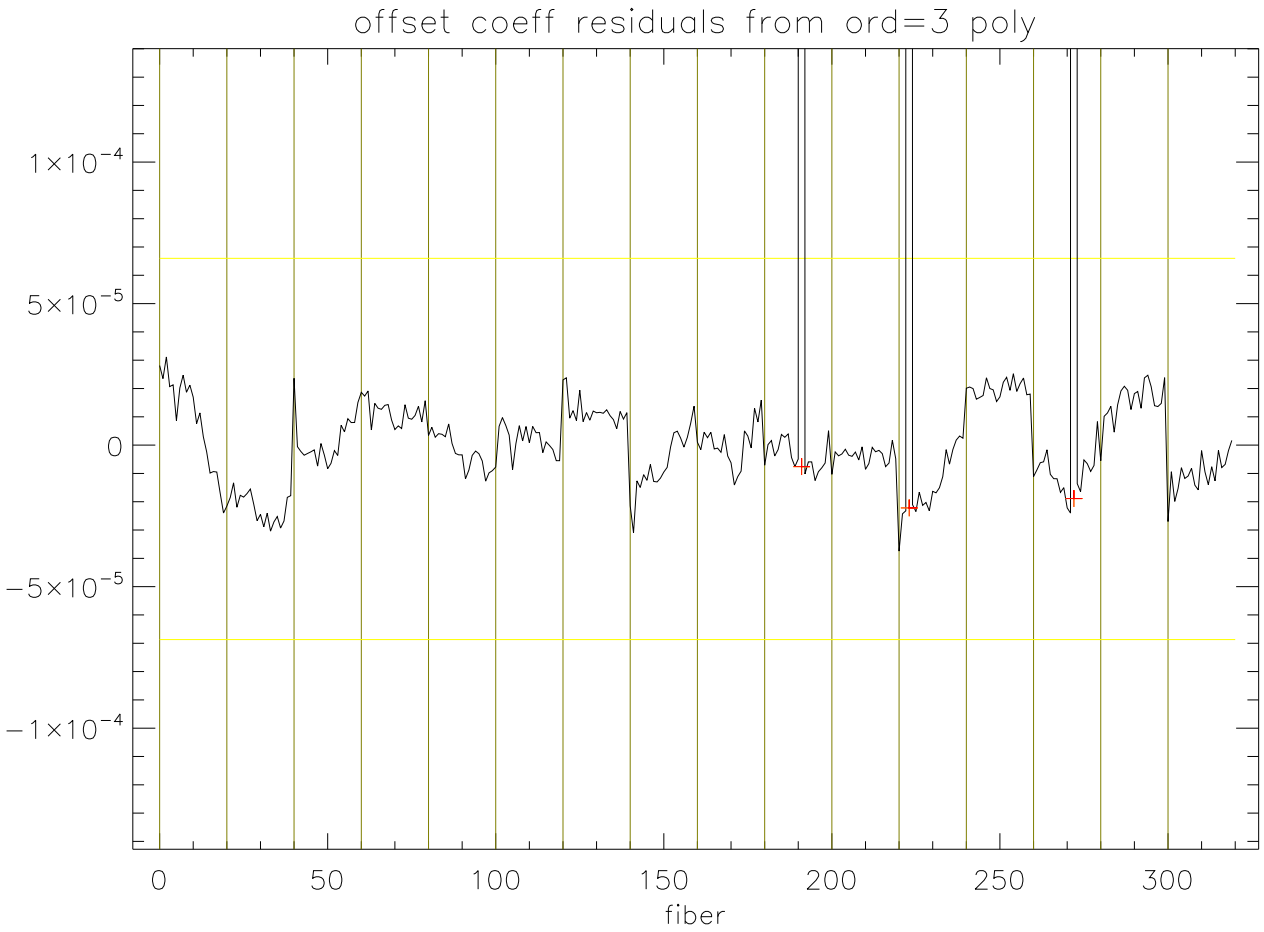
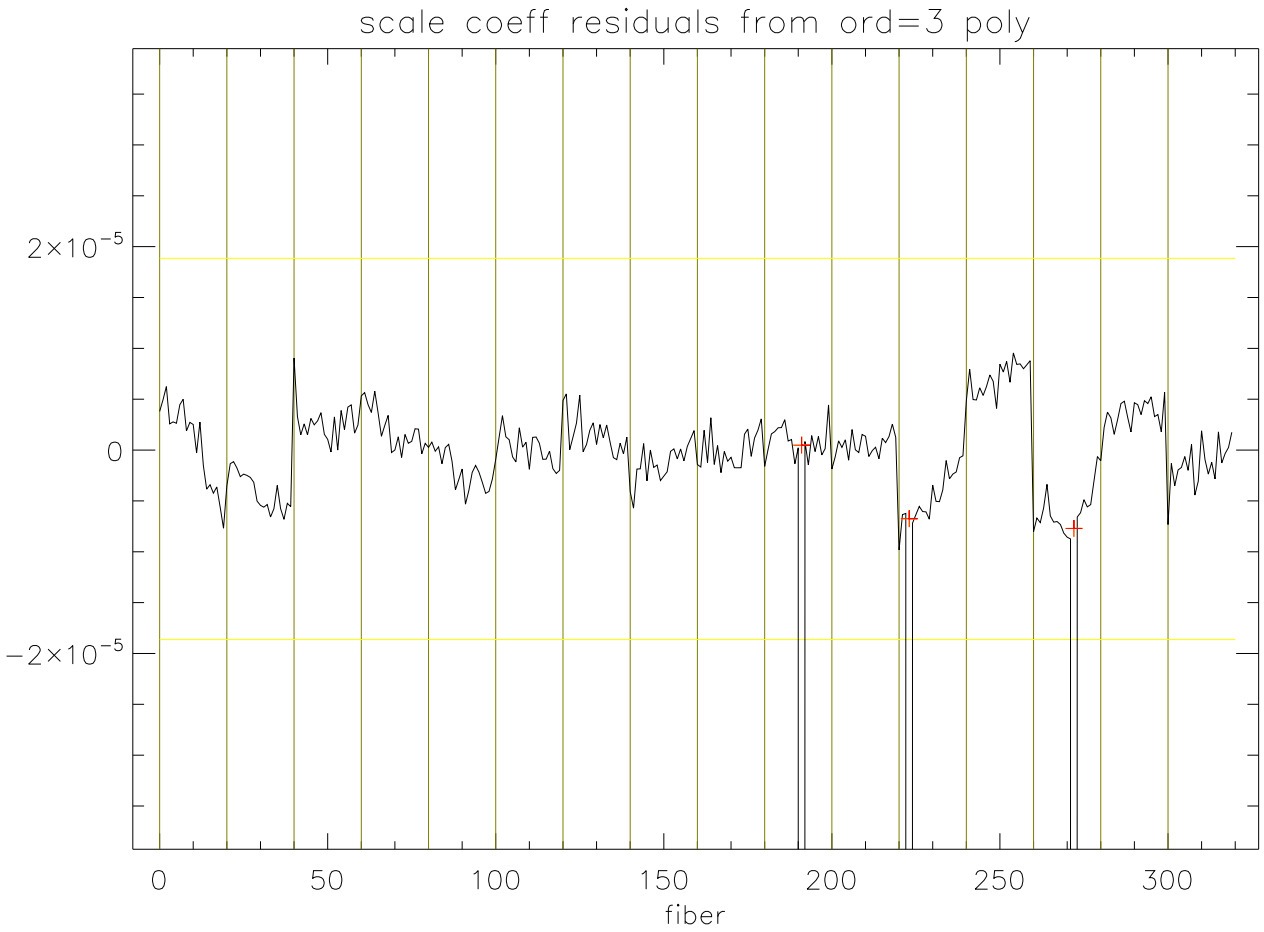
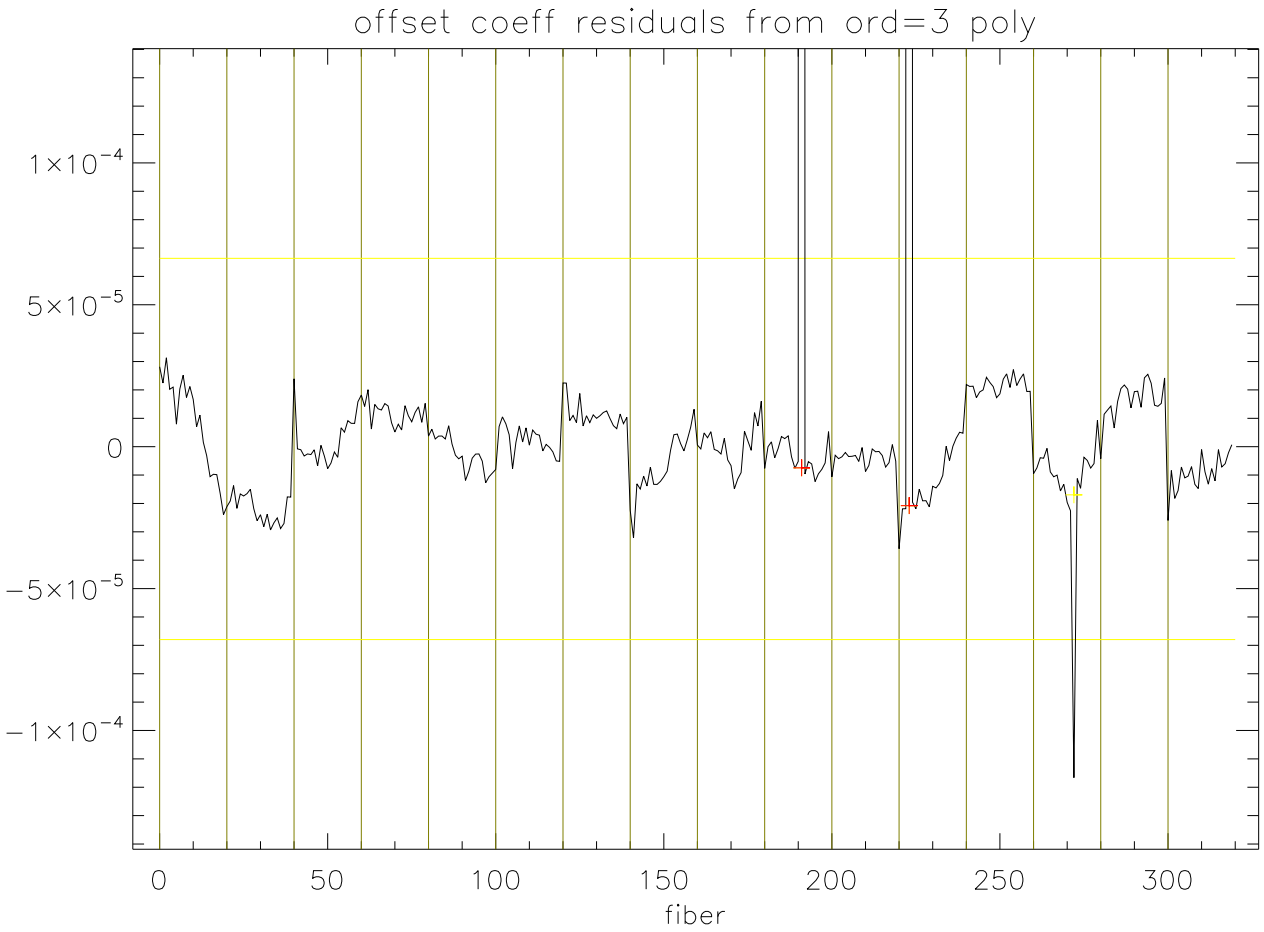
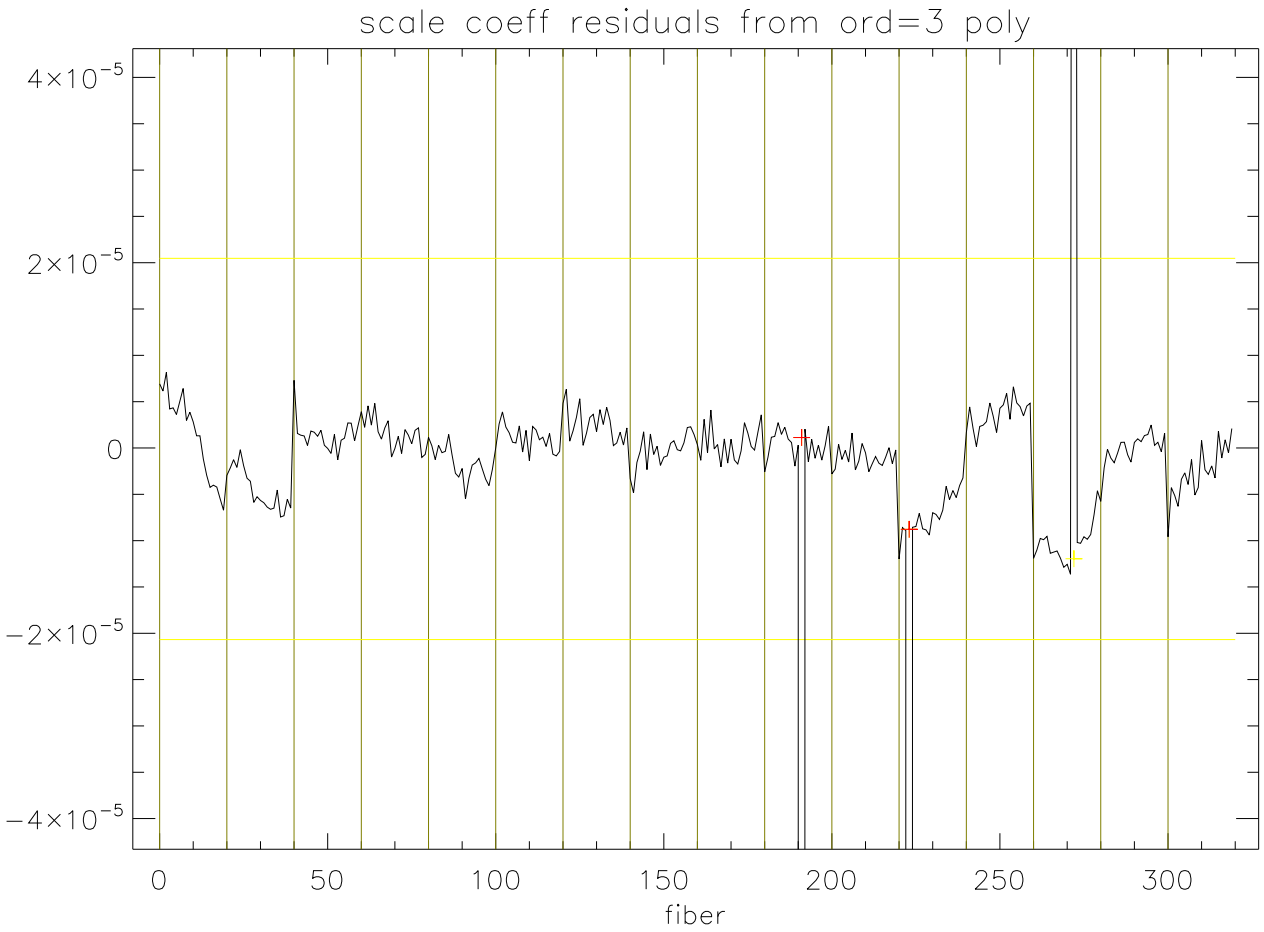
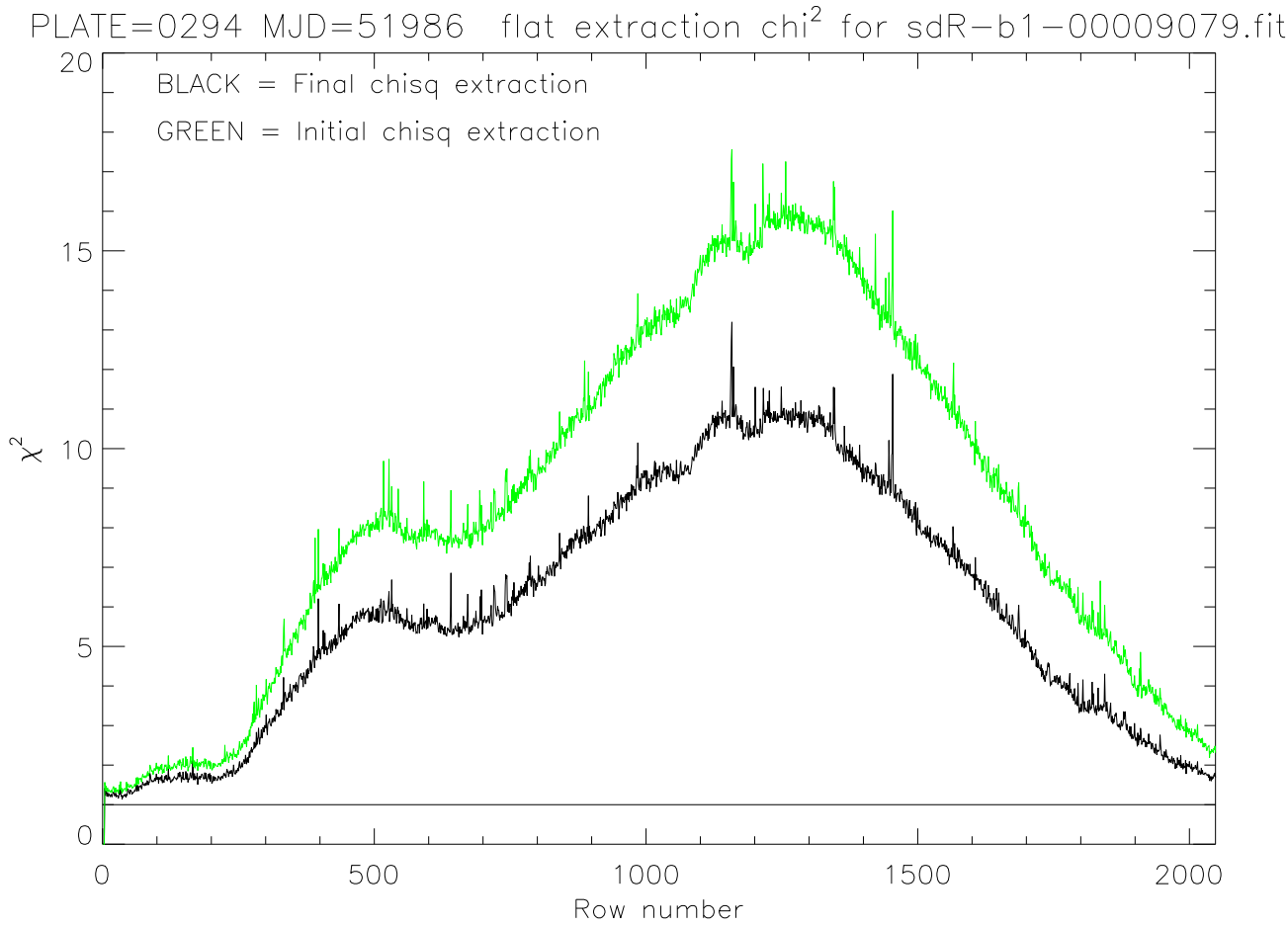
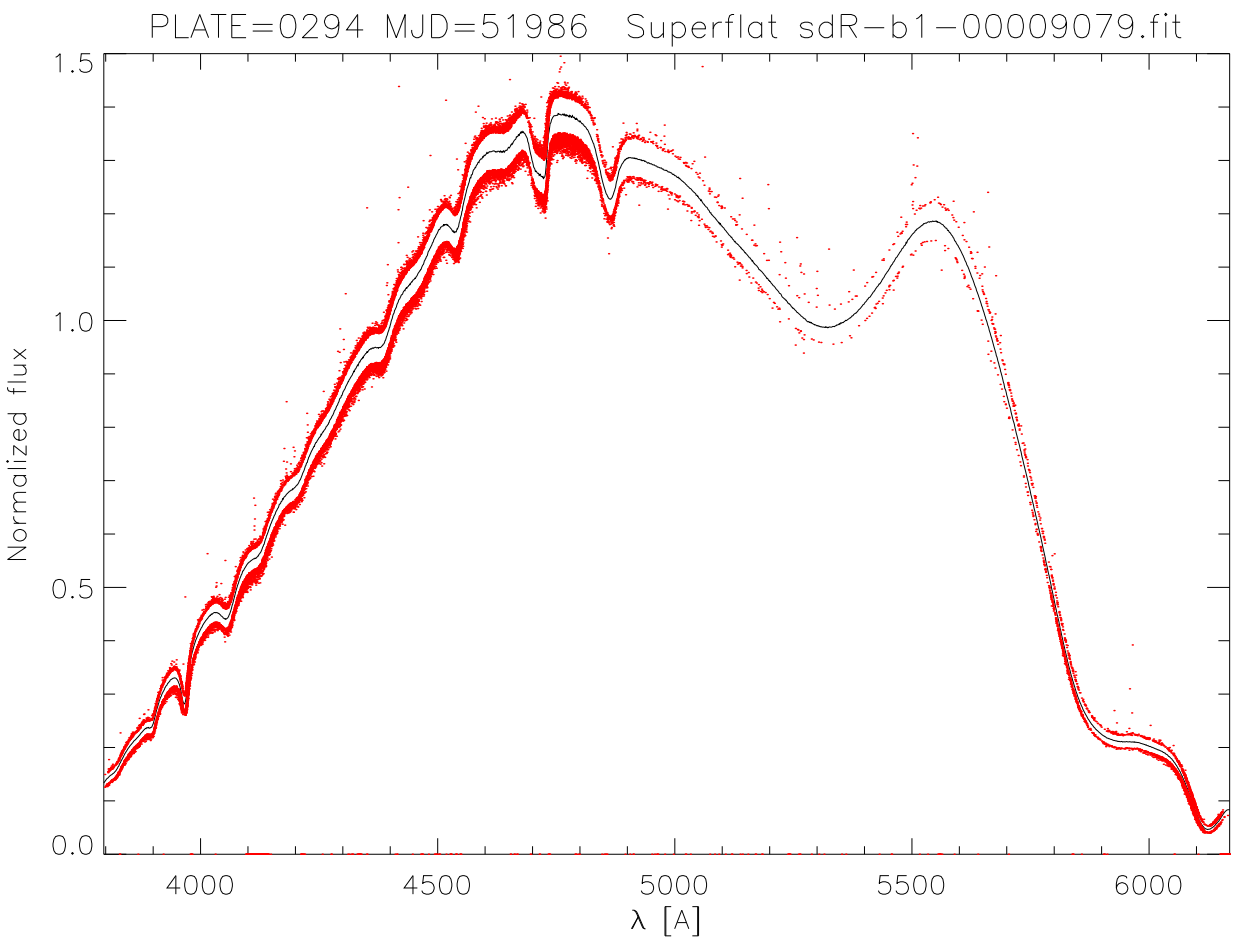

offset coeff residuals from ord=3 poly
1×10^-4
5×10^-5
0
−5×10^-5
−1×10^-4
0
50
100
150
200
250
300
fiber

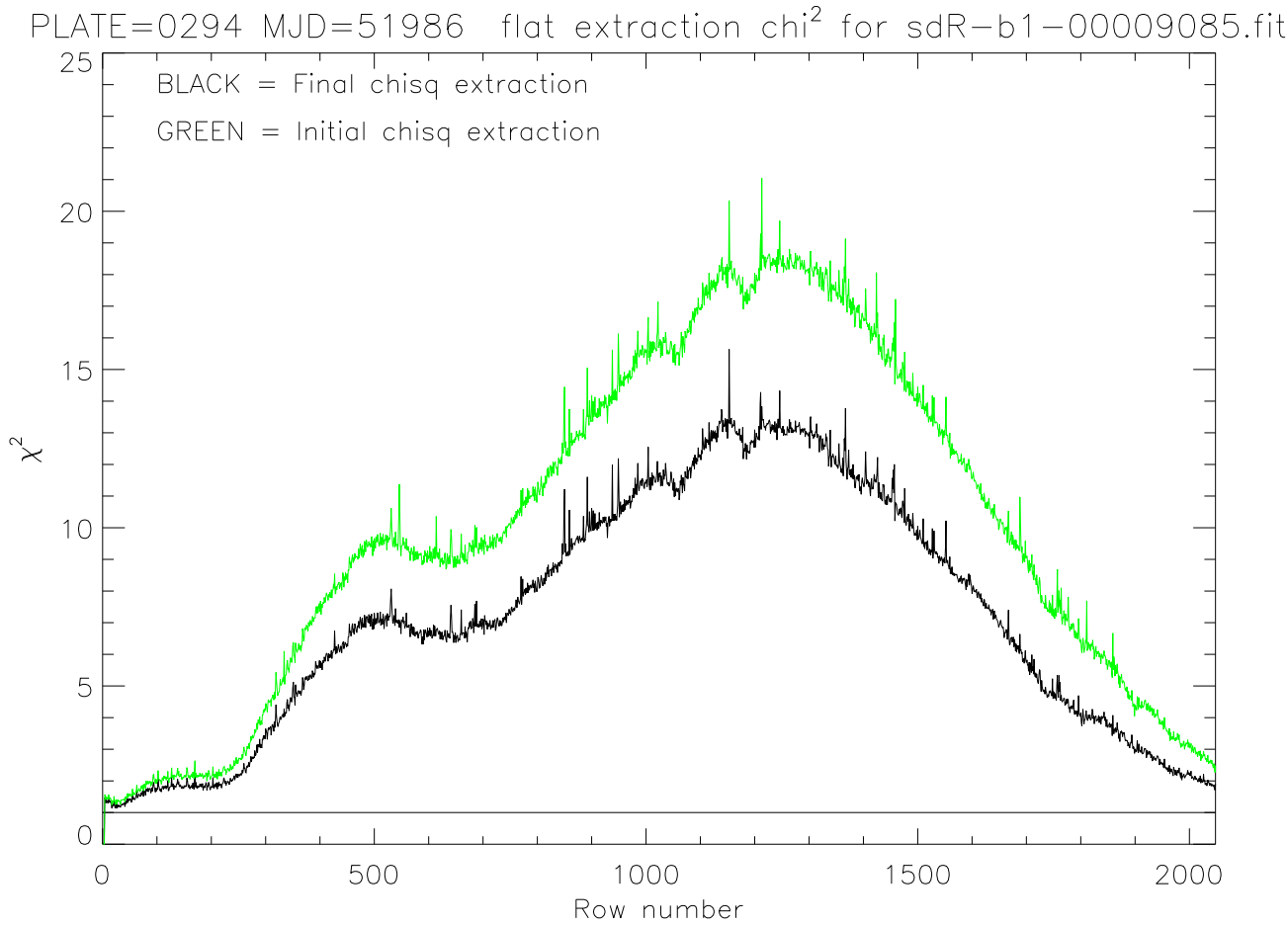

scale coeff residuals from ord=3 poly
2×10⁻⁵
0
−2×10⁻⁵
0
50
100
150
200
250
300
fiber

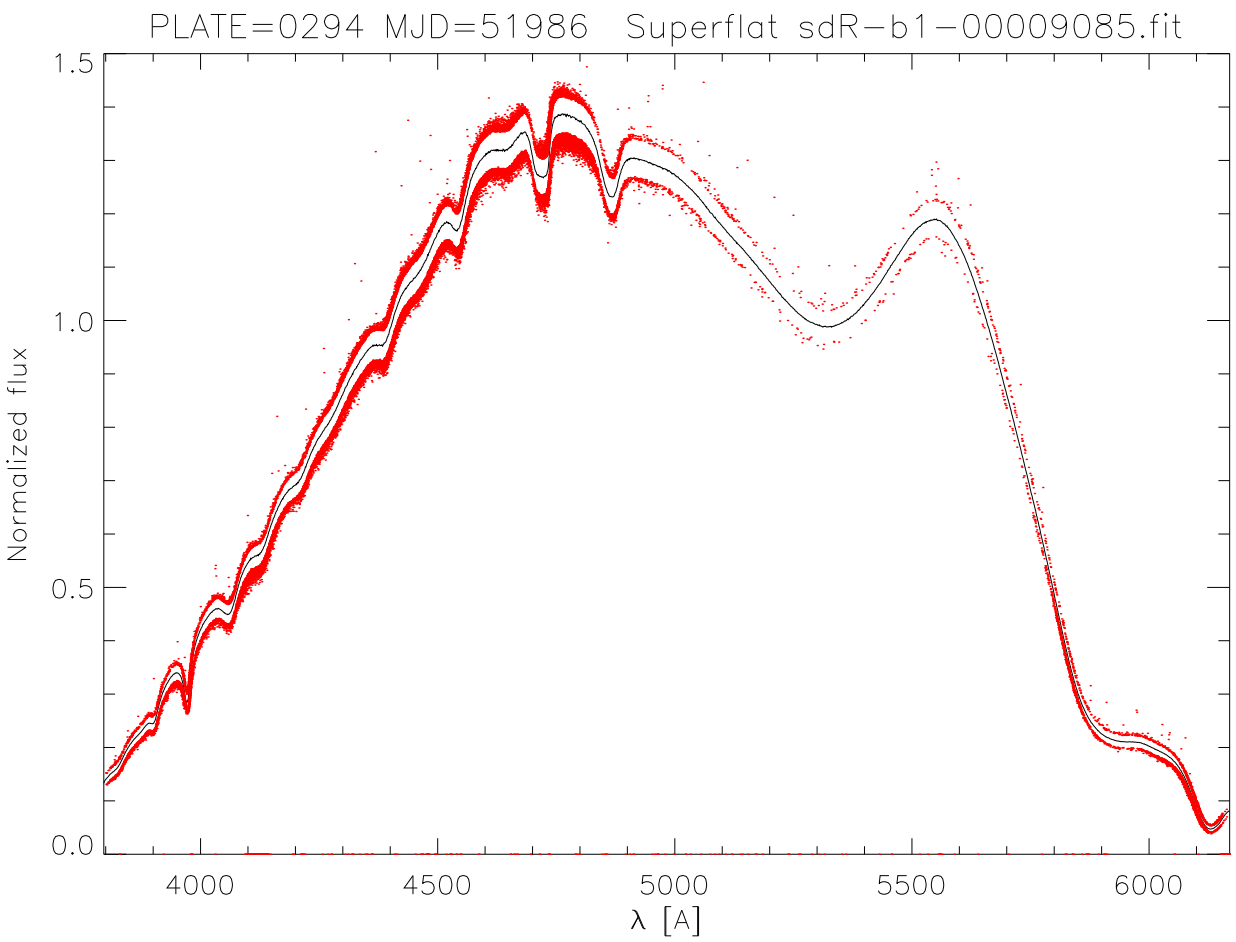

offset coeff residuals from ord=3 poly
1×10^-4
5×10^-5
0
−5×10^-5
−1×10^-4
0
50
100
150
200
250
300
fiber

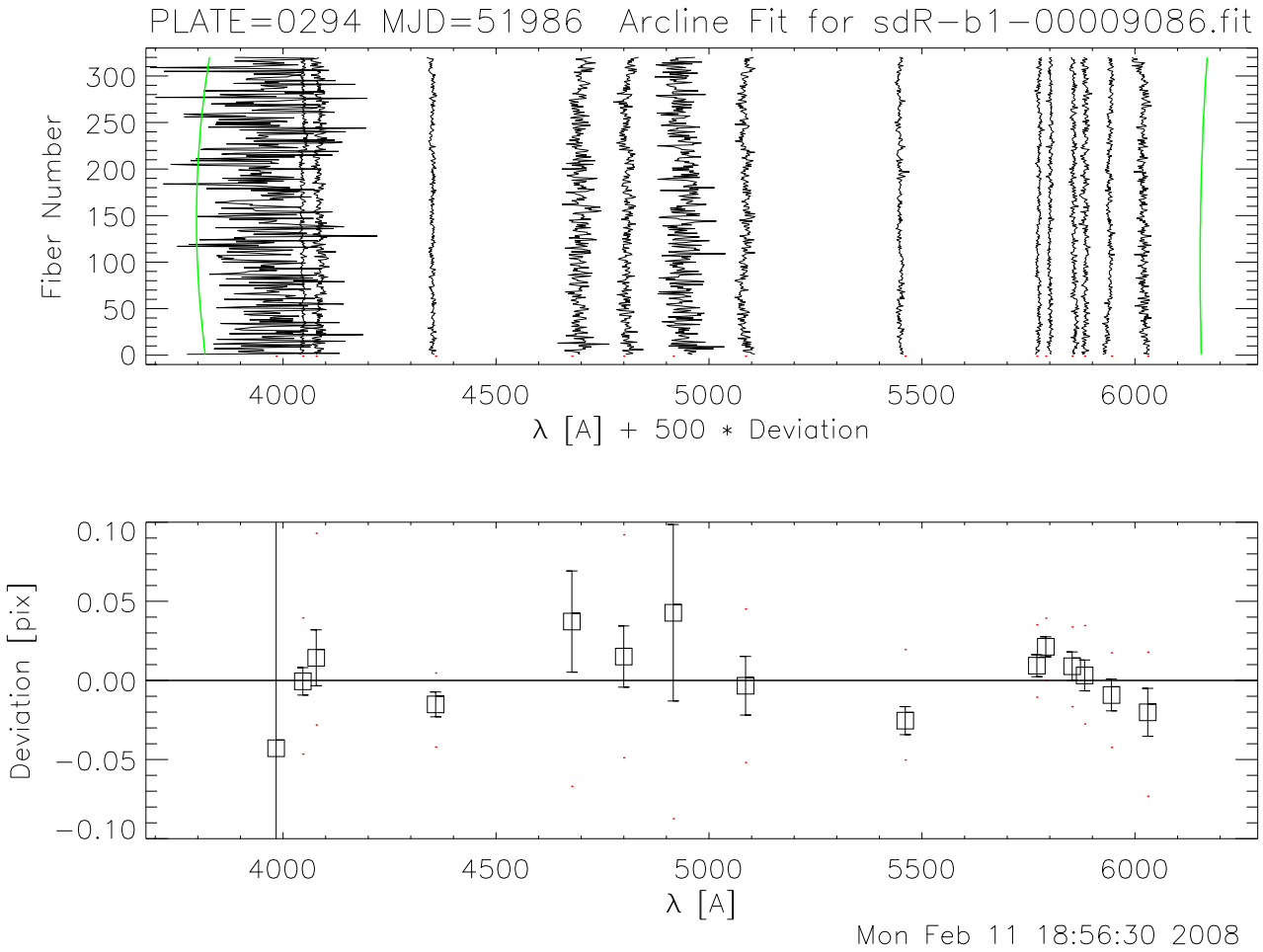

scale coeff residuals from ord=3 poly
4×10⁻⁵
2×10⁻⁵
0
−2×10⁻⁵
−4×10⁻⁵
0
50
100
150
200
250
300
fiber

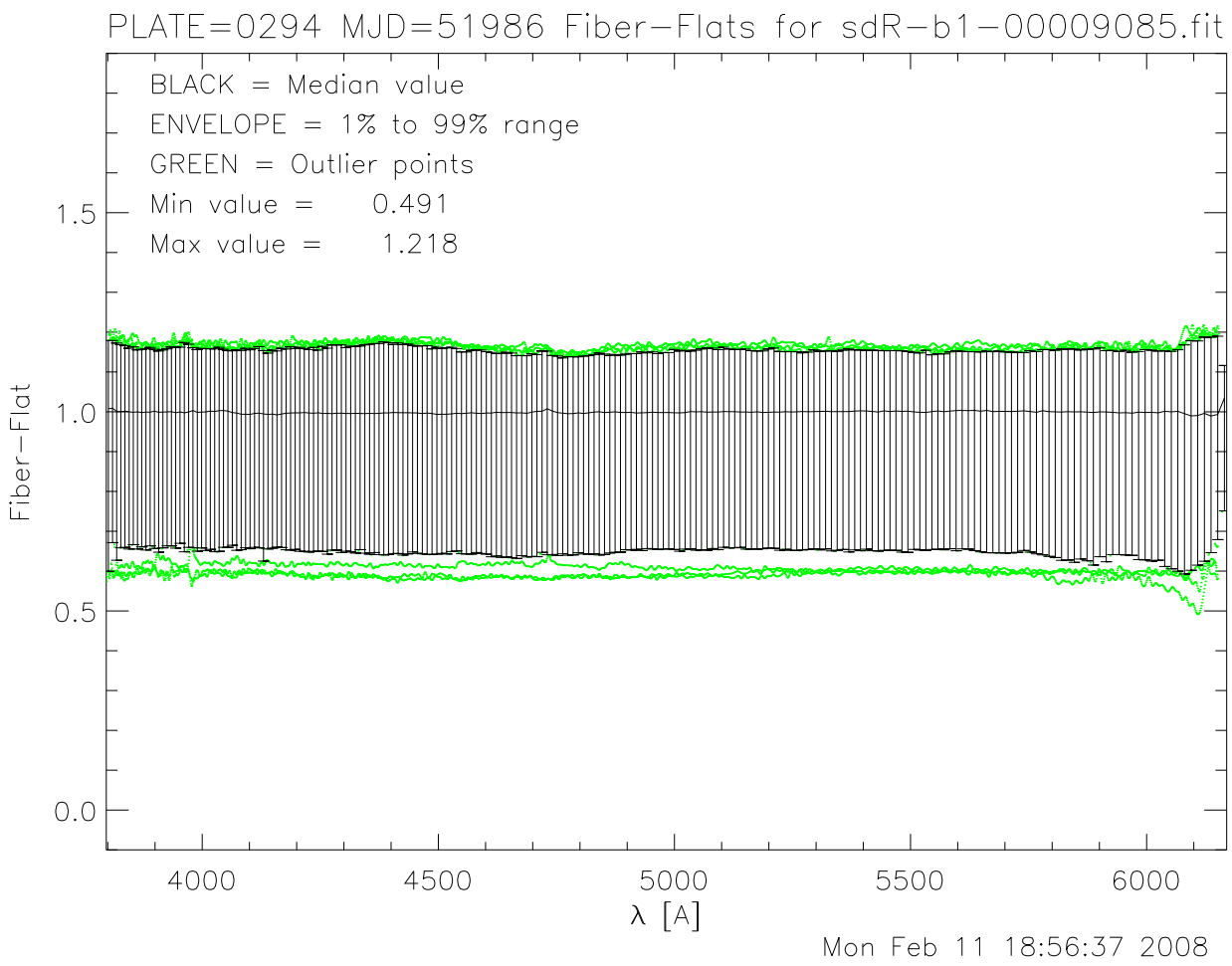

PLATE=0294 MJD=51986 flat extraction chi^2 for sdR−b1−00009079.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
5
10
15
20
0
500
1000
1500
2000

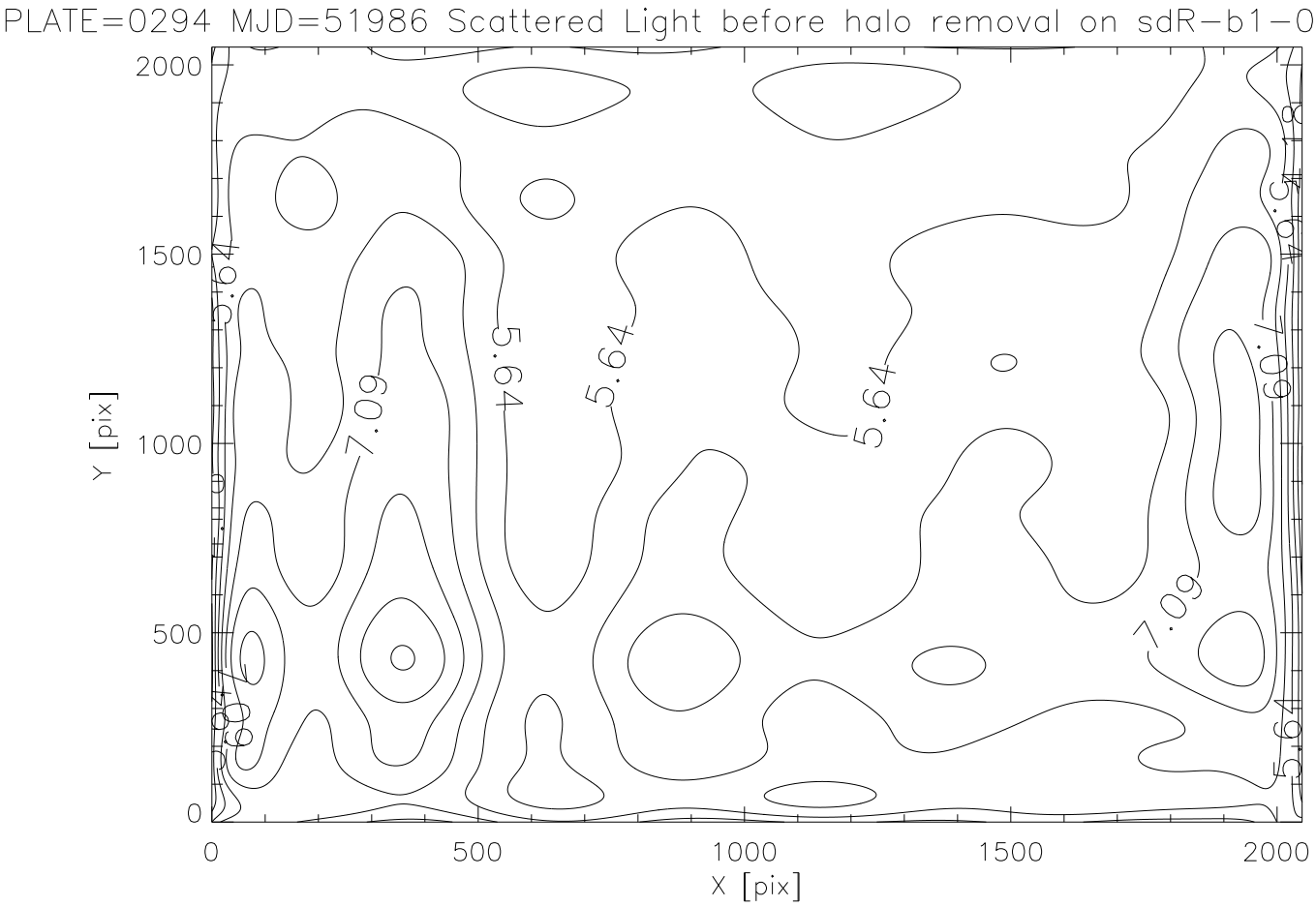

PLATE=0294 MJD=51986 Superflat sdR-b1-00009079.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

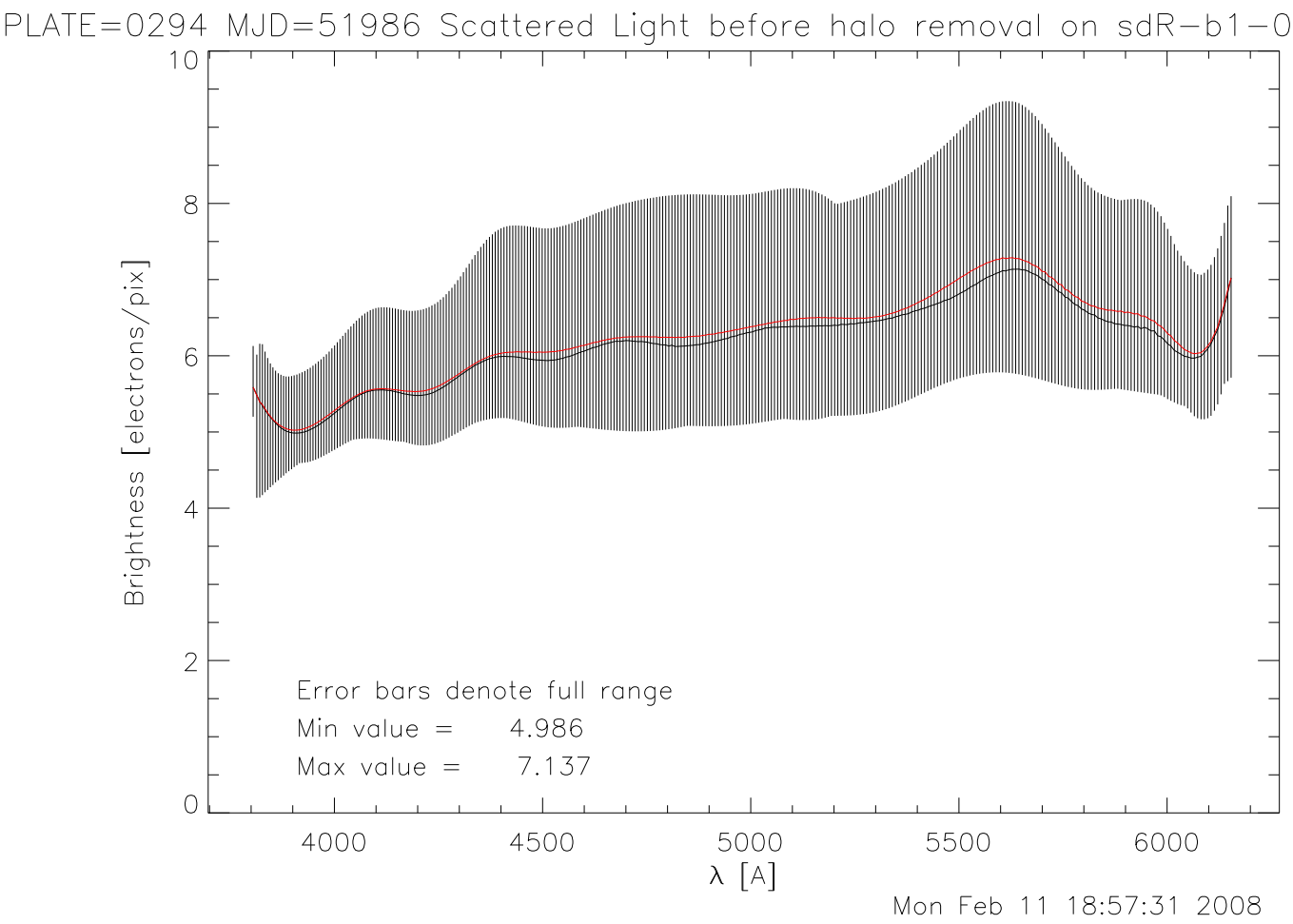

PLATE=0294 MJD=51986 flat extraction chi^2 for sdR−b1−00009085.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
5
10
15
20
25
0
500
1000
1500
2000

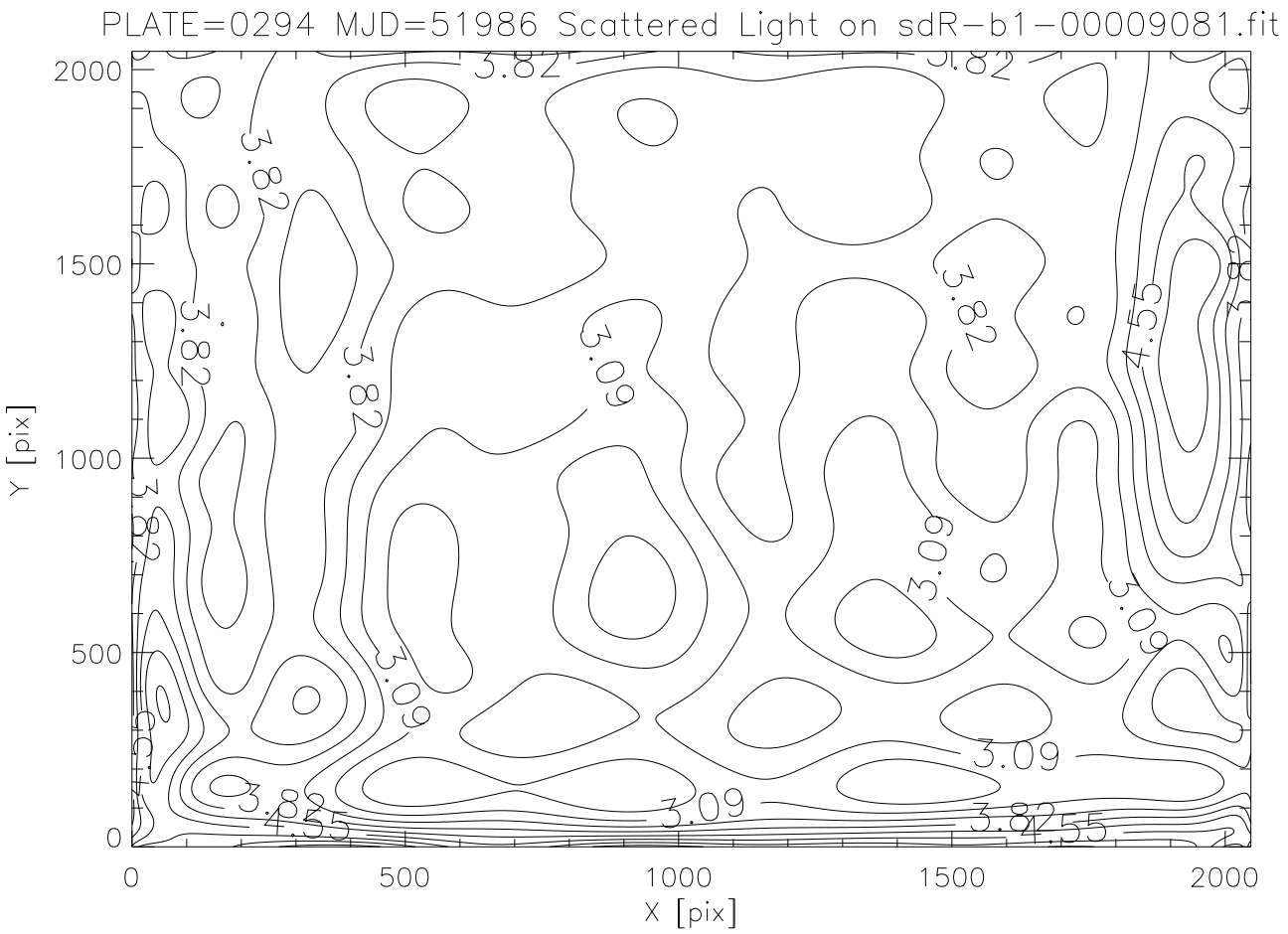

PLATE=0294 MJD=51986 Superflat sdR-b1-00009085.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

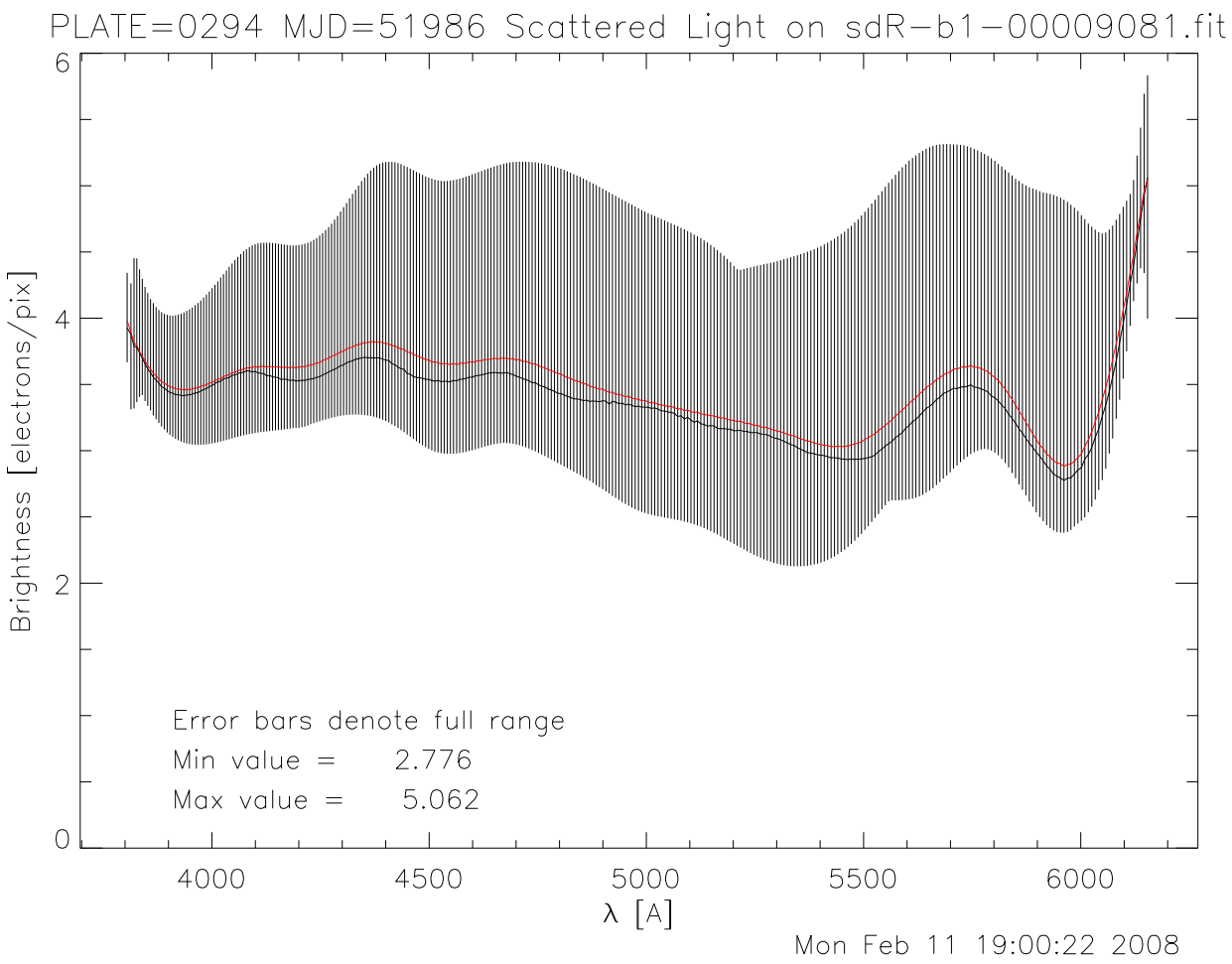

PLATE=0294 MJD=51986 Arcline Fit for sdR-b1-00009086.fit
Fiber Number
300
250
200
150
100
50
0
4000
4500
5000
5500
6000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
4000
4500
5000
5500
6000
λ [A]
Mon Feb 11 18:56:30 2008

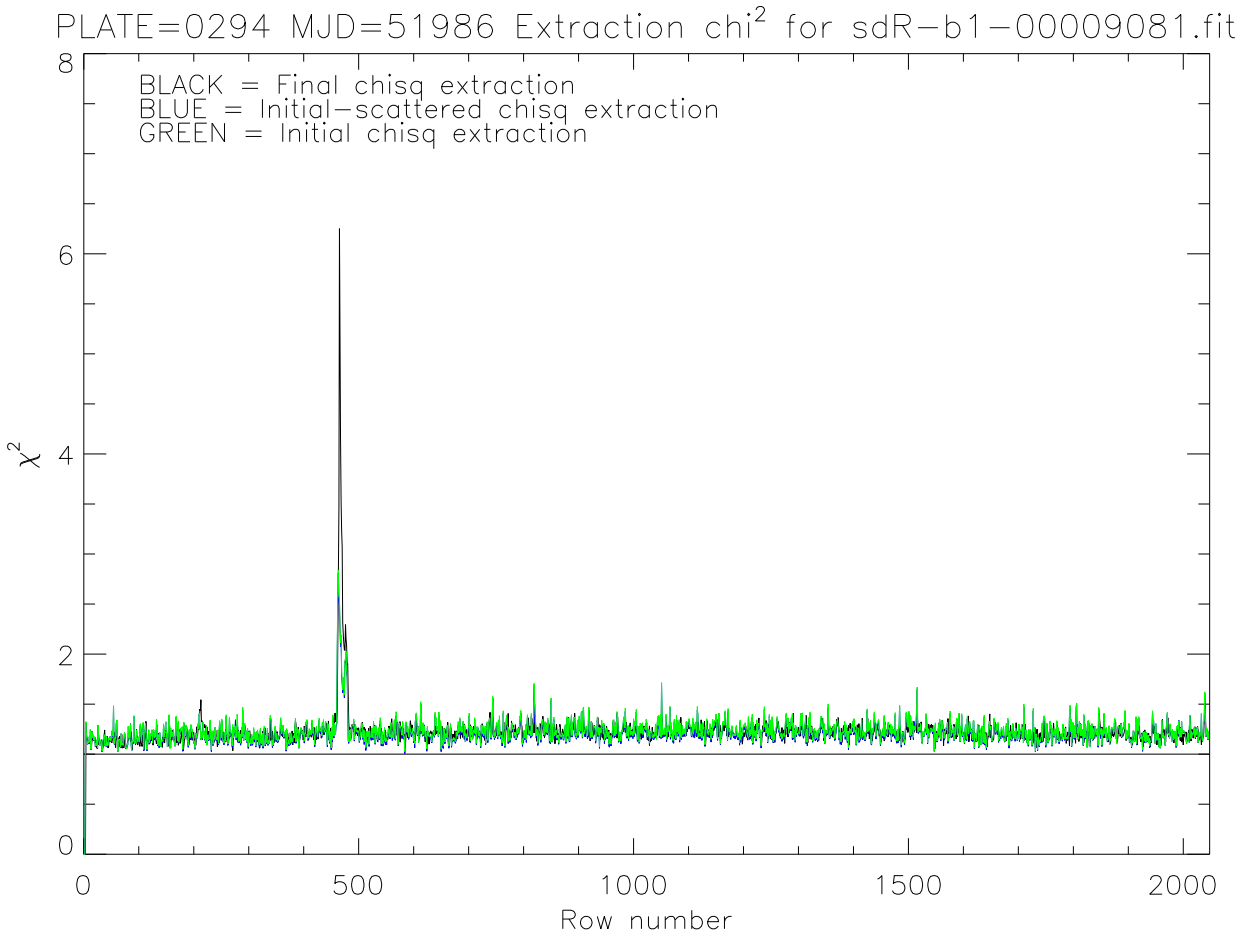

PLATE=0294 MJD=51986 Fiber-Flats for sdR-b1-00009085.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.491
Max value = 1.218
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Mon Feb 11 18:56:37 2008

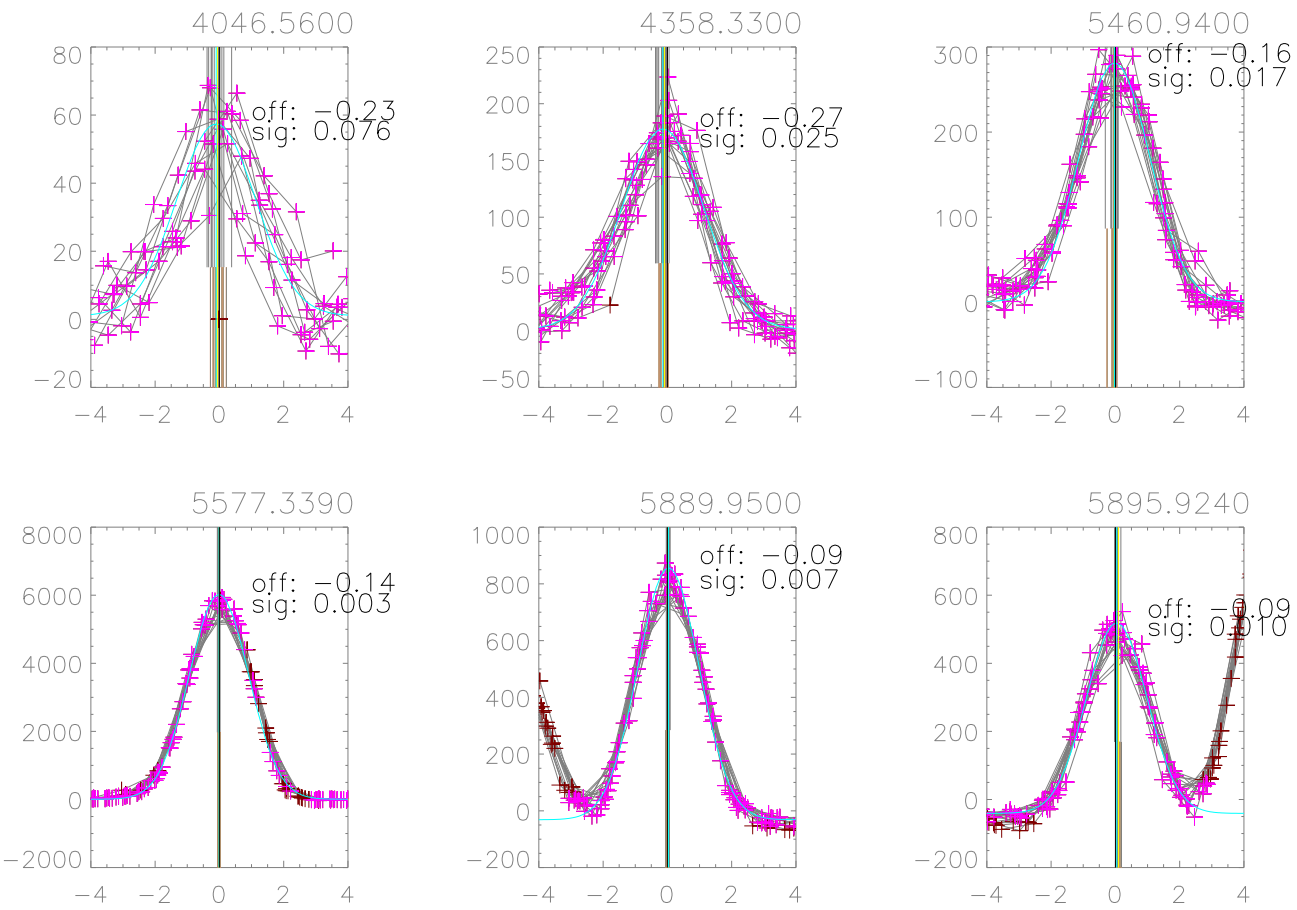

PLATE=0294 MJD=51986 Scattered Light before halo removal on sdR−b1−00009081.f
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
5.64
7.09
5.64
5.64
0
7.09
5.64
7.09
5.64

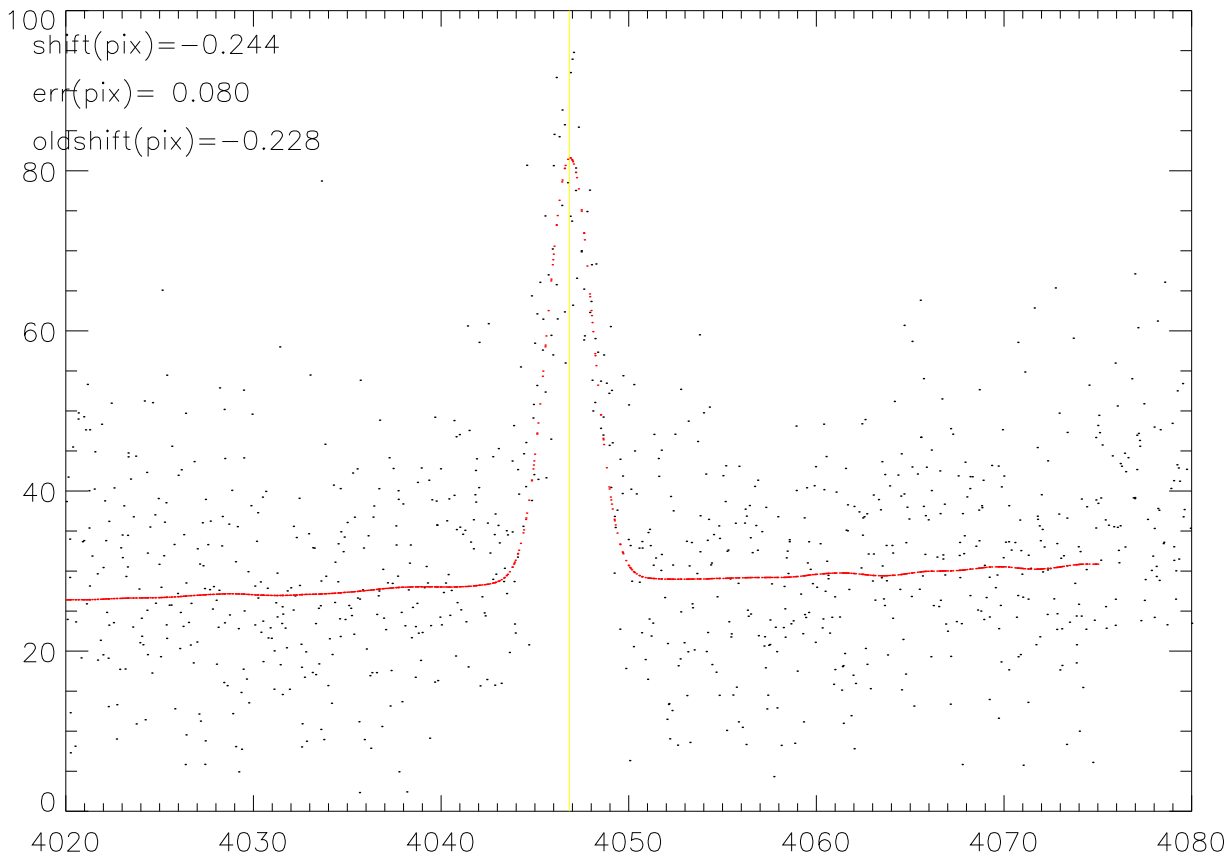

PLATE=0294 MJD=51986 Scattered Light before halo removal on sdR-b1-00009081.f
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 4.986
Max value = 7.137
Mon Feb 11 18:57:31 2008

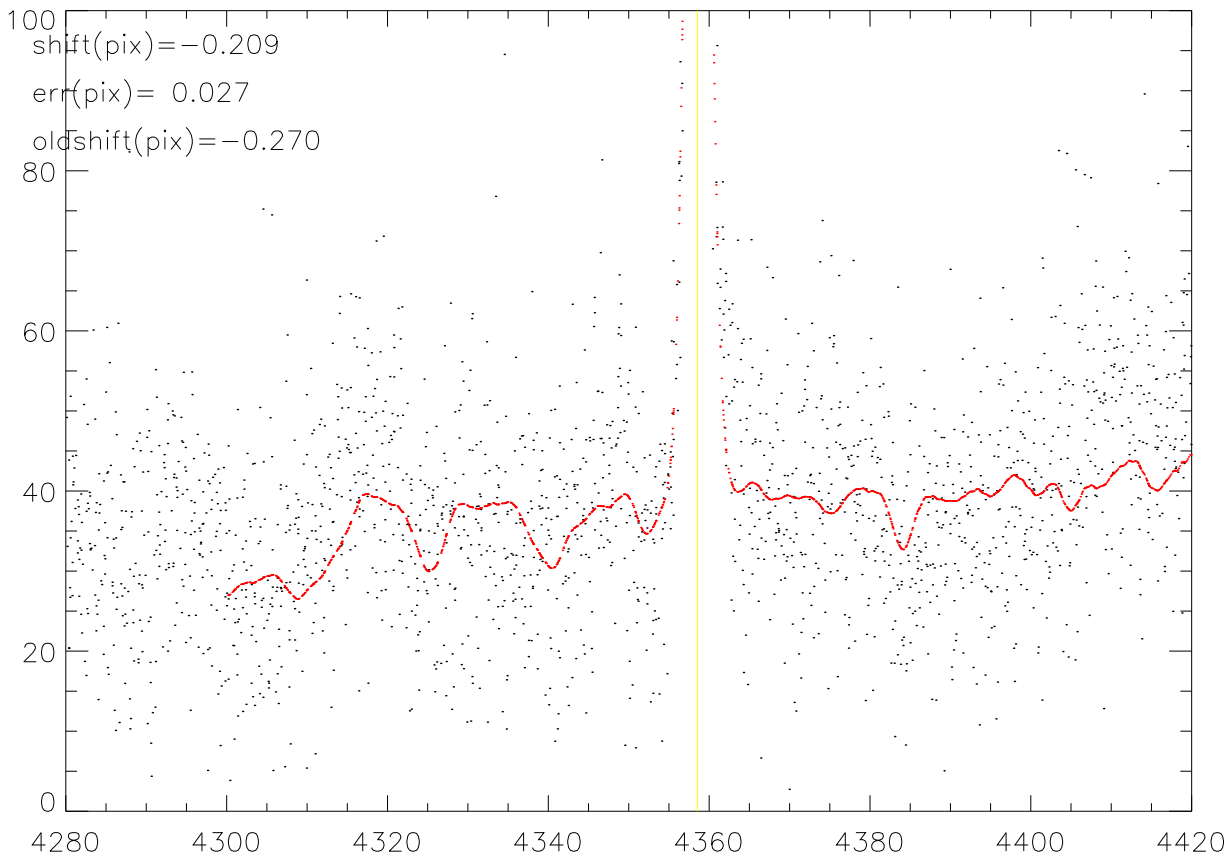

PLATE=0294 MJD=51986 Scattered Light on sdR-b1-00009081.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
3.82
3.09
4.55

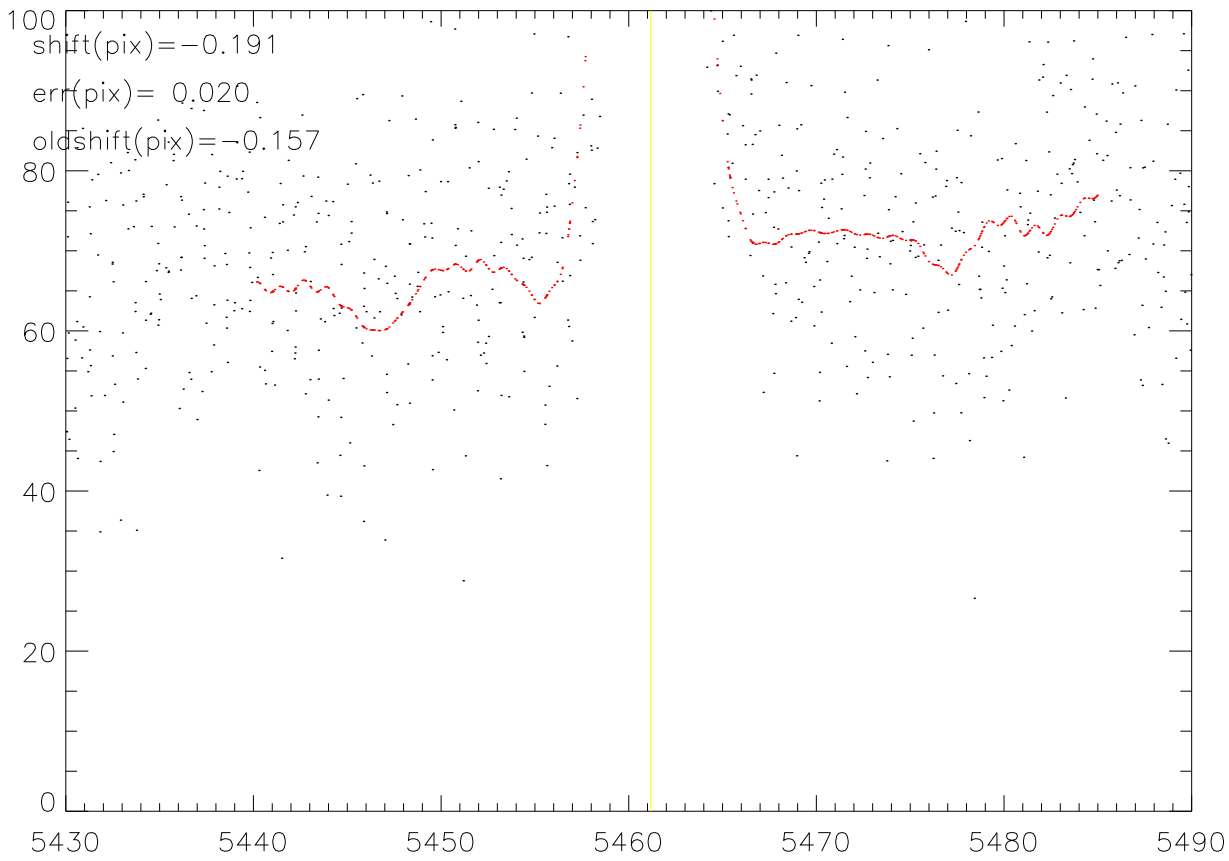

PLATE=0294 MJD=51986 Scattered Light on sdR-b1-00009081.fit
Brightness [electrons/pix]
0
2
4
6
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 2.776
Max value = 5.062
Mon Feb 11 19:00:22 2008

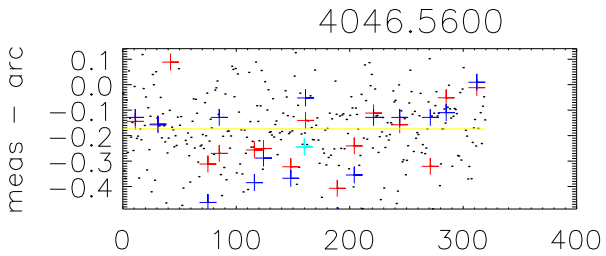

PLATE=0294 MJD=51986 Extraction chi^2 for sdR−b1−00009081.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
0
500
1000
1500
2000
Row number

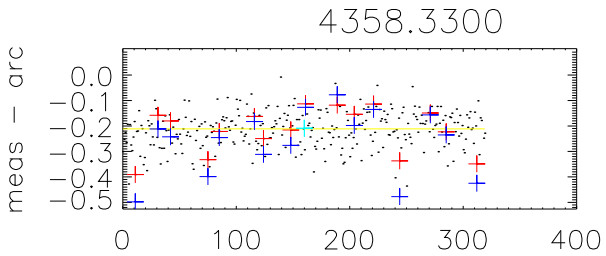

4046.5600
off: −0.23
sig: 0.076
4358.3300
off: −0.27
sig: 0.025
5460.9400
off: −0.16
sig: 0.017
5577.3390
off: −0.14
sig: 0.003
5889.9500
off: −0.09
sig: 0.007
5895.9240
off: −0.09
sig: 0.010

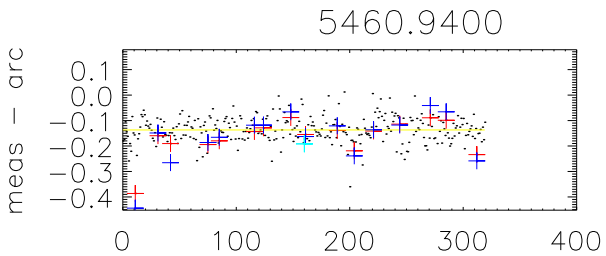

shift(pix)=−0.244
err(pix)= 0.080
oldshift(pix)=−0.228
100
80
60
40
20
0
4020
4030
4040
4050
4060
4070
4080

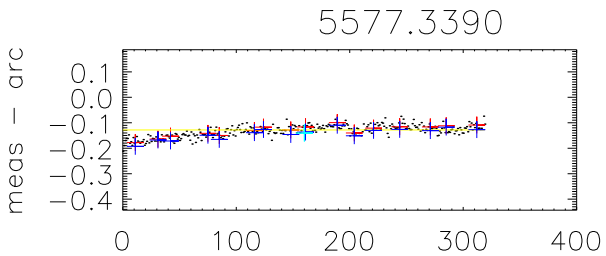

shift(pix)=−0.209
err(pix)= 0.027
oldshift(pix)=−0.270
100
80
60
40
20
0
4280
4300
4320
4340
4360
4380
4400
4420

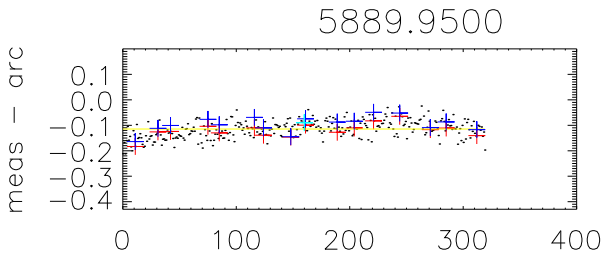

shift(pix)=−0.191
err(pix)= 0.020
oldshift(pix)=−0.157
100
80
60
40
20
0
5430
5440
5450
5460
5470
5480
5490

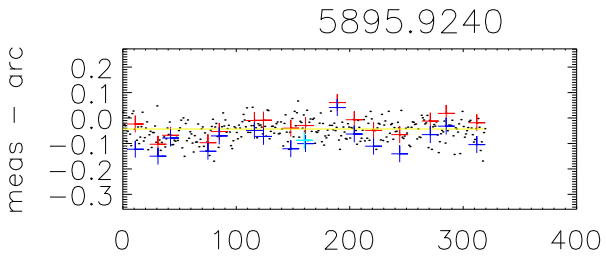

4046.5600
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

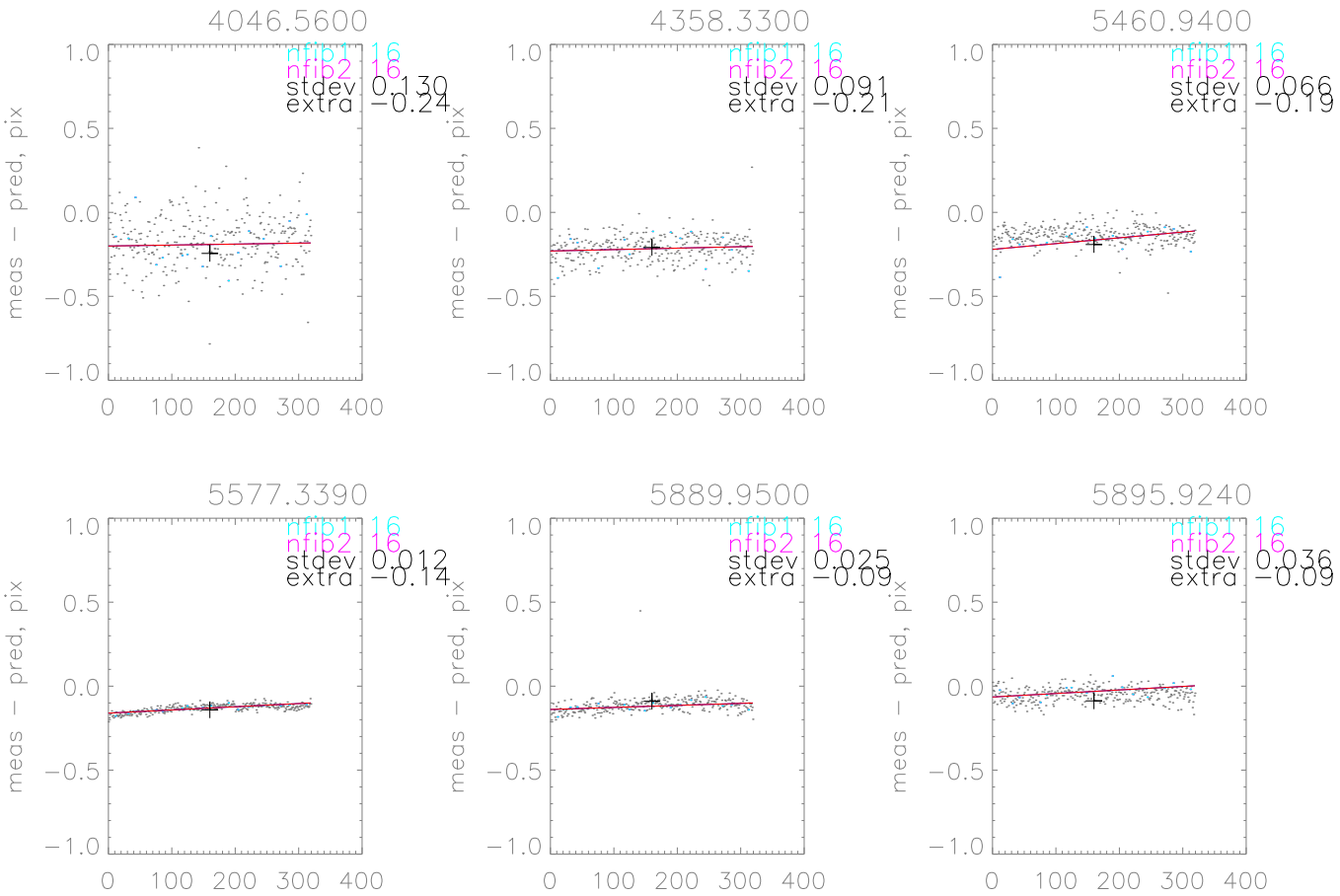

4358.3300
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

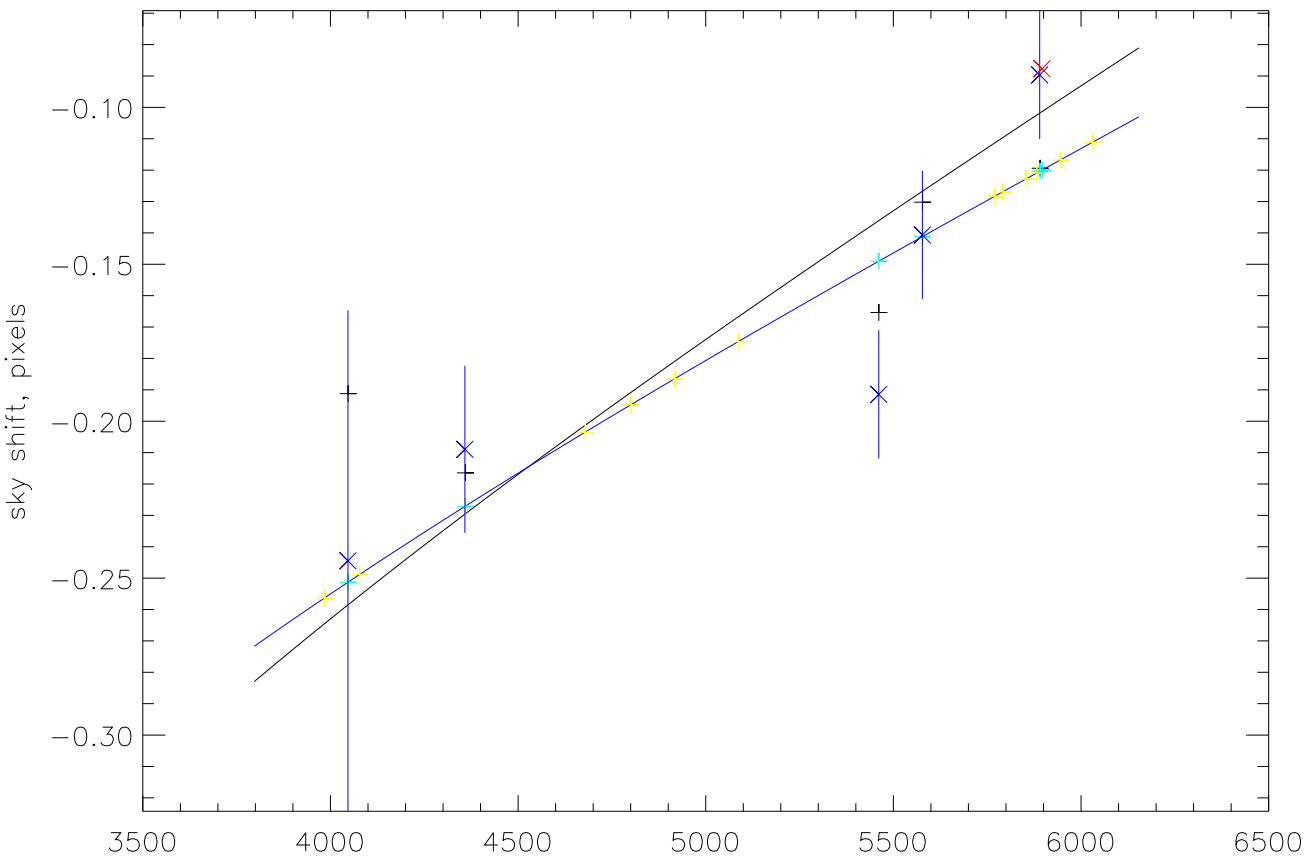

5460.9400
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400


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

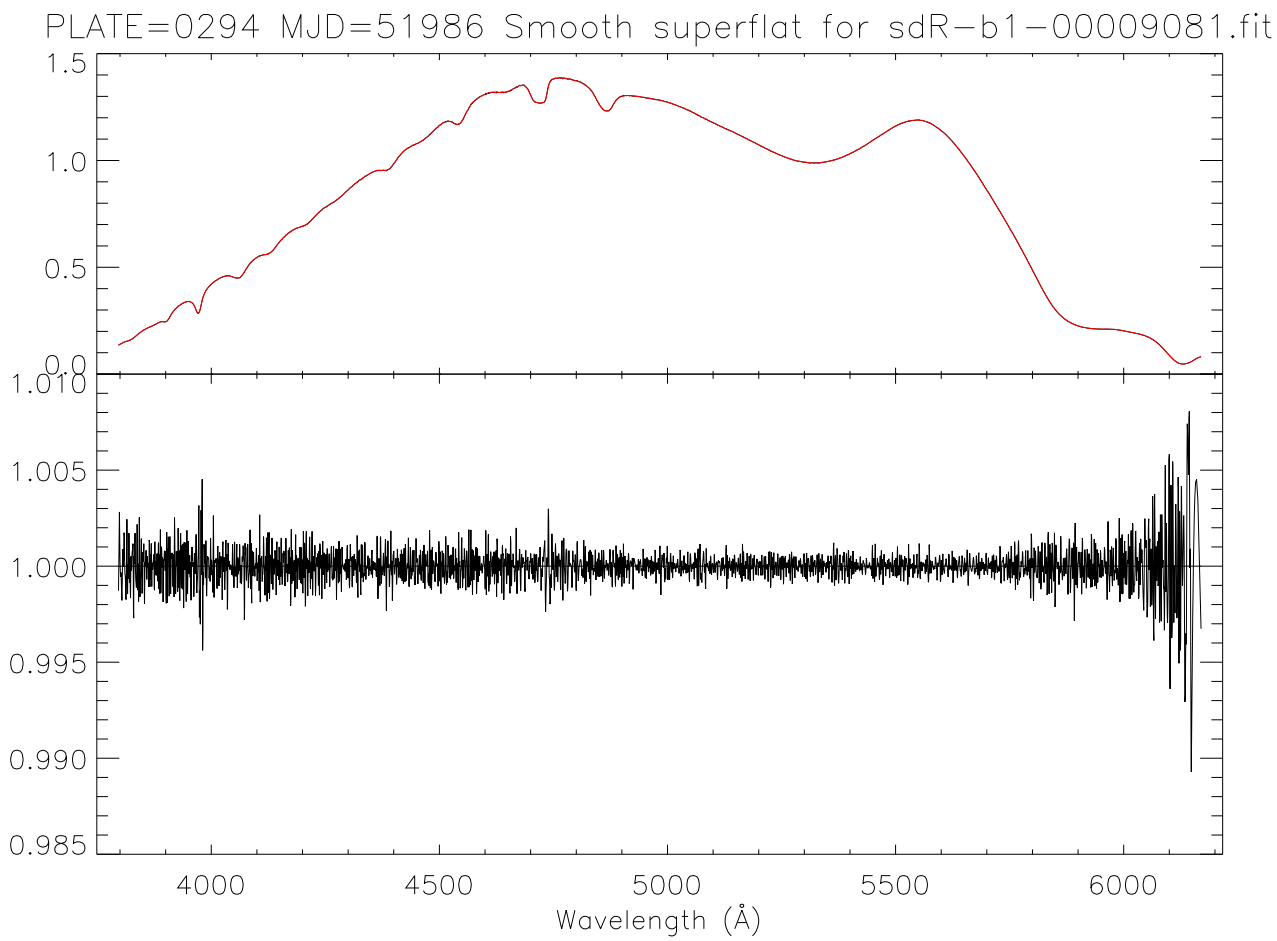

5889.9500
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

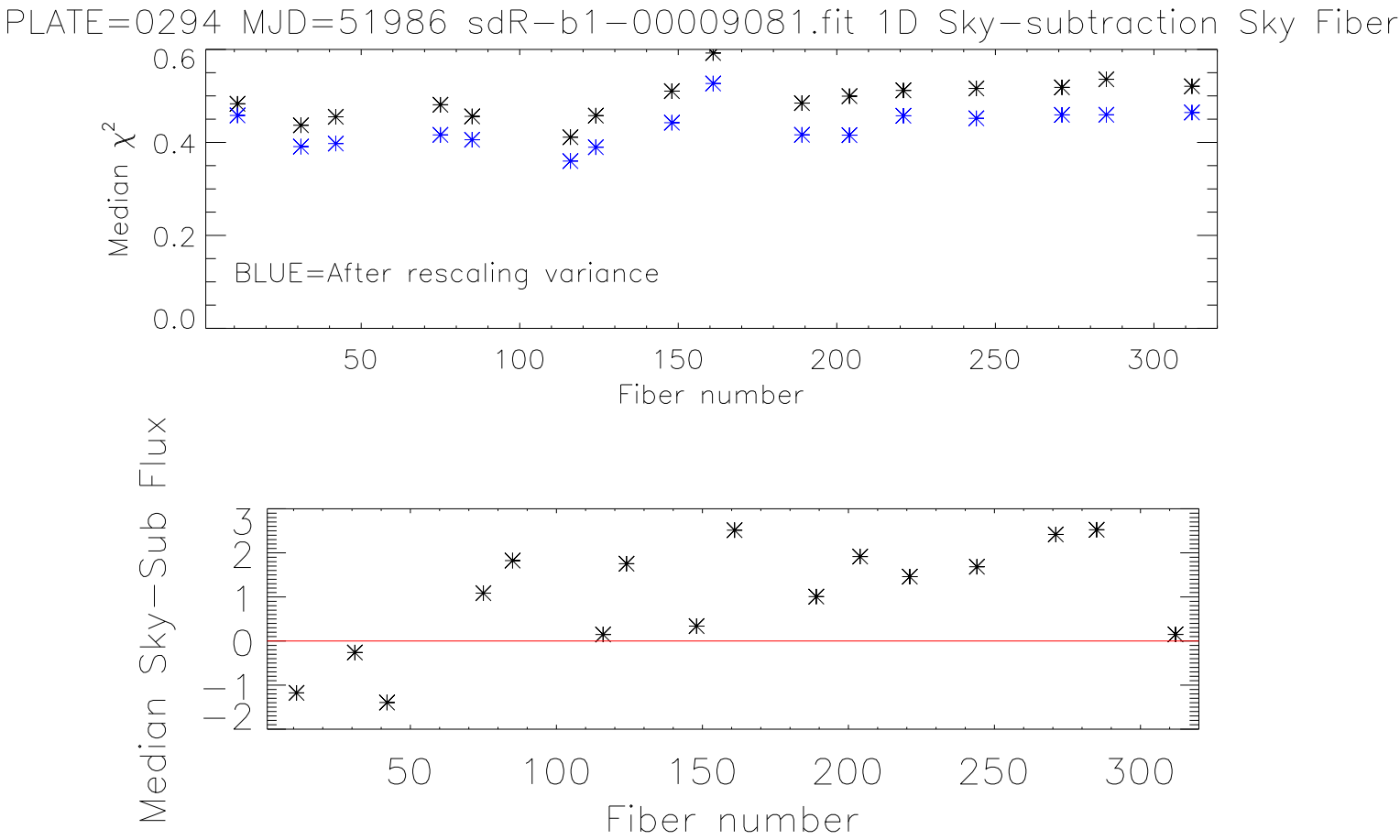

5895.9240
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

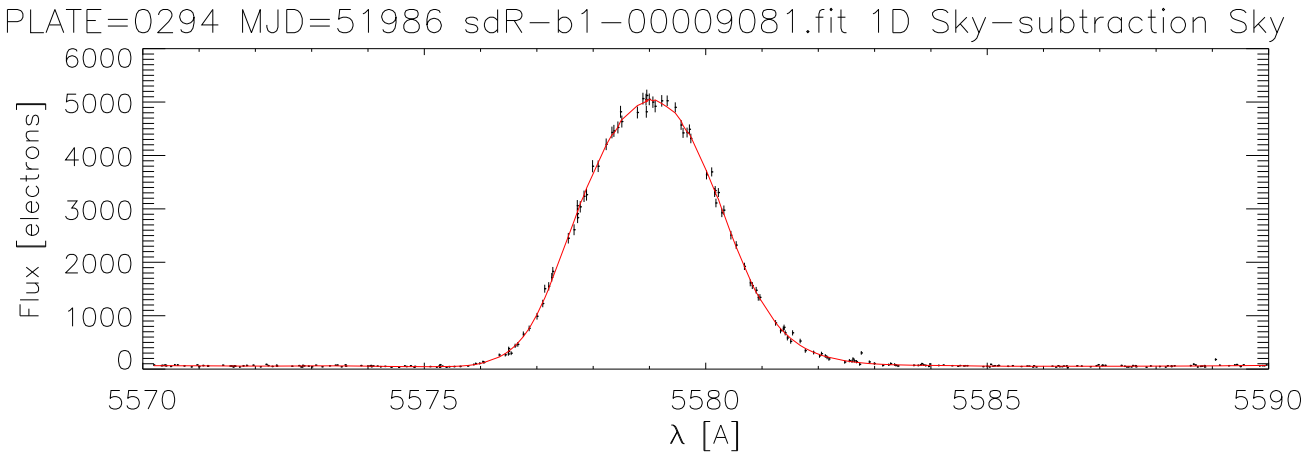

4046.5600
nfib1 16
nfib2 16
stdev 0.130
extra −0.24
4358.3300
nfib1 16
nfib2 16
stdev 0.091
extra −0.21
5460.9400
nfib1 16
nfib2 16
stdev 0.066
extra −0.19
5577.3390
nfib1 16
nfib2 16
stdev 0.012
extra −0.14
5889.9500
nfib1 16
nfib2 16
stdev 0.025
extra −0.09
5895.9240
nfib1 16
nfib2 16
stdev 0.036
extra −0.09
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

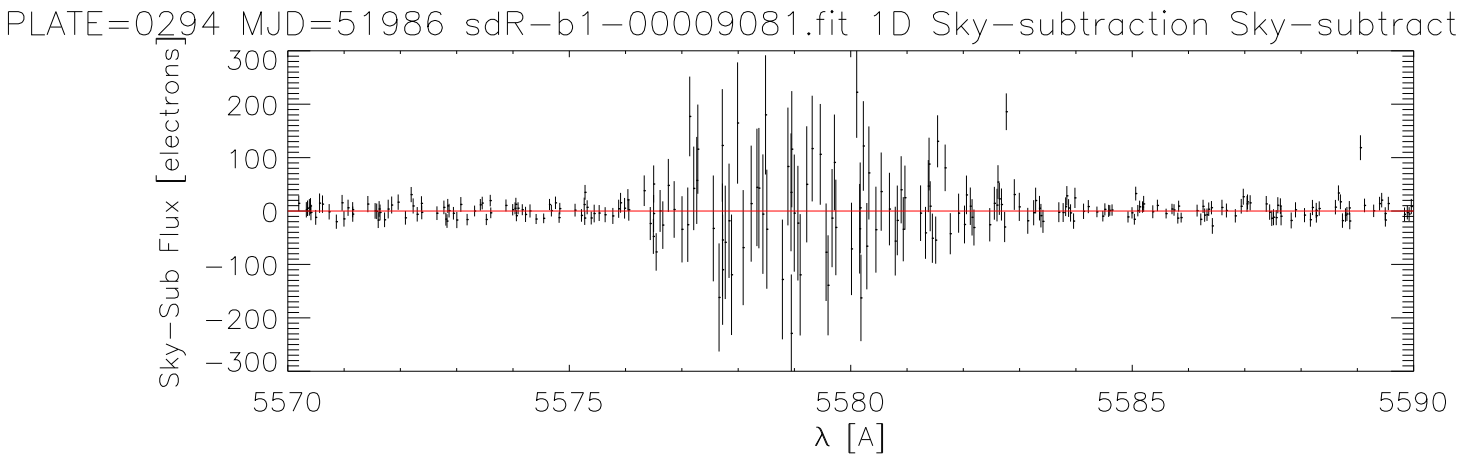

sky shift, pixels
−0.10
−0.15
−0.20
−0.25
−0.30
3500
4000
4500
5000
5500
6000
6500

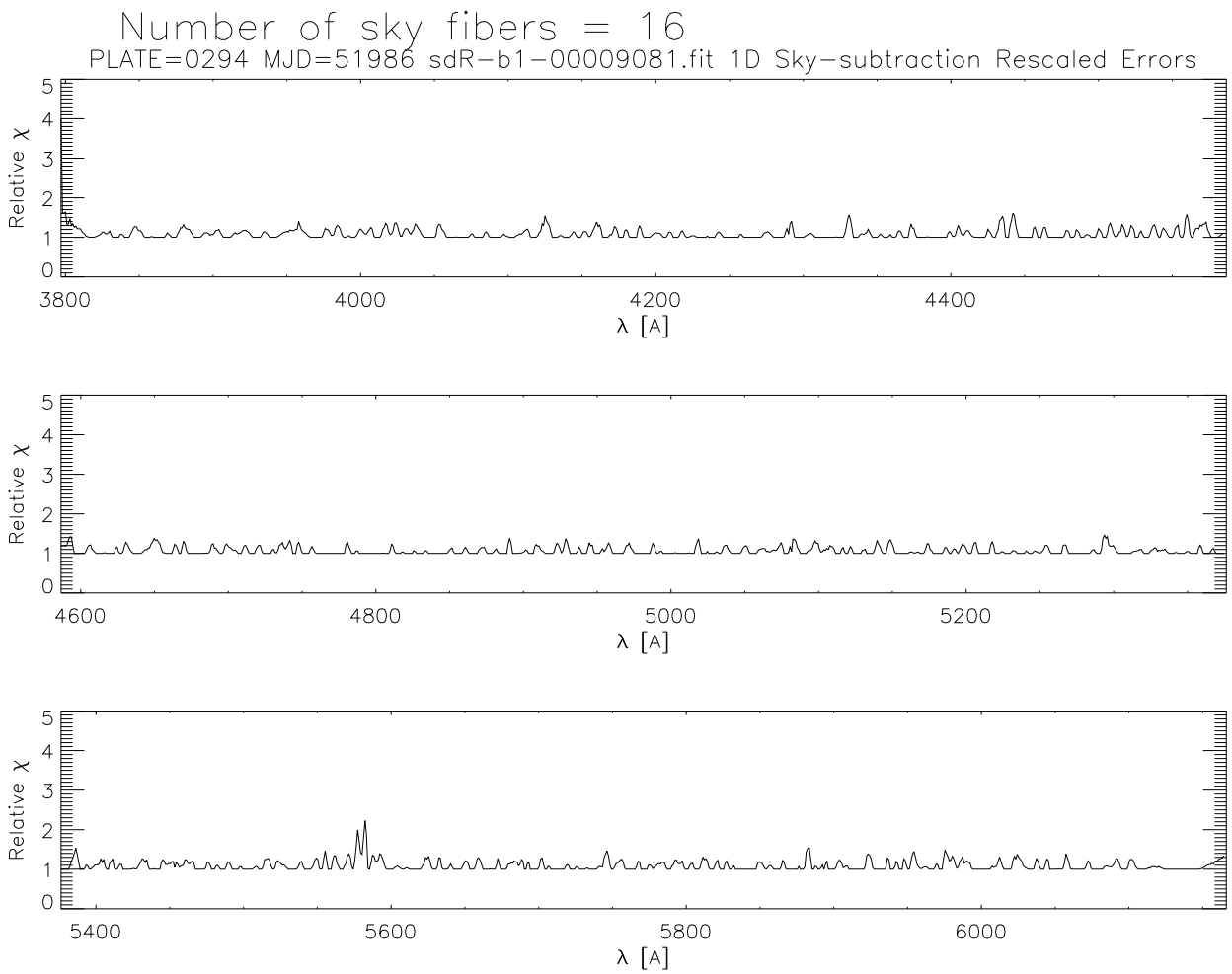
es= 0.0000

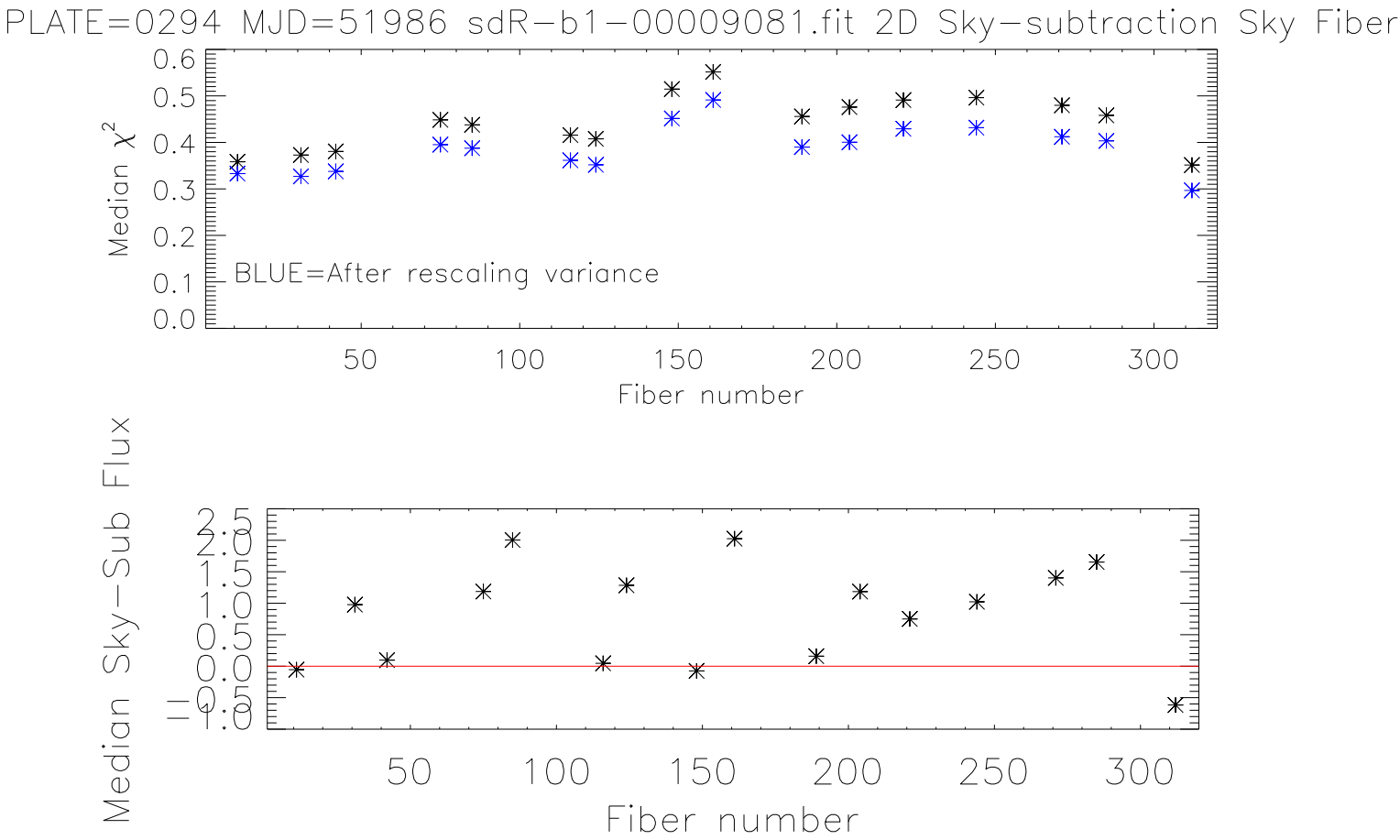

PLATE=0294 MJD=51986 Smooth superflat for sdR-b1-00009081.fit
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
0.985
4000
4500
5000
5500
6000
Wavelength (Å)

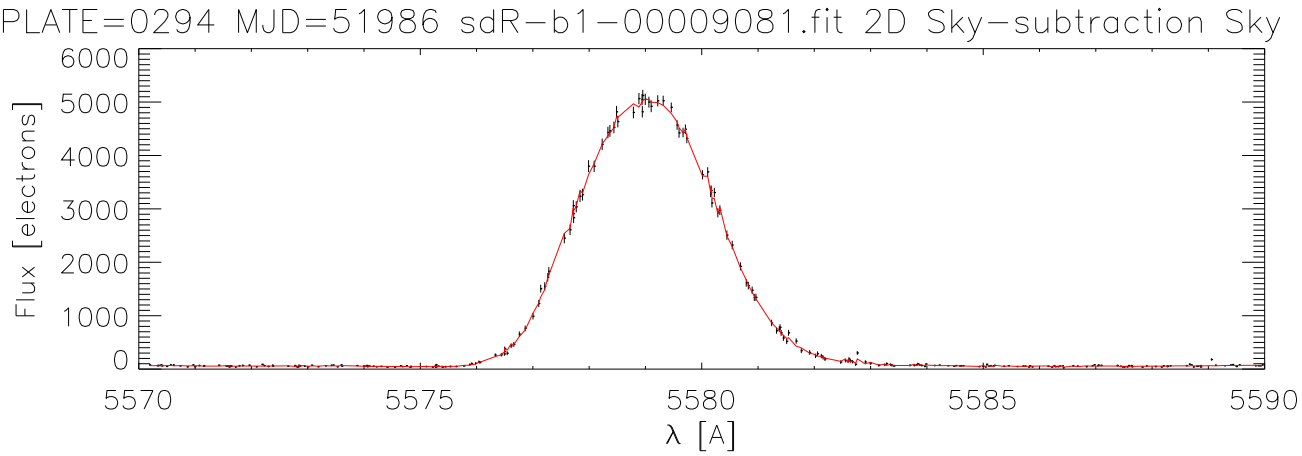

PLATE=0294 MJD=51986 sdR-b1-00009081.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.2
0.4
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-2
-1
0
1
2
3
50
100
150
200
250
300
Fiber number

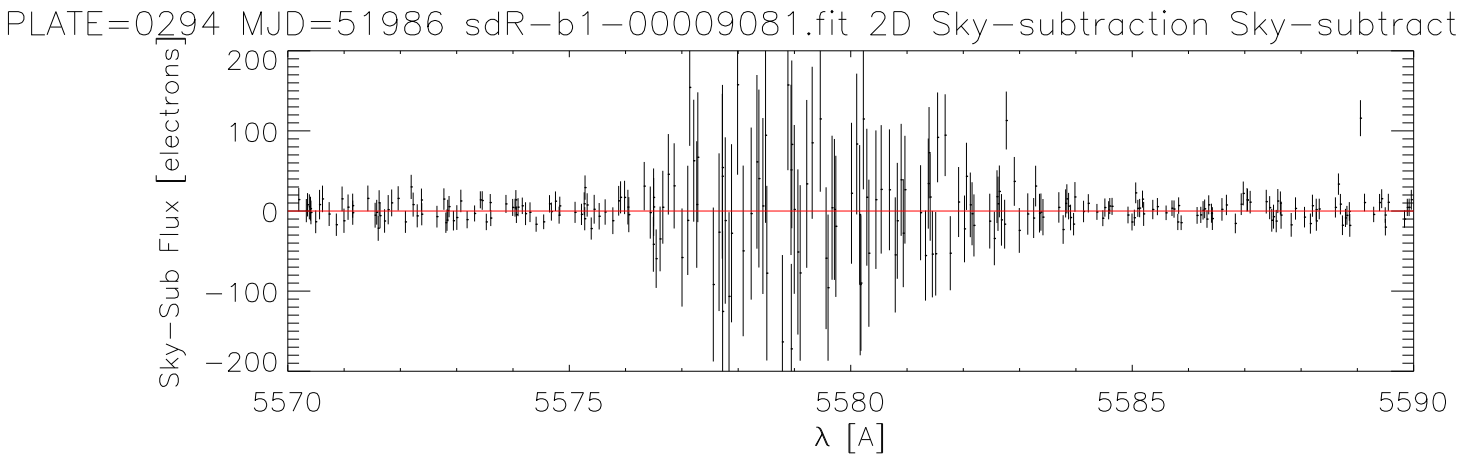

PLATE=0294 MJD=51986 sdR-b1-00009081.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
6000
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

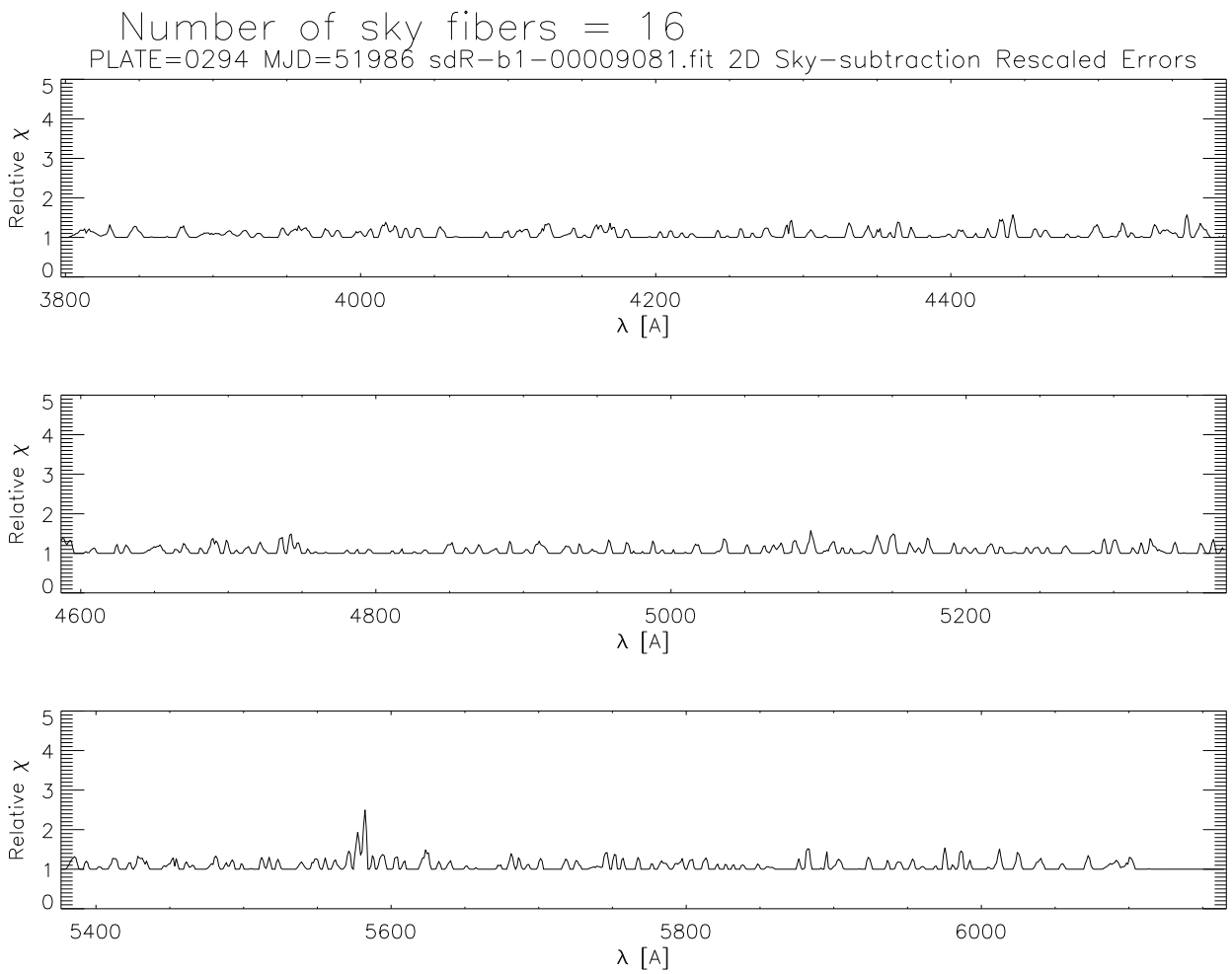

PLATE=0294 MJD=51986 sdR-b1-00009081.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
-300
5570
5575
5580
5585
5590
λ [A]

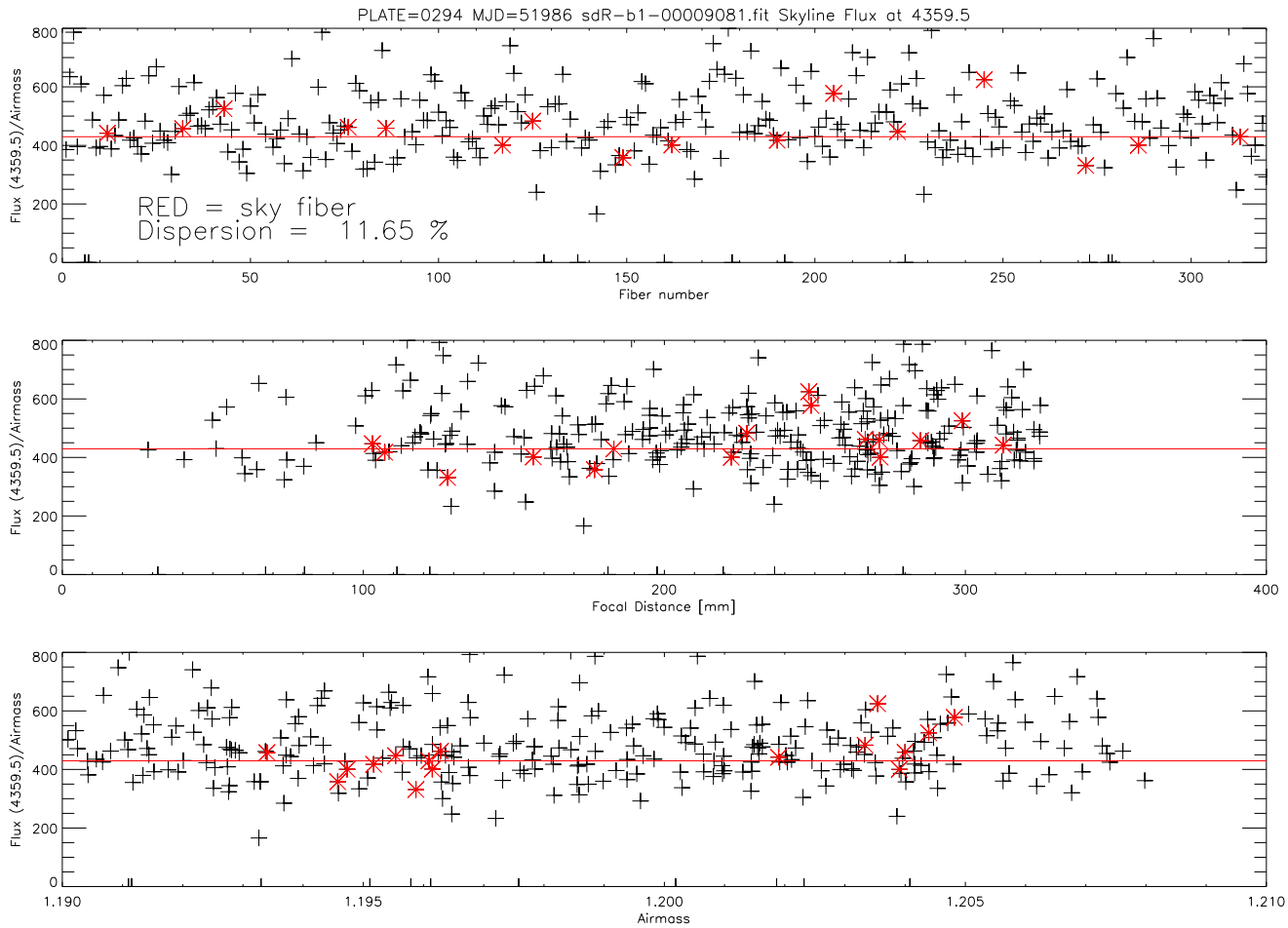

Number of sky fibers = 16
PLATE=0294 MJD=51986 sdR-b1-00009081.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

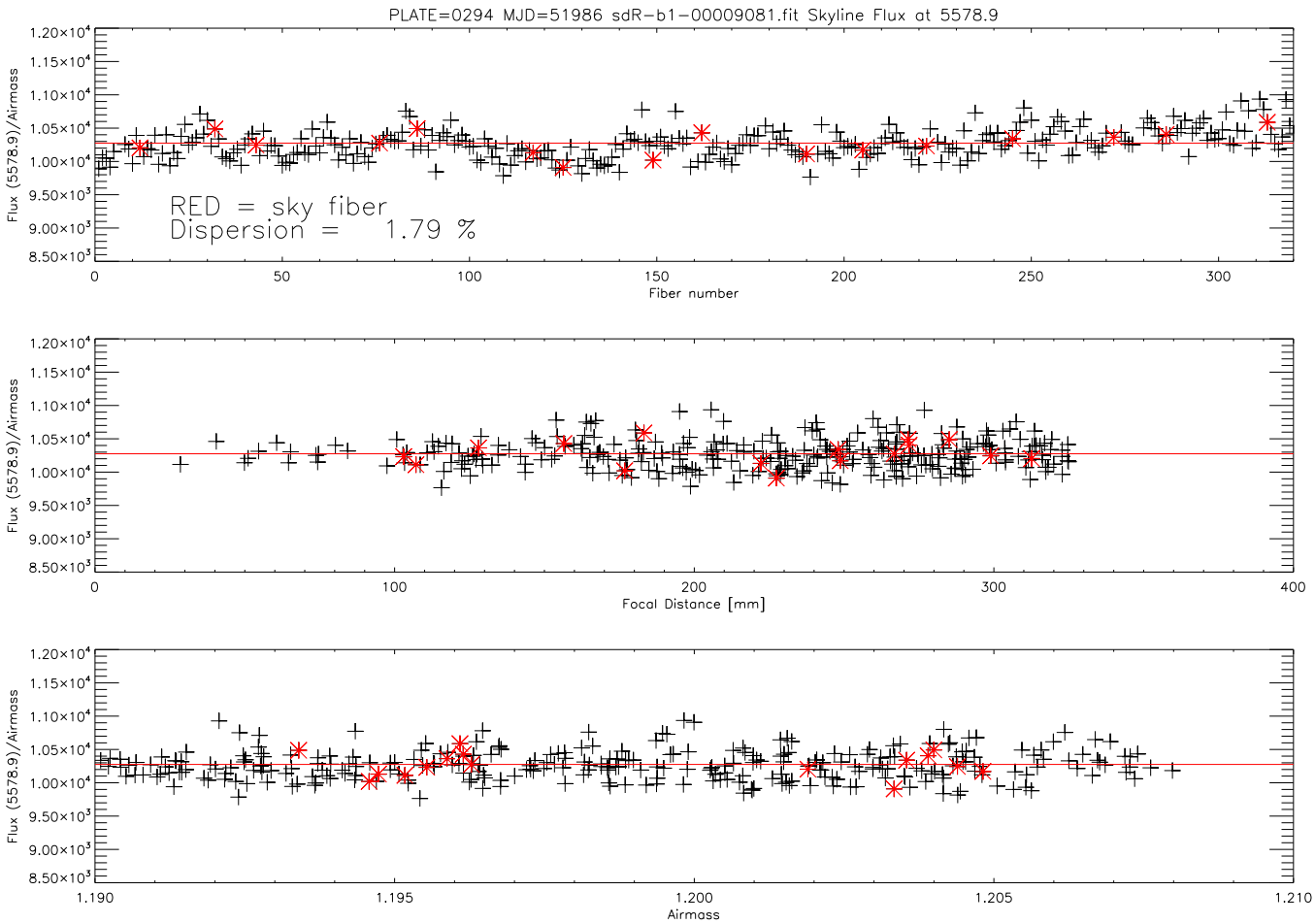

PLATE=0294 MJD=51986 sdR-b1-00009081.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

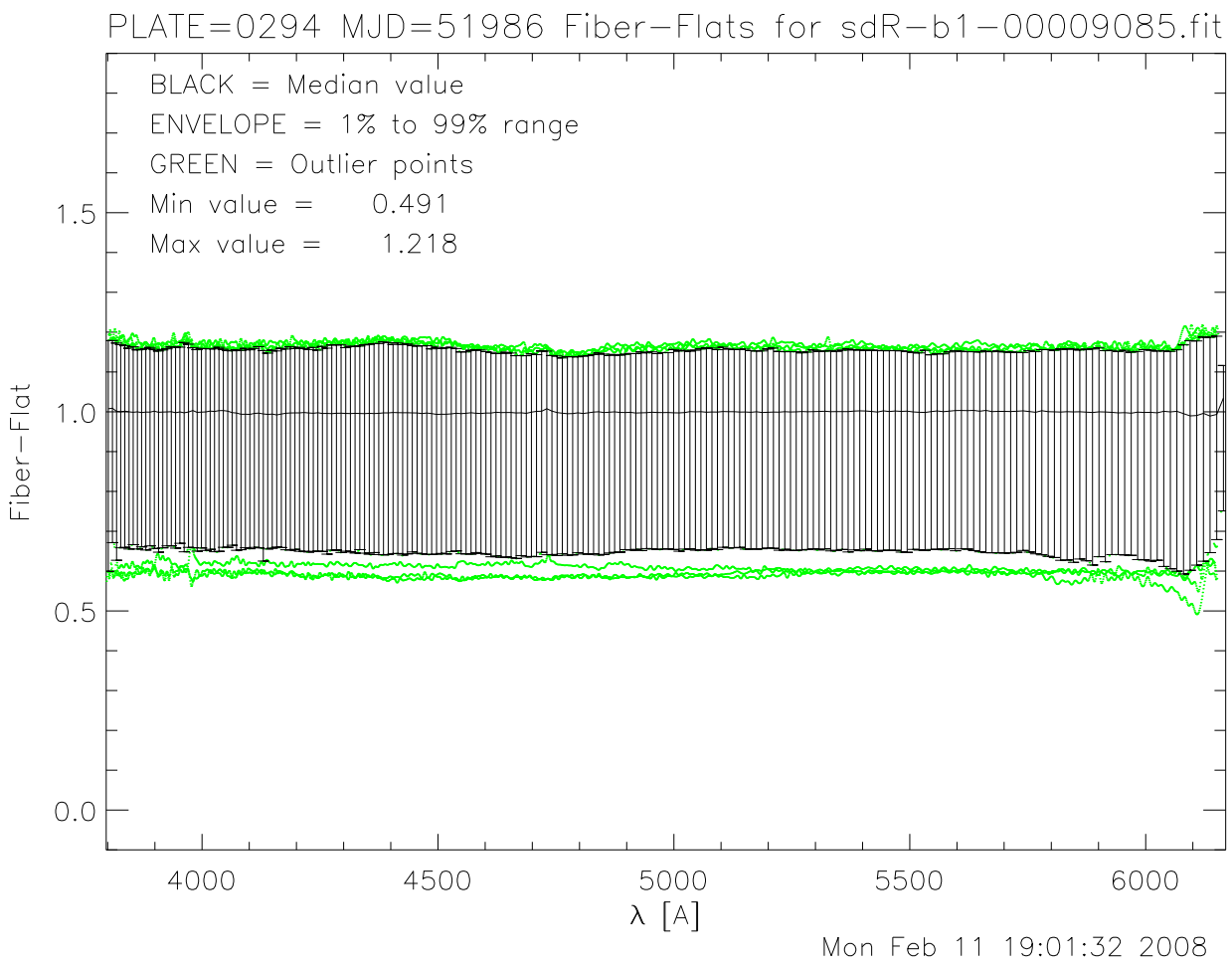

PLATE=0294 MJD=51986 sdR-b1-00009081.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
6000
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

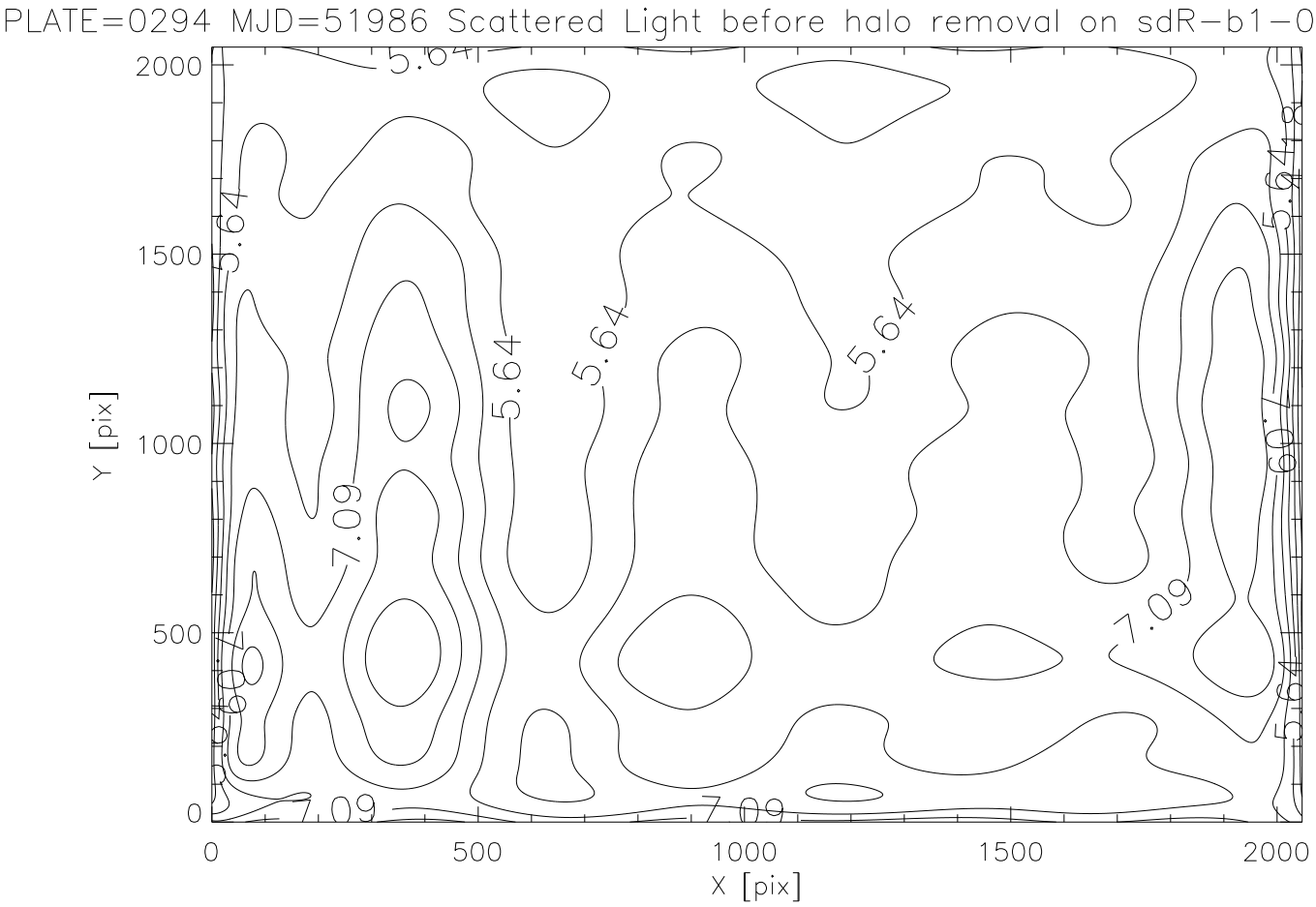

PLATE=0294 MJD=51986 sdR-b1-00009081.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
5570
5575
5580
5585
5590
λ [A]

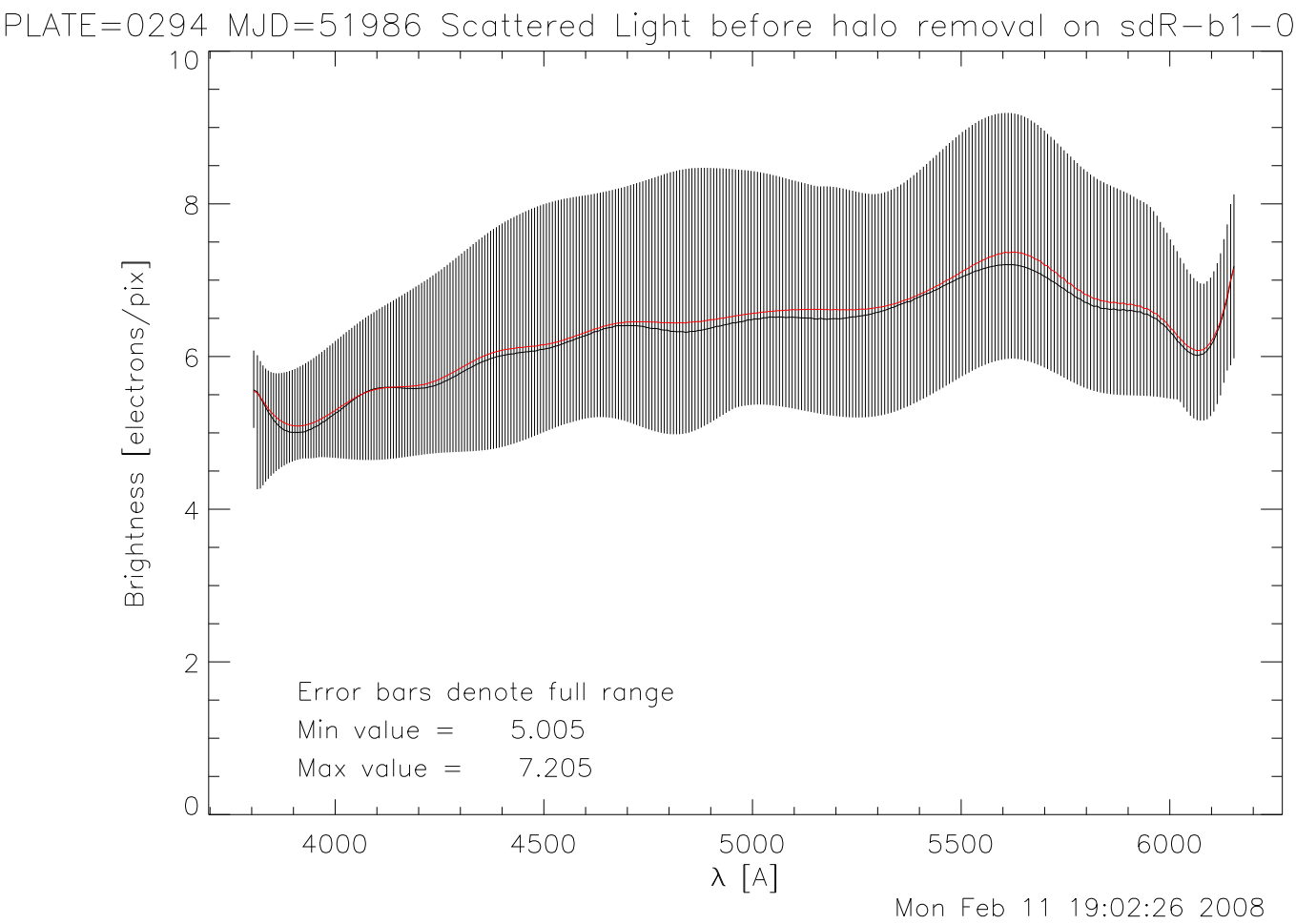

Number of sky fibers = 16
PLATE=0294 MJD=51986 sdR-b1-00009081.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

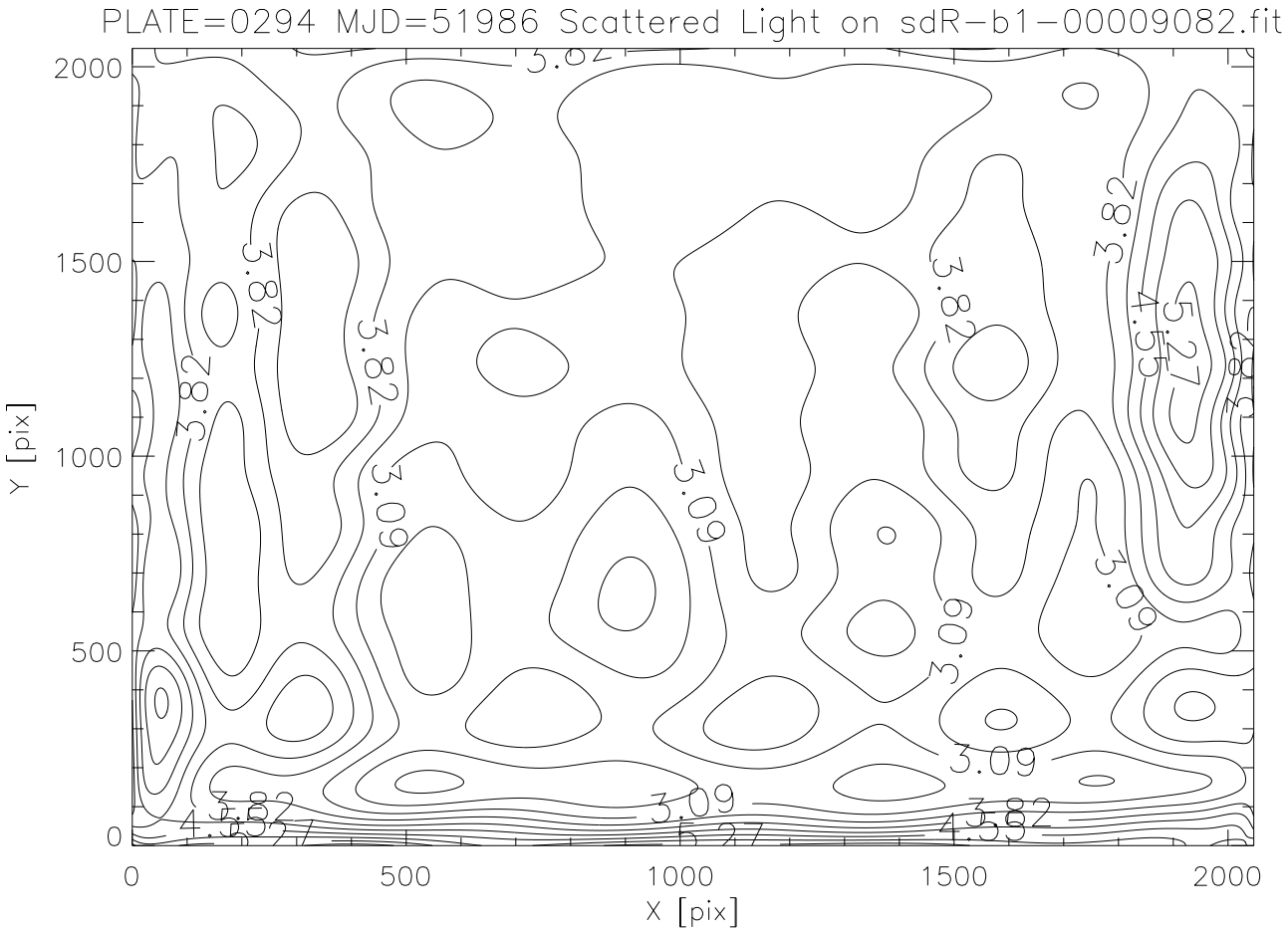

PLATE=0294 MJD=51986 sdR-b1-00009081.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 11.65 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

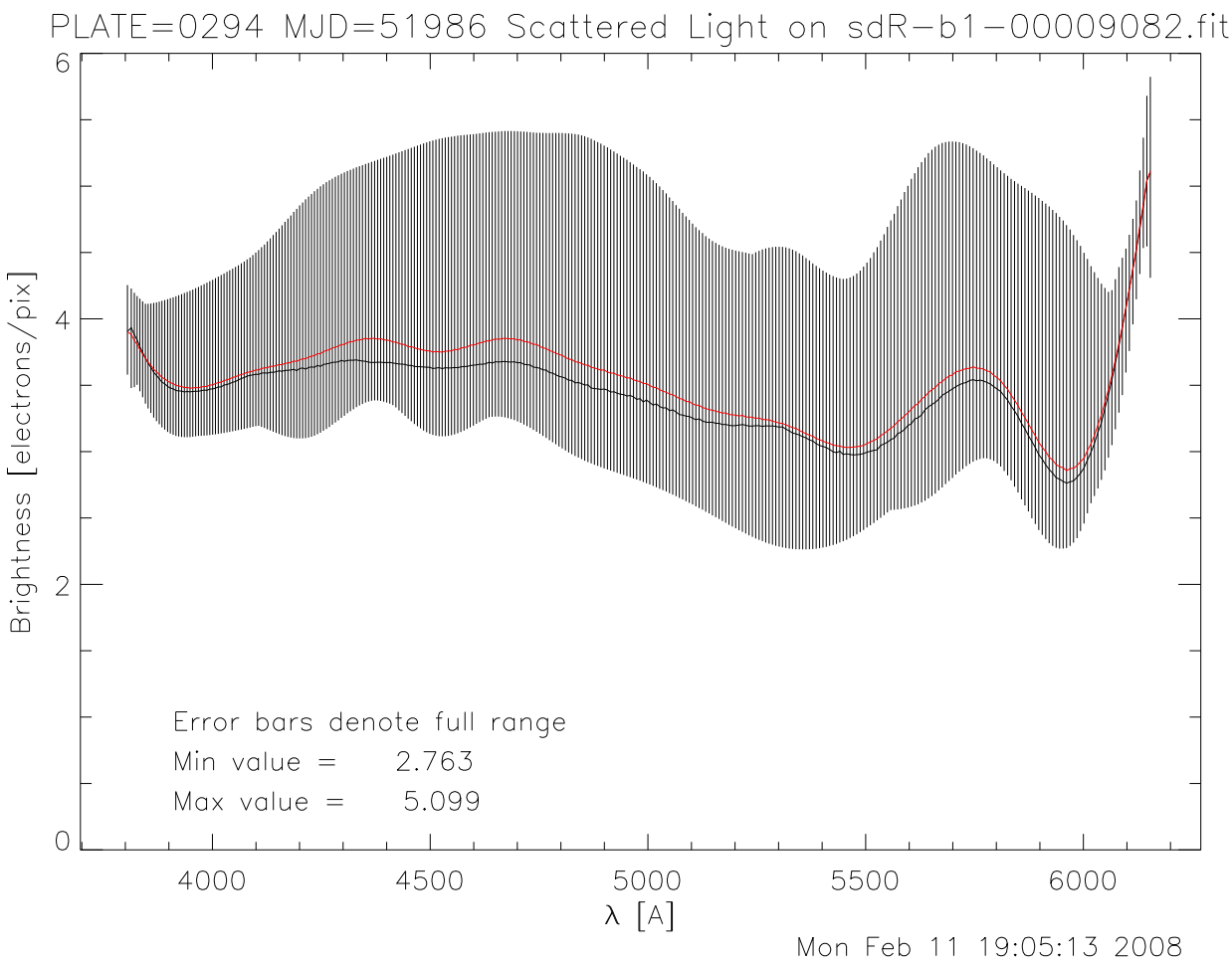

PLATE=0294 MJD=51986 sdR-b1-00009081.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 1.79 %
Fiber number
Flux (5578.9)/Airmass
Focal Distance [mm]
Flux (5578.9)/Airmass
Airmass

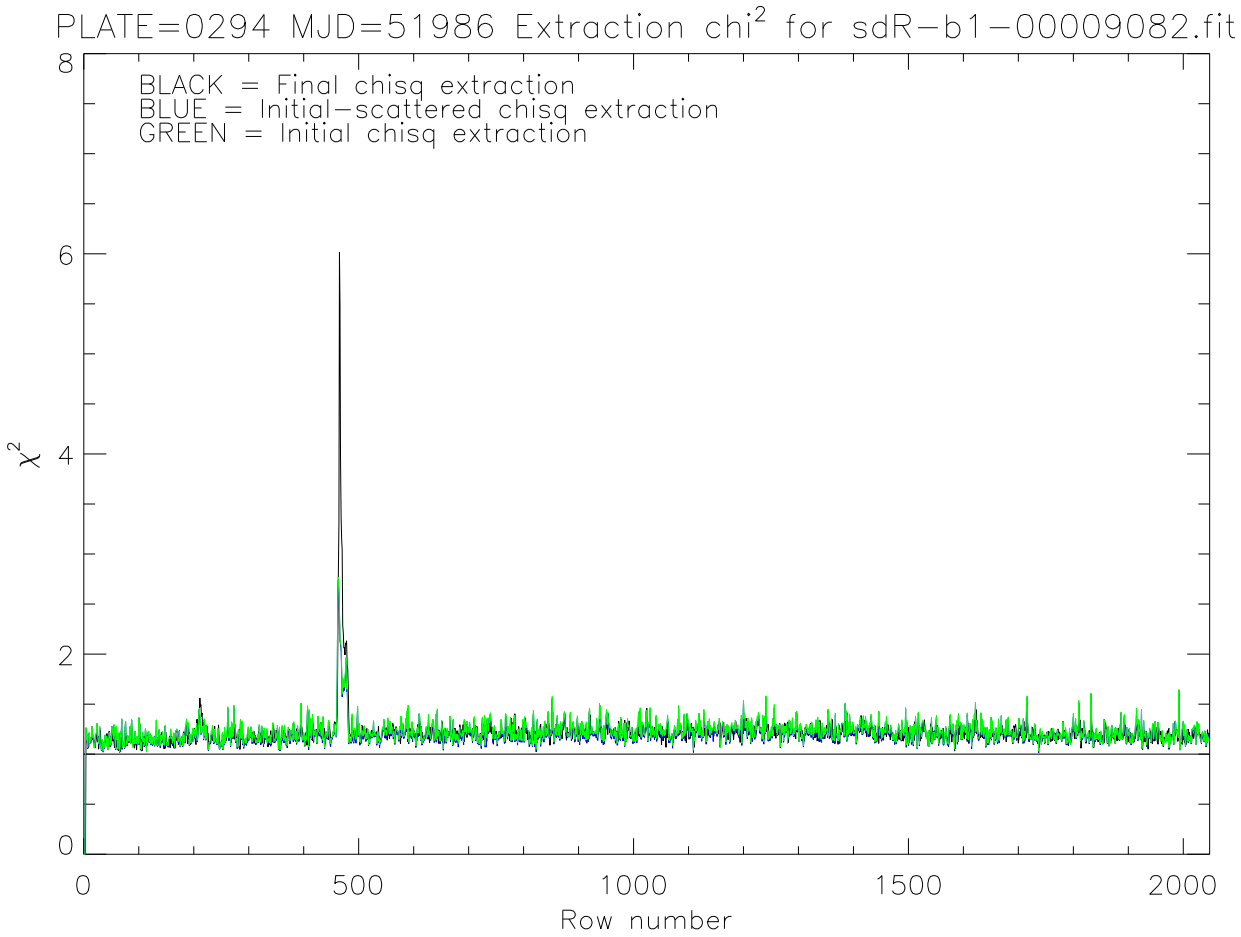

PLATE=0294 MJD=51986 Fiber-Flats for sdR-b1-00009085.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.491
Max value = 1.218
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Mon Feb 11 19:01:32 2008

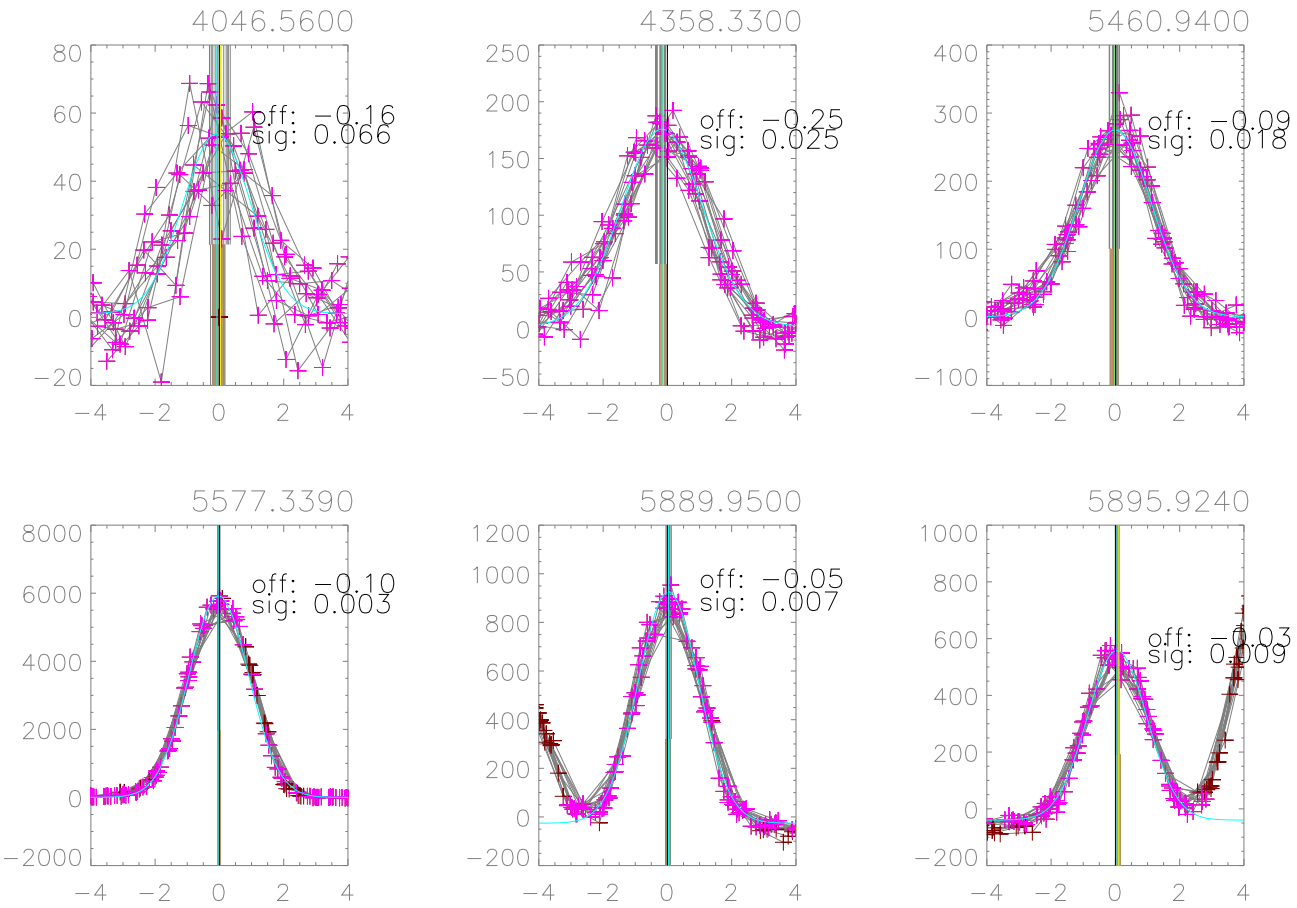

PLATE=0294 MJD=51986 Scattered Light before halo removal on sdR−b1−00009082.f
5.64
7.09
Y [pix]
X [pix]
0
500
1000
1500
2000

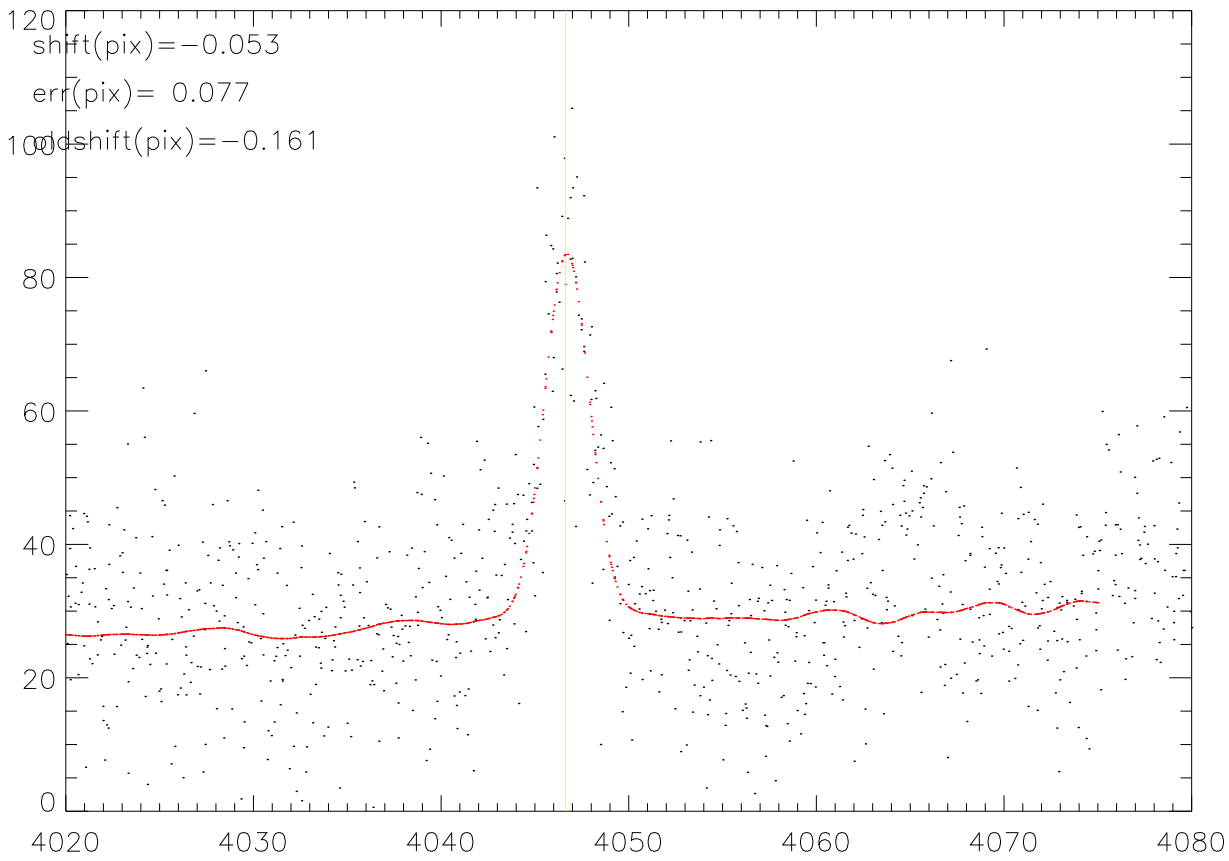

PLATE=0294 MJD=51986 Scattered Light before halo removal on sdR-b1-00009082.f
Brightness [electrons/pix]
10
8
6
4
2
0
Error bars denote full range
Min value = 5.005
Max value = 7.205
4000
4500
5000
5500
6000
λ [A]
Mon Feb 11 19:02:26 2008

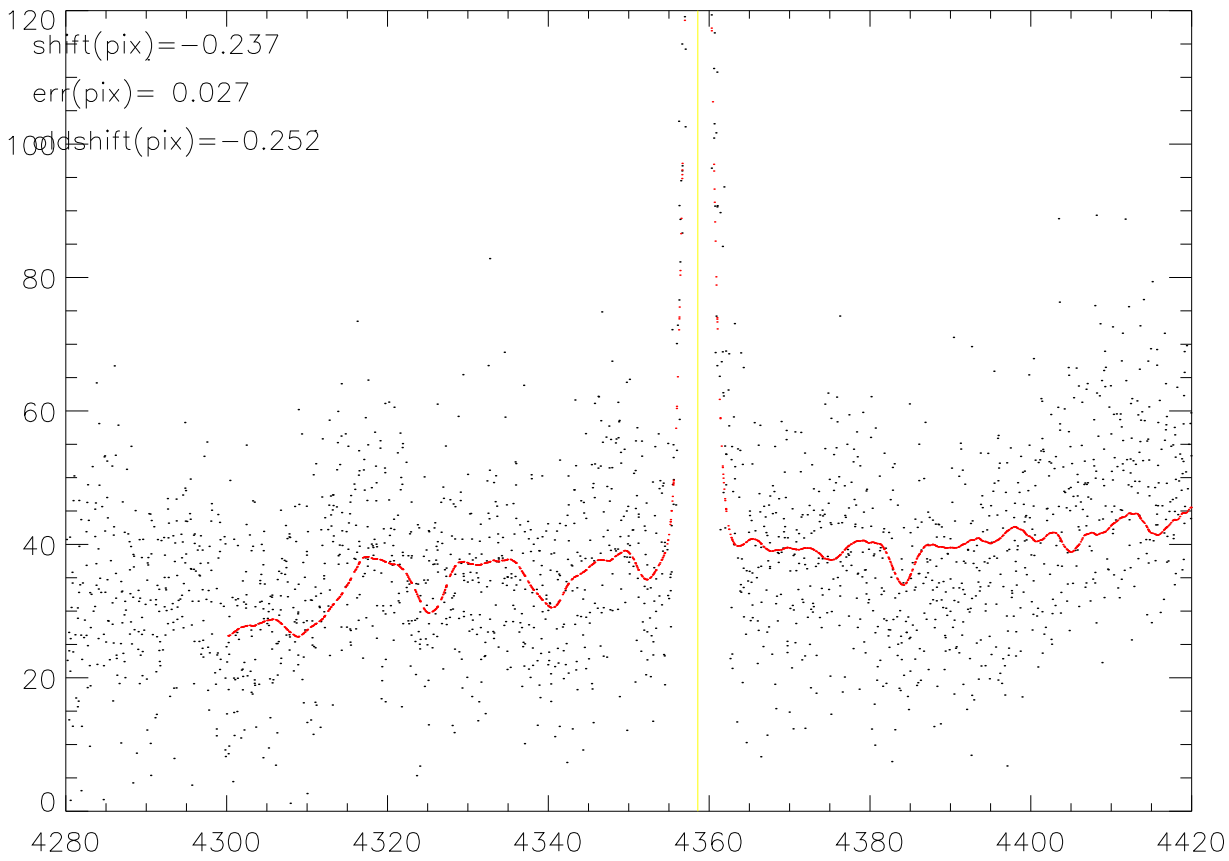

PLATE=0294 MJD=51986 Scattered Light on sdR-b1-00009082.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
3.82
3.09
4.55
5.27
60.3

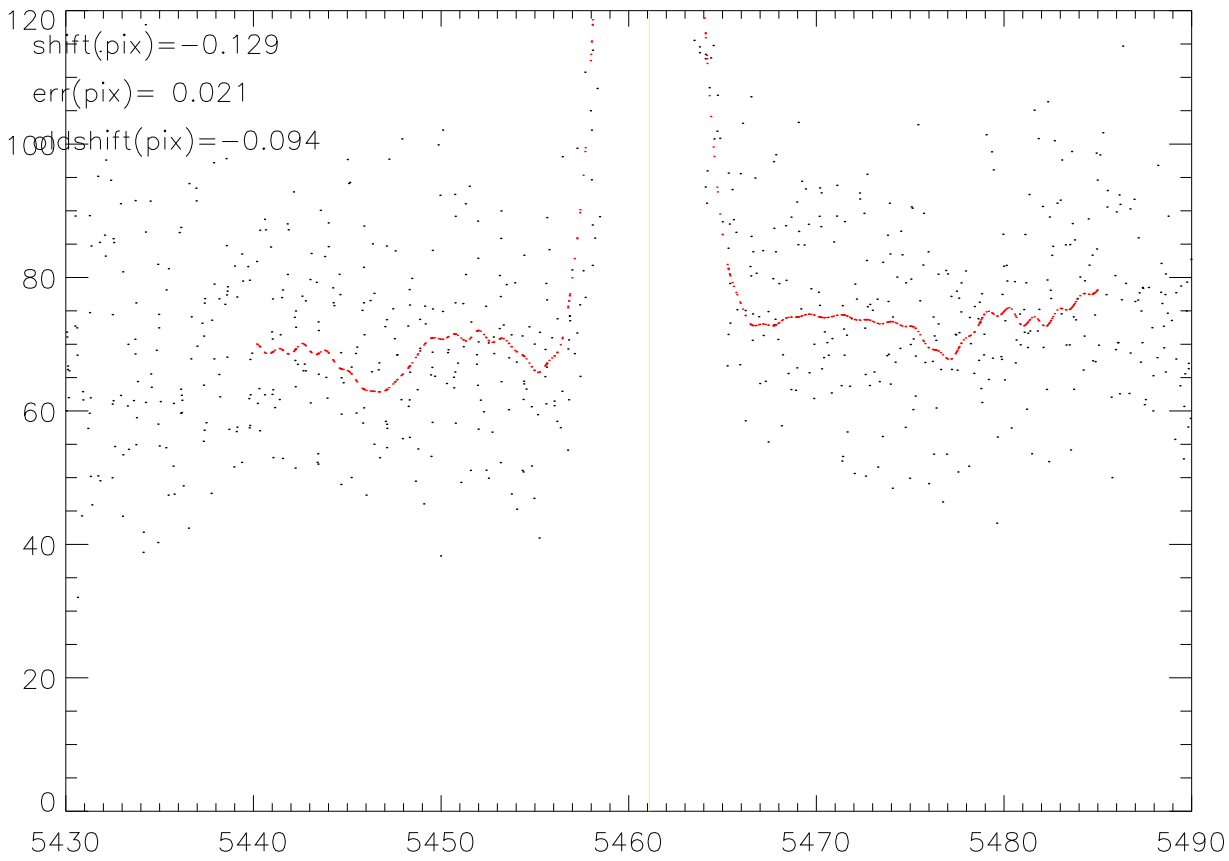

PLATE=0294 MJD=51986 Scattered Light on sdR-b1-00009082.fit
Brightness [electrons/pix]
0
2
4
6
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 2.763
Max value = 5.099
Mon Feb 11 19:05:13 2008

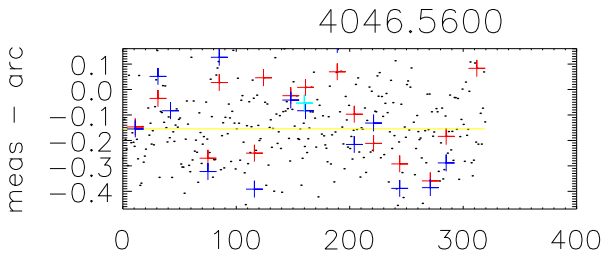

PLATE=0294 MJD=51986 Extraction chi^2 for sdR−b1−00009082.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
0
500
1000
1500
2000
Row number

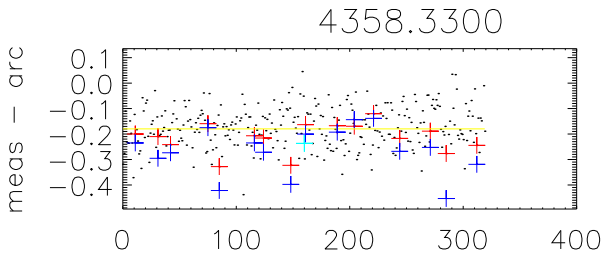

4046.5600
off: −0.16
sig: 0.066
4358.3300
off: −0.25
sig: 0.025
5460.9400
off: −0.09
sig: 0.018
5577.3390
off: −0.10
sig: 0.003
5889.9500
off: −0.05
sig: 0.007
5895.9240
off: −0.03
sig: 0.009

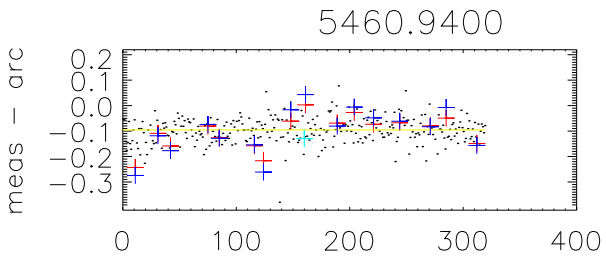

shift(pix)=−0.053
err(pix)= 0.077
oldshift(pix)=−0.161
120
100
80
60
40
20
0
4020
4030
4040
4050
4060
4070
4080

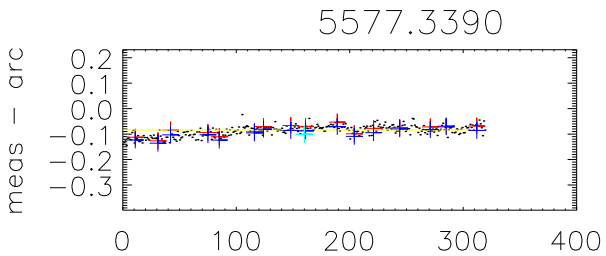

shift(pix)=−0.237
err(pix)= 0.027
oldshift(pix)=−0.252
120
100
80
60
40
20
0
4280
4300
4320
4340
4360
4380
4400
4420

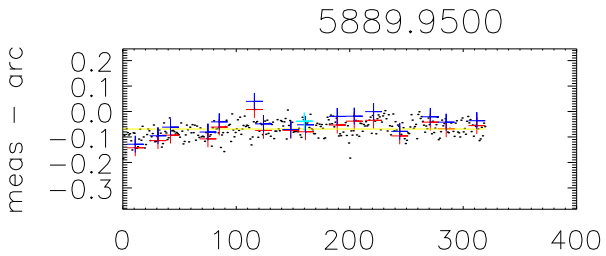

shift(pix)=−0.129
err(pix)= 0.021
oldshift(pix)=−0.094
120
100
80
60
40
20
0
5430
5440
5450
5460
5470
5480
5490

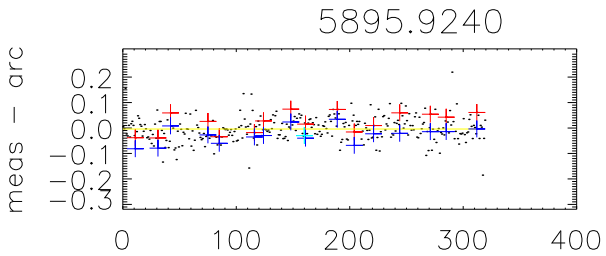

4046.5600
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

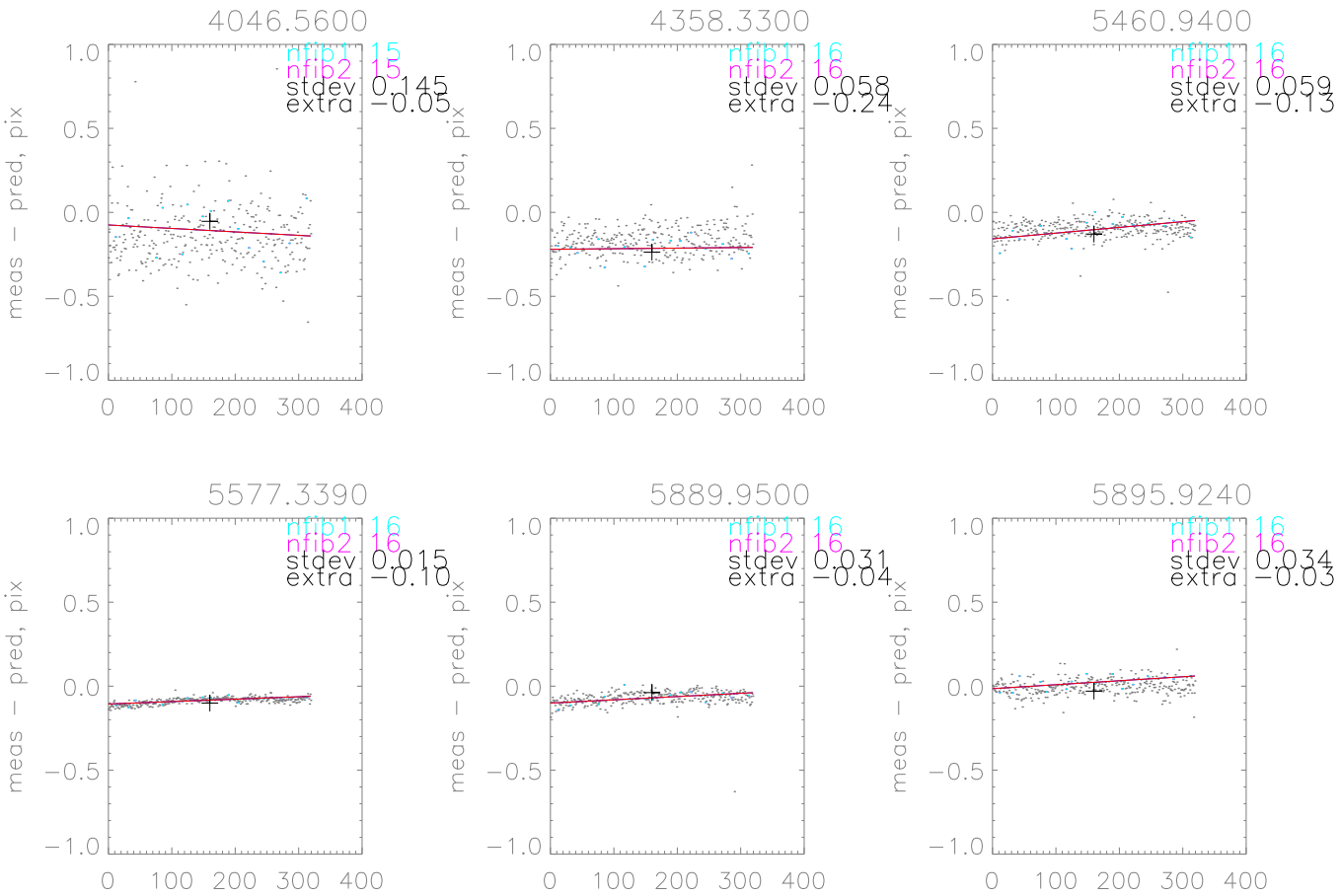

4358.3300
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

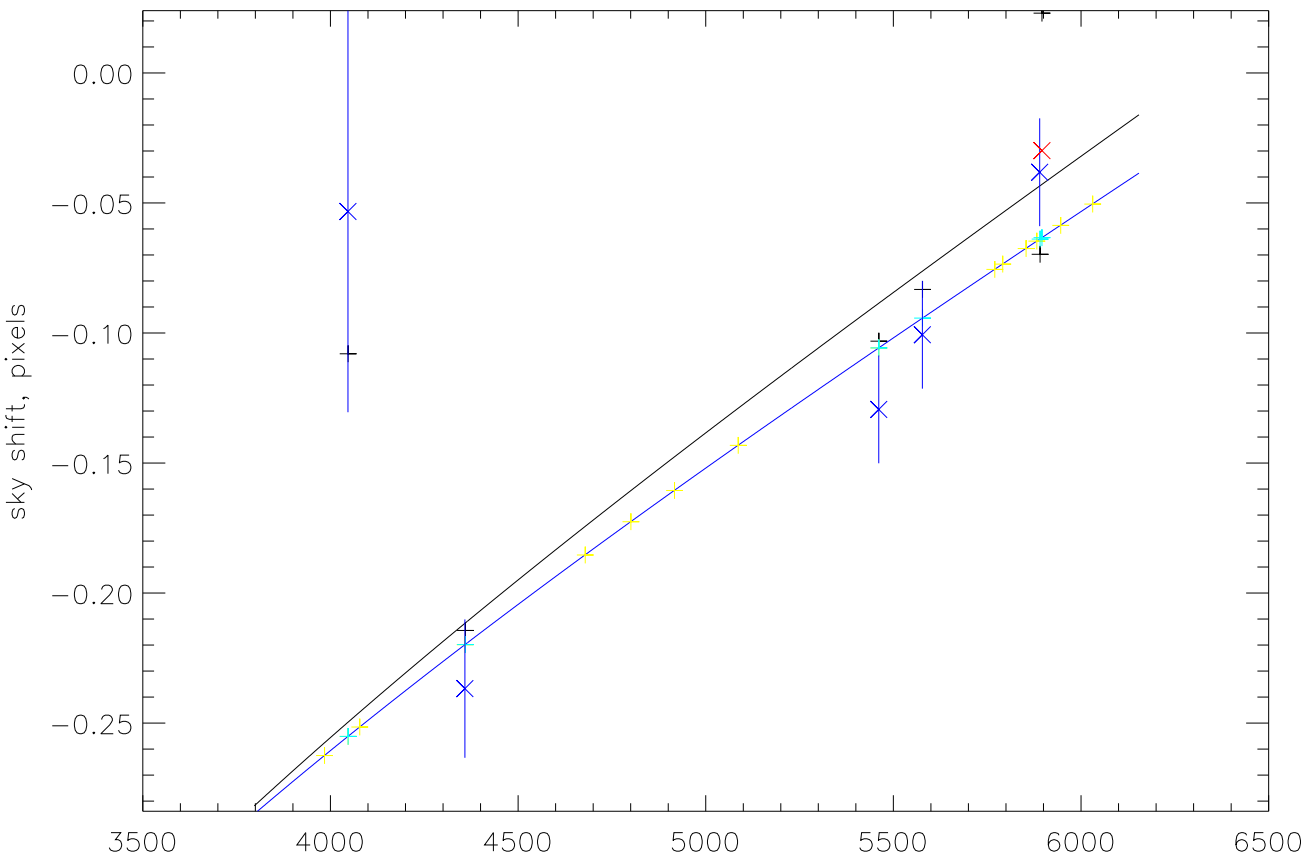

5460.9400
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

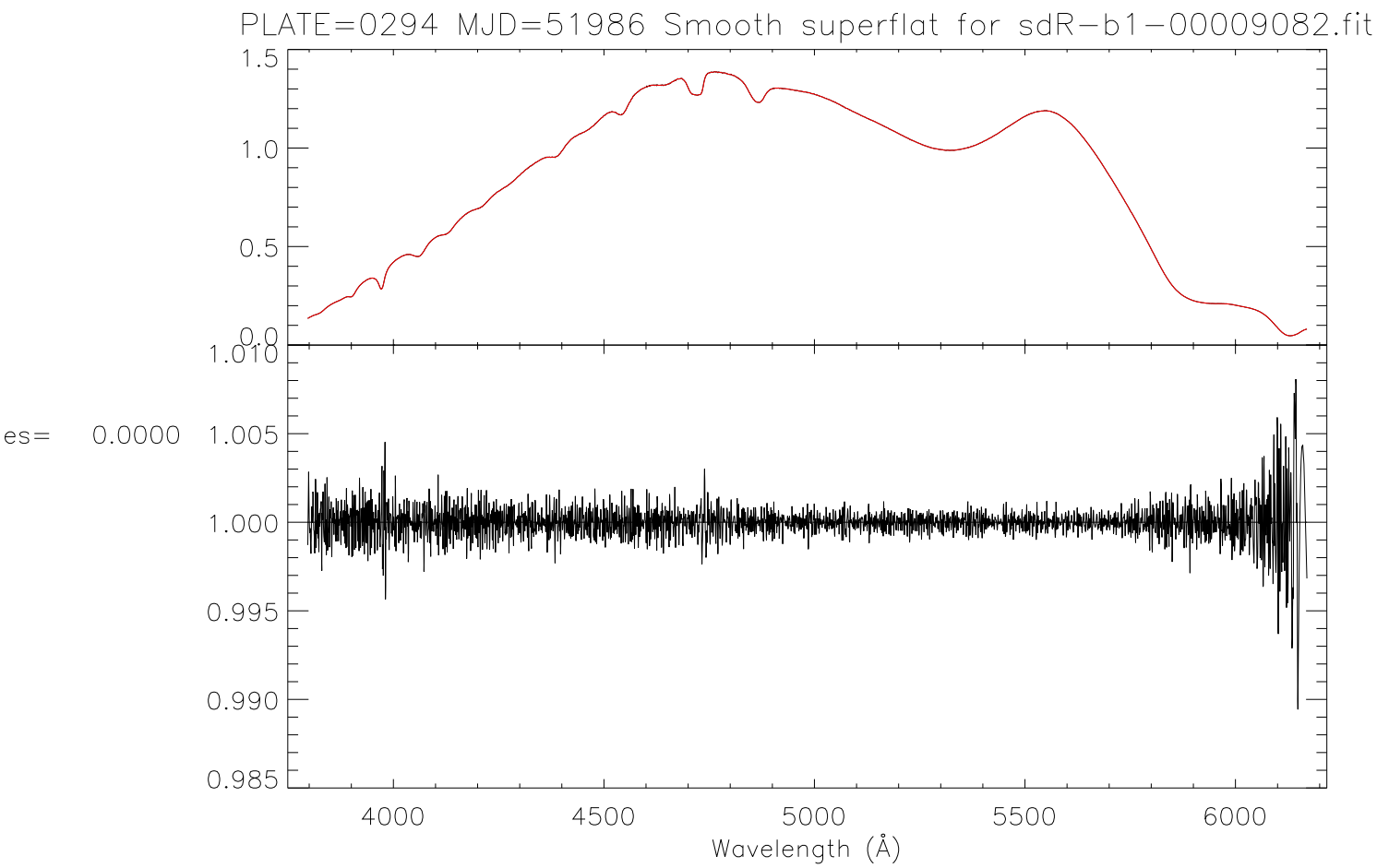

5577.3390
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400


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

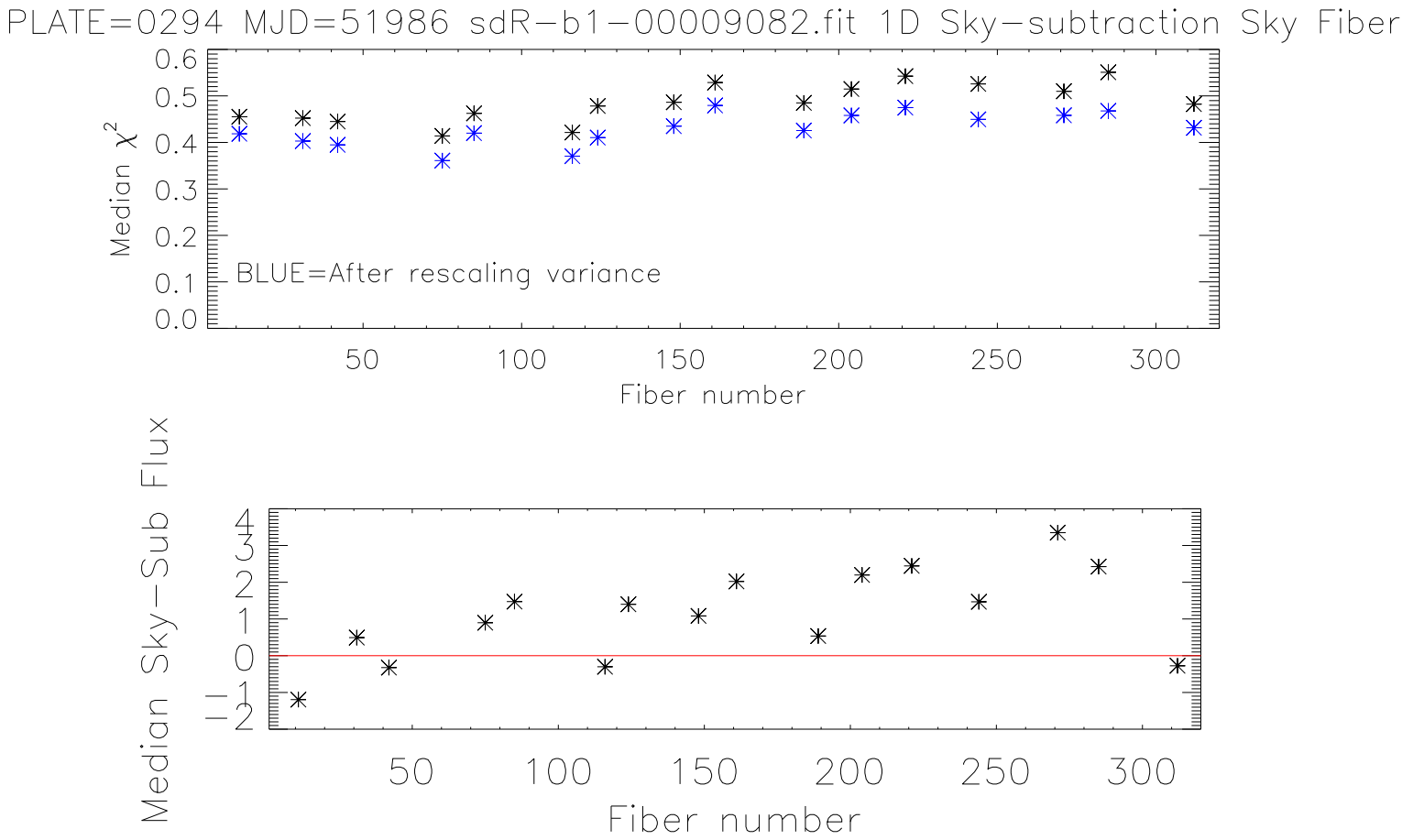

5895.9240
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

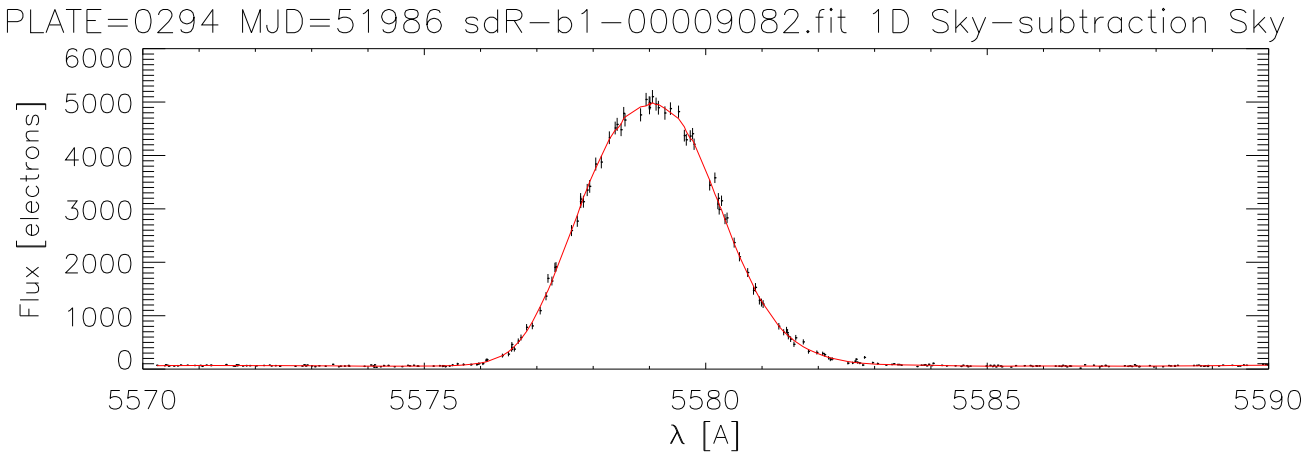

4046.5600
nfib1 15
nfib2 15
stdev 0.145
extra −0.05
4358.3300
nfib1 16
nfib2 16
stdev 0.058
extra −0.24
5460.9400
nfib1 16
nfib2 16
stdev 0.059
extra −0.13
5577.3390
nfib1 16
nfib2 16
stdev 0.015
extra −0.10
5889.9500
nfib1 16
nfib2 16
stdev 0.031
extra −0.04
5895.9240
nfib1 16
nfib2 16
stdev 0.034
extra −0.03
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

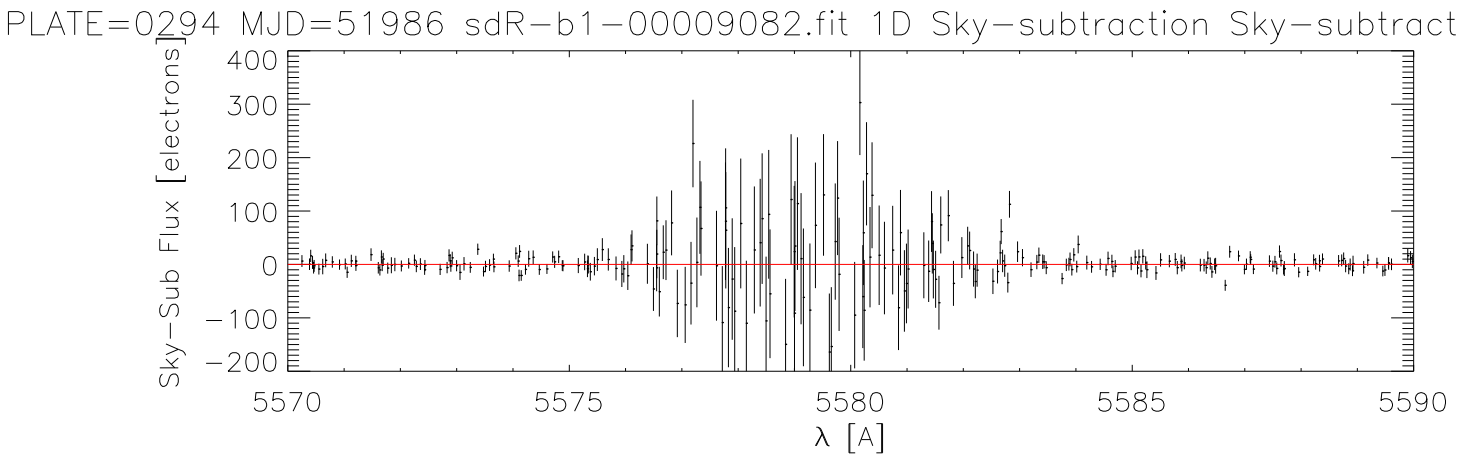

0.00
−0.05
−0.10
−0.15
−0.20
−0.25
sky shift, pixels
3500
4000
4500
5000
5500
6000
6500

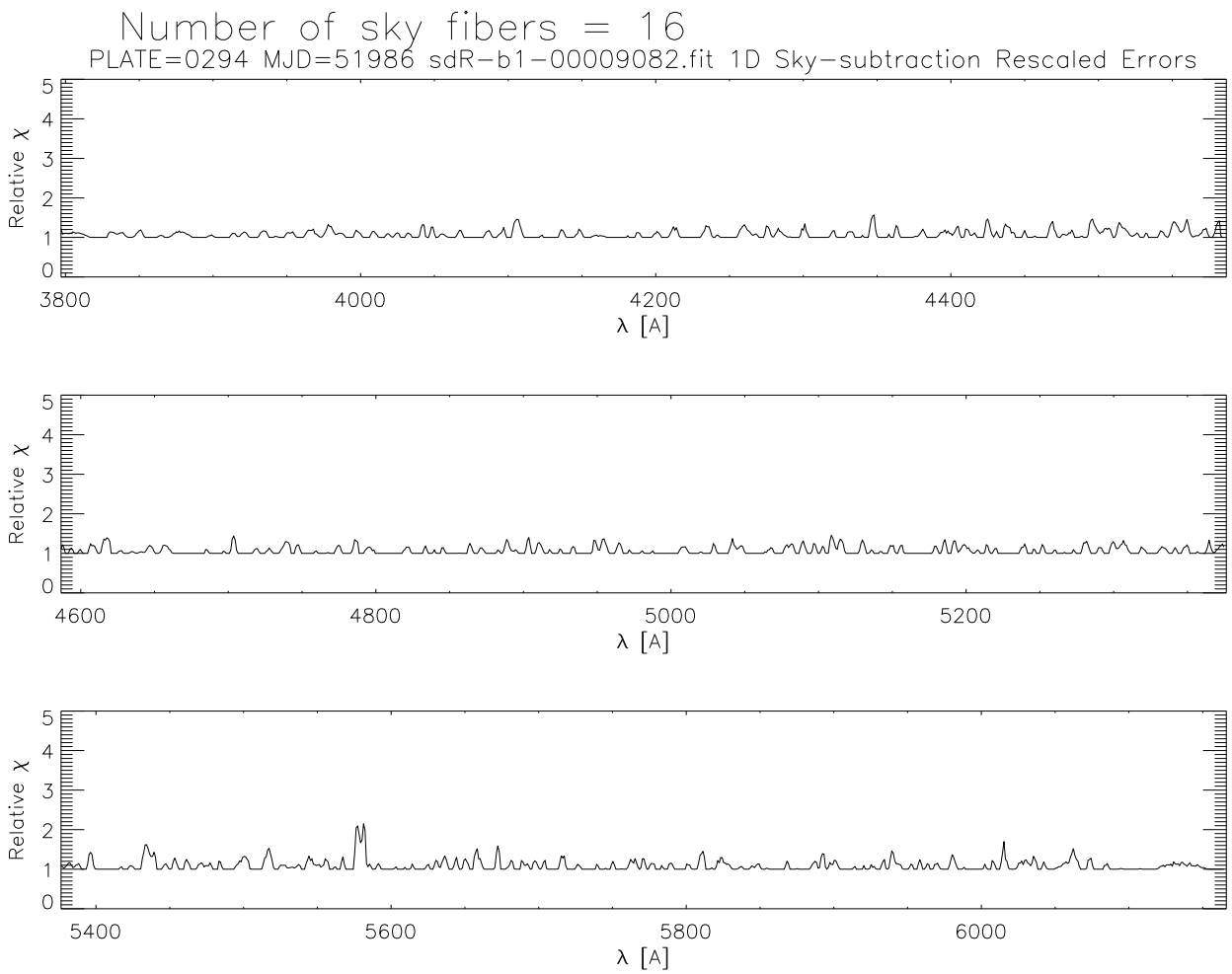

PLATE=0294 MJD=51986 Smooth superflat for sdR-b1-00009082.fit
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
0.985
4000
4500
5000
5500
6000
Wavelength (Å)

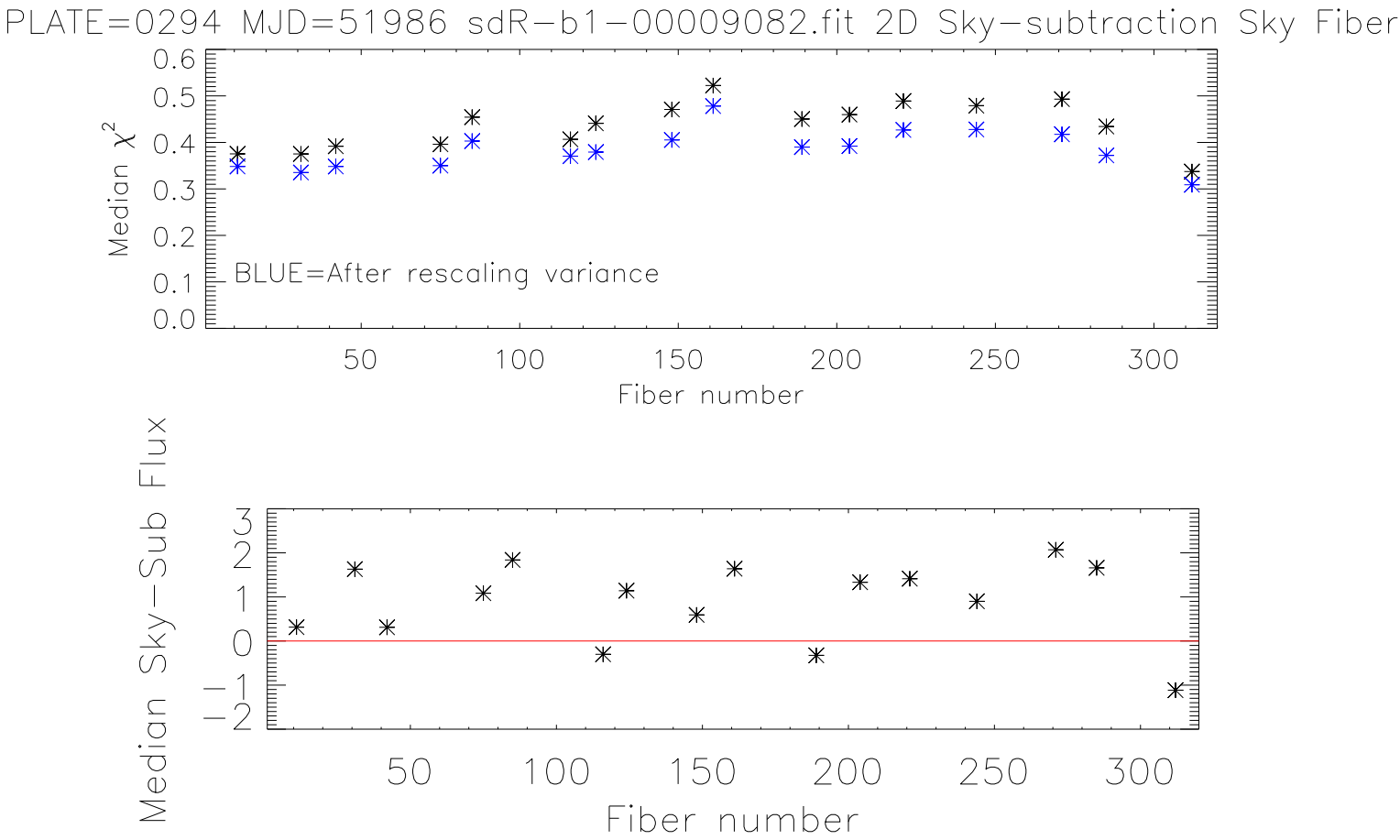
es= 0.0000

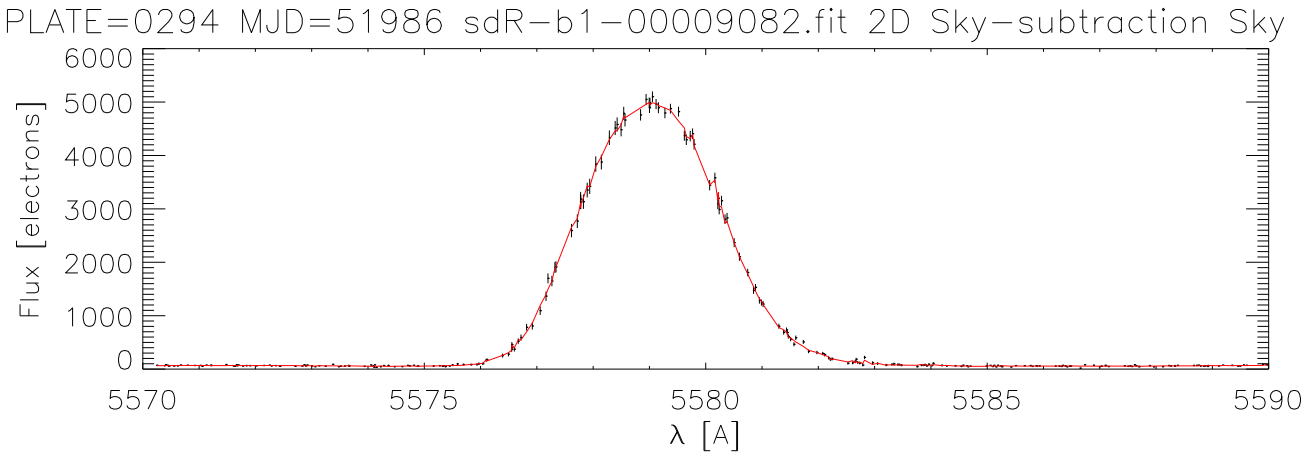

PLATE=0294 MJD=51986 sdR-b1-00009082.fit 1D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

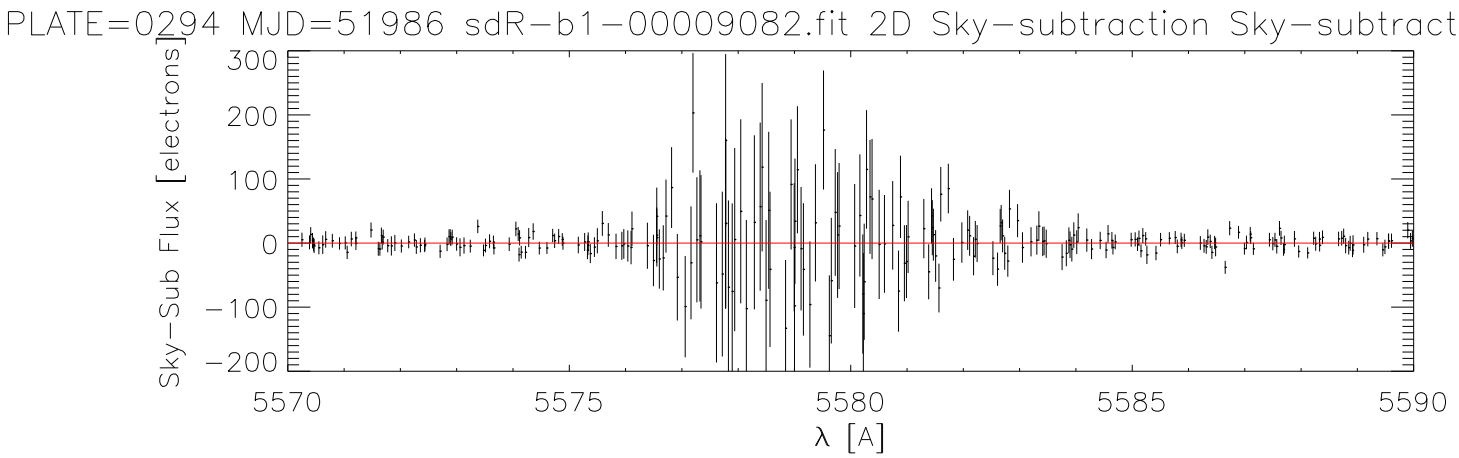

PLATE=0294 MJD=51986 sdR-b1-00009082.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
6000
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

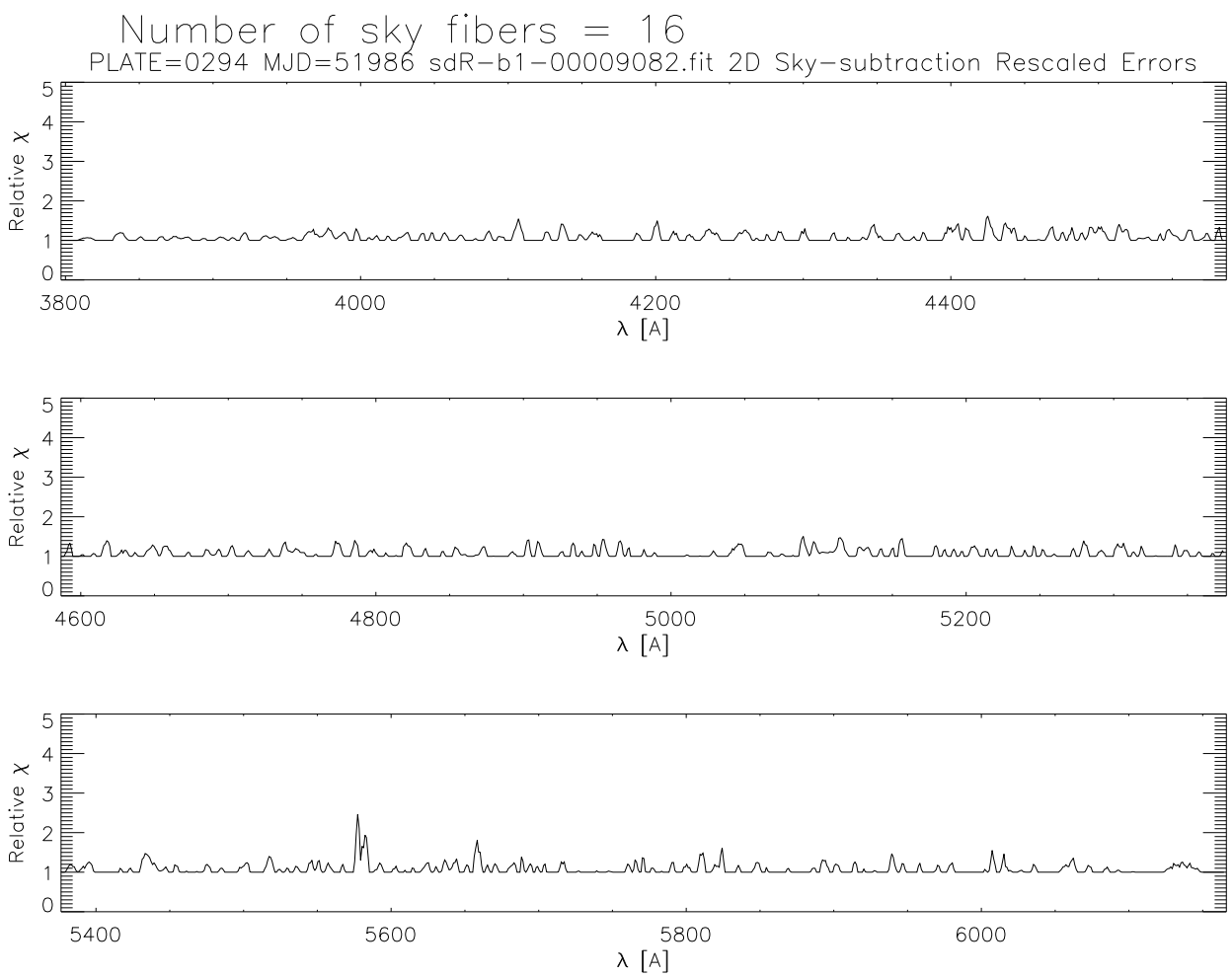

PLATE=0294 MJD=51986 sdR-b1-00009082.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
300
200
100
0
-100
-200
5570
5575
5580
5585
5590
λ [A]

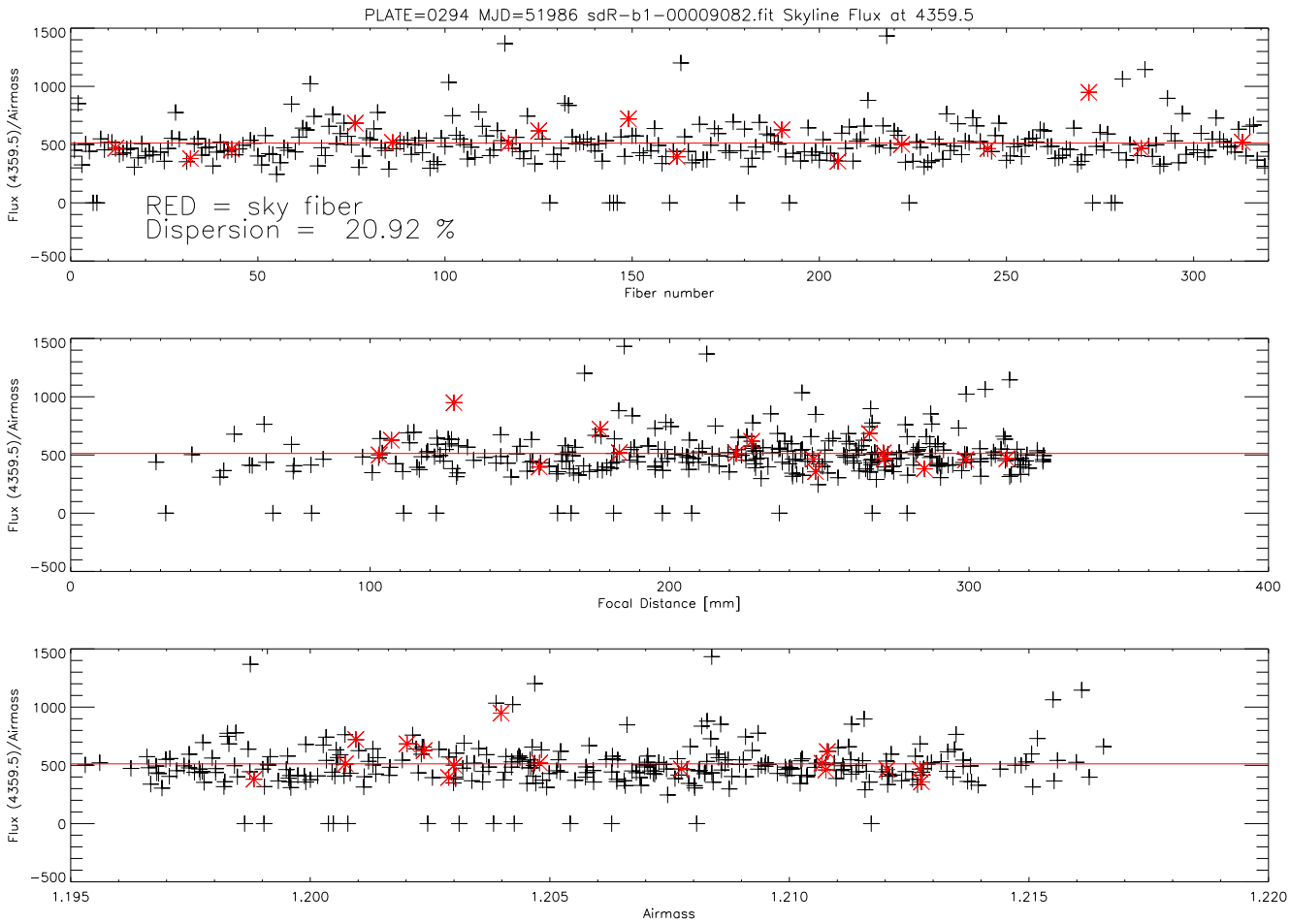

Number of sky fibers = 16
PLATE=0294 MJD=51986 sdR-b1-00009082.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

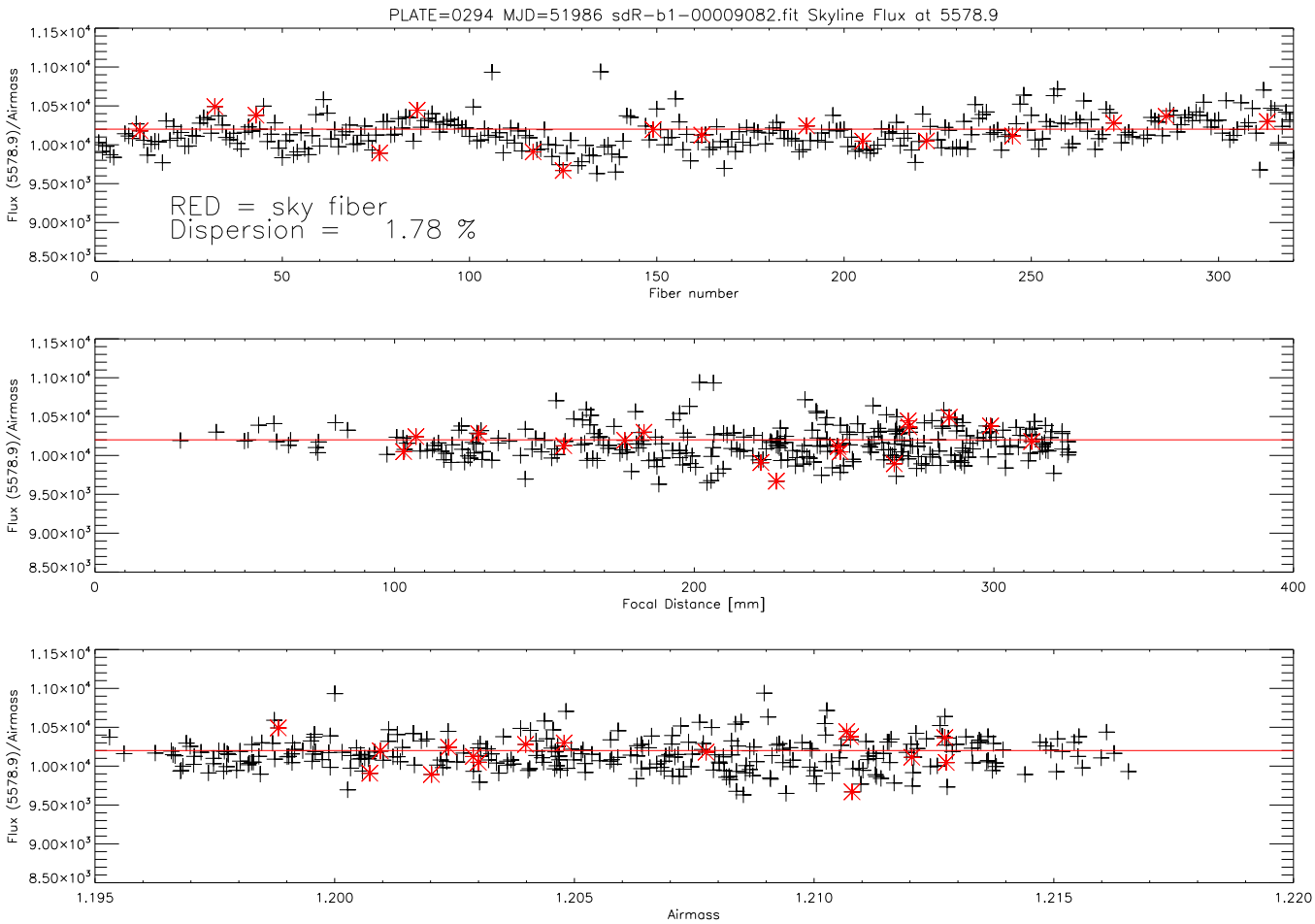

PLATE=0294 MJD=51986 sdR-b1-00009082.fit 2D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-2
-1
0
1
2
3
50
100
150
200
250
300
Fiber number

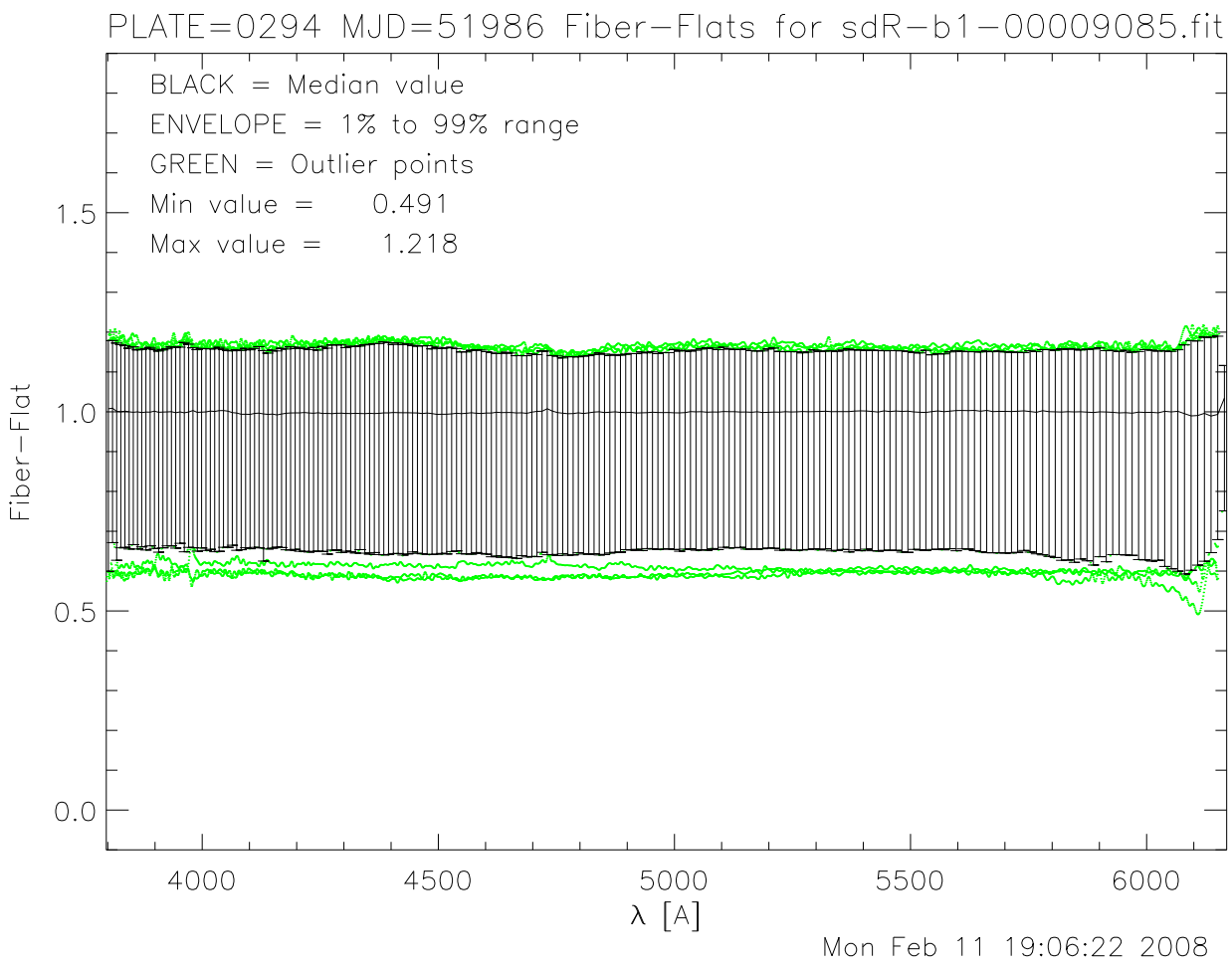

PLATE=0294 MJD=51986 sdR-b1-00009082.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
6000
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

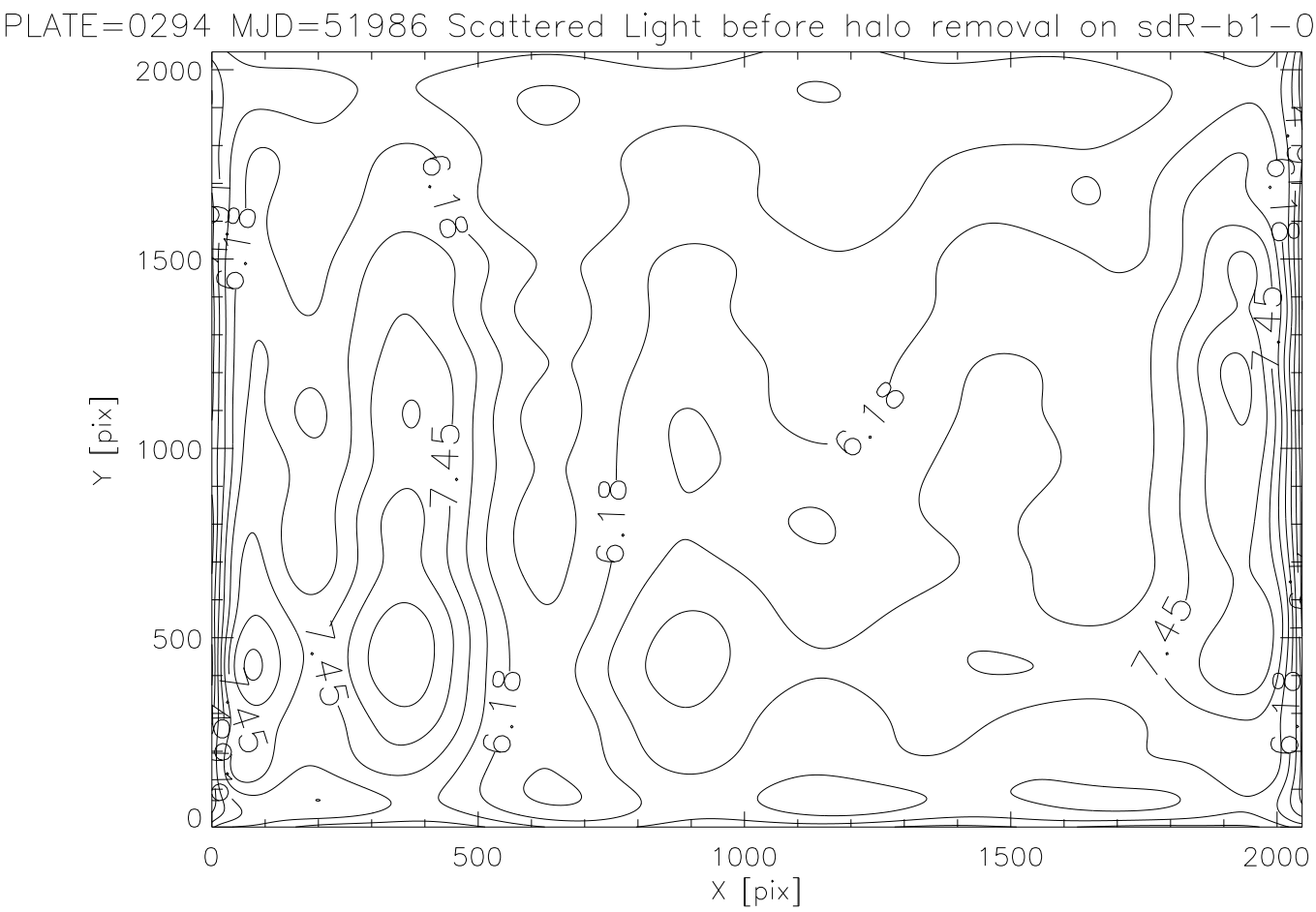

PLATE=0294 MJD=51986 sdR-b1-00009082.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
5570
5575
5580
5585
5590
λ [A]

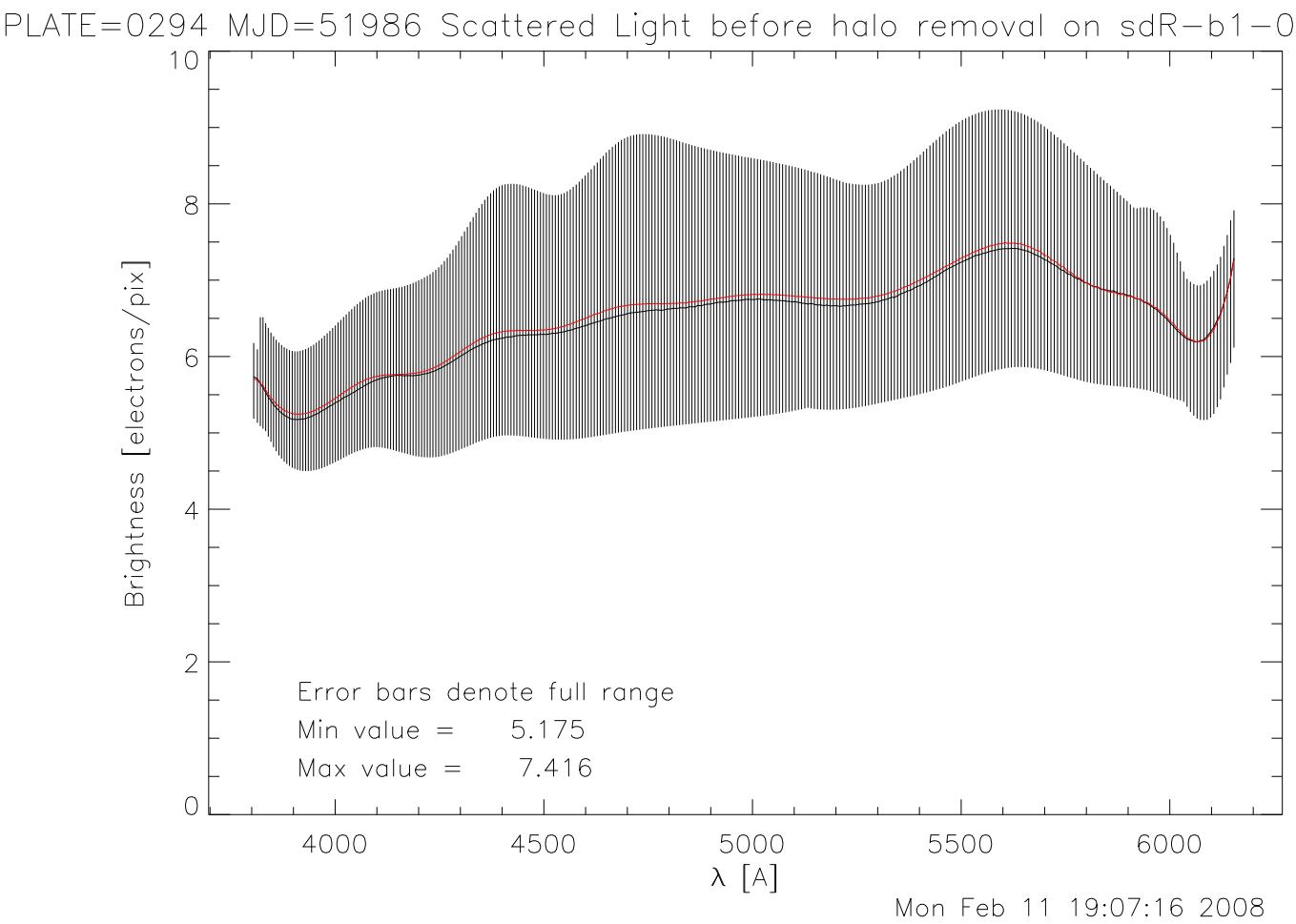

Number of sky fibers = 16
PLATE=0294 MJD=51986 sdR-b1-00009082.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

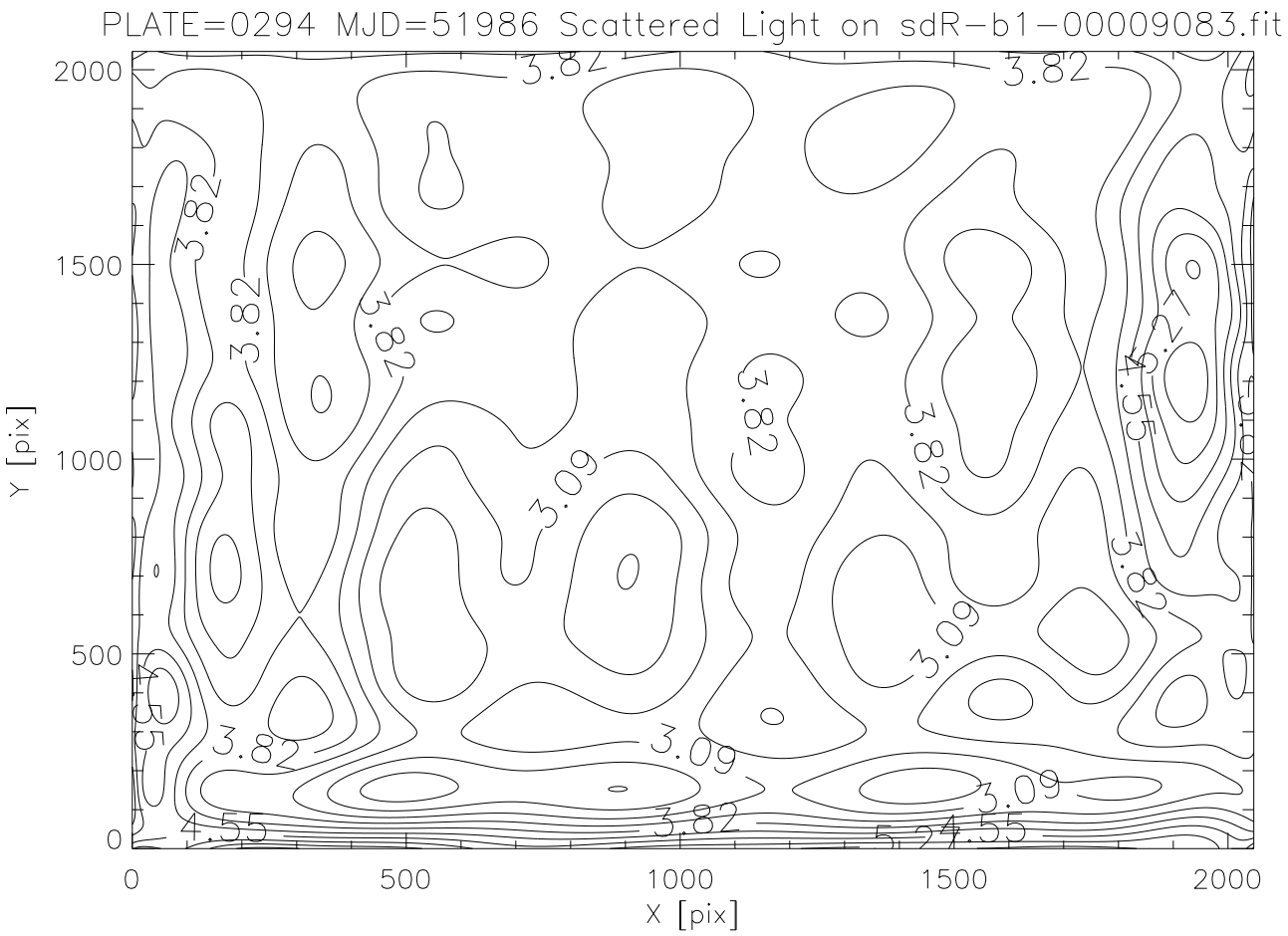

PLATE=0294 MJD=51986 sdR-b1-00009082.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 20.92 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

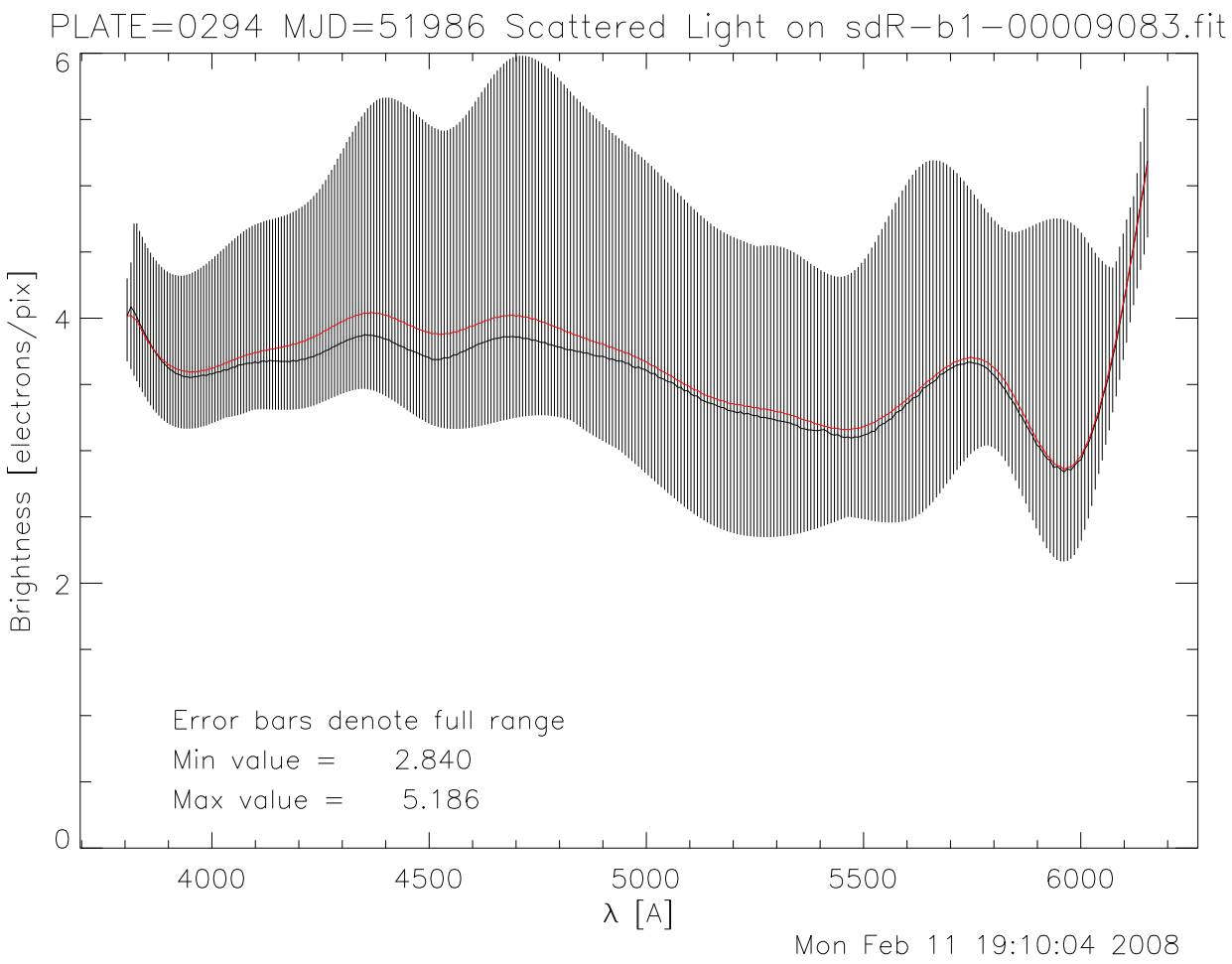

PLATE=0294 MJD=51986 sdR-b1-00009082.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 1.78 %
Fiber number
Focal Distance [mm]
Airmass

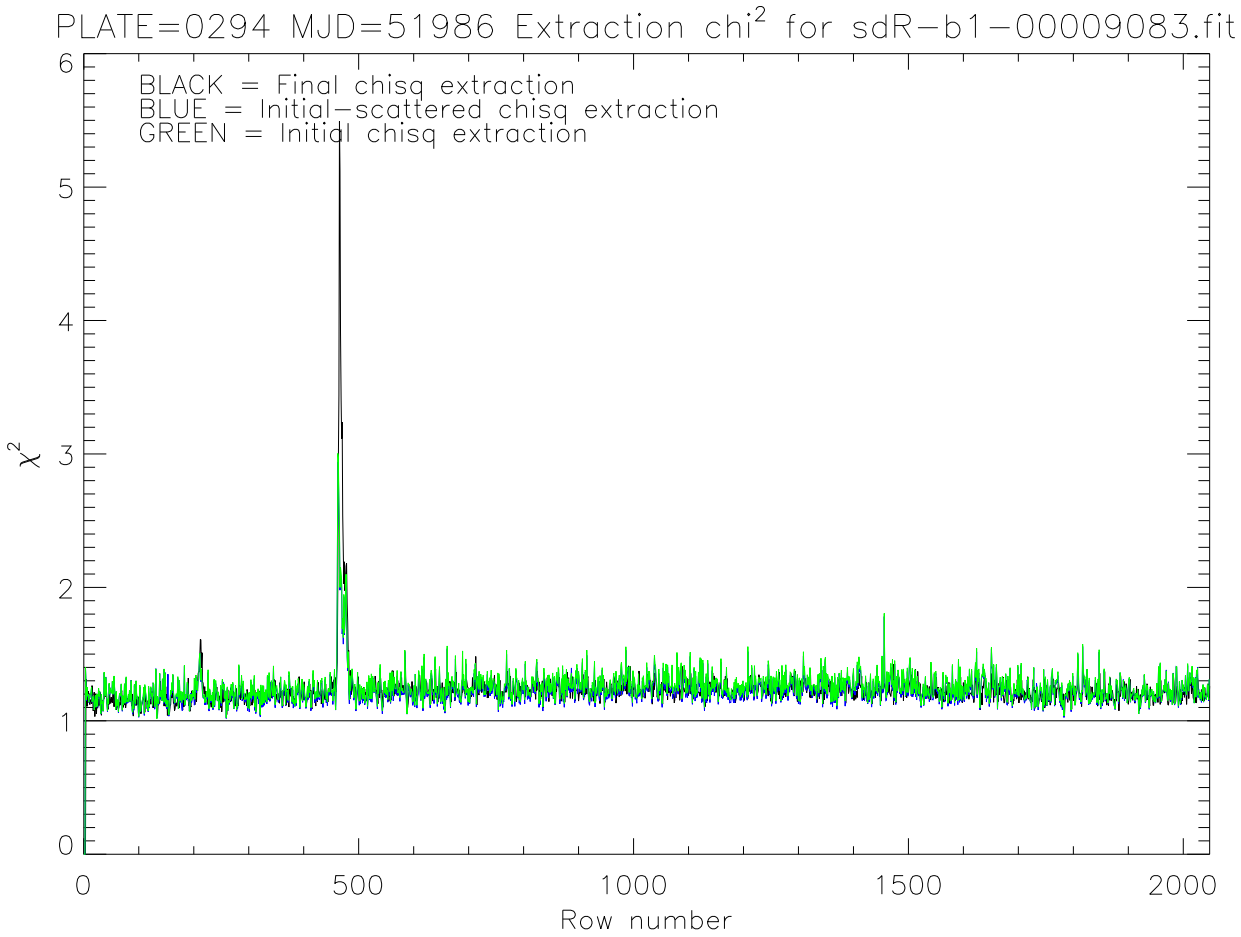

PLATE=0294 MJD=51986 Fiber-Flats for sdR-b1-00009085.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.491
Max value = 1.218
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Mon Feb 11 19:06:22 2008

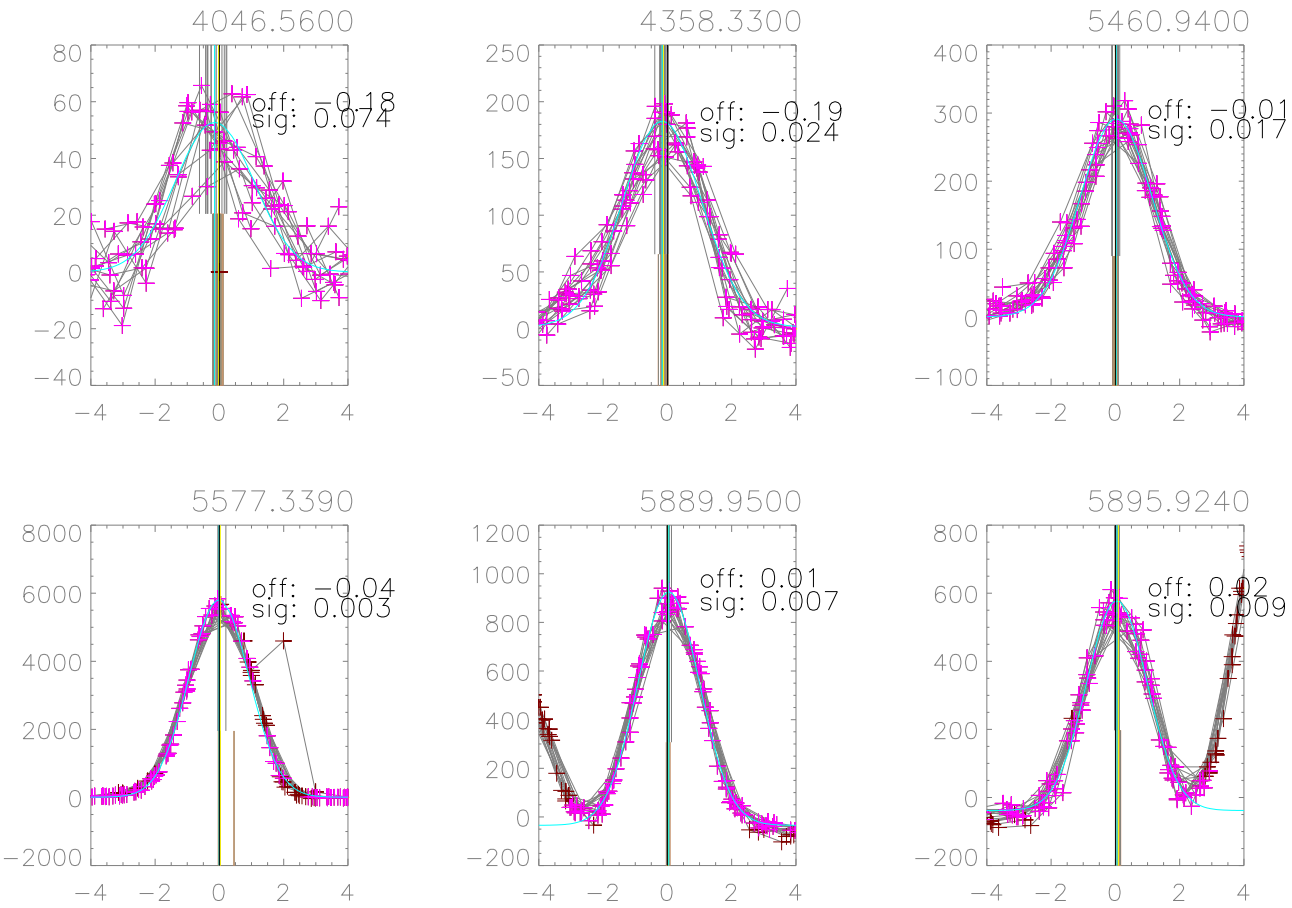

PLATE=0294 MJD=51986 Scattered Light before halo removal on sdR−b1−00009083.f
Y [pix]
X [pix]
0
500
1000
1500
2000
6.18
7.45

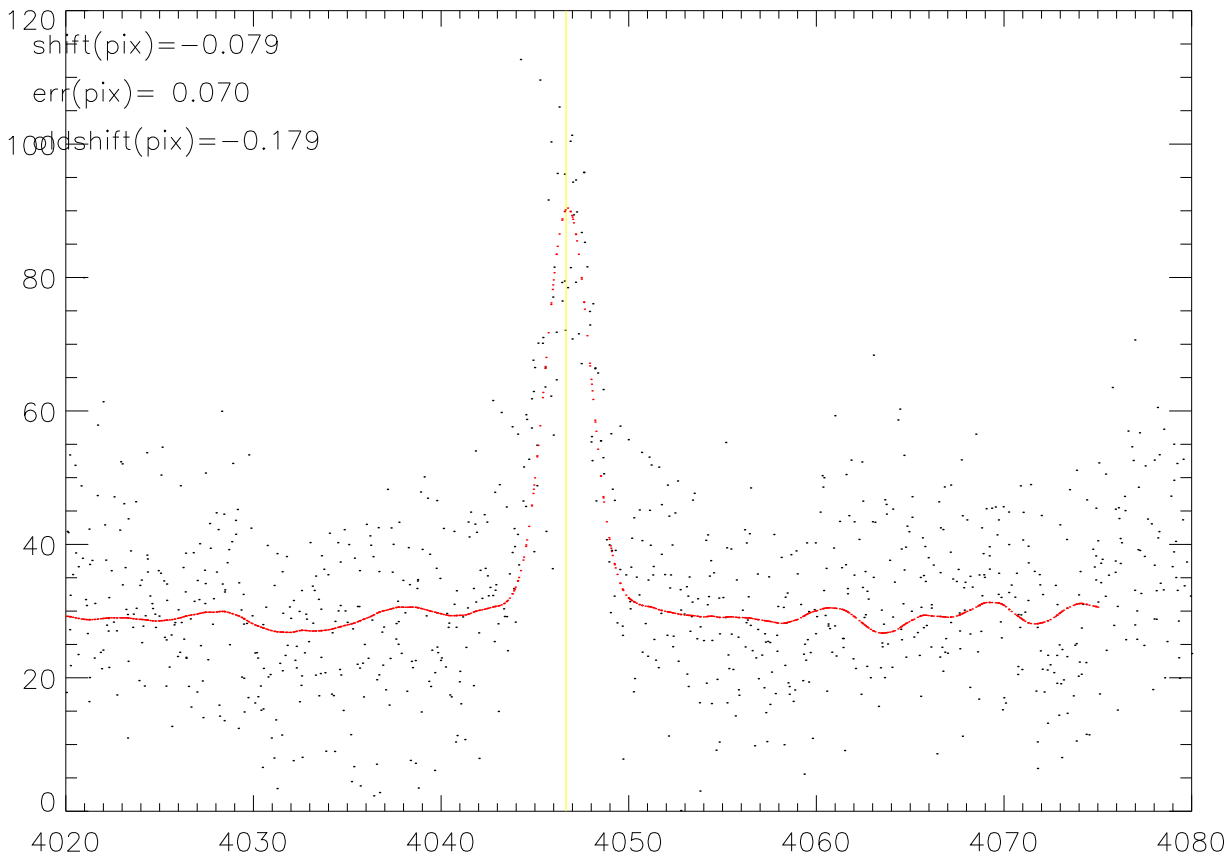

PLATE=0294 MJD=51986 Scattered Light before halo removal on sdR-b1-00009083.f
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 5.175
Max value = 7.416
Mon Feb 11 19:07:16 2008

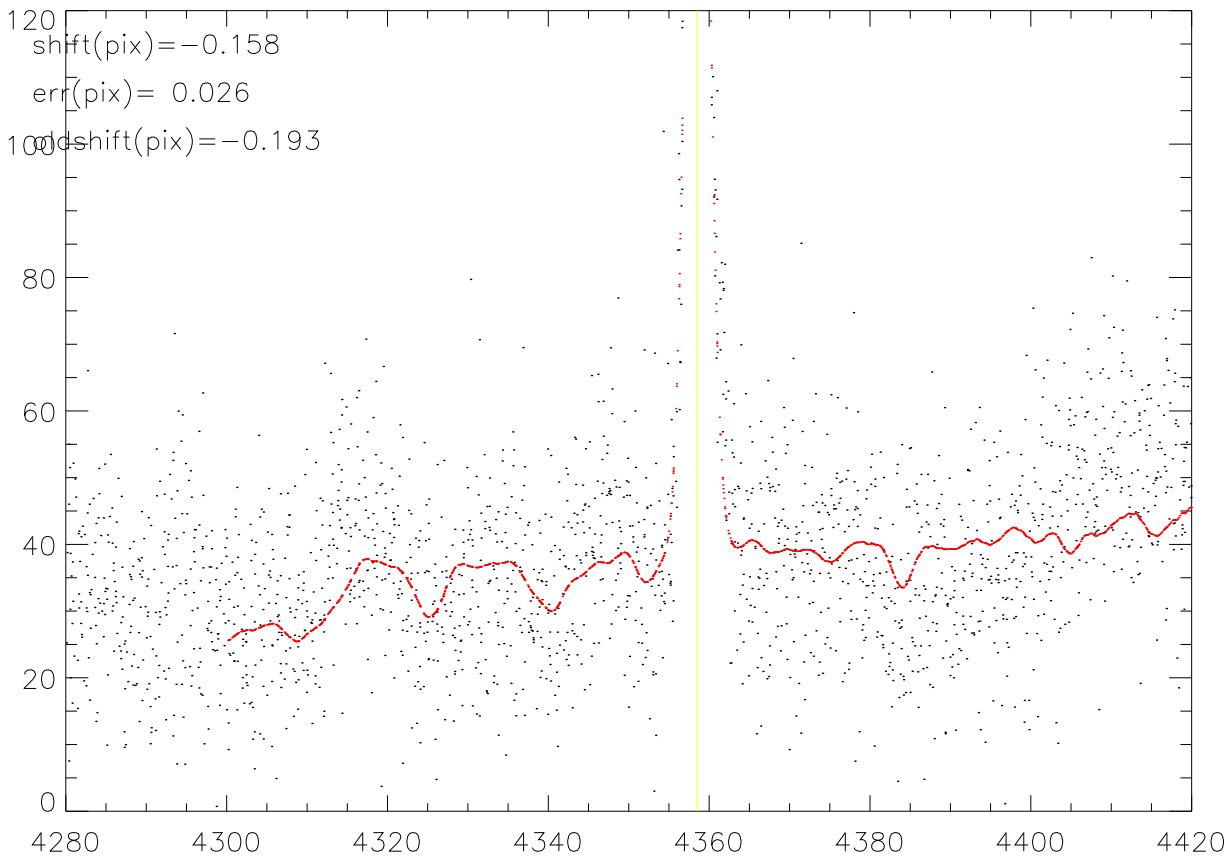

PLATE=0294 MJD=51986 Scattered Light on sdR-b1-00009083.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
3.82
3.09
4.55
5.27

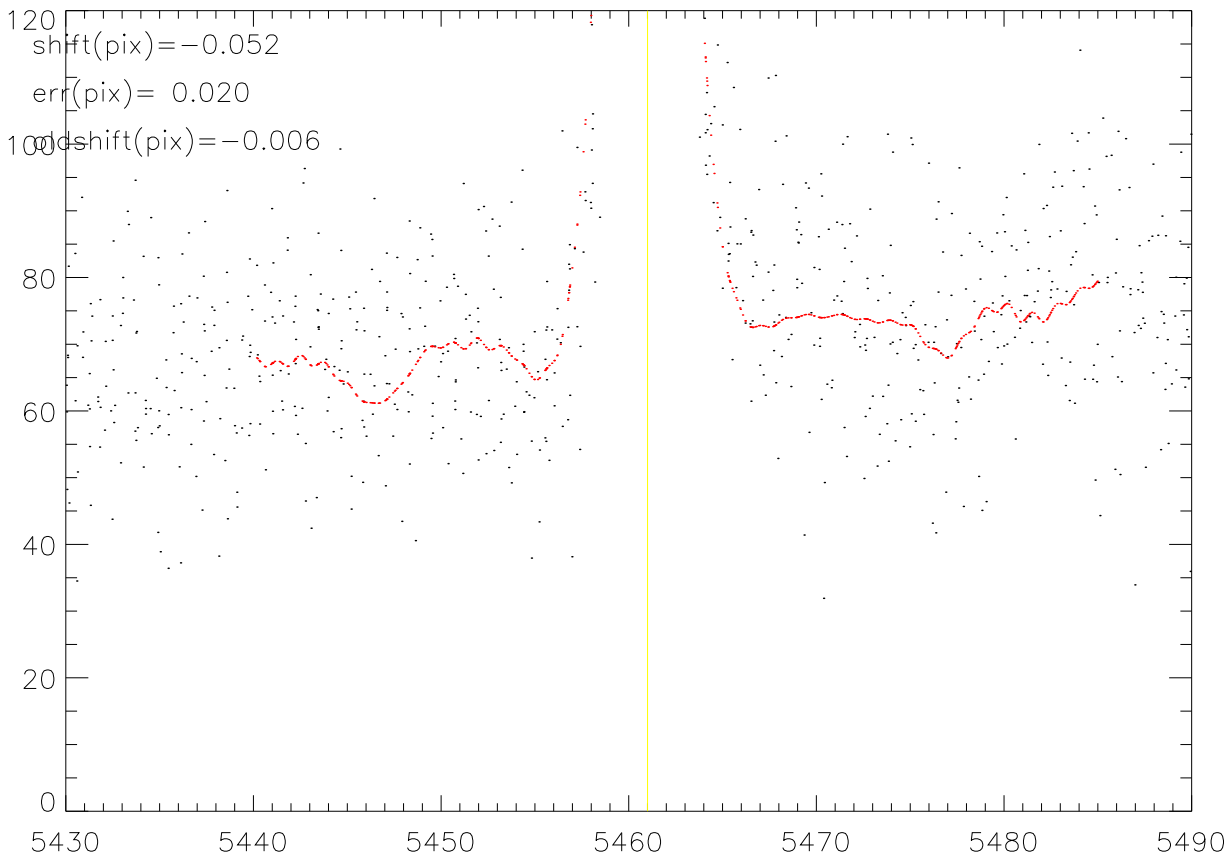

PLATE=0294 MJD=51986 Scattered Light on sdR-b1-00009083.fit
Brightness [electrons/pix]
0
2
4
6
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 2.840
Max value = 5.186
Mon Feb 11 19:10:04 2008

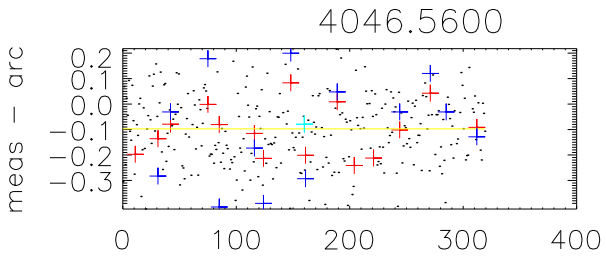

PLATE=0294 MJD=51986 Extraction chi^2 for sdR-b1-00009083.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
5
6
0
500
1000
1500
2000
Row number

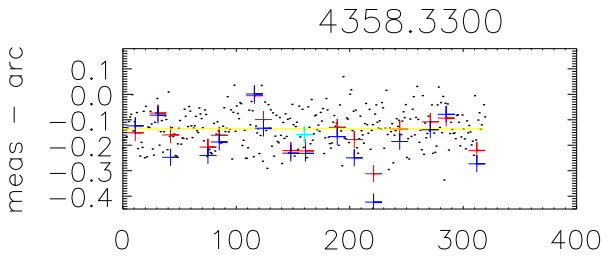

4046.5600
off: −0.18
sig: 0.074
4358.3300
off: −0.19
sig: 0.024
5460.9400
off: −0.01
sig: 0.017
5577.3390
off: −0.04
sig: 0.003
5889.9500
off: 0.01
sig: 0.007
5895.9240
off: 0.02
sig: 0.009

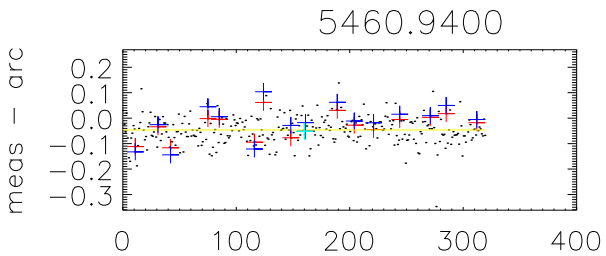

shift(pix)=−0.079
err(pix)= 0.070
oldshift(pix)=−0.179
120
100
80
60
40
20
0
4020
4030
4040
4050
4060
4070
4080

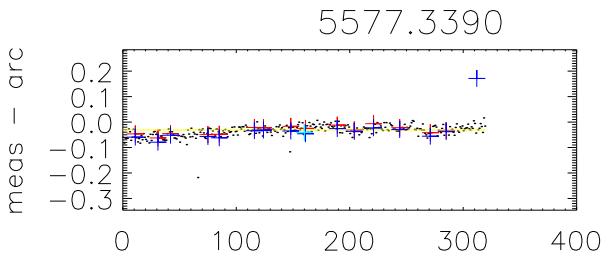

shift(pix)=−0.158
err(pix)= 0.026
oldshift(pix)=−0.193
120
100
80
60
40
20
0
4280
4300
4320
4340
4360
4380
4400
4420

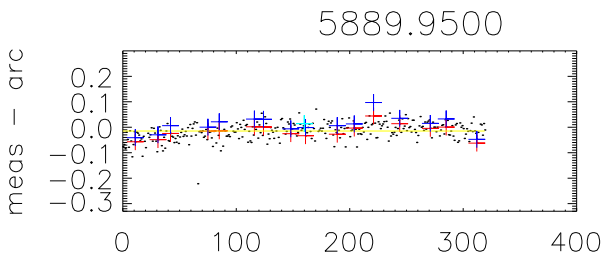

shift(pix)=−0.052
err(pix)= 0.020
oldshift(pix)=−0.006
120
100
80
60
40
20
0
5430
5440
5450
5460
5470
5480
5490

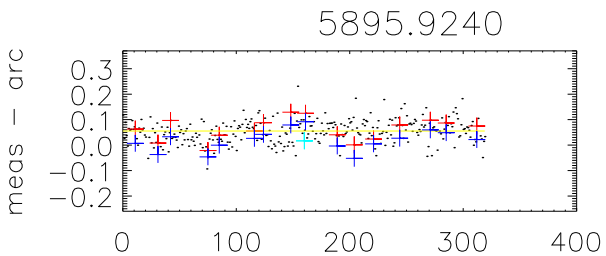

4046.5600
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

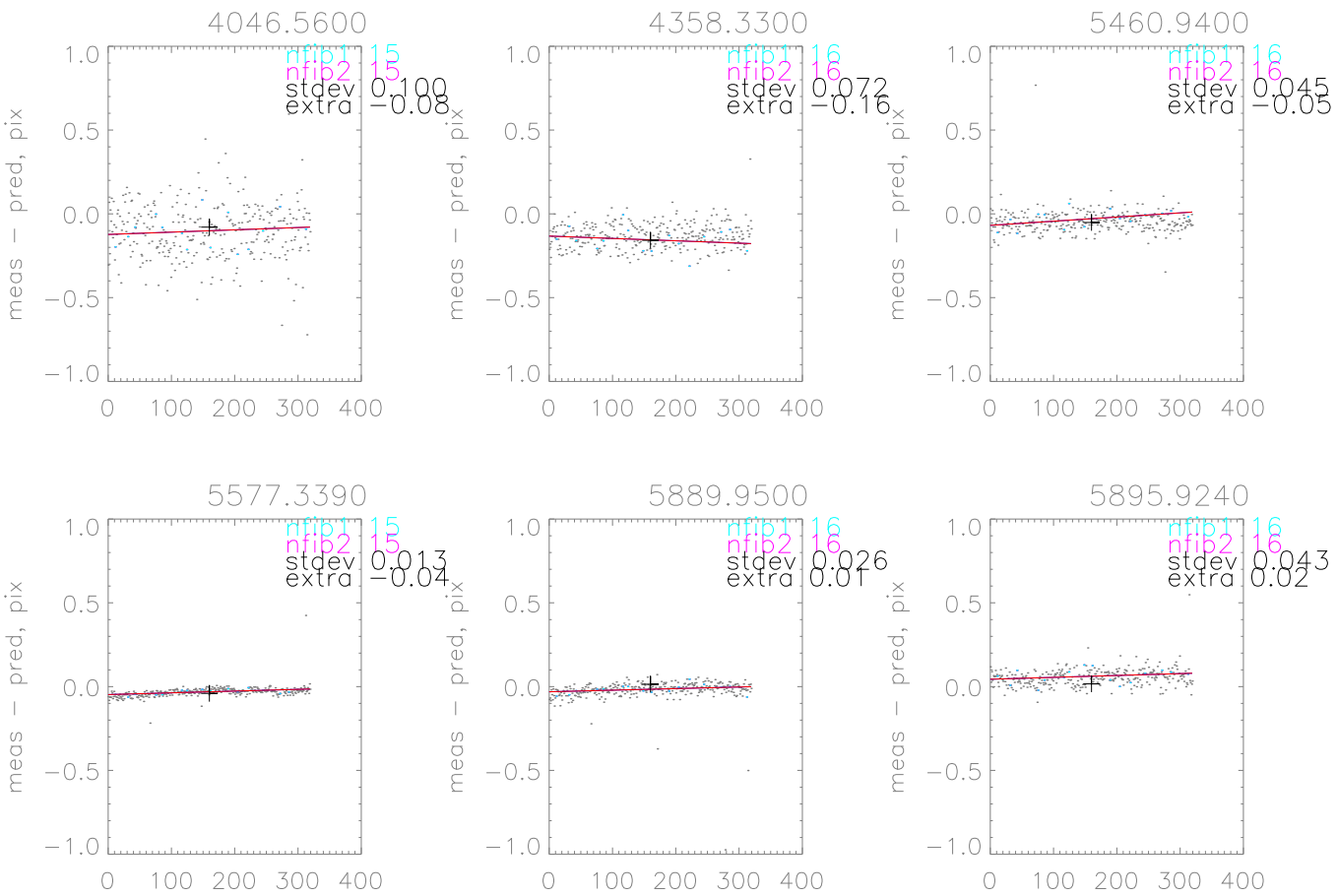

4358.3300
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

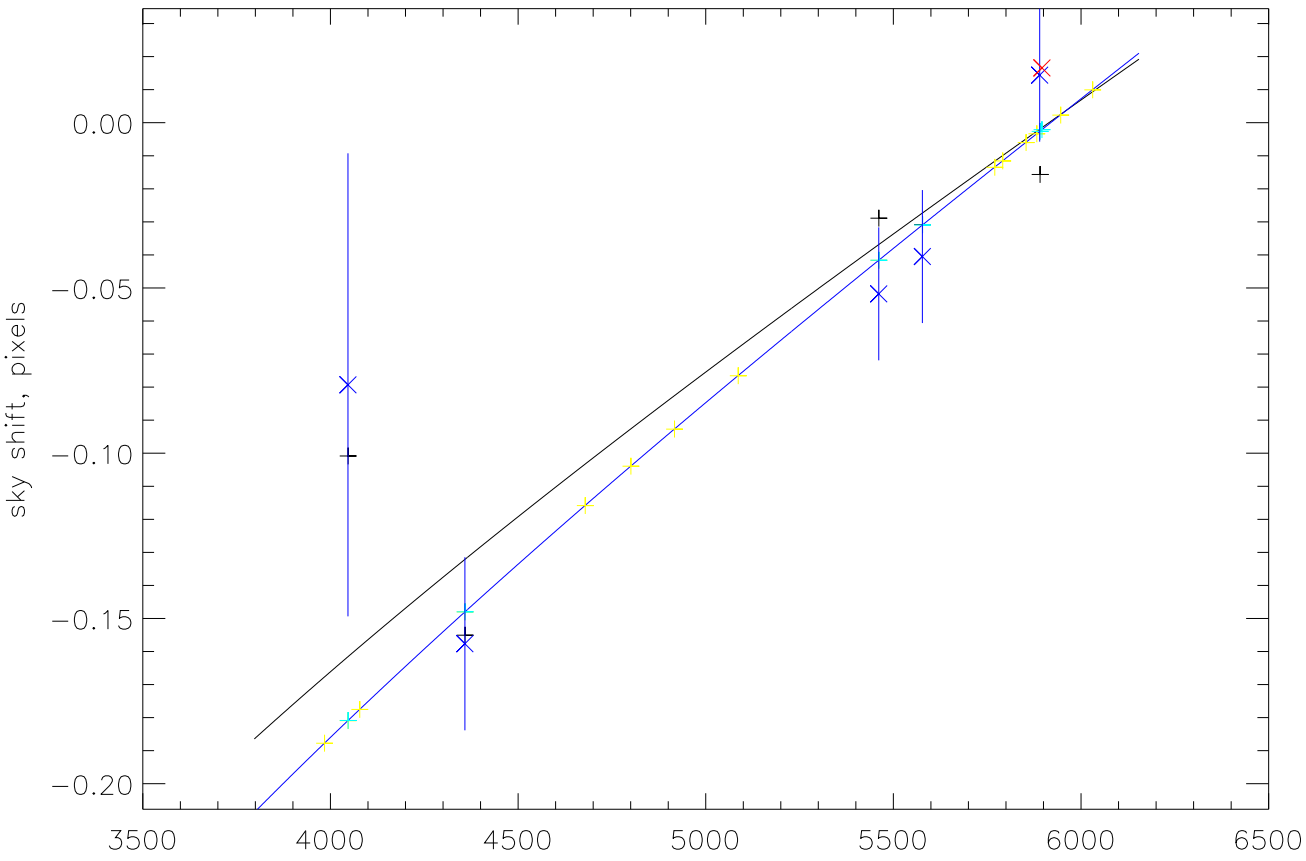

5460.9400
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

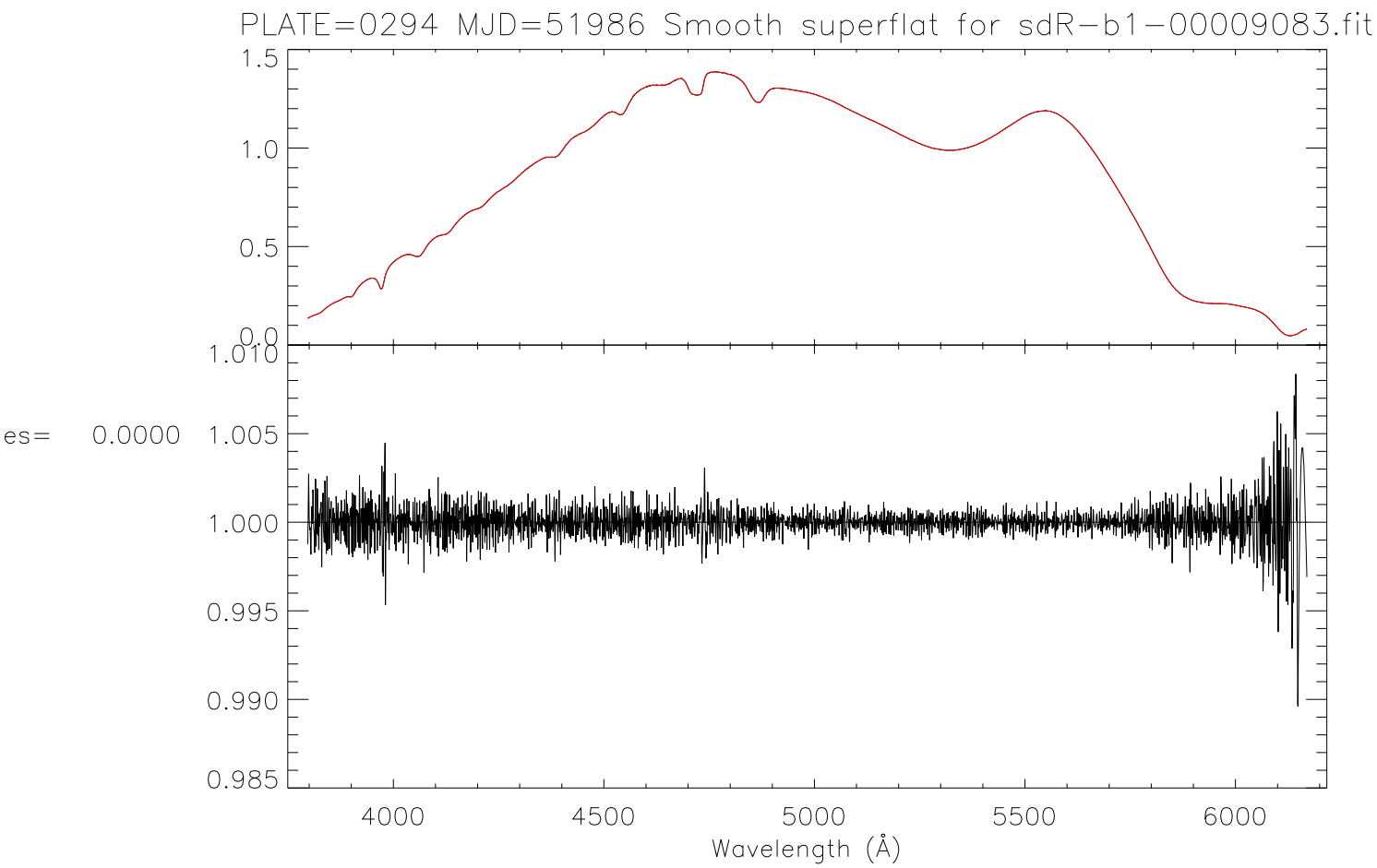

5577.3390
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400


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

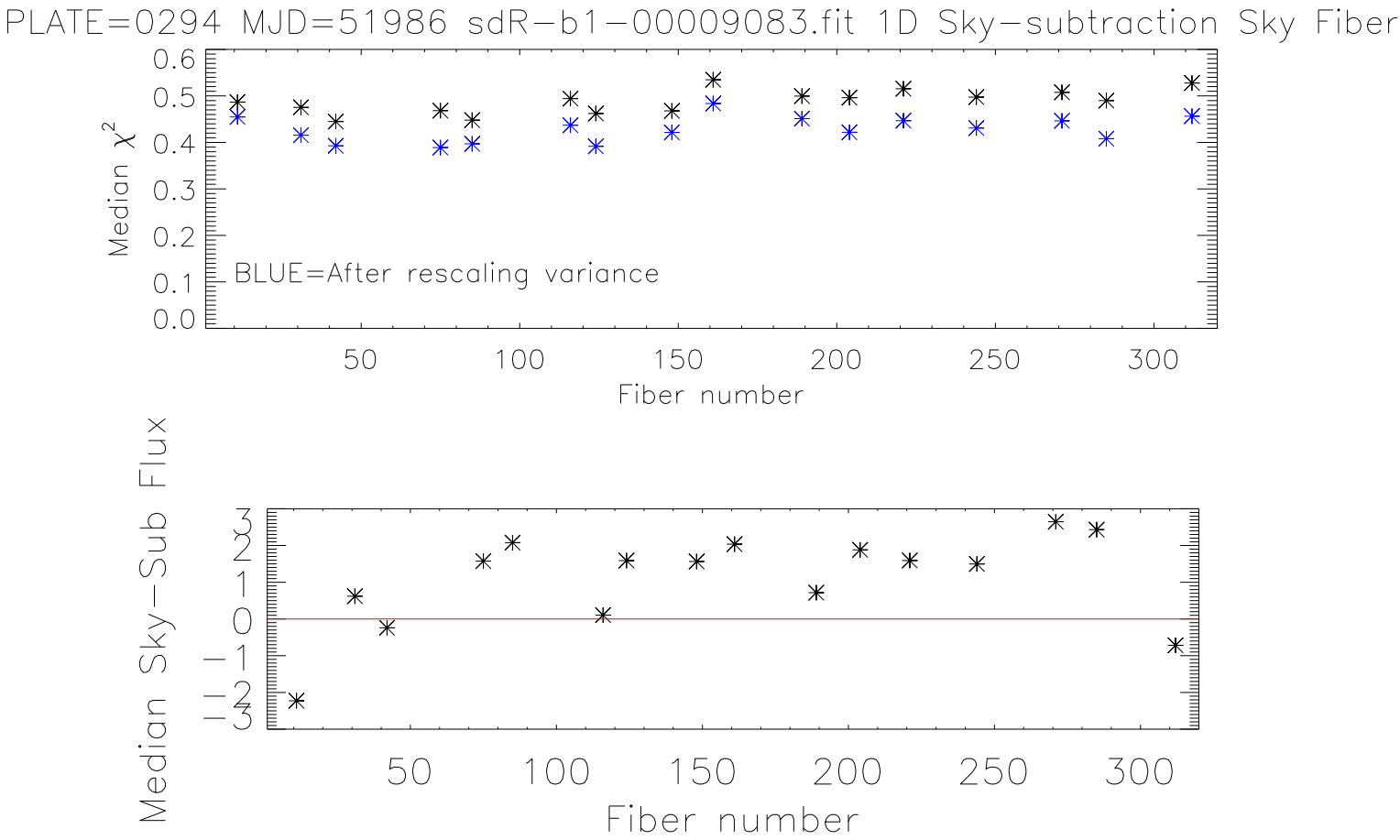

5895.9240
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

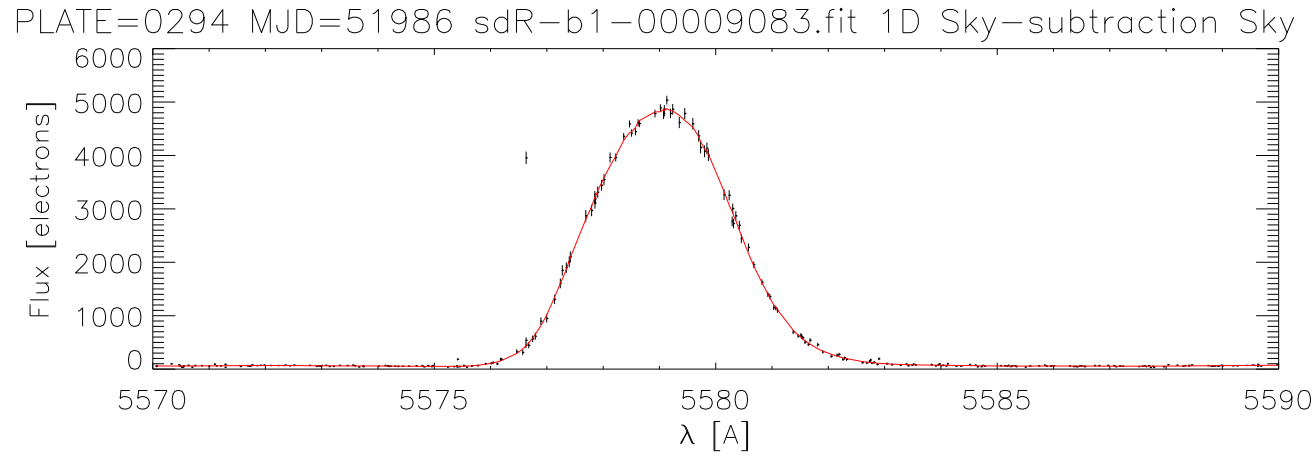

4046.5600
nfib1 15
nfib2 15
stdev 0.100
extra −0.08
4358.3300
nfib1 16
nfib2 16
stdev 0.072
extra −0.16
5460.9400
nfib1 16
nfib2 16
stdev 0.045
extra −0.05
5577.3390
nfib1 15
nfib2 15
stdev 0.013
extra −0.04
5889.9500
nfib1 16
nfib2 16
stdev 0.026
extra 0.01
5895.9240
nfib1 16
nfib2 16
stdev 0.043
extra 0.02
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

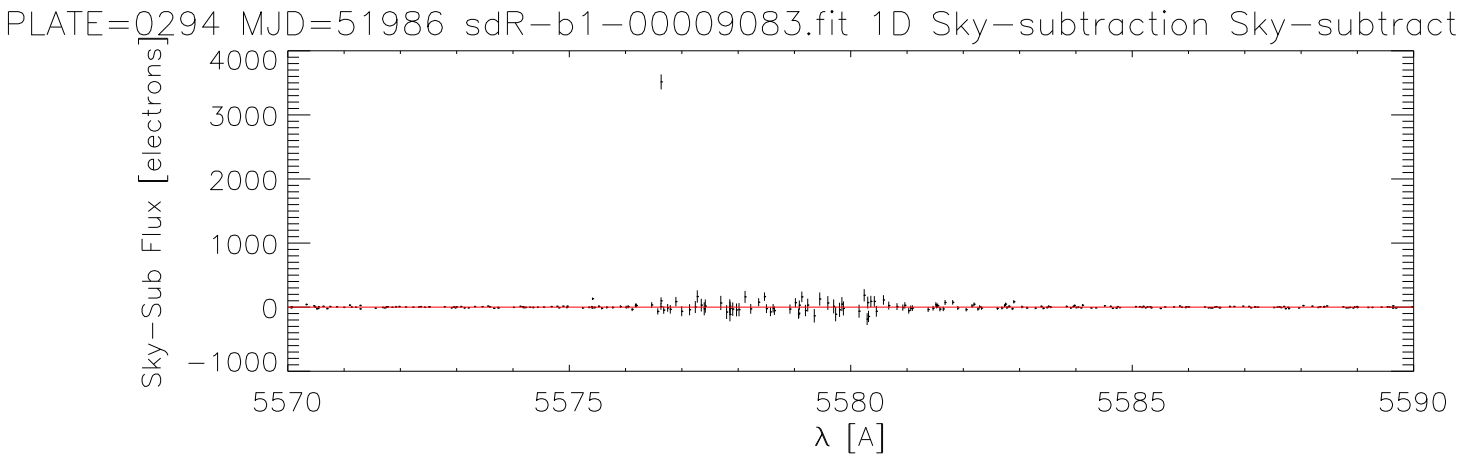

0.00
−0.05
−0.10
−0.15
−0.20
sky shift, pixels
3500
4000
4500
5000
5500
6000
6500

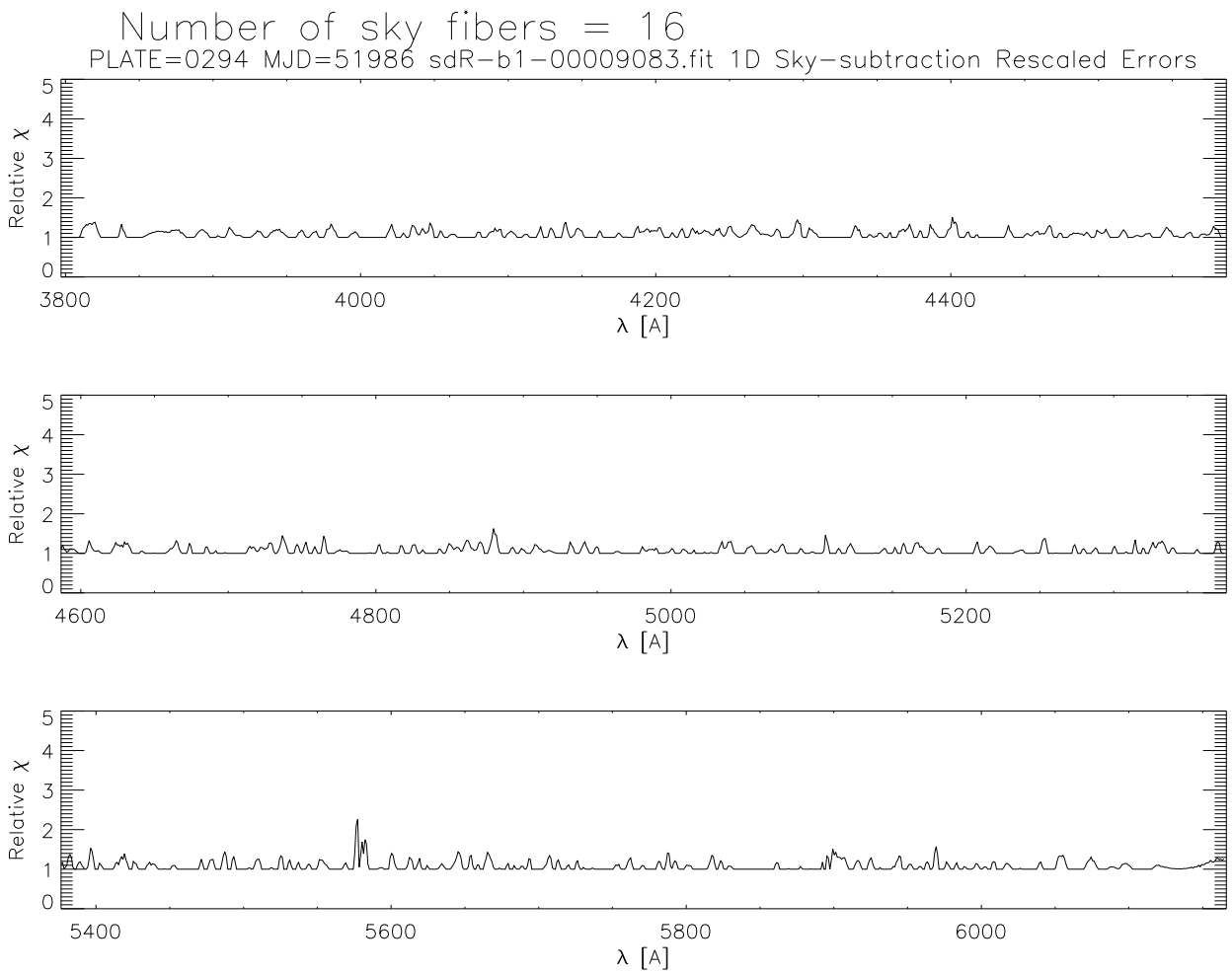

PLATE=0294 MJD=51986 Smooth superflat for sdR-b1-00009083.fit
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
0.985
4000
4500
5000
5500
6000
Wavelength (Å)

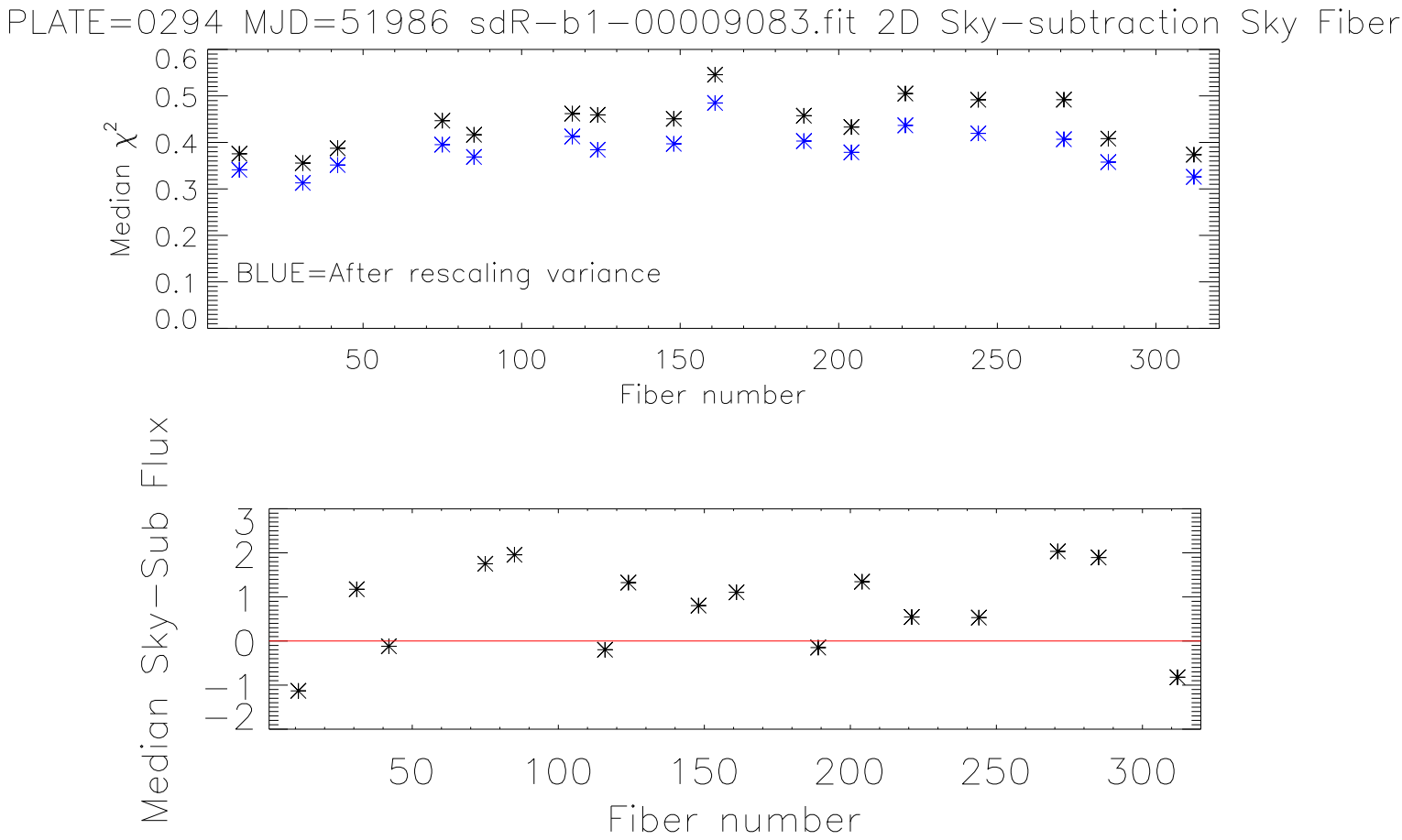
es= 0.0000

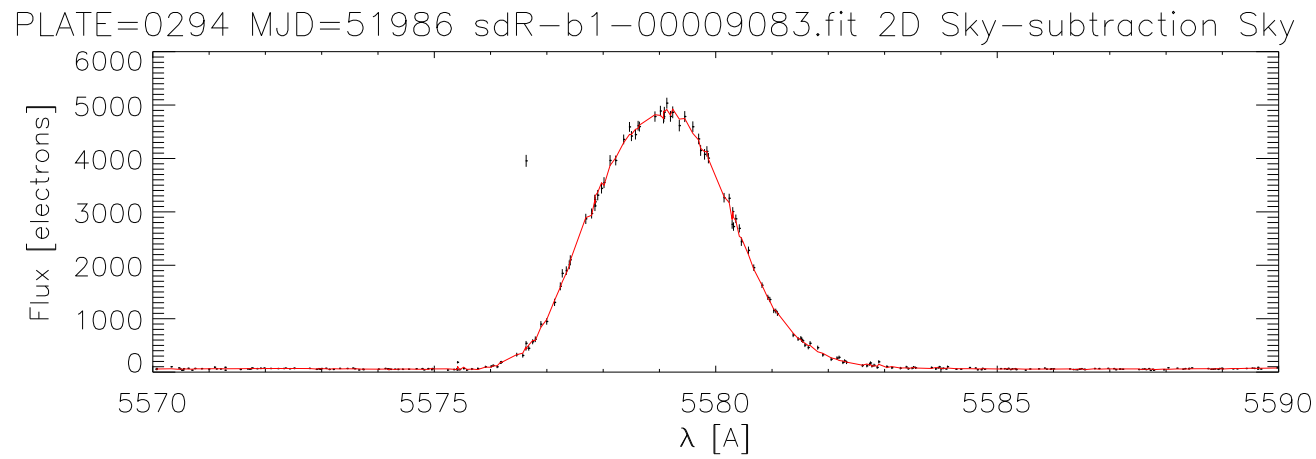

PLATE=0294 MJD=51986 sdR-b1-00009083.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-3
-2
-1
0
1
2
3
50
100
150
200
250
300
Fiber number

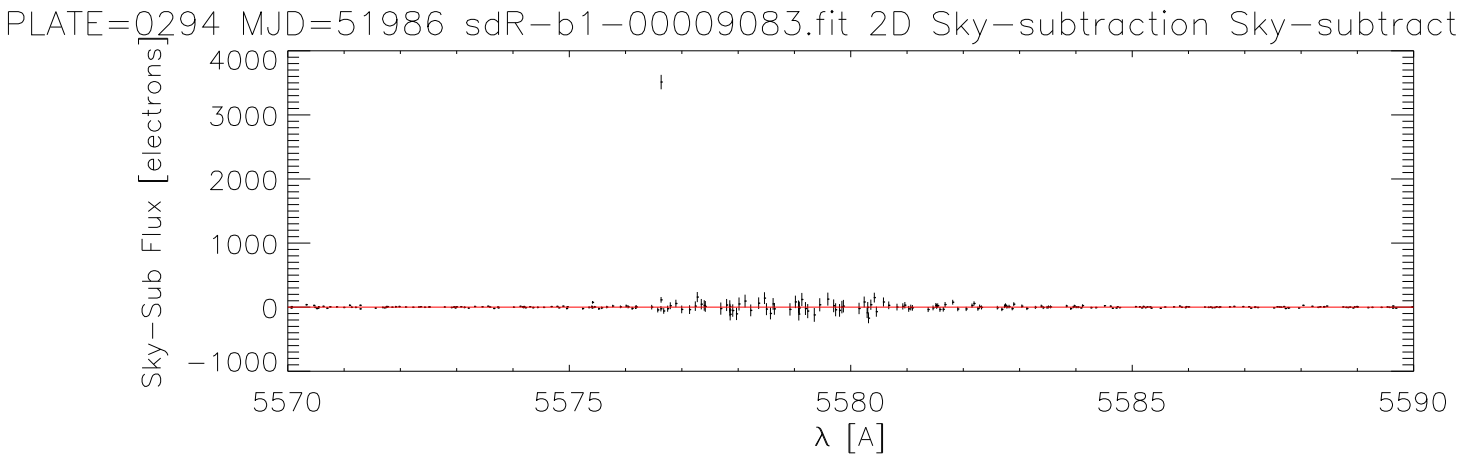

PLATE=0294 MJD=51986 sdR-b1-00009083.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
6000
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

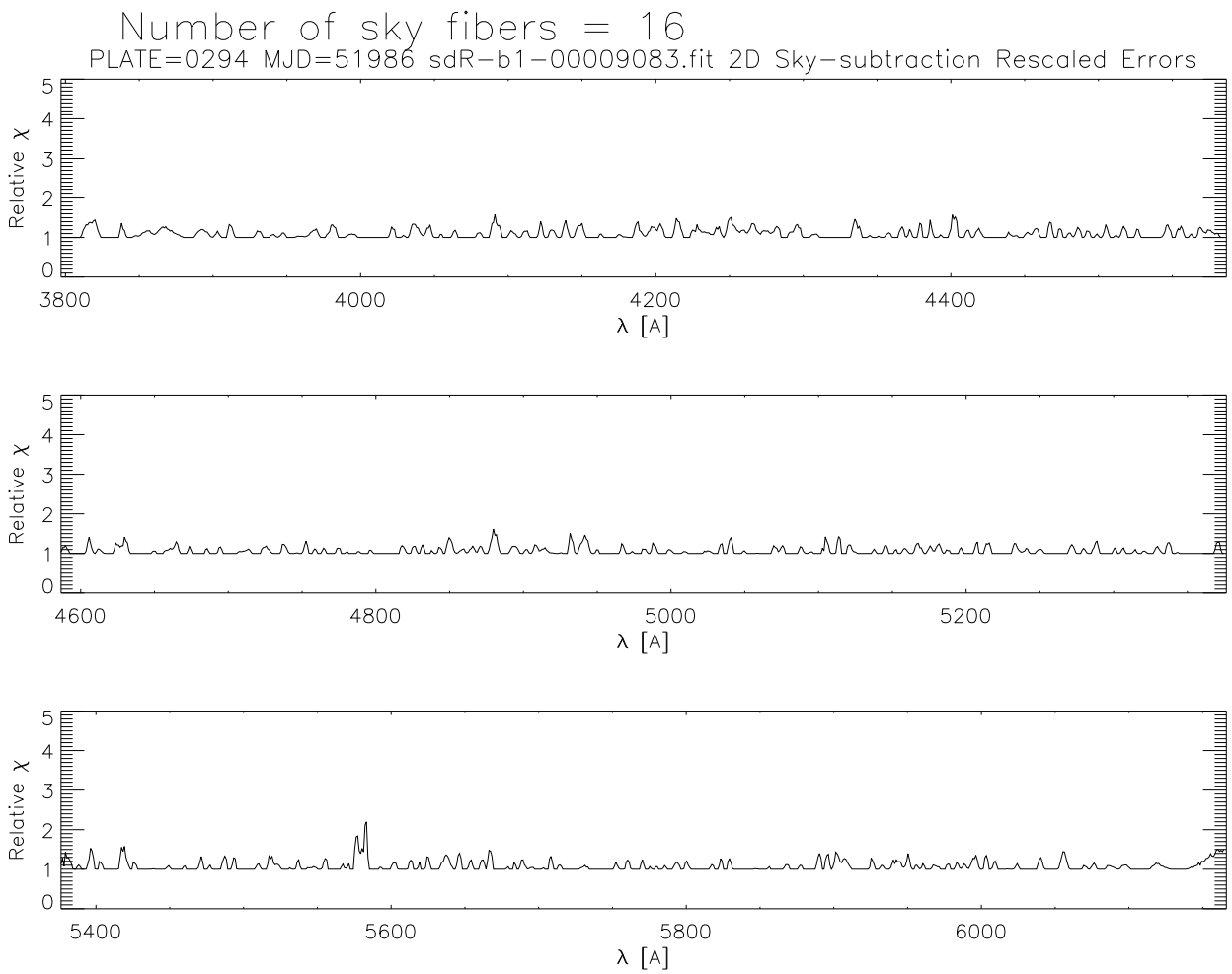

PLATE=0294 MJD=51986 sdR-b1-00009083.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
4000
3000
2000
1000
0
-1000
5570
5575
5580
5585
5590
λ [A]

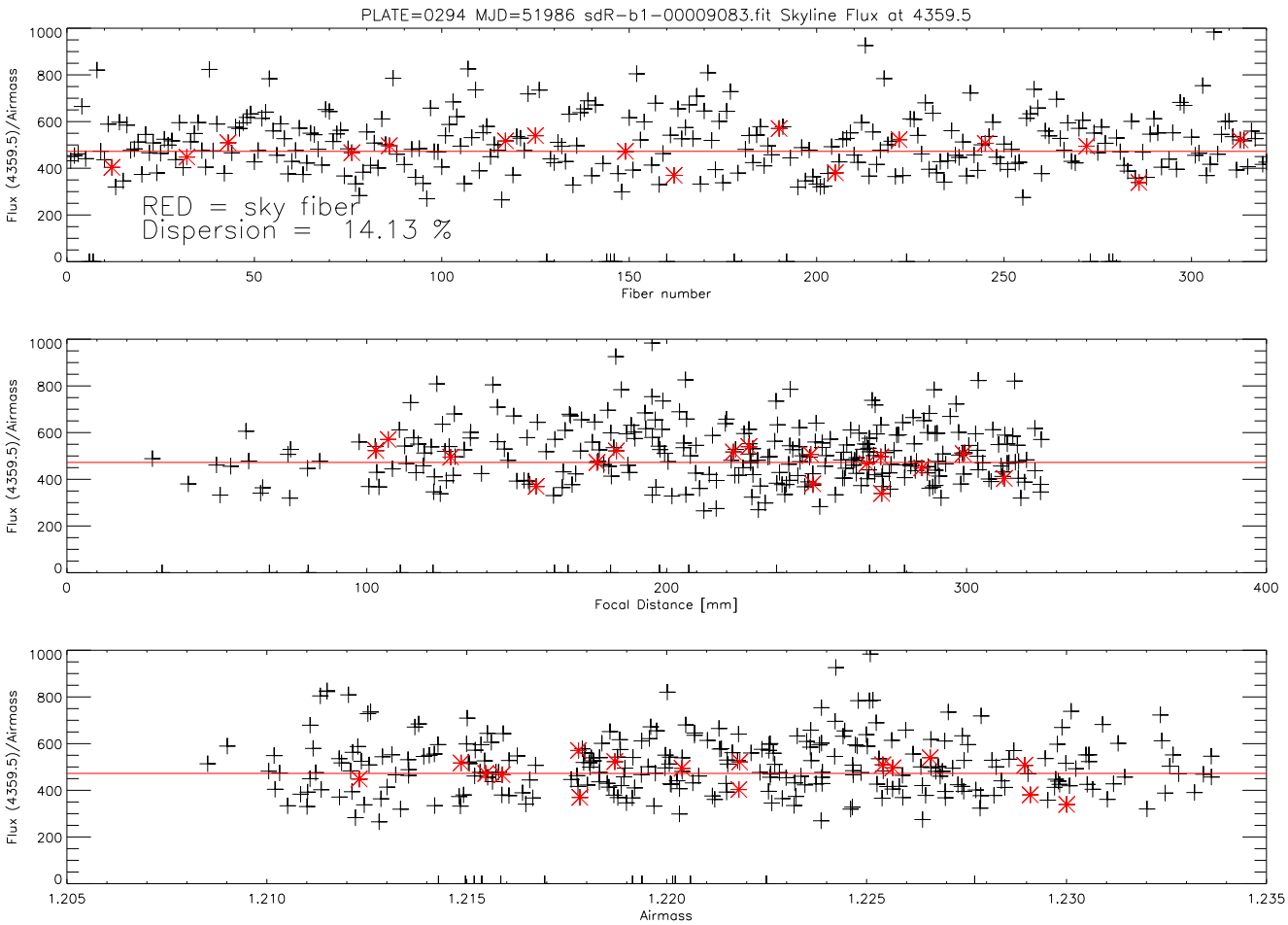

Number of sky fibers = 16
PLATE=0294 MJD=51986 sdR-b1-00009083.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

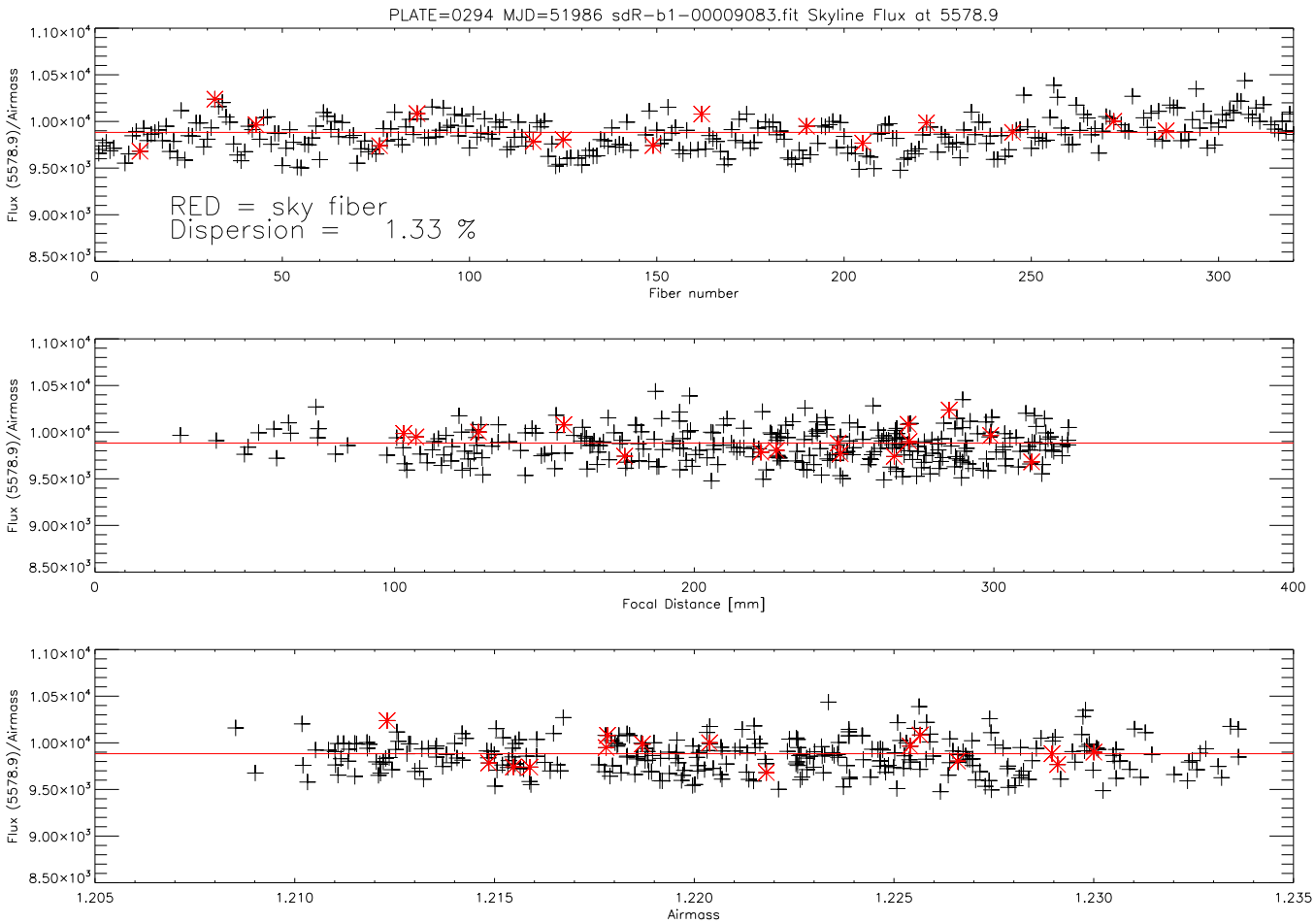

PLATE=0294 MJD=51986 sdR-b1-00009083.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

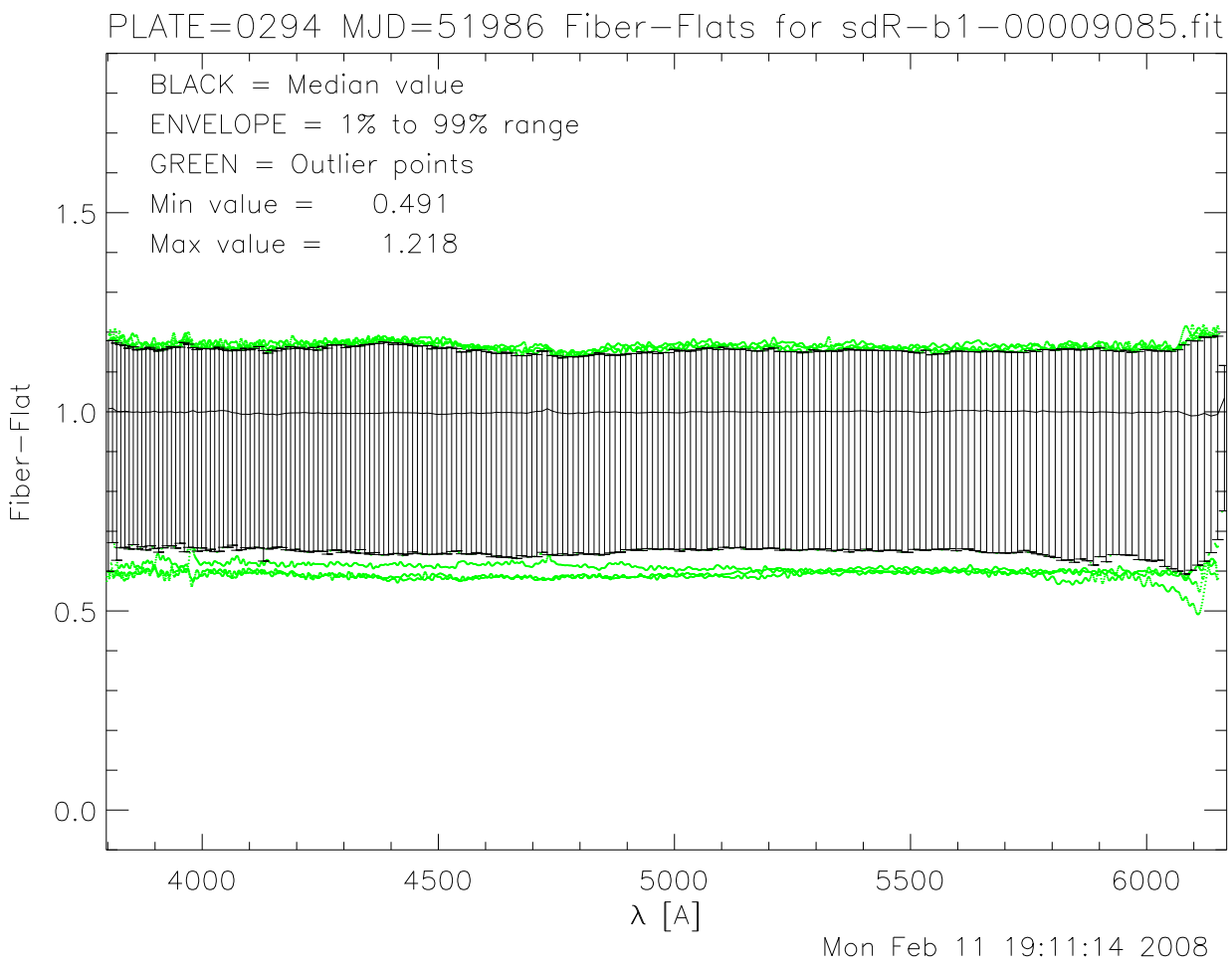

PLATE=0294 MJD=51986 sdR-b1-00009083.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
6000
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

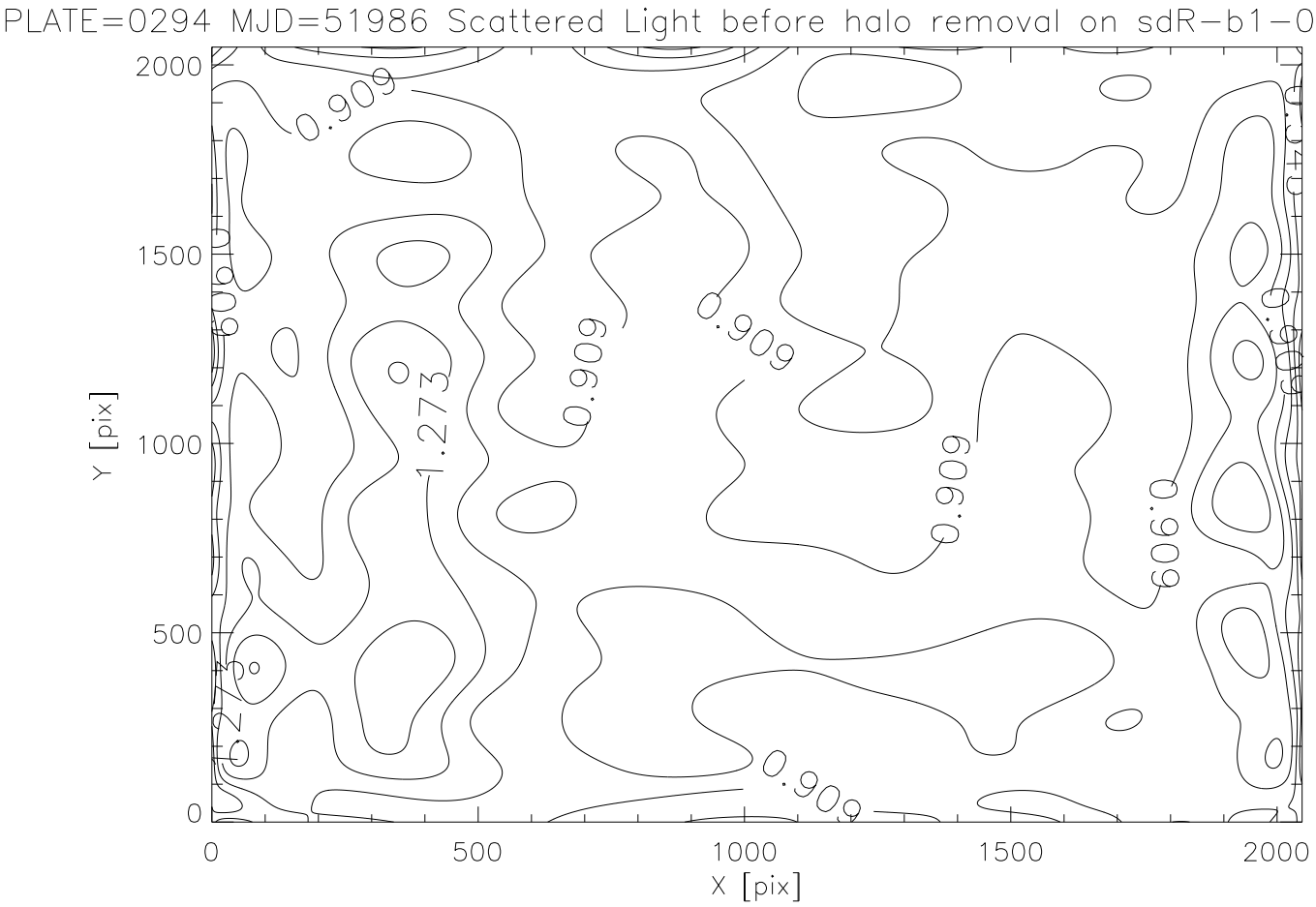

PLATE=0294 MJD=51986 sdR-b1-00009083.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
4000
3000
2000
1000
0
-1000
5570
5575
5580
5585
5590
λ [A]

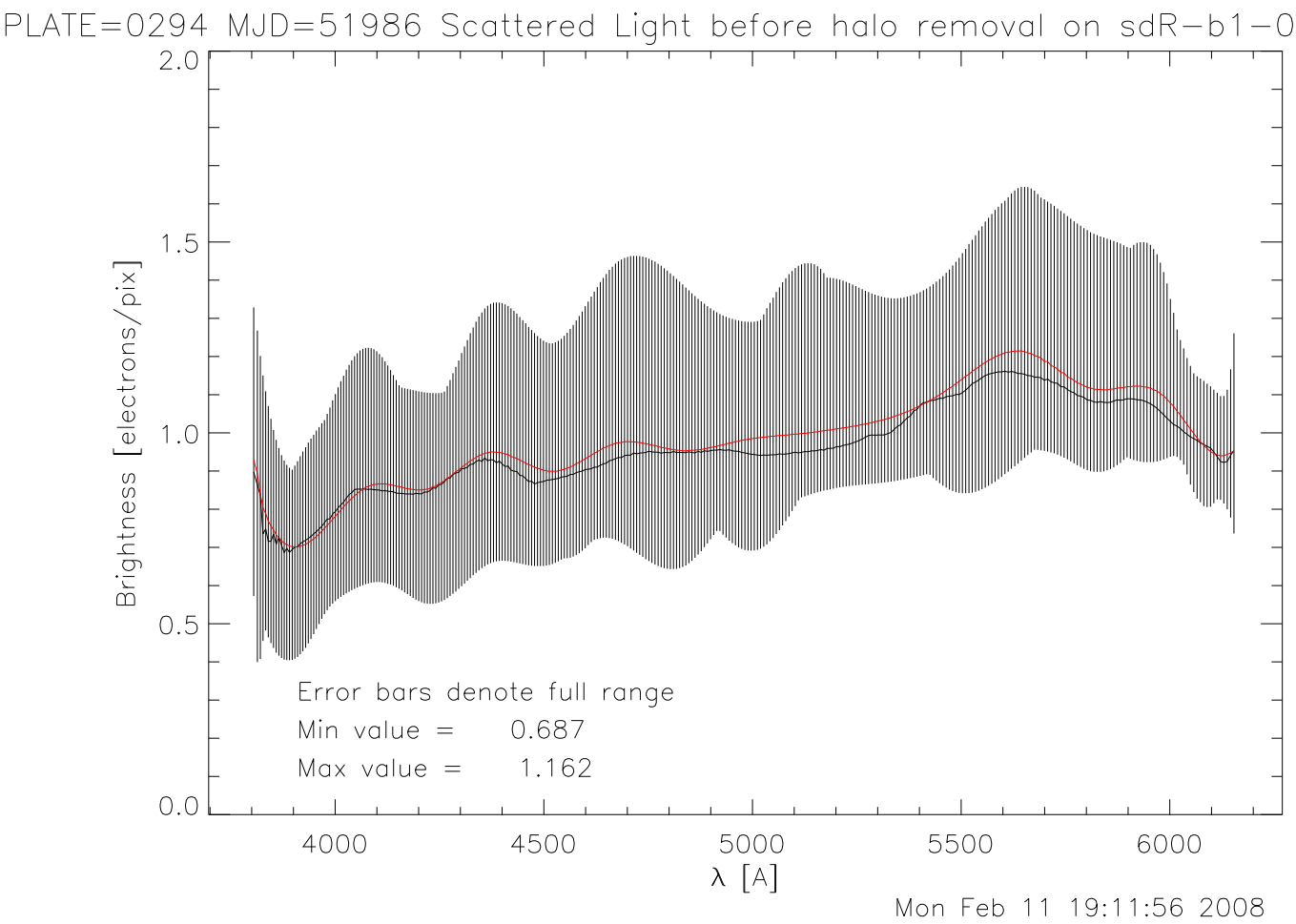

Number of sky fibers = 16
PLATE=0294 MJD=51986 sdR-b1-00009083.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

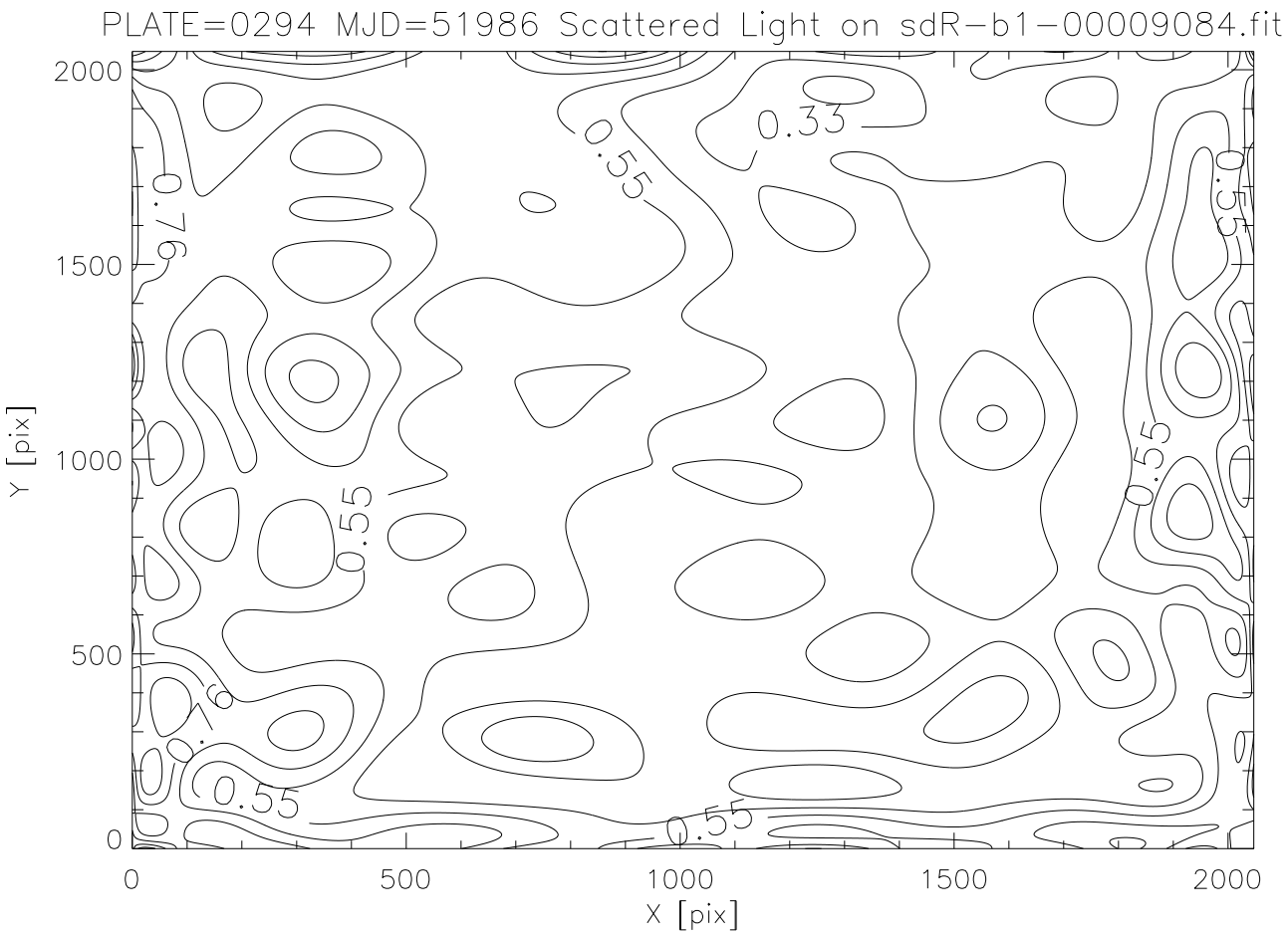

PLATE=0294 MJD=51986 sdR-b1-00009083.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 14.13 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

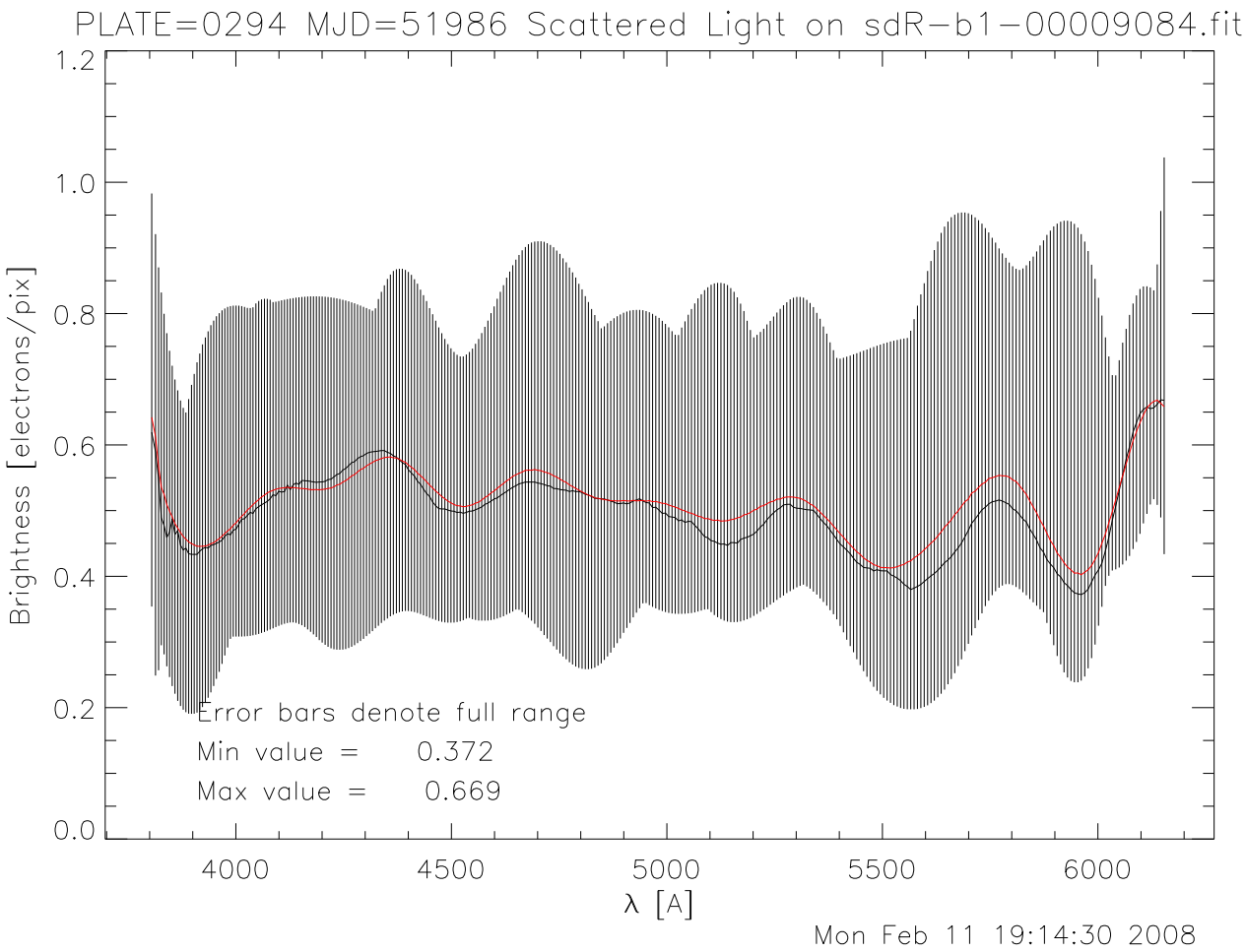

PLATE=0294 MJD=51986 sdR-b1-00009083.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 1.33 %
Fiber number
Focal Distance [mm]
Airmass

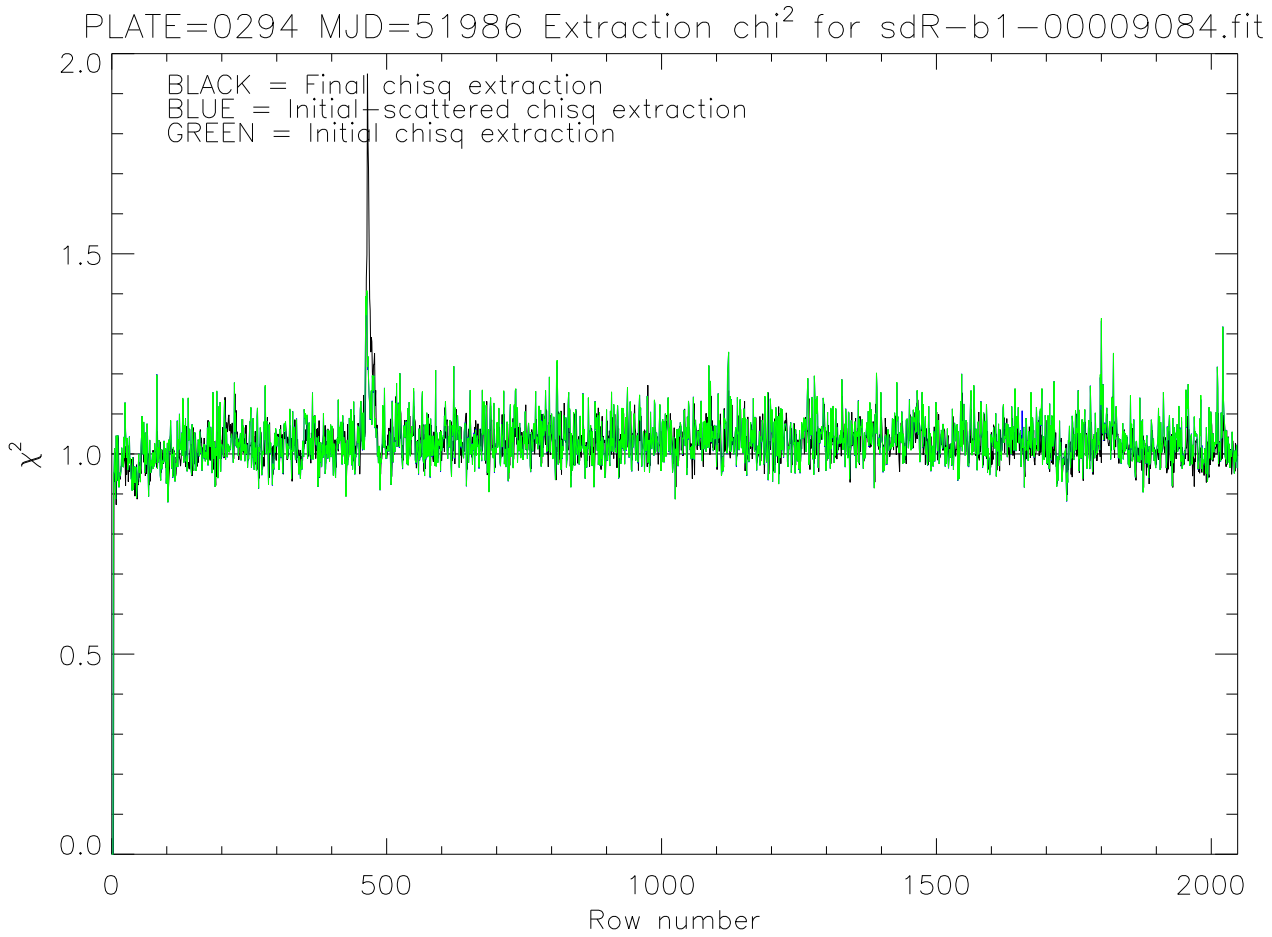

PLATE=0294 MJD=51986 Fiber-Flats for sdR-b1-00009085.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.491
Max value = 1.218
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Mon Feb 11 19:11:14 2008

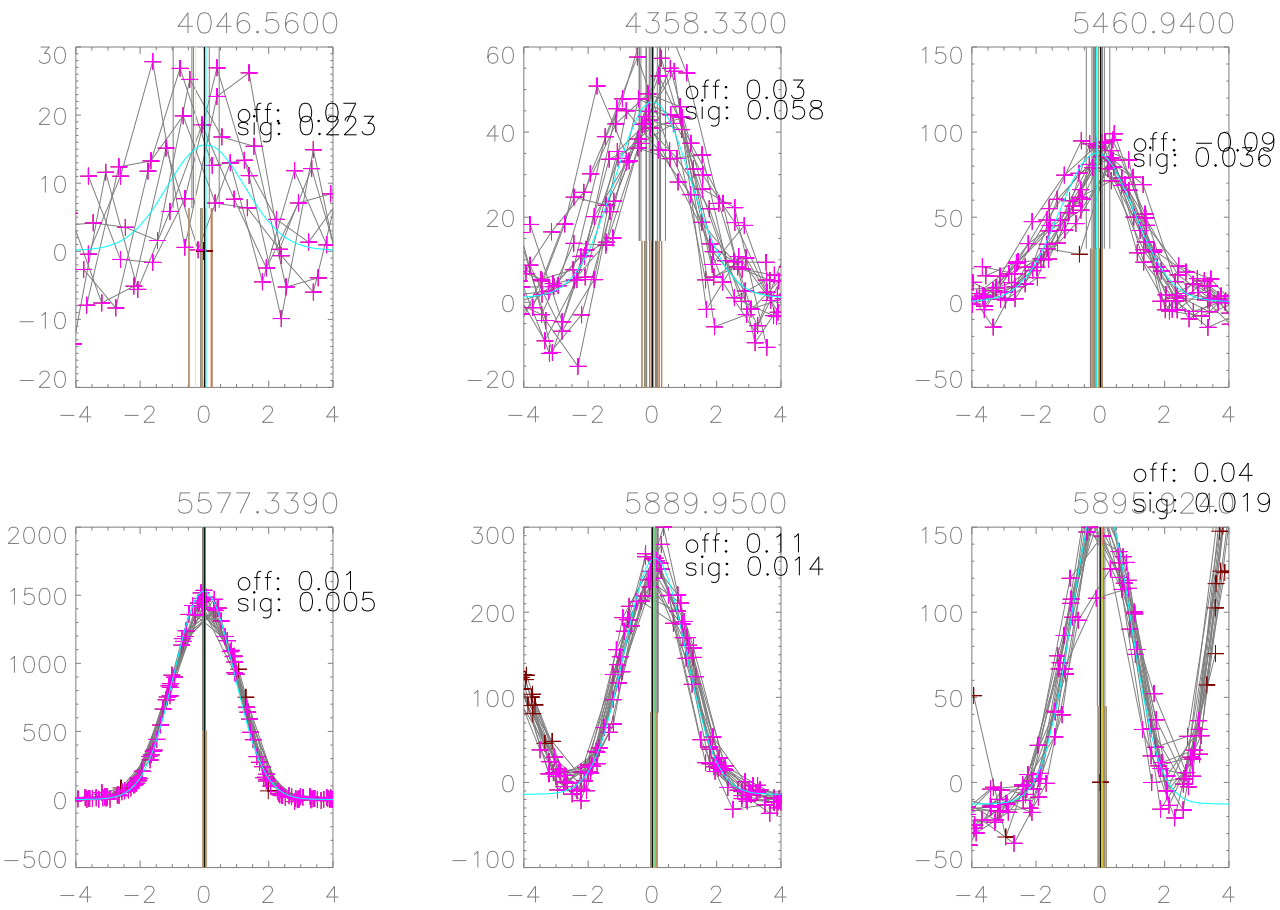

PLATE=0294 MJD=51986 Scattered Light before halo removal on sdR−b1−00009084.f
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
0.909
1.273

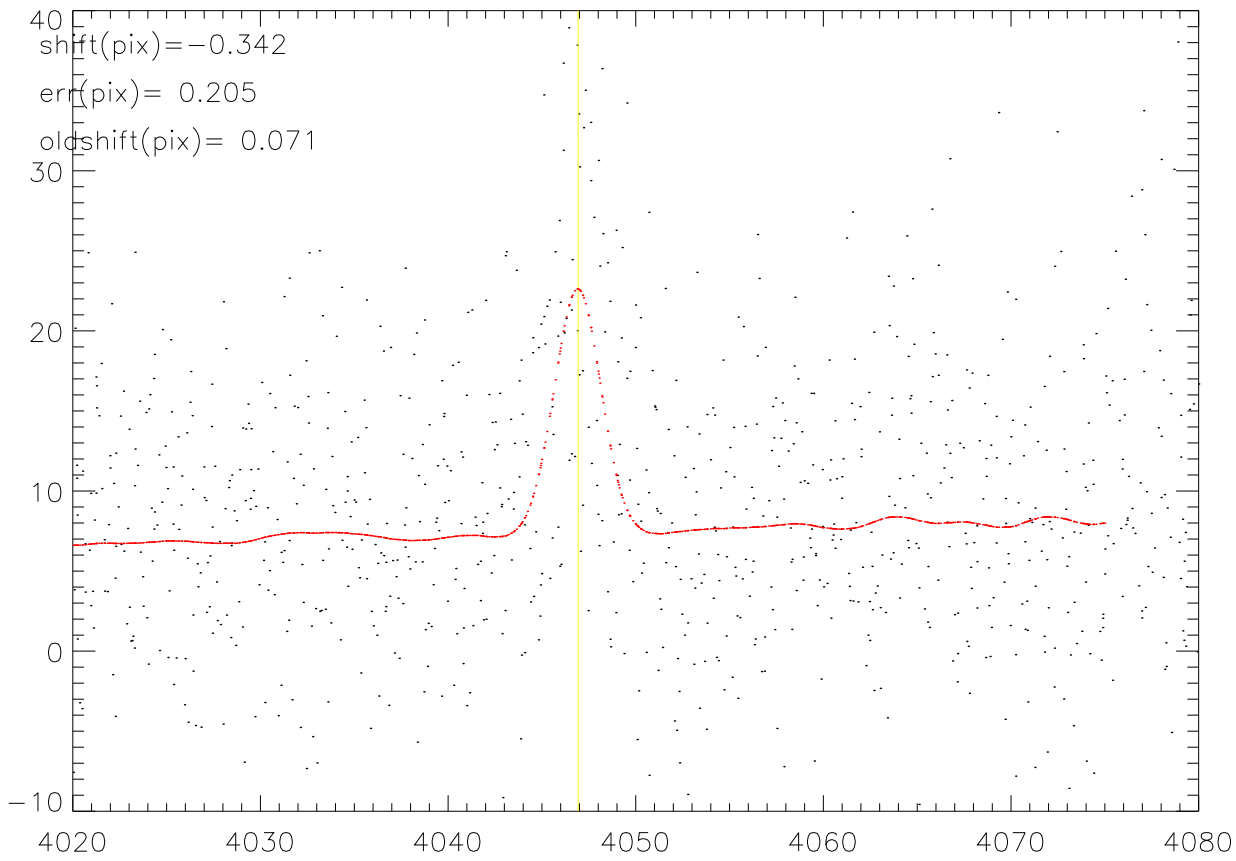

PLATE=0294 MJD=51986 Scattered Light before halo removal on sdR-b1-00009084.f
Brightness [electrons/pix]
2.0
1.5
1.0
0.5
0.0
Error bars denote full range
Min value = 0.687
Max value = 1.162
4000
4500
5000
5500
6000
λ [A]
Mon Feb 11 19:11:56 2008

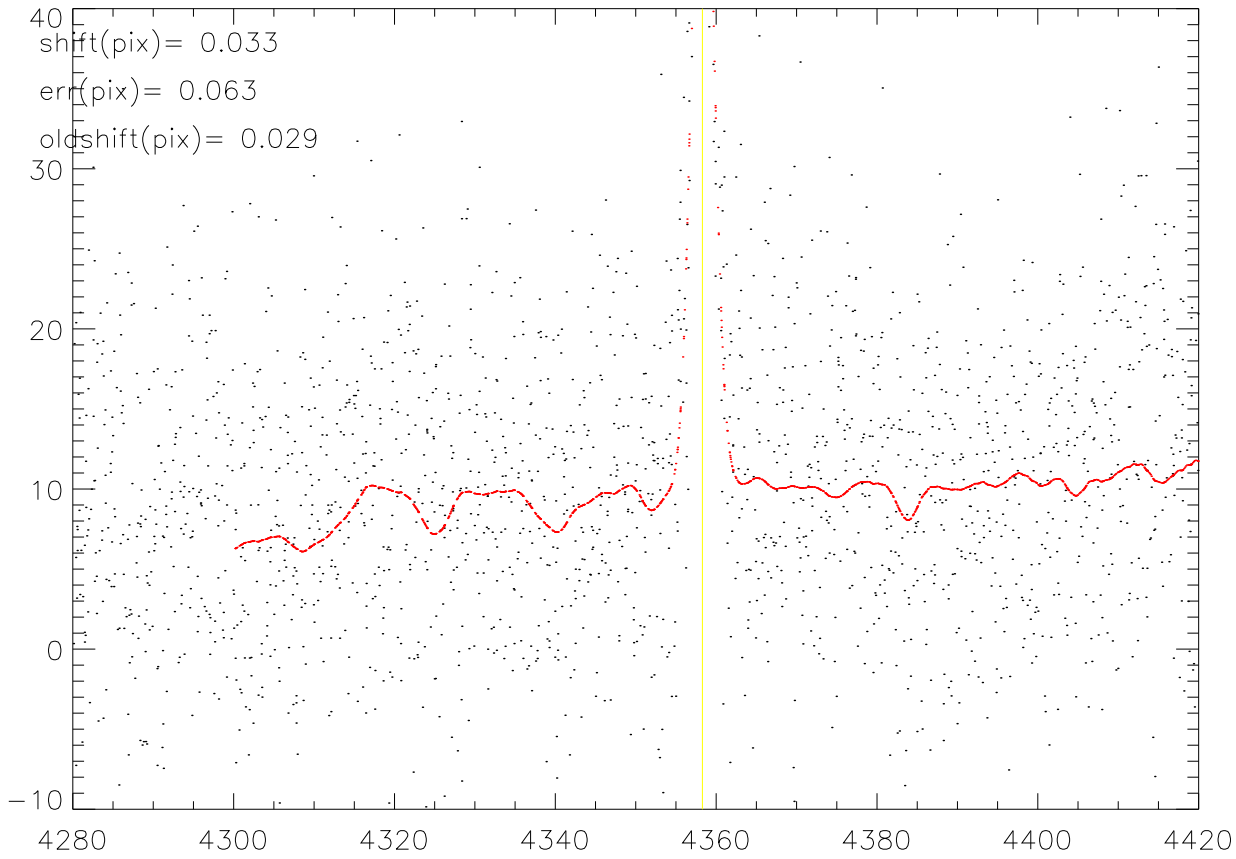

PLATE=0294 MJD=51986 Scattered Light on sdR-b1-00009084.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
0.33
0.55
0.76
0.55
0.55
0.55
0.55
0.55

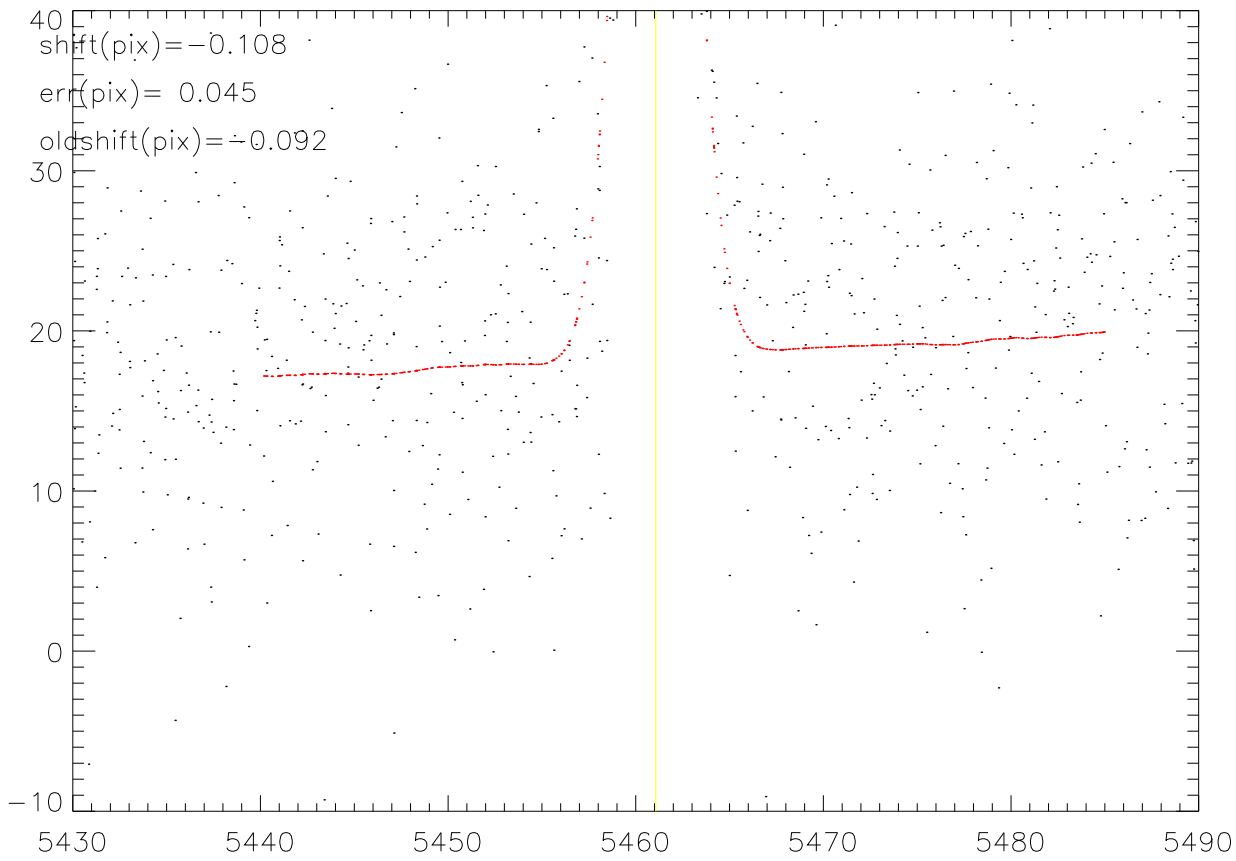

PLATE=0294 MJD=51986 Scattered Light on sdR-b1-00009084.fit
Brightness [electrons/pix]
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Error bars denote full range
Min value = 0.372
Max value = 0.669
4000
4500
5000
5500
6000
λ [A]
Mon Feb 11 19:14:30 2008

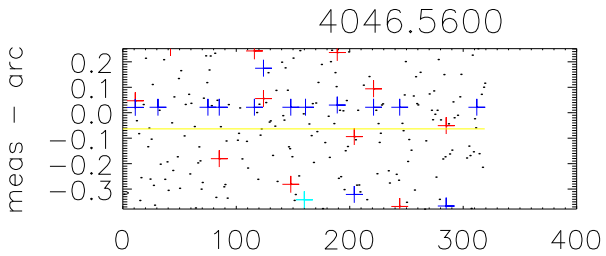

PLATE=0294 MJD=51986 Extraction chi^2 for sdR-b1-00009084.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
2.0
1.5
1.0
0.5
0.0
0
500
1000
1500
2000
Row number

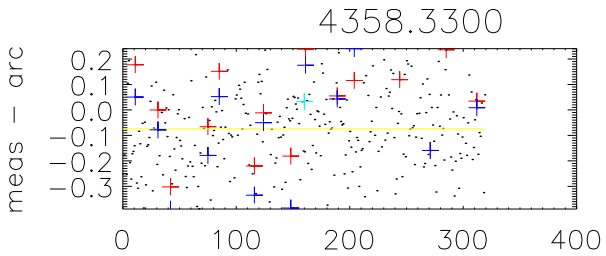

4046.5600
off: 0.07
sig: 0.223
4358.3300
off: 0.03
sig: 0.058
5460.9400
off: −0.09
sig: 0.036
5577.3390
off: 0.01
sig: 0.005
5889.9500
off: 0.11
sig: 0.014
off: 0.04
sig: 0.019

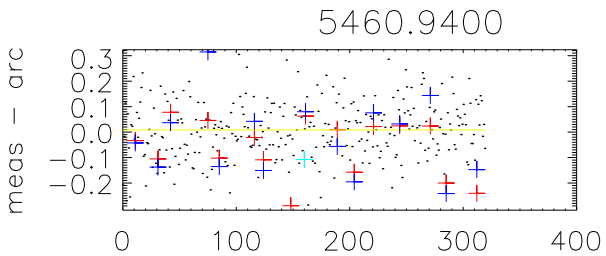

shift(pix)=−0.342
err(pix)= 0.205
oldshift(pix)= 0.071
40
30
20
10
0
−10
4020
4030
4040
4050
4060
4070
4080

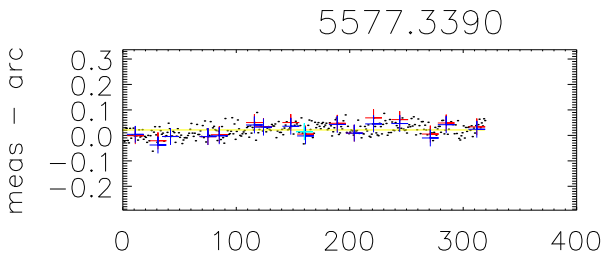

shift(pix)= 0.033
err(pix)= 0.063
oldshift(pix)= 0.029
40
30
20
10
0
−10
4280
4300
4320
4340
4360
4380
4400
4420

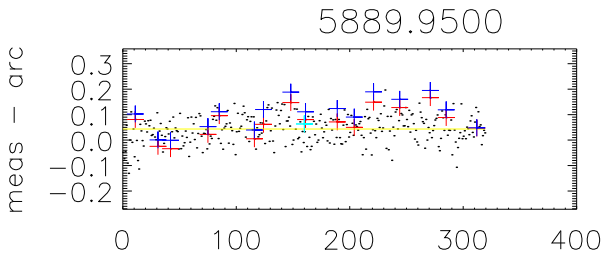

shift(pix)=−0.108
err(pix)= 0.045
oldshift(pix)=−0.092
40
30
20
10
0
−10
5430
5440
5450
5460
5470
5480
5490

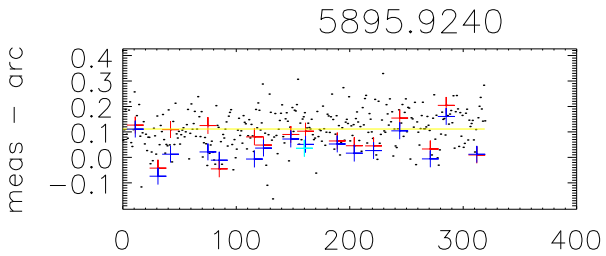

4046.5600
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

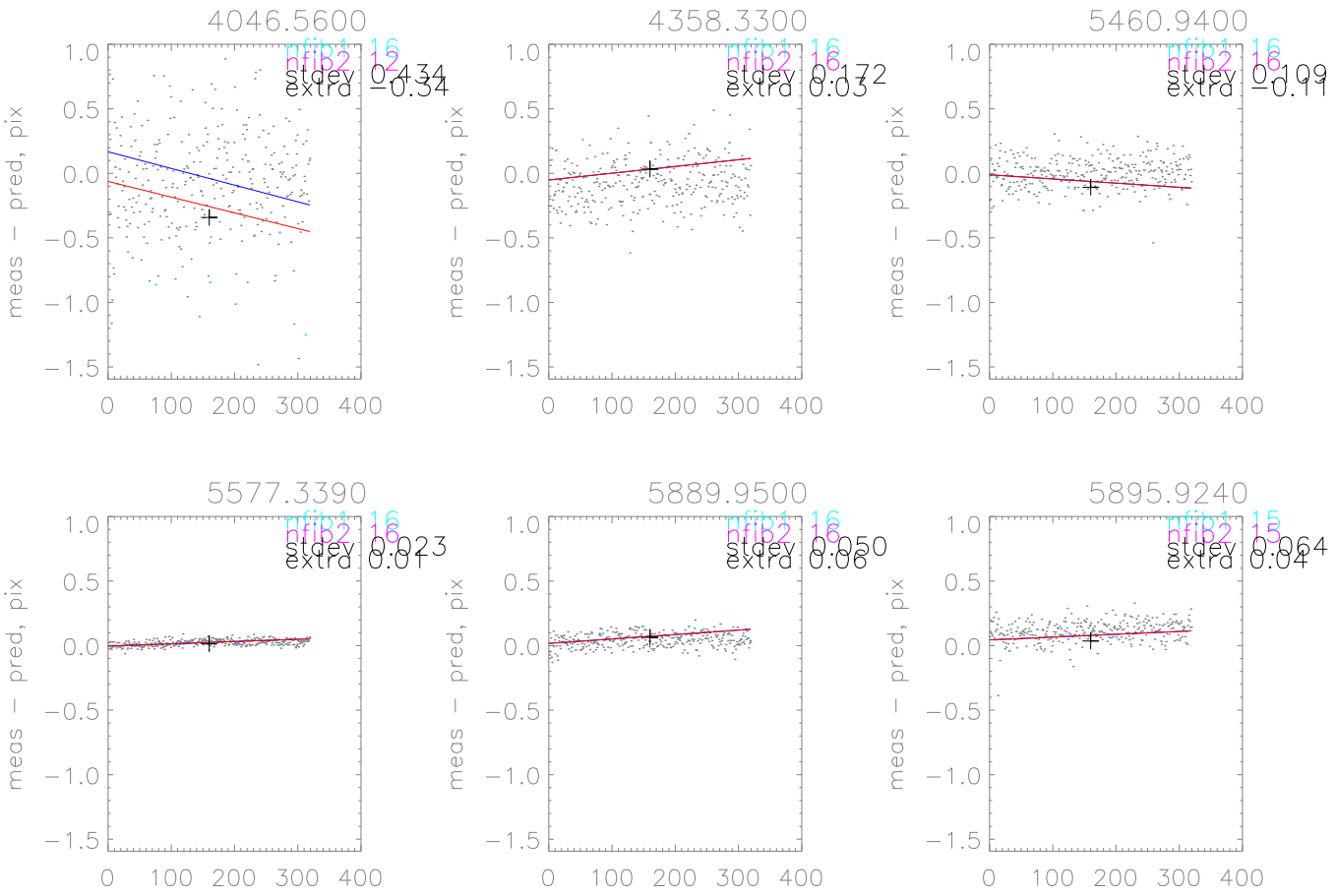

4358.3300
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

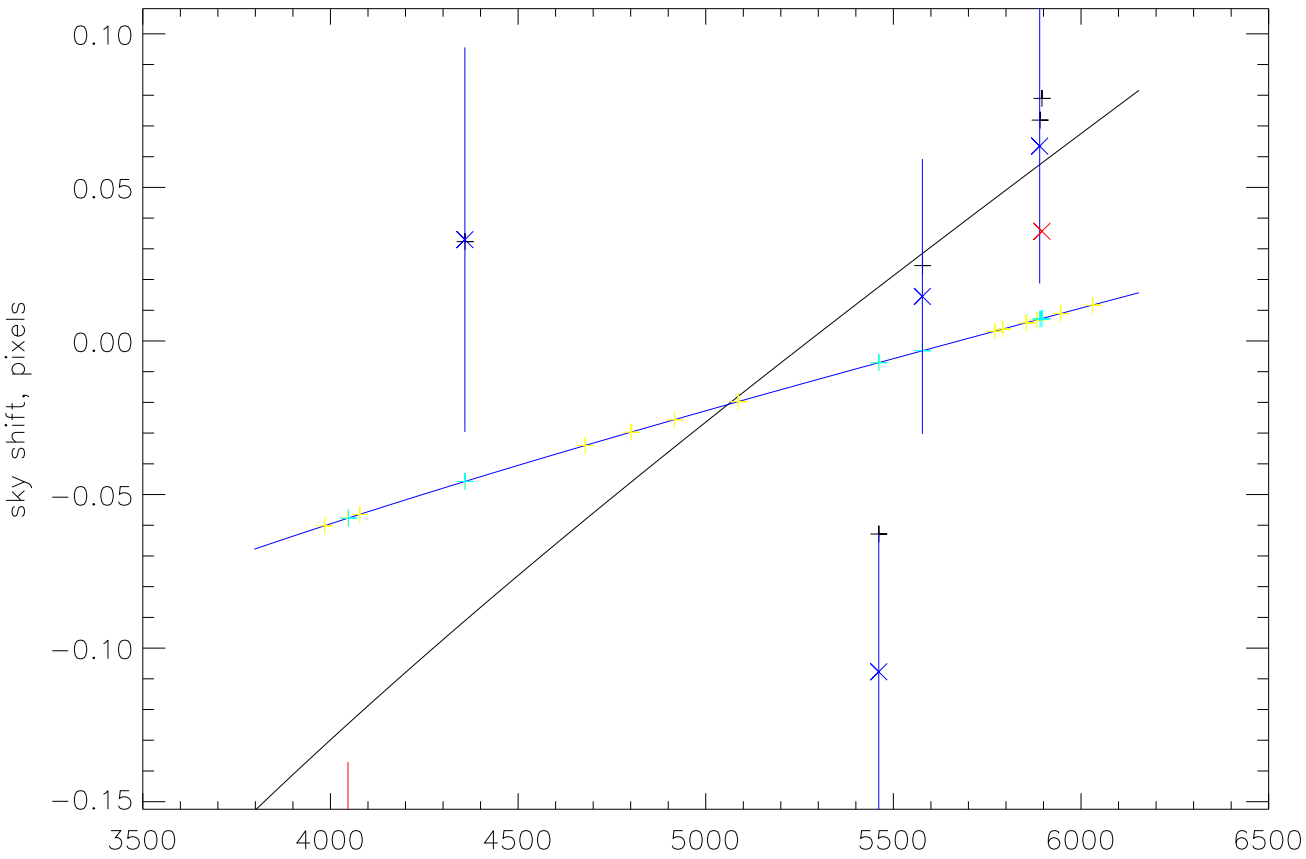

5460.9400
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

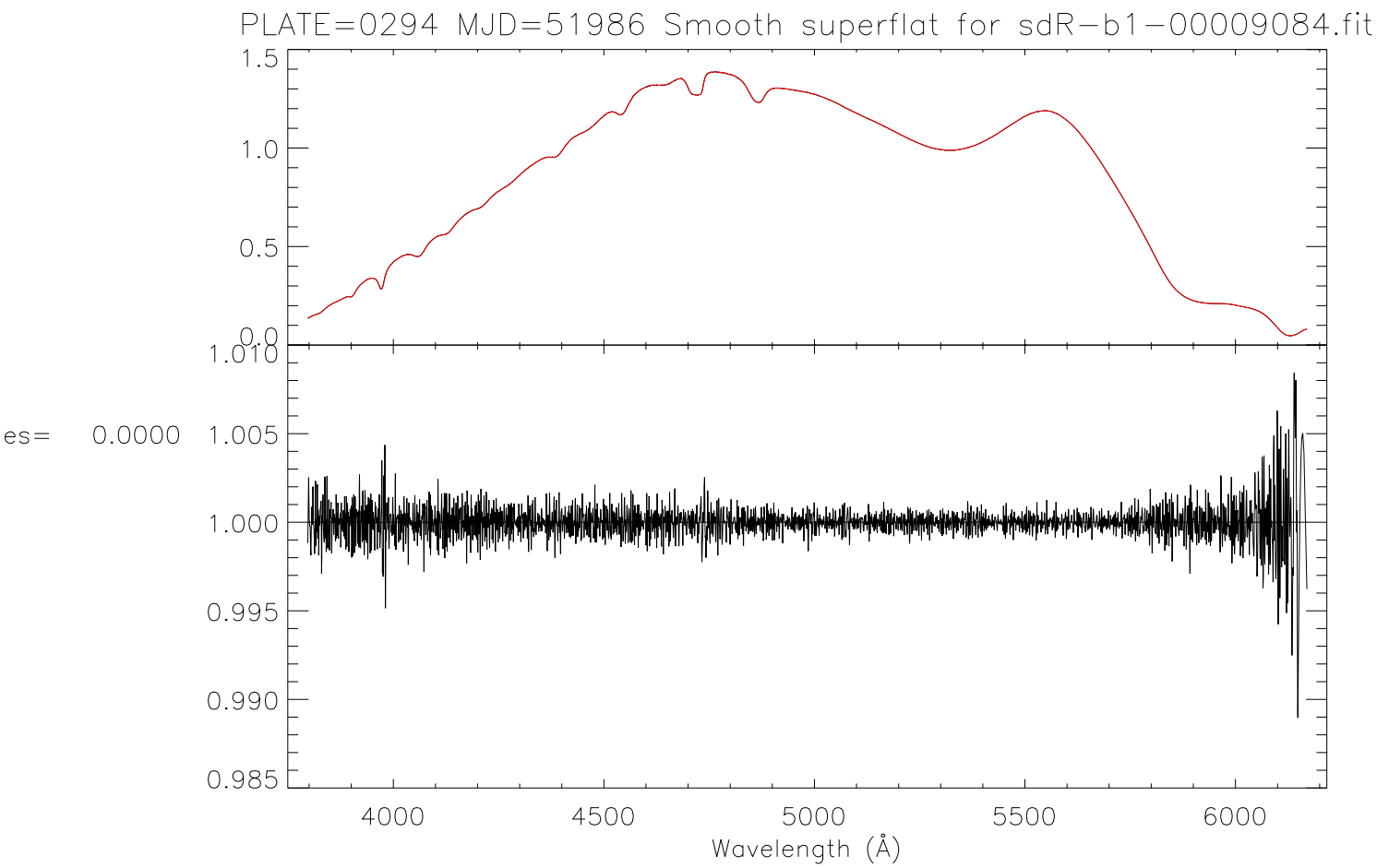

5577.3390
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400


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

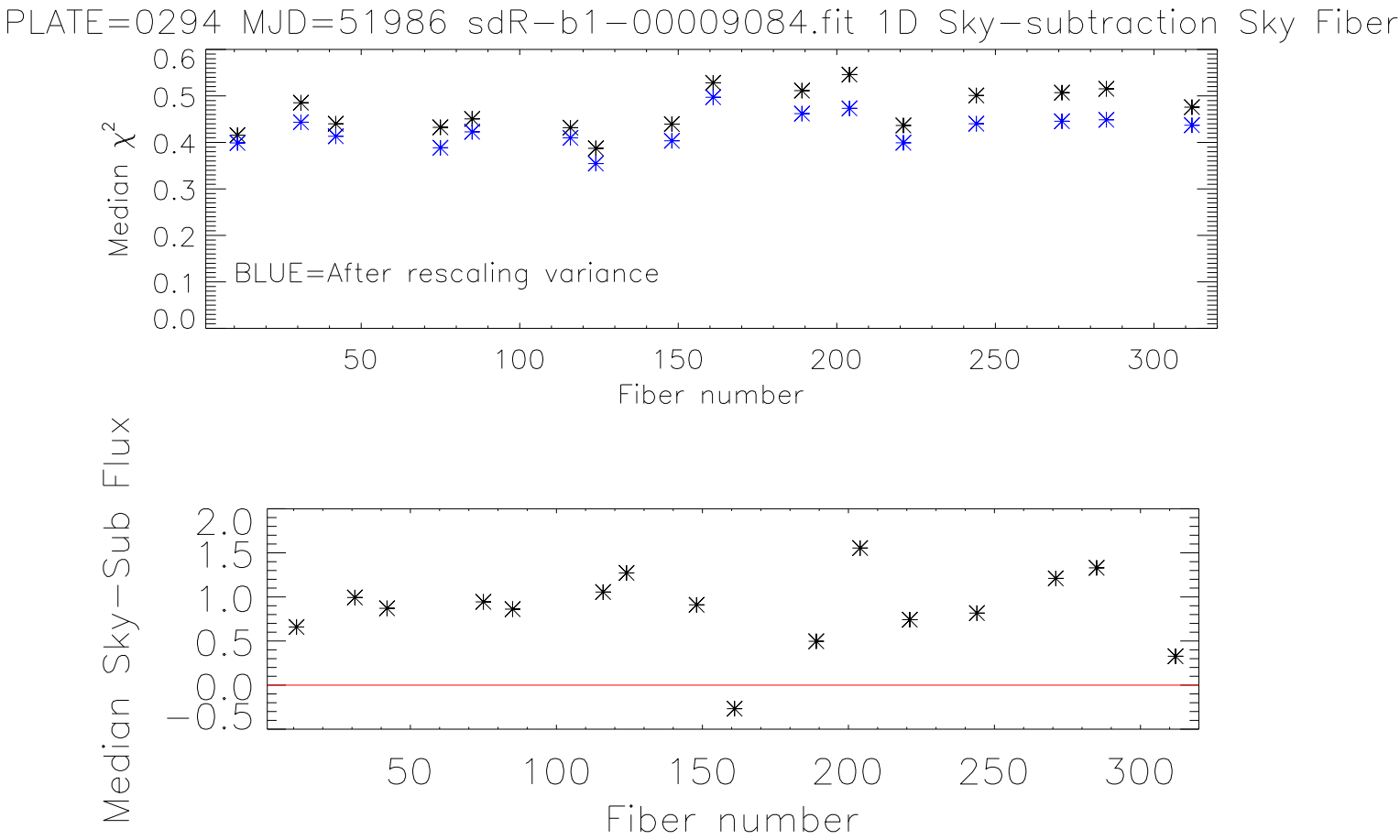

5895.9240
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

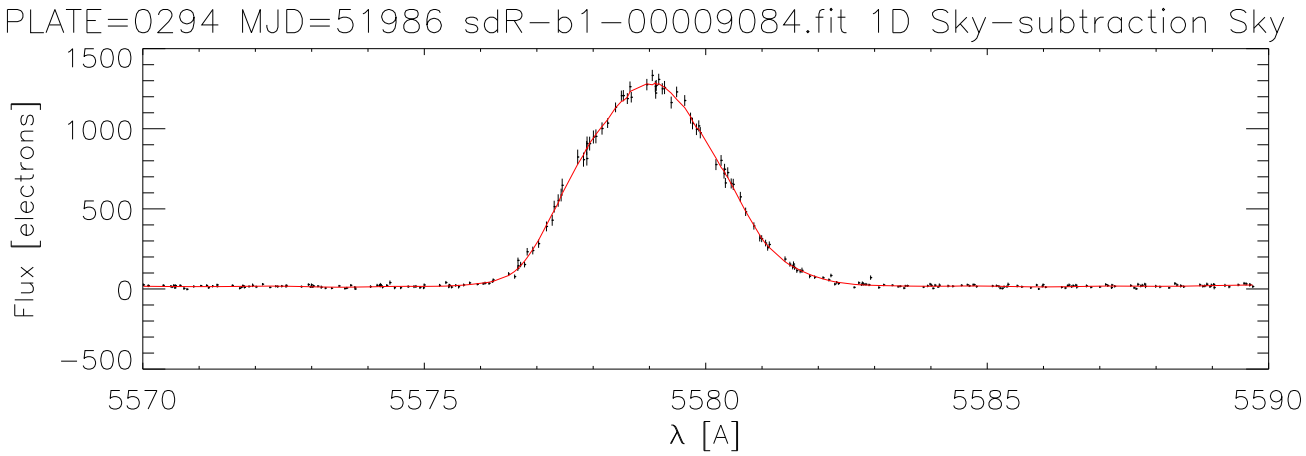

4046.5600
nfib1 16
nfib2 12
stdev 0.434
extrd −0.34
4358.3300
nfib1 16
nfib2 16
stdev 0.172
extrd 0.03
5460.9400
nfib1 16
nfib2 16
stdev 0.109
extrd −0.11
5577.3390
nfib1 16
nfib2 16
stdev 0.023
extrd 0.01
5889.9500
nfib1 16
nfib2 16
stdev 0.050
extrd 0.06
5895.9240
nfib1 15
nfib2 15
stdev 0.064
extrd 0.04
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
−1.5
0
100
200
300
400

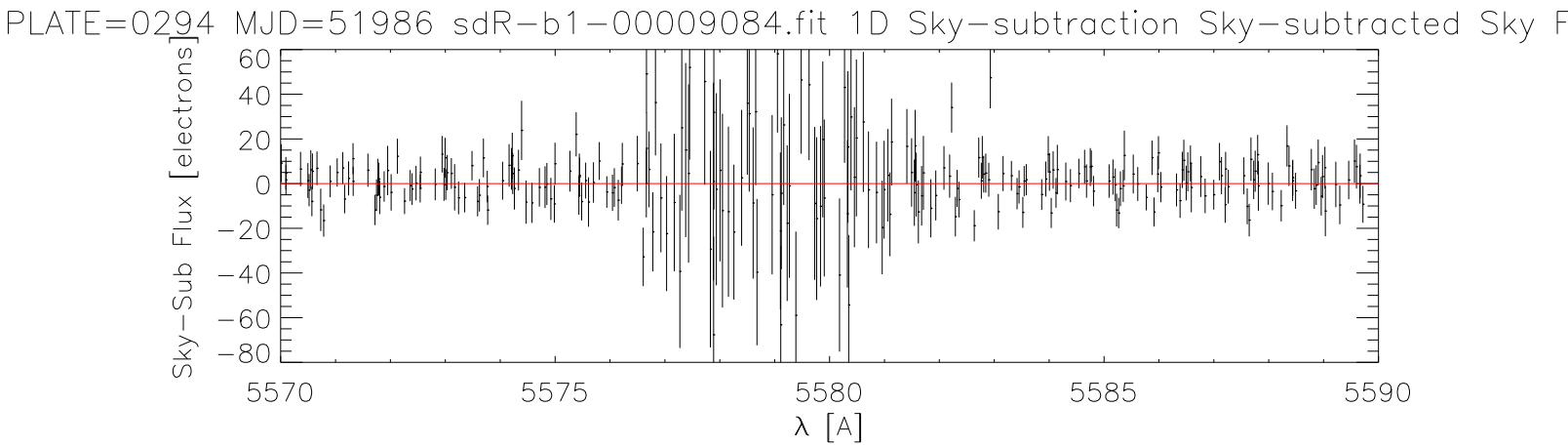

0.10
0.05
0.00
−0.05
−0.10
−0.15
sky shift, pixels
3500
4000
4500
5000
5500
6000
6500

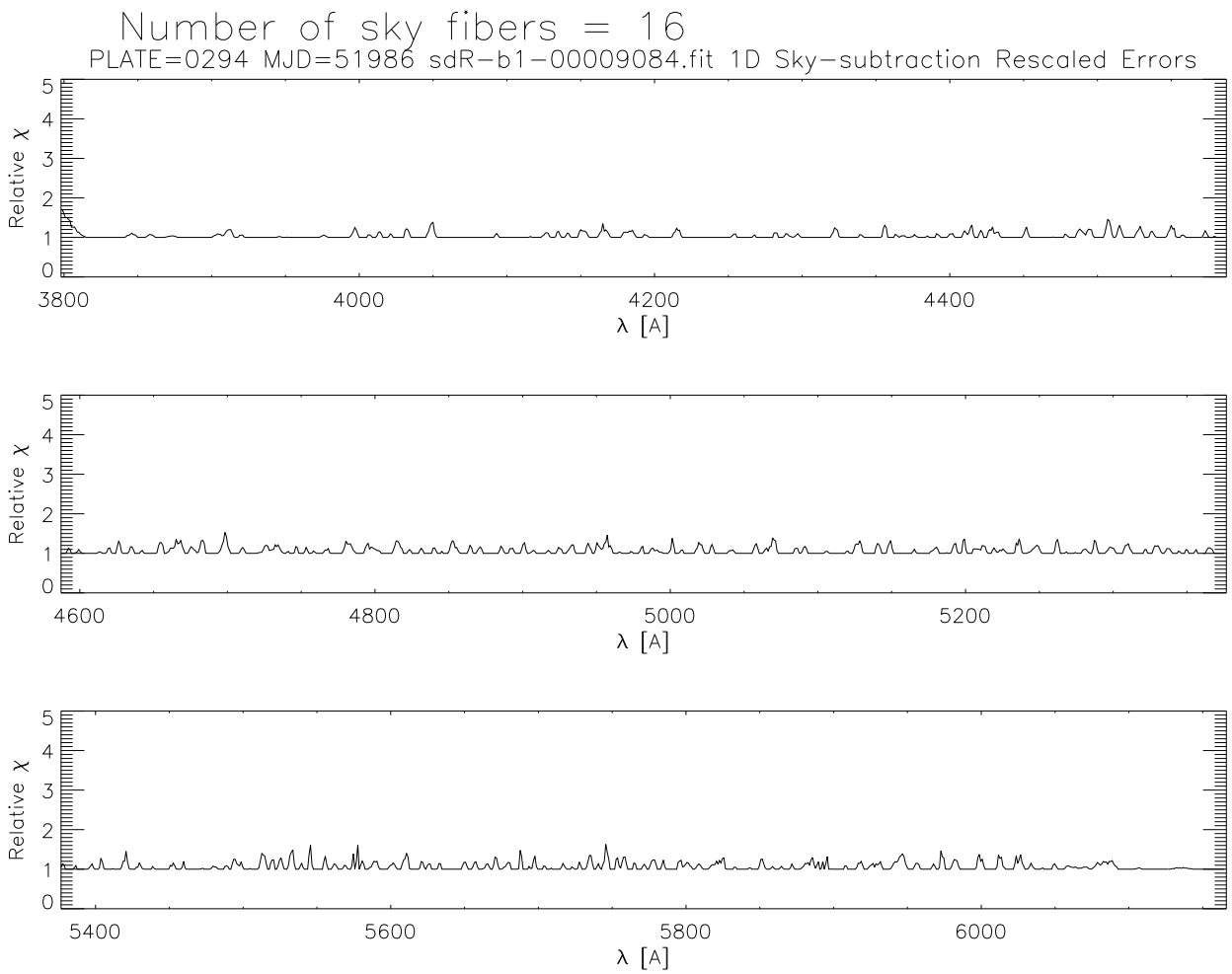

PLATE=0294 MJD=51986 Smooth superflat for sdR-b1-00009084.fit
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
0.985
4000
4500
5000
5500
6000
Wavelength (Å)

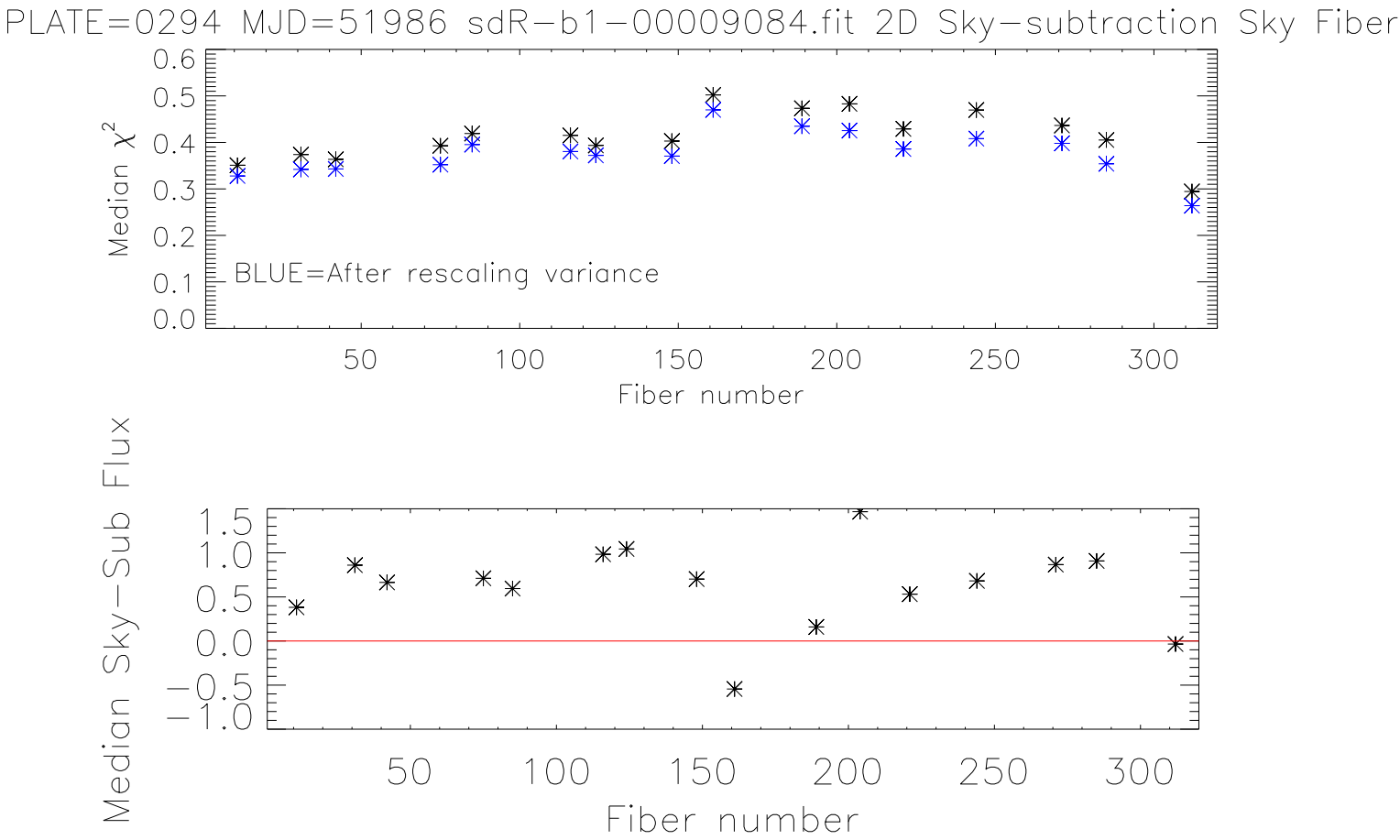
es= 0.0000

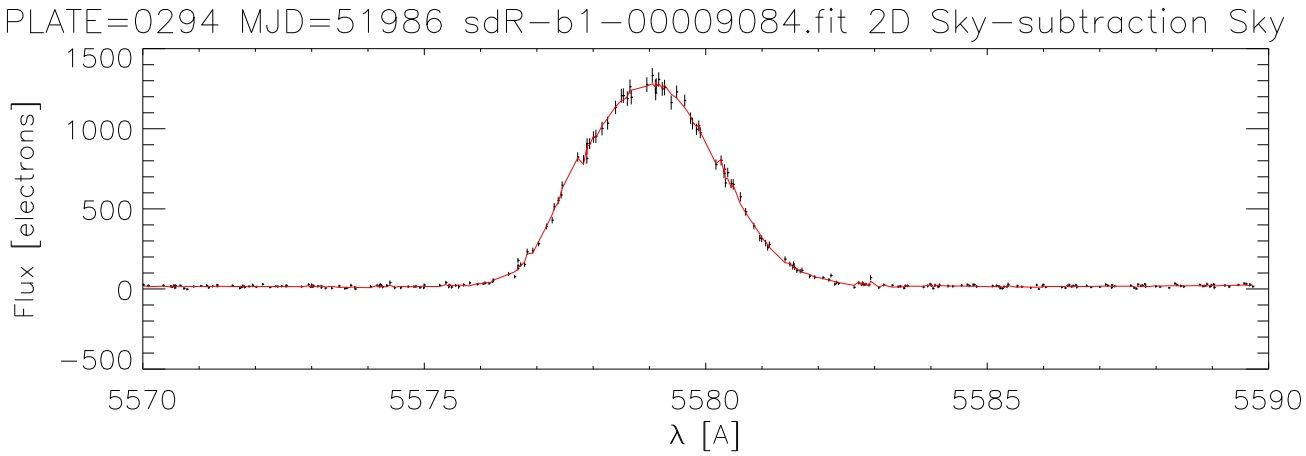

PLATE=0294 MJD=51986 sdR-b1-00009084.fit 1D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

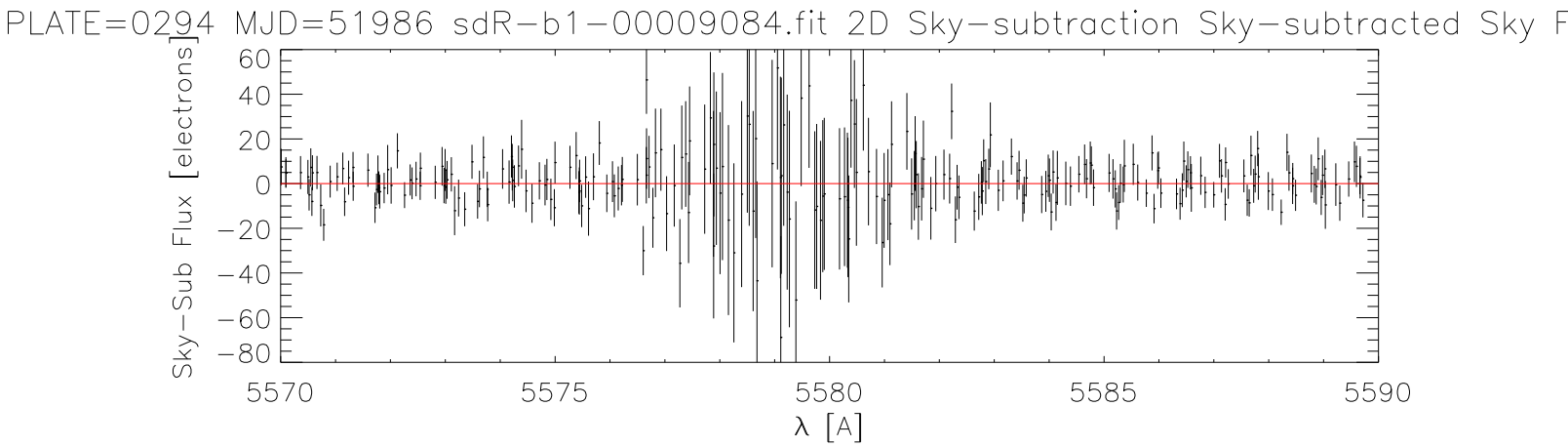

PLATE=0294 MJD=51986 sdR-b1-00009084.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
1500
1000
500
0
-500
5570
5575
5580
5585
5590
λ [A]

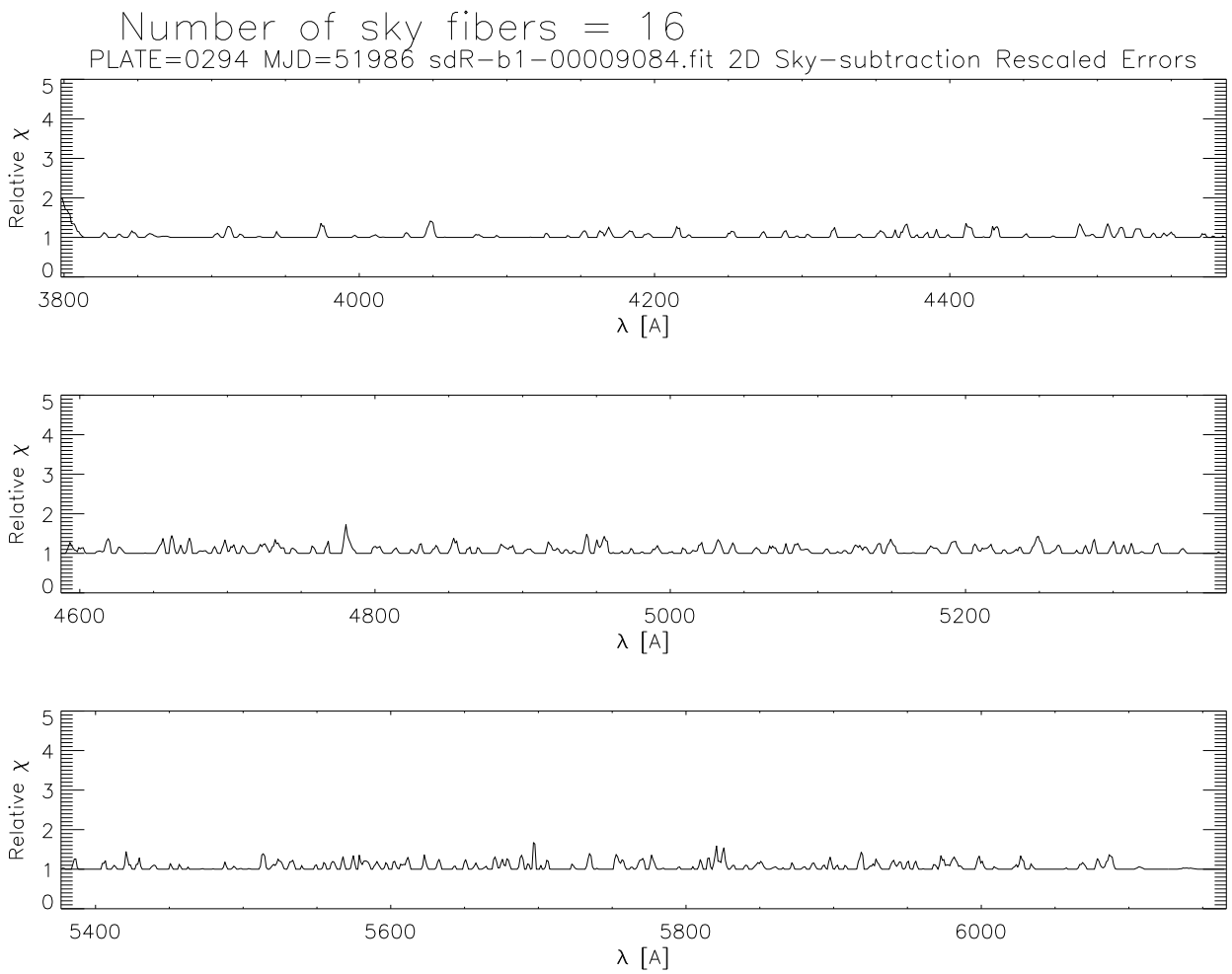

PLATE=0294 MJD=51986 sdR-b1-00009084.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
60
40
20
0
-20
-40
-60
-80
5570
5575
5580
5585
5590
λ [A]

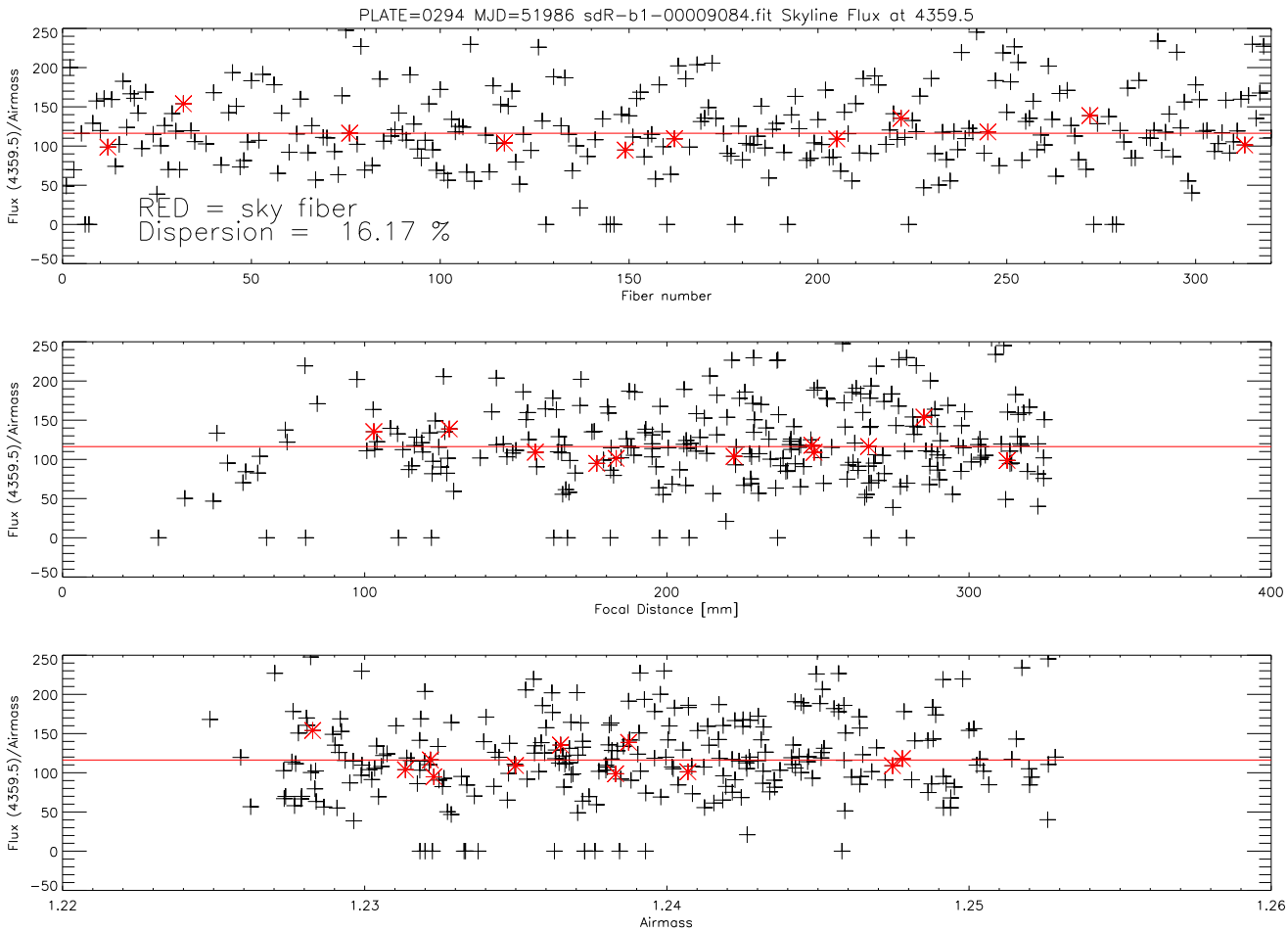

Number of sky fibers = 16
PLATE=0294 MJD=51986 sdR-b1-00009084.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

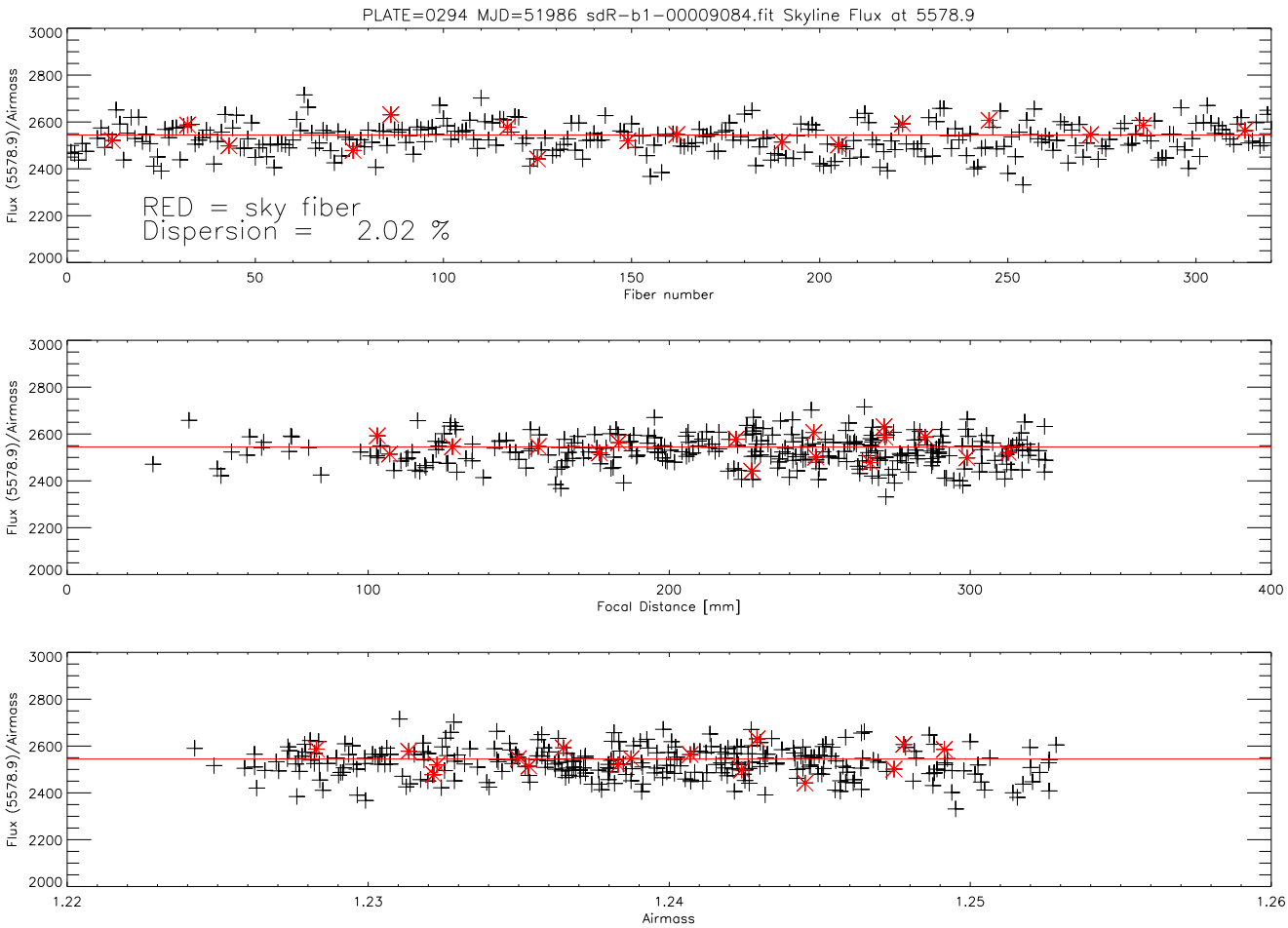

PLATE=0294 MJD=51986 sdR-b1-00009084.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

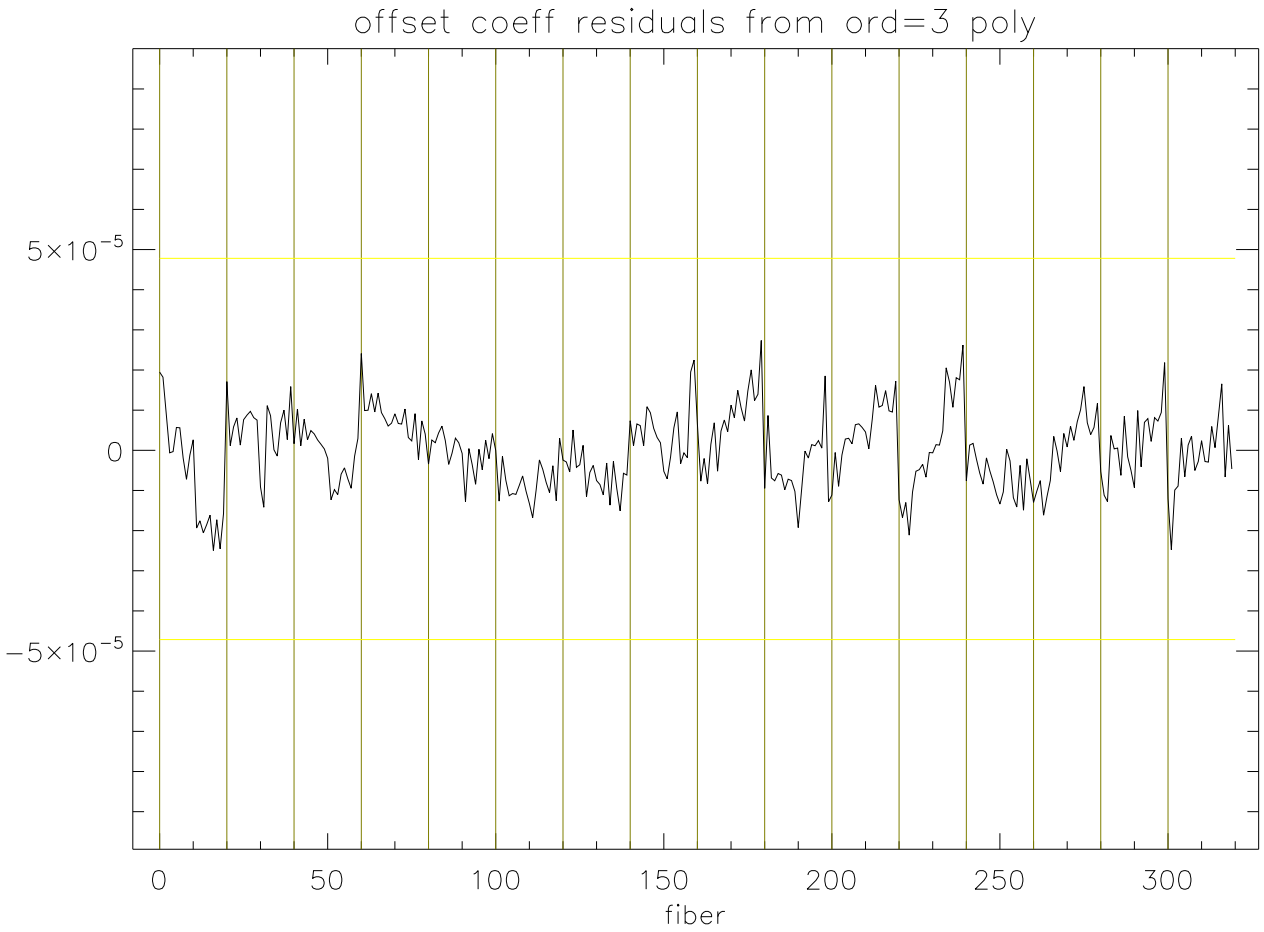

PLATE=0294 MJD=51986 sdR-b1-00009084.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
1500
1000
500
0
-500
5570
5575
5580
5585
5590
λ [A]

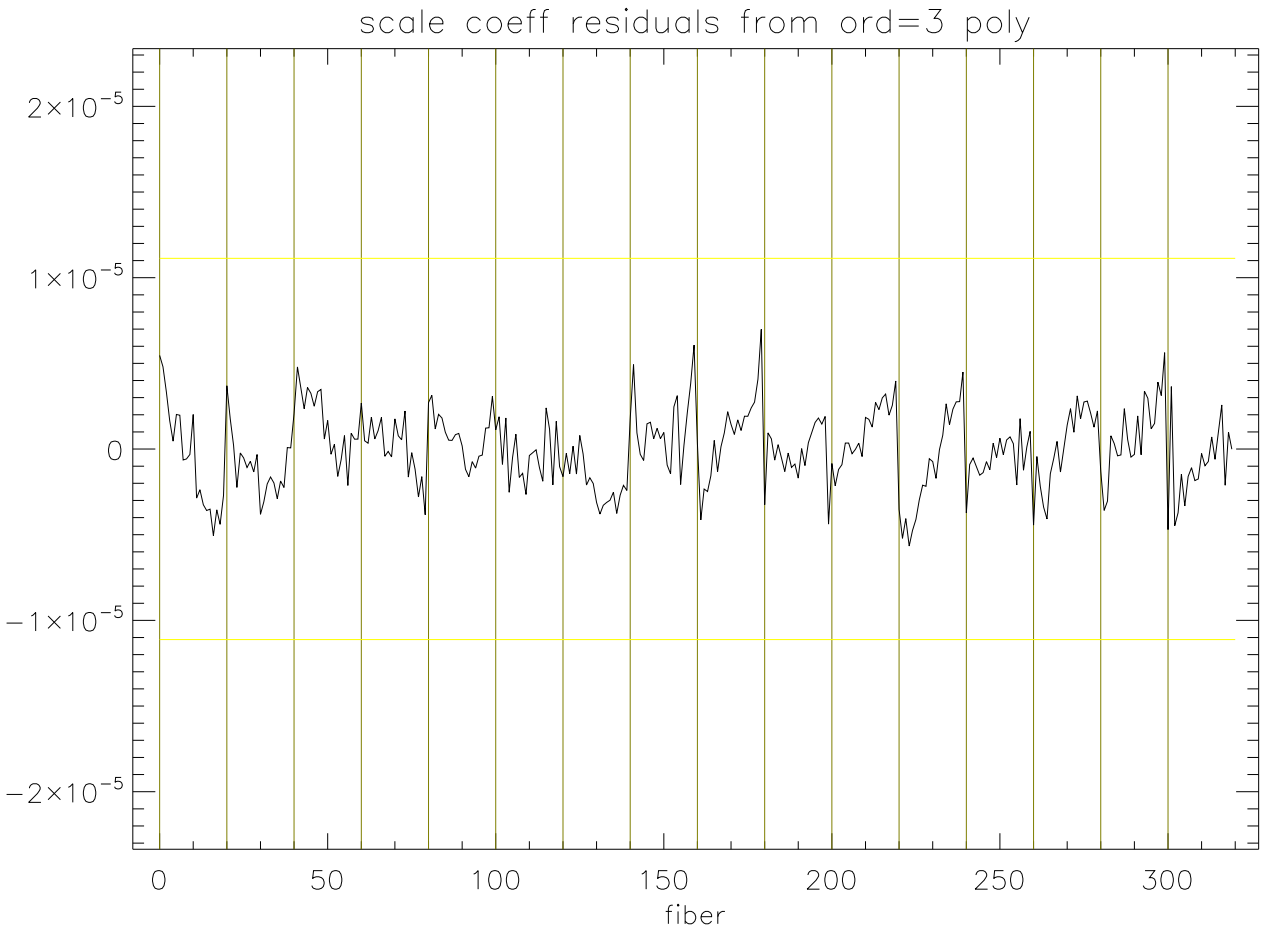

PLATE=0294 MJD=51986 sdR-b1-00009084.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
60
40
20
0
-20
-40
-60
-80
5570
5575
5580
5585
5590
λ [A]

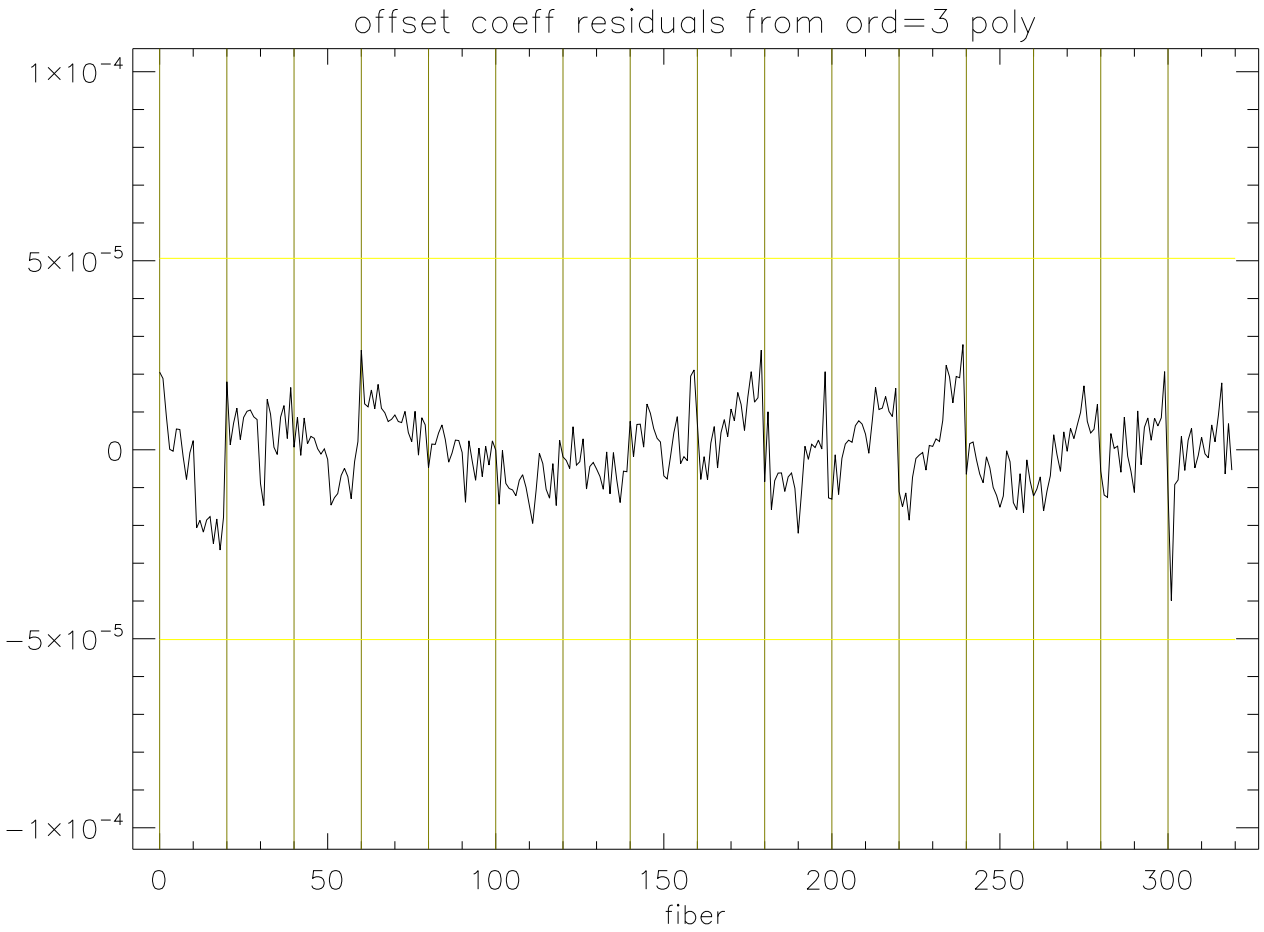

Number of sky fibers = 16
PLATE=0294 MJD=51986 sdR-b1-00009084.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

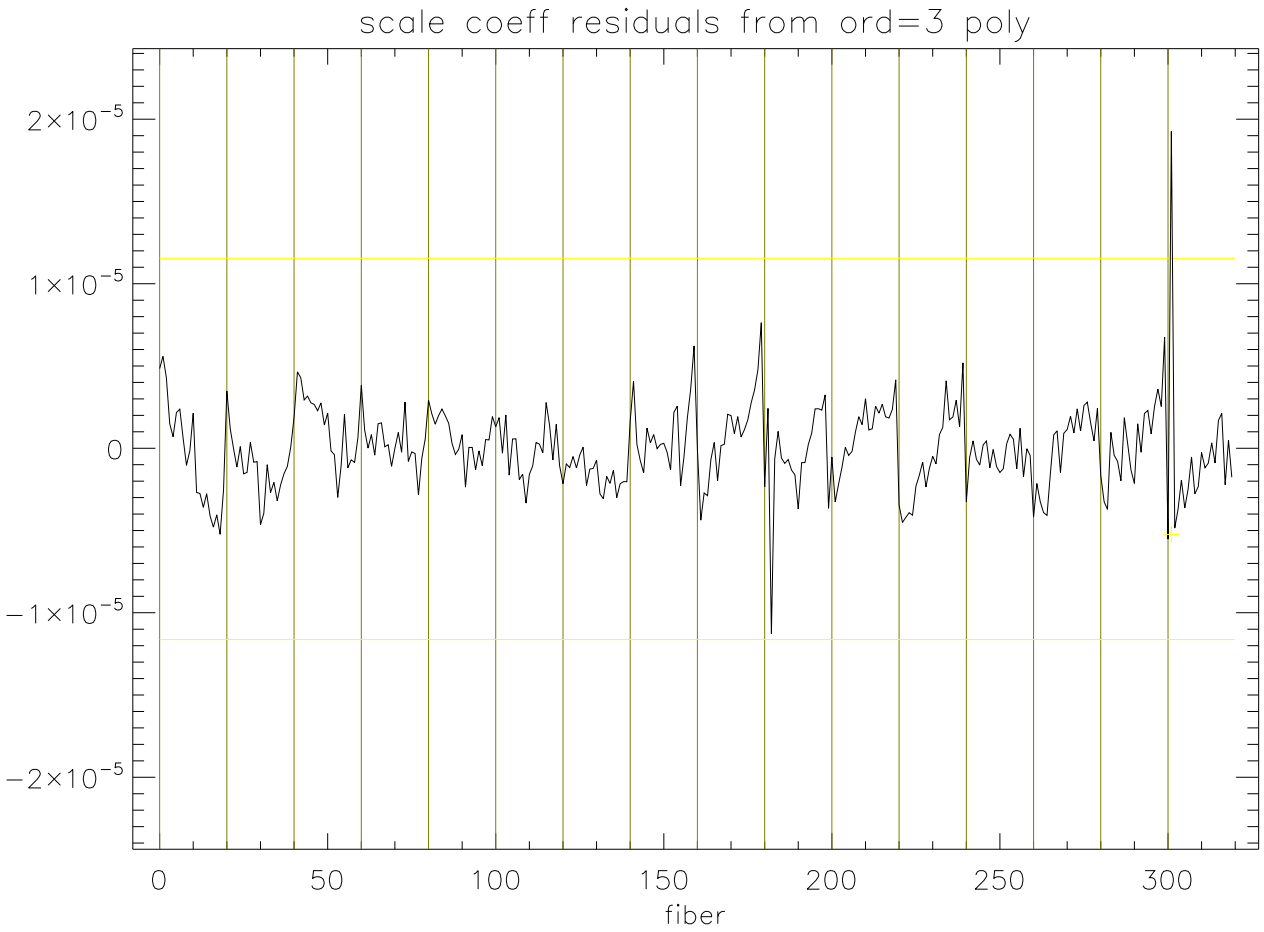

PLATE=0294 MJD=51986 sdR-b1-00009084.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 16.17 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

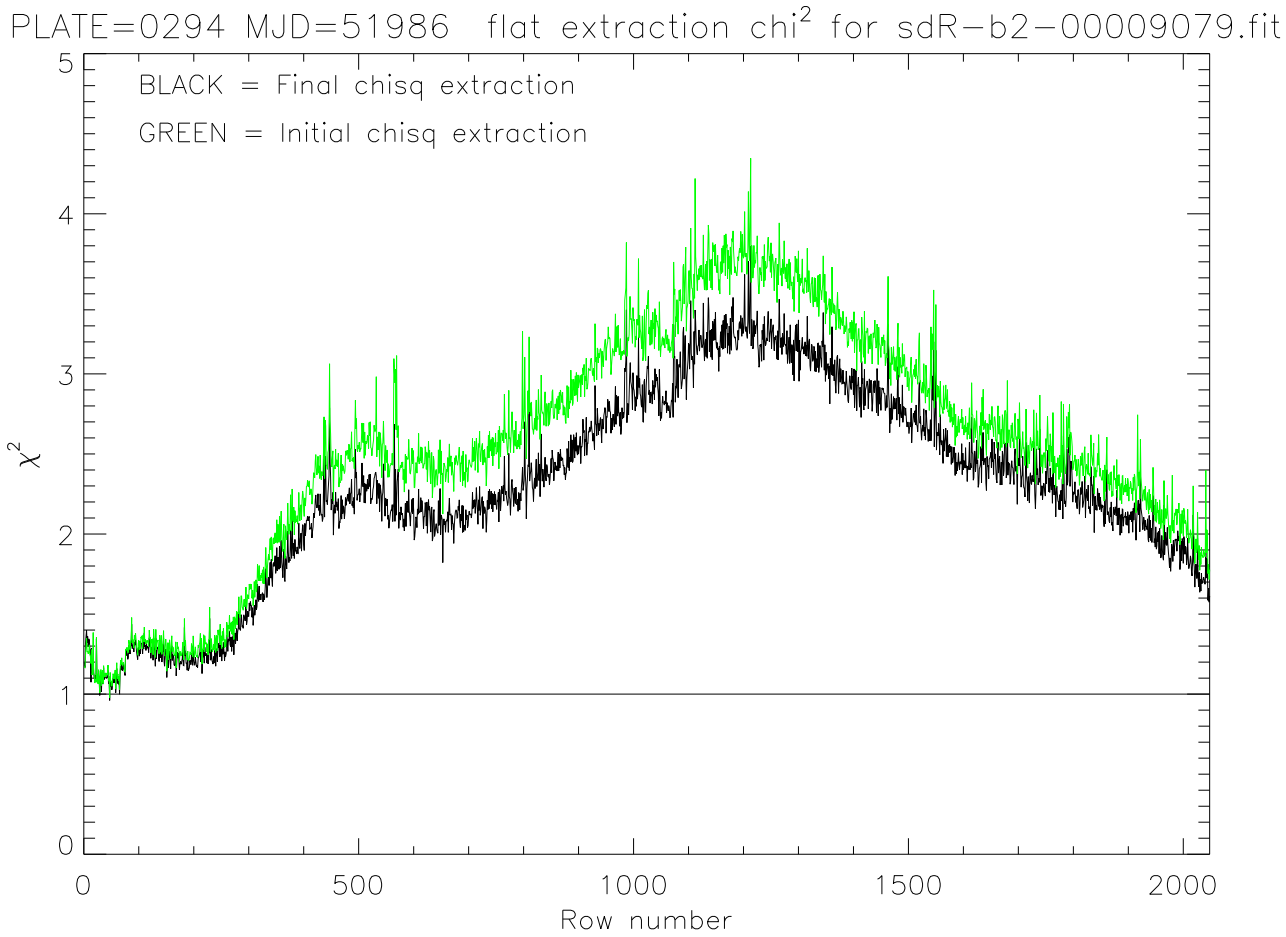

PLATE=0294 MJD=51986 sdR-b1-00009084.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 2.02 %
Fiber number
Flux (5578.9)/Airmass
Focal Distance [mm]
Flux (5578.9)/Airmass
Airmass

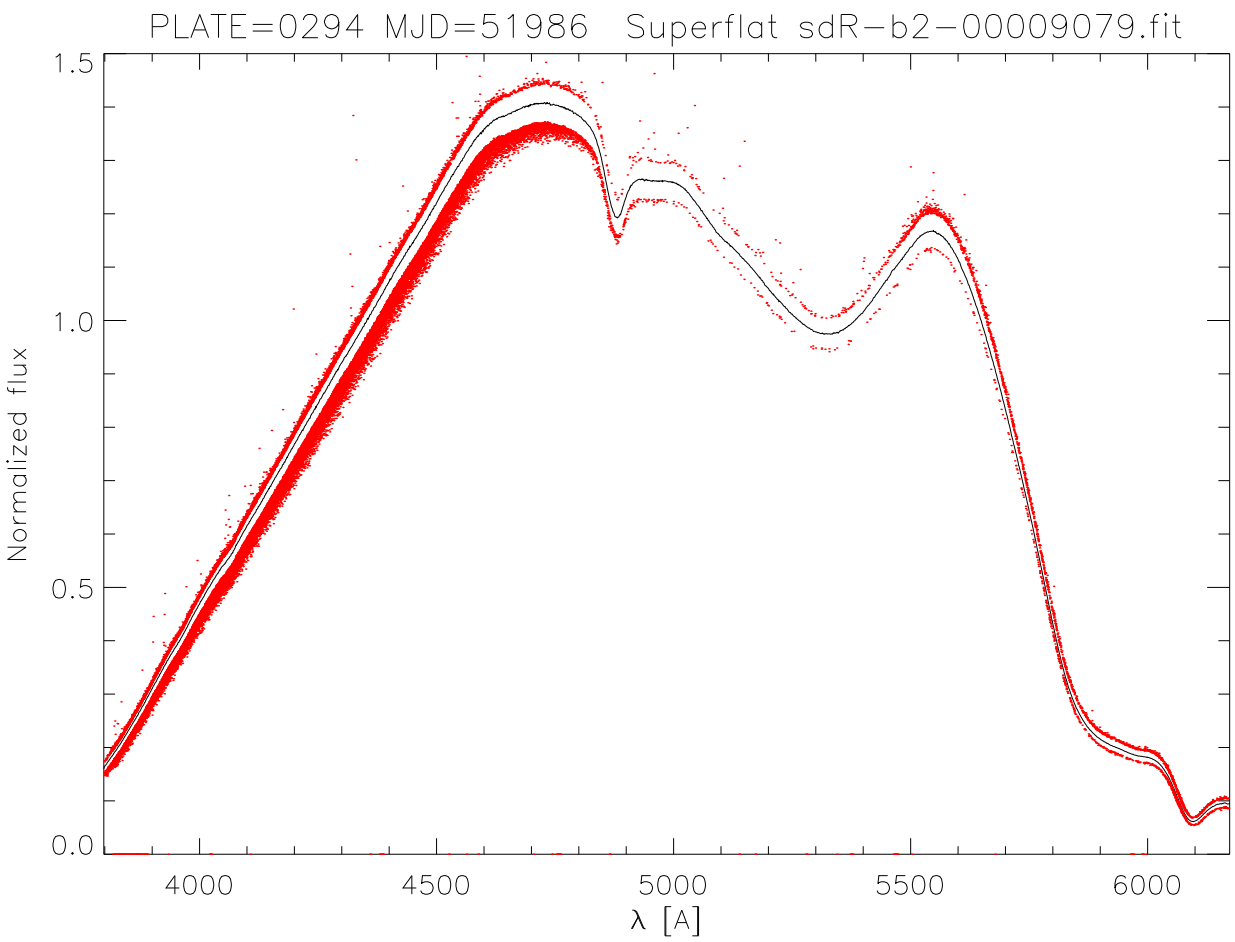

offset coeff residuals from ord=3 poly
5×10⁻⁵
0
−5×10⁻⁵
0
50
100
150
200
250
300
fiber

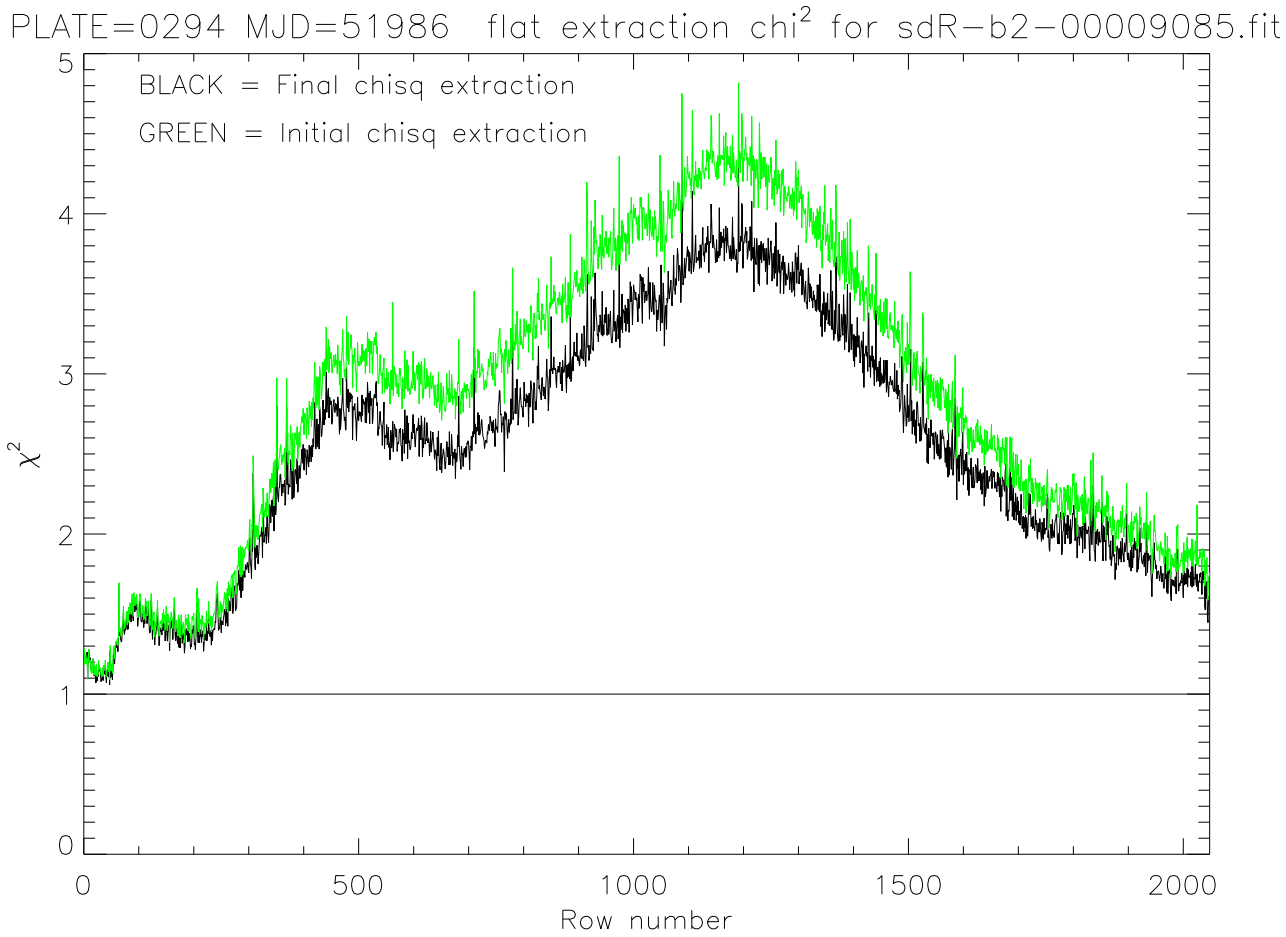

scale coeff residuals from ord=3 poly
2×10⁻⁵
1×10⁻⁵
0
−1×10⁻⁵
−2×10⁻⁵
0
50
100
150
200
250
300
fiber

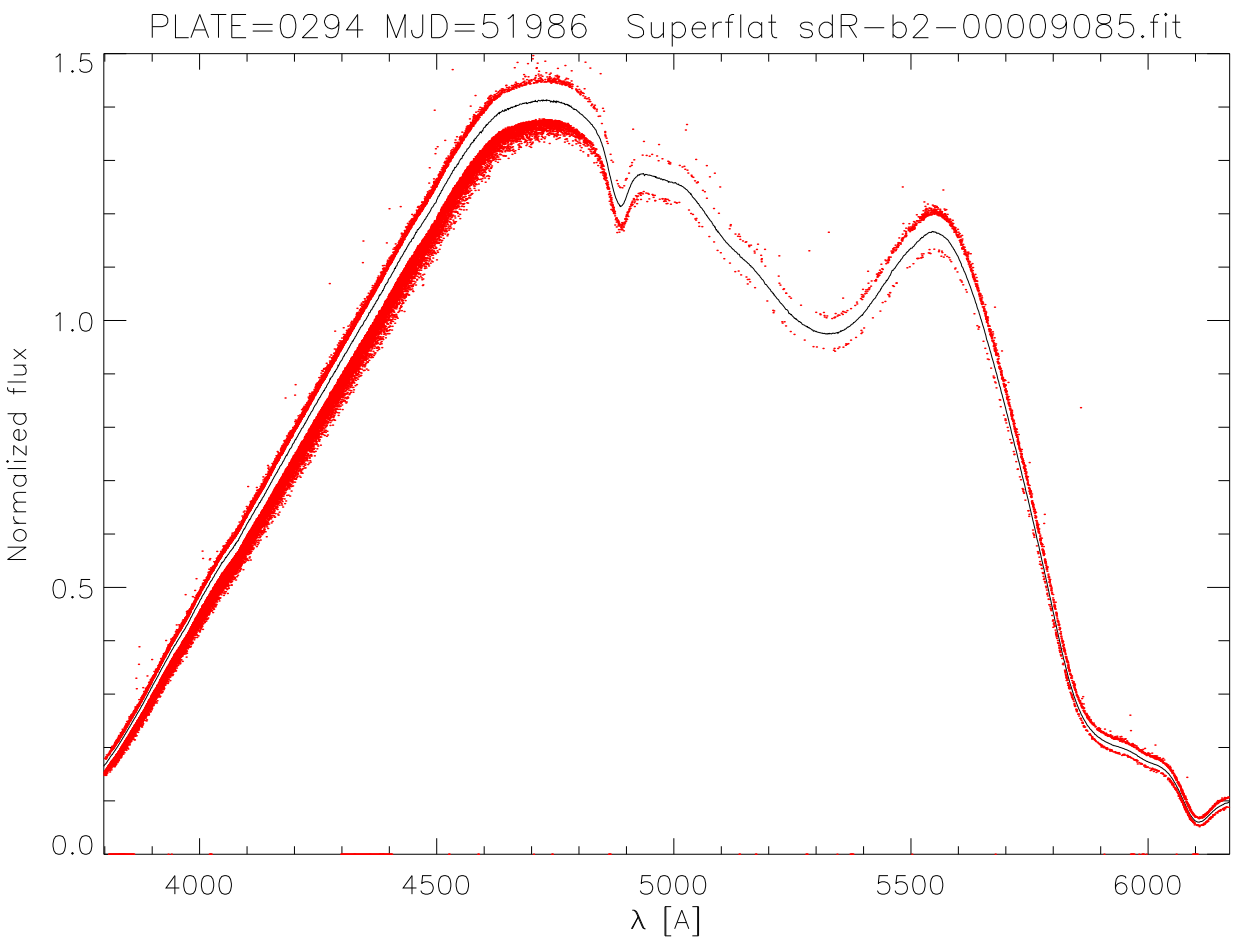

offset coeff residuals from ord=3 poly
1×10⁻⁴
5×10⁻⁵
0
−5×10⁻⁵
−1×10⁻⁴
0
50
100
150
200
250
300
fiber

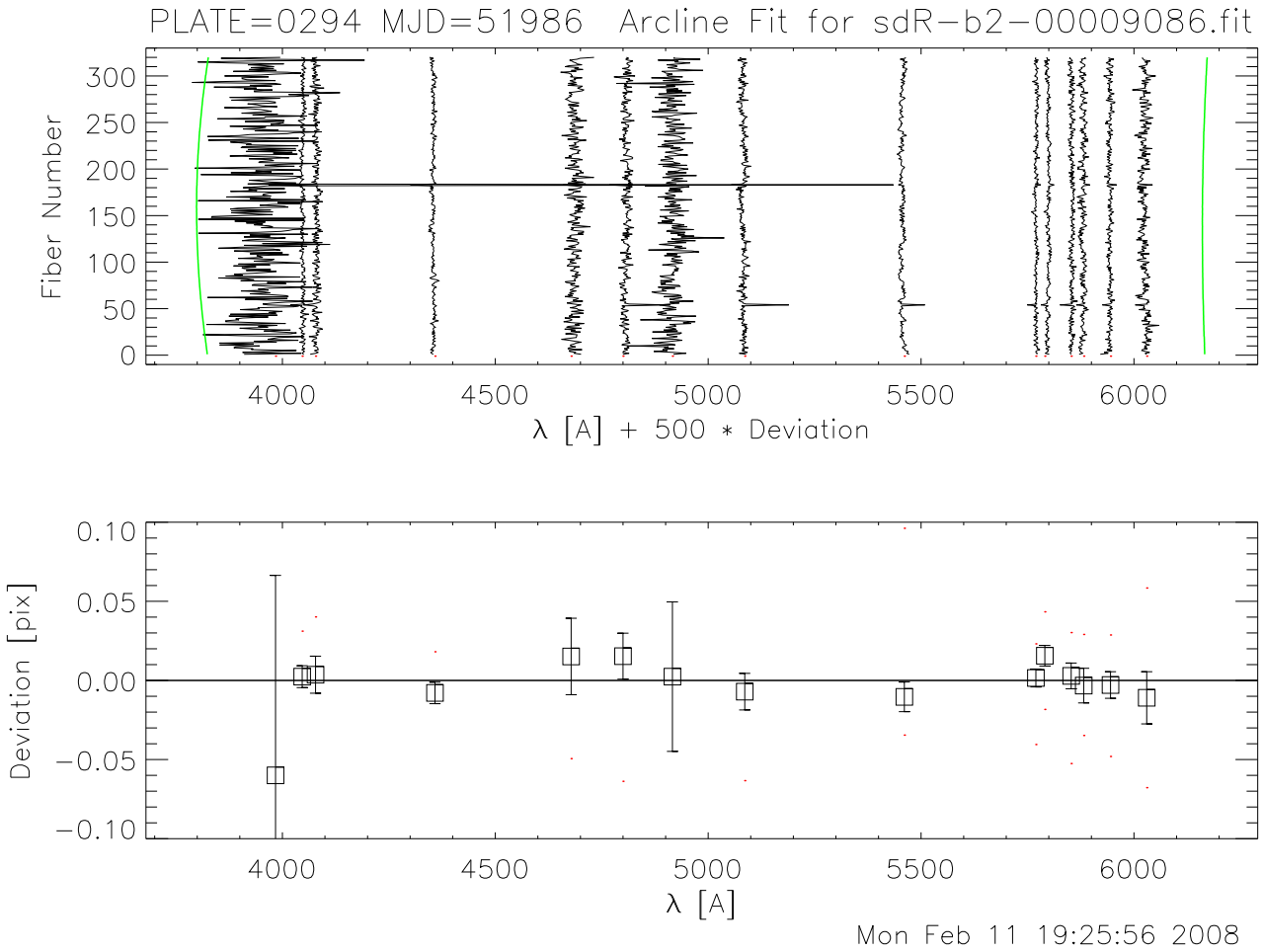

scale coeff residuals from ord=3 poly
2×10⁻⁵
1×10⁻⁵
0
−1×10⁻⁵
−2×10⁻⁵
0
50
100
150
200
250
300
fiber

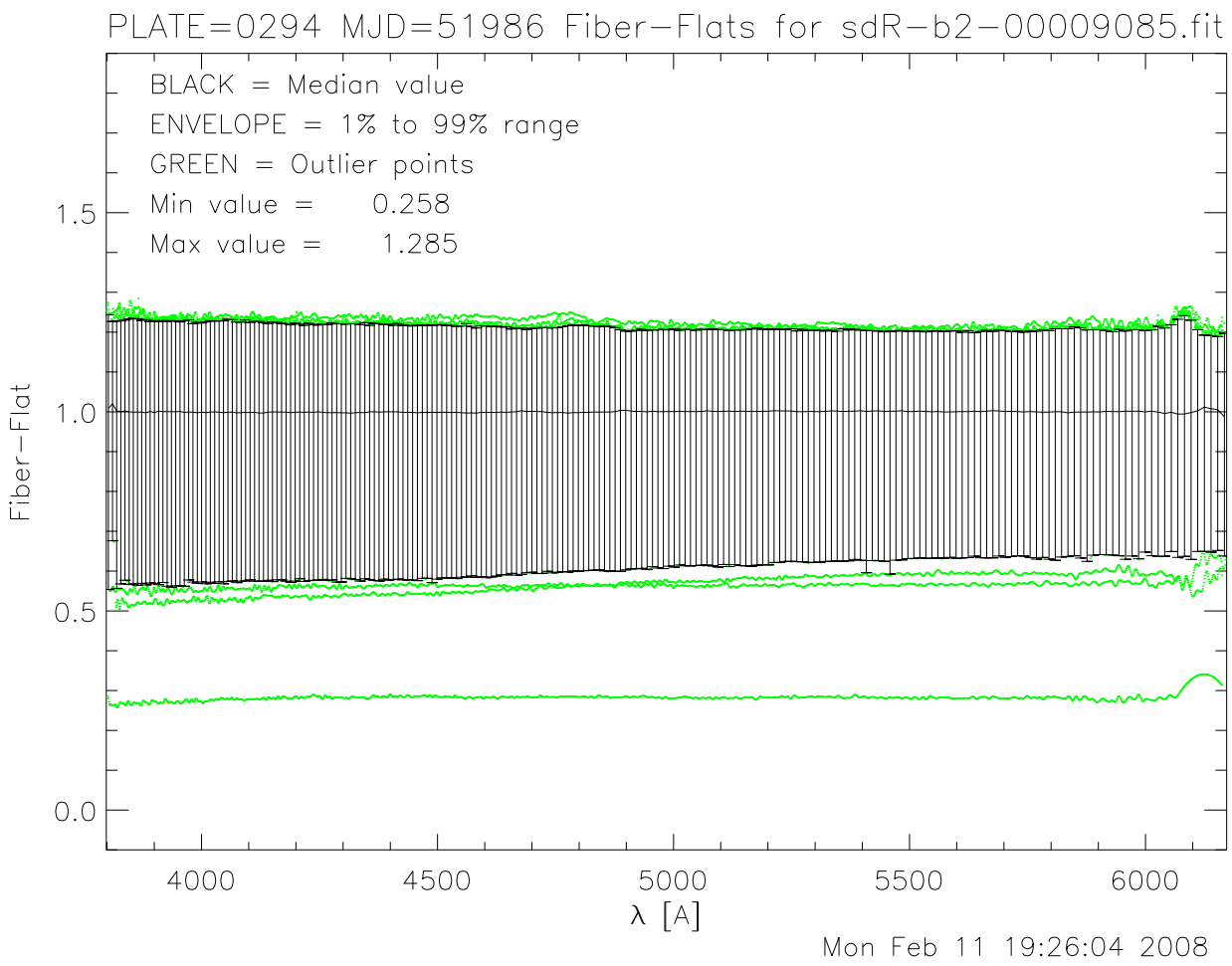

PLATE=0294 MJD=51986 flat extraction chi^2 for sdR−b2−00009079.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
5
0
500
1000
1500
2000
Row number

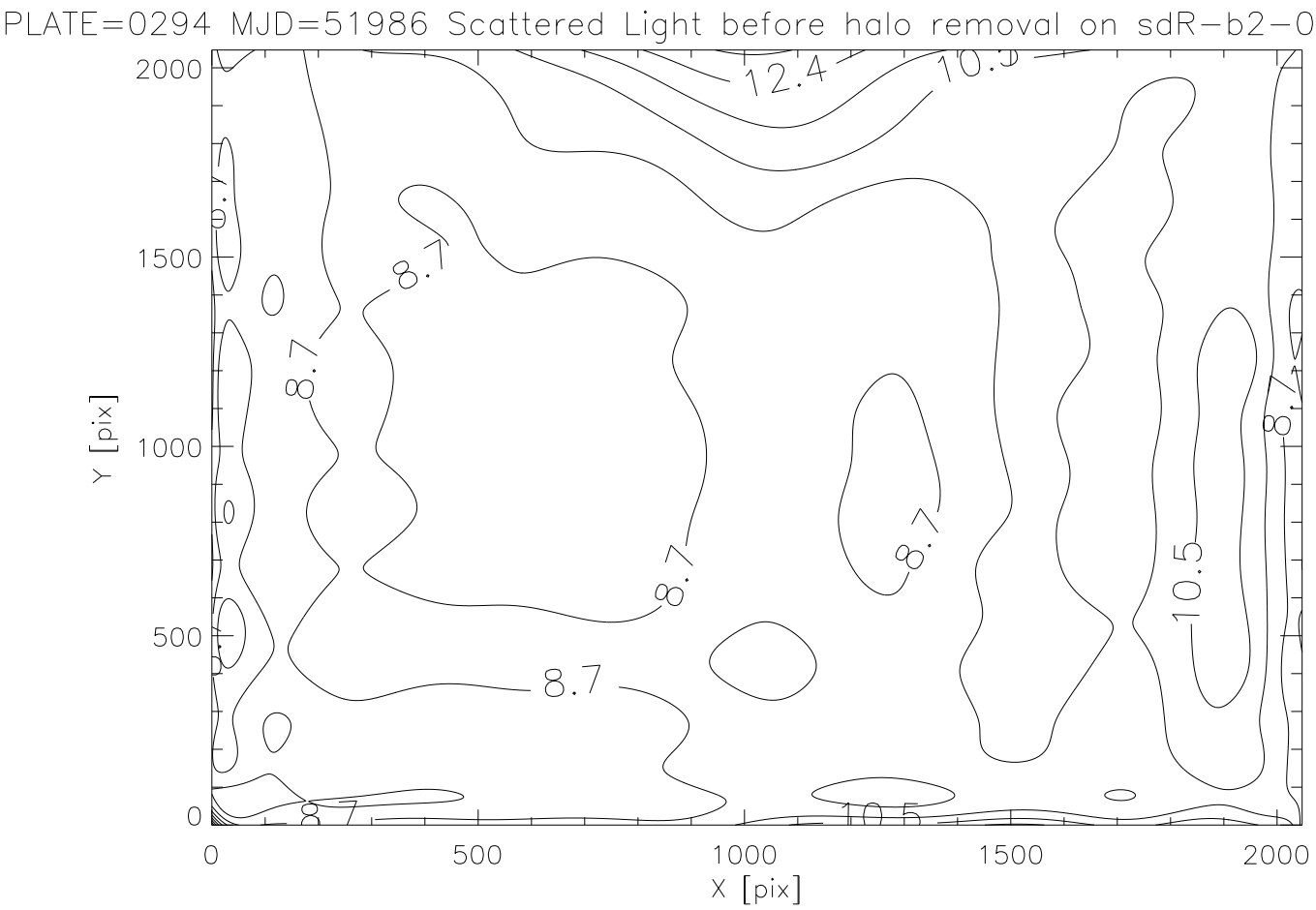

PLATE=0294 MJD=51986 Superflat sdR-b2-00009079.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

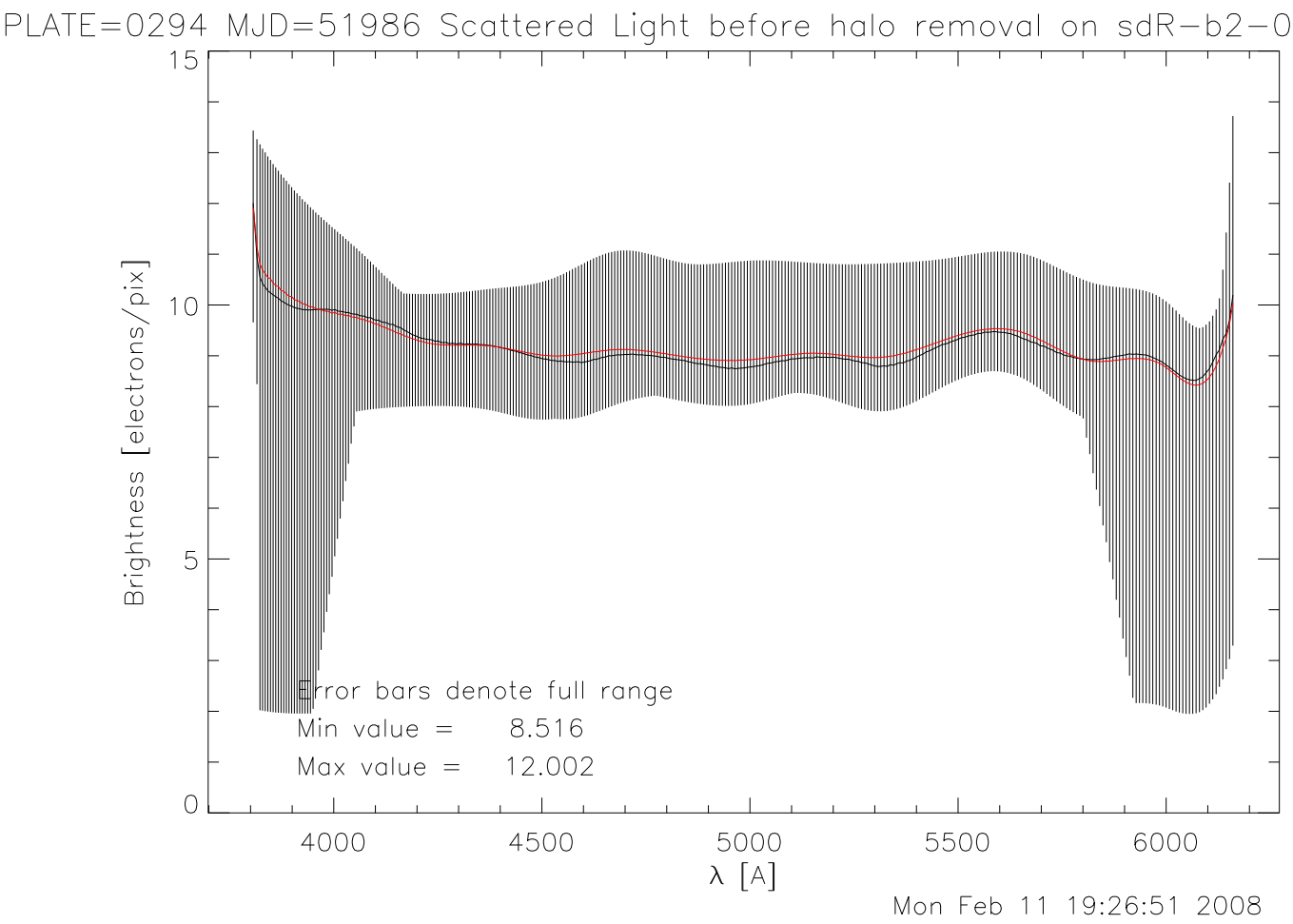

PLATE=0294 MJD=51986 flat extraction chi^2 for sdR−b2−00009085.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
5
0
500
1000
1500
2000
Row number

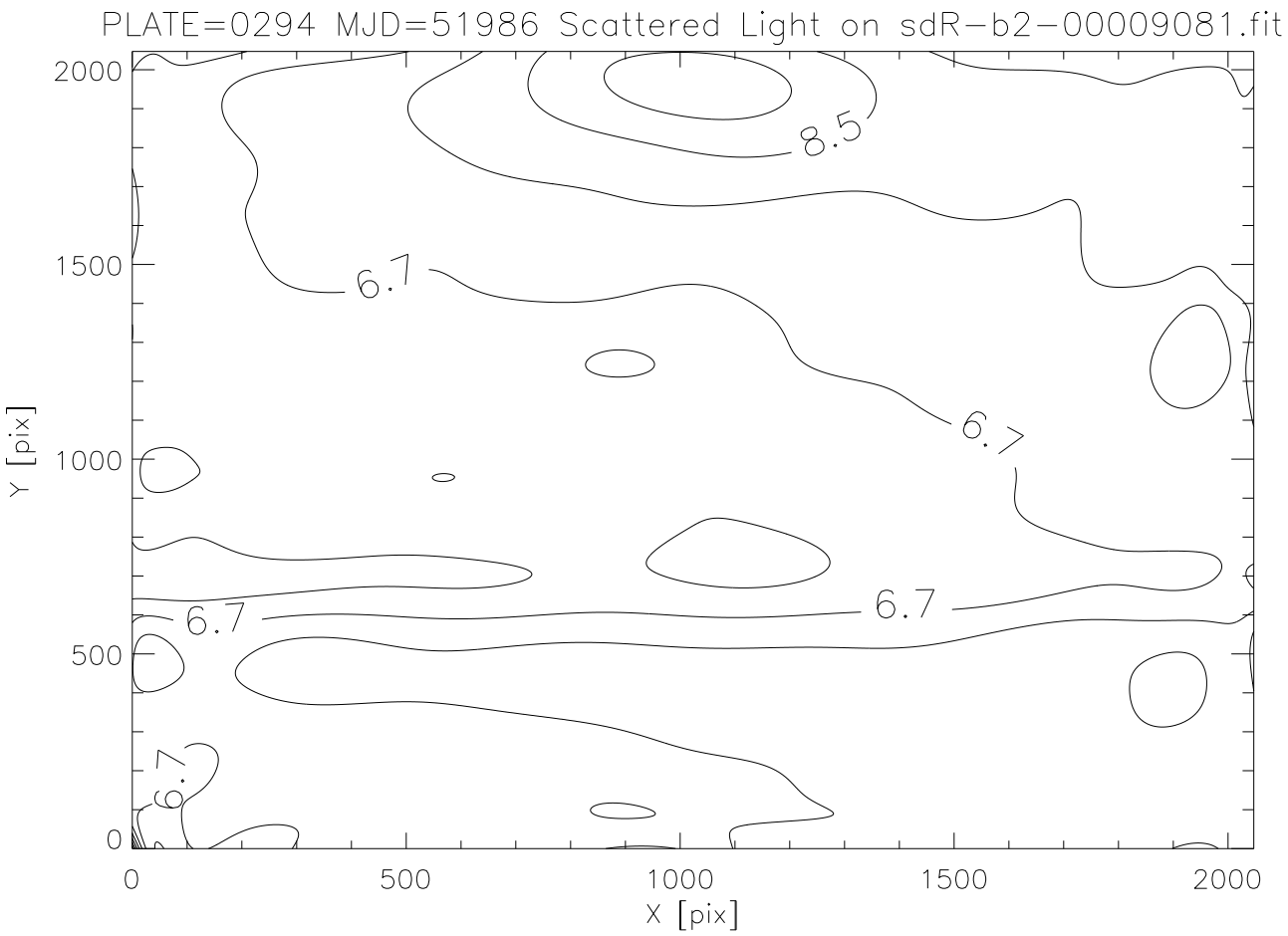

PLATE=0294 MJD=51986 Superflat sdR-b2-00009085.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

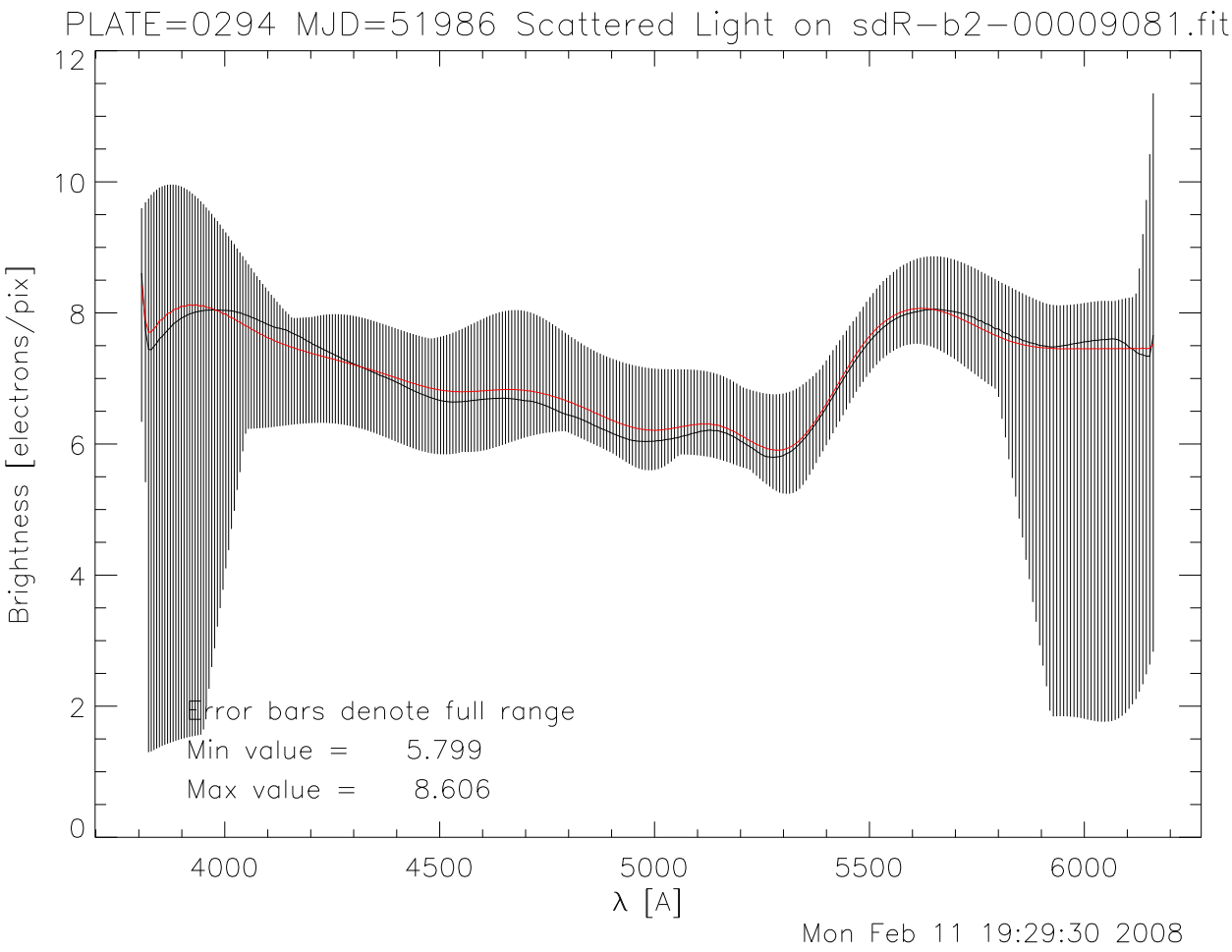

PLATE=0294 MJD=51986 Arcline Fit for sdR-b2-00009086.fit
Fiber Number
300
250
200
150
100
50
0
4000
4500
5000
5500
6000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
4000
4500
5000
5500
6000
λ [A]
Mon Feb 11 19:25:56 2008

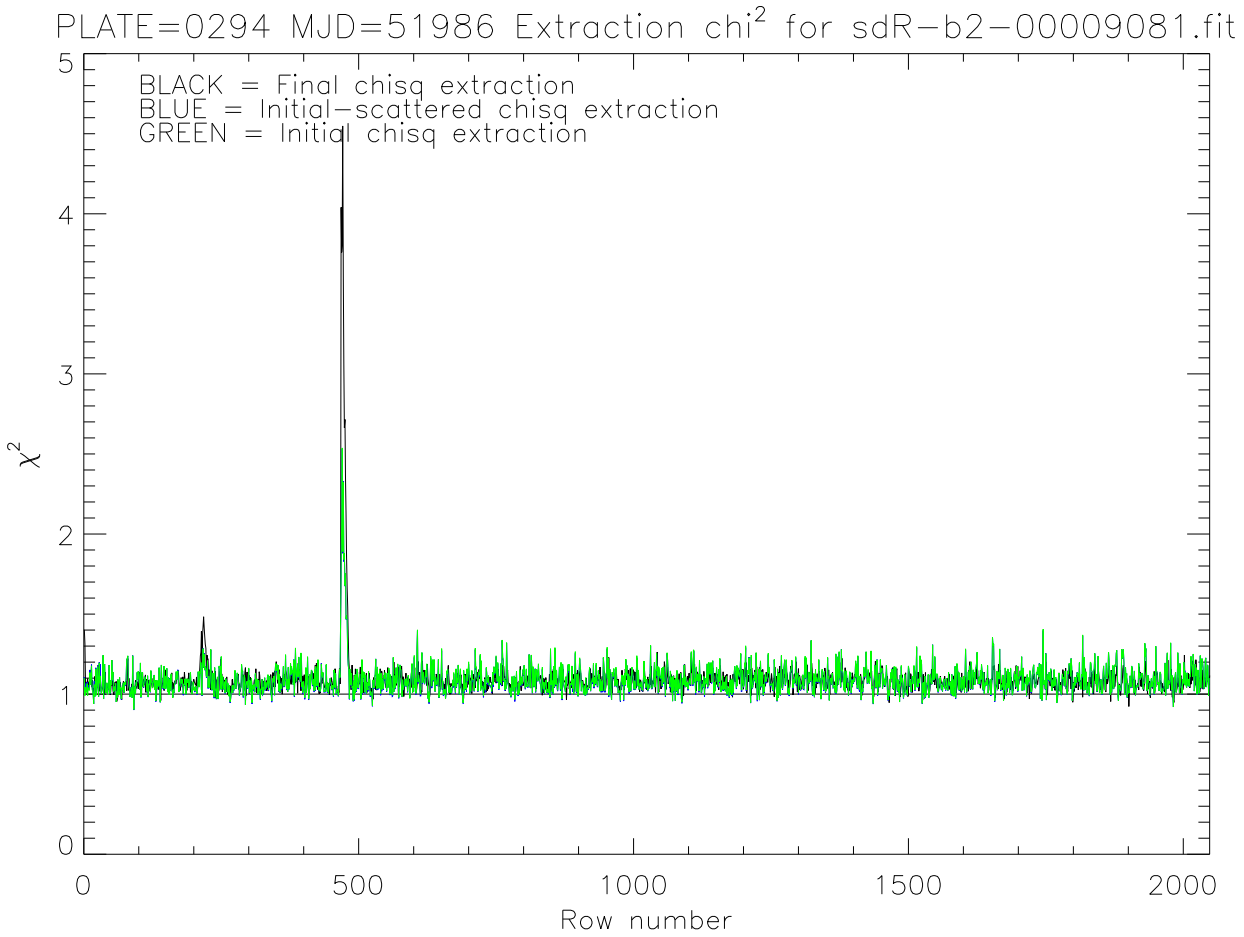

PLATE=0294 MJD=51986 Fiber-Flats for sdR-b2-00009085.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.258
Max value = 1.285
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Mon Feb 11 19:26:04 2008

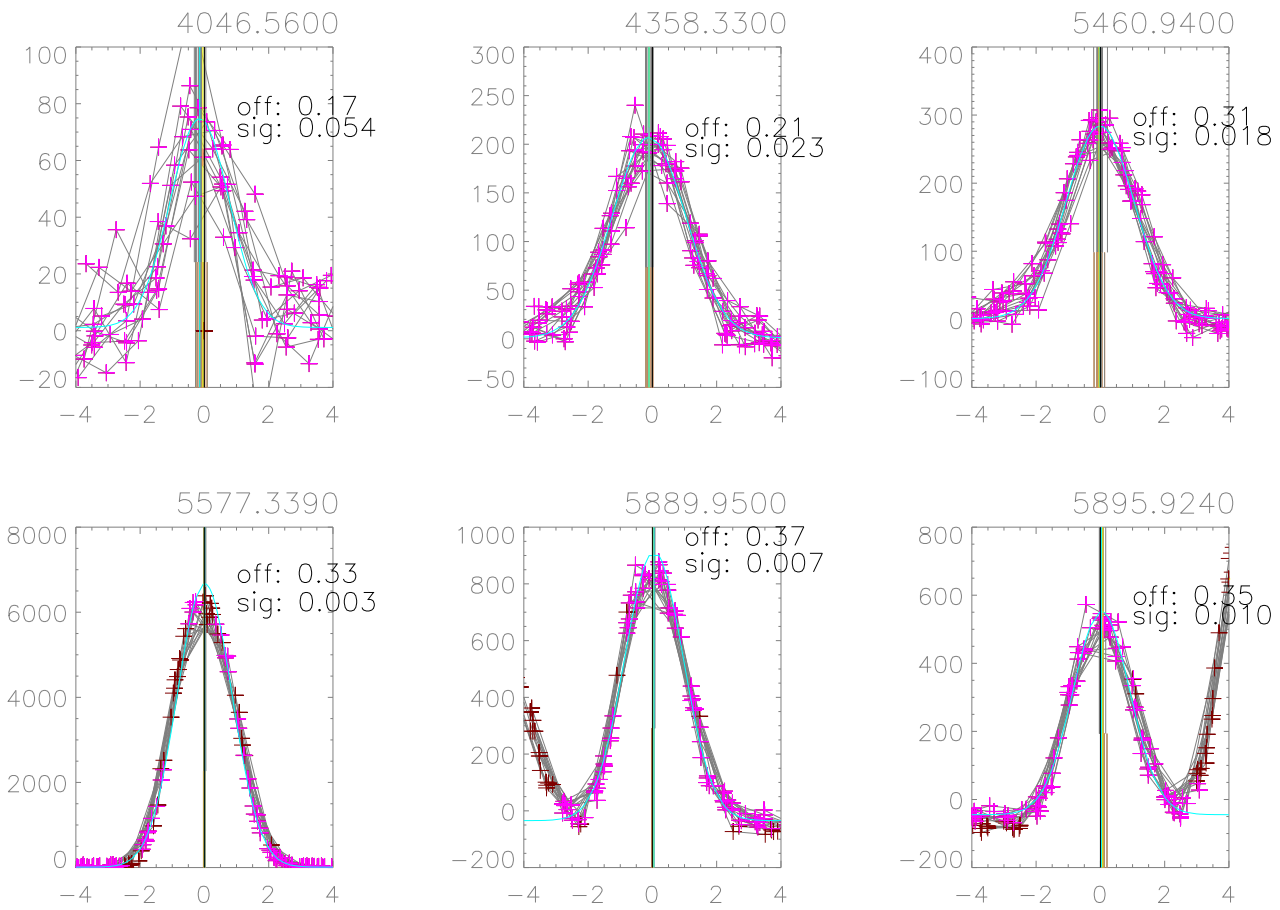

PLATE=0294 MJD=51986 Scattered Light before halo removal on sdR-b2-00009081.f
12.4
8.7
10.5
Y [pix]
X [pix]
0
500
1000
1500
2000

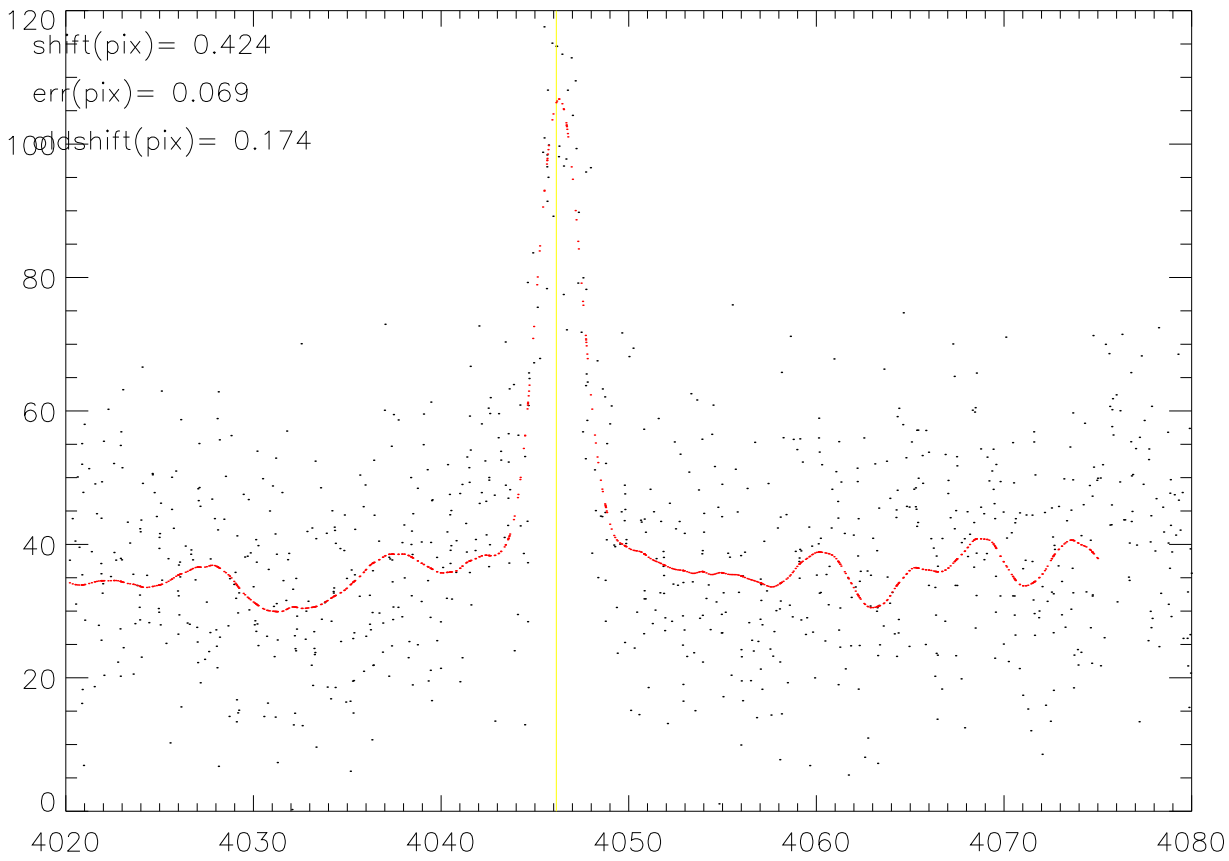

PLATE=0294 MJD=51986 Scattered Light before halo removal on sdR-b2-00009081.f
Brightness [electrons/pix]
15
10
5
0
Error bars denote full range
Min value = 8.516
Max value = 12.002
4000
4500
5000
5500
6000
λ [A]
Mon Feb 11 19:26:51 2008

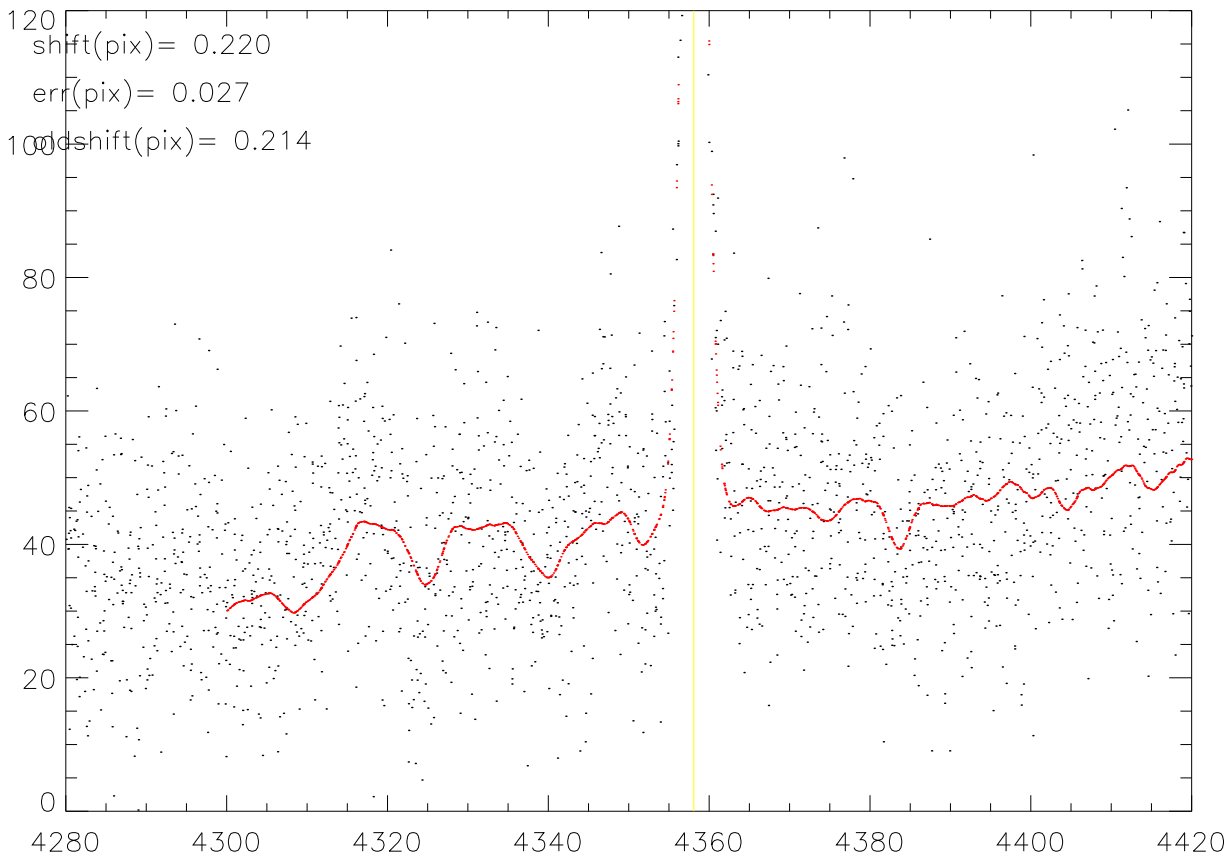

PLATE=0294 MJD=51986 Scattered Light on sdR-b2-00009081.fit
8.5
6.7
6.7
6.7
6.7
Y [pix]
X [pix]
0
500
1000
1500
2000

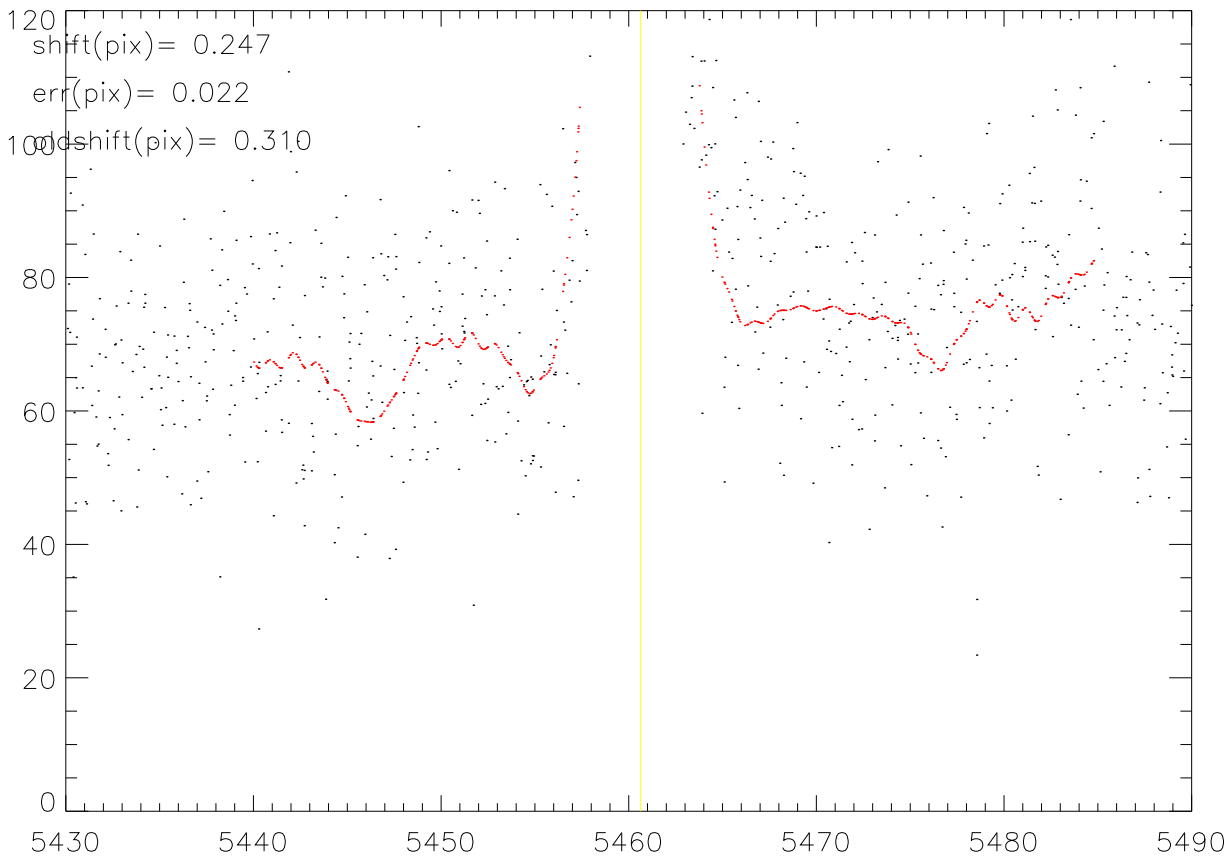

PLATE=0294 MJD=51986 Scattered Light on sdR-b2-00009081.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 5.799
Max value = 8.606
Mon Feb 11 19:29:30 2008

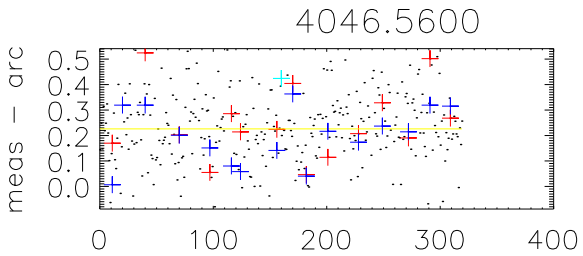

PLATE=0294 MJD=51986 Extraction chi^2 for sdR-b2-00009081.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
5
0
500
1000
1500
2000
Row number

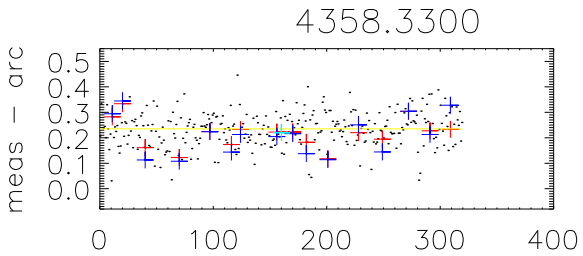

4046.5600
off: 0.17
sig: 0.054
4358.3300
off: 0.21
sig: 0.023
5460.9400
off: 0.31
sig: 0.018
5577.3390
off: 0.33
sig: 0.003
5889.9500
off: 0.37
sig: 0.007
5895.9240
off: 0.35
sig: 0.010

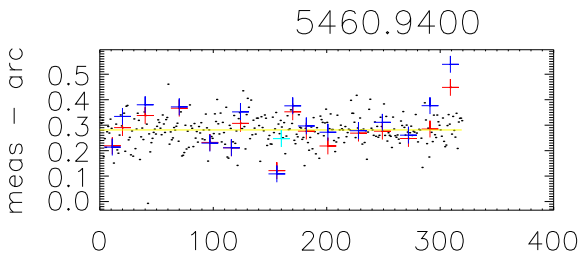

shift(pix)= 0.424
err(pix)= 0.069
oldshift(pix)= 0.174
120
100
80
60
40
20
0
4020
4030
4040
4050
4060
4070
4080

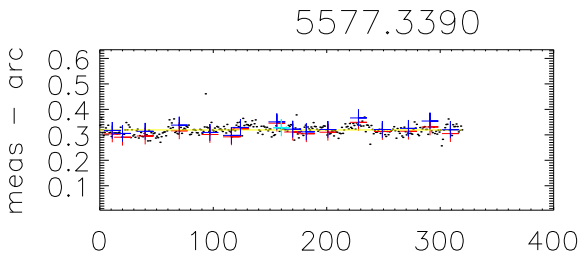

shift(pix)= 0.220
err(pix)= 0.027
oldshift(pix)= 0.214
120
100
80
60
40
20
0
4280
4300
4320
4340
4360
4380
4400
4420

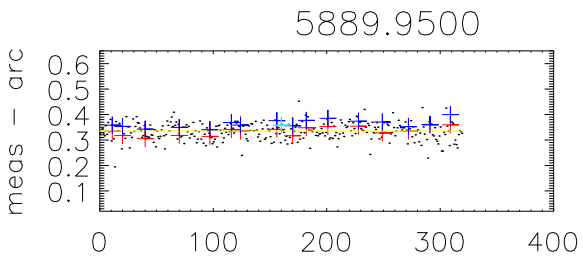

shift(pix)= 0.247
err(pix)= 0.022
oldshift(pix)= 0.310
120
100
80
60
40
20
0
5430
5440
5450
5460
5470
5480
5490

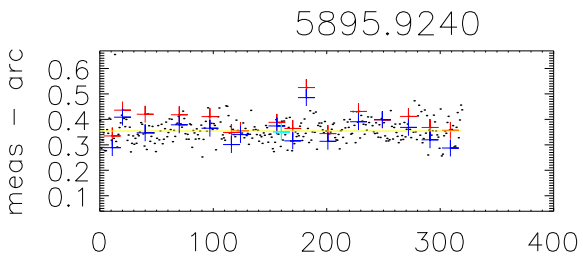

4046.5600
meas − arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400

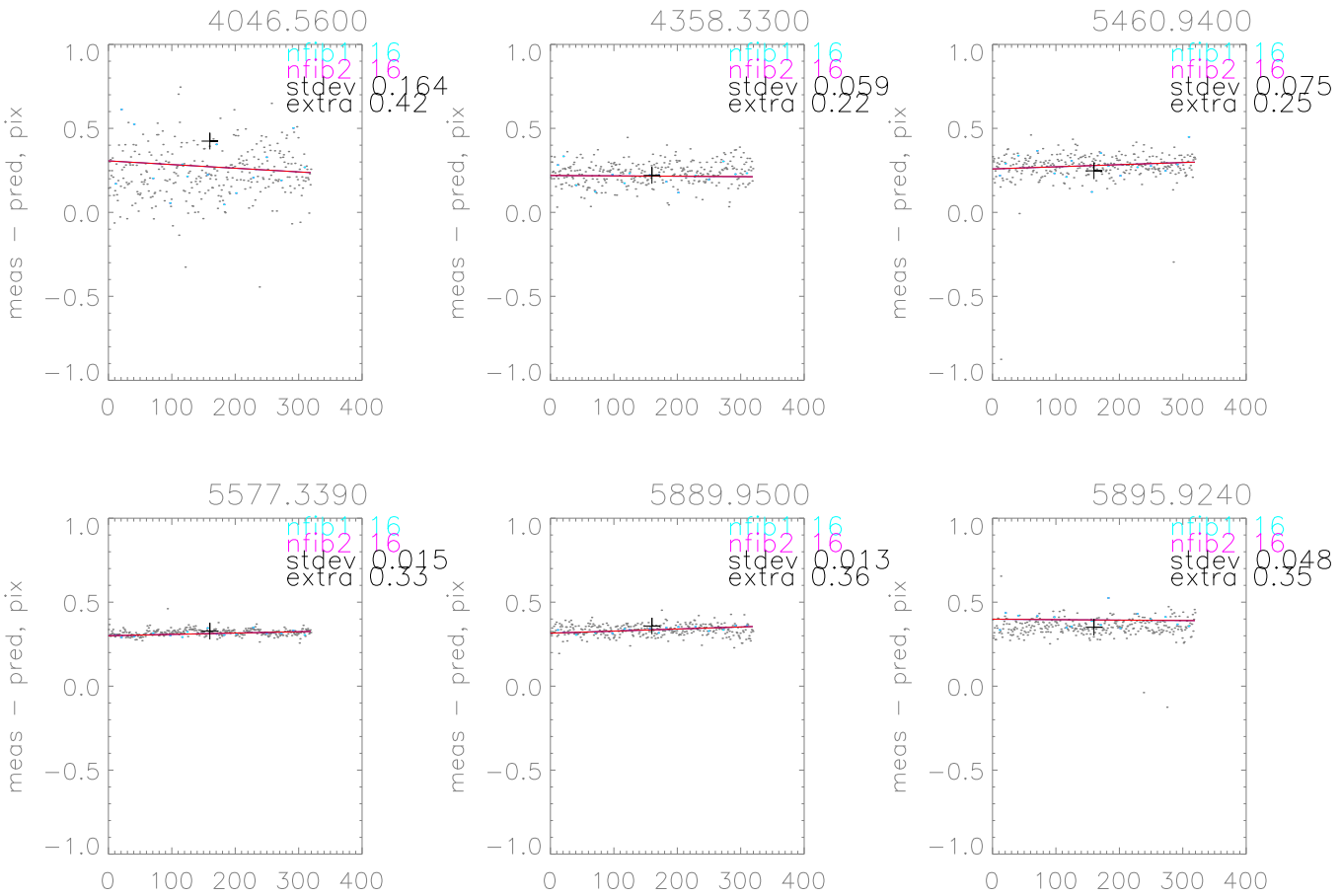

4358.3300
meas − arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400

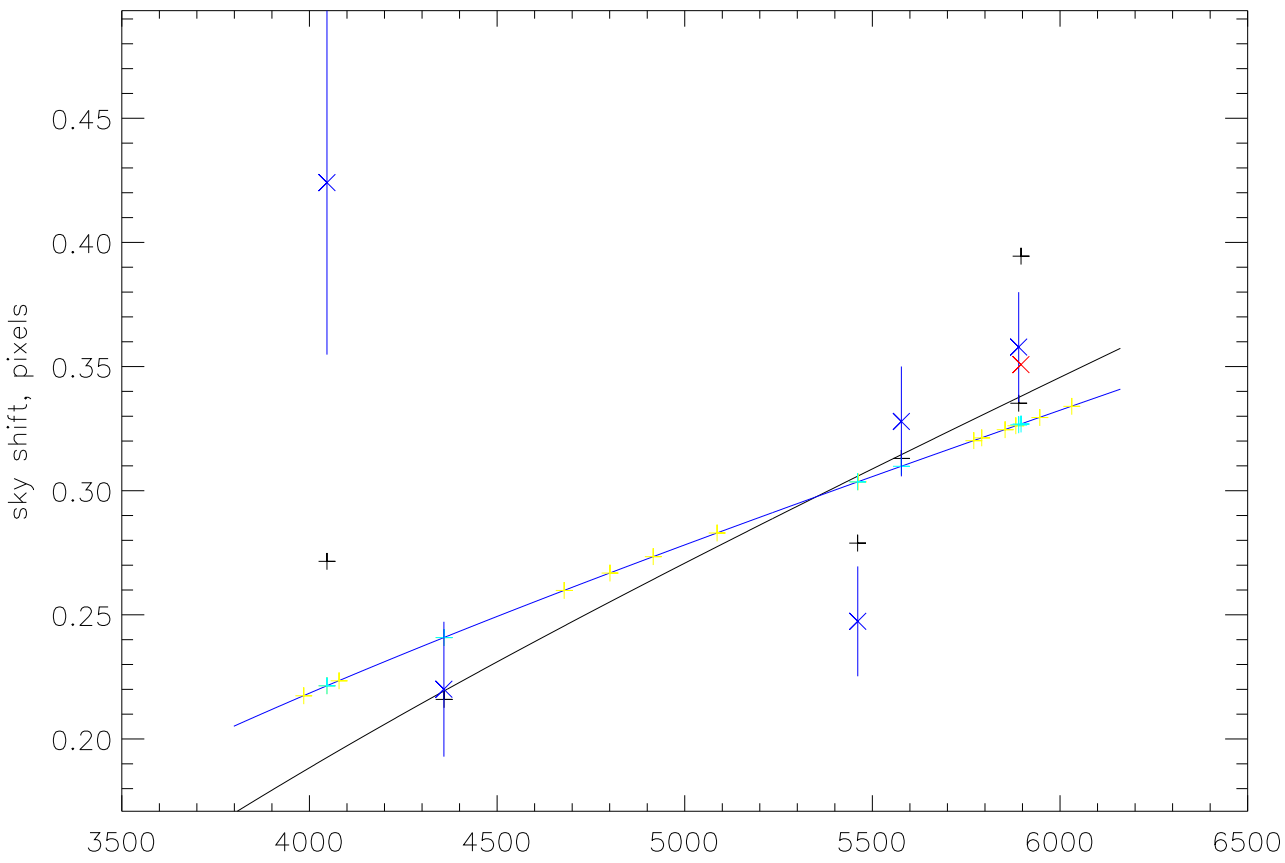

5460.9400
meas − arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400

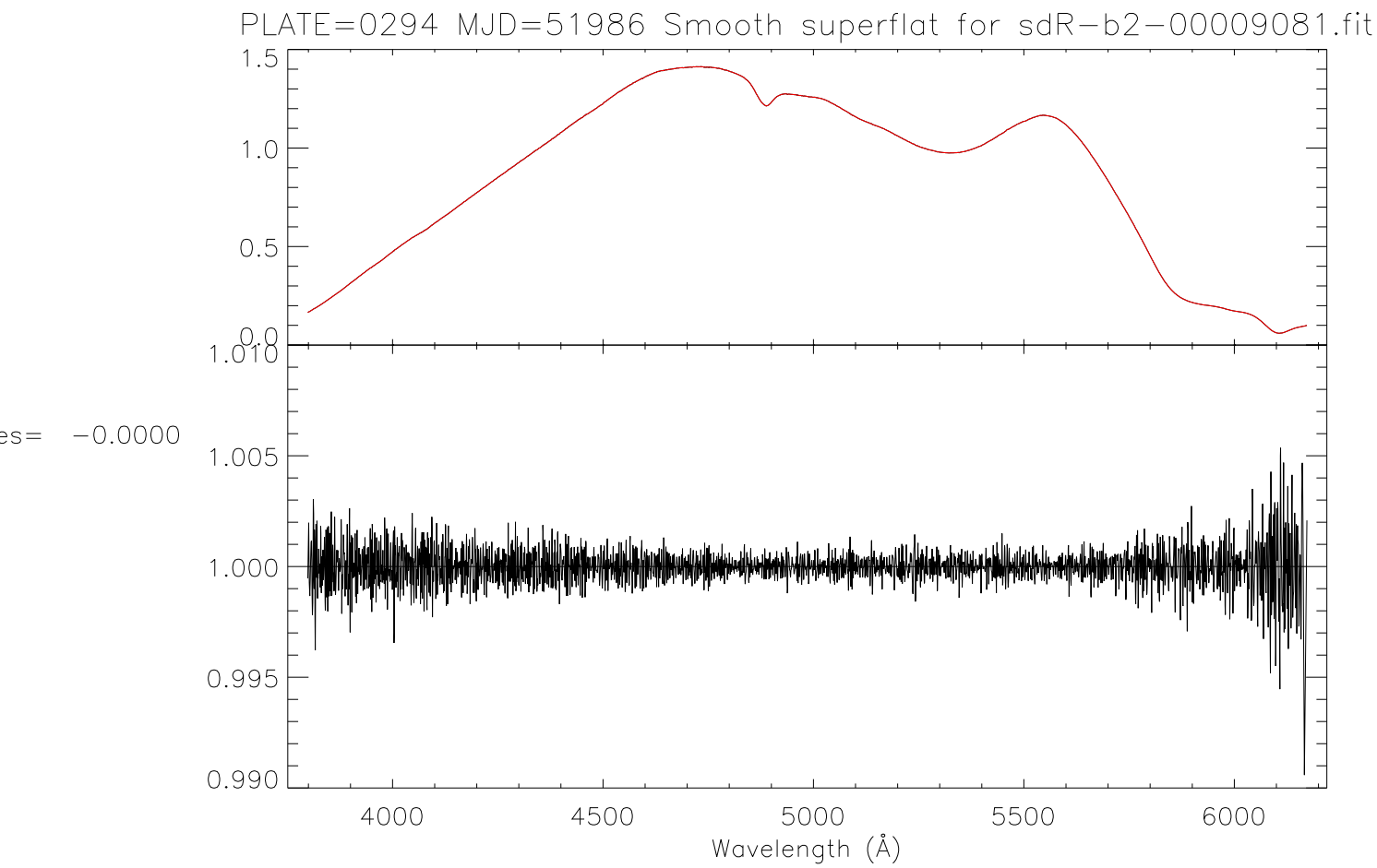

5577.3390
meas − arc
0.1
0.2
0.3
0.4
0.5
0.6
0
100
200
300
400


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

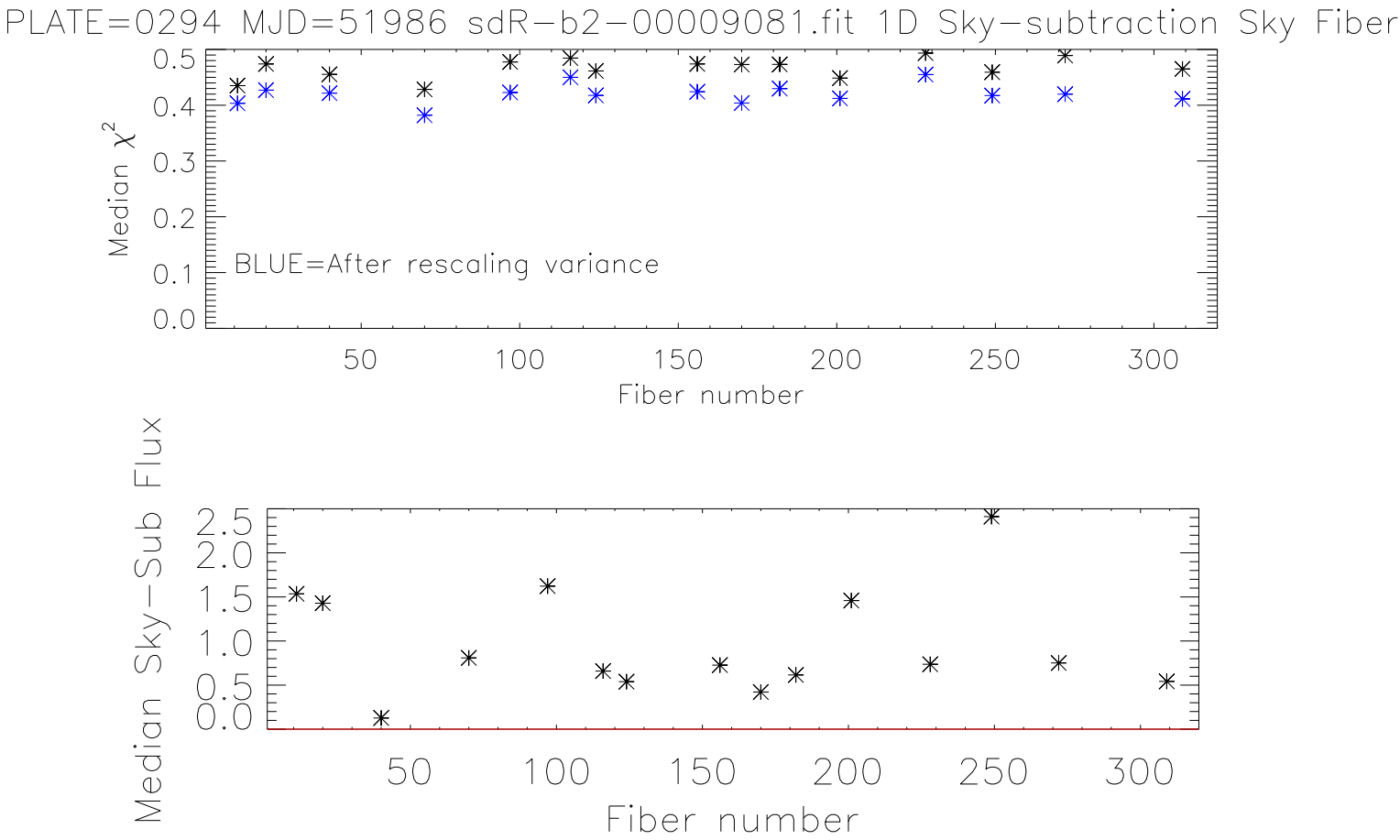

5895.9240
meas − arc
0.1
0.2
0.3
0.4
0.5
0.6
0
100
200
300
400

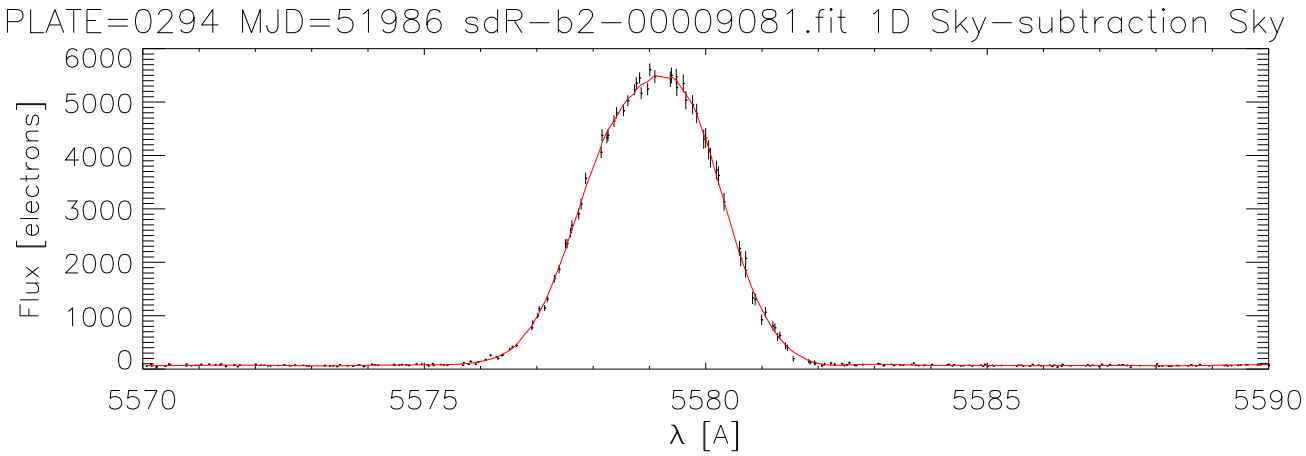

4046.5600
nfib1 16
nfib2 16
stdev 0.164
extra 0.42
4358.3300
nfib1 16
nfib2 16
stdev 0.059
extra 0.22
5460.9400
nfib1 16
nfib2 16
stdev 0.075
extra 0.25
5577.3390
nfib1 16
nfib2 16
stdev 0.015
extra 0.33
5889.9500
nfib1 16
nfib2 16
stdev 0.013
extra 0.36
5895.9240
nfib1 16
nfib2 16
stdev 0.048
extra 0.35
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

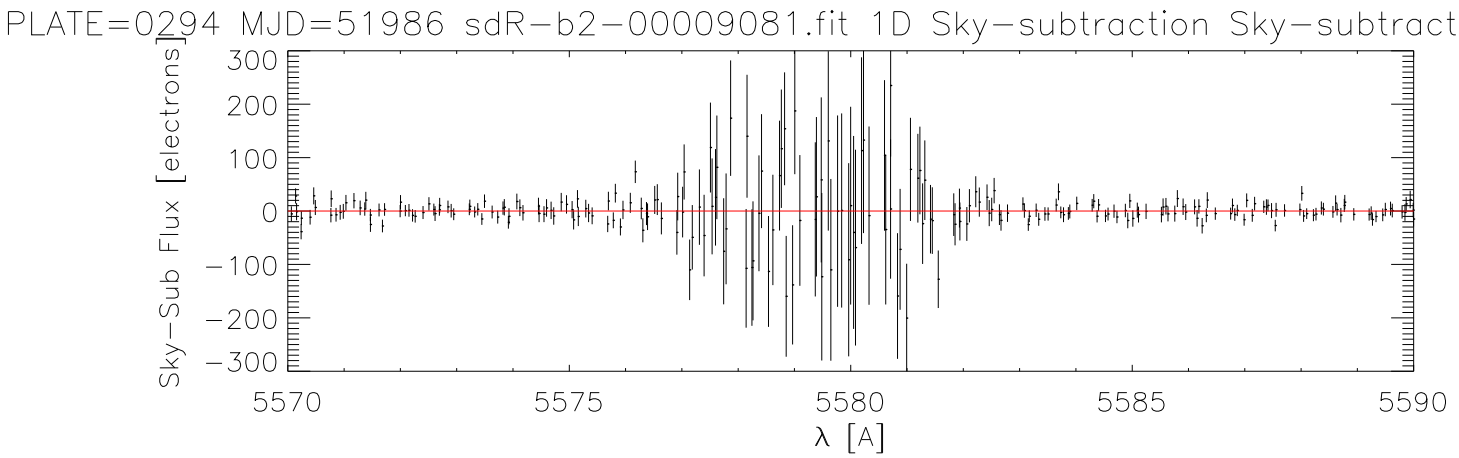

sky shift, pixels
0.45
0.40
0.35
0.30
0.25
0.20
3500
4000
4500
5000
5500
6000
6500

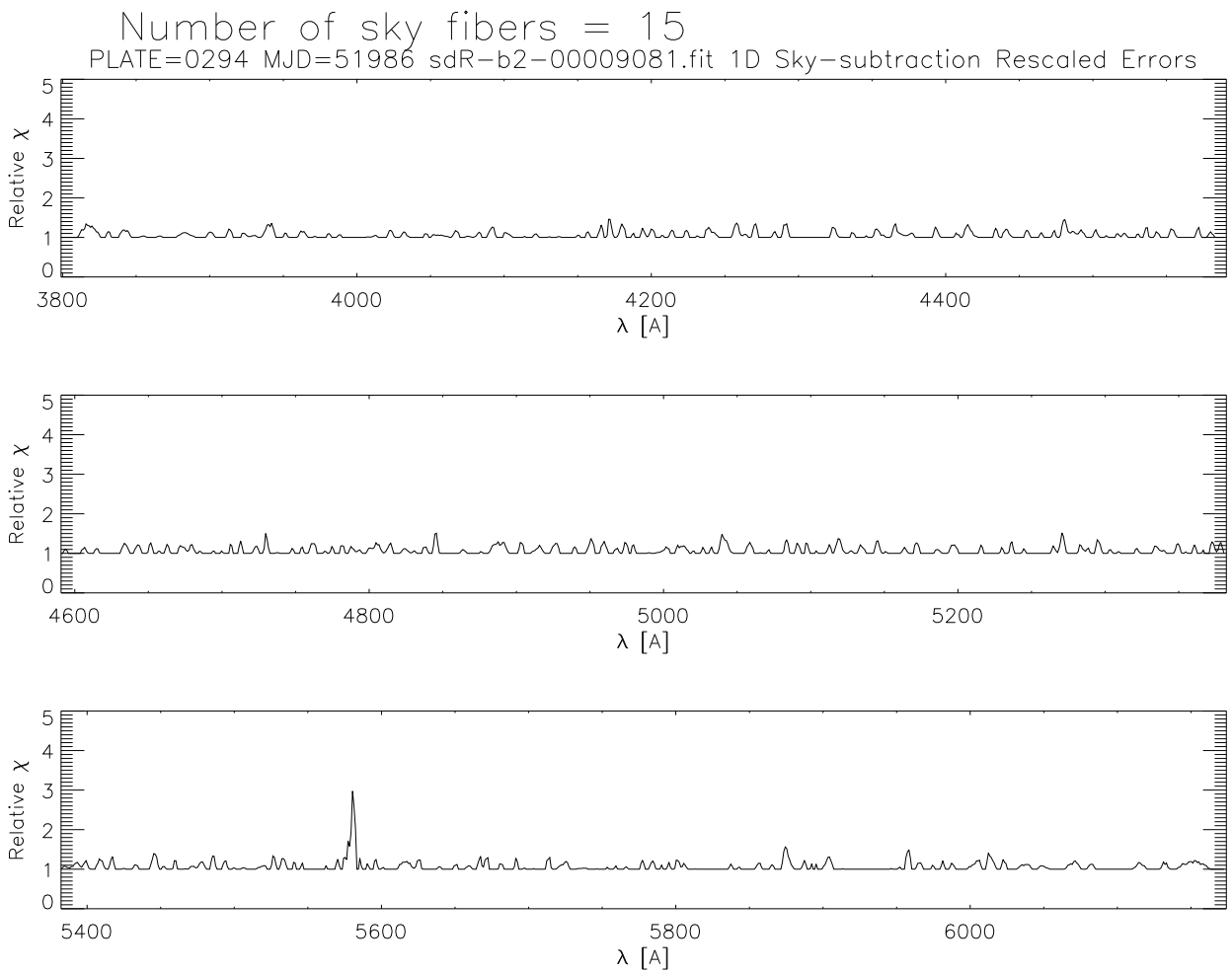

PLATE=0294 MJD=51986 Smooth superflat for sdR-b2-00009081.fit
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
4000
4500
5000
5500
6000
Wavelength (Å)

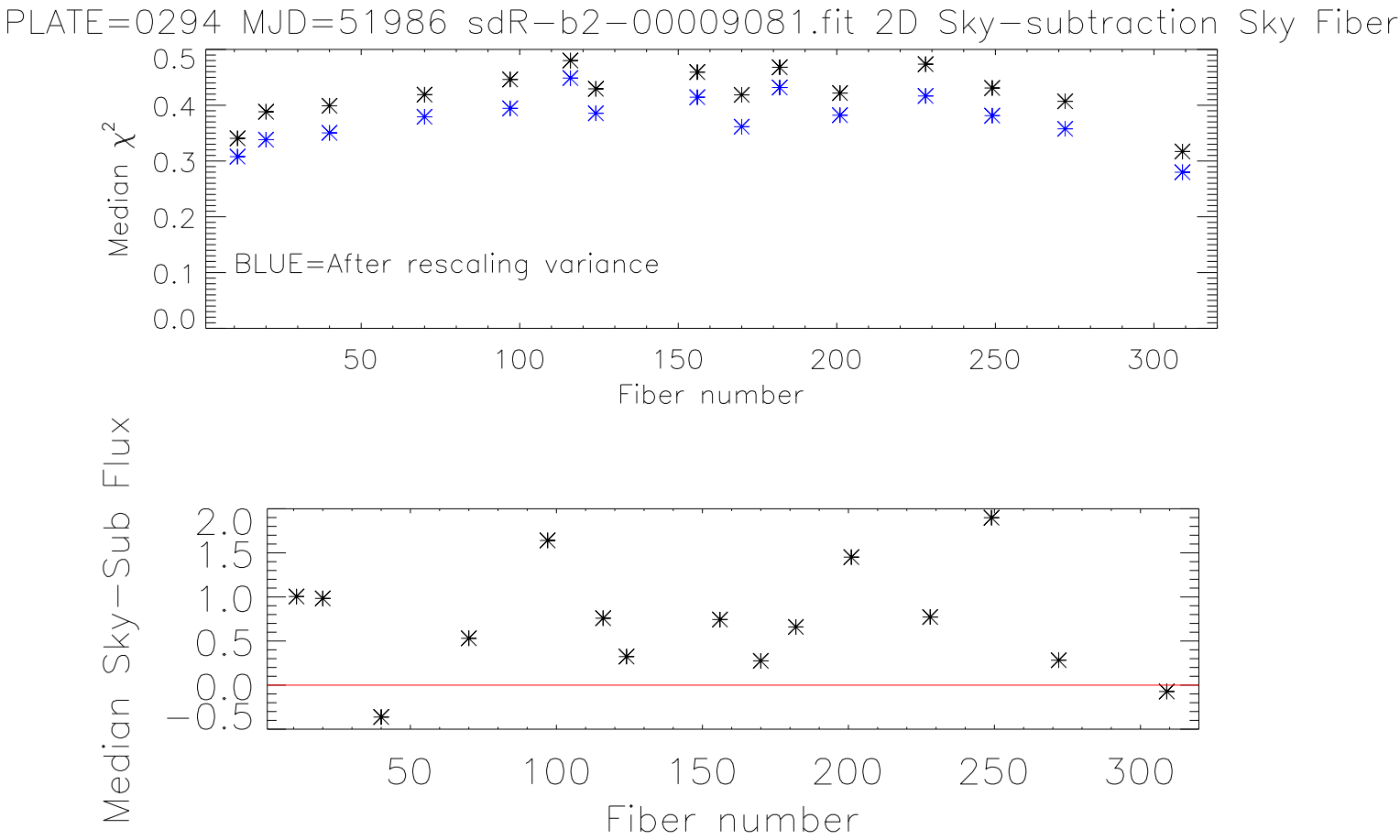
es= −0.0000

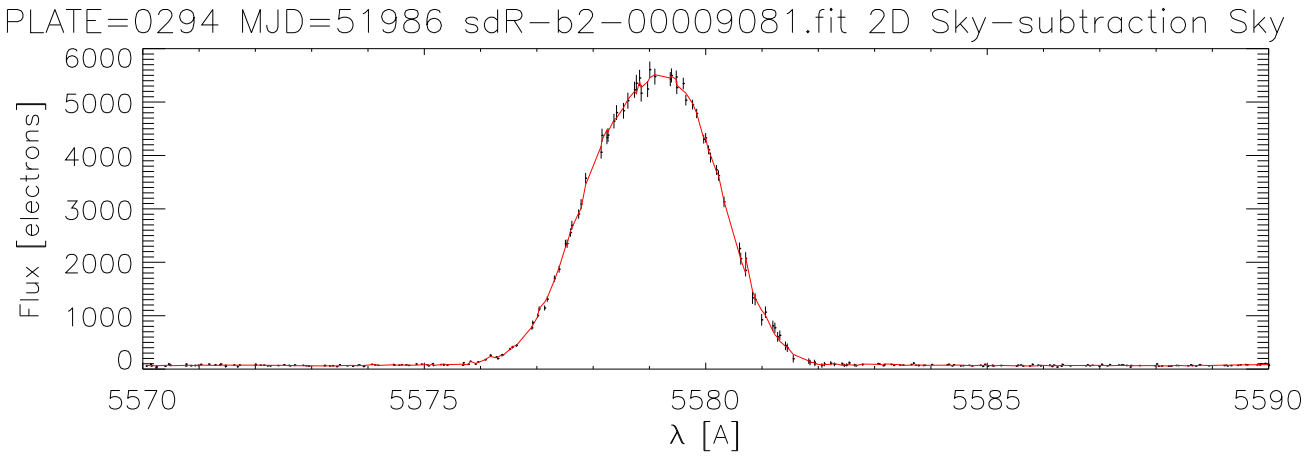

PLATE=0294 MJD=51986 sdR-b2-00009081.fit 1D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

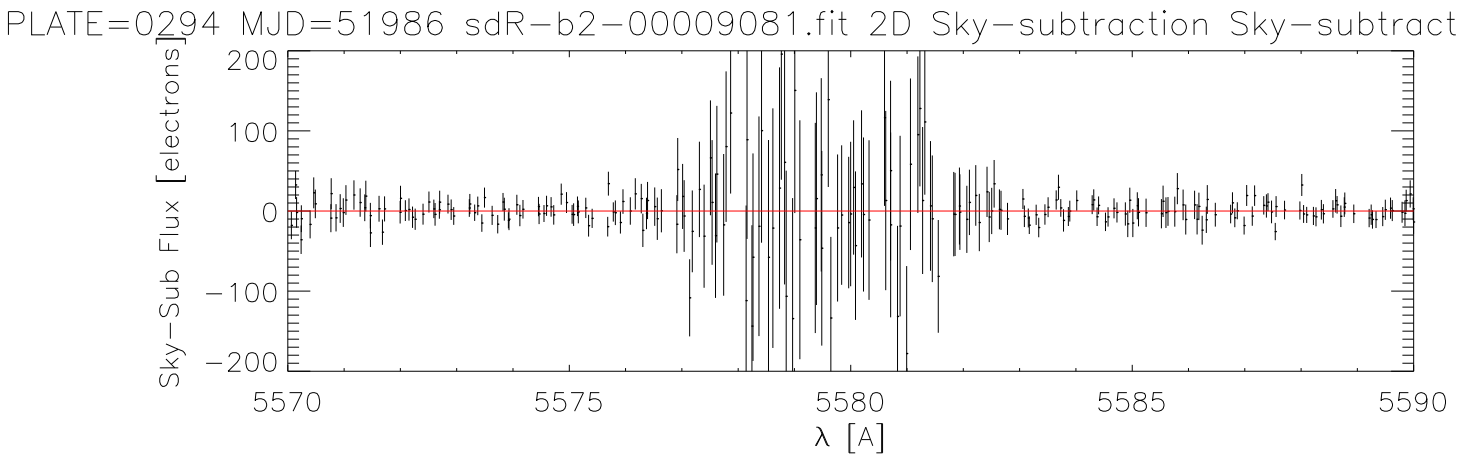

PLATE=0294 MJD=51986 sdR-b2-00009081.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
6000
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

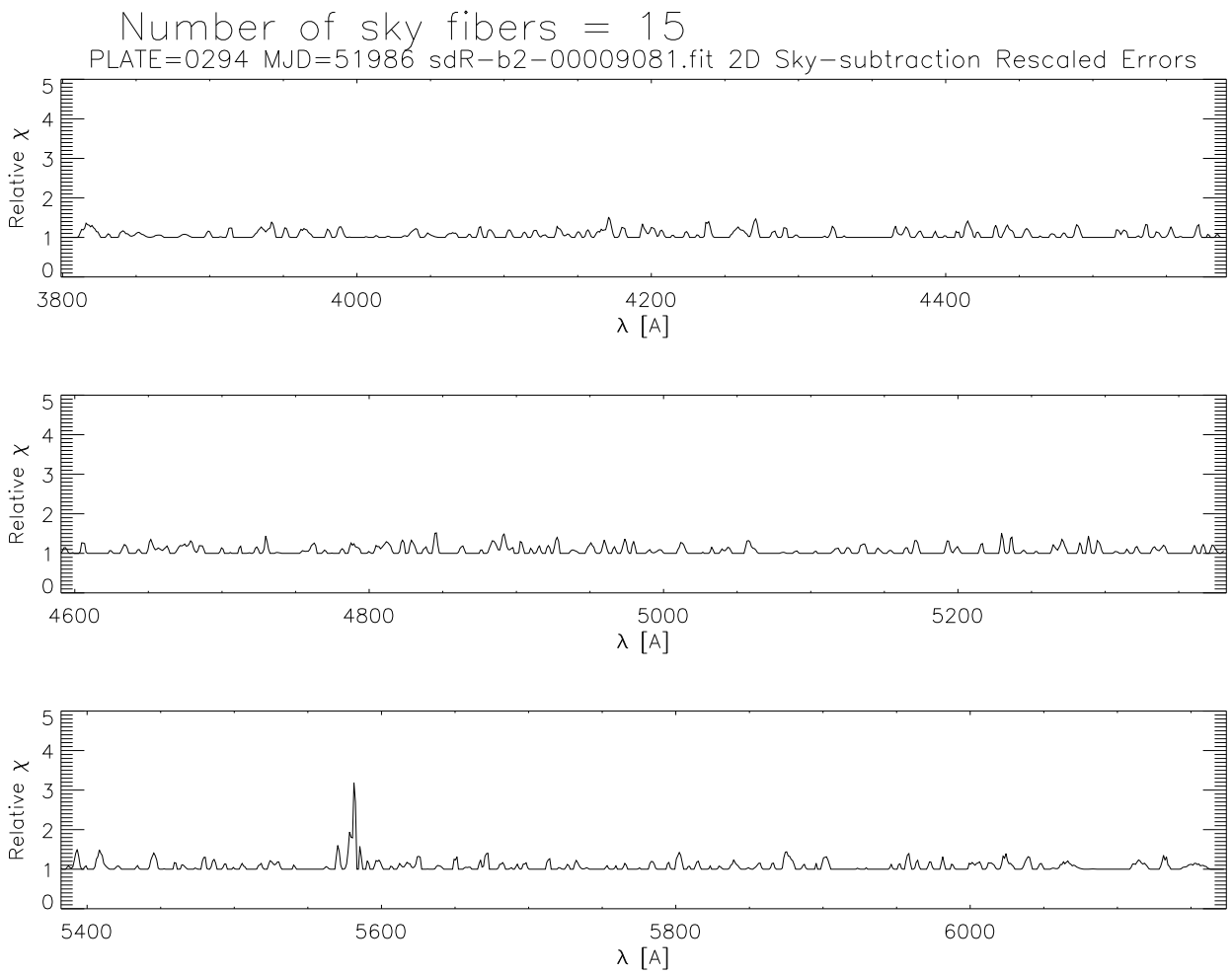

PLATE=0294 MJD=51986 sdR-b2-00009081.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
-300
5570
5575
5580
5585
5590
λ [A]

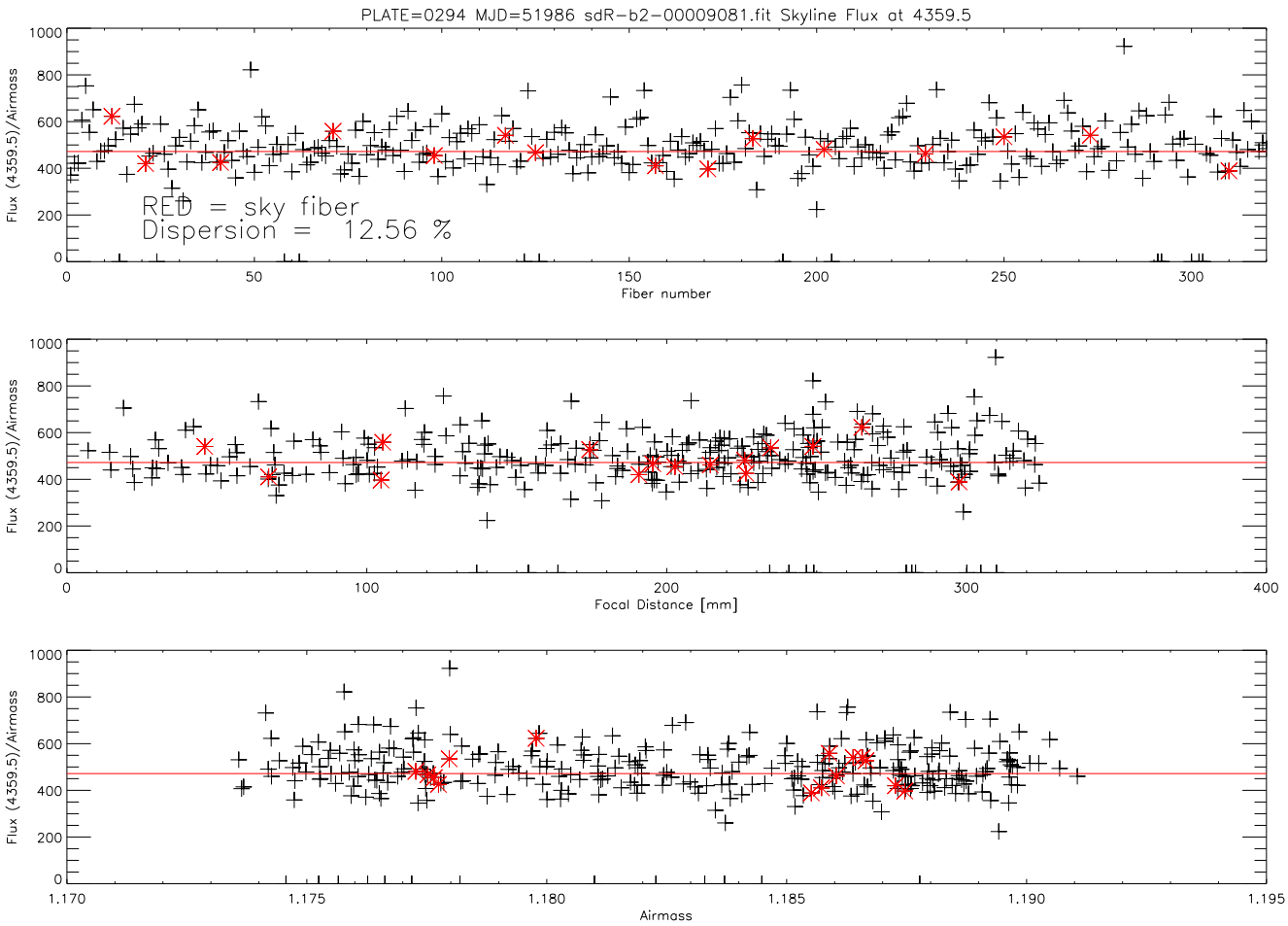

Number of sky fibers = 15
PLATE=0294 MJD=51986 sdR-b2-00009081.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

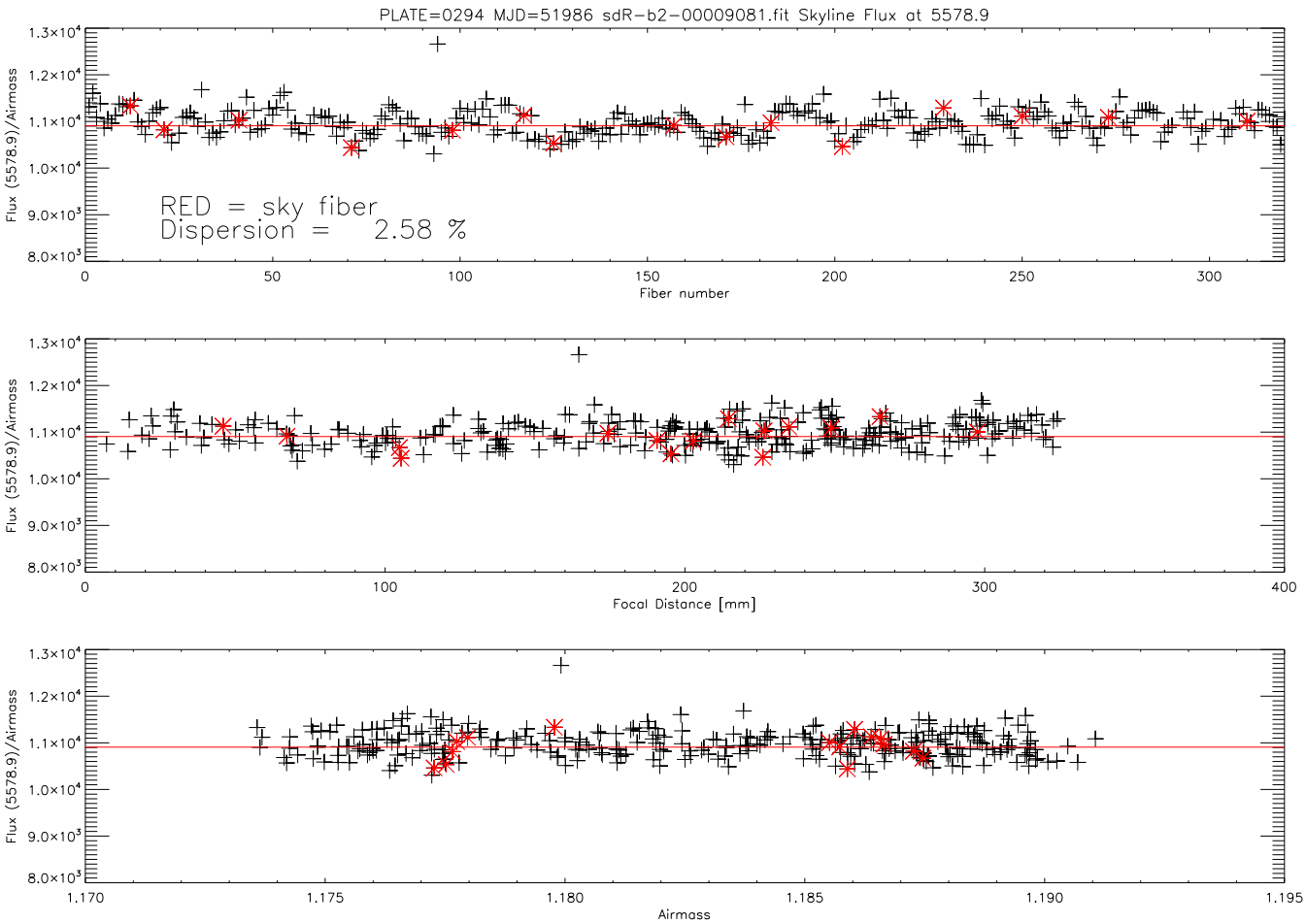

PLATE=0294 MJD=51986 sdR-b2-00009081.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

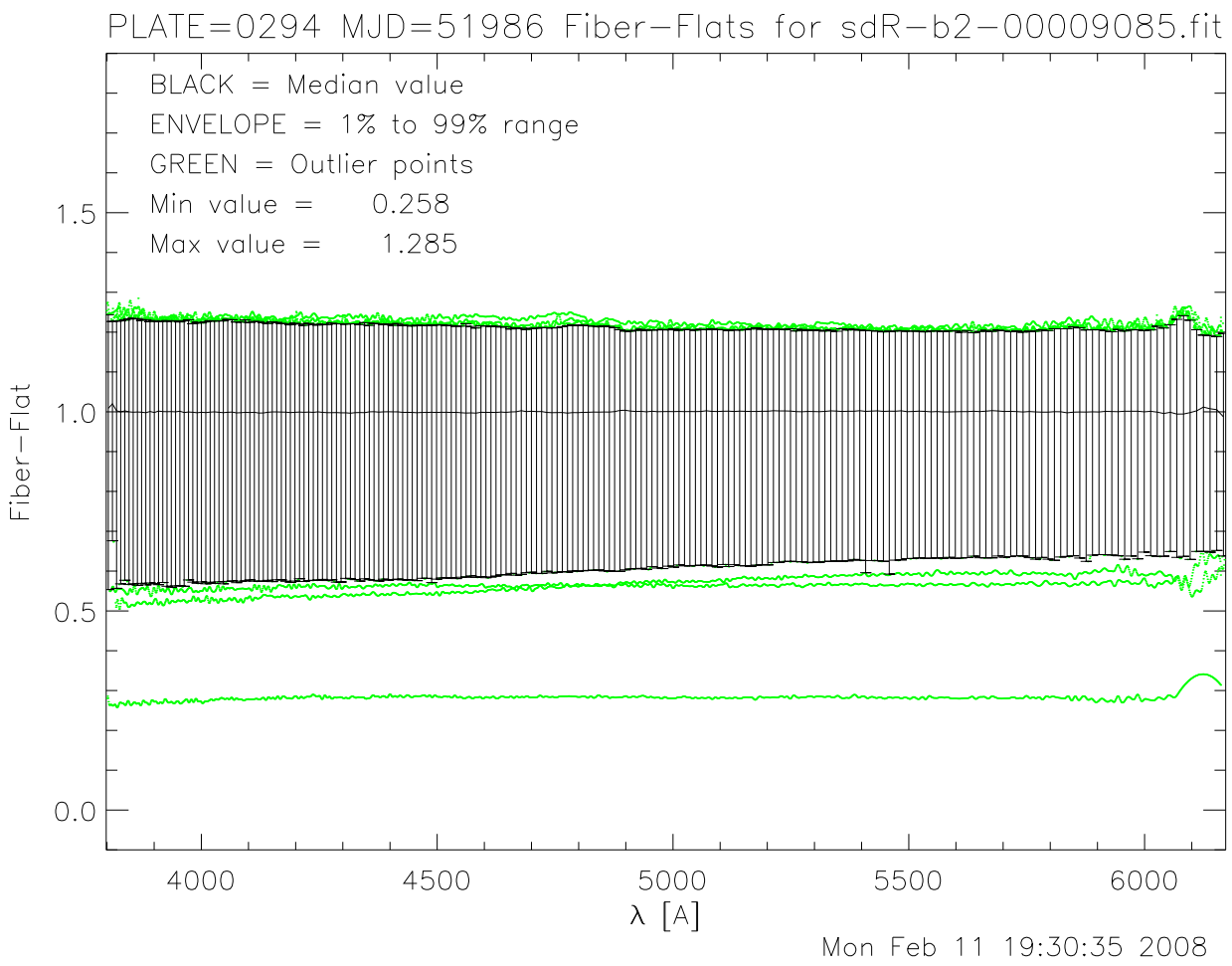

PLATE=0294 MJD=51986 sdR-b2-00009081.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
6000
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

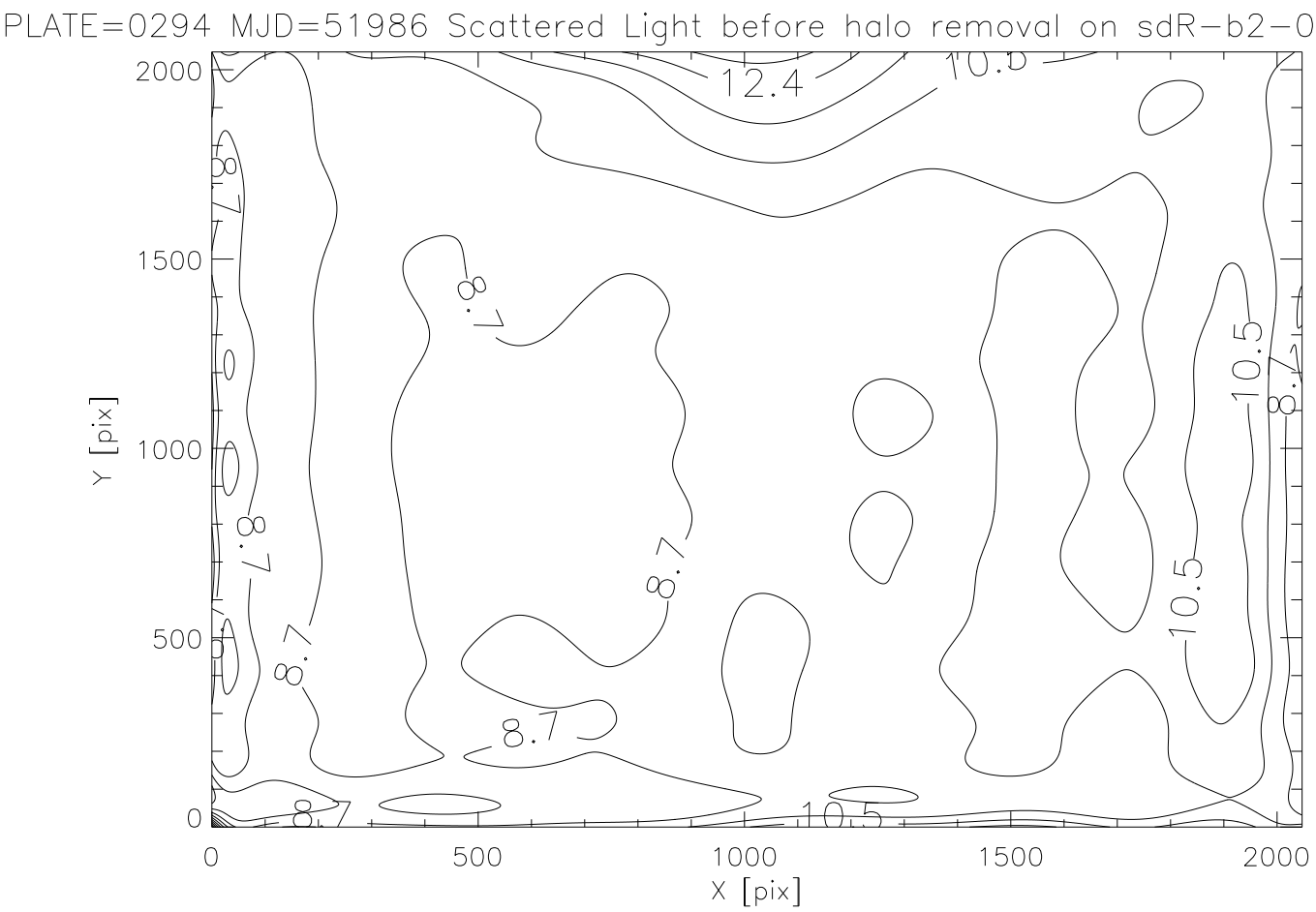

PLATE=0294 MJD=51986 sdR-b2-00009081.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
5570
5575
5580
5585
5590
λ [A]

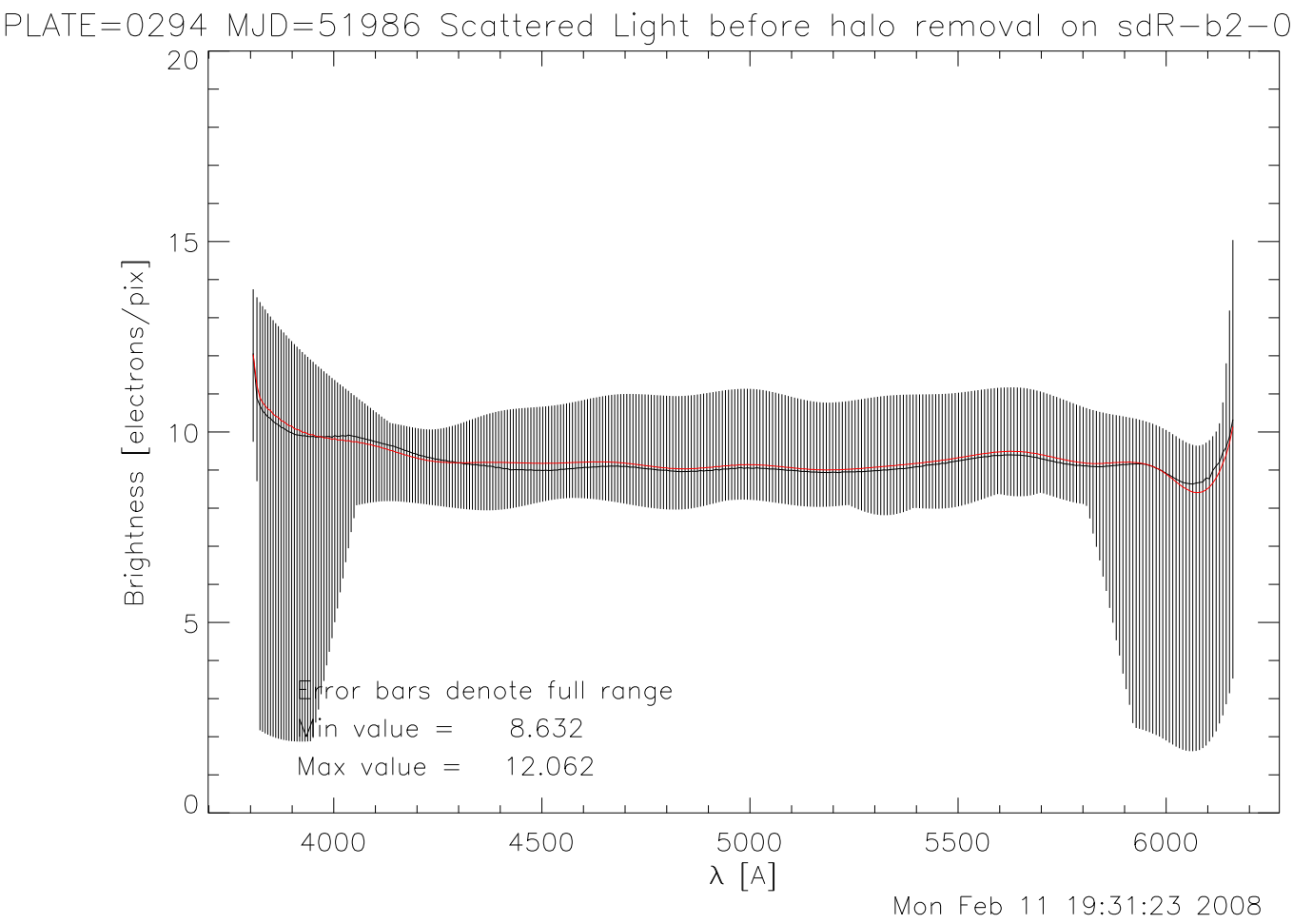

Number of sky fibers = 15
PLATE=0294 MJD=51986 sdR-b2-00009081.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

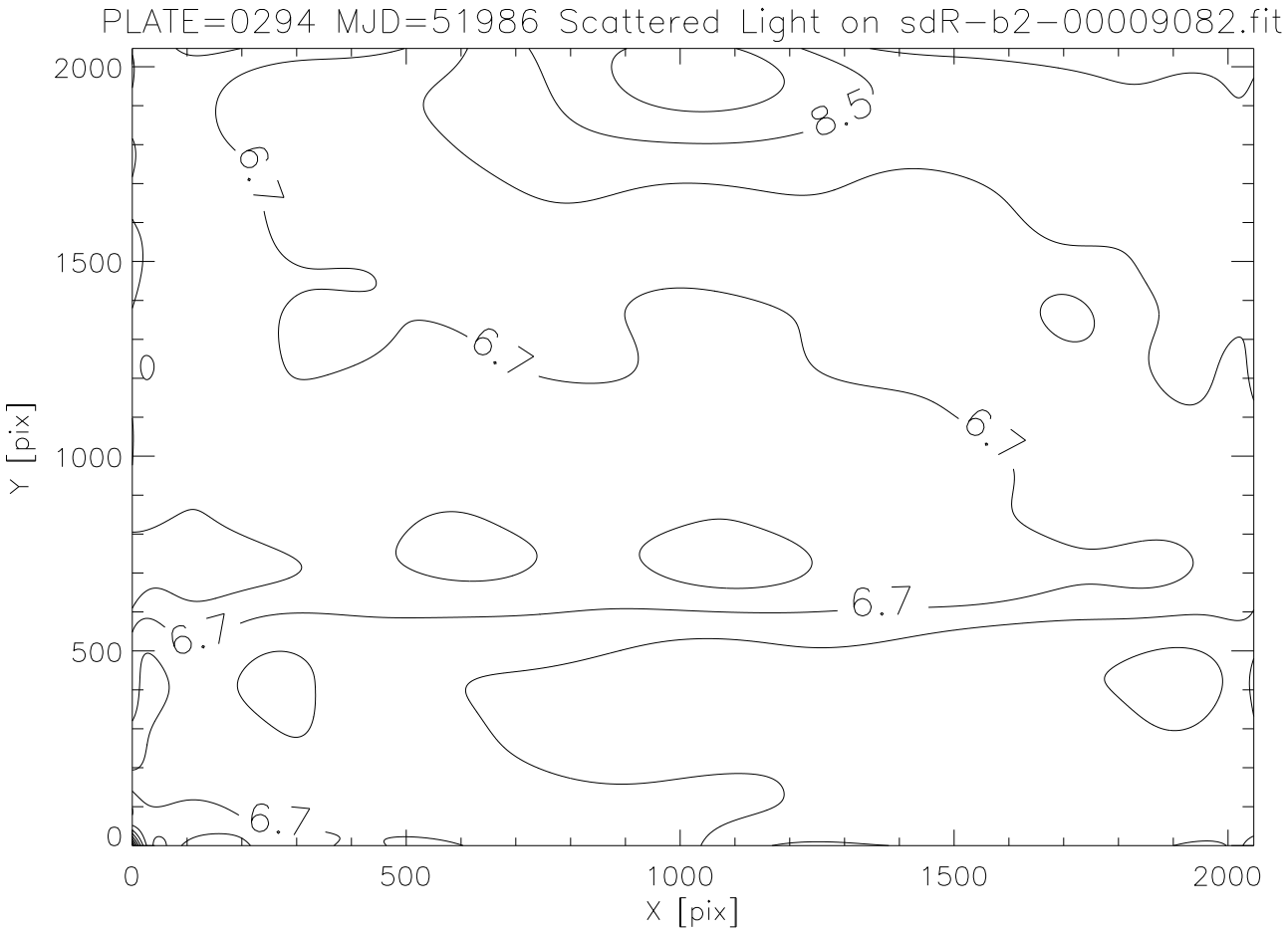

PLATE=0294 MJD=51986 sdR-b2-00009081.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 12.56 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

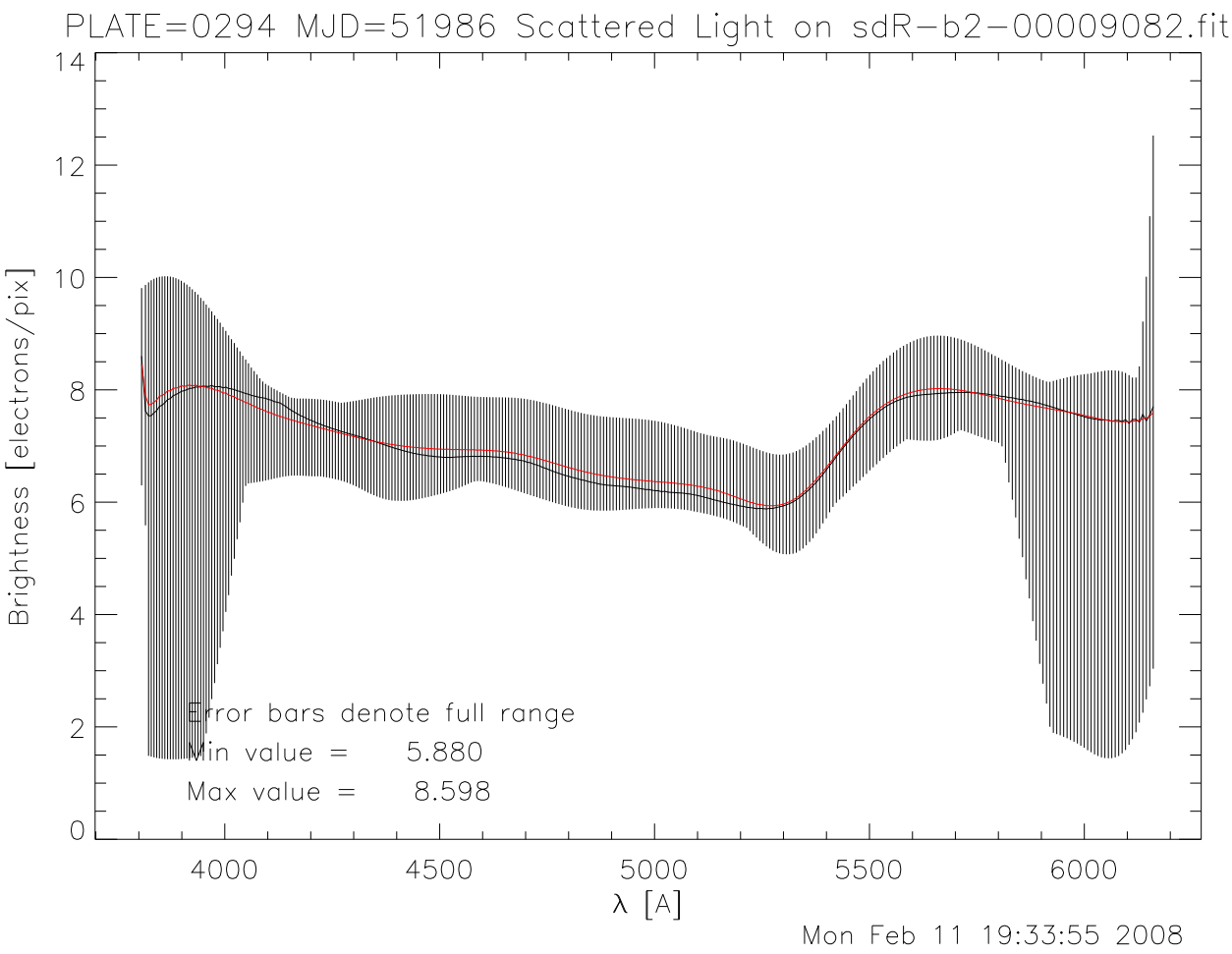

PLATE=0294 MJD=51986 sdR-b2-00009081.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 2.58 %
Fiber number
Focal Distance [mm]
Airmass

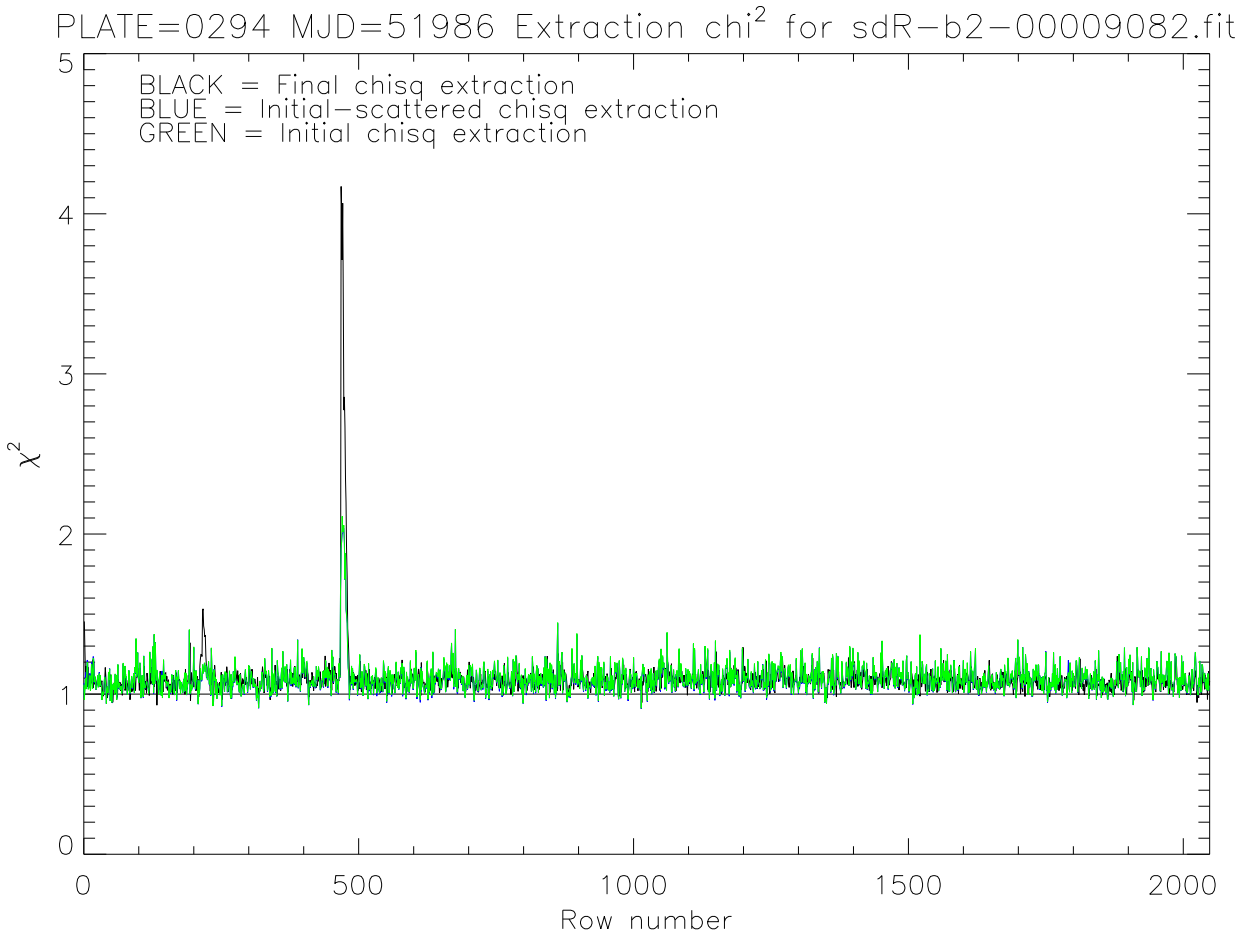

PLATE=0294 MJD=51986 Fiber-Flats for sdR-b2-00009085.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.258
Max value = 1.285
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Mon Feb 11 19:30:35 2008

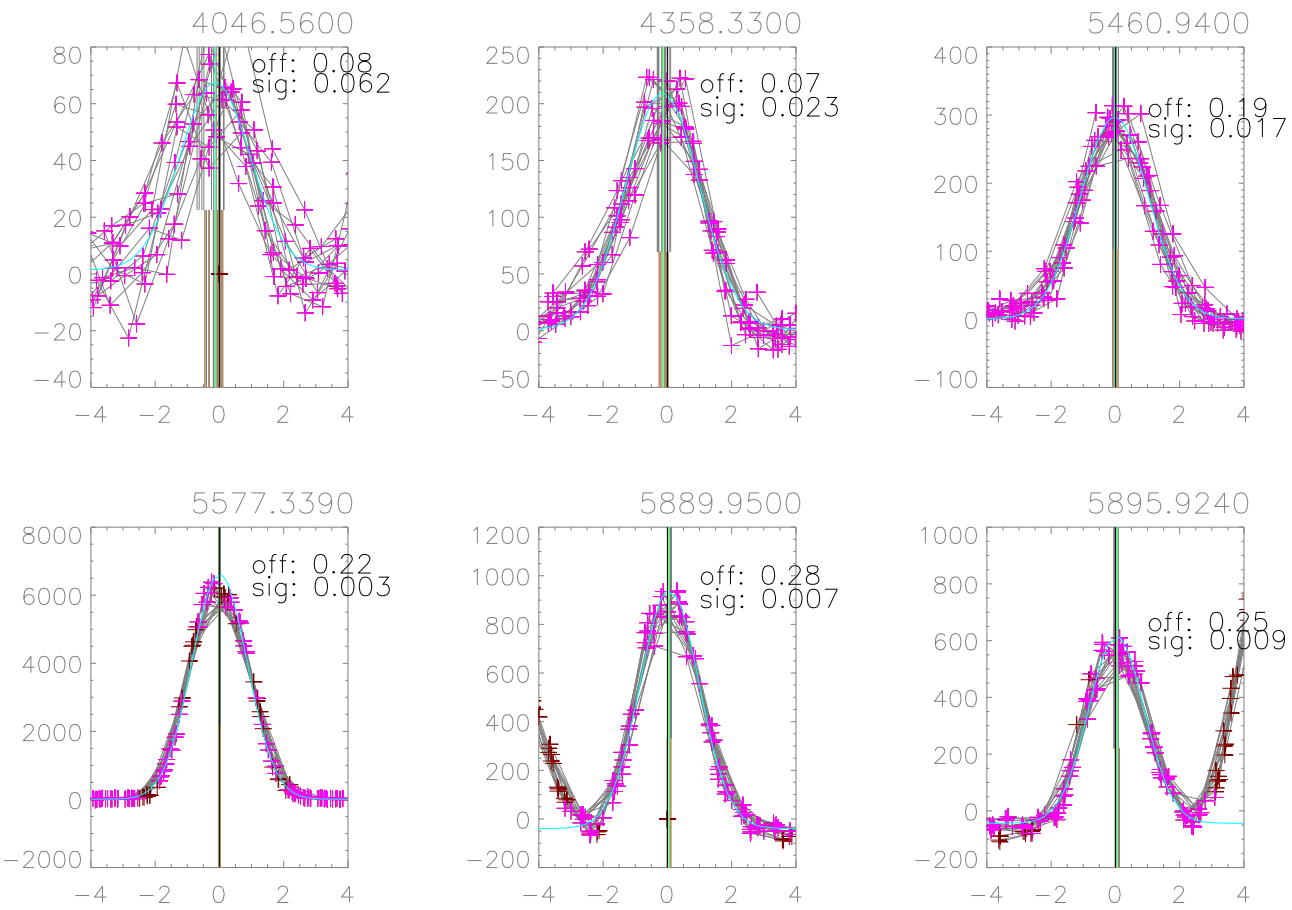

PLATE=0294 MJD=51986 Scattered Light before halo removal on sdR−b2−00009082.f
12.4
10.5
8.7
Y [pix]
X [pix]
0
500
1000
1500
2000

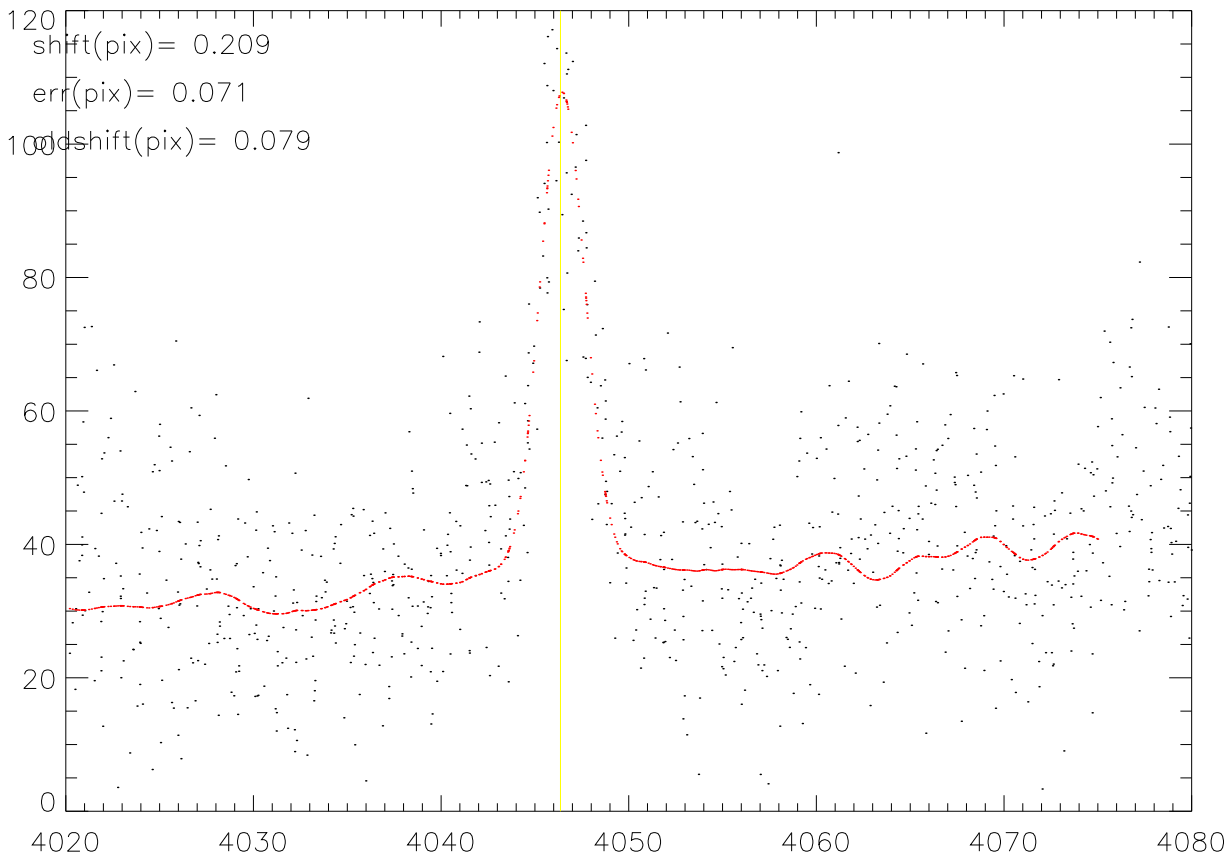

PLATE=0294 MJD=51986 Scattered Light before halo removal on sdR-b2-00009082.f
Brightness [electrons/pix]
20
15
10
5
0
Error bars denote full range
Min value = 8.632
Max value = 12.062
4000
4500
5000
5500
6000
λ [A]
Mon Feb 11 19:31:23 2008

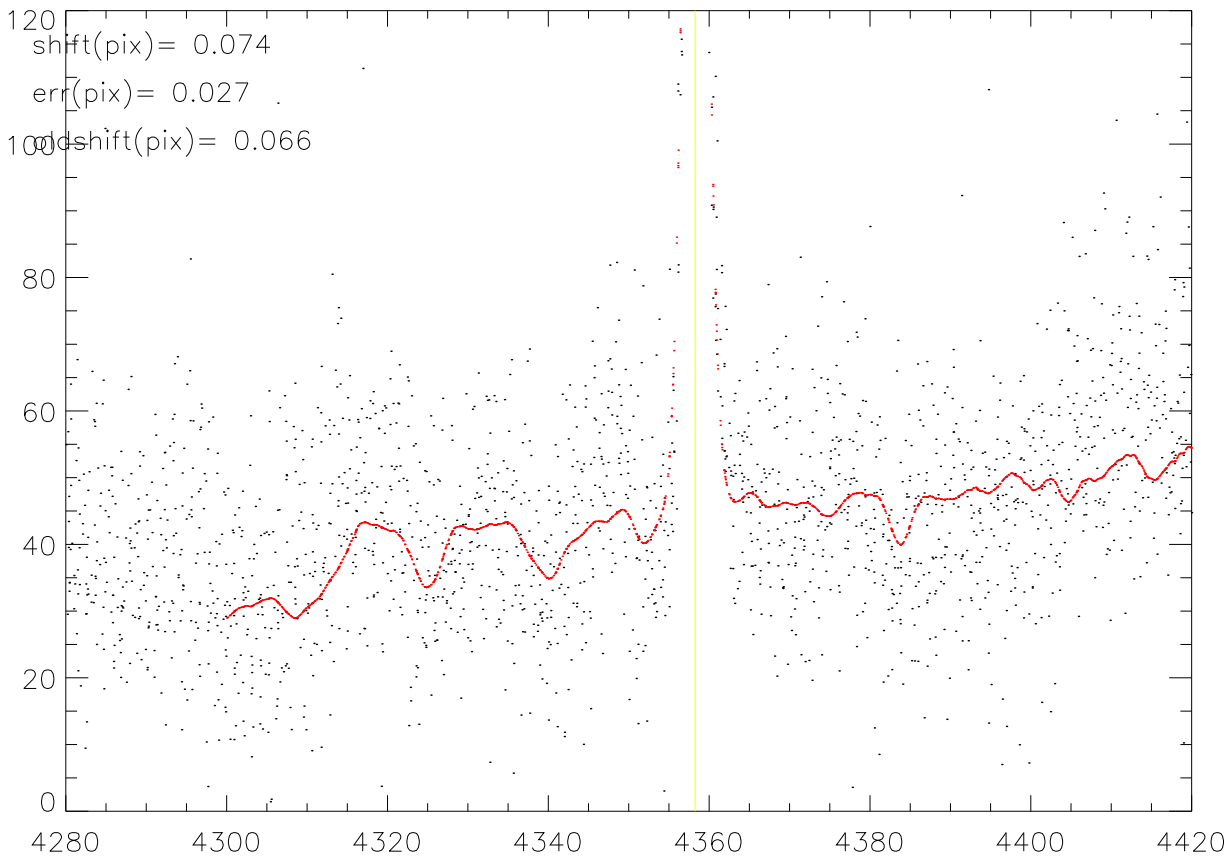

PLATE=0294 MJD=51986 Scattered Light on sdR-b2-00009082.fit
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
8.5
6.7
6.7
6.7
6.7
6.7

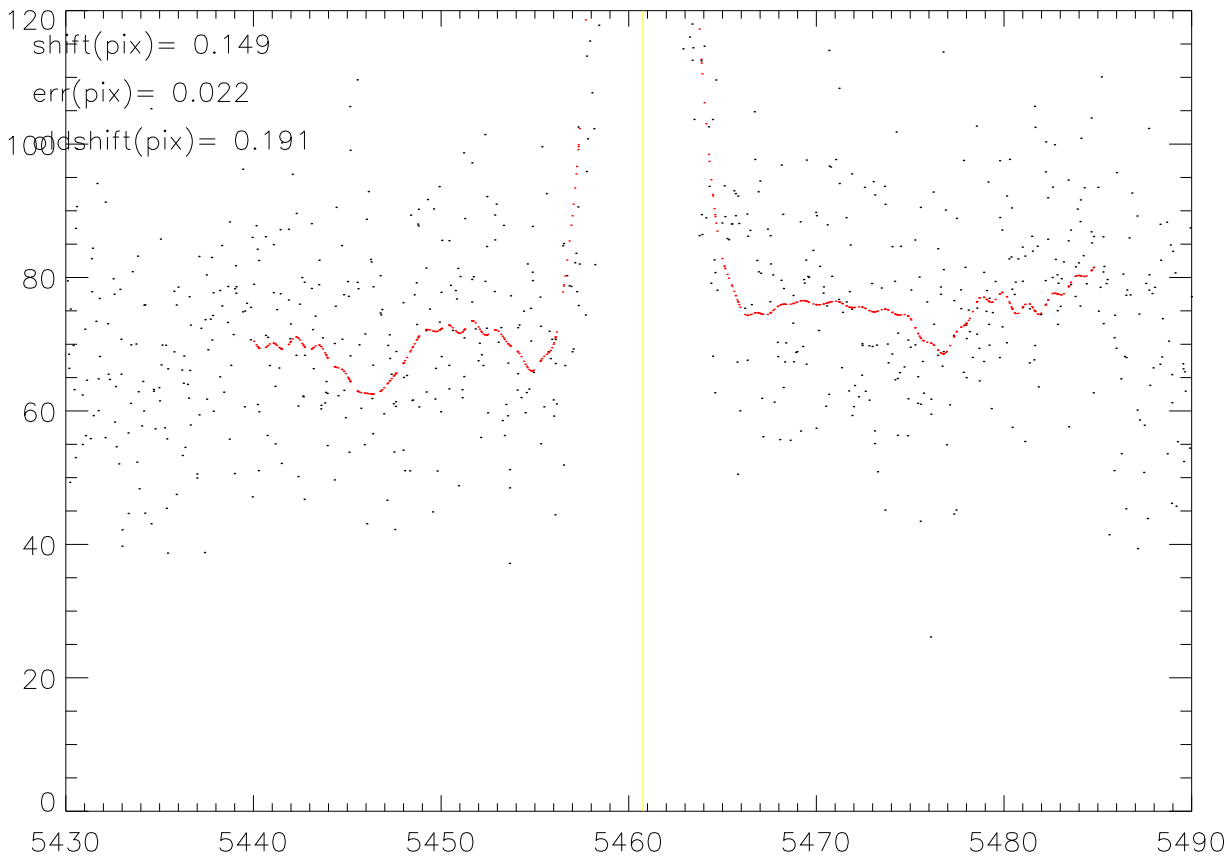

PLATE=0294 MJD=51986 Scattered Light on sdR-b2-00009082.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 5.880
Max value = 8.598
Mon Feb 11 19:33:55 2008

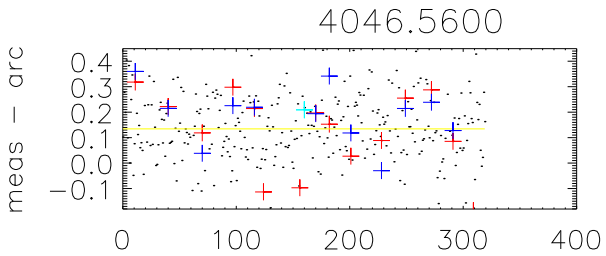

PLATE=0294 MJD=51986 Extraction chi^2 for sdR-b2-00009082.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
5
0
500
1000
1500
2000
Row number

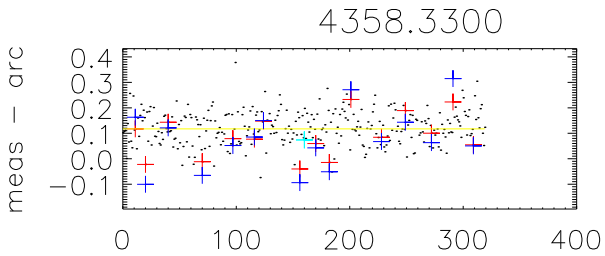

4046.5600
off: 0.08
sig: 0.062
4358.3300
off: 0.07
sig: 0.023
5460.9400
off: 0.19
sig: 0.017
5577.3390
off: 0.22
sig: 0.003
5889.9500
off: 0.28
sig: 0.007
5895.9240
off: 0.25
sig: 0.009

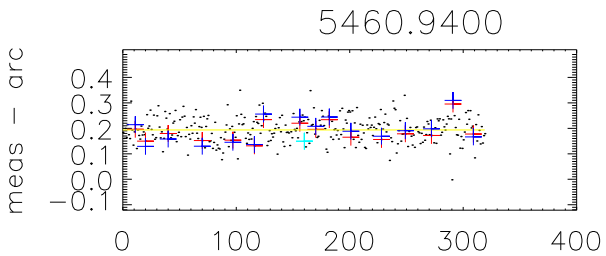

shift(pix)= 0.209
err(pix)= 0.071
oldshift(pix)= 0.079
120
100
80
60
40
20
0
4020
4030
4040
4050
4060
4070
4080

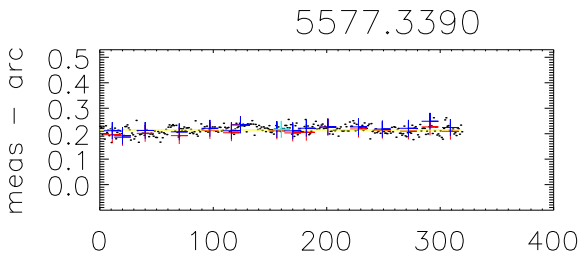

shift(pix)= 0.074
err(pix)= 0.027
oldshift(pix)= 0.066
120
100
80
60
40
20
0
4280
4300
4320
4340
4360
4380
4400
4420

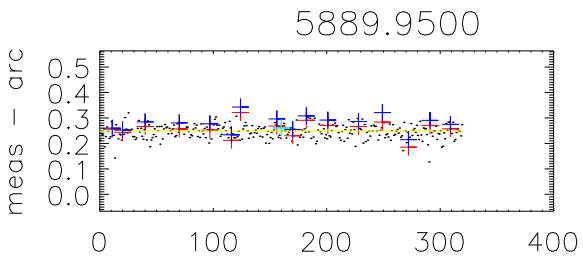

shift(pix)= 0.149
err(pix)= 0.022
oldshift(pix)= 0.191
120
100
80
60
40
20
0
5430
5440
5450
5460
5470
5480
5490

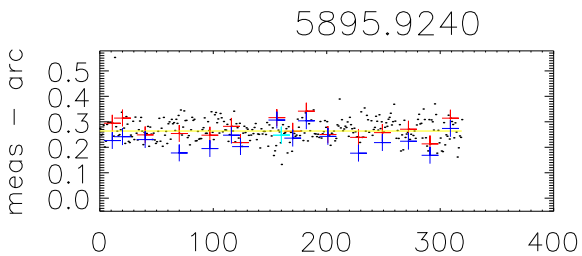

4046.5600
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

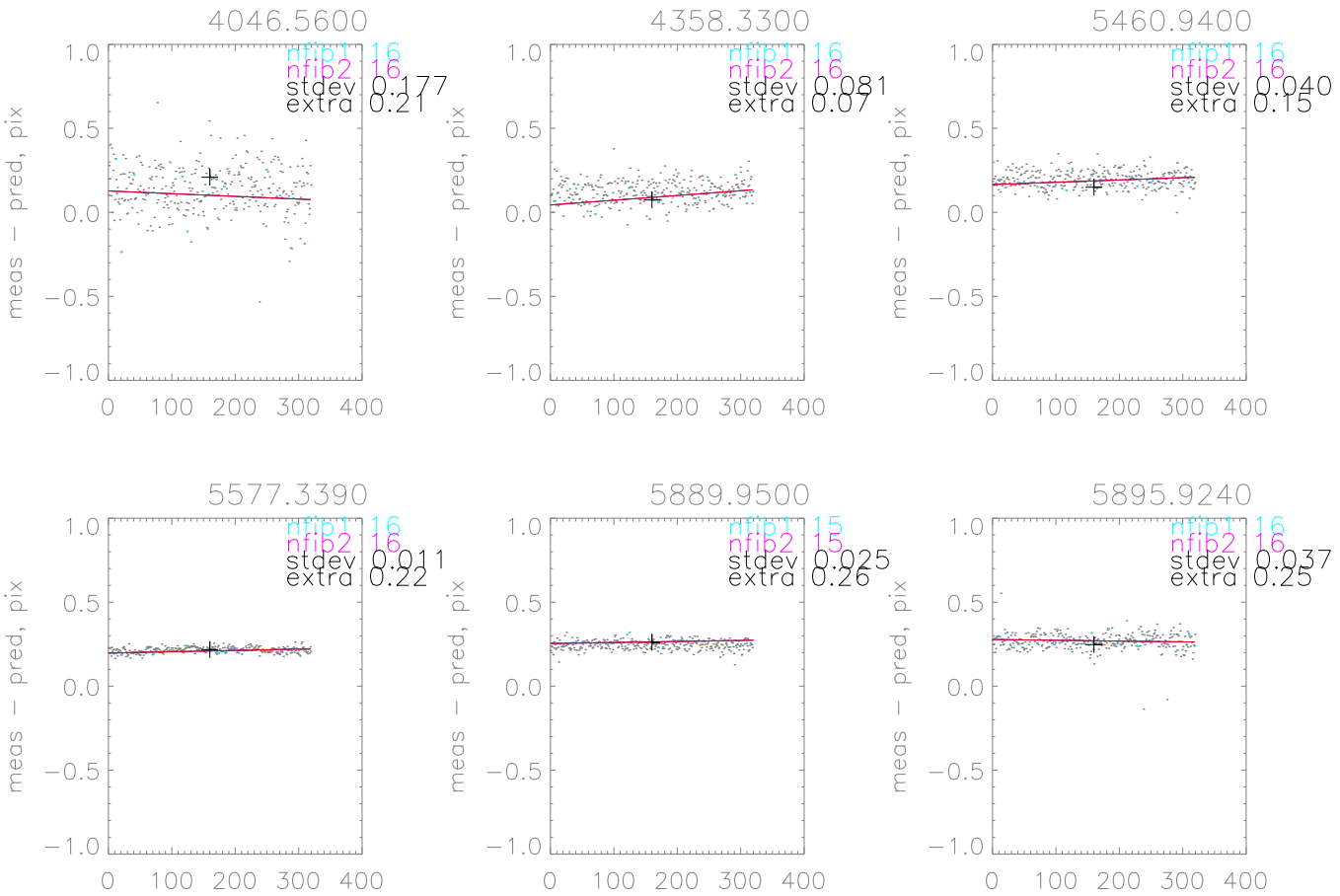

4358.3300
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

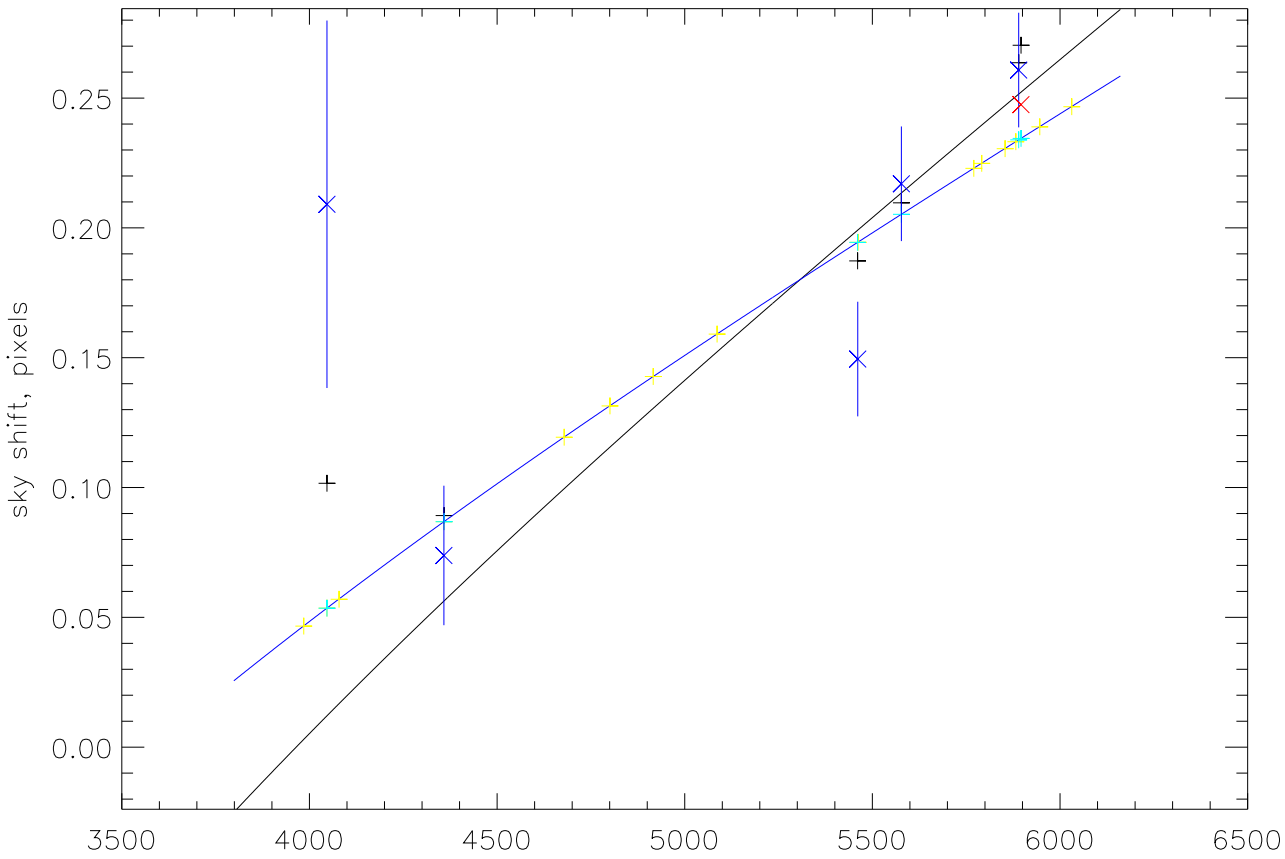

5460.9400
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

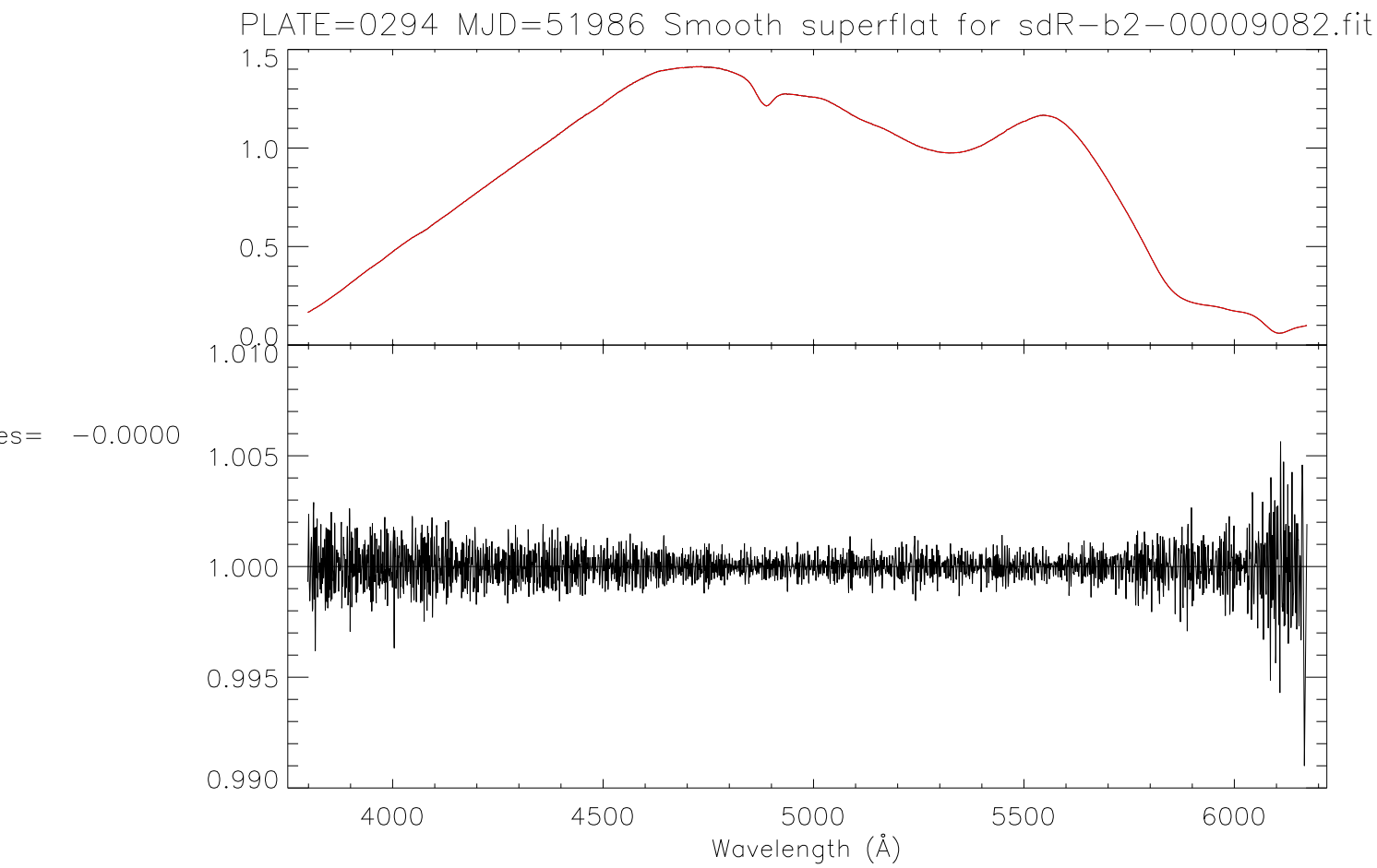

5577.3390
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400


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

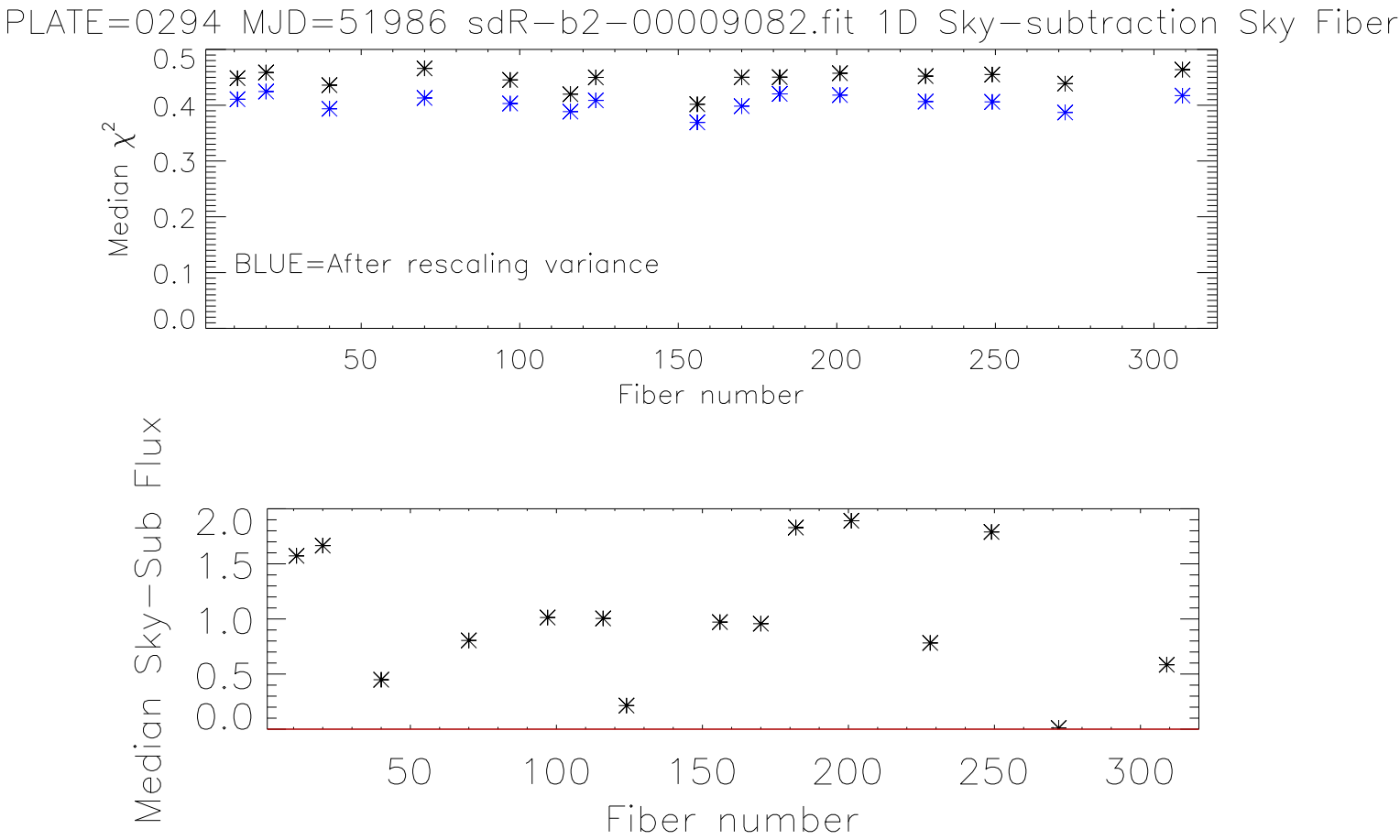

5895.9240
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

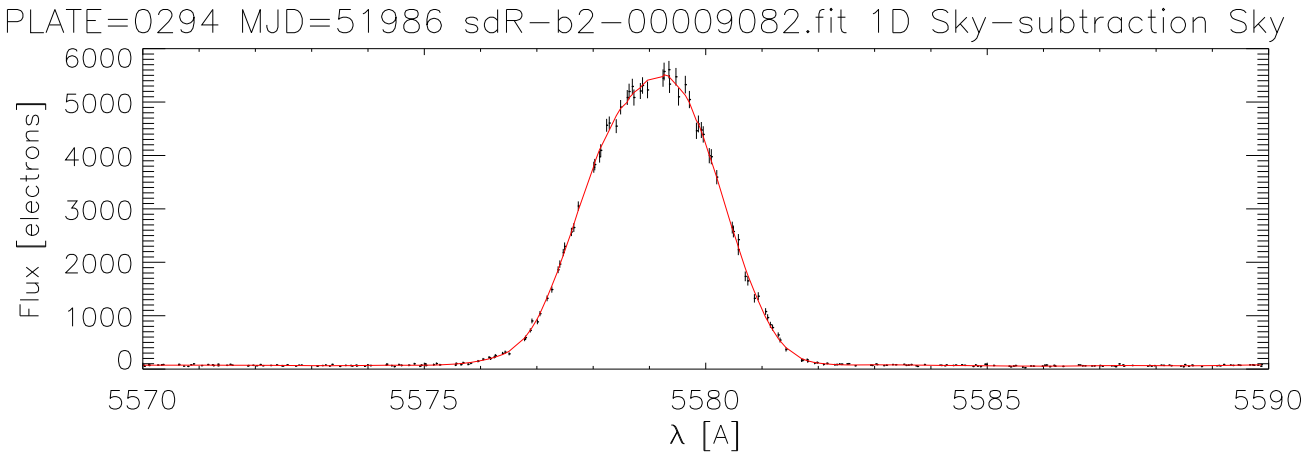

4046.5600
nfib1 16
nfib2 16
stdev 0.177
extra 0.21
4358.3300
nfib1 16
nfib2 16
stdev 0.081
extra 0.07
5460.9400
nfib1 16
nfib2 16
stdev 0.040
extra 0.15
5577.3390
nfib1 16
nfib2 16
stdev 0.011
extra 0.22
5889.9500
nfib1 15
nfib2 15
stdev 0.025
extra 0.26
5895.9240
nfib1 16
nfib2 16
stdev 0.037
extra 0.25
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

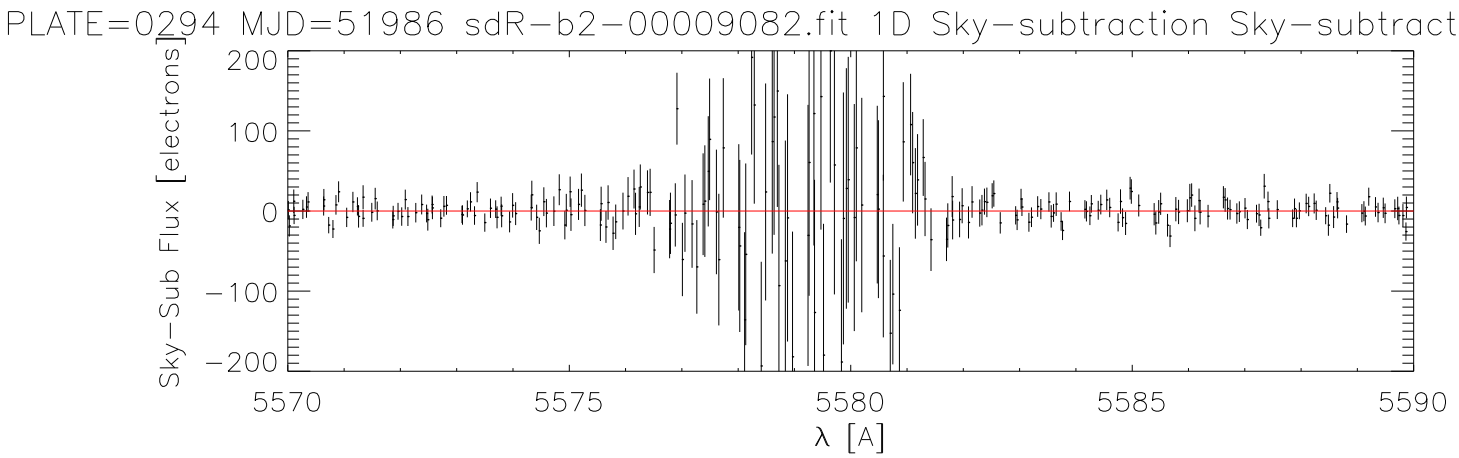

sky shift, pixels
0.25
0.20
0.15
0.10
0.05
0.00
3500
4000
4500
5000
5500
6000
6500

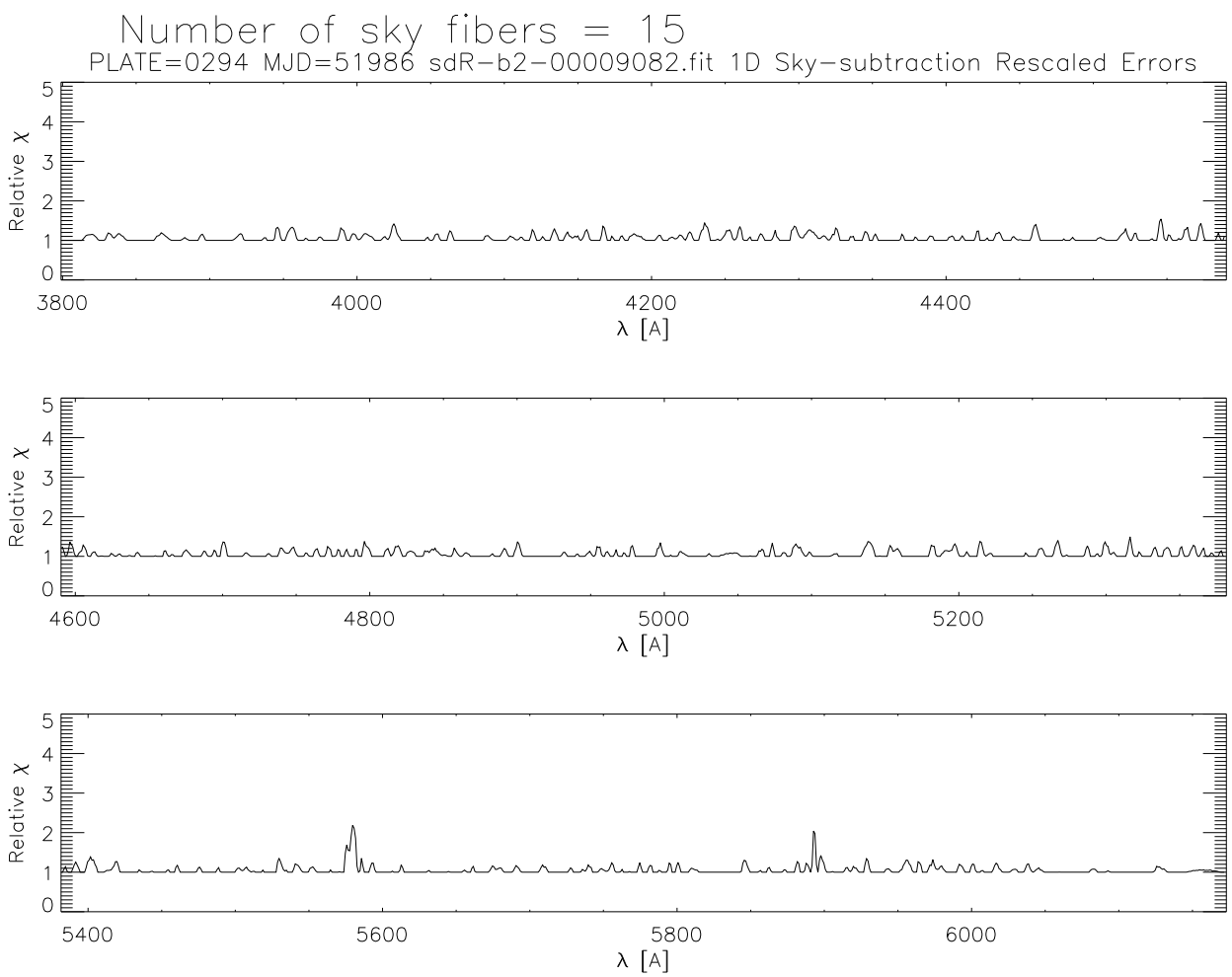

PLATE=0294 MJD=51986 Smooth superflat for sdR-b2-00009082.fit
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
4000
4500
5000
5500
6000
Wavelength (Å)

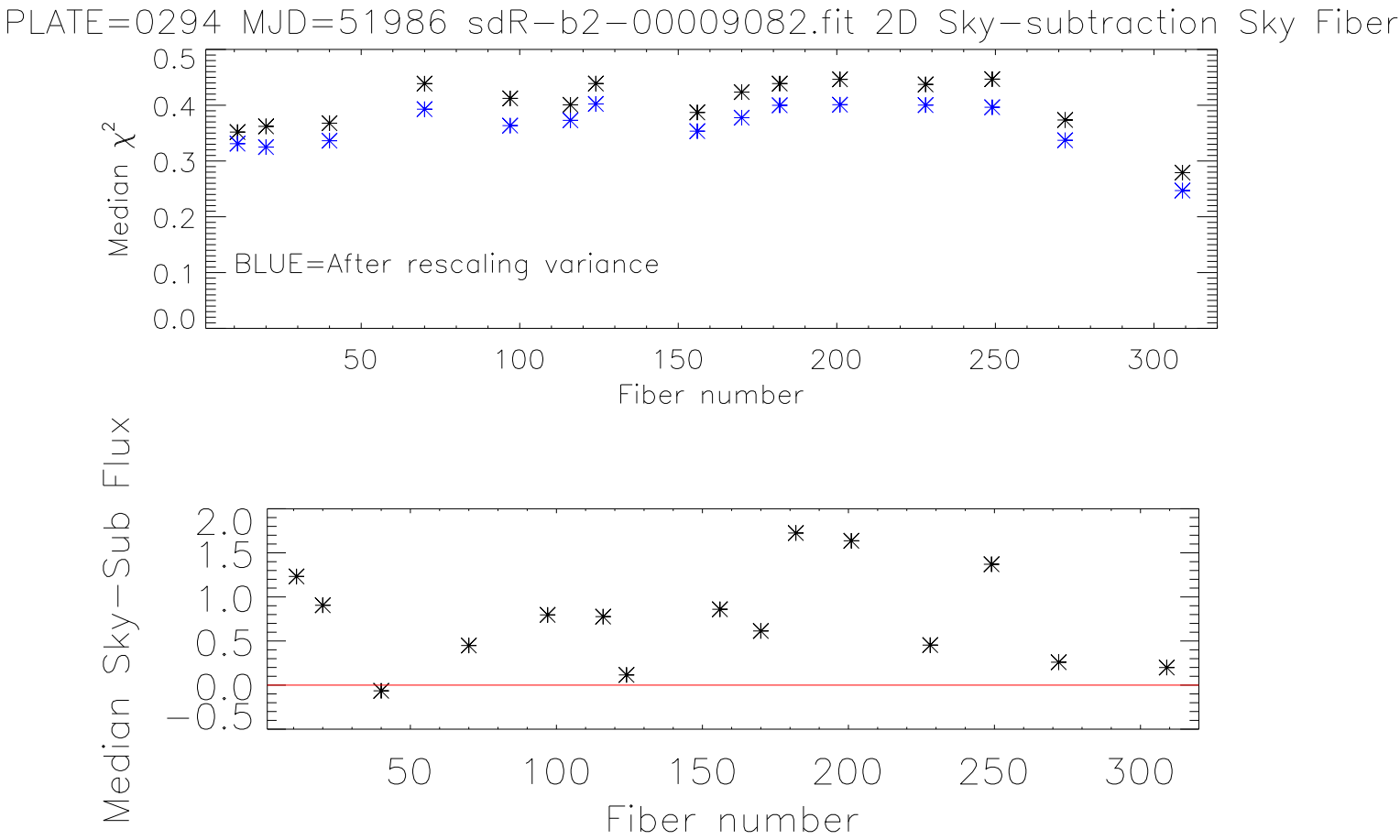
es= −0.0000

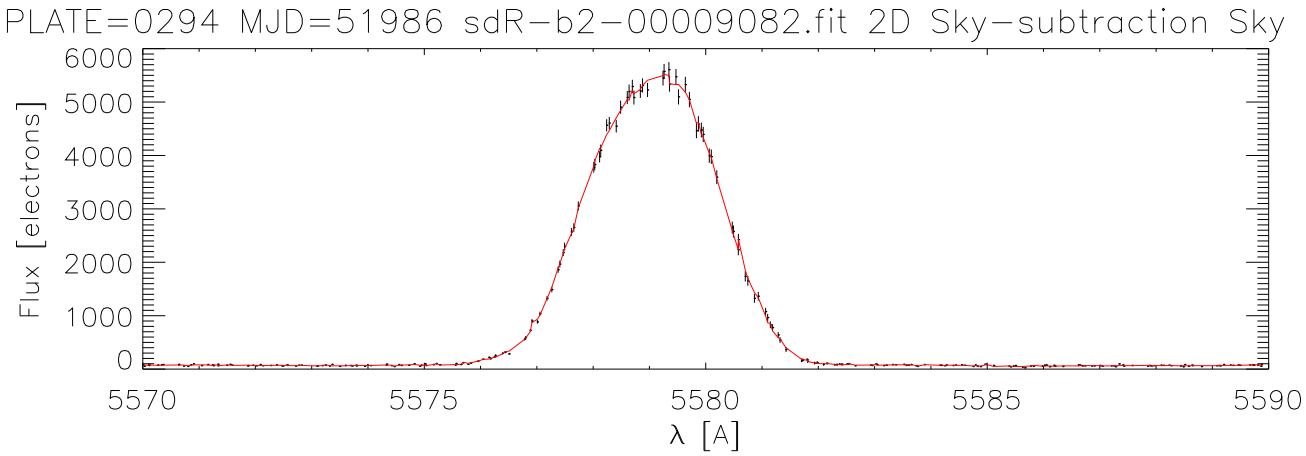

PLATE=0294 MJD=51986 sdR-b2-00009082.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
0.0
0.5
1.0
1.5
2.0
50
100
150
200
250
300
Fiber number

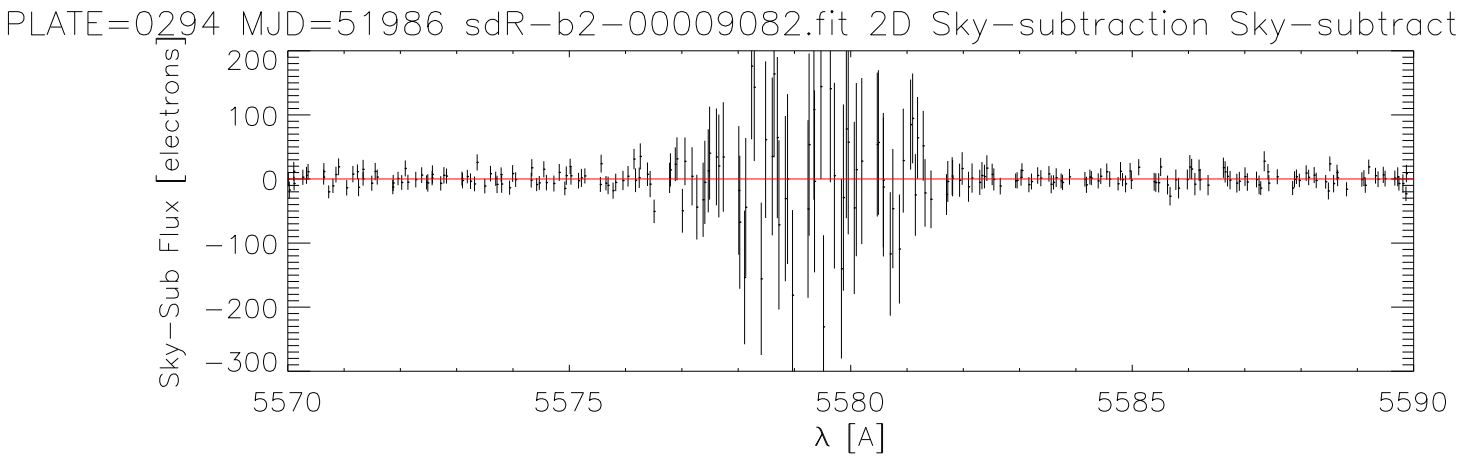

PLATE=0294 MJD=51986 sdR-b2-00009082.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
6000
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

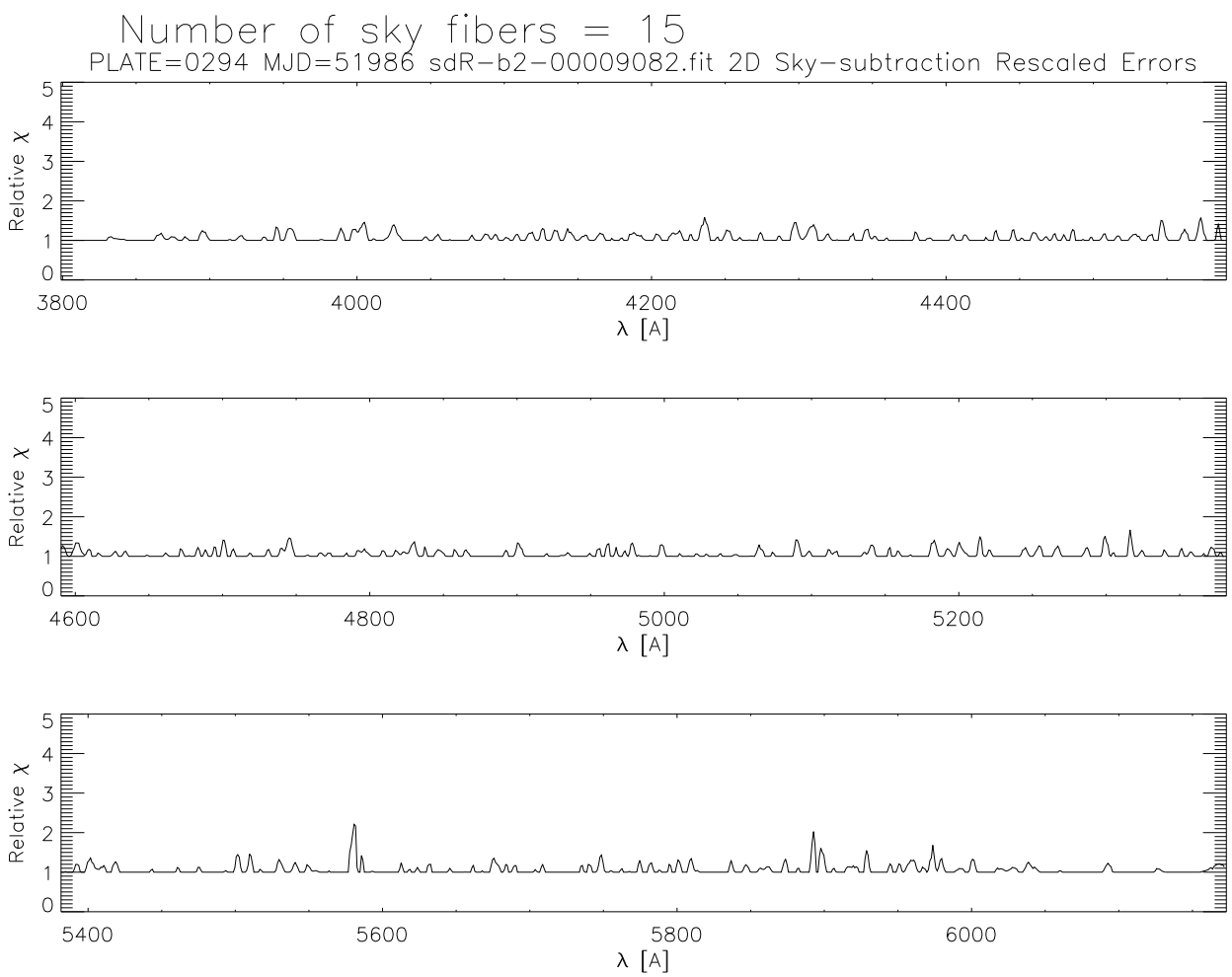

PLATE=0294 MJD=51986 sdR-b2-00009082.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
5570
5575
5580
5585
5590
λ [A]

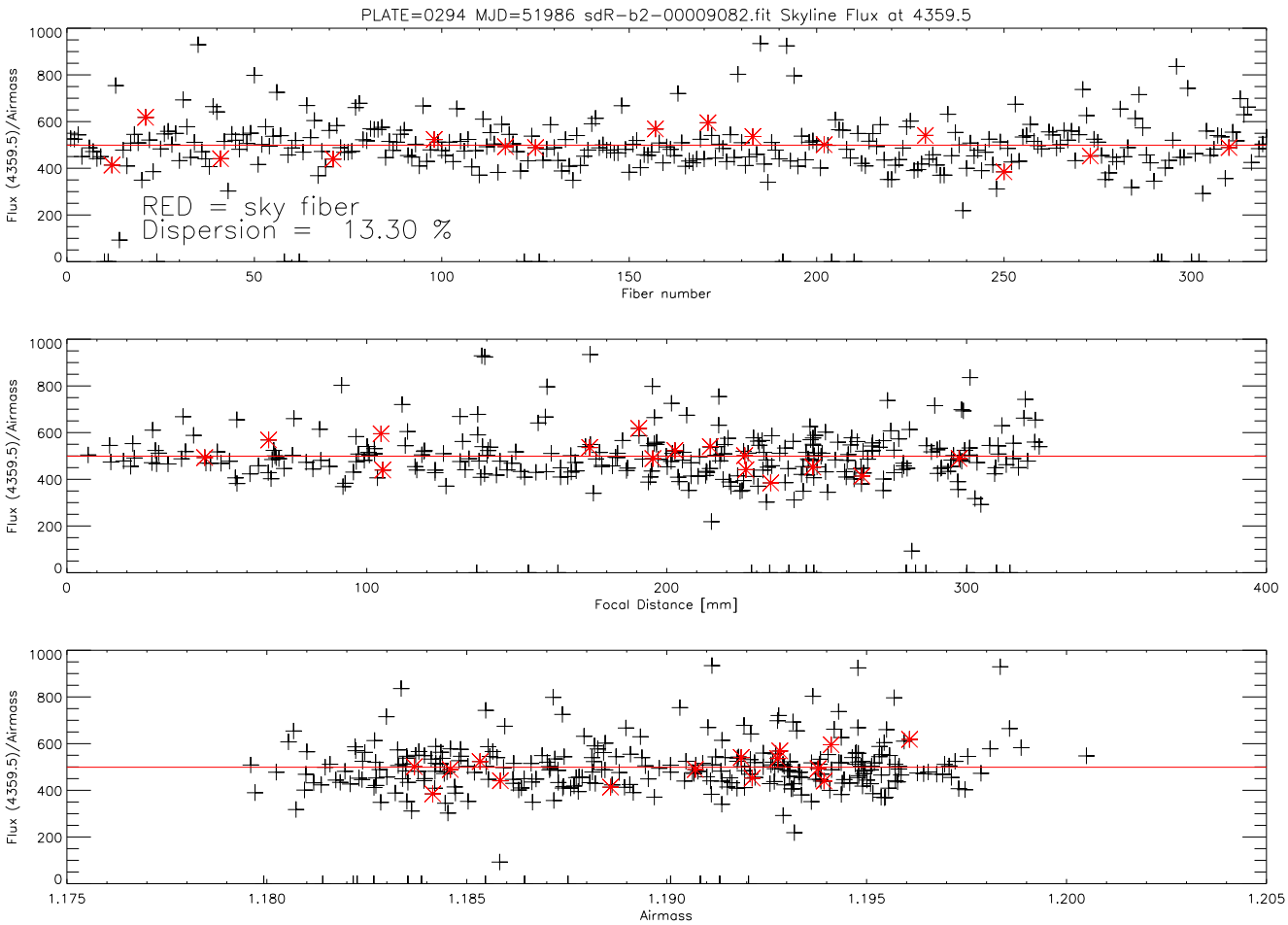

Number of sky fibers = 15
PLATE=0294 MJD=51986 sdR-b2-00009082.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

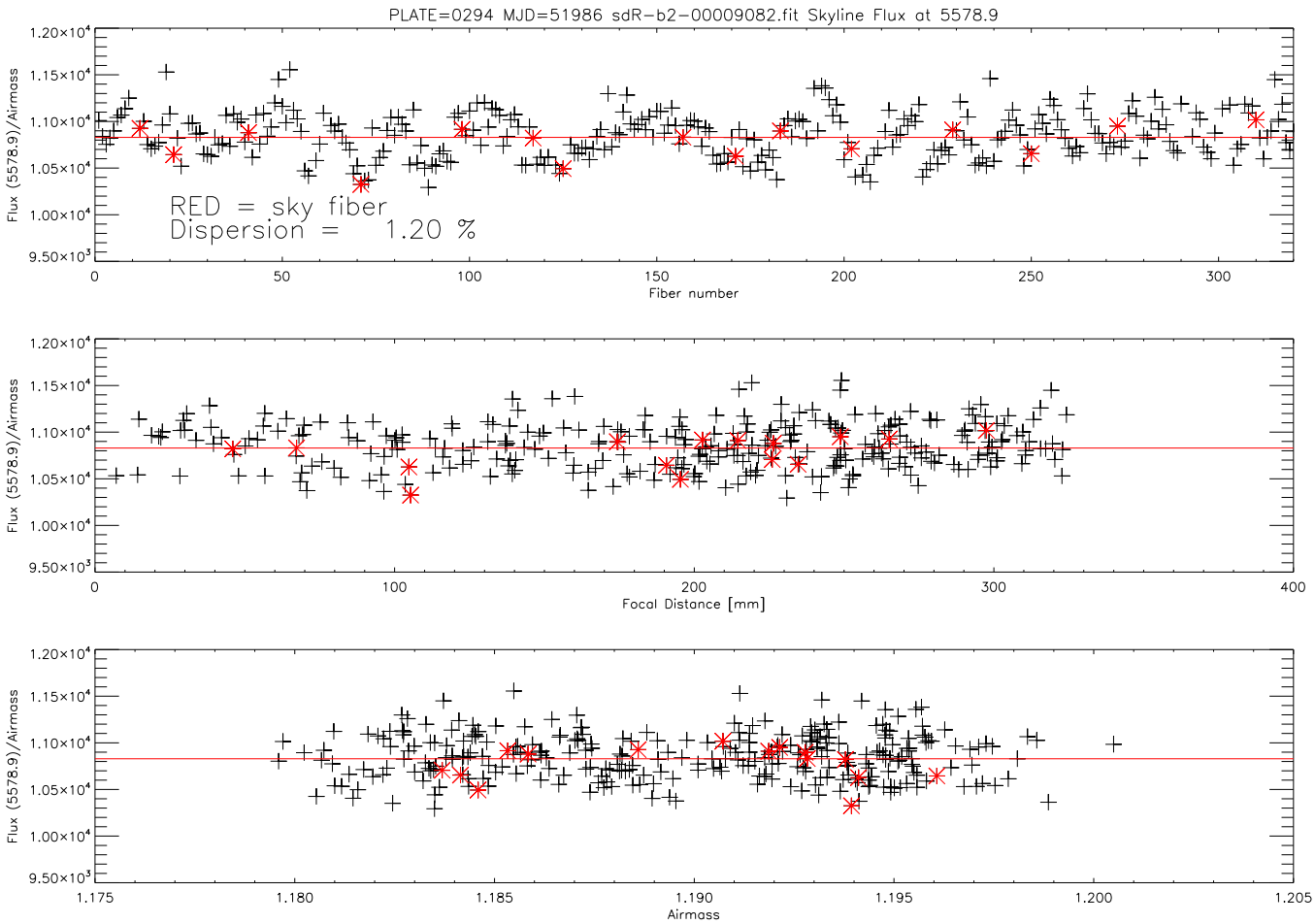

PLATE=0294 MJD=51986 sdR-b2-00009082.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

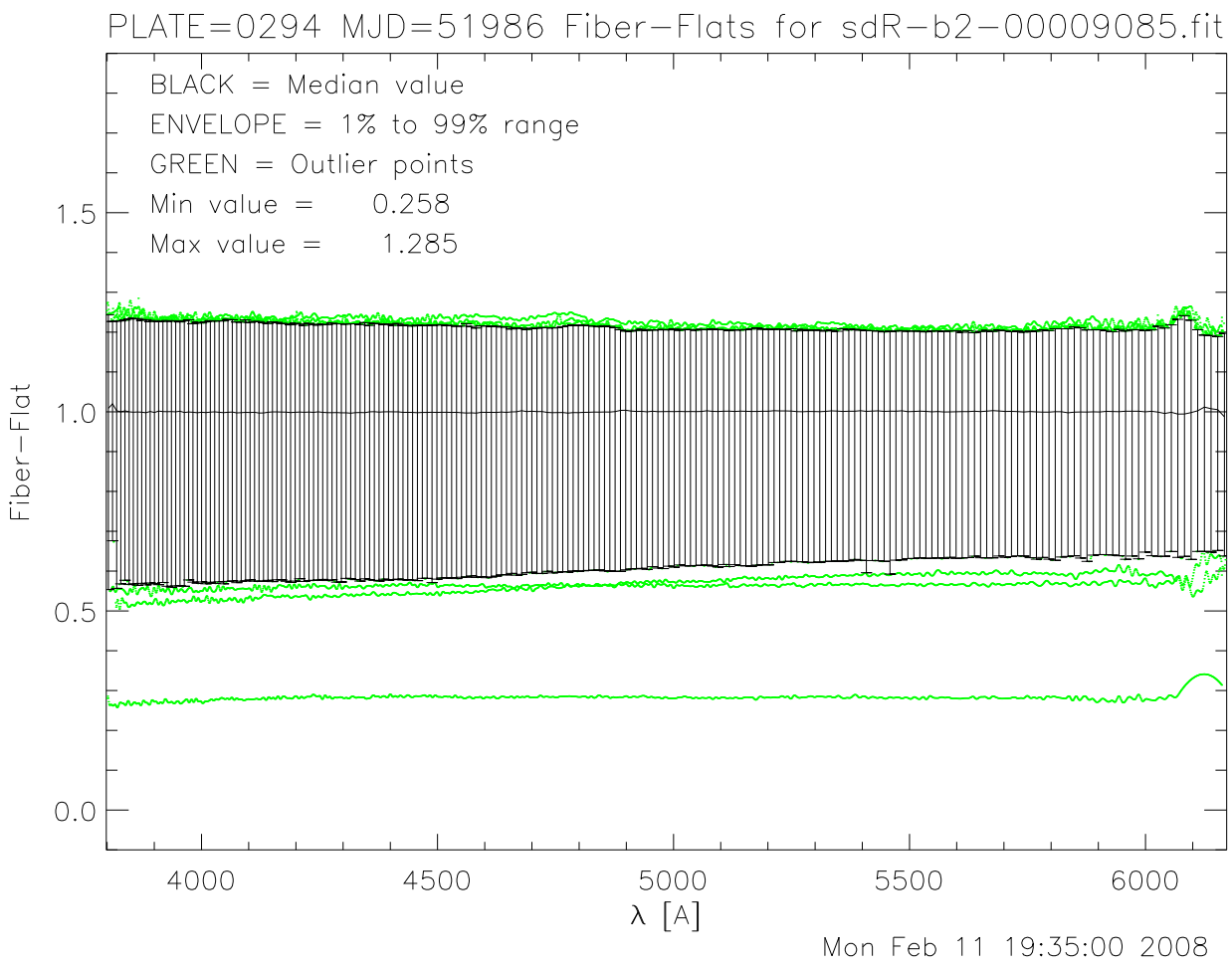

PLATE=0294 MJD=51986 sdR-b2-00009082.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
6000
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

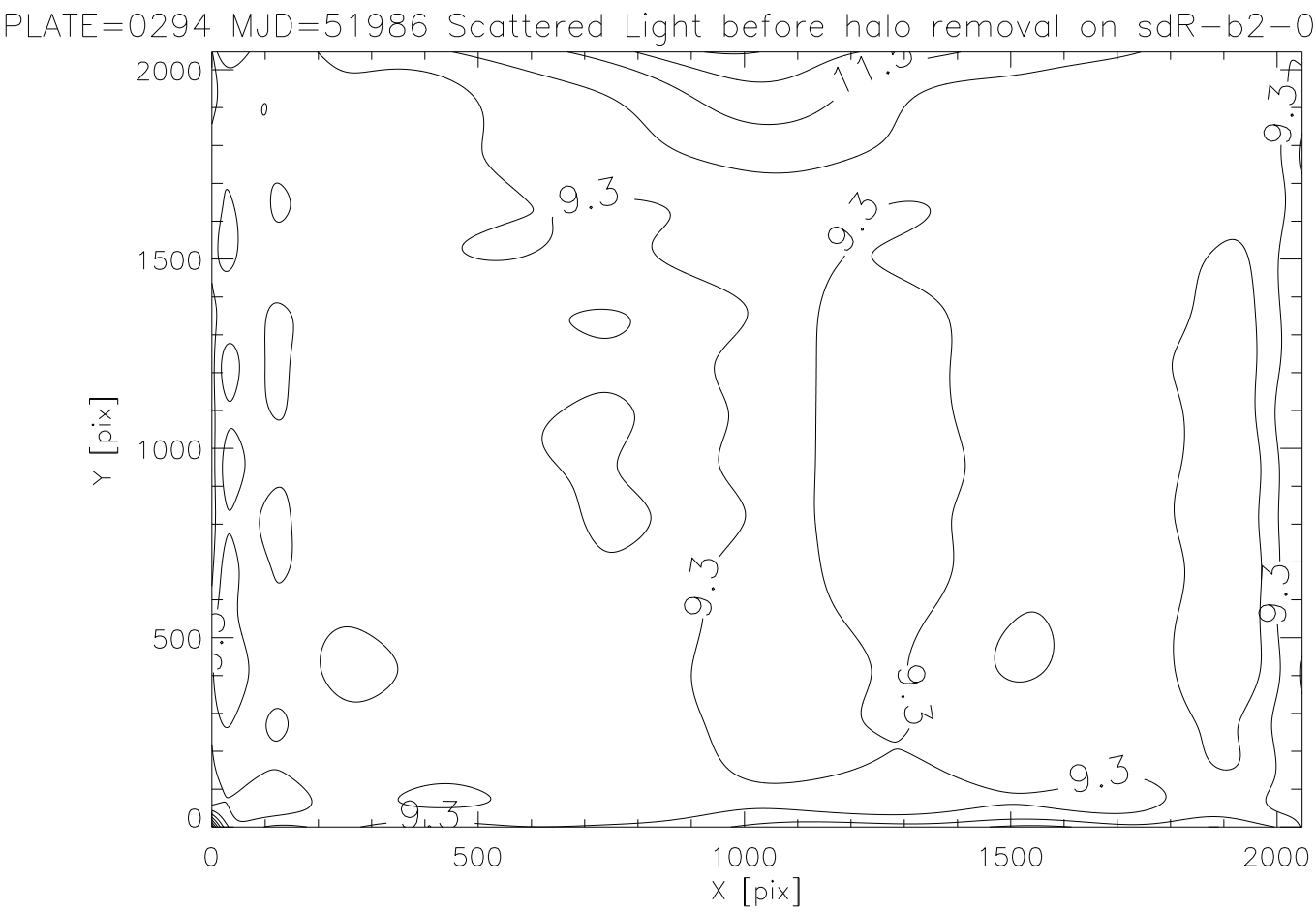

PLATE=0294 MJD=51986 sdR-b2-00009082.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
-300
5570
5575
5580
5585
5590
λ [A]

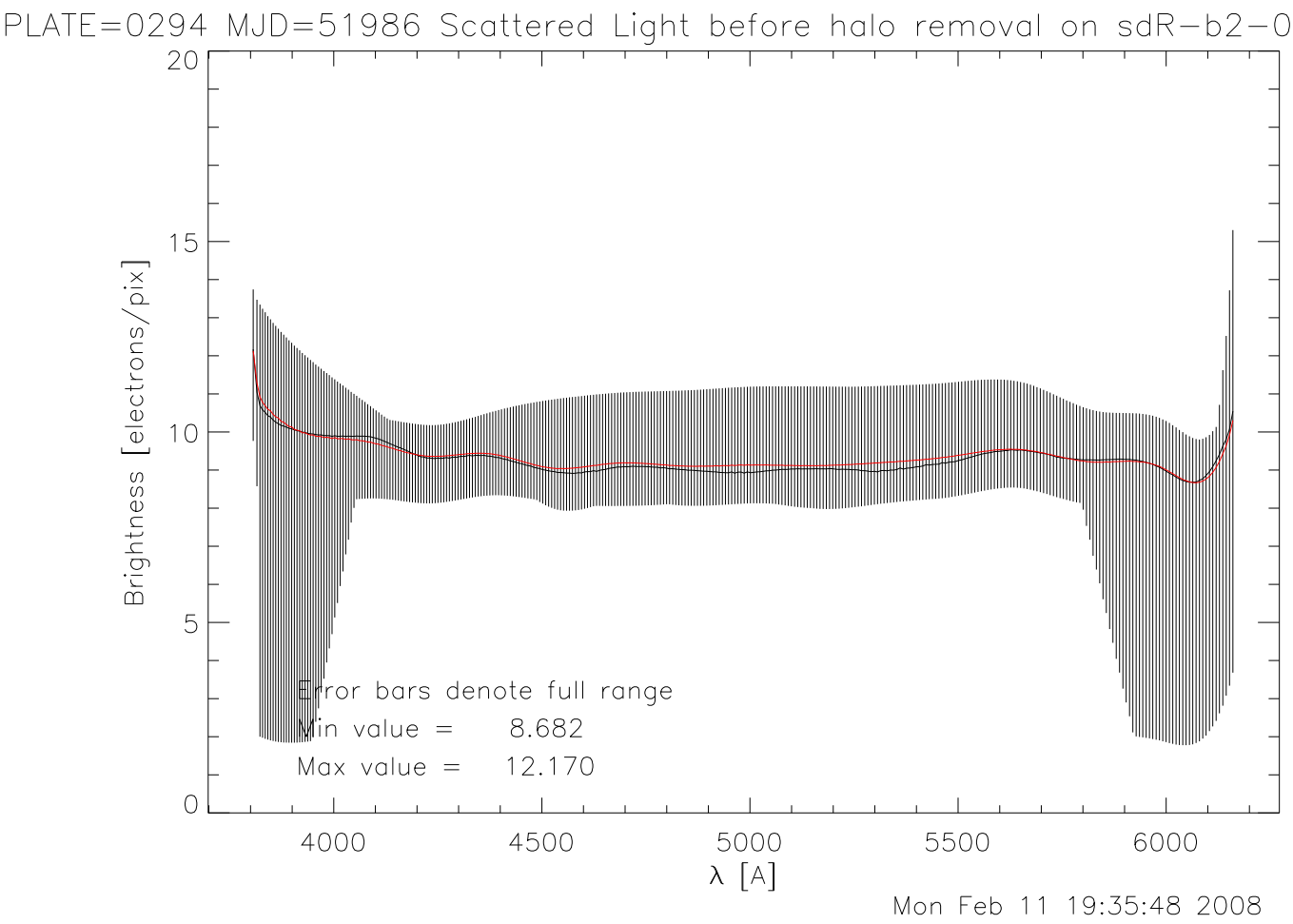

Number of sky fibers = 15
PLATE=0294 MJD=51986 sdR-b2-00009082.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

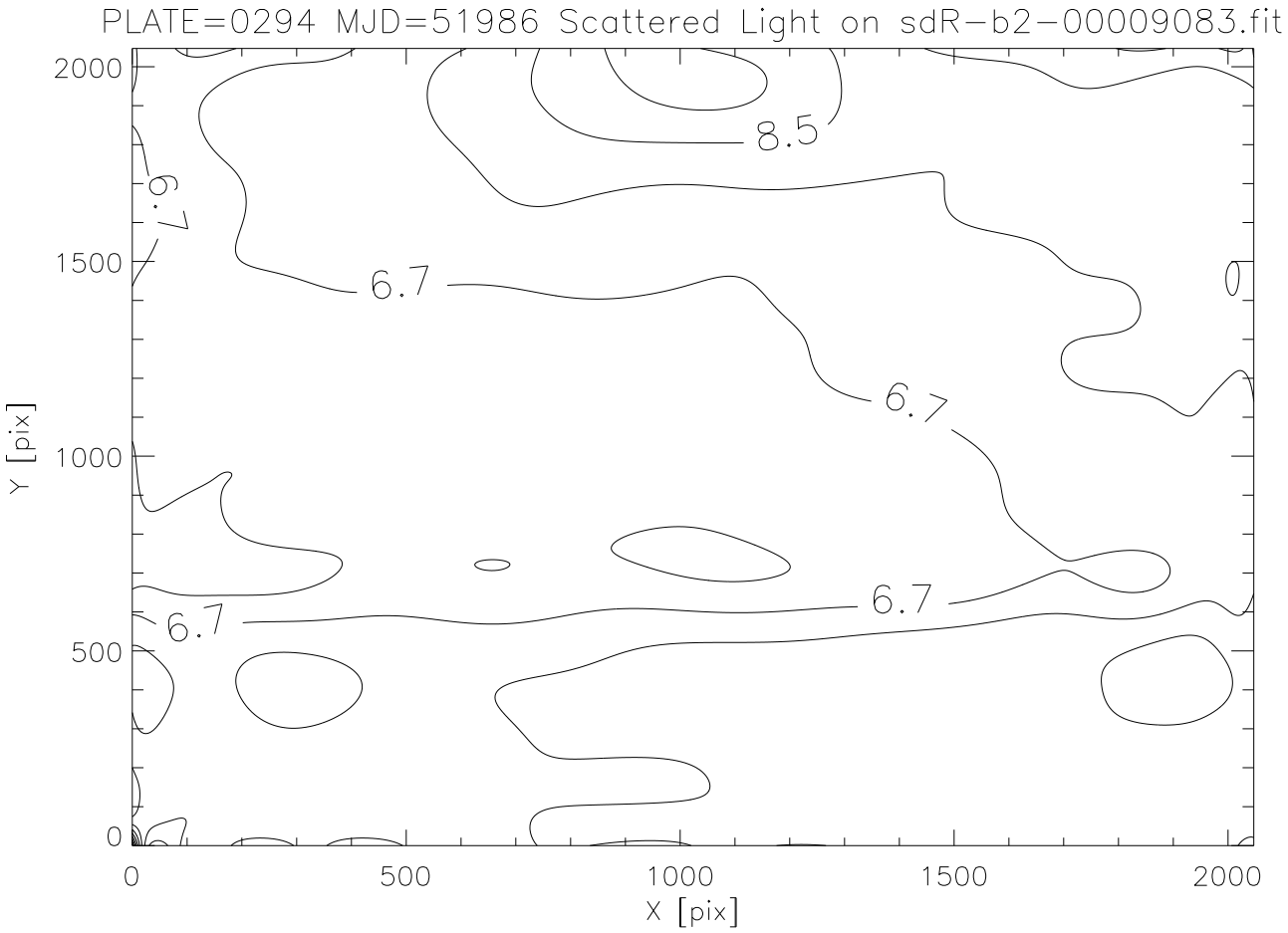

PLATE=0294 MJD=51986 sdR-b2-00009082.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 13.30 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

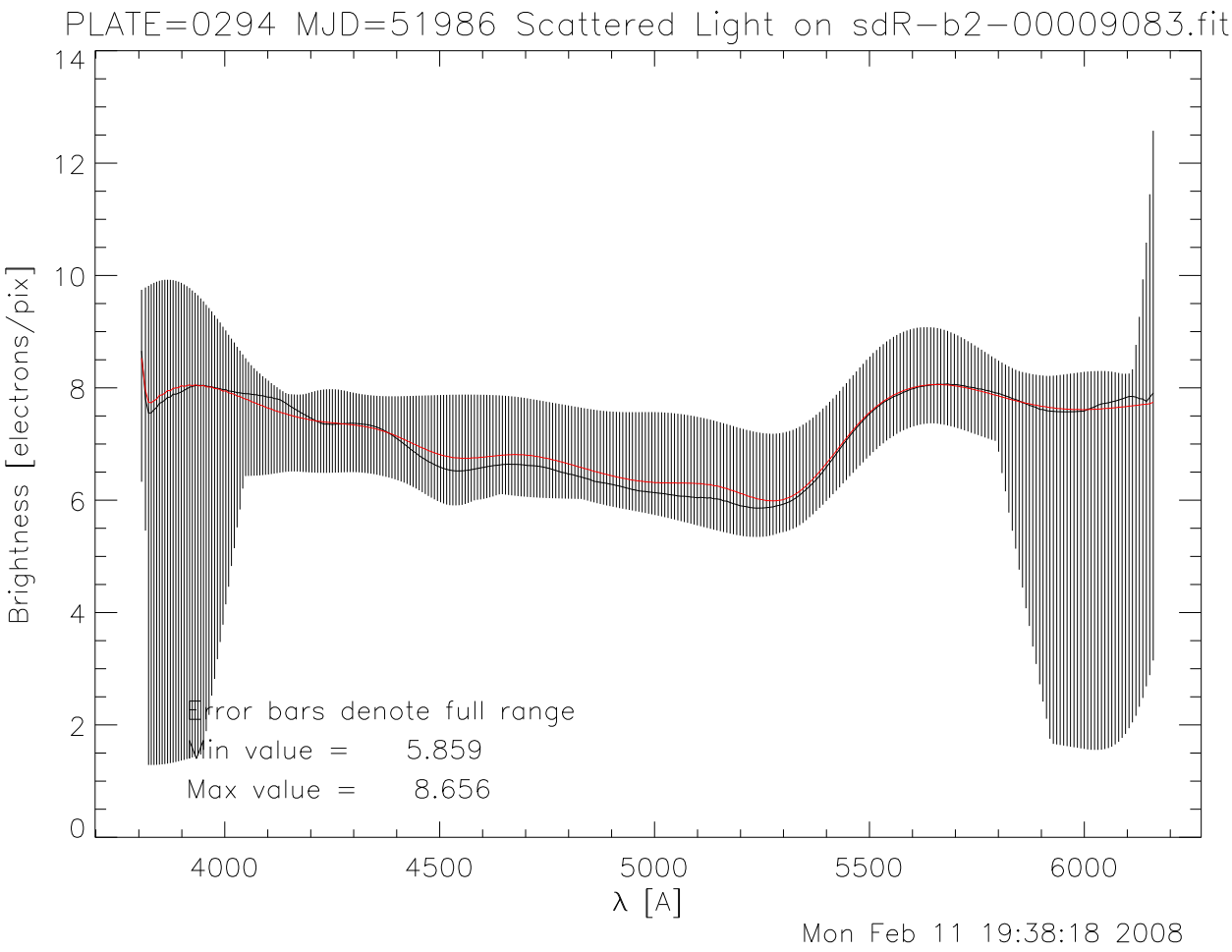

PLATE=0294 MJD=51986 sdR-b2-00009082.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 1.20 %
Fiber number
Focal Distance [mm]
Airmass

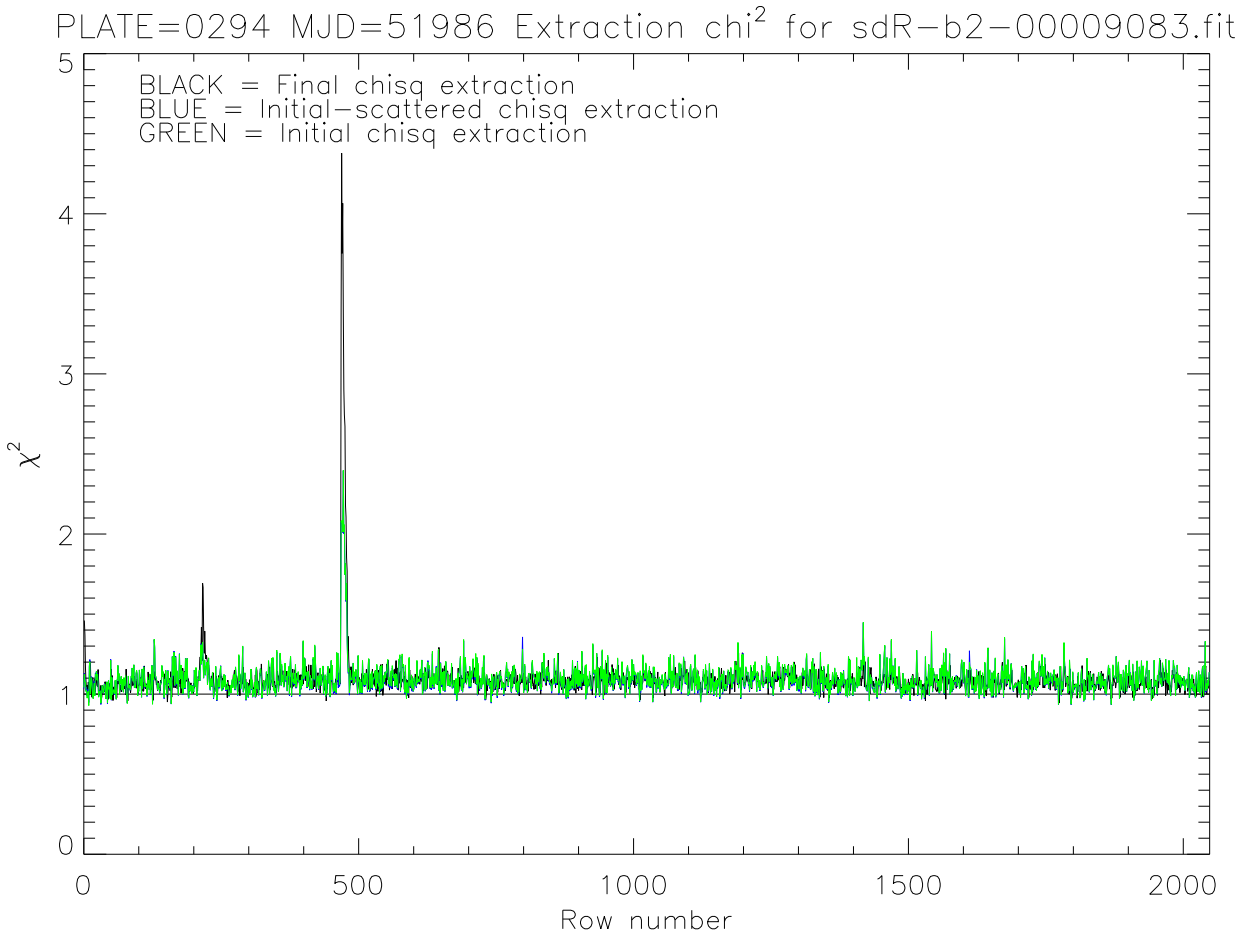

PLATE=0294 MJD=51986 Fiber-Flats for sdR-b2-00009085.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.258
Max value = 1.285
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Mon Feb 11 19:35:00 2008

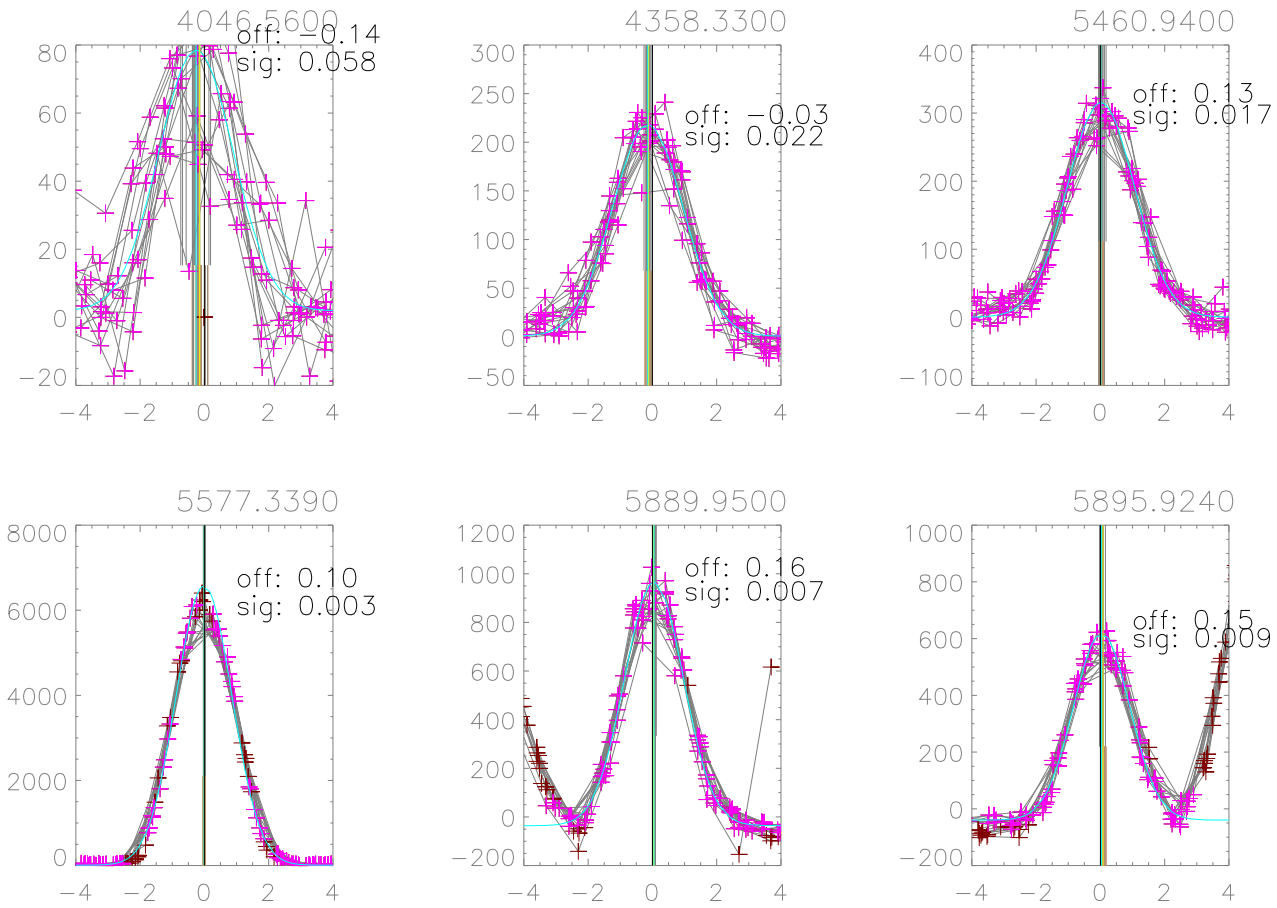

PLATE=0294 MJD=51986 Scattered Light before halo removal on sdR−b2−00009083.f
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
9.3
9.3
9.3
9.3
9.3
9.3
9.3
9.3

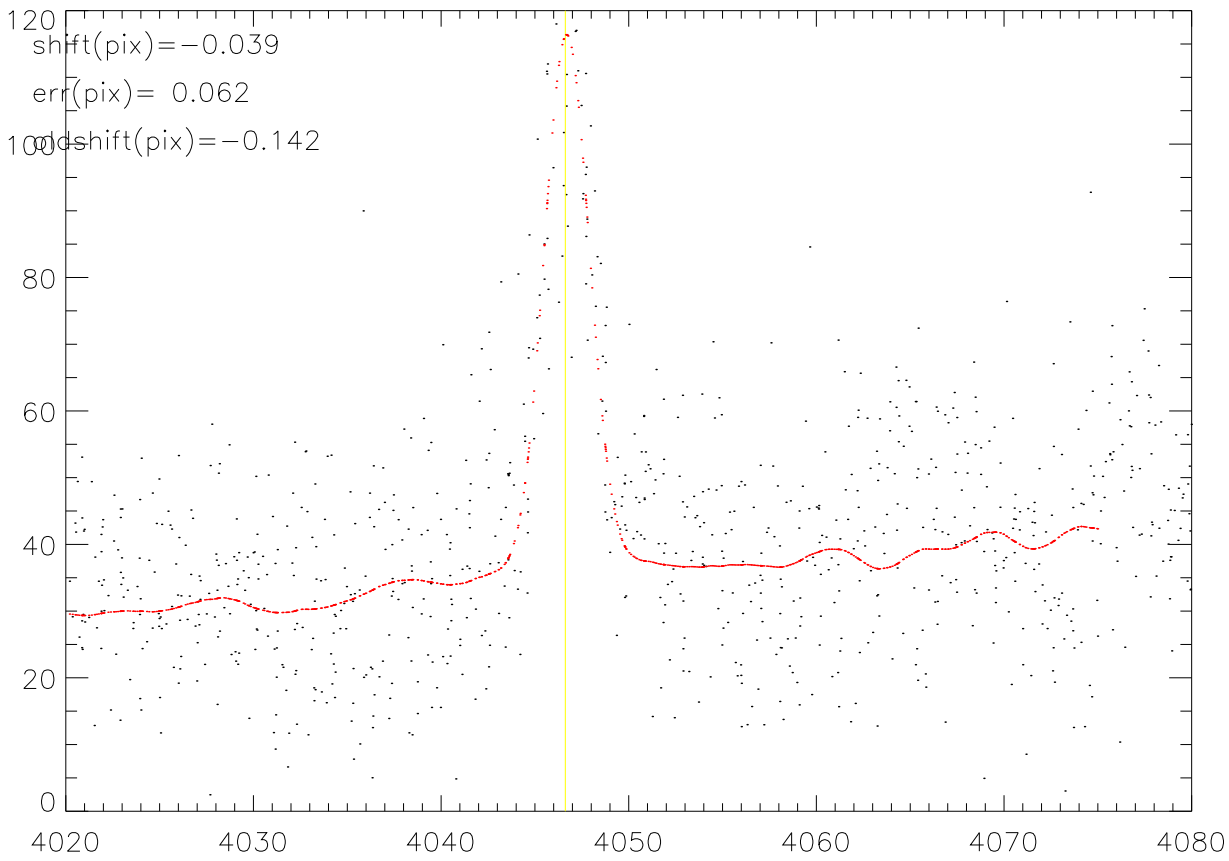

PLATE=0294 MJD=51986 Scattered Light before halo removal on sdR-b2-00009083.f
Brightness [electrons/pix]
20
15
10
5
0
Error bars denote full range
Min value = 8.682
Max value = 12.170
4000
4500
5000
5500
6000
λ [A]
Mon Feb 11 19:35:48 2008

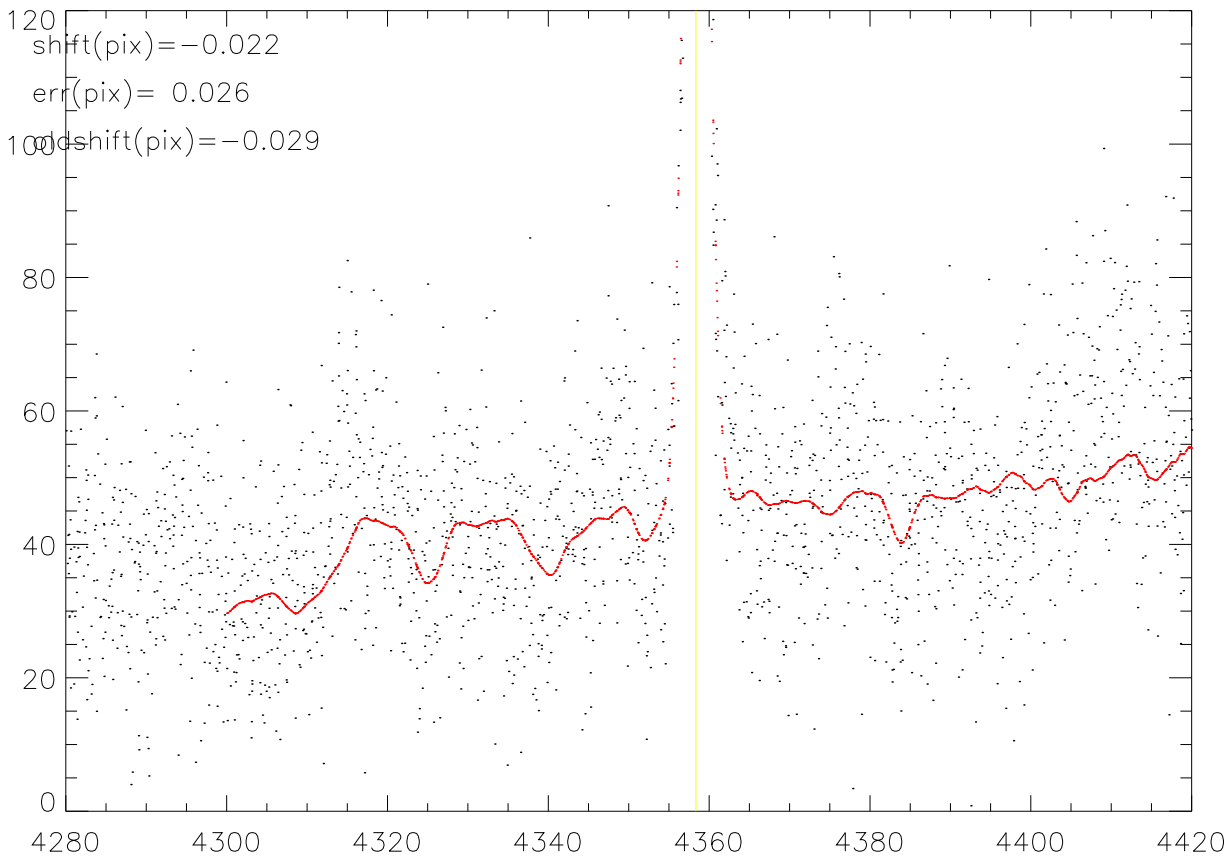

PLATE=0294 MJD=51986 Scattered Light on sdR-b2-00009083.fit
8.5
6.7
6.7
6.7
6.7
6.7
Y [pix]
X [pix]
0
500
1000
1500
2000

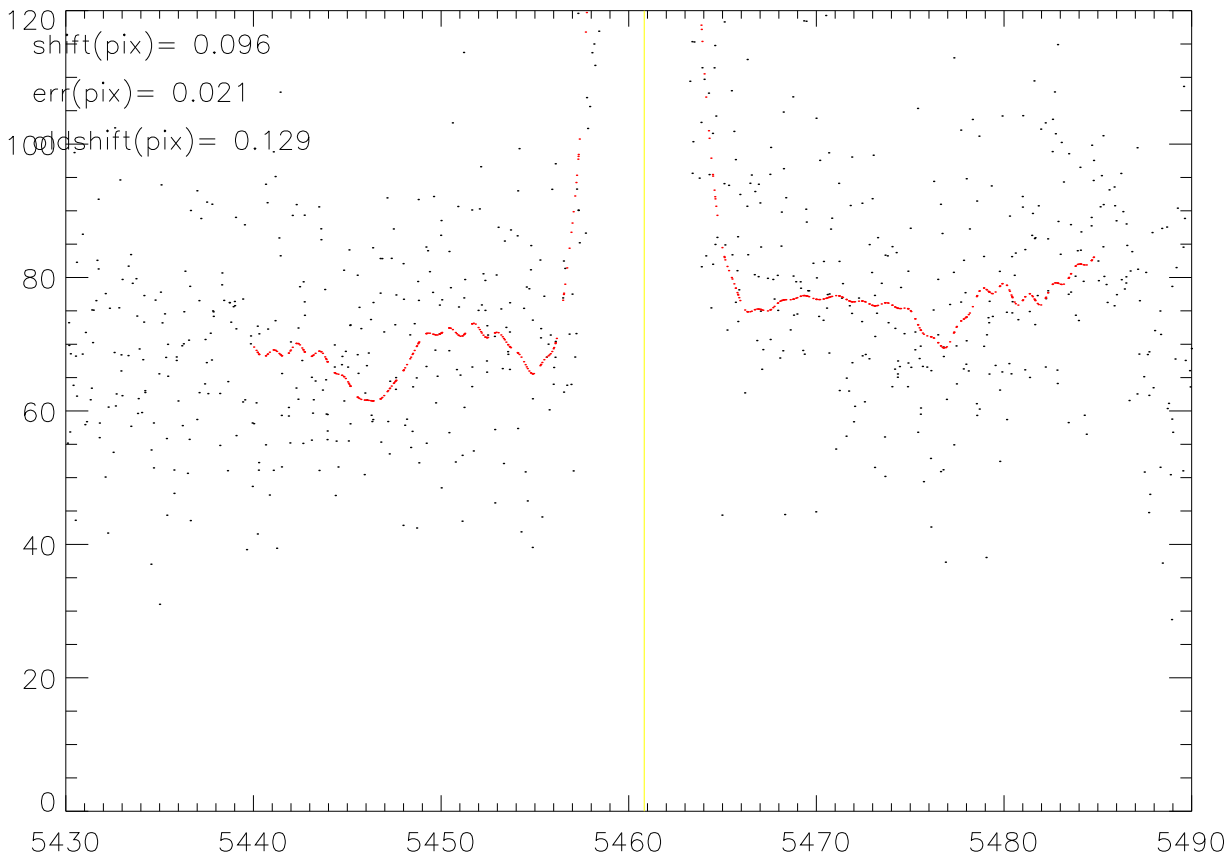

PLATE=0294 MJD=51986 Scattered Light on sdR-b2-00009083.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 5.859
Max value = 8.656
Mon Feb 11 19:38:18 2008

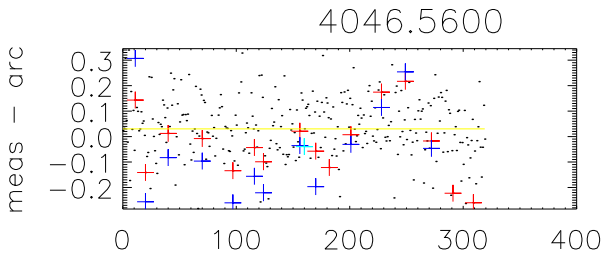

PLATE=0294 MJD=51986 Extraction chi^2 for sdR-b2-00009083.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
5
0
500
1000
1500
2000
Row number

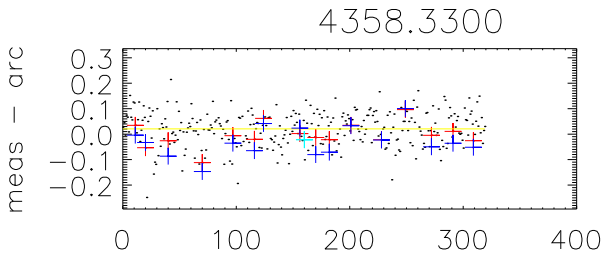

4046.5600
off: −0.14
sig: 0.058
4358.3300
off: −0.03
sig: 0.022
5460.9400
off: 0.13
sig: 0.017
5577.3390
off: 0.10
sig: 0.003
5889.9500
off: 0.16
sig: 0.007
5895.9240
off: 0.15
sig: 0.009

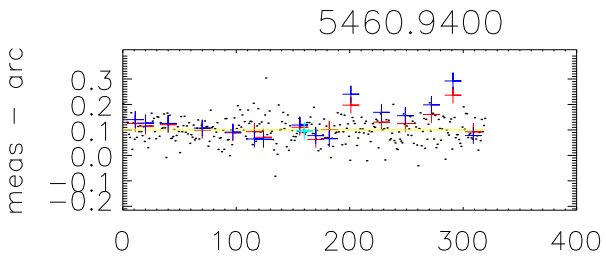

shift(pix)=−0.039
err(pix)= 0.062
oldshift(pix)=−0.142
120
100
80
60
40
20
0
4020
4030
4040
4050
4060
4070
4080

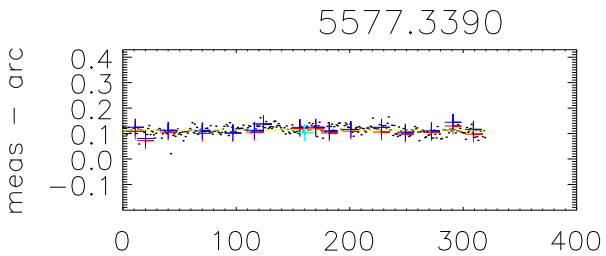

shift(pix)=−0.022
err(pix)= 0.026
oldshift(pix)=−0.029
120
100
80
60
40
20
0
4280
4300
4320
4340
4360
4380
4400
4420

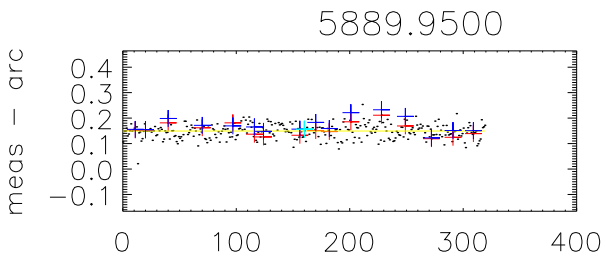

shift(pix)= 0.096
err(pix)= 0.021
oldshift(pix)= 0.129
120
100
80
60
40
20
0
5430
5440
5450
5460
5470
5480
5490

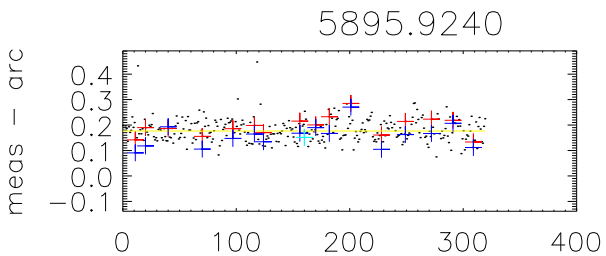

4046.5600
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

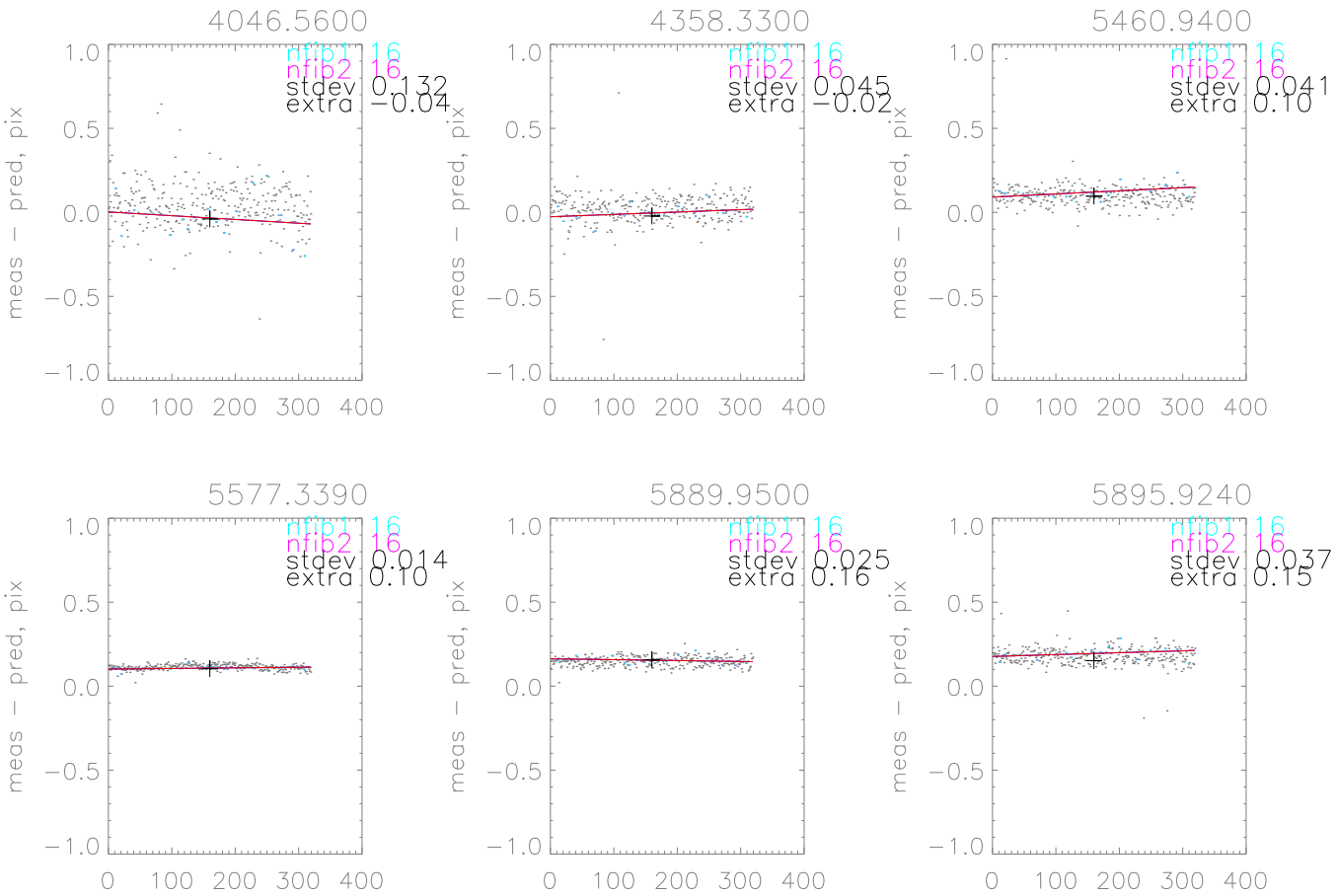

4358.3300
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

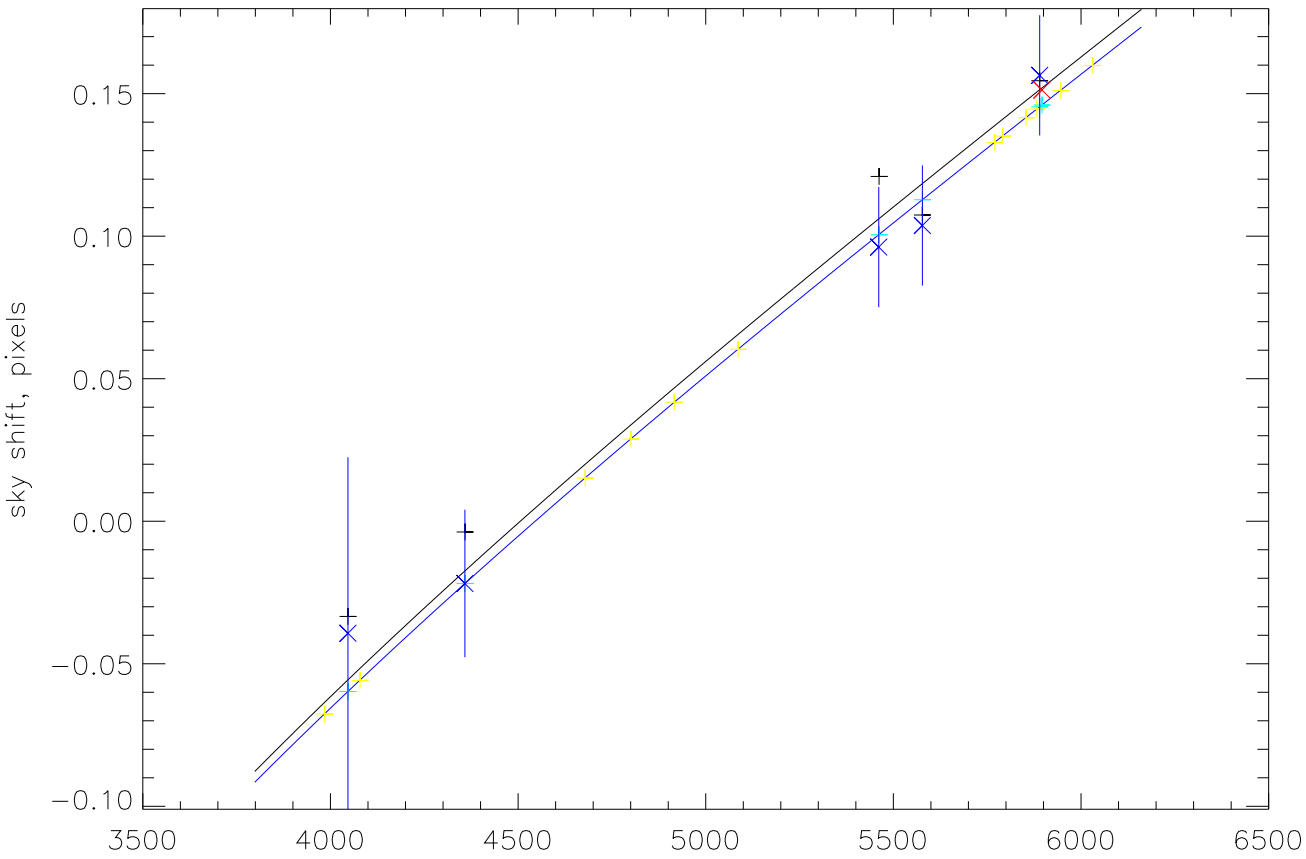

5460.9400
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

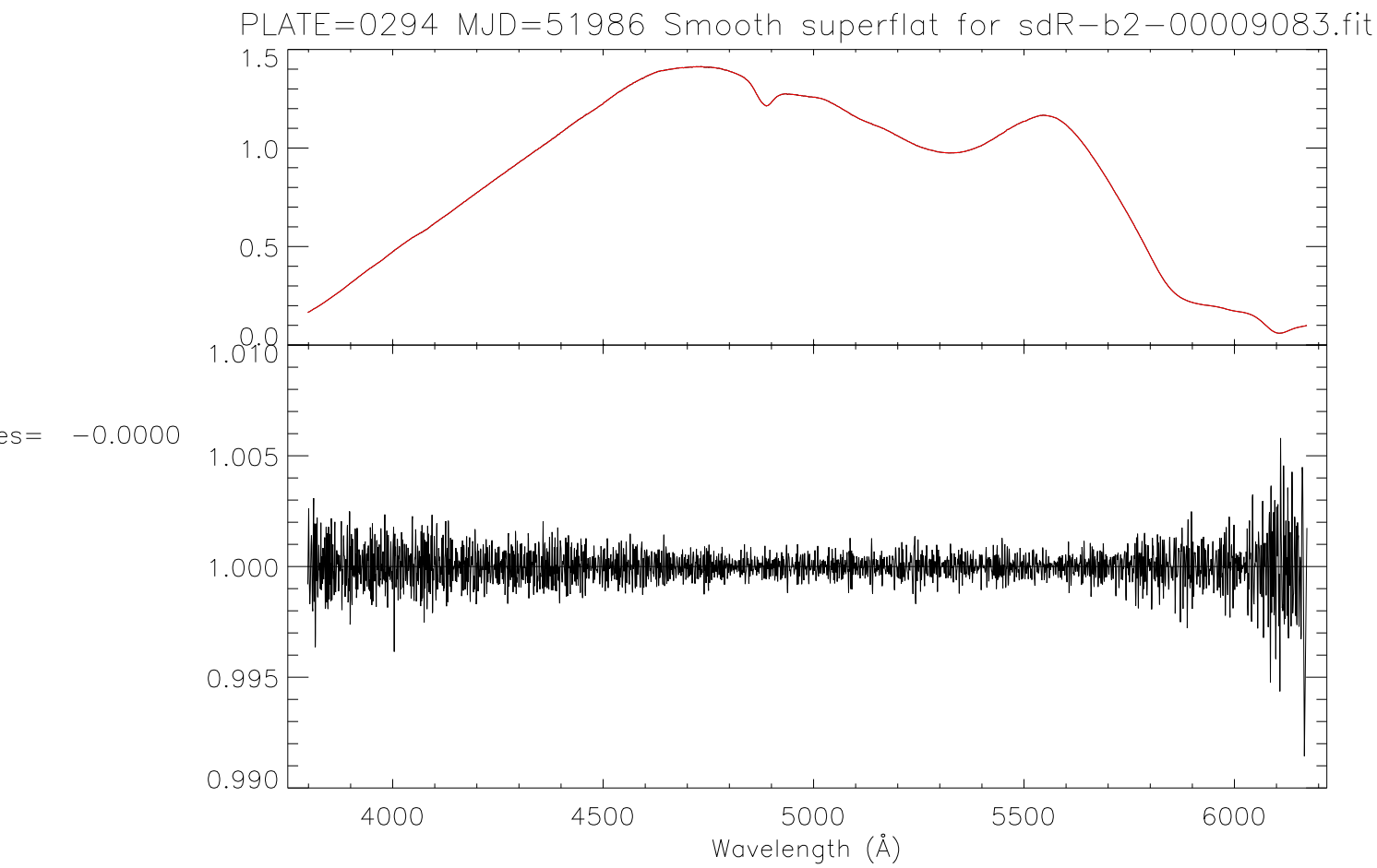

5577.3390
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

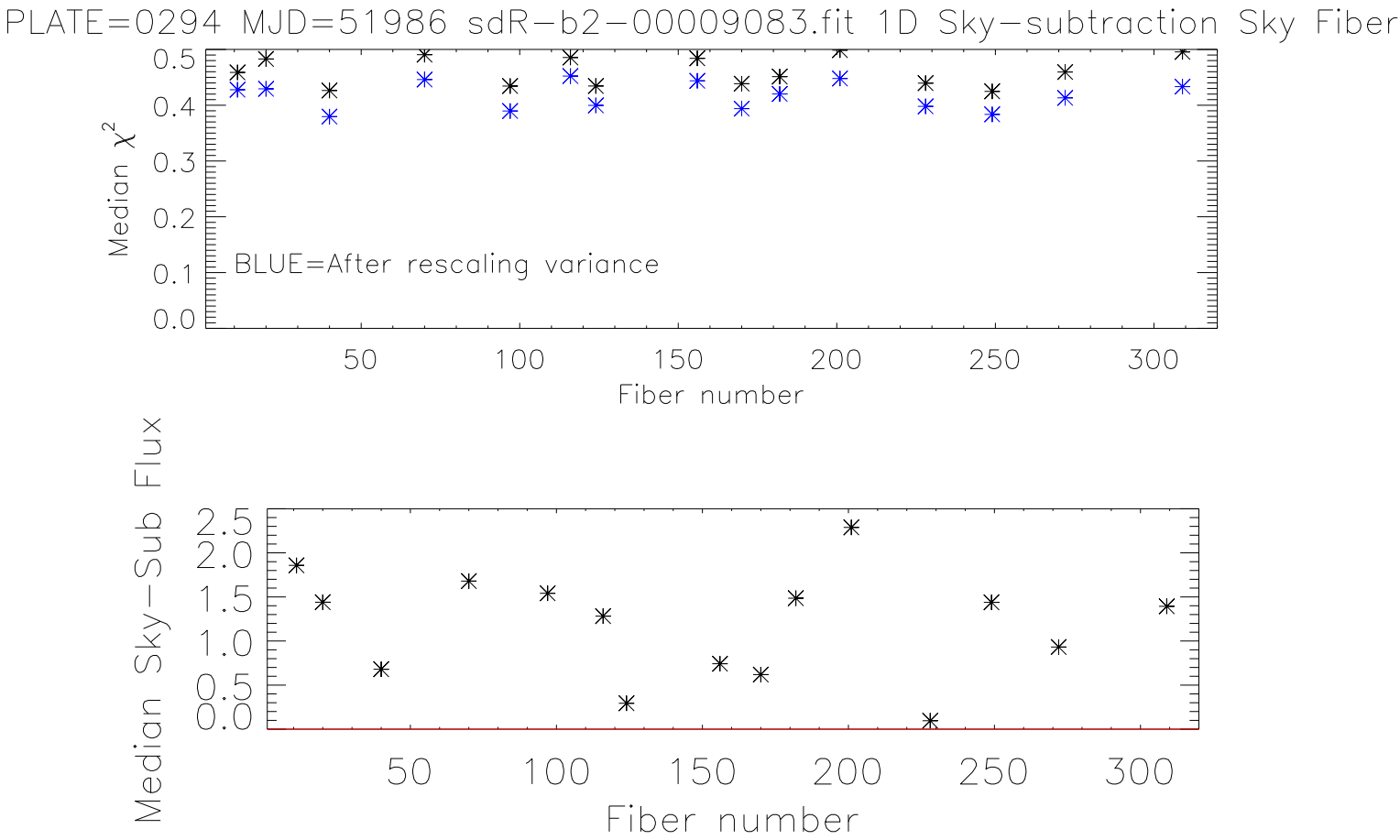

5889.9500
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

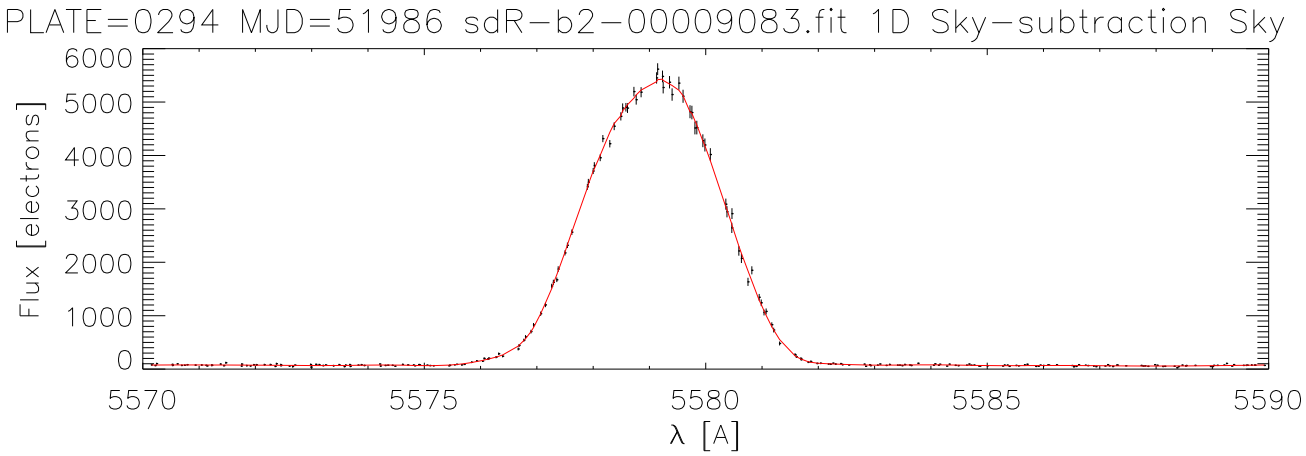

5895.9240
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

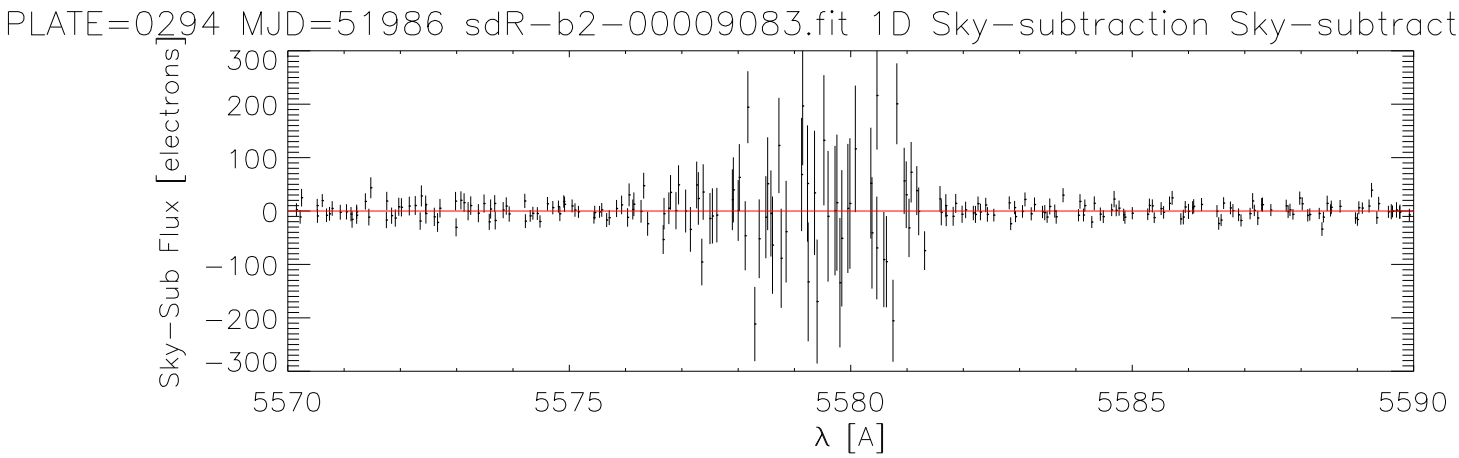

4046.5600
nfib1 16
nfib2 16
stdev 0.132
extra −0.04
4358.3300
nfib1 16
nfib2 16
stdev 0.045
extra −0.02
5460.9400
nfib1 16
nfib2 16
stdev 0.041
extra 0.10
5577.3390
nfib1 16
nfib2 16
stdev 0.014
extra 0.10
5889.9500
nfib1 16
nfib2 16
stdev 0.025
extra 0.16
5895.9240
nfib1 16
nfib2 16
stdev 0.037
extra 0.15
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

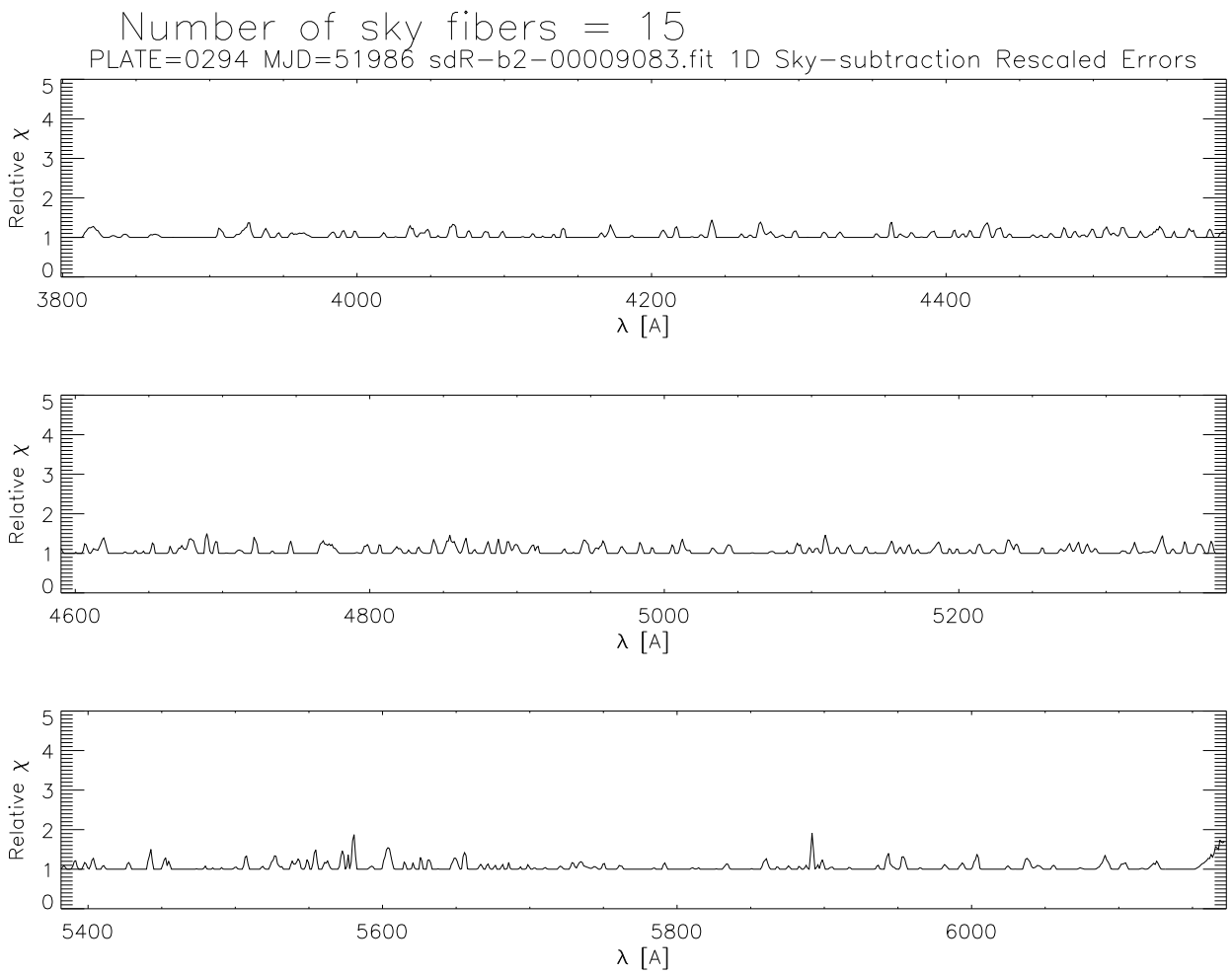

sky shift, pixels
0.15
0.10
0.05
0.00
−0.05
−0.10
3500
4000
4500
5000
5500
6000
6500

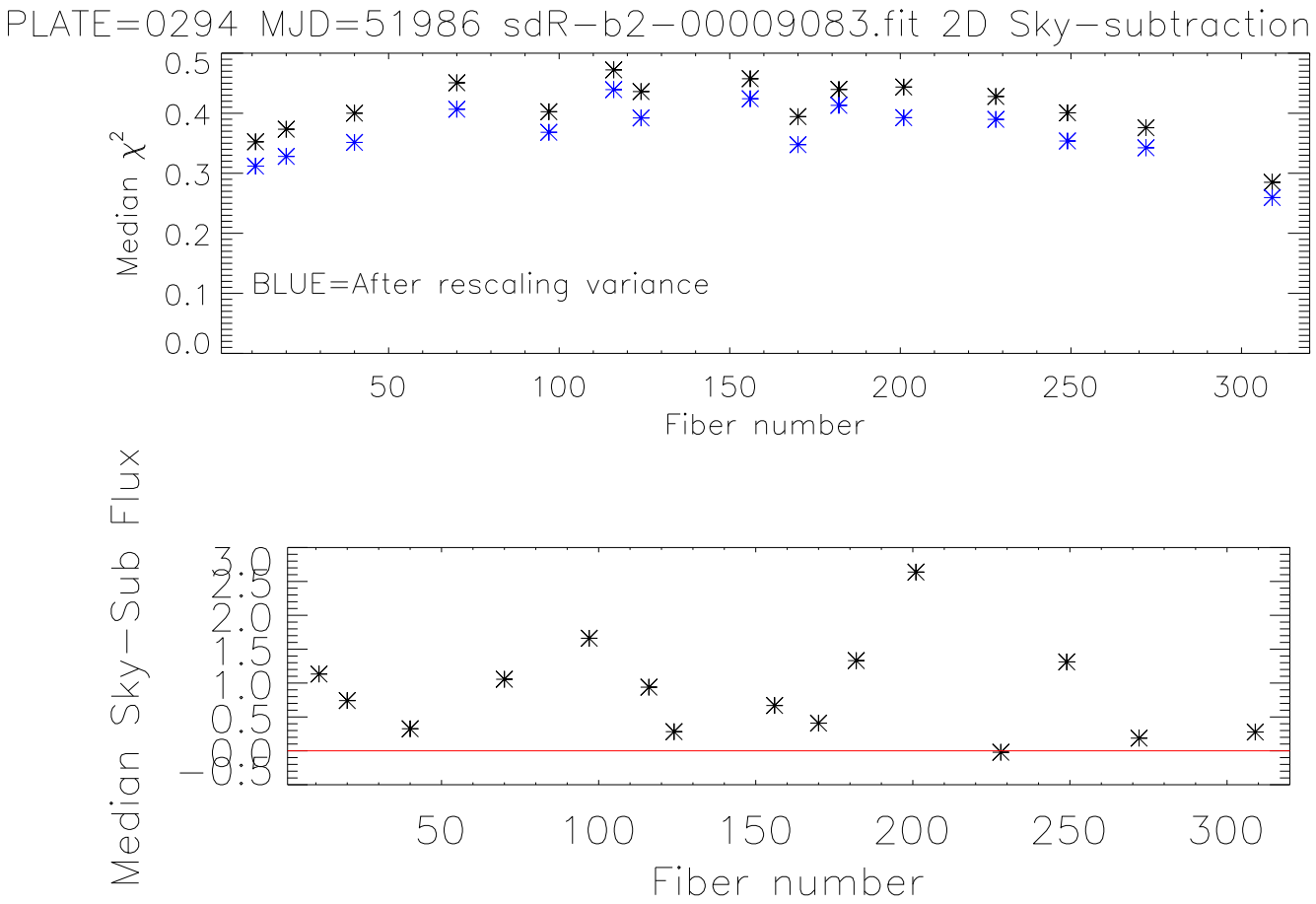

PLATE=0294 MJD=51986 Smooth superflat for sdR-b2-00009083.fit
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
es= -0.0000
4000
4500
5000
5500
6000
Wavelength (Å)

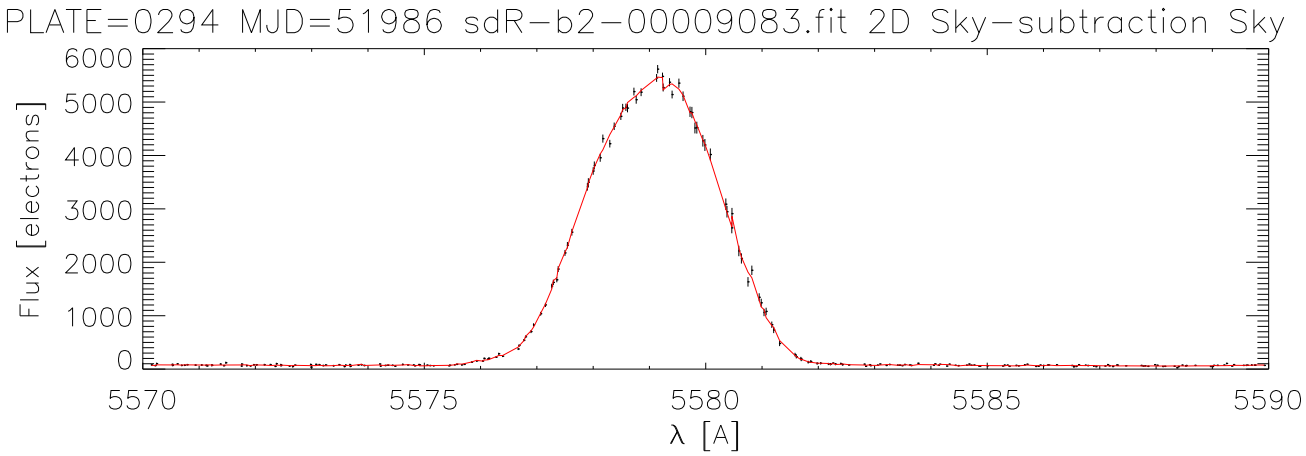

PLATE=0294 MJD=51986 sdR-b2-00009083.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
0.0
0.5
1.0
1.5
2.0
2.5
50
100
150
200
250
300
Fiber number

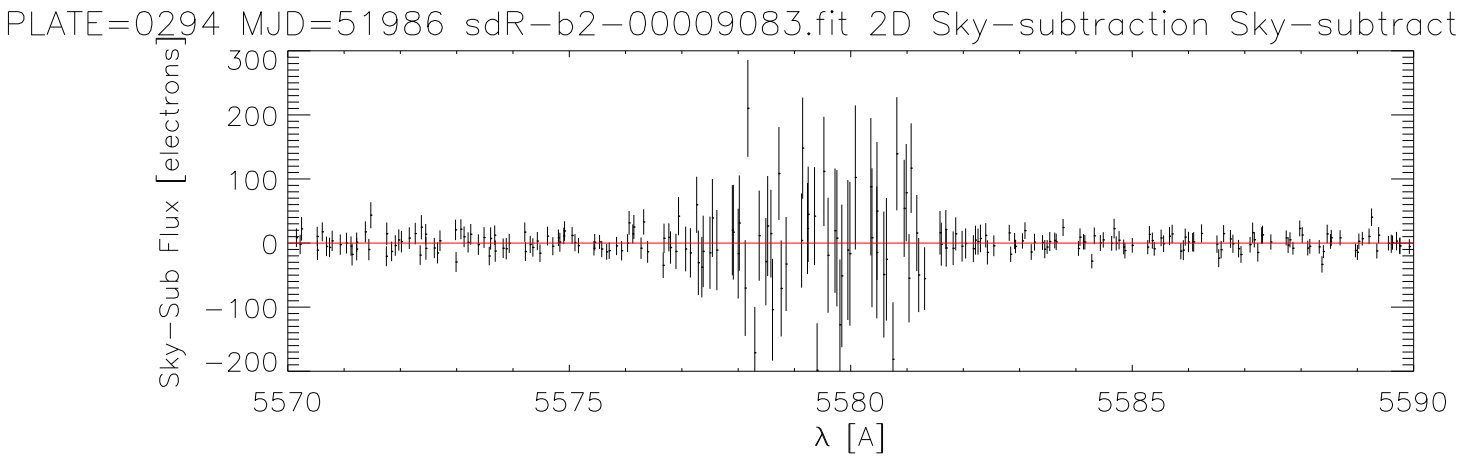

PLATE=0294 MJD=51986 sdR-b2-00009083.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
6000
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

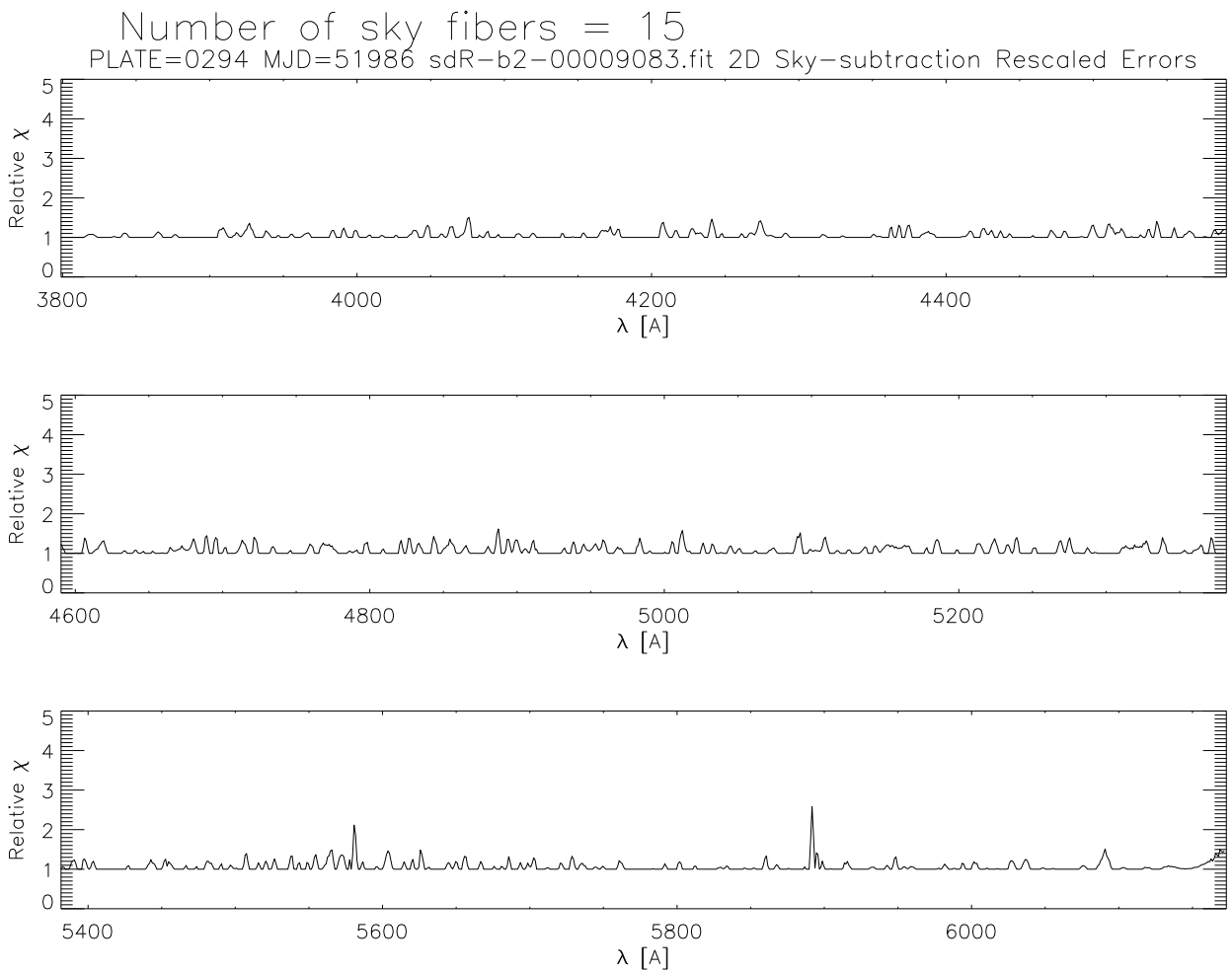

PLATE=0294 MJD=51986 sdR-b2-00009083.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
-300
5570
5575
5580
5585
5590
λ [A]

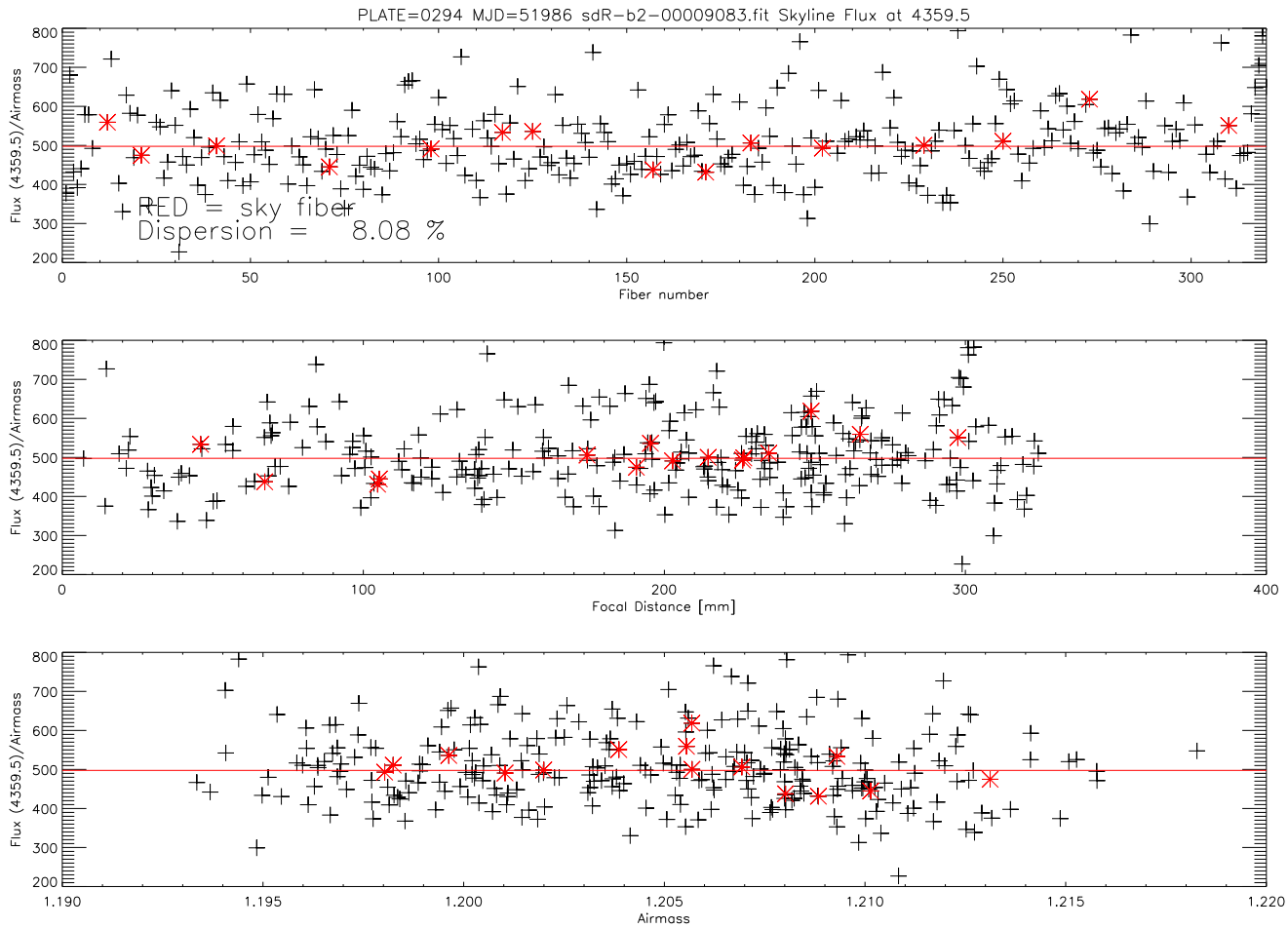

Number of sky fibers = 15
PLATE=0294 MJD=51986 sdR-b2-00009083.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

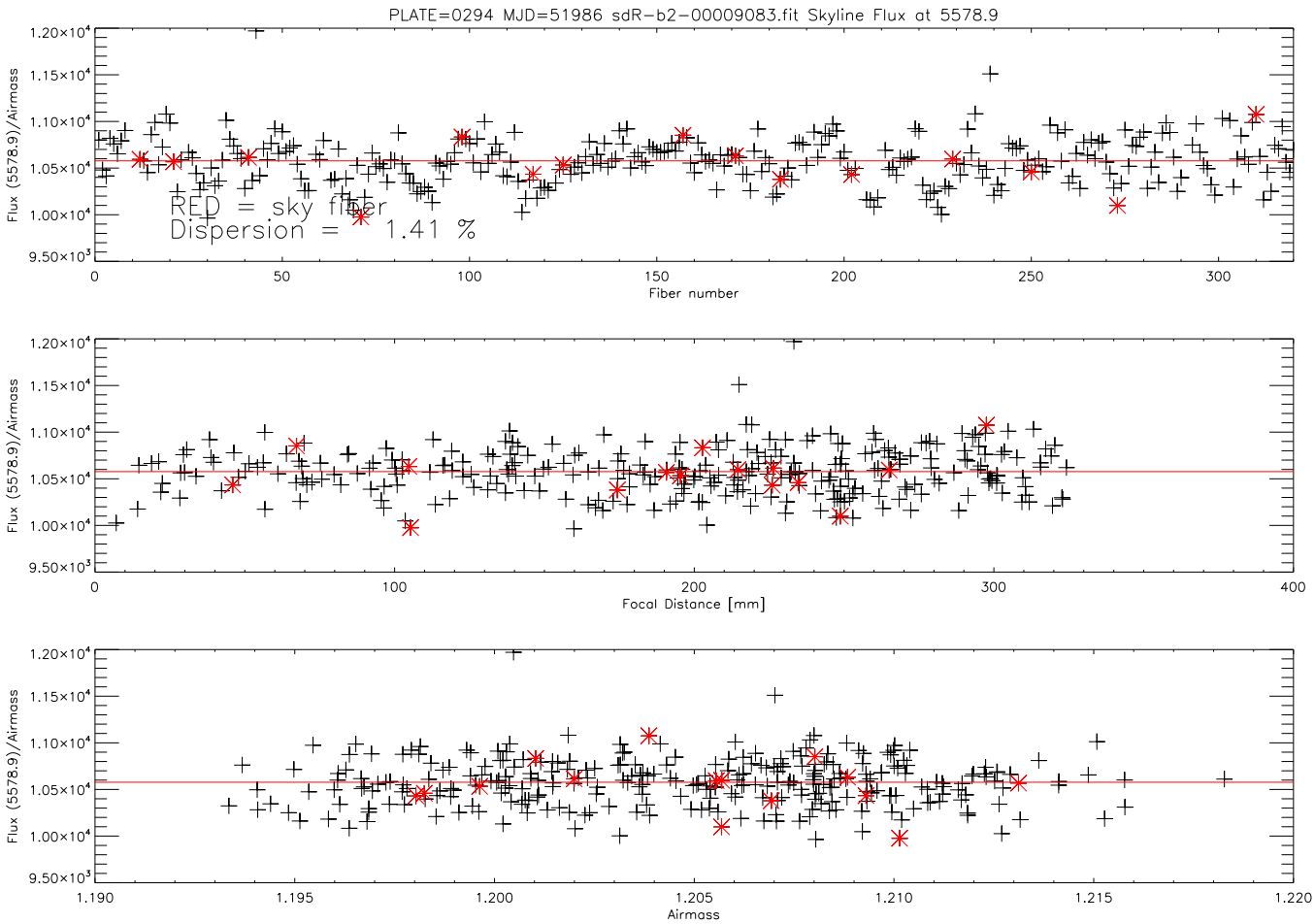

PLATE=0294 MJD=51986 sdR-b2-00009083.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

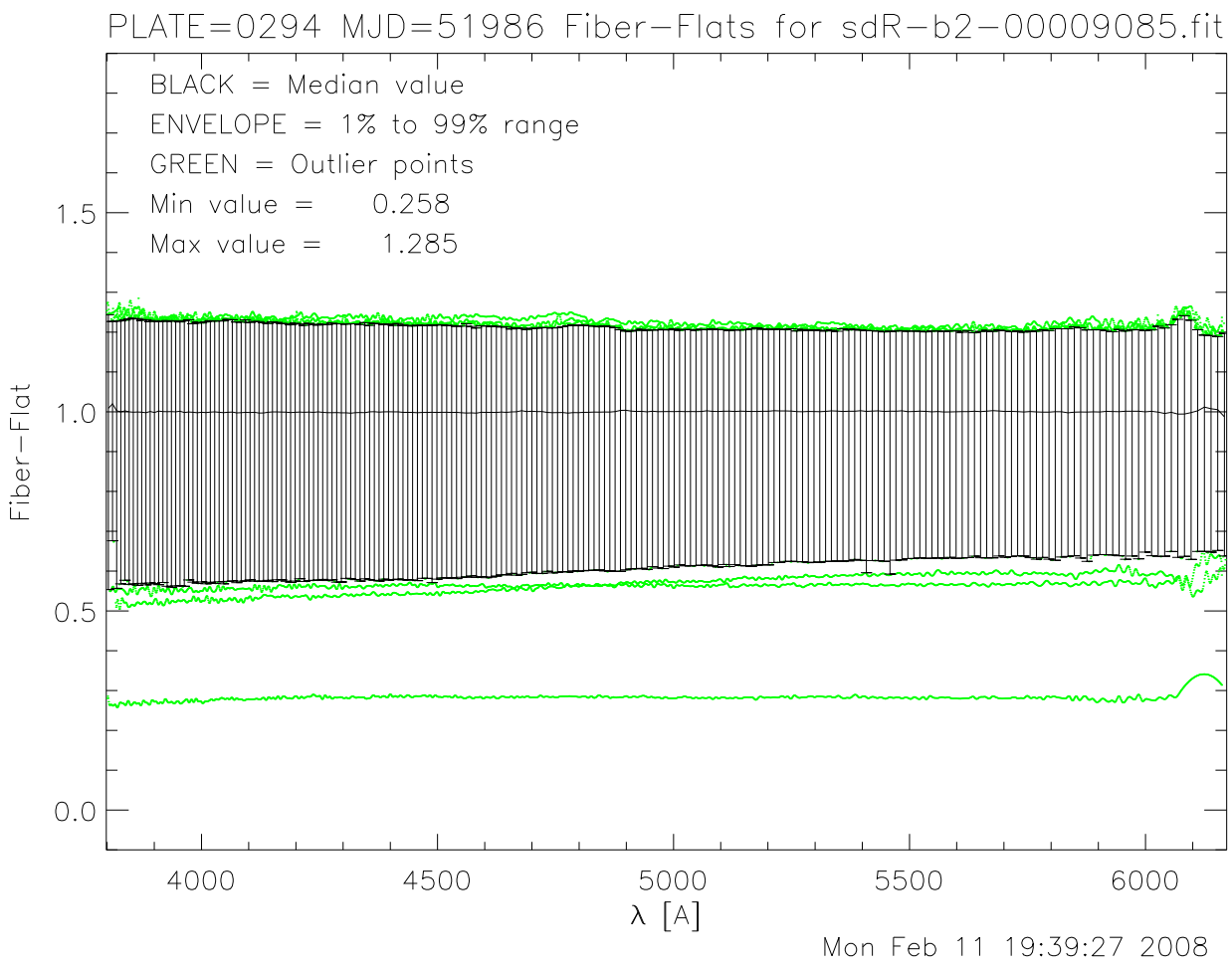

PLATE=0294 MJD=51986 sdR-b2-00009083.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
6000
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

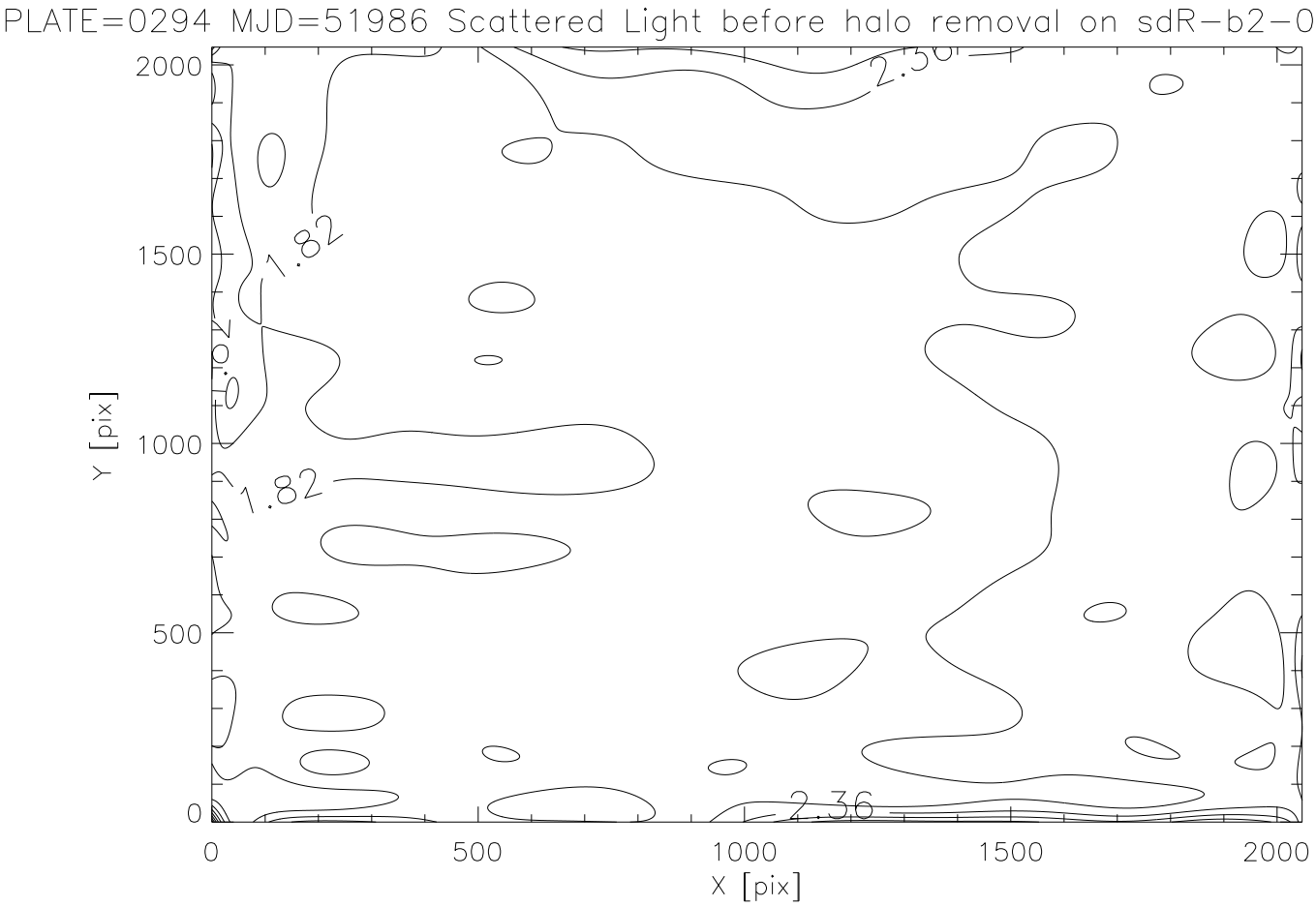

PLATE=0294 MJD=51986 sdR-b2-00009083.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
5570
5575
5580
5585
5590
λ [A]

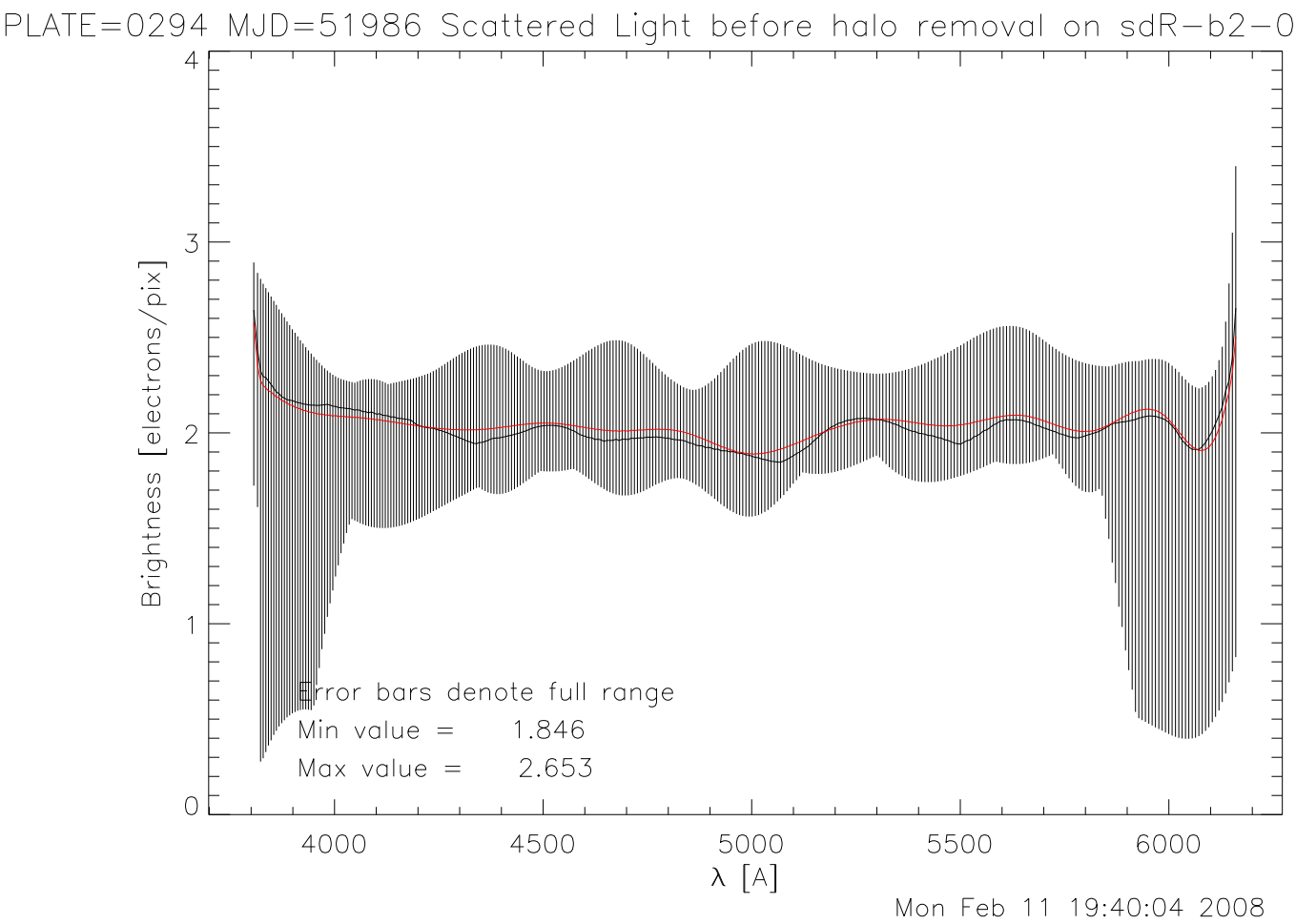

Number of sky fibers = 15
PLATE=0294 MJD=51986 sdR-b2-00009083.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

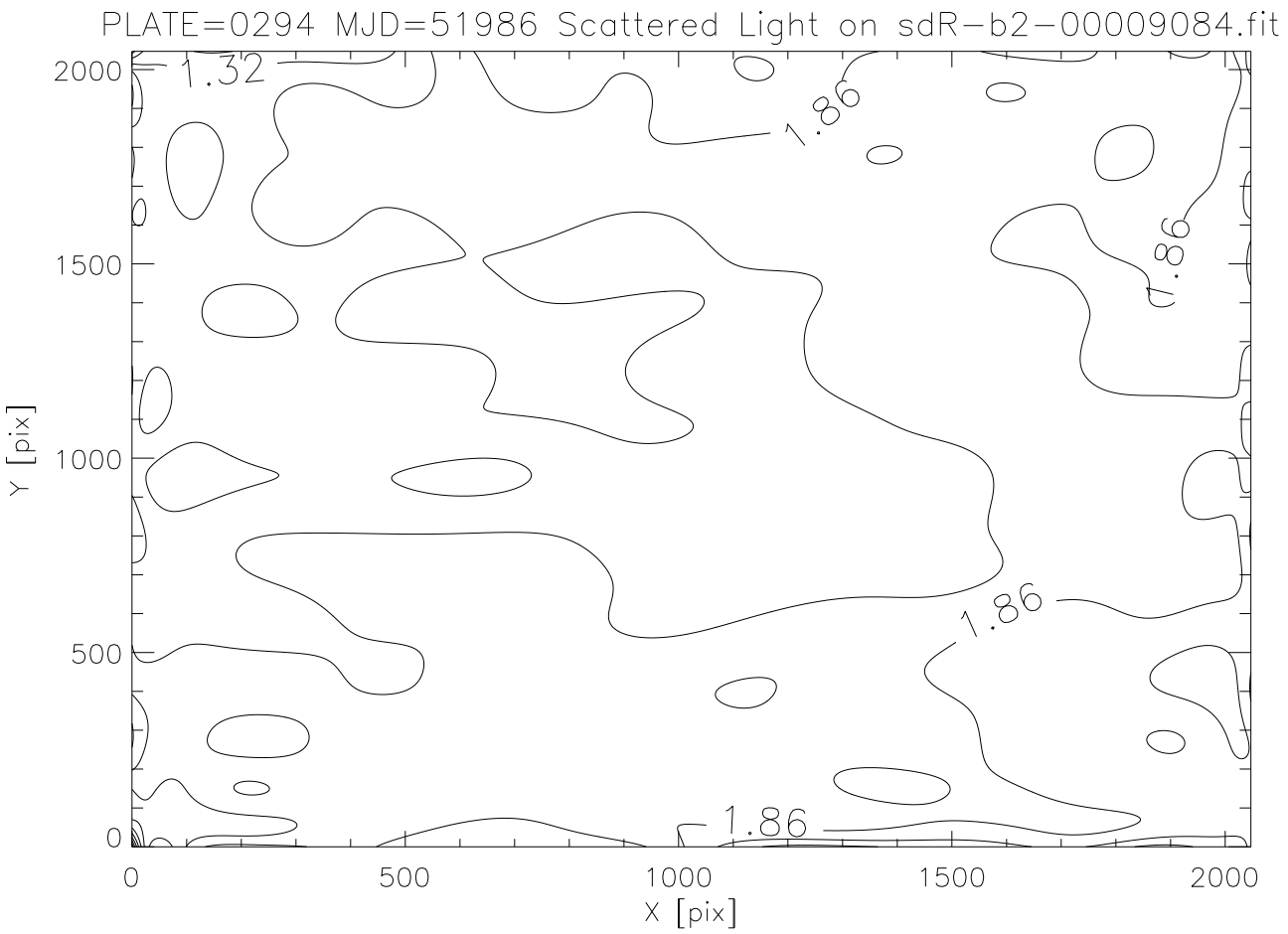

PLATE=0294 MJD=51986 sdR-b2-00009083.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
Fiber number
RED = sky fiber
Dispersion = 8.08 %
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

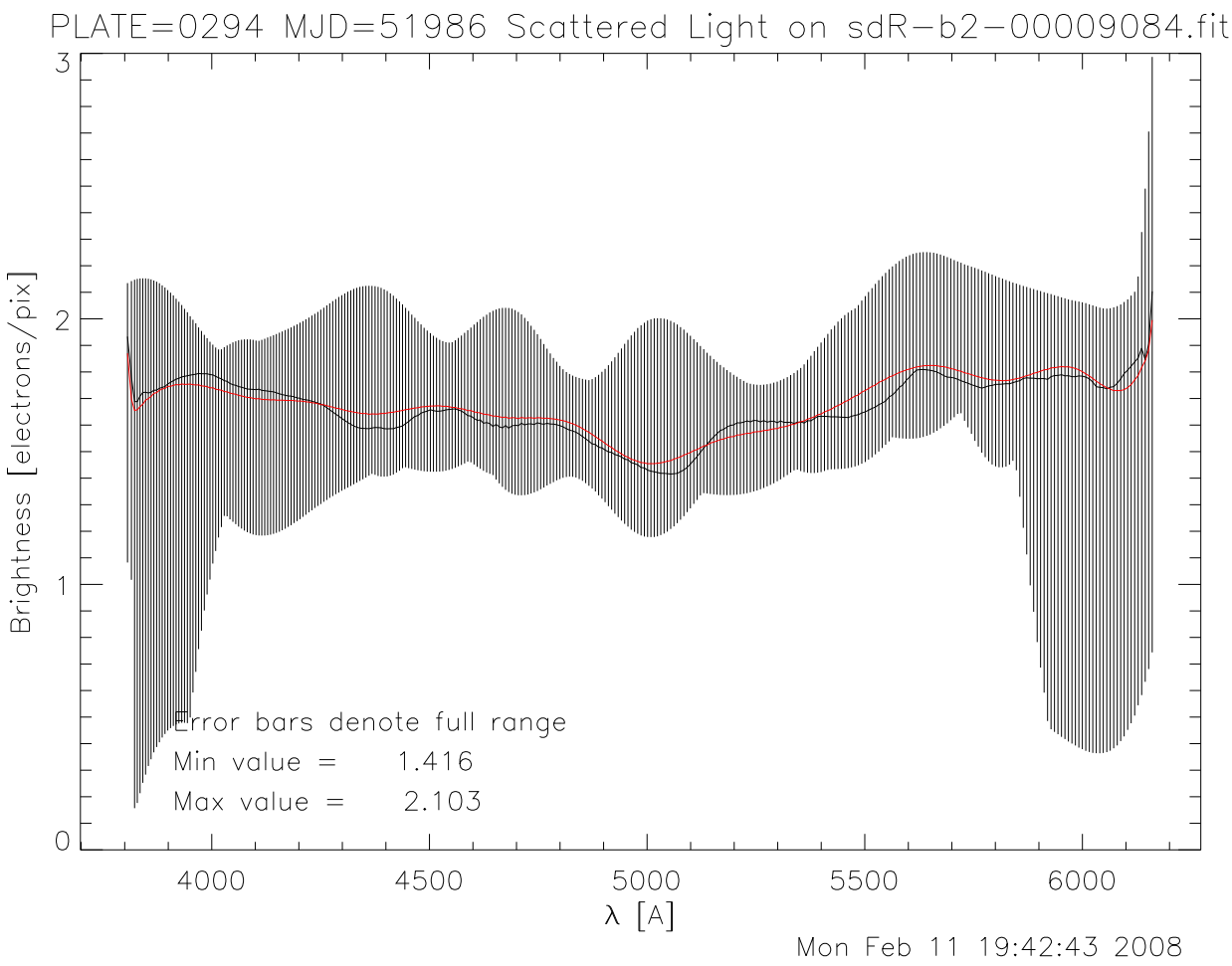

PLATE=0294 MJD=51986 sdR-b2-00009083.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
Fiber number
RED = sky fiber
Dispersion = 1.41 %
Flux (5578.9)/Airmass
Focal Distance [mm]
Flux (5578.9)/Airmass
Airmass

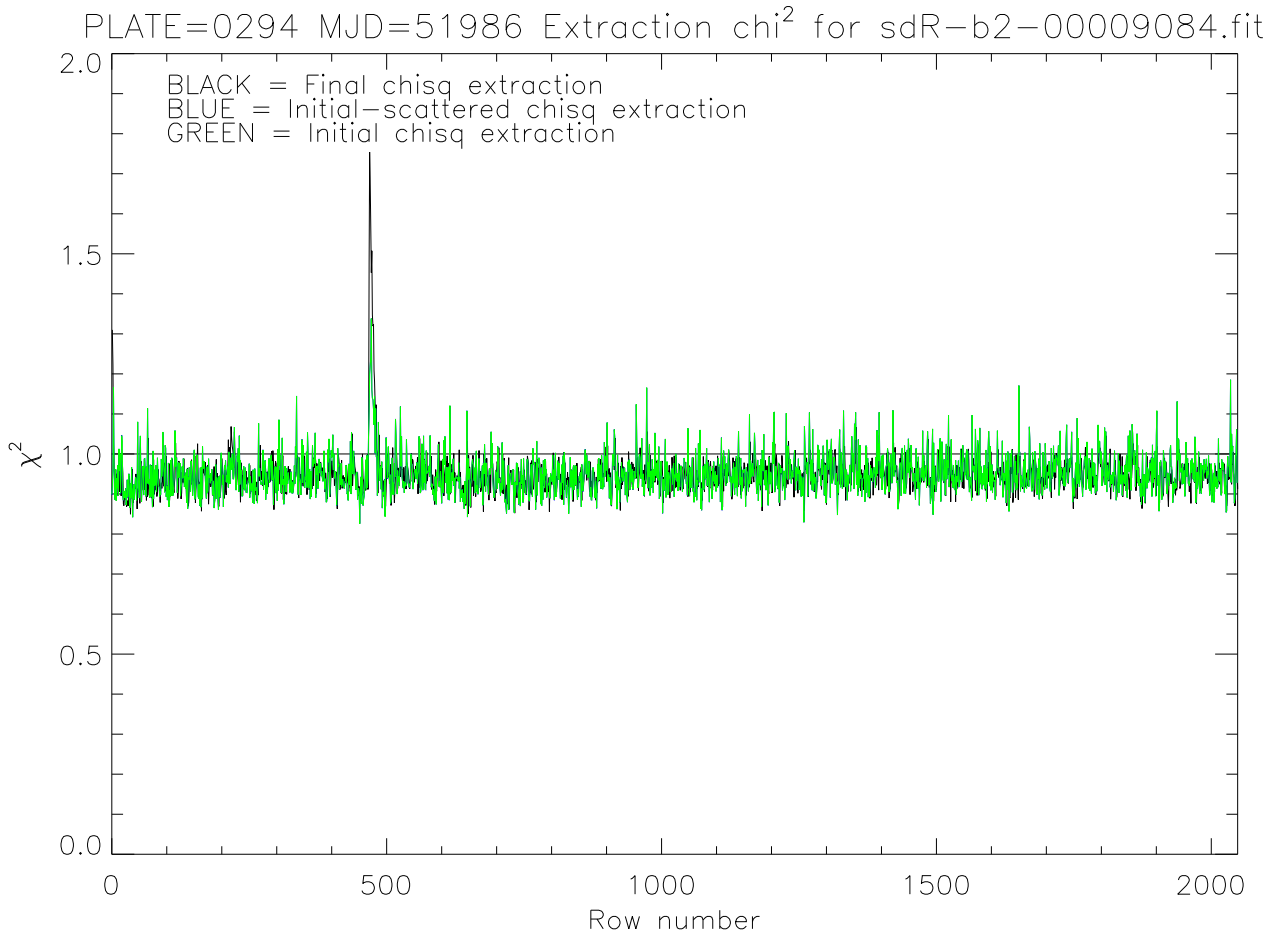

PLATE=0294 MJD=51986 Fiber-Flats for sdR-b2-00009085.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.258
Max value = 1.285
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Mon Feb 11 19:39:27 2008

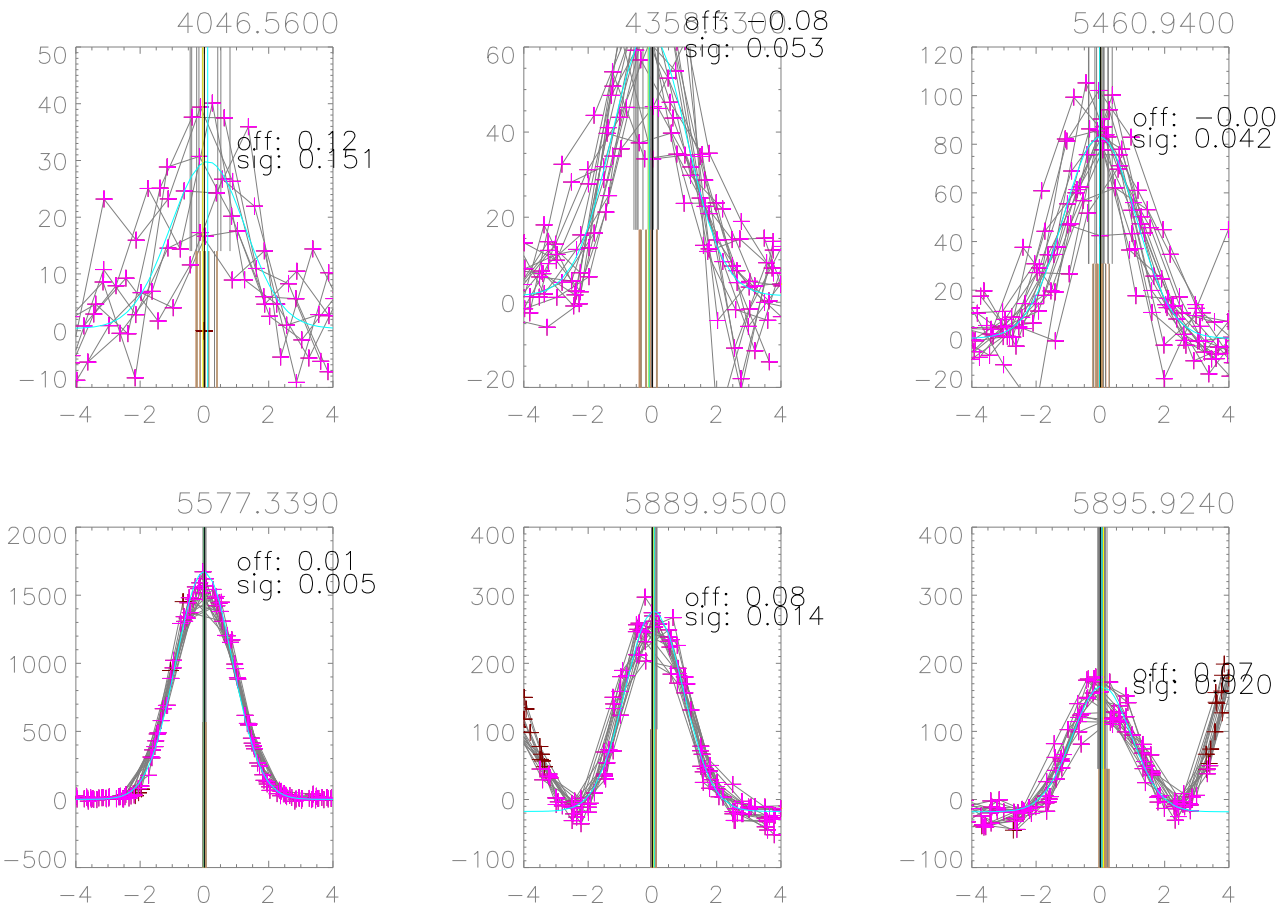

PLATE=0294 MJD=51986 Scattered Light before halo removal on sdR−b2−00009084.f
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
2.36
1.82
1.82
2.36

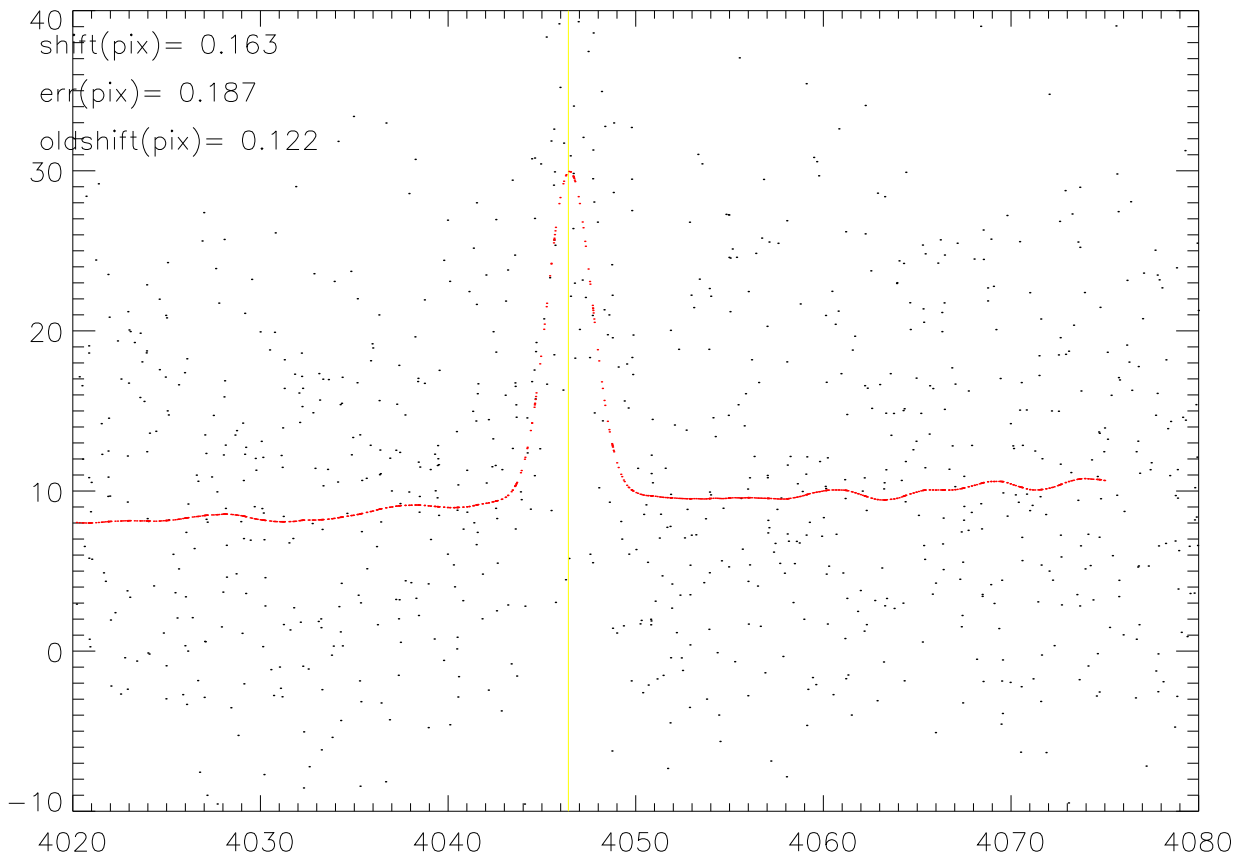

PLATE=0294 MJD=51986 Scattered Light before halo removal on sdR-b2-00009084.f
Brightness [electrons/pix]
0
1
2
3
4
Error bars denote full range
Min value = 1.846
Max value = 2.653
4000
4500
5000
5500
6000
λ [A]
Mon Feb 11 19:40:04 2008

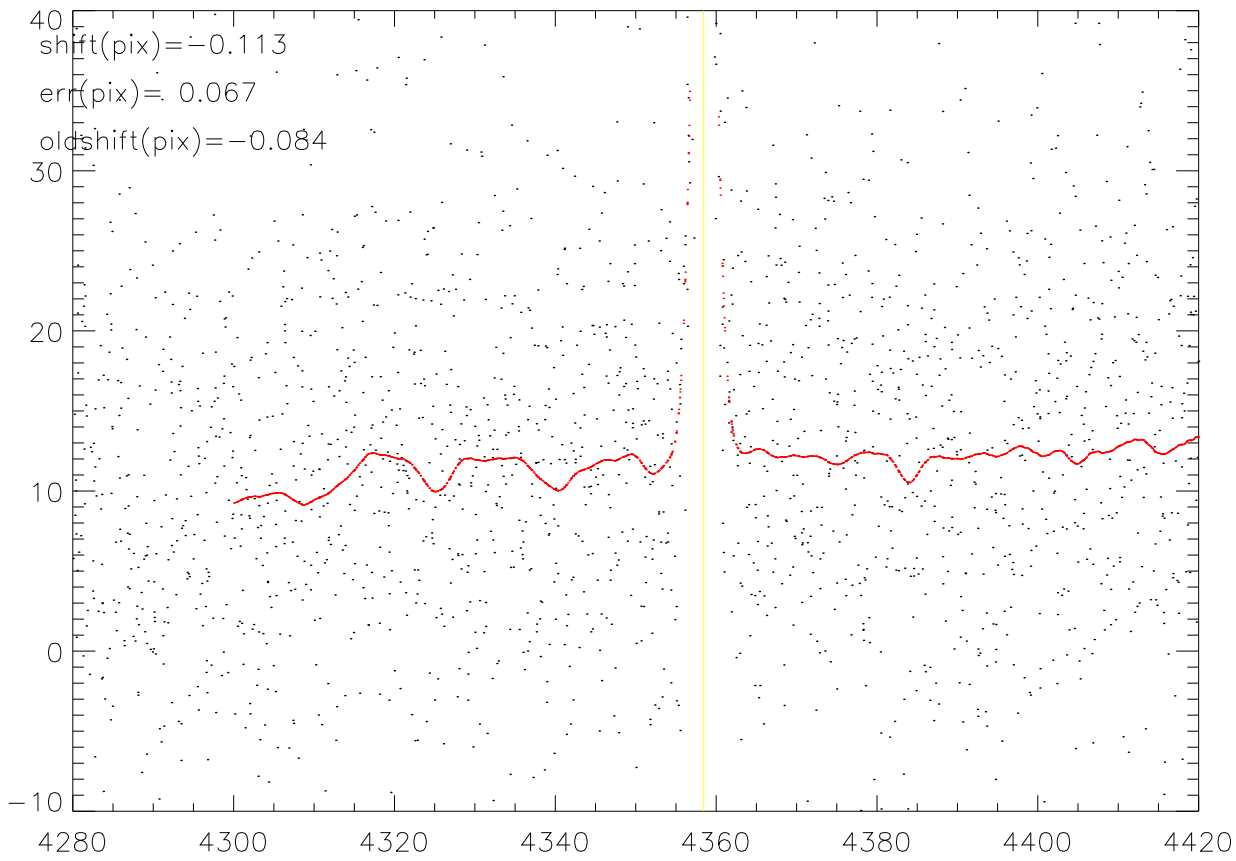

PLATE=0294 MJD=51986 Scattered Light on sdR-b2-00009084.fit
1.32
1.86
1.86
1.86
1.86
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]

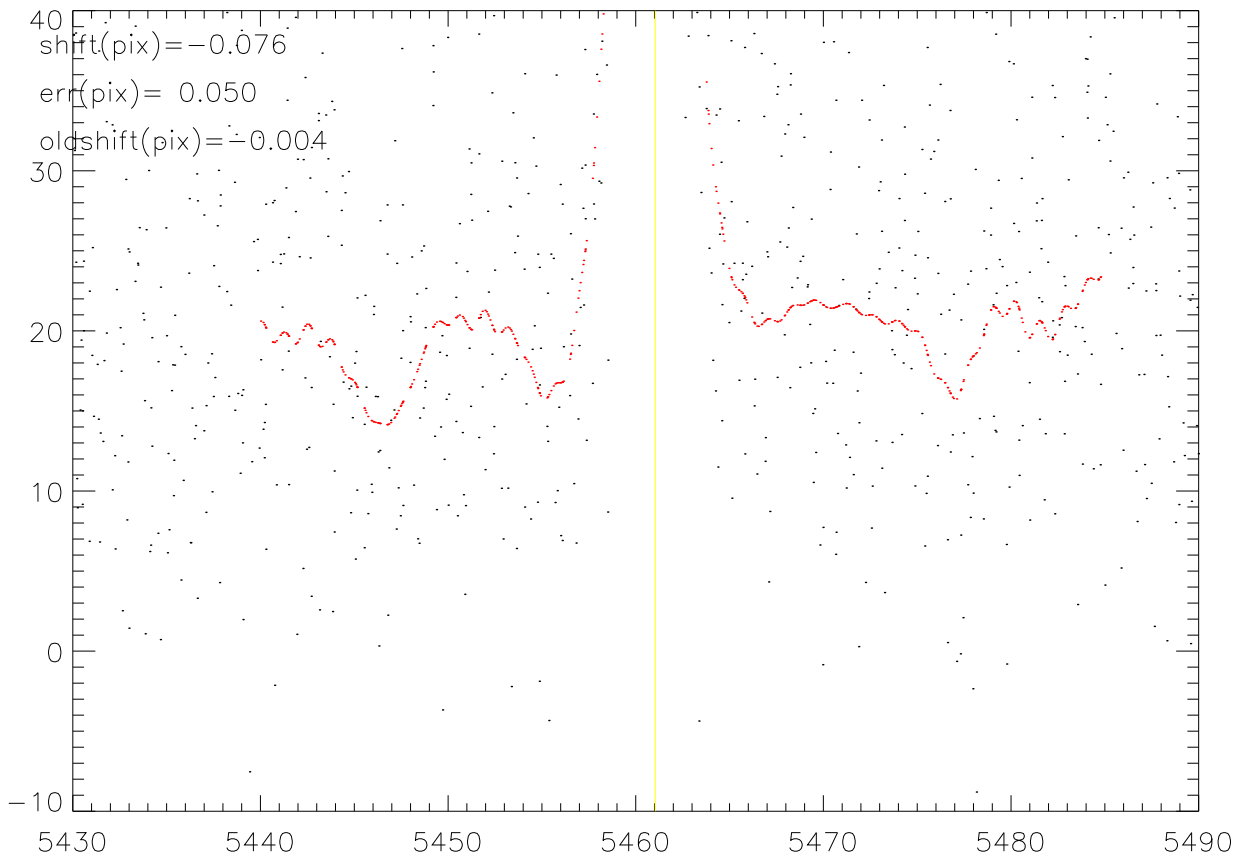

PLATE=0294 MJD=51986 Scattered Light on sdR-b2-00009084.fit
Brightness [electrons/pix]
3
2
1
0
Error bars denote full range
Min value = 1.416
Max value = 2.103
4000
4500
5000
5500
6000
λ [A]
Mon Feb 11 19:42:43 2008

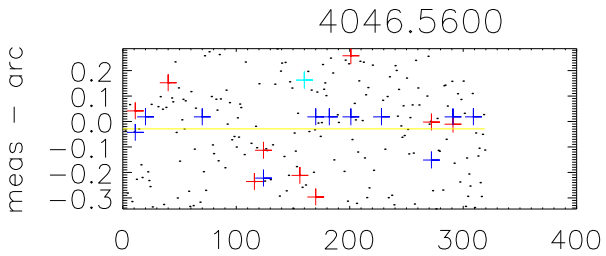

PLATE=0294 MJD=51986 Extraction chi^2 for sdR-b2-00009084.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
2.0
1.5
1.0
0.5
0.0
0
500
1000
1500
2000
Row number

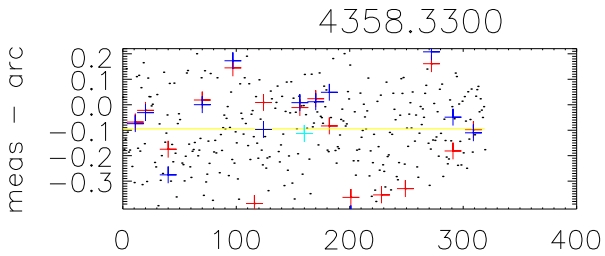

4046.5600
off: 0.12
sig: 0.151
4358.3300
off: −0.08
sig: 0.053
5460.9400
off: −0.00
sig: 0.042
5577.3390
off: 0.01
sig: 0.005
5889.9500
off: 0.08
sig: 0.014
5895.9240
off: 0.07
sig: 0.020

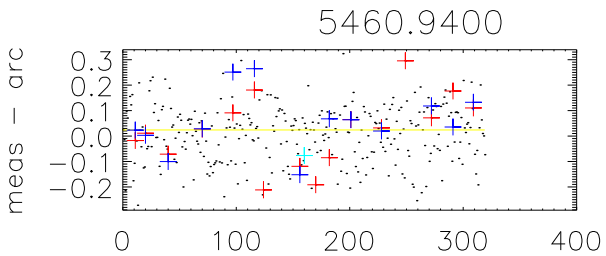

shift(pix)= 0.163
err(pix)= 0.187
oldshift(pix)= 0.122
40
30
20
10
0
−10
4020
4030
4040
4050
4060
4070
4080

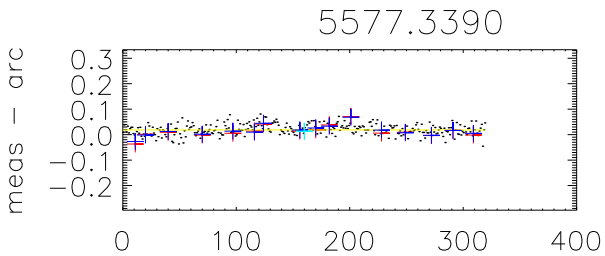

shift(pix)=−0.113
err(pix)= 0.067
oldshift(pix)=−0.084
40
30
20
10
0
−10
4280
4300
4320
4340
4360
4380
4400
4420

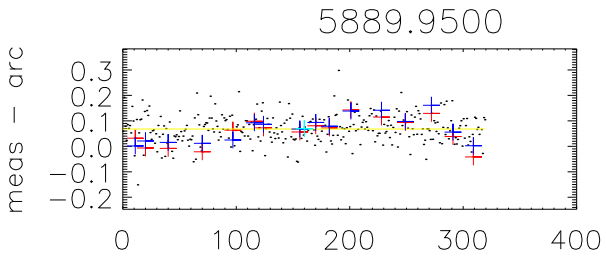

shift(pix)=−0.076
err(pix)= 0.050
oldshift(pix)=−0.004
40
30
20
10
0
−10
5430
5440
5450
5460
5470
5480
5490

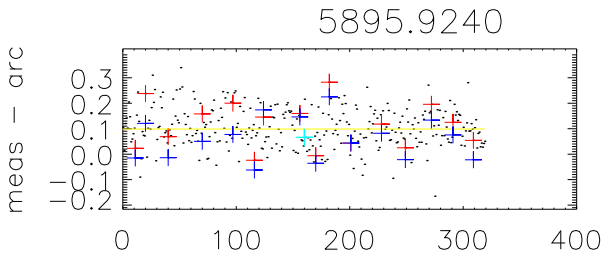

4046.5600
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

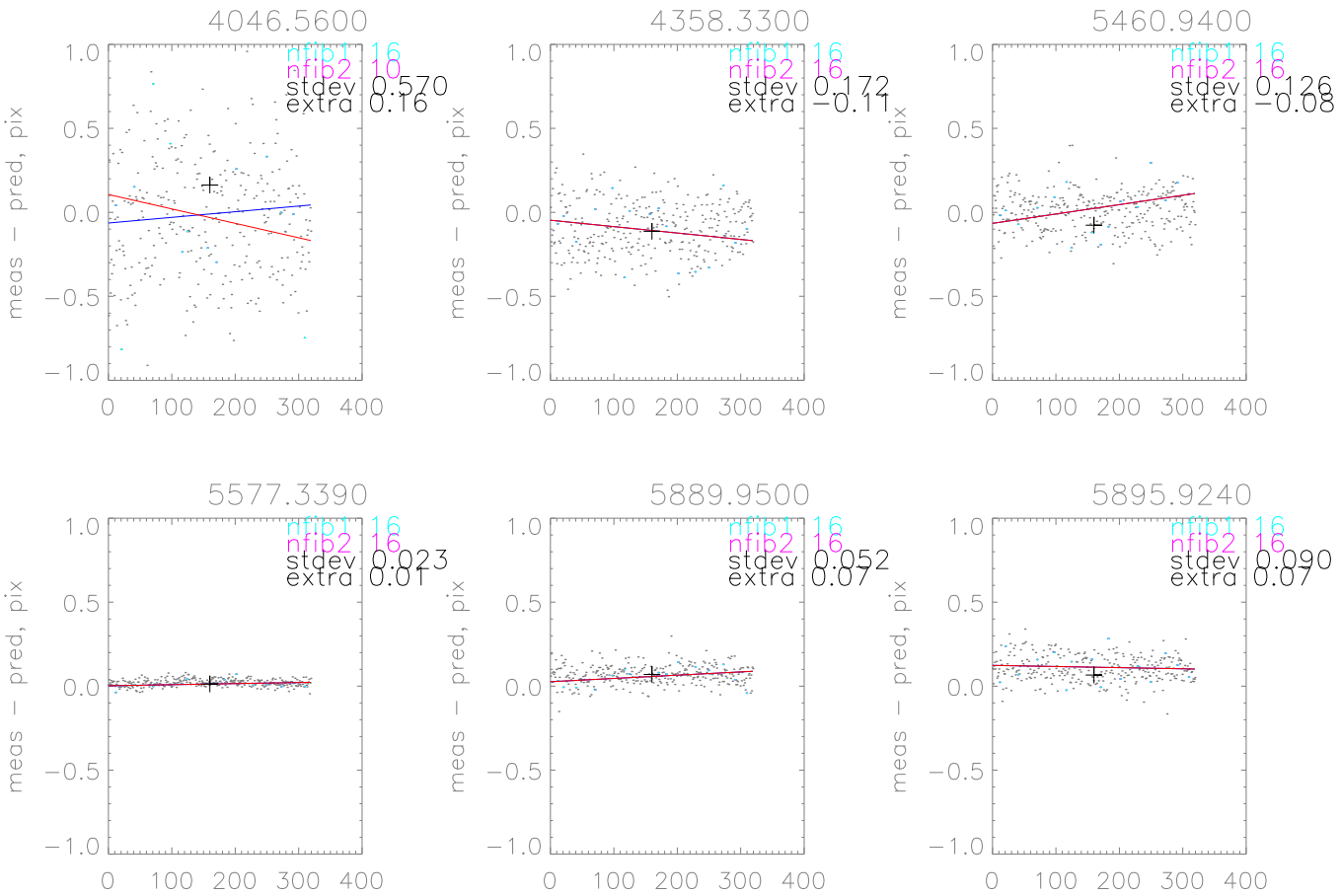

4358.3300
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

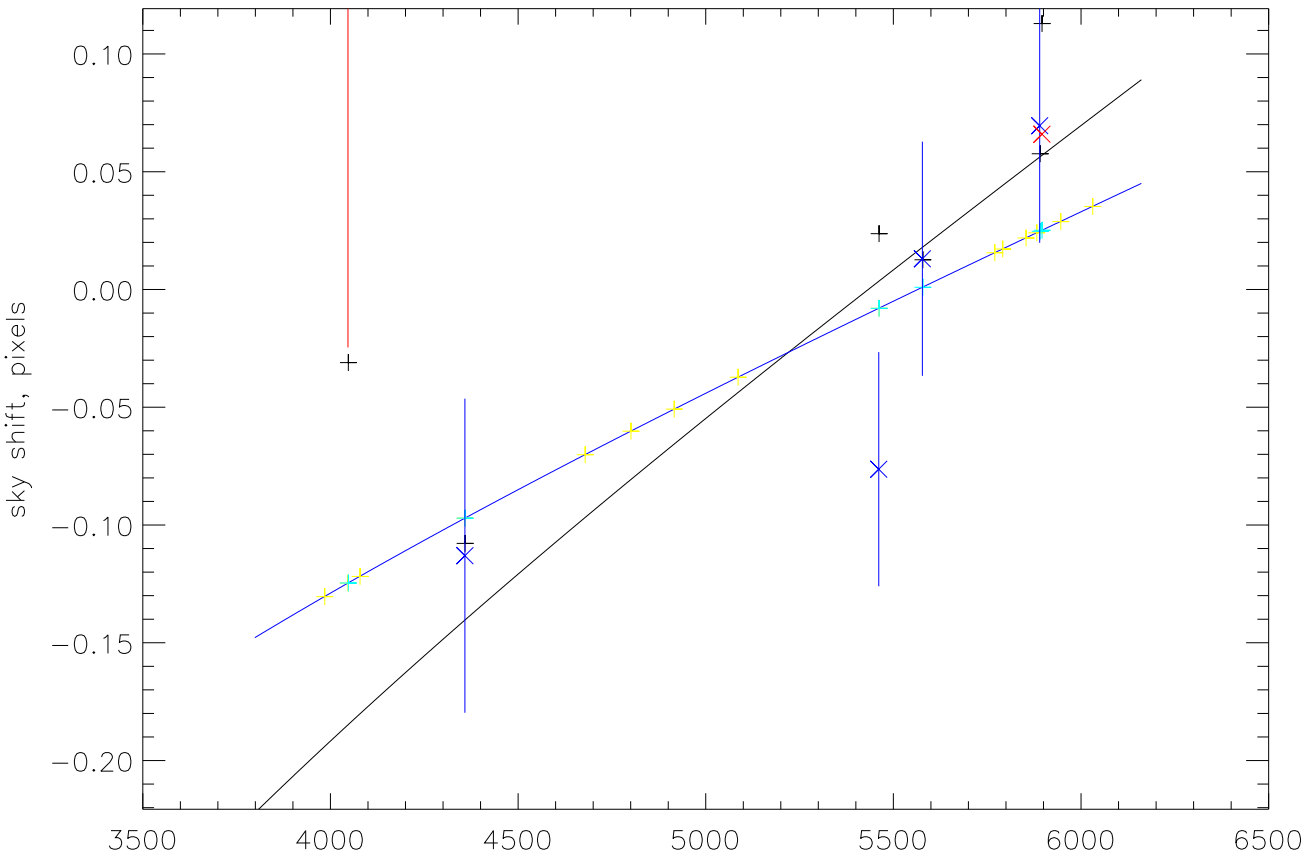

5460.9400
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

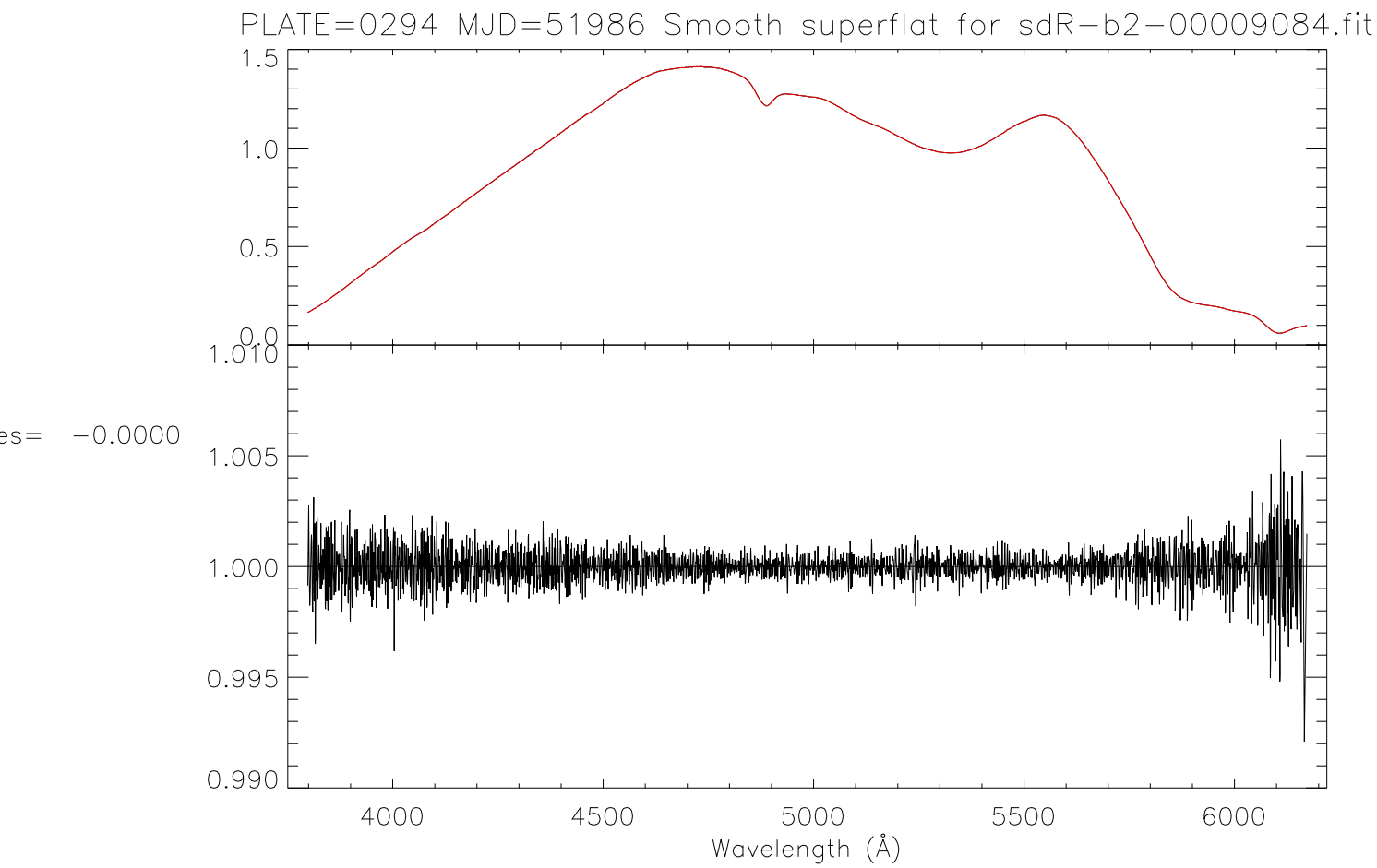

5577.3390
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400


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

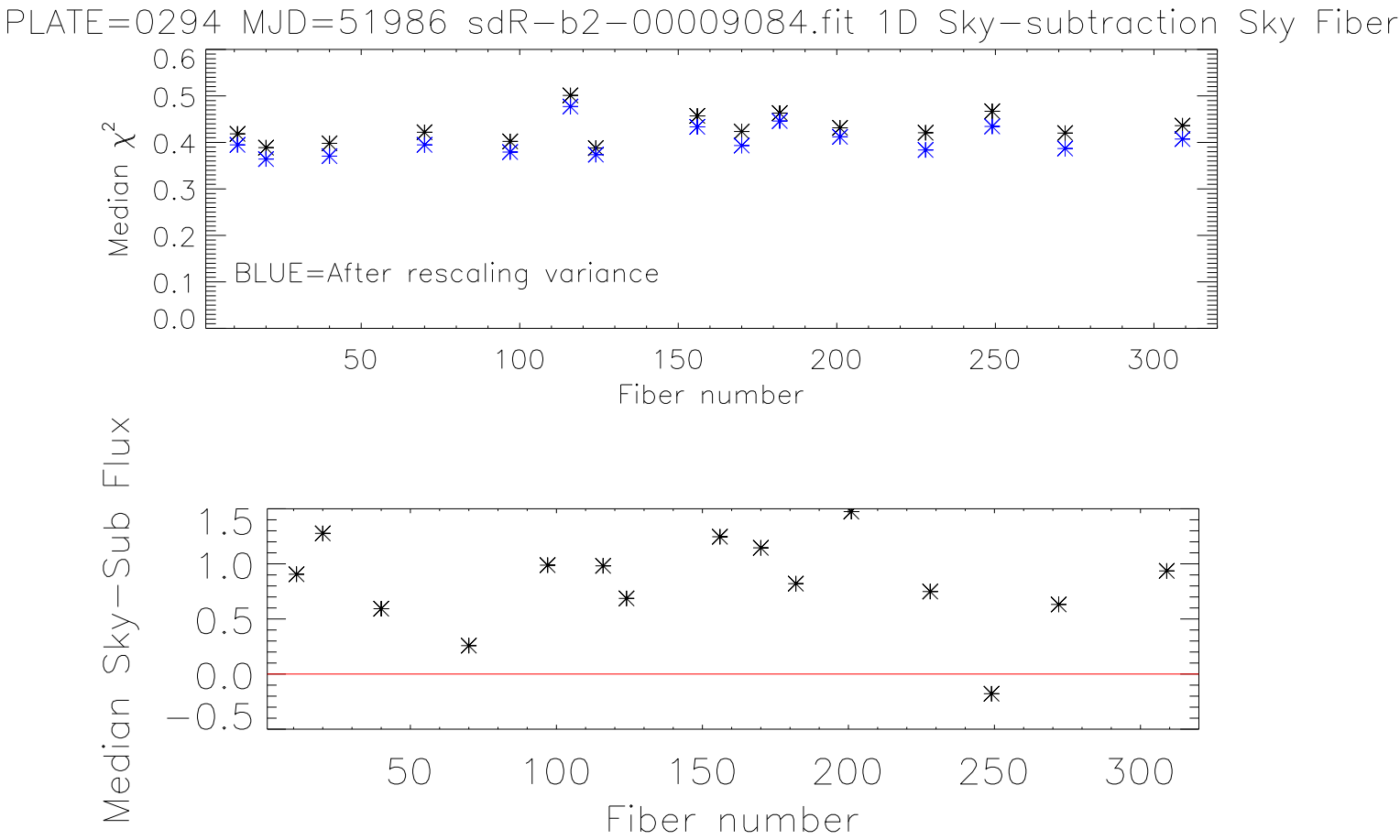

5895.9240
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

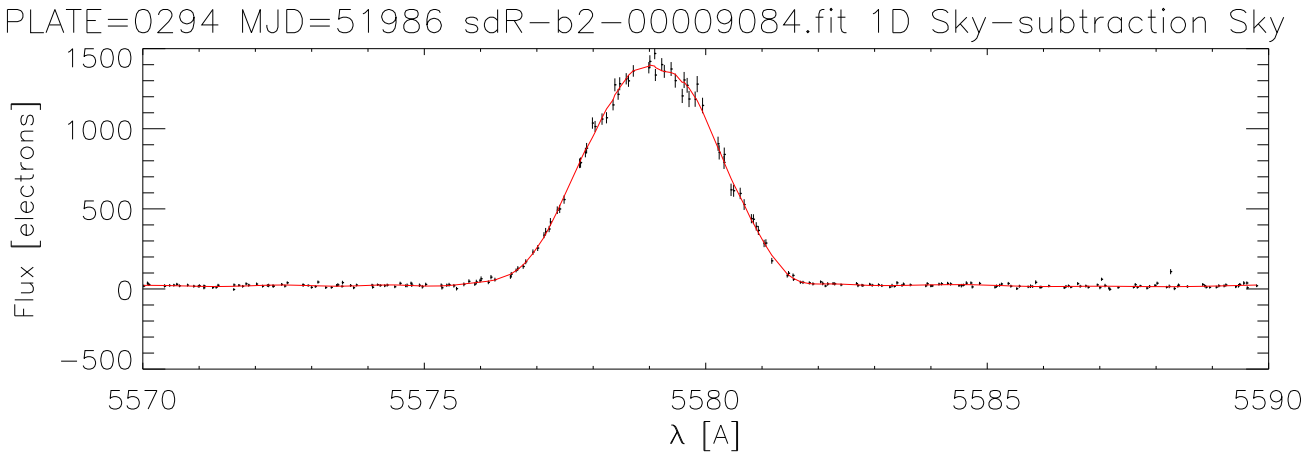

4046.5600
nfib1 16
nfib2 10
stdev 0.570
extra 0.16
4358.3300
nfib1 16
nfib2 16
stdev 0.172
extra −0.11
5460.9400
nfib1 16
nfib2 16
stdev 0.126
extra −0.08
5577.3390
nfib1 16
nfib2 16
stdev 0.023
extra 0.01
5889.9500
nfib1 16
nfib2 16
stdev 0.052
extra 0.07
5895.9240
nfib1 16
nfib2 16
stdev 0.090
extra 0.07
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

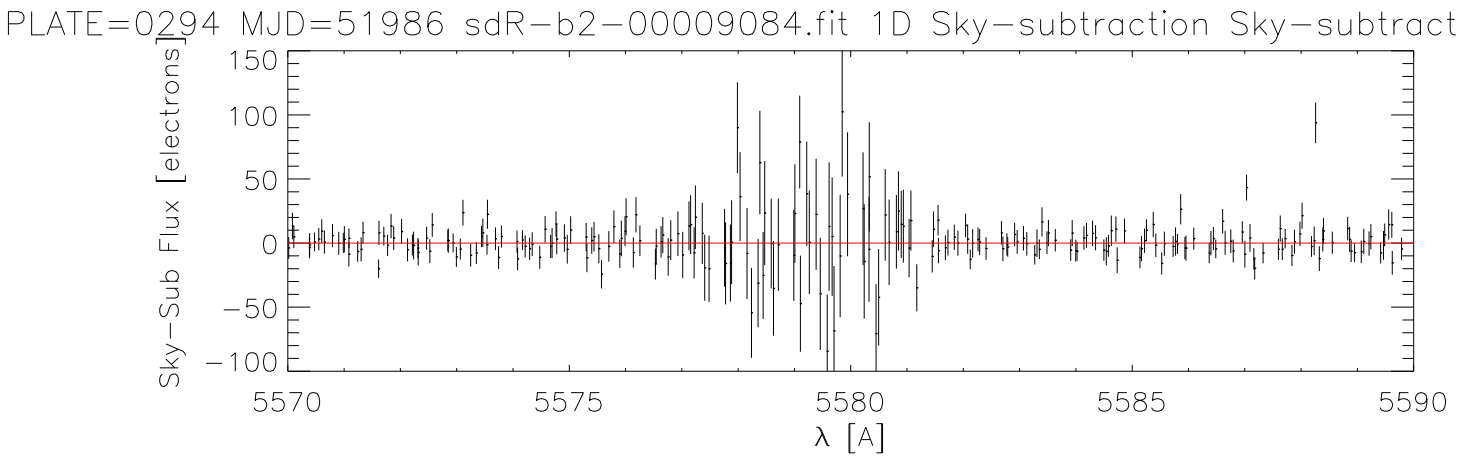

sky shift, pixels
0.10
0.05
0.00
−0.05
−0.10
−0.15
−0.20
3500
4000
4500
5000
5500
6000
6500

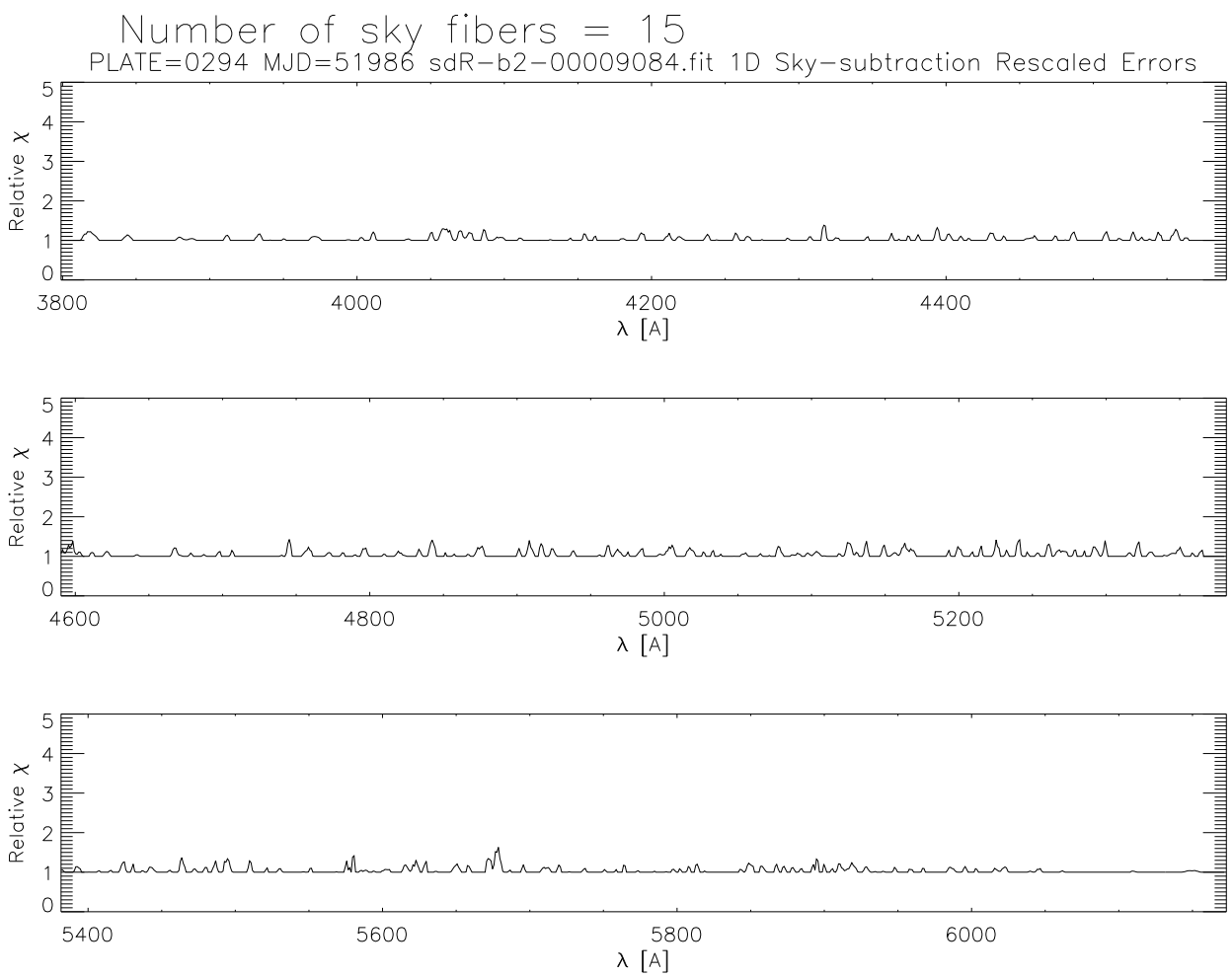

PLATE=0294 MJD=51986 Smooth superflat for sdR-b2-00009084.fit
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
4000
4500
5000
5500
6000
Wavelength (Å)

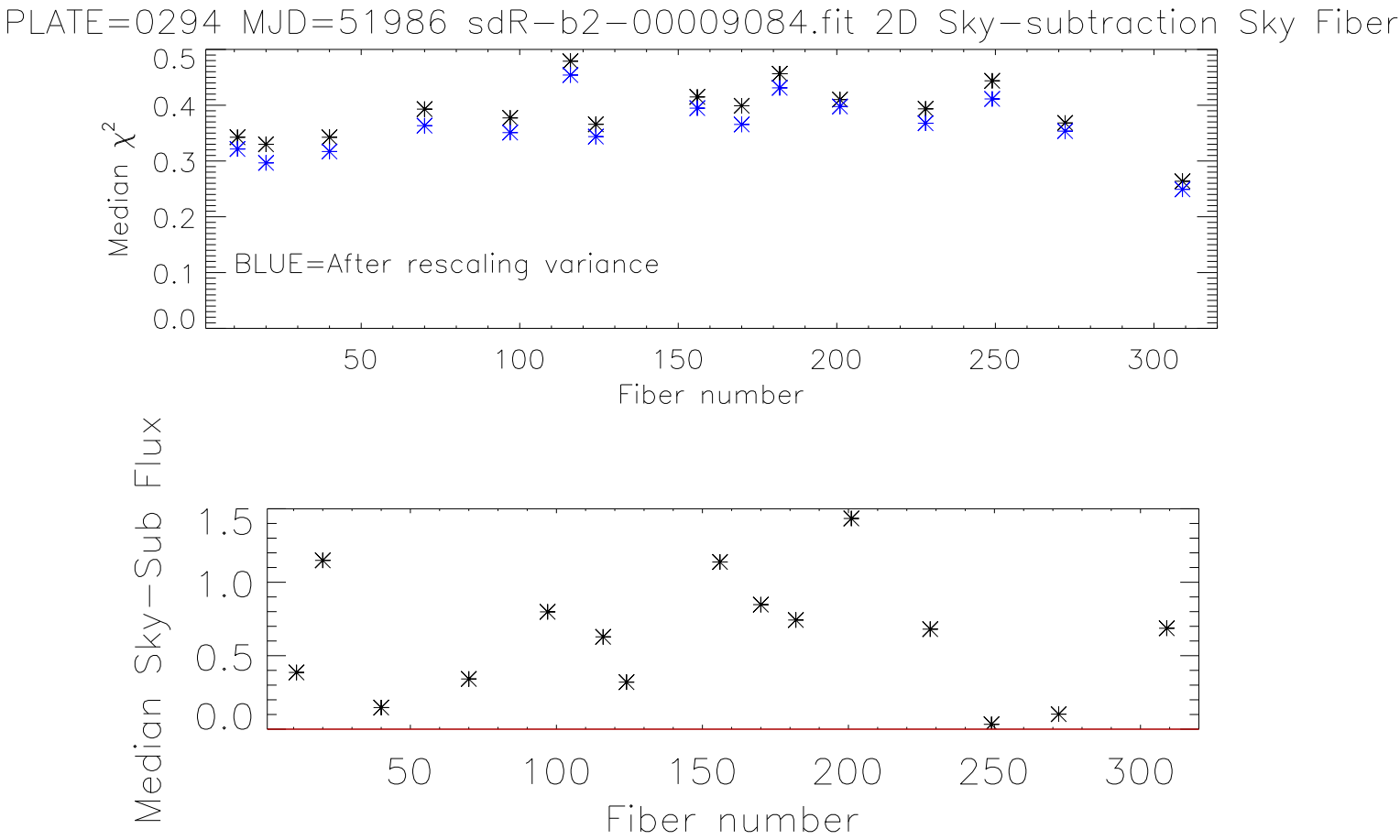
es= −0.0000

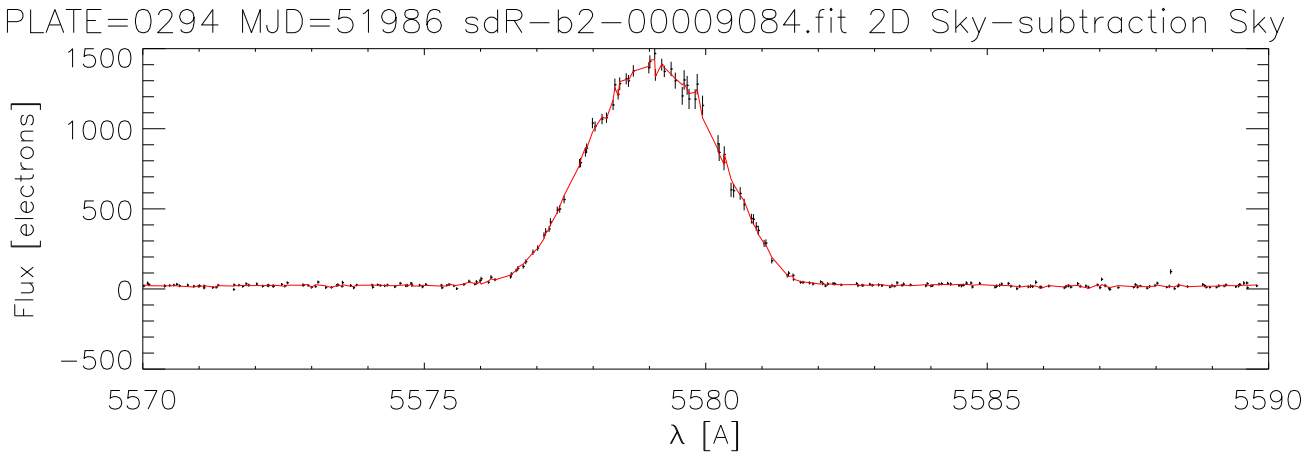

PLATE=0294 MJD=51986 sdR-b2-00009084.fit 1D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

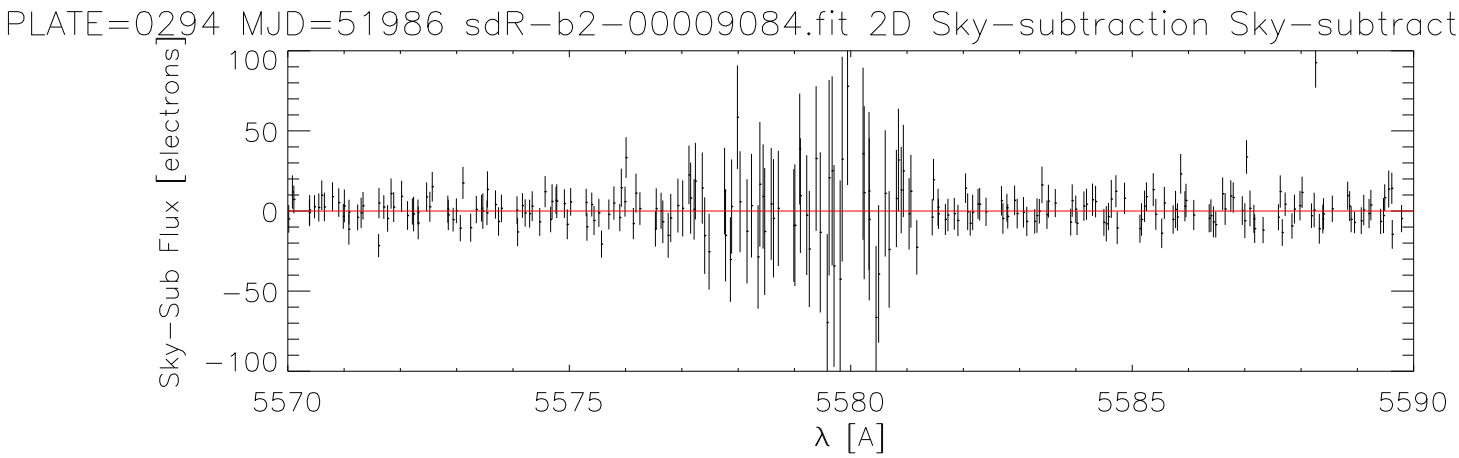

PLATE=0294 MJD=51986 sdR-b2-00009084.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
1500
1000
500
0
-500
5570
5575
5580
5585
5590
λ [A]

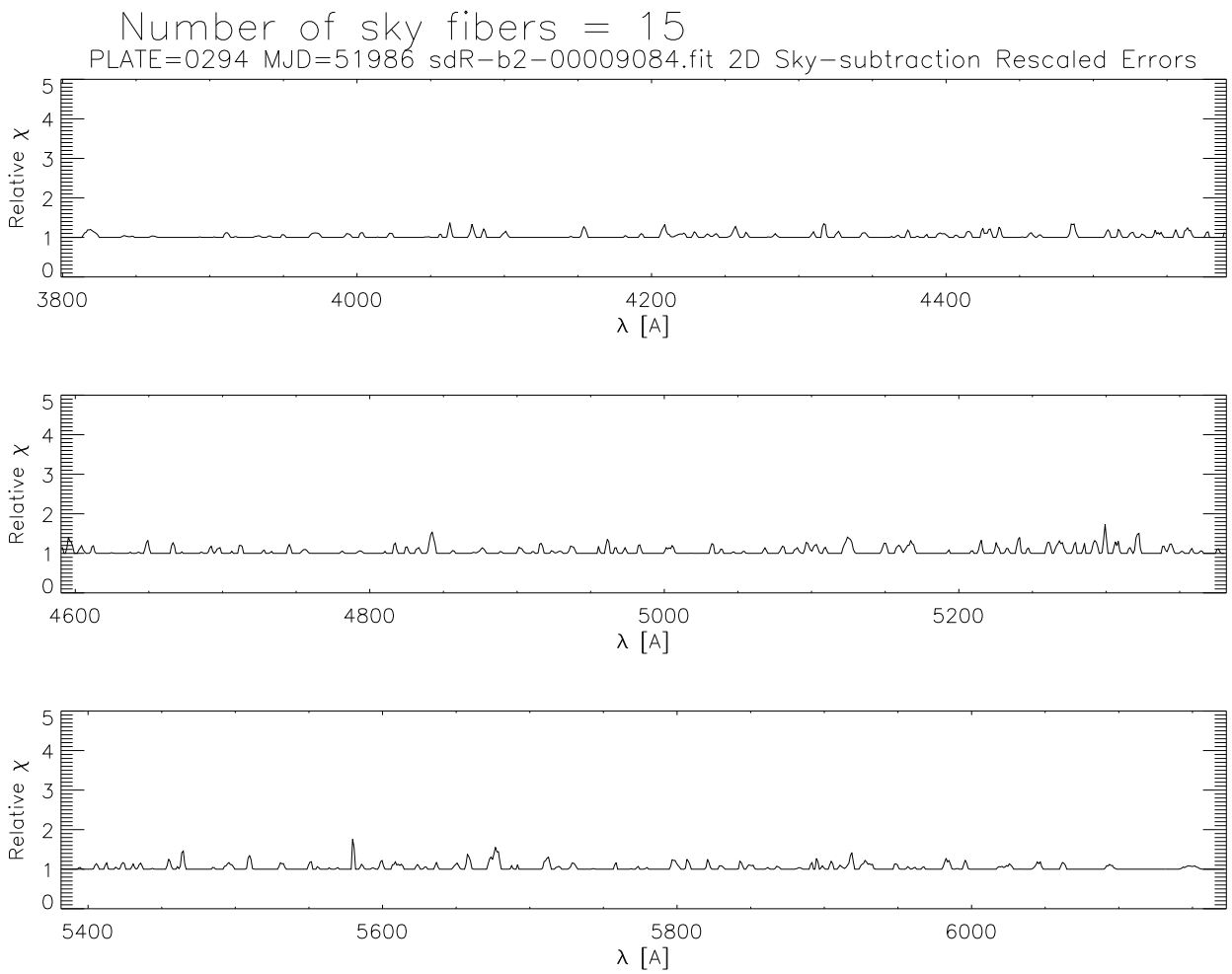

PLATE=0294 MJD=51986 sdR-b2-00009084.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
150
100
50
0
-50
-100
5570
5575
5580
5585
5590
λ [A]

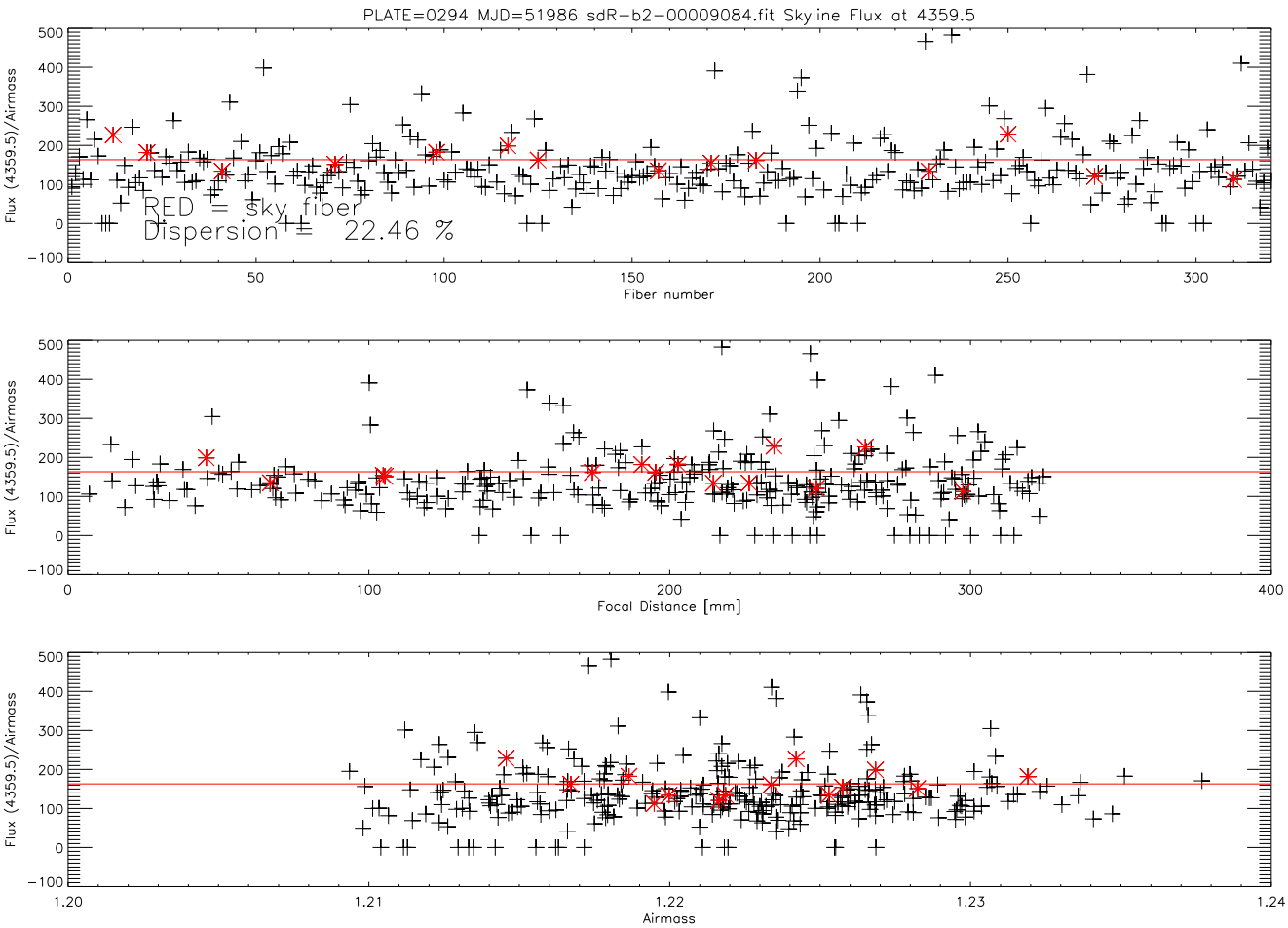

Number of sky fibers = 15
PLATE=0294 MJD=51986 sdR-b2-00009084.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

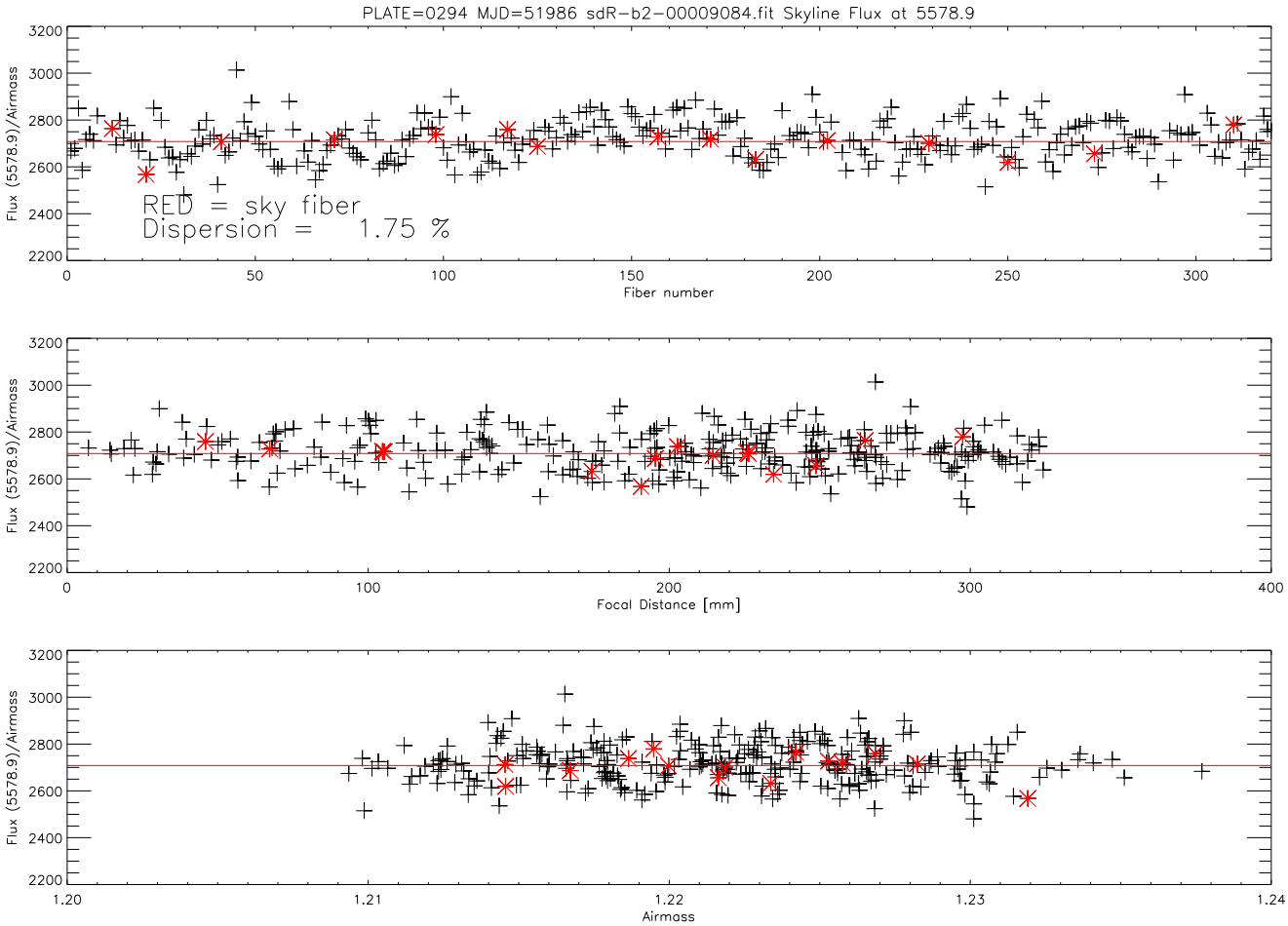

PLATE=0294 MJD=51986 sdR-b2-00009084.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

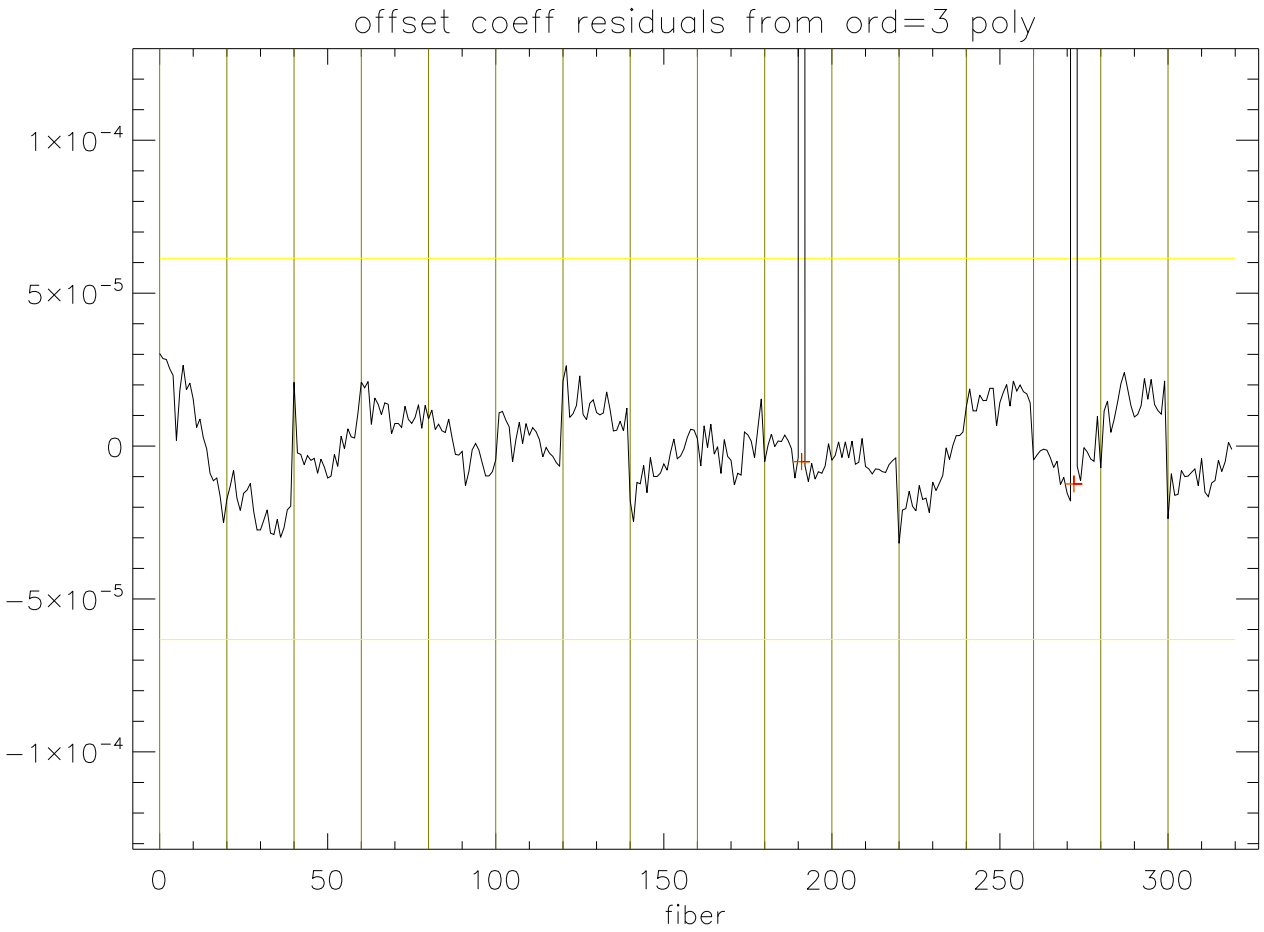

PLATE=0294 MJD=51986 sdR-b2-00009084.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
1500
1000
500
0
-500
5570
5575
5580
5585
5590
λ [A]

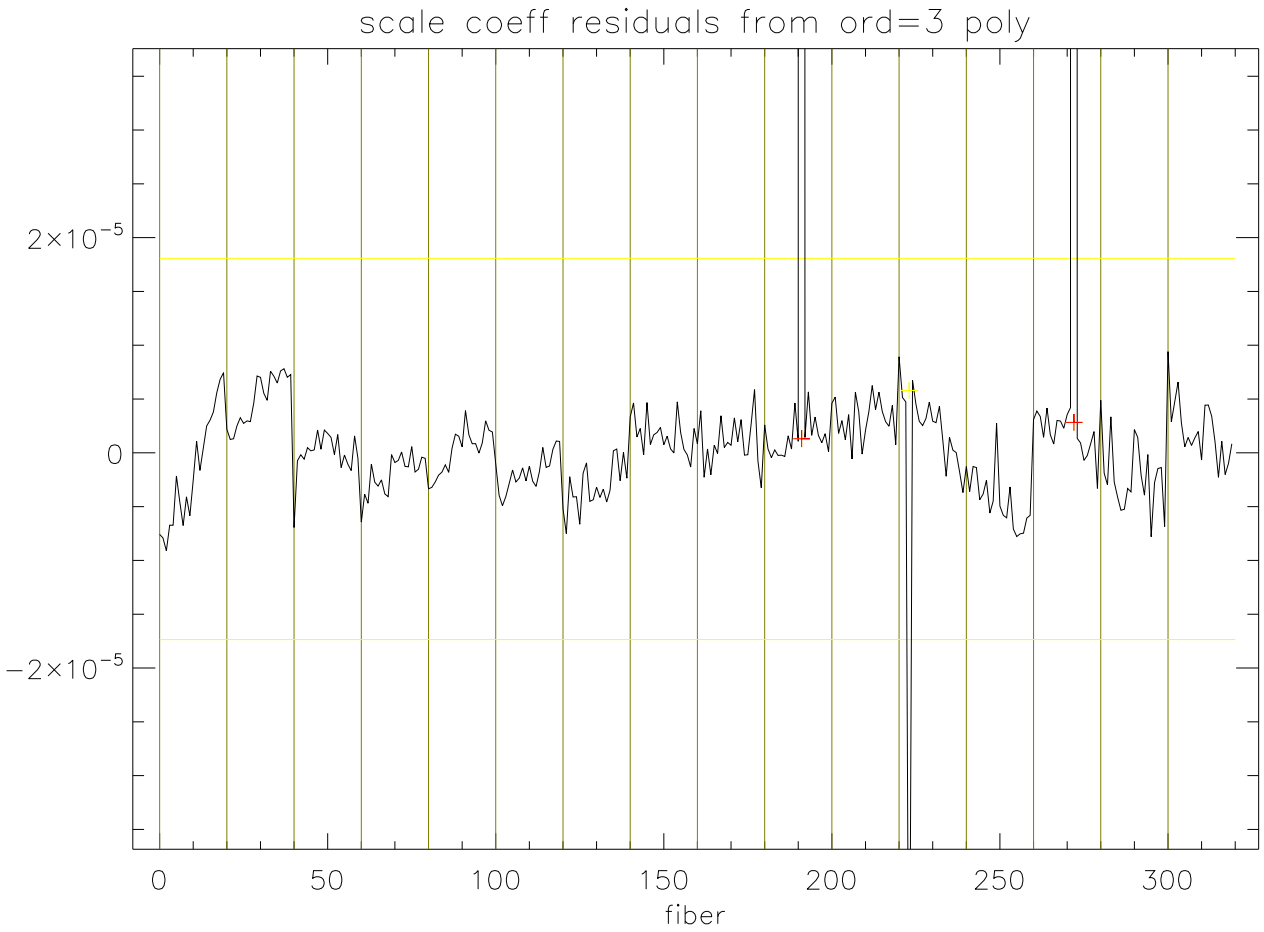

PLATE=0294 MJD=51986 sdR-b2-00009084.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
100
50
0
-50
-100
5570
5575
5580
5585
5590
λ [A]

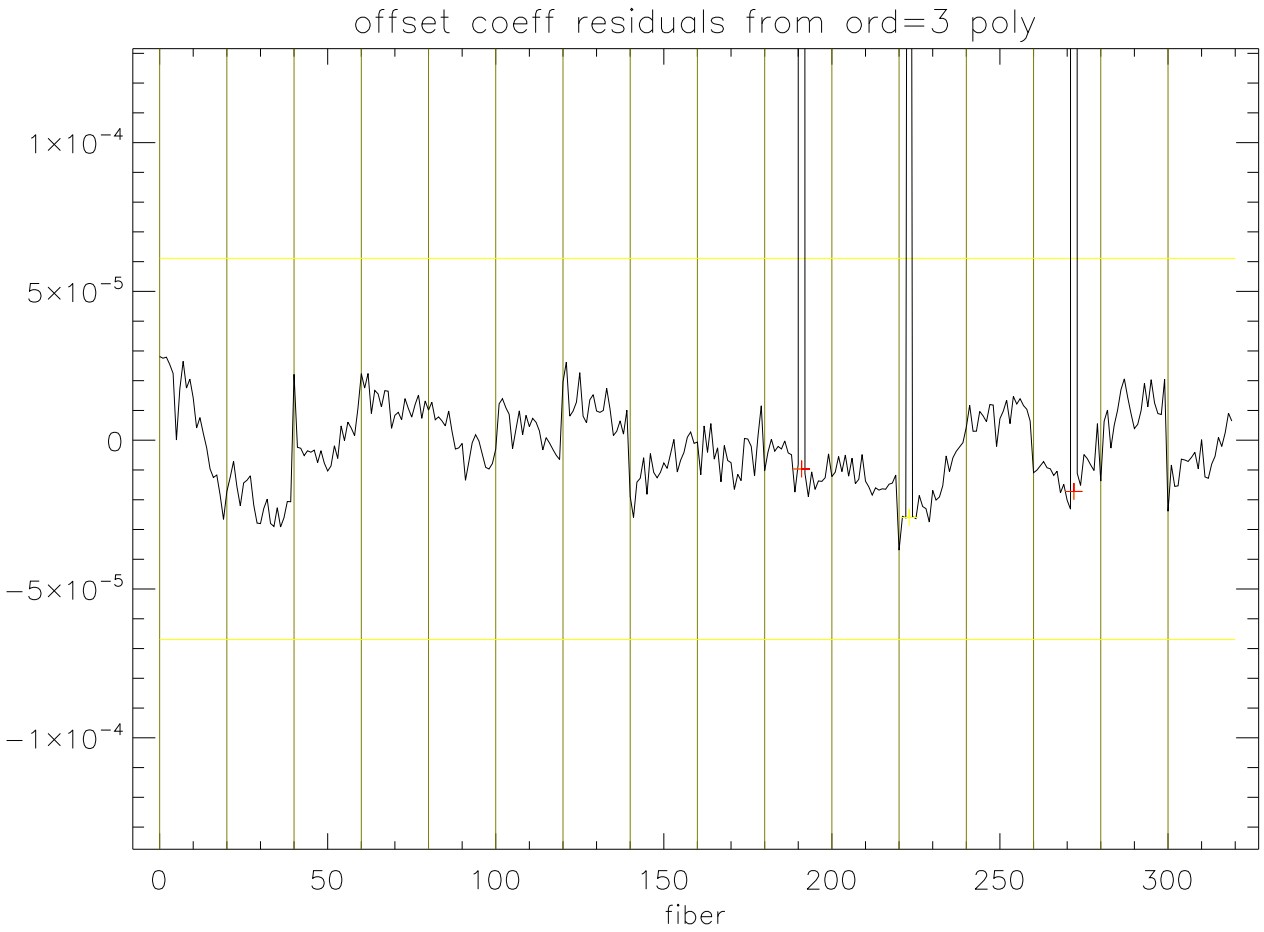

Number of sky fibers = 15
PLATE=0294 MJD=51986 sdR-b2-00009084.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

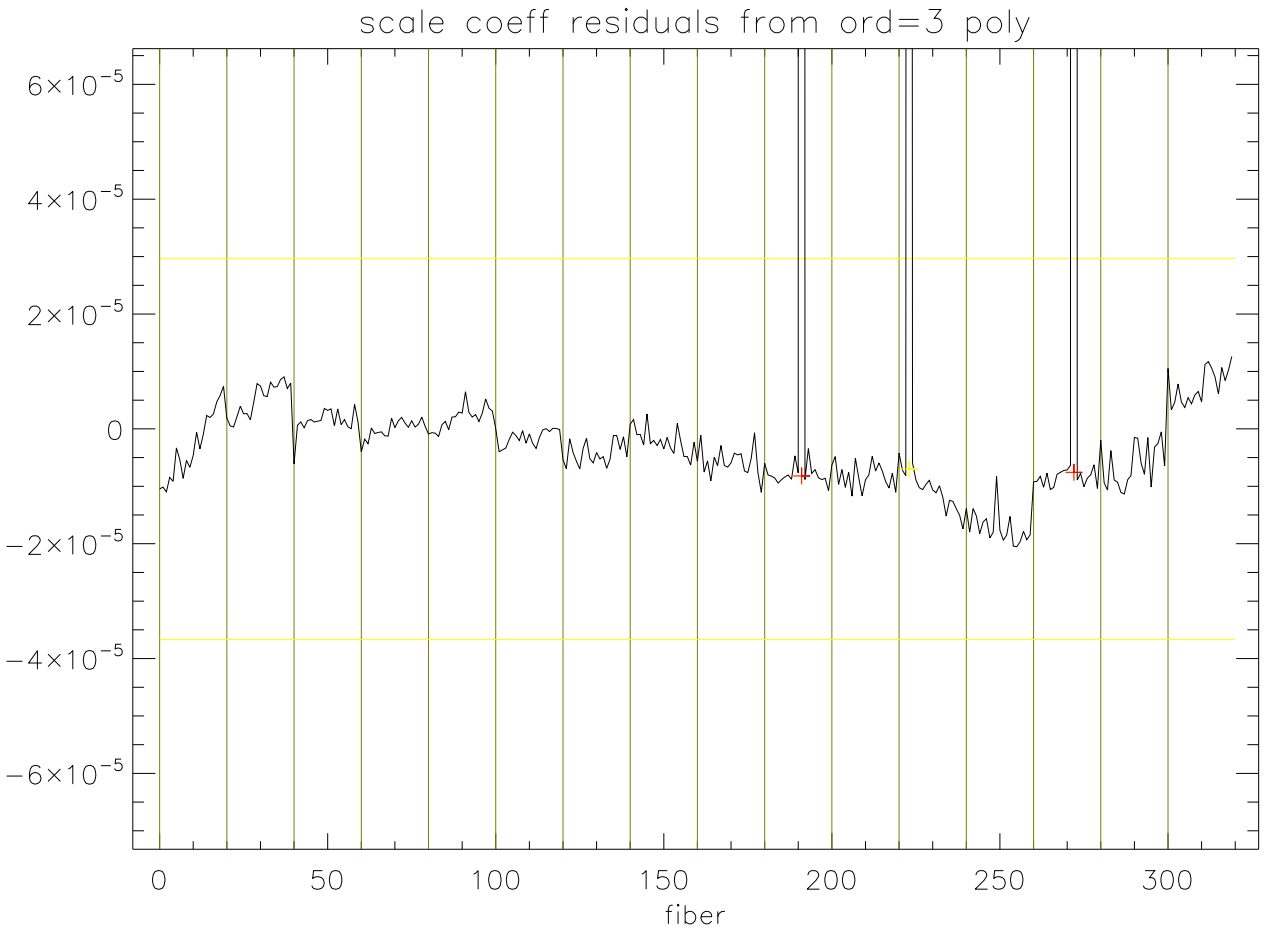

PLATE=0294 MJD=51986 sdR-b2-00009084.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
Fiber number
RED = sky fiber
Dispersion = 22.46 %
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

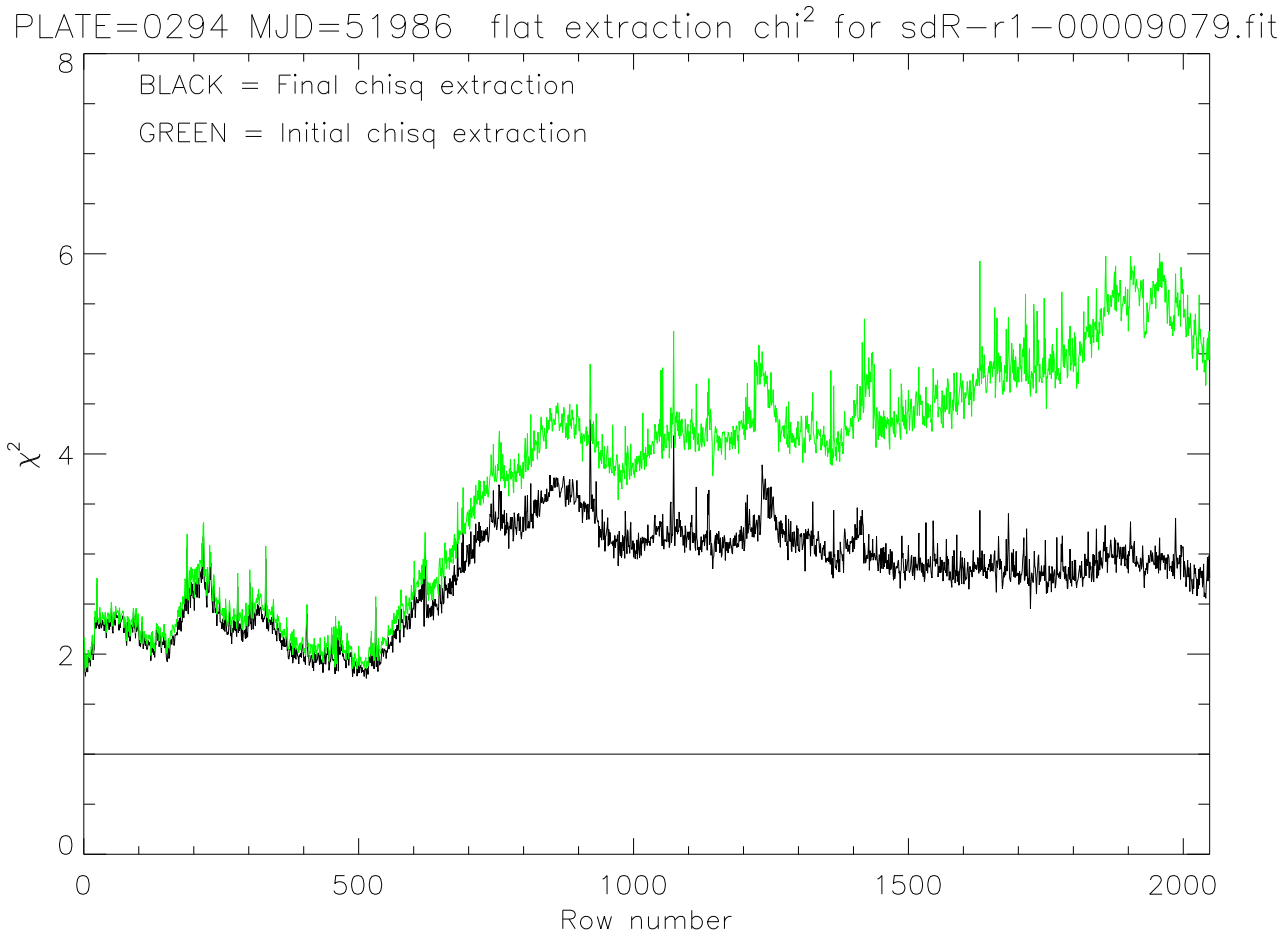

PLATE=0294 MJD=51986 sdR-b2-00009084.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
Fiber number
RED = sky fiber
Dispersion = 1.75 %
Flux (5578.9)/Airmass
Focal Distance [mm]
Flux (5578.9)/Airmass
Airmass

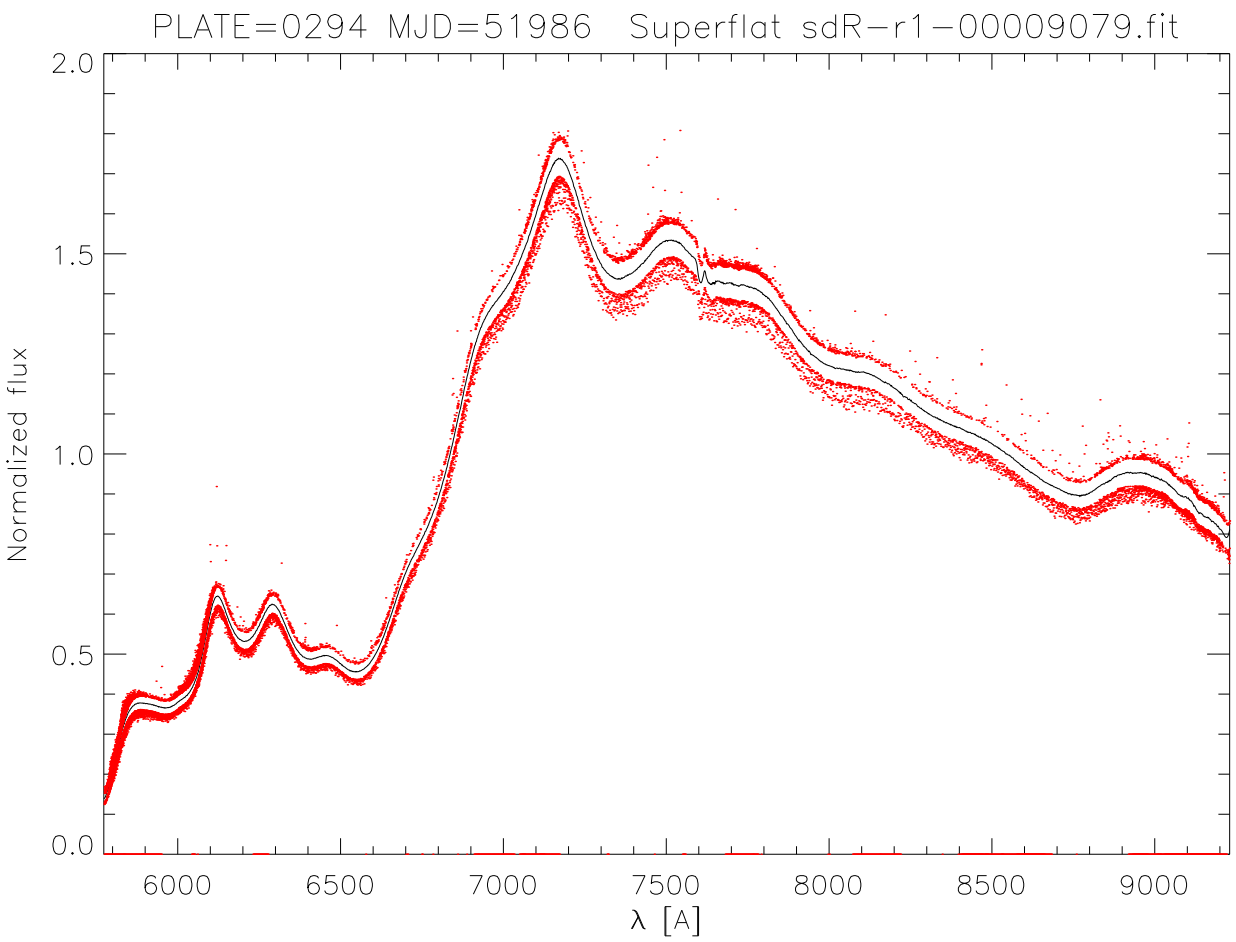

offset coeff residuals from ord=3 poly
1×10⁻⁴
5×10⁻⁵
0
−5×10⁻⁵
−1×10⁻⁴
0
50
100
150
200
250
300
fiber

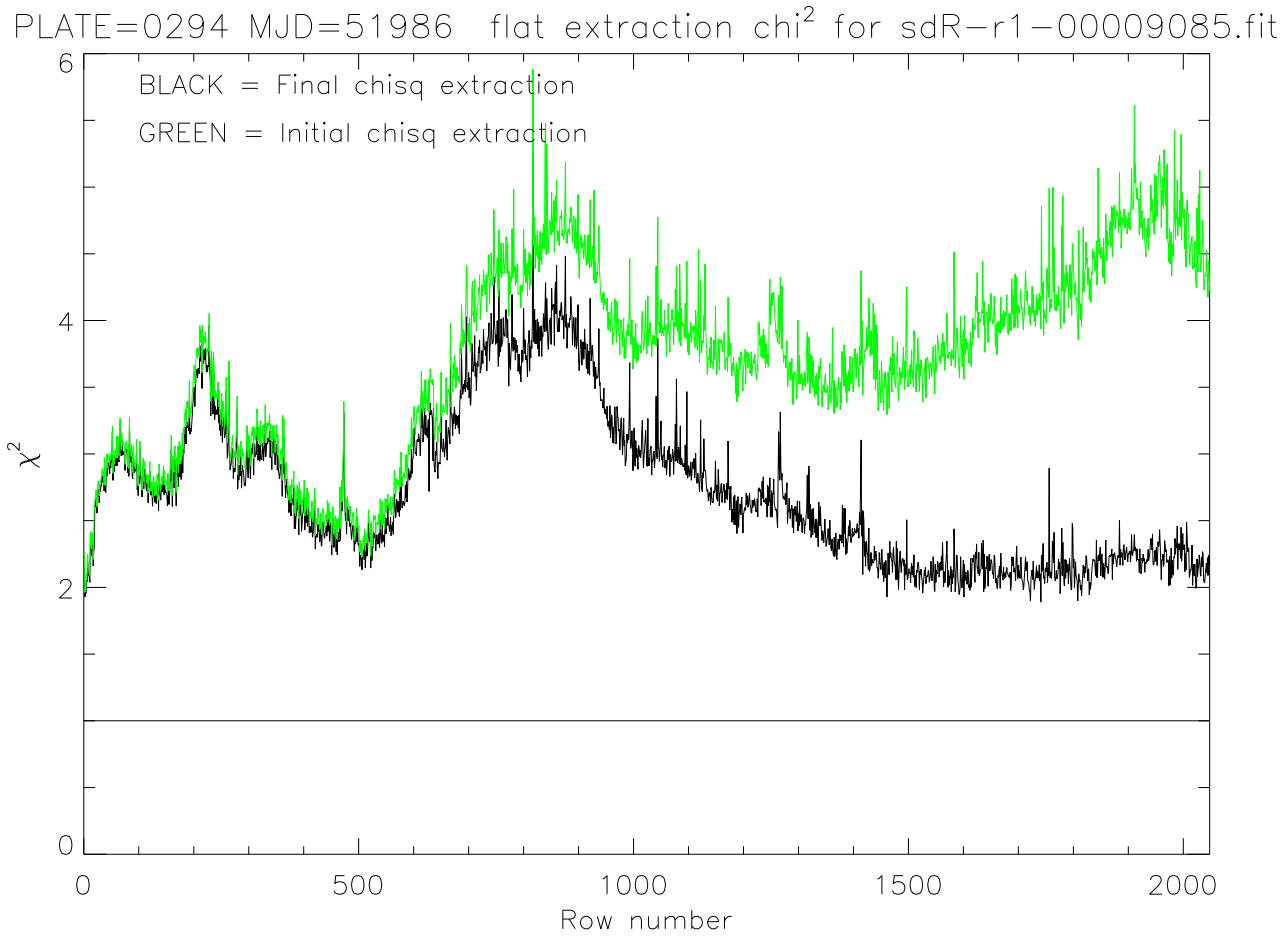

scale coeff residuals from ord=3 poly
2×10⁻⁵
0
−2×10⁻⁵
0
50
100
150
200
250
300
fiber

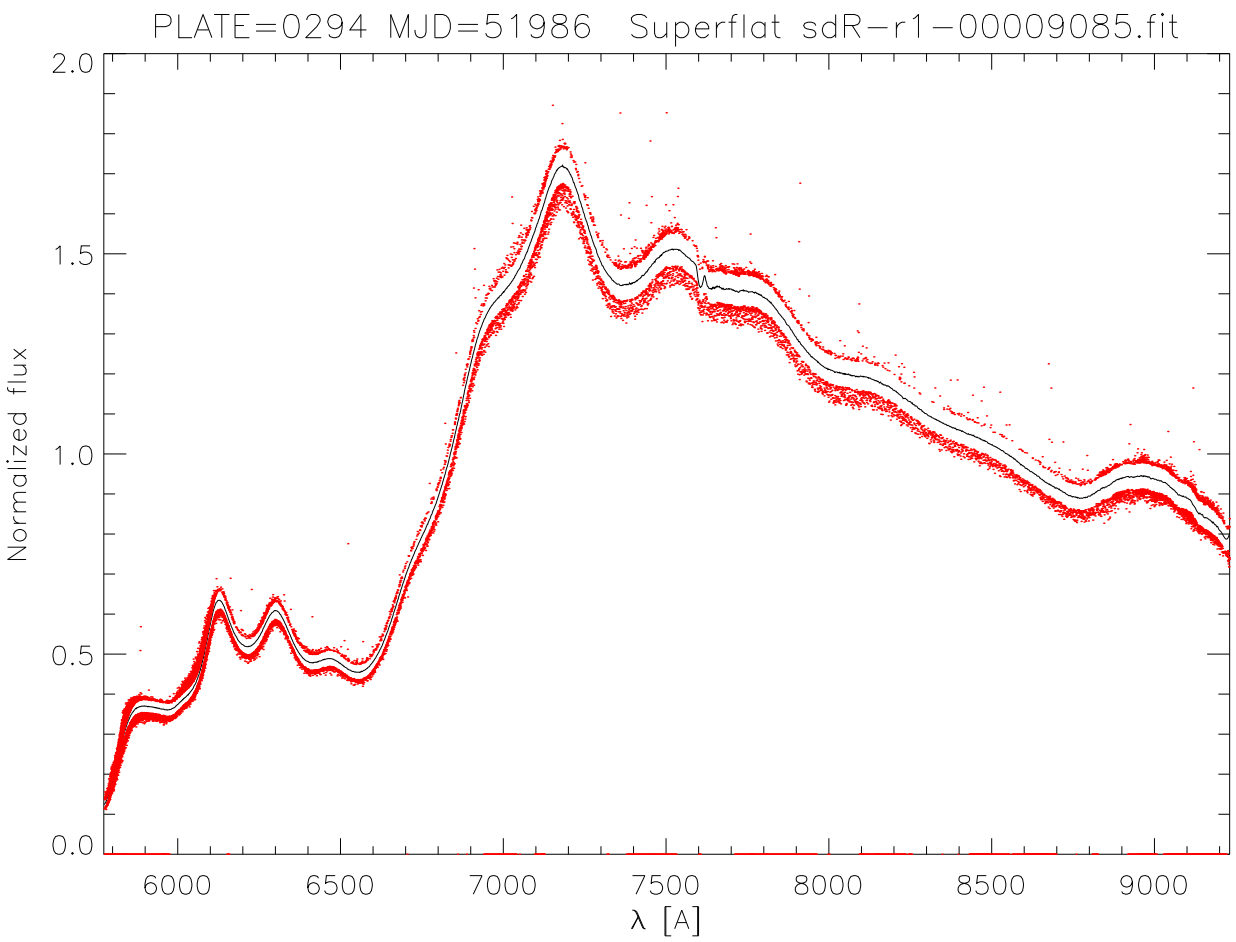

offset coeff residuals from ord=3 poly
1×10⁻⁴
5×10⁻⁵
0
−5×10⁻⁵
−1×10⁻⁴
0
50
100
150
200
250
300
fiber

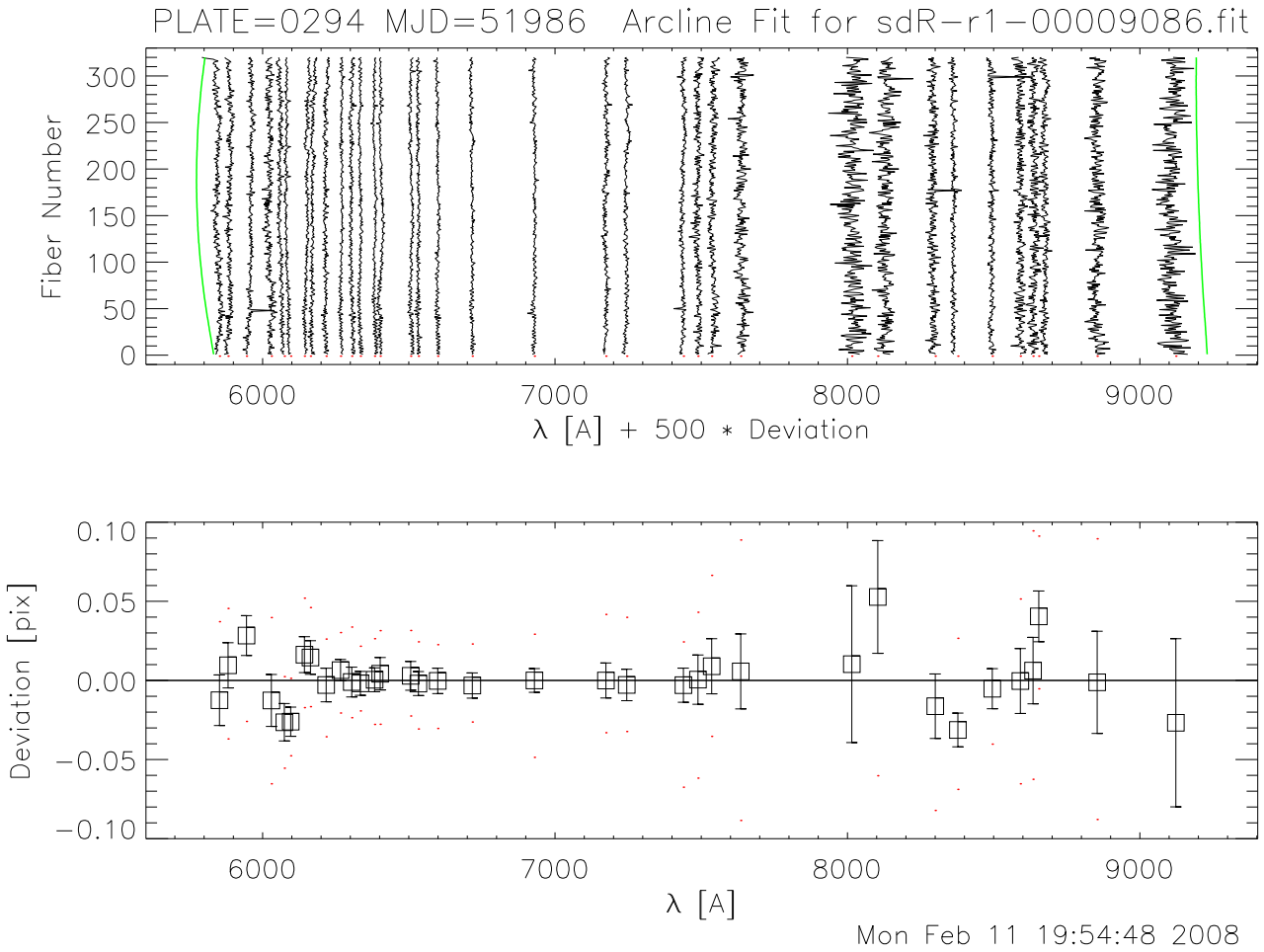

scale coeff residuals from ord=3 poly
6×10⁻⁵
4×10⁻⁵
2×10⁻⁵
0
−2×10⁻⁵
−4×10⁻⁵
−6×10⁻⁵
0
50
100
150
200
250
300
fiber

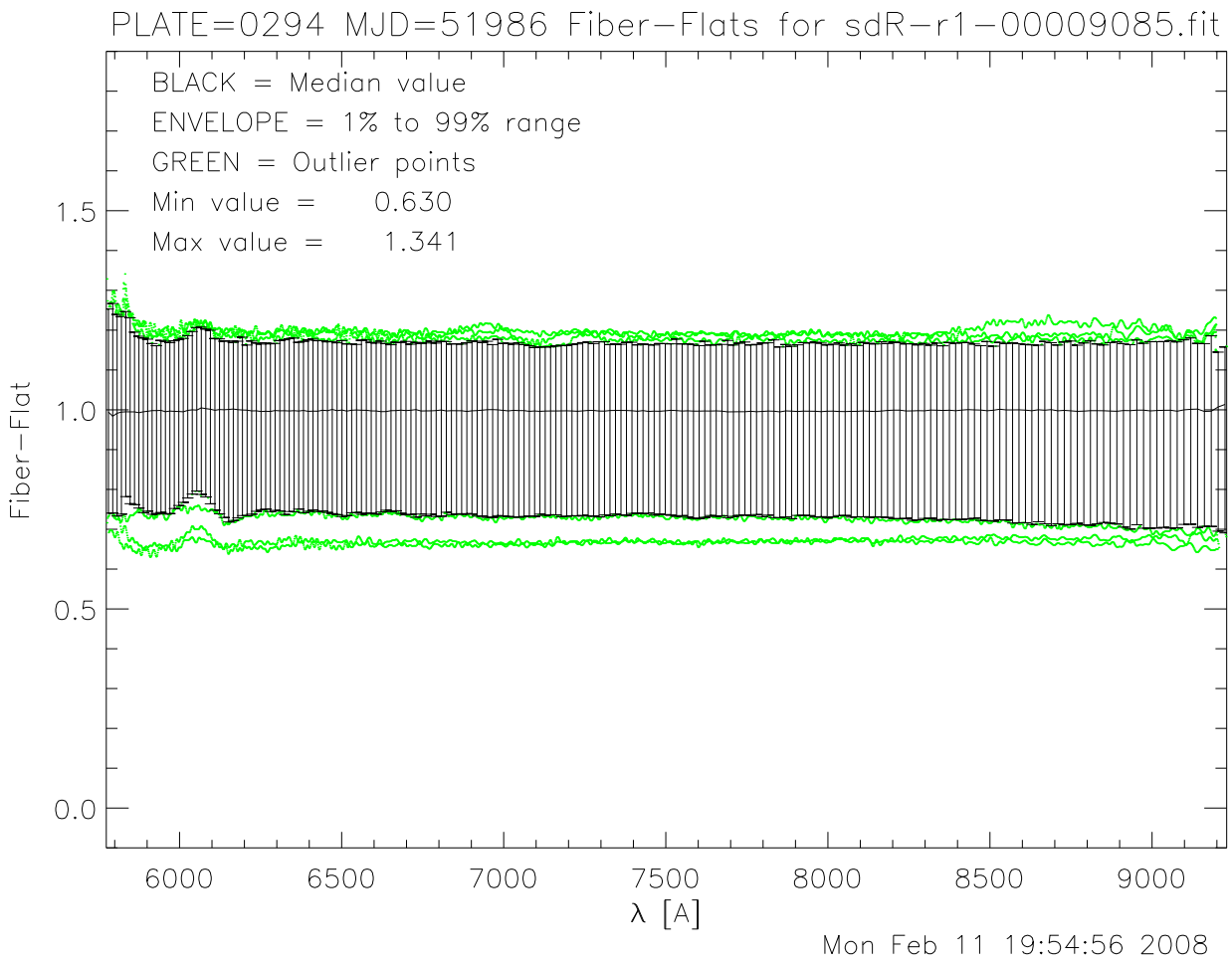

PLATE=0294 MJD=51986 flat extraction chi^2 for sdR−r1−00009079.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
2
4
6
8
0
500
1000
1500
2000

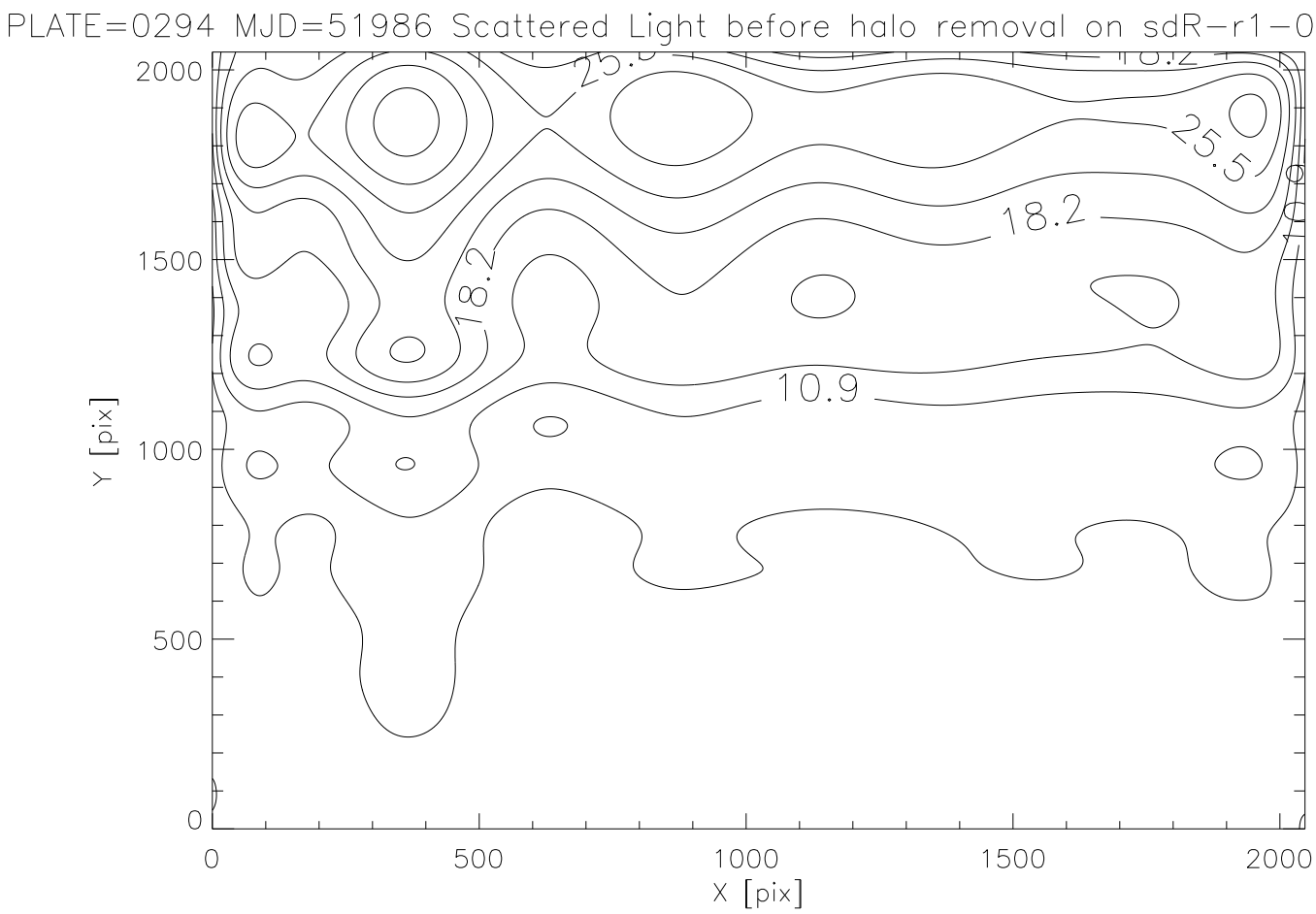

PLATE=0294 MJD=51986 Superflat sdR-r1-00009079.fit
Normalized flux
2.0
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

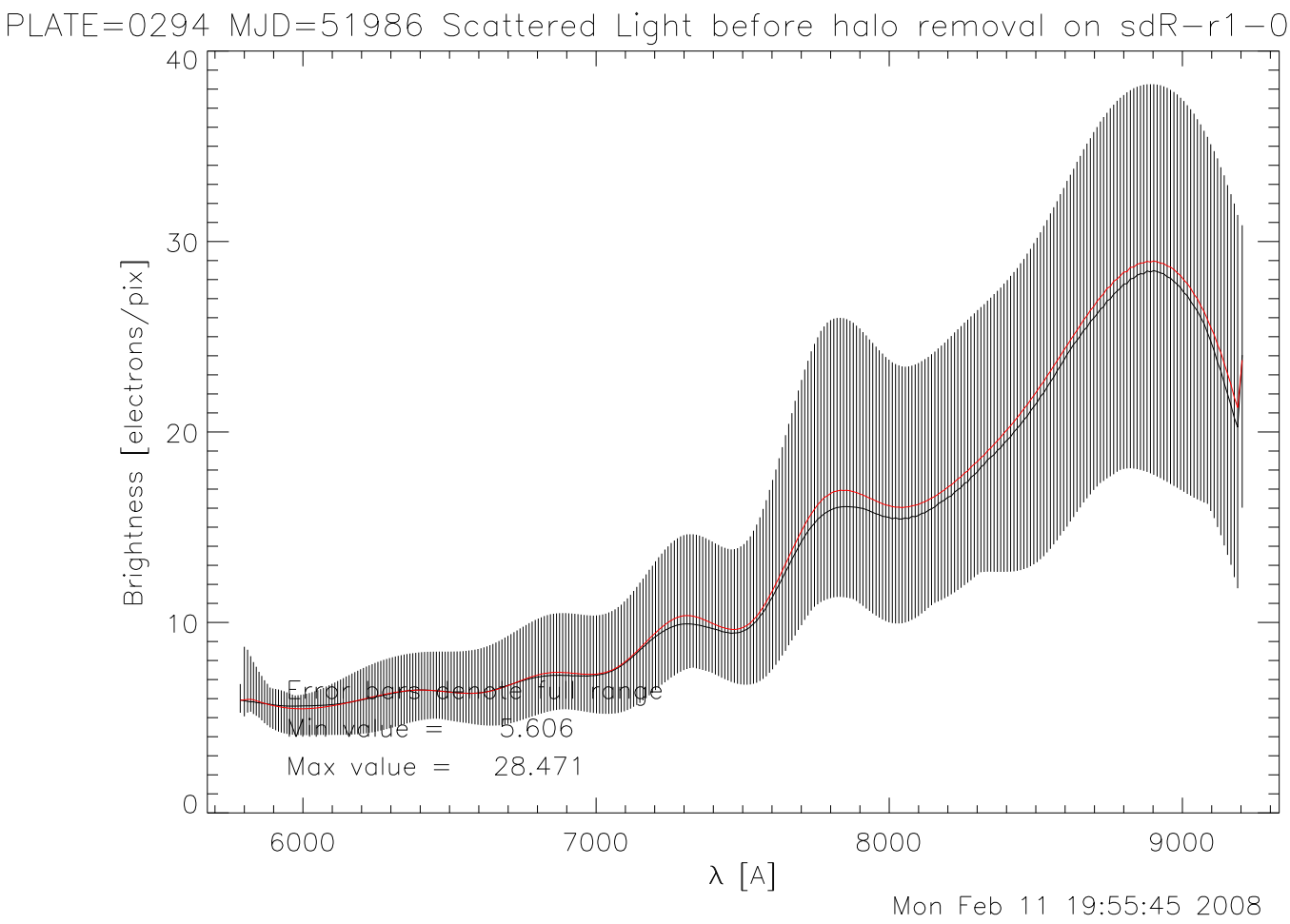

PLATE=0294 MJD=51986 flat extraction chi^2 for sdR−r1−00009085.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
0
500
1000
1500
2000
Row number

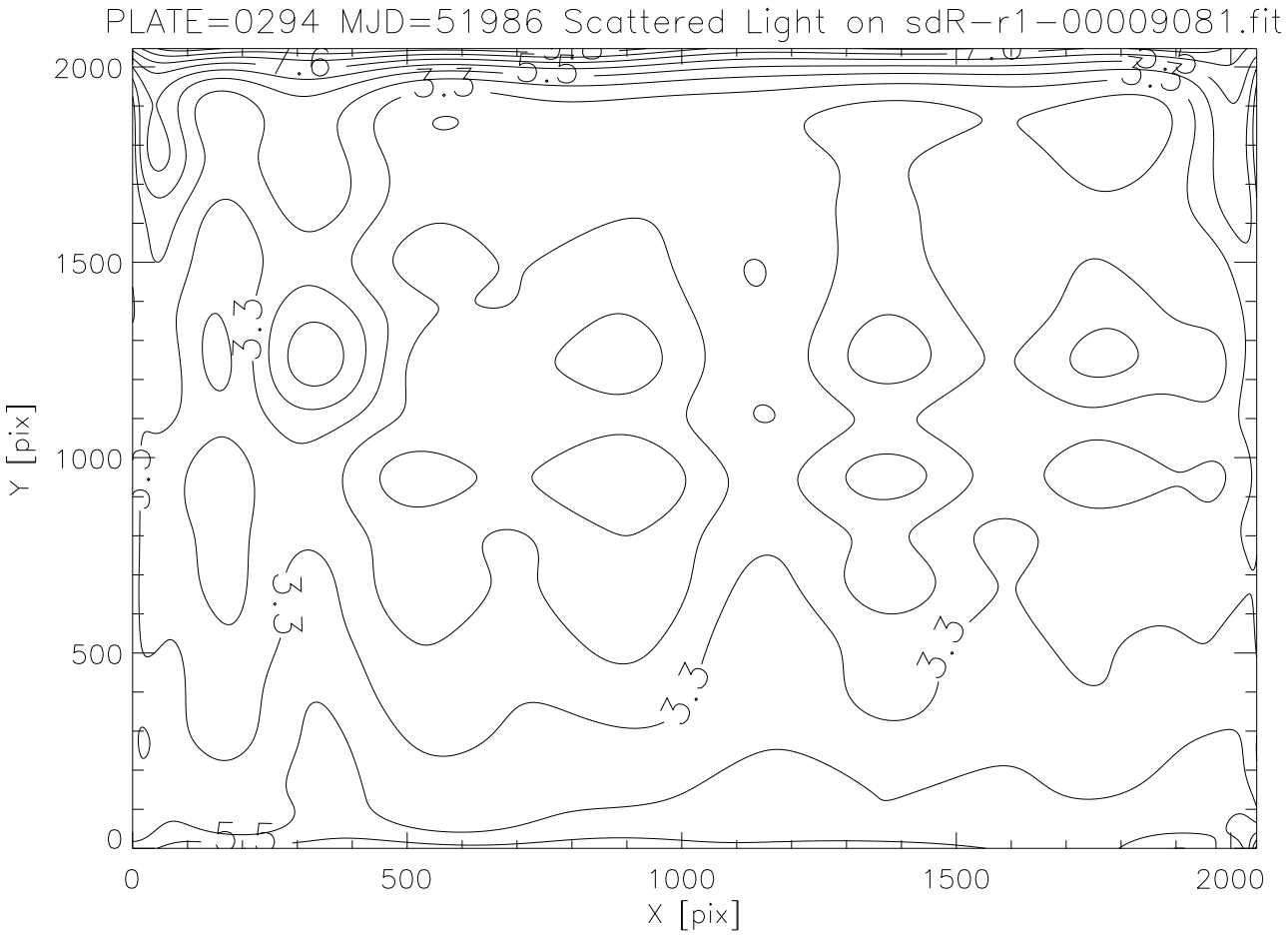

PLATE=0294 MJD=51986 Superflat sdR-r1-00009085.fit
Normalized flux
2.0
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

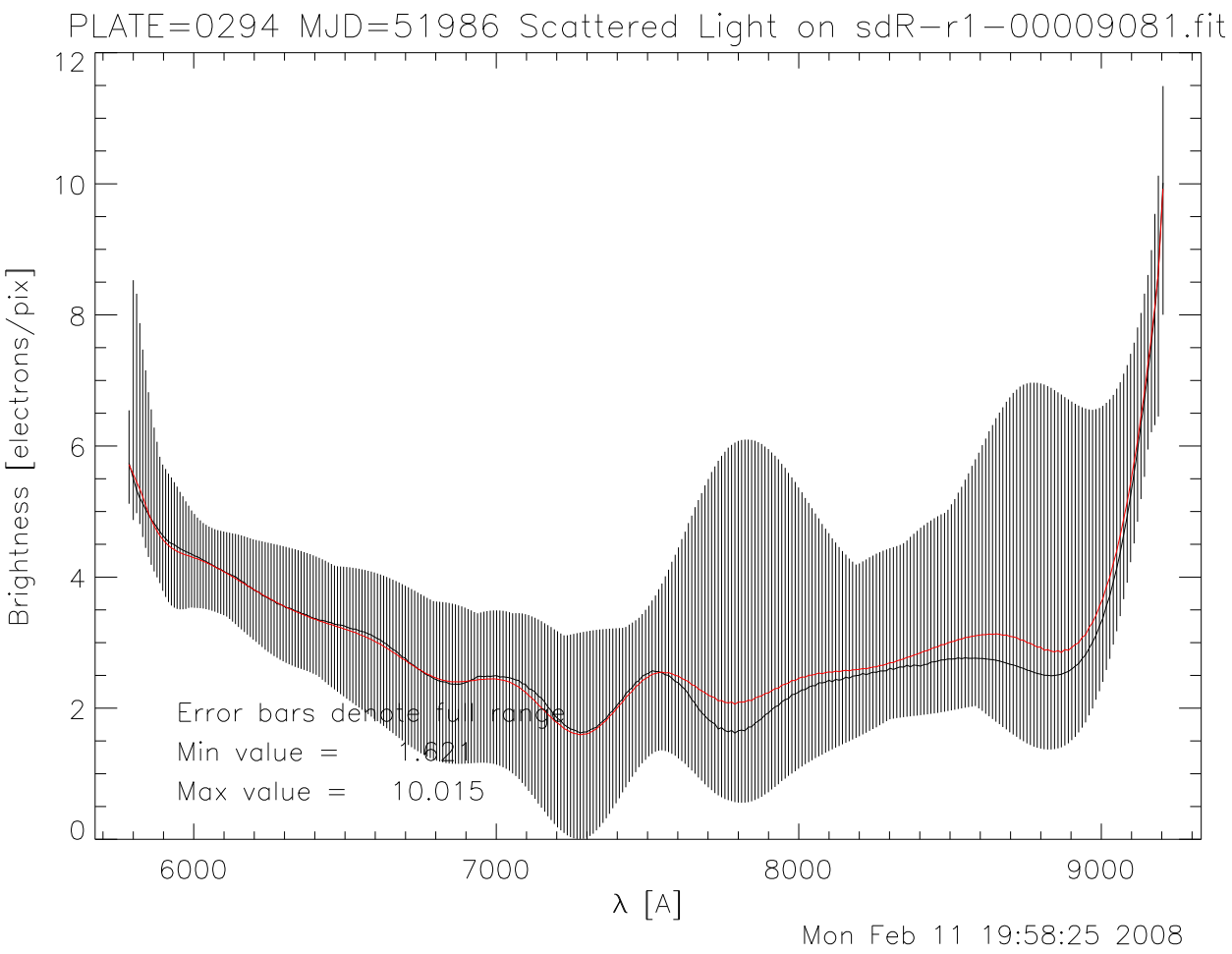

PLATE=0294 MJD=51986 Arcline Fit for sdR-r1-00009086.fit
Fiber Number
300
250
200
150
100
50
0
6000
7000
8000
9000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
6000
7000
8000
9000
λ [A]
Mon Feb 11 19:54:48 2008

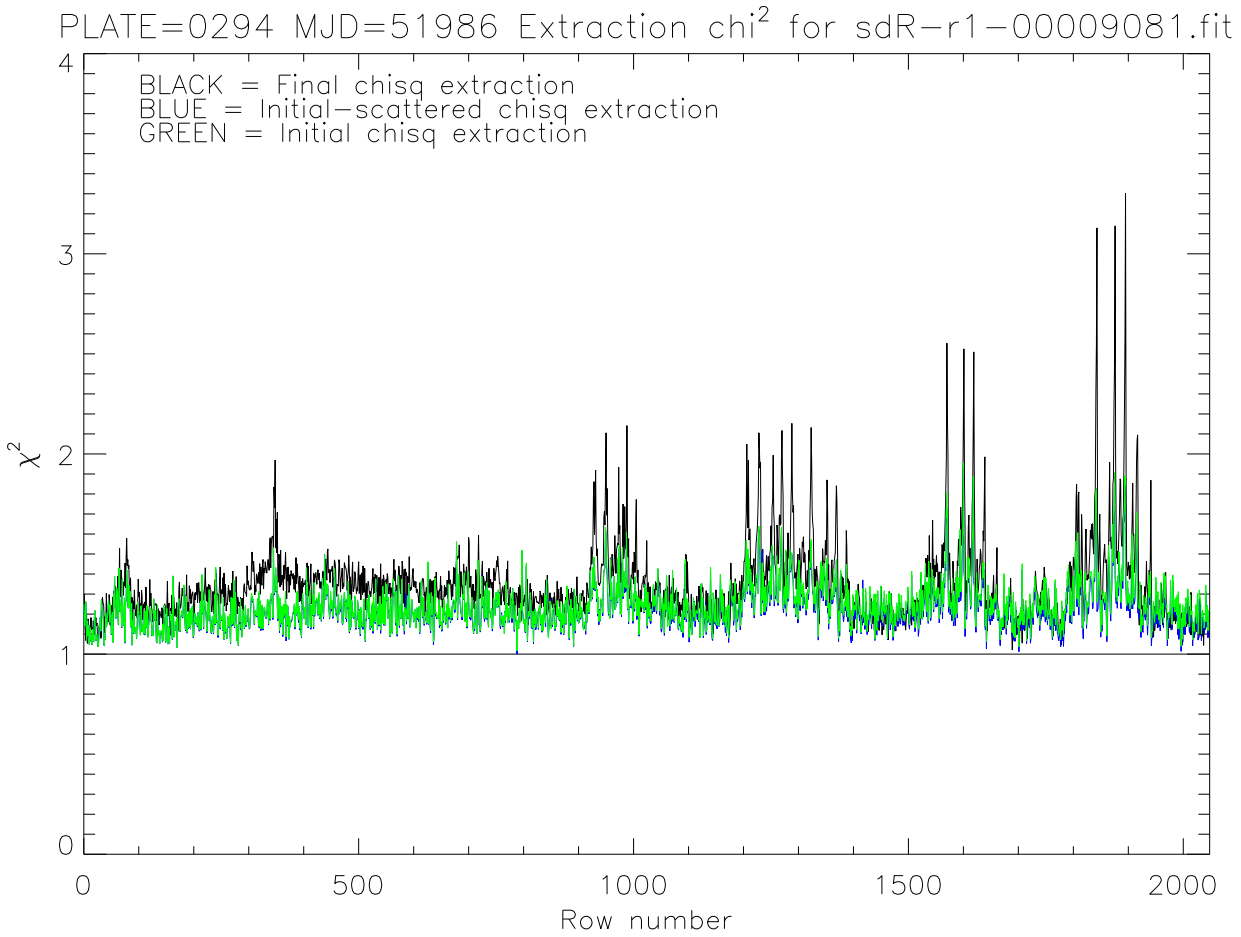

PLATE=0294 MJD=51986 Fiber−Flats for sdR−r1−00009085.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.630
Max value = 1.341
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Mon Feb 11 19:54:56 2008

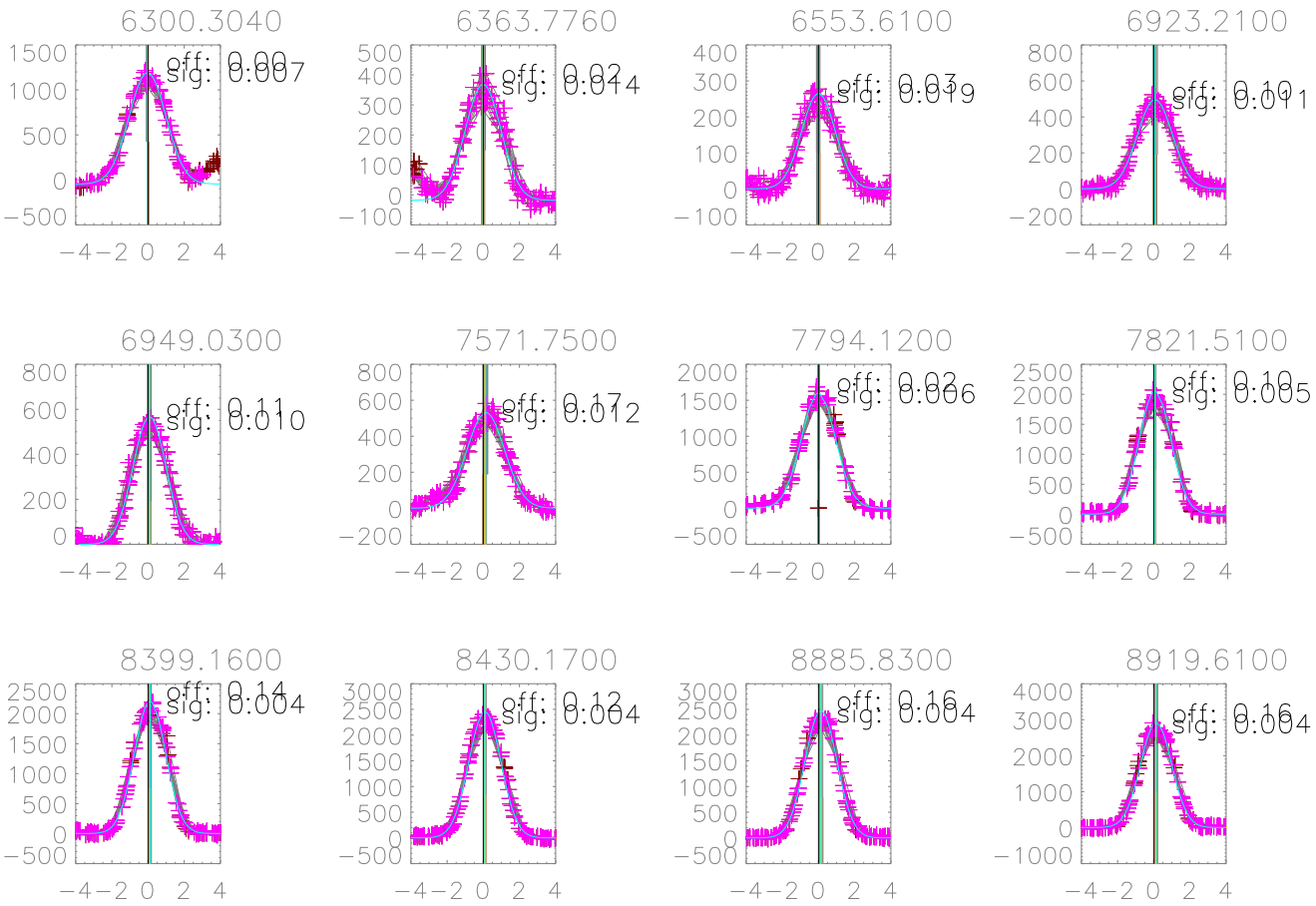

PLATE=0294 MJD=51986 Scattered Light before halo removal on sdR−r1−00009081.fi
25.5
18.2
10.9
Y [pix]
X [pix]
0
500
1000
1500
2000

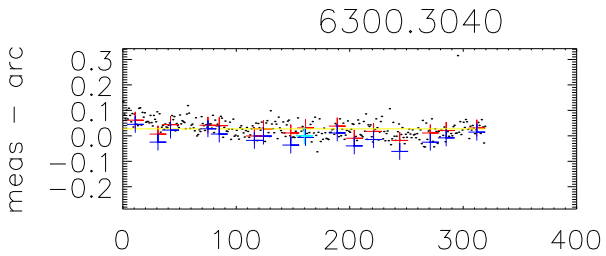

PLATE=0294 MJD=51986 Scattered Light before halo removal on sdR-r1-00009081.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 5.606
Max value = 28.471
Mon Feb 11 19:55:45 2008

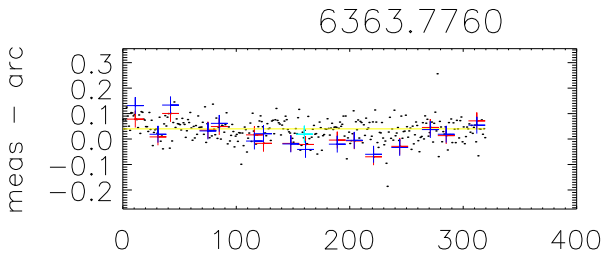

PLATE=0294 MJD=51986 Scattered Light on sdR−r1−00009081.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
7.6
5.5
3.3
0

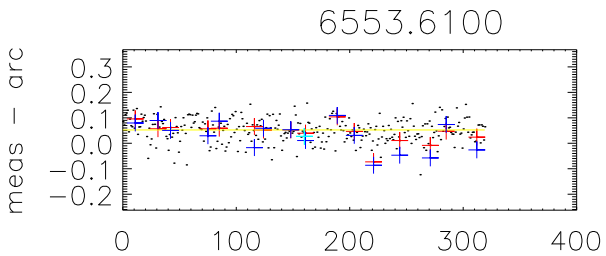

PLATE=0294 MJD=51986 Scattered Light on sdR-r1-00009081.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 1.621
Max value = 10.015
Mon Feb 11 19:58:25 2008

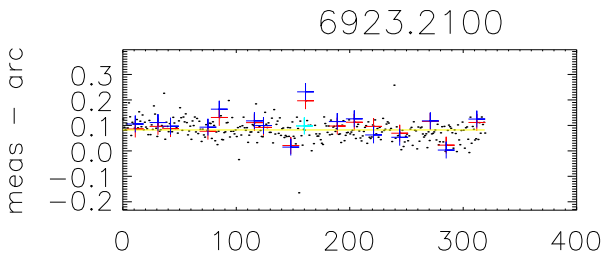

PLATE=0294 MJD=51986 Extraction chi^2 for sdR−r1−00009081.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
0
500
1000
1500
2000
Row number

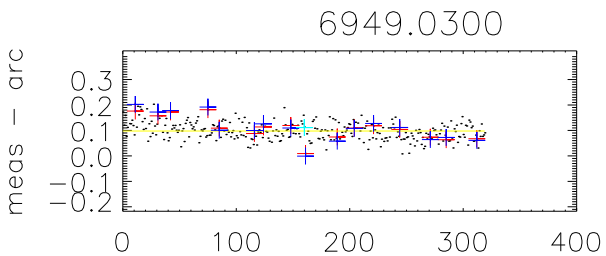

6300.3040
off: 0.00
sig: 0.007
6363.7760
off: 0.02
sig: 0.014
6553.6100
off: 0.03
sig: 0.019
6923.2100
off: 0.10
sig: 0.011
6949.0300
off: 0.11
sig: 0.010
7571.7500
off: 0.17
sig: 0.012
7794.1200
off: 0.02
sig: 0.006
7821.5100
off: 0.10
sig: 0.005
8399.1600
off: 0.14
sig: 0.004
8430.1700
off: 0.12
sig: 0.004
8885.8300
off: 0.16
sig: 0.004
8919.6100
off: 0.16
sig: 0.004

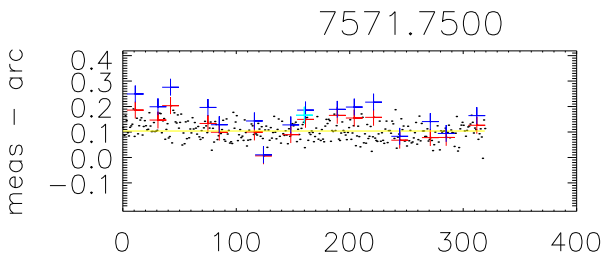

6300.3040
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

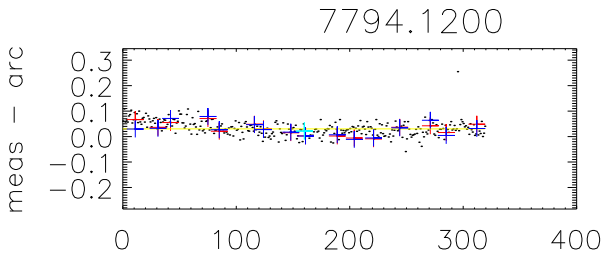

6363.7760
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

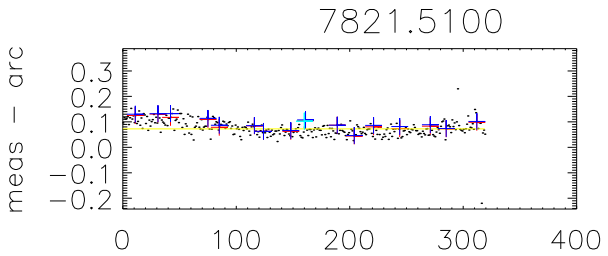

6553.6100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

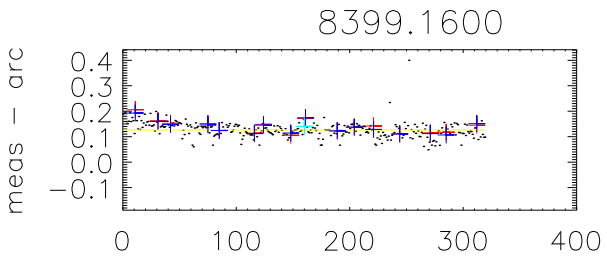

6923.2100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

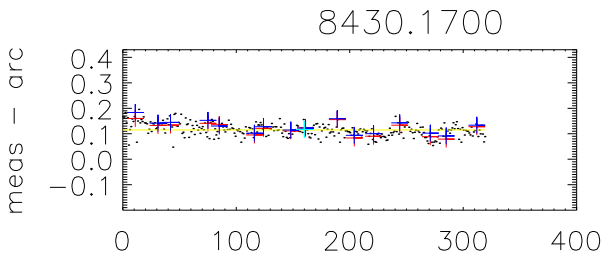

6949.0300
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

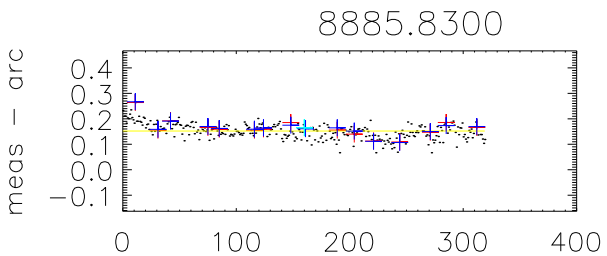

7571.7500
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

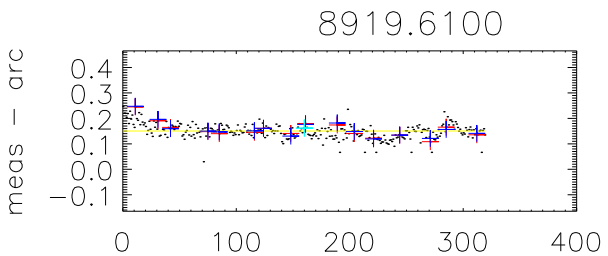

7794.1200
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

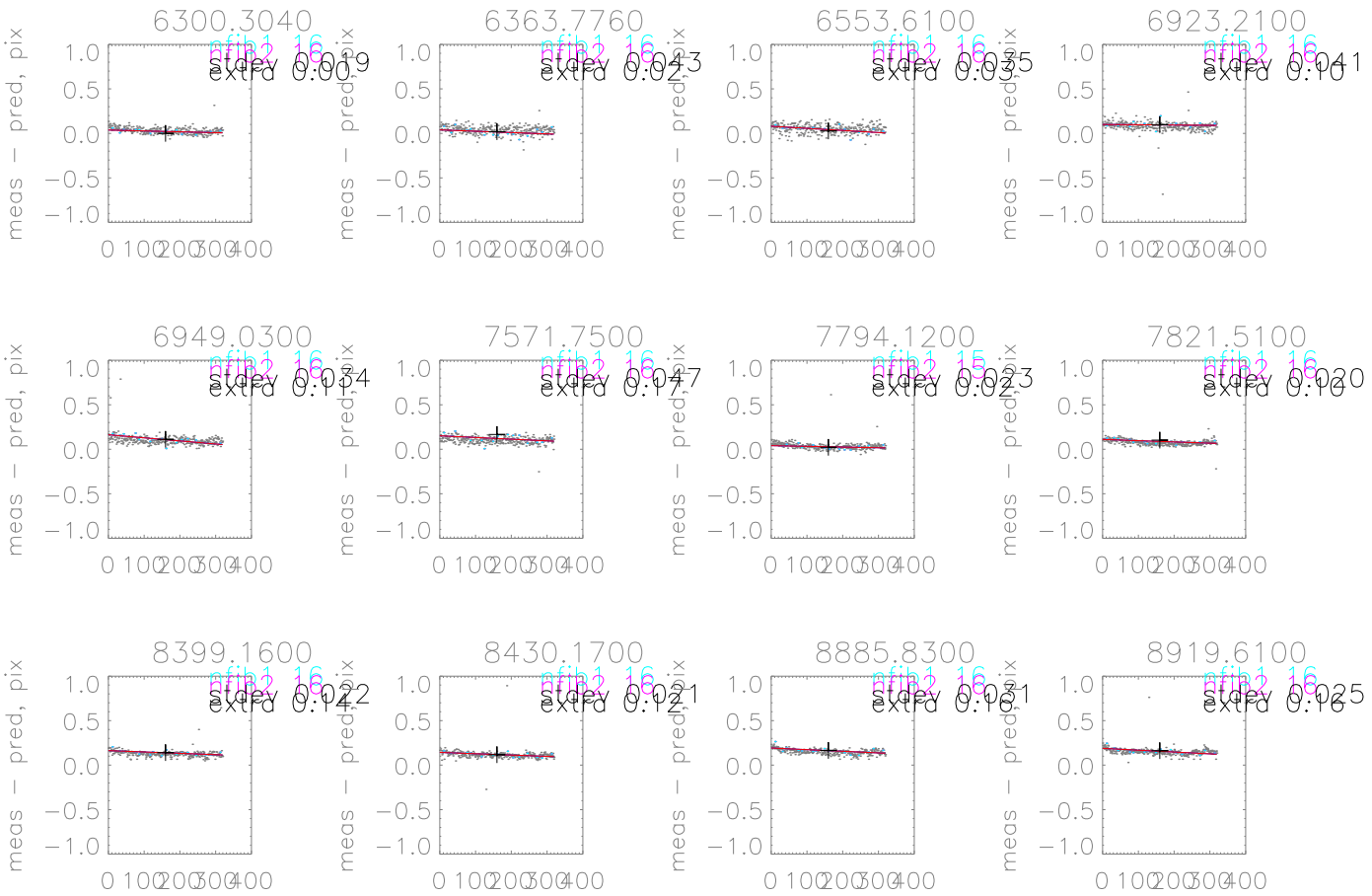

7821.5100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

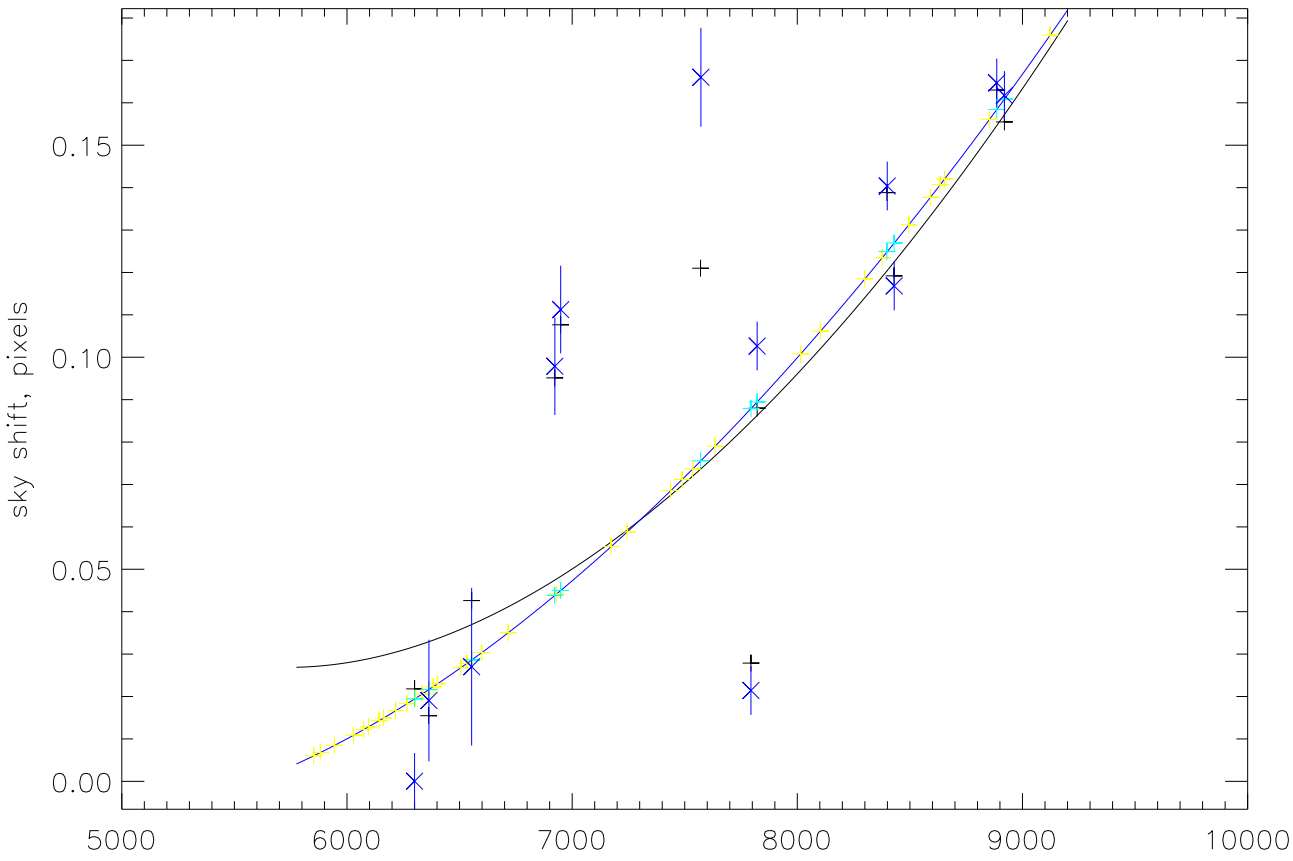

8399.1600
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

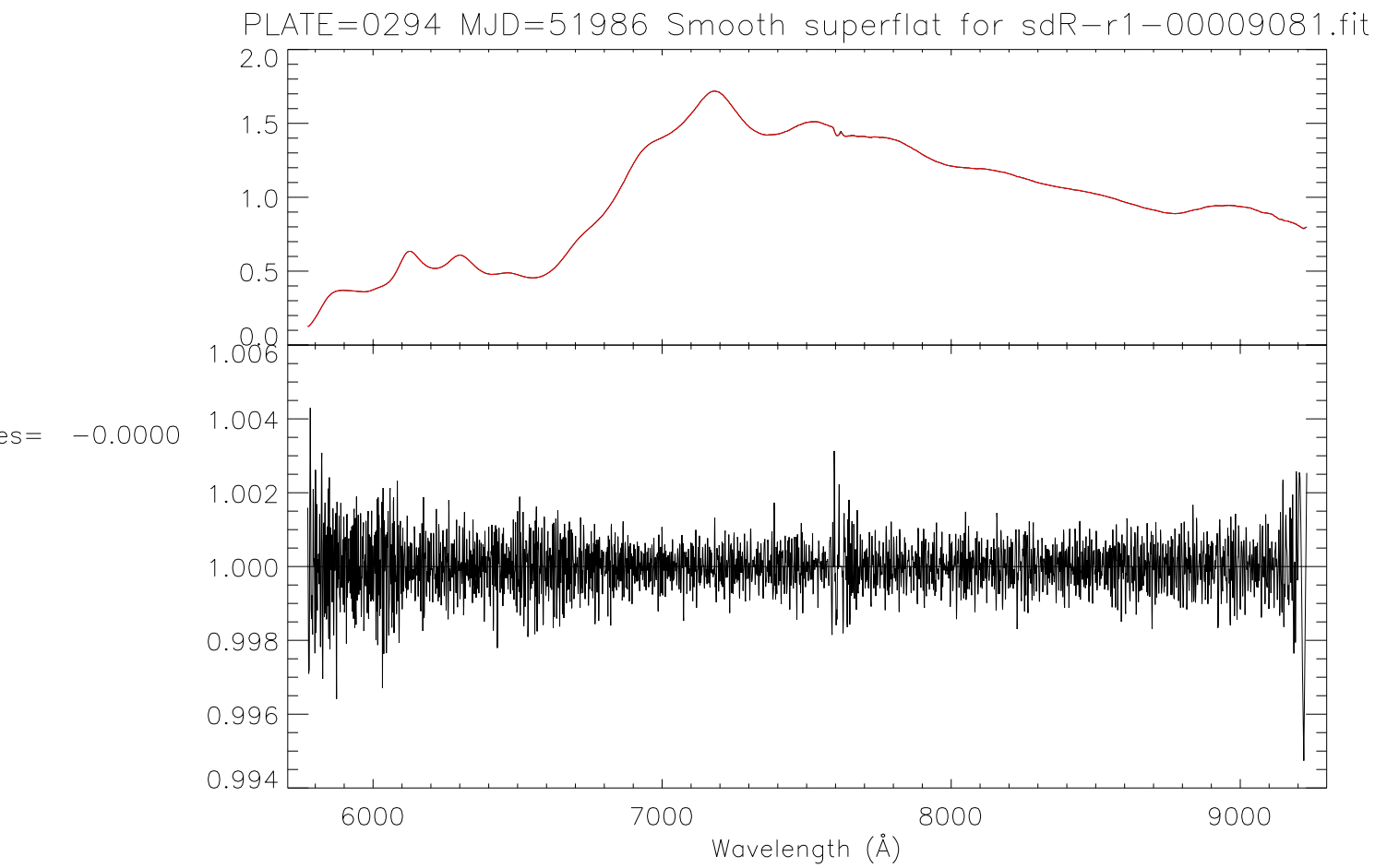

8430.1700
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

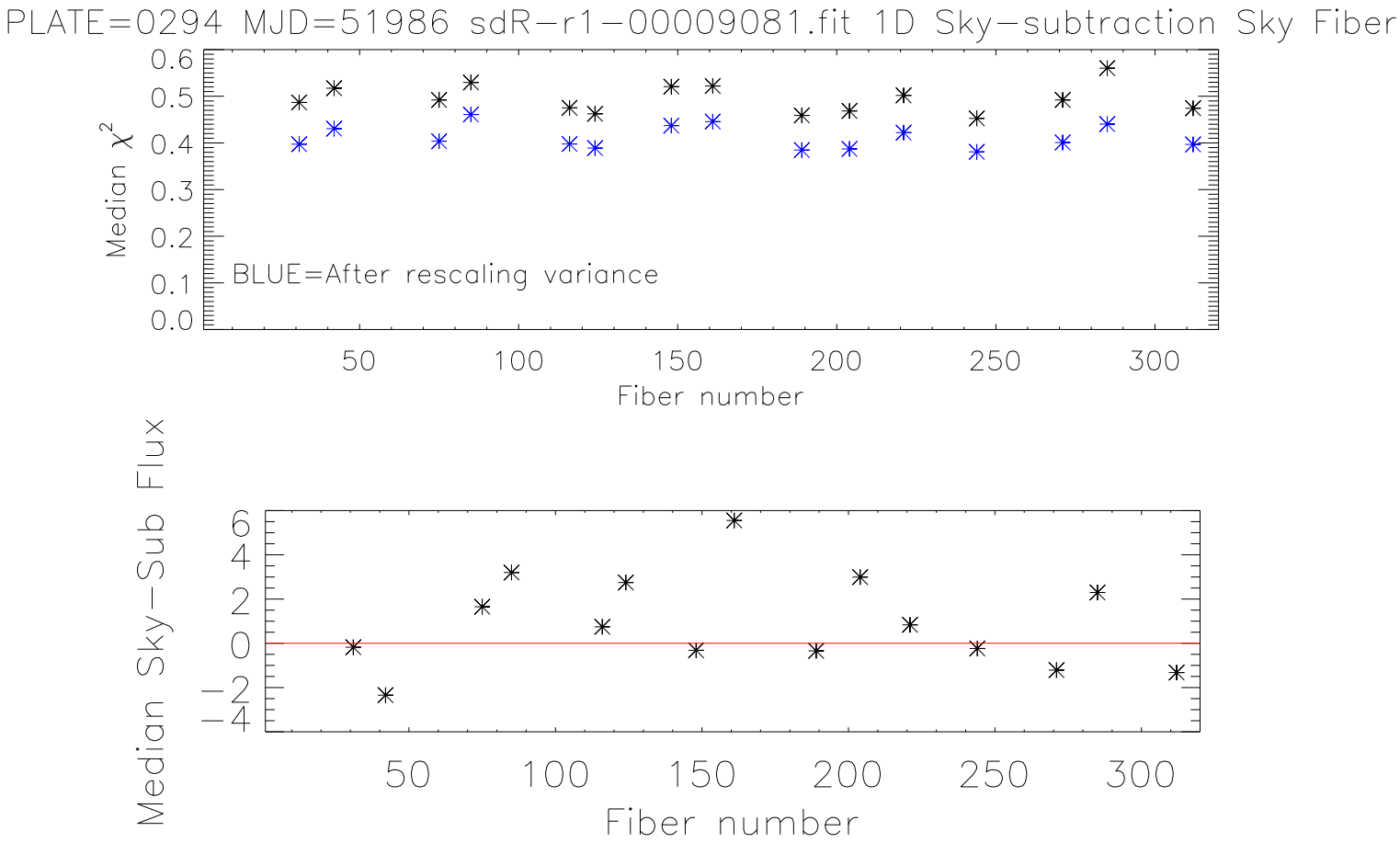

8885.8300
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

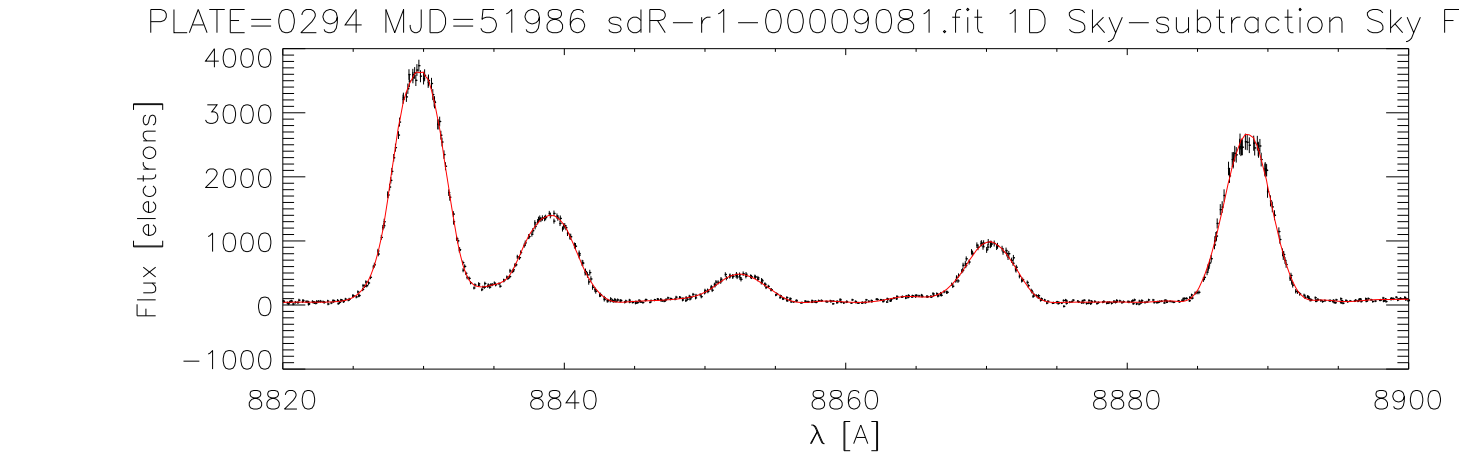

8919.6100
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

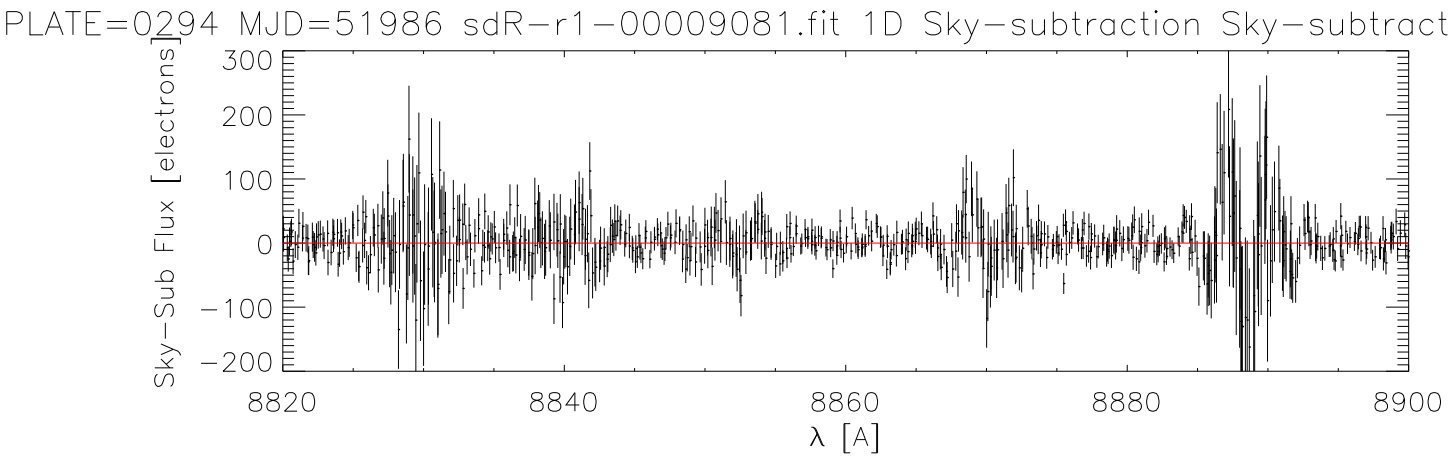

6300.3040
stdev 0.009
extra 0.009
6363.7760
stdev 0.023
extra 0.021
6553.6100
stdev 0.035
extra 0.035
6923.2100
stdev 0.041
extra 0.010
6949.0300
stdev 0.034
extra 0.034
7571.7500
stdev 0.047
extra 0.017
7794.1200
stdev 0.023
extra 0.023
7821.5100
stdev 0.020
extra 0.010
8399.1600
stdev 0.022
extra 0.014
8430.1700
stdev 0.021
extra 0.012
8885.8300
stdev 0.031
extra 0.016
8919.6100
stdev 0.025
extra 0.016
meas − pred, pix
mfb21 16
mfb21 15
mfb21 16
mfb21 16
mfb21 16
mfb21 16
mfb21 15
mfb21 16
mfb21 16
mfb21 16
mfb21 16
mfb21 16
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400

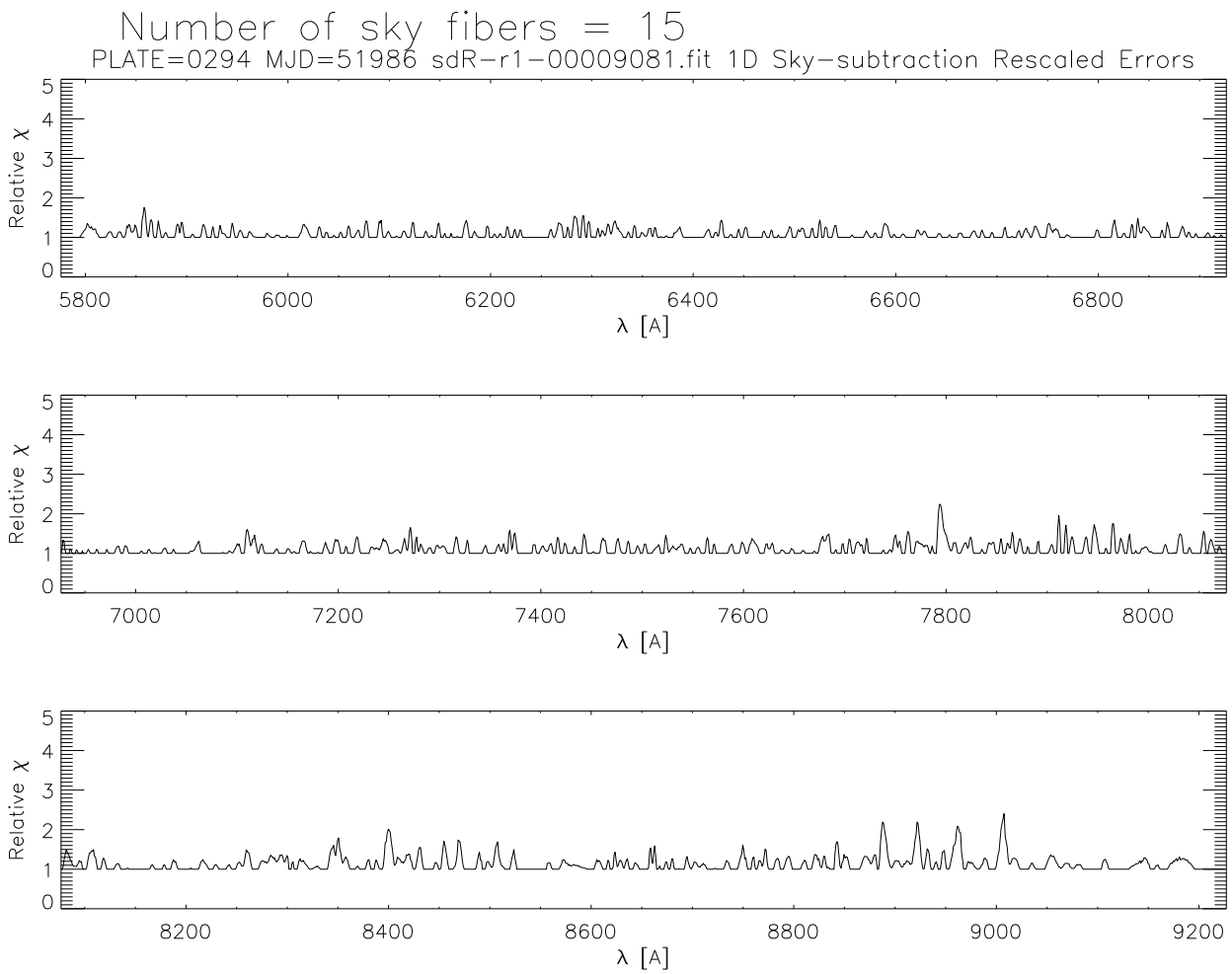

sky shift, pixels
0.00
0.05
0.10
0.15
5000
6000
7000
8000
9000
10000

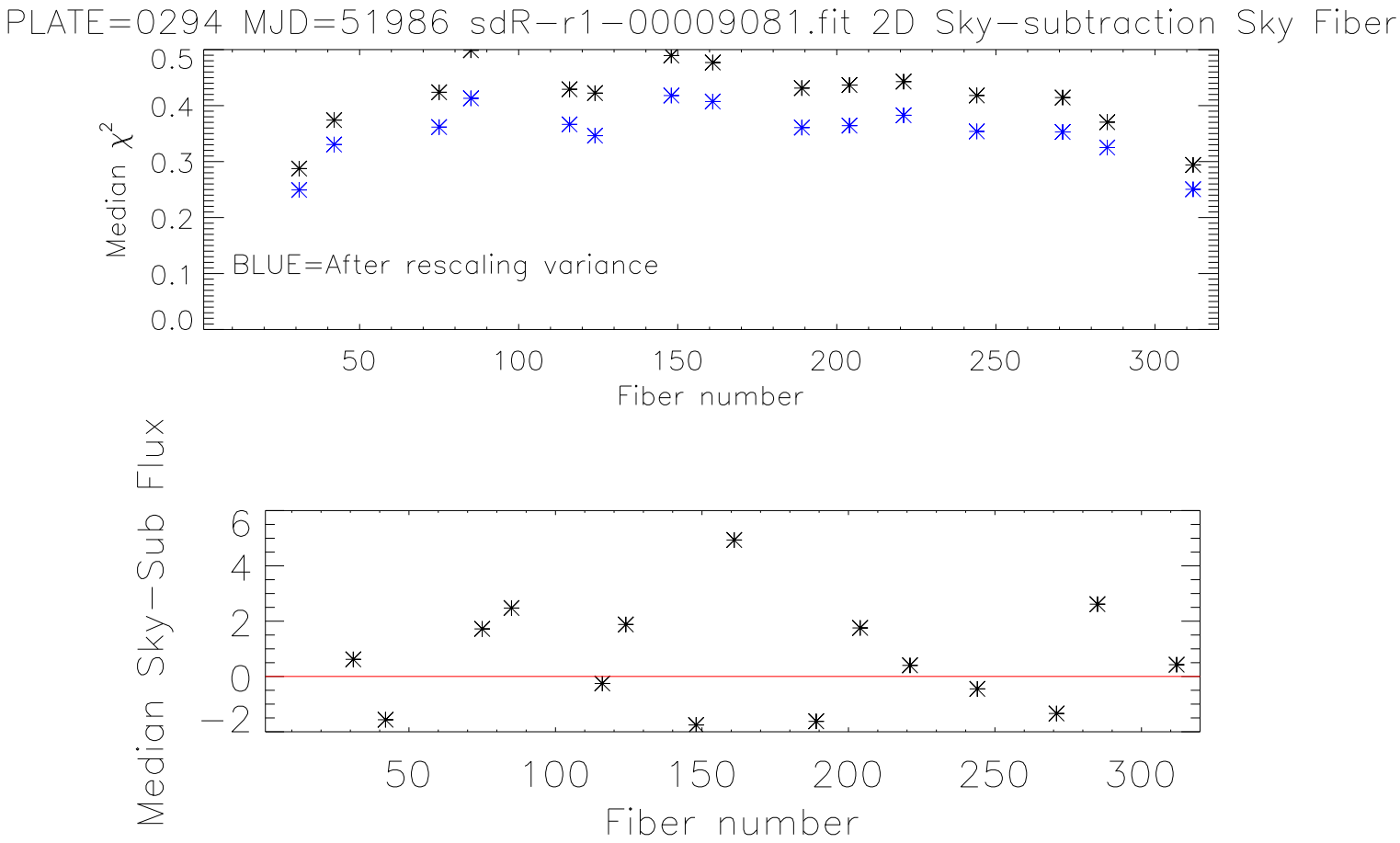

PLATE=0294 MJD=51986 Smooth superflat for sdR-r1-00009081.fit
es= -0.0000
2.0
1.5
1.0
0.5
0.0
1.006
1.004
1.002
1.000
0.998
0.996
0.994
6000
7000
8000
9000
Wavelength (Å)

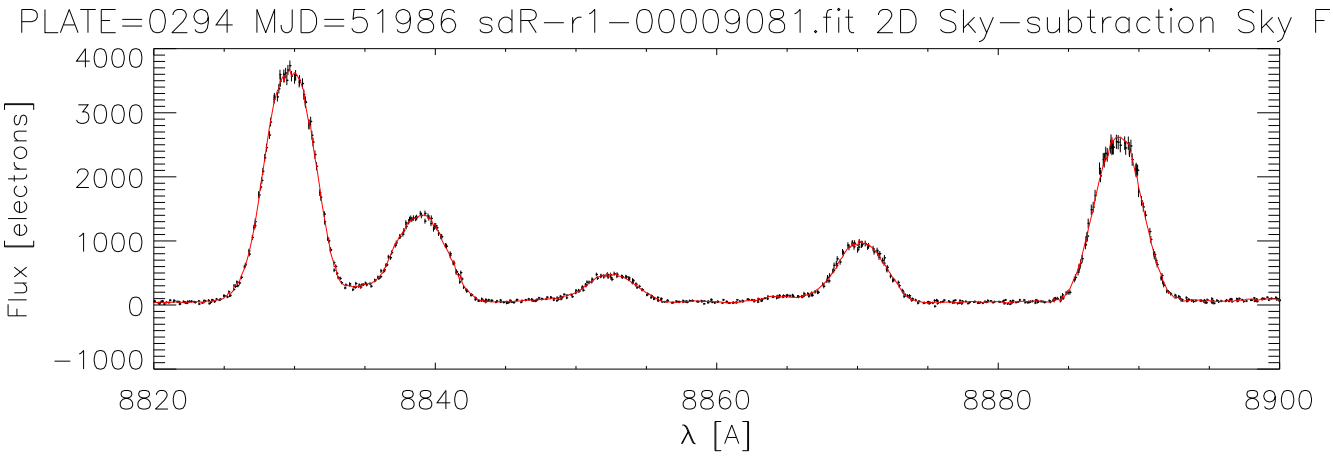

PLATE=0294 MJD=51986 sdR-r1-00009081.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-4
-2
0
2
4
6
50
100
150
200
250
300
Fiber number

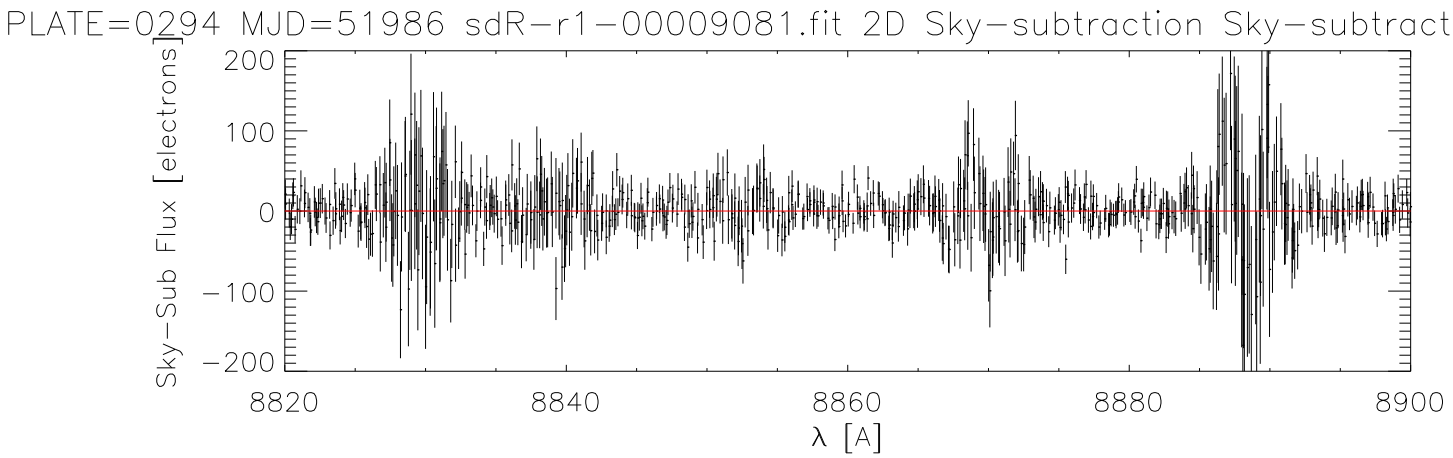

PLATE=0294 MJD=51986 sdR-r1-00009081.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
−1000
8820
8840
8860
8880
8900
λ [A]

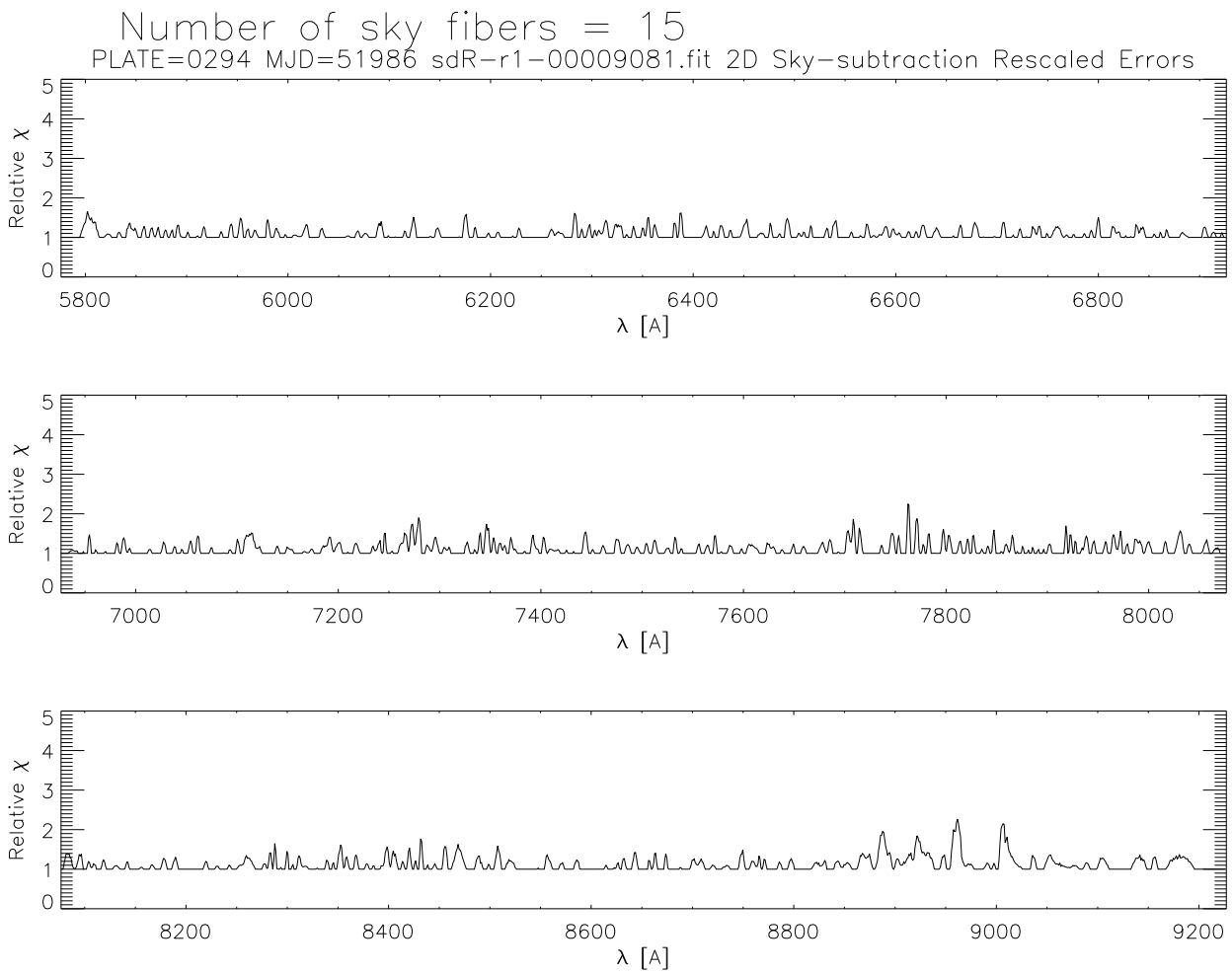

PLATE=0294 MJD=51986 sdR-r1-00009081.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
−100
−200
8820
8840
8860
8880
8900
λ [A]

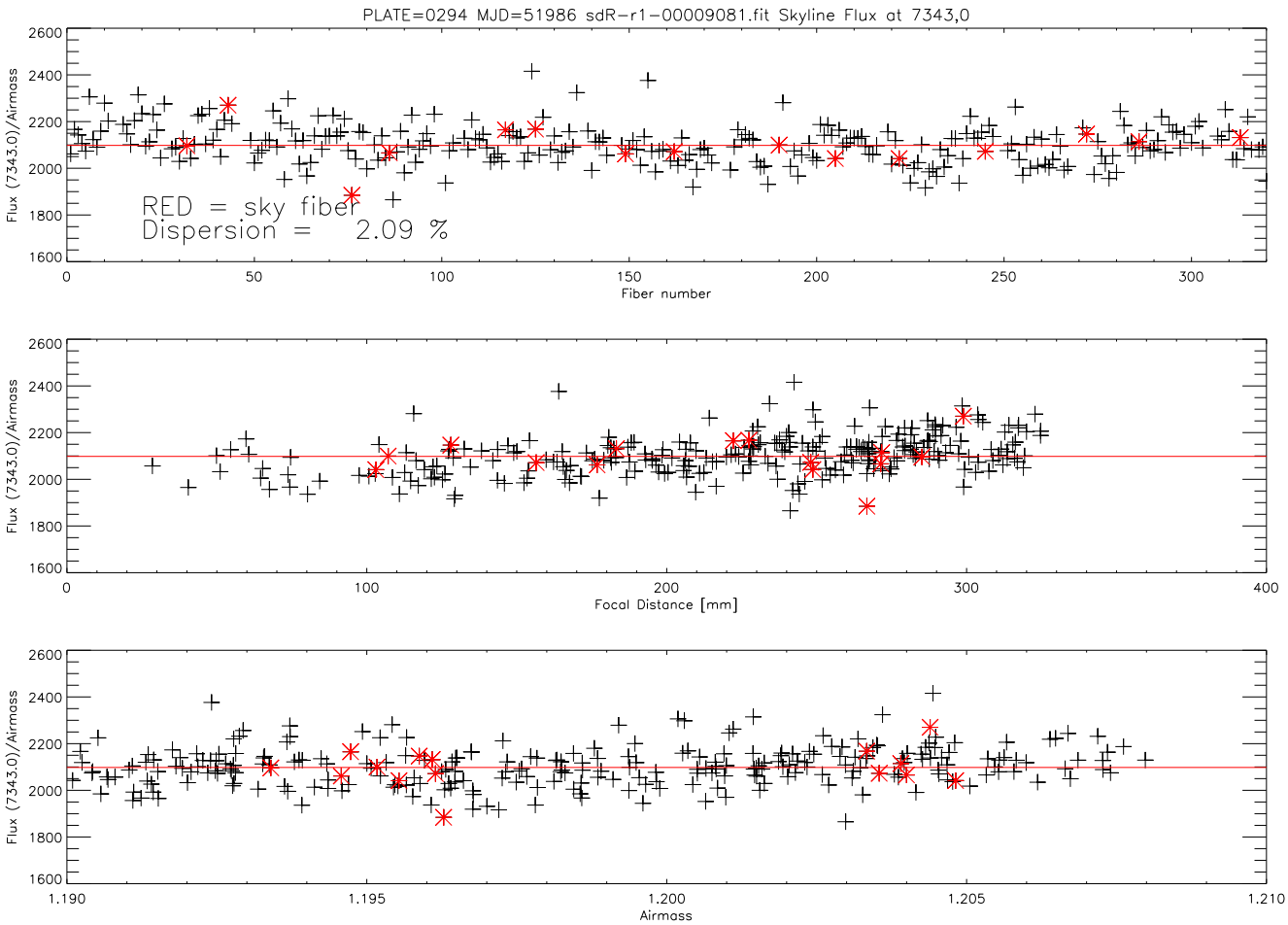

Number of sky fibers = 15
PLATE=0294 MJD=51986 sdR-r1-00009081.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

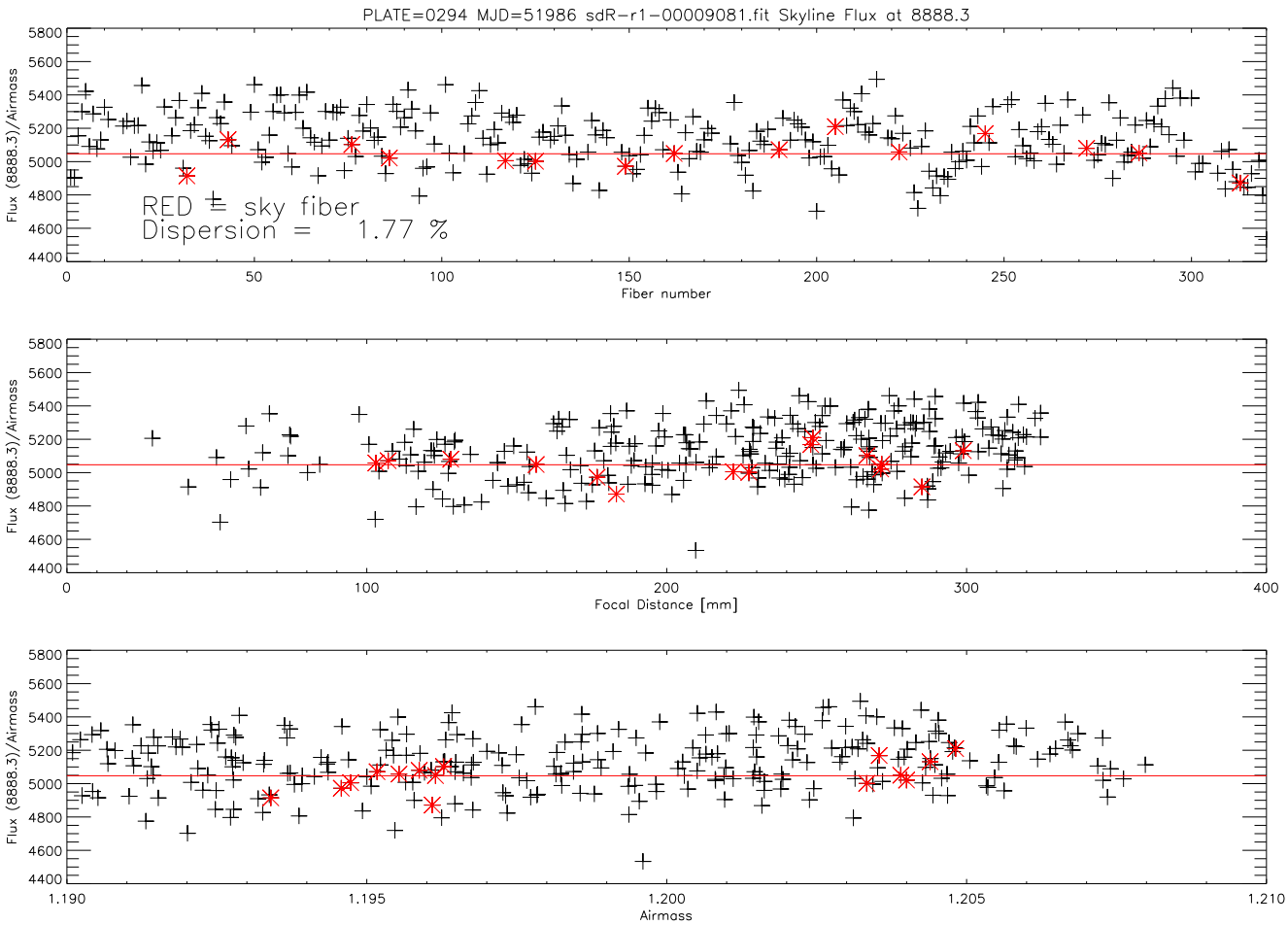

PLATE=0294 MJD=51986 sdR-r1-00009081.fit 2D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
−2
0
2
4
6
50
100
150
200
250
300
Fiber number

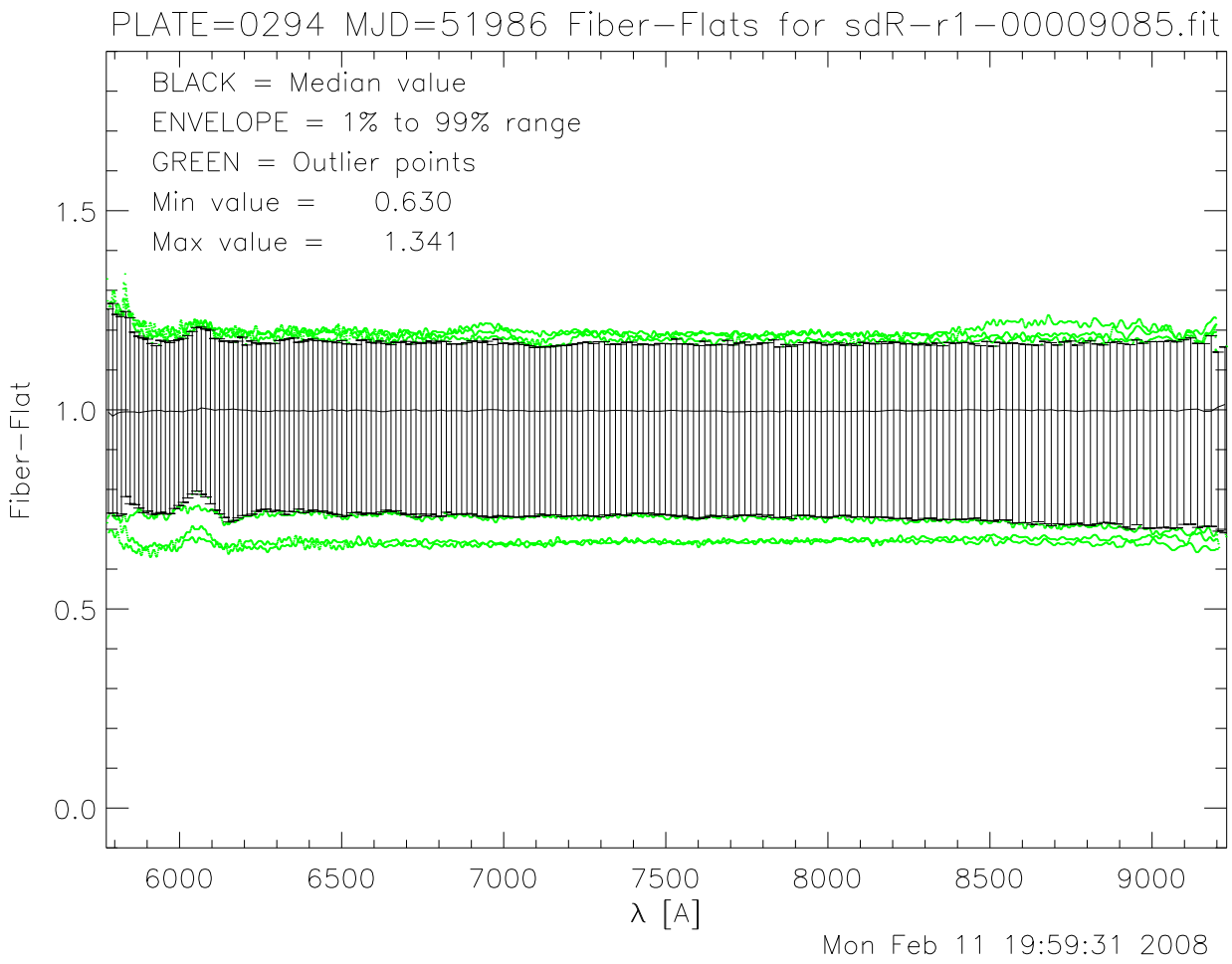

PLATE=0294 MJD=51986 sdR-r1-00009081.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
−1000
8820
8840
8860
8880
8900
λ [A]

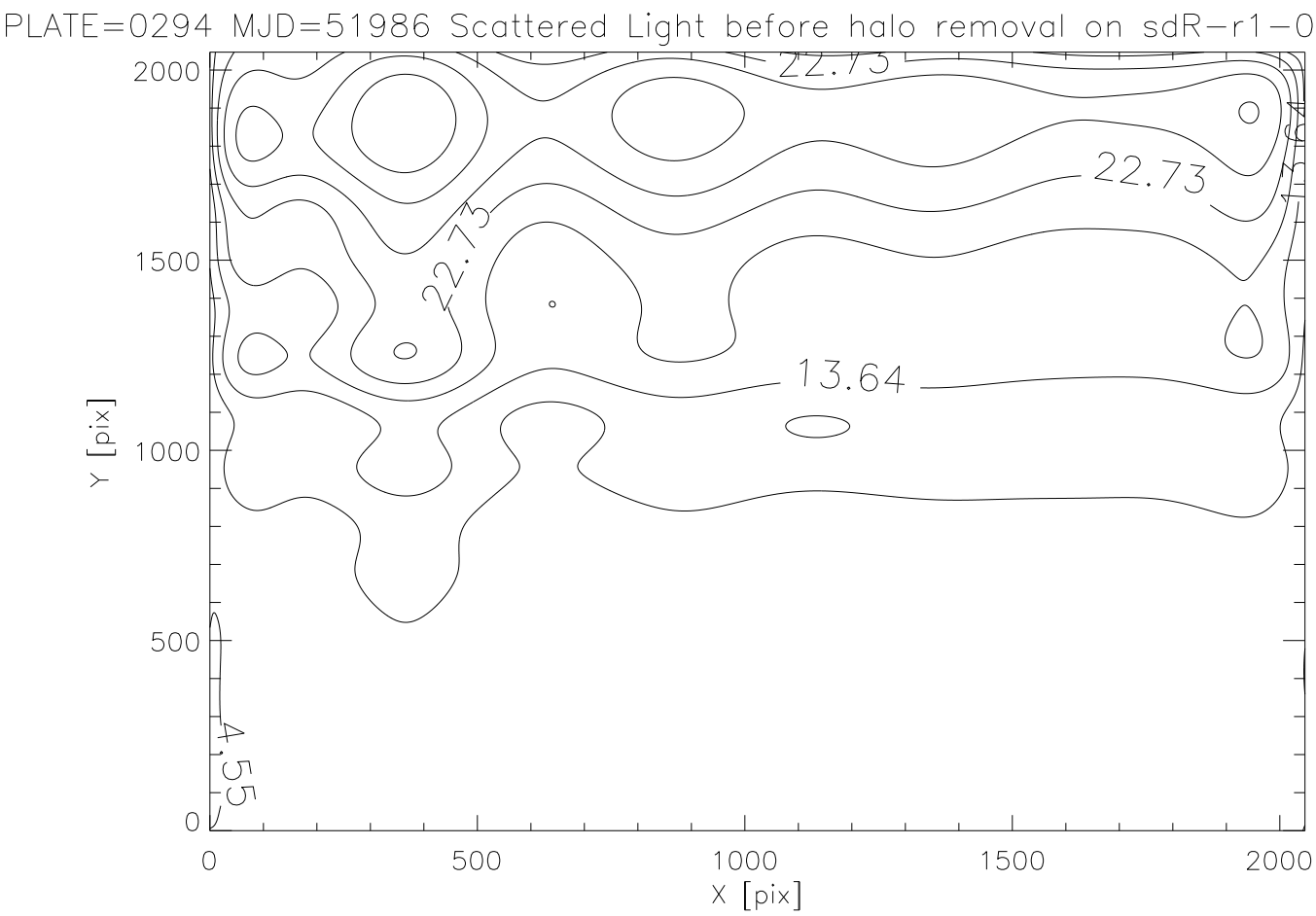

PLATE=0294 MJD=51986 sdR-r1-00009081.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
−100
−200
8820
8840
8860
8880
8900
λ [A]

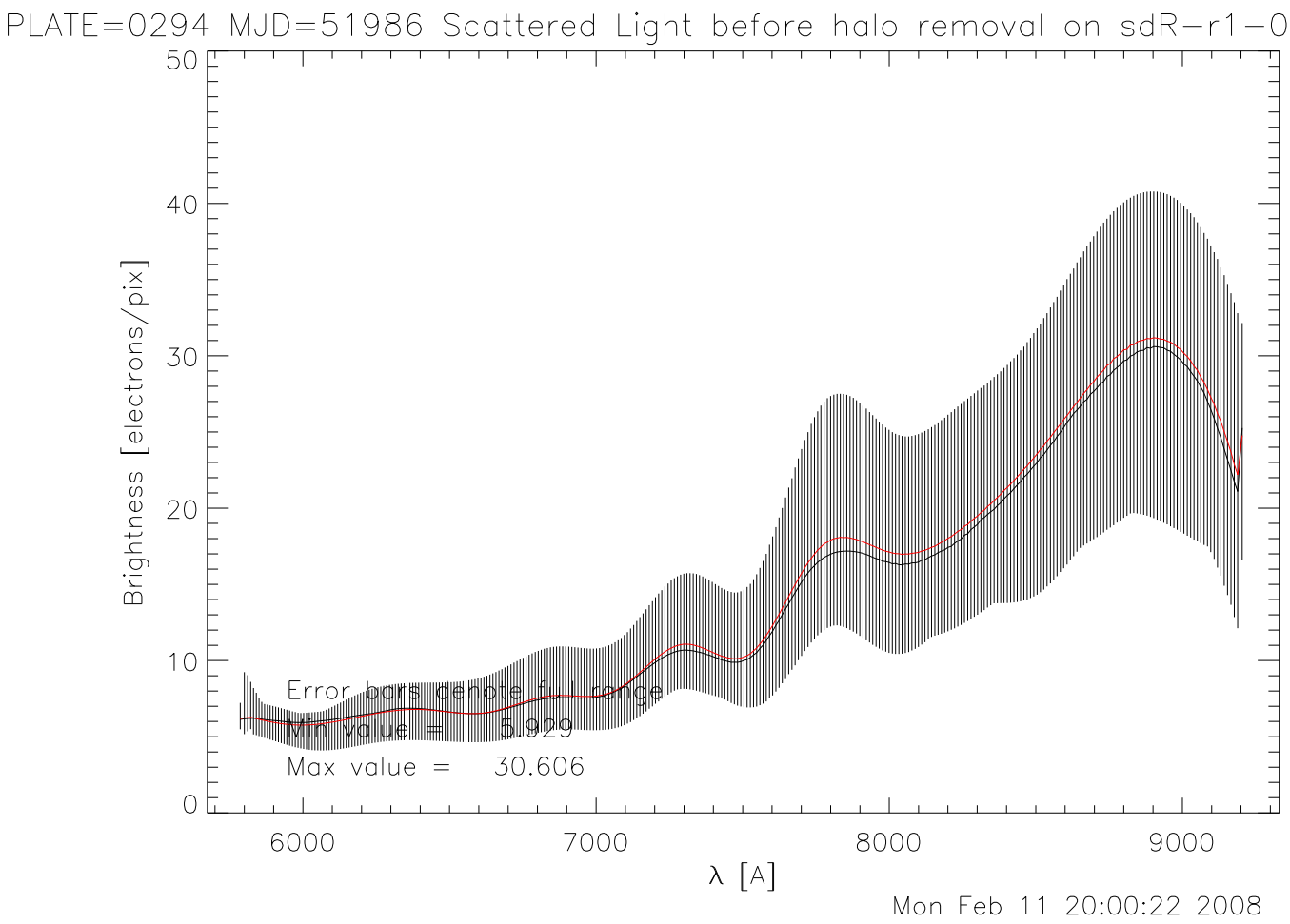

Number of sky fibers = 15
PLATE=0294 MJD=51986 sdR-r1-00009081.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

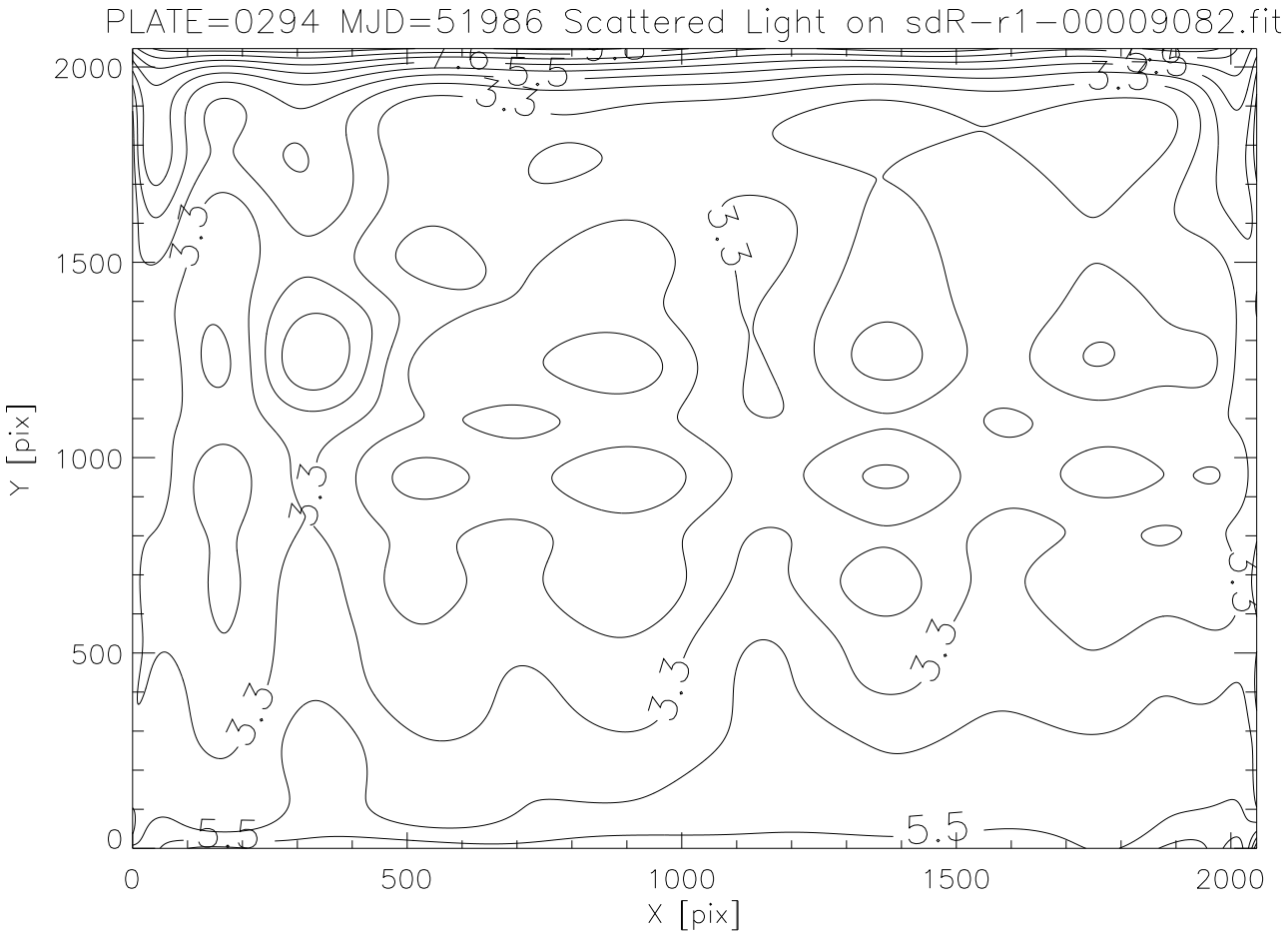

PLATE=0294 MJD=51986 sdR-r1-00009081.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 2.09 %
Fiber number
Focal Distance [mm]
Airmass

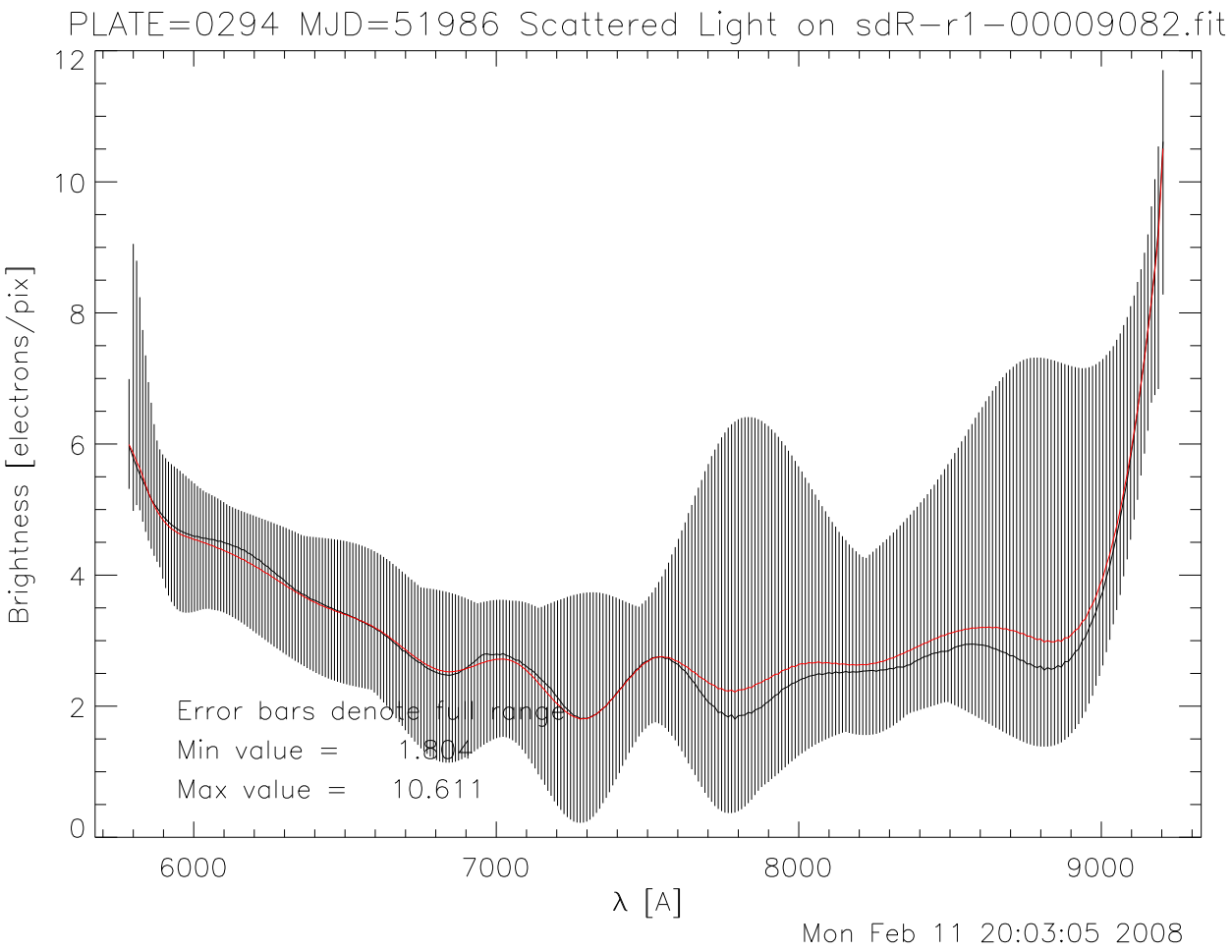

PLATE=0294 MJD=51986 sdR-r1-00009081.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 1.77 %
Fiber number
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass

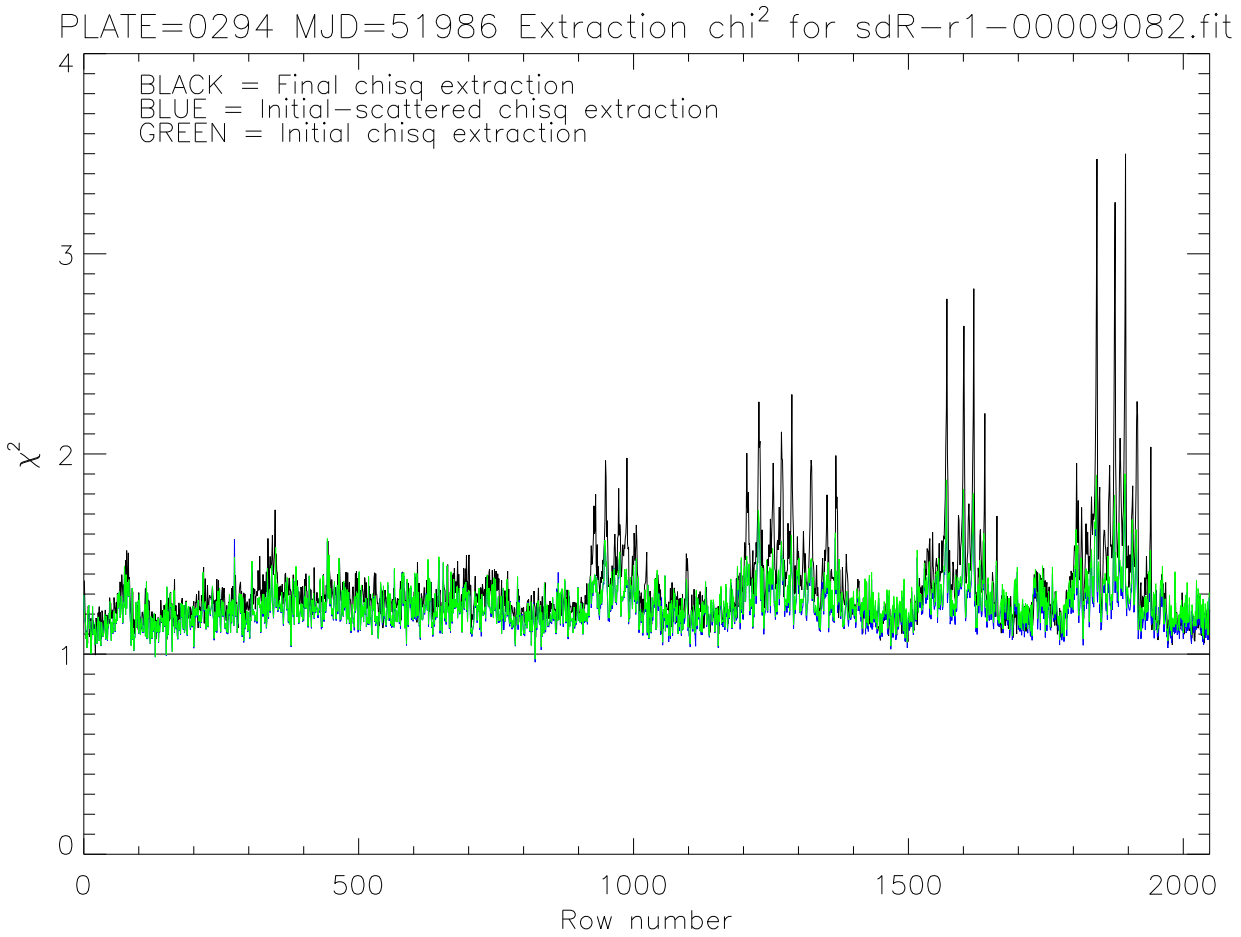

PLATE=0294 MJD=51986 Fiber−Flats for sdR−r1−00009085.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.630
Max value = 1.341
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Mon Feb 11 19:59:31 2008

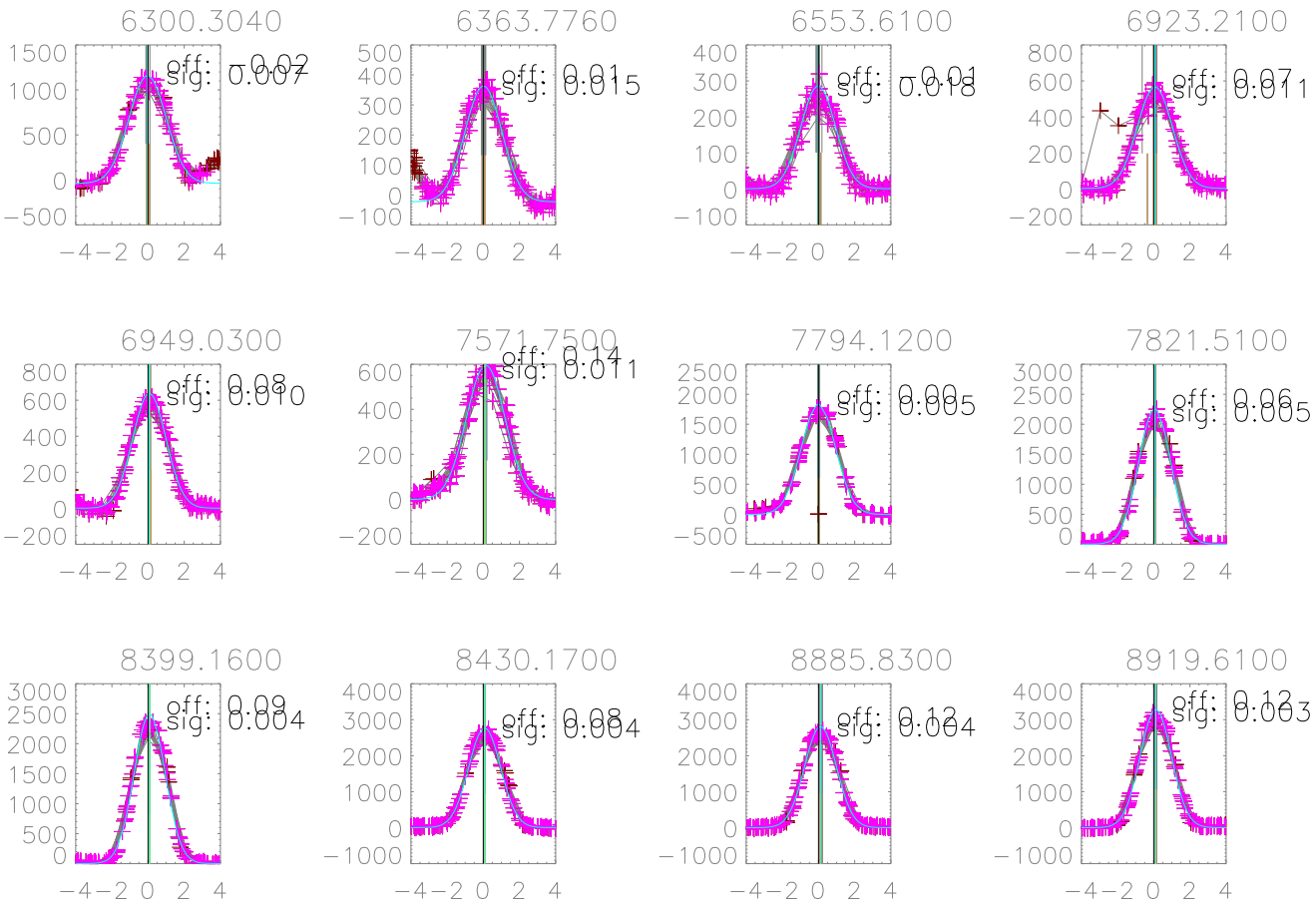

PLATE=0294 MJD=51986 Scattered Light before halo removal on sdR-r1-00009082.fi
22.73
22.73
22.73
13.64
4.55
Y [pix]
X [pix]
0
500
1000
1500
2000

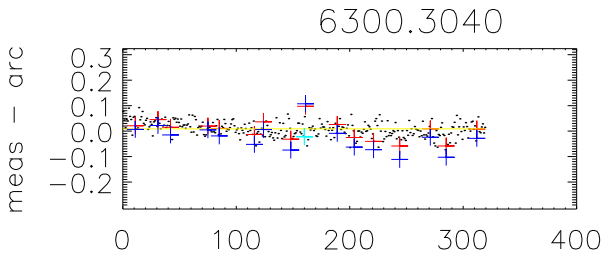

PLATE=0294 MJD=51986 Scattered Light before halo removal on sdR-r1-00009082.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 5.929
Max value = 30.606
Mon Feb 11 20:00:22 2008

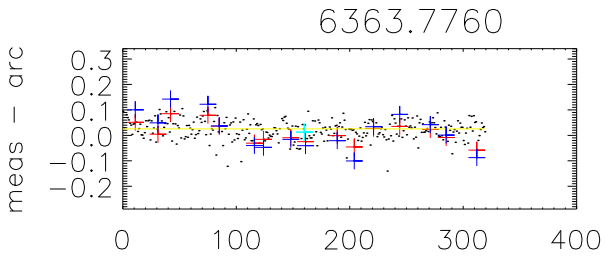

PLATE=0294 MJD=51986 Scattered Light on sdR-r1-00009082.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
3.3
5.5

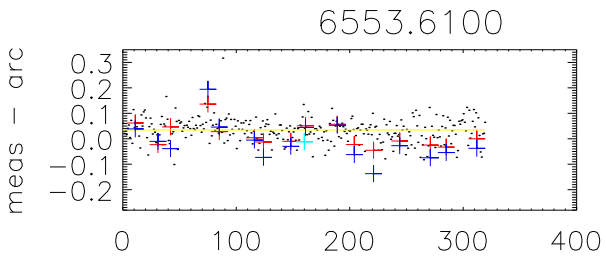

PLATE=0294 MJD=51986 Scattered Light on sdR-r1-00009082.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 1.804
Max value = 10.611
Mon Feb 11 20:03:05 2008

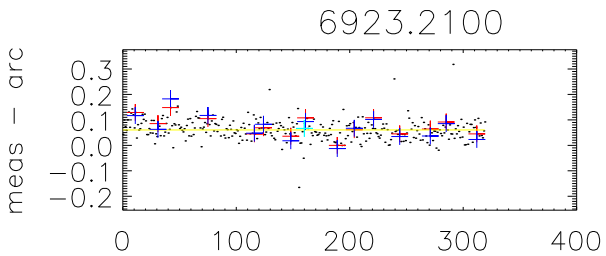

PLATE=0294 MJD=51986 Extraction chi^2 for sdR−r1−00009082.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
0
500
1000
1500
2000
Row number

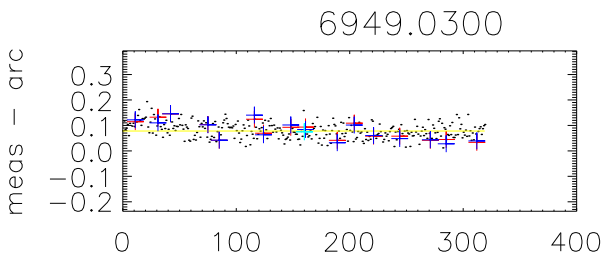

6300.3040
off: -0.02
sig: 0.007
6363.7760
off: 0.01
sig: 0.015
6553.6100
off: -0.01
sig: 0.018
6923.2100
off: 0.07
sig: 0.011
6949.0300
off: 0.08
sig: 0.010
7571.7500
off: 0.14
sig: 0.011
7794.1200
off: 0.00
sig: 0.005
7821.5100
off: 0.06
sig: 0.005
8399.1600
off: 0.09
sig: 0.004
8430.1700
off: 0.08
sig: 0.004
8885.8300
off: 0.12
sig: 0.004
8919.6100
off: 0.12
sig: 0.003

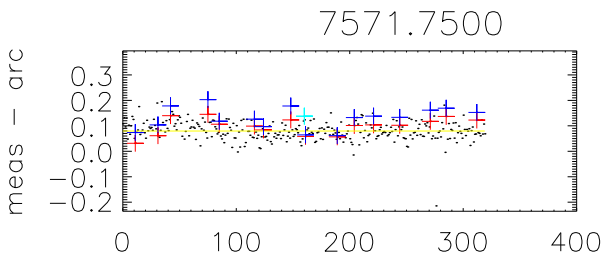

6300.3040
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

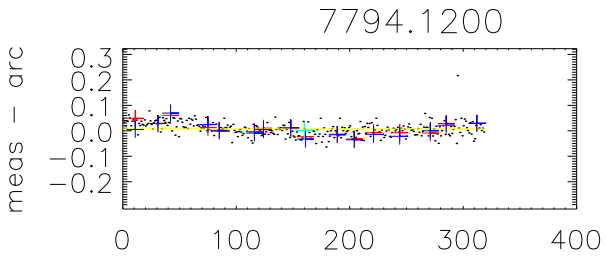

6363.7760
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

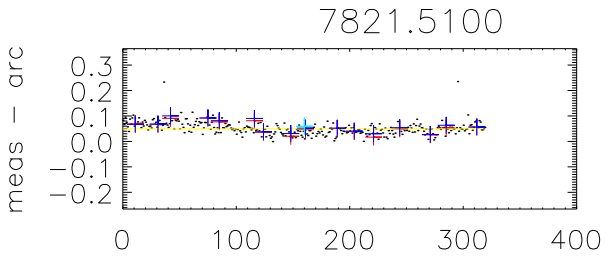

6553.6100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

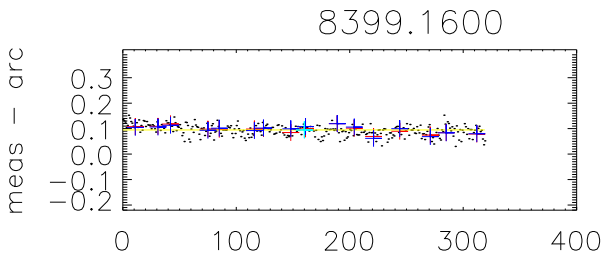

6923.2100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

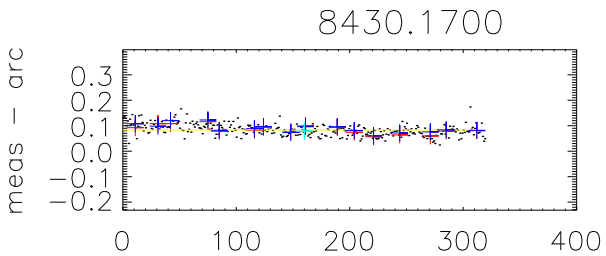

6949.0300
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

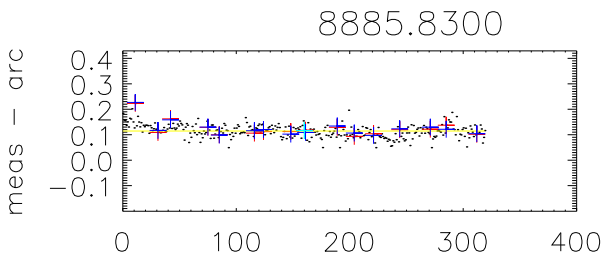

7571.7500
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

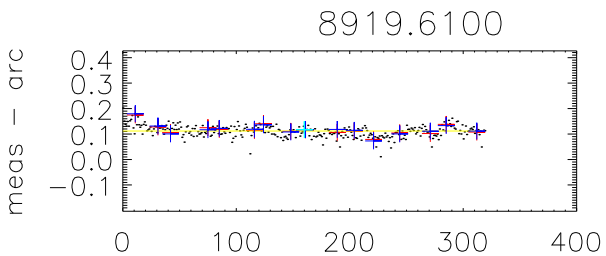

7794.1200
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

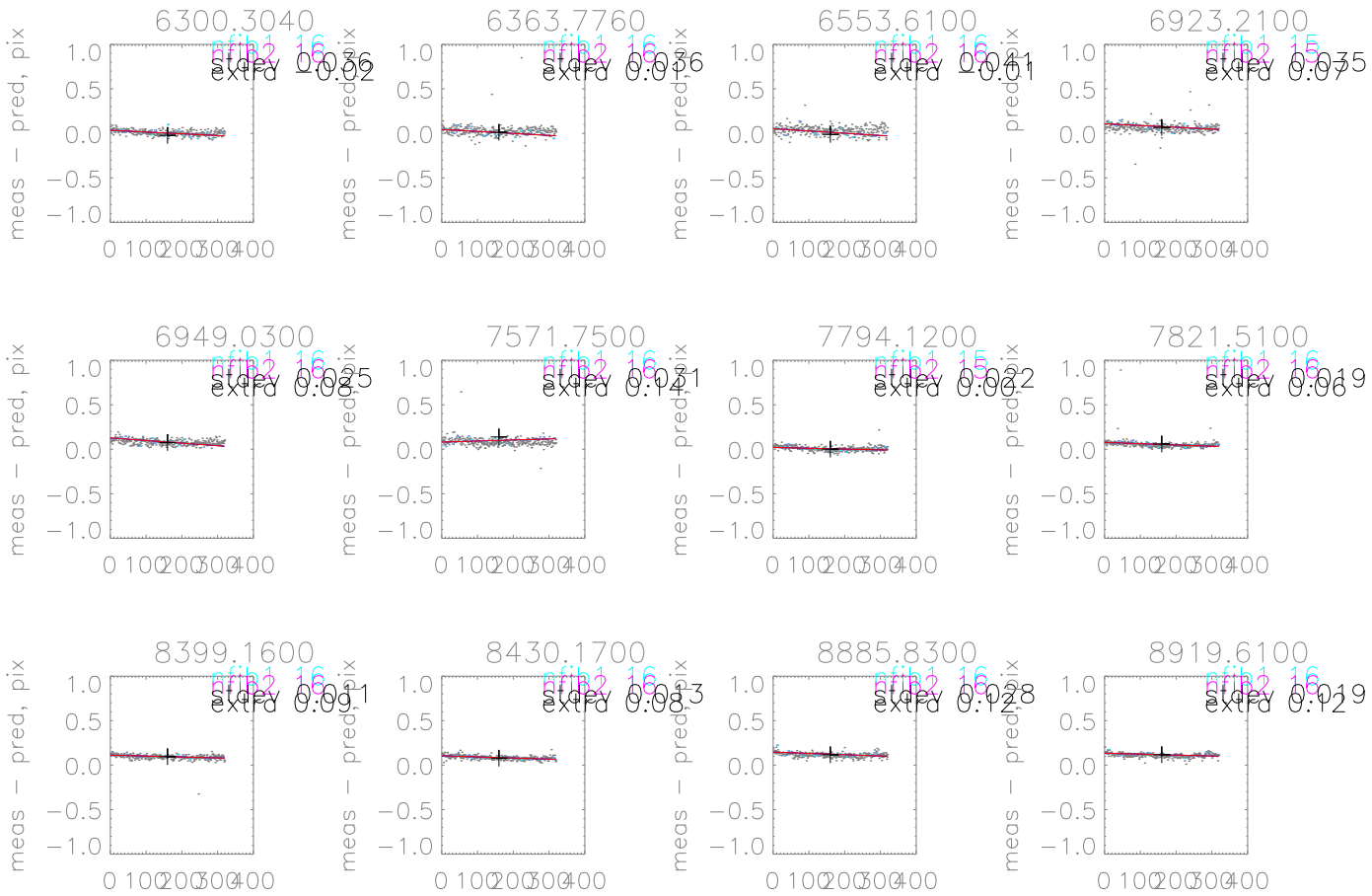

7821.5100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

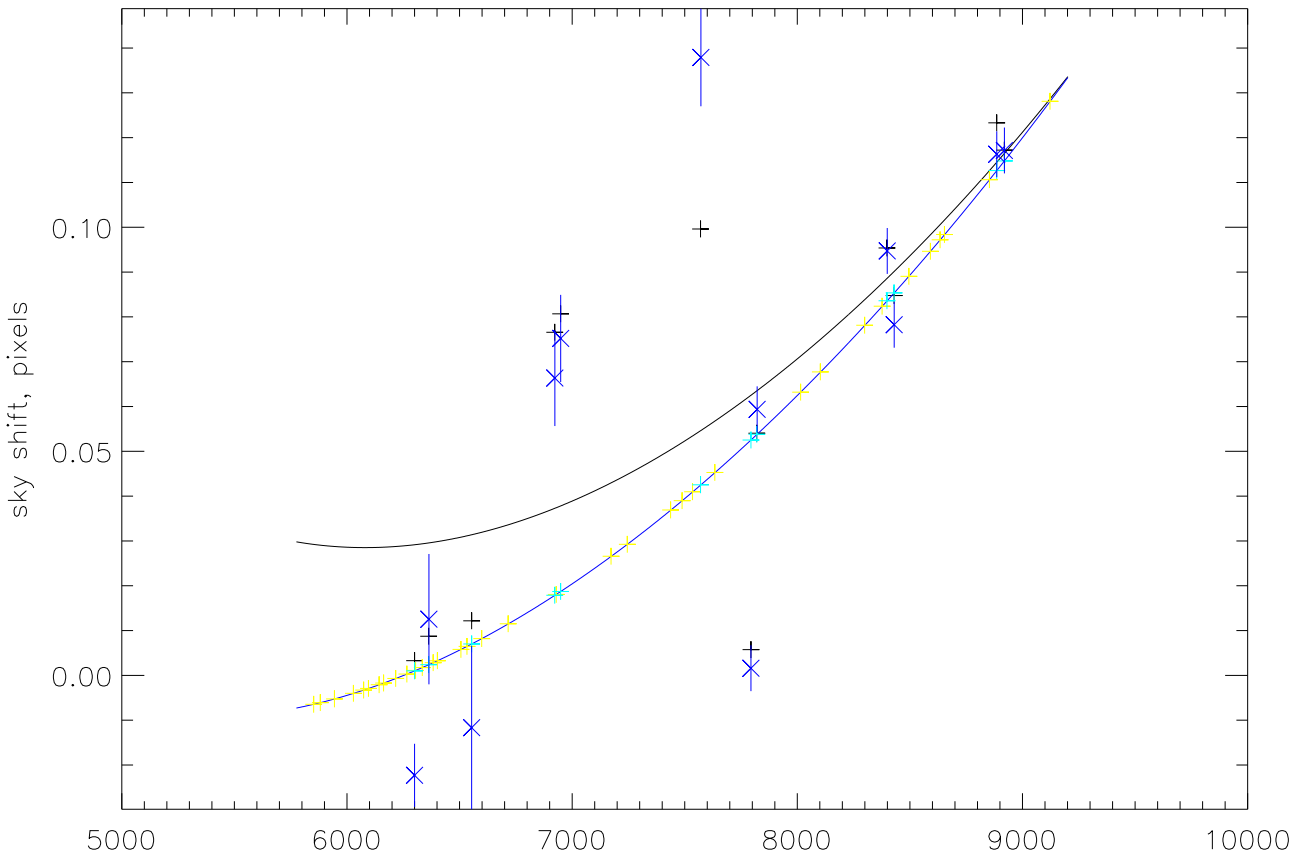

8399.1600
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

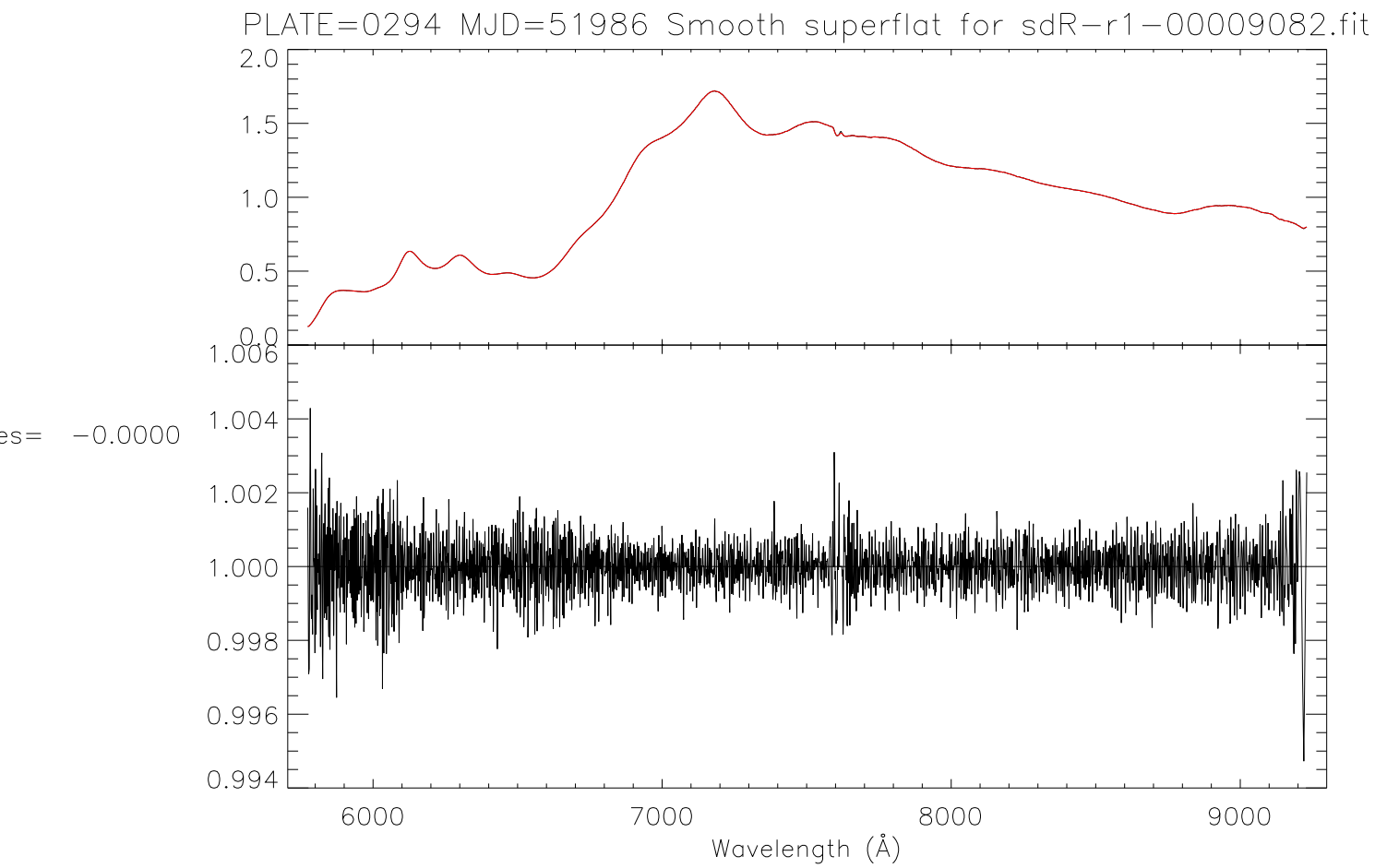

8430.1700
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

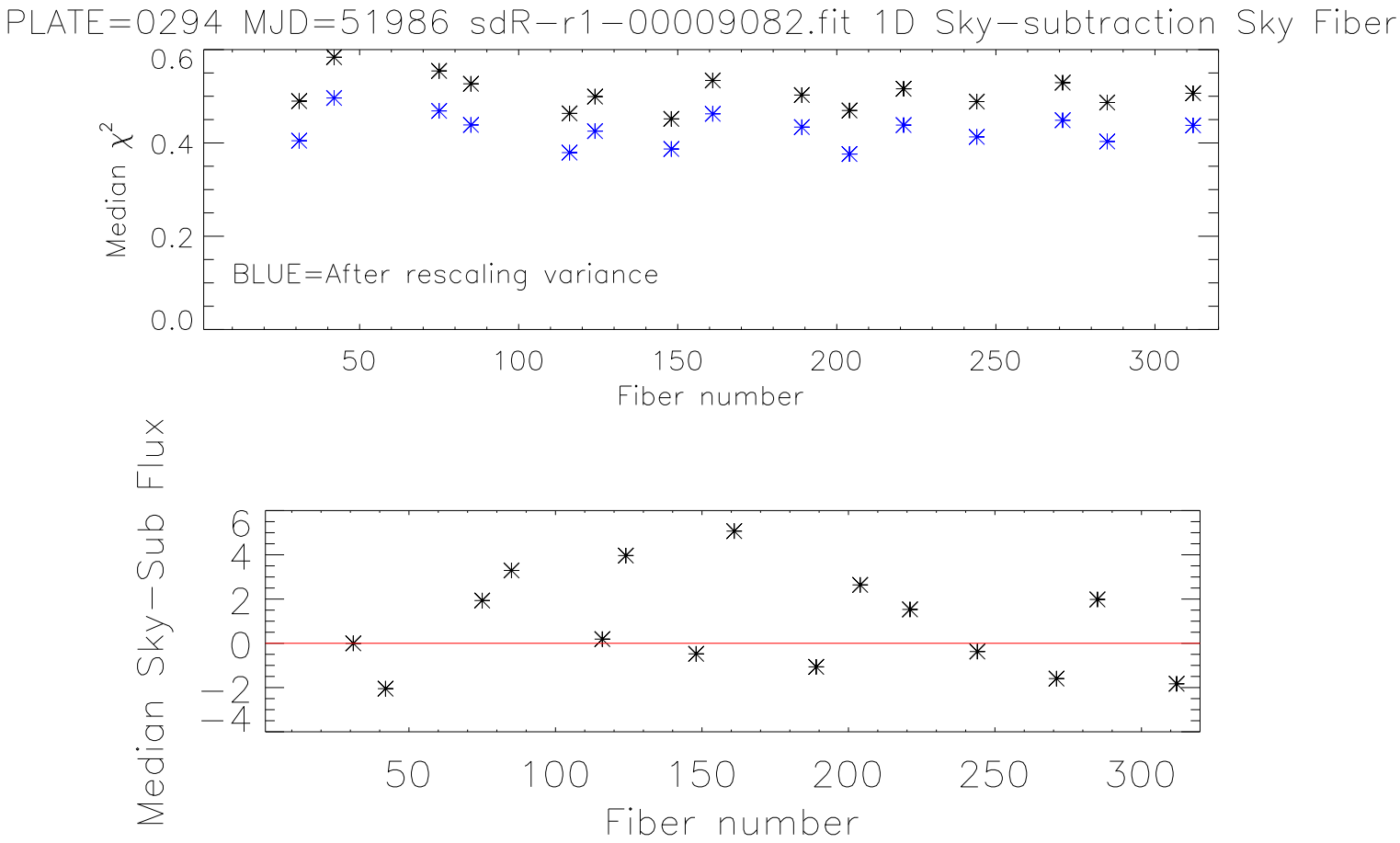

8885.8300
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

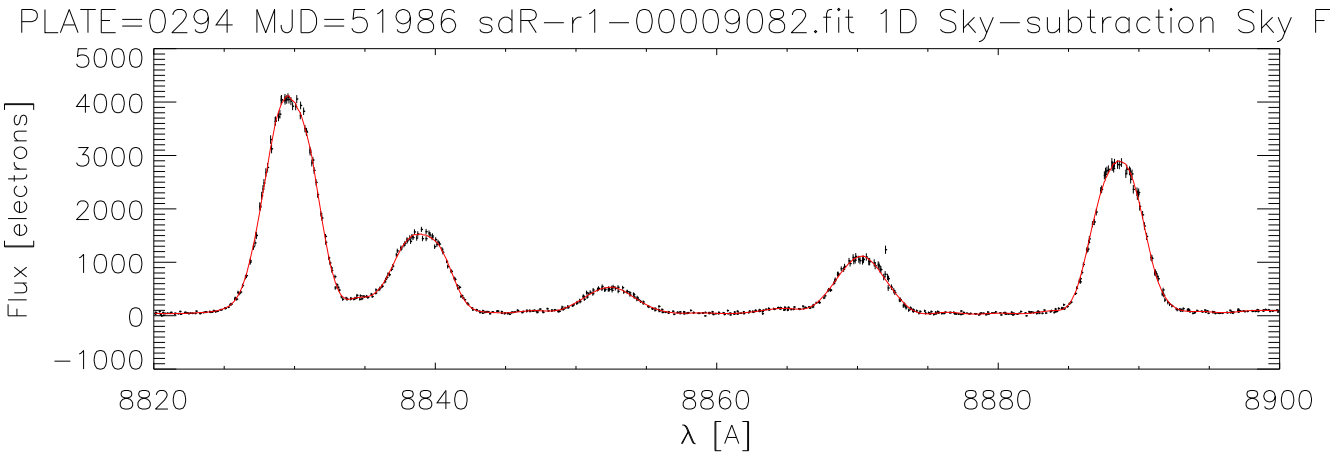

8919.6100
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

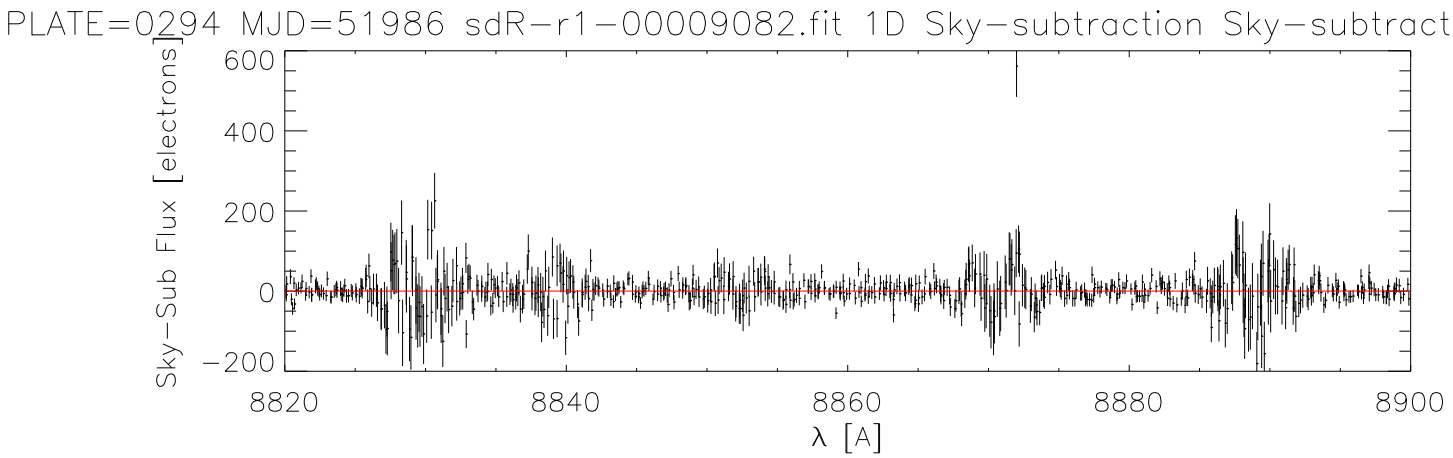

6300.3040
stdev 0.036
extra −0.02
6363.7760
stdev 0.036
extra 0.01
6553.6100
stdev 0.041
extra −0.01
6923.2100
stdev 0.035
extra 0.07
6949.0300
stdev 0.025
extra 0.08
7571.7500
stdev 0.031
extra 0.14
7794.1200
stdev 0.022
extra 0.06
7821.5100
stdev 0.019
extra 0.06
8399.1600
stdev 0.041
extra 0.09
8430.1700
stdev 0.043
extra 0.08
8885.8300
stdev 0.028
extra 0.12
8919.6100
stdev 0.019
extra 0.12
meas − pred, pix

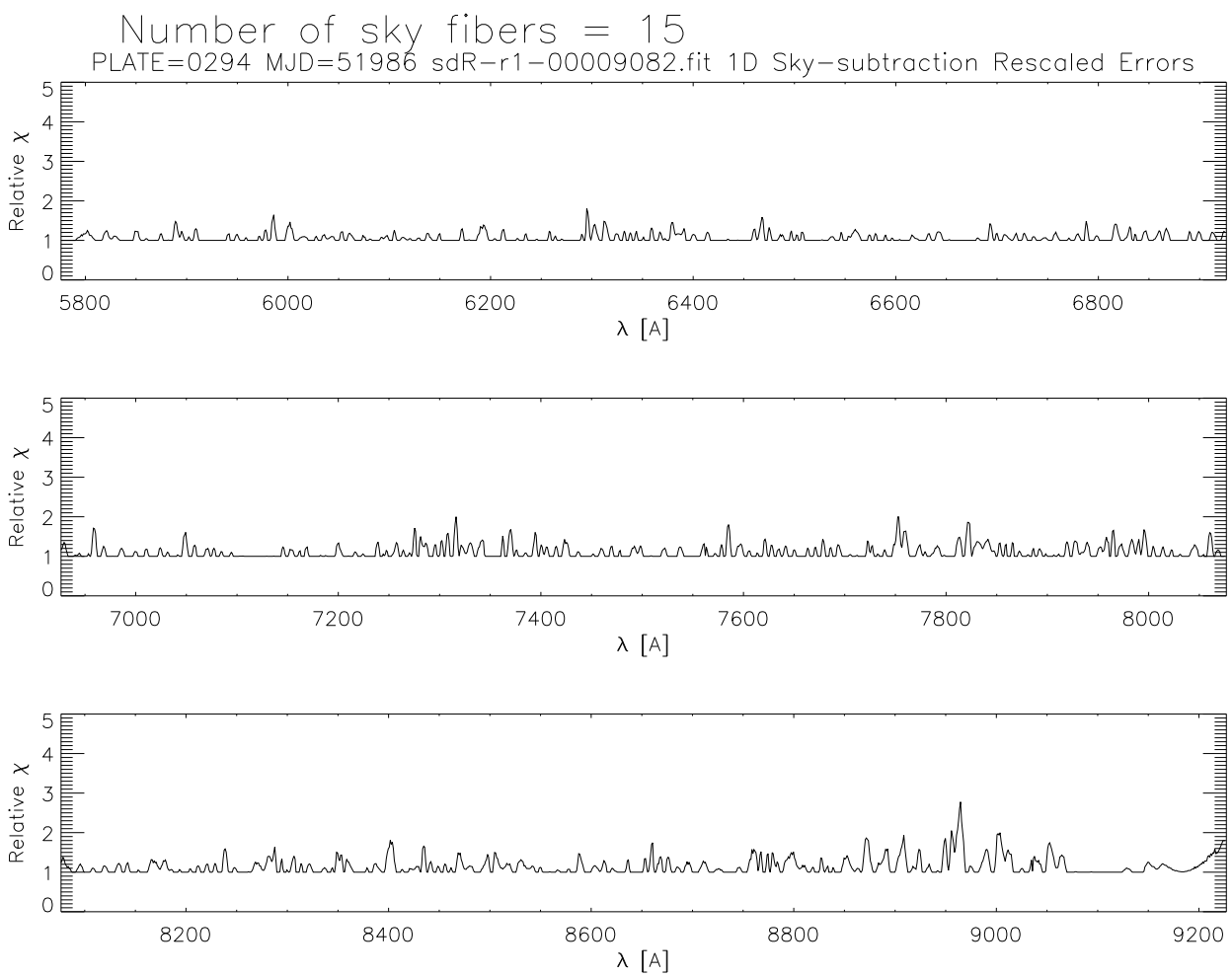

sky shift, pixels
0.10
0.05
0.00
5000
6000
7000
8000
9000
10000

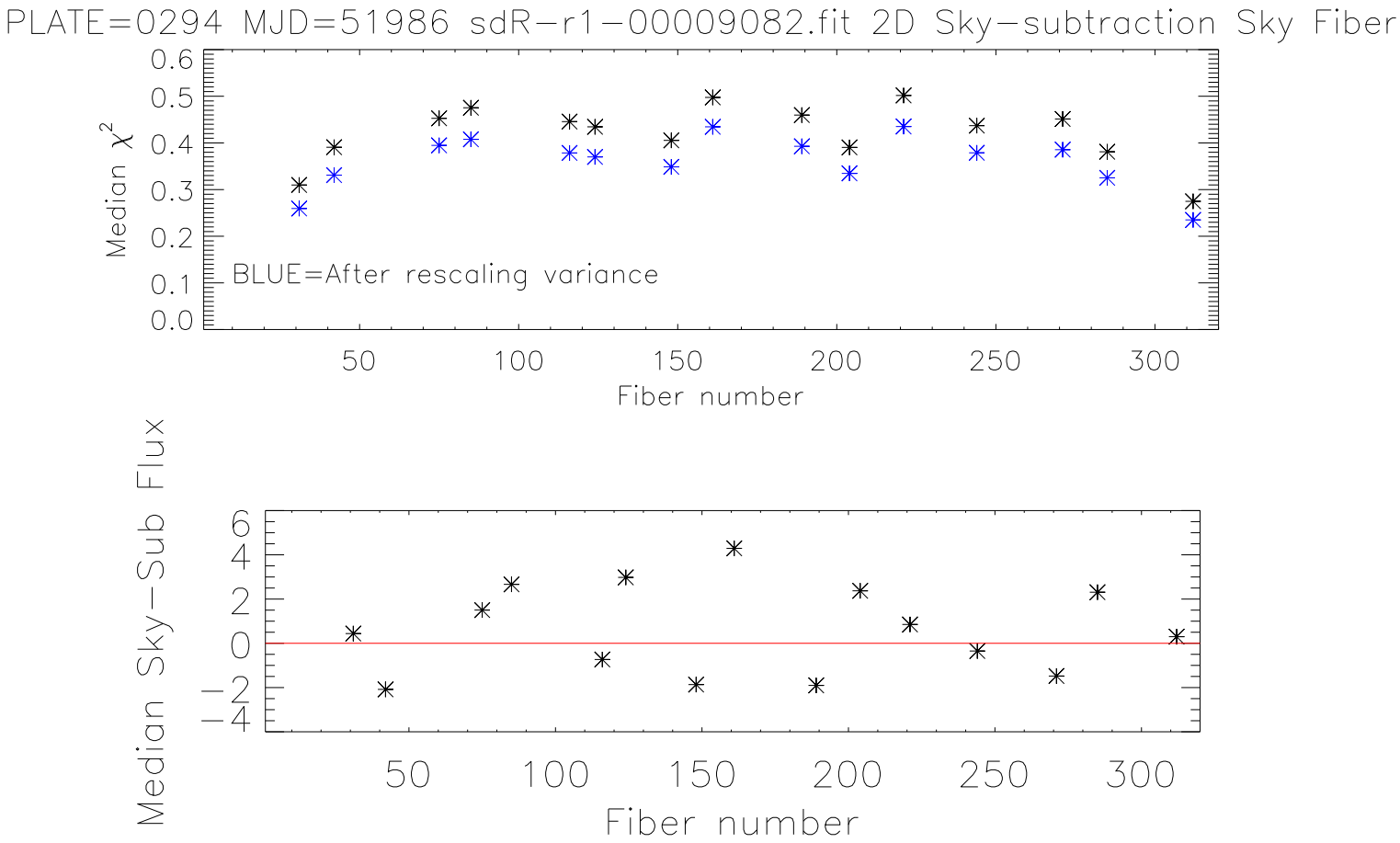

PLATE=0294 MJD=51986 Smooth superflat for sdR-r1-00009082.fit
2.0
1.5
1.0
0.5
0.0
1.006
1.004
1.002
1.000
0.998
0.996
0.994
es= −0.0000
6000
7000
8000
9000
Wavelength (Å)

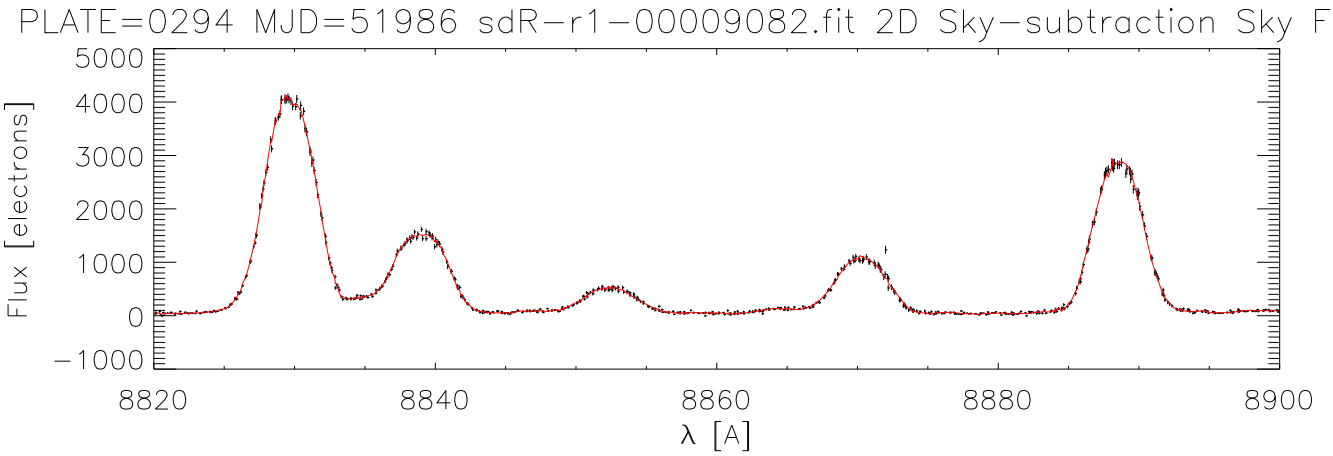

PLATE=0294 MJD=51986 sdR-r1-00009082.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-4
-2
0
2
4
6
50
100
150
200
250
300
Fiber number

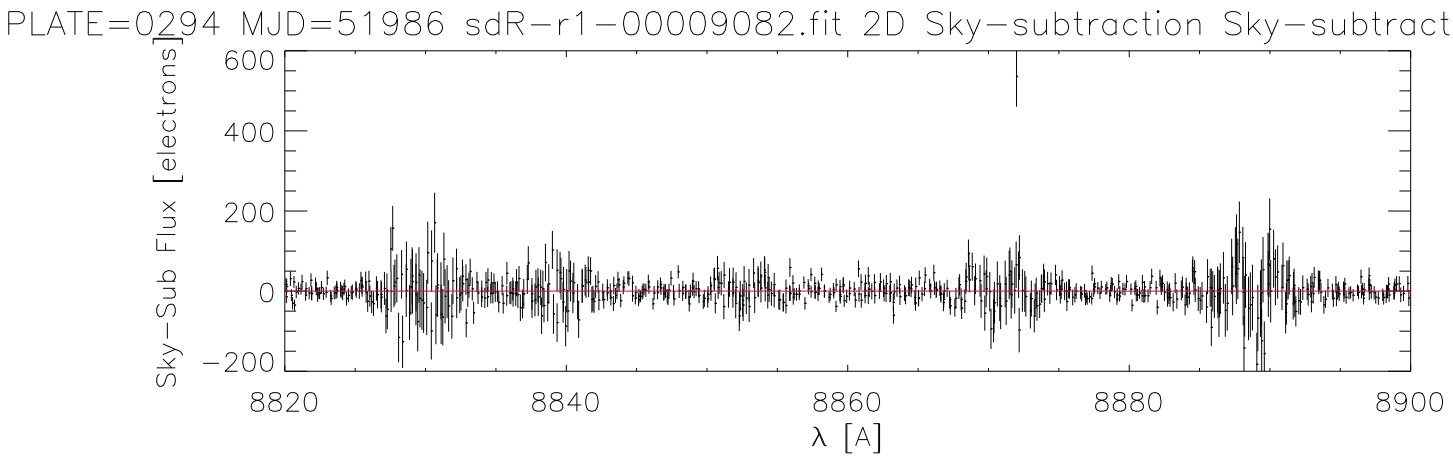

PLATE=0294 MJD=51986 sdR-r1-00009082.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
−1000
8820
8840
8860
8880
8900
λ [A]

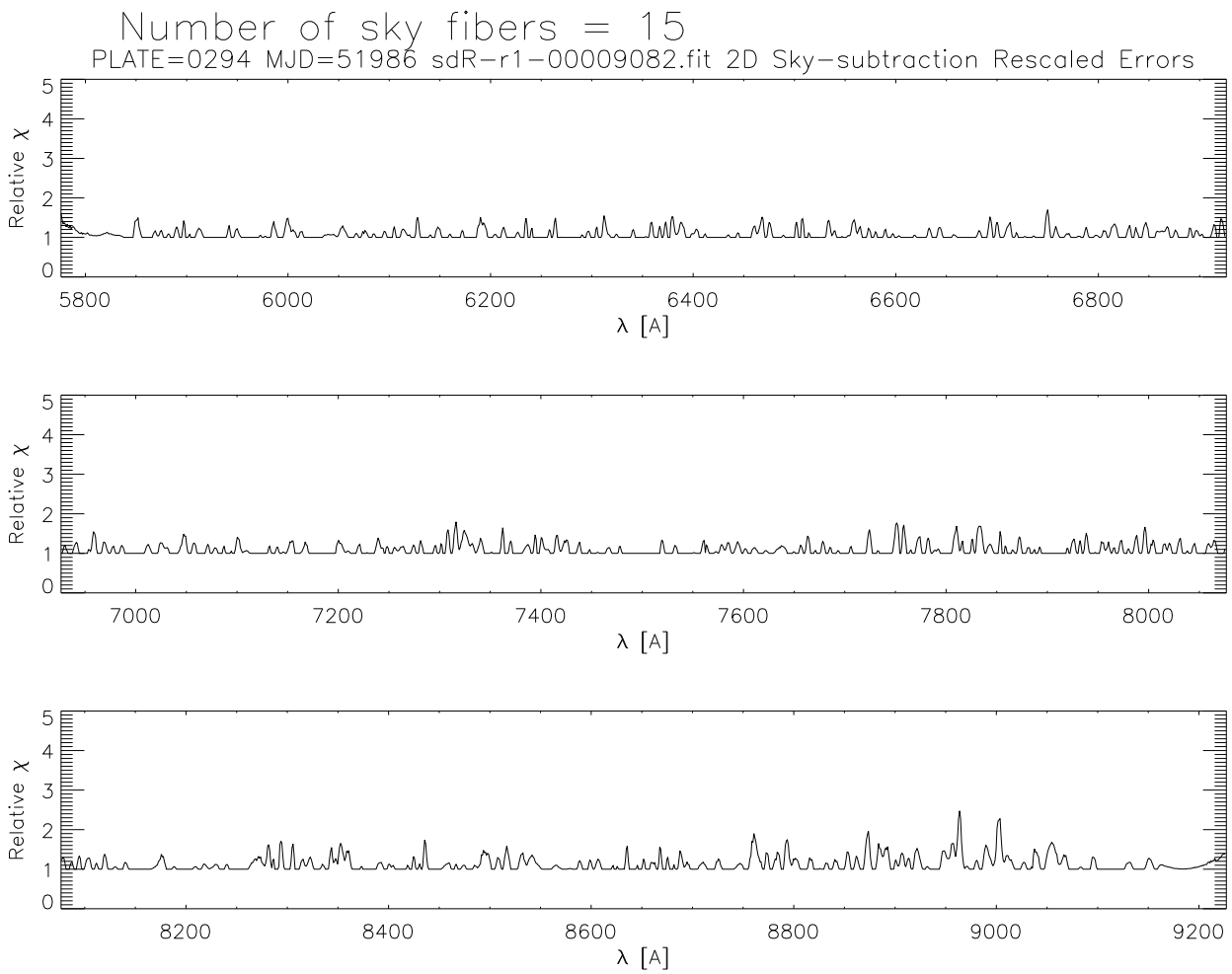

PLATE=0294 MJD=51986 sdR-r1-00009082.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
−200
8820
8840
8860
8880
8900
λ [A]

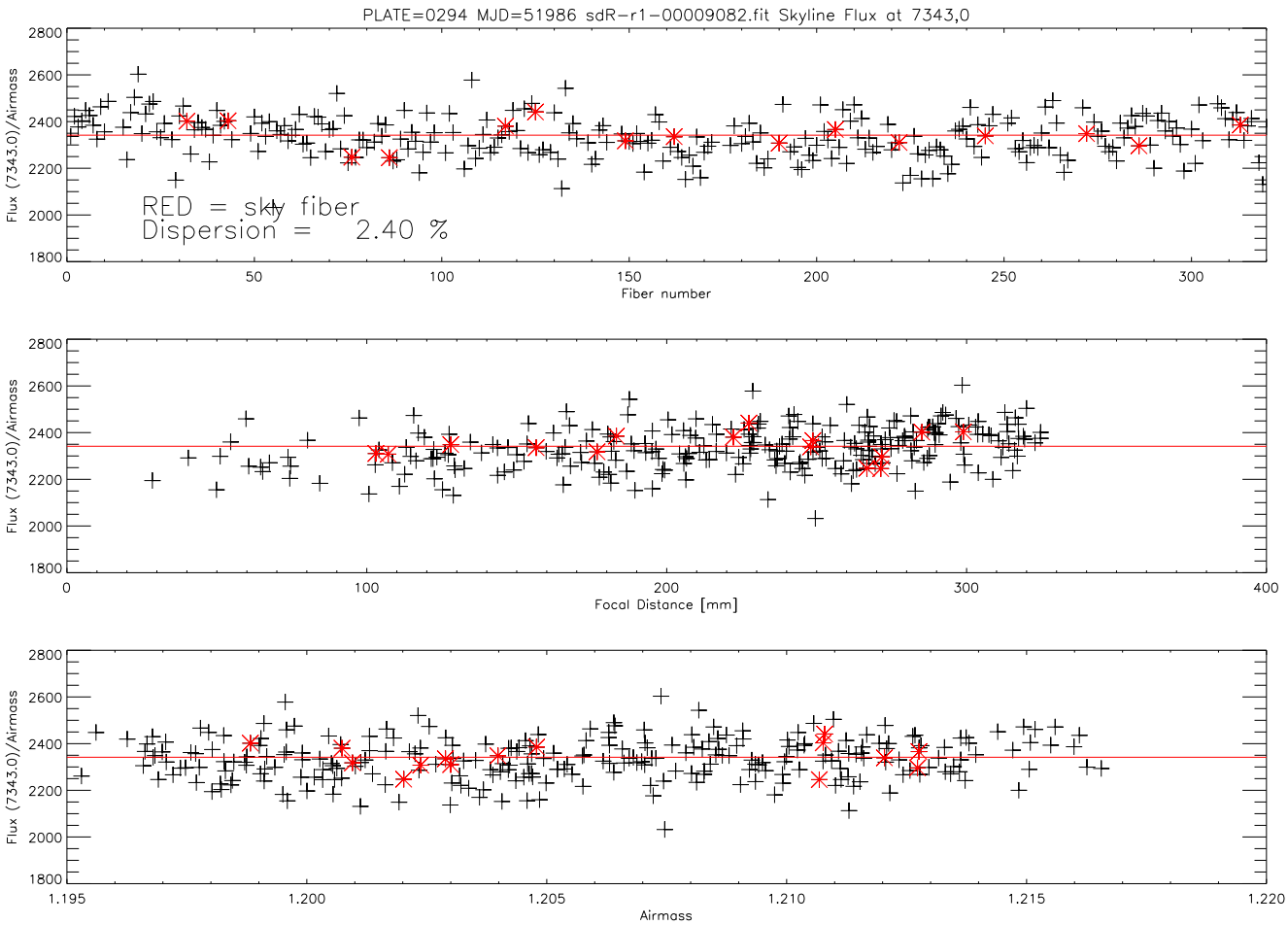

Number of sky fibers = 15
PLATE=0294 MJD=51986 sdR-r1-00009082.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

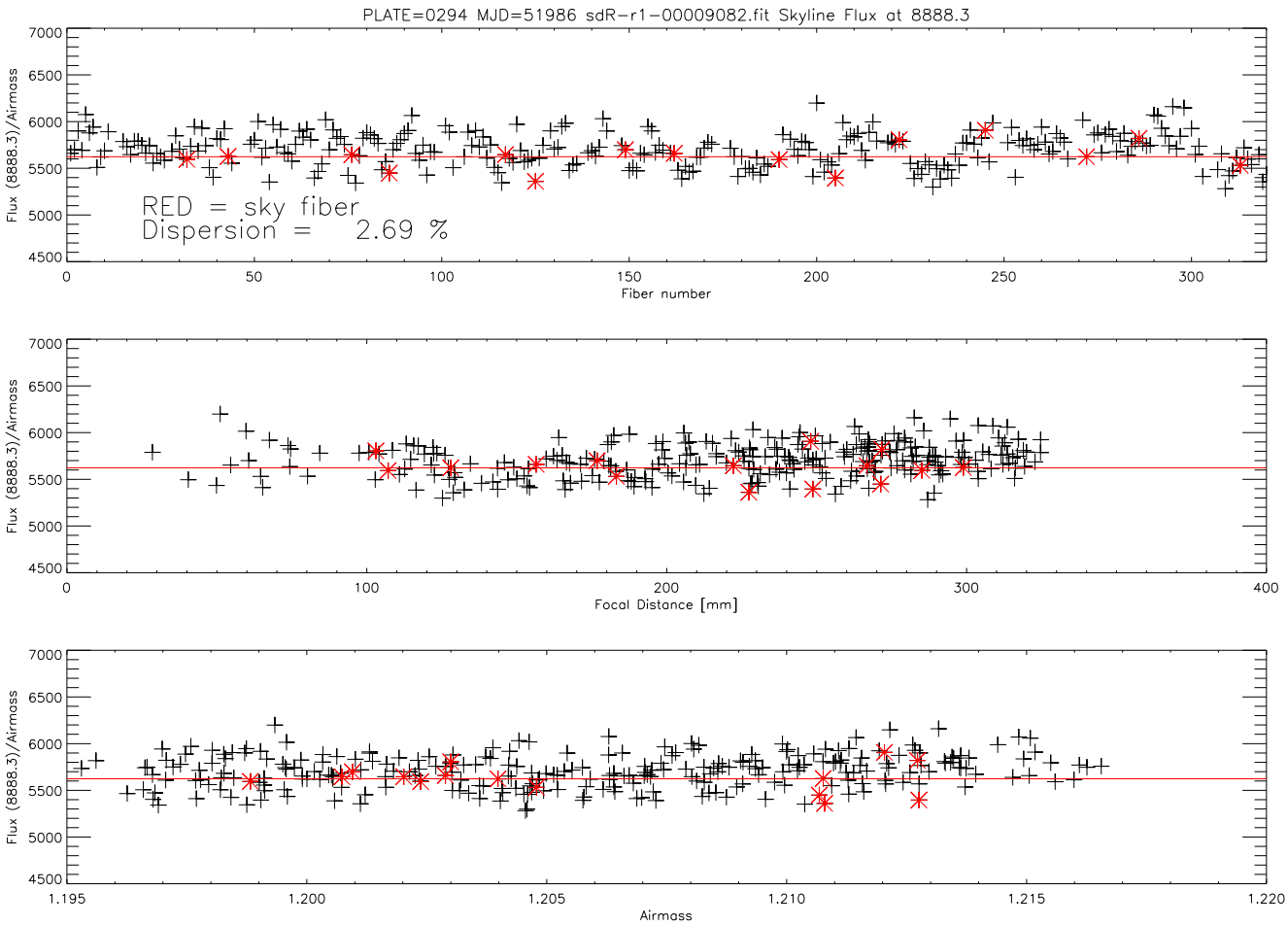

PLATE=0294 MJD=51986 sdR-r1-00009082.fit 2D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

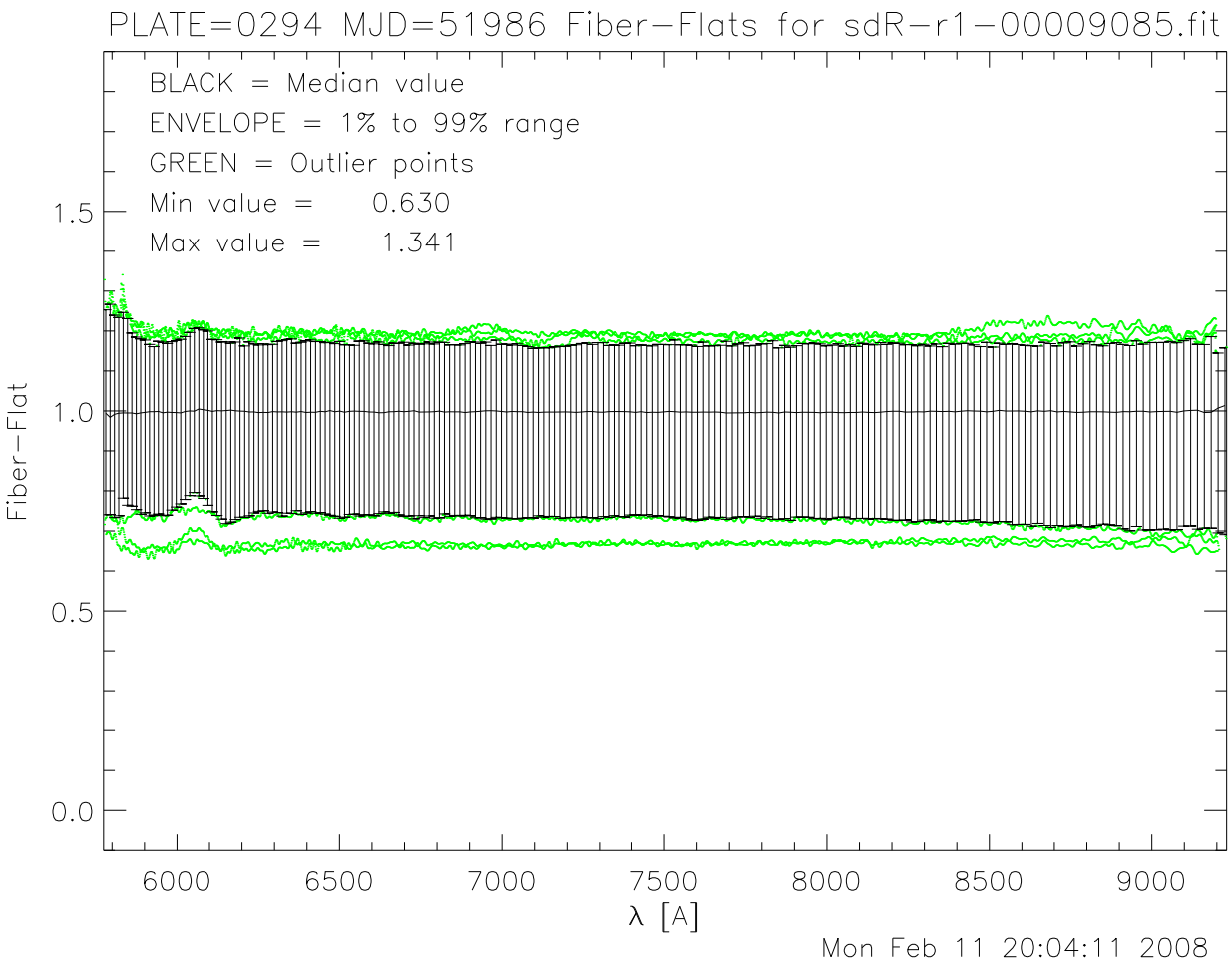

PLATE=0294 MJD=51986 sdR-r1-00009082.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
−1000
8820
8840
8860
8880
8900
λ [A]

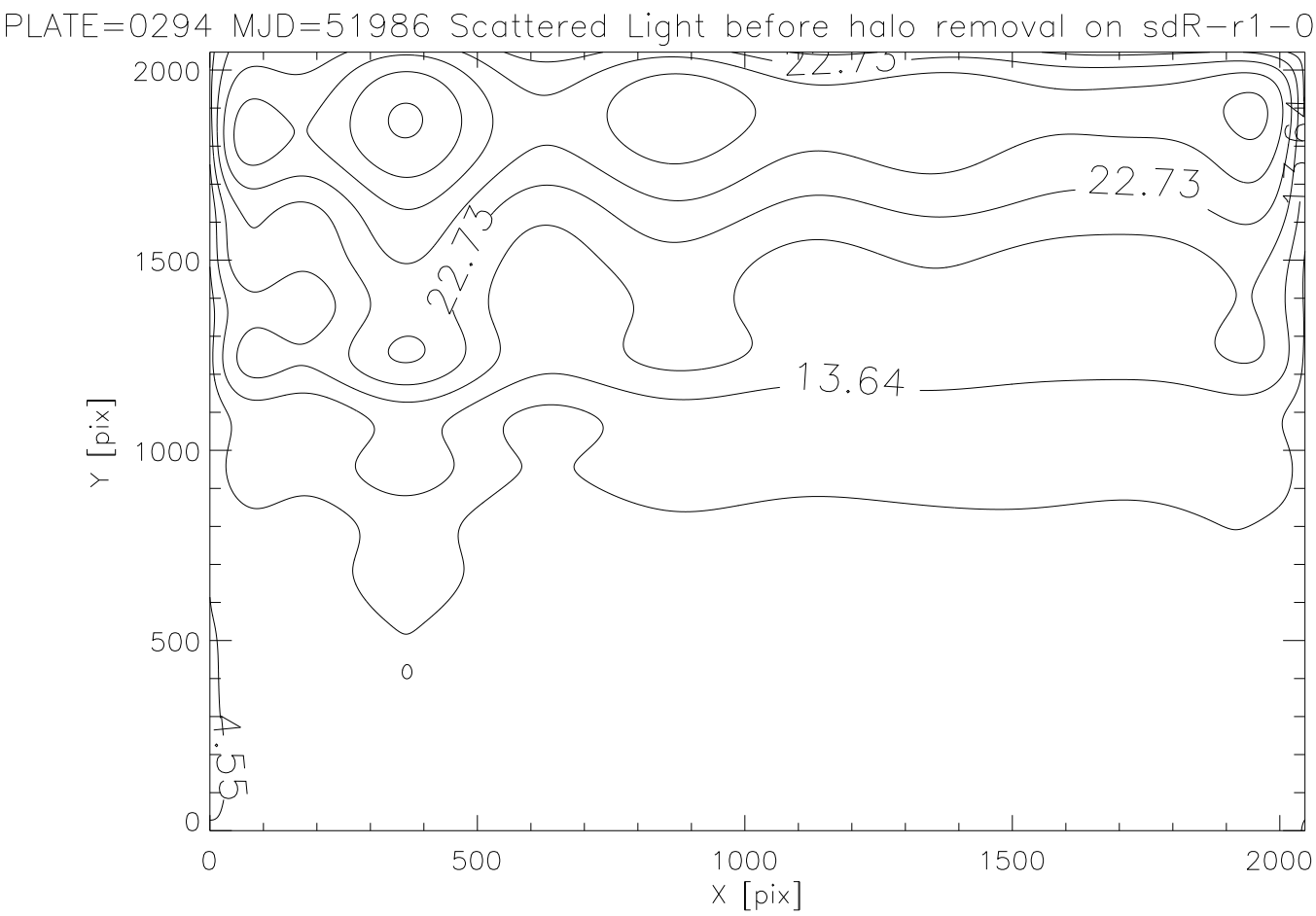

PLATE=0294 MJD=51986 sdR-r1-00009082.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
−200
8820
8840
8860
8880
8900
λ [A]

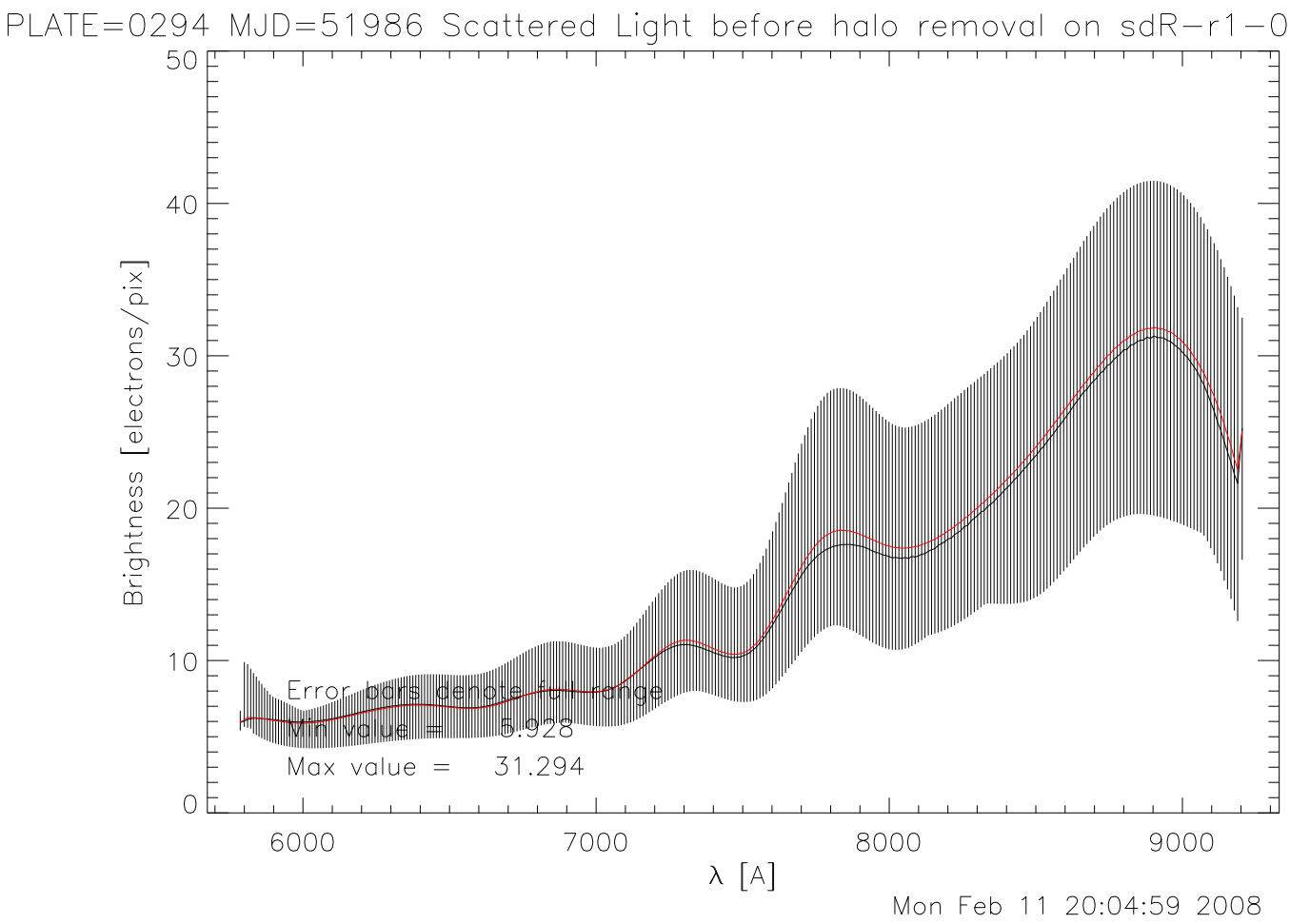

Number of sky fibers = 15
PLATE=0294 MJD=51986 sdR-r1-00009082.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

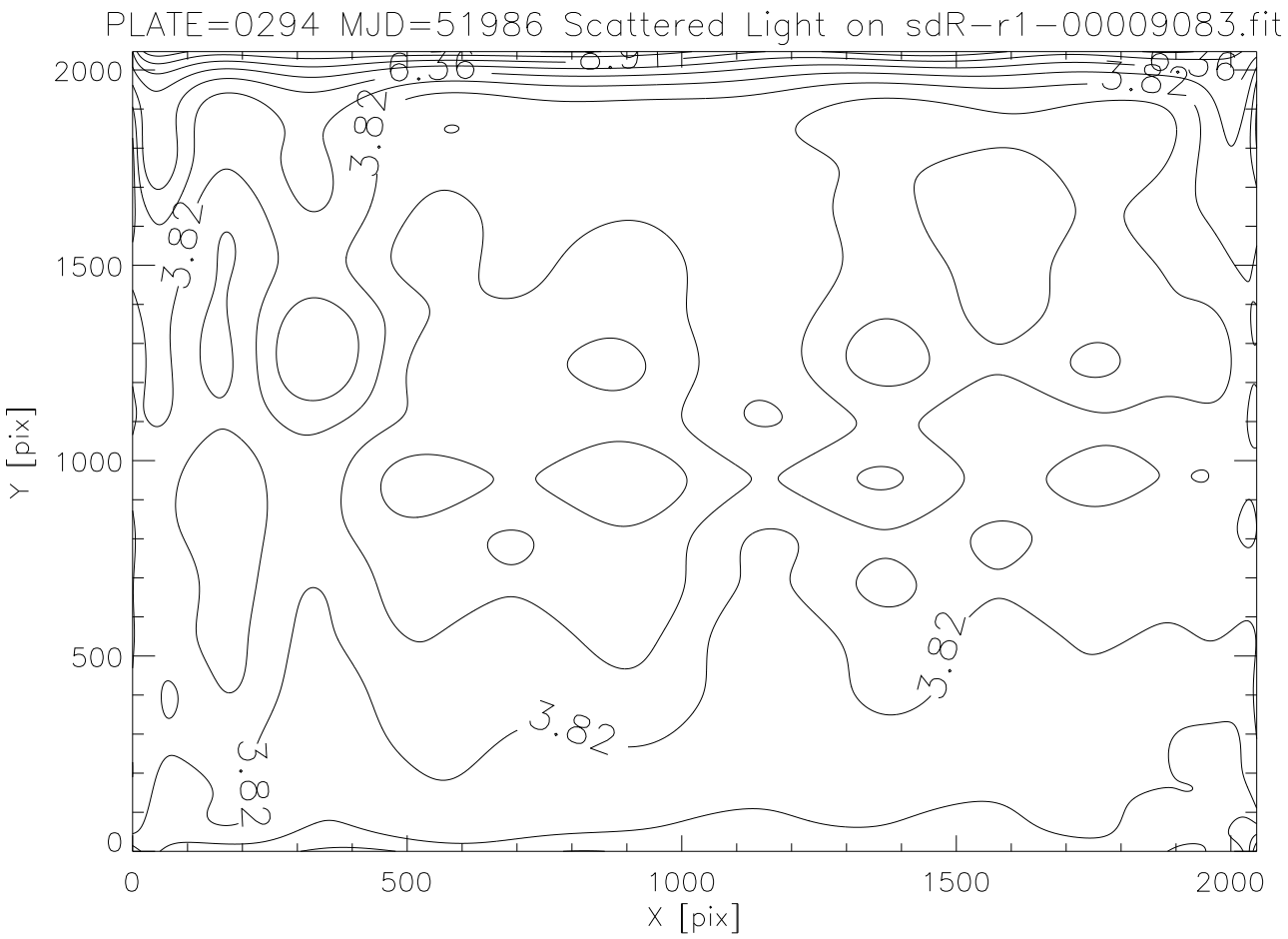

PLATE=0294 MJD=51986 sdR-r1-00009082.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 2.40 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

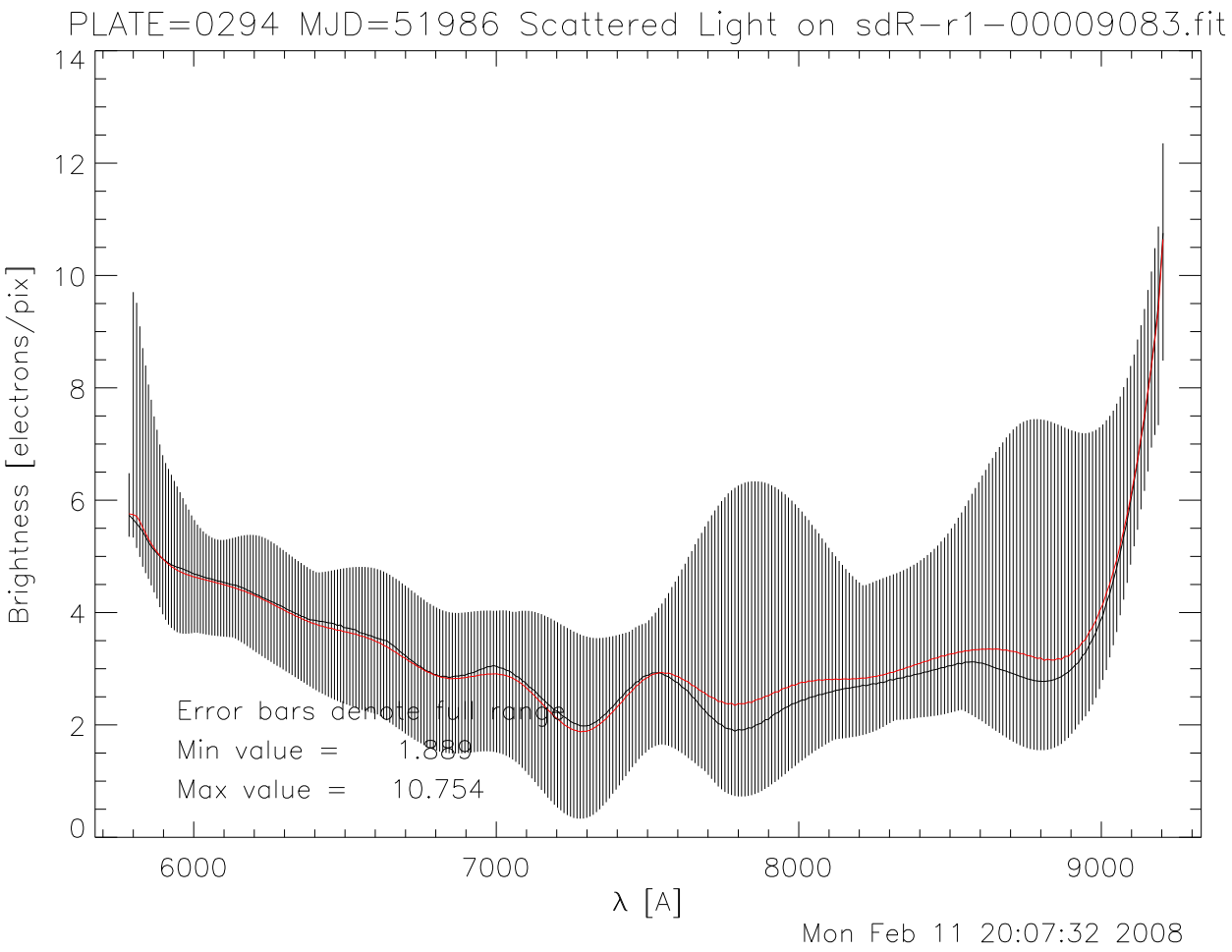

PLATE=0294 MJD=51986 sdR-r1-00009082.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 2.69 %
Fiber number
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass

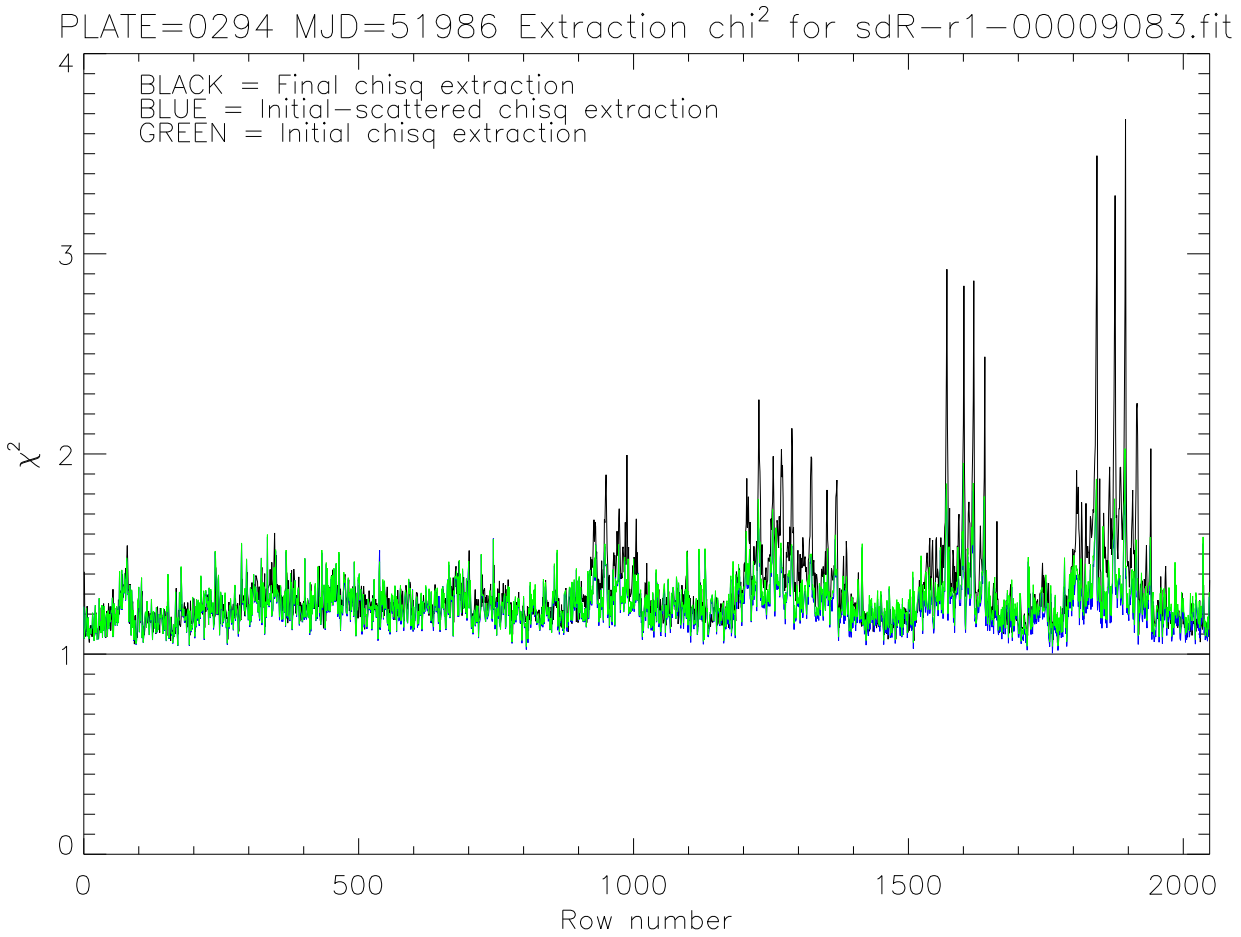

PLATE=0294 MJD=51986 Fiber−Flats for sdR−r1−00009085.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.630
Max value = 1.341
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Mon Feb 11 20:04:11 2008

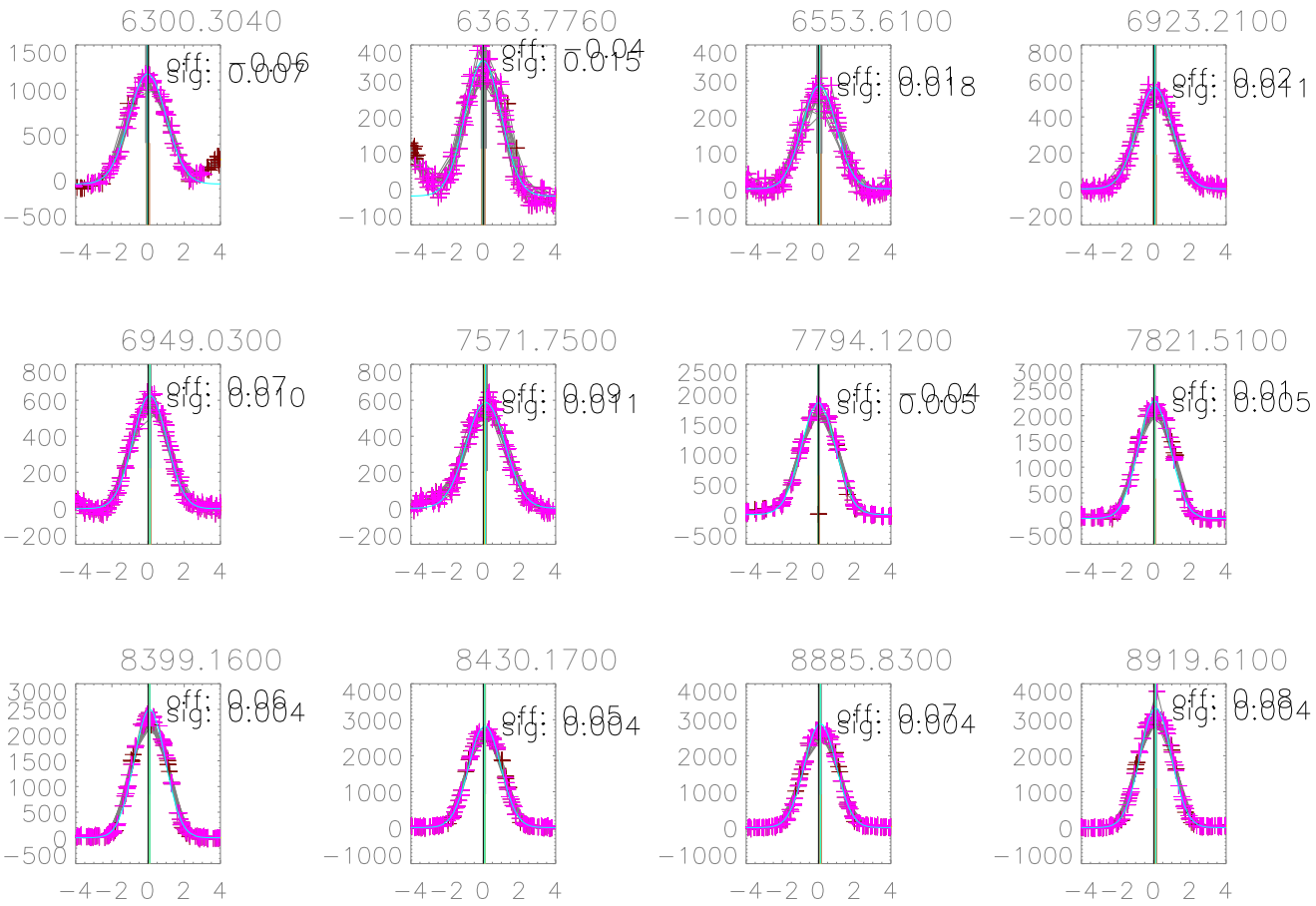

PLATE=0294 MJD=51986 Scattered Light before halo removal on sdR-r1-00009083.fi
22.73
22.73
22.73
13.64
4.55
0
Y [pix]
X [pix]
0
500
1000
1500
2000

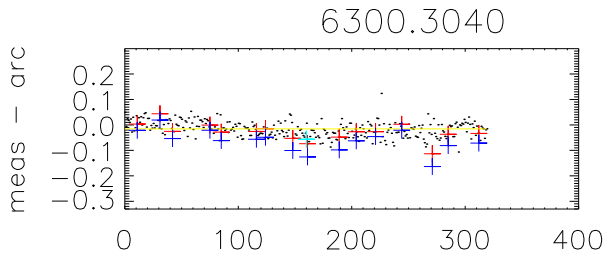

PLATE=0294 MJD=51986 Scattered Light before halo removal on sdR-r1-00009083.fi
Brightness [electrons/pix]
λ [A]
Error bars denote 1σ range
Min value = 5.928
Max value = 31.294
Mon Feb 11 20:04:59 2008

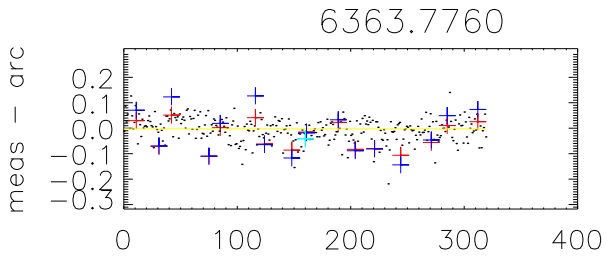

PLATE=0294 MJD=51986 Scattered Light on sdR-r1-00009083.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
6.36
3.82
0

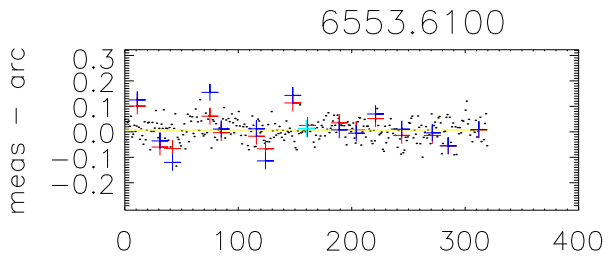

PLATE=0294 MJD=51986 Scattered Light on sdR-r1-00009083.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 1.889
Max value = 10.754
Mon Feb 11 20:07:32 2008

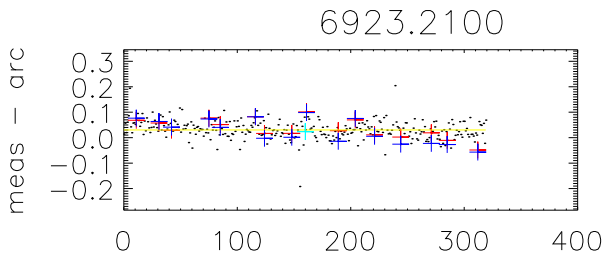

PLATE=0294 MJD=51986 Extraction chi^2 for sdR−r1−00009083.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
0
500
1000
1500
2000
Row number

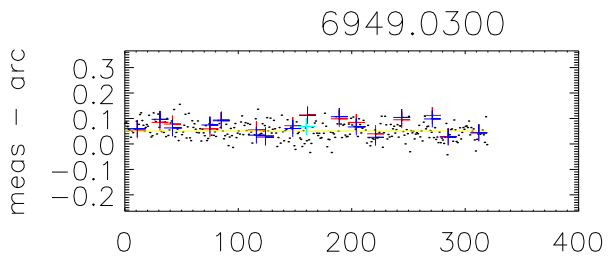

6300.3040
off: −0.06
sig: 0.007
6363.7760
off: −0.04
sig: 0.015
6553.6100
off: 0.01
sig: 0.018
6923.2100
off: 0.02
sig: 0.011
6949.0300
off: 0.07
sig: 0.010
7571.7500
off: 0.09
sig: 0.011
7794.1200
off: −0.04
sig: 0.005
7821.5100
off: 0.01
sig: 0.005
8399.1600
off: 0.06
sig: 0.004
8430.1700
off: 0.05
sig: 0.004
8885.8300
off: 0.07
sig: 0.004
8919.6100
off: 0.08
sig: 0.004

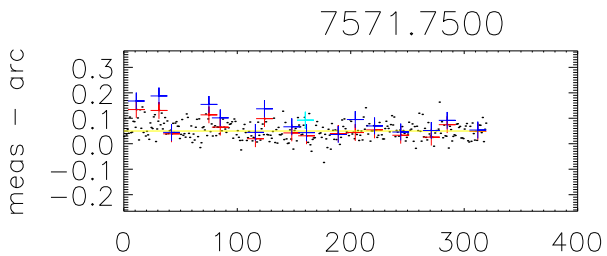

6300.3040
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

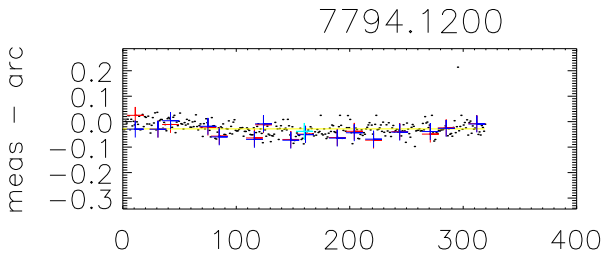

6363.7760
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

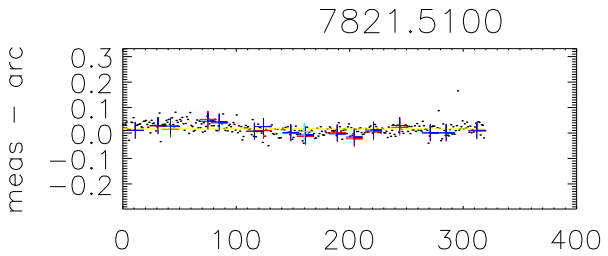

6553.6100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

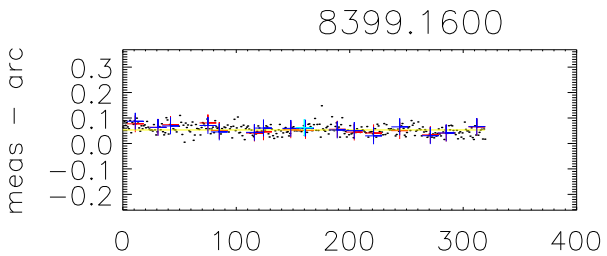

6923.2100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

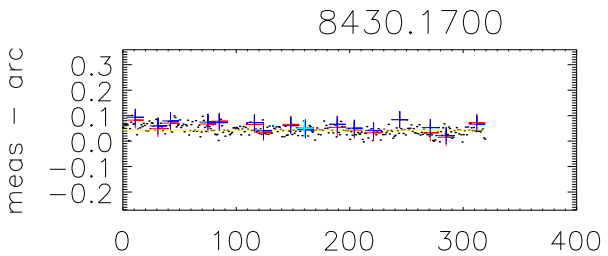

6949.0300
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

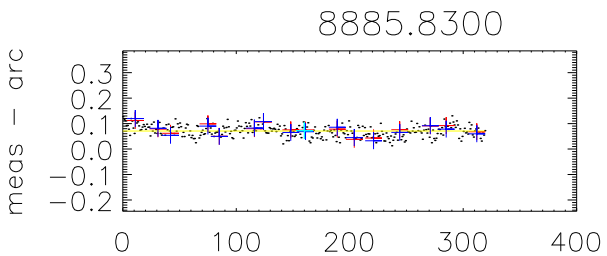

7571.7500
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

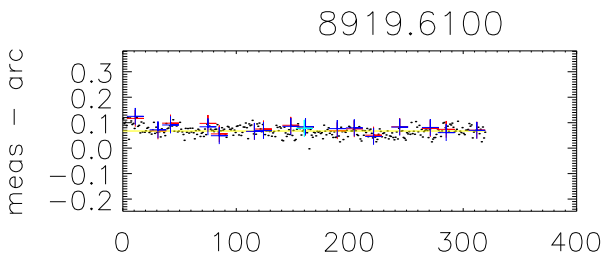

7794.1200
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

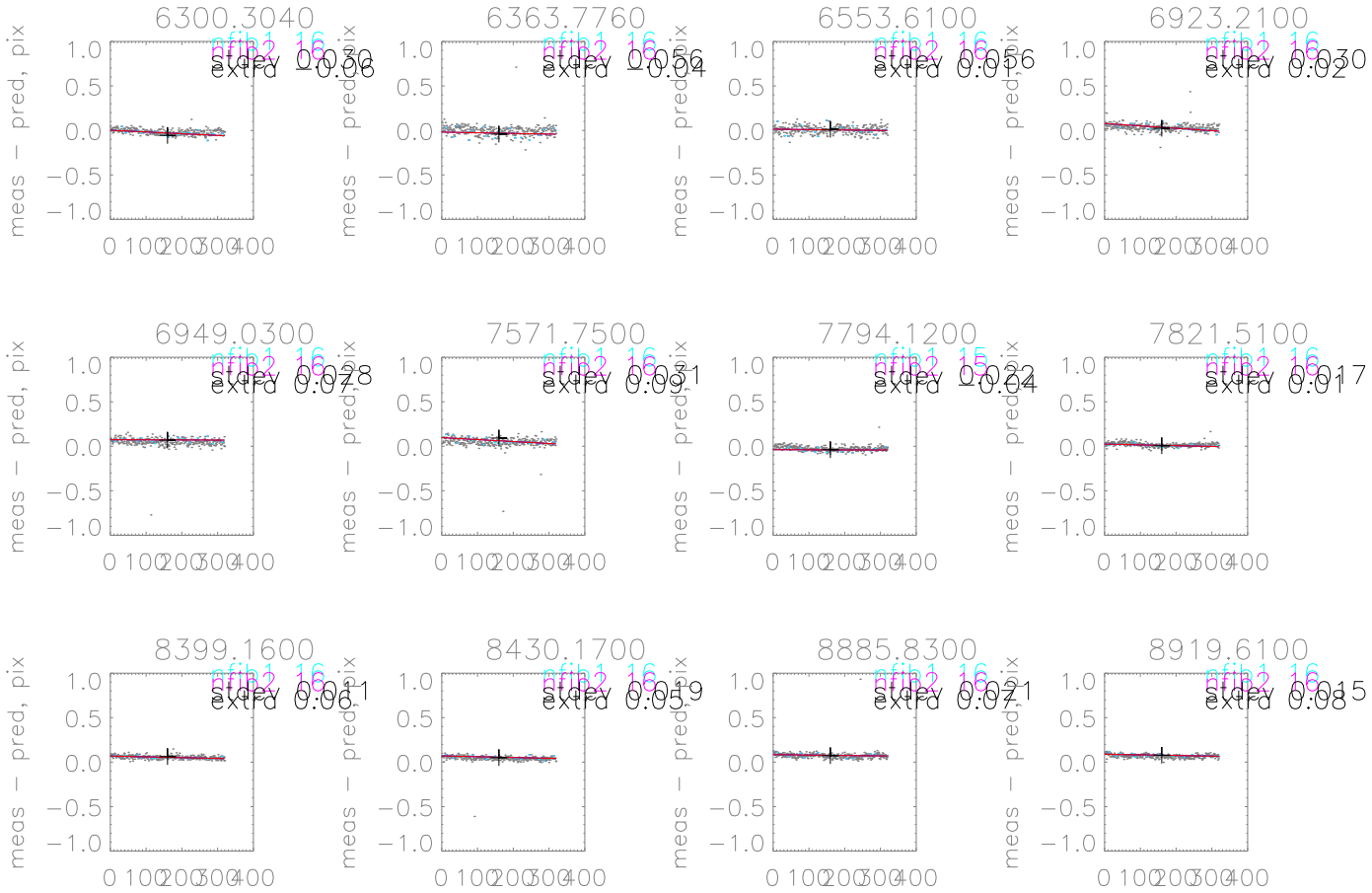

7821.5100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

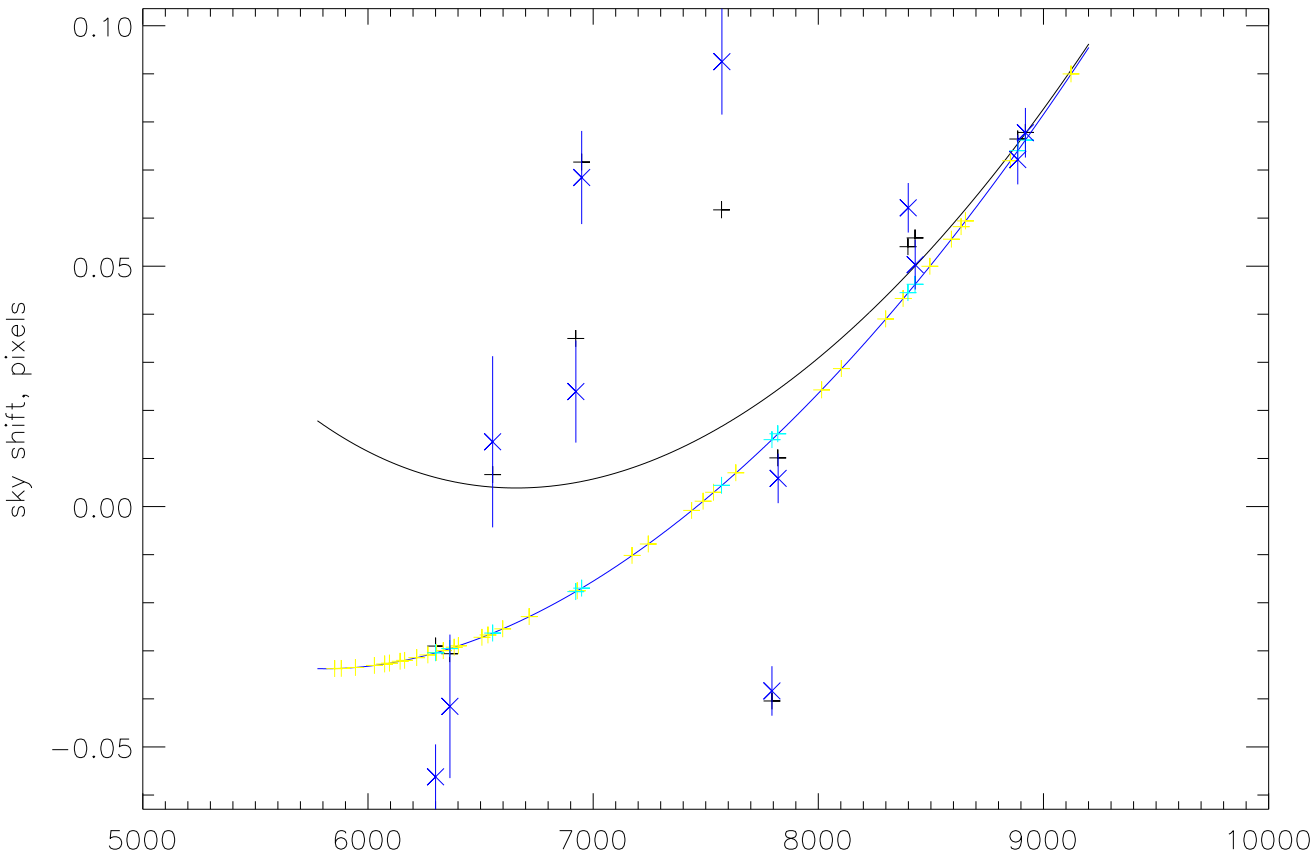

8399.1600
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

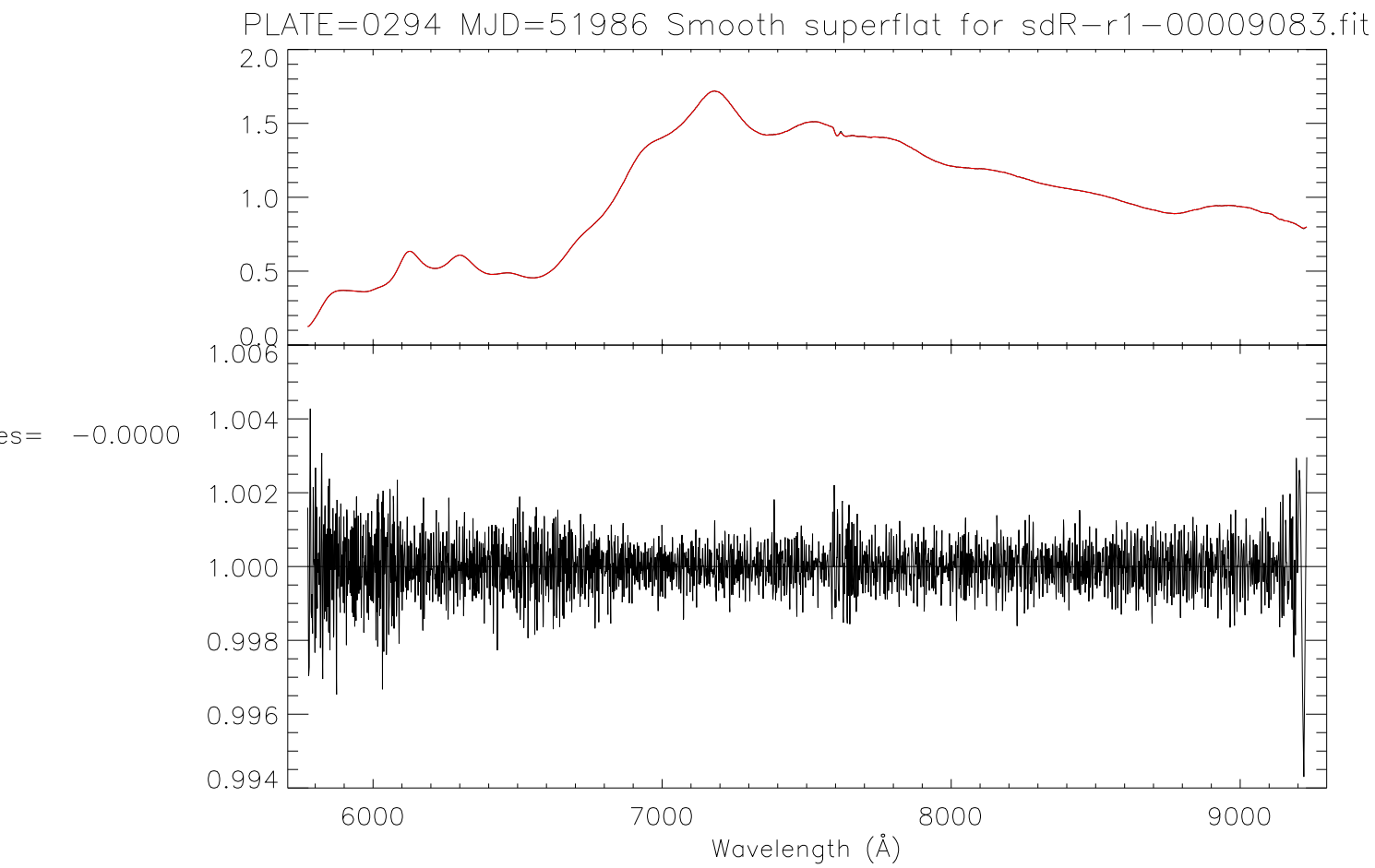

8430.1700
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400


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

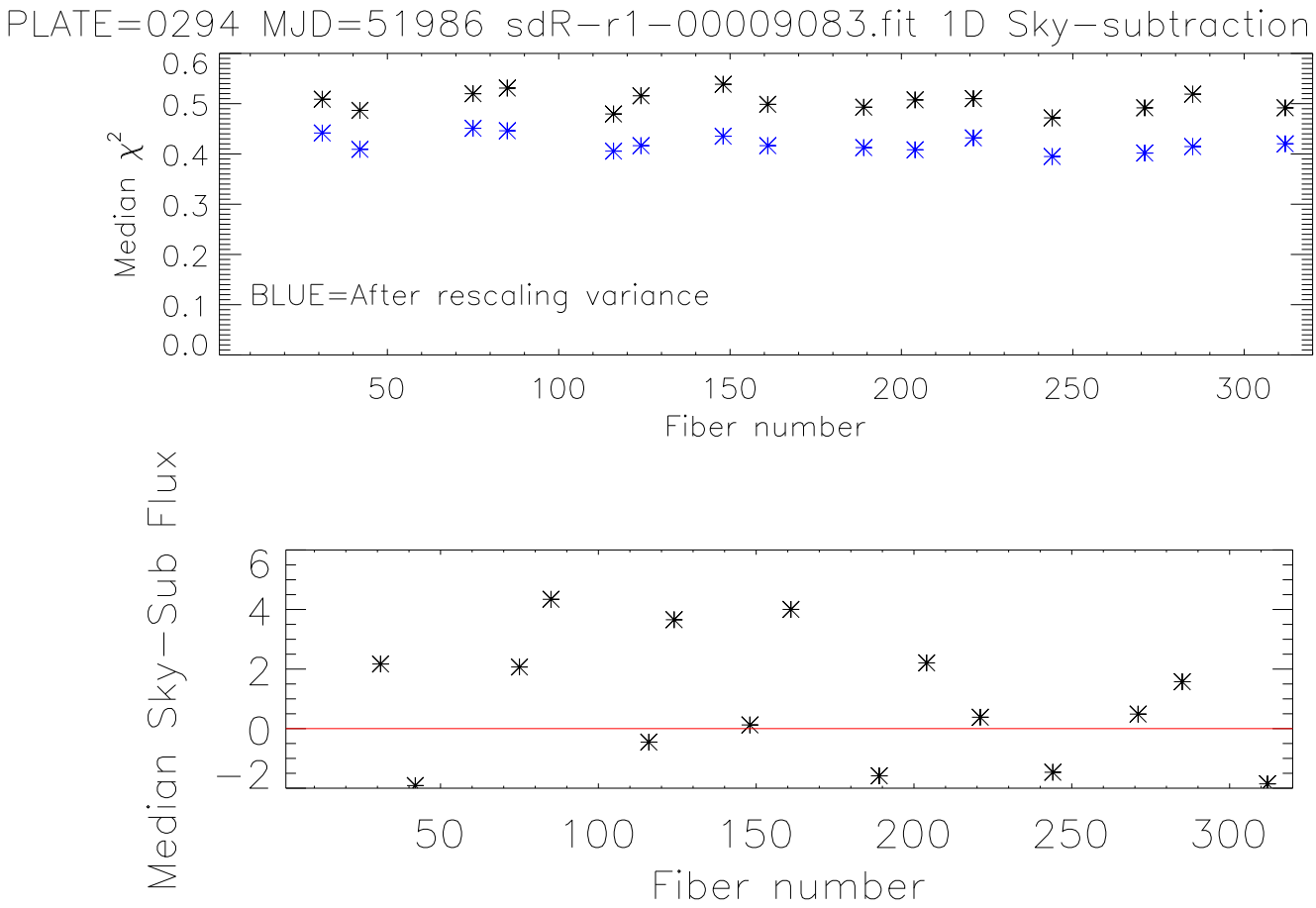

8919.6100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

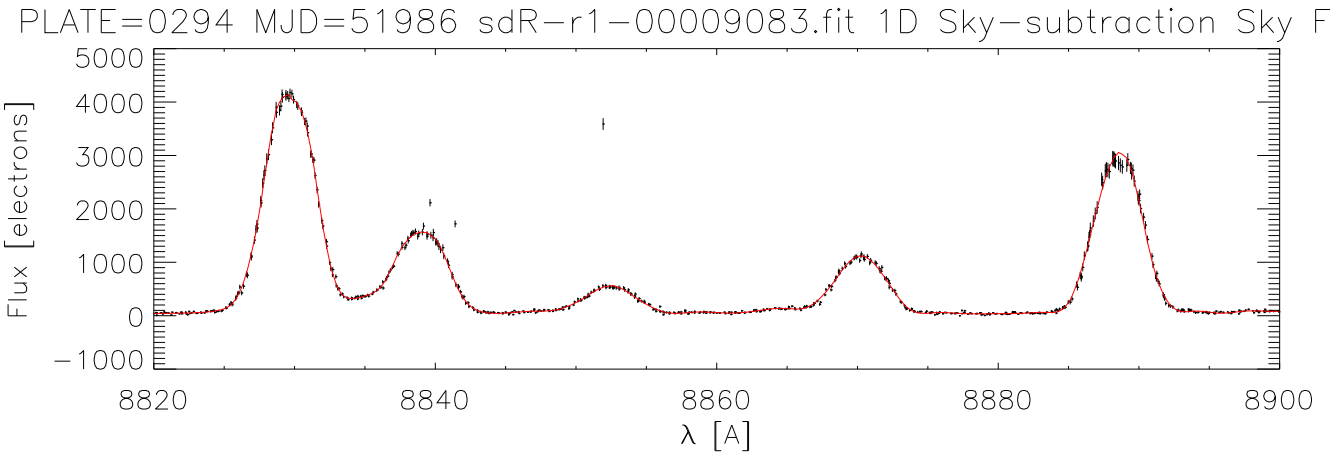

6300.3040
mfhd2 16
stdev 0.030
extra −0.006
6363.7760
mfhd2 16
stdev 0.056
extra −0.004
6553.6100
mfhd2 16
stdev 0.056
extra 0.016
6923.2100
mfhd2 16
stdev 0.030
extra 0.002
6949.0300
mfhd2 16
stdev 0.028
extra 0.078
7571.7500
mfhd2 16
stdev 0.031
extra 0.091
7794.1200
mfhd2 15
stdev 0.022
extra −0.004
7821.5100
mfhd2 16
stdev 0.017
extra 0.011
8399.1600
mfhd2 16
stdev 0.041
extra 0.061
8430.1700
mfhd2 16
stdev 0.059
extra 0.059
8885.8300
mfhd2 16
stdev 0.021
extra 0.071
8919.6100
mfhd2 16
stdev 0.015
extra 0.008
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

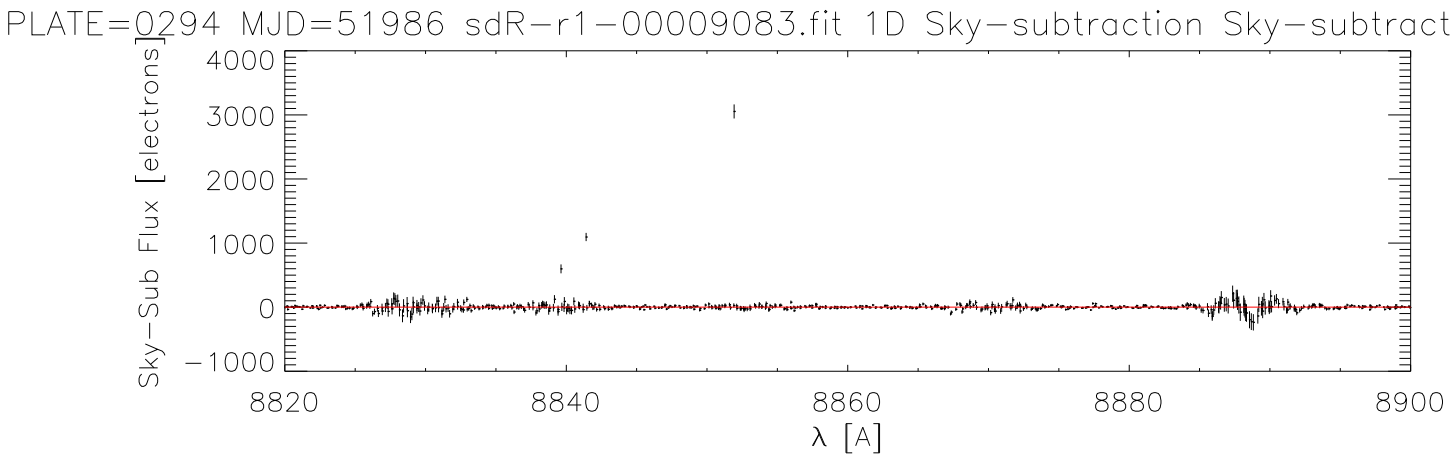

0.10
0.05
0.00
−0.05
sky shift, pixels
5000
6000
7000
8000
9000
10000

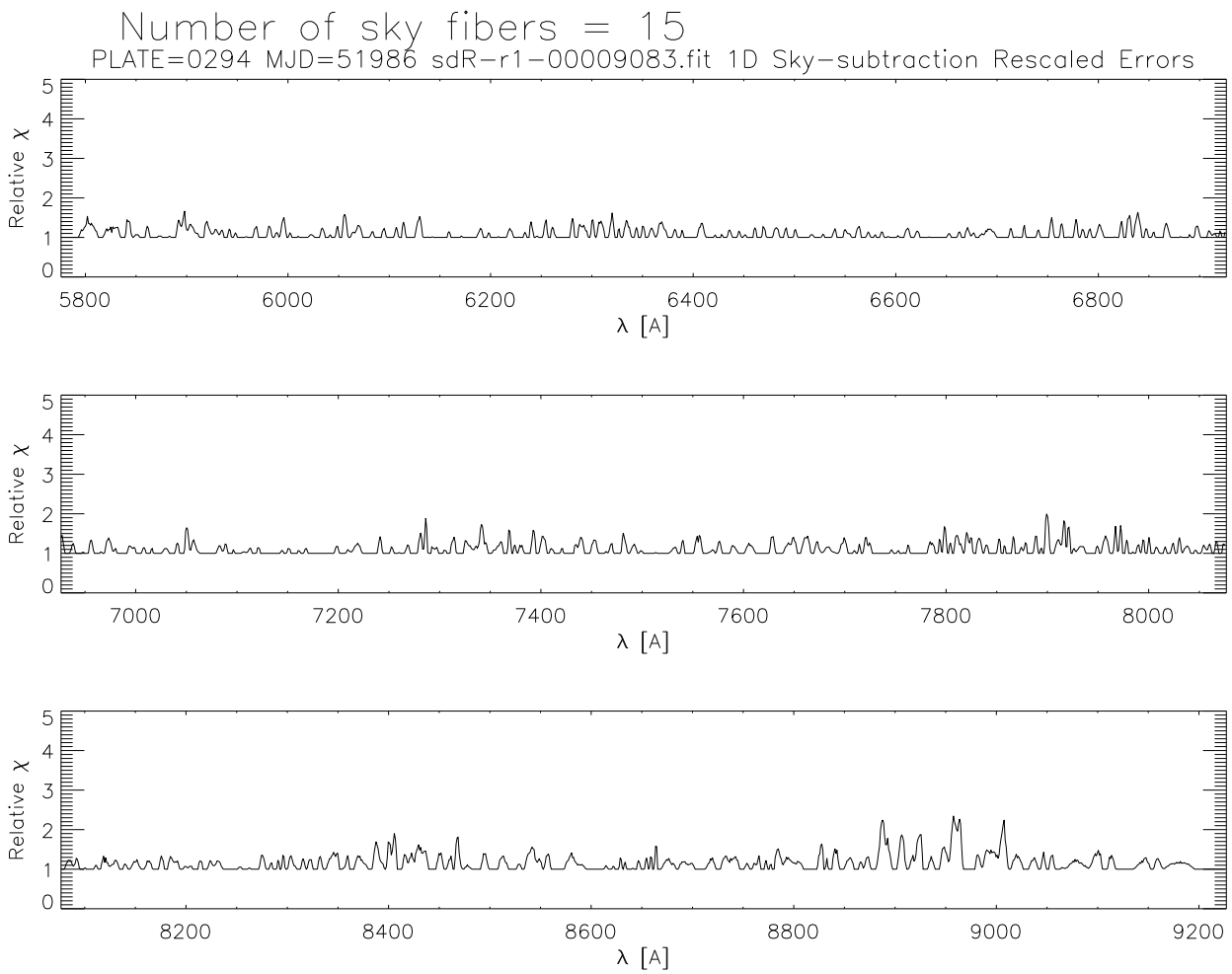

PLATE=0294 MJD=51986 Smooth superflat for sdR-r1-00009083.fit
2.0
1.5
1.0
0.5
0.0
1.006
1.004
1.002
1.000
0.998
0.996
0.994
6000
7000
8000
9000
Wavelength (Å)

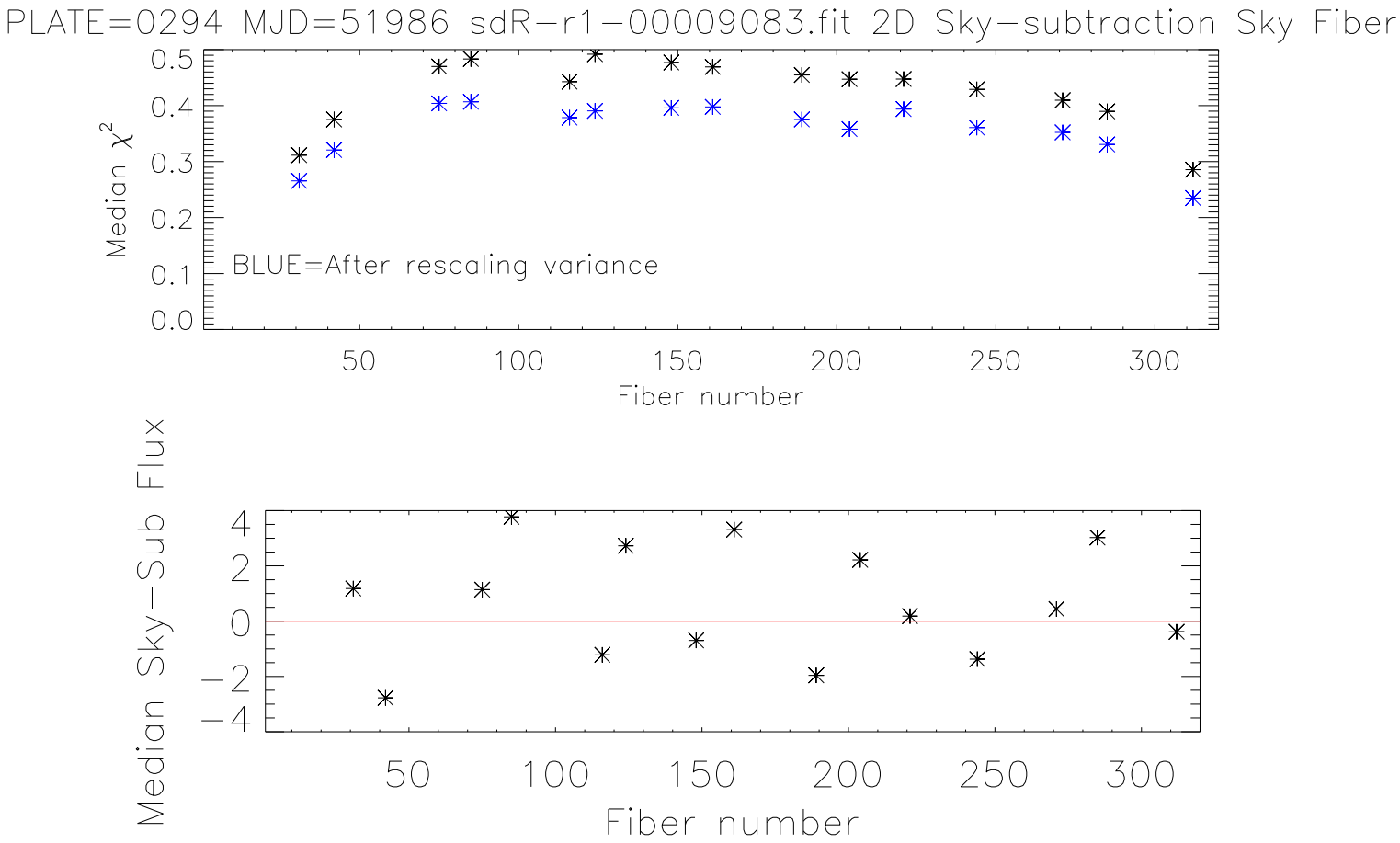
es= −0.0000

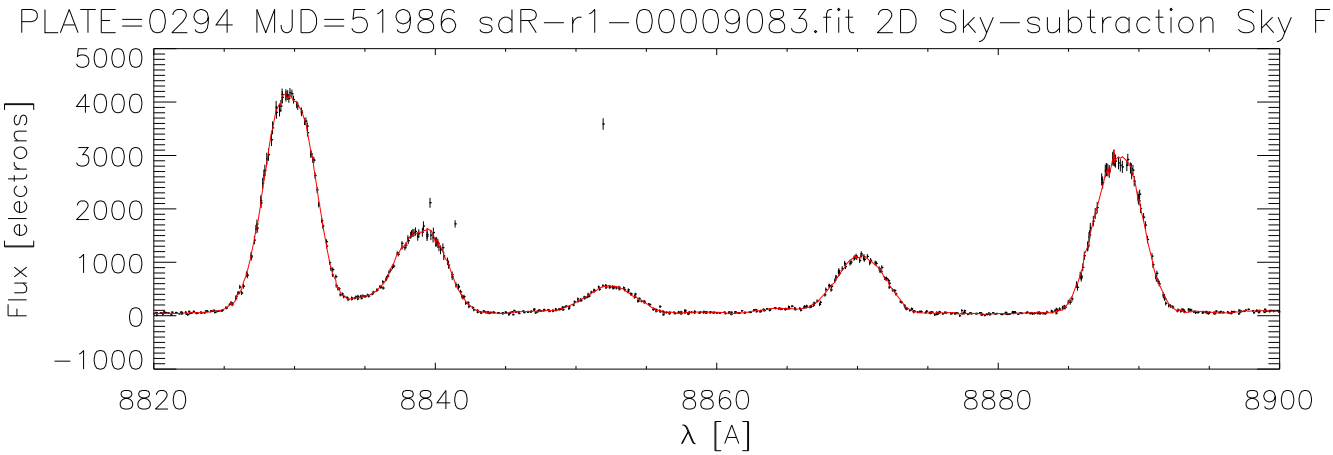

PLATE=0294 MJD=51986 sdR-r1-00009083.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
−2
0
2
4
6
50
100
150
200
250
300
Fiber number

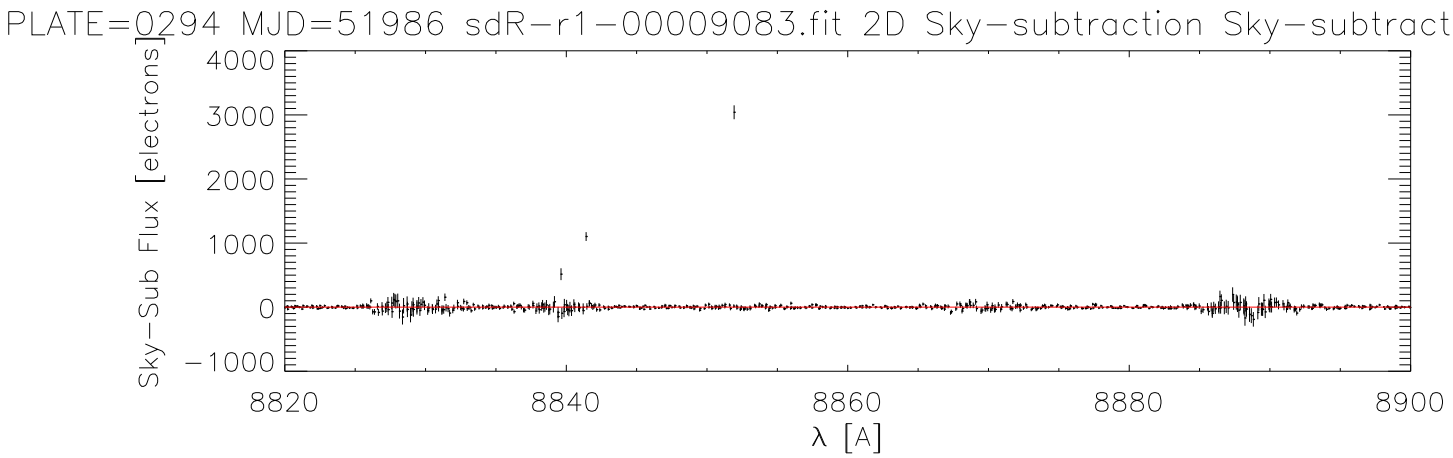

PLATE=0294 MJD=51986 sdR-r1-00009083.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
-1000
8820
8840
8860
8880
8900
λ [A]

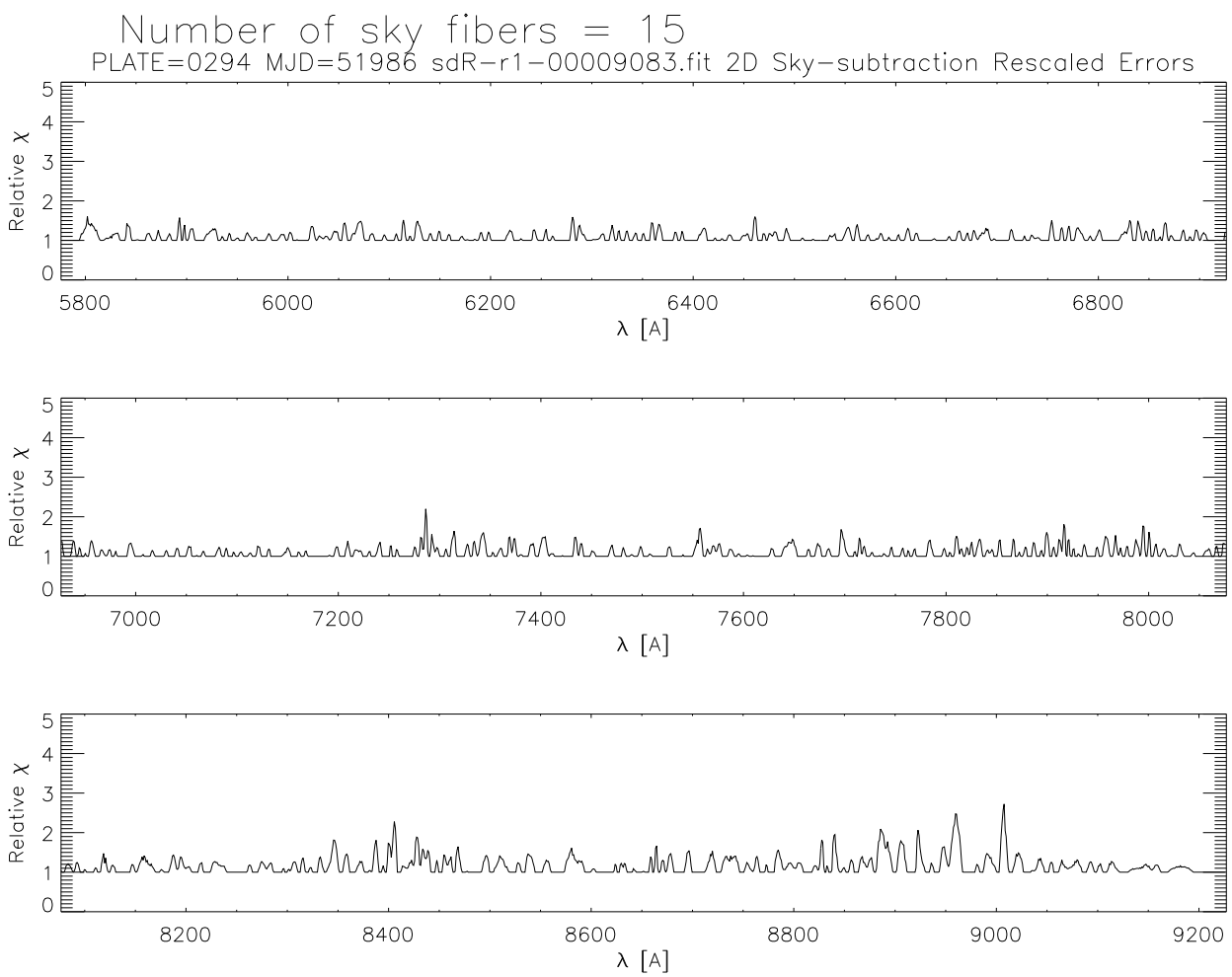

PLATE=0294 MJD=51986 sdR-r1-00009083.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
4000
3000
2000
1000
0
-1000
8820
8840
8860
8880
8900
λ [A]

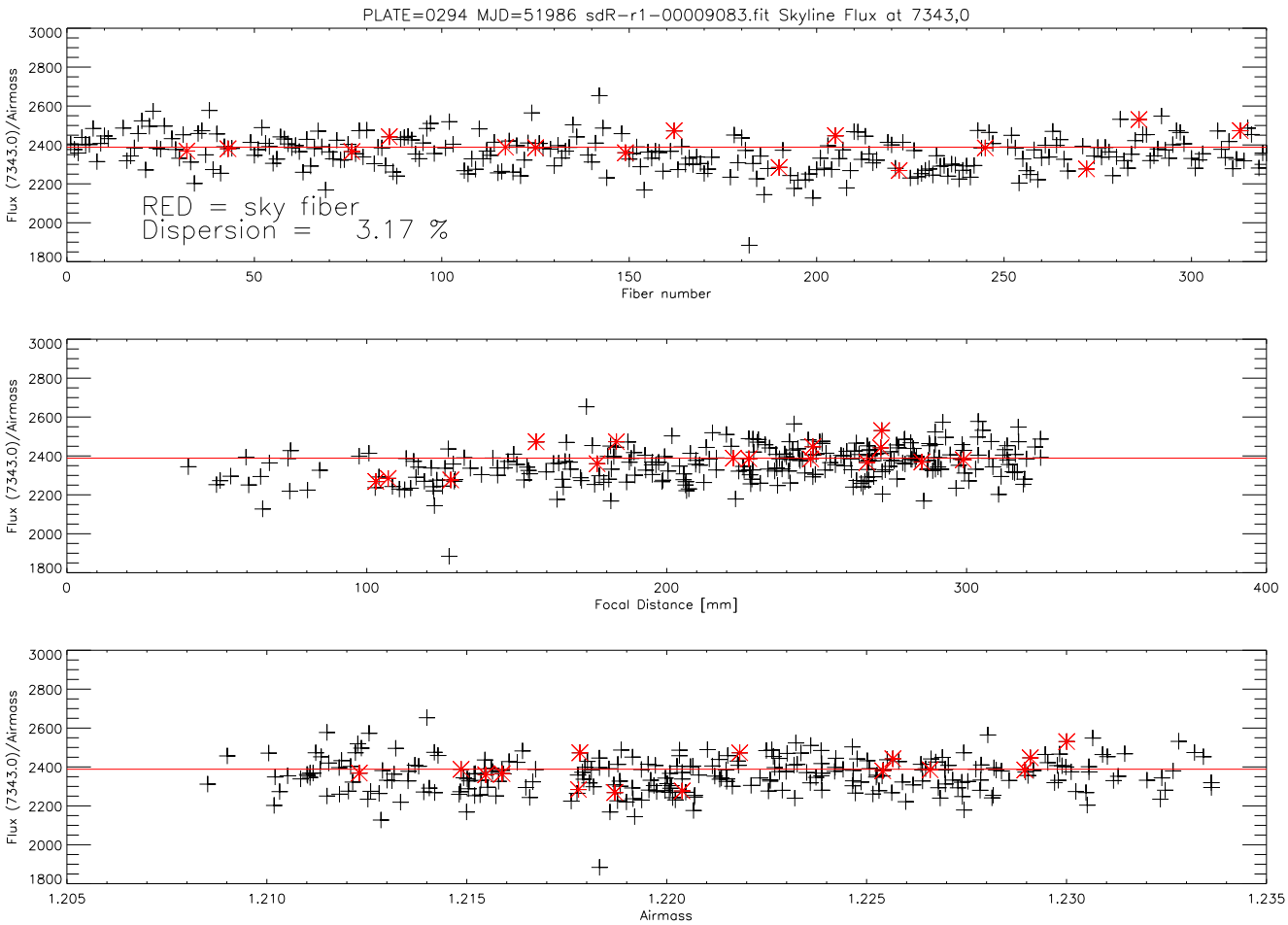

Number of sky fibers = 15
PLATE=0294 MJD=51986 sdR-r1-00009083.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

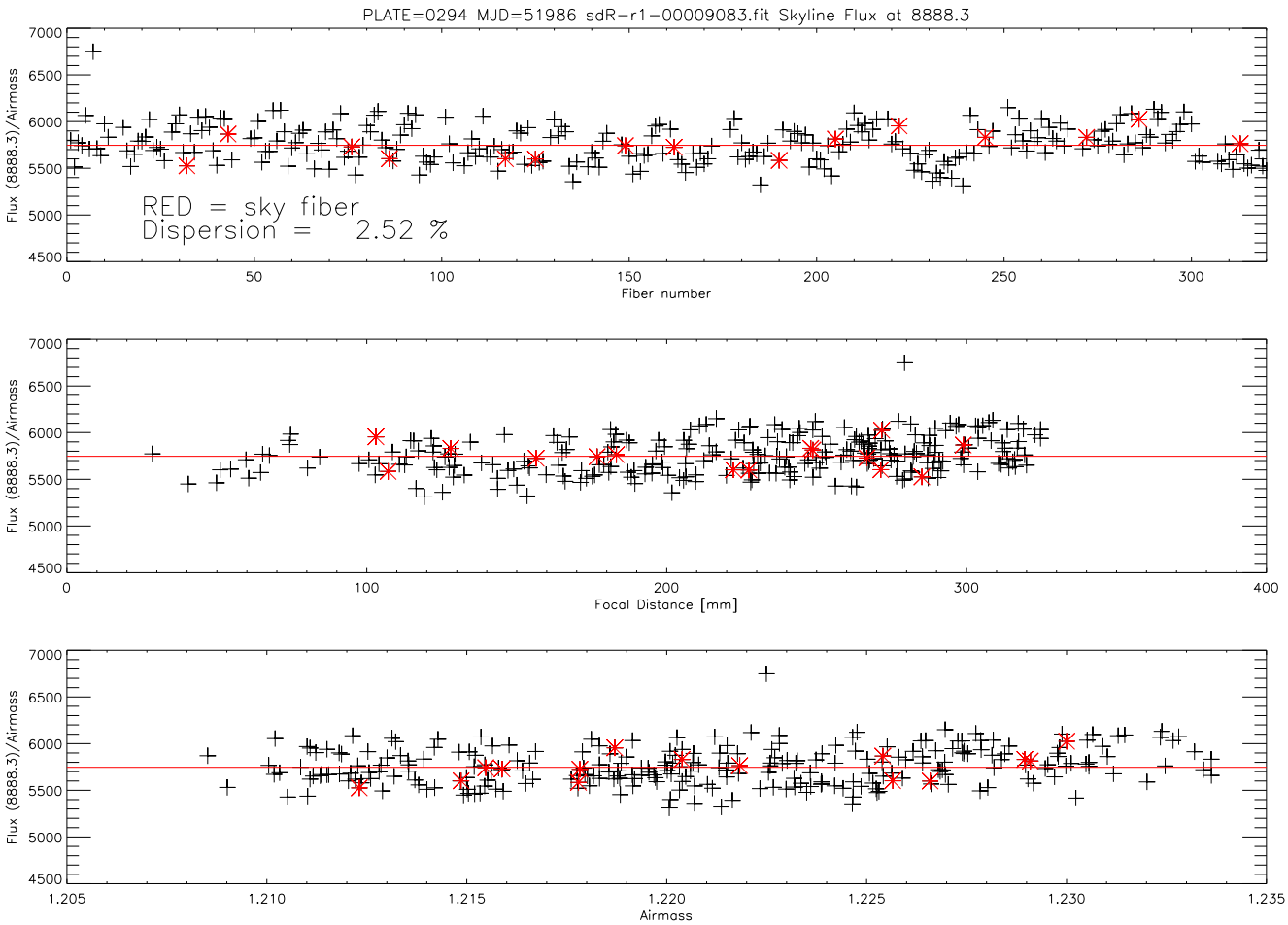

PLATE=0294 MJD=51986 sdR-r1-00009083.fit 2D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-4
-2
0
2
4
50
100
150
200
250
300
Fiber number

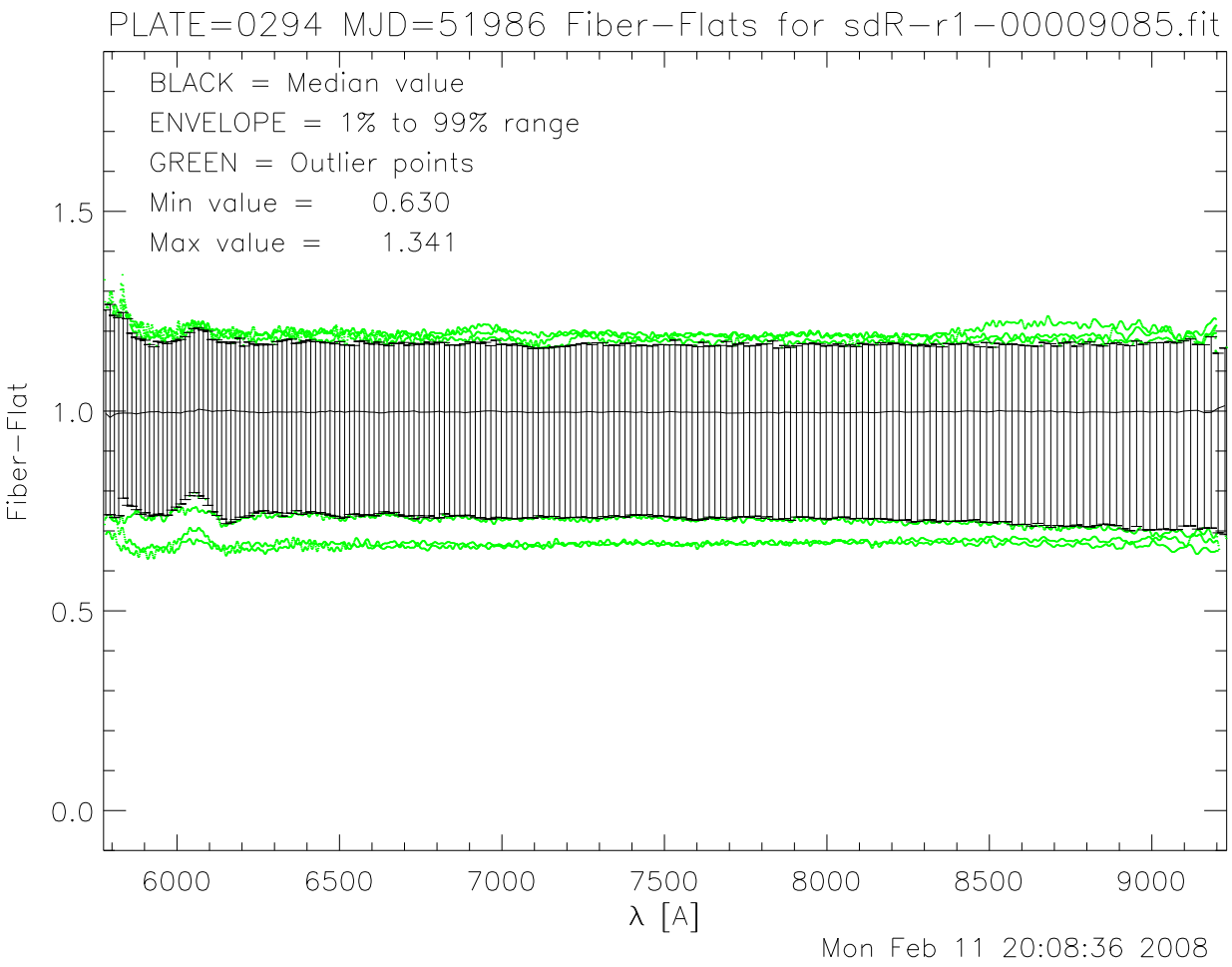

PLATE=0294 MJD=51986 sdR-r1-00009083.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
-1000
8820
8840
8860
8880
8900
λ [A]

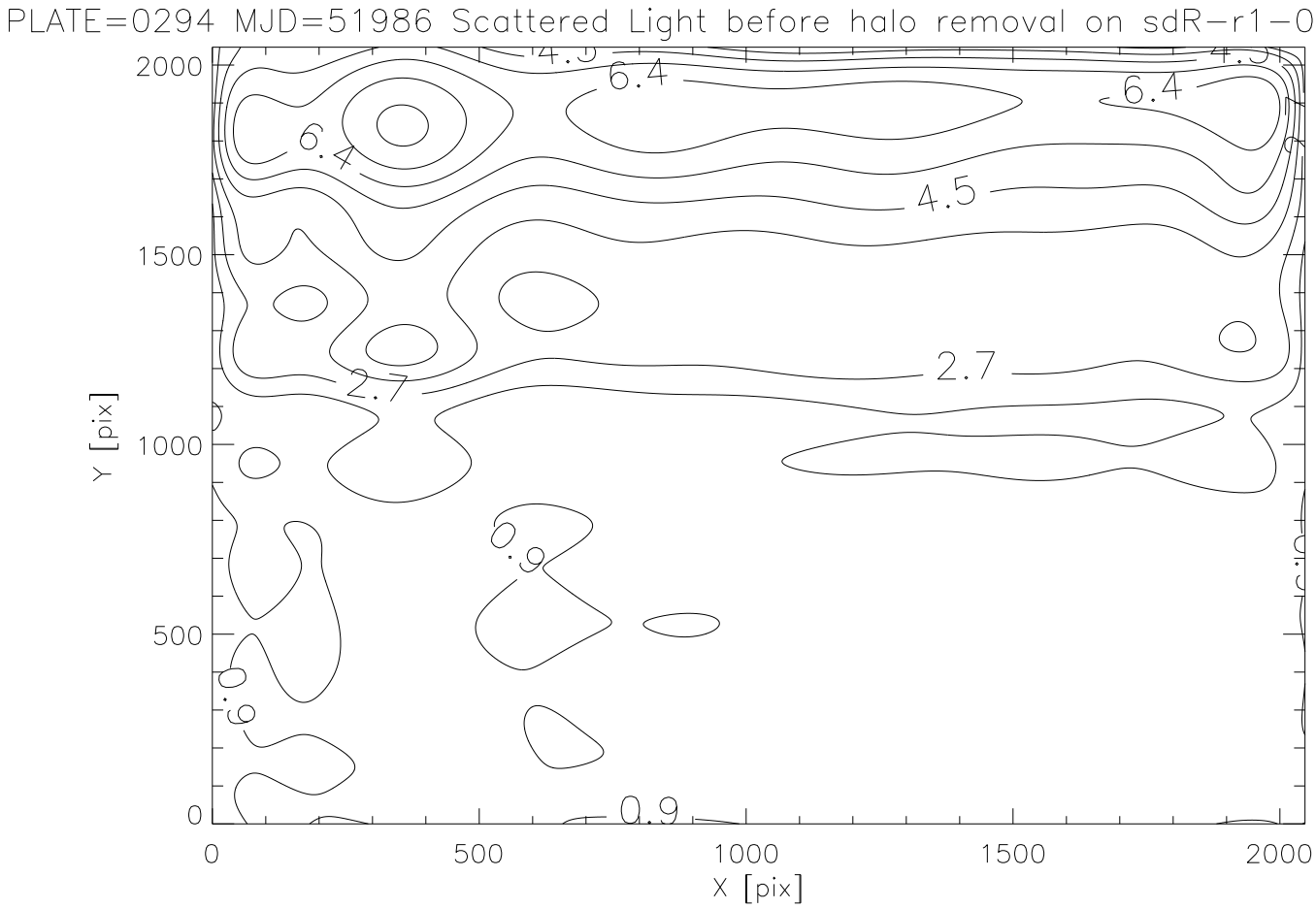

PLATE=0294 MJD=51986 sdR-r1-00009083.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
4000
3000
2000
1000
0
-1000
8820
8840
8860
8880
8900
λ [A]

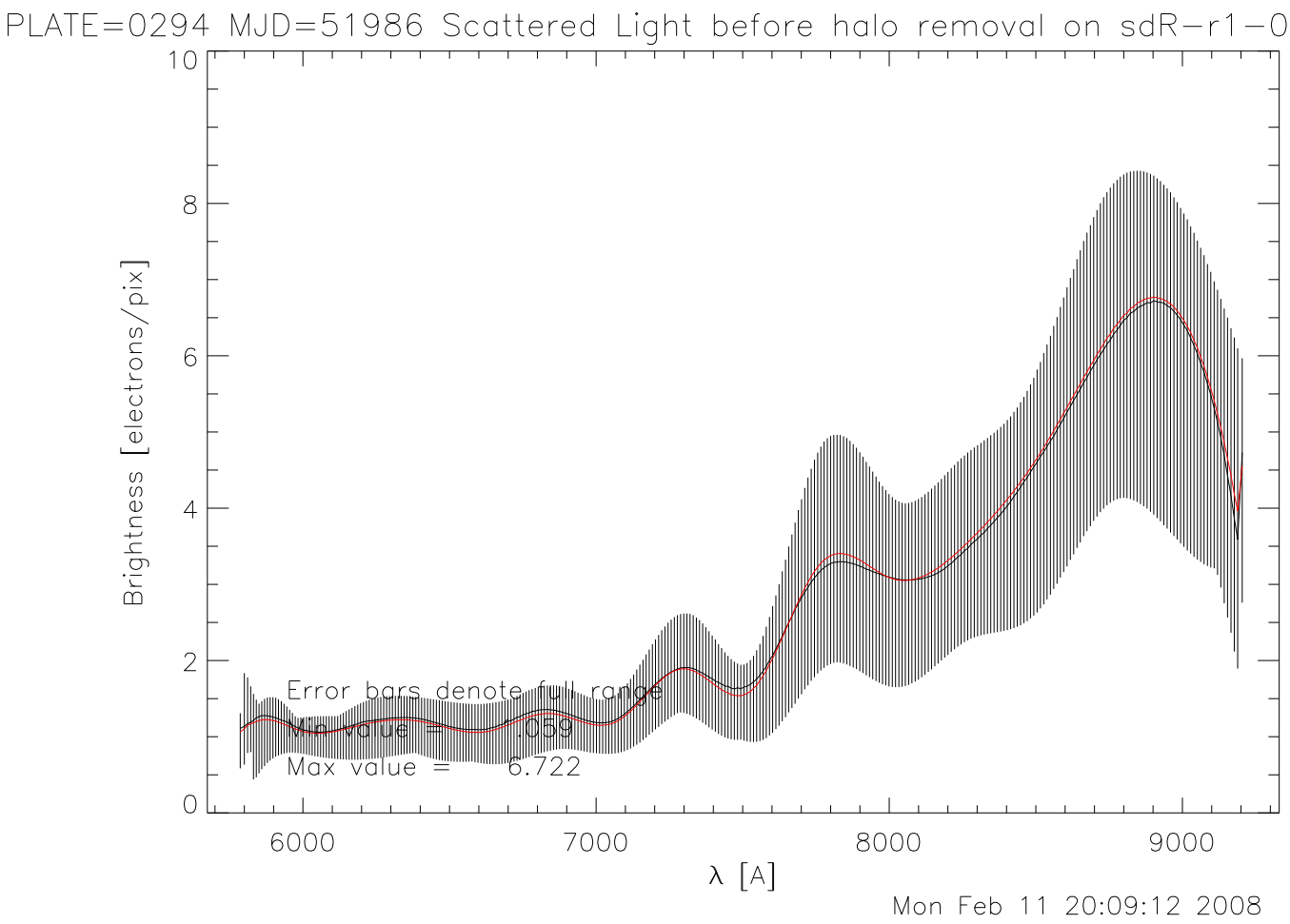

Number of sky fibers = 15
PLATE=0294 MJD=51986 sdR-r1-00009083.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

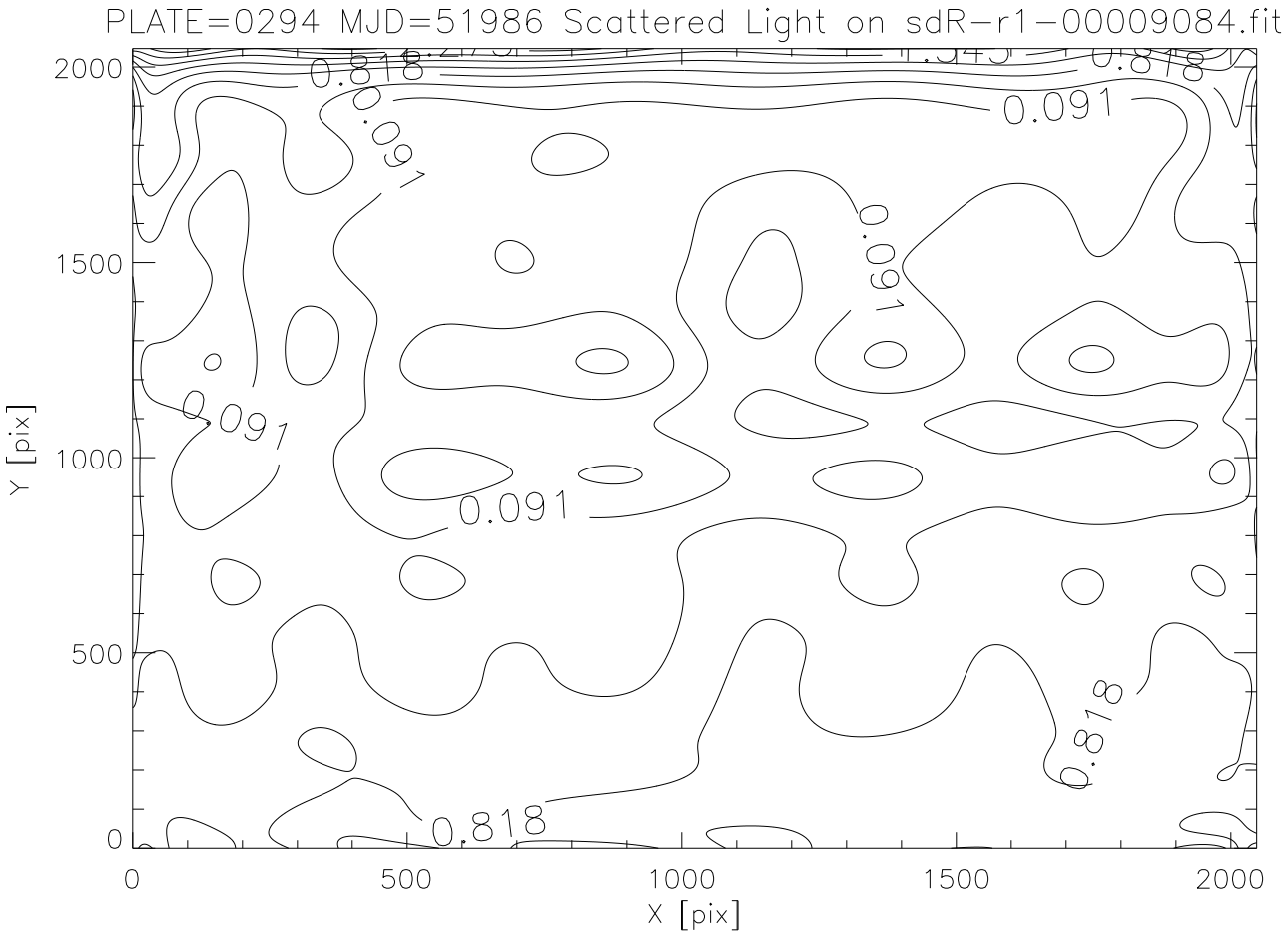

PLATE=0294 MJD=51986 sdR-r1-00009083.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 3.17 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

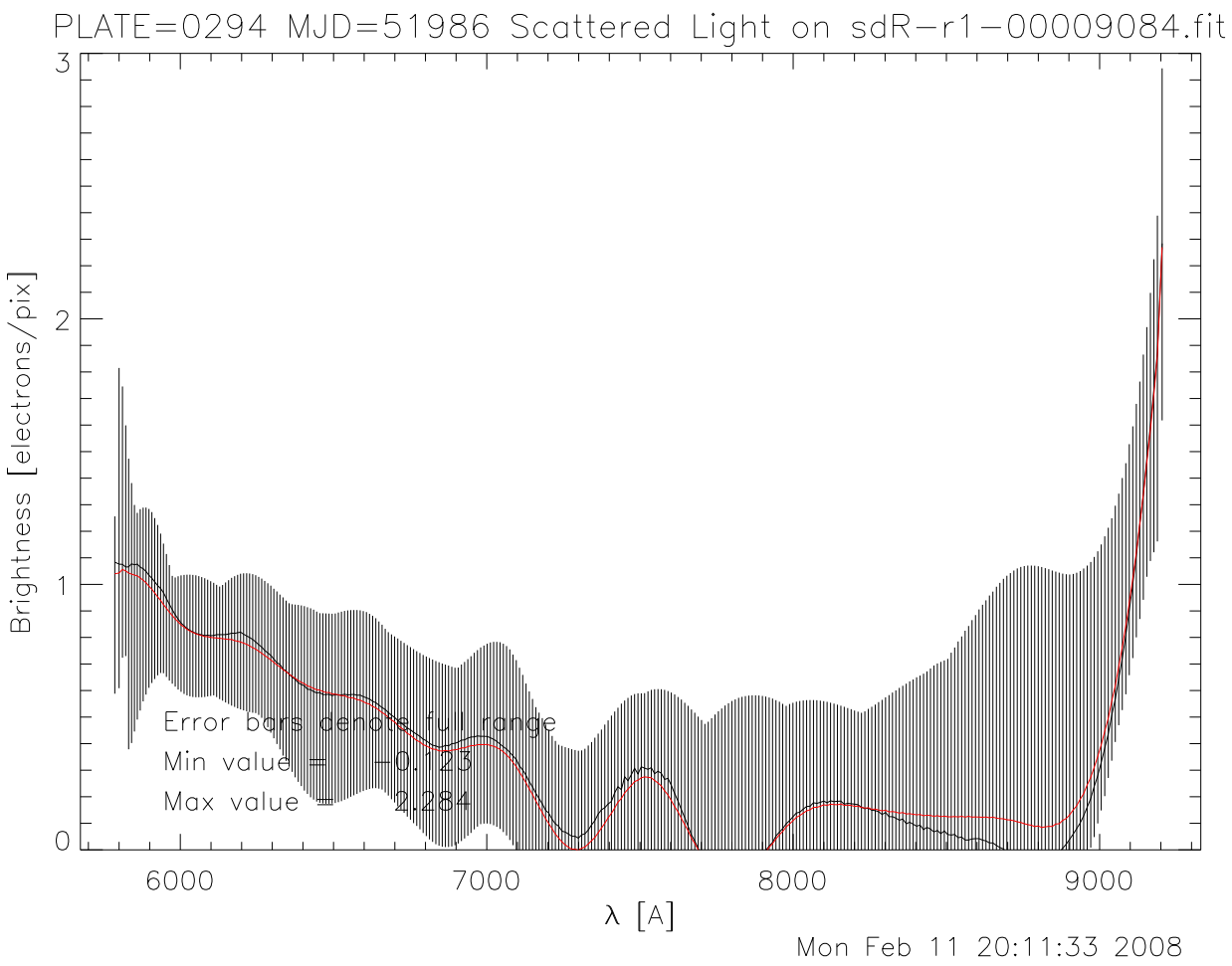

PLATE=0294 MJD=51986 sdR-r1-00009083.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 2.52 %
Fiber number
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass

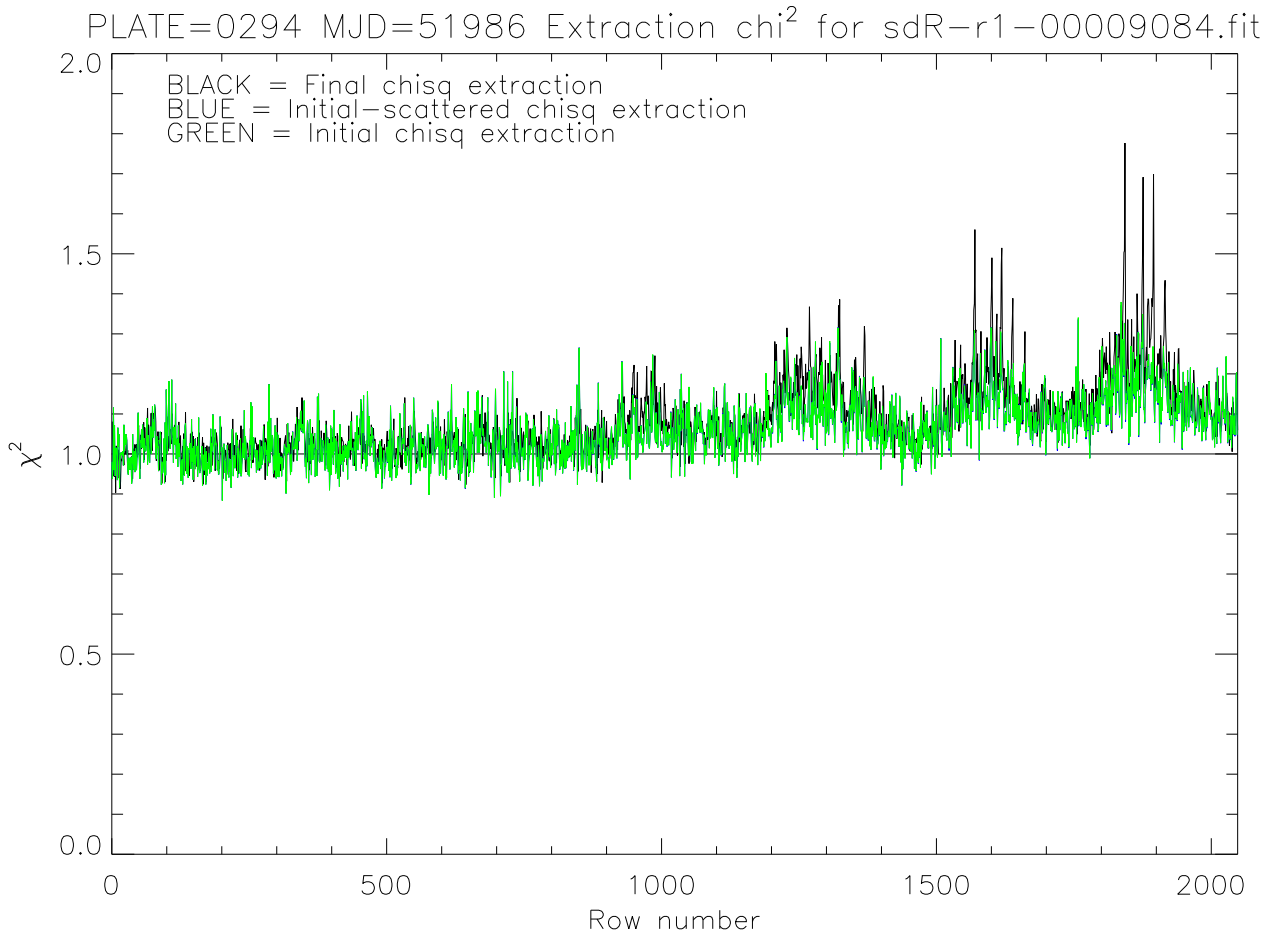

PLATE=0294 MJD=51986 Fiber−Flats for sdR−r1−00009085.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.630
Max value = 1.341
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Mon Feb 11 20:08:36 2008

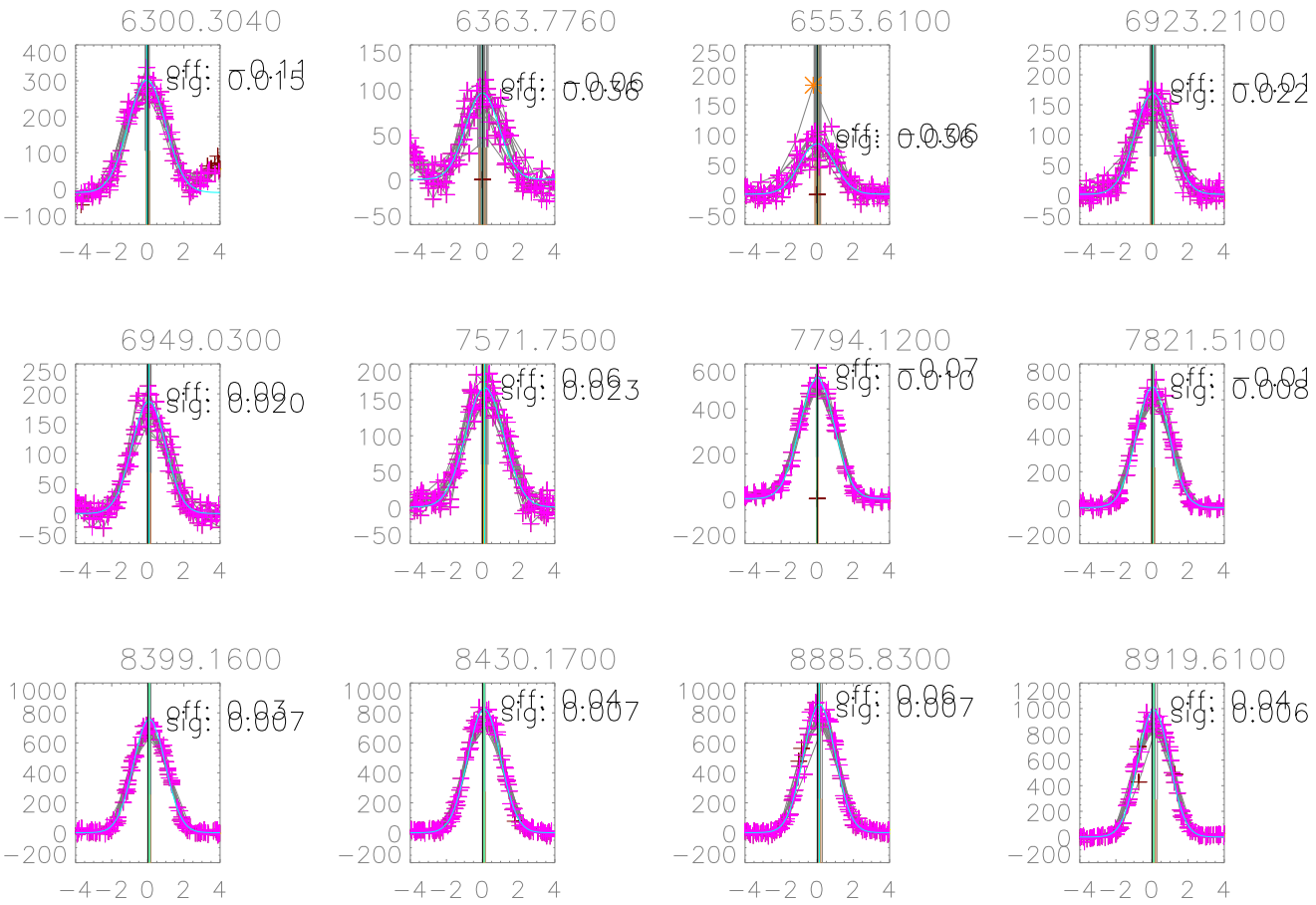

PLATE=0294 MJD=51986 Scattered Light before halo removal on sdR-r1-00009084.fi
6.4
6.4
6.4
4.5
2.7
2.7
0.9
0.9
0.9
Y [pix]
X [pix]
0
500
1000
1500
2000

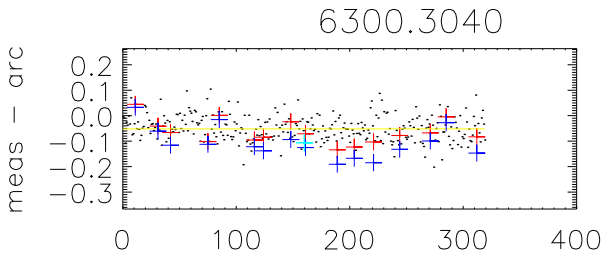

PLATE=0294 MJD=51986 Scattered Light before halo removal on sdR-r1-00009084.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = .1059
Max value = 6.722
Mon Feb 11 20:09:12 2008

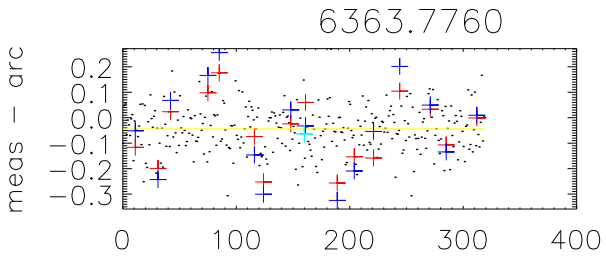

PLATE=0294 MJD=51986 Scattered Light on sdR−r1−00009084.fit
0.818
0.091
0.091
0.091
0.091
0.091
0.818
0.818
0.818
0
0
0
0
Y [pix]
X [pix]
0
500
1000
1500
2000
0
500
1000
1500
2000

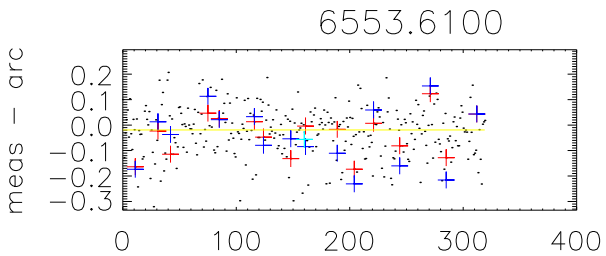

PLATE=0294 MJD=51986 Scattered Light on sdR-r1-00009084.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = -0.123
Max value = 2.284
Mon Feb 11 20:11:33 2008

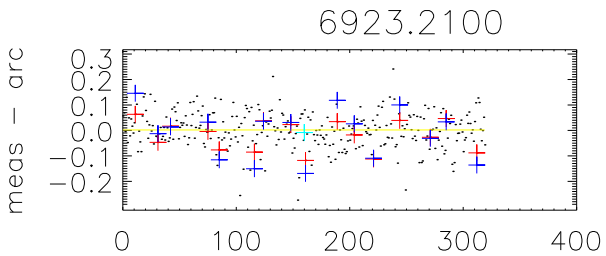

PLATE=0294 MJD=51986 Extraction chi^2 for sdR-r1-00009084.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
2.0
1.5
1.0
0.5
0.0
0
500
1000
1500
2000
Row number

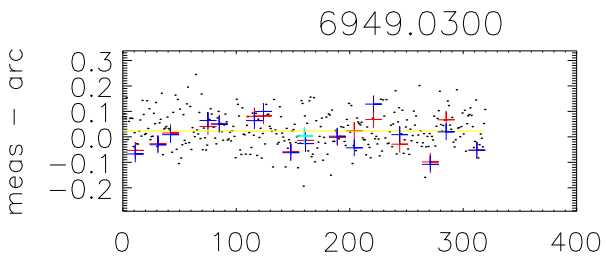

6300.3040
off: -0.11
sig: 0.015
6363.7760
off: -0.06
sig: 0.036
6553.6100
off: -0.06
sig: 0.036
6923.2100
off: -0.01
sig: 0.022
6949.0300
off: 0.00
sig: 0.020
7571.7500
off: 0.06
sig: 0.023
7794.1200
off: -0.07
sig: 0.010
7821.5100
off: -0.01
sig: 0.008
8399.1600
off: 0.03
sig: 0.007
8430.1700
off: 0.04
sig: 0.007
8885.8300
off: 0.06
sig: 0.007
8919.6100
off: 0.04
sig: 0.006

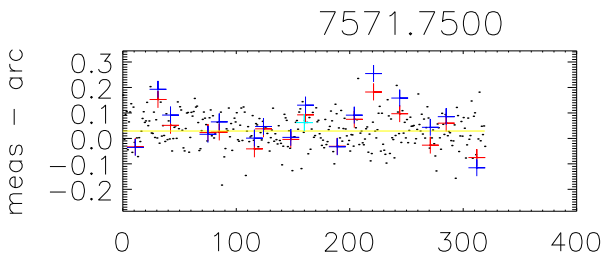

6300.3040
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

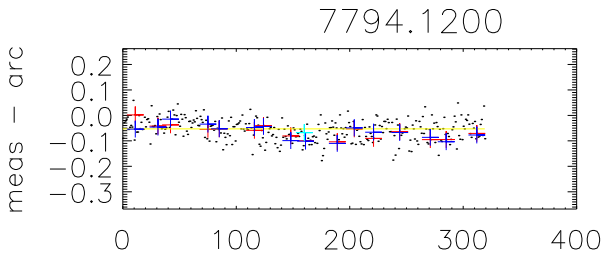

6363.7760
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

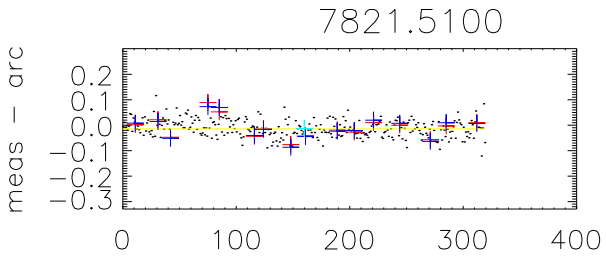

6553.6100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

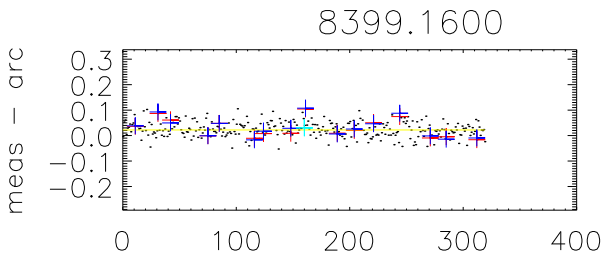

6923.2100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

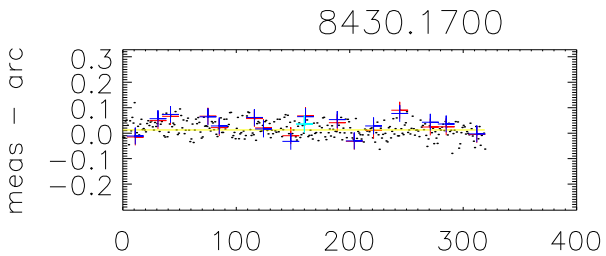

6949.0300
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

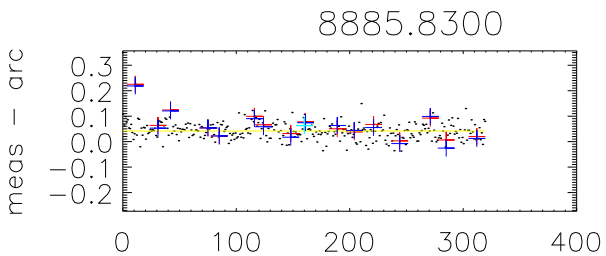

7571.7500
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

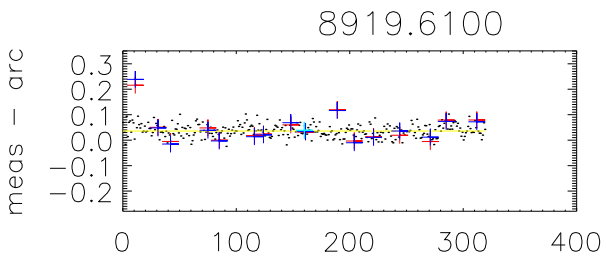

7794.1200
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

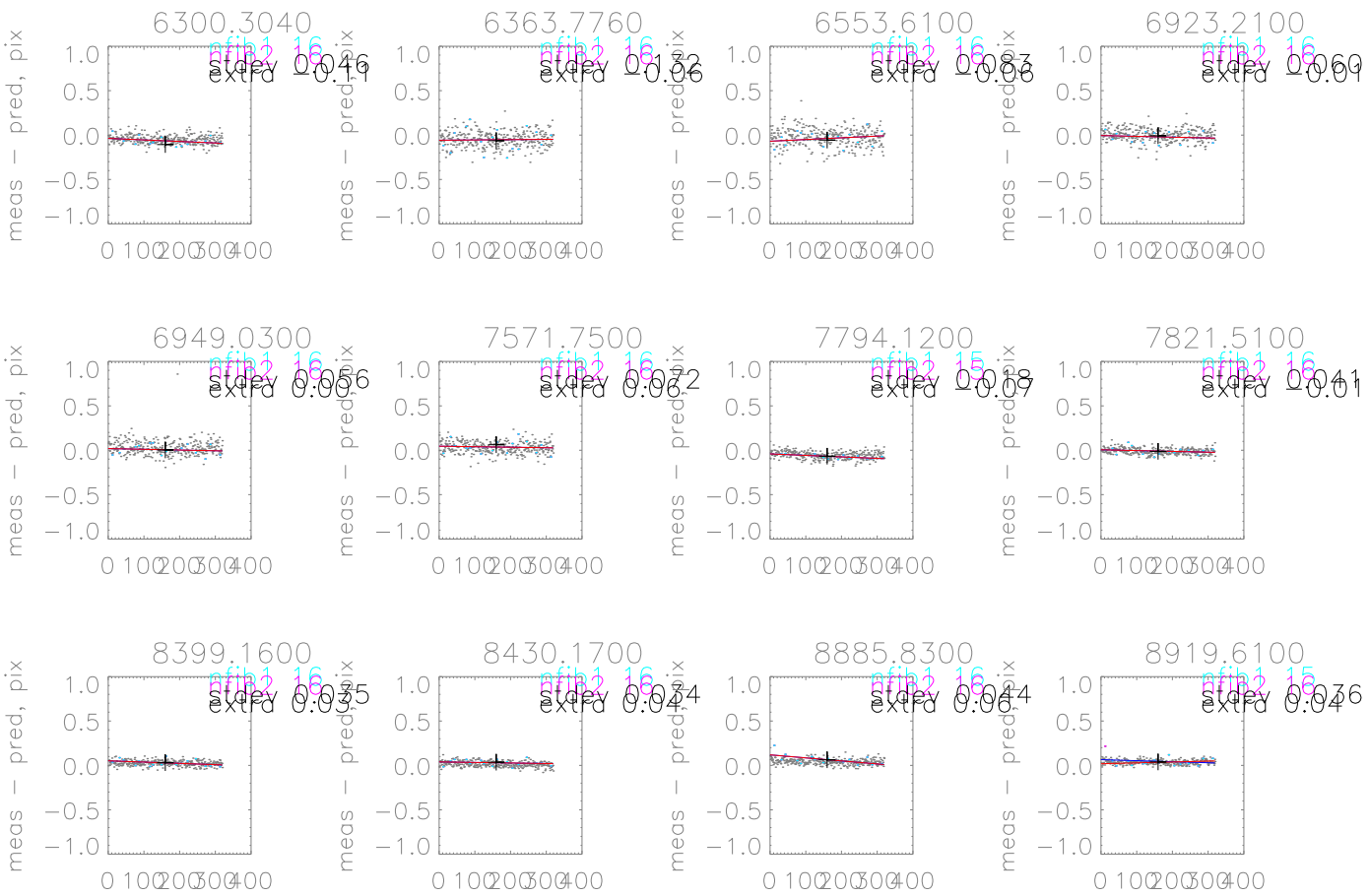

7821.5100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

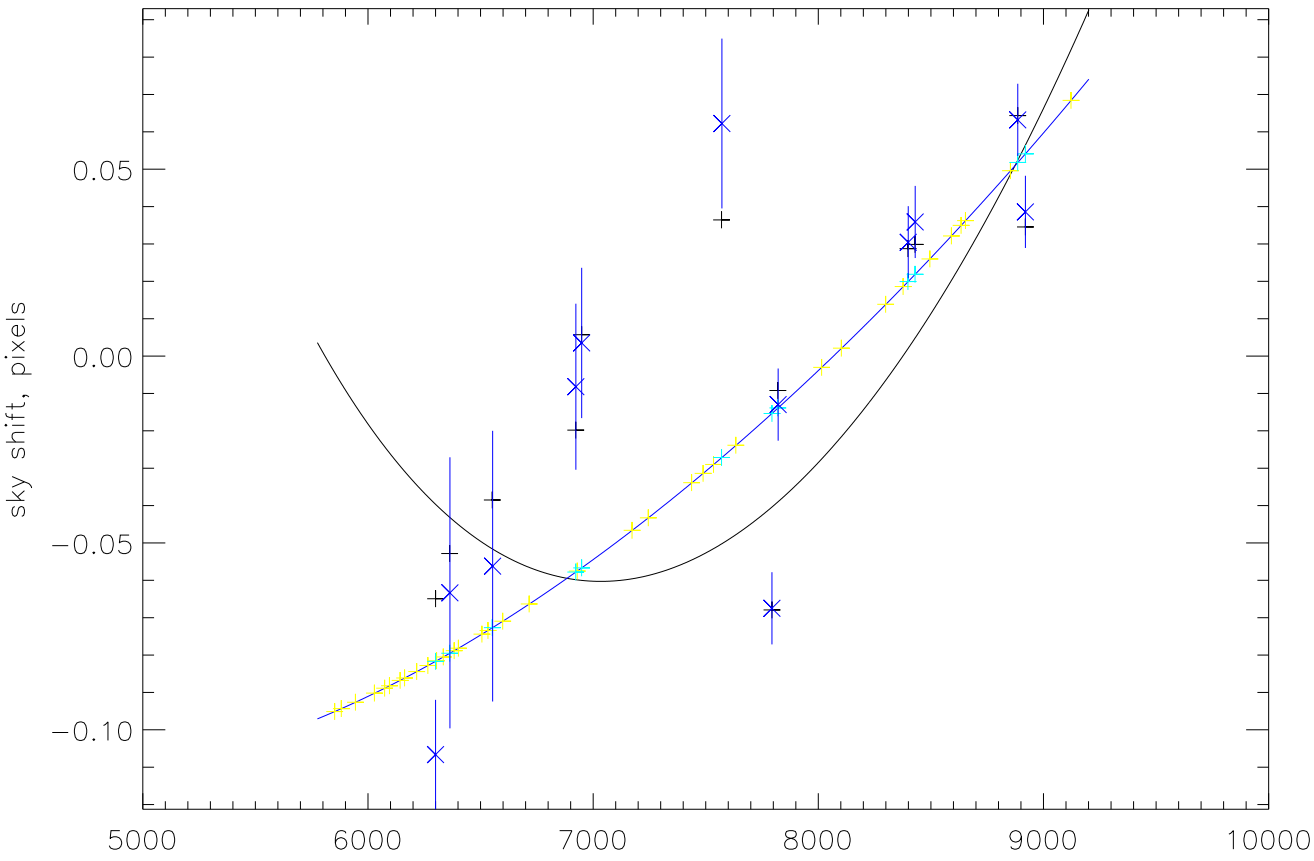

8399.1600
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

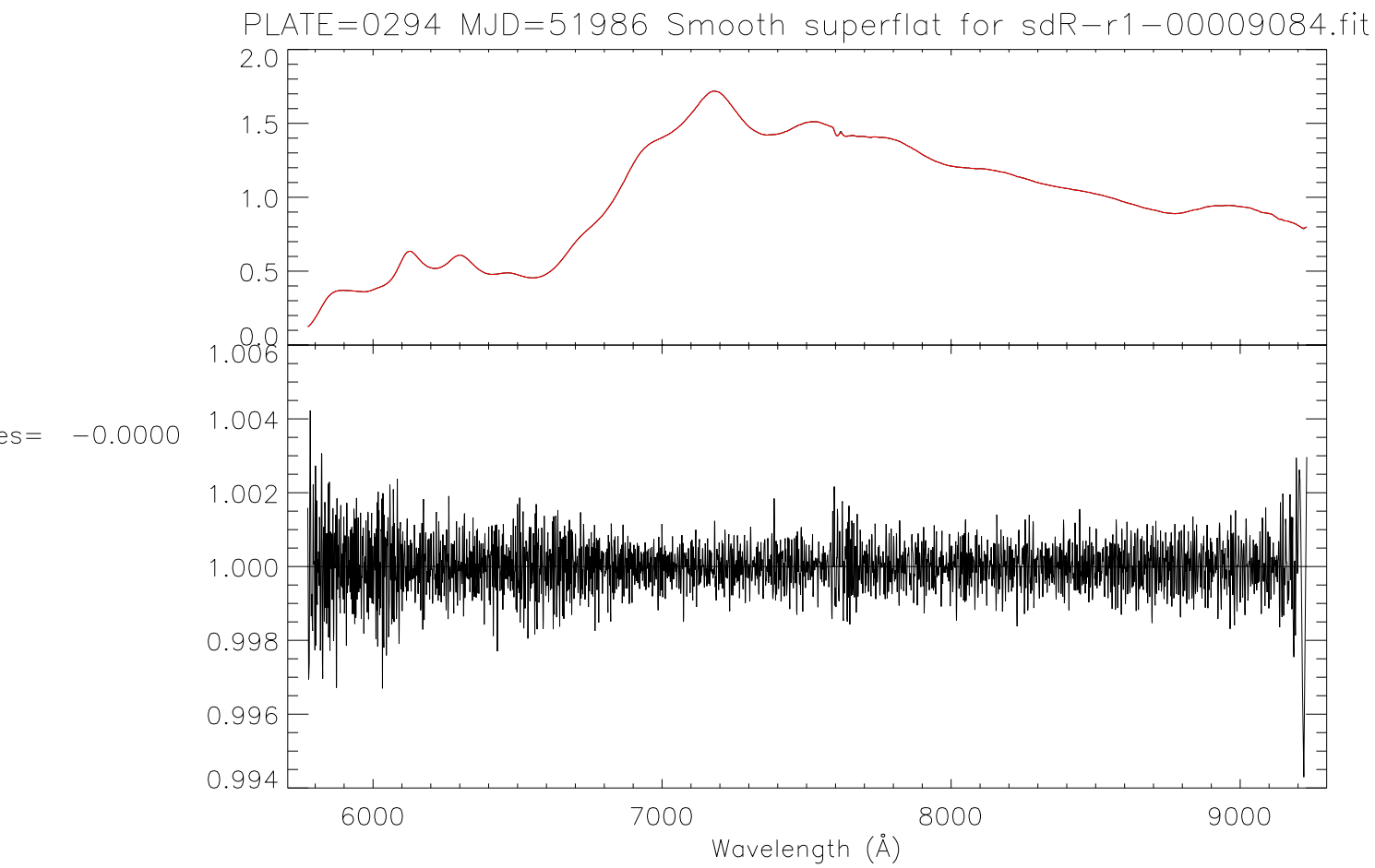

8430.1700
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400


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

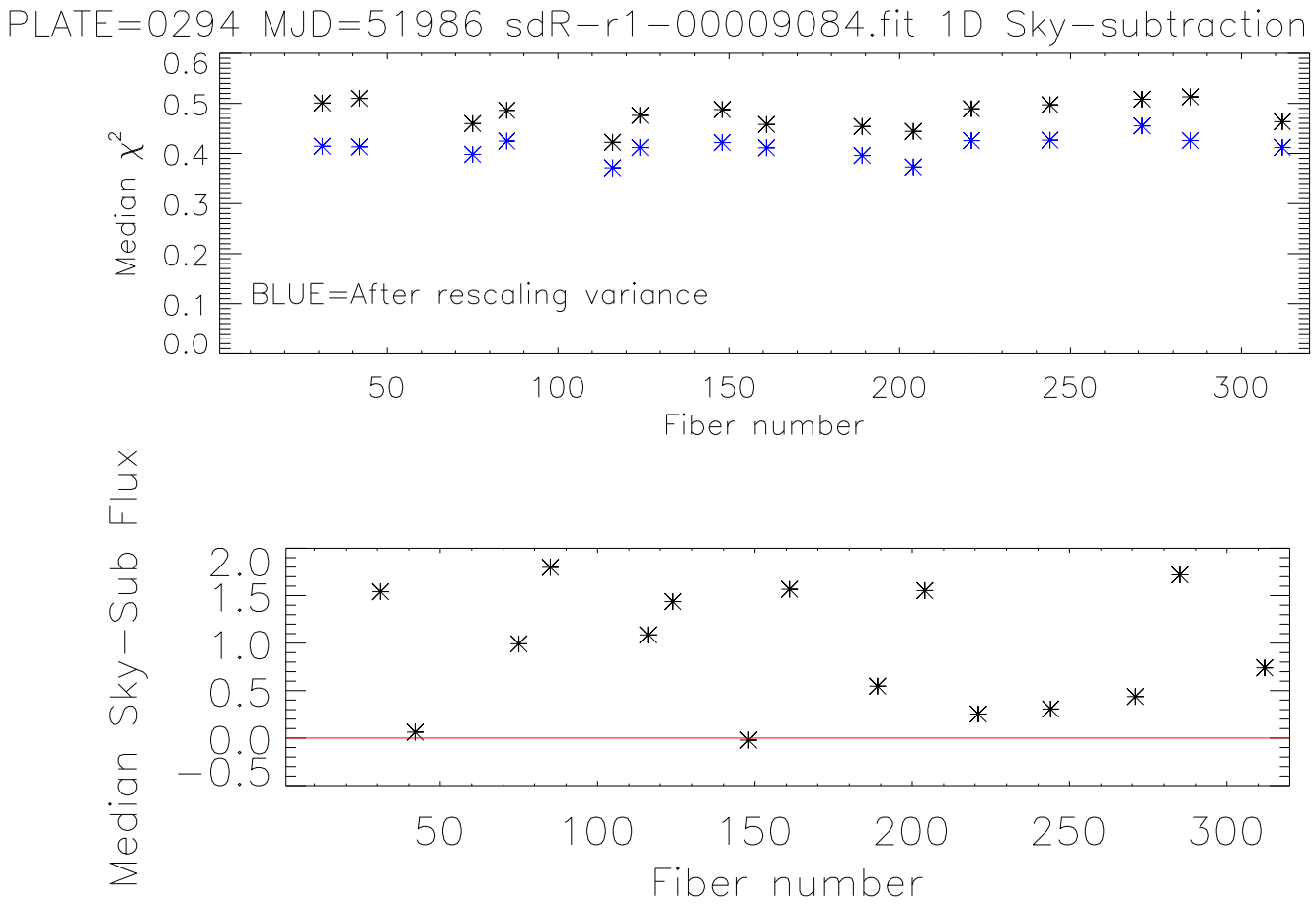

8919.6100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

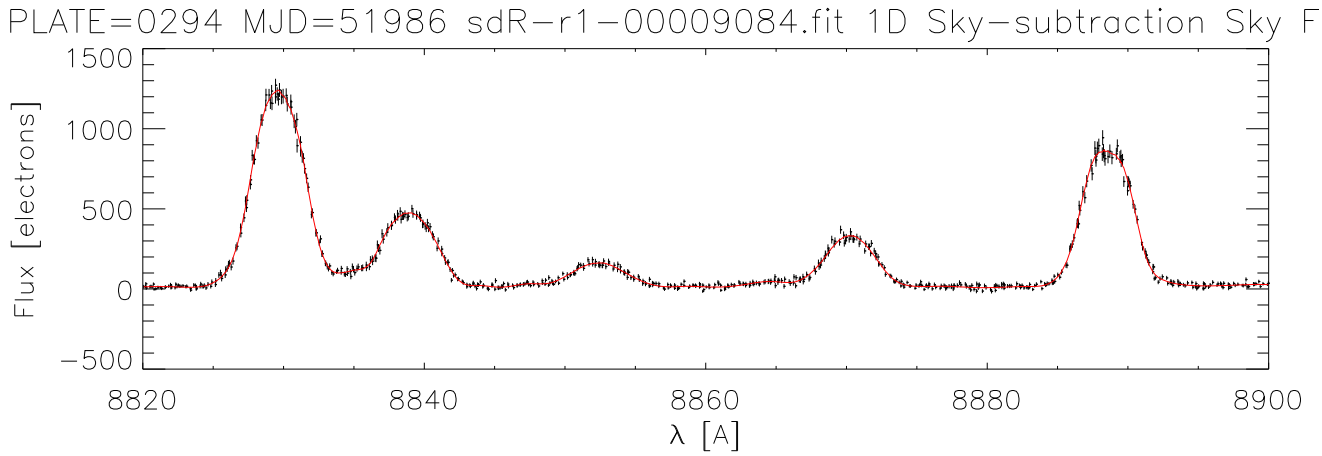

6300.3040
stdev 0.046
extra −0.01
6363.7760
stdev 0.132
extra −0.06
6553.6100
stdev 0.083
extra −0.08
6923.2100
stdev 0.060
extra −0.01
6949.0300
stdev 0.056
extra 0.00
7571.7500
stdev 0.072
extra 0.06
7794.1200
stdev 0.118
extra −0.07
7821.5100
stdev 0.041
extra −0.01
8399.1600
stdev 0.035
extra 0.03
8430.1700
stdev 0.034
extra 0.04
8885.8300
stdev 0.044
extra 0.06
8919.6100
stdev 0.036
extra 0.04
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400

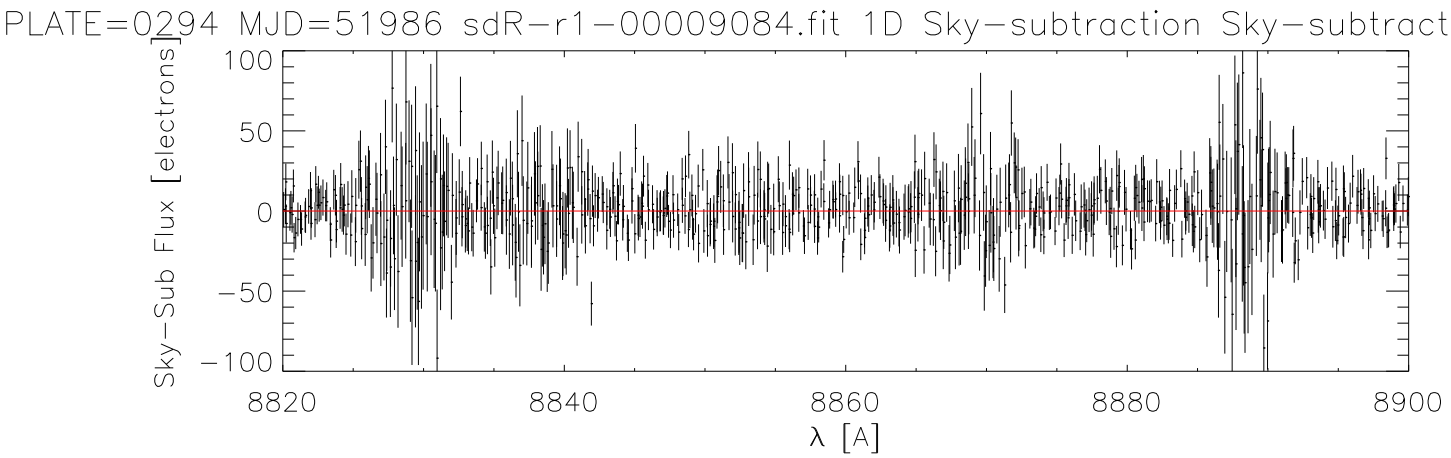

sky shift, pixels
0.05
0.00
−0.05
−0.10
5000
6000
7000
8000
9000
10000

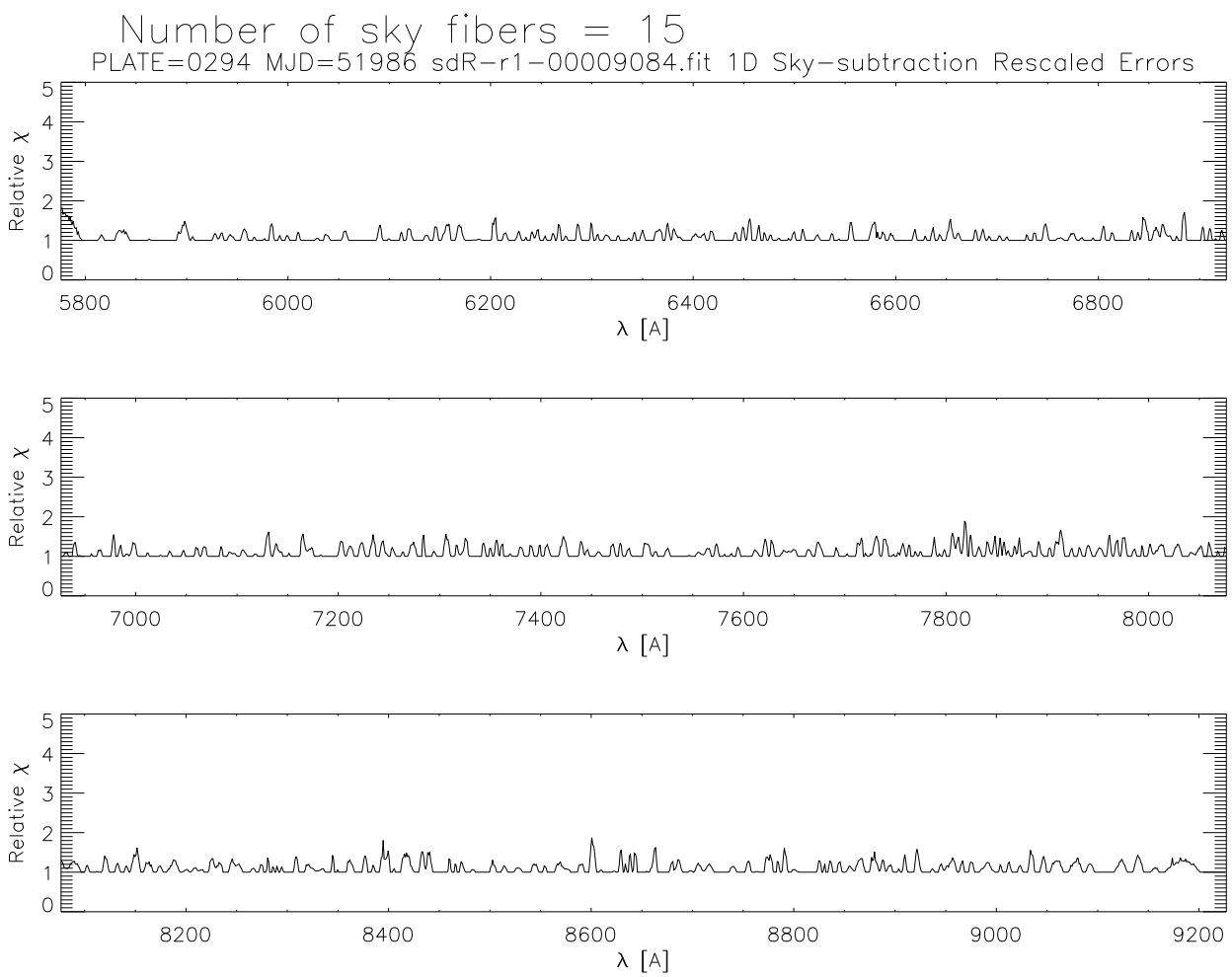

PLATE=0294 MJD=51986 Smooth superflat for sdR-r1-00009084.fit
2.0
1.5
1.0
0.5
0.0
1.006
1.004
1.002
1.000
0.998
0.996
0.994
6000
7000
8000
9000
Wavelength (Å)

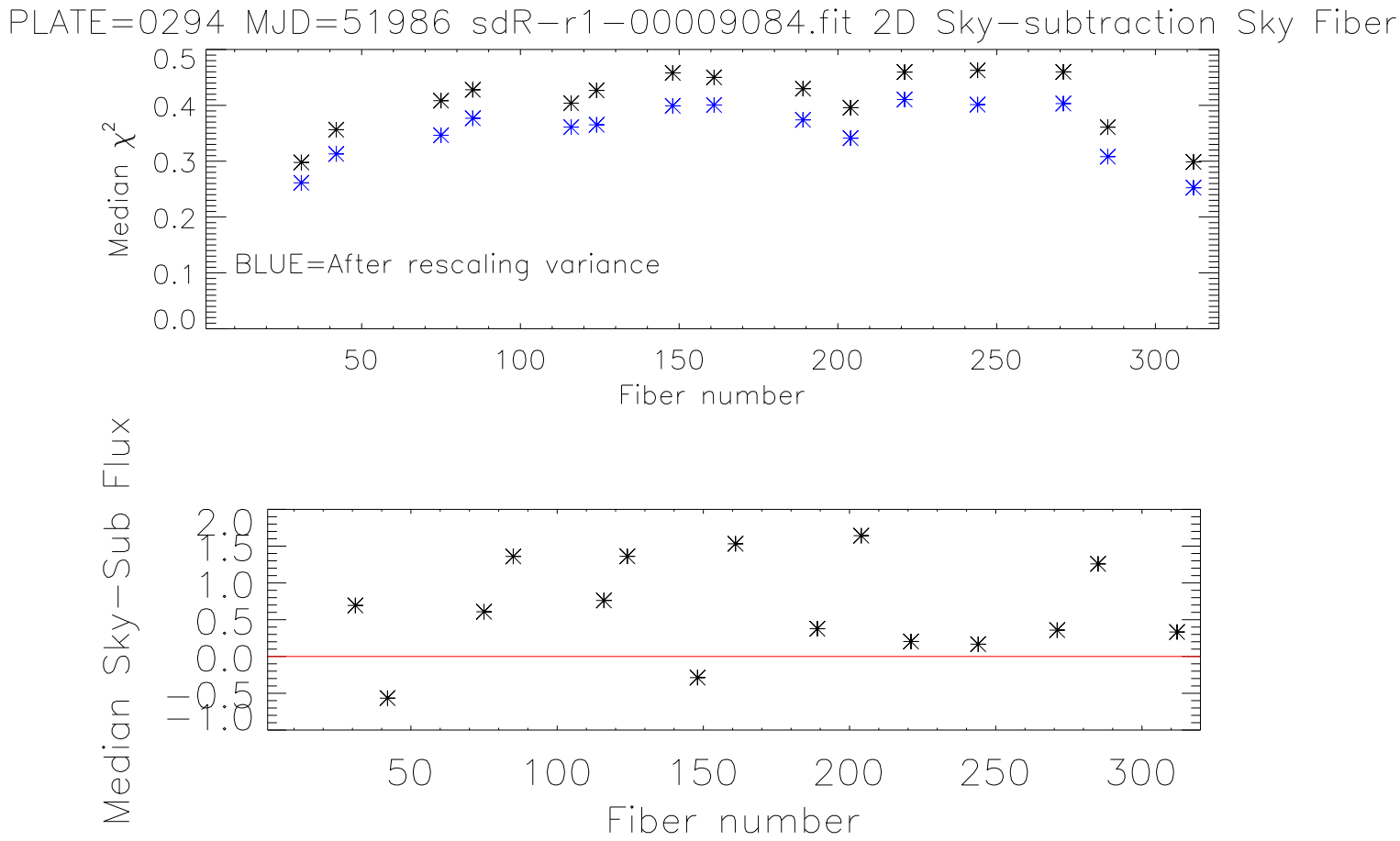
es= −0.0000

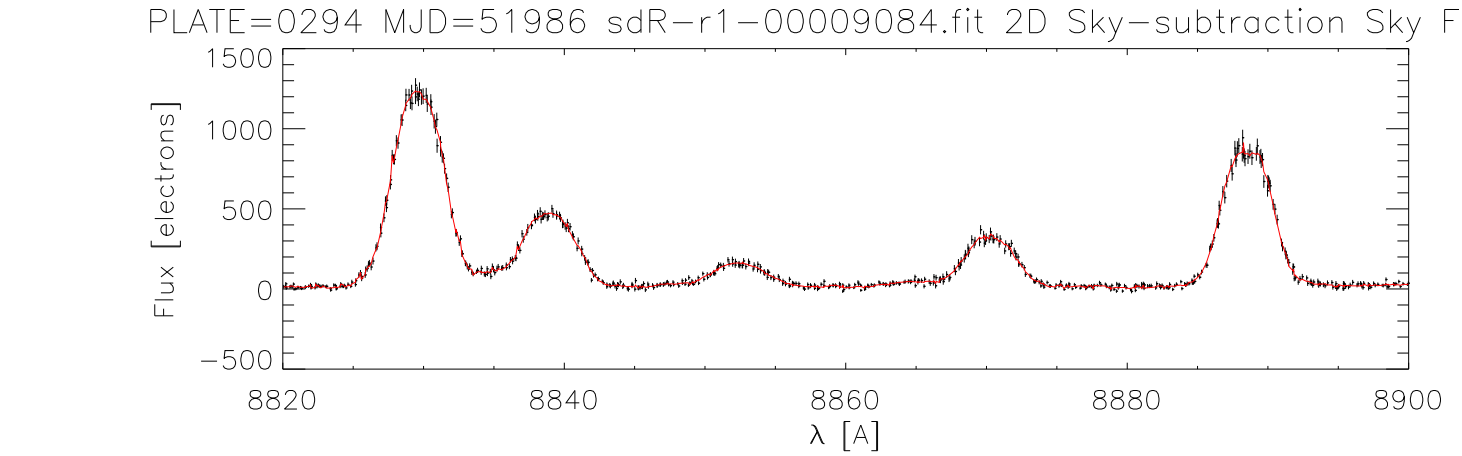

PLATE=0294 MJD=51986 sdR-r1-00009084.fit 1D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

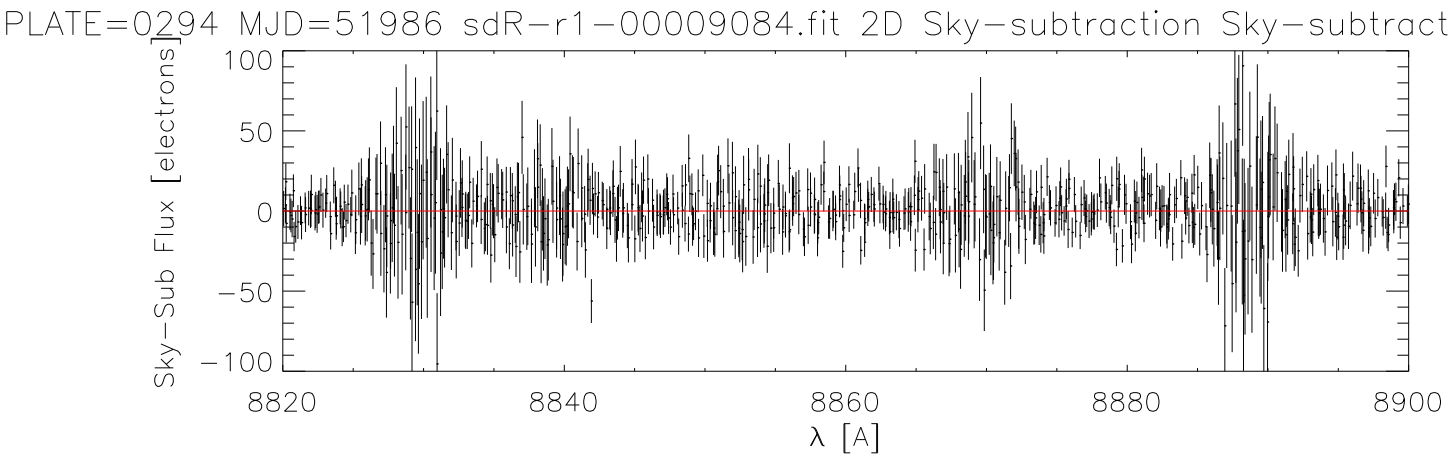

PLATE=0294 MJD=51986 sdR-r1-00009084.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
1500
1000
500
0
-500
8820
8840
8860
8880
8900
λ [A]

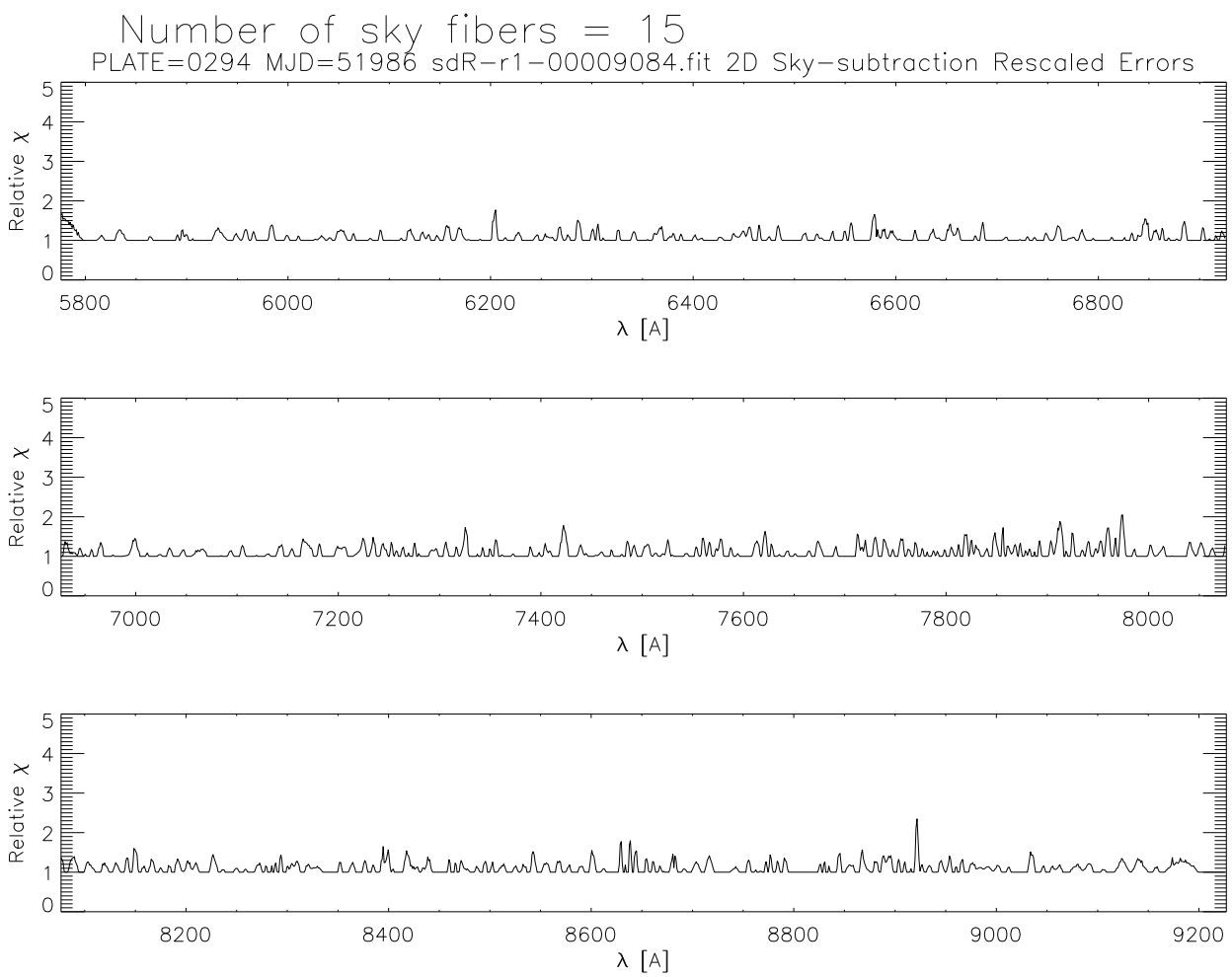

PLATE=0294 MJD=51986 sdR-r1-00009084.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
100
50
0
-50
-100
8820
8840
8860
8880
8900
λ [A]

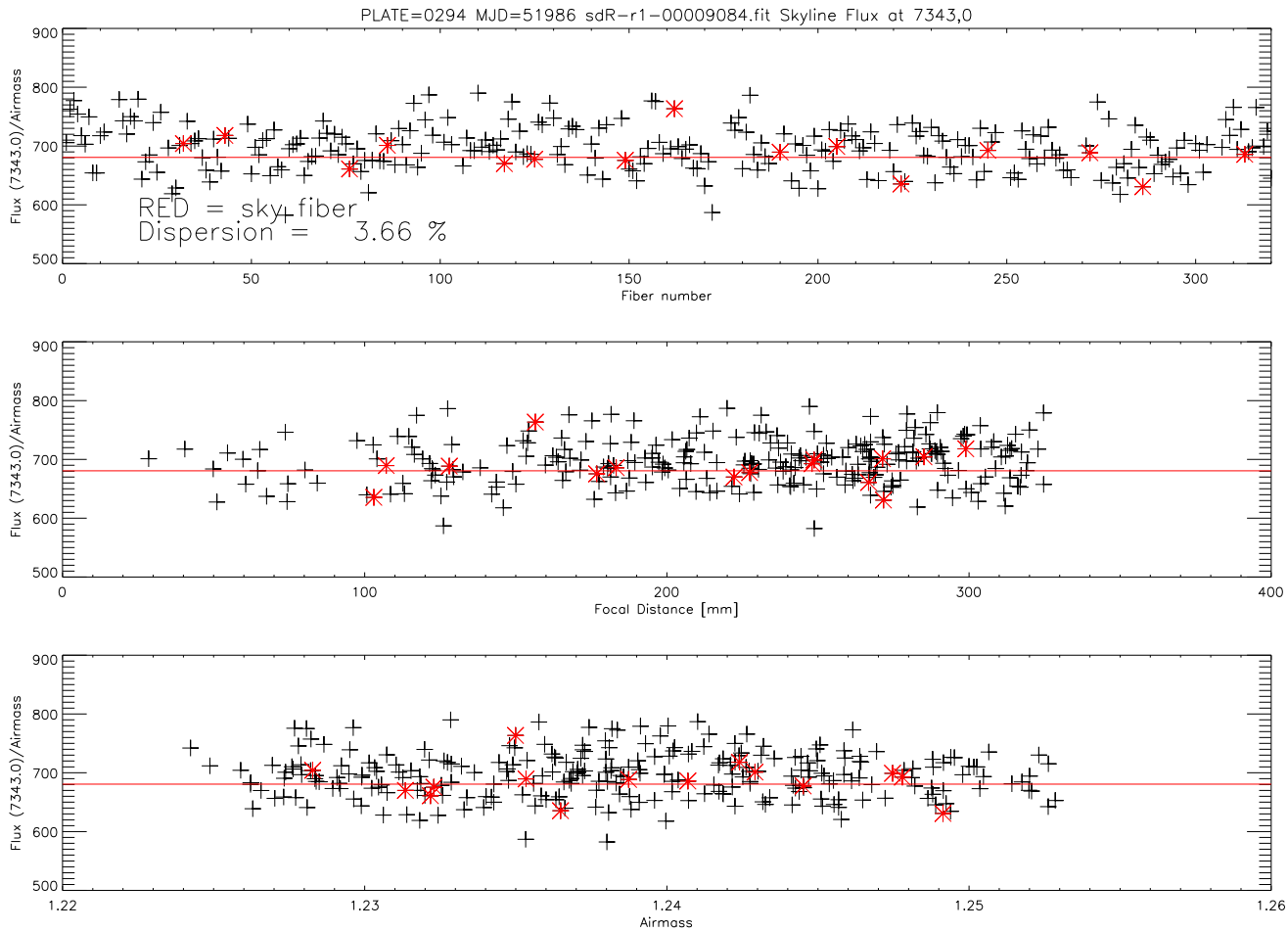

Number of sky fibers = 15
PLATE=0294 MJD=51986 sdR-r1-00009084.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

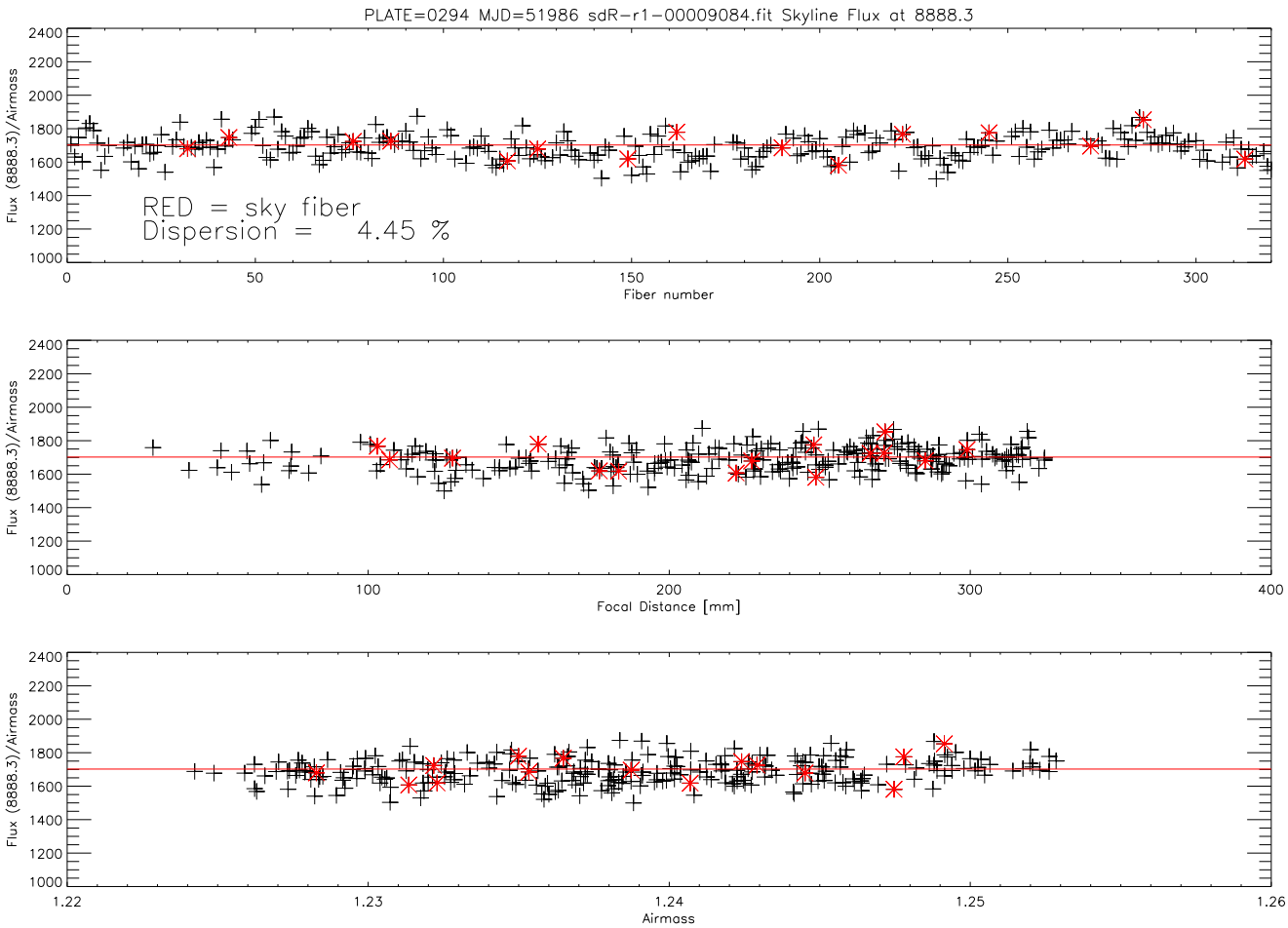

PLATE=0294 MJD=51986 sdR-r1-00009084.fit 2D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

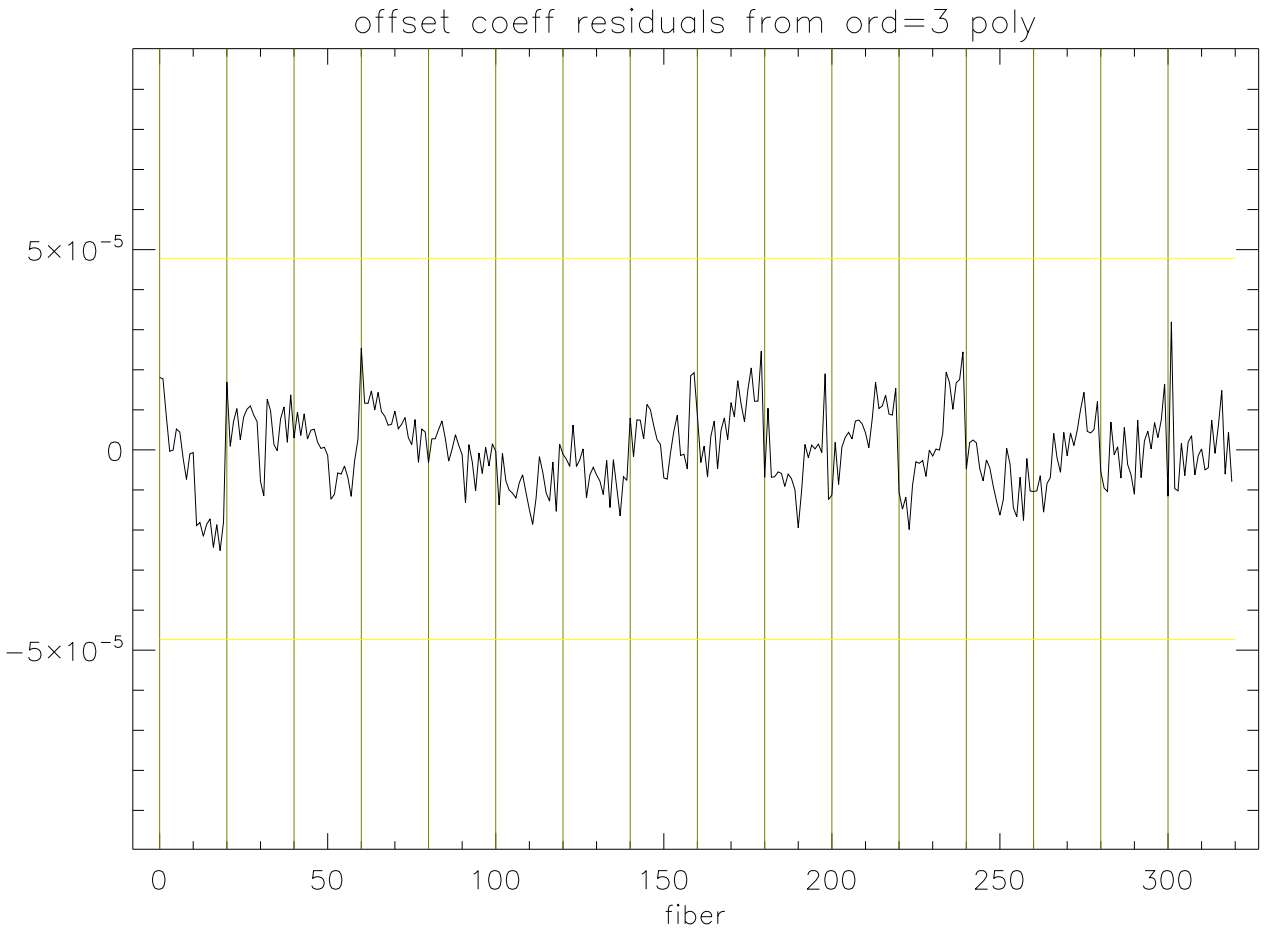

PLATE=0294 MJD=51986 sdR-r1-00009084.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
1500
1000
500
0
-500
8820
8840
8860
8880
8900
λ [A]

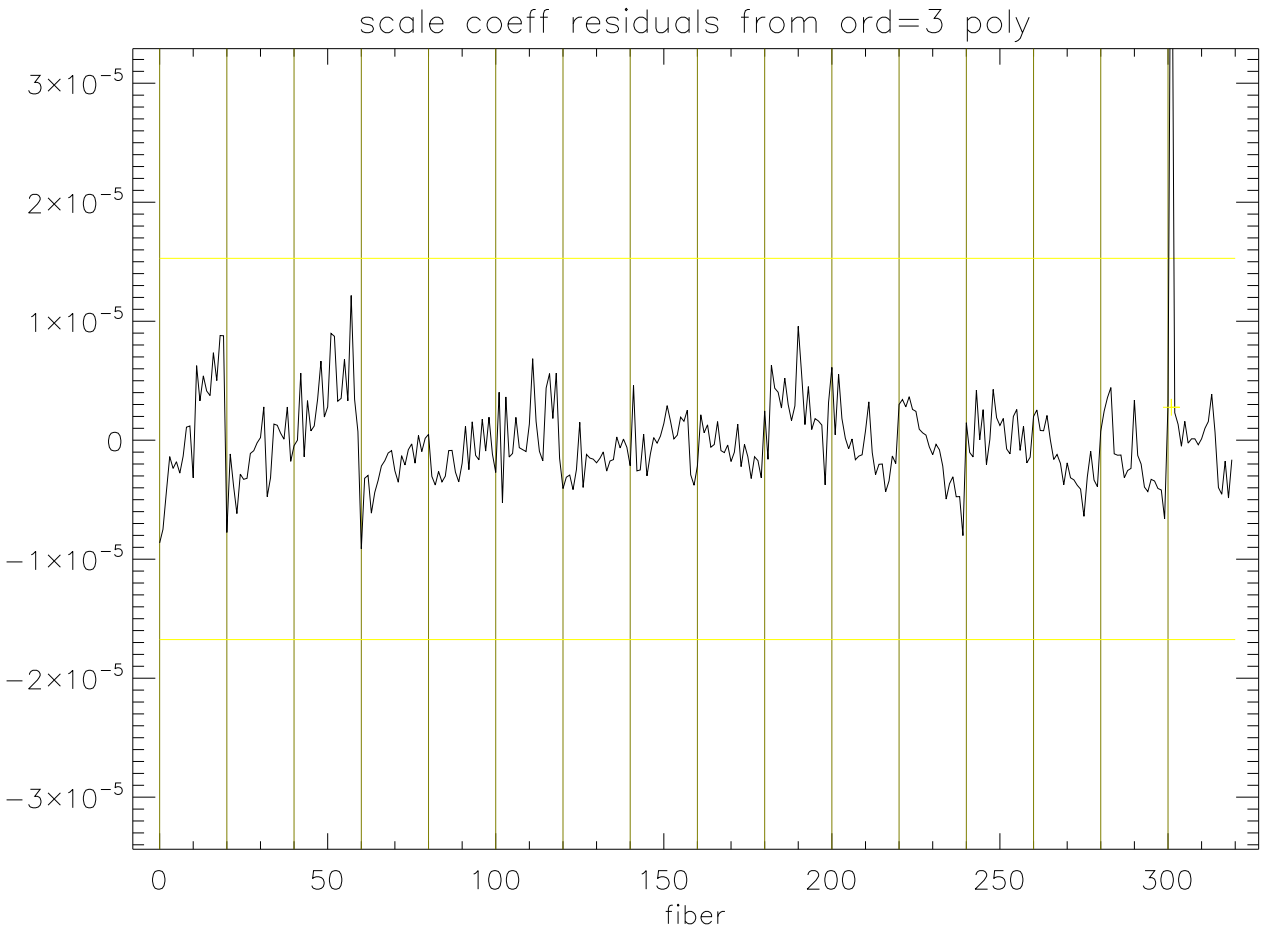

PLATE=0294 MJD=51986 sdR-r1-00009084.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
100
50
0
-50
-100
8820
8840
8860
8880
8900
λ [A]

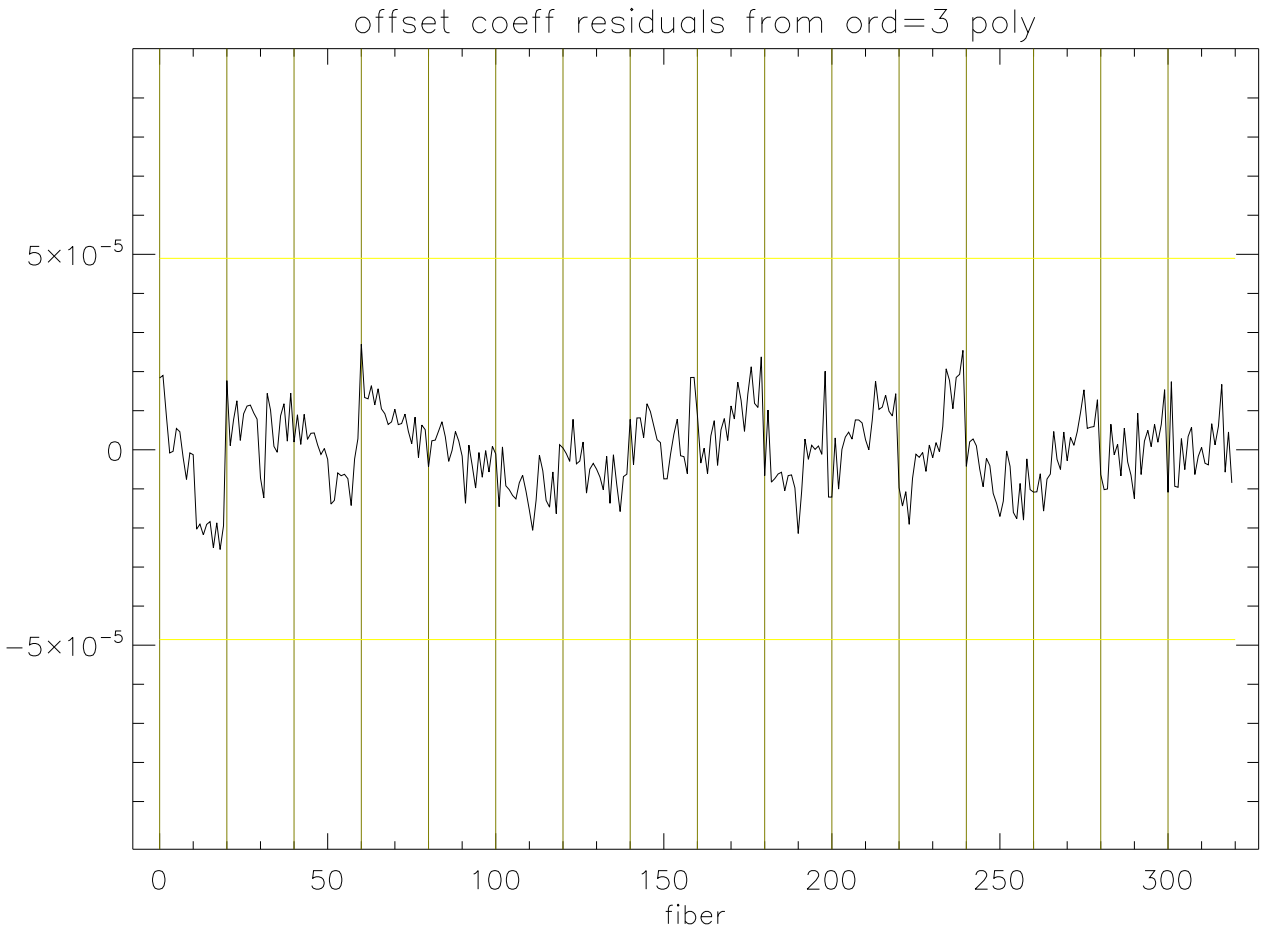

Number of sky fibers = 15
PLATE=0294 MJD=51986 sdR-r1-00009084.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

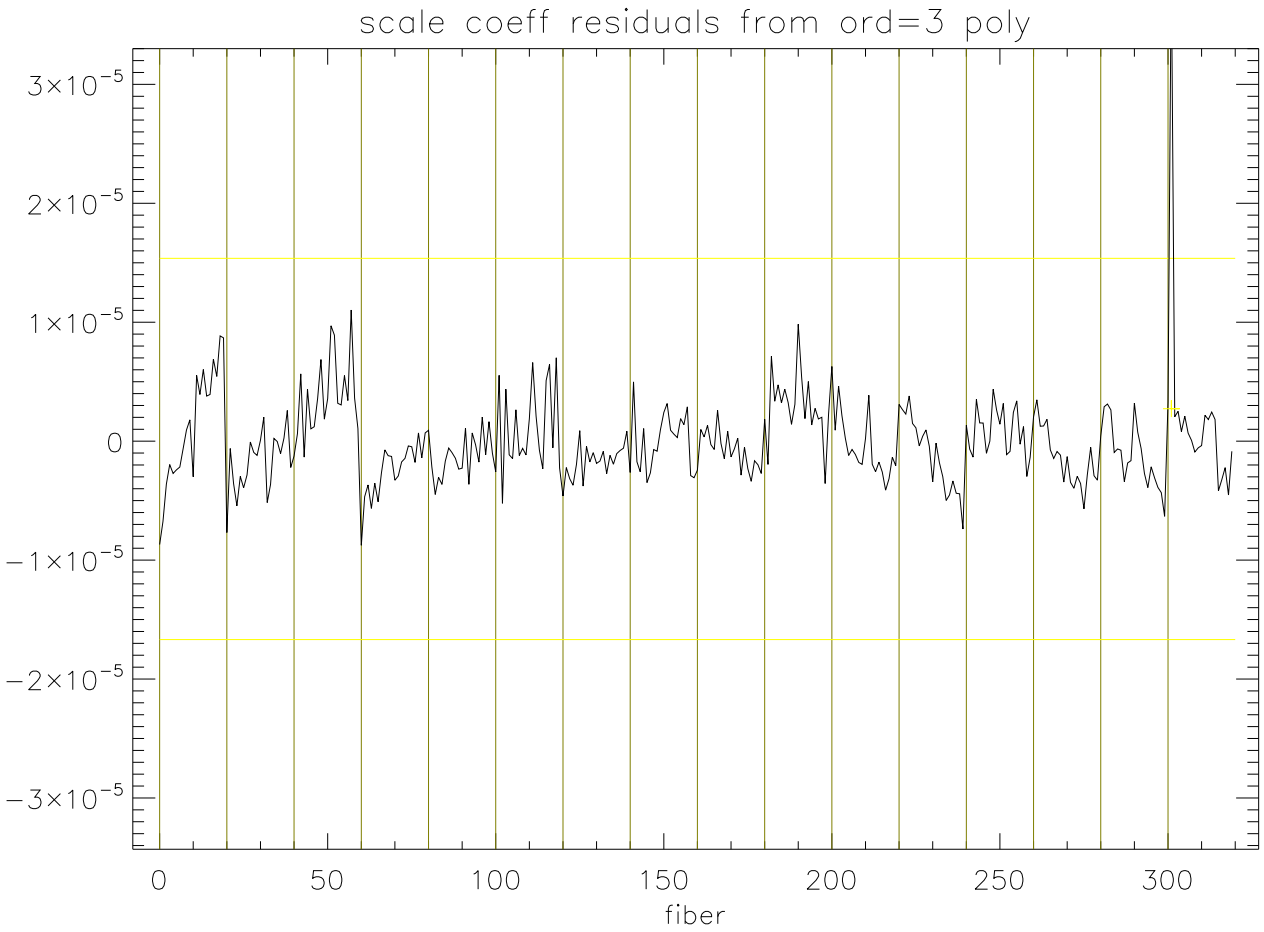

PLATE=0294 MJD=51986 sdR-r1-00009084.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
Fiber number
RED = sky+fiber
Dispersion = 3.66 %
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

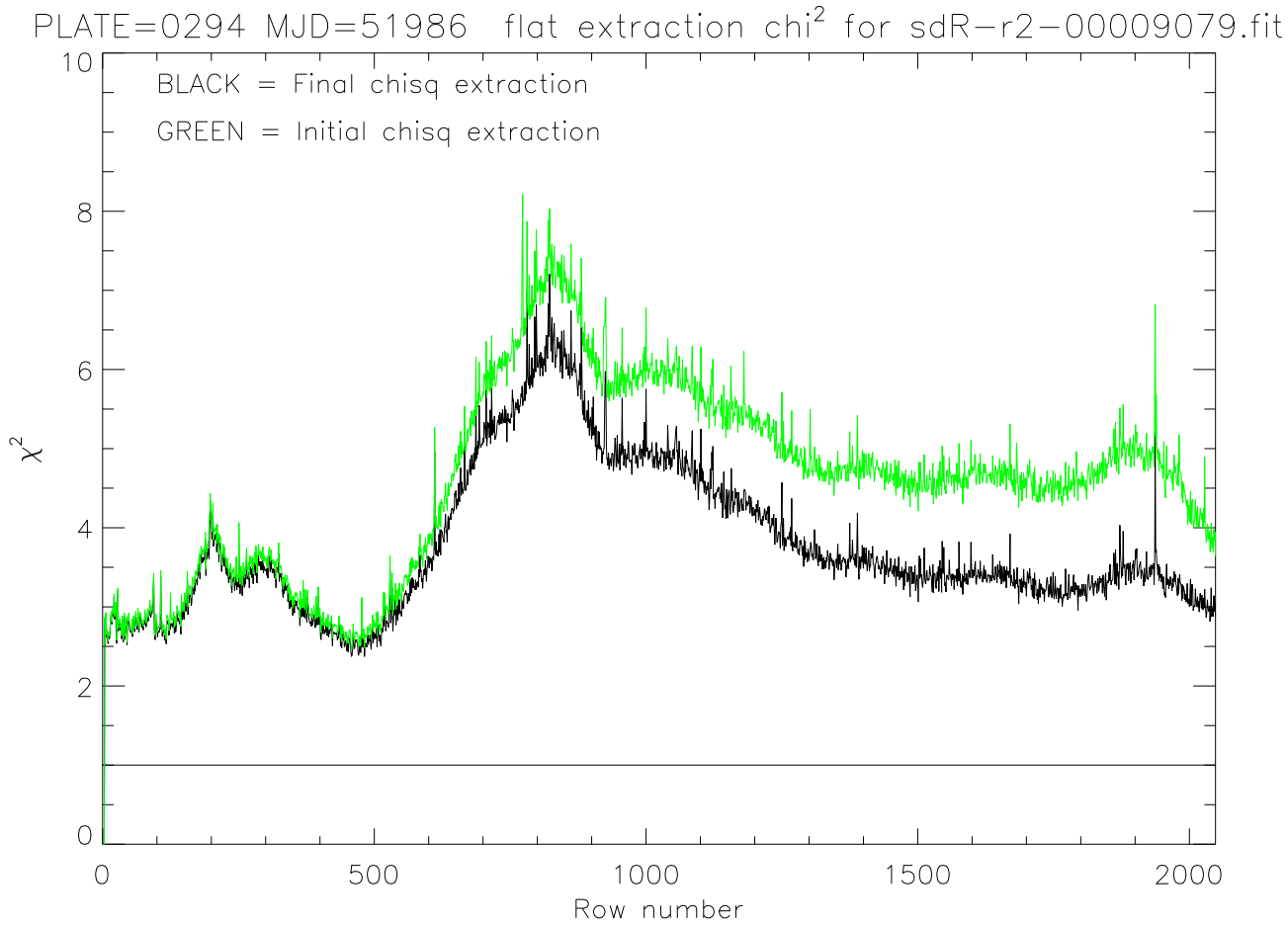

PLATE=0294 MJD=51986 sdR-r1-00009084.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 4.45 %
Fiber number
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass

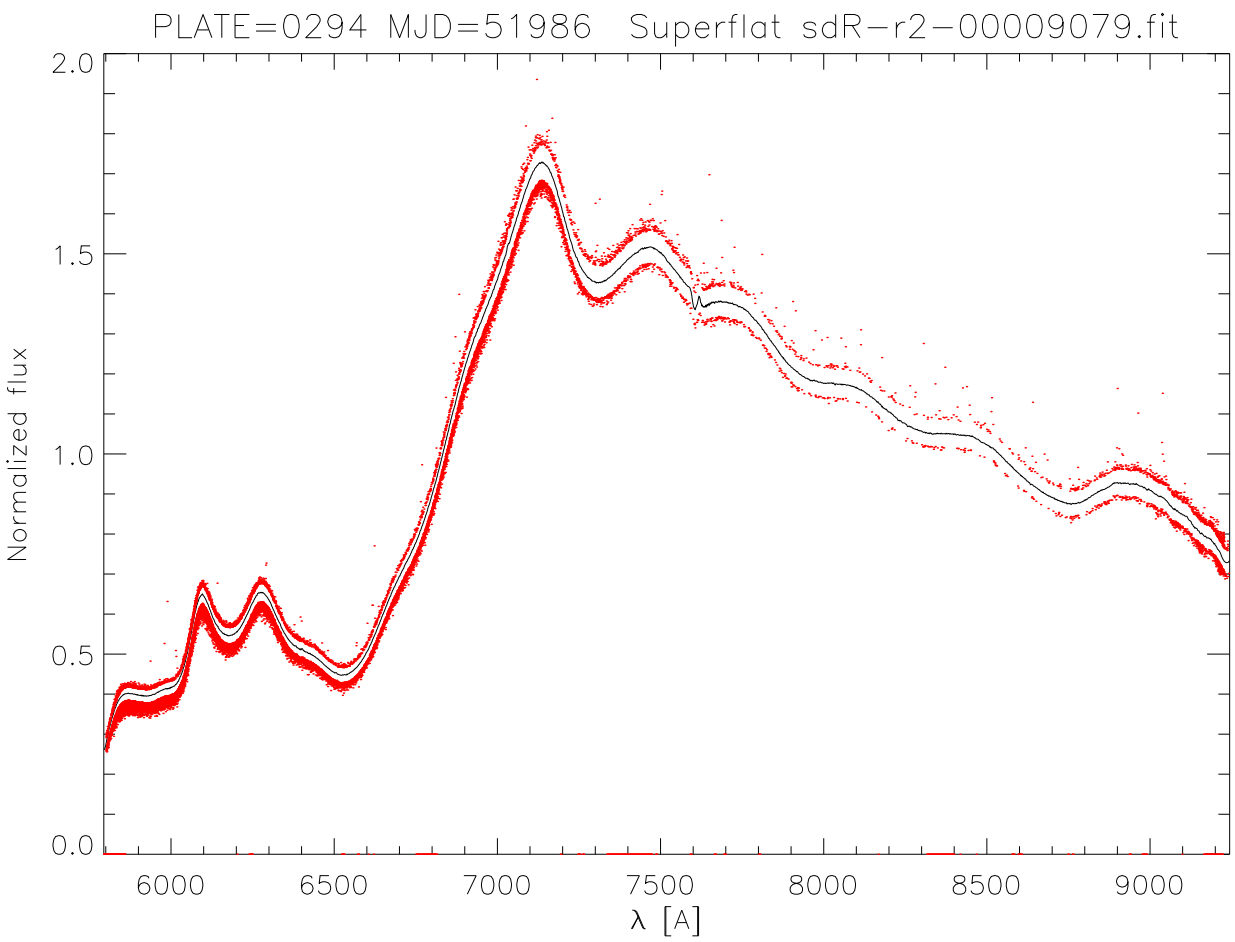

offset coeff residuals from ord=3 poly
5×10⁻⁵
0
−5×10⁻⁵
0
50
100
150
200
250
300
fiber

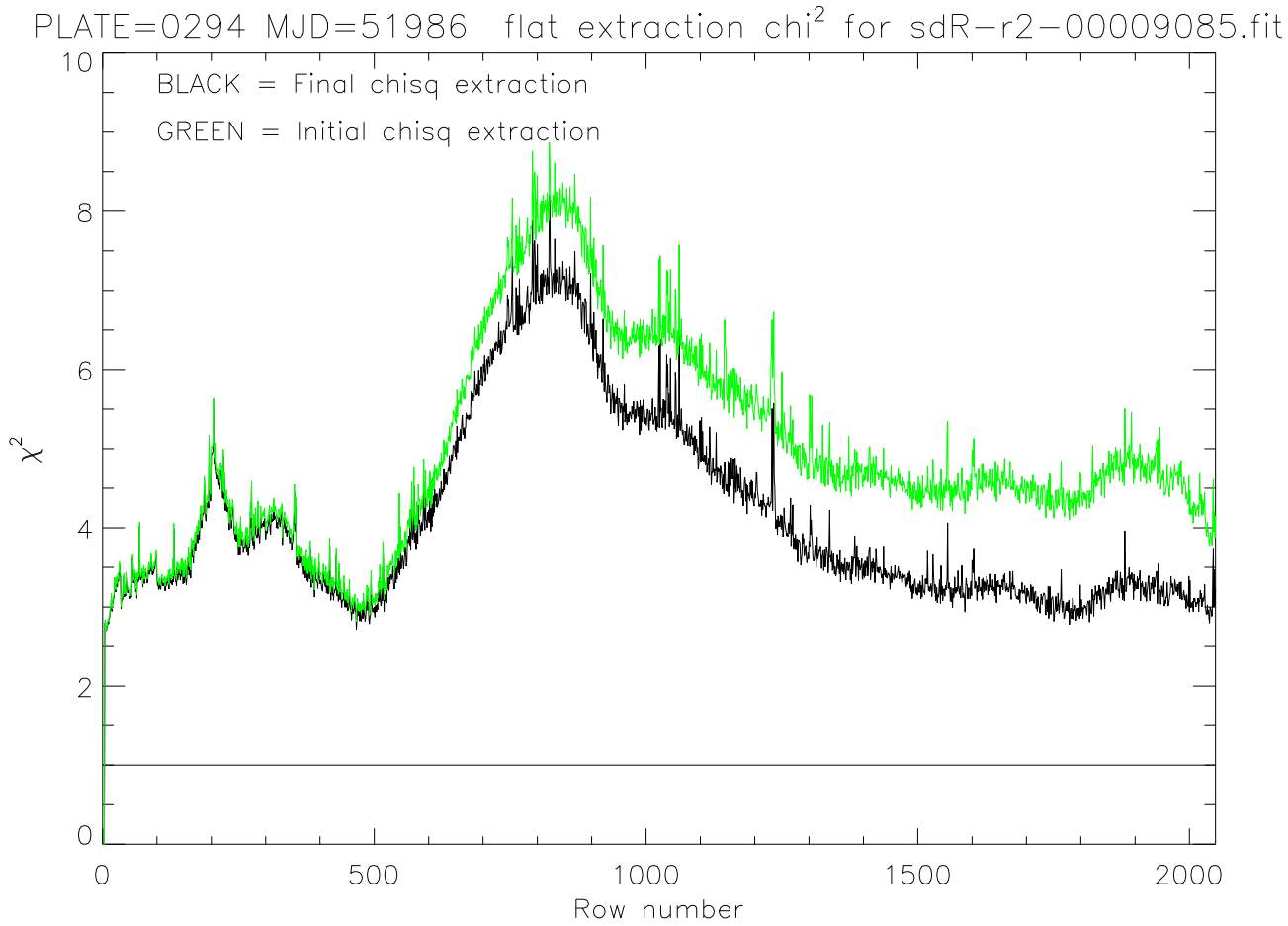

scale coeff residuals from ord=3 poly
3×10⁻⁵
2×10⁻⁵
1×10⁻⁵
0
−1×10⁻⁵
−2×10⁻⁵
−3×10⁻⁵
0
50
100
150
200
250
300
fiber

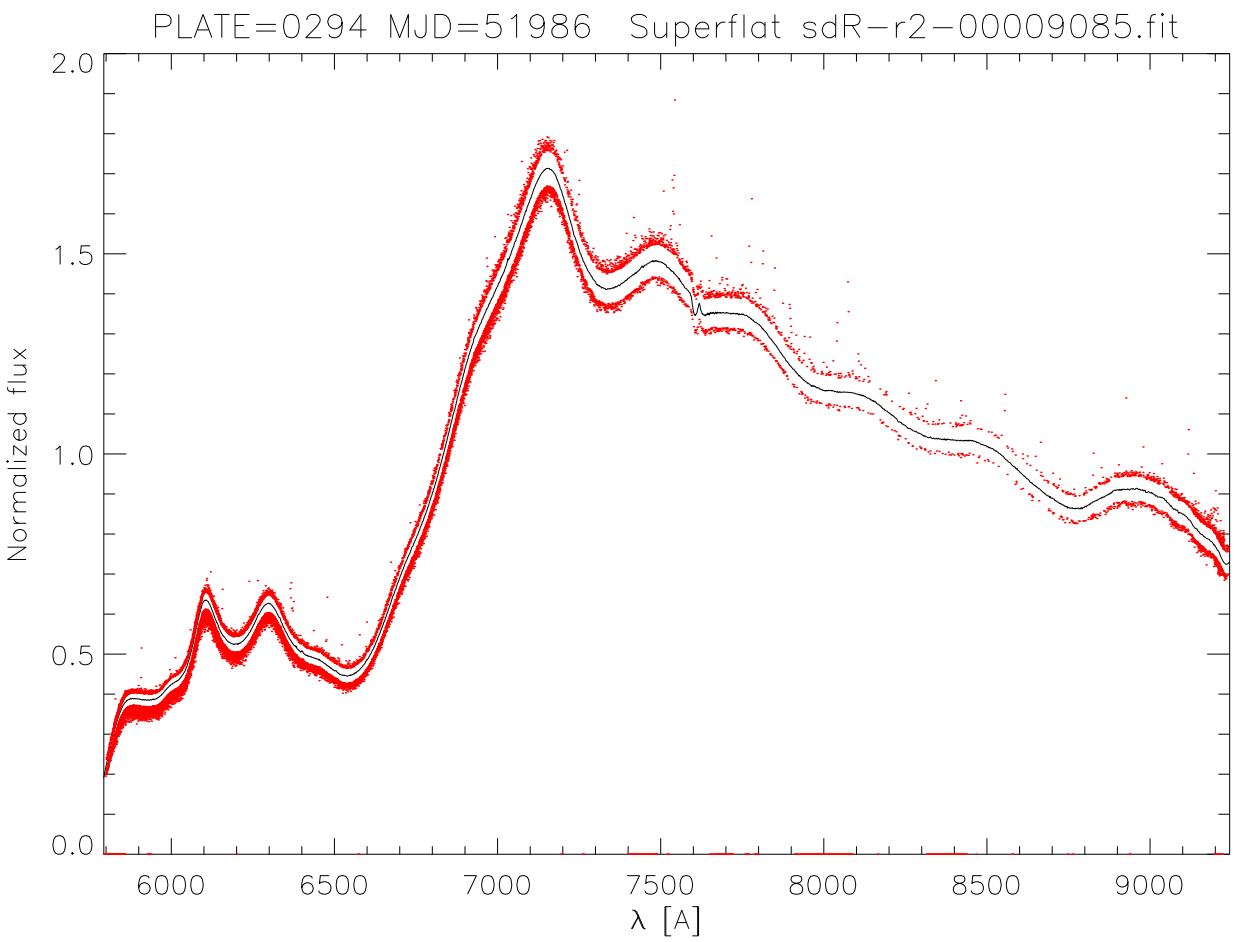

offset coeff residuals from ord=3 poly
5×10⁻⁵
0
−5×10⁻⁵
0
50
100
150
200
250
300
fiber

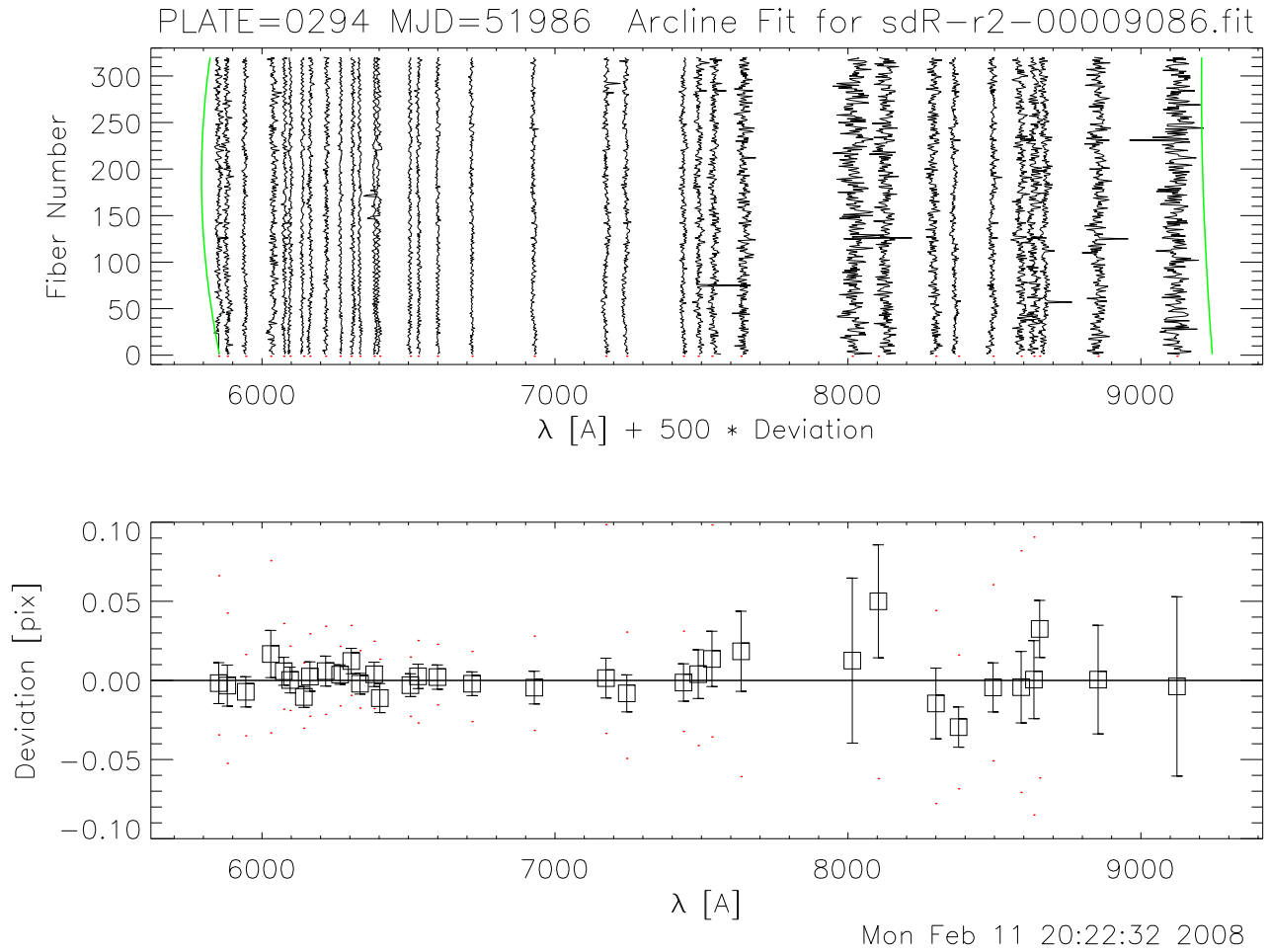

scale coeff residuals from ord=3 poly
3×10⁻⁵
2×10⁻⁵
1×10⁻⁵
0
−1×10⁻⁵
−2×10⁻⁵
−3×10⁻⁵
0
50
100
150
200
250
300
fiber

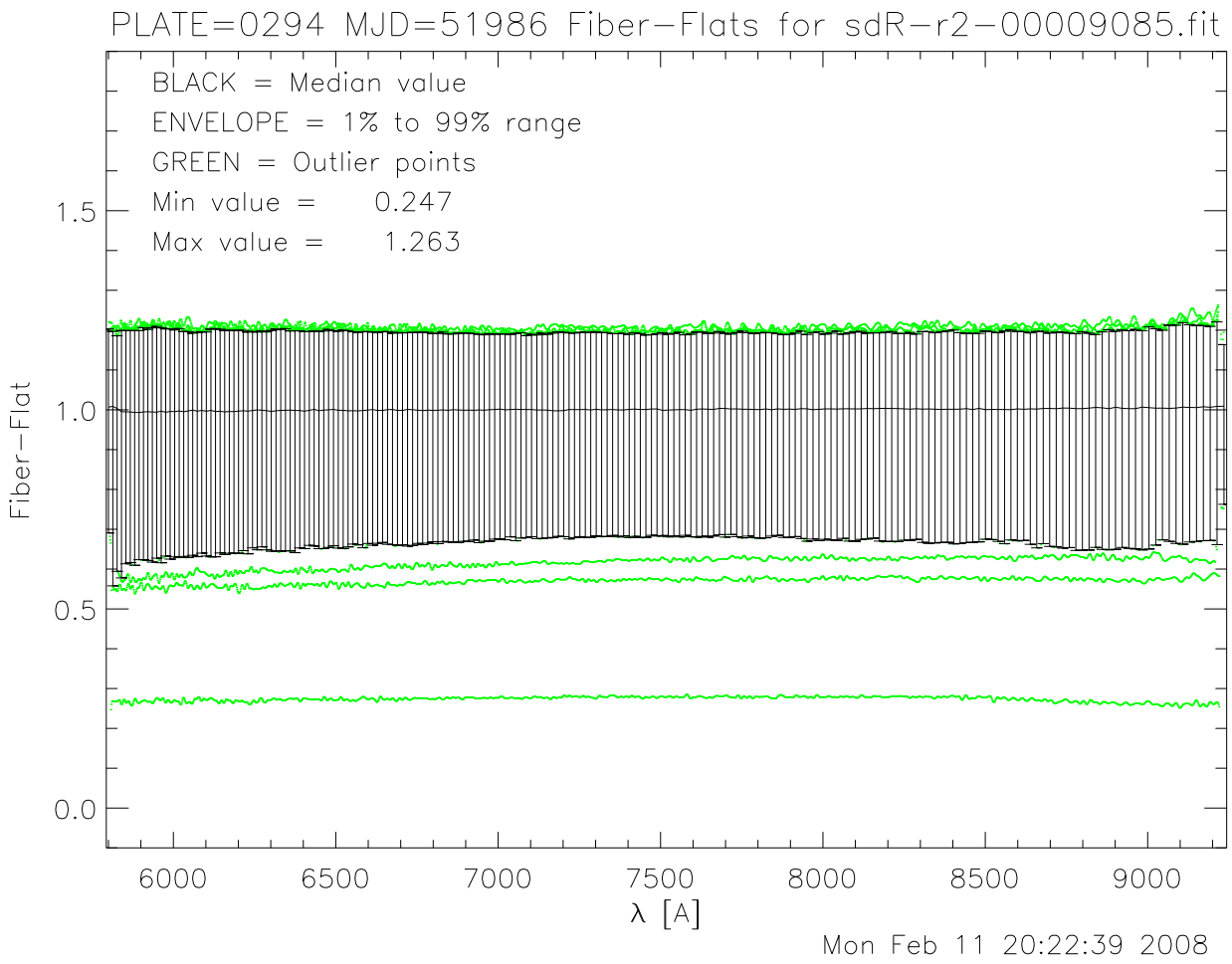

PLATE=0294 MJD=51986 flat extraction chi^2 for sdR−r2−00009079.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
2
4
6
8
10
0
500
1000
1500
2000

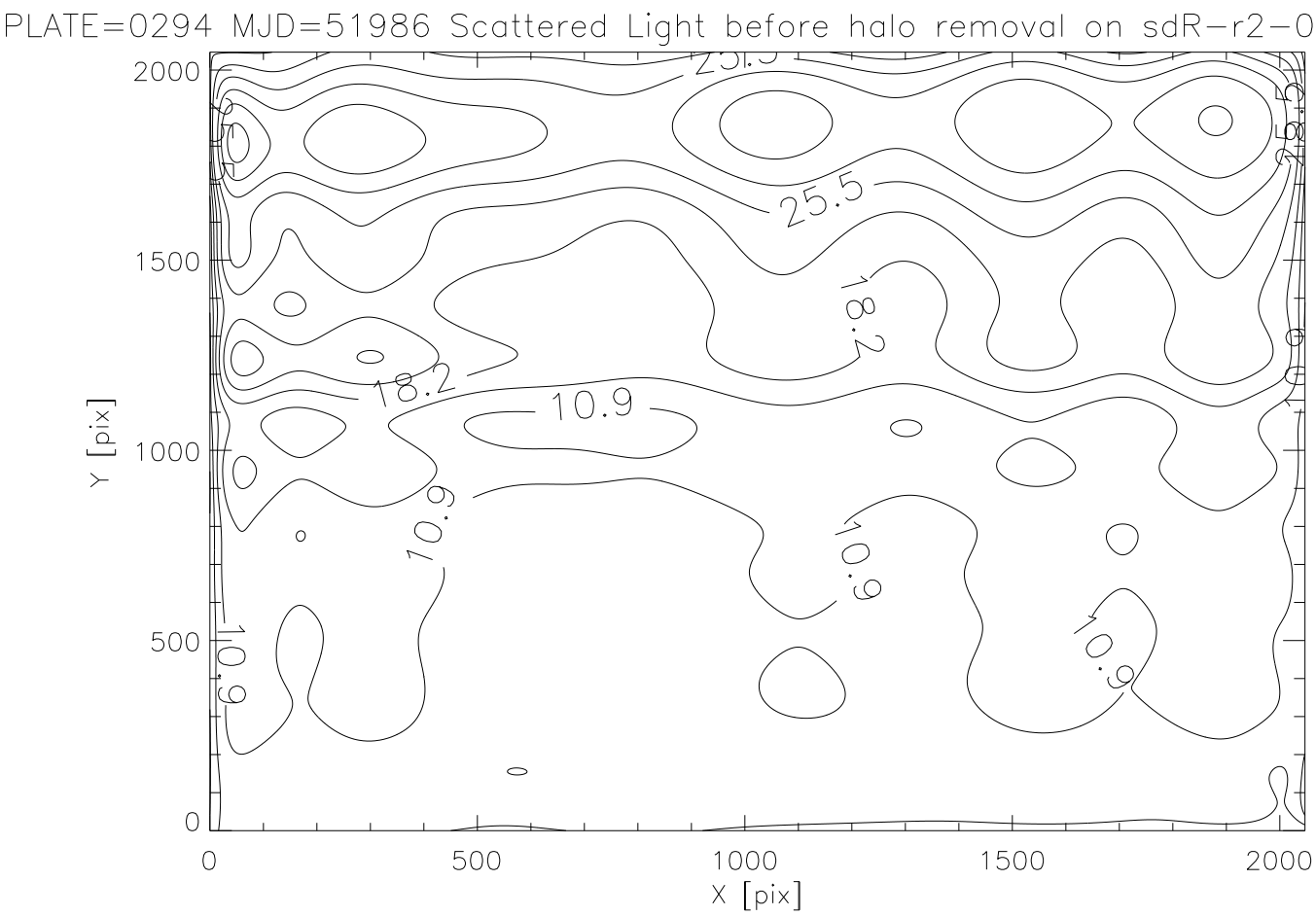

PLATE=0294 MJD=51986 Superflat sdR-r2-00009079.fit
Normalized flux
2.0
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

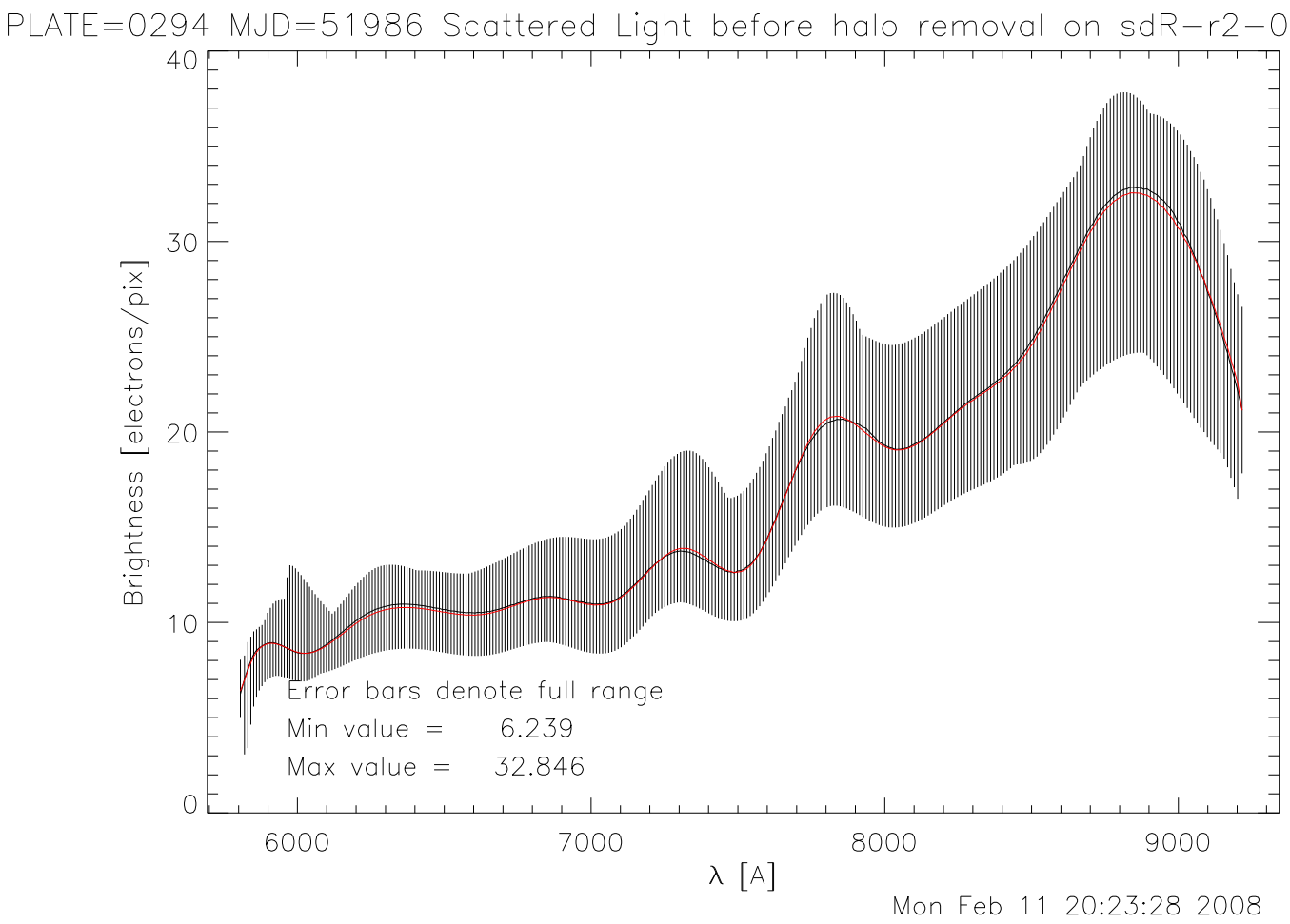

PLATE=0294 MJD=51986 flat extraction chi^2 for sdR−r2−00009085.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
2
4
6
8
10
0
500
1000
1500
2000

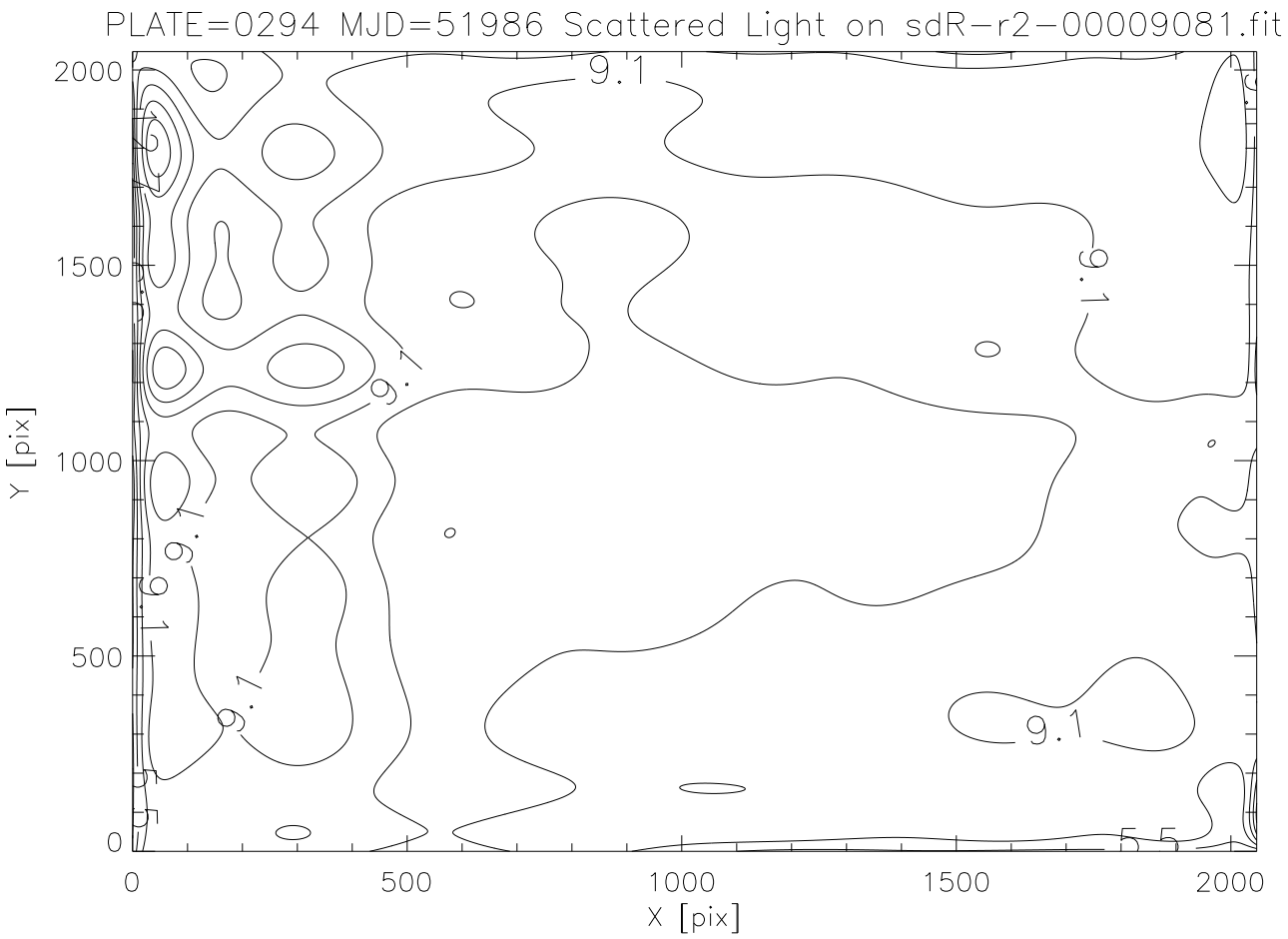

PLATE=0294 MJD=51986 Superflat sdR-r2-00009085.fit
Normalized flux
2.0
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

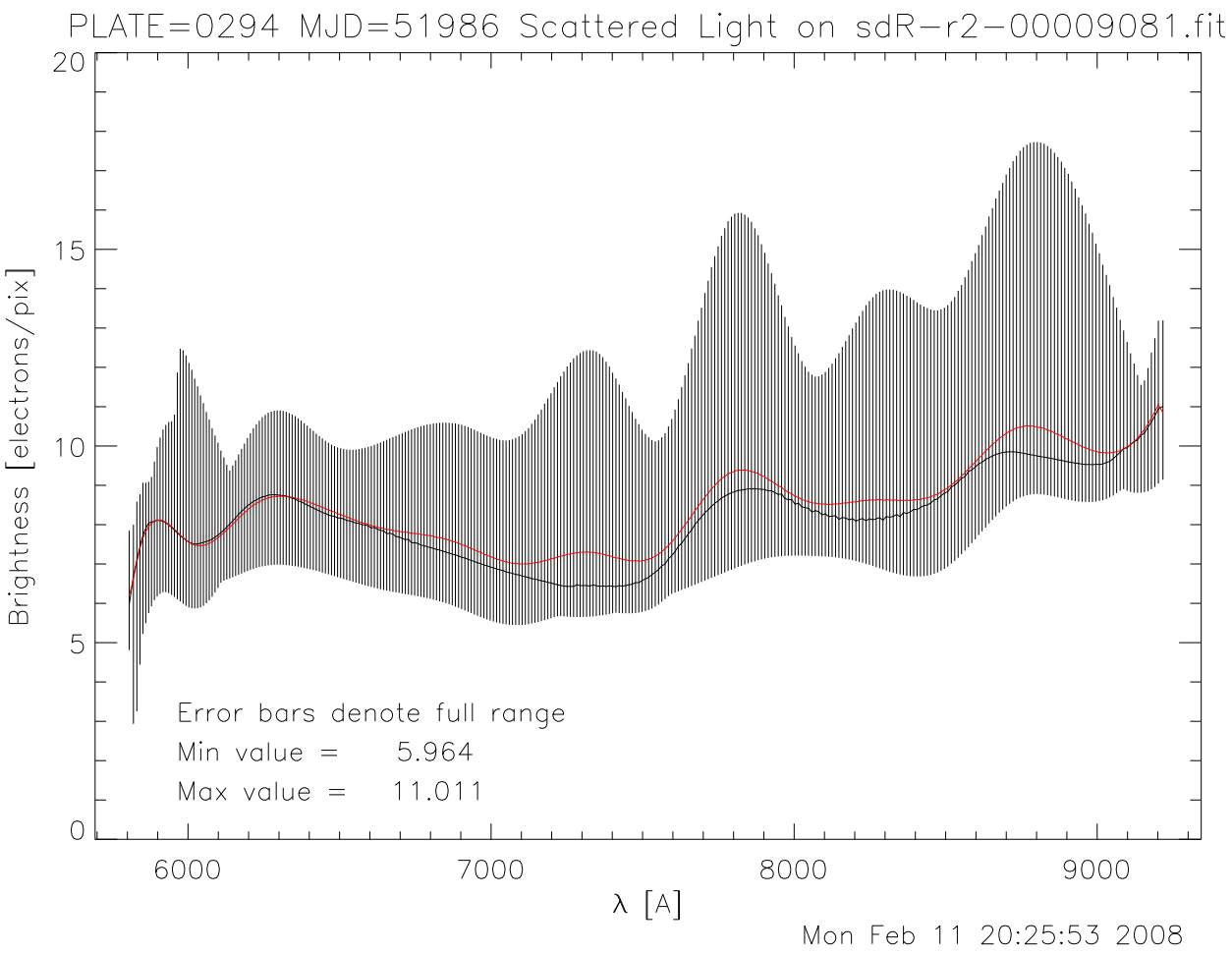

PLATE=0294 MJD=51986 Arcline Fit for sdR-r2-00009086.fit
Fiber Number
300
250
200
150
100
50
0
6000
7000
8000
9000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
6000
7000
8000
9000
λ [A]
Mon Feb 11 20:22:32 2008

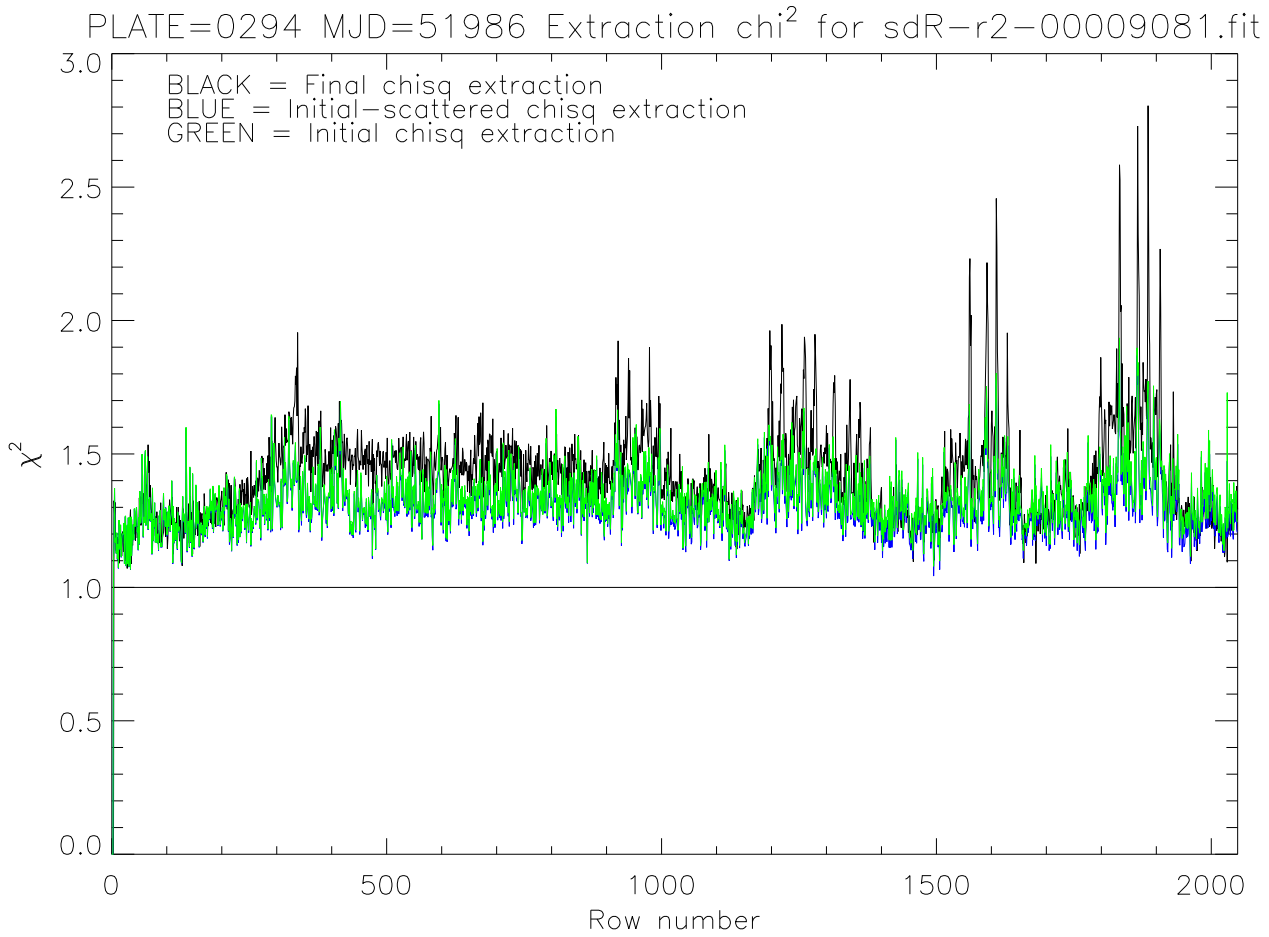

PLATE=0294 MJD=51986 Fiber-Flats for sdR-r2-00009085.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.247
Max value = 1.263
Fiber-Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Mon Feb 11 20:22:39 2008

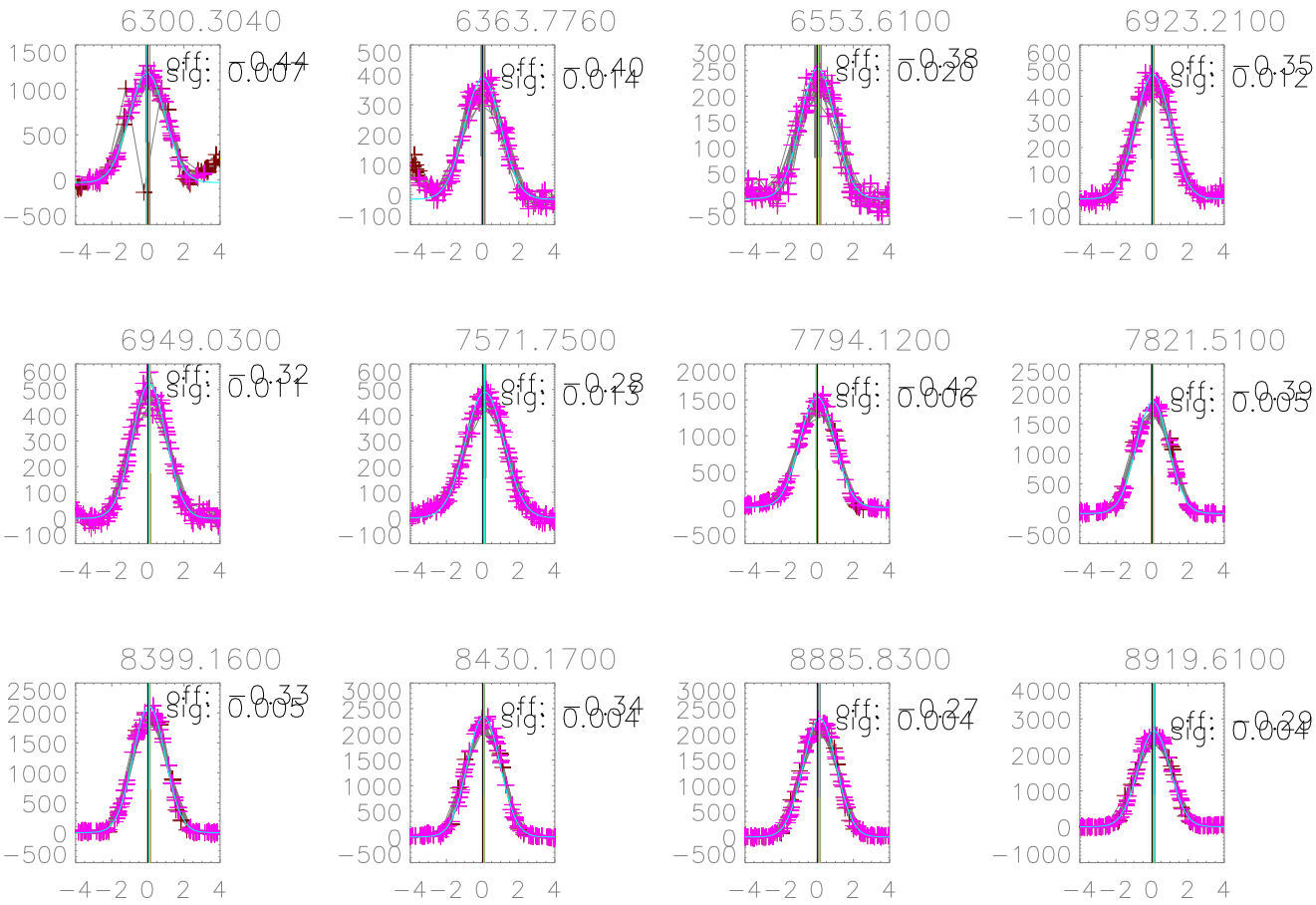

PLATE=0294 MJD=51986 Scattered Light before halo removal on sdR-r2-00009081.fi
25.5
18.2
10.9
0
Y [pix]
X [pix]
0
500
1000
1500
2000

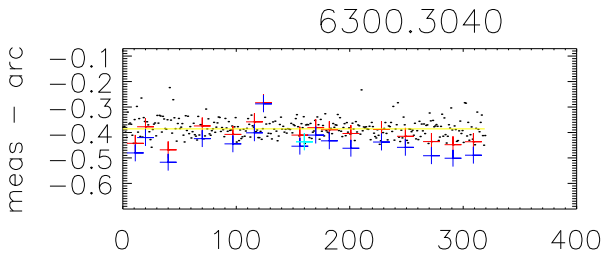

PLATE=0294 MJD=51986 Scattered Light before halo removal on sdR-r2-00009081.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 6.239
Max value = 32.846
Mon Feb 11 20:23:28 2008

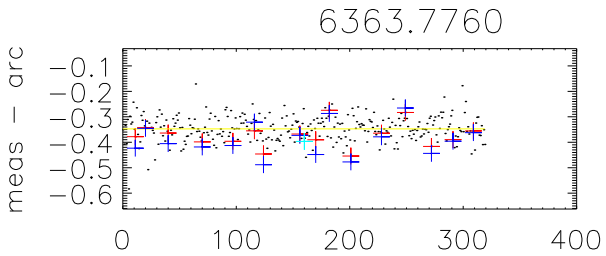

PLATE=0294 MJD=51986 Scattered Light on sdR-r2-00009081.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
9.1
5.5

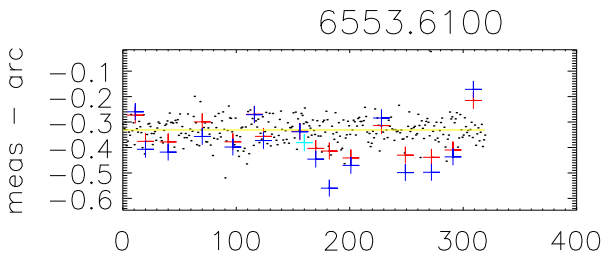

PLATE=0294 MJD=51986 Scattered Light on sdR-r2-00009081.fit
Brightness [electrons/pix]
20
15
10
5
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 5.964
Max value = 11.011
Mon Feb 11 20:25:53 2008

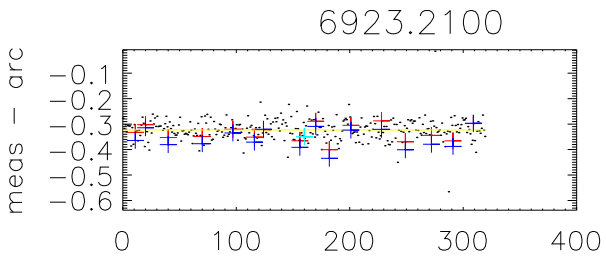

PLATE=0294 MJD=51986 Extraction chi^2 for sdR−r2−00009081.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
500
1000
1500
2000
Row number

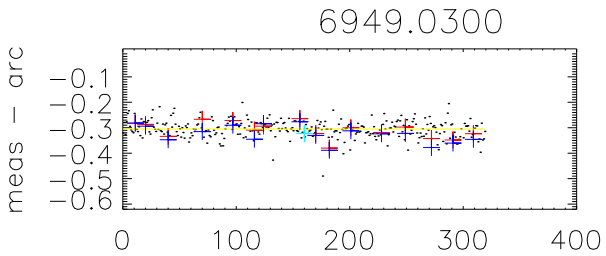

6300.3040
off: −0.44
sig: 0.007
6363.7760
off: −0.40
sig: 0.014
6553.6100
off: −0.38
sig: 0.020
6923.2100
off: −0.35
sig: 0.012
6949.0300
off: −0.32
sig: 0.011
7571.7500
off: −0.28
sig: 0.013
7794.1200
off: −0.42
sig: 0.006
7821.5100
off: −0.39
sig: 0.005
8399.1600
off: −0.33
sig: 0.005
8430.1700
off: −0.34
sig: 0.004
8885.8300
off: −0.27
sig: 0.004
8919.6100
off: −0.29
sig: 0.004

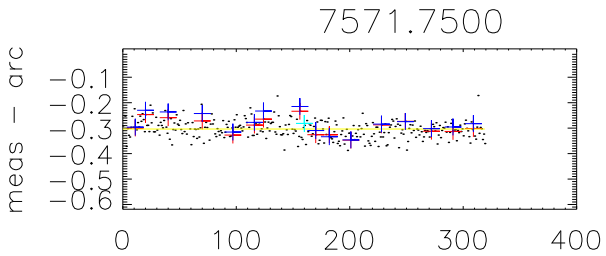

6300.3040
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

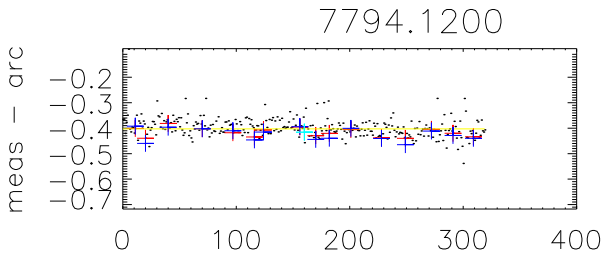

6363.7760
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

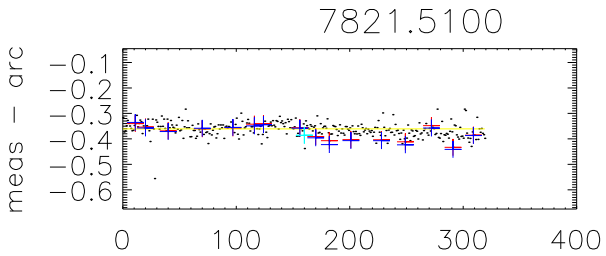

6553.6100
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

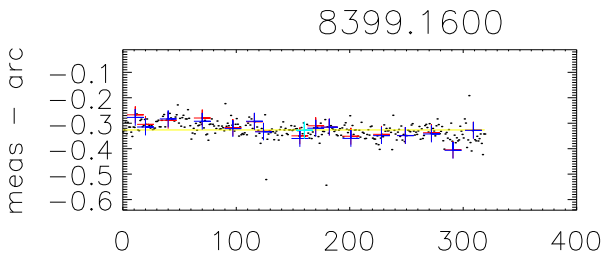

6923.2100
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

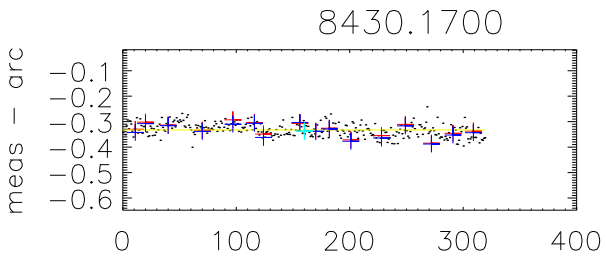

6949.0300
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

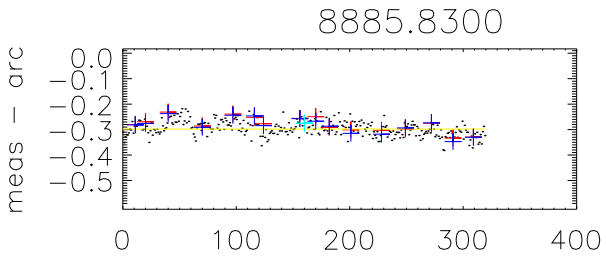

7571.7500
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

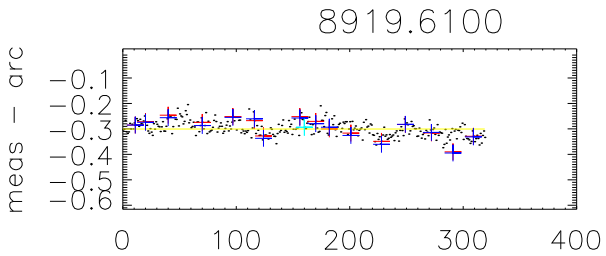

7794.1200
meas − arc
−0.2
−0.3
−0.4
−0.5
−0.6
−0.7
0
100
200
300
400

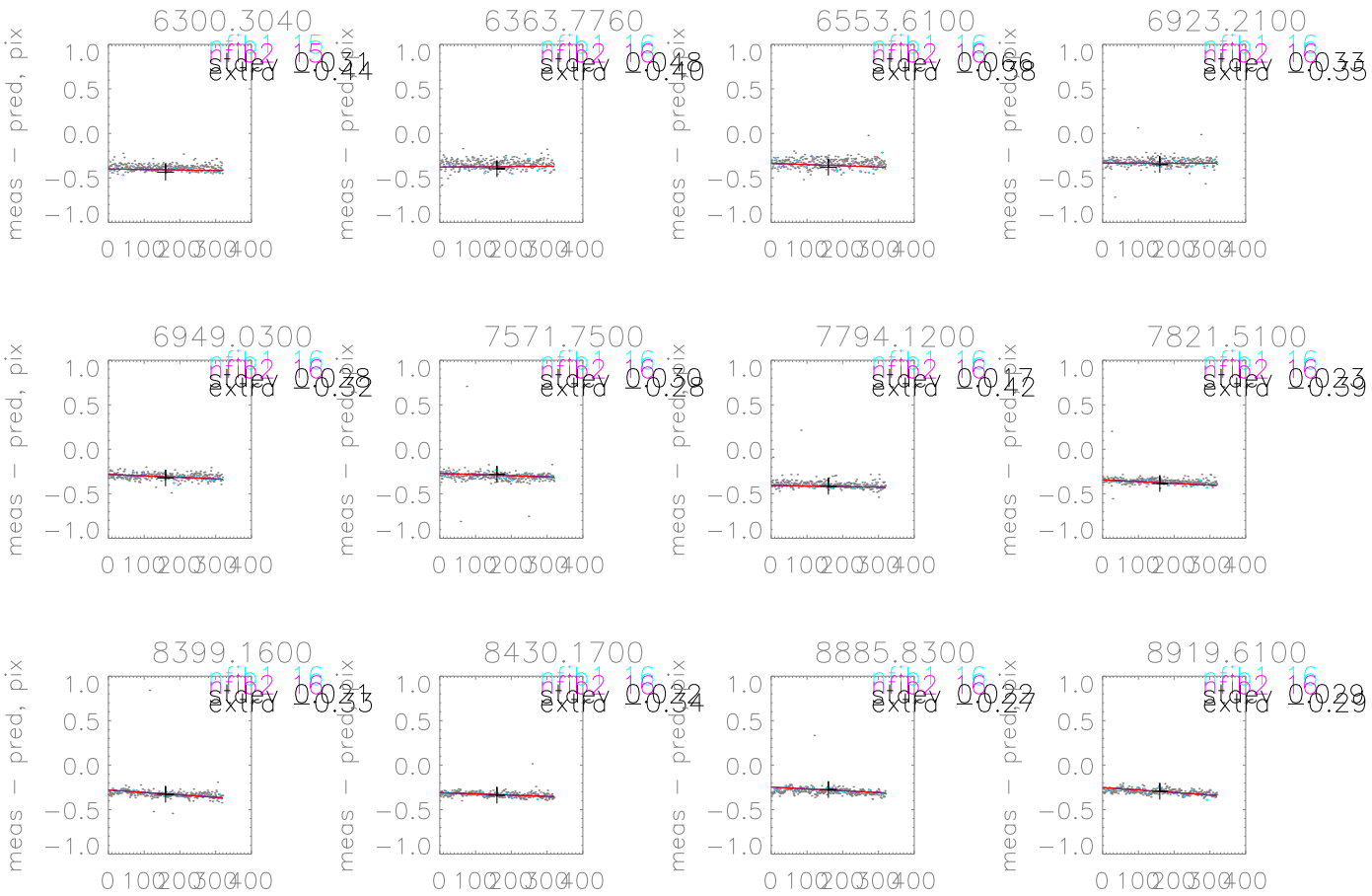

7821.5100
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

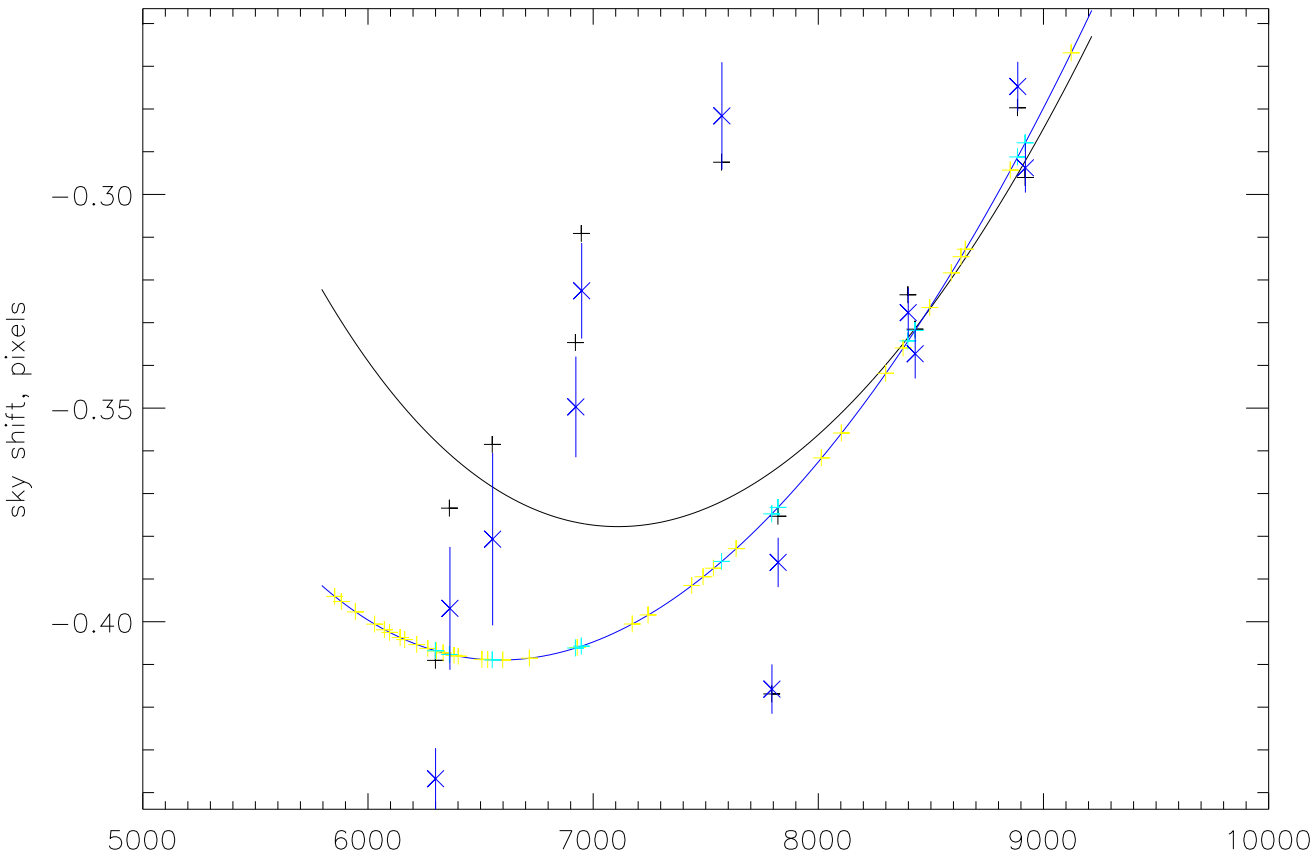

8399.1600
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

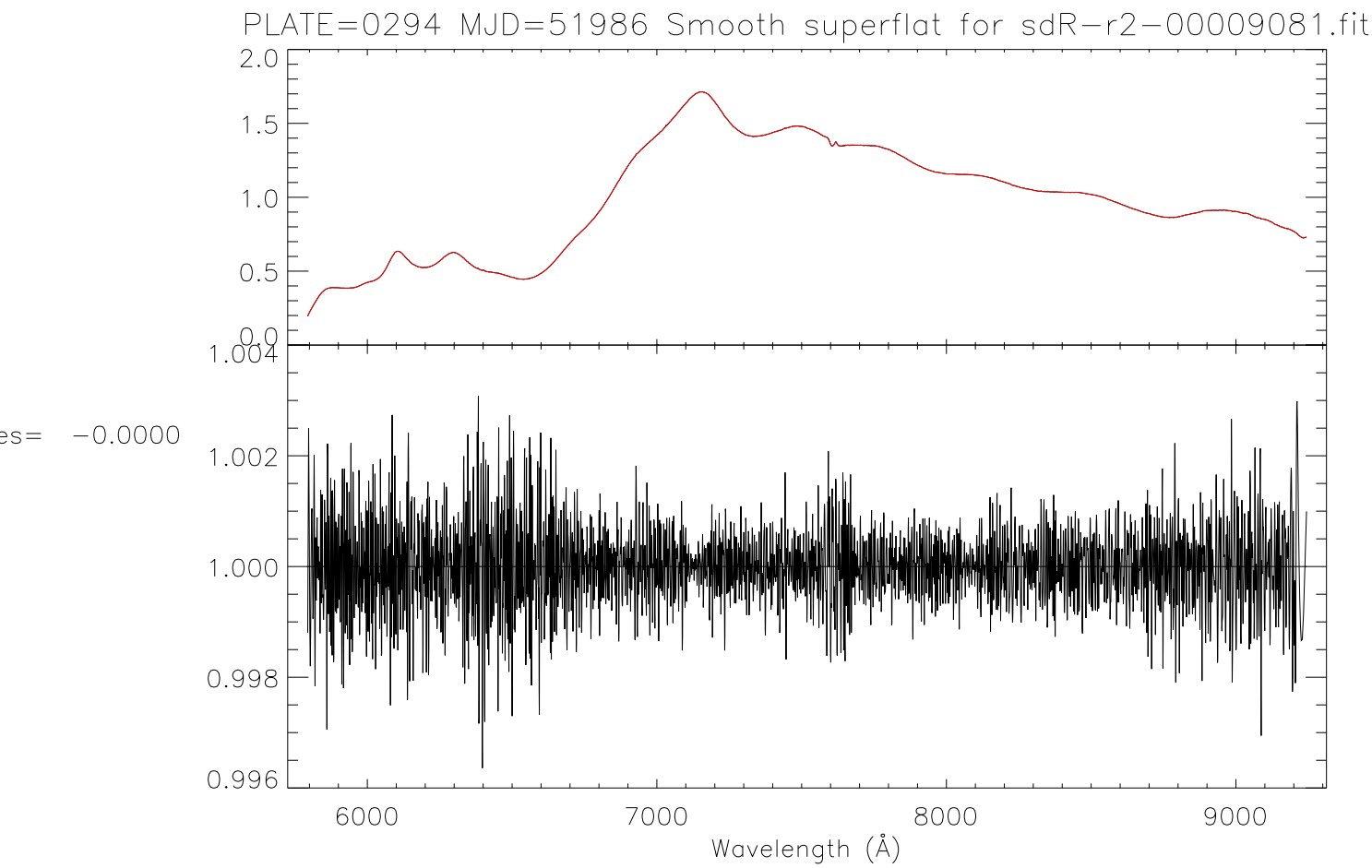

8430.1700
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

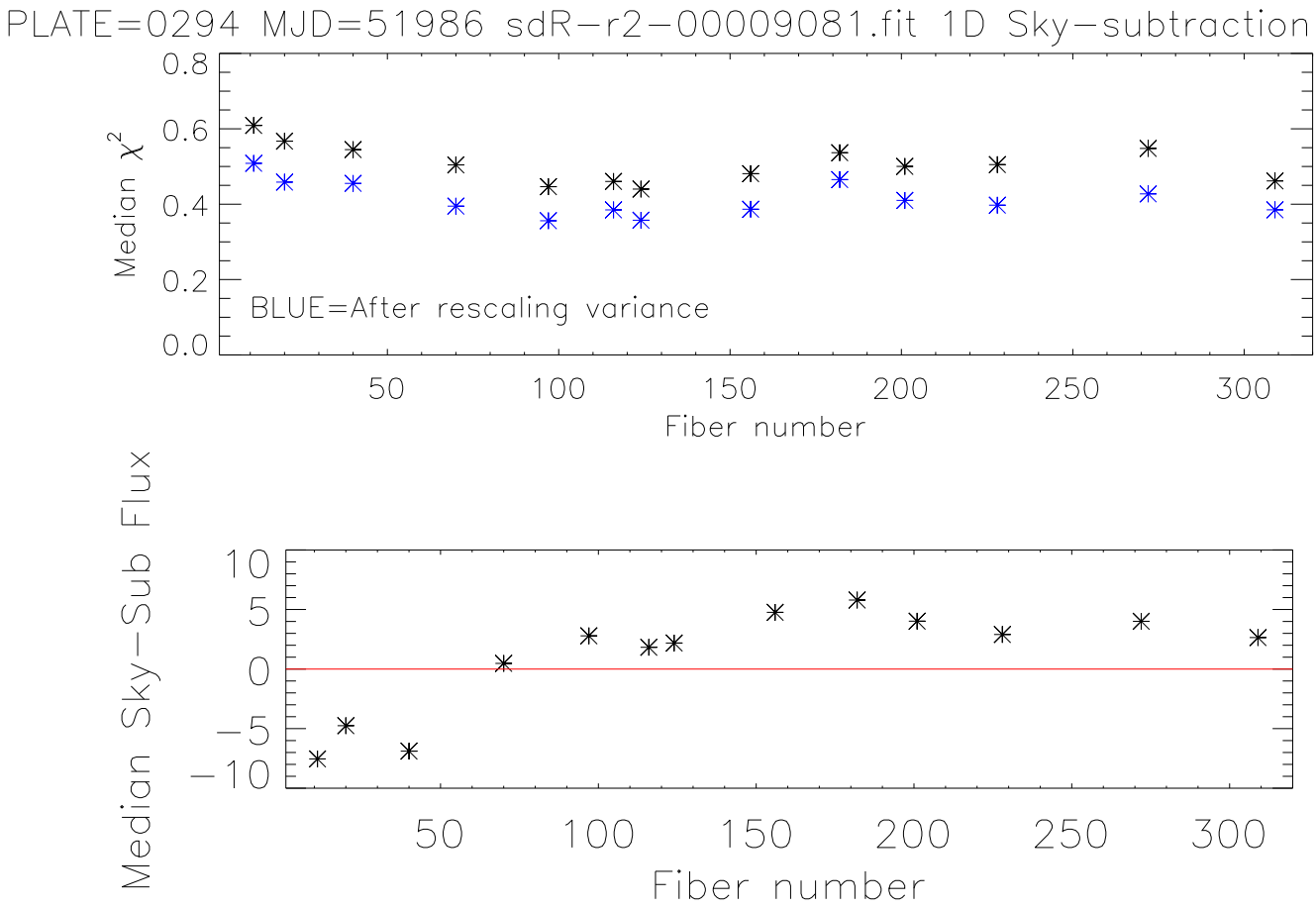

8885.8300
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

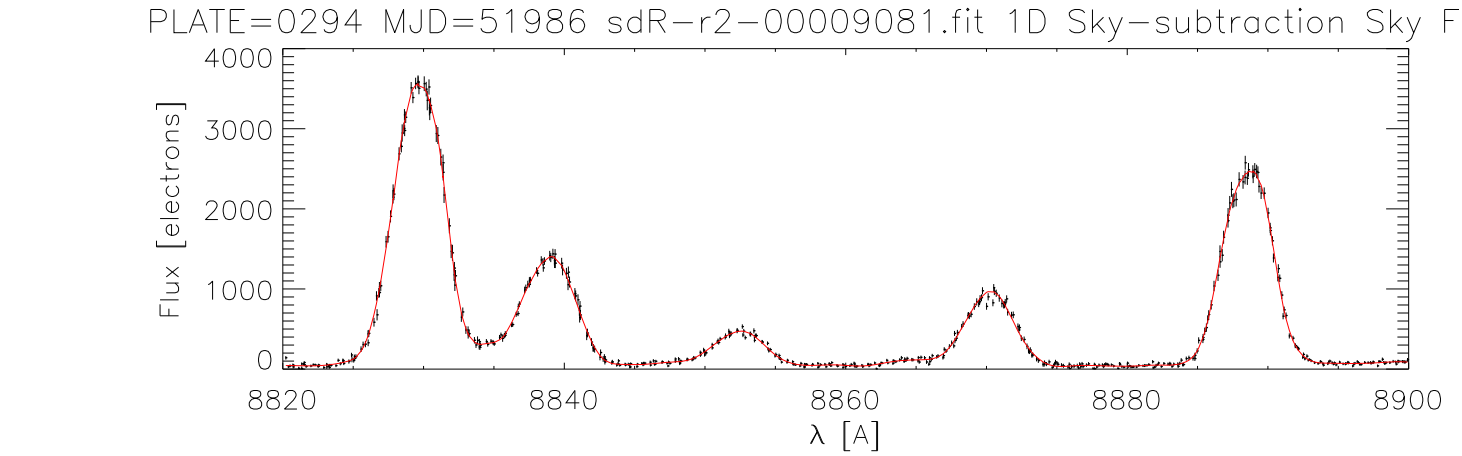

8919.6100
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

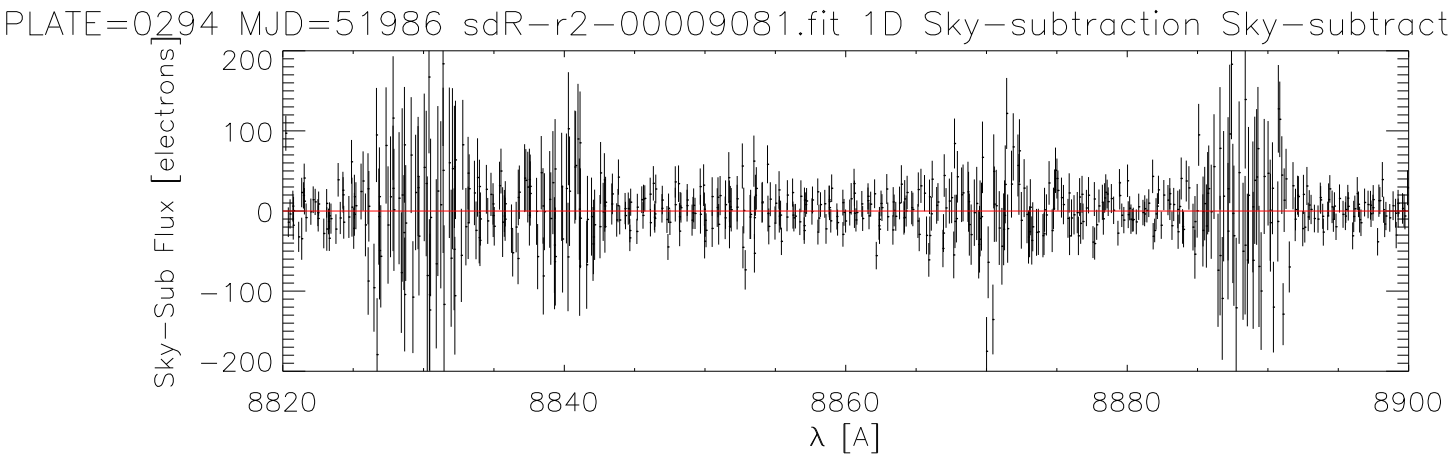

6300.3040
mfhi2 15
stdev 0.31
extrd 0.44
6363.7760
mfhi2 16
stdev 0.48
extrd 0.40
6553.6100
mfhi2 16
stdev 0.66
extrd 0.58
6923.2100
mfhi2 16
stdev 0.33
extrd 0.35
6949.0300
mfhi2 16
stdev 0.28
extrd 0.32
7571.7500
mfhi2 16
stdev 0.30
extrd 0.28
7794.1200
mfhi2 16
stdev 0.17
extrd 0.42
7821.5100
mfhi2 16
stdev 0.23
extrd 0.39
8399.1600
mfhi2 16
stdev 0.21
extrd 0.33
8430.1700
mfhi2 16
stdev 0.32
extrd 0.34
8885.8300
mfhi2 16
stdev 0.22
extrd 0.27
8919.6100
mfhi2 16
stdev 0.28
extrd 0.29
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

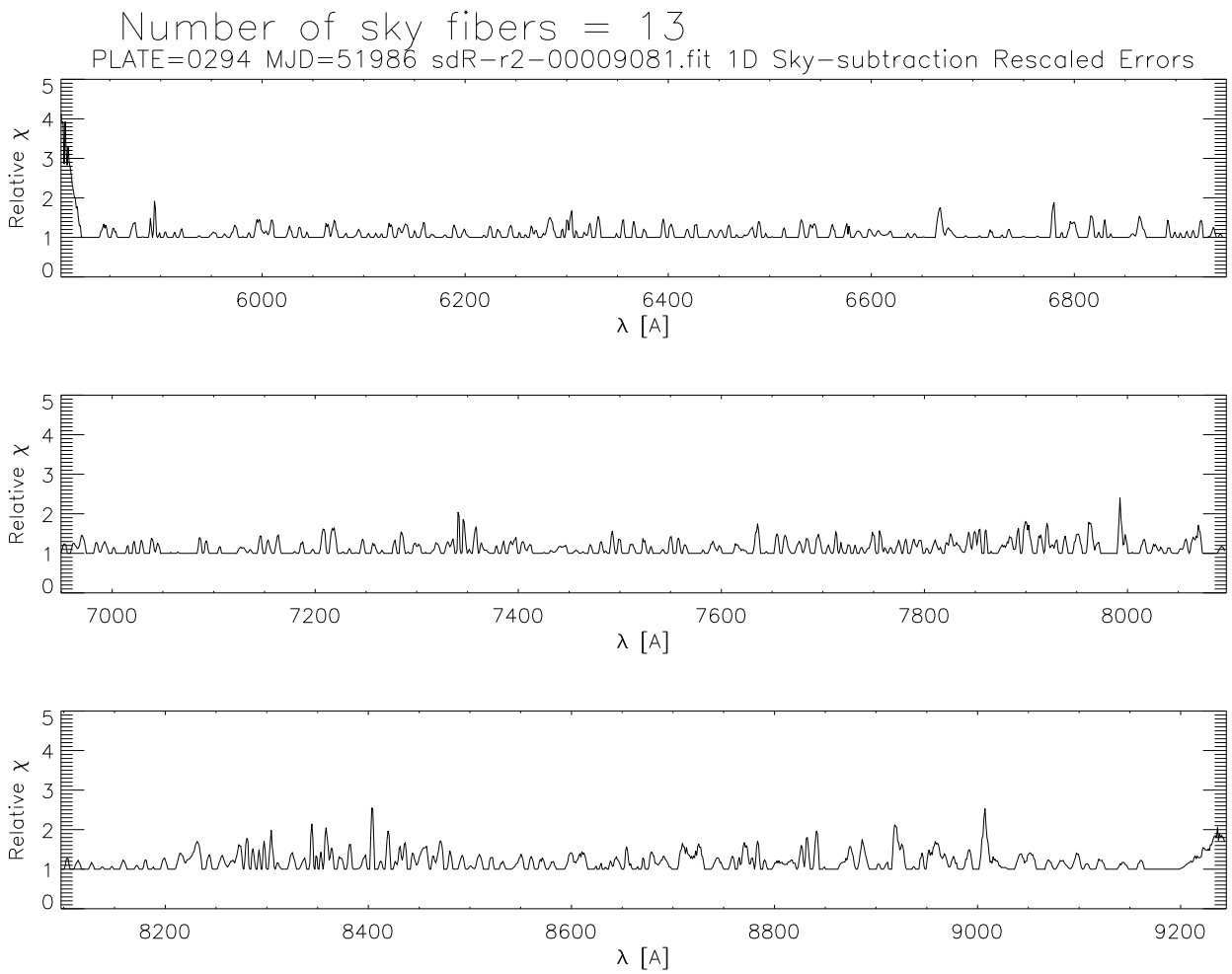

sky shift, pixels
−0.30
−0.35
−0.40
5000
6000
7000
8000
9000
10000

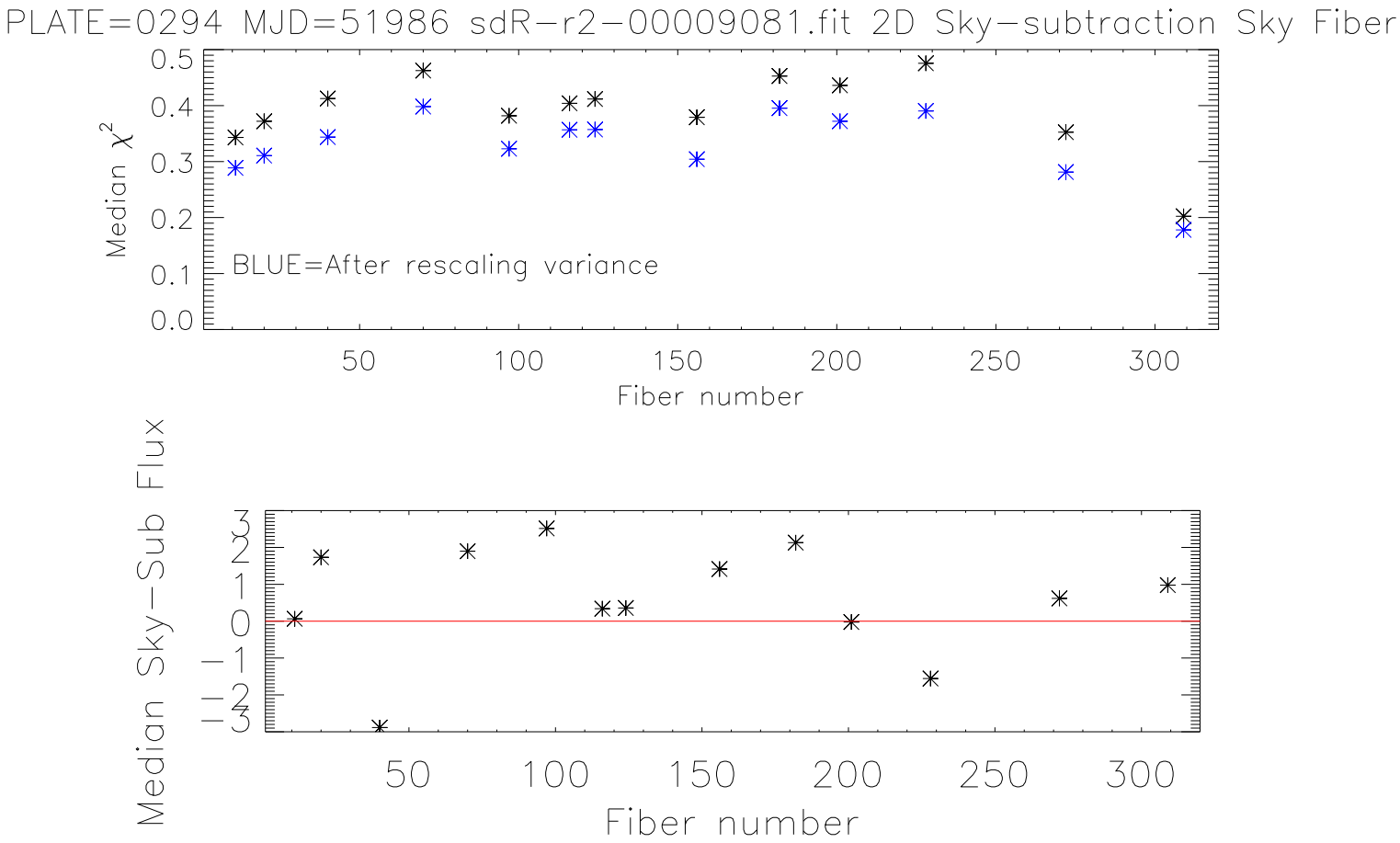

PLATE=0294 MJD=51986 Smooth superflat for sdR-r2-00009081.fit
2.0
1.5
1.0
0.5
0.0
1.004
1.002
1.000
0.998
0.996
es= −0.0000
6000
7000
8000
9000
Wavelength (Å)

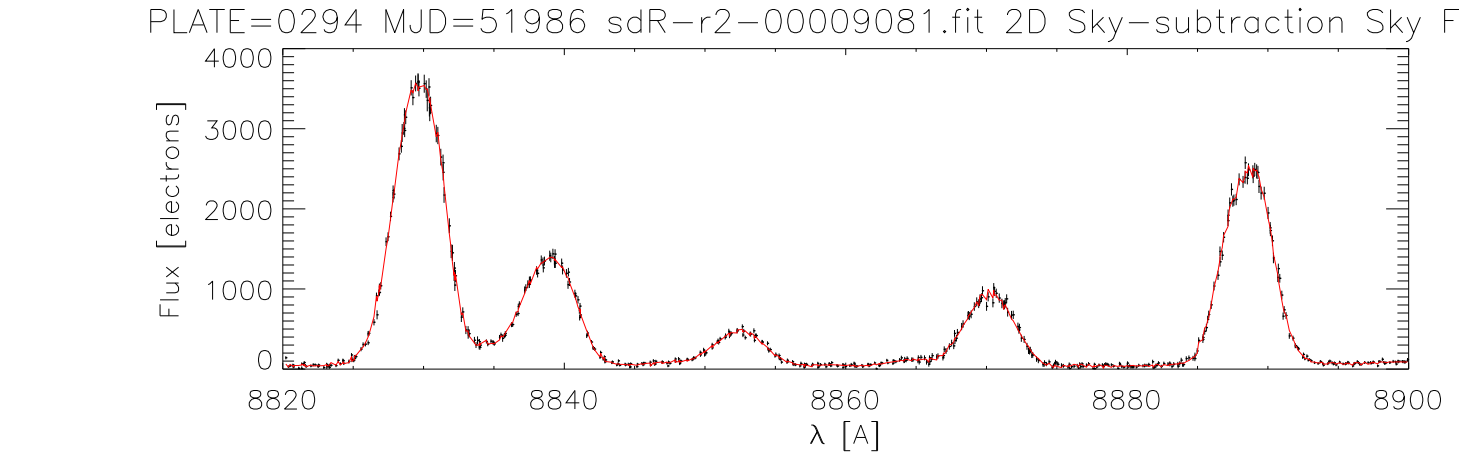

PLATE=0294 MJD=51986 sdR-r2-00009081.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
−5
−10
50
100
150
200
250
300
Fiber number

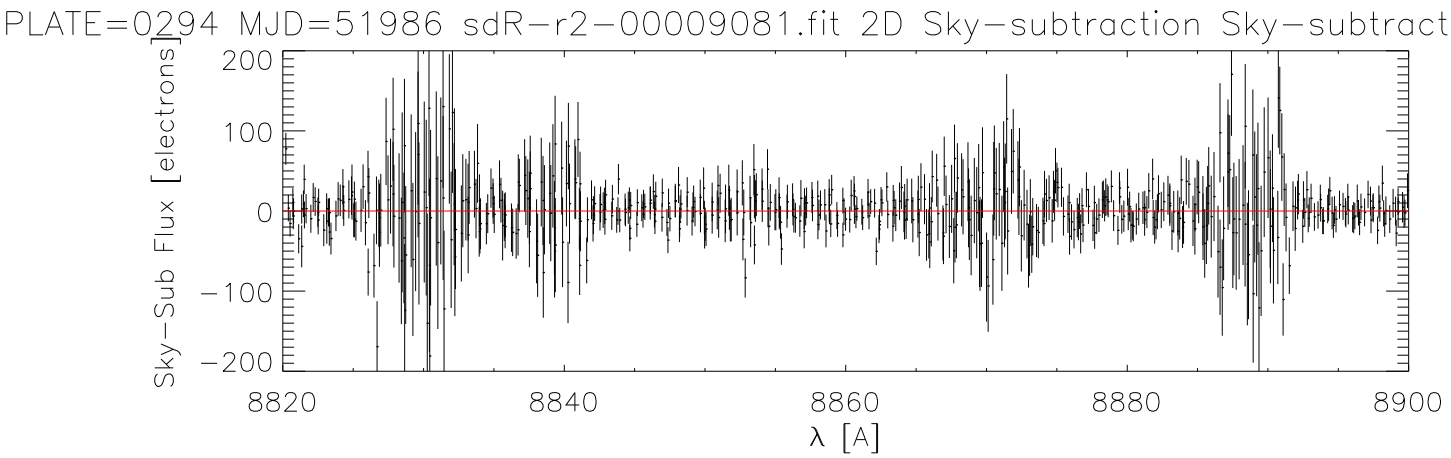

PLATE=0294 MJD=51986 sdR-r2-00009081.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

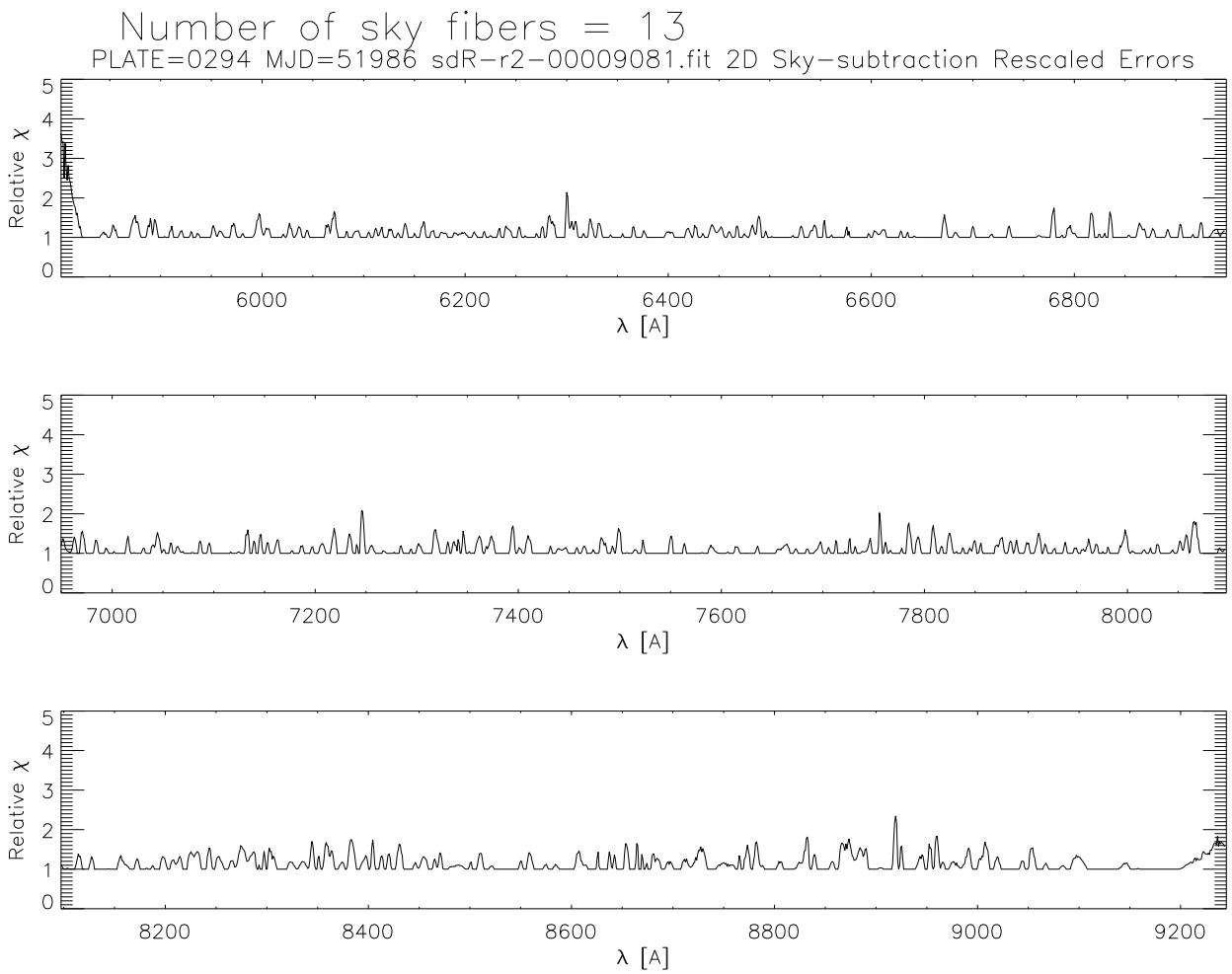

PLATE=0294 MJD=51986 sdR-r2-00009081.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
8820
8840
8860
8880
8900
λ [A]

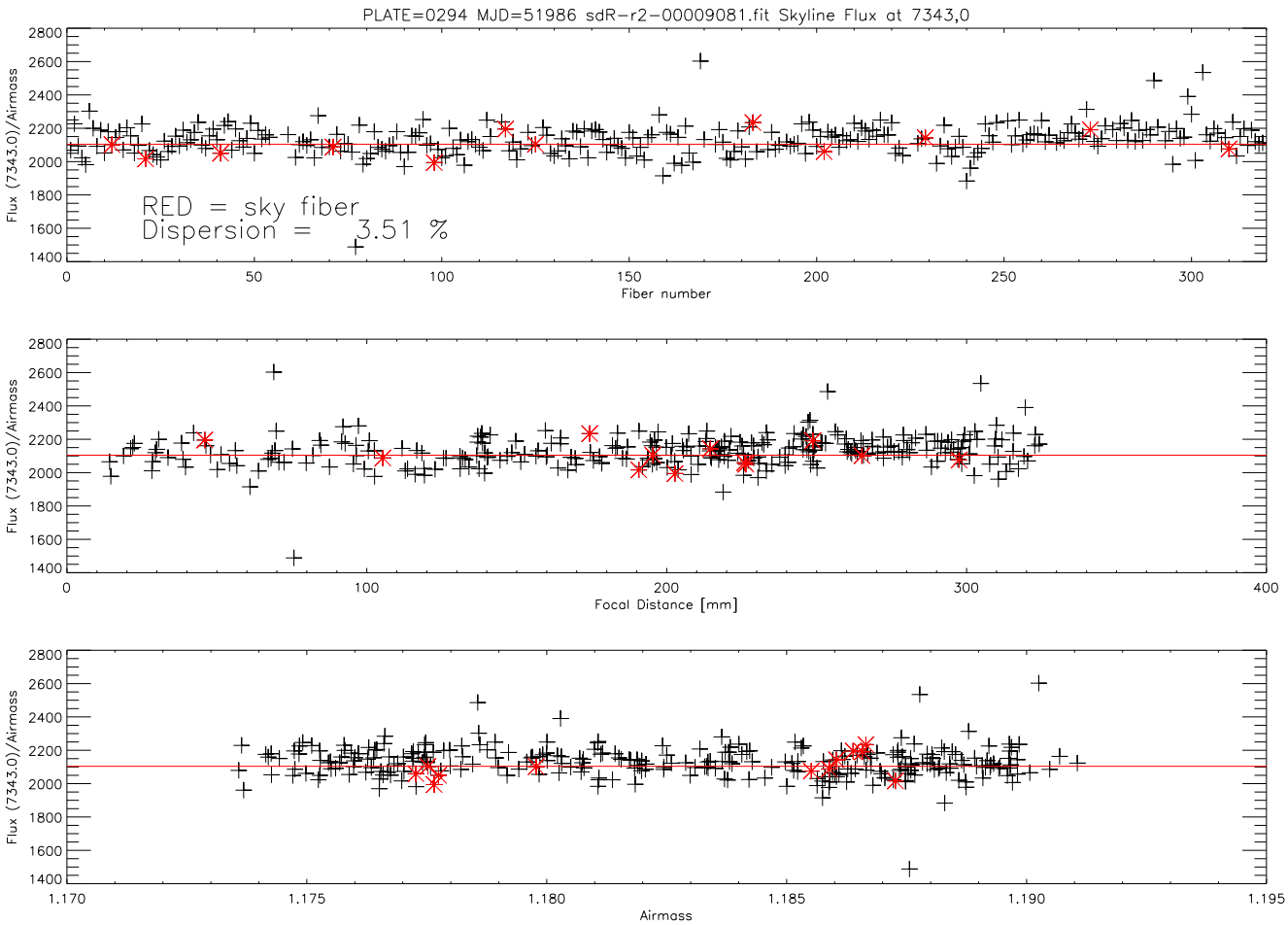

Number of sky fibers = 13
PLATE=0294 MJD=51986 sdR-r2-00009081.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

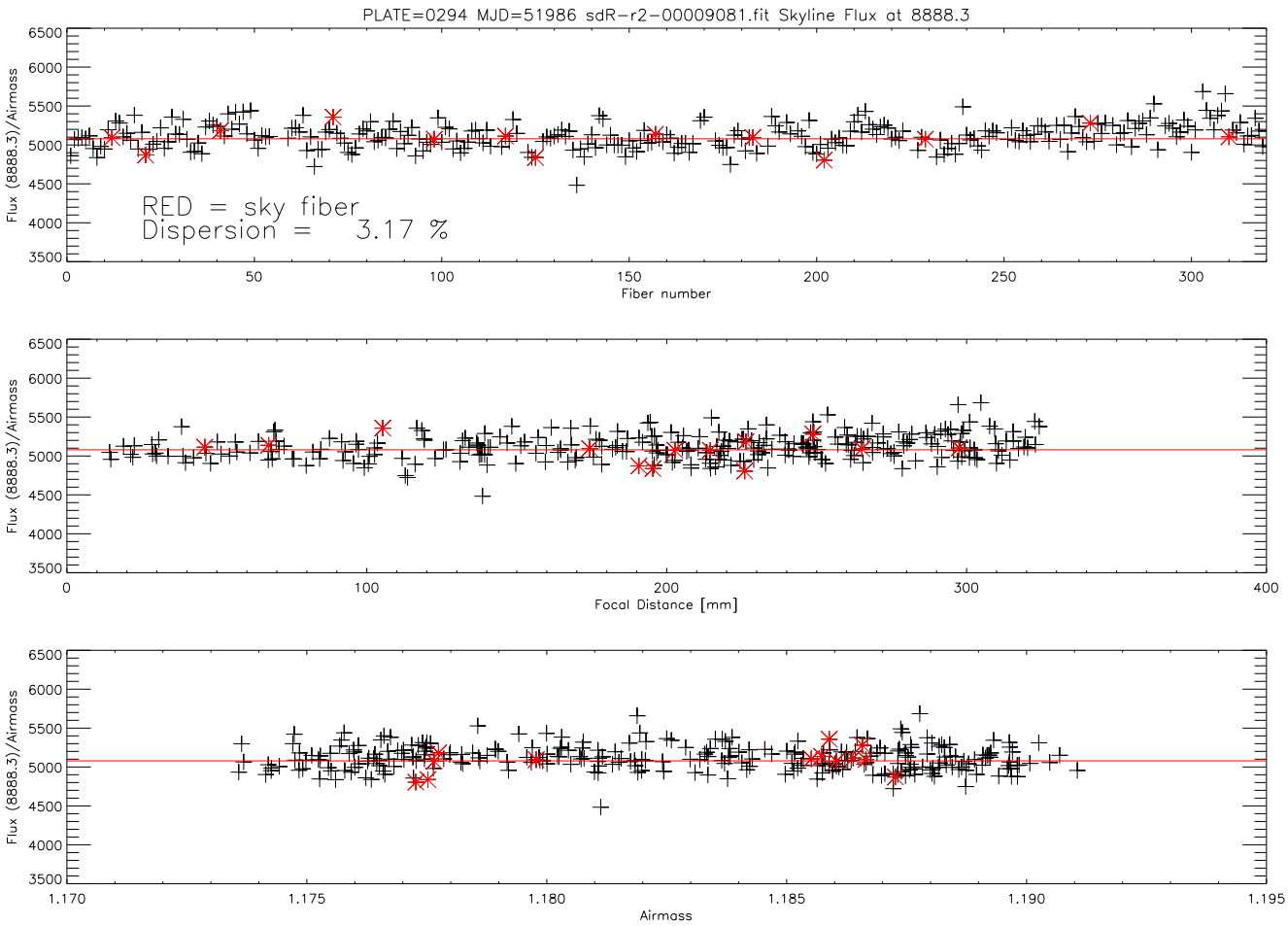

PLATE=0294 MJD=51986 sdR-r2-00009081.fit 2D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

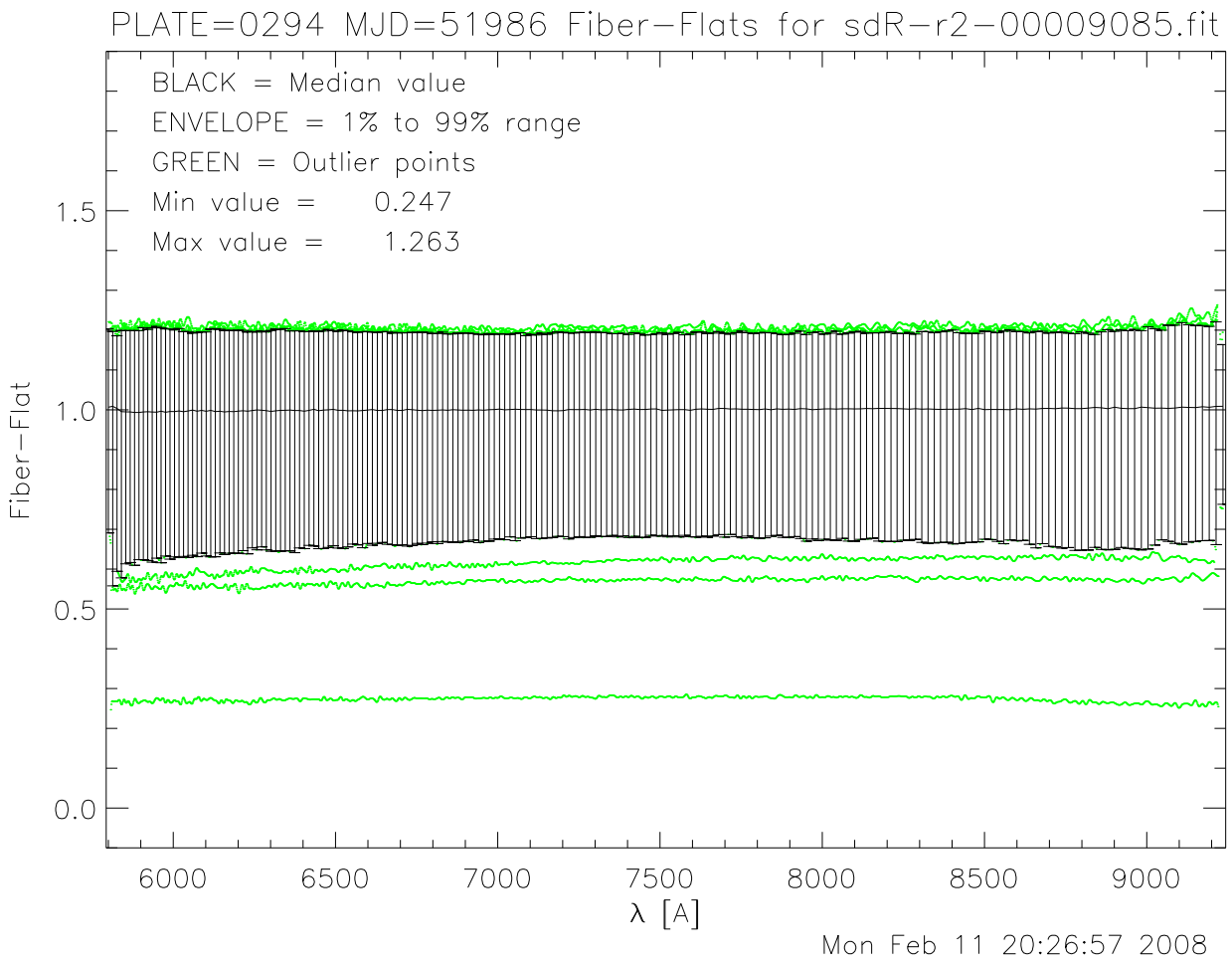

PLATE=0294 MJD=51986 sdR-r2-00009081.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

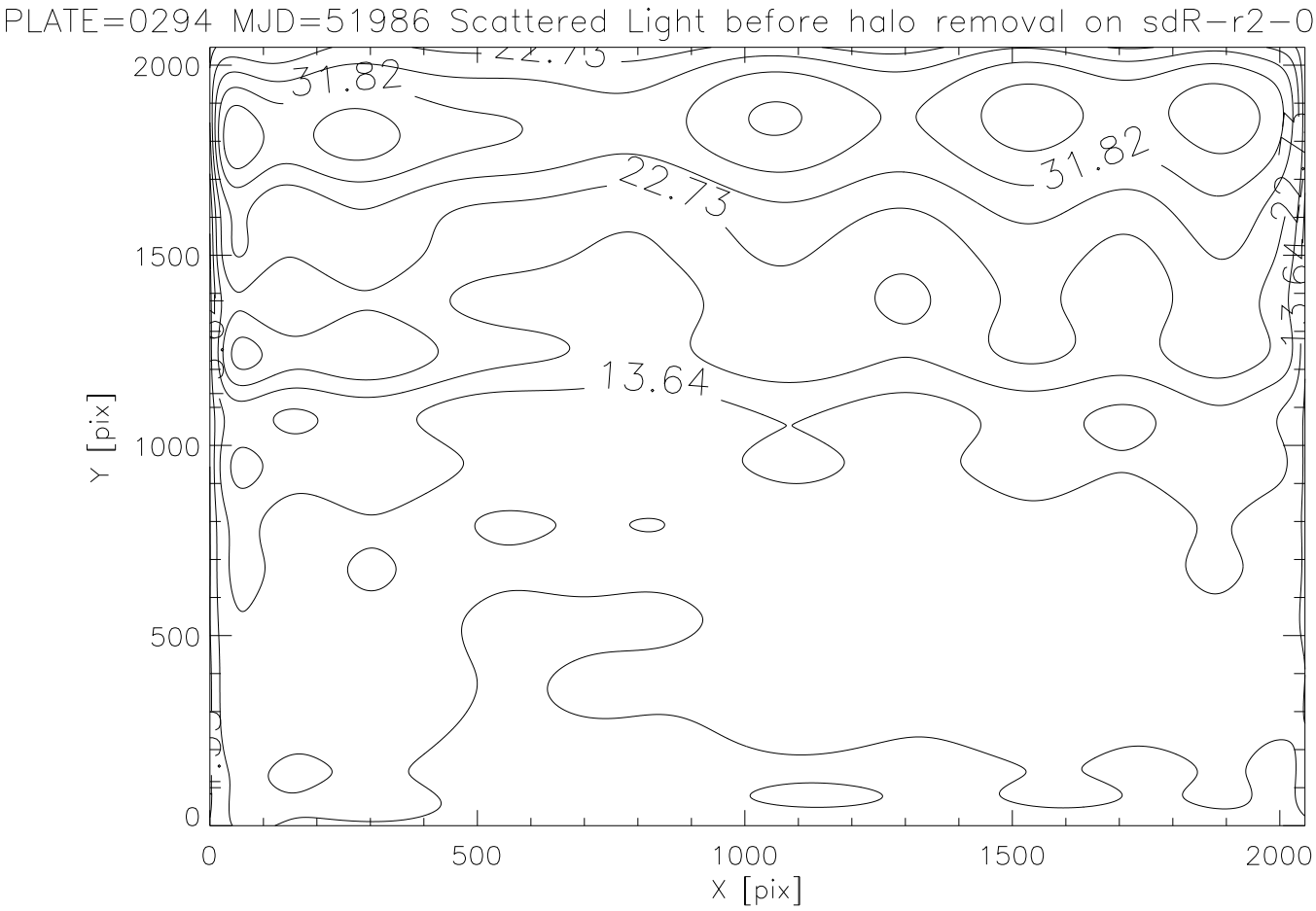

PLATE=0294 MJD=51986 sdR-r2-00009081.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
8820
8840
8860
8880
8900
λ [A]

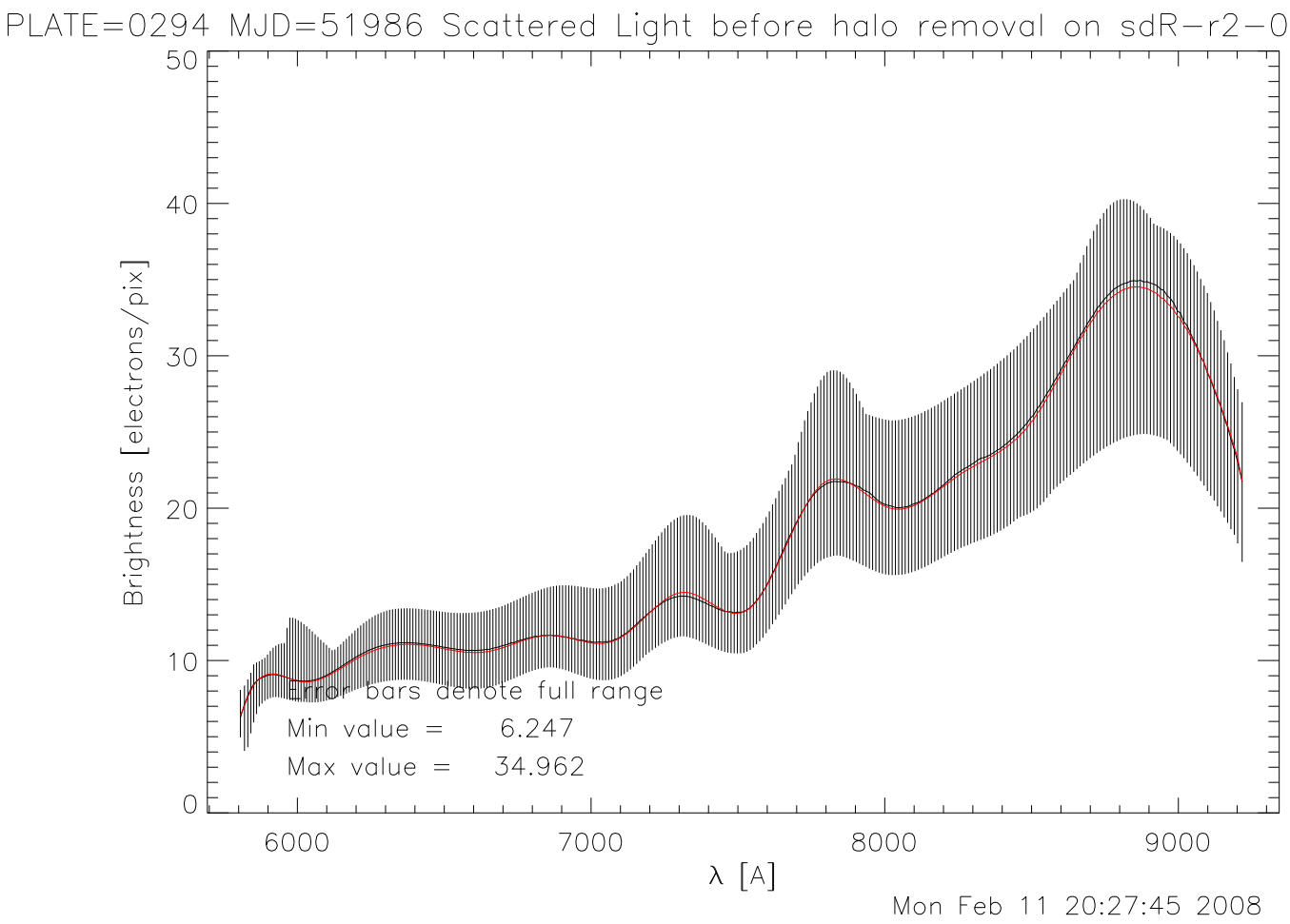

Number of sky fibers = 13
PLATE=0294 MJD=51986 sdR-r2-00009081.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

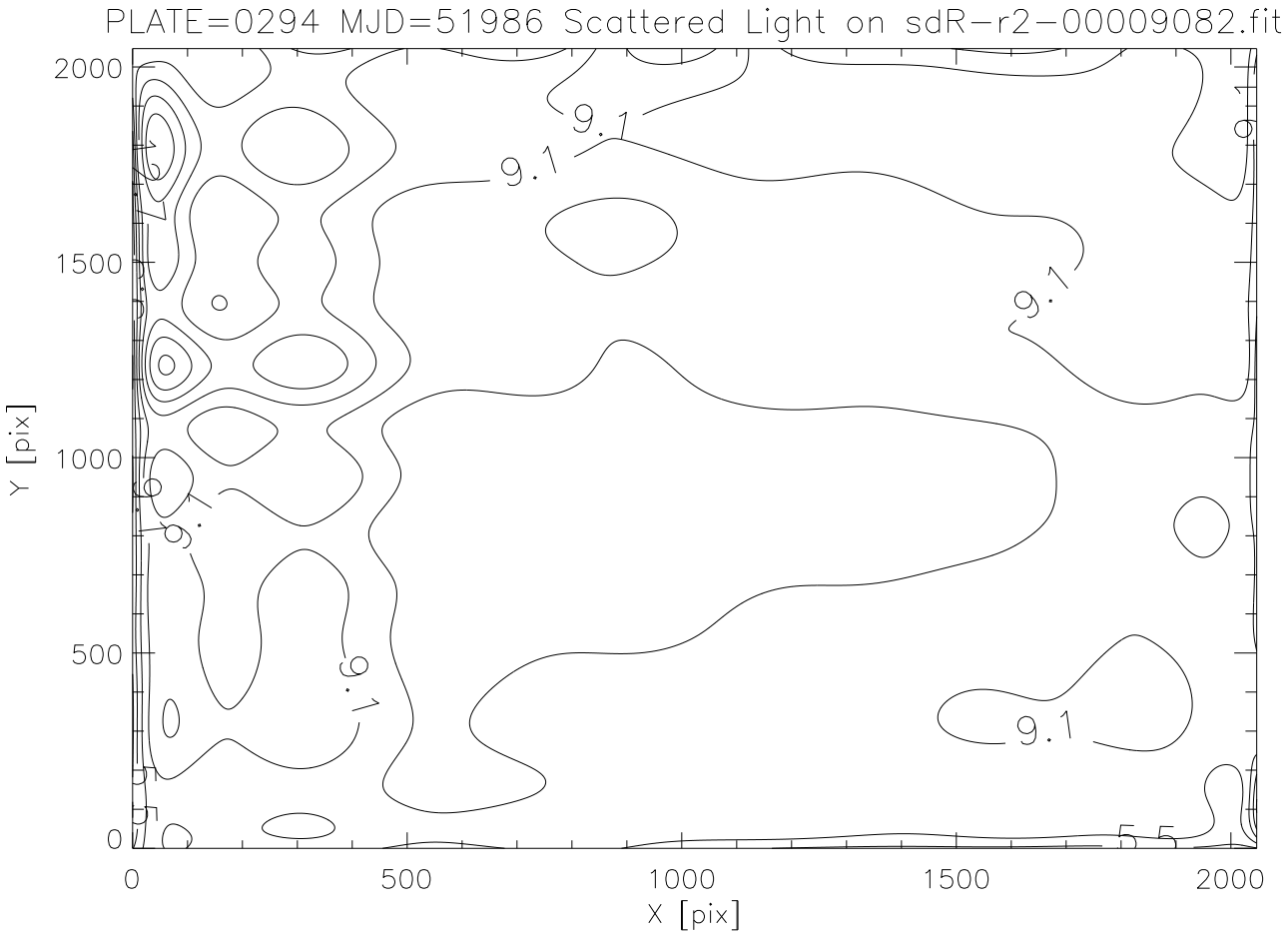

PLATE=0294 MJD=51986 sdR-r2-00009081.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 3.51 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

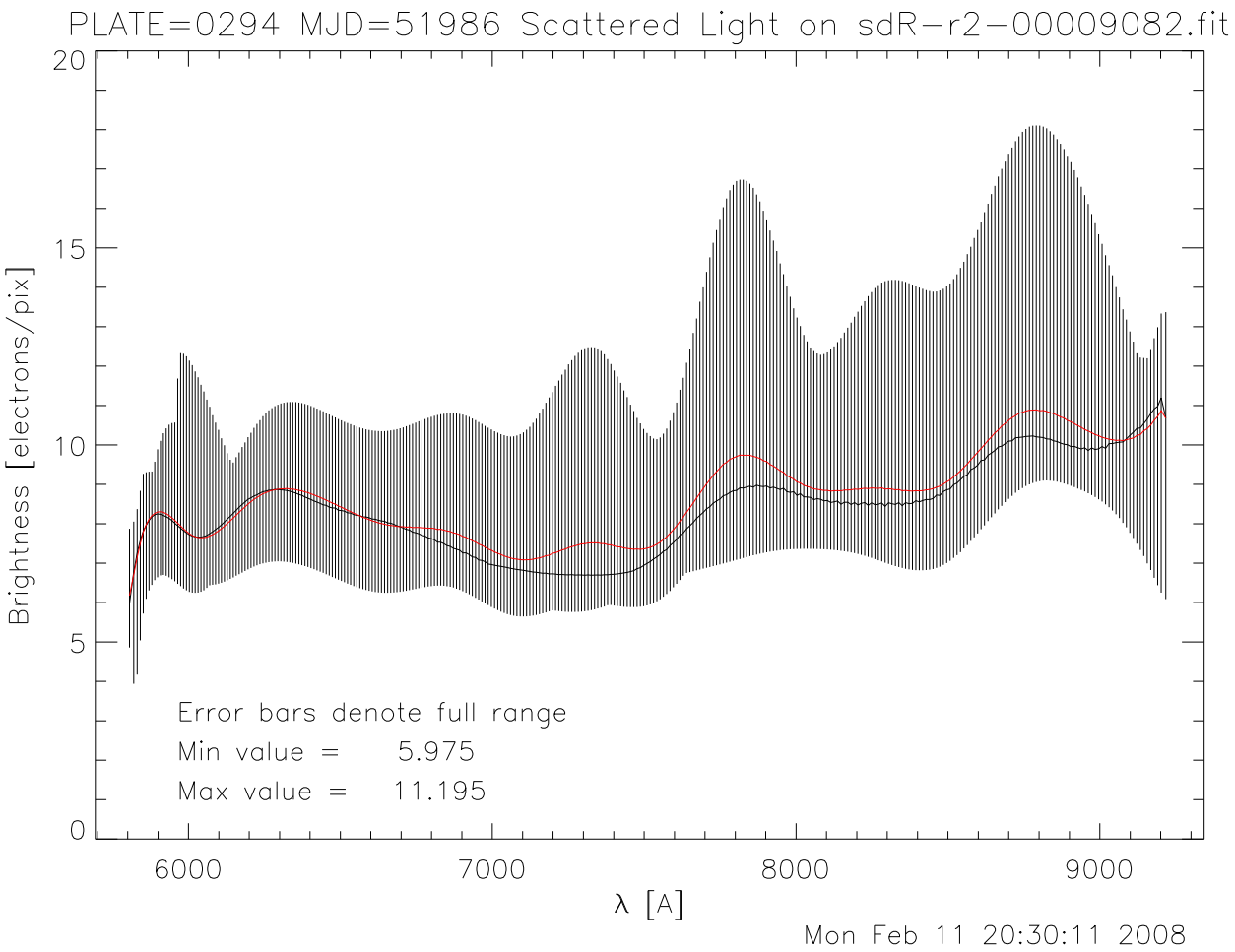

PLATE=0294 MJD=51986 sdR-r2-00009081.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 3.17 %
Fiber number
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass

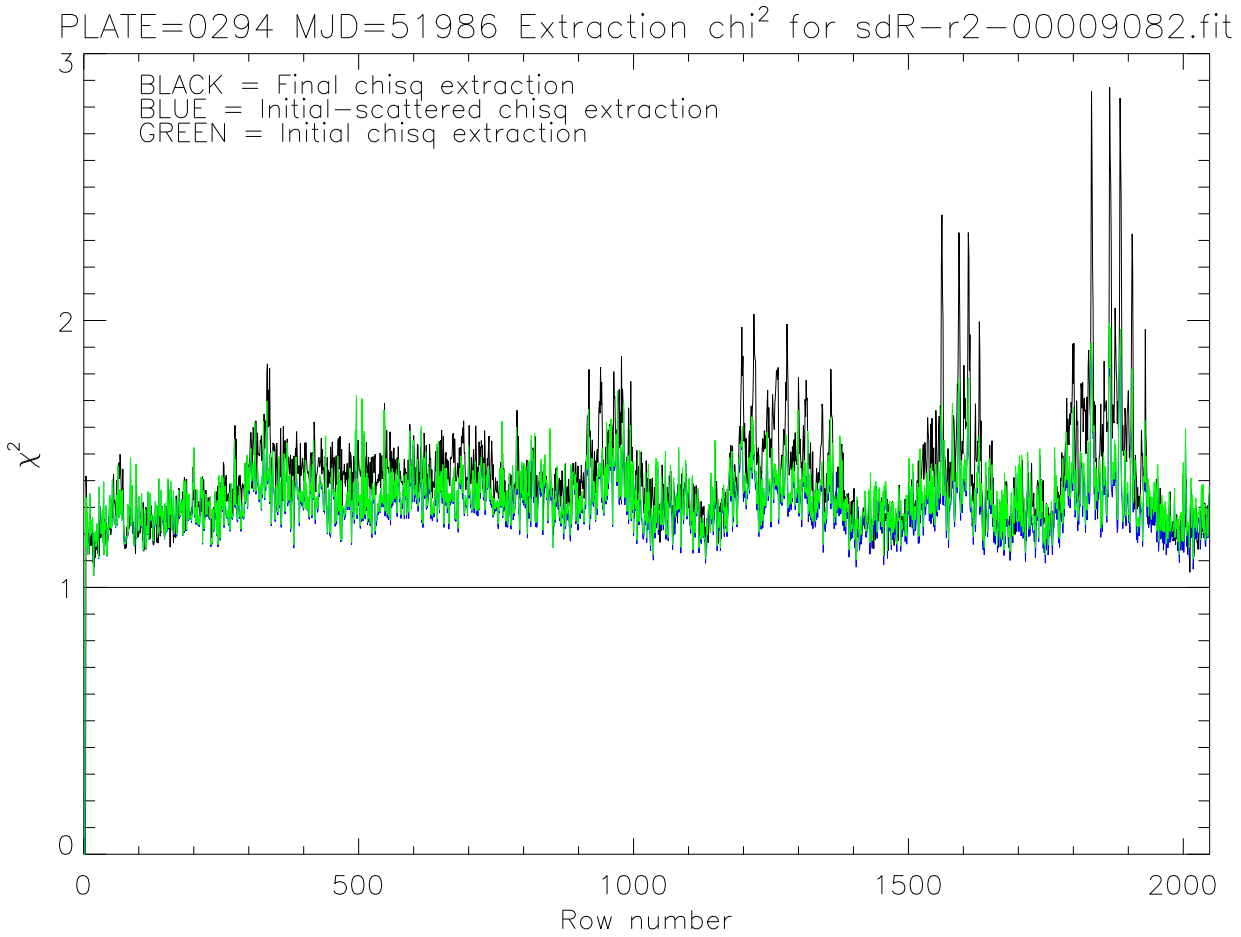

PLATE=0294 MJD=51986 Fiber−Flats for sdR−r2−00009085.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.247
Max value = 1.263
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Mon Feb 11 20:26:57 2008

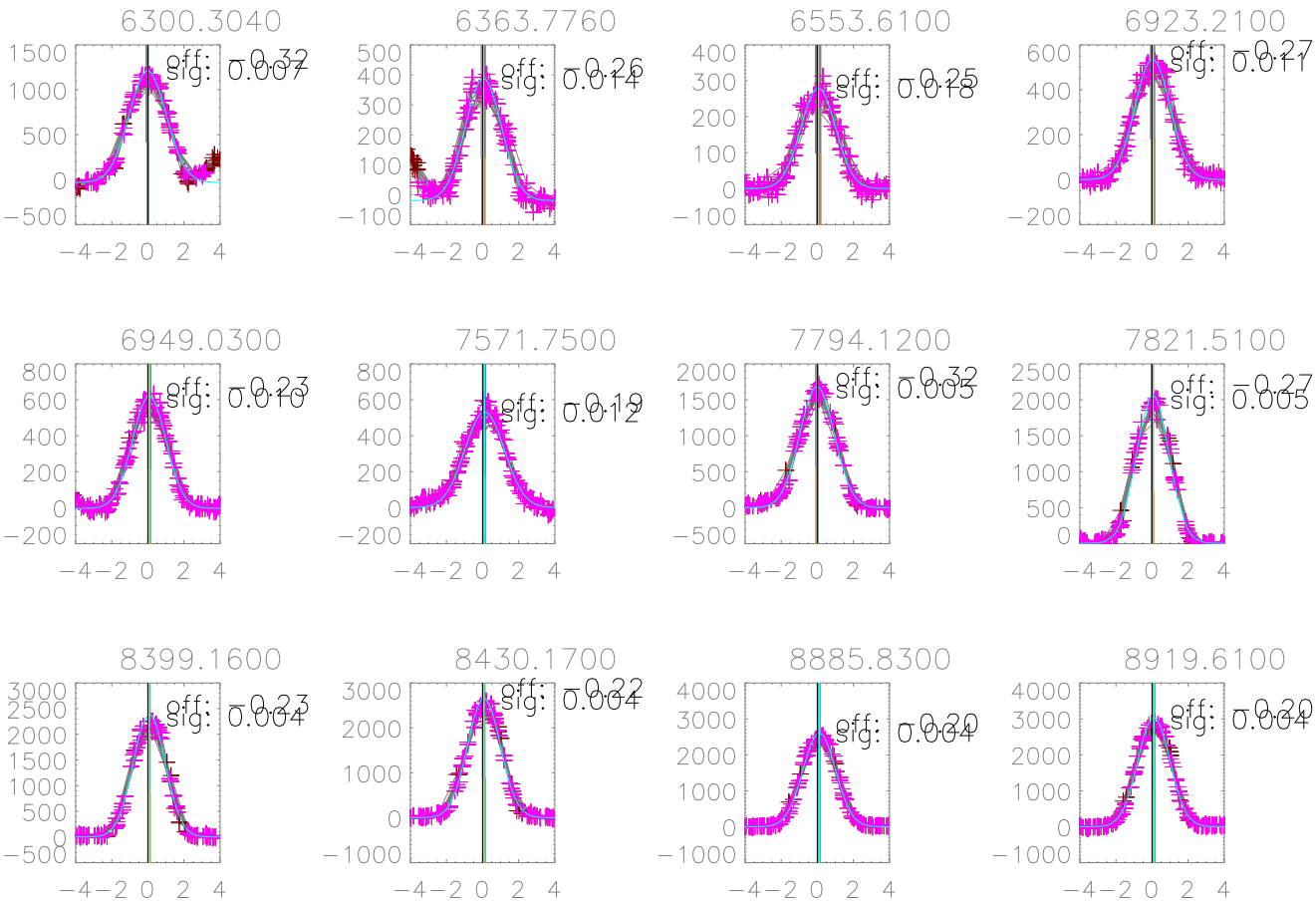

PLATE=0294 MJD=51986 Scattered Light before halo removal on sdR-r2-00009082.fi
31.82
22.73
31.82
13.64
13.64
Y [pix]
X [pix]
0
500
1000
1500
2000

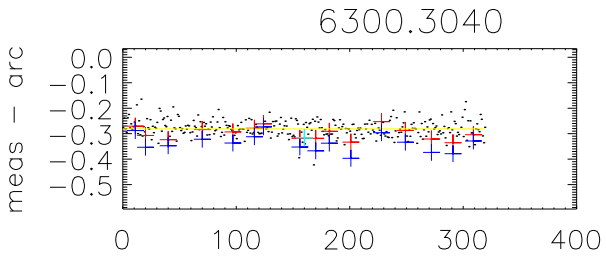

PLATE=0294 MJD=51986 Scattered Light before halo removal on sdR-r2-00009082.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 6.247
Max value = 34.962
Mon Feb 11 20:27:45 2008

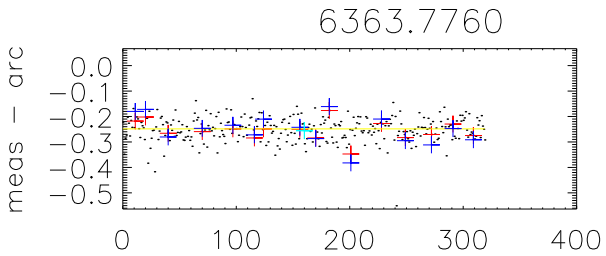

PLATE=0294 MJD=51986 Scattered Light on sdR-r2-00009082.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
9.1
5.5

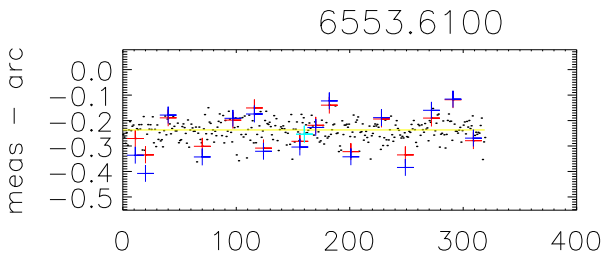

PLATE=0294 MJD=51986 Scattered Light on sdR-r2-00009082.fit
Brightness [electrons/pix]
20
15
10
5
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 5.975
Max value = 11.195
Mon Feb 11 20:30:11 2008

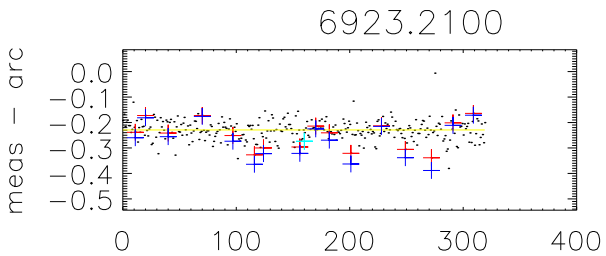

PLATE=0294 MJD=51986 Extraction chi^2 for sdR−r2−00009082.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
0
500
1000
1500
2000
Row number

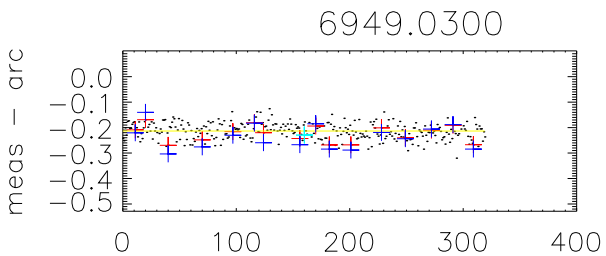

6300.3040
off: −0.32
sig: 0.007
6363.7760
off: −0.26
sig: 0.014
6553.6100
off: −0.25
sig: 0.018
6923.2100
off: −0.27
sig: 0.011
6949.0300
off: −0.23
sig: 0.010
7571.7500
off: −0.19
sig: 0.012
7794.1200
off: −0.32
sig: 0.005
7821.5100
off: −0.27
sig: 0.005
8399.1600
off: −0.23
sig: 0.004
8430.1700
off: −0.22
sig: 0.004
8885.8300
off: −0.20
sig: 0.004
8919.6100
off: −0.20
sig: 0.004

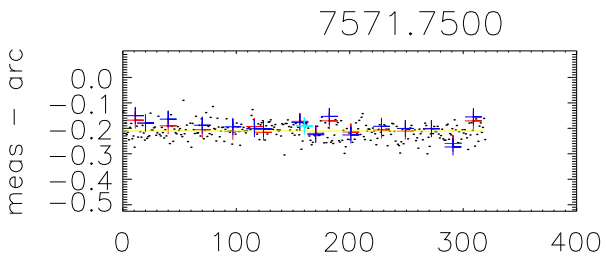

6300.3040
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

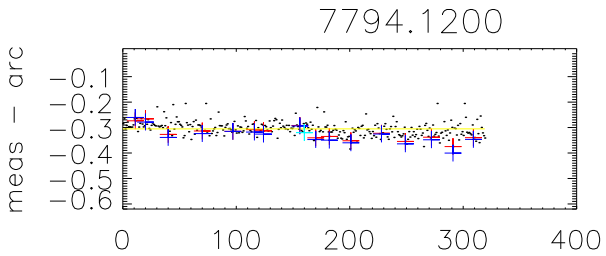

6363.7760
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

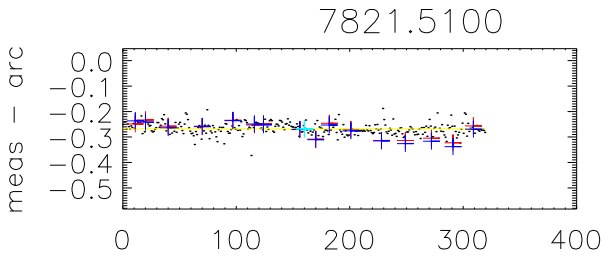

6553.6100
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

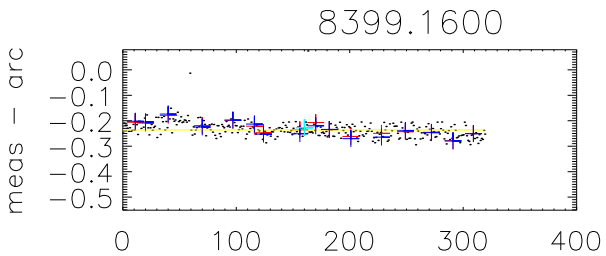

6923.2100
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

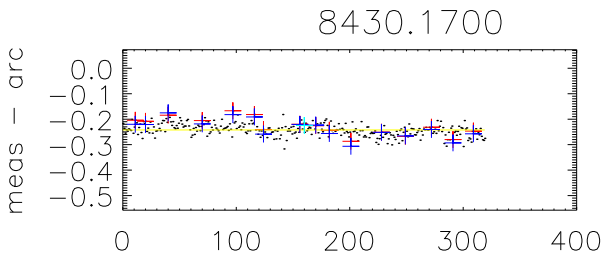

6949.0300
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

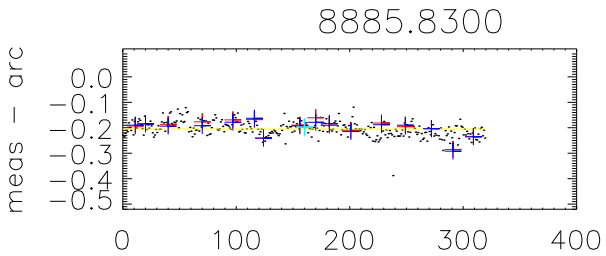

7571.7500
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

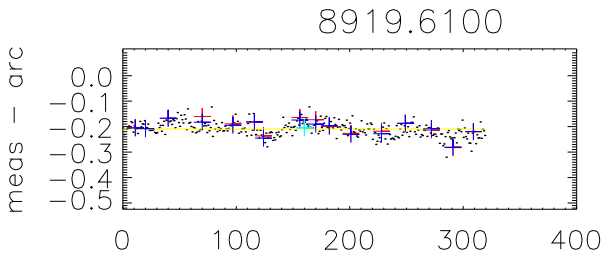

7794.1200
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

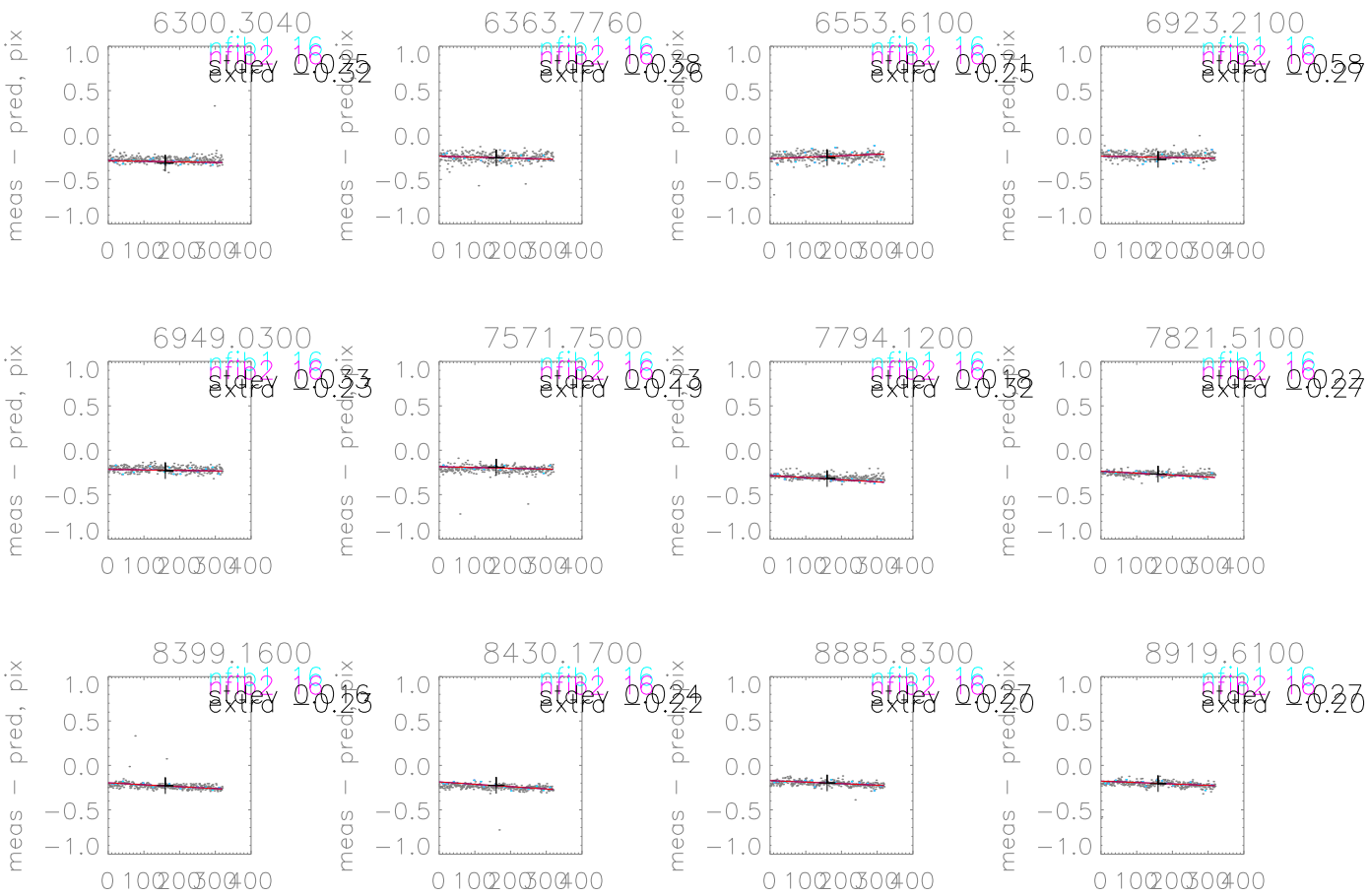

7821.5100
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

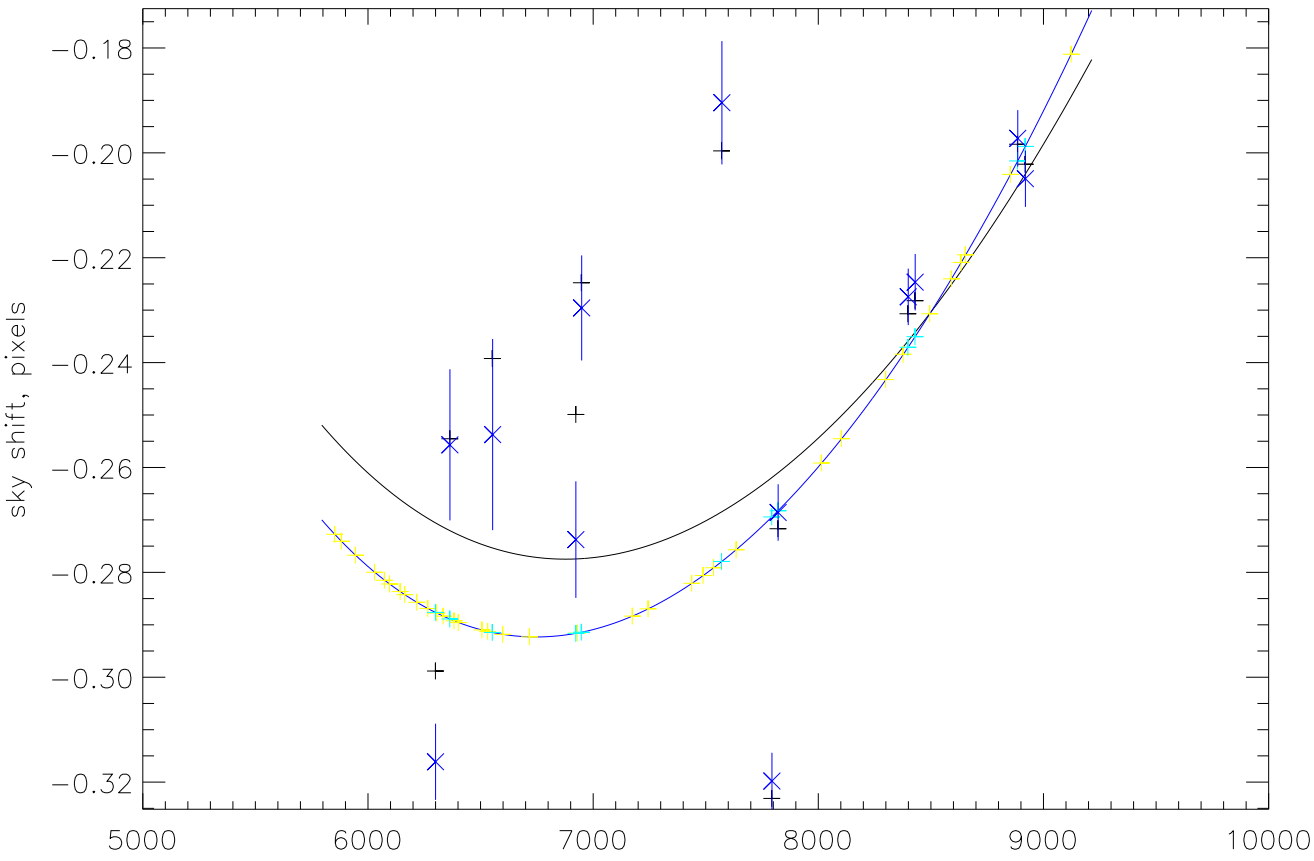

8399.1600
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

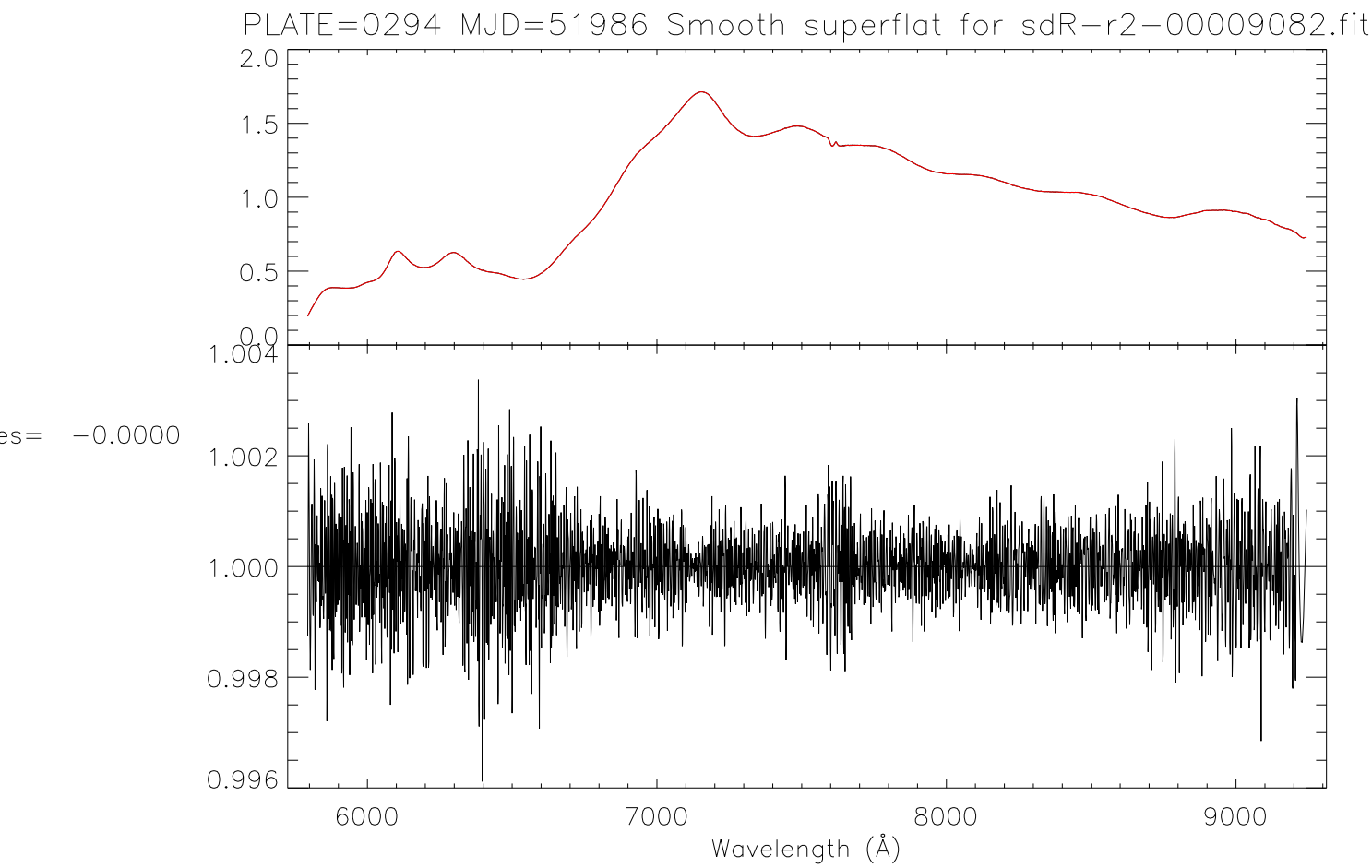

8430.1700
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

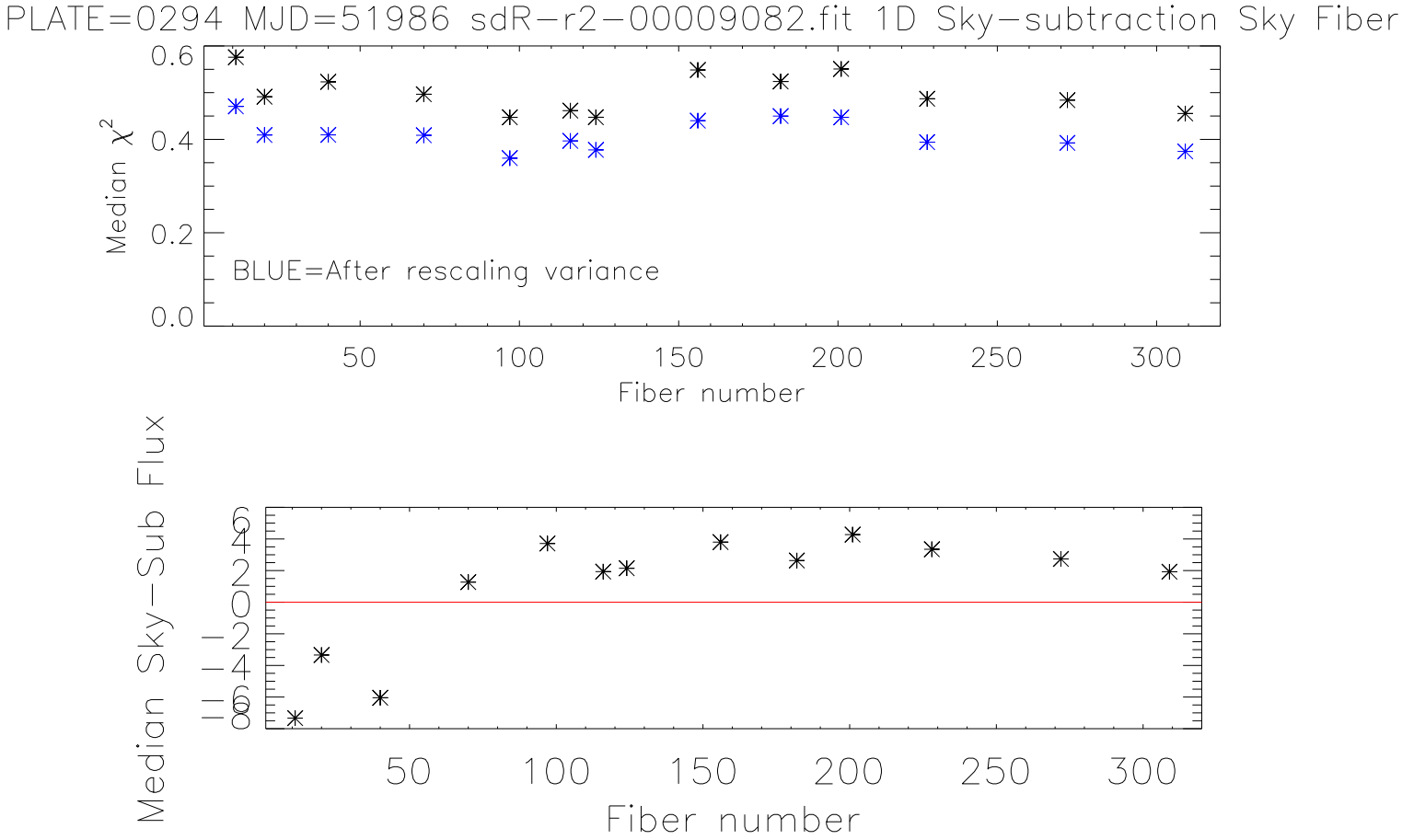

8885.8300
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

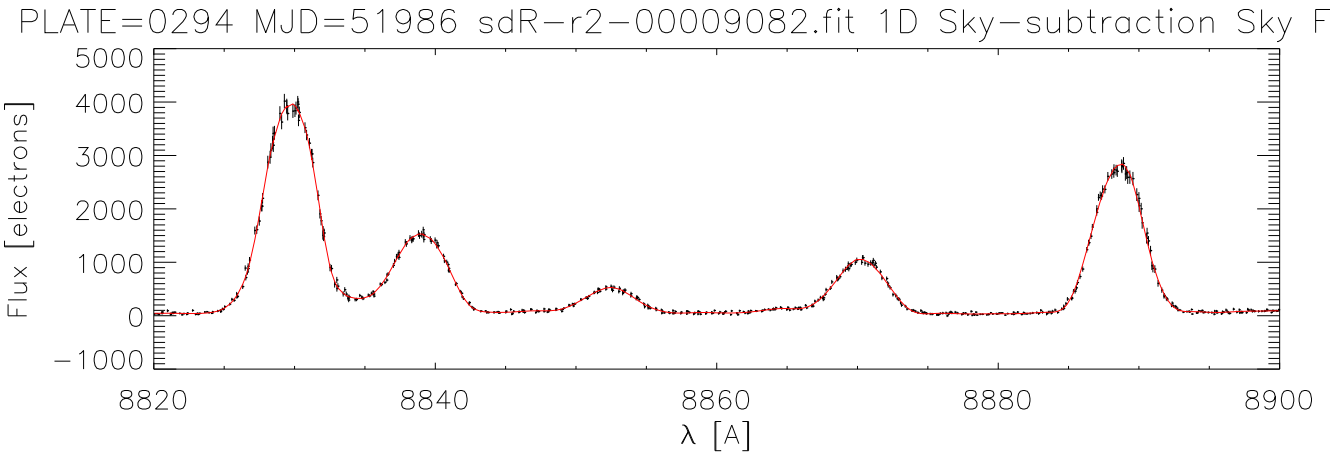

8919.6100
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

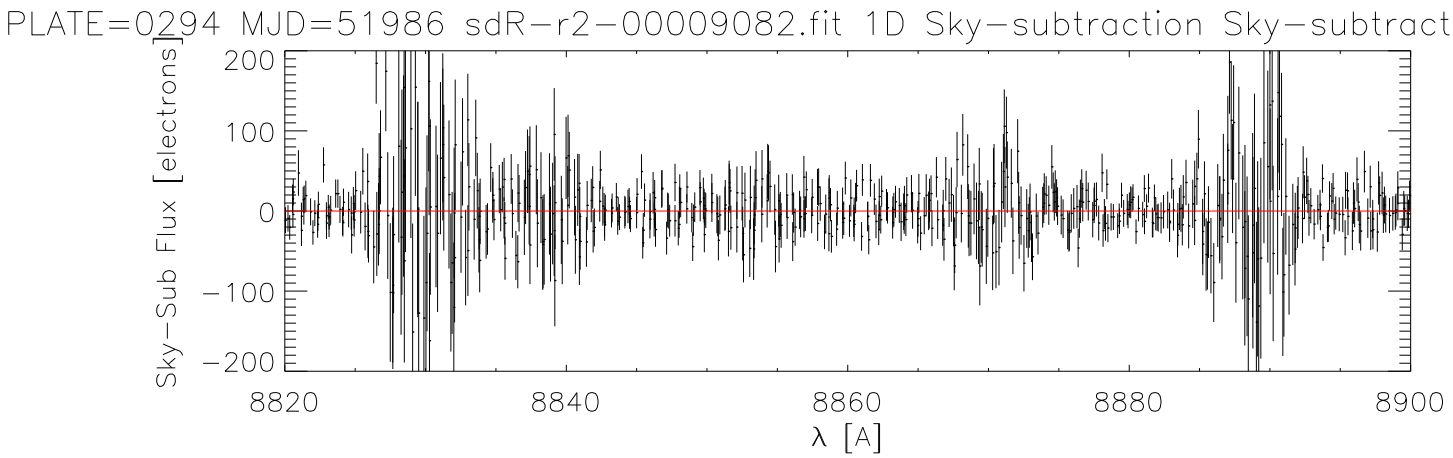

6300.3040
6363.7760
6553.6100
6923.2100
6949.0300
7571.7500
7794.1200
7821.5100
8399.1600
8430.1700
8885.8300
8919.6100
mfhd2 16
stdev 0.25
extrd 0.32
stdev 0.38
extrd 0.28
stdev 0.71
extrd 0.25
stdev 0.58
extrd 0.27
stdev 0.33
extrd 0.23
stdev 0.43
extrd 0.49
stdev 0.48
extrd 0.32
stdev 0.22
extrd 0.27
stdev 0.16
extrd 0.23
stdev 0.24
extrd 0.22
stdev 0.27
extrd 0.20
stdev 0.27
extrd 0.20
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400

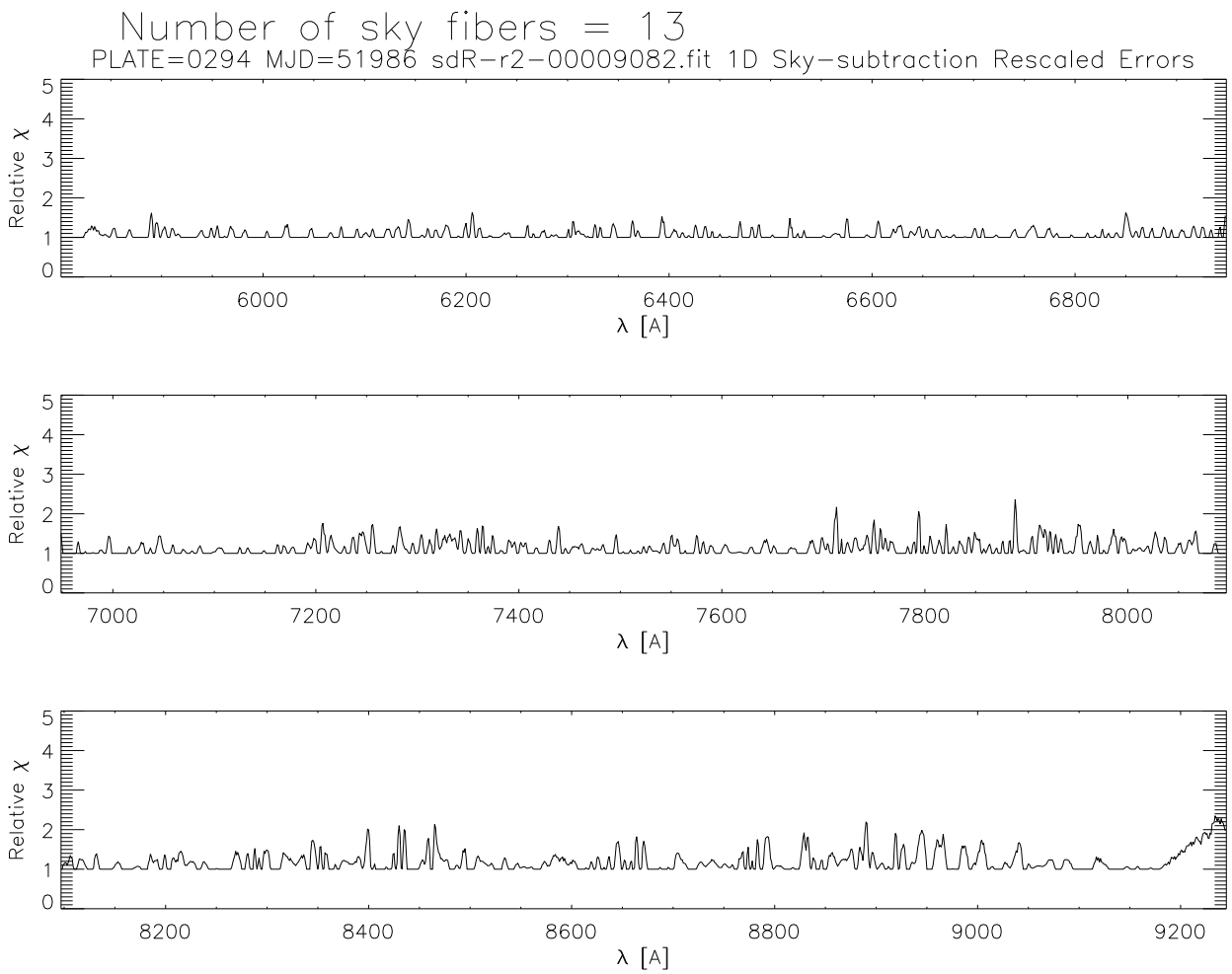

−0.18
−0.20
−0.22
−0.24
−0.26
−0.28
−0.30
−0.32
sky shift, pixels
5000
6000
7000
8000
9000
10000

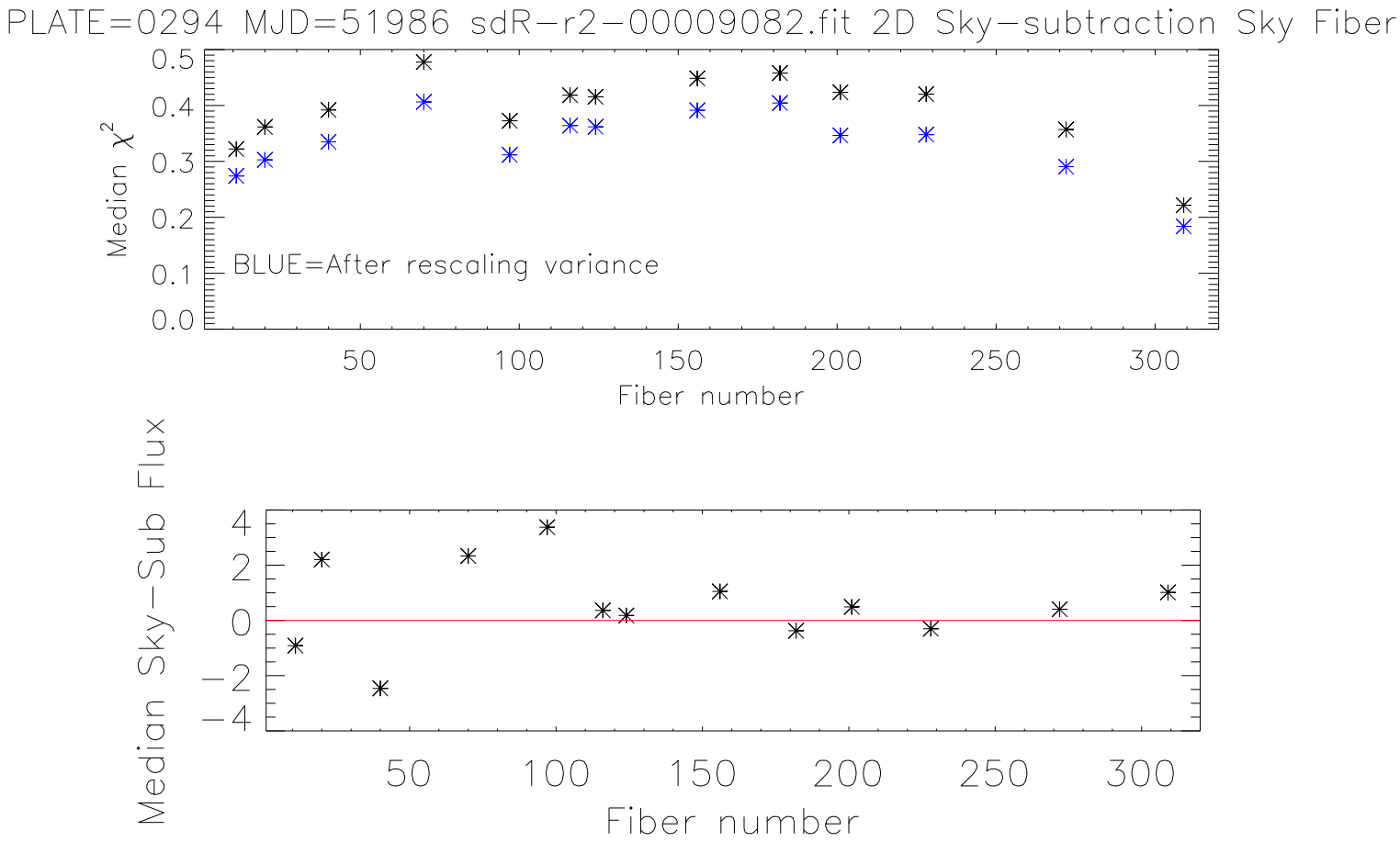

PLATE=0294 MJD=51986 Smooth superflat for sdR-r2-00009082.fit
2.0
1.5
1.0
0.5
0.0
1.004
1.002
1.000
0.998
0.996
es= −0.0000
6000
7000
8000
9000
Wavelength (Å)

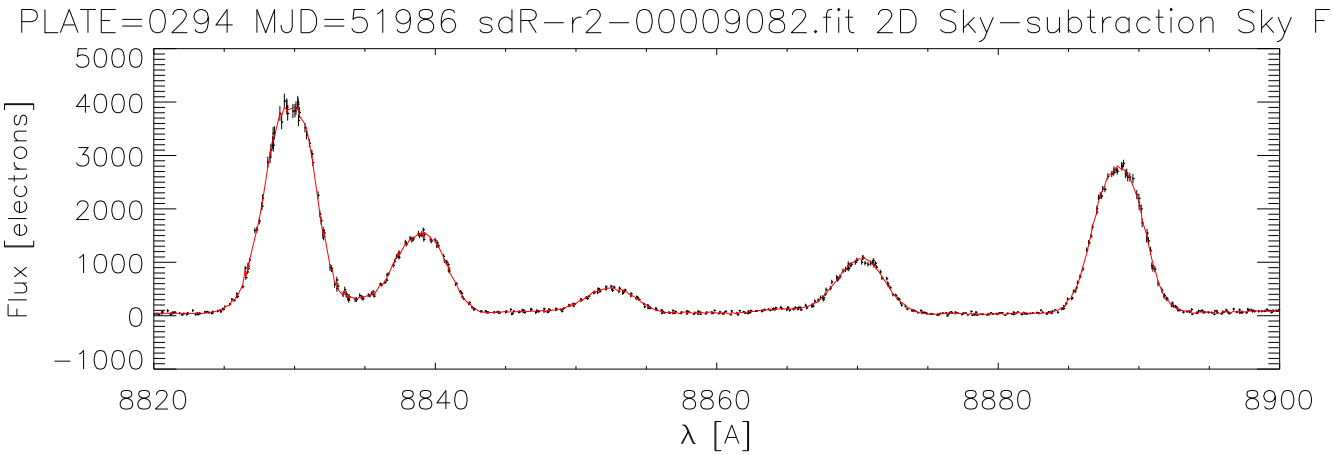

PLATE=0294 MJD=51986 sdR-r2-00009082.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-6
-4
-2
0
2
4
6
50
100
150
200
250
300
Fiber number

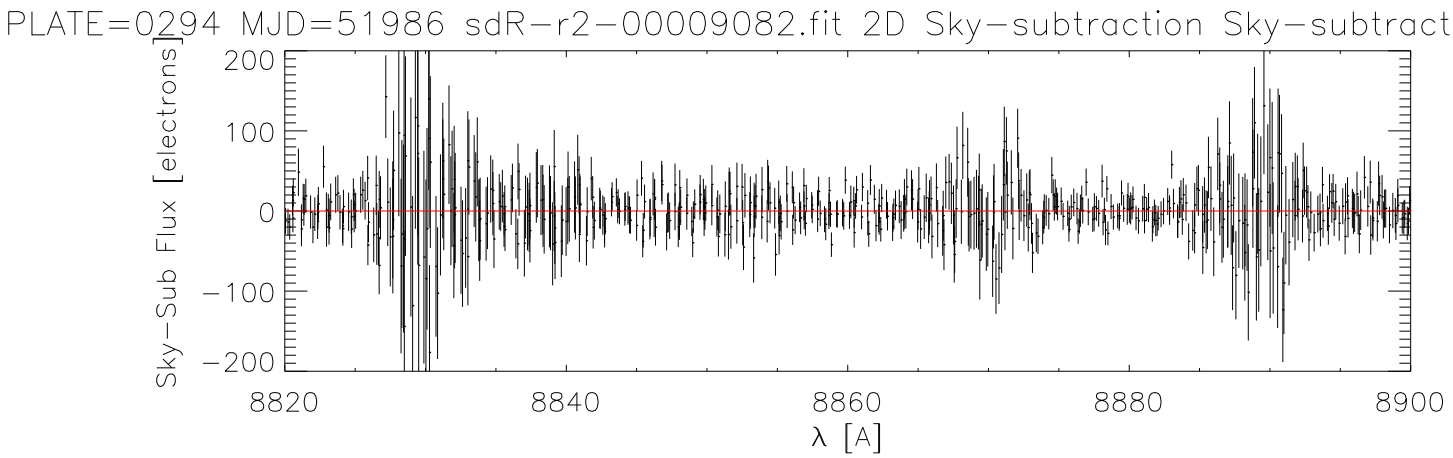

PLATE=0294 MJD=51986 sdR-r2-00009082.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
−1000
8820
8840
8860
8880
8900
λ [A]

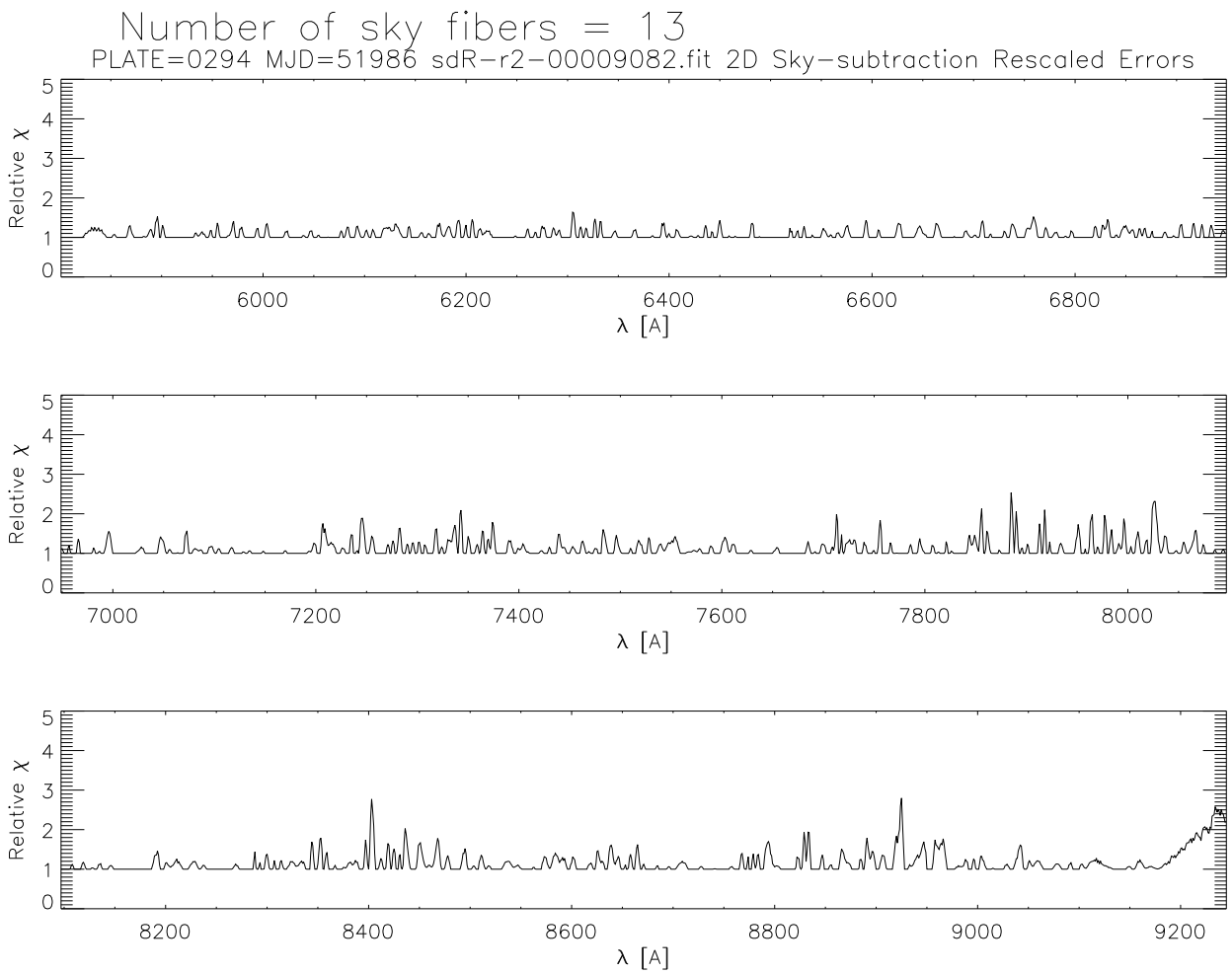

PLATE=0294 MJD=51986 sdR-r2-00009082.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
−100
−200
8820
8840
8860
8880
8900
λ [A]

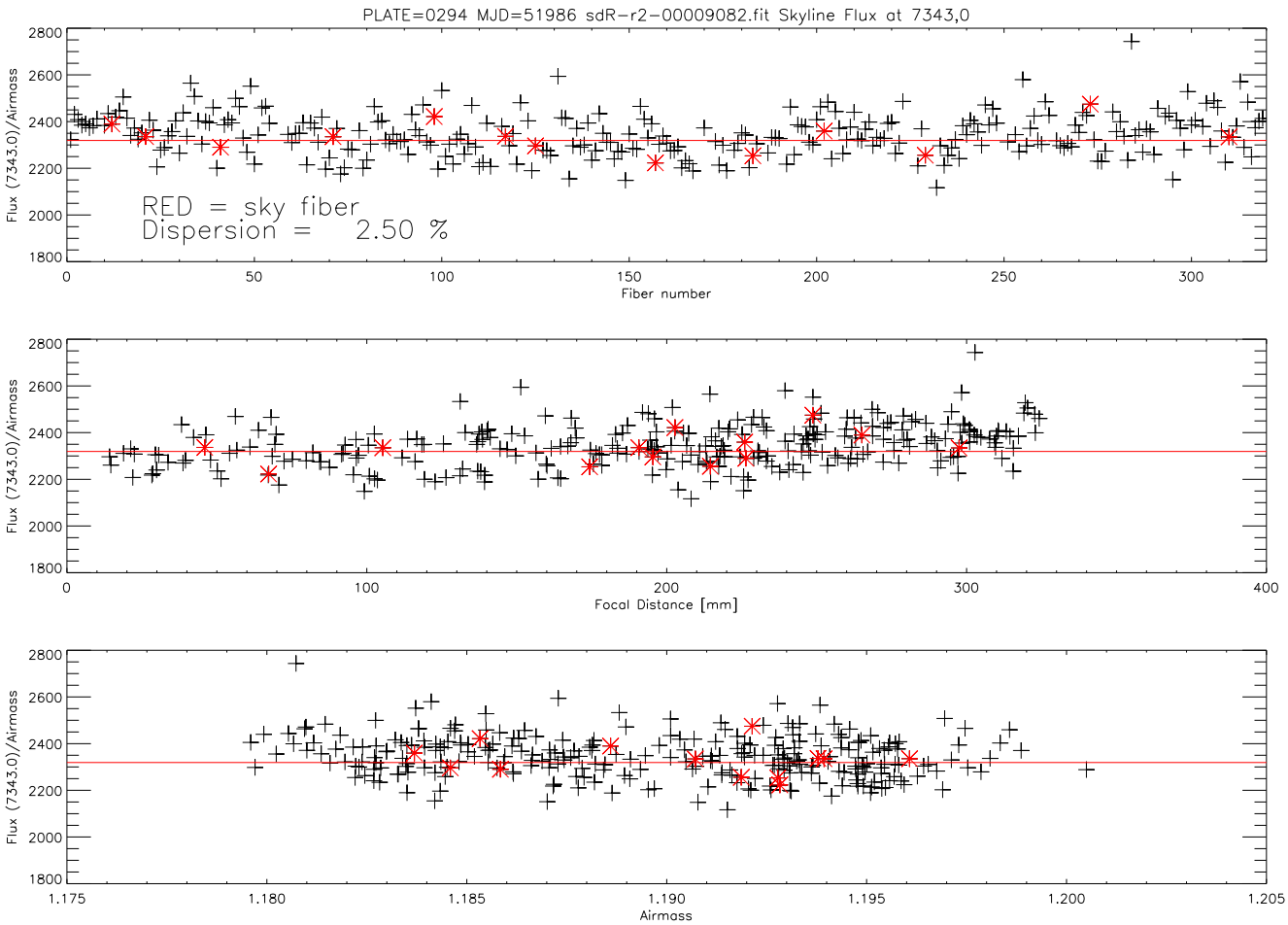

Number of sky fibers = 13
PLATE=0294 MJD=51986 sdR-r2-00009082.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

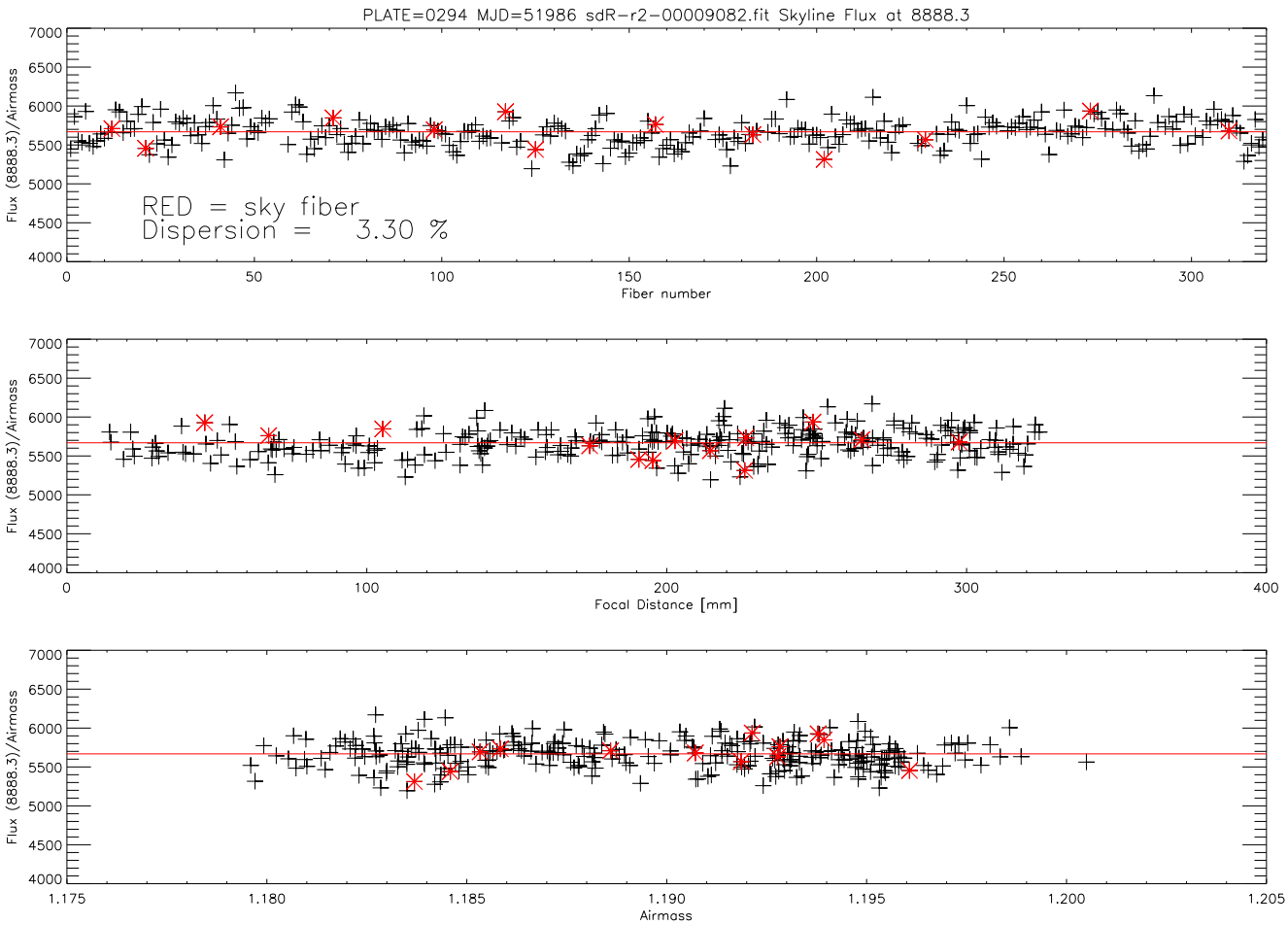

PLATE=0294 MJD=51986 sdR-r2-00009082.fit 2D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

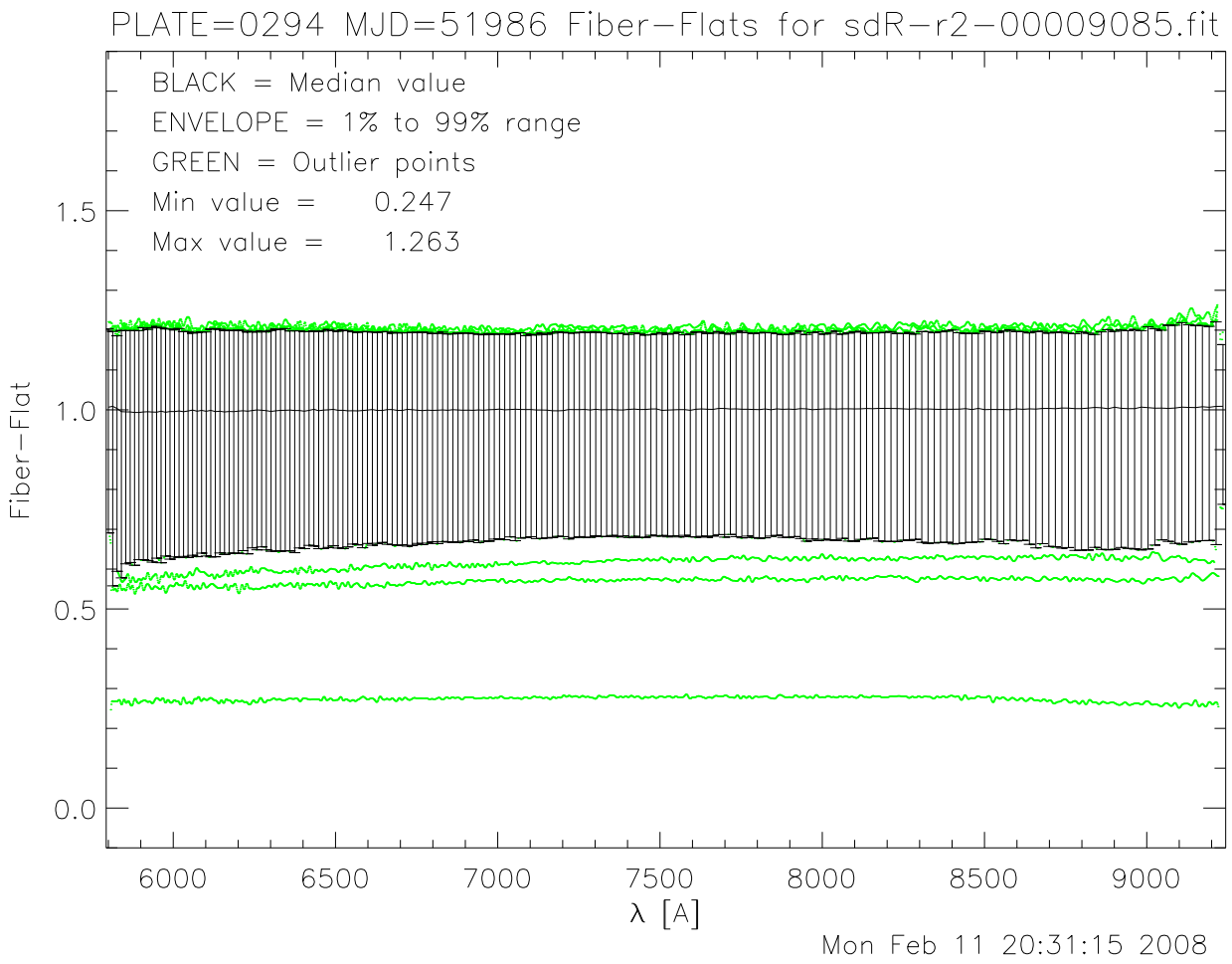

PLATE=0294 MJD=51986 sdR-r2-00009082.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
−1000
8820
8840
8860
8880
8900
λ [A]

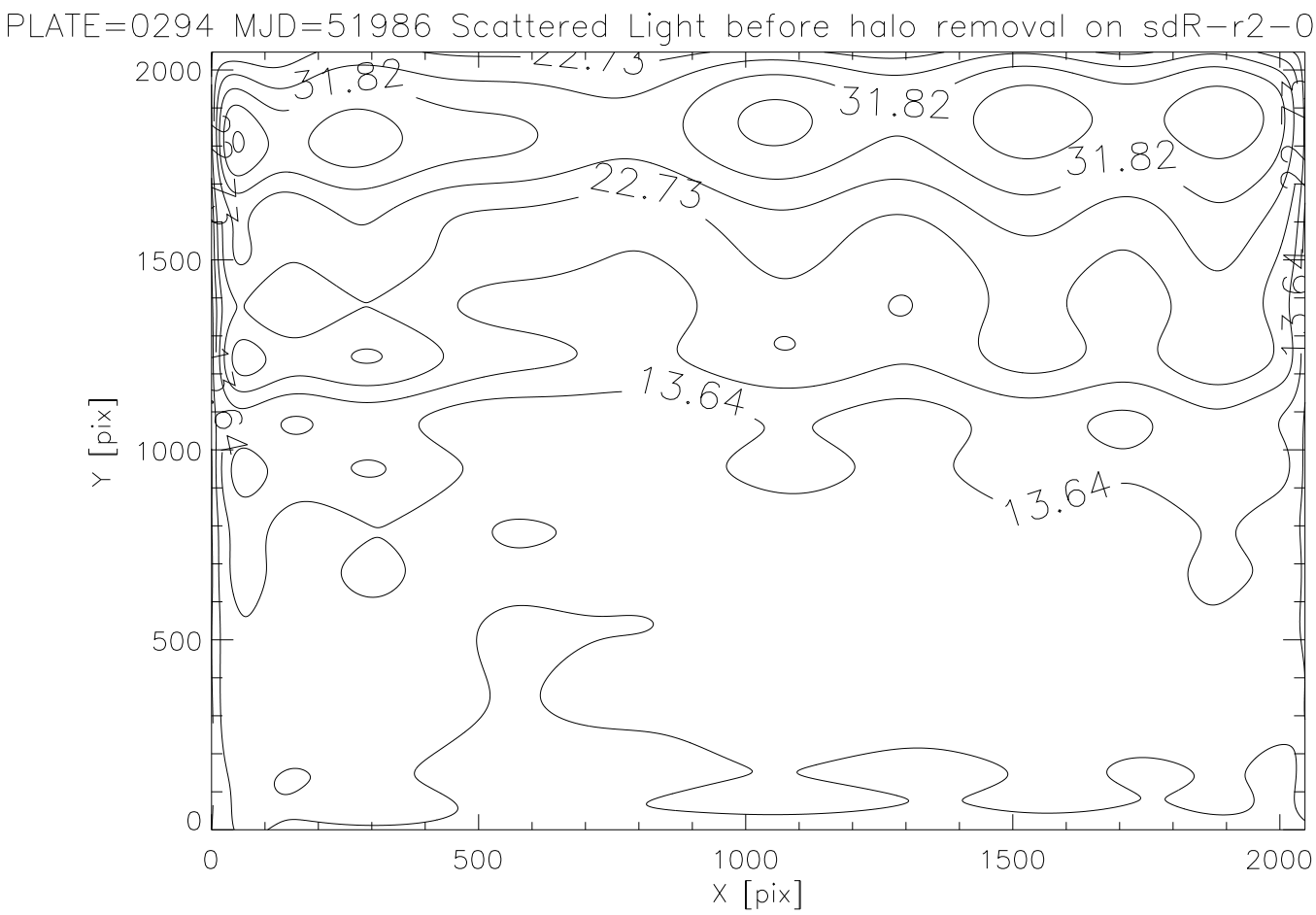

PLATE=0294 MJD=51986 sdR-r2-00009082.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
−100
−200
8820
8840
8860
8880
8900
λ [A]

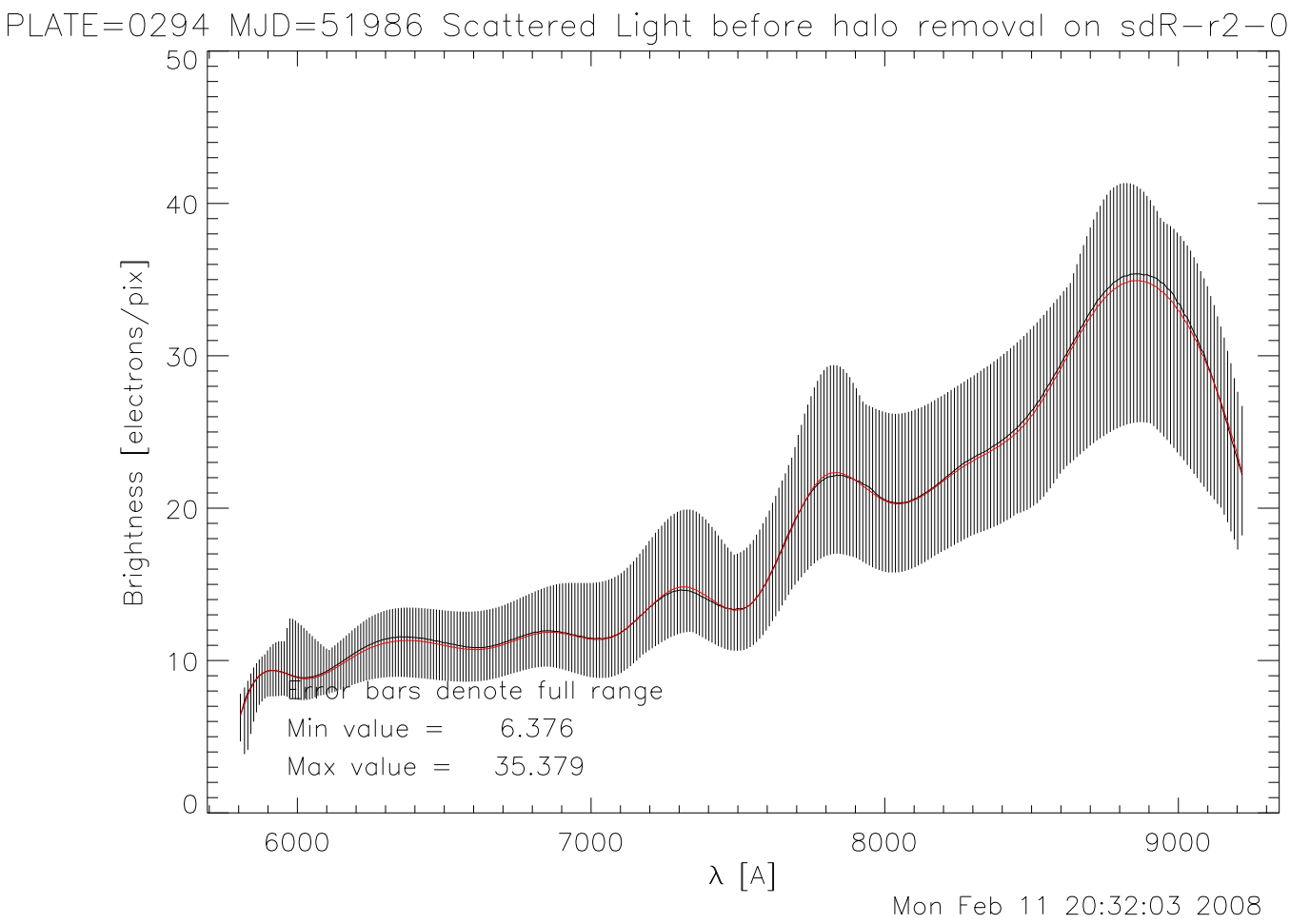

Number of sky fibers = 13
PLATE=0294 MJD=51986 sdR-r2-00009082.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

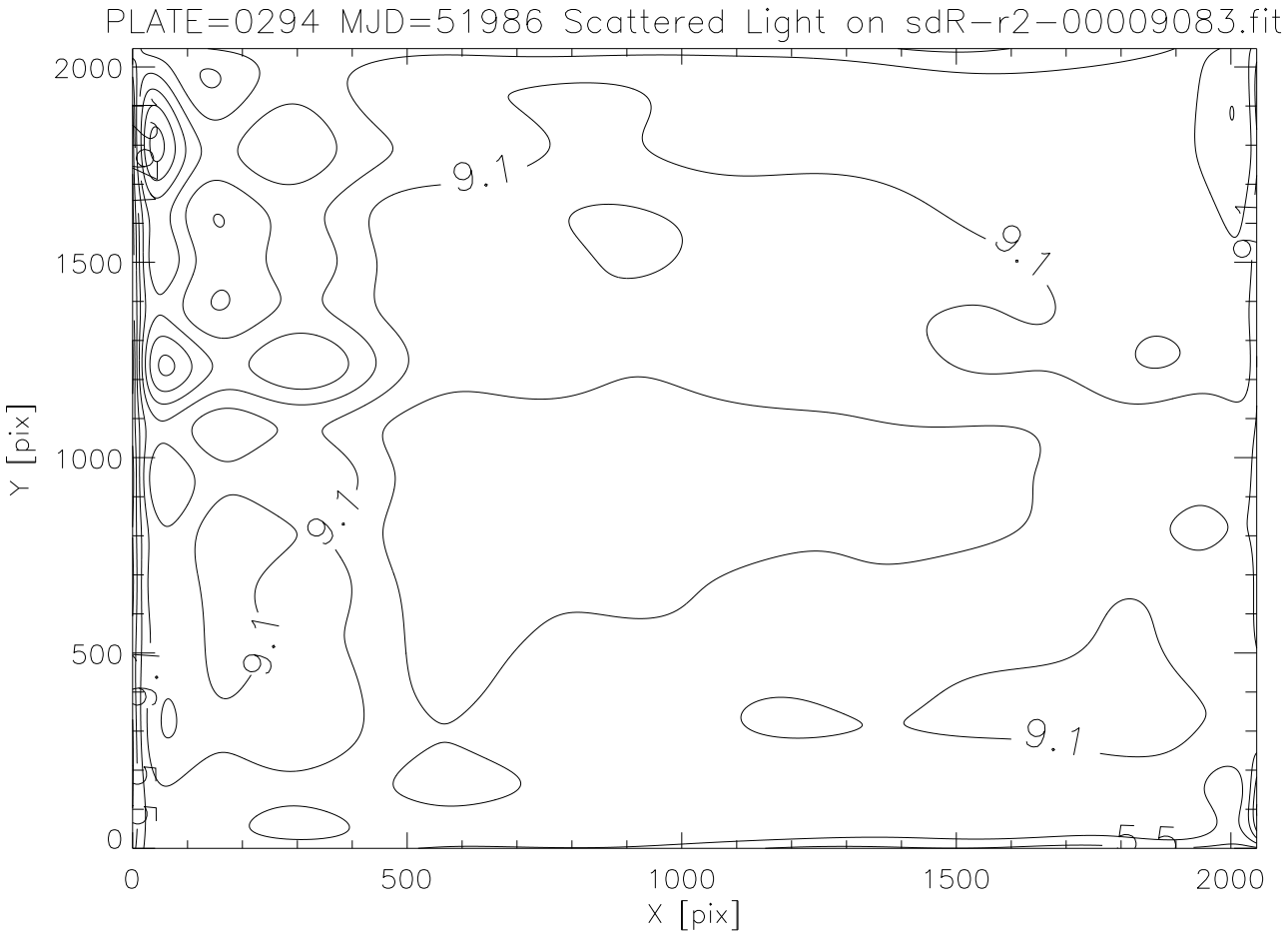

PLATE=0294 MJD=51986 sdR-r2-00009082.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 2.50 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

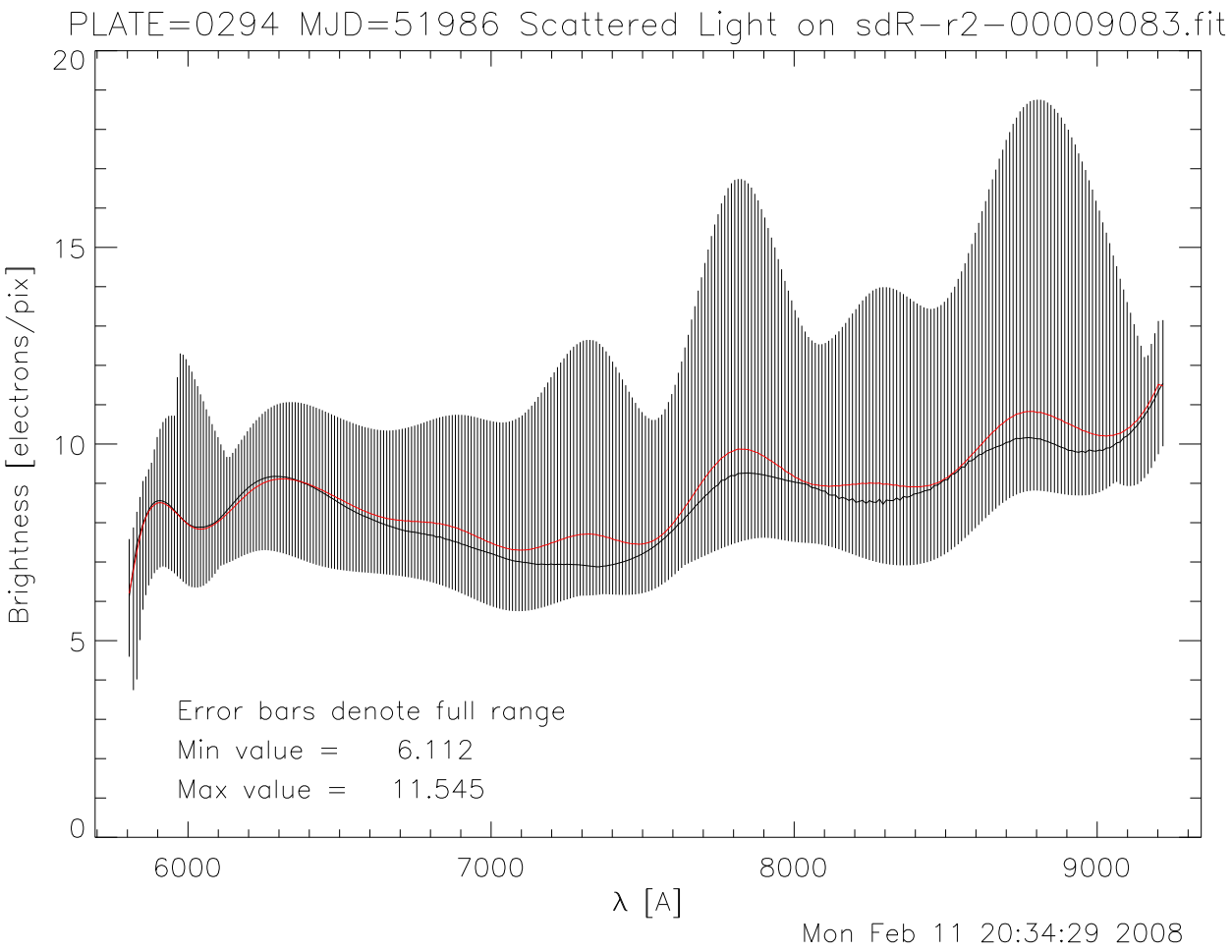

PLATE=0294 MJD=51986 sdR-r2-00009082.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 3.30 %
Fiber number
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass

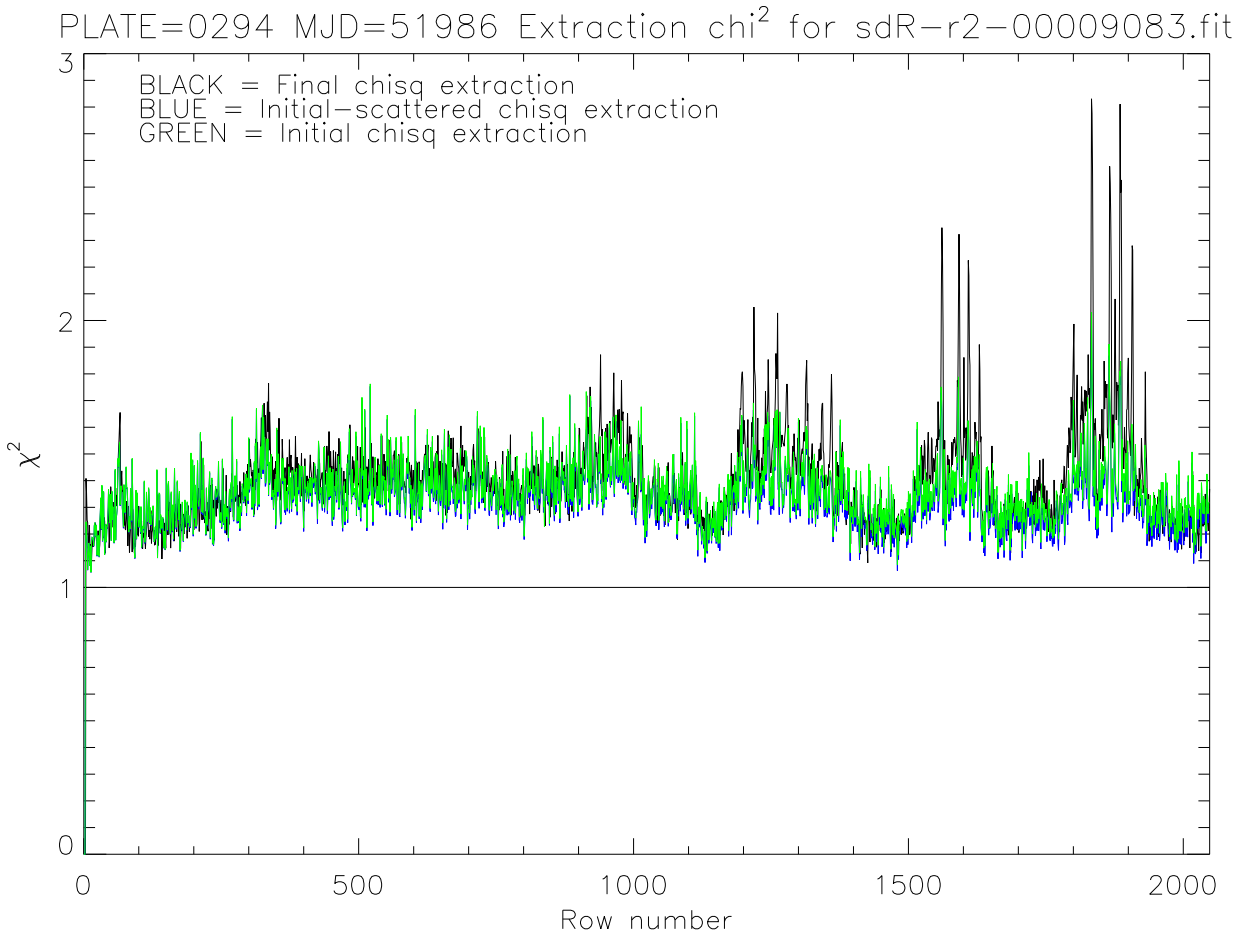

PLATE=0294 MJD=51986 Fiber-Flats for sdR-r2-00009085.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.247
Max value = 1.263
Fiber-Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Mon Feb 11 20:31:15 2008

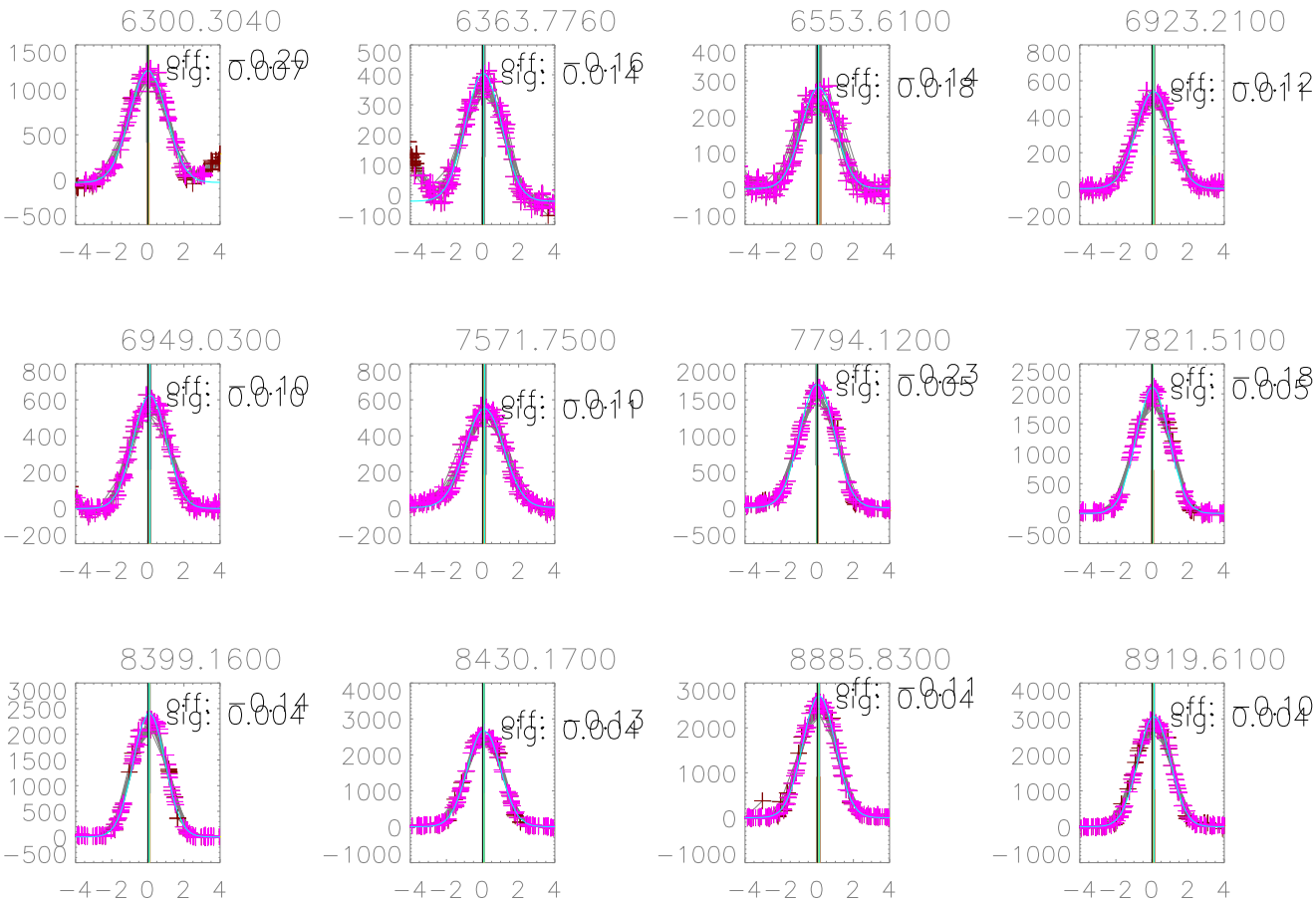

PLATE=0294 MJD=51986 Scattered Light before halo removal on sdR-r2-00009083.fi
31.82
22.73
13.64
Y [pix]
X [pix]
0
500
1000
1500
2000

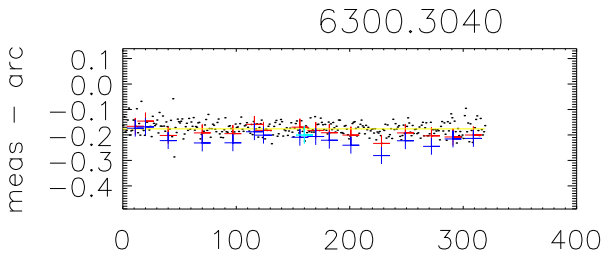

PLATE=0294 MJD=51986 Scattered Light before halo removal on sdR-r2-00009083.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 6.376
Max value = 35.379
Mon Feb 11 20:32:03 2008

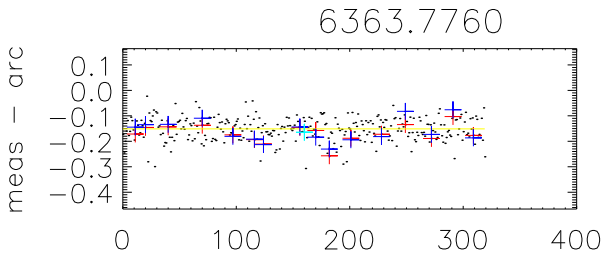

PLATE=0294 MJD=51986 Scattered Light on sdR-r2-00009083.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
9.1
5.5

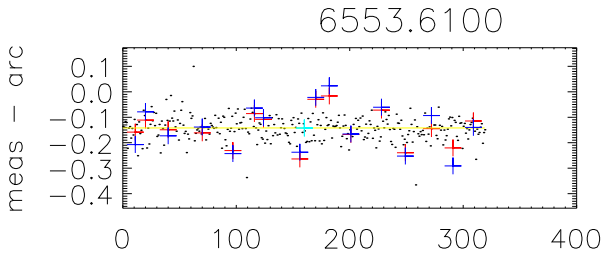

PLATE=0294 MJD=51986 Scattered Light on sdR-r2-00009083.fit
Brightness [electrons/pix]
20
15
10
5
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 6.112
Max value = 11.545
Mon Feb 11 20:34:29 2008

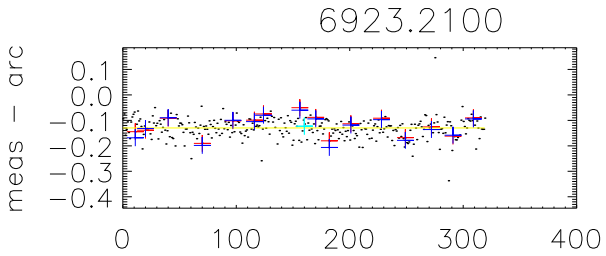

PLATE=0294 MJD=51986 Extraction chi^2 for sdR−r2−00009083.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
0
500
1000
1500
2000
Row number

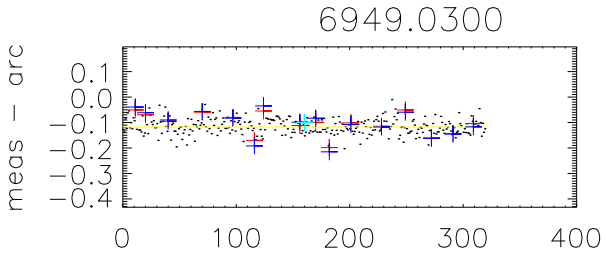

6300.3040
off: 0.20
sig: 0.007
6363.7760
off: 0.16
sig: 0.014
6553.6100
off: 0.14
sig: 0.018
6923.2100
off: 0.12
sig: 0.011
6949.0300
off: 0.10
sig: 0.010
7571.7500
off: 0.10
sig: 0.011
7794.1200
off: 0.23
sig: 0.005
7821.5100
off: 0.18
sig: 0.005
8399.1600
off: 0.14
sig: 0.004
8430.1700
off: 0.13
sig: 0.004
8885.8300
off: 0.11
sig: 0.004
8919.6100
off: 0.10
sig: 0.004

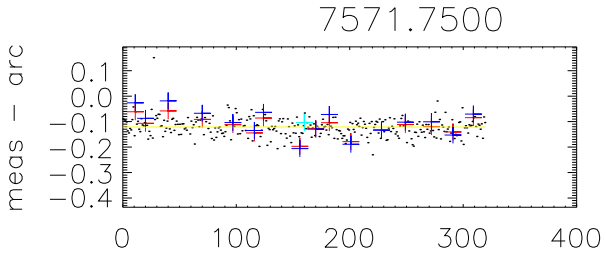

6300.3040
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

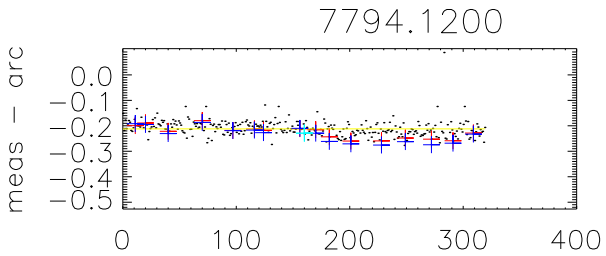

6363.7760
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

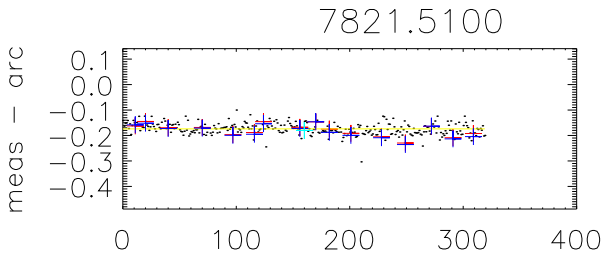

6553.6100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

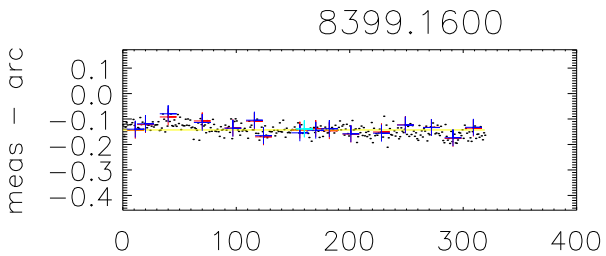

6923.2100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

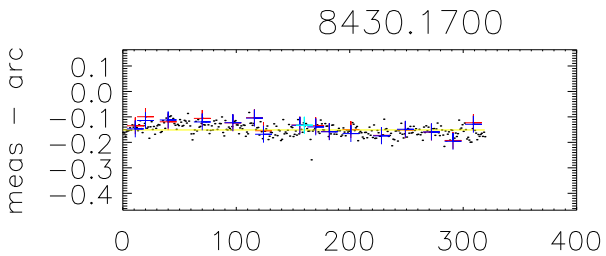

6949.0300
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

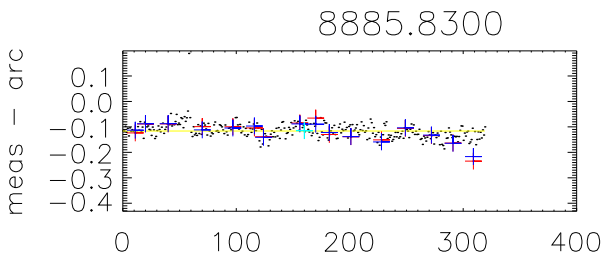

7571.7500
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

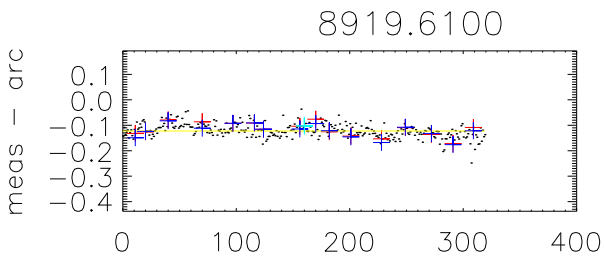

7794.1200
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

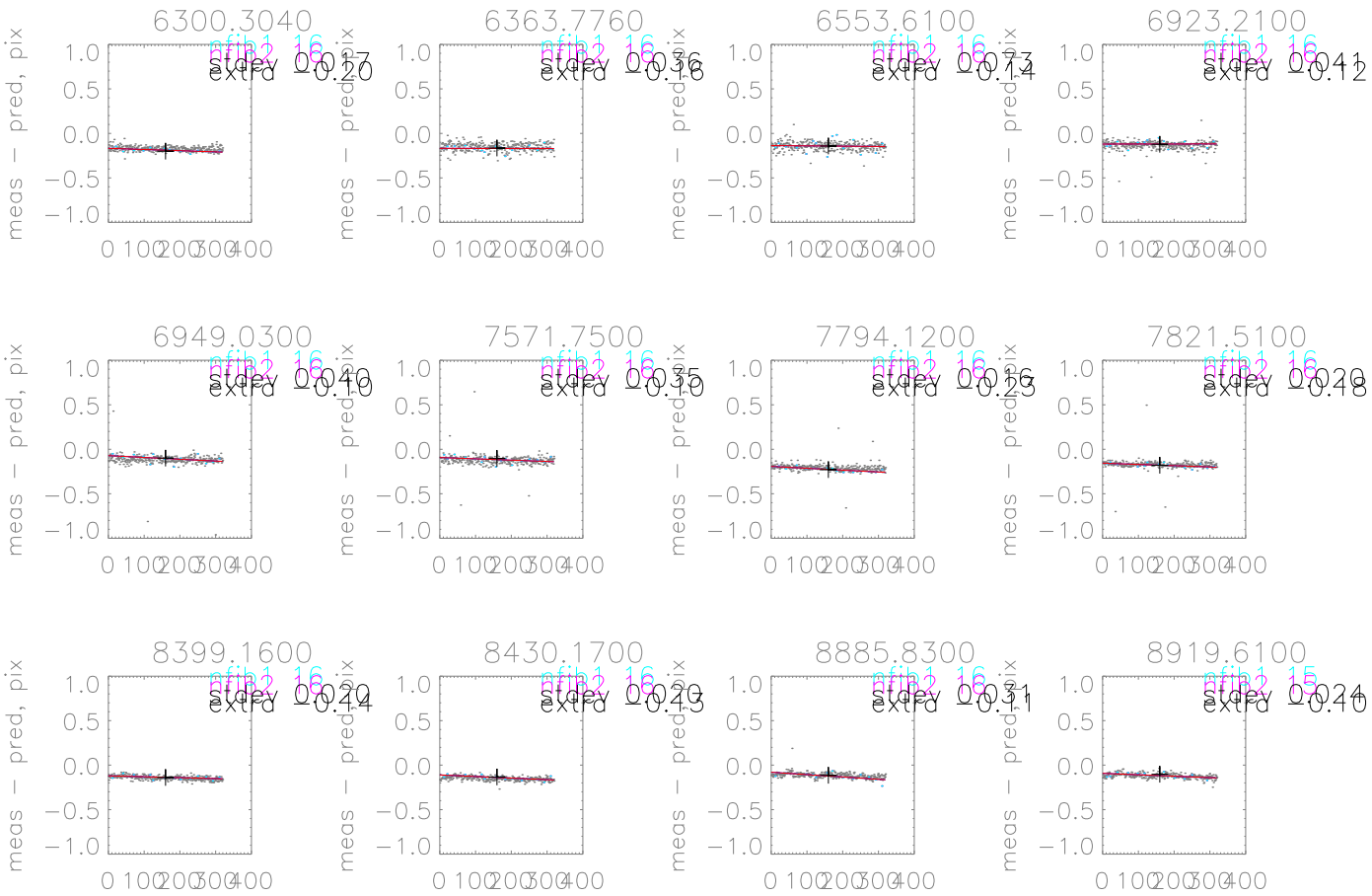

7821.5100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

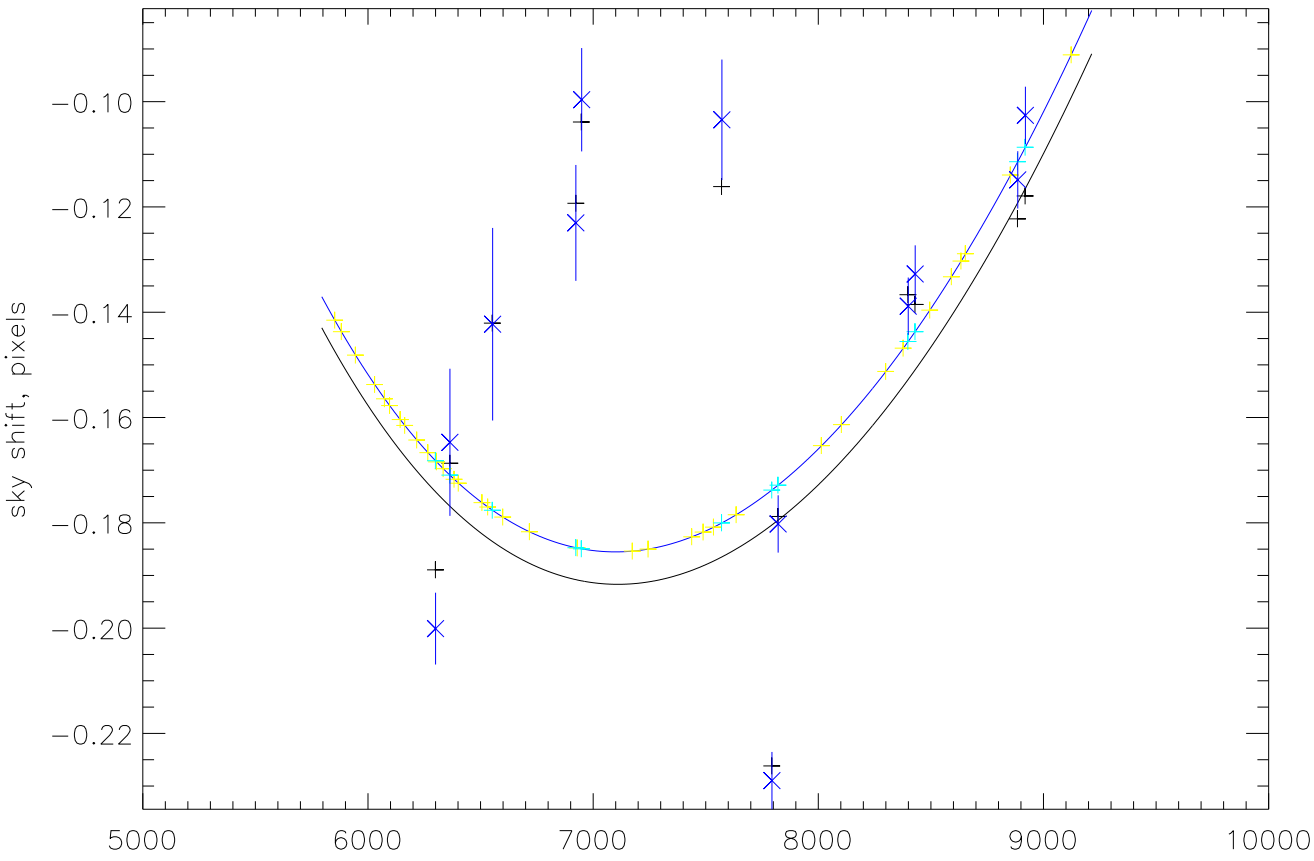

8399.1600
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

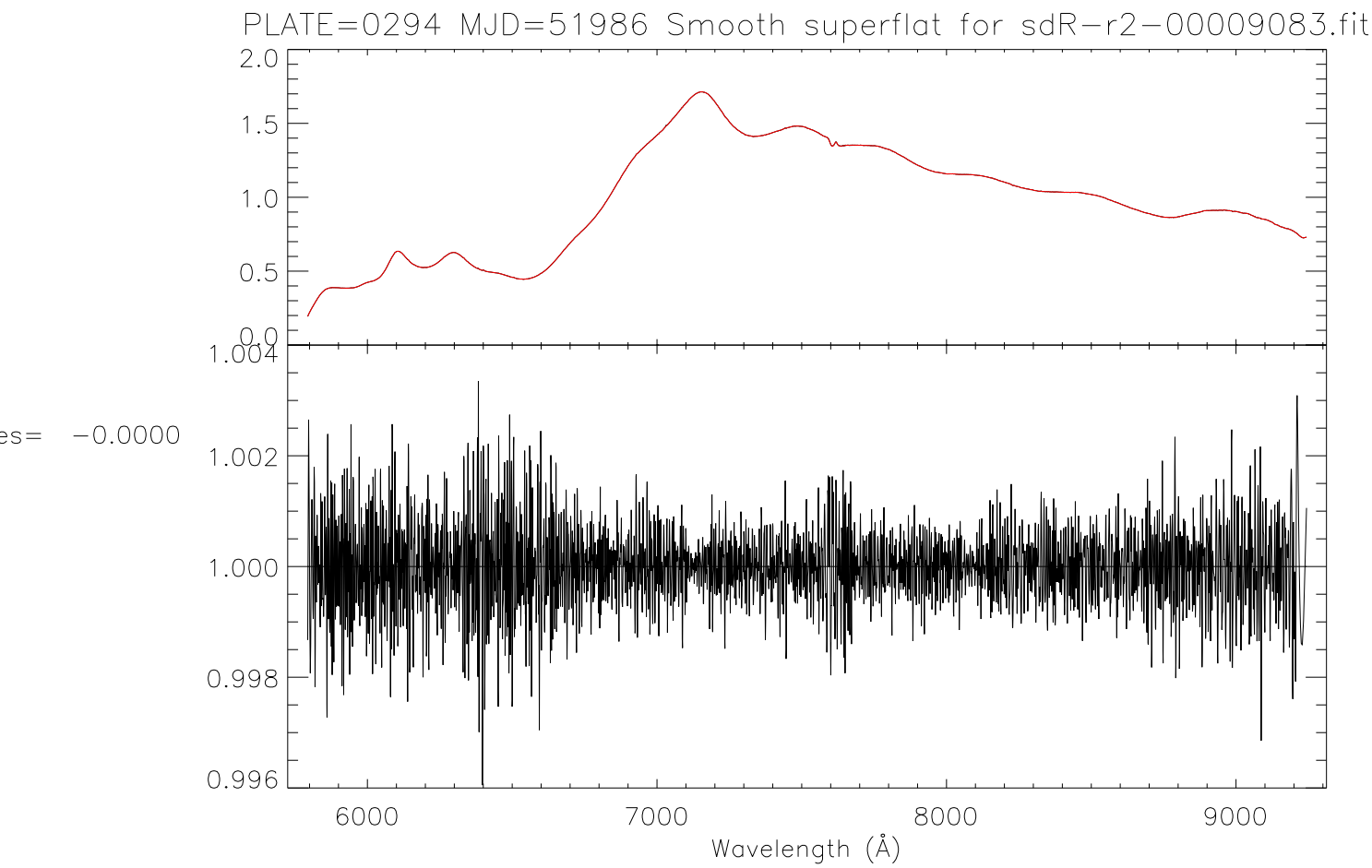

8430.1700
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

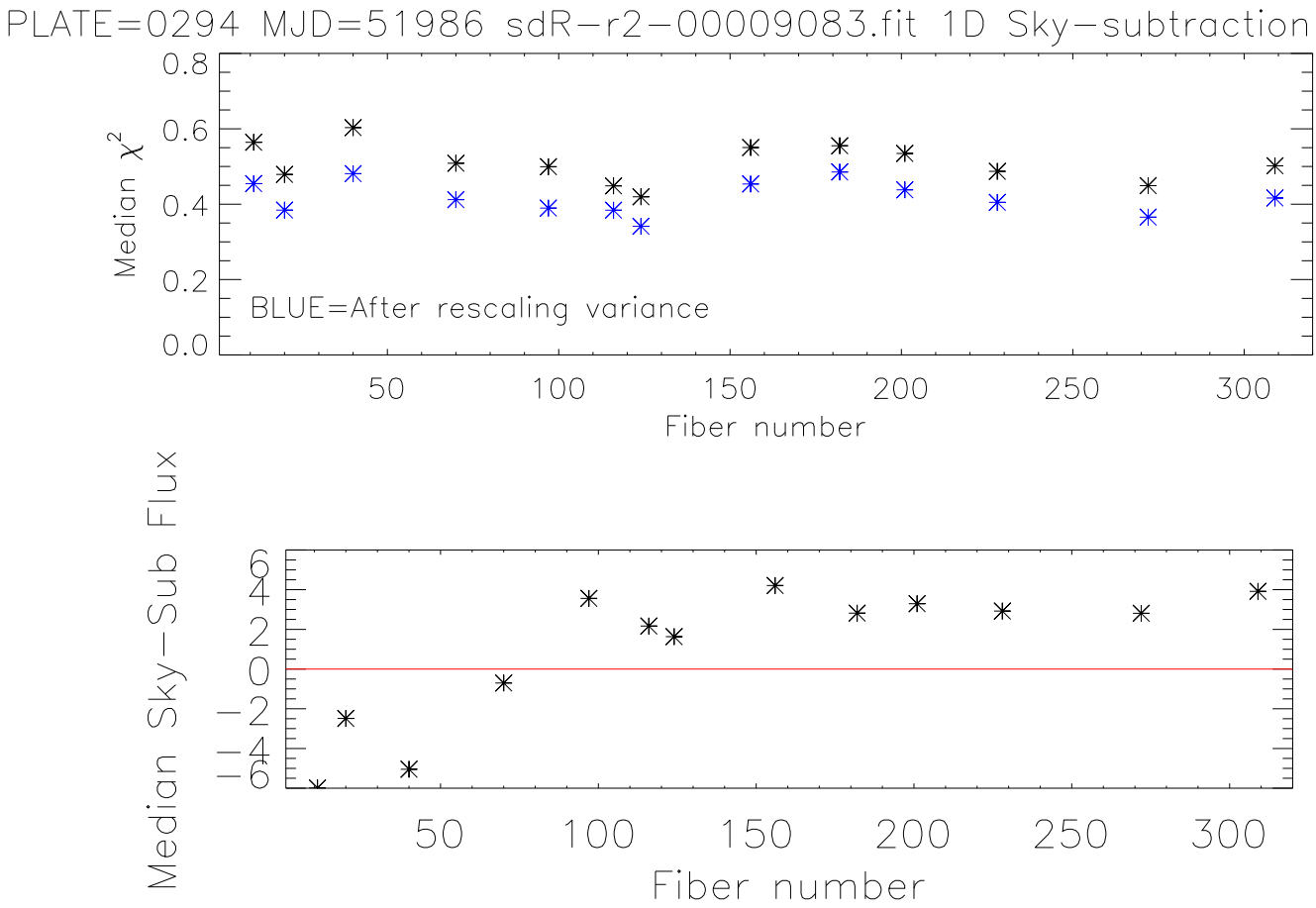

8885.8300
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

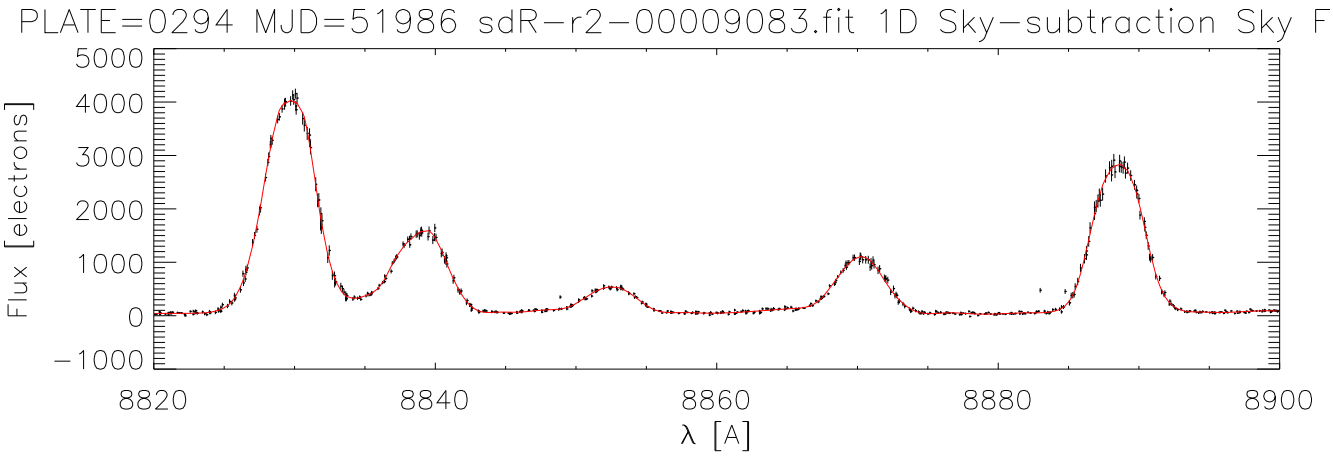

8919.6100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

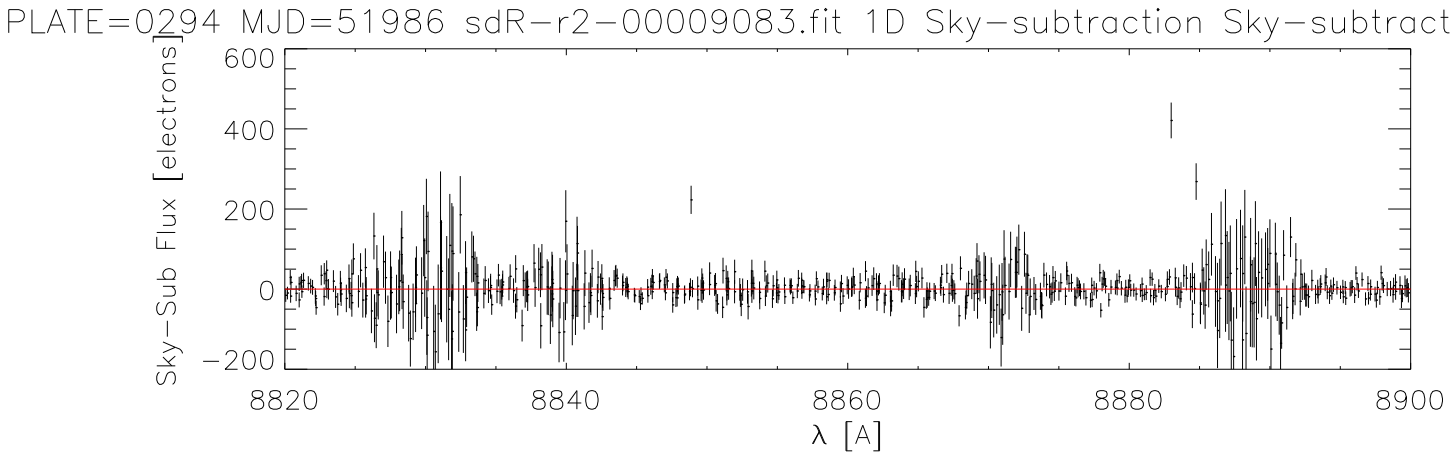

6300.3040
mfhd1 16
mfhd2 16
stdev 0.027
extra 0.20
6363.7760
mfhd1 16
mfhd2 16
stdev 0.036
extra 0.16
6553.6100
mfhd1 16
mfhd2 16
stdev 0.073
extra 0.14
6923.2100
mfhd1 16
mfhd2 16
stdev 0.041
extra 0.12
6949.0300
mfhd1 16
mfhd2 16
stdev 0.040
extra 0.10
7571.7500
mfhd1 16
mfhd2 16
stdev 0.035
extra 0.10
7794.1200
mfhd1 16
mfhd2 16
stdev 0.046
extra 0.23
7821.5100
mfhd1 16
mfhd2 16
stdev 0.020
extra 0.48
8399.1600
mfhd1 16
mfhd2 16
stdev 0.020
extra 0.44
8430.1700
mfhd1 16
mfhd2 16
stdev 0.020
extra 0.43
8885.8300
mfhd1 16
mfhd2 16
stdev 0.031
extra 0.11
8919.6100
mfhd1 15
mfhd2 16
stdev 0.024
extra 0.40
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400

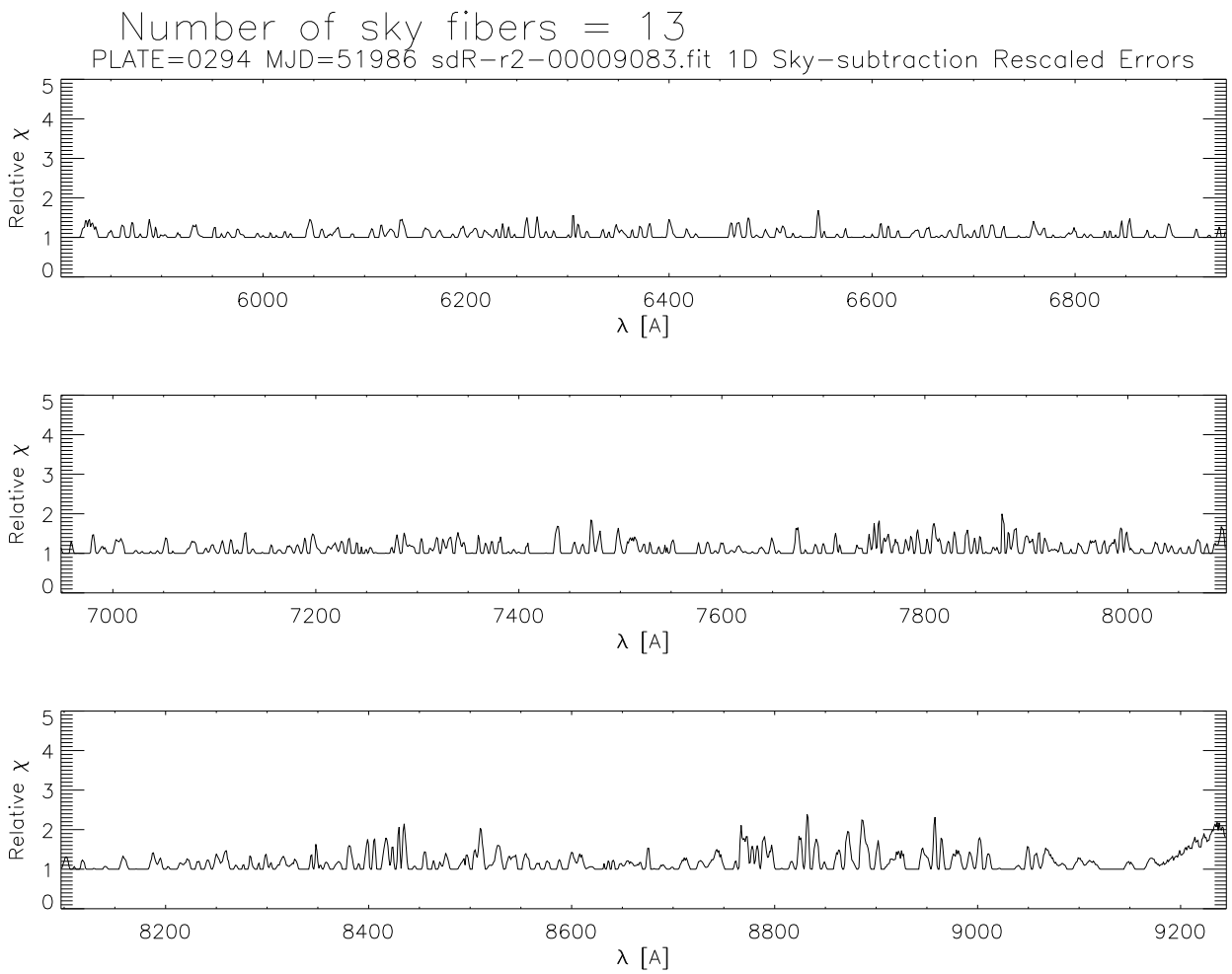

sky shift, pixels
−0.10
−0.12
−0.14
−0.16
−0.18
−0.20
−0.22
5000
6000
7000
8000
9000
10000

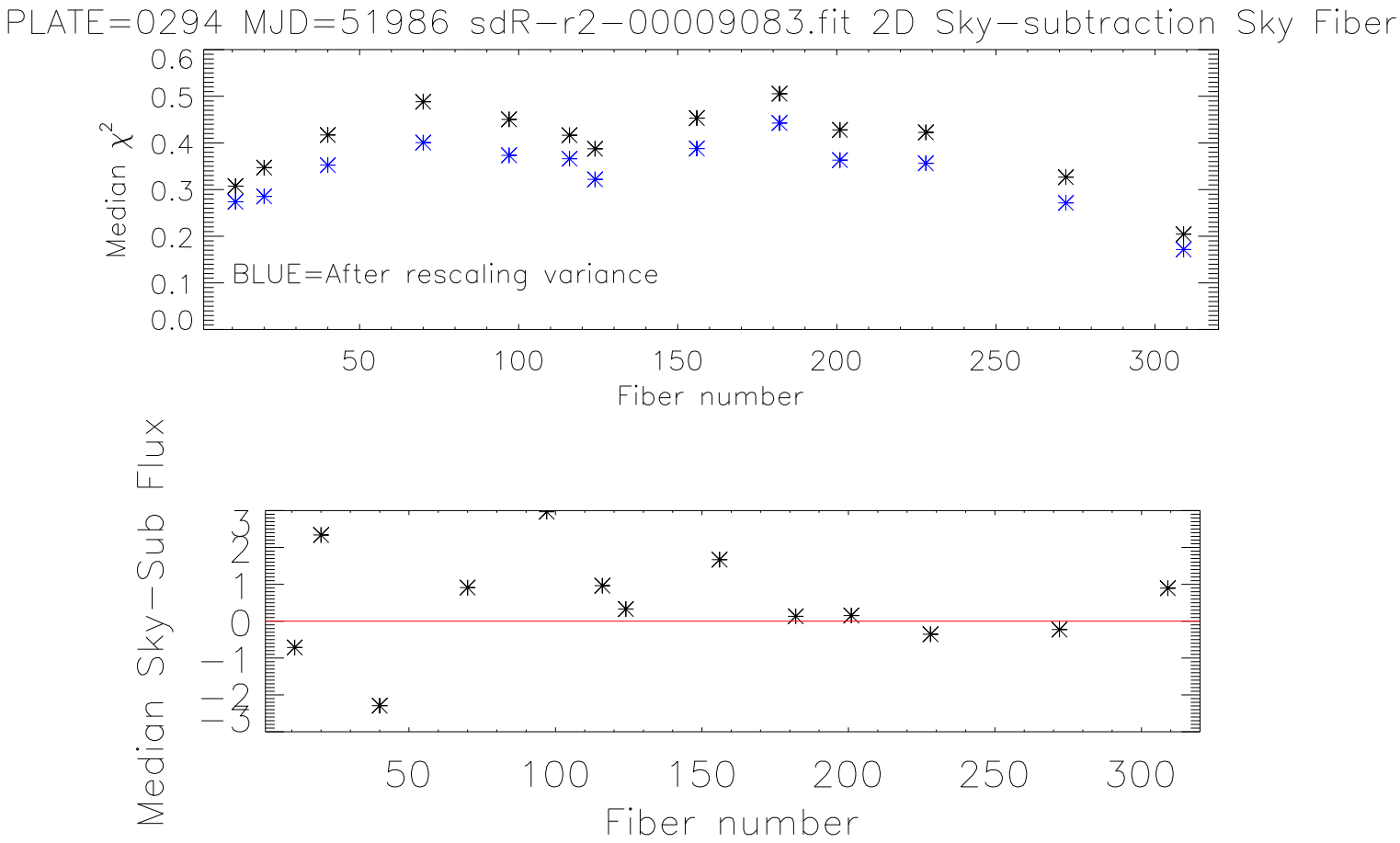

PLATE=0294 MJD=51986 Smooth superflat for sdR-r2-00009083.fit
2.0
1.5
1.0
0.5
0.0
1.004
1.002
1.000
0.998
0.996
es= −0.0000
6000
7000
8000
9000
Wavelength (Å)

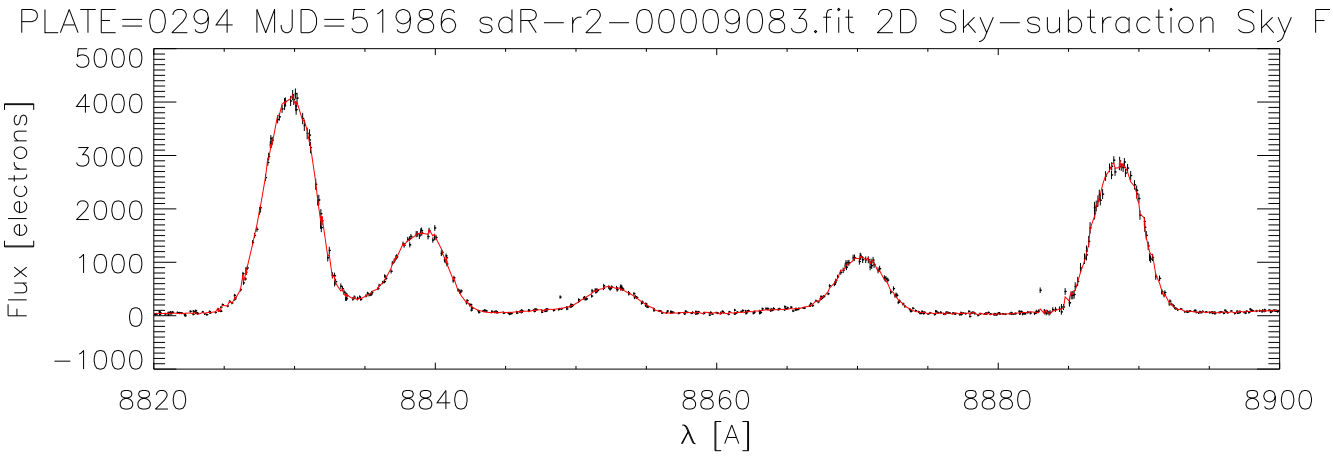

PLATE=0294 MJD=51986 sdR-r2-00009083.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-6
-4
-2
0
2
4
6
50
100
150
200
250
300
Fiber number

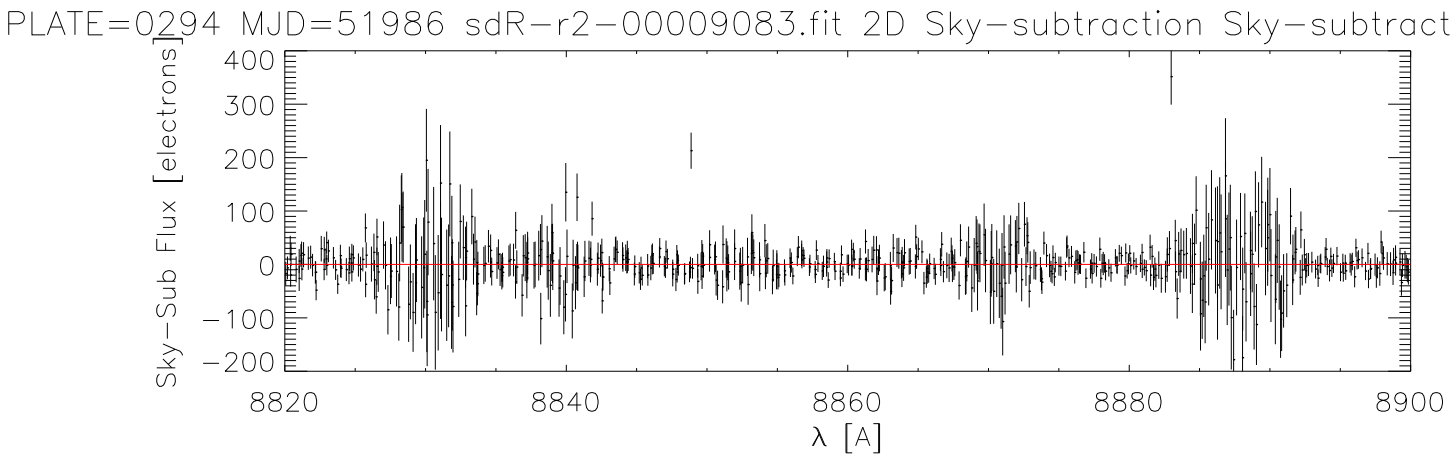

PLATE=0294 MJD=51986 sdR-r2-00009083.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
-1000
8820
8840
8860
8880
8900
λ [A]

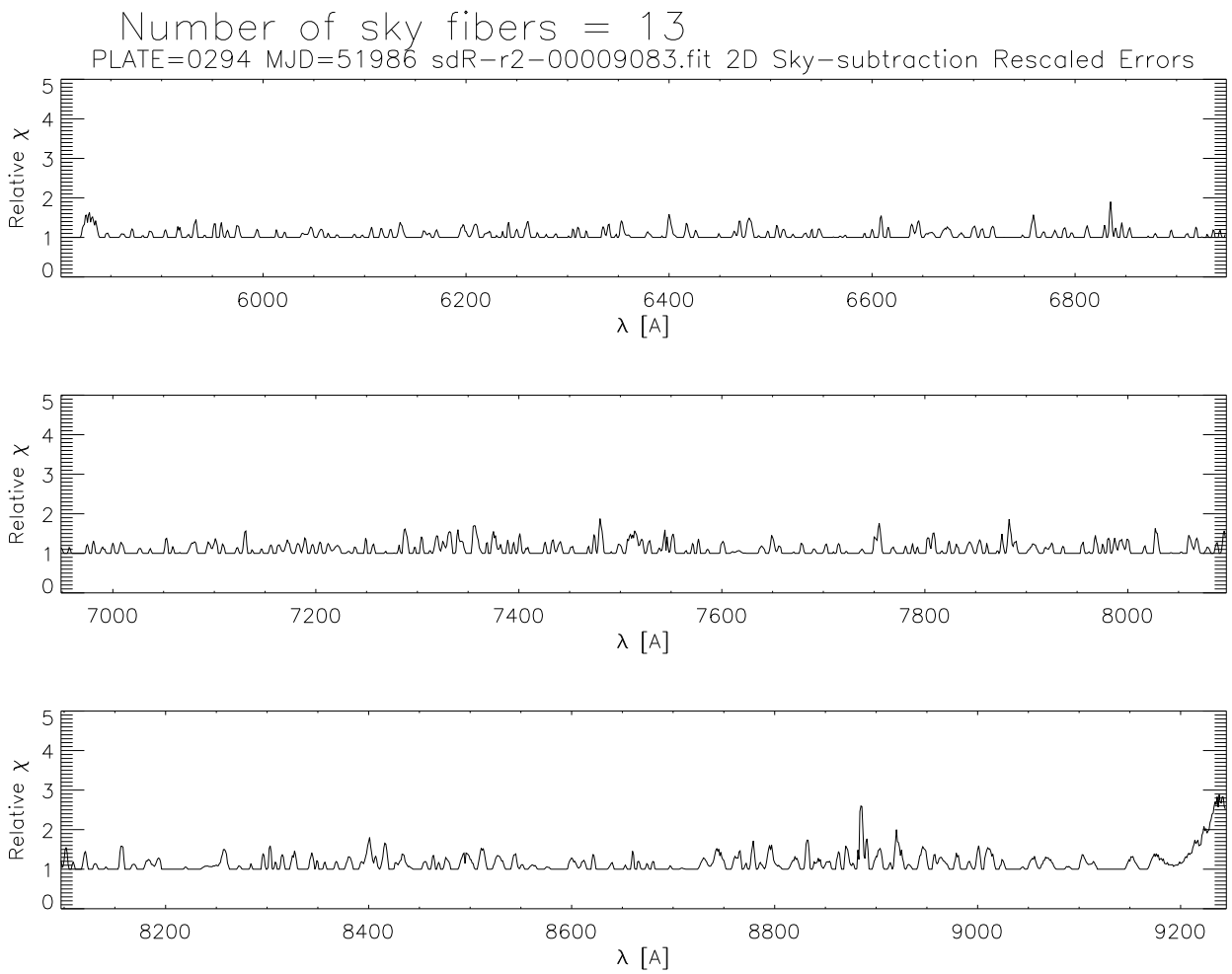

PLATE=0294 MJD=51986 sdR-r2-00009083.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
-200
8820
8840
8860
8880
8900
λ [A]

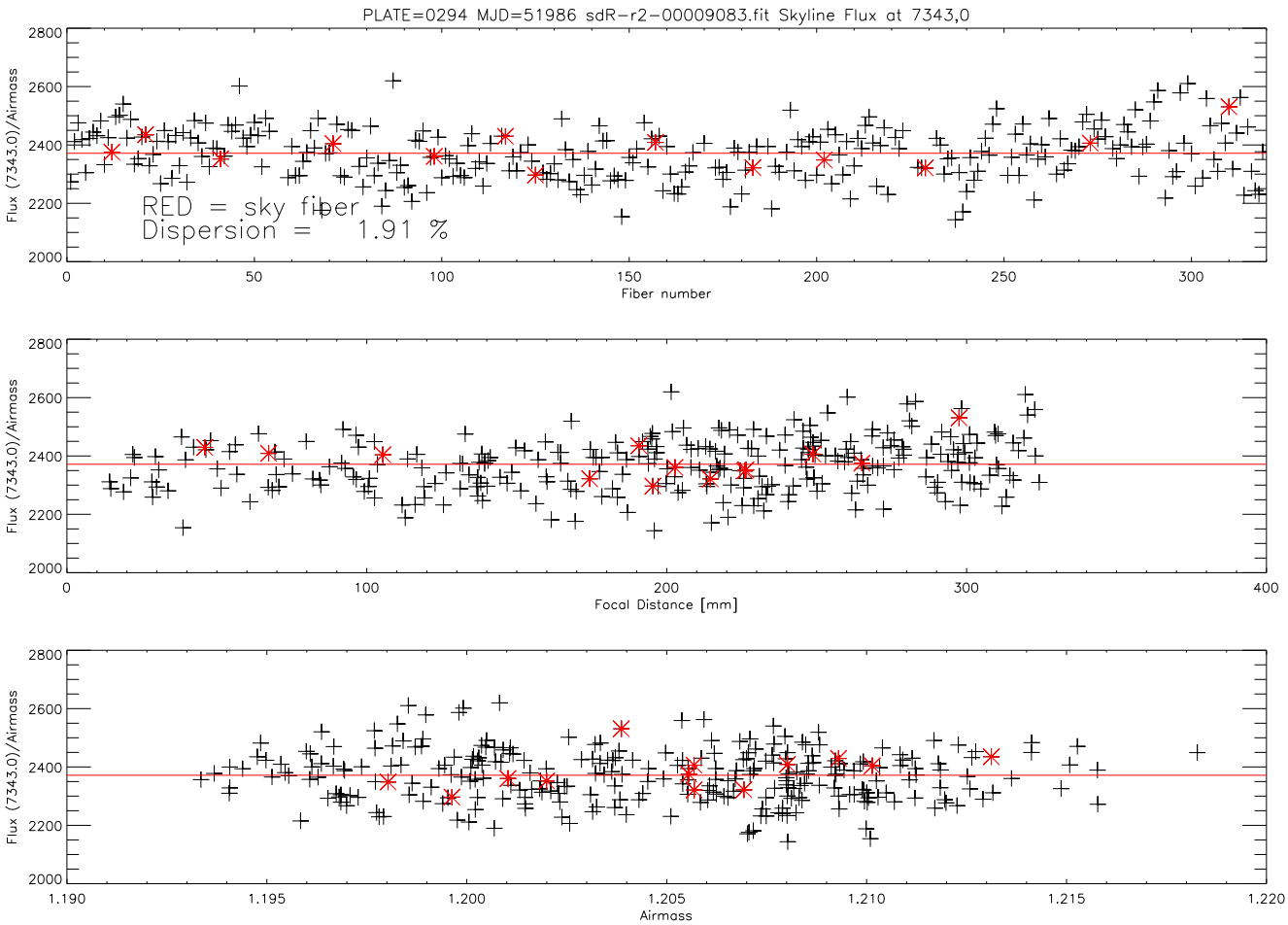

Number of sky fibers = 13
PLATE=0294 MJD=51986 sdR-r2-00009083.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

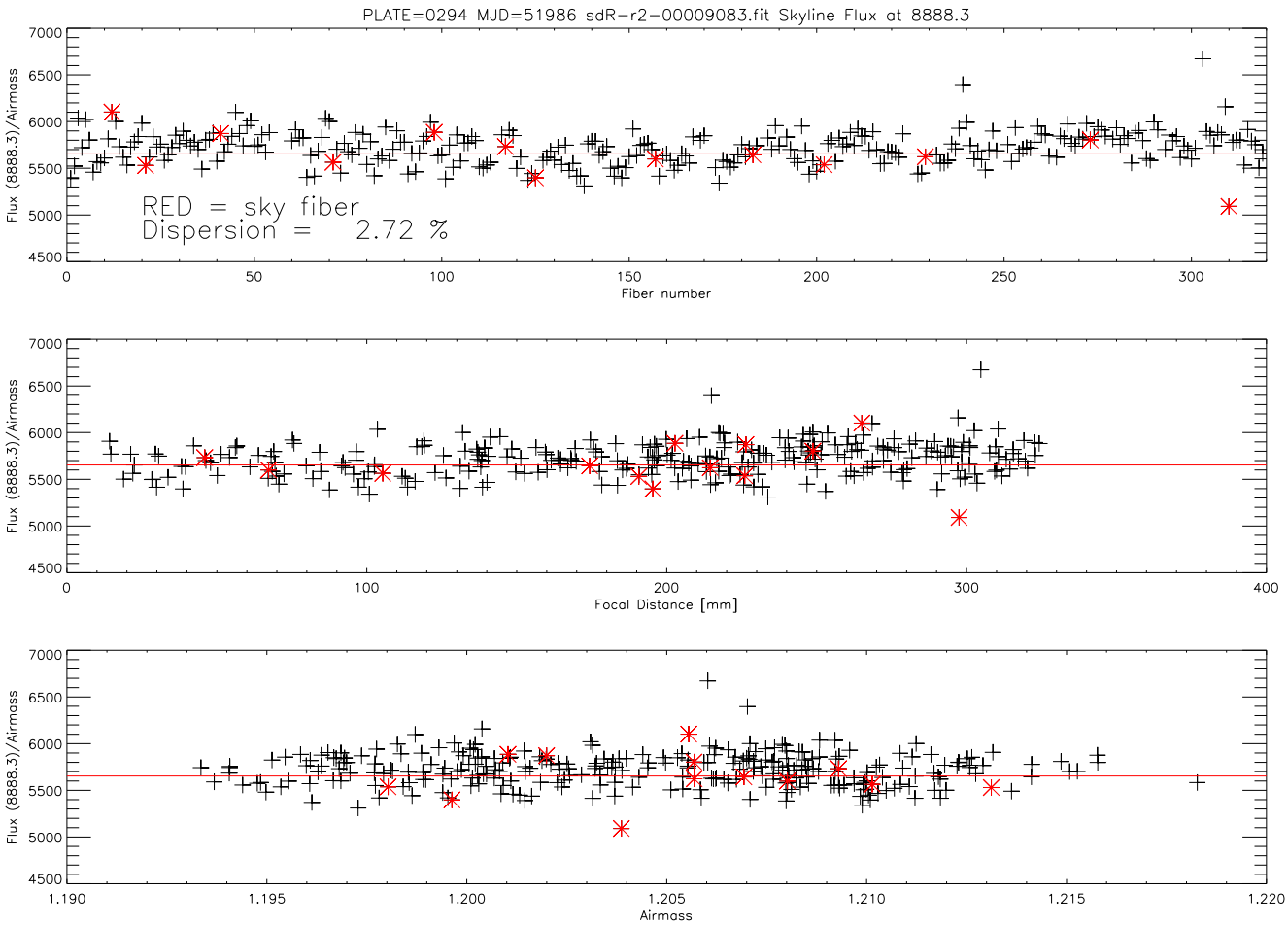

PLATE=0294 MJD=51986 sdR-r2-00009083.fit 2D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

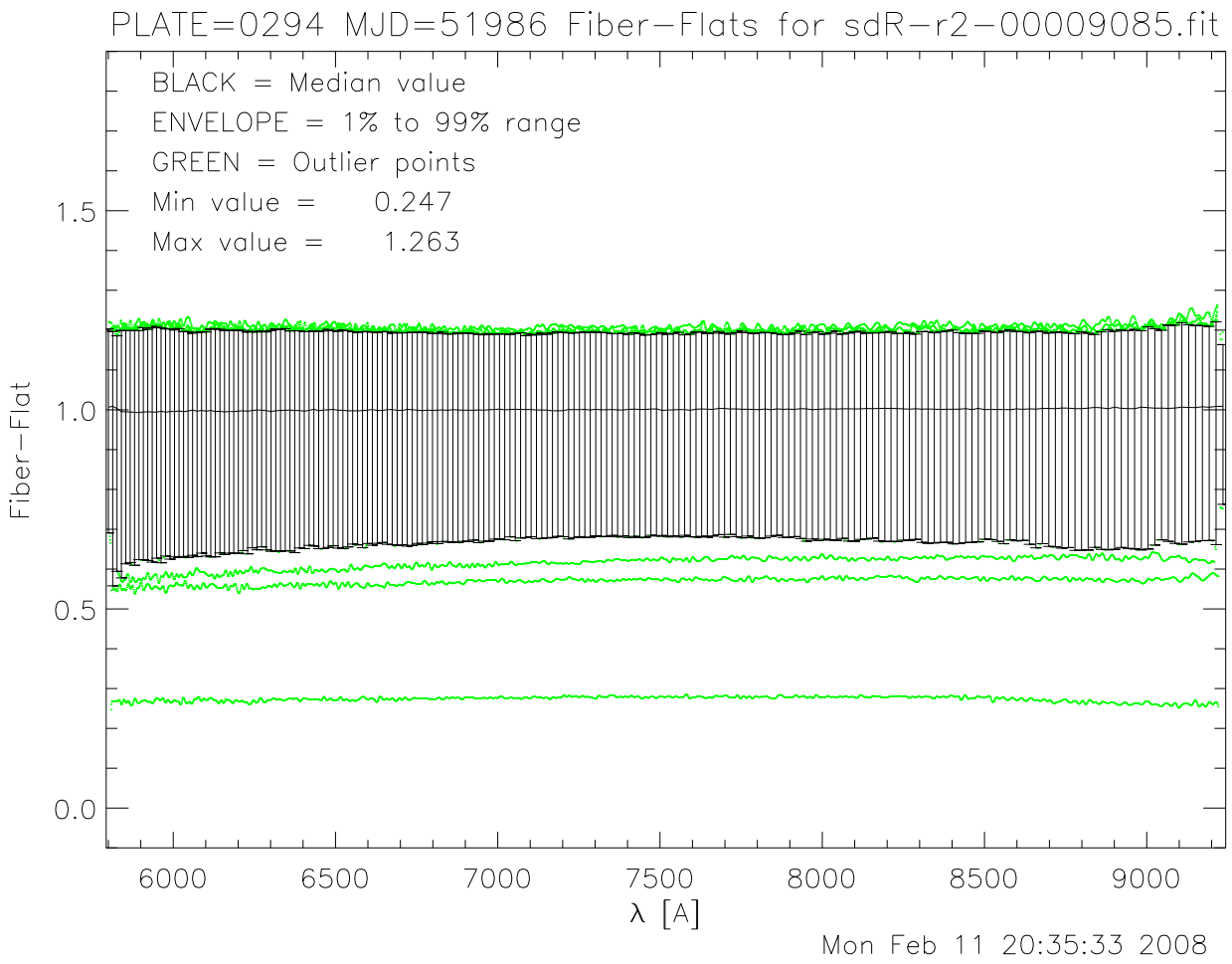

PLATE=0294 MJD=51986 sdR-r2-00009083.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
-1000
8820
8840
8860
8880
8900
λ [A]

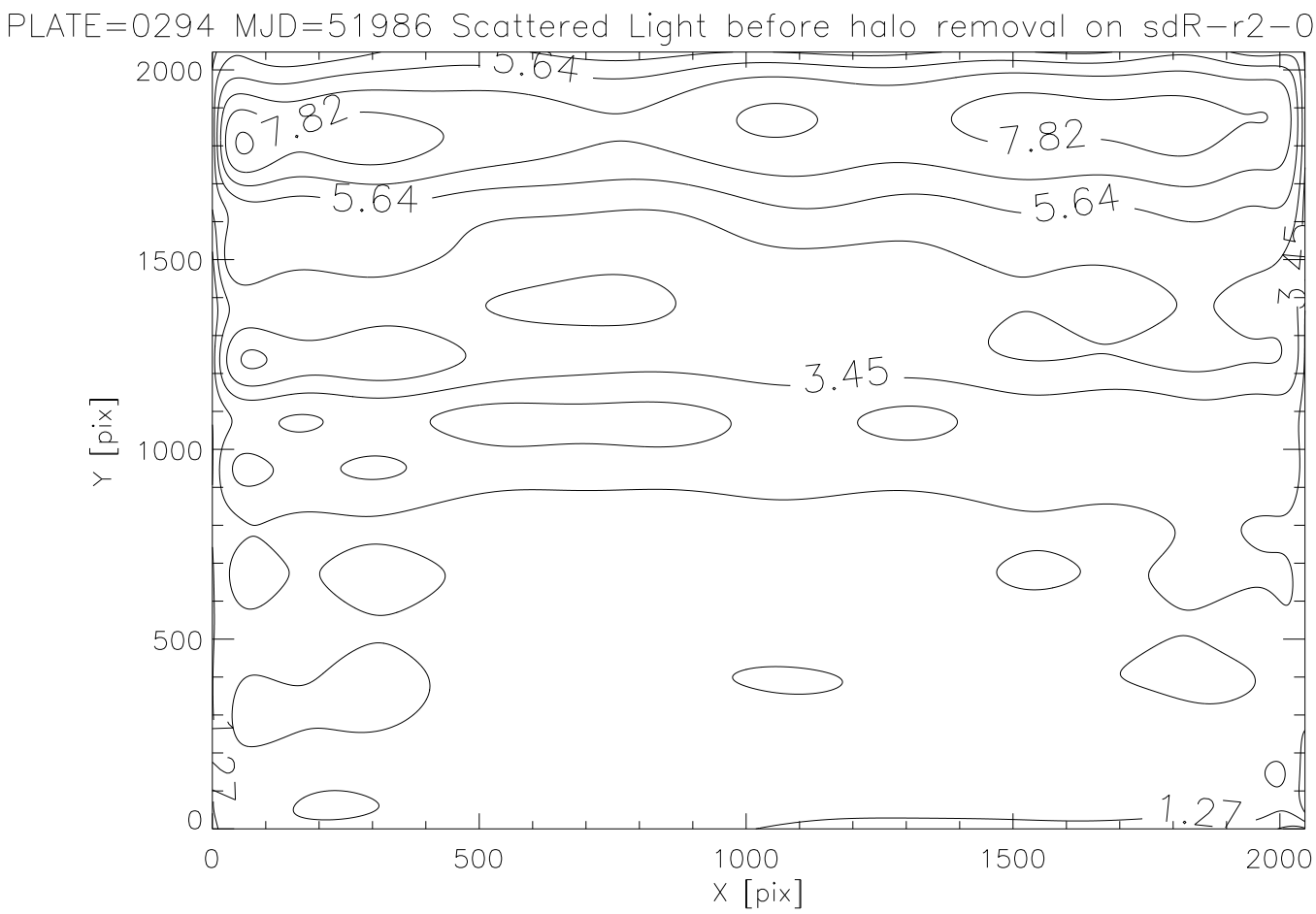

PLATE=0294 MJD=51986 sdR-r2-00009083.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
300
200
100
0
-100
-200
8820
8840
8860
8880
8900
λ [A]

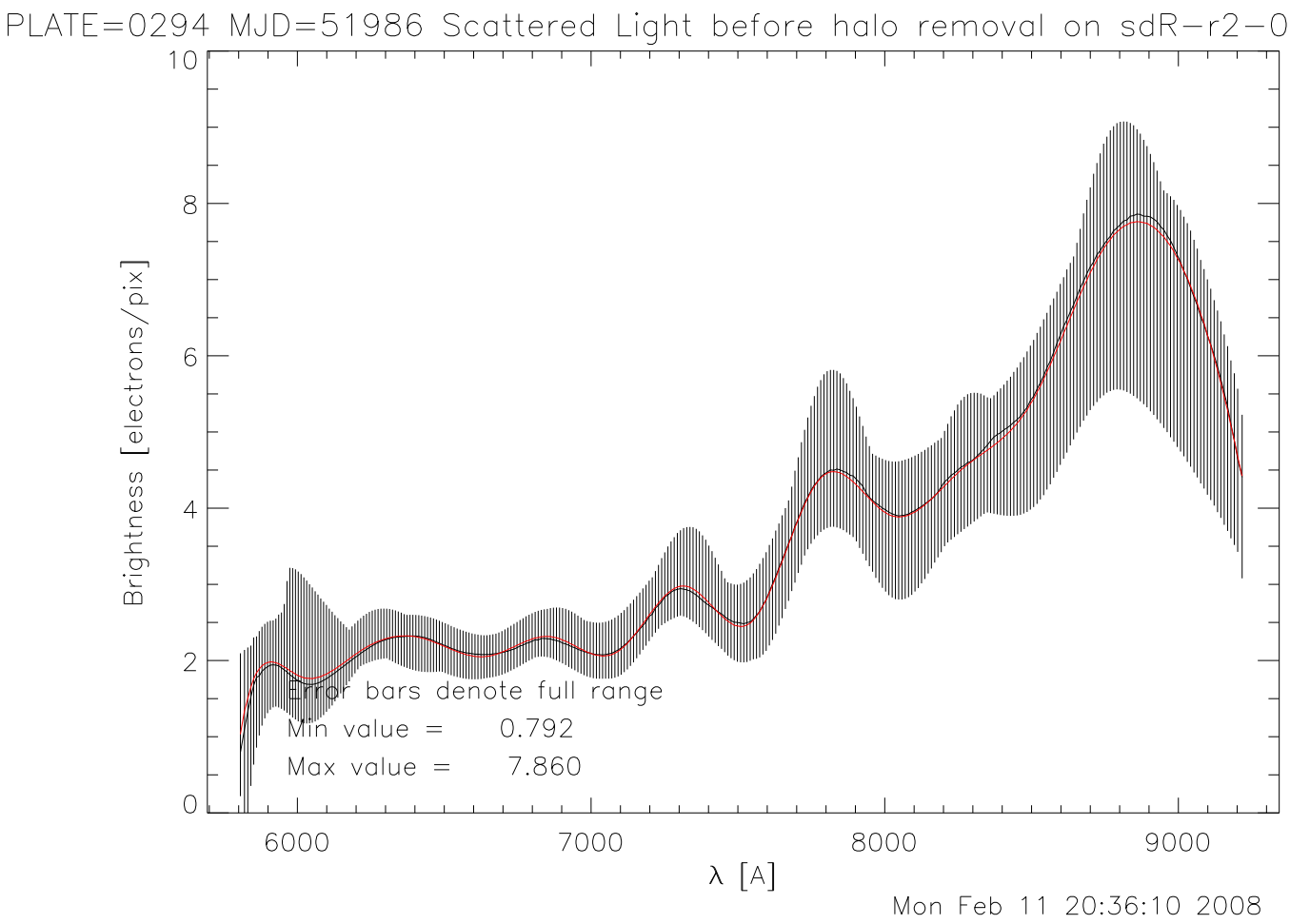

Number of sky fibers = 13
PLATE=0294 MJD=51986 sdR-r2-00009083.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

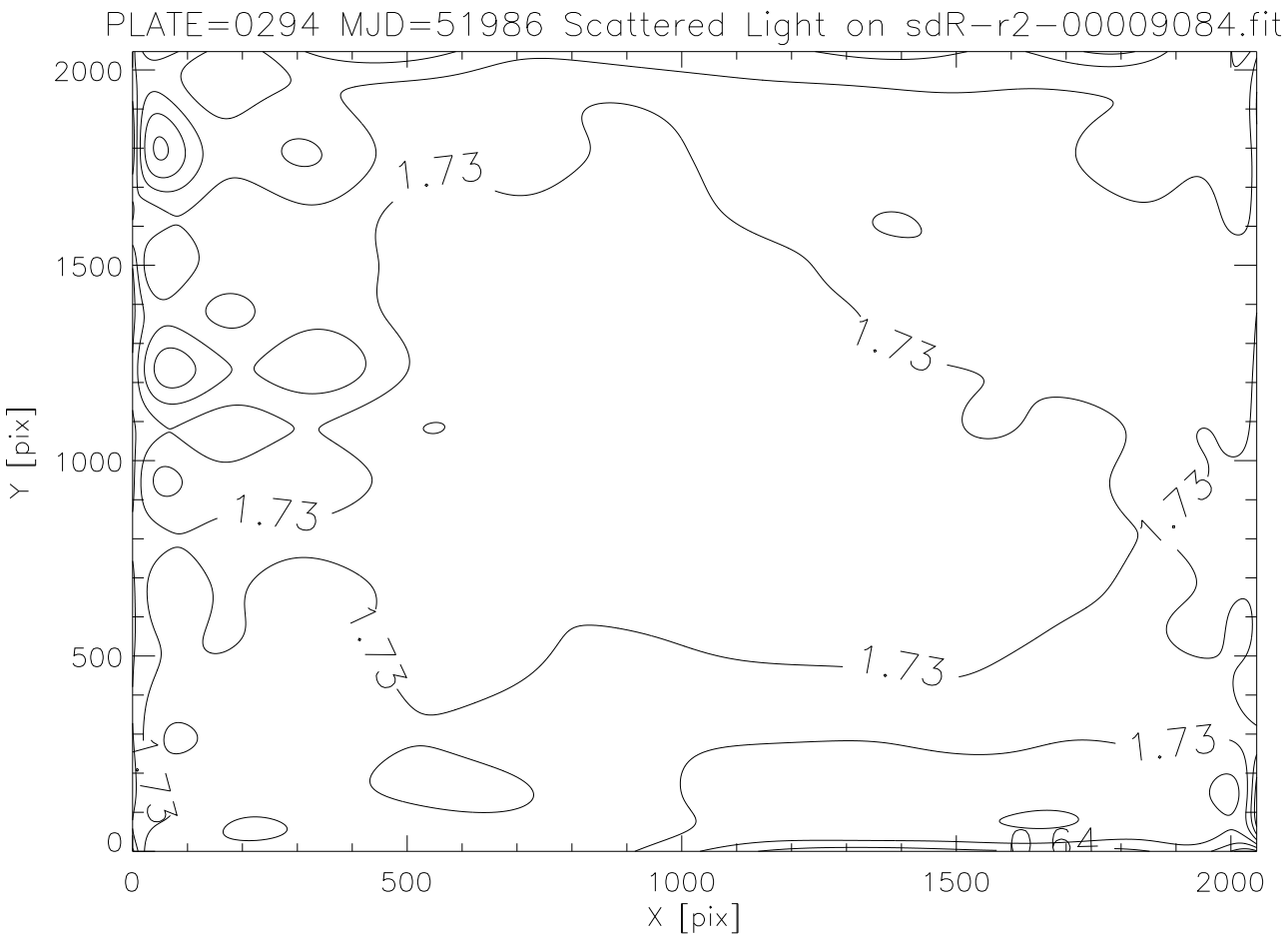

PLATE=0294 MJD=51986 sdR-r2-00009083.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 1.91 %
Fiber number
Focal Distance [mm]
Airmass

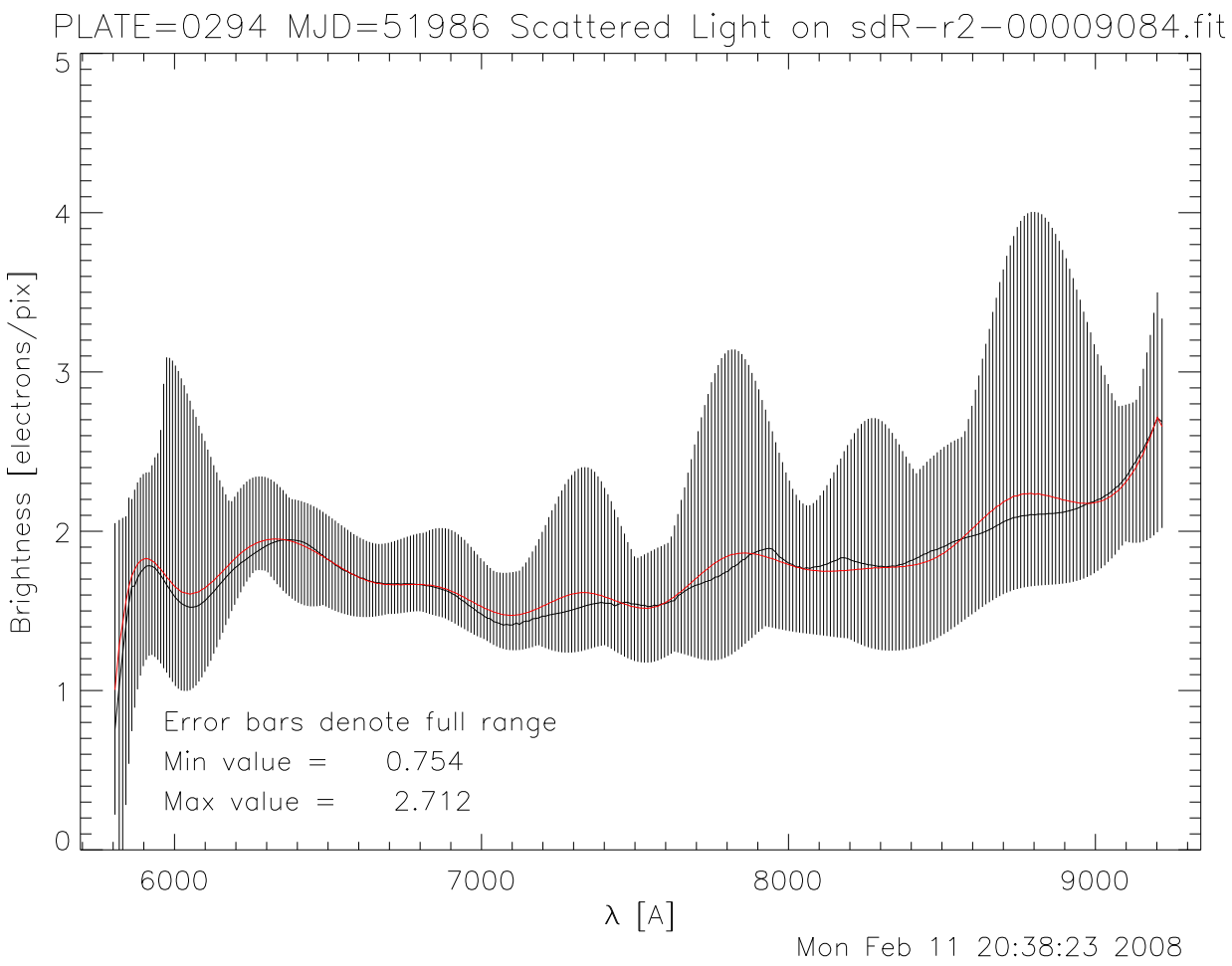

PLATE=0294 MJD=51986 sdR-r2-00009083.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 2.72 %
Fiber number
Focal Distance [mm]
Airmass

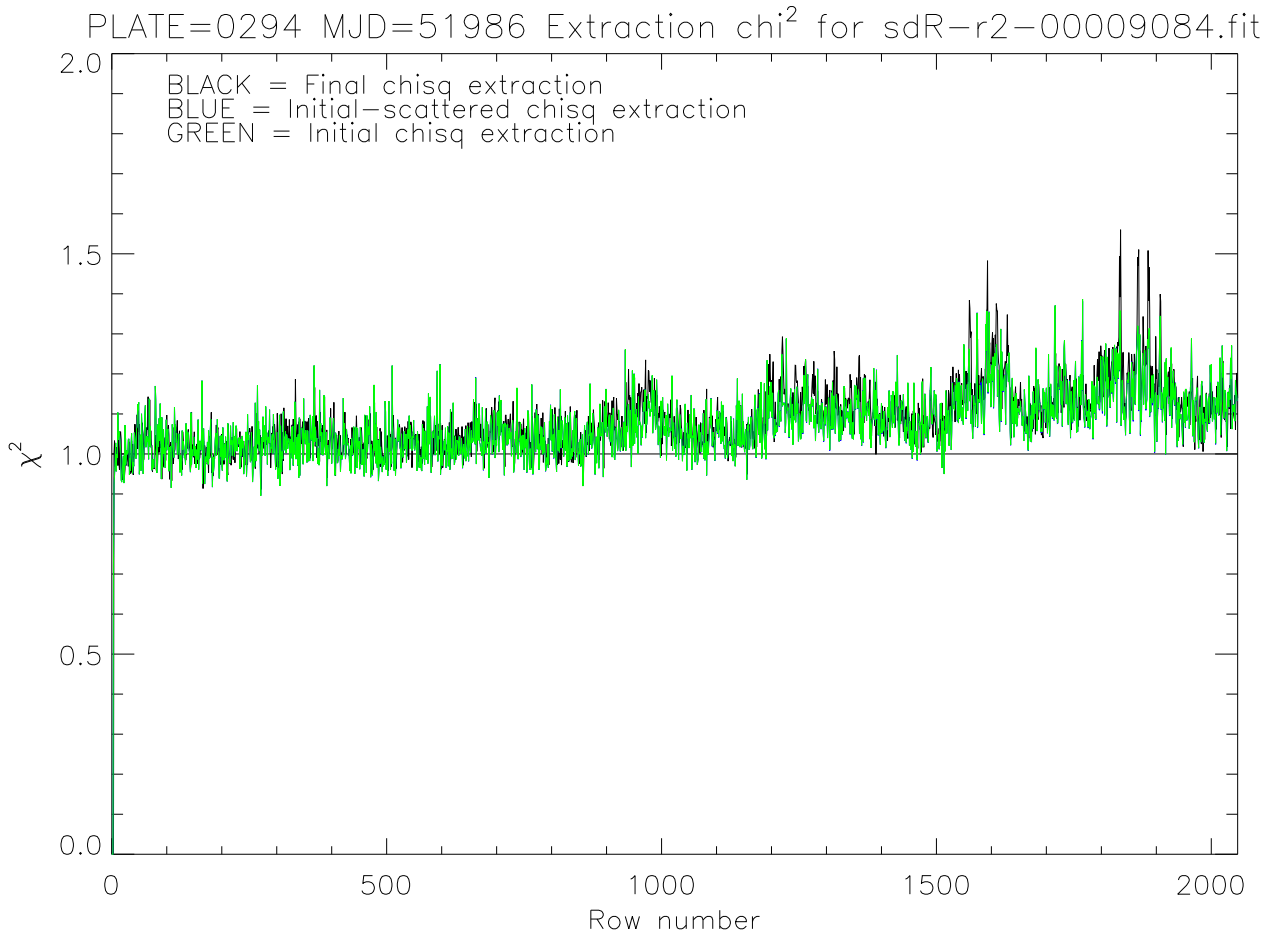

PLATE=0294 MJD=51986 Fiber−Flats for sdR−r2−00009085.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.247
Max value = 1.263
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Mon Feb 11 20:35:33 2008

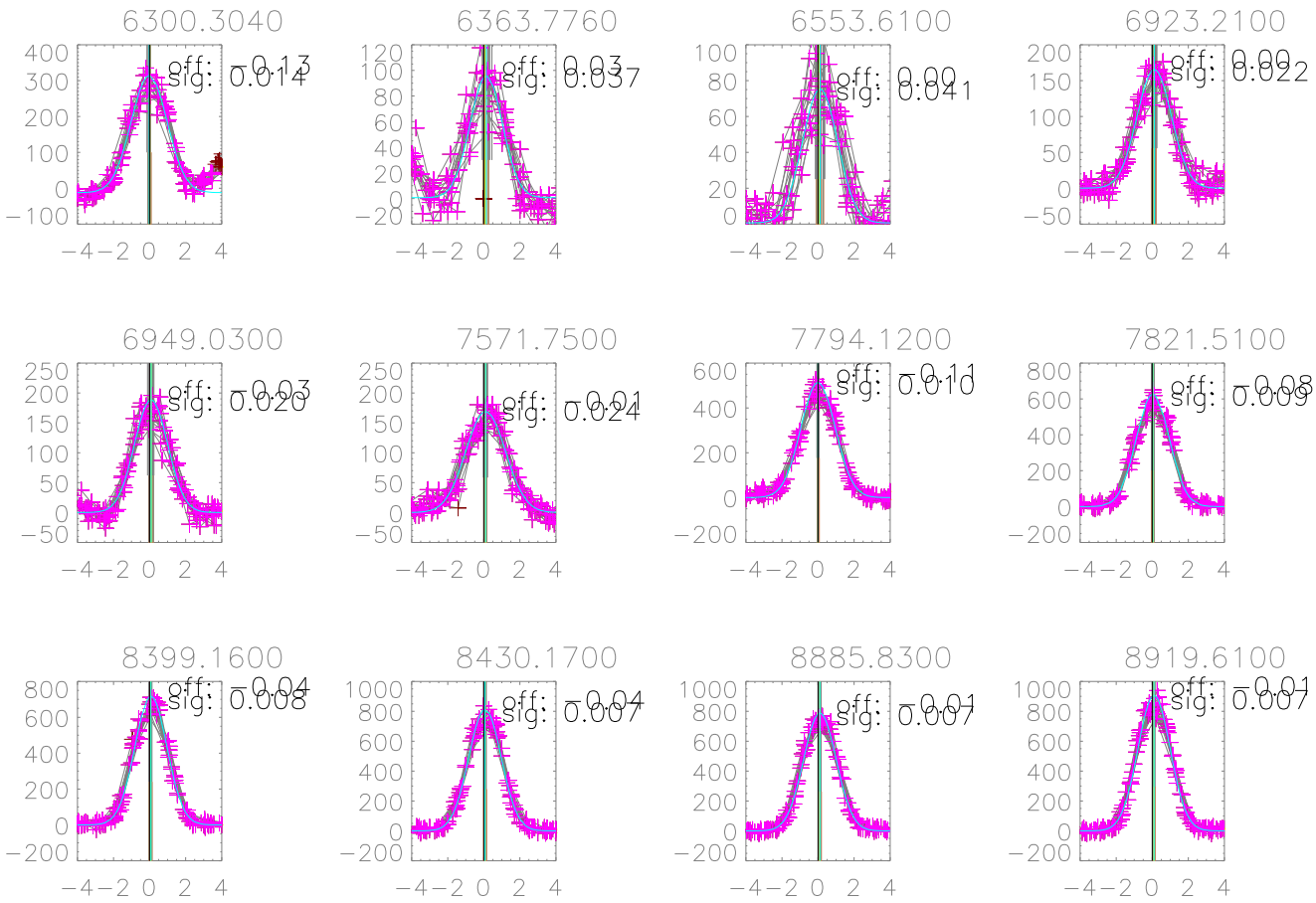

PLATE=0294 MJD=51986 Scattered Light before halo removal on sdR-r2-00009084.fi
5.64
7.82
7.82
5.64
5.64
3.45
3.45
1.27
1.27
0
Y [pix]
X [pix]
0
500
1000
1500
2000

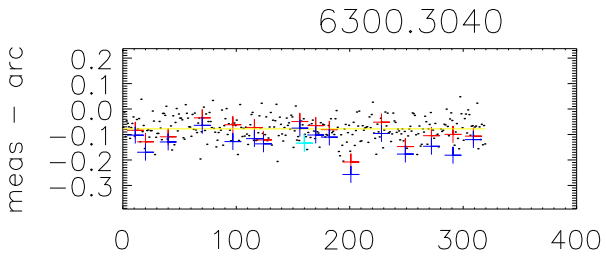

PLATE=0294 MJD=51986 Scattered Light before halo removal on sdR-r2-00009084.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 0.792
Max value = 7.860
Mon Feb 11 20:36:10 2008

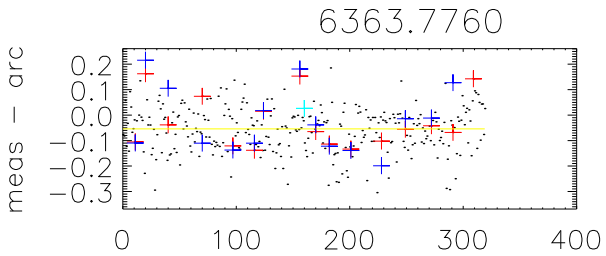

PLATE=0294 MJD=51986 Scattered Light on sdR-r2-00009084.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
1.73
0
0.64

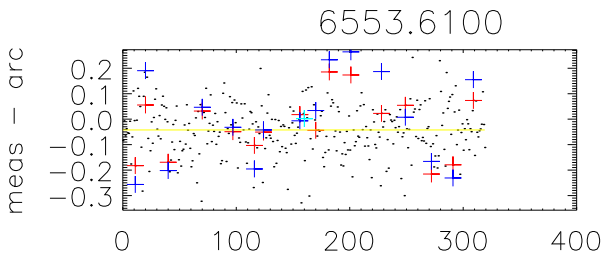

PLATE=0294 MJD=51986 Scattered Light on sdR-r2-00009084.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 0.754
Max value = 2.712
Mon Feb 11 20:38:23 2008

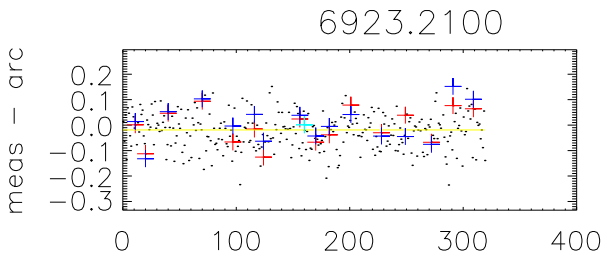

PLATE=0294 MJD=51986 Extraction chi^2 for sdR-r2-00009084.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
2.0
1.5
1.0
0.5
0.0
0
500
1000
1500
2000
Row number

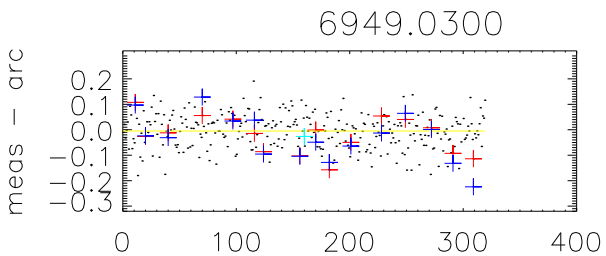

6300.3040
off: −0.13
sig: 0.014
6363.7760
off: 0.03
sig: 0.037
6553.6100
off: 0.00
sig: 0.041
6923.2100
off: 0.00
sig: 0.022
6949.0300
off: −0.03
sig: 0.020
7571.7500
off: −0.01
sig: 0.024
7794.1200
off: −0.11
sig: 0.010
7821.5100
off: −0.08
sig: 0.009
8399.1600
off: −0.04
sig: 0.008
8430.1700
off: −0.04
sig: 0.007
8885.8300
off: −0.01
sig: 0.007
8919.6100
off: −0.01
sig: 0.007

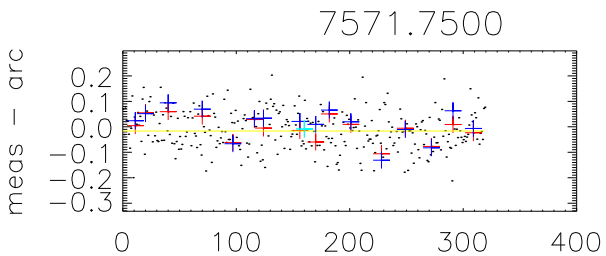

6300.3040
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

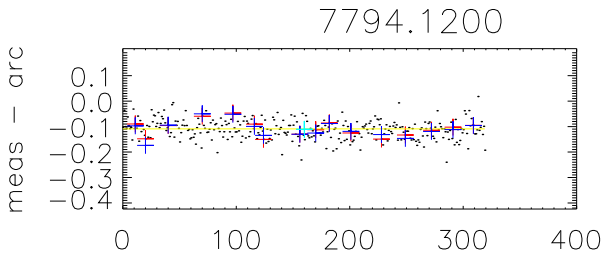

6363.7760
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

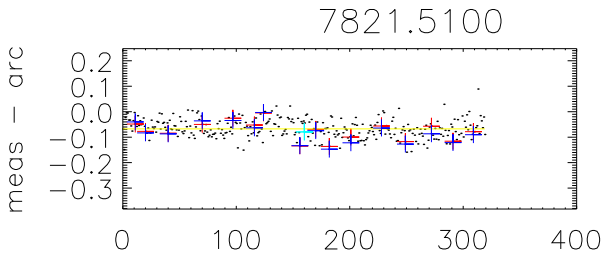

6553.6100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

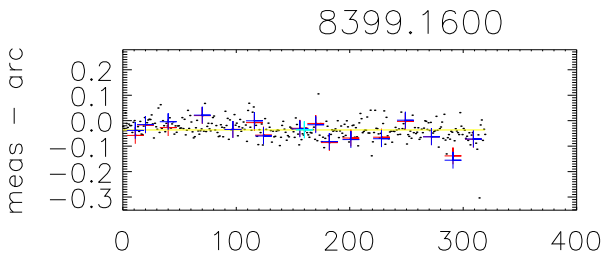

6923.2100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

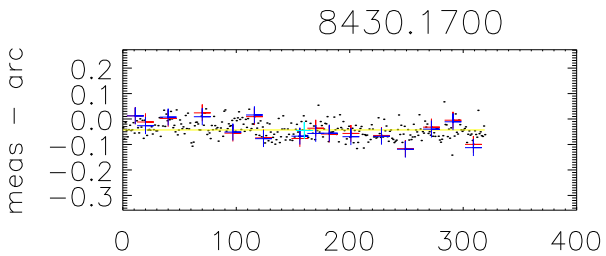

6949.0300
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

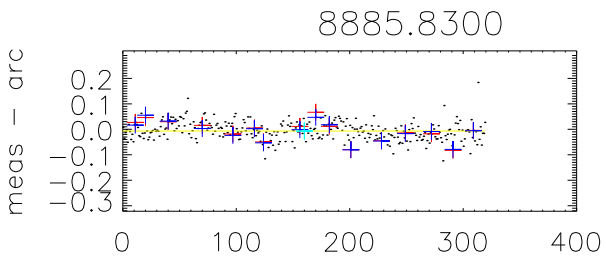

7571.7500
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

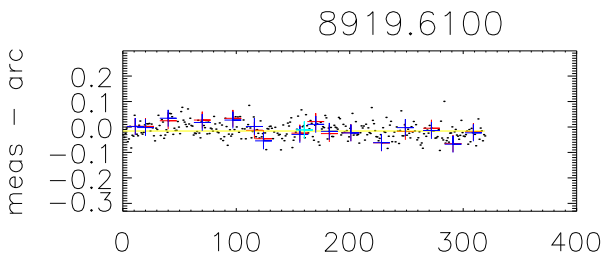

7794.1200
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

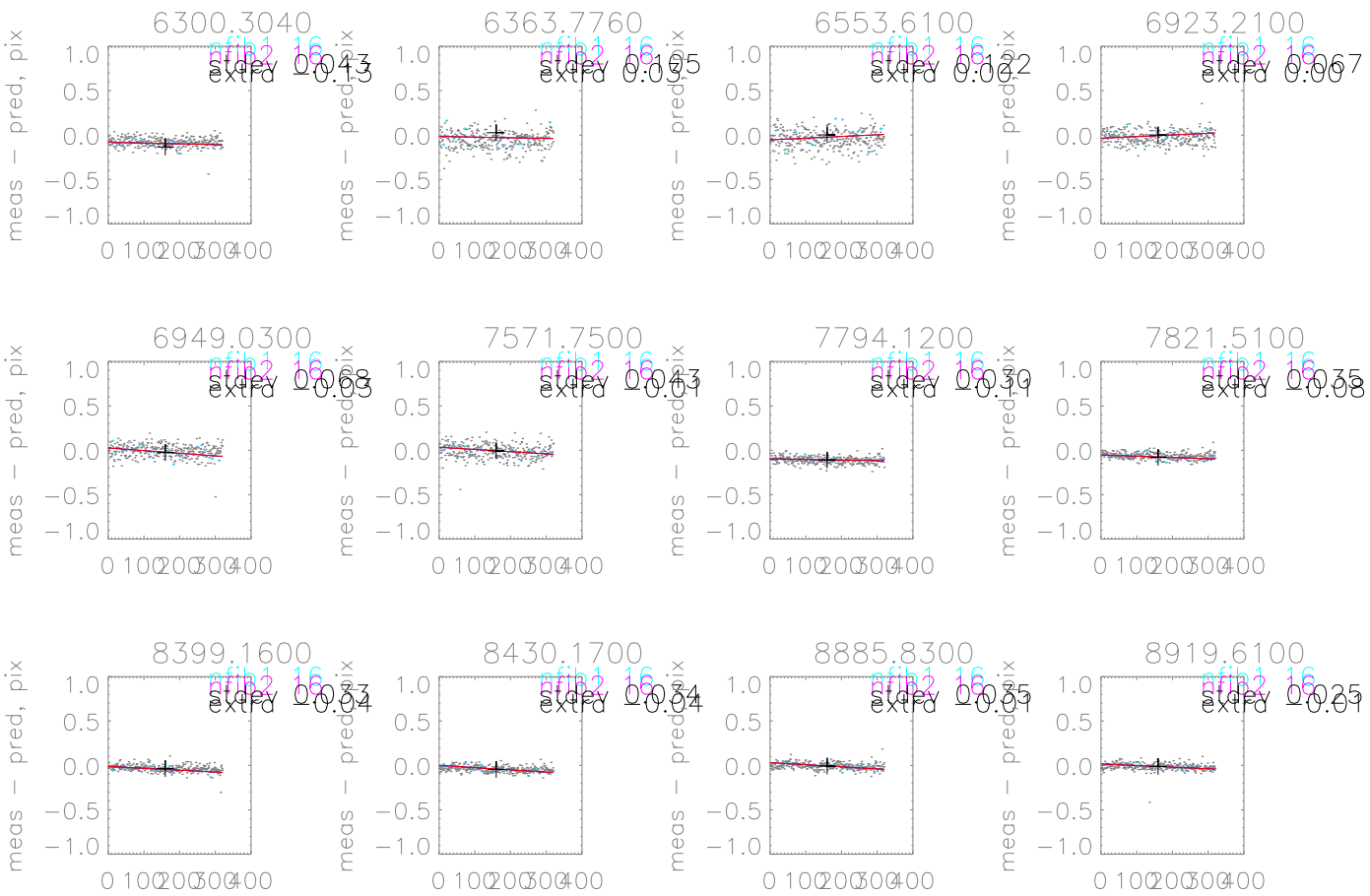

7821.5100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

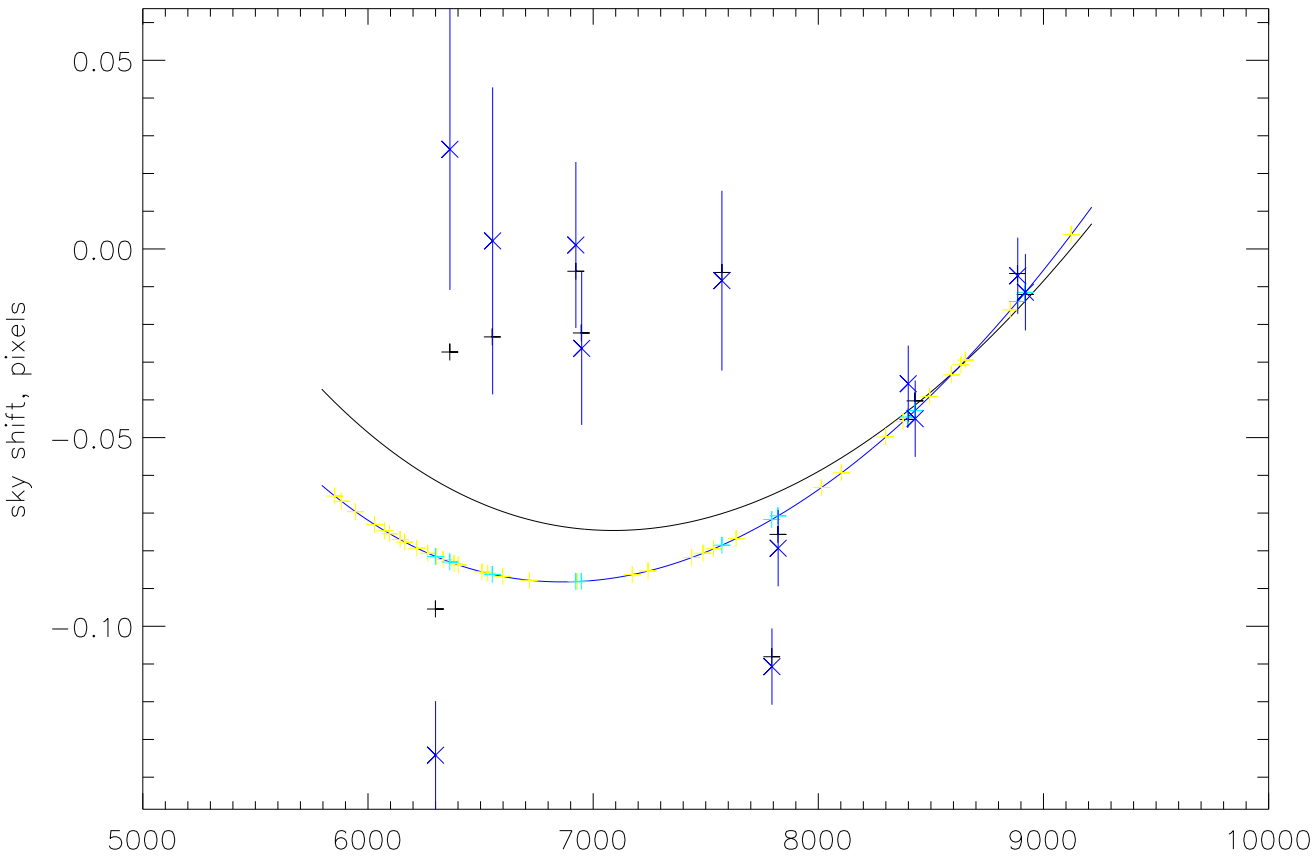

8399.1600
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

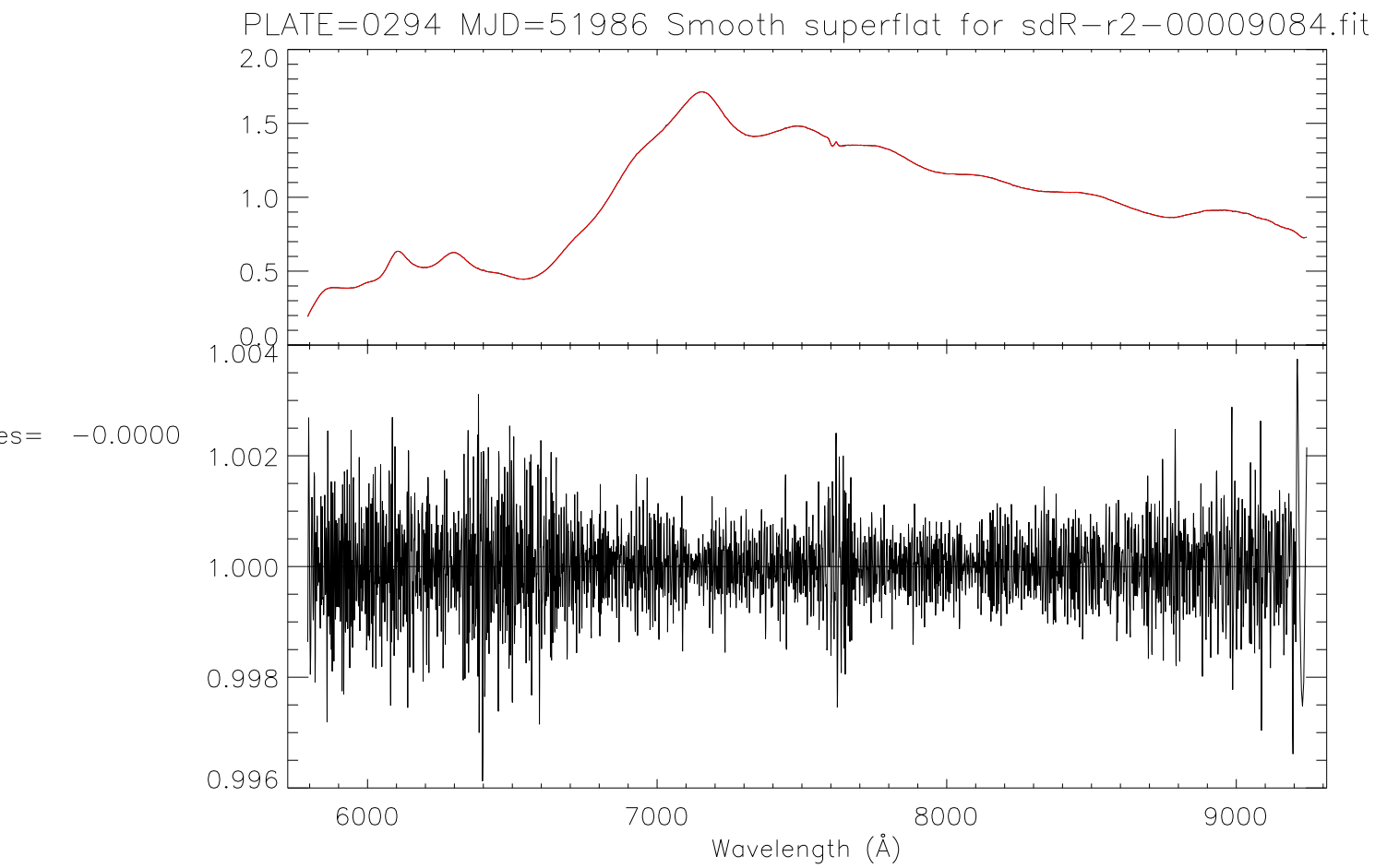

8430.1700
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

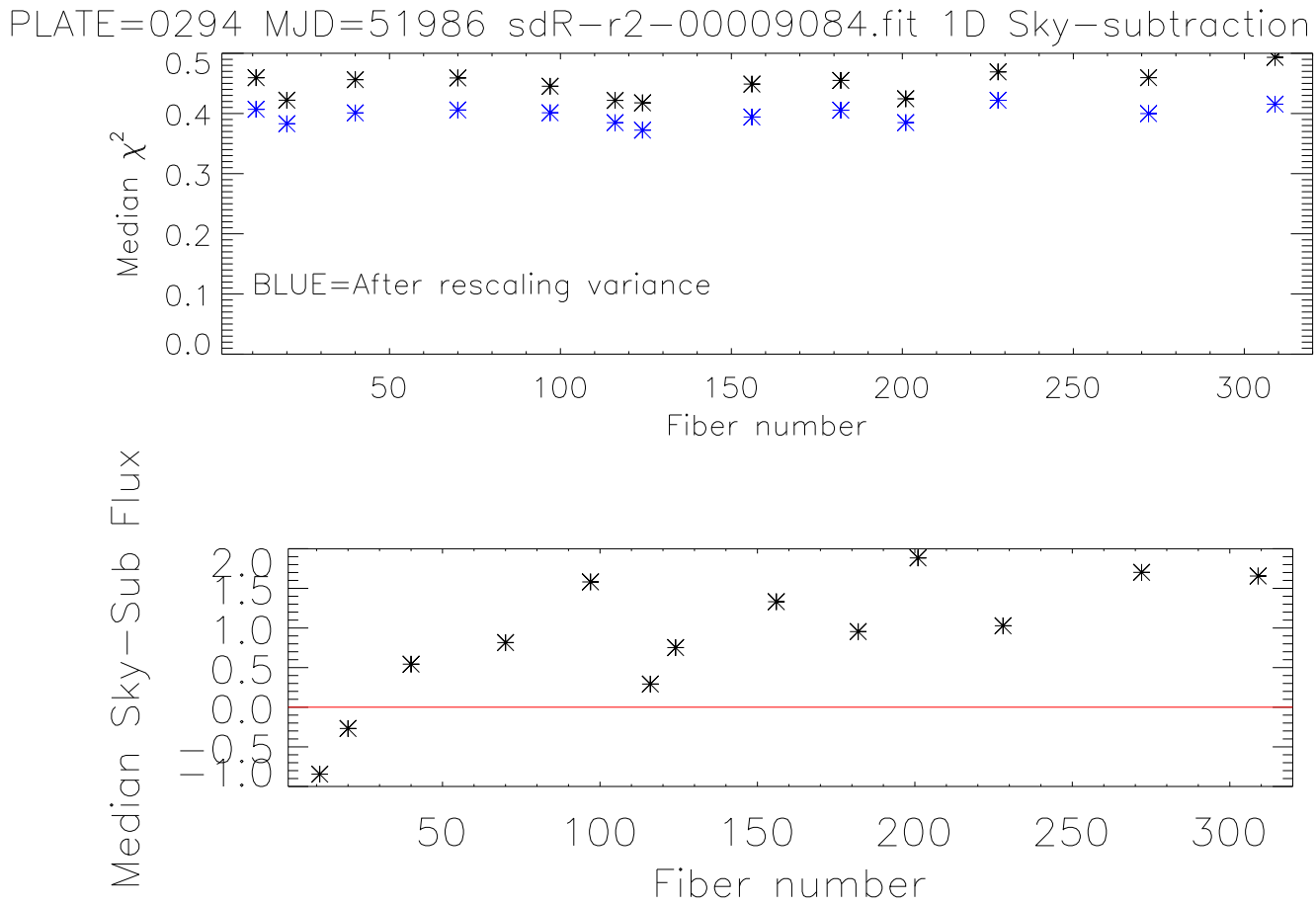

8885.8300
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

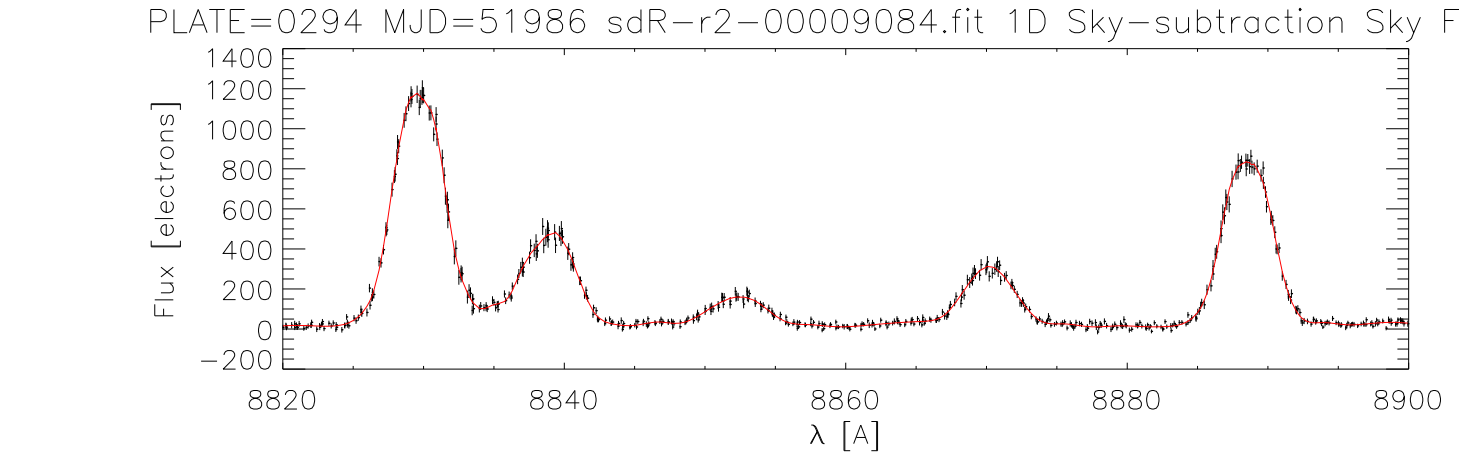

8919.6100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

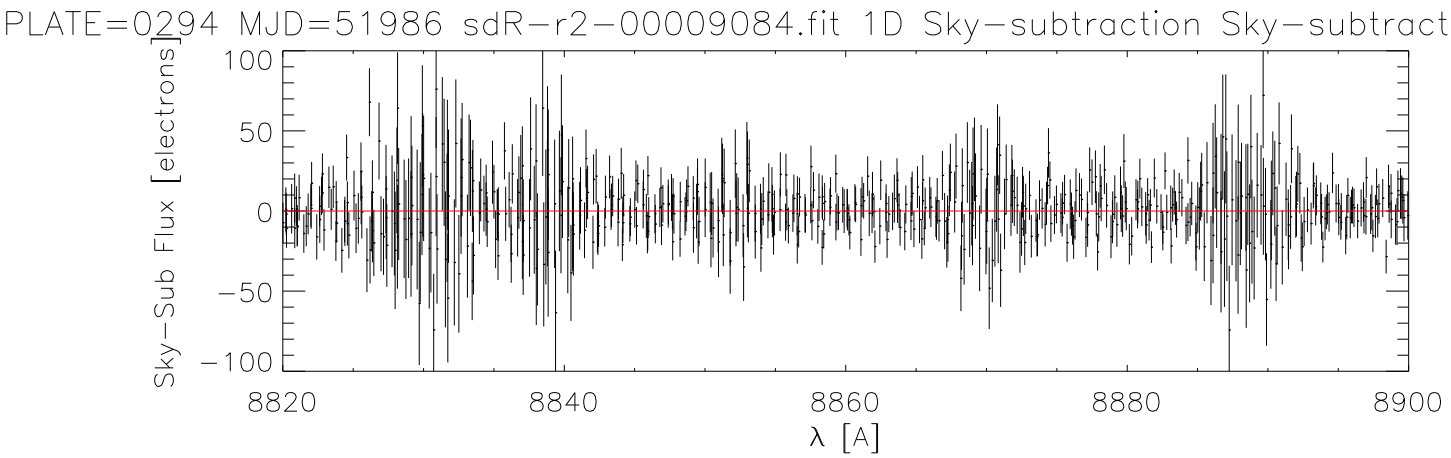

6300.3040
stdev 0.043
extra 0.013
6363.7760
stdev 0.105
extra 0.035
6553.6100
stdev 0.122
extra 0.062
6923.2100
stdev 0.067
extra 0.000
6949.0300
stdev 0.068
extra 0.003
7571.7500
stdev 0.043
extra 0.001
7794.1200
stdev 0.130
extra 0.111
7821.5100
stdev 0.075
extra 0.008
8399.1600
stdev 0.033
extra 0.004
8430.1700
stdev 0.034
extra 0.004
8885.8300
stdev 0.035
extra 0.001
8919.6100
stdev 0.025
extra 0.001
meas − pred, pix
mfhd2 16

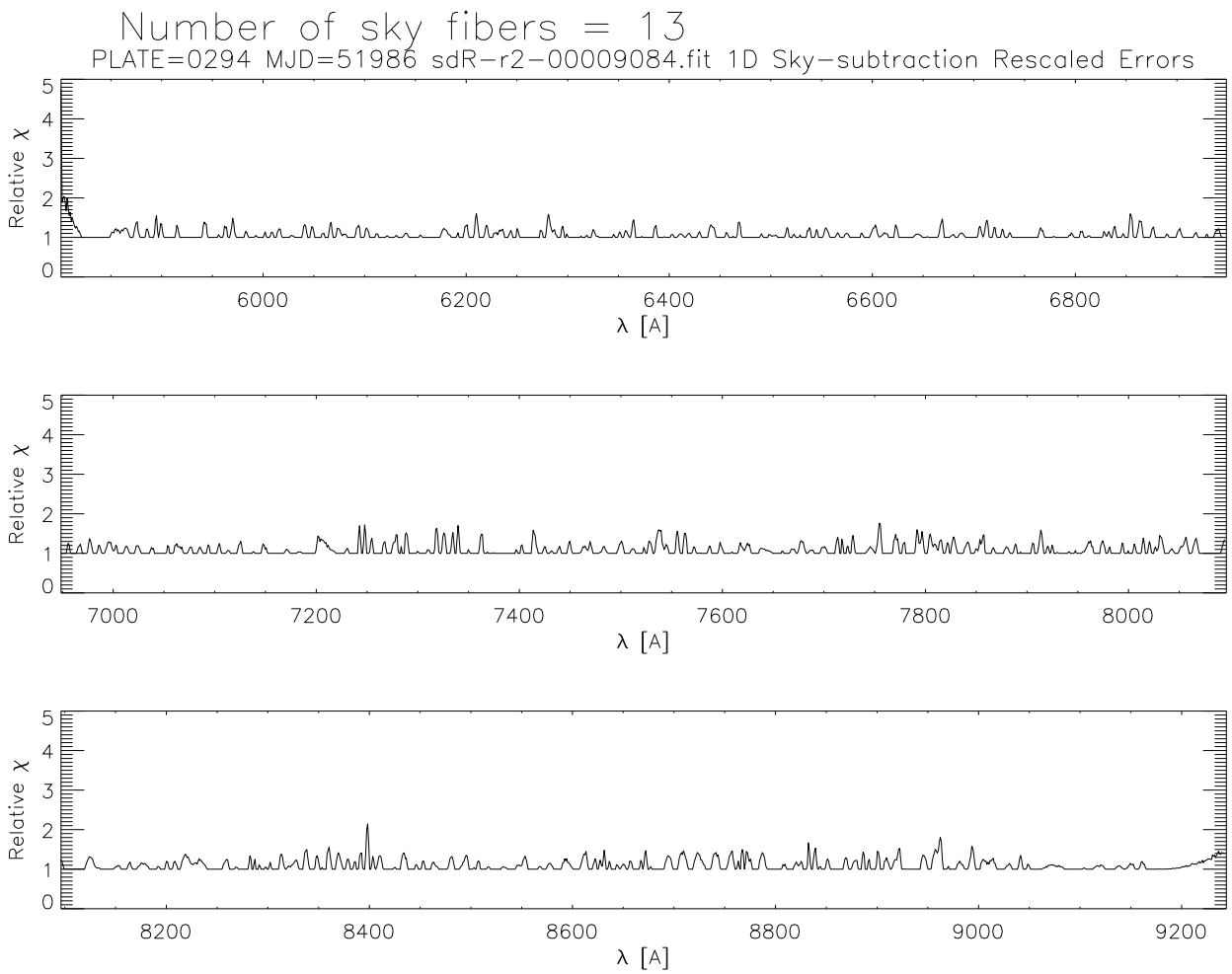

0.05
0.00
−0.05
−0.10
sky shift, pixels
5000
6000
7000
8000
9000
10000

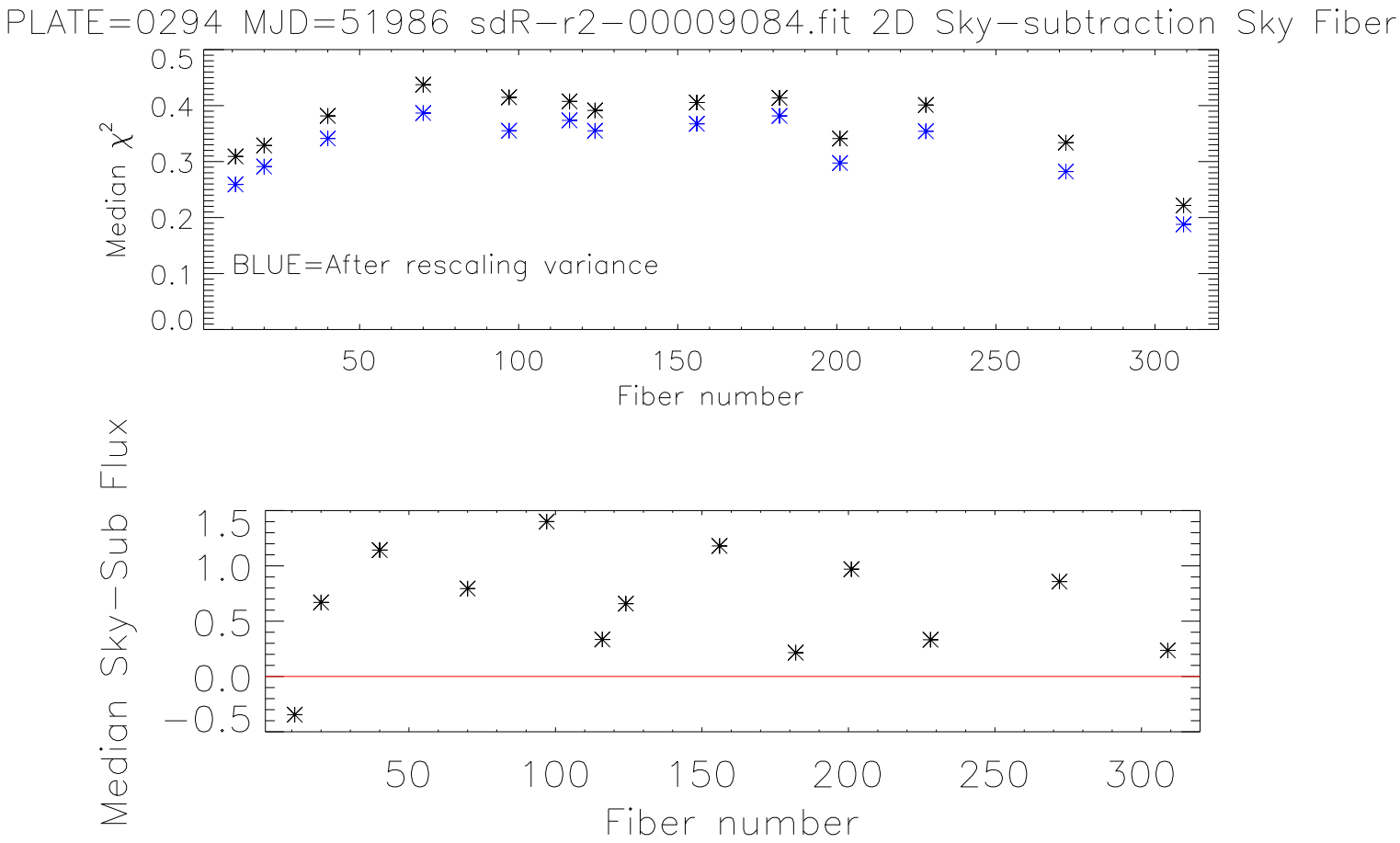

PLATE=0294 MJD=51986 Smooth superflat for sdR-r2-00009084.fit
2.0
1.5
1.0
0.5
0.0
1.004
1.002
1.000
0.998
0.996
es= −0.0000
6000
7000
8000
9000
Wavelength (Å)

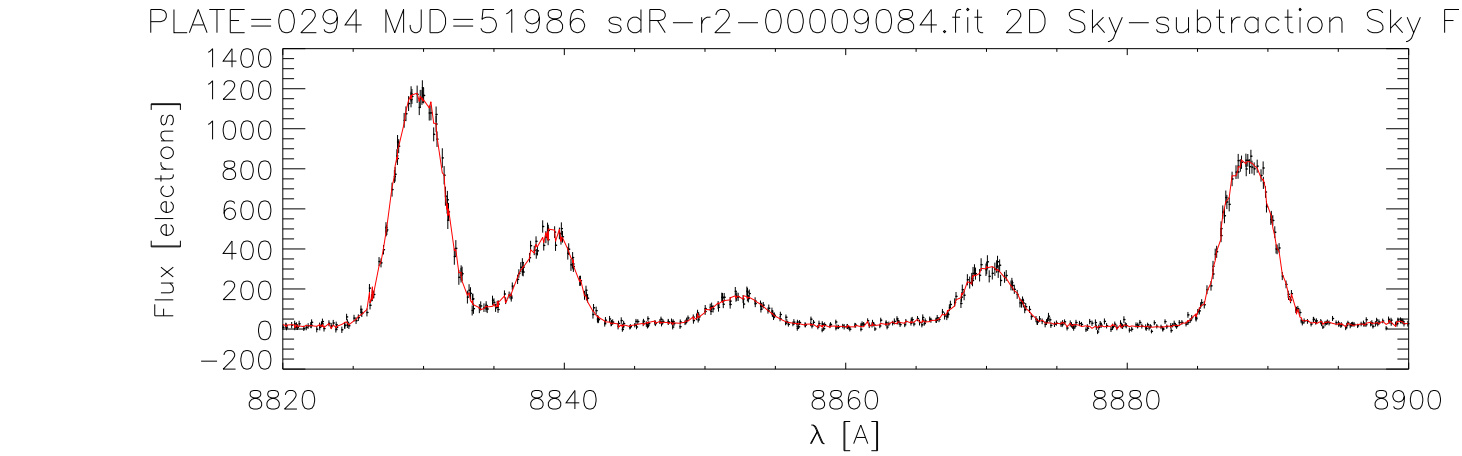

PLATE=0294 MJD=51986 sdR-r2-00009084.fit 1D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

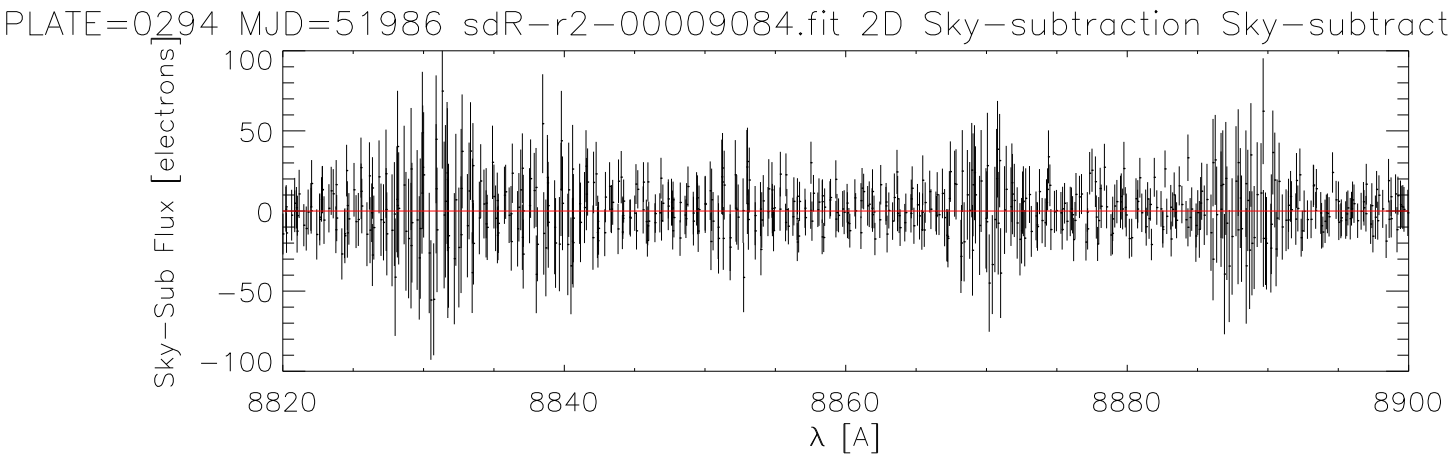

PLATE=0294 MJD=51986 sdR-r2-00009084.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
1400
1200
1000
800
600
400
200
0
-200
8820
8840
8860
8880
8900
λ [A]

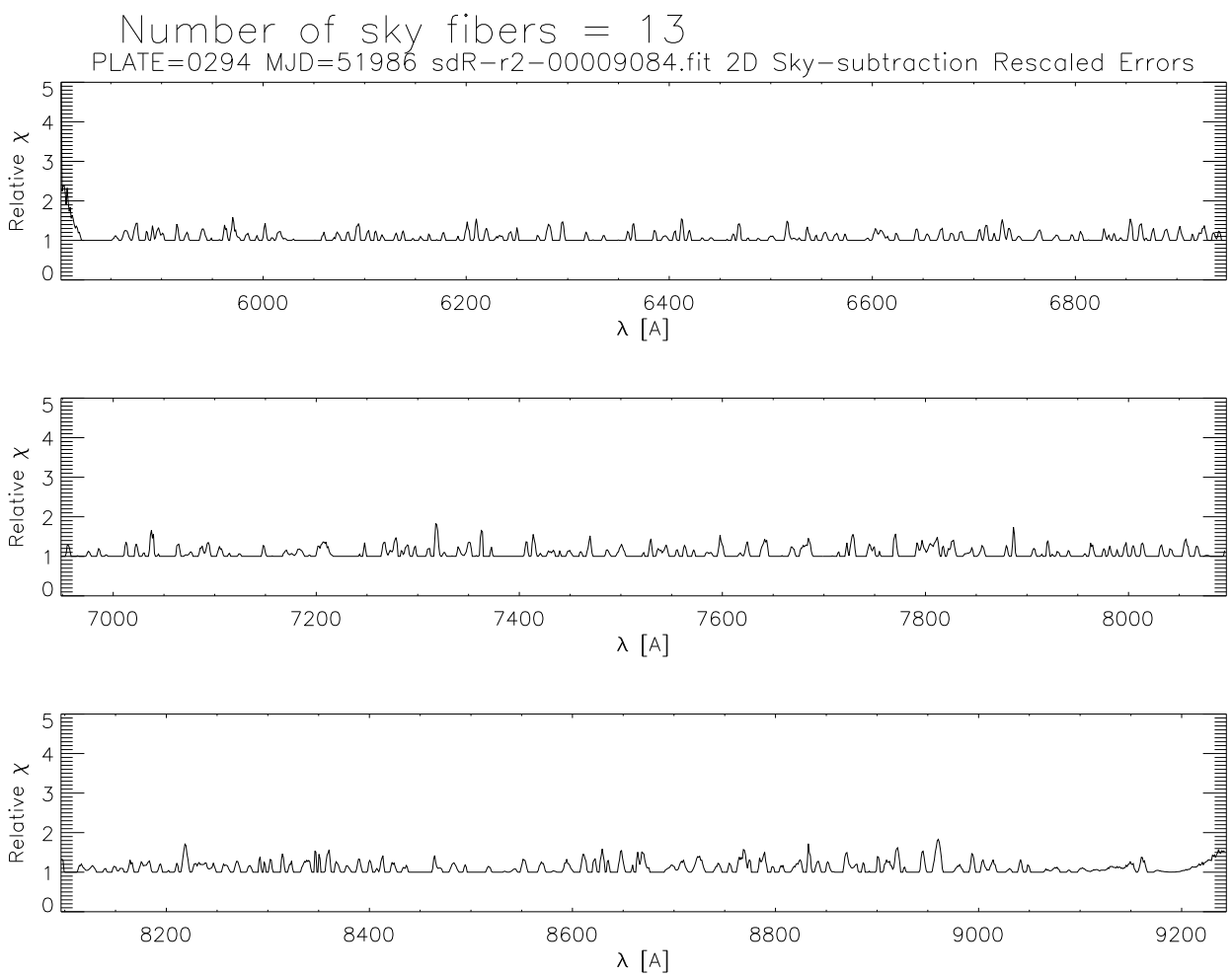

PLATE=0294 MJD=51986 sdR-r2-00009084.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
100
50
0
-50
-100
8820
8840
8860
8880
8900
λ [A]

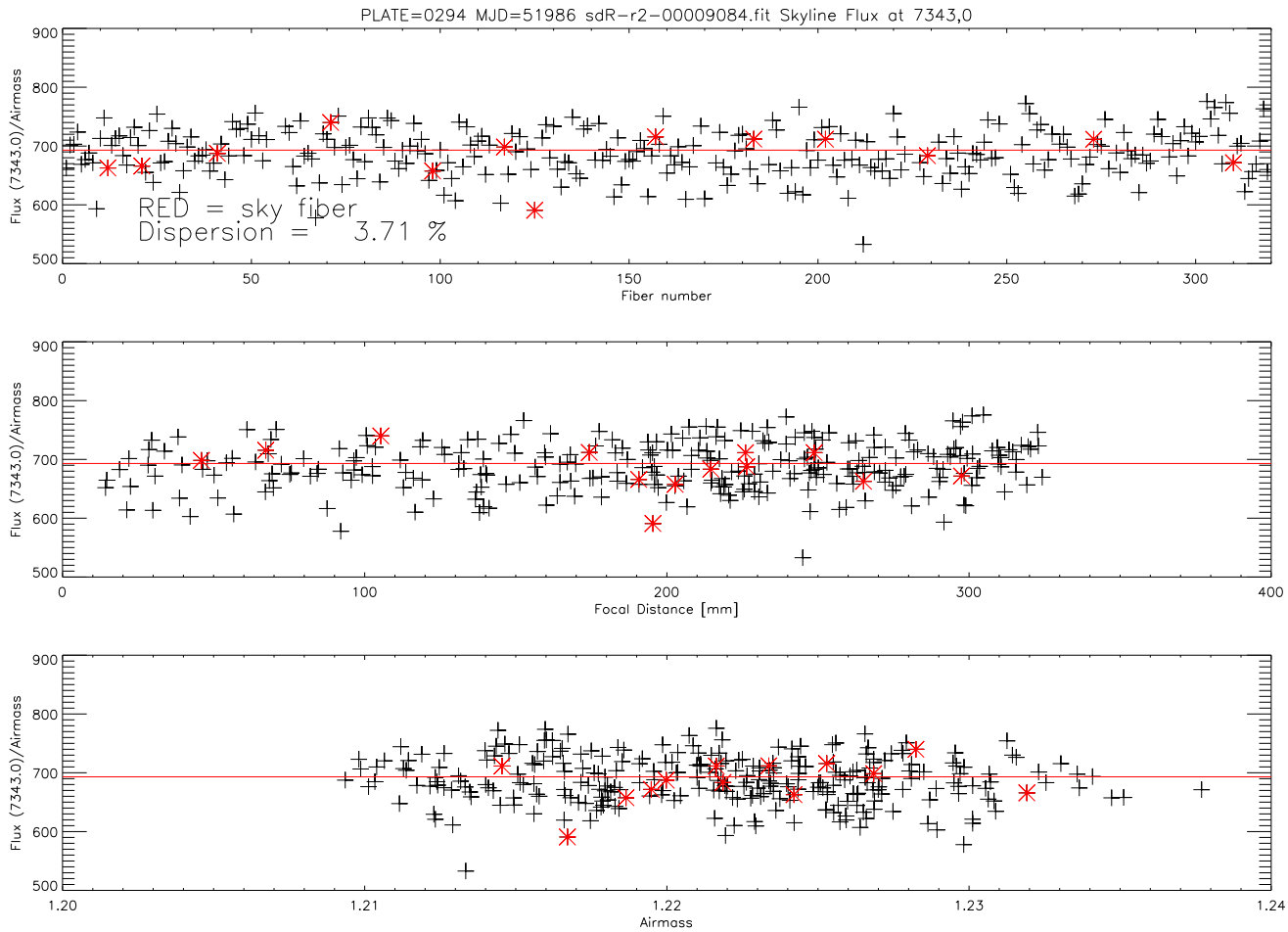

Number of sky fibers = 13
PLATE=0294 MJD=51986 sdR-r2-00009084.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

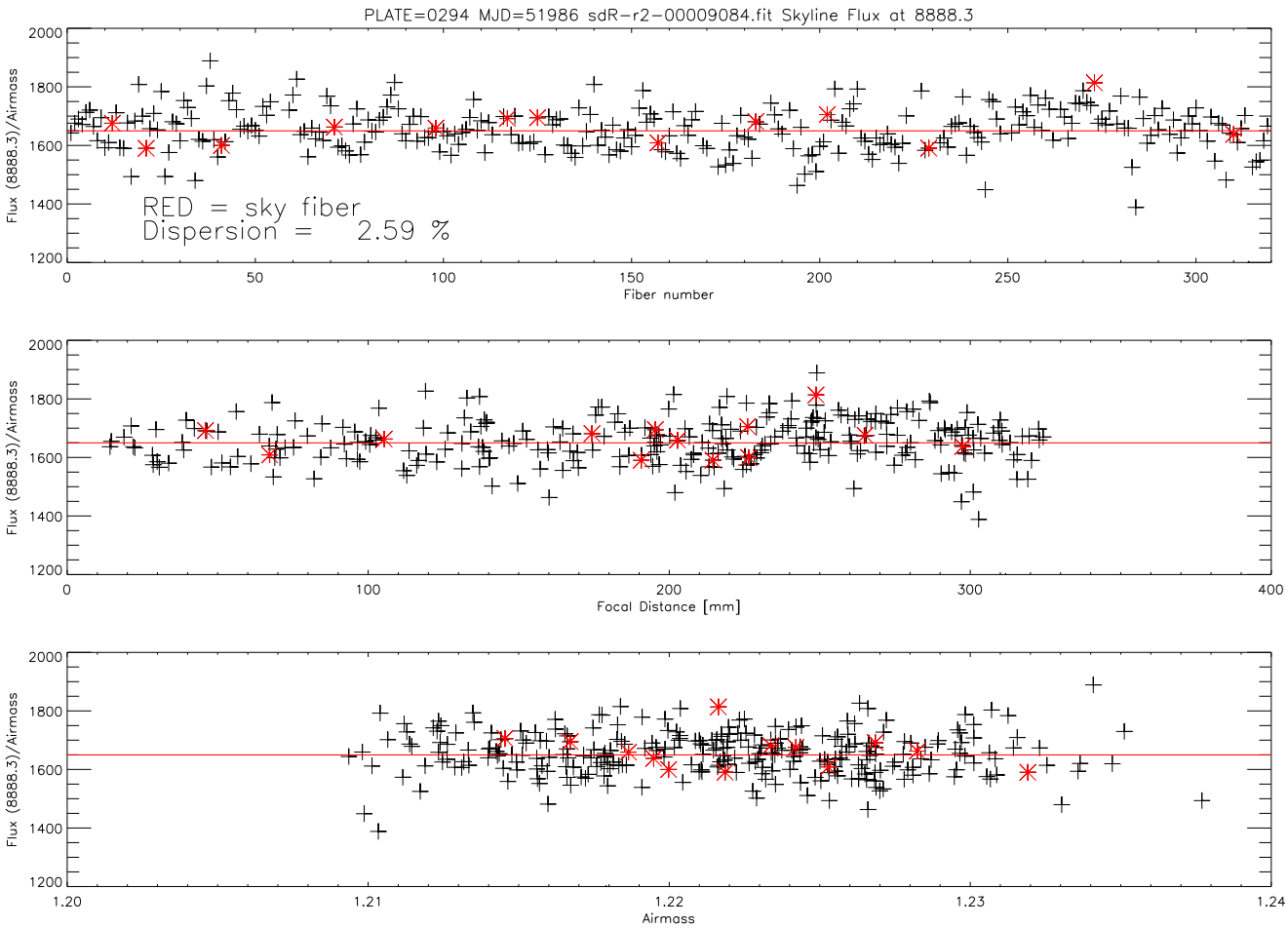

PLATE=0294 MJD=51986 sdR-r2-00009084.fit 2D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number


PLATE=0294 MJD=51986 sdR-r2-00009084.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
1400
1200
1000
800
600
400
200
0
-200
8820
8840
8860
8880
8900
λ [A]


PLATE=0294 MJD=51986 sdR-r2-00009084.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
100
50
0
-50
-100
8820
8840
8860
8880
8900
λ [A]


Number of sky fibers = 13
PLATE=0294 MJD=51986 sdR-r2-00009084.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200


PLATE=0294 MJD=51986 sdR-r2-00009084.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
Fiber number
RED = sky fiber
Dispersion = 3.71 %
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass


PLATE=0294 MJD=51986 sdR-r2-00009084.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 2.59 %
Fiber number
Focal Distance [mm]
Airmass