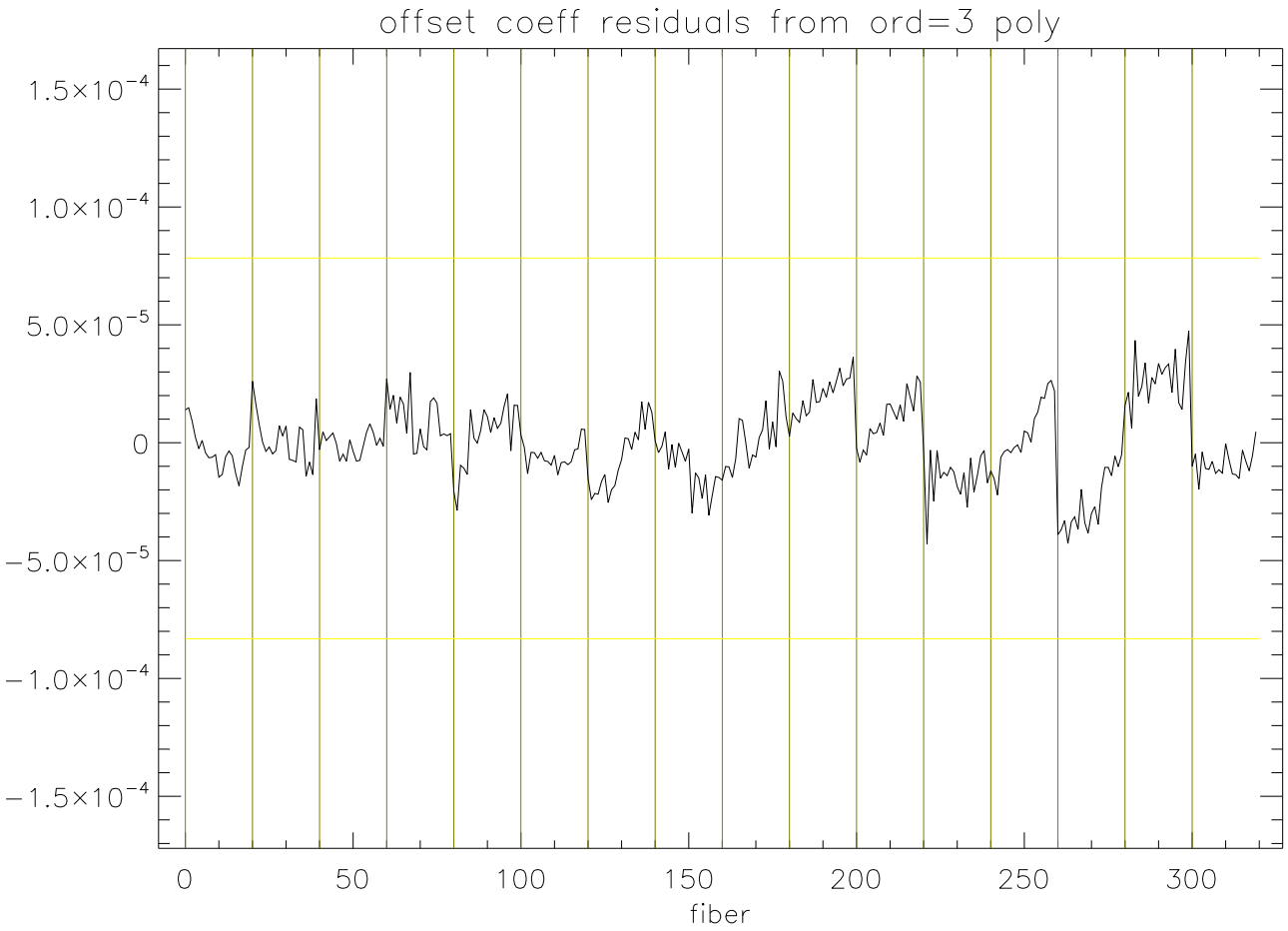
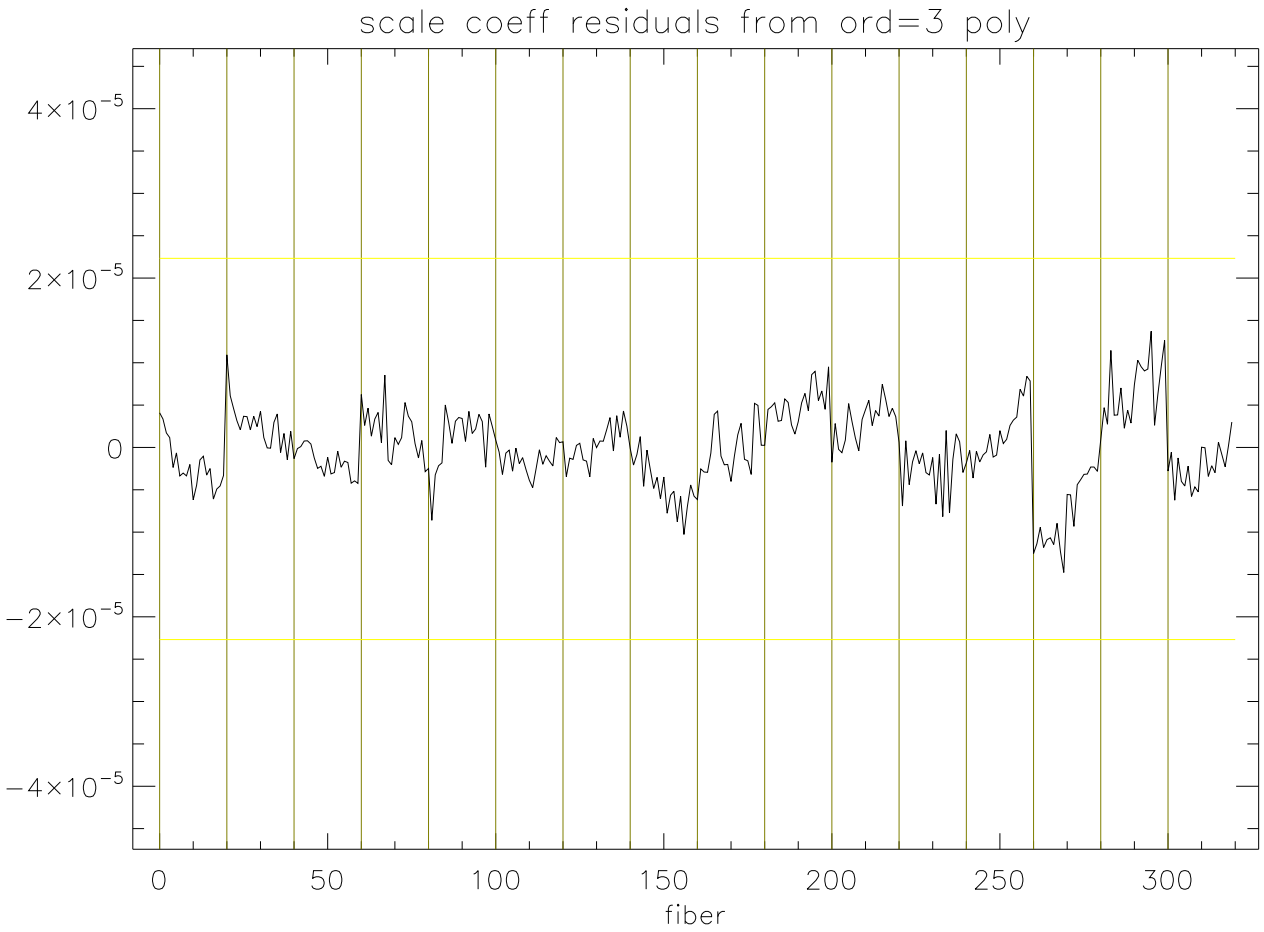
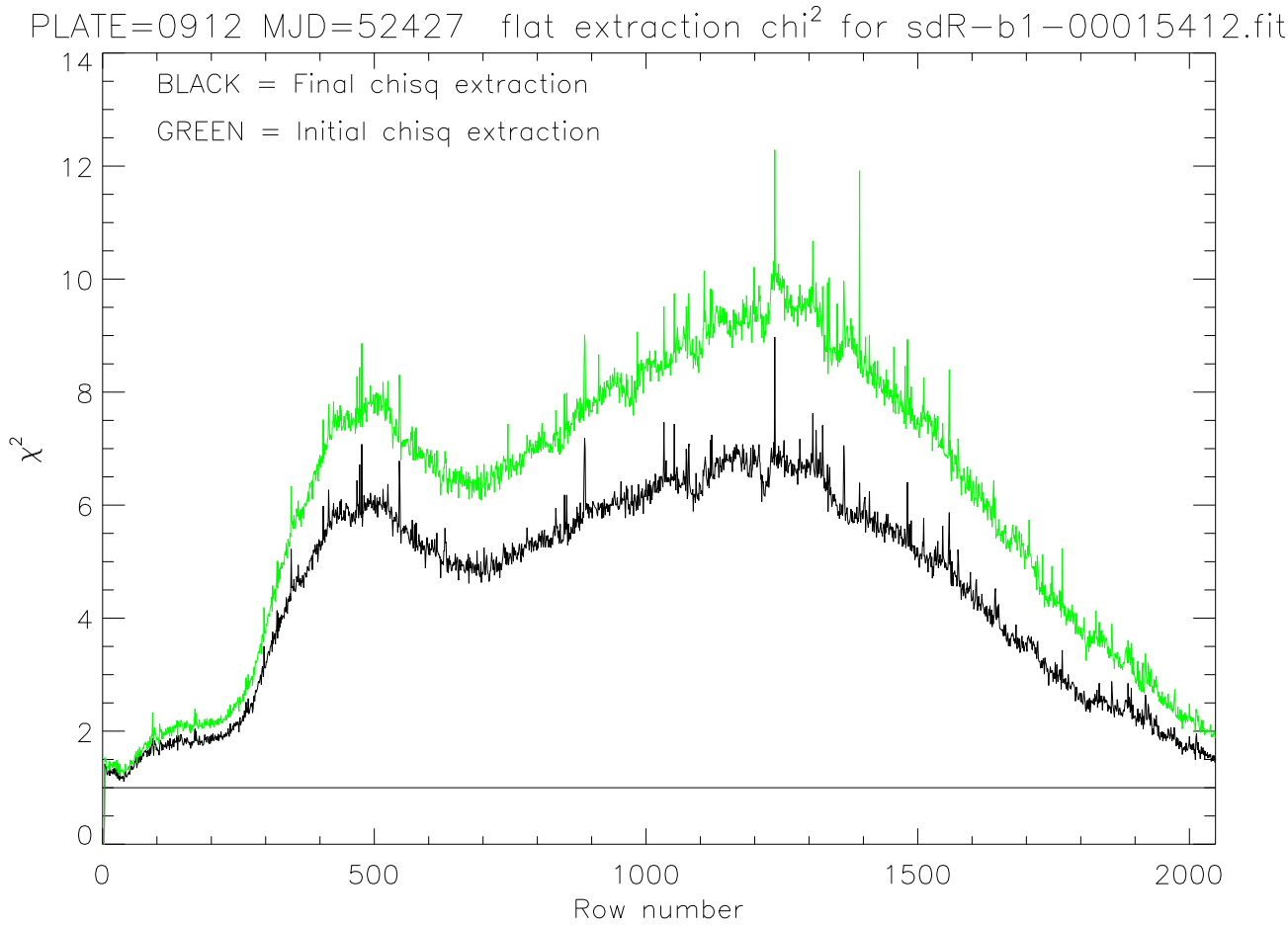
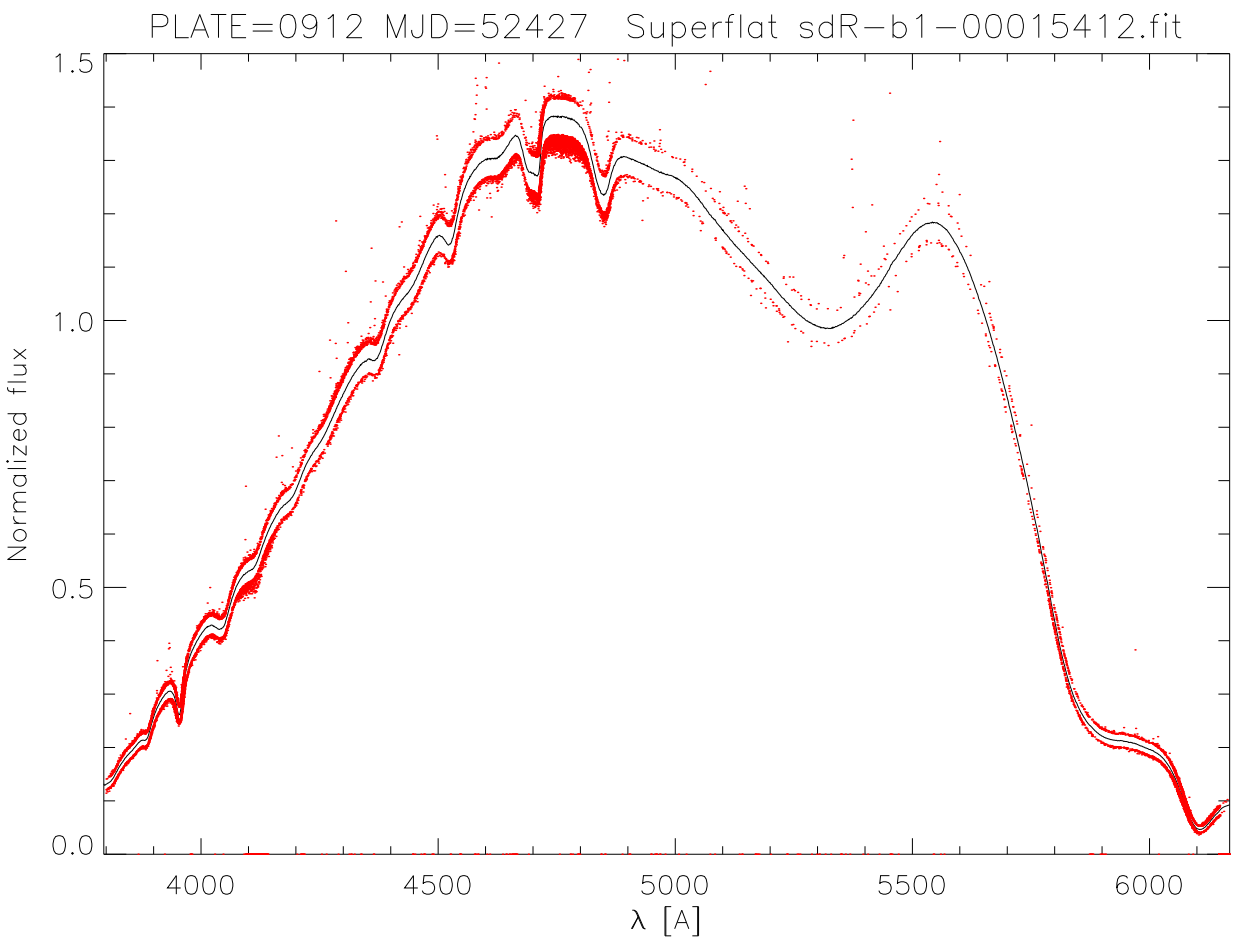
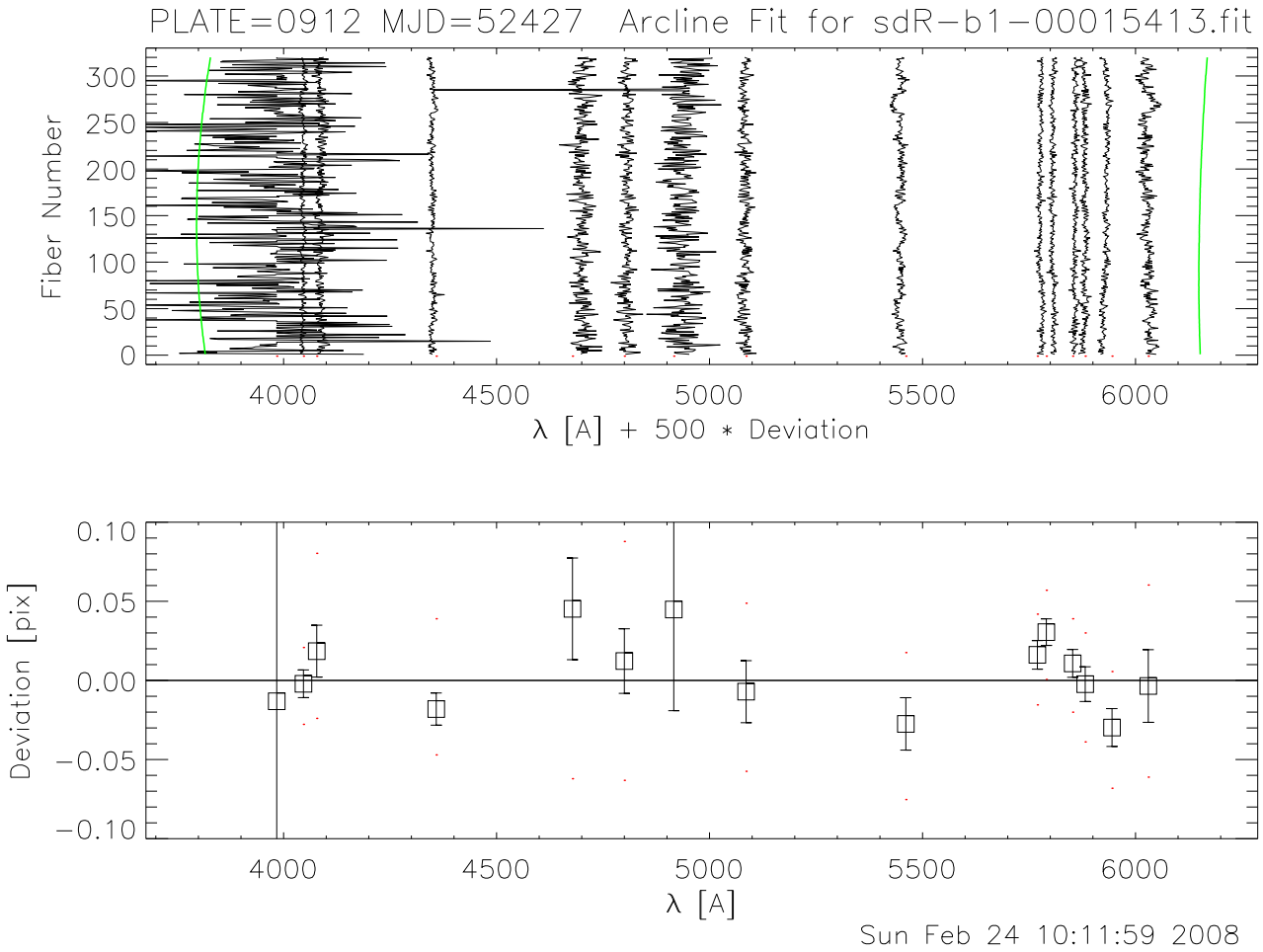
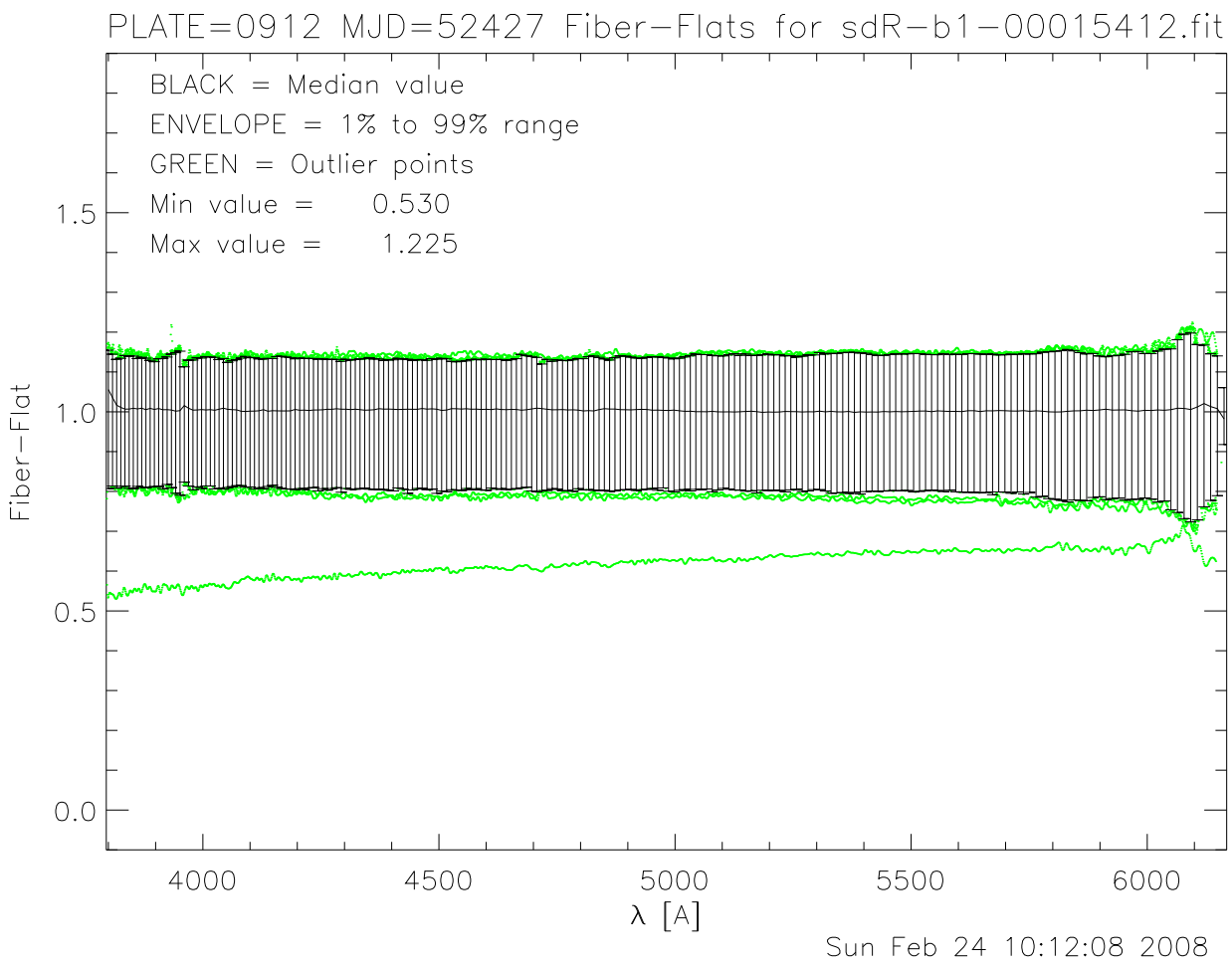

offset coeff residuals from ord=3 poly
1.5×10^-4
1.0×10^-4
5.0×10^-5
0
−5.0×10^-5
−1.0×10^-4
−1.5×10^-4
0
50
100
150
200
250
300
fiber

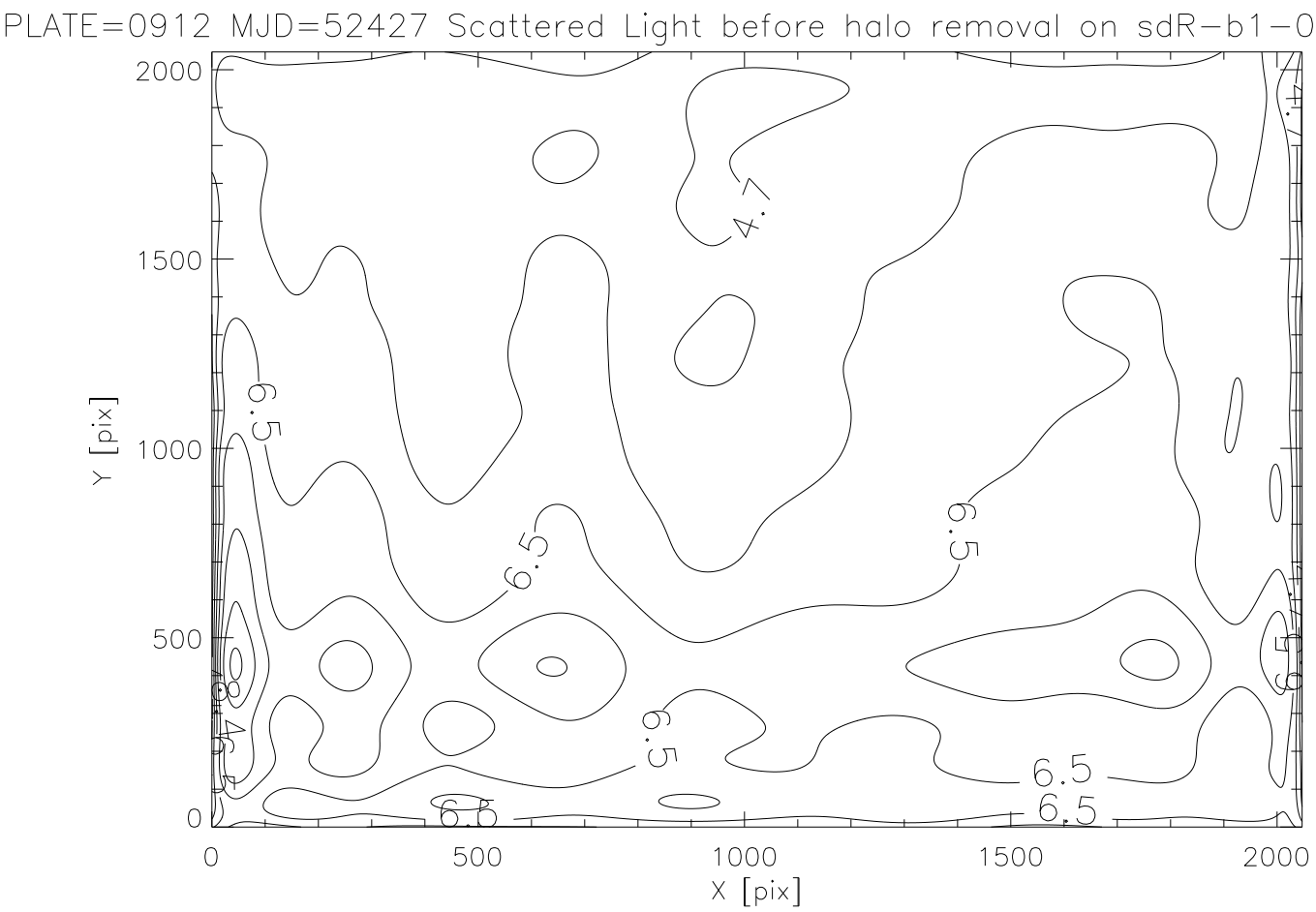

scale coeff residuals from ord=3 poly
4×10⁻⁵
2×10⁻⁵
0
−2×10⁻⁵
−4×10⁻⁵
0
50
100
150
200
250
300
fiber

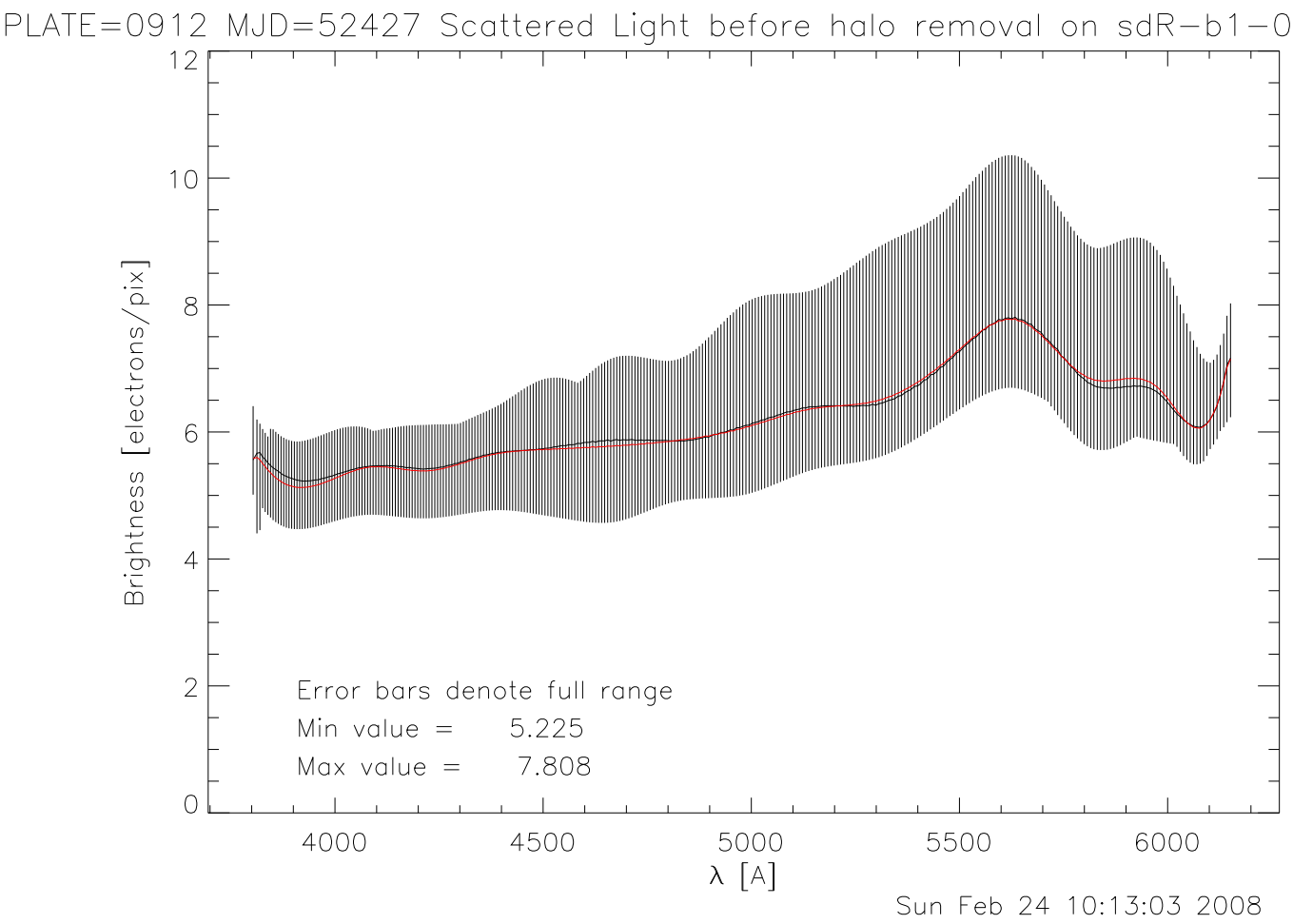

PLATE=0912 MJD=52427 flat extraction chi^2 for sdR−b1−00015412.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
2
4
6
8
10
12
14
0
500
1000
1500
2000

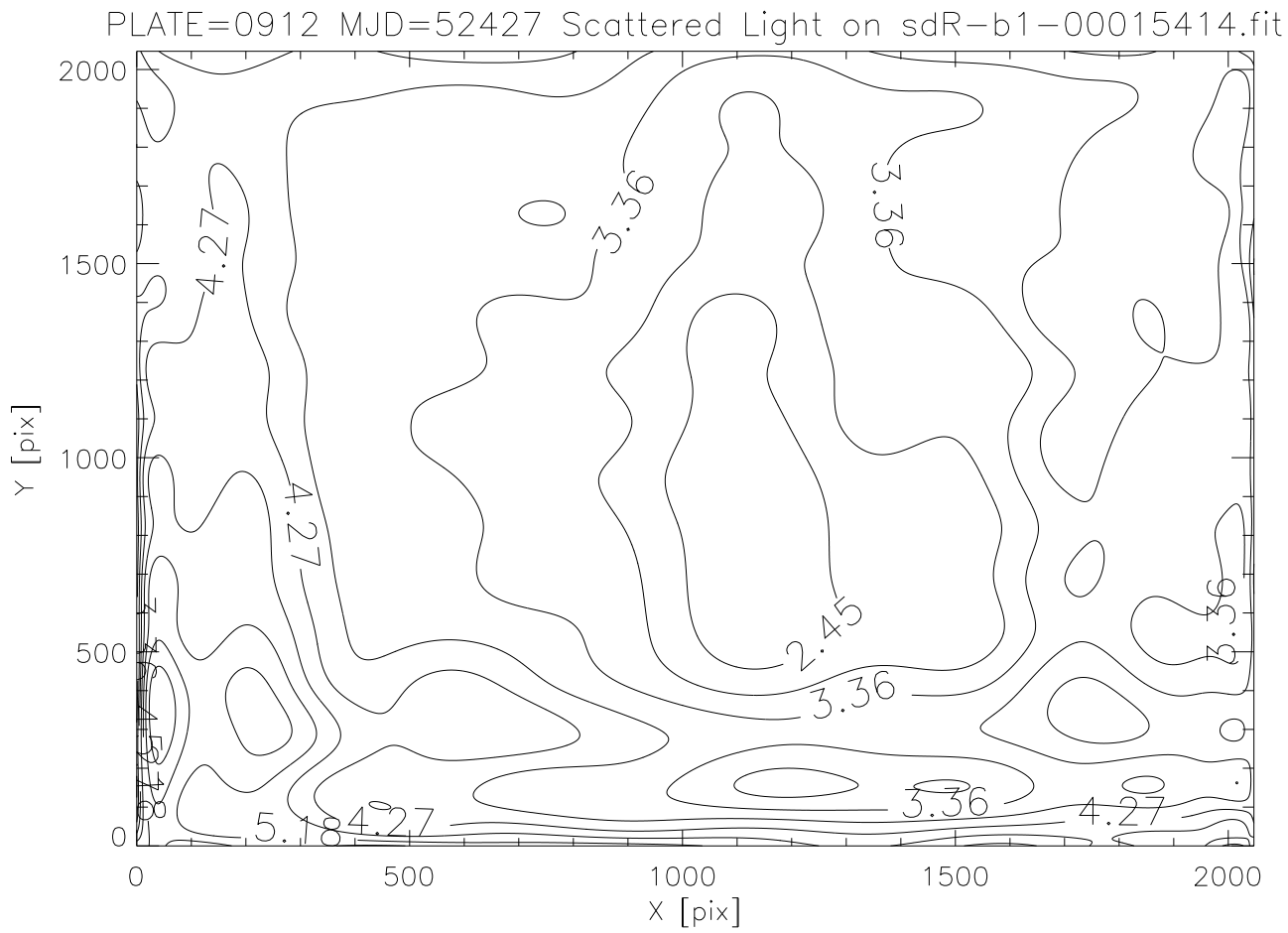

PLATE=0912 MJD=52427 Superflat sdR-b1-00015412.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

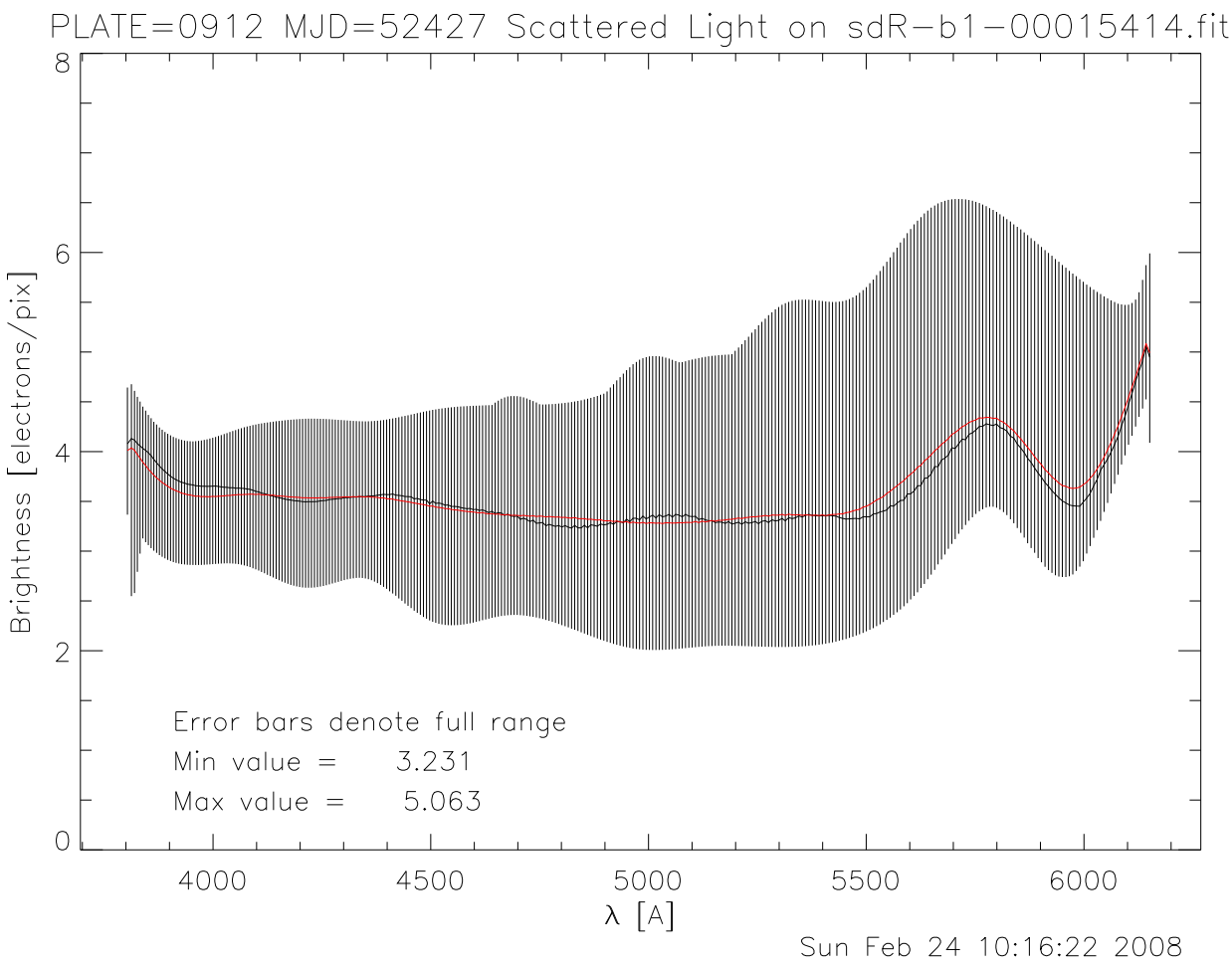

PLATE=0912 MJD=52427 Arcline Fit for sdR-b1-00015413.fit
Fiber Number
300
250
200
150
100
50
0
4000
4500
5000
5500
6000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
4000
4500
5000
5500
6000
λ [A]
Sun Feb 24 10:11:59 2008

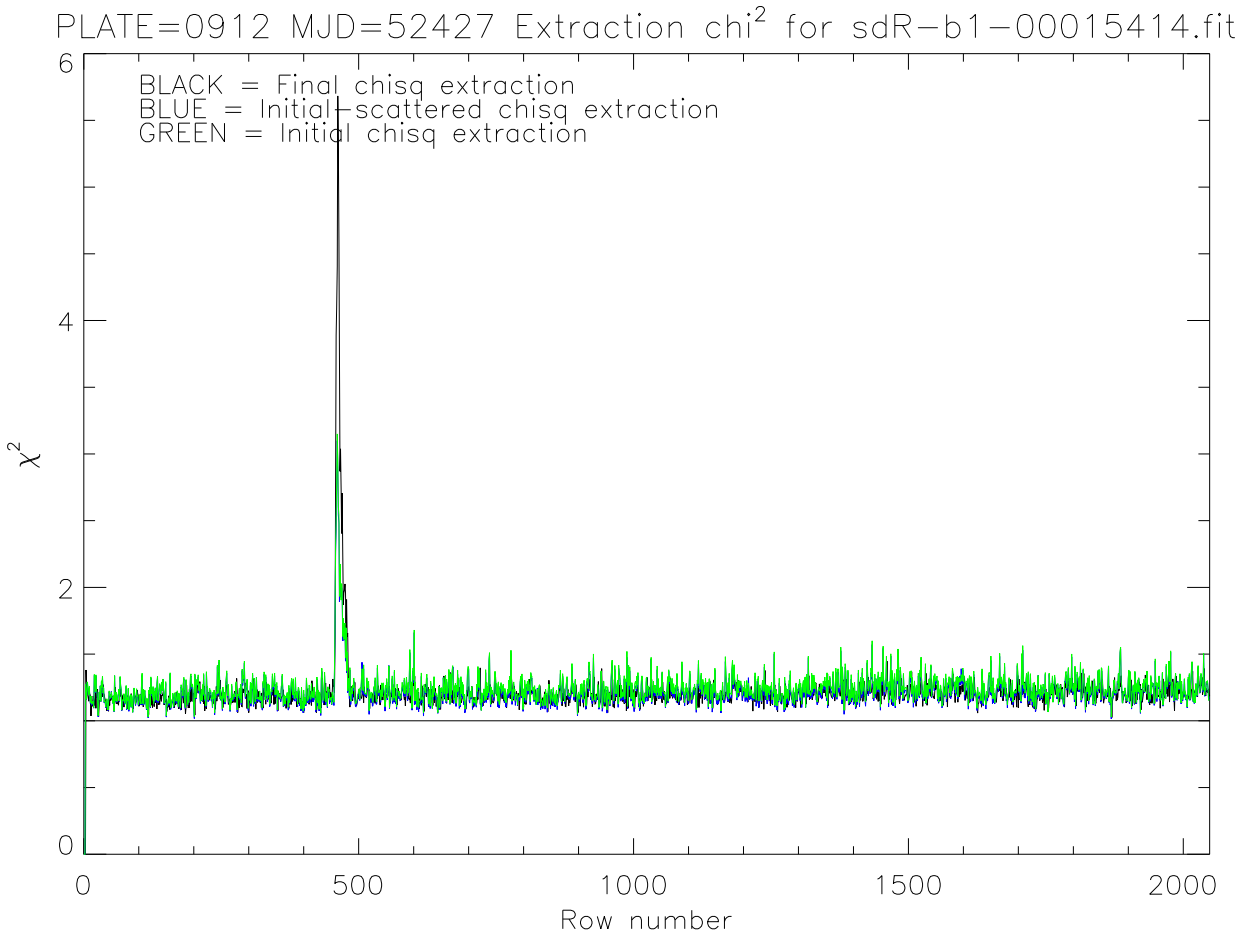

PLATE=0912 MJD=52427 Fiber-Flats for sdR-b1-00015412.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.530
Max value = 1.225
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Sun Feb 24 10:12:08 2008

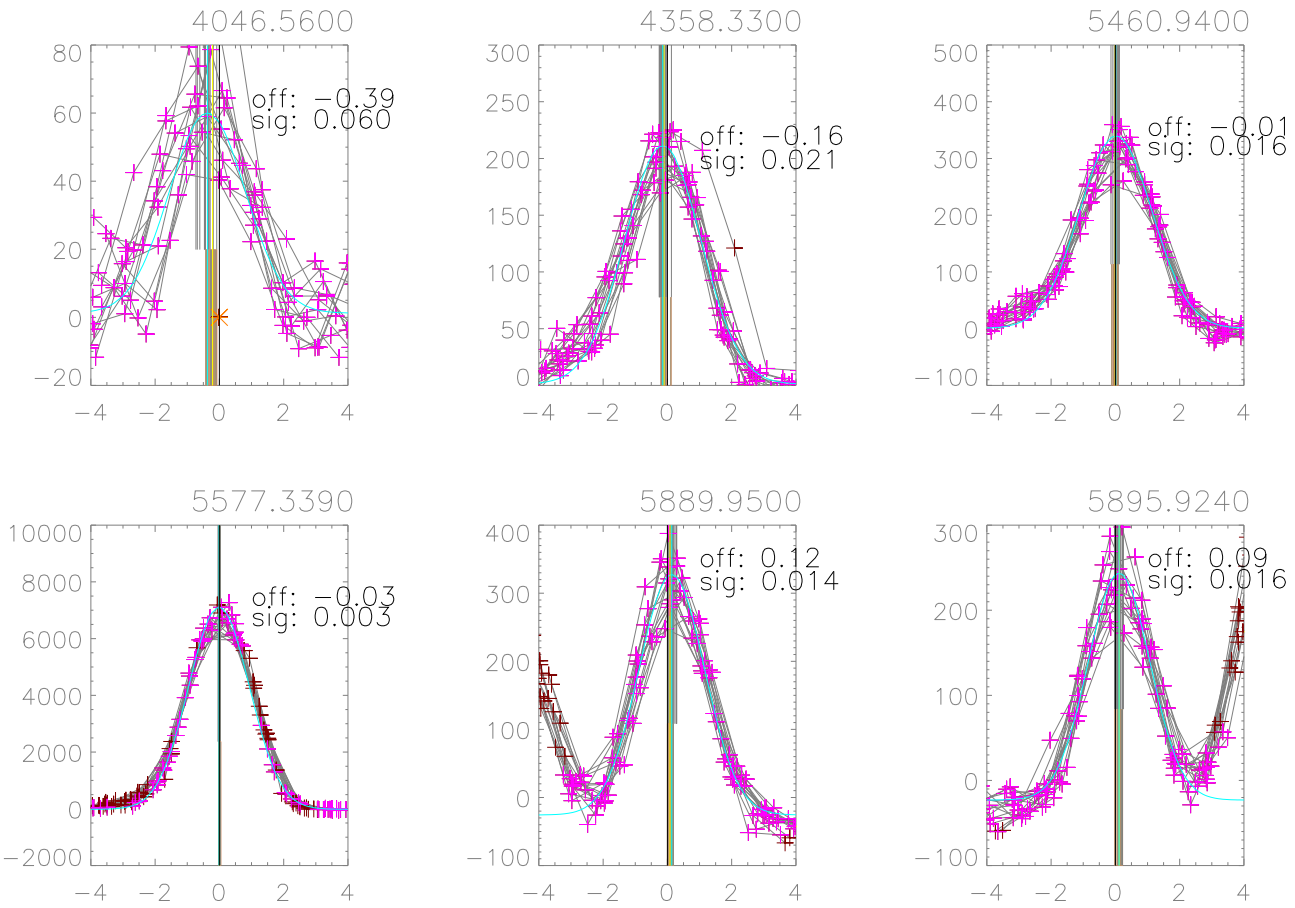

PLATE=0912 MJD=52427 Scattered Light before halo removal on sdR−b1−00015414.f
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
4.7
6.5
6.5
6.5

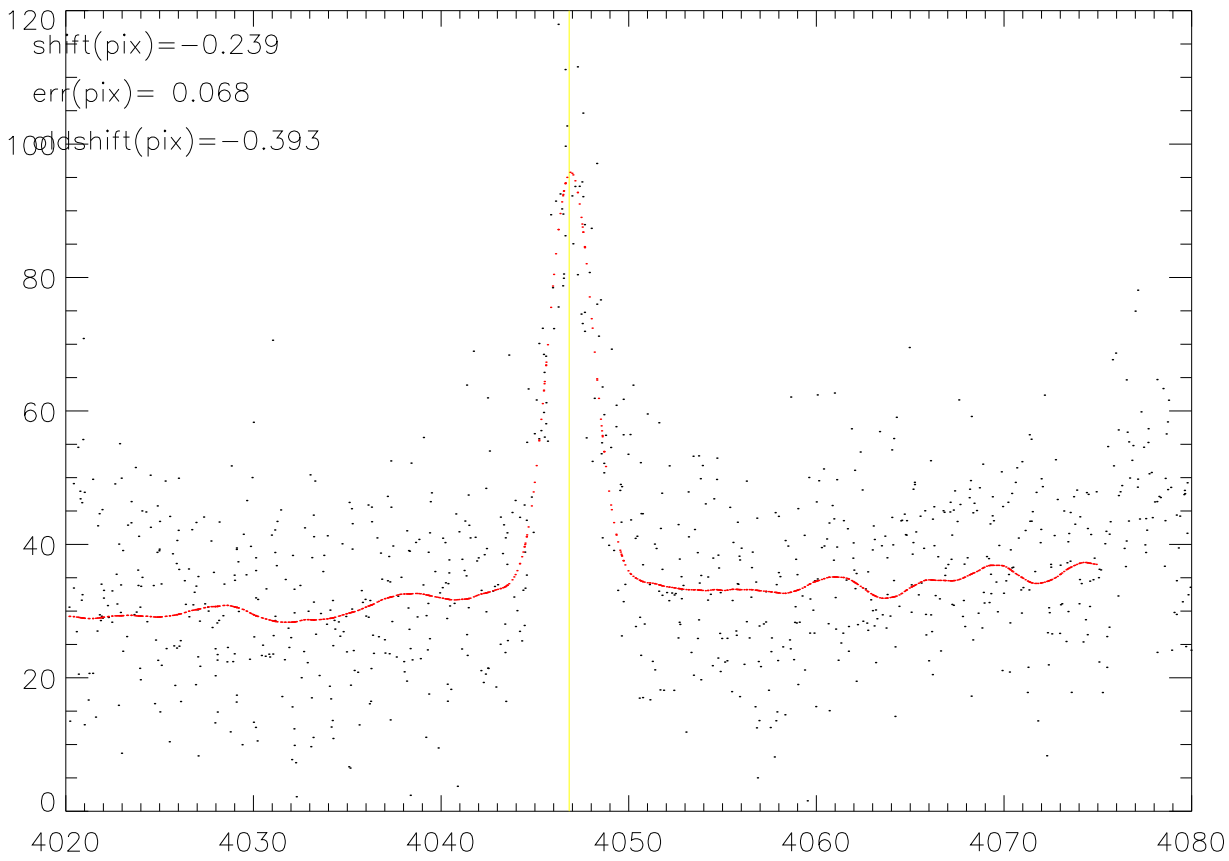

PLATE=0912 MJD=52427 Scattered Light before halo removal on sdR-b1-00015414.f
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 5.225
Max value = 7.808
Sun Feb 24 10:13:03 2008

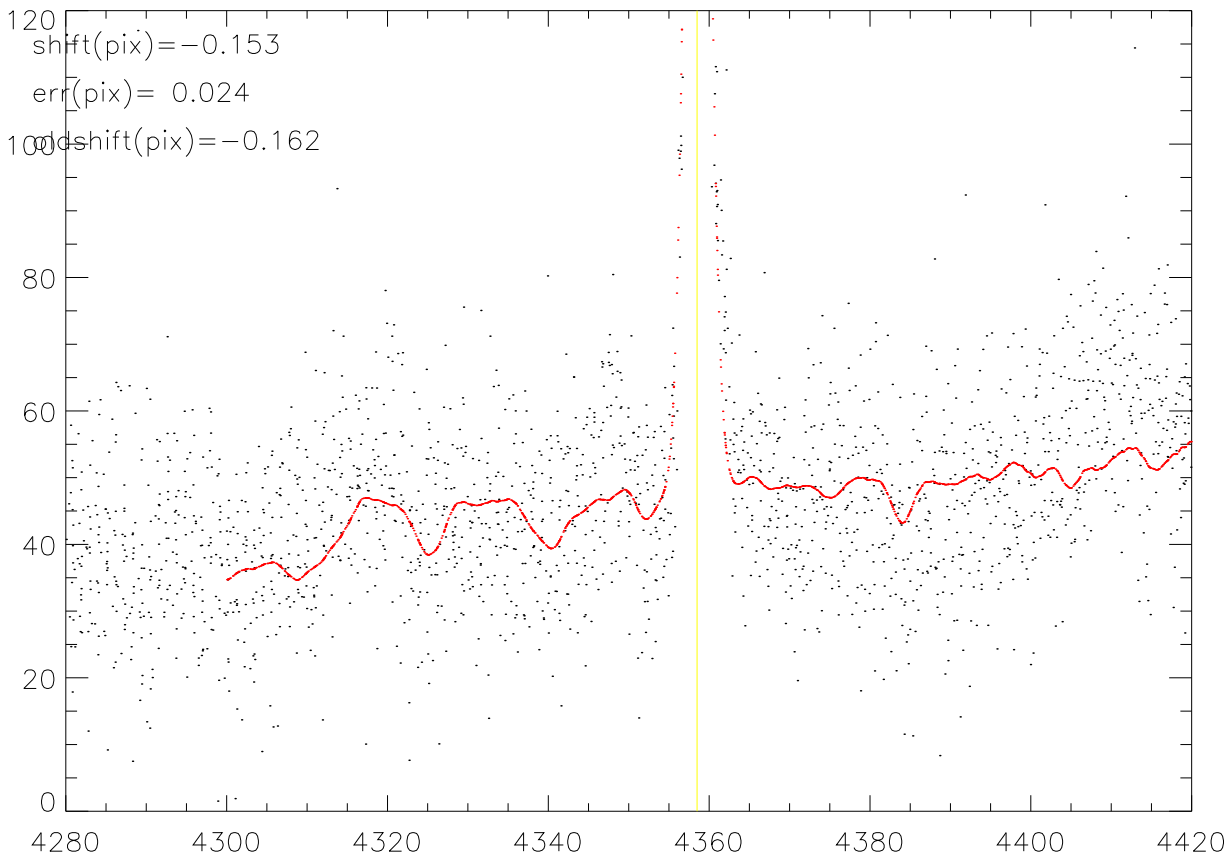

PLATE=0912 MJD=52427 Scattered Light on sdR-b1-00015414.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
0
3.36
4.27
2.45
5.18

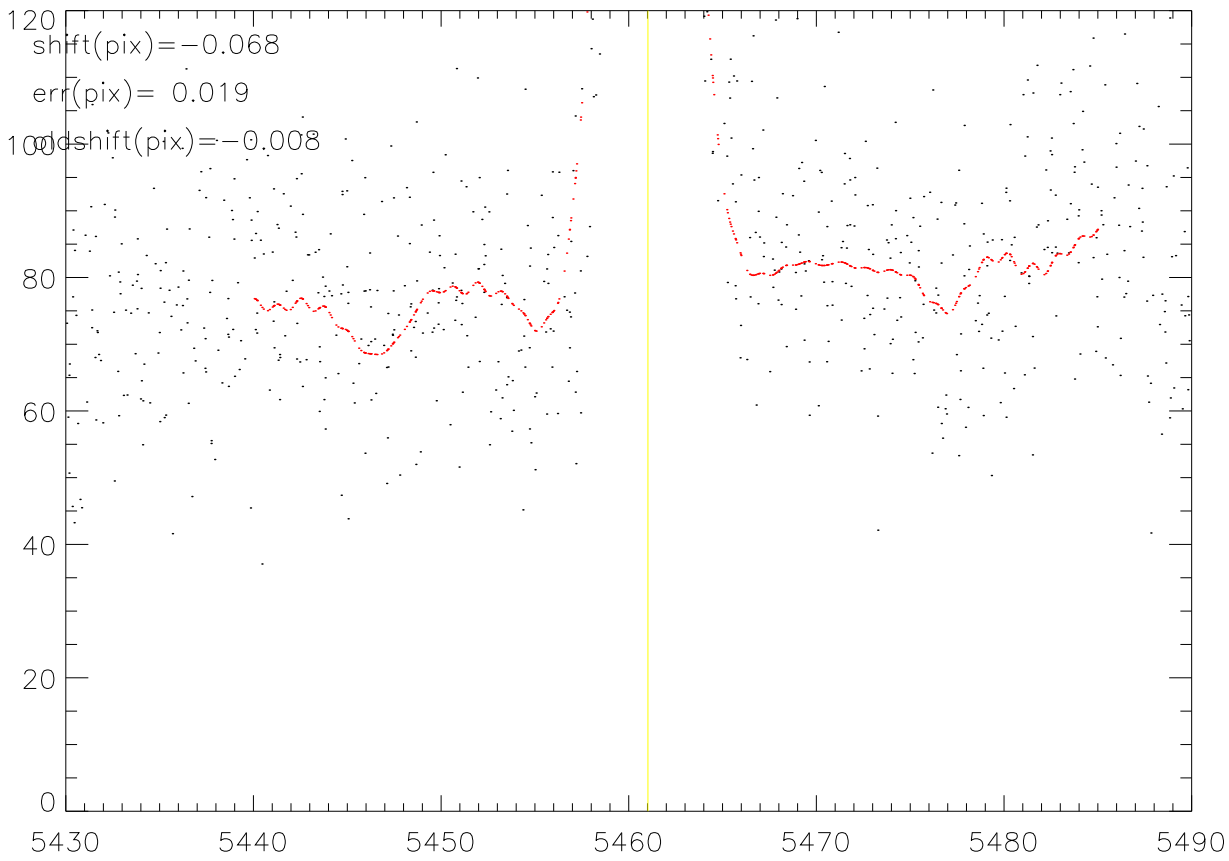

PLATE=0912 MJD=52427 Scattered Light on sdR-b1-00015414.fit
Brightness [electrons/pix]
0
2
4
6
8
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 3.231
Max value = 5.063
Sun Feb 24 10:16:22 2008

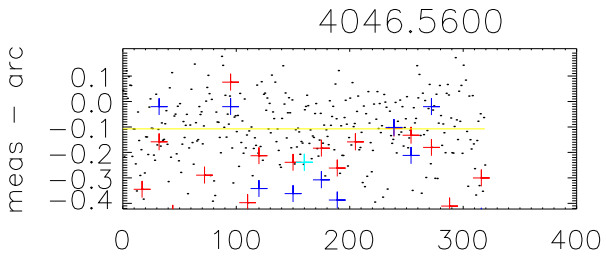

PLATE=0912 MJD=52427 Extraction chi^2 for sdR-b1-00015414.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
0
500
1000
1500
2000
Row number

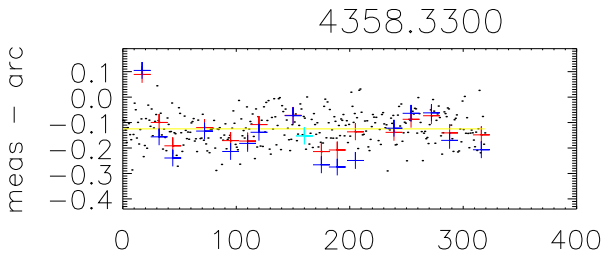

4046.5600
off: −0.39
sig: 0.060
4358.3300
off: −0.16
sig: 0.021
5460.9400
off: −0.01
sig: 0.016
5577.3390
off: −0.03
sig: 0.003
5889.9500
off: 0.12
sig: 0.014
5895.9240
off: 0.09
sig: 0.016

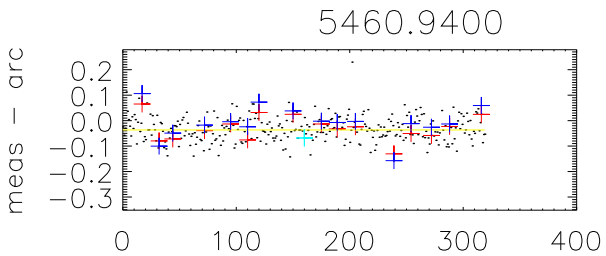

shift(pix)=−0.239
err(pix)= 0.068
oldshift(pix)=−0.393
120
100
80
60
40
20
0
4020
4030
4040
4050
4060
4070
4080

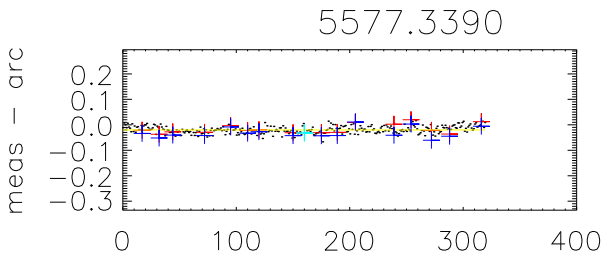

shift(pix)=−0.153
err(pix)= 0.024
oldshift(pix)=−0.162
120
100
80
60
40
20
0
4280
4300
4320
4340
4360
4380
4400
4420

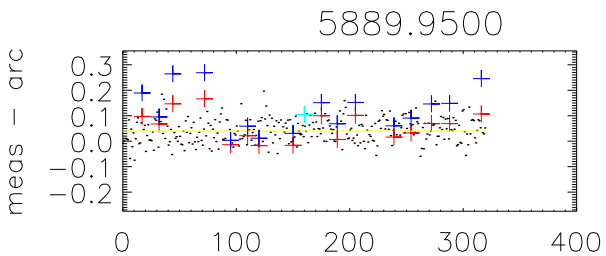

shift(pix)=−0.068
err(pix)= 0.019
oldshift(pix)=−0.008
120
100
80
60
40
20
0
5430
5440
5450
5460
5470
5480
5490

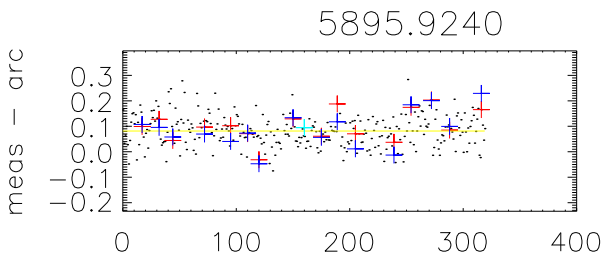

4046.5600
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

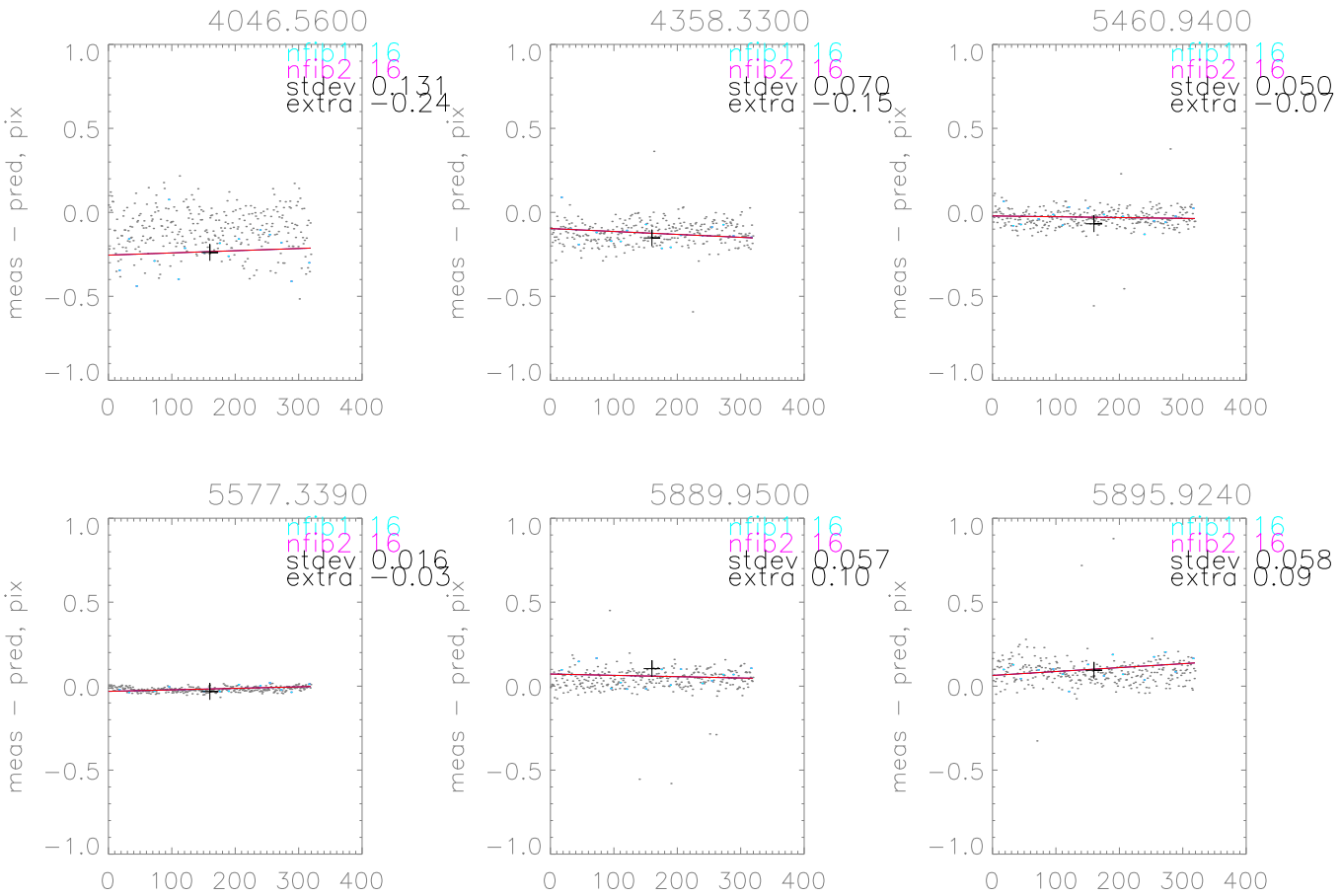

4358.3300
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

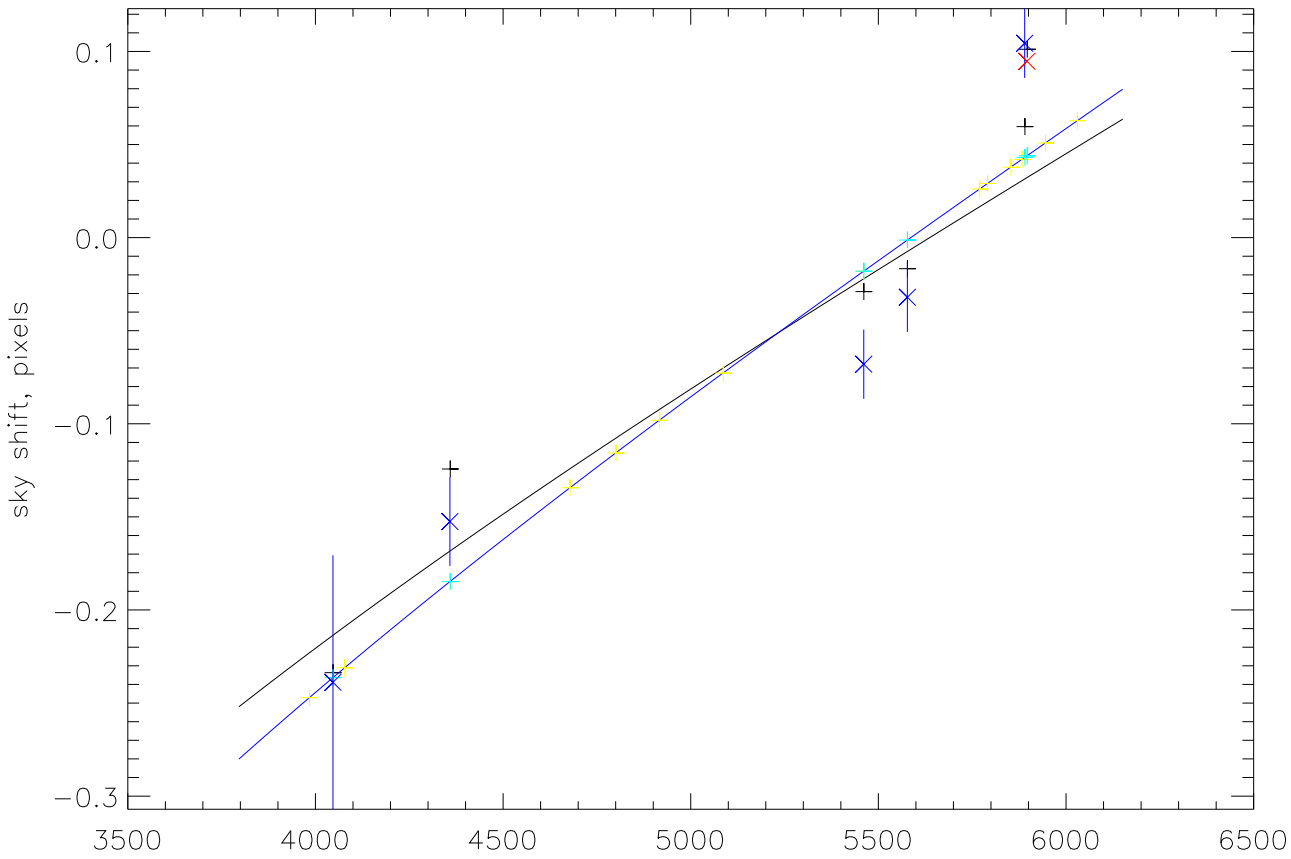

5460.9400
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

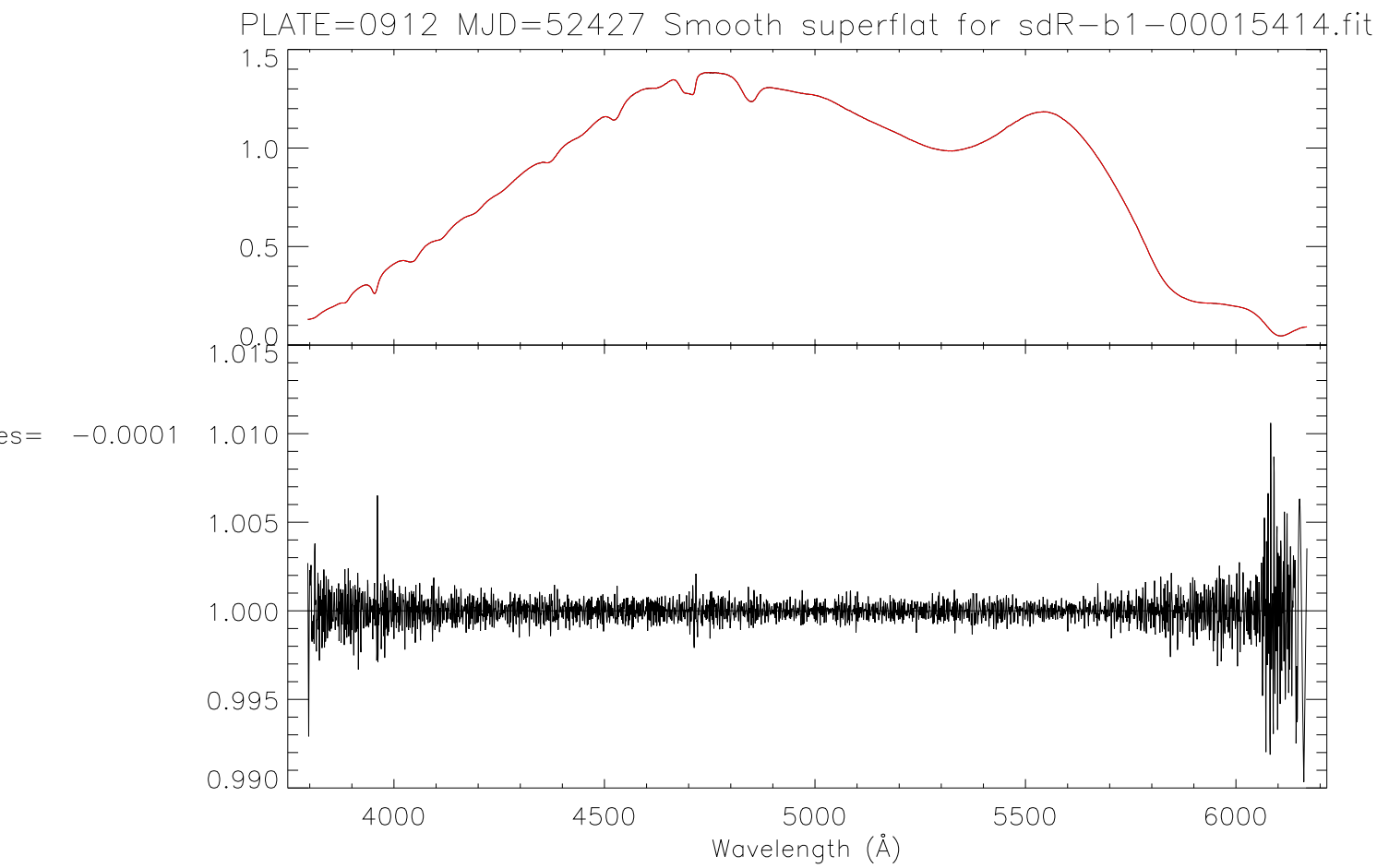

5577.3390
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400


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

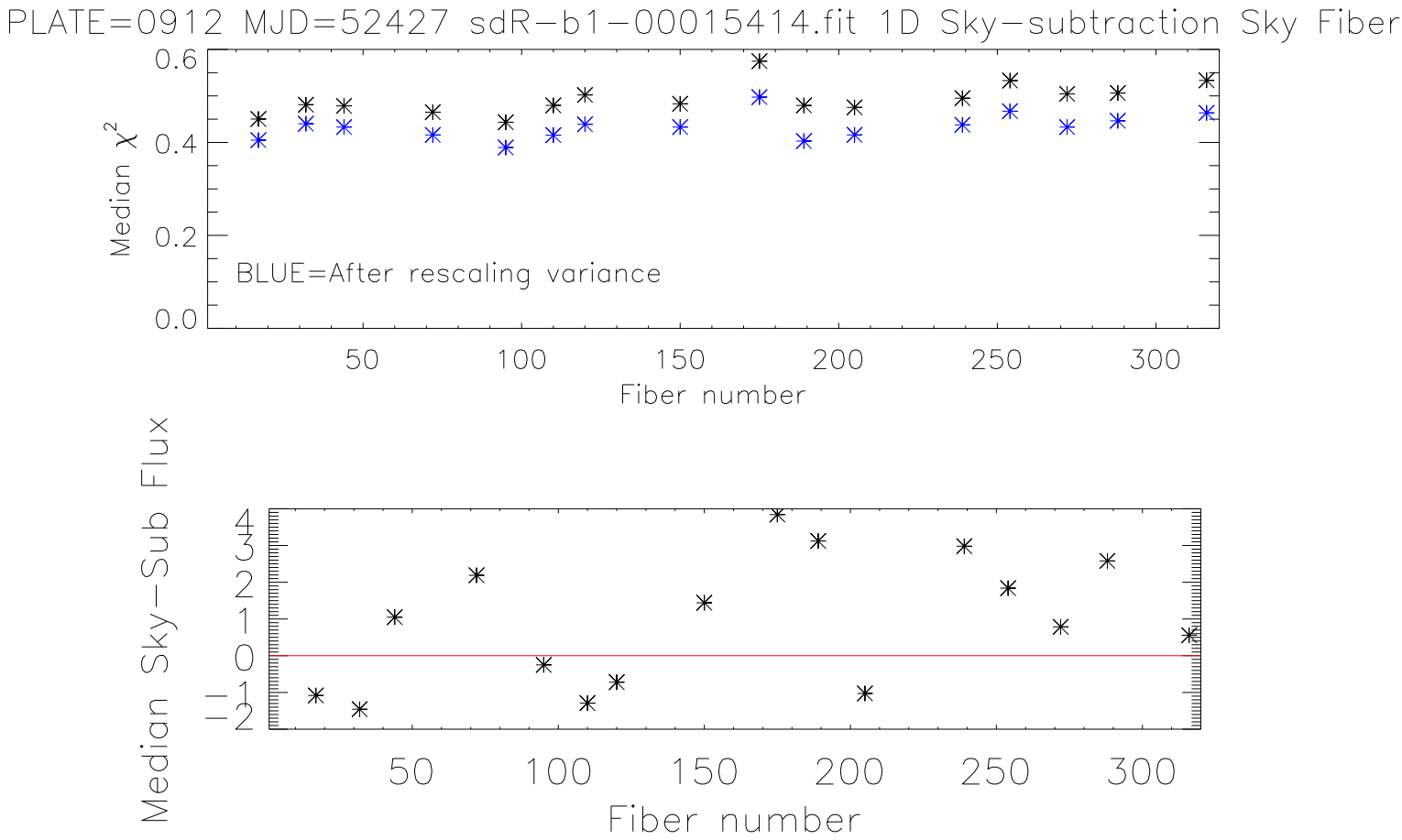

5895.9240
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

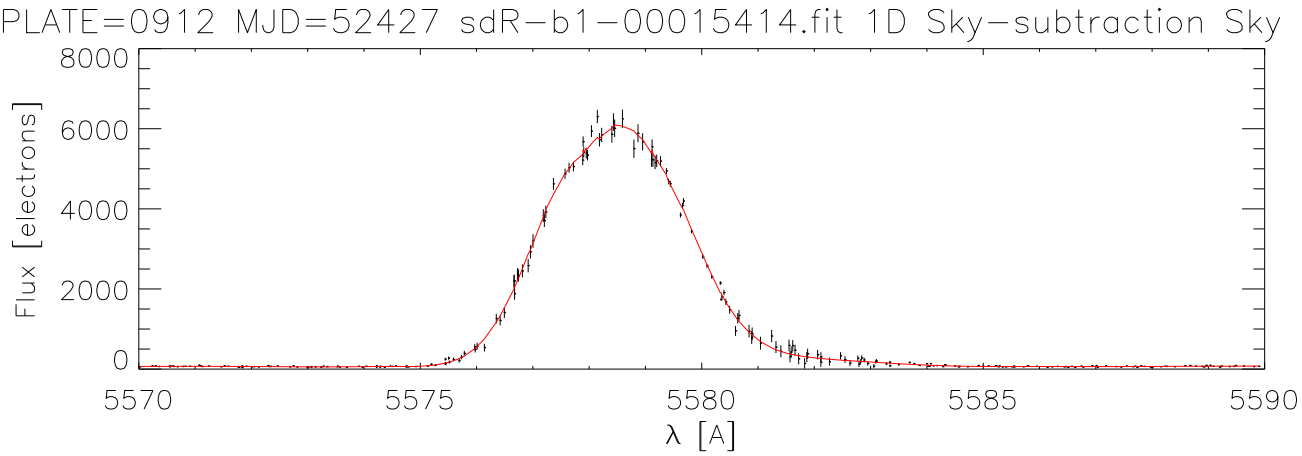

4046.5600
nfib1 16
nfib2 16
stdev 0.131
extra −0.24
4358.3300
nfib1 16
nfib2 16
stdev 0.070
extra −0.15
5460.9400
nfib1 16
nfib2 16
stdev 0.050
extra −0.07
5577.3390
nfib1 16
nfib2 16
stdev 0.016
extra −0.03
5889.9500
nfib1 16
nfib2 16
stdev 0.057
extra 0.10
5895.9240
nfib1 16
nfib2 16
stdev 0.058
extra 0.09
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

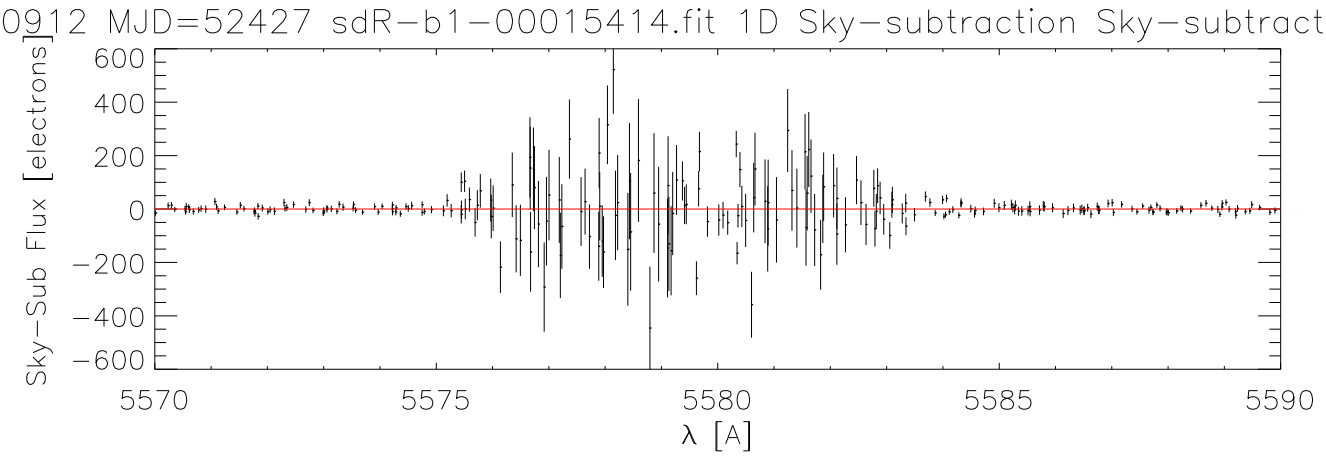

0.1
0.0
−0.1
−0.2
−0.3
sky shift, pixels
3500
4000
4500
5000
5500
6000
6500

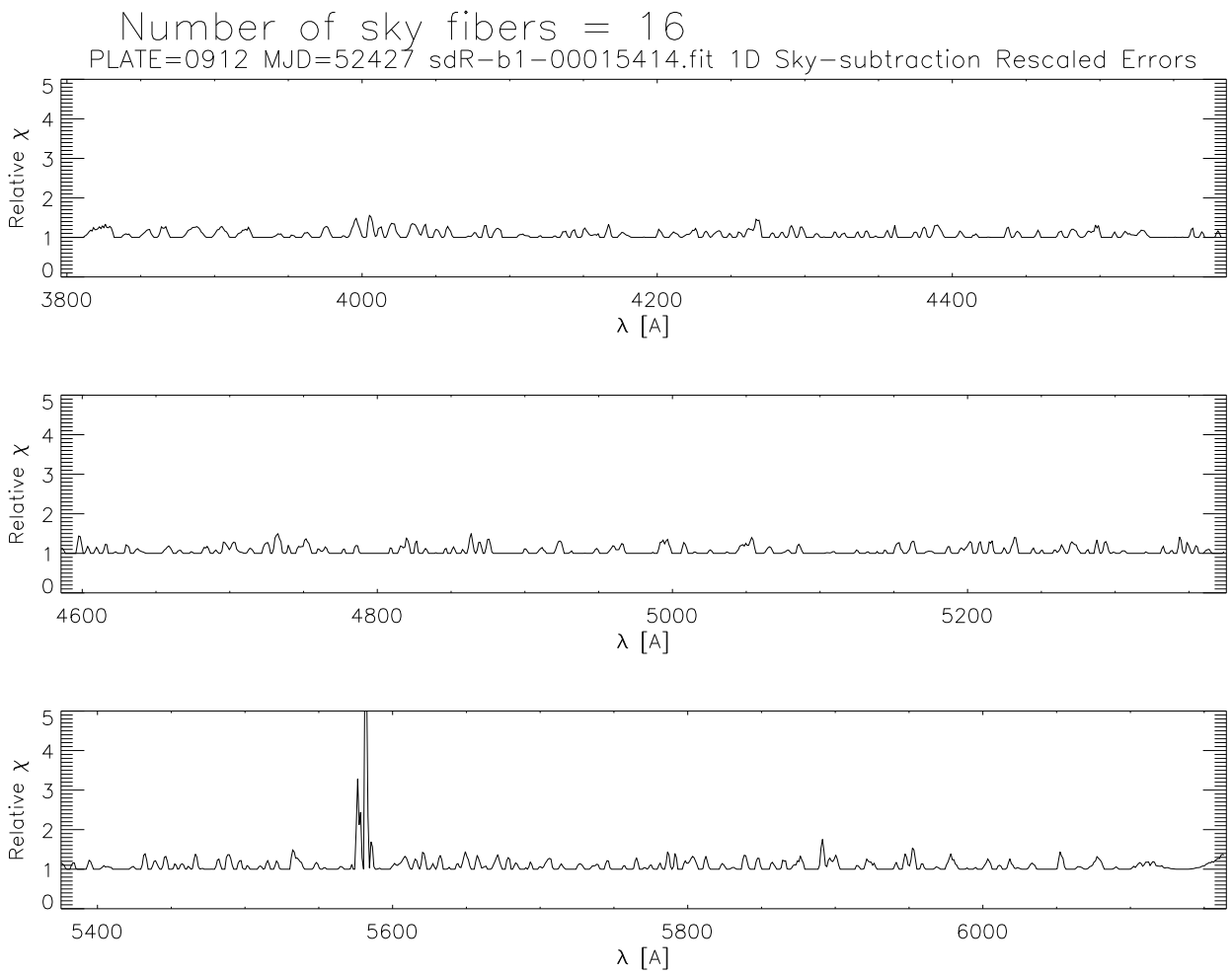

PLATE=0912 MJD=52427 Smooth superflat for sdR-b1-00015414.fit
1.5
1.0
0.5
0.0
1.015
1.010
1.005
1.000
0.995
0.990
4000
4500
5000
5500
6000
Wavelength (Å)

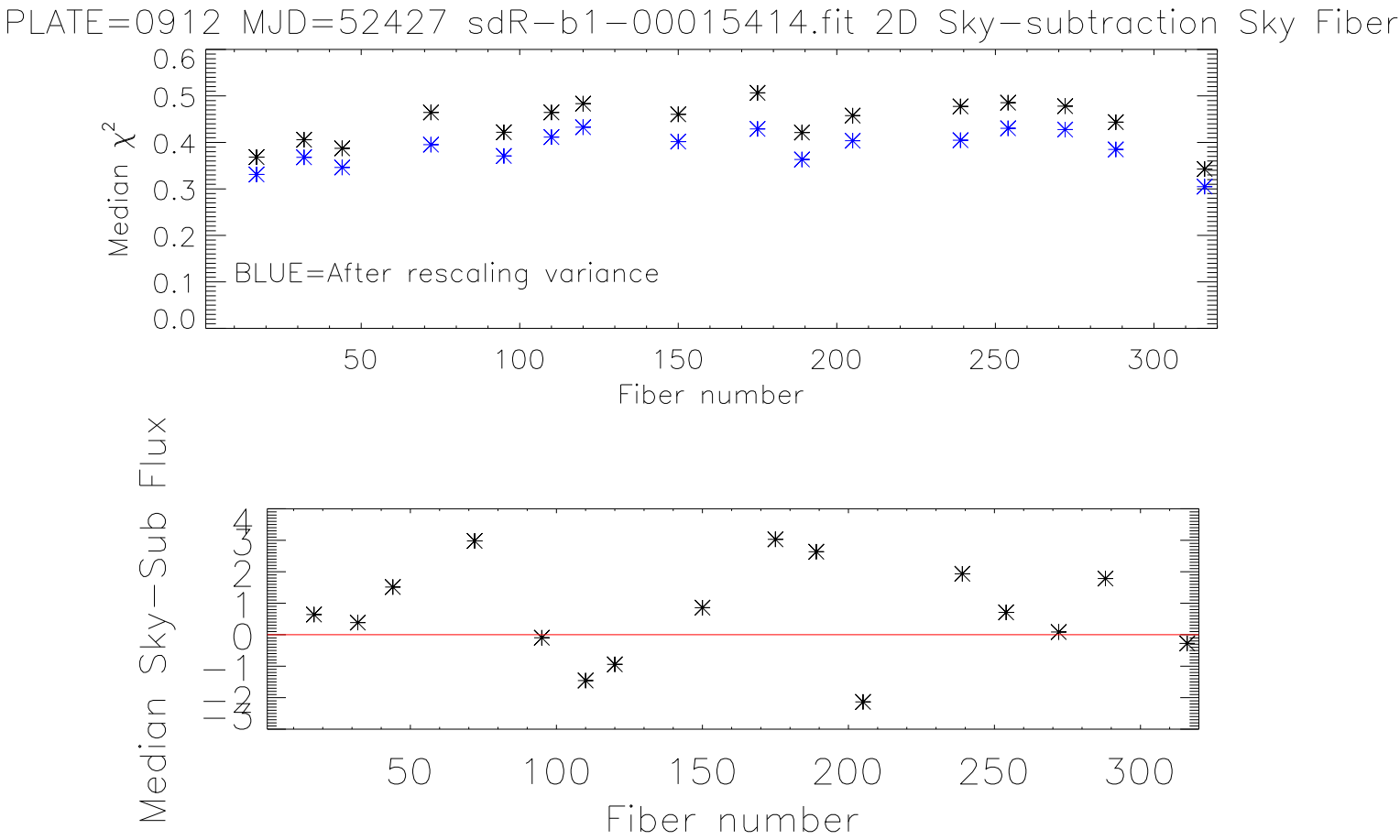
es= −0.0001

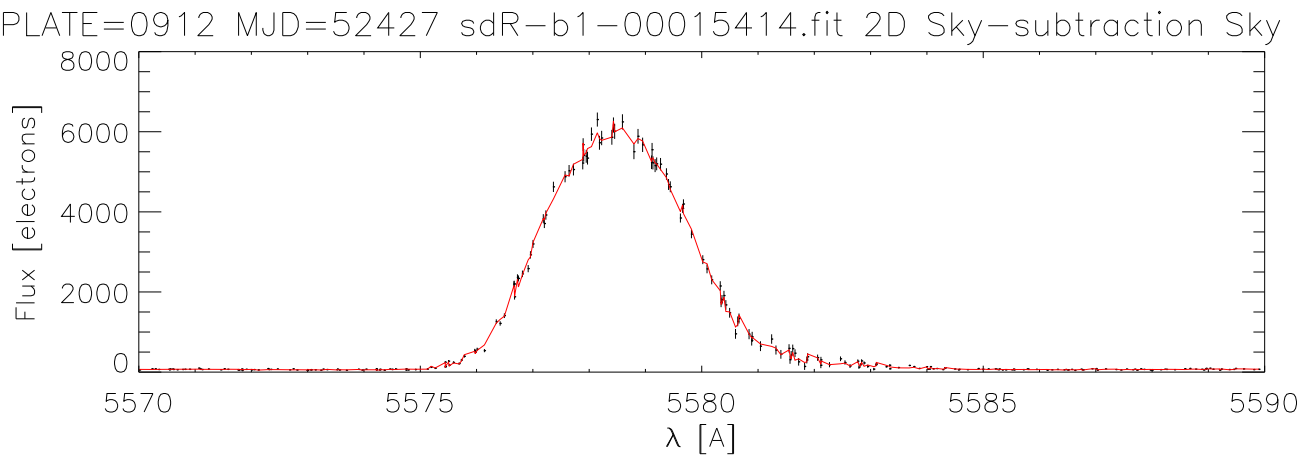

PLATE=0912 MJD=52427 sdR-b1-00015414.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.2
0.4
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-2
-1
0
1
2
3
4
50
100
150
200
250
300
Fiber number

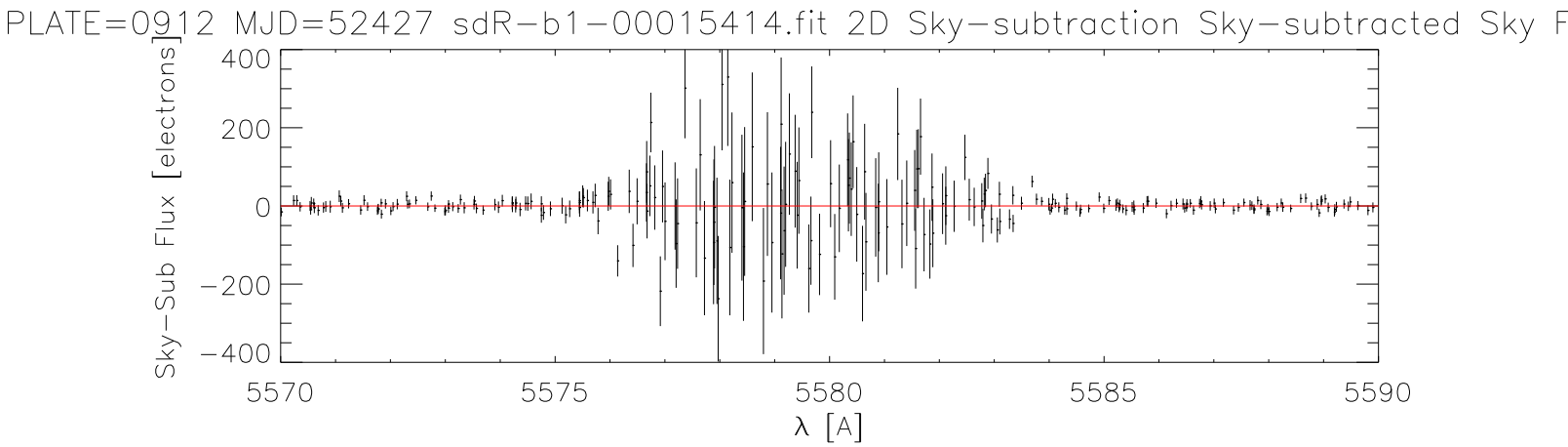

PLATE=0912 MJD=52427 sdR-b1-00015414.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

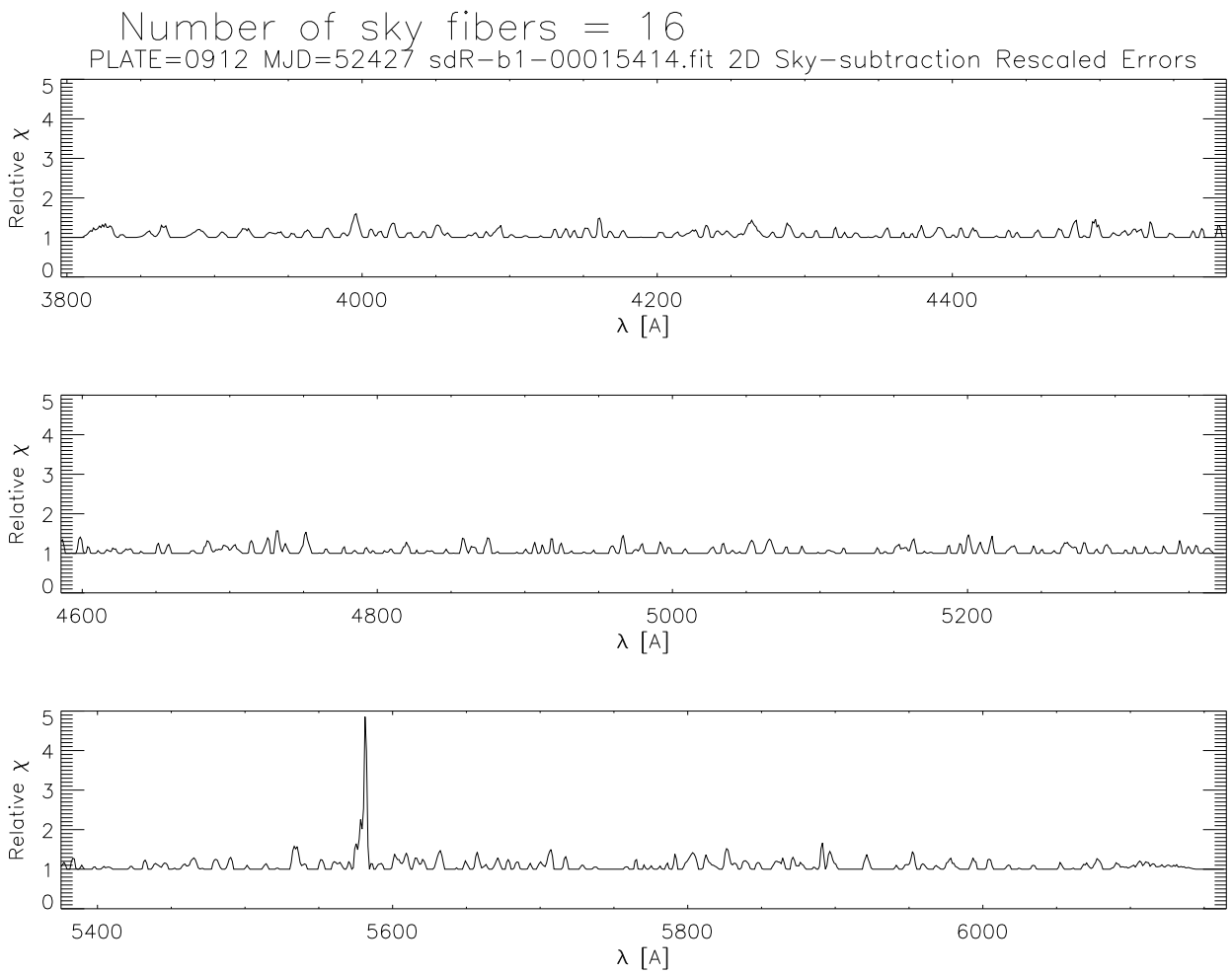

PLATE=0912 MJD=52427 sdR-b1-00015414.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
-200
-400
-600
5570
5575
5580
5585
5590
λ [A]

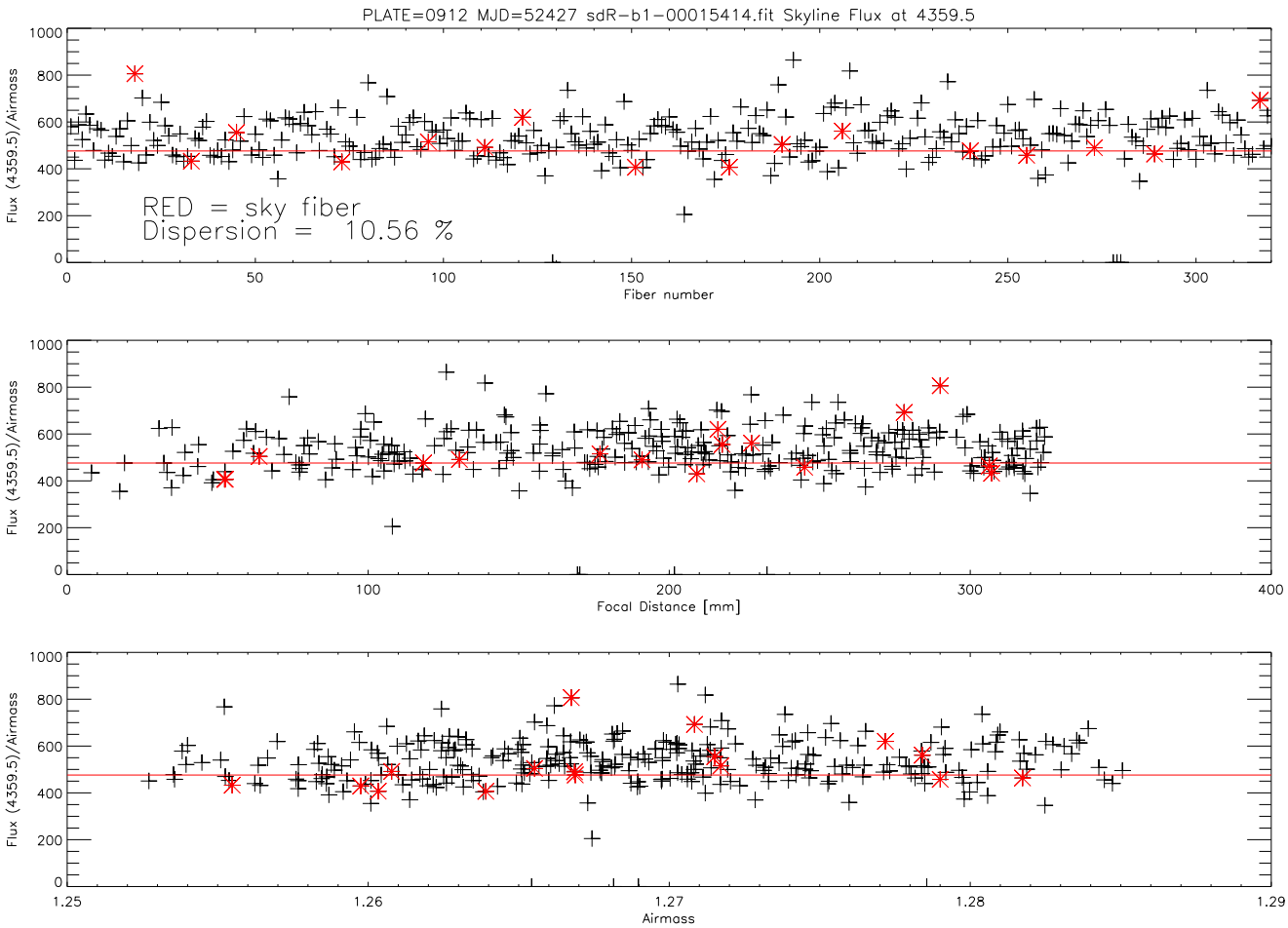

Number of sky fibers = 16
PLATE=0912 MJD=52427 sdR-b1-00015414.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

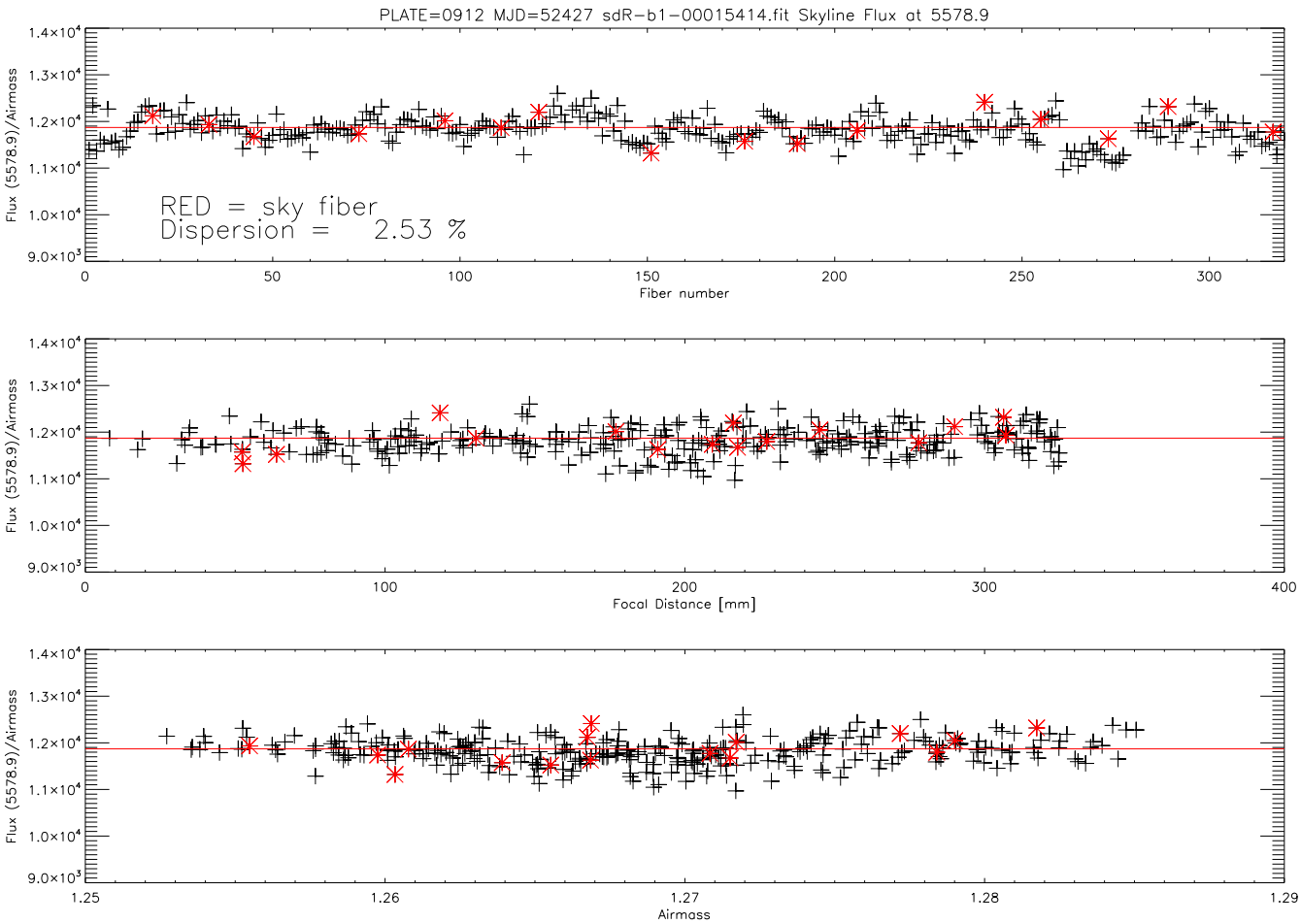

PLATE=0912 MJD=52427 sdR-b1-00015414.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

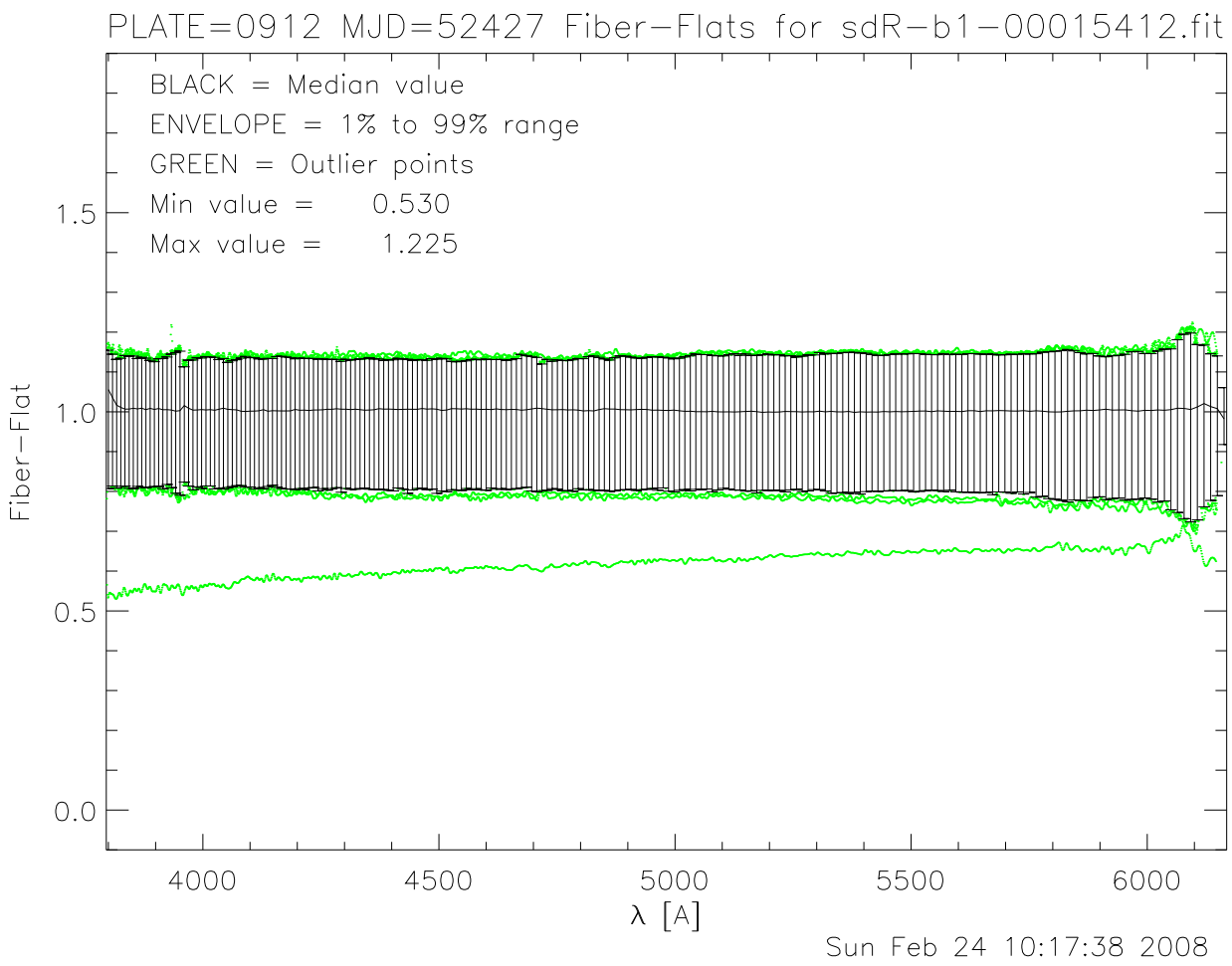

PLATE=0912 MJD=52427 sdR-b1-00015414.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

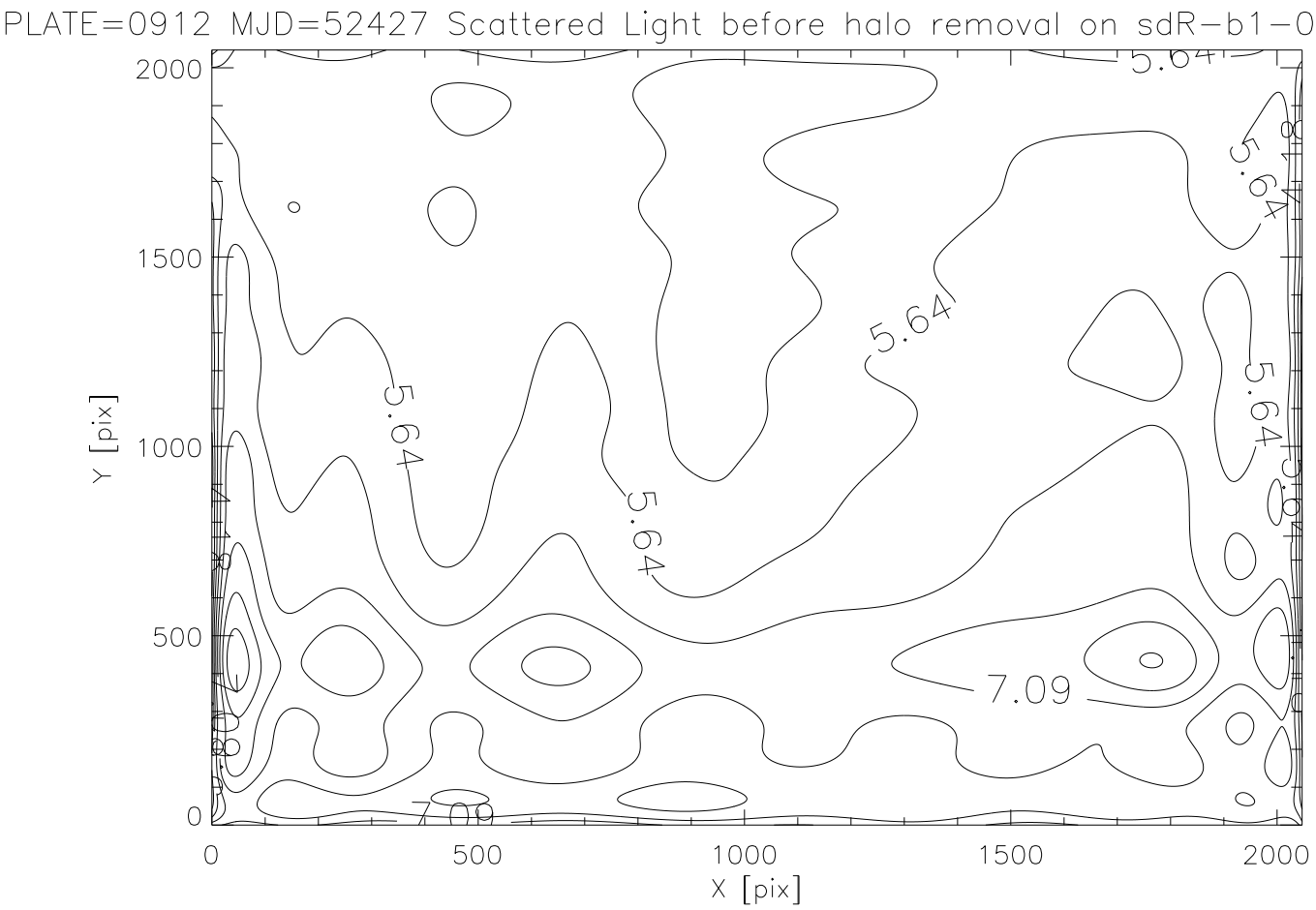

PLATE=0912 MJD=52427 sdR-b1-00015414.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
200
0
-200
-400
5570
5575
5580
5585
5590
λ [A]

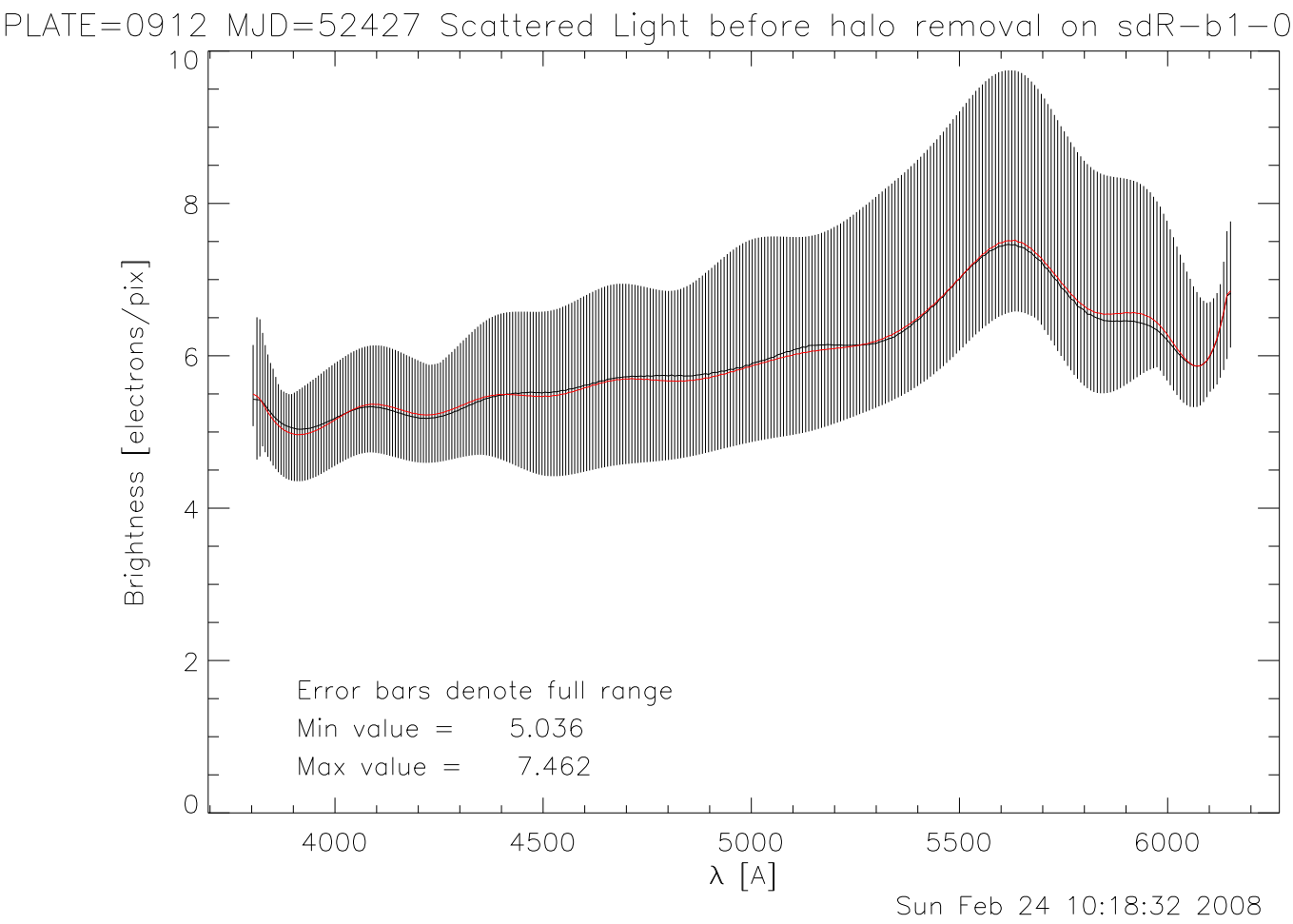

Number of sky fibers = 16
PLATE=0912 MJD=52427 sdR-b1-00015414.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

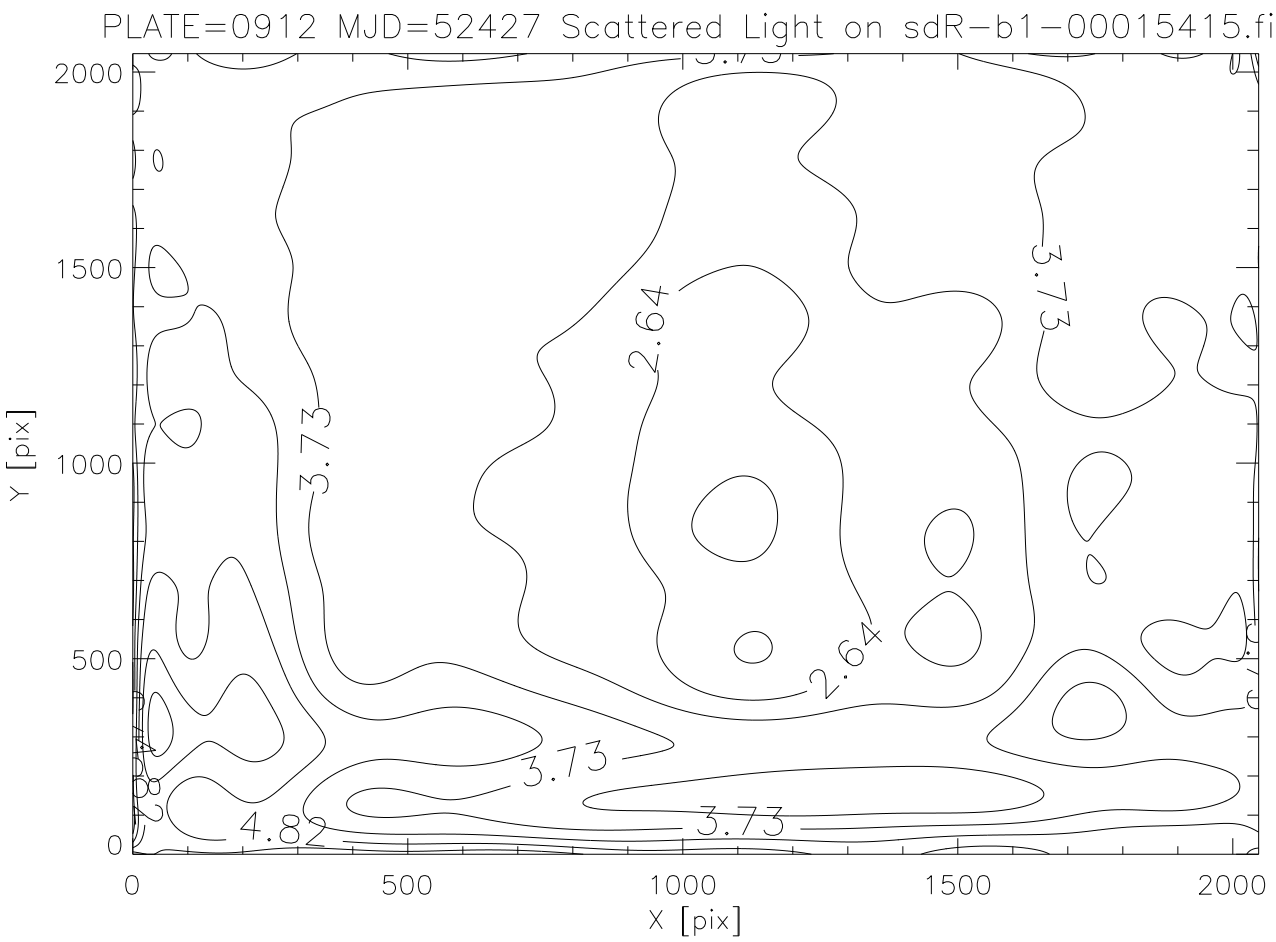

PLATE=0912 MJD=52427 sdR-b1-00015414.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 10.56 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

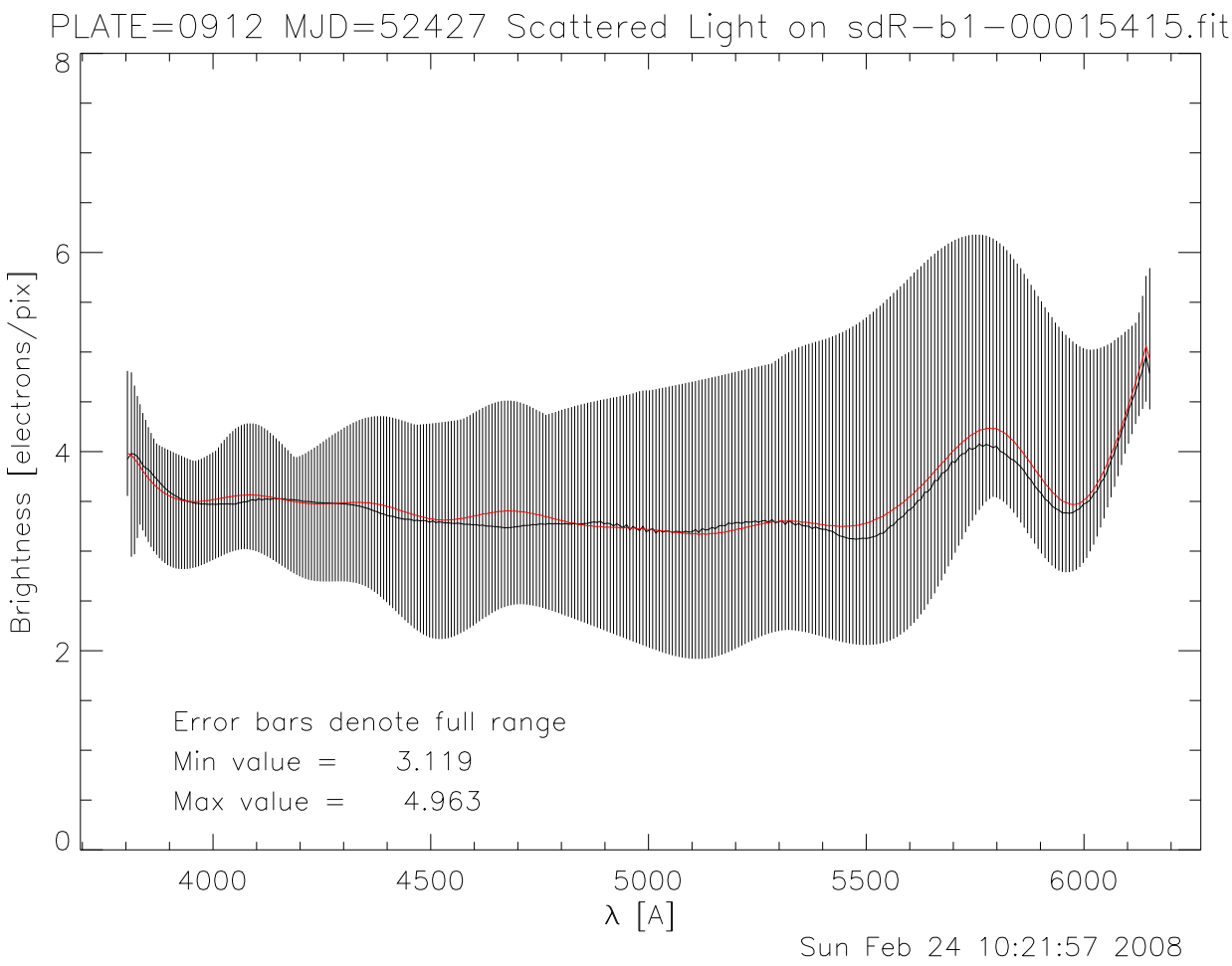

PLATE=0912 MJD=52427 sdR-b1-00015414.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 2.53 %
Fiber number
Focal Distance [mm]
Airmass

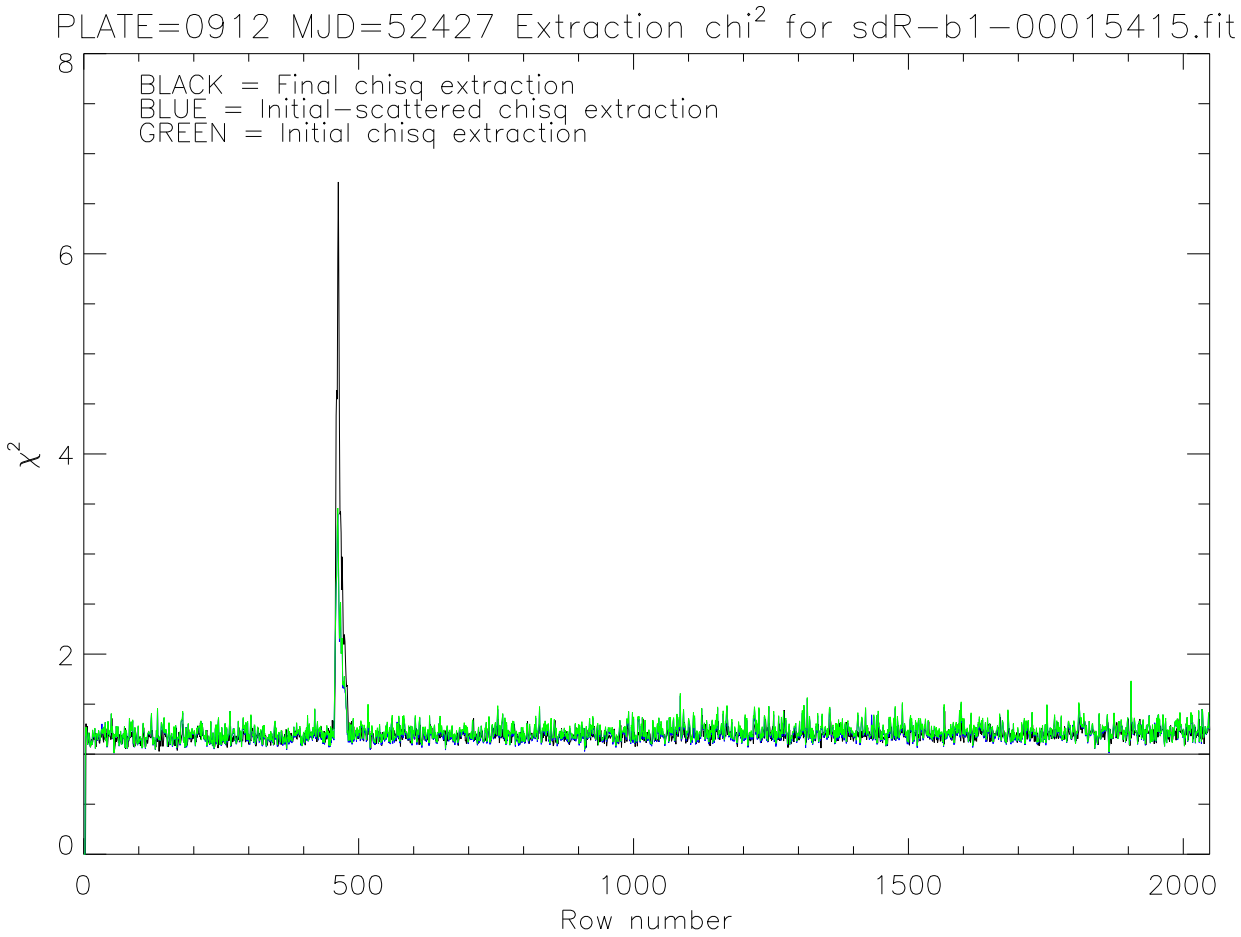

PLATE=0912 MJD=52427 Fiber−Flats for sdR−b1−00015412.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.530
Max value = 1.225
Fiber−Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Sun Feb 24 10:17:38 2008

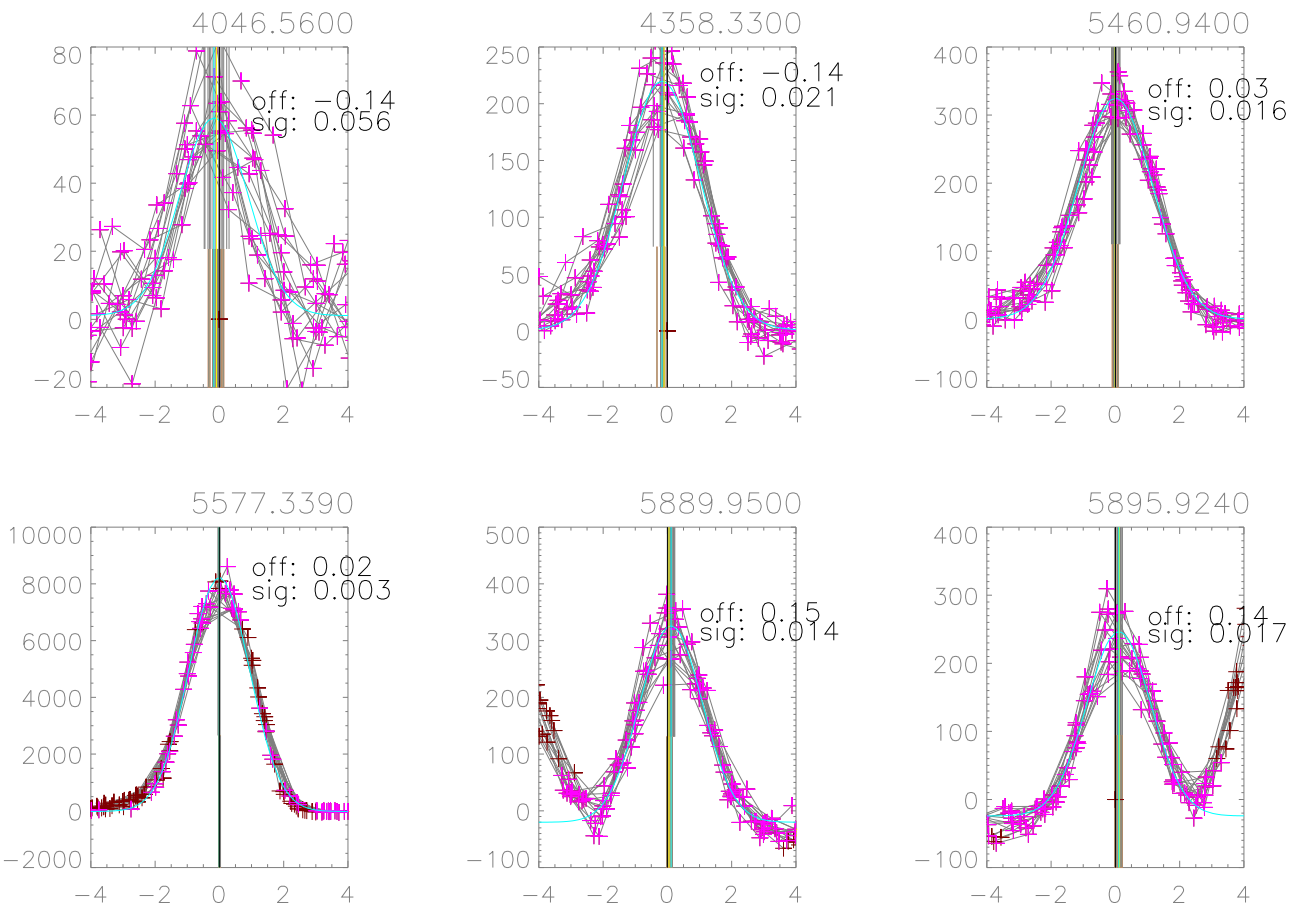

PLATE=0912 MJD=52427 Scattered Light before halo removal on sdR-b1-00015415.f
5.64
5.64
5.64
5.64
5.64
7.09
7.09
0
0
0

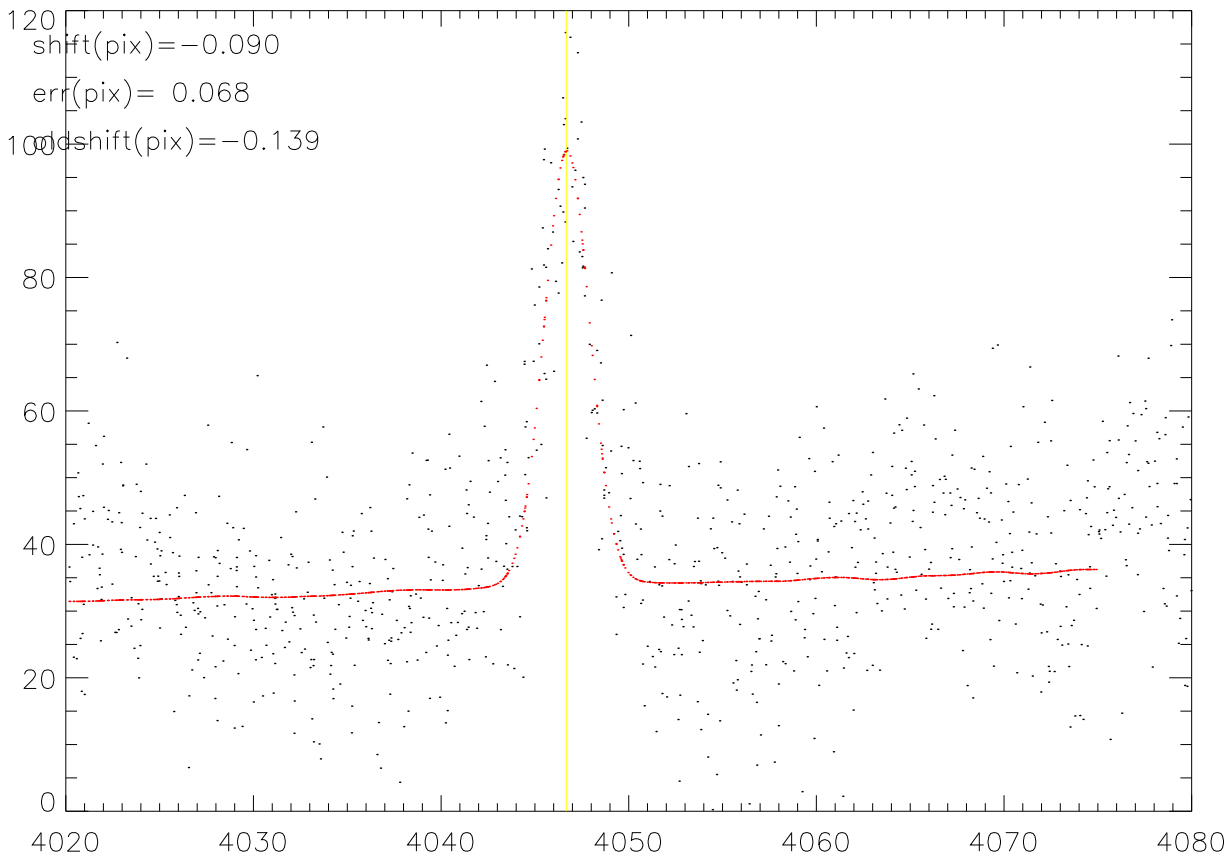

PLATE=0912 MJD=52427 Scattered Light before halo removal on sdR-b1-00015415.f
Brightness [electrons/pix]
10
8
6
4
2
0
Error bars denote full range
Min value = 5.036
Max value = 7.462
4000
4500
5000
5500
6000
λ [A]
Sun Feb 24 10:18:32 2008

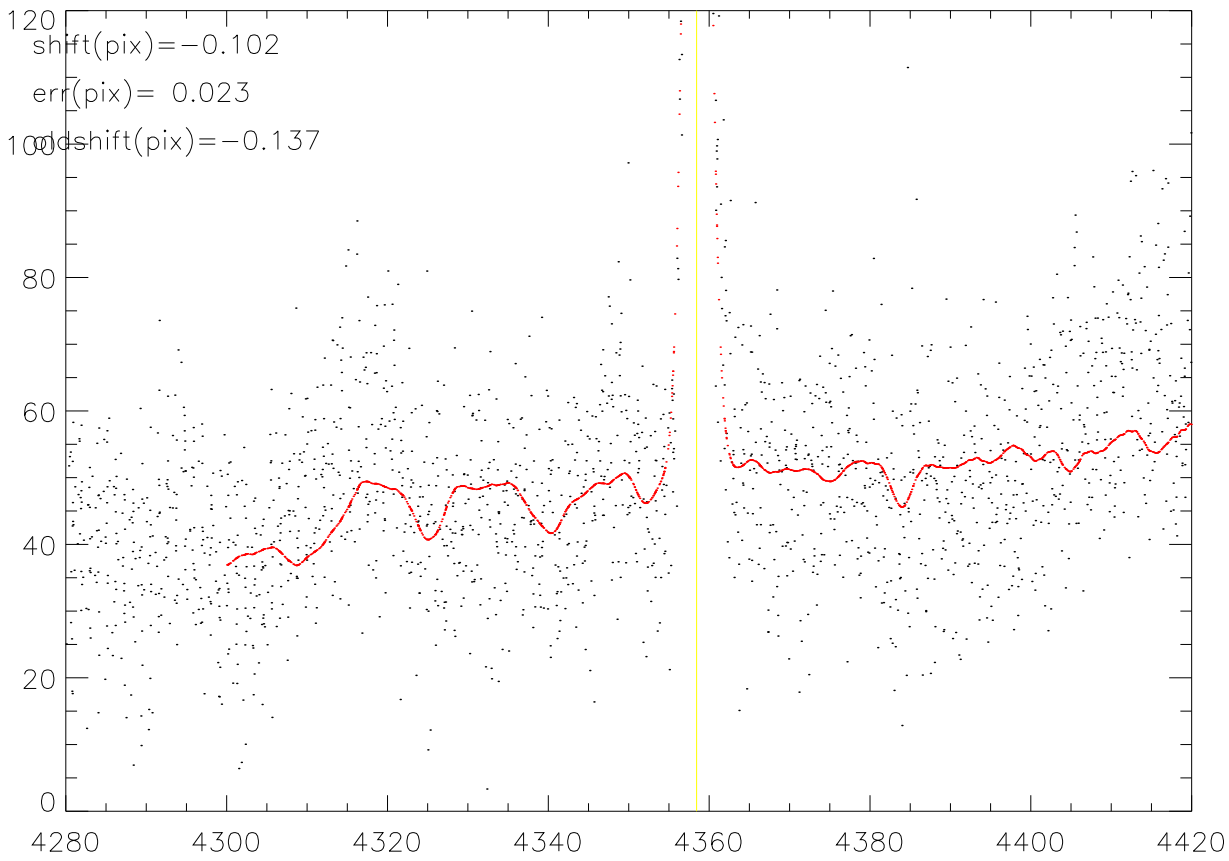

PLATE=0912 MJD=52427 Scattered Light on sdR-b1-00015415.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
0
3.73
2.64
3.73
2.64
3.73
3.73
4.82

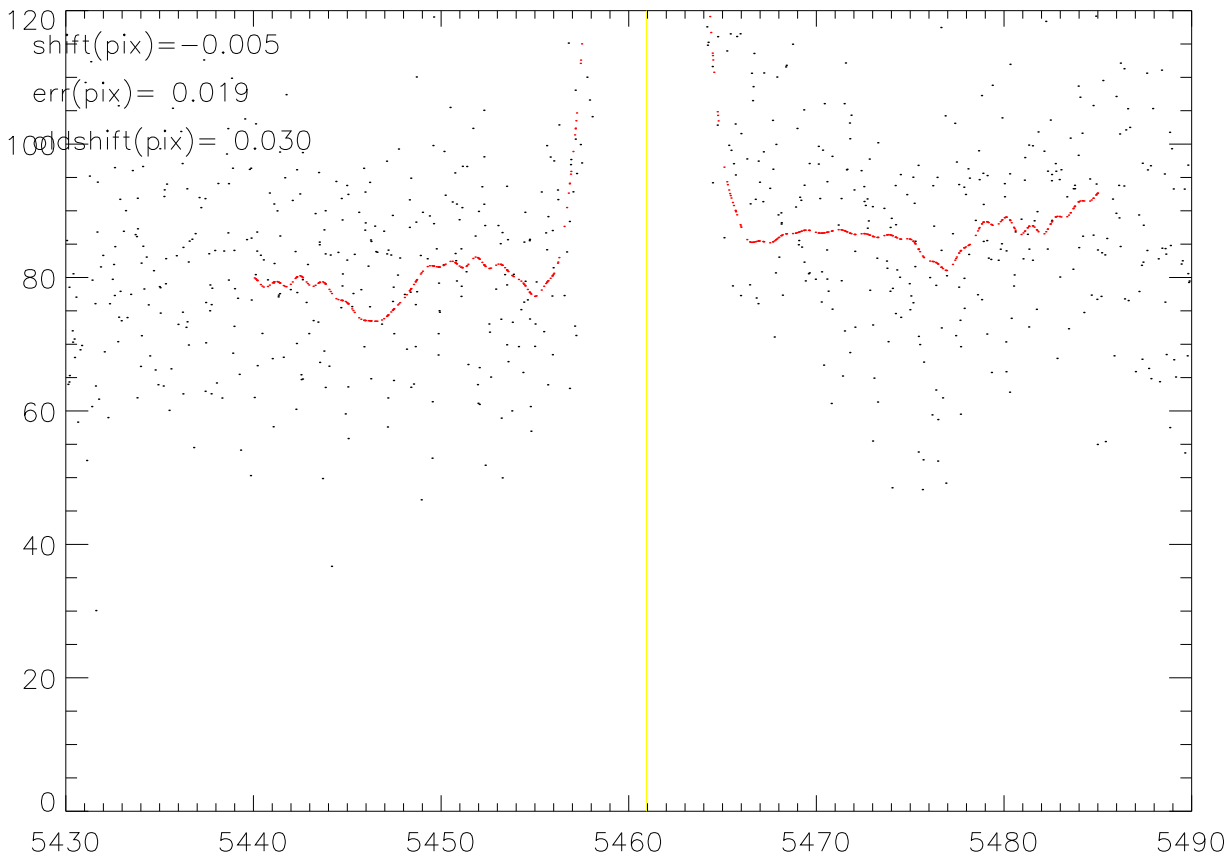

PLATE=0912 MJD=52427 Scattered Light on sdR-b1-00015415.fit
Brightness [electrons/pix]
0
2
4
6
8
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 3.119
Max value = 4.963
Sun Feb 24 10:21:57 2008

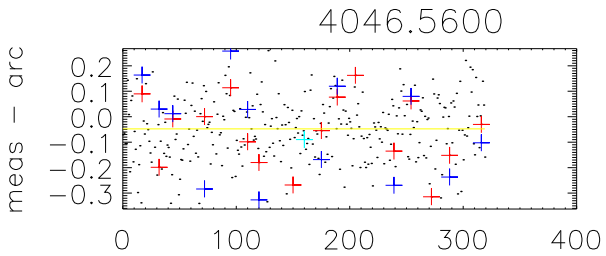

PLATE=0912 MJD=52427 Extraction chi^2 for sdR-b1-00015415.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
0
500
1000
1500
2000
Row number

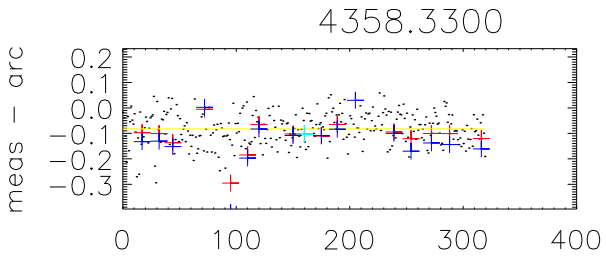

4046.5600
off: −0.14
sig: 0.056
4358.3300
off: −0.14
sig: 0.021
5460.9400
off: 0.03
sig: 0.016
5577.3390
off: 0.02
sig: 0.003
5889.9500
off: 0.15
sig: 0.014
5895.9240
off: 0.14
sig: 0.017

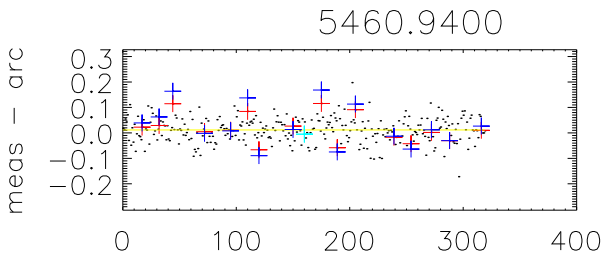

shift(pix)=−0.090
err(pix)= 0.068
oldshift(pix)=−0.139
120
100
80
60
40
20
0
4020
4030
4040
4050
4060
4070
4080

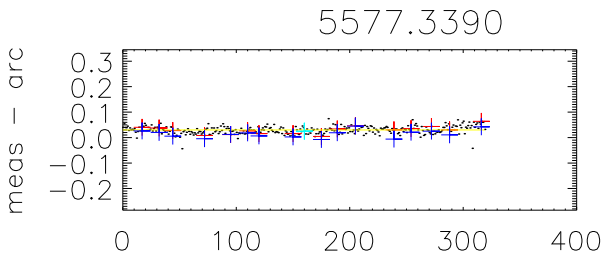

shift(pix)=−0.102
err(pix)= 0.023
oldshift(pix)=−0.137
120
100
80
60
40
20
0
4280
4300
4320
4340
4360
4380
4400
4420

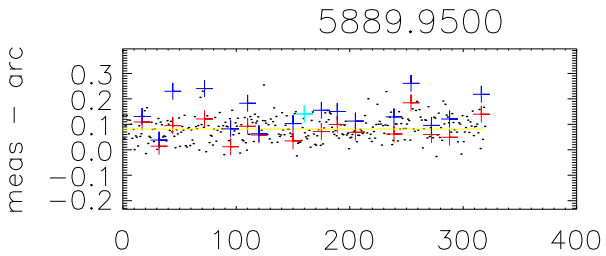

shift(pix)=−0.005
err(pix)= 0.019
oldshift(pix)= 0.030
120
100
80
60
40
20
0
5430
5440
5450
5460
5470
5480
5490

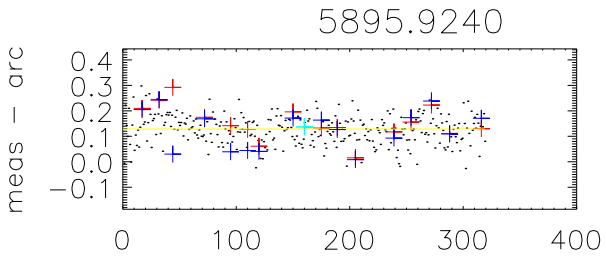

4046.5600
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

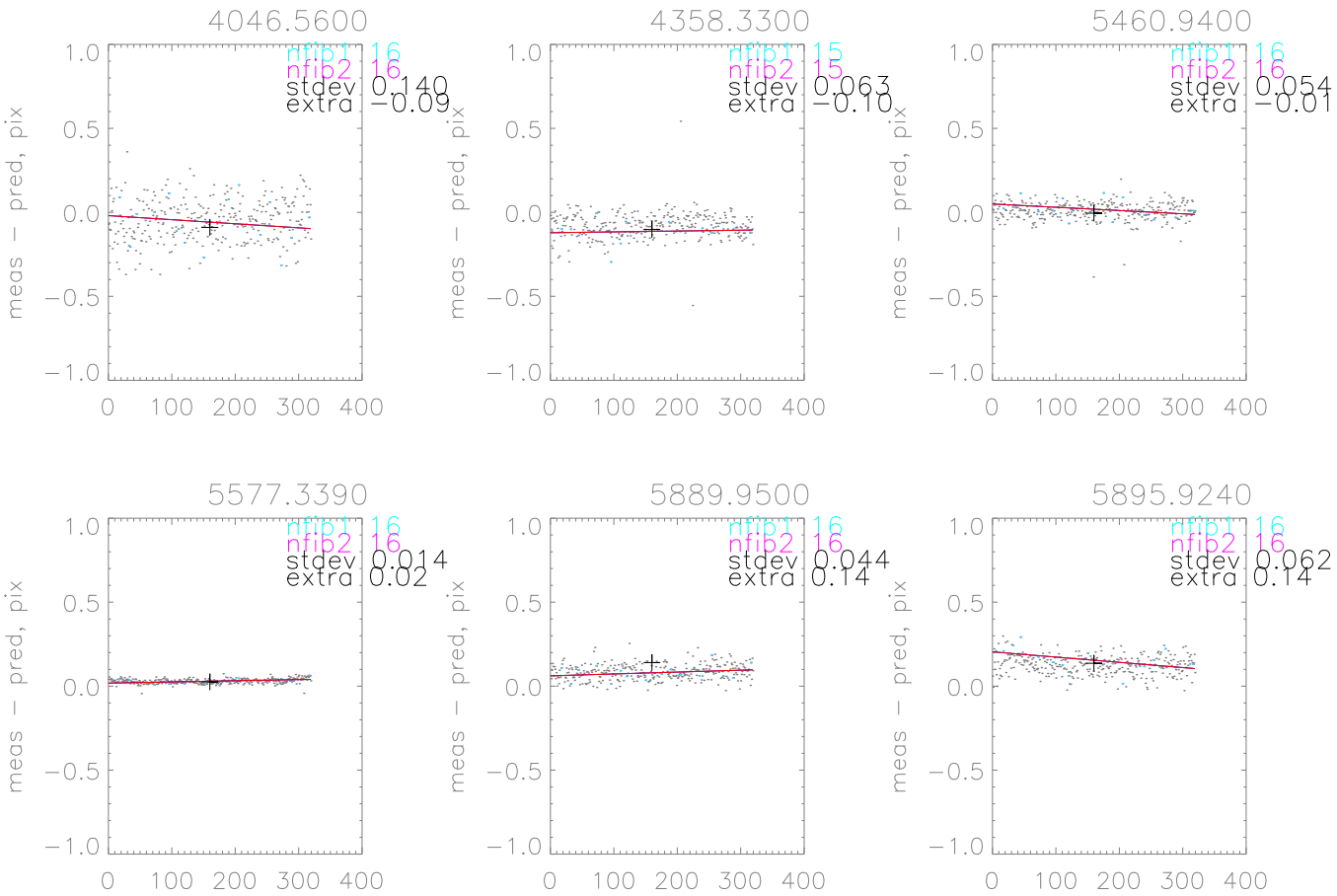

4358.3300
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

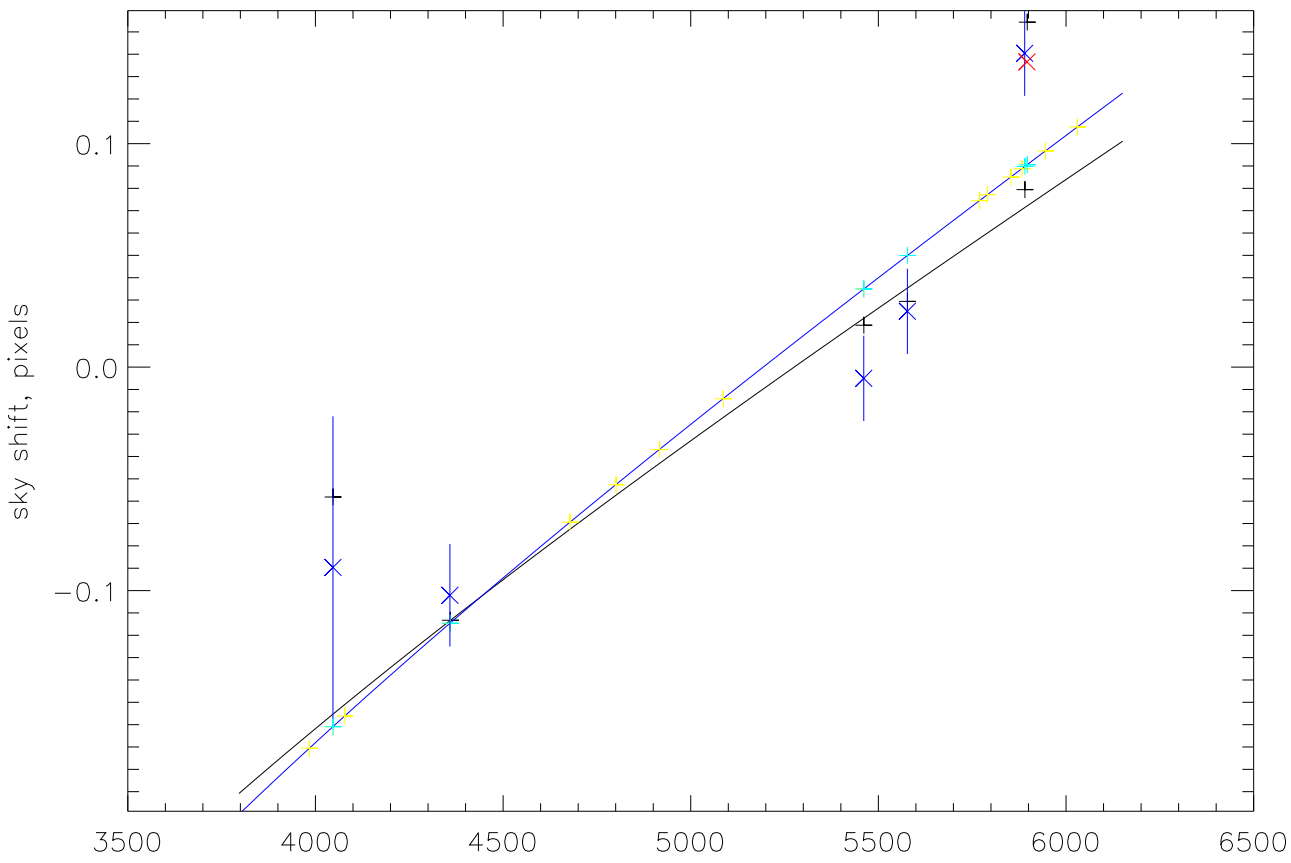

5460.9400
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

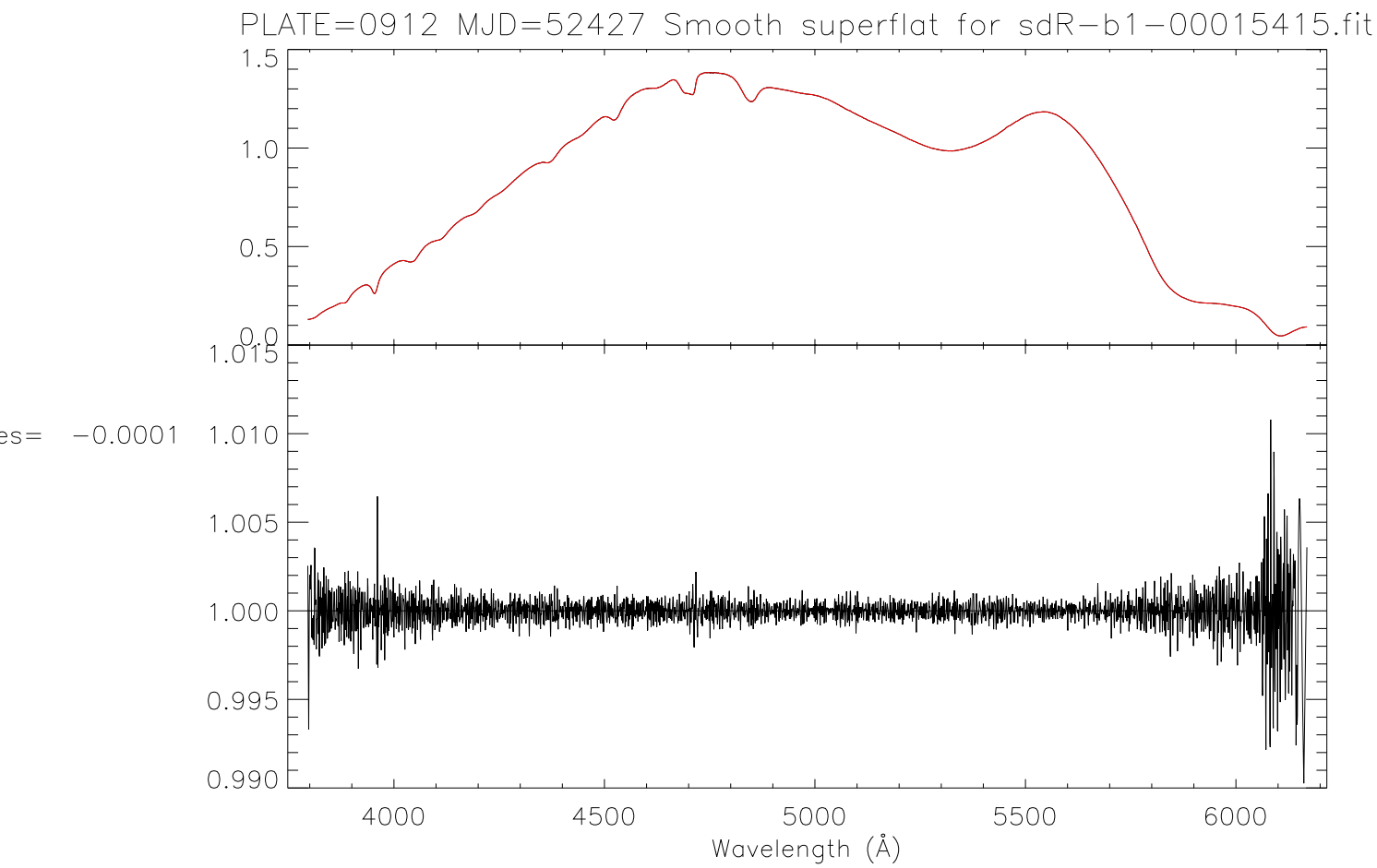

5577.3390
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

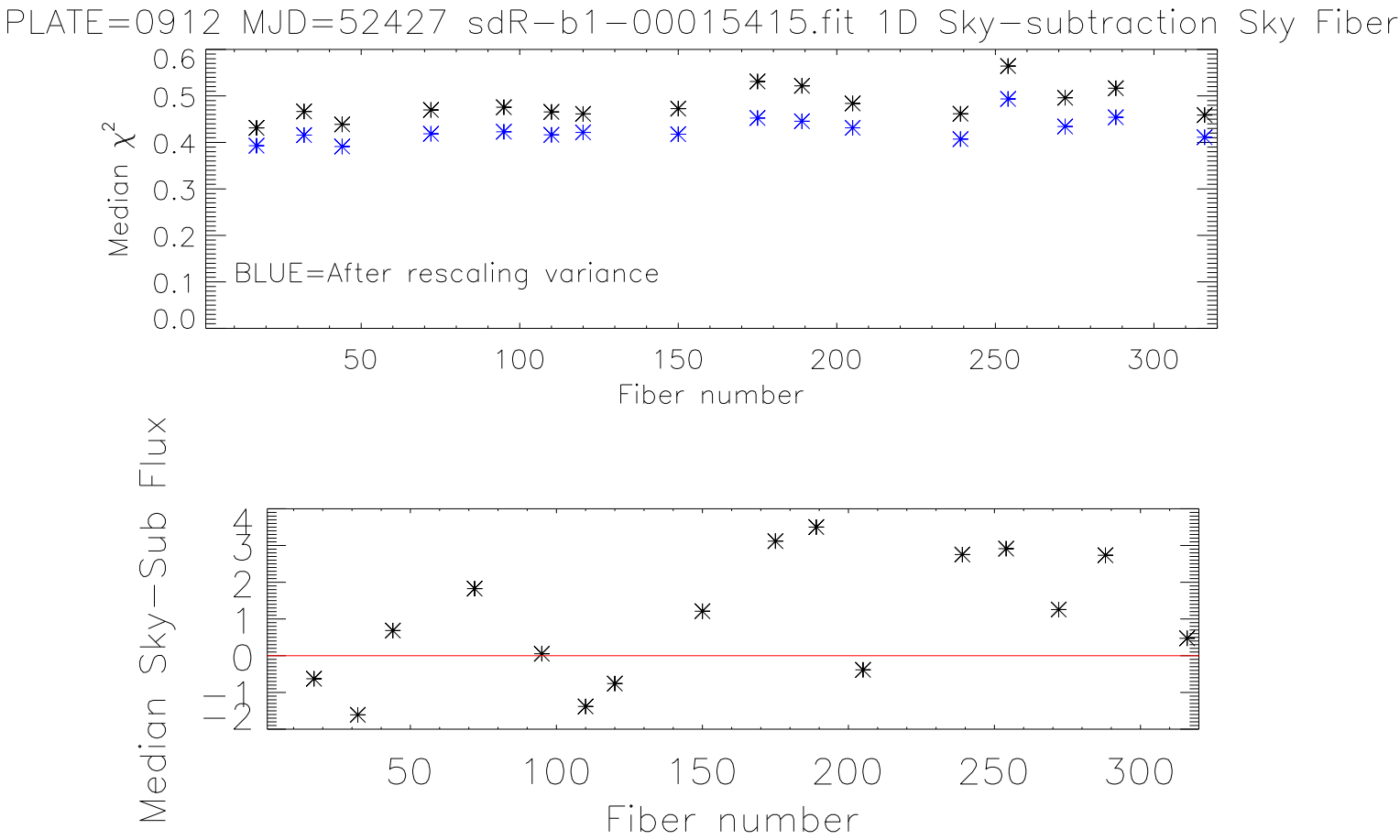

5889.9500
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

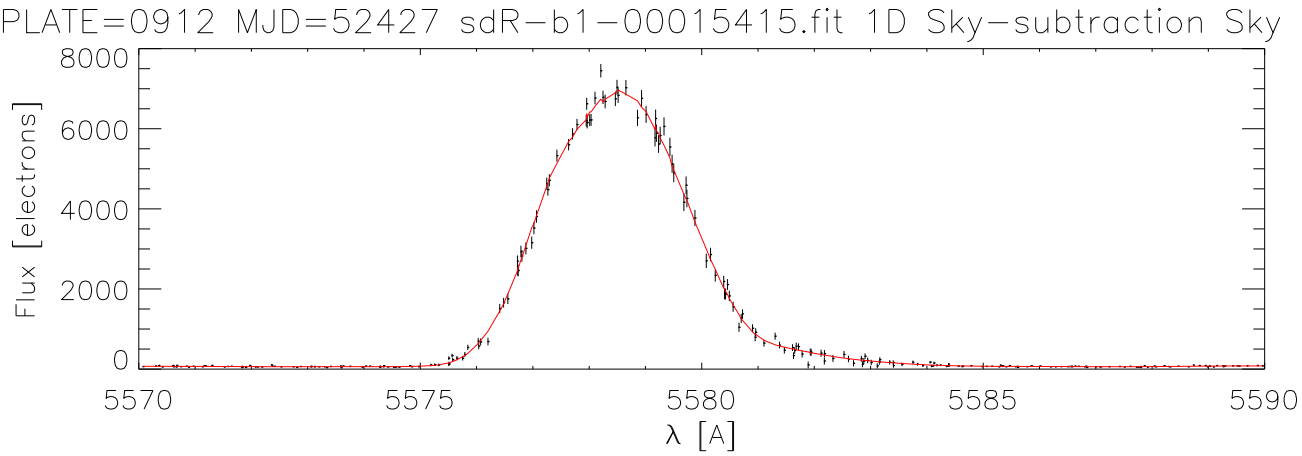

5895.9240
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

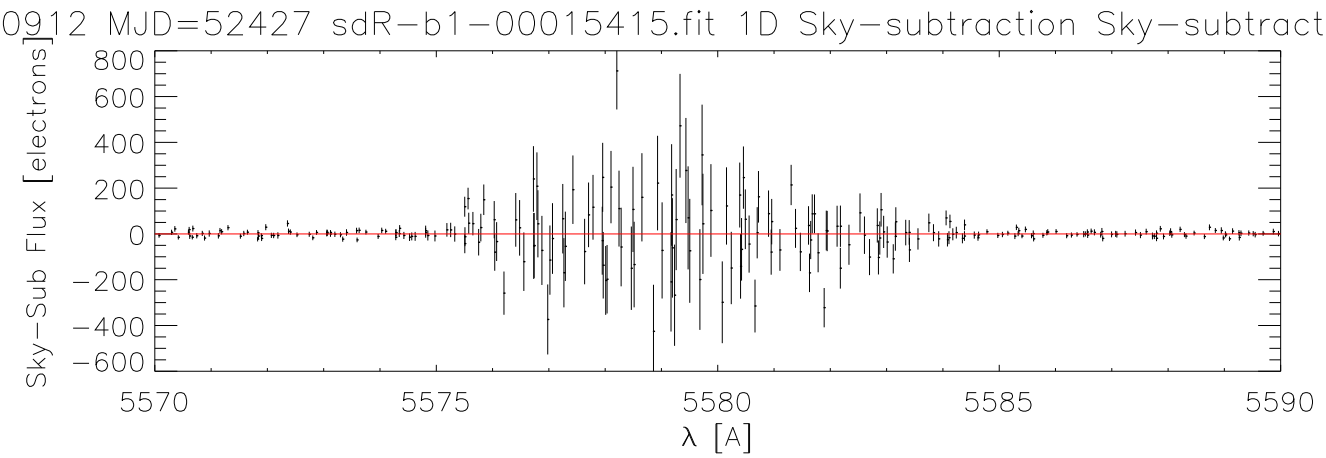

4046.5600
nfib1 16
nfib2 16
stdev 0.140
extra −0.09
4358.3300
nfib1 15
nfib2 15
stdev 0.063
extra −0.10
5460.9400
nfib1 16
nfib2 16
stdev 0.054
extra −0.01
5577.3390
nfib1 16
nfib2 16
stdev 0.014
extra 0.02
5889.9500
nfib1 16
nfib2 16
stdev 0.044
extra 0.14
5895.9240
nfib1 16
nfib2 16
stdev 0.062
extra 0.14
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

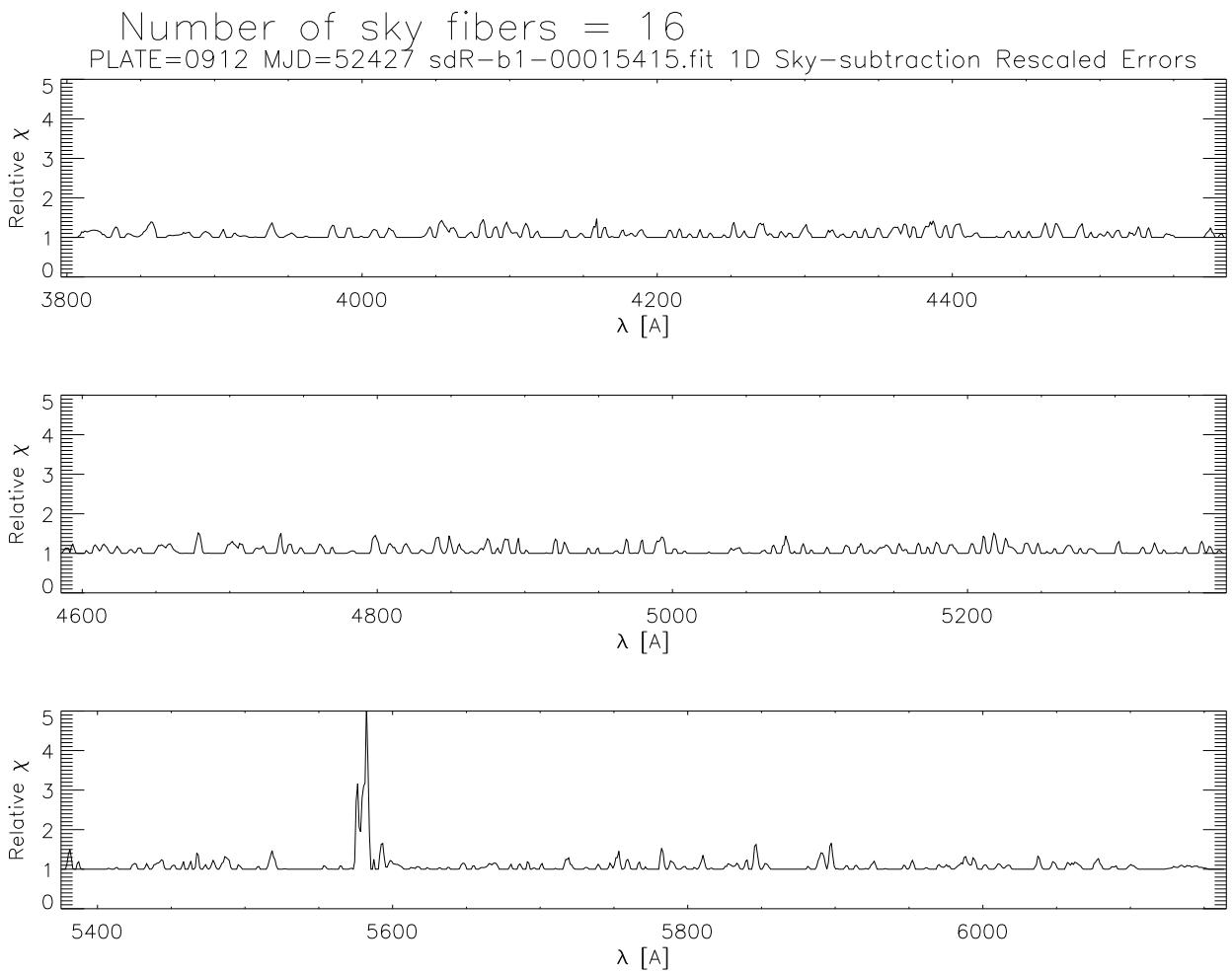

sky shift, pixels
0.1
0.0
−0.1
3500
4000
4500
5000
5500
6000
6500

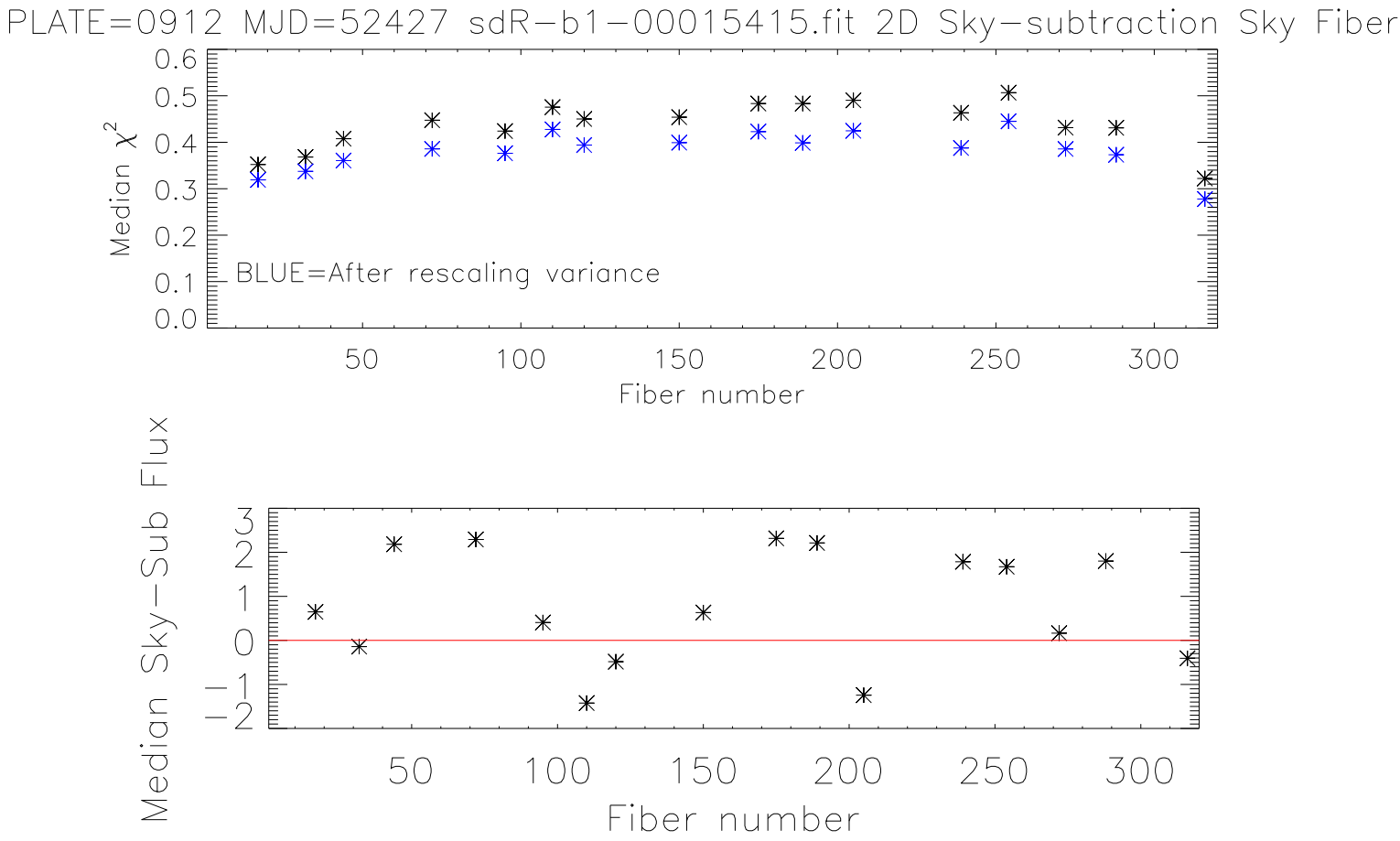

PLATE=0912 MJD=52427 Smooth superflat for sdR-b1-00015415.fit
1.5
1.0
0.5
0.0
1.015
1.010
1.005
1.000
0.995
0.990
es= −0.0001
4000
4500
5000
5500
6000
Wavelength (Å)

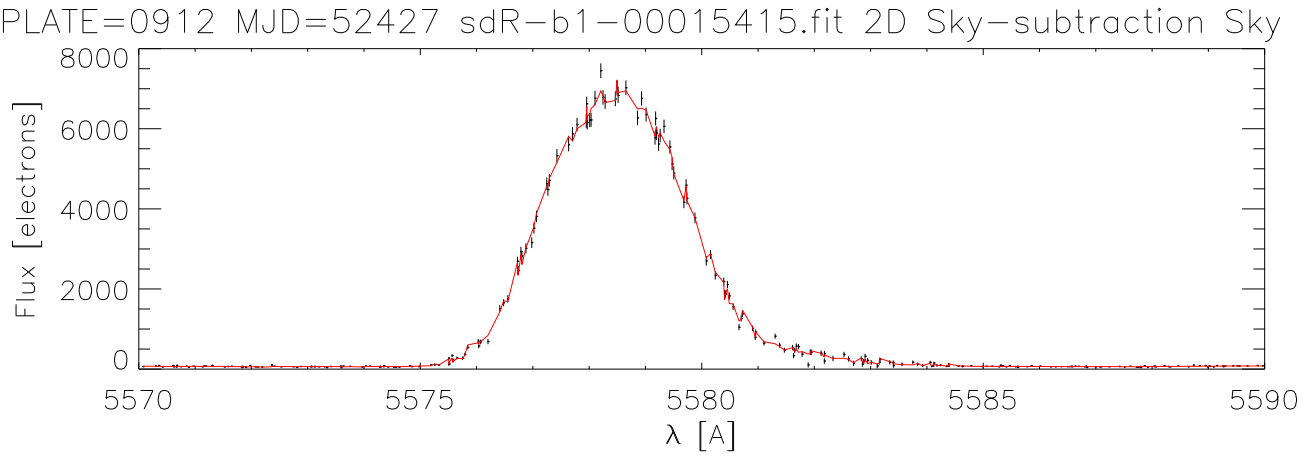

PLATE=0912 MJD=52427 sdR-b1-00015415.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-2
-1
0
1
2
3
4
50
100
150
200
250
300
Fiber number

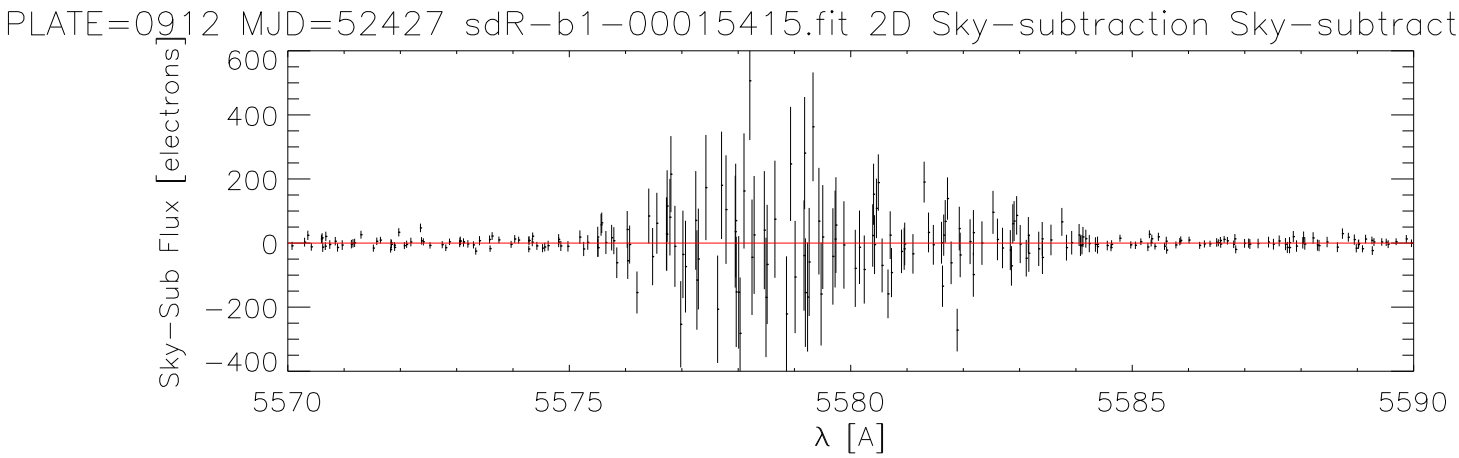

PLATE=0912 MJD=52427 sdR-b1-00015415.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

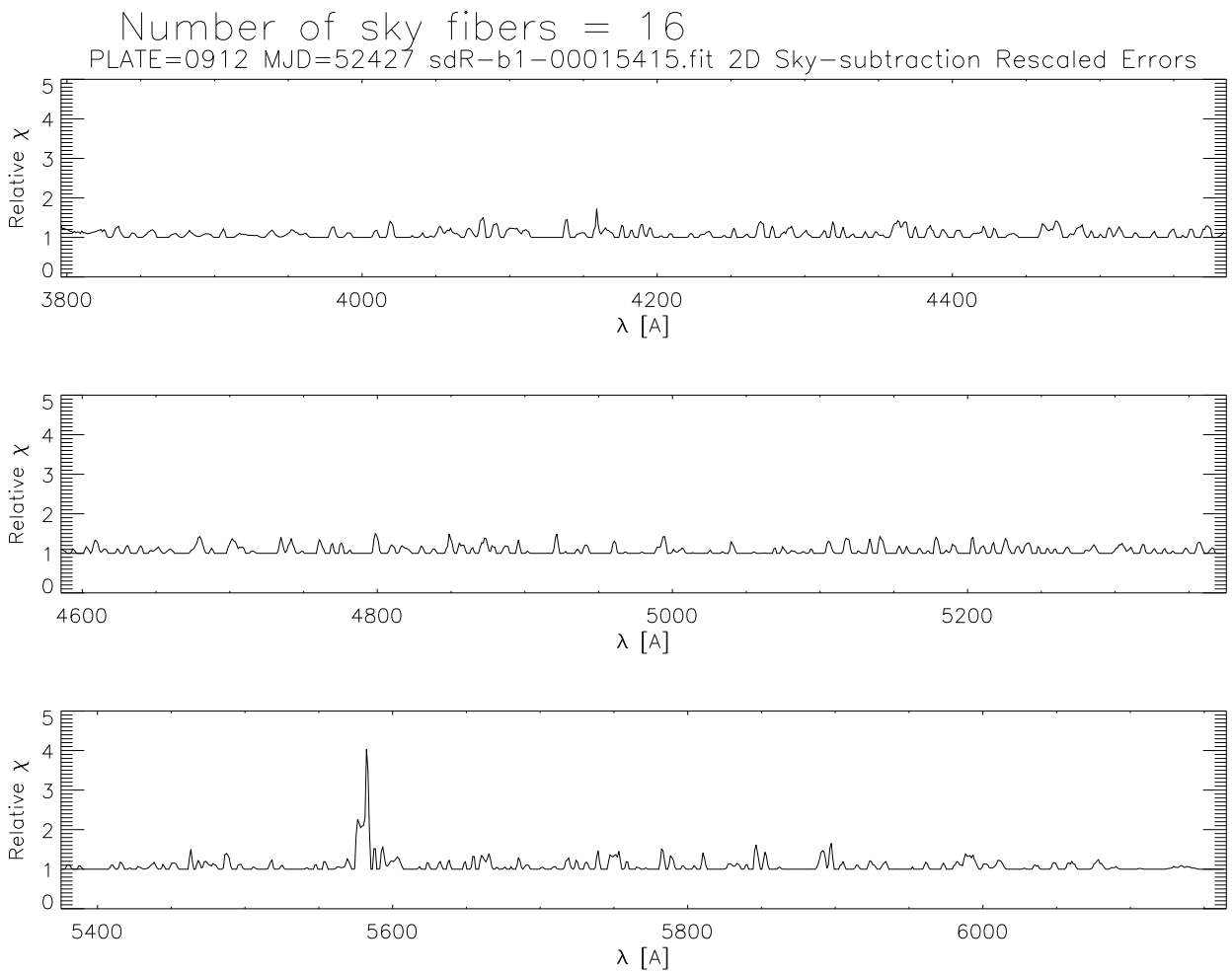

PLATE=0912 MJD=52427 sdR-b1-00015415.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
800
600
400
200
0
-200
-400
-600
5570
5575
5580
5585
5590
λ [A]

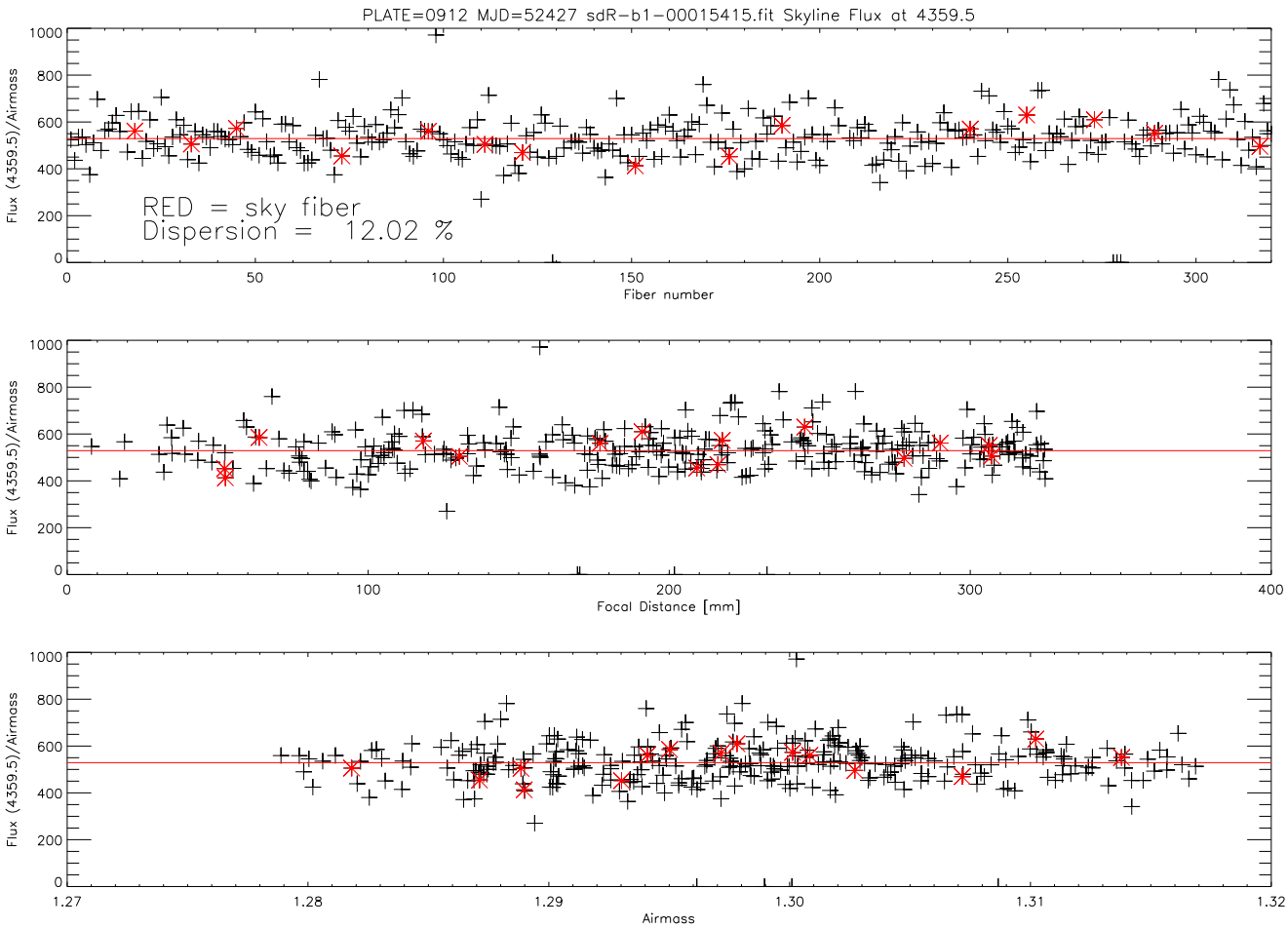

Number of sky fibers = 16
PLATE=0912 MJD=52427 sdR-b1-00015415.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

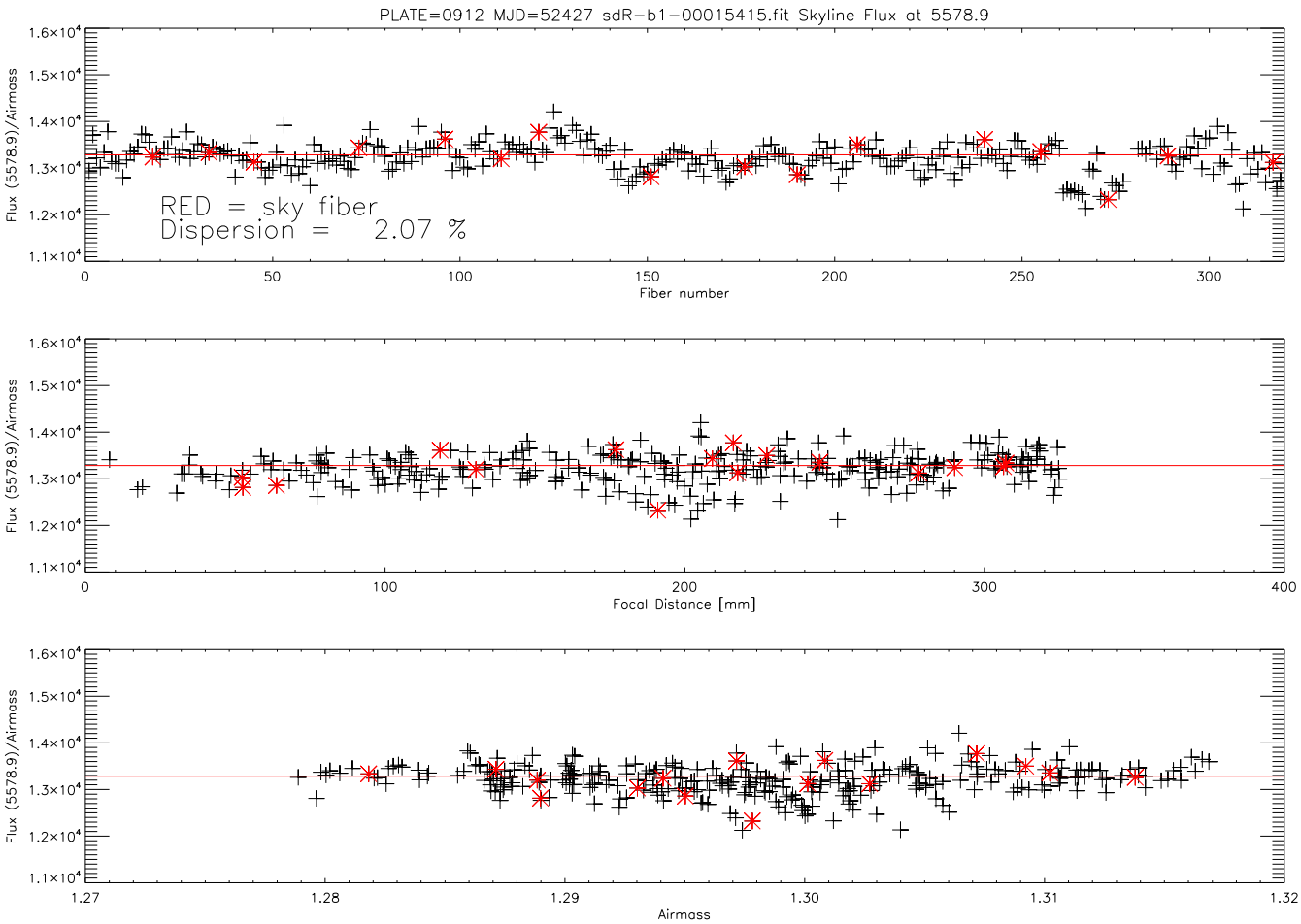

PLATE=0912 MJD=52427 sdR-b1-00015415.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

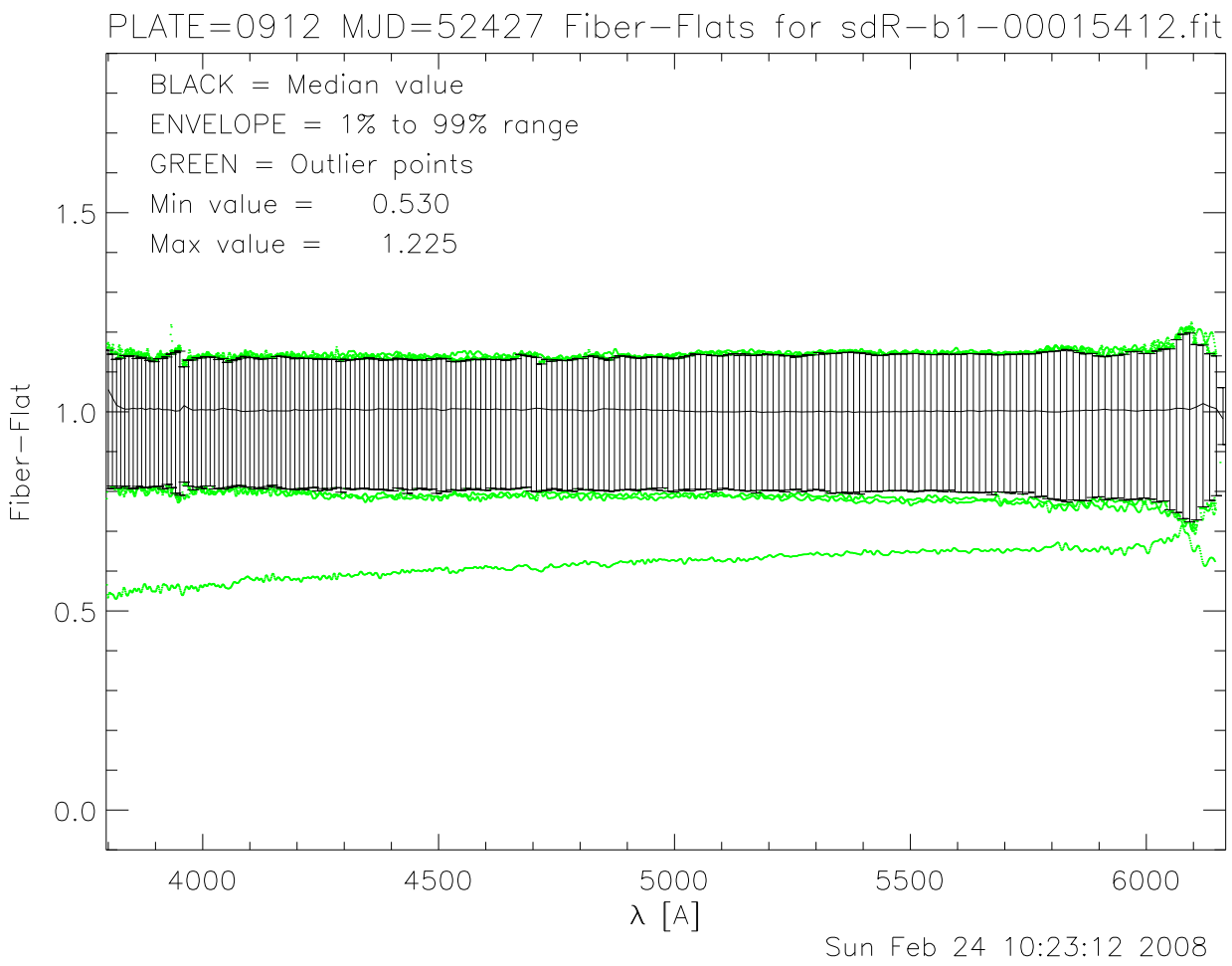

PLATE=0912 MJD=52427 sdR-b1-00015415.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

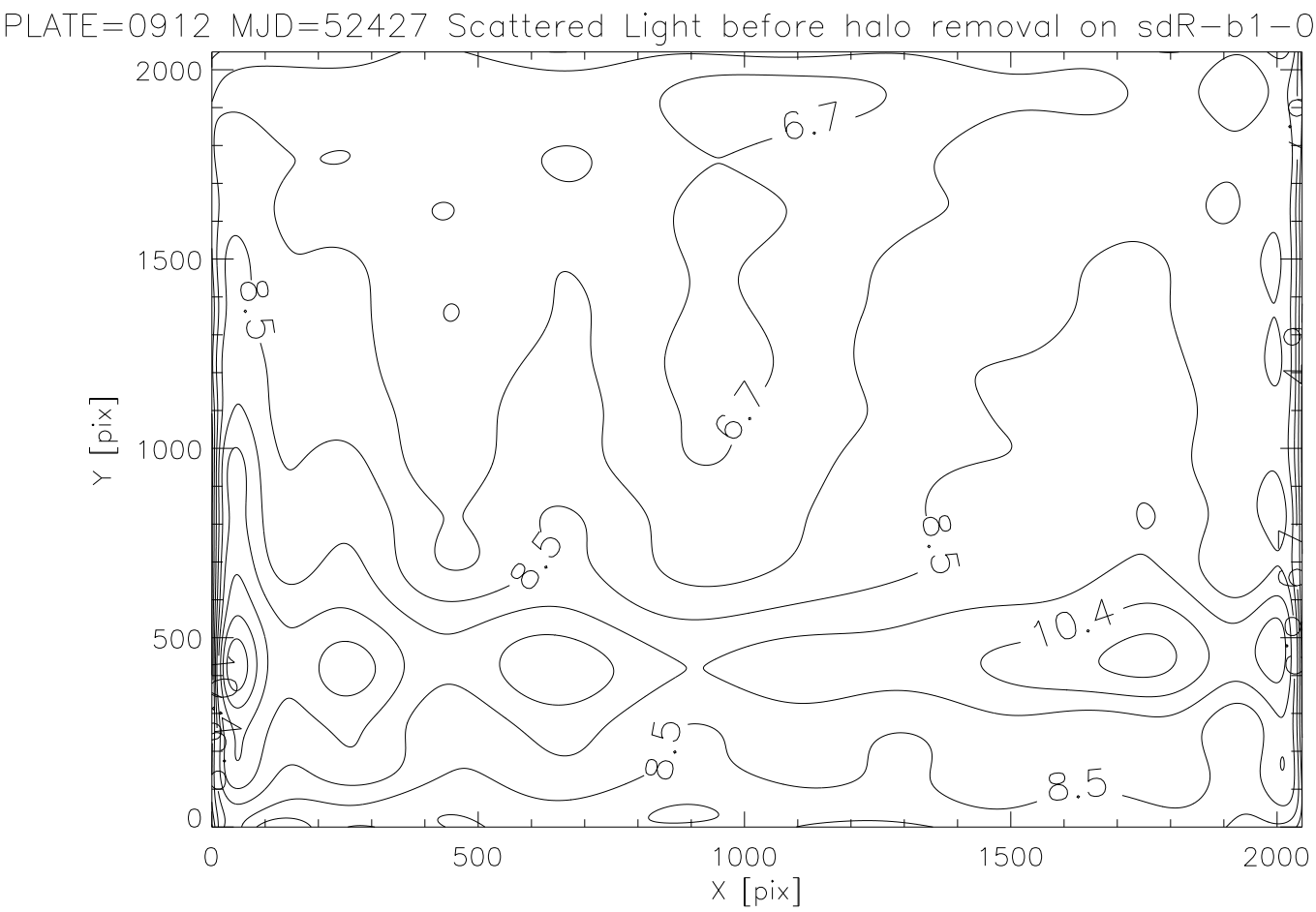

PLATE=0912 MJD=52427 sdR-b1-00015415.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
-200
-400
5570
5575
5580
5585
5590
λ [A]

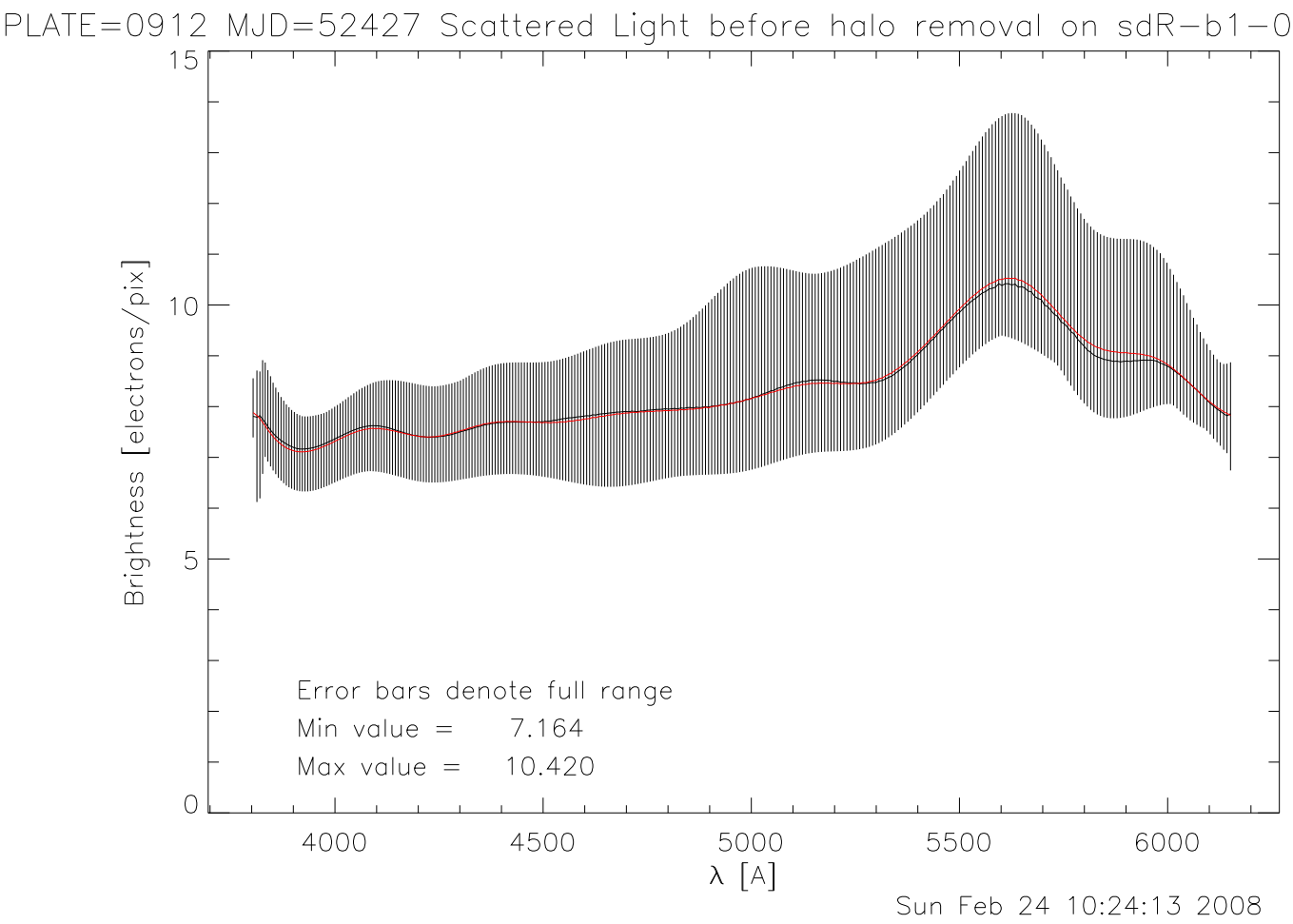

Number of sky fibers = 16
PLATE=0912 MJD=52427 sdR-b1-00015415.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

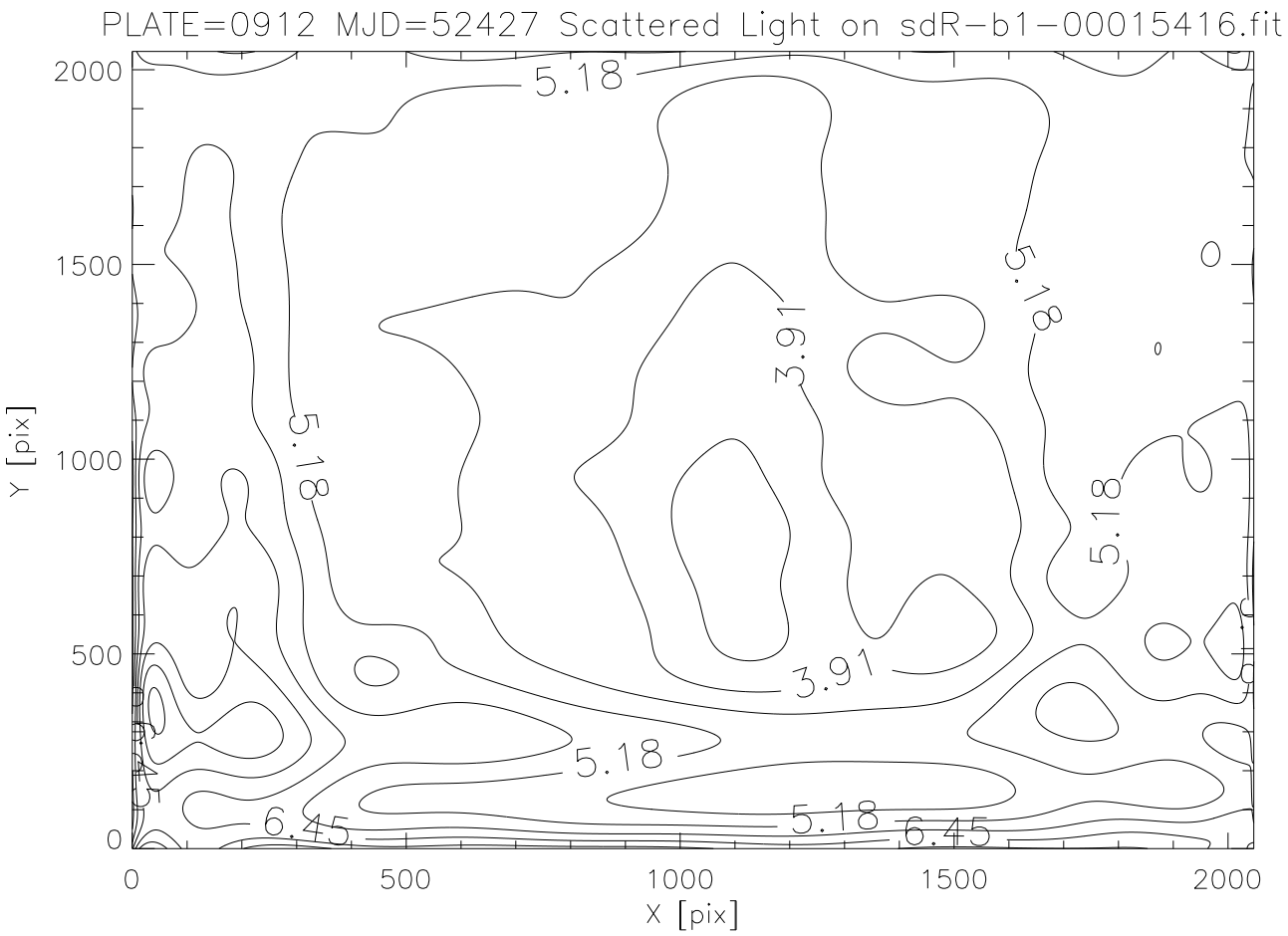

PLATE=0912 MJD=52427 sdR-b1-00015415.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 12.02 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

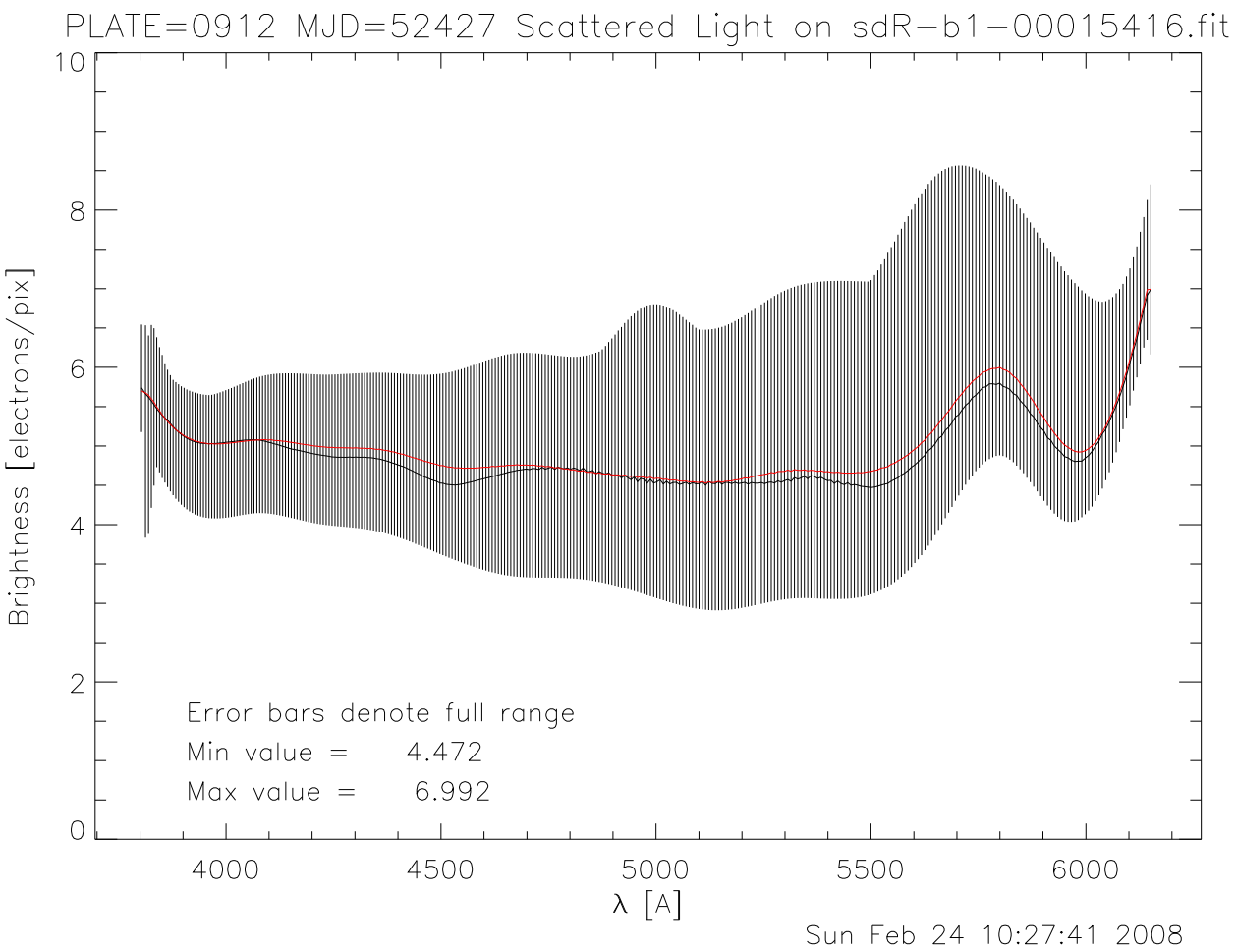

PLATE=0912 MJD=52427 sdR-b1-00015415.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 2.07 %
Fiber number
Focal Distance [mm]
Airmass

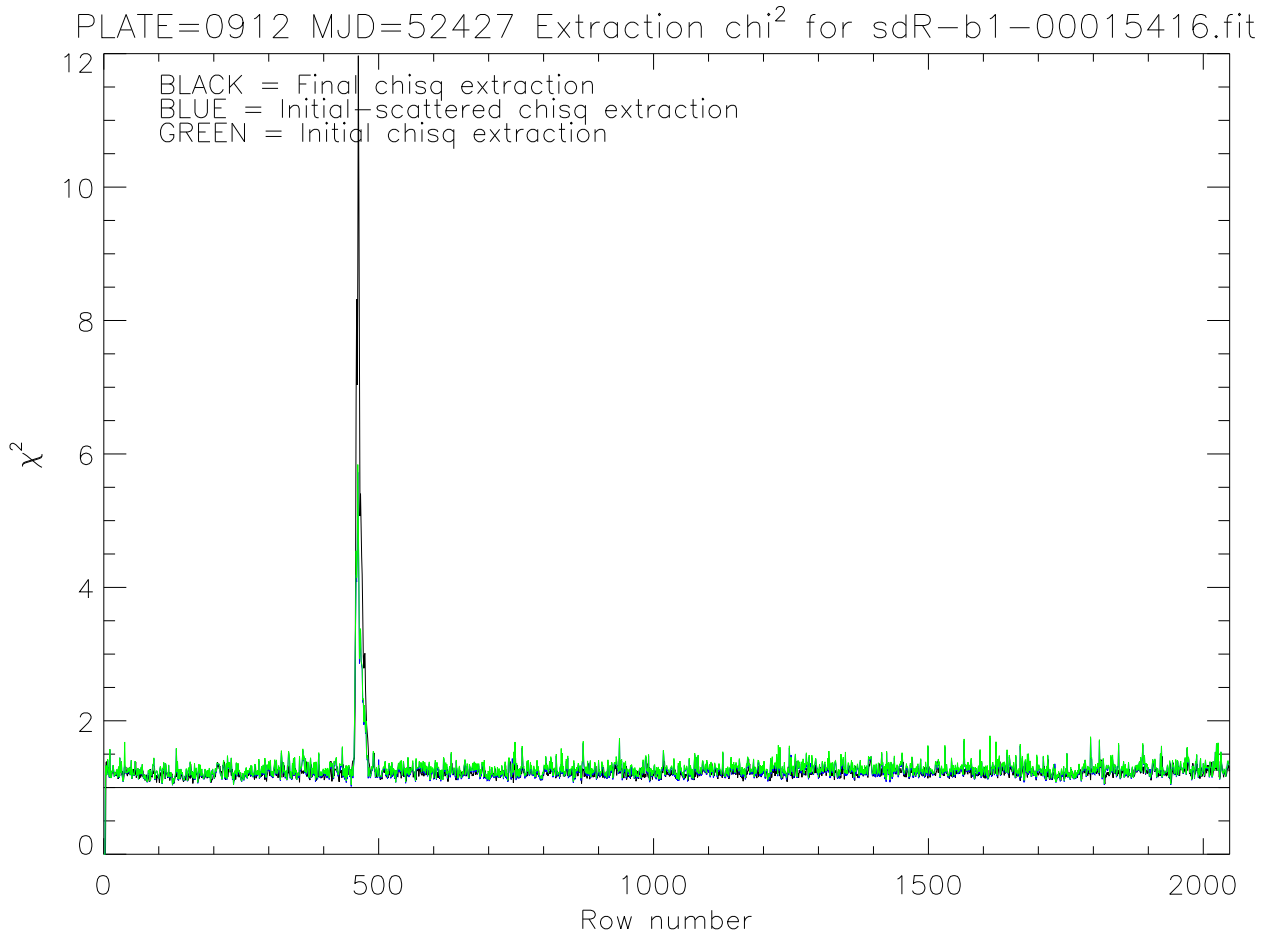

PLATE=0912 MJD=52427 Fiber−Flats for sdR−b1−00015412.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.530
Max value = 1.225
Fiber−Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Sun Feb 24 10:23:12 2008

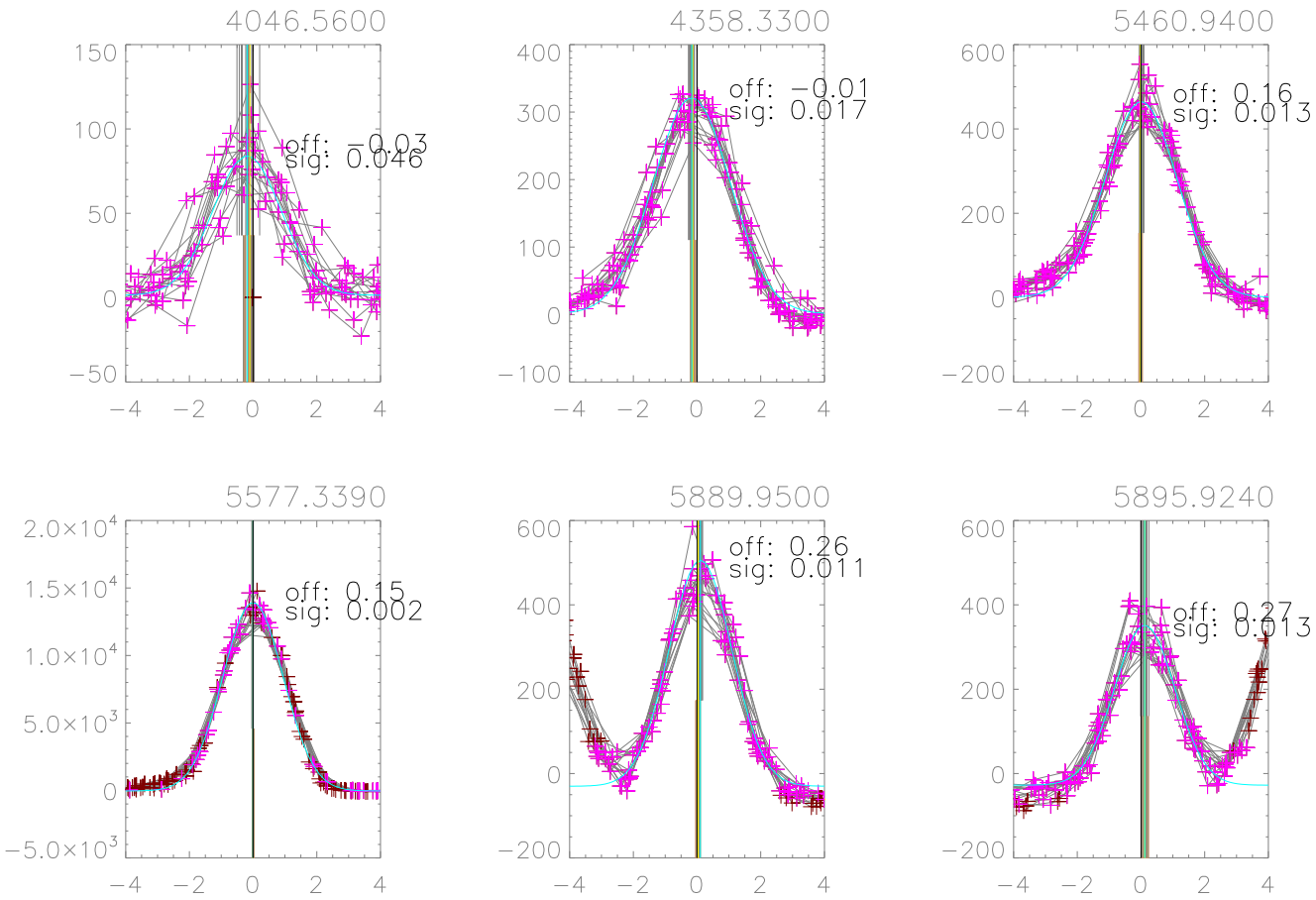

PLATE=0912 MJD=52427 Scattered Light before halo removal on sdR−b1−00015416.f
Y [pix]
X [pix]
0
500
1000
1500
2000
6.7
8.5
10.4

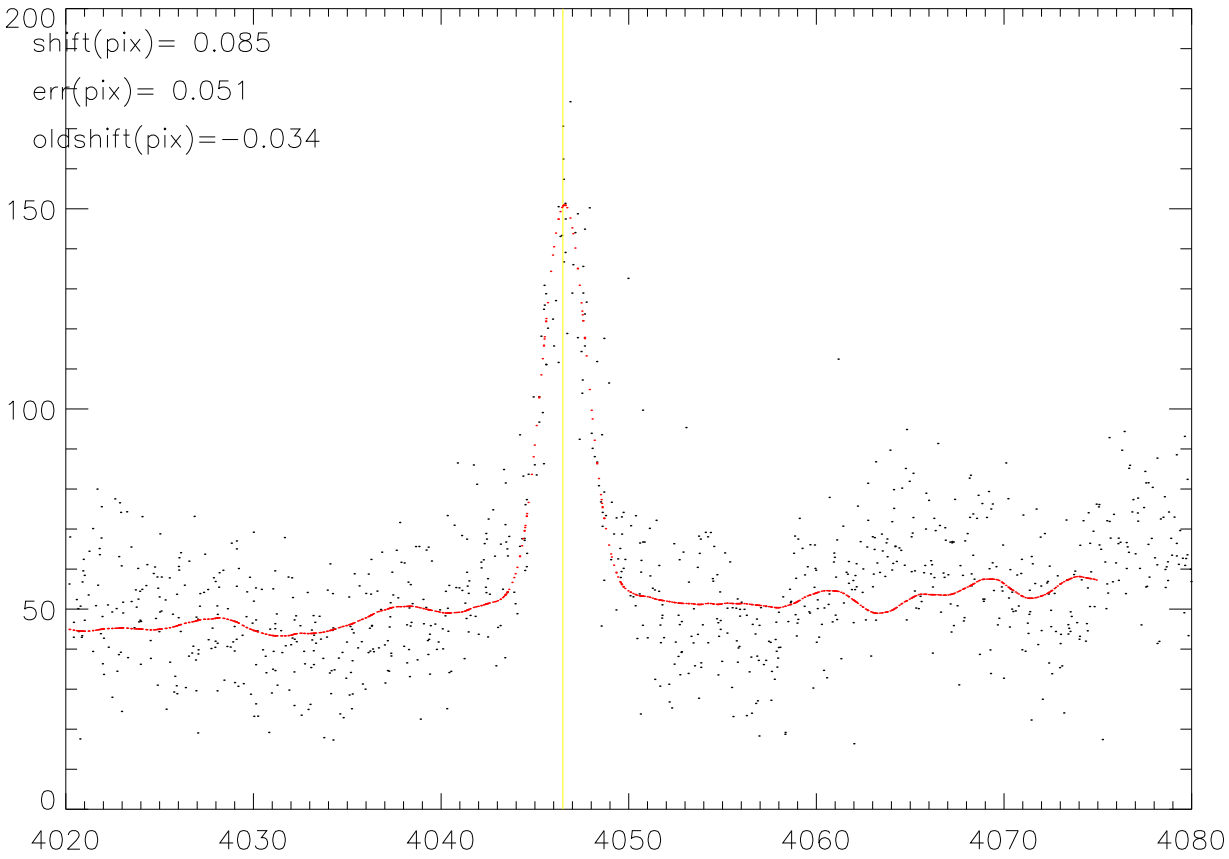

PLATE=0912 MJD=52427 Scattered Light before halo removal on sdR-b1-00015416.f
Brightness [electrons/pix]
15
10
5
0
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 7.164
Max value = 10.420
Sun Feb 24 10:24:13 2008

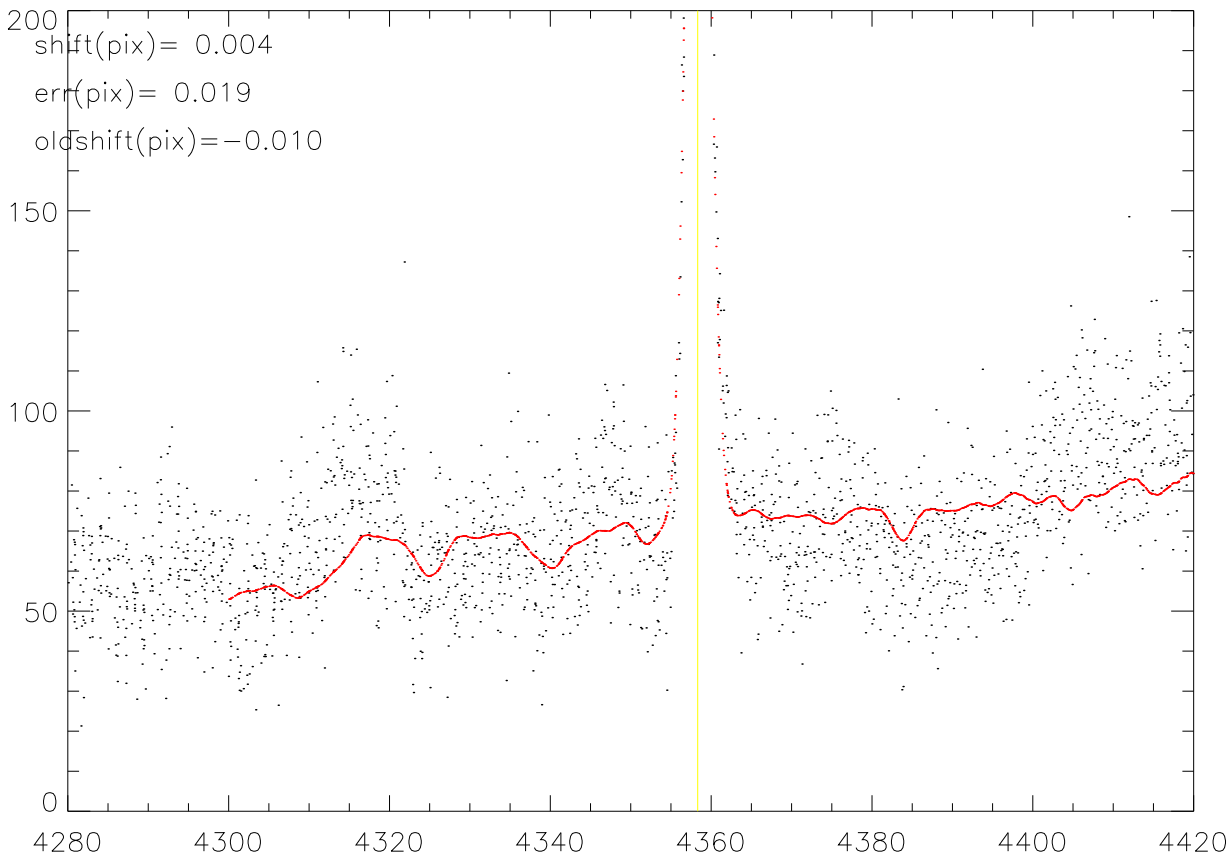

PLATE=0912 MJD=52427 Scattered Light on sdR-b1-00015416.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
5.18
3.91
6.45

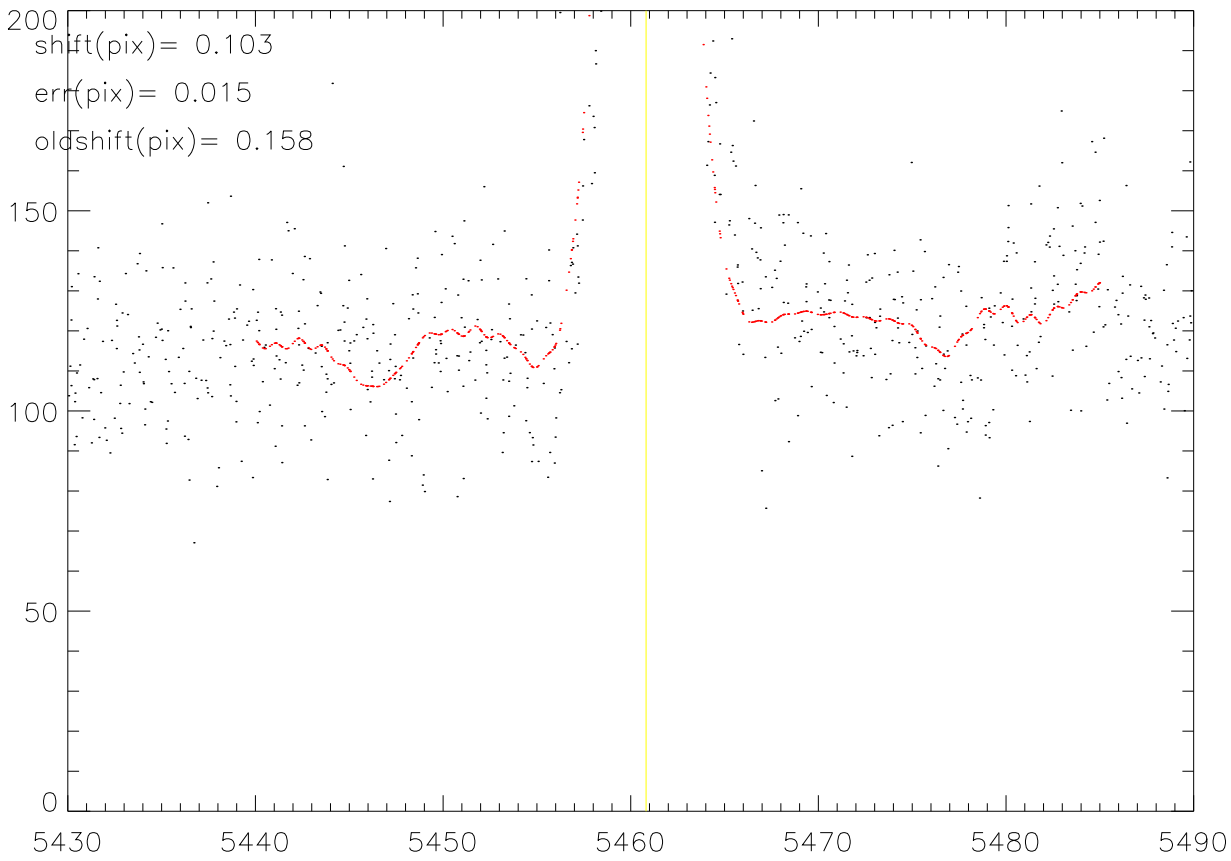

PLATE=0912 MJD=52427 Scattered Light on sdR-b1-00015416.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 4.472
Max value = 6.992
Sun Feb 24 10:27:41 2008

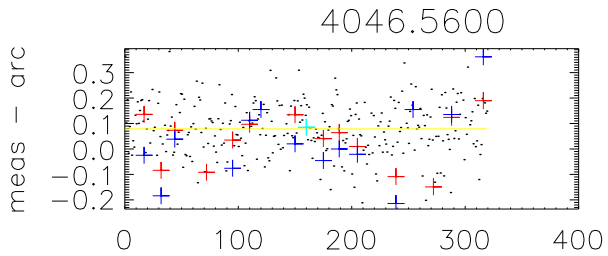

PLATE=0912 MJD=52427 Extraction chi^2 for sdR-b1-00015416.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
10
12
0
500
1000
1500
2000
Row number

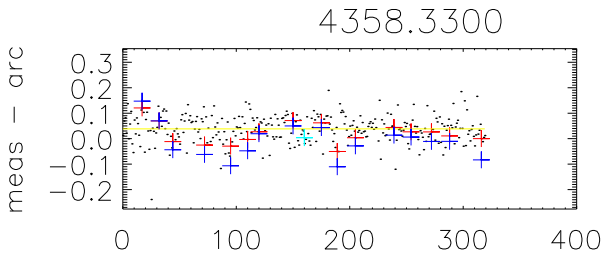

4046.5600
off: −0.03
sig: 0.046
4358.3300
off: −0.01
sig: 0.017
5460.9400
off: 0.16
sig: 0.013
5577.3390
off: 0.15
sig: 0.002
5889.9500
off: 0.26
sig: 0.011
5895.9240
off: 0.27
sig: 0.013

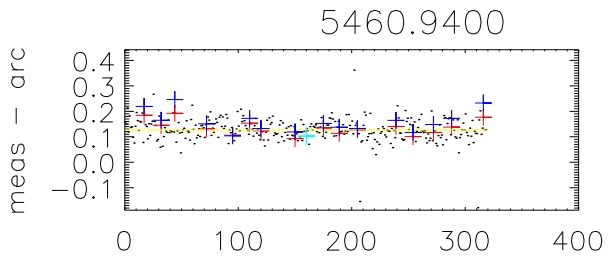

shift(pix)= 0.085
err(pix)= 0.051
oldshift(pix)=−0.034
200
150
100
50
0
4020
4030
4040
4050
4060
4070
4080

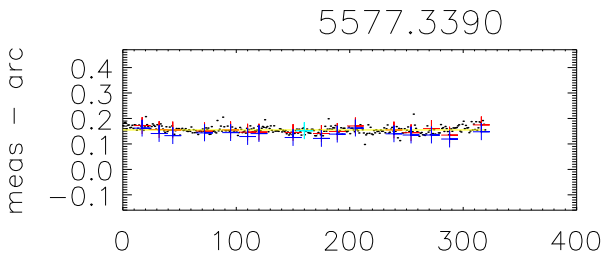

shift(pix)= 0.004
err(pix)= 0.019
oldshift(pix)=-0.010
200
150
100
50
0
4280
4300
4320
4340
4360
4380
4400
4420

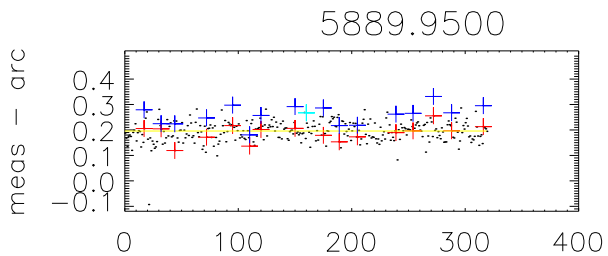

shift(pix)= 0.103
err(pix)= 0.015
oldshift(pix)= 0.158
200
150
100
50
0
5430
5440
5450
5460
5470
5480
5490

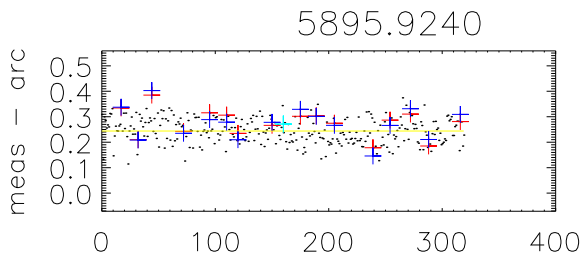

4046.5600
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

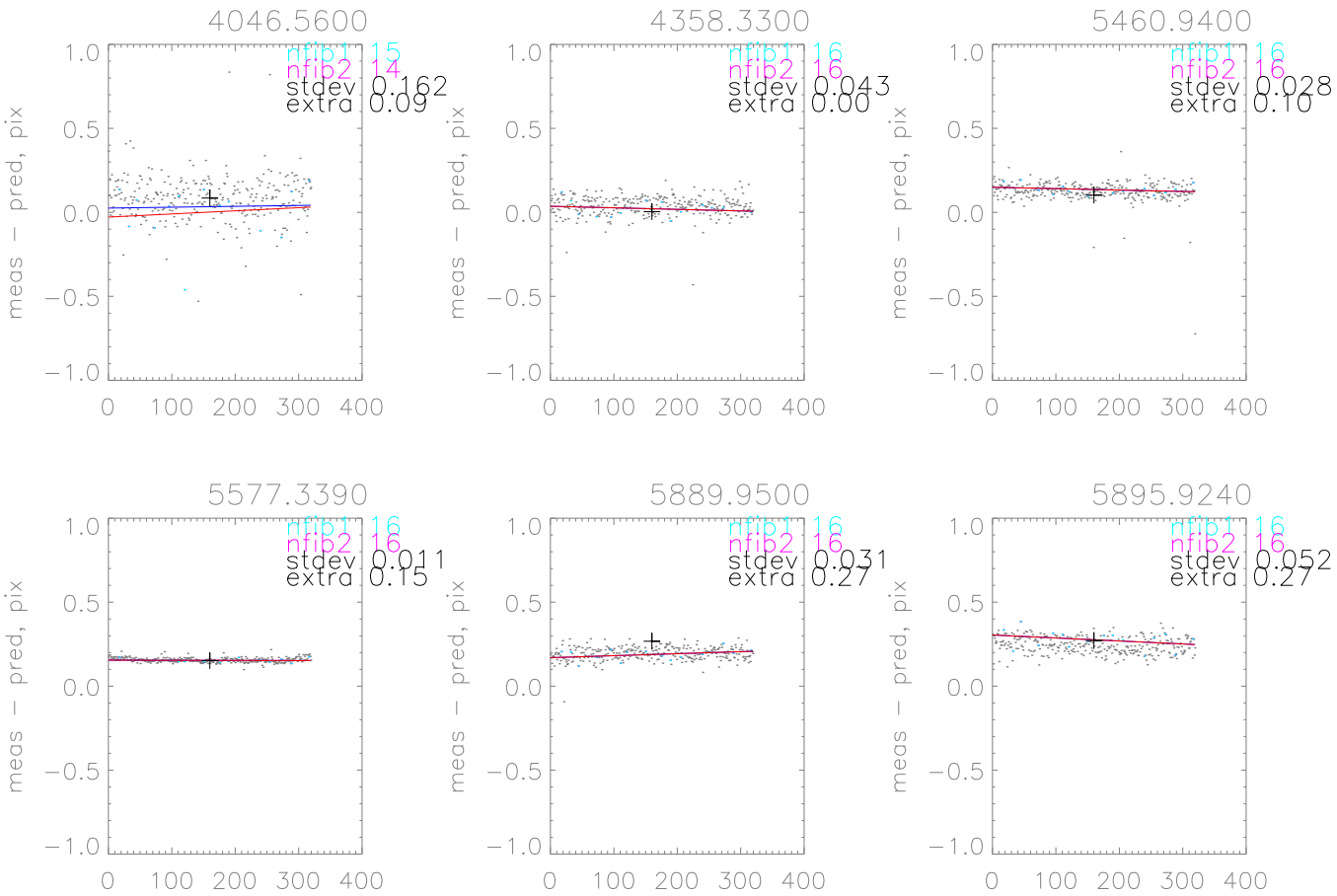

4358.3300
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

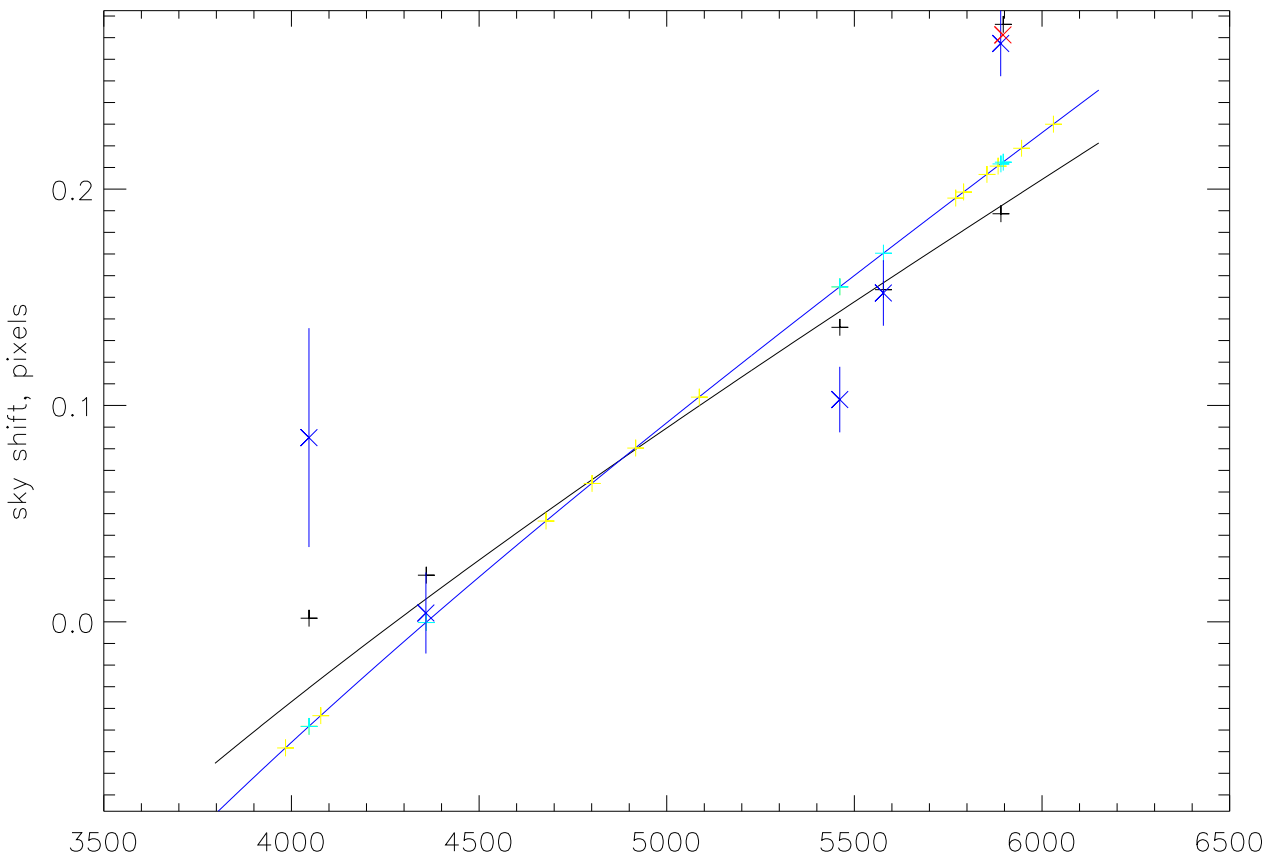

5460.9400
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400


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

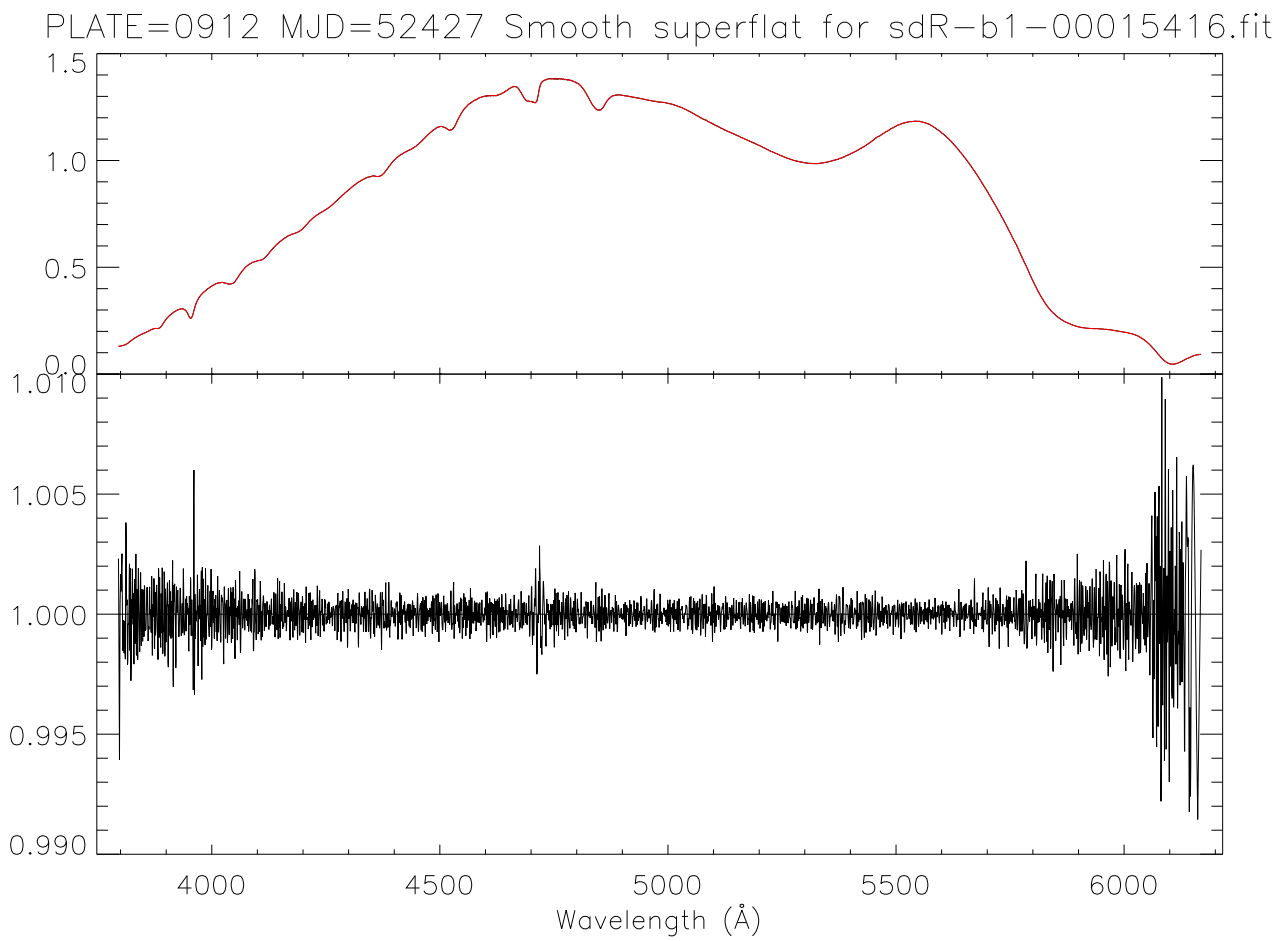

5889.9500
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

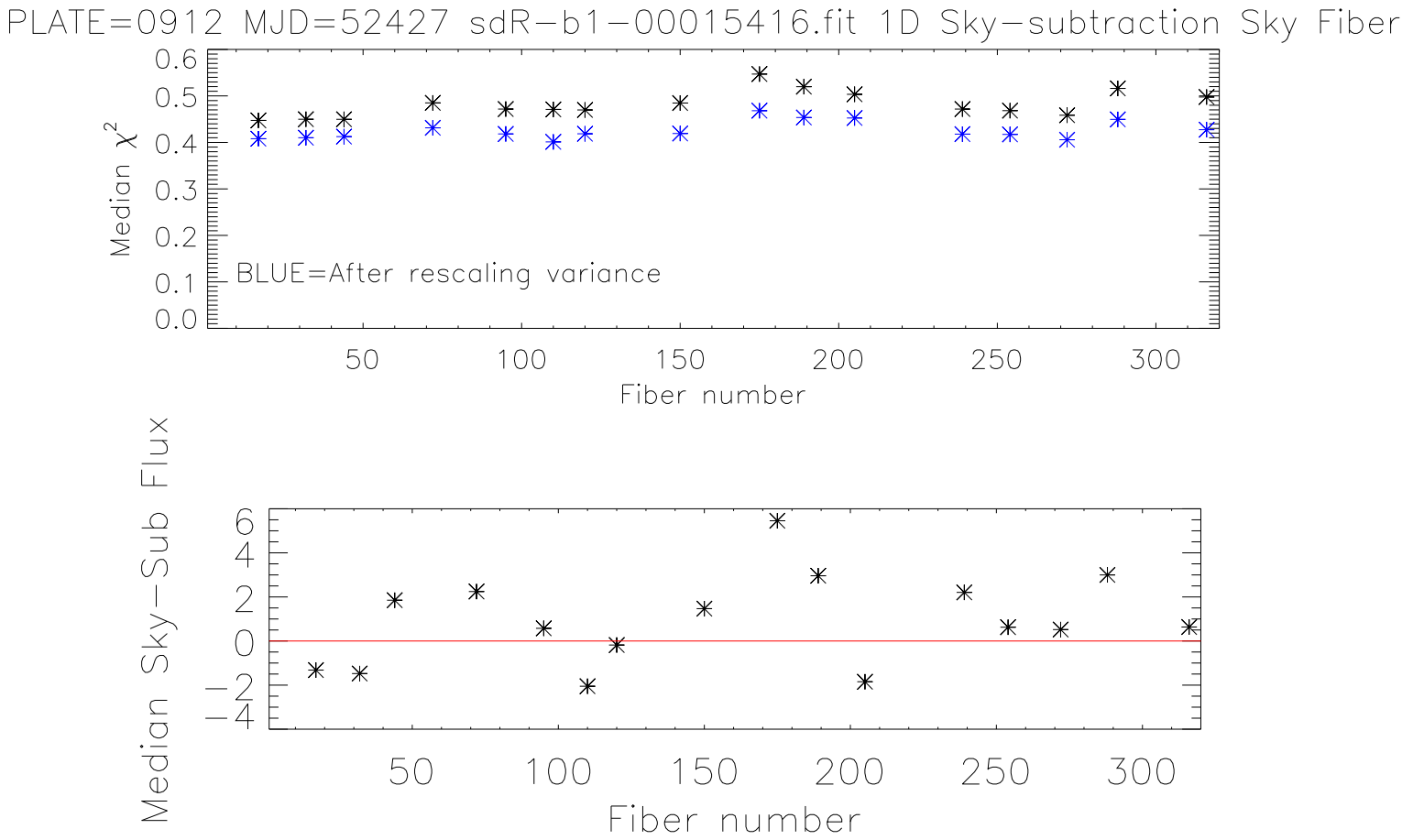

5895.9240
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

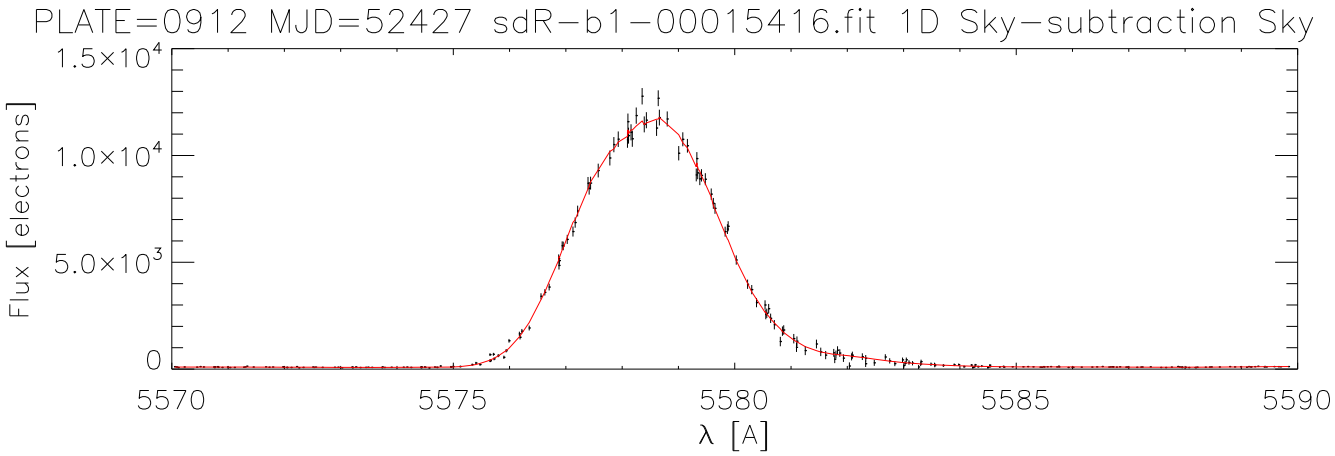

4046.5600
nfib1 15
nfib2 14
stdev 0.162
extra 0.09
4358.3300
nfib1 16
nfib2 16
stdev 0.043
extra 0.00
5460.9400
nfib1 16
nfib2 16
stdev 0.028
extra 0.10
5577.3390
nfib1 16
nfib2 16
stdev 0.011
extra 0.15
5889.9500
nfib1 16
nfib2 16
stdev 0.031
extra 0.27
5895.9240
nfib1 16
nfib2 16
stdev 0.052
extra 0.27
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

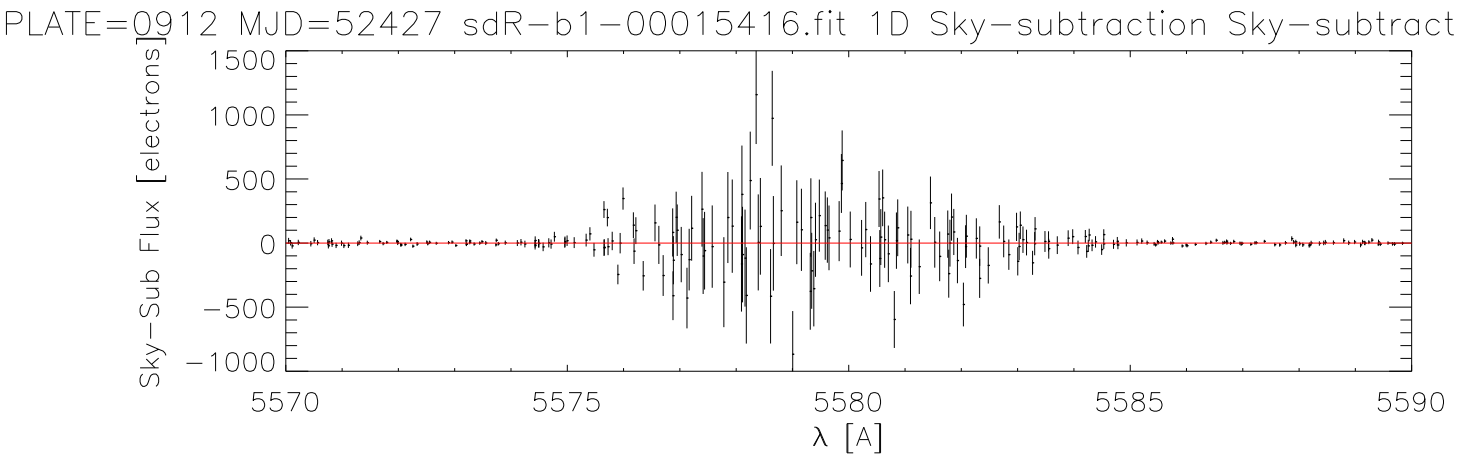

sky shift, pixels
0.2
0.1
0.0
3500
4000
4500
5000
5500
6000
6500

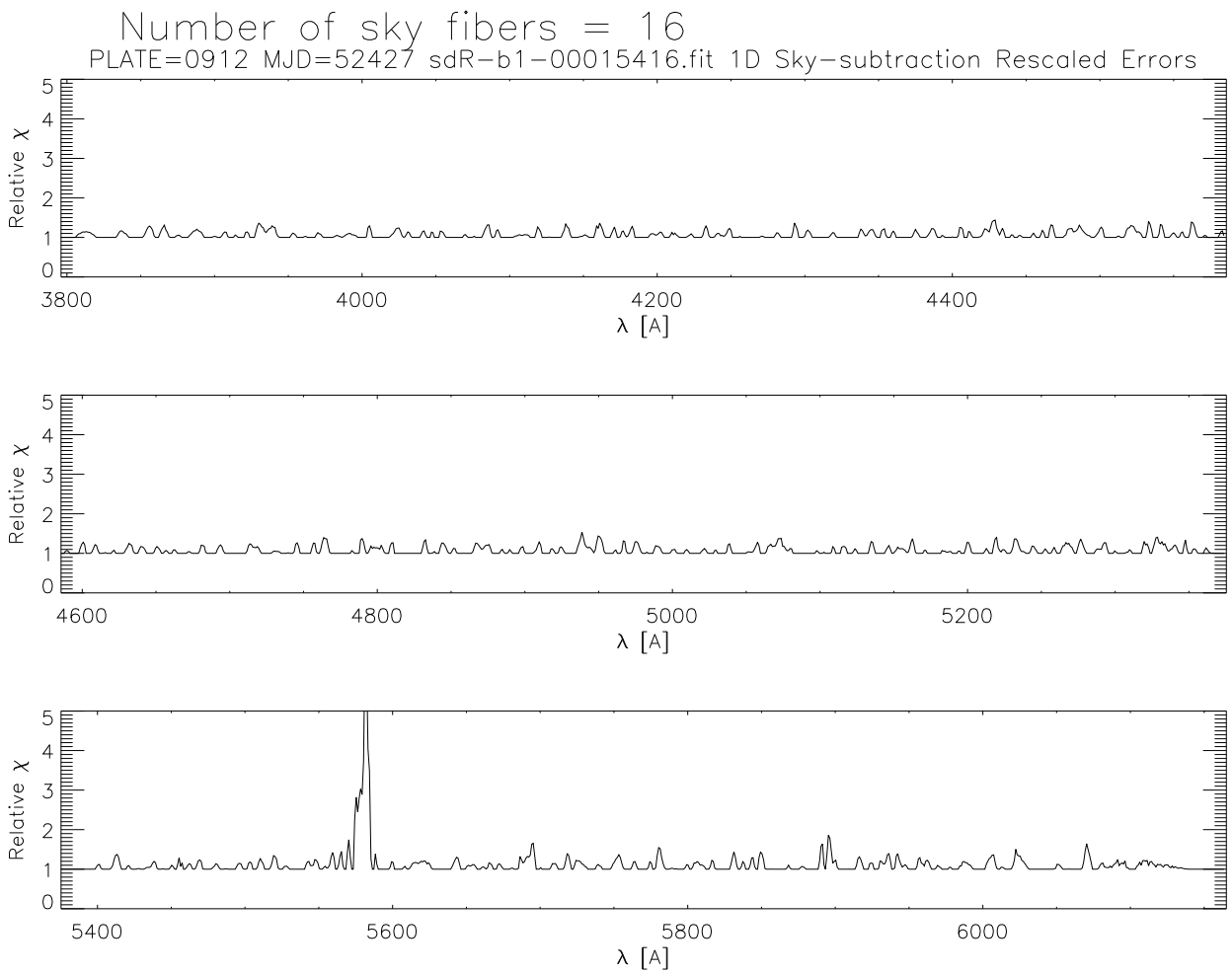
es= 0.0000

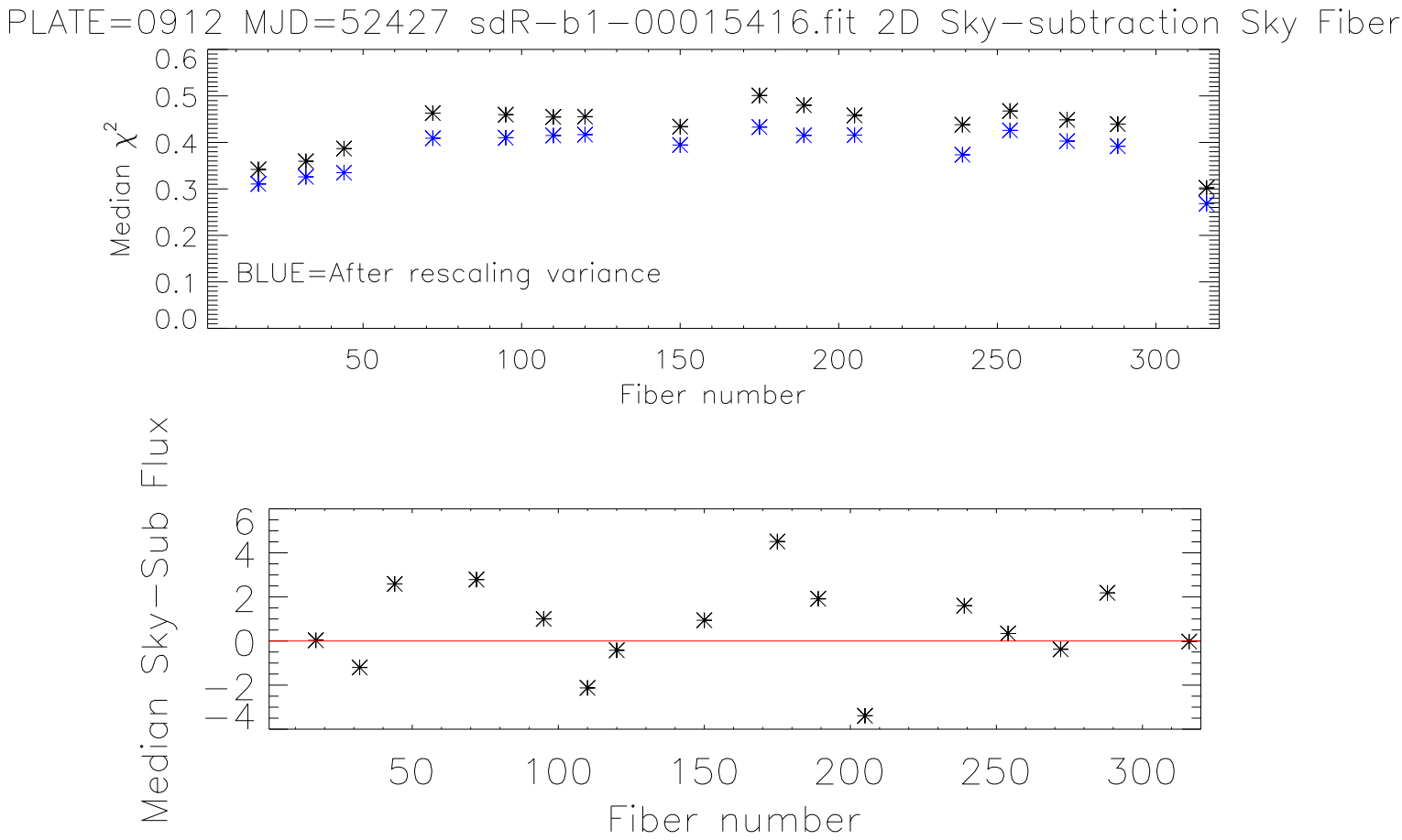

PLATE=0912 MJD=52427 Smooth superflat for sdR-b1-00015416.fit
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
4000
4500
5000
5500
6000
Wavelength (Å)

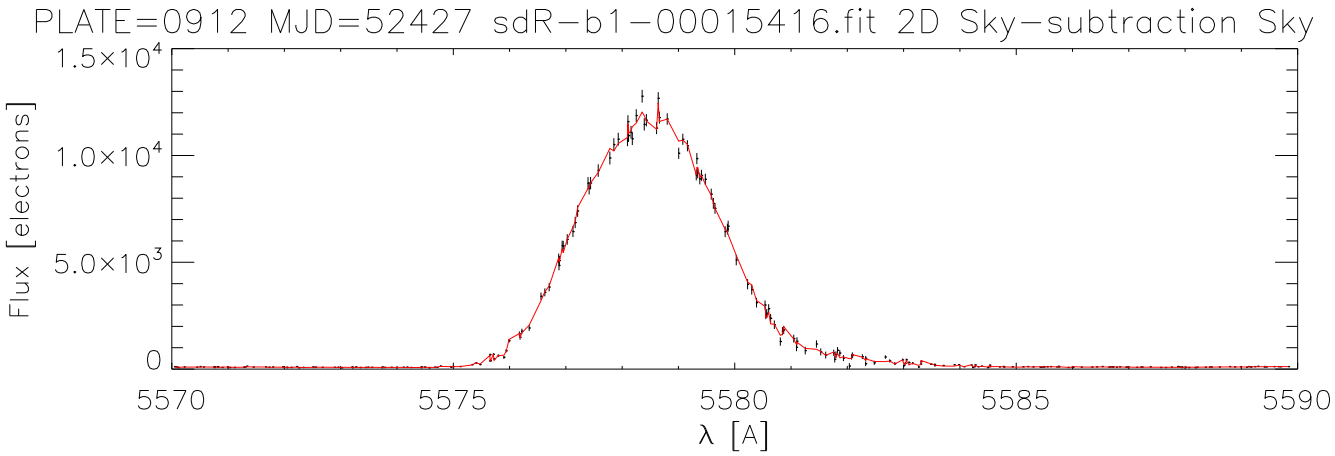

PLATE=0912 MJD=52427 sdR-b1-00015416.fit 1D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

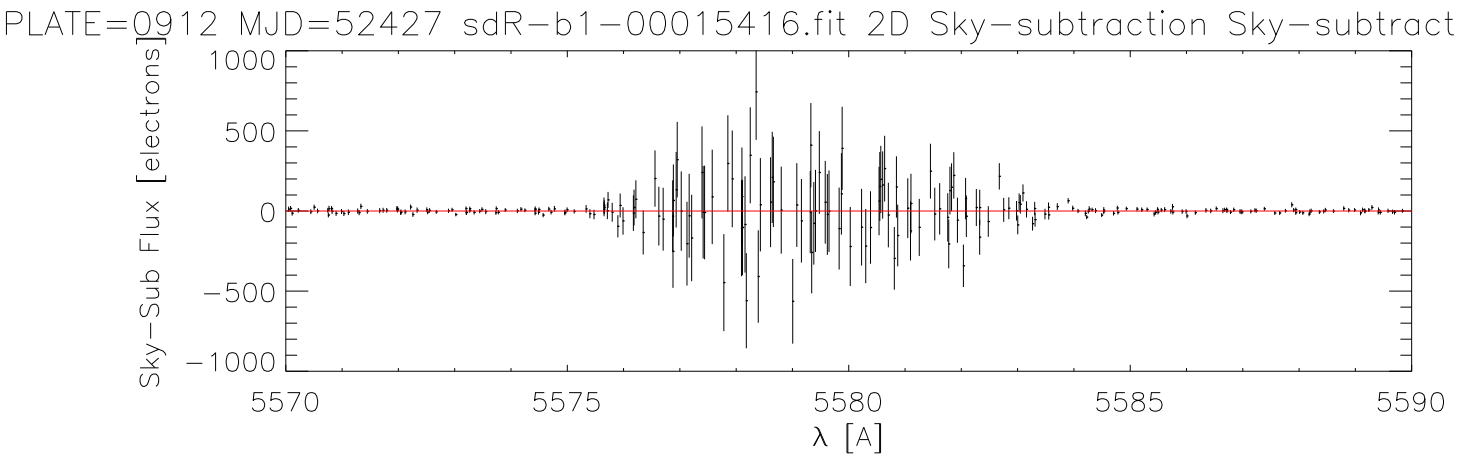

PLATE=0912 MJD=52427 sdR-b1-00015416.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
1.5×10^4
1.0×10^4
5.0×10^3
0
5570
5575
5580
5585
5590
λ [A]

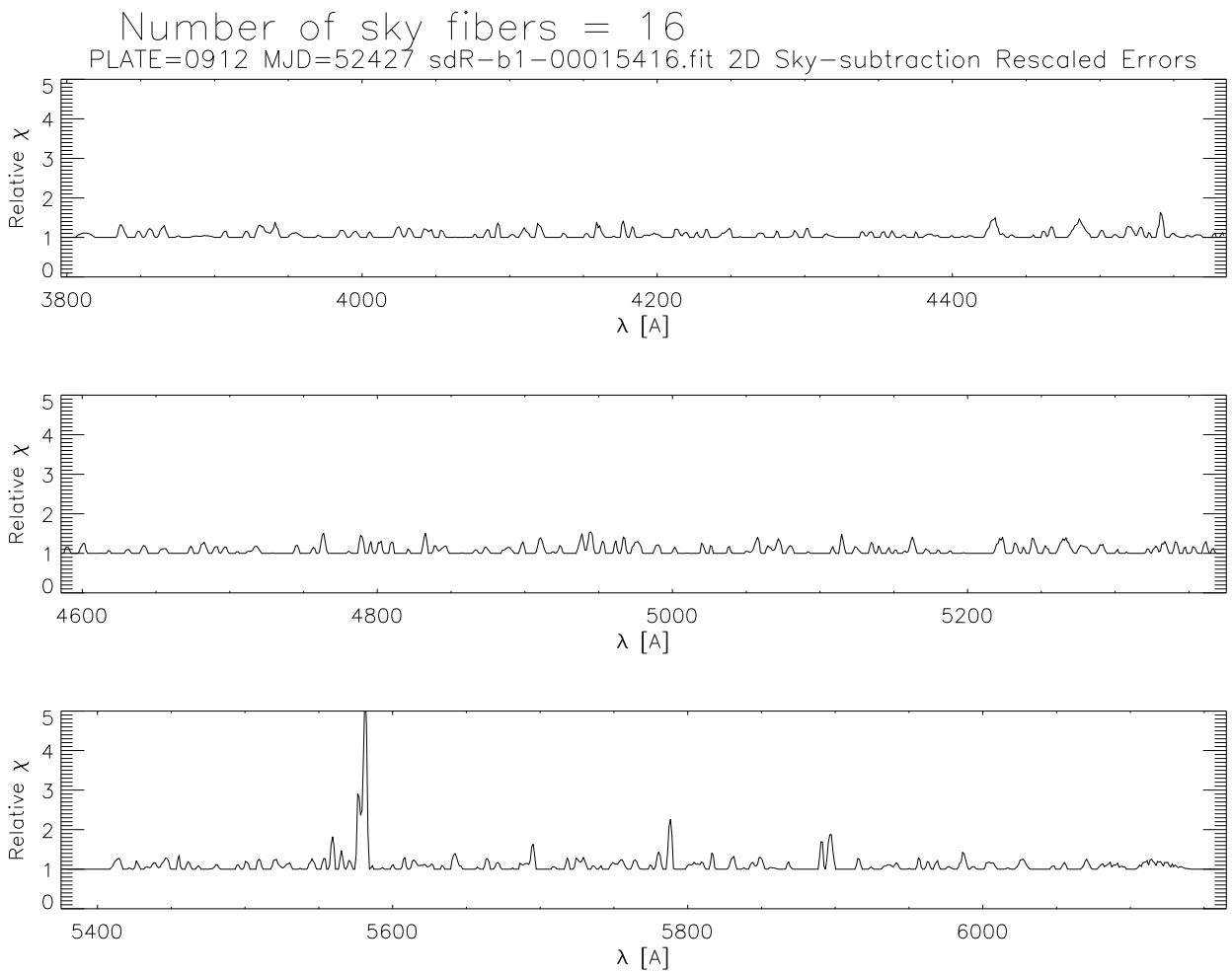

PLATE=0912 MJD=52427 sdR-b1-00015416.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
1500
1000
500
0
−500
−1000
5570
5575
5580
5585
5590
λ [A]

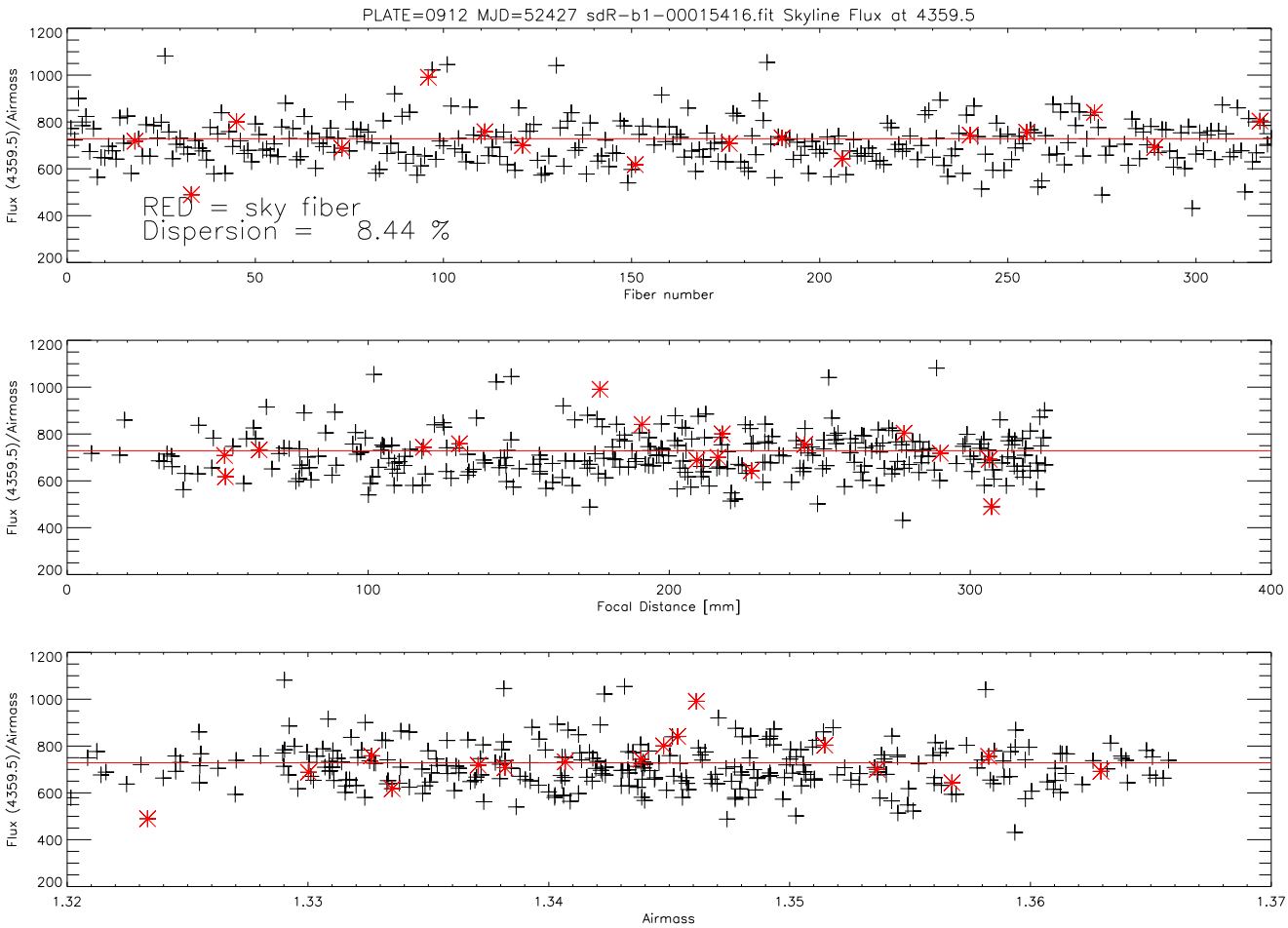

Number of sky fibers = 16
PLATE=0912 MJD=52427 sdR-b1-00015416.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

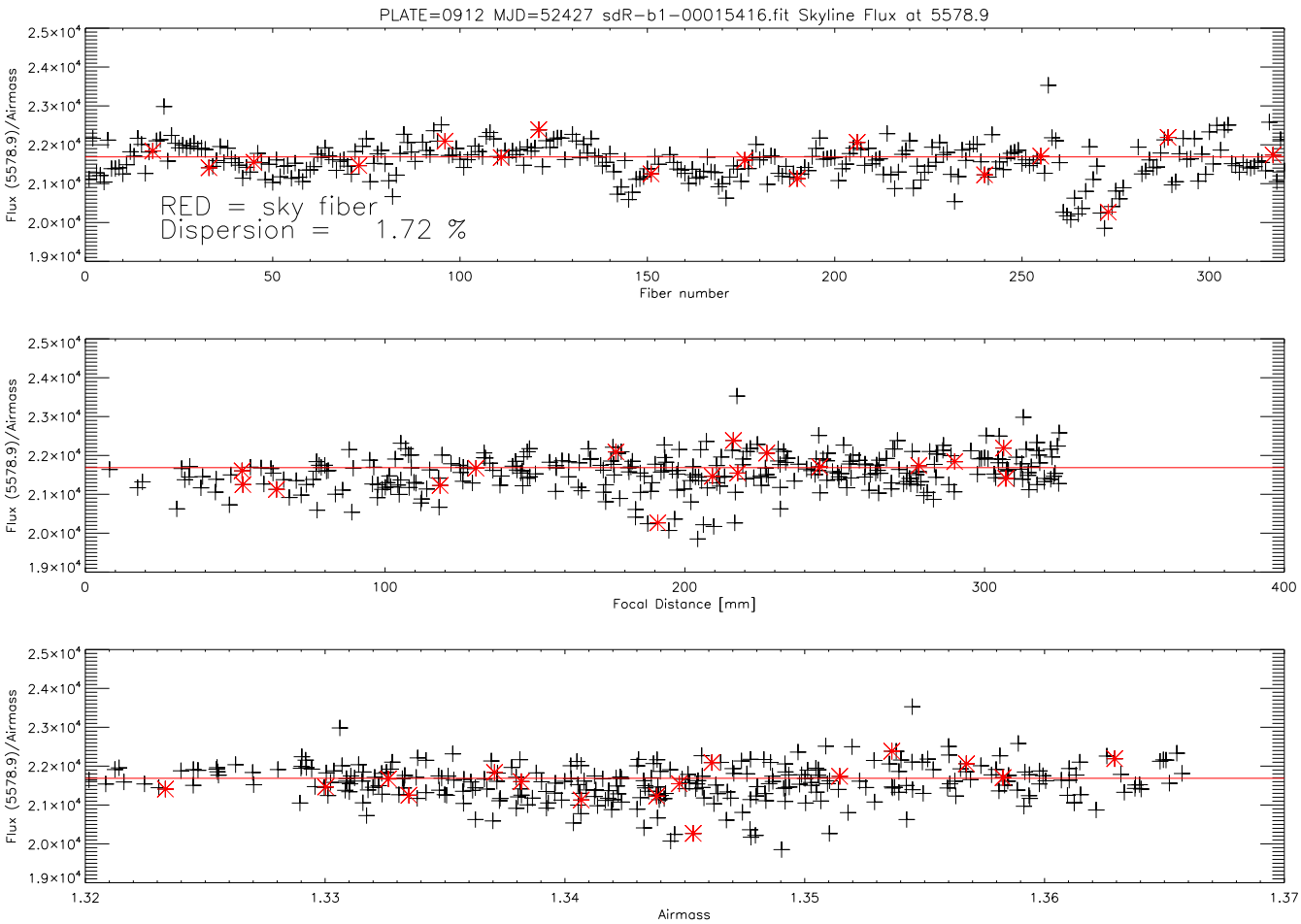

PLATE=0912 MJD=52427 sdR-b1-00015416.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

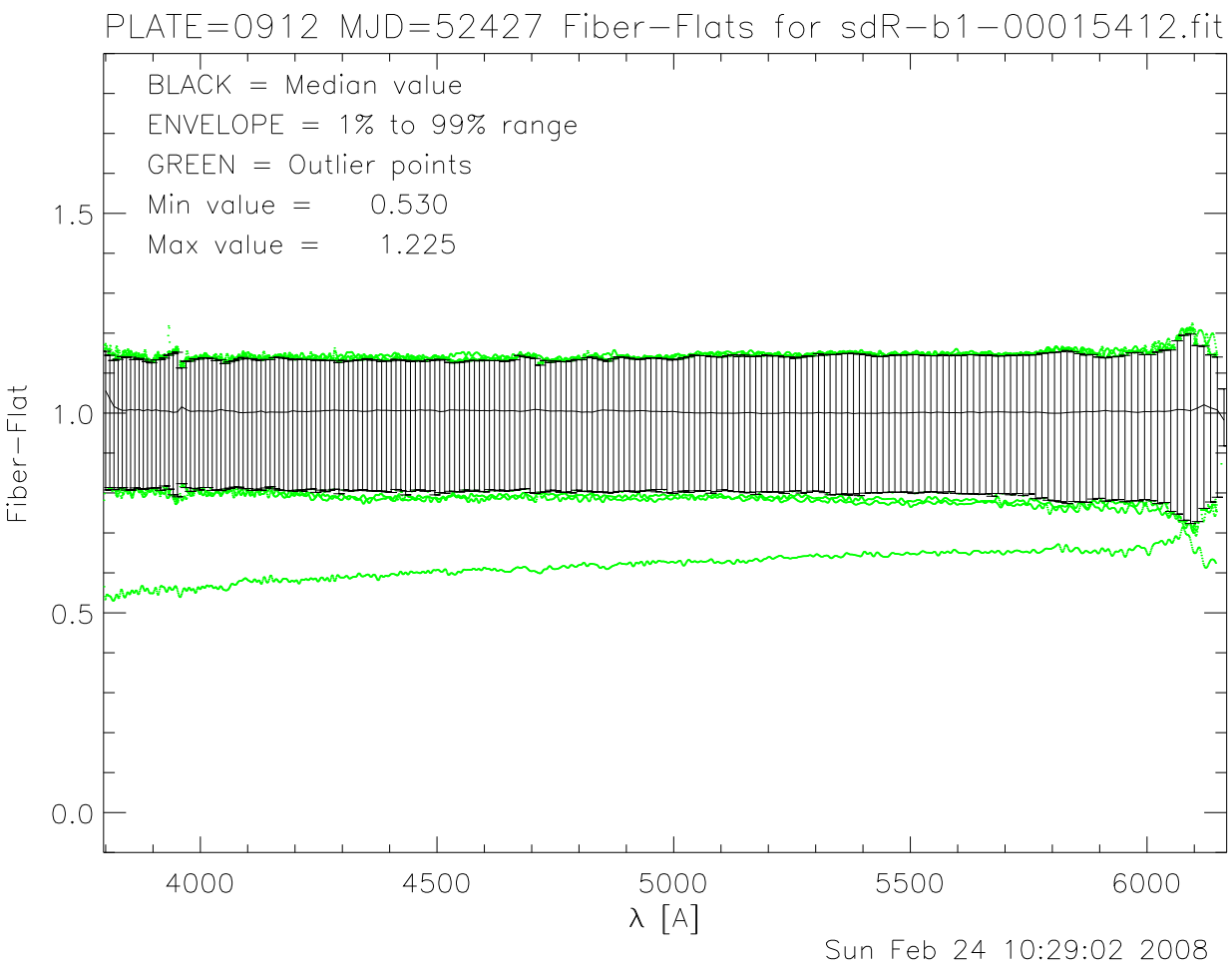

PLATE=0912 MJD=52427 sdR-b1-00015416.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
1.5×10^4
1.0×10^4
5.0×10^3
0
5570
5575
5580
5585
5590
λ [A]

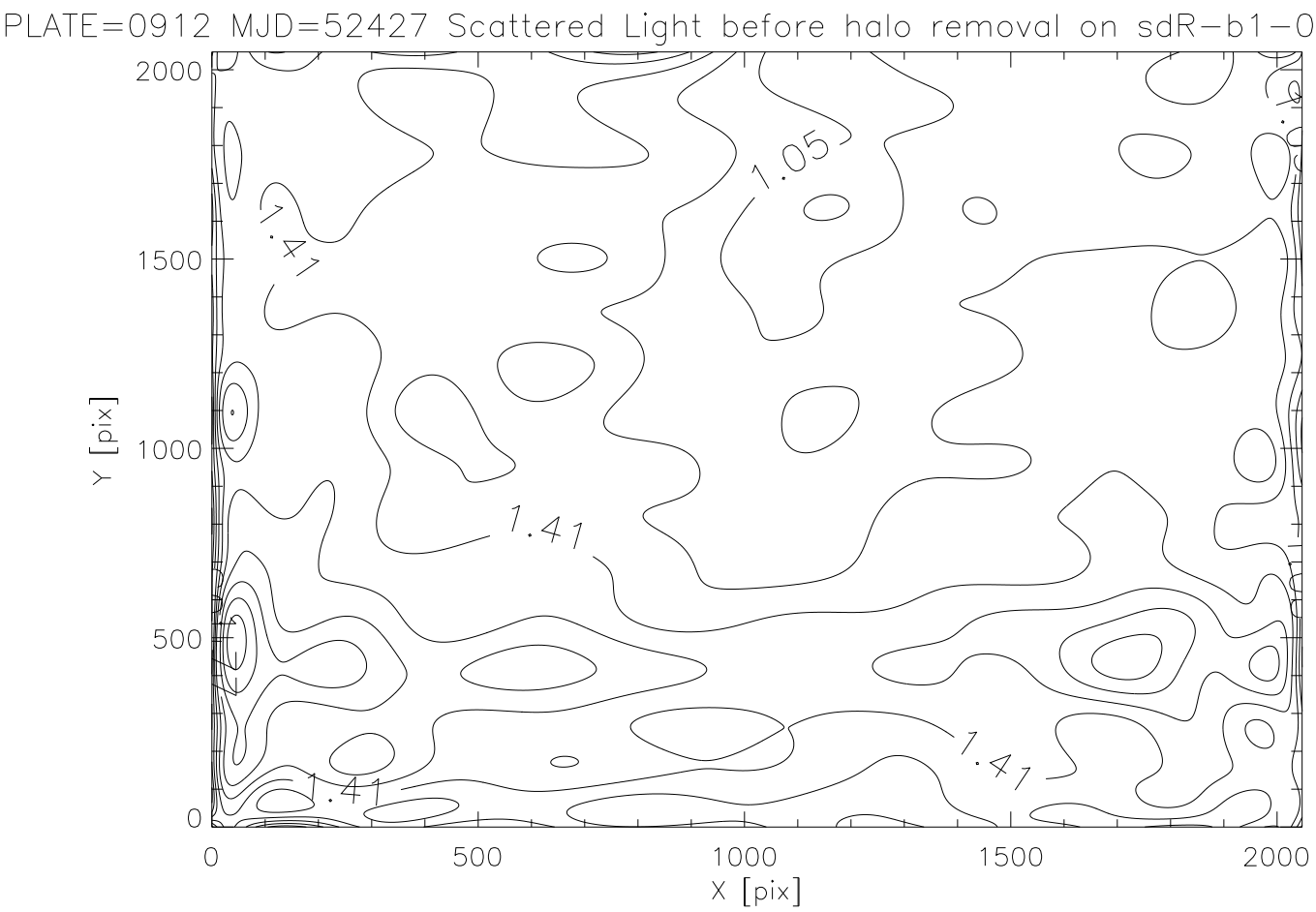

PLATE=0912 MJD=52427 sdR-b1-00015416.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
1000
500
0
-500
-1000
5570
5575
5580
5585
5590
λ [A]

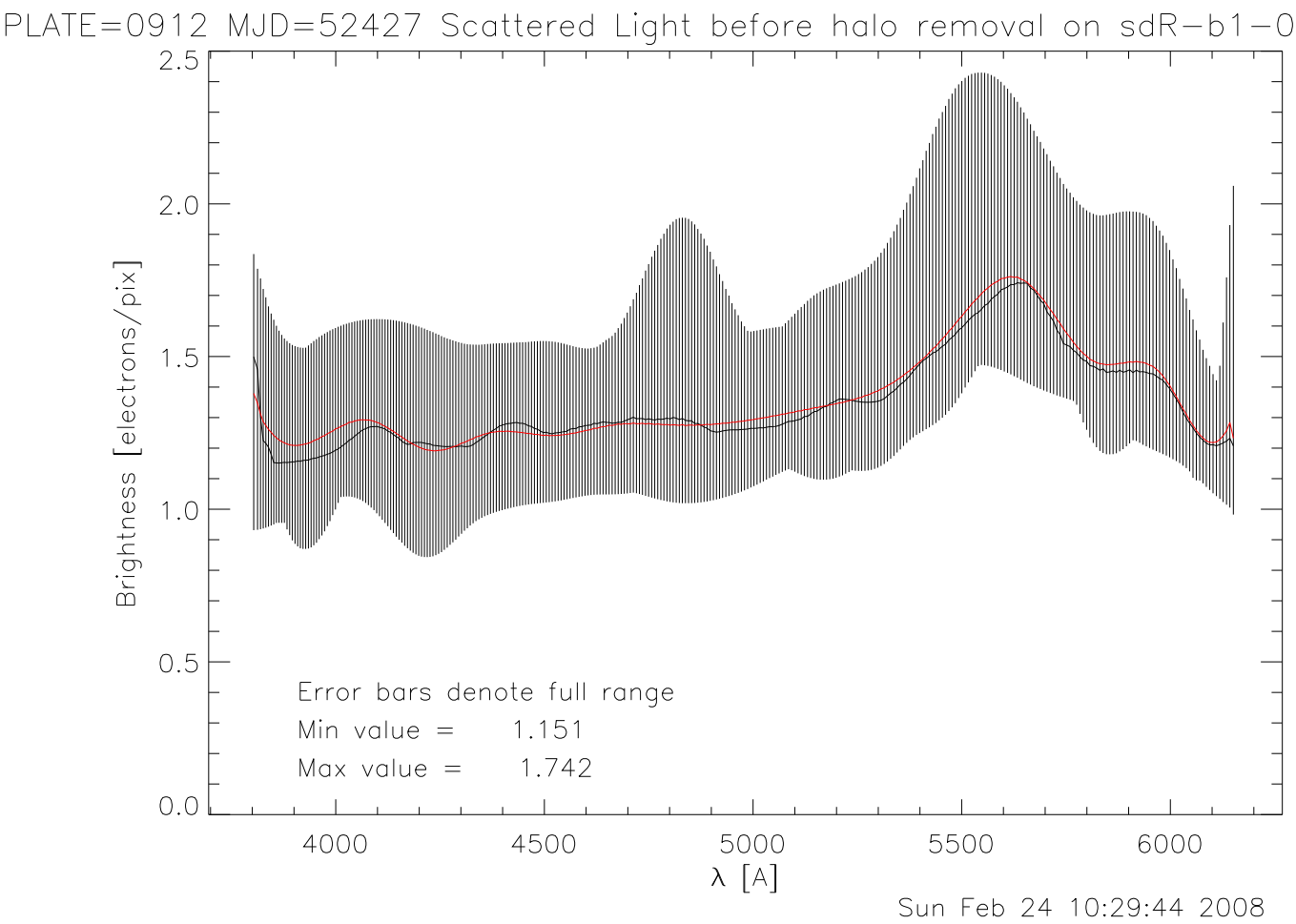

Number of sky fibers = 16
PLATE=0912 MJD=52427 sdR-b1-00015416.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

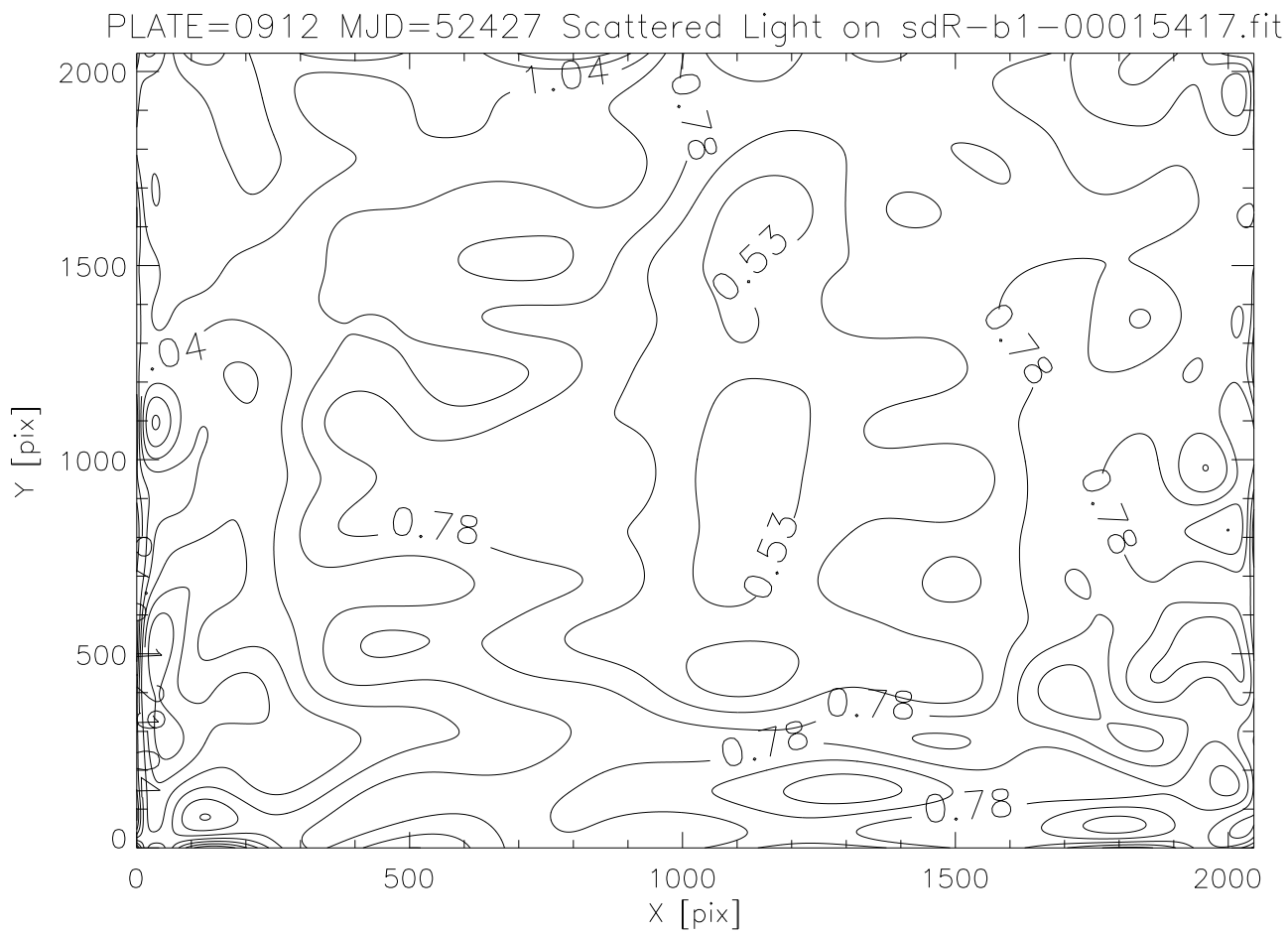

PLATE=0912 MJD=52427 sdR-b1-00015416.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 8.44 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

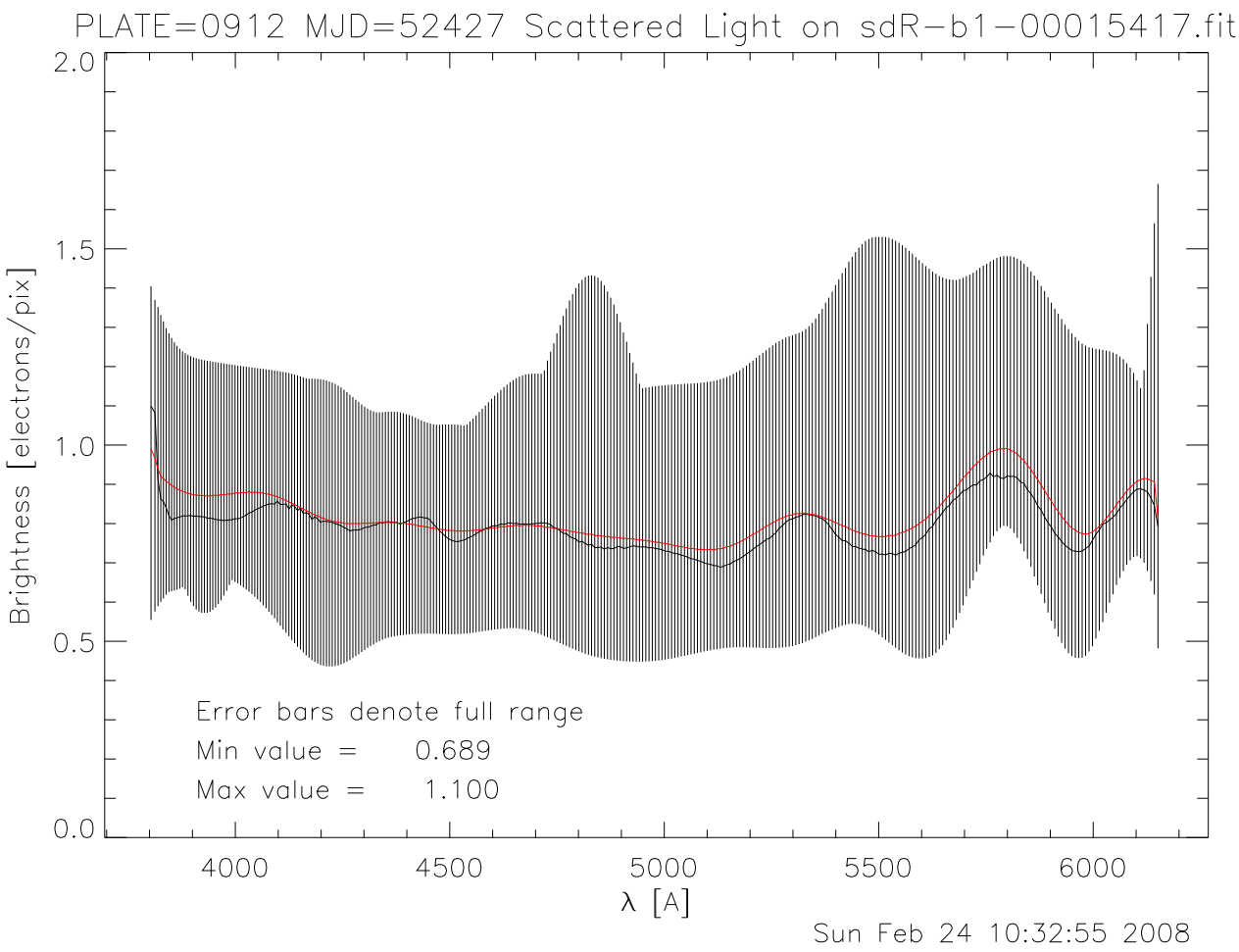

PLATE=0912 MJD=52427 sdR-b1-00015416.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
Fiber number
RED = sky fiber
Dispersion = 1.72 %
Flux (5578.9)/Airmass
Focal Distance [mm]
Flux (5578.9)/Airmass
Airmass

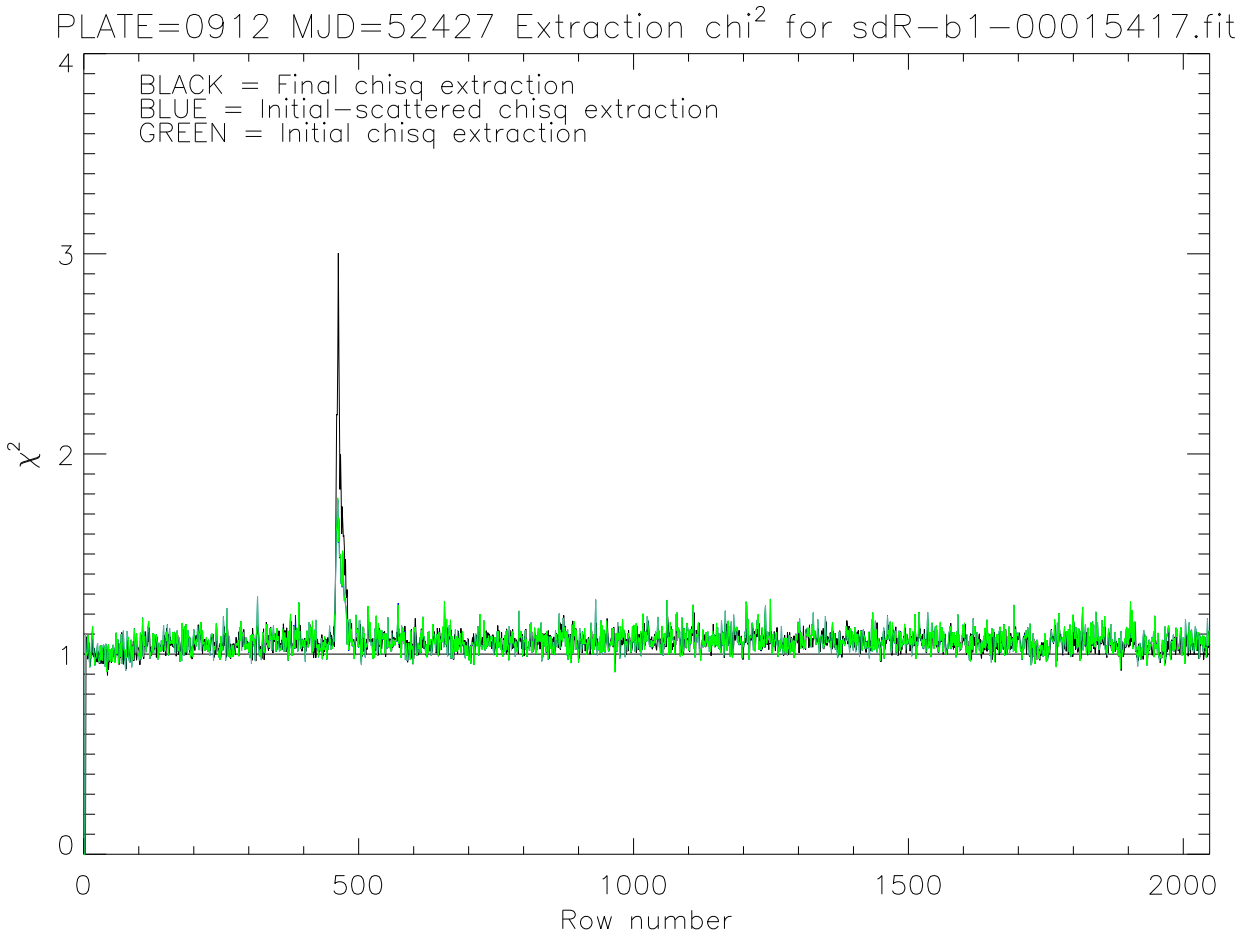

PLATE=0912 MJD=52427 Fiber-Flats for sdR-b1-00015412.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.530
Max value = 1.225
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Sun Feb 24 10:29:02 2008

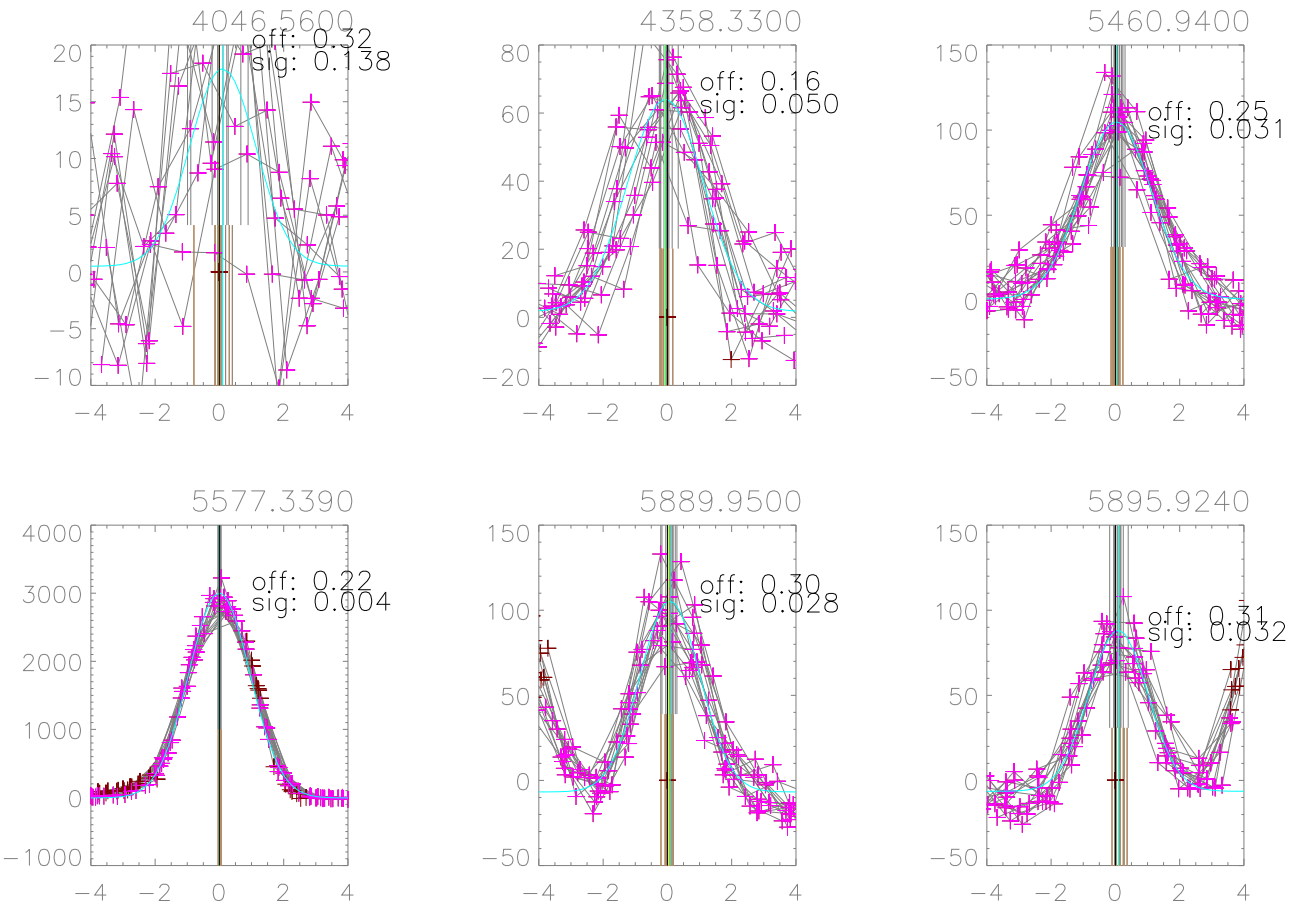

PLATE=0912 MJD=52427 Scattered Light before halo removal on sdR−b1−00015417.f
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
1.05
1.41
1.41
1.41
1.41

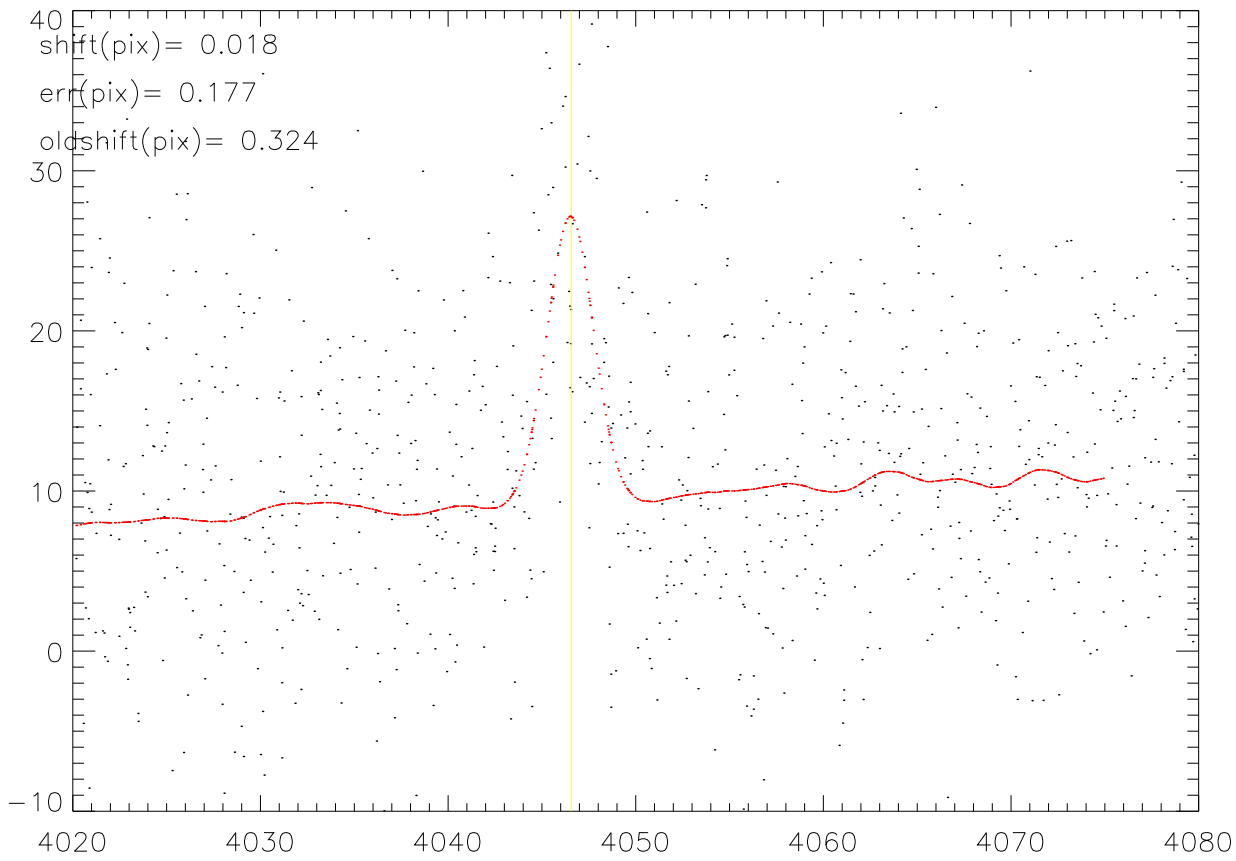

PLATE=0912 MJD=52427 Scattered Light before halo removal on sdR-b1-00015417.f
Brightness [electrons/pix]
2.5
2.0
1.5
1.0
0.5
0.0
Error bars denote full range
Min value = 1.151
Max value = 1.742
4000
4500
5000
5500
6000
λ [A]
Sun Feb 24 10:29:44 2008

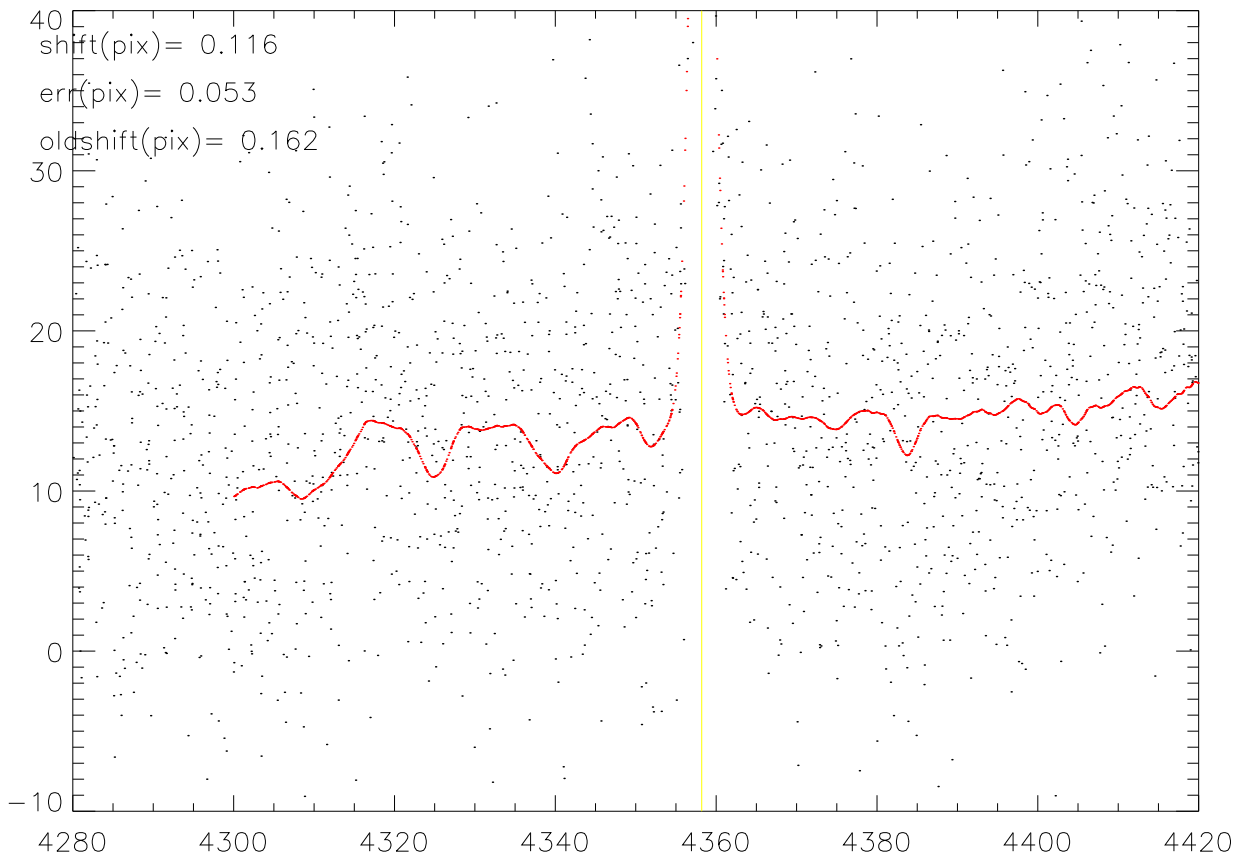

PLATE=0912 MJD=52427 Scattered Light on sdR-b1-00015417.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
1.04
0.78
0.53
0.78
0.78
0.53
0.78
0.78
0.78
0.78

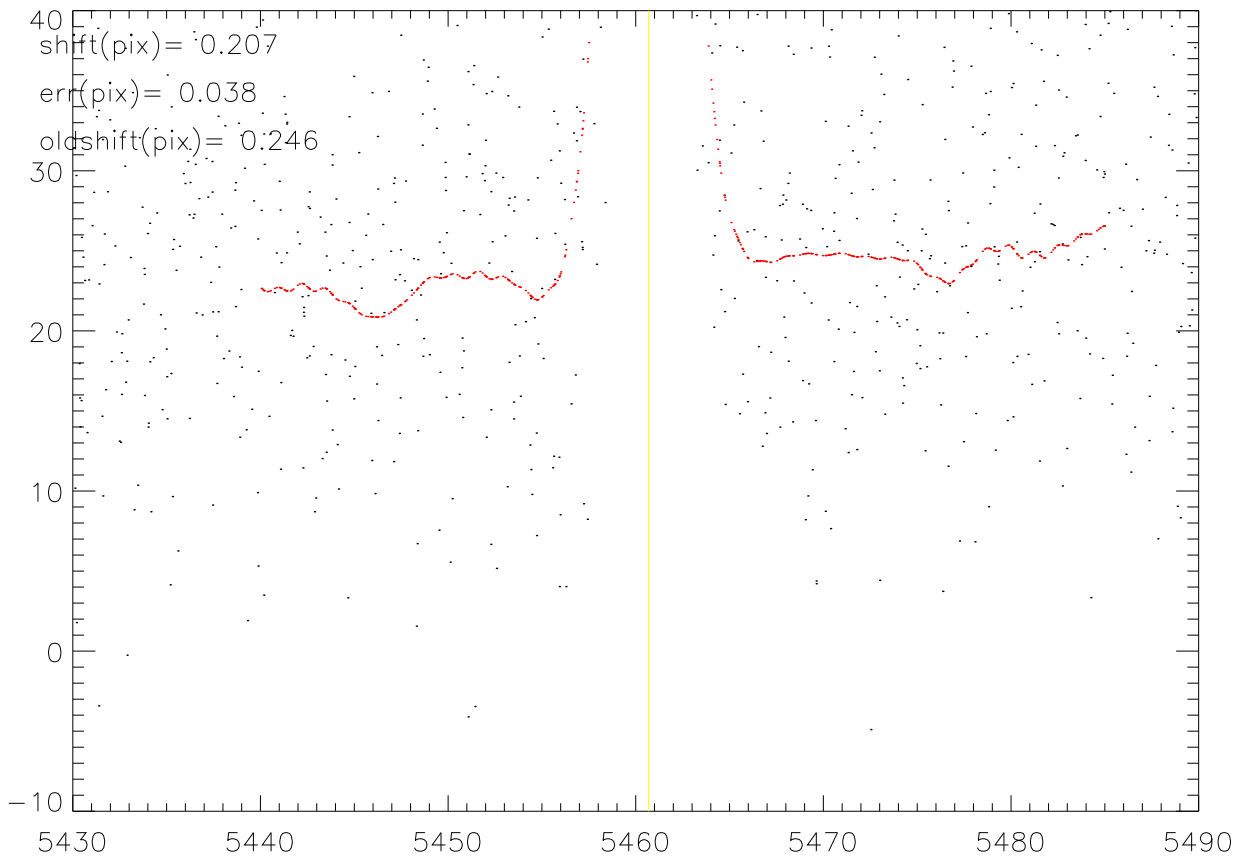

PLATE=0912 MJD=52427 Scattered Light on sdR-b1-00015417.fit
Brightness [electrons/pix]
2.0
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 0.689
Max value = 1.100
Sun Feb 24 10:32:55 2008

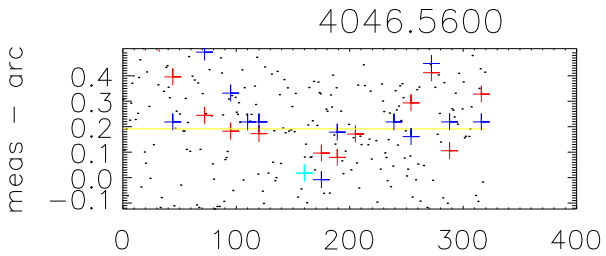

PLATE=0912 MJD=52427 Extraction chi^2 for sdR−b1−00015417.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
0
500
1000
1500
2000
Row number

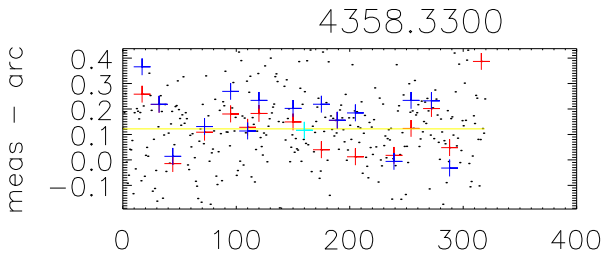

4046.5600
off: 0.32
sig: 0.138
4358.3300
off: 0.16
sig: 0.050
5460.9400
off: 0.25
sig: 0.031
5577.3390
off: 0.22
sig: 0.004
5889.9500
off: 0.30
sig: 0.028
5895.9240
off: 0.31
sig: 0.032

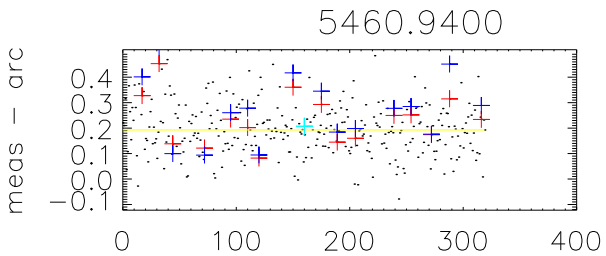

shift(pix)= 0.018
err(pix)= 0.177
oldshift(pix)= 0.324
40
30
20
10
0
−10
4020
4030
4040
4050
4060
4070
4080

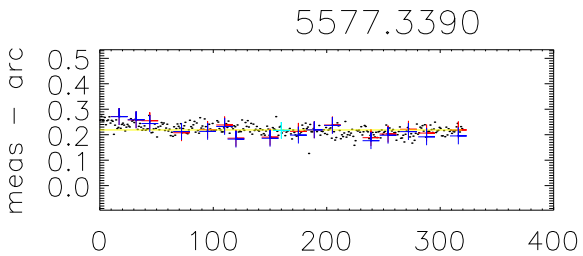

shift(pix)= 0.116
err(pix)= 0.053
oldshift(pix)= 0.162
40
30
20
10
0
−10
4280
4300
4320
4340
4360
4380
4400
4420

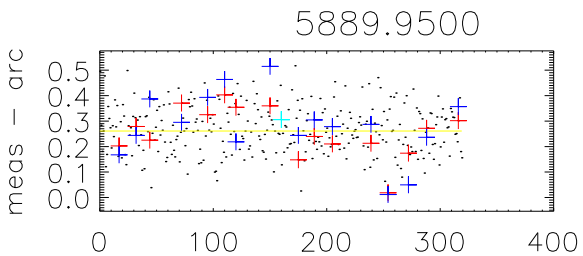

shift(pix)= 0.207
err(pix)= 0.038
oldshift(pix)= 0.246
40
30
20
10
0
−10
5430
5440
5450
5460
5470
5480
5490

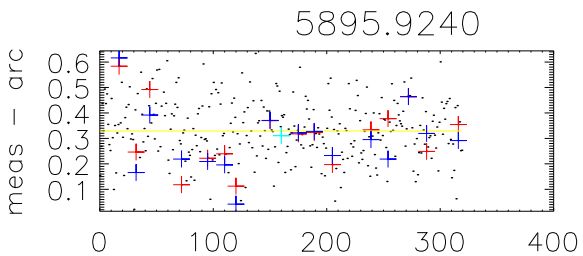

4046.5600
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

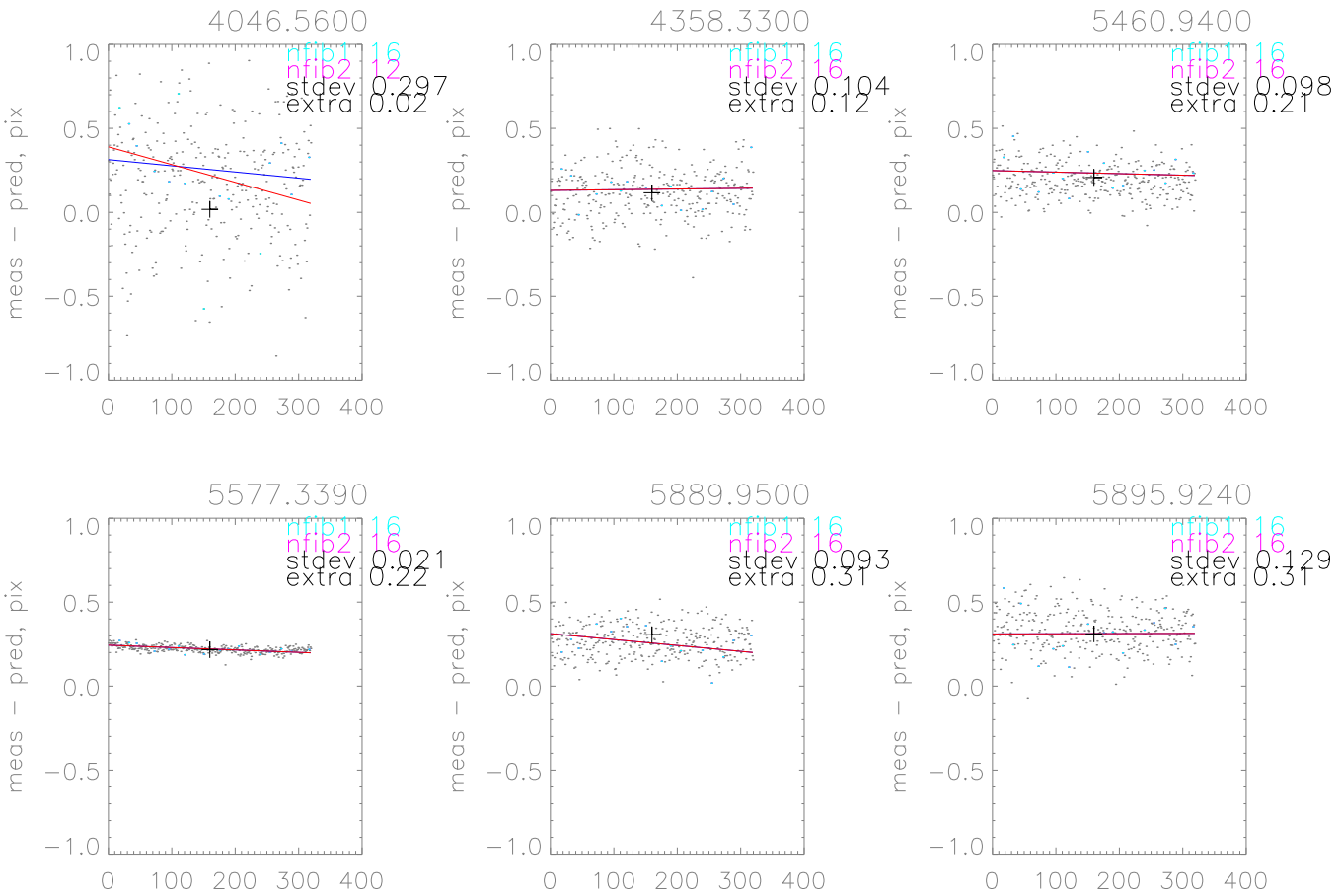

4358.3300
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

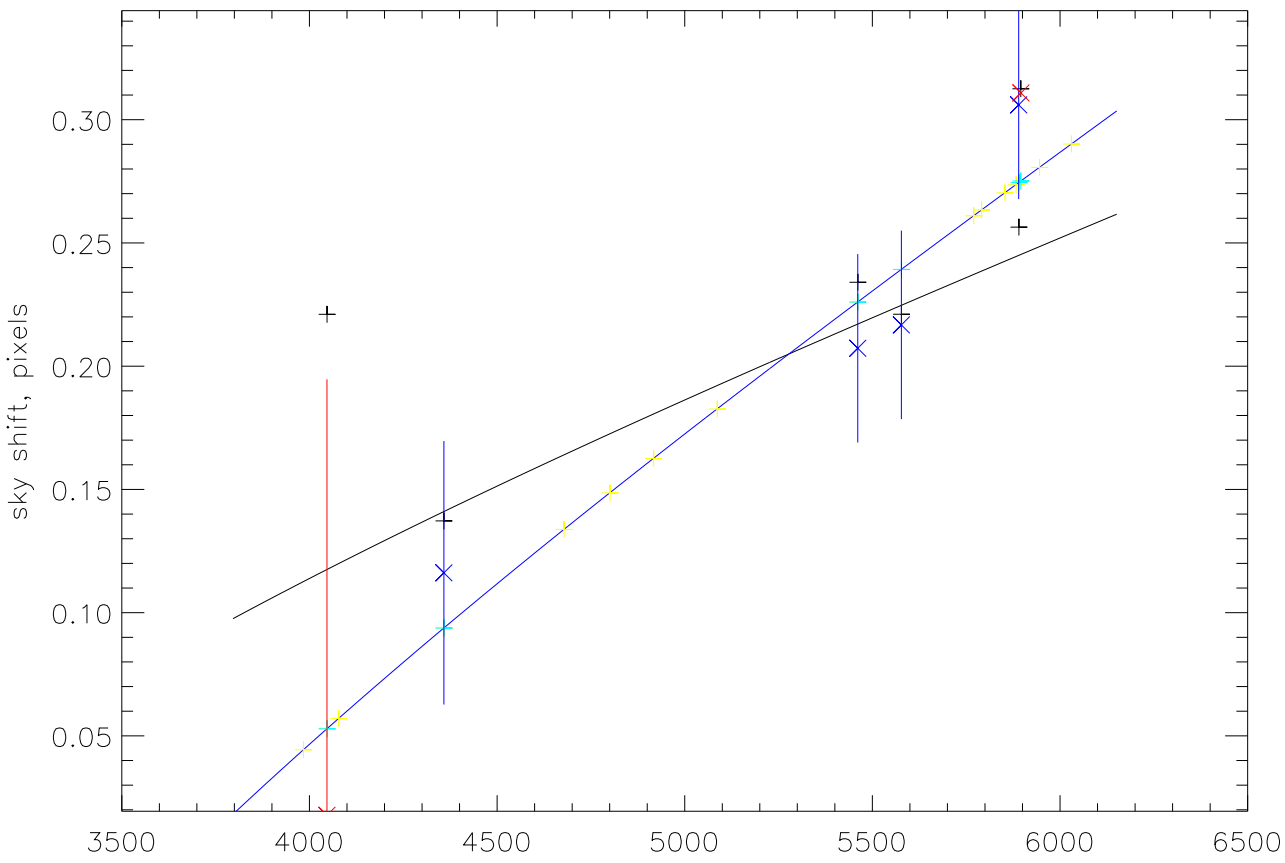

5460.9400
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400


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

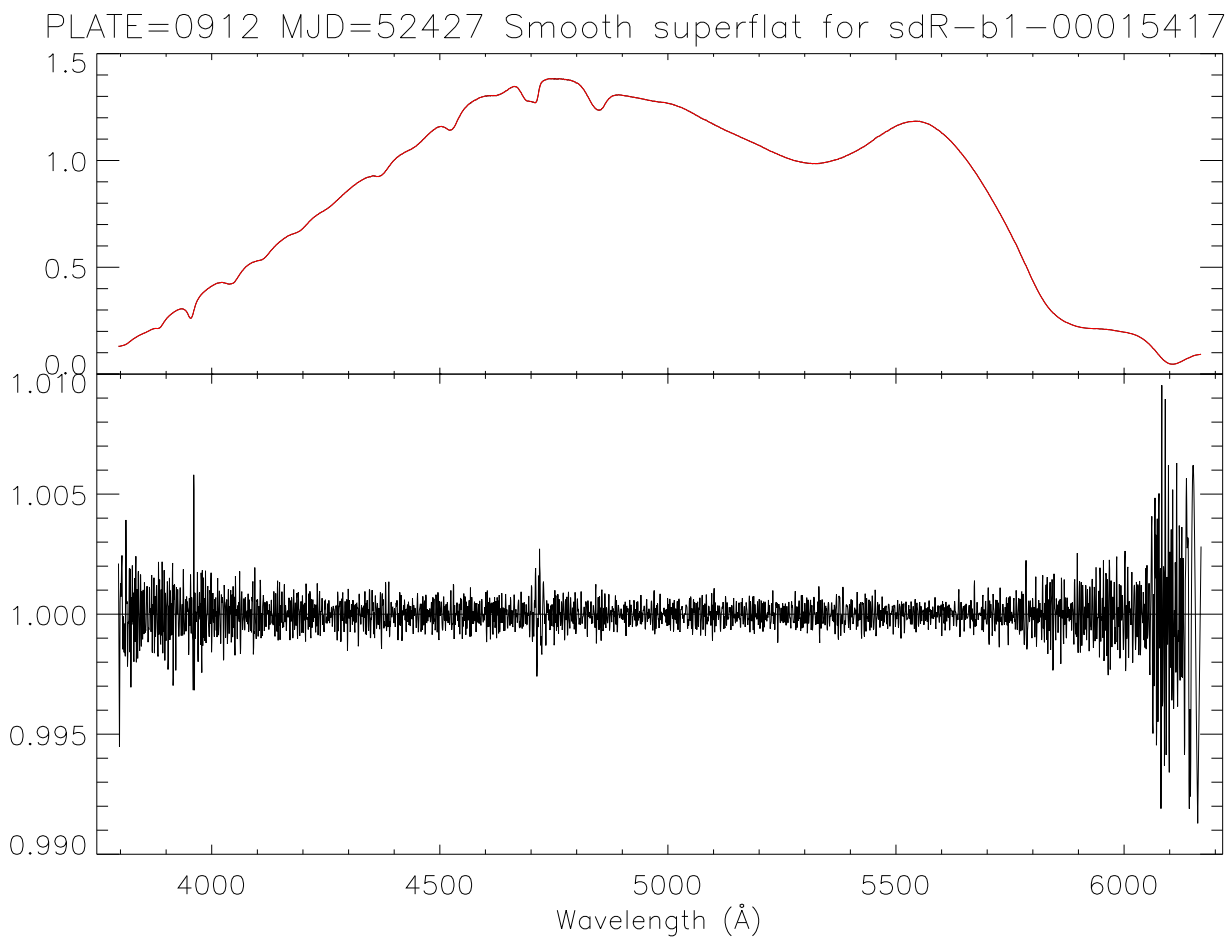

5889.9500
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

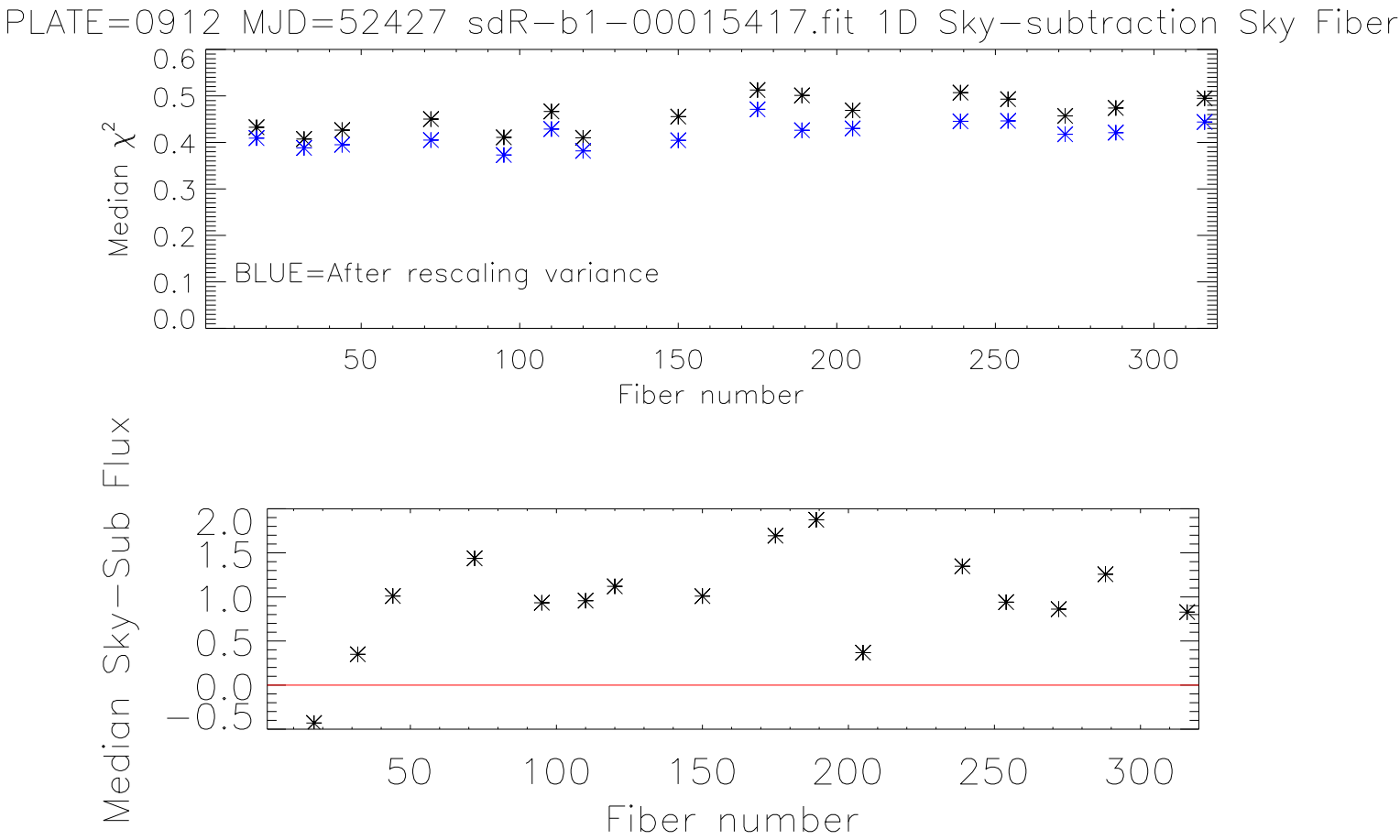

5895.9240
meas − arc
0.6
0.5
0.4
0.3
0.2
0.1
0
100
200
300
400

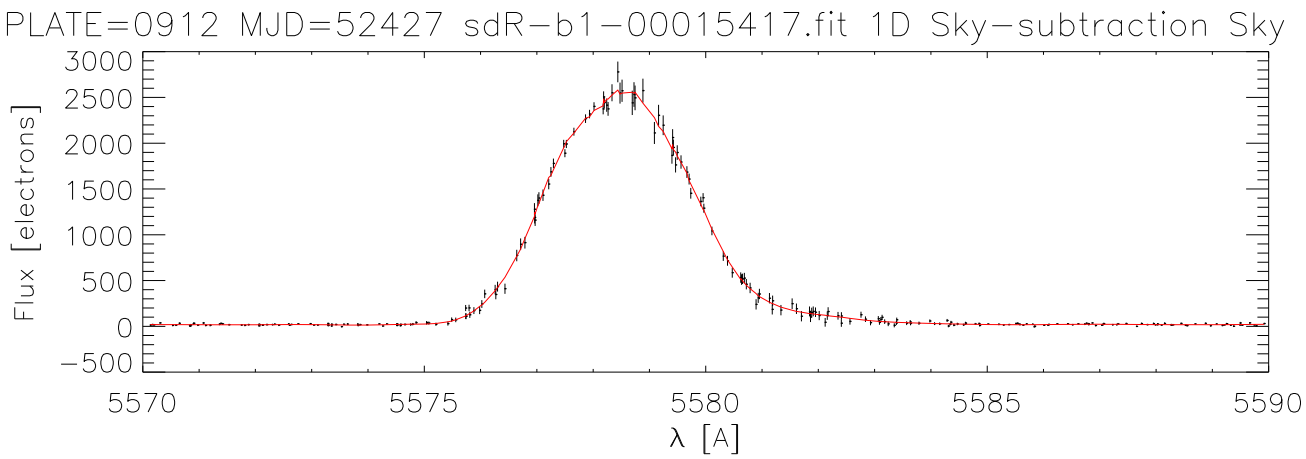

4046.5600
nfib1 16
nfib2 12
stdev 0.297
extra 0.02
4358.3300
nfib1 16
nfib2 16
stdev 0.104
extra 0.12
5460.9400
nfib1 16
nfib2 16
stdev 0.098
extra 0.21
5577.3390
nfib1 16
nfib2 16
stdev 0.021
extra 0.22
5889.9500
nfib1 16
nfib2 16
stdev 0.093
extra 0.31
5895.9240
nfib1 16
nfib2 16
stdev 0.129
extra 0.31
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

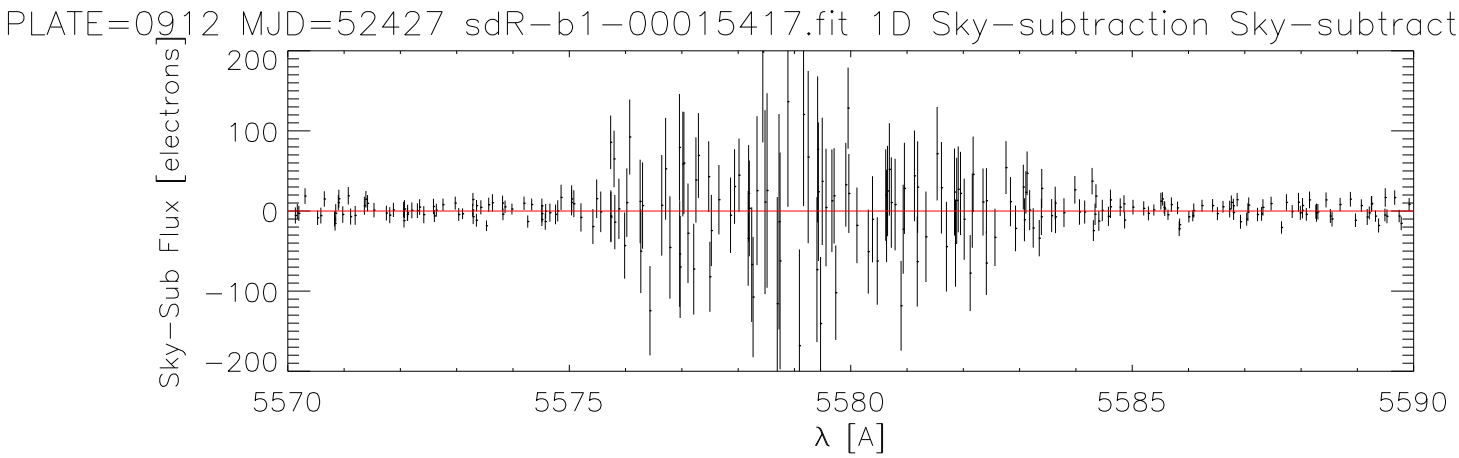

sky shift, pixels
0.30
0.25
0.20
0.15
0.10
0.05
3500
4000
4500
5000
5500
6000
6500

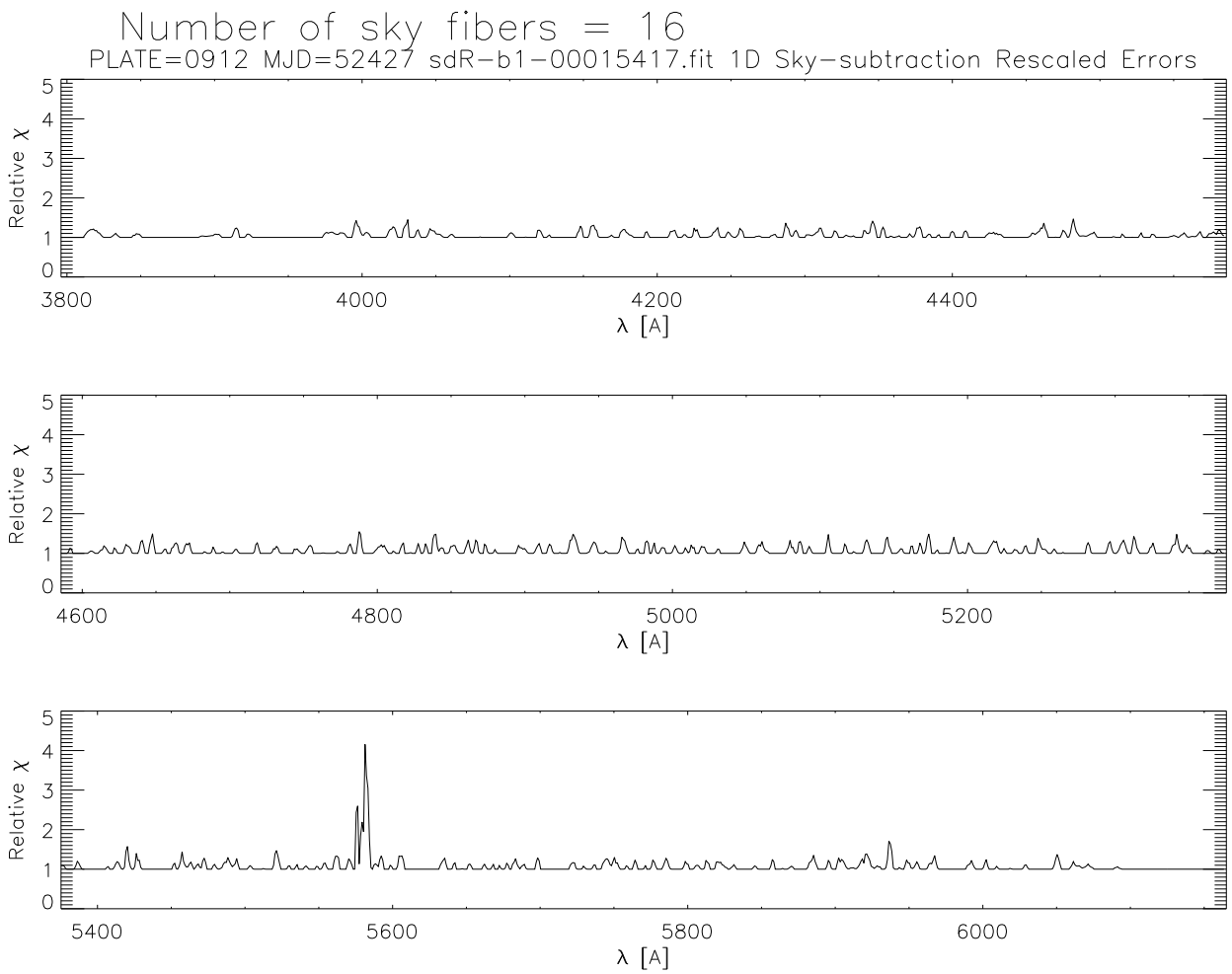
es= 0.0000

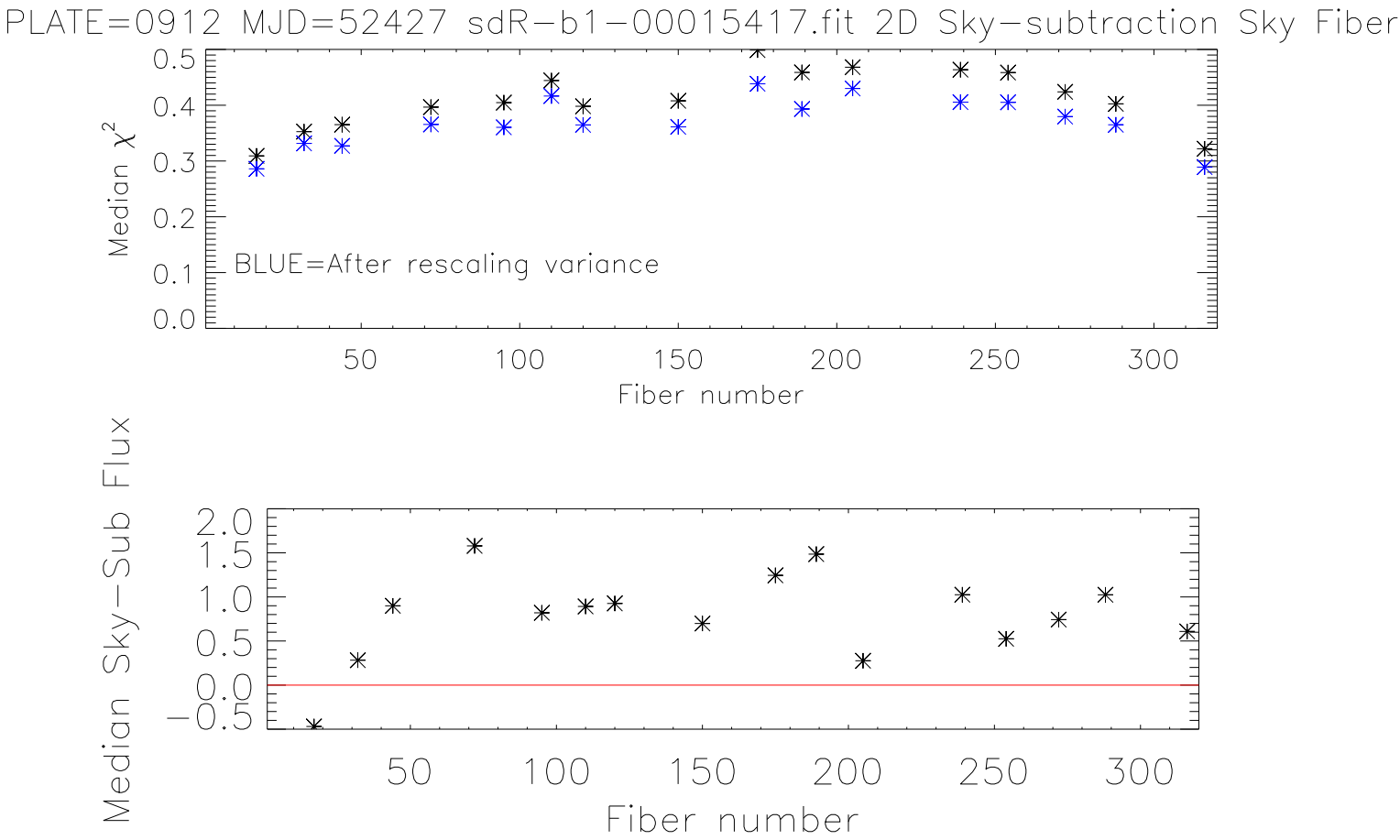

PLATE=0912 MJD=52427 Smooth superflat for sdR-b1-00015417.fit
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
4000
4500
5000
5500
6000
Wavelength (Å)

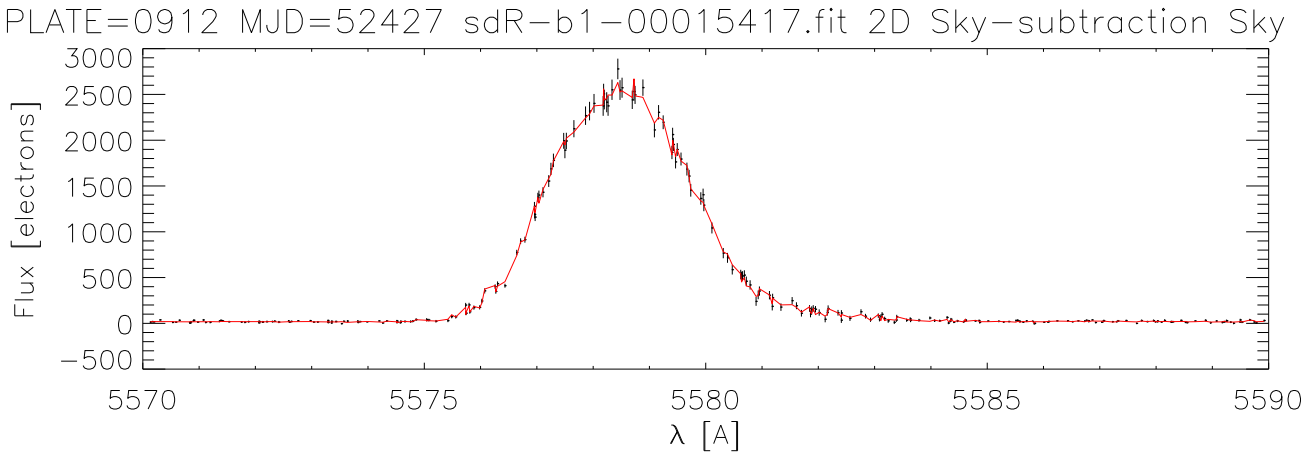

PLATE=0912 MJD=52427 sdR-b1-00015417.fit 1D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

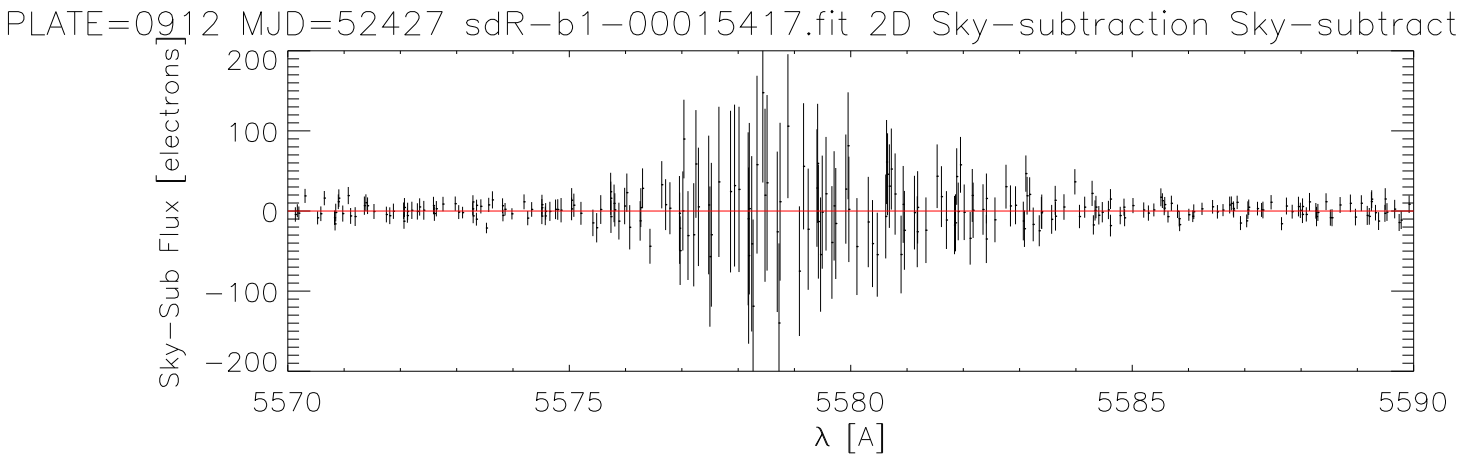

PLATE=0912 MJD=52427 sdR-b1-00015417.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
3000
2500
2000
1500
1000
500
0
-500
5570
5575
5580
5585
5590
λ [A]

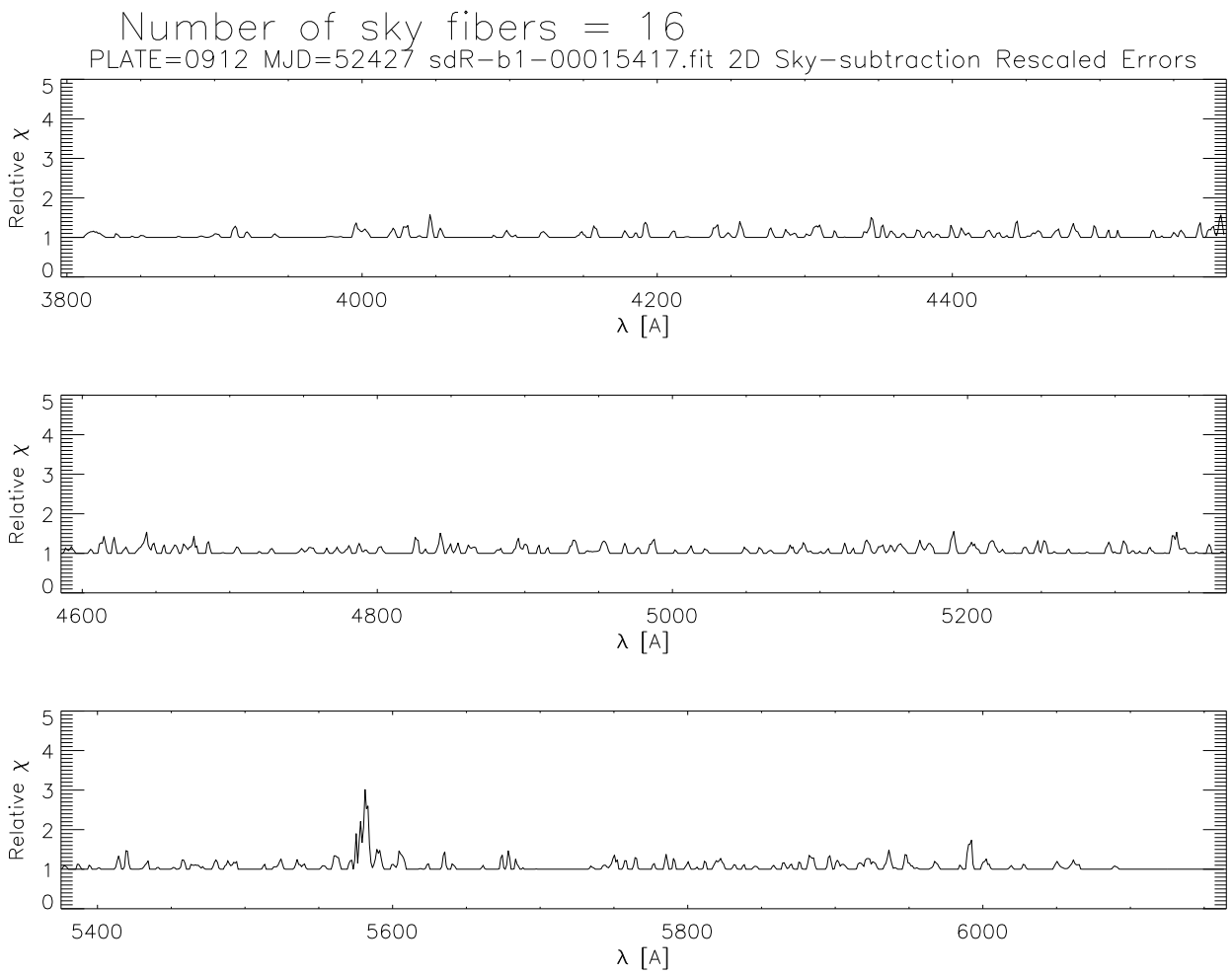

PLATE=0912 MJD=52427 sdR-b1-00015417.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
5570
5575
5580
5585
5590
λ [A]

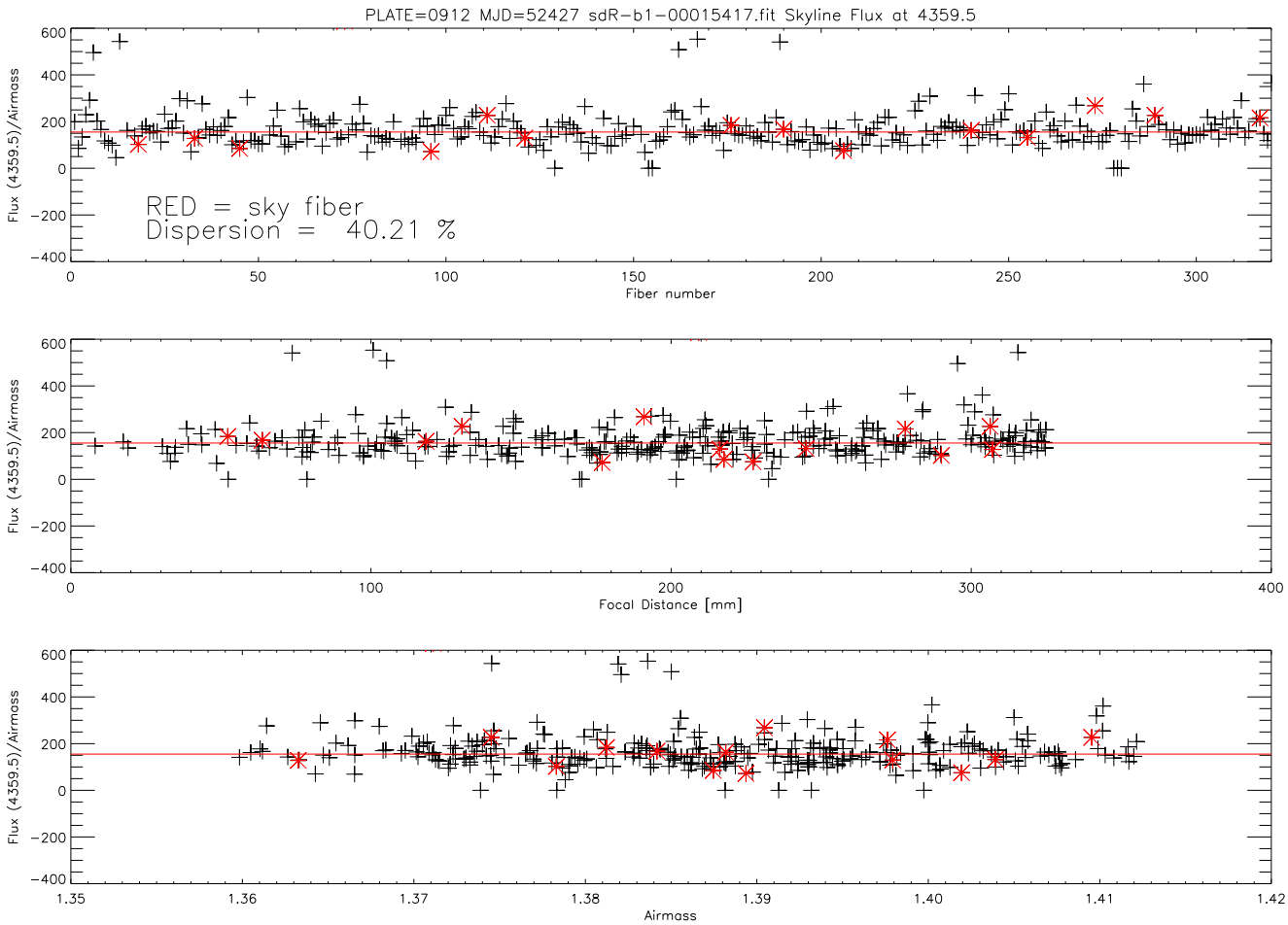

Number of sky fibers = 16
PLATE=0912 MJD=52427 sdR-b1-00015417.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

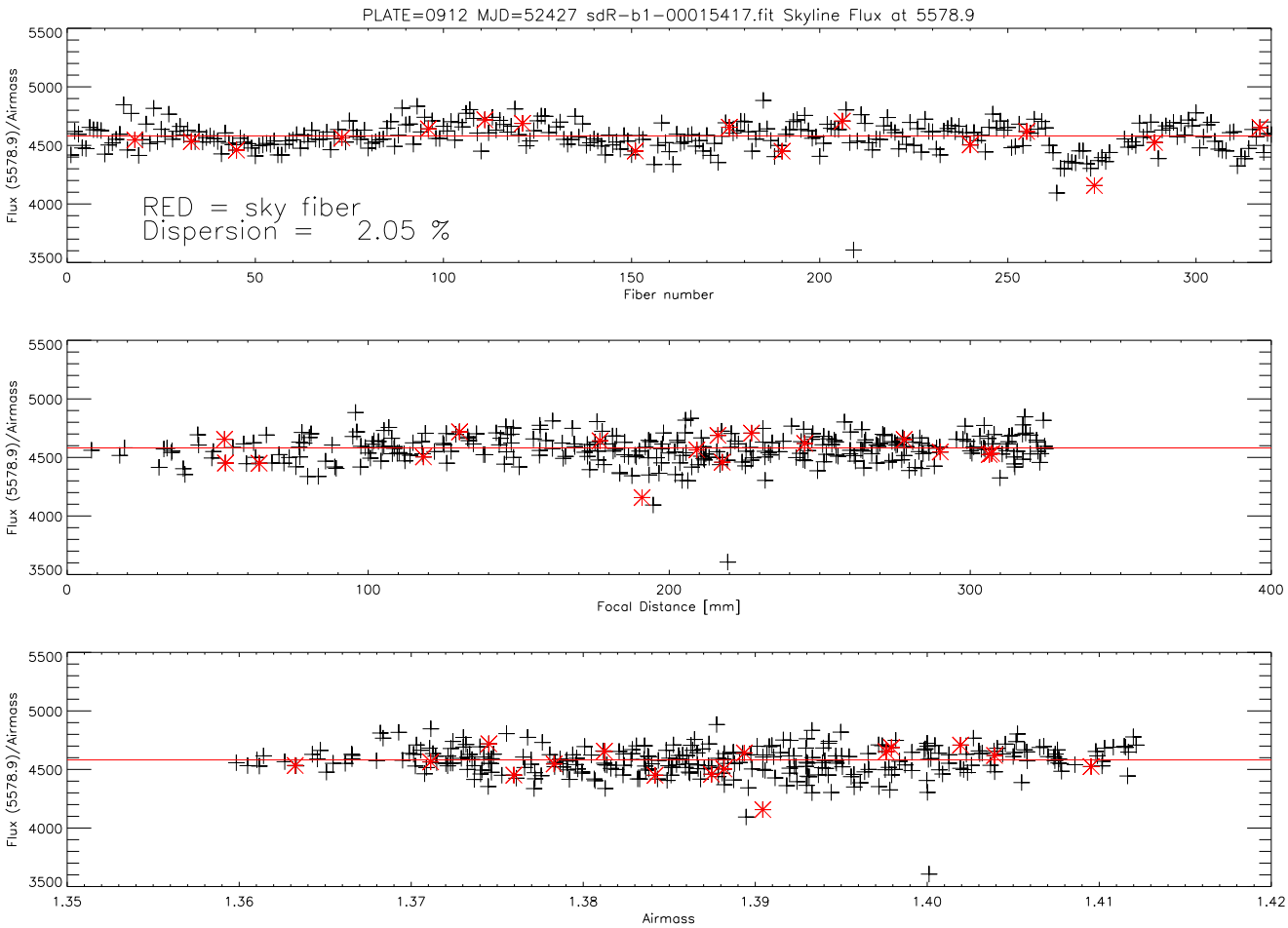

PLATE=0912 MJD=52427 sdR-b1-00015417.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

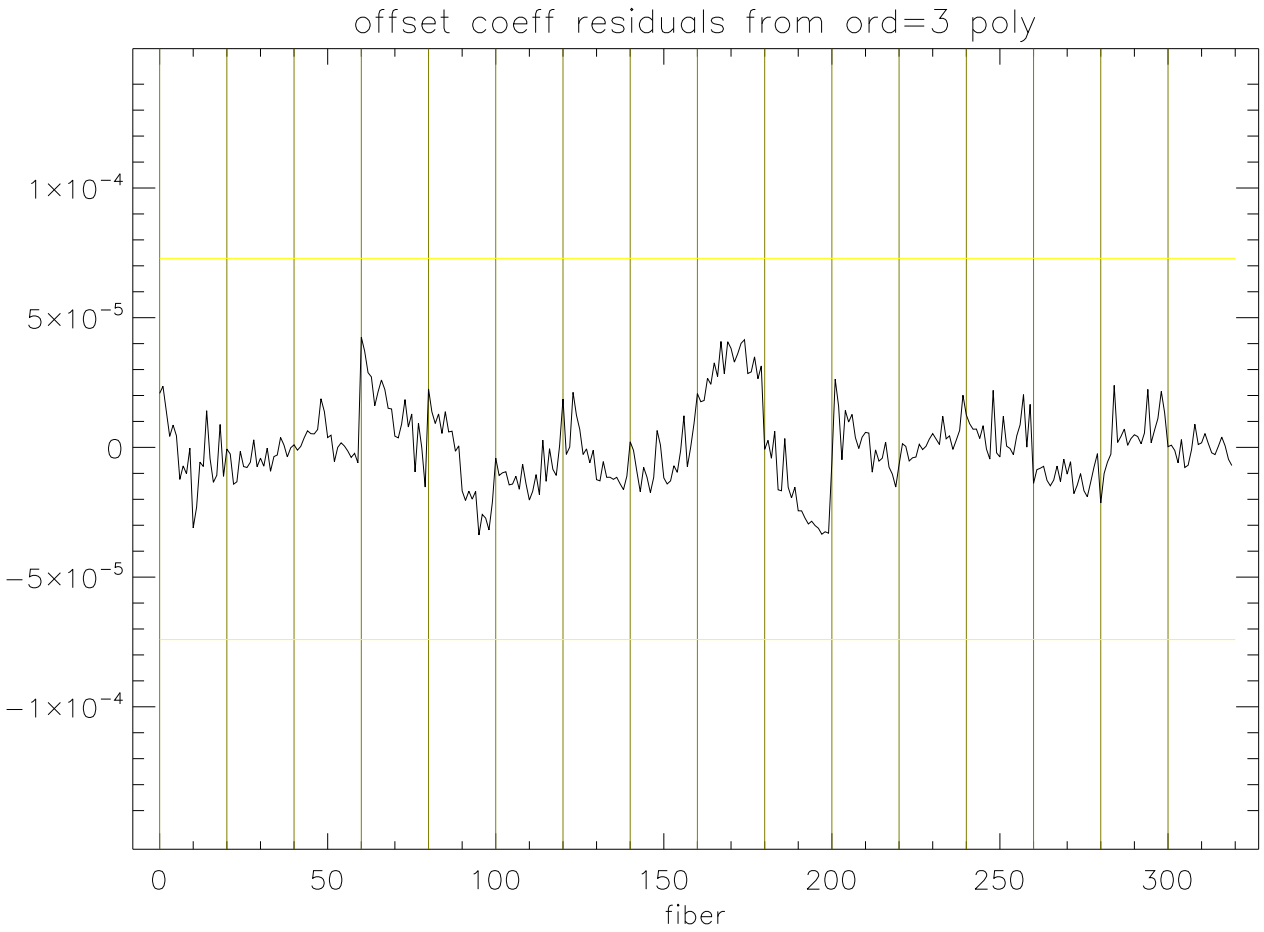

PLATE=0912 MJD=52427 sdR-b1-00015417.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
3000
2500
2000
1500
1000
500
0
-500
5570
5575
5580
5585
5590
λ [A]

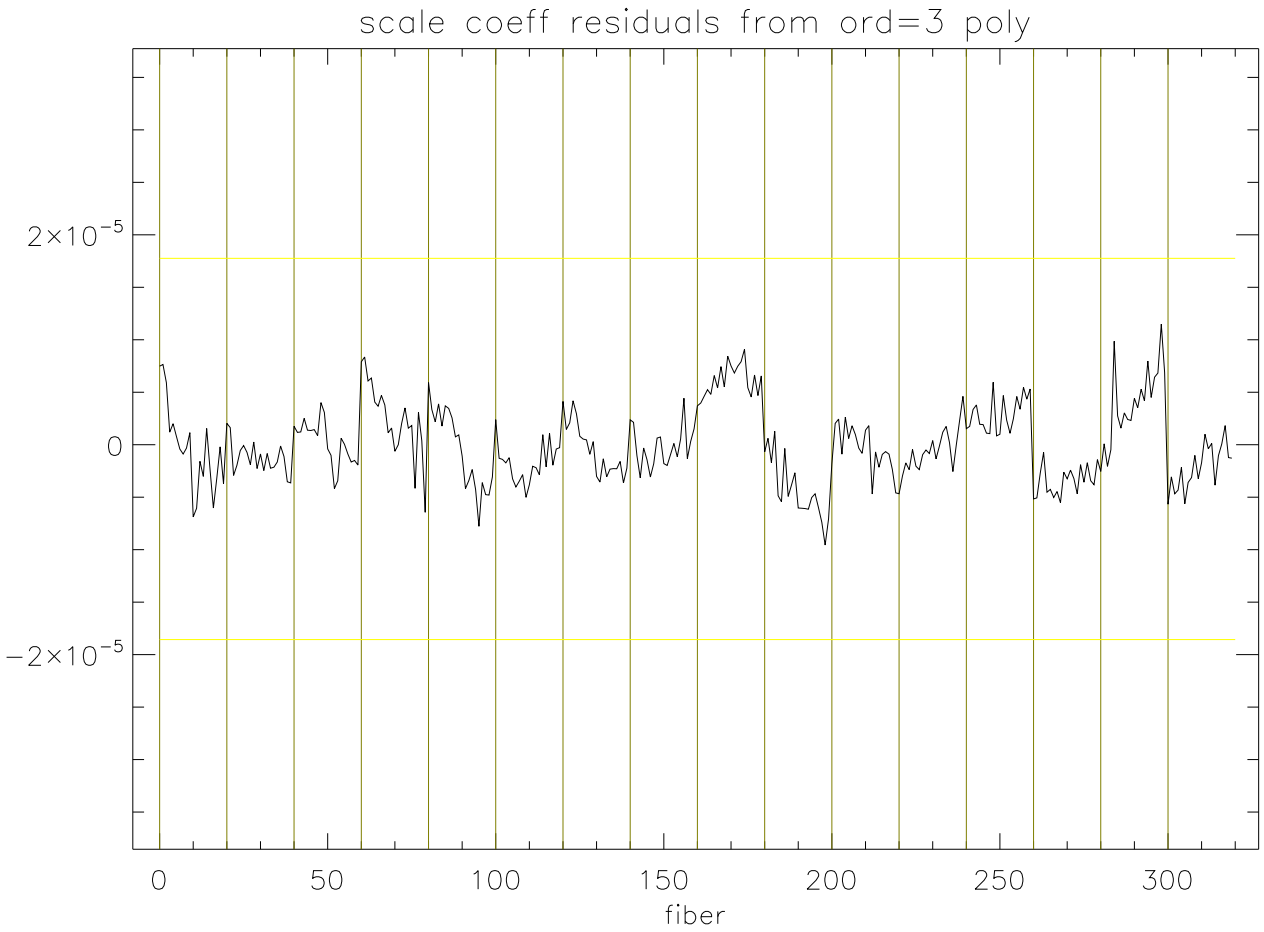

PLATE=0912 MJD=52427 sdR-b1-00015417.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
5570
5575
5580
5585
5590
λ [A]

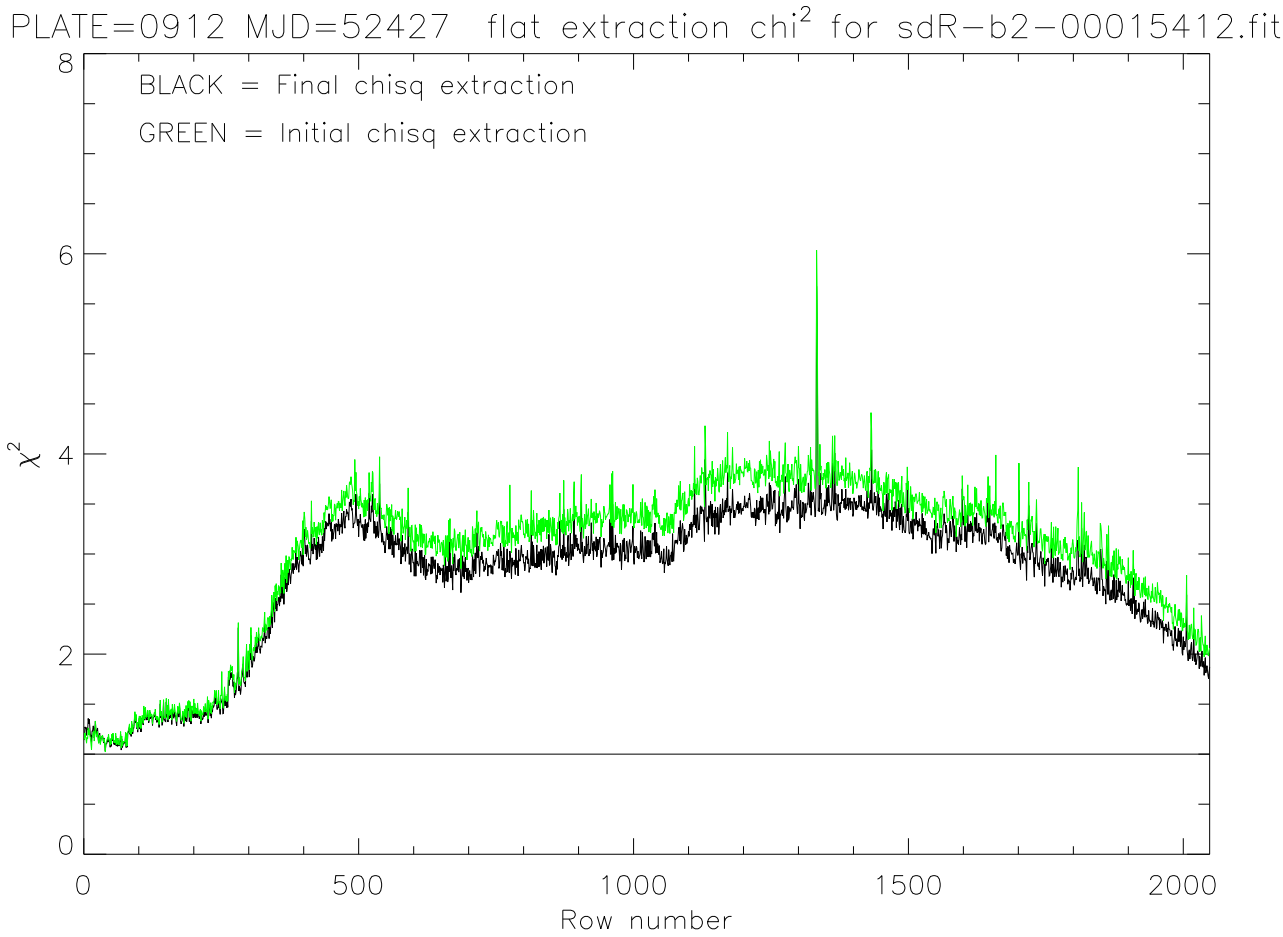

Number of sky fibers = 16
PLATE=0912 MJD=52427 sdR-b1-00015417.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

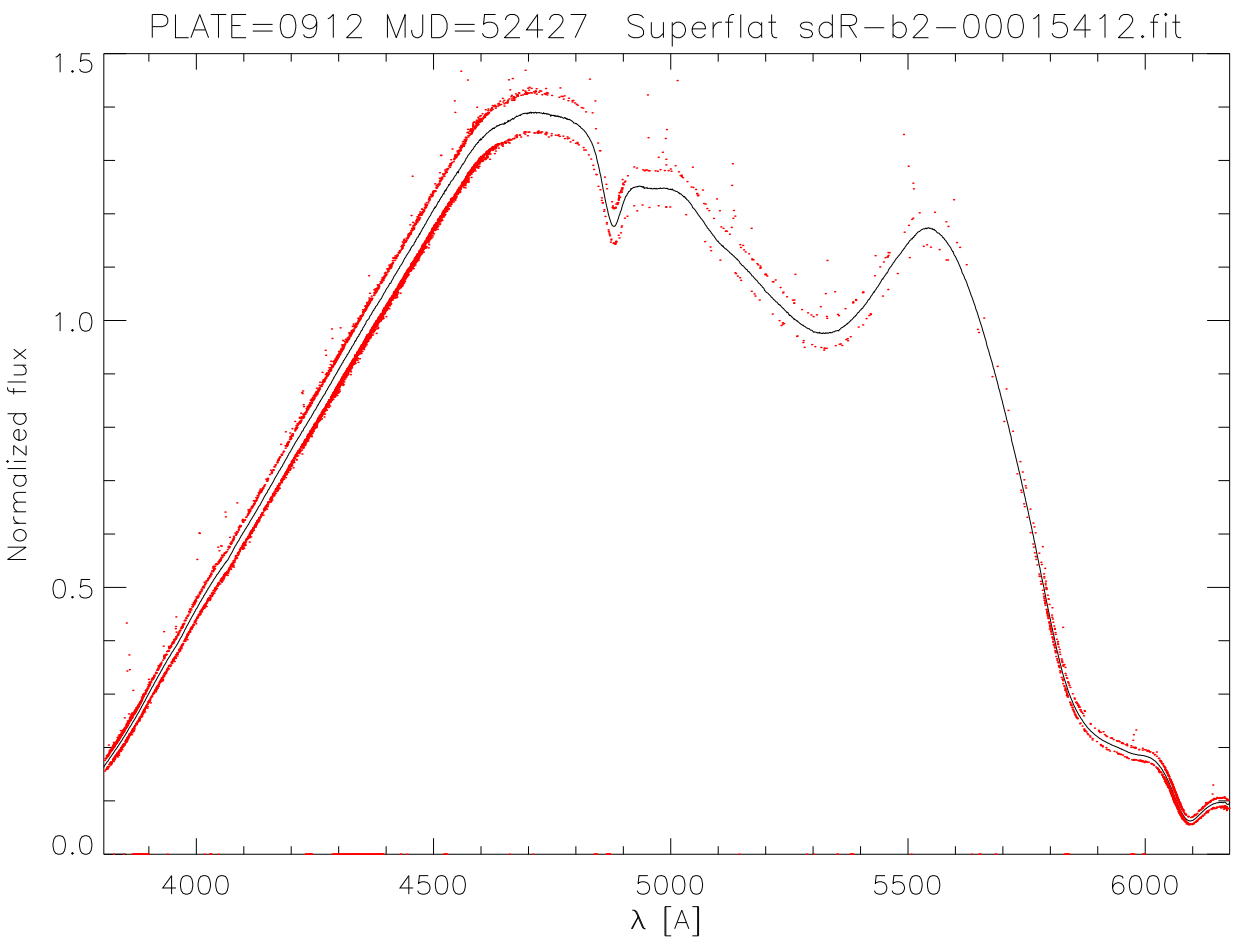

PLATE=0912 MJD=52427 sdR-b1-00015417.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 40.21 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

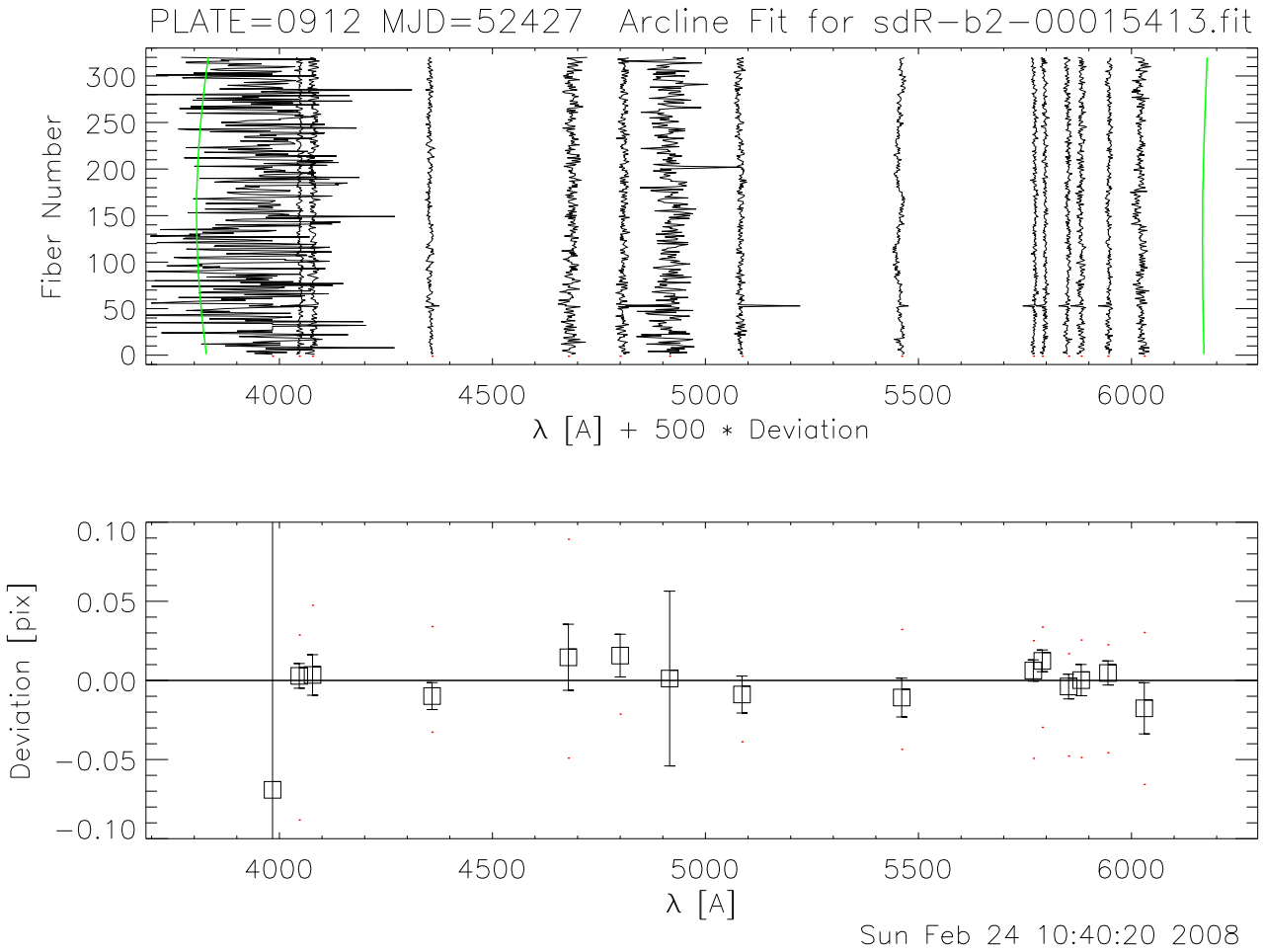

PLATE=0912 MJD=52427 sdR-b1-00015417.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 2.05 %
Fiber number
Flux (5578.9)/Airmass
Focal Distance [mm]
Flux (5578.9)/Airmass
Airmass

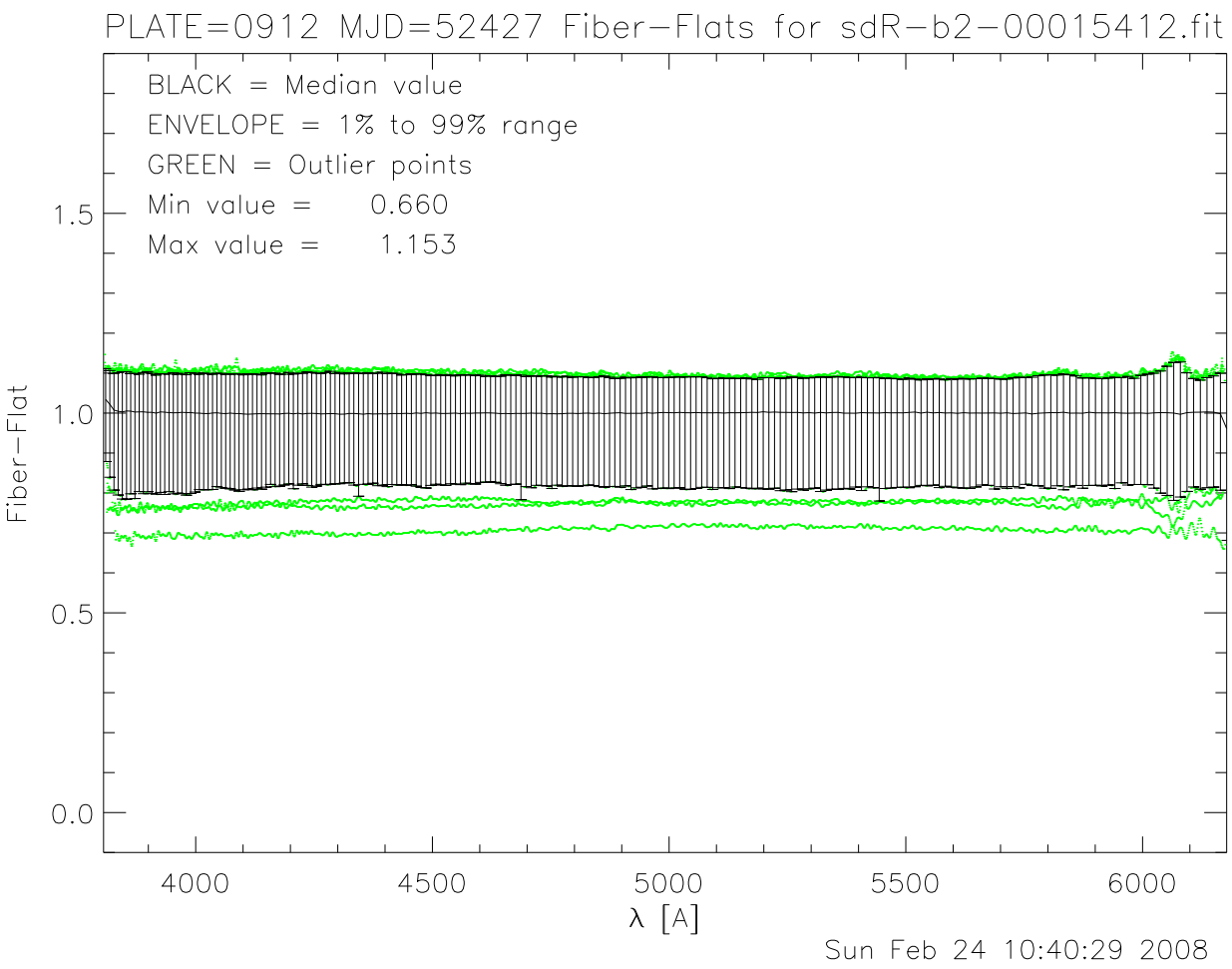

offset coeff residuals from ord=3 poly
1×10^-4
5×10^-5
0
−5×10^-5
−1×10^-4
0
50
100
150
200
250
300
fiber

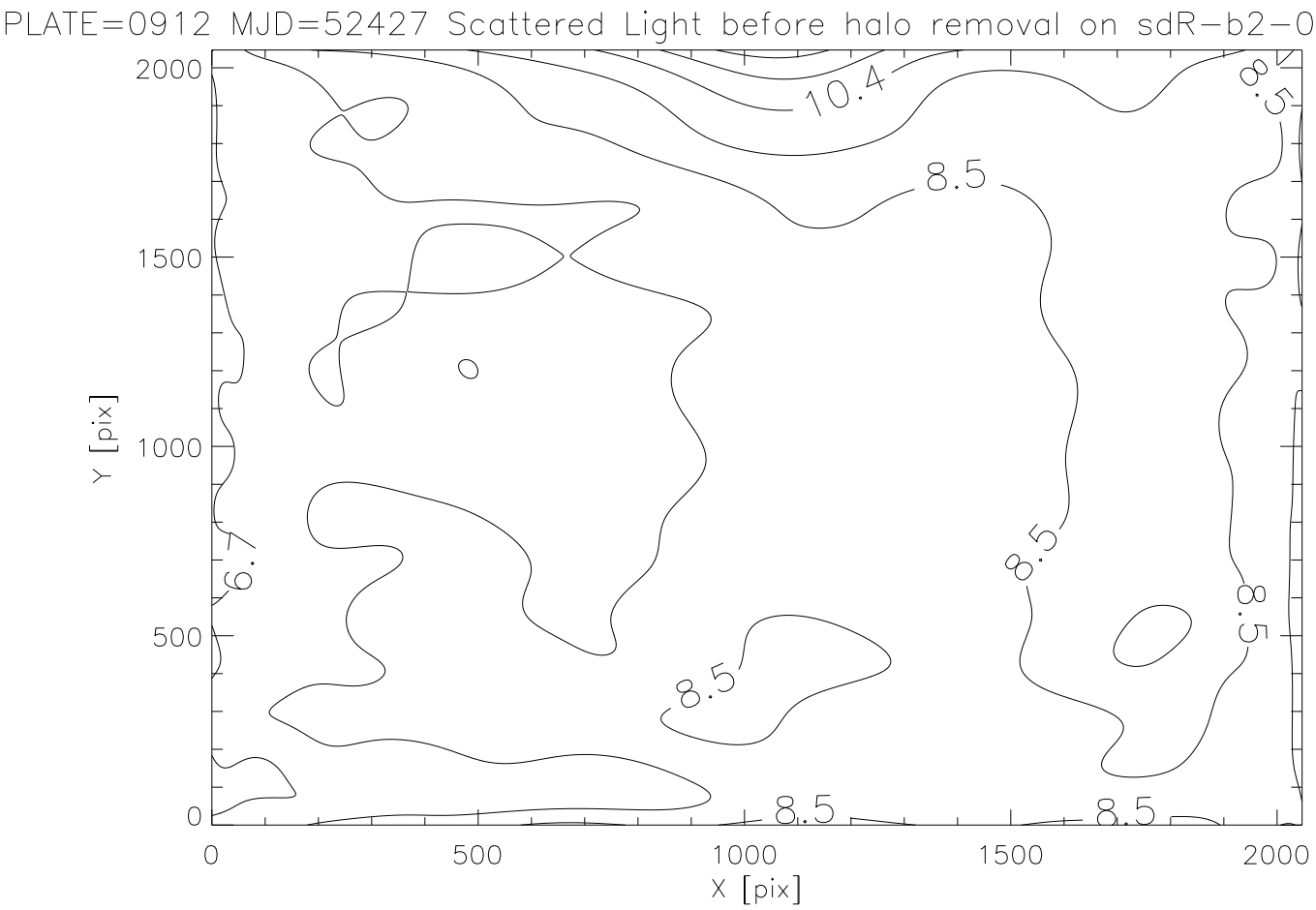

scale coeff residuals from ord=3 poly
2×10⁻⁵
0
−2×10⁻⁵
0
50
100
150
200
250
300
fiber

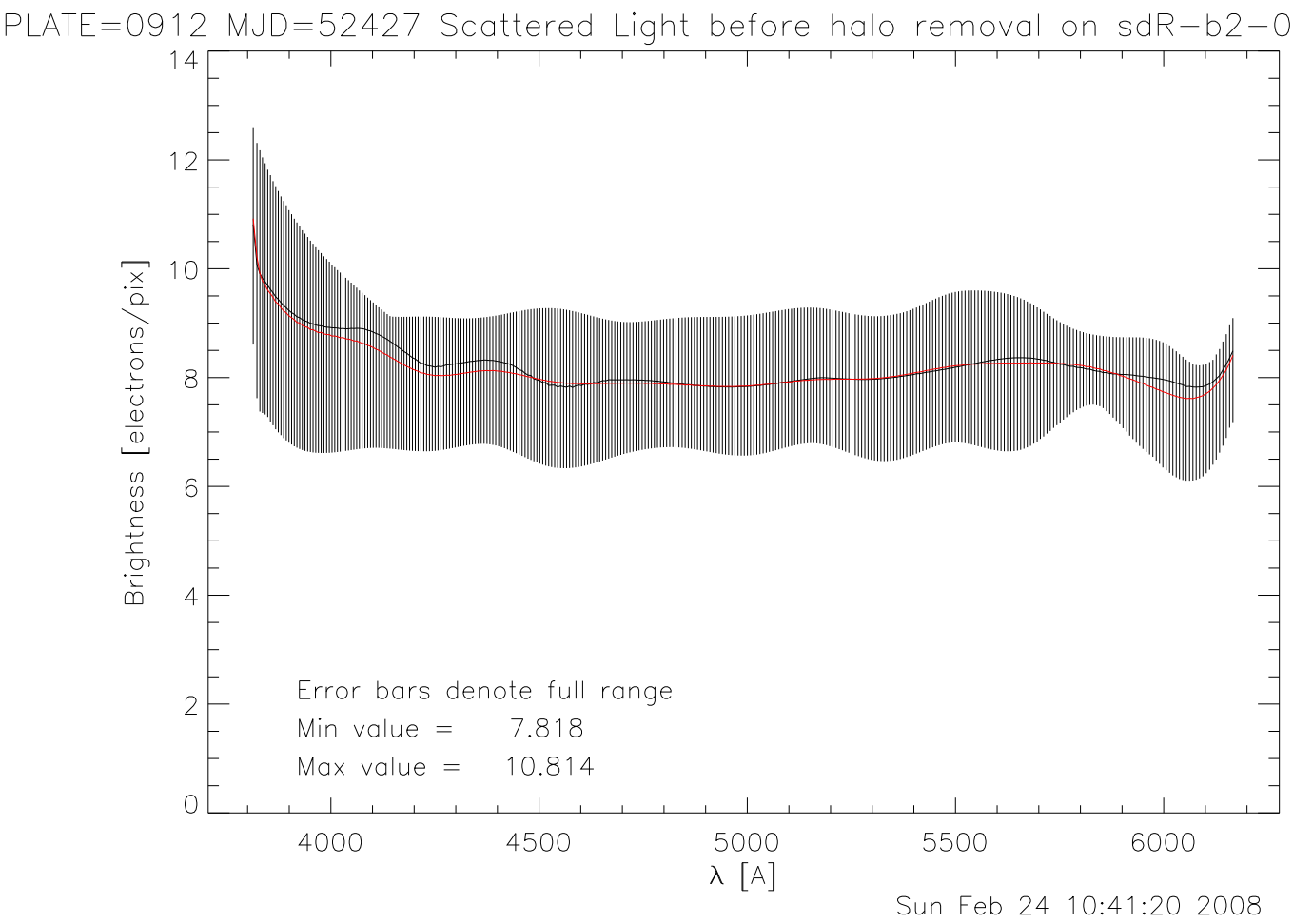

PLATE=0912 MJD=52427 flat extraction chi^2 for sdR−b2−00015412.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
0
500
1000
1500
2000
Row number

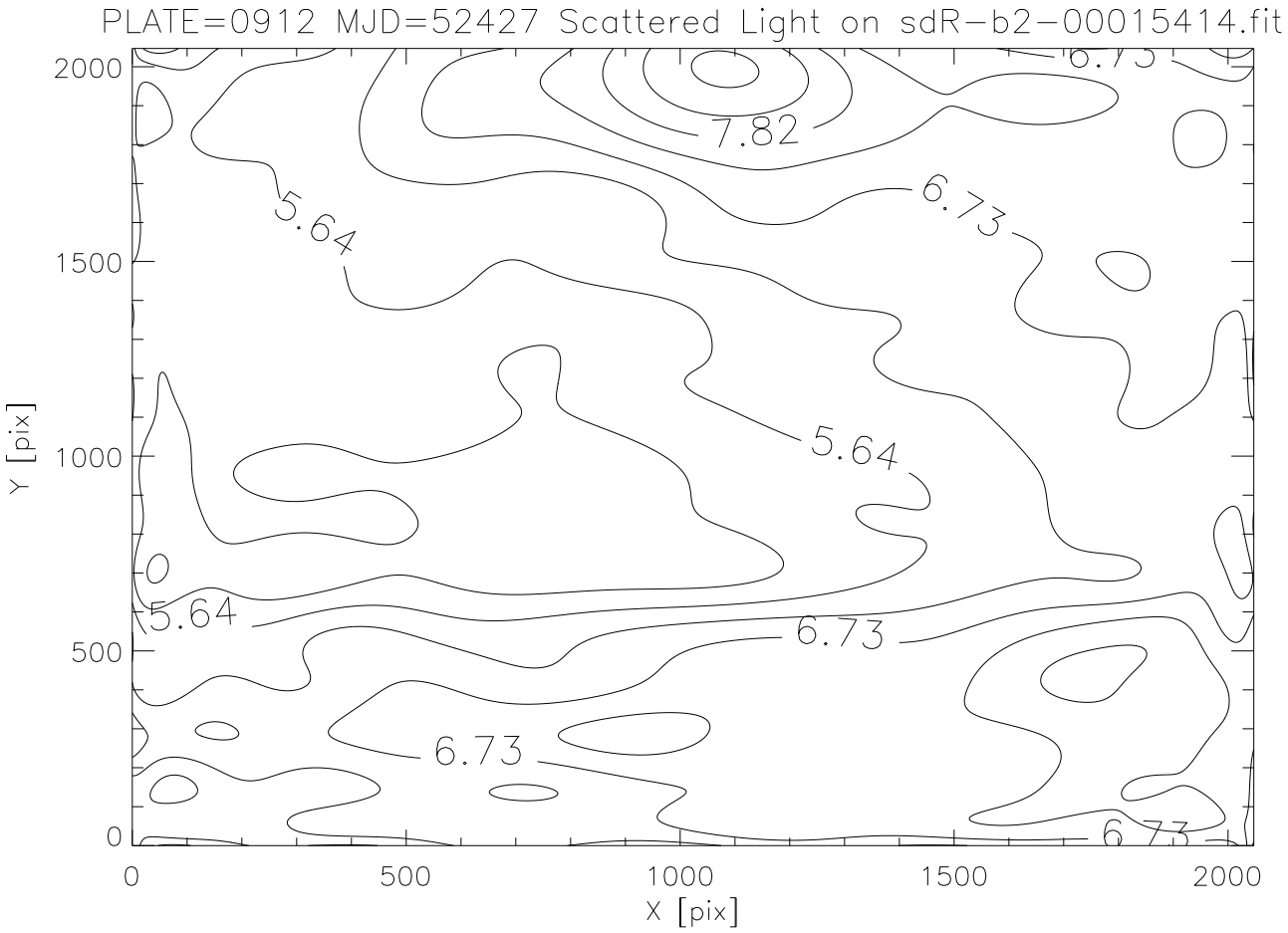

PLATE=0912 MJD=52427 Superflat sdR-b2-00015412.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

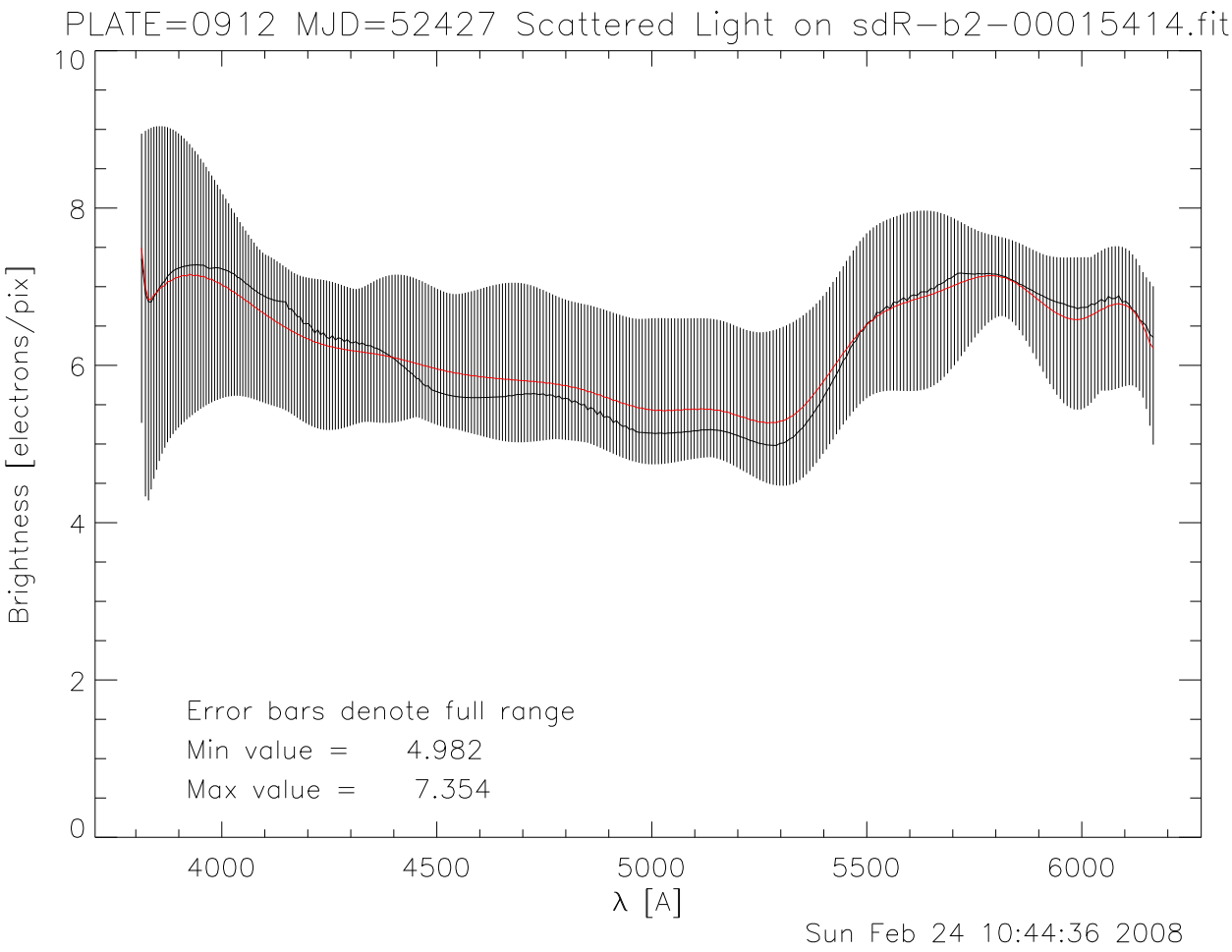

PLATE=0912 MJD=52427 Arcline Fit for sdR-b2-00015413.fit
Fiber Number
300
250
200
150
100
50
0
4000
4500
5000
5500
6000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
4000
4500
5000
5500
6000
λ [A]
Sun Feb 24 10:40:20 2008

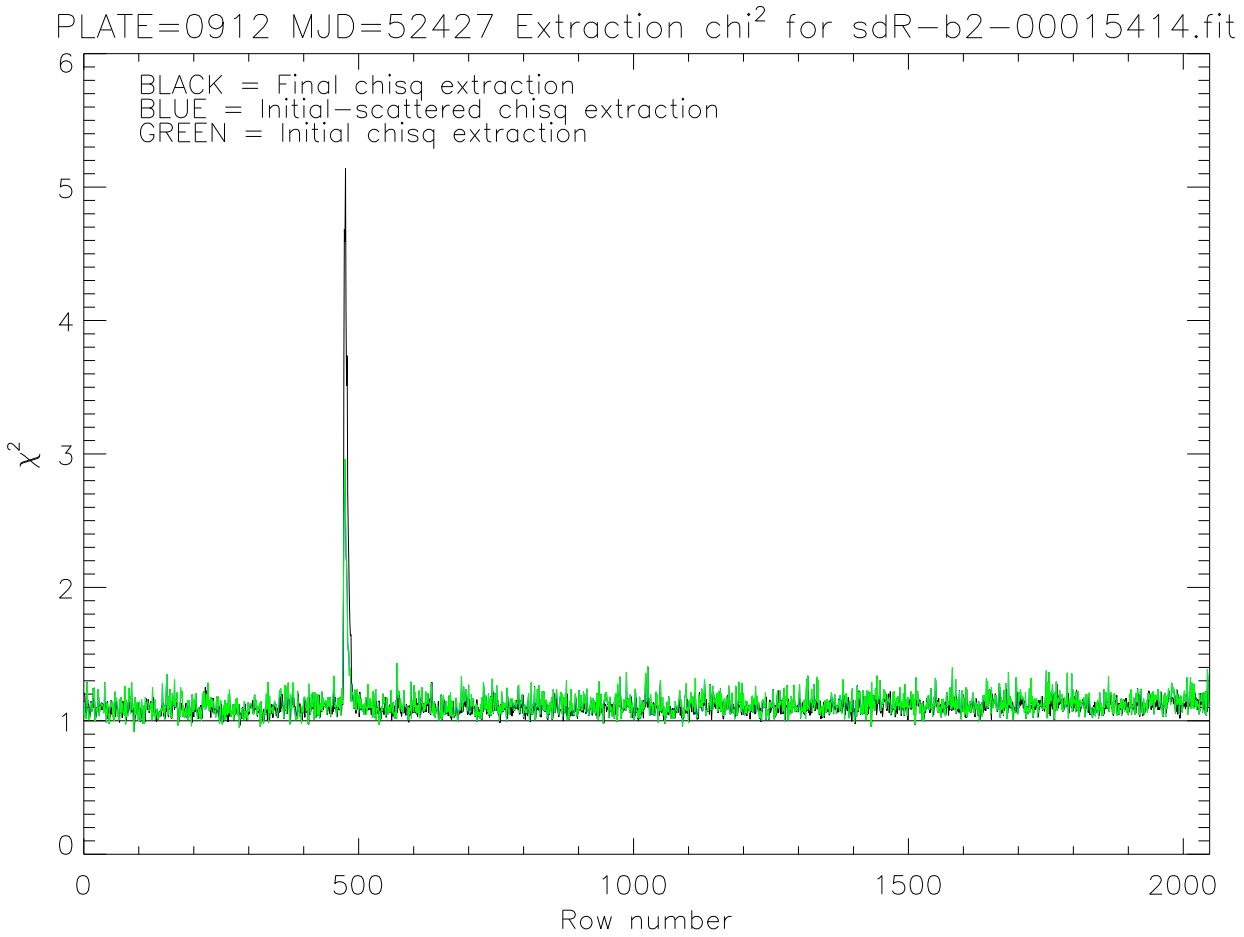

PLATE=0912 MJD=52427 Fiber−Flats for sdR−b2−00015412.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.660
Max value = 1.153
Fiber−Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Sun Feb 24 10:40:29 2008

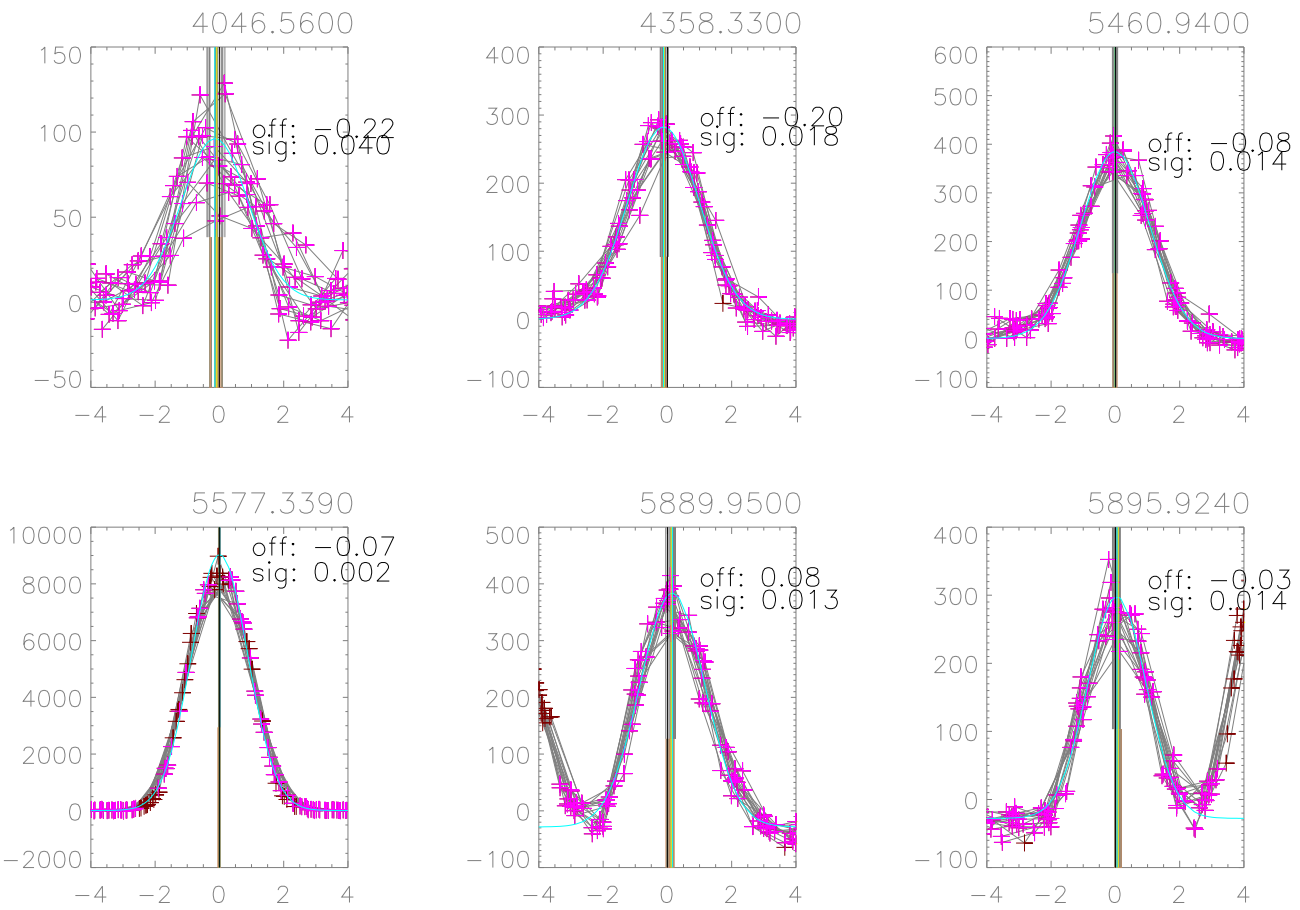

PLATE=0912 MJD=52427 Scattered Light before halo removal on sdR−b2−00015414.f
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
10.4
8.5
8.5
8.5
8.5
8.5
8.5
8.5
6.7
0

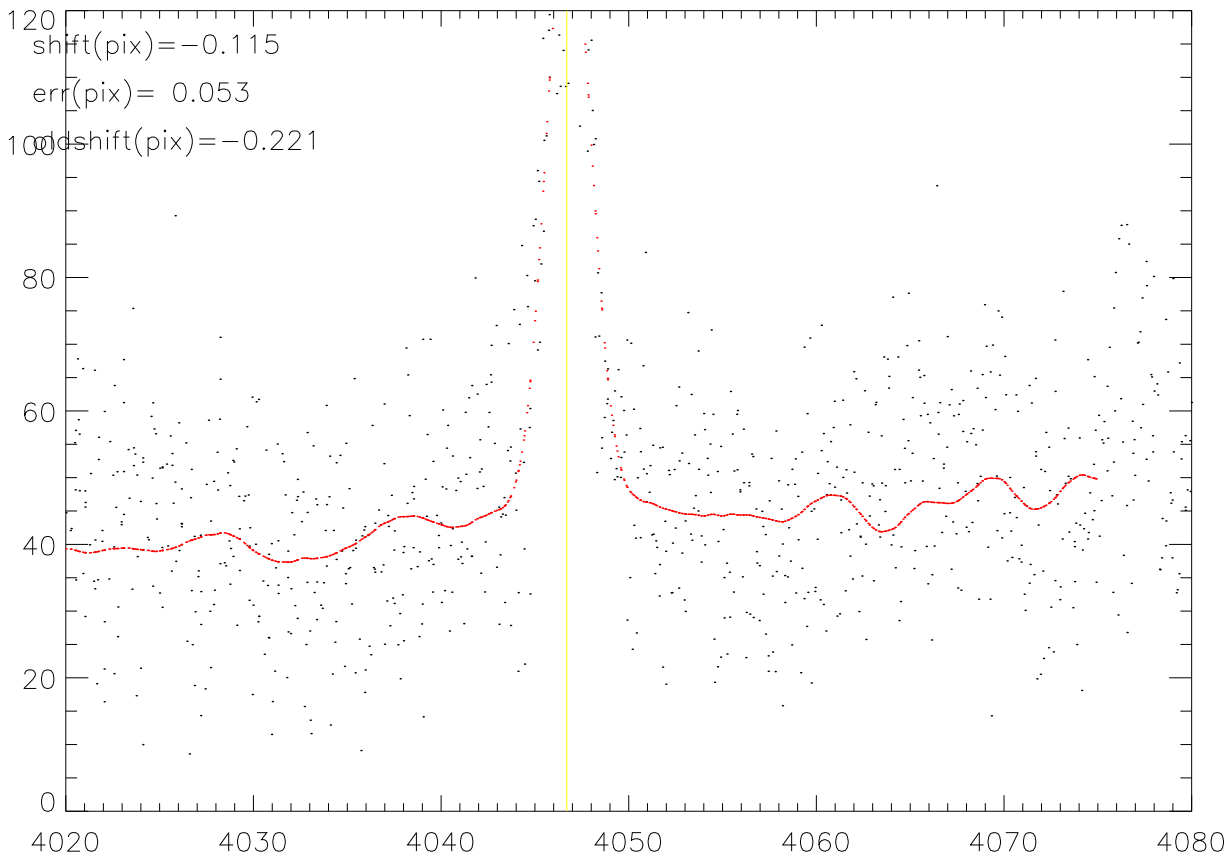

PLATE=0912 MJD=52427 Scattered Light before halo removal on sdR-b2-00015414.f
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 7.818
Max value = 10.814
Sun Feb 24 10:41:20 2008

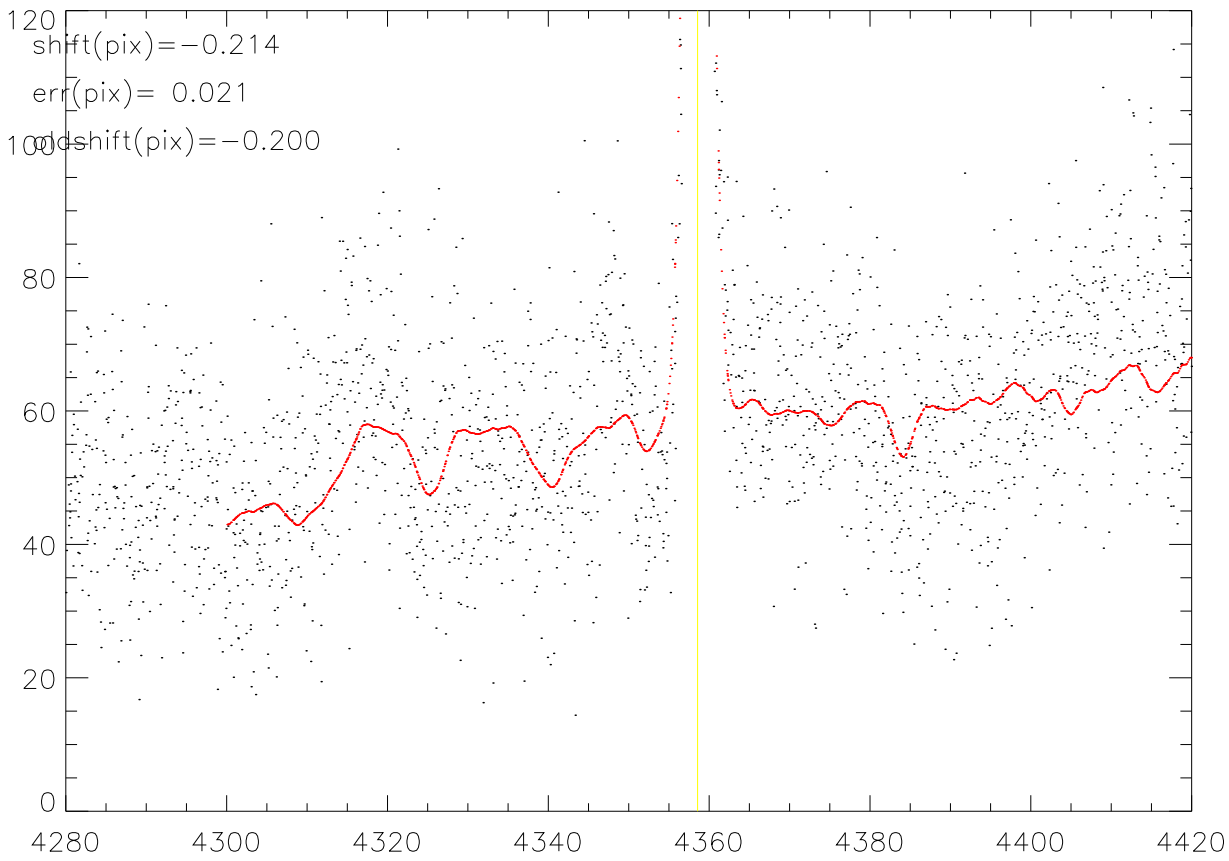

PLATE=0912 MJD=52427 Scattered Light on sdR-b2-00015414.fit
7.82
6.73
5.64
5.64
0
5.64
6.73
6.73
6.73
Y [pix]
X [pix]
0
500
1000
1500
2000

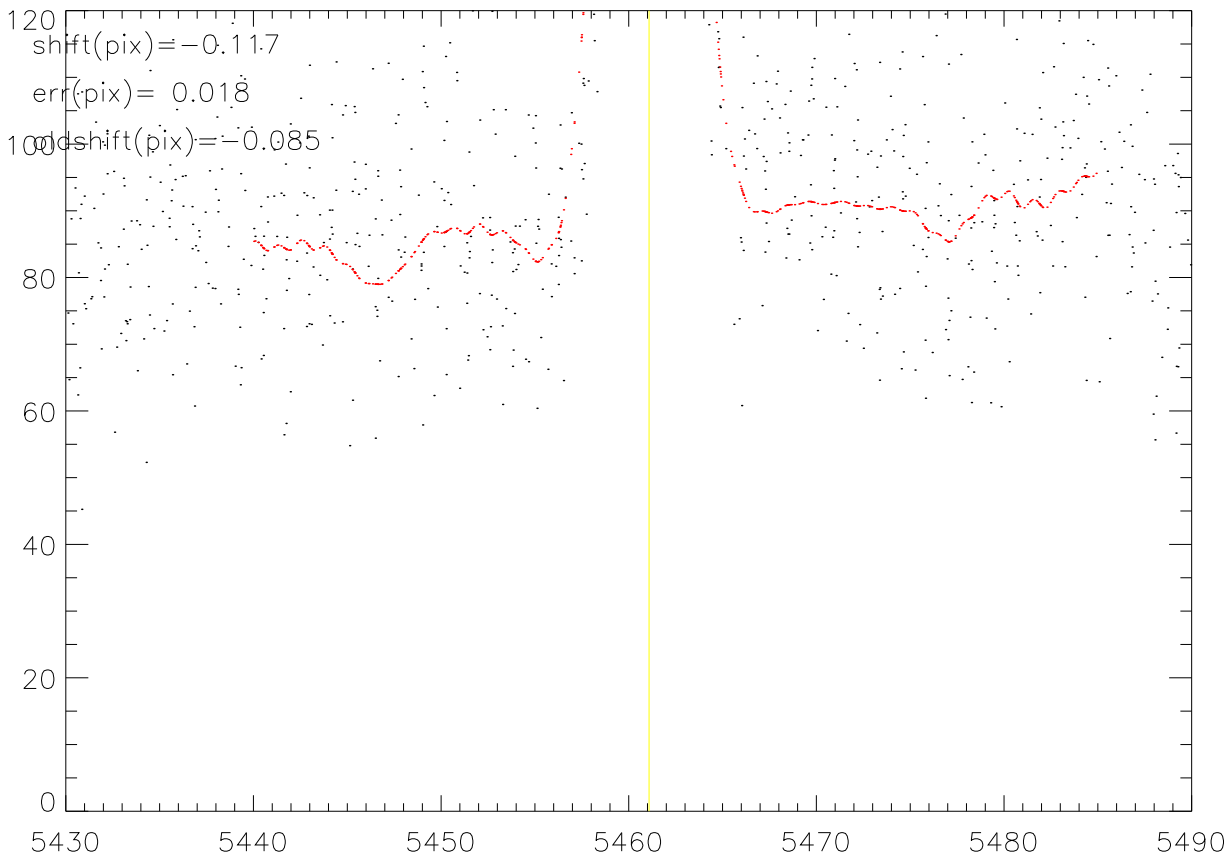

PLATE=0912 MJD=52427 Scattered Light on sdR-b2-00015414.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 4.982
Max value = 7.354
Sun Feb 24 10:44:36 2008

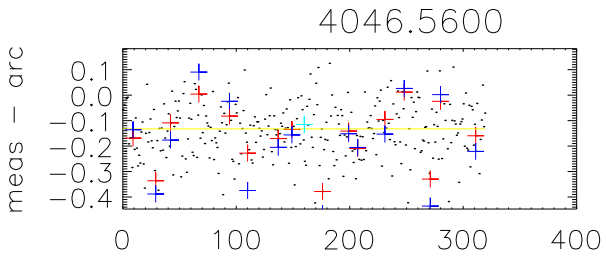

PLATE=0912 MJD=52427 Extraction chi^2 for sdR-b2-00015414.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
5
6
0
500
1000
1500
2000
Row number

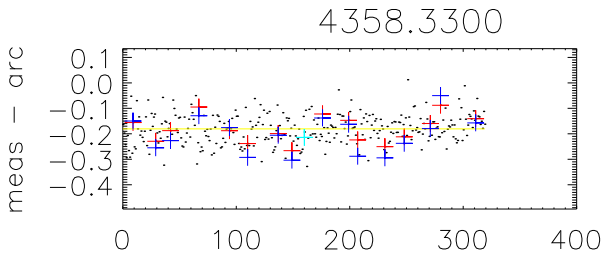

4046.5600
off: −0.22
sig: 0.040
4358.3300
off: −0.20
sig: 0.018
5460.9400
off: −0.08
sig: 0.014
5577.3390
off: −0.07
sig: 0.002
5889.9500
off: 0.08
sig: 0.013
5895.9240
off: −0.03
sig: 0.014

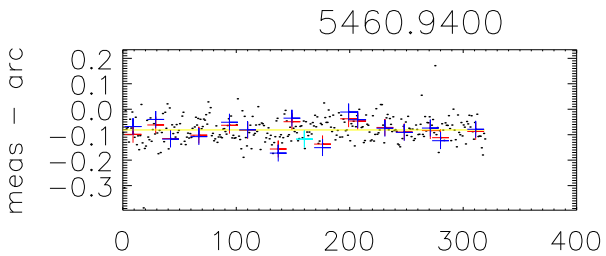

shift(pix)=−0.115
err(pix)= 0.053
oldshift(pix)=−0.221
120
100
80
60
40
20
0
4020
4030
4040
4050
4060
4070
4080

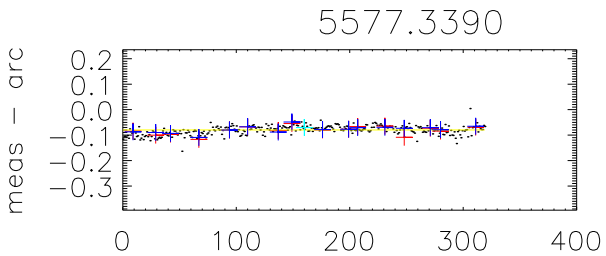

shift(pix)=−0.214
err(pix)= 0.021
oldshift(pix)=−0.200
120
100
80
60
40
20
0
4280
4300
4320
4340
4360
4380
4400
4420

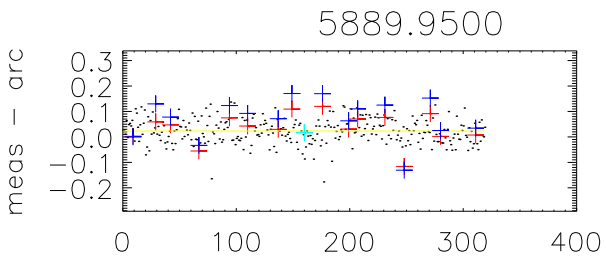

shift(pix)=−0.117
err(pix)= 0.018
oldshift(pix)=−0.085
120
100
80
60
40
20
0
5430
5440
5450
5460
5470
5480
5490

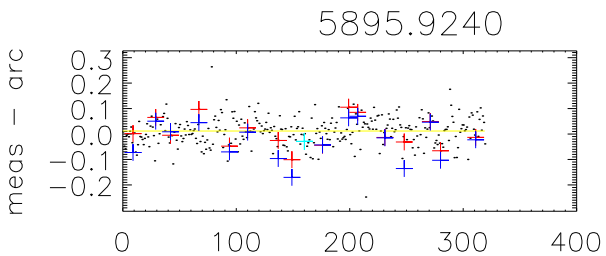

4046.5600
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

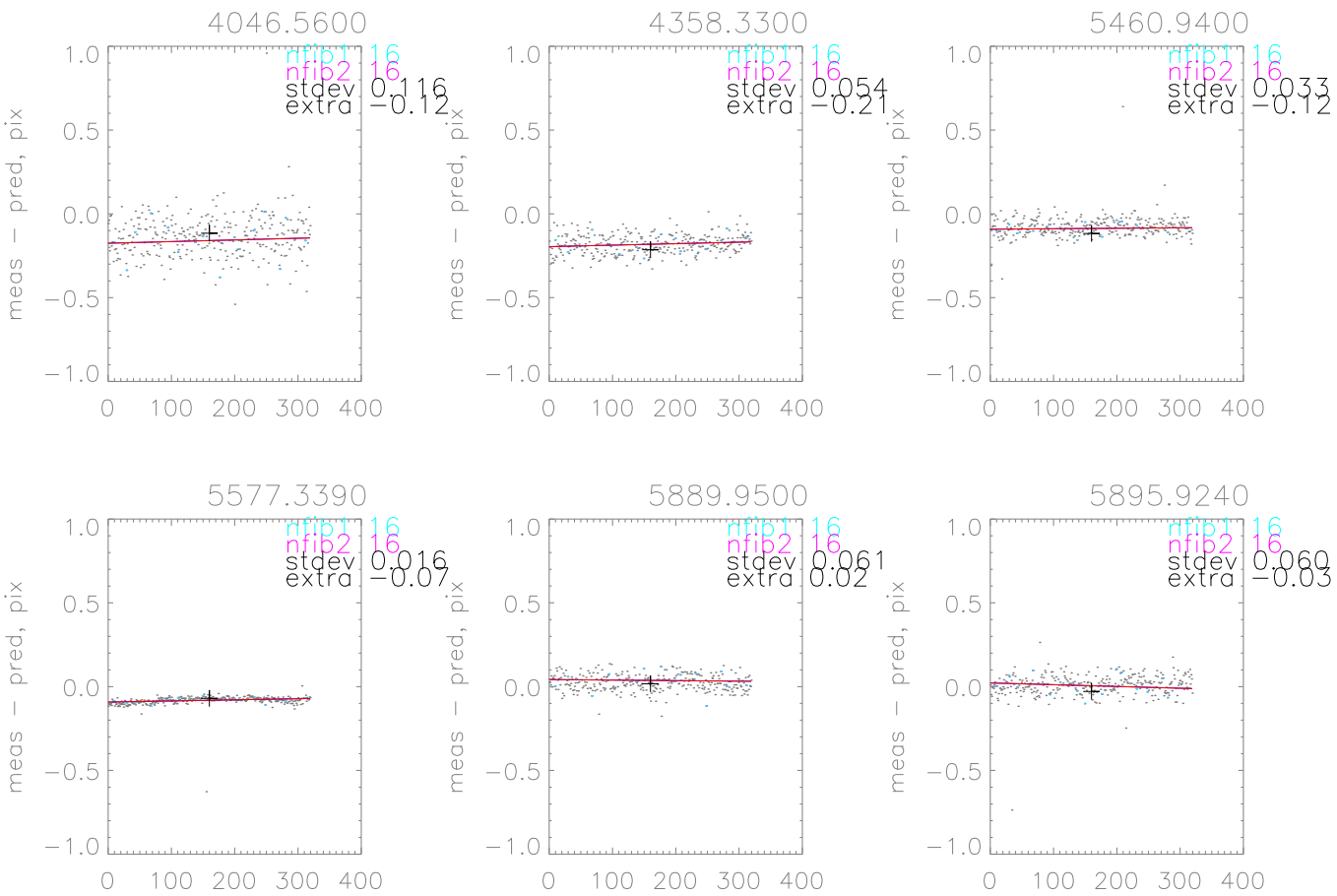

4358.3300
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

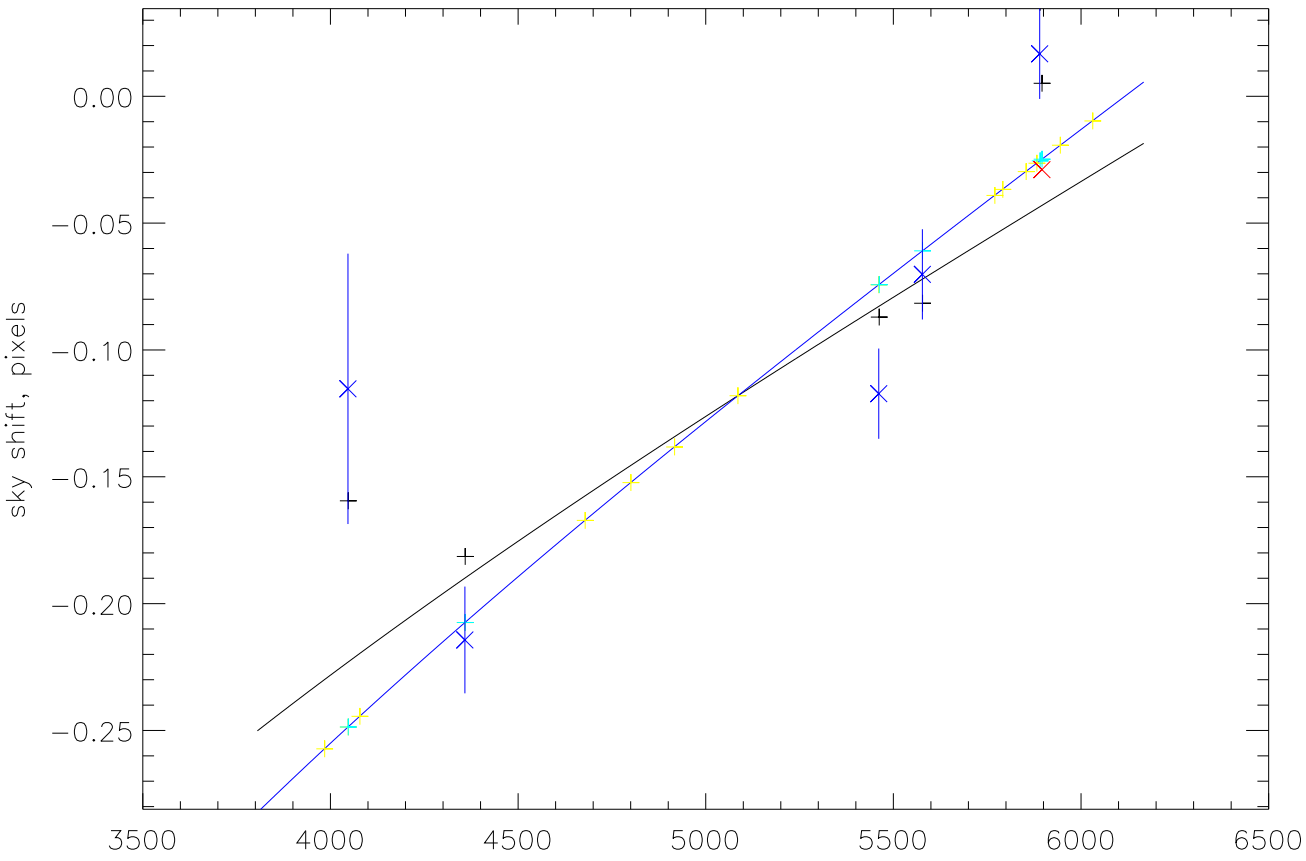

5460.9400
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

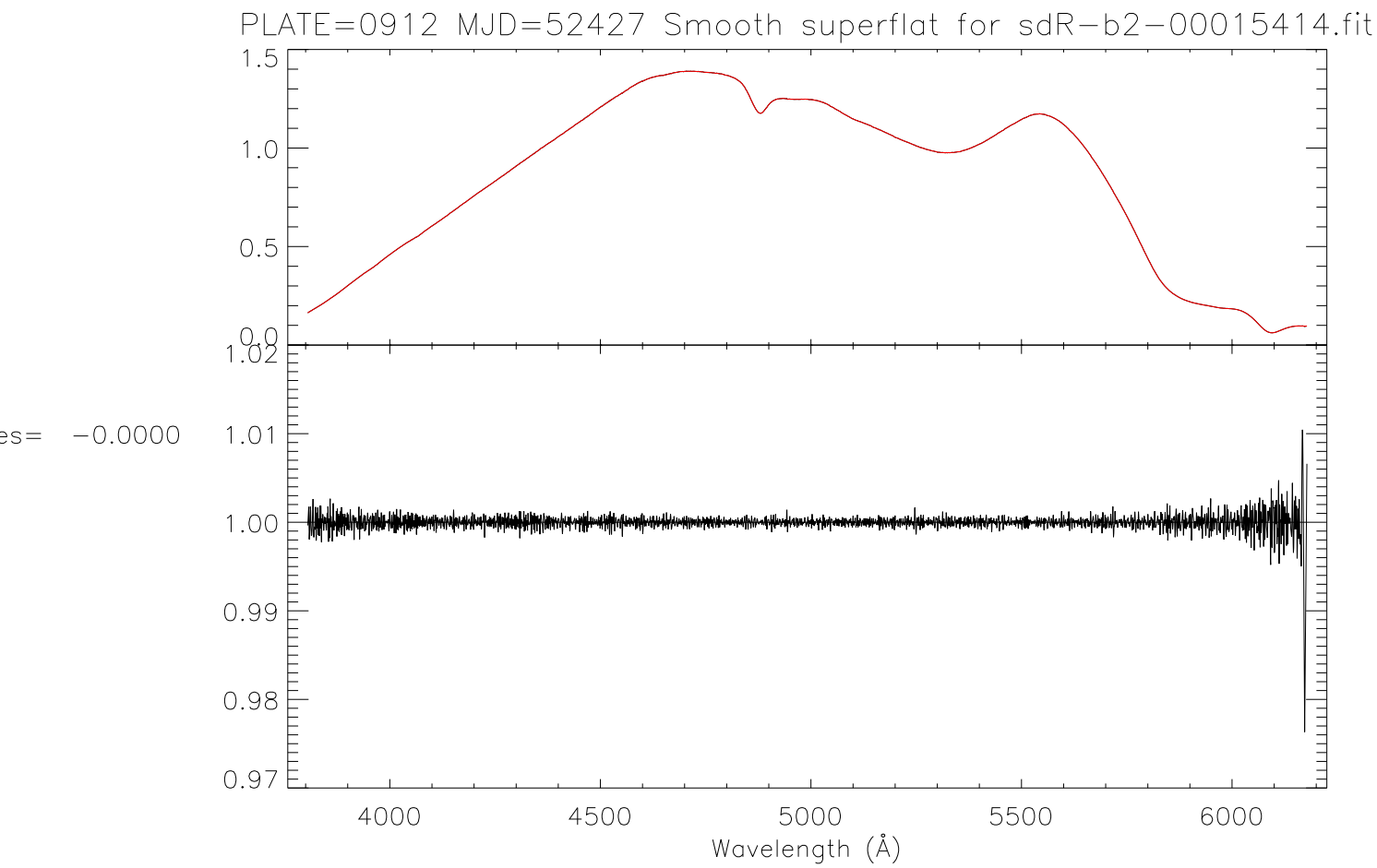

5577.3390
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400


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

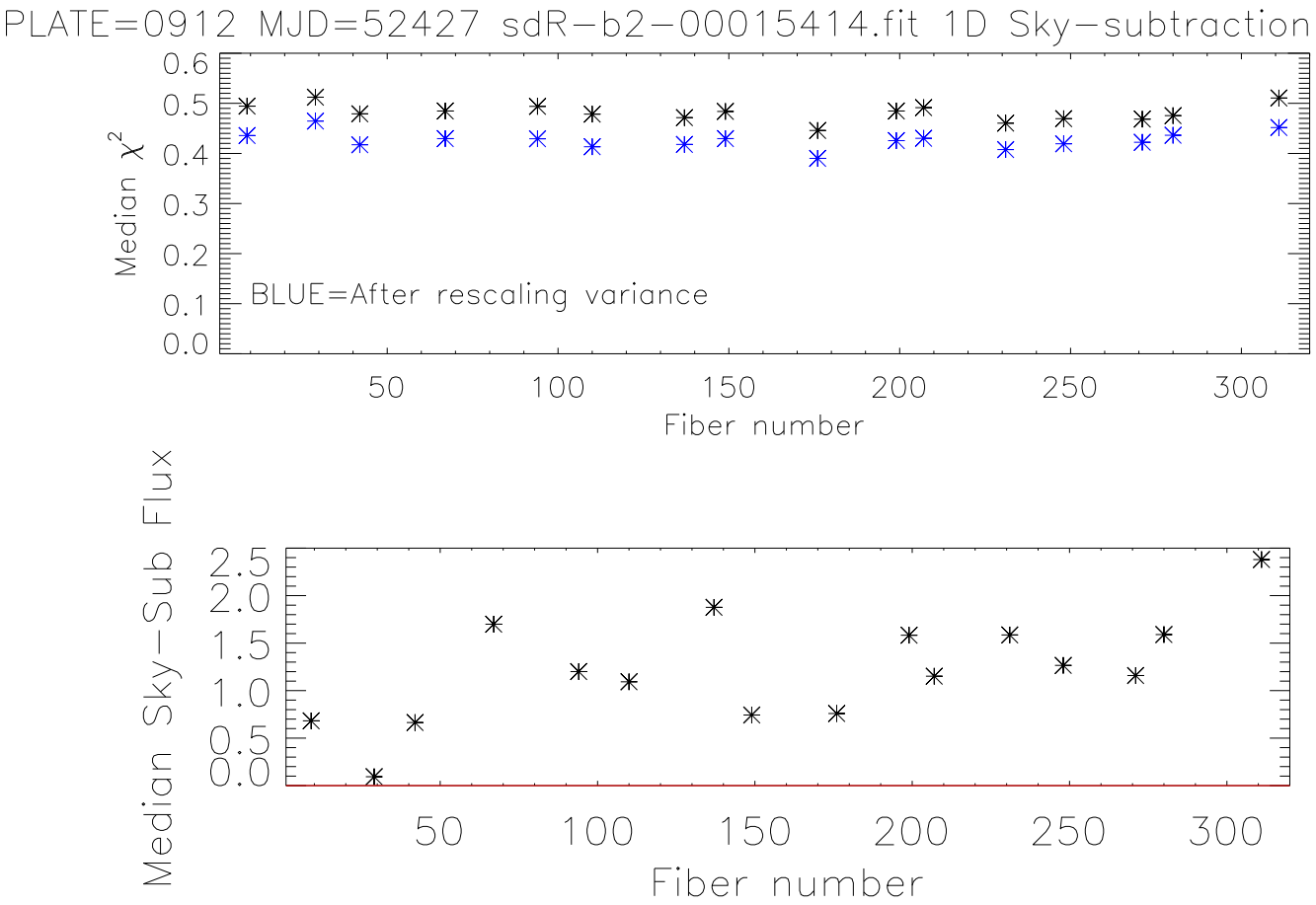

5895.9240
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

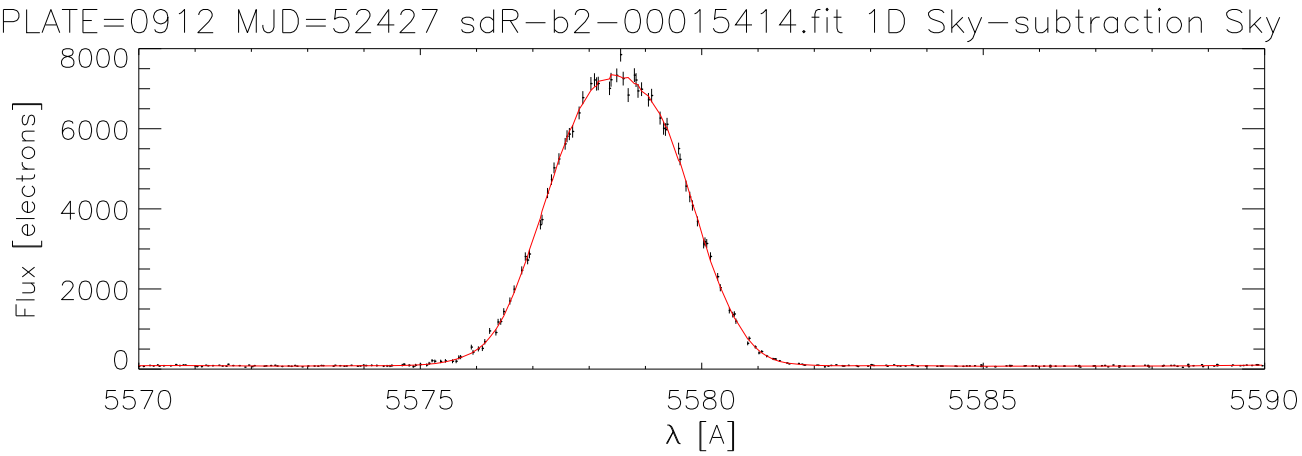

4046.5600
nfib1 16
nfib2 16
stdev 0.116
extra −0.12
4358.3300
nfib1 16
nfib2 16
stdev 0.054
extra −0.21
5460.9400
nfib1 16
nfib2 16
stdev 0.033
extra −0.12
5577.3390
nfib1 16
nfib2 16
stdev 0.016
extra −0.07
5889.9500
nfib1 16
nfib2 16
stdev 0.061
extra 0.02
5895.9240
nfib1 16
nfib2 16
stdev 0.060
extra −0.03
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

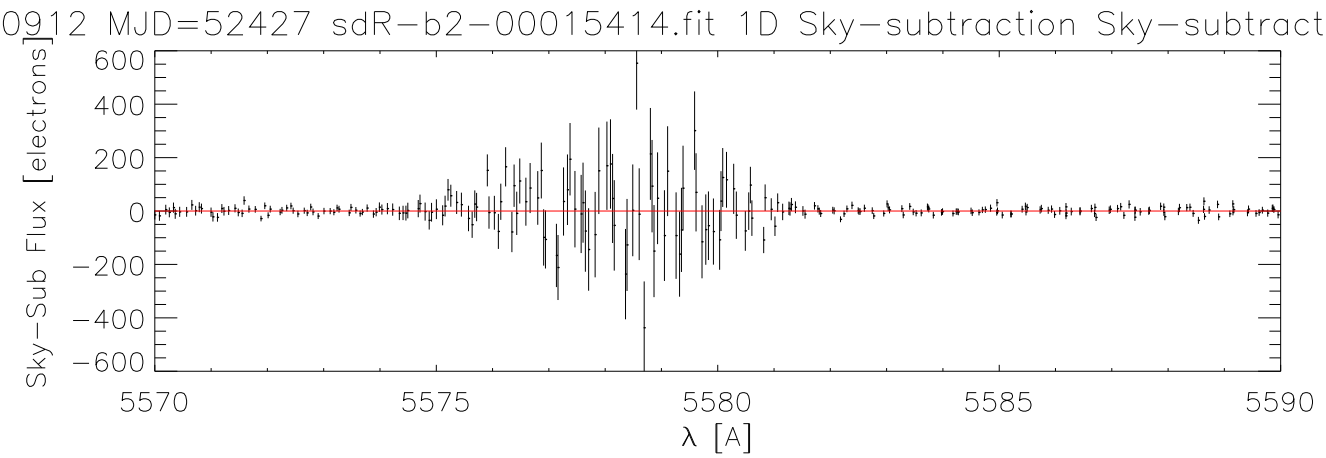

0.00
−0.05
−0.10
−0.15
−0.20
−0.25
sky shift, pixels
3500
4000
4500
5000
5500
6000
6500

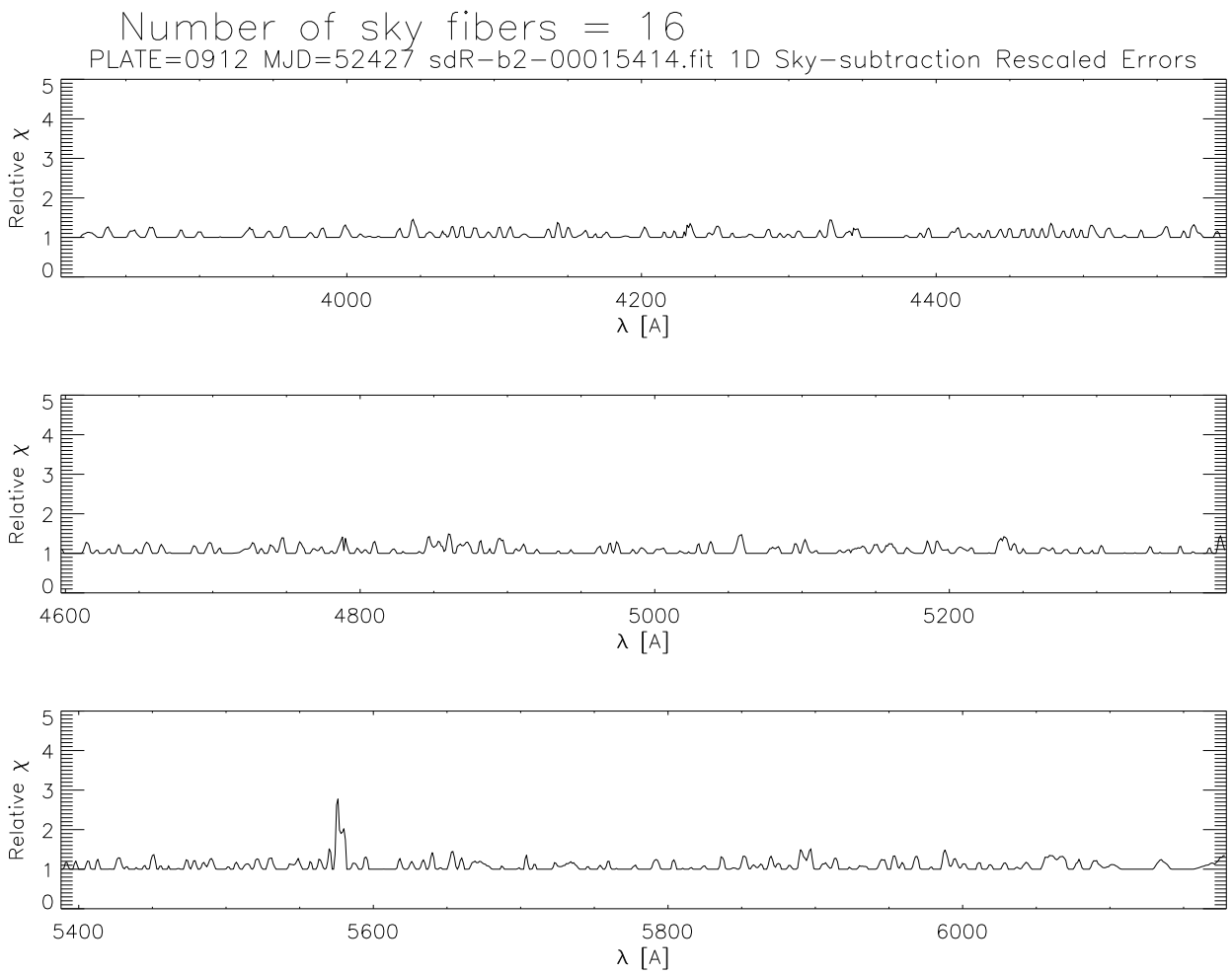

PLATE=0912 MJD=52427 Smooth superflat for sdR-b2-00015414.fit
1.5
1.0
0.5
0.0
1.02
1.01
1.00
0.99
0.98
0.97
4000
4500
5000
5500
6000
Wavelength (Å)

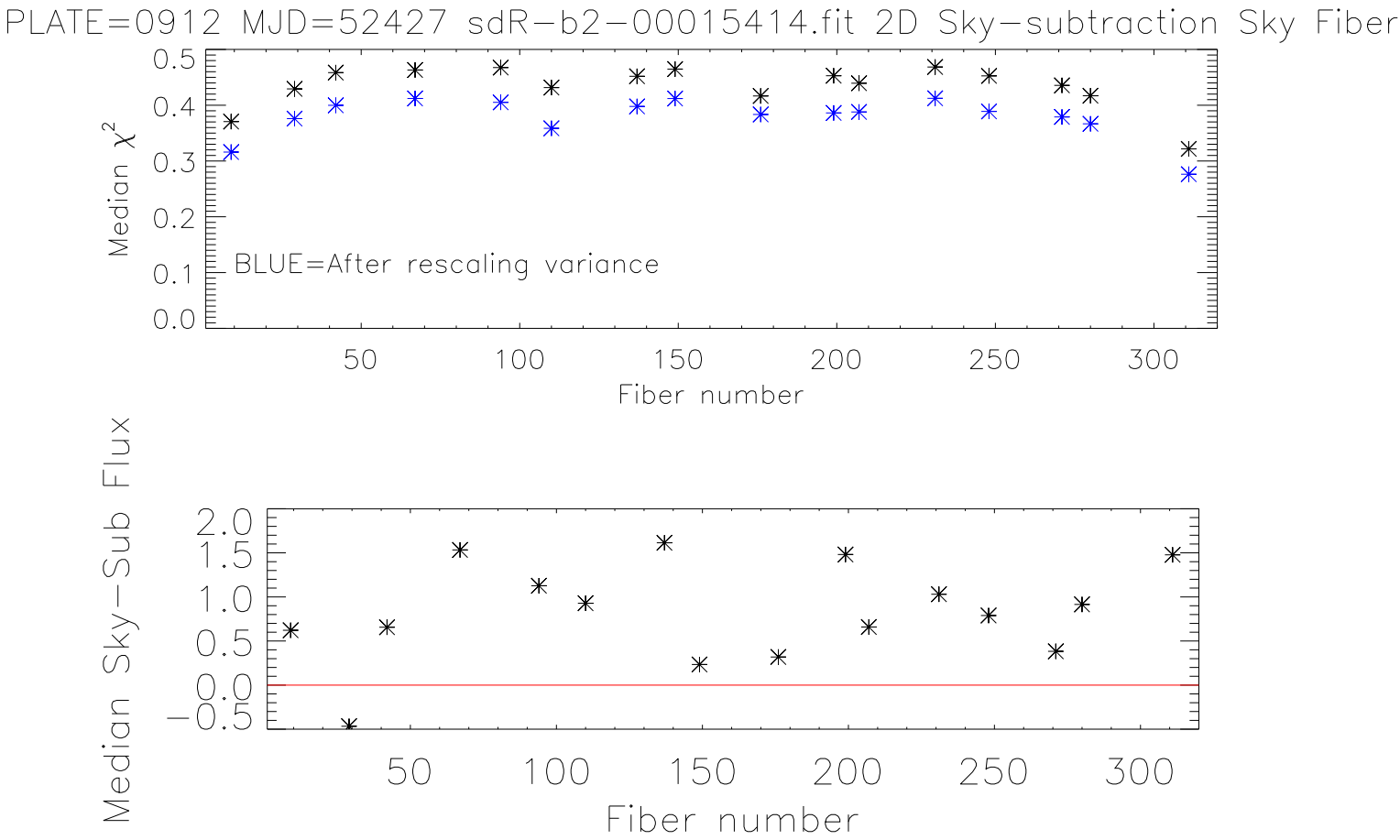
es= −0.0000

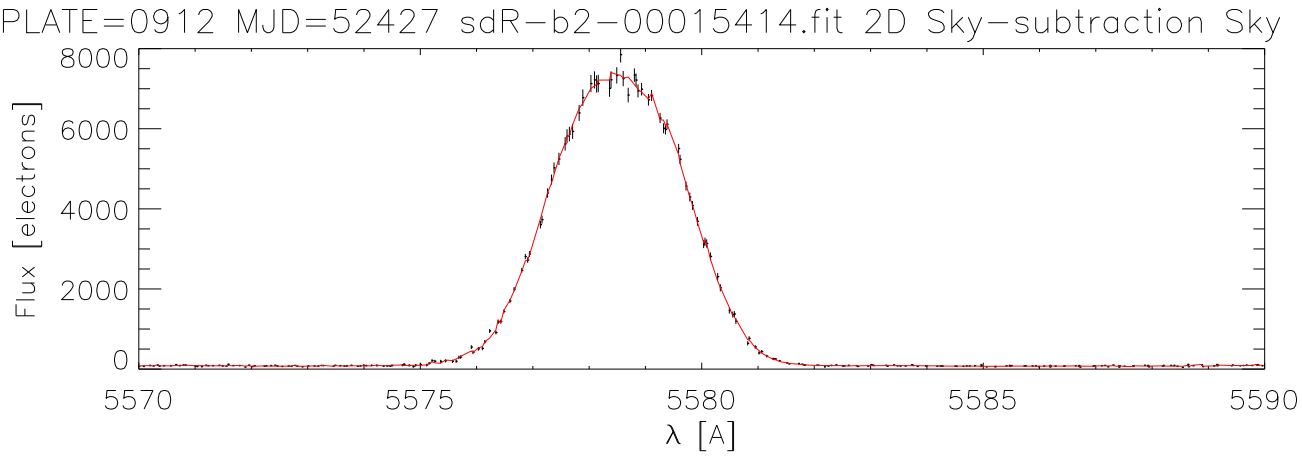

PLATE=0912 MJD=52427 sdR-b2-00015414.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
0.0
0.5
1.0
1.5
2.0
2.5
50
100
150
200
250
300
Fiber number

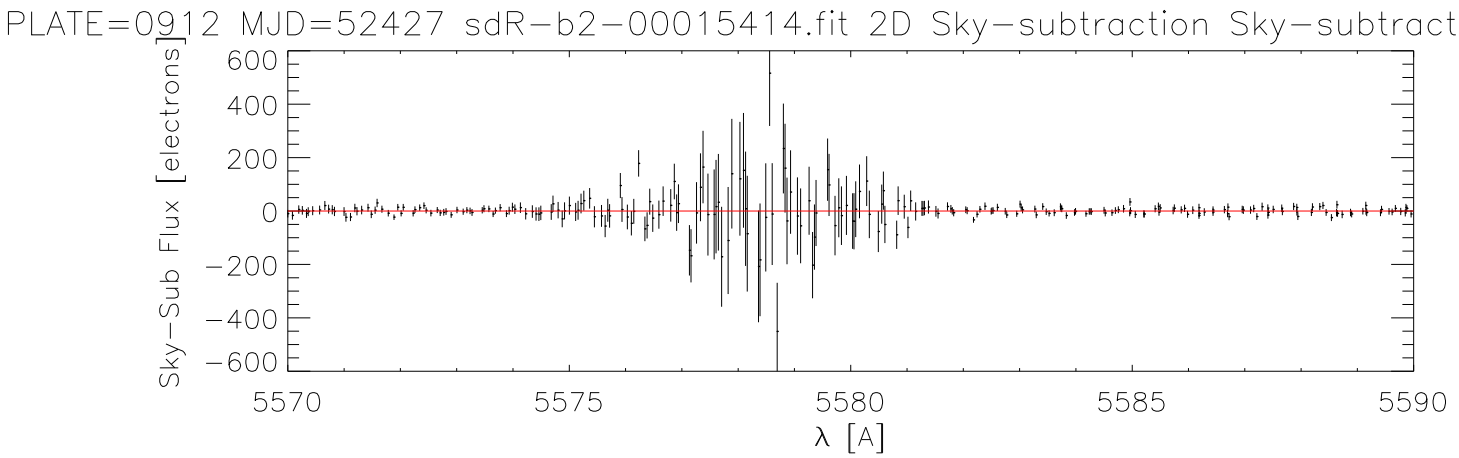

PLATE=0912 MJD=52427 sdR-b2-00015414.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

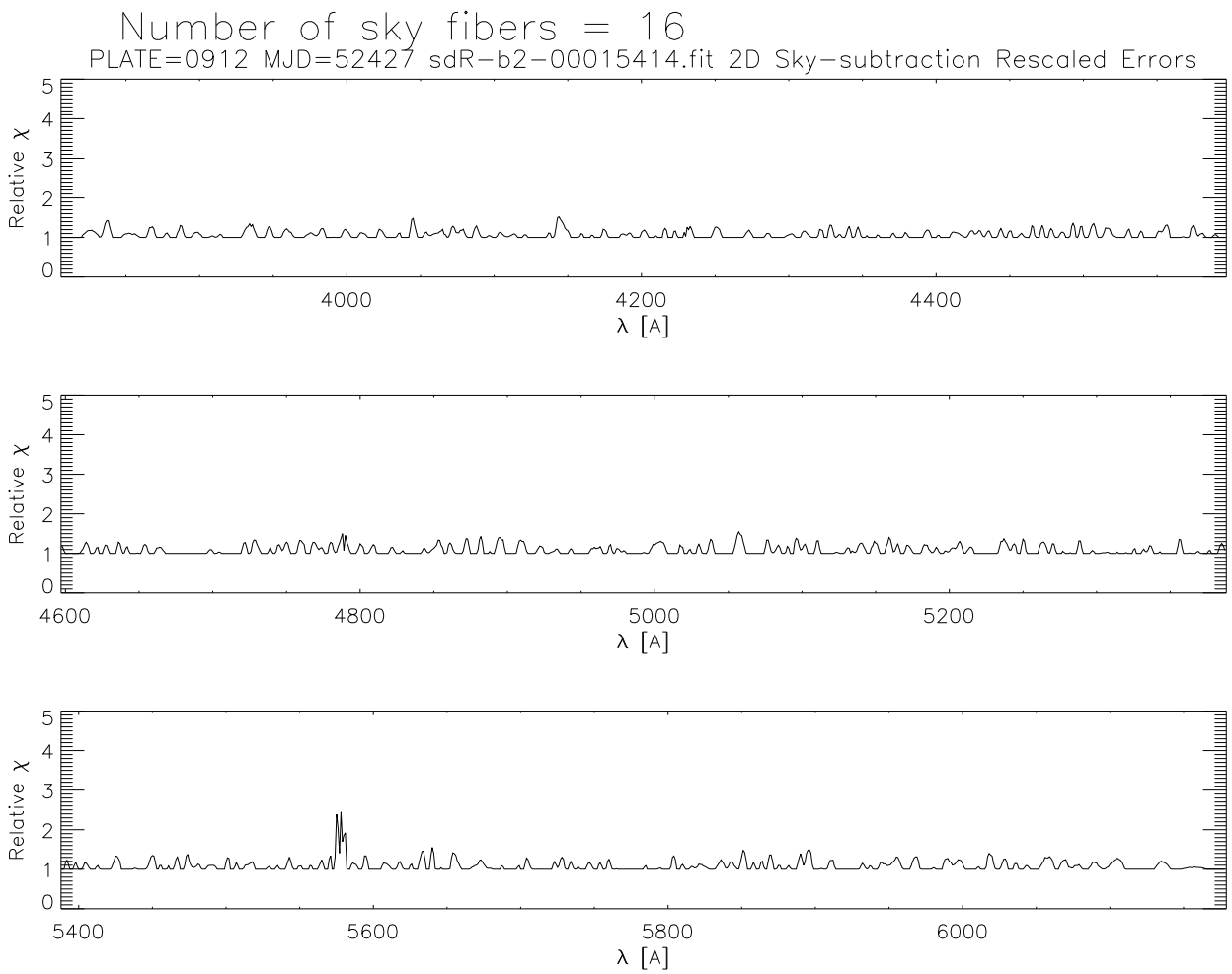

PLATE=0912 MJD=52427 sdR-b2-00015414.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
-200
-400
-600
5570
5575
5580
5585
5590
λ [A]

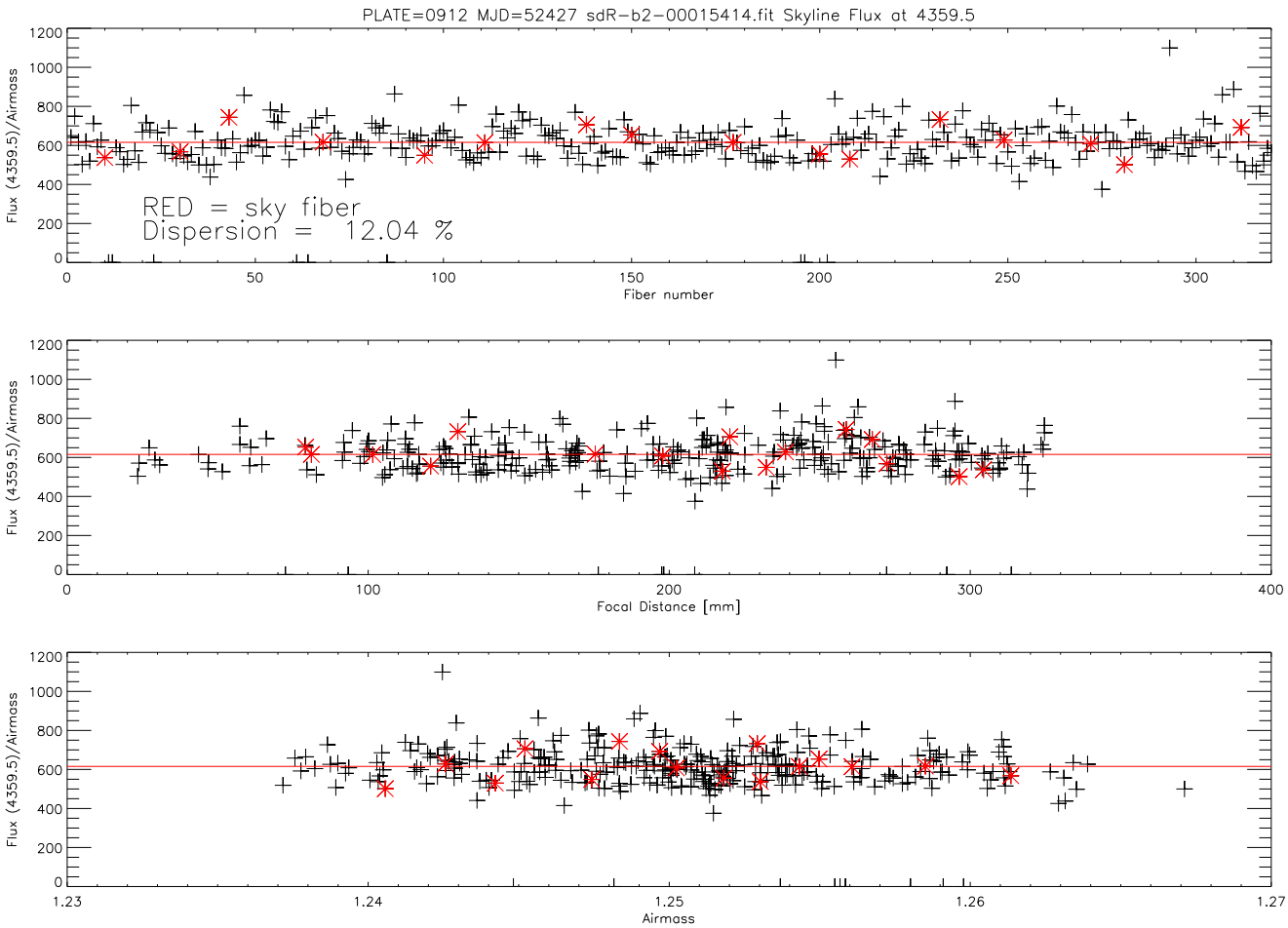

Number of sky fibers = 16
PLATE=0912 MJD=52427 sdR-b2-00015414.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

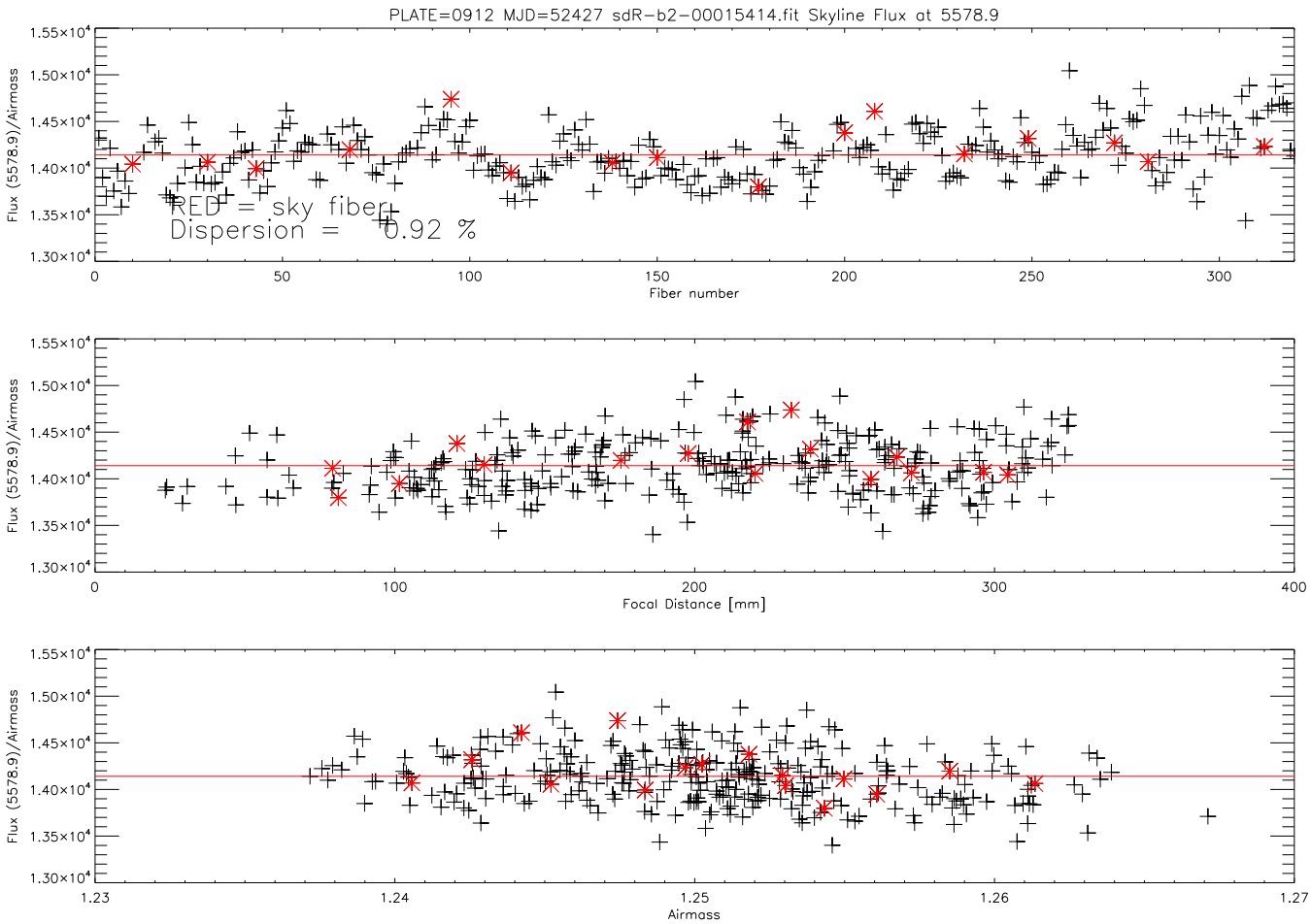

PLATE=0912 MJD=52427 sdR-b2-00015414.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

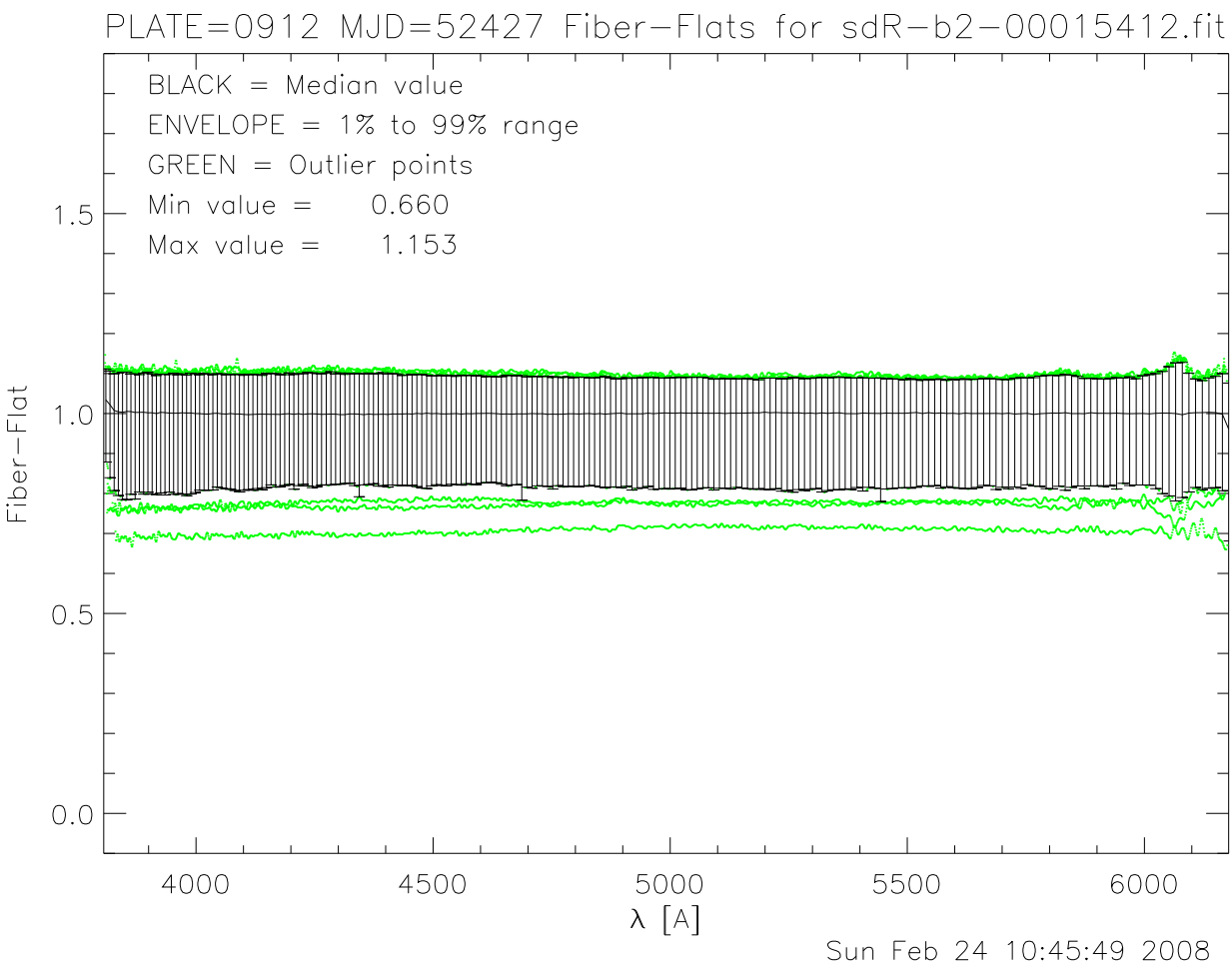

PLATE=0912 MJD=52427 sdR-b2-00015414.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

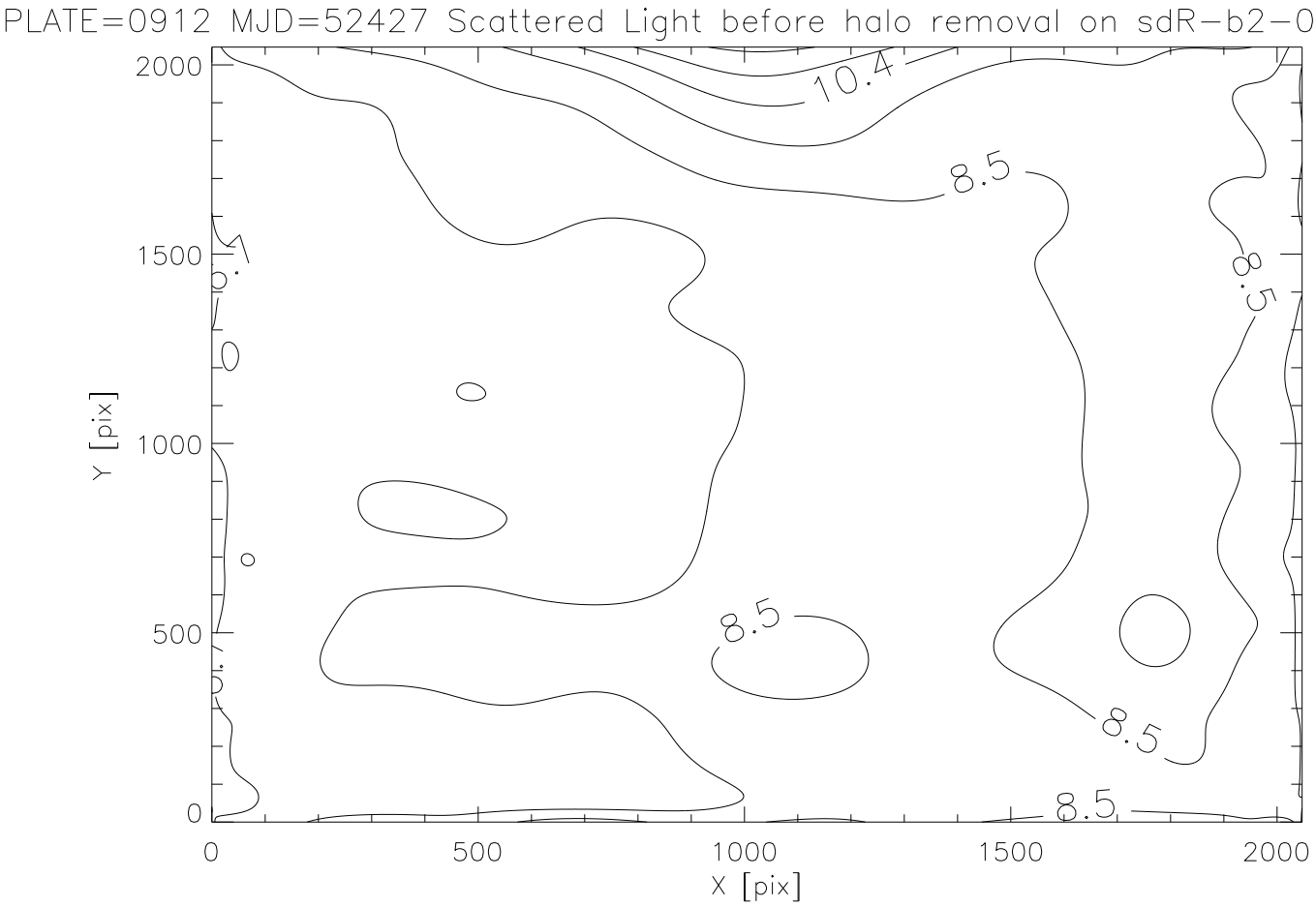

PLATE=0912 MJD=52427 sdR-b2-00015414.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
-200
-400
-600
5570
5575
5580
5585
5590
λ [A]

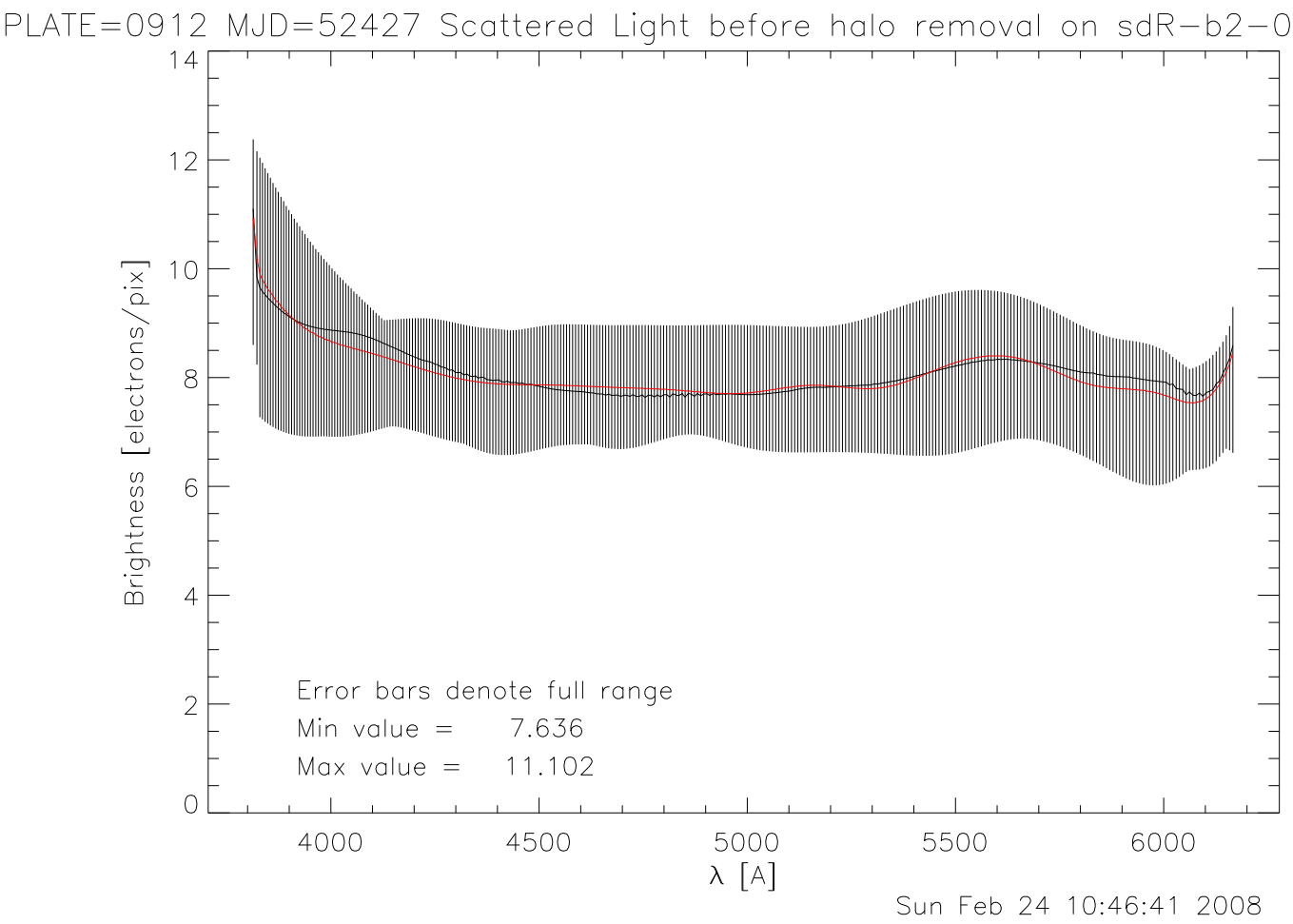

Number of sky fibers = 16
PLATE=0912 MJD=52427 sdR-b2-00015414.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

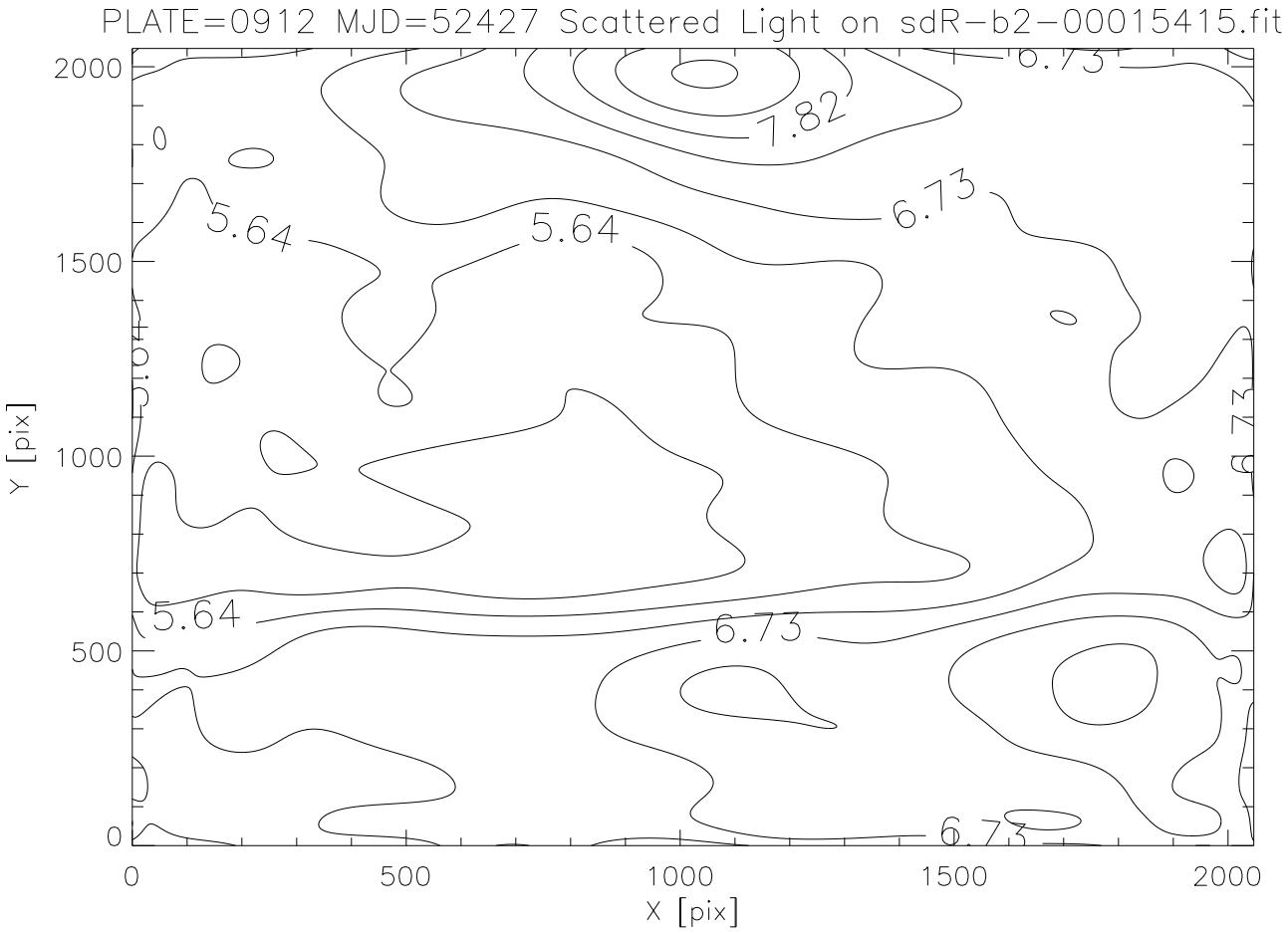

PLATE=0912 MJD=52427 sdR-b2-00015414.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 12.04 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

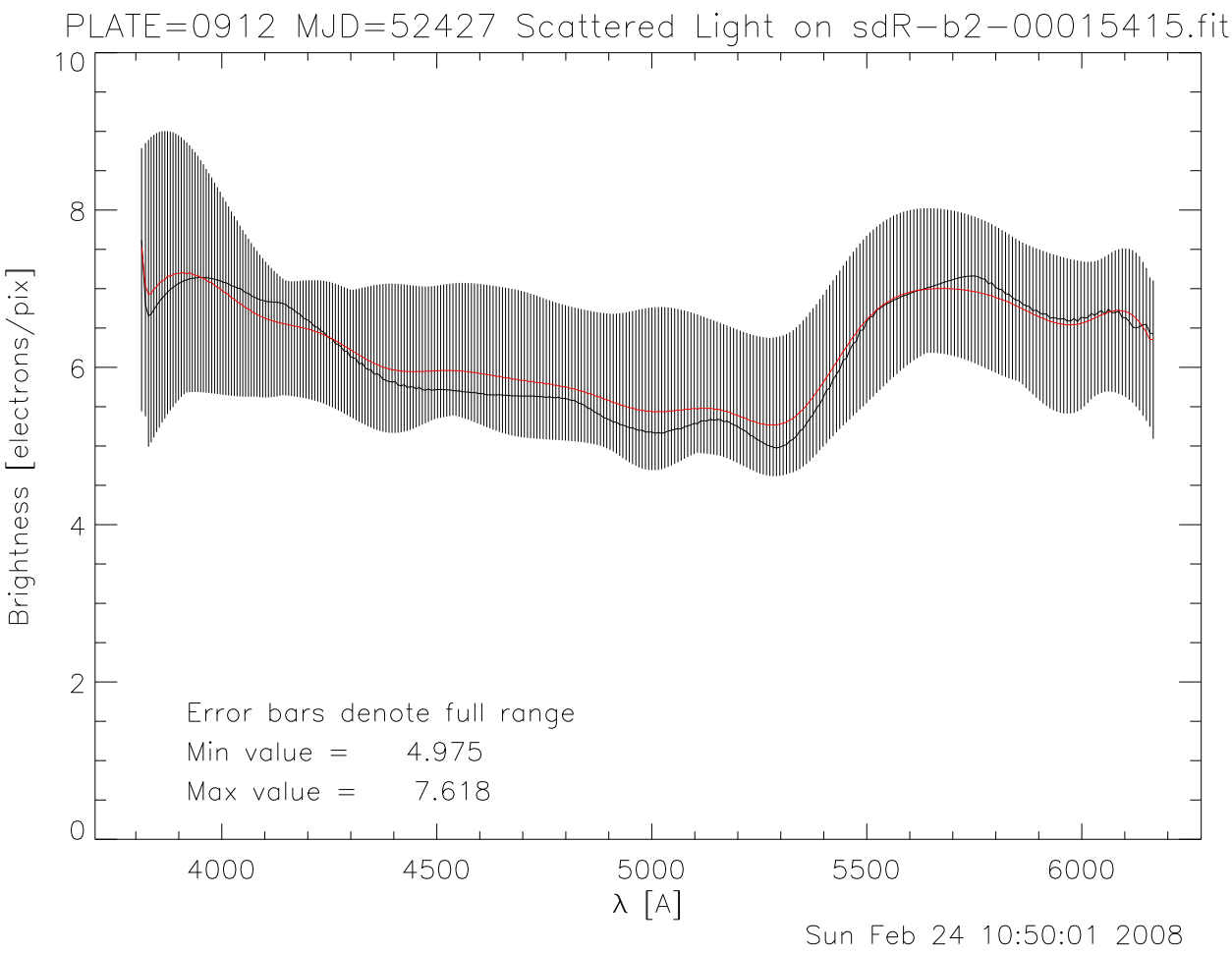

PLATE=0912 MJD=52427 sdR-b2-00015414.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
1.55×10^4
1.50×10^4
1.45×10^4
1.40×10^4
1.35×10^4
1.30×10^4
RED = sky fiber
Dispersion = 0.92 %
0
50
100
150
200
250
300
Fiber number
Flux (5578.9)/Airmass
0
100
200
300
400
Focal Distance [mm]
Flux (5578.9)/Airmass
1.23
1.24
1.25
1.26
1.27
Airmass

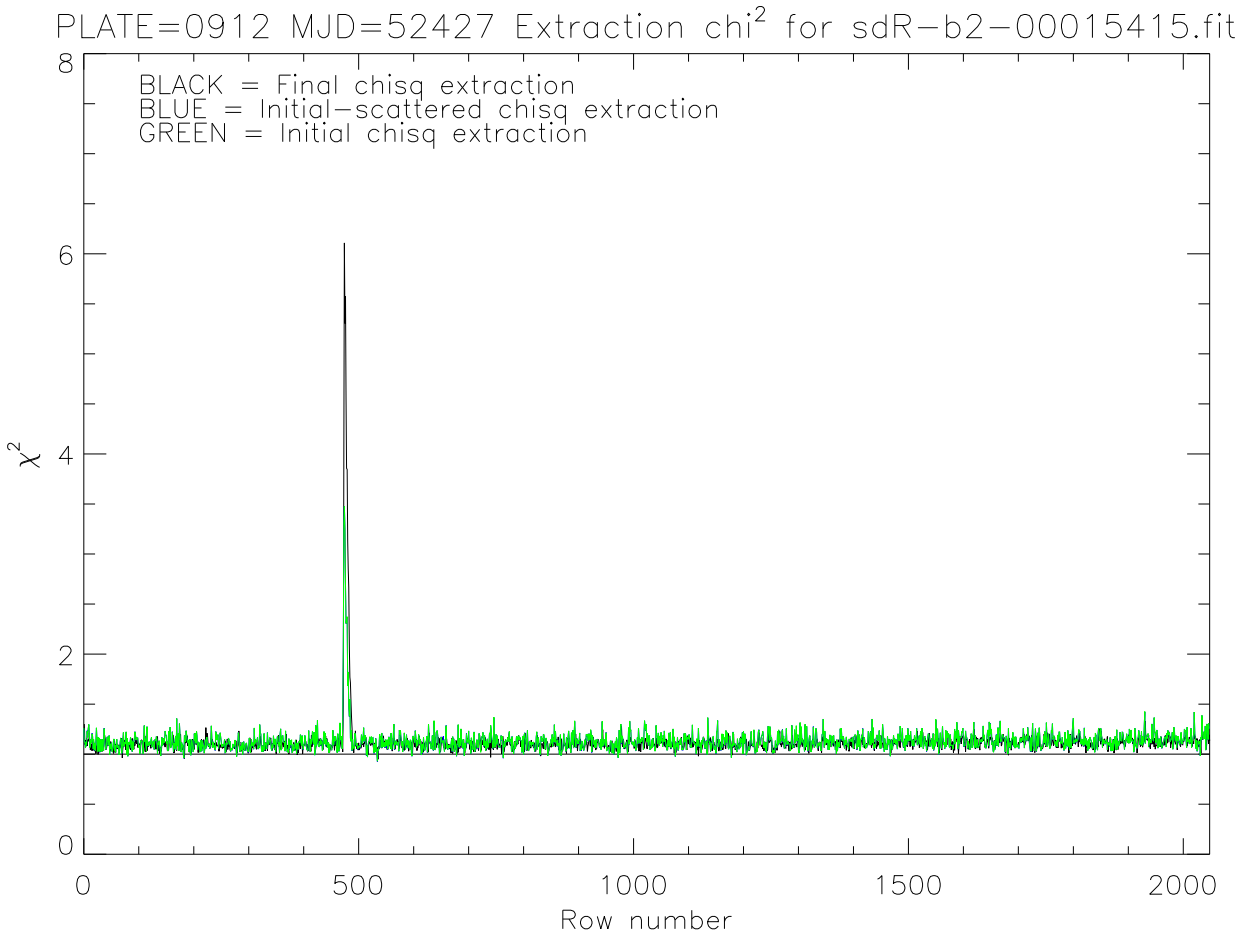

PLATE=0912 MJD=52427 Fiber−Flats for sdR−b2−00015412.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.660
Max value = 1.153
Fiber−Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Sun Feb 24 10:45:49 2008

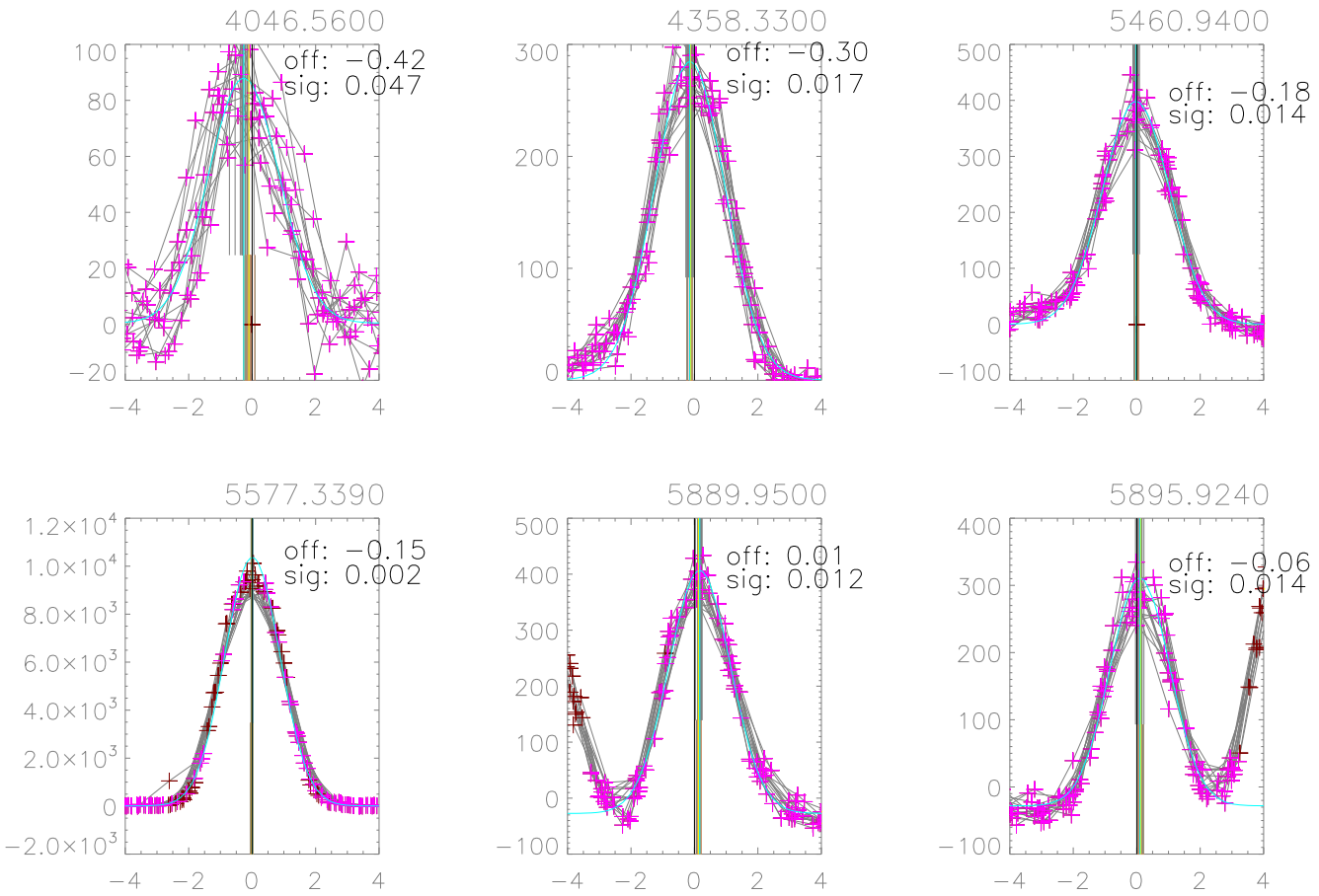

PLATE=0912 MJD=52427 Scattered Light before halo removal on sdR-b2-00015415.f
10.4
8.5
8.5
8.5
8.5
8.5
0
0
0
Y [pix]
X [pix]
0
500
1000
1500
2000

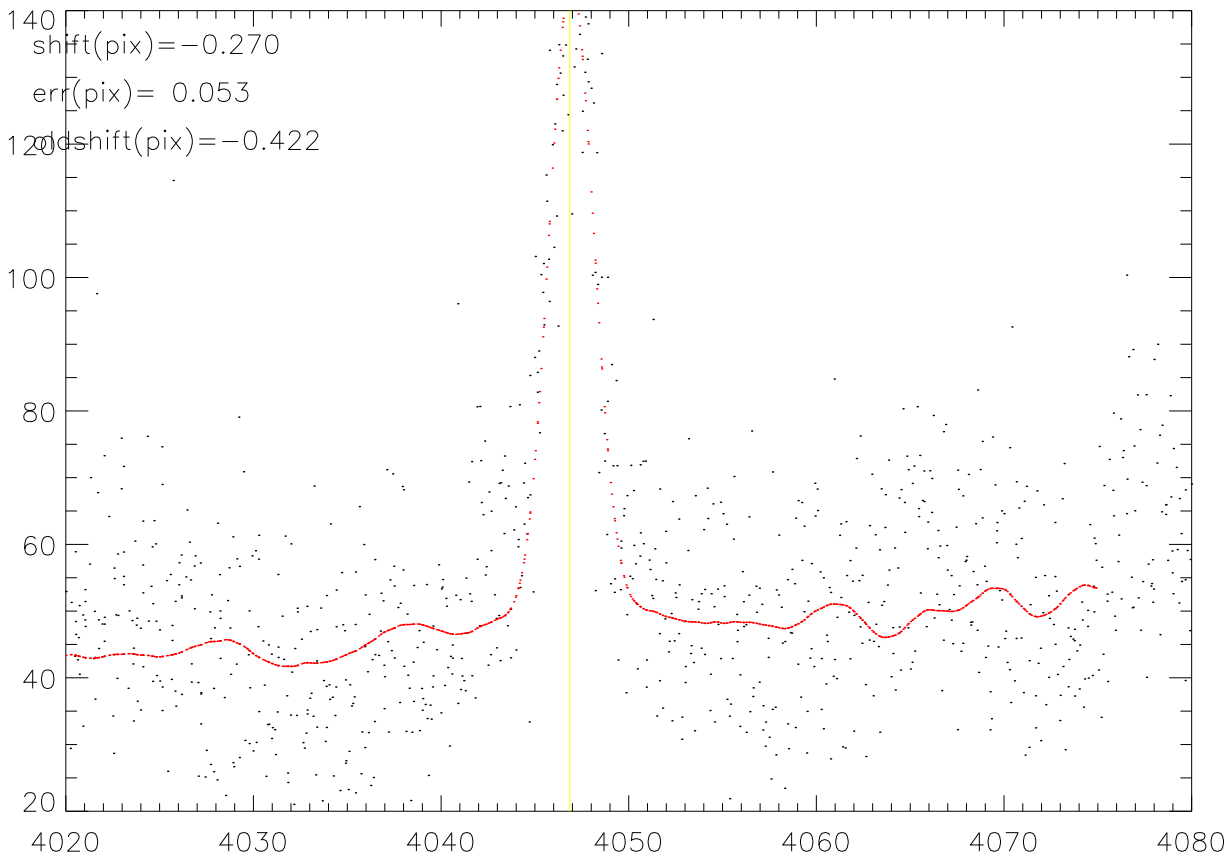

PLATE=0912 MJD=52427 Scattered Light before halo removal on sdR-b2-00015415.f
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 7.636
Max value = 11.102
Sun Feb 24 10:46:41 2008

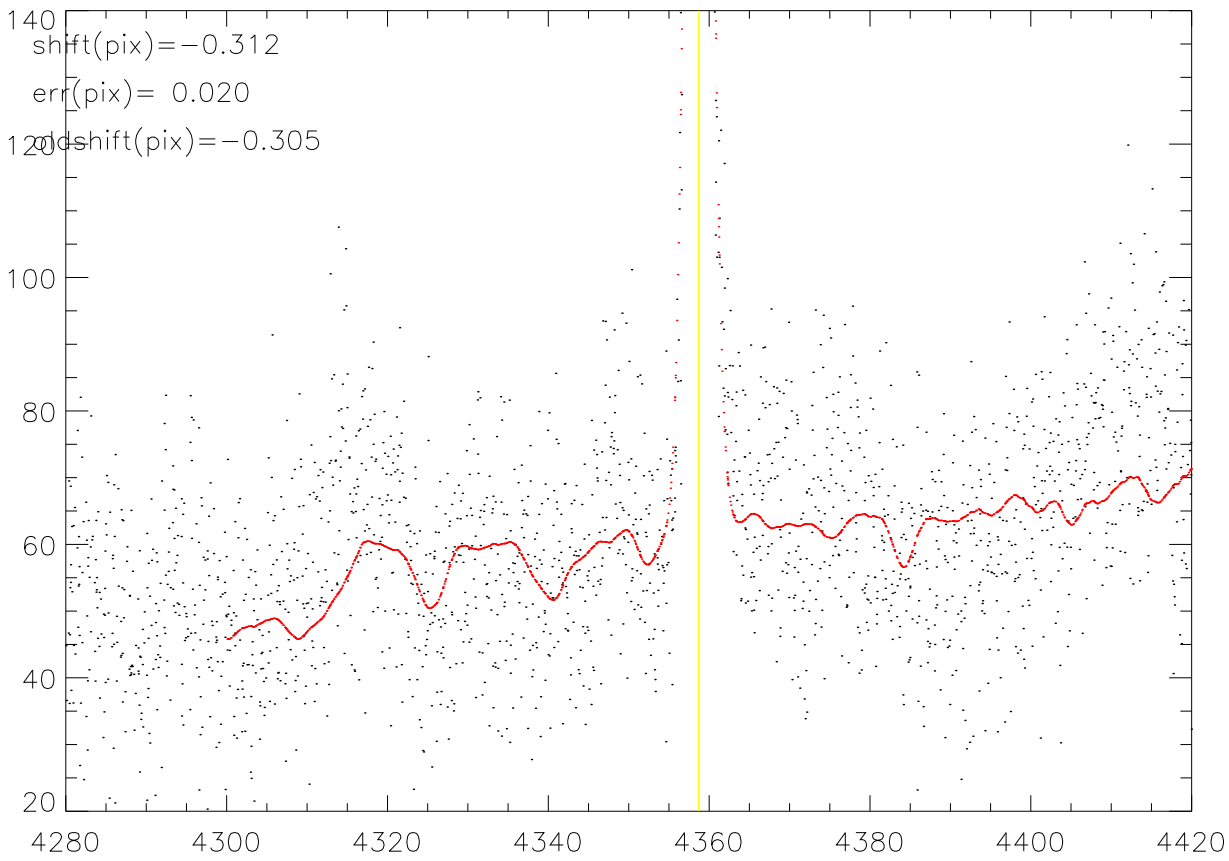

PLATE=0912 MJD=52427 Scattered Light on sdR-b2-00015415.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
0
5.64
7.82
6.73

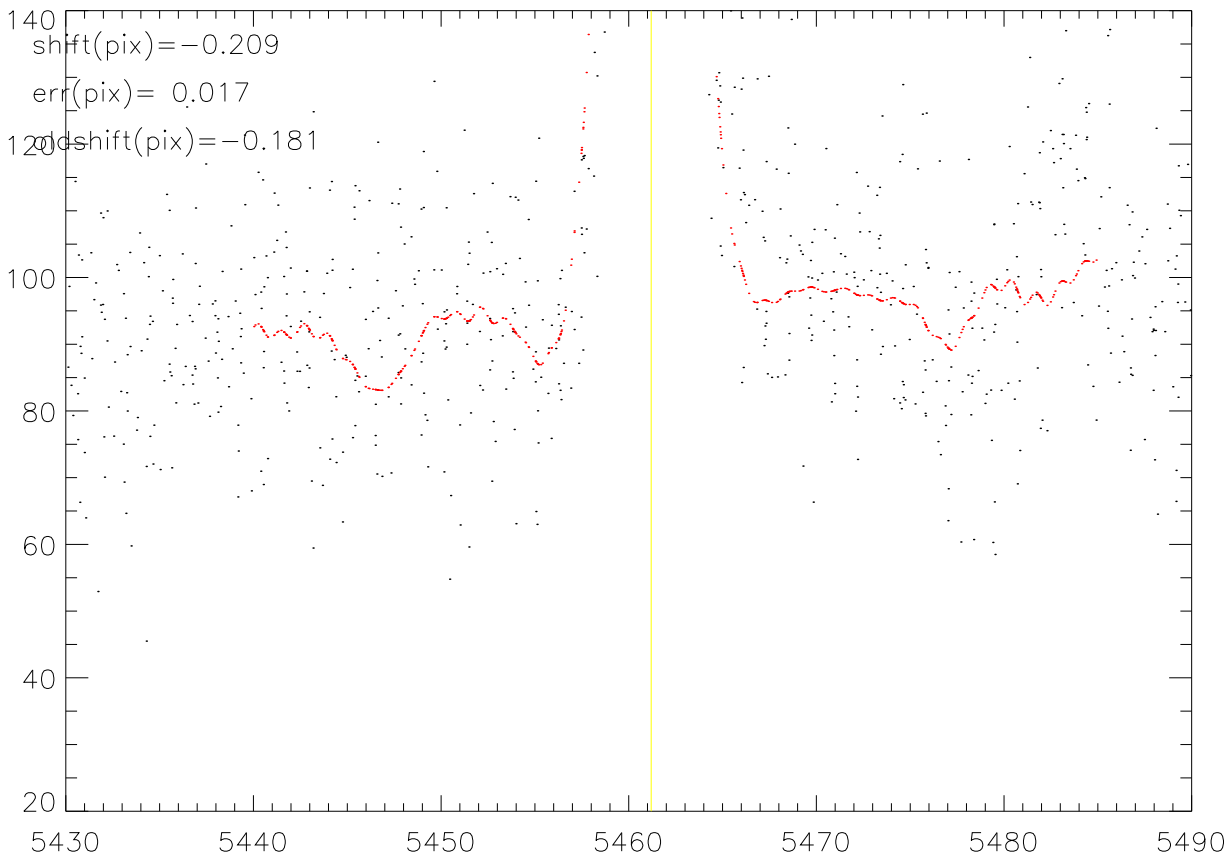

PLATE=0912 MJD=52427 Scattered Light on sdR-b2-00015415.fit
Brightness [electrons/pix]
10
8
6
4
2
0
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 4.975
Max value = 7.618
Sun Feb 24 10:50:01 2008

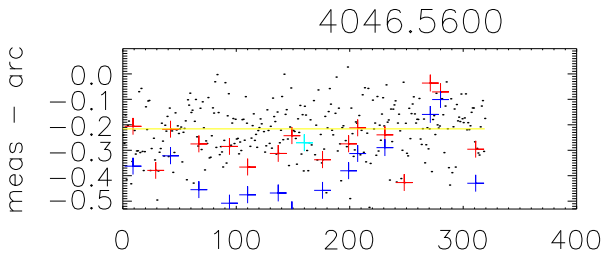

PLATE=0912 MJD=52427 Extraction chi^2 for sdR-b2-00015415.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
0
500
1000
1500
2000
Row number

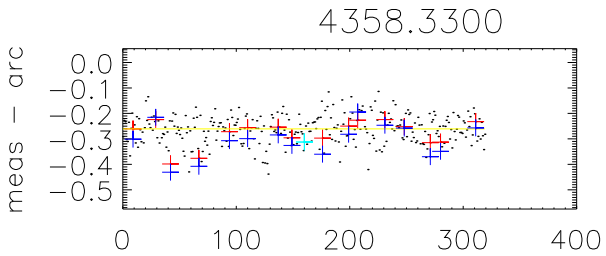

4046.5600
off: −0.42
sig: 0.047
4358.3300
off: −0.30
sig: 0.017
5460.9400
off: −0.18
sig: 0.014
5577.3390
off: −0.15
sig: 0.002
5889.9500
off: 0.01
sig: 0.012
5895.9240
off: −0.06
sig: 0.014

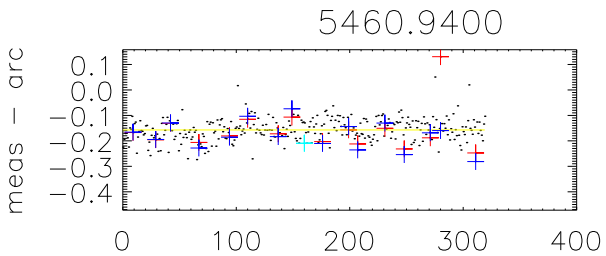

shift(pix)=−0.270
err(pix)= 0.053
oldshift(pix)=−0.422
140
120
100
80
60
40
20
4020
4030
4040
4050
4060
4070
4080

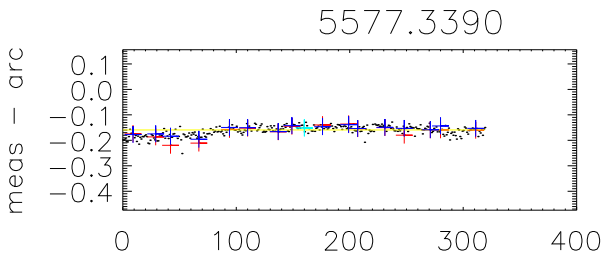

shift(pix)=−0.312
err(pix)= 0.020
oldshift(pix)=−0.305
140
120
100
80
60
40
20
4280
4300
4320
4340
4360
4380
4400
4420

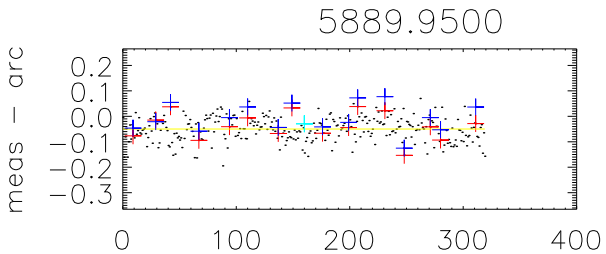

shift(pix)=−0.209
err(pix)= 0.017
oldshift(pix)=−0.181
140
120
100
80
60
40
20
5430
5440
5450
5460
5470
5480
5490

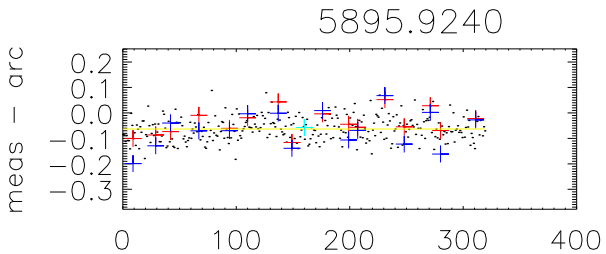

4046.5600
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

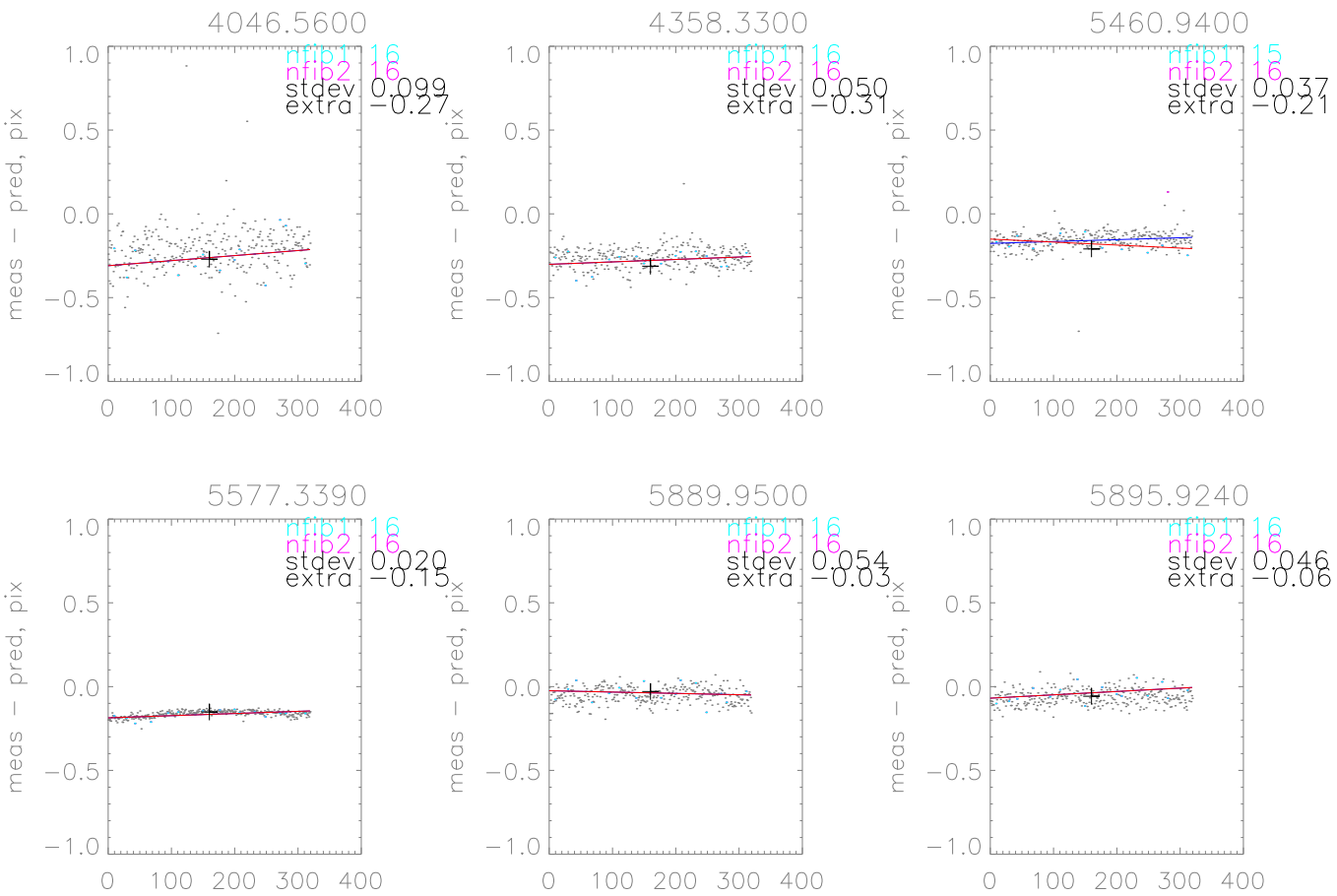

4358.3300
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

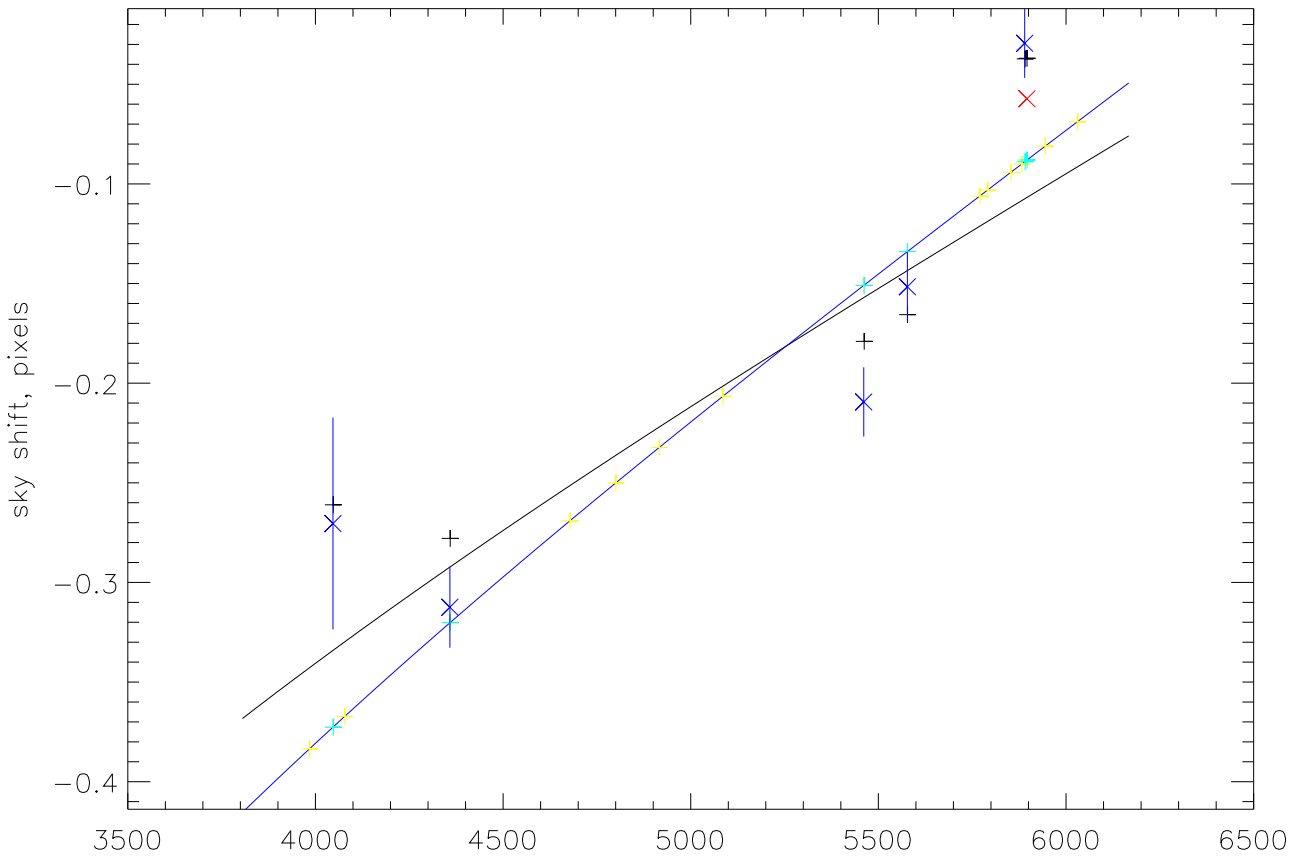

5460.9400
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400


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

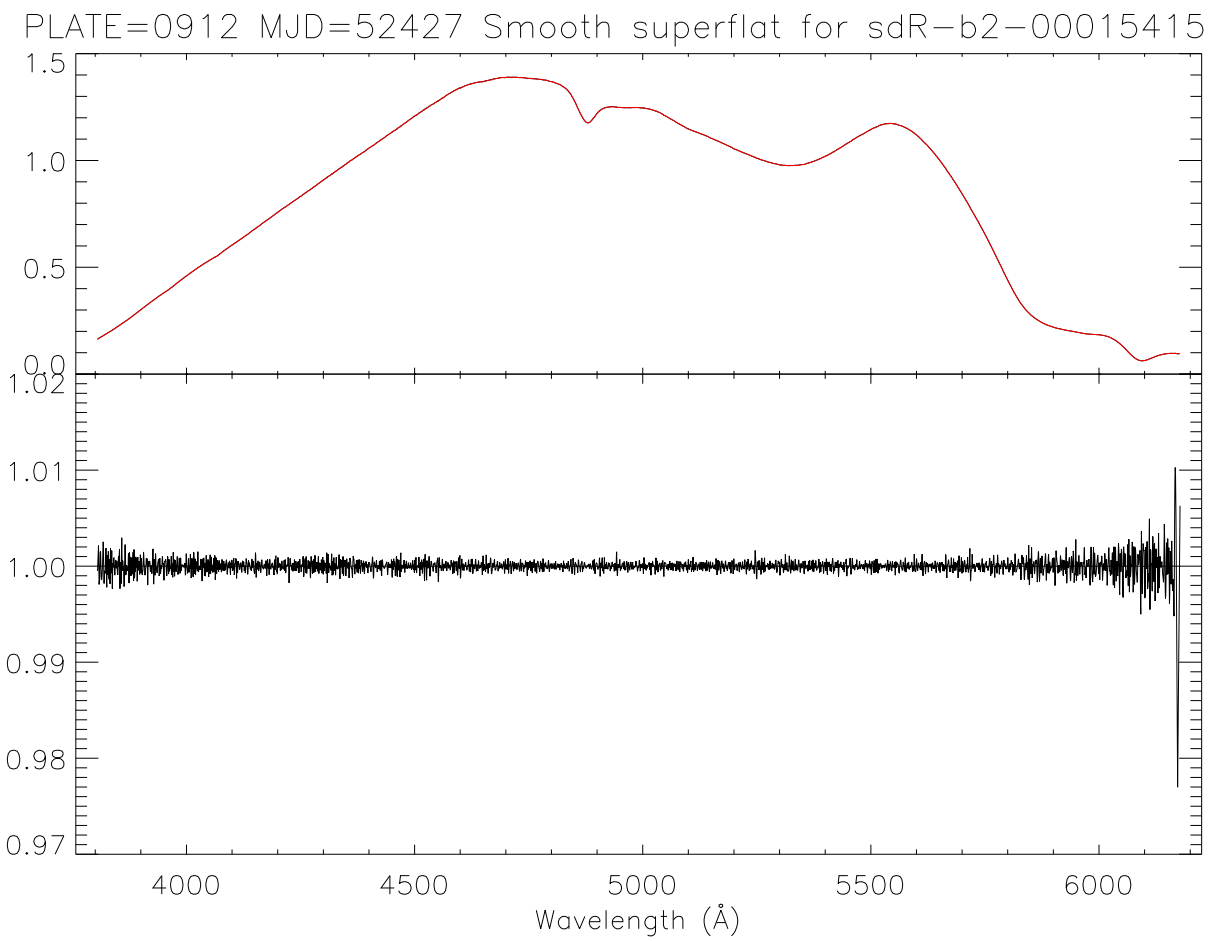

5889.9500
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

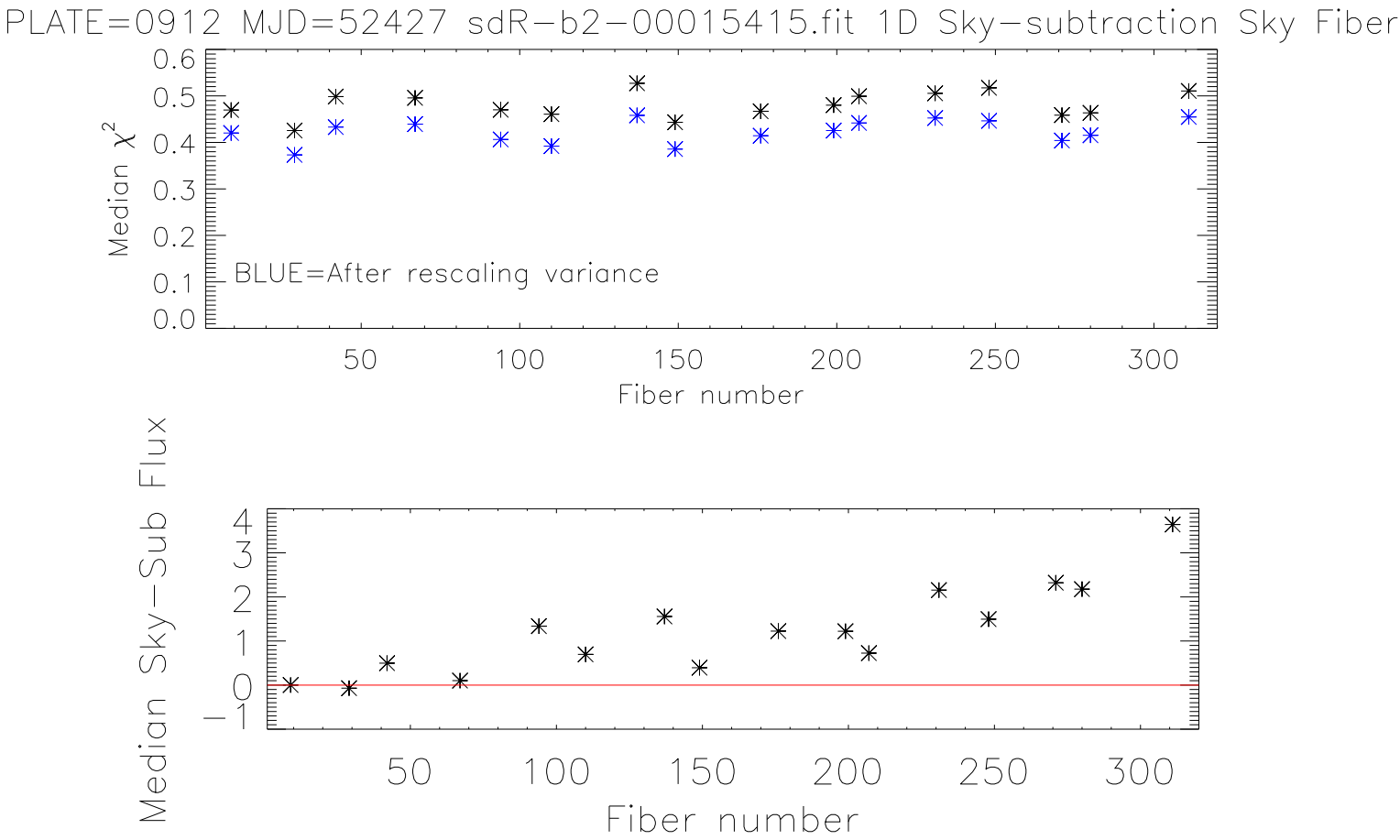

5895.9240
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

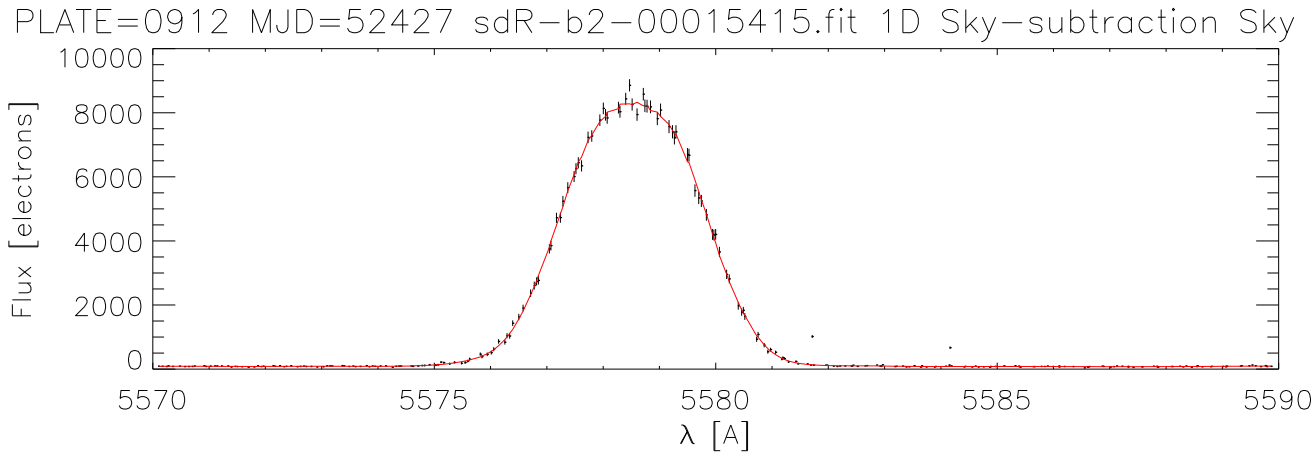

4046.5600
nfib1 16
nfib2 16
stdev 0.099
extra −0.27
4358.3300
nfib1 16
nfib2 16
stdev 0.050
extra −0.31
5460.9400
nfib1 15
nfib2 16
stdev 0.037
extra −0.21
5577.3390
nfib1 16
nfib2 16
stdev 0.020
extra −0.15
5889.9500
nfib1 16
nfib2 16
stdev 0.054
extra −0.03
5895.9240
nfib1 16
nfib2 16
stdev 0.046
extra −0.06
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

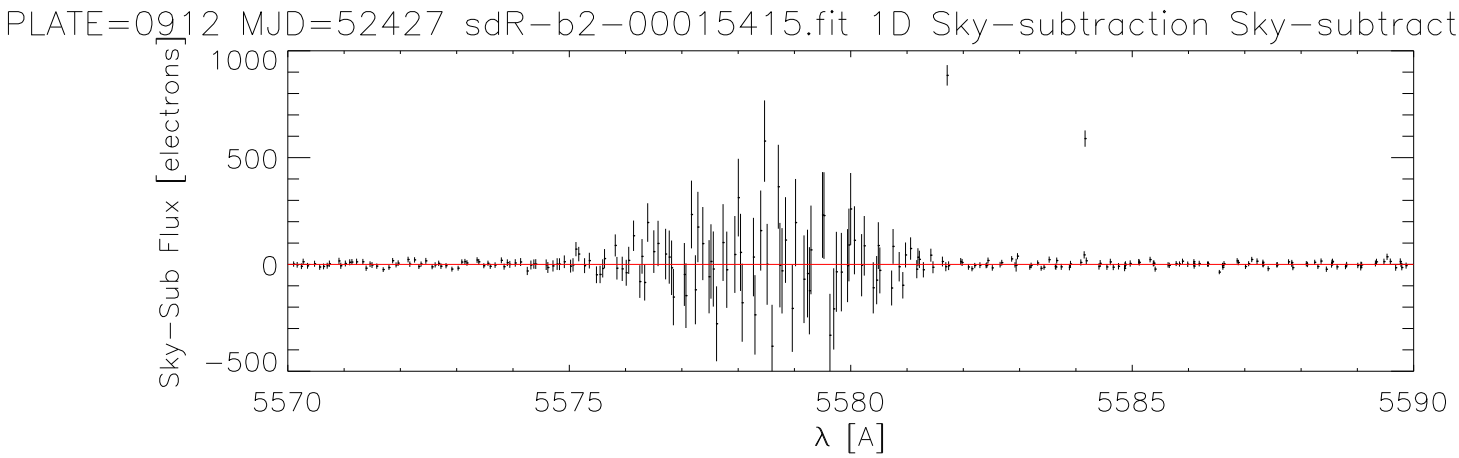

sky shift, pixels
−0.1
−0.2
−0.3
−0.4
3500
4000
4500
5000
5500
6000
6500

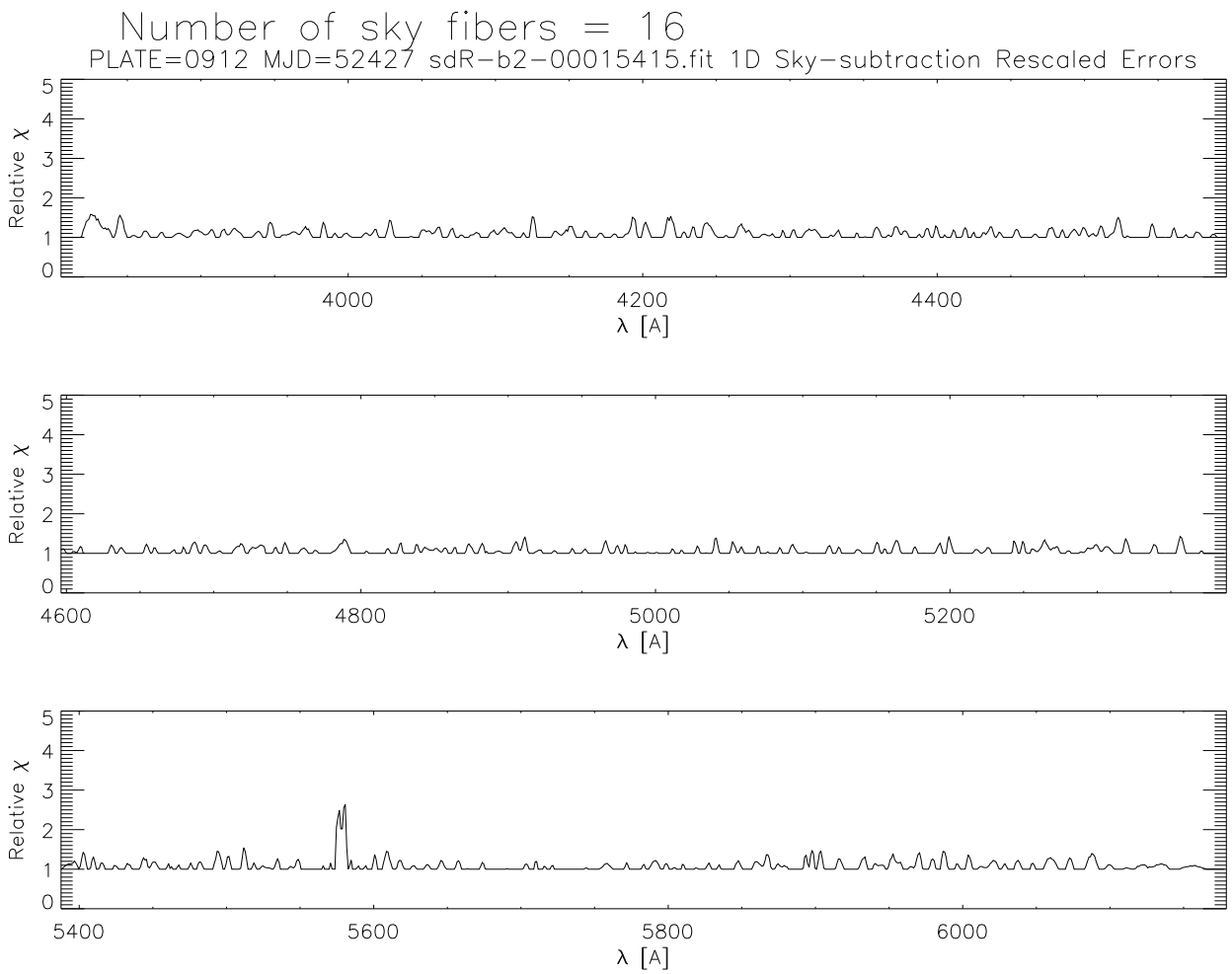
es= −0.0000

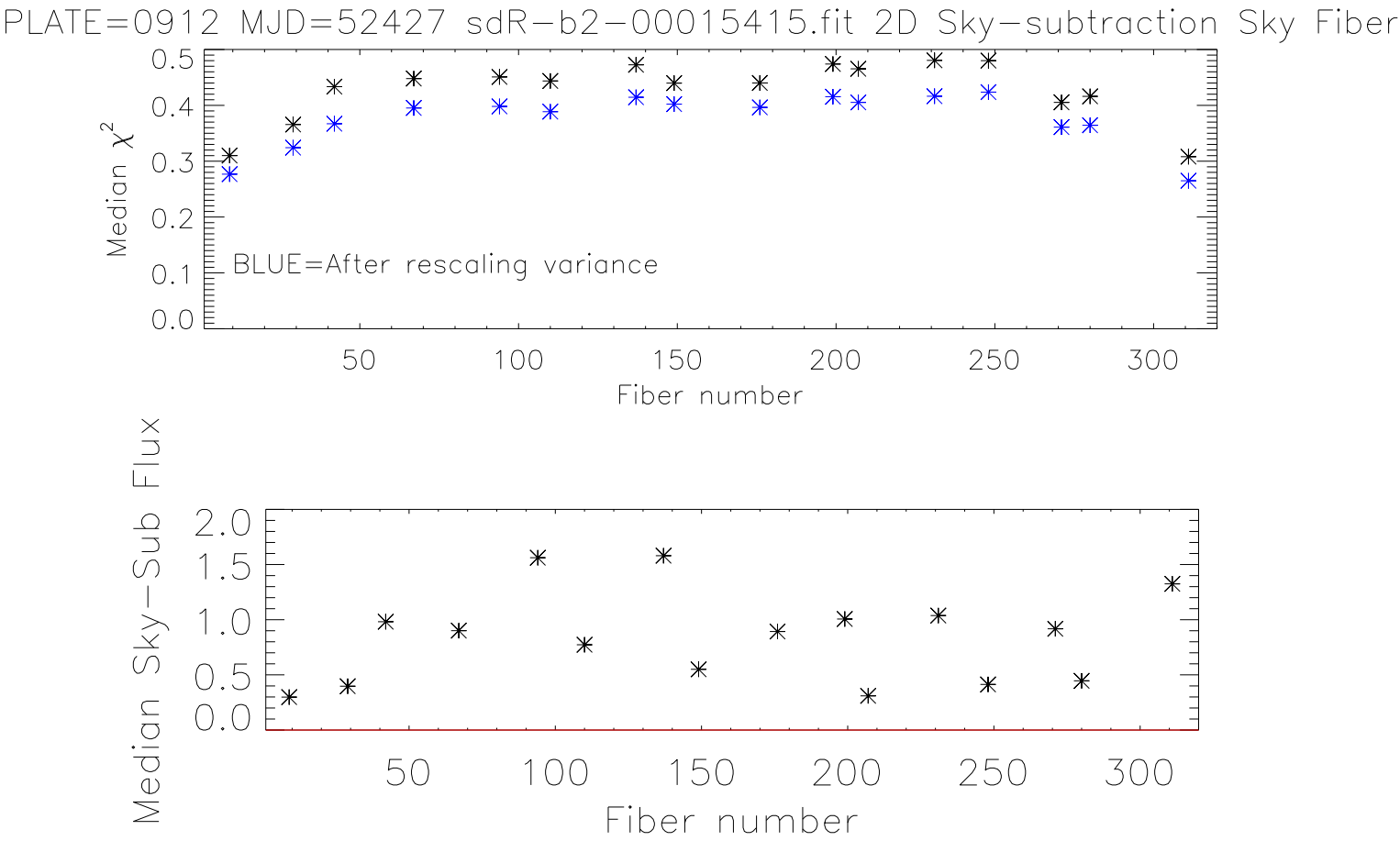

PLATE=0912 MJD=52427 Smooth superflat for sdR−b2−00015415.fit
1.5
1.0
0.5
0.0
1.02
1.01
1.00
0.99
0.98
0.97
4000
4500
5000
5500
6000
Wavelength (Å)

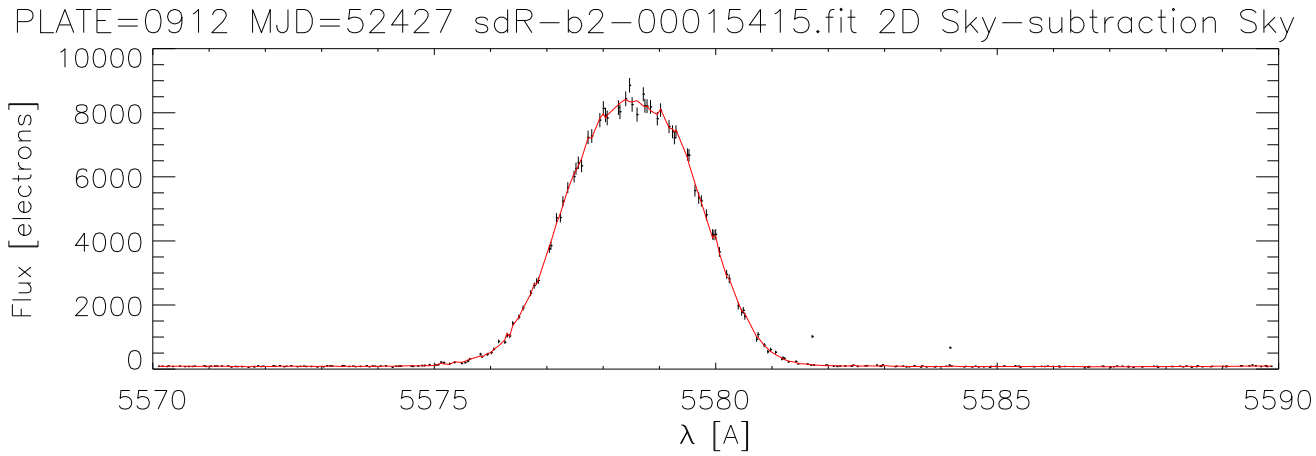

PLATE=0912 MJD=52427 sdR-b2-00015415.fit 1D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

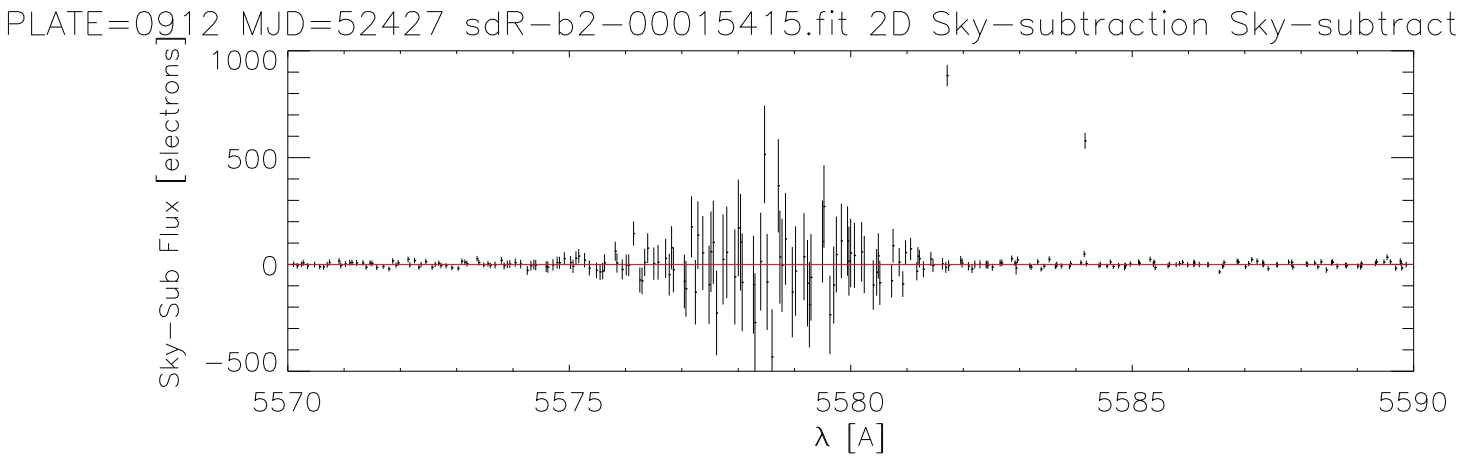

PLATE=0912 MJD=52427 sdR-b2-00015415.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
10000
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

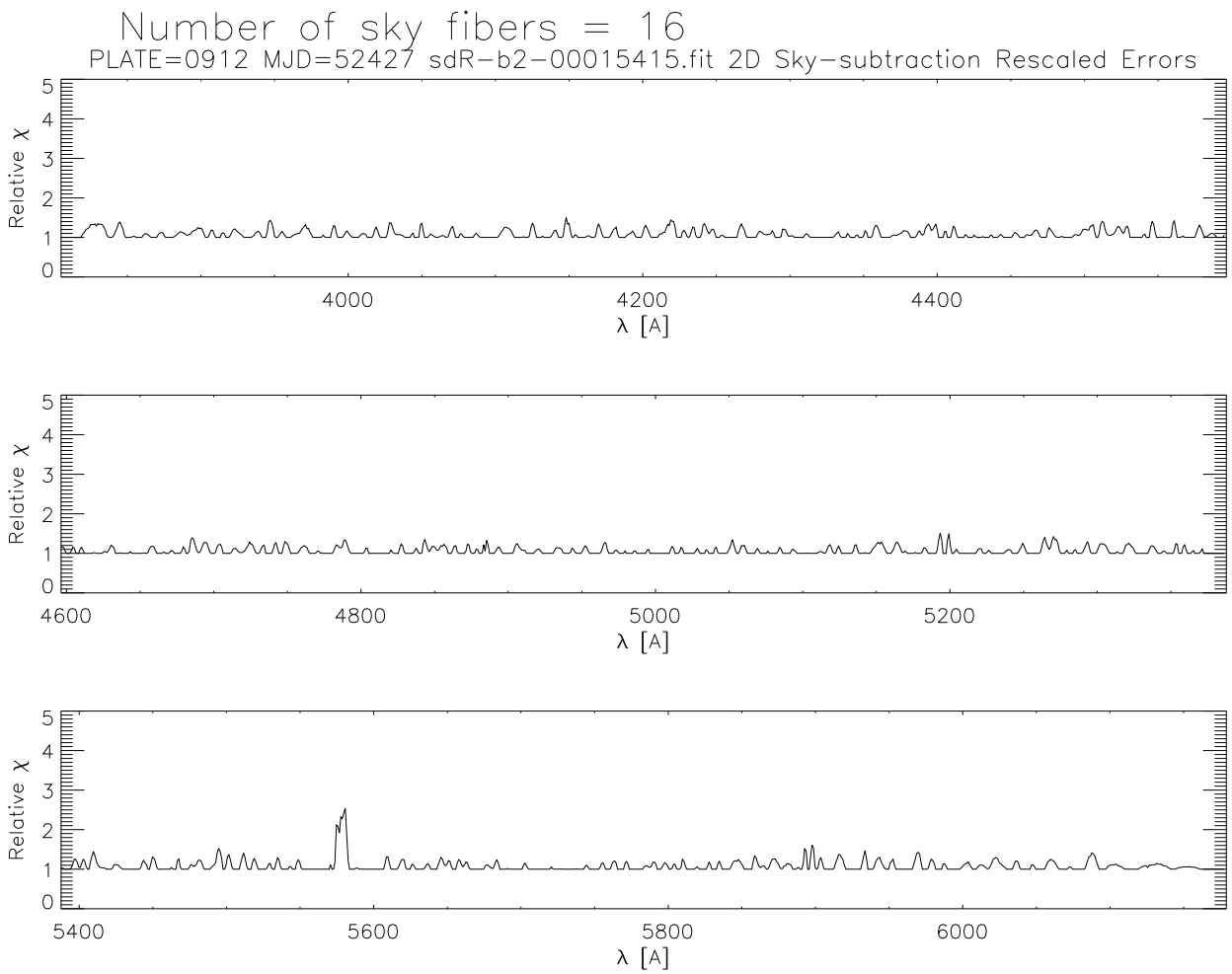

PLATE=0912 MJD=52427 sdR-b2-00015415.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
1000
500
0
−500
5570
5575
5580
5585
5590
λ [A]

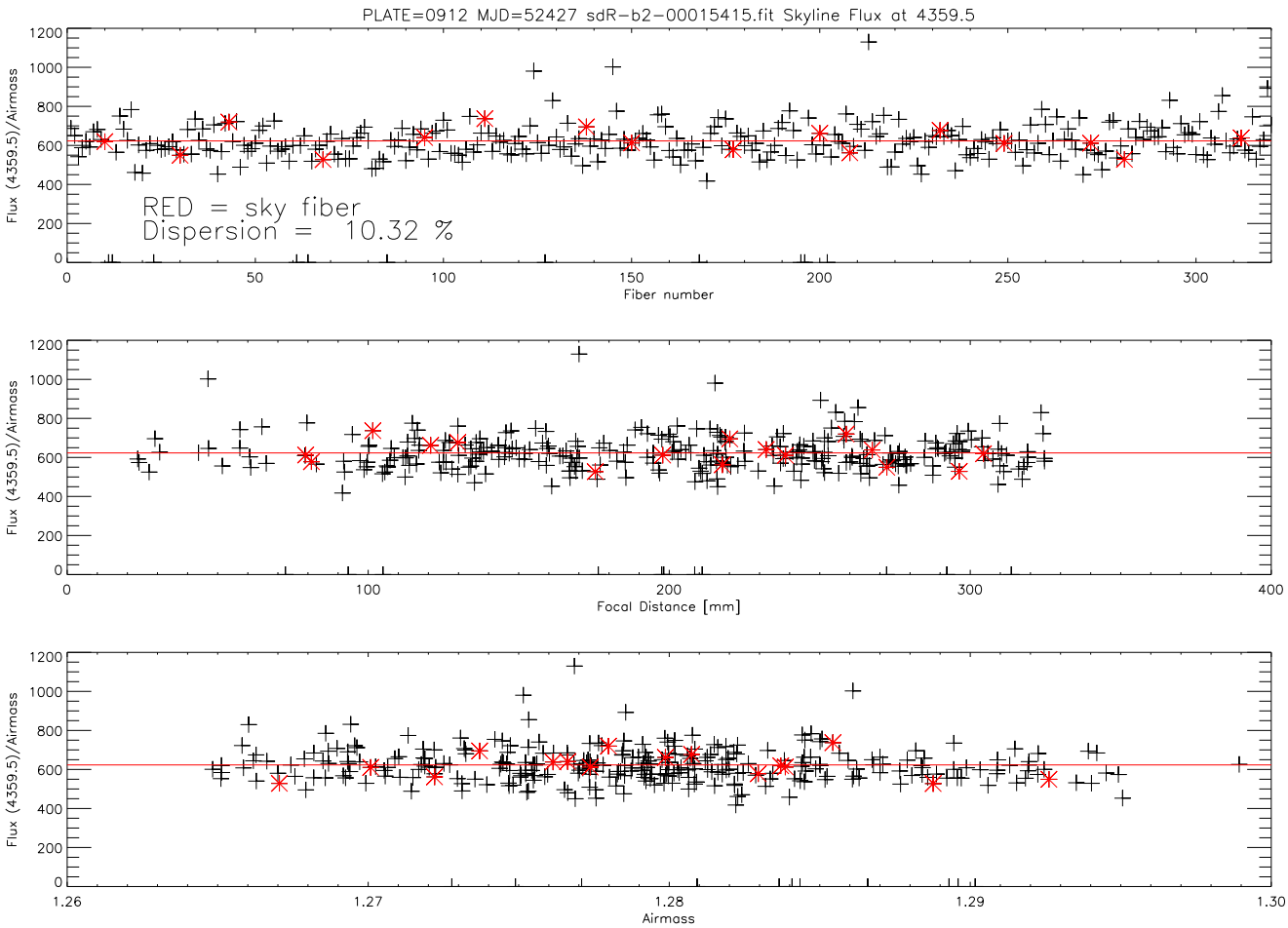

Number of sky fibers = 16
PLATE=0912 MJD=52427 sdR-b2-00015415.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

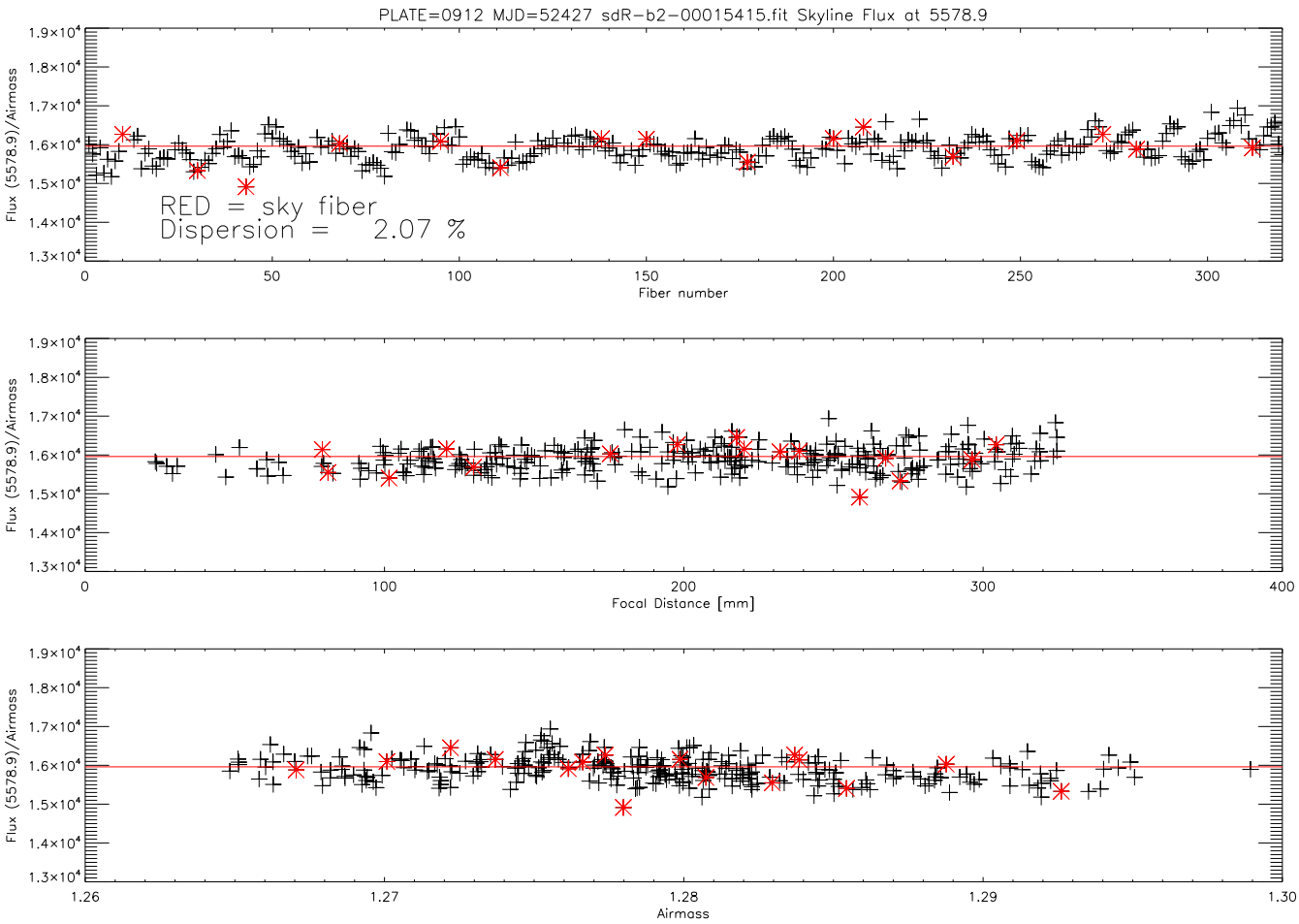

PLATE=0912 MJD=52427 sdR-b2-00015415.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

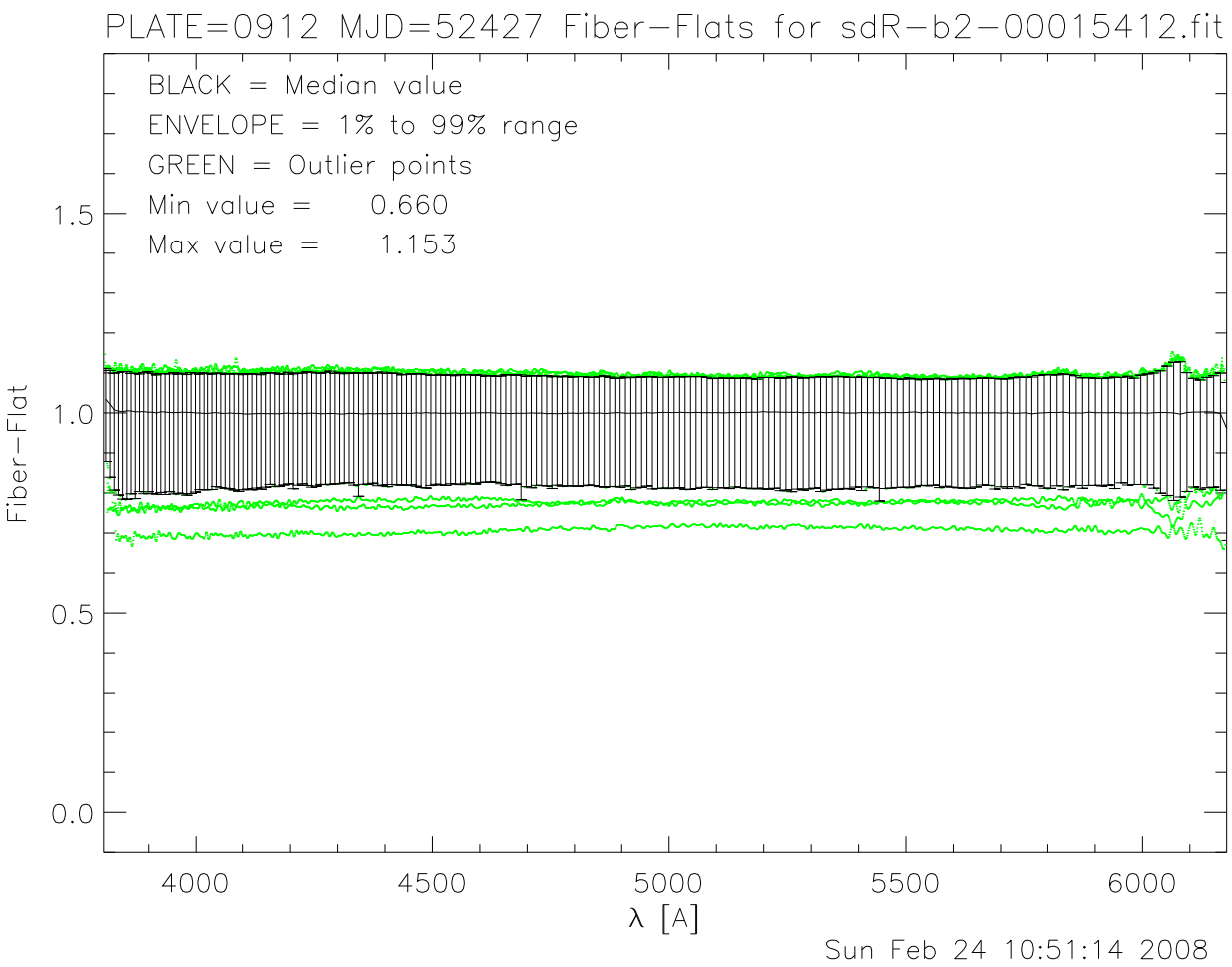

PLATE=0912 MJD=52427 sdR-b2-00015415.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
10000
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

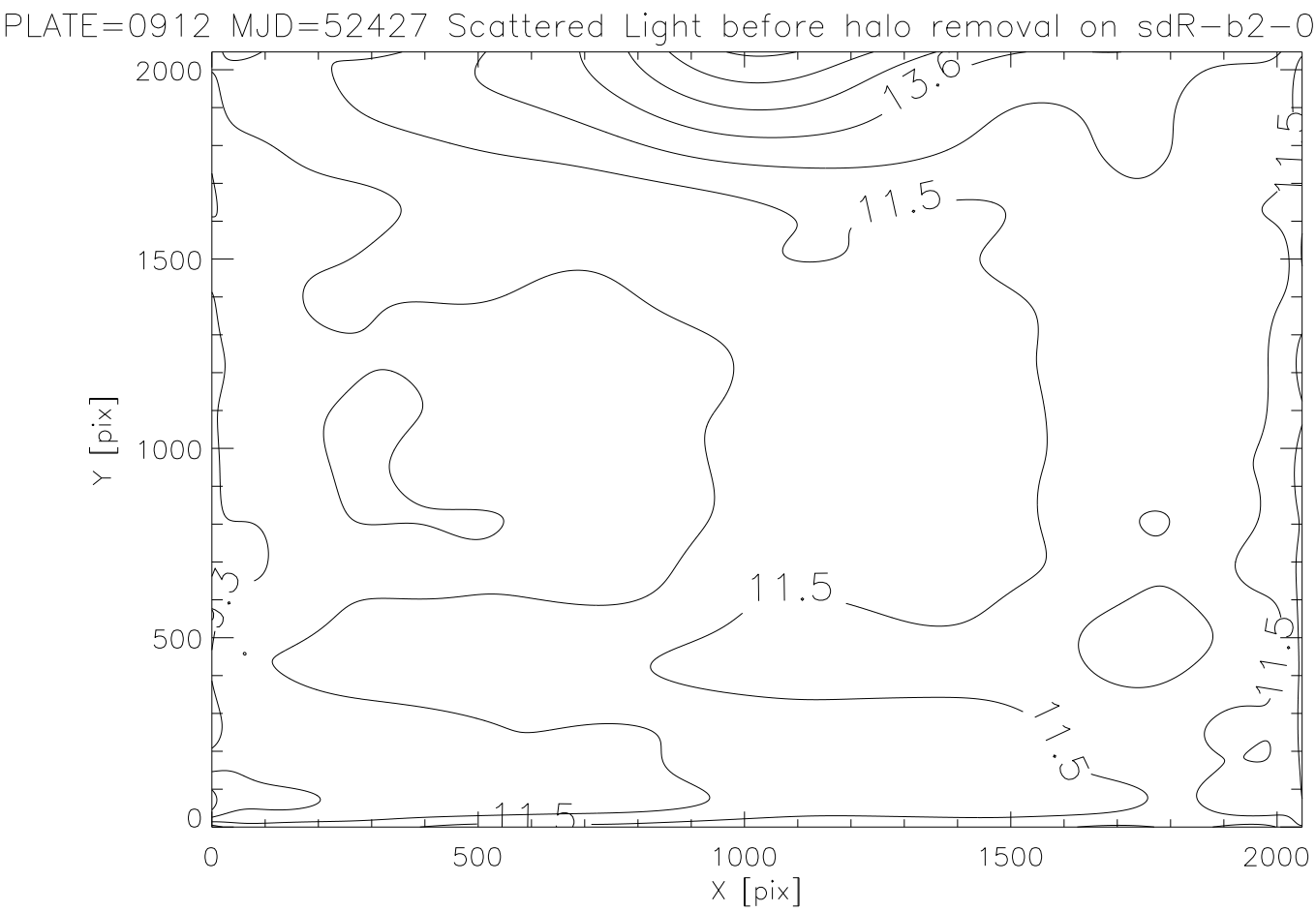

PLATE=0912 MJD=52427 sdR-b2-00015415.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
1000
500
0
-500
5570
5575
5580
5585
5590
λ [A]

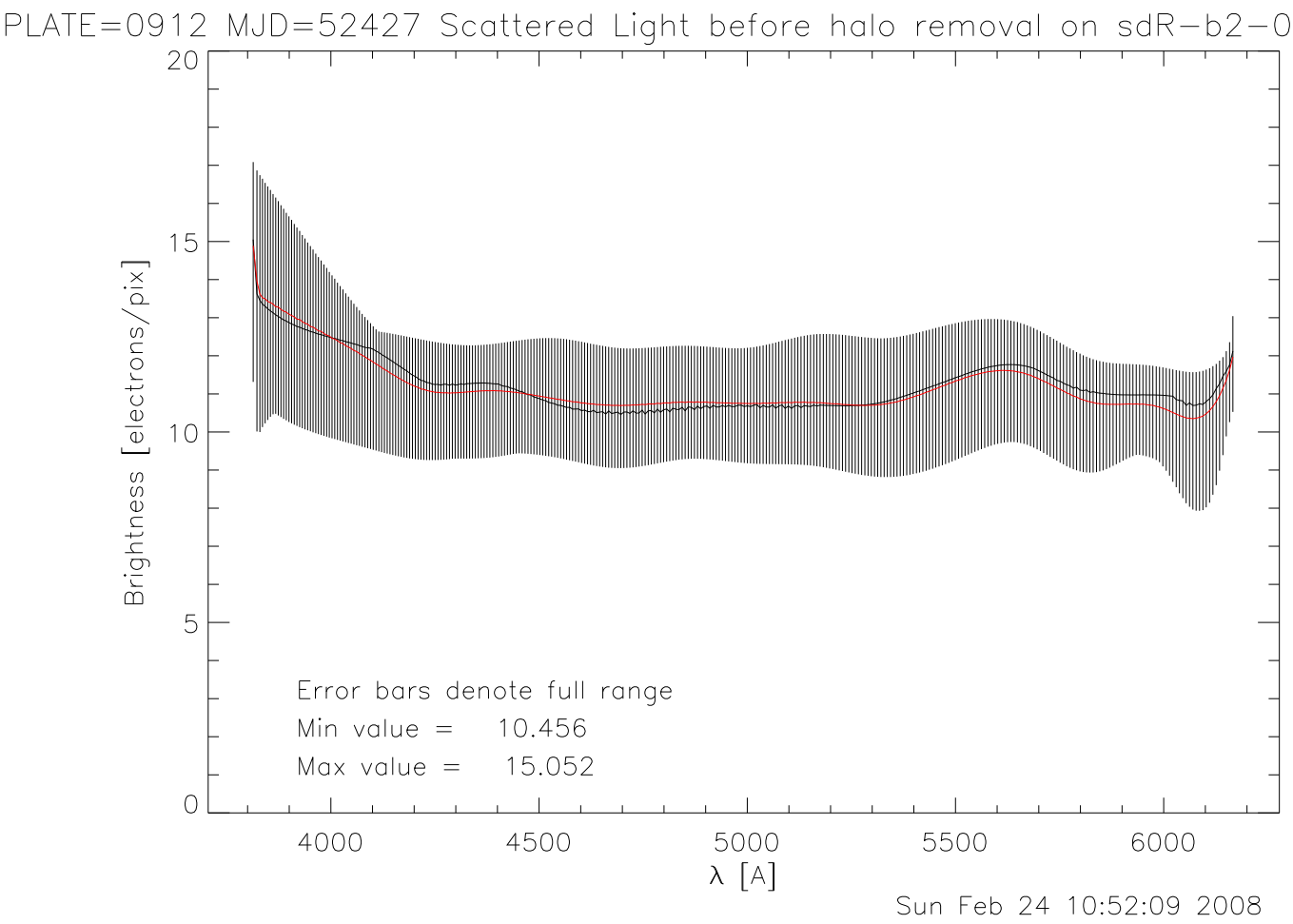

Number of sky fibers = 16
PLATE=0912 MJD=52427 sdR-b2-00015415.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

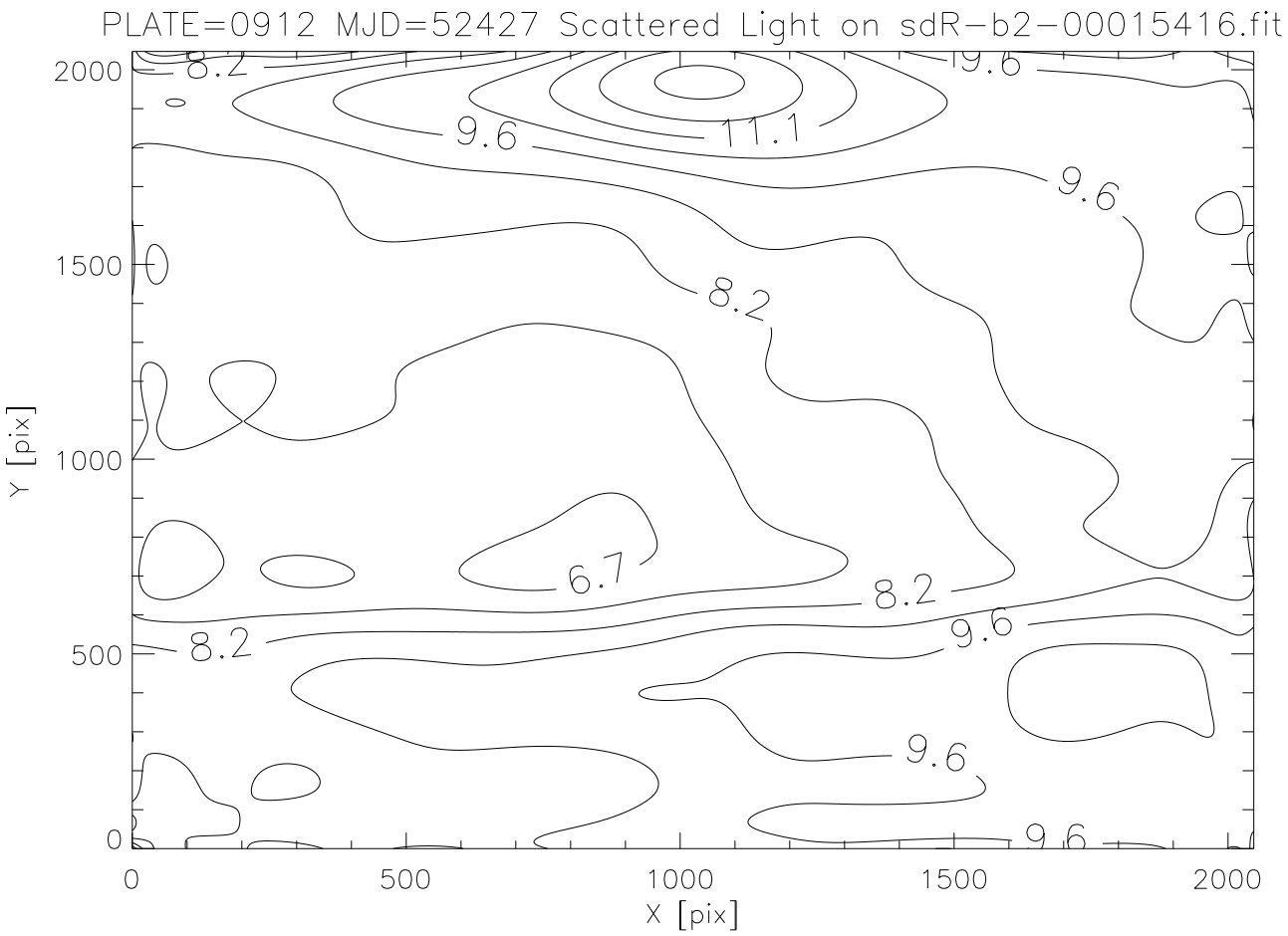

PLATE=0912 MJD=52427 sdR-b2-00015415.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 10.32 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

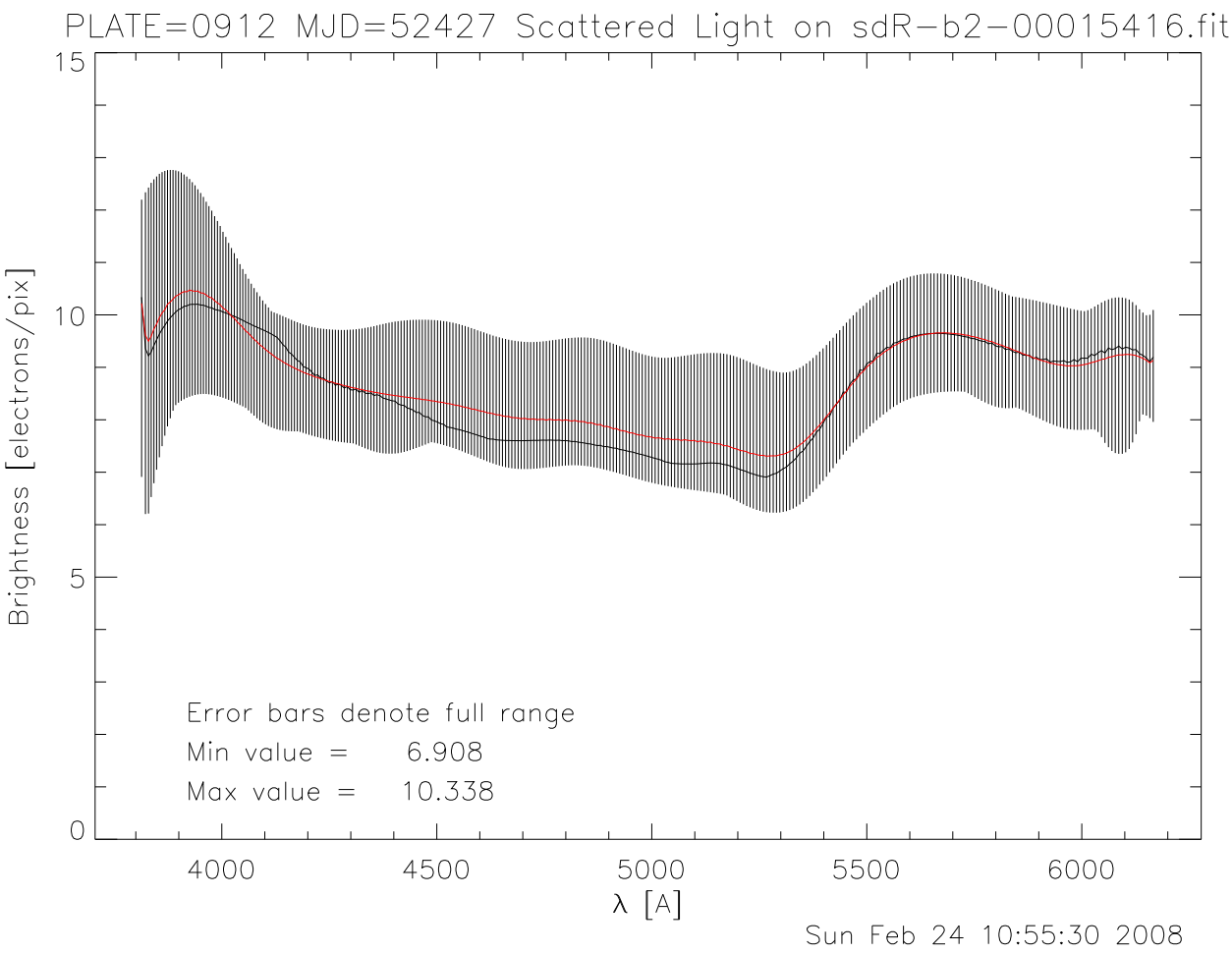

PLATE=0912 MJD=52427 sdR-b2-00015415.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 2.07 %
Fiber number
Focal Distance [mm]
Airmass

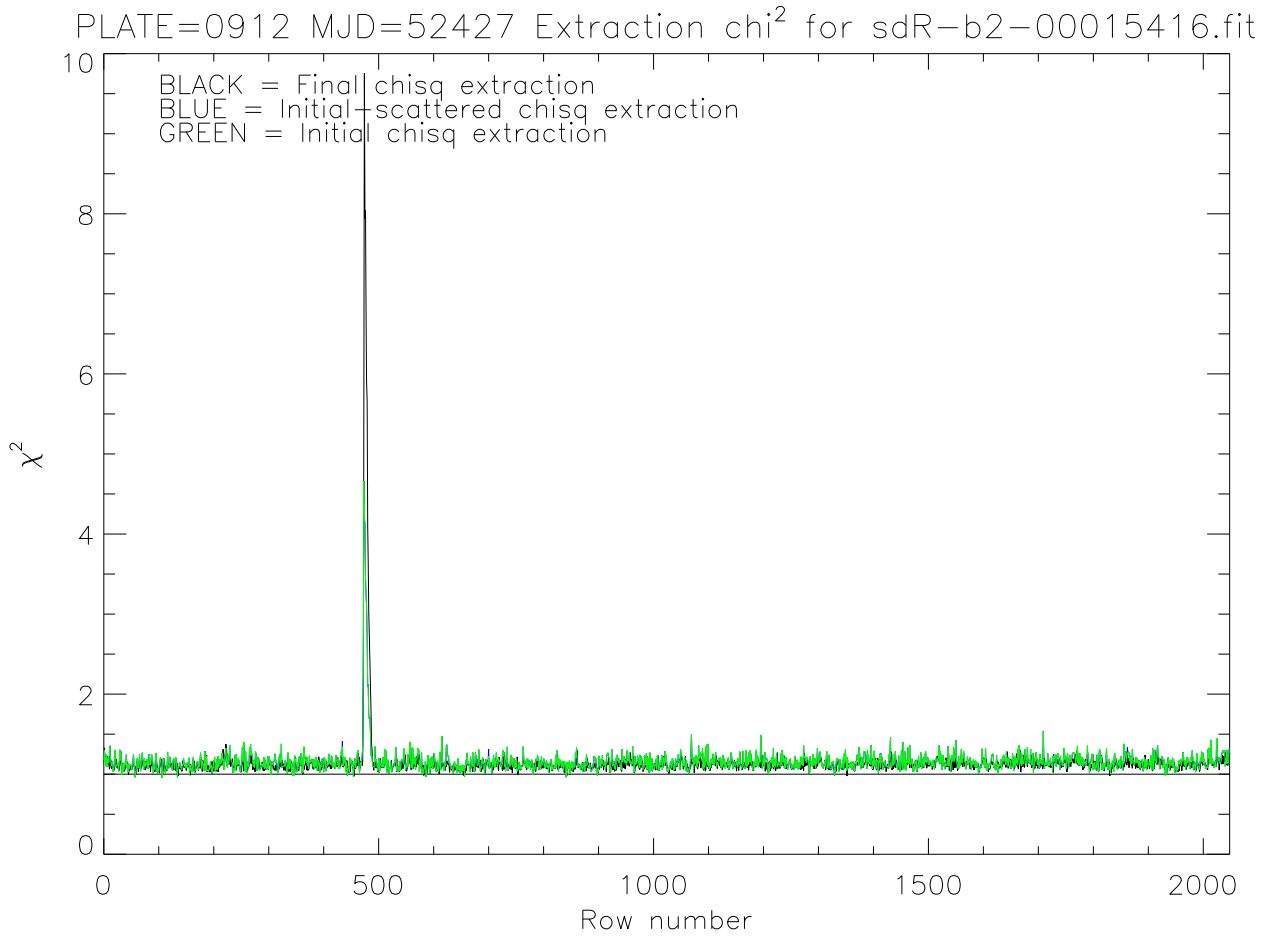

PLATE=0912 MJD=52427 Fiber-Flats for sdR-b2-00015412.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.660
Max value = 1.153
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Sun Feb 24 10:51:14 2008

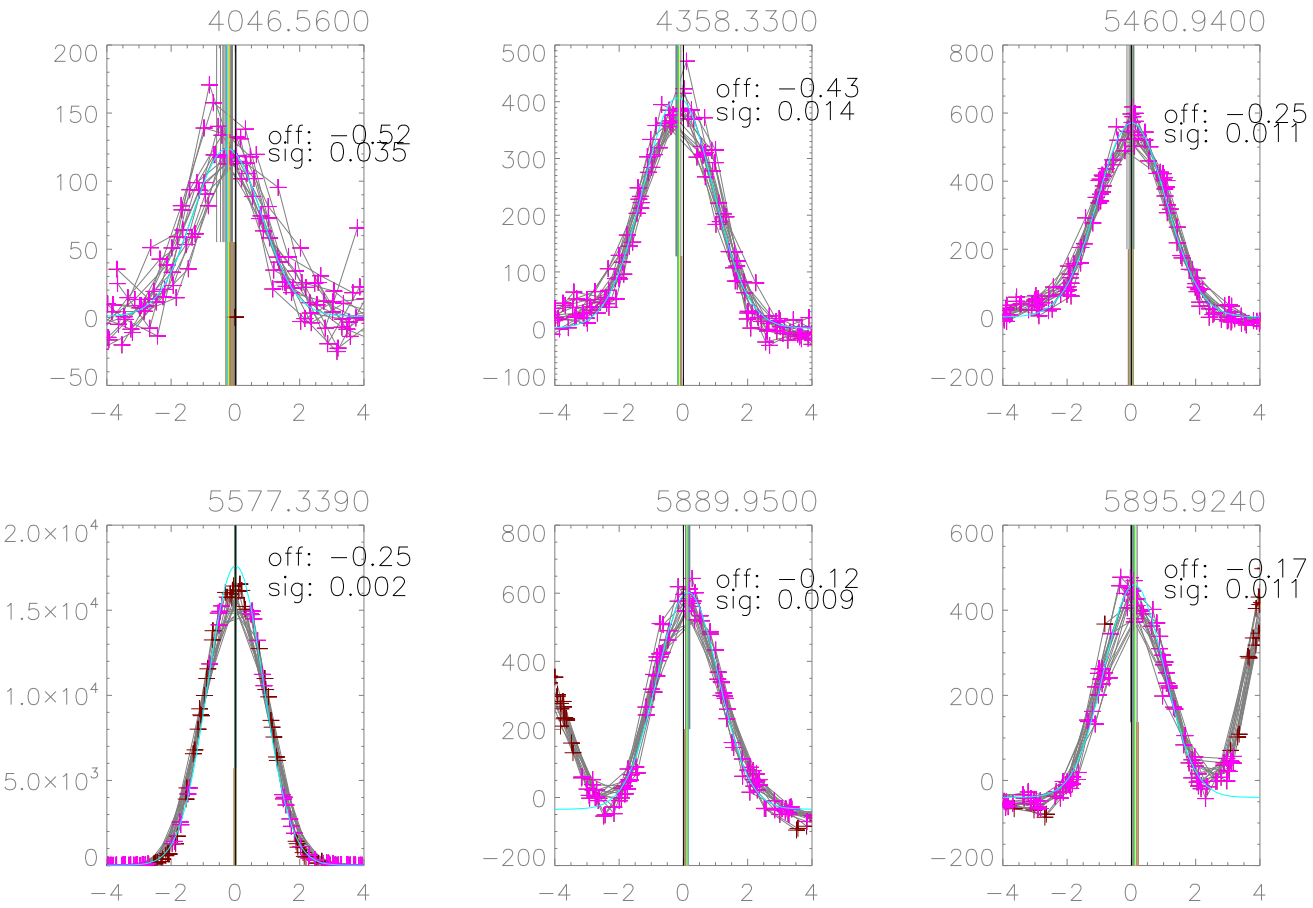

PLATE=0912 MJD=52427 Scattered Light before halo removal on sdR-b2-00015416.f
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
13.6
11.5
11.5
11.5
11.5
11.5
11.5
11.5
11.5

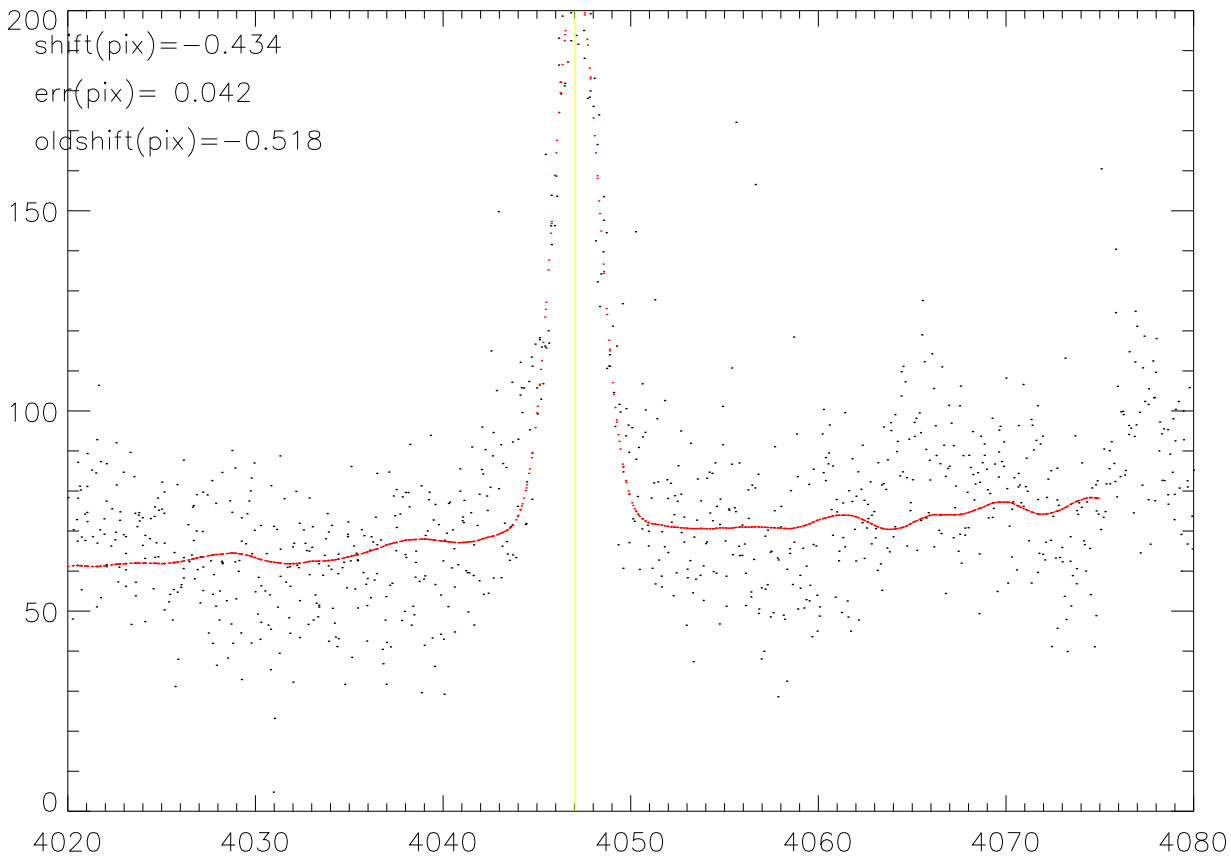

PLATE=0912 MJD=52427 Scattered Light before halo removal on sdR-b2-00015416.f
Brightness [electrons/pix]
20
15
10
5
0
Error bars denote full range
Min value = 10.456
Max value = 15.052
4000
4500
5000
5500
6000
λ [A]
Sun Feb 24 10:52:09 2008

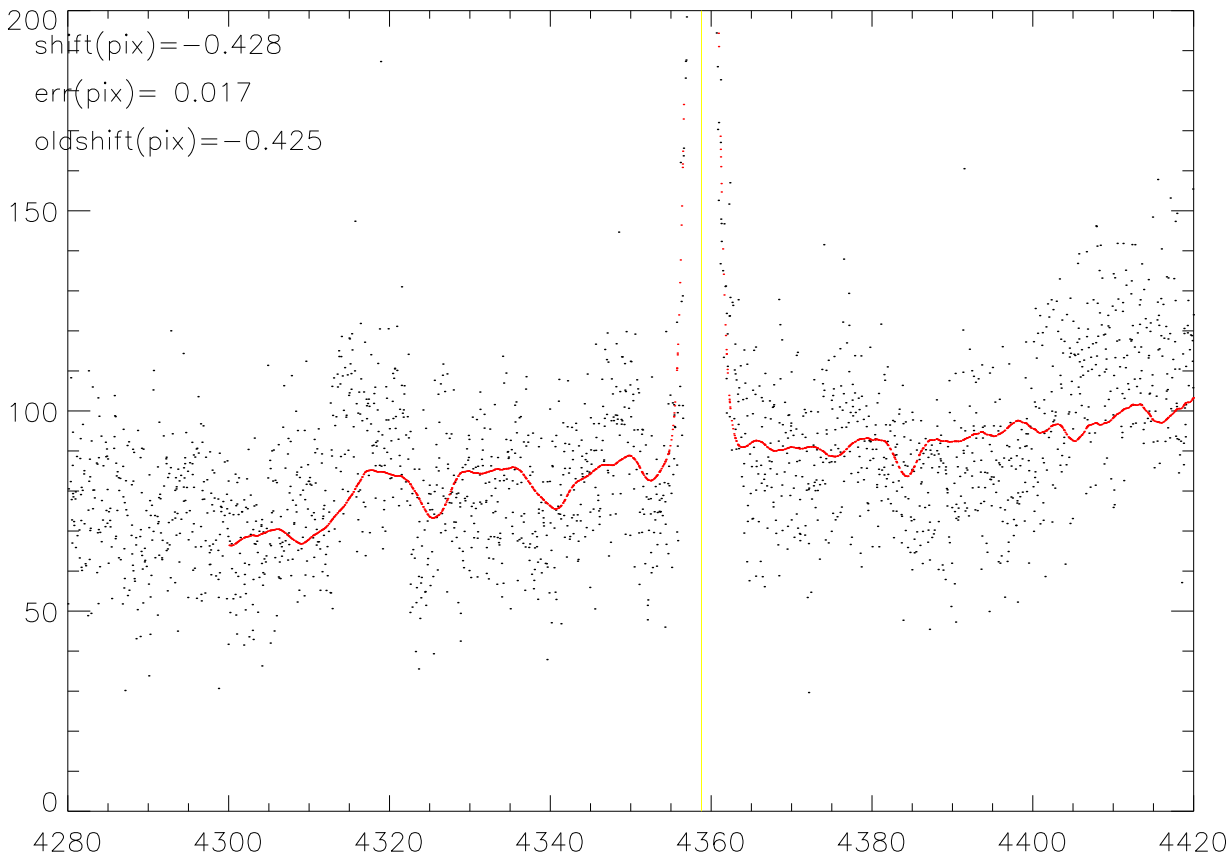

PLATE=0912 MJD=52427 Scattered Light on sdR-b2-00015416.fit
8.2
9.6
11.1
9.6
9.6
8.2
6.7
8.2
9.6
8.2
9.6
9.6
2000
1500
1000
500
0
0
500
1000
1500
2000
Y [pix]
X [pix]

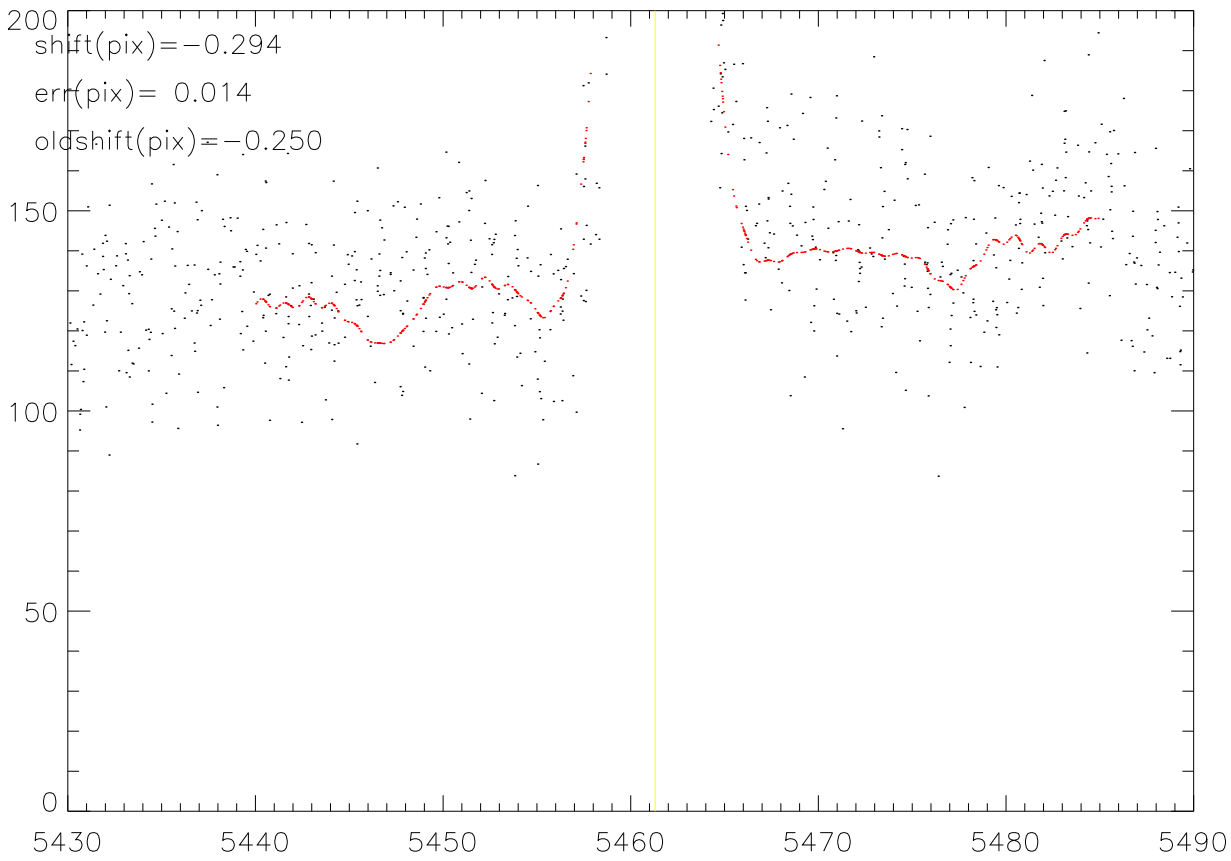

PLATE=0912 MJD=52427 Scattered Light on sdR-b2-00015416.fit
Brightness [electrons/pix]
15
10
5
0
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 6.908
Max value = 10.338
Sun Feb 24 10:55:30 2008

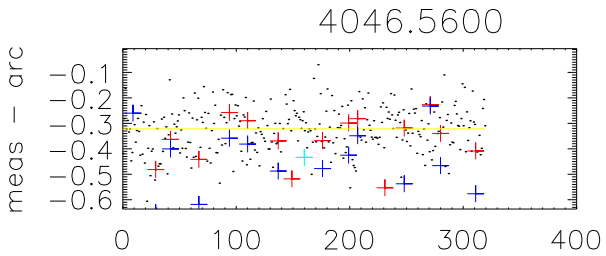

PLATE=0912 MJD=52427 Extraction chi^2 for sdR-b2-00015416.fit
BLACK = Final chisq extraction
BLUE = Initial+scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
10
0
500
1000
1500
2000
Row number

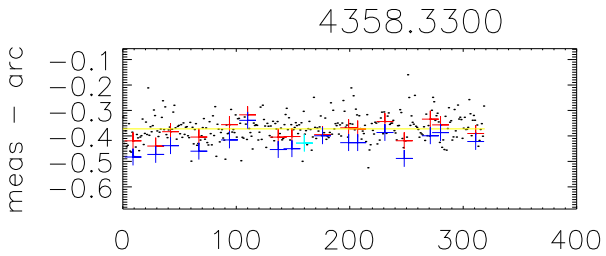

4046.5600
off: −0.52
sig: 0.035
4358.3300
off: −0.43
sig: 0.014
5460.9400
off: −0.25
sig: 0.011
5577.3390
off: −0.25
sig: 0.002
5889.9500
off: −0.12
sig: 0.009
5895.9240
off: −0.17
sig: 0.011

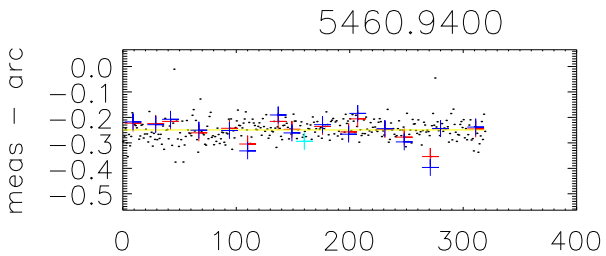

shift(pix)=−0.434
err(pix)= 0.042
oldshift(pix)=−0.518
200
150
100
50
0
4020
4030
4040
4050
4060
4070
4080

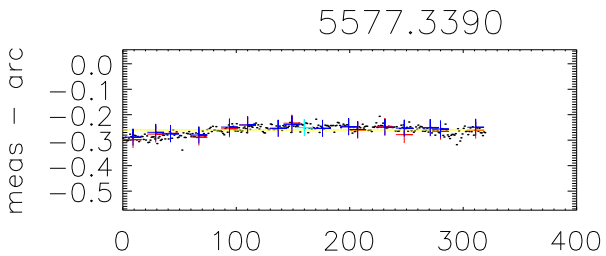

shift(pix)=−0.428
err(pix)= 0.017
oldshift(pix)=−0.425
200
150
100
50
0
4280
4300
4320
4340
4360
4380
4400
4420

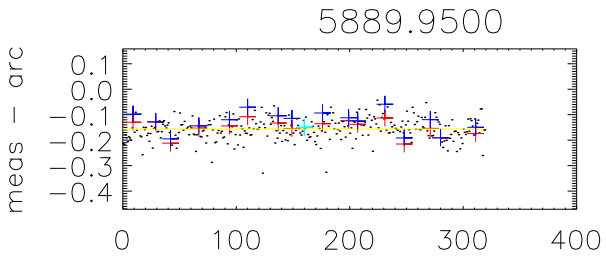

shift(pix)=−0.294
err(pix)= 0.014
oldshift(pix)=−0.250
200
150
100
50
0
5430
5440
5450
5460
5470
5480
5490

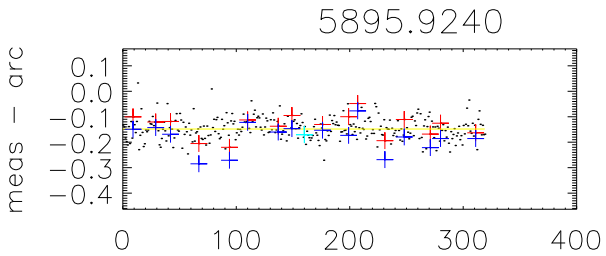

4046.5600
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

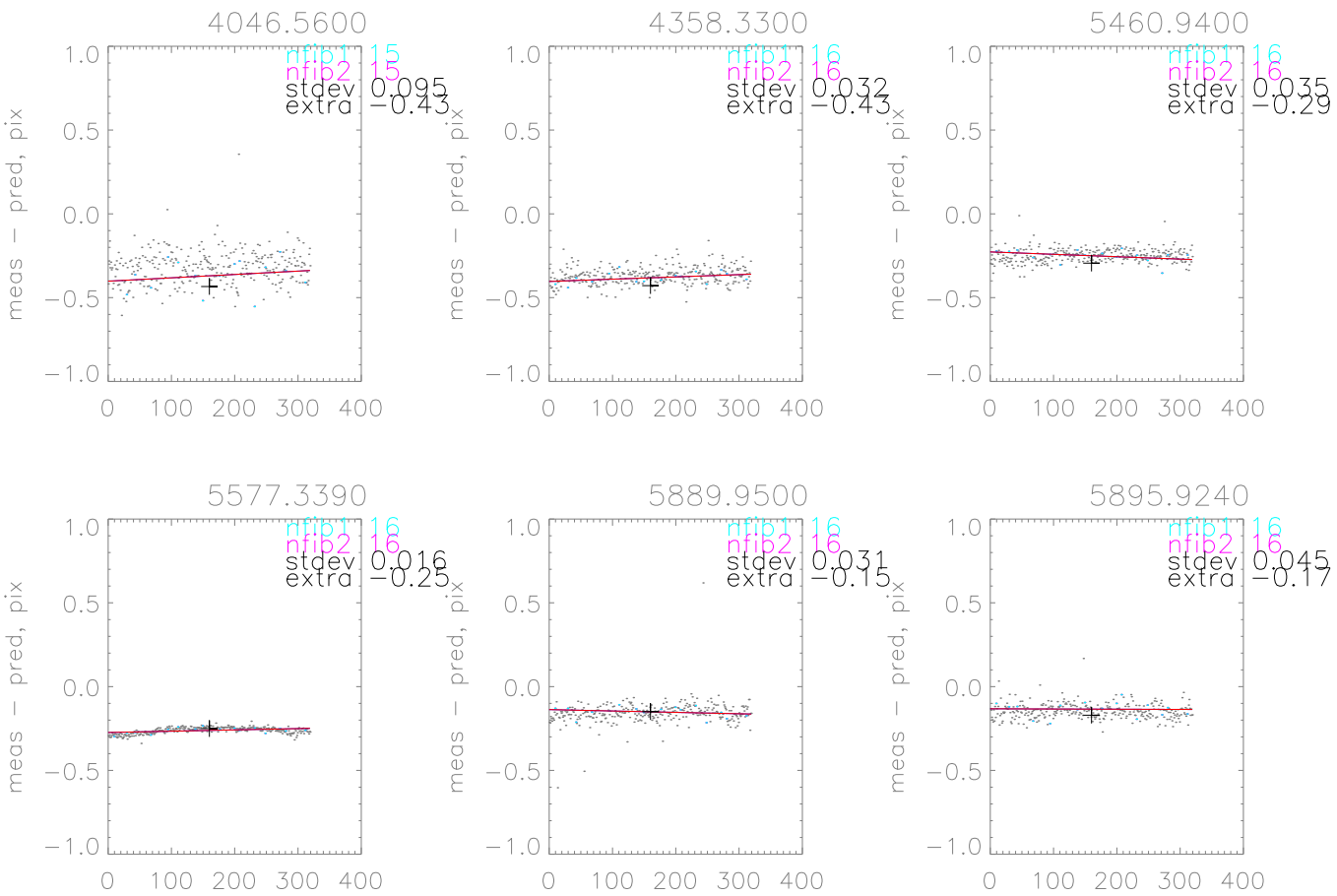

4358.3300
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

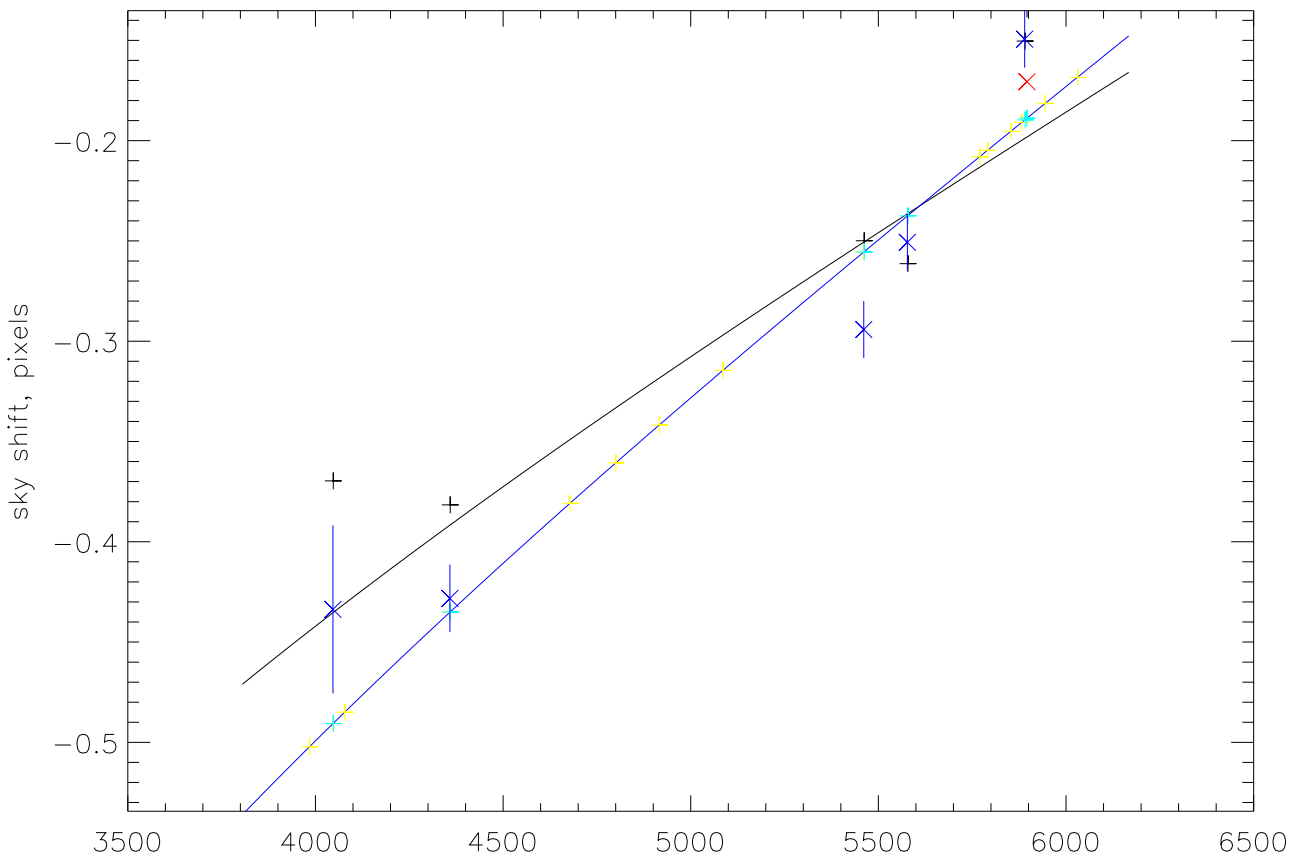

5460.9400
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

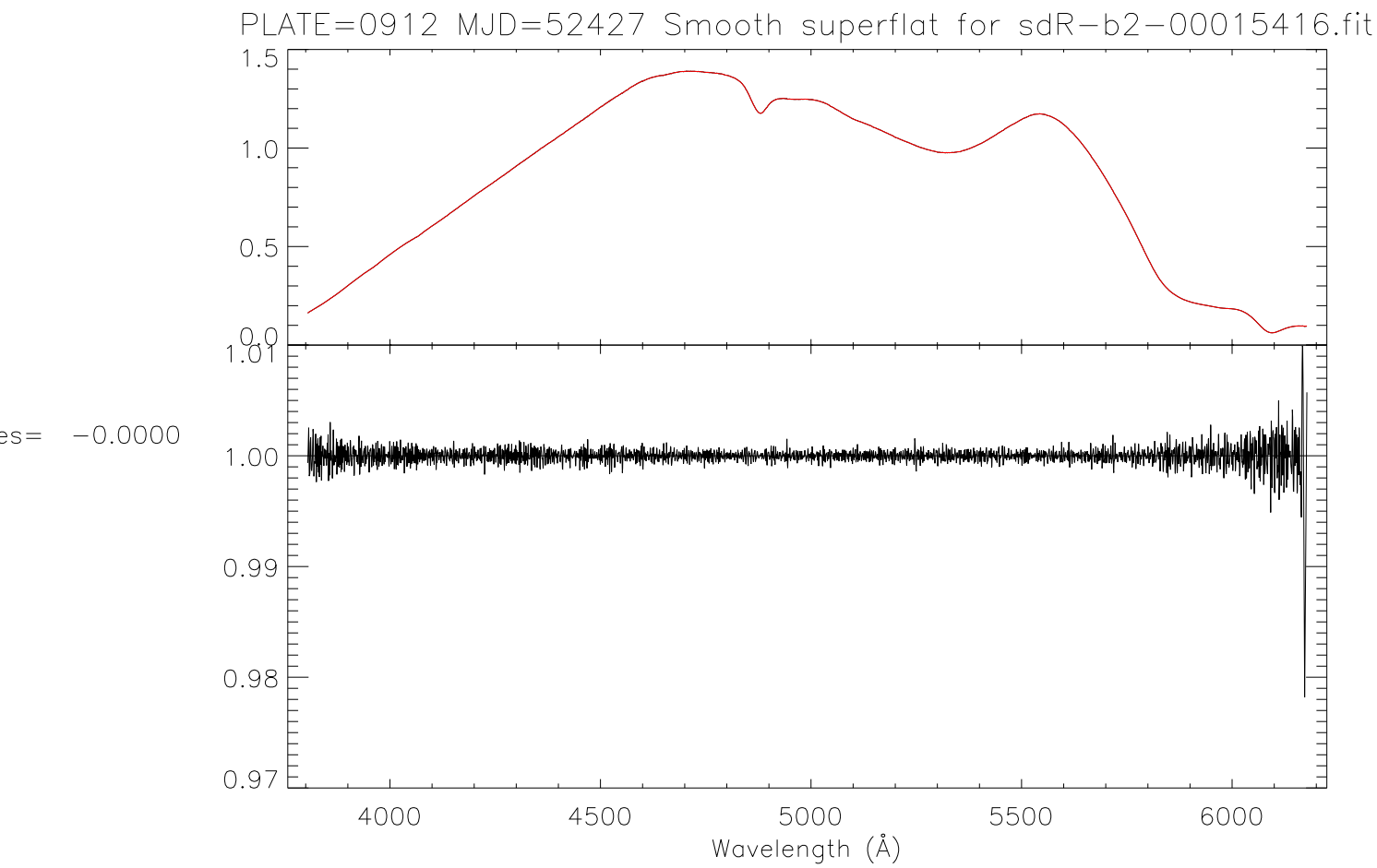

5577.3390
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400


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

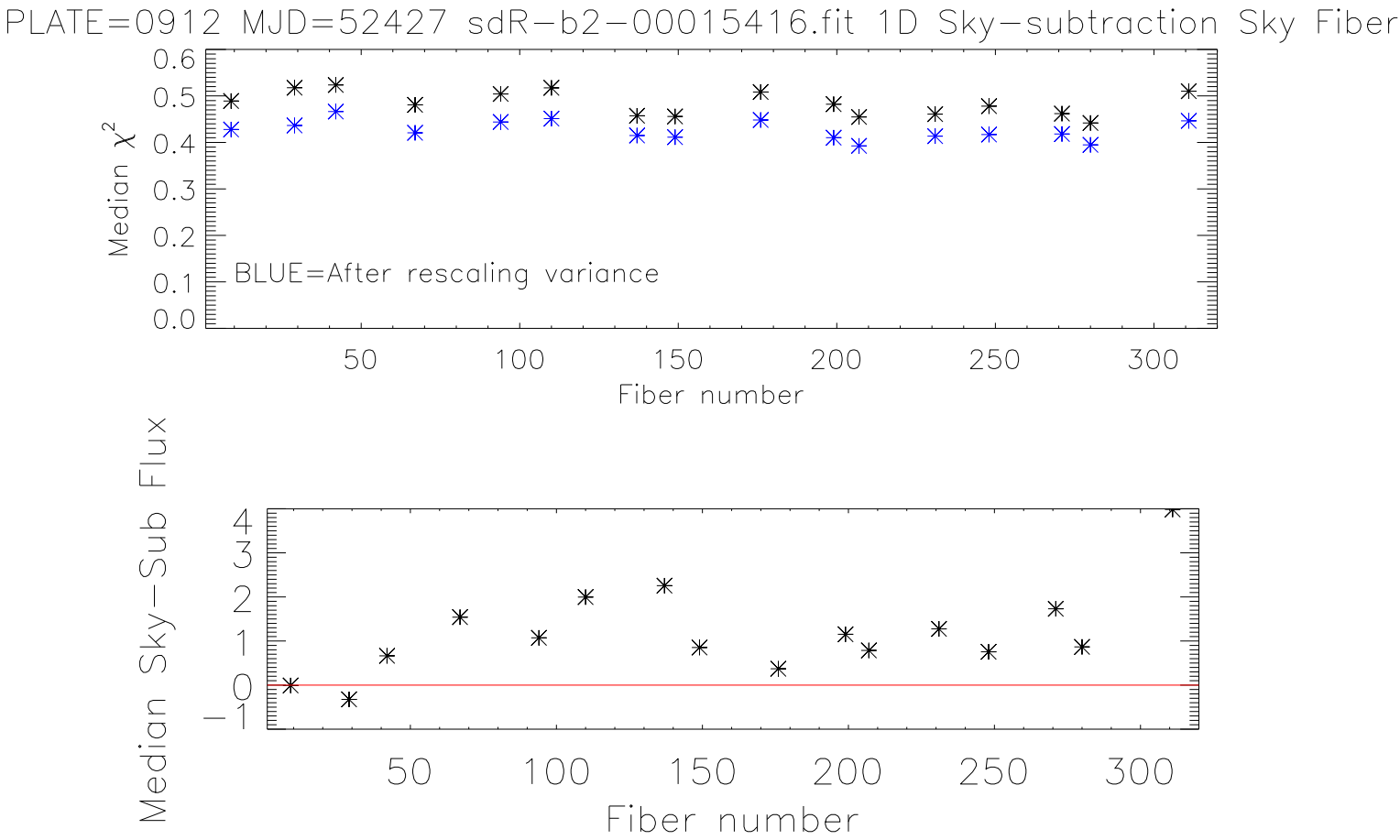

5895.9240
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

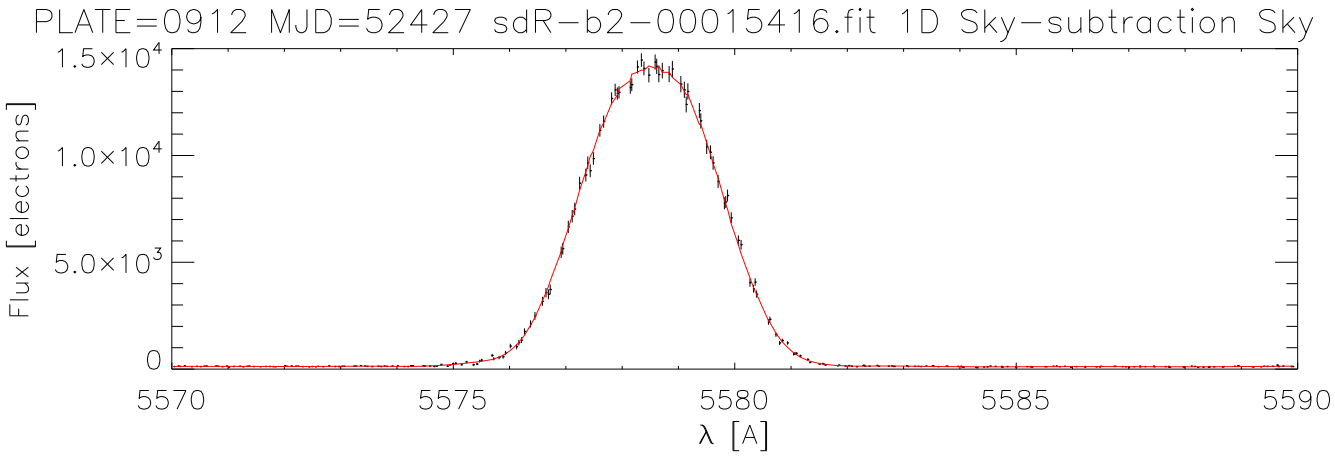

4046.5600
nfib1 15
nfib2 15
stdev 0.095
extra −0.43
4358.3300
nfib1 16
nfib2 16
stdev 0.032
extra −0.43
5460.9400
nfib1 16
nfib2 16
stdev 0.035
extra −0.29
5577.3390
nfib1 16
nfib2 16
stdev 0.016
extra −0.25
5889.9500
nfib1 16
nfib2 16
stdev 0.031
extra −0.15
5895.9240
nfib1 16
nfib2 16
stdev 0.045
extra −0.17
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

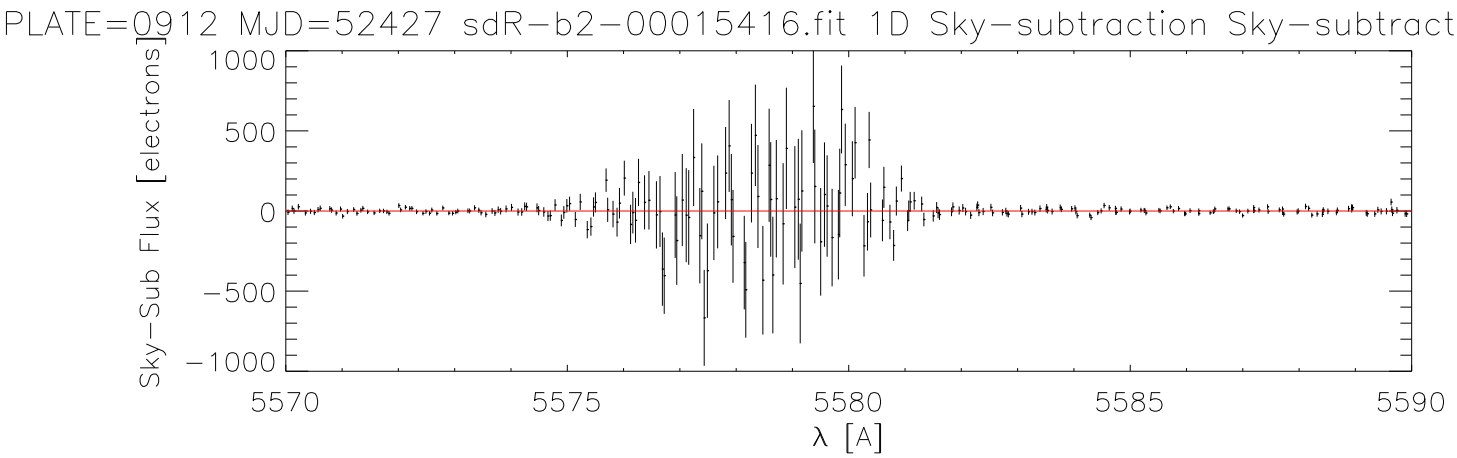

sky shift, pixels
−0.2
−0.3
−0.4
−0.5
3500
4000
4500
5000
5500
6000
6500

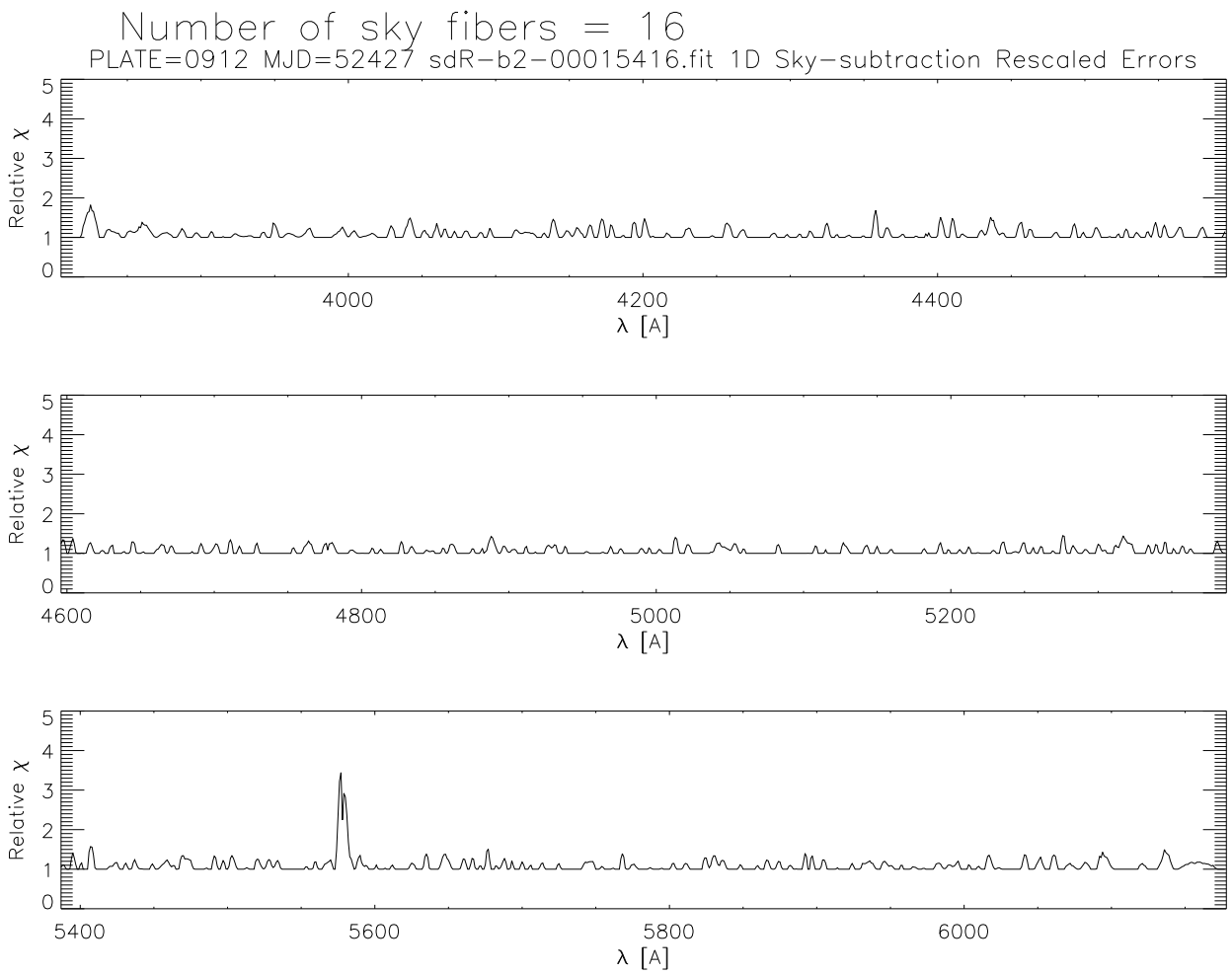

PLATE=0912 MJD=52427 Smooth superflat for sdR-b2-00015416.fit
1.5
1.0
0.5
0.0
1.01
1.00
0.99
0.98
0.97
4000
4500
5000
5500
6000
Wavelength (Å)

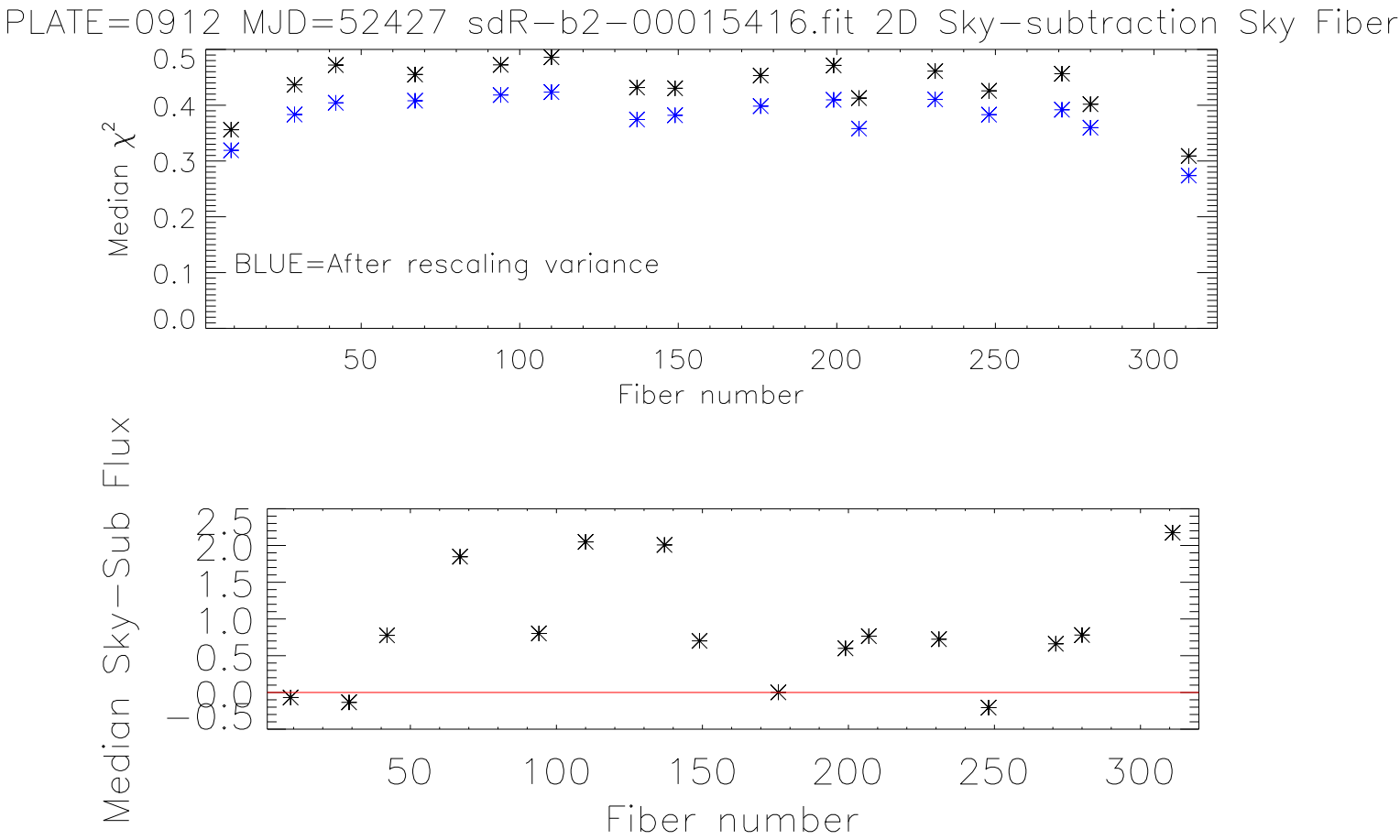
es= −0.0000

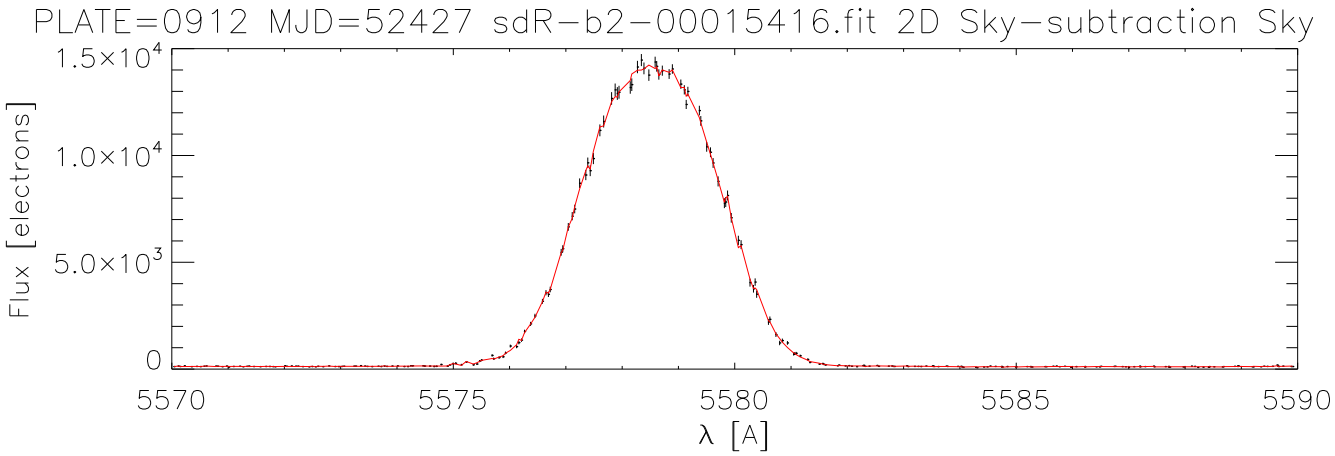

PLATE=0912 MJD=52427 sdR-b2-00015416.fit 1D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

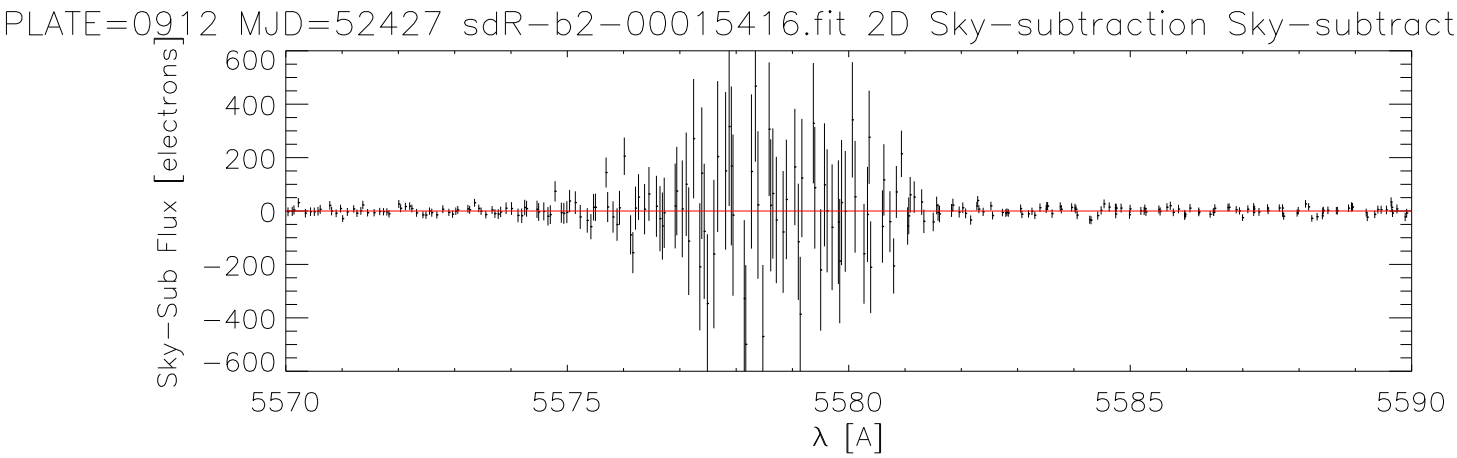

PLATE=0912 MJD=52427 sdR-b2-00015416.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
1.5×10^4
1.0×10^4
5.0×10^3
0
5570
5575
5580
5585
5590
λ [A]

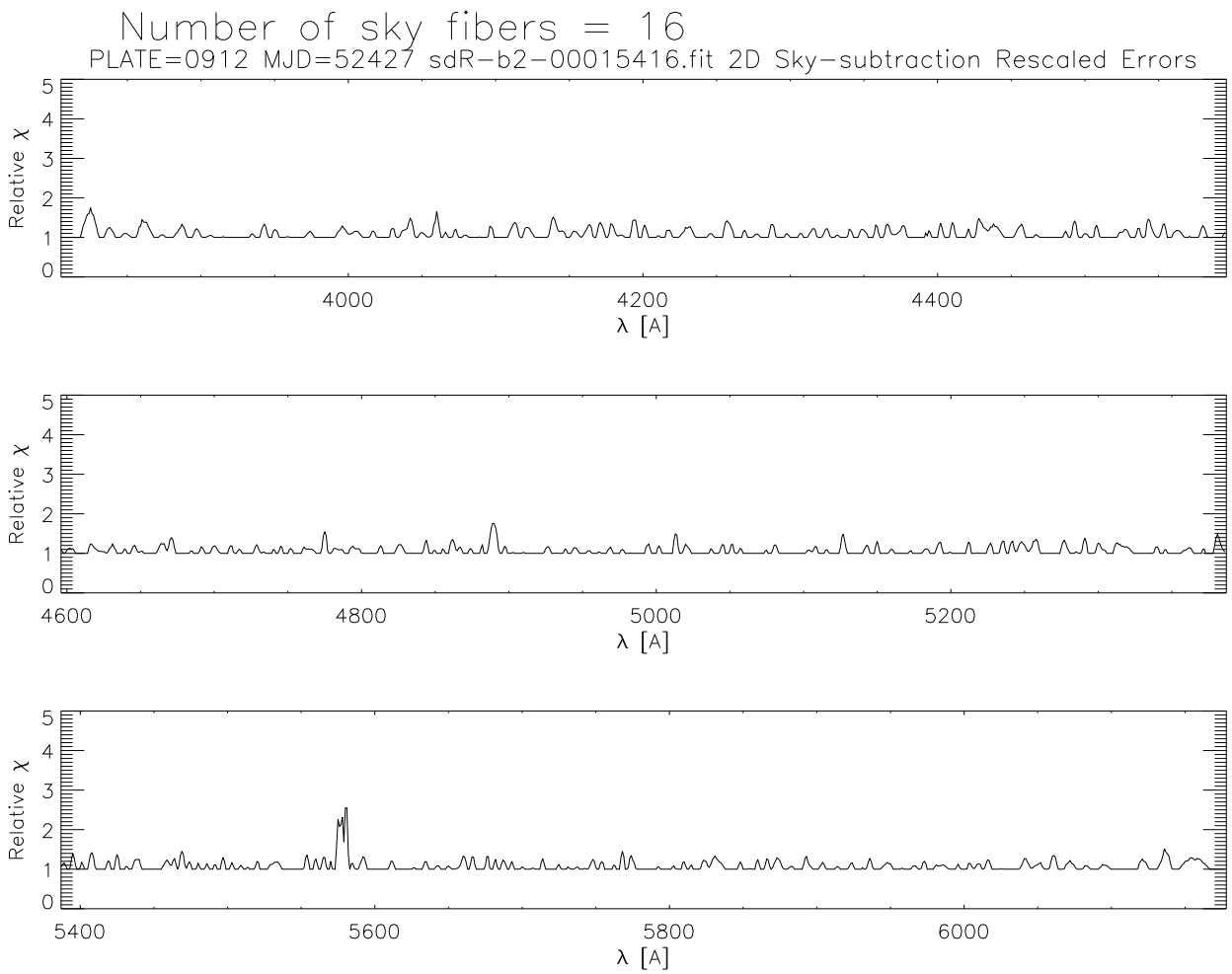

PLATE=0912 MJD=52427 sdR-b2-00015416.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
1000
500
0
-500
-1000
5570
5575
5580
5585
5590
λ [A]

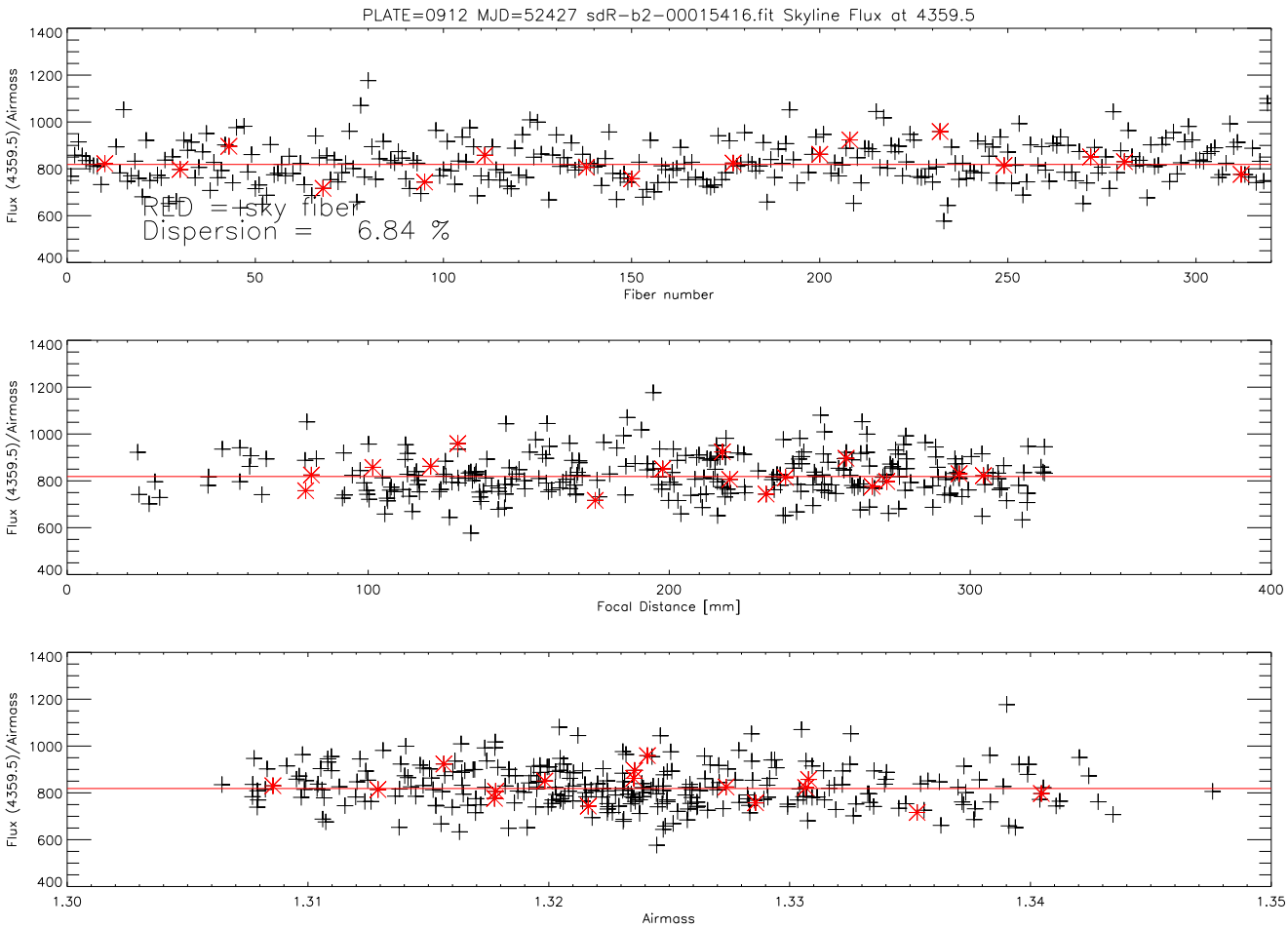

Number of sky fibers = 16
PLATE=0912 MJD=52427 sdR-b2-00015416.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

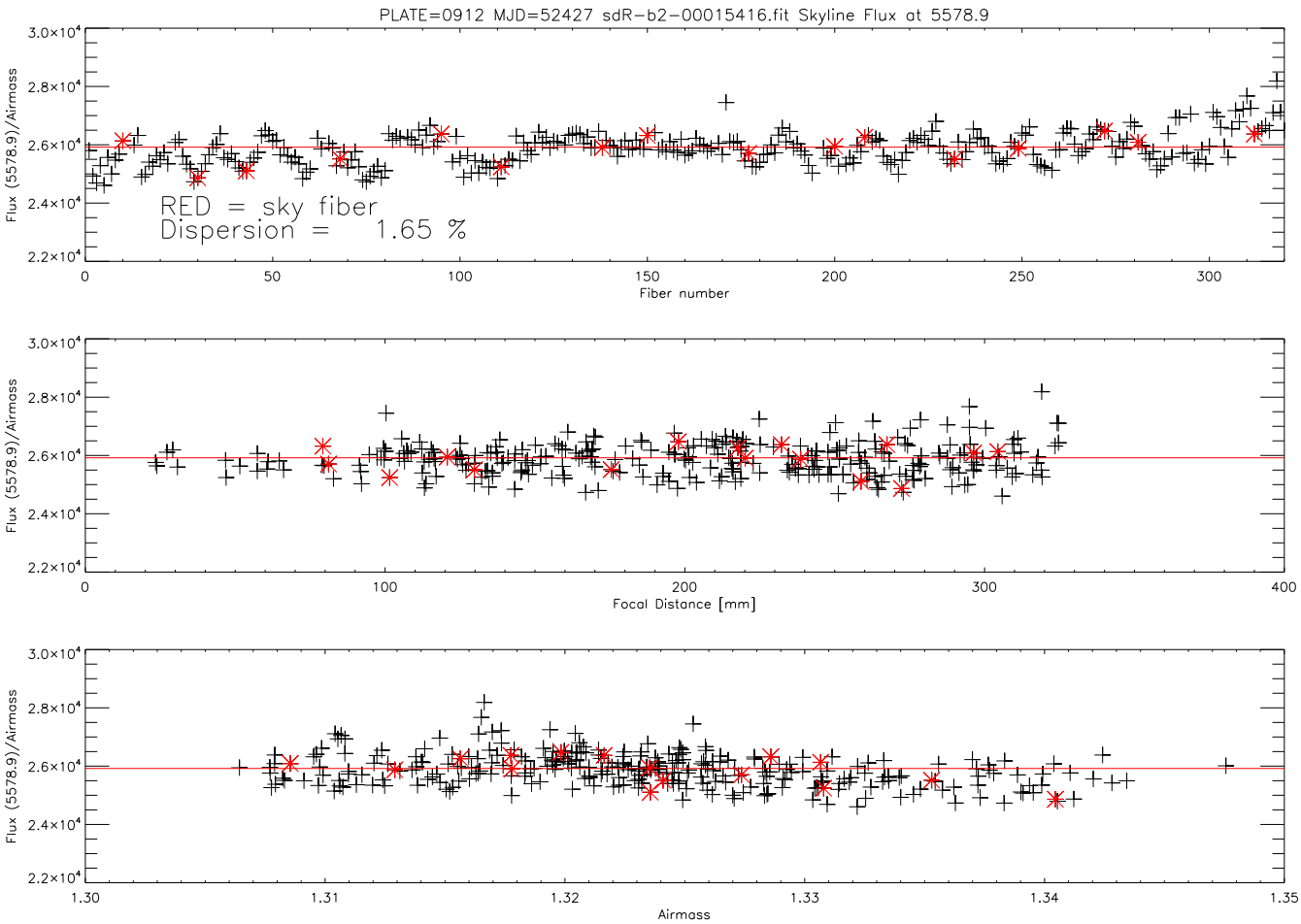

PLATE=0912 MJD=52427 sdR-b2-00015416.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

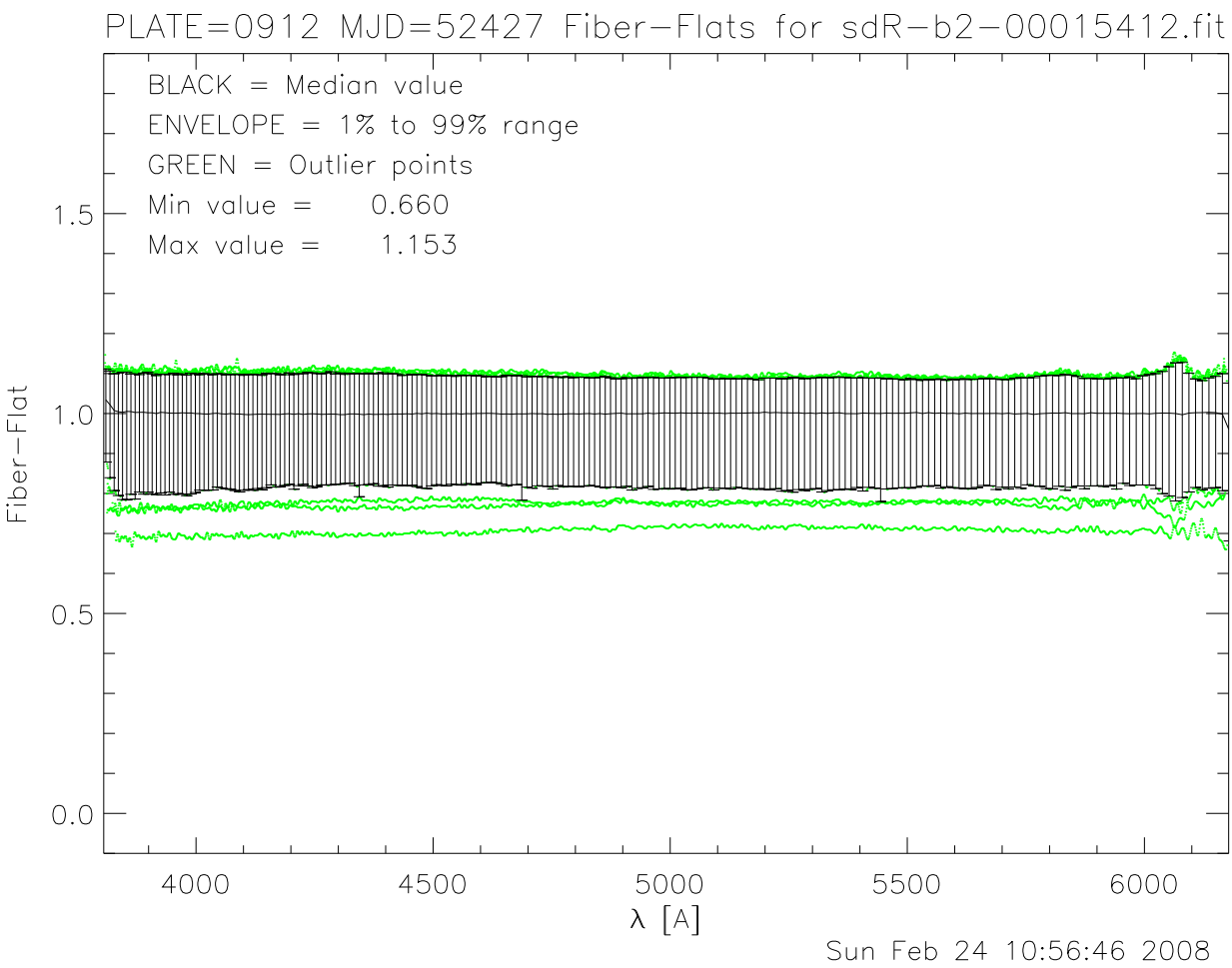

PLATE=0912 MJD=52427 sdR-b2-00015416.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
1.5×10^4
1.0×10^4
5.0×10^3
0
5570
5575
5580
5585
5590
λ [A]

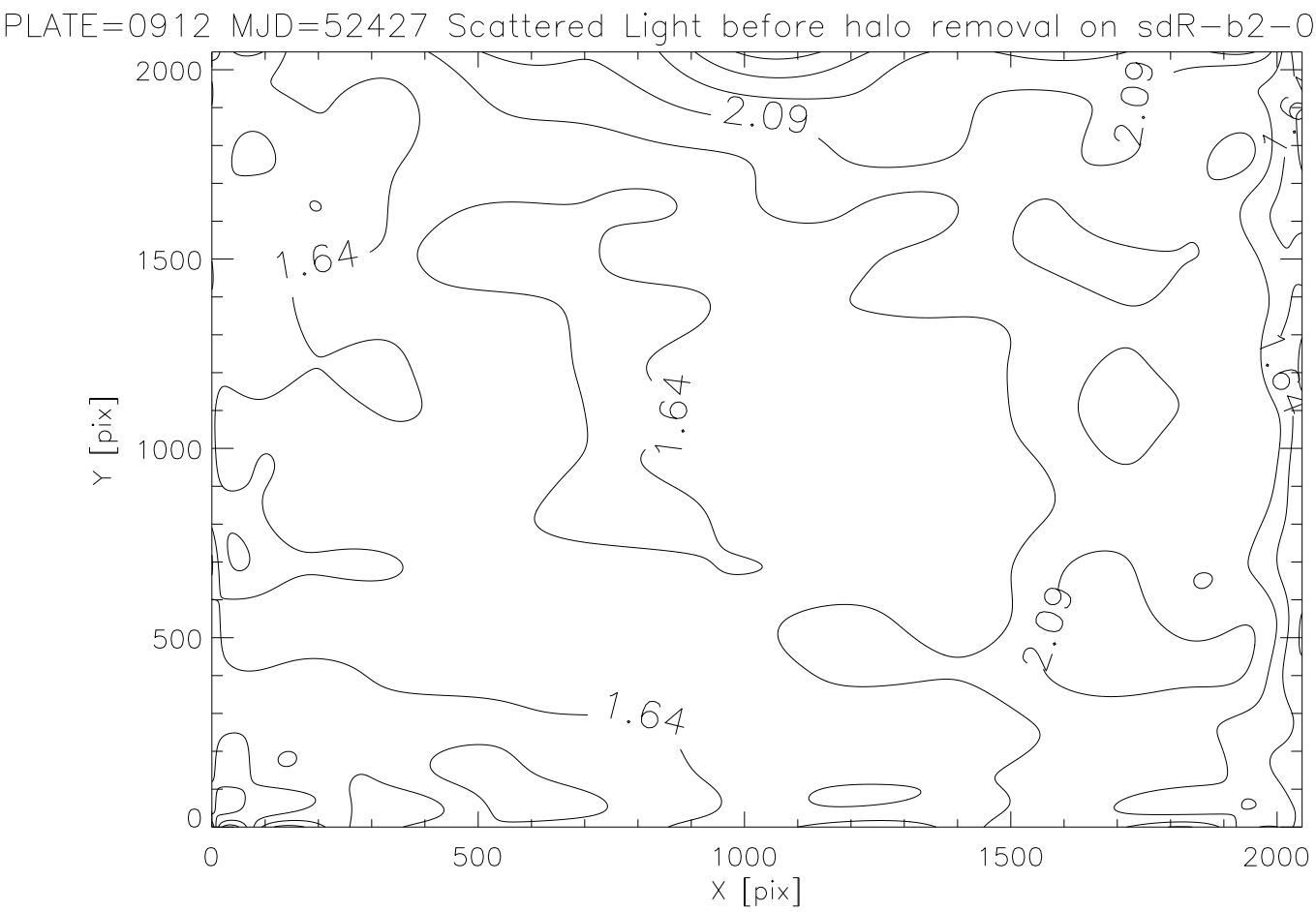

PLATE=0912 MJD=52427 sdR-b2-00015416.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
−200
−400
−600
5570
5575
5580
5585
5590
λ [A]

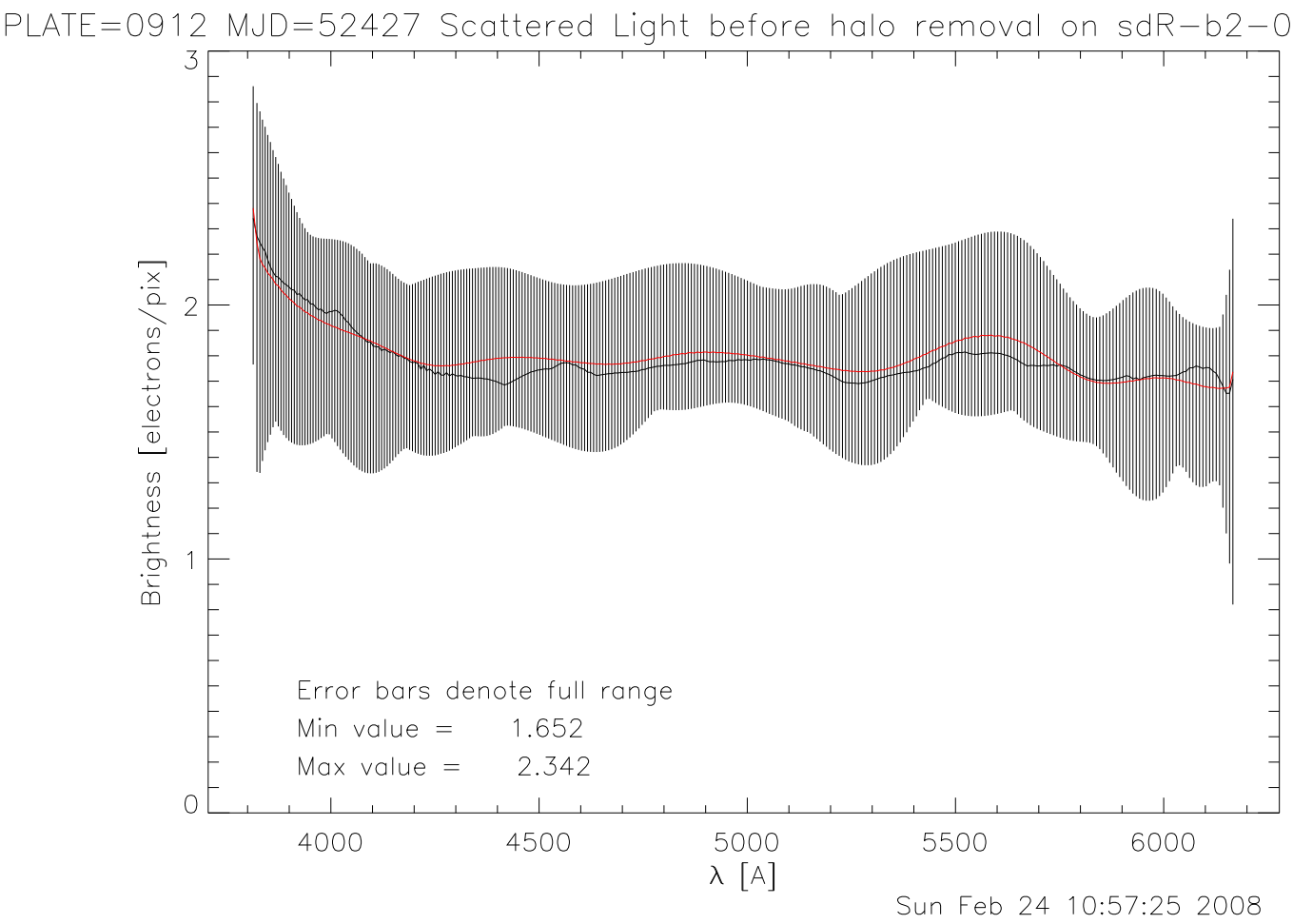

Number of sky fibers = 16
PLATE=0912 MJD=52427 sdR-b2-00015416.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

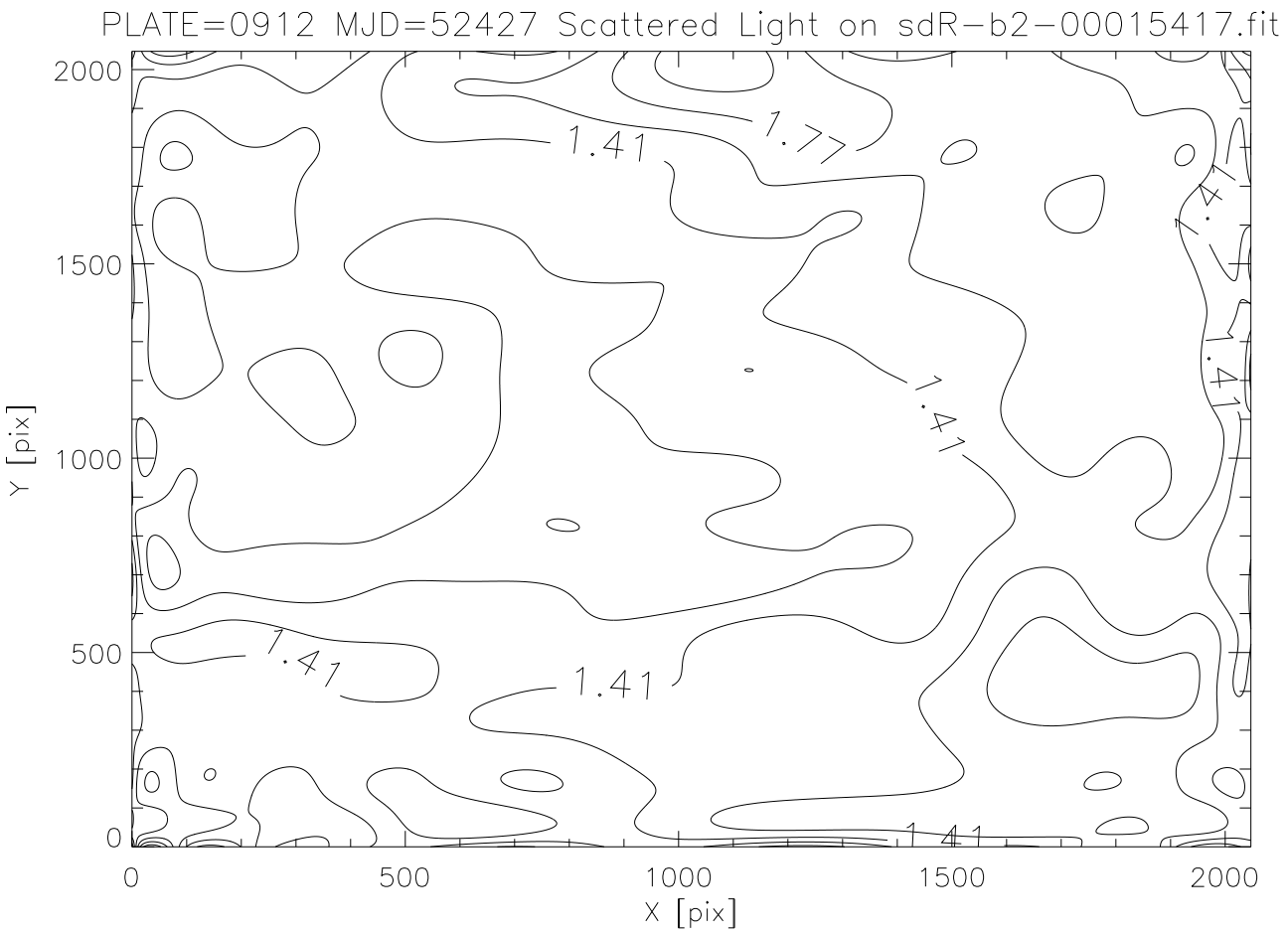

PLATE=0912 MJD=52427 sdR-b2-00015416.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
Fiber number
RED = sky fiber
Dispersion = 6.84 %
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

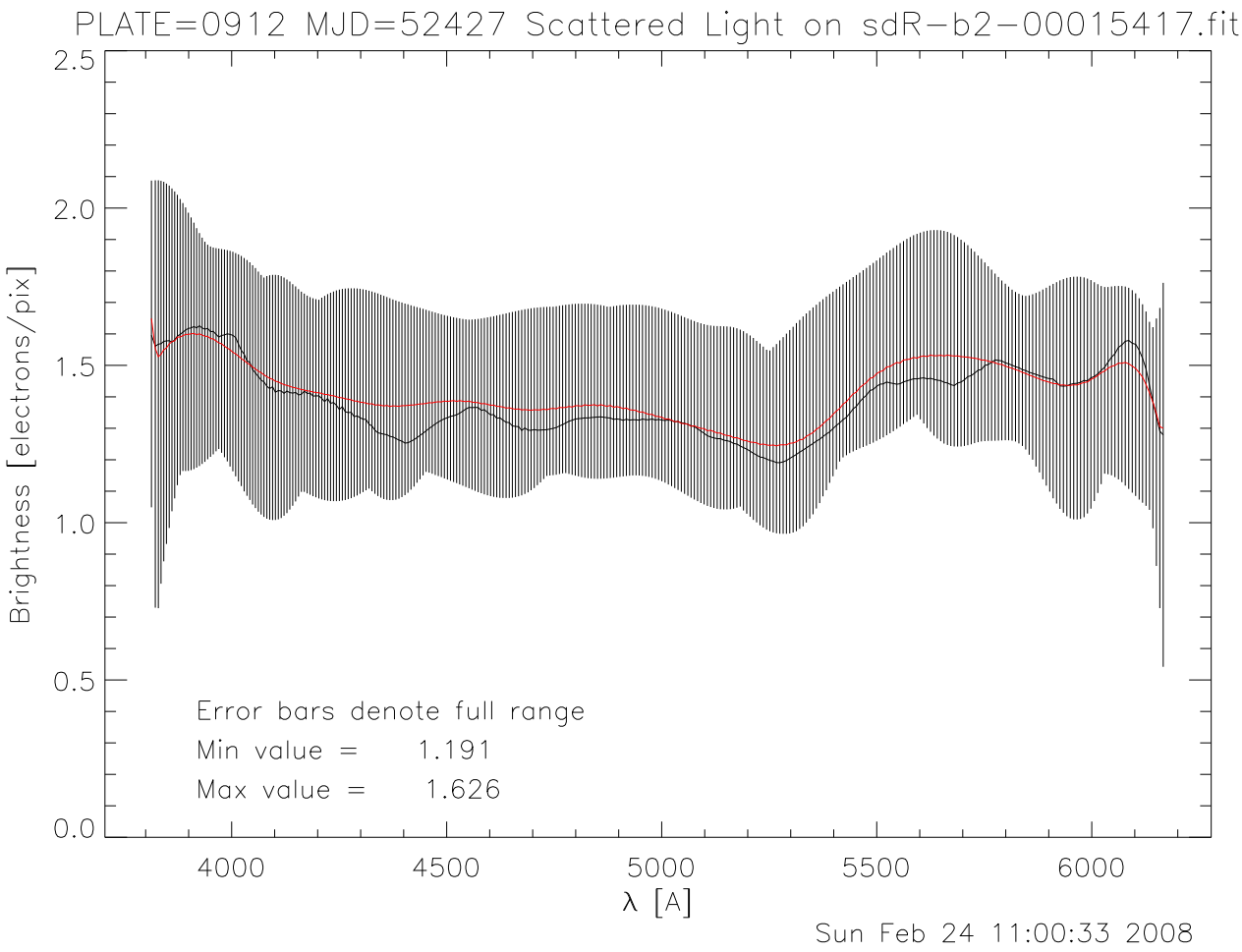

PLATE=0912 MJD=52427 sdR-b2-00015416.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
3.0×10^4
2.8×10^4
2.6×10^4
2.4×10^4
2.2×10^4
RED = sky fiber
Dispersion = 1.65 %
0
50
100
150
200
250
300
Fiber number
Flux (5578.9)/Airmass
Focal Distance [mm]
0
100
200
300
400
Flux (5578.9)/Airmass
Airmass
1.30
1.31
1.32
1.33
1.34
1.35

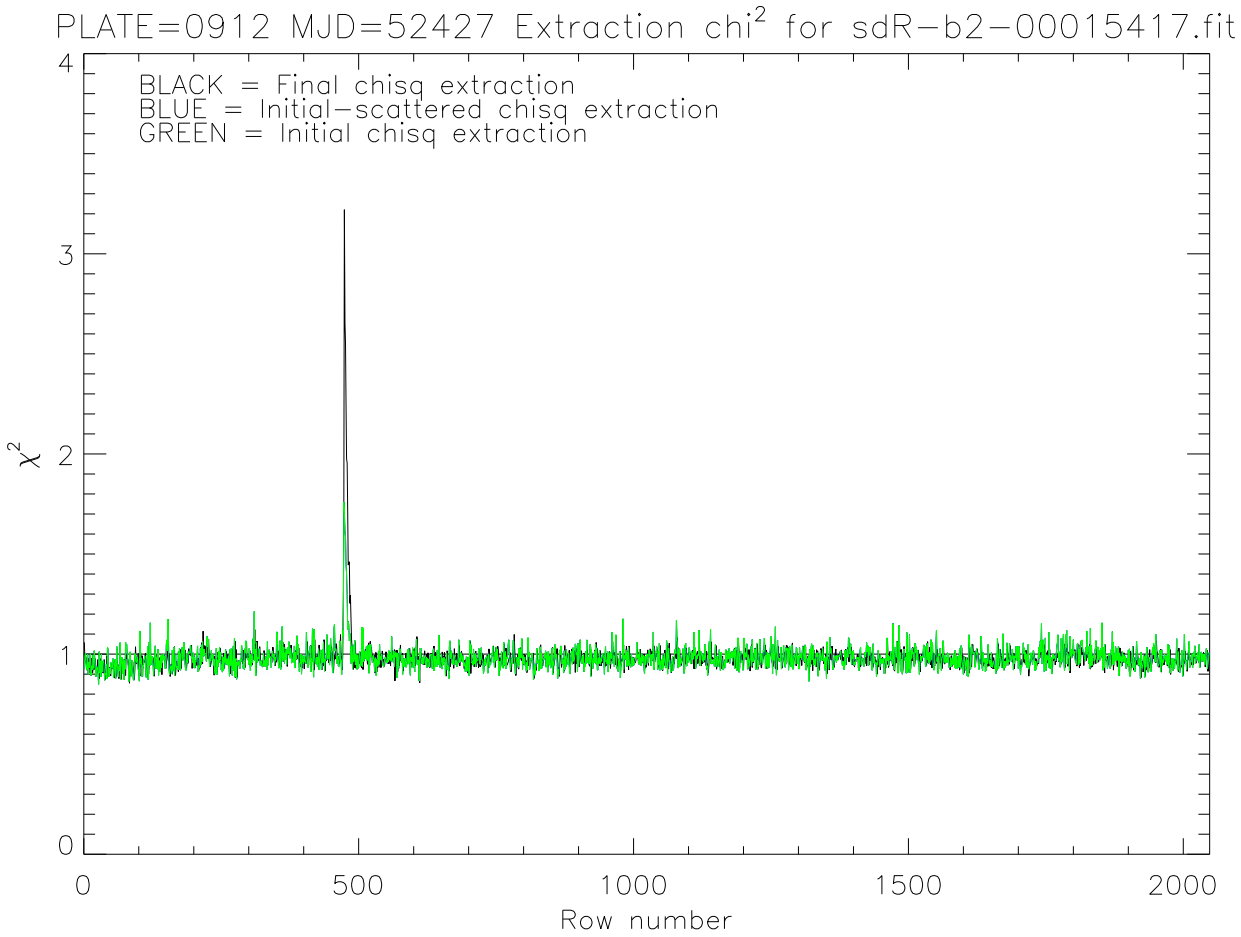

PLATE=0912 MJD=52427 Fiber−Flats for sdR−b2−00015412.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.660
Max value = 1.153
Fiber−Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Sun Feb 24 10:56:46 2008

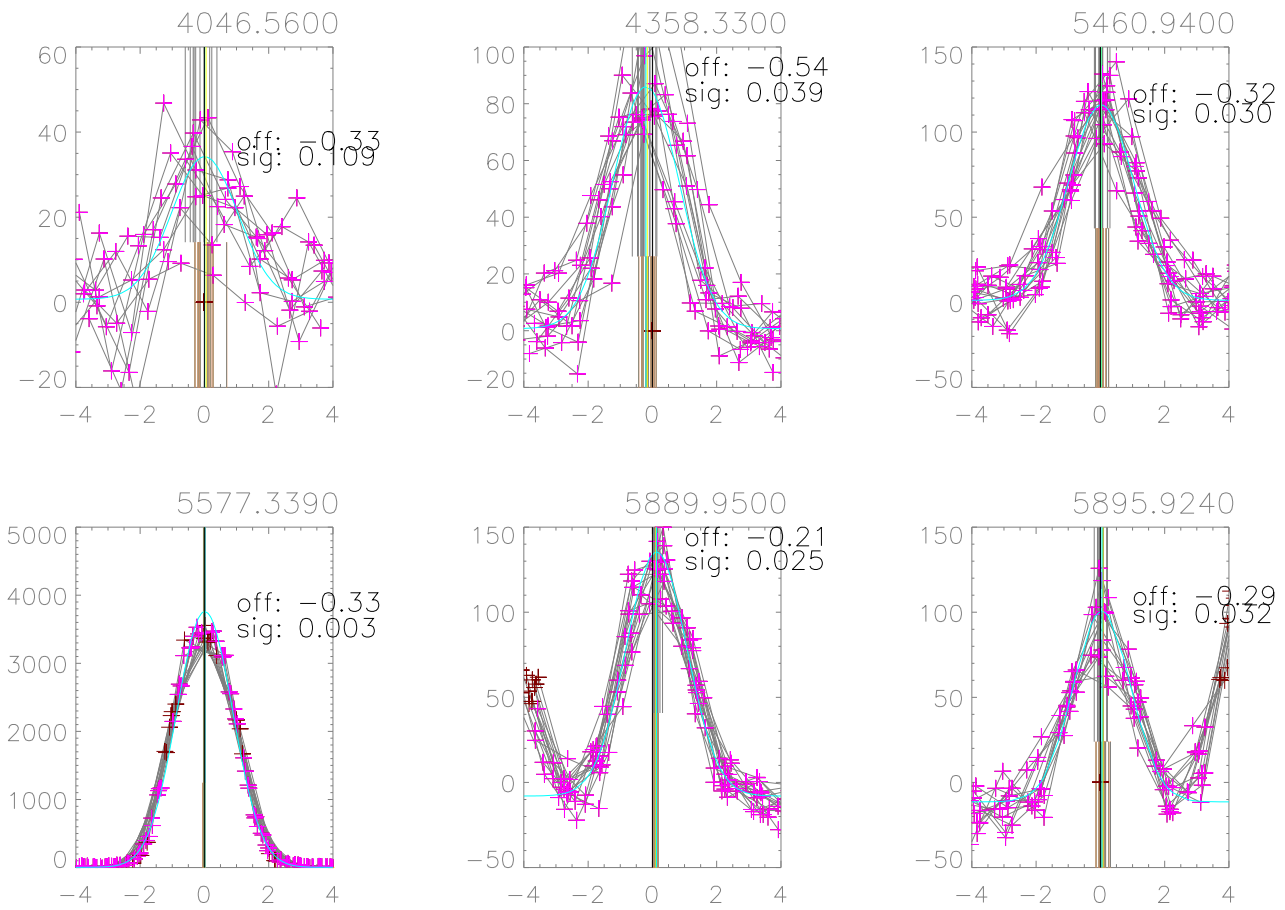

PLATE=0912 MJD=52427 Scattered Light before halo removal on sdR-b2-00015417.f
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
2.09
1.64
0

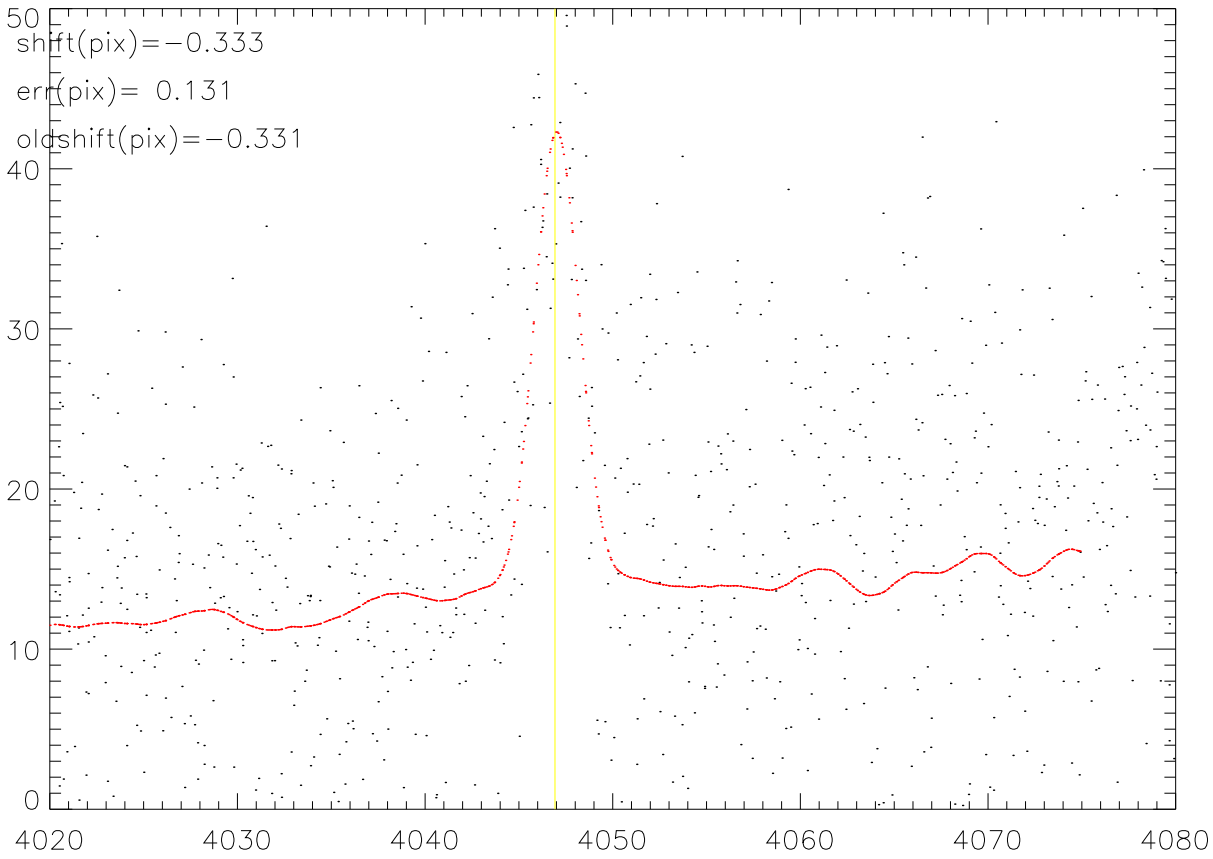

PLATE=0912 MJD=52427 Scattered Light before halo removal on sdR-b2-00015417.f
Brightness [electrons/pix]
3
2
1
0
Error bars denote full range
Min value = 1.652
Max value = 2.342
4000
4500
5000
5500
6000
λ [A]
Sun Feb 24 10:57:25 2008

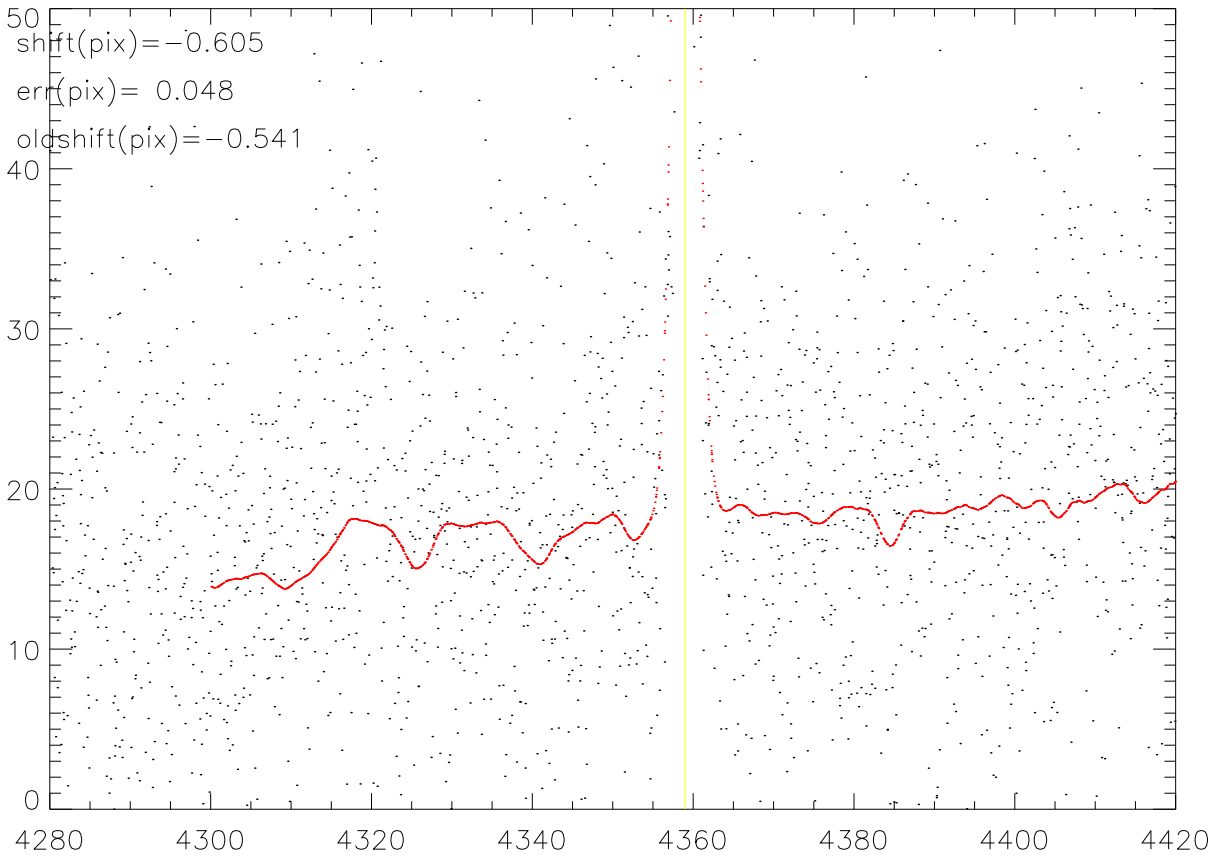

PLATE=0912 MJD=52427 Scattered Light on sdR-b2-00015417.fit
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
1.41
1.77
1.41
1.41
1.41
1.41
1.41
1.41
0
0
0

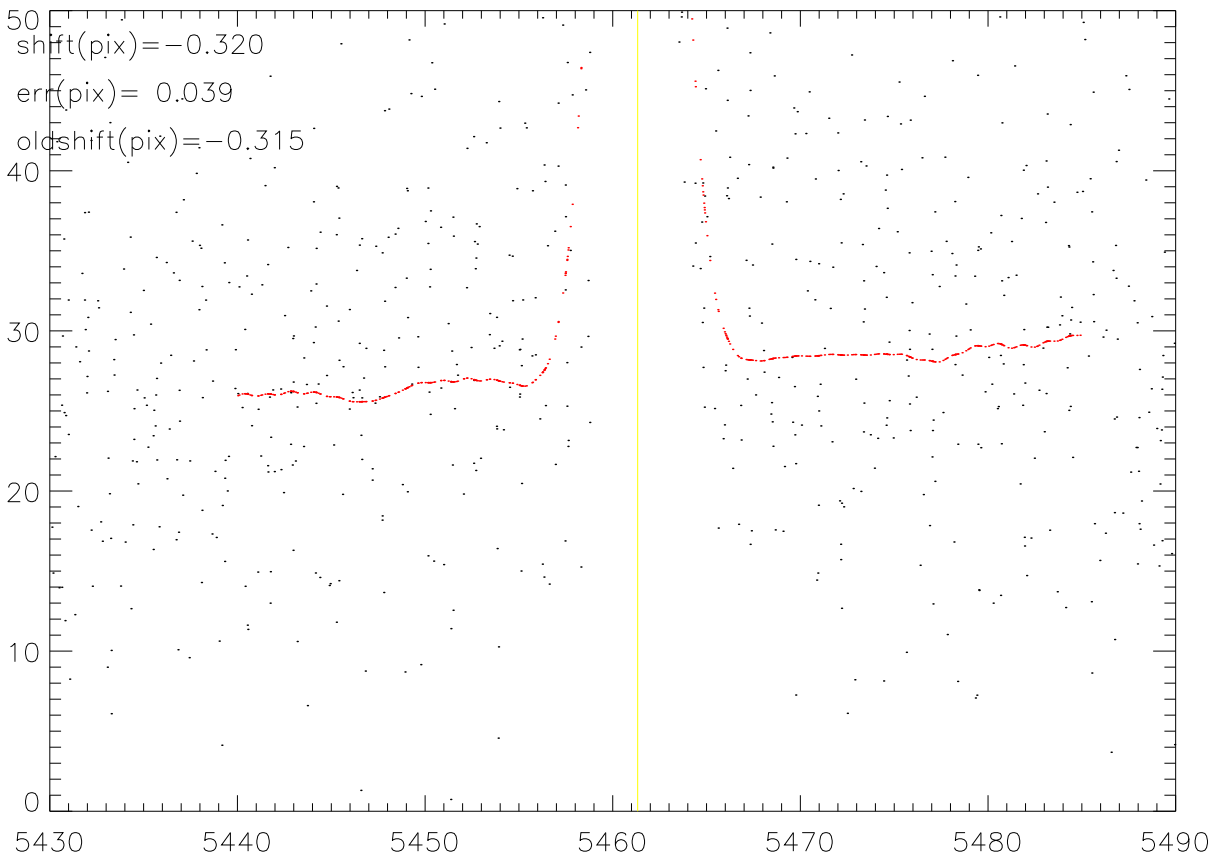

PLATE=0912 MJD=52427 Scattered Light on sdR-b2-00015417.fit
Brightness [electrons/pix]
2.5
2.0
1.5
1.0
0.5
0.0
Error bars denote full range
Min value = 1.191
Max value = 1.626
4000
4500
5000
5500
6000
λ [A]
Sun Feb 24 11:00:33 2008

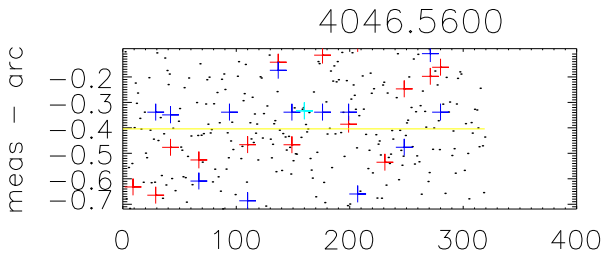

PLATE=0912 MJD=52427 Extraction chi^2 for sdR−b2−00015417.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
0
500
1000
1500
2000
Row number

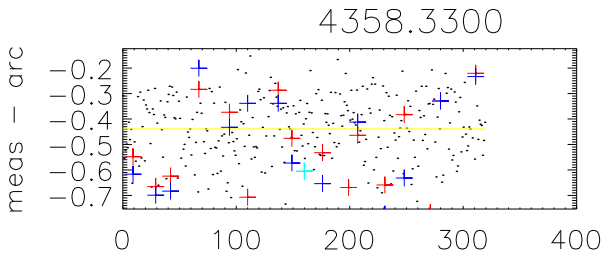

4046.5600
off: −0.33
sig: 0.109
4358.3300
off: −0.54
sig: 0.039
5460.9400
off: −0.32
sig: 0.030
5577.3390
off: −0.33
sig: 0.003
5889.9500
off: −0.21
sig: 0.025
5895.9240
off: −0.29
sig: 0.032

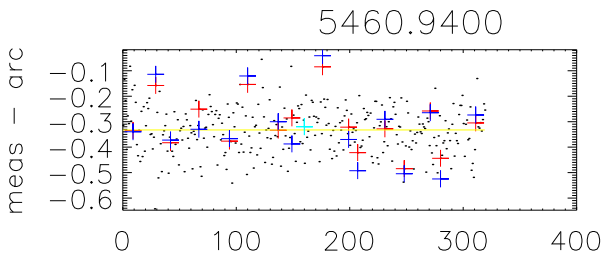

shift(pix)=−0.333
err(pix)= 0.131
oldshift(pix)=−0.331
50
40
30
20
10
0
4020
4030
4040
4050
4060
4070
4080

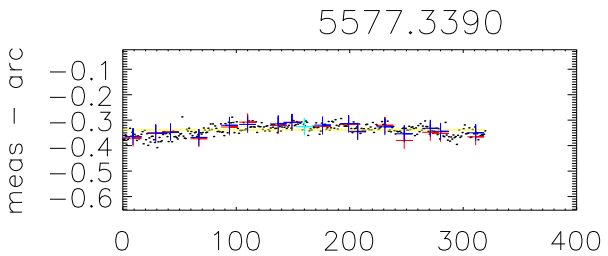

shift(pix)=−0.605
err(pix)= 0.048
oldshift(pix)=−0.541
50
40
30
20
10
0
4280
4300
4320
4340
4360
4380
4400
4420

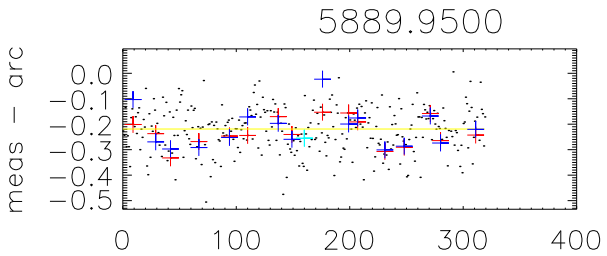

shift(pix)=−0.320
err(pix)= 0.039
oldshift(pix)=−0.315
50
40
30
20
10
0
5430
5440
5450
5460
5470
5480
5490

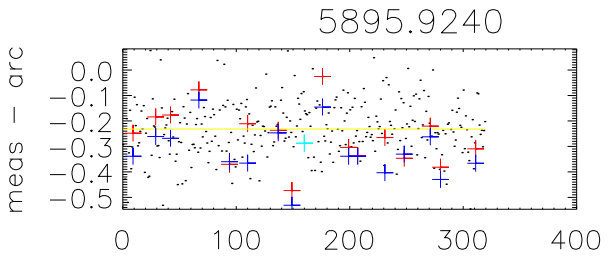

4046.5600
meas − arc
−0.2
−0.3
−0.4
−0.5
−0.6
−0.7
0
100
200
300
400

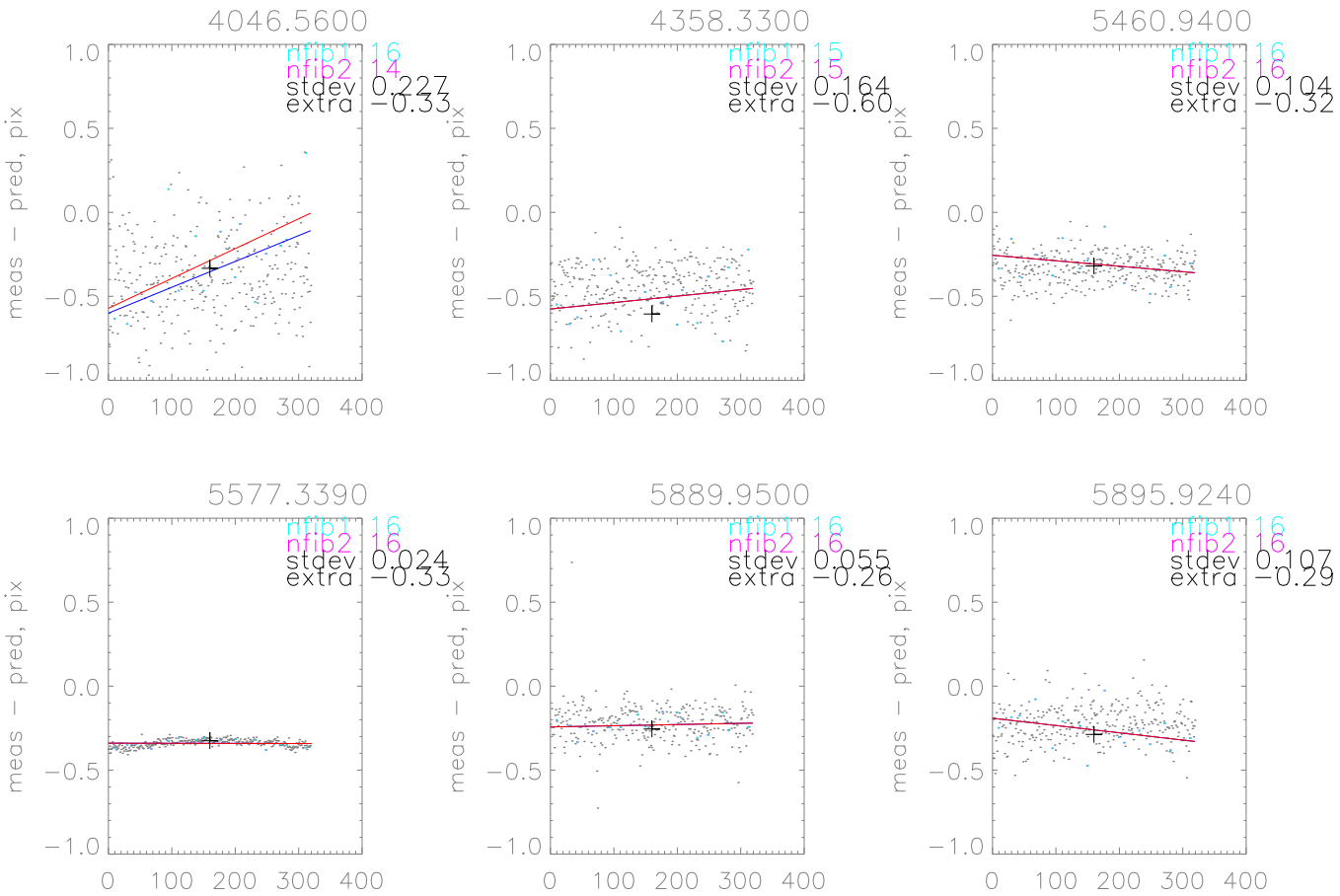

4358.3300
meas − arc
−0.2
−0.3
−0.4
−0.5
−0.6
−0.7
0
100
200
300
400

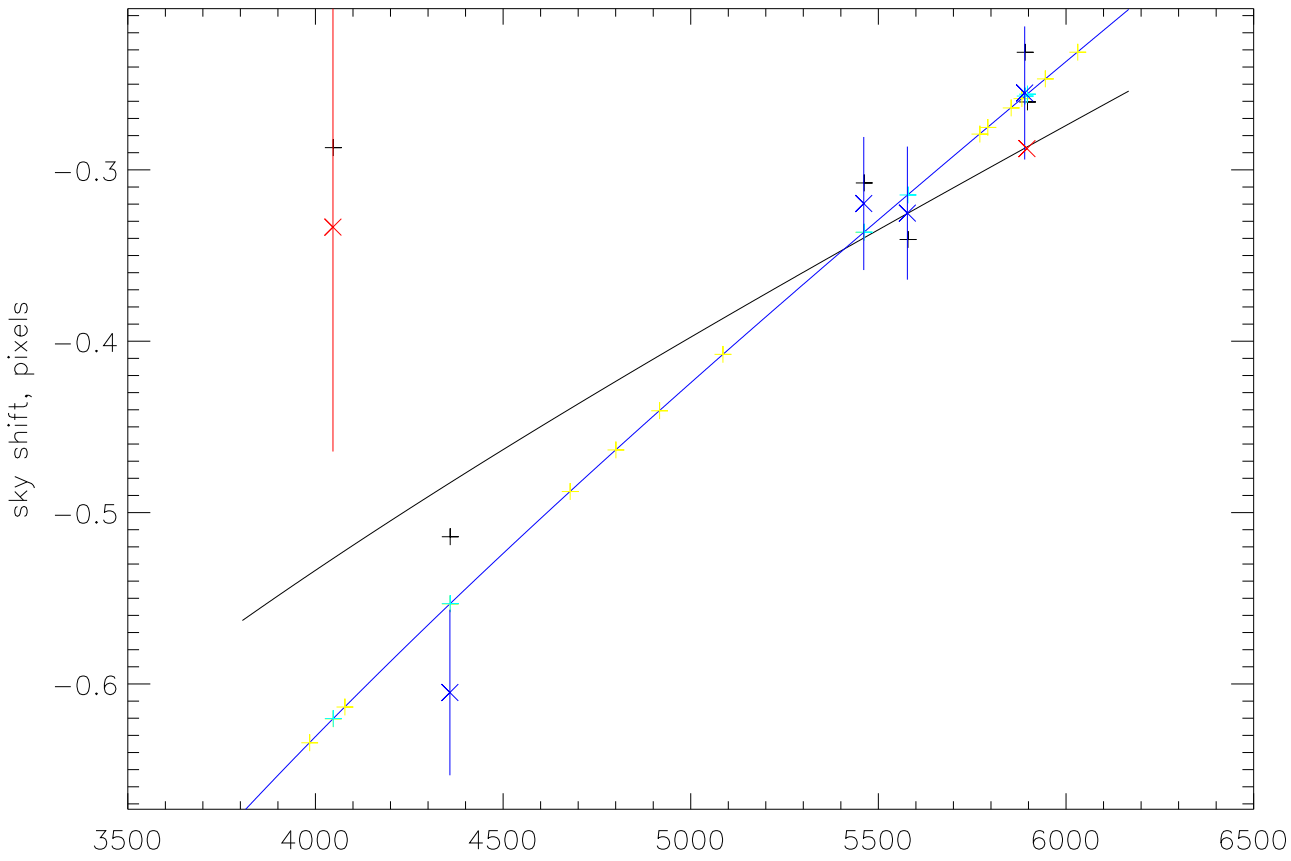

5460.9400
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

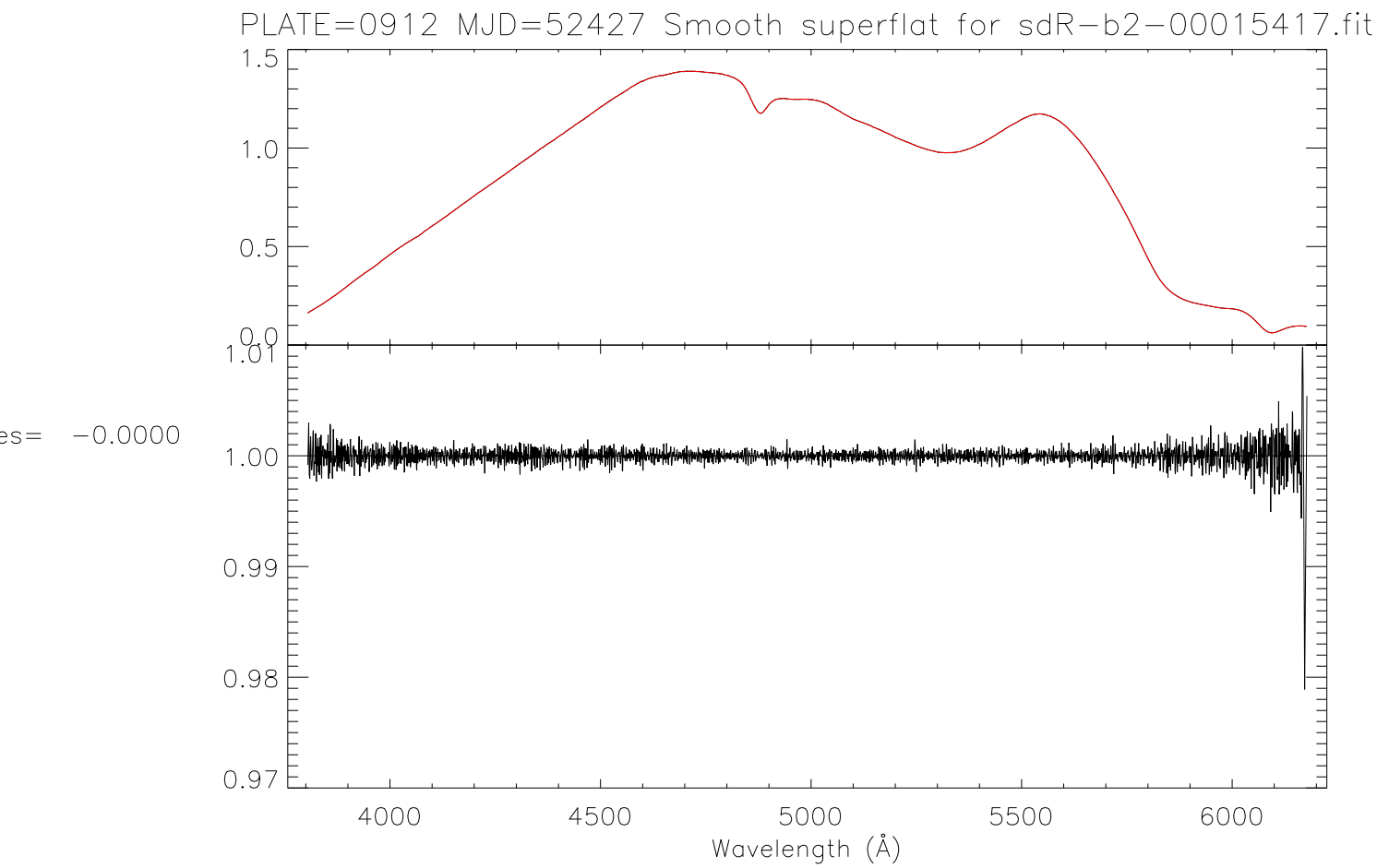

5577.3390
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400


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

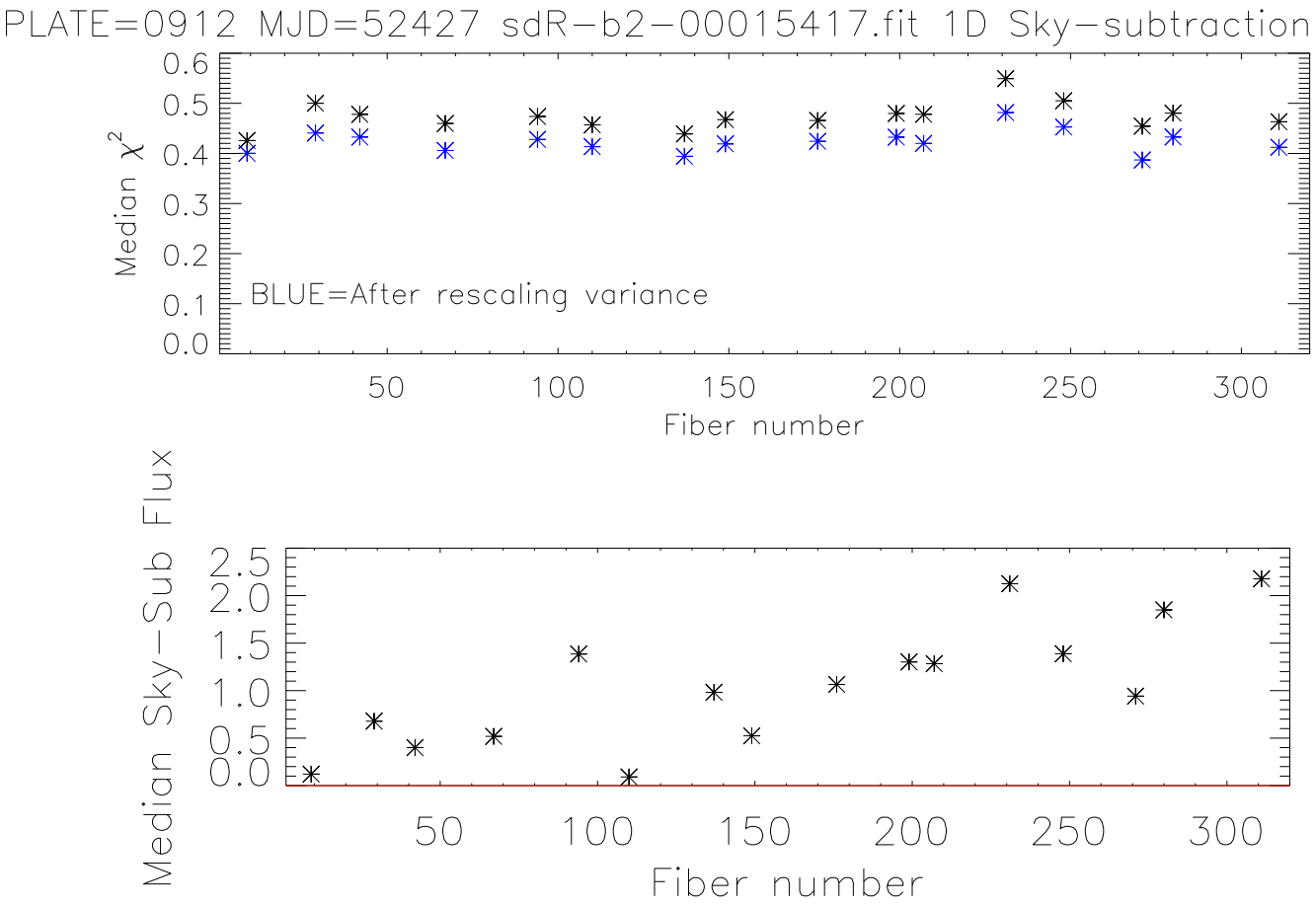

5895.9240
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

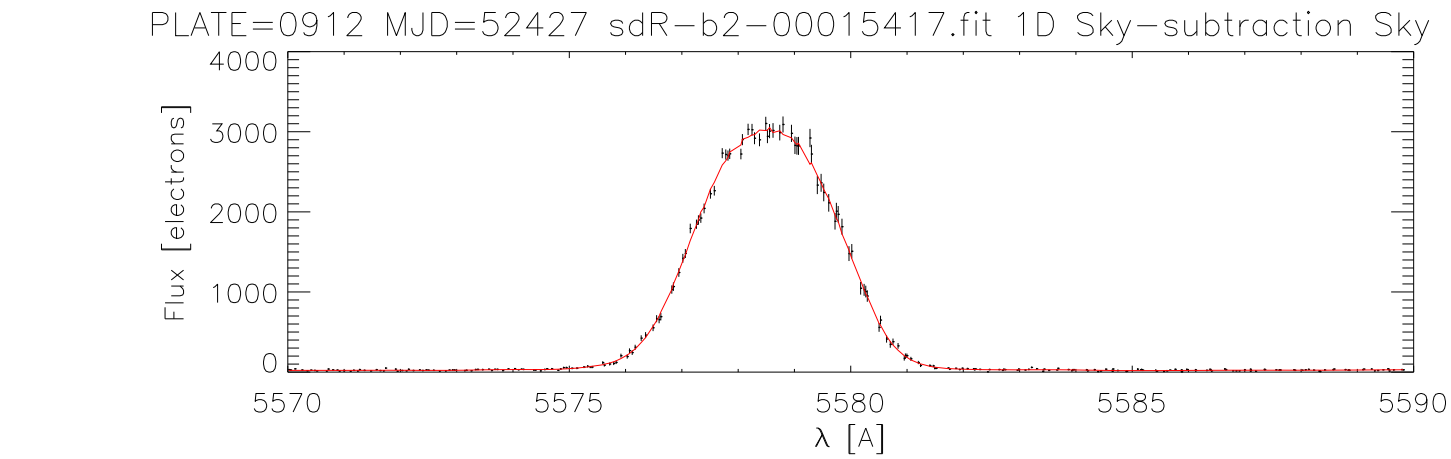

4046.5600
nfib1 16
nfib2 14
stdev 0.227
extra −0.33
4358.3300
nfib1 15
nfib2 15
stdev 0.164
extra −0.60
5460.9400
nfib1 16
nfib2 16
stdev 0.104
extra −0.32
5577.3390
nfib1 16
nfib2 16
stdev 0.024
extra −0.33
5889.9500
nfib1 16
nfib2 16
stdev 0.055
extra −0.26
5895.9240
nfib1 16
nfib2 16
stdev 0.107
extra −0.29
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

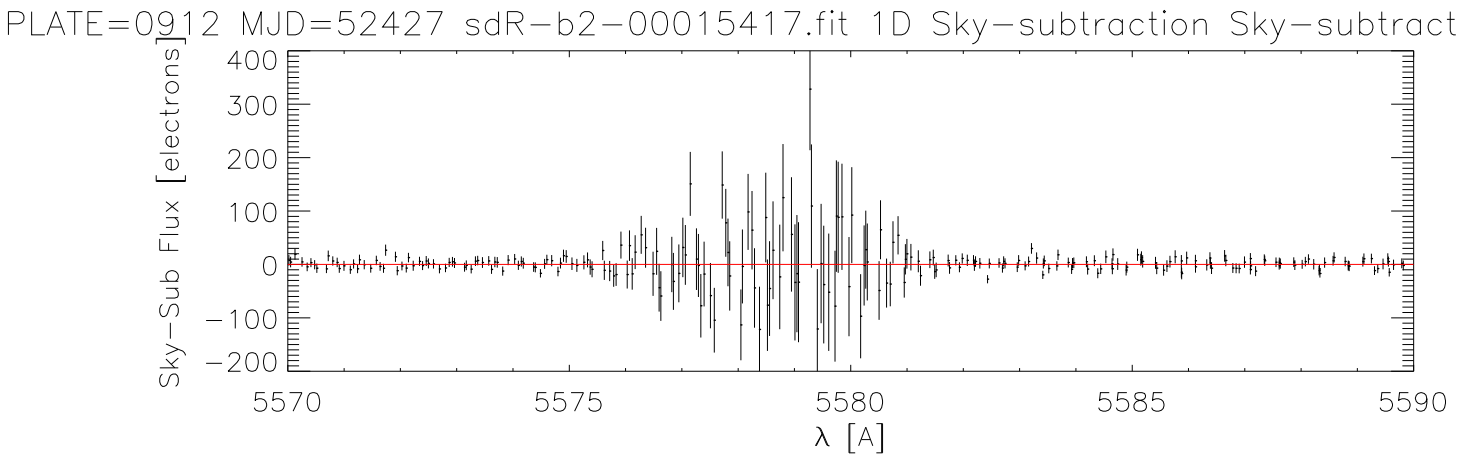

sky shift, pixels
−0.3
−0.4
−0.5
−0.6
3500
4000
4500
5000
5500
6000
6500

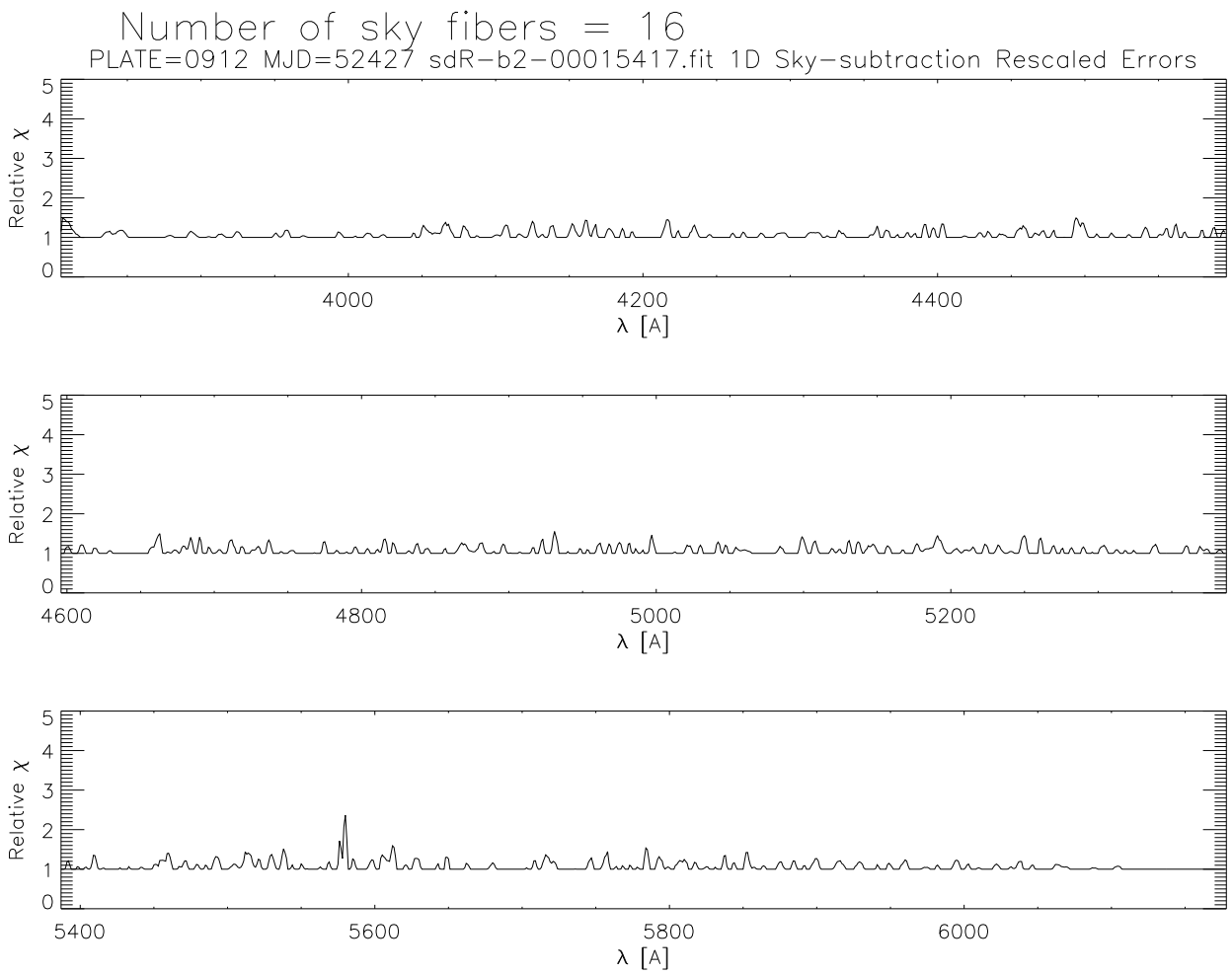

PLATE=0912 MJD=52427 Smooth superflat for sdR-b2-00015417.fit
1.5
1.0
0.5
0.0
1.01
1.00
0.99
0.98
0.97
4000
4500
5000
5500
6000
Wavelength (Å)

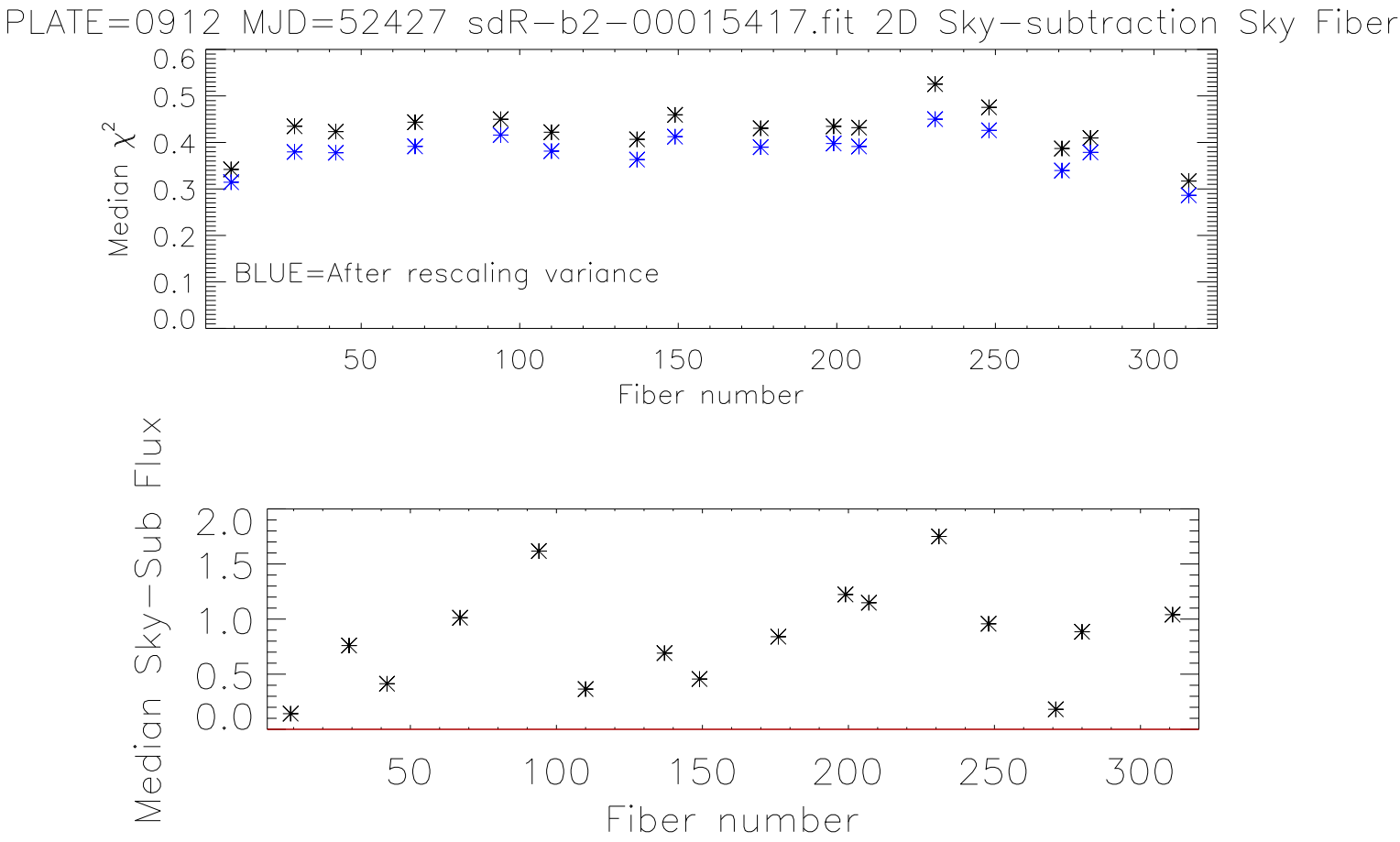
es= −0.0000

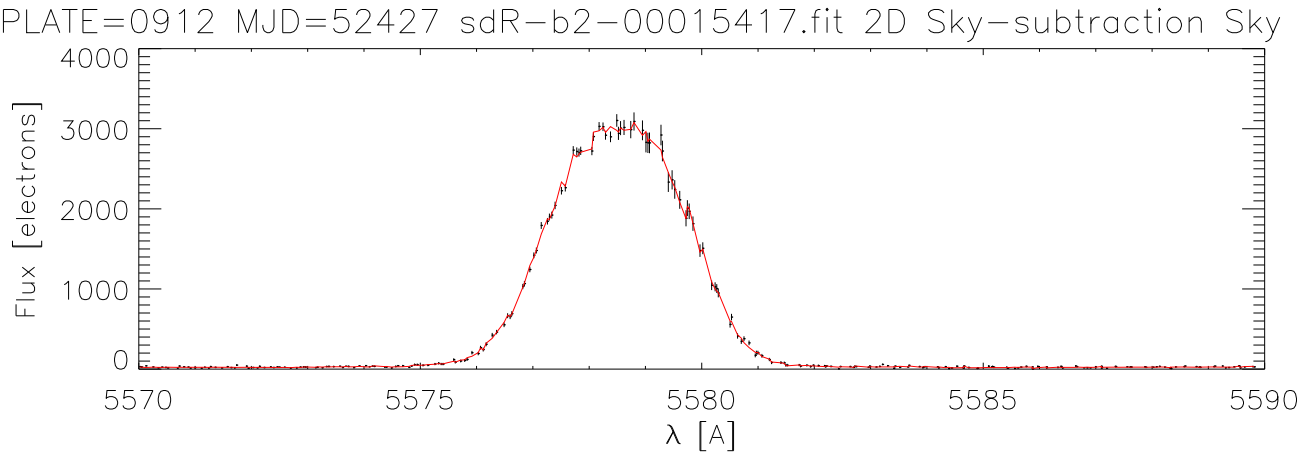

PLATE=0912 MJD=52427 sdR-b2-00015417.fit 1D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

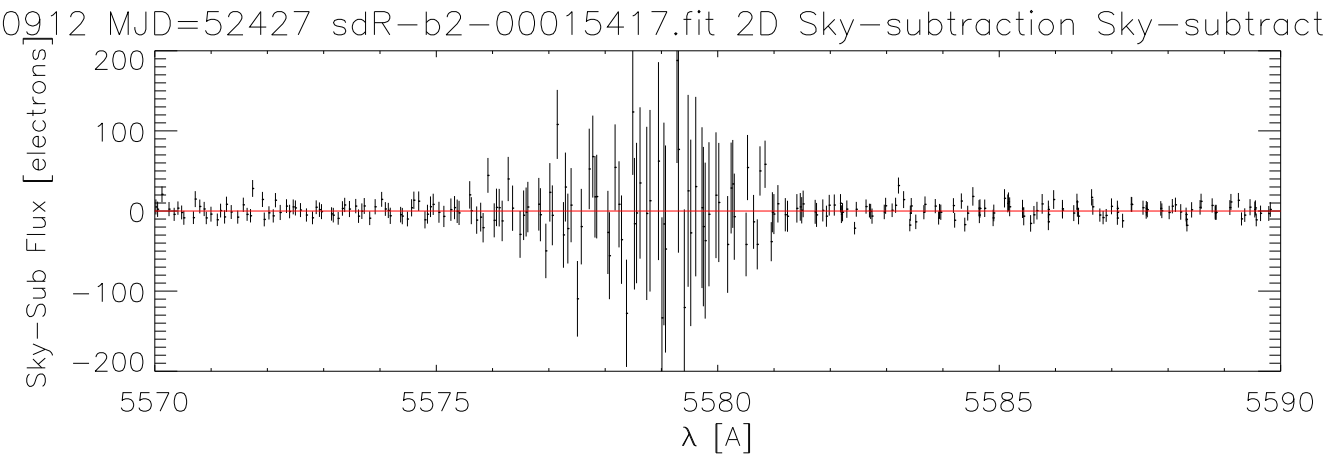

PLATE=0912 MJD=52427 sdR-b2-00015417.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

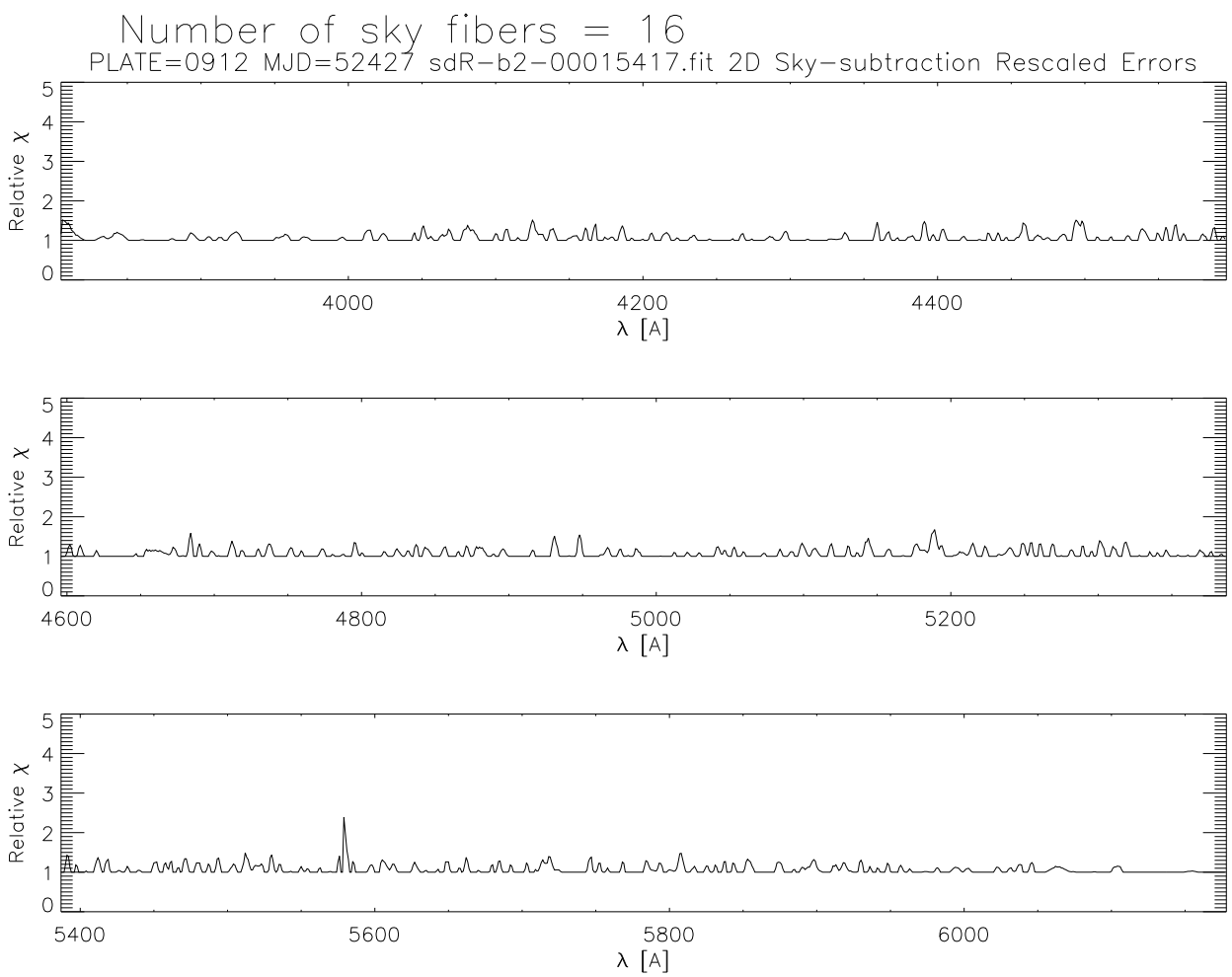

PLATE=0912 MJD=52427 sdR-b2-00015417.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
300
200
100
0
-100
-200
5570
5575
5580
5585
5590
λ [A]

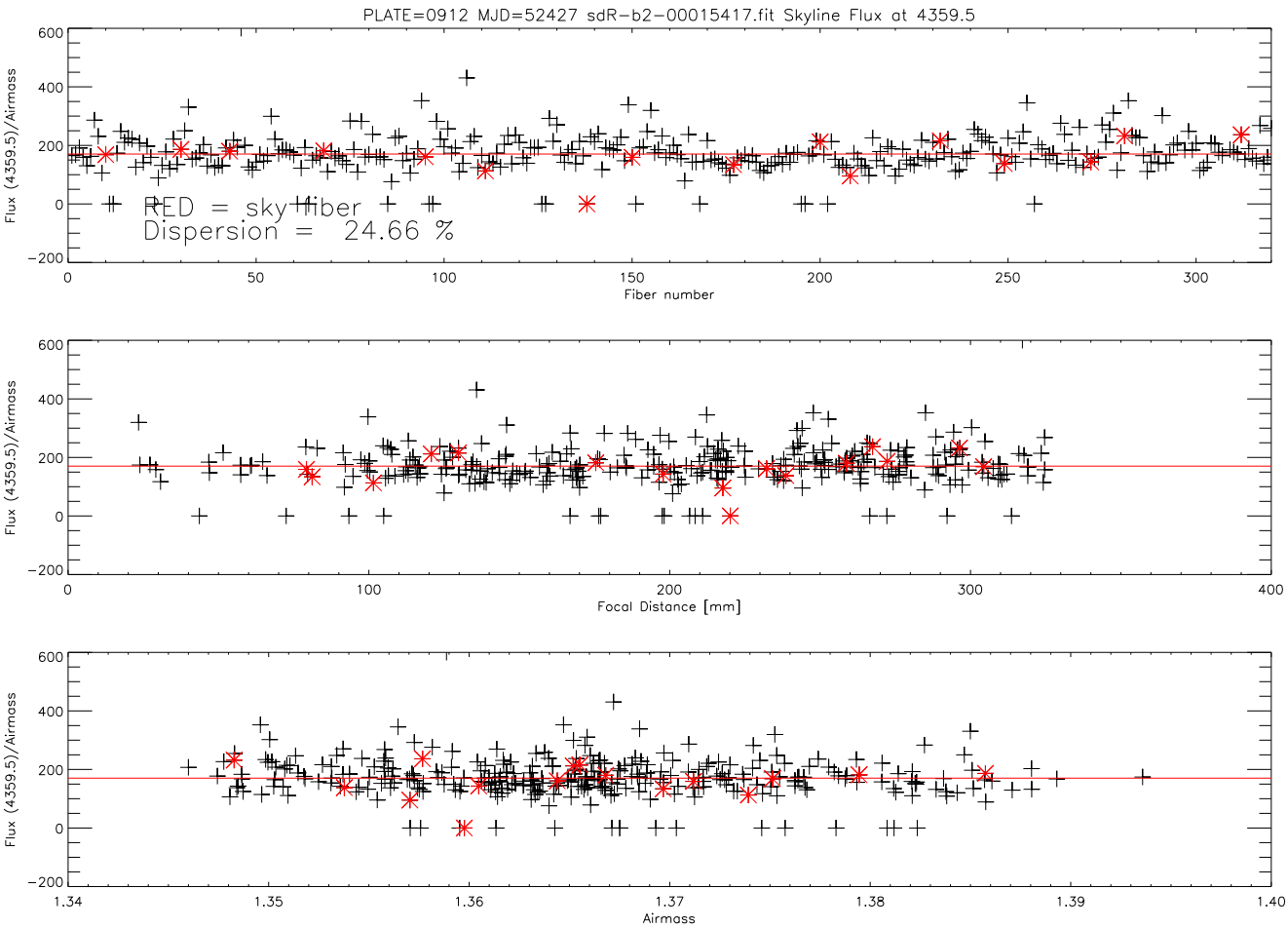

Number of sky fibers = 16
PLATE=0912 MJD=52427 sdR-b2-00015417.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

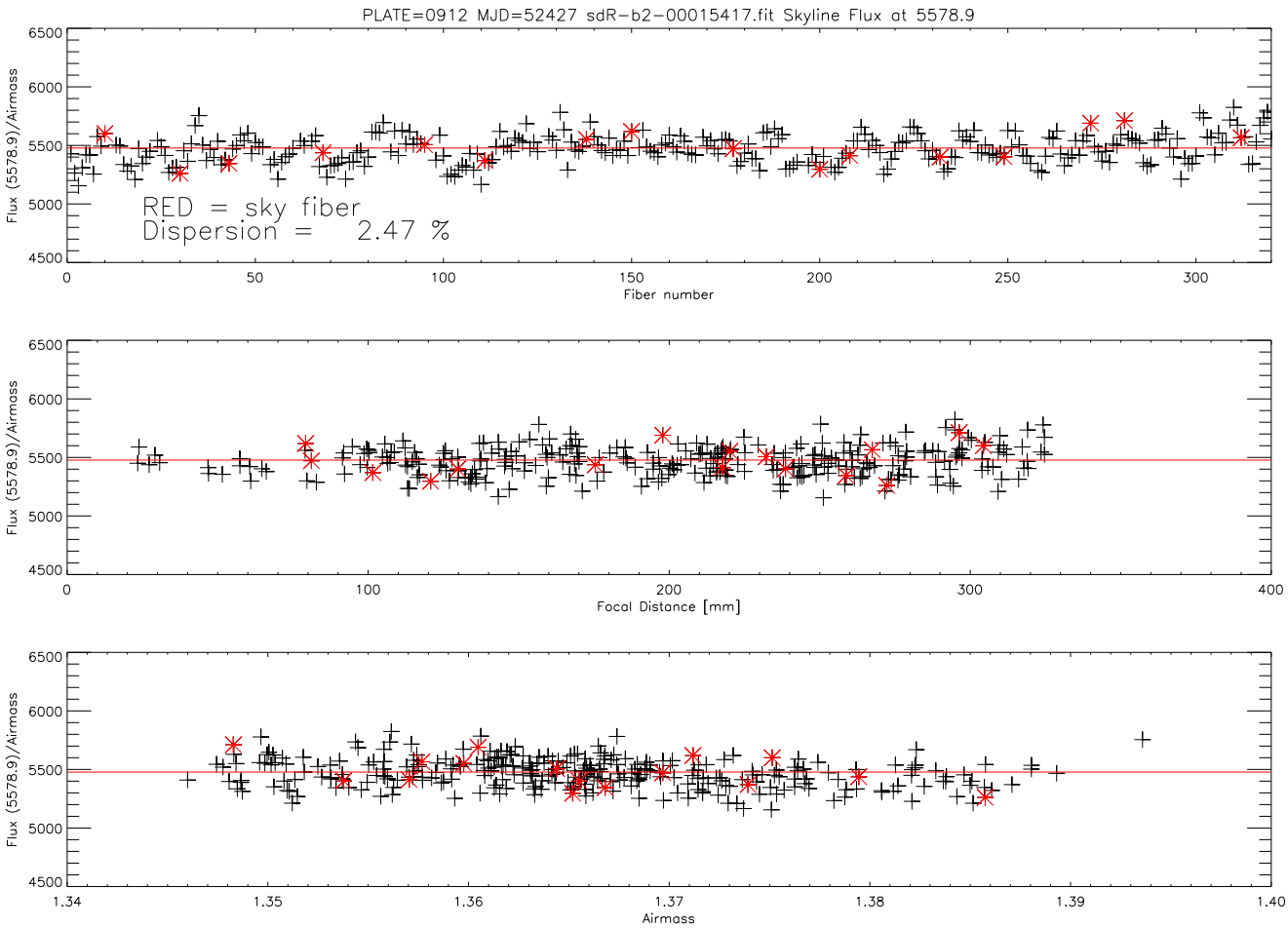

PLATE=0912 MJD=52427 sdR-b2-00015417.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

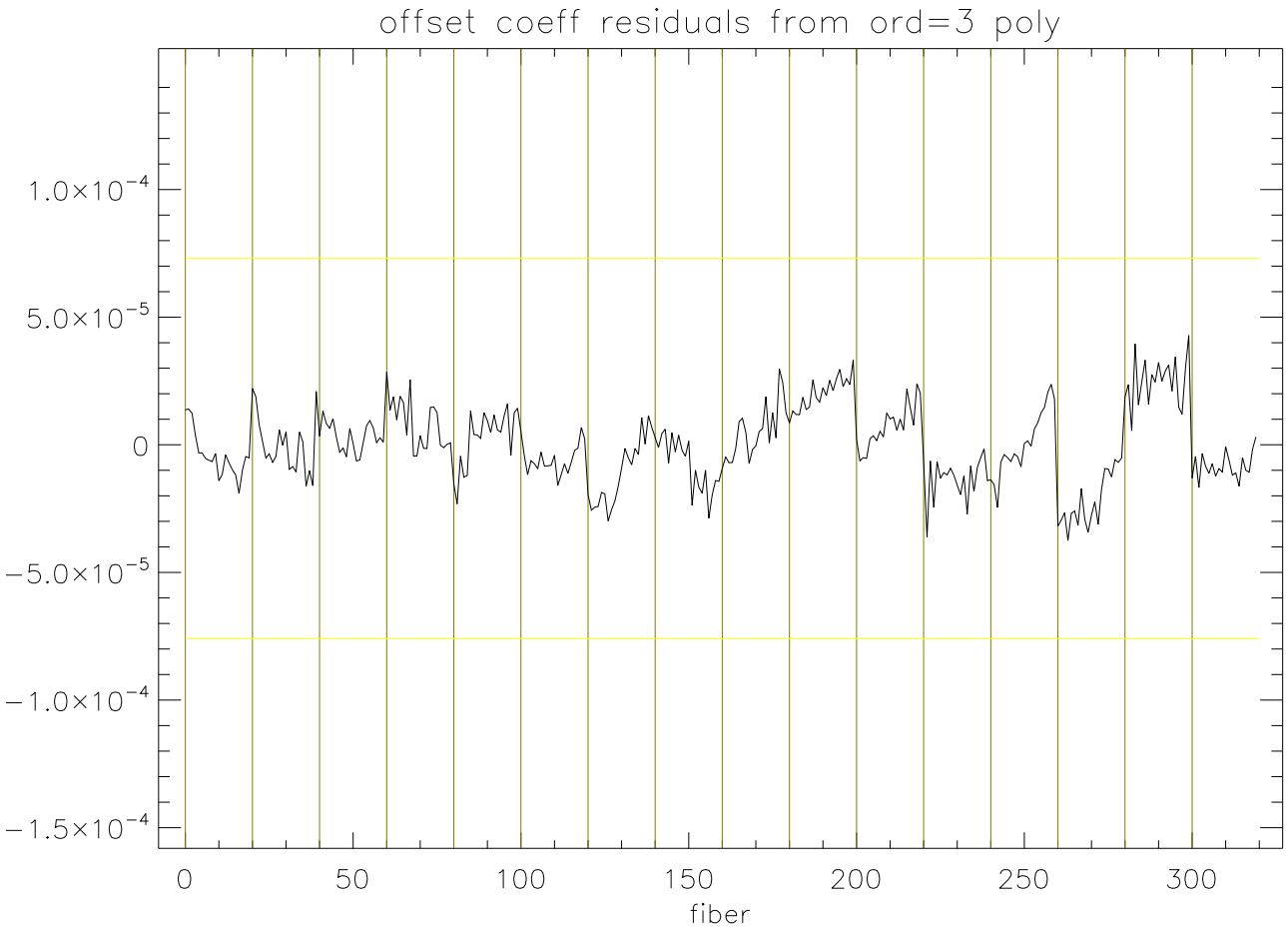

PLATE=0912 MJD=52427 sdR-b2-00015417.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

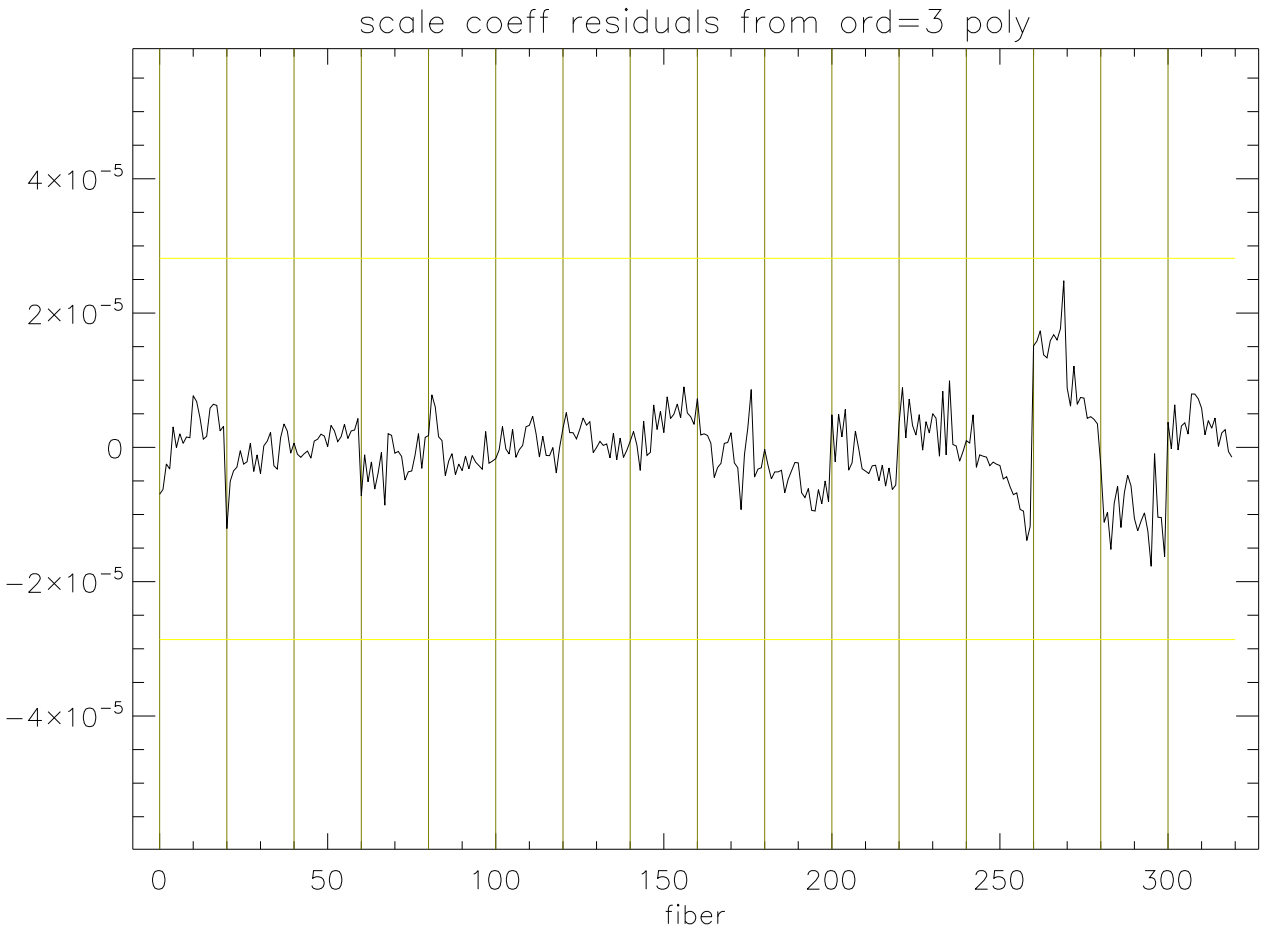

PLATE=0912 MJD=52427 sdR-b2-00015417.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
5570
5575
5580
5585
5590
λ [A]

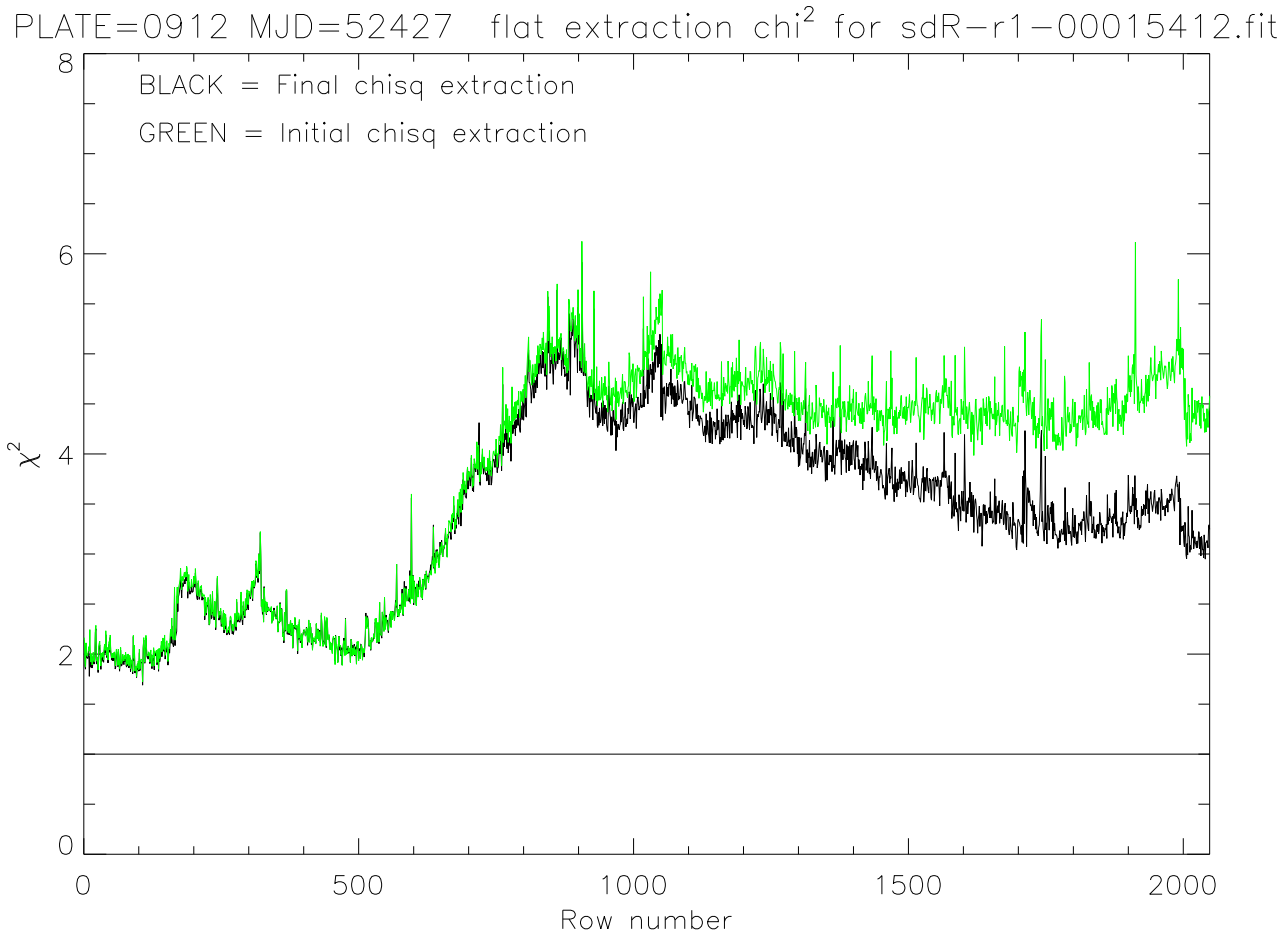

Number of sky fibers = 16
PLATE=0912 MJD=52427 sdR-b2-00015417.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

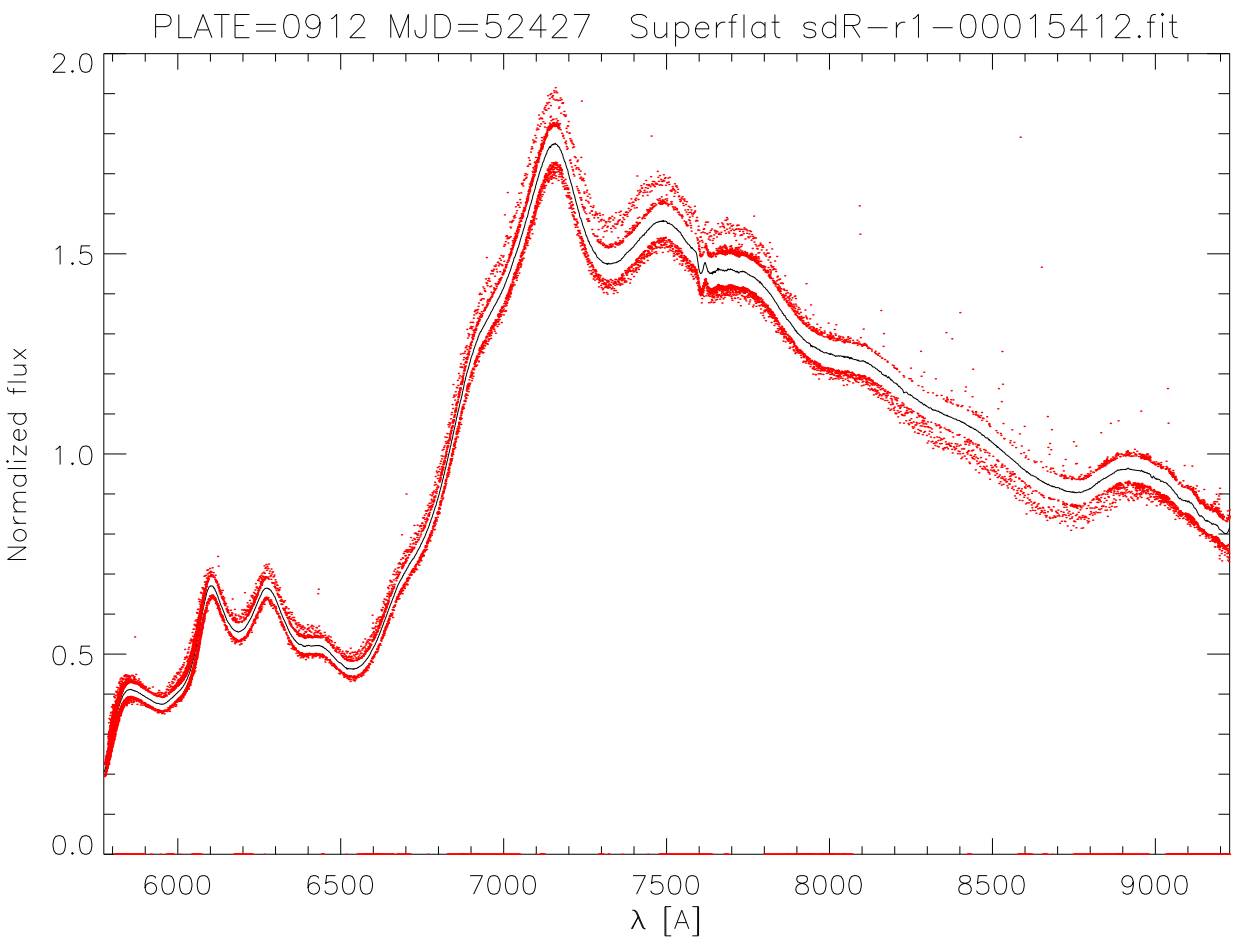

PLATE=0912 MJD=52427 sdR-b2-00015417.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 24.66 %
Fiber number
Focal Distance [mm]
Airmass

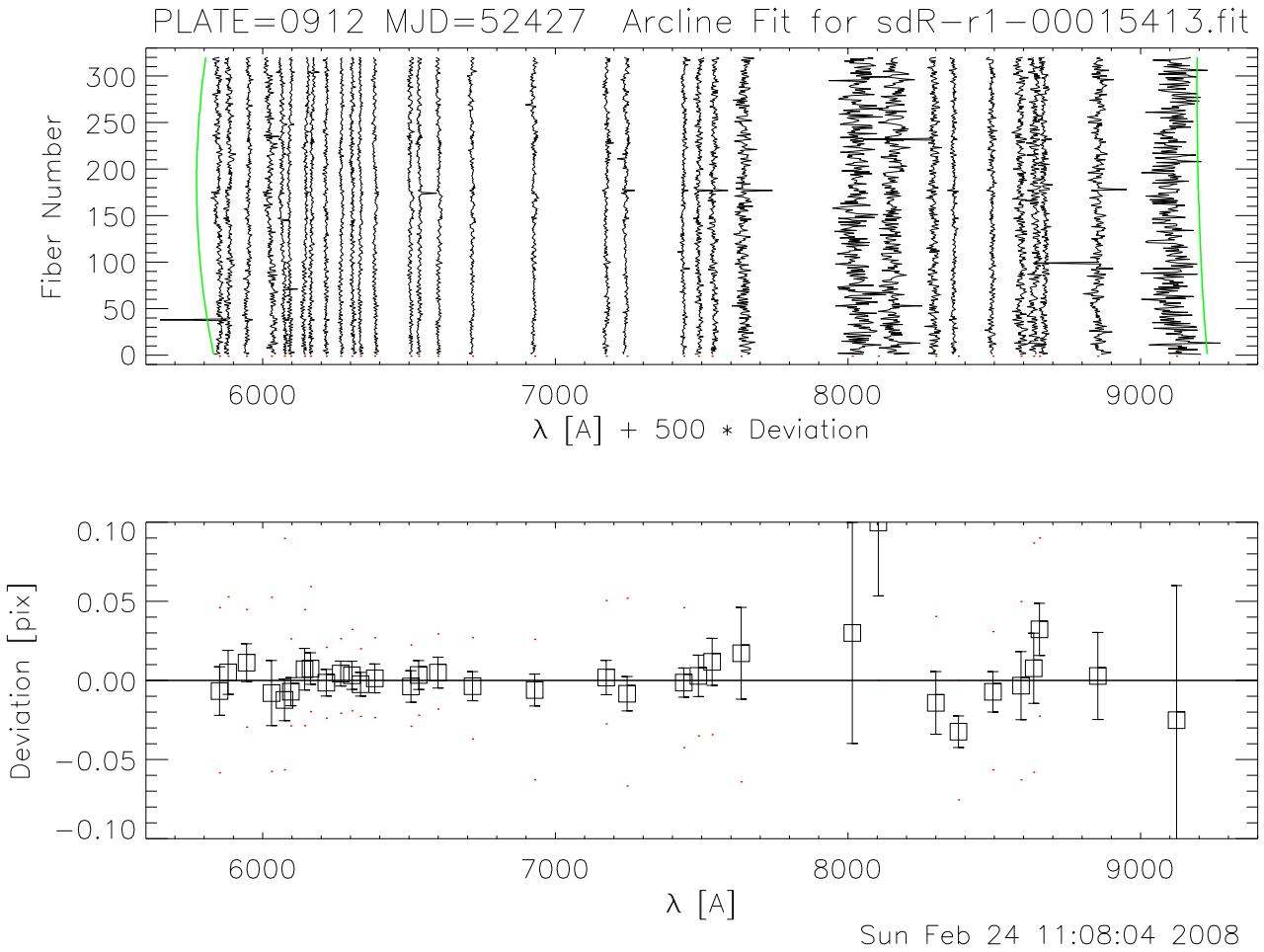

PLATE=0912 MJD=52427 sdR-b2-00015417.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 2.47 %
Fiber number
Flux (5578.9)/Airmass
Focal Distance [mm]
Flux (5578.9)/Airmass
Airmass

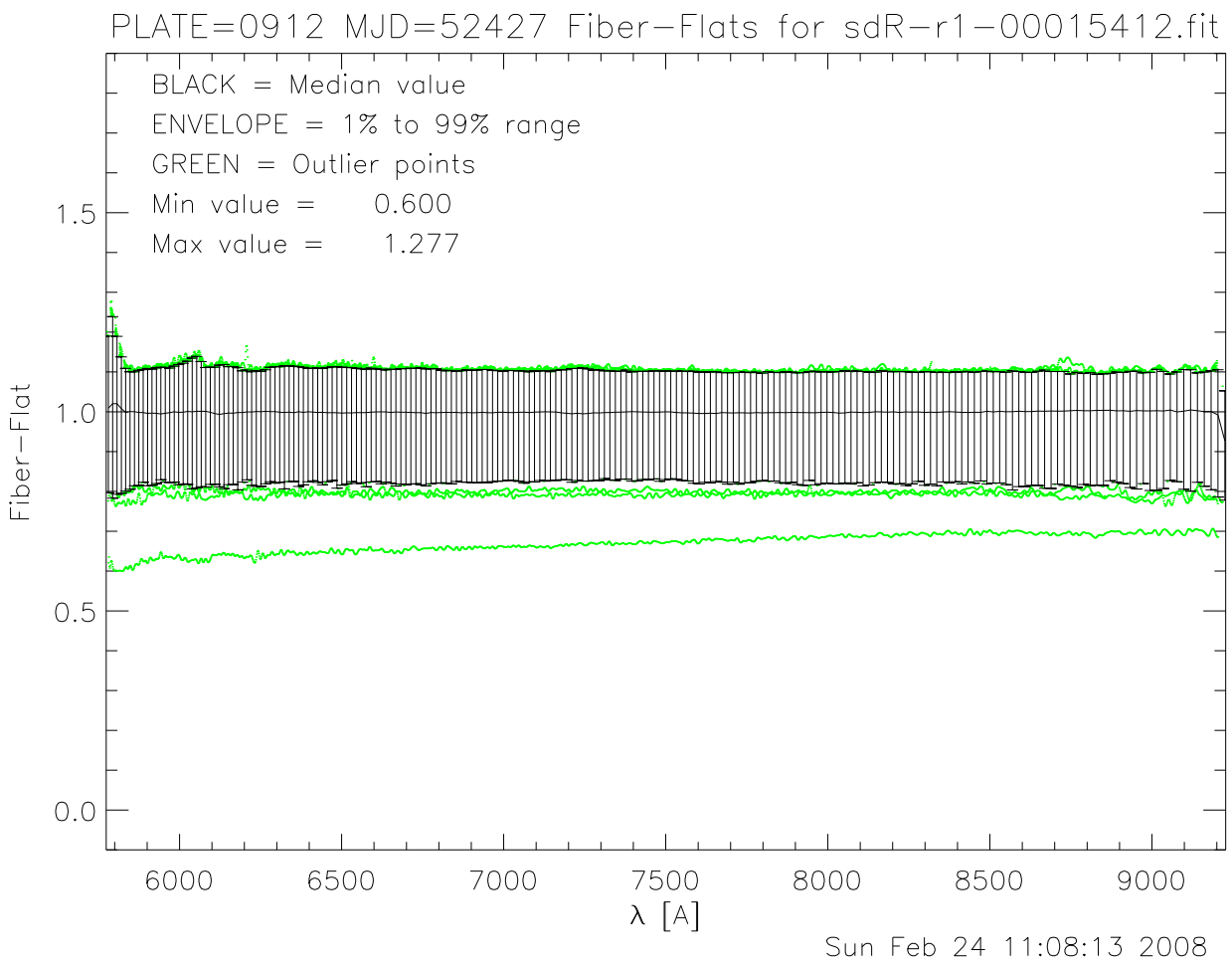

offset coeff residuals from ord=3 poly
1.0×10^-4
5.0×10^-5
0
−5.0×10^-5
−1.0×10^-4
−1.5×10^-4
0
50
100
150
200
250
300
fiber

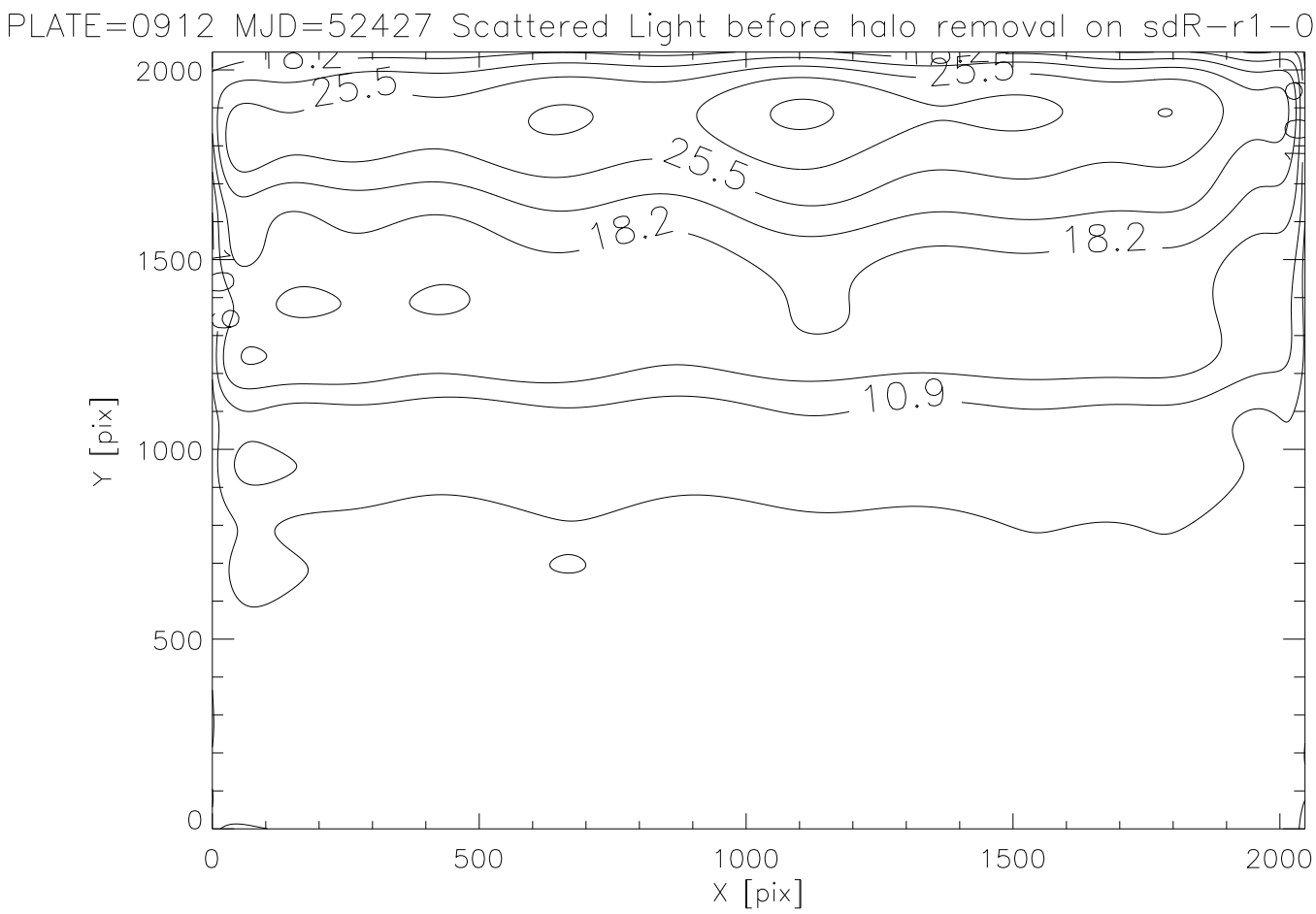

scale coeff residuals from ord=3 poly
4×10⁻⁵
2×10⁻⁵
0
−2×10⁻⁵
−4×10⁻⁵
0
50
100
150
200
250
300
fiber

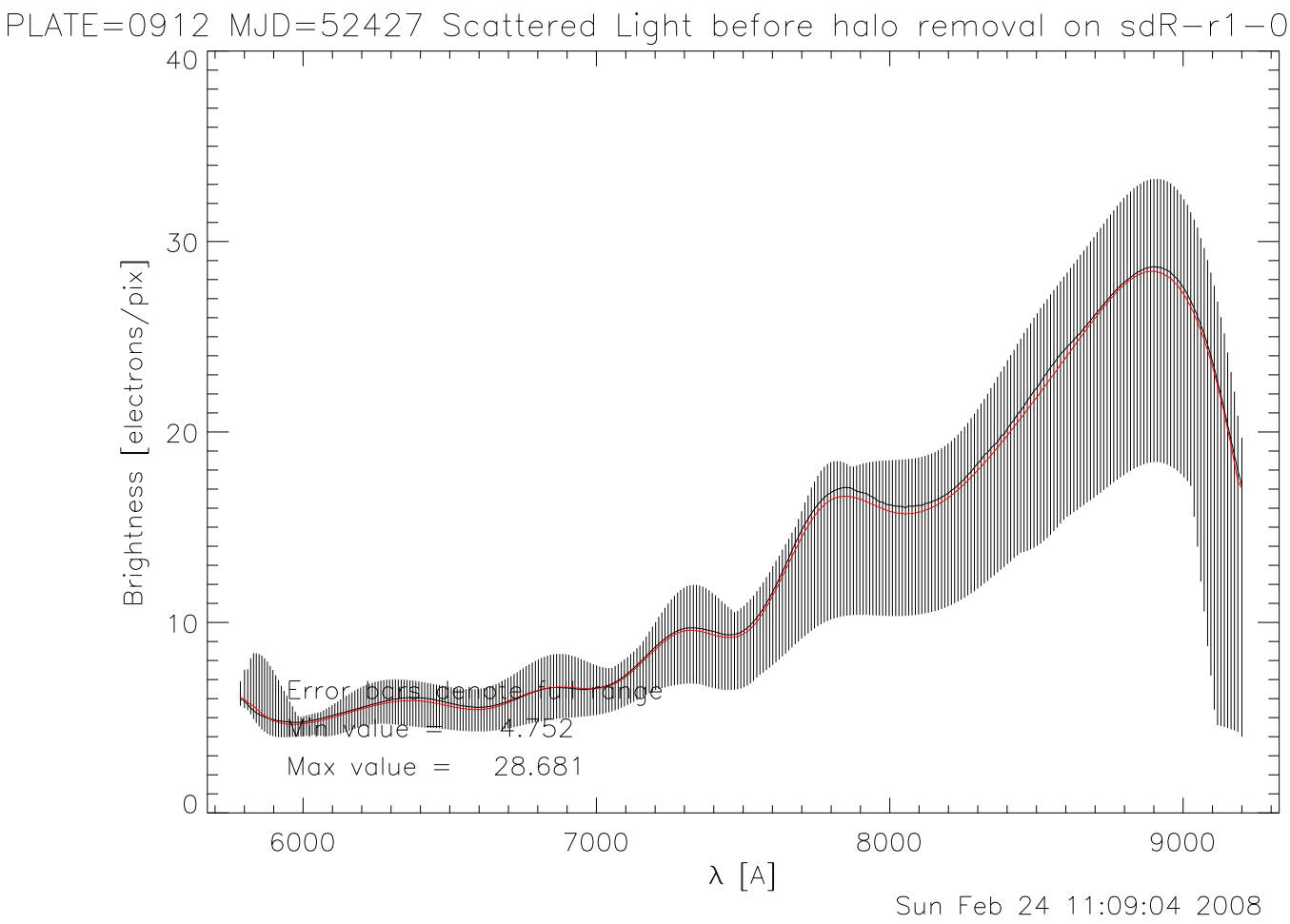

PLATE=0912 MJD=52427 flat extraction chi^2 for sdR−r1−00015412.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
0
500
1000
1500
2000
Row number

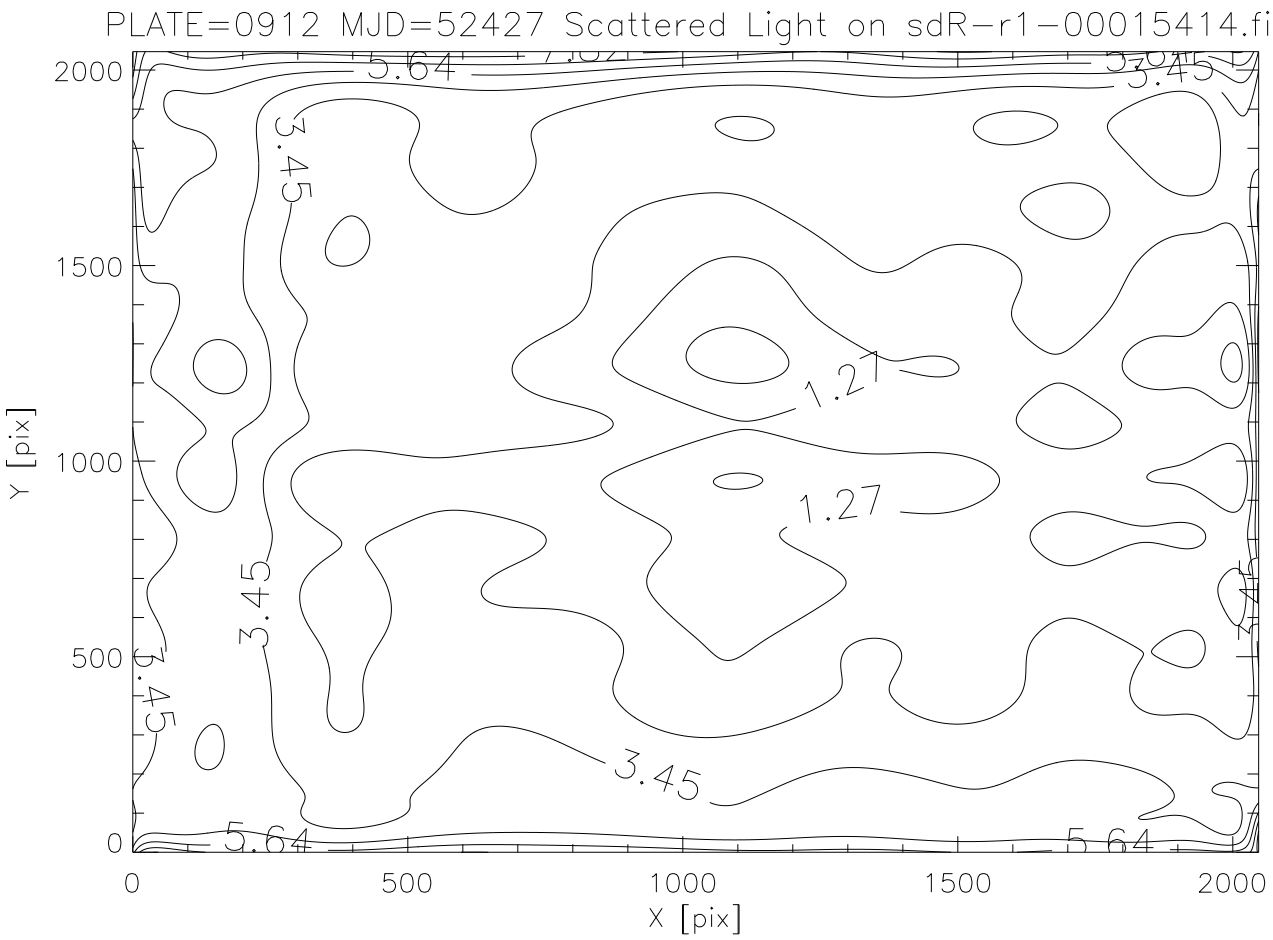

PLATE=0912 MJD=52427 Superflat sdR-r1-00015412.fit
Normalized flux
2.0
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

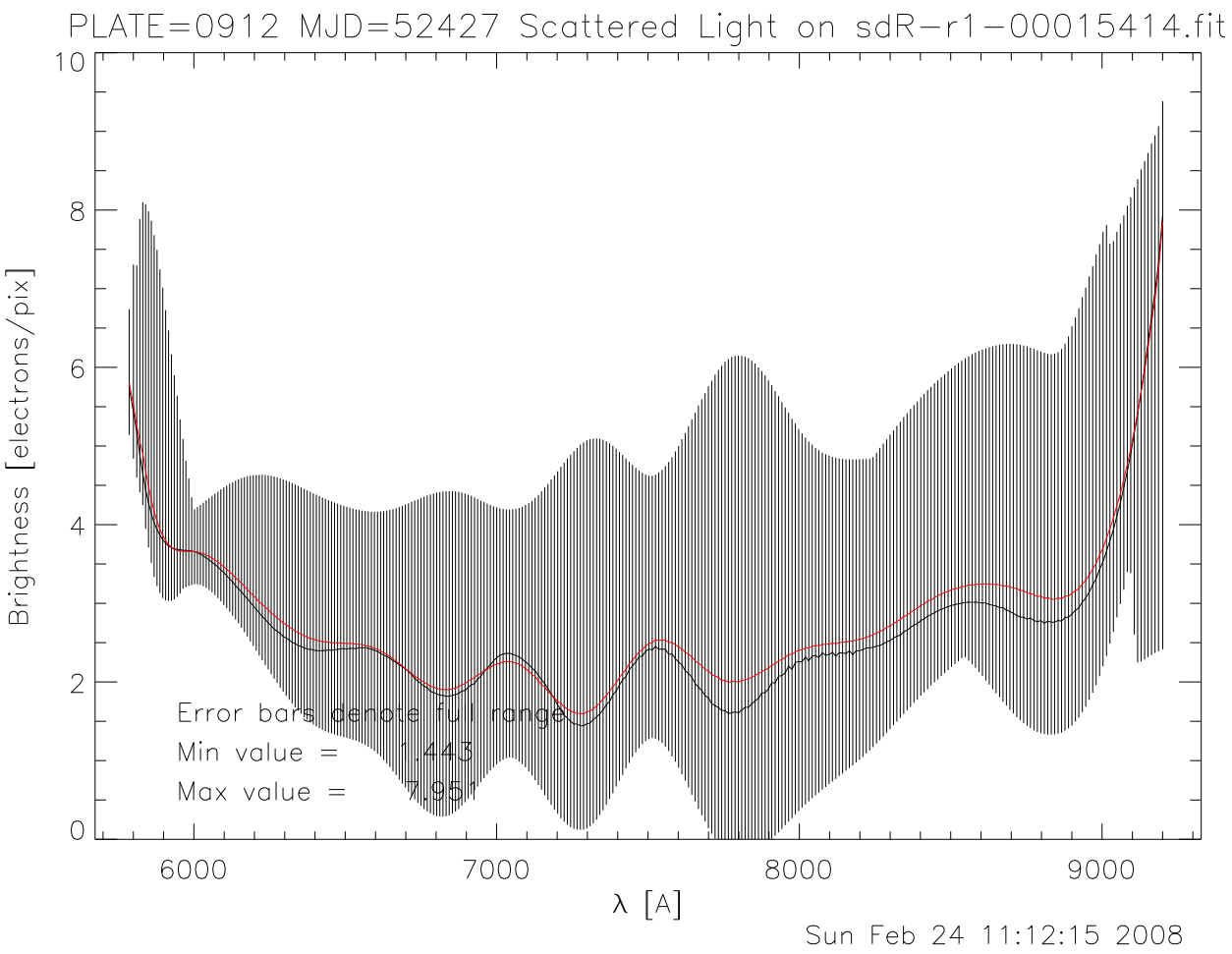

PLATE=0912 MJD=52427 Arcline Fit for sdR-r1-00015413.fit
Fiber Number
300
250
200
150
100
50
0
6000
7000
8000
9000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
6000
7000
8000
9000
λ [A]
Sun Feb 24 11:08:04 2008

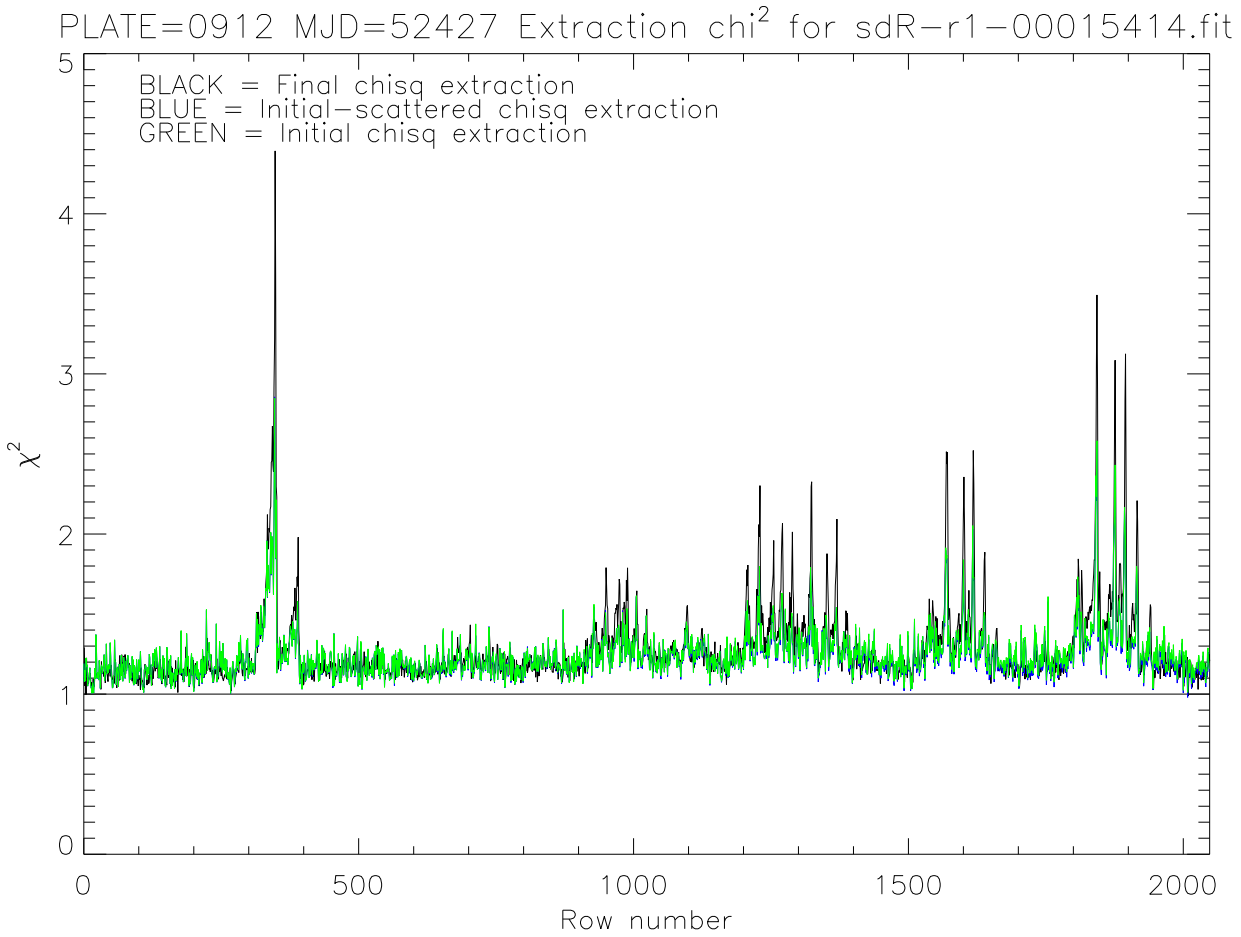

PLATE=0912 MJD=52427 Fiber−Flats for sdR−r1−00015412.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.600
Max value = 1.277
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sun Feb 24 11:08:13 2008

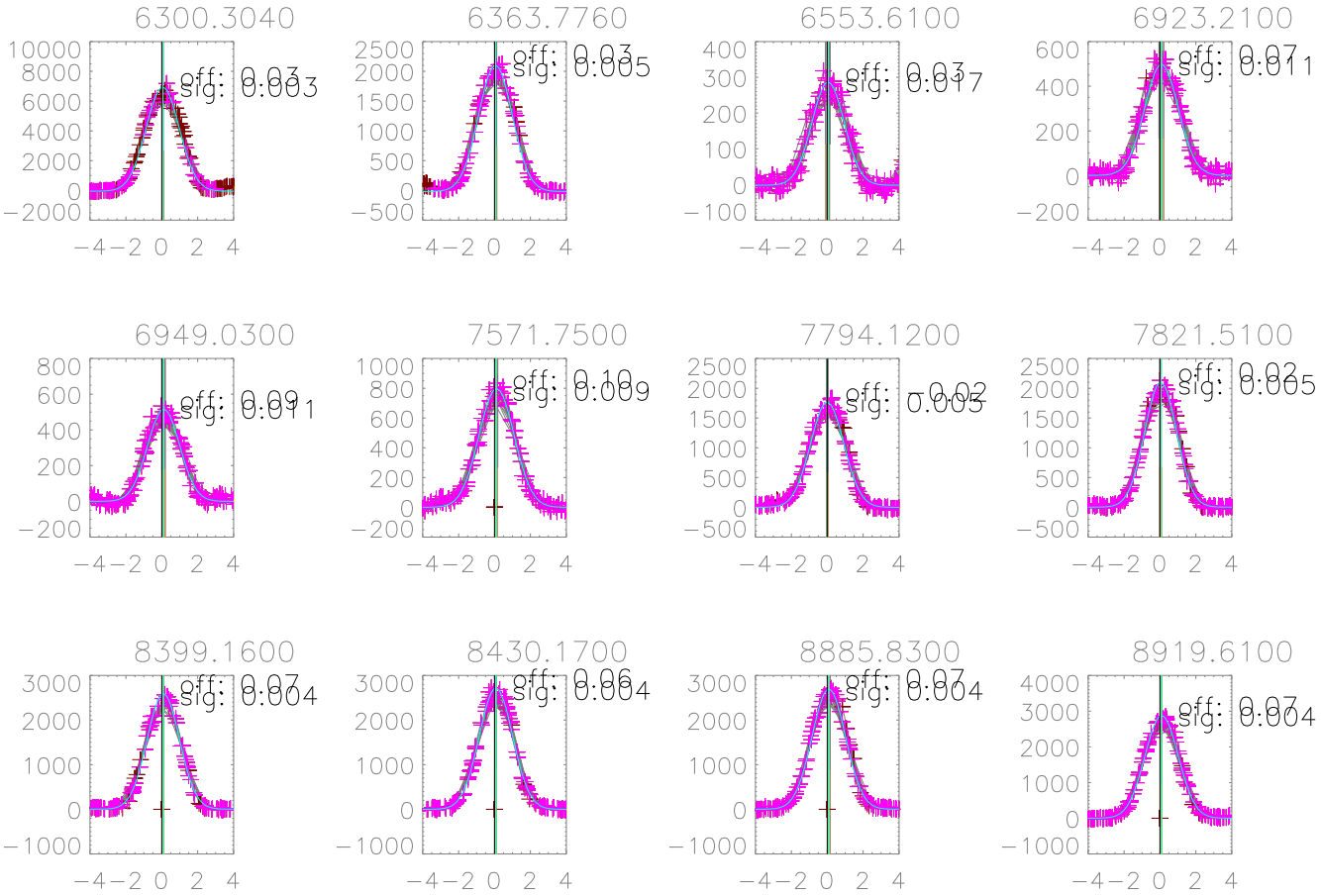

PLATE=0912 MJD=52427 Scattered Light before halo removal on sdR-r1-00015414.fi
25.5
25.5
25.5
18.2
18.2
10.9
Y [pix]
X [pix]
0
500
1000
1500
2000

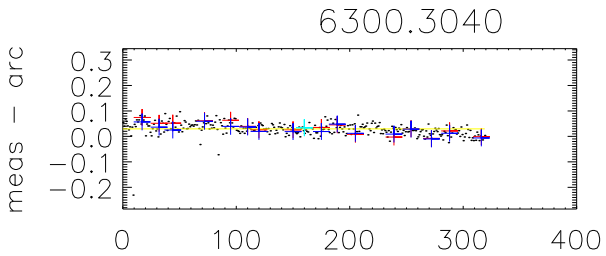

PLATE=0912 MJD=52427 Scattered Light before halo removal on sdR-r1-00015414.fi
Brightness [electrons/pix]
λ [A]
Error bars denote 1σ range
Min value = 4.752
Max value = 28.681
Sun Feb 24 11:09:04 2008

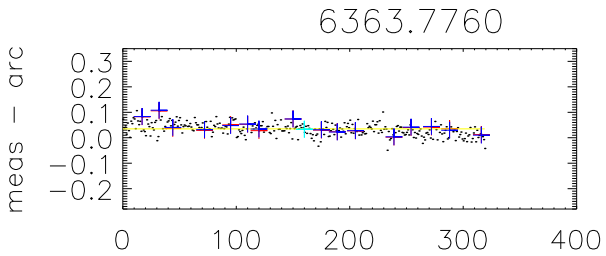

PLATE=0912 MJD=52427 Scattered Light on sdR-r1-00015414.fit
5.64
3.45
1.27
Y [pix]
X [pix]
0
500
1000
1500
2000

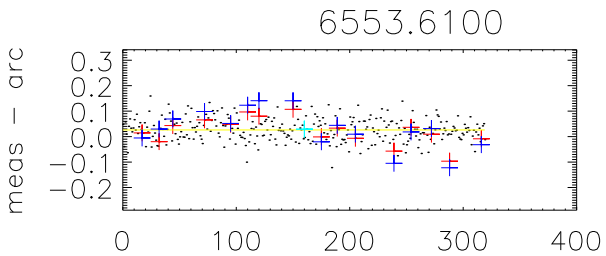

PLATE=0912 MJD=52427 Scattered Light on sdR-r1-00015414.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 1.443
Max value = 7.951
Sun Feb 24 11:12:15 2008

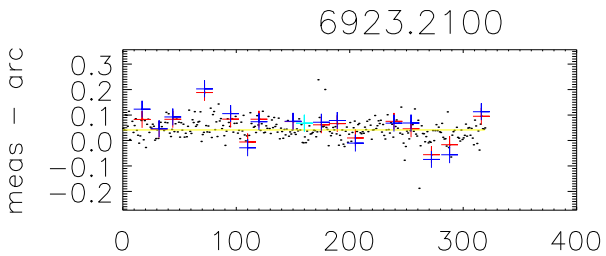

PLATE=0912 MJD=52427 Extraction chi^2 for sdR-r1-00015414.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
5
0
500
1000
1500
2000
Row number

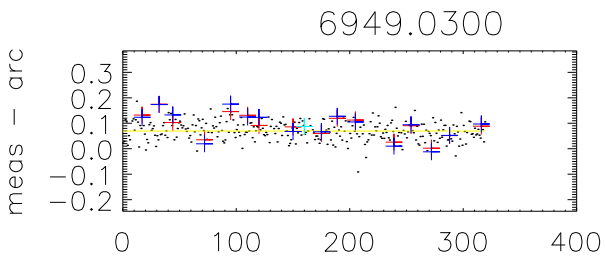

6300.3040
off: 0.03
sig: 0.003
6363.7760
off: 0.03
sig: 0.005
6553.6100
off: 0.03
sig: 0.017
6923.2100
off: 0.07
sig: 0.011
6949.0300
off: 0.09
sig: 0.011
7571.7500
off: 0.10
sig: 0.009
7794.1200
off: −0.02
sig: 0.005
7821.5100
off: 0.02
sig: 0.005
8399.1600
off: 0.07
sig: 0.004
8430.1700
off: 0.06
sig: 0.004
8885.8300
off: 0.07
sig: 0.004
8919.6100
off: 0.07
sig: 0.004

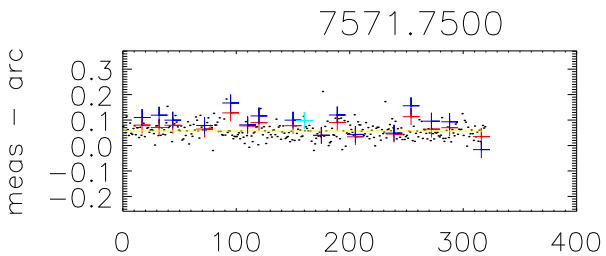

6300.3040
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

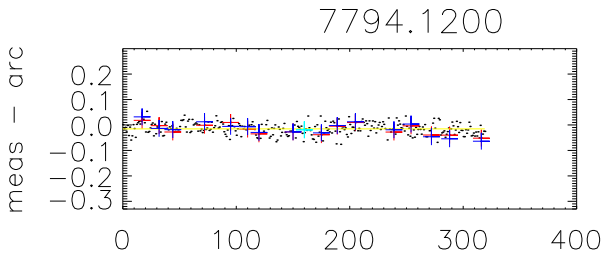

6363.7760
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

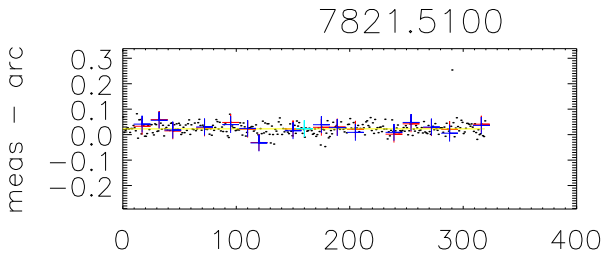

6553.6100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

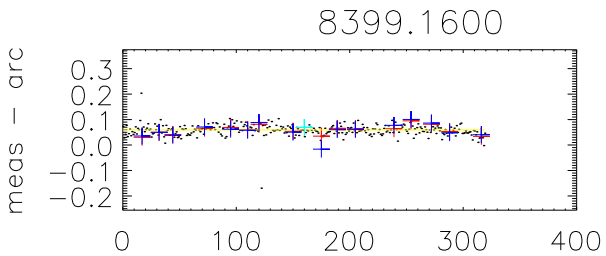

6923.2100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

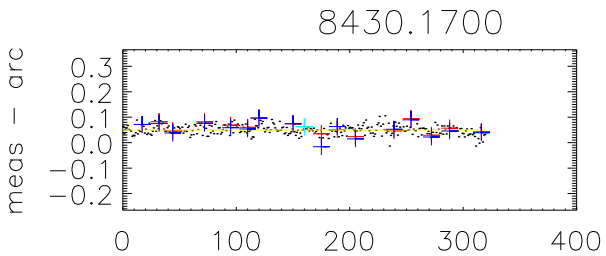

6949.0300
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

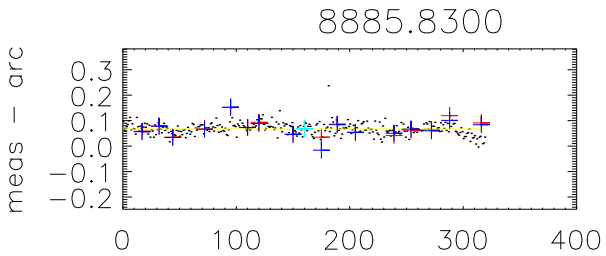

7571.7500
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

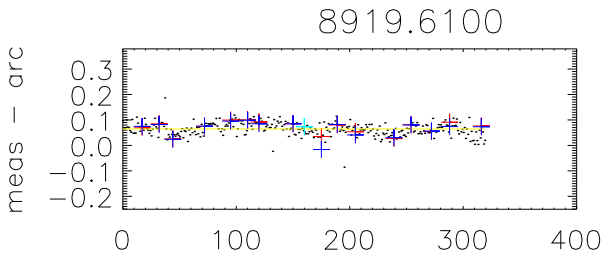

7794.1200
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

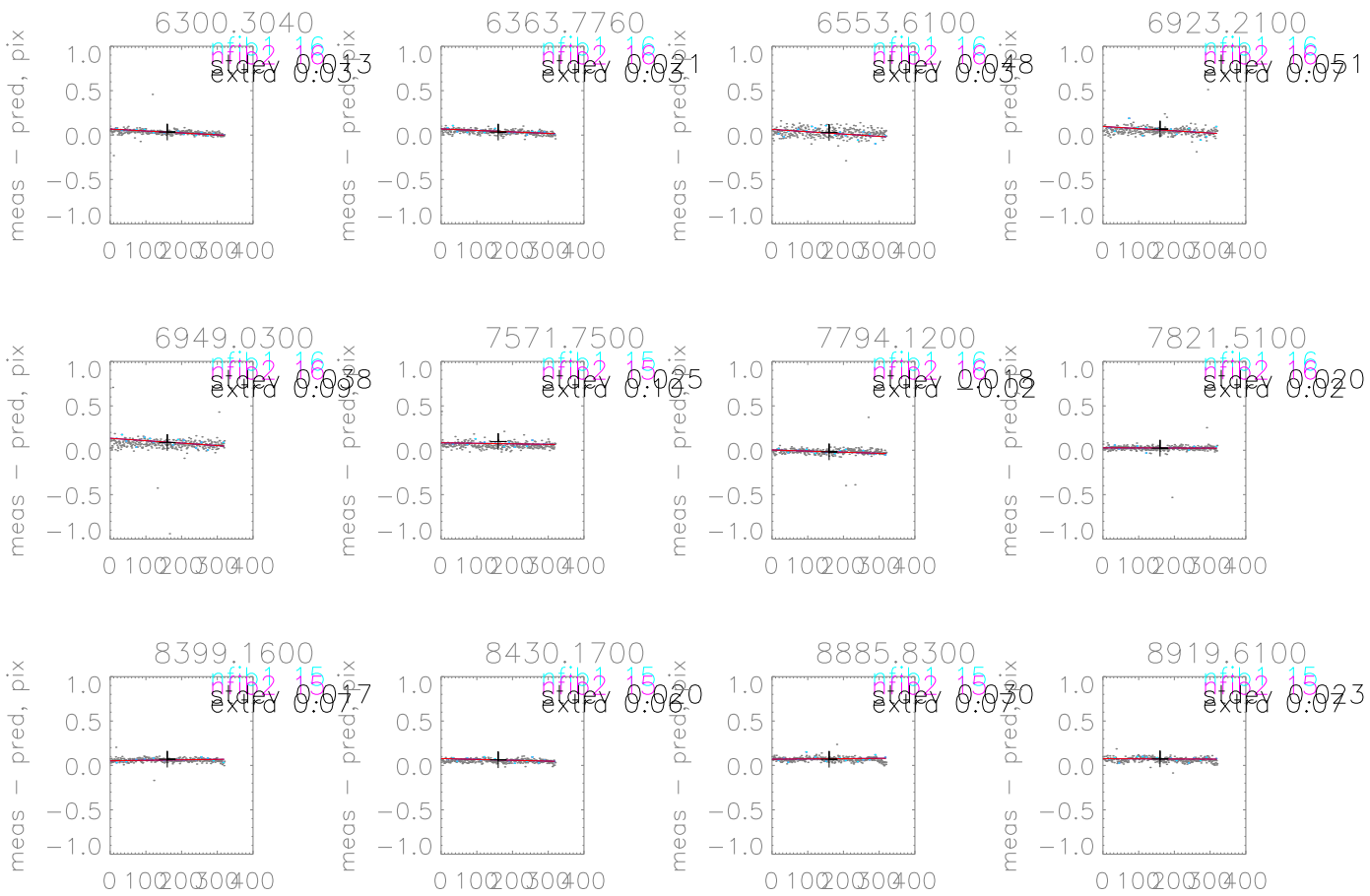

7821.5100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

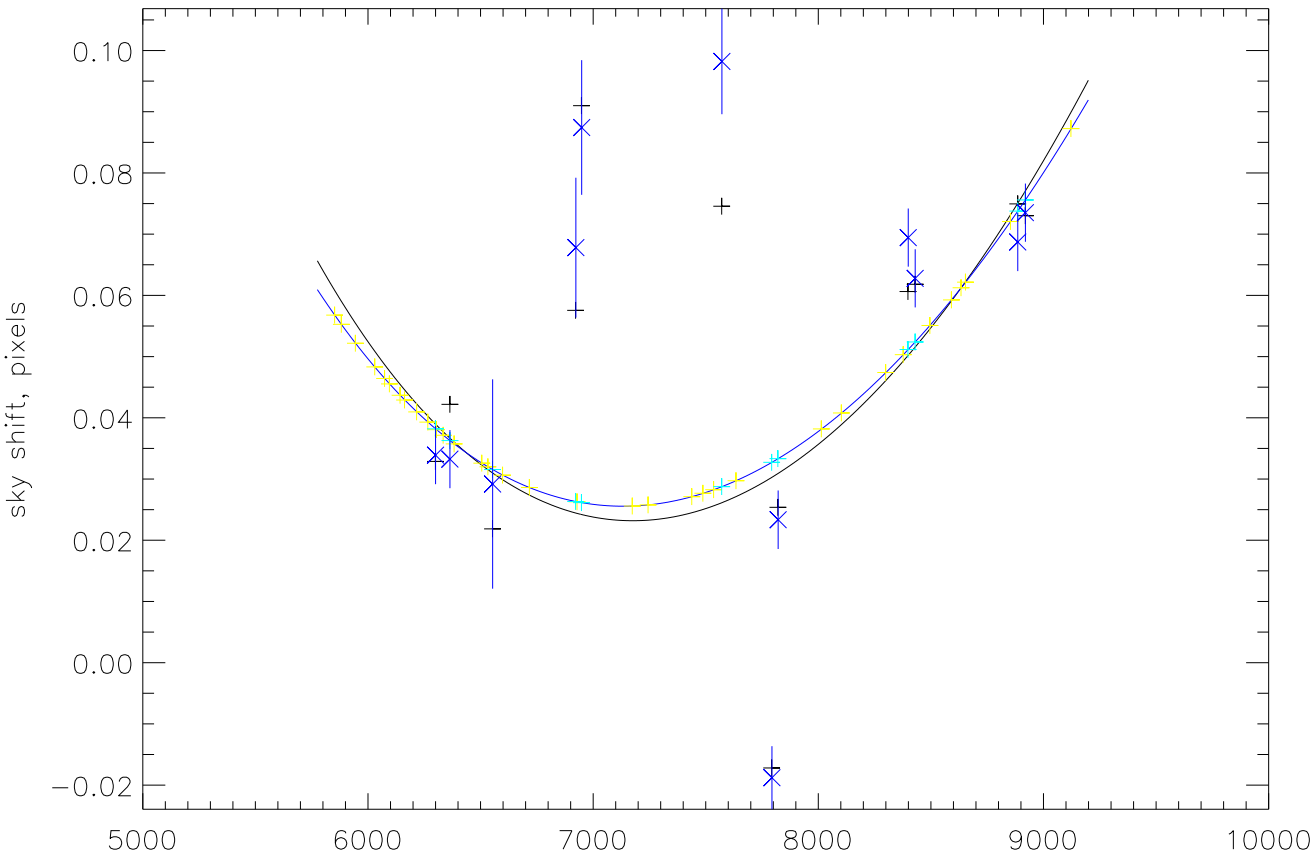

8399.1600
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

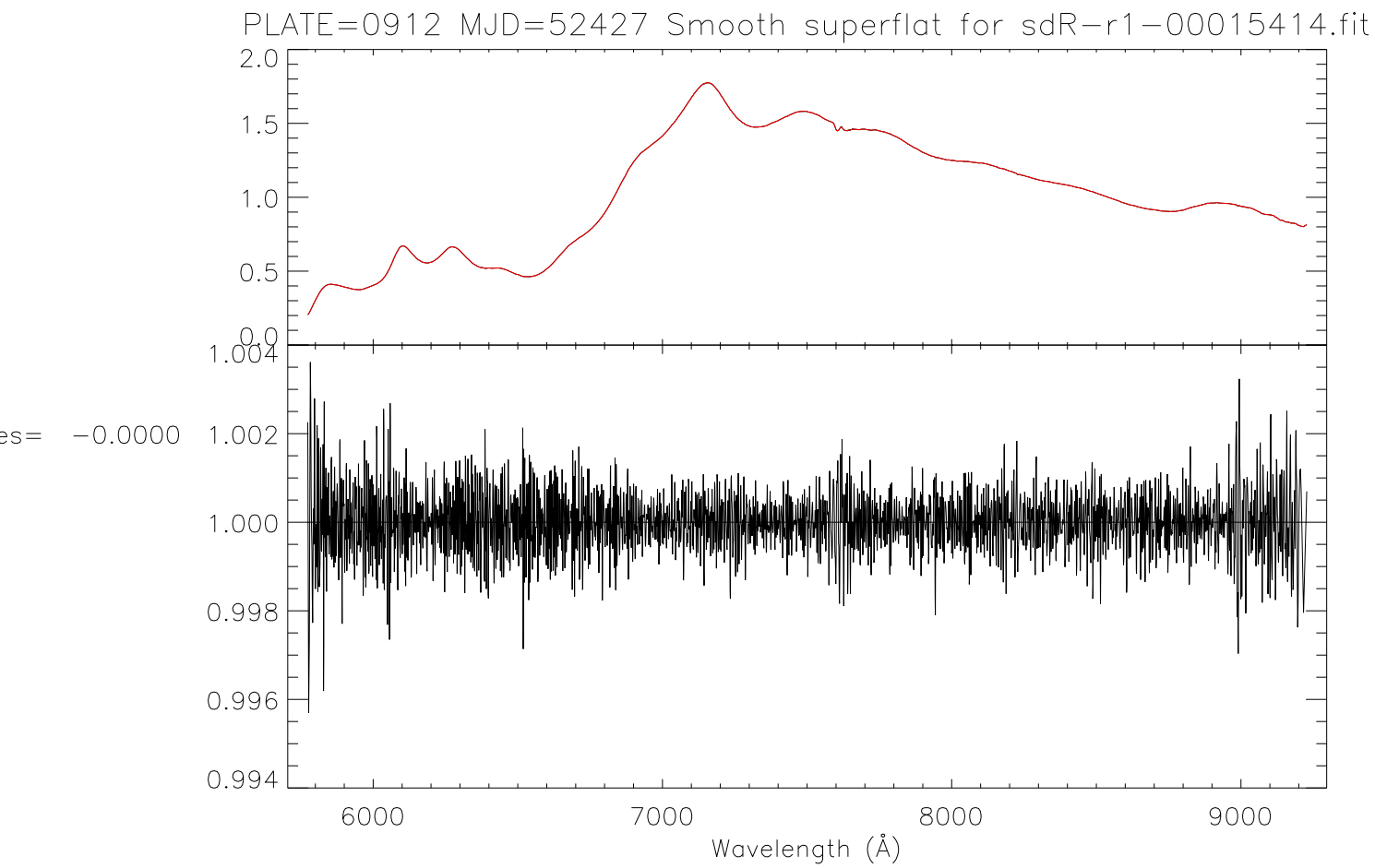

8430.1700
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

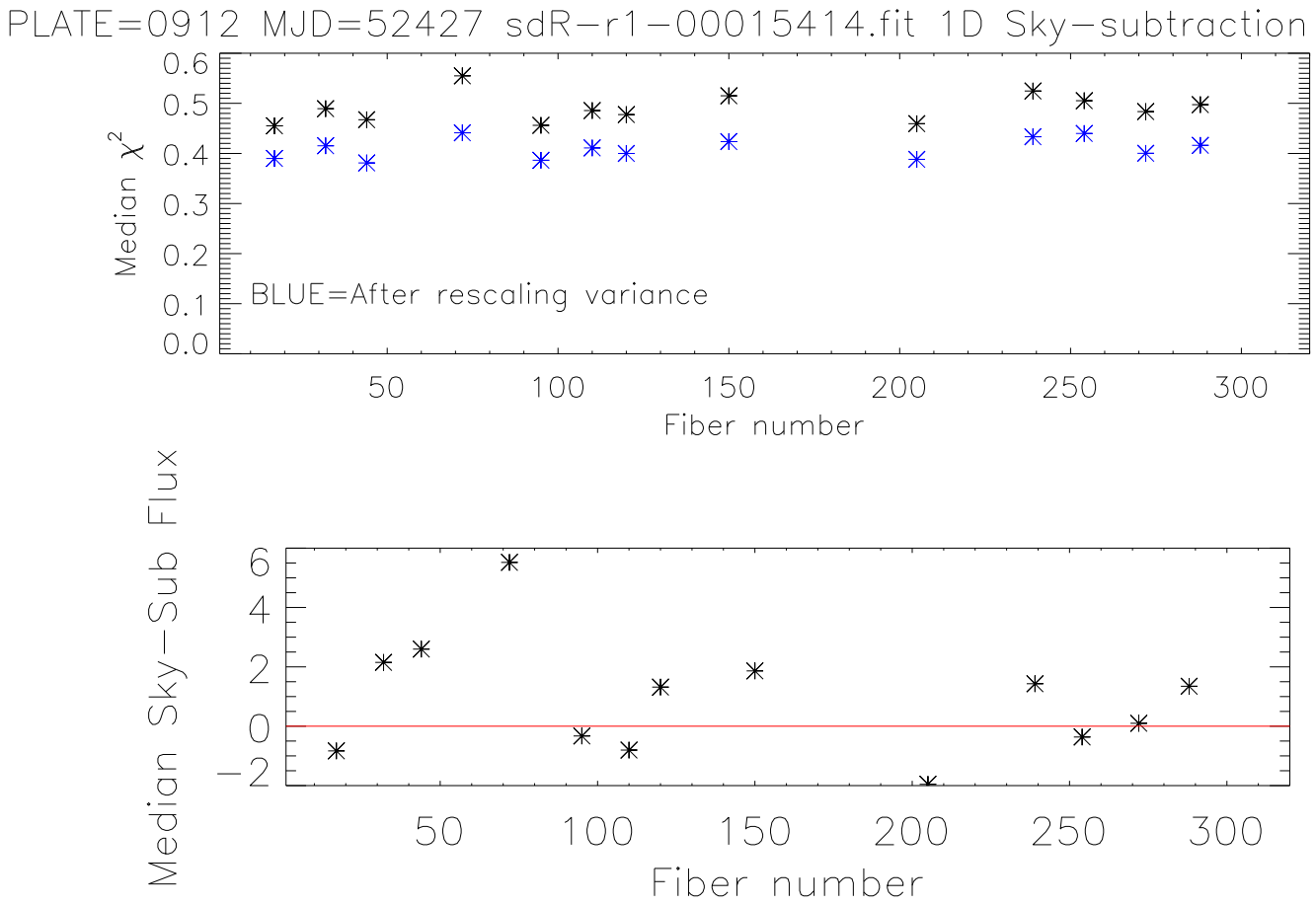

8885.8300
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

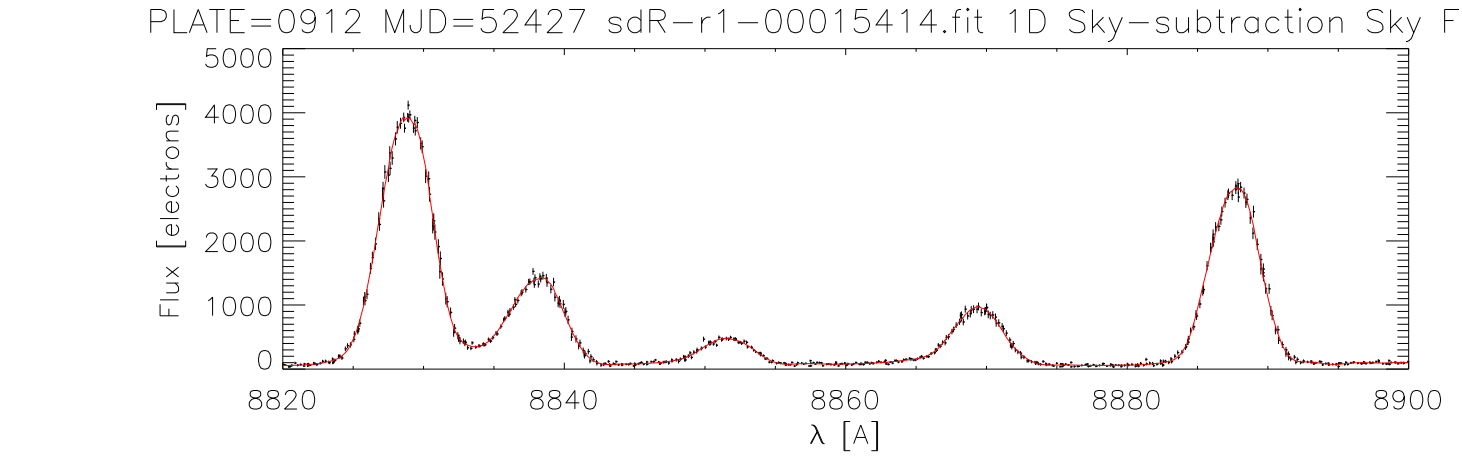

8919.6100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

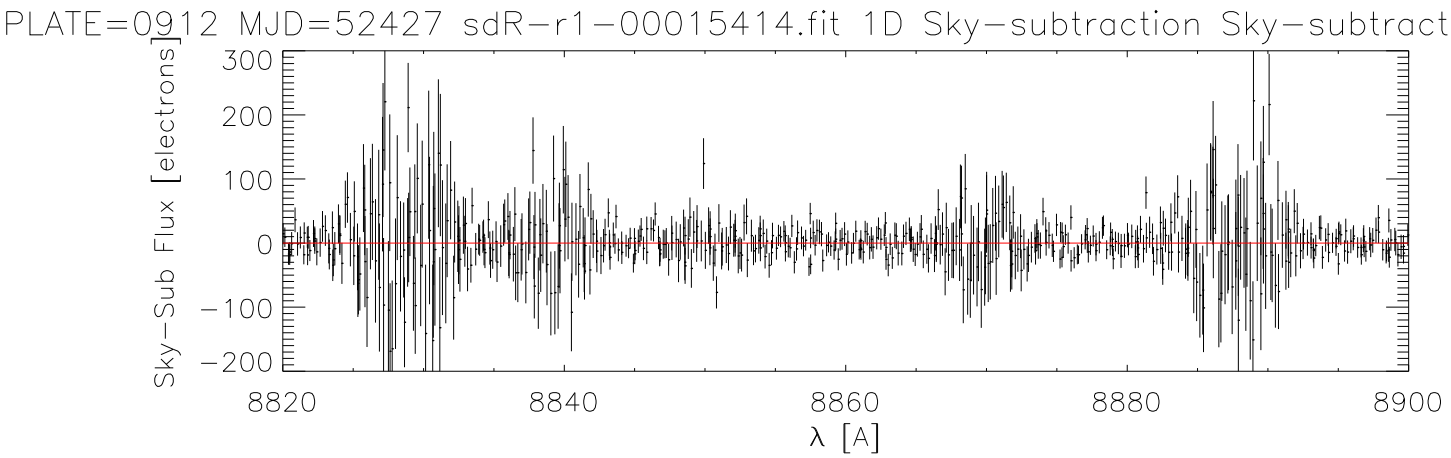

6300.3040
stdev 0.013
extra 0.03
6363.7760
stdev 0.021
extra 0.03
6553.6100
stdev 0.038
extra 0.03
6923.2100
stdev 0.051
extra 0.07
6949.0300
stdev 0.038
extra 0.09
7571.7500
stdev 0.025
extra 0.16
7794.1200
stdev 0.018
extra −0.02
7821.5100
stdev 0.020
extra 0.02
8399.1600
stdev 0.017
extra 0.07
8430.1700
stdev 0.020
extra 0.06
8885.8300
stdev 0.030
extra 0.07
8919.6100
stdev 0.023
extra 0.07
meas − pred, pix
mfb2 16
mfb2 15

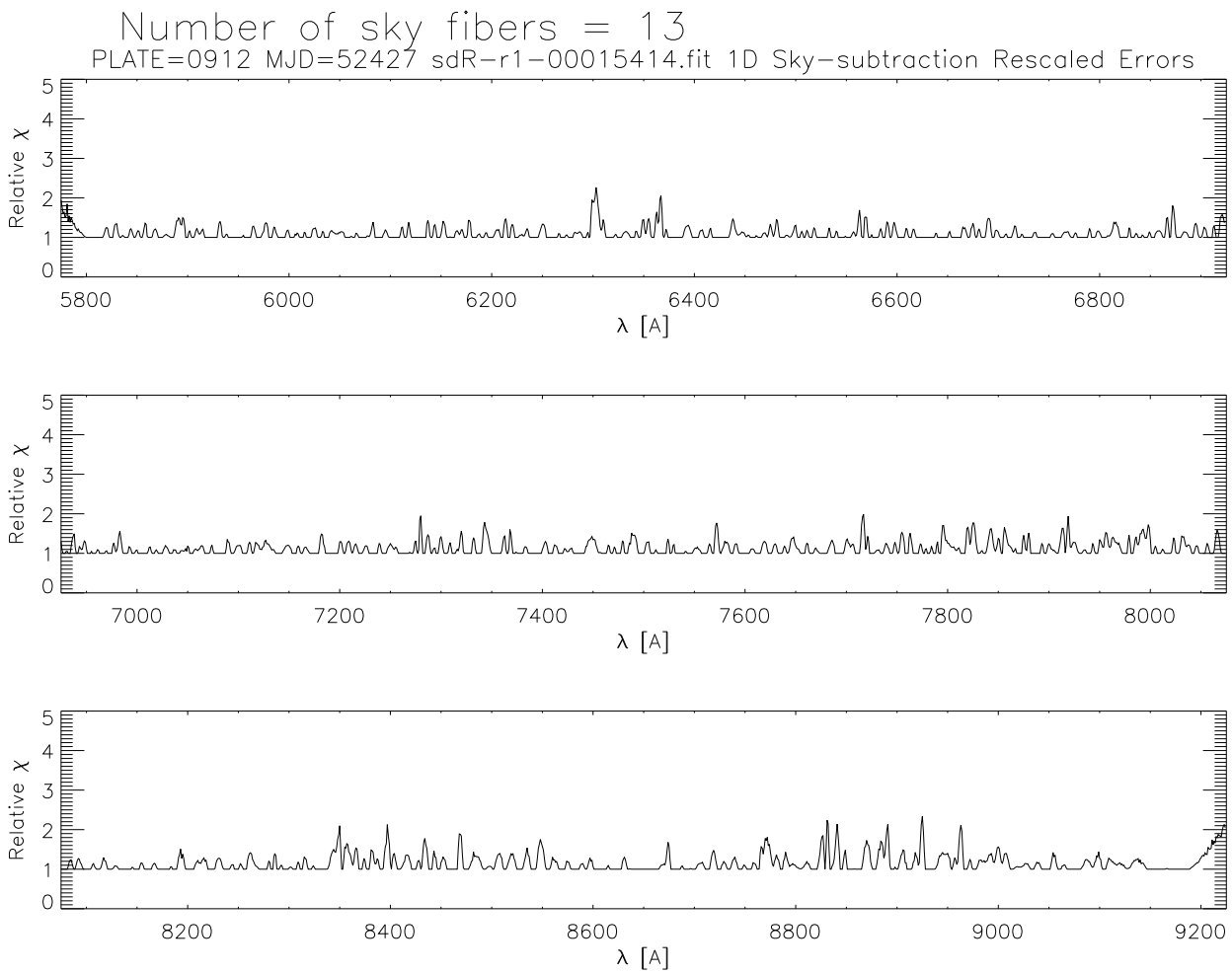

sky shift, pixels
0.10
0.08
0.06
0.04
0.02
0.00
−0.02
5000
6000
7000
8000
9000
10000

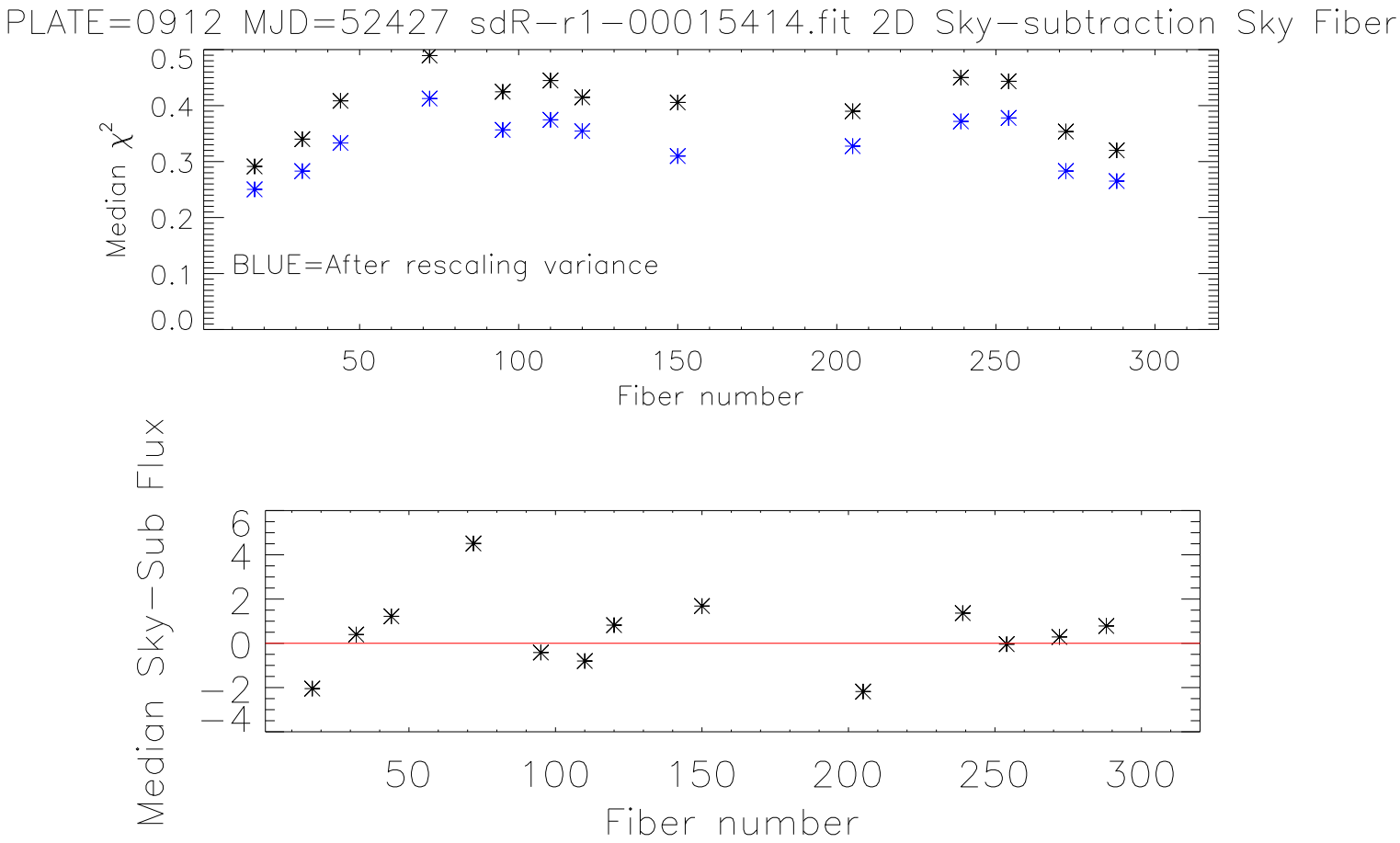

PLATE=0912 MJD=52427 Smooth superflat for sdR-r1-00015414.fit
2.0
1.5
1.0
0.5
0.0
1.004
1.002
1.000
0.998
0.996
0.994
es= −0.0000
6000
7000
8000
9000
Wavelength (Å)

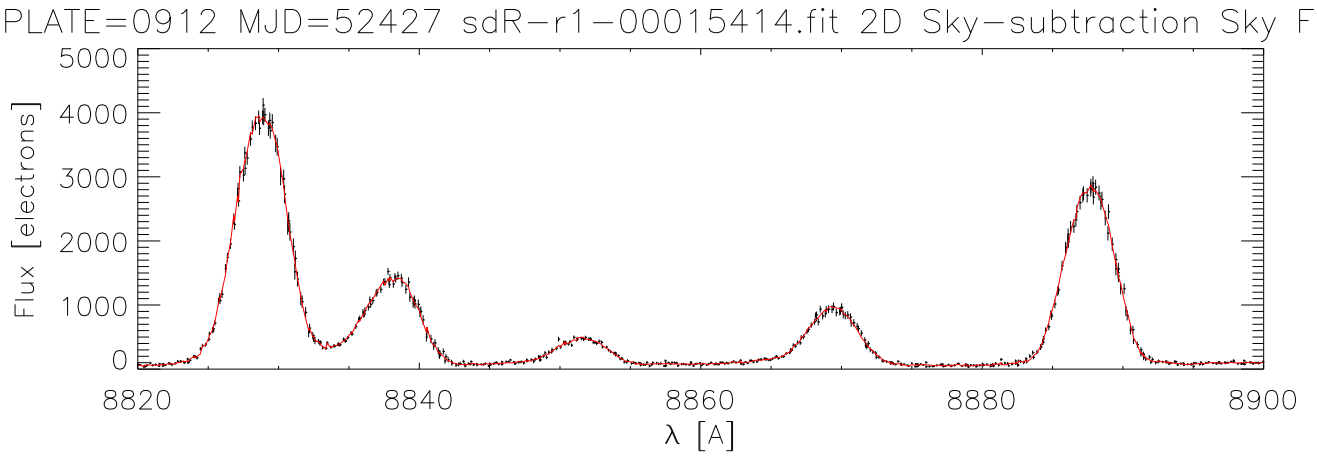

PLATE=0912 MJD=52427 sdR-r1-00015414.fit 1D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

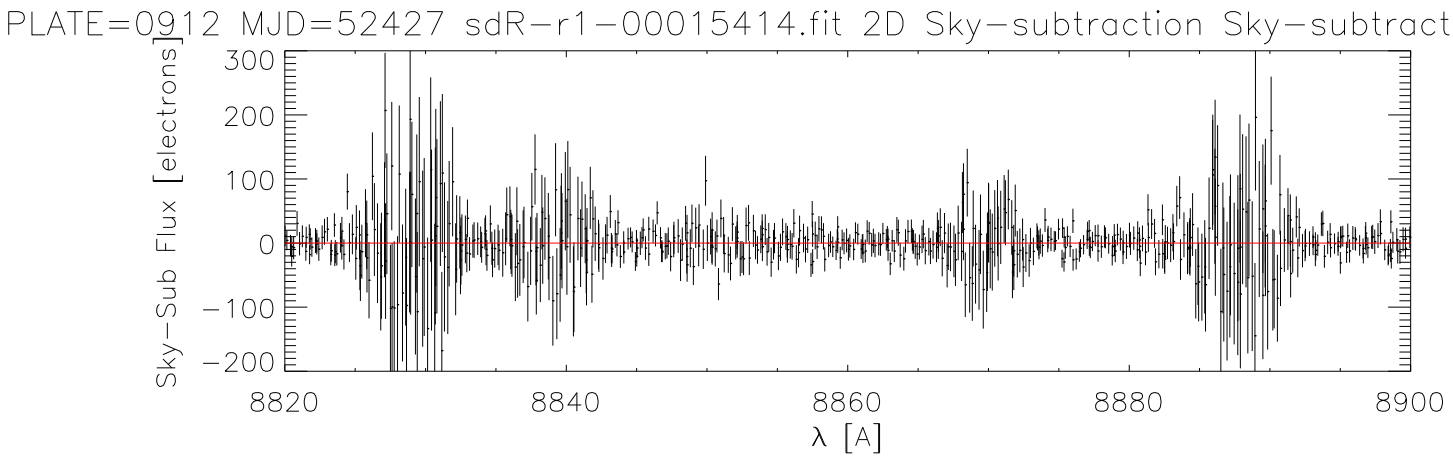

PLATE=0912 MJD=52427 sdR-r1-00015414.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

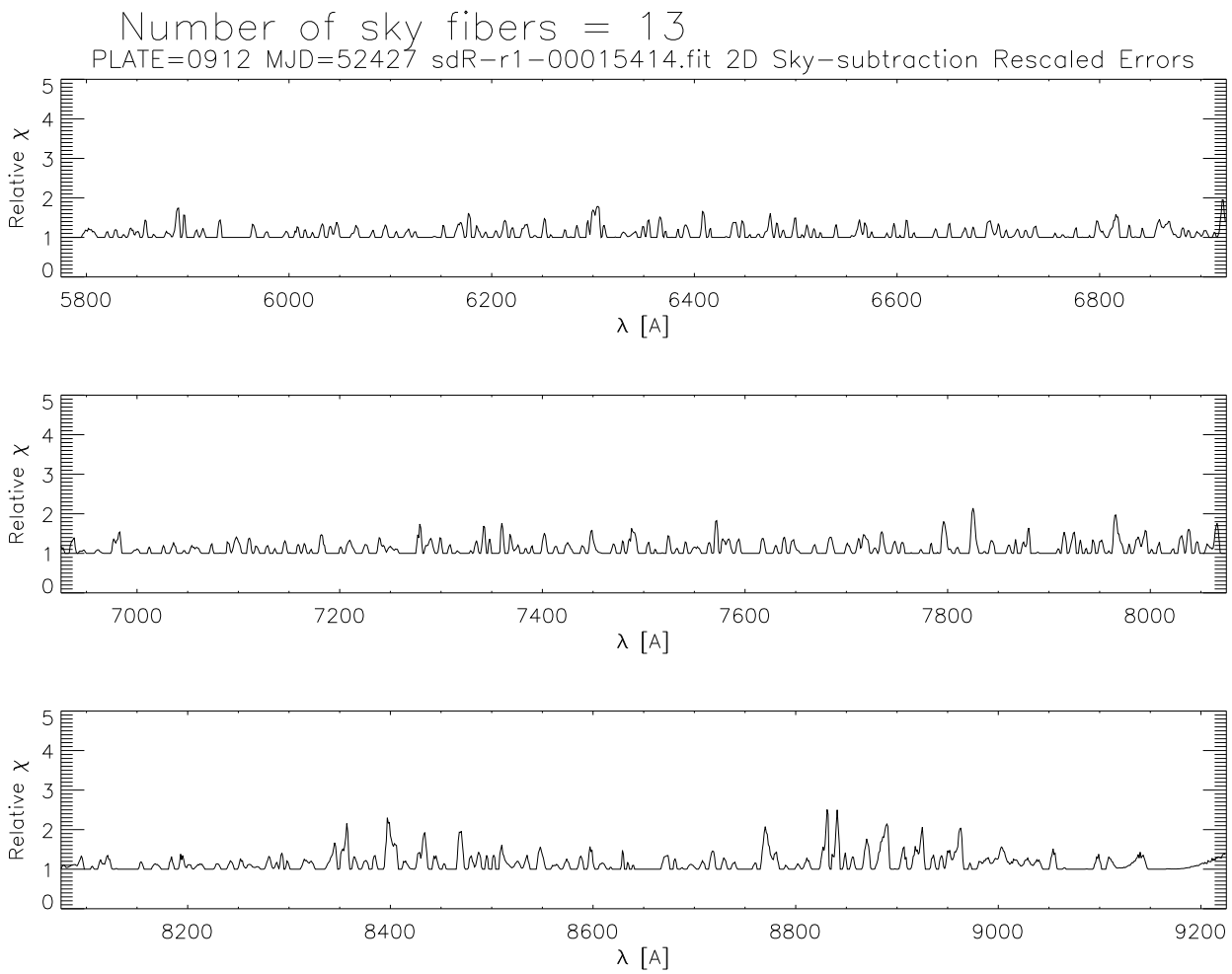

PLATE=0912 MJD=52427 sdR-r1-00015414.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
8820
8840
8860
8880
8900
λ [A]

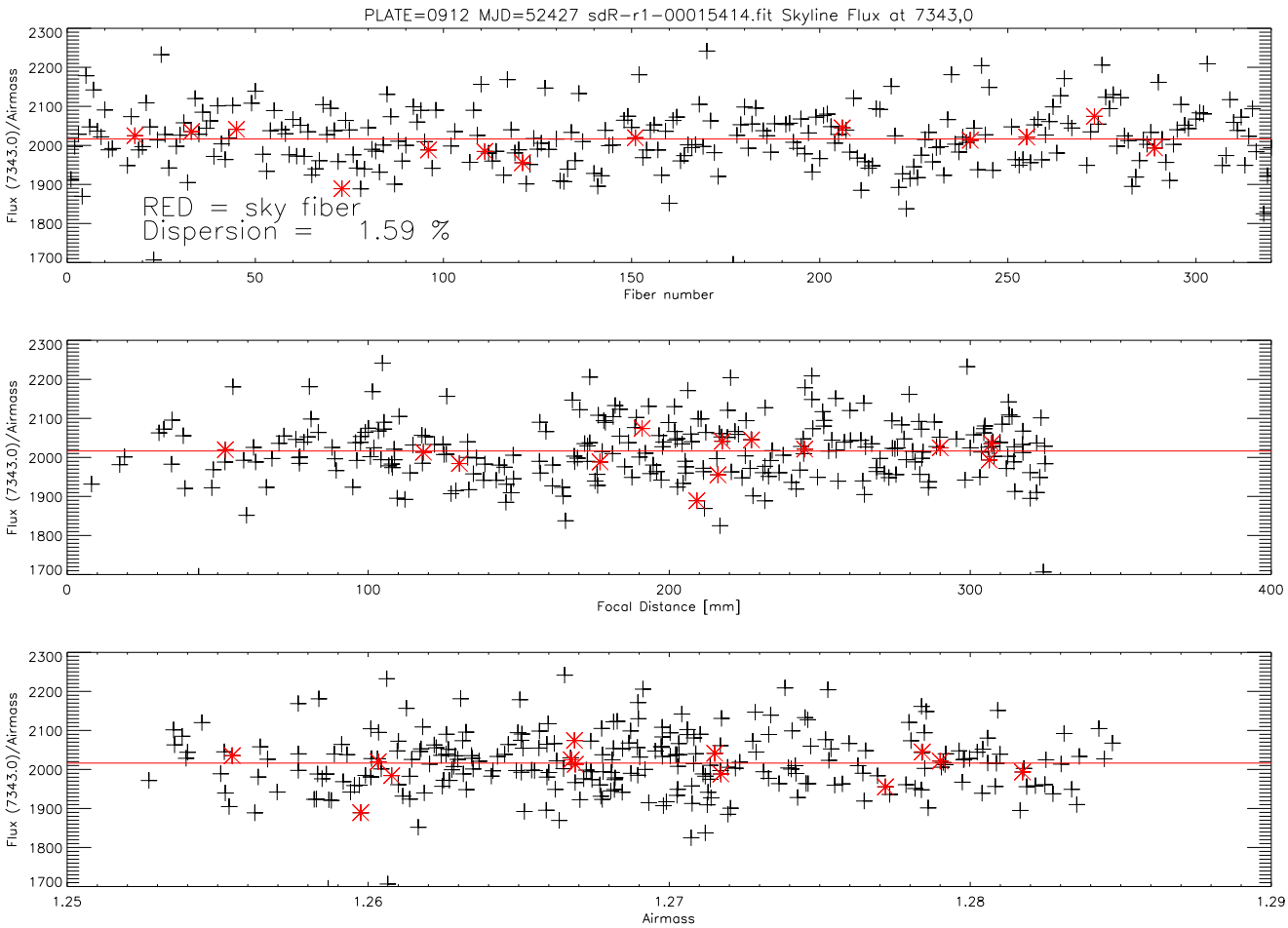

Number of sky fibers = 13
PLATE=0912 MJD=52427 sdR-r1-00015414.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

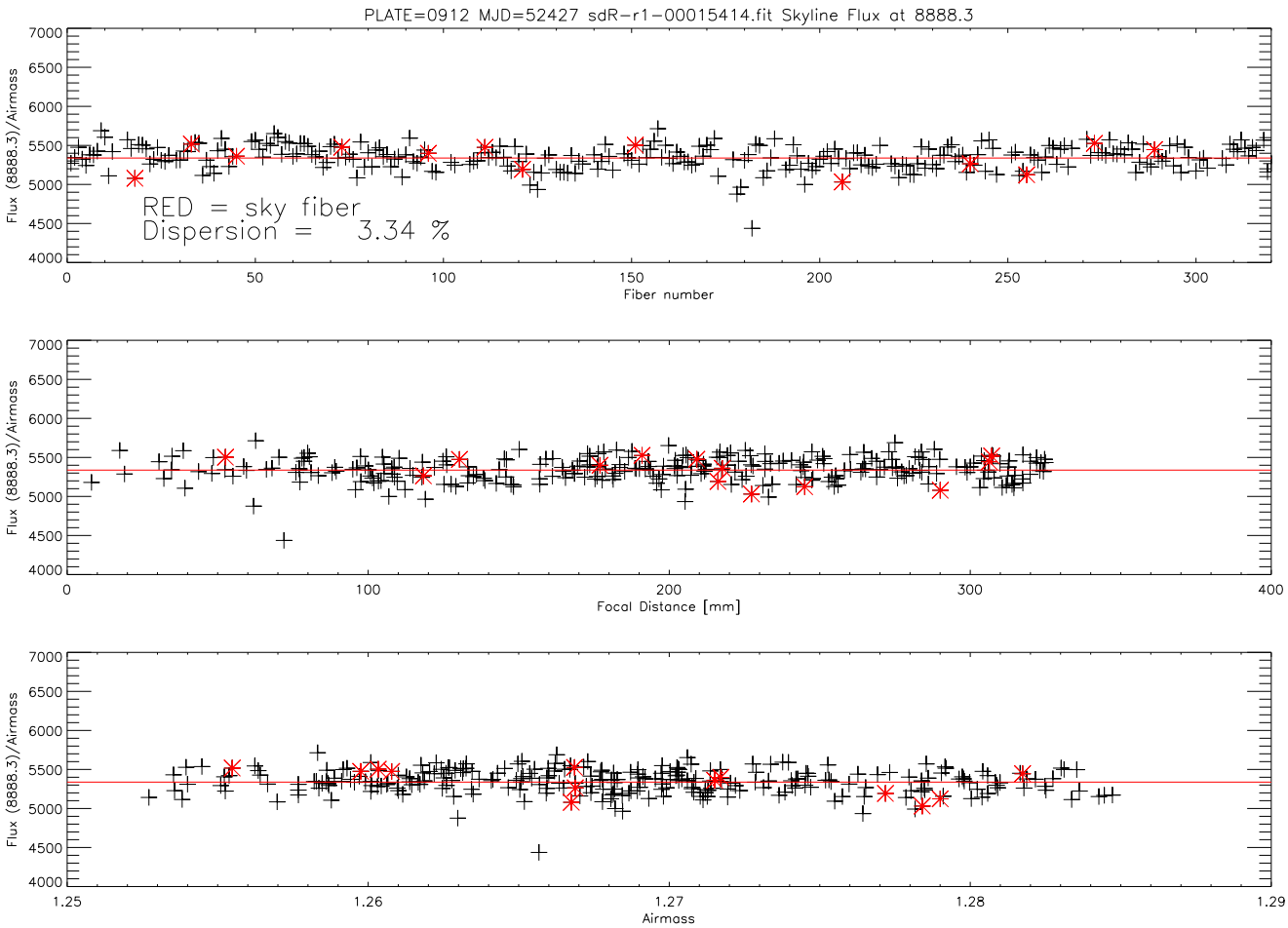

PLATE=0912 MJD=52427 sdR-r1-00015414.fit 2D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

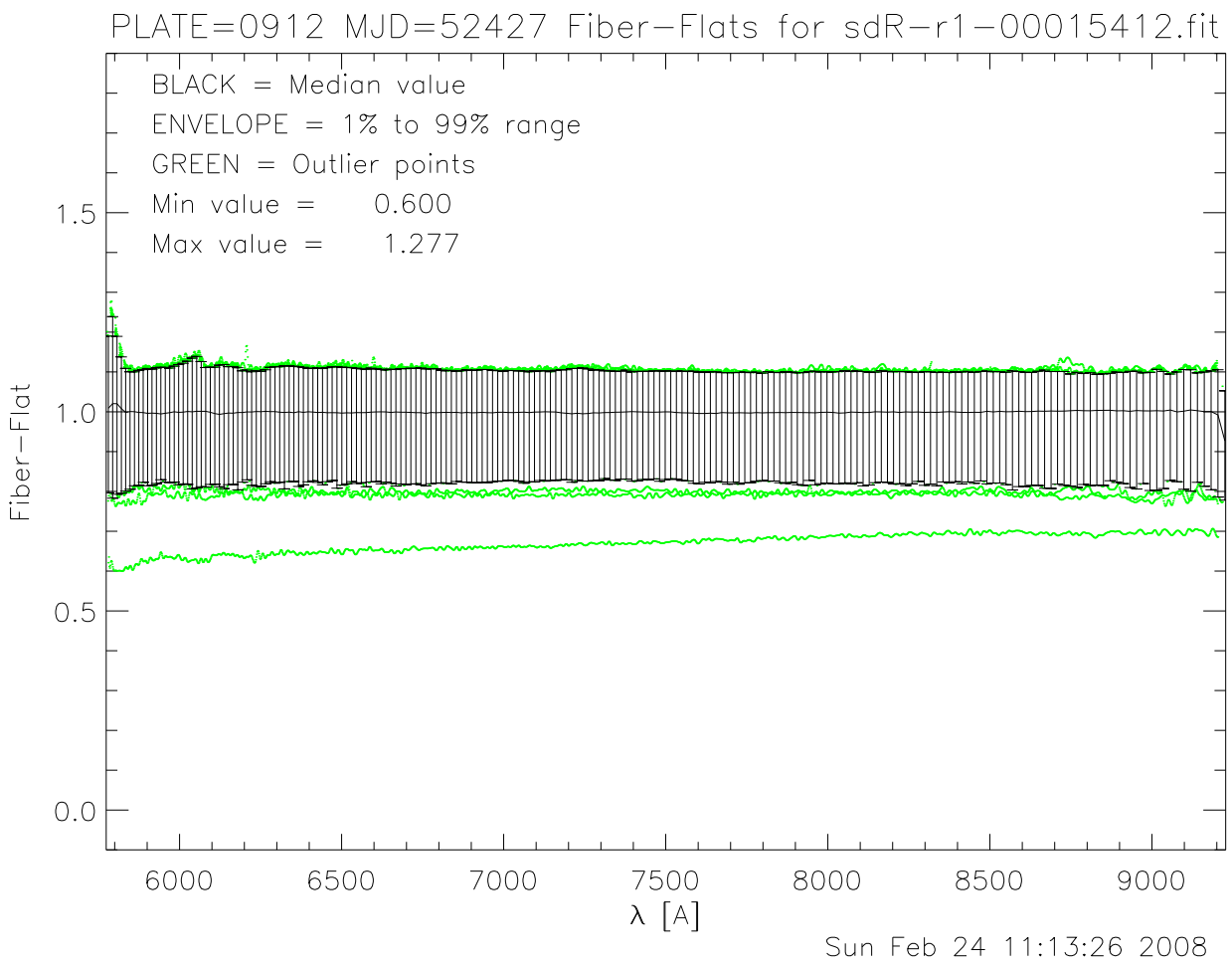

PLATE=0912 MJD=52427 sdR-r1-00015414.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

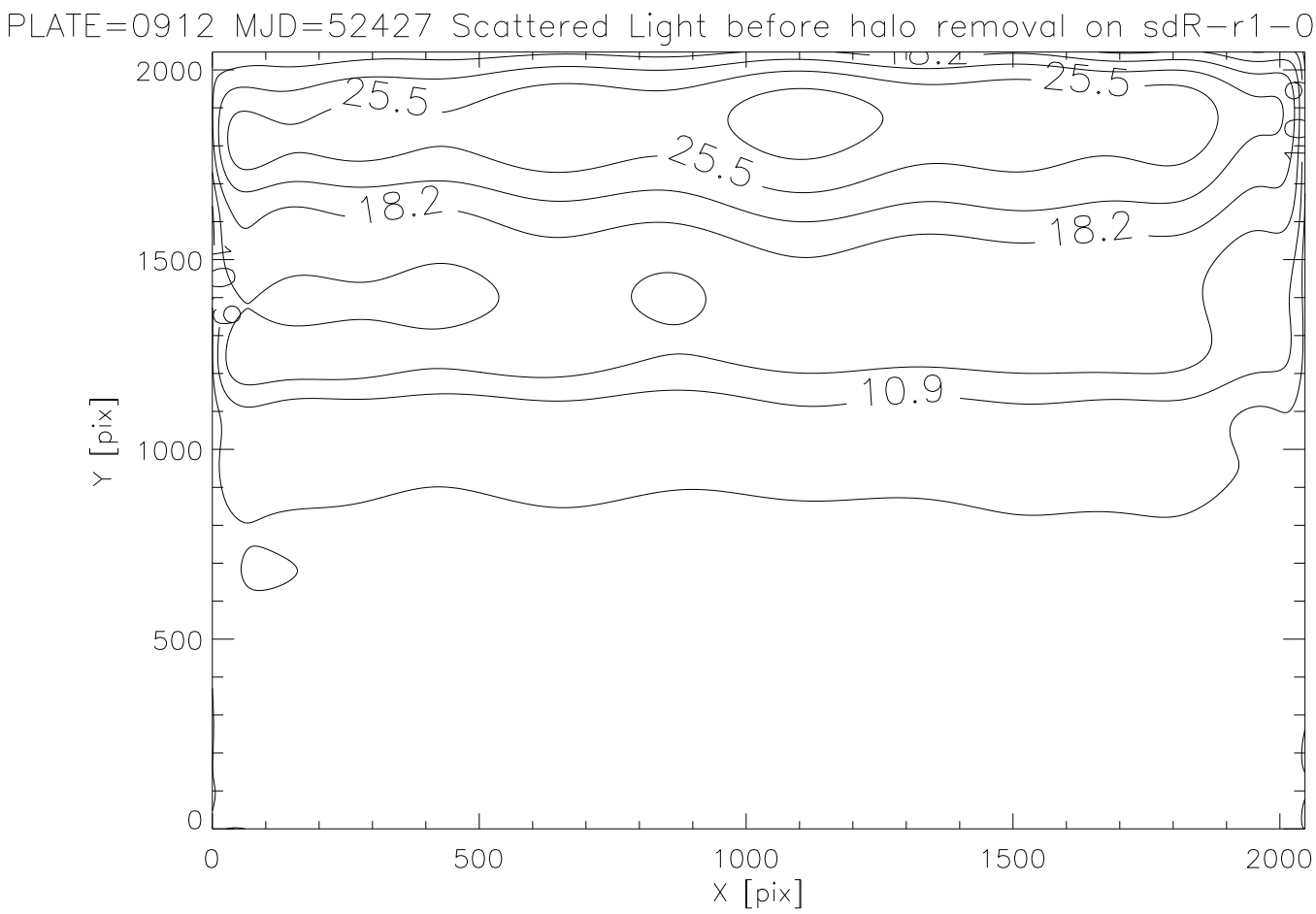

PLATE=0912 MJD=52427 sdR-r1-00015414.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
8820
8840
8860
8880
8900
λ [A]

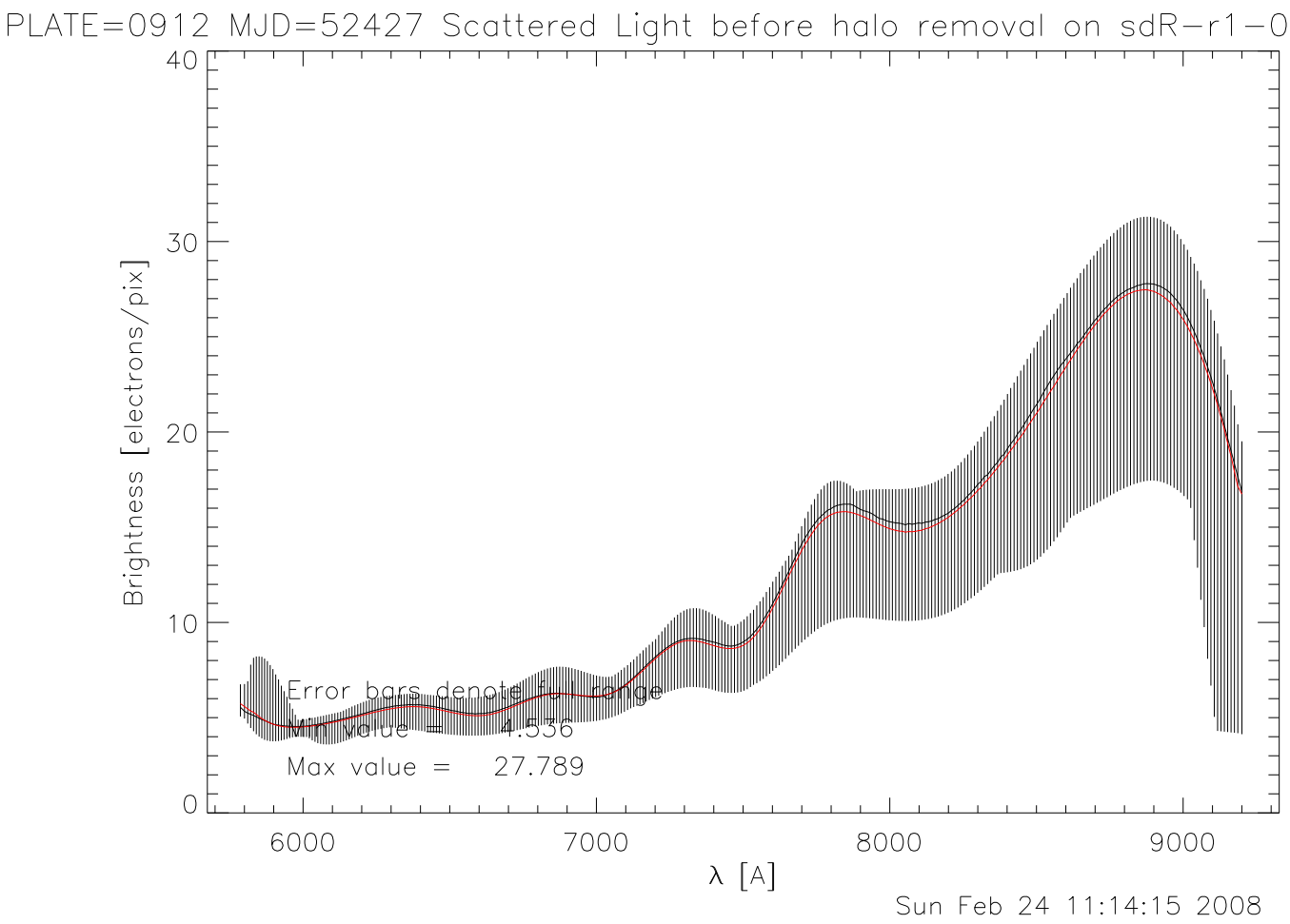

Number of sky fibers = 13
PLATE=0912 MJD=52427 sdR-r1-00015414.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

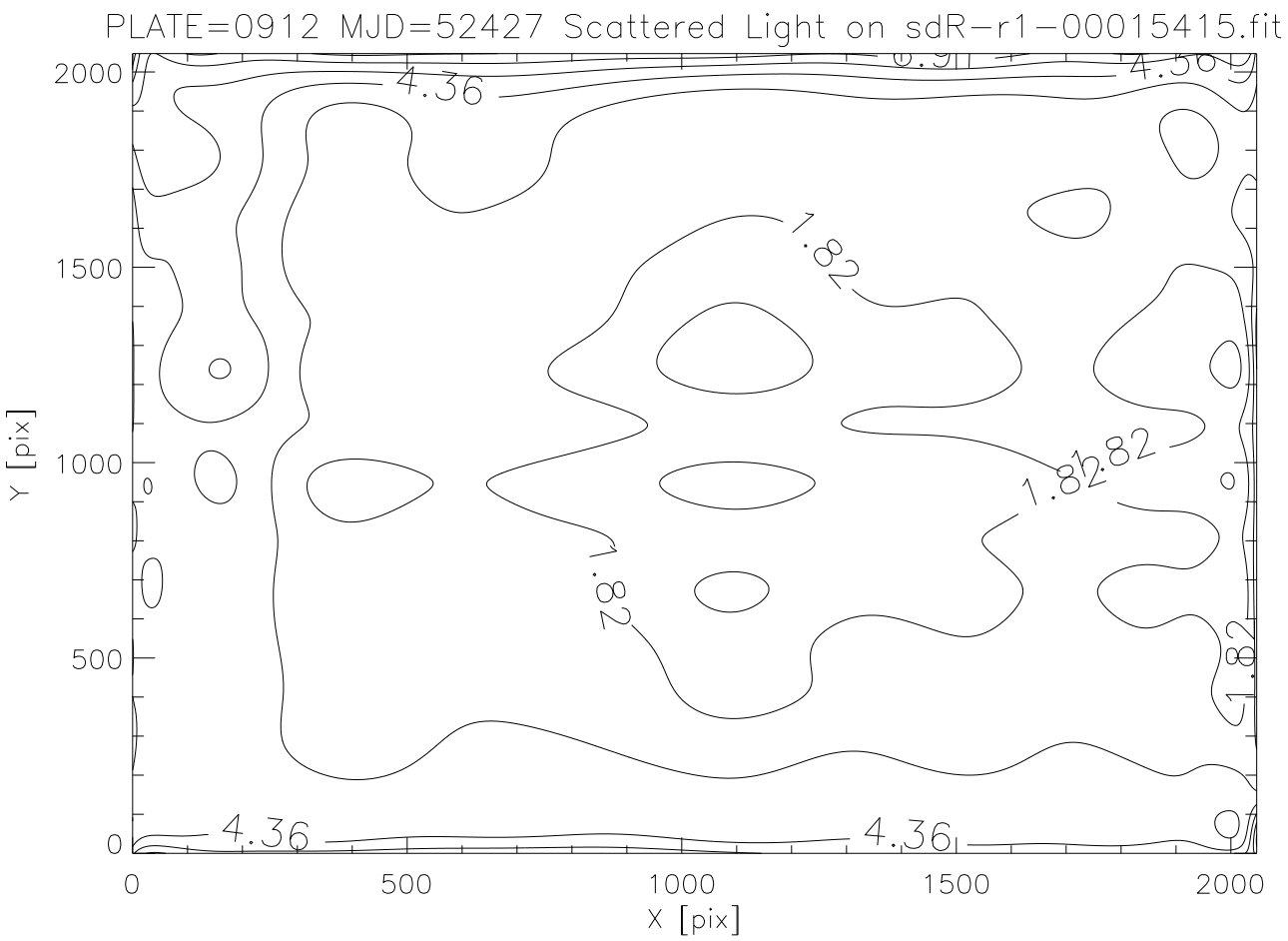

PLATE=0912 MJD=52427 sdR-r1-00015414.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 1.59 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

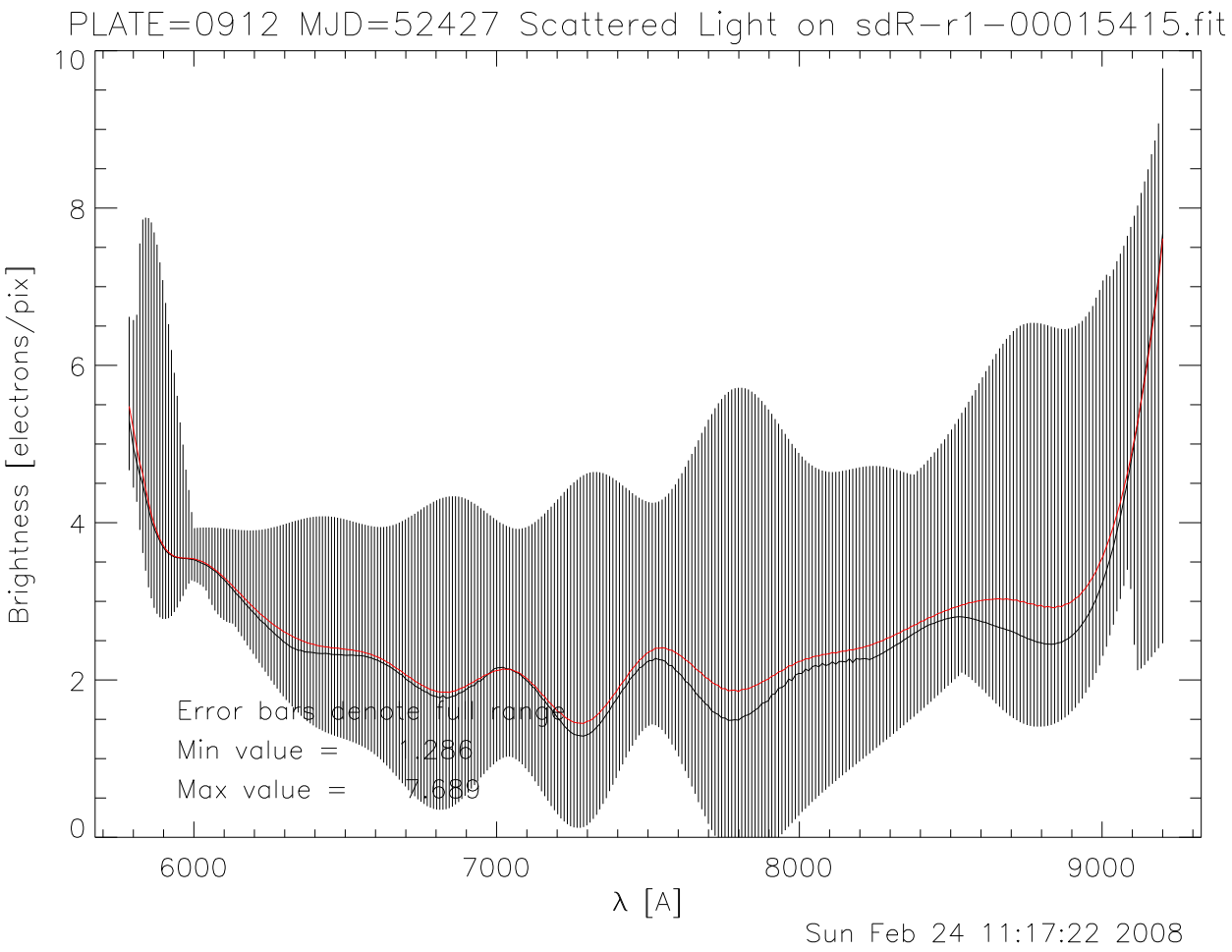

PLATE=0912 MJD=52427 sdR-r1-00015414.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 3.34 %
Fiber number
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass

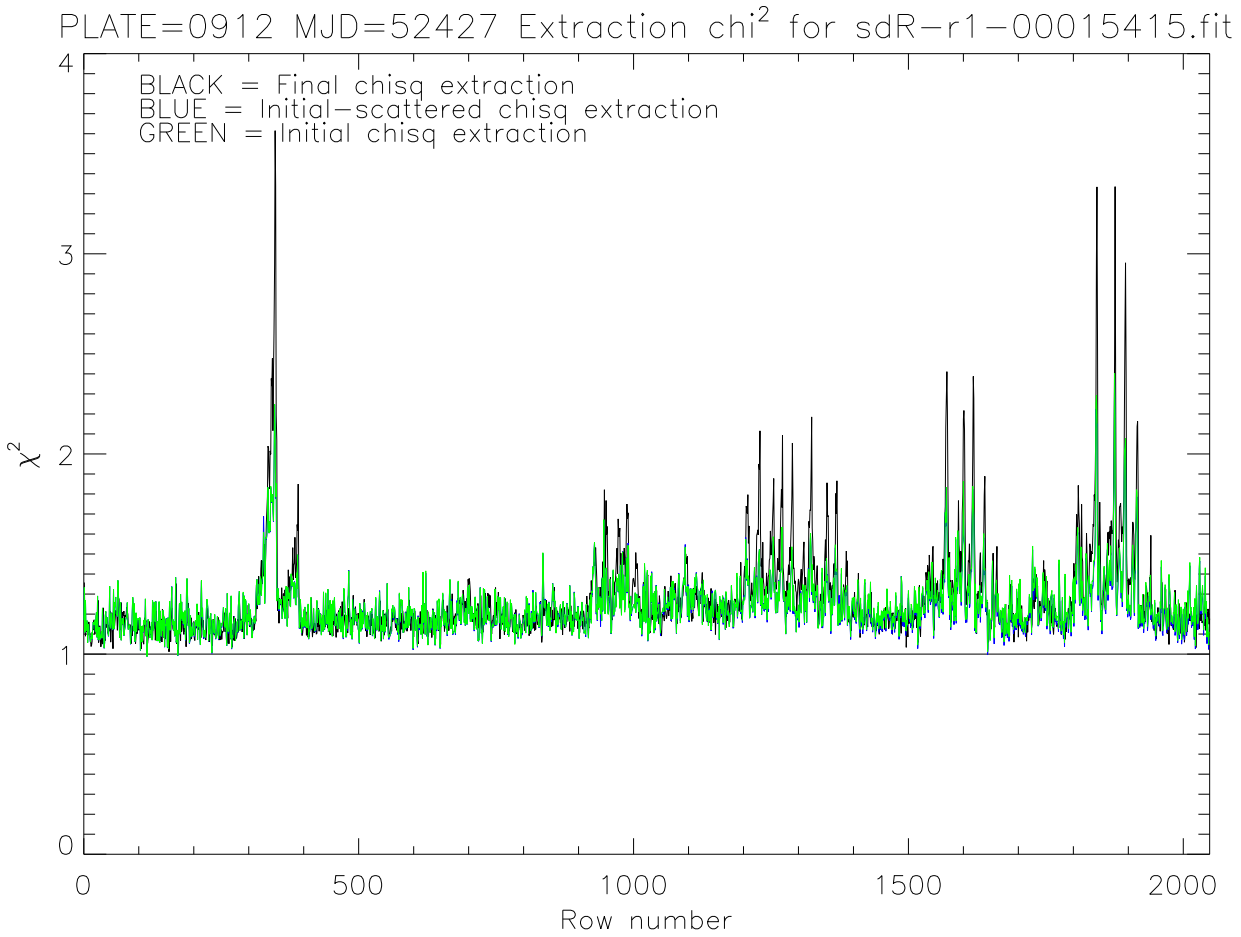

PLATE=0912 MJD=52427 Fiber−Flats for sdR−r1−00015412.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.600
Max value = 1.277
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sun Feb 24 11:13:26 2008

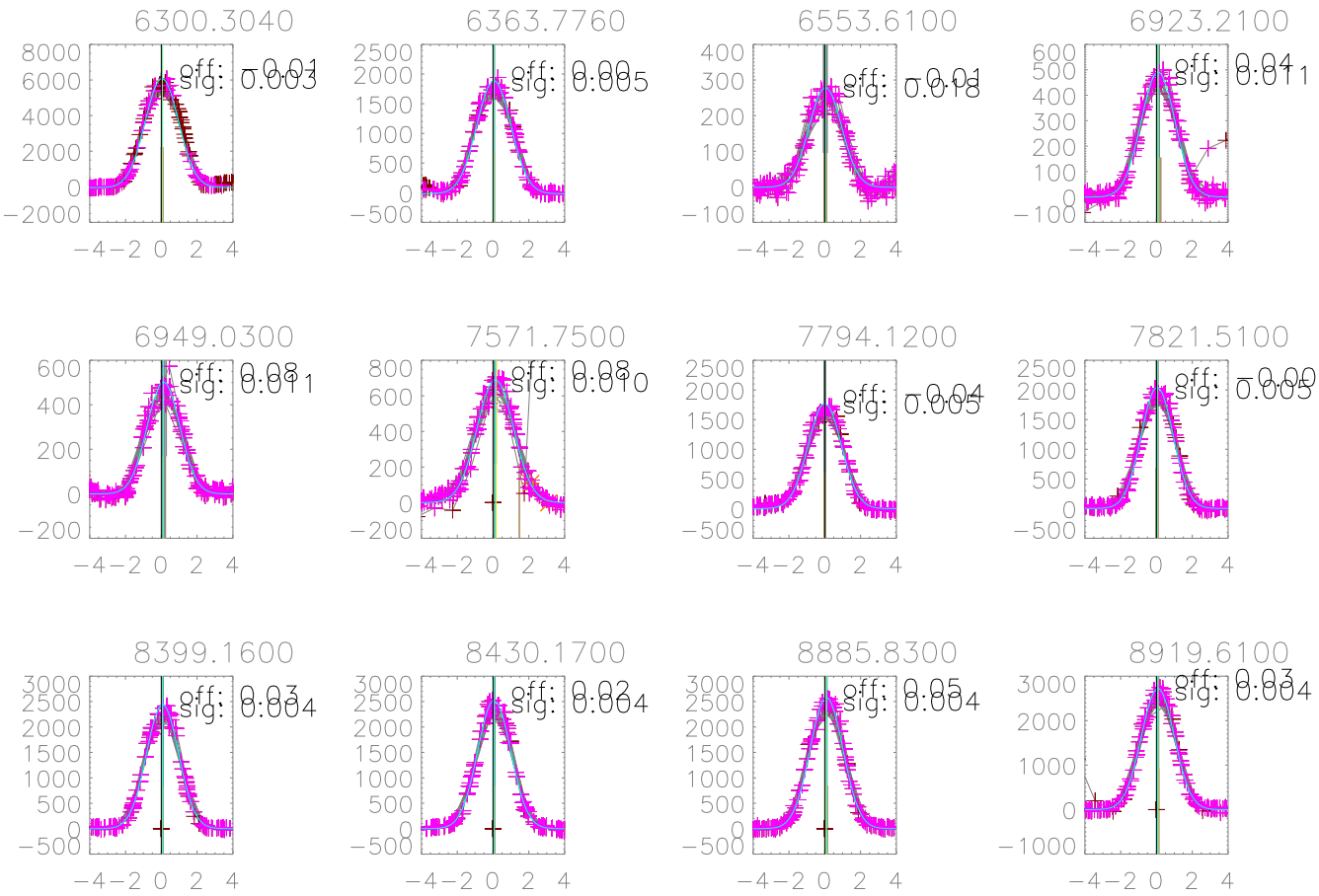

PLATE=0912 MJD=52427 Scattered Light before halo removal on sdR-r1-00015415.fi
25.5
25.5
25.5
18.2
18.2
10.9
10.9
Y [pix]
X [pix]
0
500
1000
1500
2000

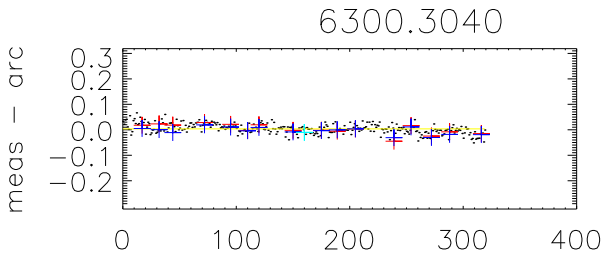

PLATE=0912 MJD=52427 Scattered Light before halo removal on sdR-r1-00015415.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 4.536
Max value = 27.789
Sun Feb 24 11:14:15 2008

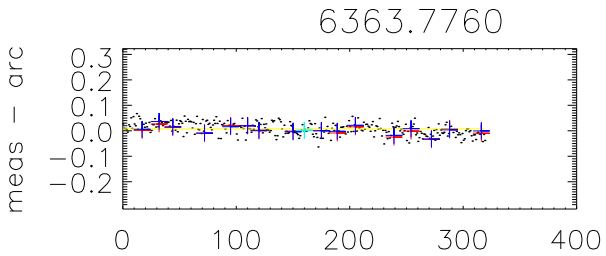

PLATE=0912 MJD=52427 Scattered Light on sdR-r1-00015415.fit
4.36
1.82
0
2000
1500
1000
500
0
Y [pix]
X [pix]

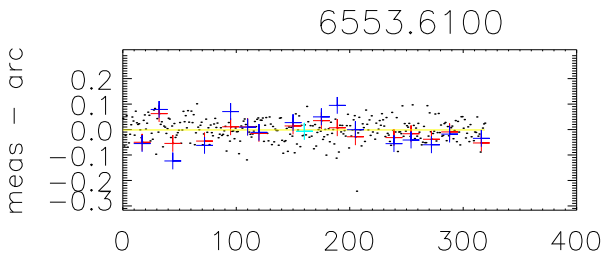

PLATE=0912 MJD=52427 Scattered Light on sdR-r1-00015415.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 1.286
Max value = 7.689
Sun Feb 24 11:17:22 2008

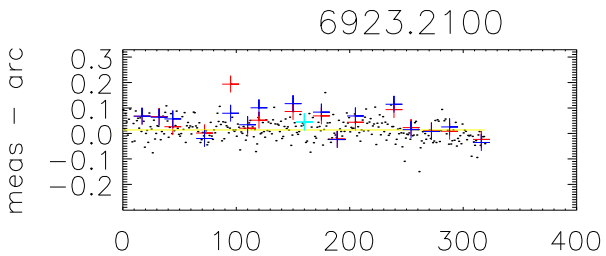

PLATE=0912 MJD=52427 Extraction chi^2 for sdR−r1−00015415.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
0
500
1000
1500
2000
Row number

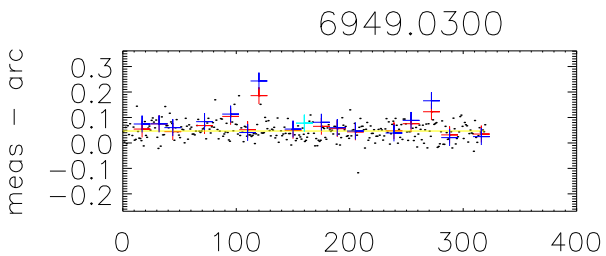

6300.3040
off: −0.01
sig: 0.003
6363.7760
off: 0.00
sig: 0.005
6553.6100
off: −0.01
sig: 0.018
6923.2100
off: 0.04
sig: 0.011
6949.0300
off: 0.08
sig: 0.011
7571.7500
off: 0.08
sig: 0.010
7794.1200
off: −0.04
sig: 0.005
7821.5100
off: −0.00
sig: 0.005
8399.1600
off: 0.03
sig: 0.004
8430.1700
off: 0.02
sig: 0.004
8885.8300
off: 0.05
sig: 0.004
8919.6100
off: 0.03
sig: 0.004

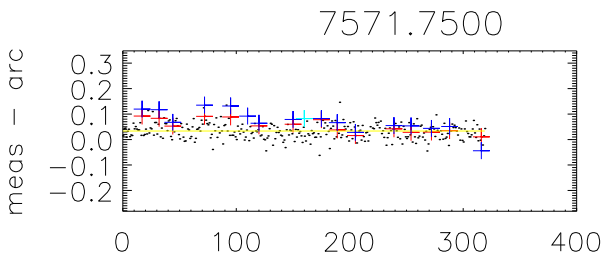

6300.3040
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

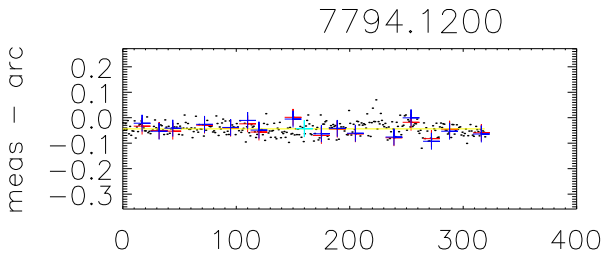

6363.7760
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

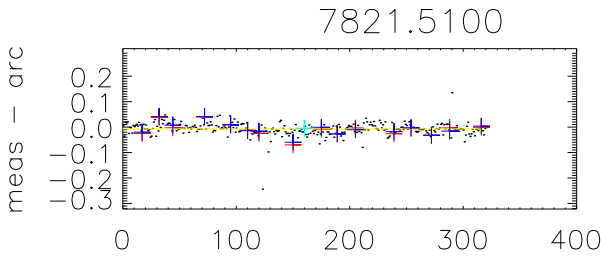

6553.6100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

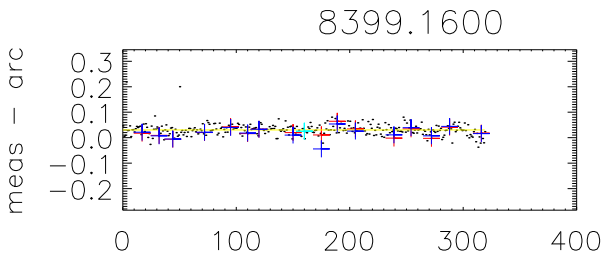

6923.2100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

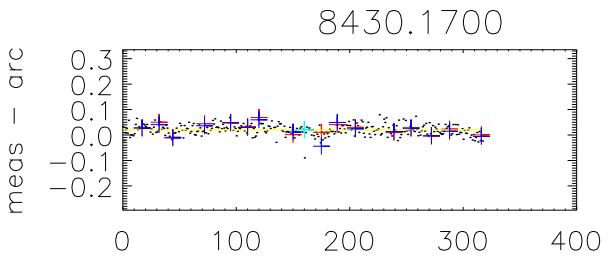

6949.0300
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

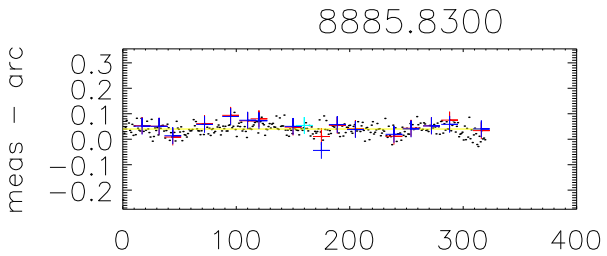

7571.7500
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

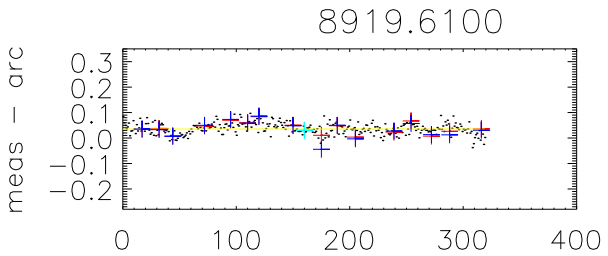

7794.1200
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

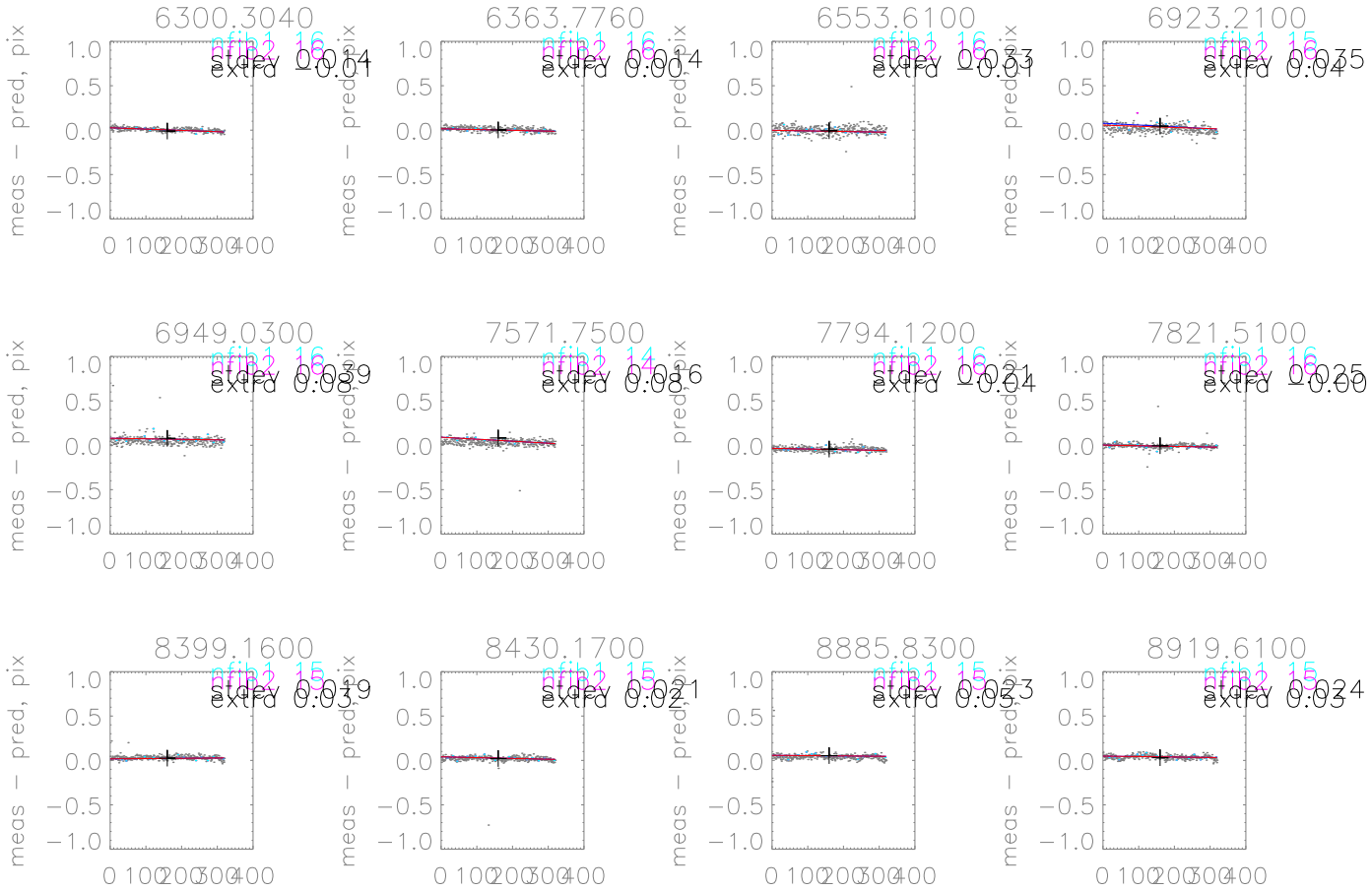

7821.5100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

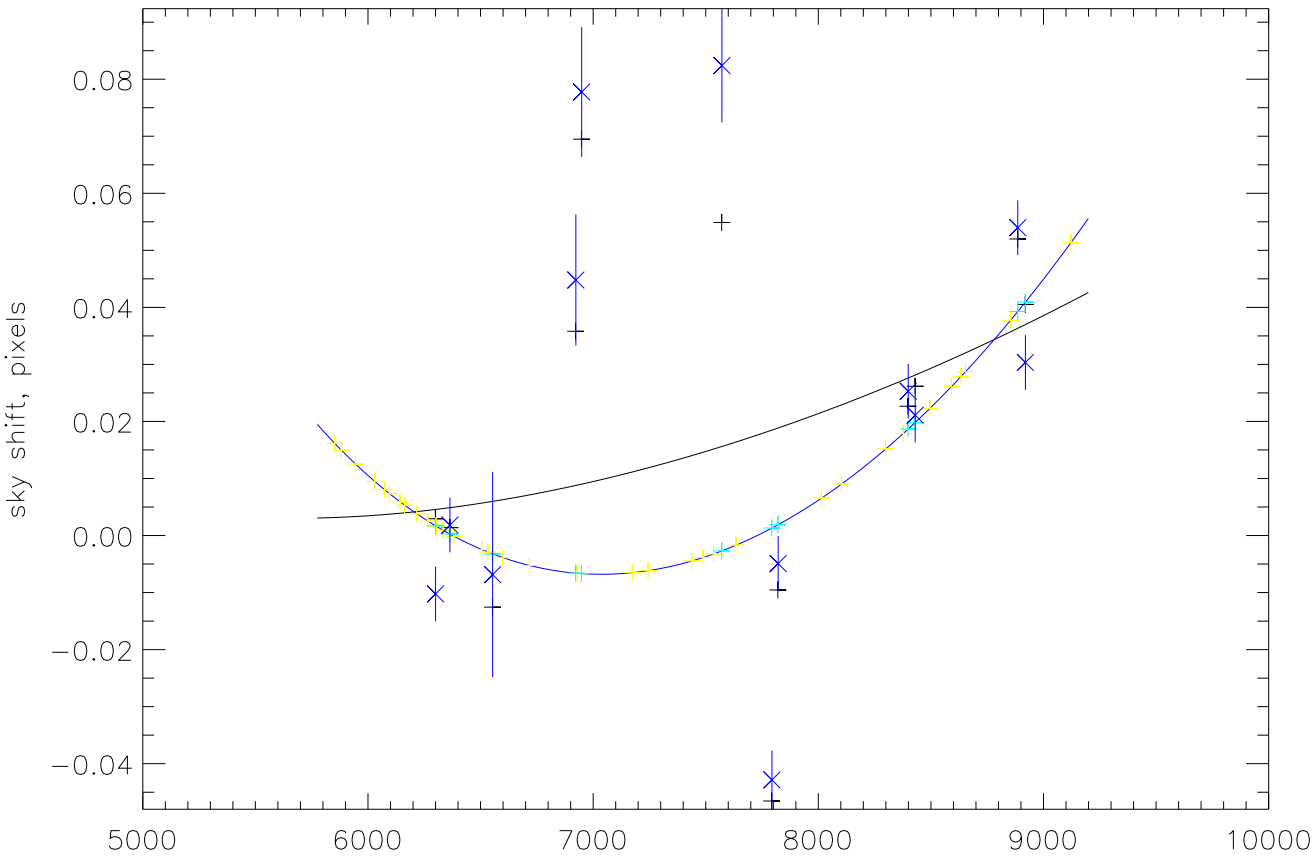

8399.1600
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

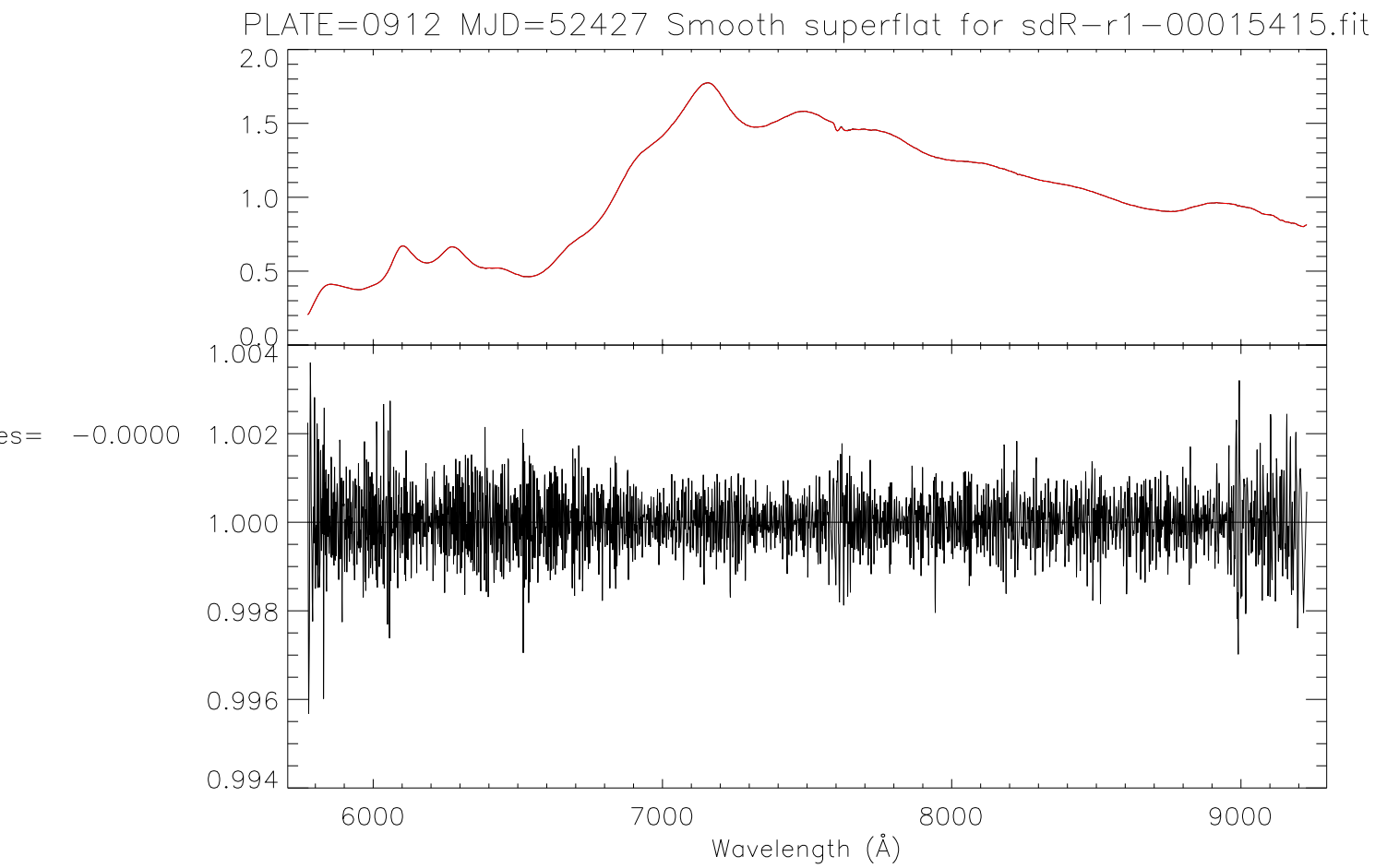

8430.1700
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

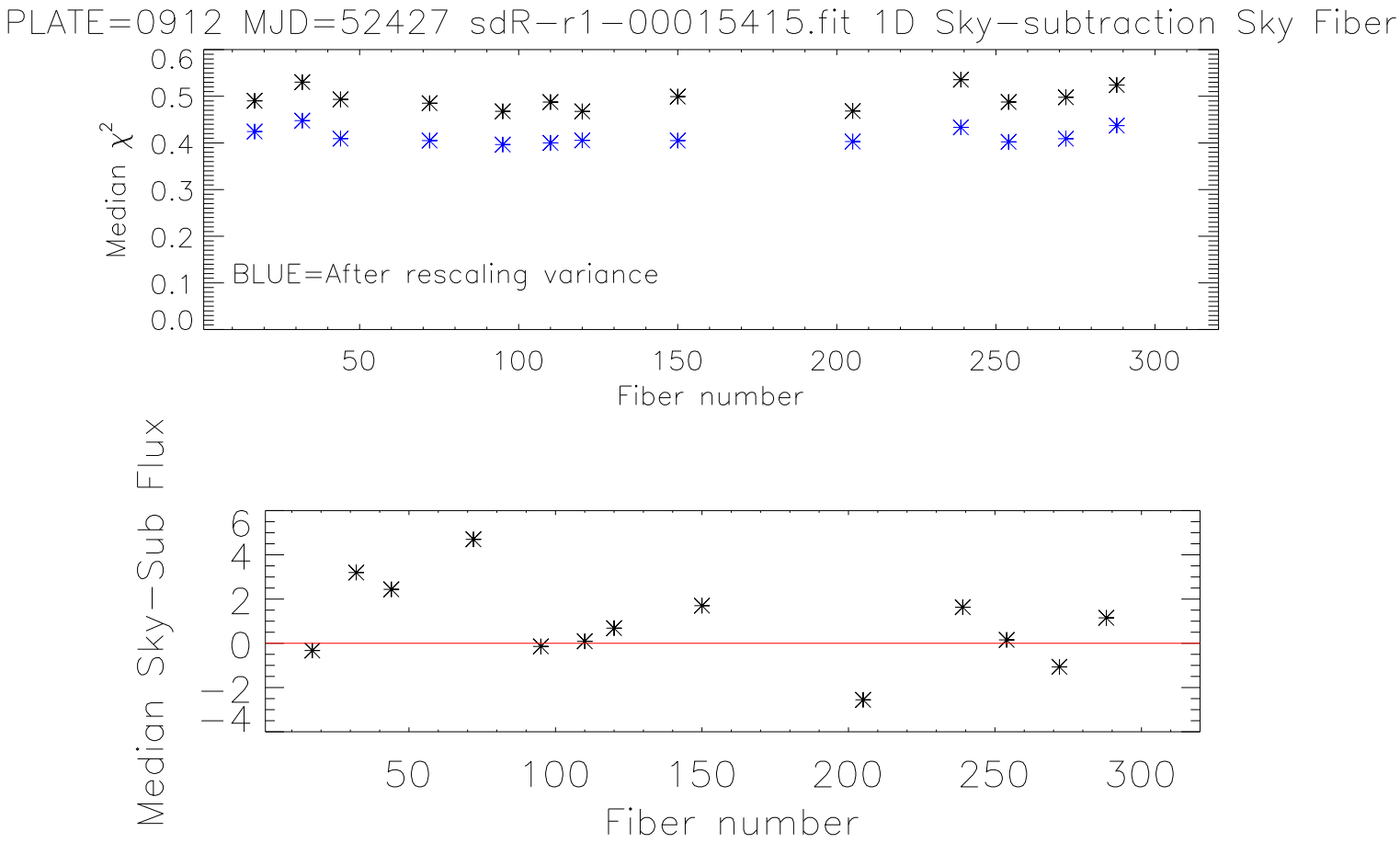

8885.8300
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

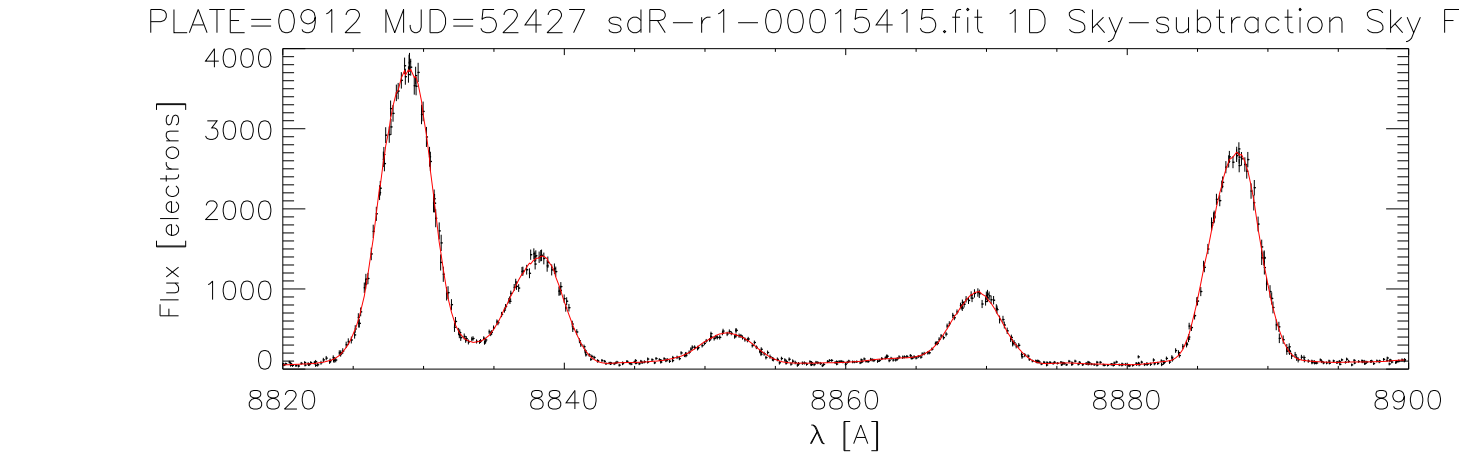

8919.6100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

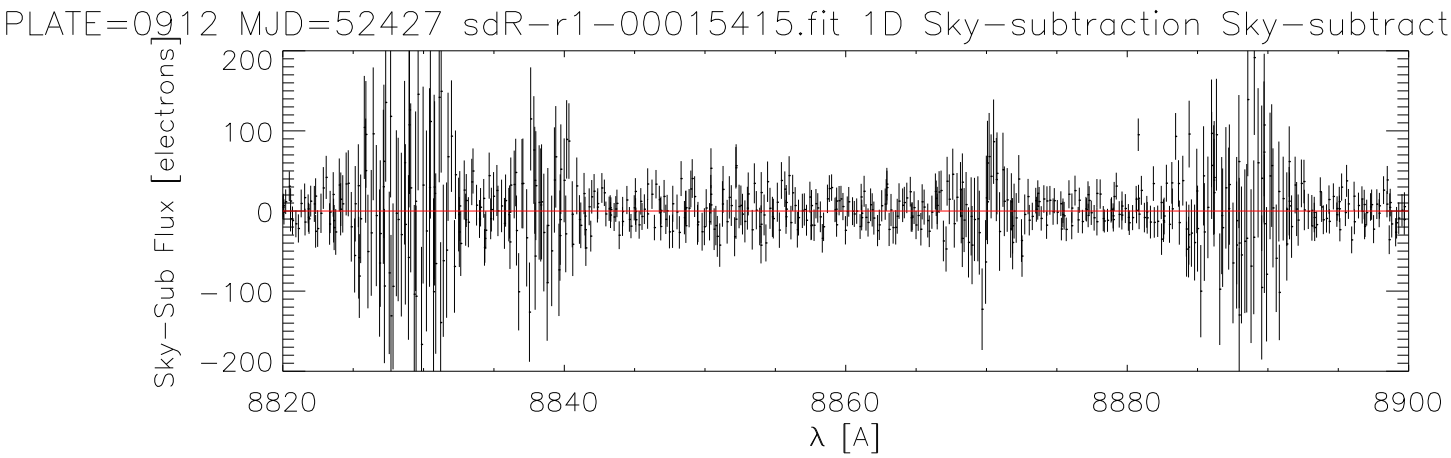

6300.3040
mfib1 16
mfib2 16
stdev 0.014
extra −0.01
6363.7760
mfib1 16
mfib2 16
stdev 0.014
extra 0.00
6553.6100
mfib1 16
mfib2 16
stdev 0.033
extra −0.01
6923.2100
mfib1 16
mfib2 15
stdev 0.035
extra 0.04
6949.0300
mfib1 16
mfib2 16
stdev 0.039
extra 0.08
7571.7500
mfib1 14
mfib2 16
stdev 0.046
extra 0.08
7794.1200
mfib1 16
mfib2 16
stdev 0.021
extra −0.04
7821.5100
mfib1 16
mfib2 16
stdev 0.025
extra −0.00
8399.1600
mfib1 15
mfib2 15
stdev 0.019
extra 0.03
8430.1700
mfib1 15
mfib2 15
stdev 0.021
extra 0.02
8885.8300
mfib1 15
mfib2 15
stdev 0.023
extra 0.03
8919.6100
mfib1 15
mfib2 15
stdev 0.024
extra 0.03
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

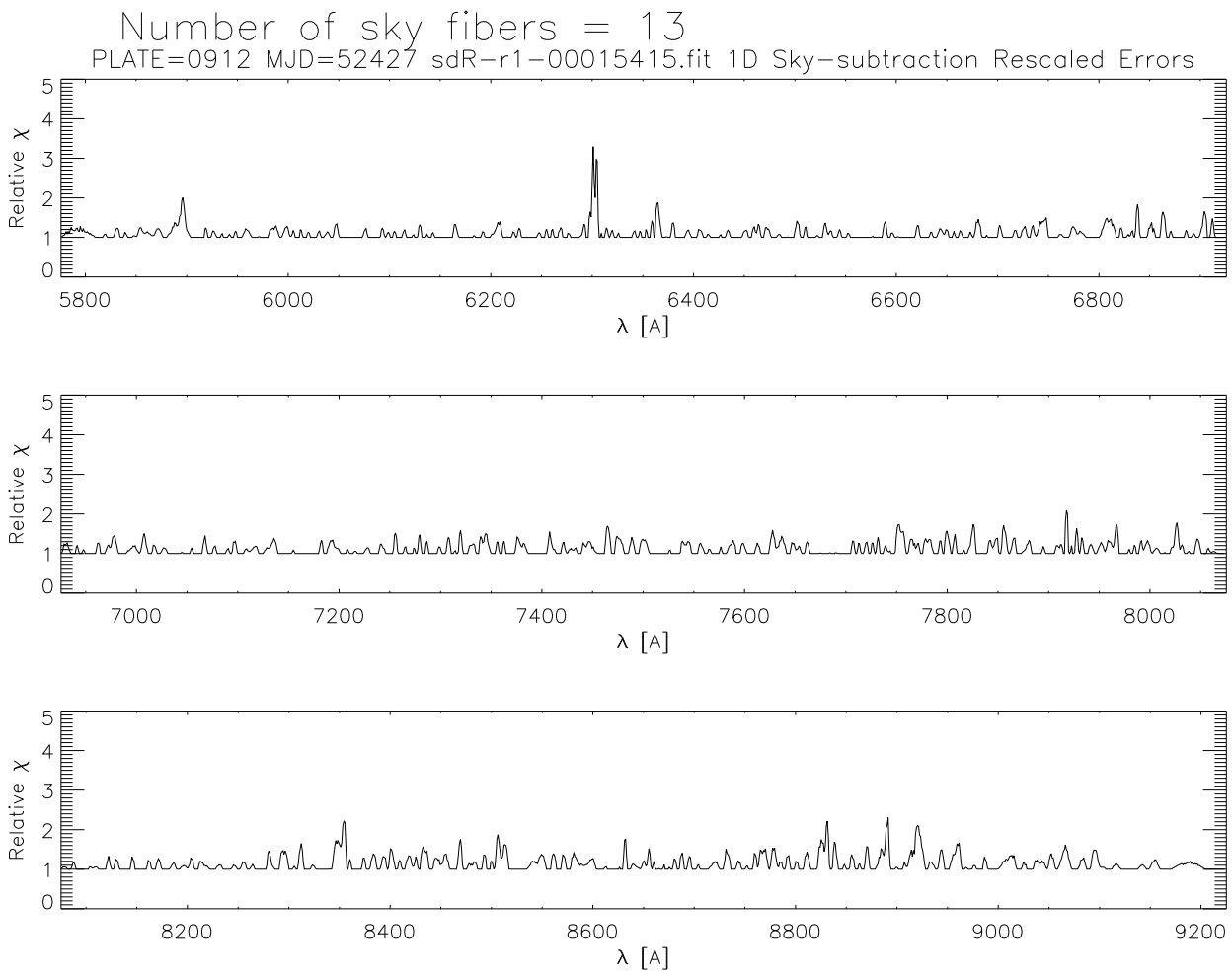

sky shift, pixels
0.08
0.06
0.04
0.02
0.00
−0.02
−0.04
5000
6000
7000
8000
9000
10000

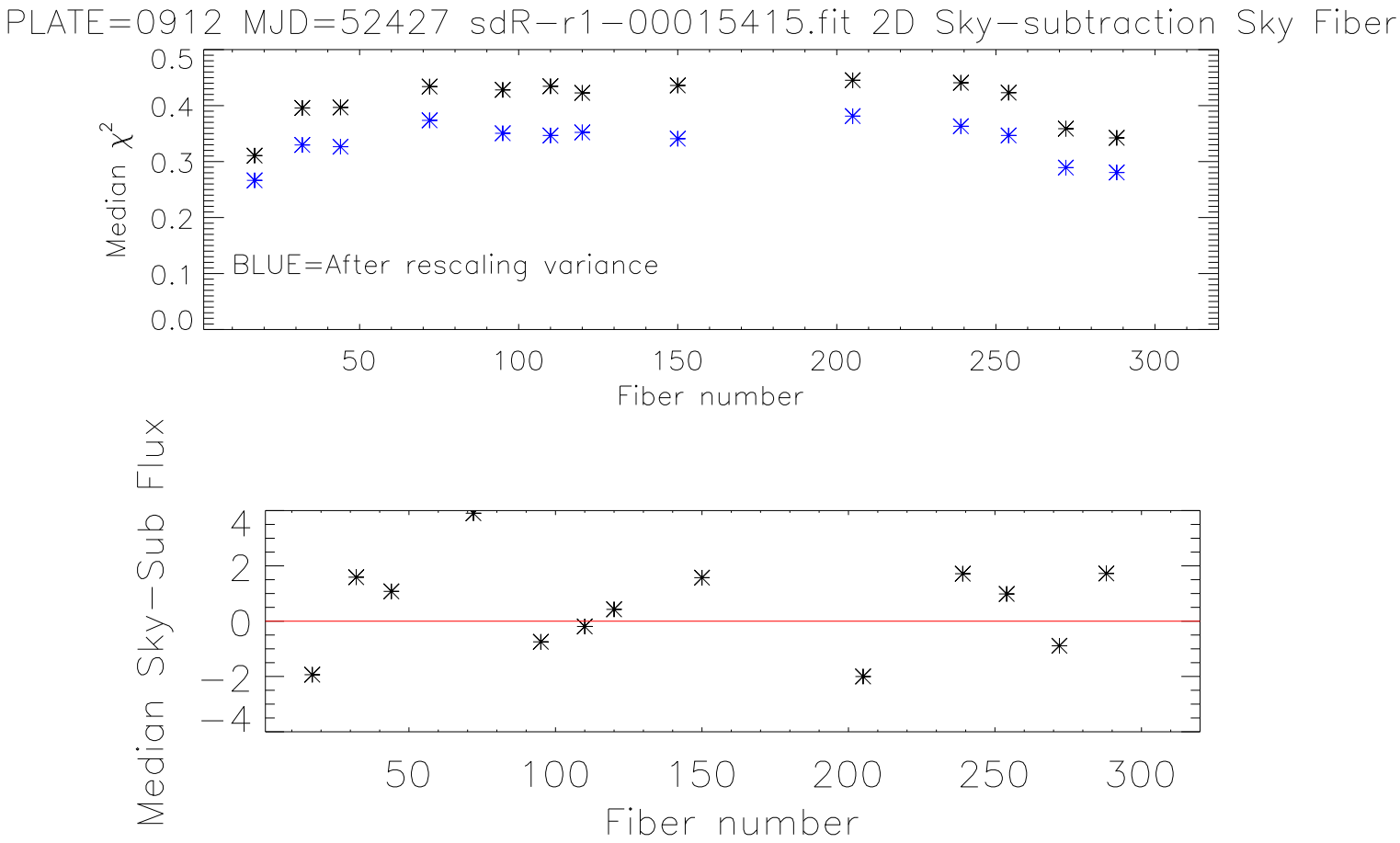

PLATE=0912 MJD=52427 Smooth superflat for sdR-r1-00015415.fit
2.0
1.5
1.0
0.5
0.0
1.004
1.002
1.000
0.998
0.996
0.994
es= −0.0000
6000
7000
8000
9000
Wavelength (Å)

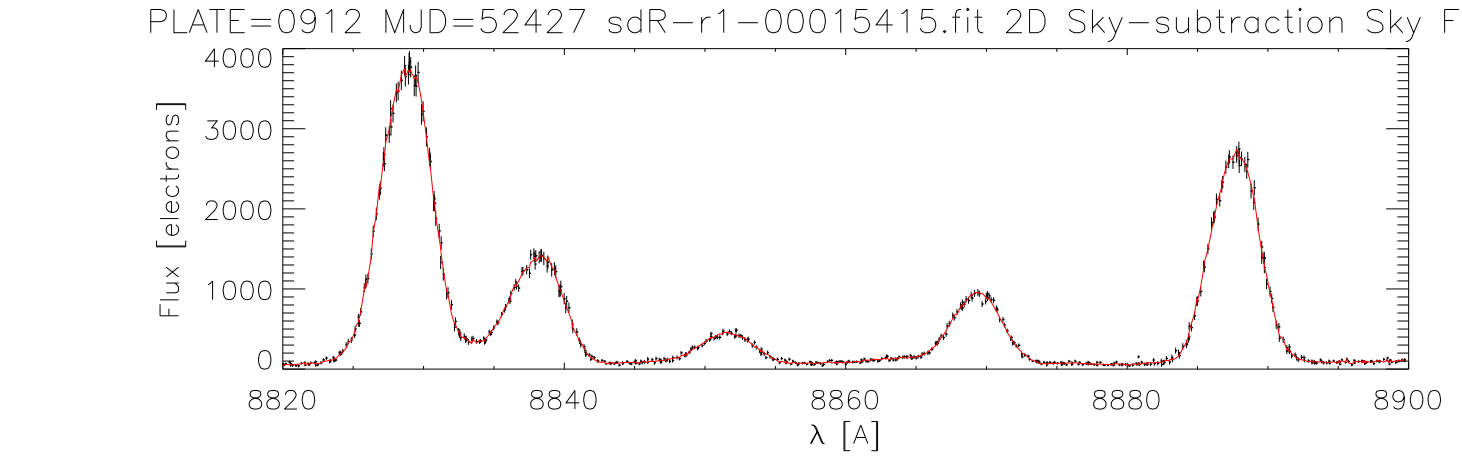

PLATE=0912 MJD=52427 sdR-r1-00015415.fit 1D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

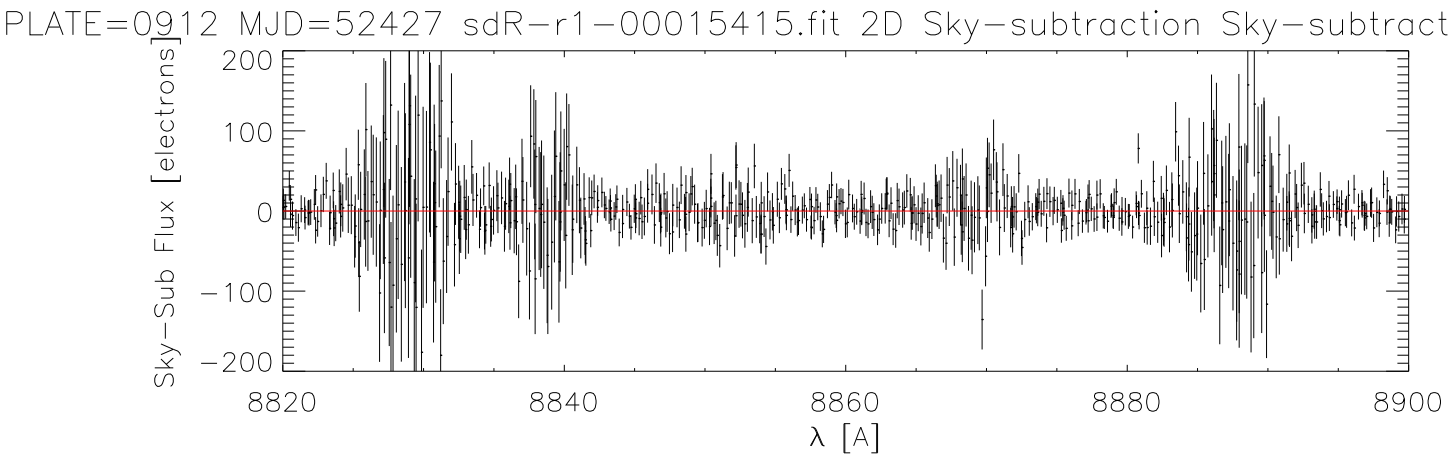

PLATE=0912 MJD=52427 sdR-r1-00015415.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

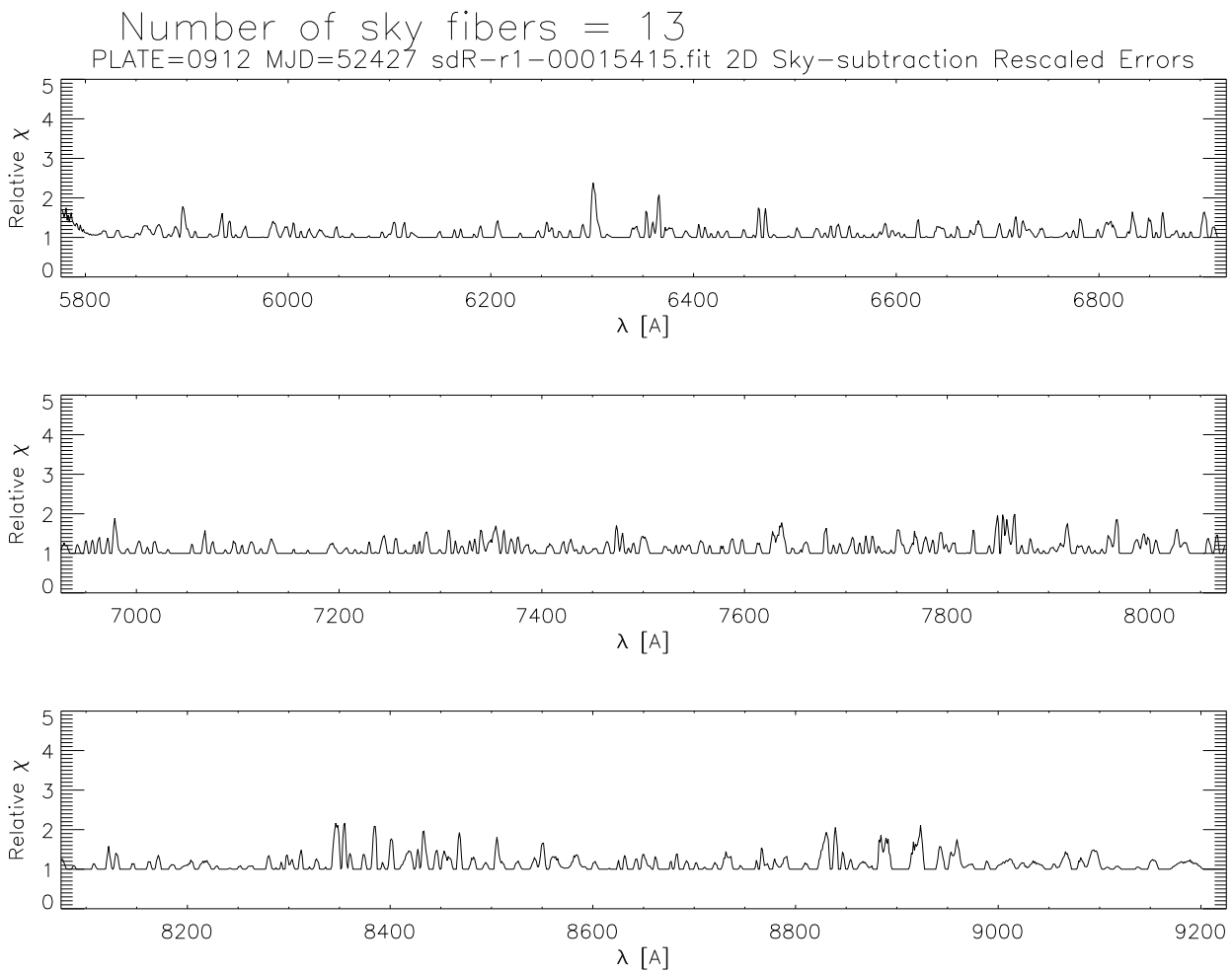

PLATE=0912 MJD=52427 sdR-r1-00015415.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
8820
8840
8860
8880
8900
λ [A]

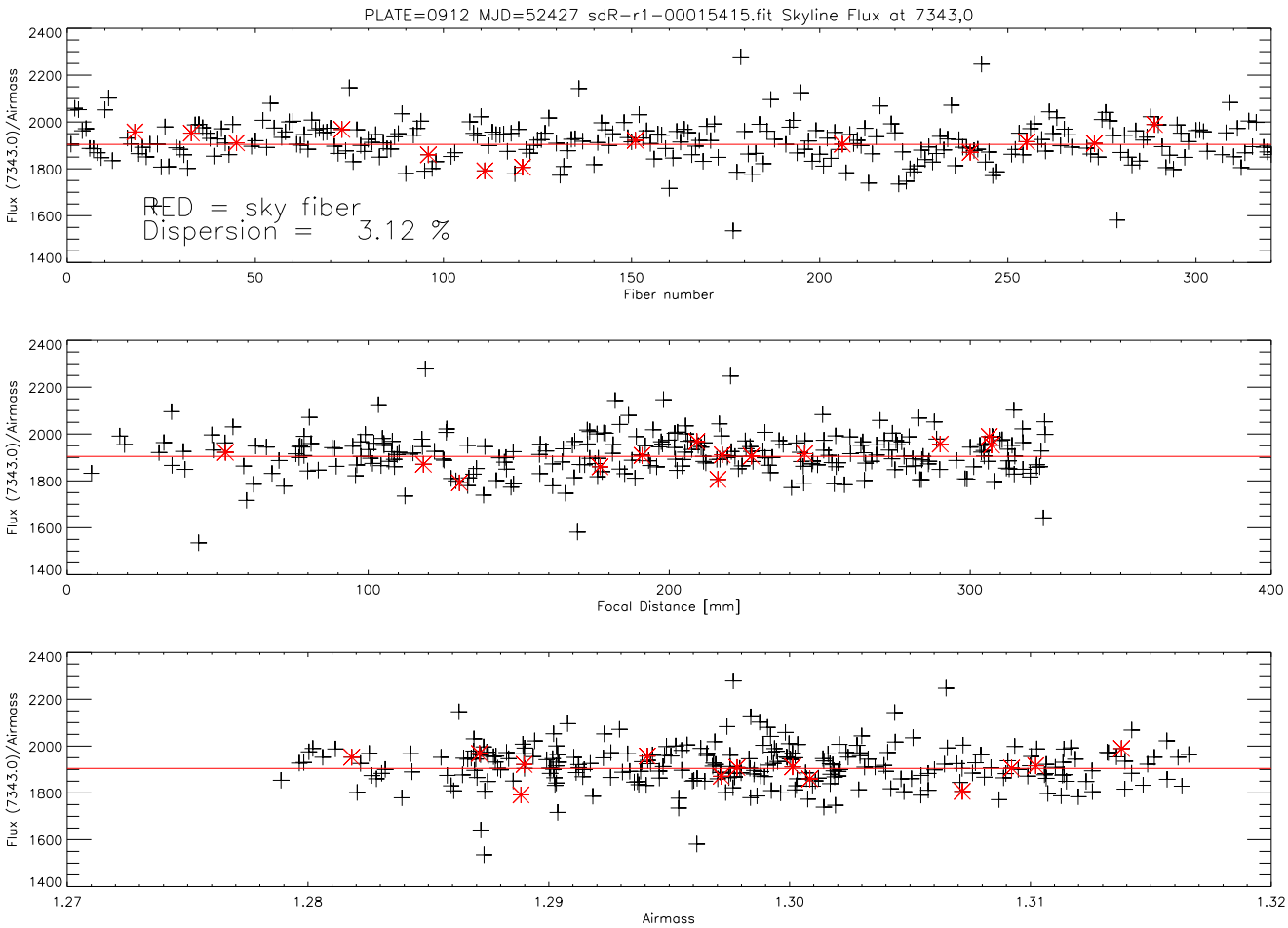

Number of sky fibers = 13
PLATE=0912 MJD=52427 sdR-r1-00015415.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

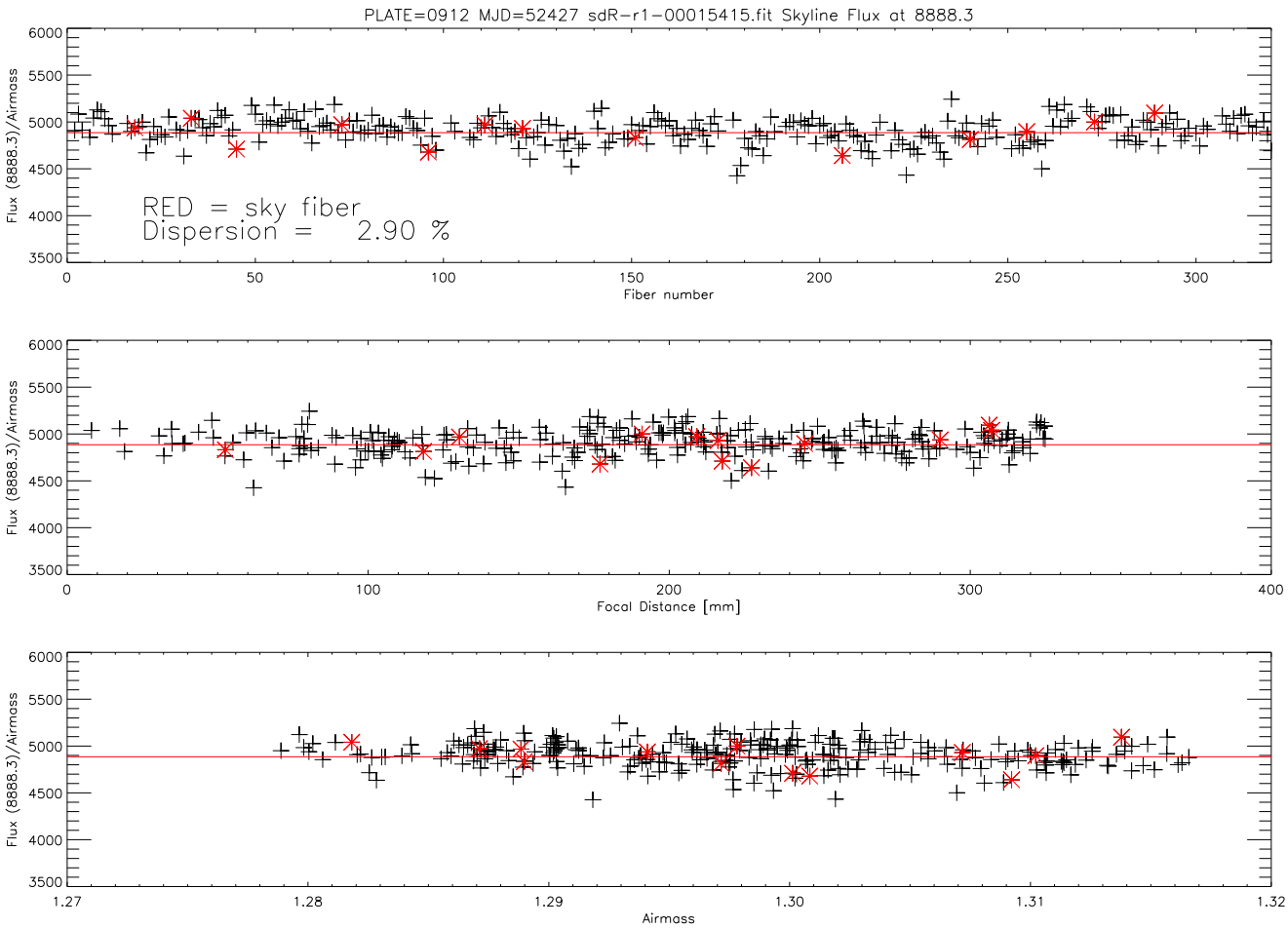

PLATE=0912 MJD=52427 sdR-r1-00015415.fit 2D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

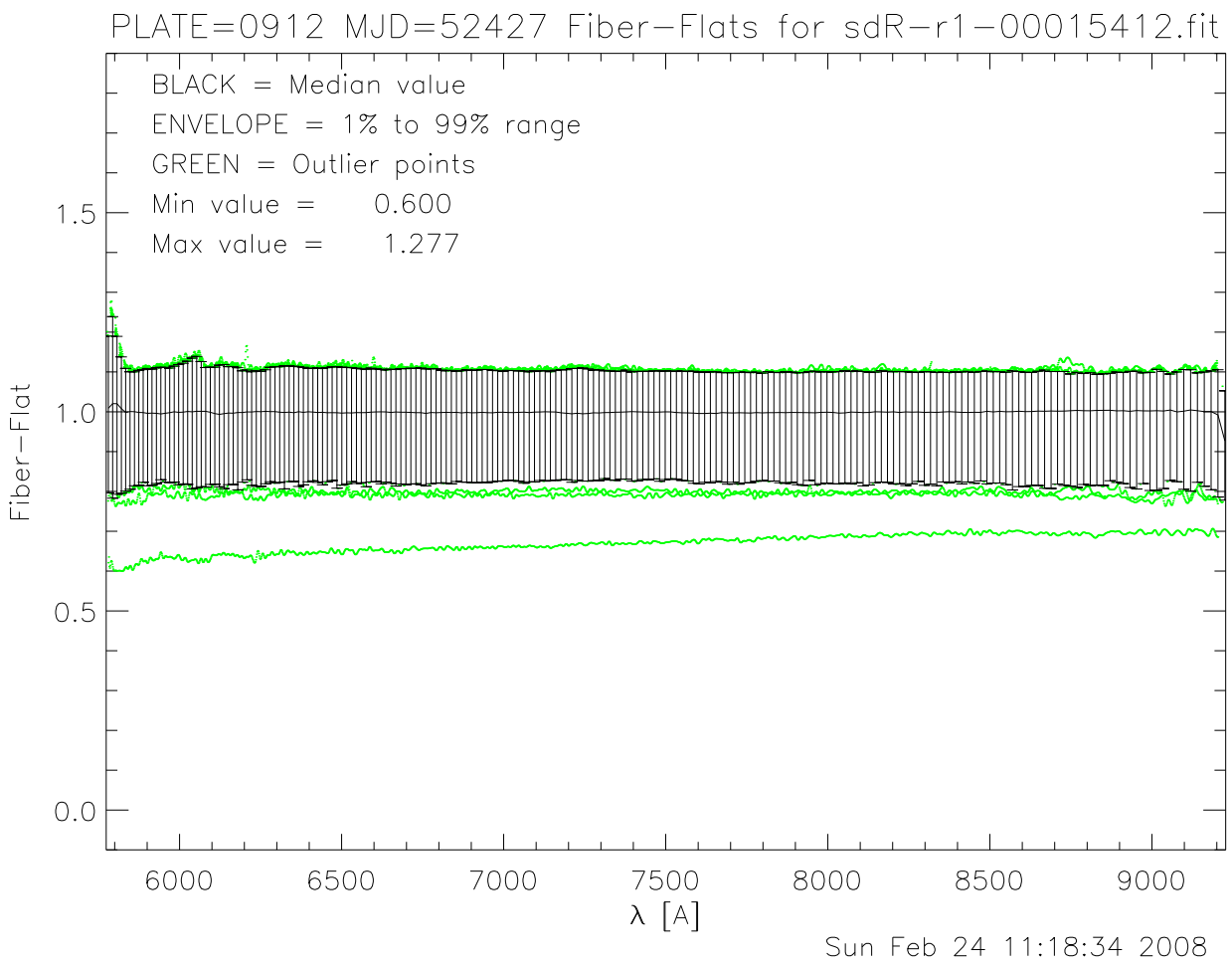

PLATE=0912 MJD=52427 sdR-r1-00015415.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

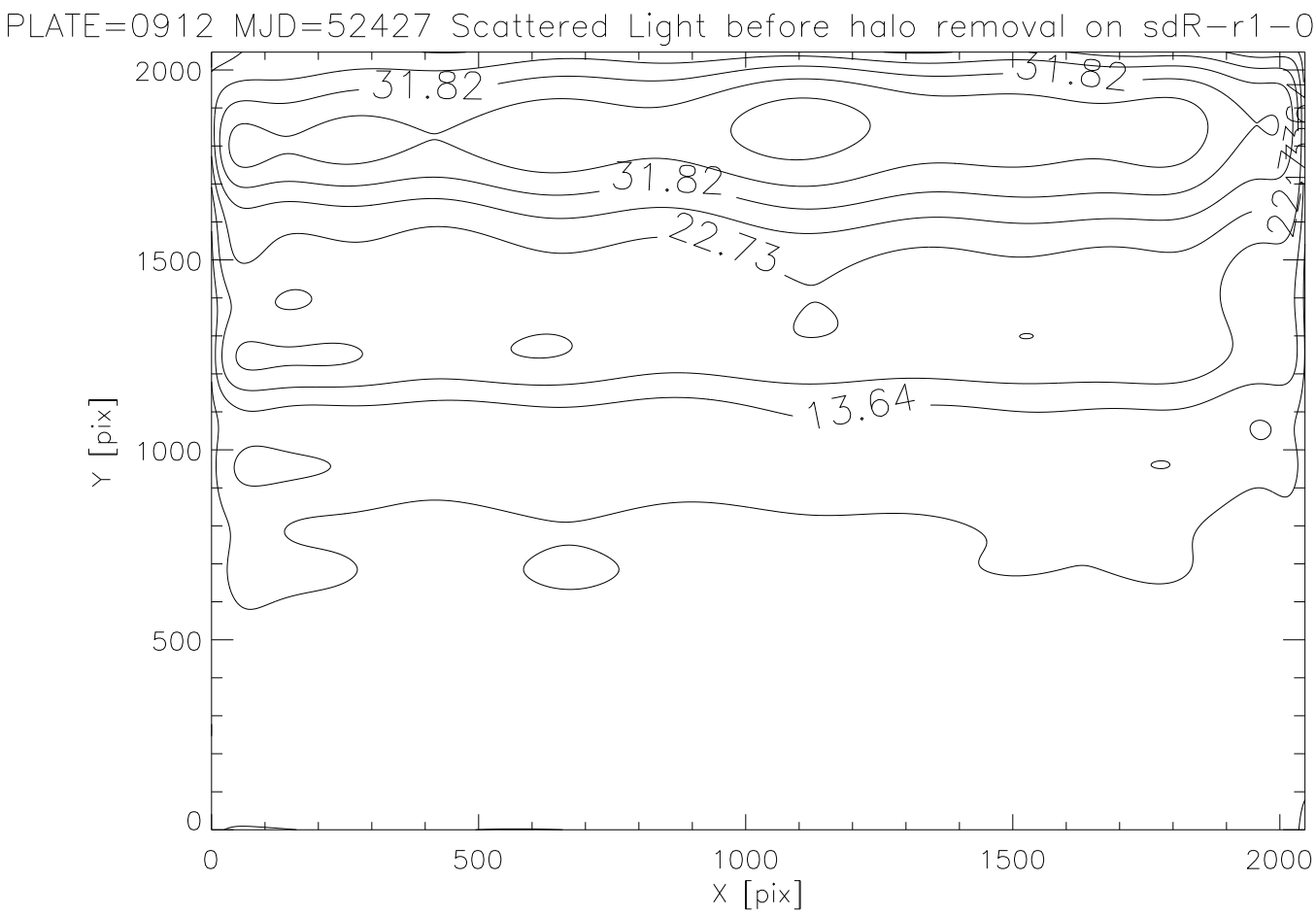

PLATE=0912 MJD=52427 sdR-r1-00015415.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
8820
8840
8860
8880
8900
λ [A]

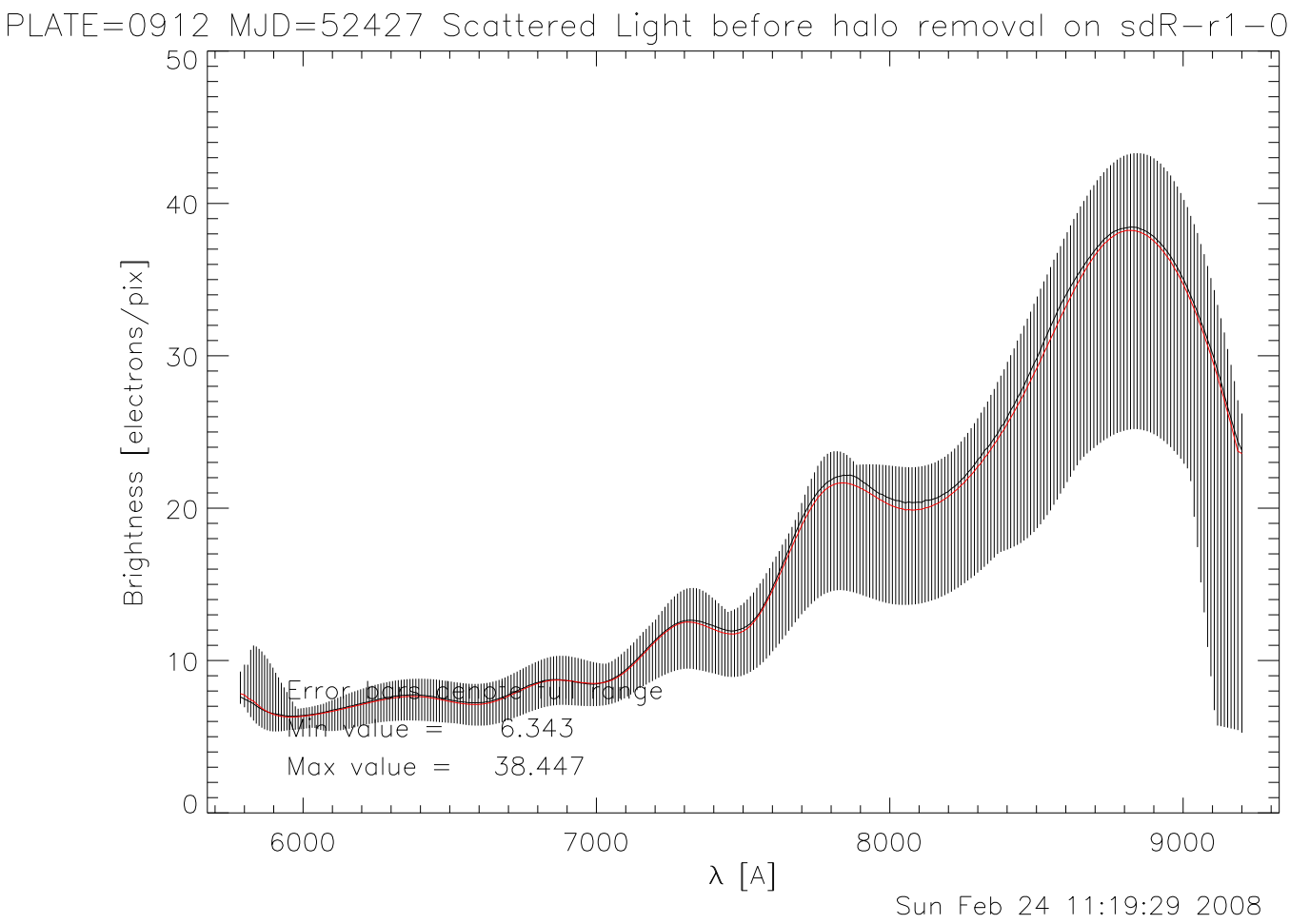

Number of sky fibers = 13
PLATE=0912 MJD=52427 sdR-r1-00015415.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

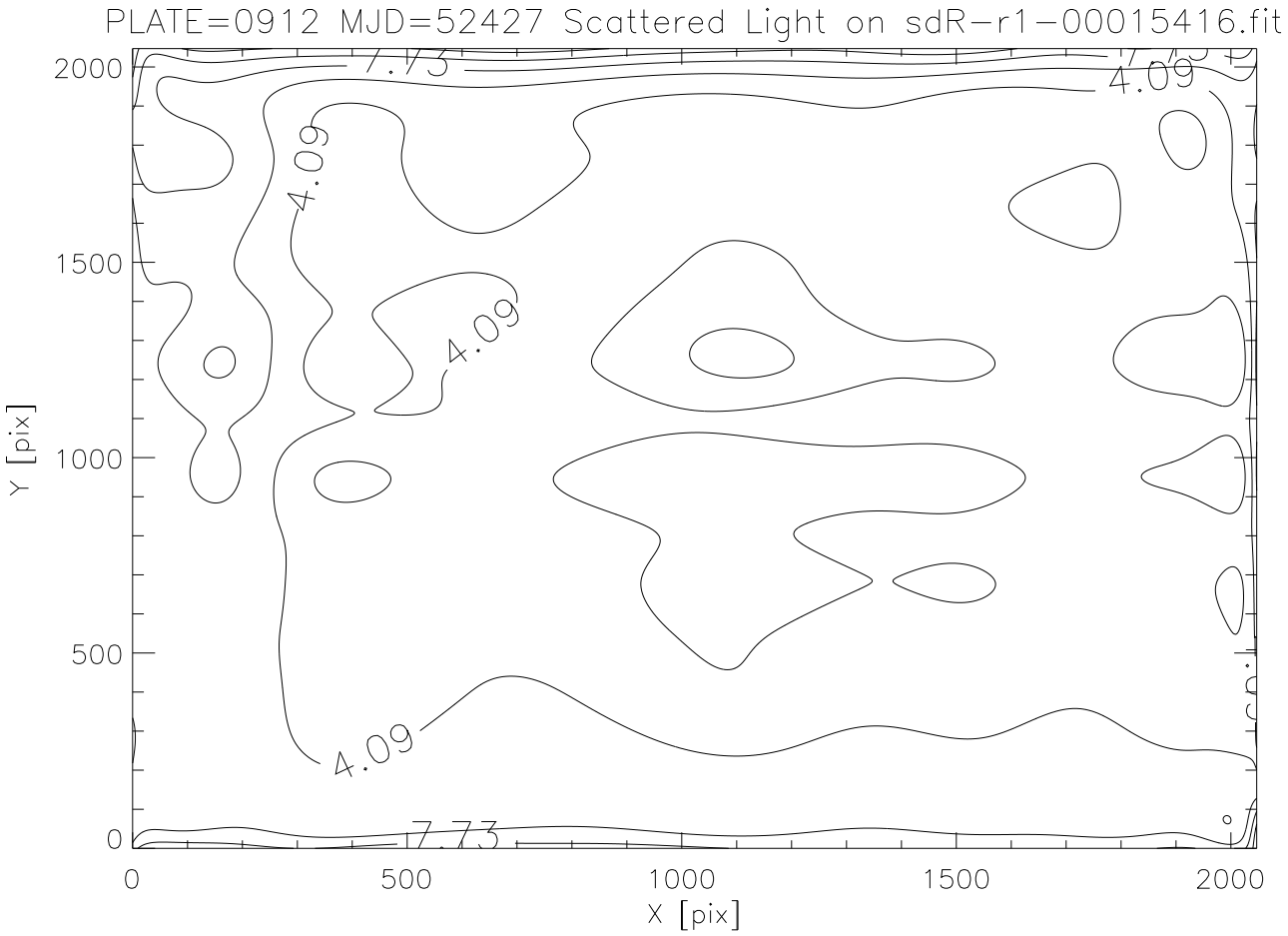

PLATE=0912 MJD=52427 sdR-r1-00015415.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 3.12 %
Fiber number
Focal Distance [mm]
Airmass

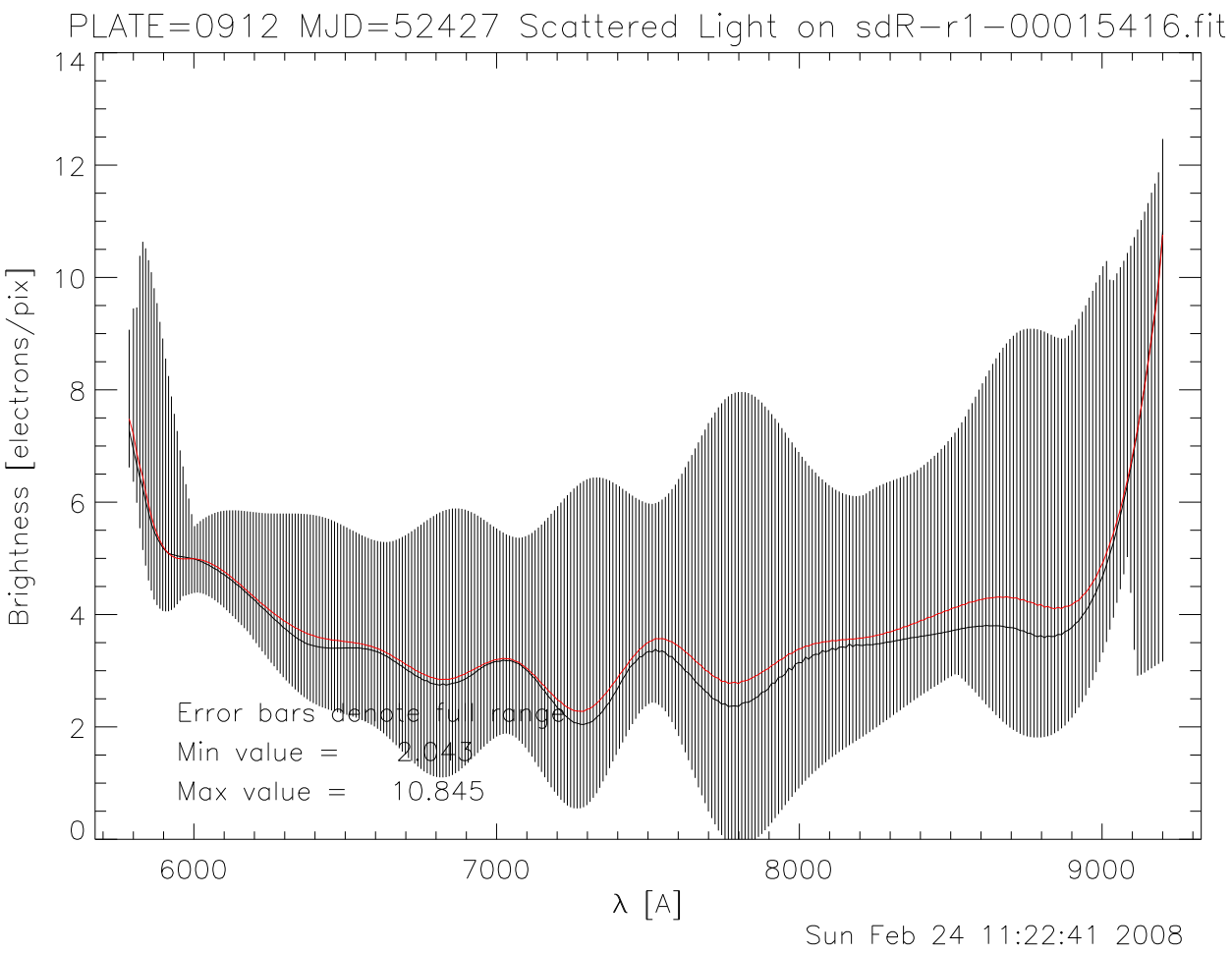

PLATE=0912 MJD=52427 sdR-r1-00015415.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 2.90 %
Fiber number
Focal Distance [mm]
Airmass

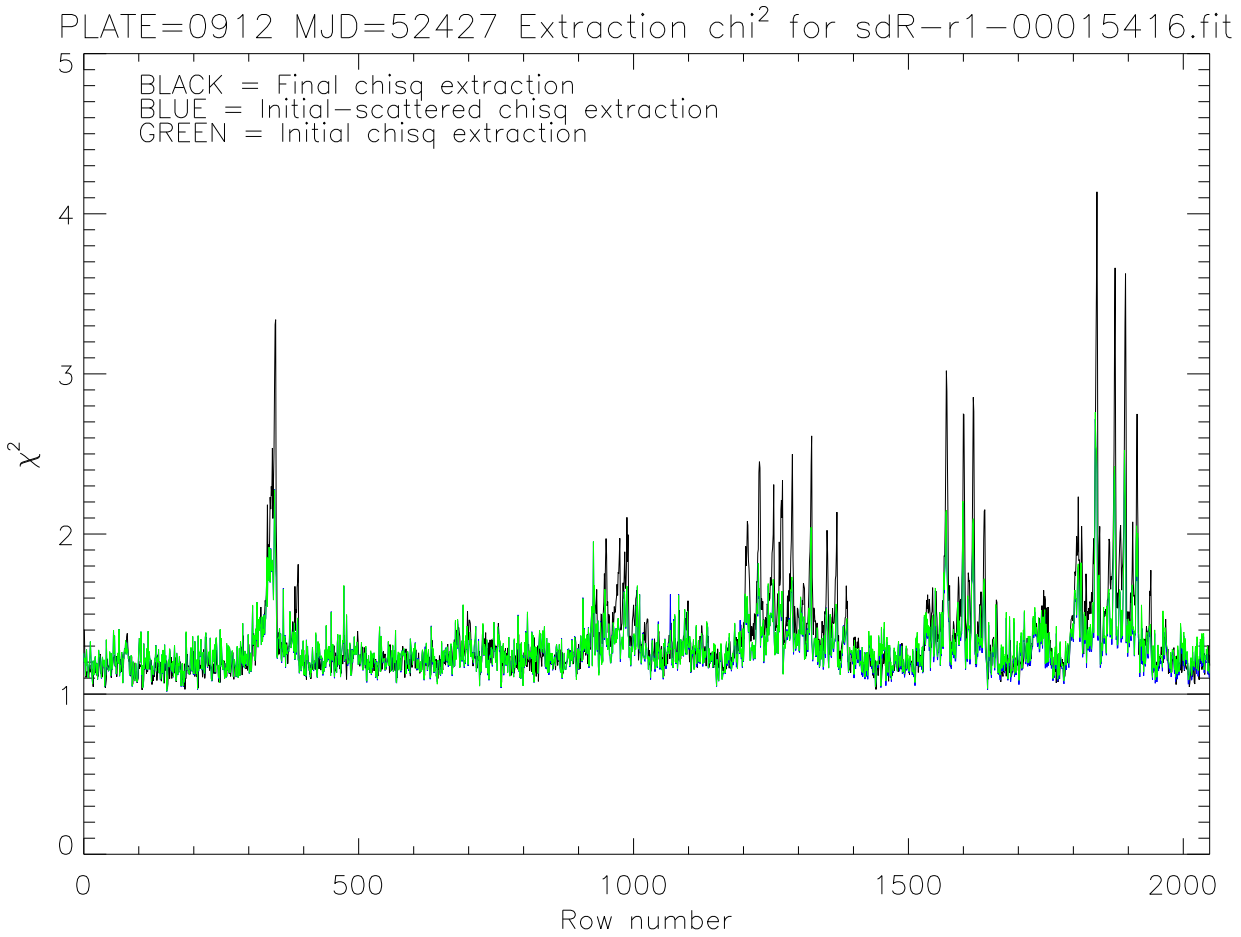

PLATE=0912 MJD=52427 Fiber−Flats for sdR−r1−00015412.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.600
Max value = 1.277
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sun Feb 24 11:18:34 2008

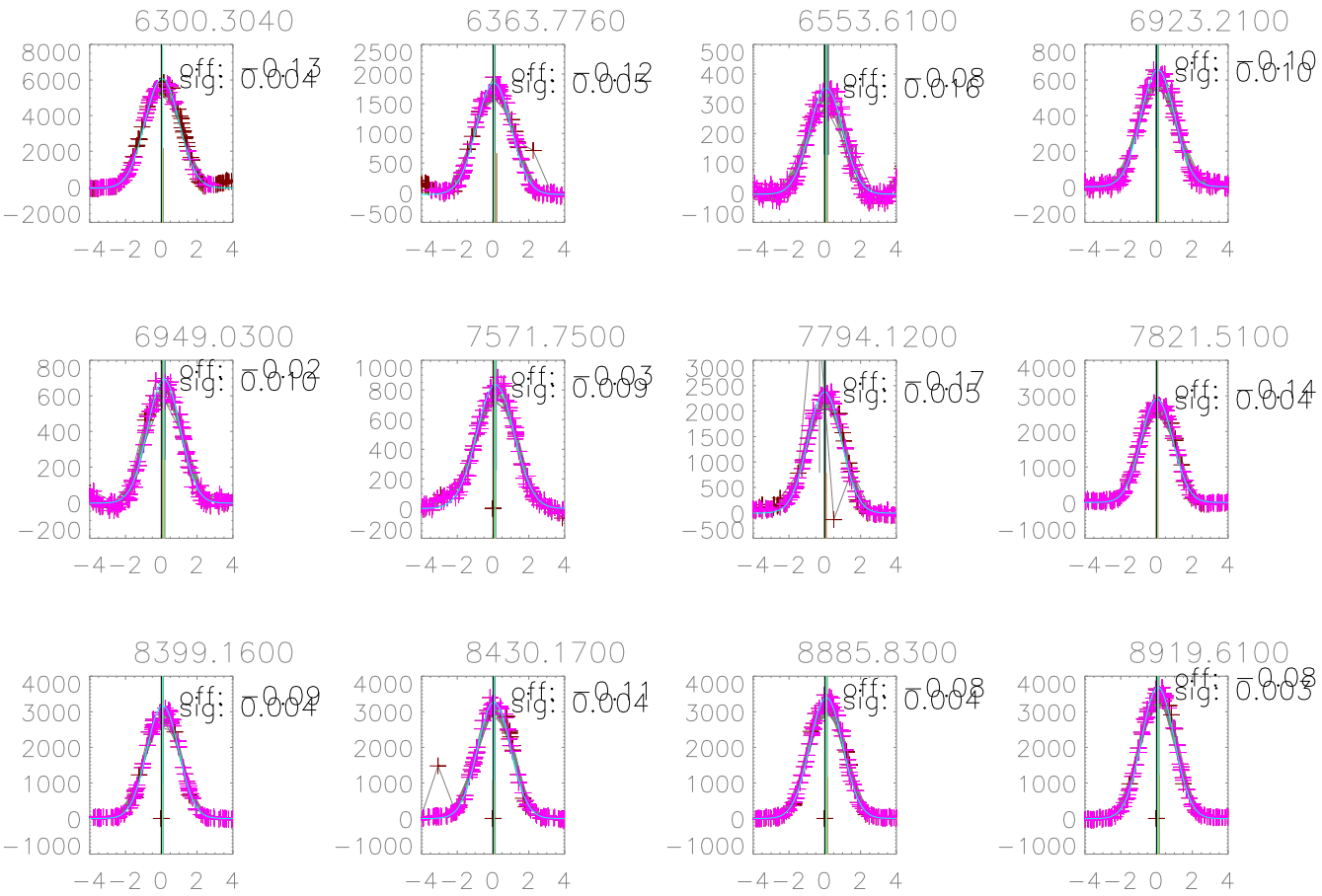

PLATE=0912 MJD=52427 Scattered Light before halo removal on sdR-r1-00015416.fi
31.82
31.82
31.82
22.73
13.64
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]

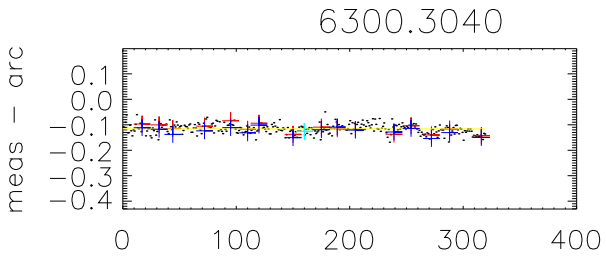

PLATE=0912 MJD=52427 Scattered Light before halo removal on sdR-r1-00015416.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 6.343
Max value = 38.447
Sun Feb 24 11:19:29 2008

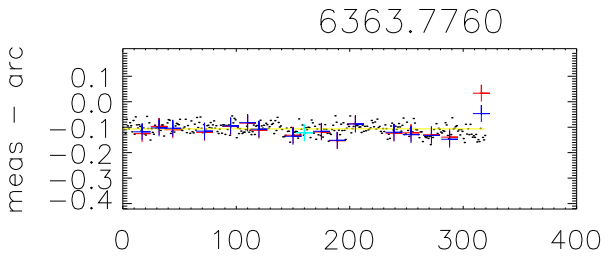

PLATE=0912 MJD=52427 Scattered Light on sdR-r1-00015416.fit
7.73
4.09
4.09
4.09
4.09
7.73
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]

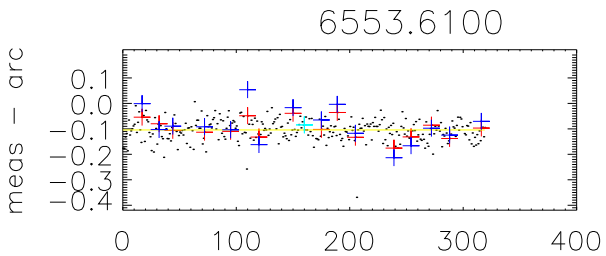

PLATE=0912 MJD=52427 Scattered Light on sdR-r1-00015416.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 2.043
Max value = 10.845
Sun Feb 24 11:22:41 2008

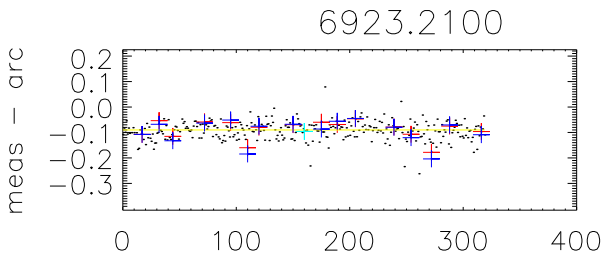

PLATE=0912 MJD=52427 Extraction chi^2 for sdR−r1−00015416.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
5
0
500
1000
1500
2000
Row number

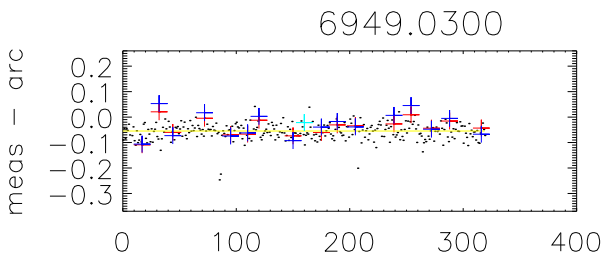

6300.3040
off: −0.13
sig: 0.004
6363.7760
off: −0.12
sig: 0.005
6553.6100
off: −0.08
sig: 0.018
6923.2100
off: −0.10
sig: 0.010
6949.0300
off: −0.02
sig: 0.010
7571.7500
off: −0.03
sig: 0.009
7794.1200
off: −0.17
sig: 0.005
7821.5100
off: −0.14
sig: 0.004
8399.1600
off: −0.09
sig: 0.004
8430.1700
off: −0.11
sig: 0.004
8885.8300
off: −0.08
sig: 0.004
8919.6100
off: −0.08
sig: 0.003

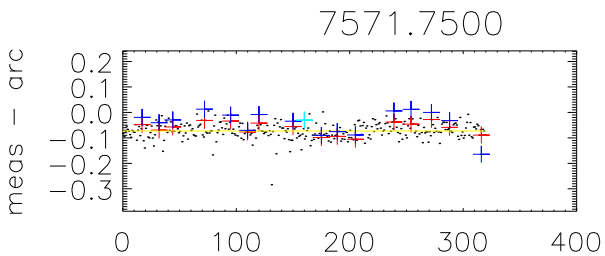

6300.3040
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

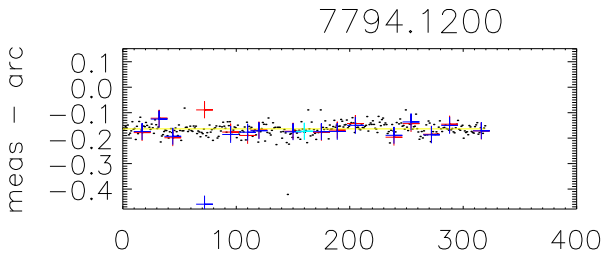

6363.7760
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

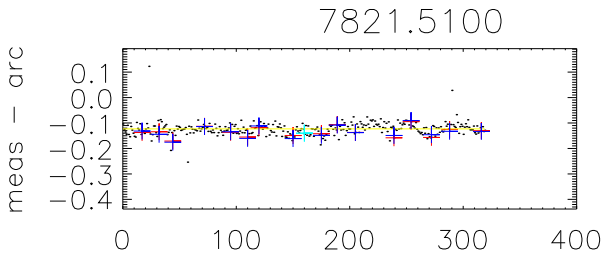

6553.6100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

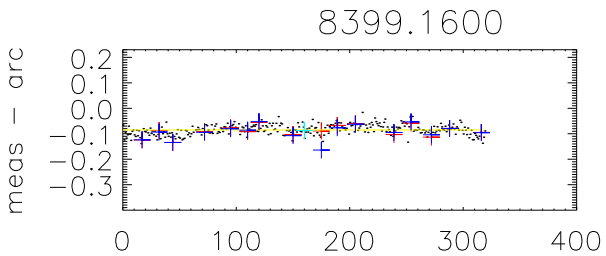

6923.2100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

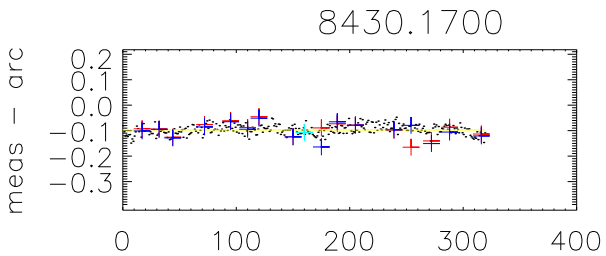

6949.0300
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

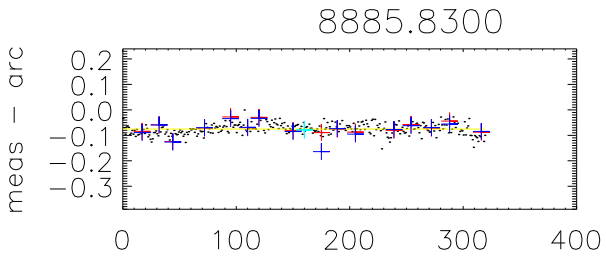

7571.7500
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

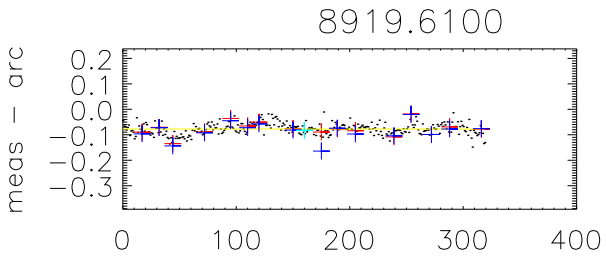

7794.1200
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

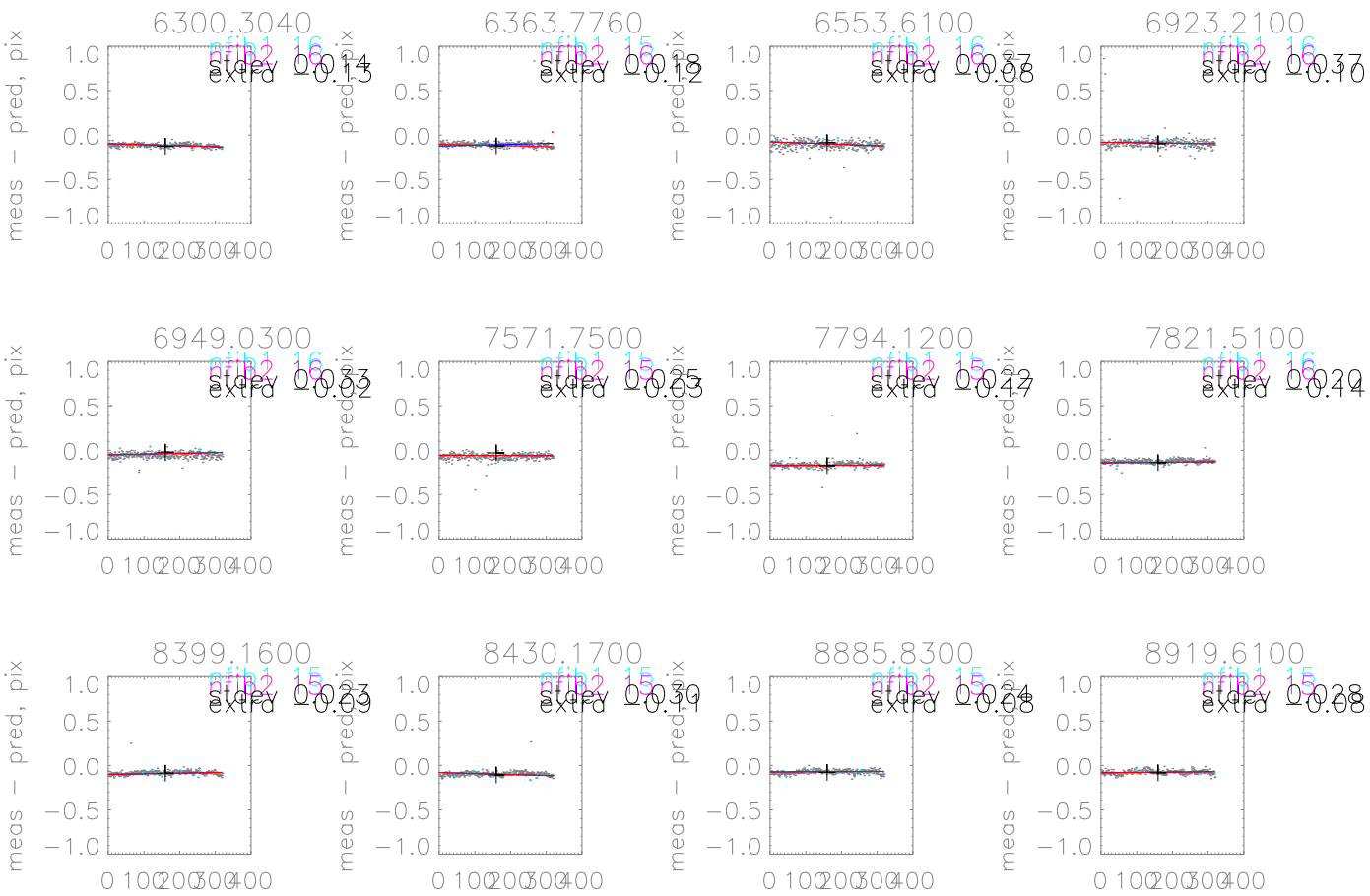

7821.5100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

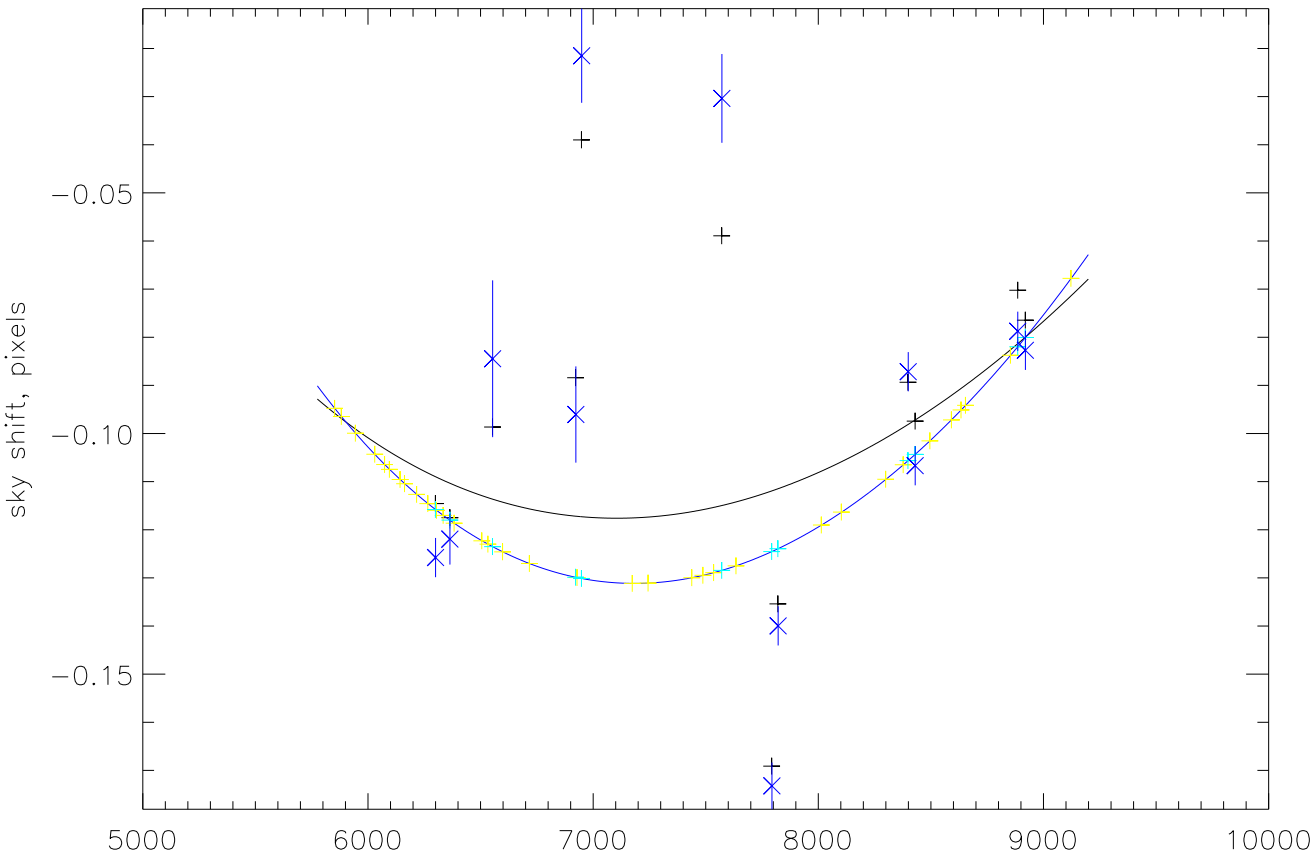

8399.1600
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

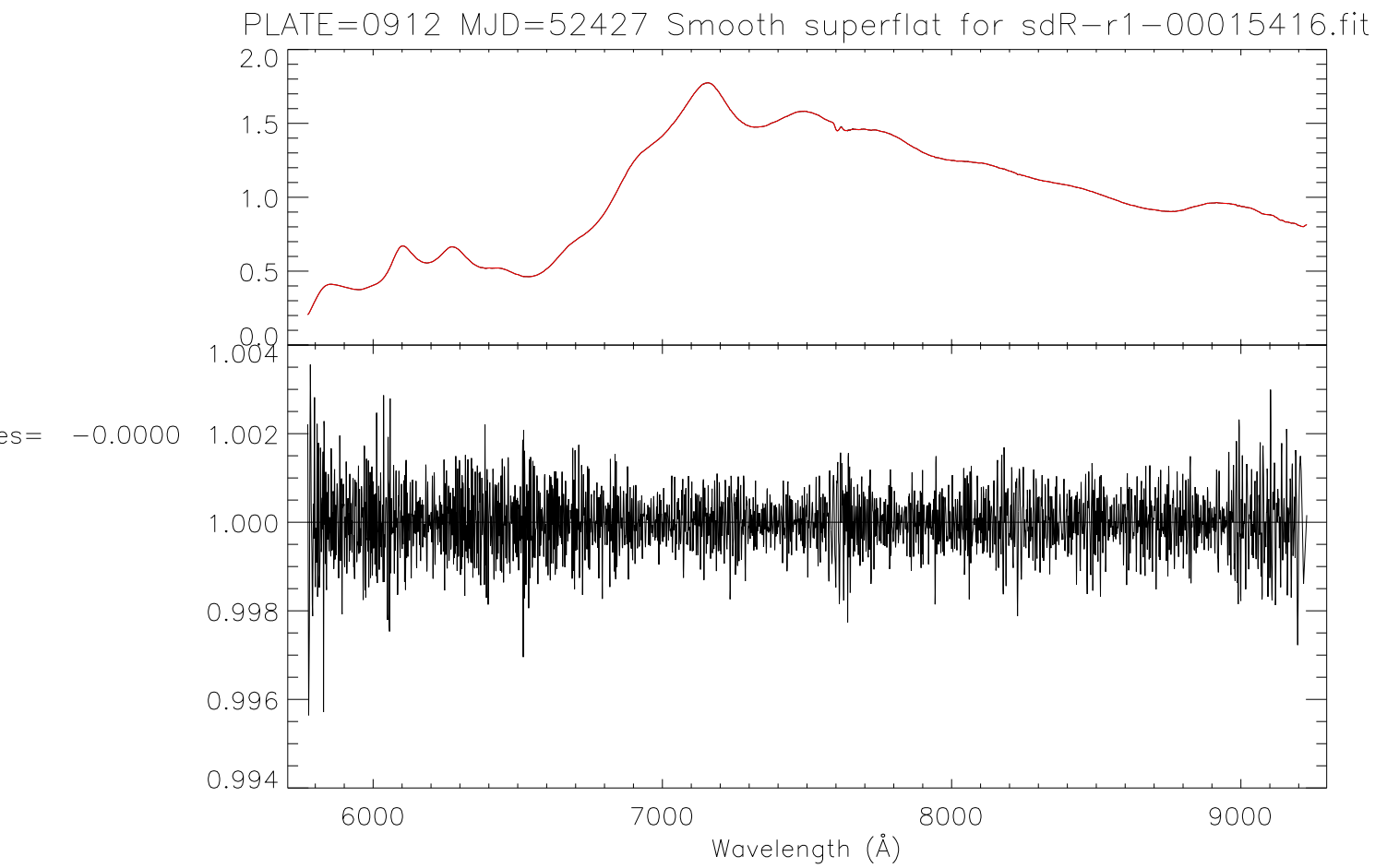

8430.1700
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

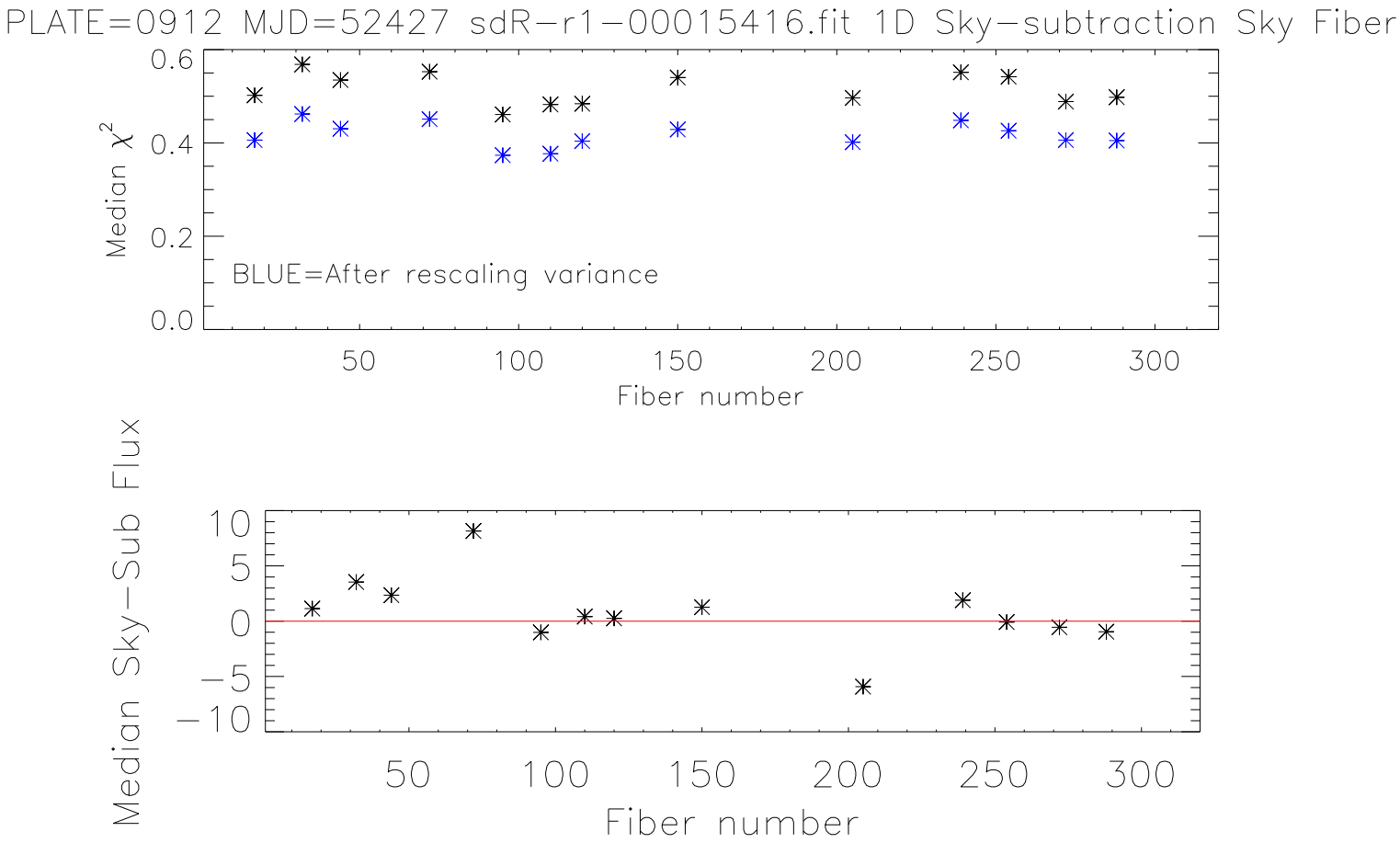

8885.8300
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

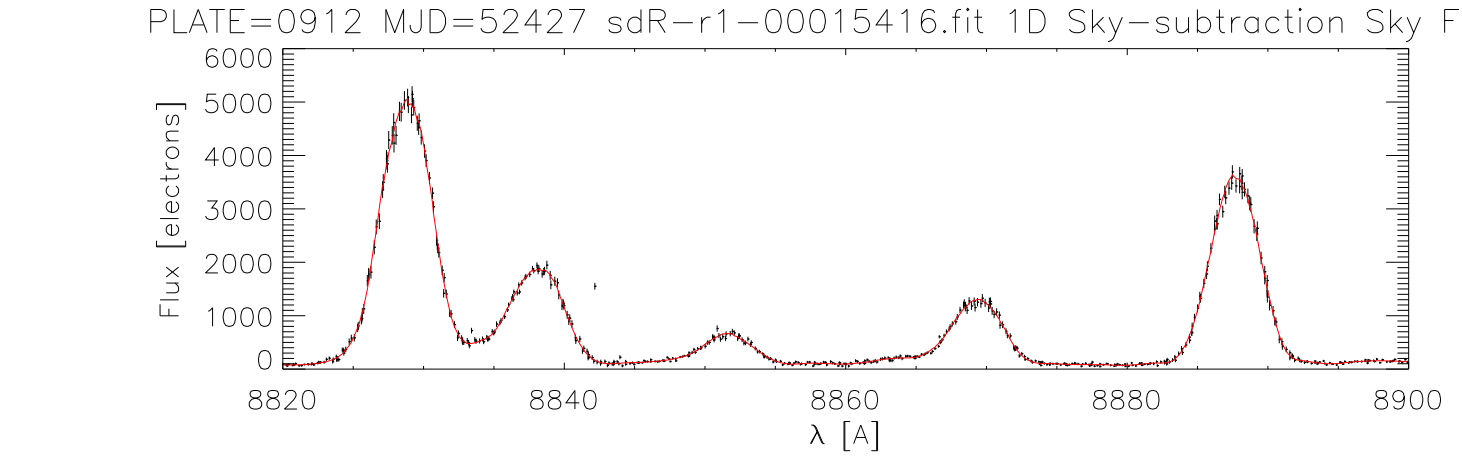

8919.6100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

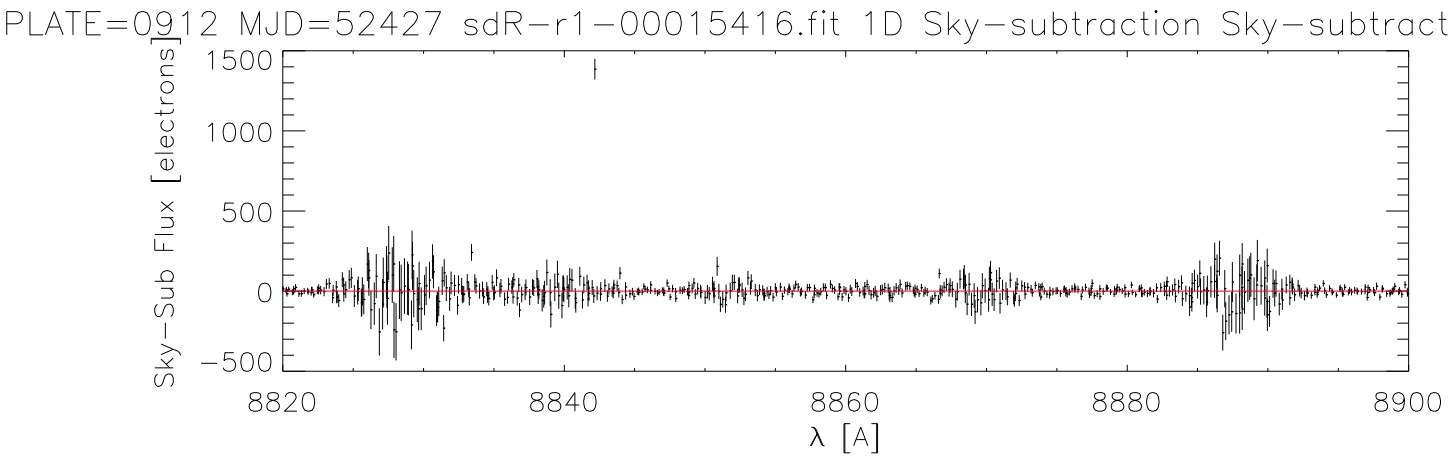

6300.3040
stdev 0.14
extra 0.13
6363.7760
stdev 0.12
extra 0.12
6553.6100
stdev 0.08
extra 0.08
6923.2100
stdev 0.10
extra 0.10
6949.0300
stdev 0.02
extra 0.02
7571.7500
stdev 0.03
extra 0.03
7794.1200
stdev 0.47
extra 0.47
7821.5100
stdev 0.44
extra 0.44
8399.1600
stdev 0.09
extra 0.09
8430.1700
stdev 0.11
extra 0.11
8885.8300
stdev 0.08
extra 0.08
8919.6100
stdev 0.08
extra 0.08
meas − pred, pix

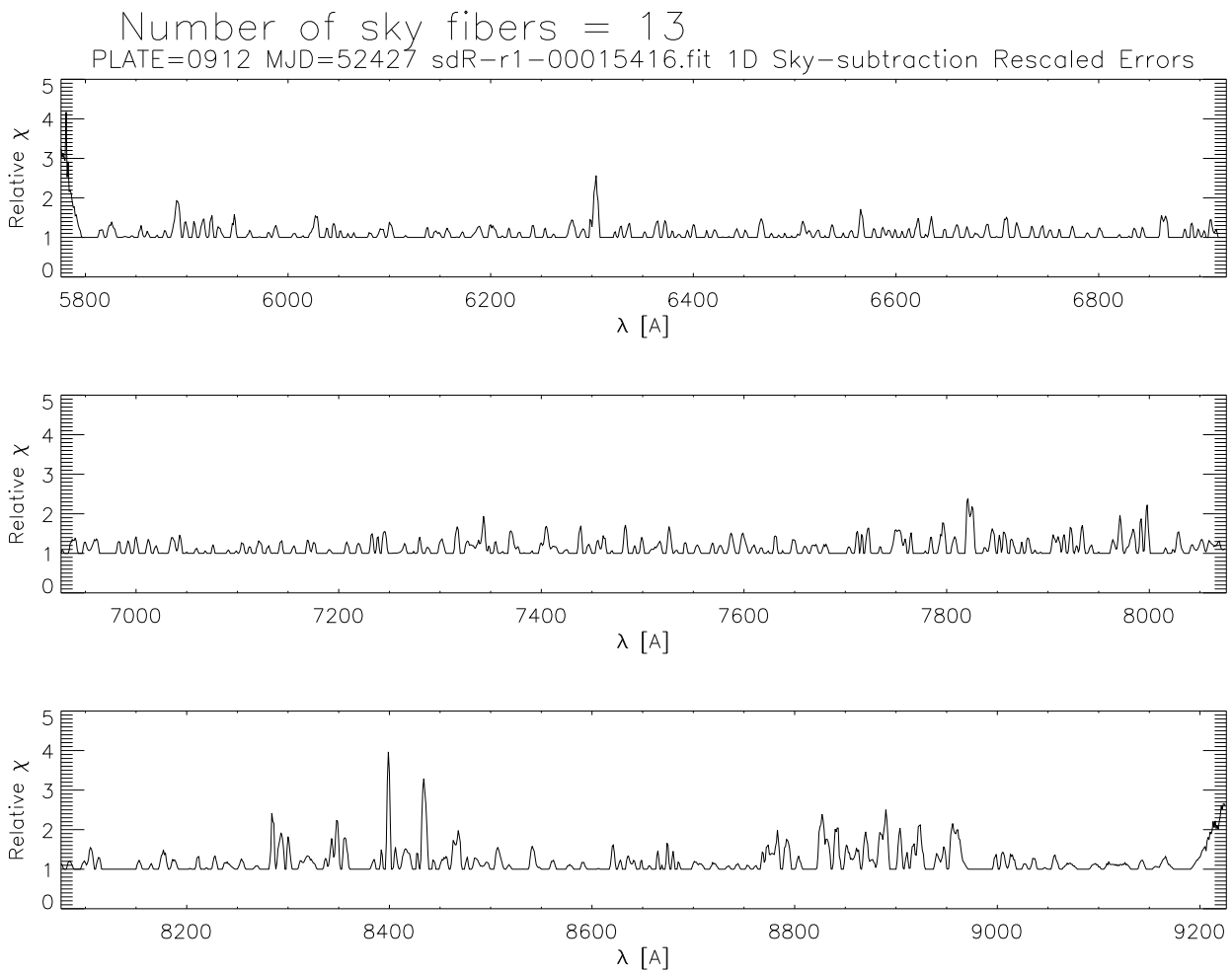

sky shift, pixels
−0.05
−0.10
−0.15
5000
6000
7000
8000
9000
10000

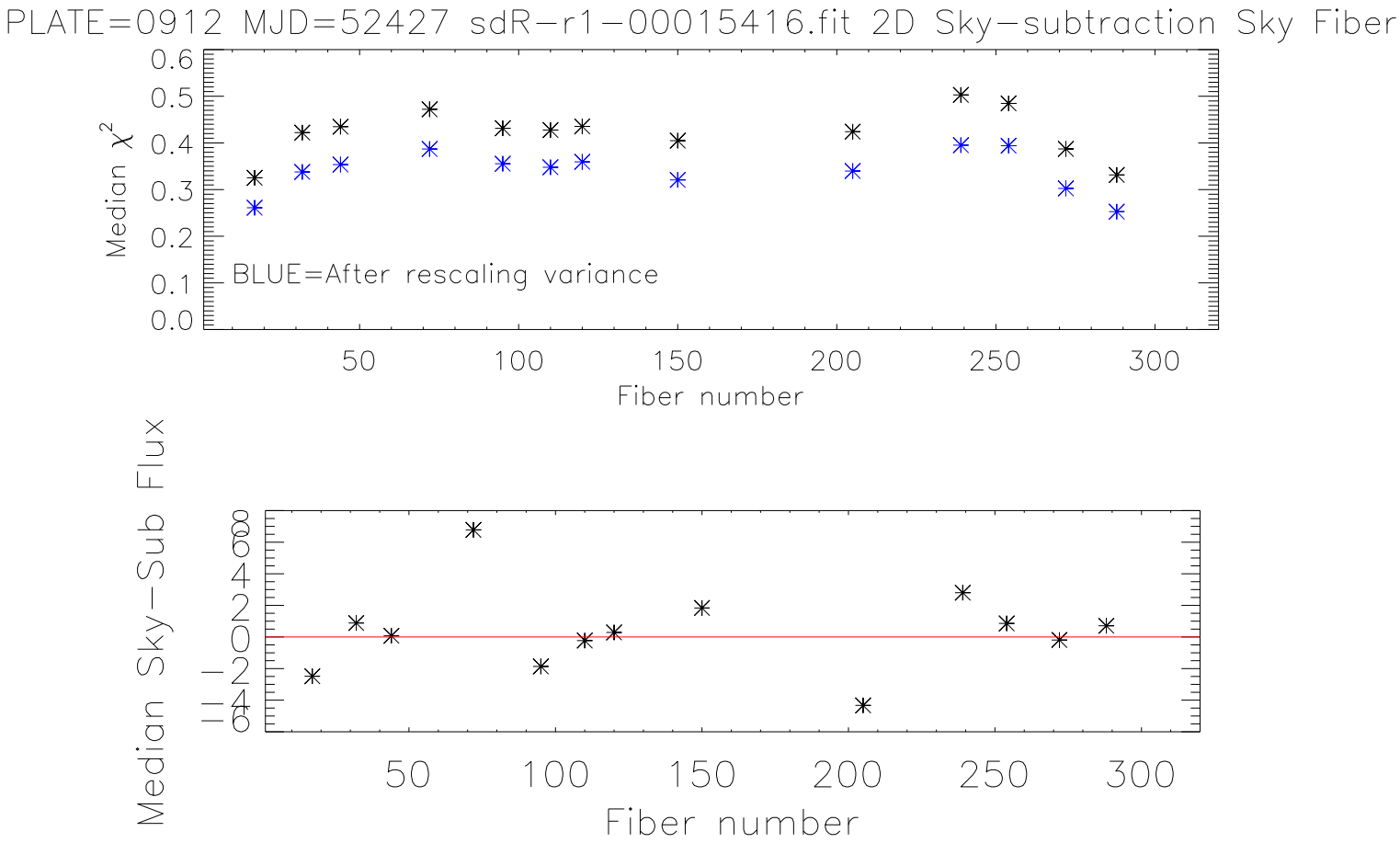

PLATE=0912 MJD=52427 Smooth superflat for sdR-r1-00015416.fit
2.0
1.5
1.0
0.5
0.0
1.004
1.002
1.000
0.998
0.996
0.994
es= −0.0000
6000
7000
8000
9000
Wavelength (Å)

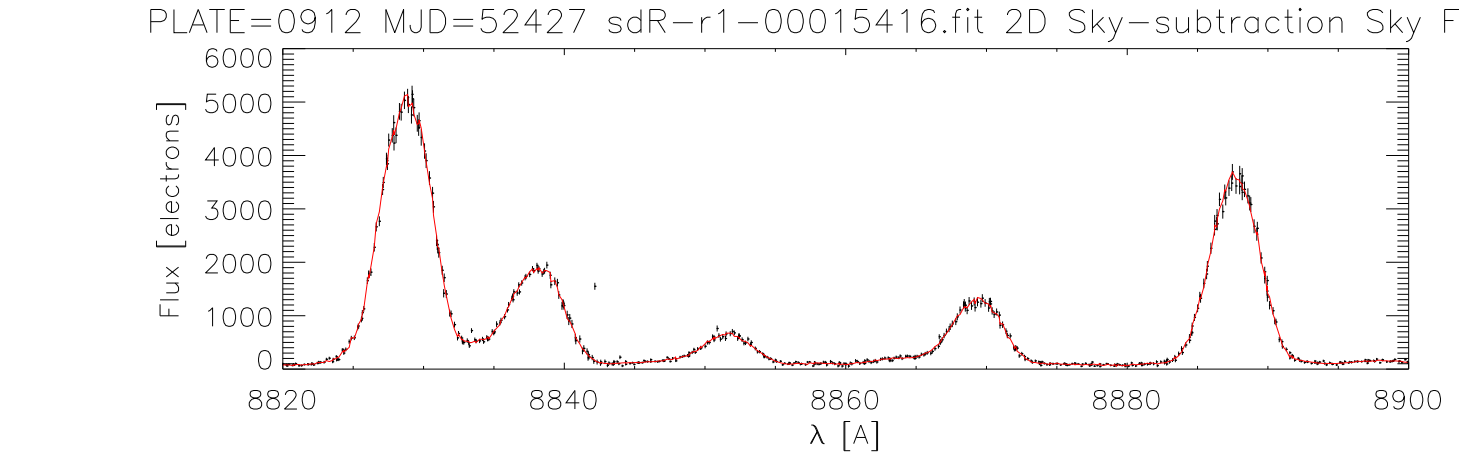

PLATE=0912 MJD=52427 sdR-r1-00015416.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
−5
−10
50
100
150
200
250
300
Fiber number

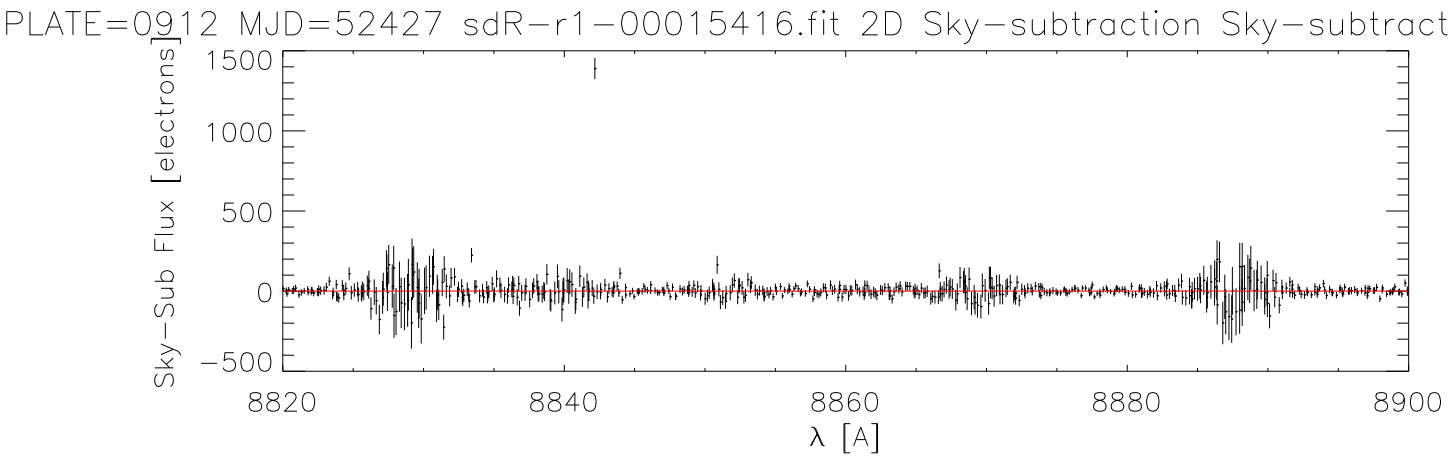

PLATE=0912 MJD=52427 sdR-r1-00015416.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
6000
5000
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

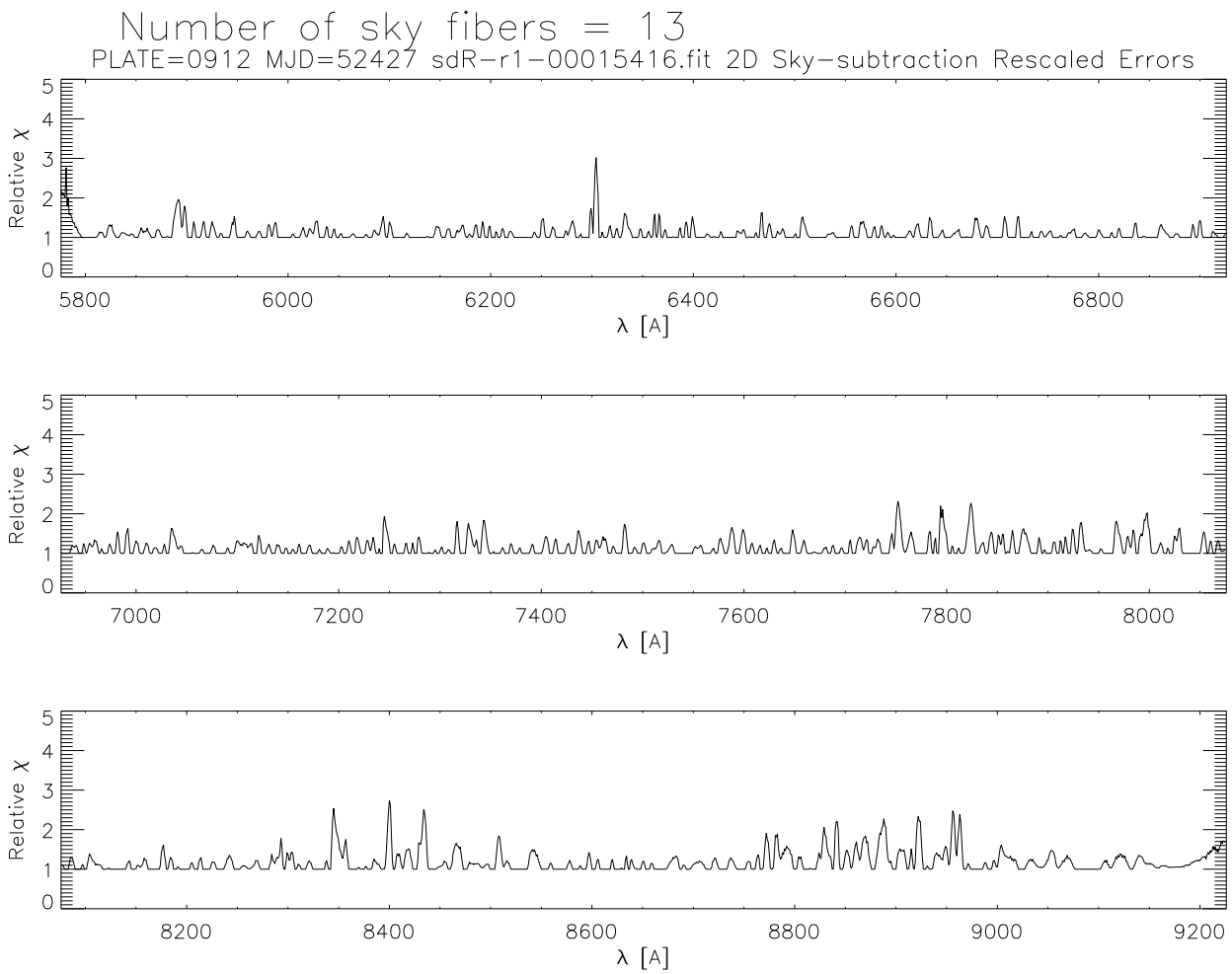

PLATE=0912 MJD=52427 sdR-r1-00015416.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
1500
1000
500
0
-500
8820
8840
8860
8880
8900
λ [A]

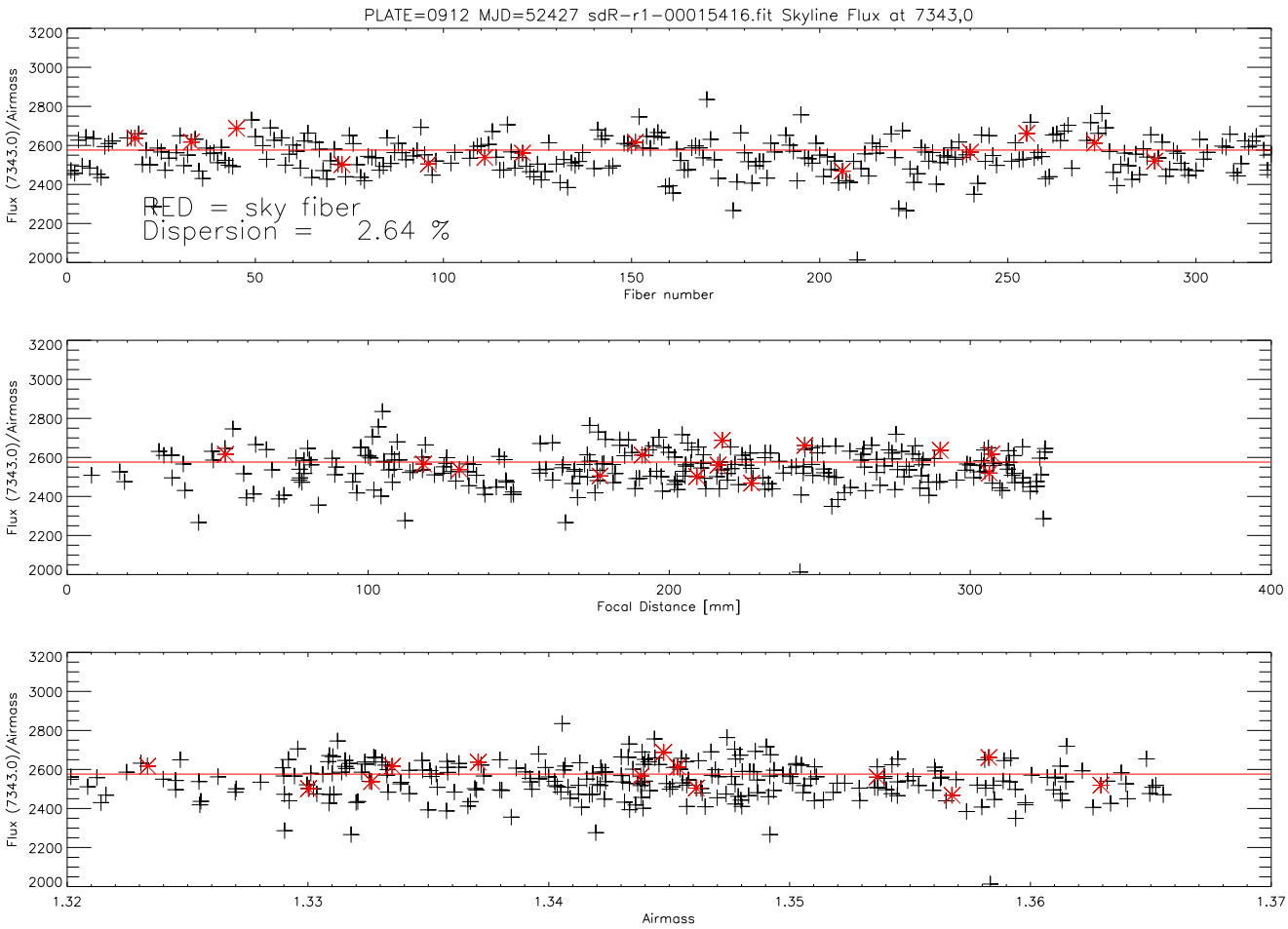

Number of sky fibers = 13
PLATE=0912 MJD=52427 sdR-r1-00015416.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

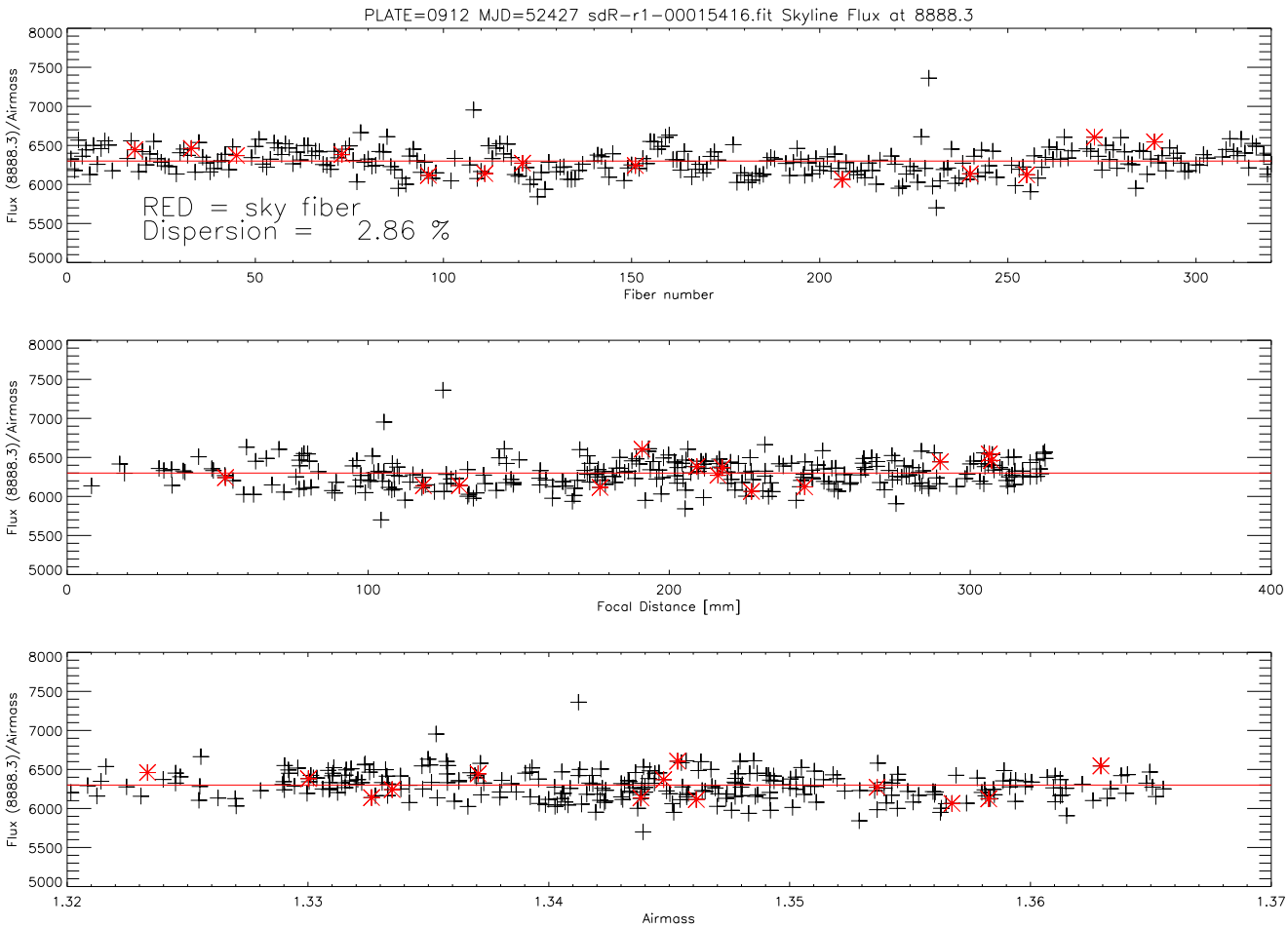

PLATE=0912 MJD=52427 sdR-r1-00015416.fit 2D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-6
-4
-2
0
2
4
6
8
50
100
150
200
250
300
Fiber number

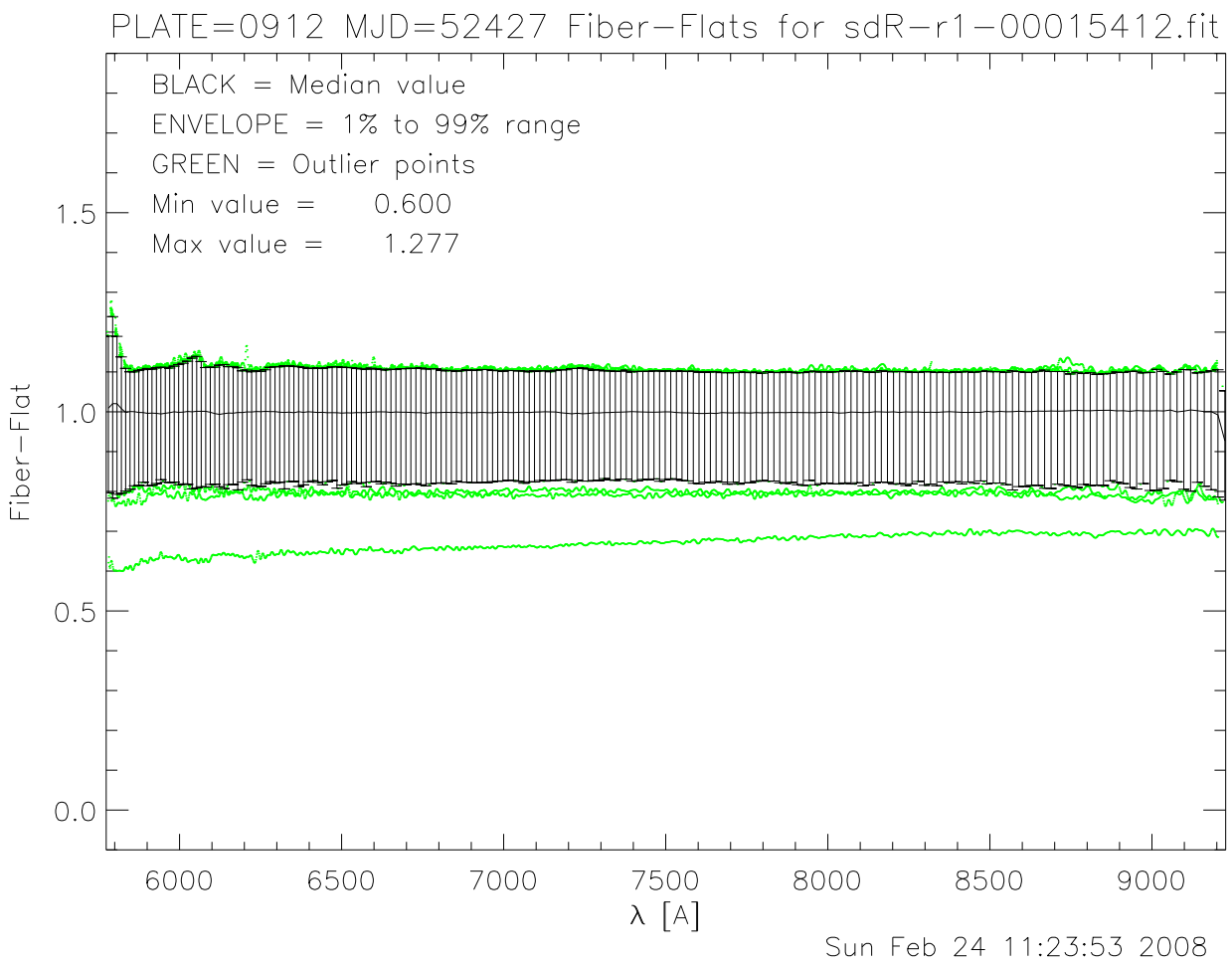

PLATE=0912 MJD=52427 sdR-r1-00015416.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
6000
5000
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

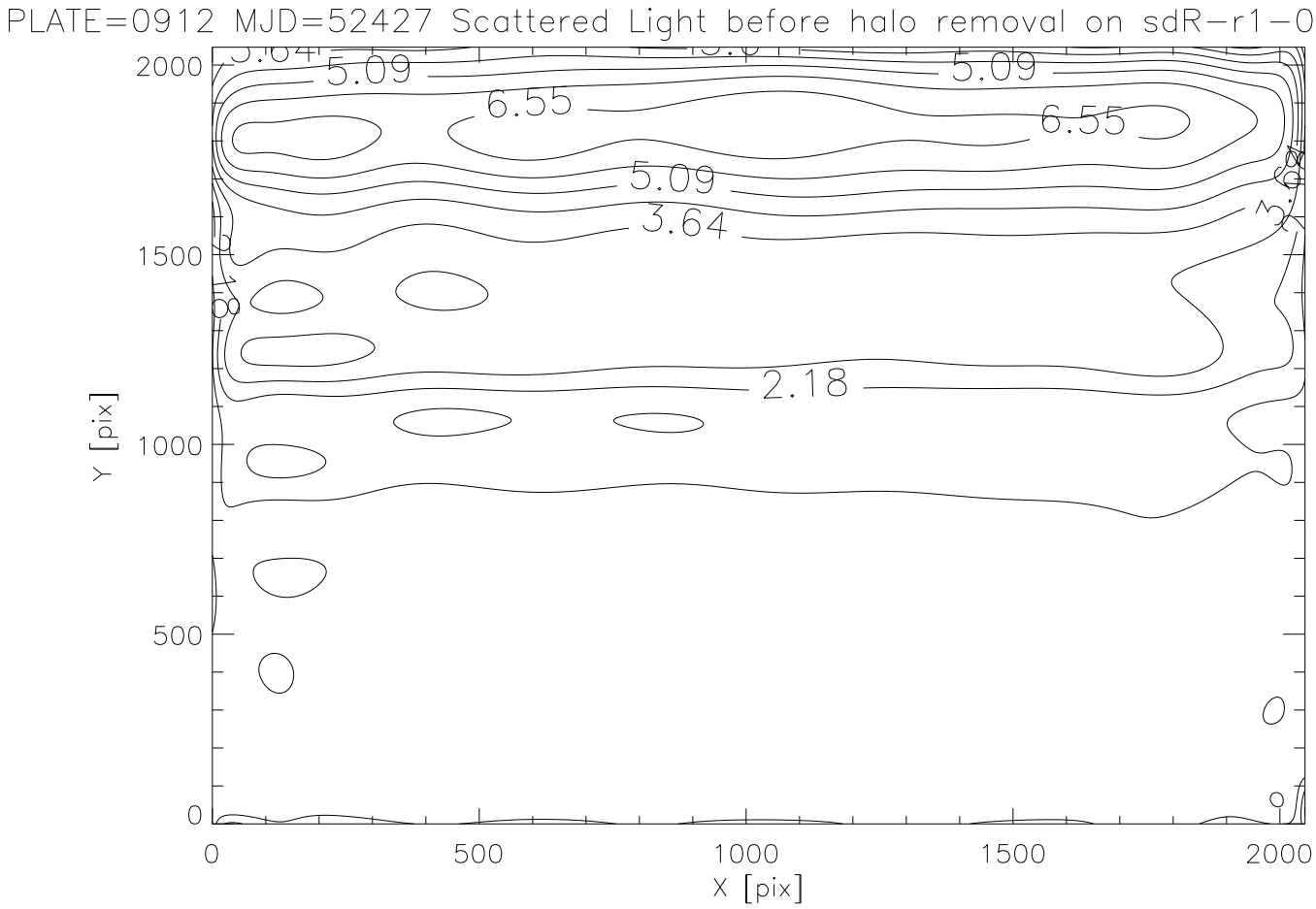

PLATE=0912 MJD=52427 sdR-r1-00015416.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
1500
1000
500
0
-500
8820
8840
8860
8880
8900
λ [A]

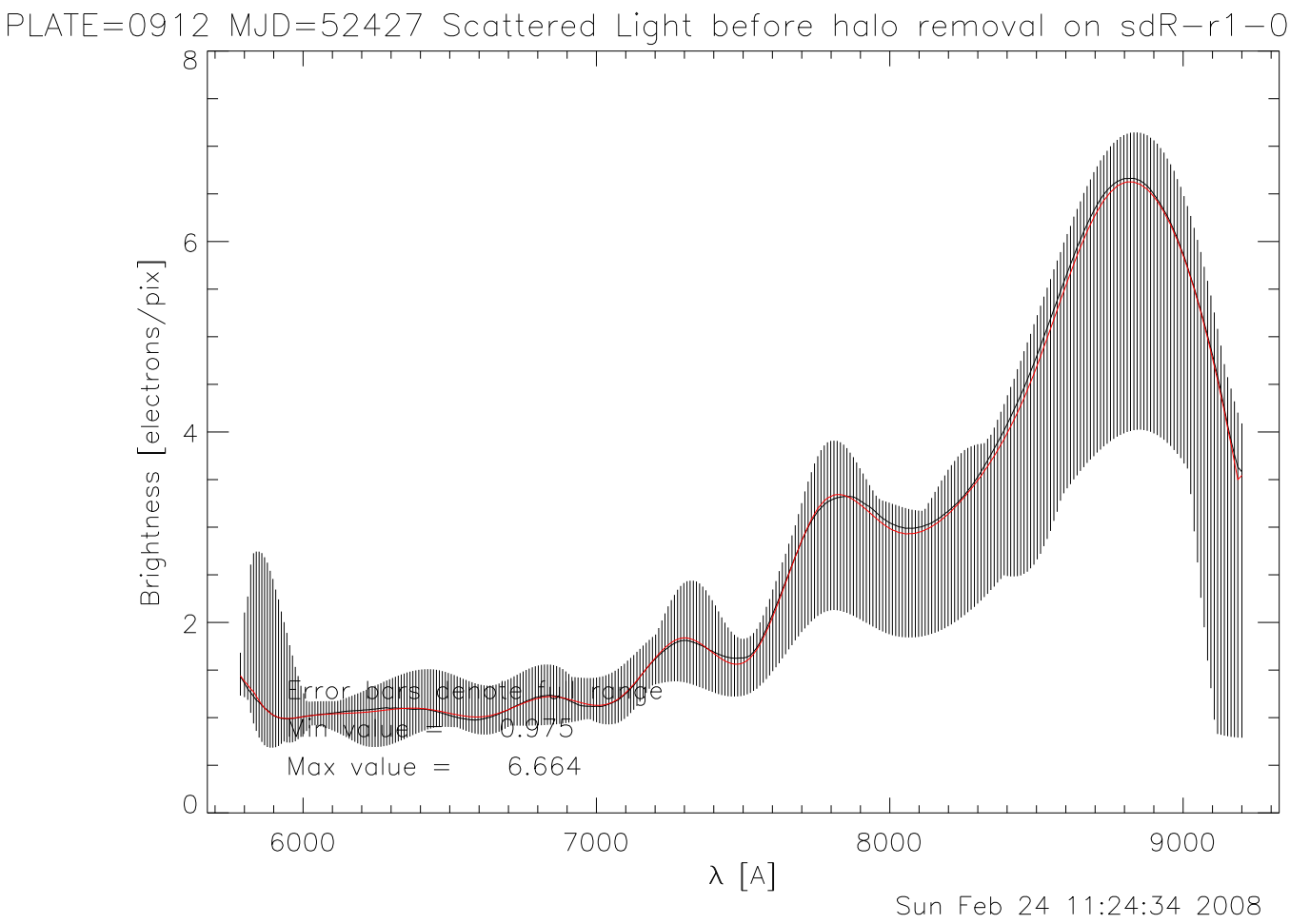

Number of sky fibers = 13
PLATE=0912 MJD=52427 sdR-r1-00015416.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

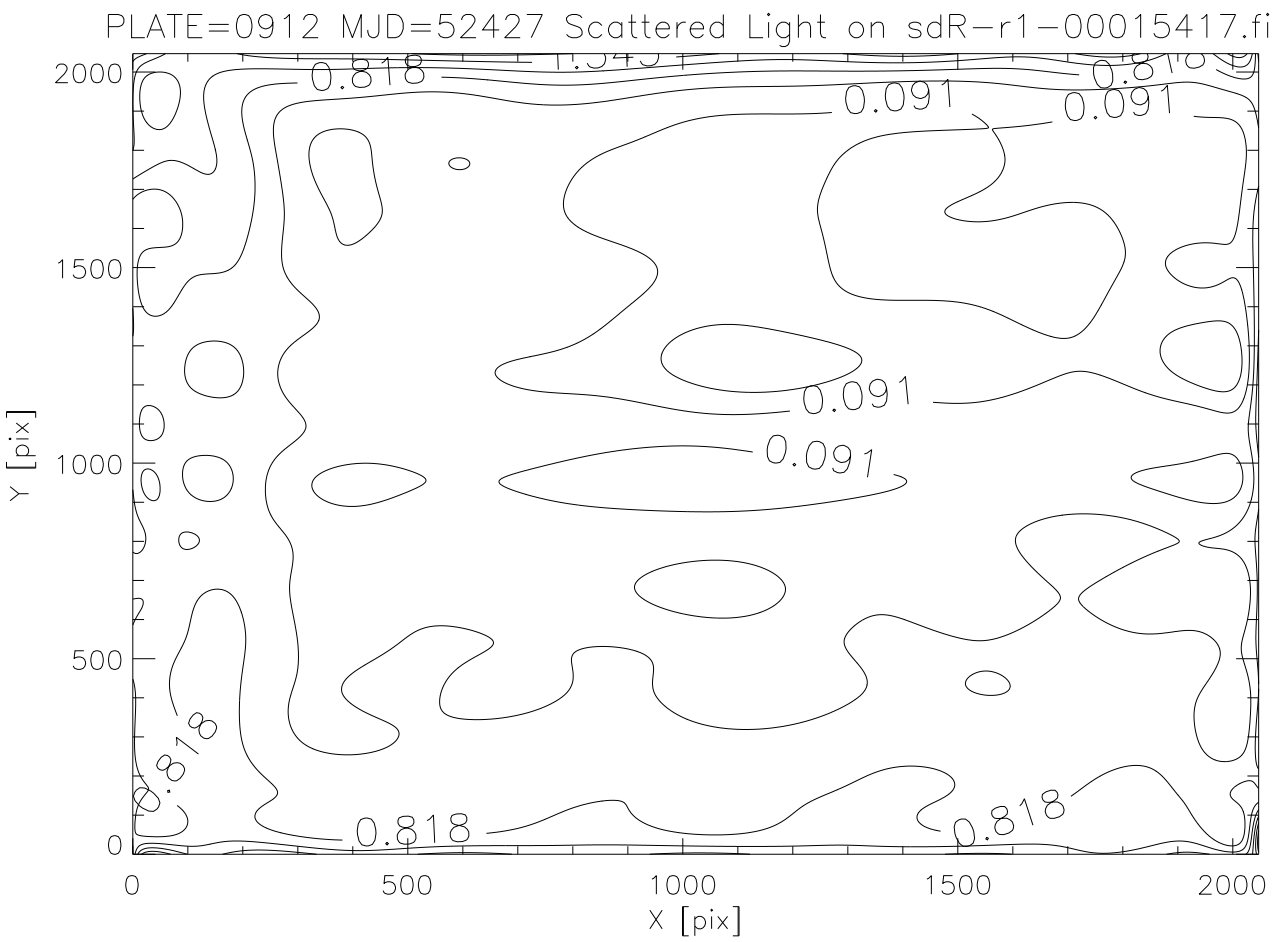

PLATE=0912 MJD=52427 sdR-r1-00015416.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 2.64 %
Fiber number
Focal Distance [mm]
Airmass

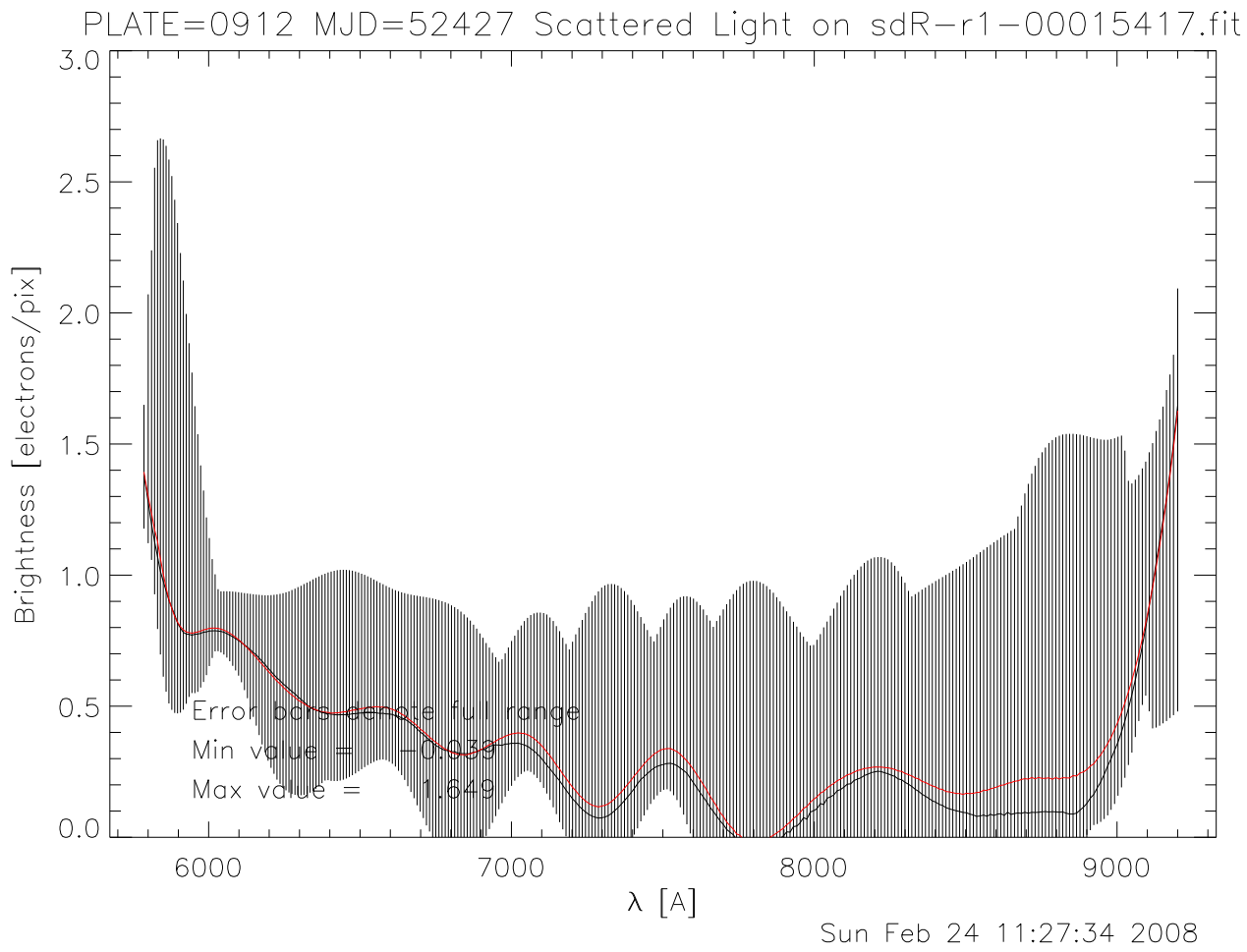

PLATE=0912 MJD=52427 sdR-r1-00015416.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 2.86 %
Fiber number
Focal Distance [mm]
Airmass

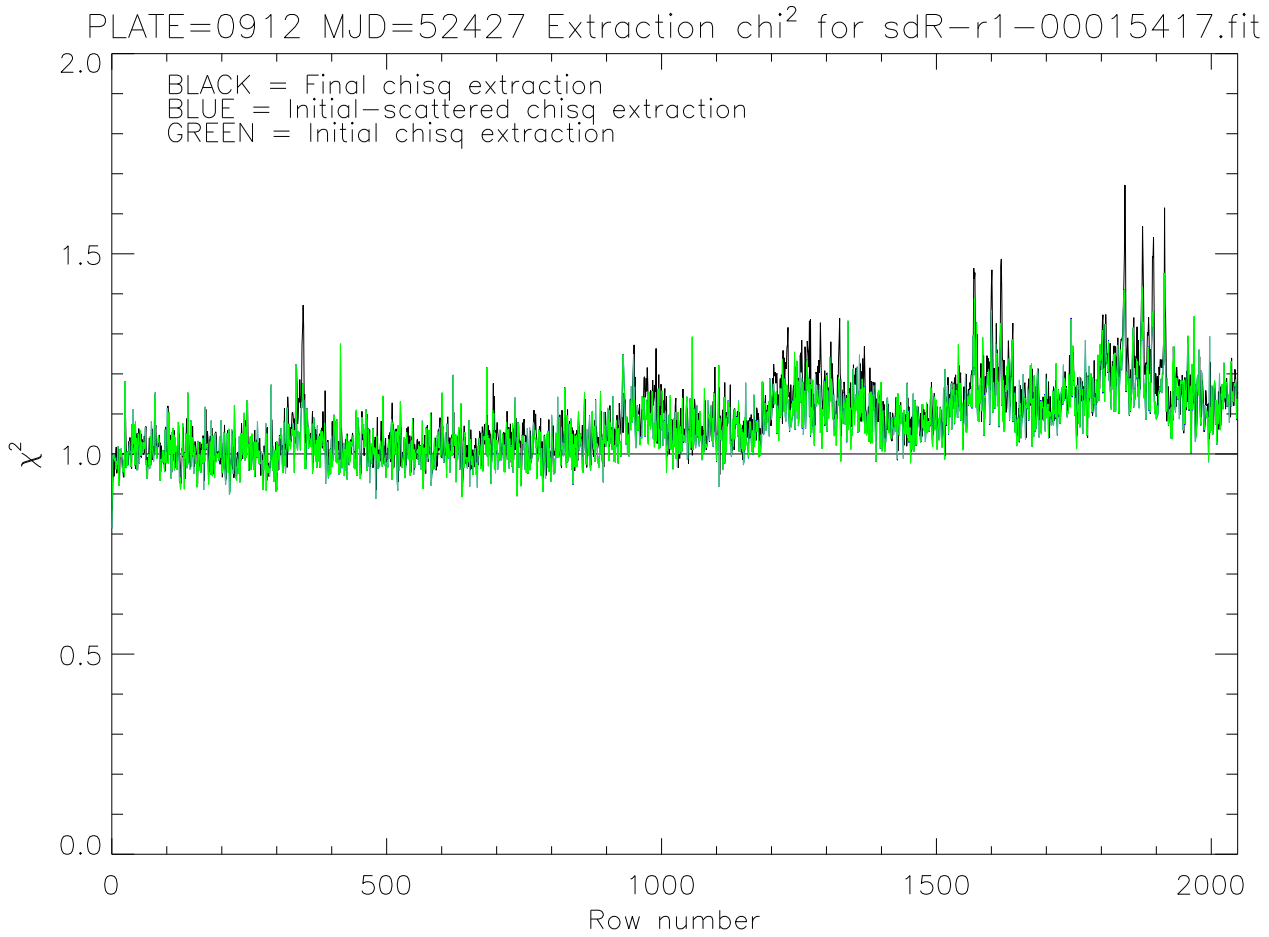

PLATE=0912 MJD=52427 Fiber−Flats for sdR−r1−00015412.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.600
Max value = 1.277
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sun Feb 24 11:23:53 2008

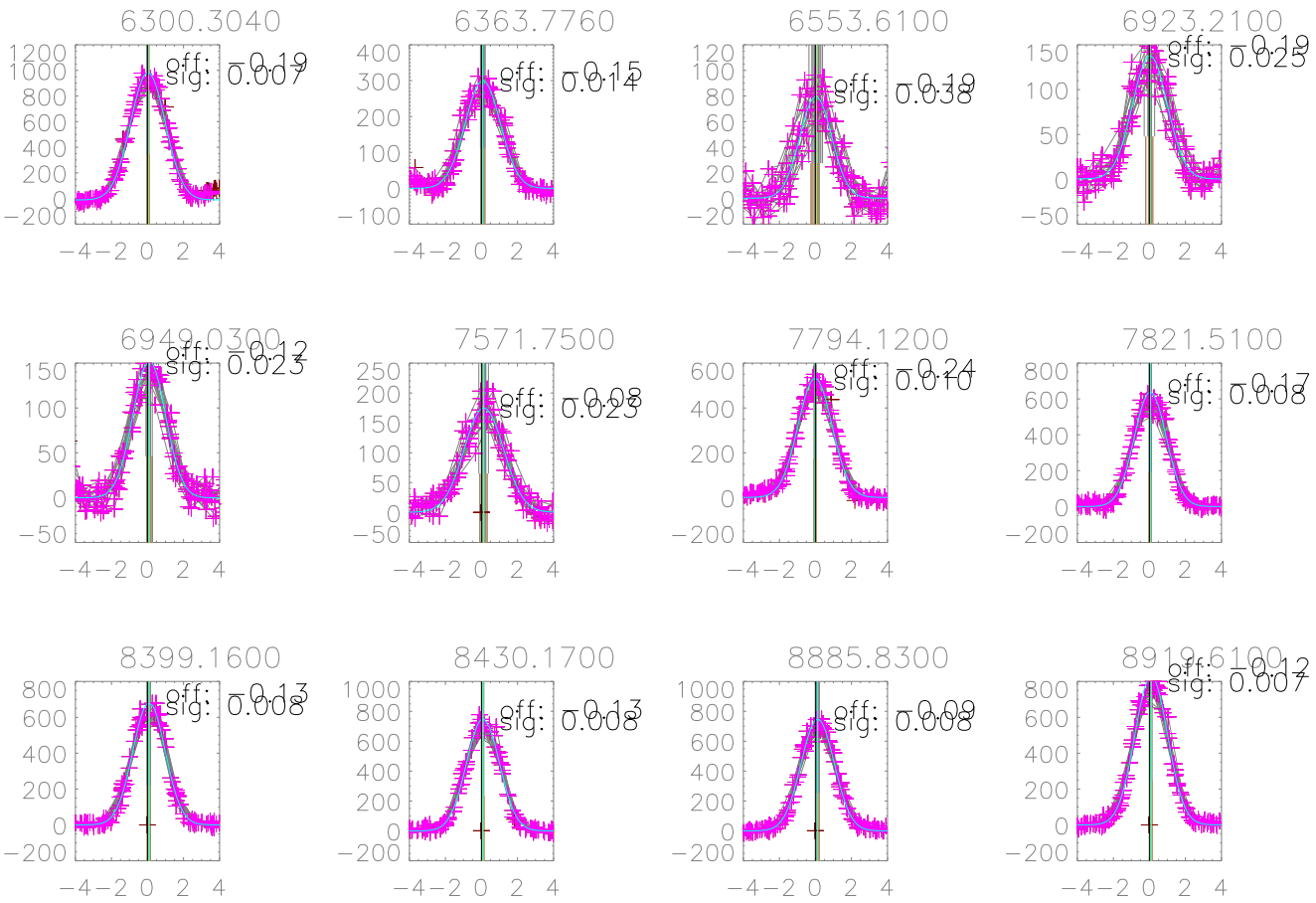

PLATE=0912 MJD=52427 Scattered Light before halo removal on sdR-r1-00015417.fi
5.09
6.55
5.09
6.55
5.09
3.64
3.64
2.18
0
Y [pix]
X [pix]
0
500
1000
1500
2000

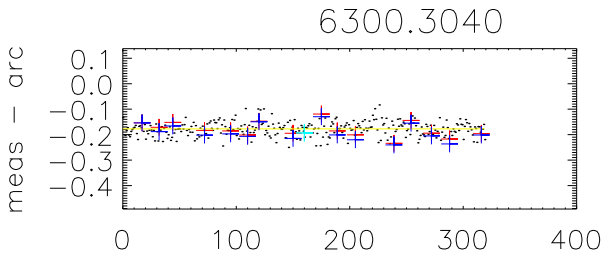

PLATE=0912 MJD=52427 Scattered Light before halo removal on sdR-r1-00015417.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 0.975
Max value = 6.664
Sun Feb 24 11:24:34 2008

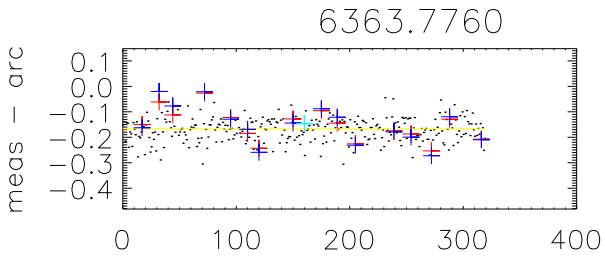

PLATE=0912 MJD=52427 Scattered Light on sdR-r1-00015417.fit
0.818
0.091
0.091
0.091
0.091
0.818
0.818
0.818
Y [pix]
X [pix]
0
500
1000
1500
2000

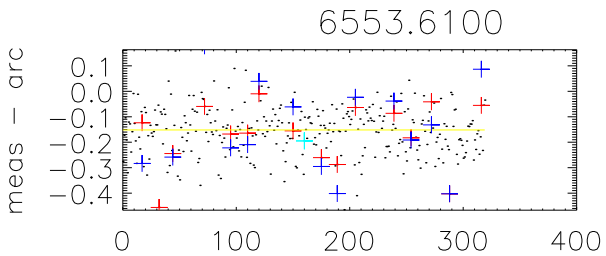

PLATE=0912 MJD=52427 Scattered Light on sdR-r1-00015417.fit
Brightness [electrons/pix]
3.0
2.5
2.0
1.5
1.0
0.5
0.0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = -0.033
Max value = 1.649
Sun Feb 24 11:27:34 2008

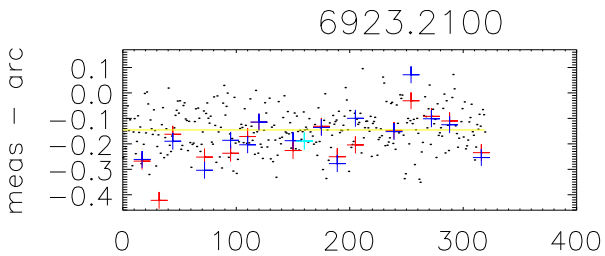

PLATE=0912 MJD=52427 Extraction chi^2 for sdR−r1−00015417.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
2.0
1.5
1.0
0.5
0.0
0
500
1000
1500
2000
Row number

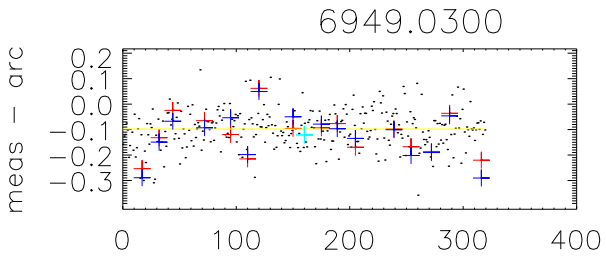

6300.3040
off: −0.19
sig: 0.007
6363.7760
off: −0.15
sig: 0.014
6553.6100
off: −0.19
sig: 0.038
6923.2100
off: −0.19
sig: 0.025
6949.0300
off: −0.12
sig: 0.023
7571.7500
off: −0.08
sig: 0.025
7794.1200
off: −0.24
sig: 0.010
7821.5100
off: −0.17
sig: 0.008
8399.1600
off: −0.13
sig: 0.008
8430.1700
off: −0.13
sig: 0.008
8885.8300
off: −0.09
sig: 0.008
8919.6100
off: −0.12
sig: 0.007

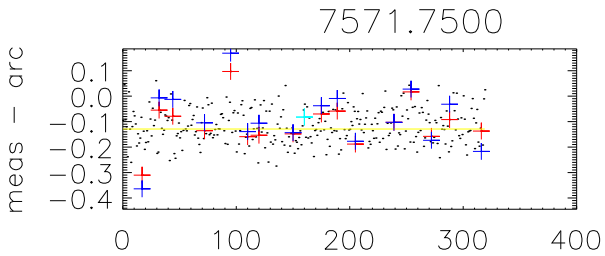

6300.3040
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

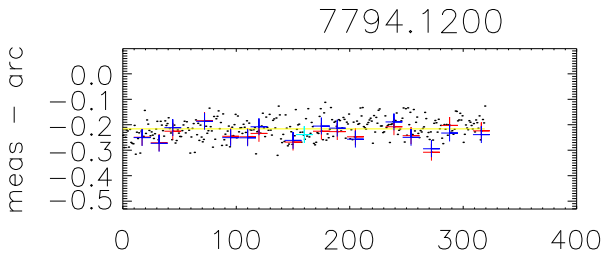

6363.7760
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

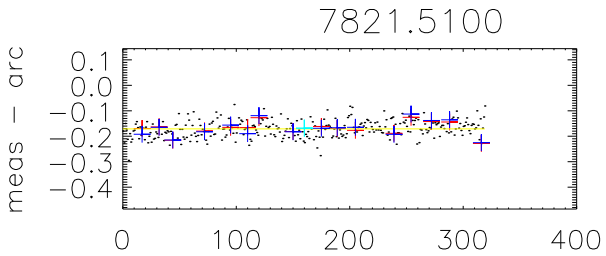

6553.6100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

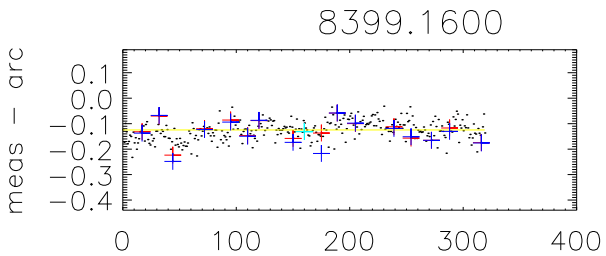

6923.2100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

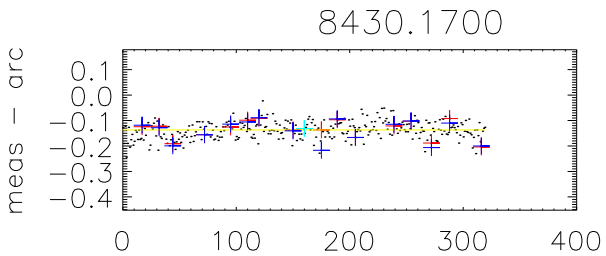

6949.0300
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

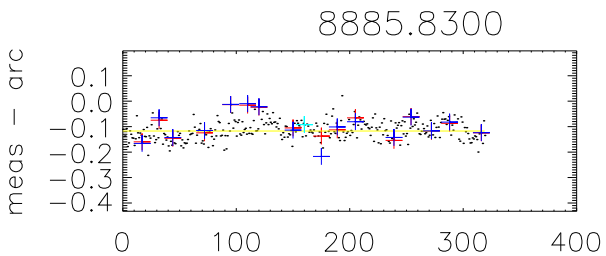

7571.7500
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

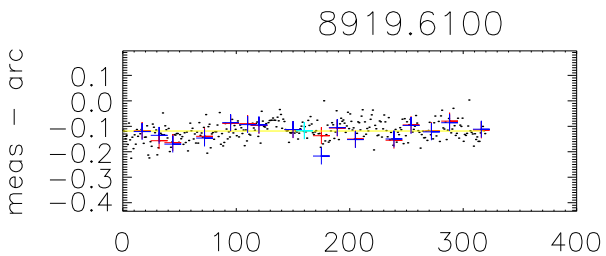

7794.1200
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

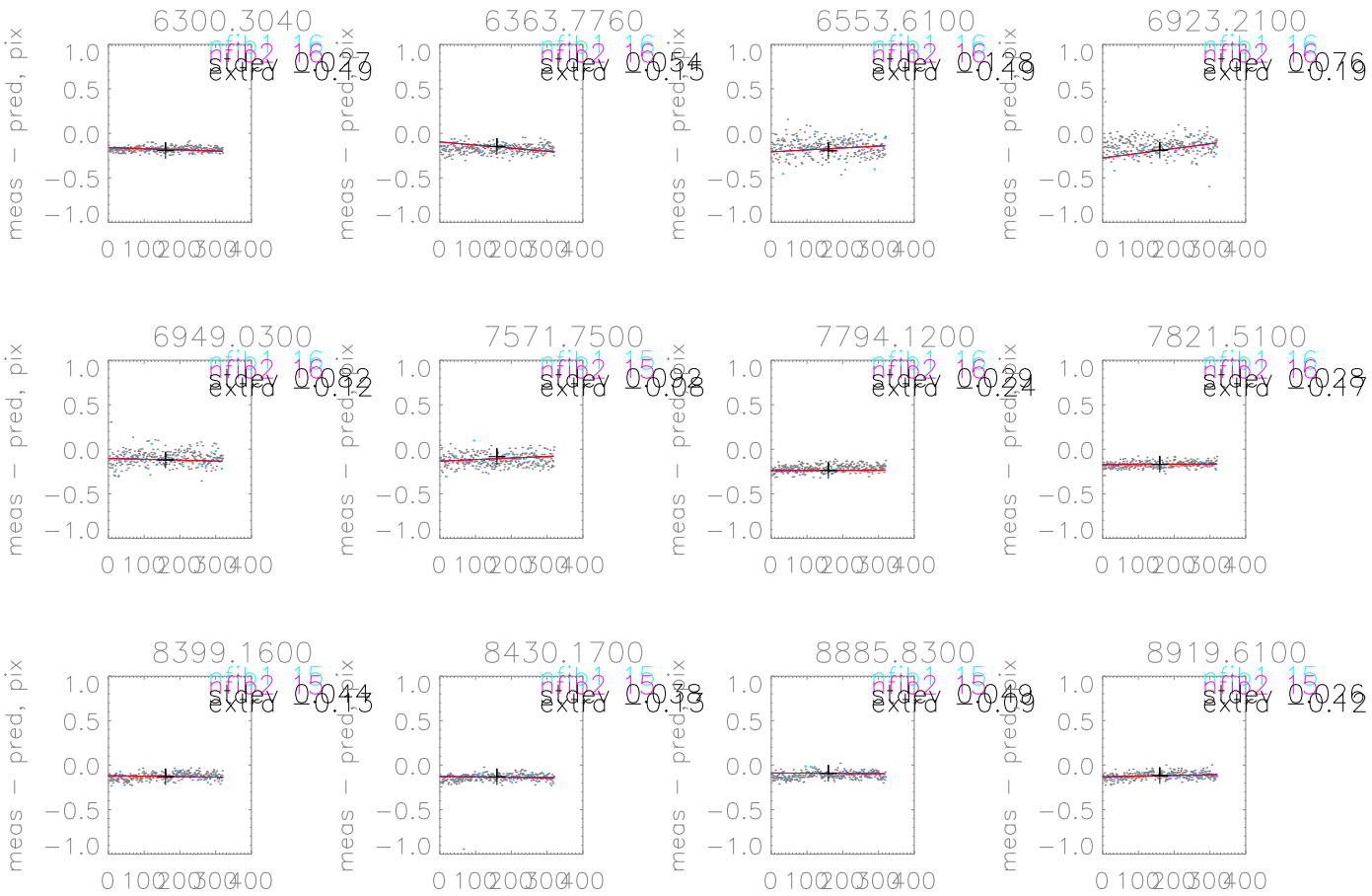

7821.5100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

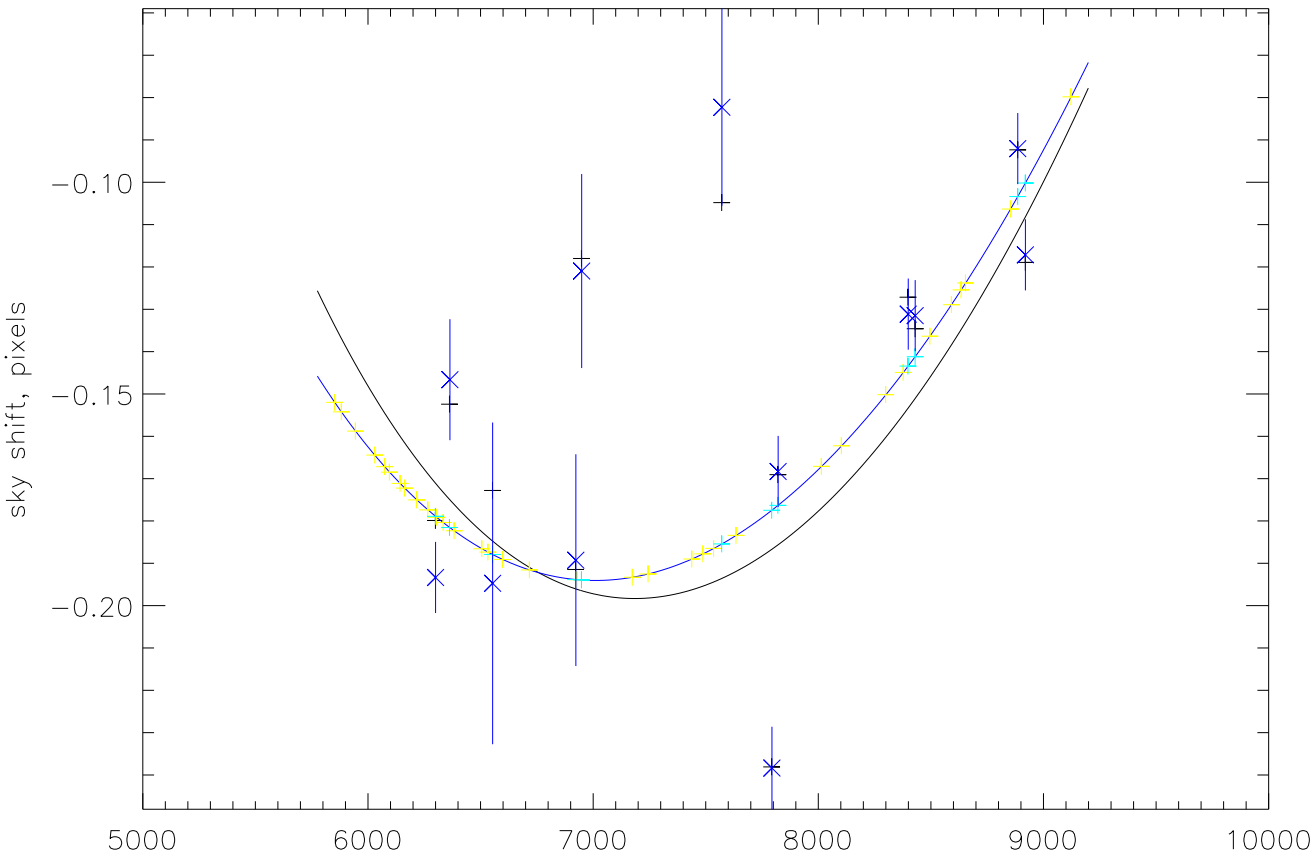

8399.1600
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

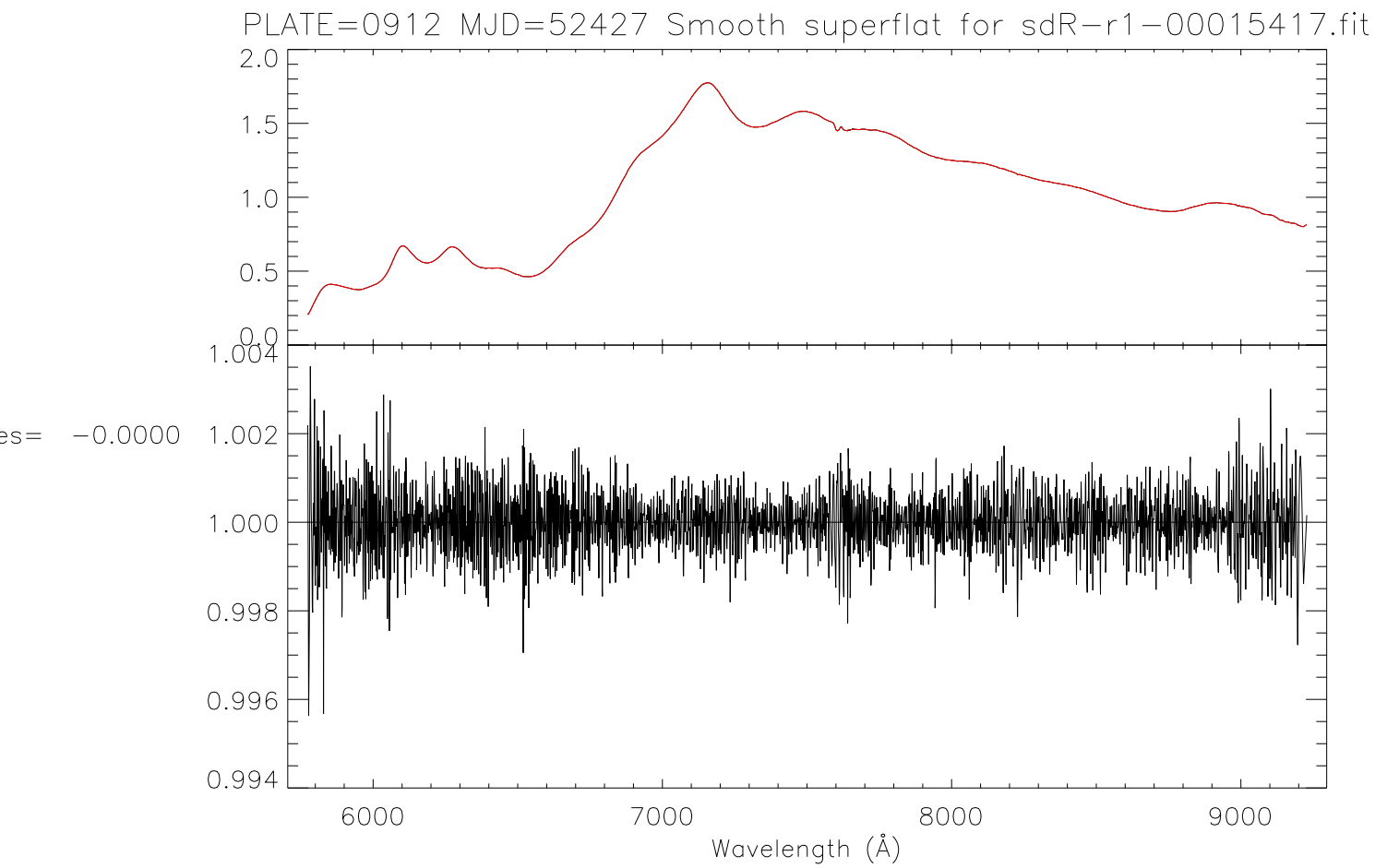

8430.1700
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

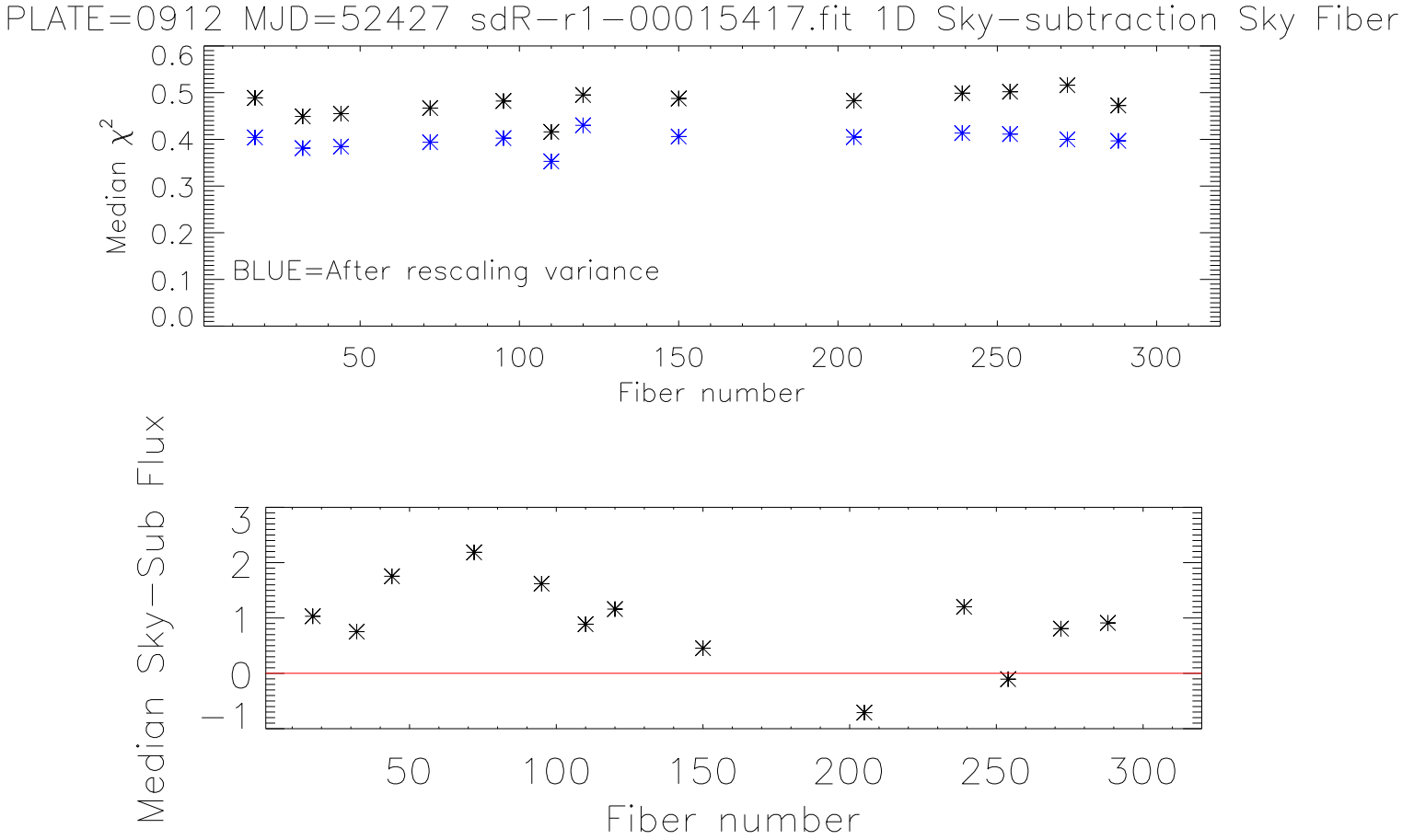

8885.8300
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

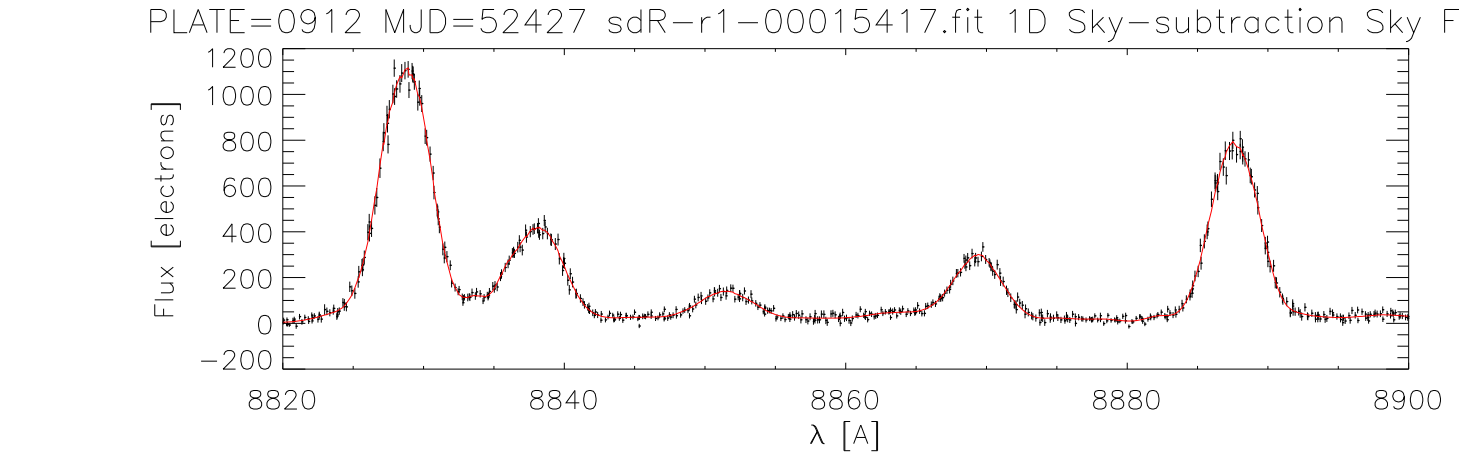

8919.6100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

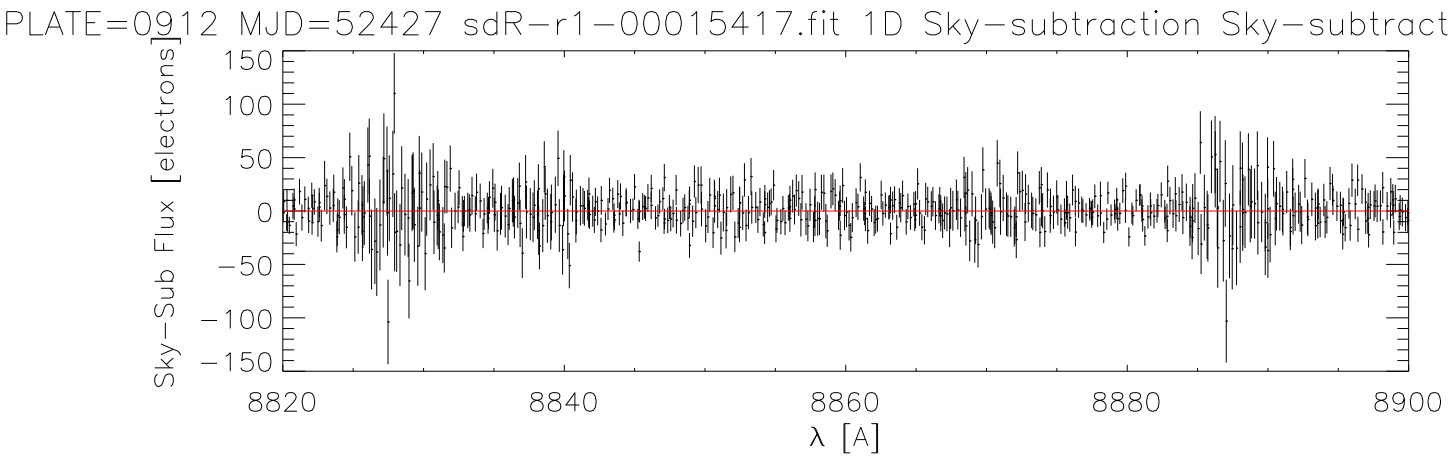

6300.3040
mfib1 16
mfib2 16
stdev 0.027
extrd 0.49
6363.7760
mfib1 16
mfib2 16
stdev 0.054
extrd 0.15
6553.6100
mfib1 16
mfib2 16
stdev 0.128
extrd 0.49
6923.2100
mfib1 16
mfib2 16
stdev 0.076
extrd 0.19
6949.0300
mfib1 16
mfib2 16
stdev 0.082
extrd 0.12
7571.7500
mfib1 15
mfib2 15
stdev 0.082
extrd 0.08
7794.1200
mfib1 16
mfib2 16
stdev 0.029
extrd 0.24
7821.5100
mfib1 16
mfib2 16
stdev 0.028
extrd 0.47
8399.1600
mfib1 15
mfib2 15
stdev 0.044
extrd 0.13
8430.1700
mfib1 15
mfib2 15
stdev 0.038
extrd 0.13
8885.8300
mfib1 15
mfib2 15
stdev 0.049
extrd 0.09
8919.6100
mfib1 15
mfib2 15
stdev 0.026
extrd 0.42
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

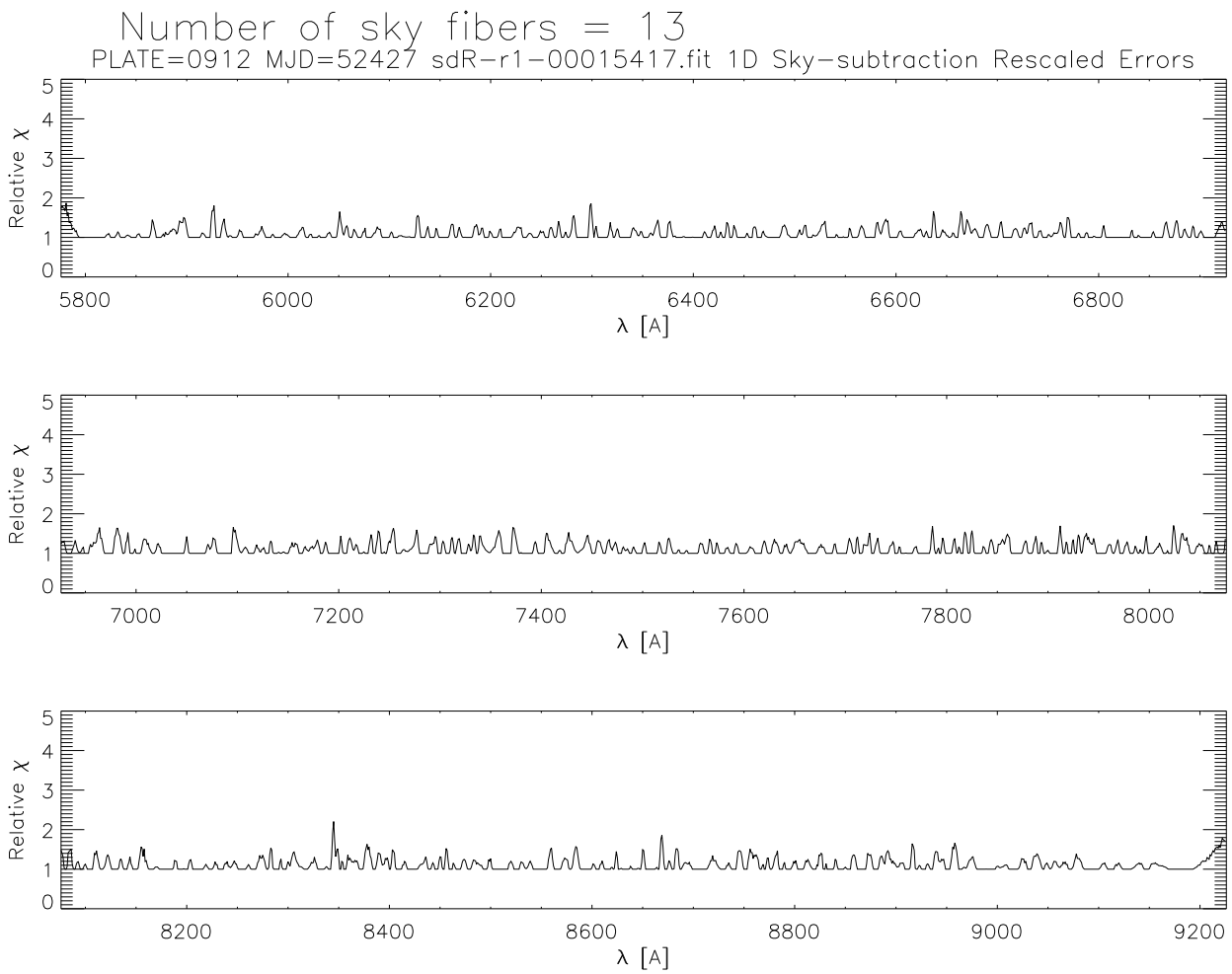

sky shift, pixels
−0.10
−0.15
−0.20
5000
6000
7000
8000
9000
10000

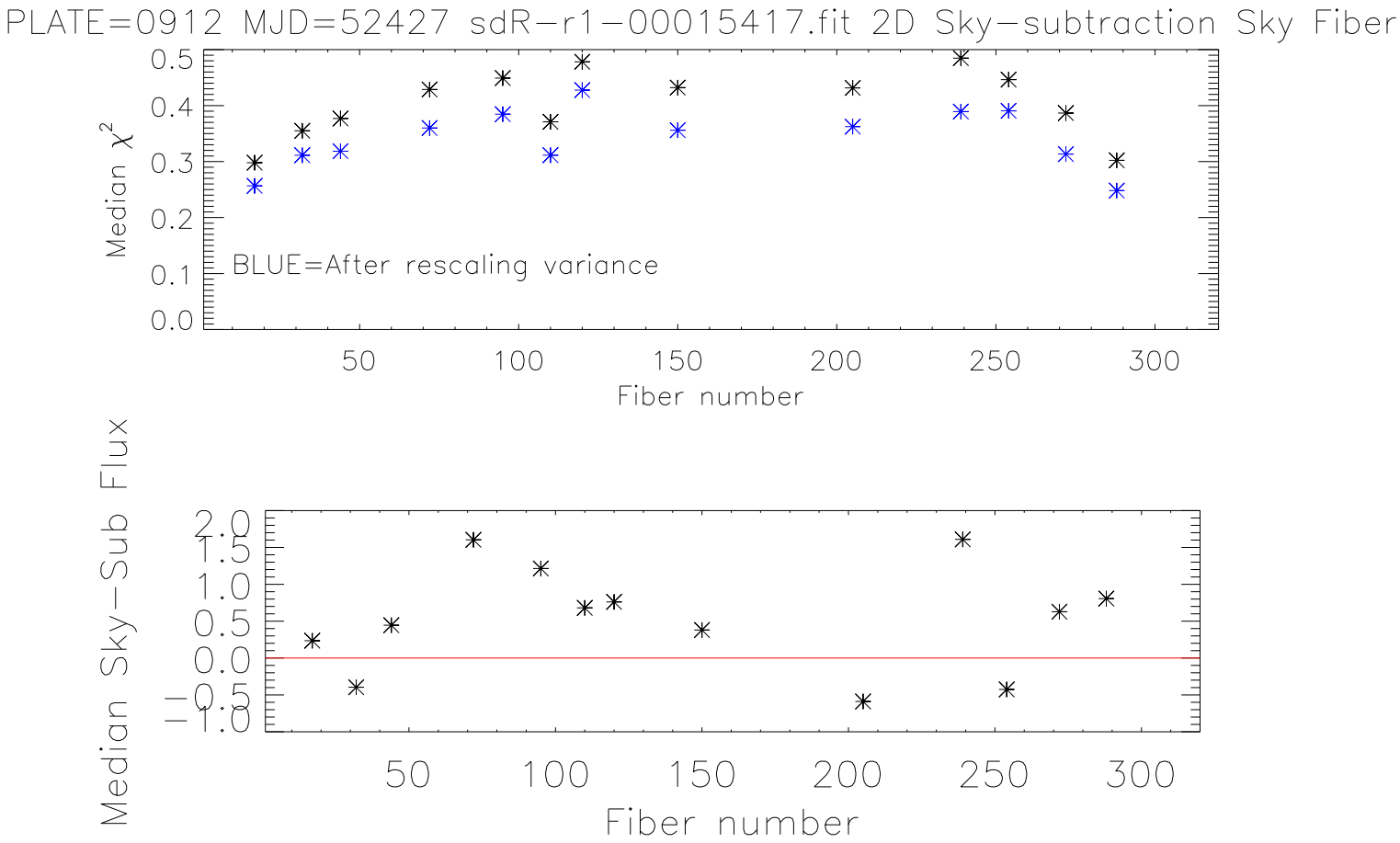

PLATE=0912 MJD=52427 Smooth superflat for sdR-r1-00015417.fit
2.0
1.5
1.0
0.5
0.0
1.004
1.002
1.000
0.998
0.996
0.994
es= −0.0000
6000
7000
8000
9000
Wavelength (Å)

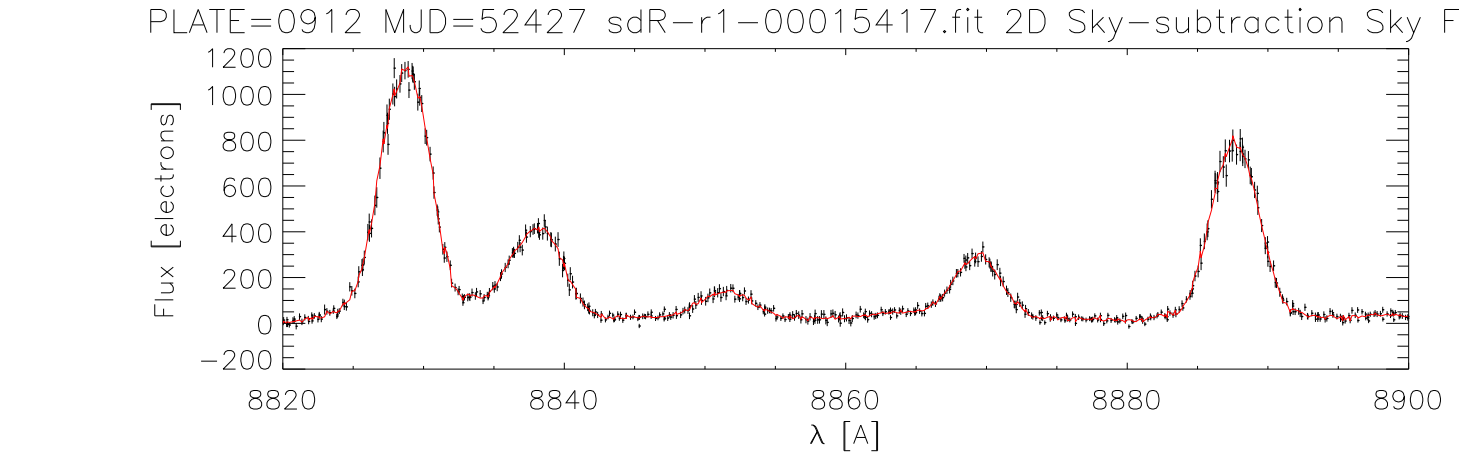

PLATE=0912 MJD=52427 sdR-r1-00015417.fit 1D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

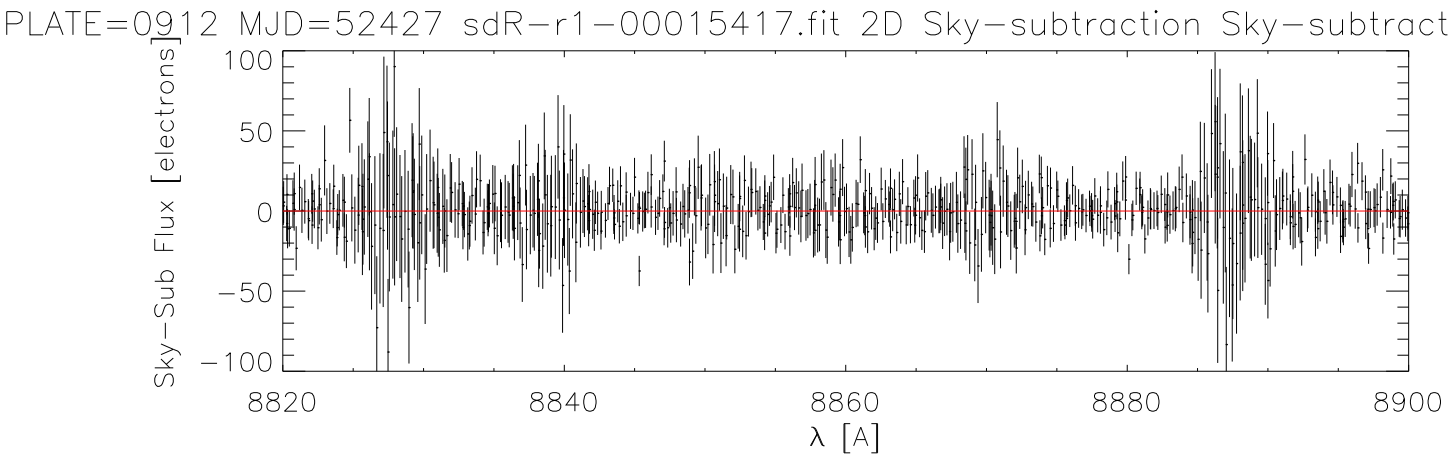

PLATE=0912 MJD=52427 sdR-r1-00015417.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
1200
1000
800
600
400
200
0
-200
8820
8840
8860
8880
8900
λ [A]

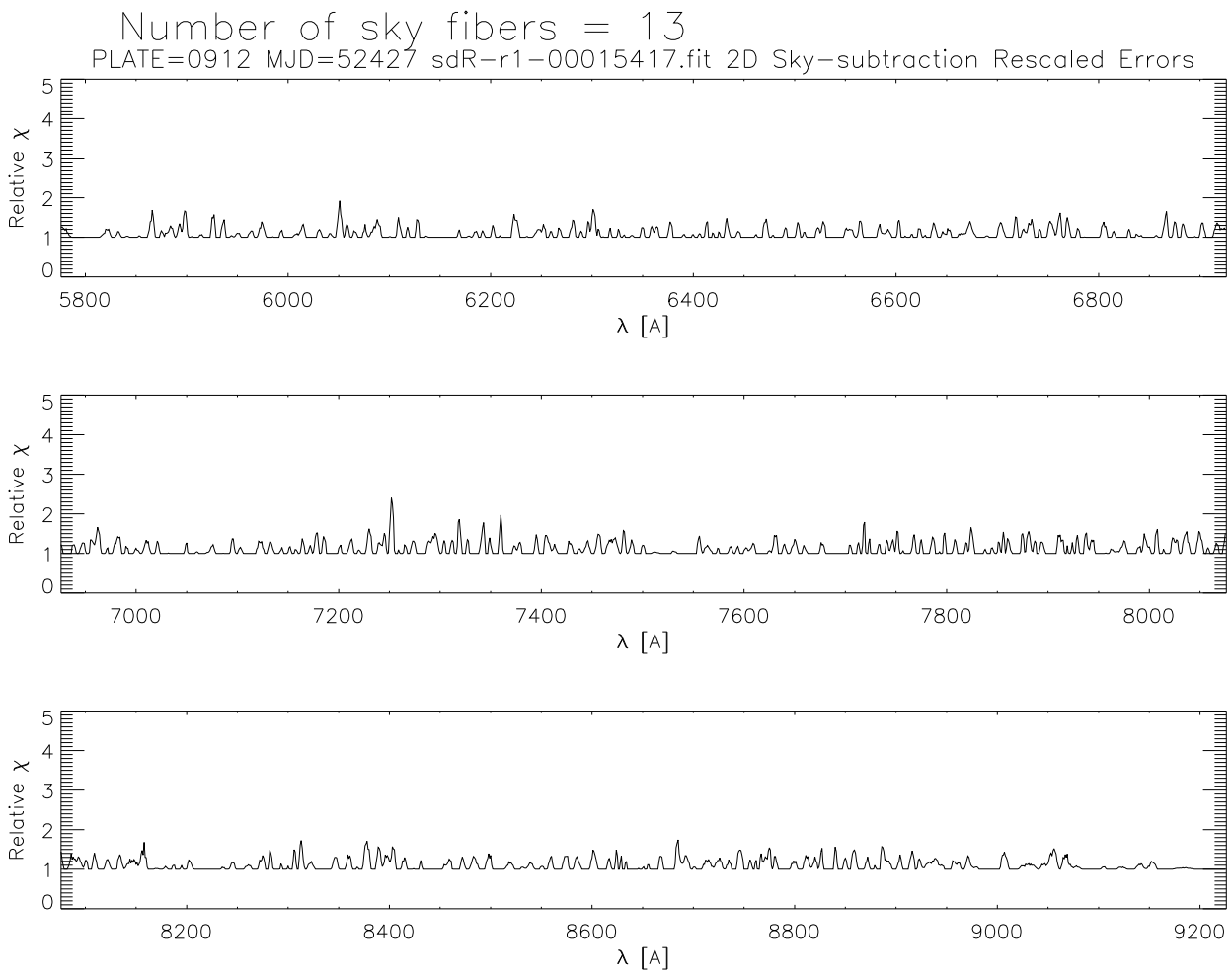

PLATE=0912 MJD=52427 sdR-r1-00015417.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
150
100
50
0
-50
-100
-150
8820
8840
8860
8880
8900
λ [A]

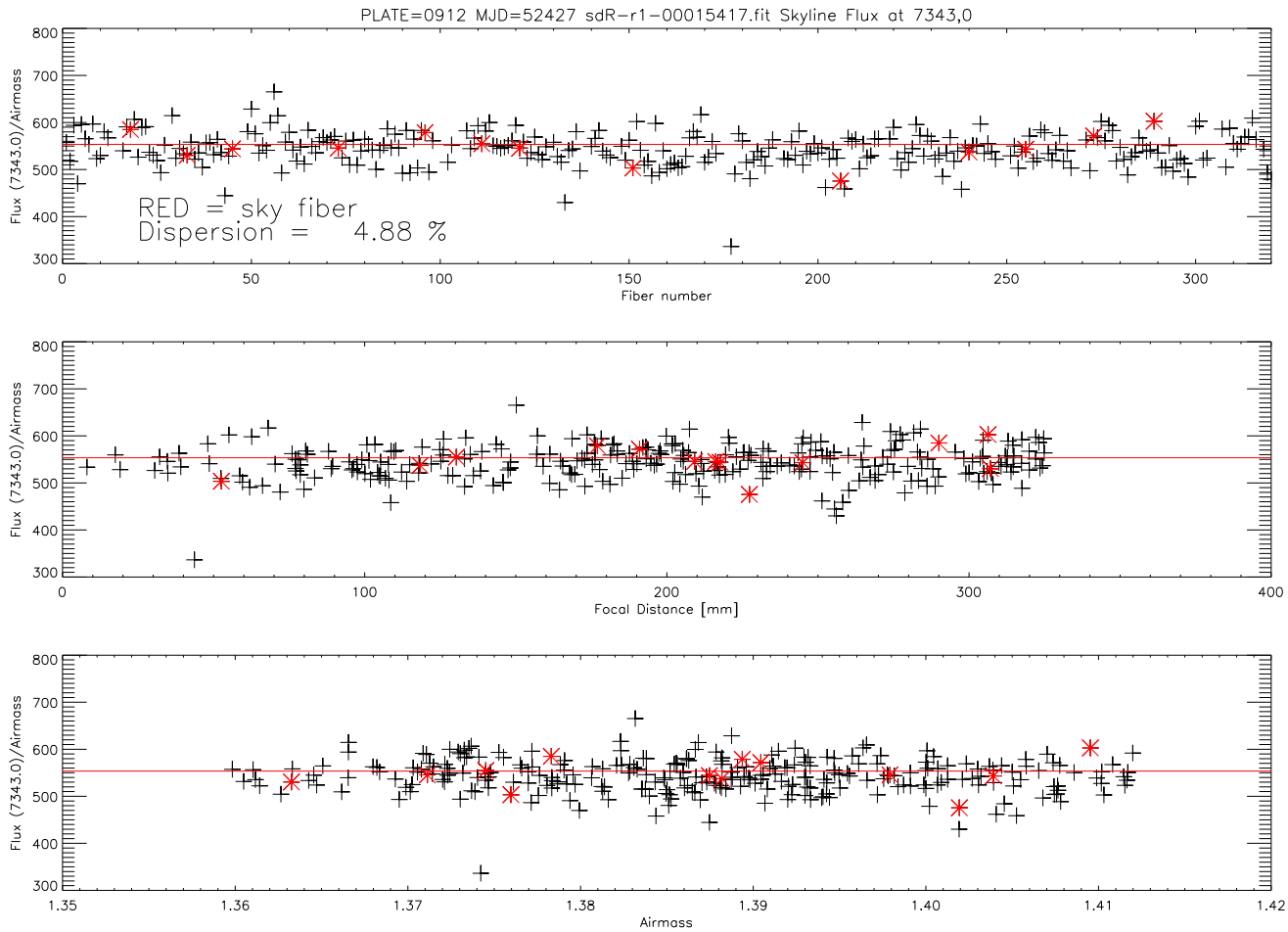

Number of sky fibers = 13
PLATE=0912 MJD=52427 sdR-r1-00015417.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

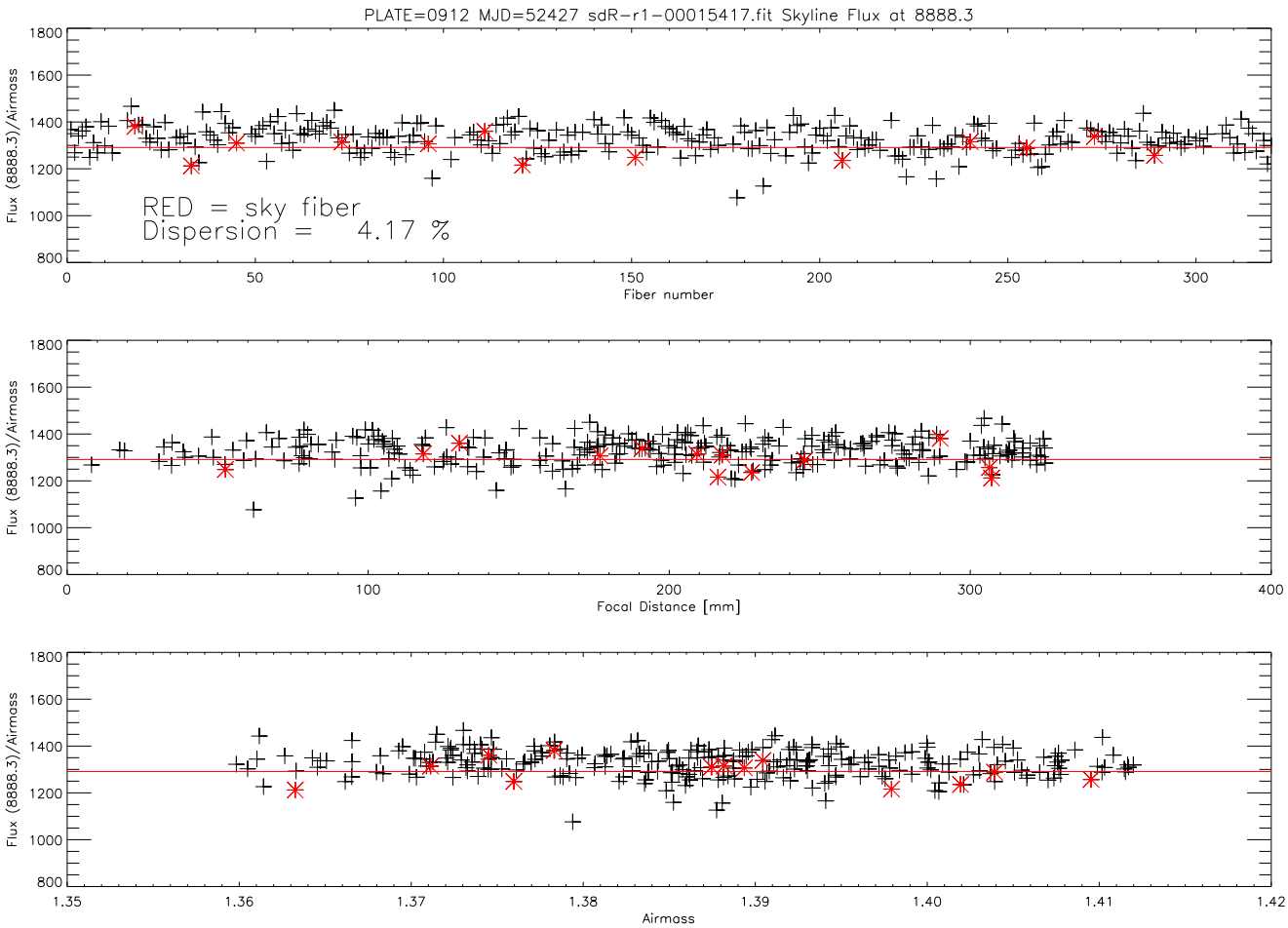

PLATE=0912 MJD=52427 sdR-r1-00015417.fit 2D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

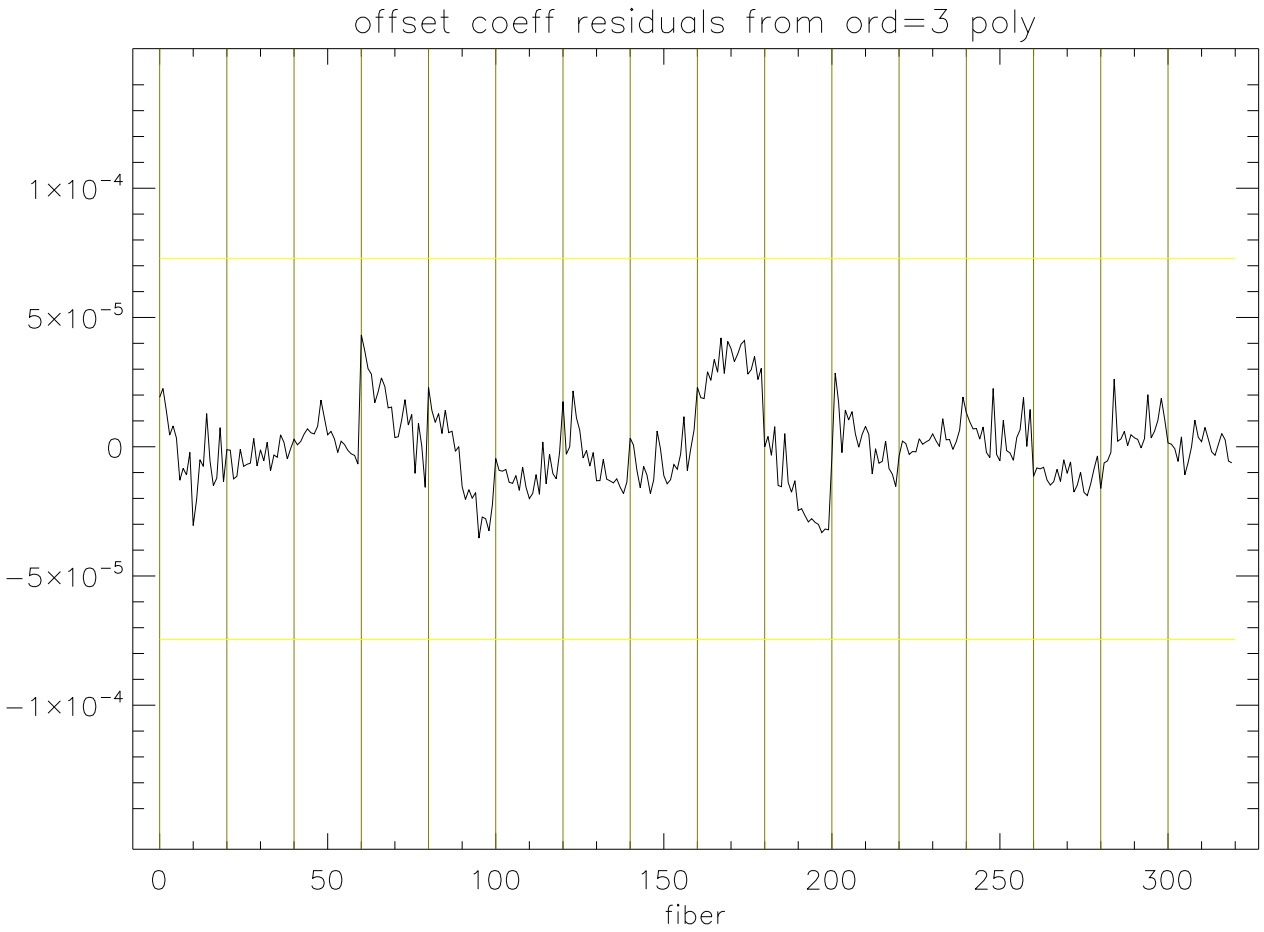

PLATE=0912 MJD=52427 sdR-r1-00015417.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
1200
1000
800
600
400
200
0
-200
8820
8840
8860
8880
8900
λ [A]

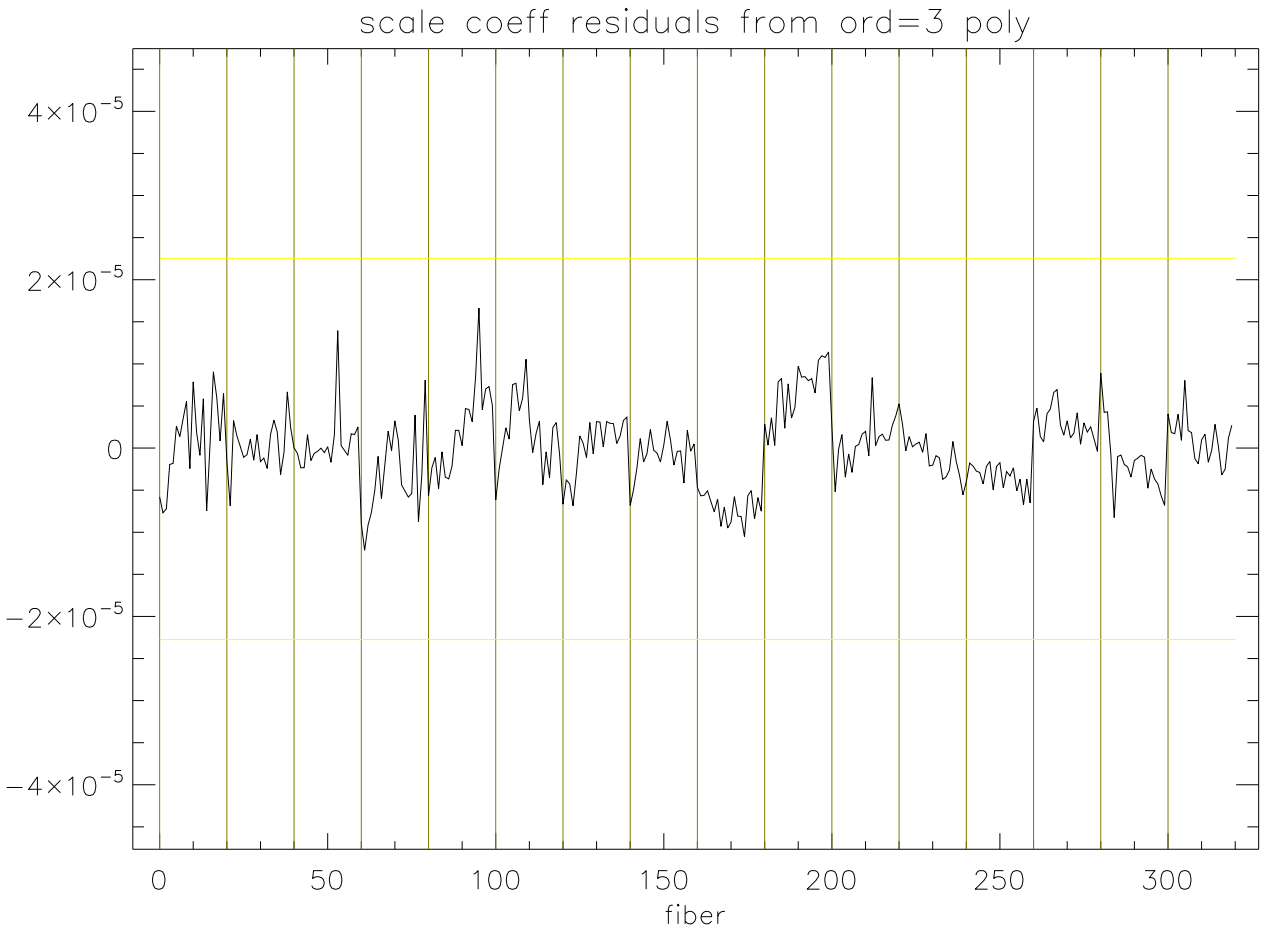

PLATE=0912 MJD=52427 sdR-r1-00015417.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
100
50
0
-50
-100
8820
8840
8860
8880
8900
λ [A]

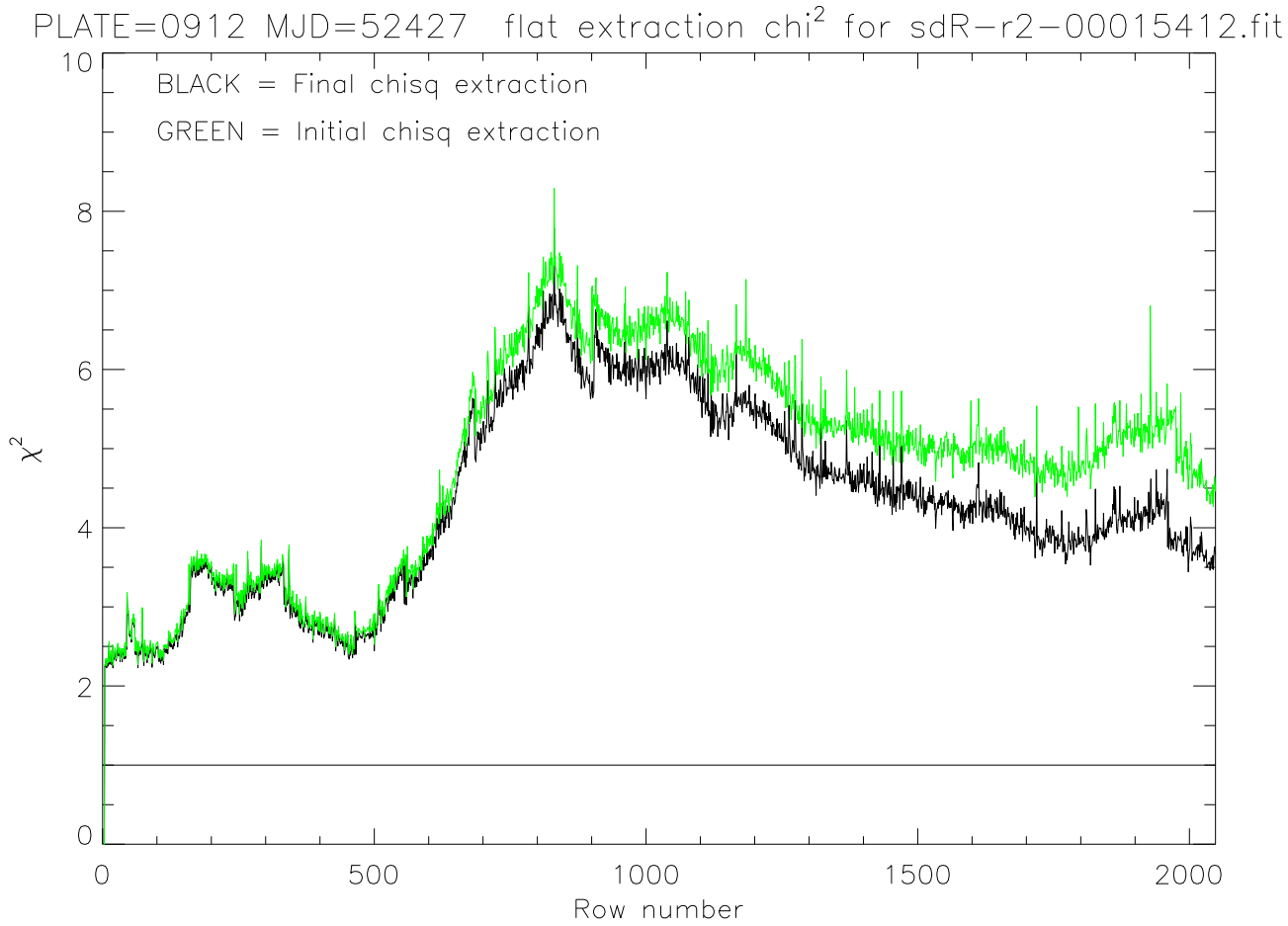

Number of sky fibers = 13
PLATE=0912 MJD=52427 sdR-r1-00015417.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

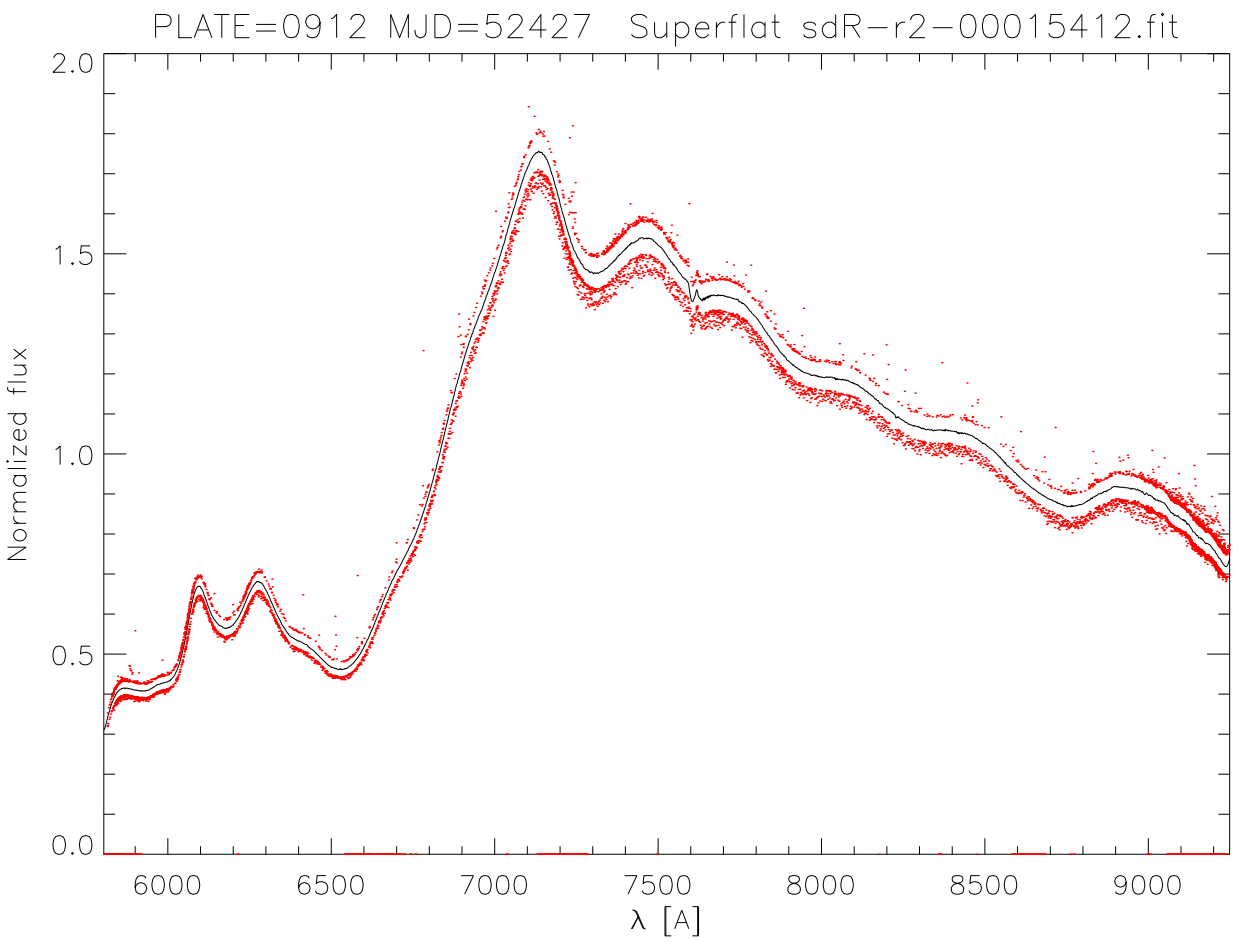

PLATE=0912 MJD=52427 sdR-r1-00015417.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 4.88 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

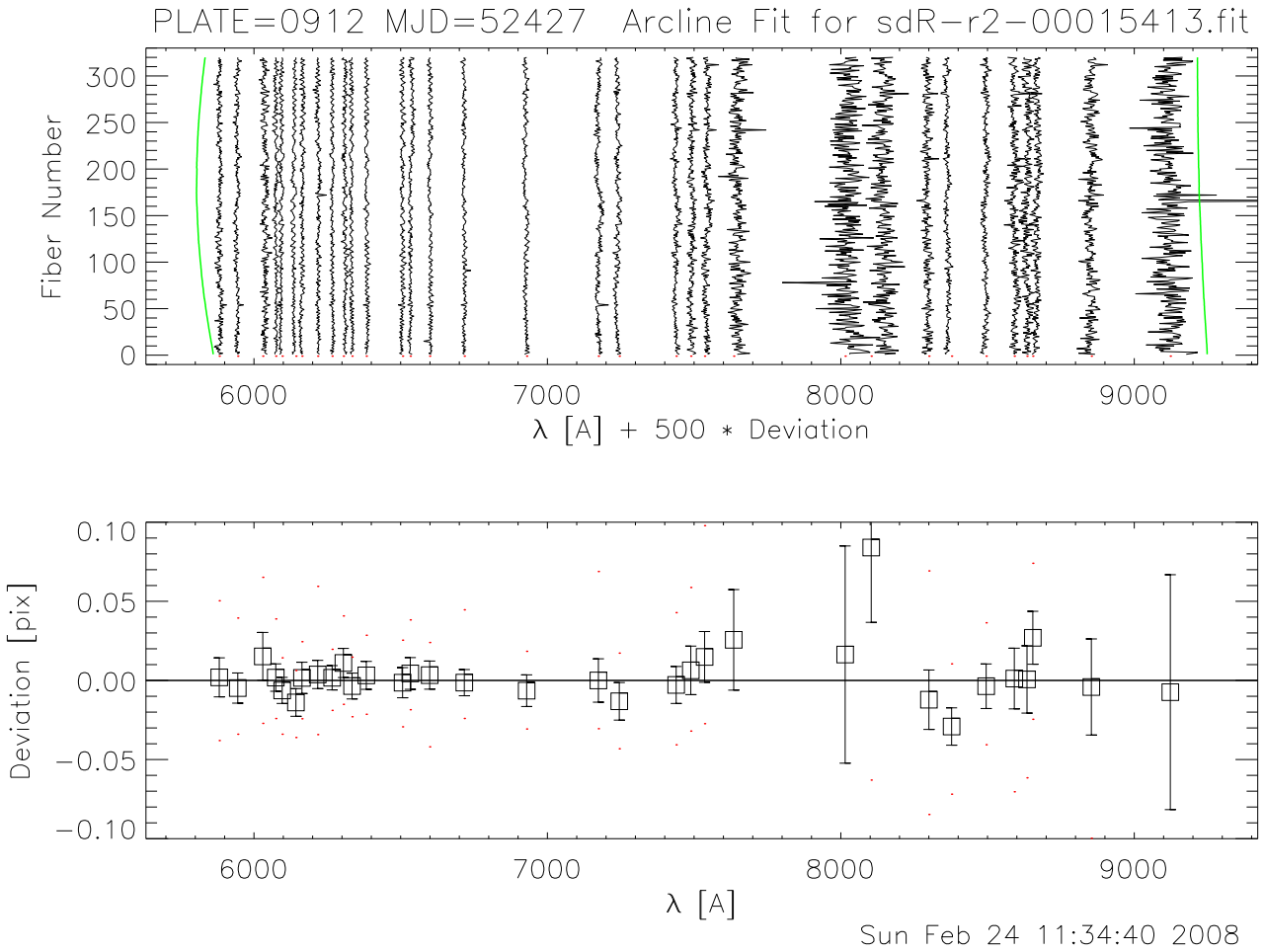

PLATE=0912 MJD=52427 sdR-r1-00015417.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 4.17 %
Fiber number
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass


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

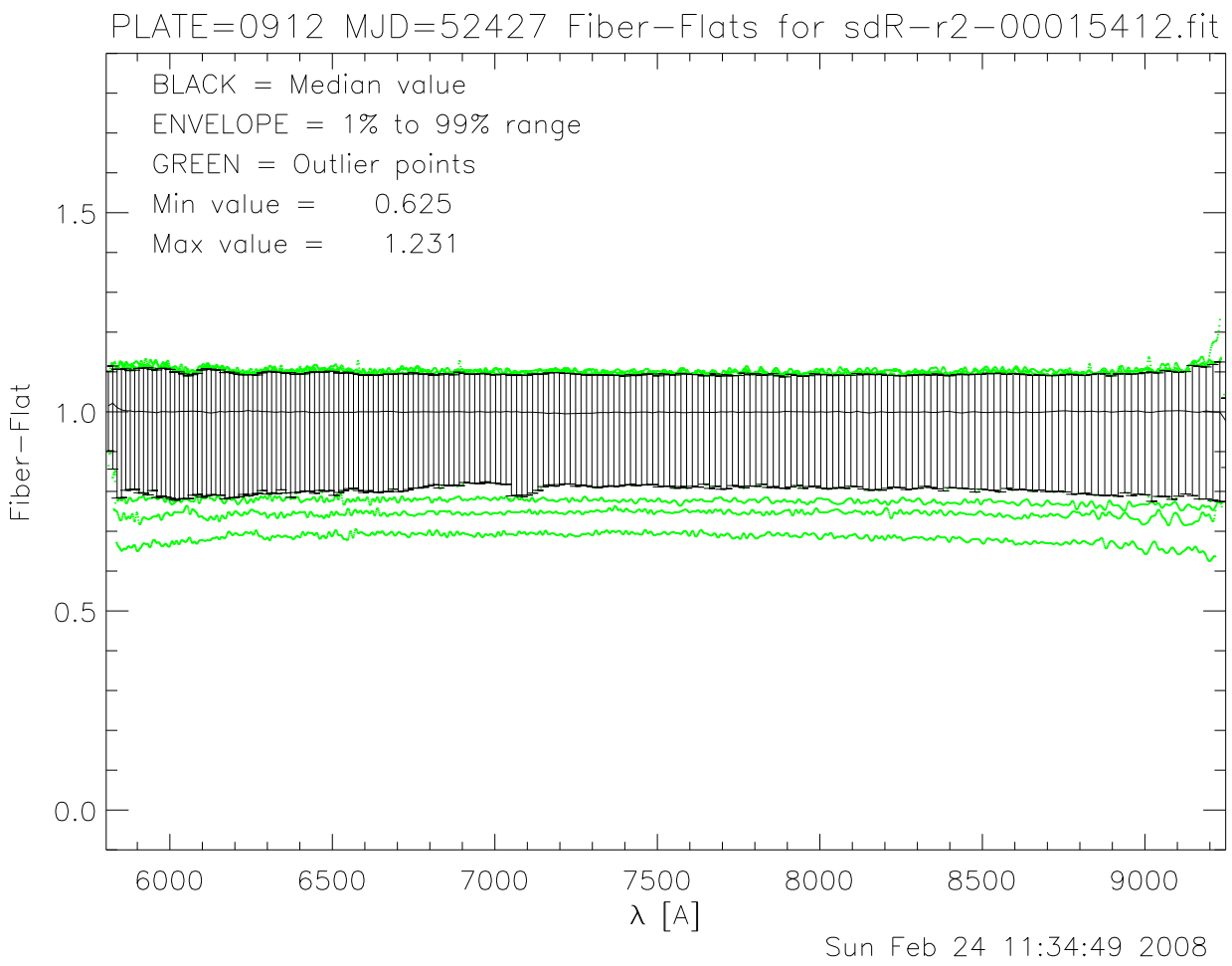

scale coeff residuals from ord=3 poly
4×10⁻⁵
2×10⁻⁵
0
−2×10⁻⁵
−4×10⁻⁵
0
50
100
150
200
250
300
fiber

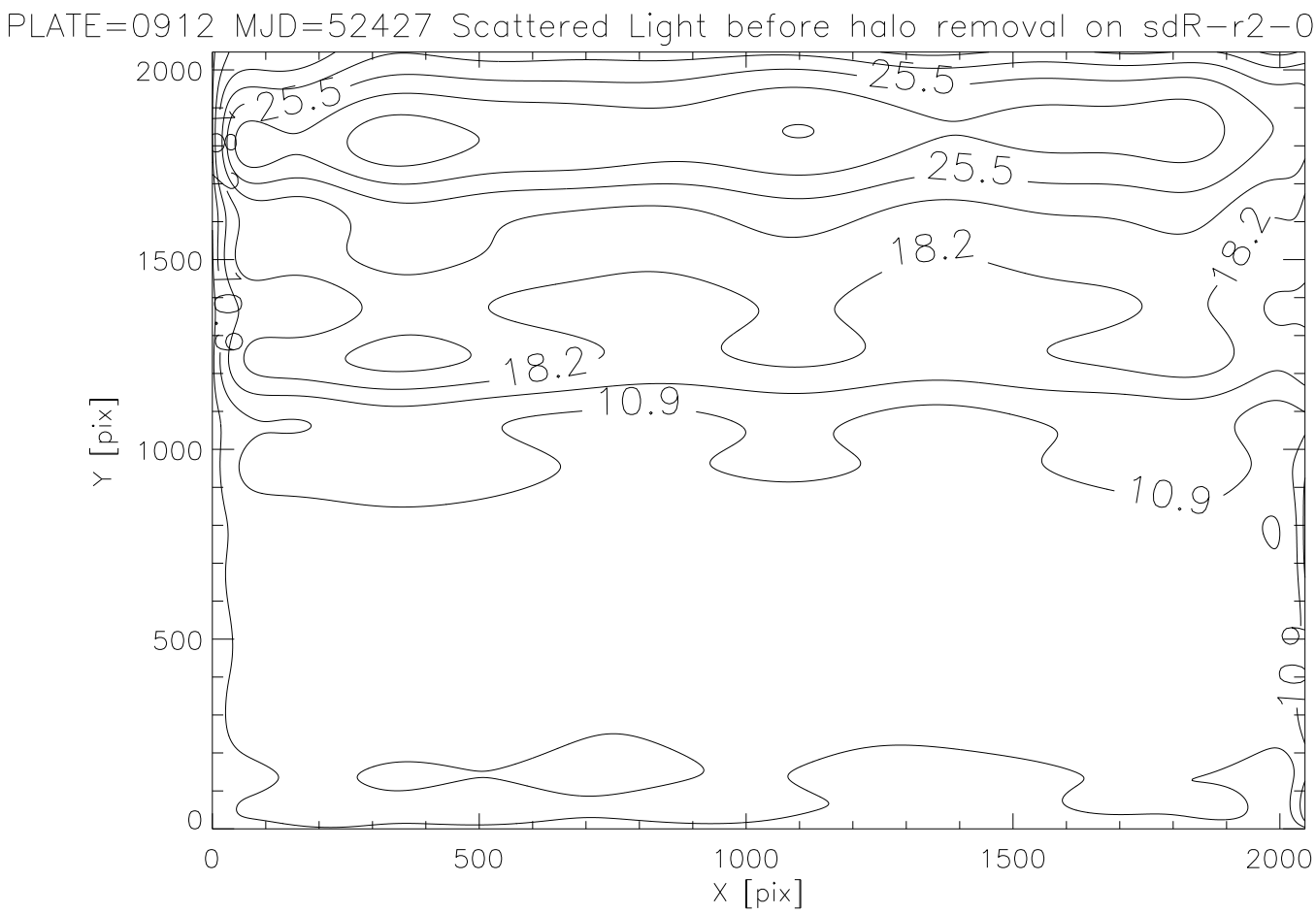

PLATE=0912 MJD=52427 flat extraction chi^2 for sdR−r2−00015412.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
2
4
6
8
10
0
500
1000
1500
2000

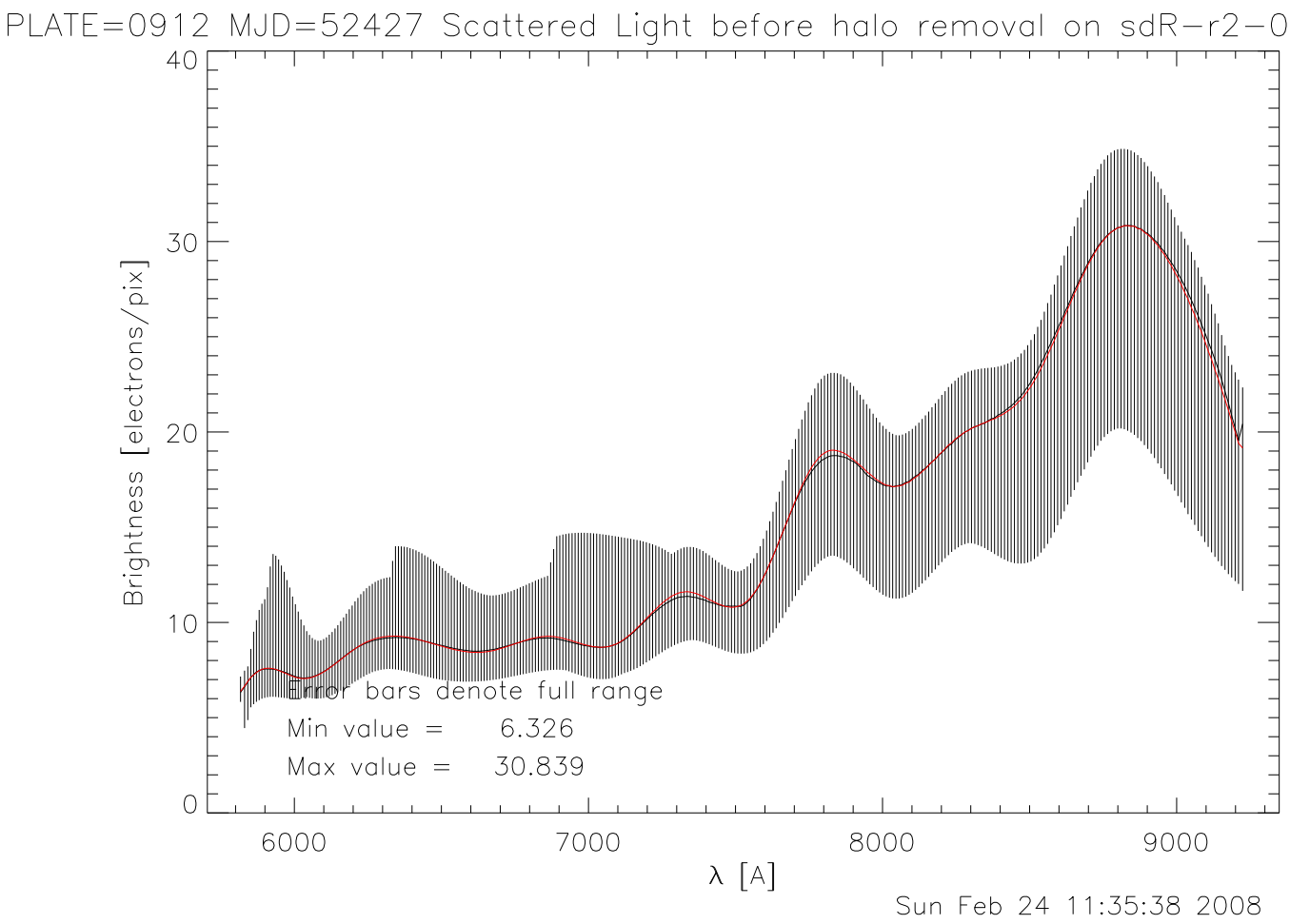

PLATE=0912 MJD=52427 Superflat sdR-r2-00015412.fit
Normalized flux
2.0
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

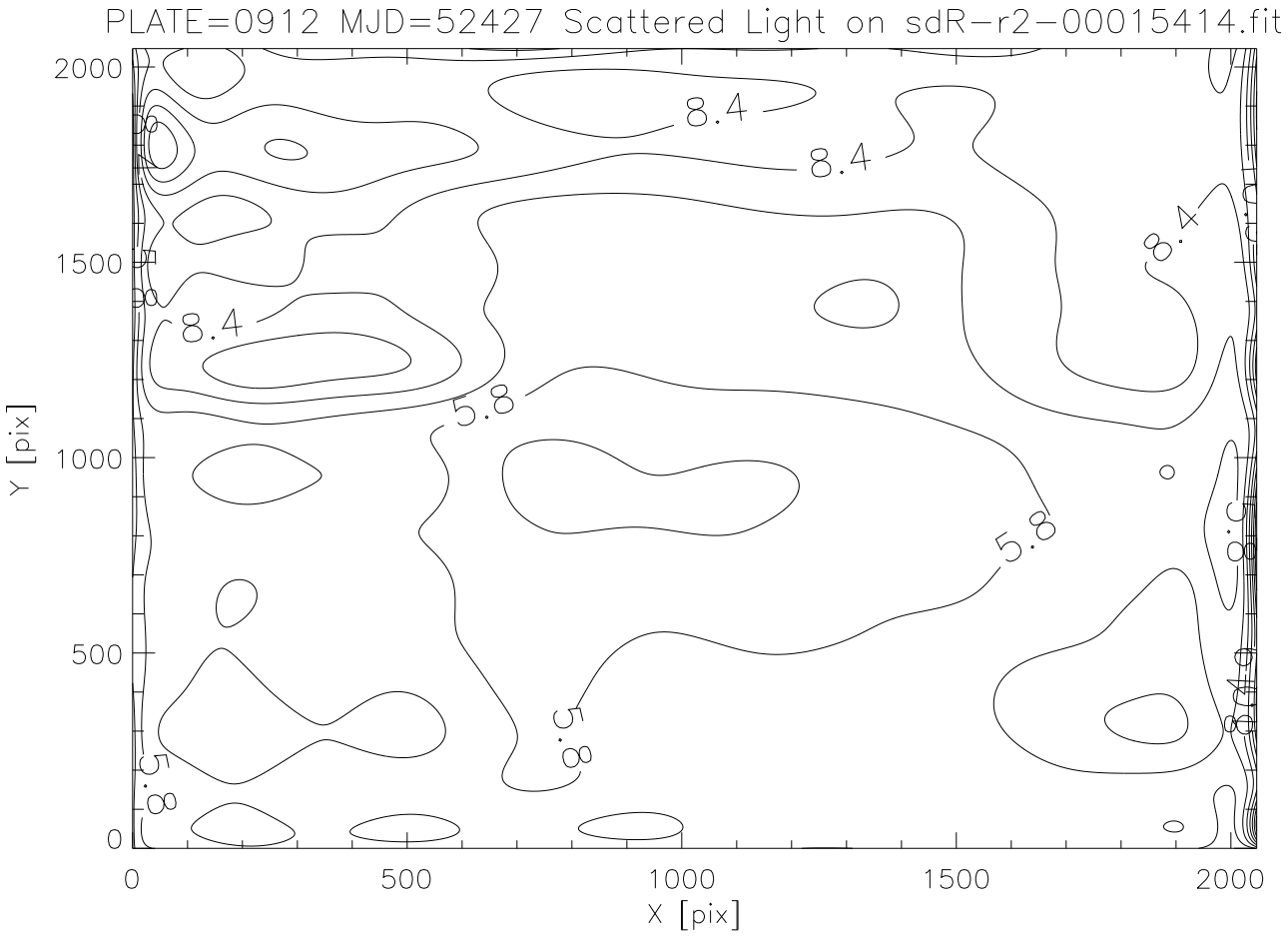


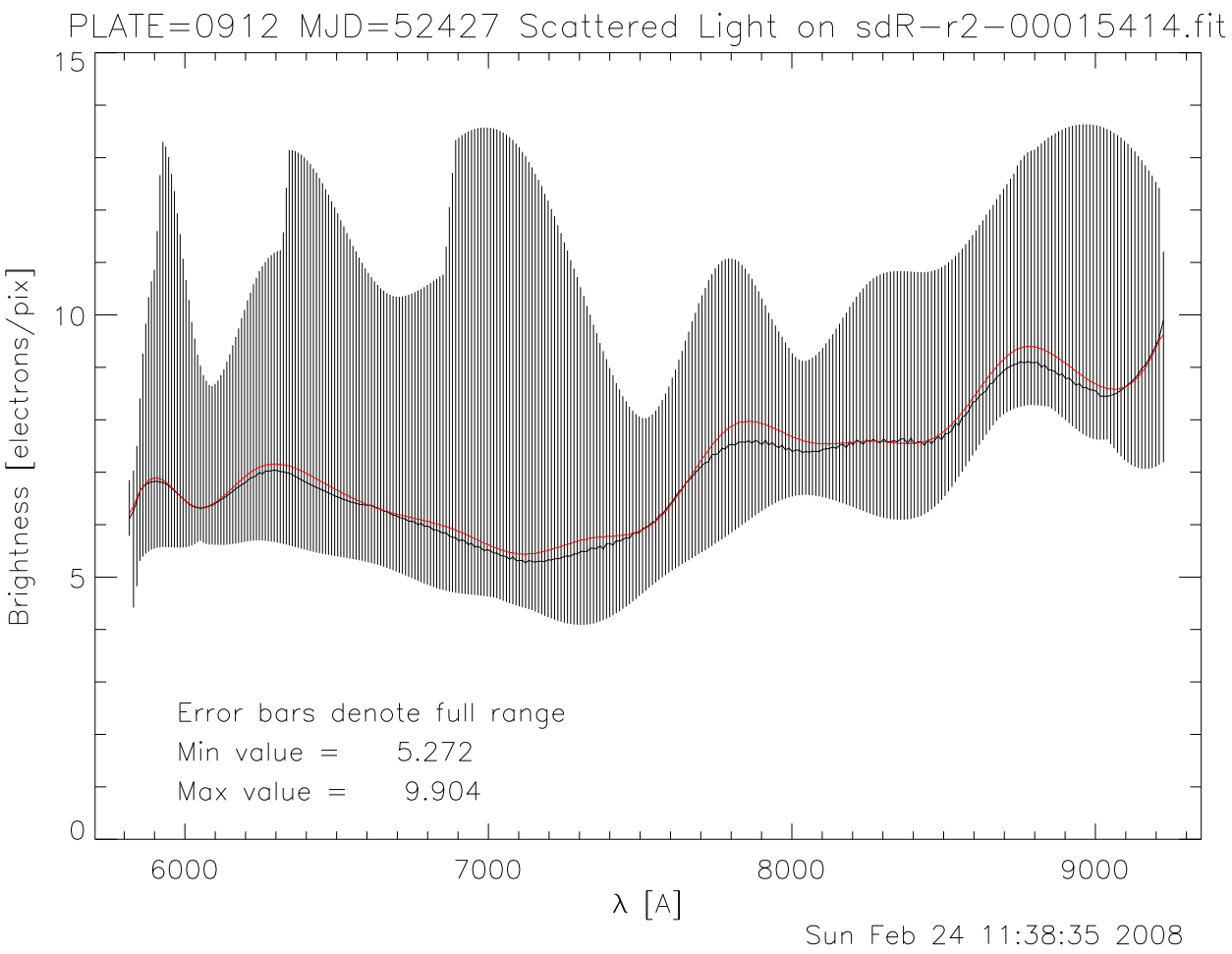
Sun Feb 24 11:34:40 2008

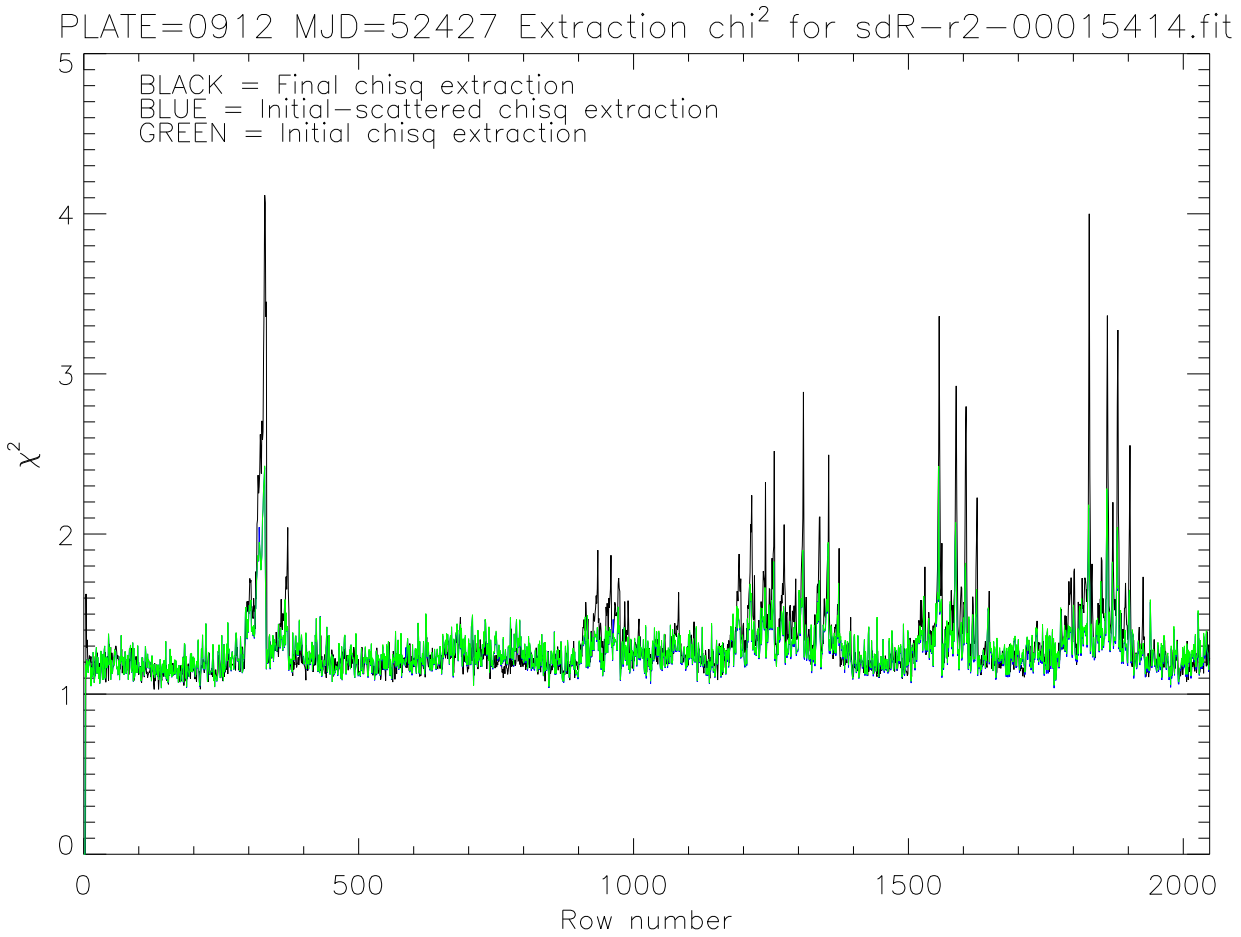

PLATE=0912 MJD=52427 Fiber−Flats for sdR−r2−00015412.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.625
Max value = 1.231
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sun Feb 24 11:34:49 2008

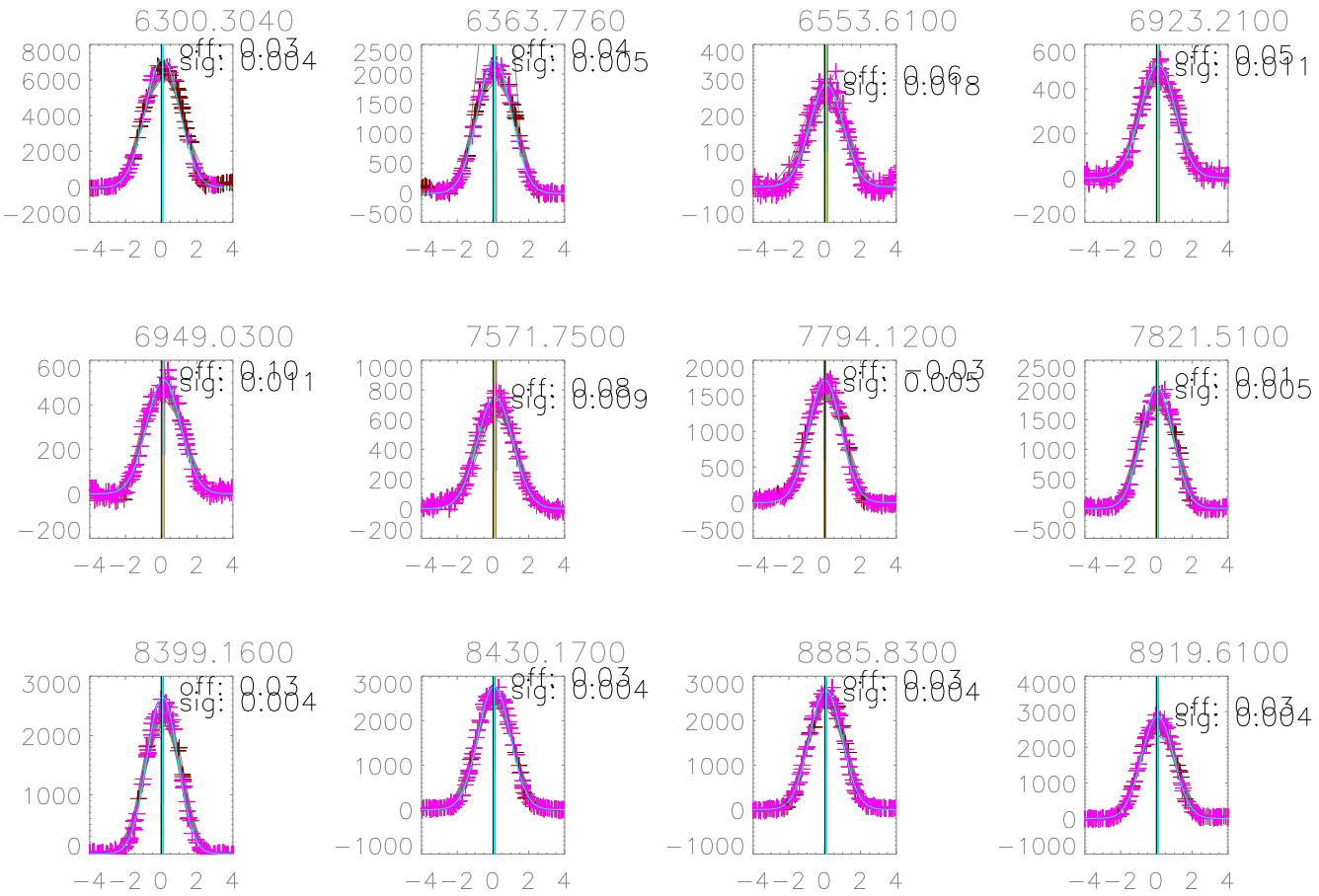

PLATE=0912 MJD=52427 Scattered Light before halo removal on sdR-r2-00015414.fi
25.5
25.5
25.5
18.2
18.2
18.2
10.9
10.9
0
10.9
Y [pix]
X [pix]
0
500
1000
1500
2000

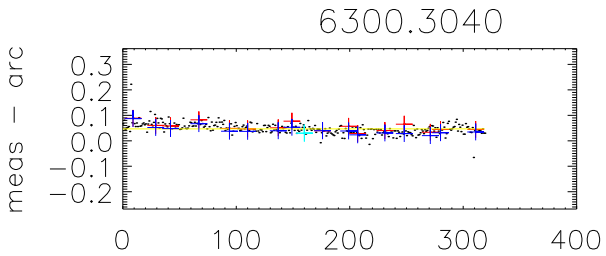

PLATE=0912 MJD=52427 Scattered Light before halo removal on sdR-r2-00015414.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 6.326
Max value = 30.839
Sun Feb 24 11:35:38 2008

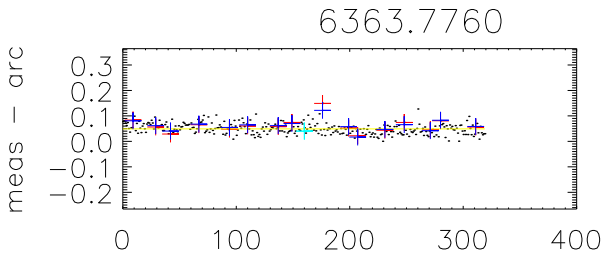

PLATE=0912 MJD=52427 Scattered Light on sdR-r2-00015414.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
8.4
5.8

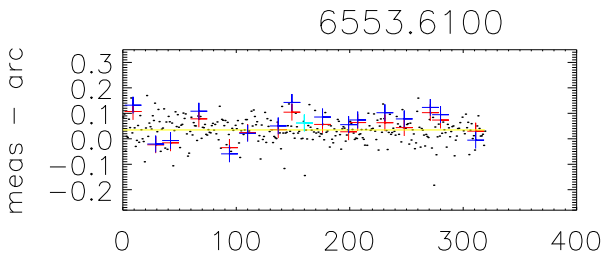

PLATE=0912 MJD=52427 Scattered Light on sdR-r2-00015414.fit
Brightness [electrons/pix]
15
10
5
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 5.272
Max value = 9.904
Sun Feb 24 11:38:35 2008

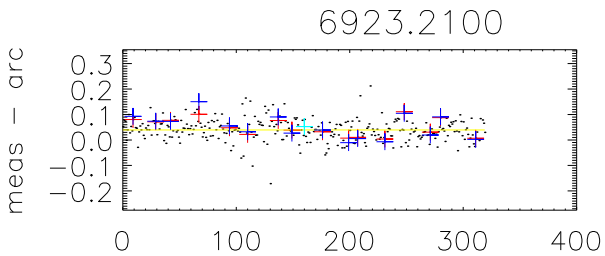

PLATE=0912 MJD=52427 Extraction chi^2 for sdR−r2−00015414.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
5
0
500
1000
1500
2000
Row number

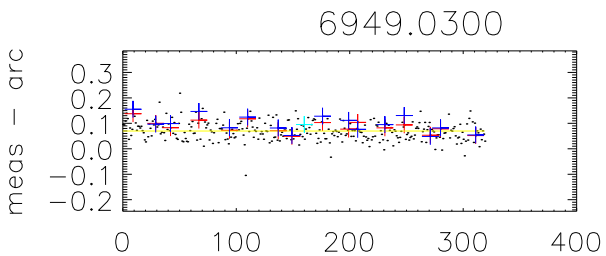

6300.3040
off: 0.03
sig: 0.004
6363.7760
off: 0.04
sig: 0.005
6553.6100
off: 0.06
sig: 0.018
6923.2100
off: 0.05
sig: 0.011
6949.0300
off: 0.10
sig: 0.011
7571.7500
off: 0.08
sig: 0.009
7794.1200
off: -0.03
sig: 0.005
7821.5100
off: 0.01
sig: 0.005
8399.1600
off: 0.03
sig: 0.004
8430.1700
off: 0.03
sig: 0.004
8885.8300
off: 0.03
sig: 0.004
8919.6100
off: 0.03
sig: 0.004

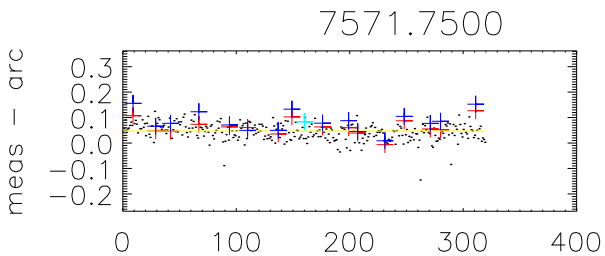

6300.3040
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

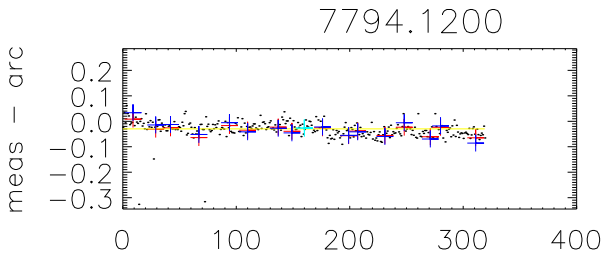

6363.7760
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

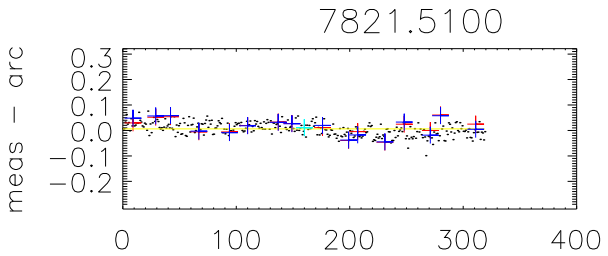

6553.6100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

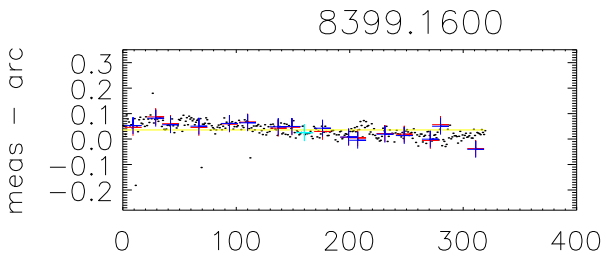

6923.2100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

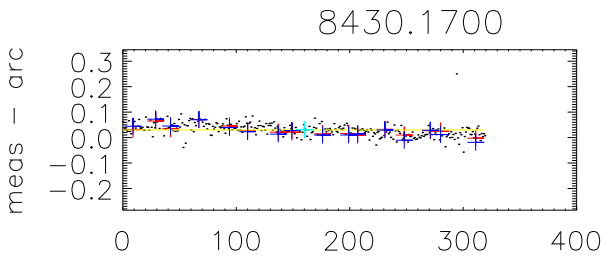

6949.0300
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

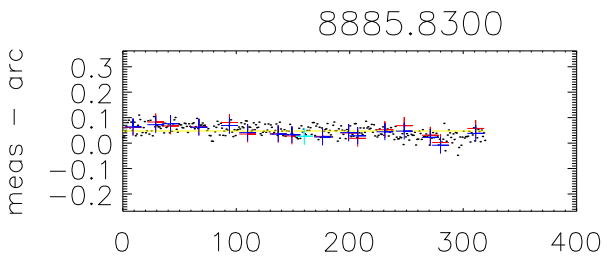

7571.7500
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

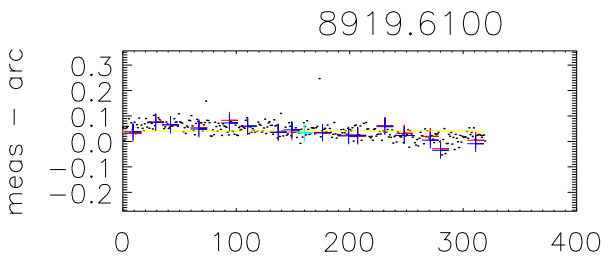

7794.1200
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

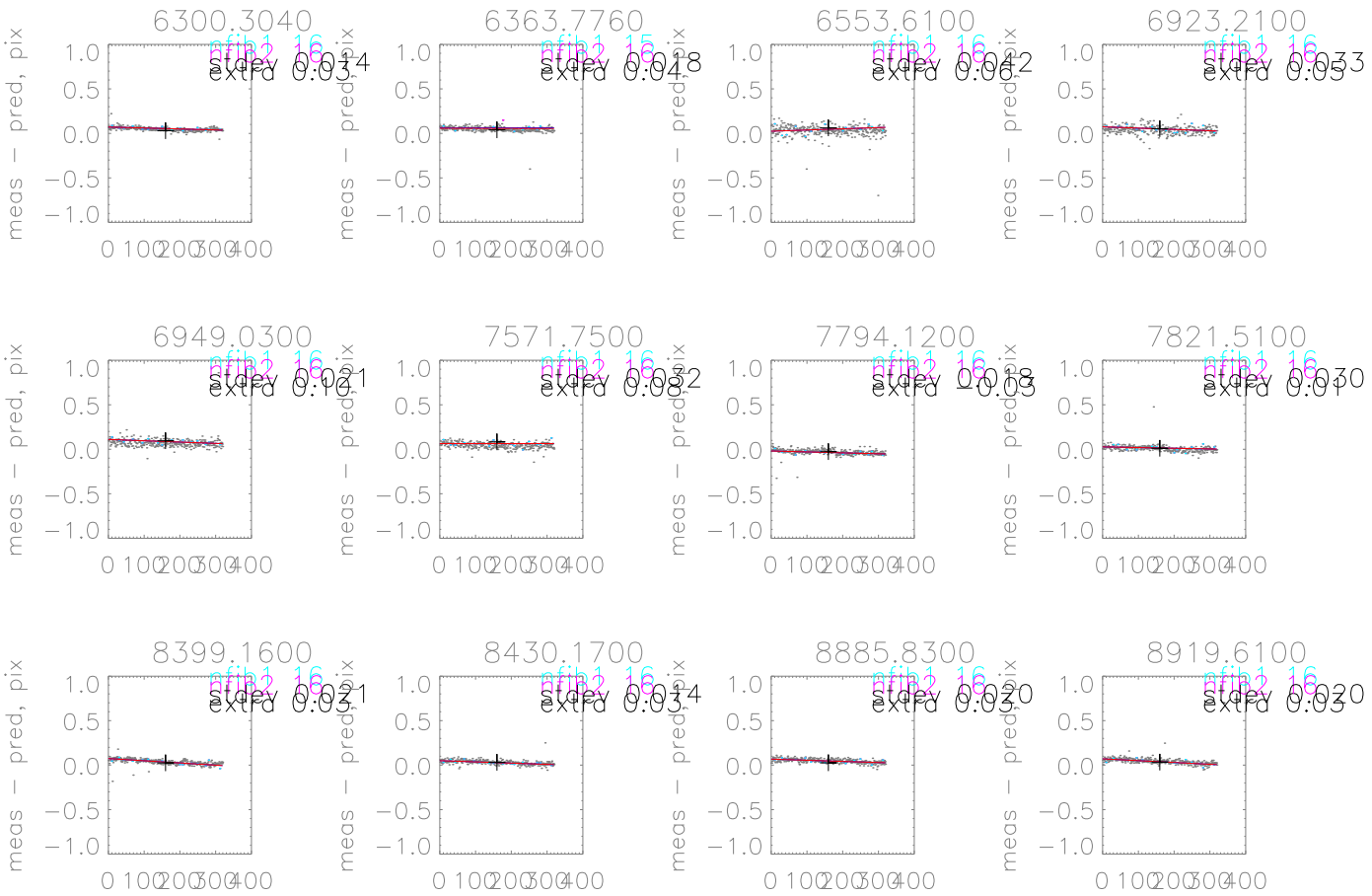

7821.5100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

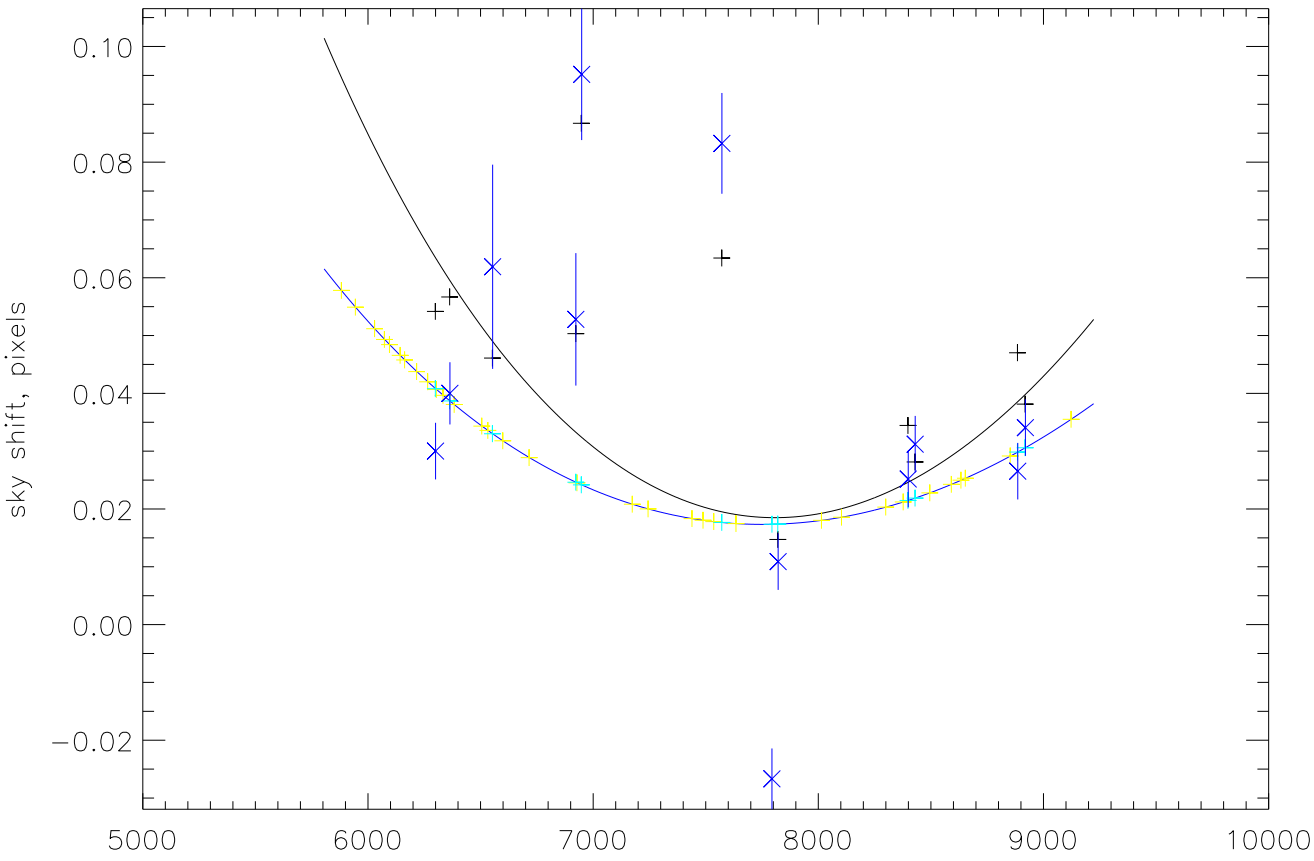

8399.1600
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

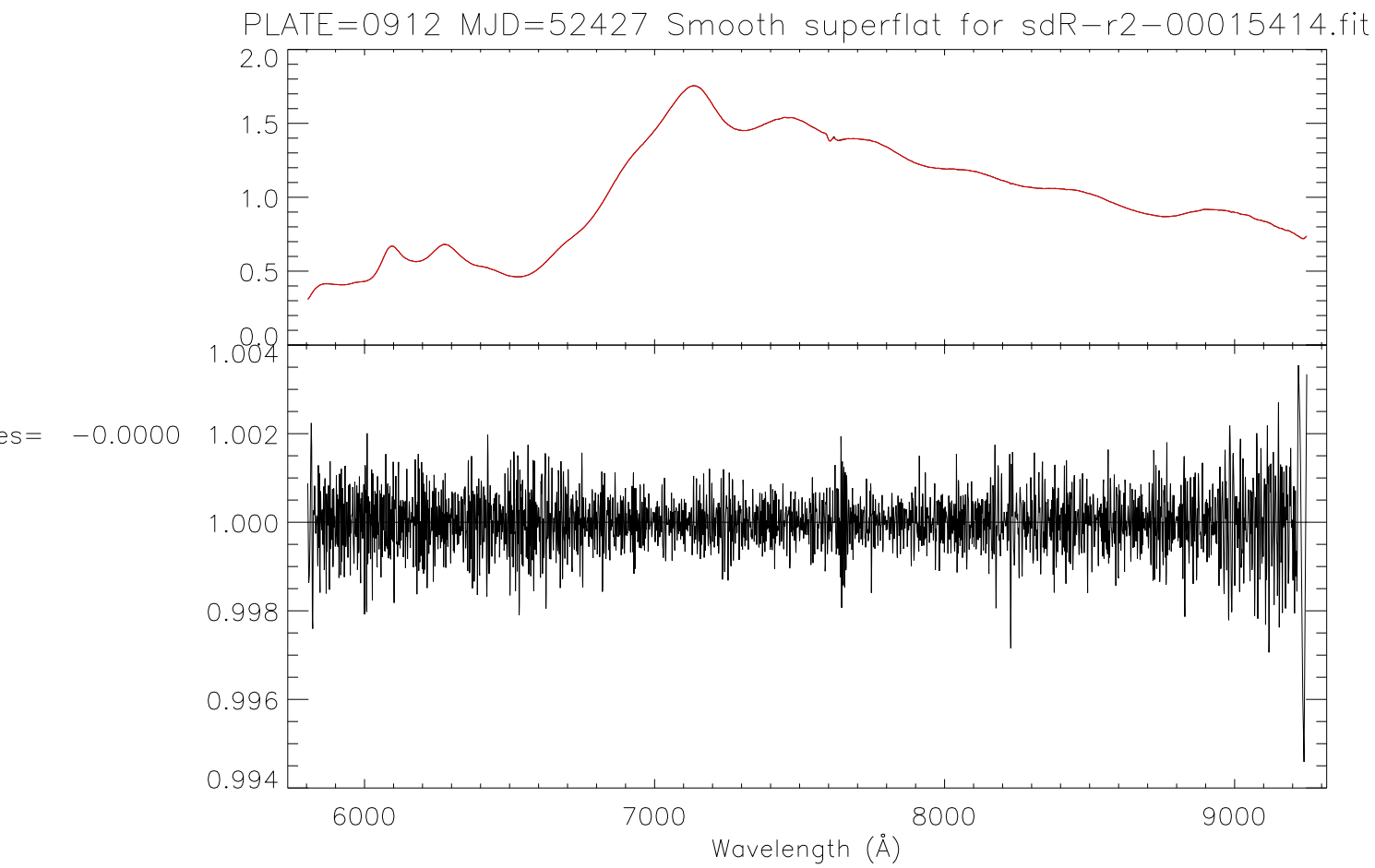

8430.1700
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

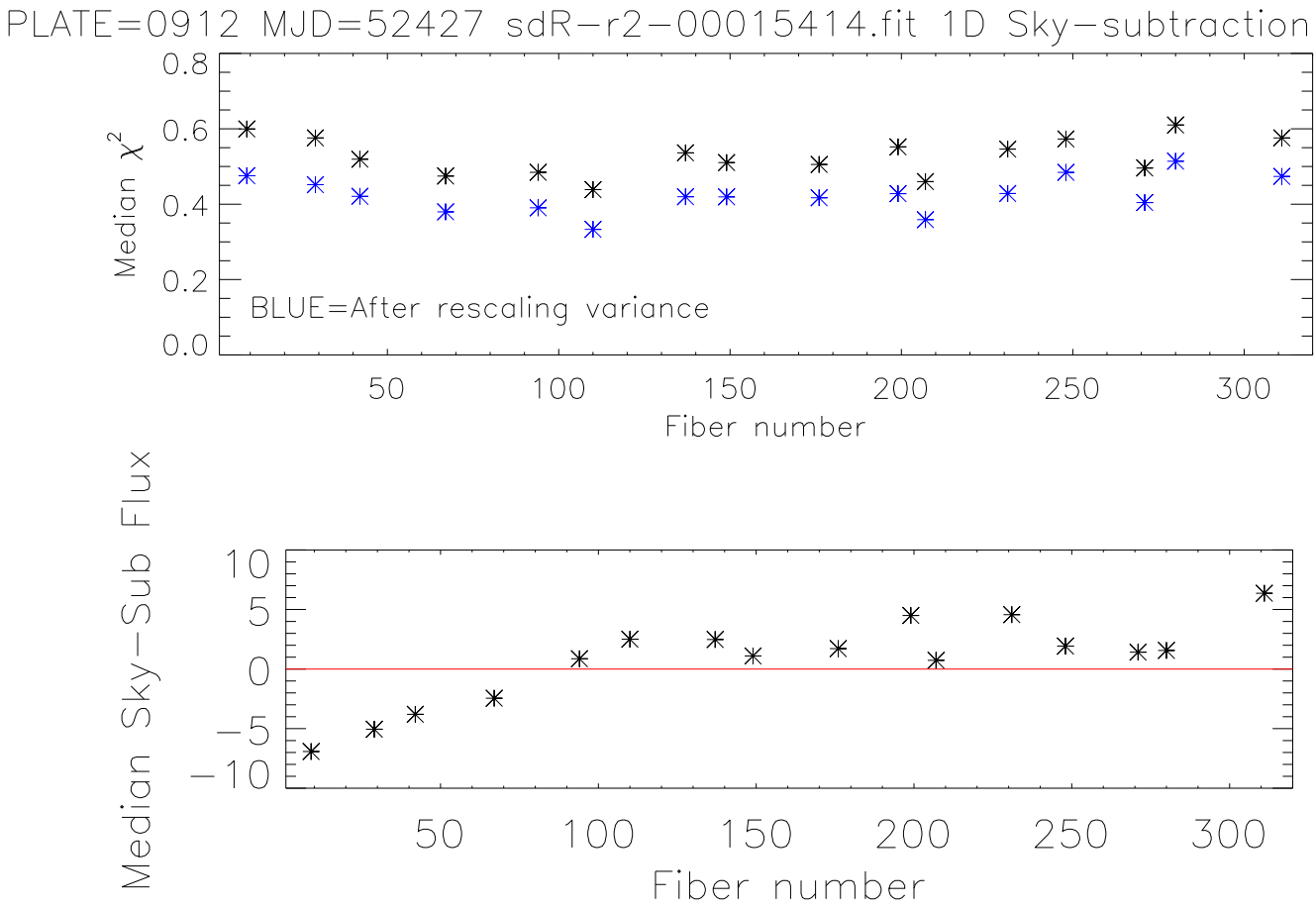

8885.8300
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

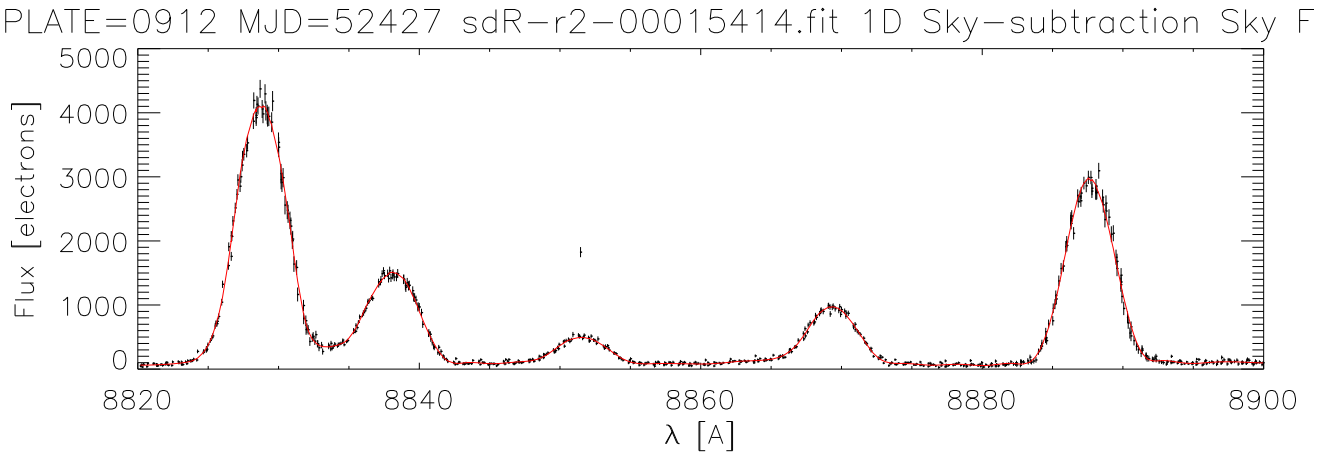

8919.6100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

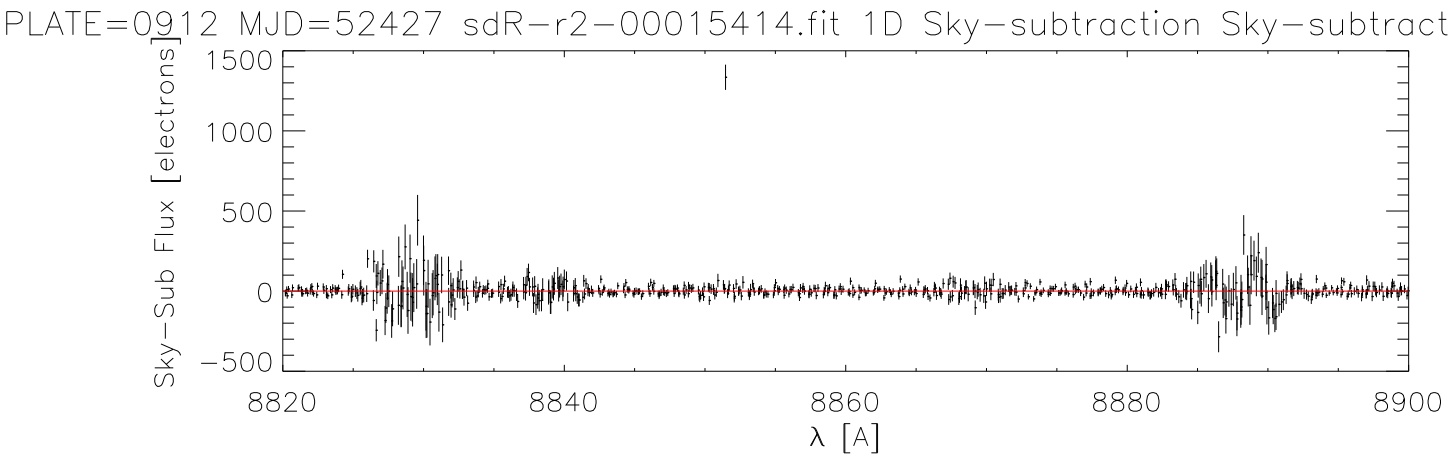

6300.3040
stdev 0.034
extra 0.03
6363.7760
stdev 0.048
extra 0.04
6553.6100
stdev 0.042
extra 0.06
6923.2100
stdev 0.033
extra 0.05
6949.0300
stdev 0.021
extra 0.10
7571.7500
stdev 0.032
extra 0.08
7794.1200
stdev 0.018
extra −0.03
7821.5100
stdev 0.030
extra 0.01
8399.1600
stdev 0.021
extra 0.03
8430.1700
stdev 0.034
extra 0.03
8885.8300
stdev 0.020
extra 0.03
8919.6100
stdev 0.020
extra 0.03
meas − pred, pix
mfib1 16
mfib2 16

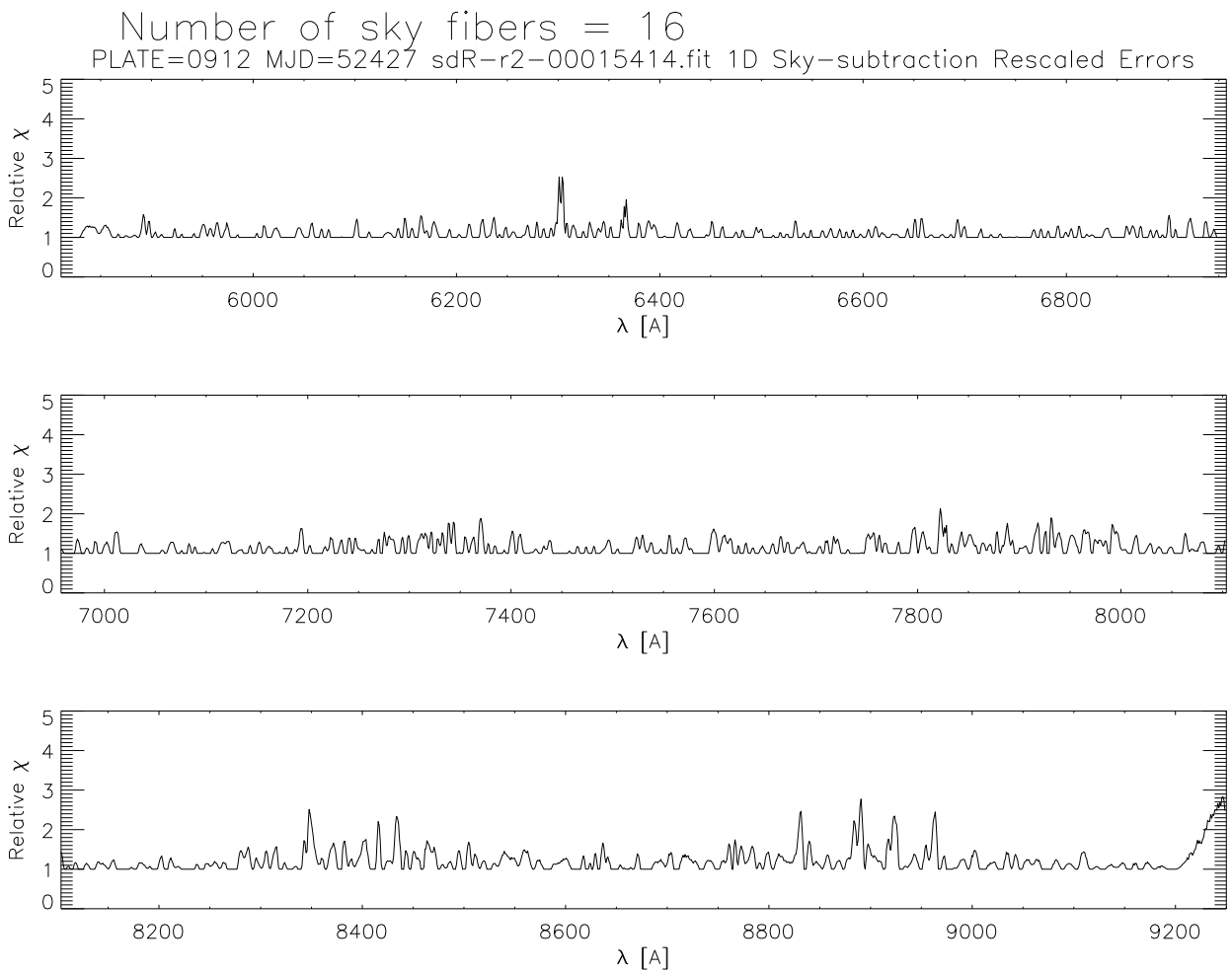

sky shift, pixels
0.10
0.08
0.06
0.04
0.02
0.00
−0.02
5000
6000
7000
8000
9000
10000

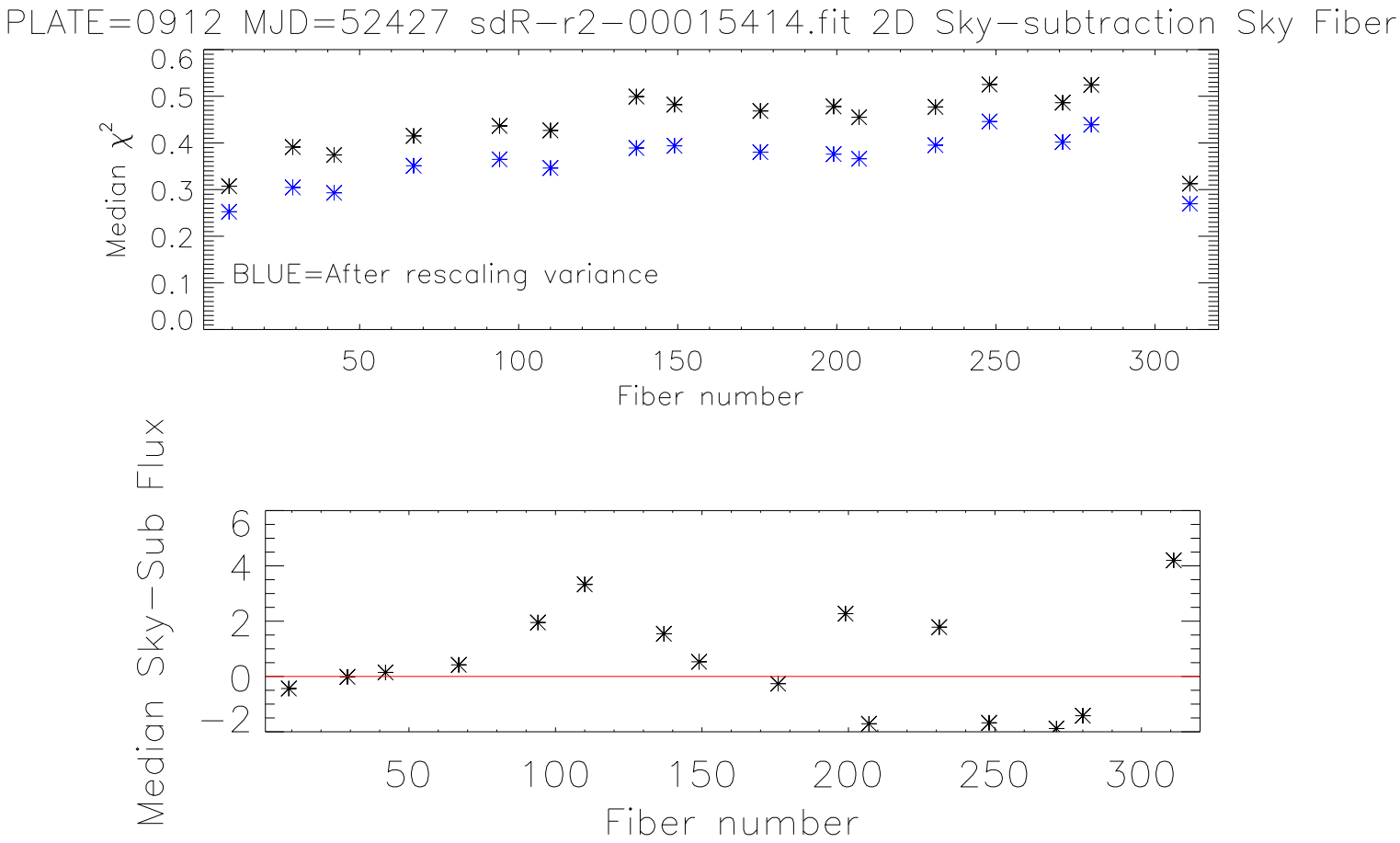

PLATE=0912 MJD=52427 Smooth superflat for sdR-r2-00015414.fit
2.0
1.5
1.0
0.5
0.0
1.004
1.002
1.000
0.998
0.996
0.994
es= −0.0000
6000
7000
8000
9000
Wavelength (Å)

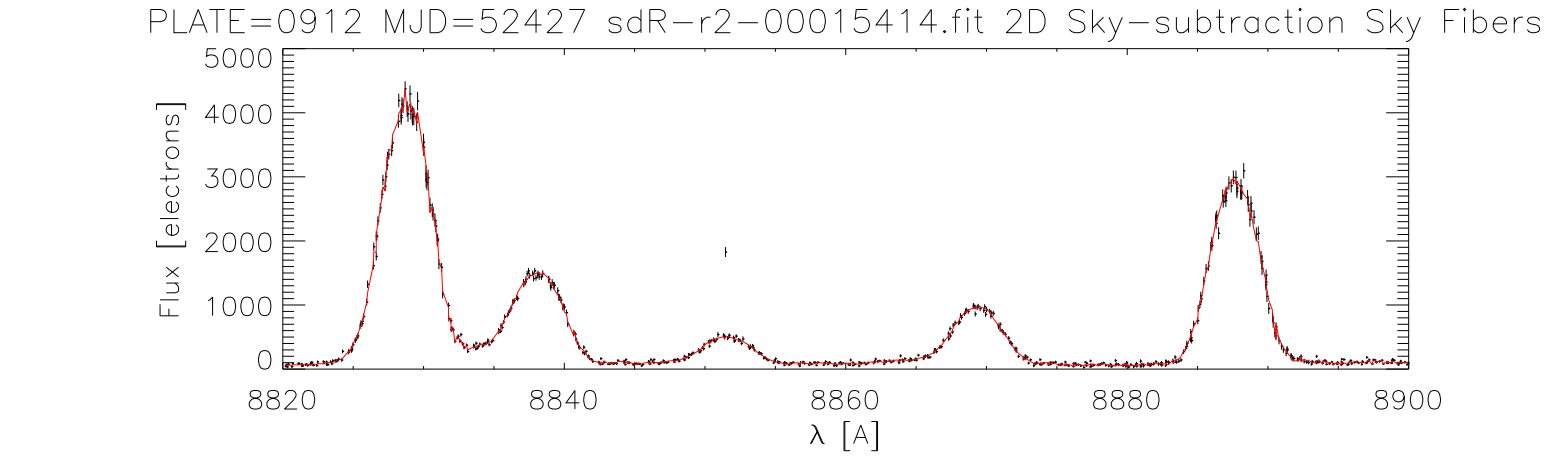

PLATE=0912 MJD=52427 sdR-r2-00015414.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
−5
−10
50
100
150
200
250
300
Fiber number

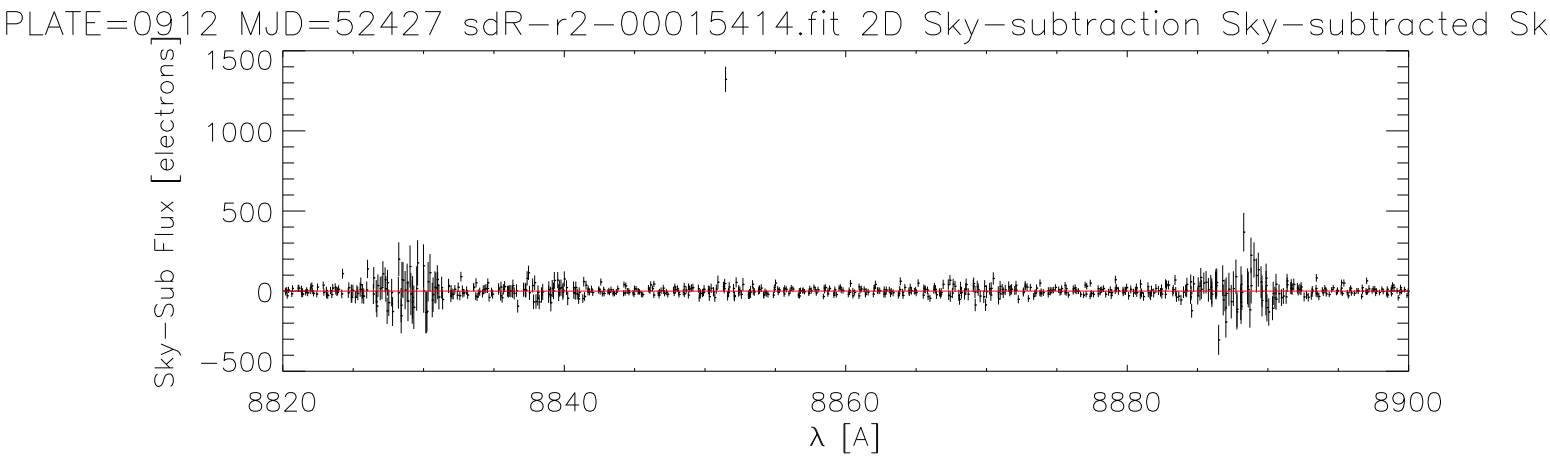

PLATE=0912 MJD=52427 sdR-r2-00015414.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

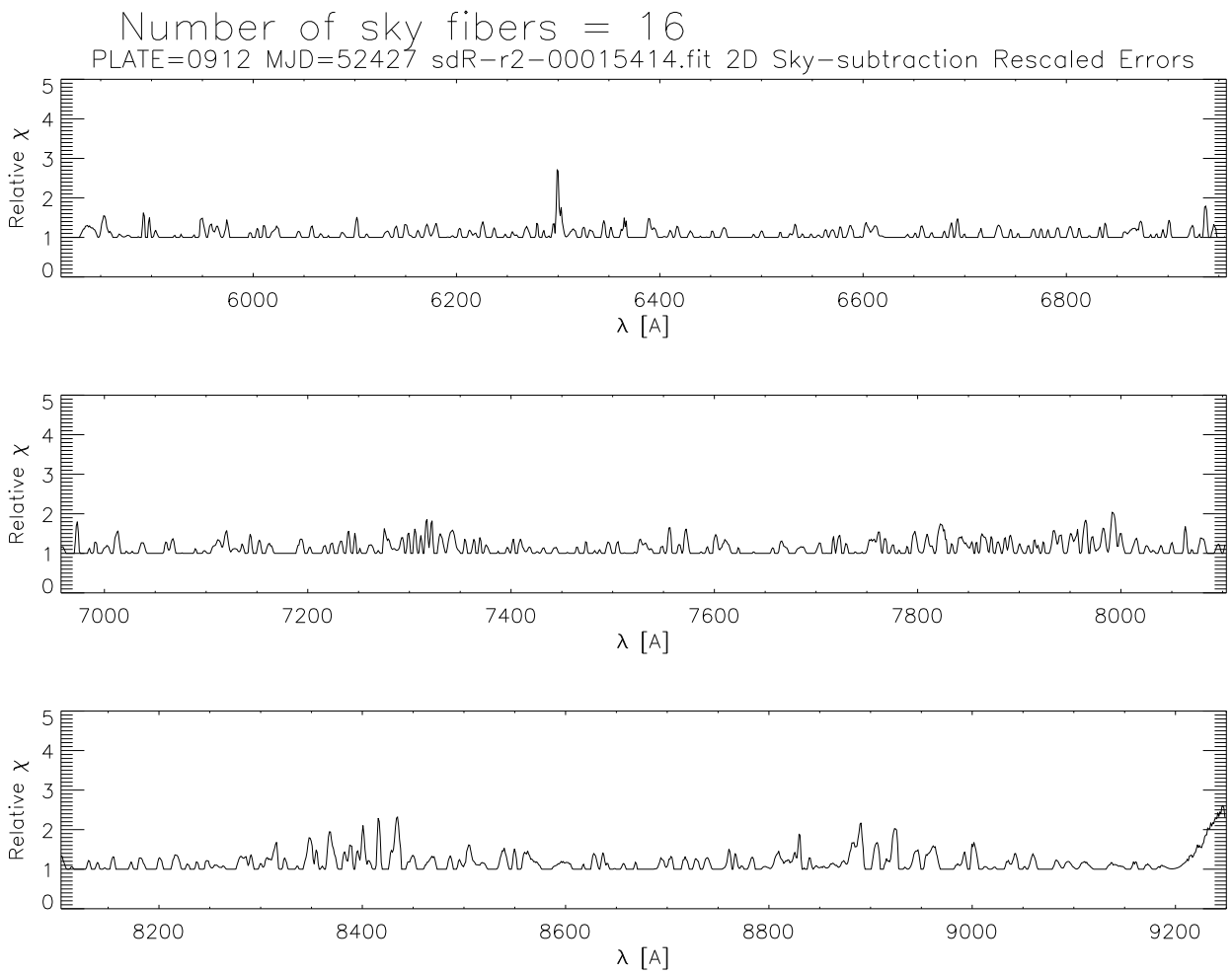

PLATE=0912 MJD=52427 sdR-r2-00015414.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
1500
1000
500
0
-500
8820
8840
8860
8880
8900
λ [A]

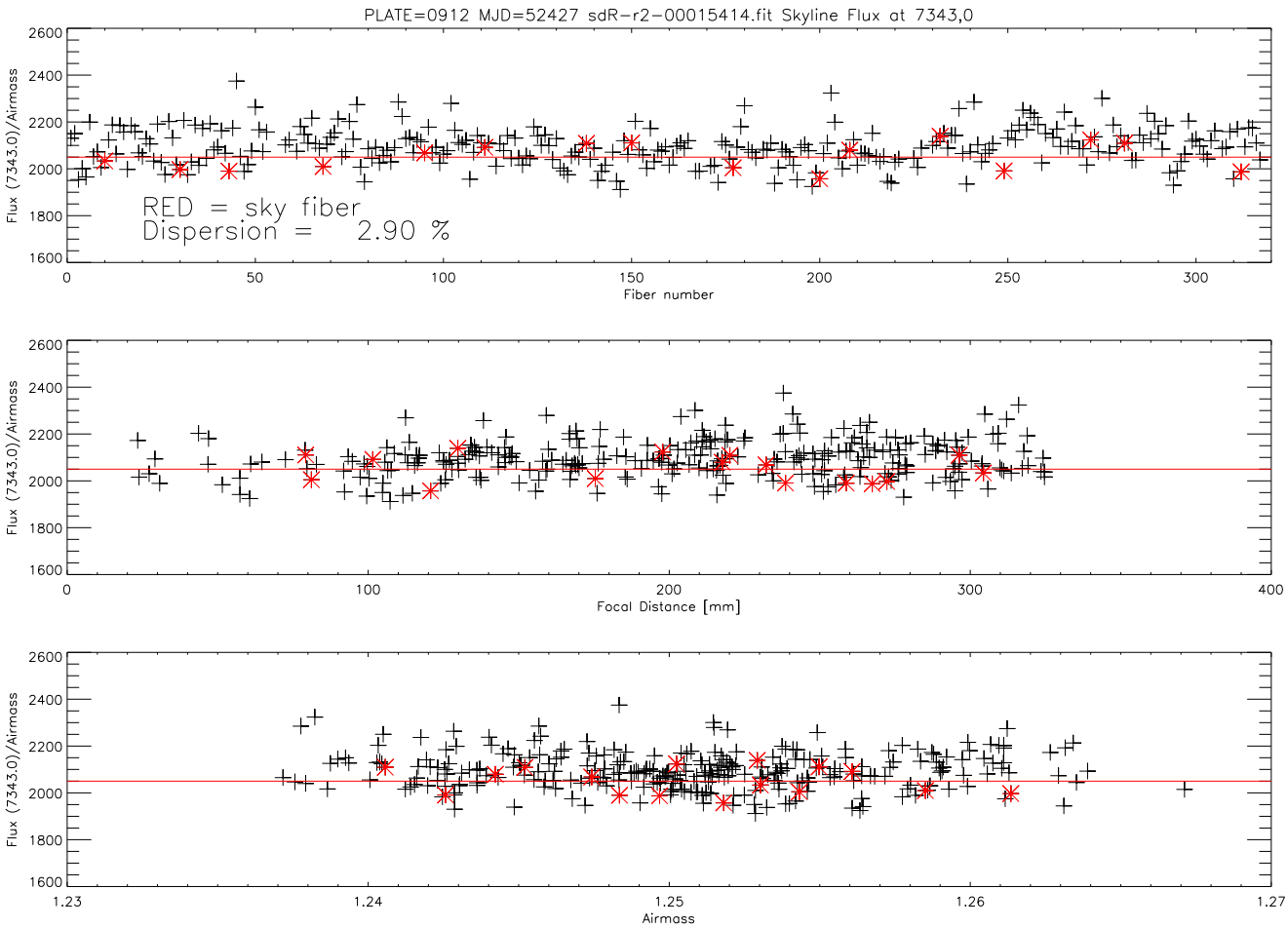

Number of sky fibers = 16
PLATE=0912 MJD=52427 sdR-r2-00015414.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

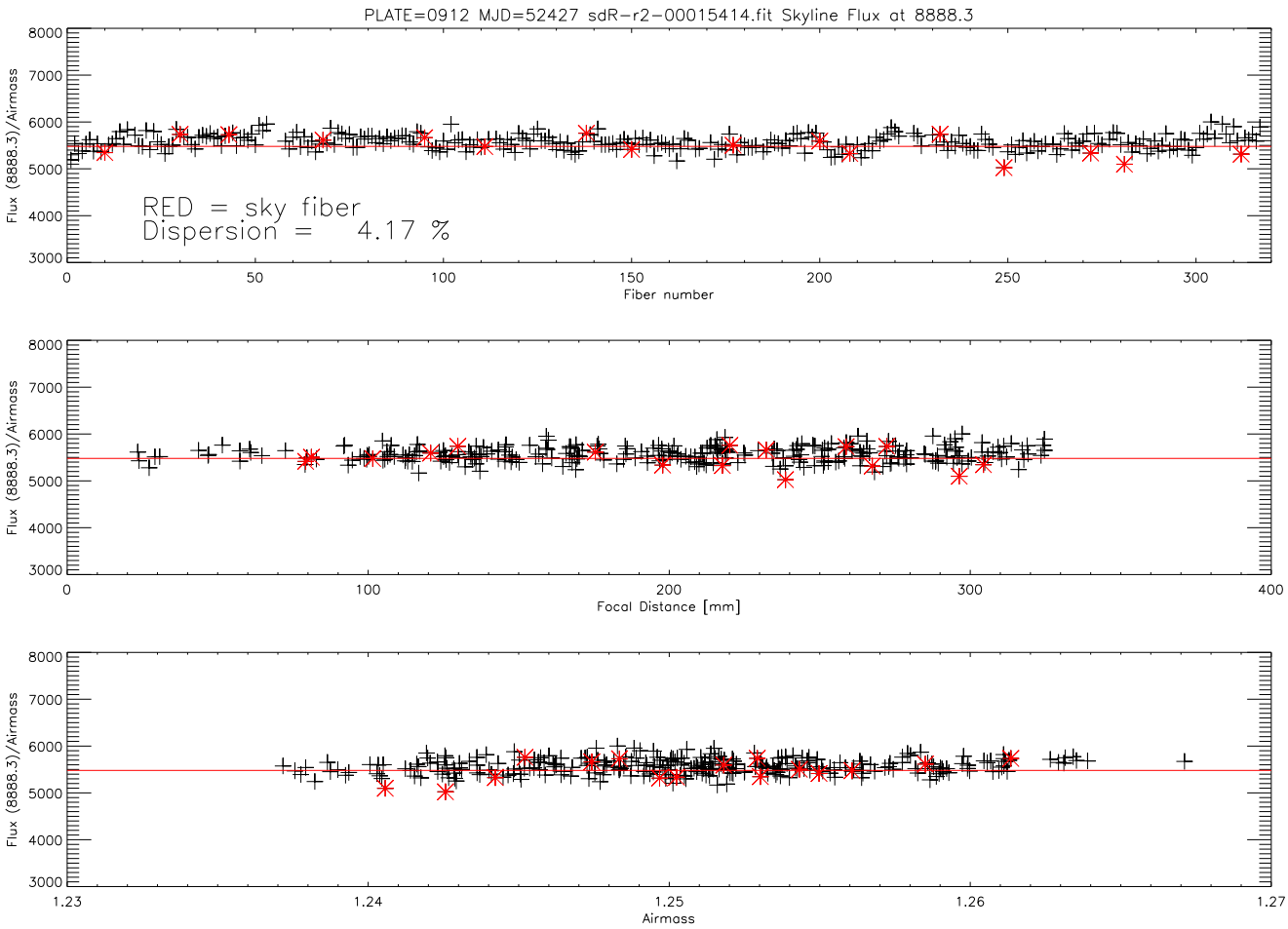

PLATE=0912 MJD=52427 sdR-r2-00015414.fit 2D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

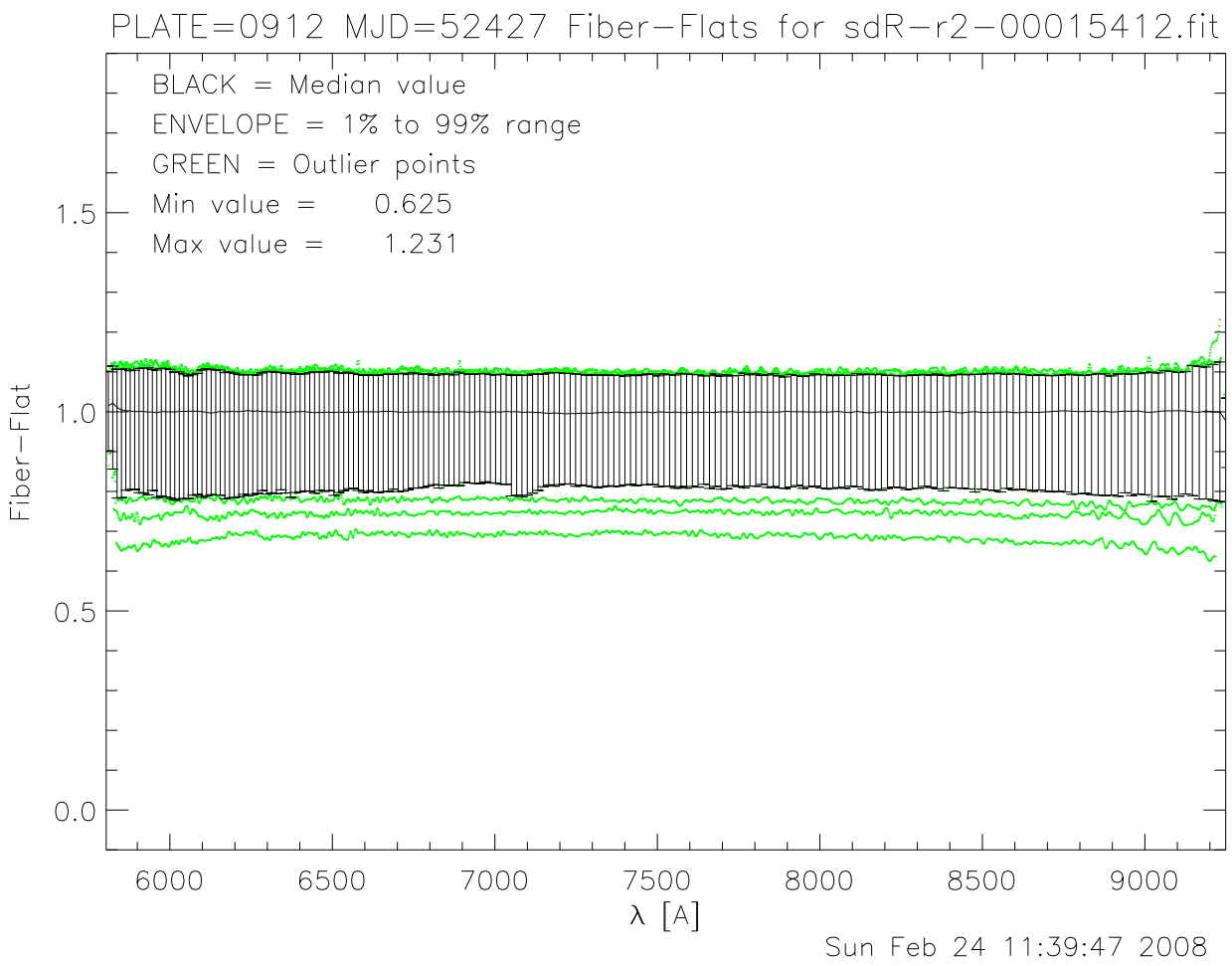

PLATE=0912 MJD=52427 sdR-r2-00015414.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

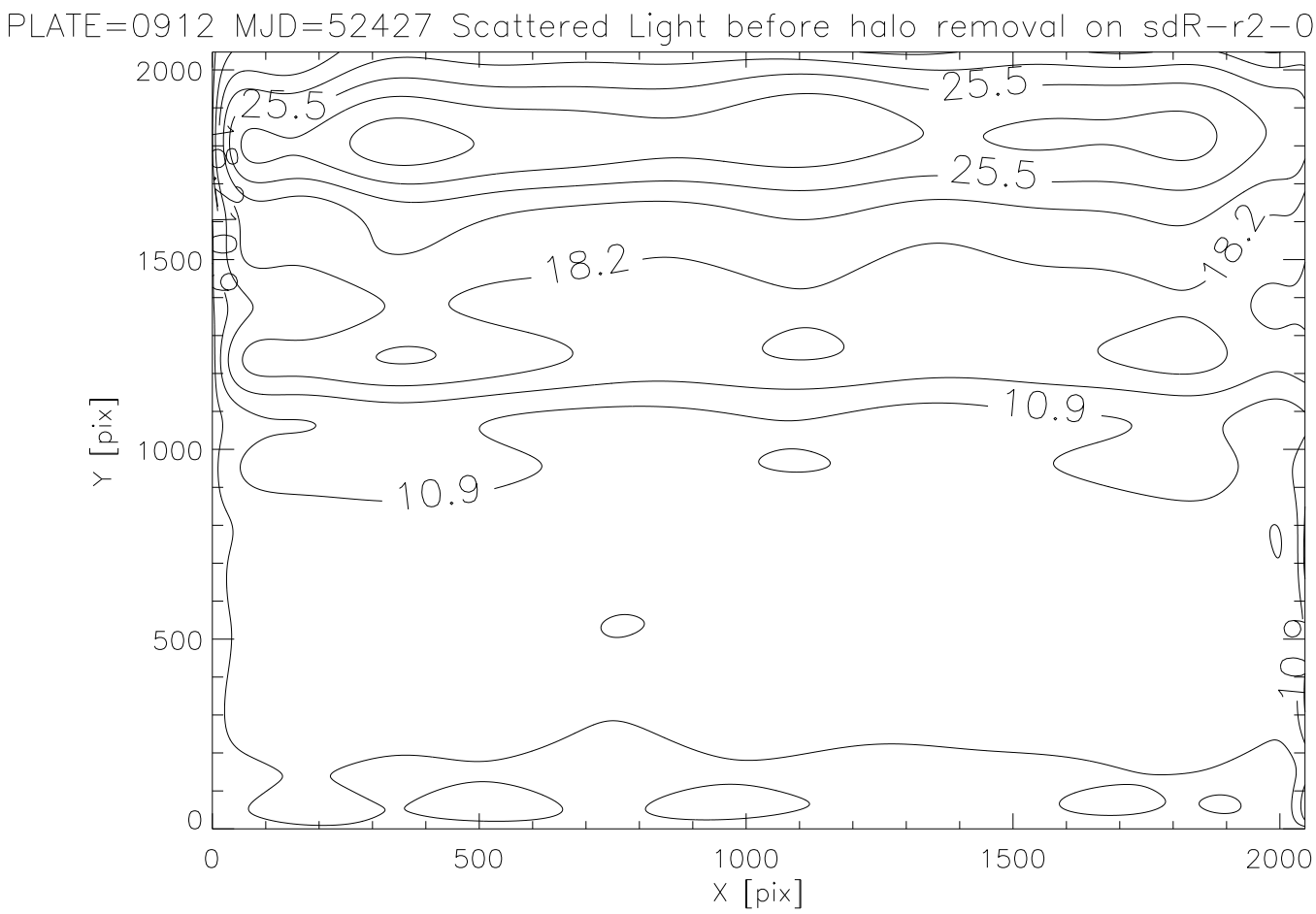

PLATE=0912 MJD=52427 sdR-r2-00015414.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
1500
1000
500
0
-500
8820
8840
8860
8880
8900
λ [A]

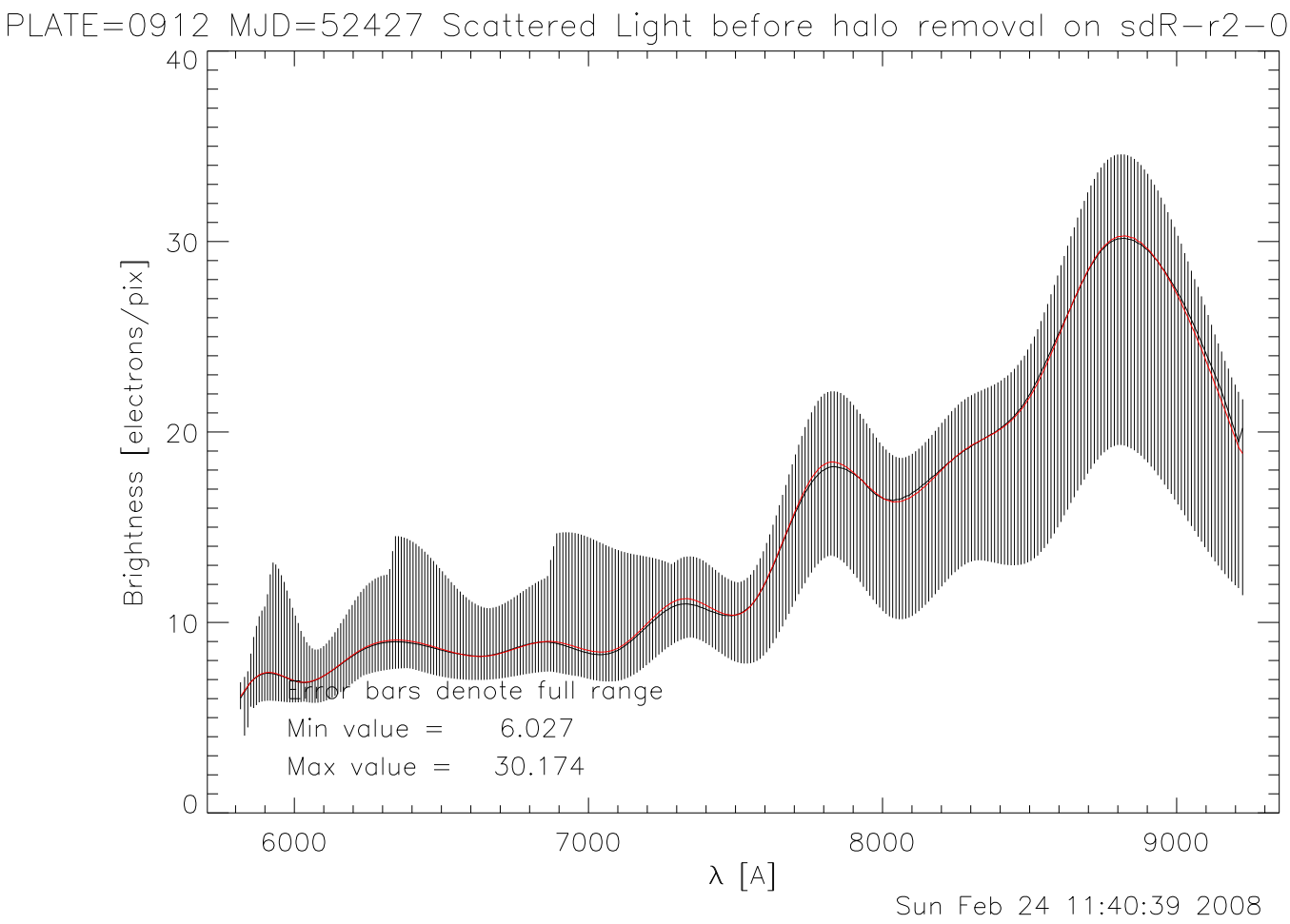

Number of sky fibers = 16
PLATE=0912 MJD=52427 sdR-r2-00015414.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

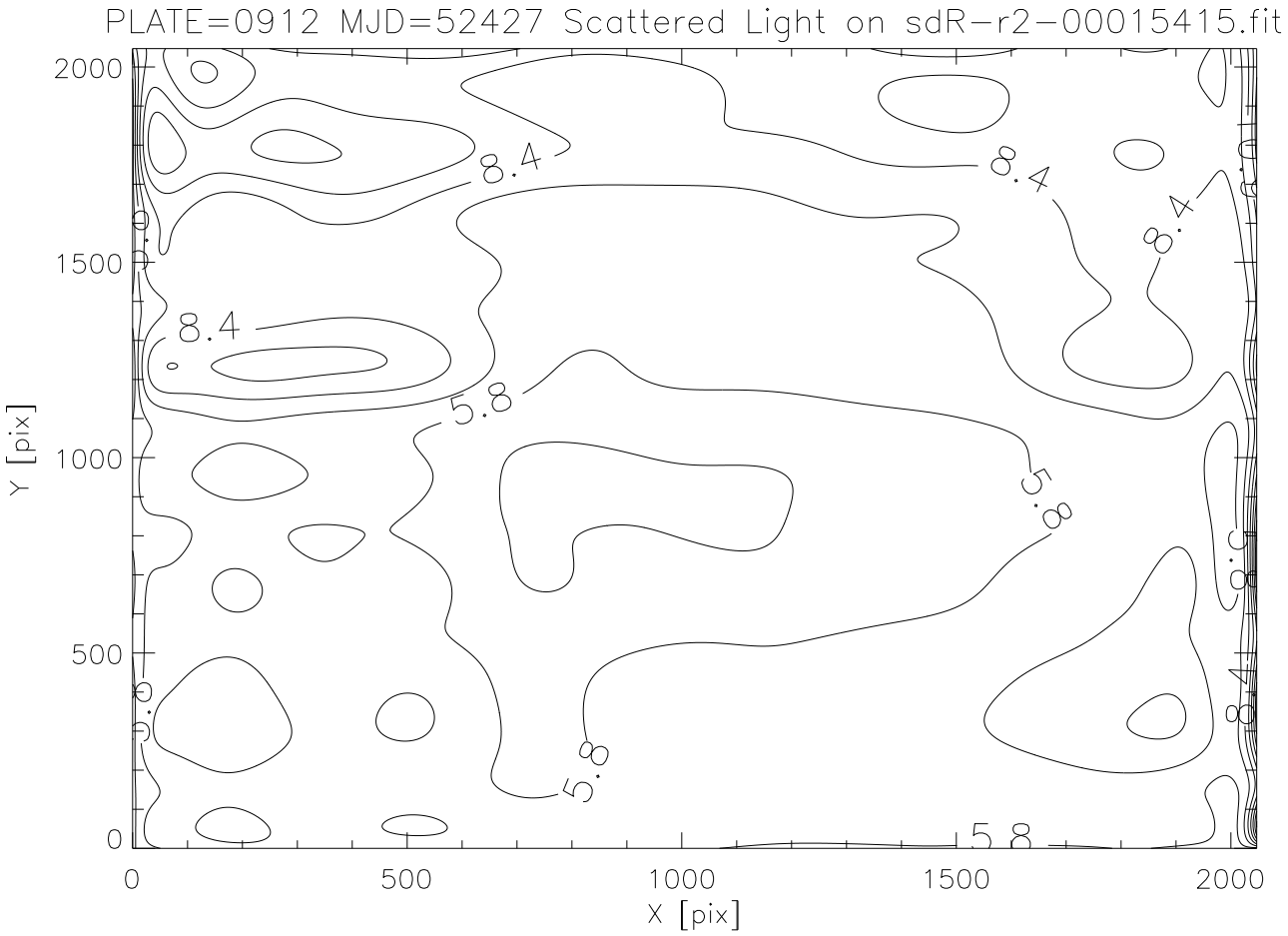

PLATE=0912 MJD=52427 sdR-r2-00015414.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 2.90 %
Fiber number
Focal Distance [mm]
Airmass

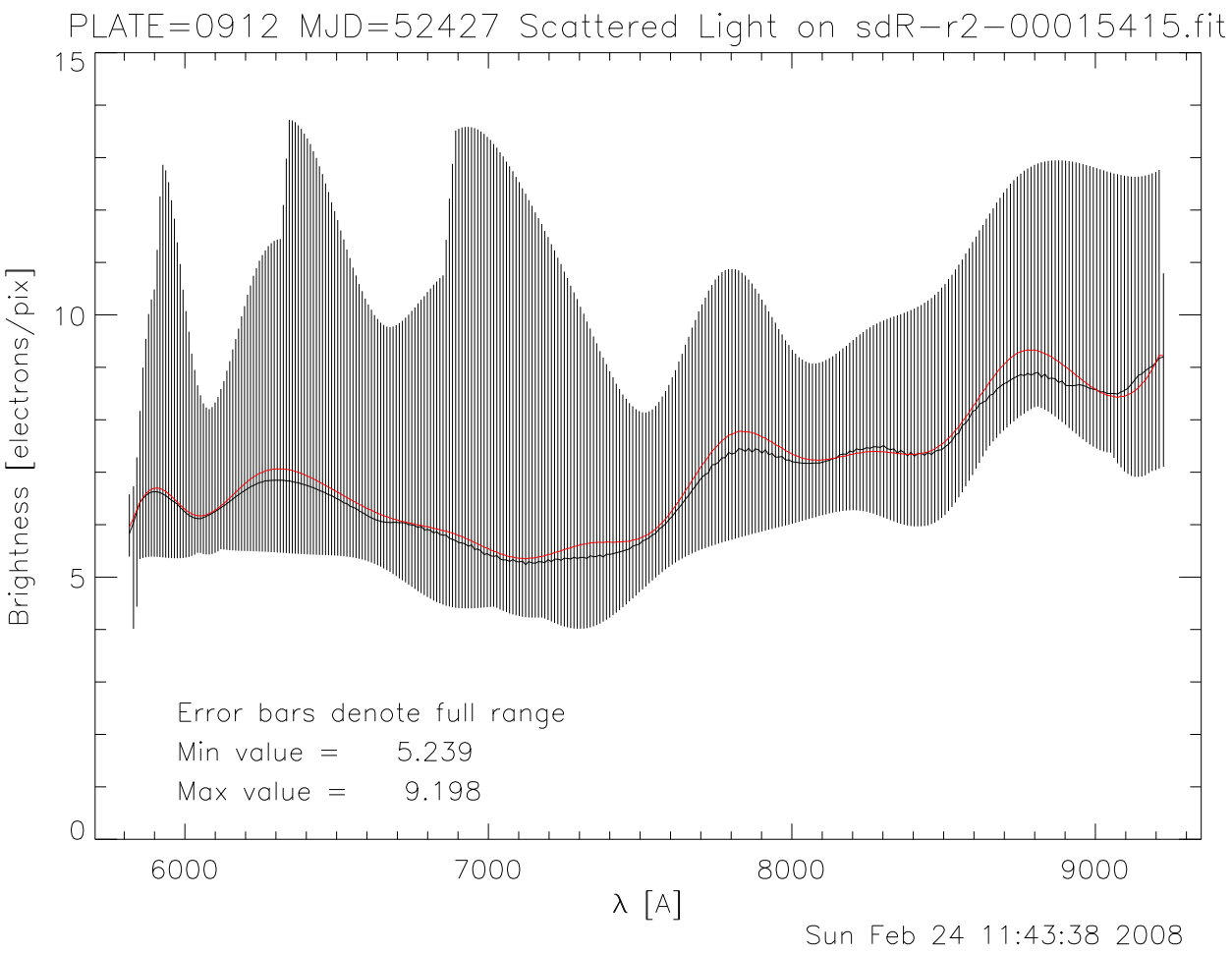

PLATE=0912 MJD=52427 sdR-r2-00015414.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 4.17 %
Fiber number
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass

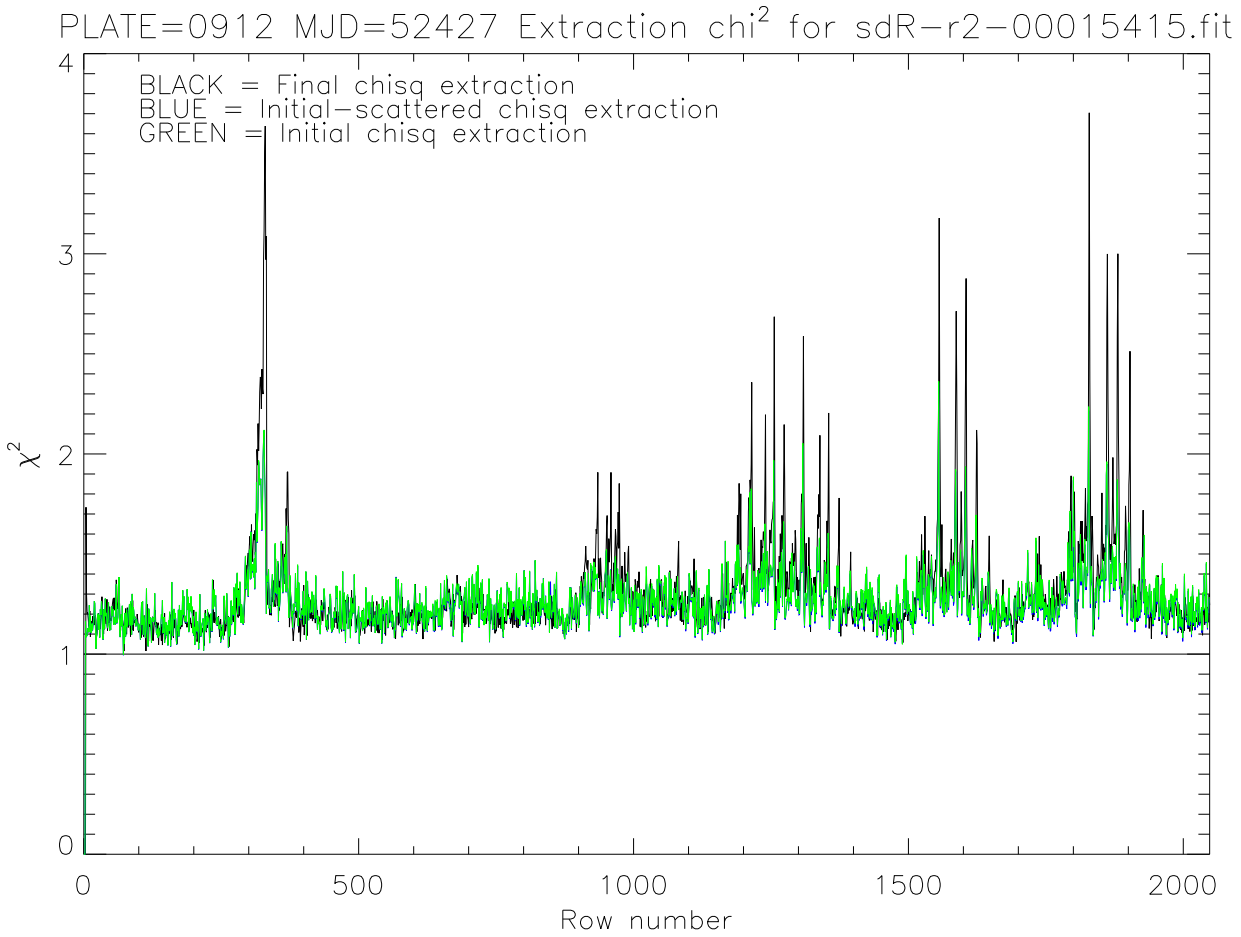

PLATE=0912 MJD=52427 Fiber−Flats for sdR−r2−00015412.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.625
Max value = 1.231
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sun Feb 24 11:39:47 2008

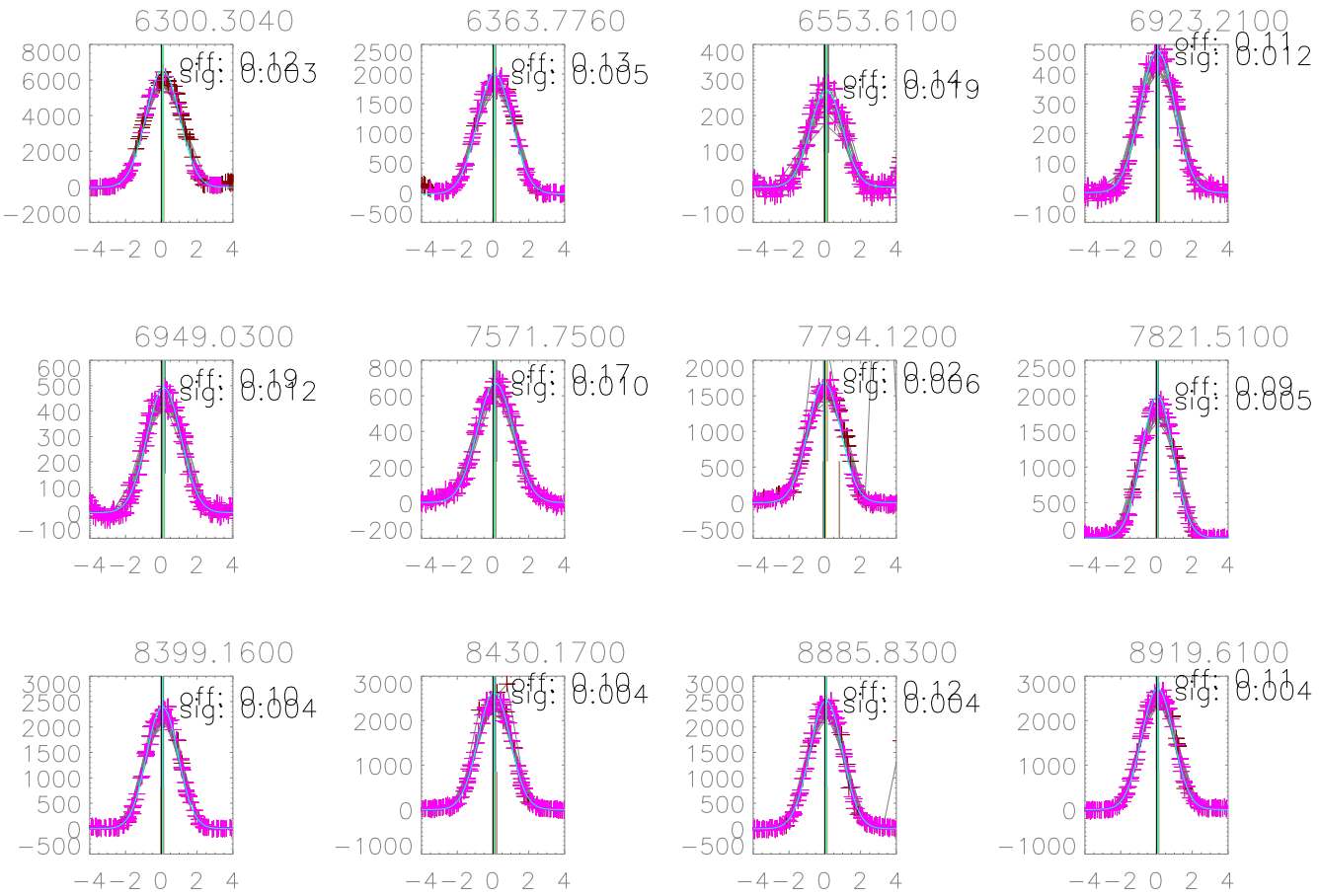

PLATE=0912 MJD=52427 Scattered Light before halo removal on sdR-r2-00015415.fi
25.5
25.5
25.5
18.2
18.2
10.9
10.9
10.9
Y [pix]
X [pix]
0
500
1000
1500
2000

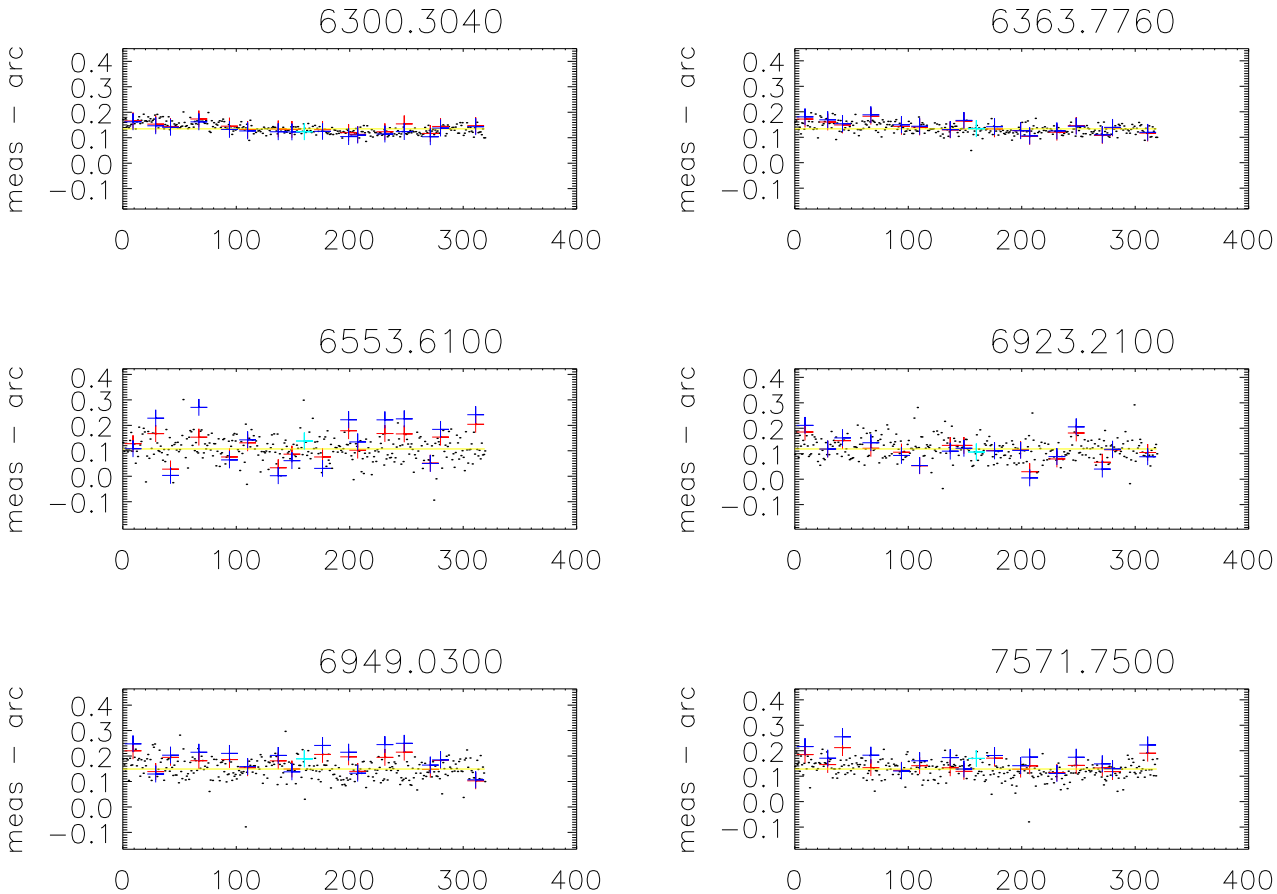

PLATE=0912 MJD=52427 Scattered Light before halo removal on sdR-r2-00015415.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 6.027
Max value = 30.174
Sun Feb 24 11:40:39 2008

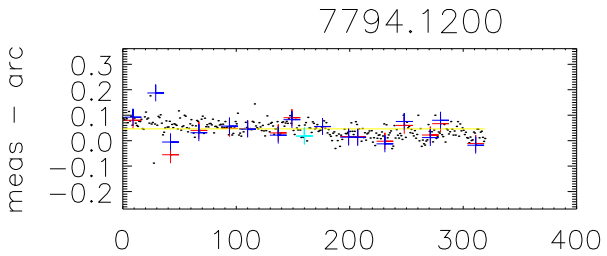

PLATE=0912 MJD=52427 Scattered Light on sdR-r2-00015415.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
8.4
5.8

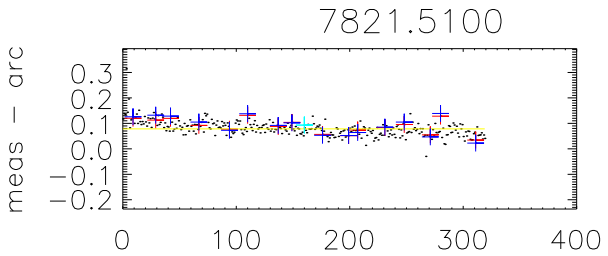

PLATE=0912 MJD=52427 Scattered Light on sdR-r2-00015415.fit
Brightness [electrons/pix]
15
10
5
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 5.239
Max value = 9.198
Sun Feb 24 11:43:38 2008

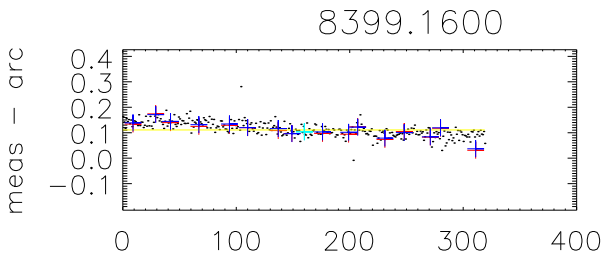

PLATE=0912 MJD=52427 Extraction chi^2 for sdR−r2−00015415.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
0
500
1000
1500
2000
Row number

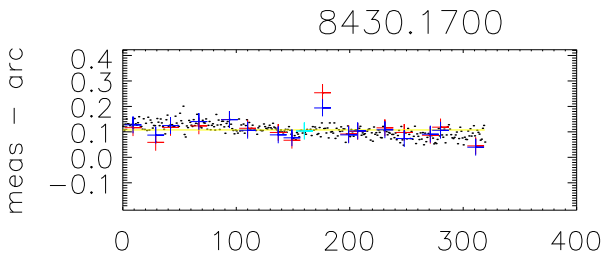

6300.3040
off: 0.12
sig: 0.003
6363.7760
off: 0.13
sig: 0.005
6553.6100
off: 0.14
sig: 0.019
6923.2100
off: 0.11
sig: 0.012
6949.0300
off: 0.19
sig: 0.012
7571.7500
off: 0.17
sig: 0.010
7794.1200
off: 0.02
sig: 0.006
7821.5100
off: 0.09
sig: 0.005
8399.1600
off: 0.10
sig: 0.004
8430.1700
off: 0.10
sig: 0.004
8885.8300
off: 0.12
sig: 0.004
8919.6100
off: 0.11
sig: 0.004

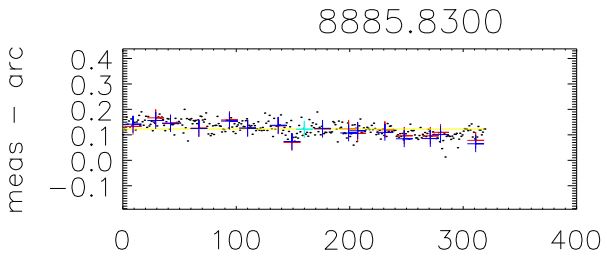

6300.3040
6363.7760
6553.6100
6923.2100
6949.0300
7571.7500
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

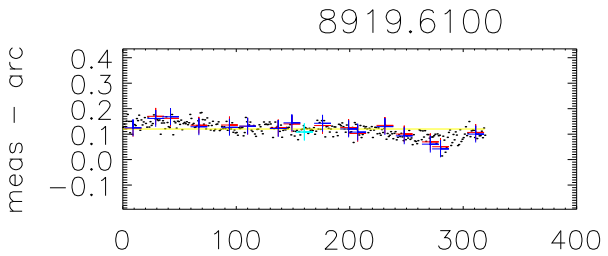

7794.1200
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

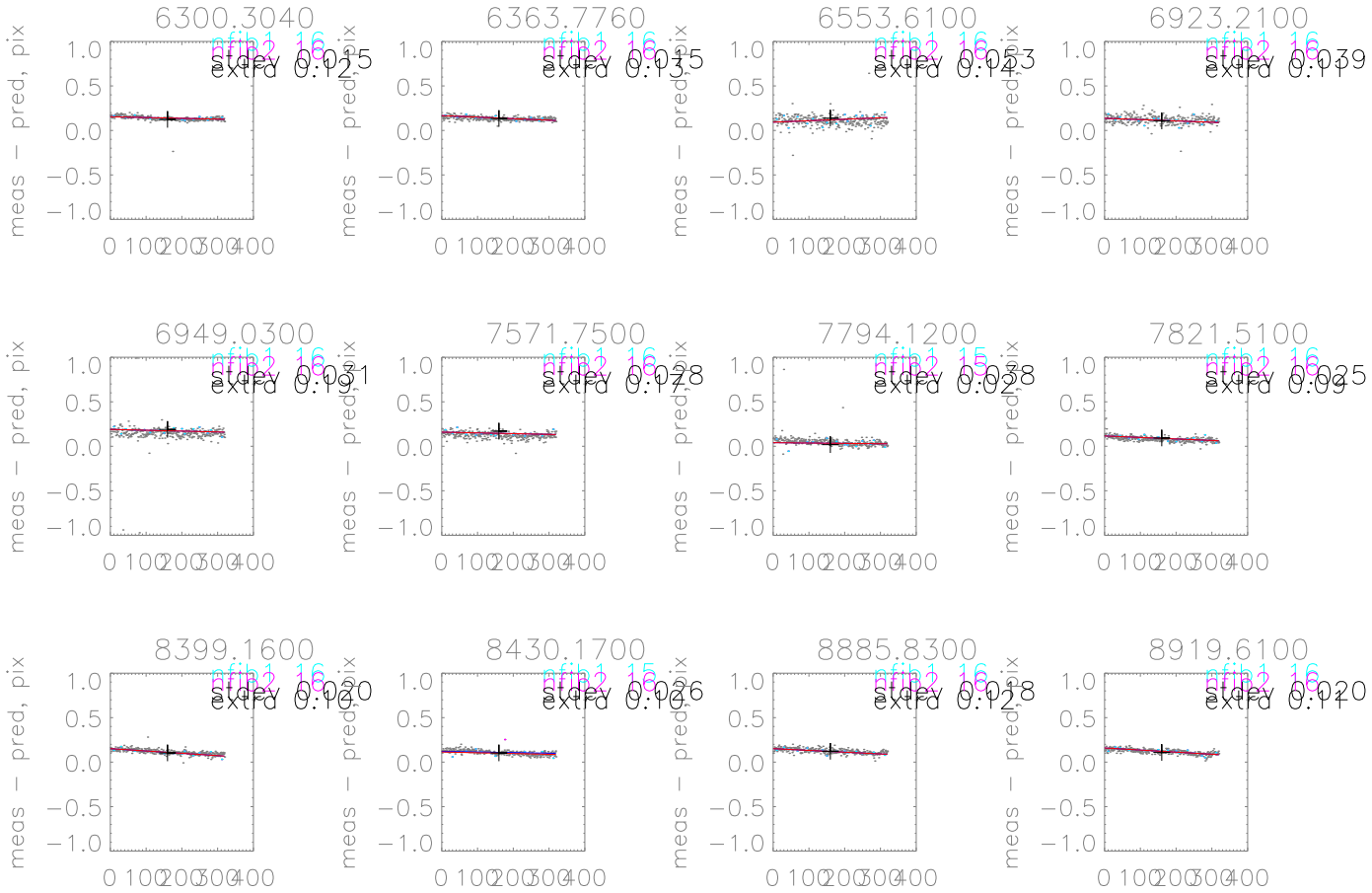

7821.5100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

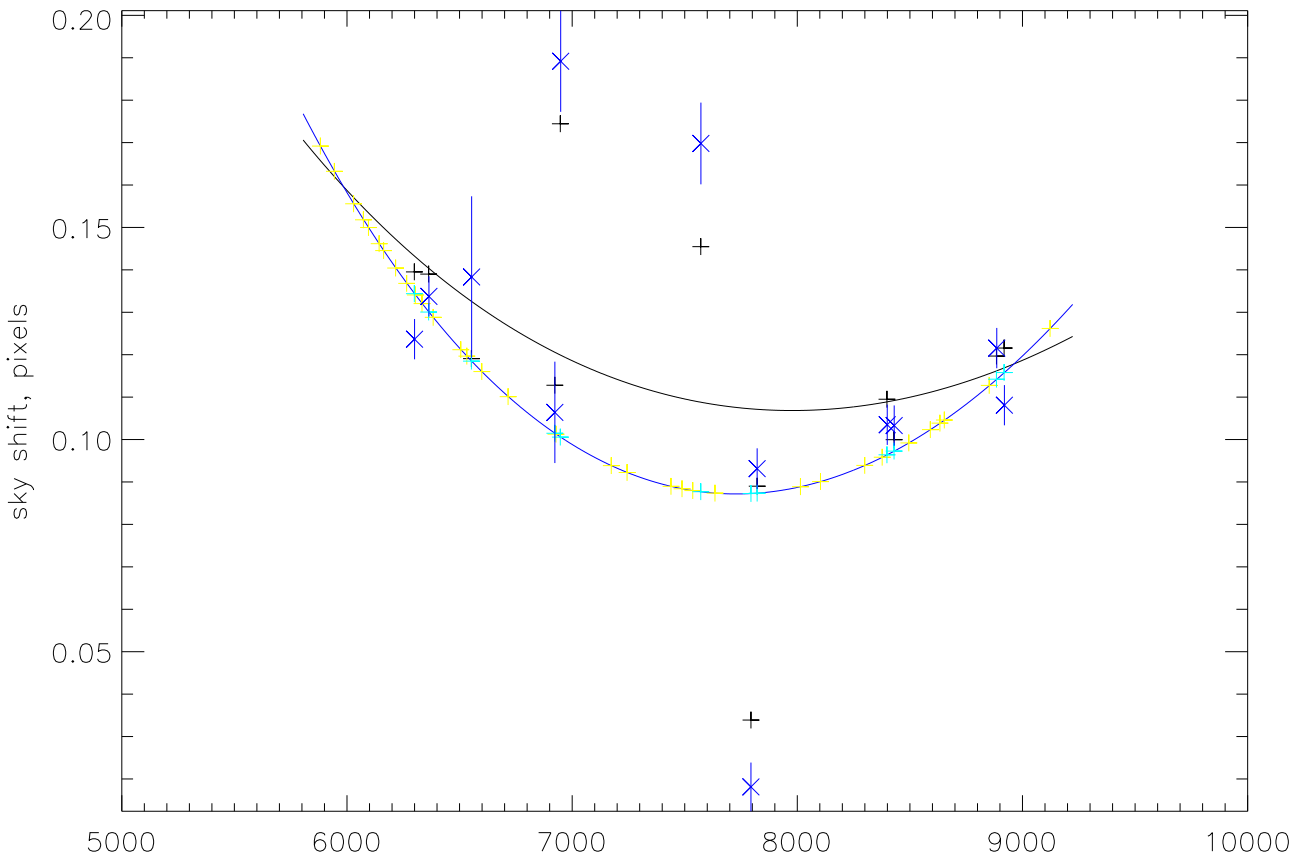

8399.1600
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

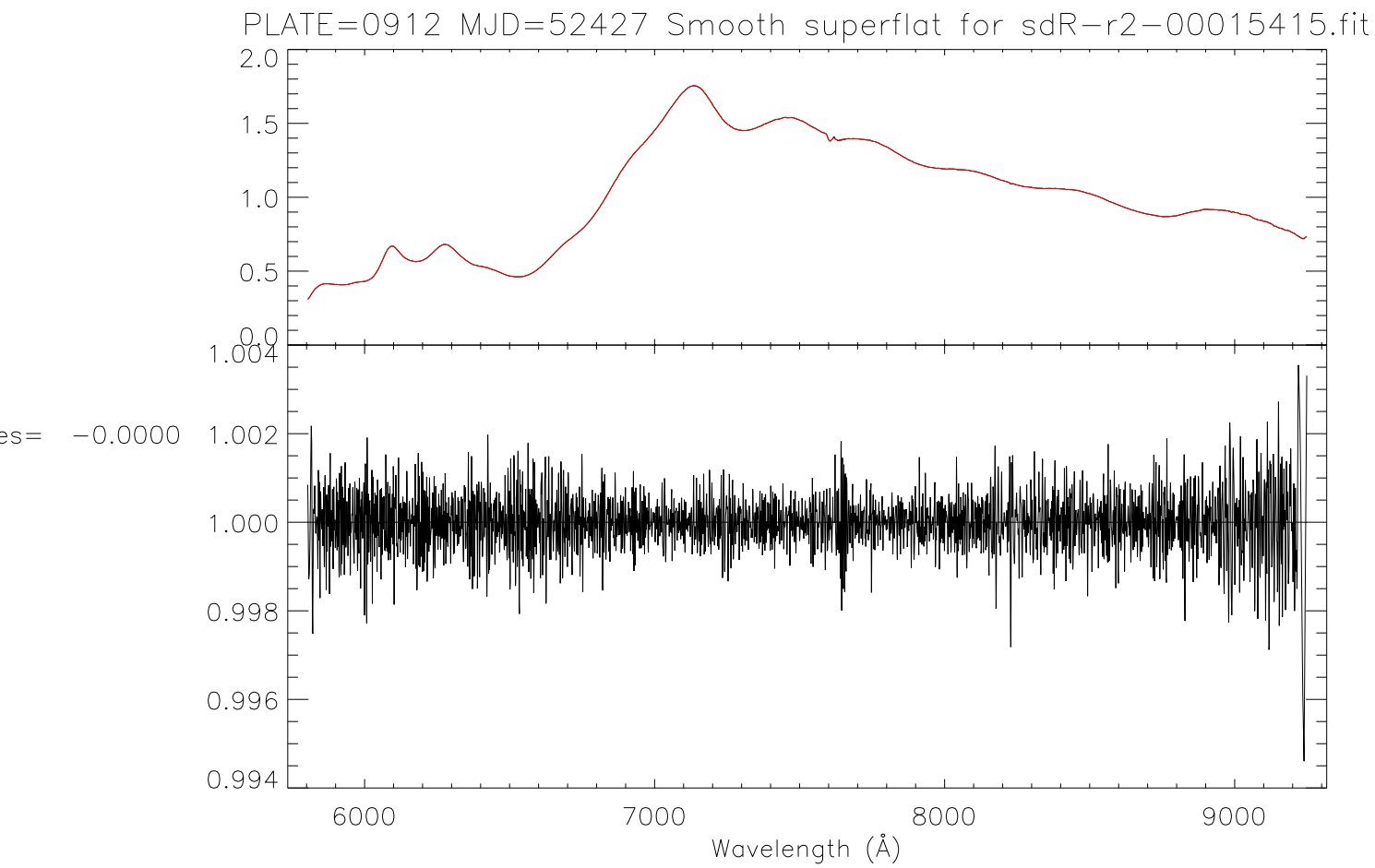

8430.1700
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

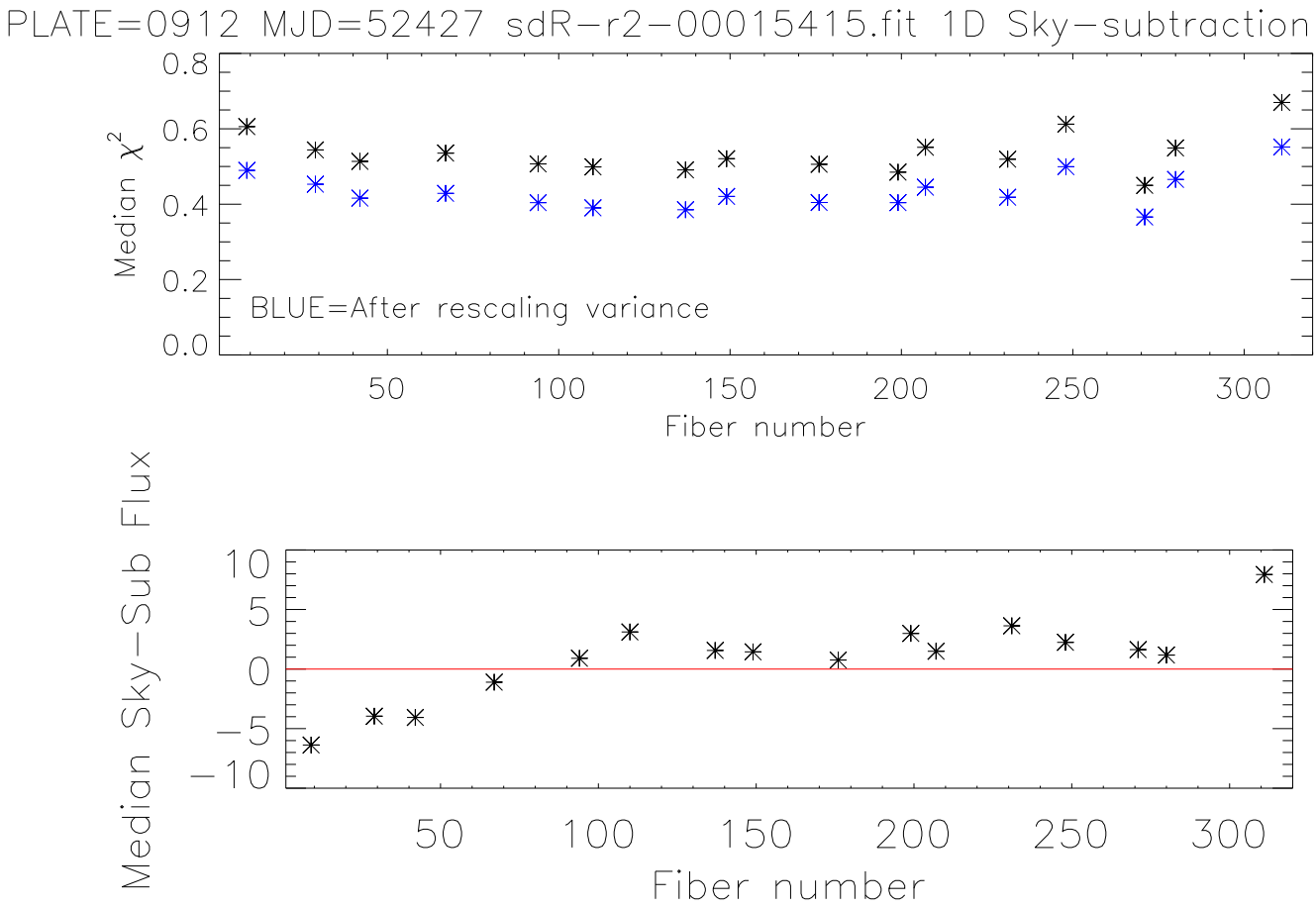

8885.8300
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400


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

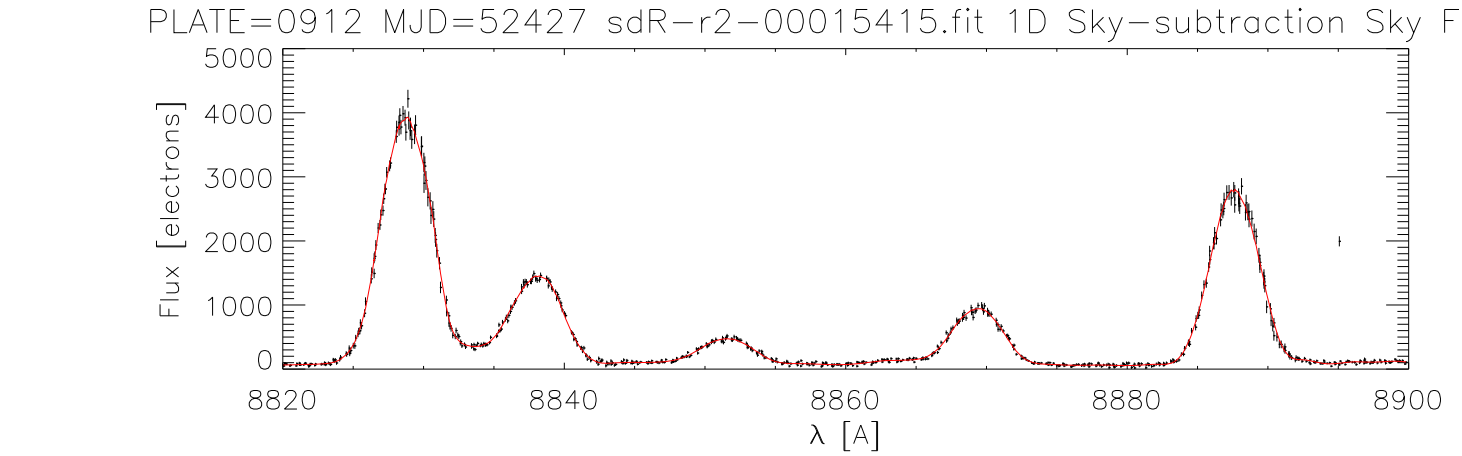

6300.3040
mfhs1 16
mfhs2 16
stdev 0.015
extra 0.12
6363.7760
mfhs1 16
mfhs2 16
stdev 0.015
extra 0.13
6553.6100
mfhs1 16
mfhs2 16
stdev 0.053
extra 0.14
6923.2100
mfhs1 16
mfhs2 16
stdev 0.039
extra 0.11
6949.0300
mfhs1 16
mfhs2 16
stdev 0.031
extra 0.19
7571.7500
mfhs1 16
mfhs2 16
stdev 0.028
extra 0.17
7794.1200
mfhs1 15
mfhs2 16
stdev 0.038
extra 0.02
7821.5100
mfhs1 16
mfhs2 16
stdev 0.035
extra 0.09
8399.1600
mfhs1 16
mfhs2 16
stdev 0.020
extra 0.10
8430.1700
mfhs1 15
mfhs2 16
stdev 0.026
extra 0.10
8885.8300
mfhs1 16
mfhs2 16
stdev 0.018
extra 0.12
8919.6100
mfhs1 16
mfhs2 16
stdev 0.020
extra 0.11
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400

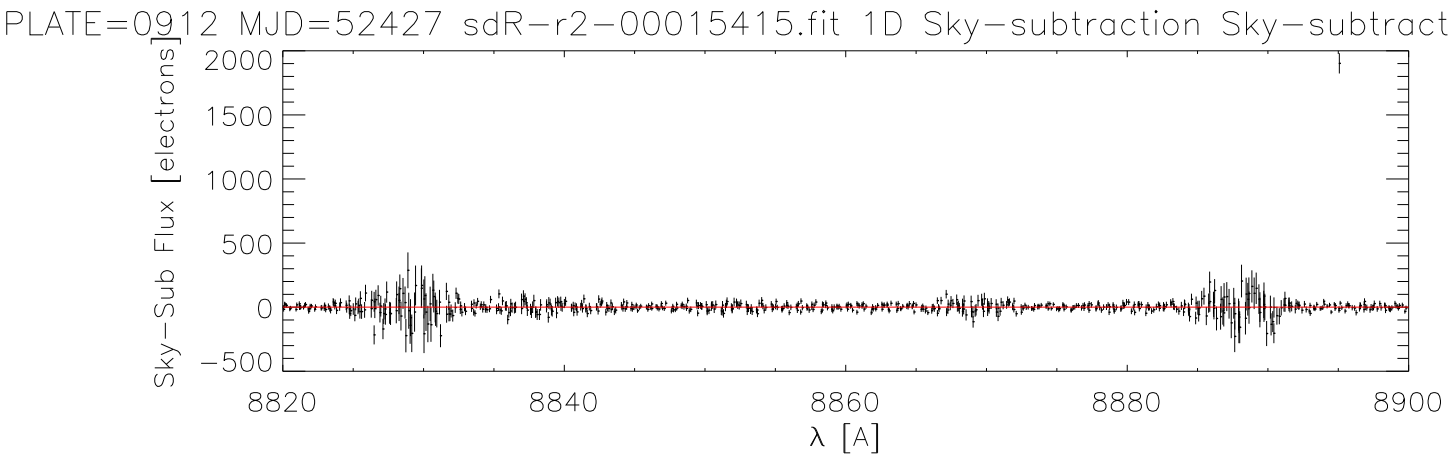

0.20
0.15
0.10
0.05
sky shift, pixels
5000
6000
7000
8000
9000
10000

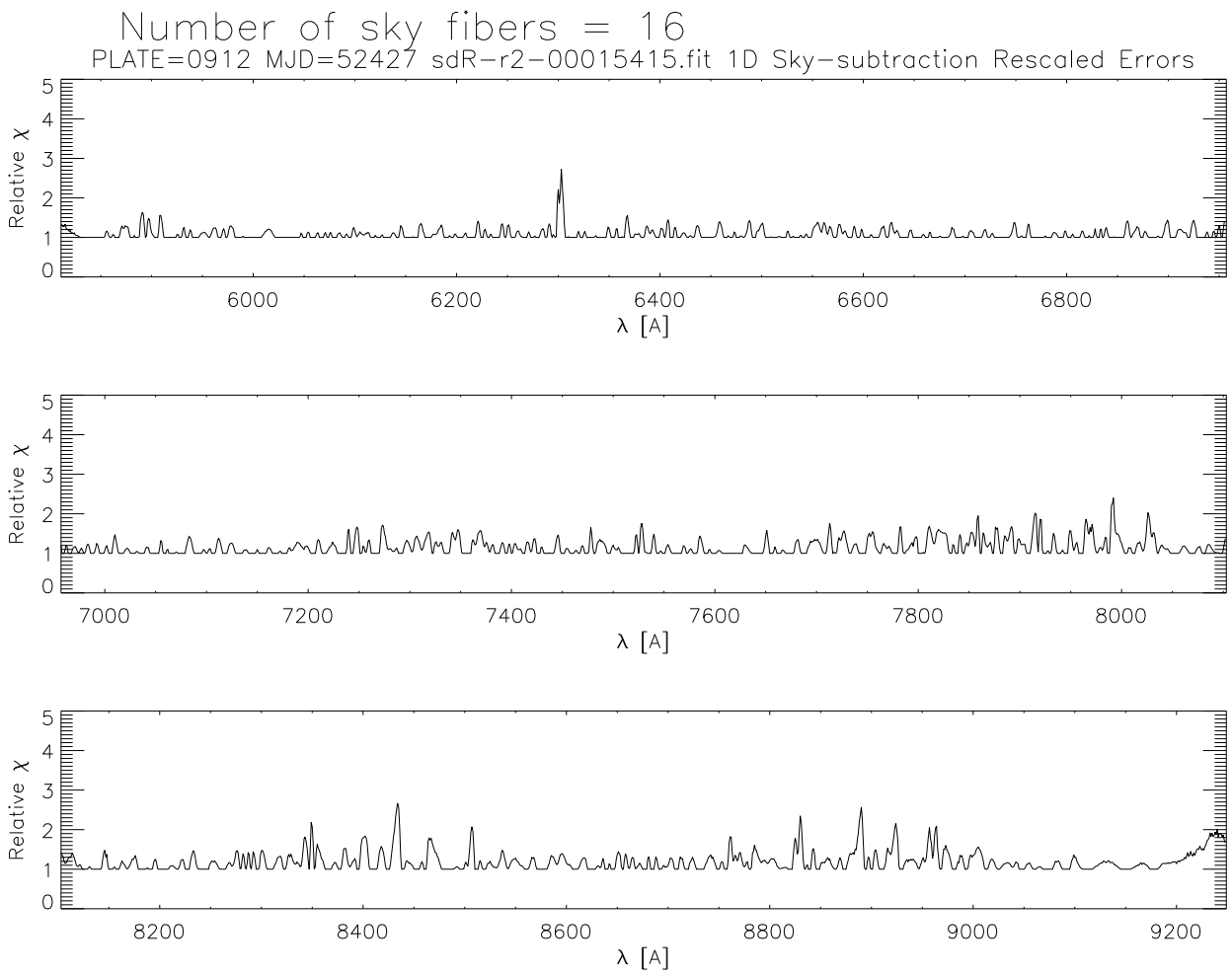

PLATE=0912 MJD=52427 Smooth superflat for sdR-r2-00015415.fit
2.0
1.5
1.0
0.5
0.0
es= -0.0000
1.004
1.002
1.000
0.998
0.996
0.994
6000
7000
8000
9000
Wavelength (Å)

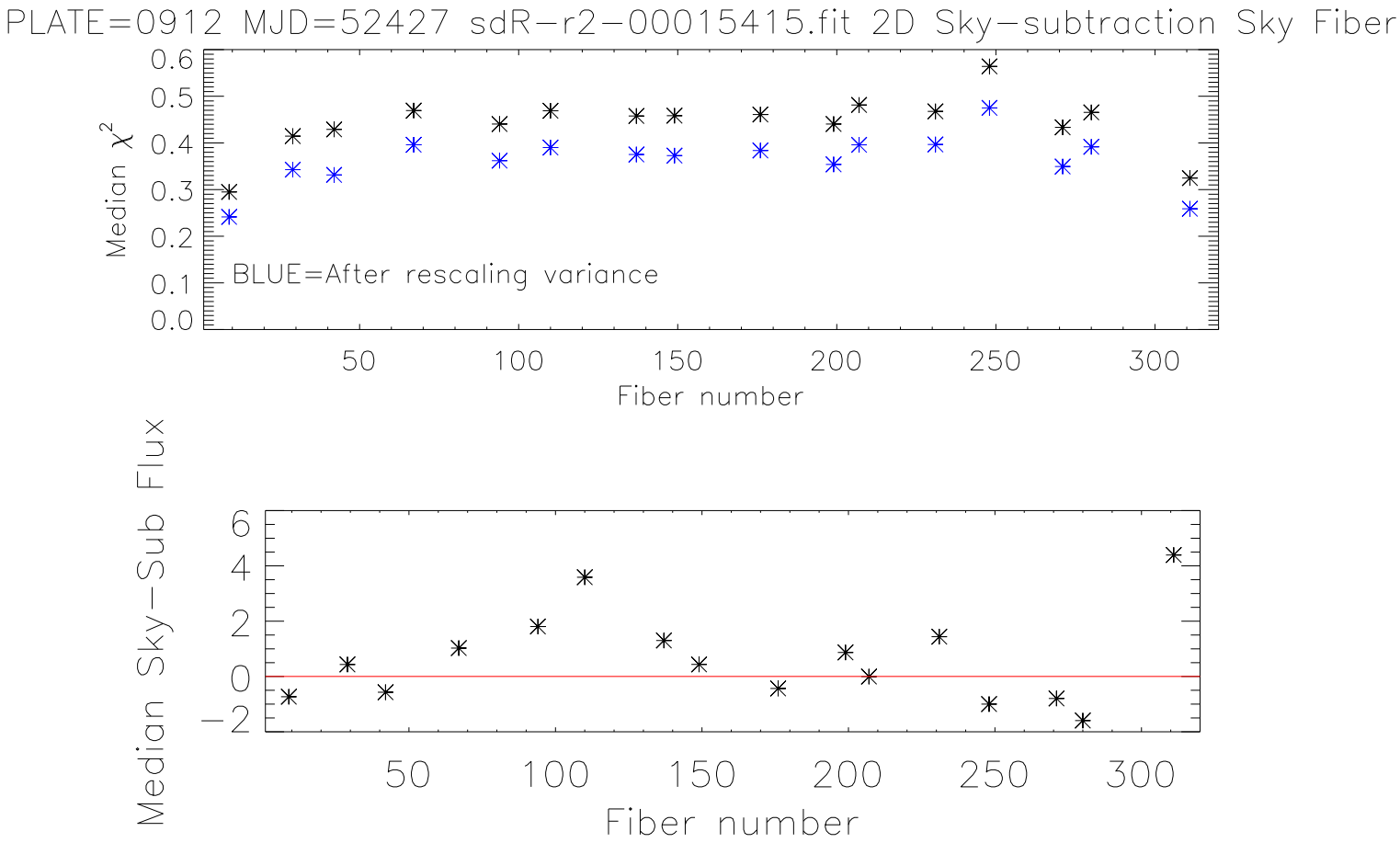

PLATE=0912 MJD=52427 sdR-r2-00015415.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number

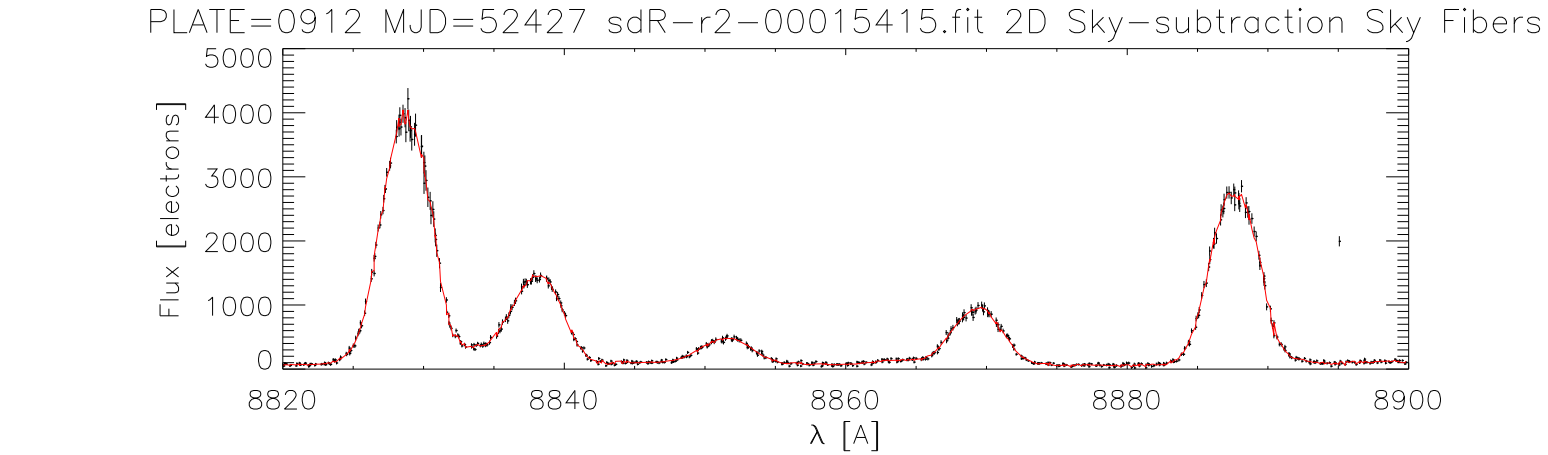
Median Sky-Sub Flux
10
5
0
−5
−10
50
100
150
200
250
300
Fiber number

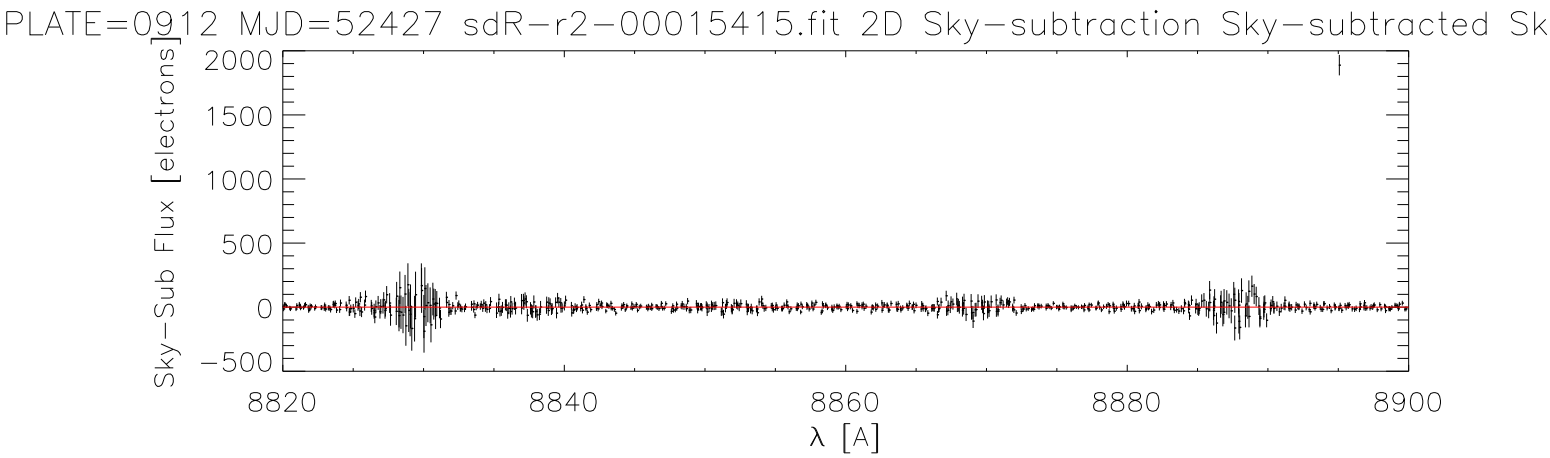

PLATE=0912 MJD=52427 sdR-r2-00015415.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

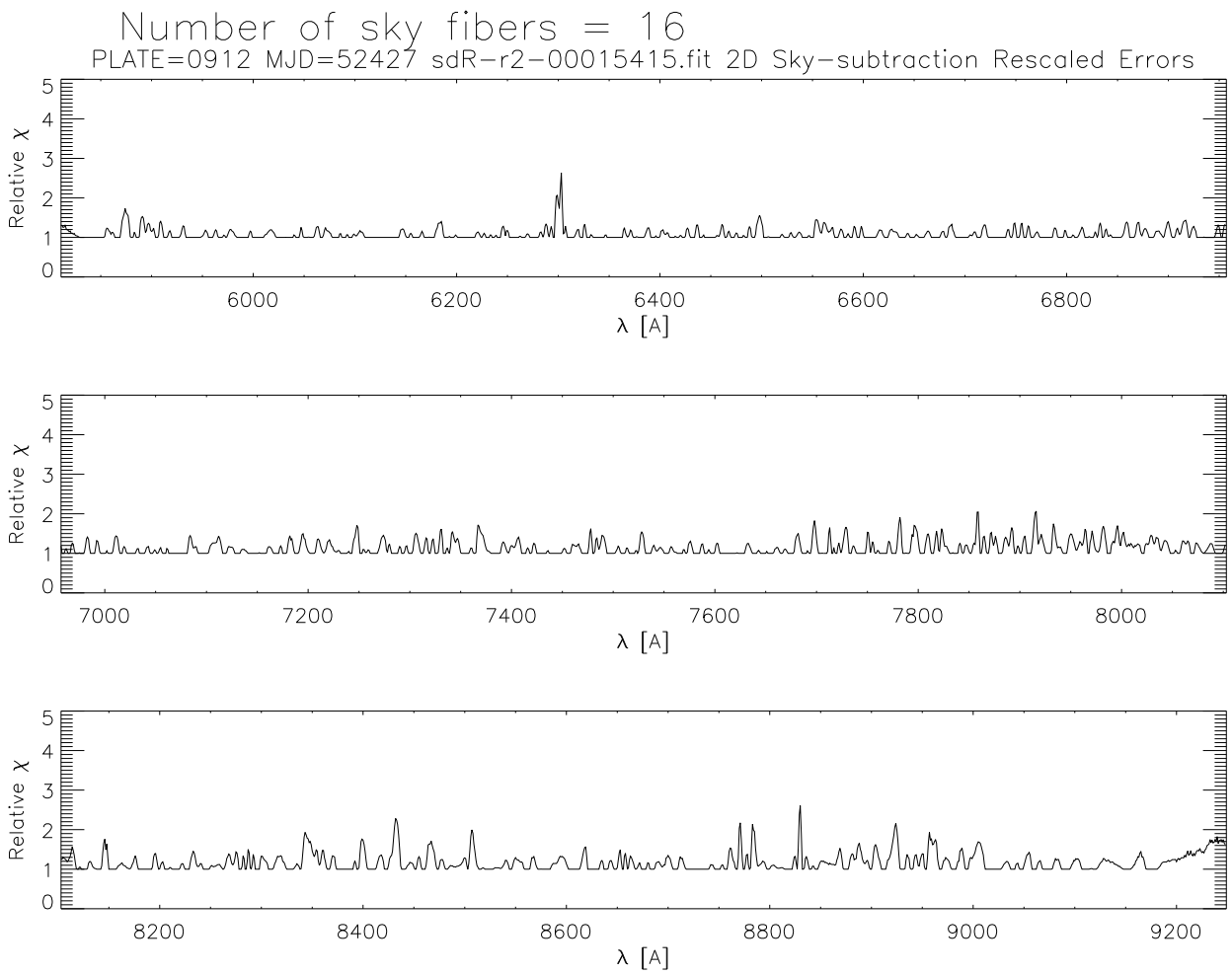

PLATE=0912 MJD=52427 sdR-r2-00015415.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
2000
1500
1000
500
0
-500
8820
8840
8860
8880
8900
λ [A]

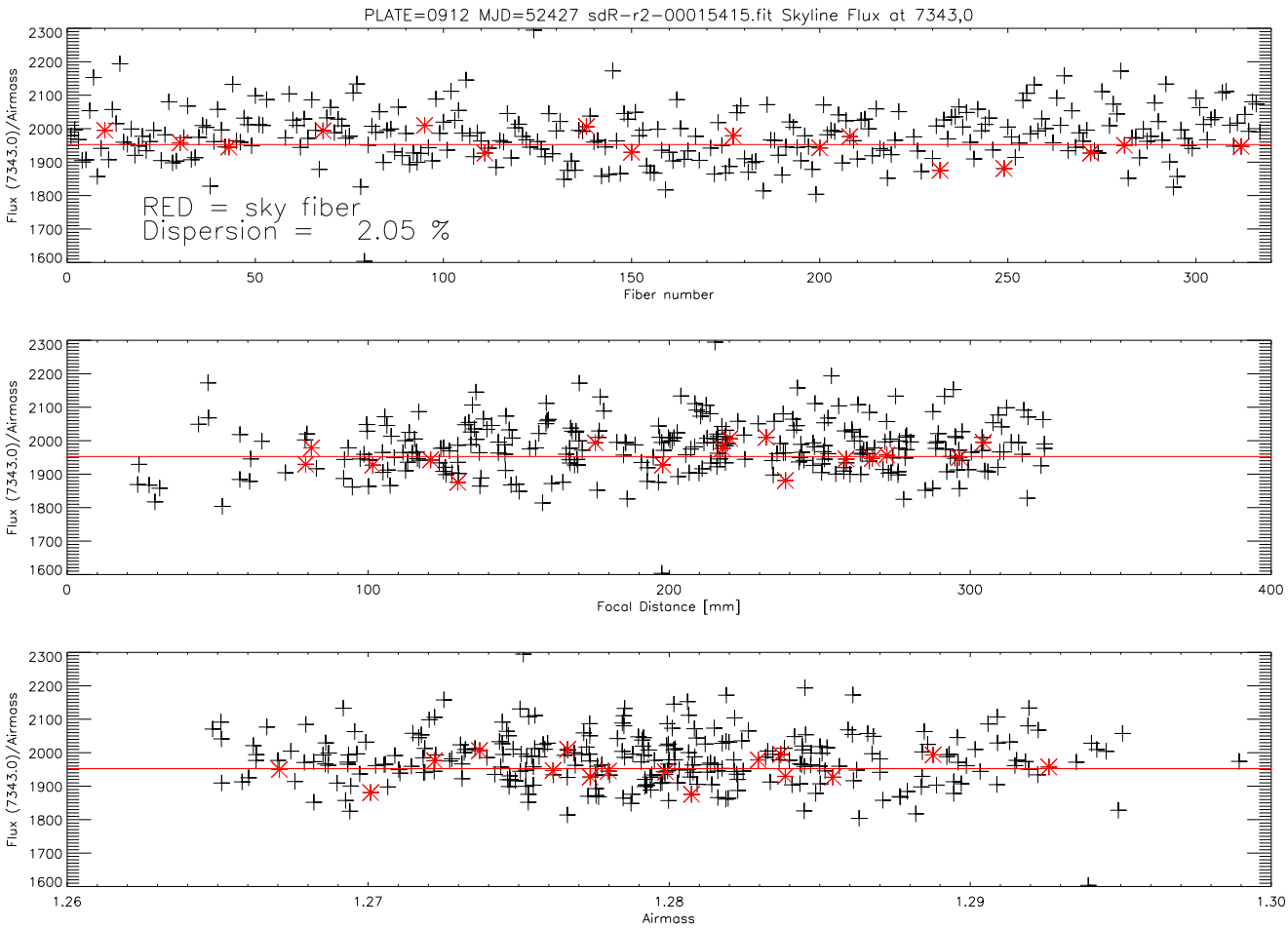

Number of sky fibers = 16
PLATE=0912 MJD=52427 sdR-r2-00015415.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

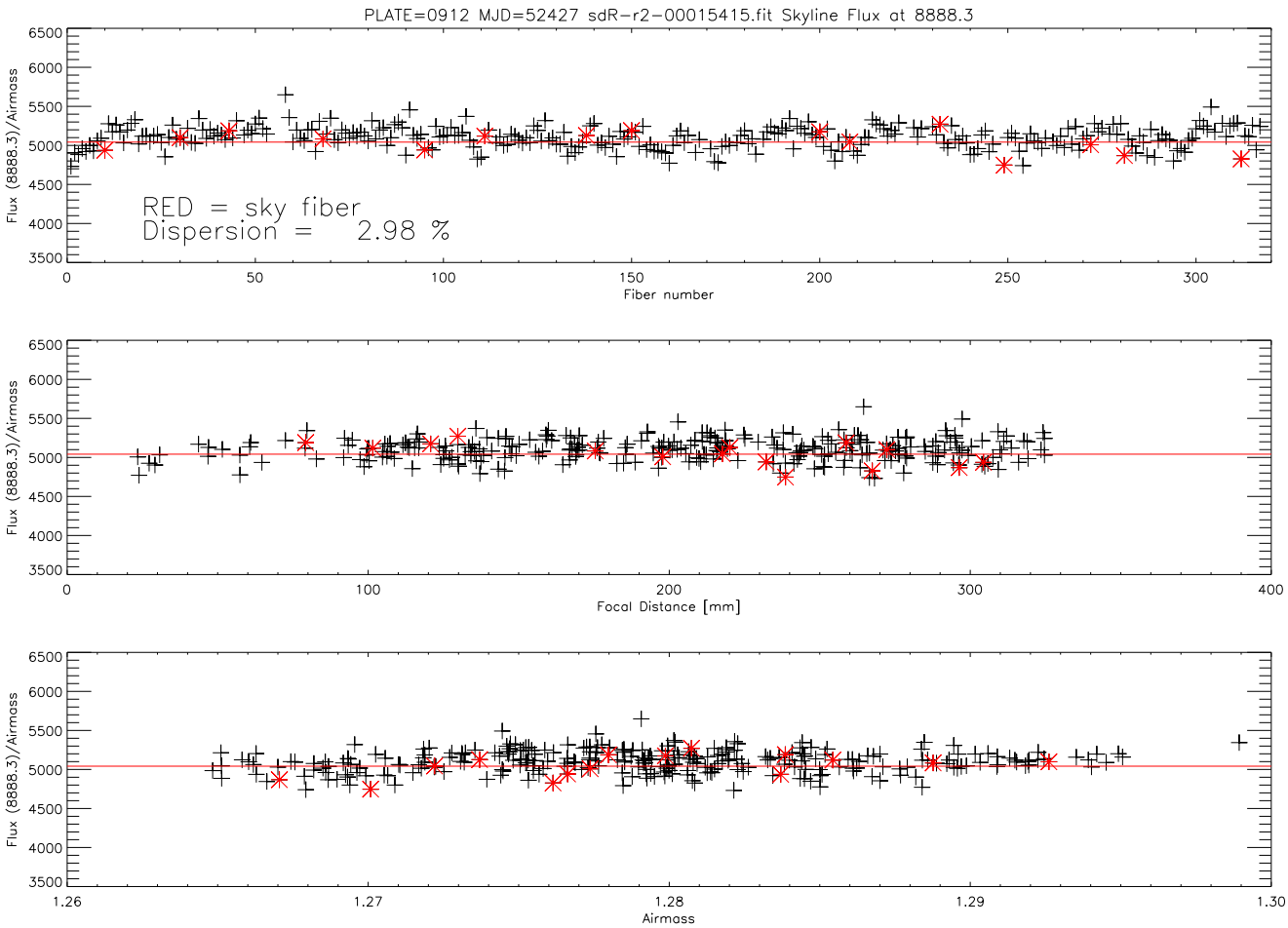

PLATE=0912 MJD=52427 sdR-r2-00015415.fit 2D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-2
0
2
4
6
50
100
150
200
250
300
Fiber number

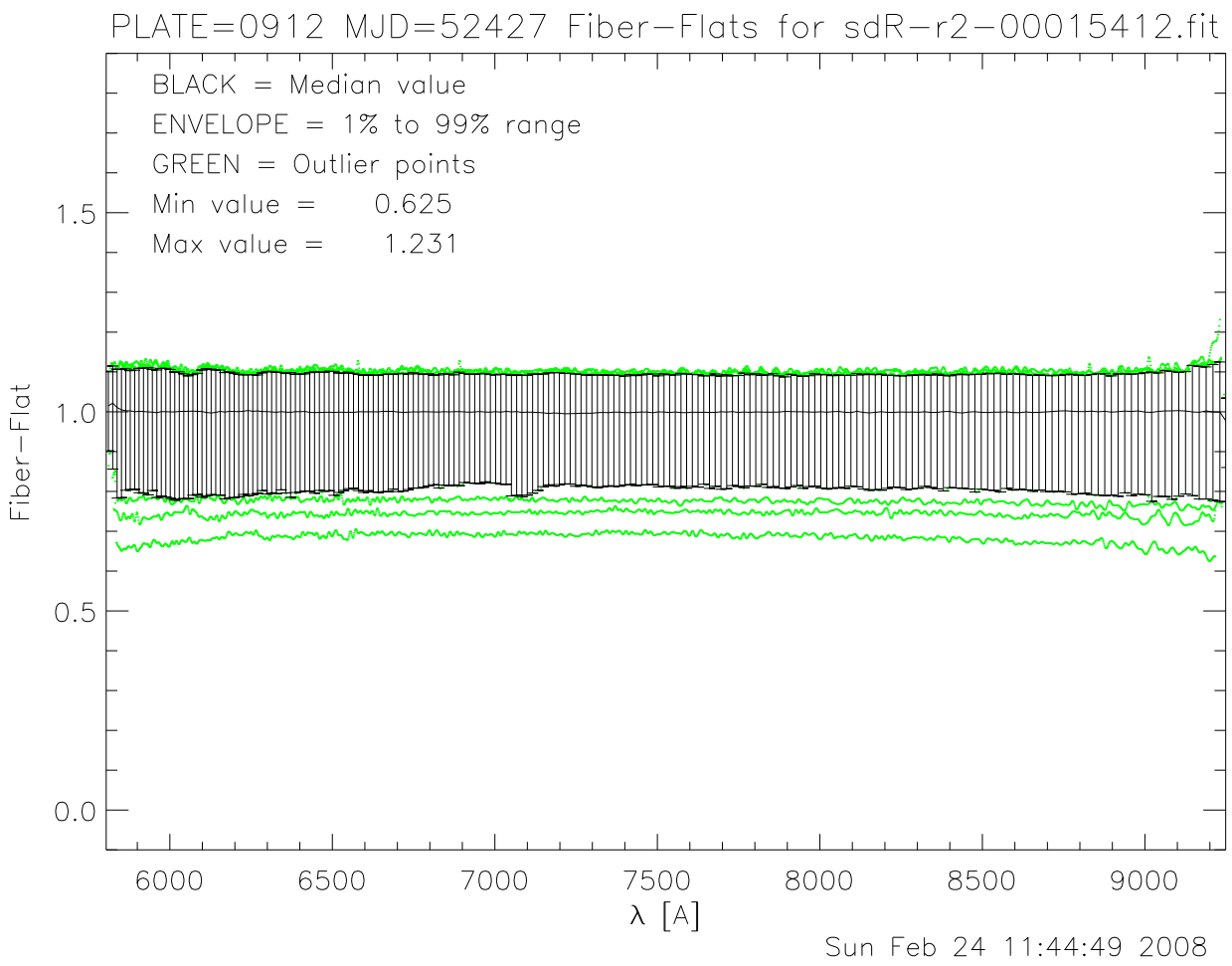

PLATE=0912 MJD=52427 sdR-r2-00015415.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

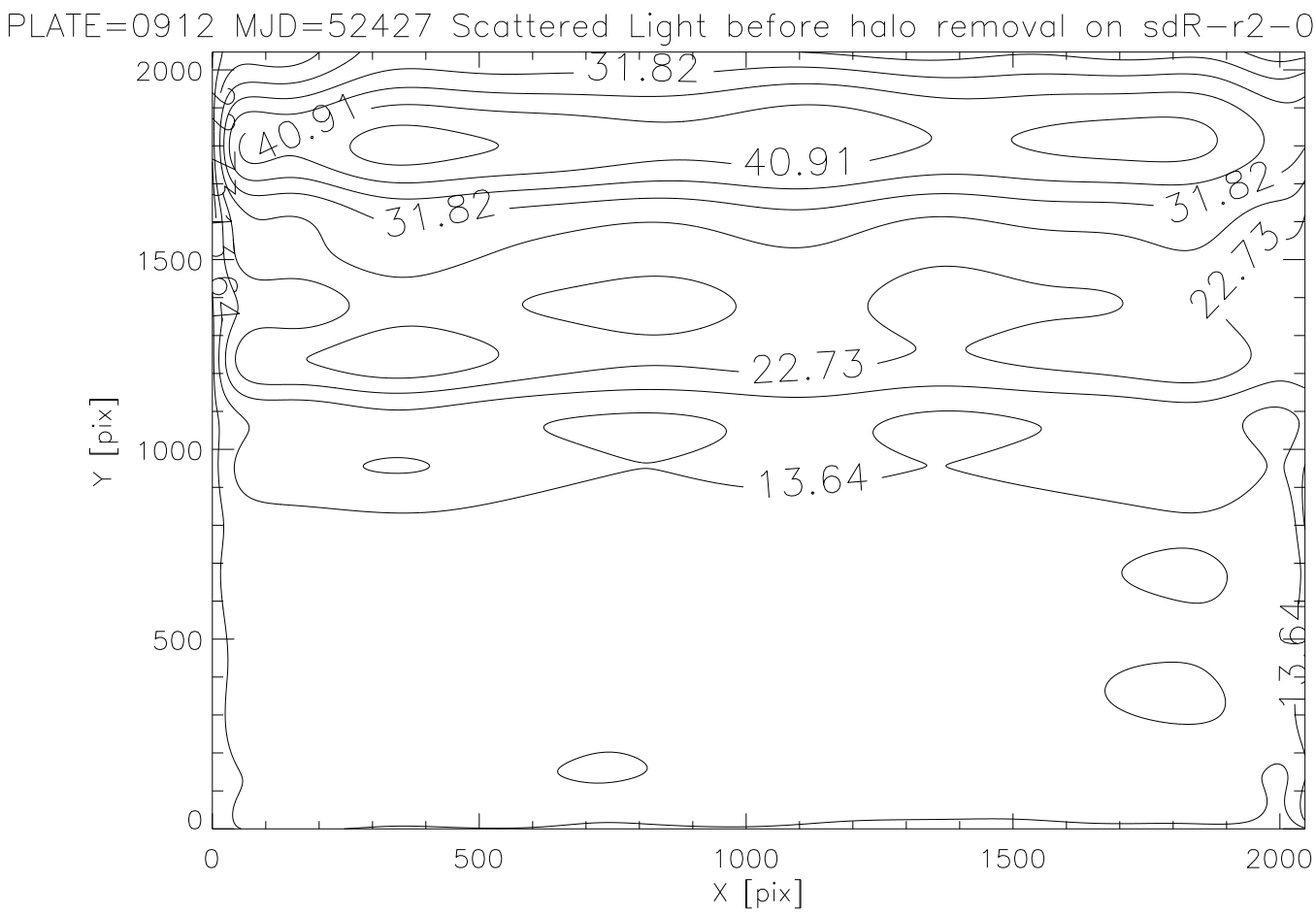

PLATE=0912 MJD=52427 sdR-r2-00015415.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
2000
1500
1000
500
0
-500
8820
8840
8860
8880
8900
λ [A]

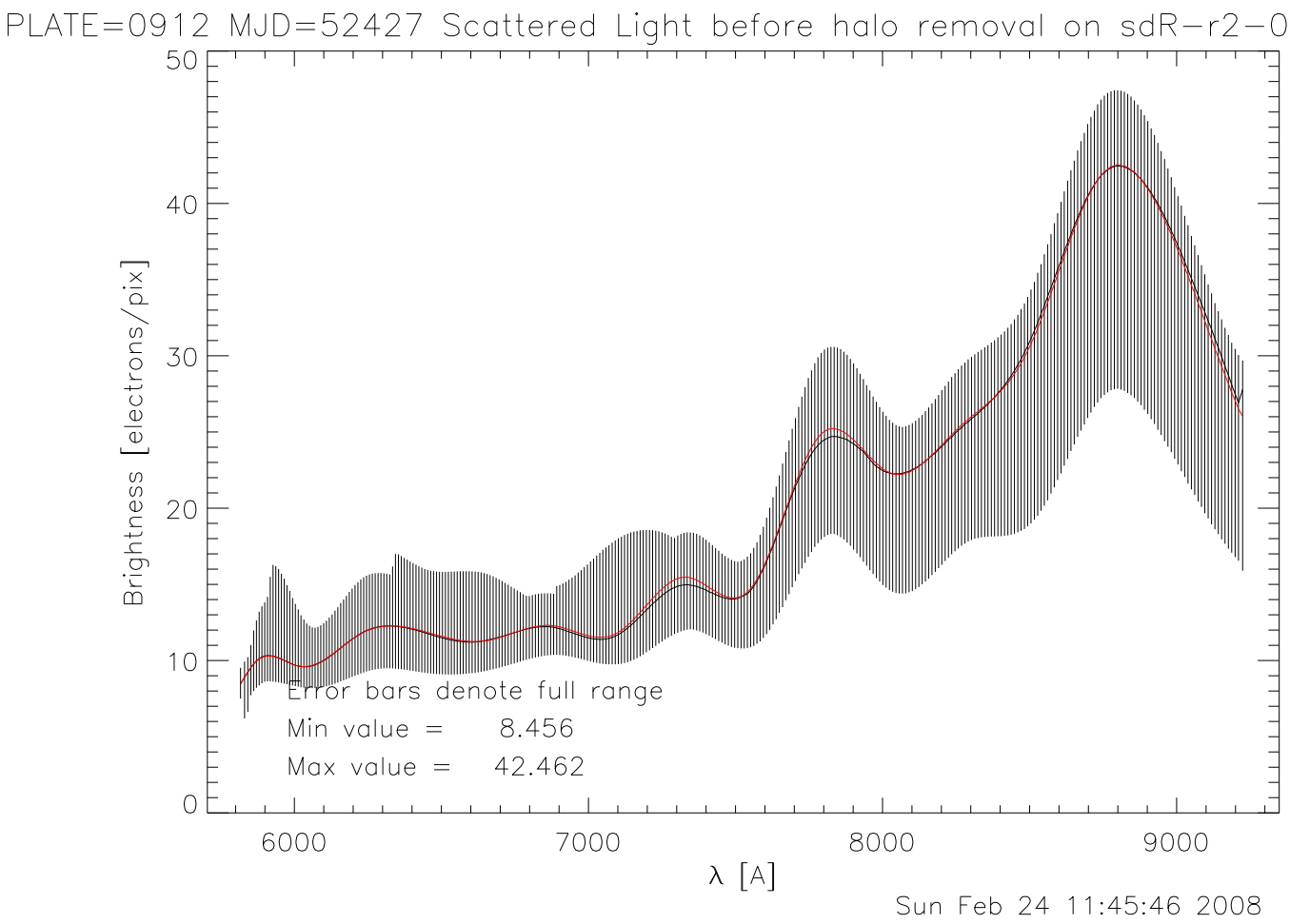

Number of sky fibers = 16
PLATE=0912 MJD=52427 sdR-r2-00015415.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

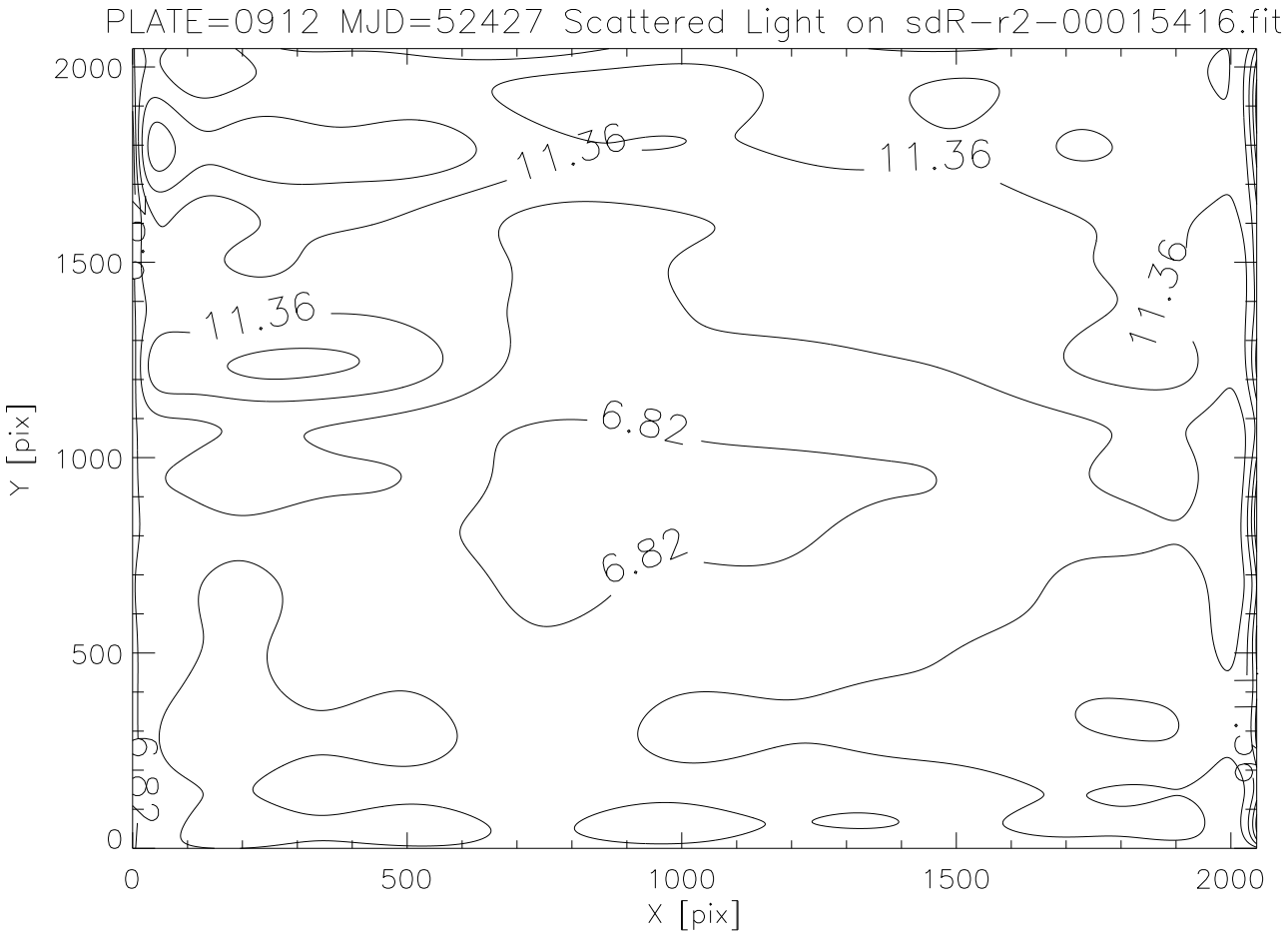

PLATE=0912 MJD=52427 sdR-r2-00015415.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 2.05 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

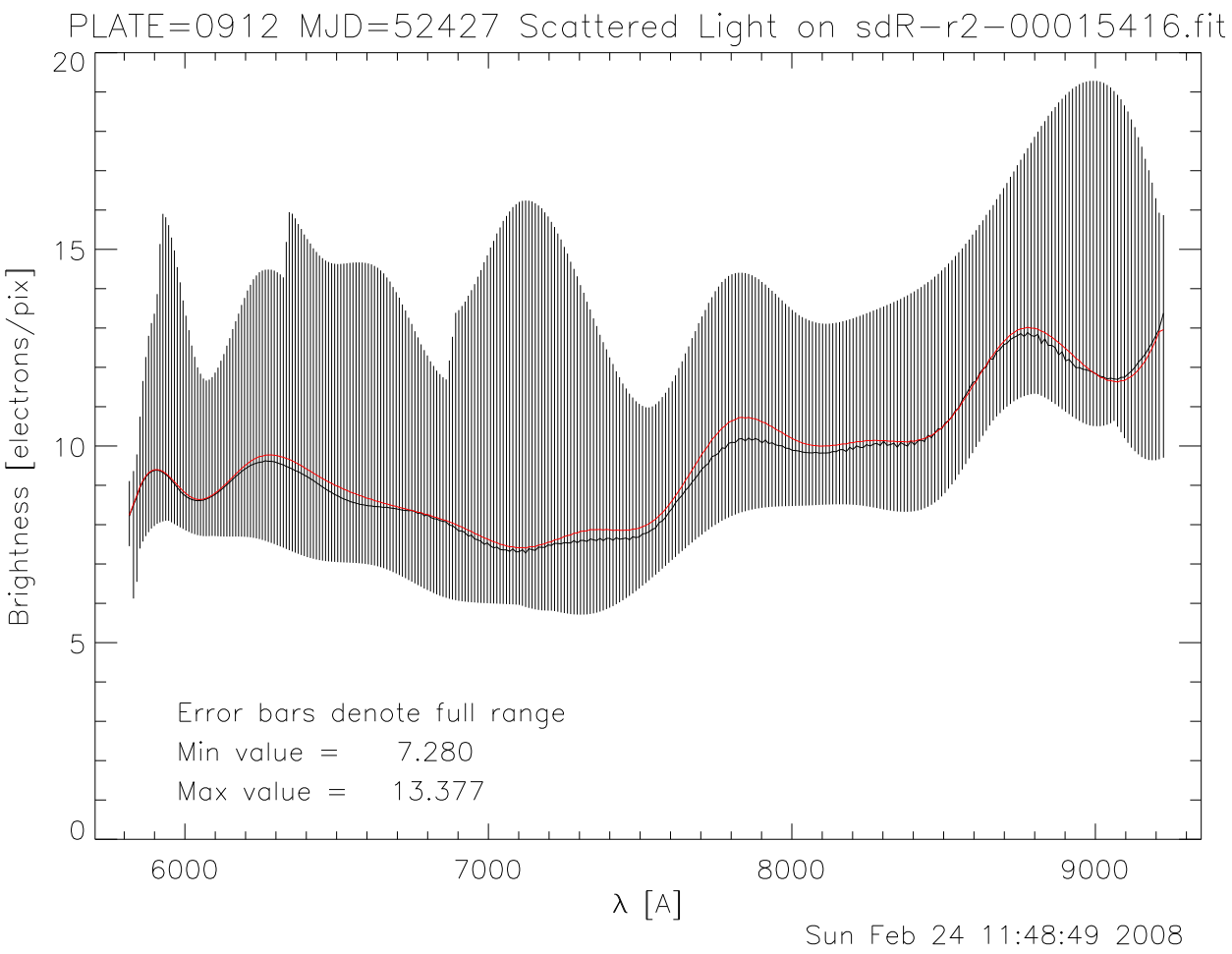

PLATE=0912 MJD=52427 sdR-r2-00015415.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 2.98 %
Fiber number
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass

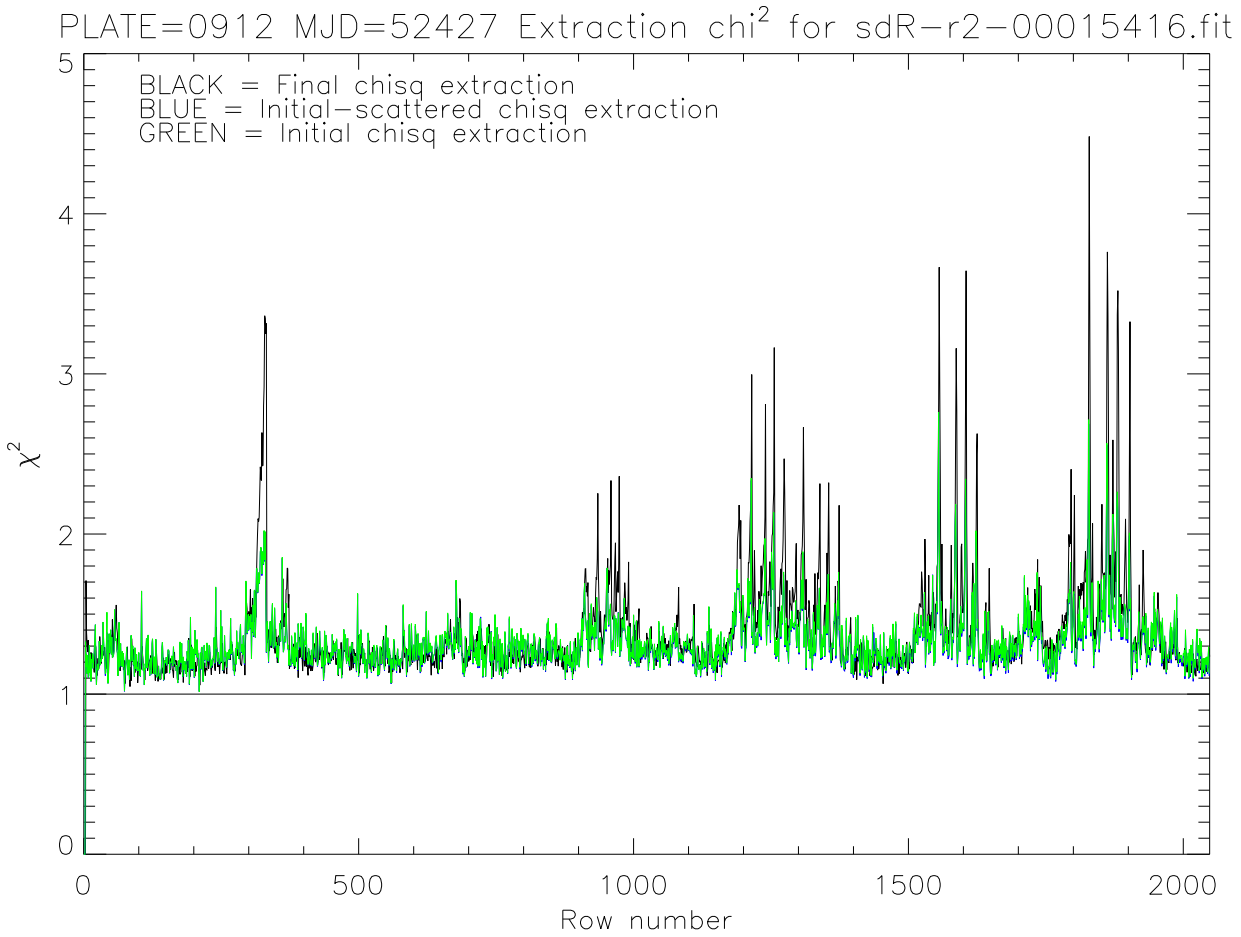

PLATE=0912 MJD=52427 Fiber−Flats for sdR−r2−00015412.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.625
Max value = 1.231
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sun Feb 24 11:44:49 2008

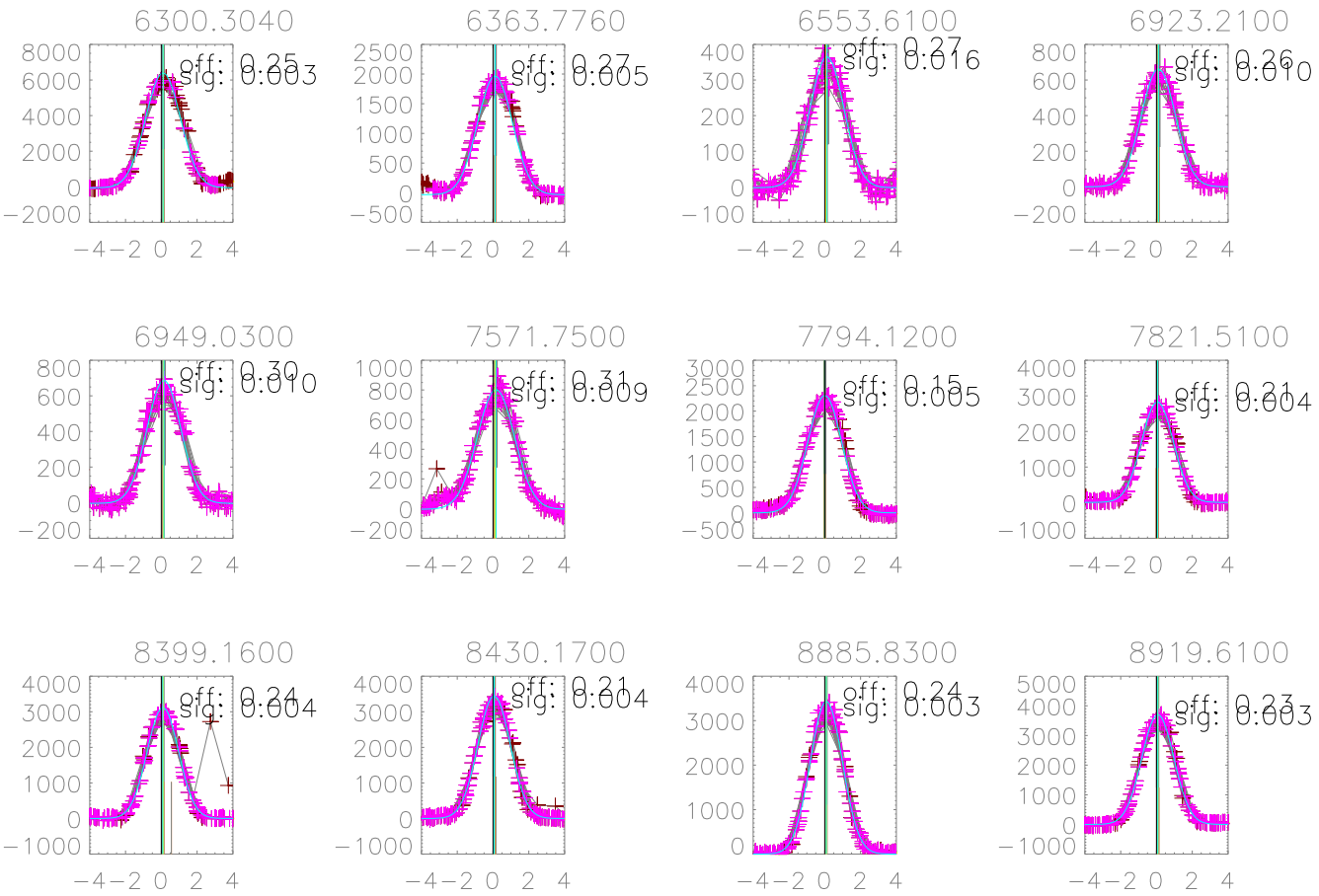

PLATE=0912 MJD=52427 Scattered Light before halo removal on sdR-r2-00015416.fi
31.82
40.91
40.91
31.82
31.82
22.73
22.73
13.64
13.64
Y [pix]
X [pix]
0
500
1000
1500
2000

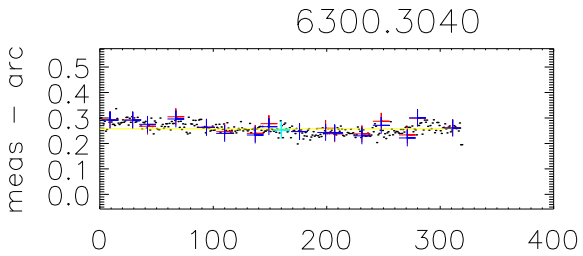

PLATE=0912 MJD=52427 Scattered Light before halo removal on sdR-r2-00015416.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 8.456
Max value = 42.462
Sun Feb 24 11:45:46 2008

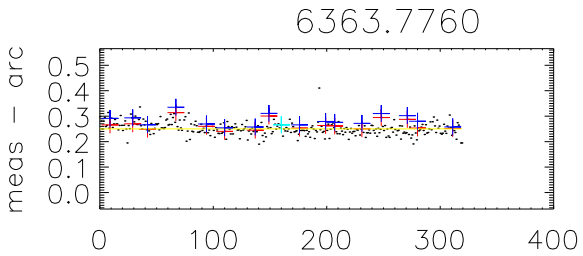

PLATE=0912 MJD=52427 Scattered Light on sdR-r2-00015416.fit
11.36
11.36
11.36
11.36
6.82
6.82
2.28
2.28
1.36
Y [pix]
X [pix]
0
500
1000
1500
2000

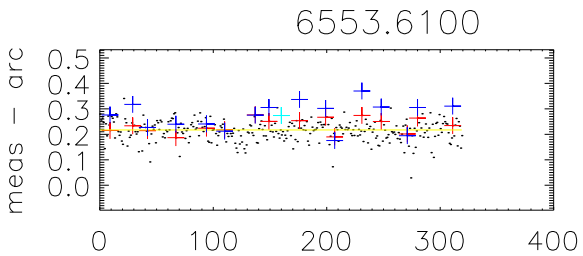

PLATE=0912 MJD=52427 Scattered Light on sdR-r2-00015416.fit
Brightness [electrons/pix]
20
15
10
5
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 7.280
Max value = 13.377
Sun Feb 24 11:48:49 2008

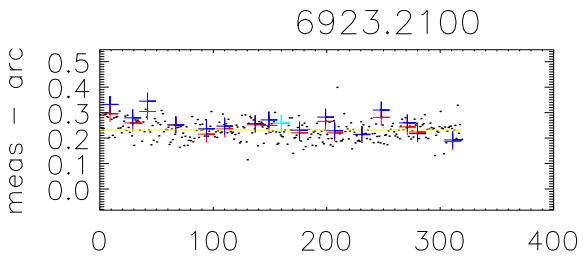

PLATE=0912 MJD=52427 Extraction chi^2 for sdR−r2−00015416.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
5
0
500
1000
1500
2000
Row number

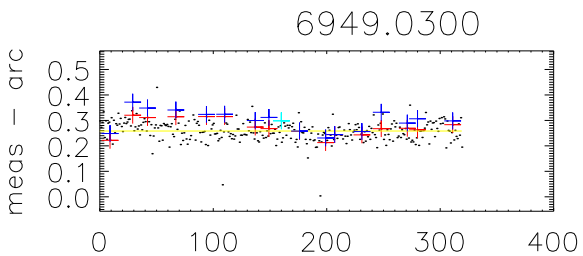

6300.3040
off: 0.25
sig: 0.003
6363.7760
off: 0.27
sig: 0.005
6553.6100
off: 0.27
sig: 0.016
6923.2100
off: 0.26
sig: 0.010
6949.0300
off: 0.30
sig: 0.010
7571.7500
off: 0.31
sig: 0.009
7794.1200
off: 0.15
sig: 0.005
7821.5100
off: 0.21
sig: 0.004
8399.1600
off: 0.24
sig: 0.004
8430.1700
off: 0.21
sig: 0.004
8885.8300
off: 0.24
sig: 0.003
8919.6100
off: 0.23
sig: 0.003

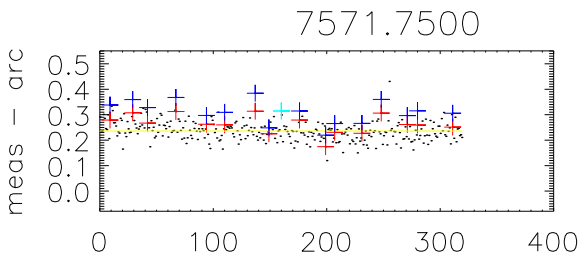

6300.3040
meas − arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400

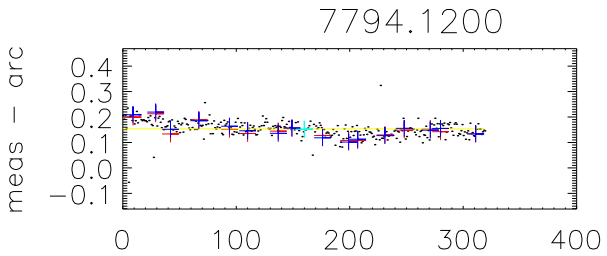

6363.7760
meas − arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400

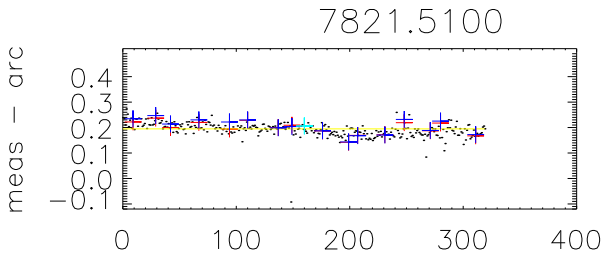

6553.6100
meas − arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400

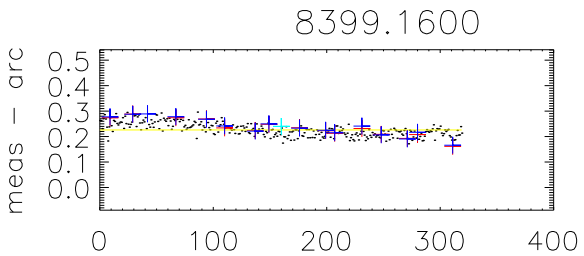

6923.2100
meas − arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400

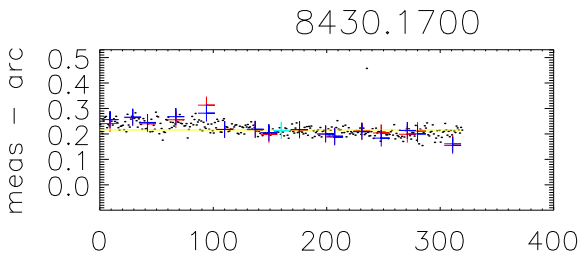

6949.0300
meas − arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400

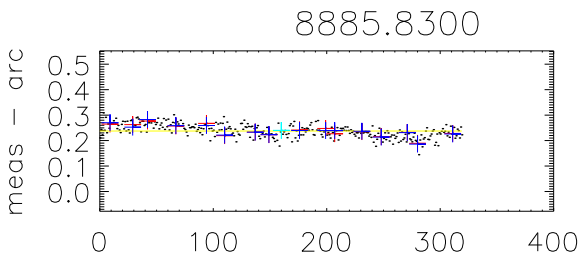

7571.7500
meas − arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400

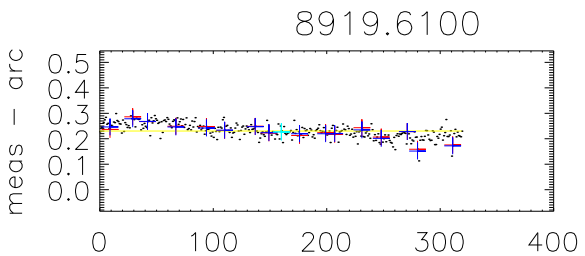

7794.1200
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

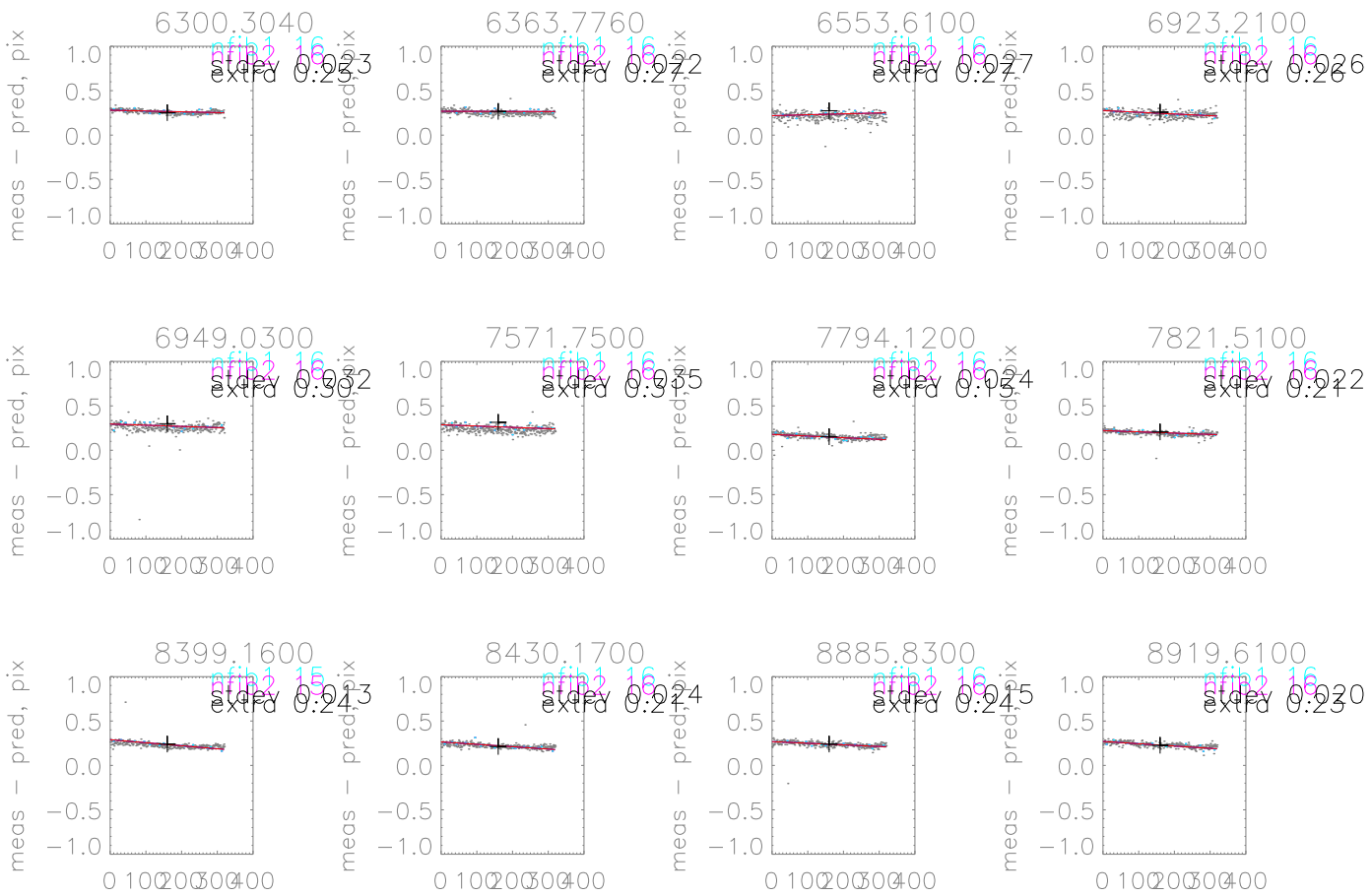

7821.5100
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

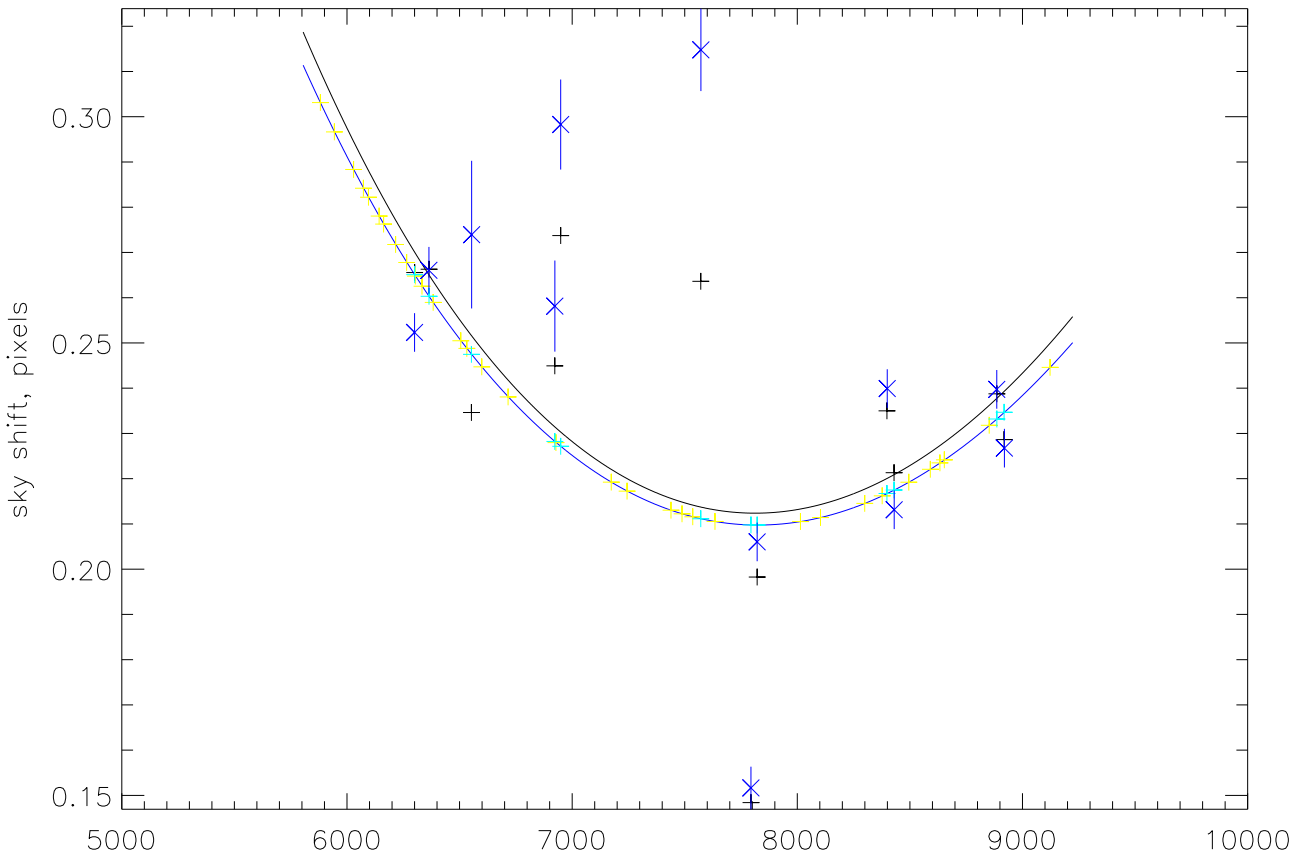

8399.1600
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

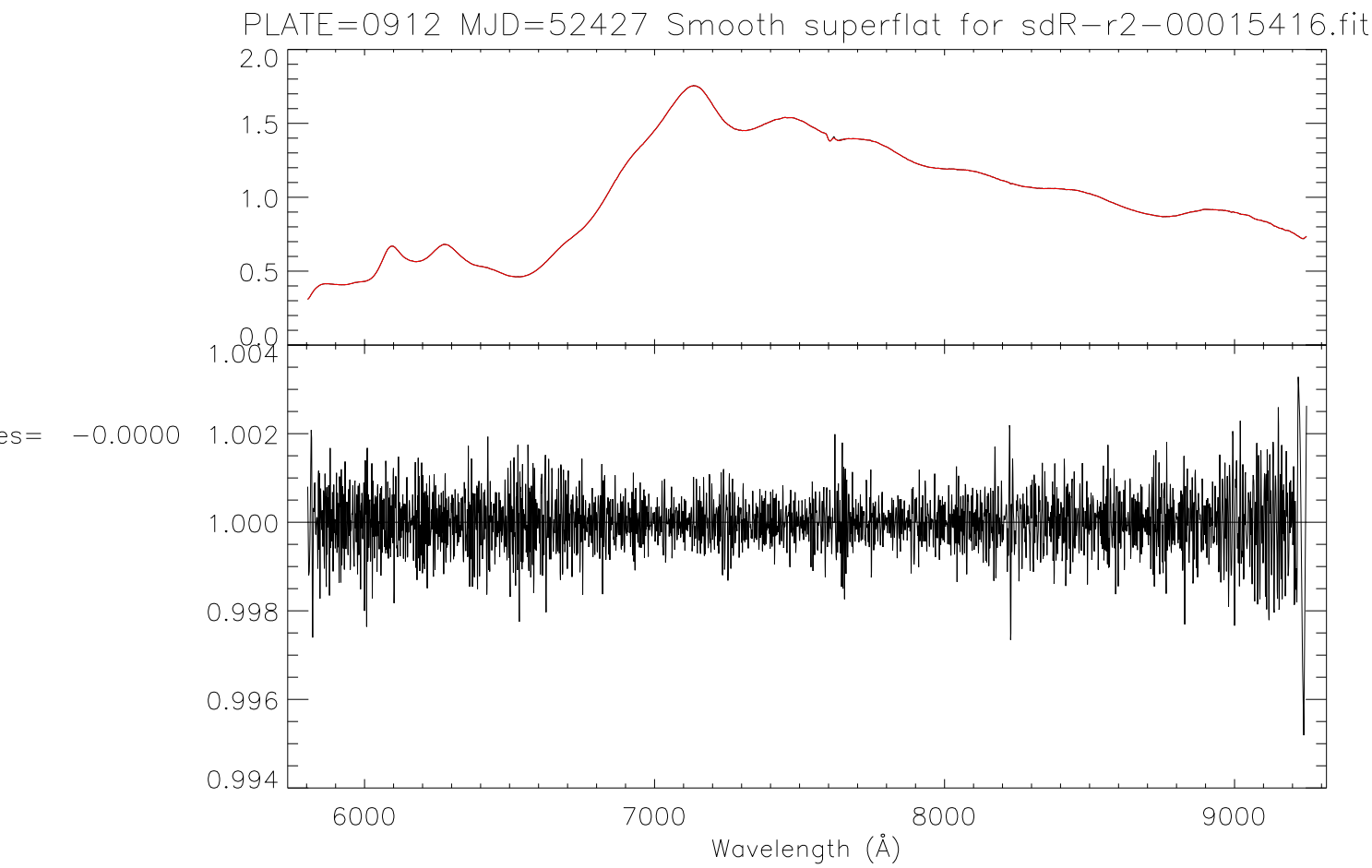

8430.1700
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

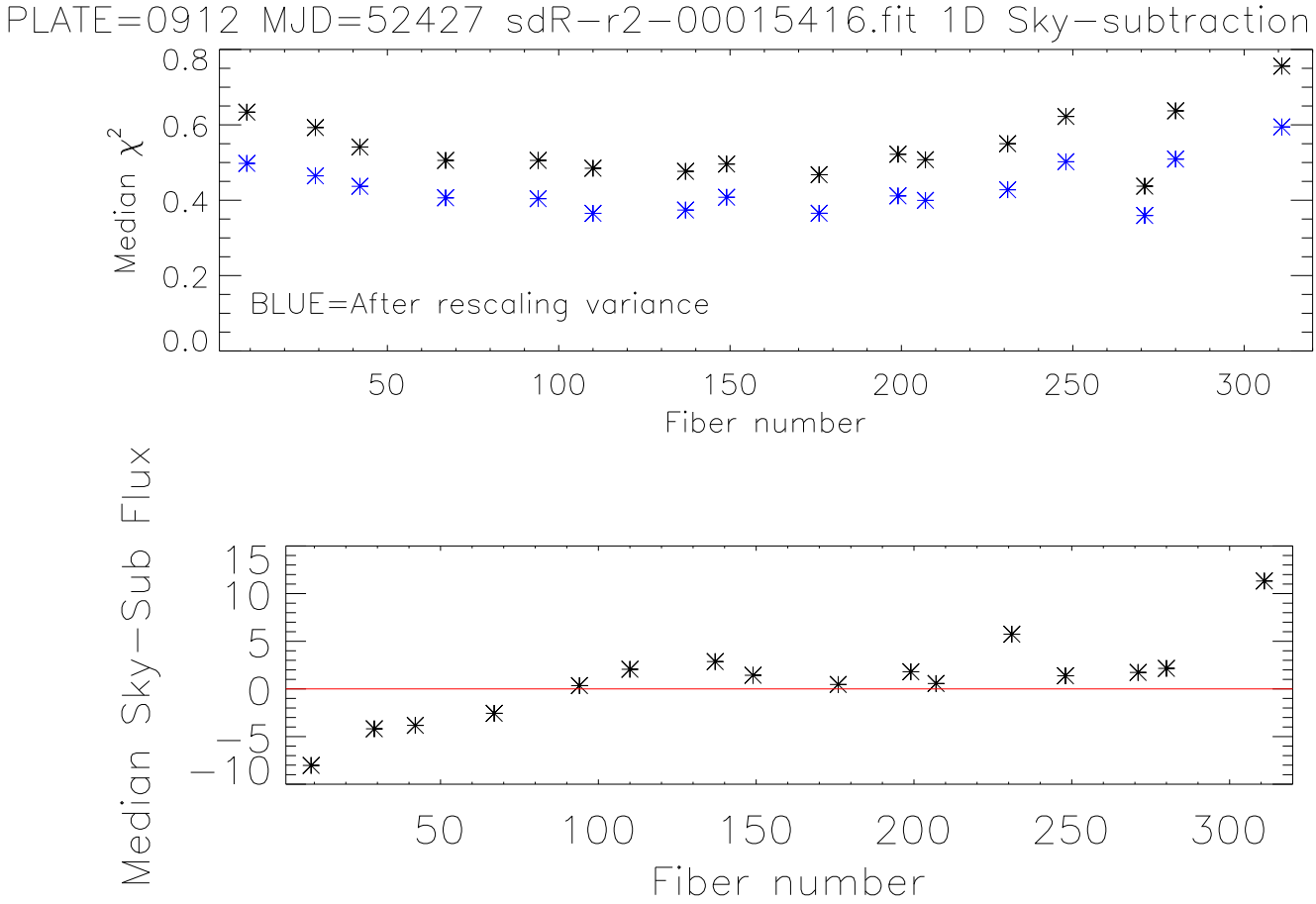

8885.8300
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

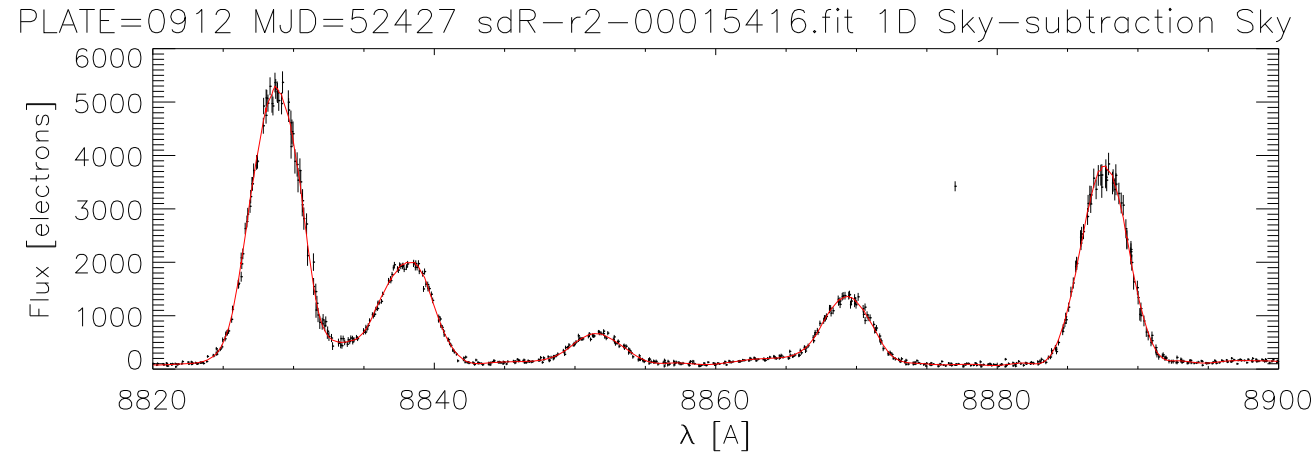

8919.6100
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

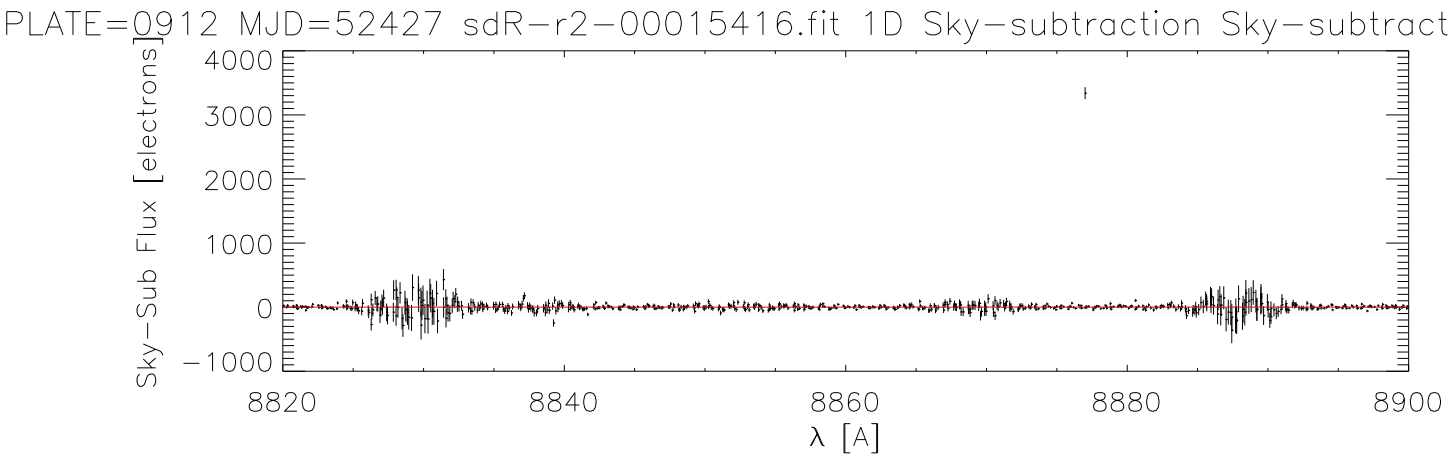

6300.3040
stdev 0.023
extra 0.25
6363.7760
stdev 0.022
extra 0.27
6553.6100
stdev 0.027
extra 0.27
6923.2100
stdev 0.026
extra 0.26
6949.0300
stdev 0.032
extra 0.30
7571.7500
stdev 0.035
extra 0.31
7794.1200
stdev 0.024
extra 0.15
7821.5100
stdev 0.022
extra 0.21
8399.1600
stdev 0.013
extra 0.24
8430.1700
stdev 0.024
extra 0.21
8885.8300
stdev 0.015
extra 0.24
8919.6100
stdev 0.020
extra 0.23
meas − pred, pix

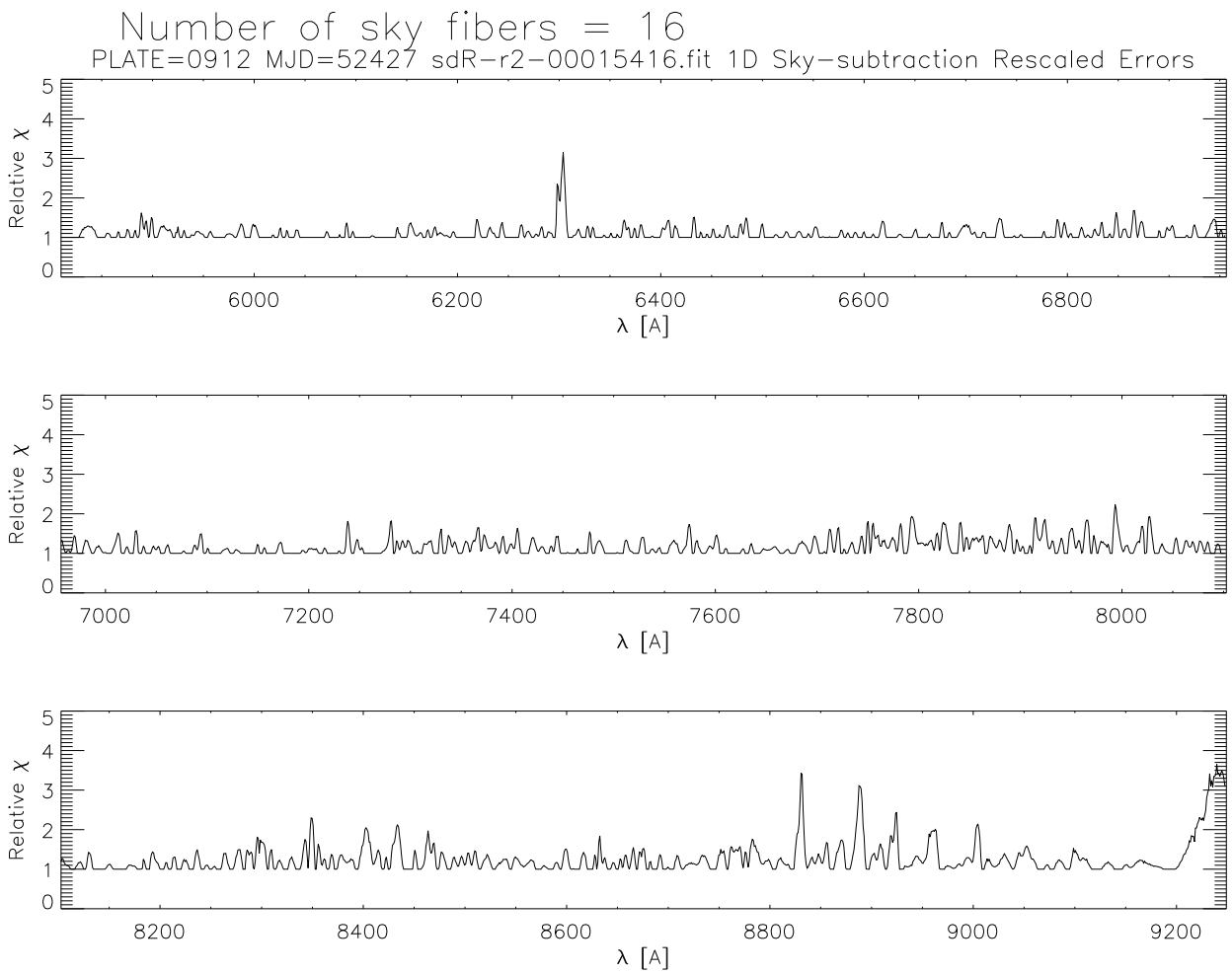

sky shift, pixels
0.30
0.25
0.20
0.15
5000
6000
7000
8000
9000
10000

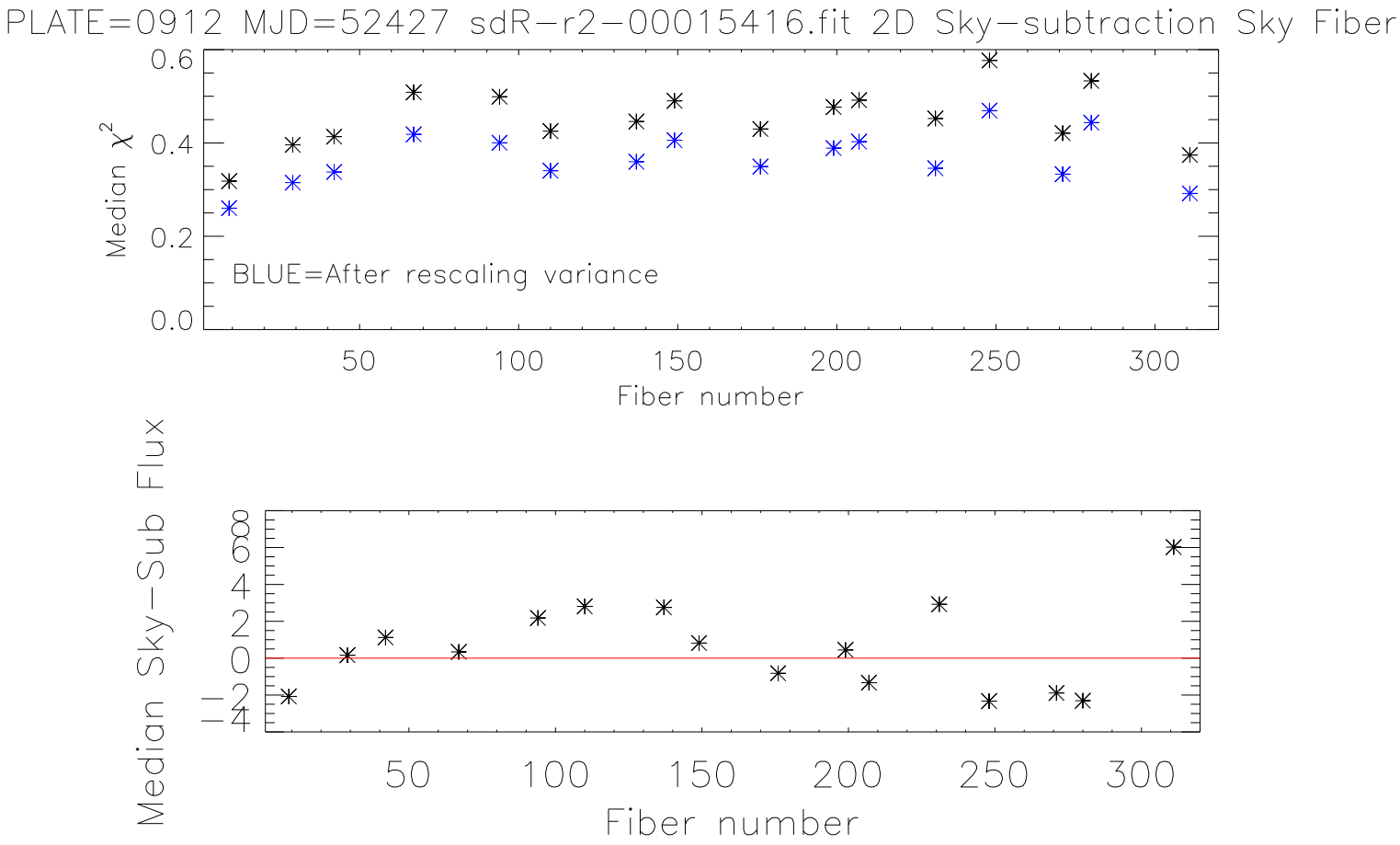

PLATE=0912 MJD=52427 Smooth superflat for sdR-r2-00015416.fit
2.0
1.5
1.0
0.5
0.0
es= -0.0000
1.004
1.002
1.000
0.998
0.996
0.994
6000
7000
8000
9000
Wavelength (Å)

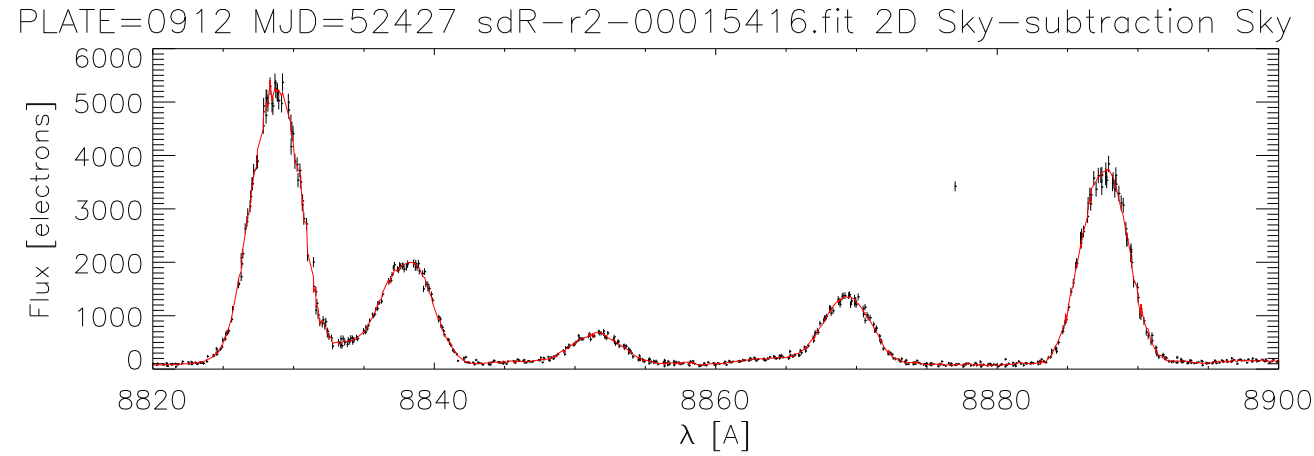

PLATE=0912 MJD=52427 sdR-r2-00015416.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
15
10
5
0
-5
-10
50
100
150
200
250
300
Fiber number

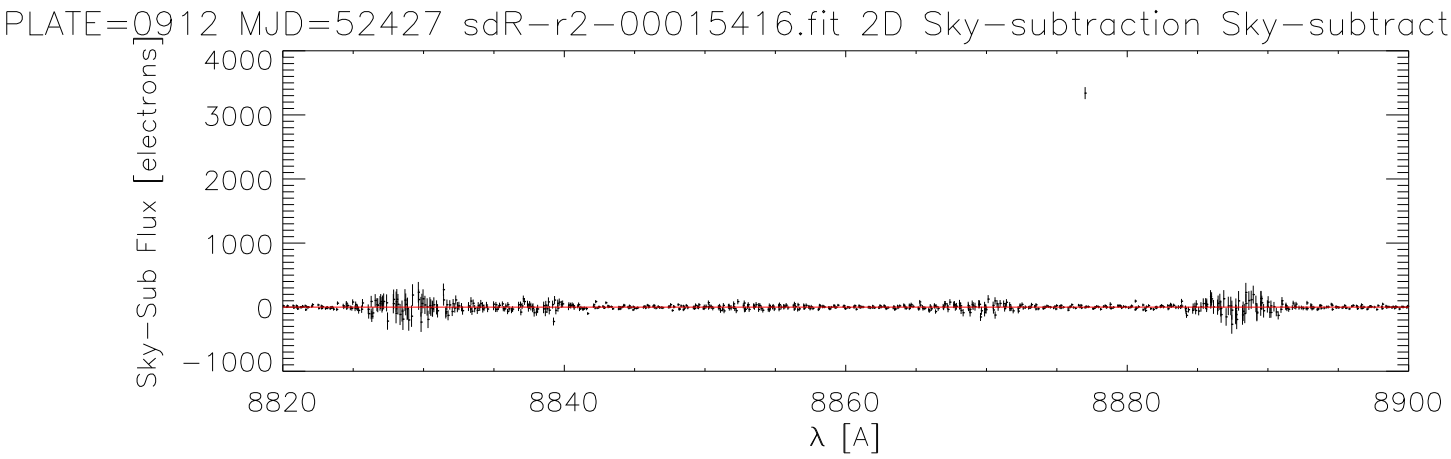

PLATE=0912 MJD=52427 sdR-r2-00015416.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
6000
5000
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

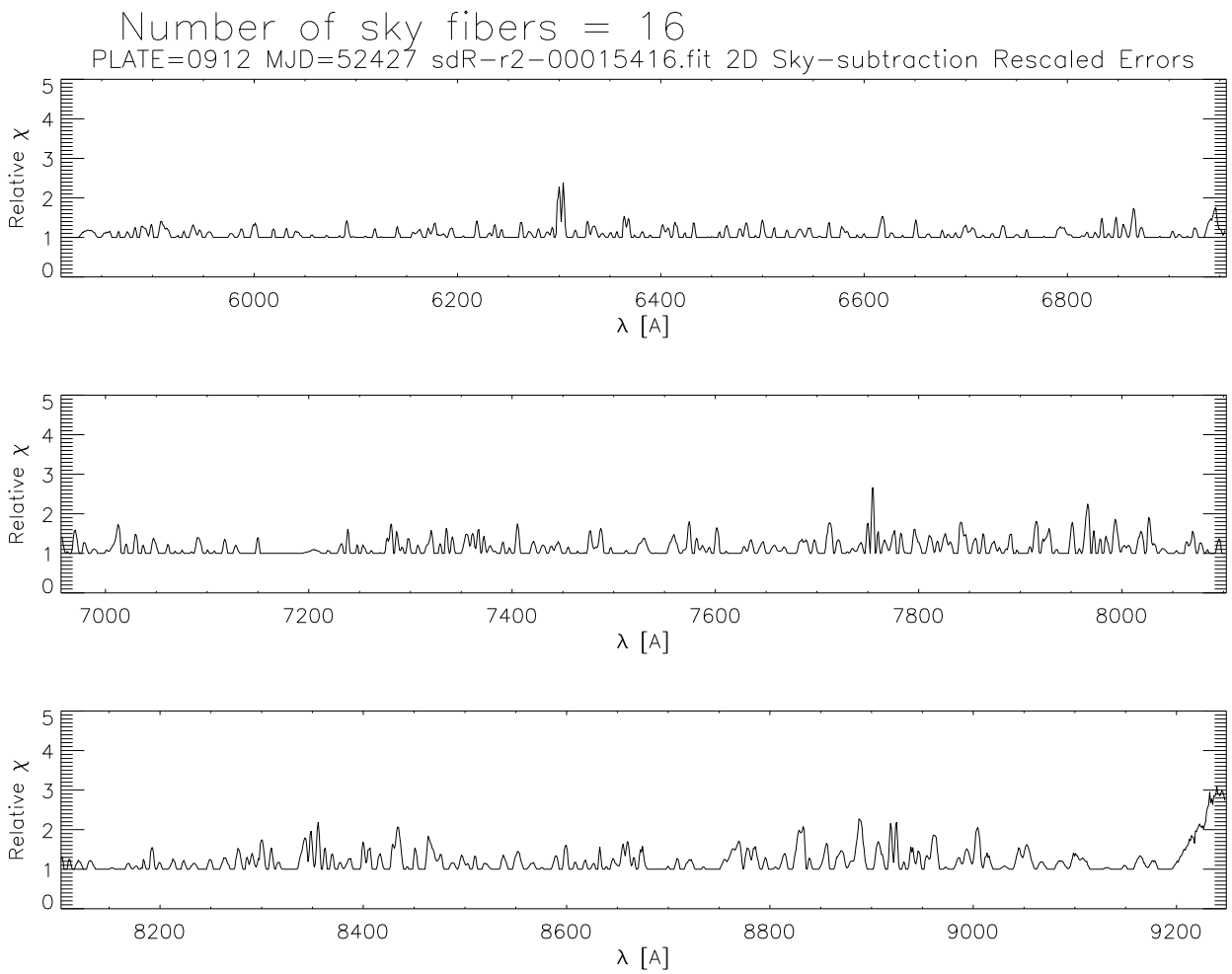

PLATE=0912 MJD=52427 sdR-r2-00015416.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
4000
3000
2000
1000
0
-1000
8820
8840
8860
8880
8900
λ [A]

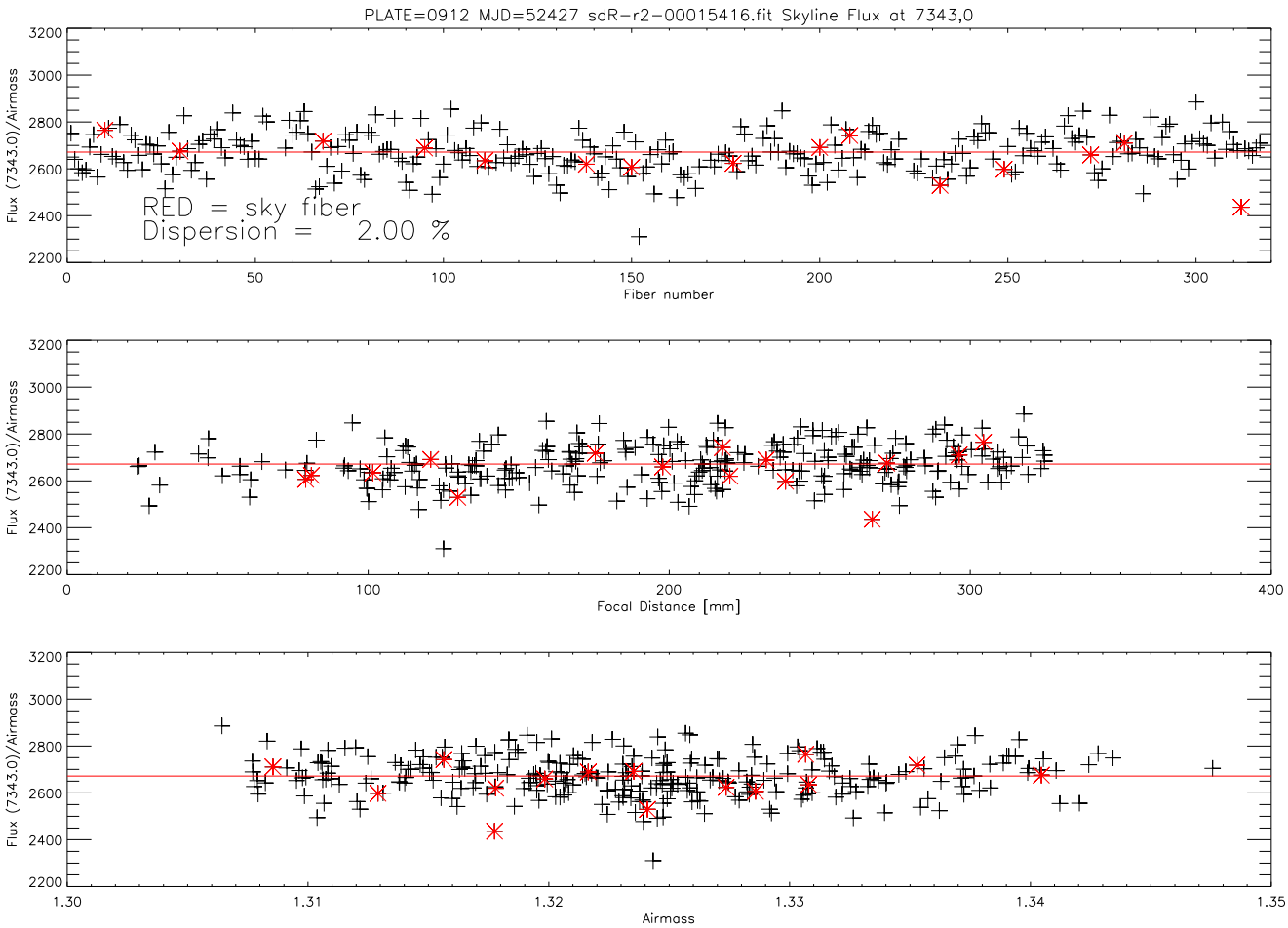

Number of sky fibers = 16
PLATE=0912 MJD=52427 sdR-r2-00015416.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

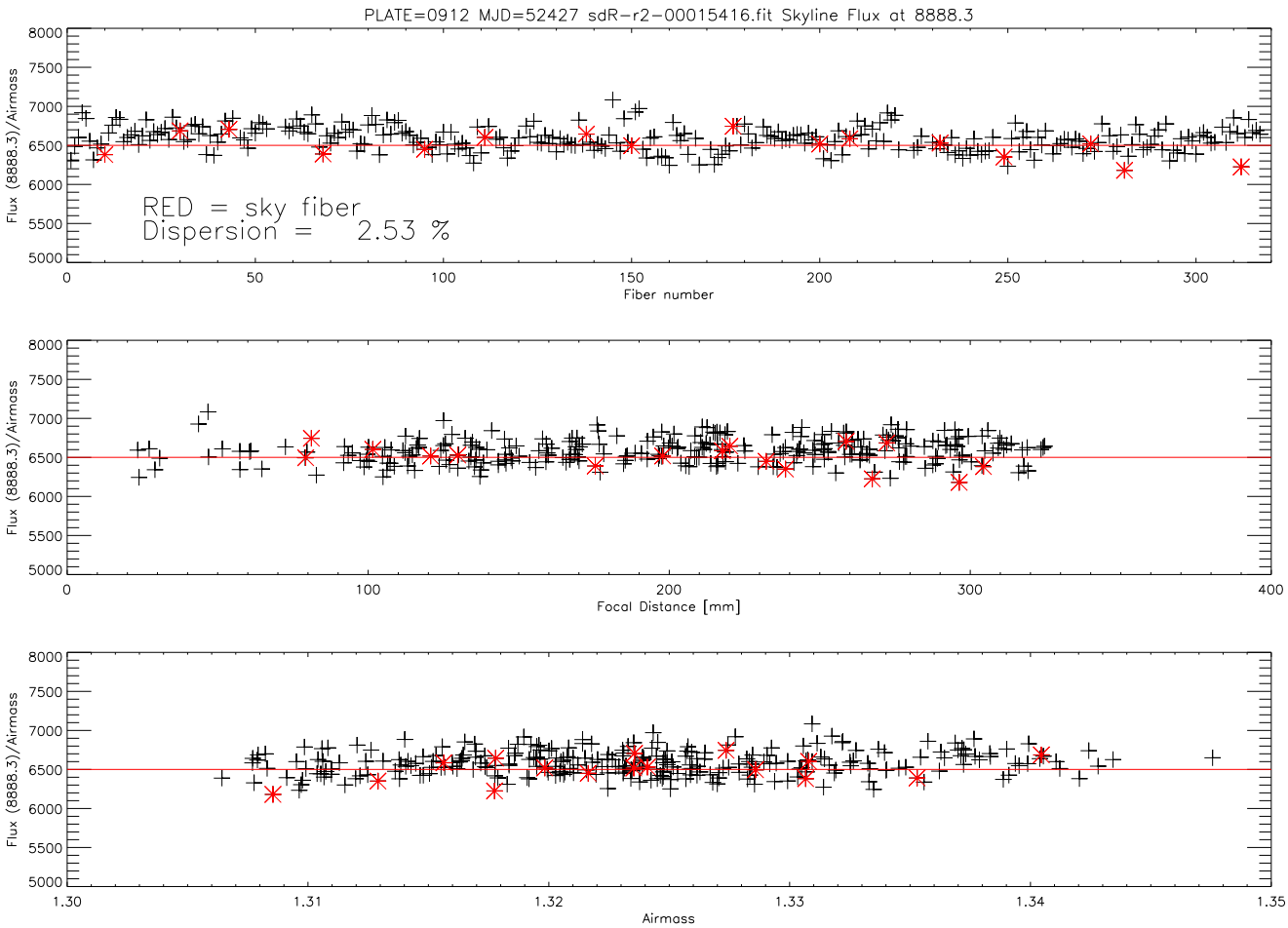

PLATE=0912 MJD=52427 sdR-r2-00015416.fit 2D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-4
-2
0
2
4
6
8
50
100
150
200
250
300
Fiber number

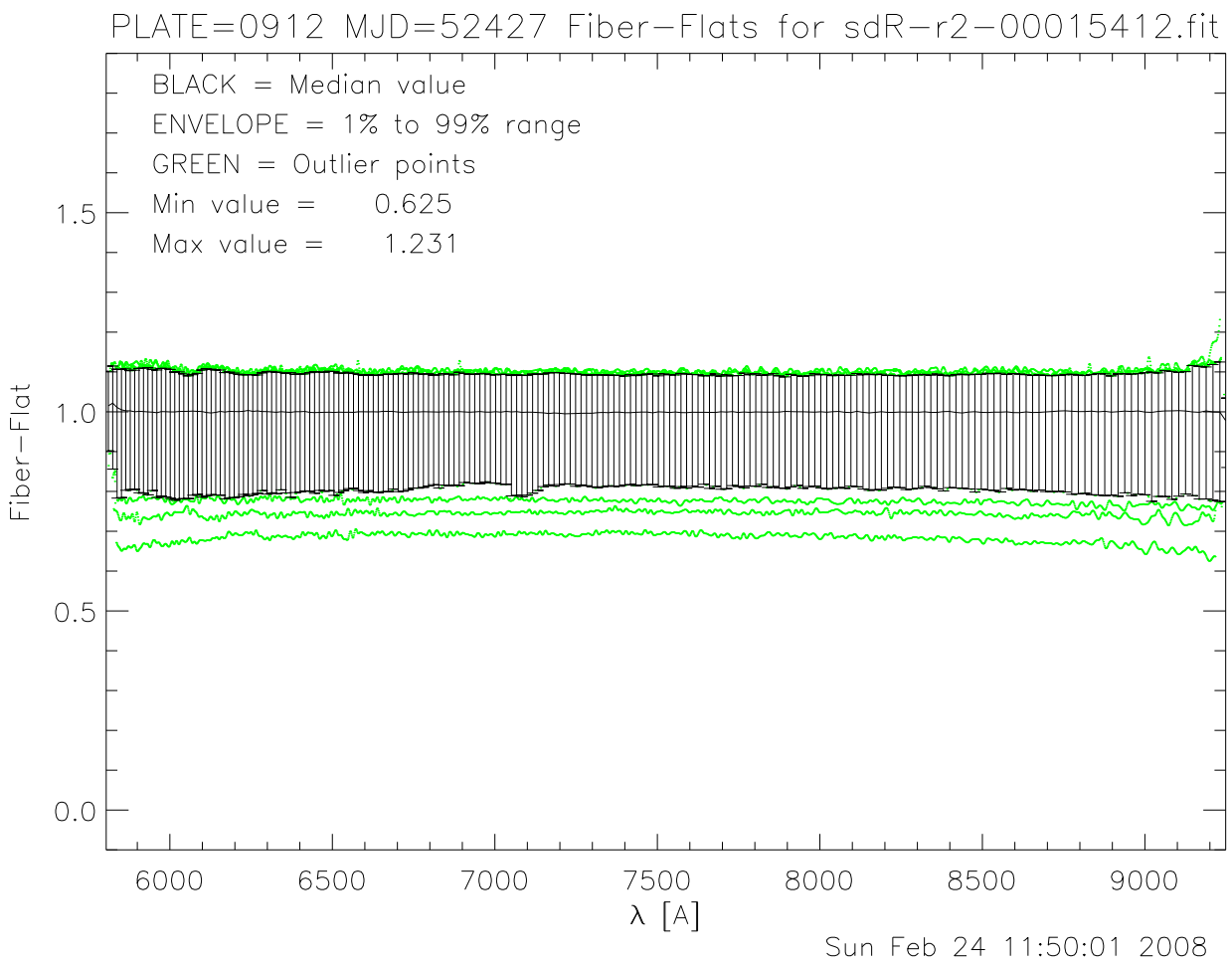

PLATE=0912 MJD=52427 sdR-r2-00015416.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
6000
5000
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

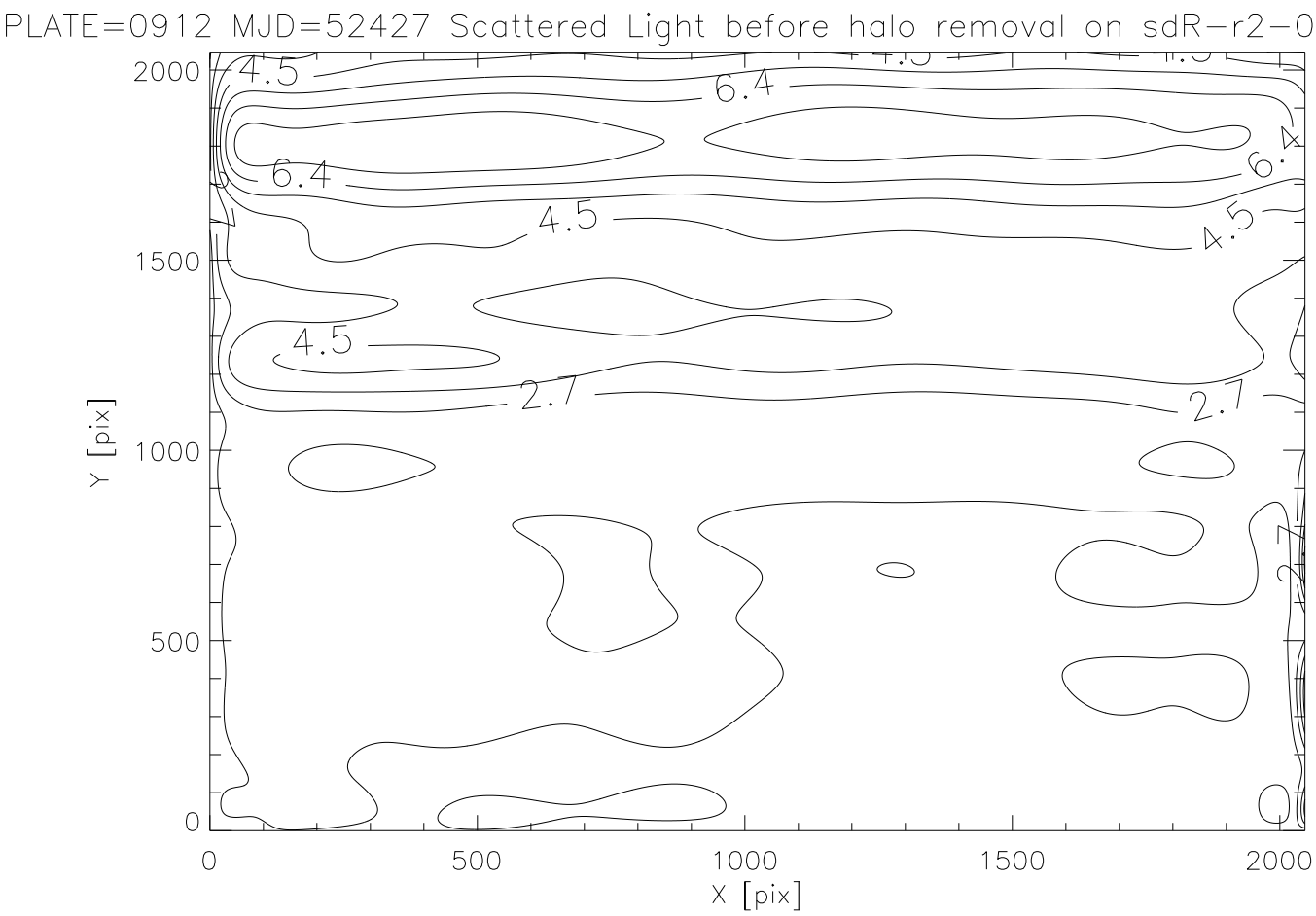

PLATE=0912 MJD=52427 sdR-r2-00015416.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
4000
3000
2000
1000
0
-1000
8820
8840
8860
8880
8900
λ [A]

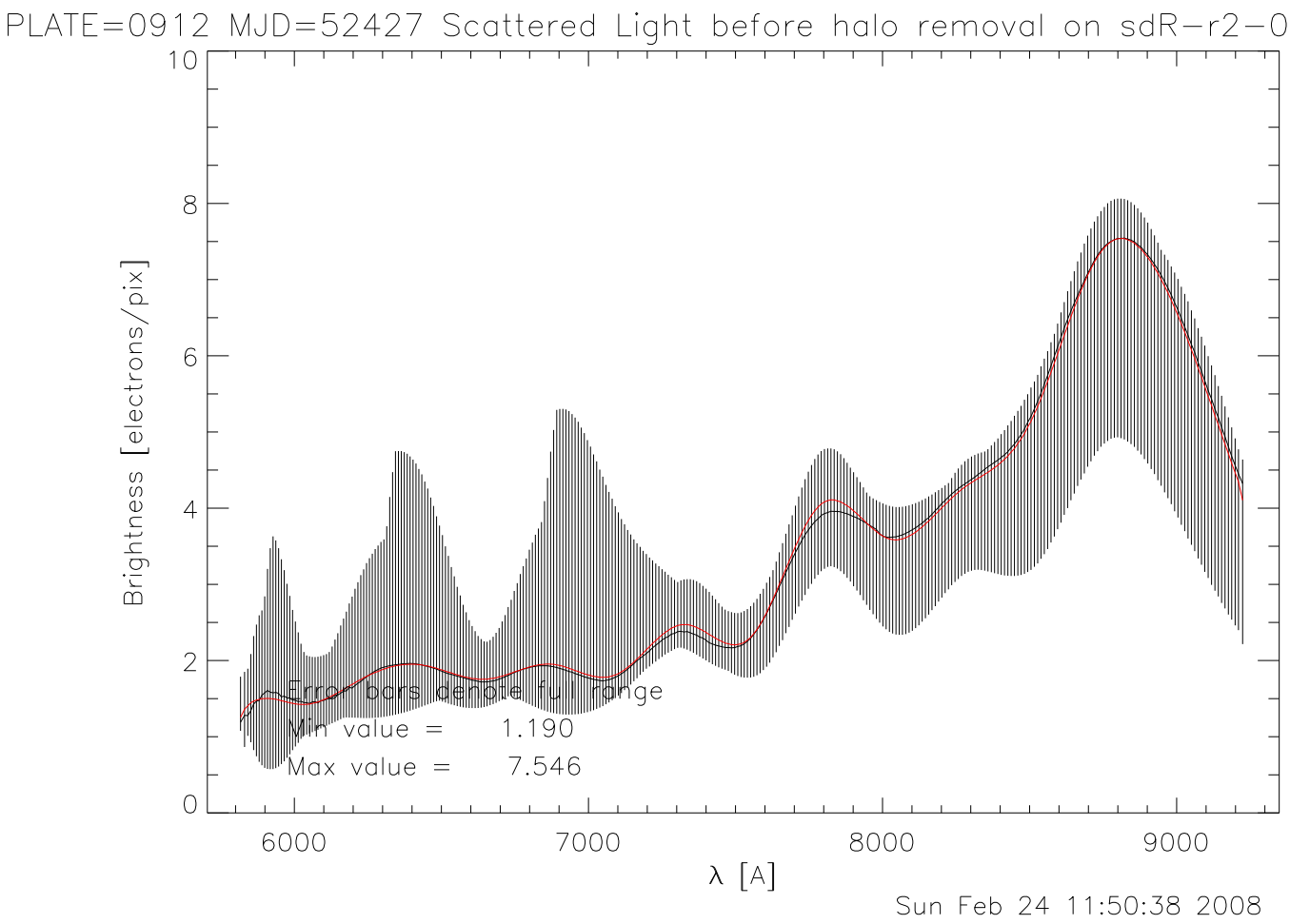

Number of sky fibers = 16
PLATE=0912 MJD=52427 sdR-r2-00015416.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

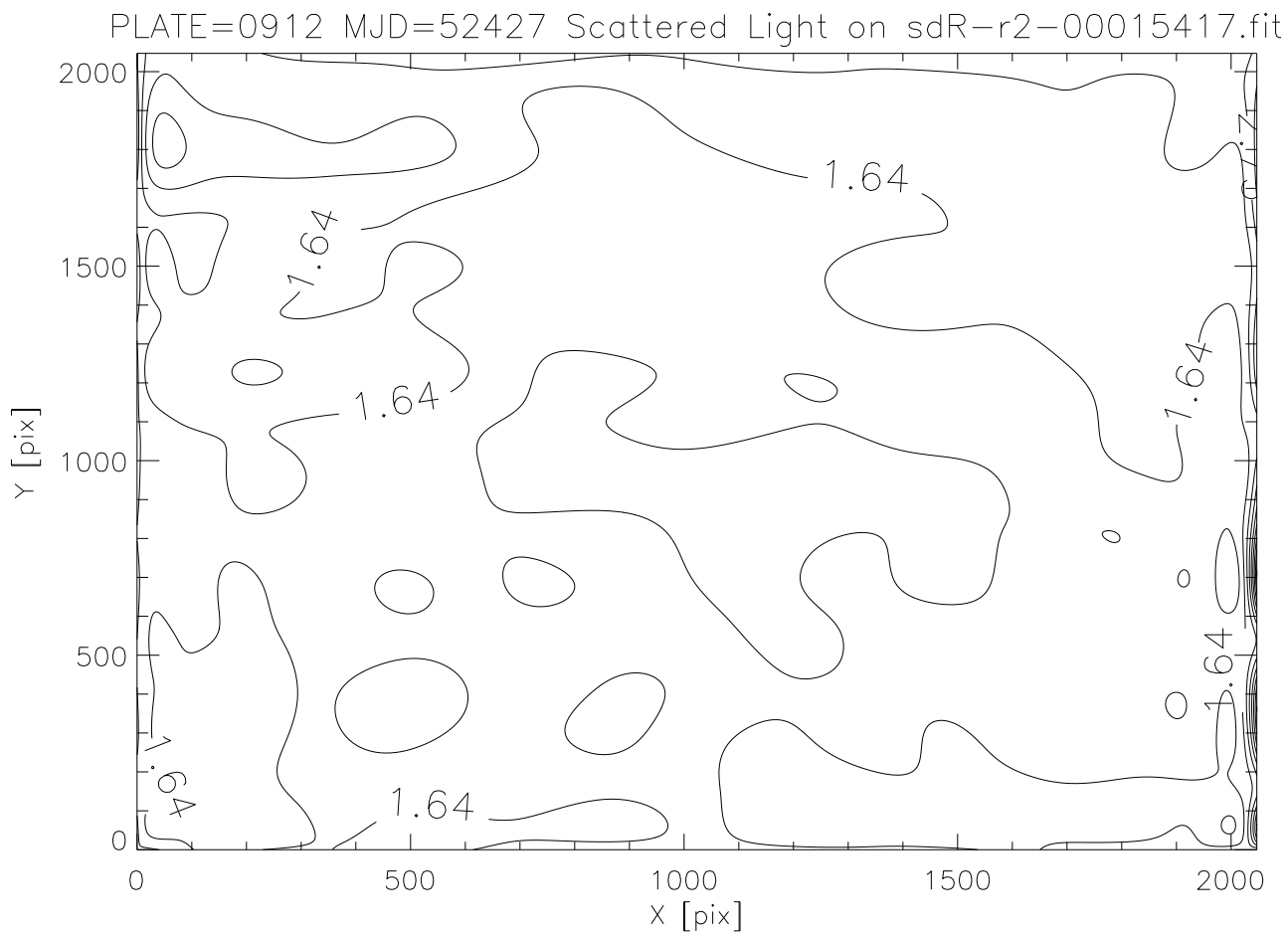

PLATE=0912 MJD=52427 sdR-r2-00015416.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
Fiber number
RED = sky fiber
Dispersion = 2.00 %
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

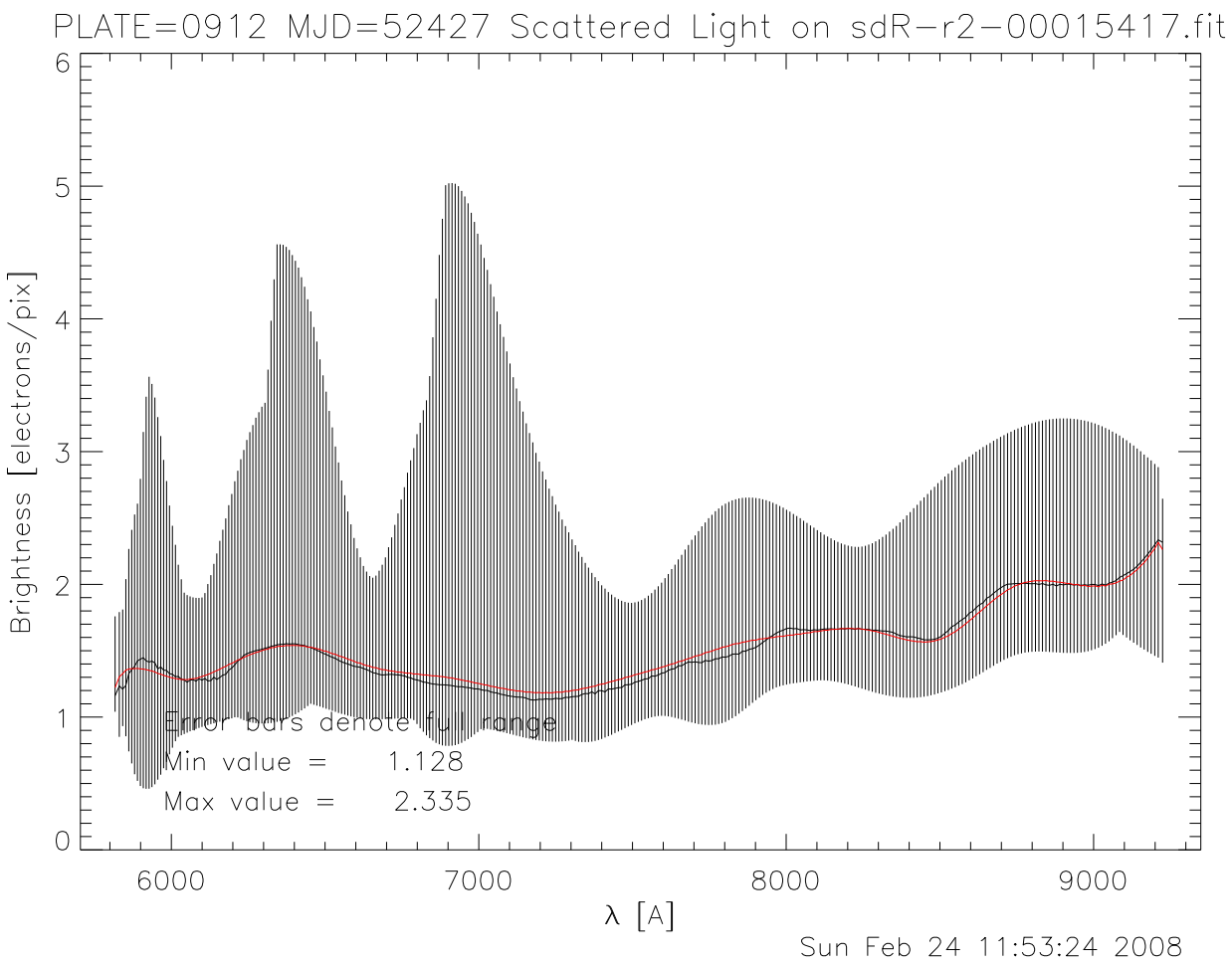

PLATE=0912 MJD=52427 sdR-r2-00015416.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 2.53 %
Fiber number
Focal Distance [mm]
Airmass

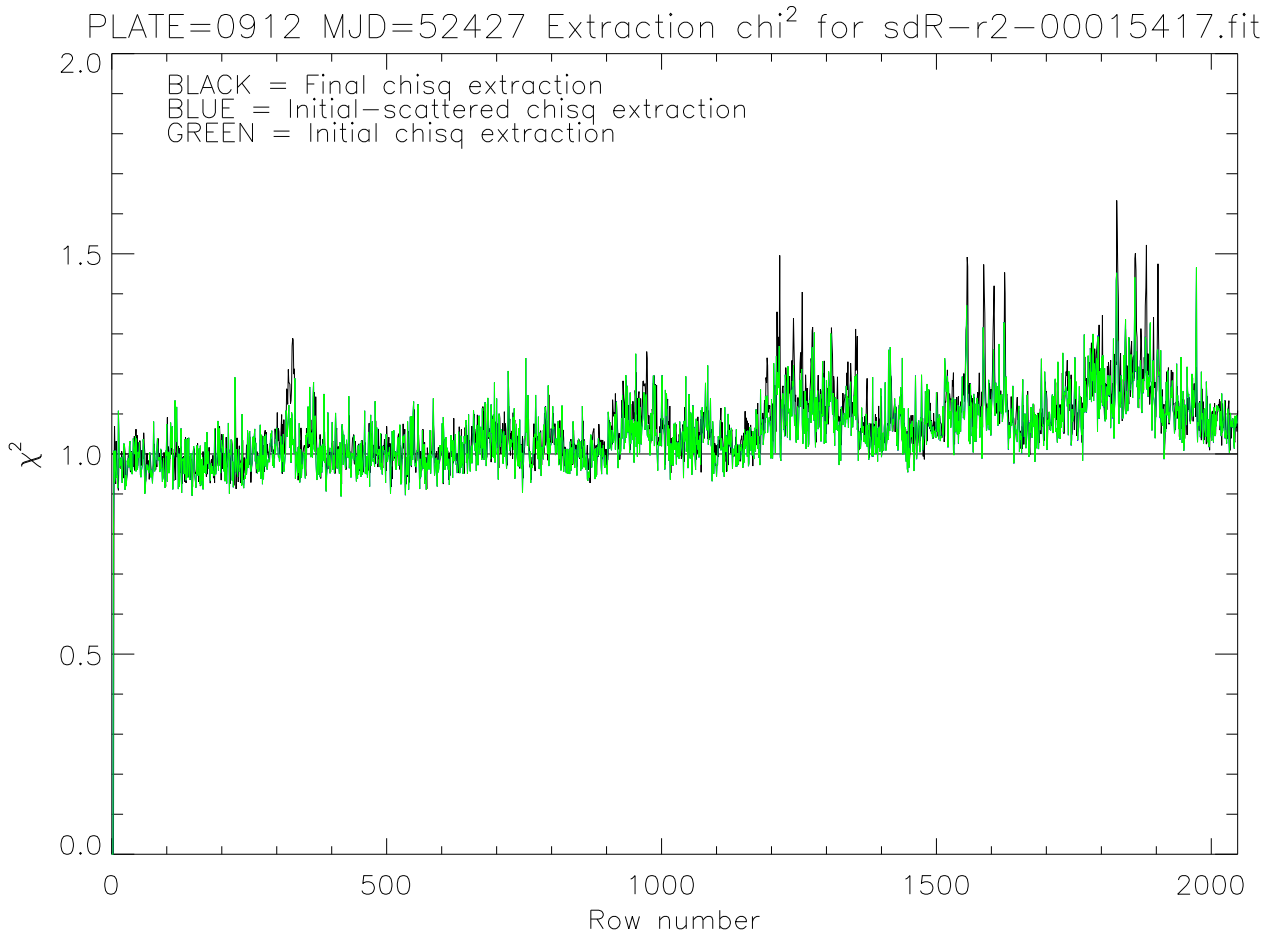

PLATE=0912 MJD=52427 Fiber−Flats for sdR−r2−00015412.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.625
Max value = 1.231
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sun Feb 24 11:50:01 2008

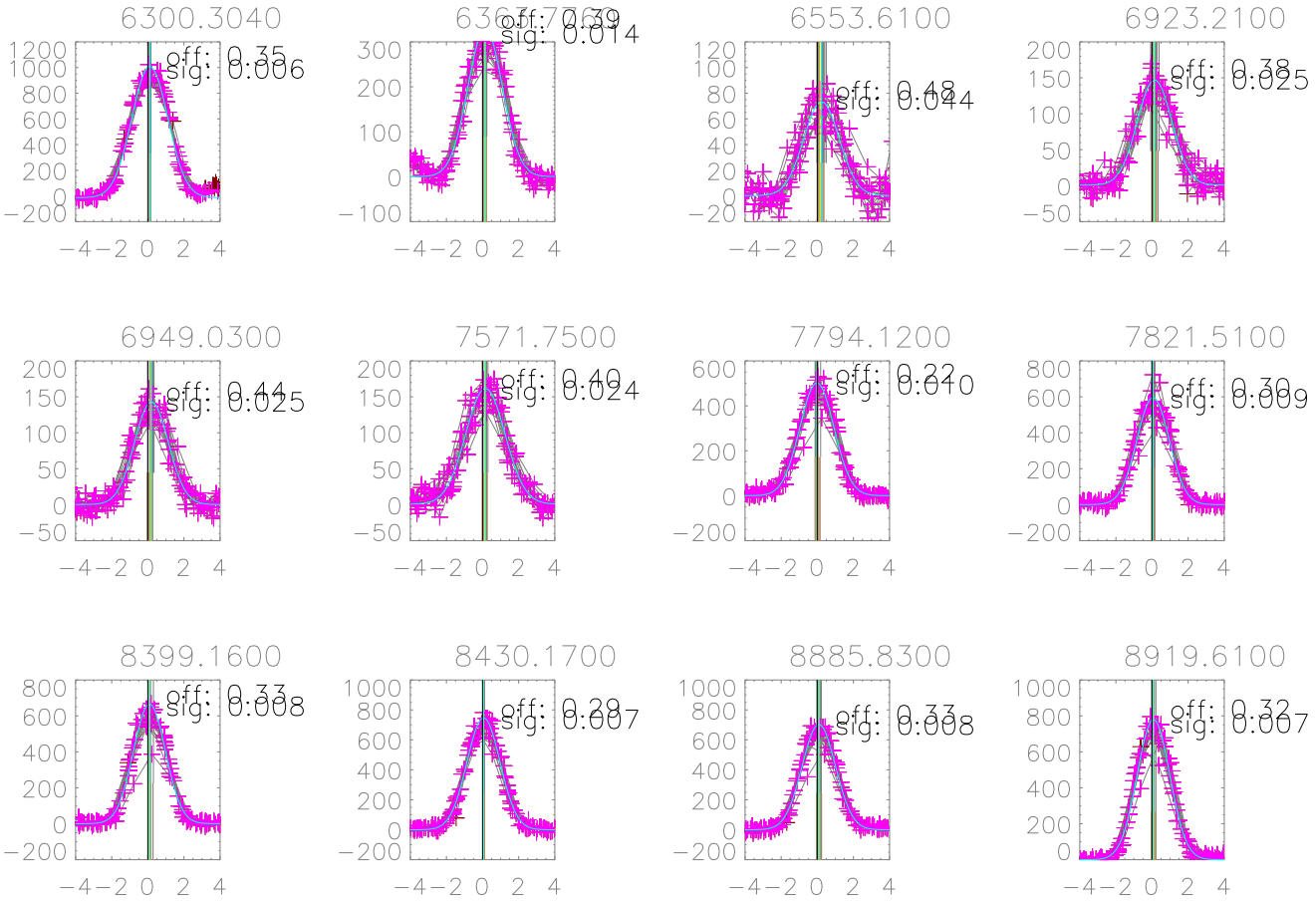

PLATE=0912 MJD=52427 Scattered Light before halo removal on sdR-r2-00015417.fi
4.5
6.4
6.4
4.5
6.4
4.5
4.5
2.7
2.7
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]

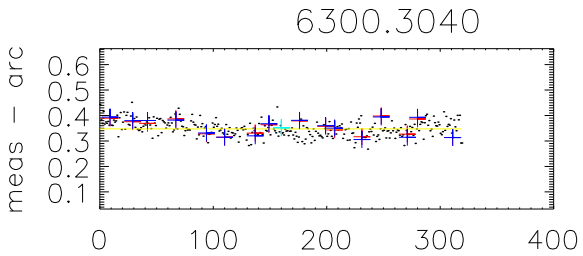

PLATE=0912 MJD=52427 Scattered Light before halo removal on sdR-r2-00015417.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 1.190
Max value = 7.546
Sun Feb 24 11:50:38 2008

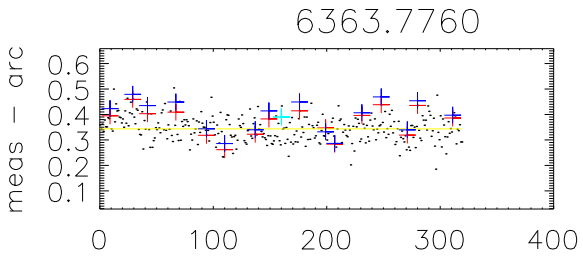

PLATE=0912 MJD=52427 Scattered Light on sdR-r2-00015417.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
1.64
0

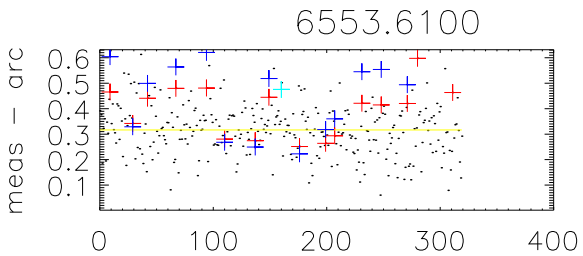

PLATE=0912 MJD=52427 Scattered Light on sdR-r2-00015417.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 1.128
Max value = 2.335
Sun Feb 24 11:53:24 2008

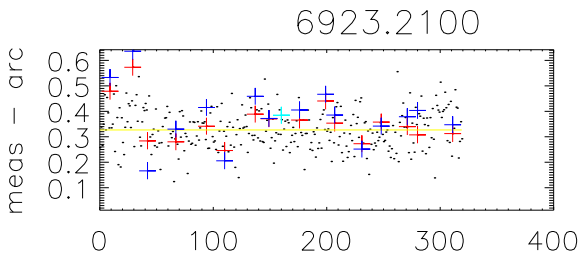

PLATE=0912 MJD=52427 Extraction chi^2 for sdR−r2−00015417.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
2.0
1.5
1.0
0.5
0.0
0
500
1000
1500
2000
Row number

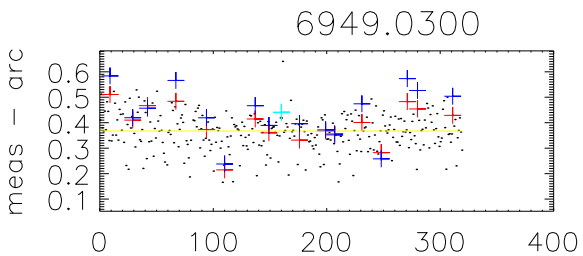

6300.3040
off: 0.35
sig: 0.006
6363.7639
off: 0.39
sig: 0.014
6553.6100
off: 0.48
sig: 0.044
6923.2100
off: 0.38
sig: 0.025
6949.0300
off: 0.44
sig: 0.025
7571.7500
off: 0.40
sig: 0.024
7794.1200
off: 0.22
sig: 0.010
7821.5100
off: 0.30
sig: 0.009
8399.1600
off: 0.33
sig: 0.008
8430.1700
off: 0.29
sig: 0.007
8885.8300
off: 0.33
sig: 0.008
8919.6100
off: 0.32
sig: 0.007

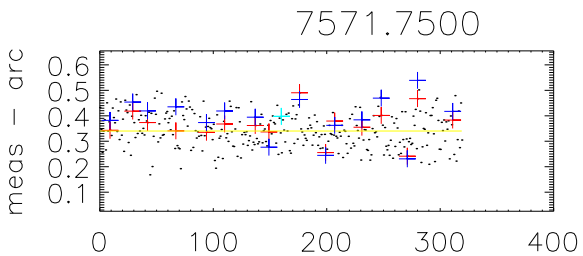

6300.3040
meas − arc
0.6
0.5
0.4
0.3
0.2
0.1
0
100
200
300
400

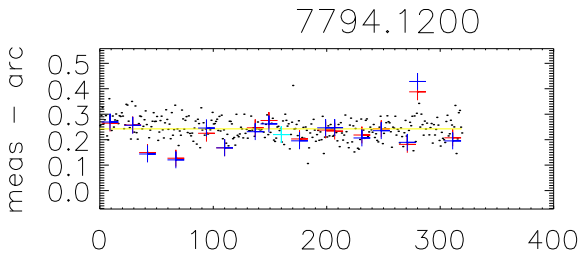

6363.7760
meas − arc
0.6
0.5
0.4
0.3
0.2
0.1
0
100
200
300
400

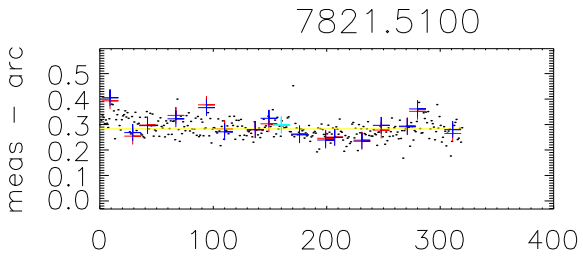

6553.6100
meas − arc
0.6
0.5
0.4
0.3
0.2
0.1
0
100
200
300
400

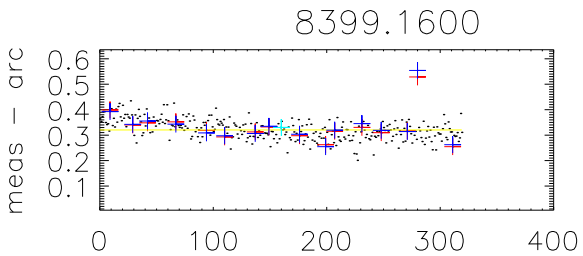

6923.2100
meas − arc
0.6
0.5
0.4
0.3
0.2
0.1
0
100
200
300
400

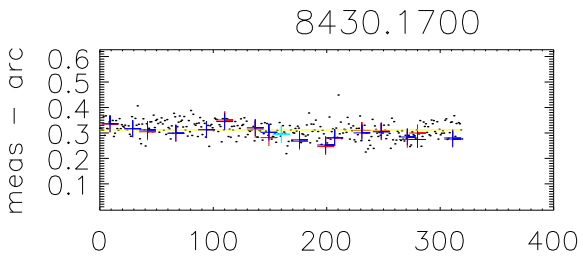

6949.0300
meas − arc
0.6
0.5
0.4
0.3
0.2
0.1
0
100
200
300
400

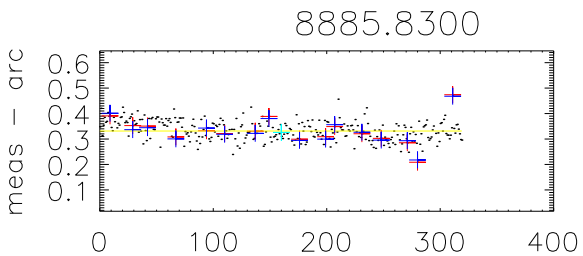

7571.7500
meas − arc
0.6
0.5
0.4
0.3
0.2
0.1
0
100
200
300
400

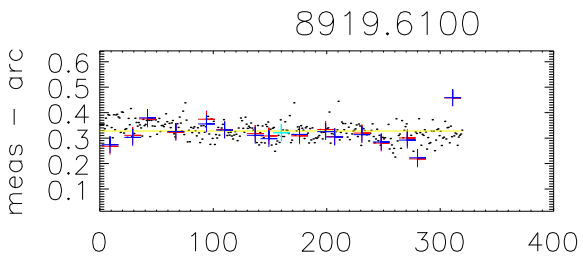

7794.1200
meas − arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400

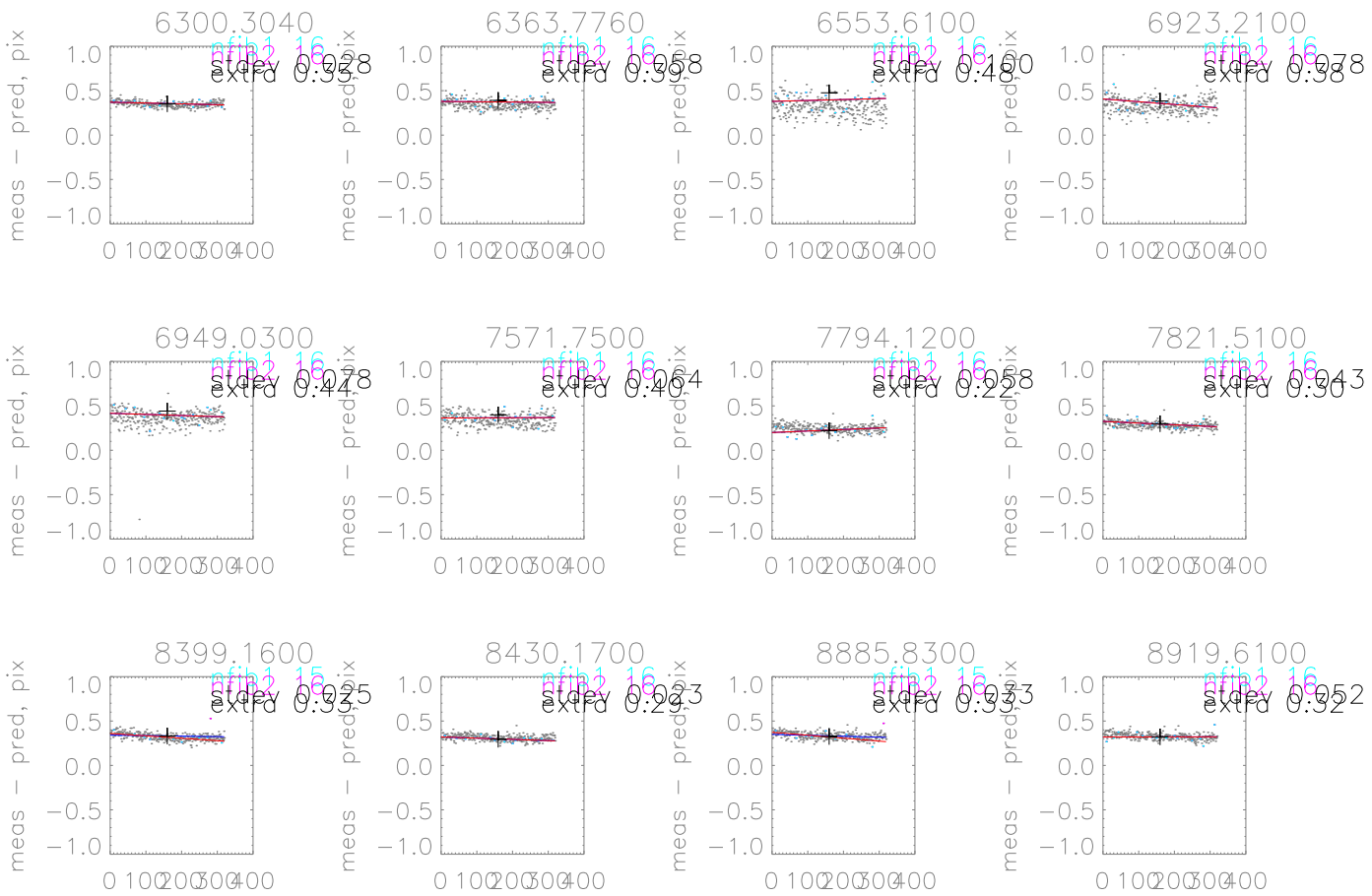

7821.5100
meas − arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400

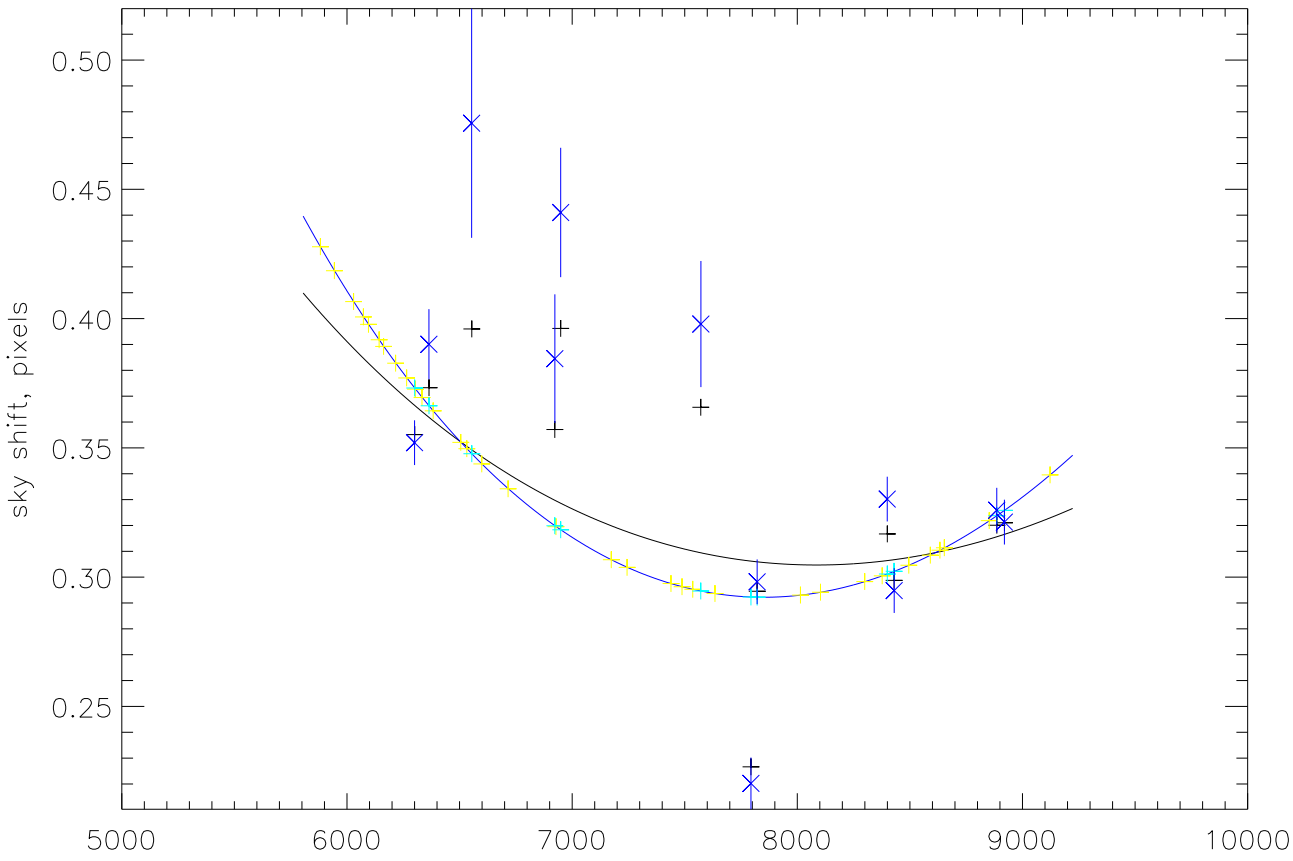

8399.1600
meas − arc
0.1
0.2
0.3
0.4
0.5
0.6
0
100
200
300
400

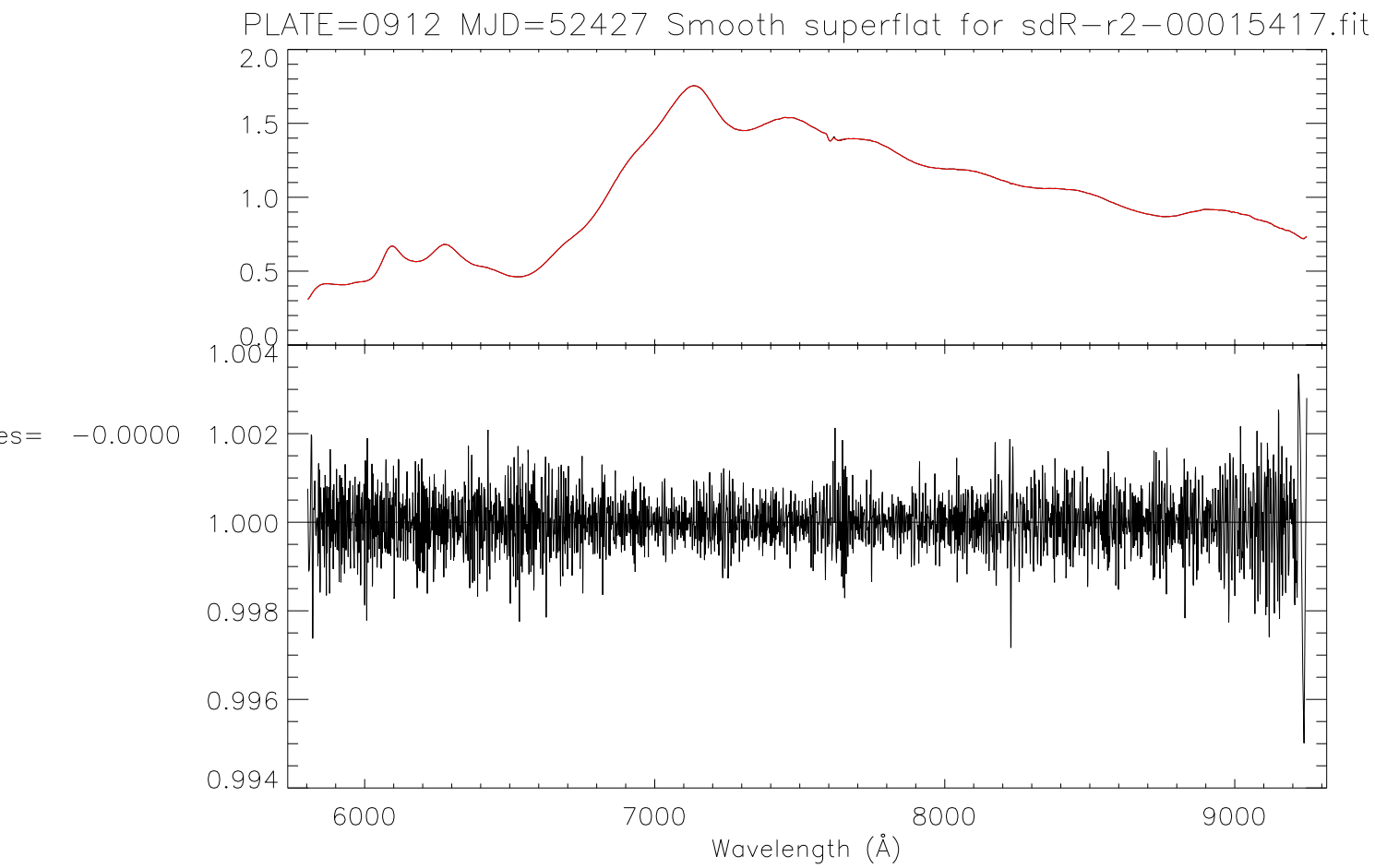

8430.1700
meas − arc
0.1
0.2
0.3
0.4
0.5
0.6
0
100
200
300
400

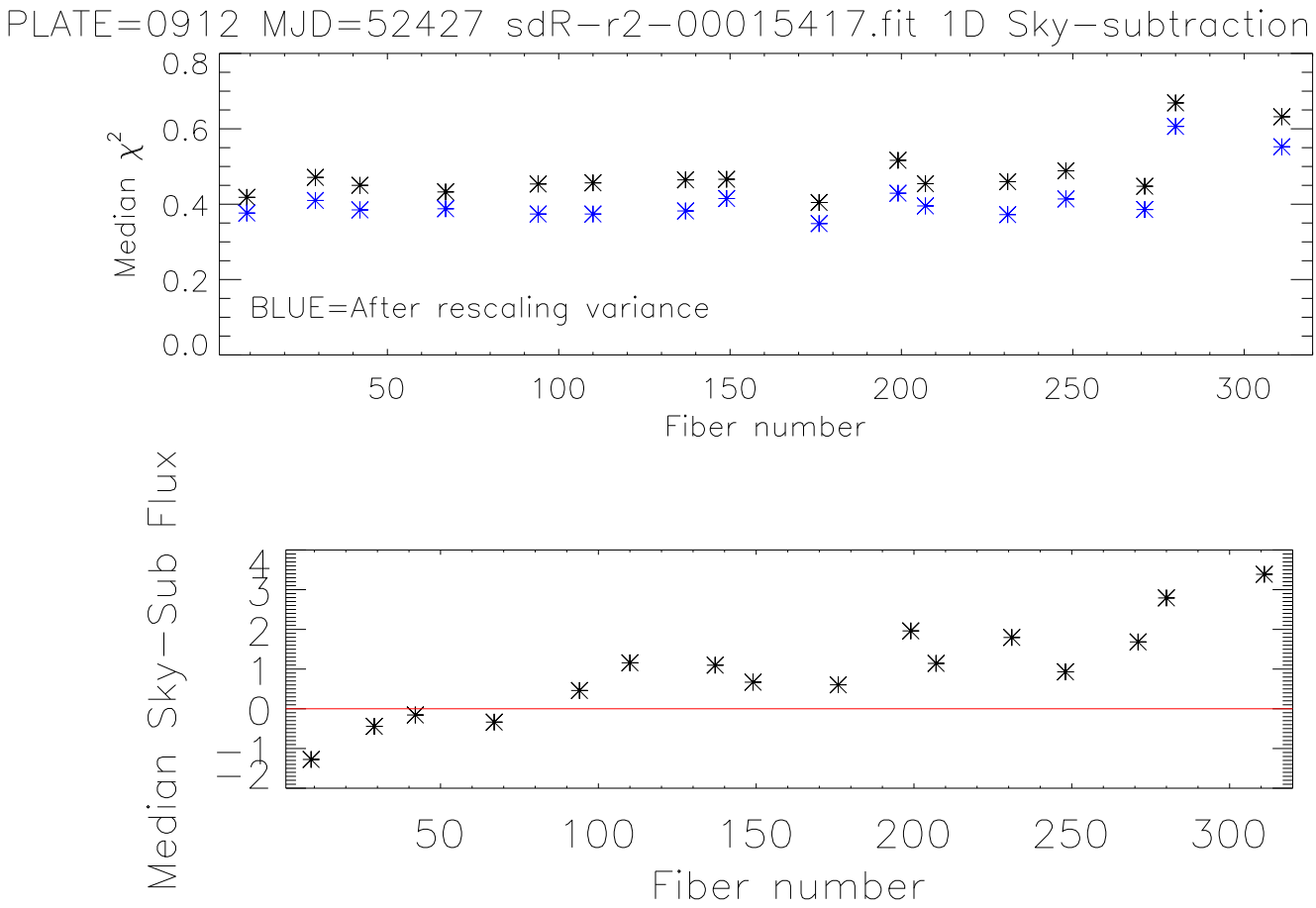

8885.8300
meas − arc
0.1
0.2
0.3
0.4
0.5
0.6
0
100
200
300
400

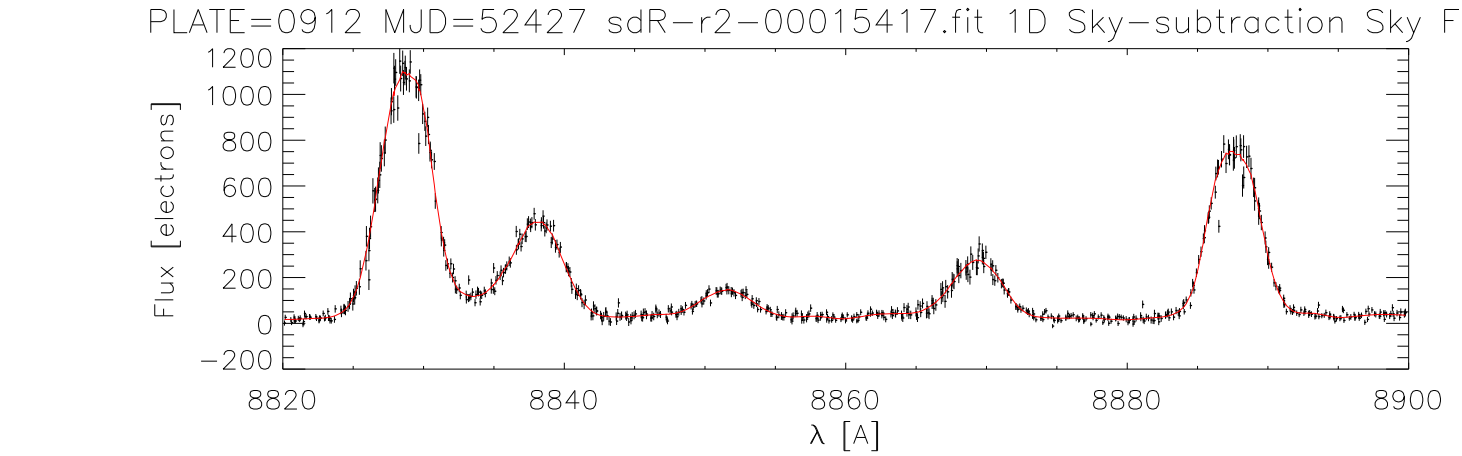

8919.6100
meas − arc
0.1
0.2
0.3
0.4
0.5
0.6
0
100
200
300
400

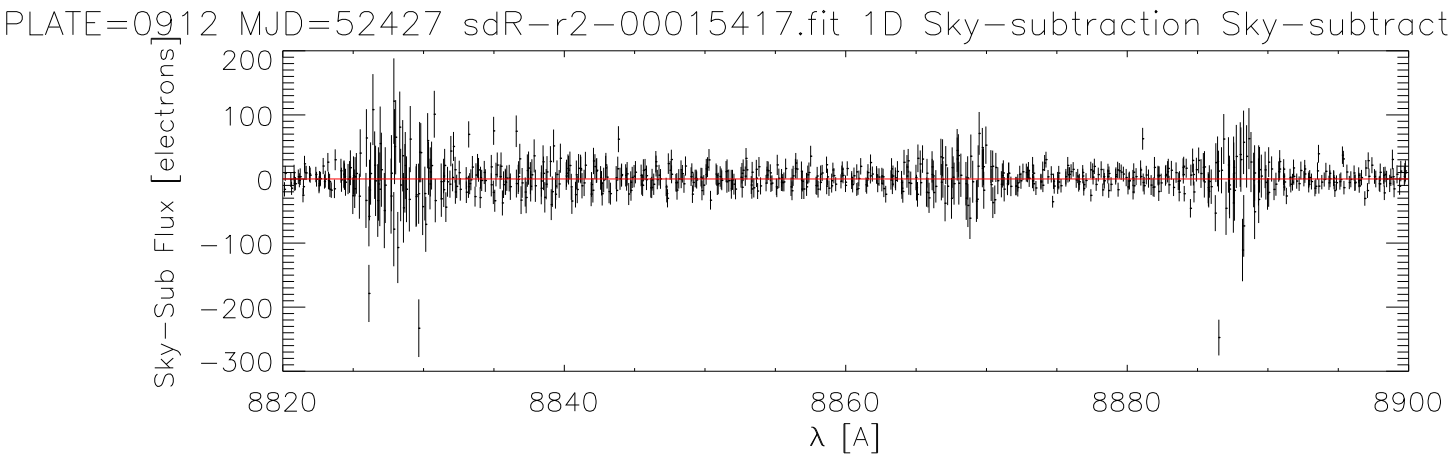

6300.3040
stdev 0.028
extra 0.35
6363.7760
stdev 0.058
extra 0.39
6553.6100
stdev 0.100
extra 0.48
6923.2100
stdev 0.078
extra 0.38
6949.0300
stdev 0.078
extra 0.44
7571.7500
stdev 0.064
extra 0.40
7794.1200
stdev 0.058
extra 0.22
7821.5100
stdev 0.043
extra 0.30
8399.1600
stdev 0.025
extra 0.33
8430.1700
stdev 0.023
extra 0.29
8885.8300
stdev 0.033
extra 0.33
8919.6100
stdev 0.052
extra 0.32
meas − pred, pix
mfb32 16
mfb31 16
mfb32 15

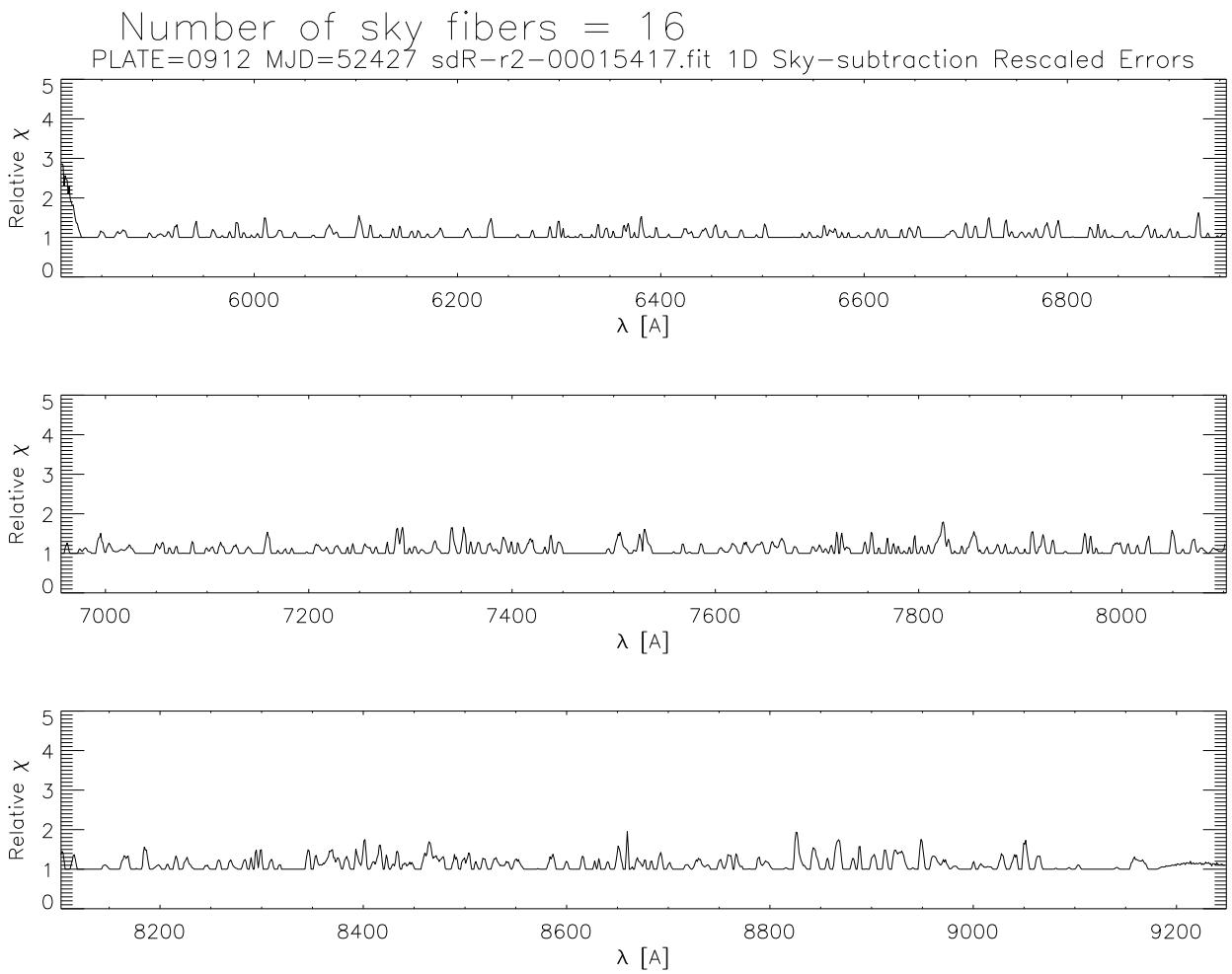

sky shift, pixels
0.50
0.45
0.40
0.35
0.30
0.25
5000
6000
7000
8000
9000
10000

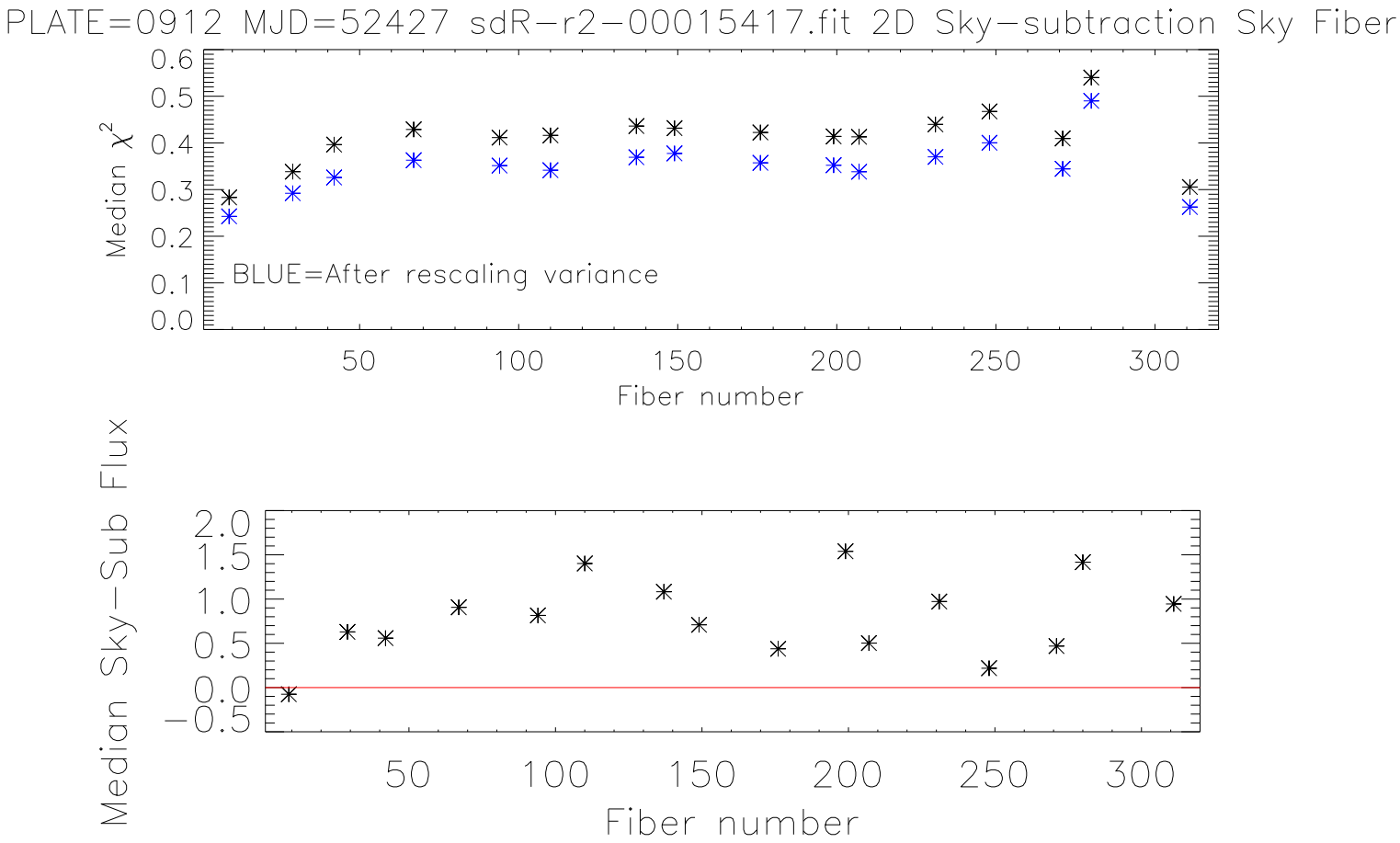

PLATE=0912 MJD=52427 Smooth superflat for sdR-r2-00015417.fit
2.0
1.5
1.0
0.5
0.0
1.004
es= −0.0000
1.002
1.000
0.998
0.996
0.994
6000
7000
8000
9000
Wavelength (Å)

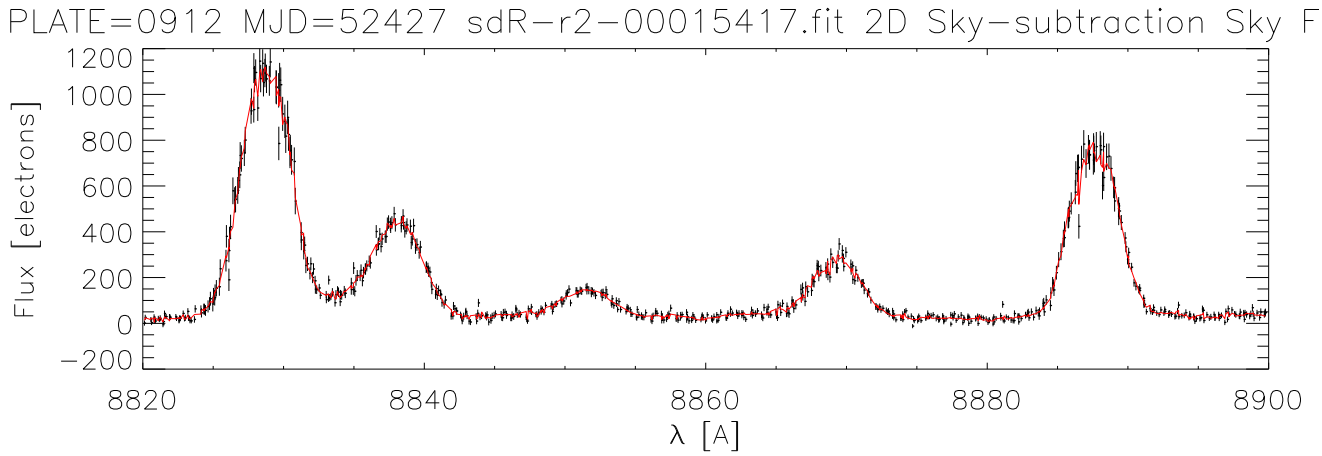

PLATE=0912 MJD=52427 sdR-r2-00015417.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-2
-1
0
1
2
3
4
50
100
150
200
250
300
Fiber number

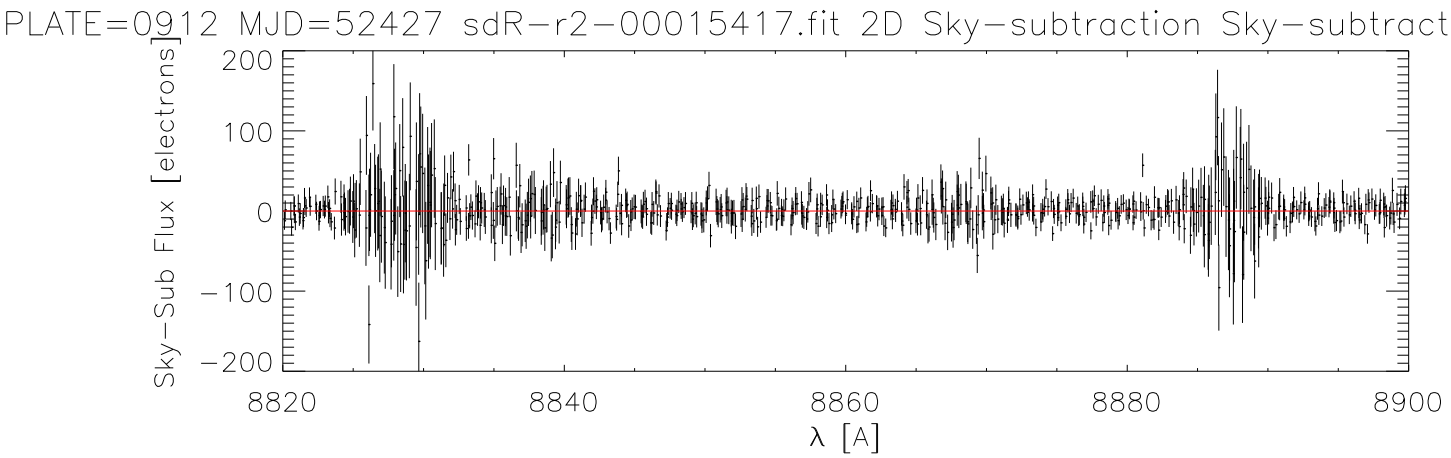

PLATE=0912 MJD=52427 sdR-r2-00015417.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
1200
1000
800
600
400
200
0
-200
8820
8840
8860
8880
8900
λ [A]

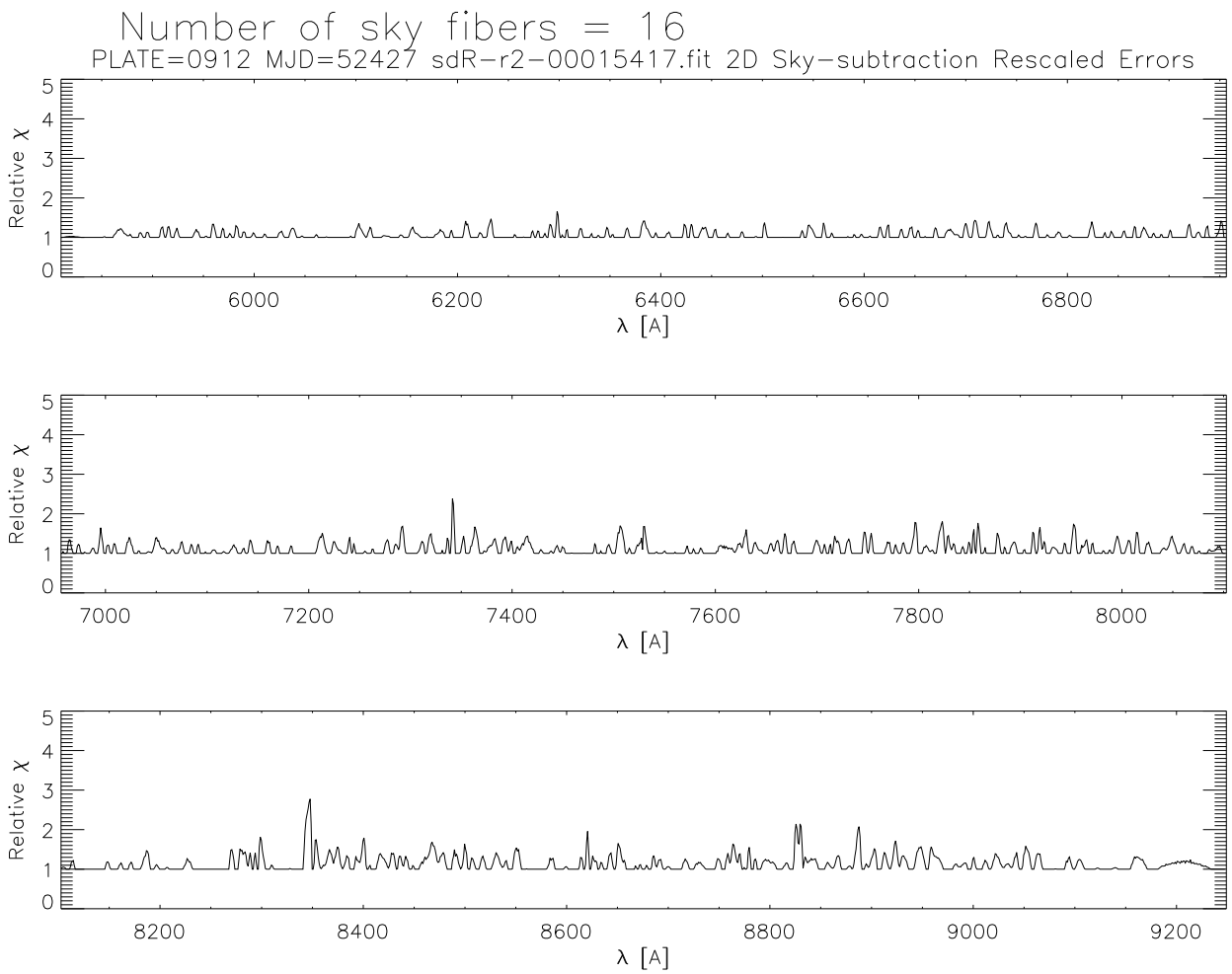

PLATE=0912 MJD=52427 sdR-r2-00015417.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
-300
8820
8840
8860
8880
8900
λ [A]

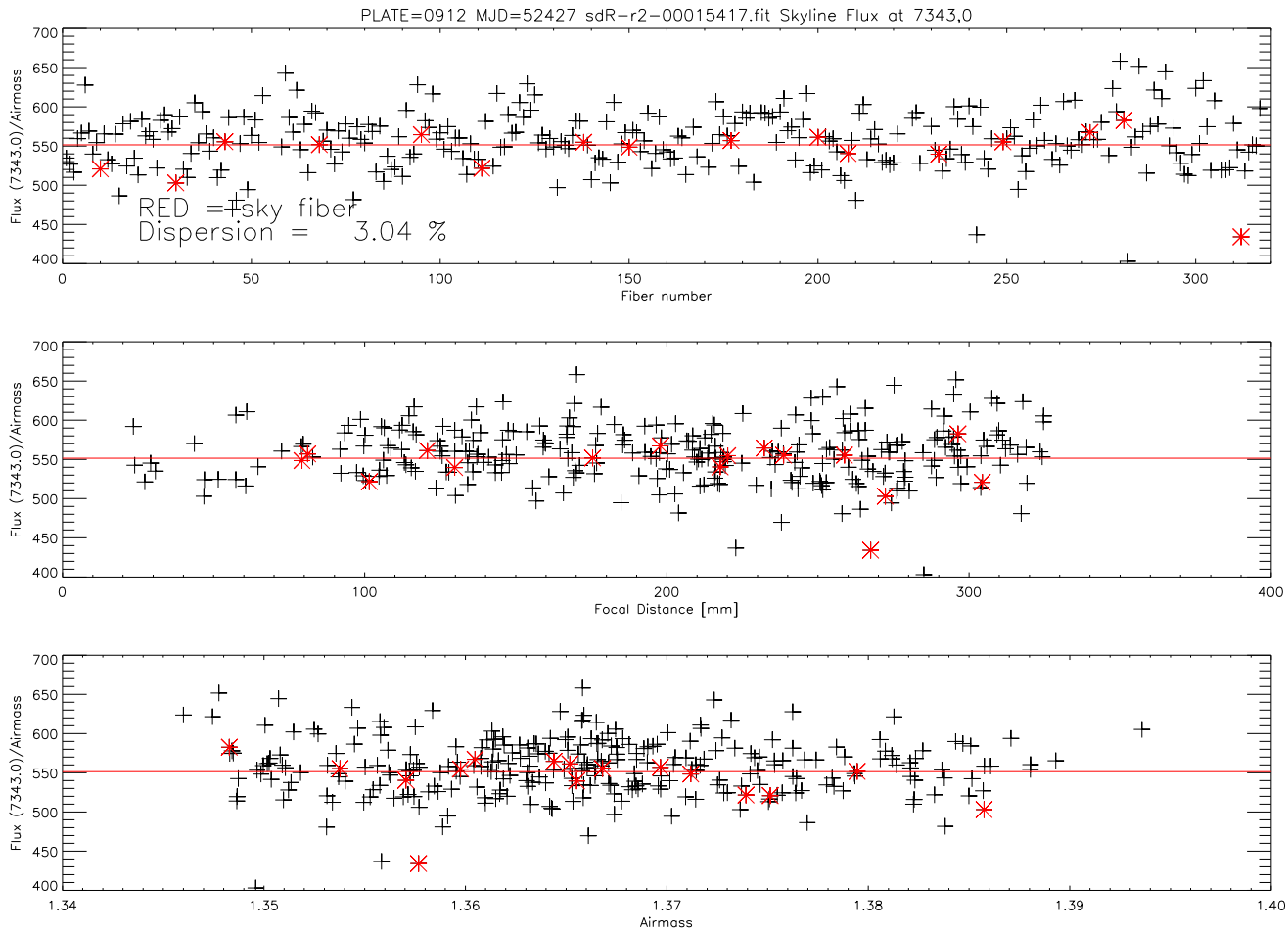

Number of sky fibers = 16
PLATE=0912 MJD=52427 sdR-r2-00015417.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

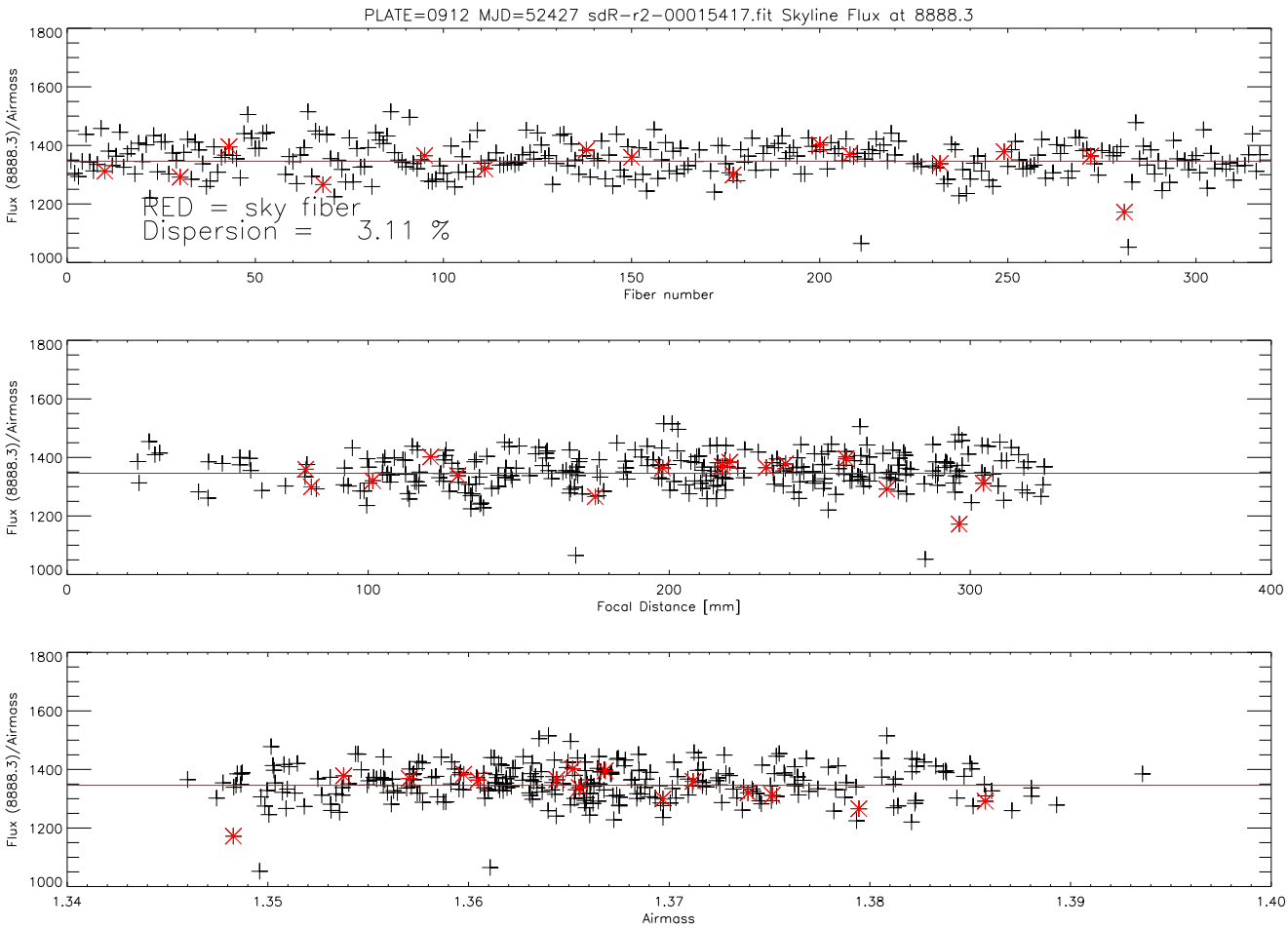

PLATE=0912 MJD=52427 sdR-r2-00015417.fit 2D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number


PLATE=0912 MJD=52427 sdR-r2-00015417.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
1200
1000
800
600
400
200
0
-200
8820
8840
8860
8880
8900
λ [A]


PLATE=0912 MJD=52427 sdR-r2-00015417.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 = 16
PLATE=0912 MJD=52427 sdR-r2-00015417.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=0912 MJD=52427 sdR-r2-00015417.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 3.04 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass


PLATE=0912 MJD=52427 sdR-r2-00015417.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 3.11 %
Fiber number
Focal Distance [mm]
Airmass