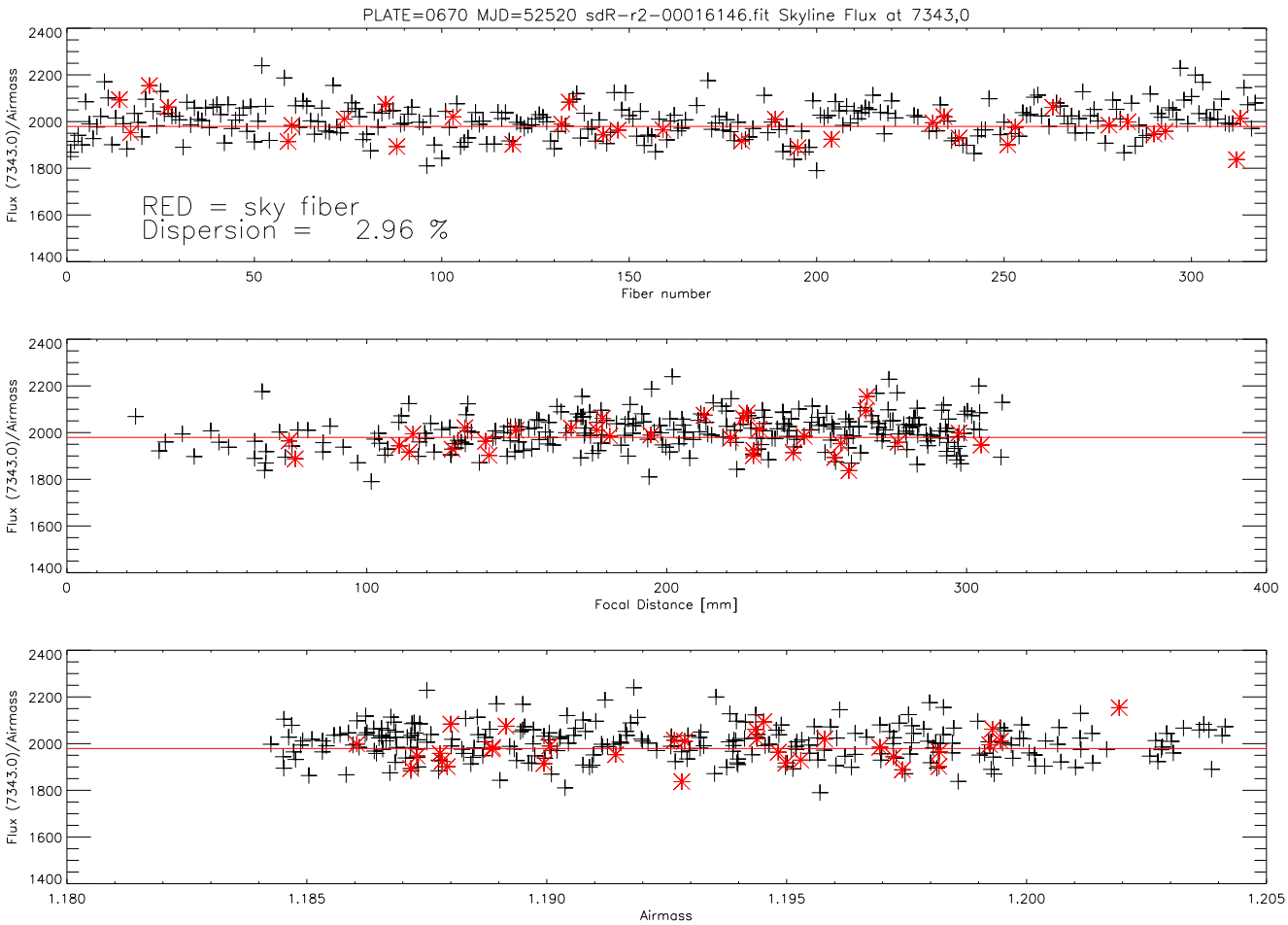

Number of sky fibers = 32
PLATE=0670 MJD=52520 sdR-r2-00016146.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

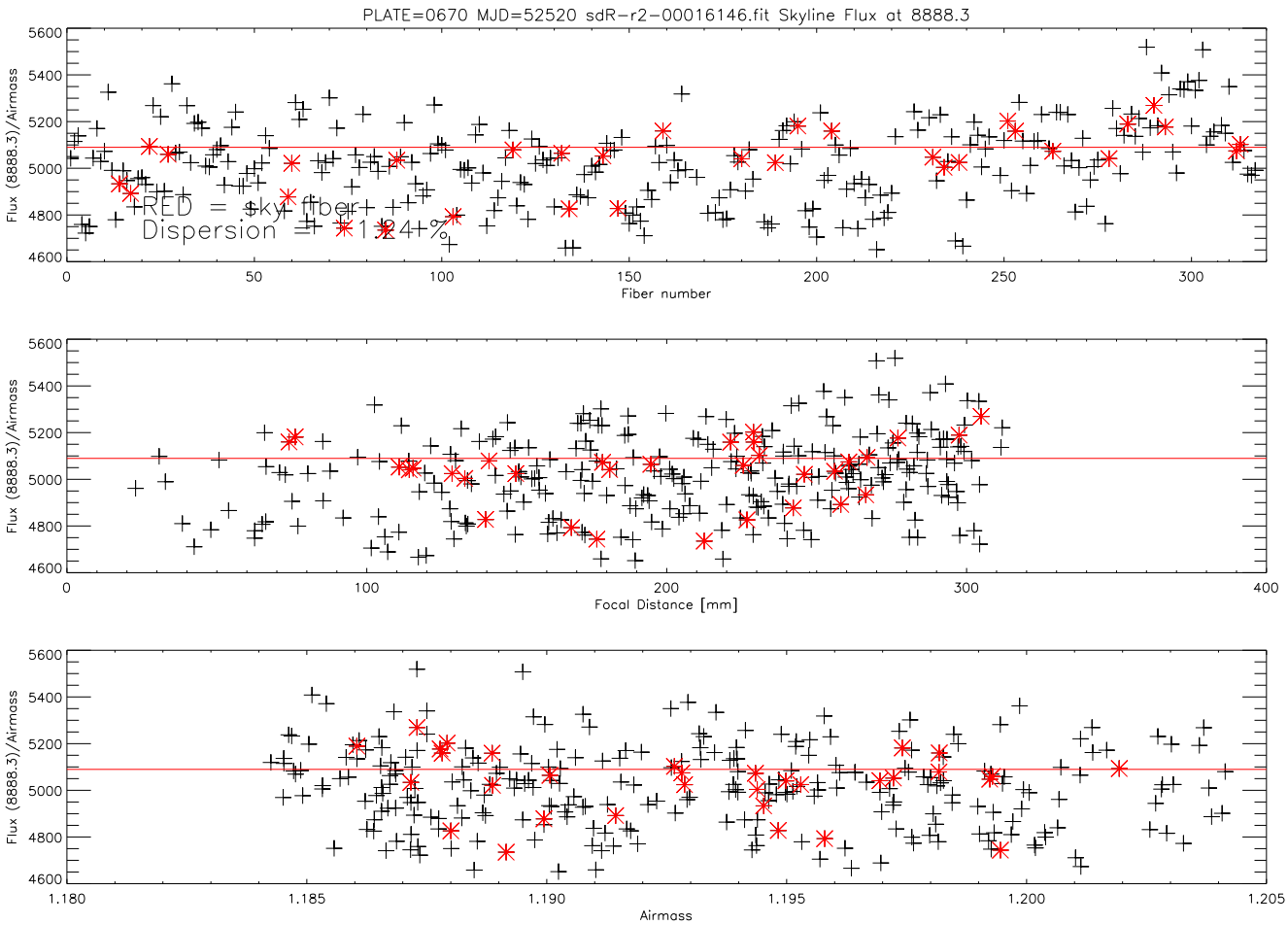

PLATE=0670 MJD=52520 sdR-r2-00016146.fit 2D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-4
-2
0
2
4
6
50
100
150
200
250
300
Fiber number

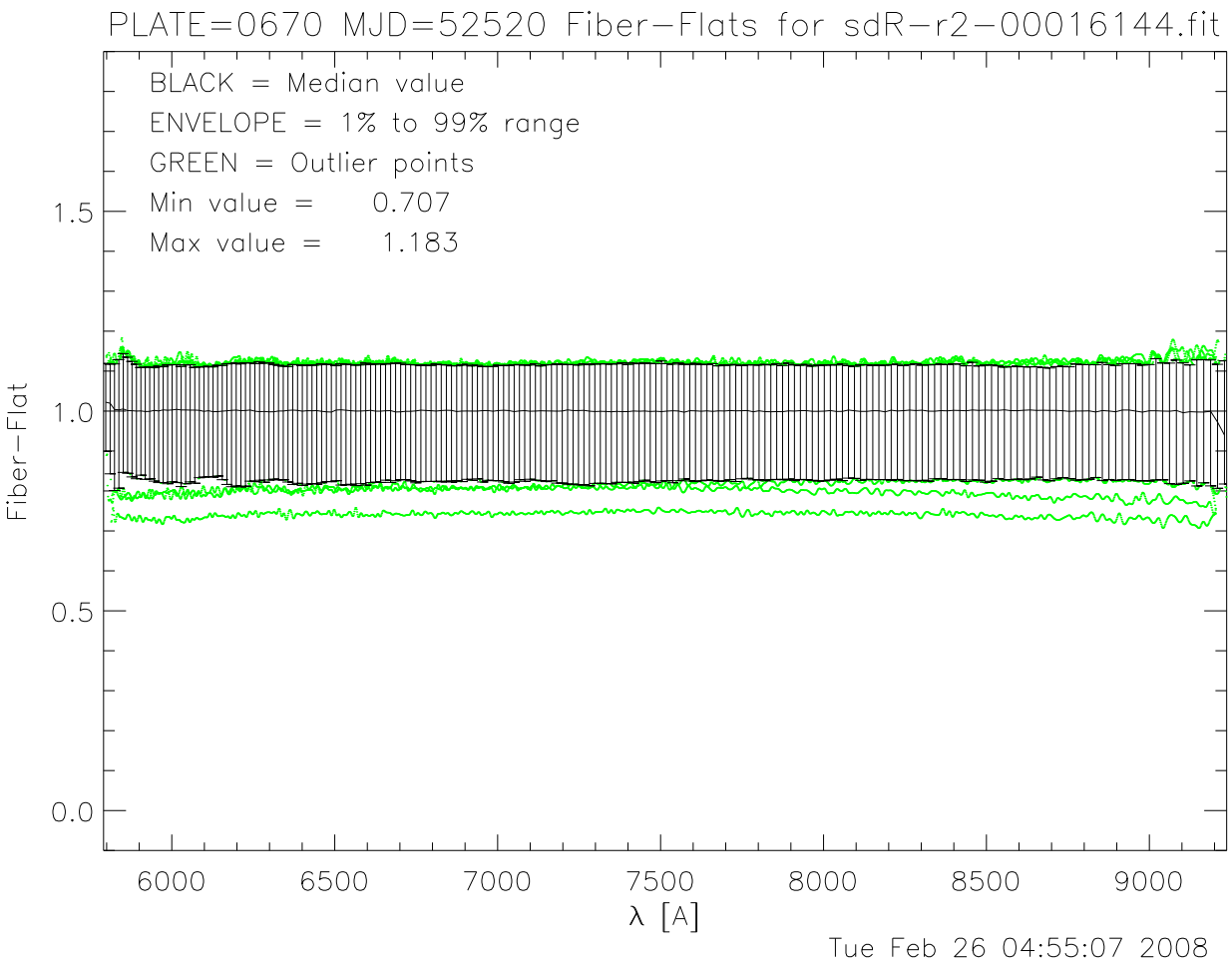

PLATE=0670 MJD=52520 sdR-r2-00016146.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
-1000
8820
8840
8860
8880
8900
λ [A]

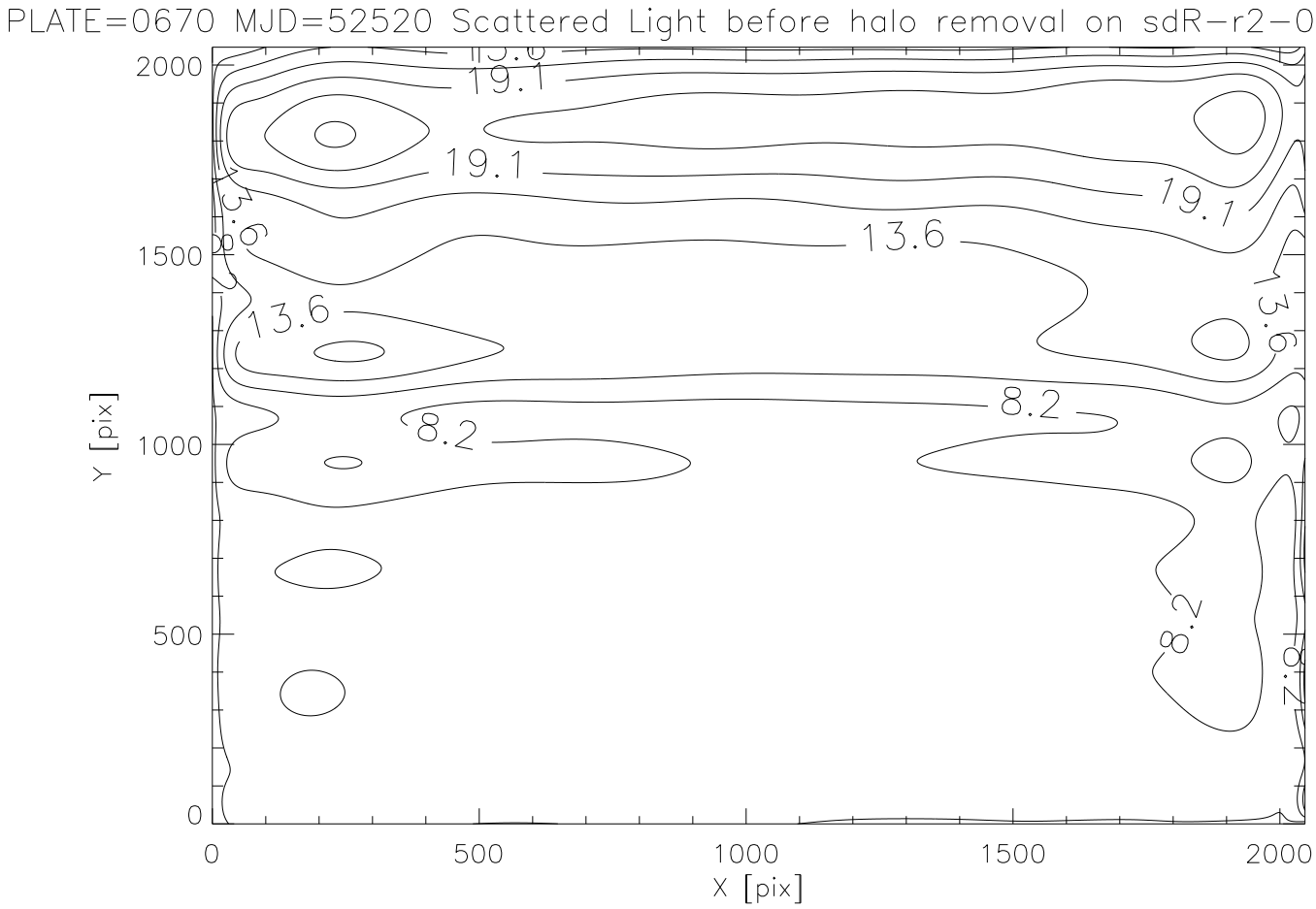

PLATE=0670 MJD=52520 sdR-r2-00016146.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
-300
8820
8840
8860
8880
8900
λ [A]

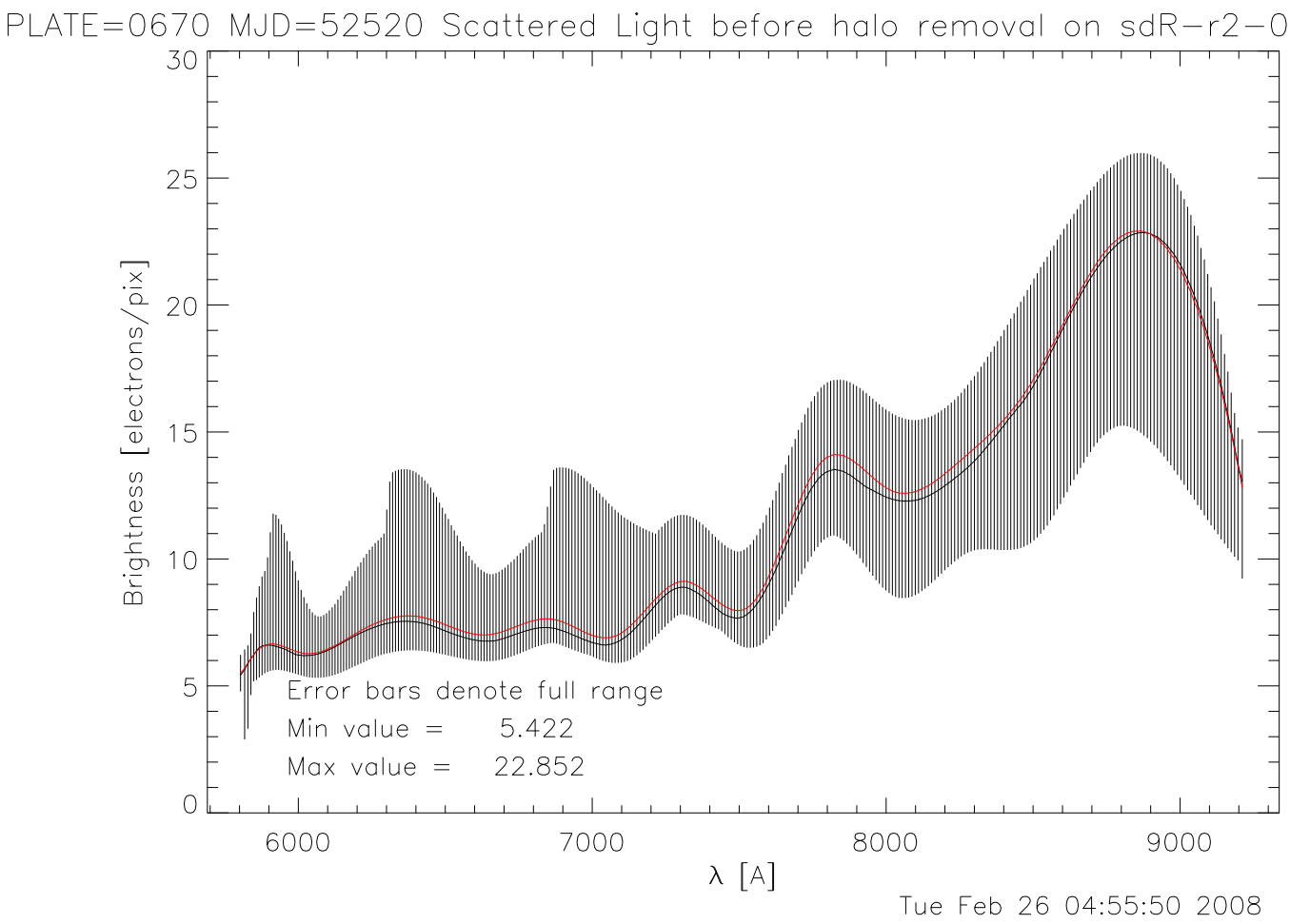

Number of sky fibers = 32
PLATE=0670 MJD=52520 sdR-r2-00016146.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

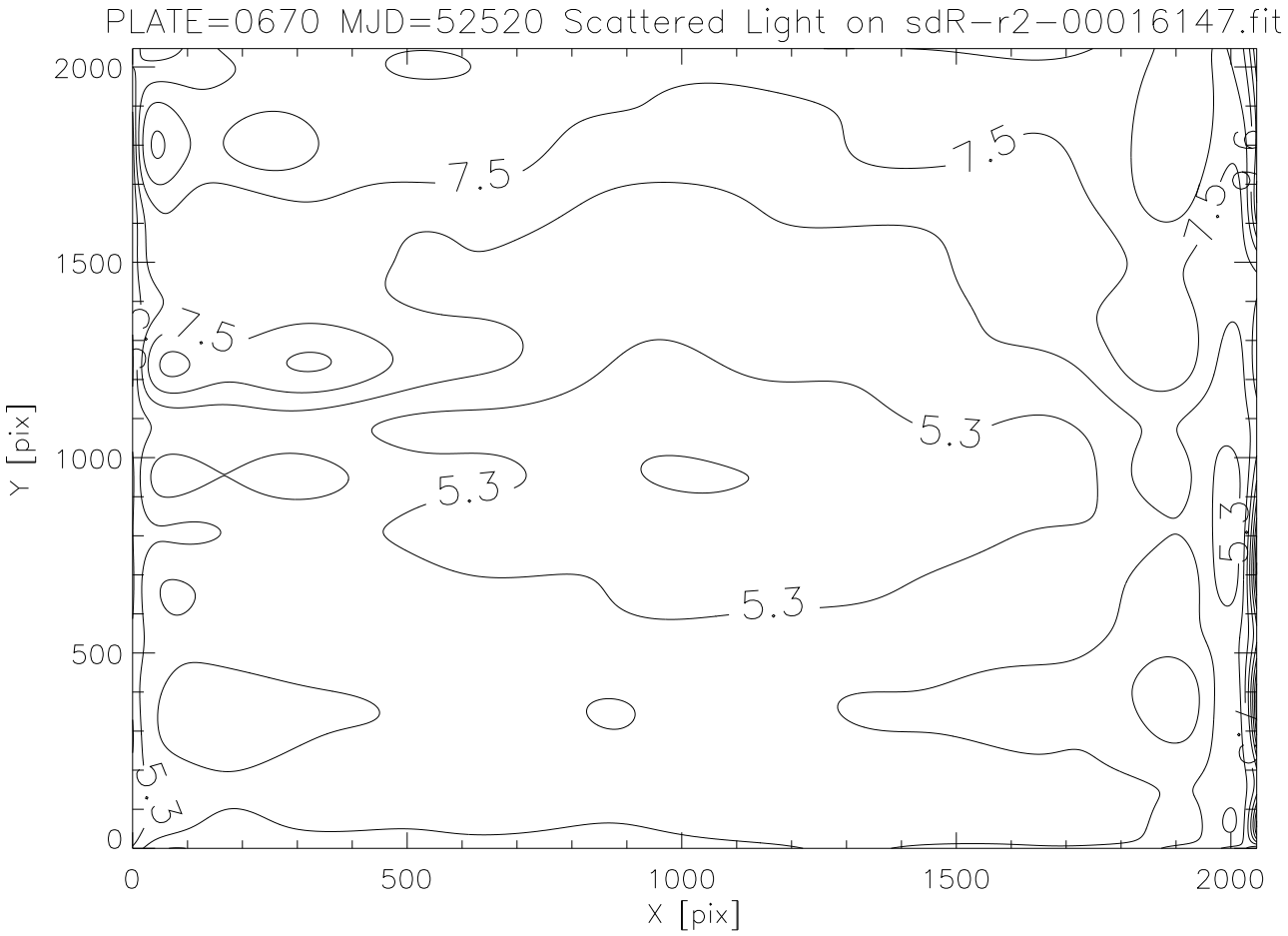

PLATE=0670 MJD=52520 sdR-r2-00016146.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 2.96 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

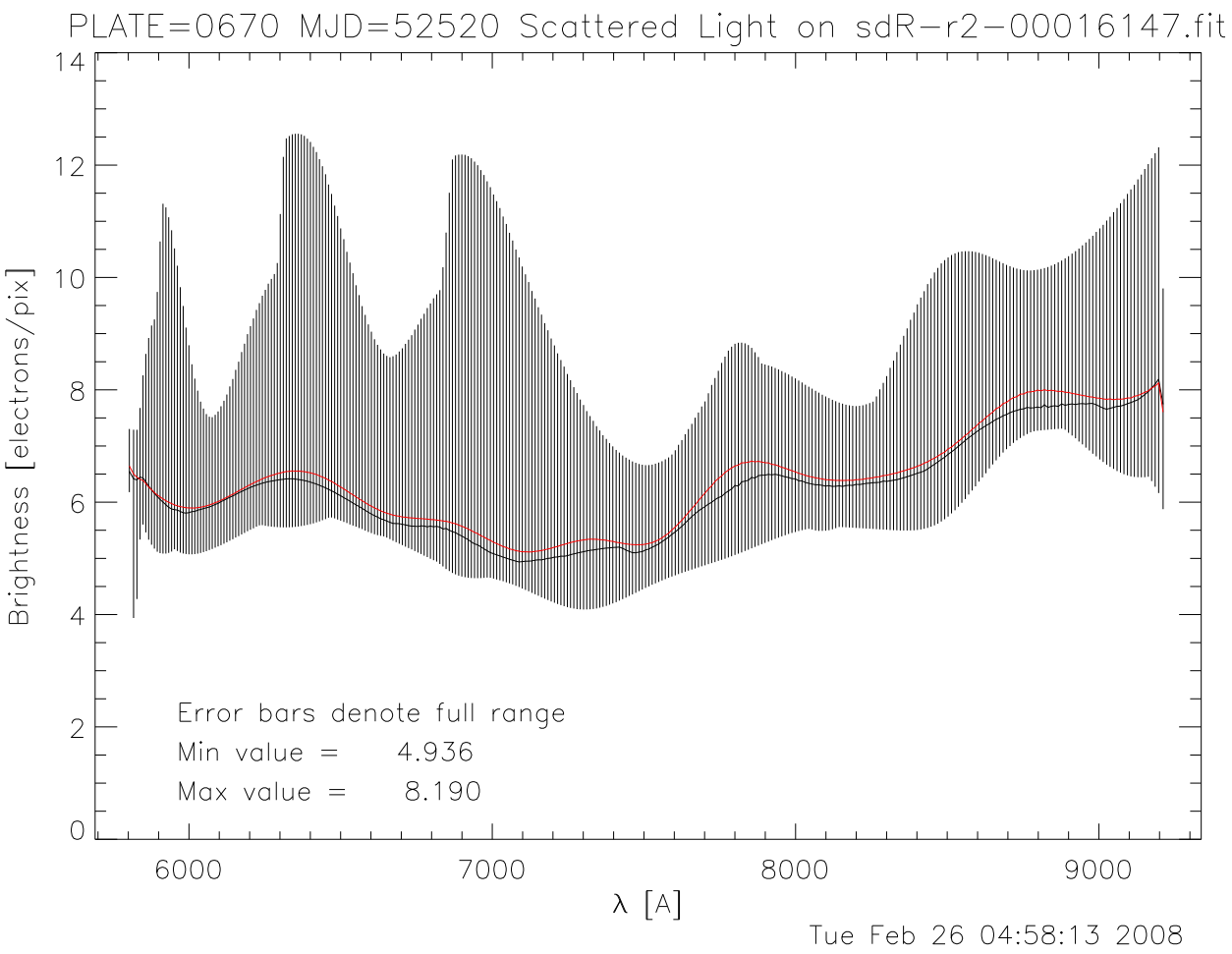

PLATE=0670 MJD=52520 sdR-r2-00016146.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
Fiber number
RED = sky fiber
Dispersion = 1.24+%
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass

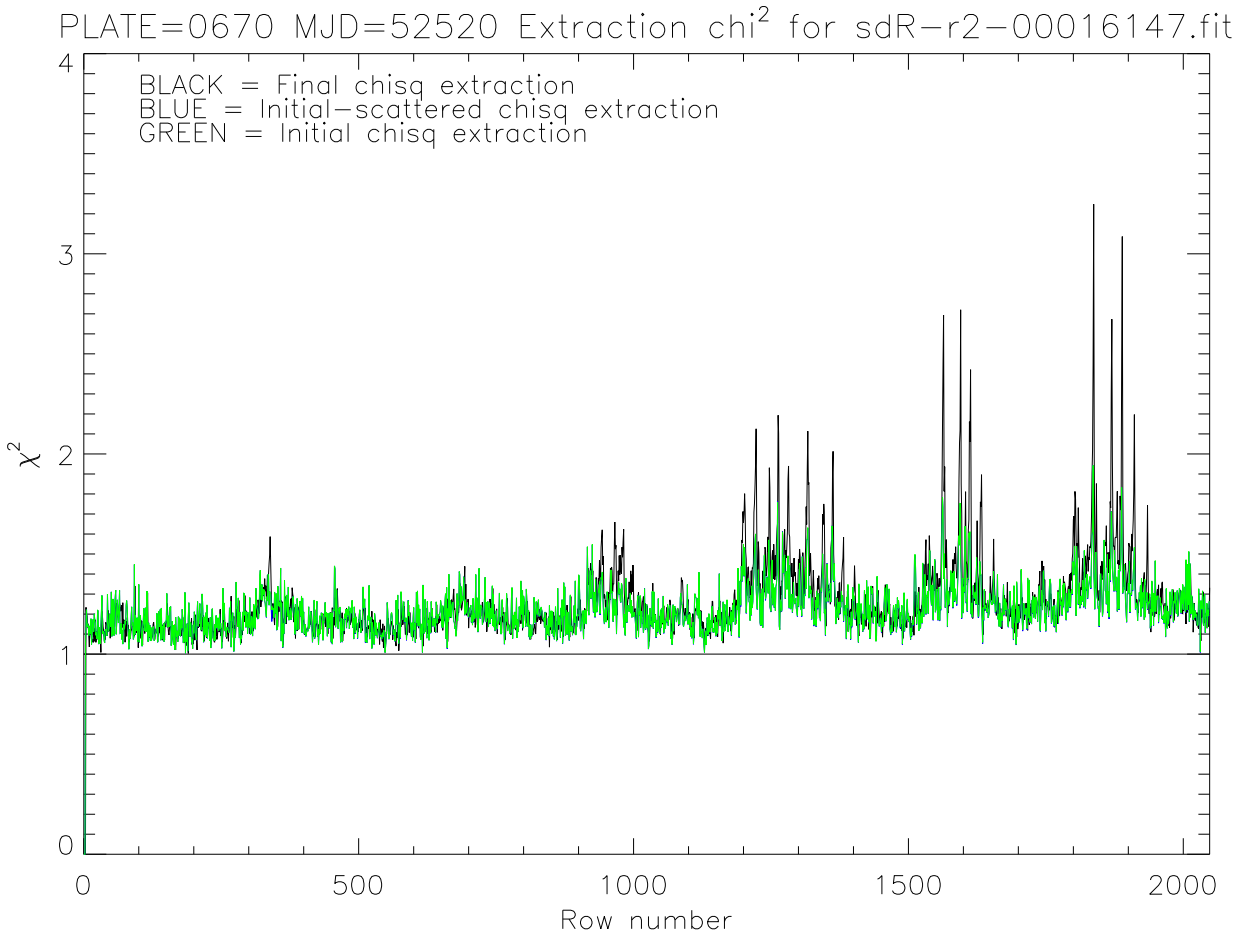

PLATE=0670 MJD=52520 Fiber-Flats for sdR-r2-00016144.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.707
Max value = 1.183
Fiber-Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Tue Feb 26 04:55:07 2008

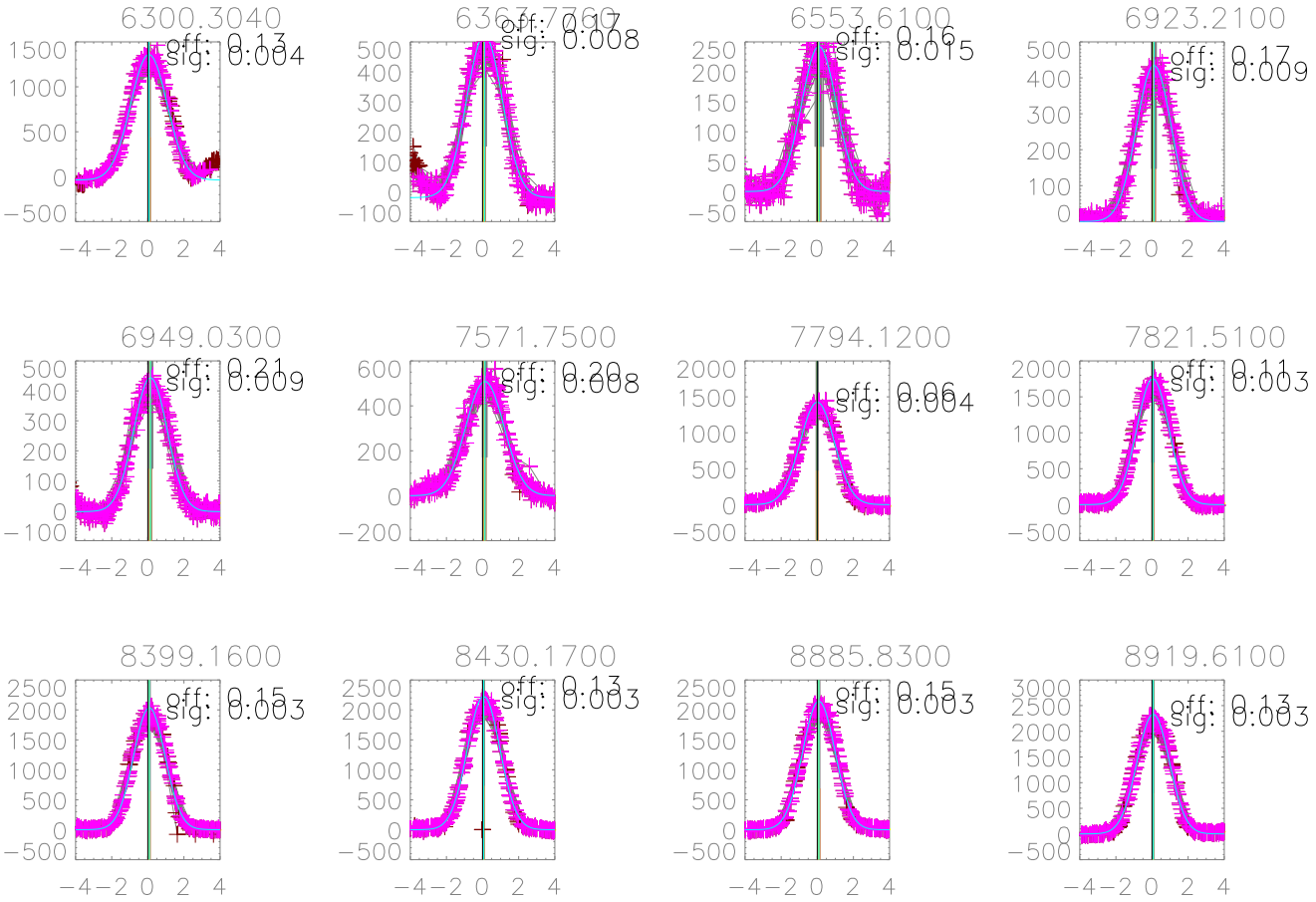

PLATE=0670 MJD=52520 Scattered Light before halo removal on sdR-r2-00016147.fi
19.1
19.1
19.1
13.6
13.6
13.6
13.6
8.2
8.2
8.2
8.2
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]

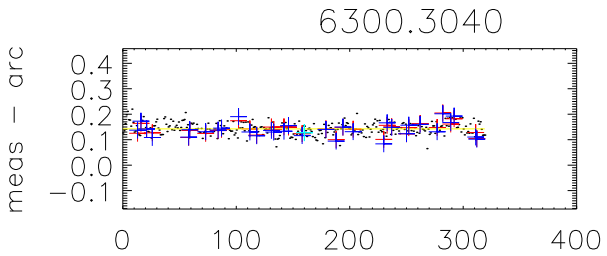

PLATE=0670 MJD=52520 Scattered Light before halo removal on sdR-r2-00016147.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 5.422
Max value = 22.852
Tue Feb 26 04:55:50 2008

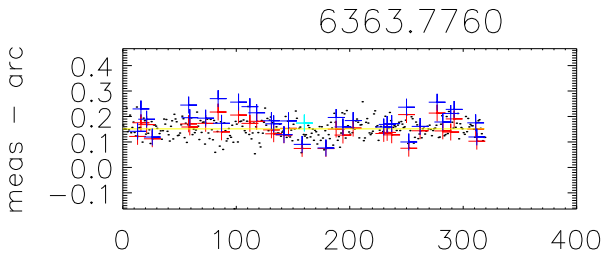

PLATE=0670 MJD=52520 Scattered Light on sdR-r2-00016147.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
7.5
1.5
5.3

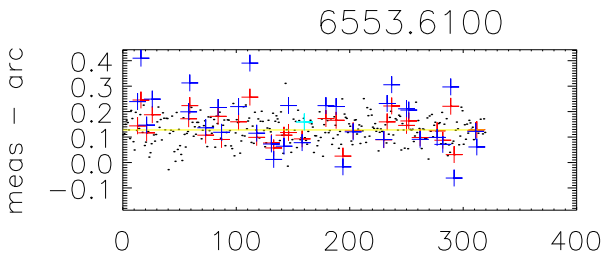

PLATE=0670 MJD=52520 Scattered Light on sdR-r2-00016147.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 4.936
Max value = 8.190
Tue Feb 26 04:58:13 2008

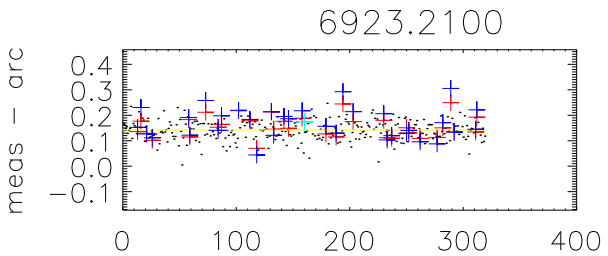

PLATE=0670 MJD=52520 Extraction chi^2 for sdR-r2-00016147.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
0
500
1000
1500
2000
Row number

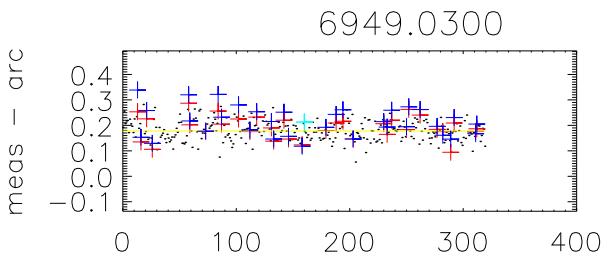

6300.3040
off: 0.13
sig: 0.004
6363.7700
off: 0.07
sig: 0.008
6553.6100
off: 0.16
sig: 0.015
6923.2100
off: 0.17
sig: 0.009
6949.0300
off: 0.21
sig: 0.009
7571.7500
off: 0.20
sig: 0.008
7794.1200
off: 0.06
sig: 0.004
7821.5100
off: 0.11
sig: 0.003
8399.1600
off: 0.15
sig: 0.003
8430.1700
off: 0.13
sig: 0.003
8885.8300
off: 0.15
sig: 0.003
8919.6100
off: 0.13
sig: 0.003

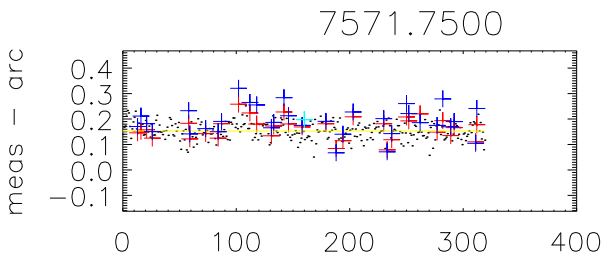

6300.3040
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

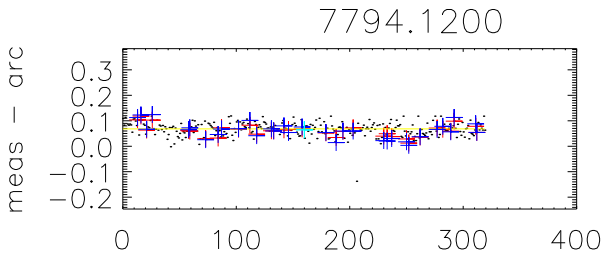

6363.7760
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

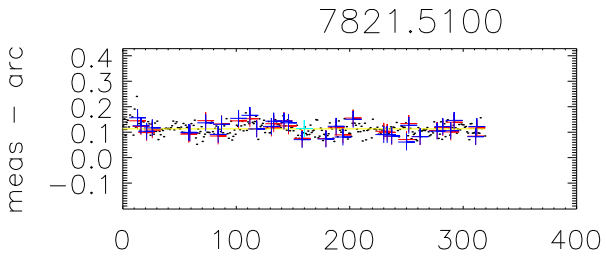

6553.6100
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

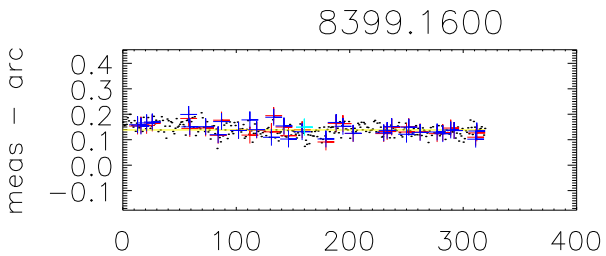

6923.2100
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

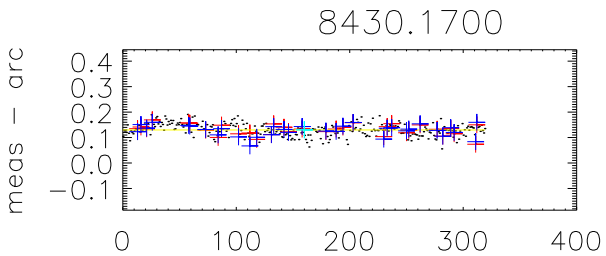

6949.0300
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

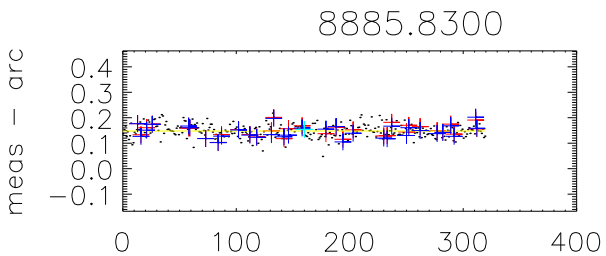

7571.7500
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

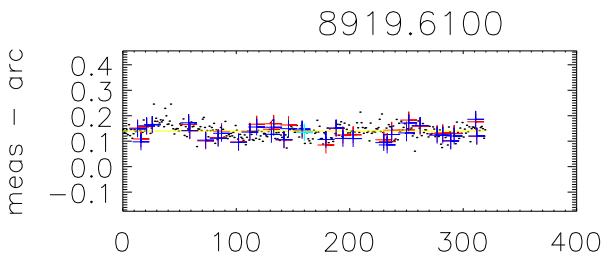

7794.1200
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

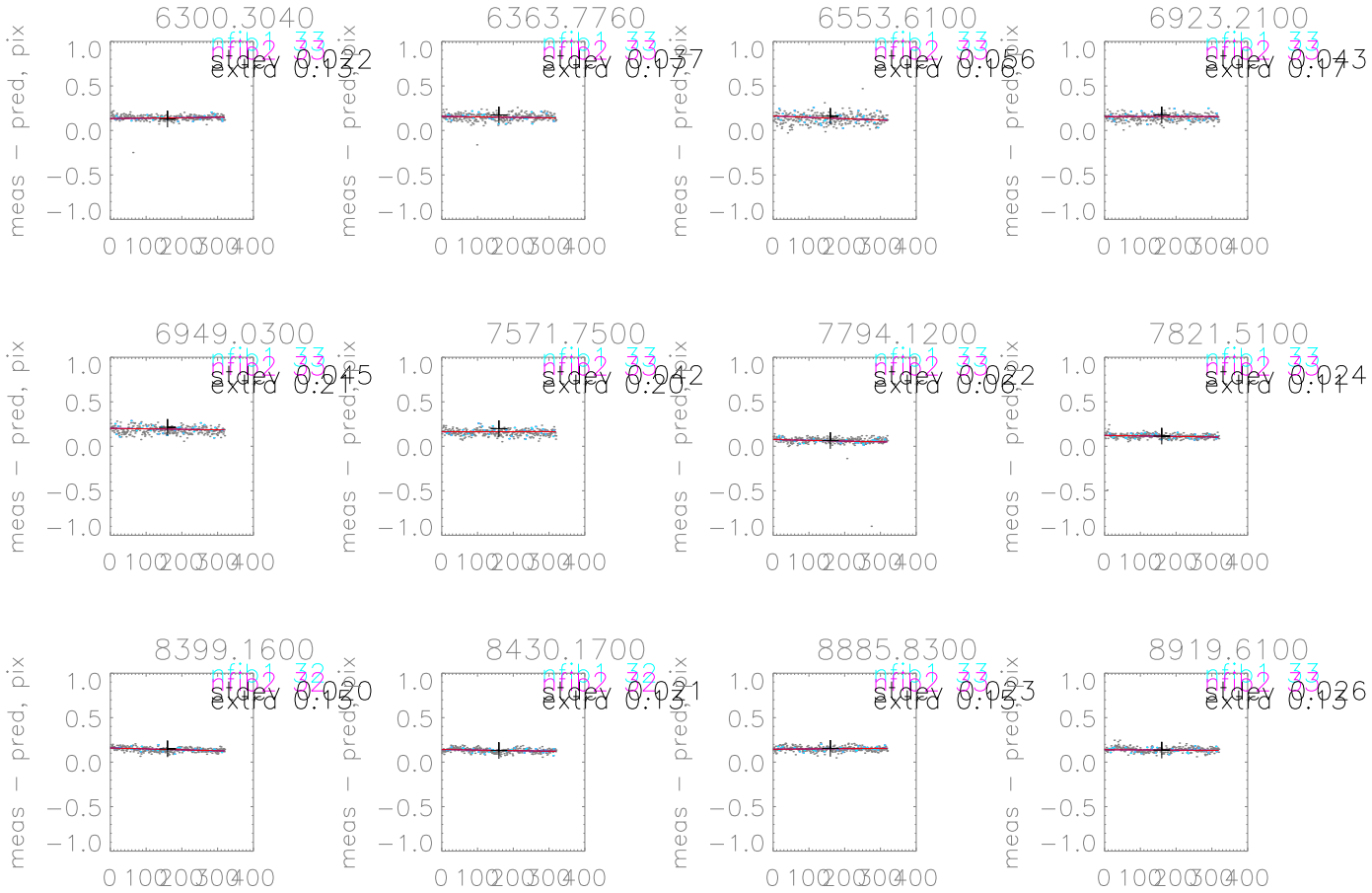

7821.5100
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

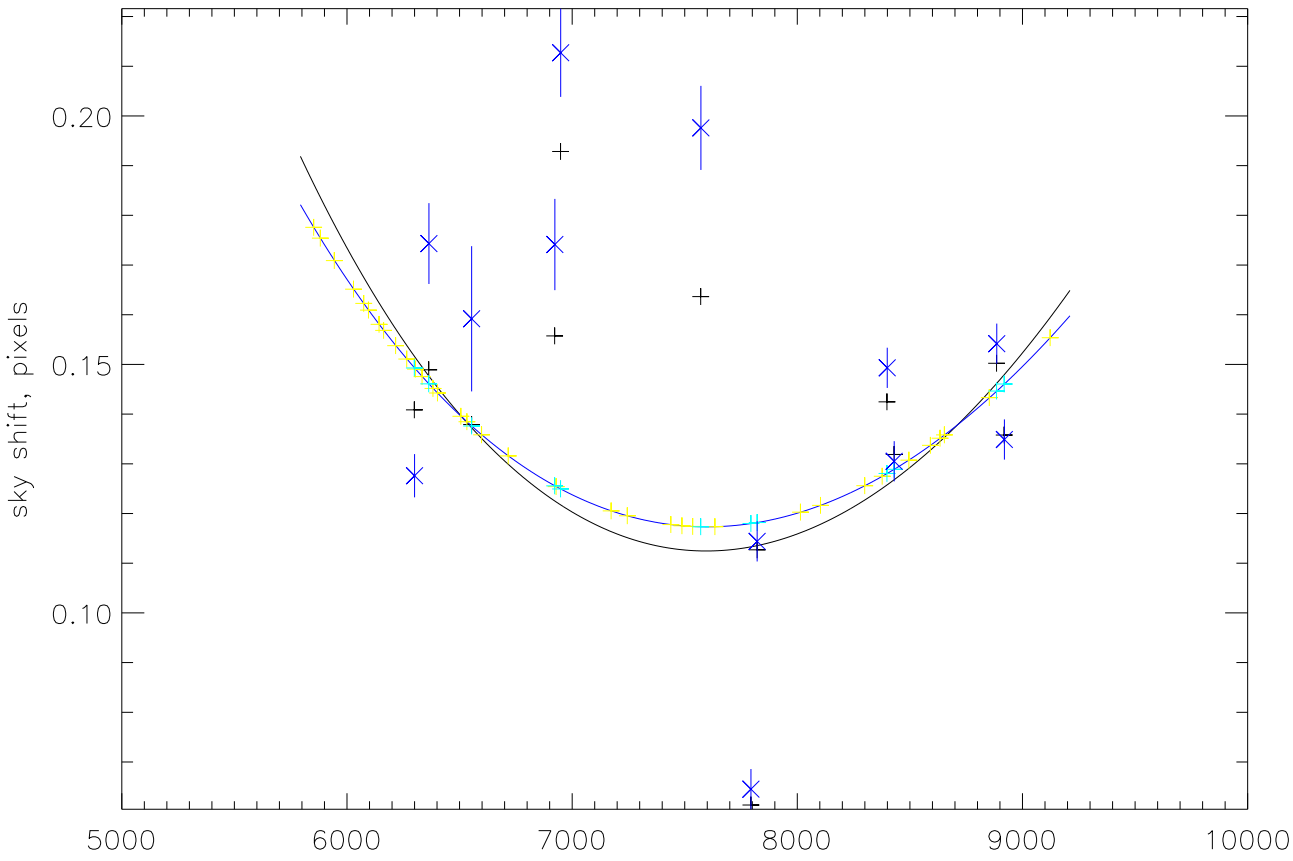

8399.1600
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400


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

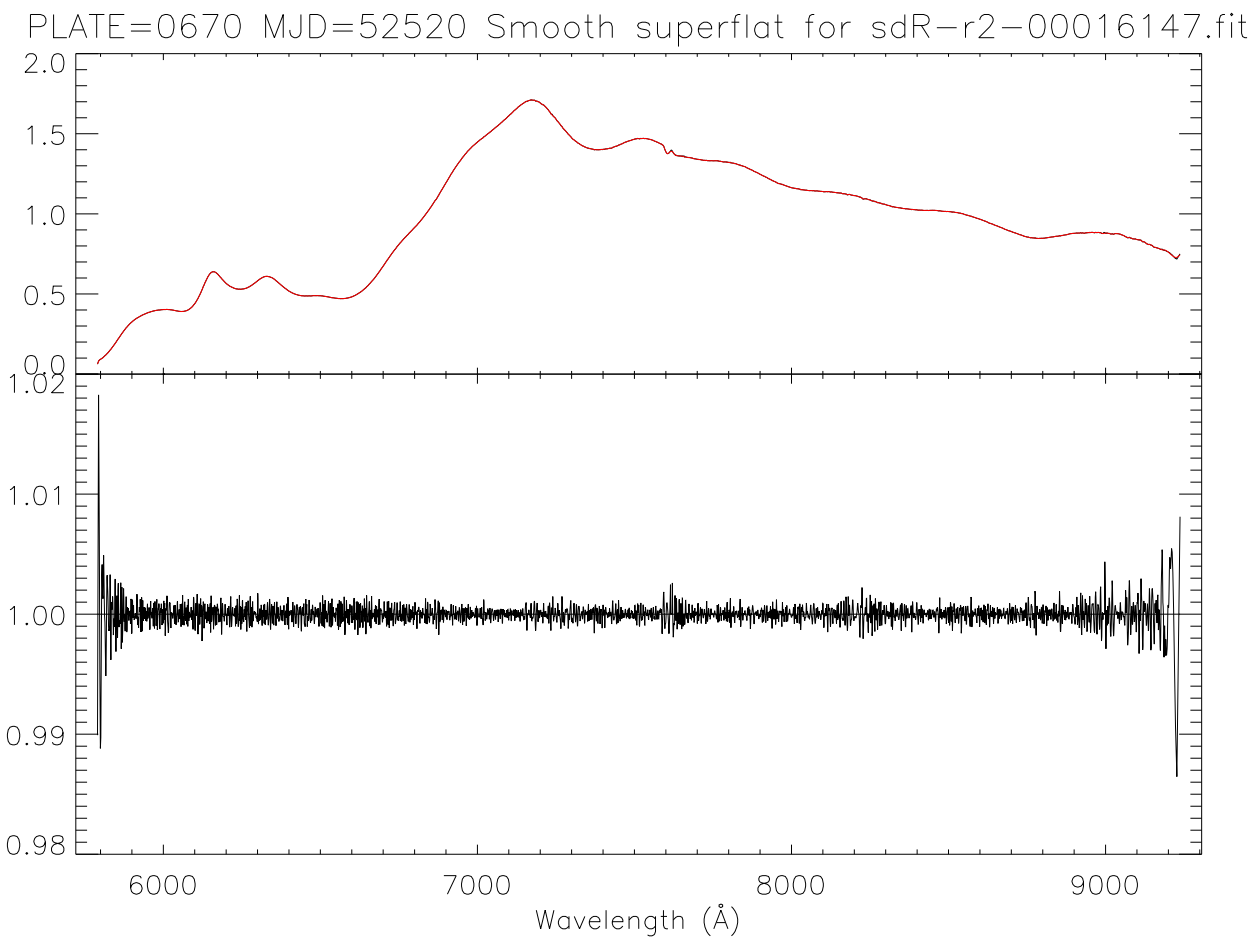

8885.8300
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

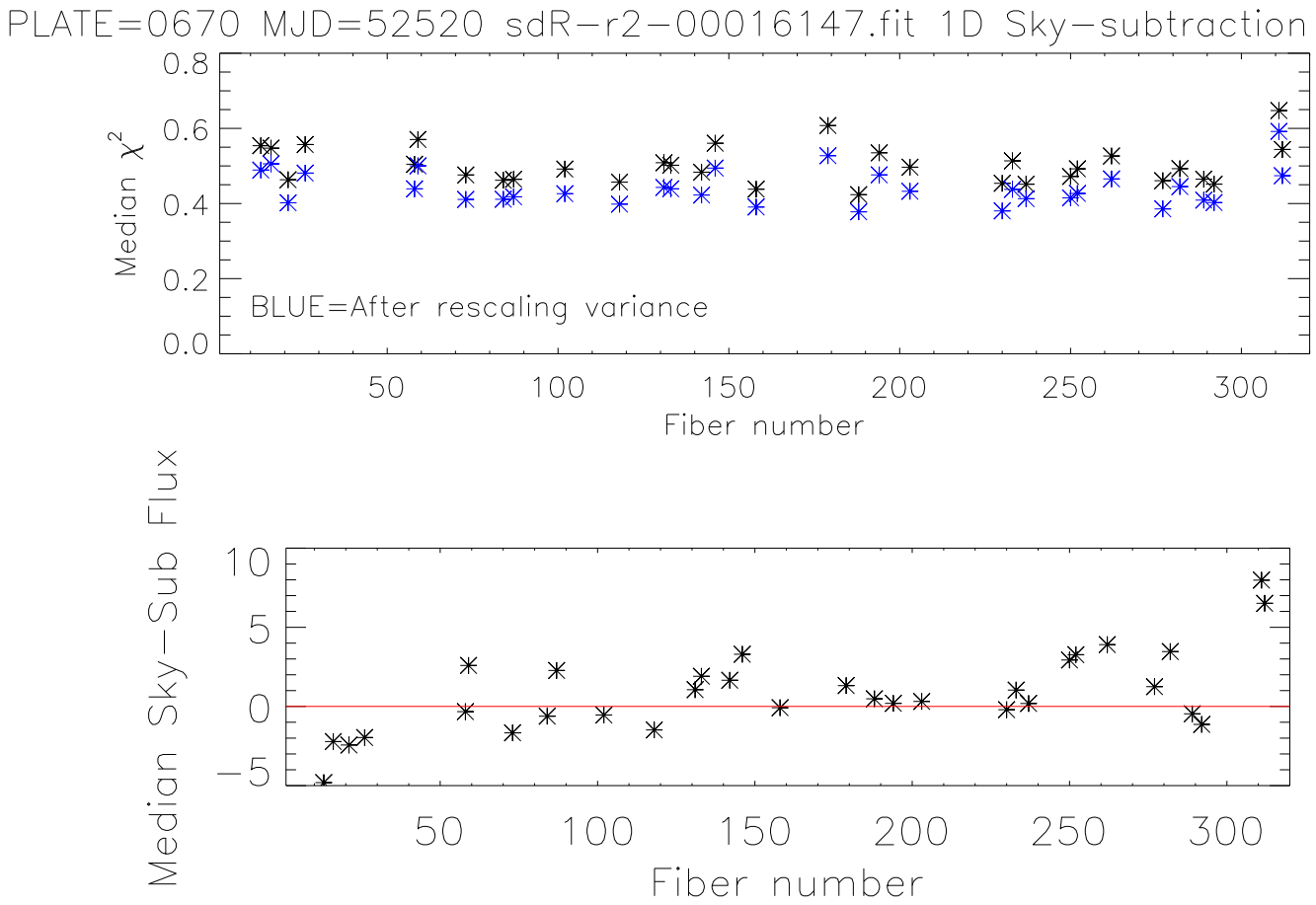

8919.6100
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

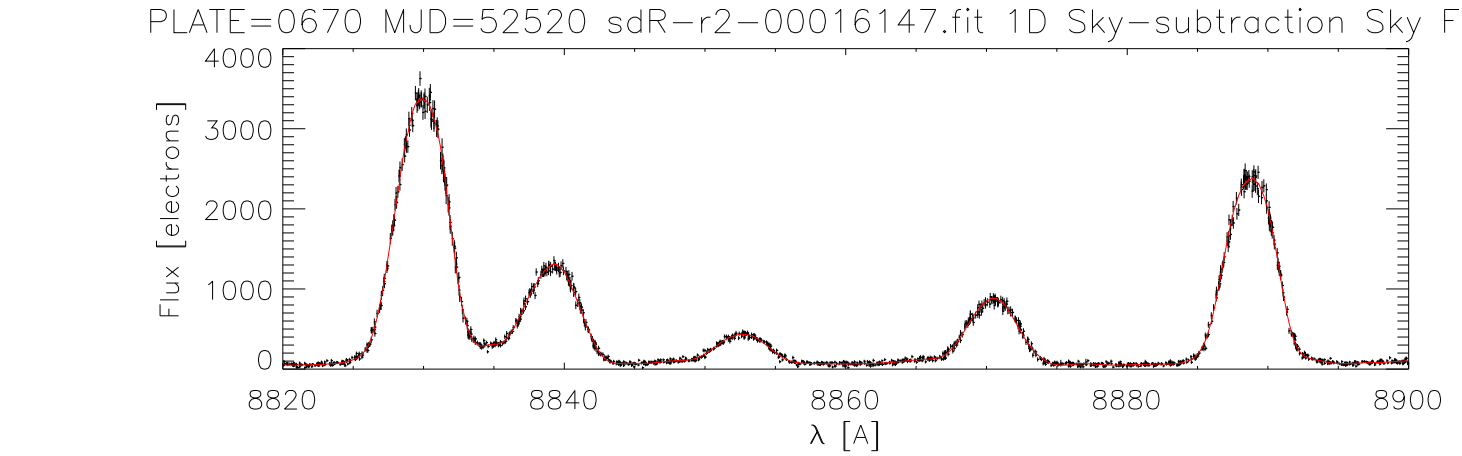

6300.3040
stdev 0.022
extra 0.13
6363.7760
stdev 0.037
extra 0.17
6553.6100
stdev 0.056
extra 0.16
6923.2100
stdev 0.043
extra 0.17
6949.0300
stdev 0.045
extra 0.21
7571.7500
stdev 0.042
extra 0.20
7794.1200
stdev 0.022
extra 0.06
7821.5100
stdev 0.024
extra 0.11
8399.1600
stdev 0.020
extra 0.13
8430.1700
stdev 0.021
extra 0.13
8885.8300
stdev 0.023
extra 0.13
8919.6100
stdev 0.026
extra 0.13
meas − pred, pix

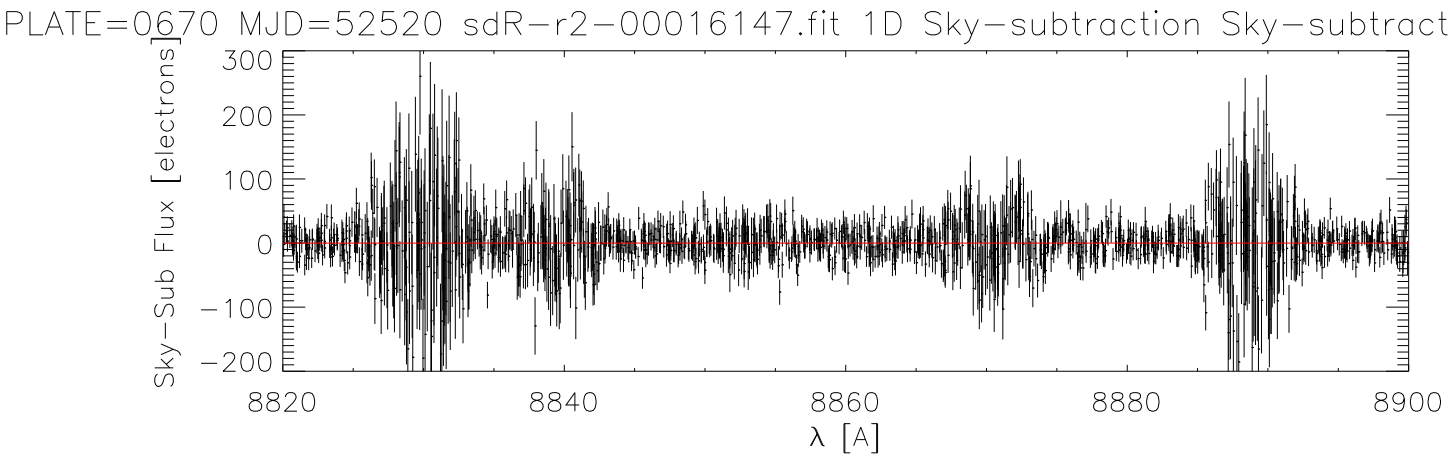

0.20
0.15
0.10
sky shift, pixels
5000
6000
7000
8000
9000
10000

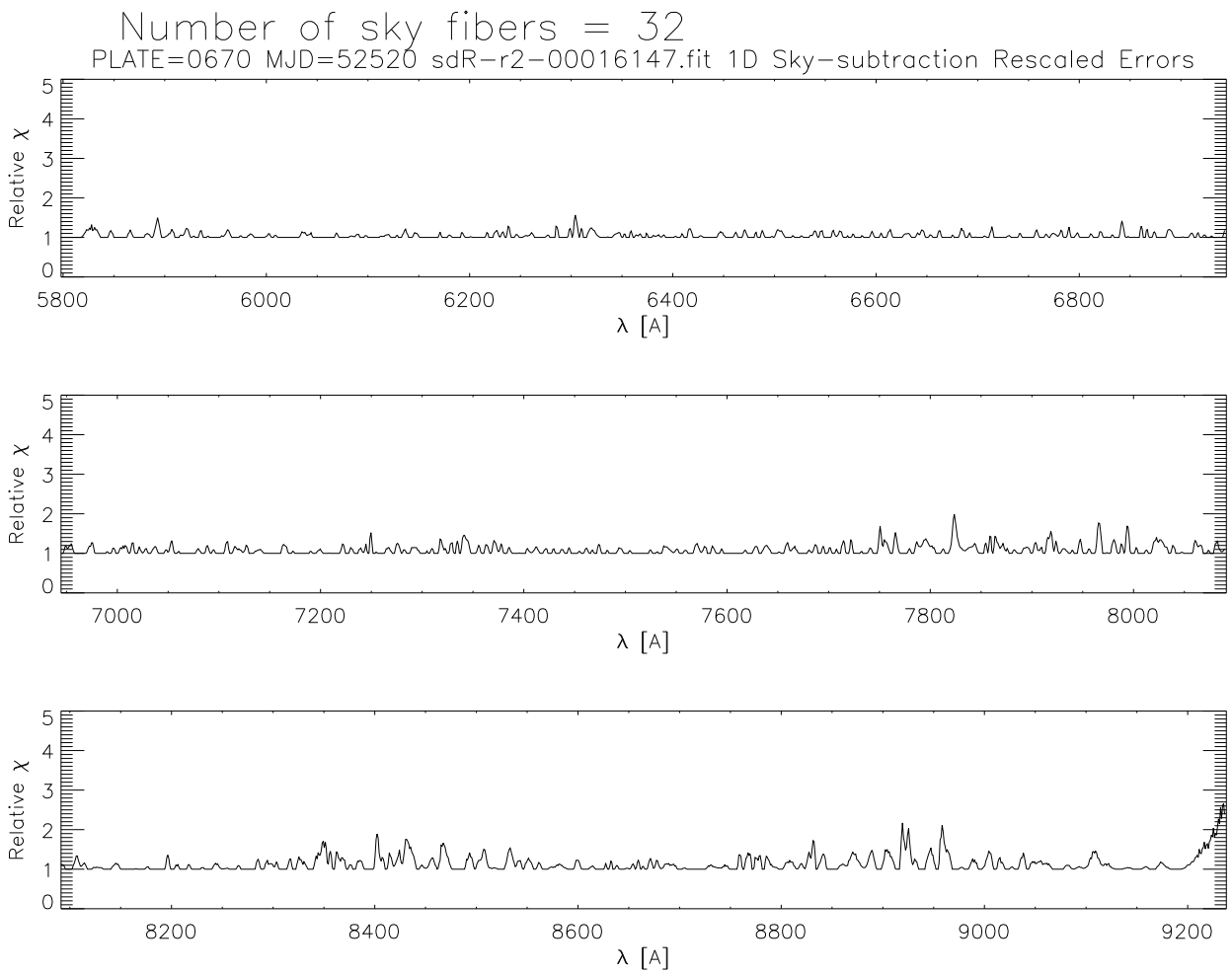
es= −0.0000

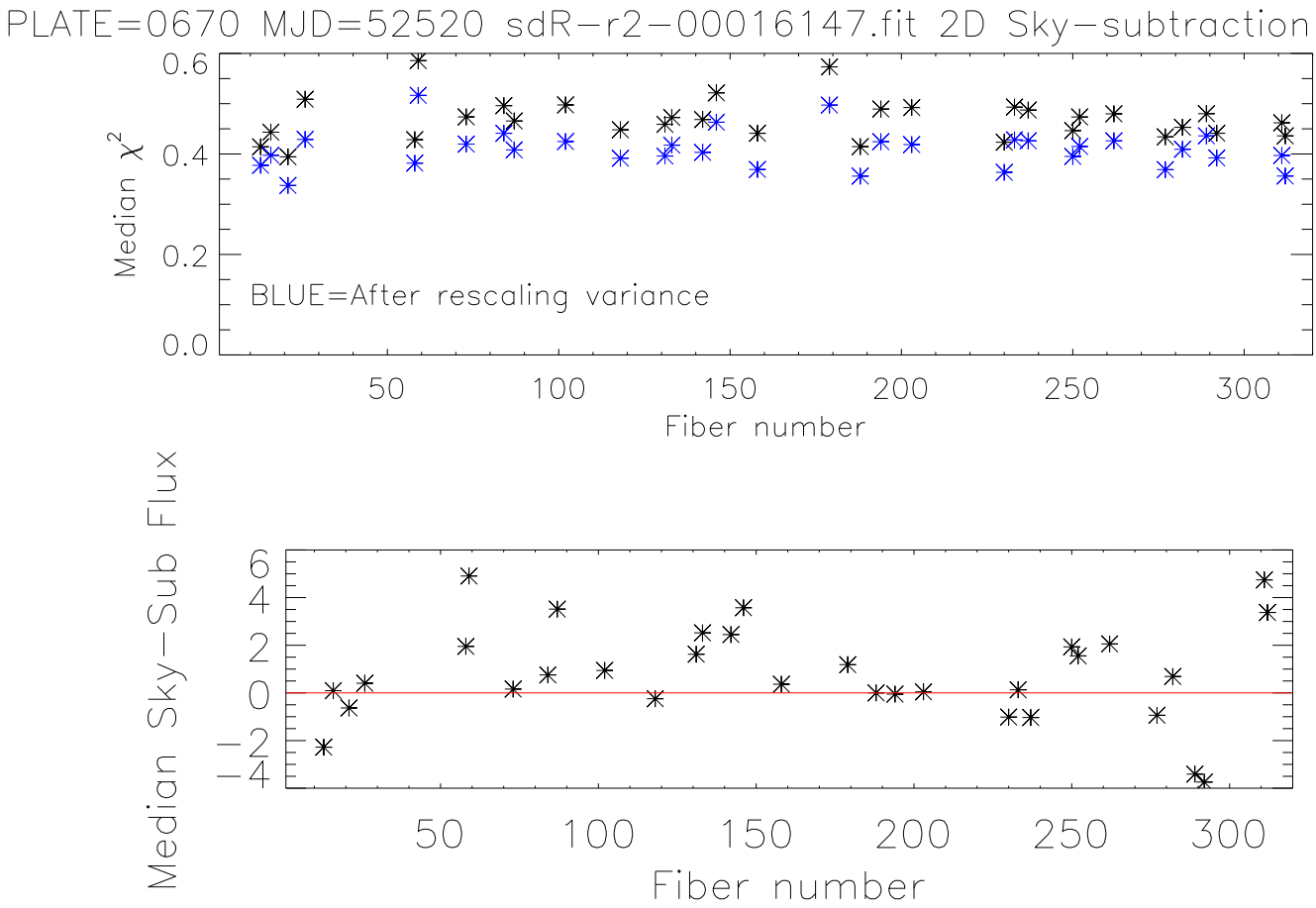

PLATE=0670 MJD=52520 Smooth superflat for sdR−r2−00016147.fit
2.0
1.5
1.0
0.5
0.0
1.02
1.01
1.00
0.99
0.98
6000
7000
8000
9000
Wavelength (Å)

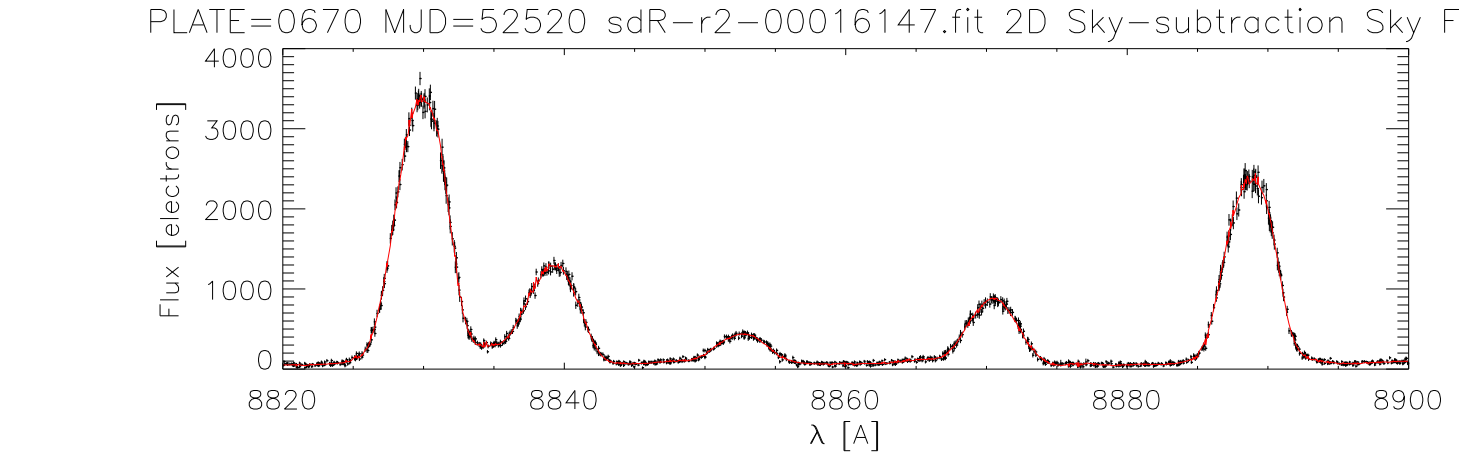

PLATE=0670 MJD=52520 sdR-r2-00016147.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
-5
50
100
150
200
250
300
Fiber number

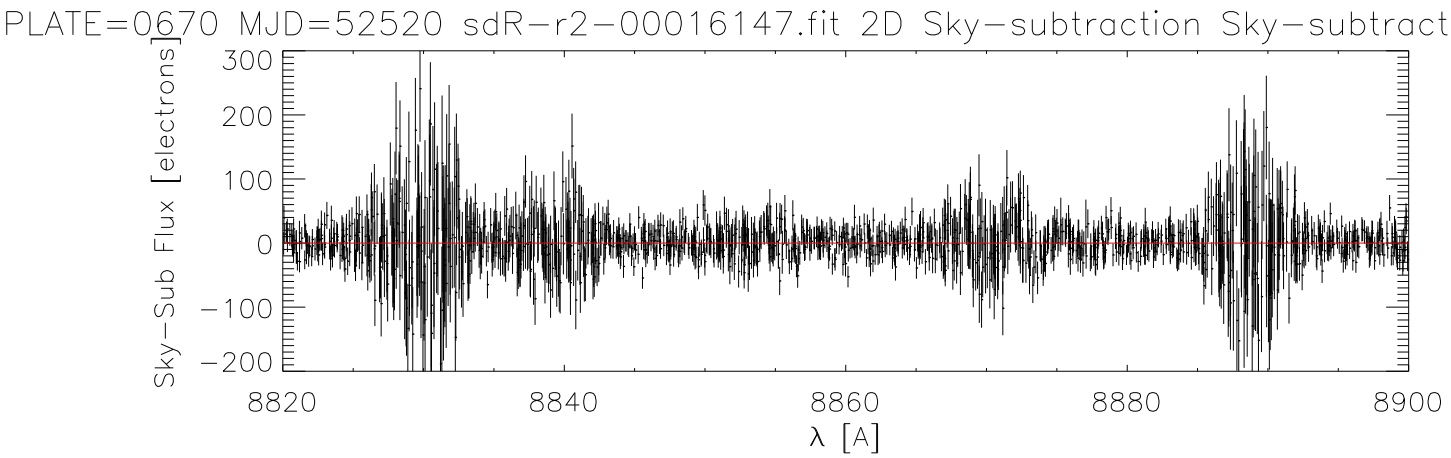

PLATE=0670 MJD=52520 sdR-r2-00016147.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

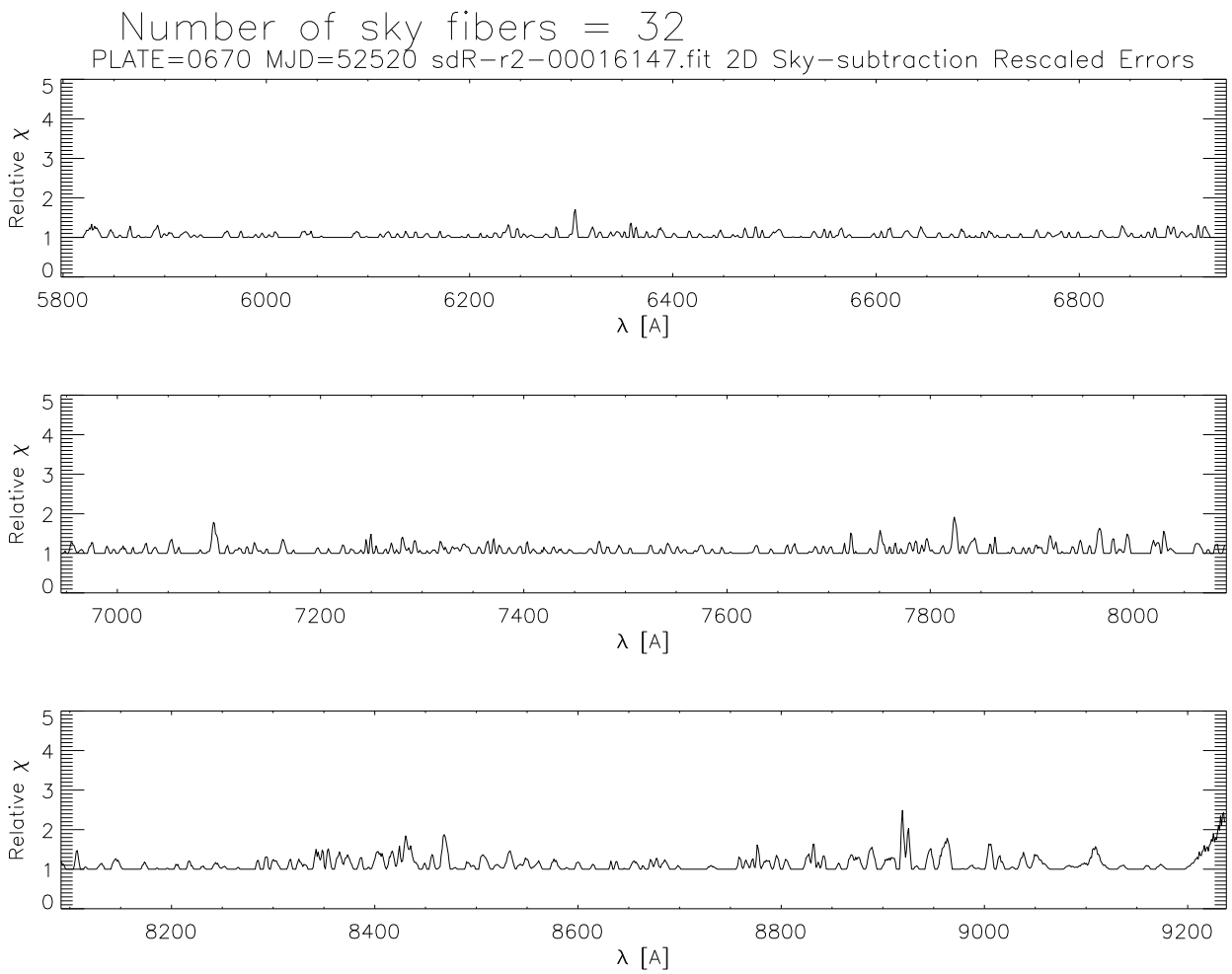

PLATE=0670 MJD=52520 sdR-r2-00016147.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
8820
8840
8860
8880
8900
λ [A]

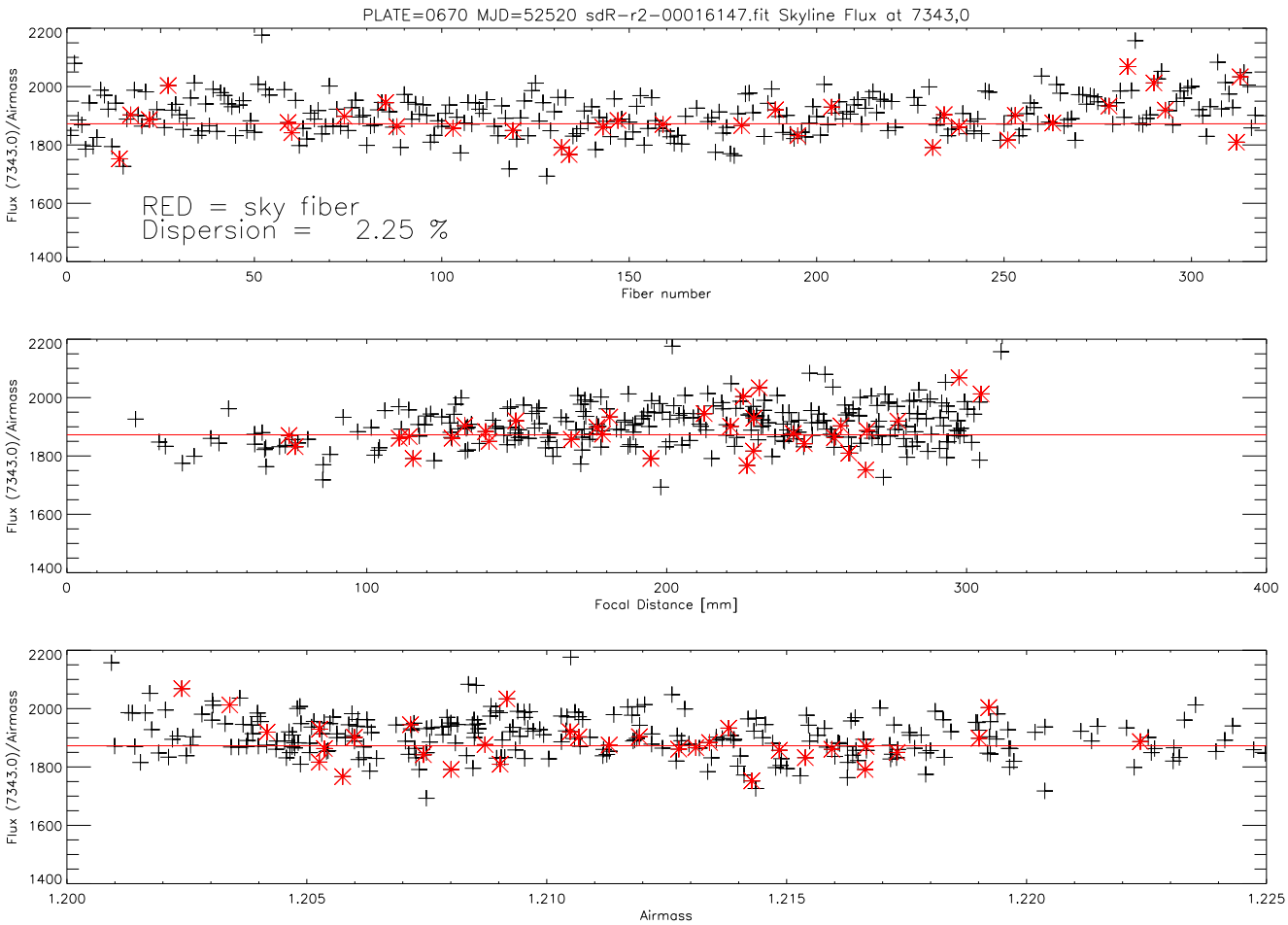

Number of sky fibers = 32
PLATE=0670 MJD=52520 sdR-r2-00016147.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

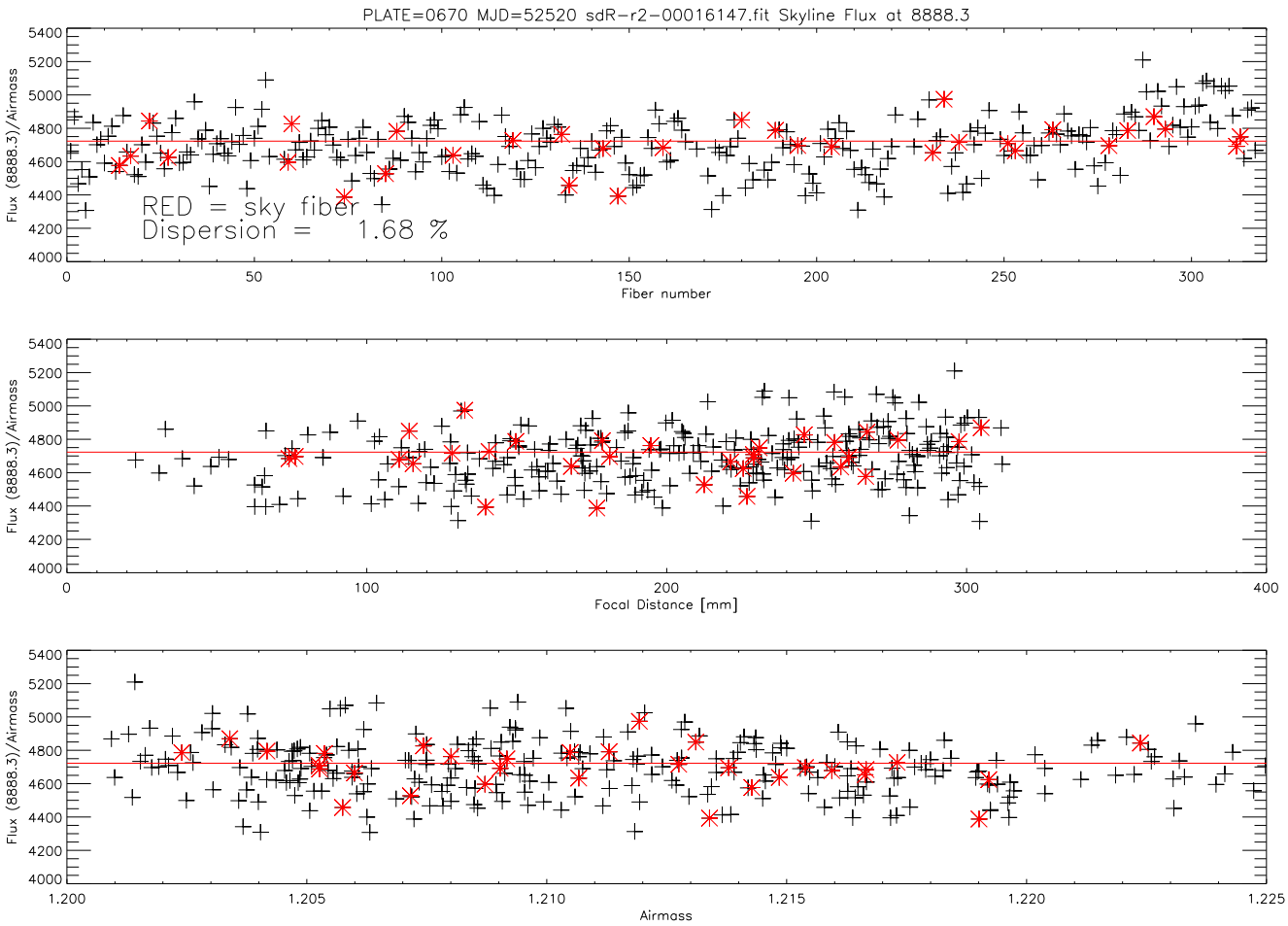

PLATE=0670 MJD=52520 sdR-r2-00016147.fit 2D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-4
-2
0
2
4
6
50
100
150
200
250
300
Fiber number

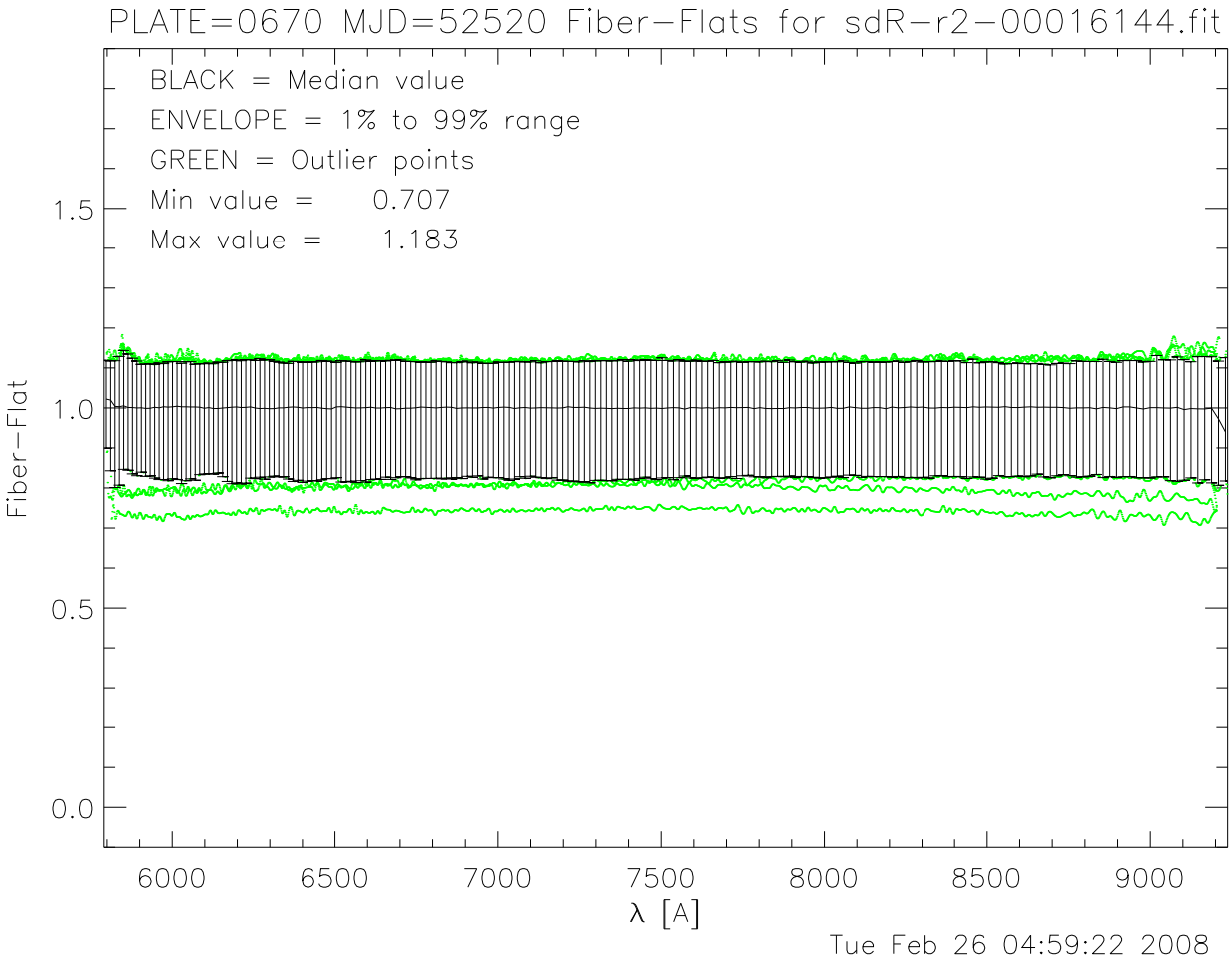

PLATE=0670 MJD=52520 sdR-r2-00016147.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

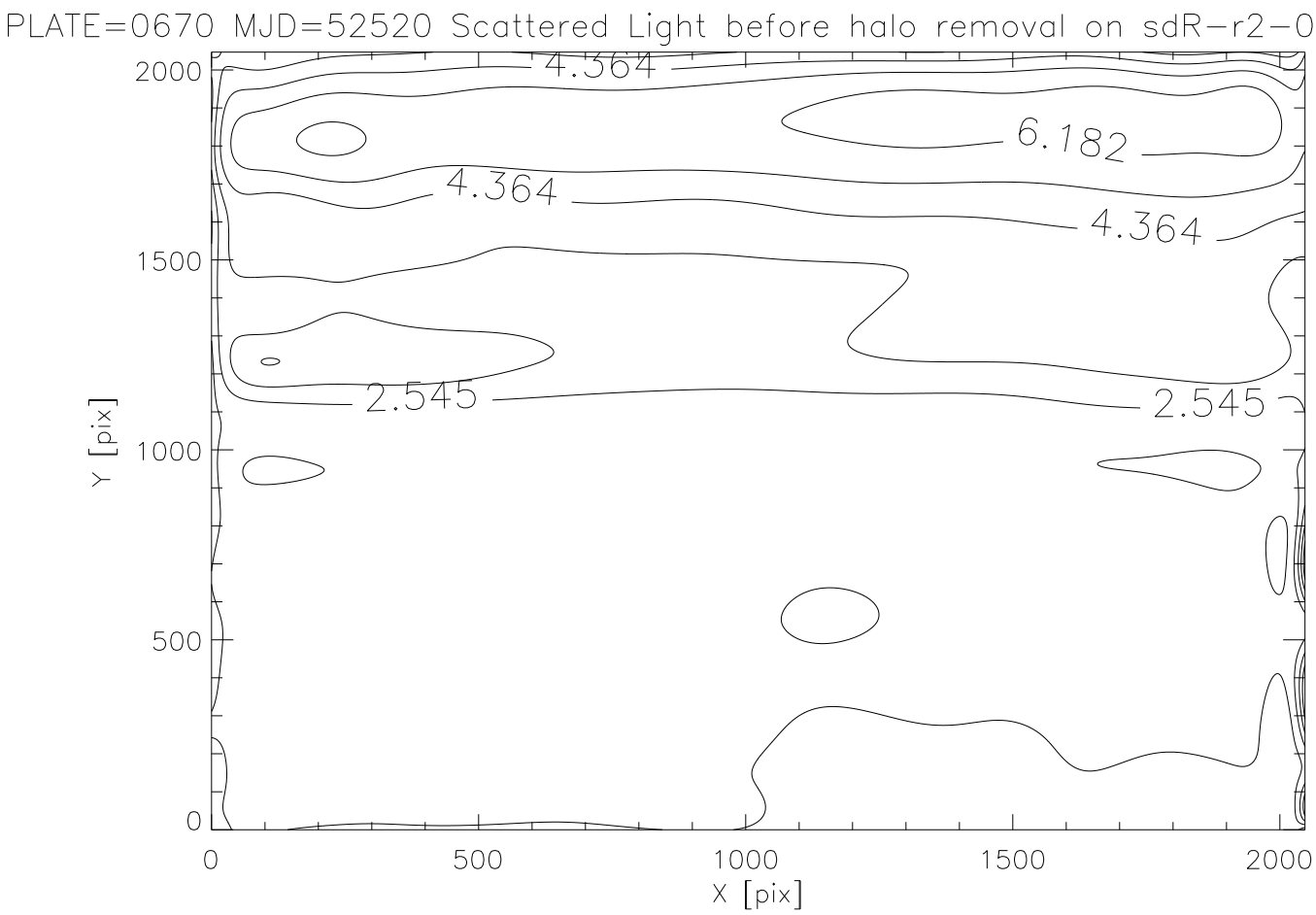

PLATE=0670 MJD=52520 sdR-r2-00016147.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
8820
8840
8860
8880
8900
λ [A]

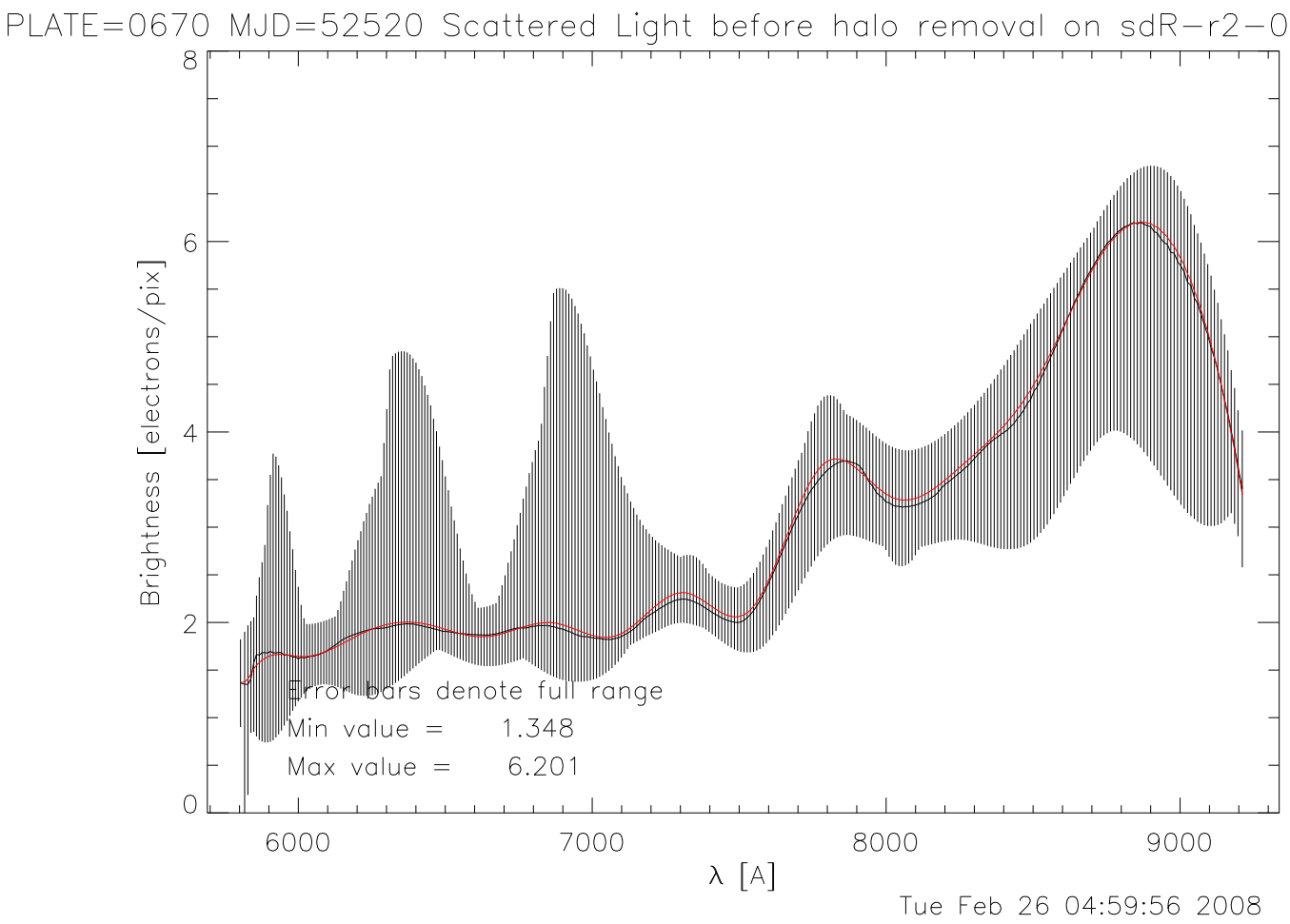

Number of sky fibers = 32
PLATE=0670 MJD=52520 sdR-r2-00016147.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

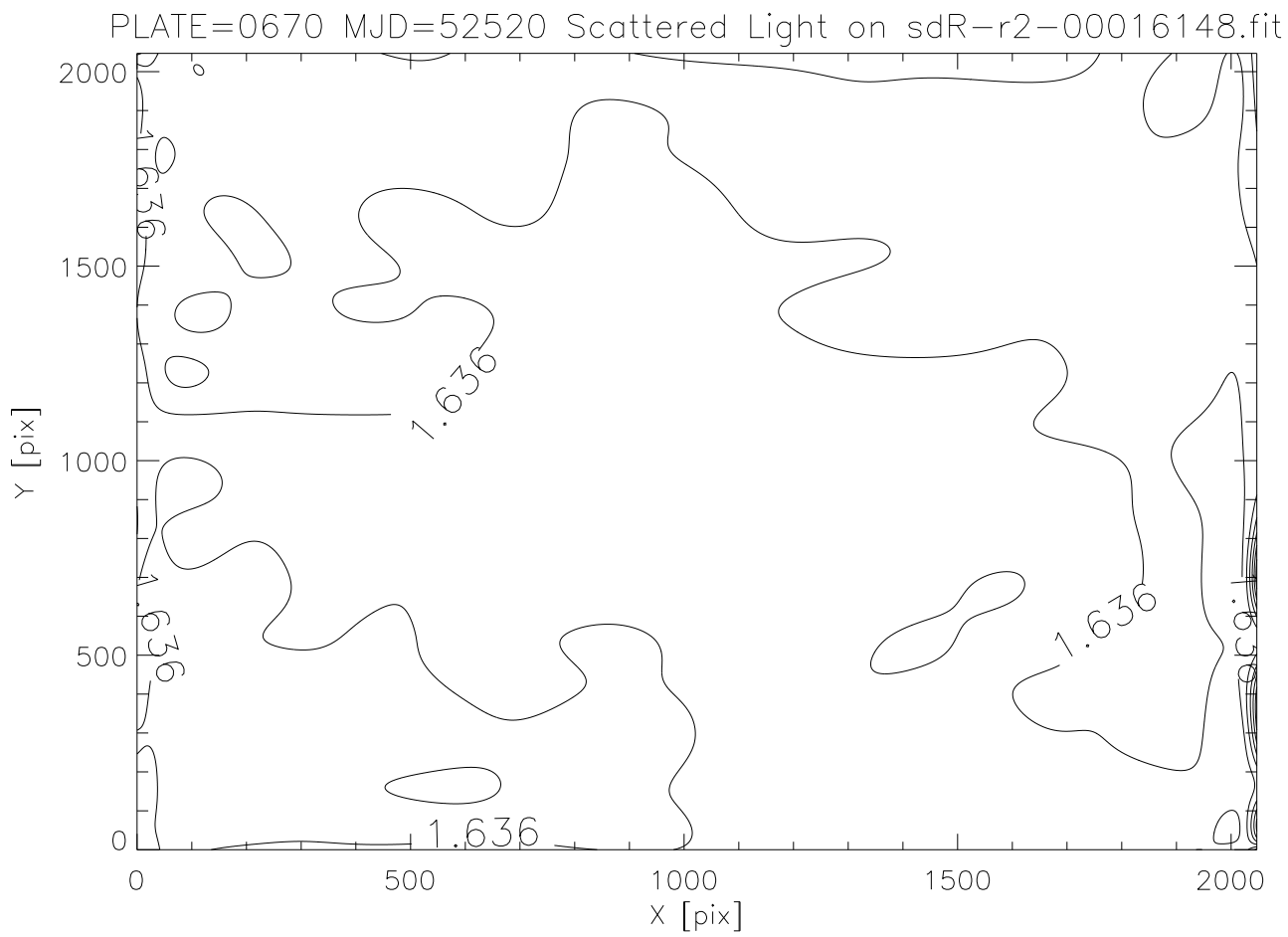

PLATE=0670 MJD=52520 sdR-r2-00016147.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 2.25 %
Fiber number
Focal Distance [mm]
Airmass

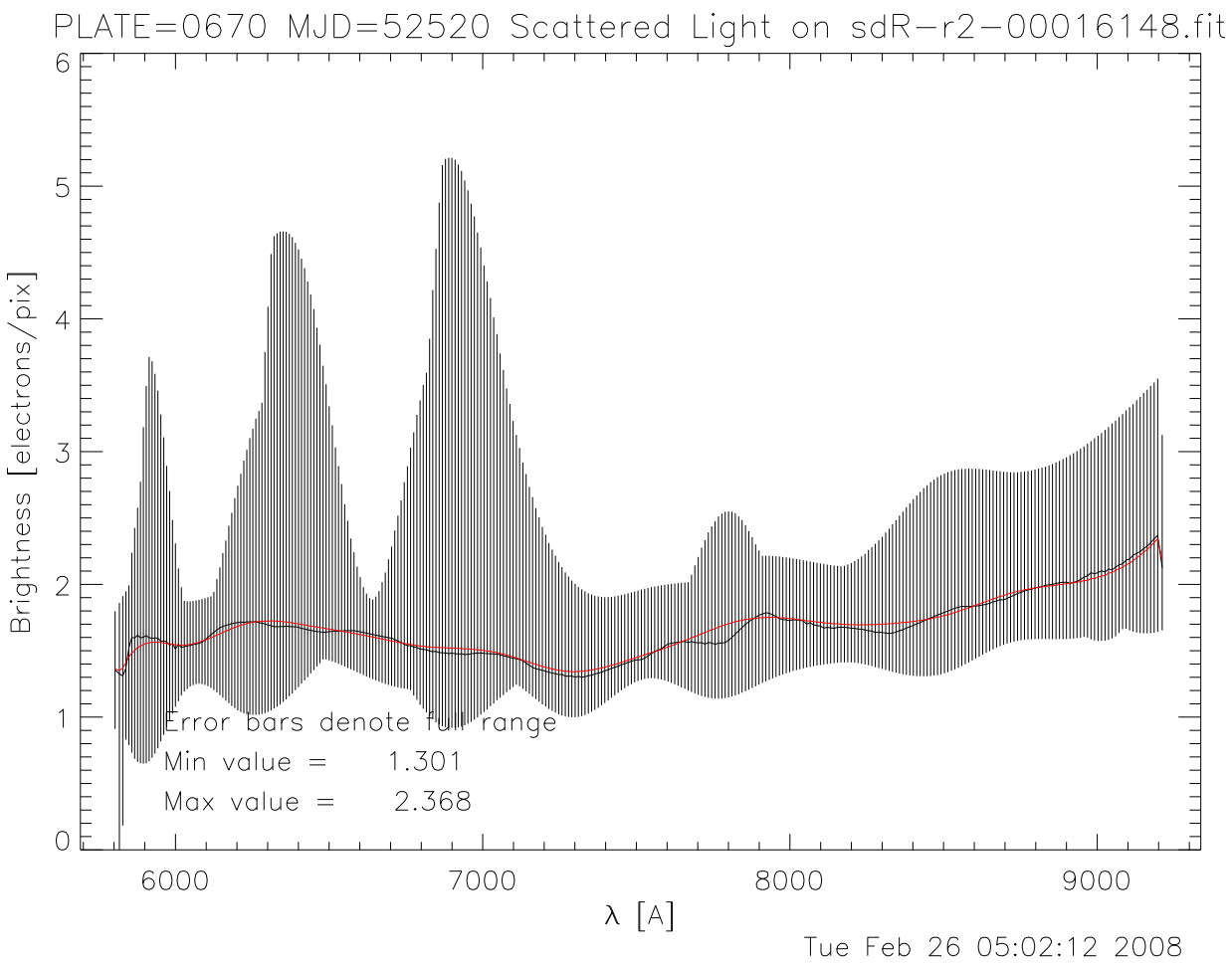

PLATE=0670 MJD=52520 sdR-r2-00016147.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber +
Dispersion = 1.68 %
Fiber number
Focal Distance [mm]
Airmass

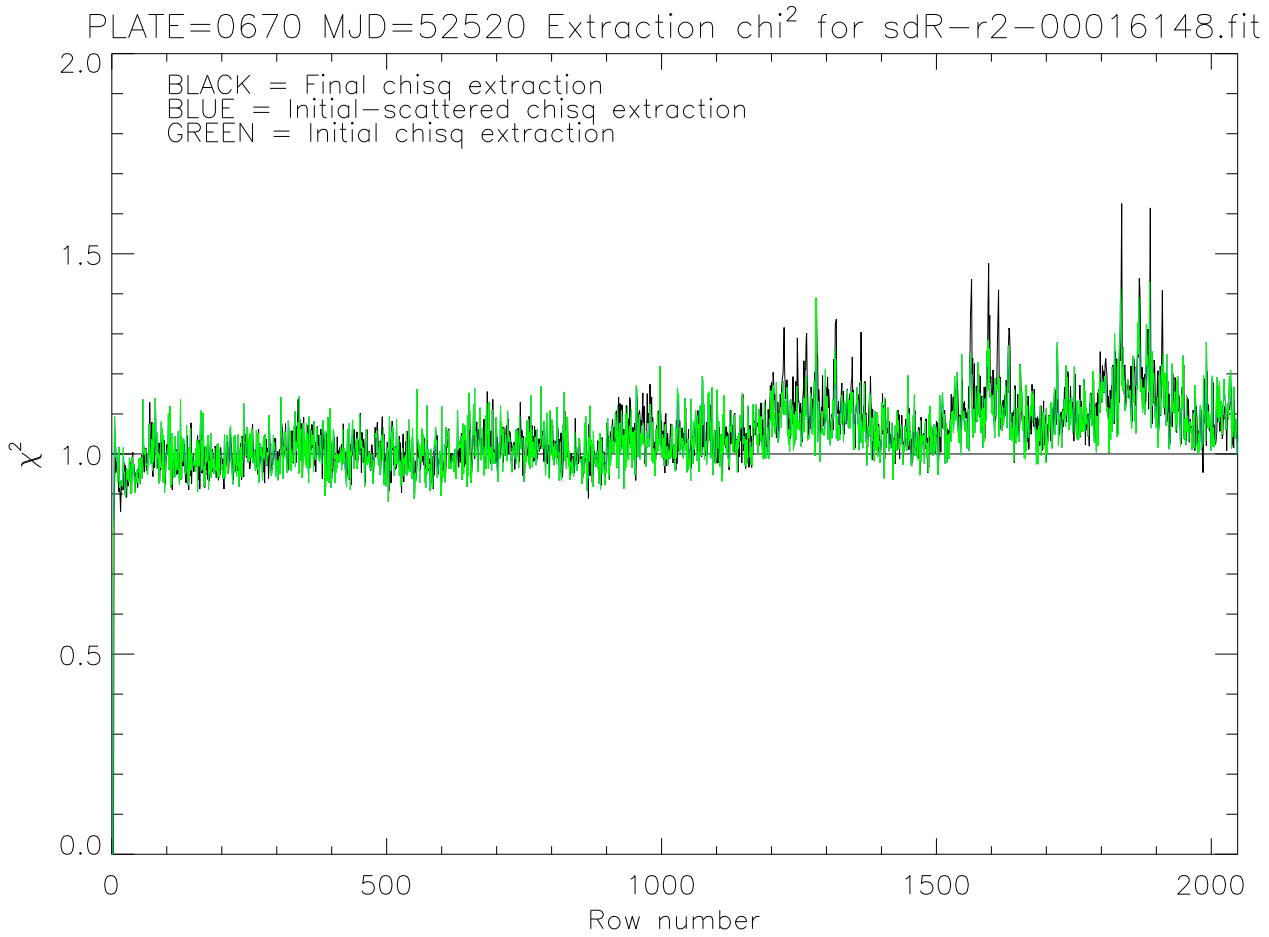

PLATE=0670 MJD=52520 Fiber-Flats for sdR-r2-00016144.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.707
Max value = 1.183
Fiber-Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Tue Feb 26 04:59:22 2008

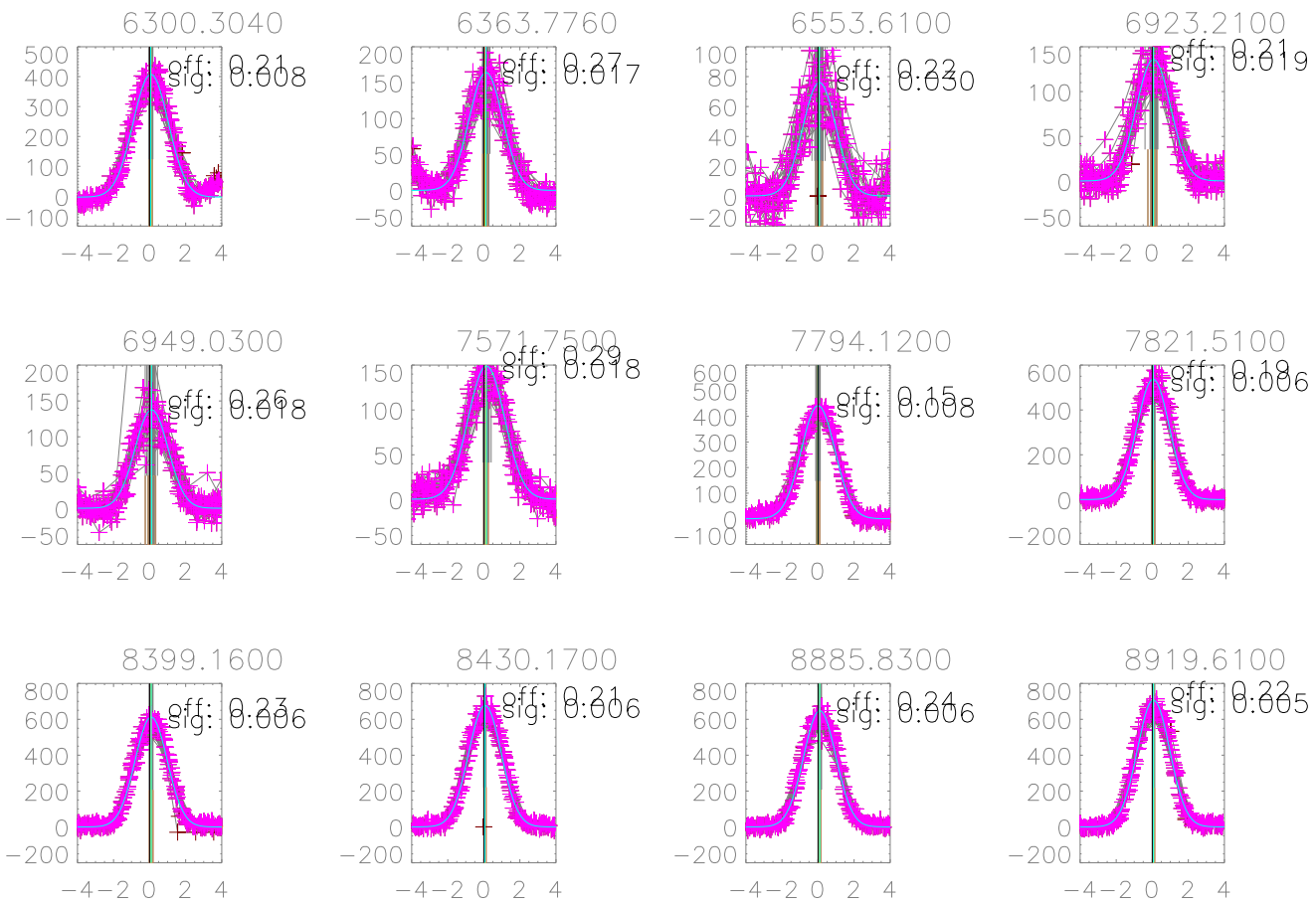

PLATE=0670 MJD=52520 Scattered Light before halo removal on sdR-r2-00016148.fi
4.364
6.182
4.364
4.364
2.545
2.545
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]

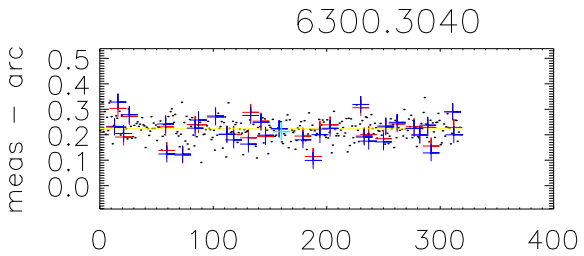

PLATE=0670 MJD=52520 Scattered Light before halo removal on sdR-r2-00016148.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 1.348
Max value = 6.201
Tue Feb 26 04:59:56 2008

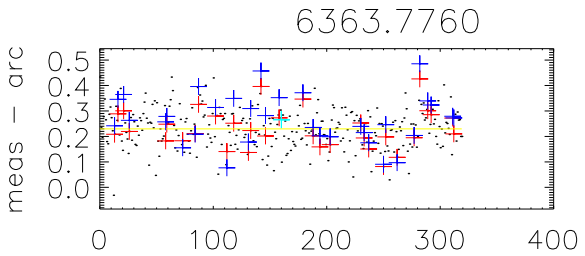

PLATE=0670 MJD=52520 Scattered Light on sdR-r2-00016148.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
1.636

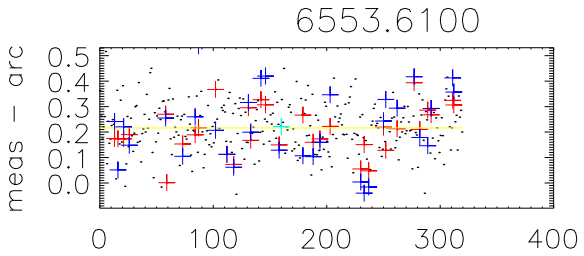

PLATE=0670 MJD=52520 Scattered Light on sdR-r2-00016148.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 1.301
Max value = 2.368
Tue Feb 26 05:02:12 2008

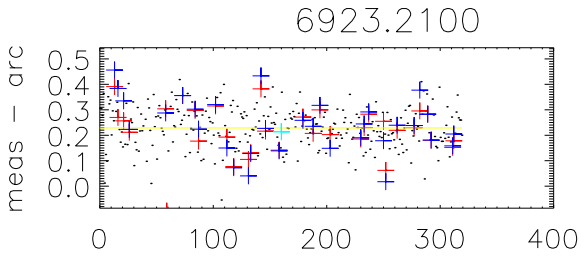

PLATE=0670 MJD=52520 Extraction chi^2 for sdR−r2−00016148.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
2.0
1.5
1.0
0.5
0.0
0
500
1000
1500
2000
Row number

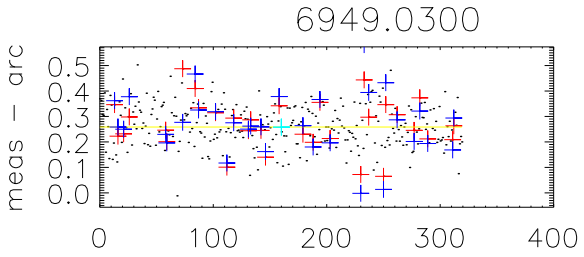

6300.3040
off: 0.21
sig: 0.008
6363.7760
off: 0.27
sig: 0.017
6553.6100
off: 0.22
sig: 0.030
6923.2100
off: 0.21
sig: 0.019
6949.0300
off: 0.26
sig: 0.018
7571.7500
off: 0.29
sig: 0.018
7794.1200
off: 0.15
sig: 0.008
7821.5100
off: 0.19
sig: 0.006
8399.1600
off: 0.23
sig: 0.006
8430.1700
off: 0.21
sig: 0.006
8885.8300
off: 0.24
sig: 0.006
8919.6100
off: 0.22
sig: 0.005

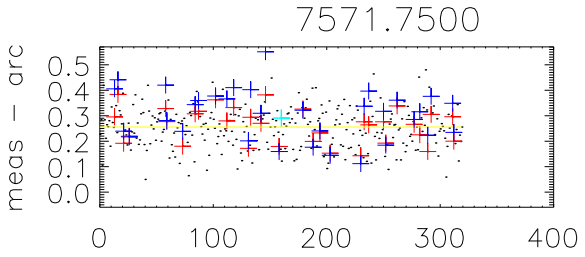

6300.3040
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

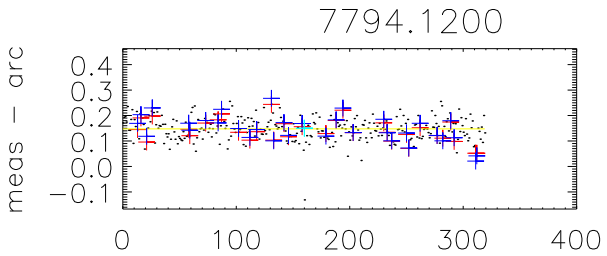

6363.7760
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

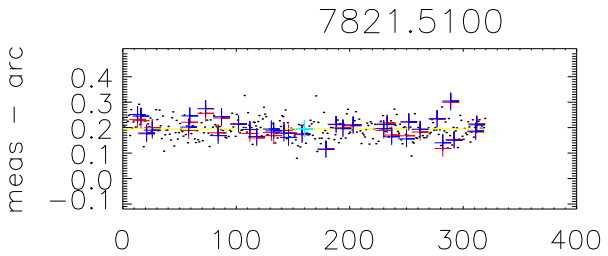

6553.6100
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

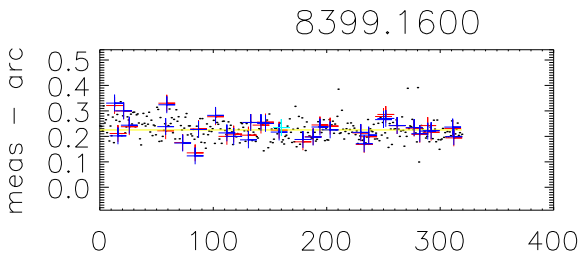

6923.2100
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

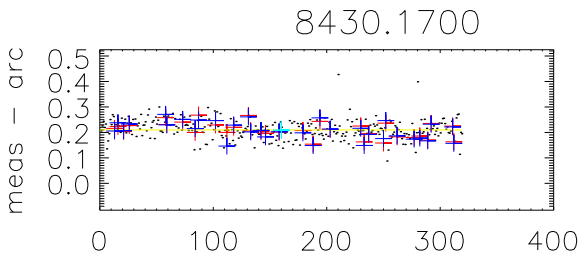

6949.0300
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

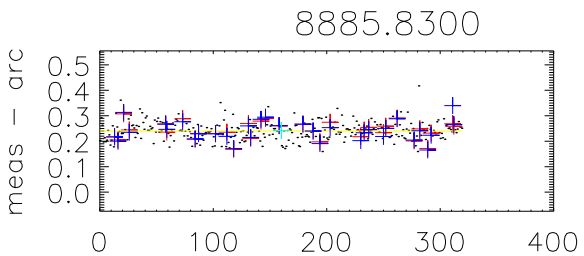

7571.7500
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

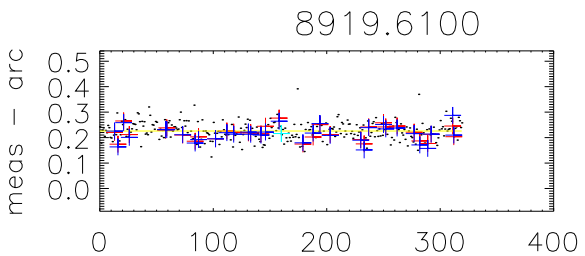

7794.1200
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

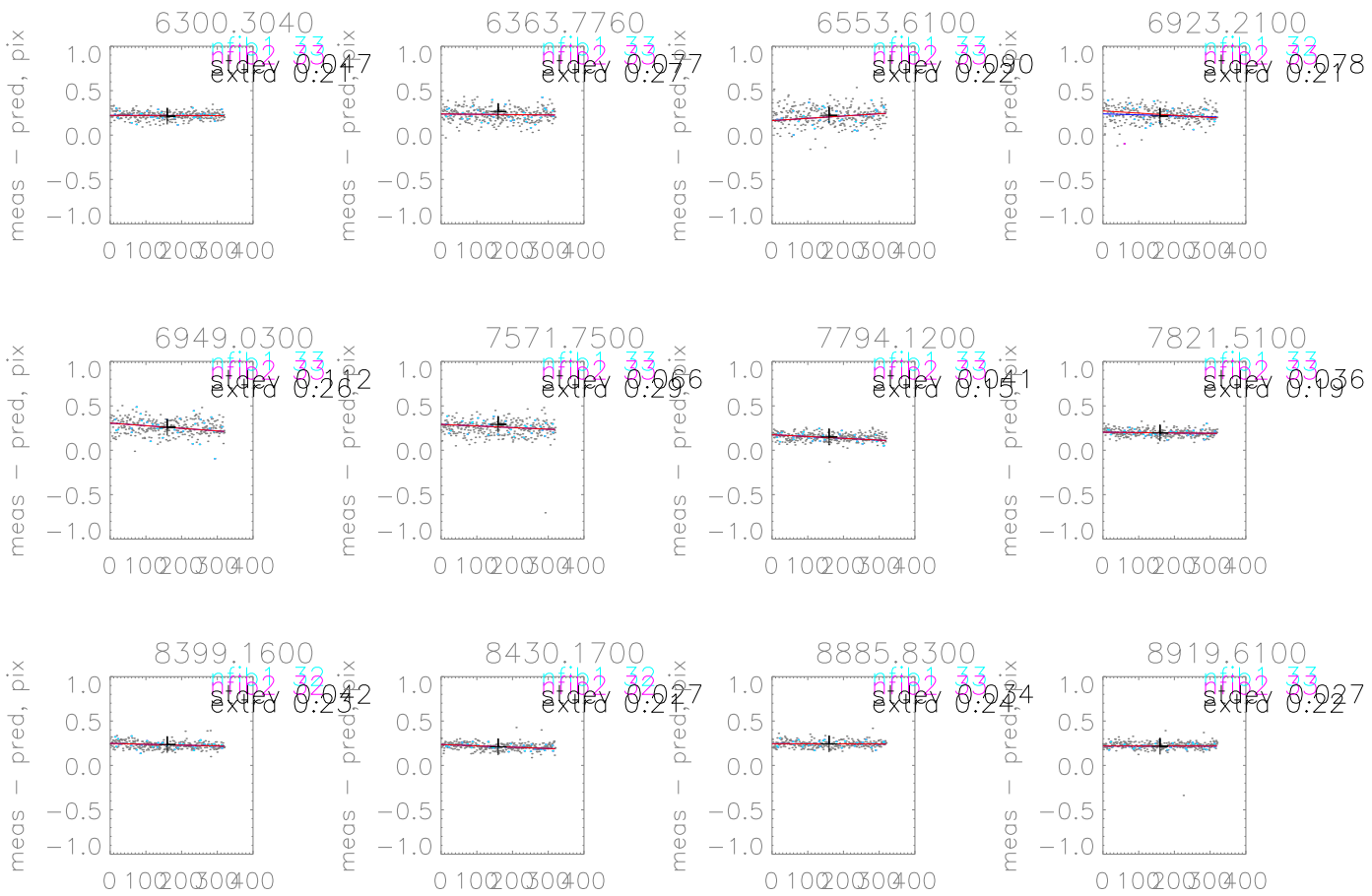

7821.5100
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

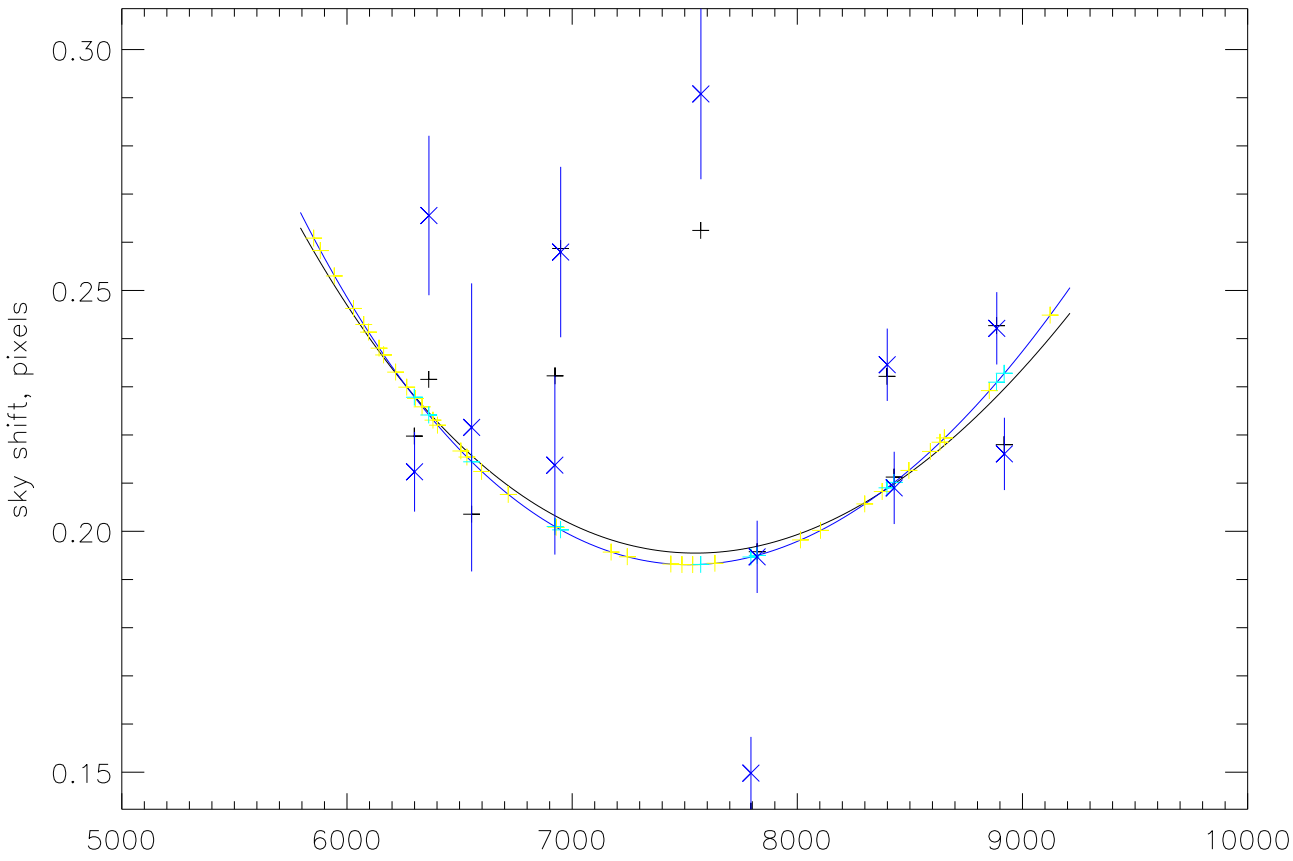

8399.1600
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400


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

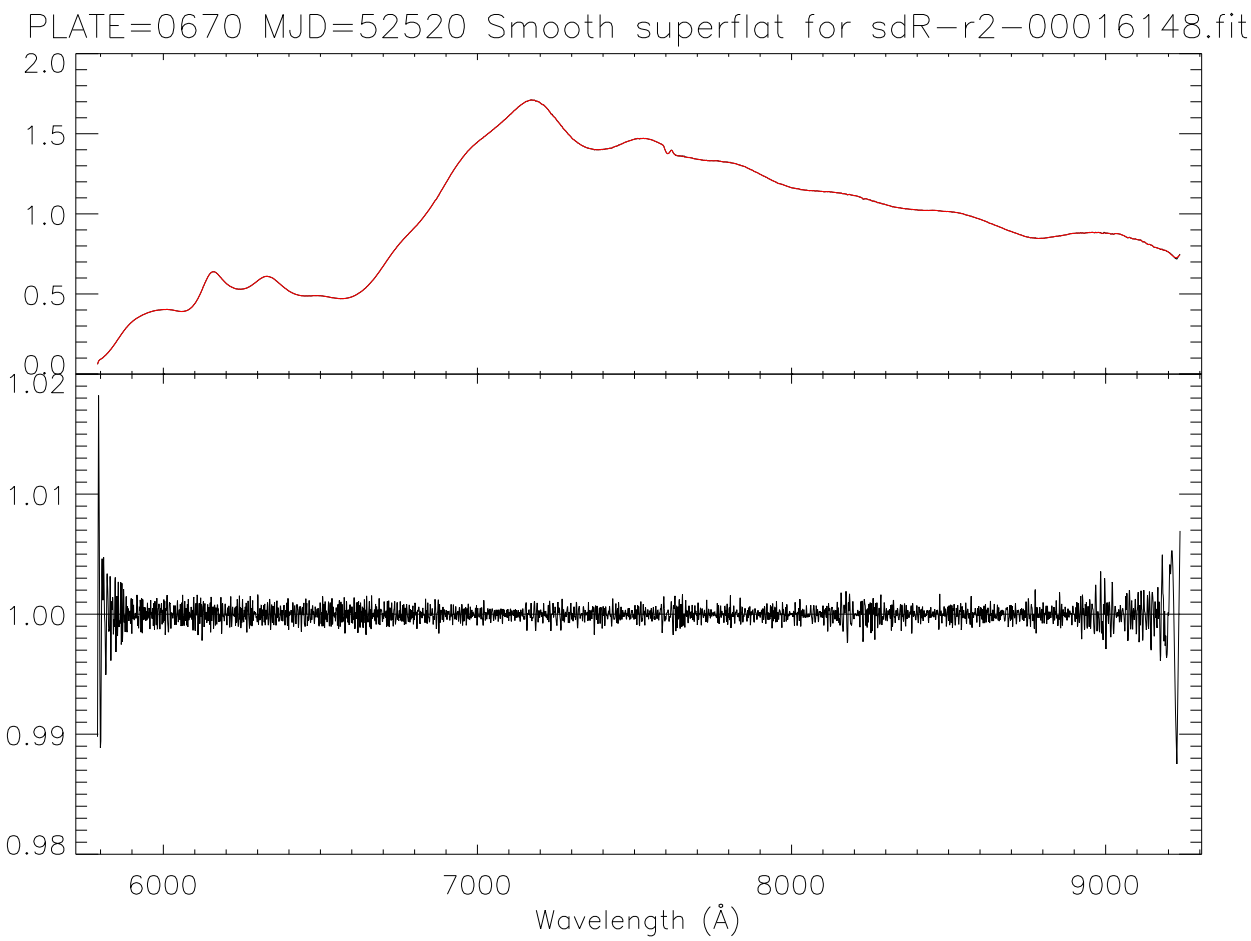

8885.8300
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

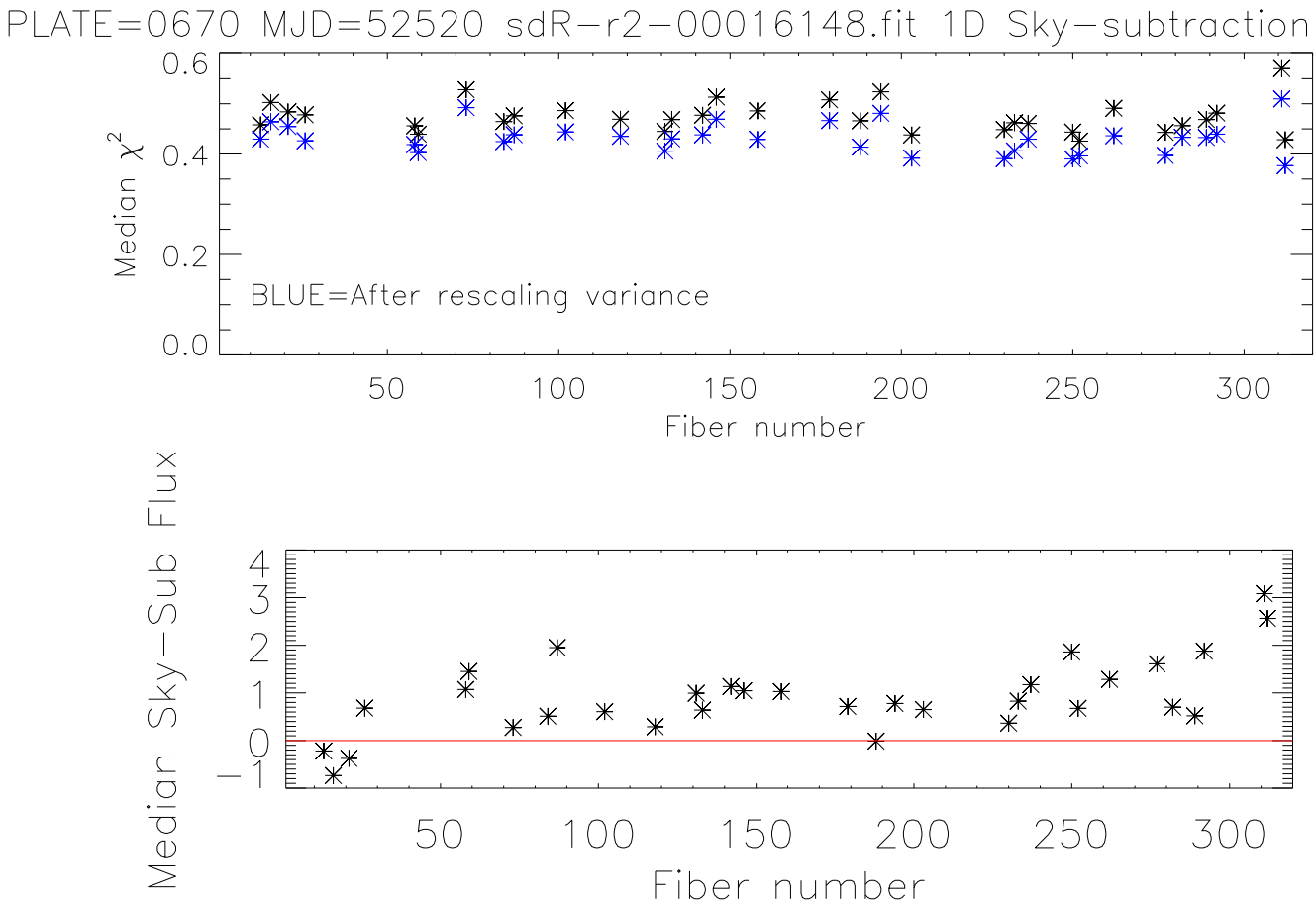

8919.6100
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

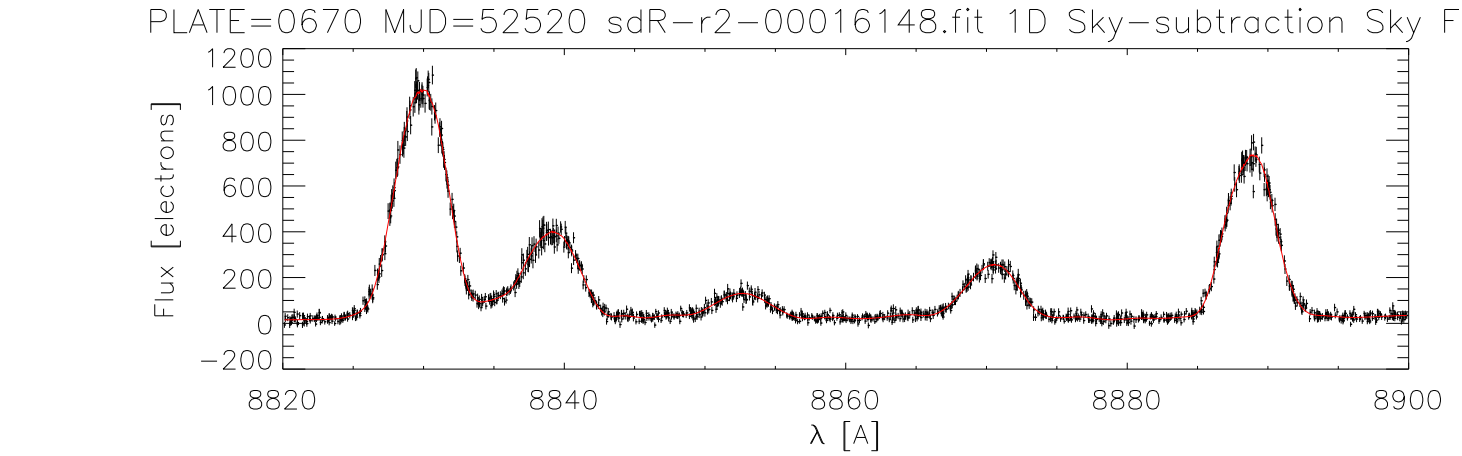

6300.3040
mfib1 33
mfib2 33
stdev 0.047
extra 0.21
6363.7760
mfib1 33
mfib2 33
stdev 0.077
extra 0.27
6553.6100
mfib1 33
mfib2 33
stdev 0.090
extra 0.22
6923.2100
mfib1 32
mfib2 33
stdev 0.078
extra 0.21
6949.0300
mfib1 33
mfib2 33
stdev 0.112
extra 0.26
7571.7500
mfib1 33
mfib2 33
stdev 0.066
extra 0.29
7794.1200
mfib1 33
mfib2 33
stdev 0.041
extra 0.15
7821.5100
mfib1 33
mfib2 33
stdev 0.036
extra 0.19
8399.1600
mfib1 32
mfib2 32
stdev 0.042
extra 0.23
8430.1700
mfib1 32
mfib2 32
stdev 0.027
extra 0.21
8885.8300
mfib1 33
mfib2 33
stdev 0.034
extra 0.24
8919.6100
mfib1 33
mfib2 33
stdev 0.027
extra 0.22
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

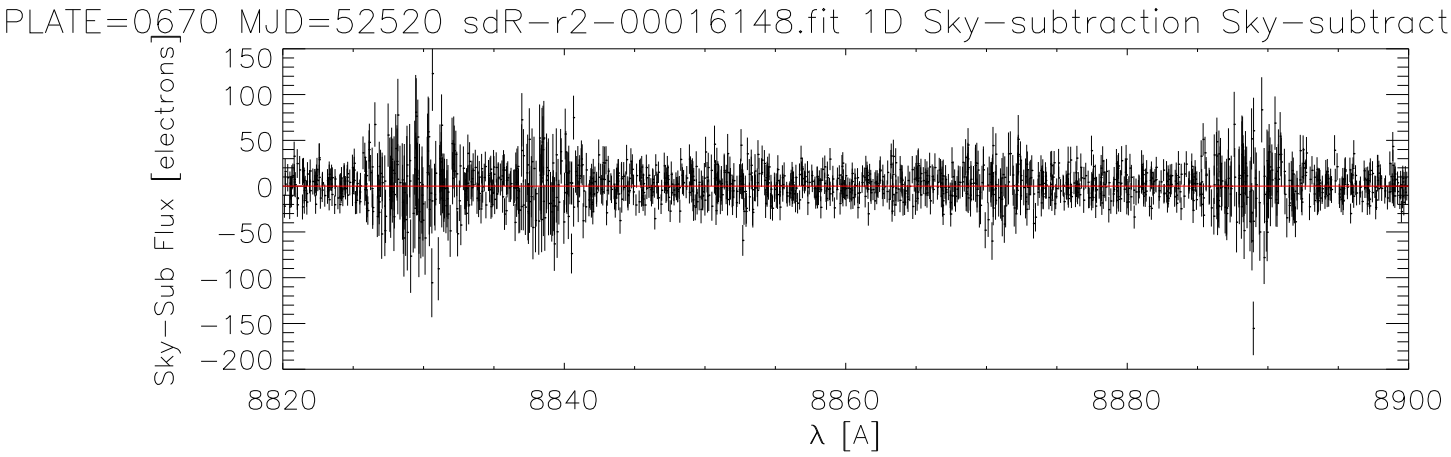

0.30
0.25
0.20
0.15
sky shift, pixels
5000
6000
7000
8000
9000
10000

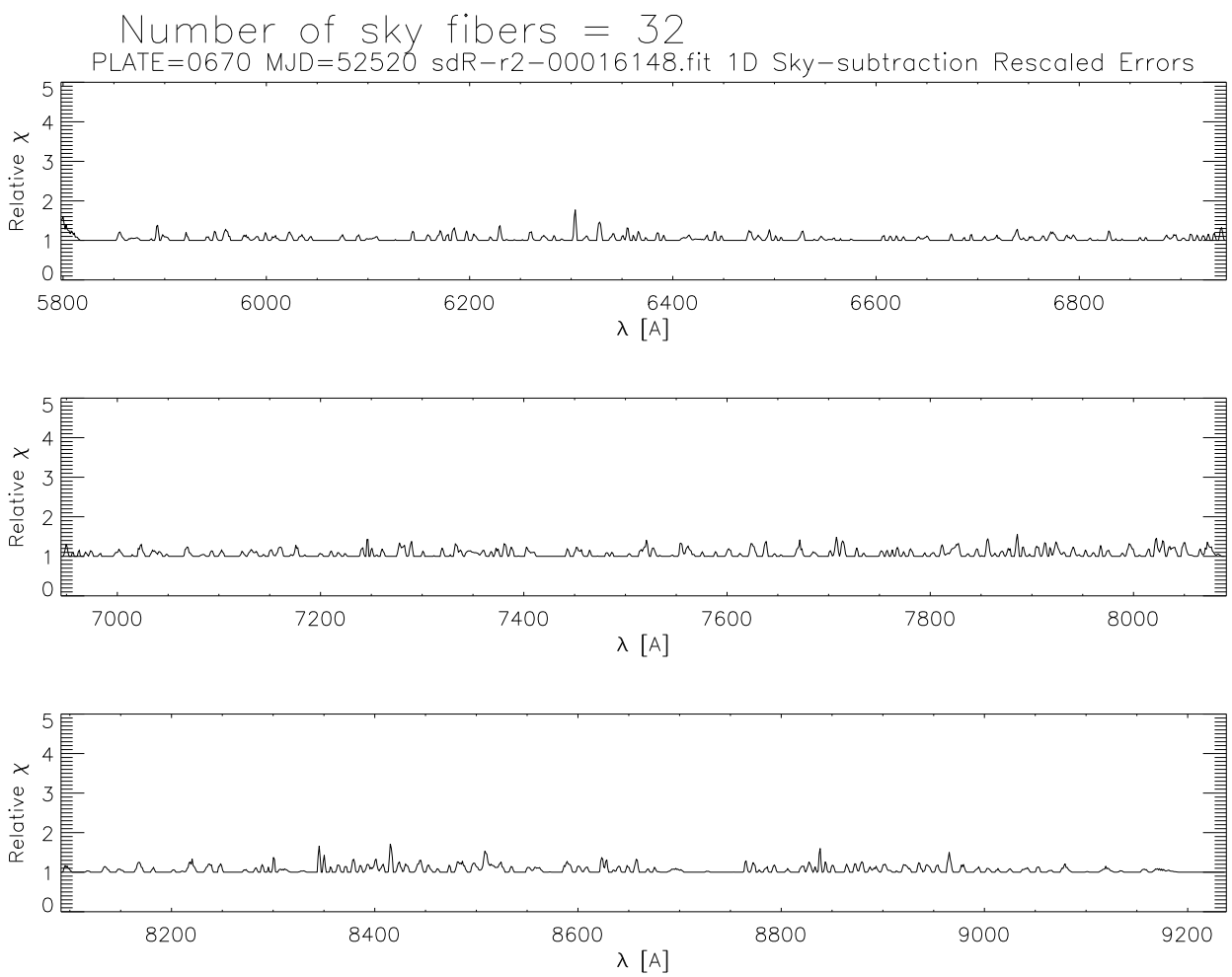
es= −0.0000

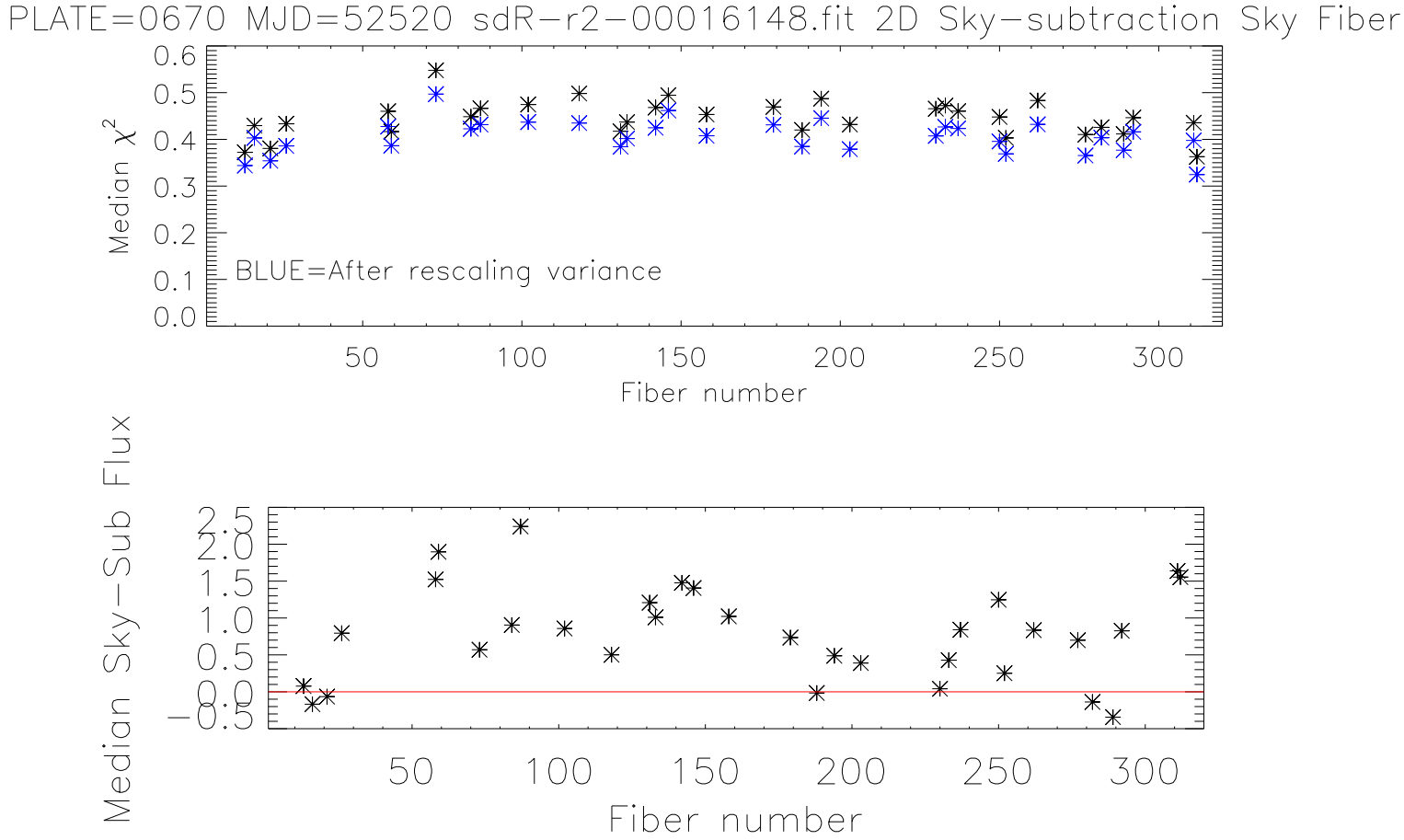

PLATE=0670 MJD=52520 Smooth superflat for sdR−r2−00016148.fit
2.0
1.5
1.0
0.5
0.0
1.02
1.01
1.00
0.99
0.98
6000
7000
8000
9000
Wavelength (Å)

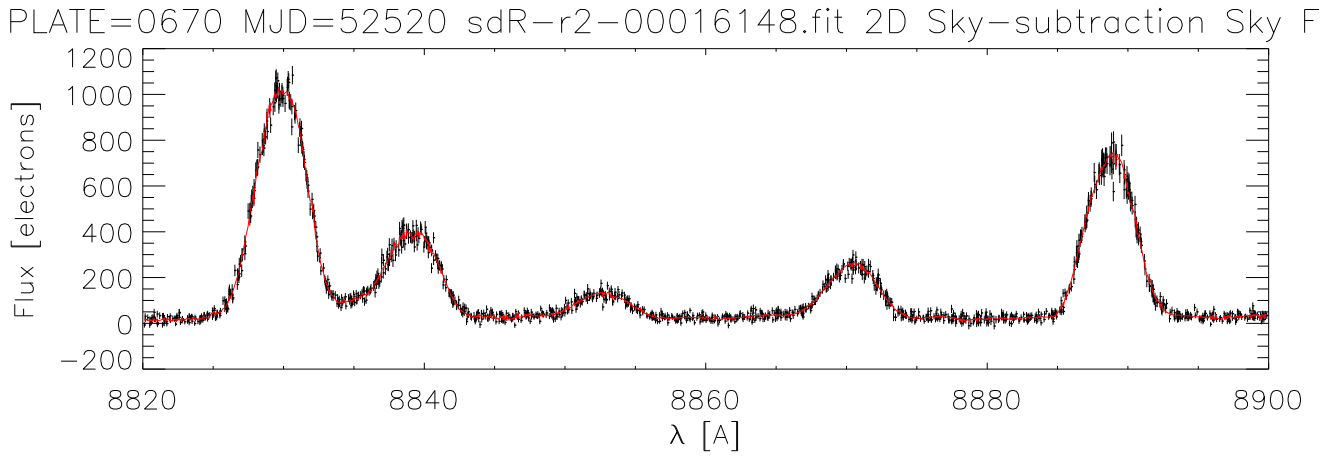

PLATE=0670 MJD=52520 sdR-r2-00016148.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
−1
0
1
2
3
4
50
100
150
200
250
300
Fiber number

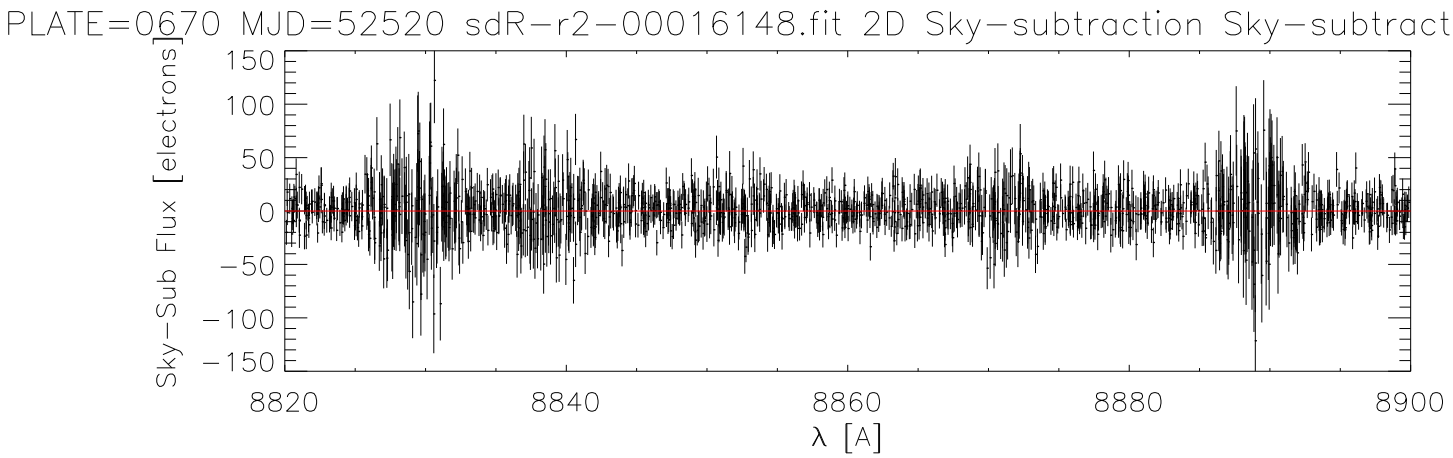

PLATE=0670 MJD=52520 sdR-r2-00016148.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
1200
1000
800
600
400
200
0
-200
8820
8840
8860
8880
8900
λ [A]

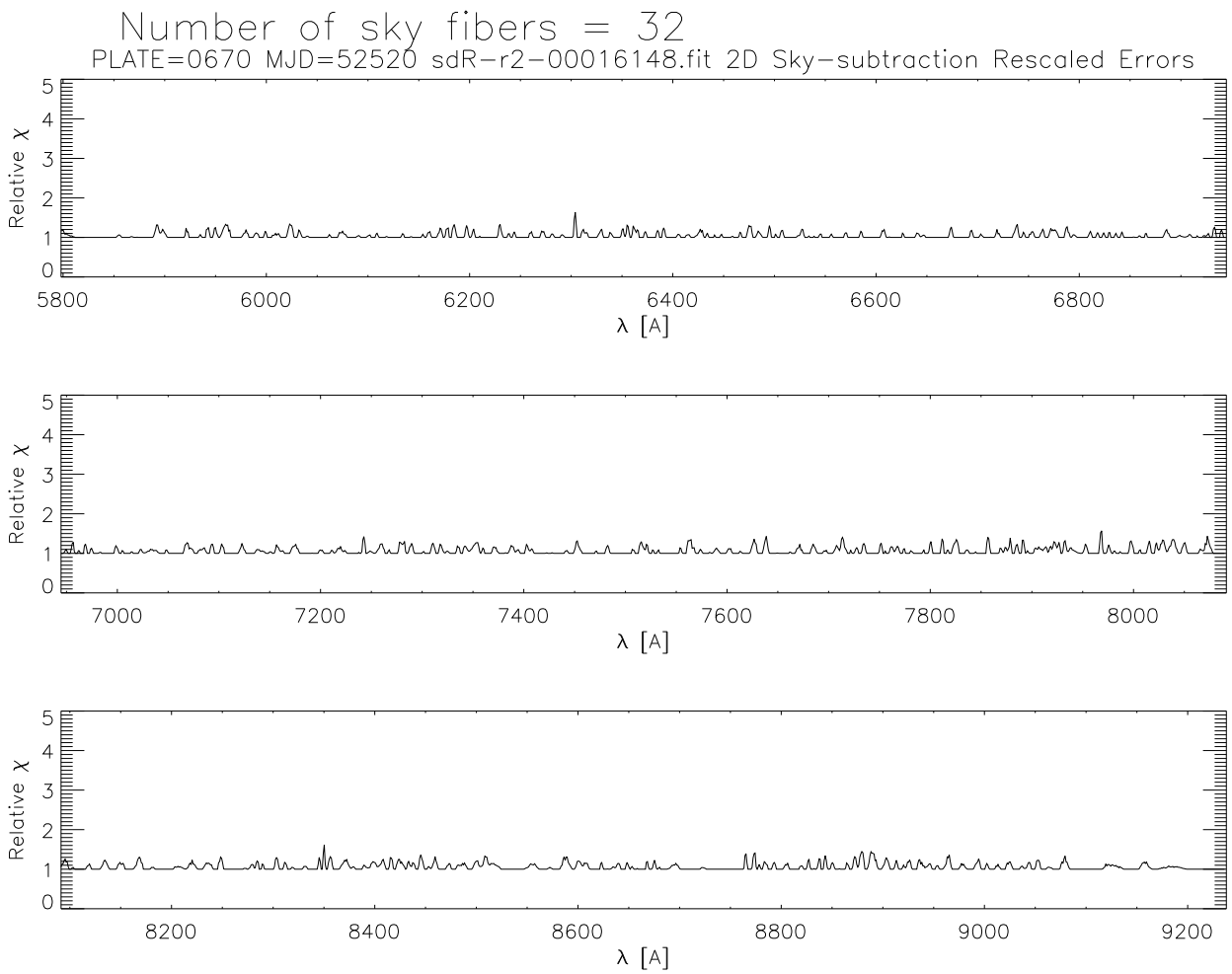

PLATE=0670 MJD=52520 sdR-r2-00016148.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
150
100
50
0
-50
-100
-150
-200
8820
8840
8860
8880
8900
λ [A]

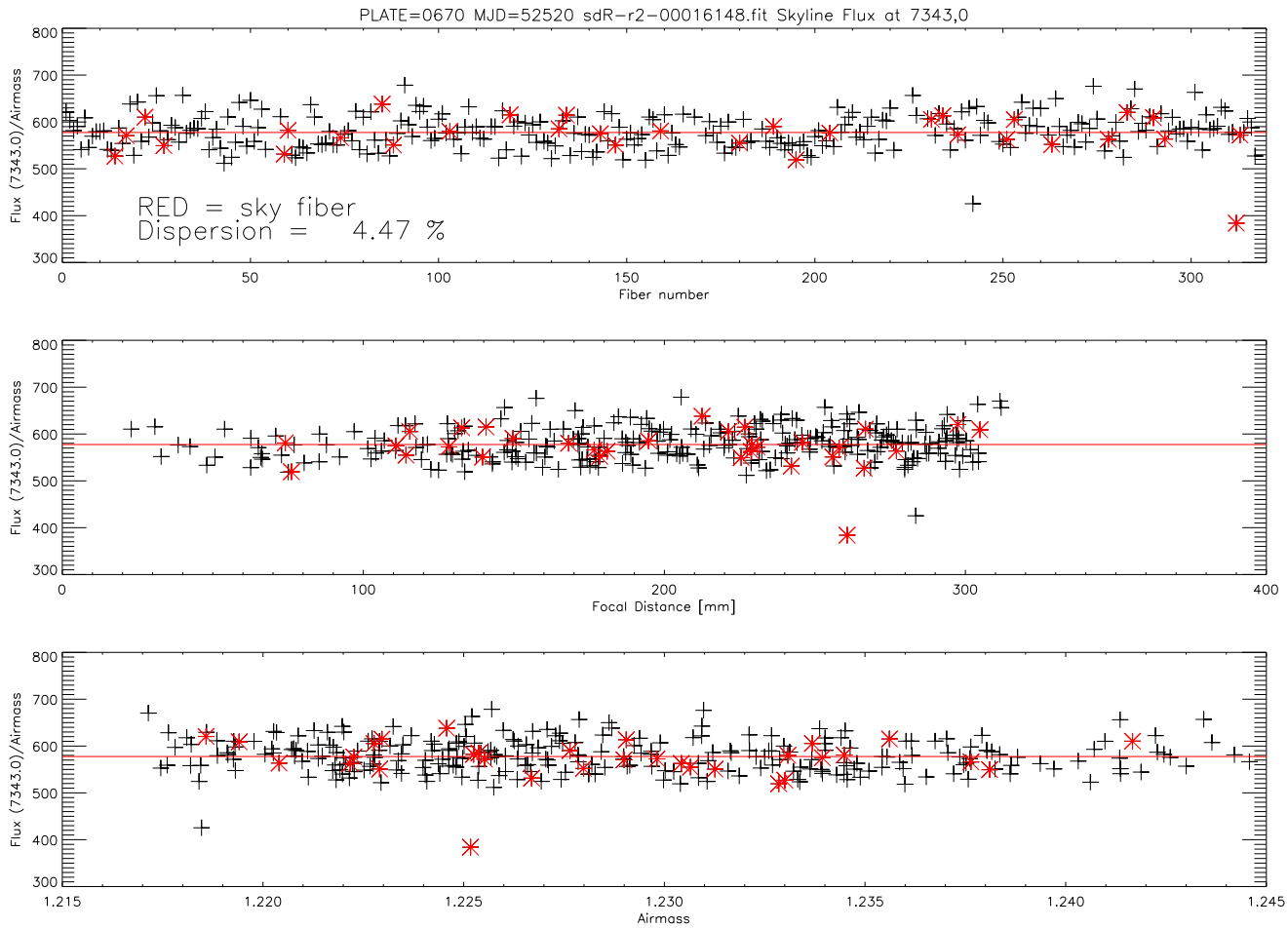

Number of sky fibers = 32
PLATE=0670 MJD=52520 sdR-r2-00016148.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

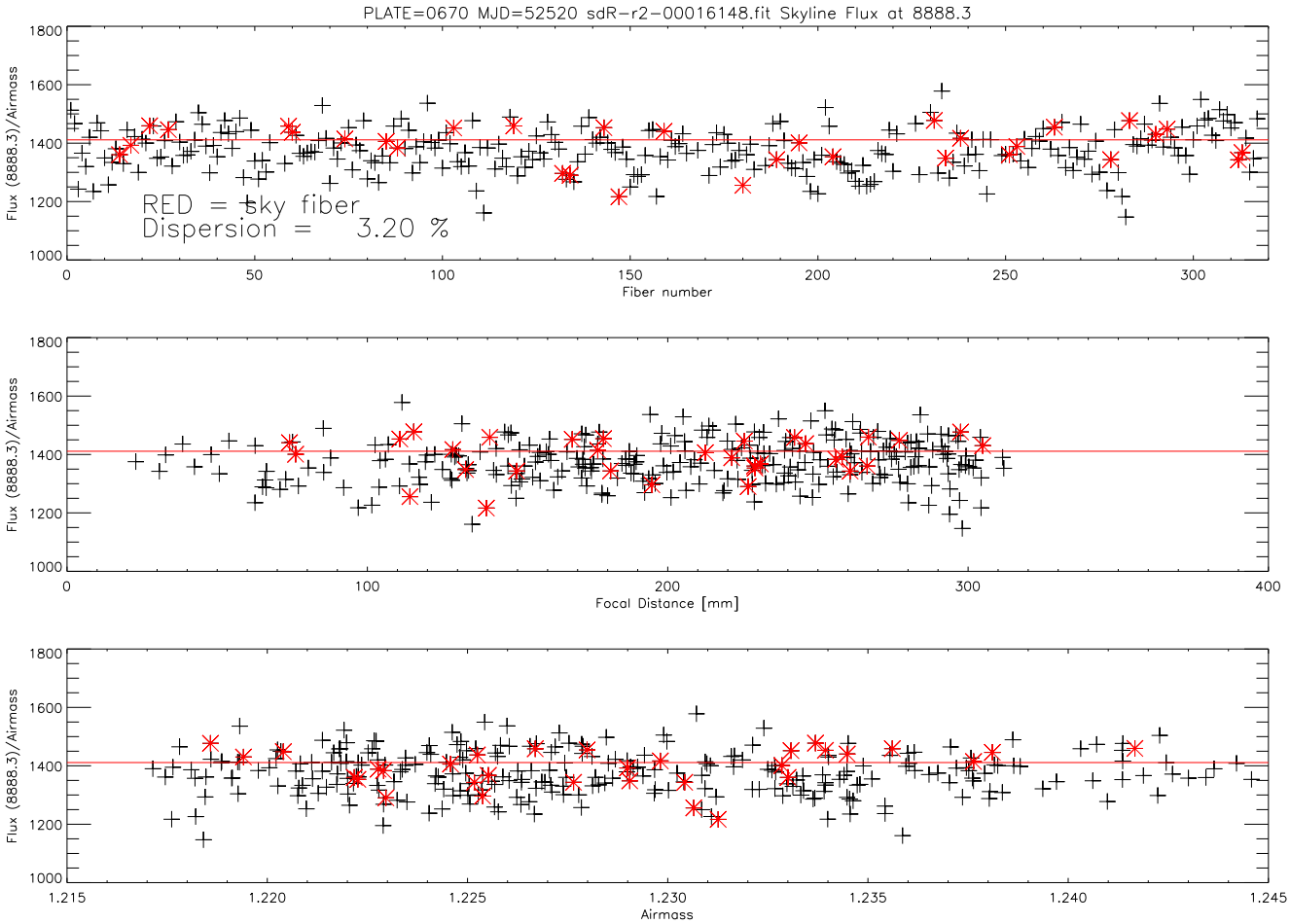

PLATE=0670 MJD=52520 sdR-r2-00016148.fit 2D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number


PLATE=0670 MJD=52520 sdR-r2-00016148.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
1200
1000
800
600
400
200
0
-200
8820
8840
8860
8880
8900
λ [A]


PLATE=0670 MJD=52520 sdR-r2-00016148.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
150
100
50
0
-50
-100
-150
8820
8840
8860
8880
8900
λ [A]


Number of sky fibers = 32
PLATE=0670 MJD=52520 sdR-r2-00016148.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=0670 MJD=52520 sdR-r2-00016148.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 4.47 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass


PLATE=0670 MJD=52520 sdR-r2-00016148.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
Fiber number
RED = sky fiber
Dispersion = 3.20 %
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass