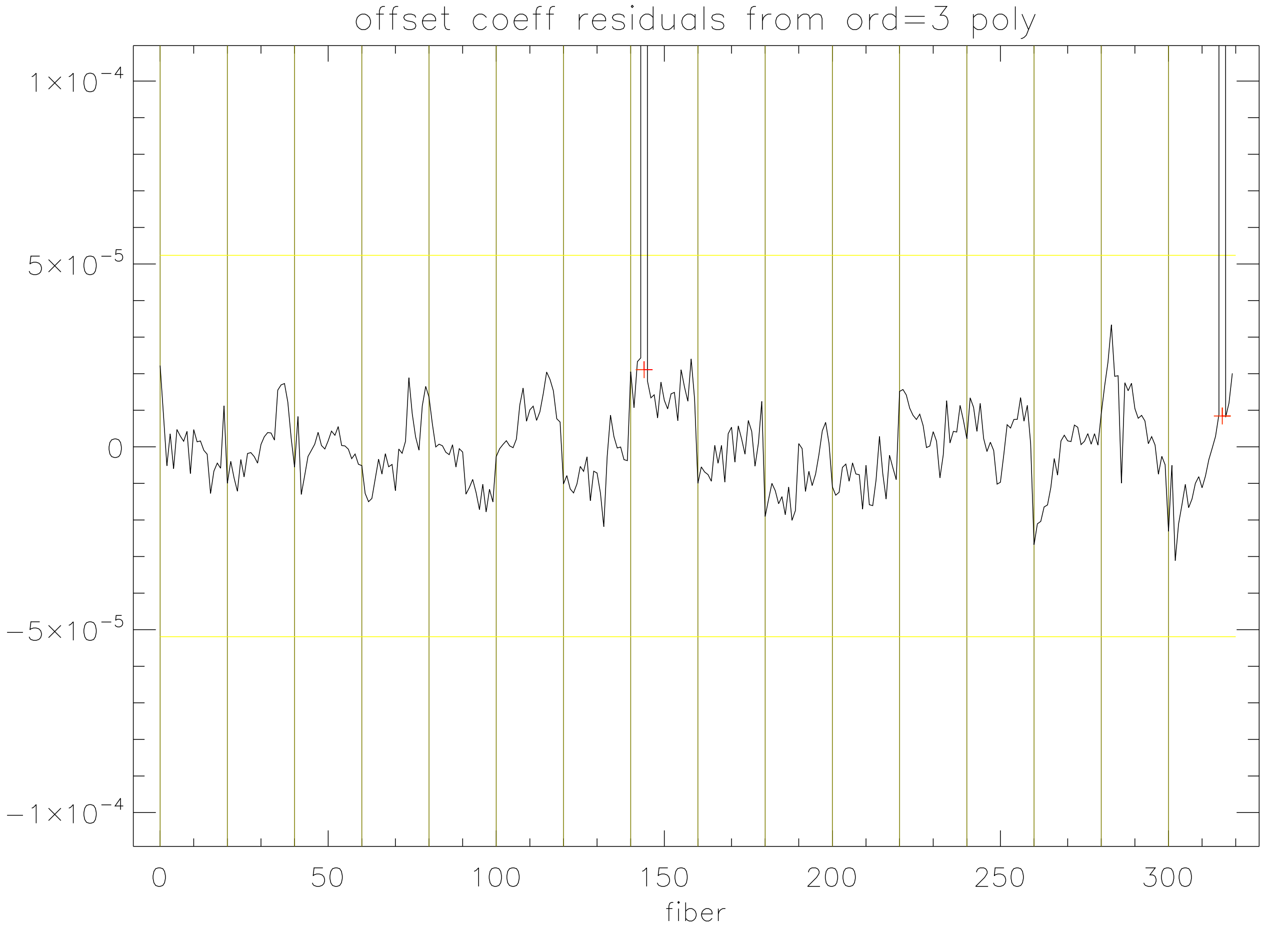
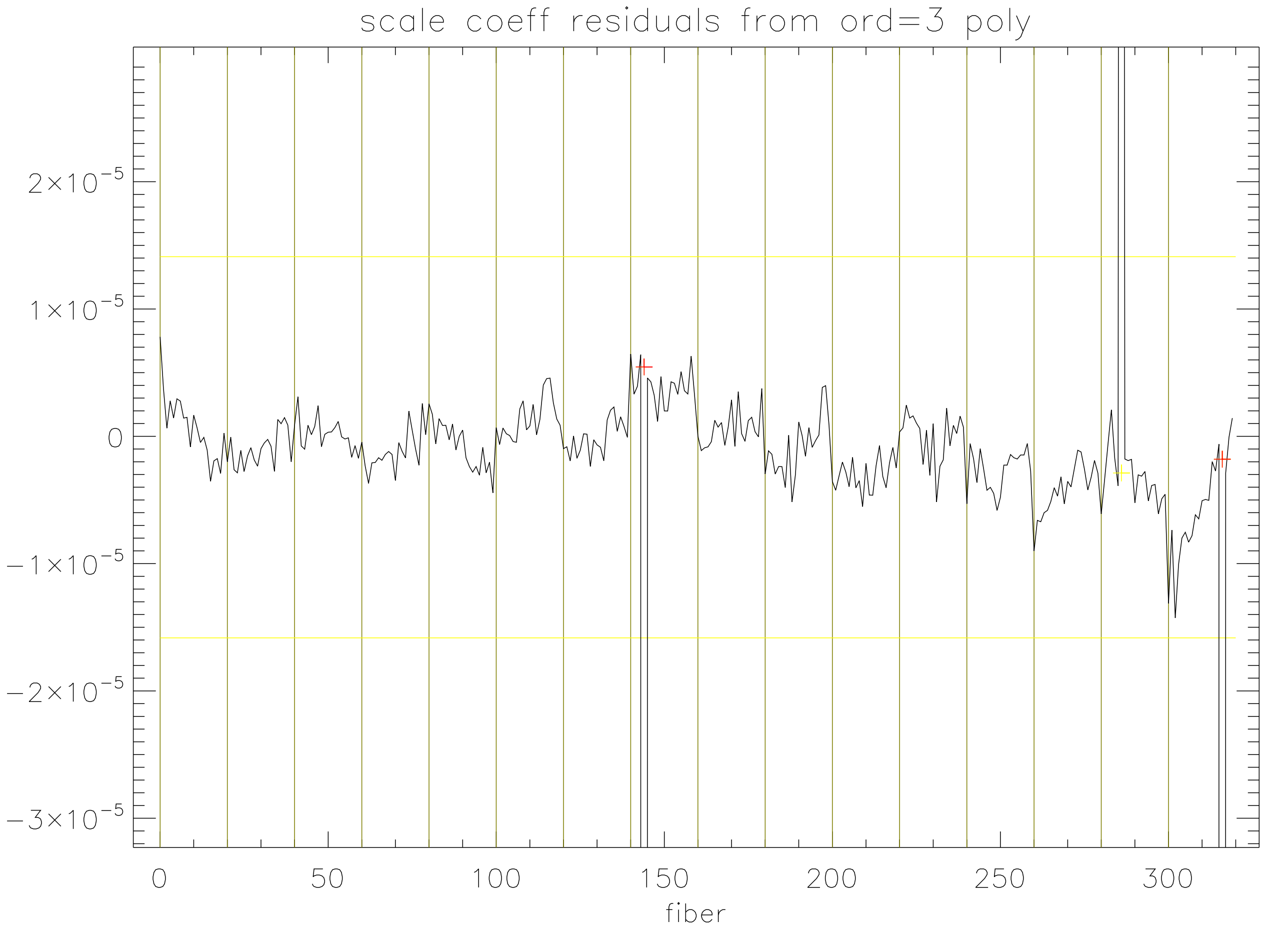
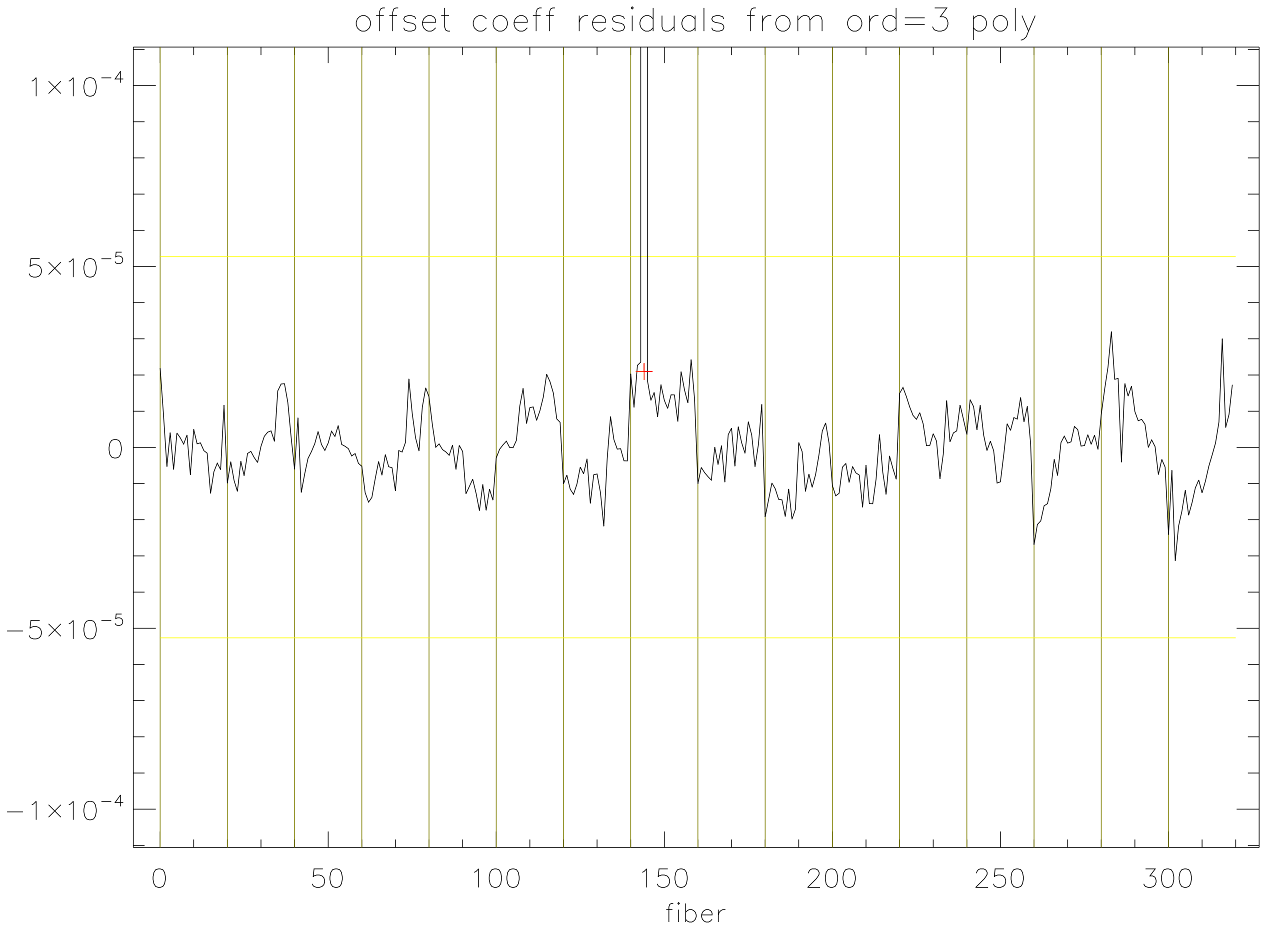
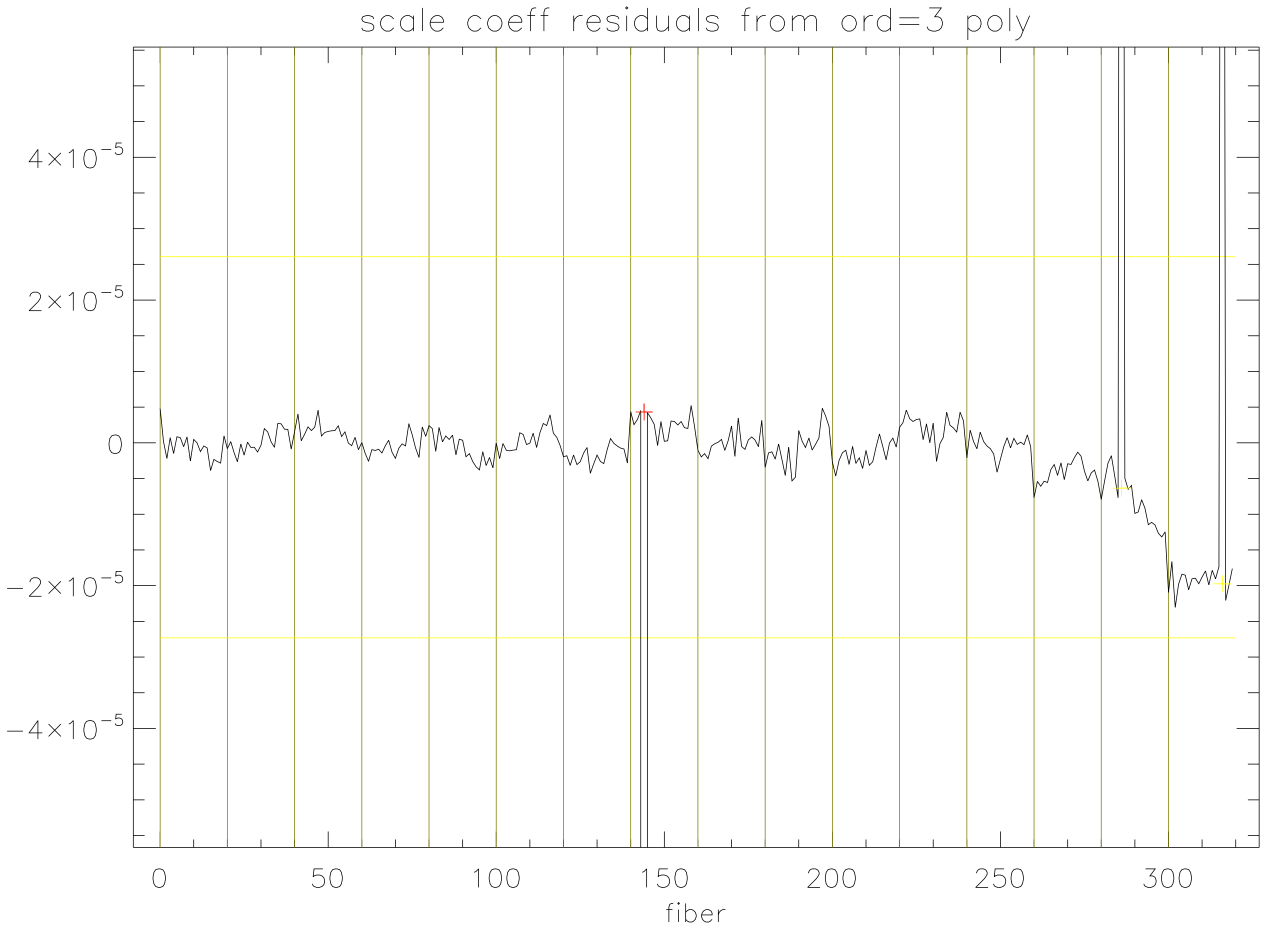
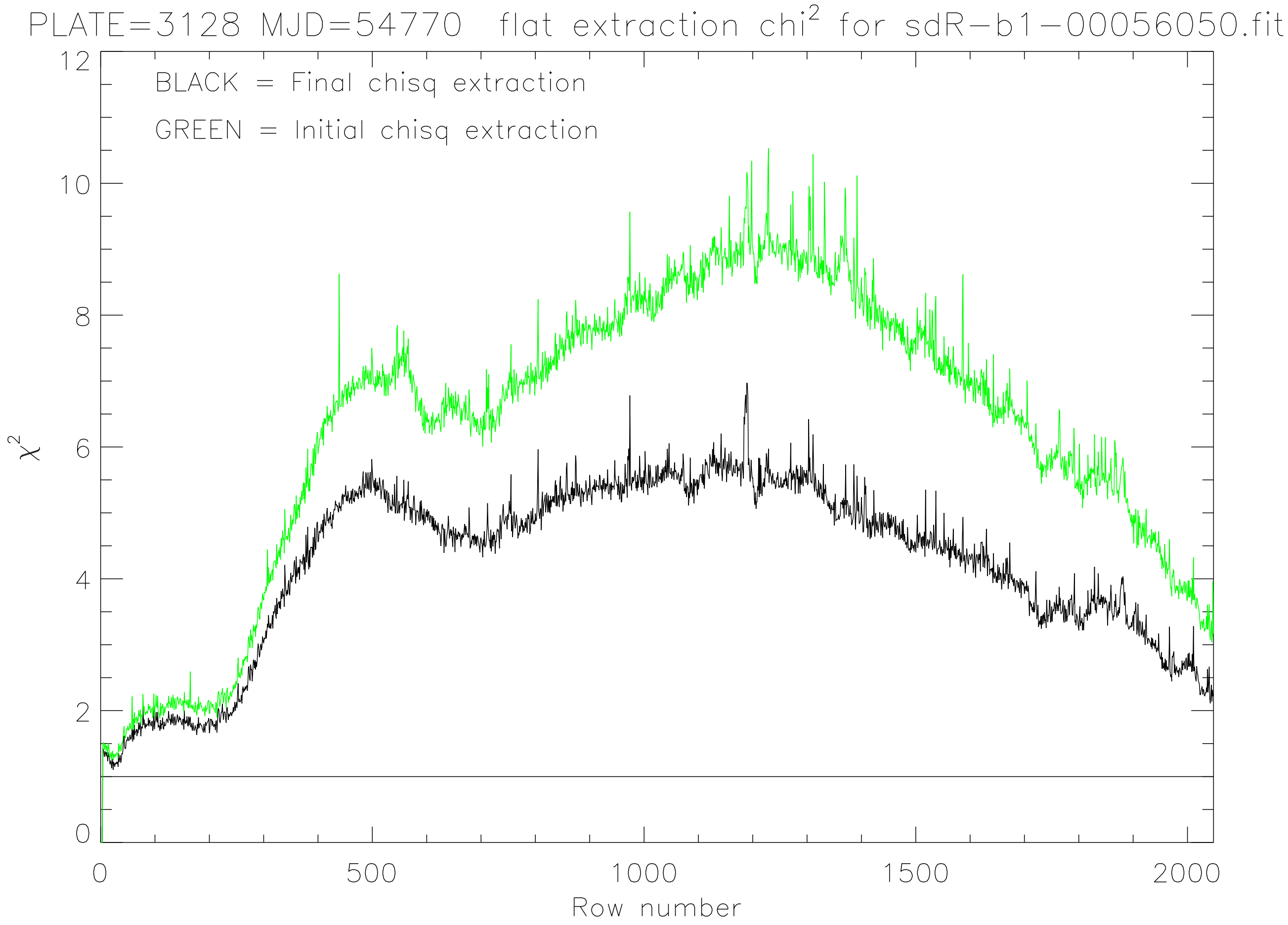

offset coeff residuals from ord=3 poly
$1\times10^{-4}$
$5\times10^{-5}$
0
$-5\times10^{-5}$
$-1\times10^{-4}$
0
50
100
150
200
250
300
fiber

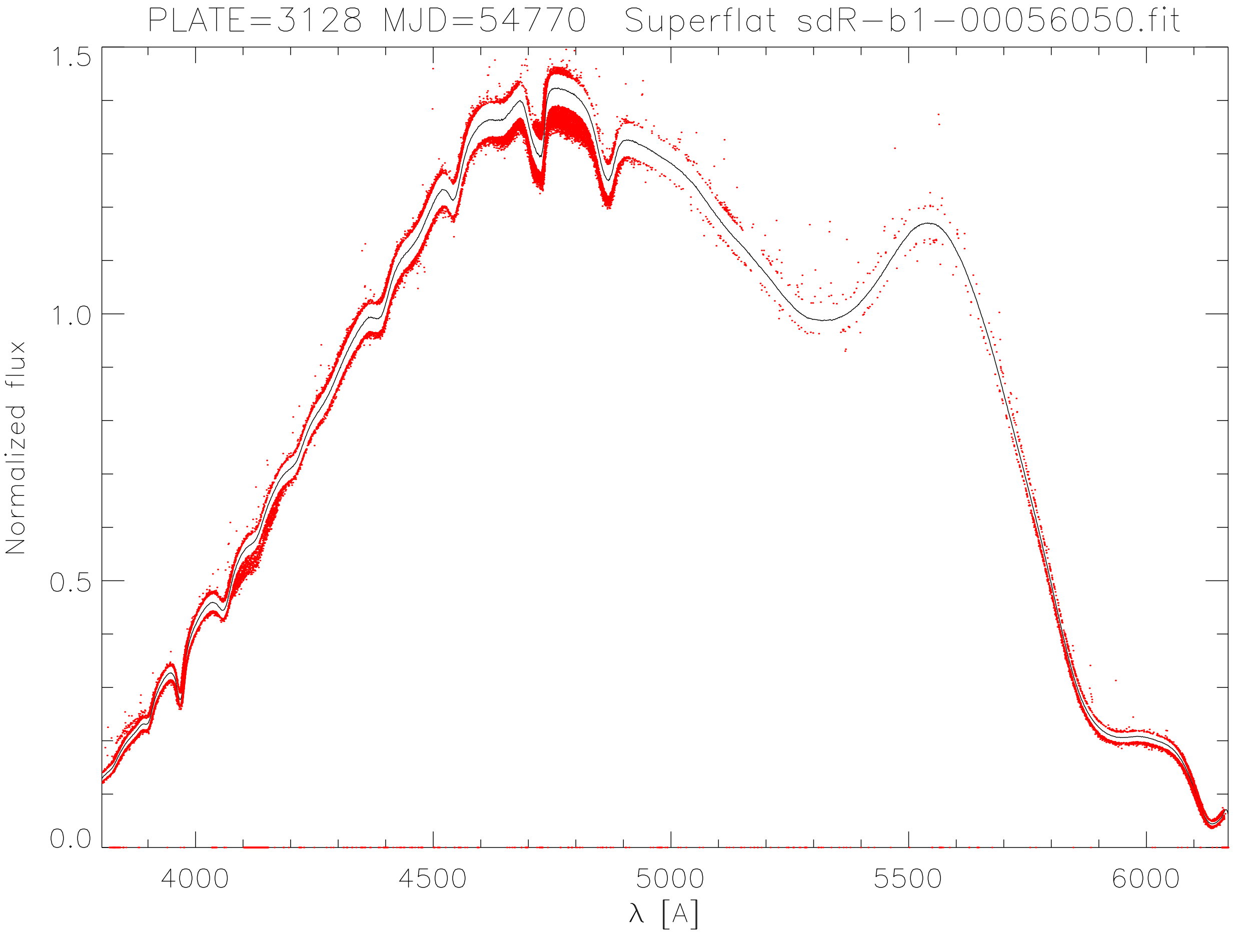

scale coeff residuals from ord=3 poly
2×10⁻⁵
1×10⁻⁵
0
−1×10⁻⁵
−2×10⁻⁵
−3×10⁻⁵
0
50
100
150
200
250
300
fiber

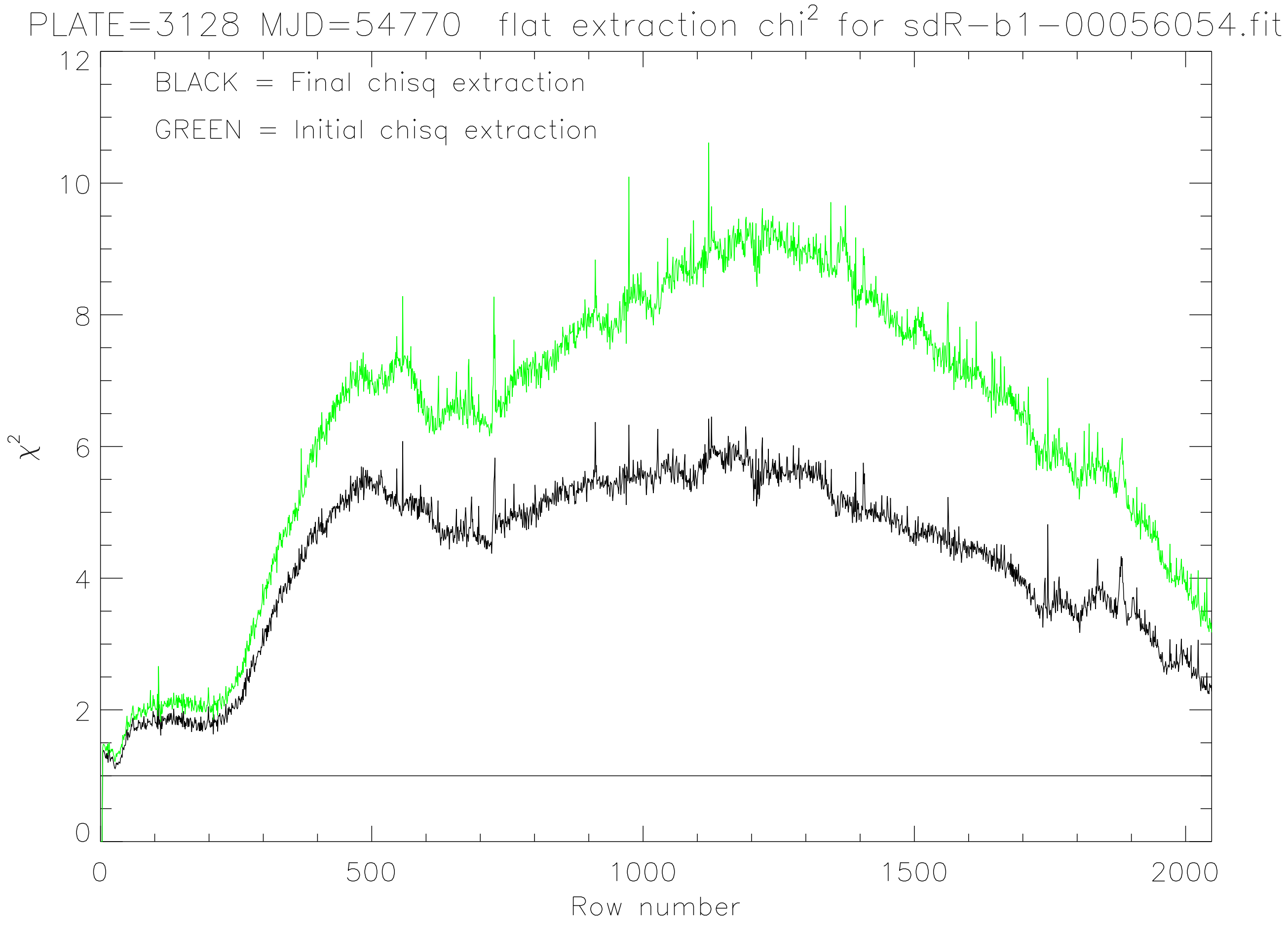

offset coeff residuals from ord=3 poly
$1\times10^{-4}$
$5\times10^{-5}$
0
$-5\times10^{-5}$
$-1\times10^{-4}$
0
50
100
150
200
250
300
fiber

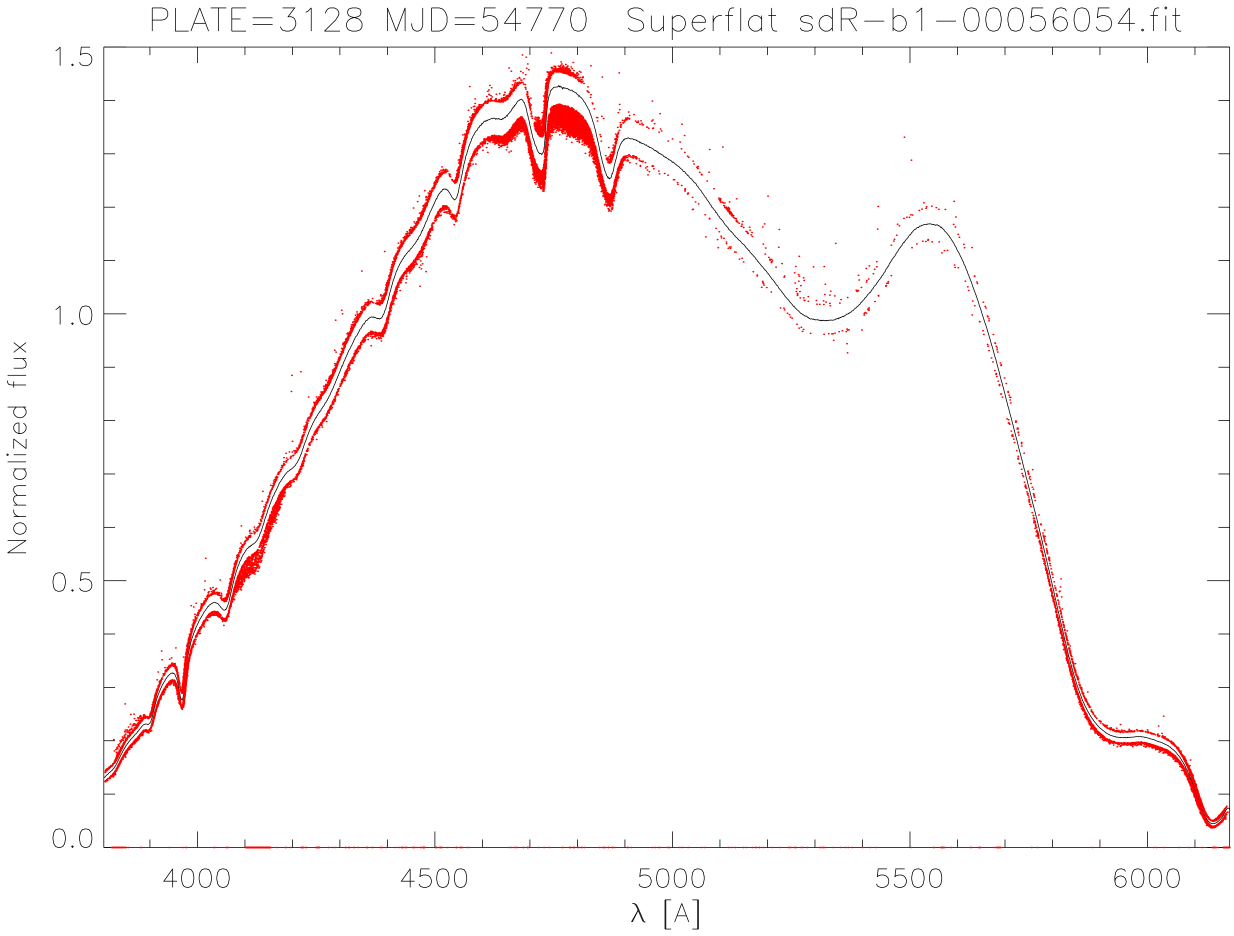


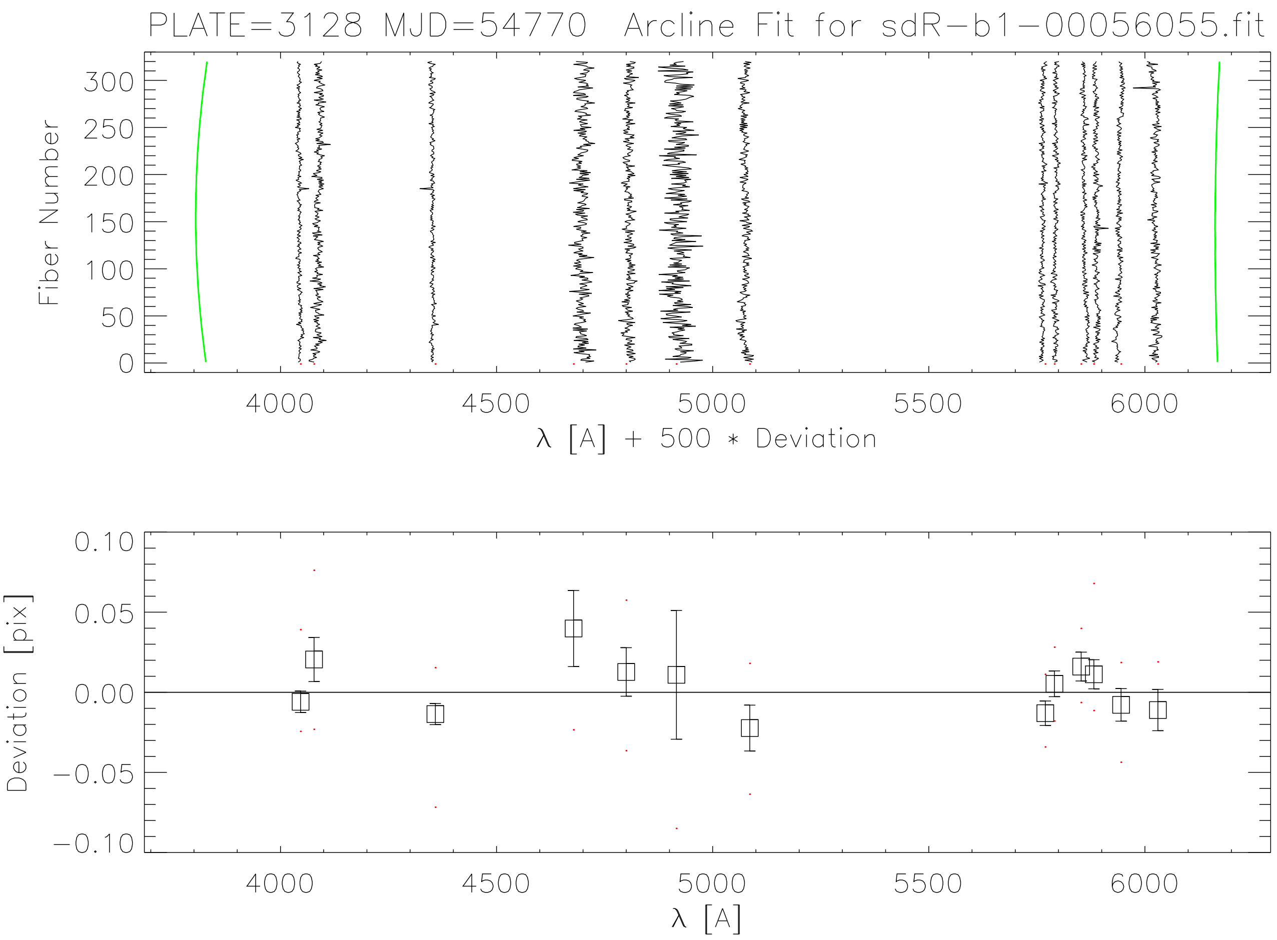
scale coeff residuals from ord=3 poly
$4\times10^{-5}$
$2\times10^{-5}$
0
$-2\times10^{-5}$
$-4\times10^{-5}$
0
50
100
150
200
250
300
fiber


PLATE=3128 MJD=54770 flat extraction chi$^2$ for sdR-b1-00056050.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
$\chi^2$
0
2
4
6
8
10
12
0
500
1000
1500
2000
Row number


PLATE=3128 MJD=54770 Superflat sdR-b1-00056050.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

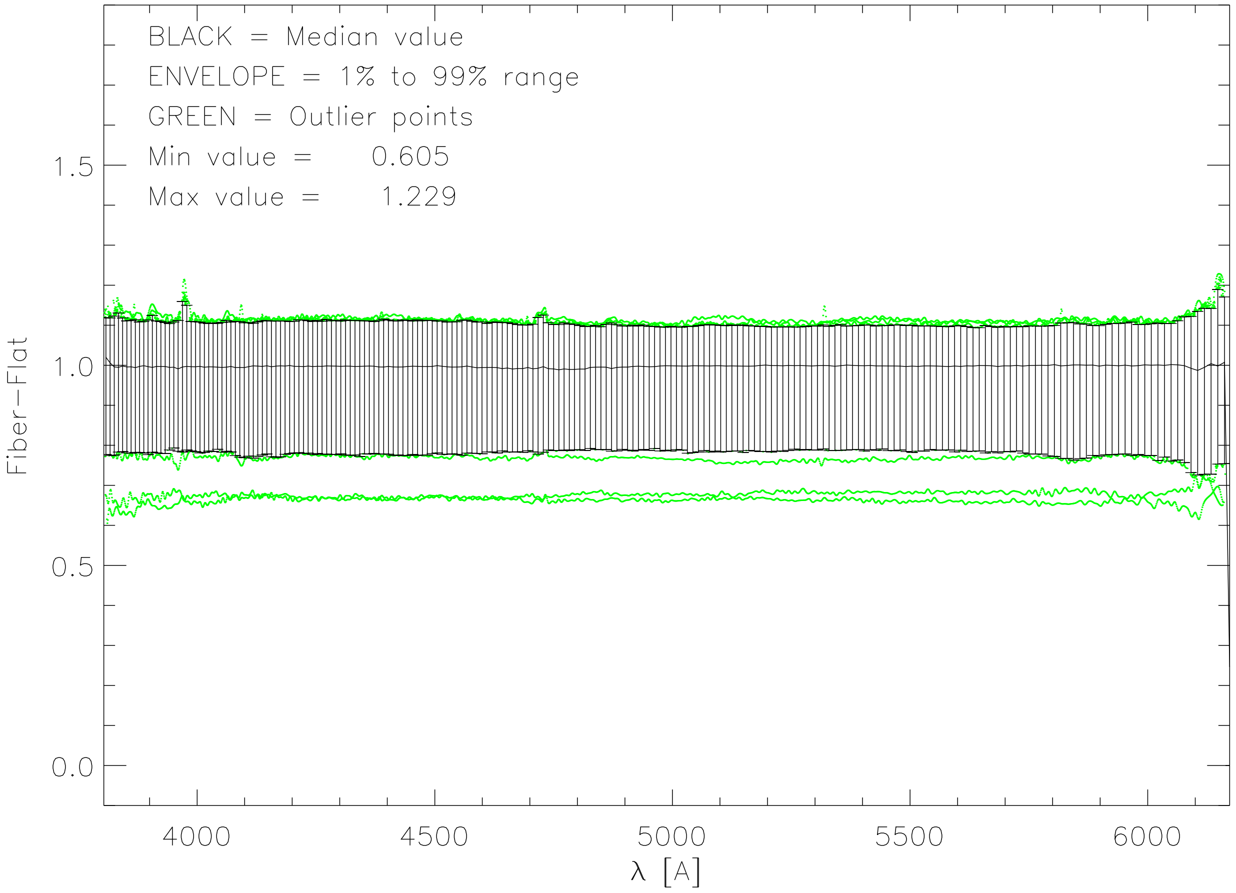

PLATE=3128 MJD=54770 flat extraction chi$^2$ for sdR-b1-00056054.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
$\chi^2$
0
2
4
6
8
10
12
0
500
1000
1500
2000
Row number


PLATE=3128 MJD=54770 Superflat sdR-b1-00056054.fit
Normalized flux
0.0
0.5
1.0
1.5
4000
4500
5000
5500
6000
λ [A]

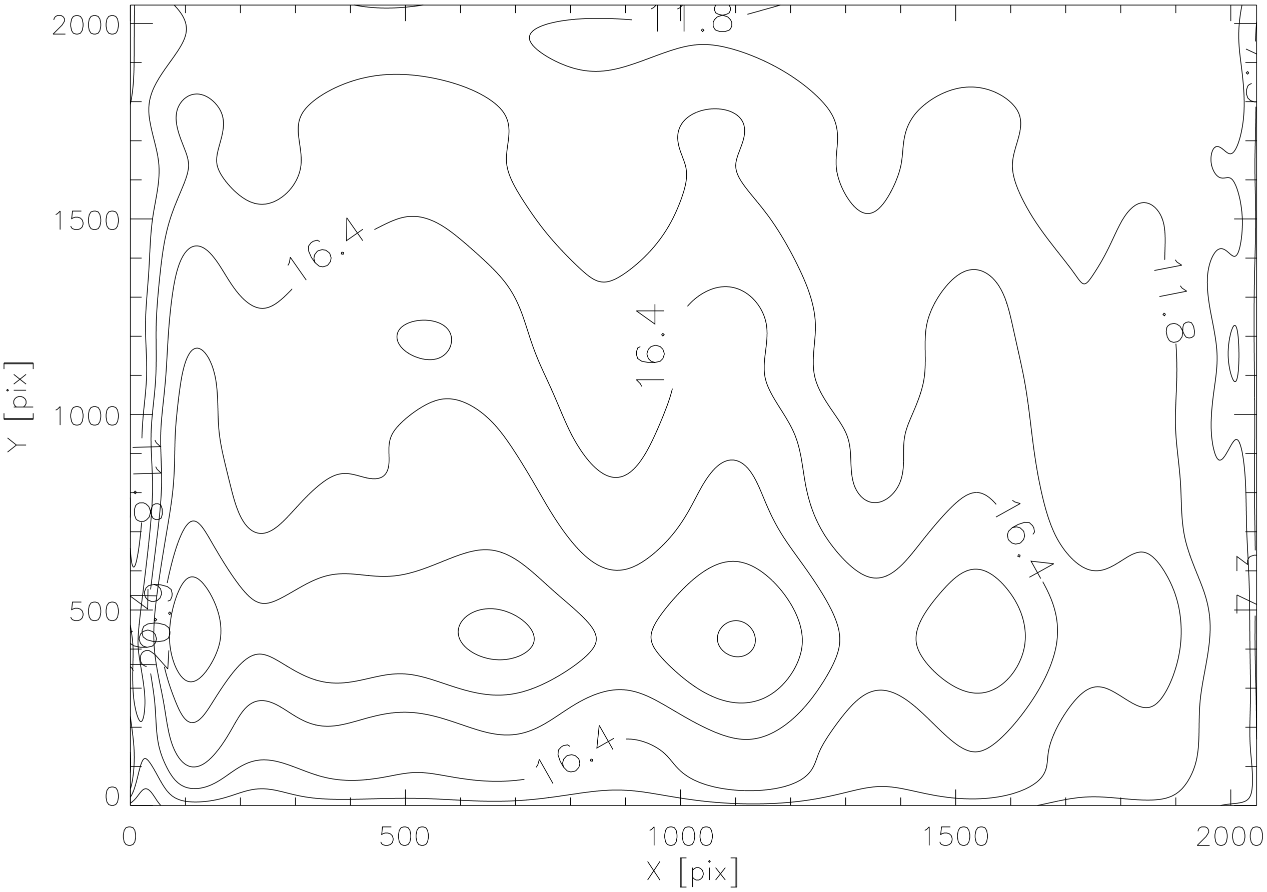


Wed Mar 10 15:30:40 2010

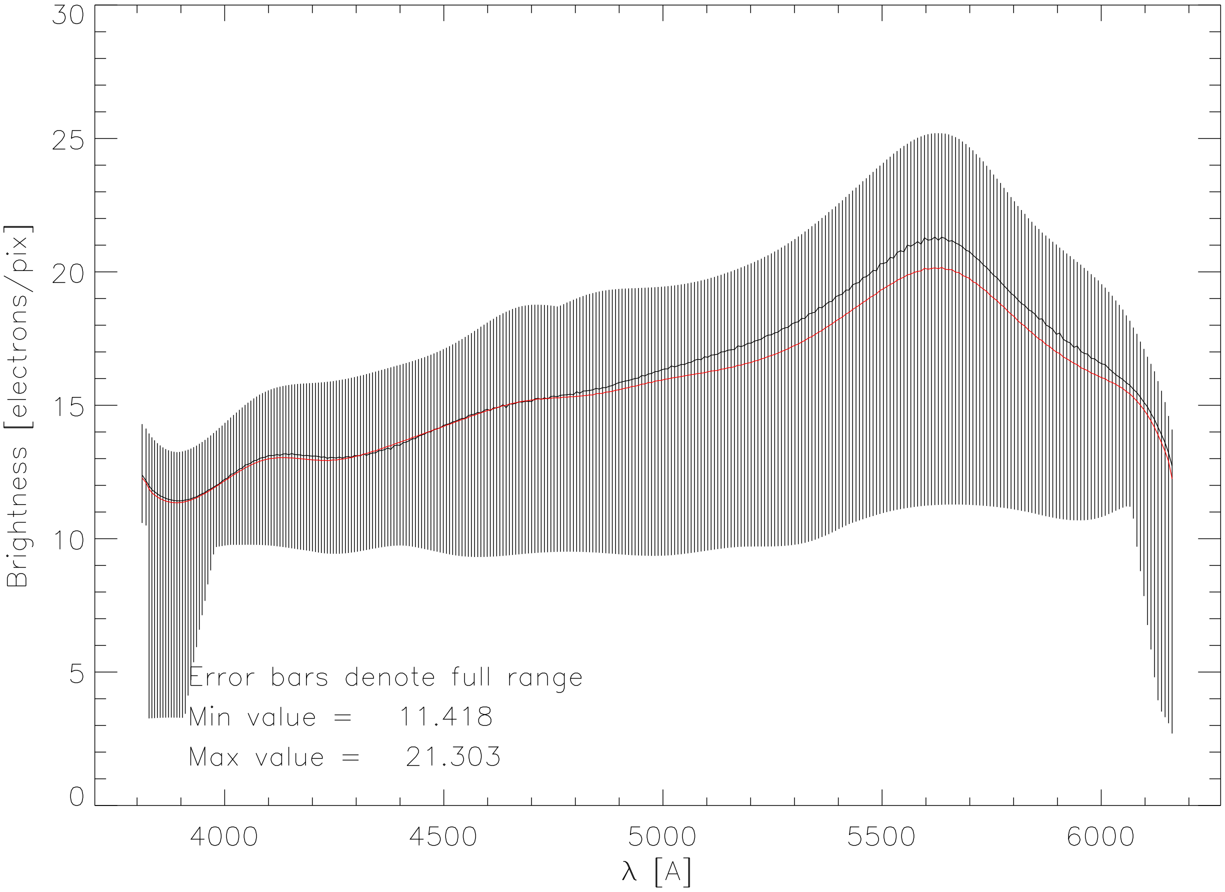
PLATE=3128 MJD=54770 Fiber-Flats for sdR-b1-00056054.fit



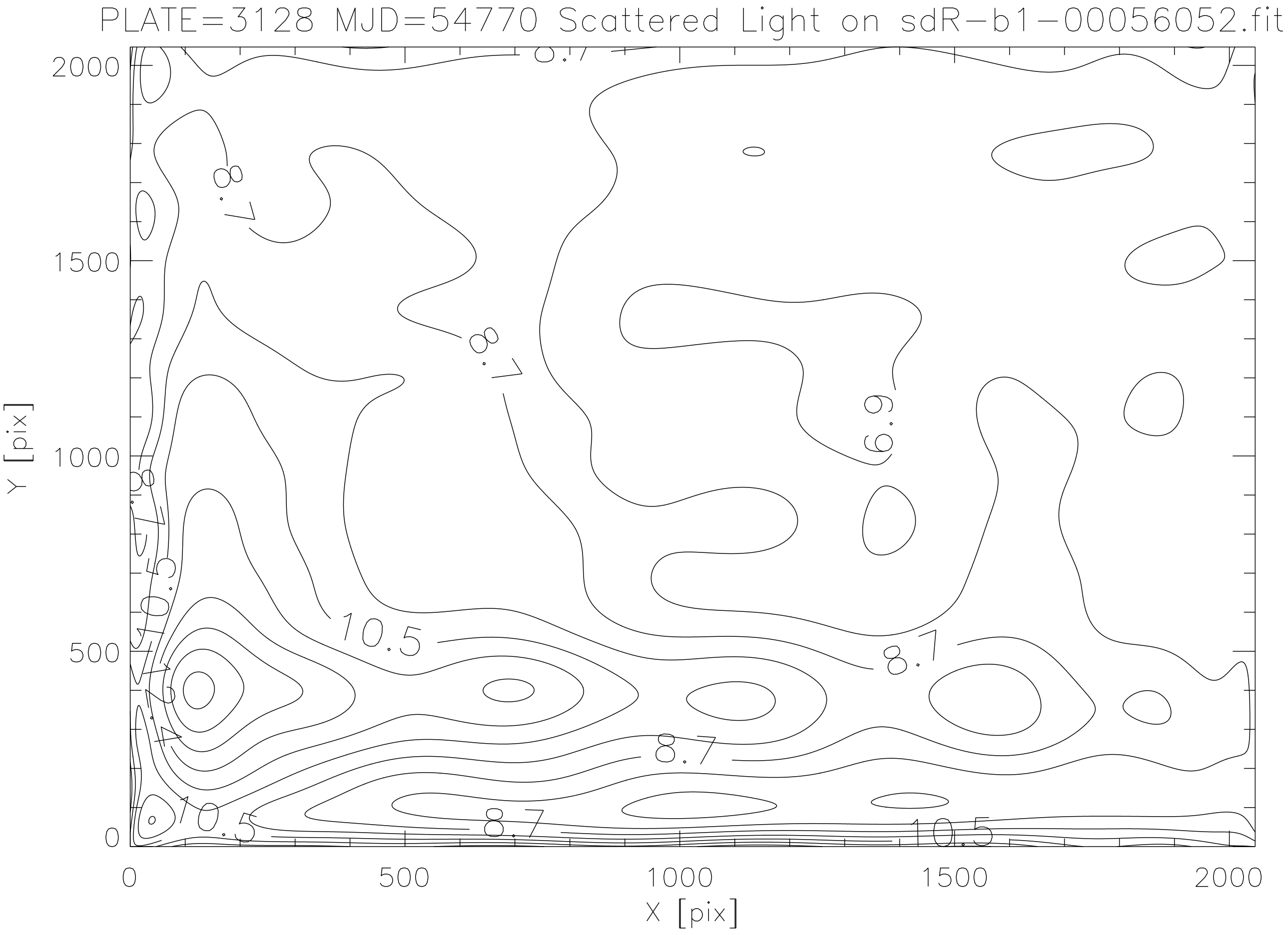
Wed Mar 10 15:30:51 2010


PLATE=3128 MJD=54770 Scattered Light before halo removal on sdR-b1-00056052.f

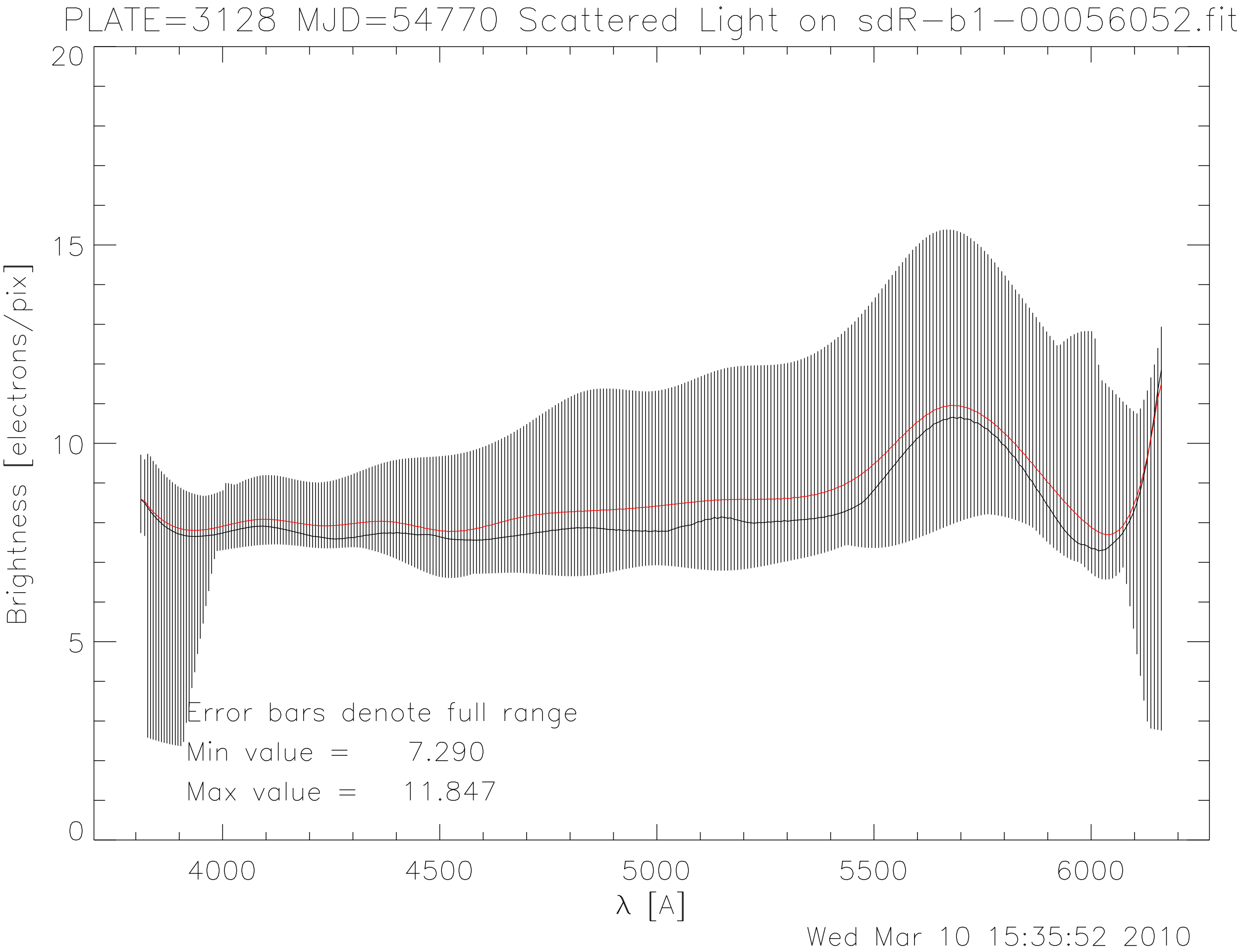
PLATE=3128 MJD=54770 Scattered Light before halo removal on sdR-b1-00056052.f

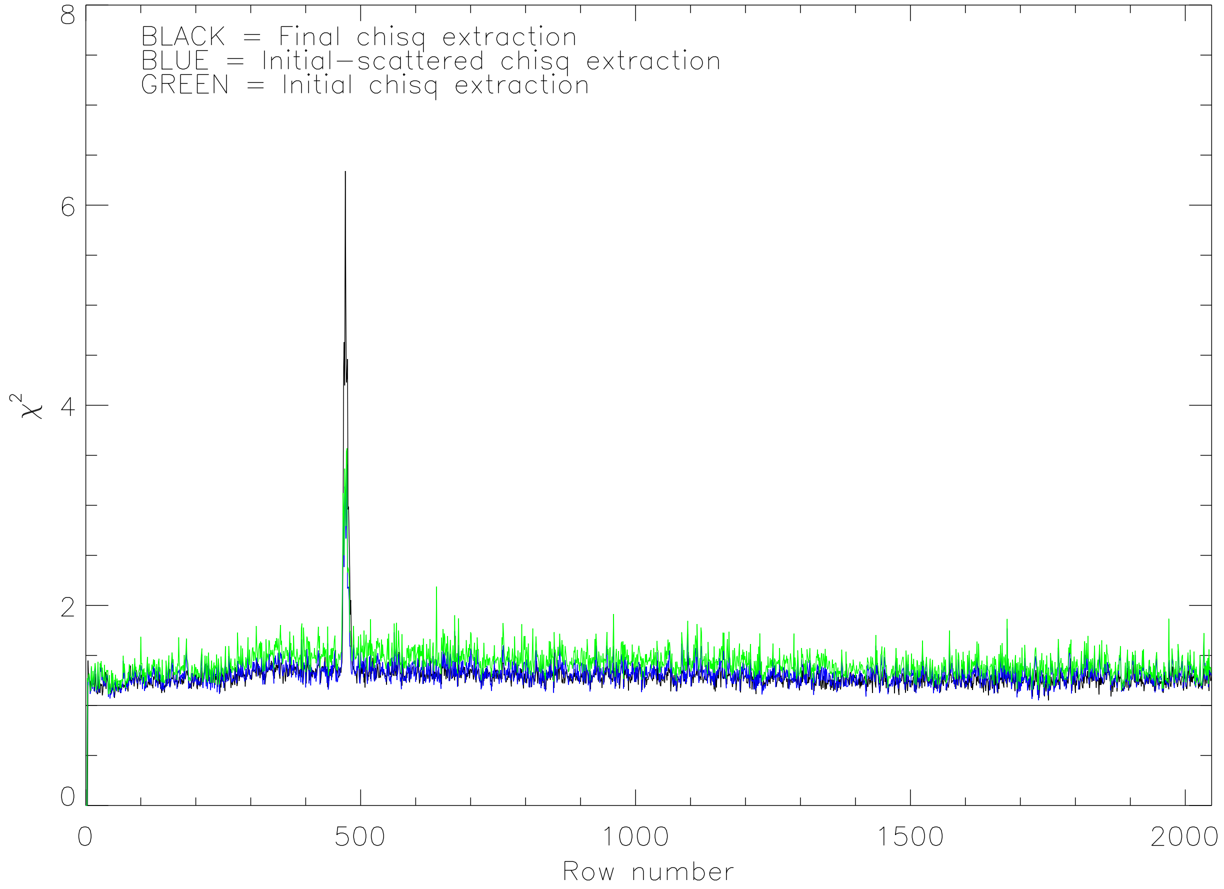


Wed Mar 10 15:31:55 2010

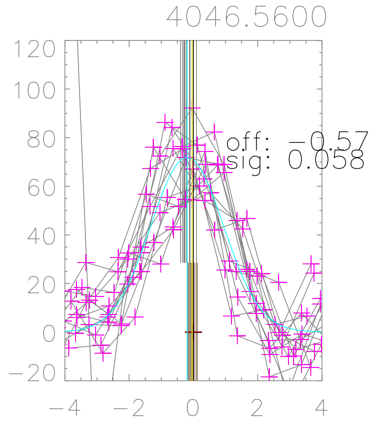


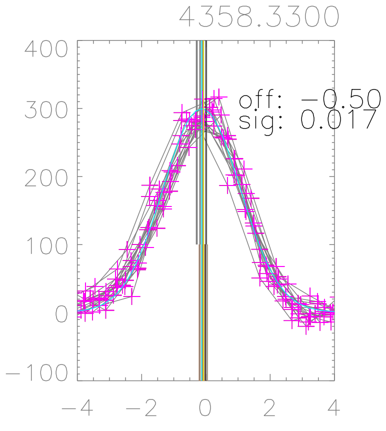
PLATE=3128 MJD=54770 Scattered Light on sdR-b1-00056052.fit

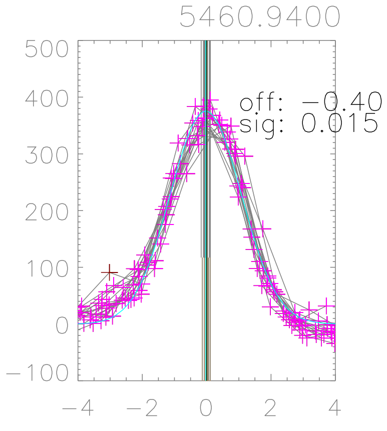

PLATE=3128 MJD=54770 Scattered Light on sdR-b1-00056052.fit
Brightness [electrons/pix]
λ [A]
0
5
10
15
20
4000
4500
5000
5500
6000
Error bars denote full range
Min value = 7.290
Max value = 11.847
Wed Mar 10 15:35:52 2010

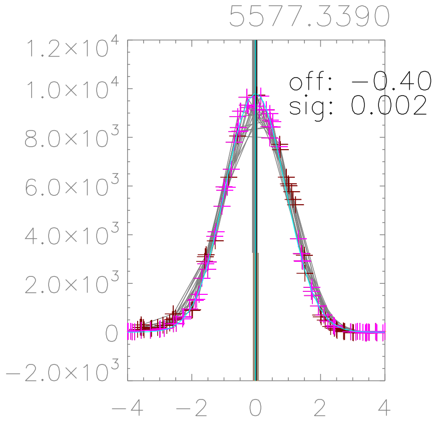


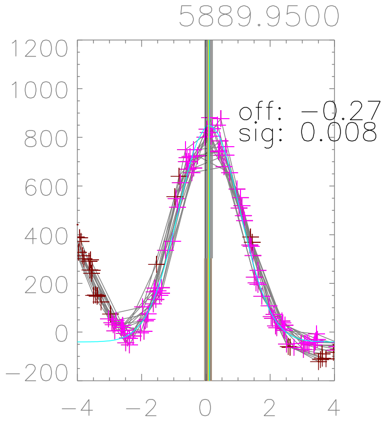
PLATE=3128 MJD=54770 Extraction $\mathrm{chi}^2$ for sdR-b1-00056052.fit

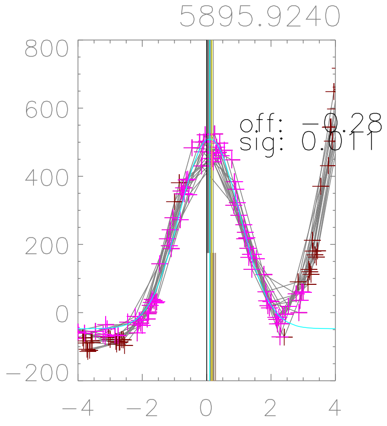

4046.5600
off: −0.57
sig: 0.058
120
100
80
60
40
20
0
−20
−4
−2
0
2
4

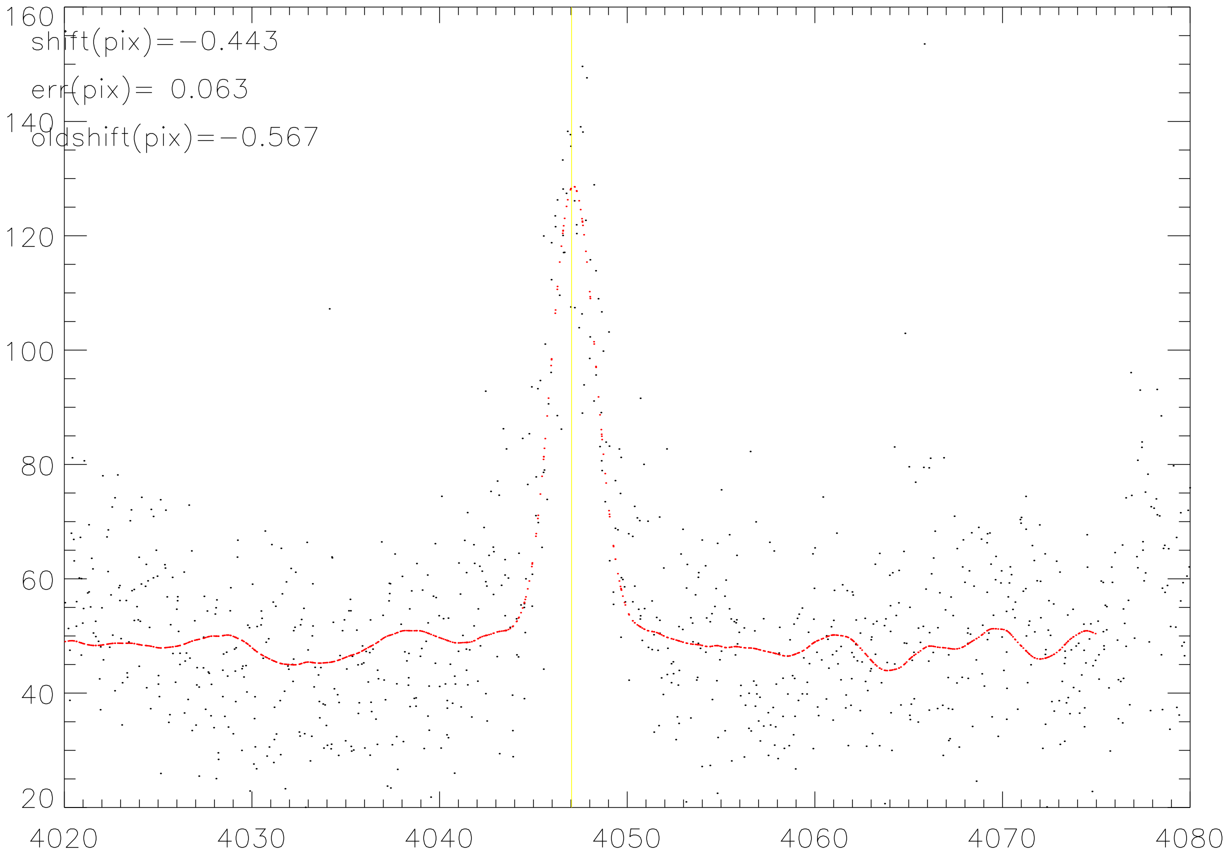

4358.3300
off: −0.50
sig: 0.017
400
300
200
100
0
−100
−4
−2
0
2
4


5460.9400
off: −0.40
sig: 0.015
500
400
300
200
100
0
−100
−4
−2
0
2
4

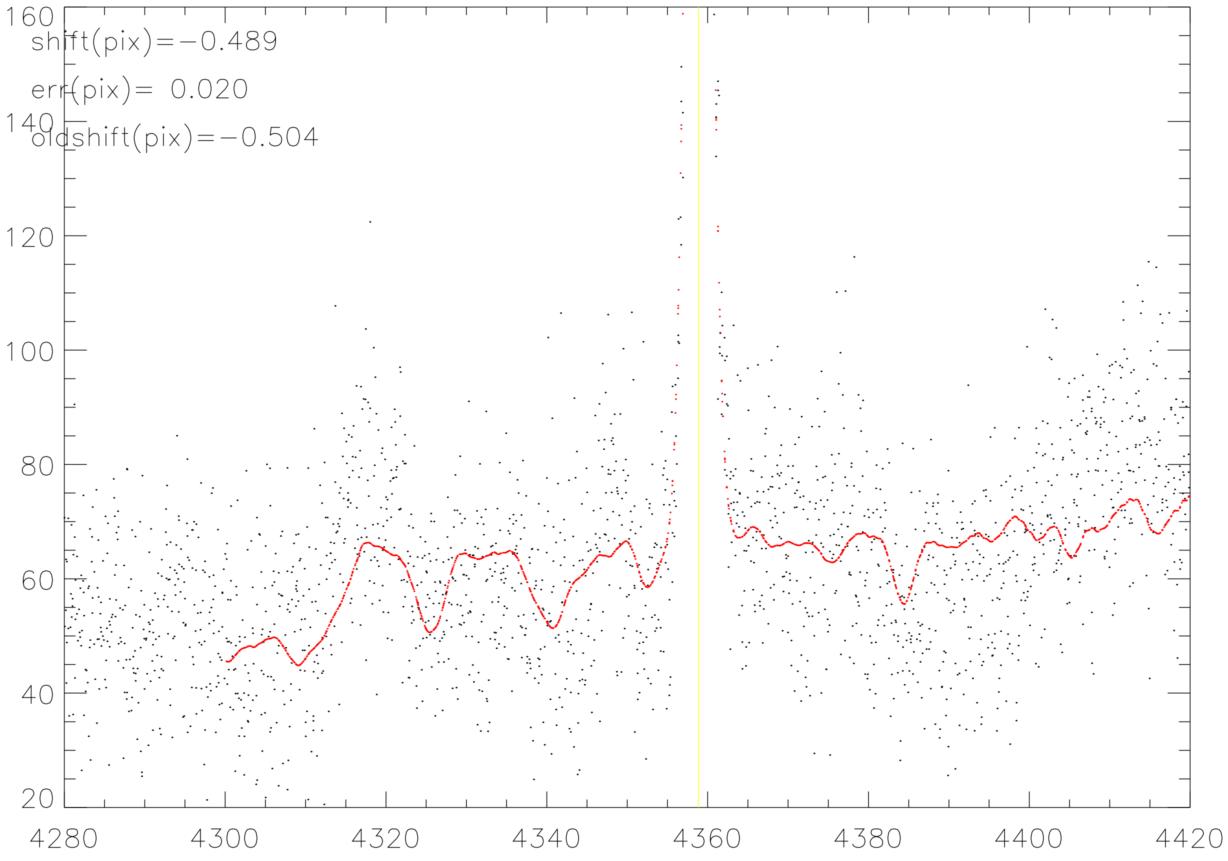

5577.3390
off: −0.40
sig: 0.002
1.2×10^4
1.0×10^4
8.0×10^3
6.0×10^3
4.0×10^3
2.0×10^3
0
−2.0×10^3
−4
−2
0
2
4

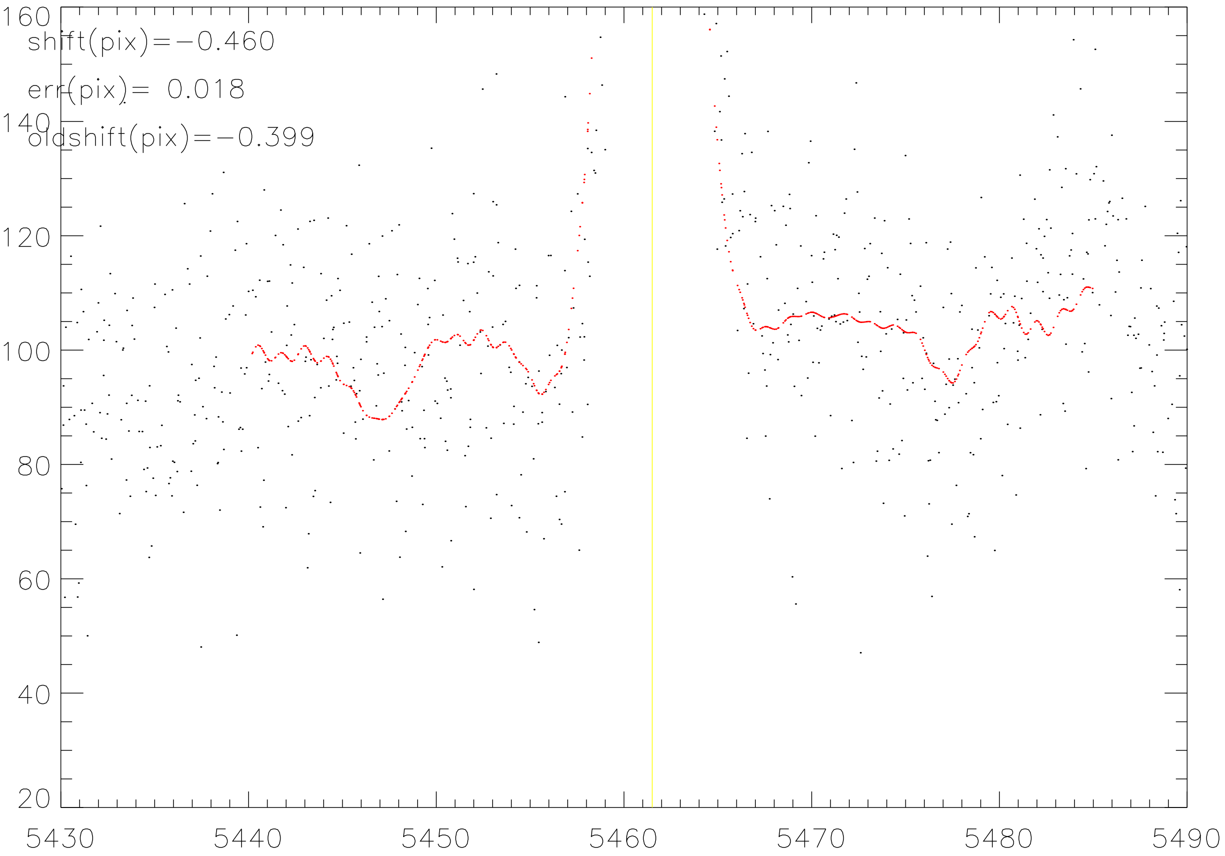

5889.9500
off: −0.27
sig: 0.008
1200
1000
800
600
400
200
0
−200
−4
−2
0
2
4

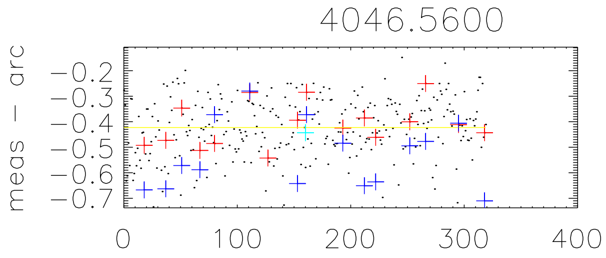

5895.9240
off: −0.28
sig: 0.011
800
600
400
200
0
−200
−4
−2
0
2
4

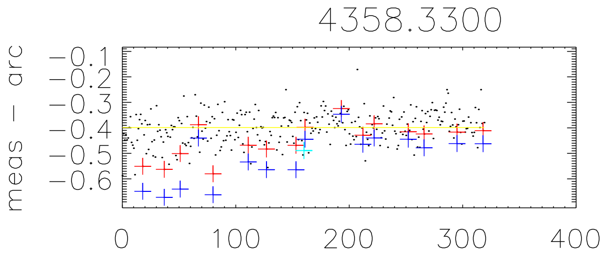


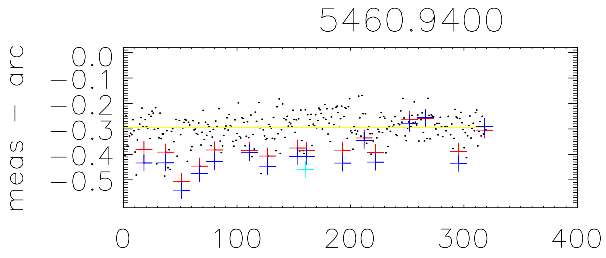
shift(pix)=−0.443
err(pix)= 0.063
oldshift(pix)=−0.567
160
140
120
100
80
60
40
20
4020
4030
4040
4050
4060
4070
4080

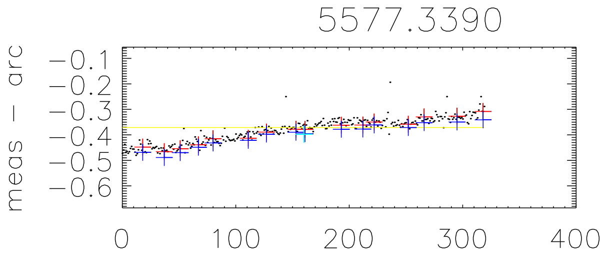

shift(pix)=−0.489
err(pix)= 0.020
oldshift(pix)=−0.504
160
140
120
100
80
60
40
20
4280
4300
4320
4340
4360
4380
4400
4420

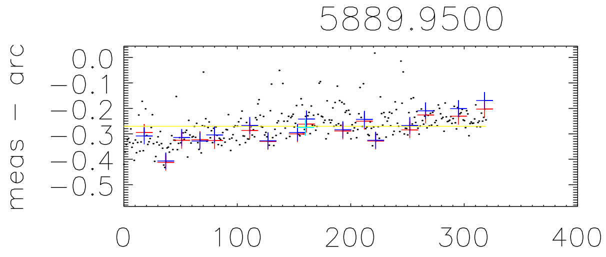

shift(pix)=−0.460
err(pix)= 0.018
oldshift(pix)=−0.399
160
140
120
100
80
60
40
20
5430
5440
5450
5460
5470
5480
5490

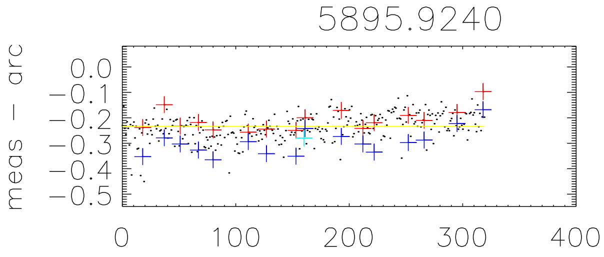

4046.5600
meas − arc
−0.2
−0.3
−0.4
−0.5
−0.6
−0.7
0
100
200
300
400

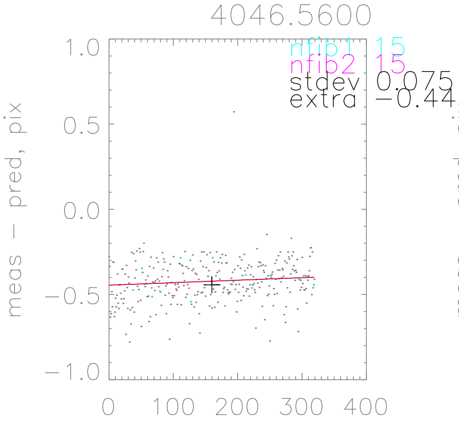

4358.3300
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

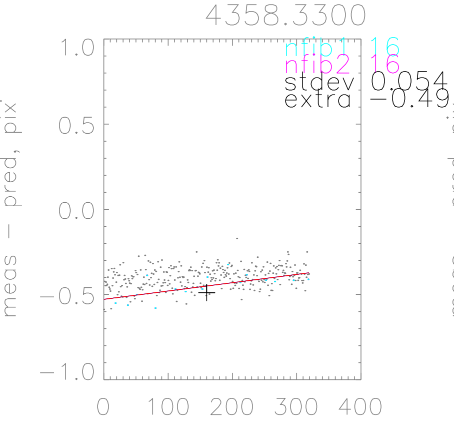

5460.9400
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

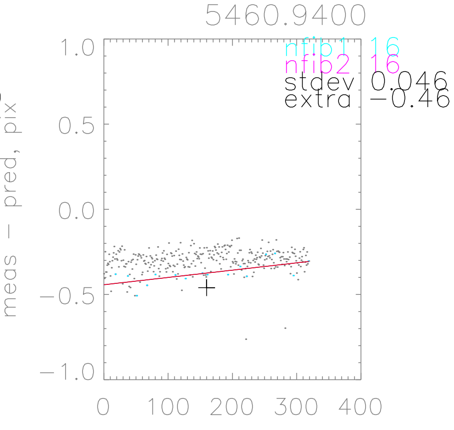

5577.3390
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

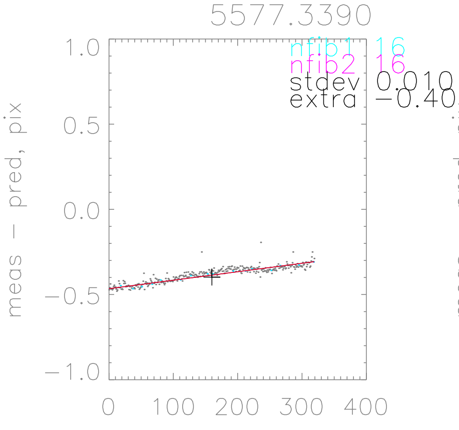

5889.9500
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

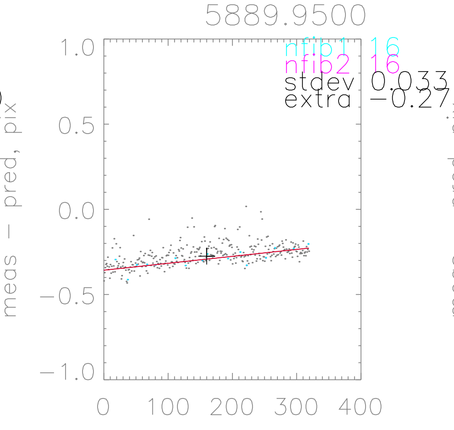

5895.9240
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

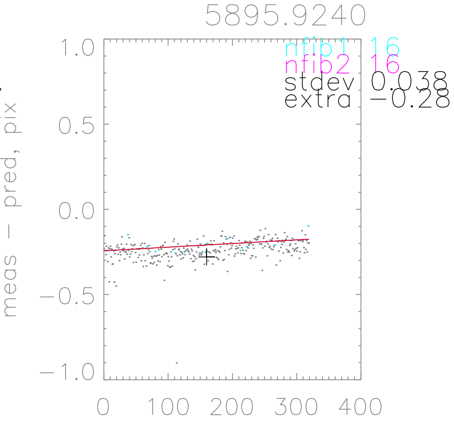

4046.5600
nfib1 15
nfib2 15
stdev 0.075
extra −0.44
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

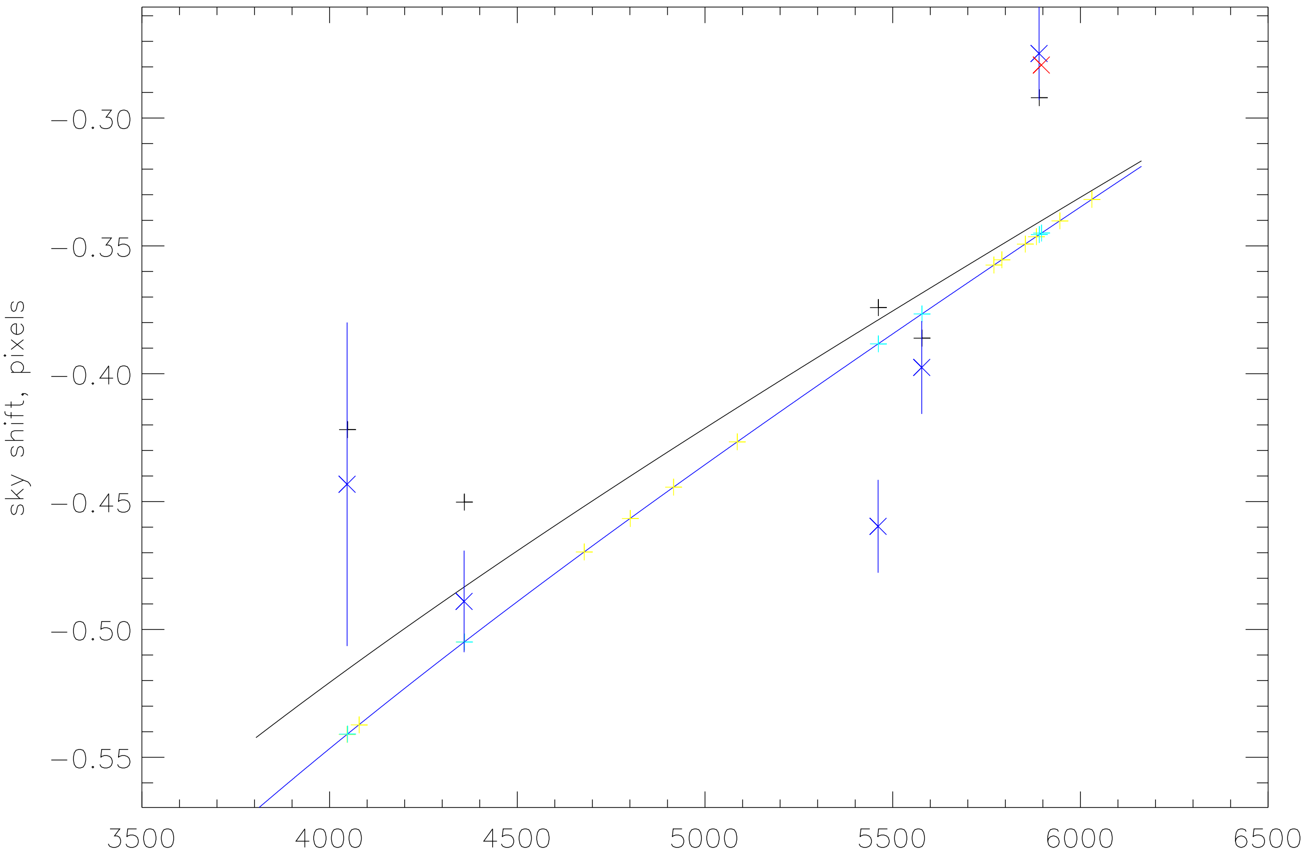

4358.3300
nfib1 16
nfib2 16
stdev 0.054
extra −0.49
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

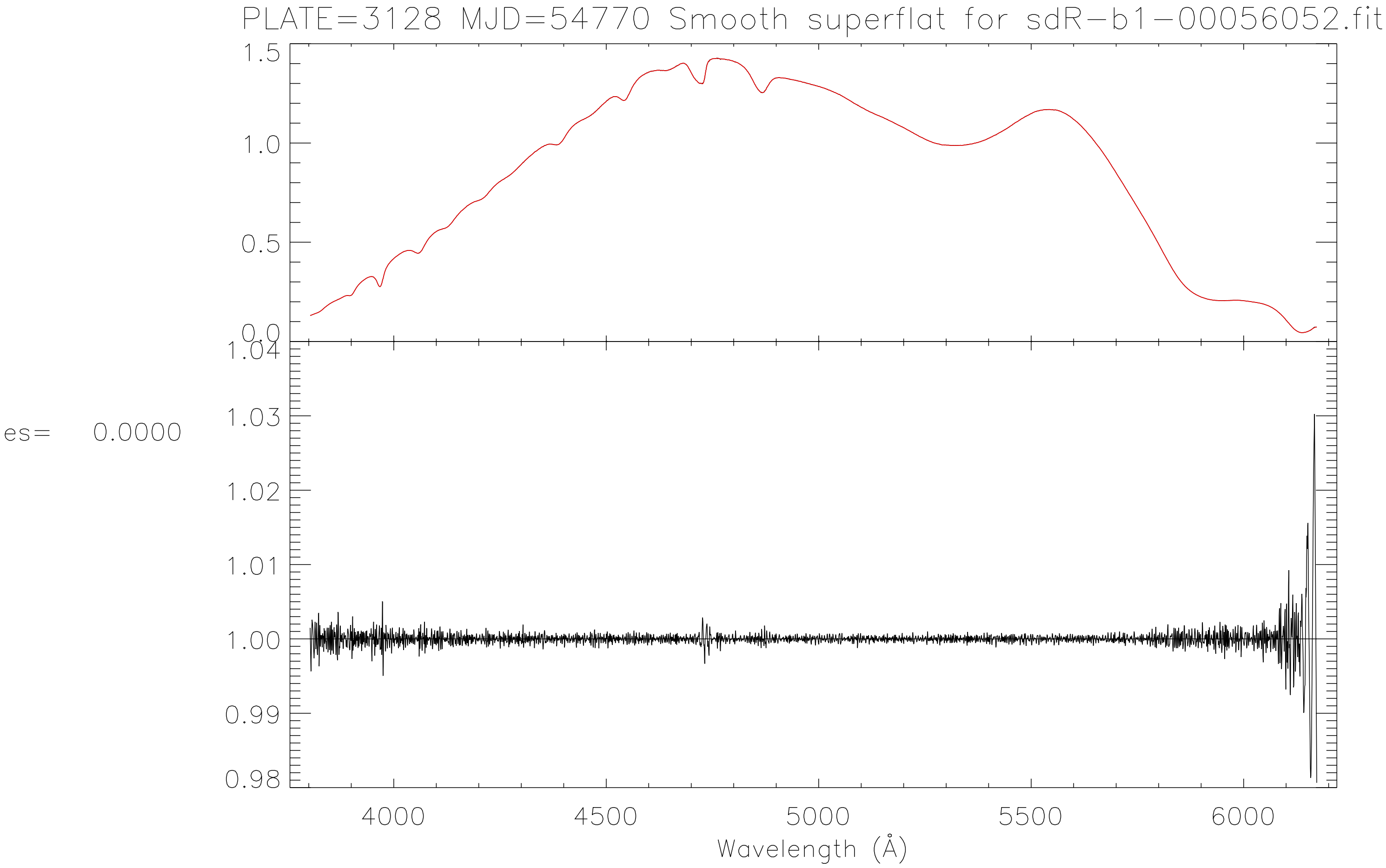

5460.9400
nfib1 16
nfib2 16
stdev 0.046
extra −0.46
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

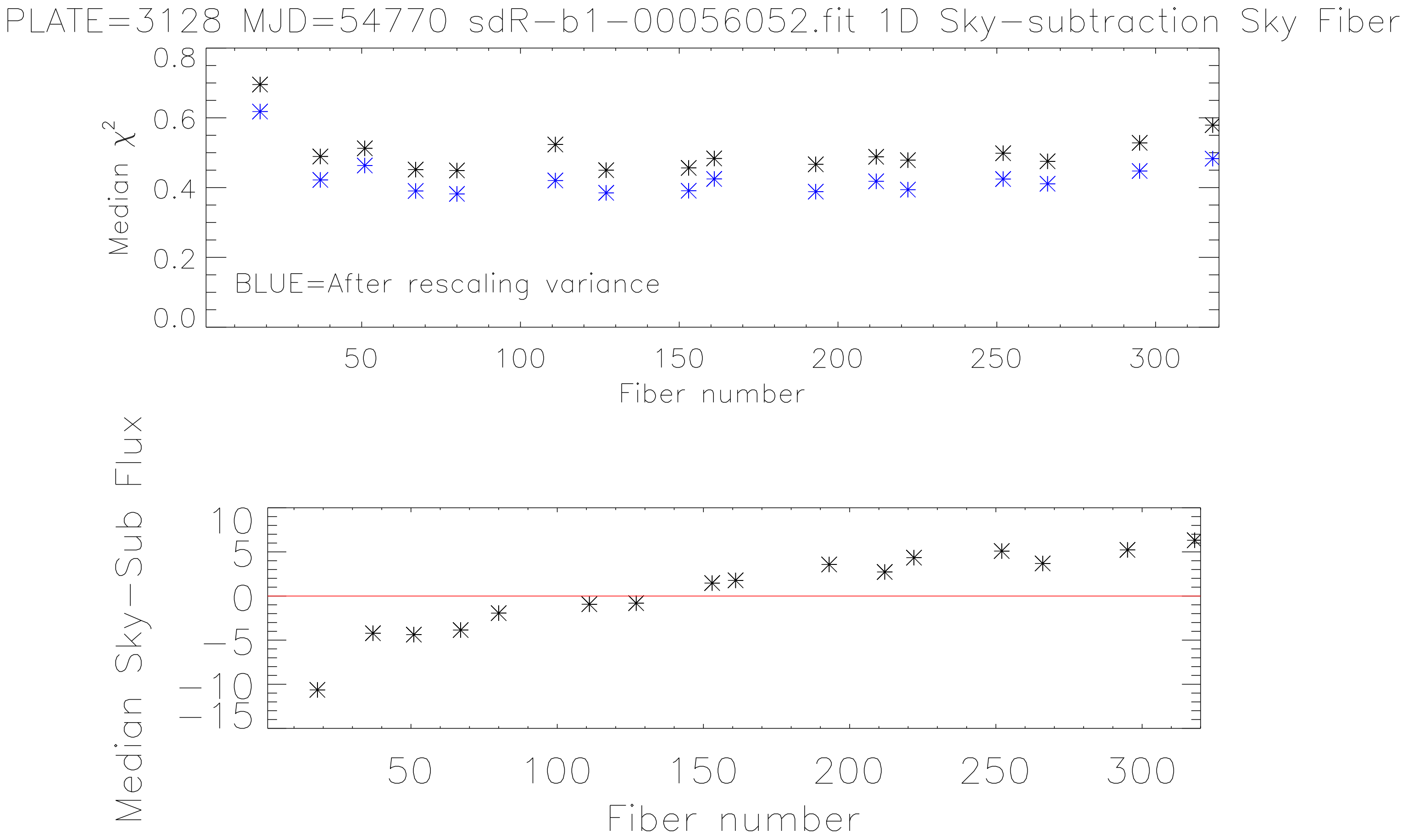

5577.3390
nfib1 16
nfib2 16
stdev 0.010
extra −0.40
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400


5889.9500
nfib1 16
nfib2 16
stdev 0.033
extra −0.27
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

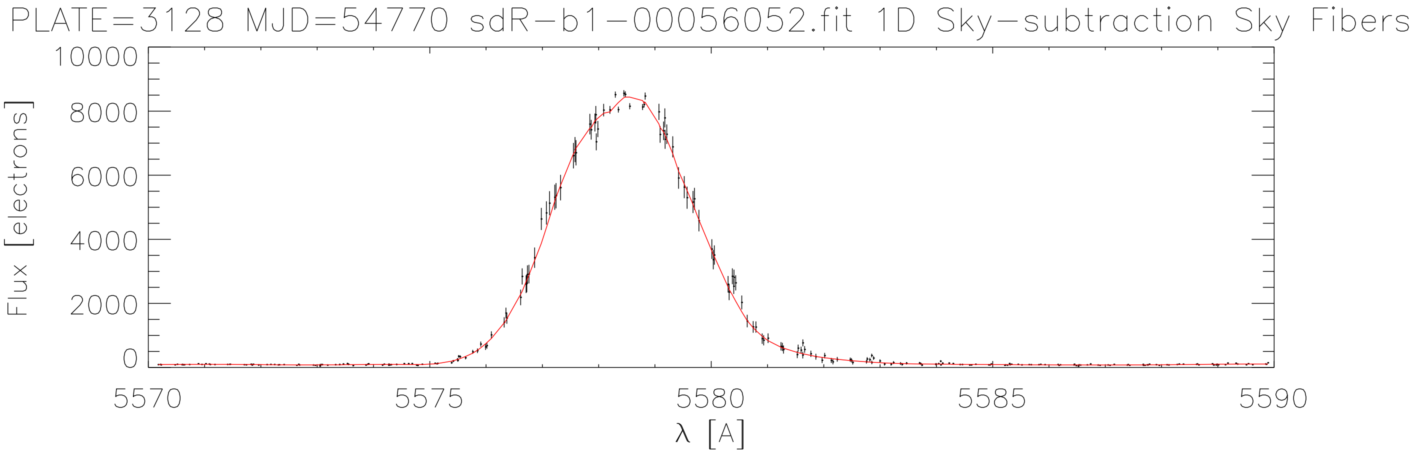

5895.9240
nfib1 16
nfib2 16
stdev 0.038
extra −0.28
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

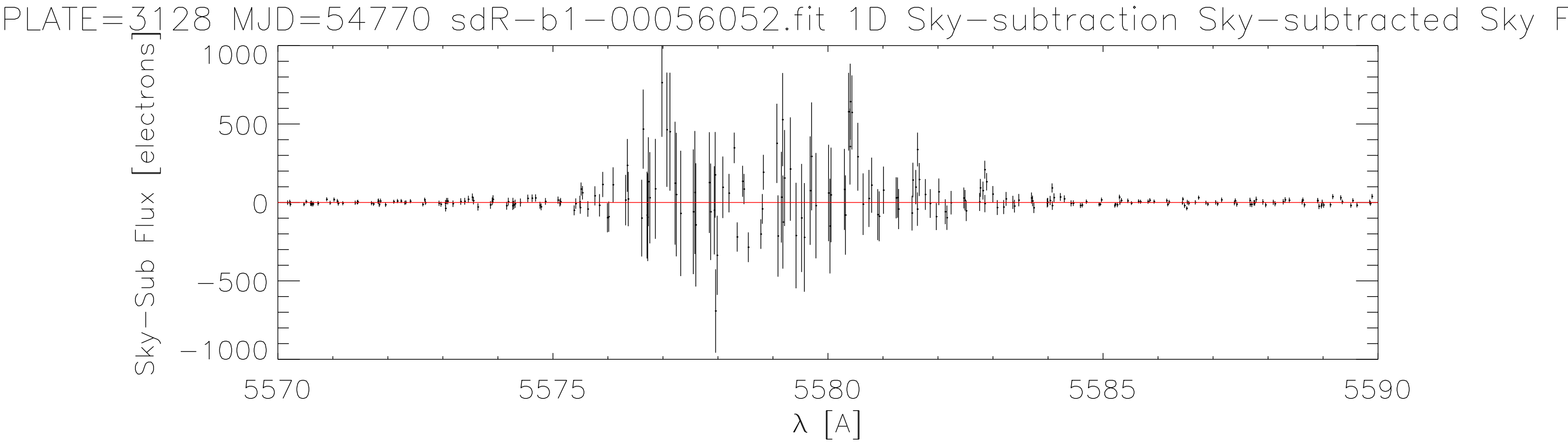

sky shift, pixels
−0.30
−0.35
−0.40
−0.45
−0.50
−0.55
3500
4000
4500
5000
5500
6000
6500


PLATE=3128 MJD=54770 Smooth superflat for sdR-b1-00056052.fit
1.5
1.0
0.5
0.0
1.04
1.03
1.02
1.01
1.00
0.99
0.98
es= 0.0000
4000
4500
5000
5500
6000
Wavelength (Å)



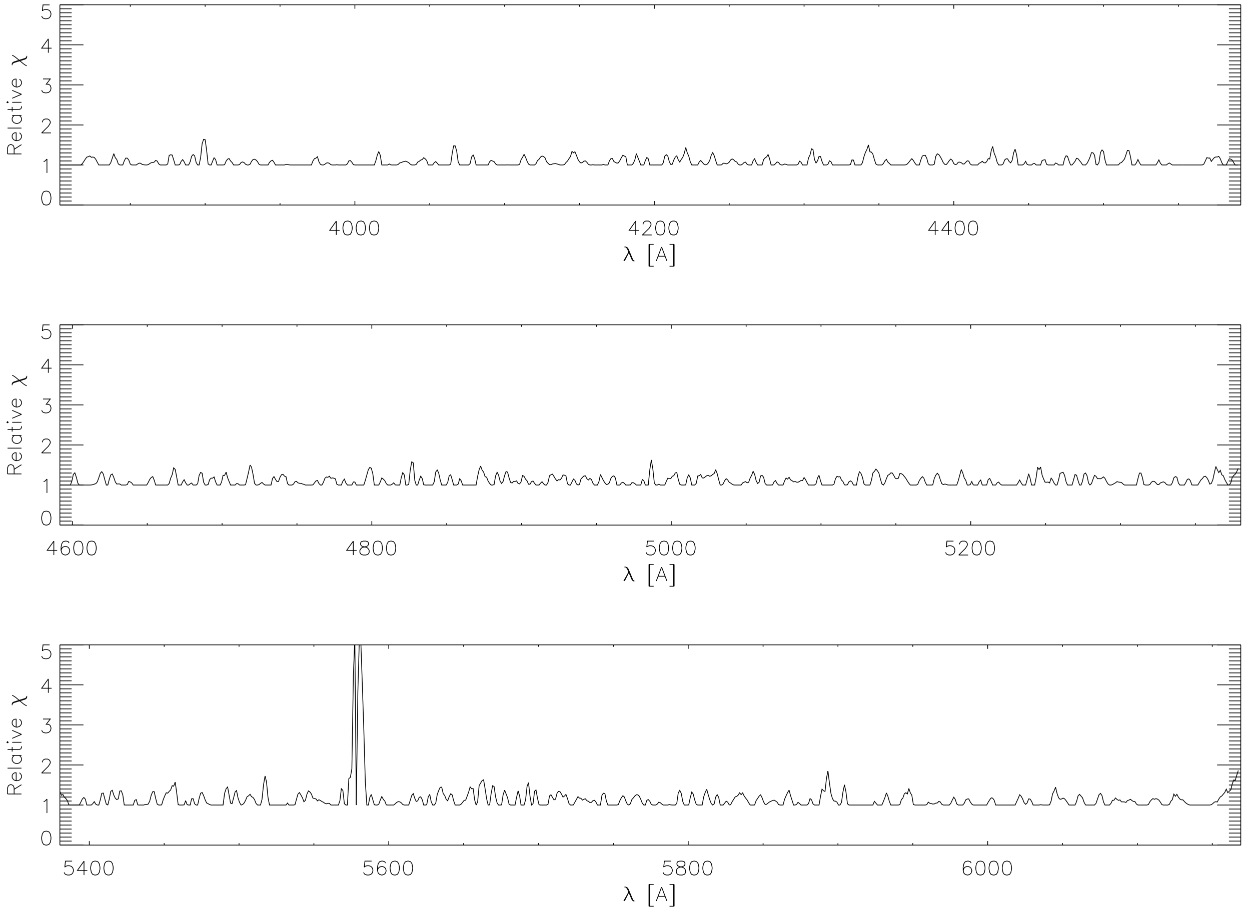
PLATE=3128 MJD=54770 sdR-b1-00056052.fit 1D Sky-subtraction Sky Fiber


PLATE=3128 MJD=54770 sdR-b1-00056052.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
10000
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

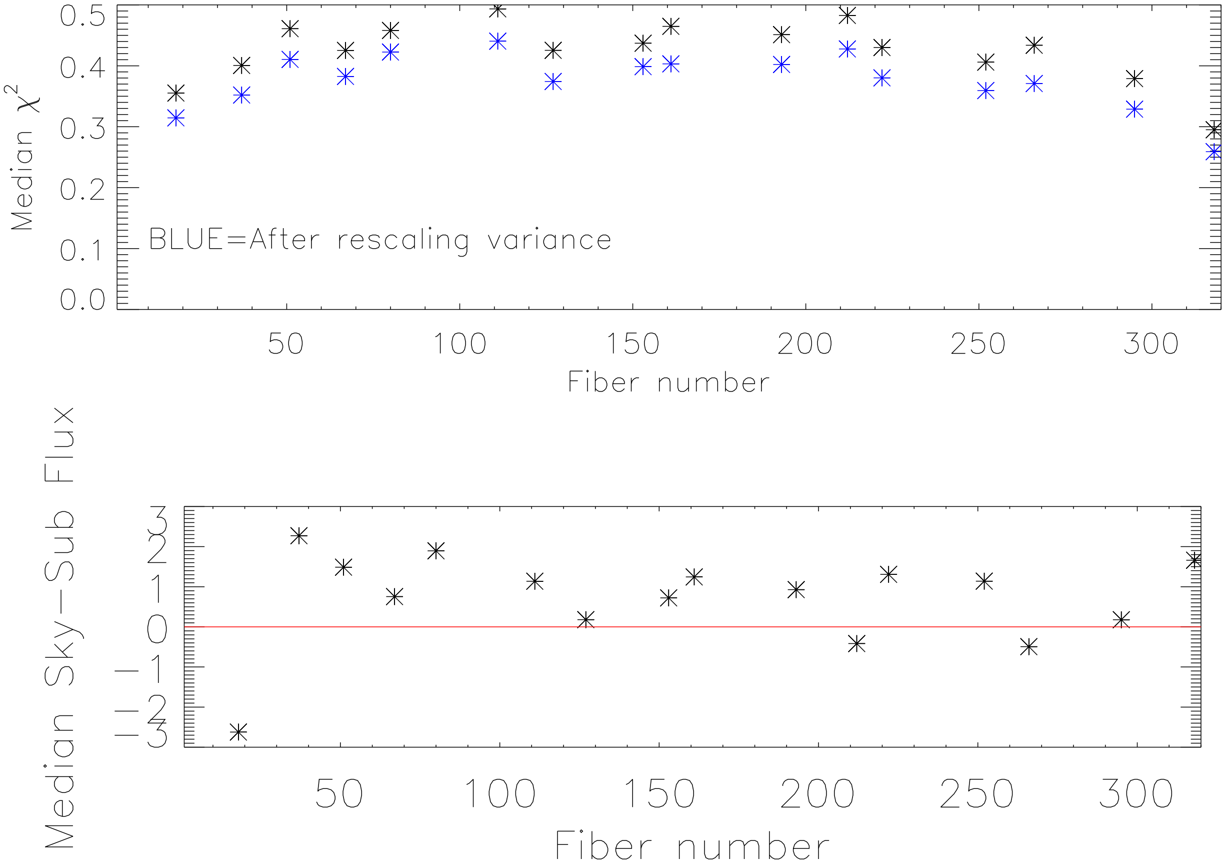

PLATE=3128 MJD=54770 sdR-b1-00056052.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
1000
500
0
−500
−1000
5570
5575
5580
5585
5590
λ [A]

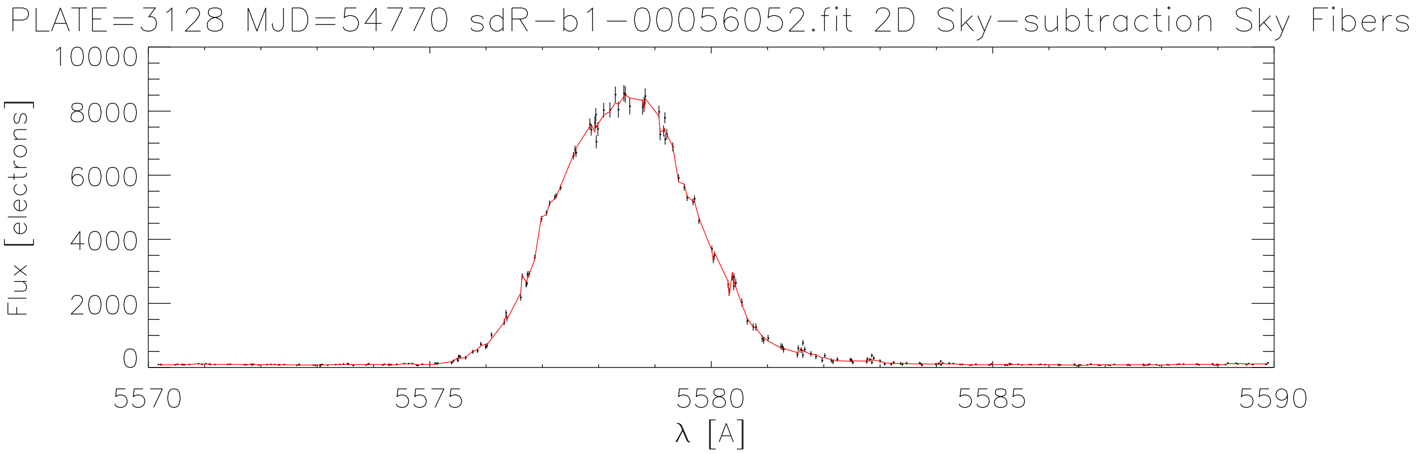
Number of sky fibers = 16

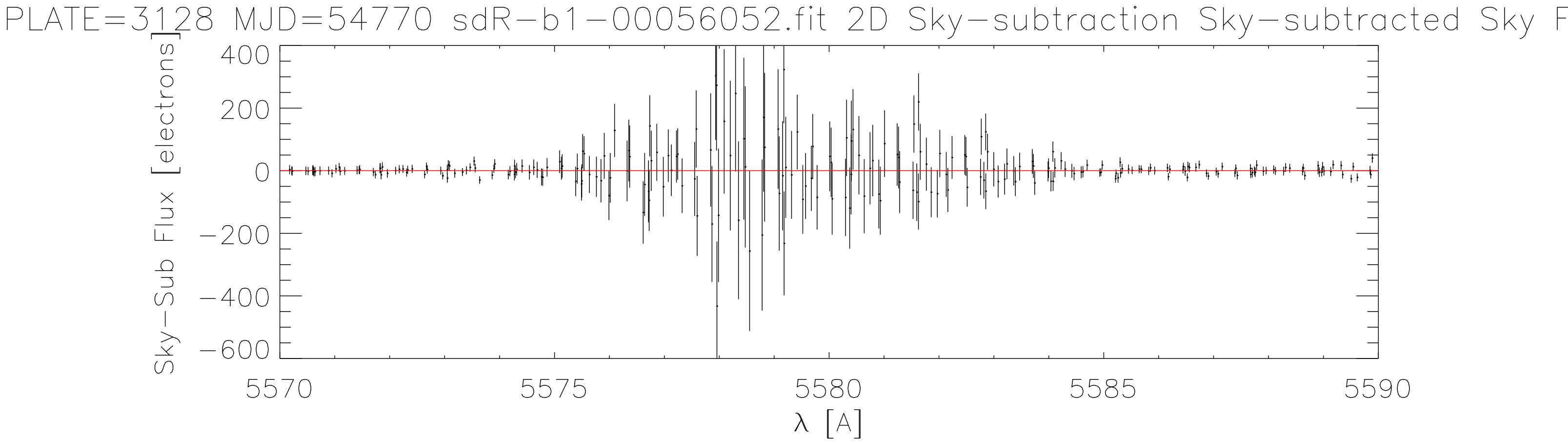
PLATE=3128 MJD=54770 sdR-b1-00056052.fit 1D Sky-subtraction Rescaled Errors



PLATE=3128 MJD=54770 sdR-b1-00056052.fit 2D Sky-subtraction Sky Fiber

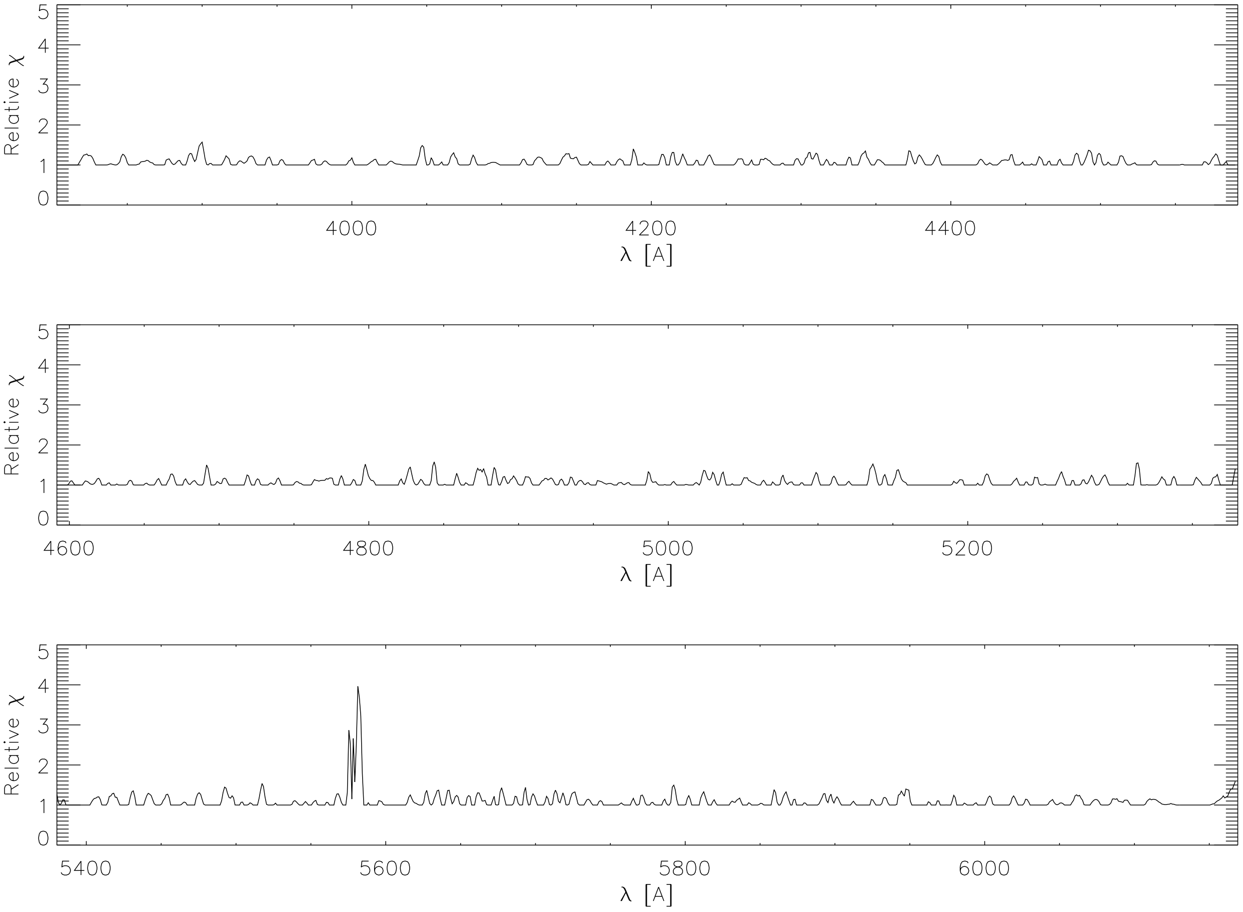


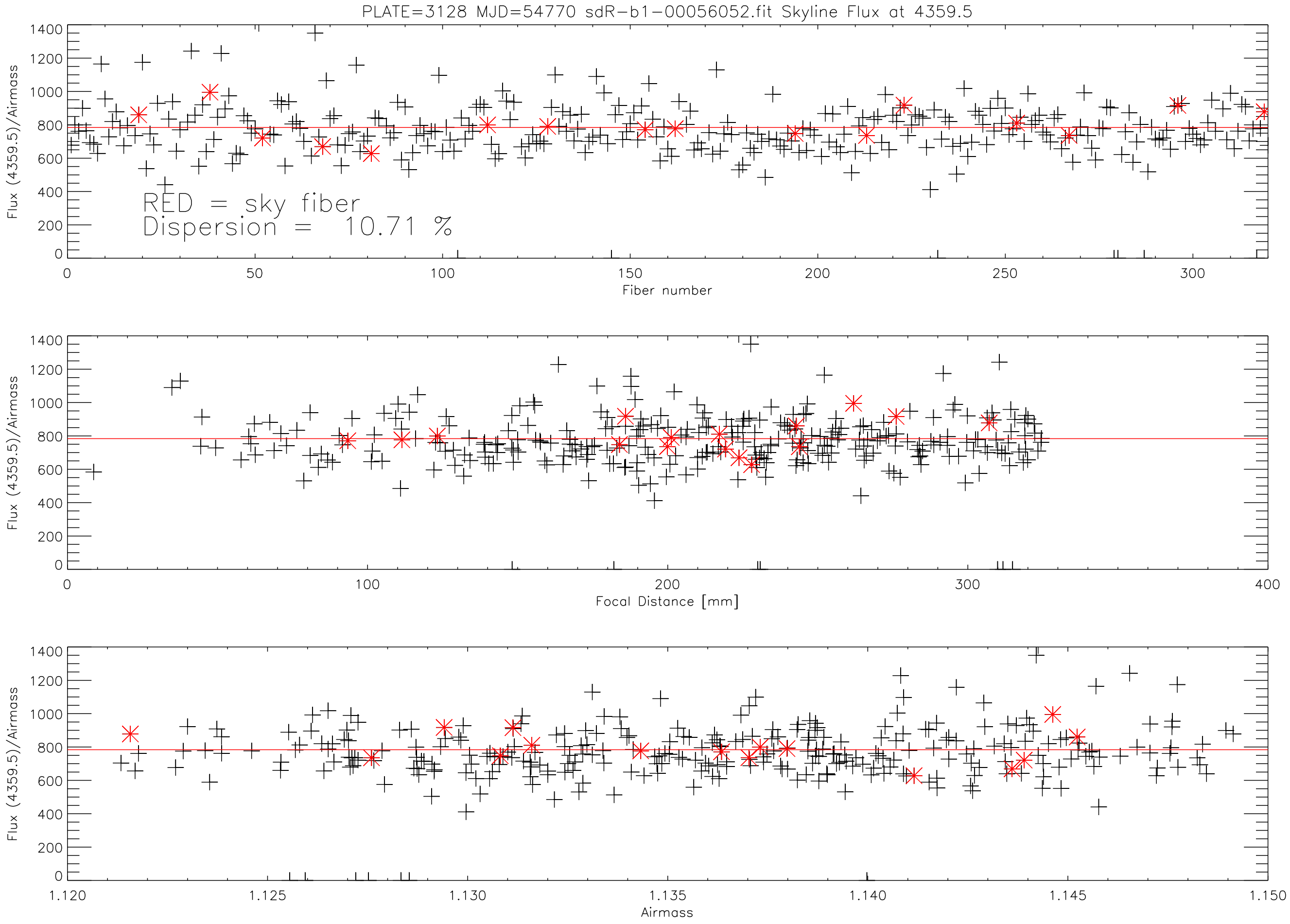

PLATE=3128 MJD=54770 sdR-b1-00056052.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
10000
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

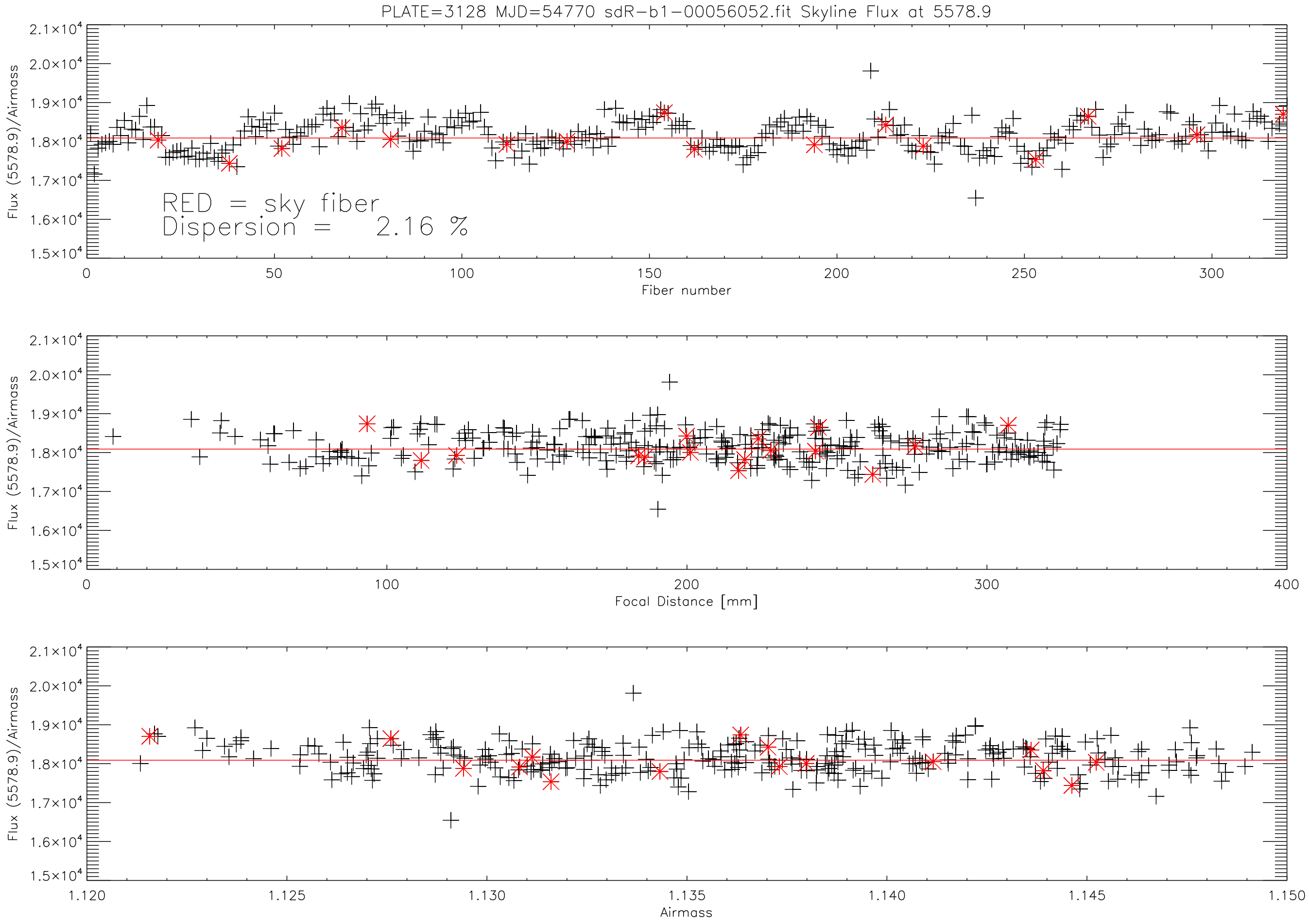

PLATE=3128 MJD=54770 sdR-b1-00056052.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
200
0
−200
−400
−600
5570
5575
5580
5585
5590
λ [A]

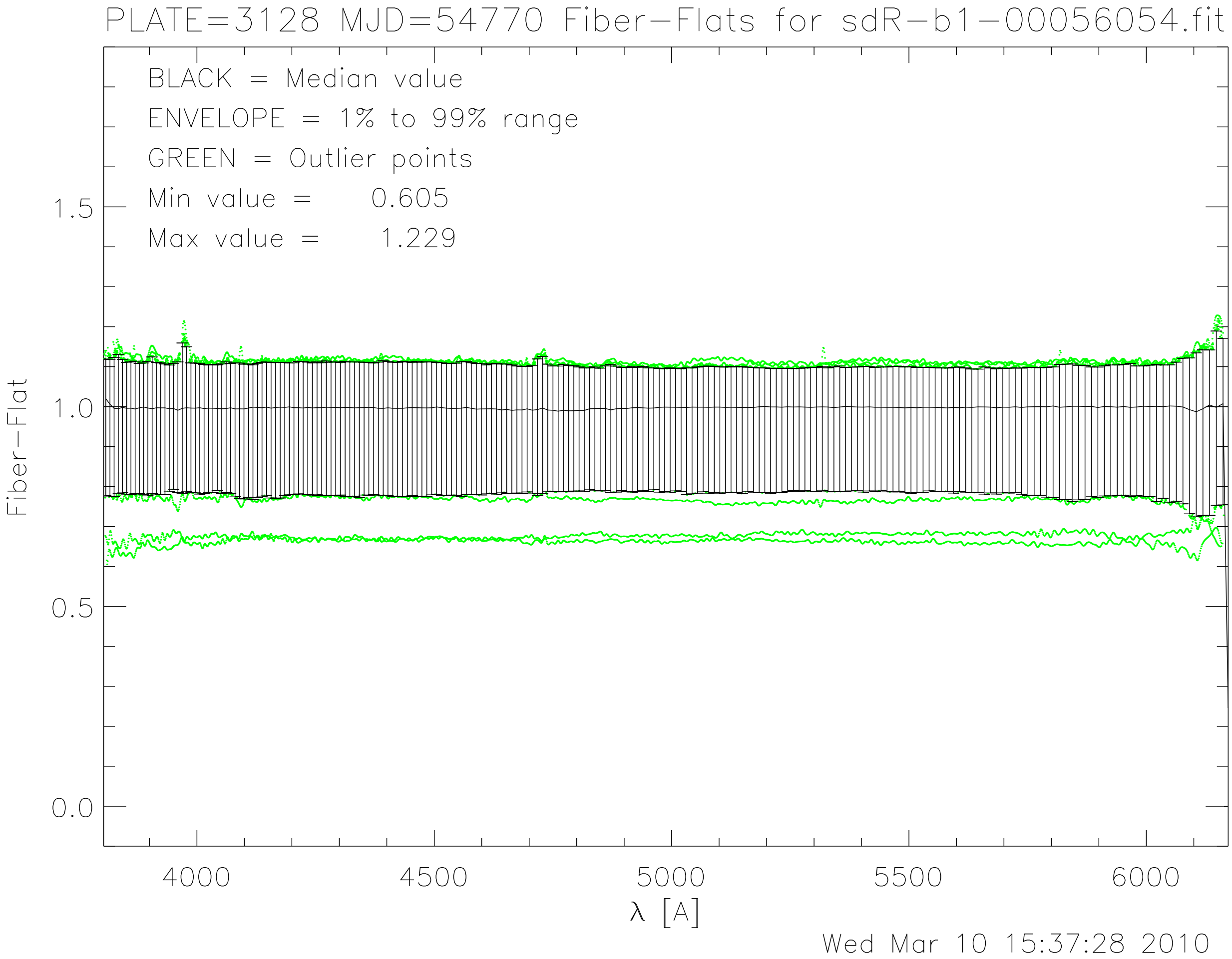
Number of sky fibers = 16

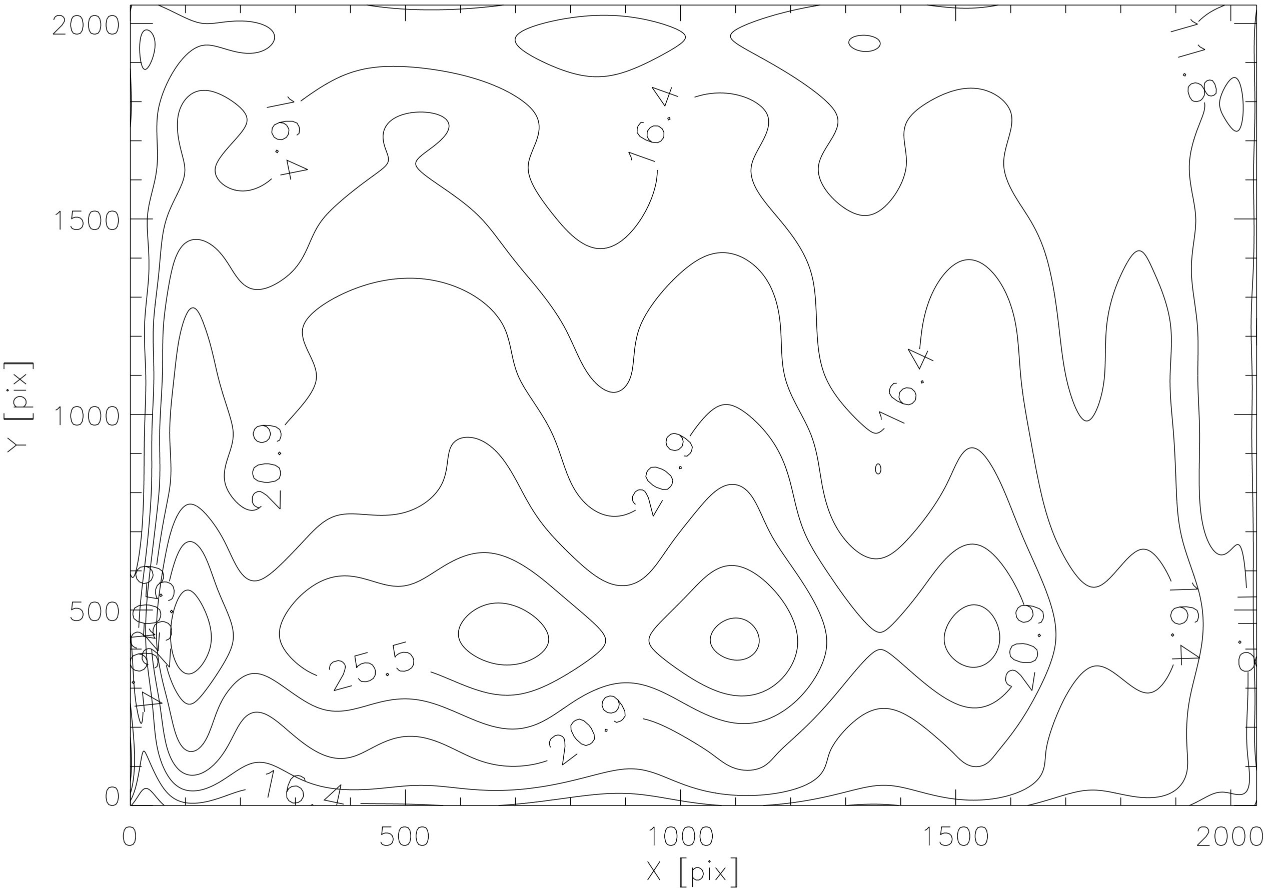
PLATE=3128 MJD=54770 sdR-b1-00056052.fit 2D Sky-subtraction Rescaled Errors



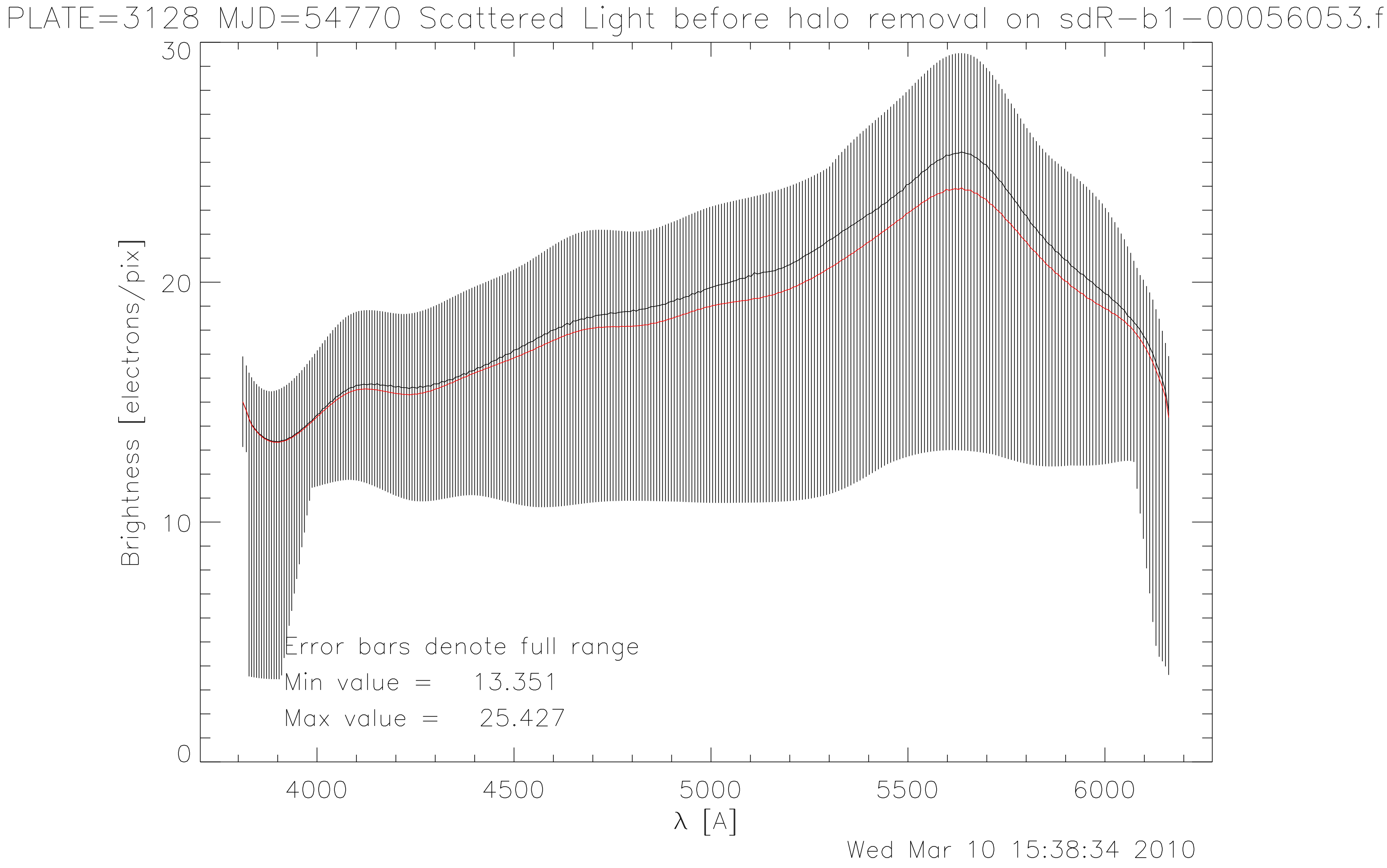

PLATE=3128 MJD=54770 sdR-b1-00056052.fit Skyline Flux at 4359.5
RED = sky fiber
Dispersion = 10.71 %
Flux (4359.5)/Airmass
Fiber number
Focal Distance [mm]
Airmass
0
200
400
600
800
1000
1200
1400
0
50
100
150
200
250
300
0
100
200
300
400
1.120
1.125
1.130
1.135
1.140
1.145
1.150

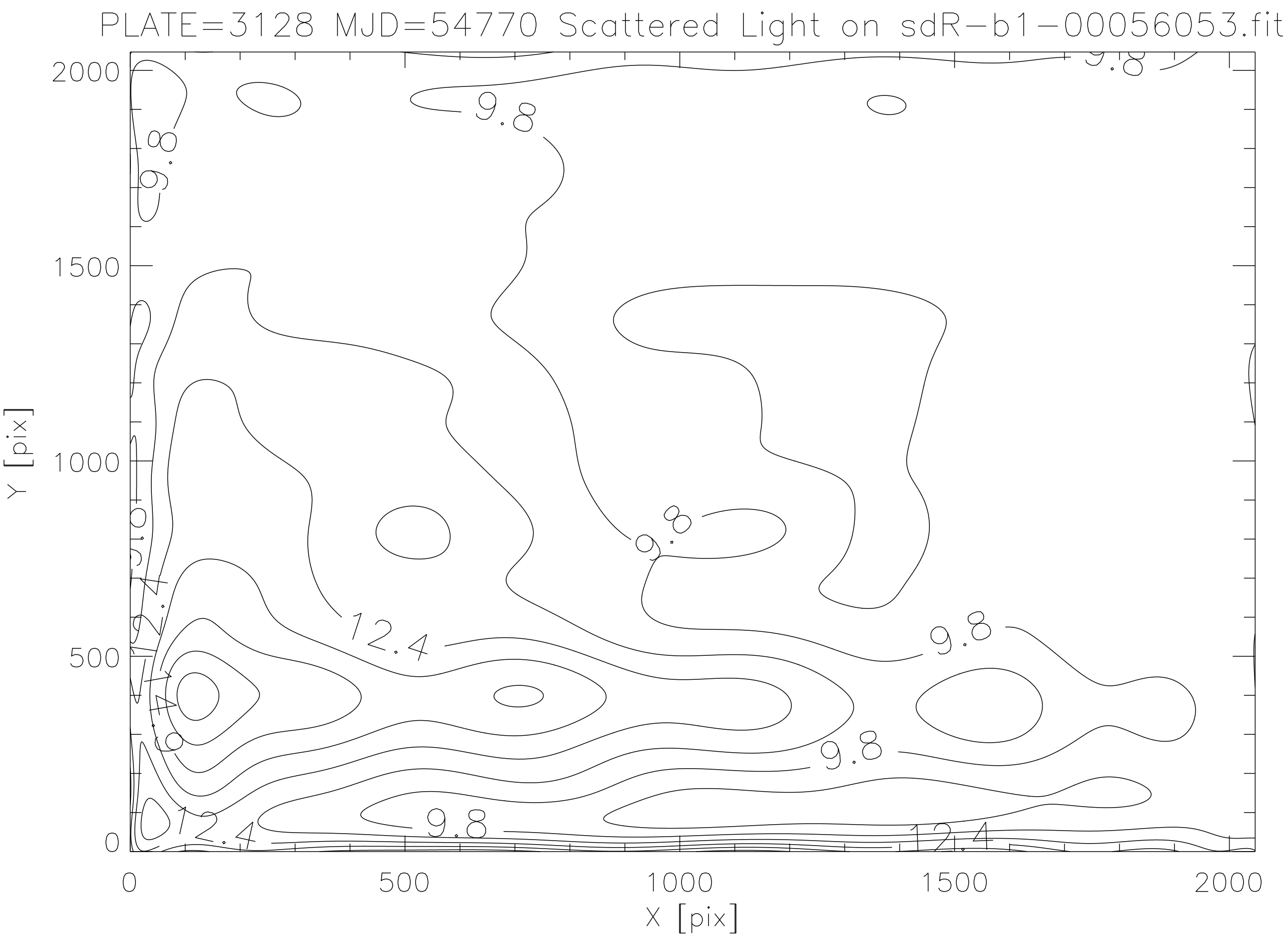

PLATE=3128 MJD=54770 sdR-b1-00056052.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
2.1×10^4
2.0×10^4
1.9×10^4
1.8×10^4
1.7×10^4
1.6×10^4
1.5×10^4
RED = sky fiber
Dispersion = 2.16 %
0
50
100
150
200
250
300
Fiber number
Flux (5578.9)/Airmass
0
100
200
300
400
Focal Distance [mm]
Flux (5578.9)/Airmass
1.120
1.125
1.130
1.135
1.140
1.145
1.150
Airmass

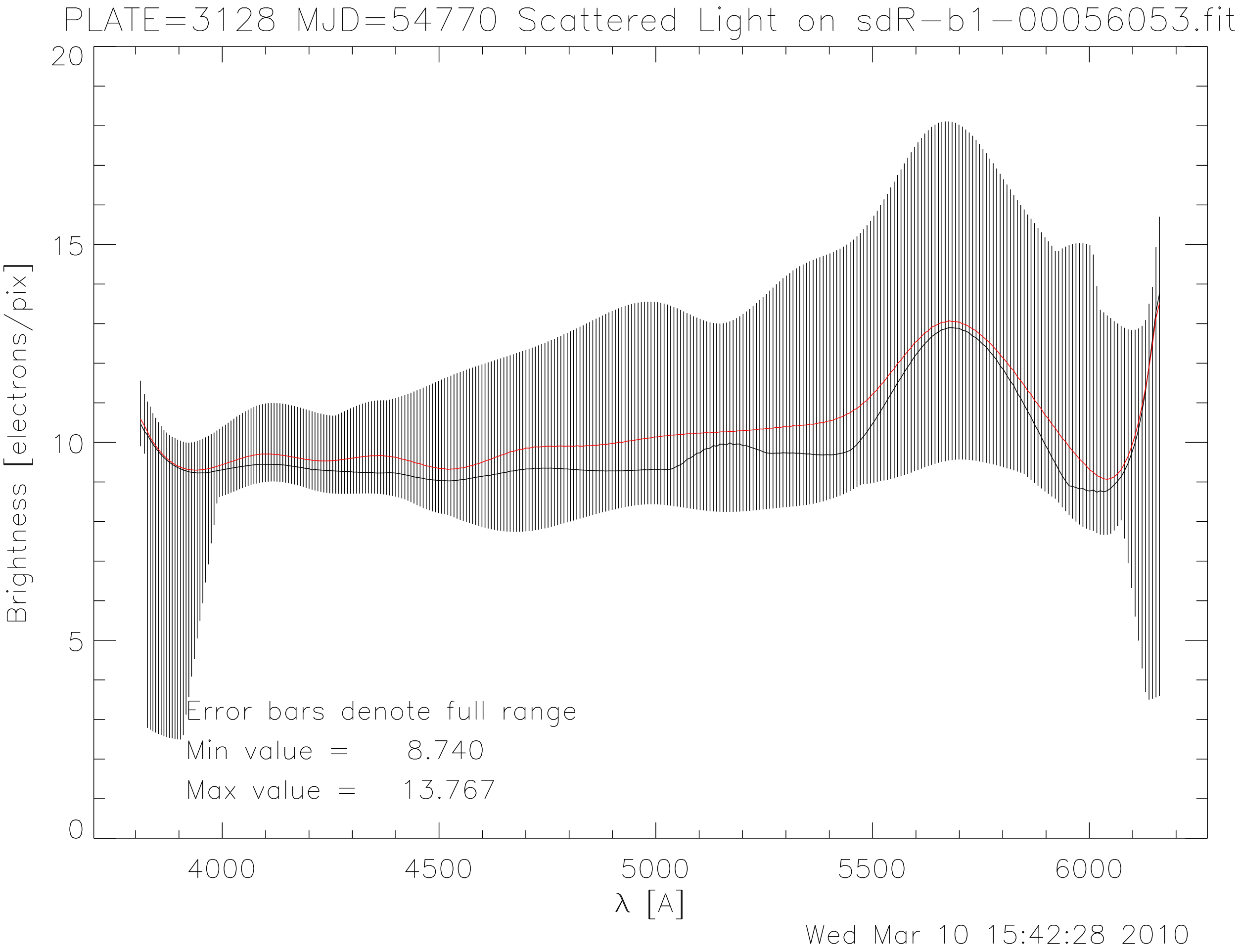

PLATE=3128 MJD=54770 Fiber−Flats for sdR−b1−00056054.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.605
Max value = 1.229
1.5
1.0
0.5
0.0
Fiber−Flat
4000
4500
5000
5500
6000
λ [A]
Wed Mar 10 15:37:28 2010

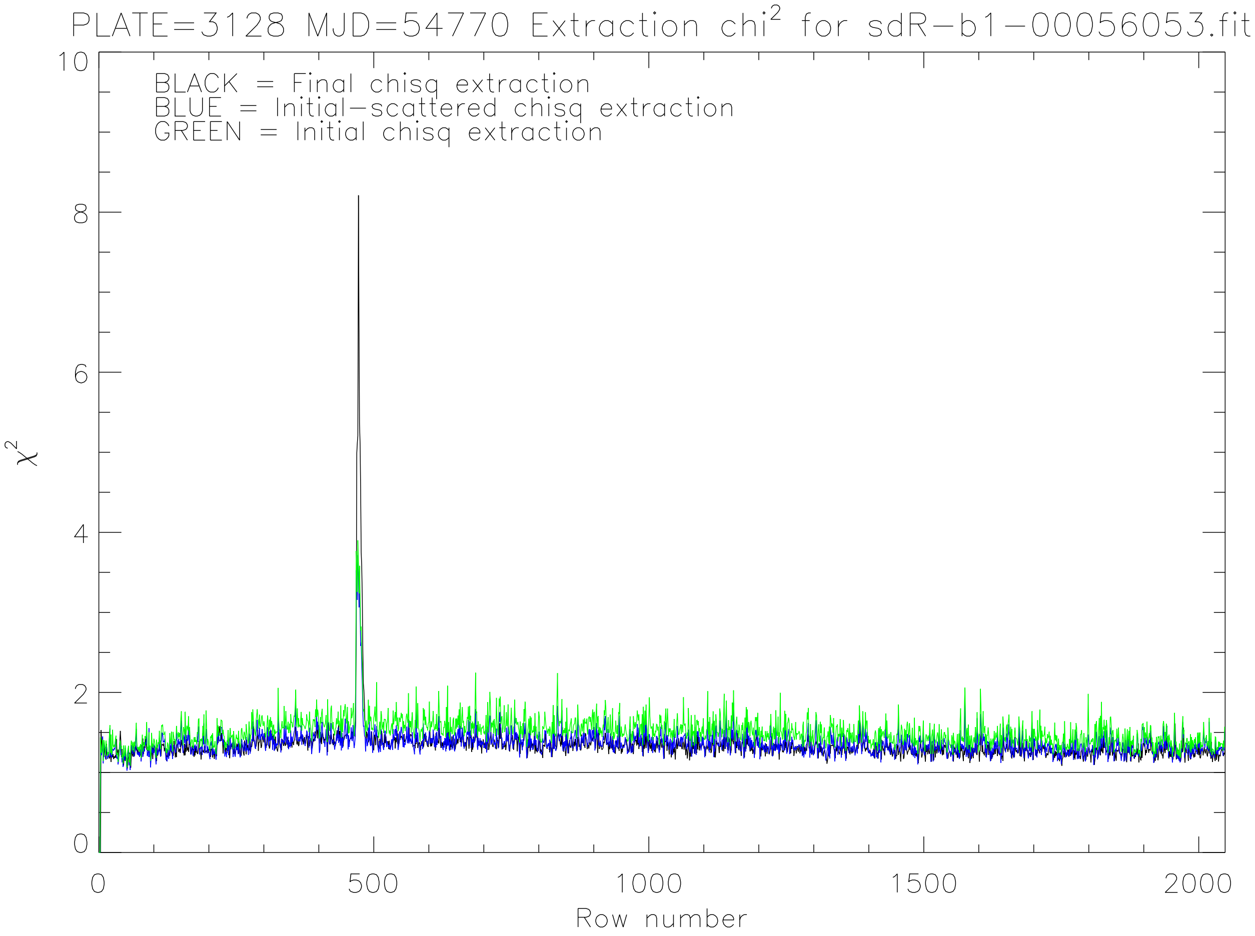


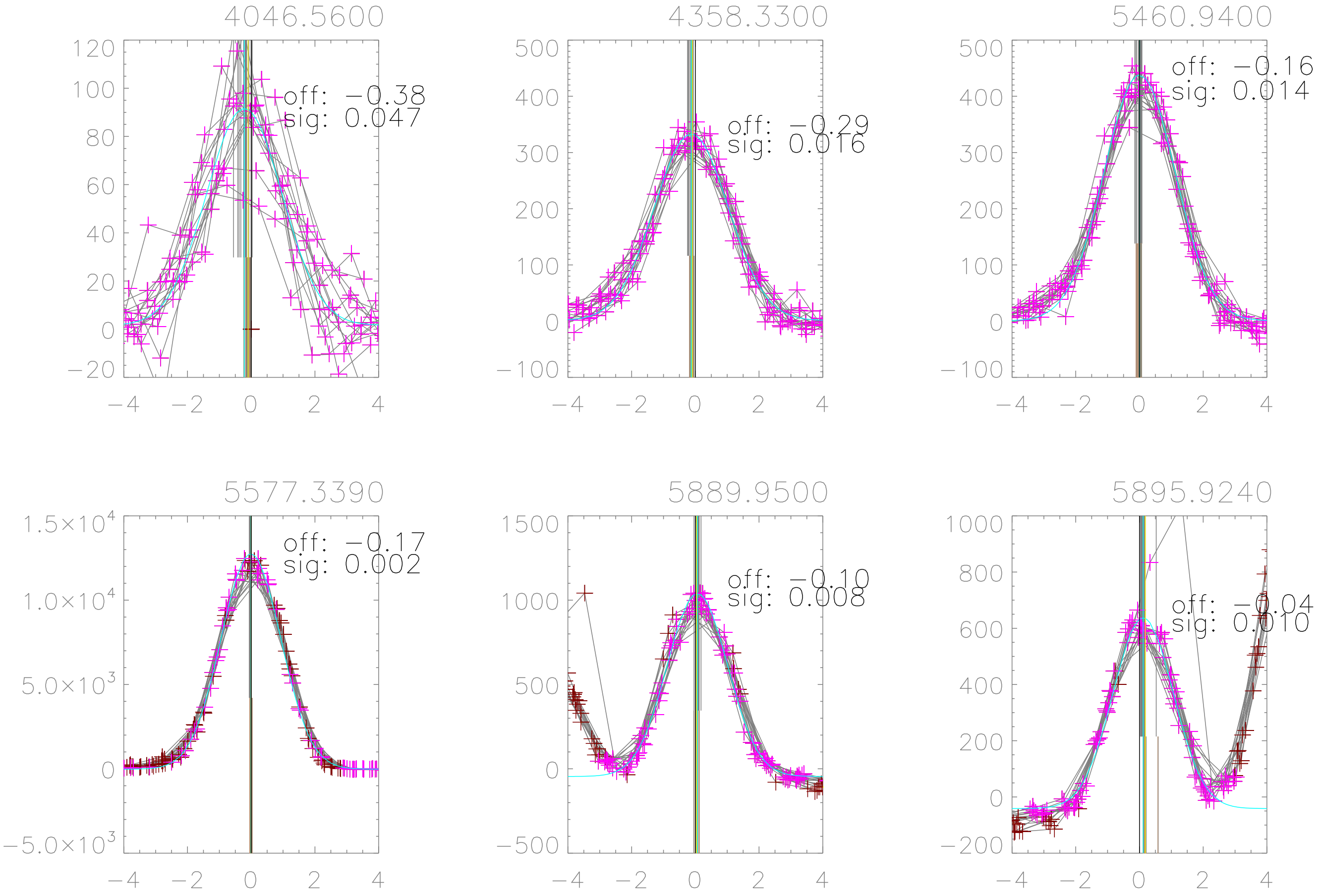
PLATE=3128 MJD=54770 Scattered Light before halo removal on sdR-b1-00056053.f

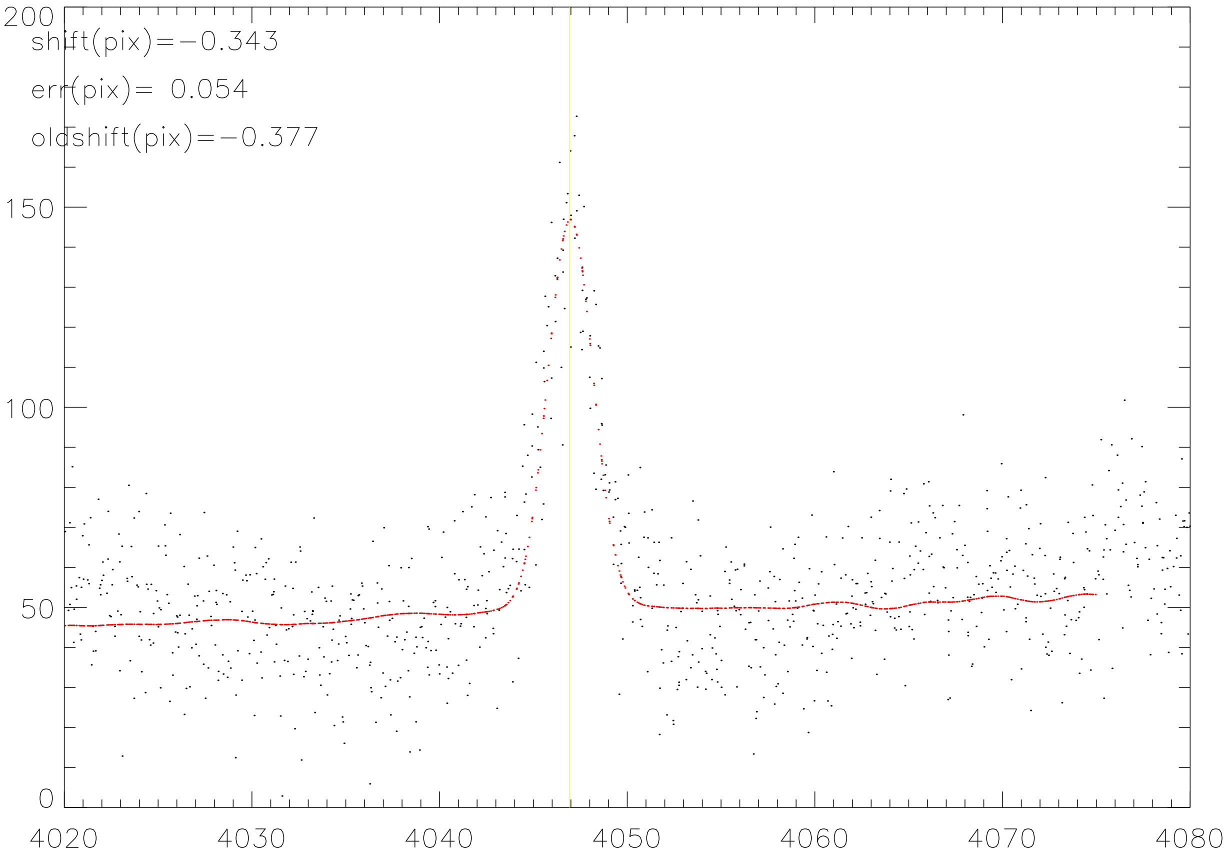

PLATE=3128 MJD=54770 Scattered Light before halo removal on sdR-b1-00056053.f
Brightness [electrons/pix]
0
10
20
30
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 13.351
Max value = 25.427
Wed Mar 10 15:38:34 2010

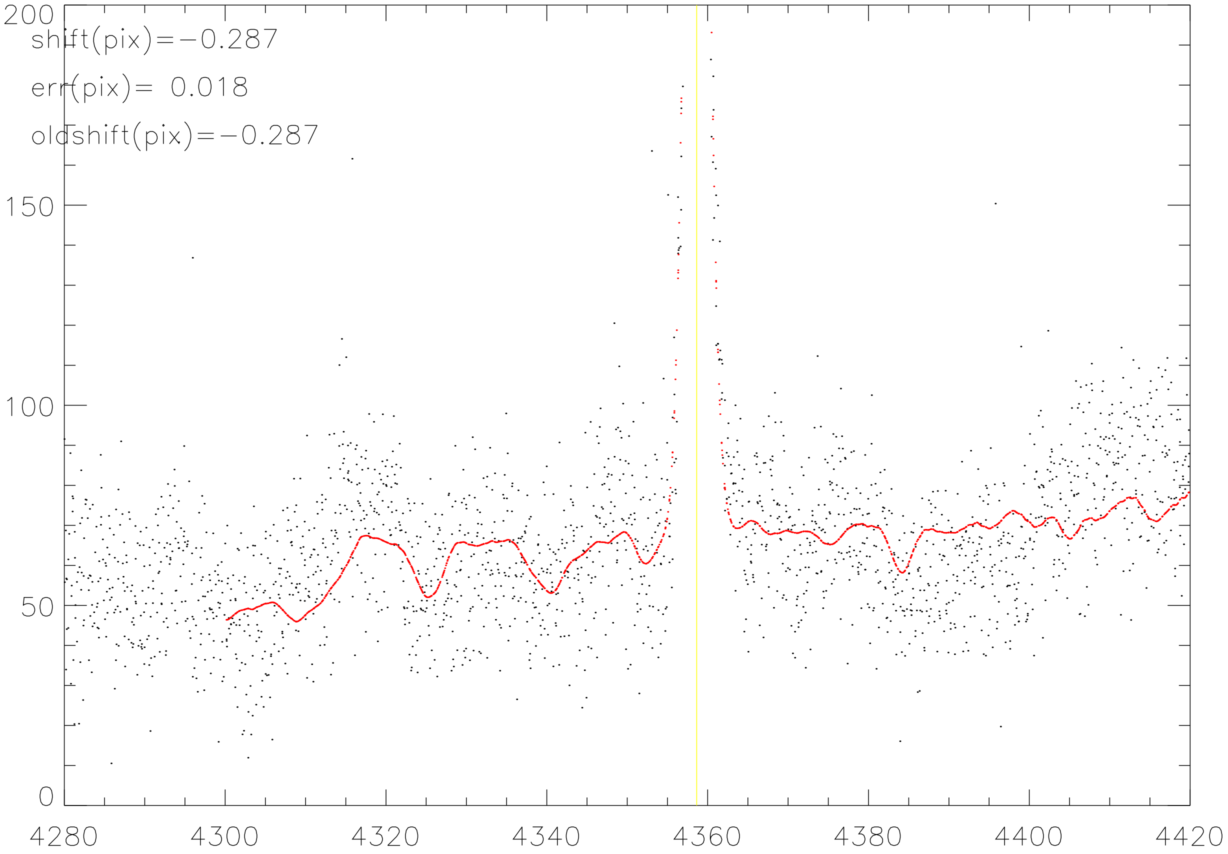

PLATE=3128 MJD=54770 Scattered Light on sdR-b1-00056053.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
0
500
1000
1500
2000
9.8
9.8
9.8
9.8
9.8
9.8
9.8
9.8
12.4
12.4
12.4
12.4
14.8

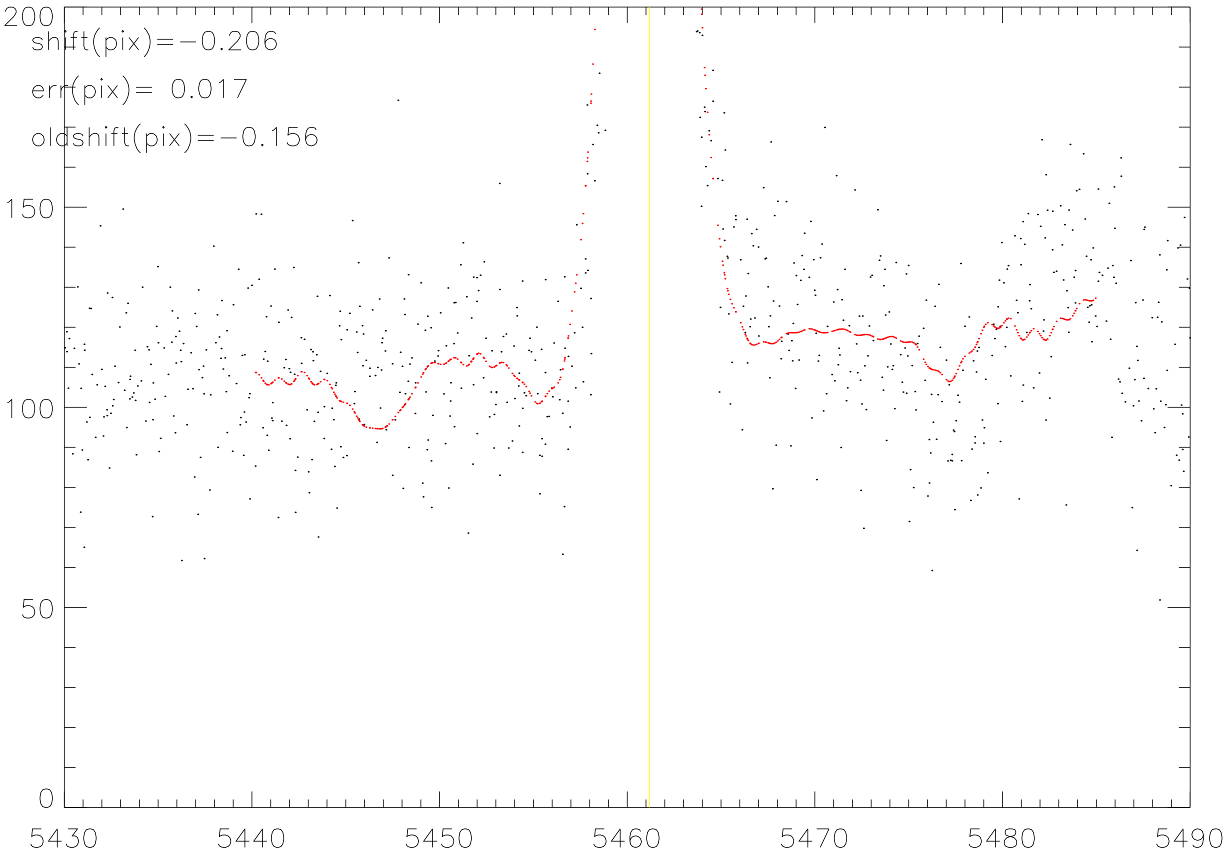

PLATE=3128 MJD=54770 Scattered Light on sdR-b1-00056053.fit
Brightness [electrons/pix]
20
15
10
5
0
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 8.740
Max value = 13.767
Wed Mar 10 15:42:28 2010

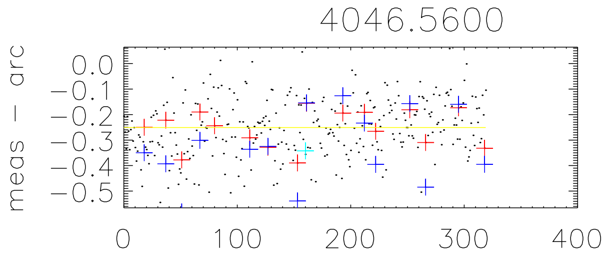

PLATE=3128 MJD=54770 Extraction chi$^2$ for sdR-b1-00056053.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
$\chi^2$
0
2
4
6
8
10
0
500
1000
1500
2000
Row number

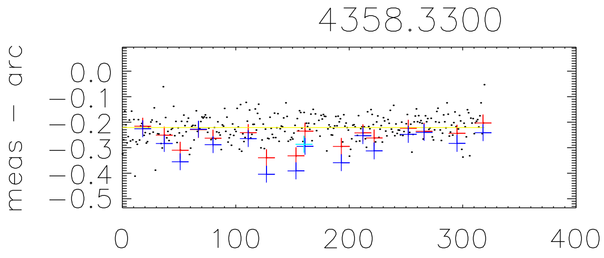

4046.5600
off: −0.38
sig: 0.047
120
100
80
60
40
20
0
−20
−4
−2
0
2
4
4358.3300
off: −0.29
sig: 0.016
500
400
300
200
100
0
−100
5460.9400
off: −0.16
sig: 0.014
5577.3390
off: −0.17
sig: 0.002
1.5×10⁴
1.0×10⁴
5.0×10³
0
−5.0×10³
5889.9500
off: −0.10
sig: 0.008
1500
1000
500
0
−500
5895.9240
off: −0.04
sig: 0.010
1000
800
600
400
200
0
−200

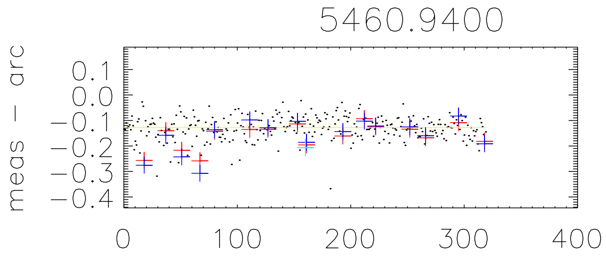

shift(pix)=−0.343
err(pix)= 0.054
oldshift(pix)=−0.377
200
150
100
50
0
4020
4030
4040
4050
4060
4070
4080

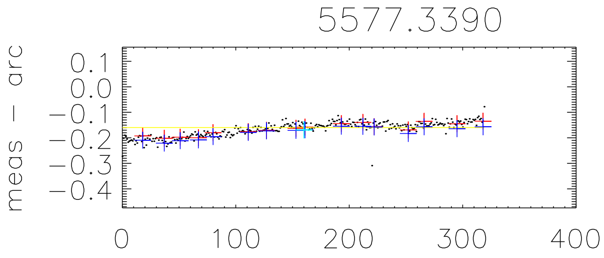

shift(pix)=−0.287
err(pix)= 0.018
oldshift(pix)=−0.287
200
150
100
50
0
4280
4300
4320
4340
4360
4380
4400
4420

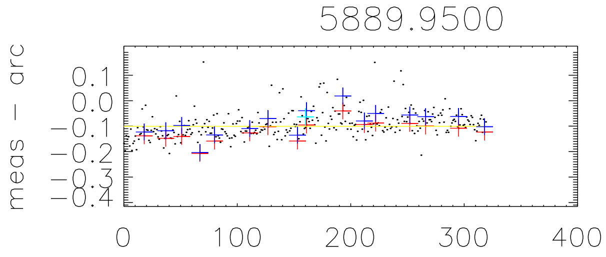

shift(pix)=−0.206
err(pix)= 0.017
oldshift(pix)=−0.156
200
150
100
50
0
5430
5440
5450
5460
5470
5480
5490

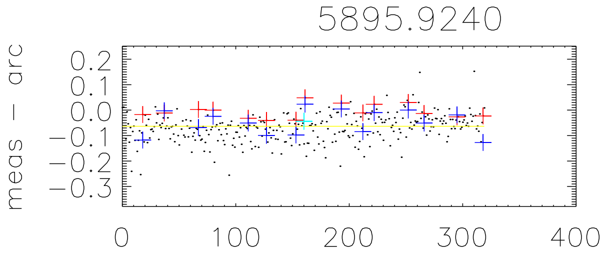

4046.5600
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

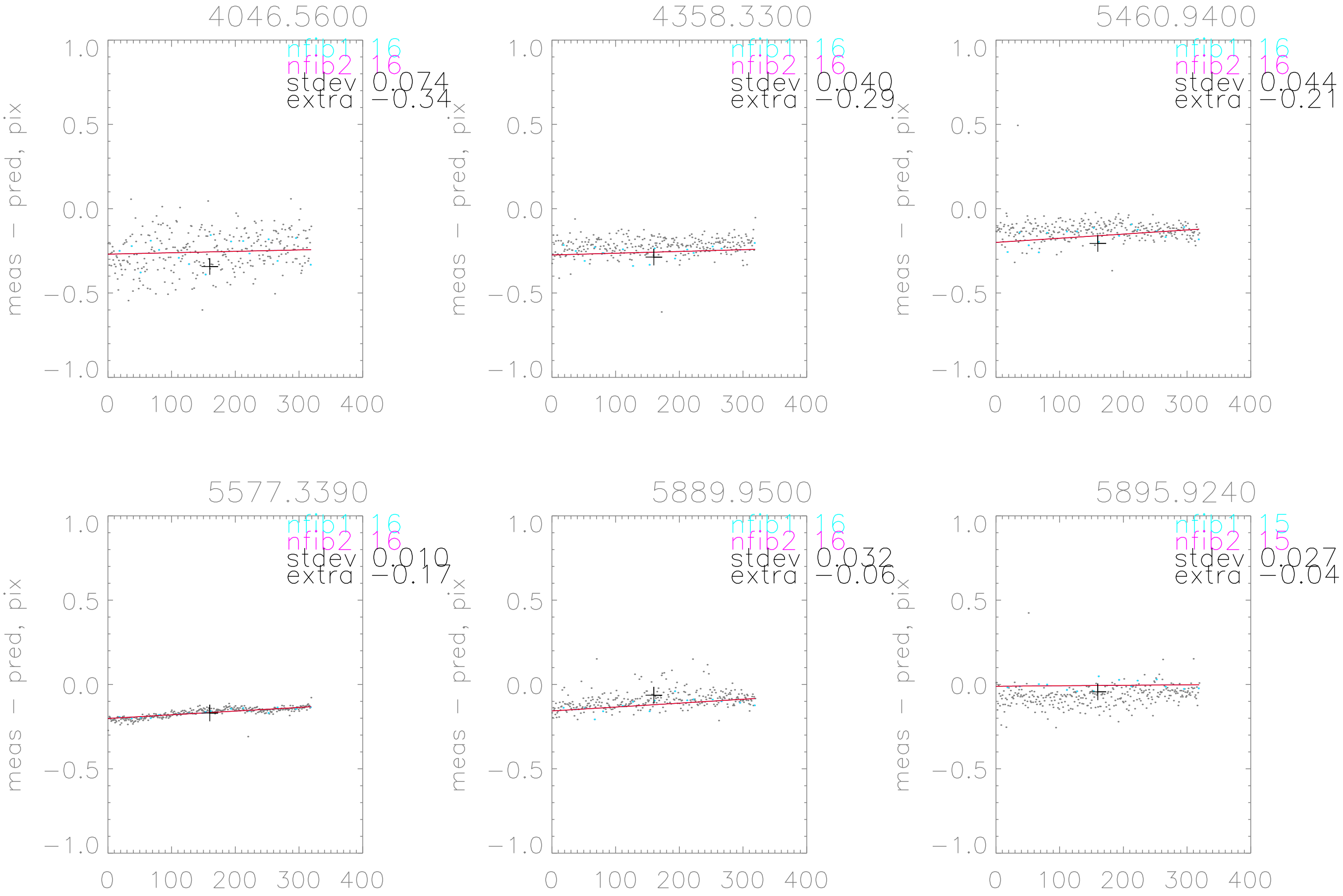

4358.3300
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

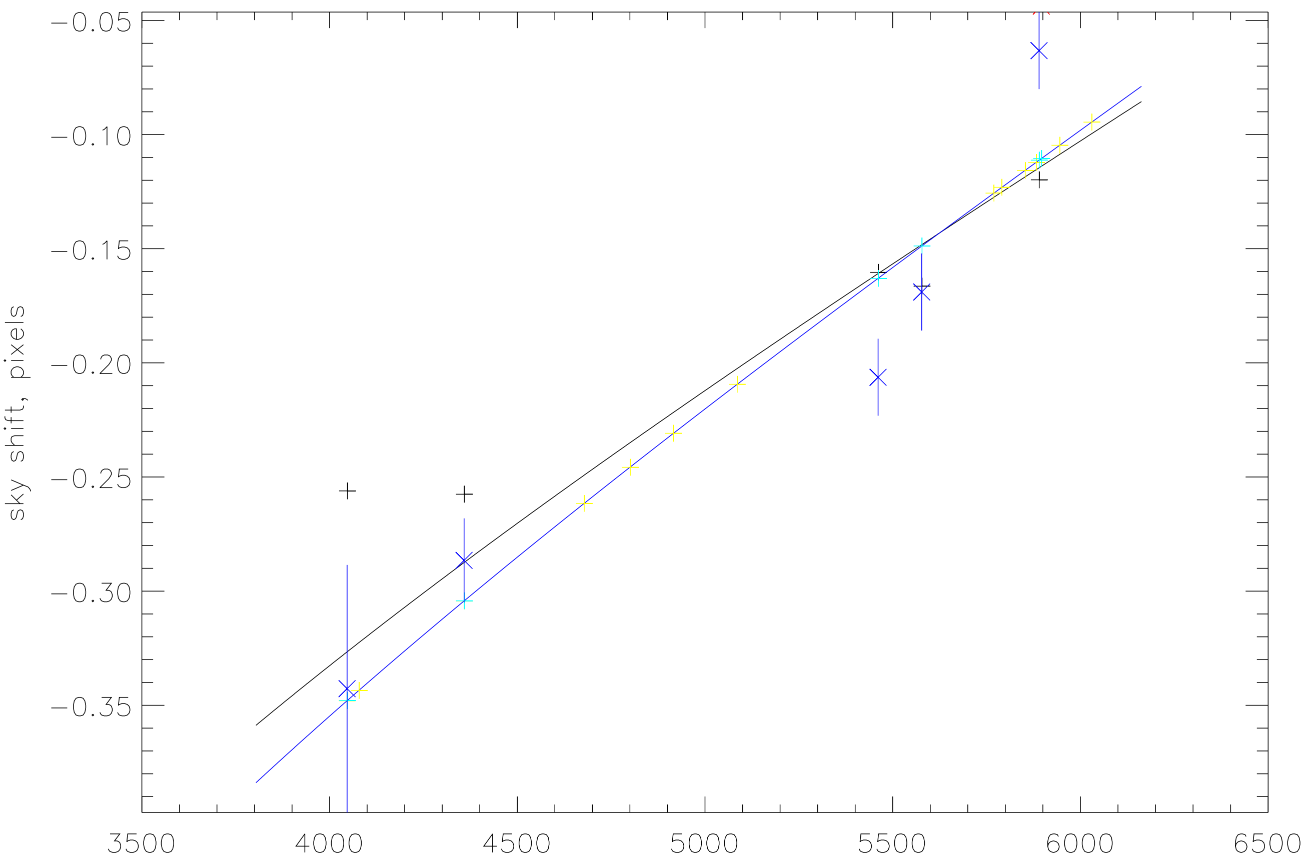

5460.9400
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

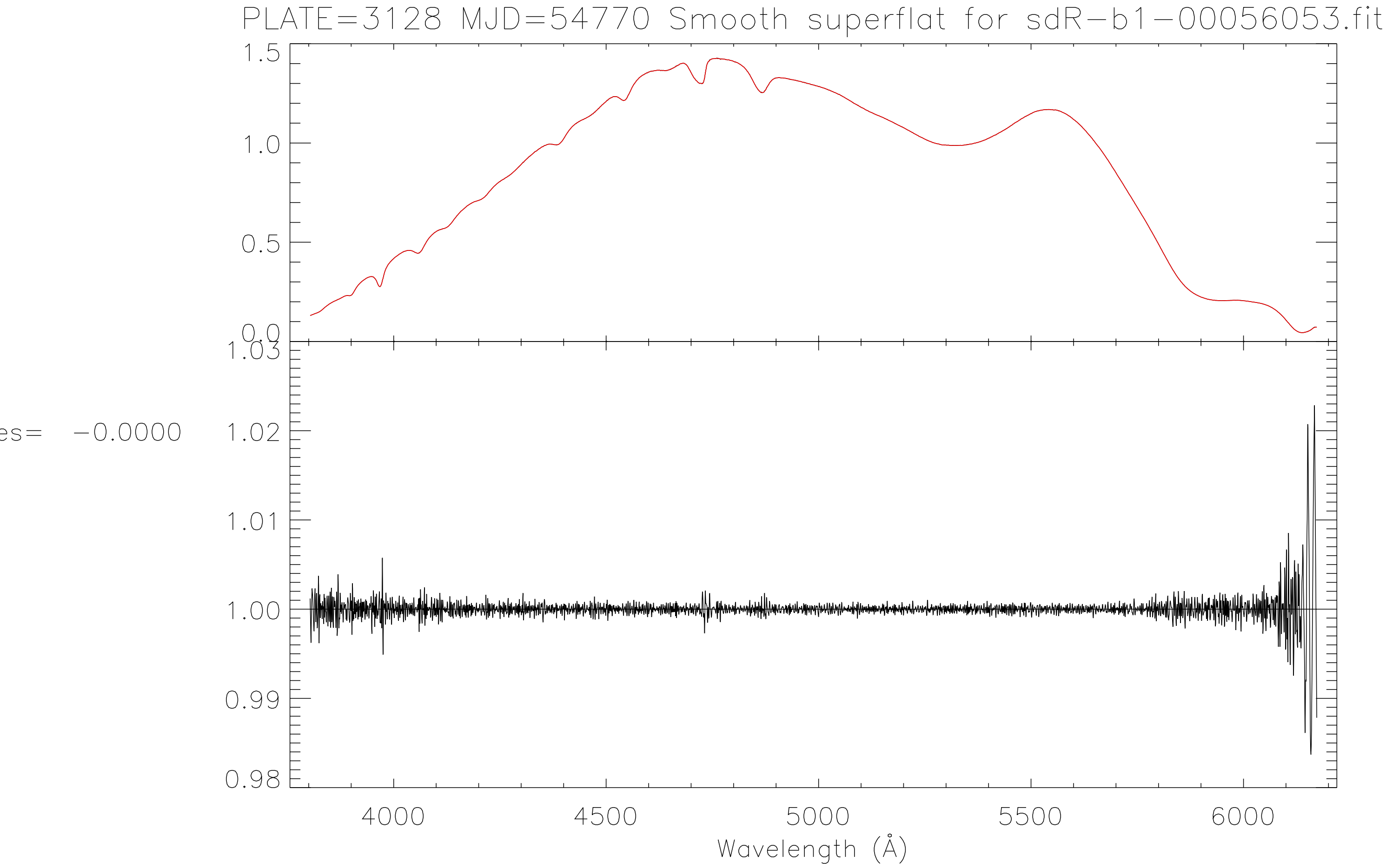

5577.3390
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

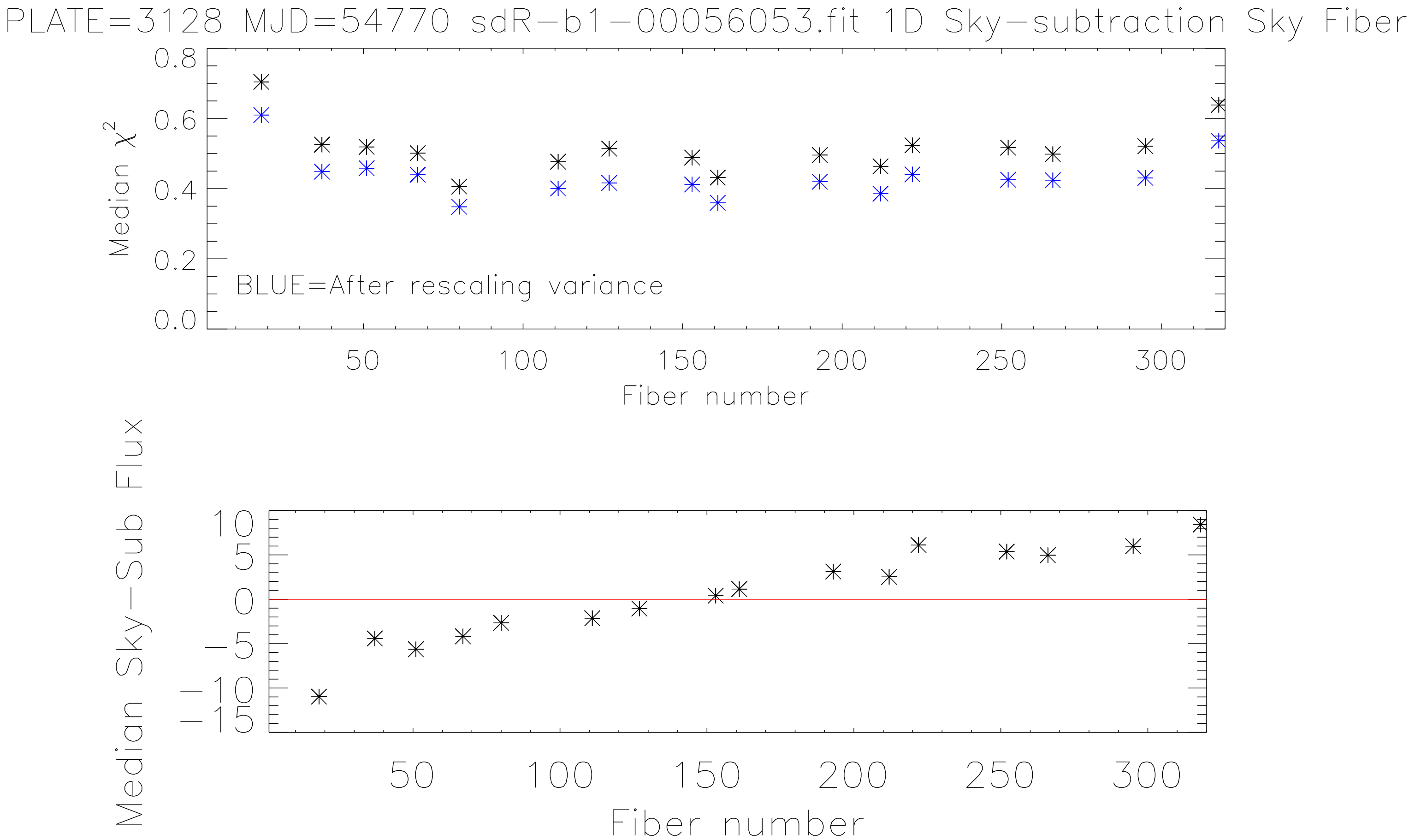

5889.9500
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

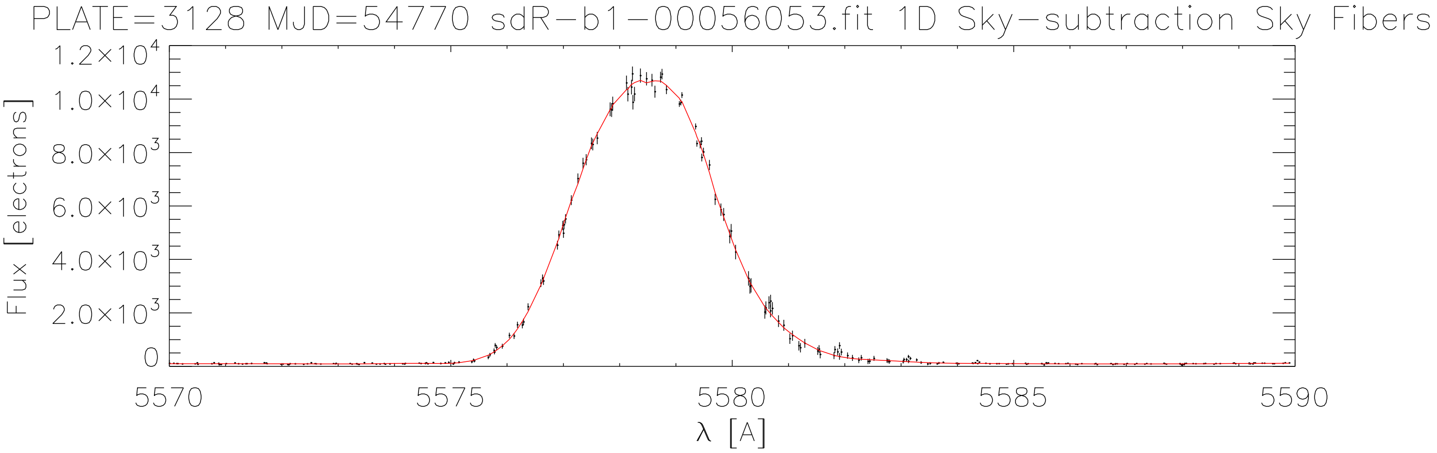

5895.9240
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

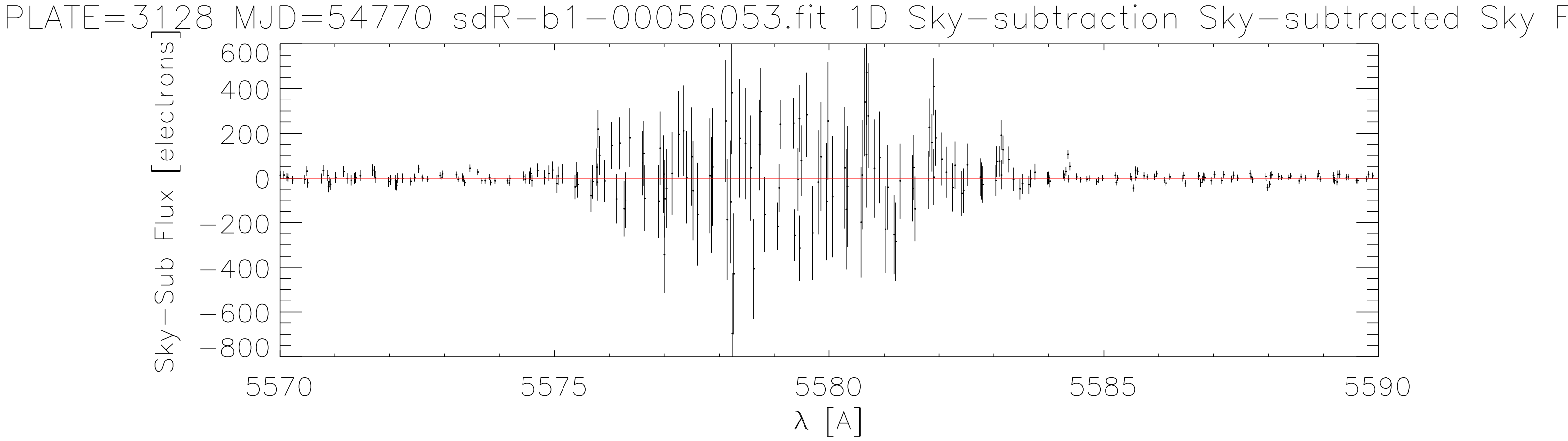

4046.5600
nfib1 16
nfib2 16
stdev 0.074
extra −0.34
4358.3300
nfib1 16
nfib2 16
stdev 0.040
extra −0.29
5460.9400
nfib1 16
nfib2 16
stdev 0.044
extra −0.21
5577.3390
nfib1 16
nfib2 16
stdev 0.010
extra −0.17
5889.9500
nfib1 16
nfib2 16
stdev 0.032
extra −0.06
5895.9240
nfib1 15
nfib2 15
stdev 0.027
extra −0.04
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400


sky shift, pixels
−0.05
−0.10
−0.15
−0.20
−0.25
−0.30
−0.35
3500
4000
4500
5000
5500
6000
6500


PLATE=3128 MJD=54770 Smooth superflat for sdR-b1-00056053.fit
1.5
1.0
0.5
0.0
1.03
1.02
1.01
1.00
0.99
0.98
es= −0.0000
4000
4500
5000
5500
6000
Wavelength (Å)

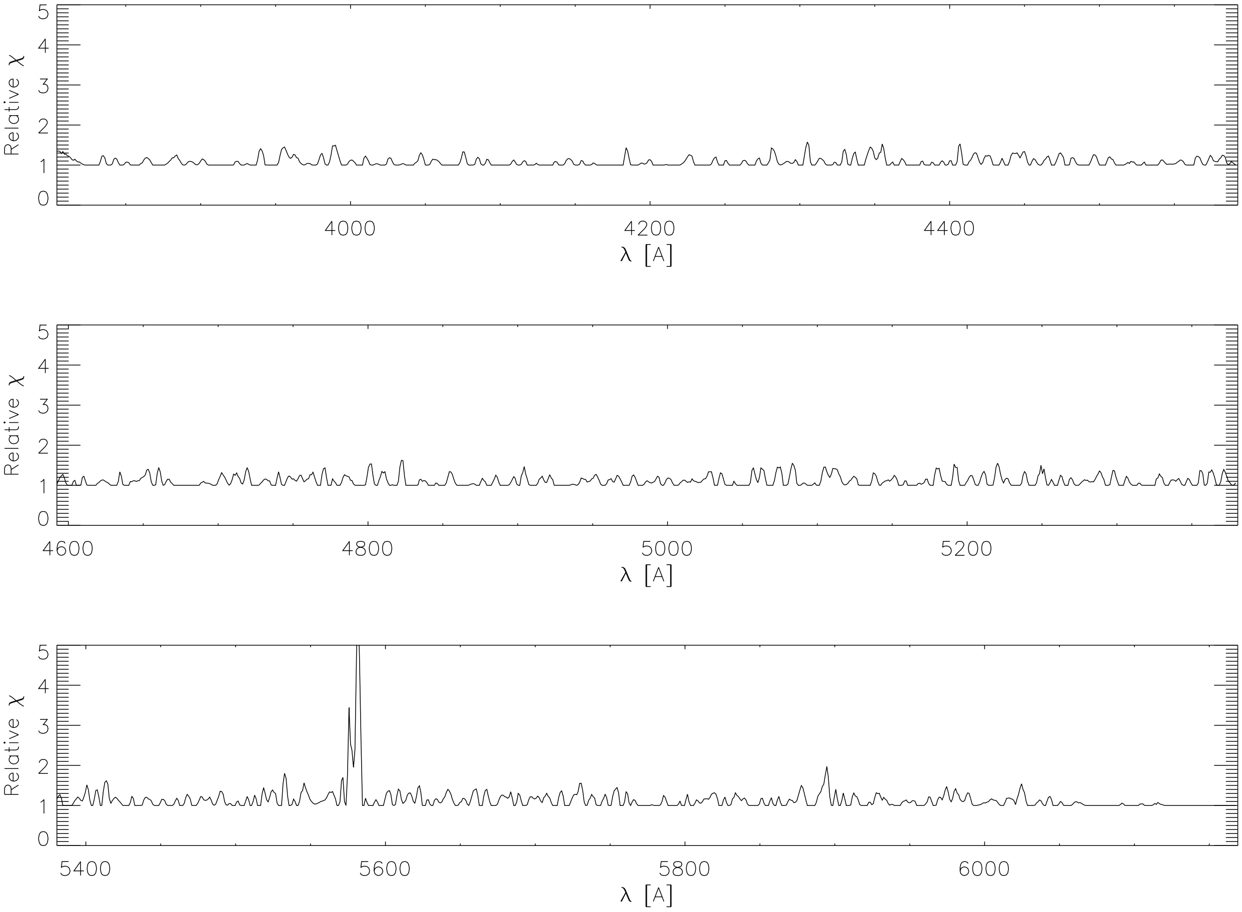

PLATE=3128 MJD=54770 sdR-b1-00056053.fit 1D Sky-subtraction Sky Fiber
Median $\chi^2$
0.8
0.6
0.4
0.2
0.0
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
−5
−10
−15
50
100
150
200
250
300
Fiber number

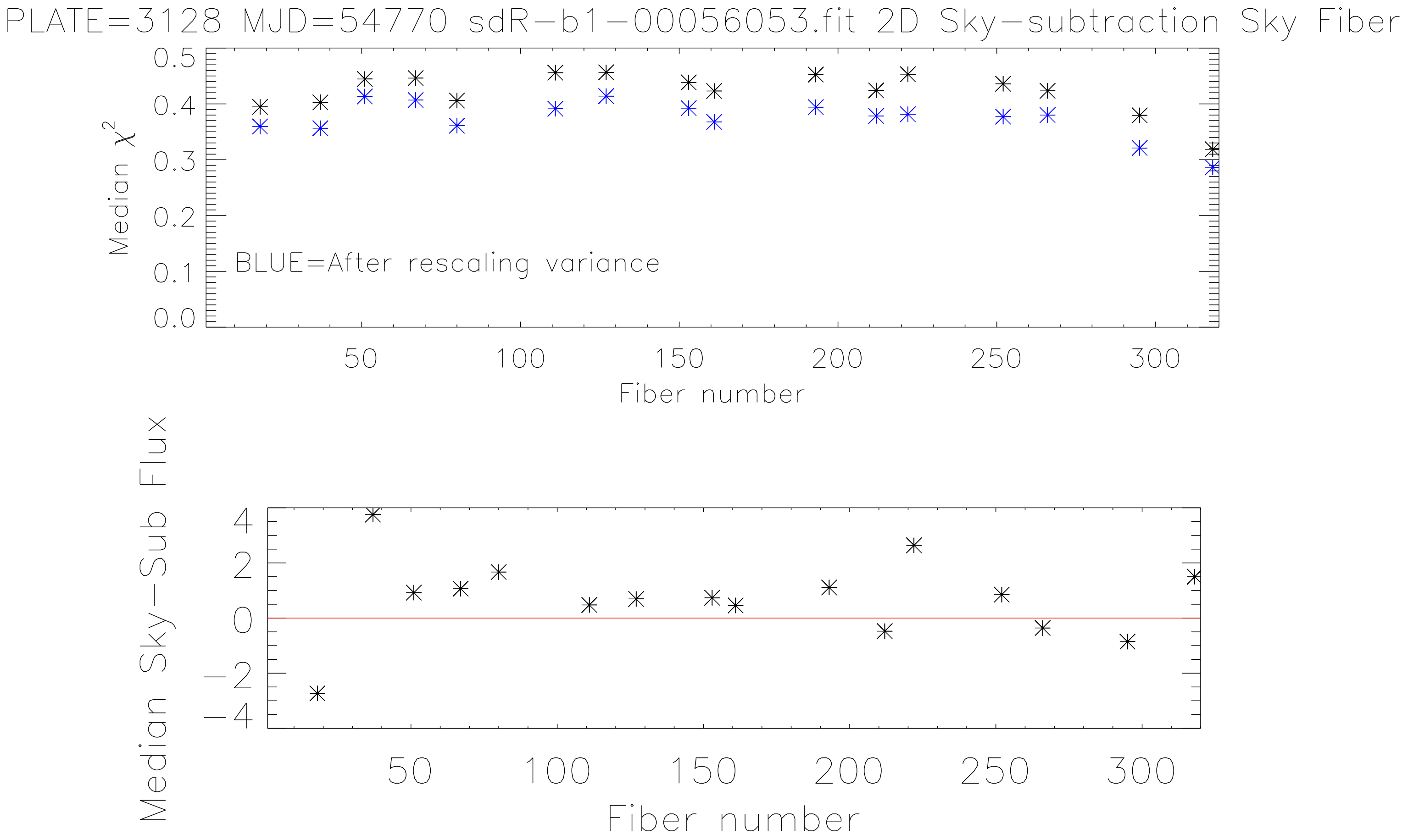

PLATE=3128 MJD=54770 sdR-b1-00056053.fit 1D Sky-subtraction Sky Fibers

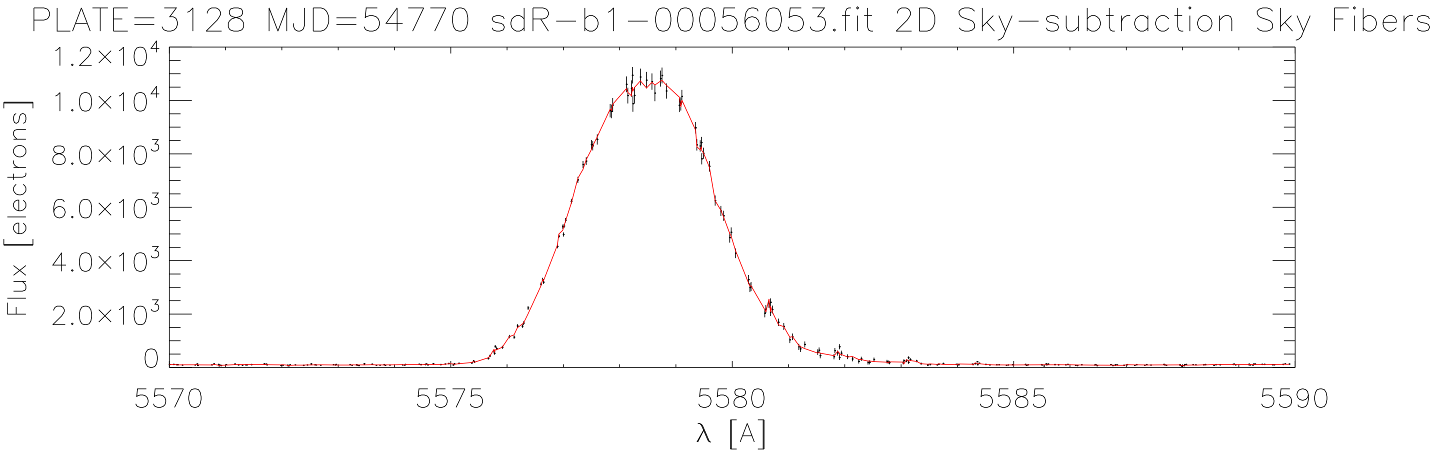

PLATE=3128 MJD=54770 sdR-b1-00056053.fit 1D Sky-subtraction Sky-subtracted Sky F

Number of sky fibers = 16

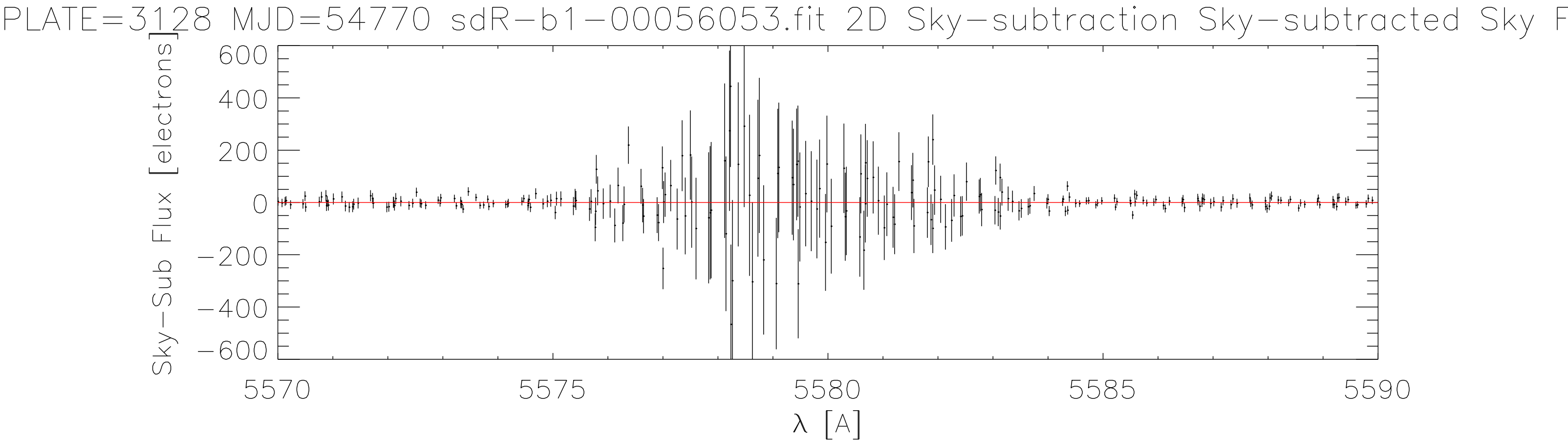
PLATE=3128 MJD=54770 sdR-b1-00056053.fit 1D Sky-subtraction Rescaled Errors



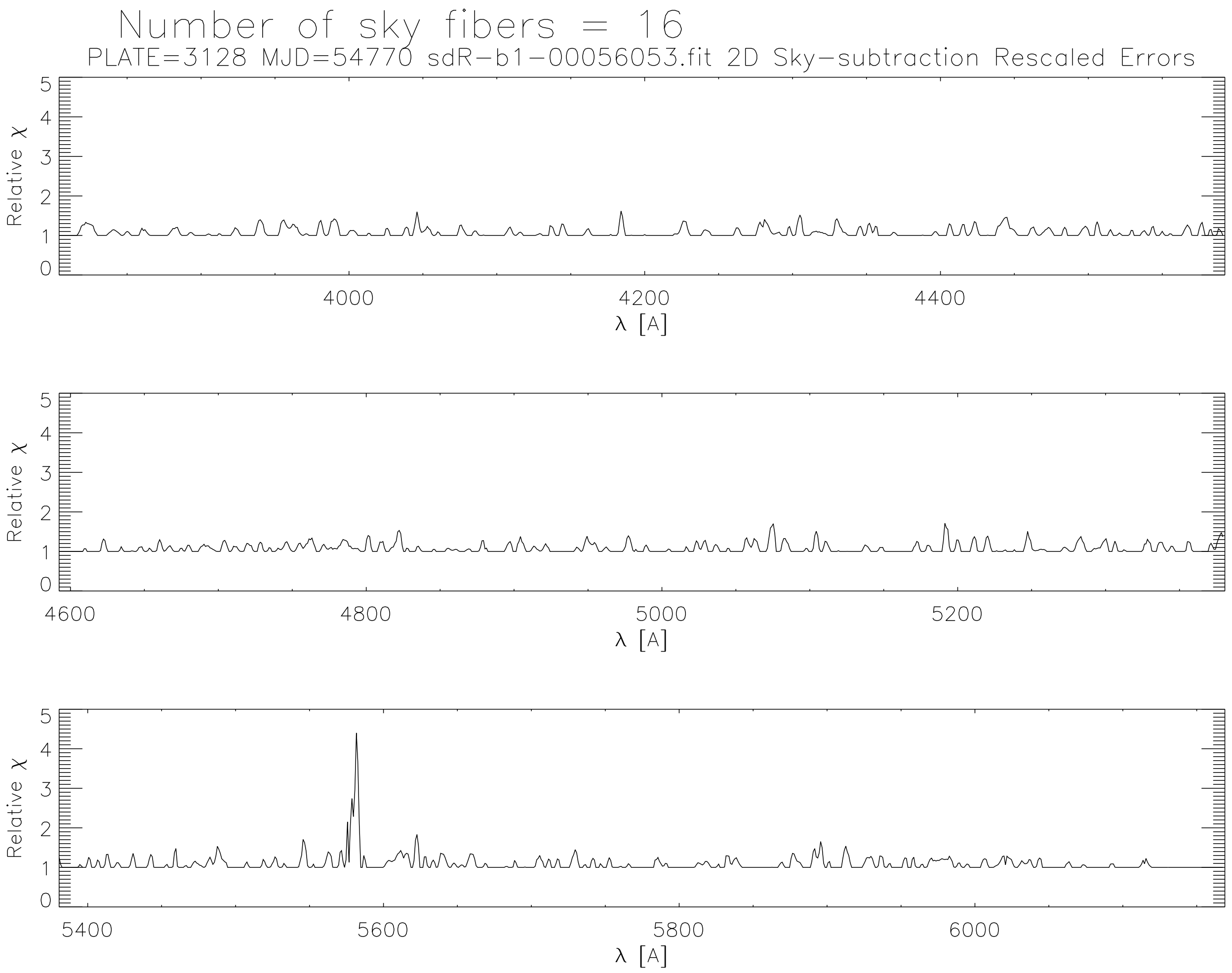

PLATE=3128 MJD=54770 sdR-b1-00056053.fit 2D Sky-subtraction Sky Fiber
Median $\chi^2$
BLUE=After rescaling variance
0.0
0.1
0.2
0.3
0.4
0.5
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-4
-2
0
2
4
50
100
150
200
250
300
Fiber number

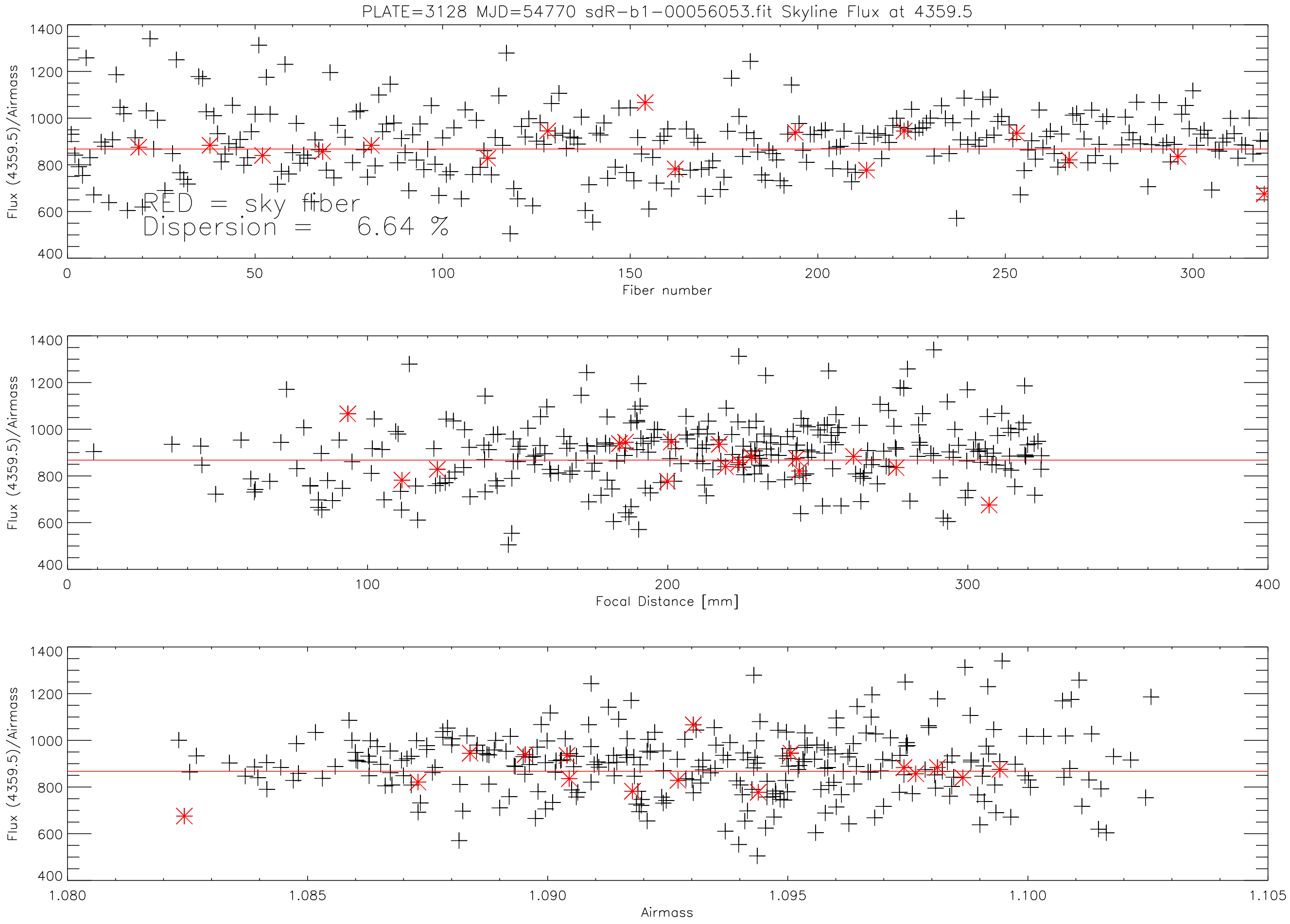


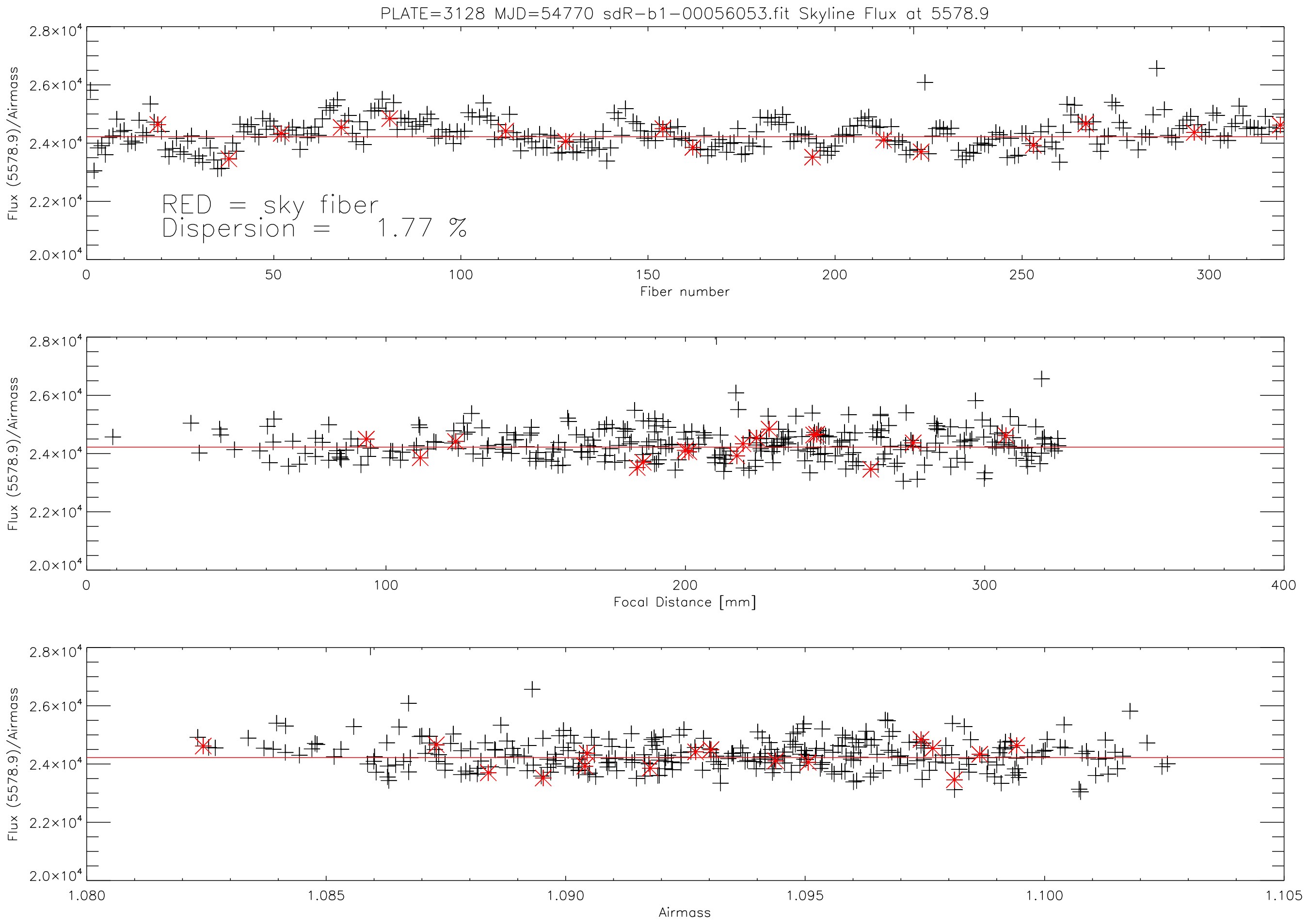
PLATE=3128 MJD=54770 sdR-b1-00056053.fit 2D Sky-subtraction Sky Fibers

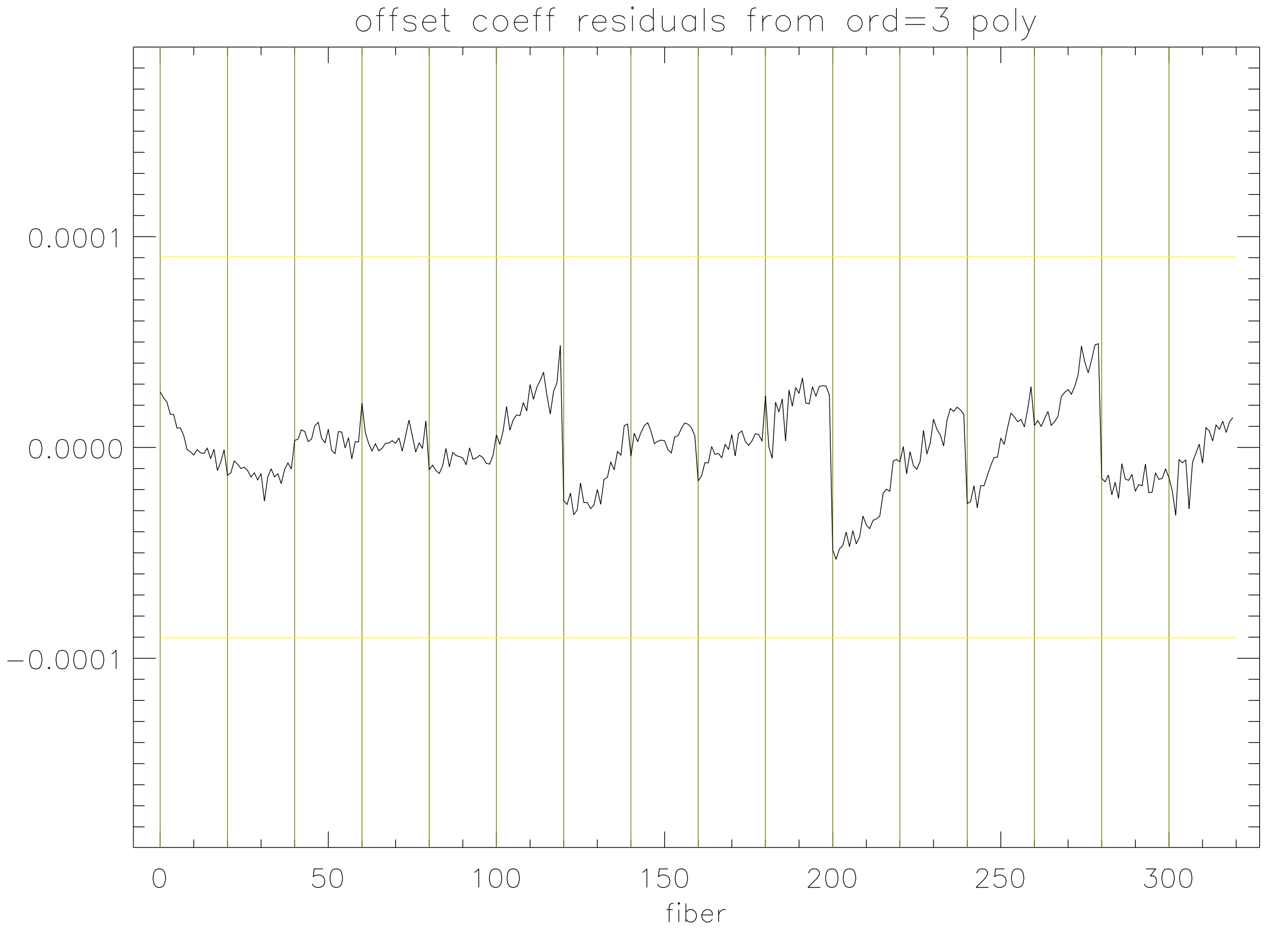


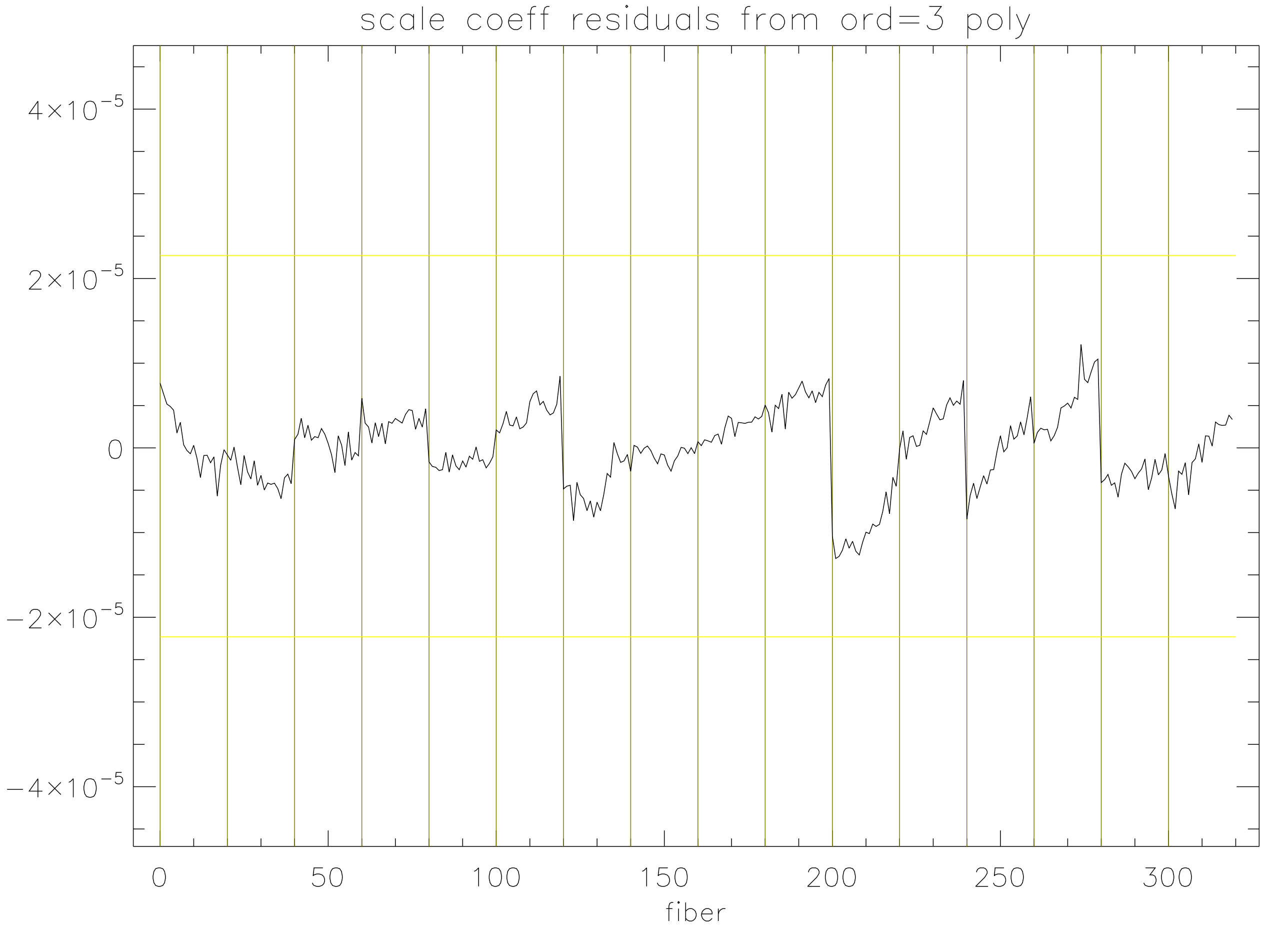
PLATE=3128 MJD=54770 sdR-b1-00056053.fit 2D Sky-subtraction Sky-subtracted Sky F

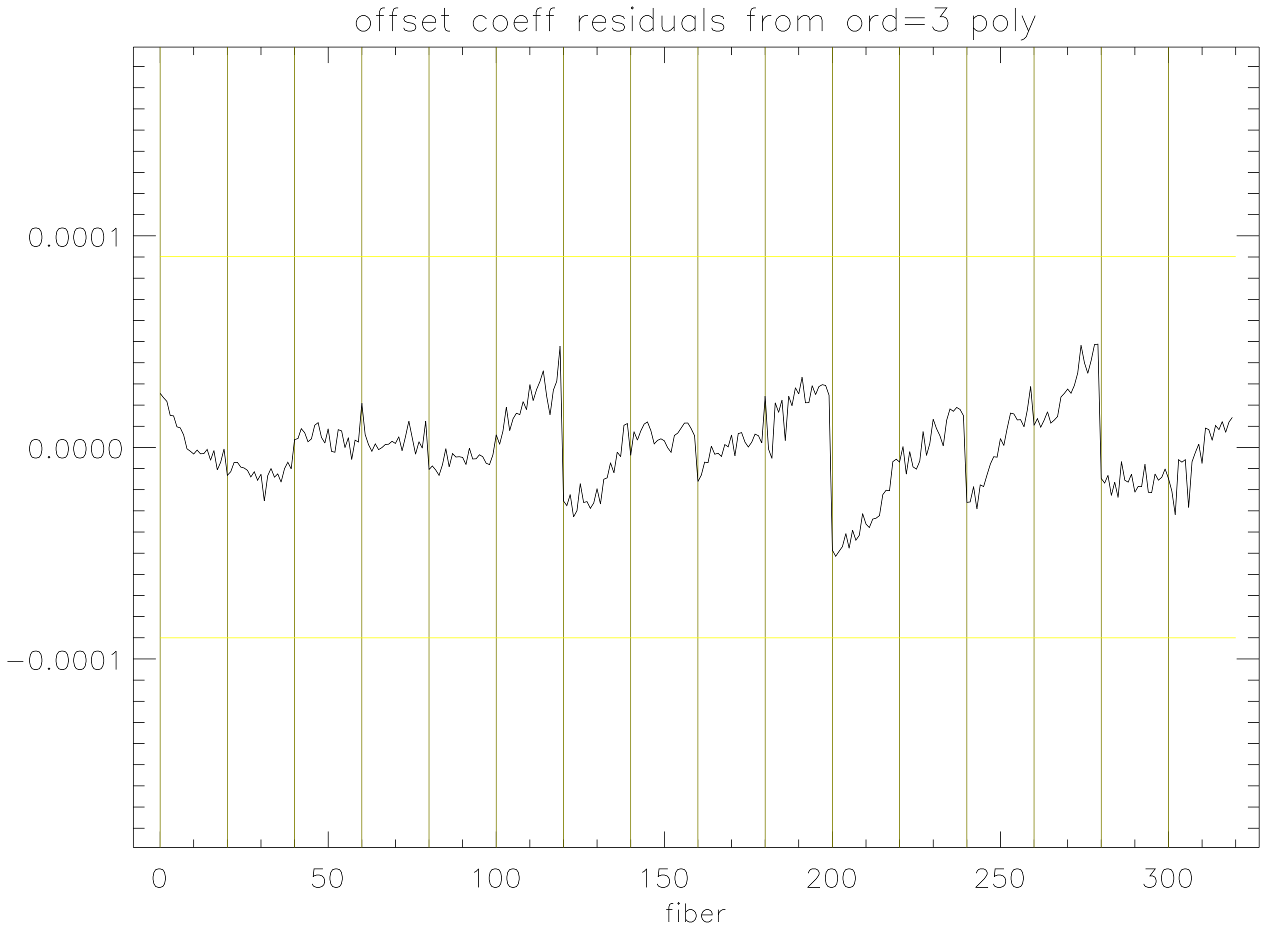

Number of sky fibers = 16
PLATE=3128 MJD=54770 sdR-b1-00056053.fit 2D Sky-subtraction Rescaled Errors
Relative χ
0
1
2
3
4
5
4000
4200
4400
λ [A]
Relative χ
0
1
2
3
4
5
4600
4800
5000
5200
λ [A]
Relative χ
0
1
2
3
4
5
5400
5600
5800
6000
λ [A]

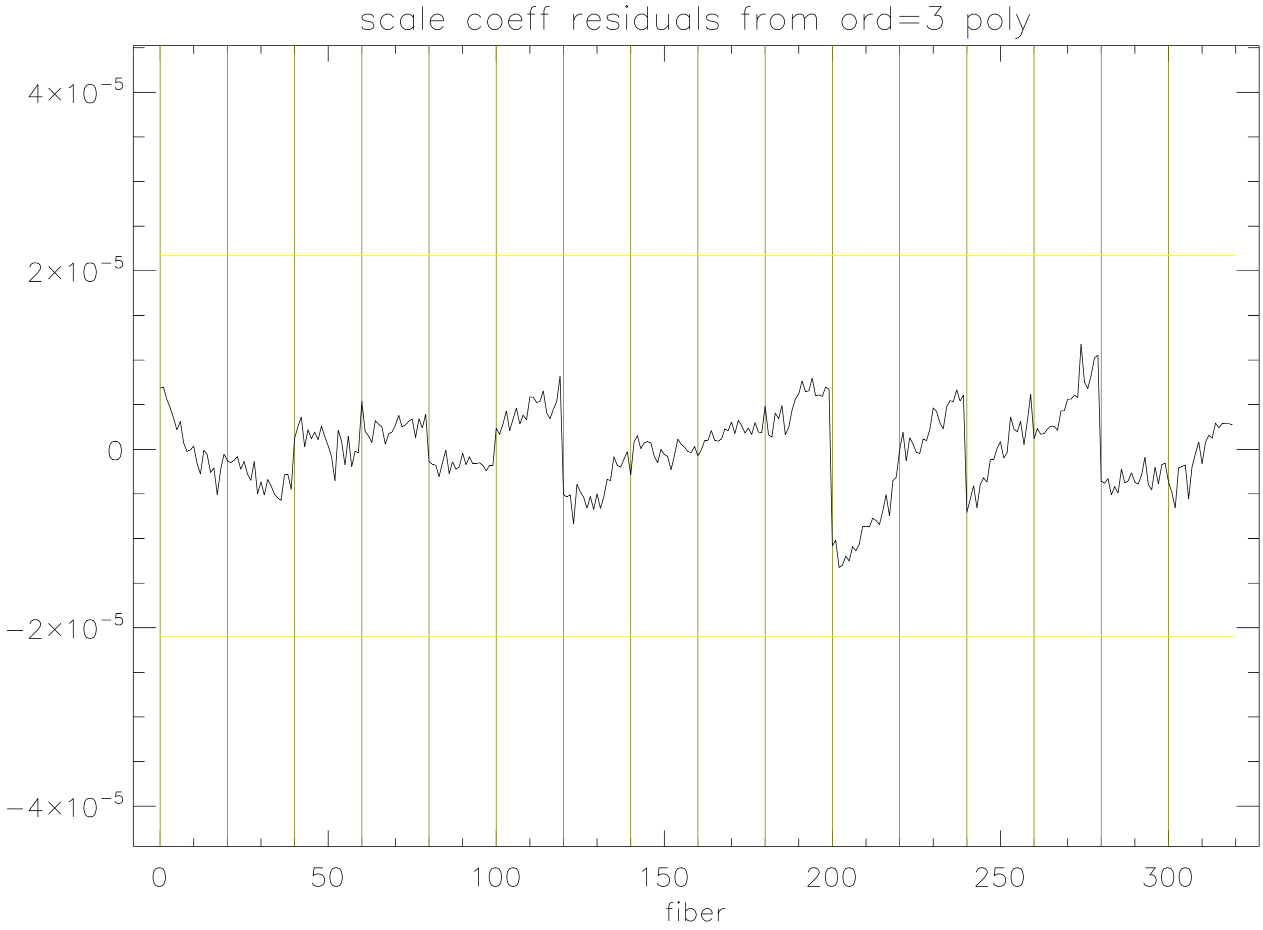

PLATE=3128 MJD=54770 sdR-b1-00056053.fit Skyline Flux at 4359.5

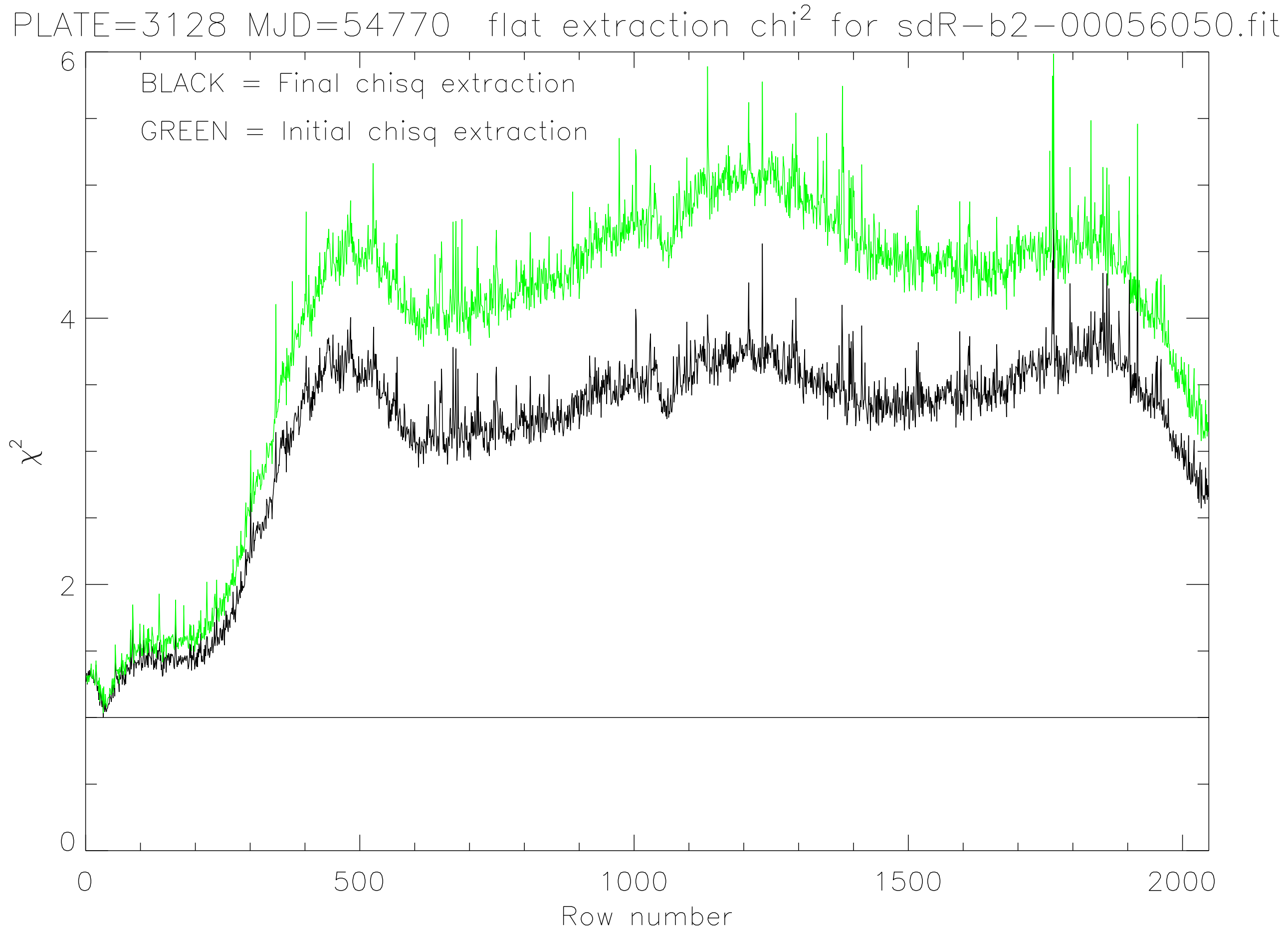

PLATE=3128 MJD=54770 sdR-b1-00056053.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
2.8×10⁴
2.6×10⁴
2.4×10⁴
2.2×10⁴
2.0×10⁴
RED = sky fiber
Dispersion = 1.77 %
0
50
100
150
200
250
300
Fiber number
0
100
200
300
400
Focal Distance [mm]
1.080
1.085
1.090
1.095
1.100
1.105
Airmass

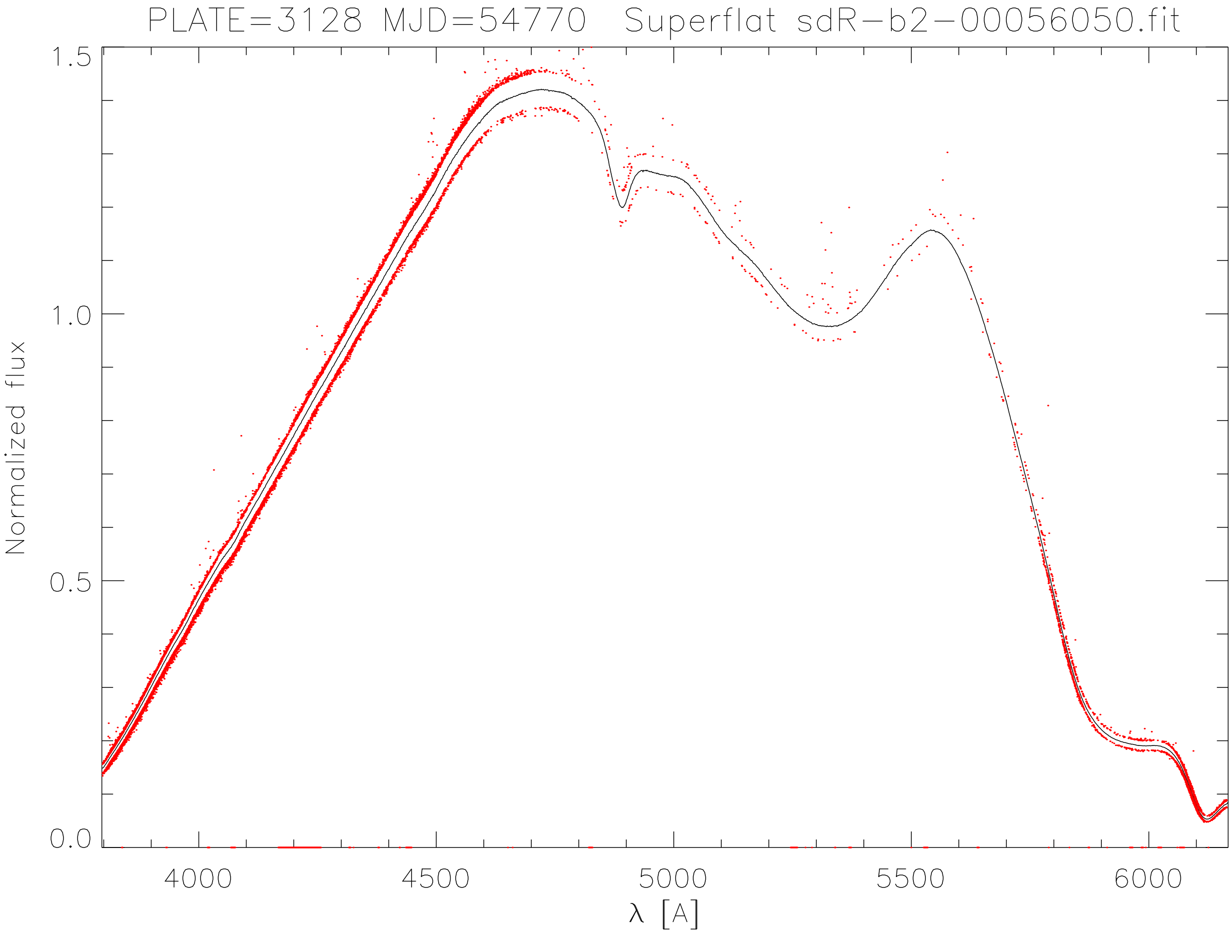

offset coeff residuals from ord=3 poly
0.0001
0.0000
−0.0001
0
50
100
150
200
250
300
fiber

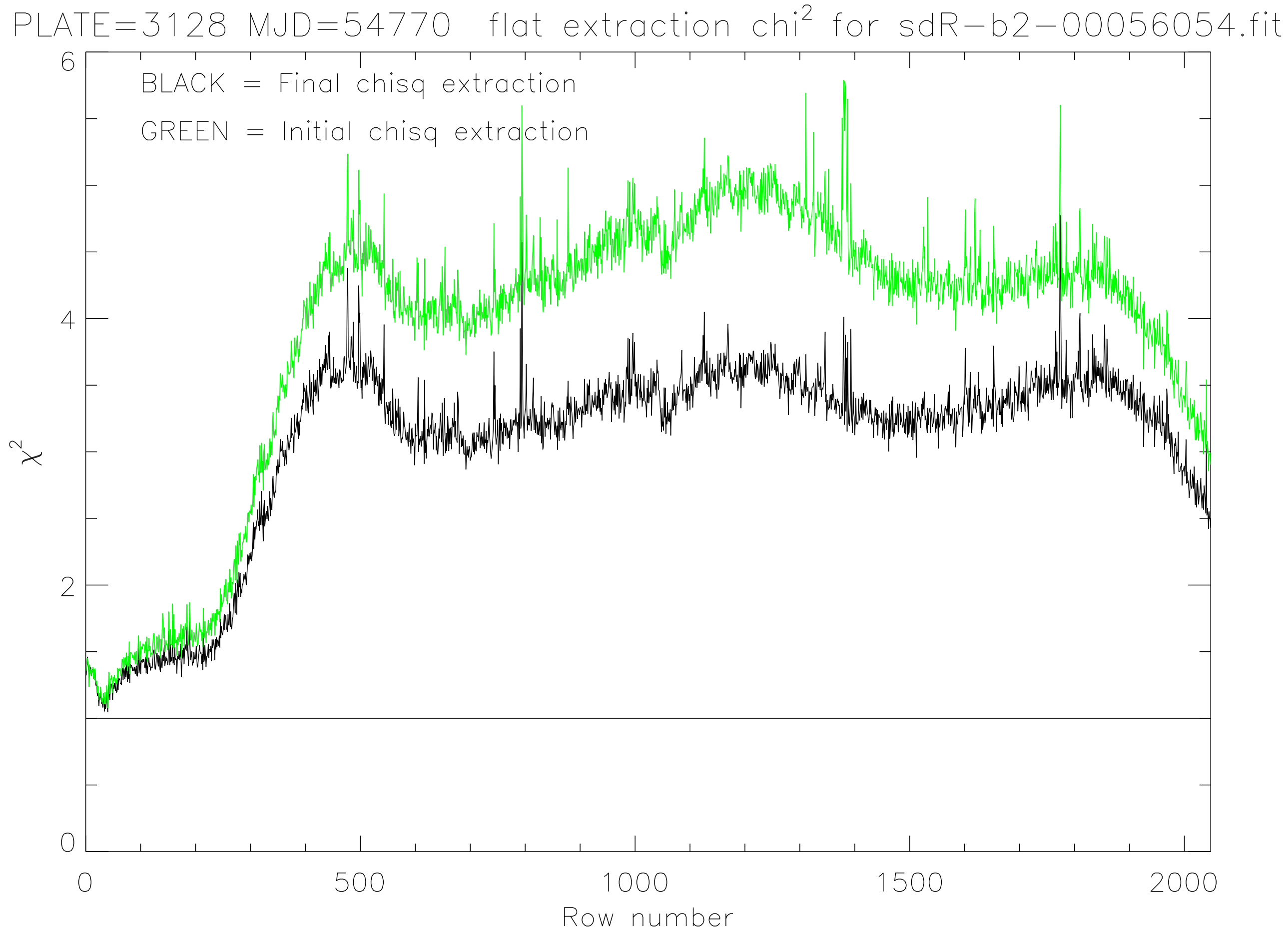

scale coeff residuals from ord=3 poly
4×10⁻⁵
2×10⁻⁵
0
−2×10⁻⁵
−4×10⁻⁵
0
50
100
150
200
250
300
fiber

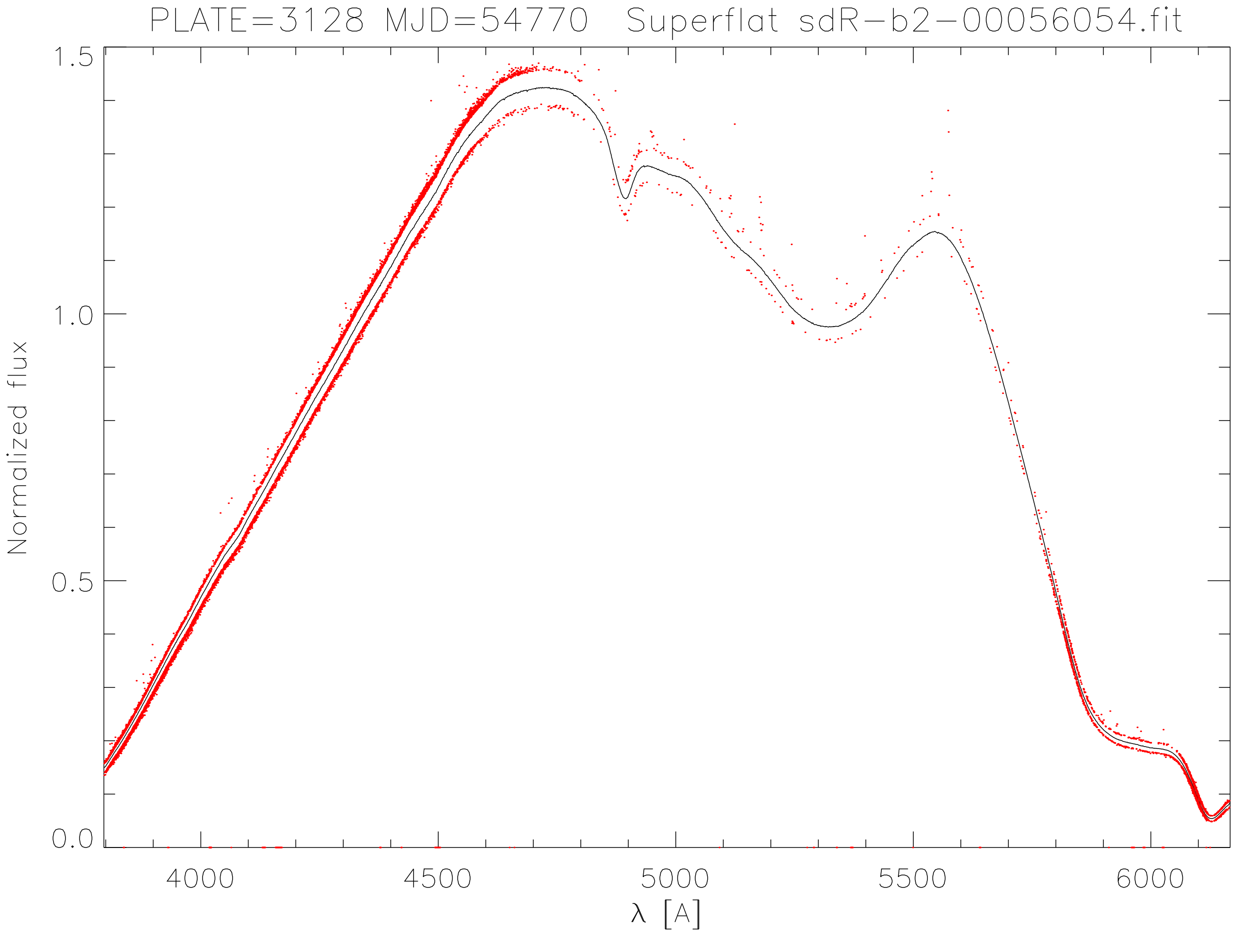

offset coeff residuals from ord=3 poly
0.0001
0.0000
−0.0001
0
50
100
150
200
250
300
fiber

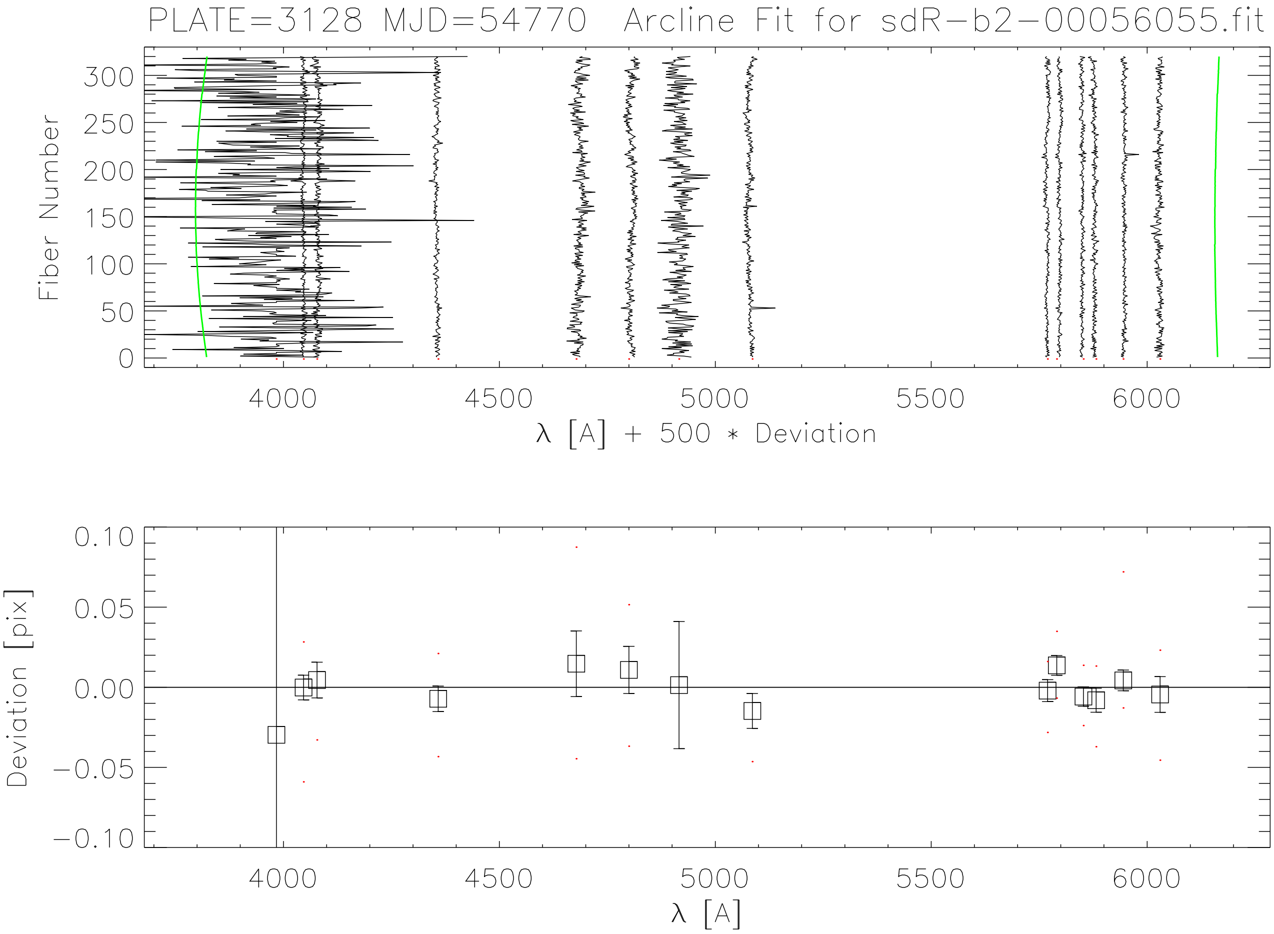

scale coeff residuals from ord=3 poly
$4\times10^{-5}$
$2\times10^{-5}$
0
$-2\times10^{-5}$
$-4\times10^{-5}$
0
50
100
150
200
250
300
fiber


PLATE=3128 MJD=54770 flat extraction chi$^2$ for sdR-b2-00056050.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
$\chi^2$
0
2
4
6
0
500
1000
1500
2000
Row number

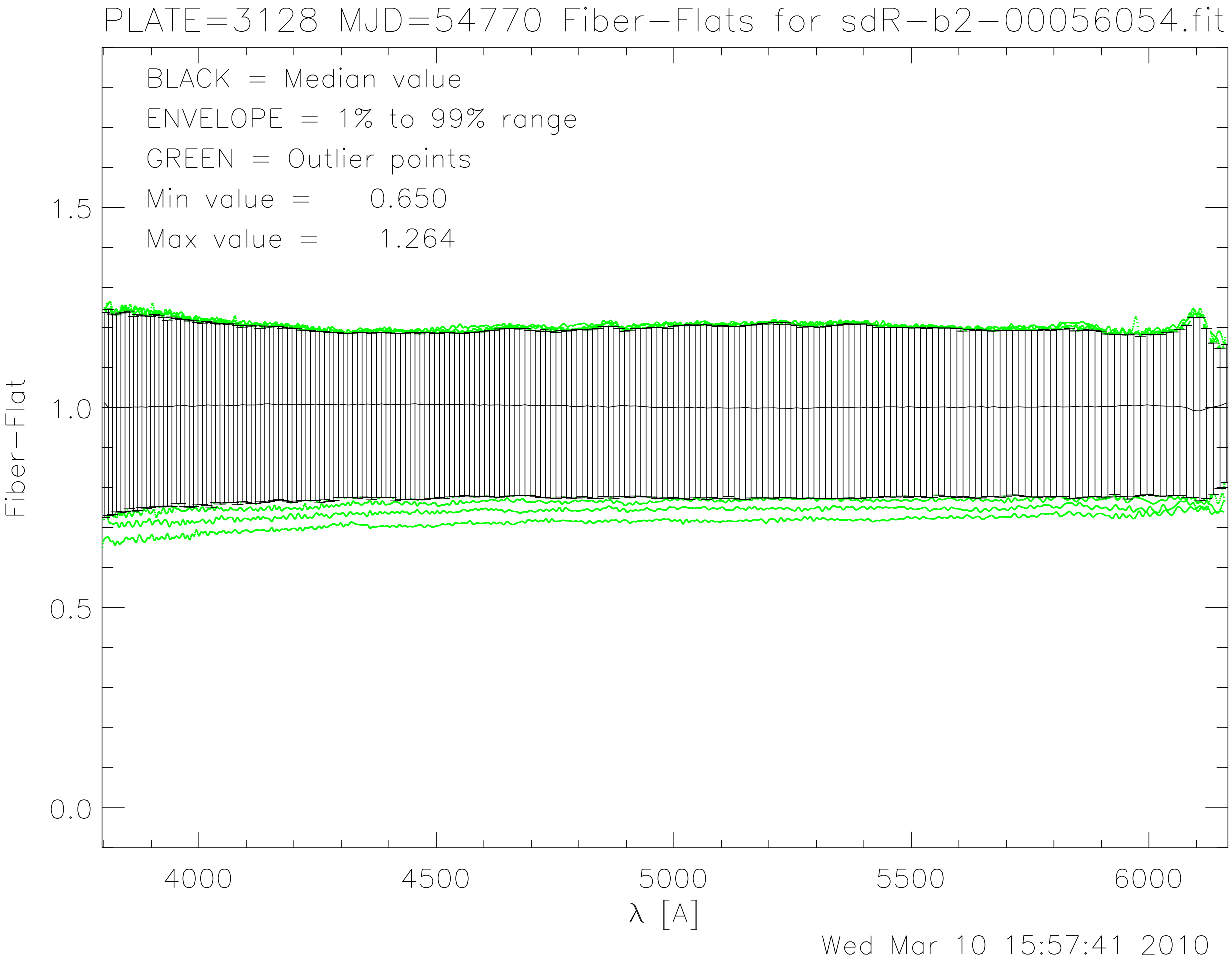

PLATE=3128 MJD=54770 Superflat sdR-b2-00056050.fit
Normalized flux
0.0
0.5
1.0
1.5
4000
4500
5000
5500
6000
λ [A]

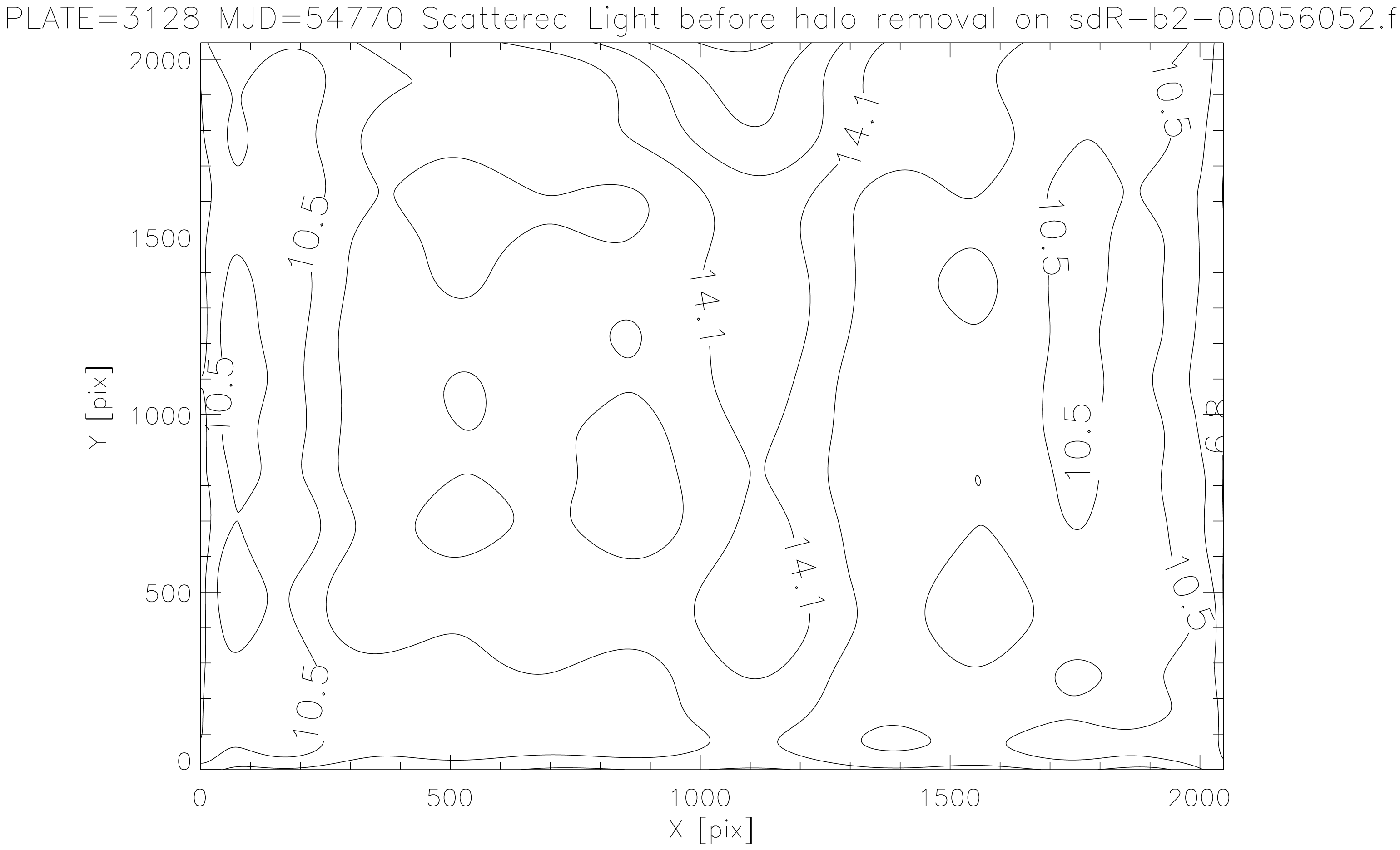

PLATE=3128 MJD=54770 flat extraction chi$^2$ for sdR-b2-00056054.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
$\chi^2$
0
2
4
6
0
500
1000
1500
2000
Row number

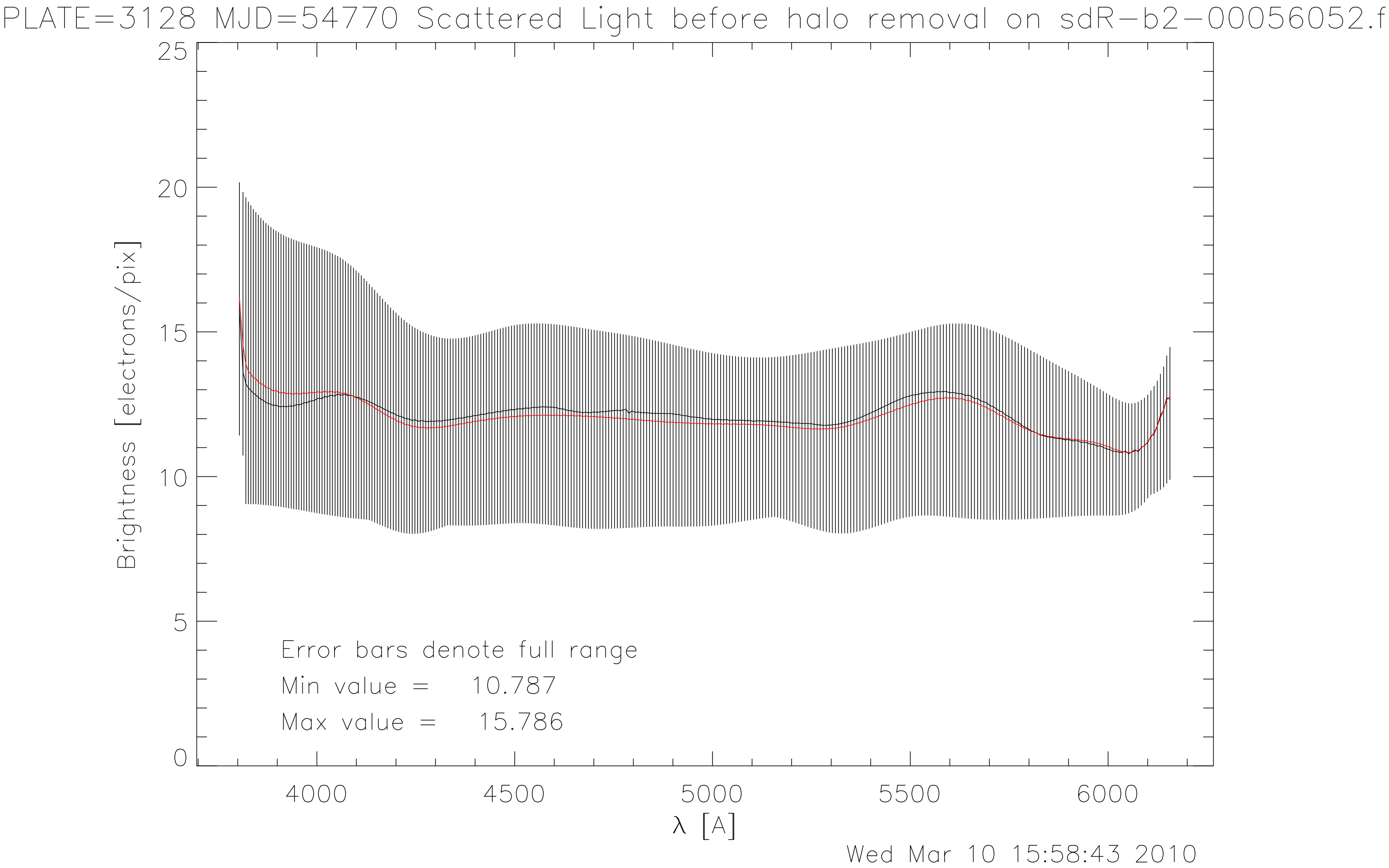

PLATE=3128 MJD=54770 Superflat sdR-b2-00056054.fit
Normalized flux
0.0
0.5
1.0
1.5
4000
4500
5000
5500
6000
λ [A]

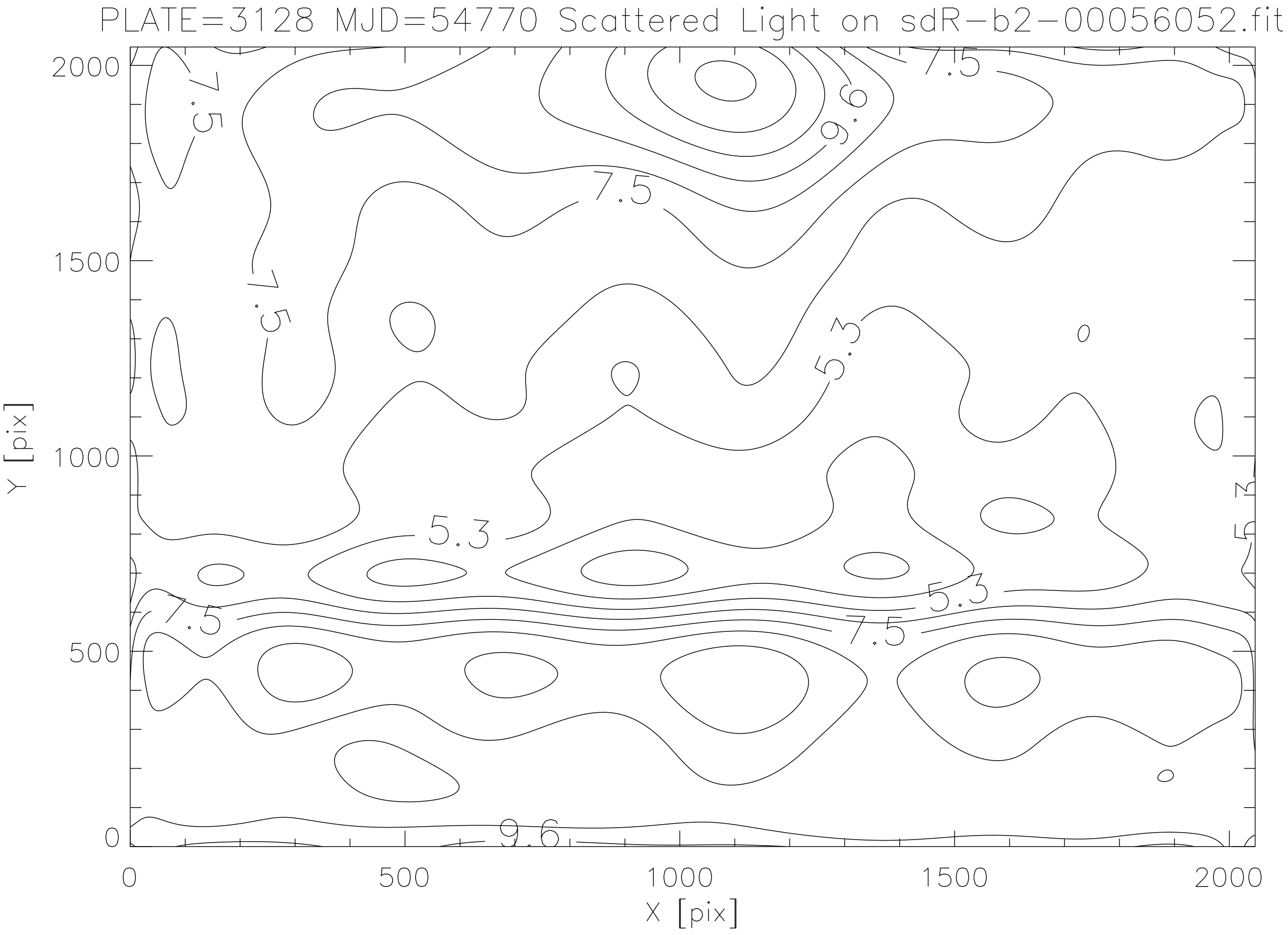

PLATE=3128 MJD=54770 Arcline Fit for sdR-b2-00056055.fit

Wed Mar 10 15:57:29 2010

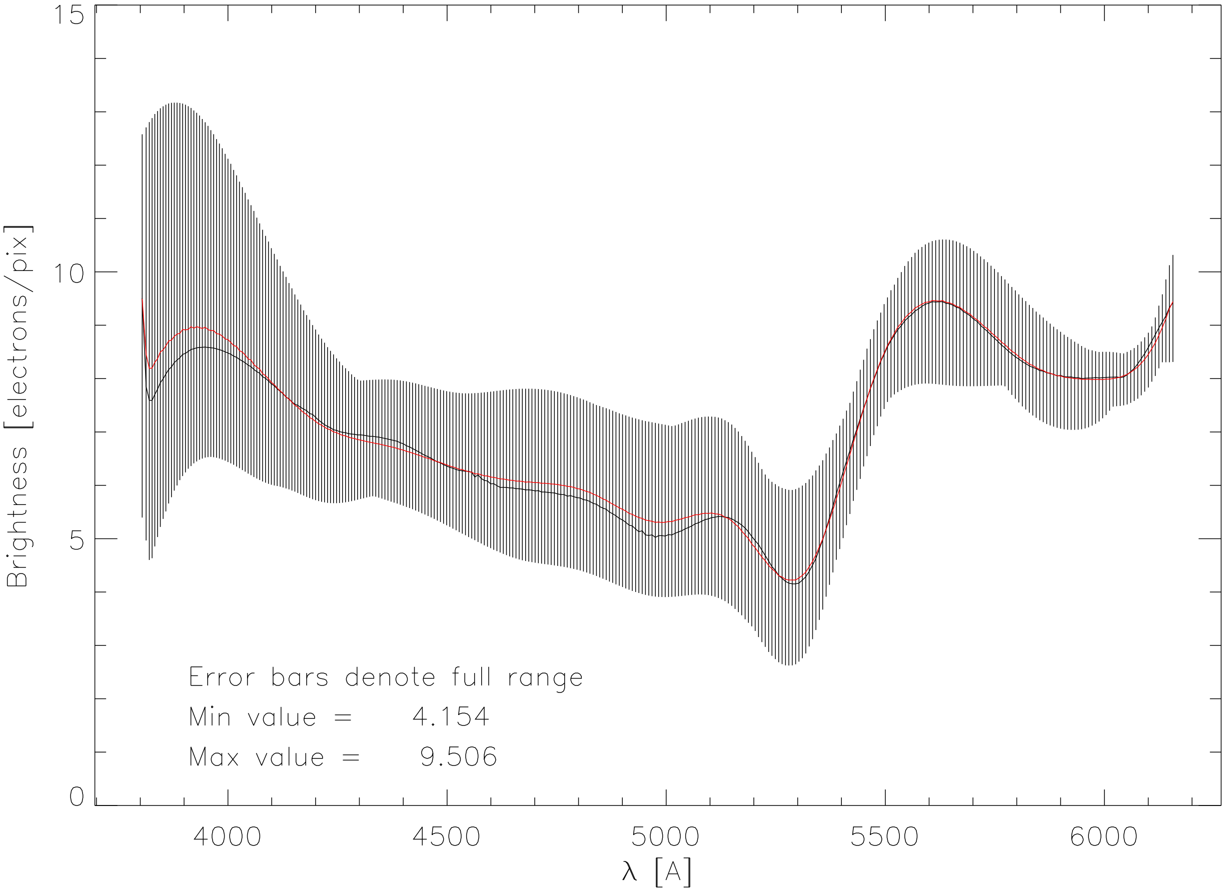

PLATE=3128 MJD=54770 Fiber−Flats for sdR−b2−00056054.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.650
Max value = 1.264
Fiber−Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Wed Mar 10 15:57:41 2010


PLATE=3128 MJD=54770 Scattered Light before halo removal on sdR-b2-00056052.f
Y [pix]
X [pix]
0
500
1000
1500
2000
10.5
10.5
10.5
10.5
10.5
10.5
10.5
14.1
14.1
14.1
6.9

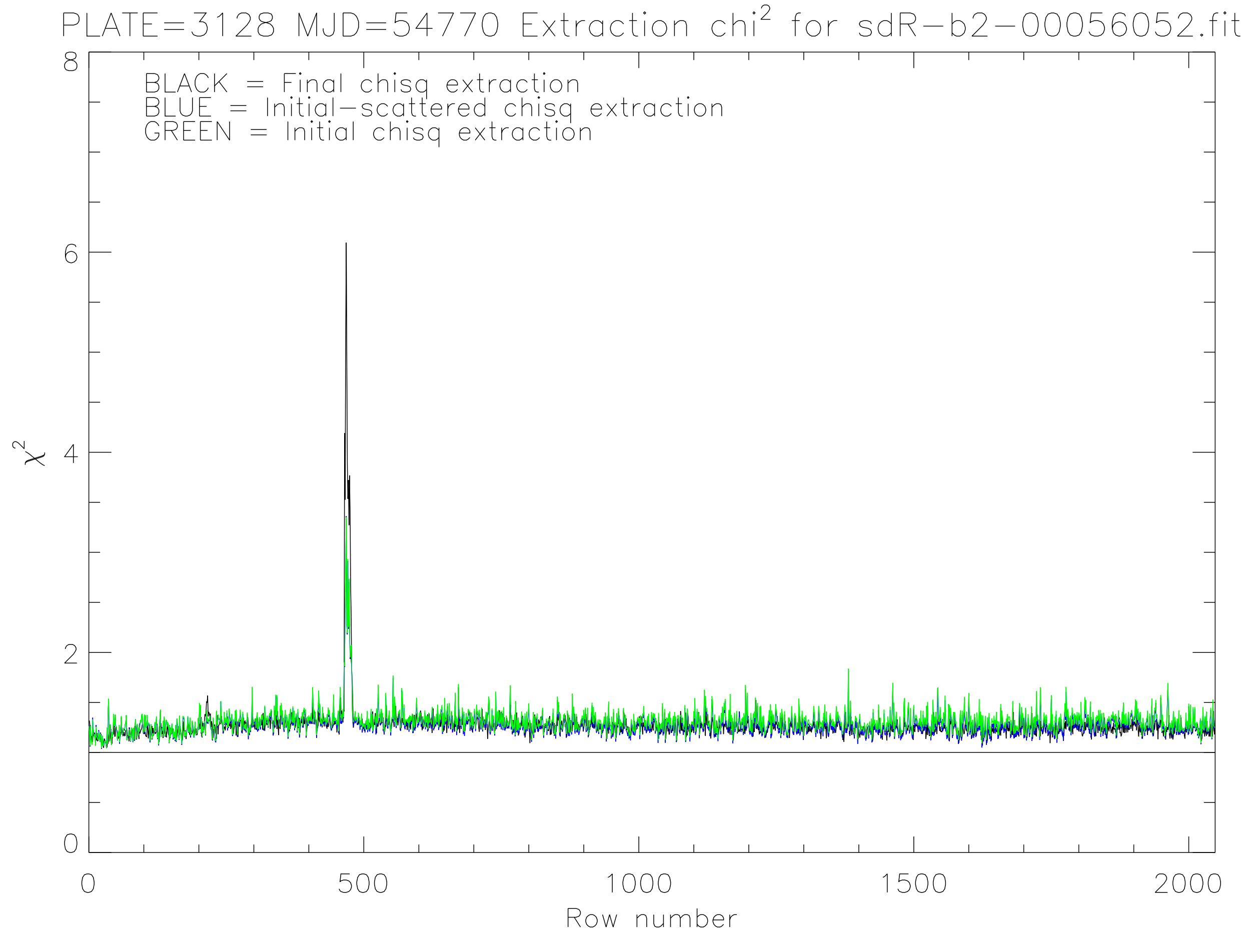

PLATE=3128 MJD=54770 Scattered Light before halo removal on sdR-b2-00056052.f
Brightness [electrons/pix]
0
5
10
15
20
25
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 10.787
Max value = 15.786
Wed Mar 10 15:58:43 2010


PLATE=3128 MJD=54770 Scattered Light on sdR-b2-00056052.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
7.5
9.6
5.3

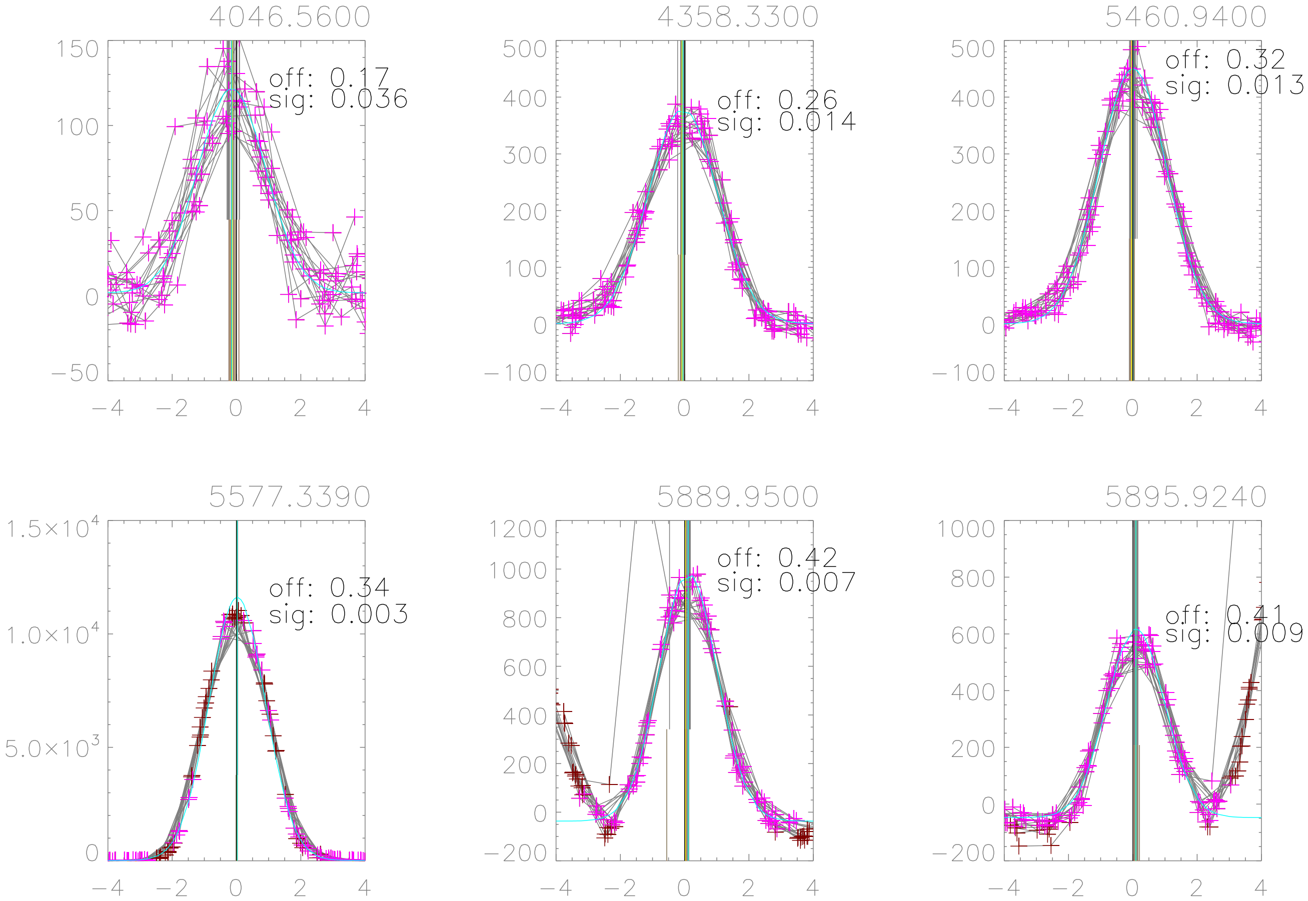
PLATE=3128 MJD=54770 Scattered Light on sdR-b2-00056052.fit

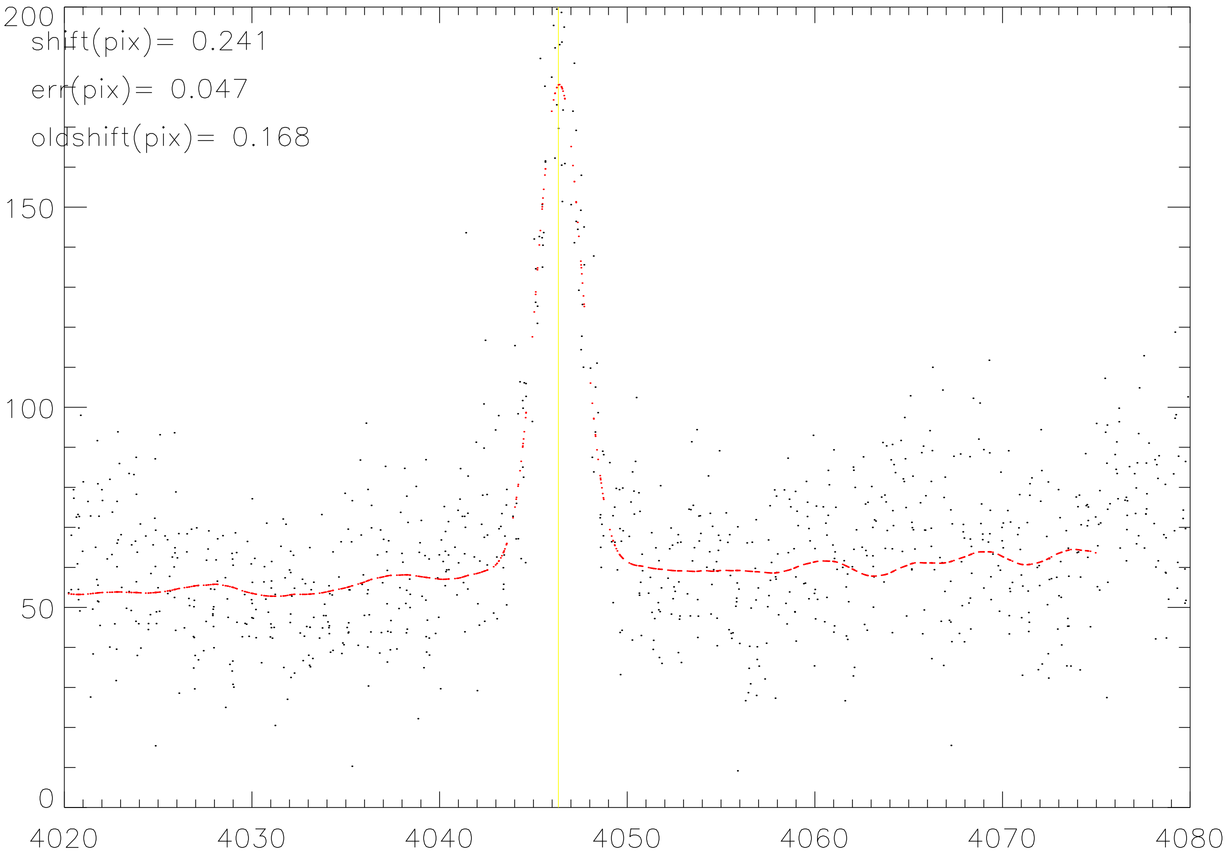


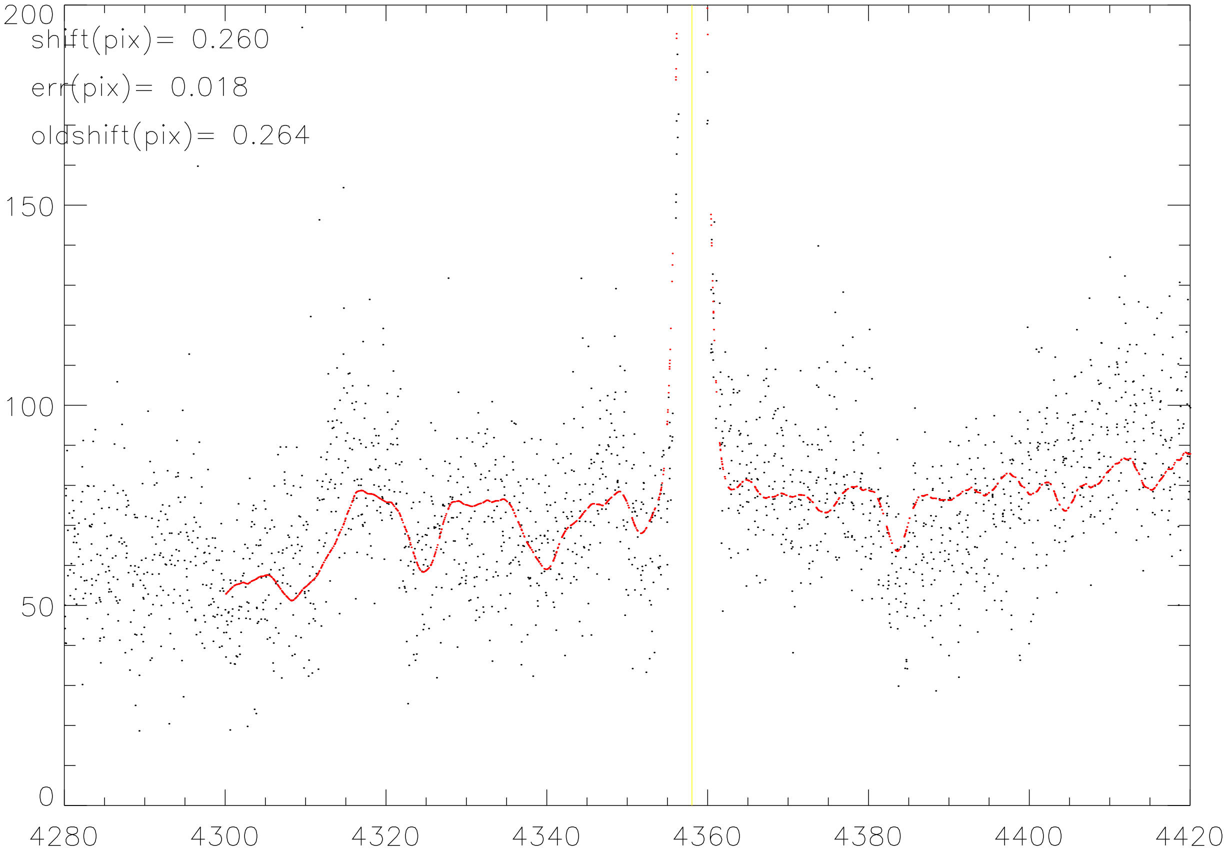
Wed Mar 10 16:02:39 2010

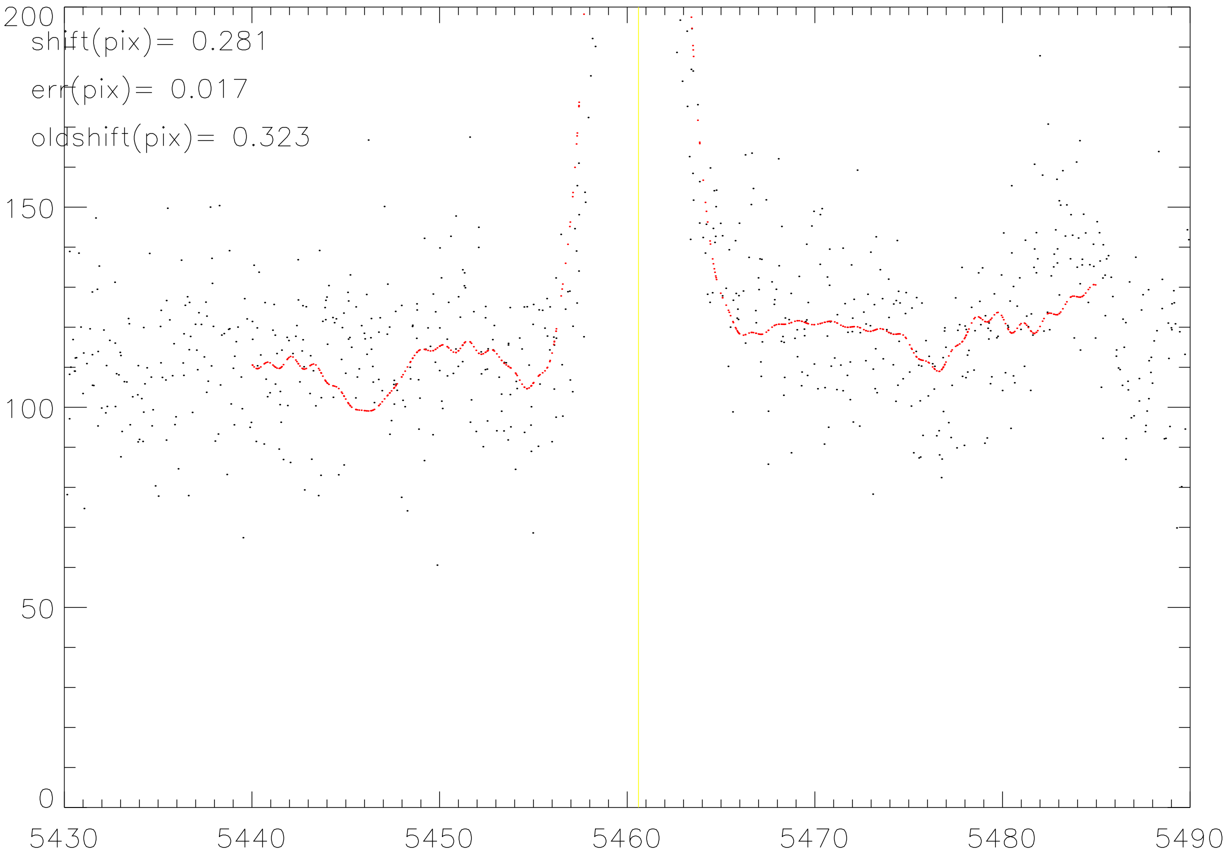


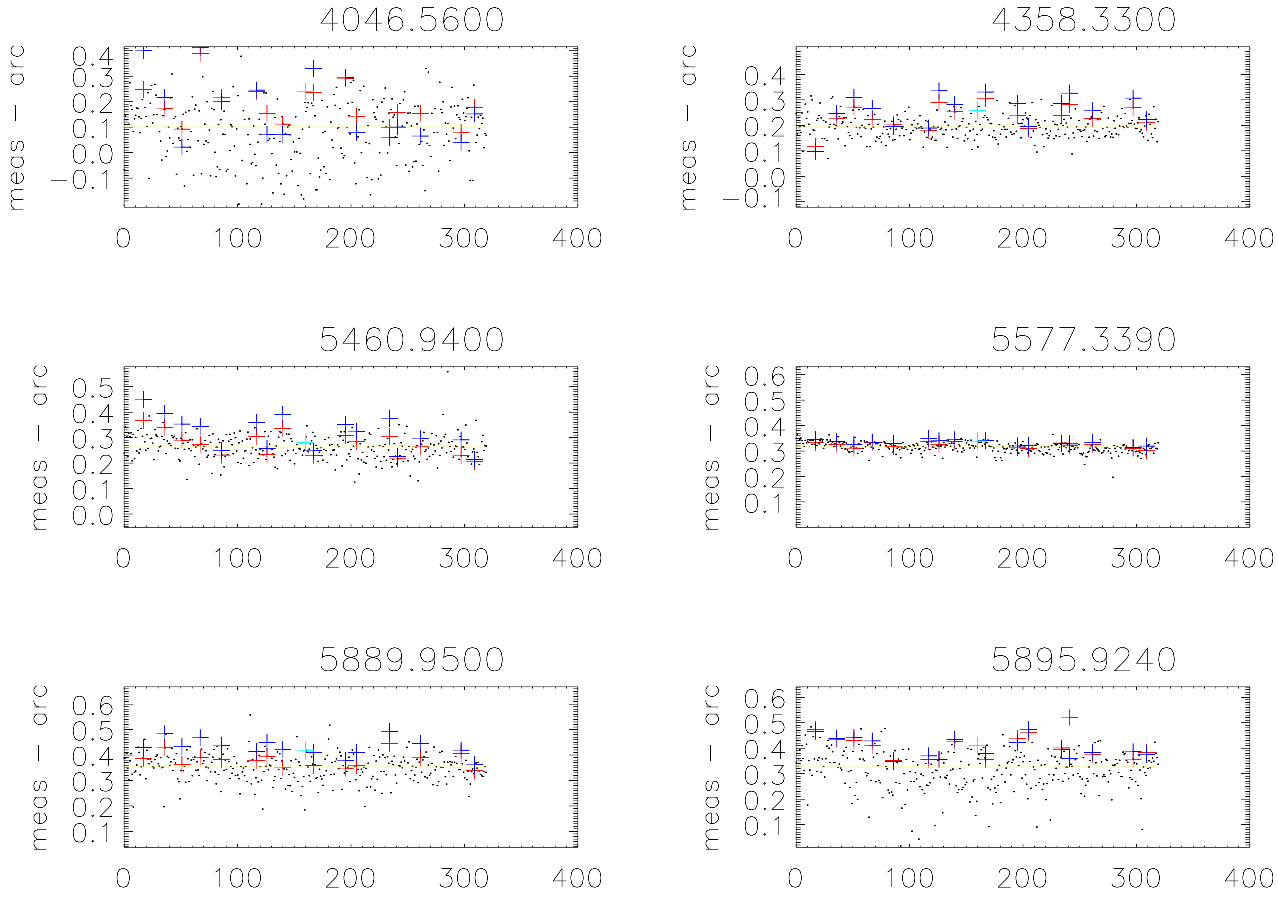
PLATE=3128 MJD=54770 Extraction $chi^2$ for sdR-b2-00056052.fit

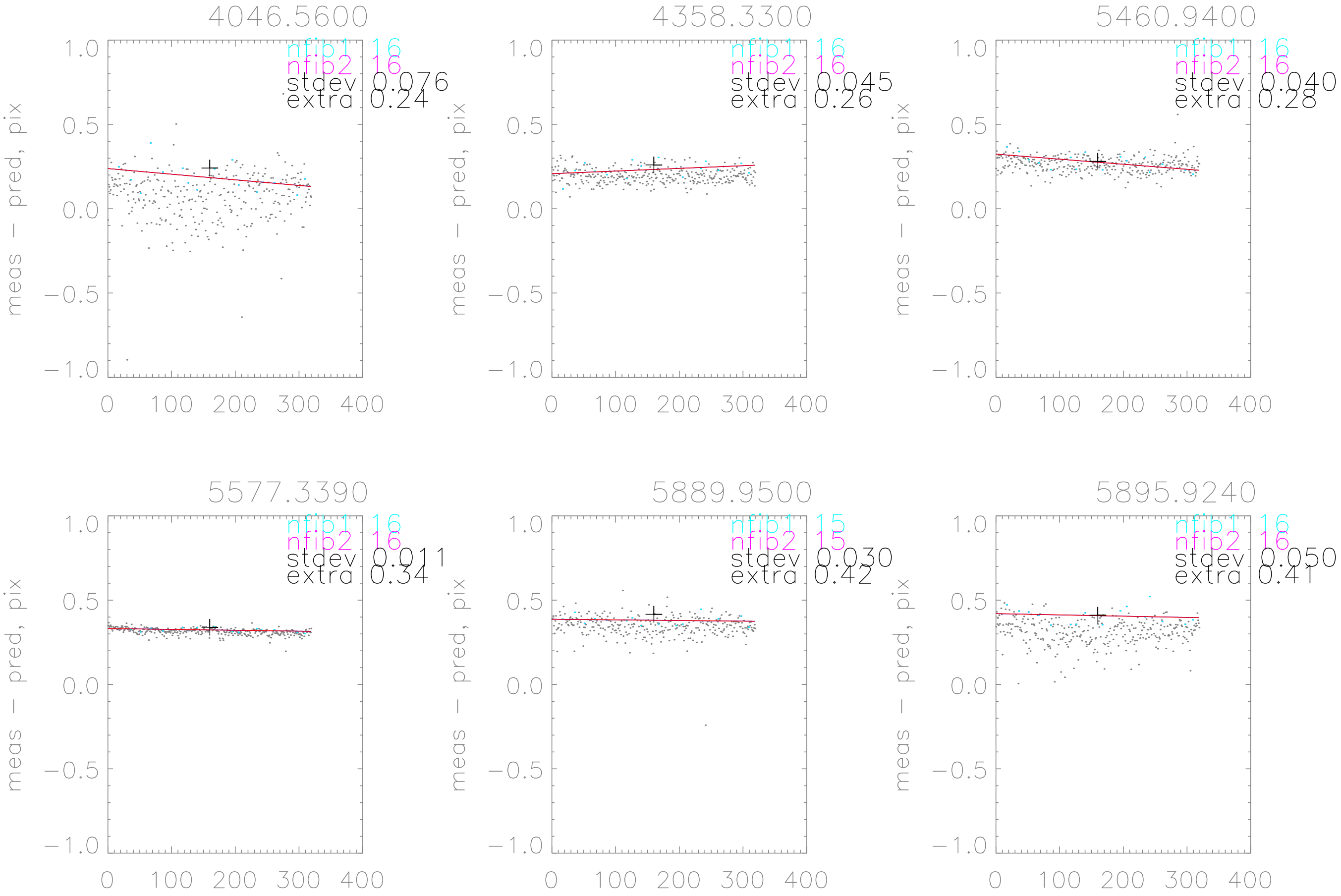

4046.5600
off: 0.17
sig: 0.036
4358.3300
off: 0.26
sig: 0.014
5460.9400
off: 0.32
sig: 0.013
5577.3390
off: 0.34
sig: 0.003
5889.9500
off: 0.42
sig: 0.007
5895.9240
off: 0.41
sig: 0.009
150
100
50
0
−50
500
400
300
200
100
0
−100
1.5×10^4
1.0×10^4
5.0×10^3
1200
1000
800
600
400
200
−200
−4
−2
2
4

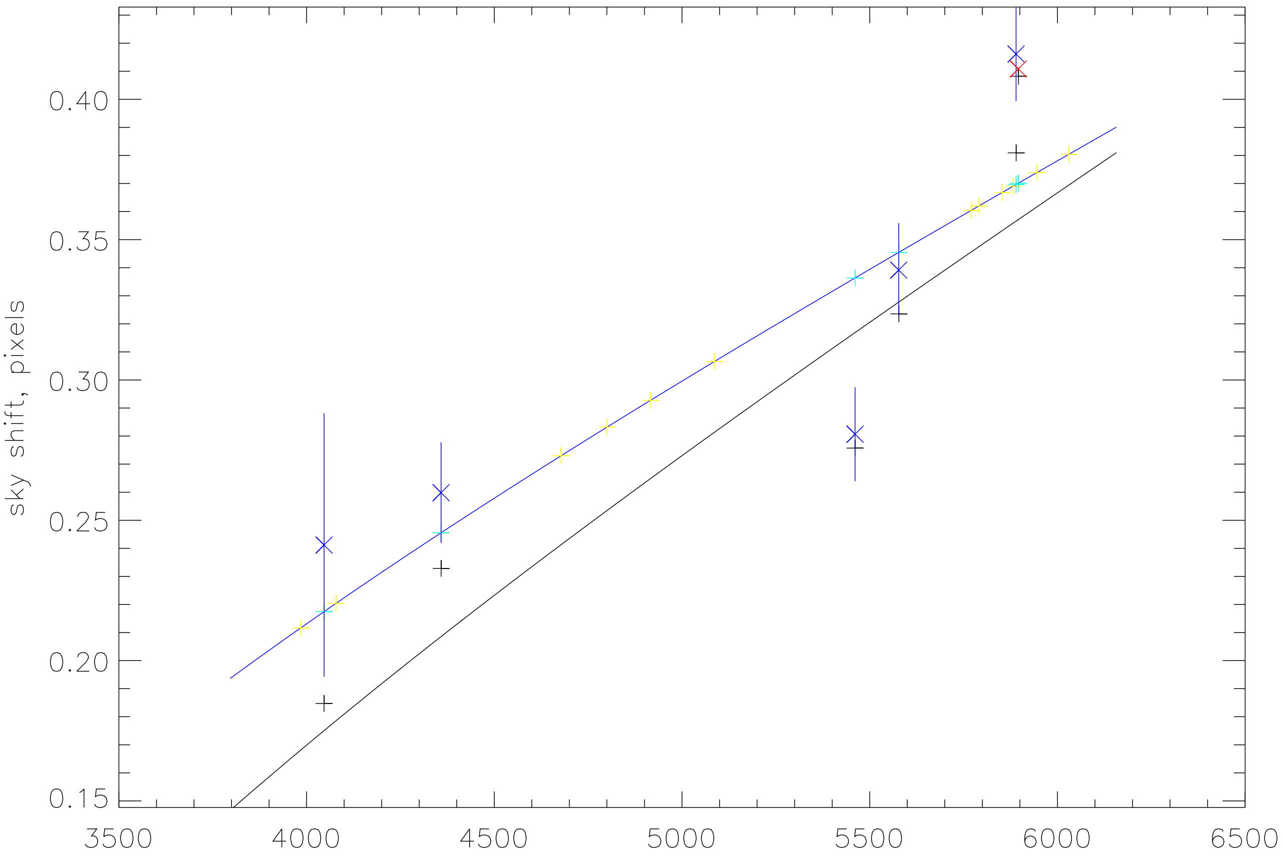

shift(pix)= 0.241
err(pix)= 0.047
oldshift(pix)= 0.168
200
150
100
50
0
4020
4030
4040
4050
4060
4070
4080

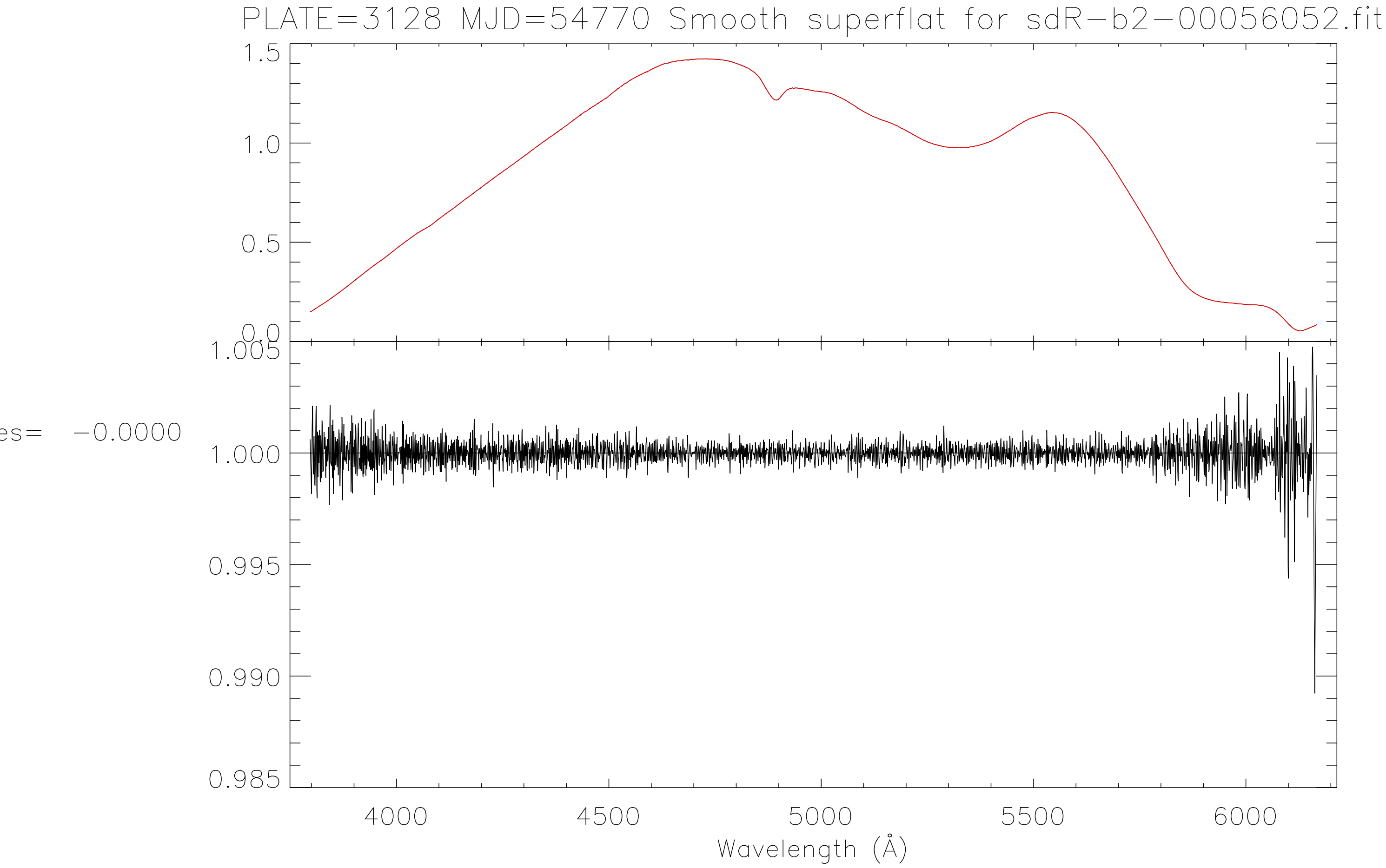

shift(pix)= 0.260
err(pix)= 0.018
oldshift(pix)= 0.264
0
50
100
150
200
4280
4300
4320
4340
4360
4380
4400
4420

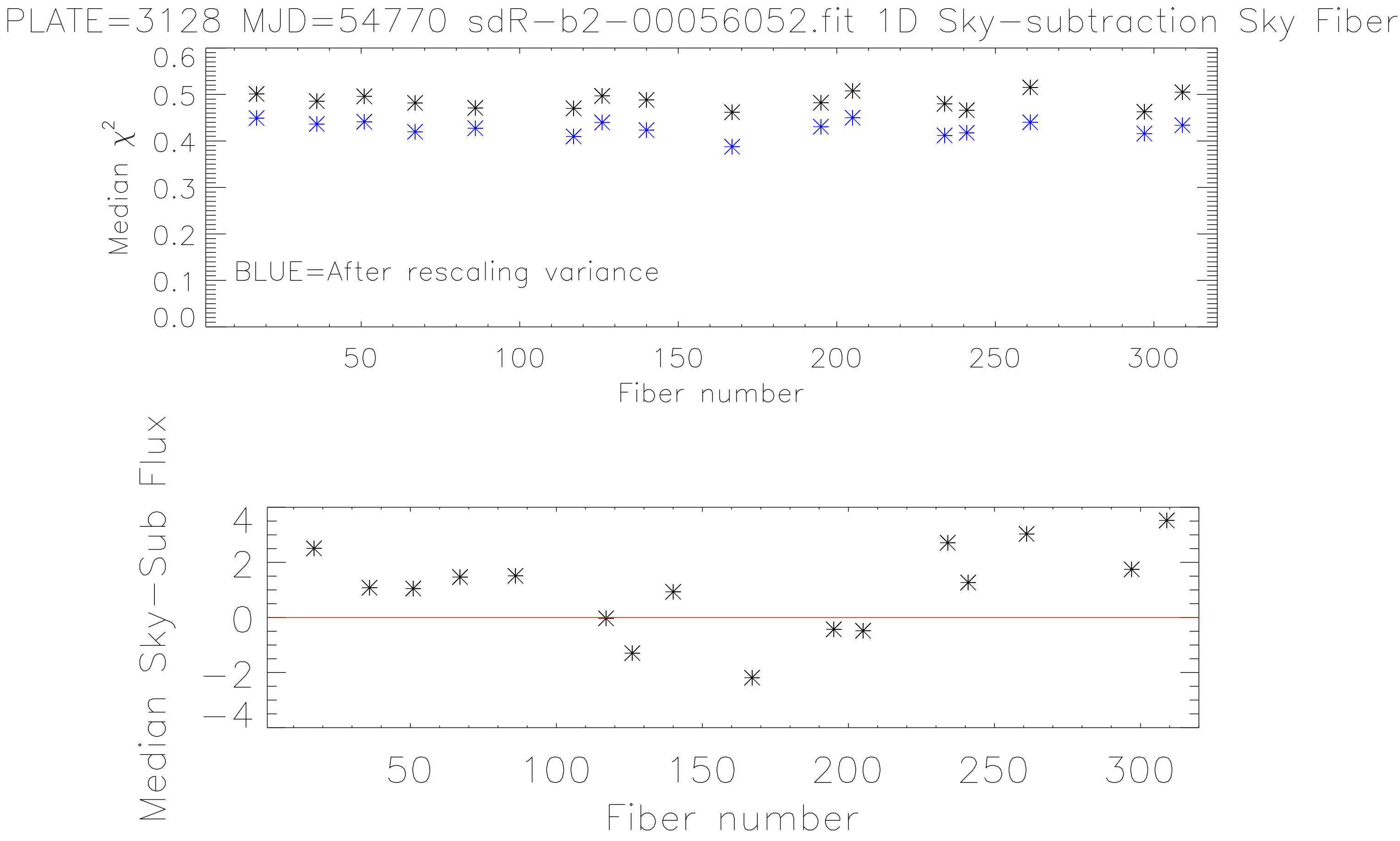

shift(pix)= 0.281
err(pix)= 0.017
oldshift(pix)= 0.323
200
150
100
50
0
5430
5440
5450
5460
5470
5480
5490

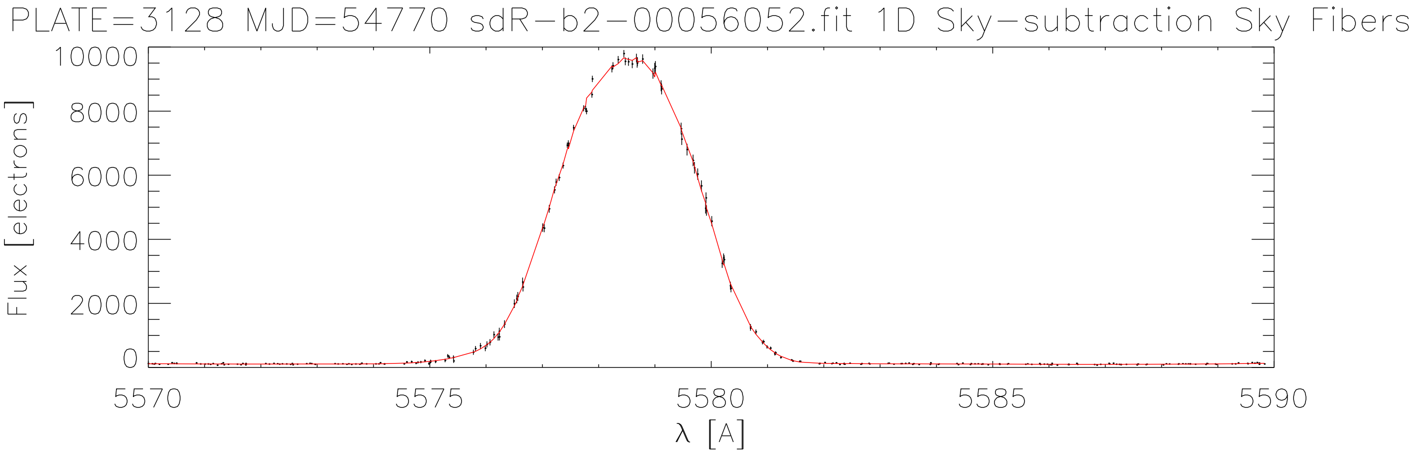

4046.5600
4358.3300
5460.9400
5577.3390
5889.9500
5895.9240
meas − arc
0
100
200
300
400


4046.5600
nfib1 16
nfib2 16
stdev 0.076
extra 0.24
4358.3300
nfib1 16
nfib2 16
stdev 0.045
extra 0.26
5460.9400
nfib1 16
nfib2 16
stdev 0.040
extra 0.28
5577.3390
nfib1 16
nfib2 16
stdev 0.011
extra 0.34
5889.9500
nfib1 15
nfib2 15
stdev 0.030
extra 0.42
5895.9240
nfib1 16
nfib2 16
stdev 0.050
extra 0.41
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

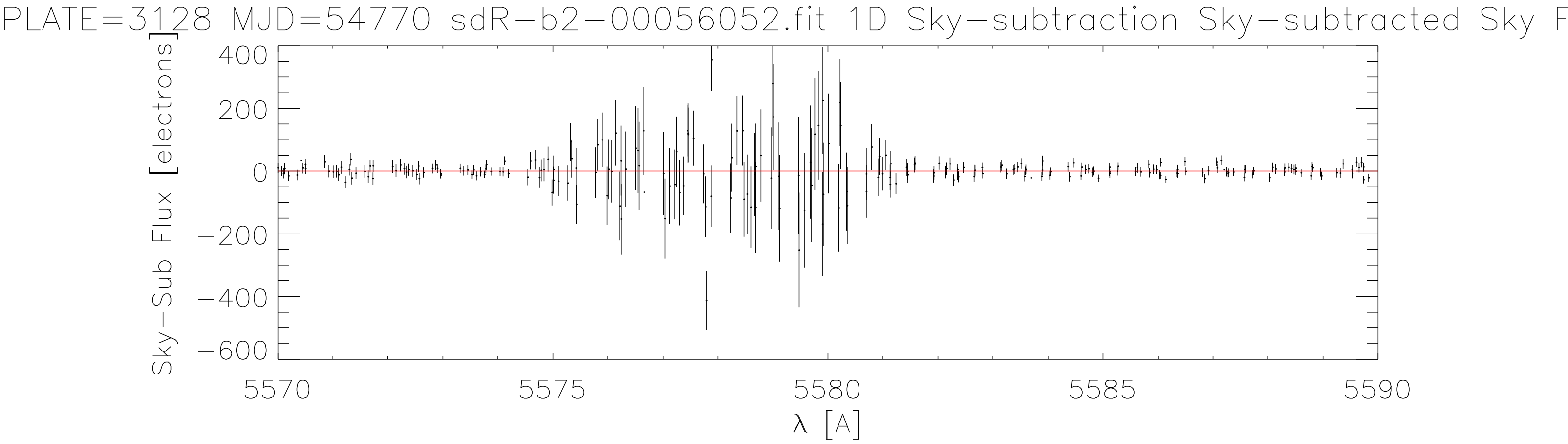

sky shift, pixels
0.15
0.20
0.25
0.30
0.35
0.40
3500
4000
4500
5000
5500
6000
6500


PLATE=3128 MJD=54770 Smooth superflat for sdR-b2-00056052.fit
1.5
1.0
0.5
0.0
es= −0.0000
1.005
1.000
0.995
0.990
0.985
4000
4500
5000
5500
6000
Wavelength (Å)


PLATE=3128 MJD=54770 sdR-b2-00056052.fit 1D Sky-subtraction Sky Fiber



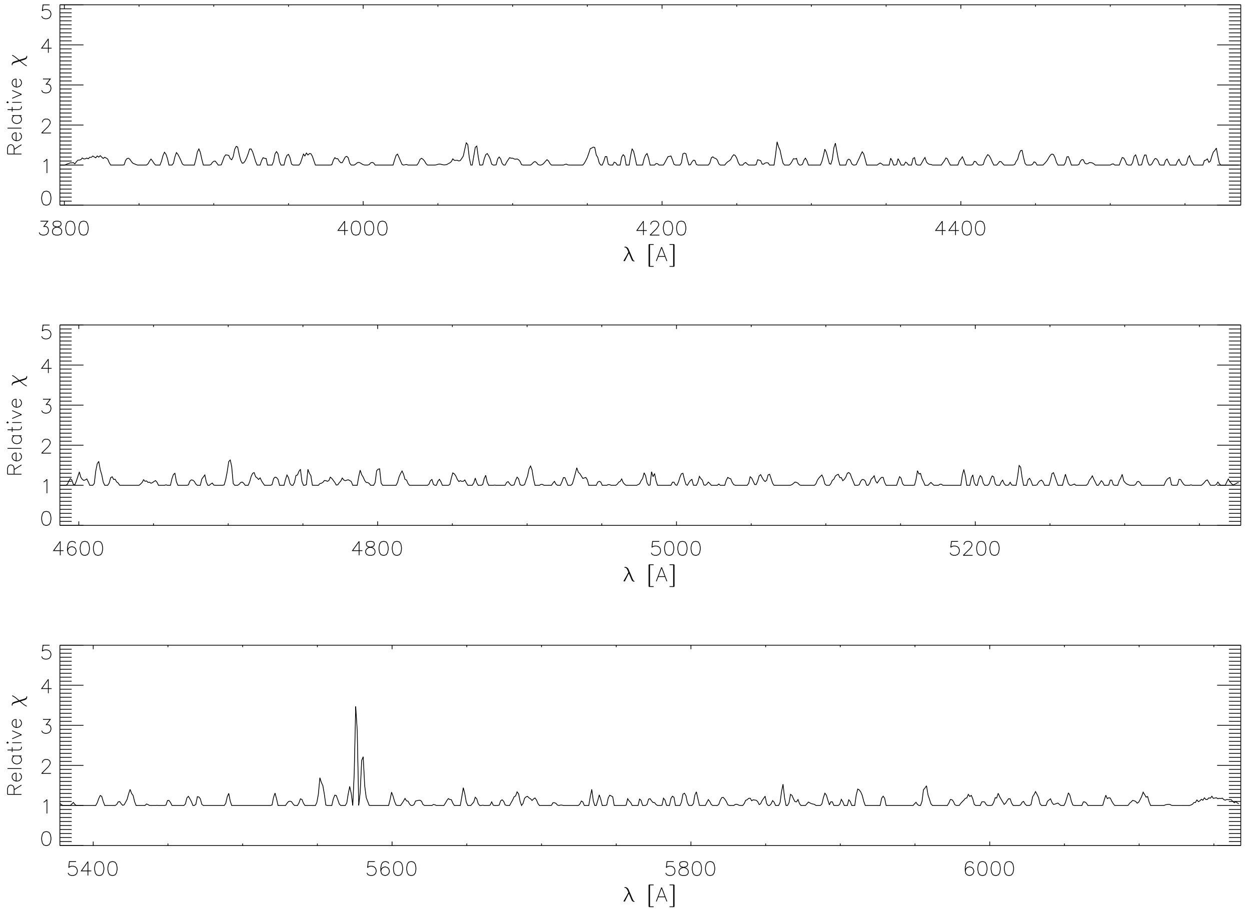
PLATE=3128 MJD=54770 sdR-b2-00056052.fit 1D Sky-subtraction Sky Fibers



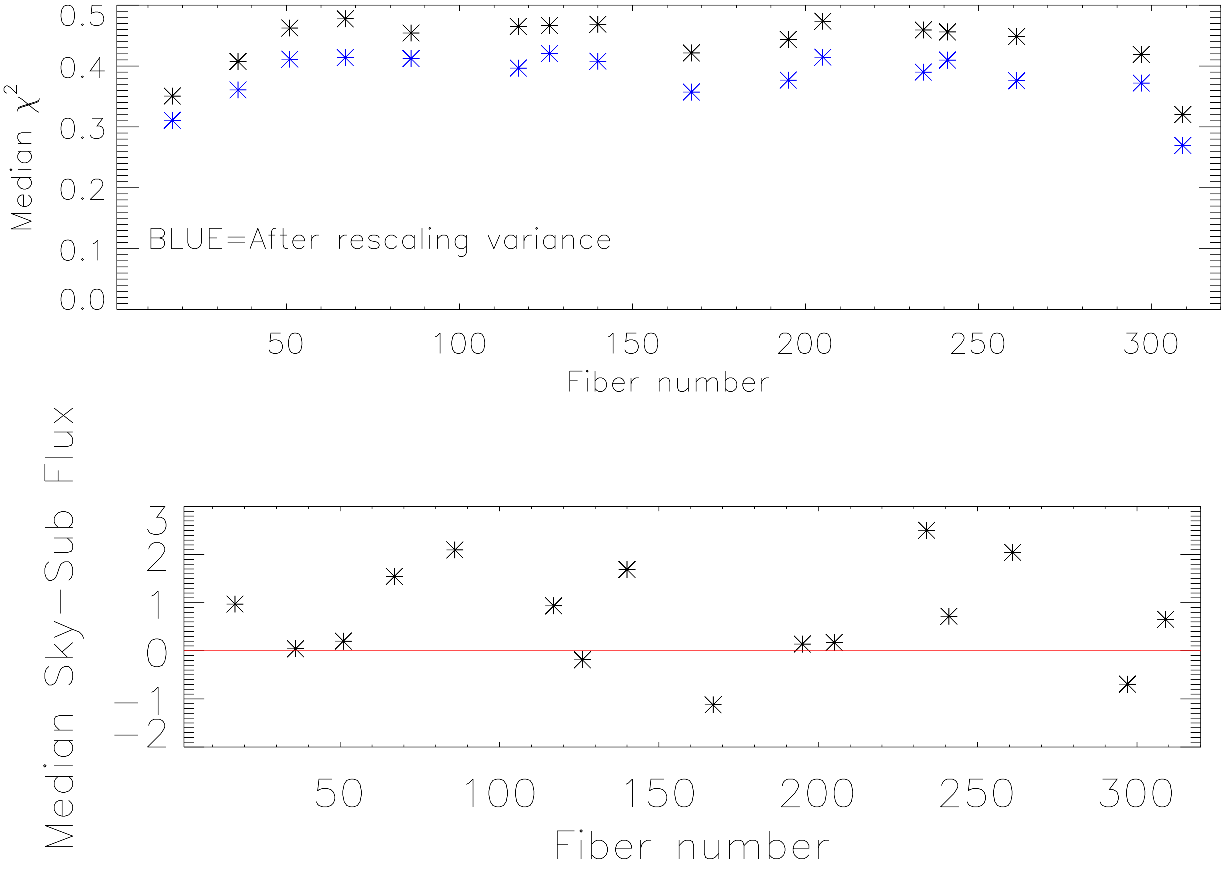
PLATE=3128 MJD=54770 sdR-b2-00056052.fit 1D Sky-subtraction Sky-subtracted Sky F

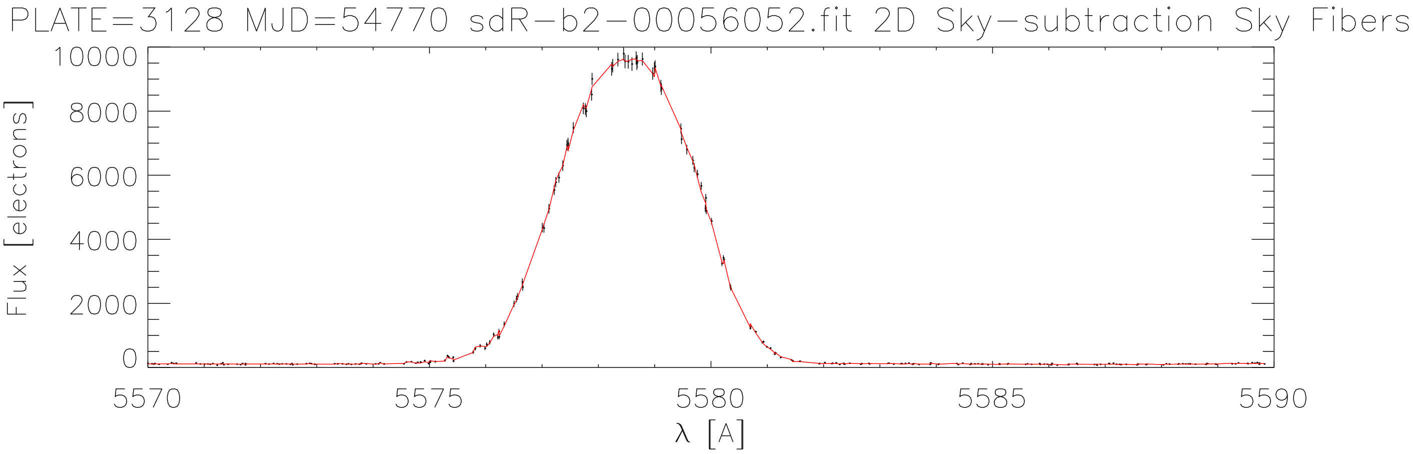
Number of sky fibers = 16

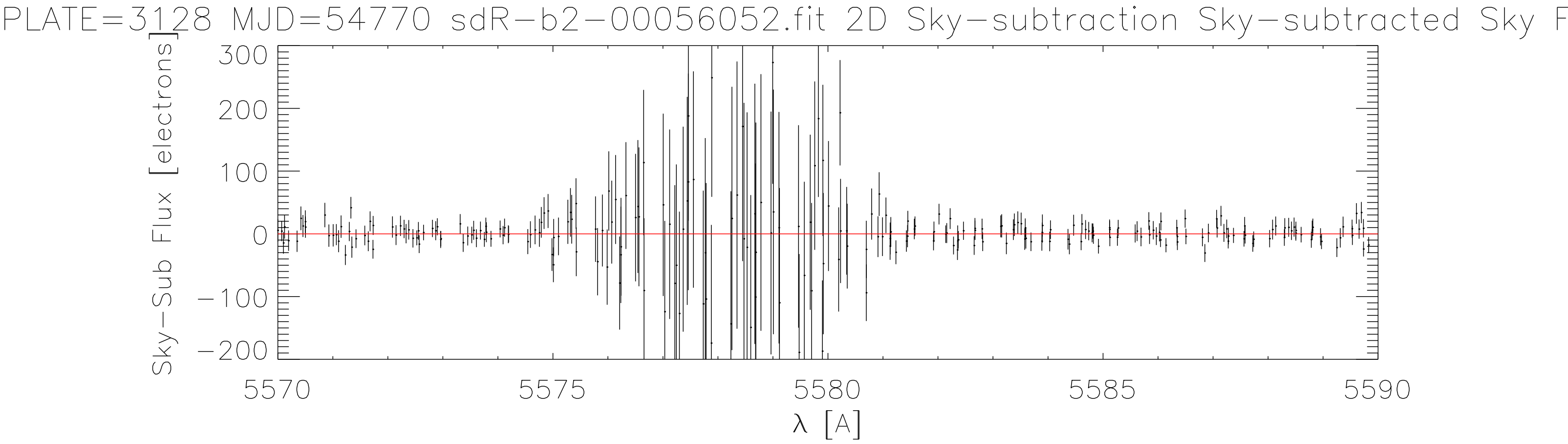
PLATE=3128 MJD=54770 sdR-b2-00056052.fit 1D Sky-subtraction Rescaled Errors



PLATE=3128 MJD=54770 sdR-b2-00056052.fit 2D Sky-subtraction Sky Fiber

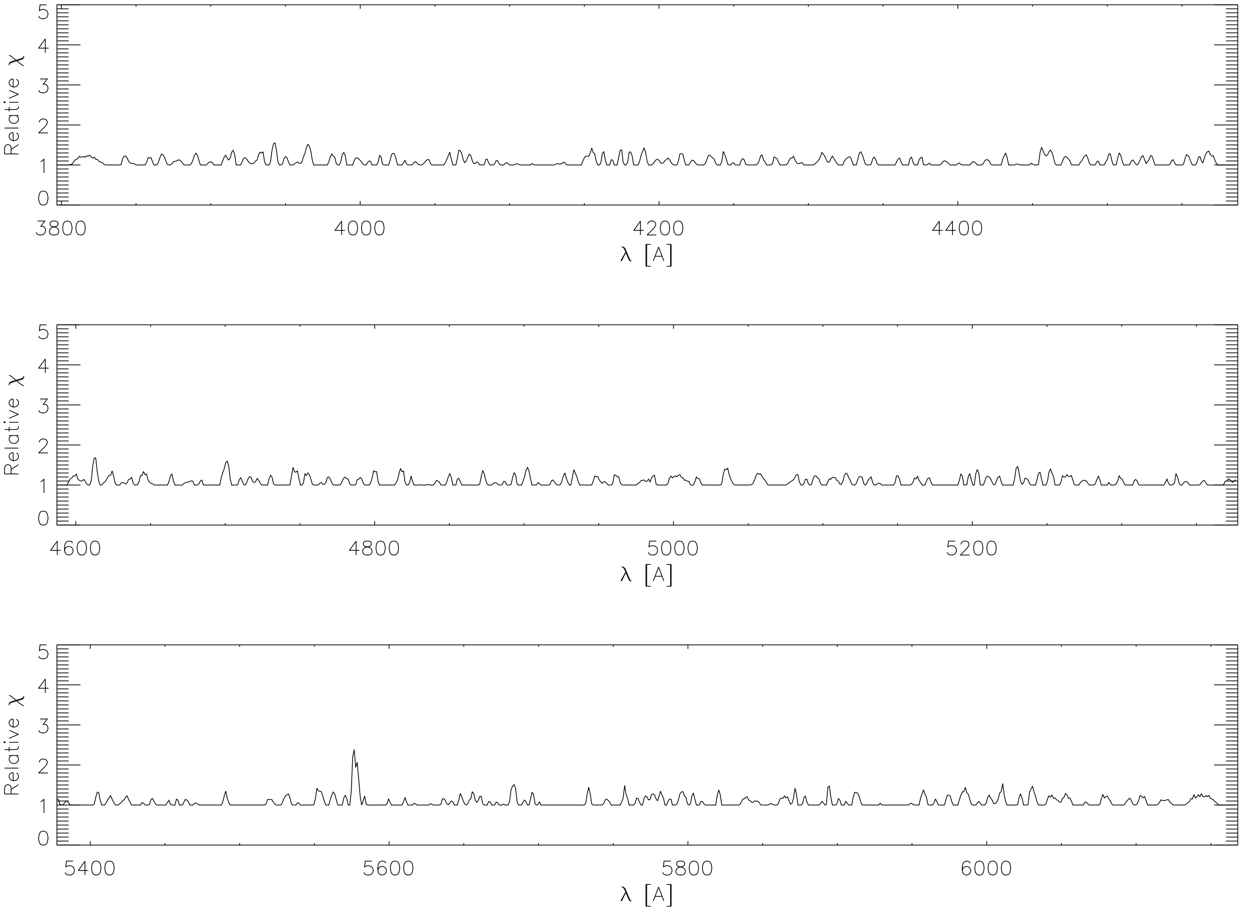


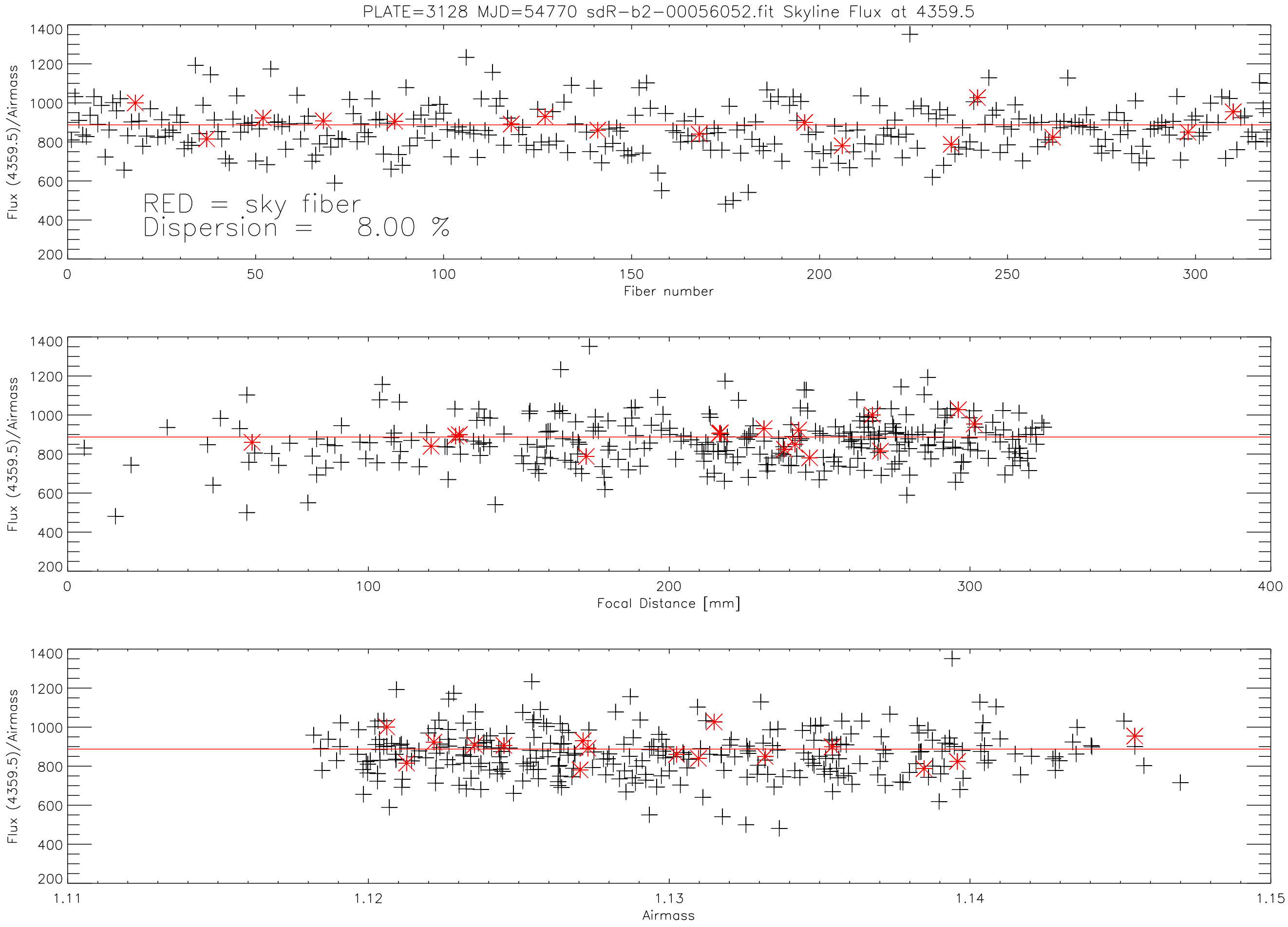

PLATE=3128 MJD=54770 sdR-b2-00056052.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
10000
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]


PLATE=3128 MJD=54770 sdR-b2-00056052.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
−100
−200
5570
5575
5580
5585
5590
λ [A]

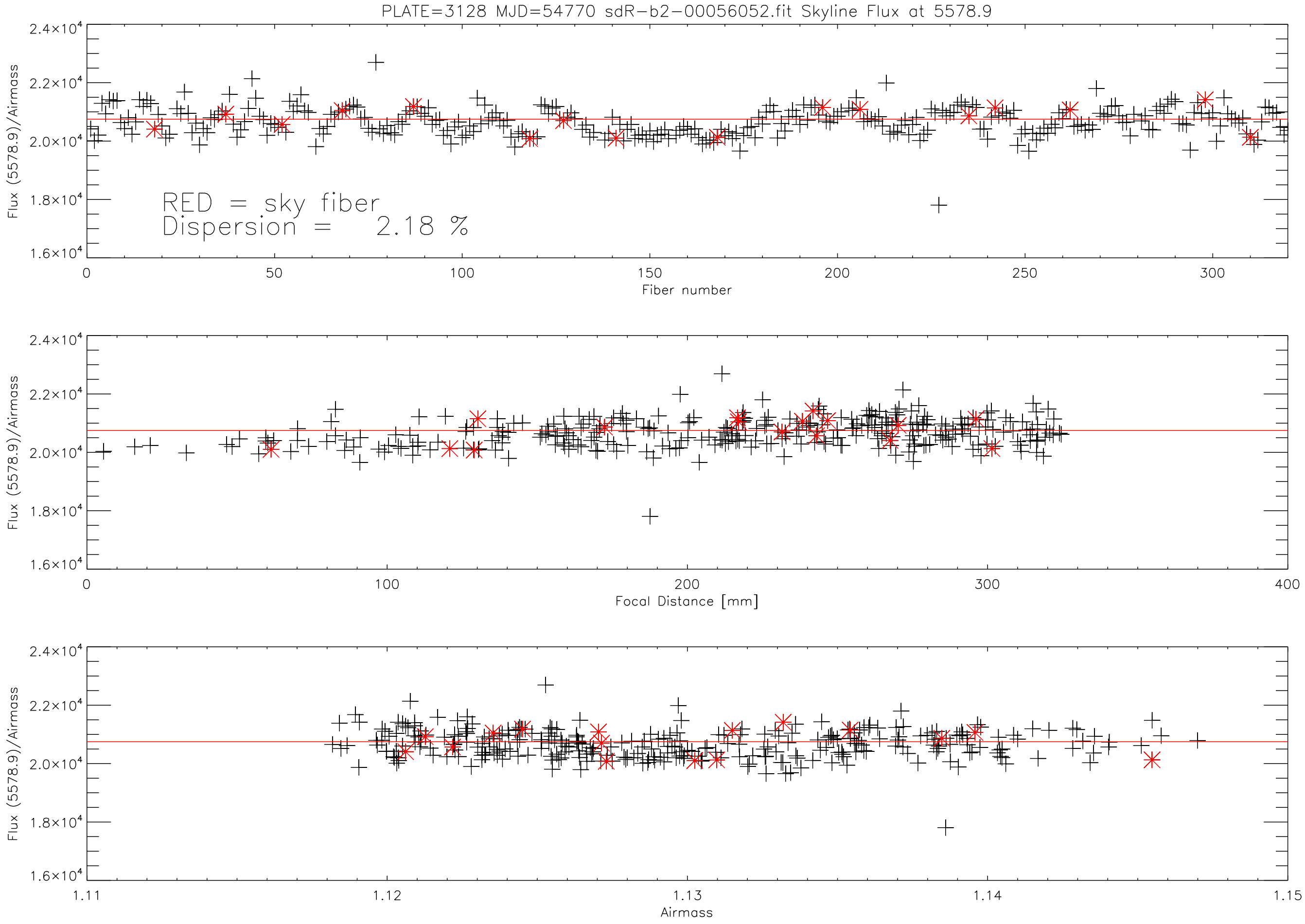
Number of sky fibers = 16

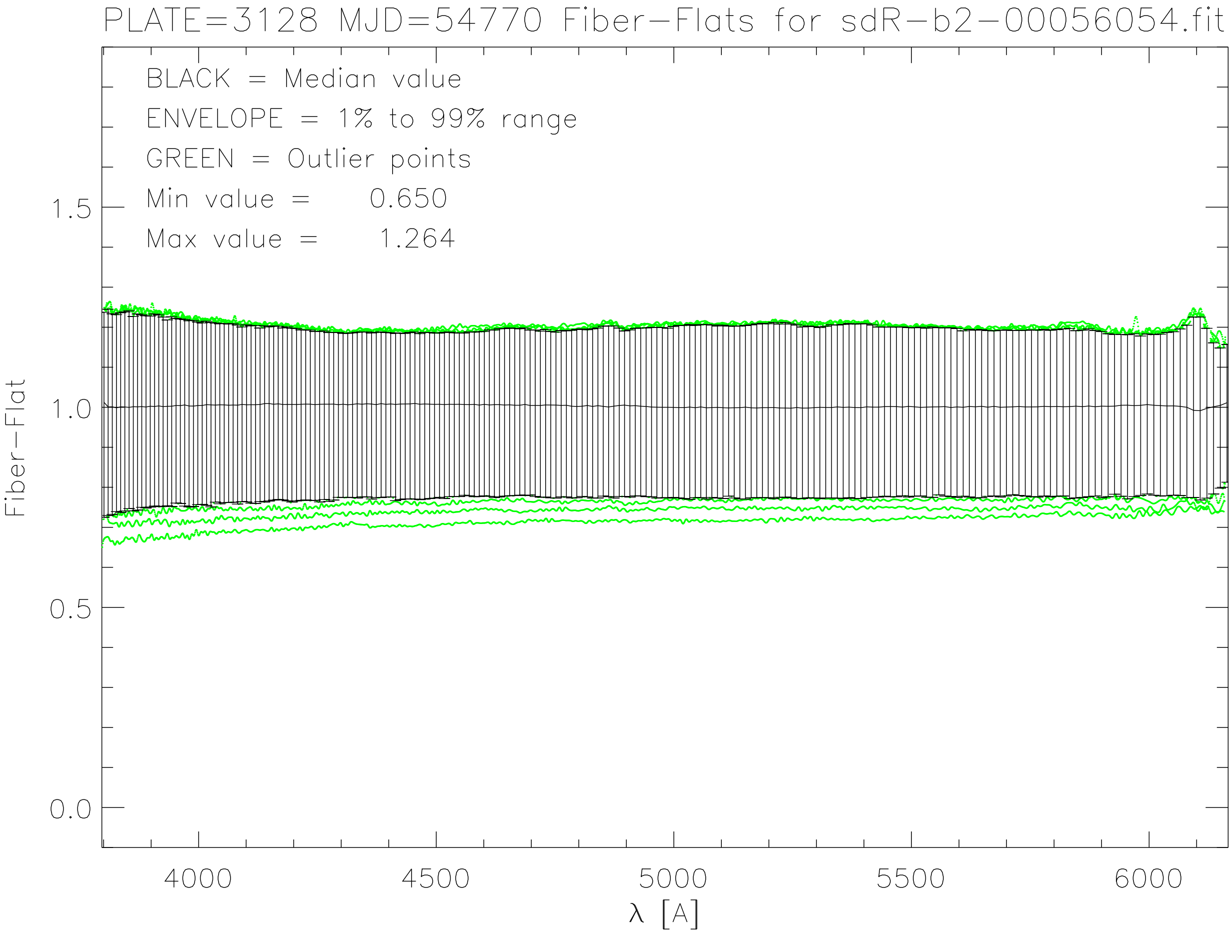
PLATE=3128 MJD=54770 sdR-b2-00056052.fit 2D Sky-subtraction Rescaled Errors



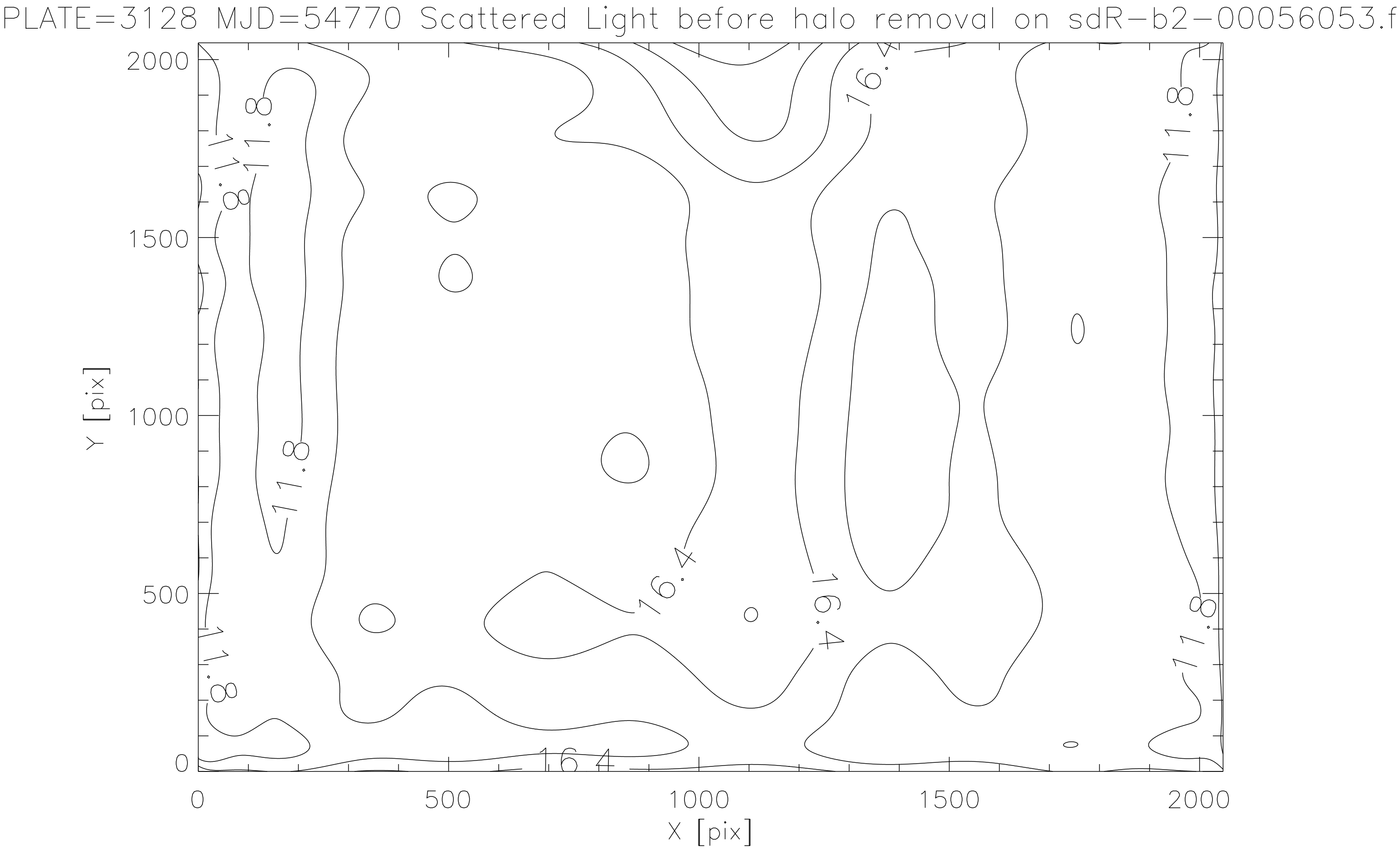

PLATE=3128 MJD=54770 sdR-b2-00056052.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
1400
1200
1000
800
600
400
200
RED = sky fiber
Dispersion = 8.00 %
0
50
100
150
200
250
300
Fiber number
Flux (4359.5)/Airmass
0
100
200
300
400
Focal Distance [mm]
Flux (4359.5)/Airmass
1.11
1.12
1.13
1.14
1.15
Airmass

PLATE=3128 MJD=54770 sdR-b2-00056052.fit Skyline Flux at 5578.9

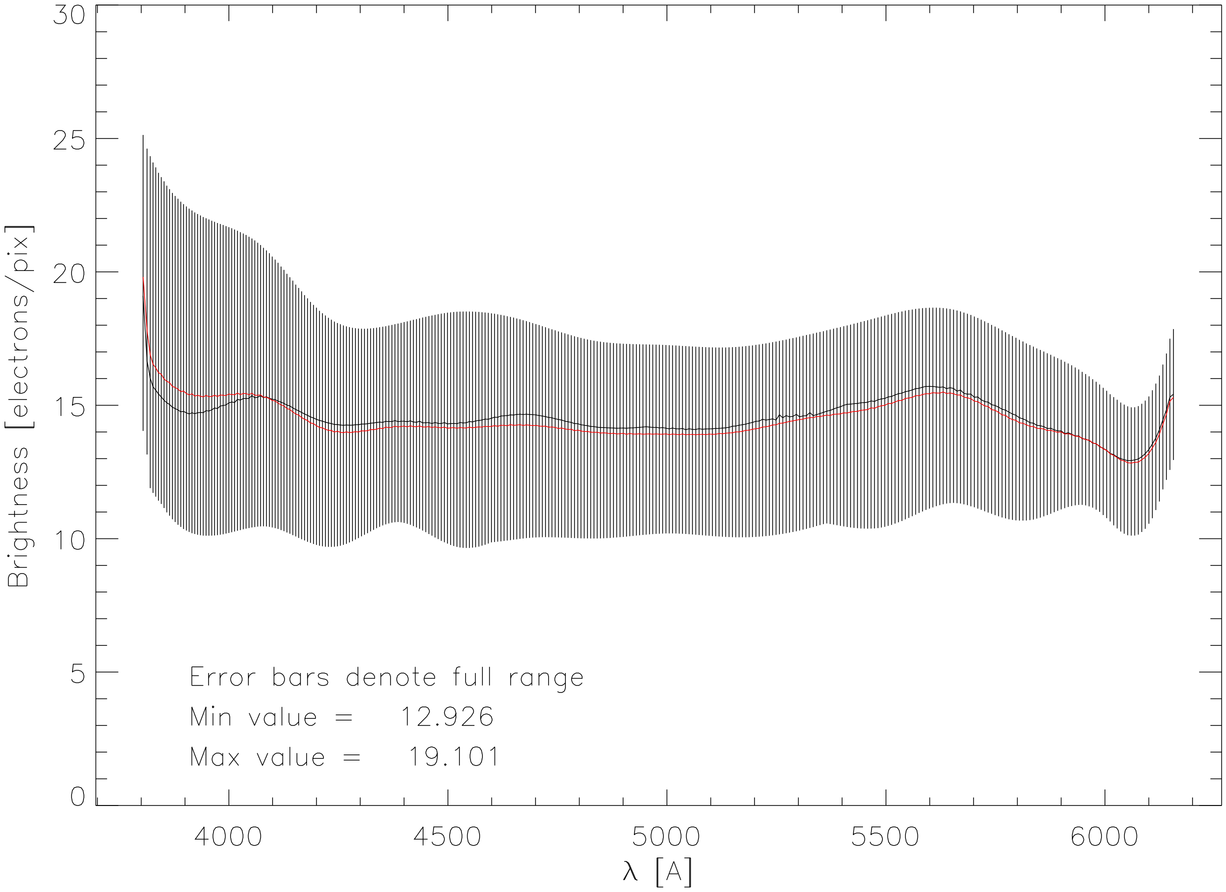




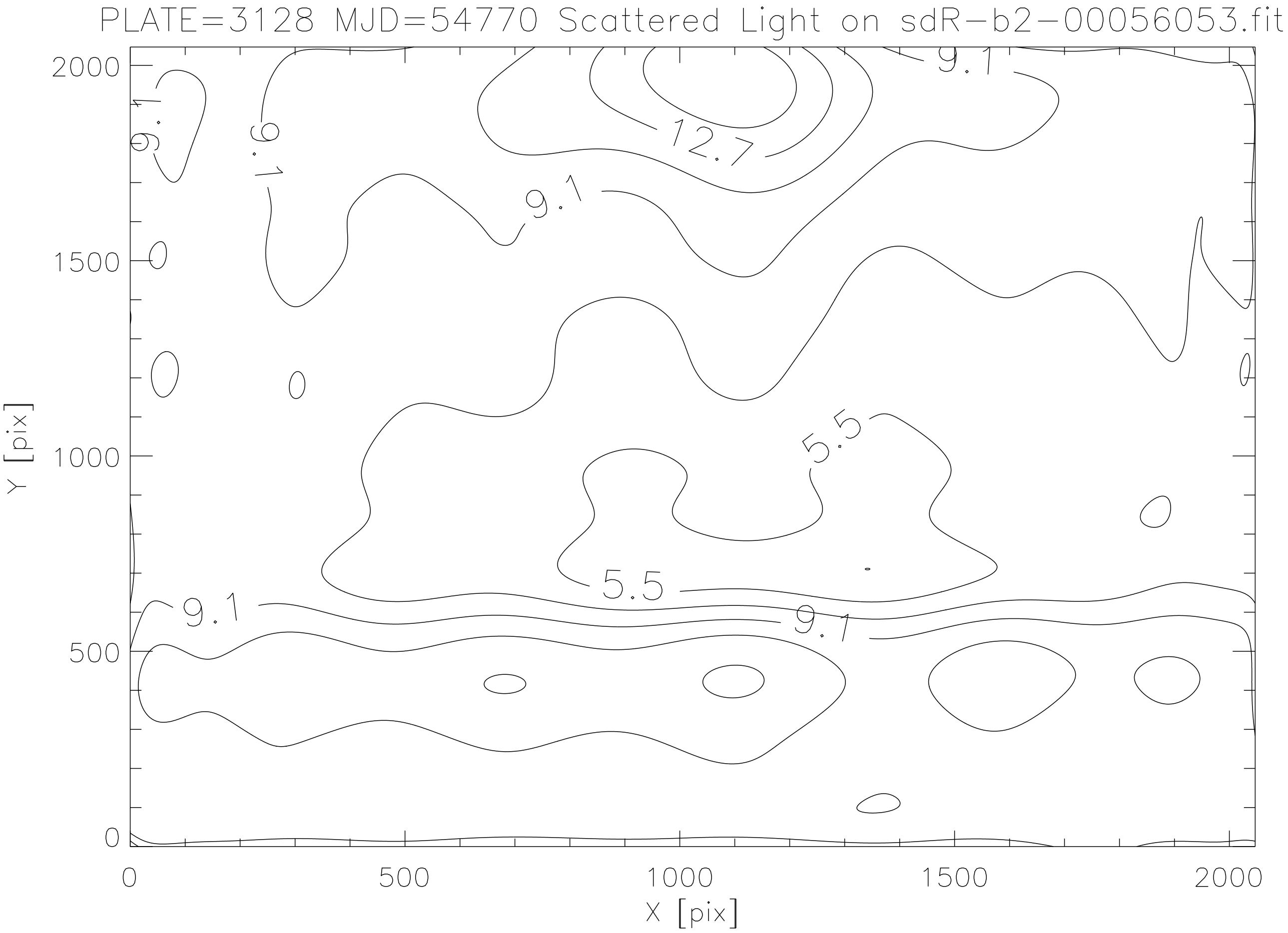
Wed Mar 10 16:04:11 2010

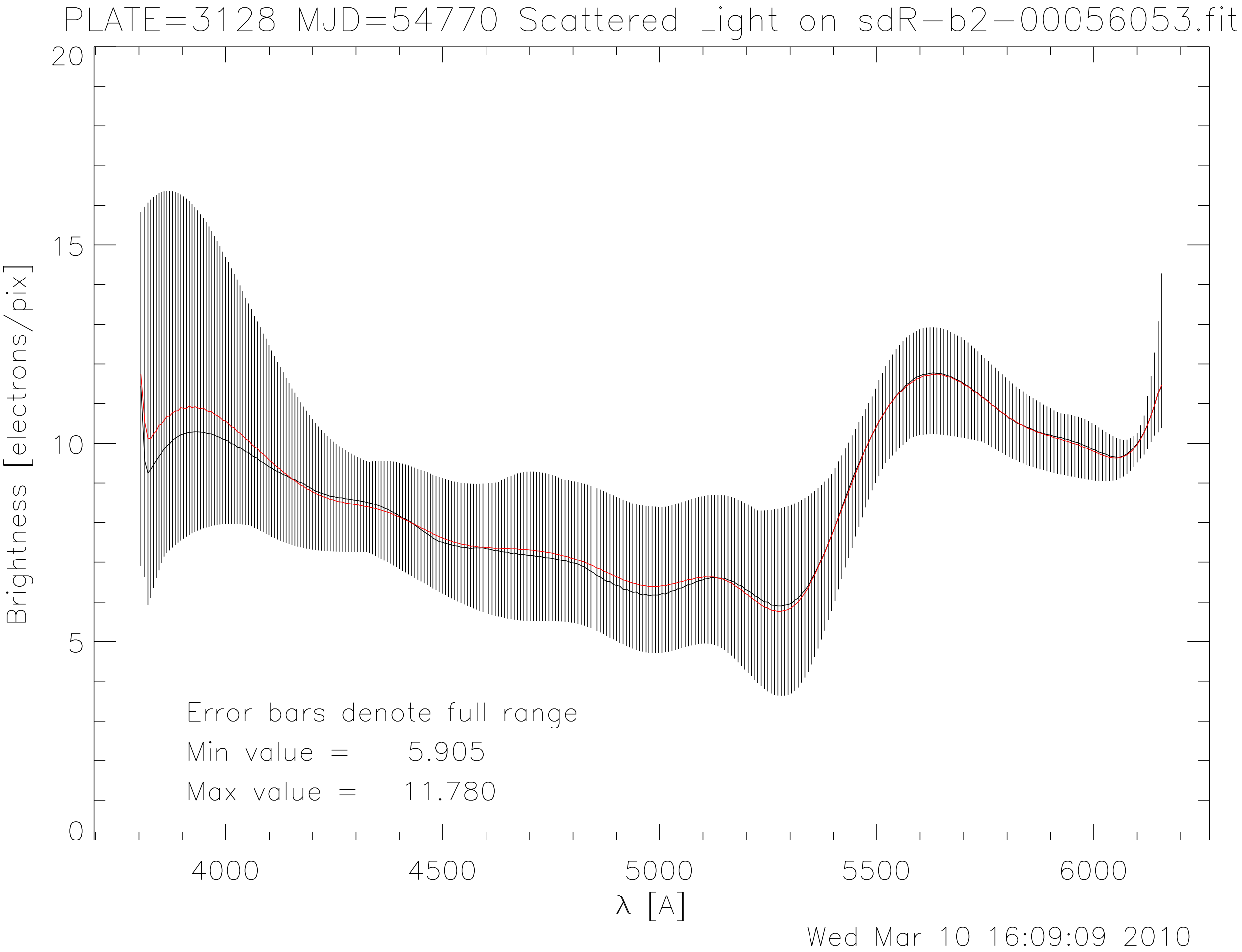

PLATE=3128 MJD=54770 Scattered Light before halo removal on sdR-b2-00056053.f

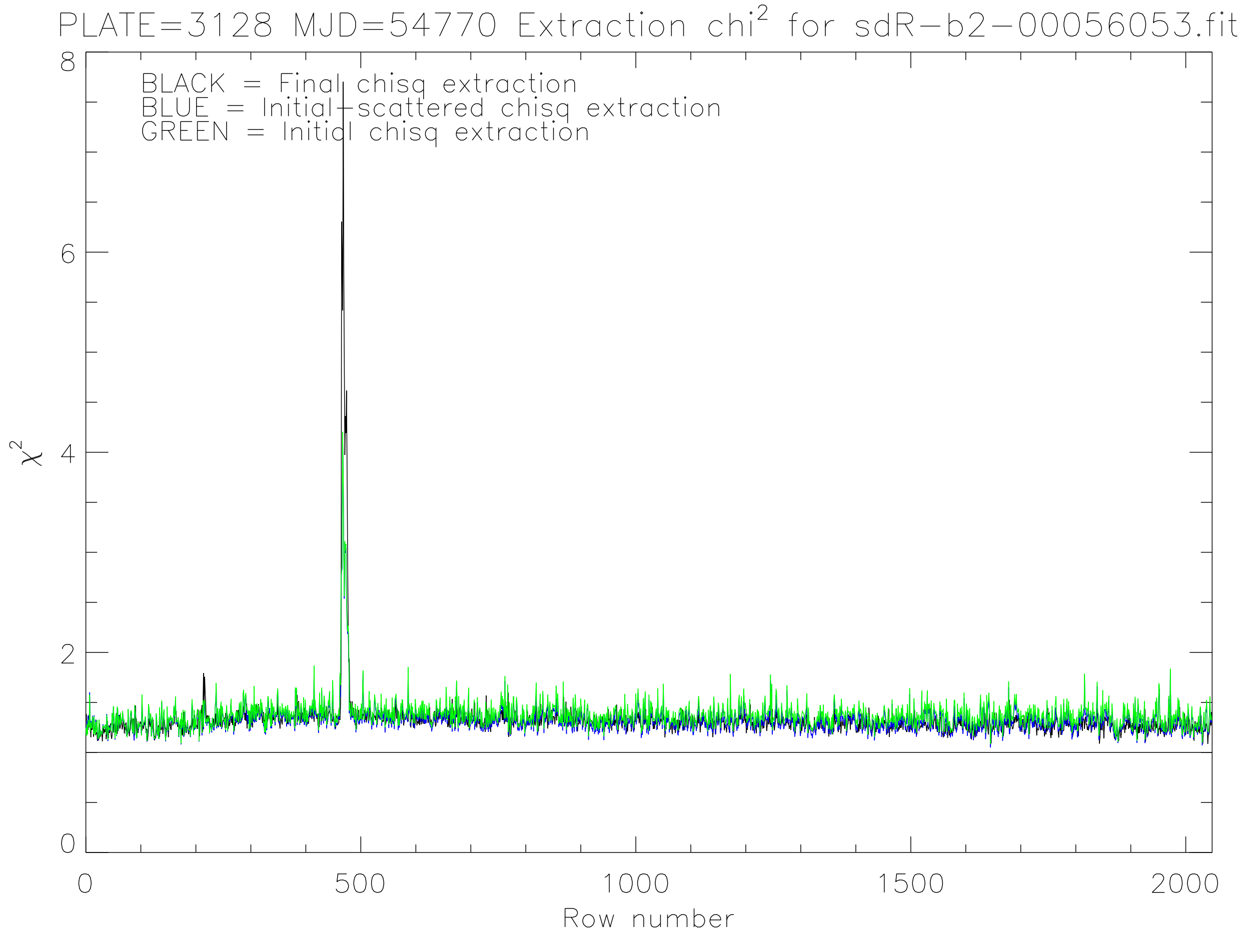
PLATE=3128 MJD=54770 Scattered Light before halo removal on sdR-b2-00056053.f

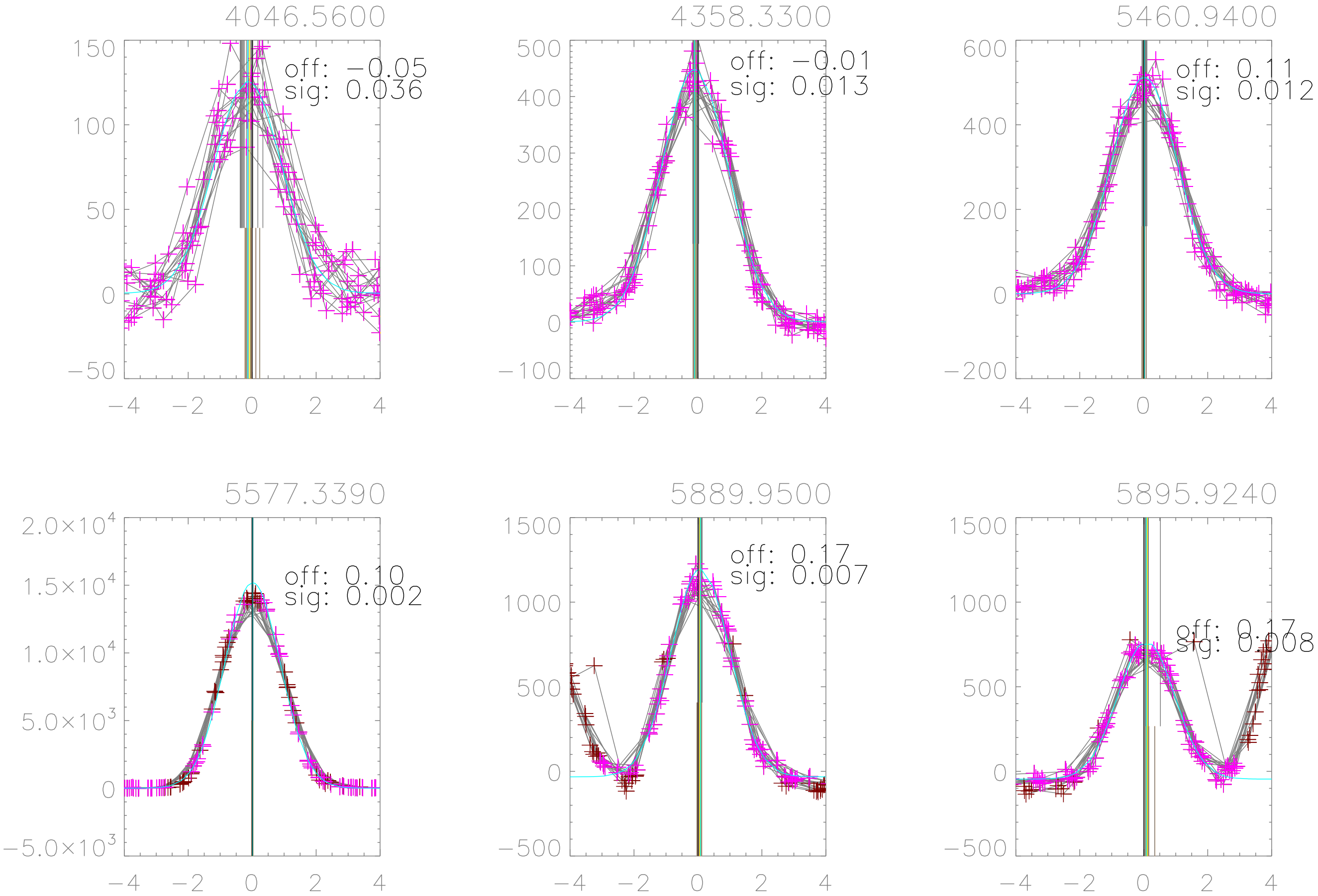


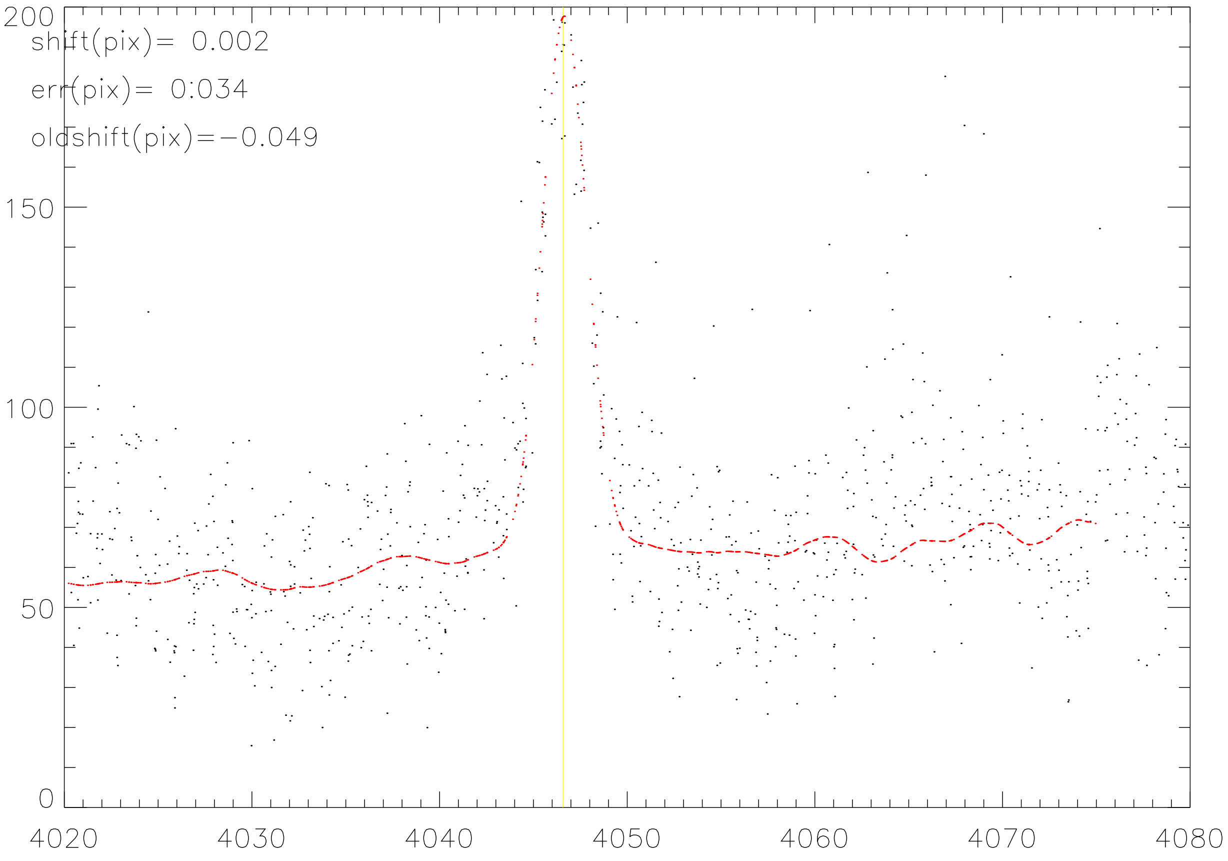
Wed Mar 10 16:05:16 2010

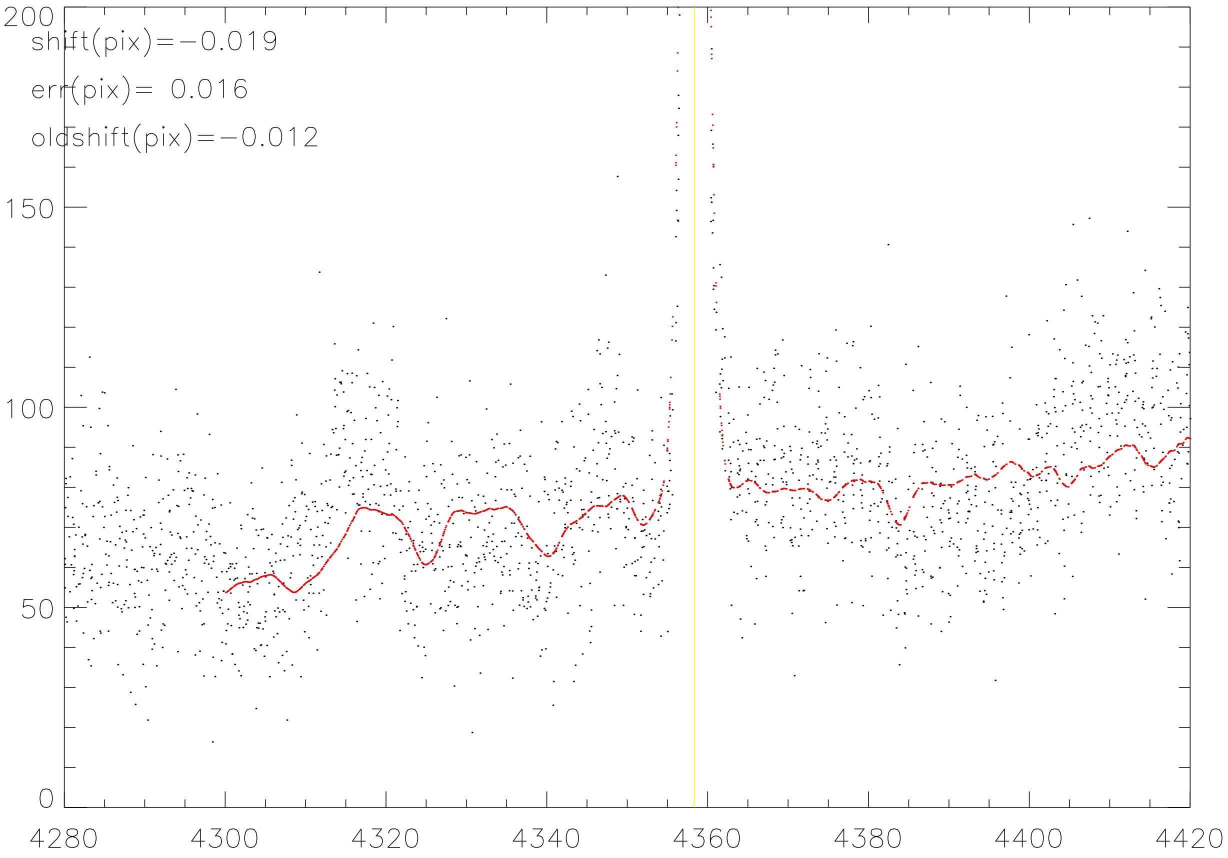

PLATE=3128 MJD=54770 Scattered Light on sdR-b2-00056053.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
0
500
1000
1500
2000
9.1
9.1
9.1
9.1
12.7
9.1
5.5
5.5
9.1
9.1

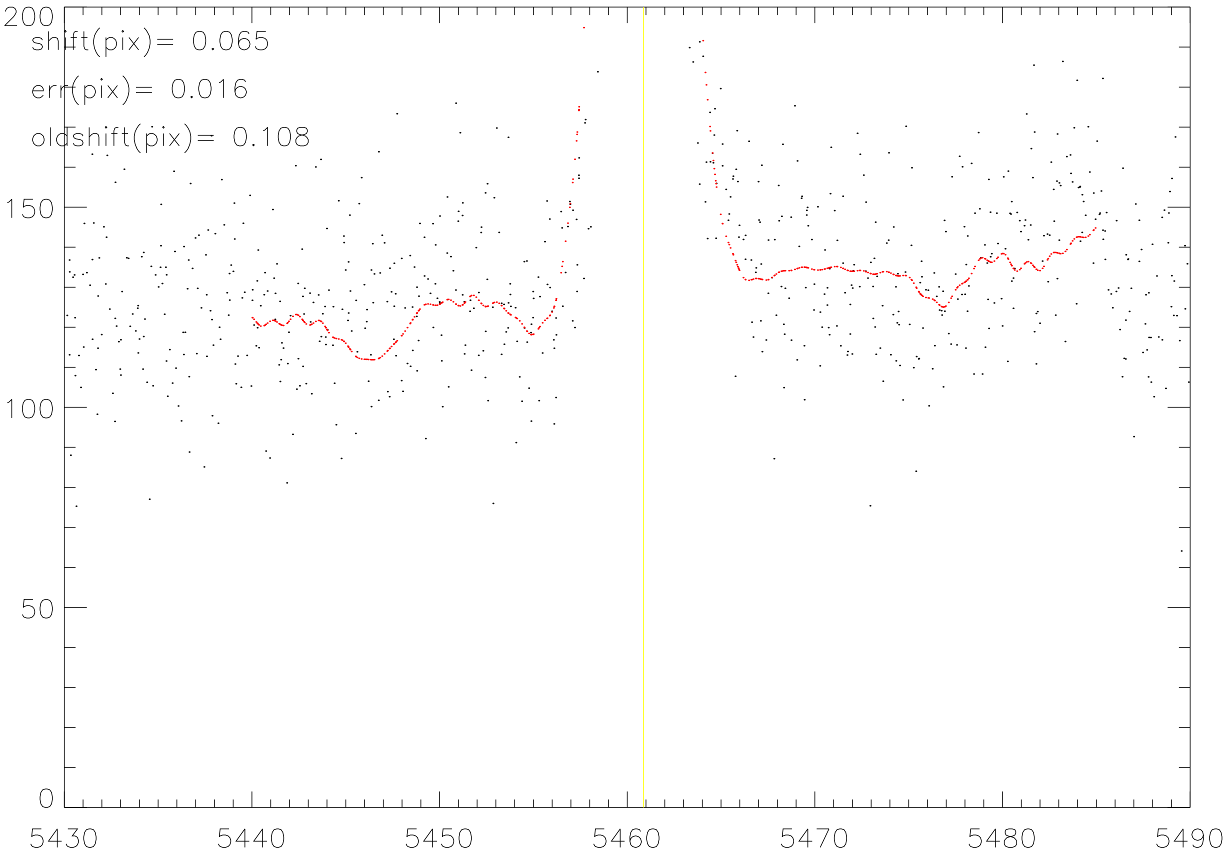

PLATE=3128 MJD=54770 Scattered Light on sdR-b2-00056053.fit
Brightness [electrons/pix]
20
15
10
5
0
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 5.905
Max value = 11.780
Wed Mar 10 16:09:09 2010

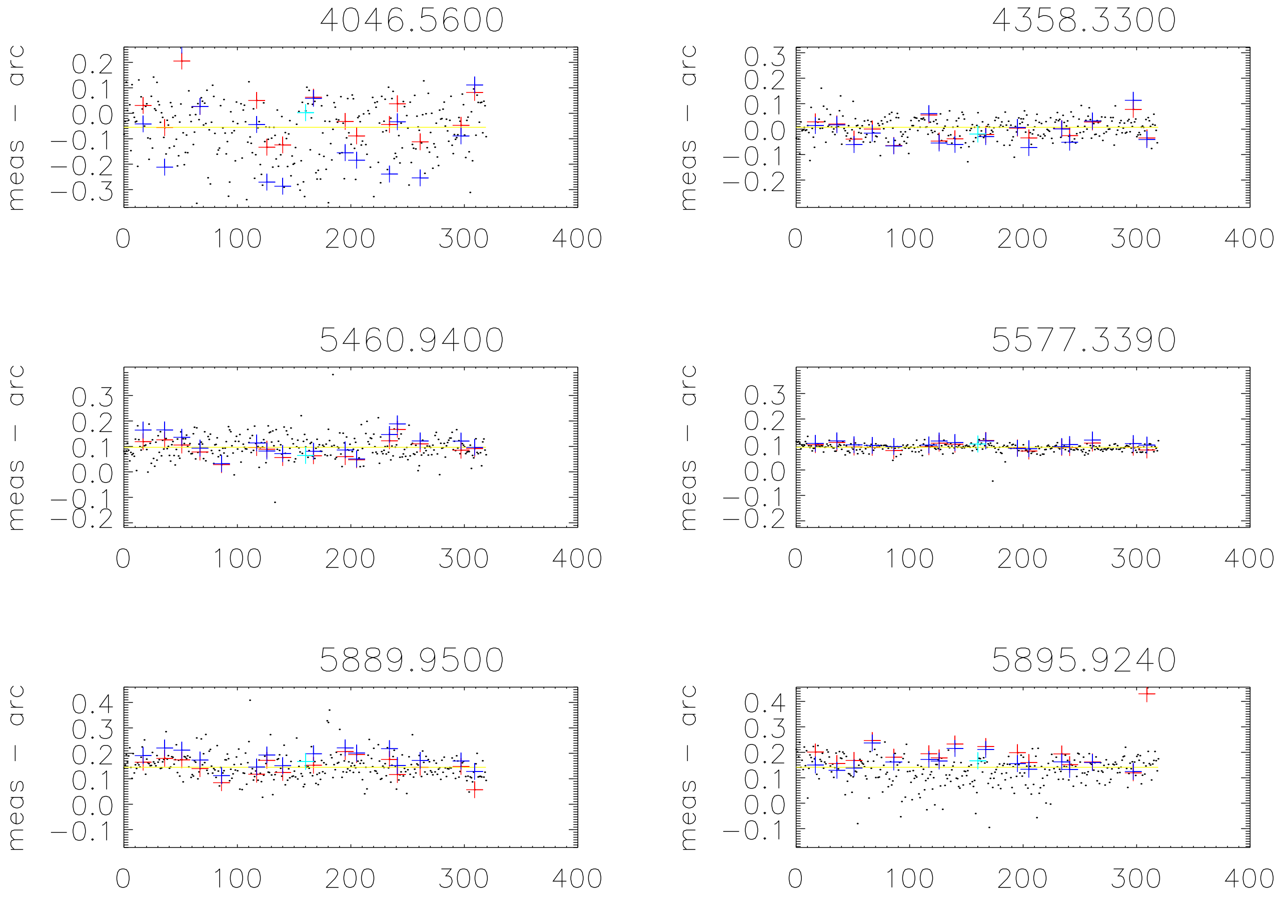

PLATE=3128 MJD=54770 Extraction chi$^2$ for sdR-b2-00056053.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
$\chi^2$
0
2
4
6
8
0
500
1000
1500
2000
Row number

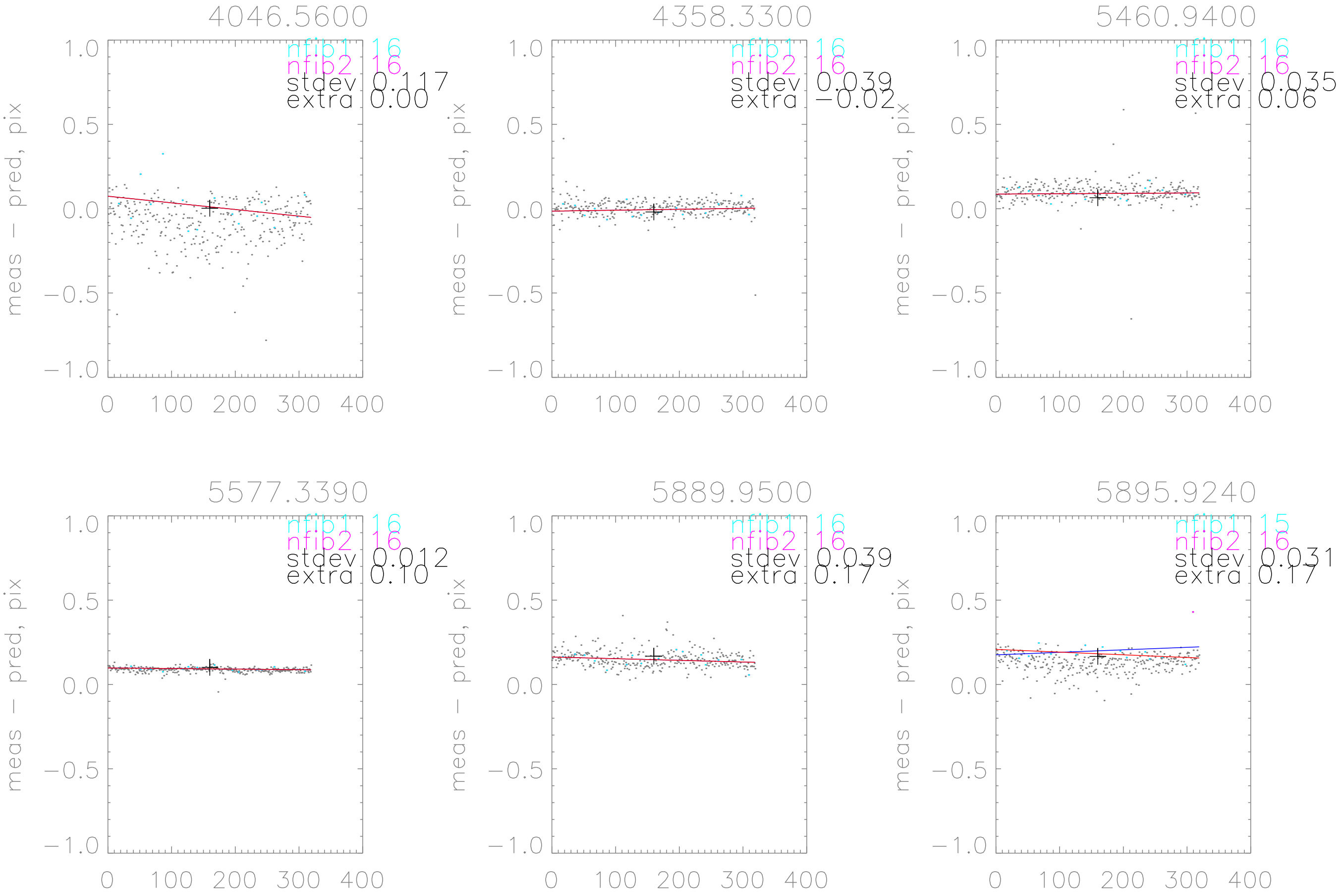

4046.5600
off: −0.05
sig: 0.036
150
100
50
0
−50
4358.3300
off: −0.01
sig: 0.013
500
400
300
200
100
0
−100
5460.9400
off: 0.11
sig: 0.012
600
400
200
0
−200
5577.3390
off: 0.10
sig: 0.002
2.0×10^4
1.5×10^4
1.0×10^4
5.0×10^3
0
−5.0×10^3
5889.9500
off: 0.17
sig: 0.007
1500
1000
500
0
−500
5895.9240
off: 0.17
sig: 0.008
1500
1000
500
0
−500
−4
−2
0
2
4

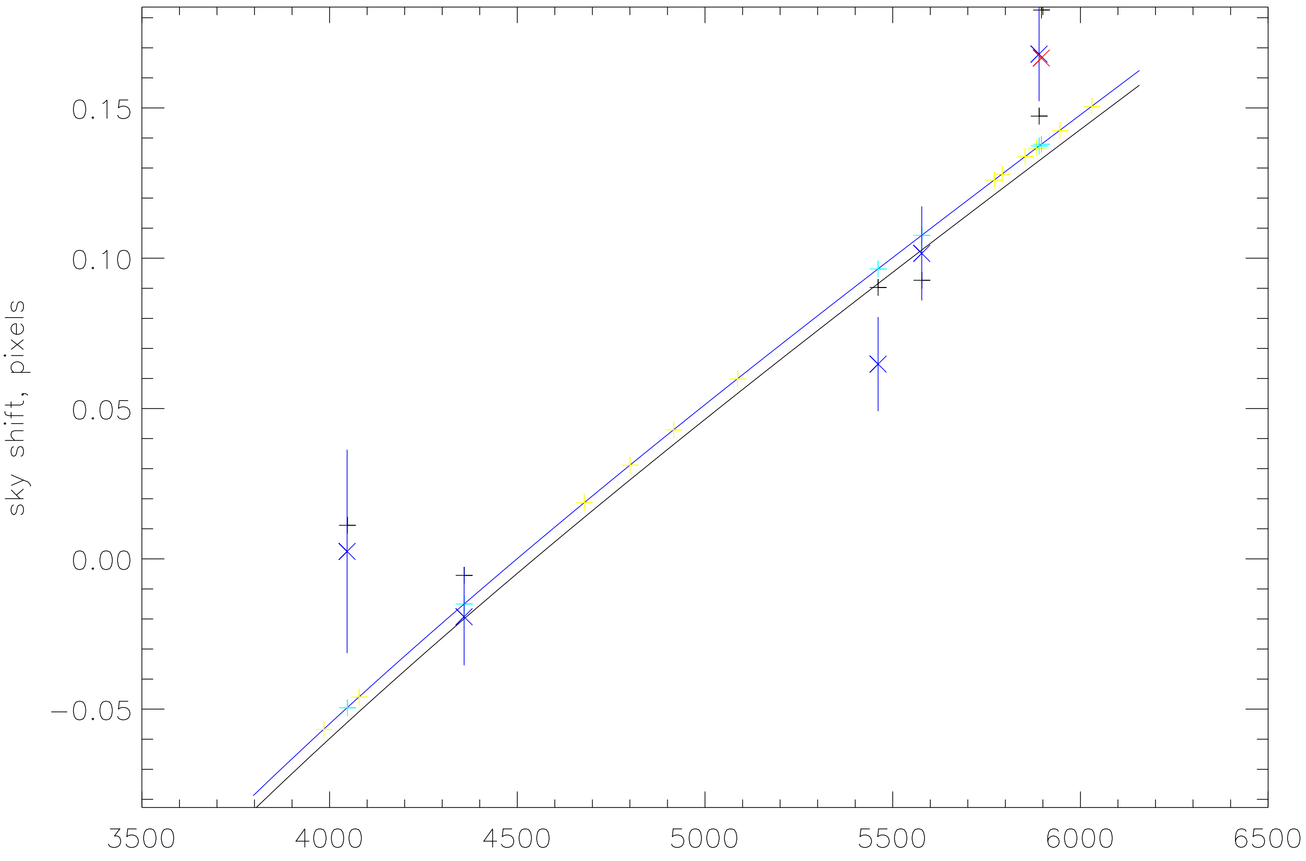

shift(pix)= 0.002
err(pix)= 0.034
oldshift(pix)=-0.049
0
50
100
150
200
4020
4030
4040
4050
4060
4070
4080

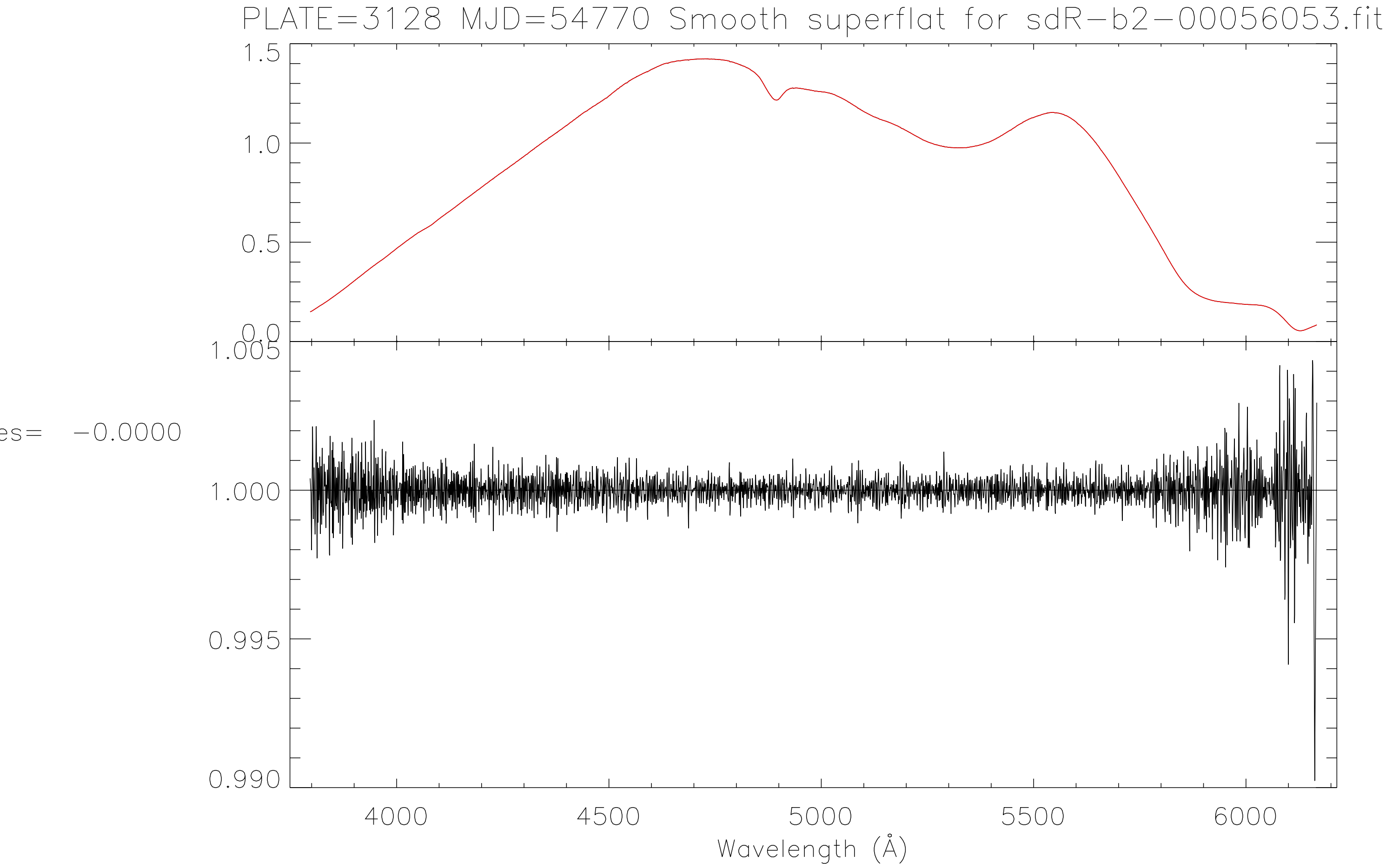

shift(pix)=−0.019
err(pix)= 0.016
oldshift(pix)=−0.012
200
150
100
50
0
4280
4300
4320
4340
4360
4380
4400
4420


shift(pix)= 0.065
err(pix)= 0.016
oldshift(pix)= 0.108
200
150
100
50
0
5430
5440
5450
5460
5470
5480
5490

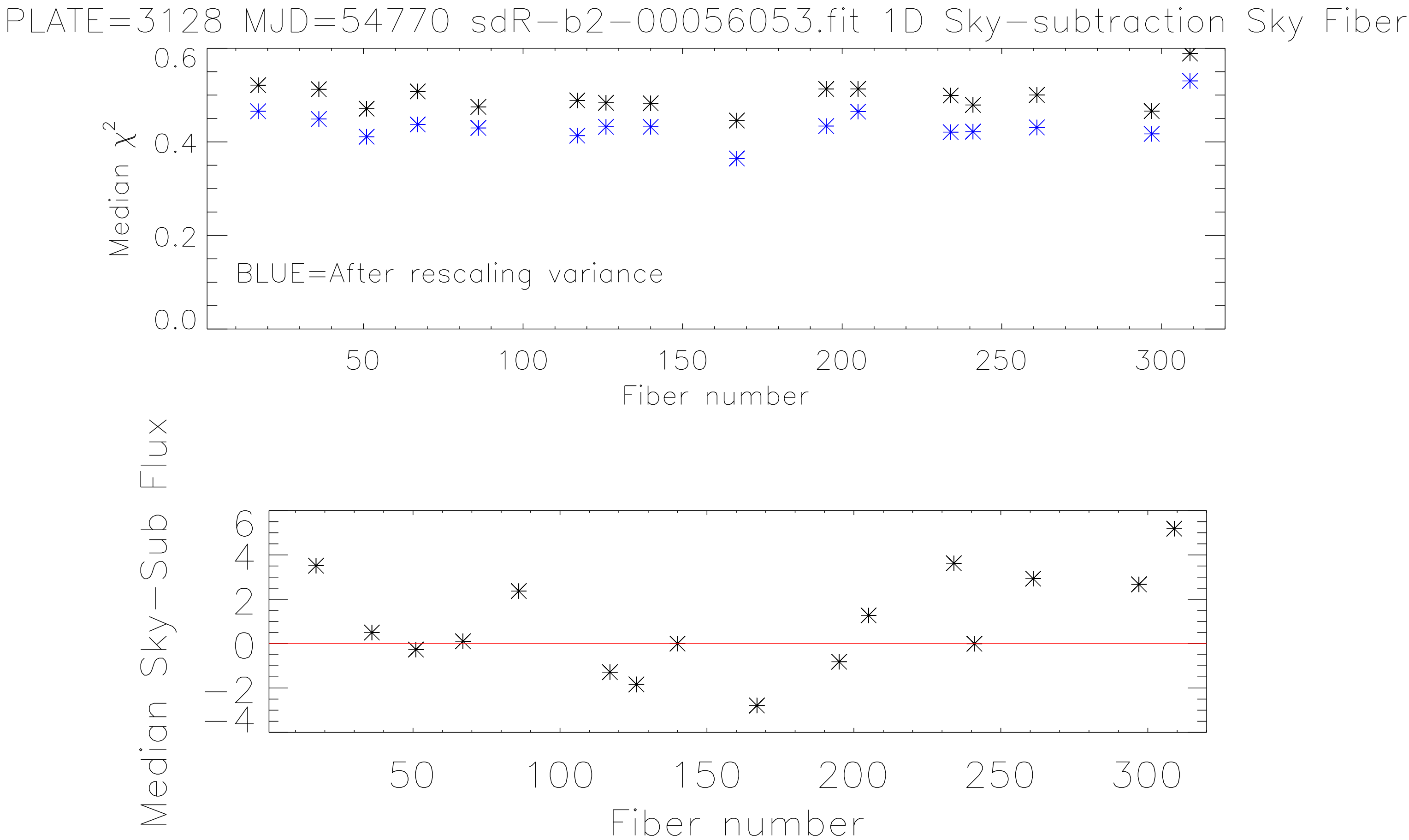

4046.5600
4358.3300
5460.9400
5577.3390
5889.9500
5895.9240
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0.3
0.4
0
100
200
300
400

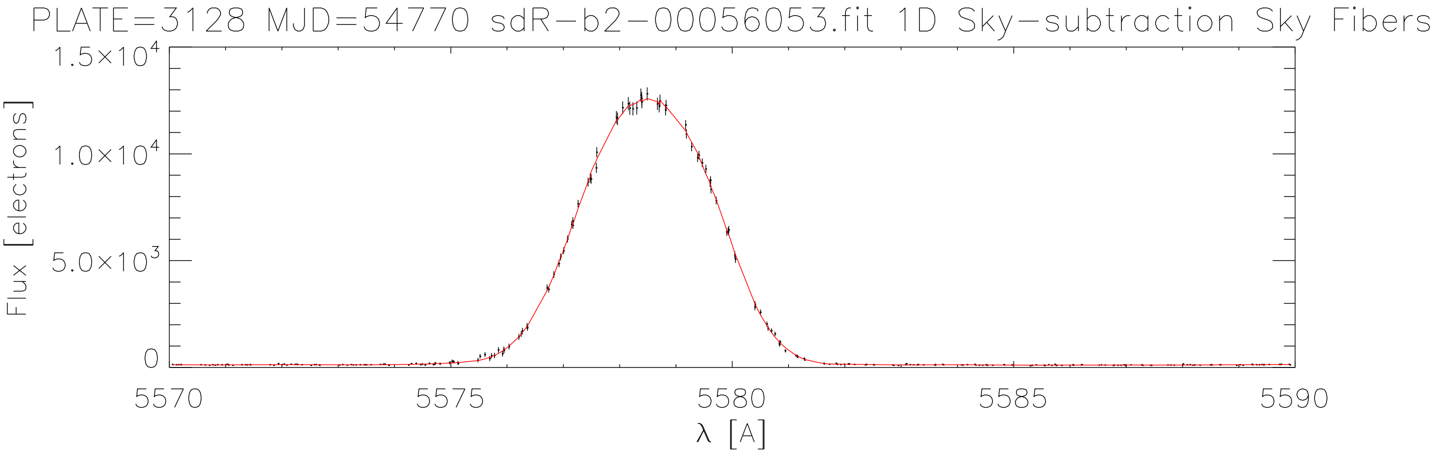

4046.5600
nfib1 16
nfib2 16
stdev 0.117
extra 0.00
4358.3300
nfib1 16
nfib2 16
stdev 0.039
extra −0.02
5460.9400
nfib1 16
nfib2 16
stdev 0.035
extra 0.06
5577.3390
nfib1 16
nfib2 16
stdev 0.012
extra 0.10
5889.9500
nfib1 16
nfib2 16
stdev 0.039
extra 0.17
5895.9240
nfib1 15
nfib2 16
stdev 0.031
extra 0.17
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

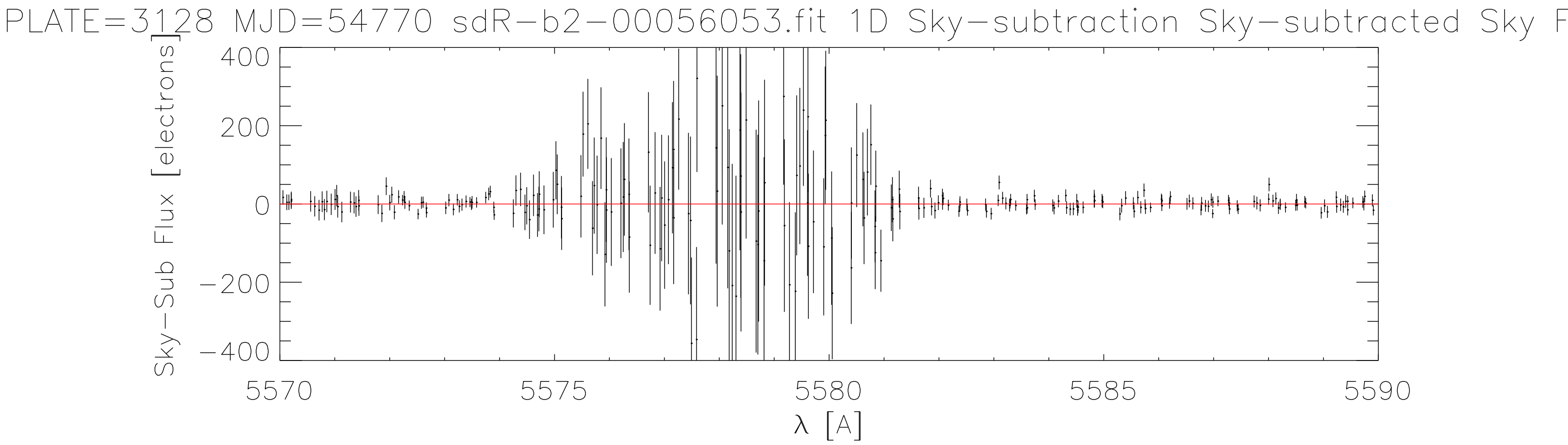

sky shift, pixels
0.15
0.10
0.05
0.00
−0.05
3500
4000
4500
5000
5500
6000
6500

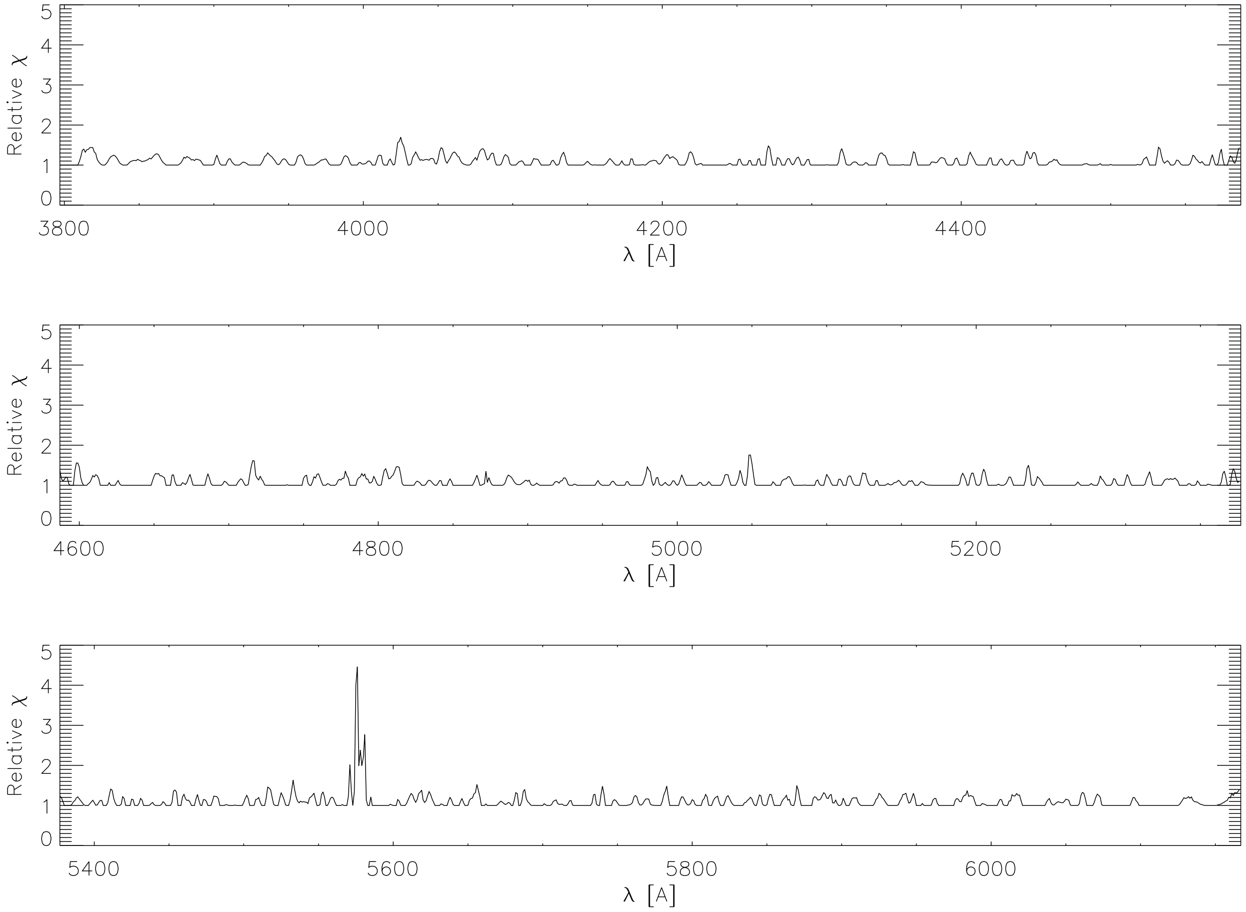


PLATE=3128 MJD=54770 Smooth superflat for sdR-b2-00056053.fit


PLATE=3128 MJD=54770 sdR-b2-00056053.fit 1D Sky-subtraction Sky Fiber
Median $\chi^2$
0.0
0.2
0.4
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-4
-2
0
2
4
6
50
100
150
200
250
300
Fiber number

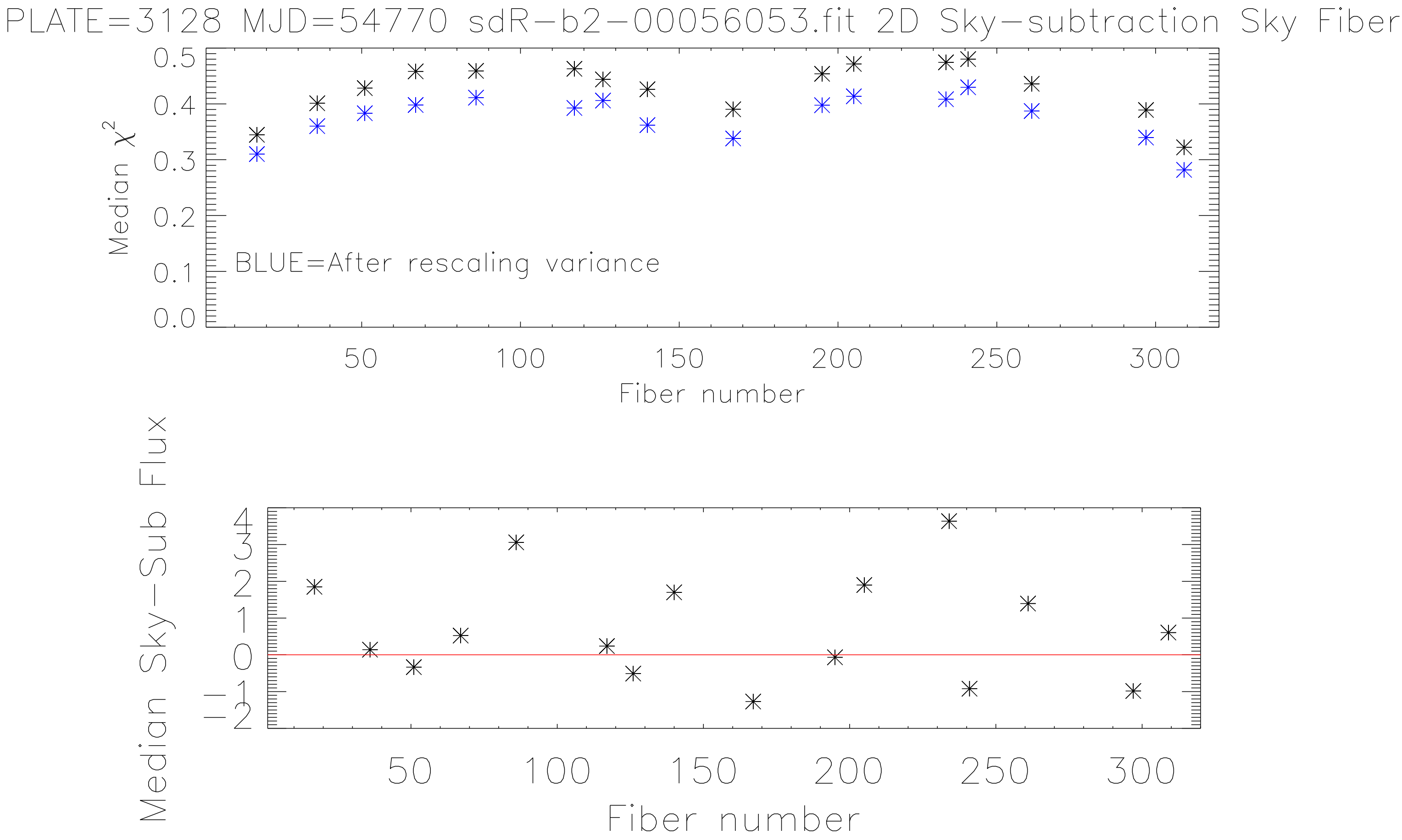

PLATE=3128 MJD=54770 sdR-b2-00056053.fit 1D Sky-subtraction Sky Fibers

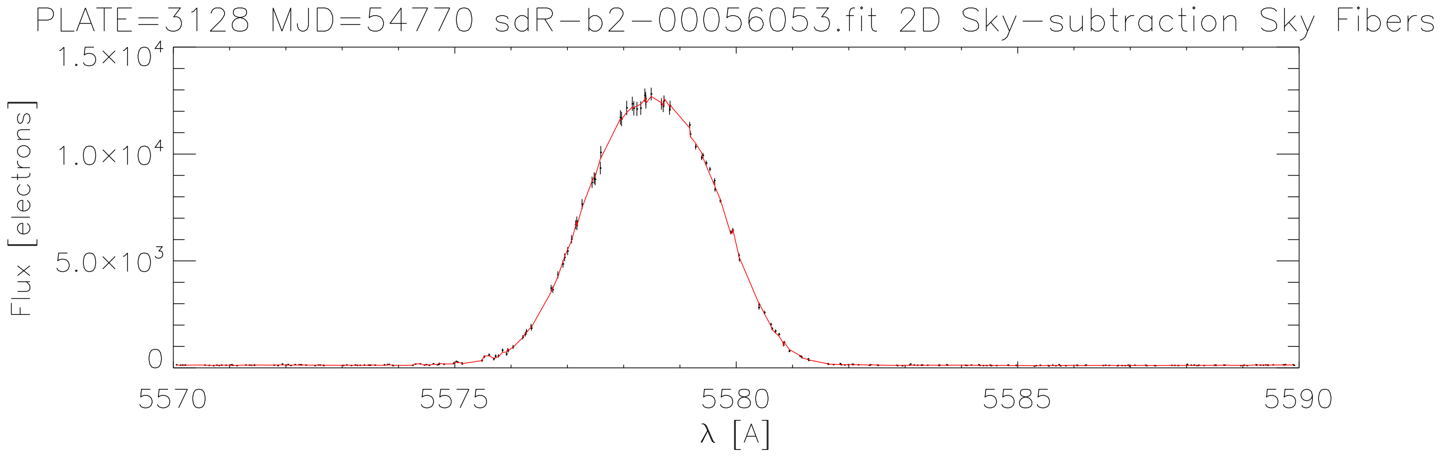

PLATE=3128 MJD=54770 sdR-b2-00056053.fit 1D Sky-subtraction Sky-subtracted Sky F

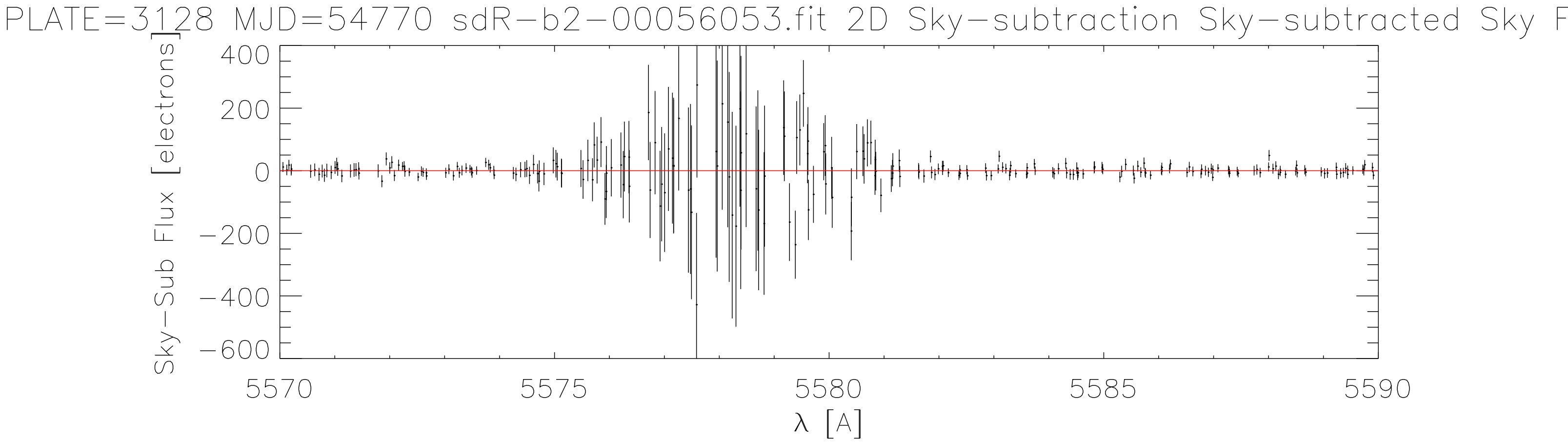


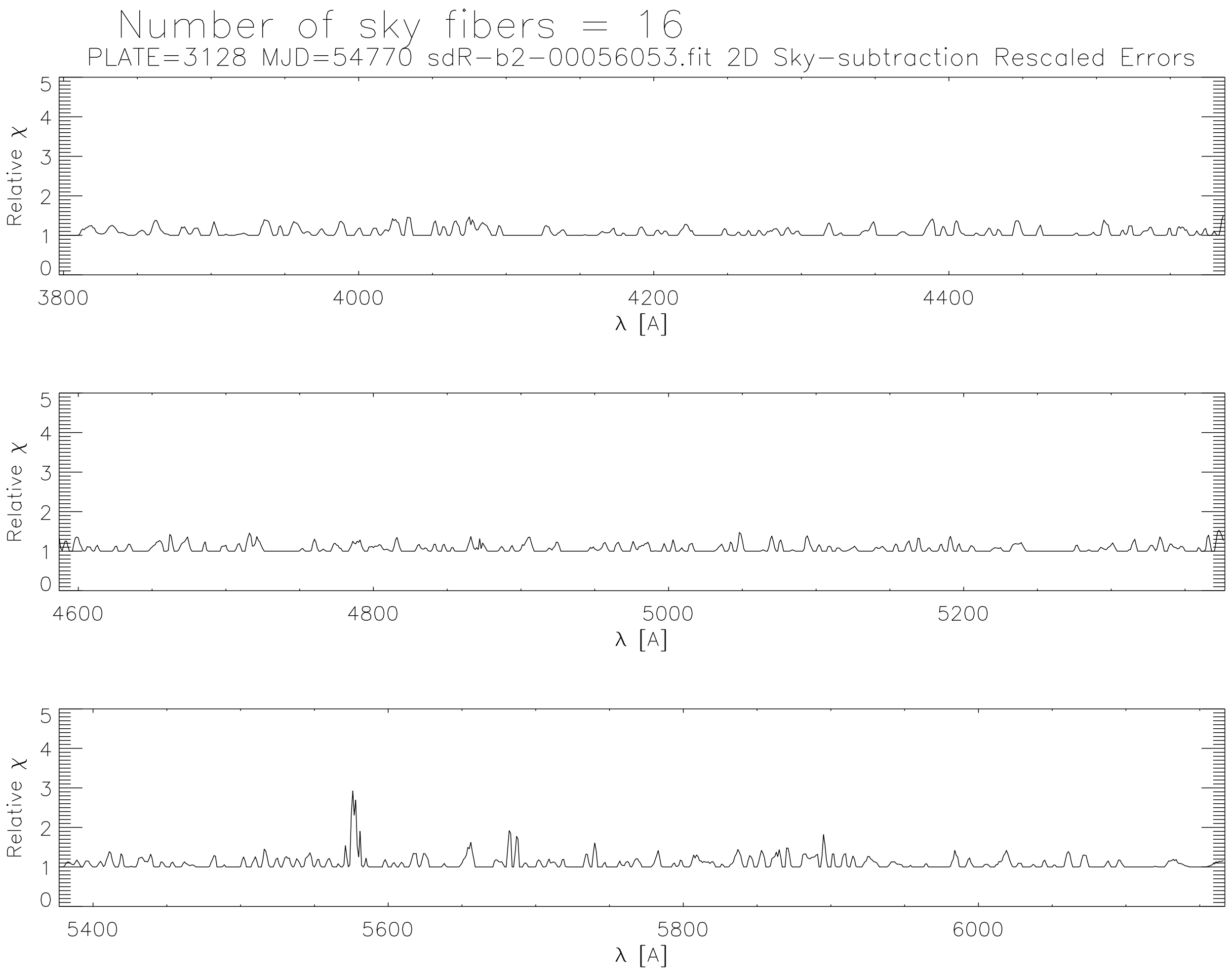
Number of sky fibers = 16

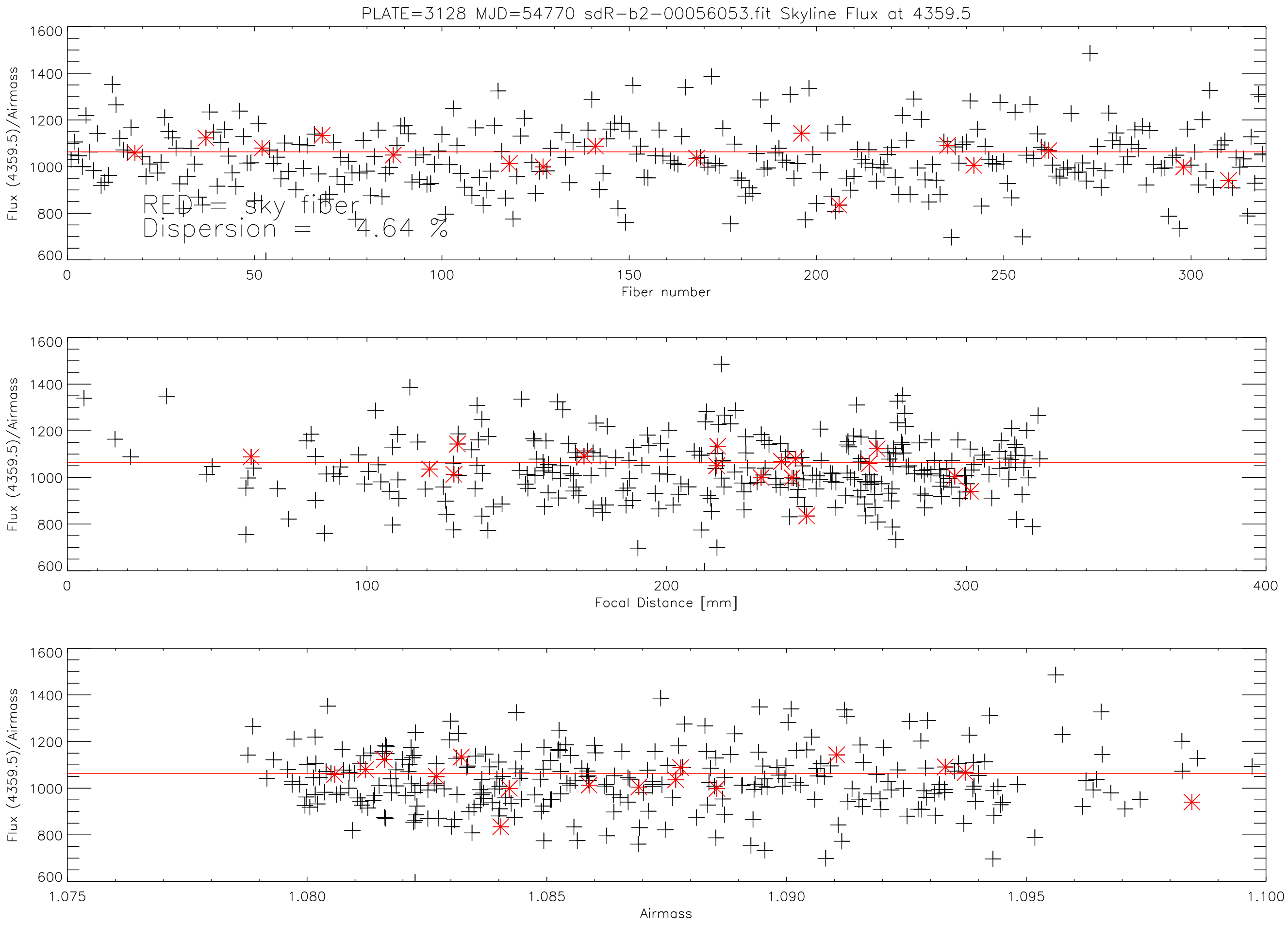
PLATE=3128 MJD=54770 sdR-b2-00056053.fit 1D Sky-subtraction Rescaled Errors

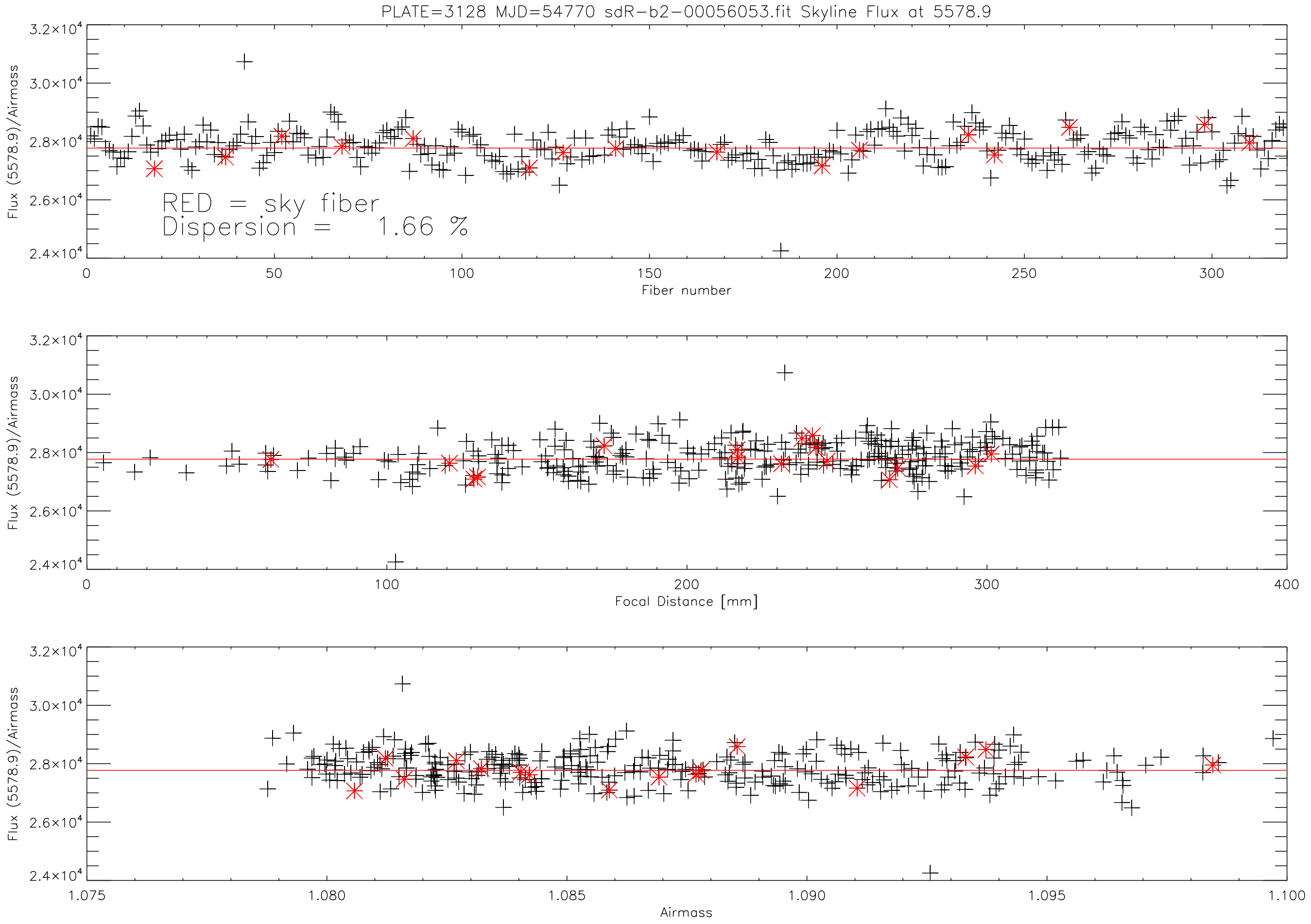

PLATE=3128 MJD=54770 sdR-b2-00056053.fit 2D Sky-subtraction Sky Fiber
Median $\chi^2$
0.0
0.1
0.2
0.3
0.4
0.5
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-2
-1
0
1
2
3
4
50
100
150
200
250
300
Fiber number

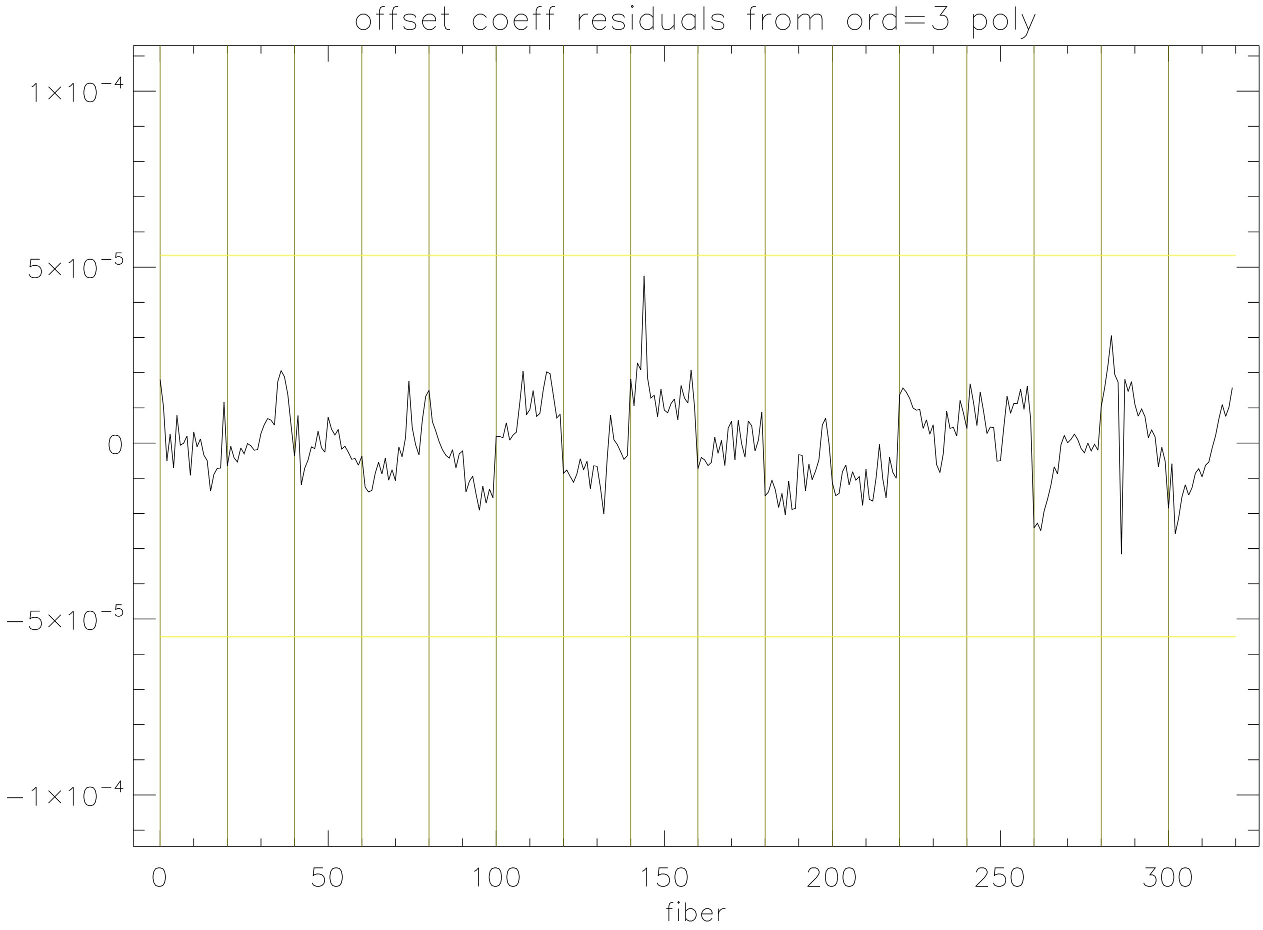

PLATE=3128 MJD=54770 sdR-b2-00056053.fit 2D Sky-subtraction Sky Fibers
1.5×10⁴
1.0×10⁴
5.0×10³
0
Flux [electrons]
5570
5575
5580
5585
5590
λ [A]

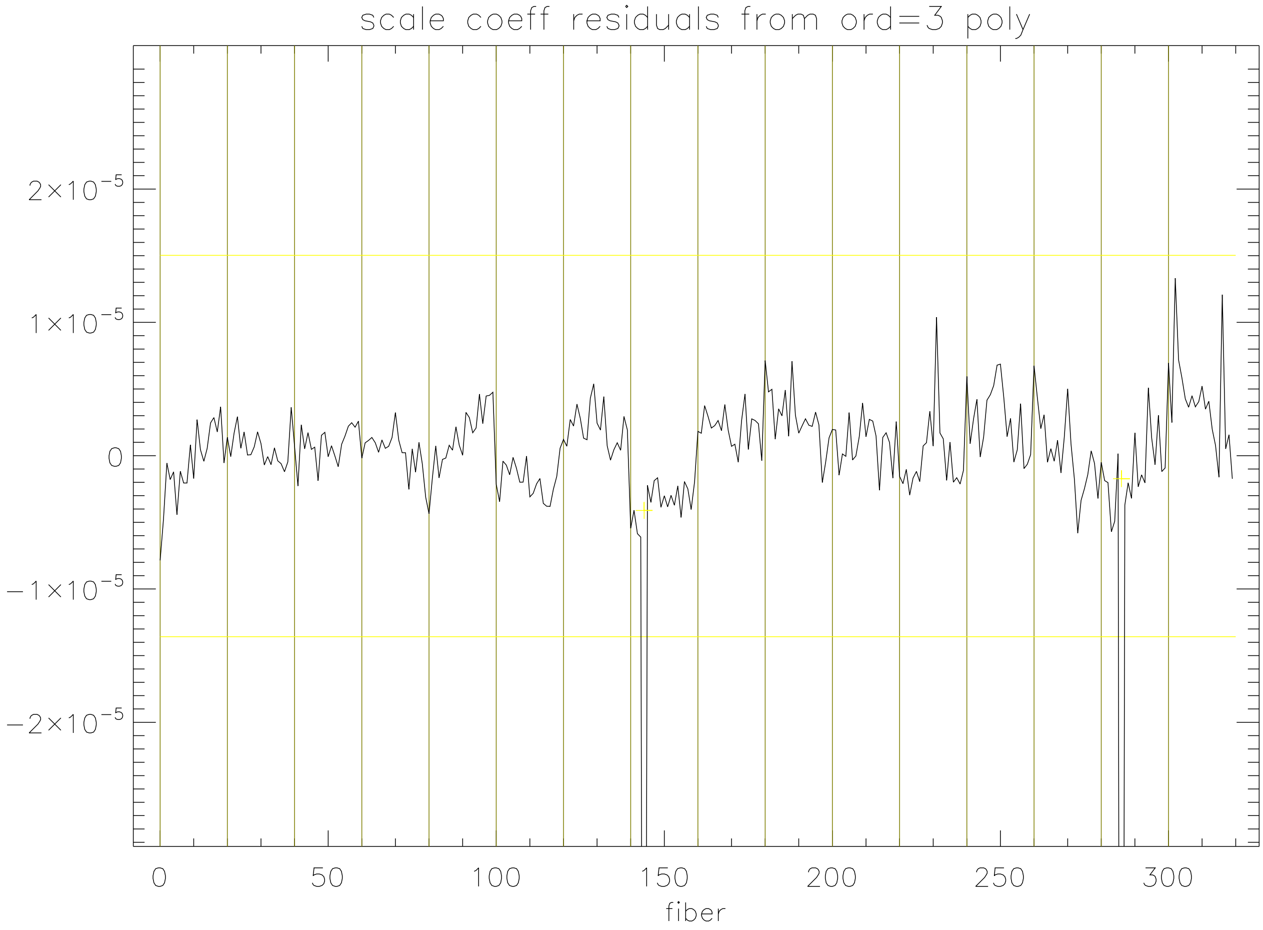

PLATE=3128 MJD=54770 sdR-b2-00056053.fit 2D Sky-subtraction Sky-subtracted Sky F
400
200
0
−200
−400
−600
Sky-Sub Flux [electrons]
5570
5575
5580
5585
5590
λ [A]


Number of sky fibers = 16
PLATE=3128 MJD=54770 sdR-b2-00056053.fit 2D Sky-subtraction Rescaled Errors
Relative χ
0
1
2
3
4
5
3800
4000
4200
4400
λ [A]
Relative χ
0
1
2
3
4
5
4600
4800
5000
5200
λ [A]
Relative χ
0
1
2
3
4
5
5400
5600
5800
6000
λ [A]

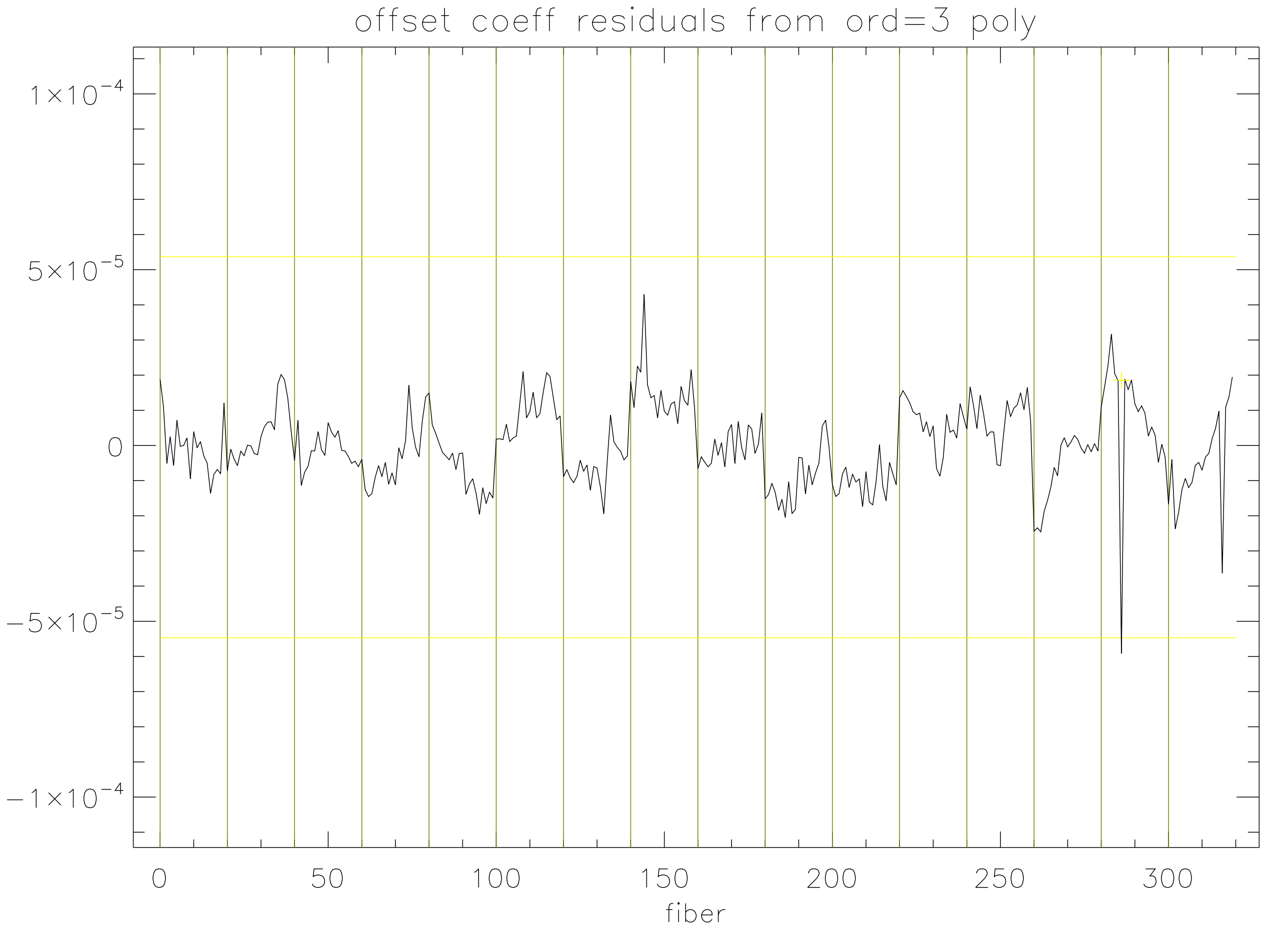

PLATE=3128 MJD=54770 sdR-b2-00056053.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
1600
1400
1200
1000
800
600
0
50
100
150
200
250
300
Fiber number
RED = sky fiber
Dispersion = 4.64 %
Flux (4359.5)/Airmass
1600
1400
1200
1000
800
600
0
100
200
300
400
Focal Distance [mm]
Flux (4359.5)/Airmass
1600
1400
1200
1000
800
600
1.075
1.080
1.085
1.090
1.095
1.100
Airmass

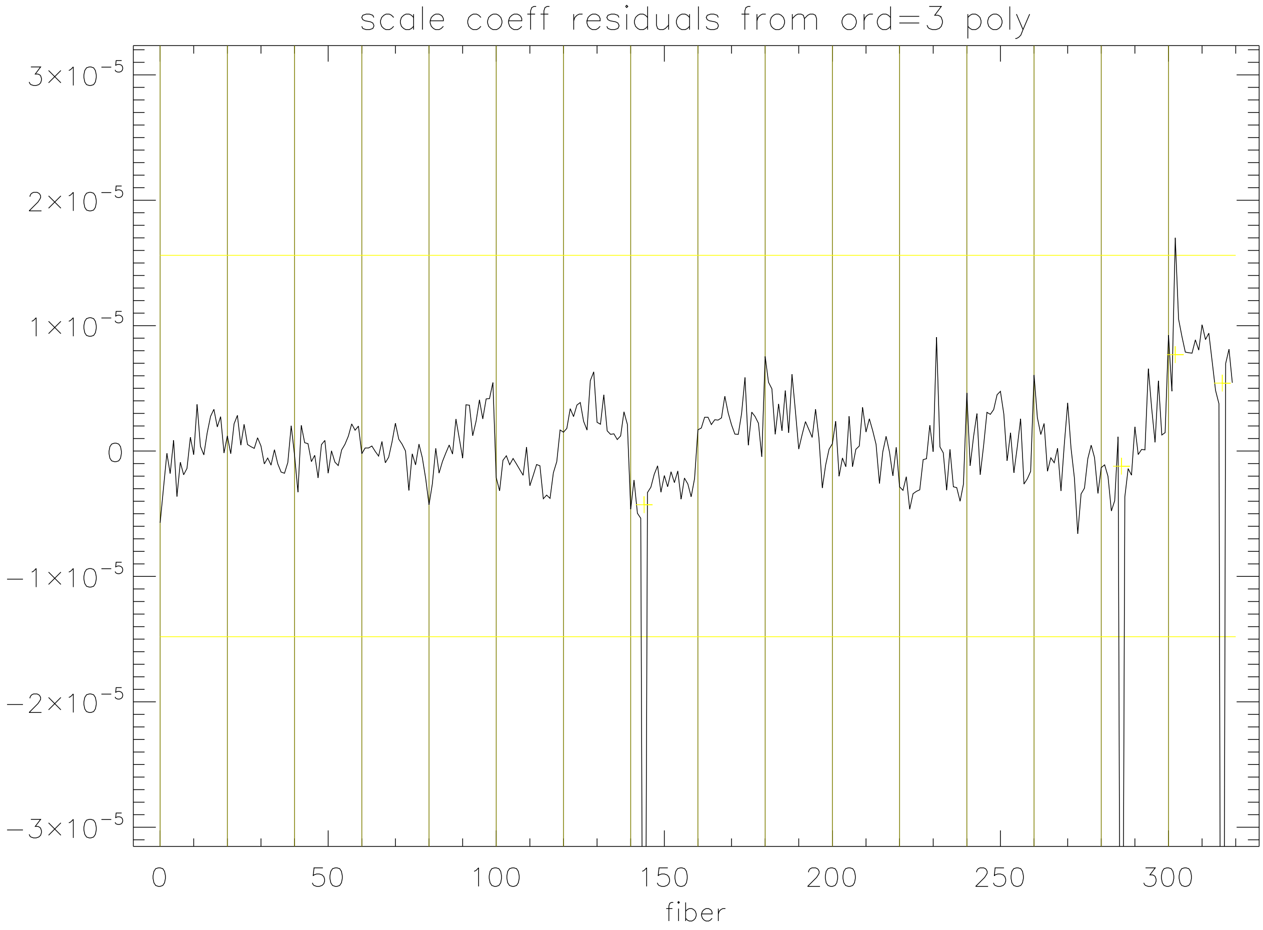

PLATE=3128 MJD=54770 sdR-b2-00056053.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
3.2×10⁴
3.0×10⁴
2.8×10⁴
2.6×10⁴
2.4×10⁴
RED = sky fiber
Dispersion = 1.66 %
0
50
100
150
200
250
300
Fiber number
Flux (5578.9)/Airmass
0
100
200
300
400
Focal Distance [mm]
Flux (5578.9)/Airmass
1.075
1.080
1.085
1.090
1.095
1.100
Airmass

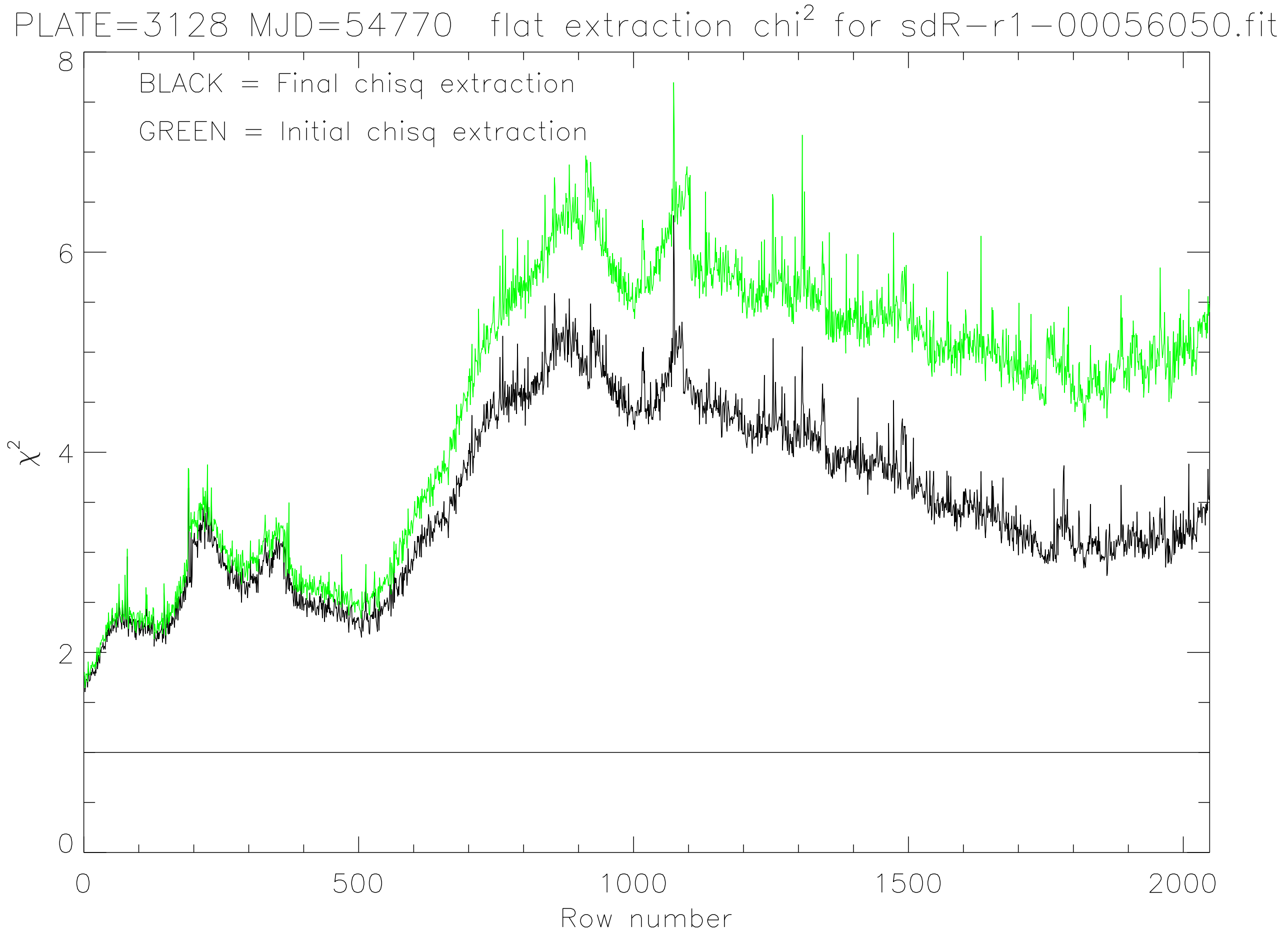

offset coeff residuals from ord=3 poly
1×10⁻⁴
5×10⁻⁵
0
−5×10⁻⁵
−1×10⁻⁴
0
50
100
150
200
250
300
fiber

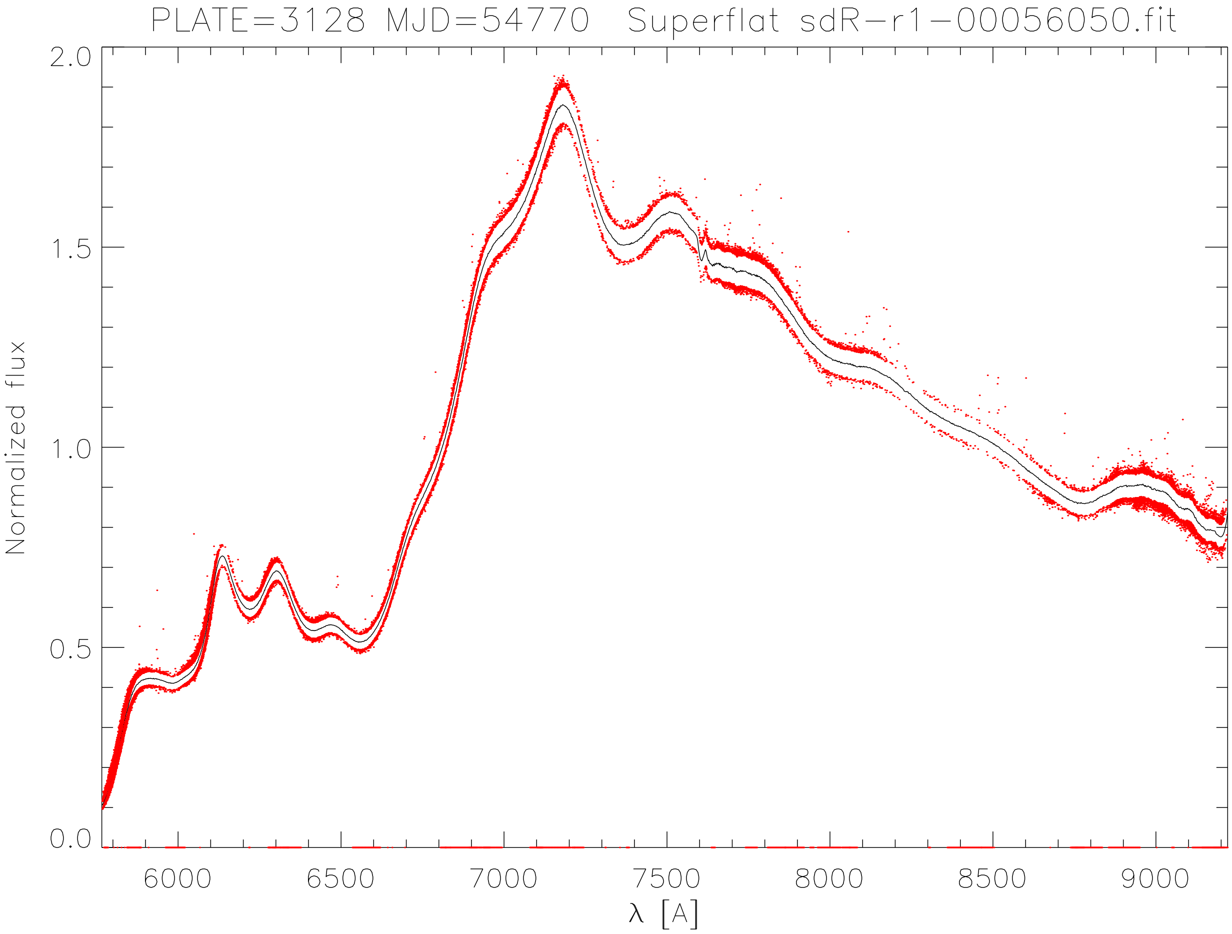


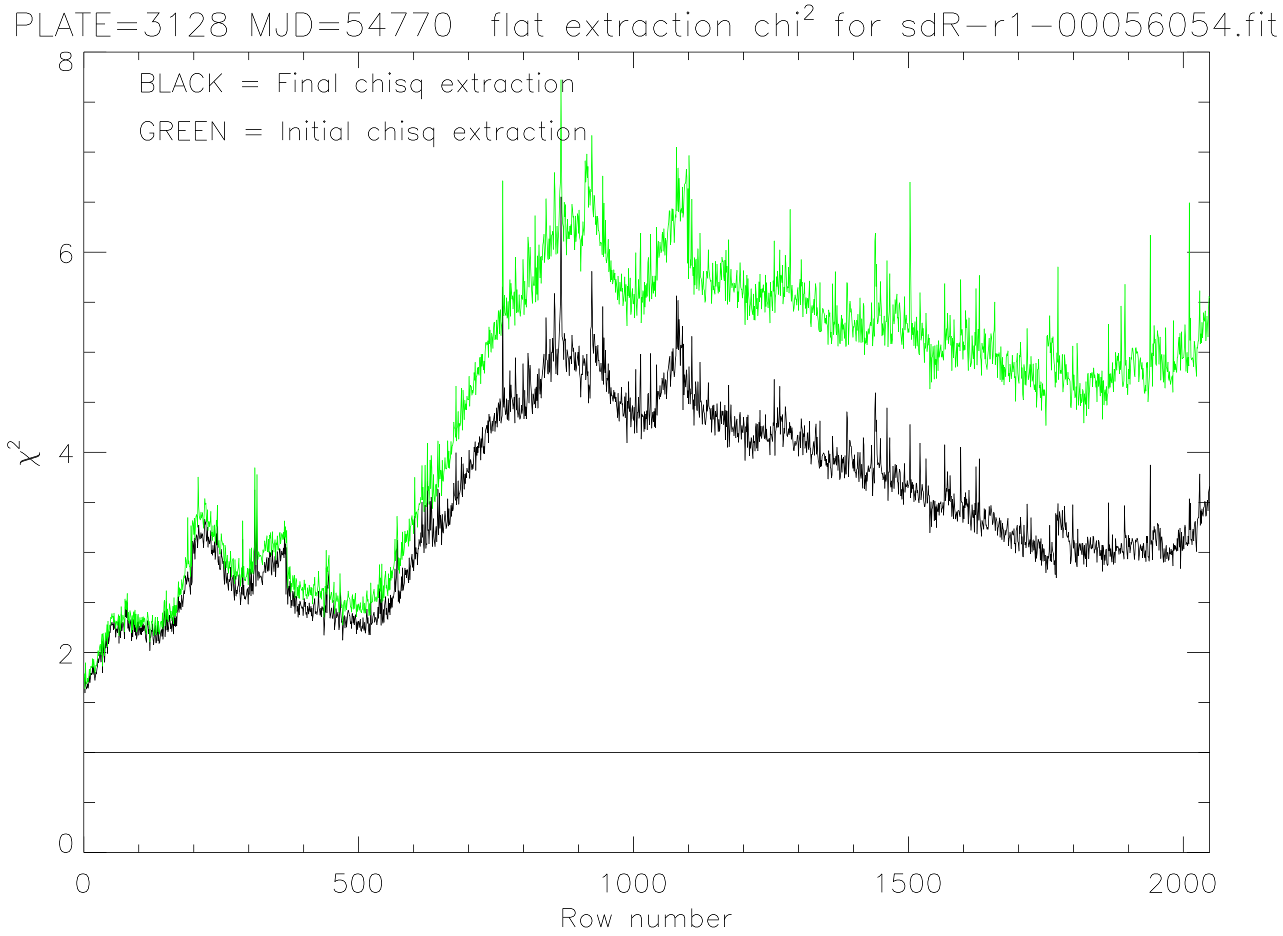
scale coeff residuals from ord=3 poly
2×10⁻⁵
1×10⁻⁵
0
−1×10⁻⁵
−2×10⁻⁵
0
50
100
150
200
250
300
fiber

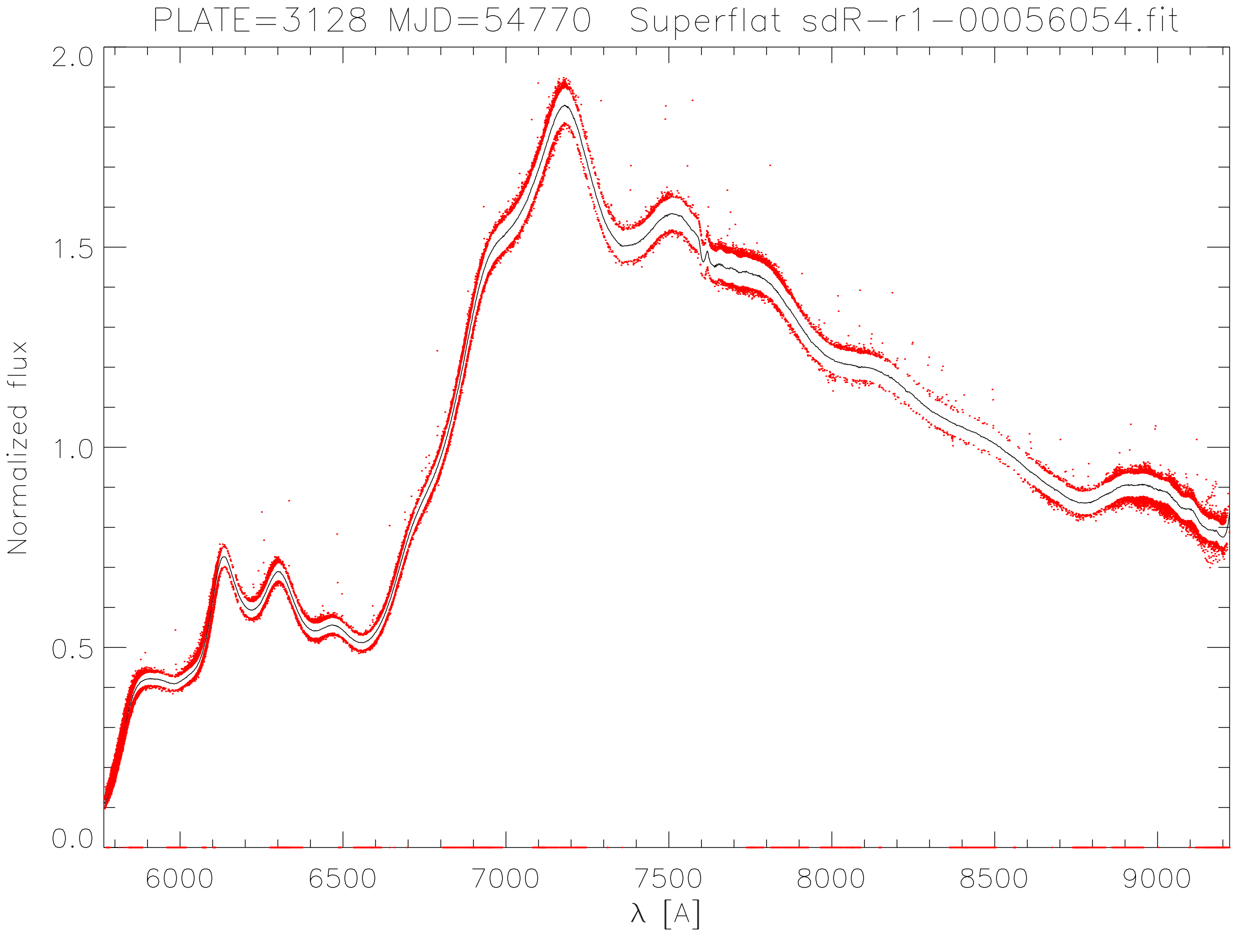

offset coeff residuals from ord=3 poly
1×10⁻⁴
5×10⁻⁵
0
−5×10⁻⁵
−1×10⁻⁴
0
50
100
150
200
250
300
fiber

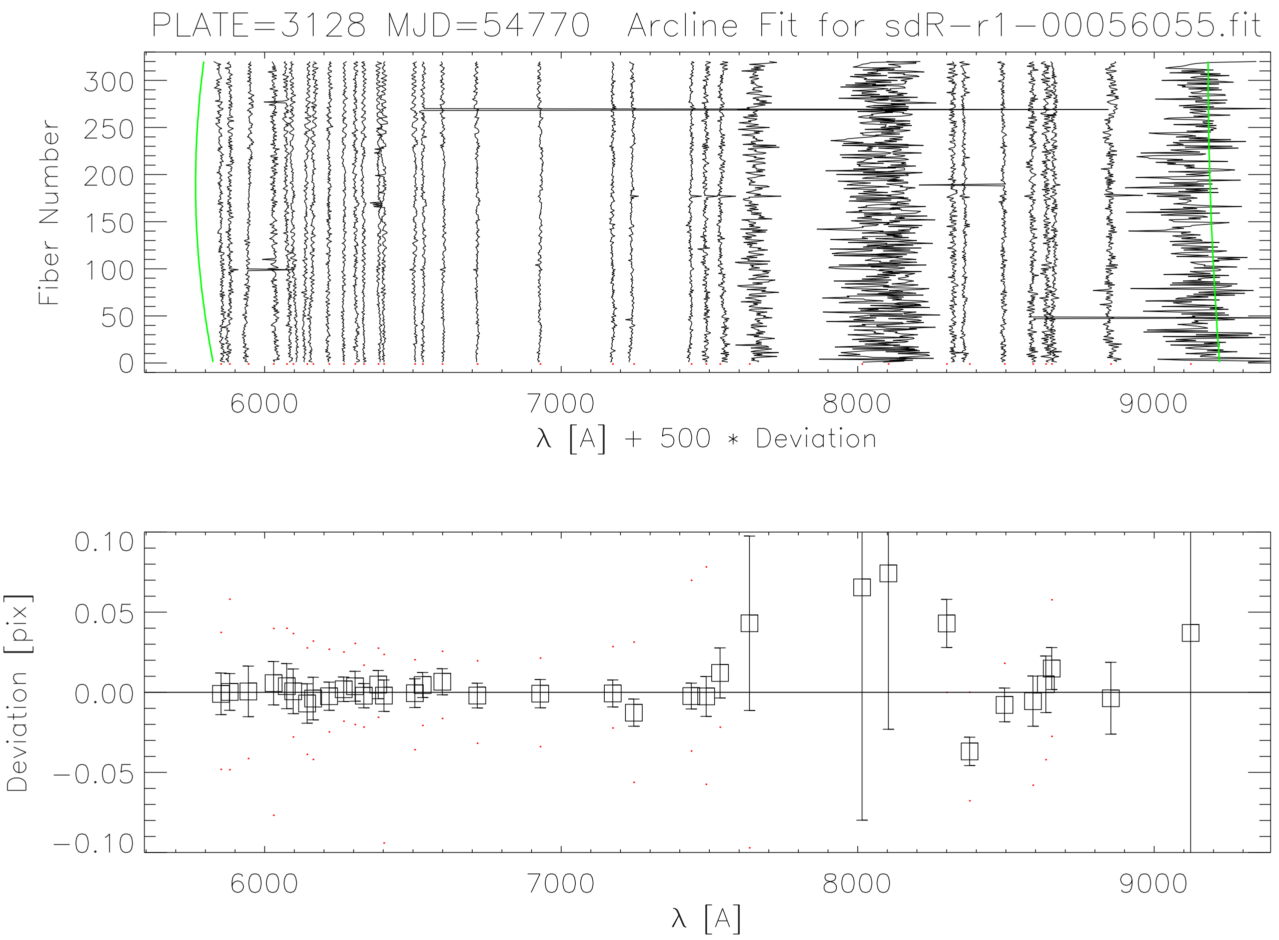

scale coeff residuals from ord=3 poly
3×10^-5
2×10^-5
1×10^-5
0
−1×10^-5
−2×10^-5
−3×10^-5
0
50
100
150
200
250
300
fiber


PLATE=3128 MJD=54770 flat extraction chi$^2$ for sdR-r1-00056050.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
$\chi^2$
0
2
4
6
8
0
500
1000
1500
2000
Row number

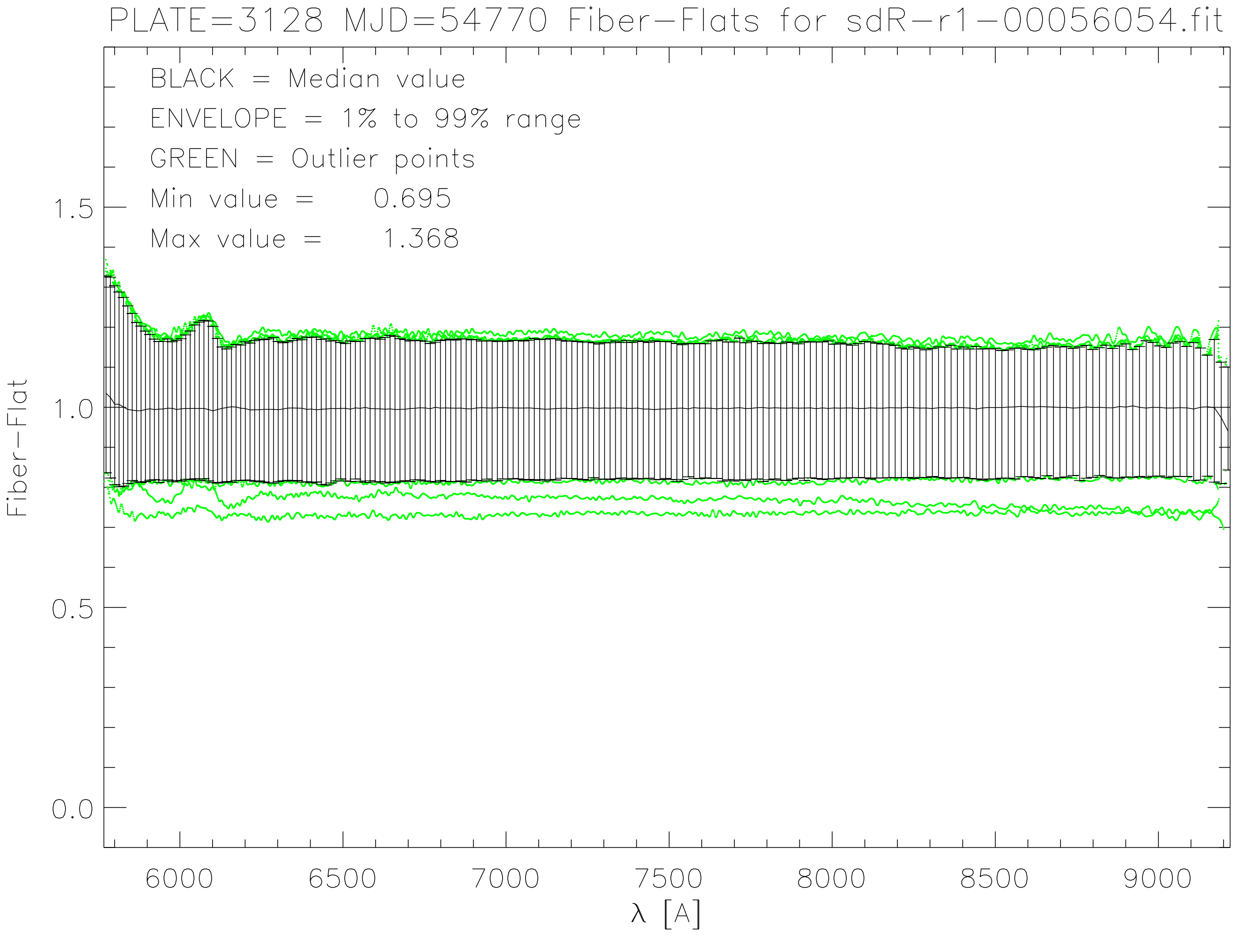

PLATE=3128 MJD=54770 Superflat sdR-r1-00056050.fit
Normalized flux
λ [A]
0.0
0.5
1.0
1.5
2.0
6000
6500
7000
7500
8000
8500
9000


PLATE=3128 MJD=54770 flat extraction chi$^2$ for sdR-r1-00056054.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
$\chi^2$
0
2
4
6
8
0
500
1000
1500
2000
Row number


PLATE=3128 MJD=54770 Superflat sdR-r1-00056054.fit
Normalized flux
0.0
0.5
1.0
1.5
2.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

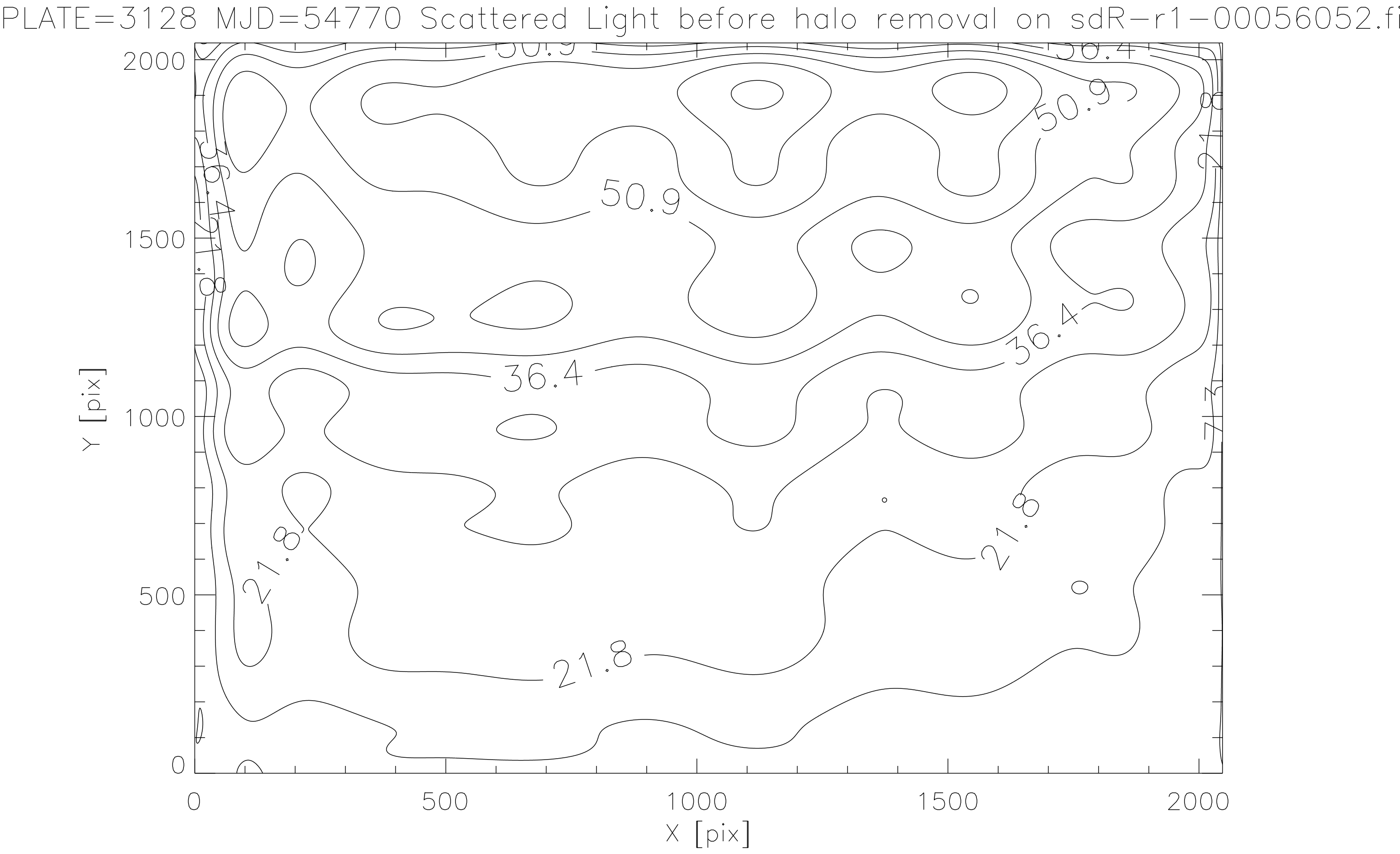


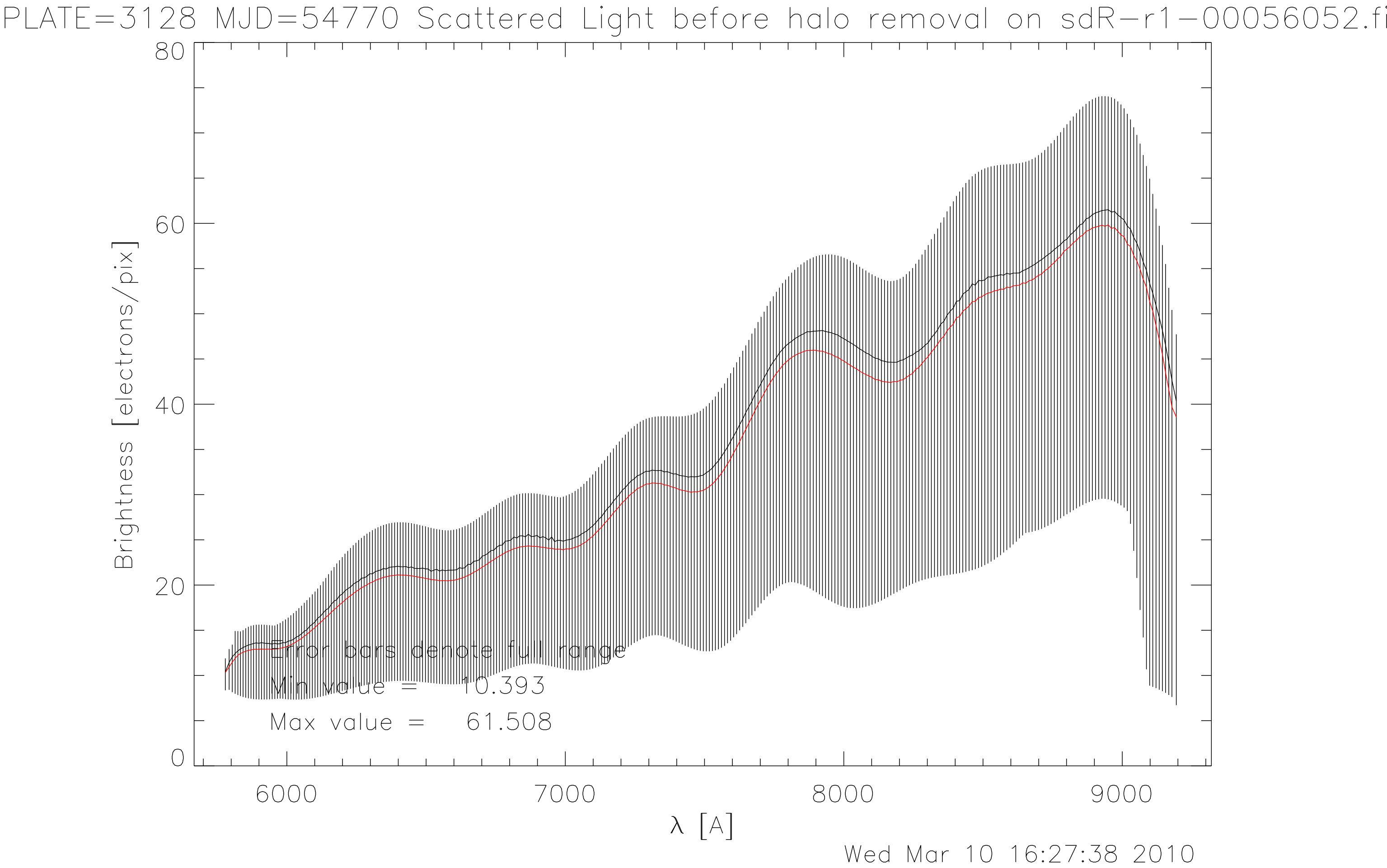
Wed Mar 10 16:26:27 2010

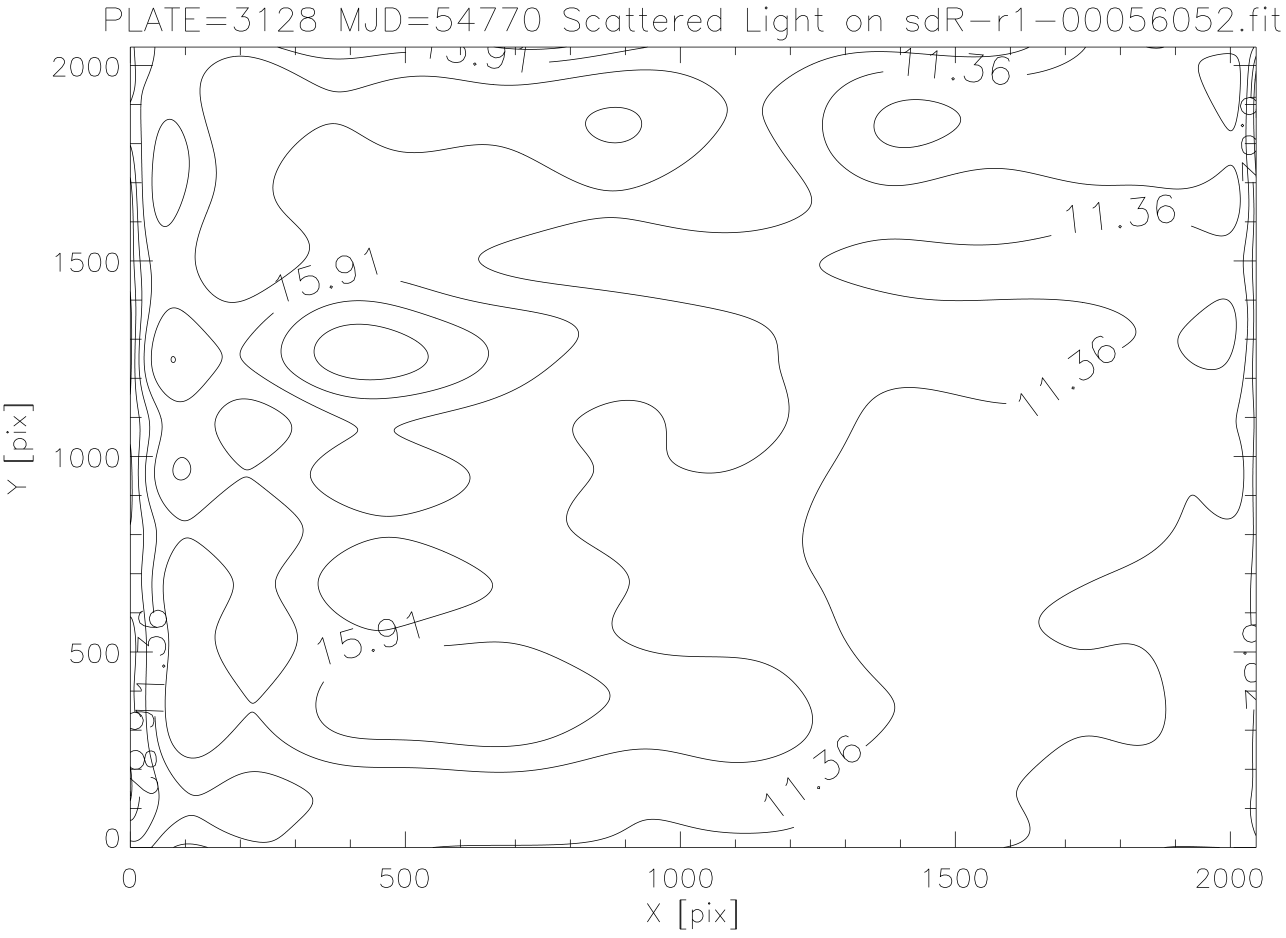


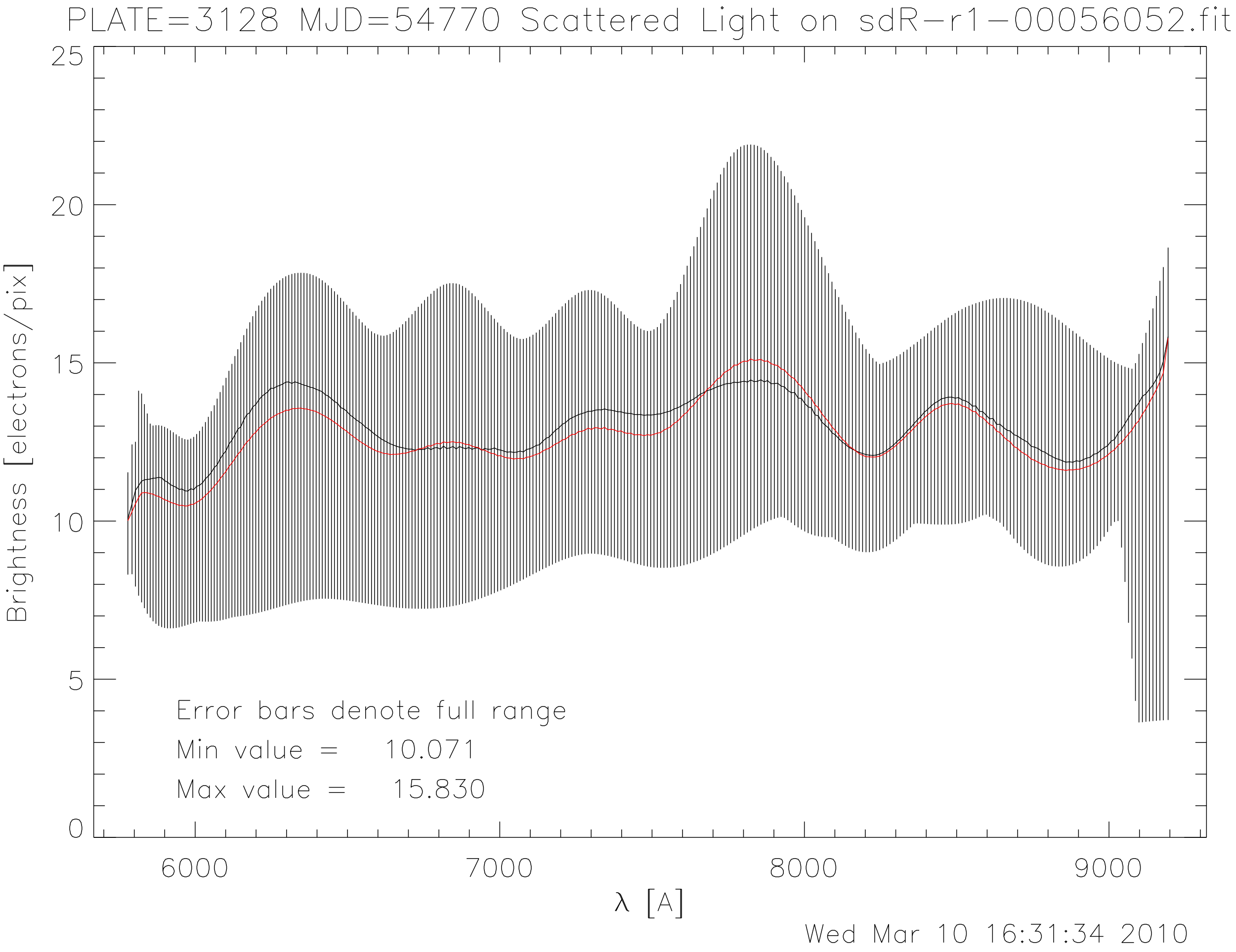
PLATE=3128 MJD=54770 Fiber−Flats for sdR−r1−00056054.fit

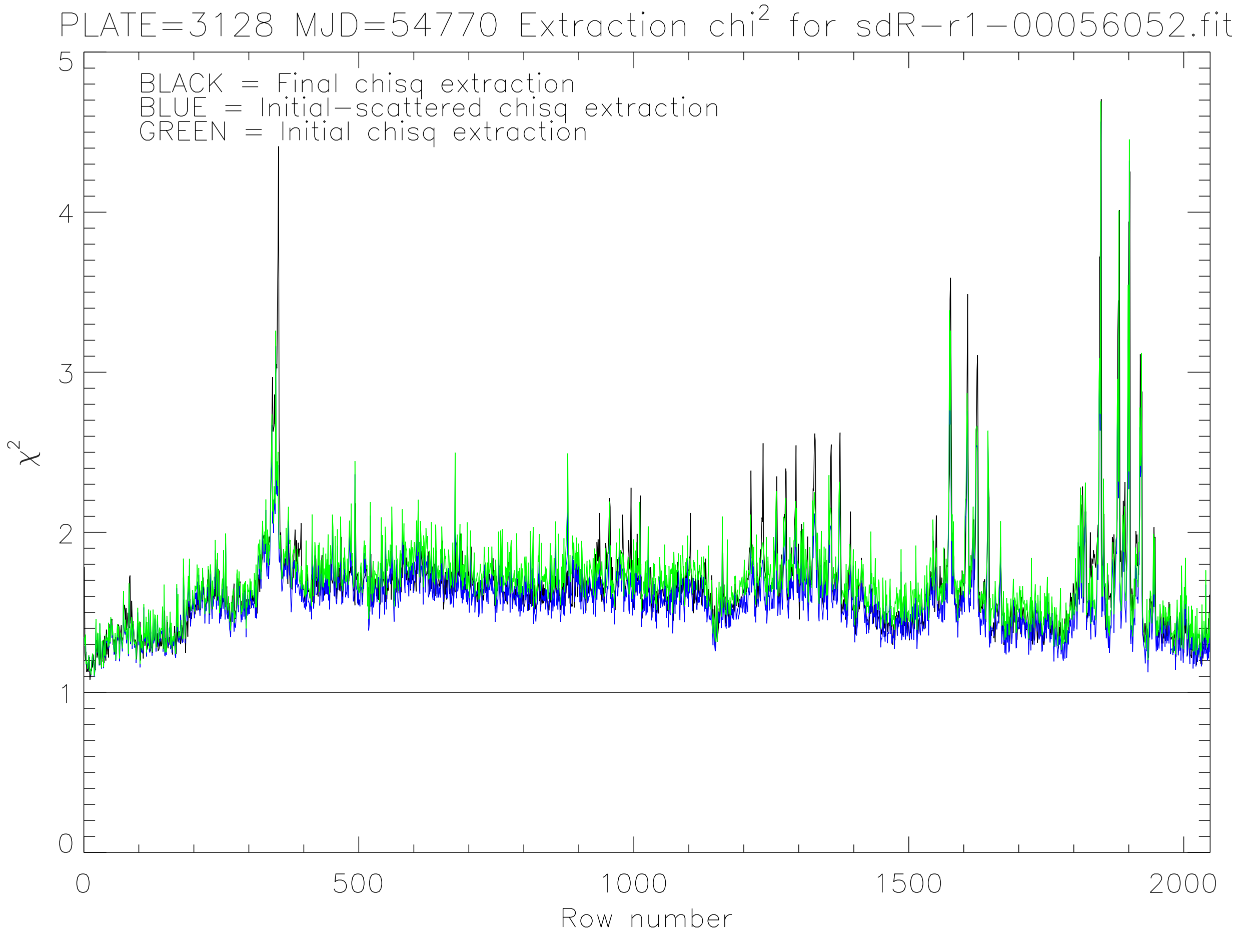
Wed Mar 10 16:26:38 2010

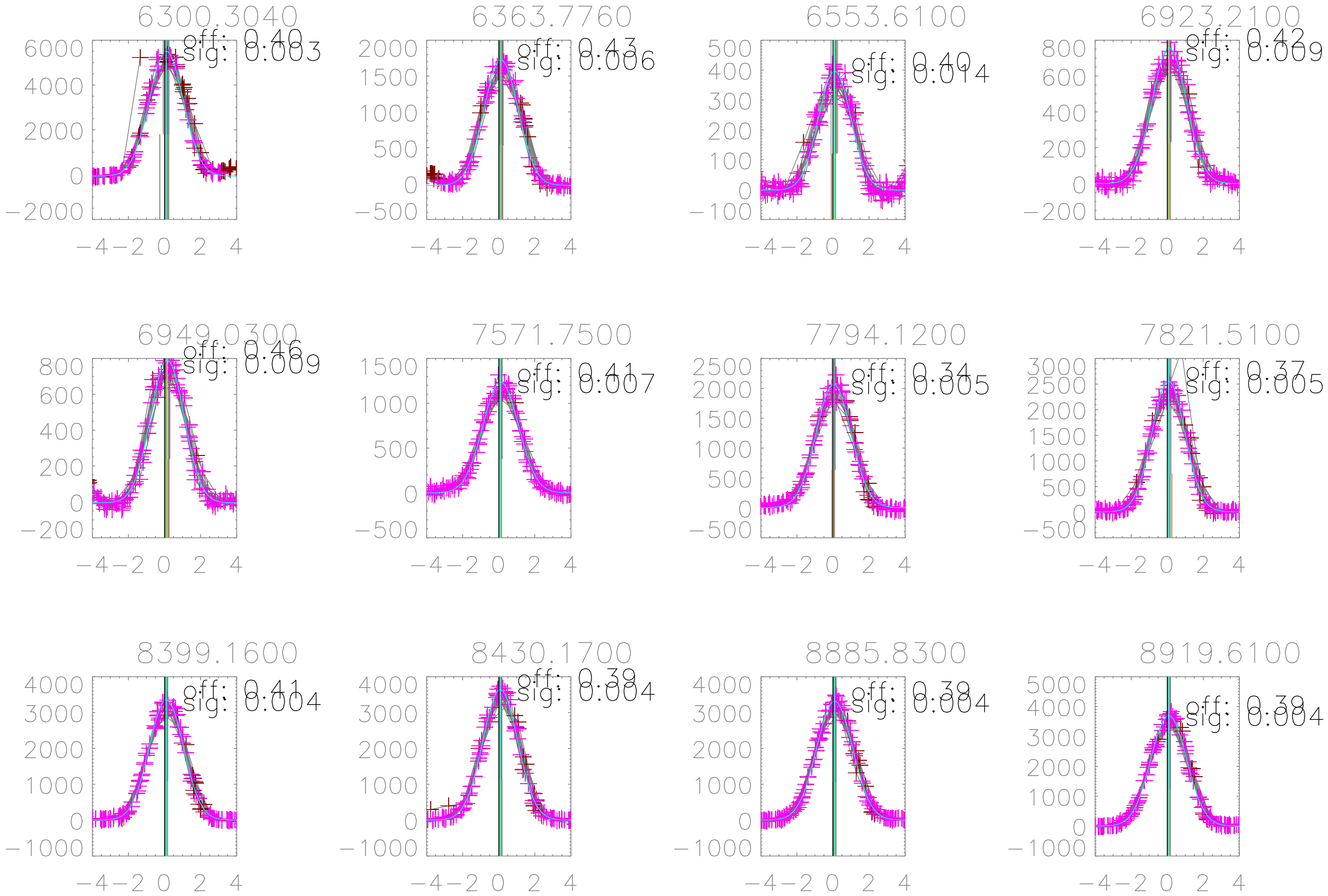

PLATE=3128 MJD=54770 Scattered Light before halo removal on sdR-r1-00056052.fi
Y [pix]
X [pix]
0
500
1000
1500
2000
0
500
1000
1500
2000
21.8
21.8
21.8
21.8
36.4
36.4
36.4
50.9
50.9
50.9

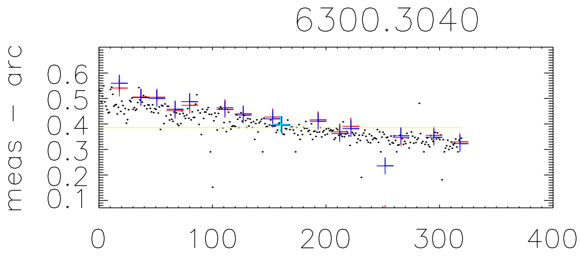

PLATE=3128 MJD=54770 Scattered Light before halo removal on sdR-r1-00056052.fi
Brightness [electrons/pix]
0
20
40
60
80
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 10.393
Max value = 61.508
Wed Mar 10 16:27:38 2010

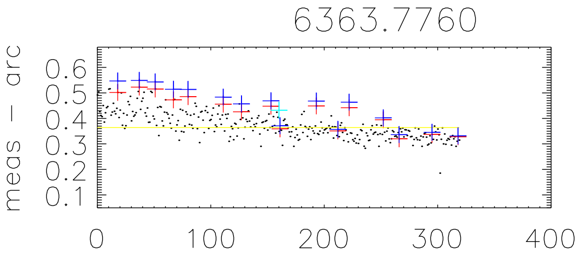

PLATE=3128 MJD=54770 Scattered Light on sdR-r1-00056052.fit
Y [pix]
0
500
1000
1500
2000
X [pix]
0
500
1000
1500
2000
15.91
15.91
15.91
11.36
11.36
11.36
11.36
11.36

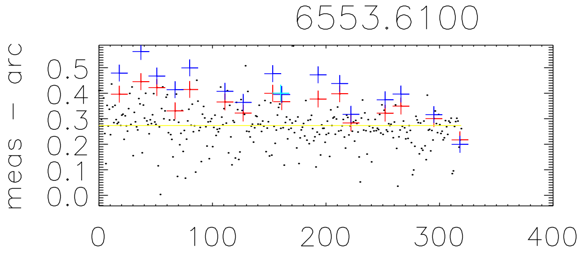

PLATE=3128 MJD=54770 Scattered Light on sdR-r1-00056052.fit
Brightness [electrons/pix]
0
5
10
15
20
25
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 10.071
Max value = 15.830
Wed Mar 10 16:31:34 2010

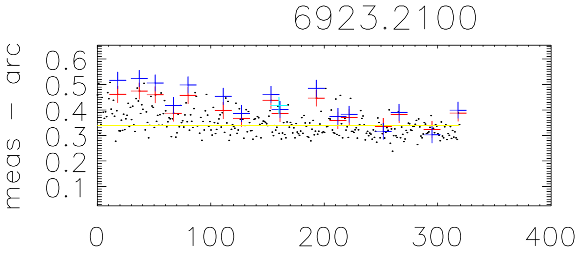

PLATE=3128 MJD=54770 Extraction chi$^2$ for sdR-r1-00056052.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
$\chi^2$
0
1
2
3
4
5
0
500
1000
1500
2000
Row number

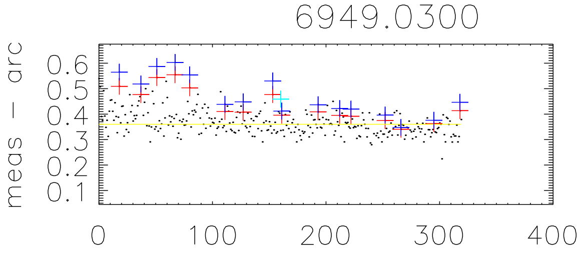

6300.3040
off: 0.40
sig: 0.003
6363.7760
off: 0.43
sig: 0.006
6553.6100
off: 0.40
sig: 0.014
6923.2100
off: 0.42
sig: 0.009
6949.0300
off: 0.46
sig: 0.009
7571.7500
off: 0.41
sig: 0.007
7794.1200
off: 0.34
sig: 0.005
7821.5100
off: 0.37
sig: 0.005
8399.1600
off: 0.41
sig: 0.004
8430.1700
off: 0.39
sig: 0.004
8885.8300
off: 0.39
sig: 0.004
8919.6100
off: 0.39
sig: 0.004
−4 −2 0 2 4

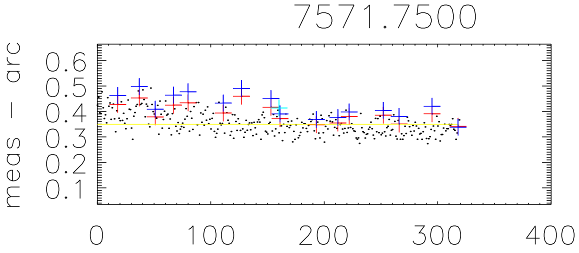

6300.3040

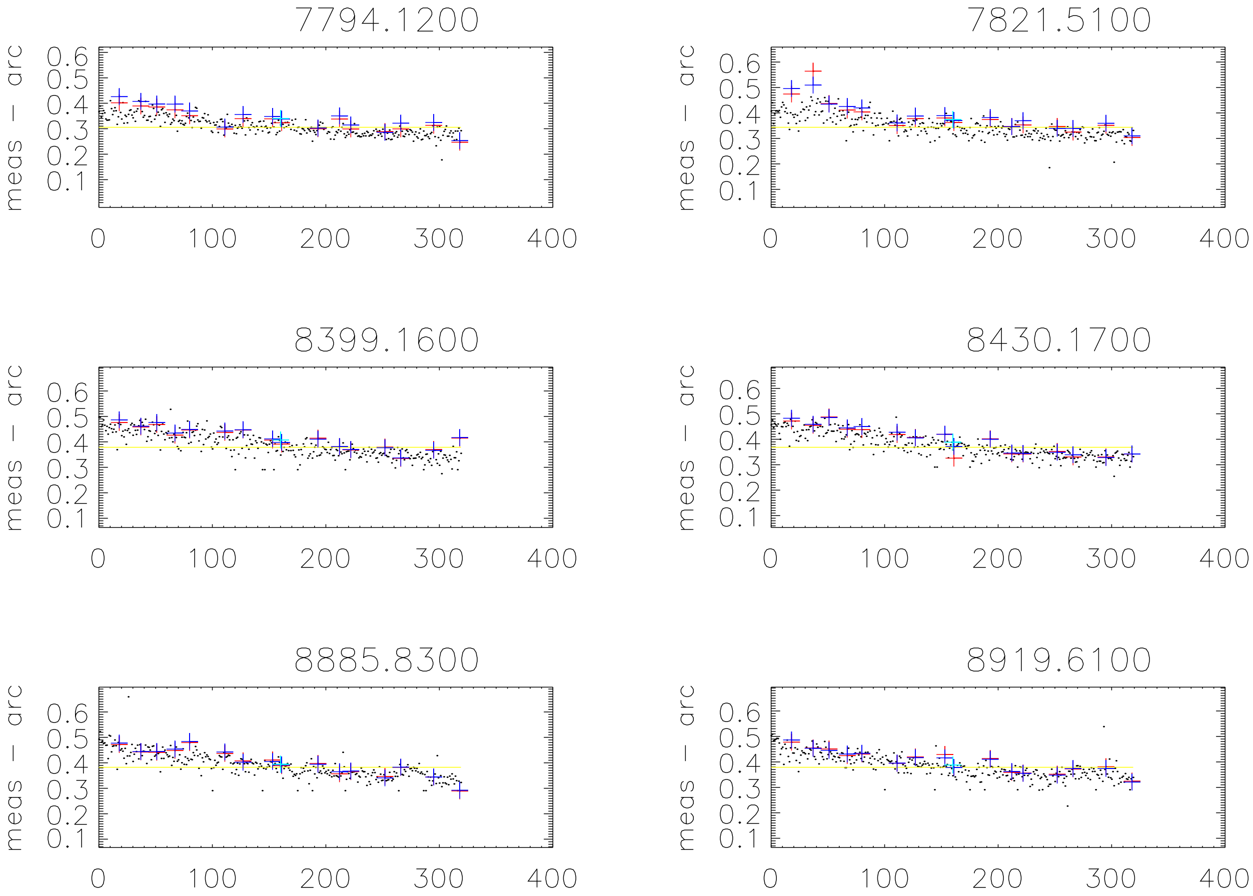

6363.7760

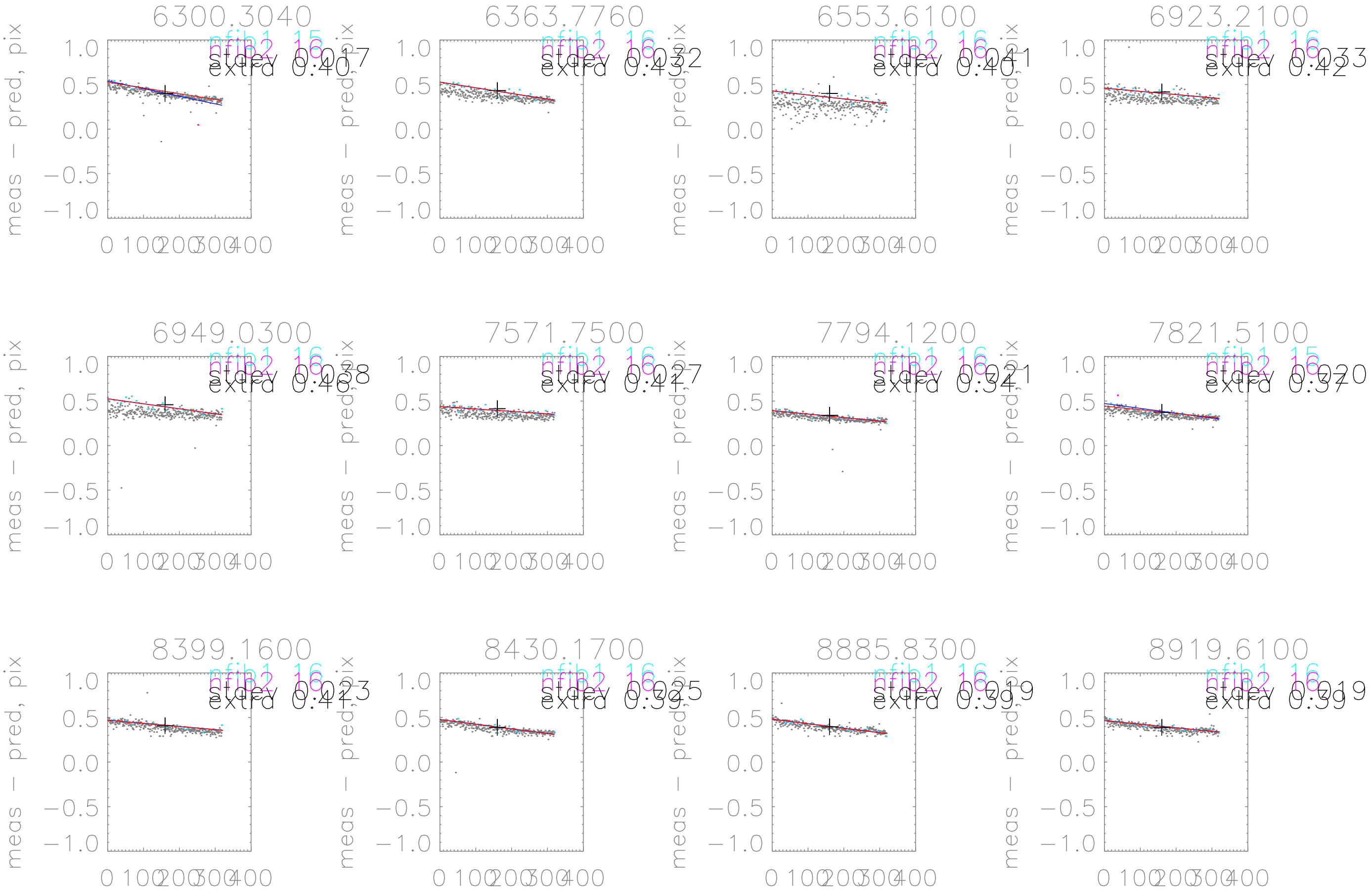

6553.6100

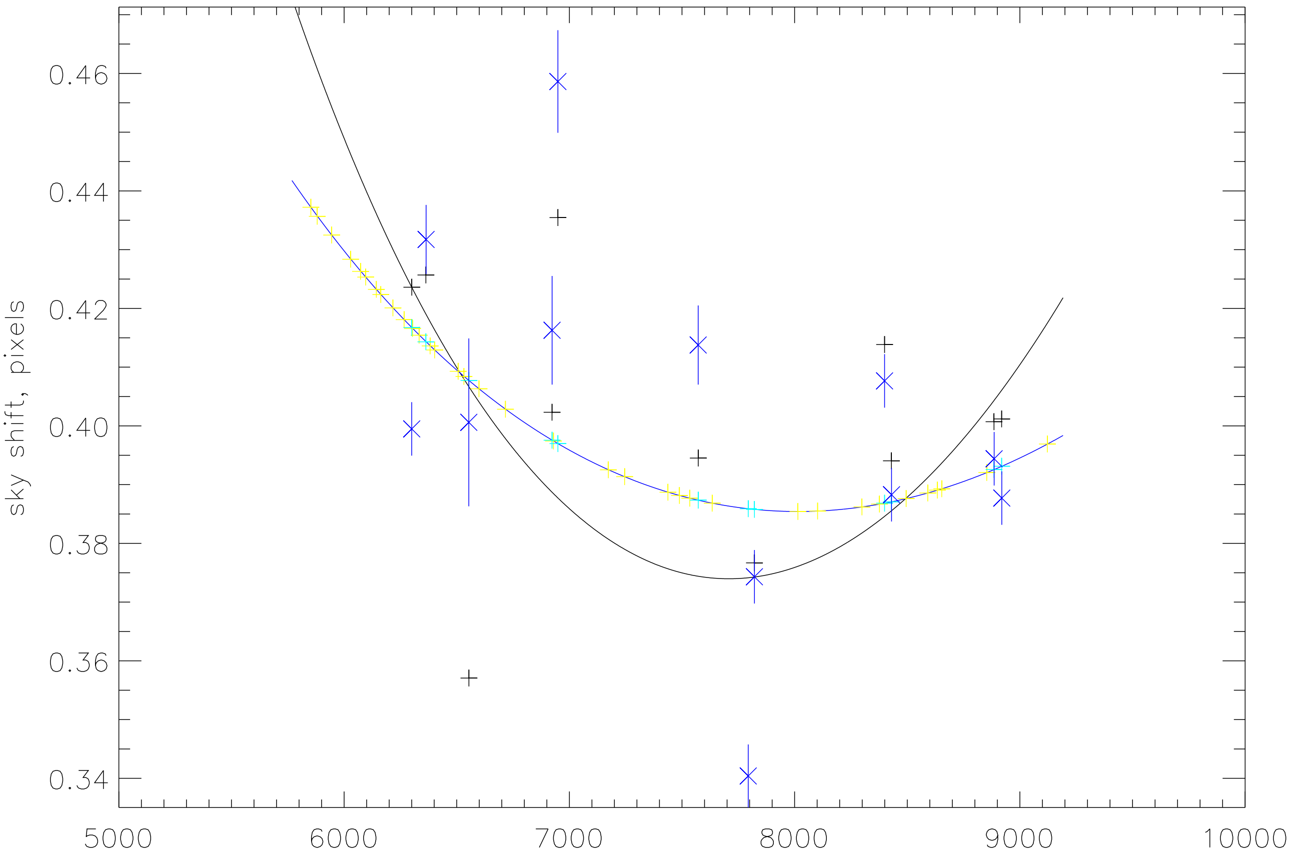

6923.2100

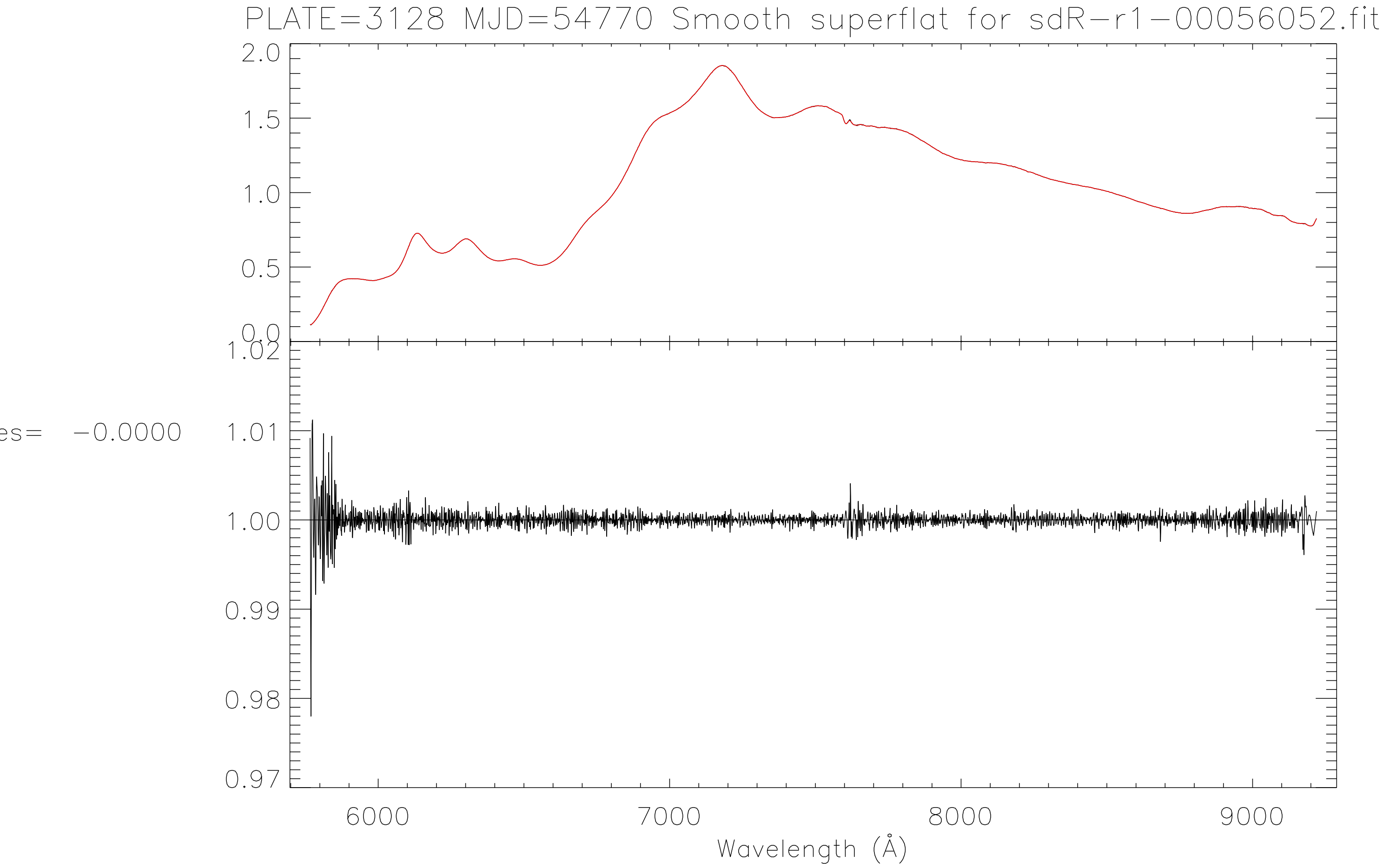

6949.0300

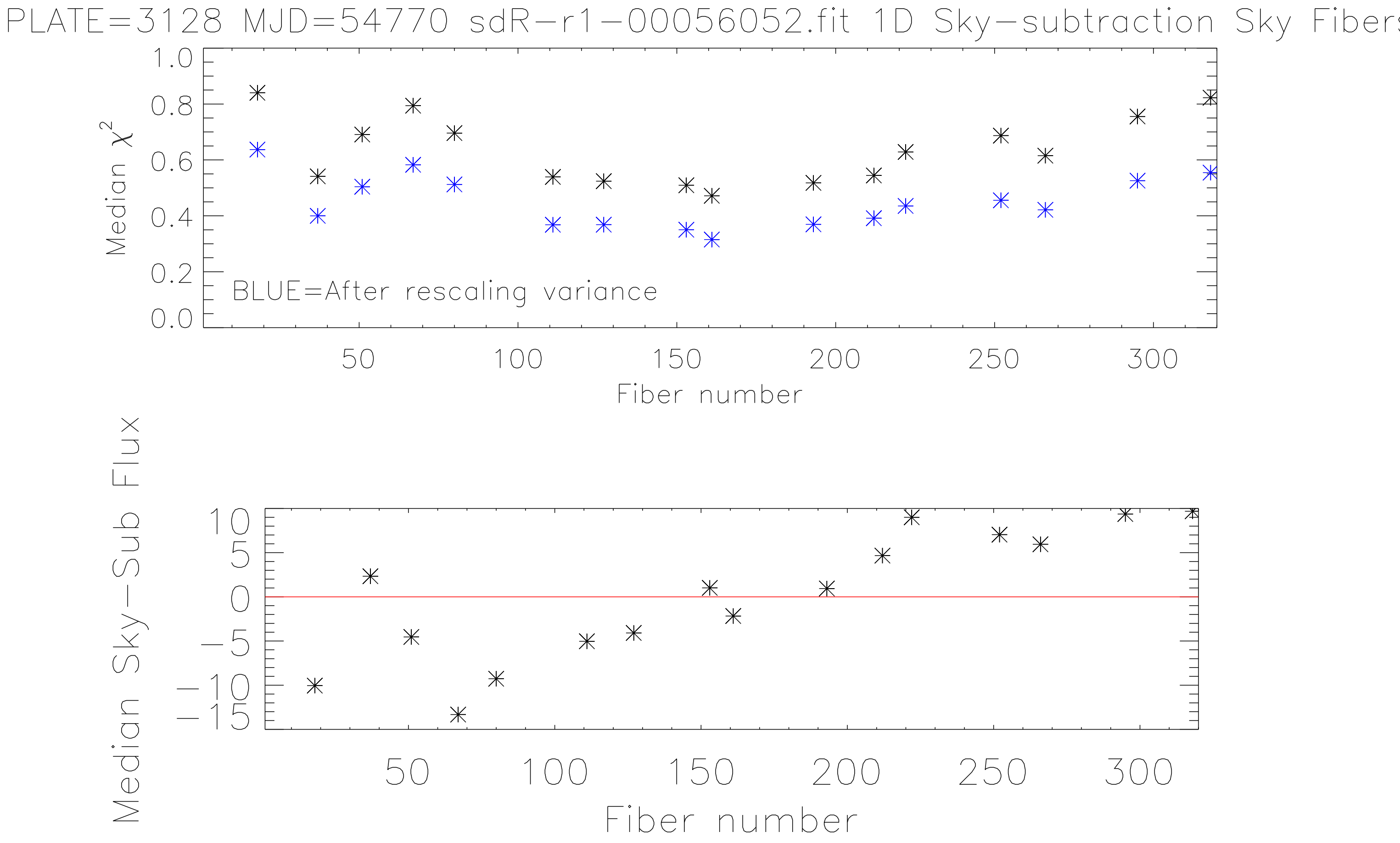

7571.7500


7794.1200
7821.5100
8399.1600
8430.1700
8885.8300
8919.6100
meas - arc
0.1
0.2
0.3
0.4
0.5
0.6
0
100
200
300
400

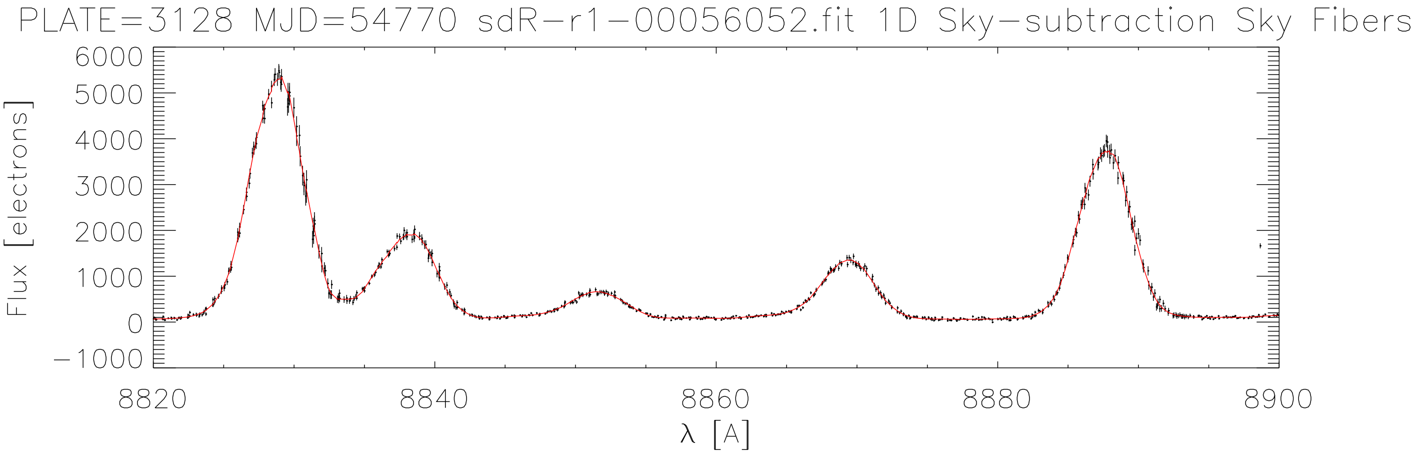

6300.3040
nfib1 15
nfib2 16
stdev 0.017
extra 0.40
6363.7760
nfib1 16
nfib2 16
stdev 0.032
extra 0.43
6553.6100
nfib1 16
nfib2 16
stdev 0.041
extra 0.40
6923.2100
nfib1 16
nfib2 16
stdev 0.033
extra 0.42
6949.0300
nfib1 16
nfib2 16
stdev 0.038
extra 0.46
7571.7500
nfib1 16
nfib2 16
stdev 0.027
extra 0.41
7794.1200
nfib1 16
nfib2 16
stdev 0.021
extra 0.34
7821.5100
nfib1 15
nfib2 16
stdev 0.020
extra 0.37
8399.1600
nfib1 16
nfib2 16
stdev 0.023
extra 0.41
8430.1700
nfib1 16
nfib2 16
stdev 0.025
extra 0.39
8885.8300
nfib1 16
nfib2 16
stdev 0.019
extra 0.39
8919.6100
nfib1 16
nfib2 16
stdev 0.019
extra 0.39
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

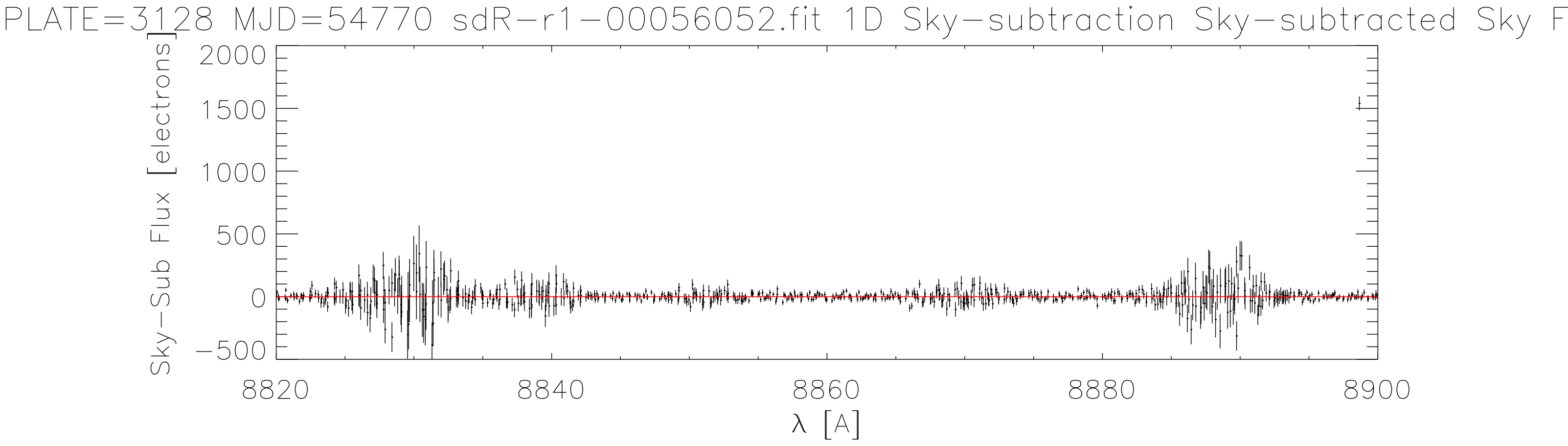

sky shift, pixels
0.46
0.44
0.42
0.40
0.38
0.36
0.34
5000
6000
7000
8000
9000
10000


PLATE=3128 MJD=54770 Smooth superflat for sdR-r1-00056052.fit
2.0
1.5
1.0
0.5
0.0
es= −0.0000
1.02
1.01
1.00
0.99
0.98
0.97
6000
7000
8000
9000
Wavelength (Å)



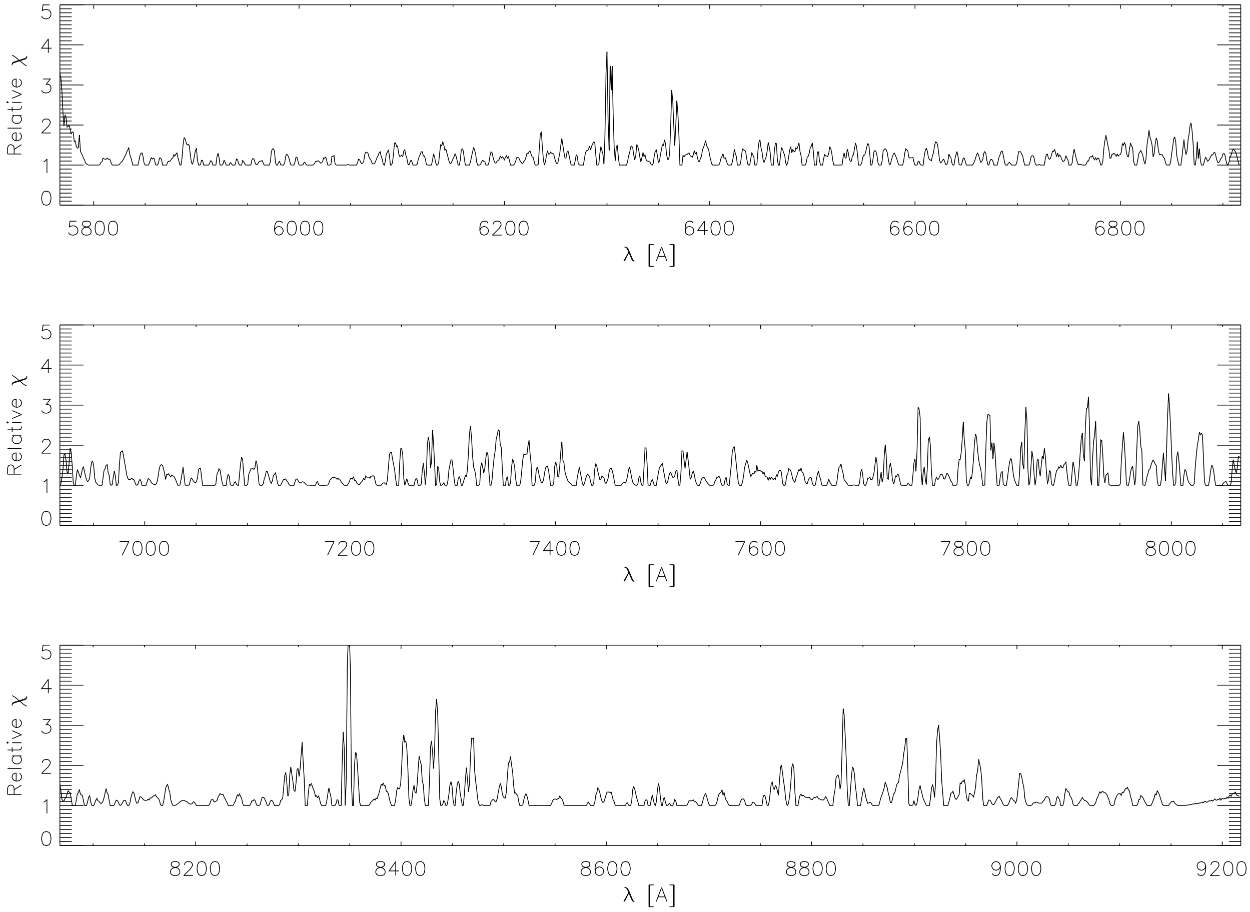
PLATE=3128 MJD=54770 sdR-r1-00056052.fit 1D Sky-subtraction Sky Fiber
Median $\chi^2$
1.0
0.8
0.6
0.4
0.2
0.0
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
−5
−10
−15
50
100
150
200
250
300
Fiber number

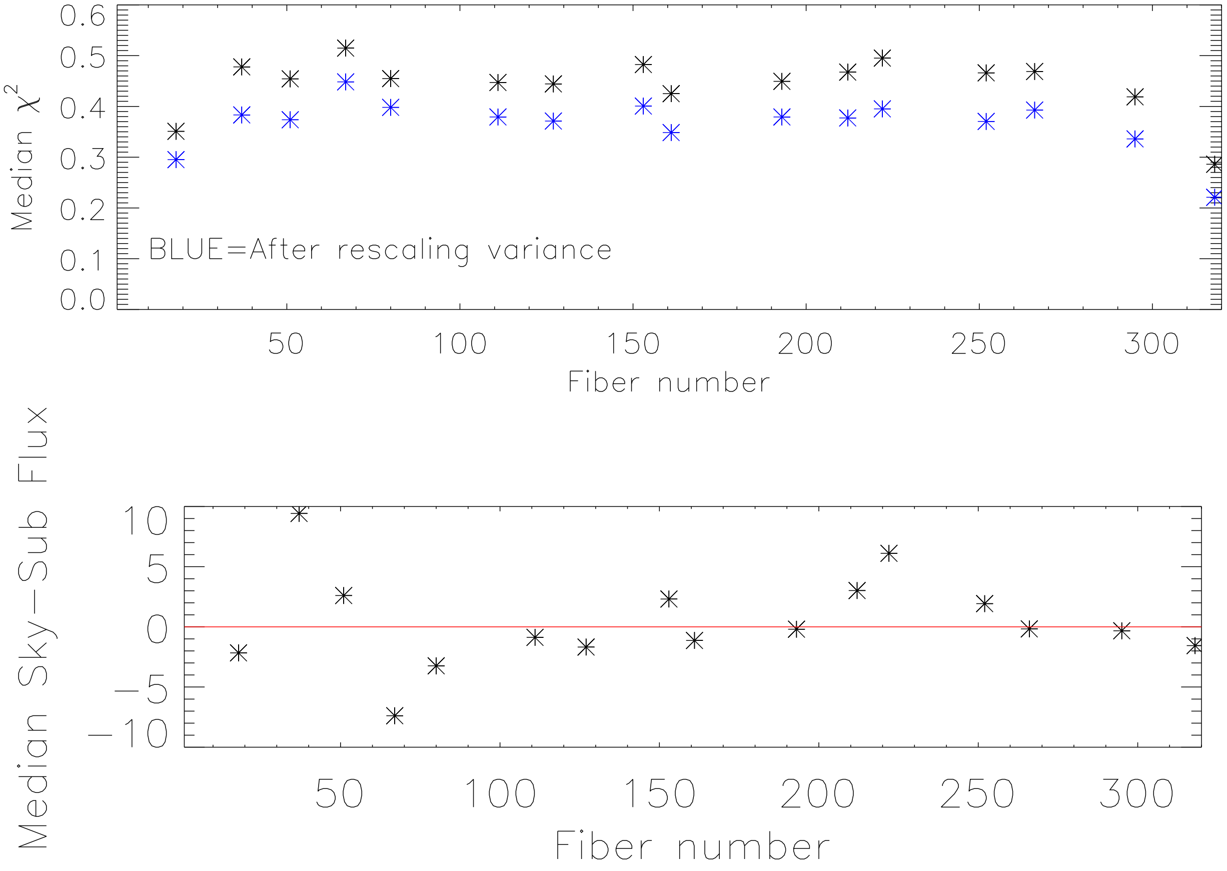

PLATE=3128 MJD=54770 sdR-r1-00056052.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
6000
5000
4000
3000
2000
1000
0
−1000
8820
8840
8860
8880
8900
λ [A]


PLATE=3128 MJD=54770 sdR-r1-00056052.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]

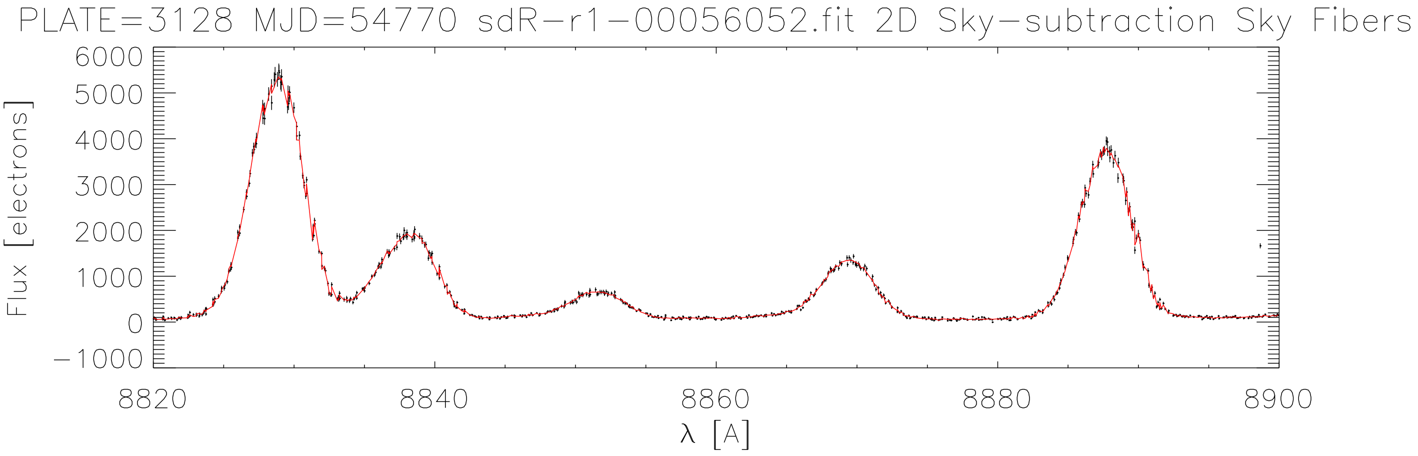
Number of sky fibers = 16

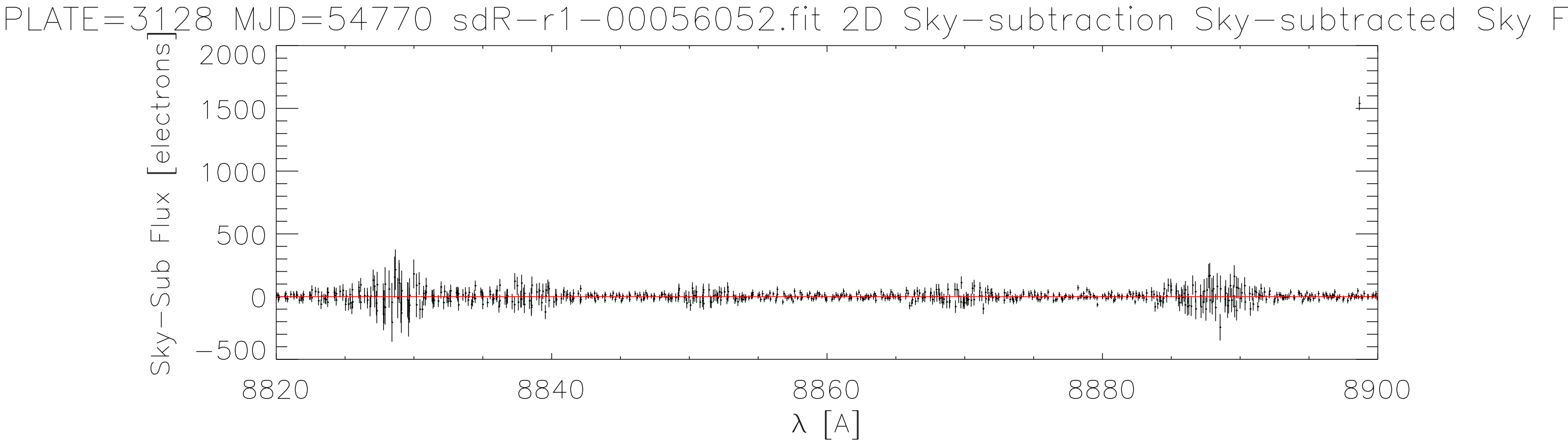
PLATE=3128 MJD=54770 sdR-r1-00056052.fit 1D Sky-subtraction Rescaled Errors





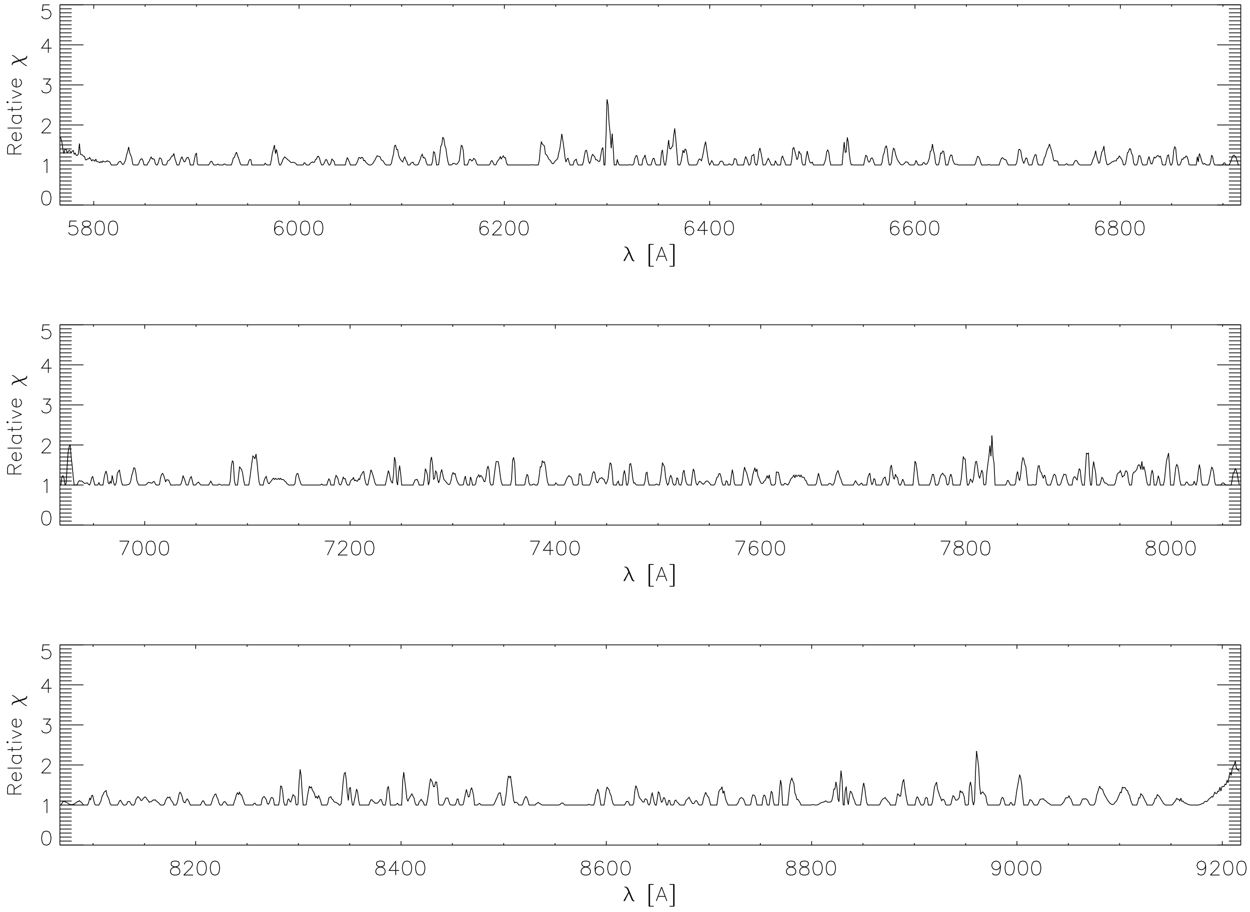
PLATE=3128 MJD=54770 sdR-r1-00056052.fit 2D Sky-subtraction Sky Fiber

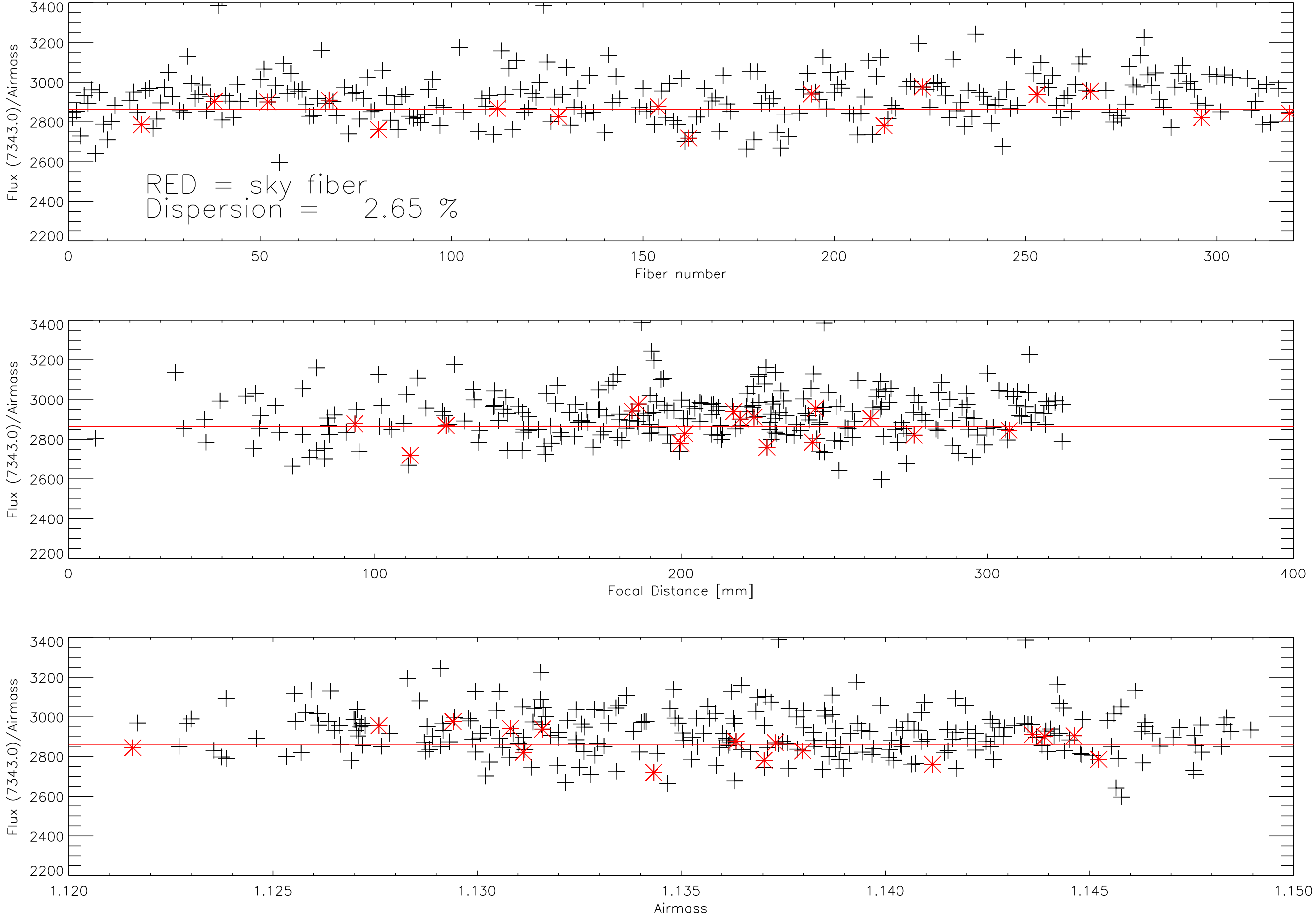

PLATE=3128 MJD=54770 sdR-r1-00056052.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
6000
5000
4000
3000
2000
1000
0
−1000
8820
8840
8860
8880
8900
λ [A]


PLATE=3128 MJD=54770 sdR-r1-00056052.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]

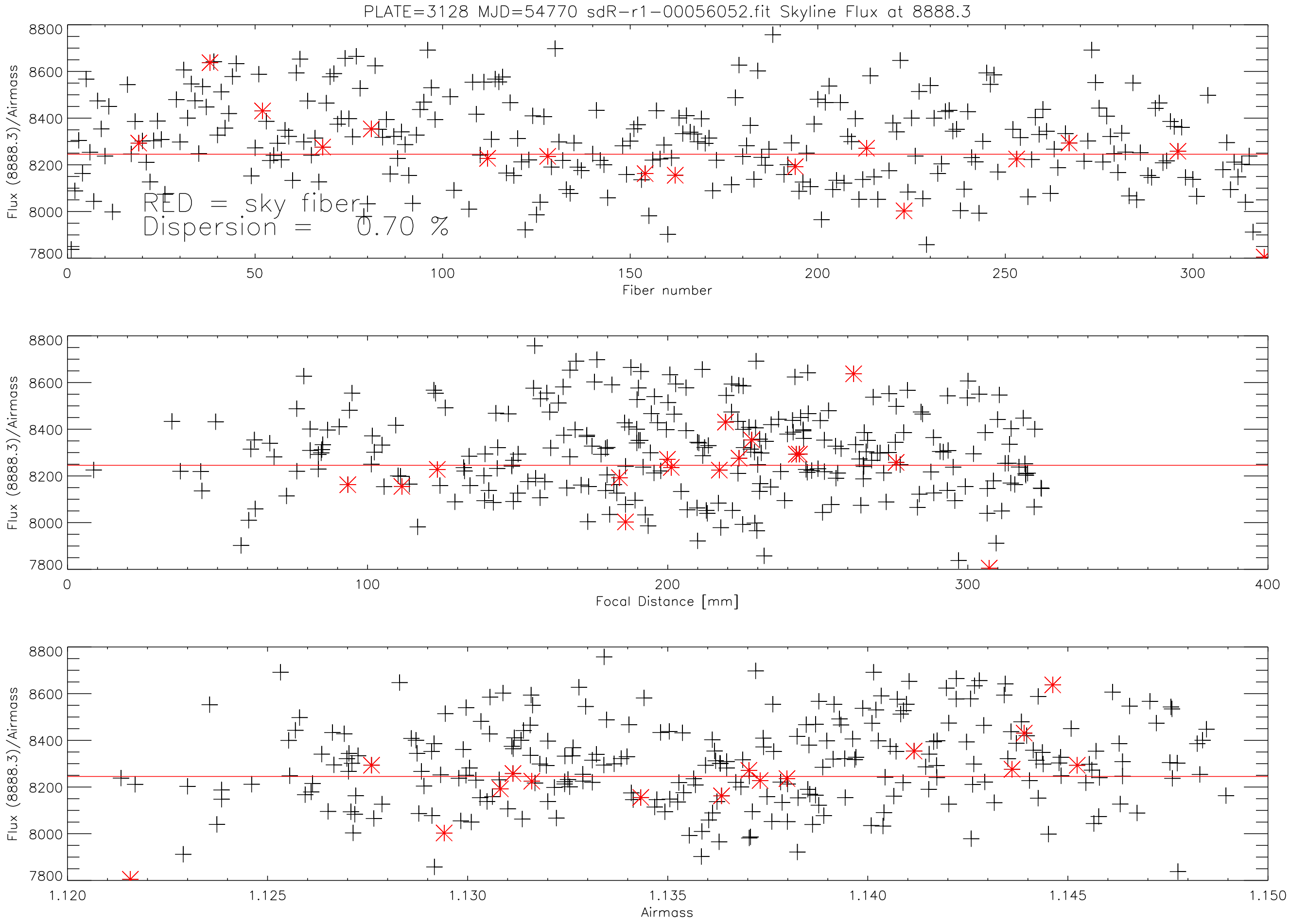
Number of sky fibers = 16

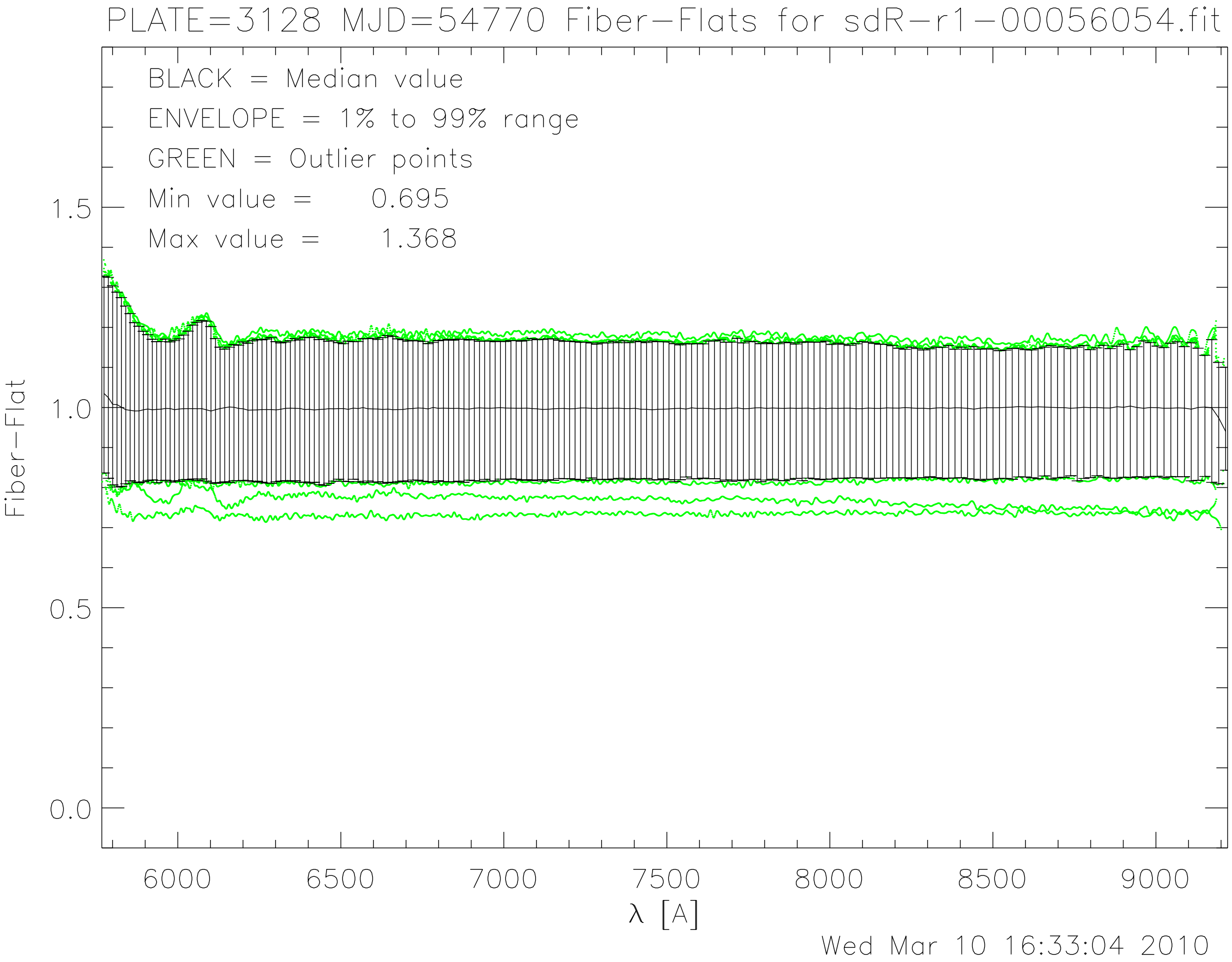
PLATE=3128 MJD=54770 sdR-r1-00056052.fit 2D Sky-subtraction Rescaled Errors

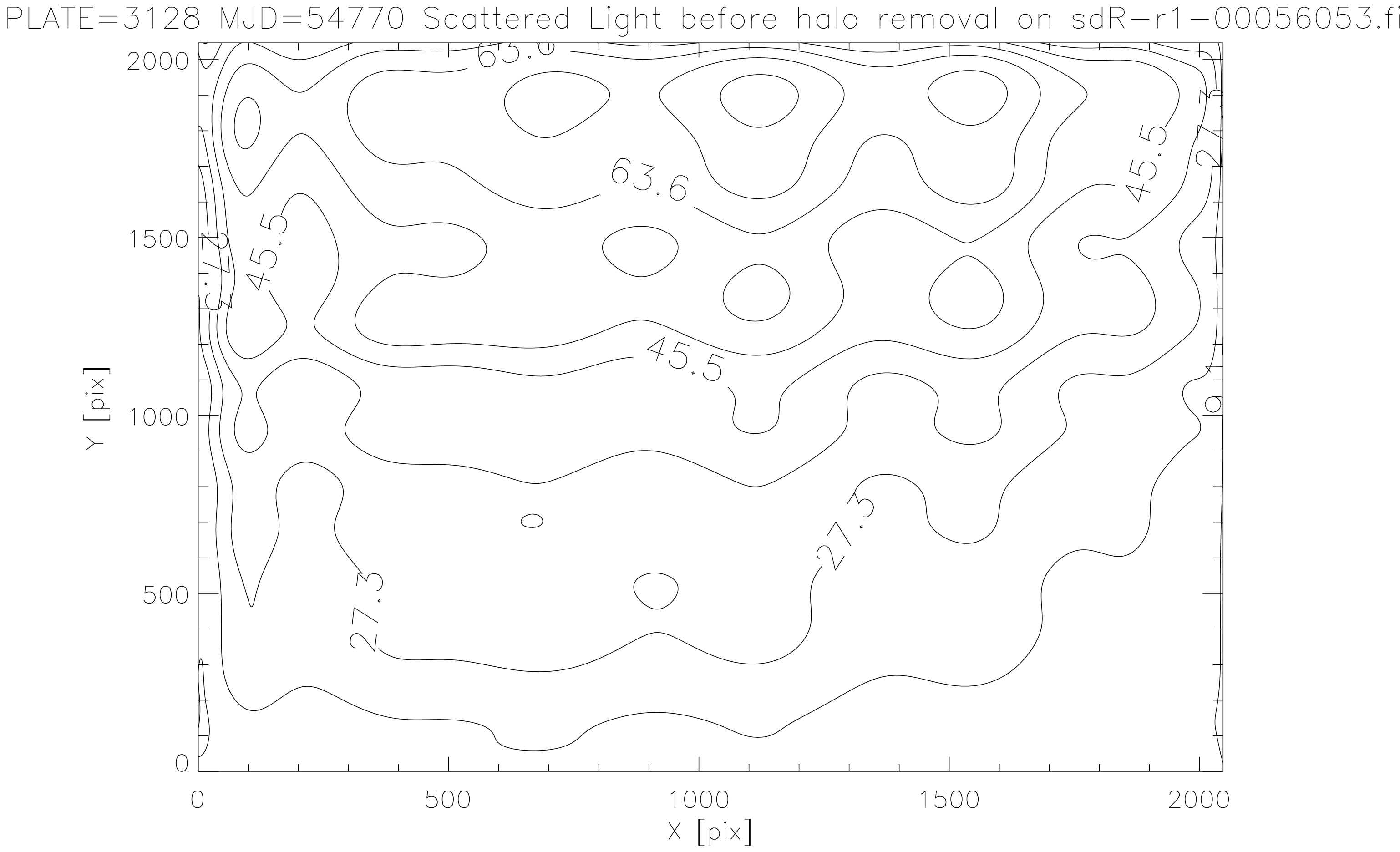


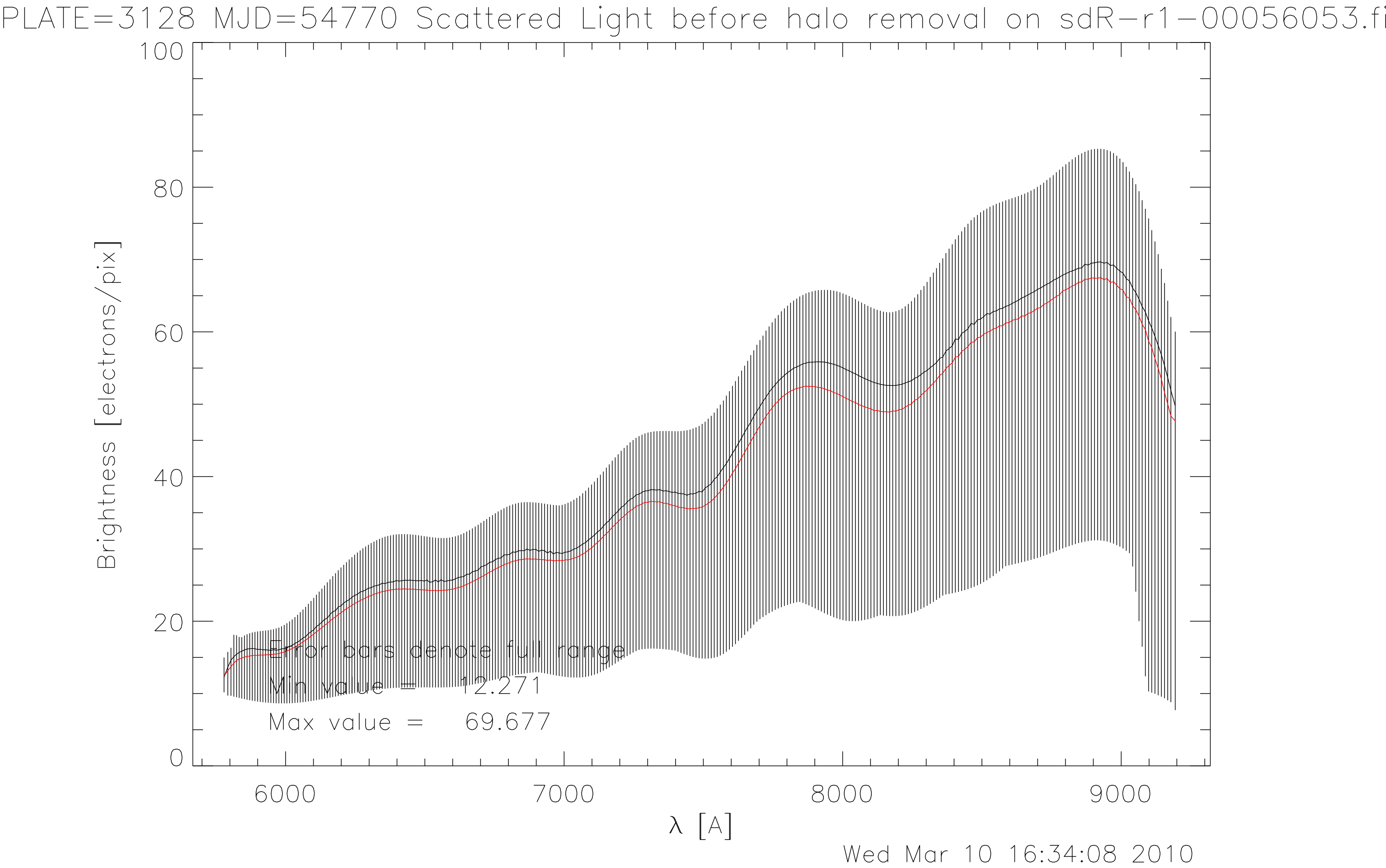


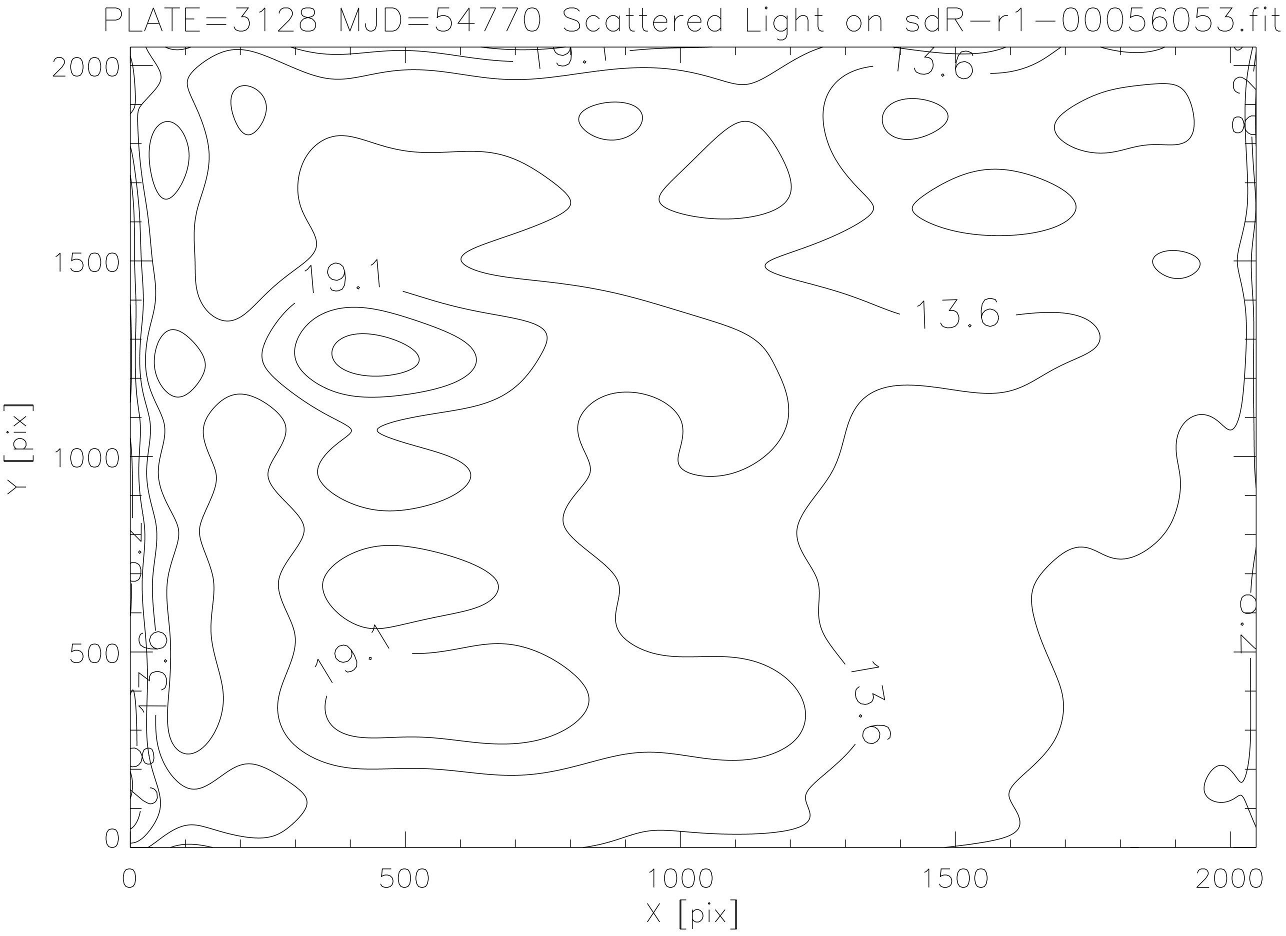
PLATE=3128 MJD=54770 sdR-r1-00056052.fit Skyline Flux at 7343,0

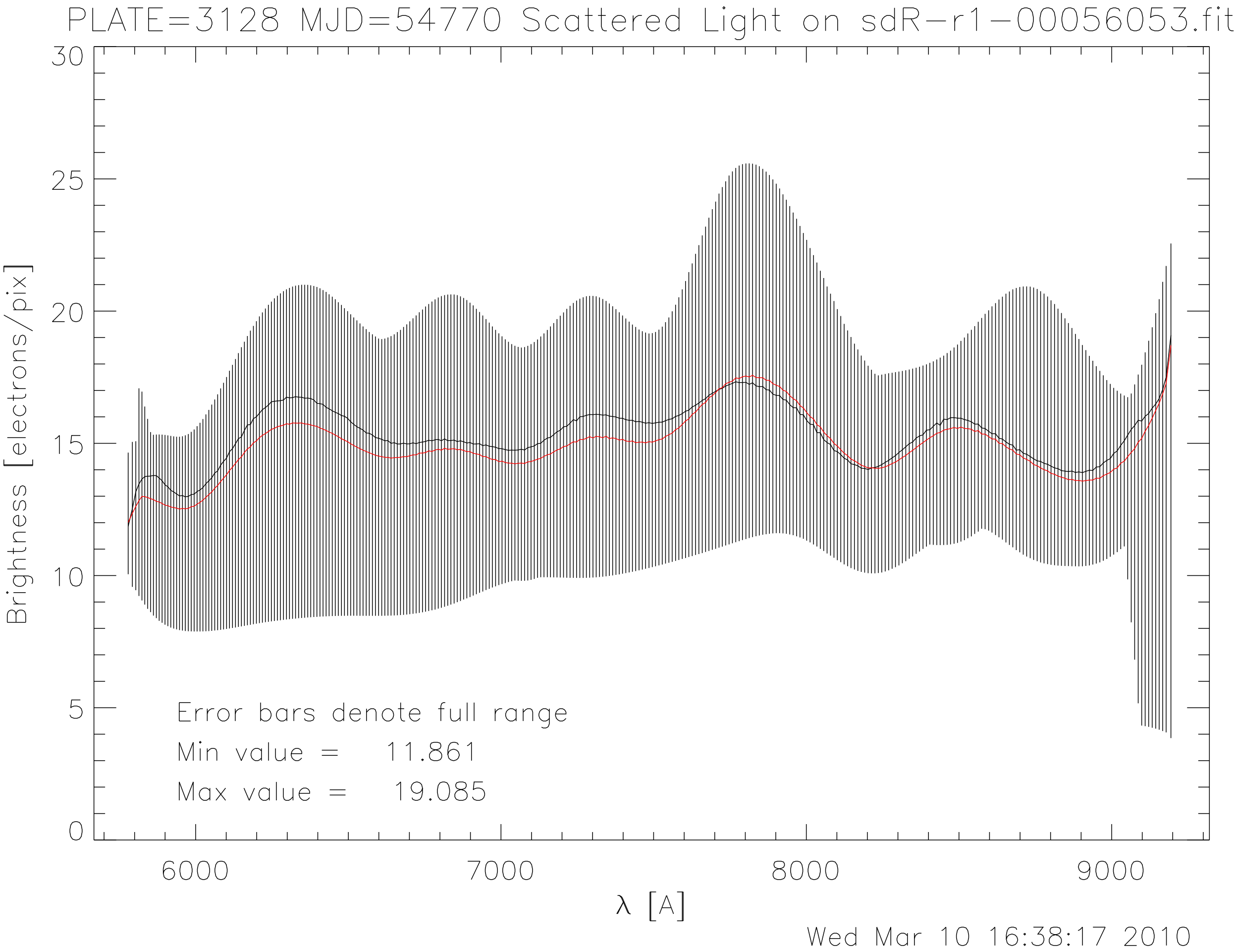

PLATE=3128 MJD=54770 sdR-r1-00056052.fit Skyline Flux at 8888.3
RED = sky fiber
Dispersion = 0.70 %
Flux (8888.3)/Airmass
8800
8600
8400
8200
8000
7800
0
50
100
150
200
250
300
Fiber number
Flux (8888.3)/Airmass
8800
8600
8400
8200
8000
7800
0
100
200
300
400
Focal Distance [mm]
Flux (8888.3)/Airmass
8800
8600
8400
8200
8000
7800
1.120
1.125
1.130
1.135
1.140
1.145
1.150
Airmass

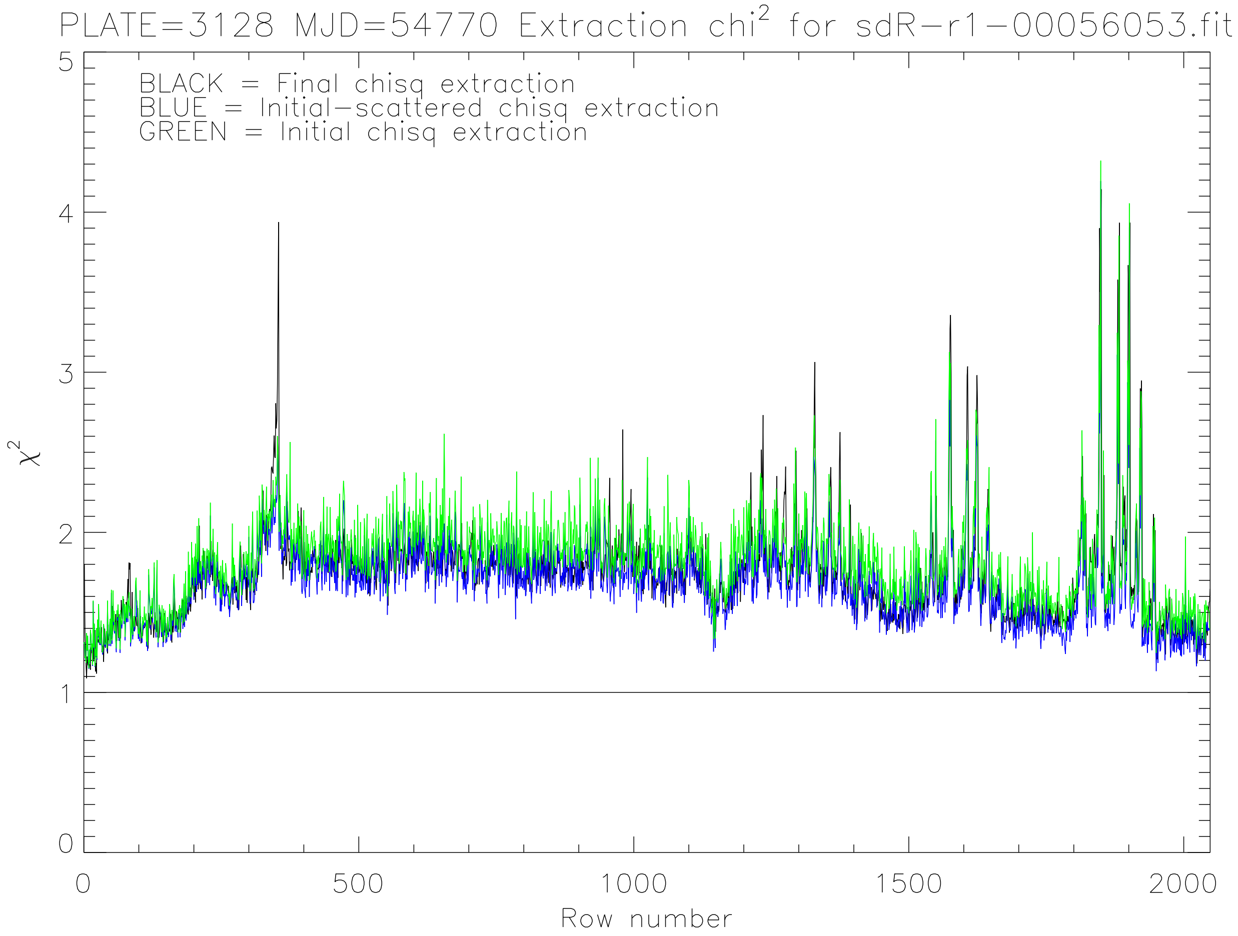

PLATE=3128 MJD=54770 Fiber-Flats for sdR-r1-00056054.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.695
Max value = 1.368
Fiber-Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Wed Mar 10 16:33:04 2010


PLATE=3128 MJD=54770 Scattered Light before halo removal on sdR-r1-00056053.fi
Y [pix]
X [pix]
0
500
1000
1500
2000
0
500
1000
1500
2000
63.6
63.6
45.5
45.5
45.5
27.3
27.3
27.3
27.3

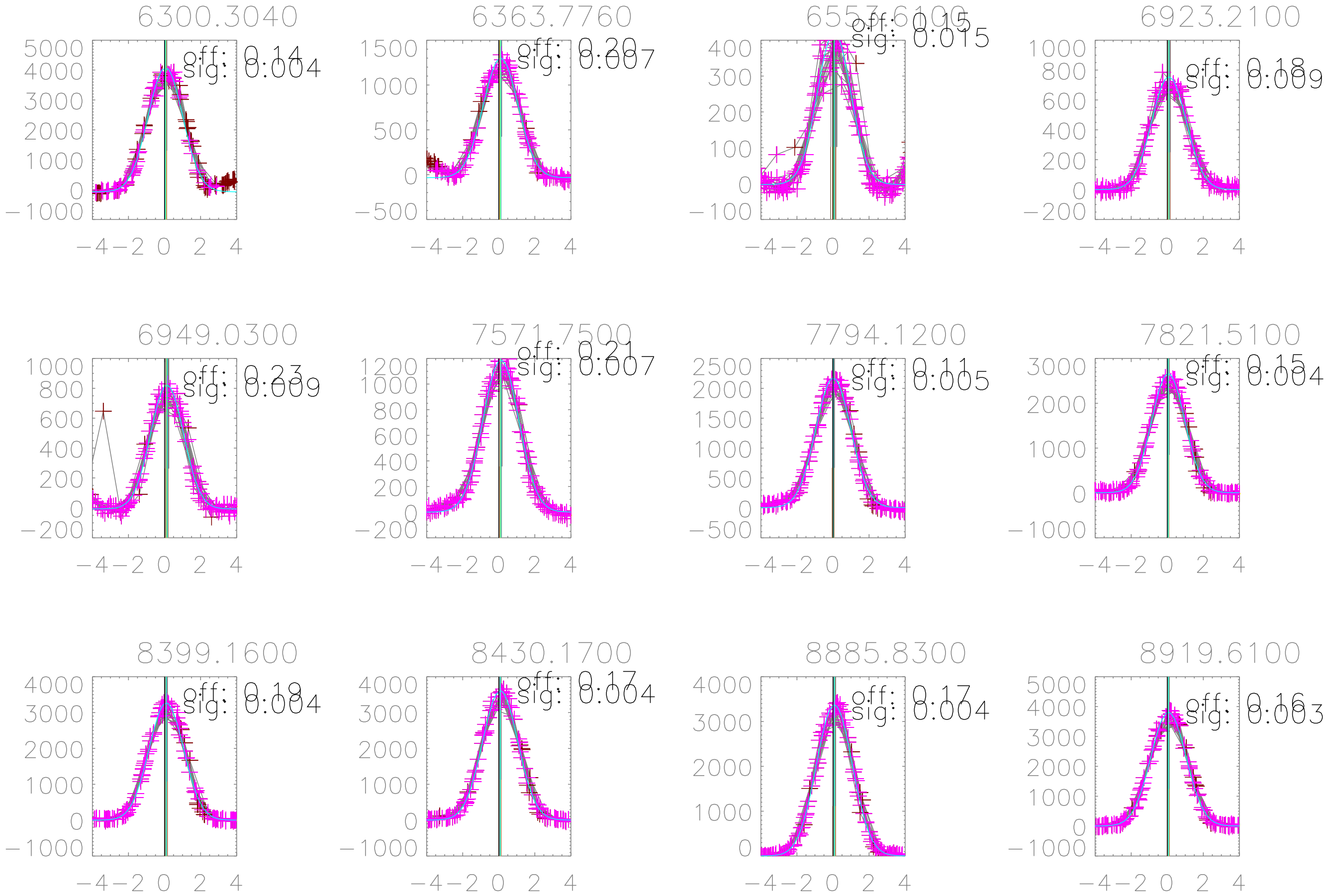

PLATE=3128 MJD=54770 Scattered Light before halo removal on sdR-r1-00056053.fi
Brightness [electrons/pix]
100
80
60
40
20
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 12.271
Max value = 69.677
Wed Mar 10 16:34:08 2010

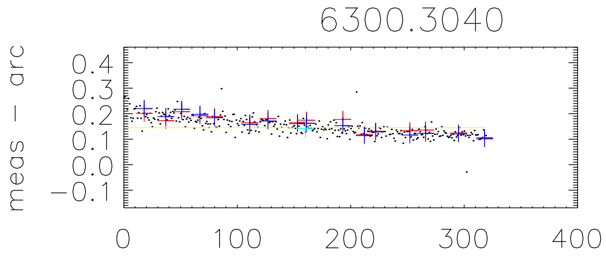

PLATE=3128 MJD=54770 Scattered Light on sdR-r1-00056053.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
0
500
1000
1500
2000
19.1
19.1
19.1
13.6
13.6
13.6
13.6
8.4
8.4
2.8
2.8

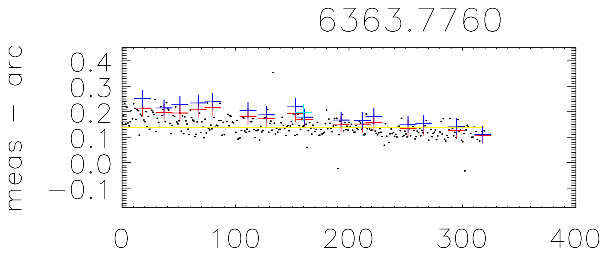

PLATE=3128 MJD=54770 Scattered Light on sdR-r1-00056053.fit
Brightness [electrons/pix]
0
5
10
15
20
25
30
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 11.861
Max value = 19.085
Wed Mar 10 16:38:17 2010

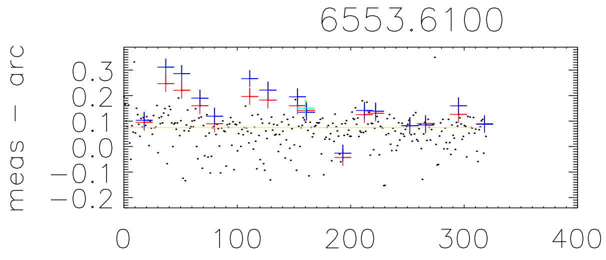


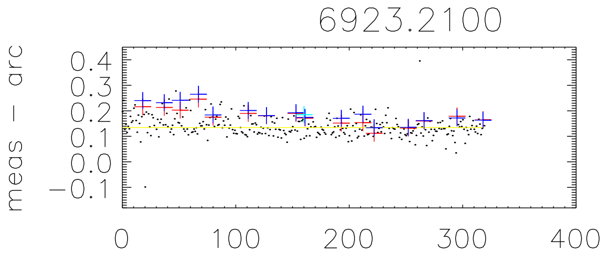
PLATE=3128 MJD=54770 Extraction $chi^2$ for sdR-r1-00056053.fit

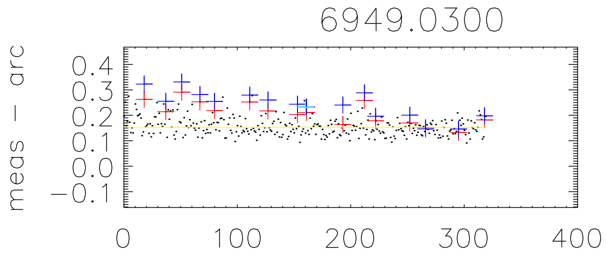

6300.3040
off: 0.14
sig: 0.004
6363.7760
off: 0.20
sig: 0.007
6557.6100
off: 0.15
sig: 0.015
6923.2100
off: 0.18
sig: 0.009
6949.0300
off: 0.23
sig: 0.009
7571.7500
off: 0.21
sig: 0.007
7794.1200
off: 0.11
sig: 0.005
7821.5100
off: 0.15
sig: 0.004
8399.1600
off: 0.19
sig: 0.004
8430.1700
off: 0.17
sig: 0.004
8885.8300
off: 0.17
sig: 0.004
8919.6100
off: 0.16
sig: 0.003
−4 −2 0 2 4

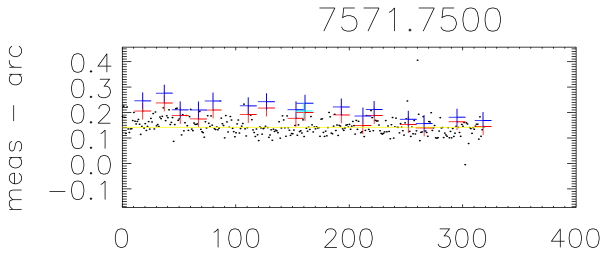

6300.3040
meas - arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

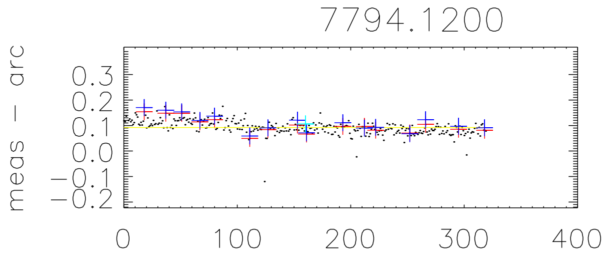

6363.7760
meas - arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

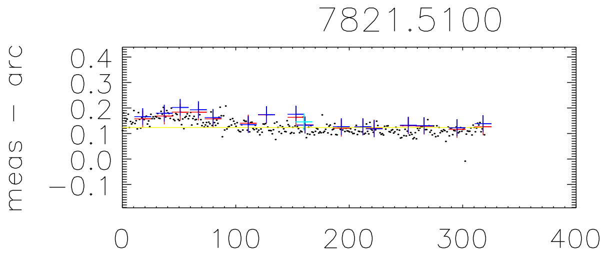

6553.6100
meas - arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

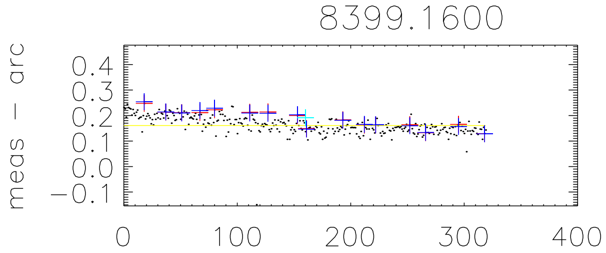

6923.2100
meas - arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

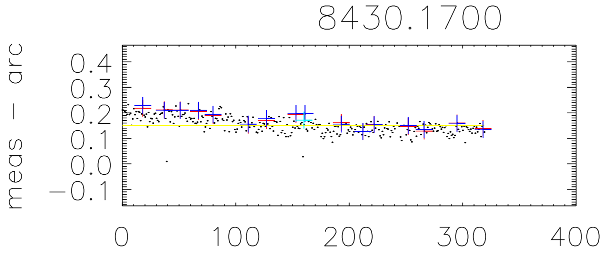

6949.0300
meas - arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

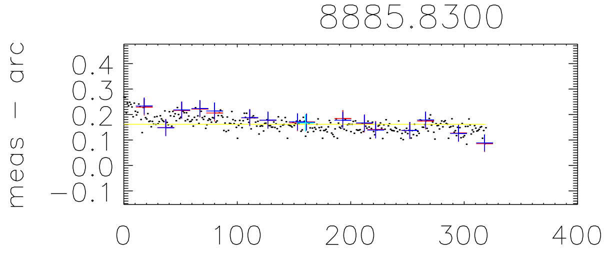

7571.7500
meas - arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

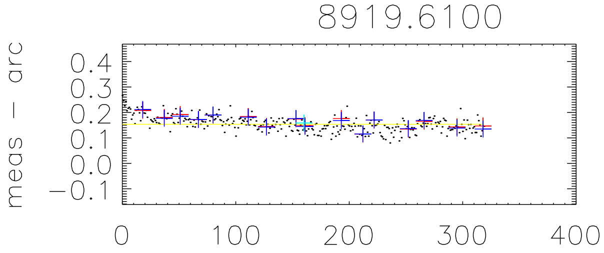

7794.1200
meas - arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

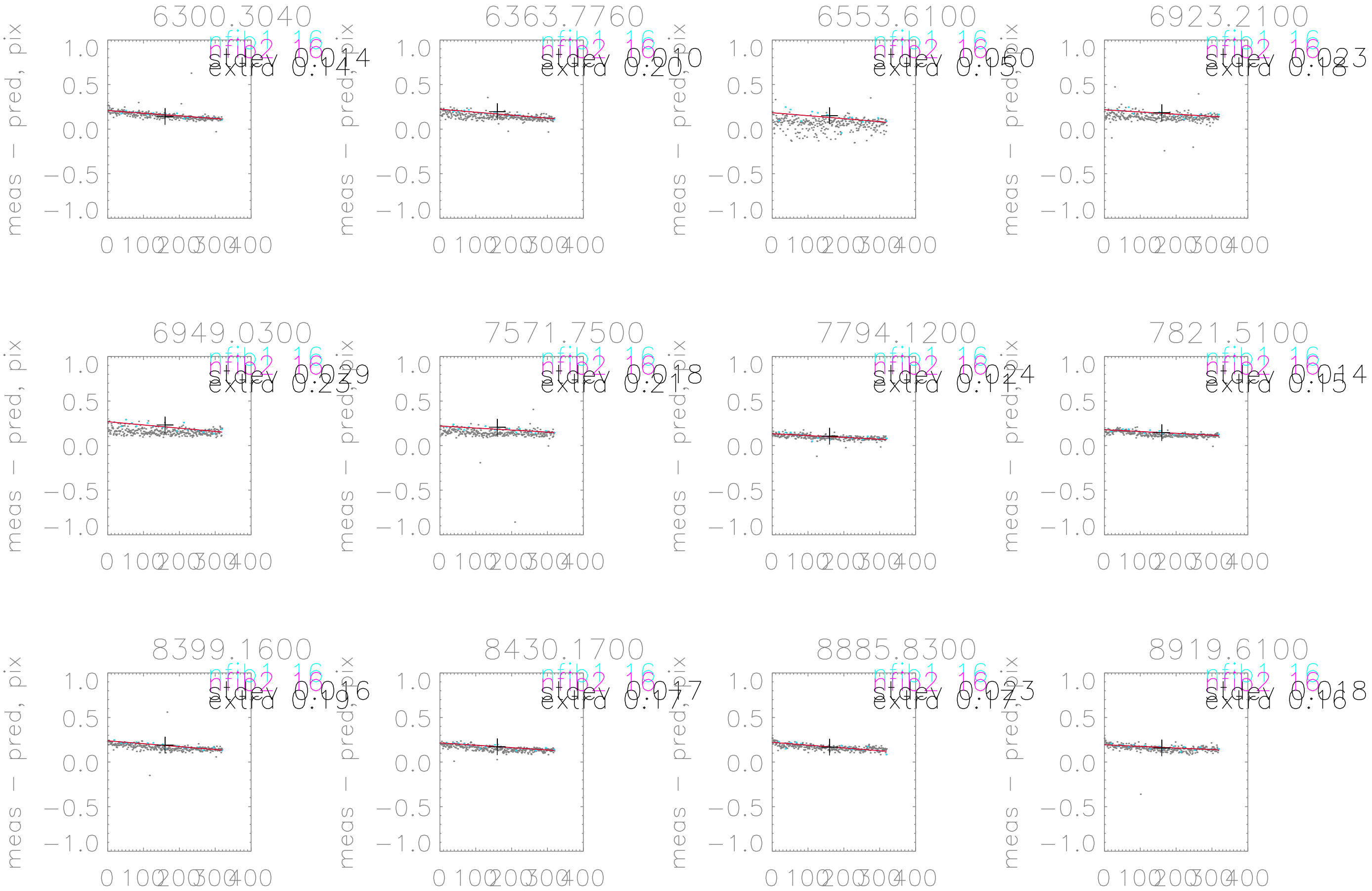

7821.5100
meas - arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

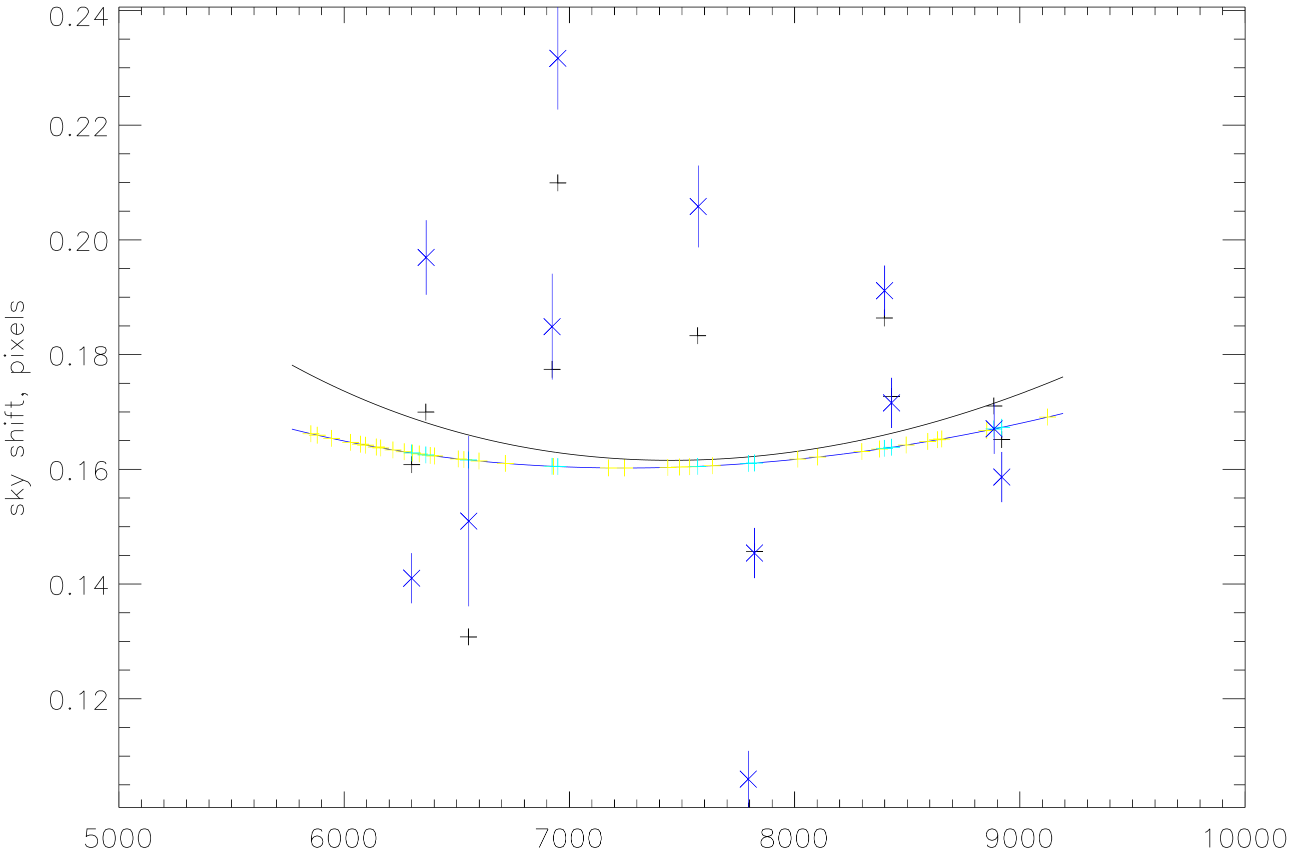

8399.1600
meas - arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

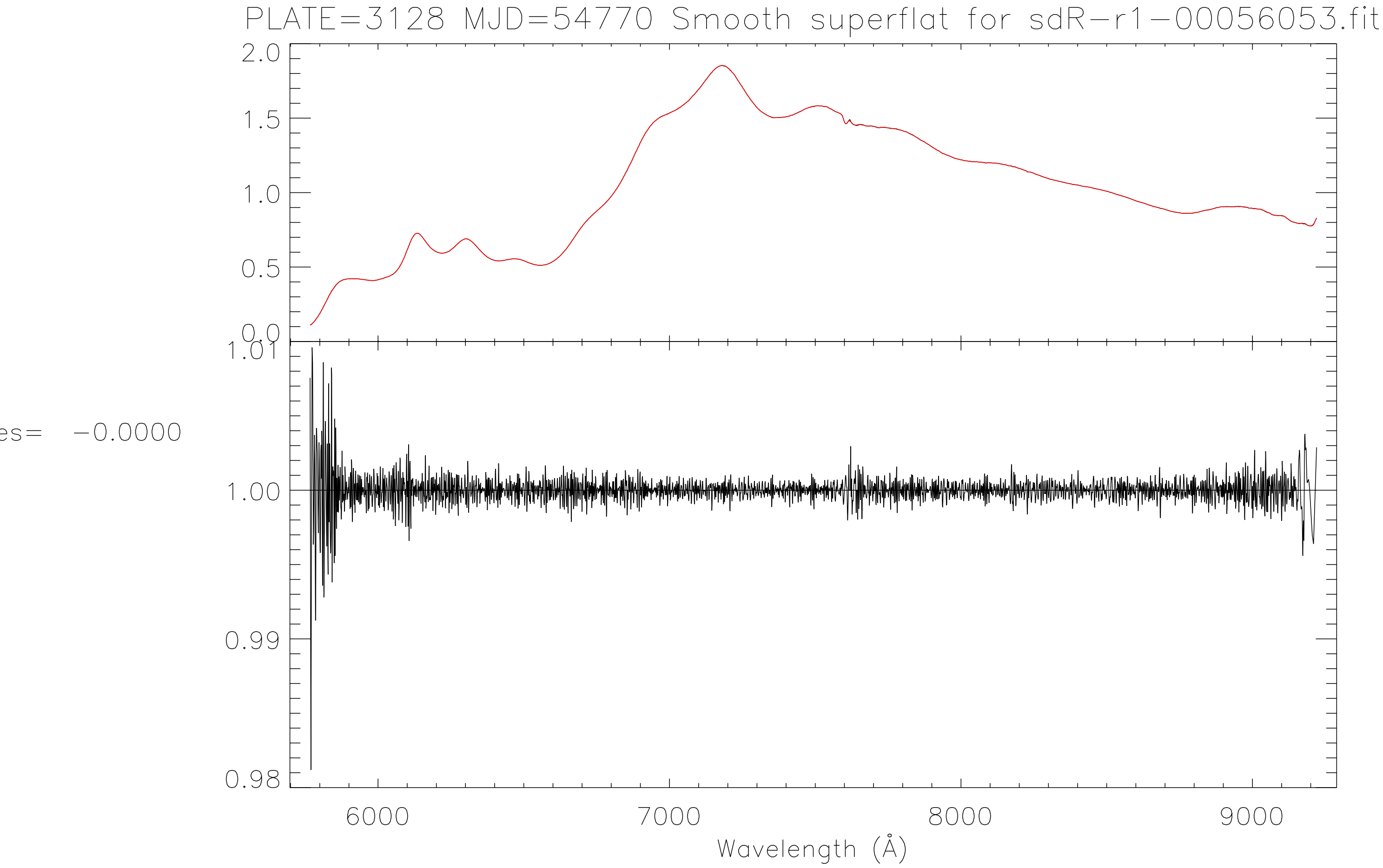

8430.1700
meas - arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

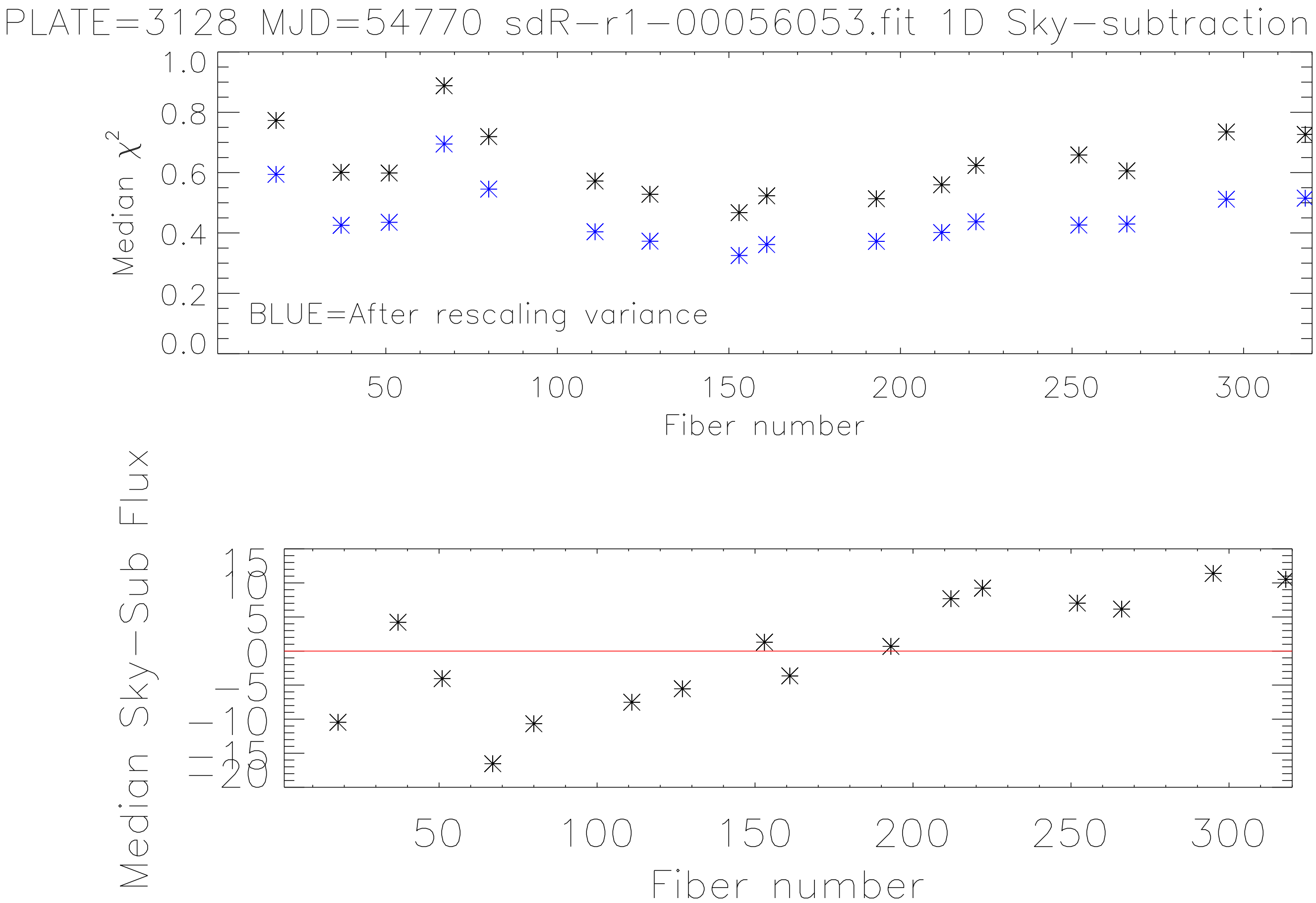

8885.8300
meas - arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400


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

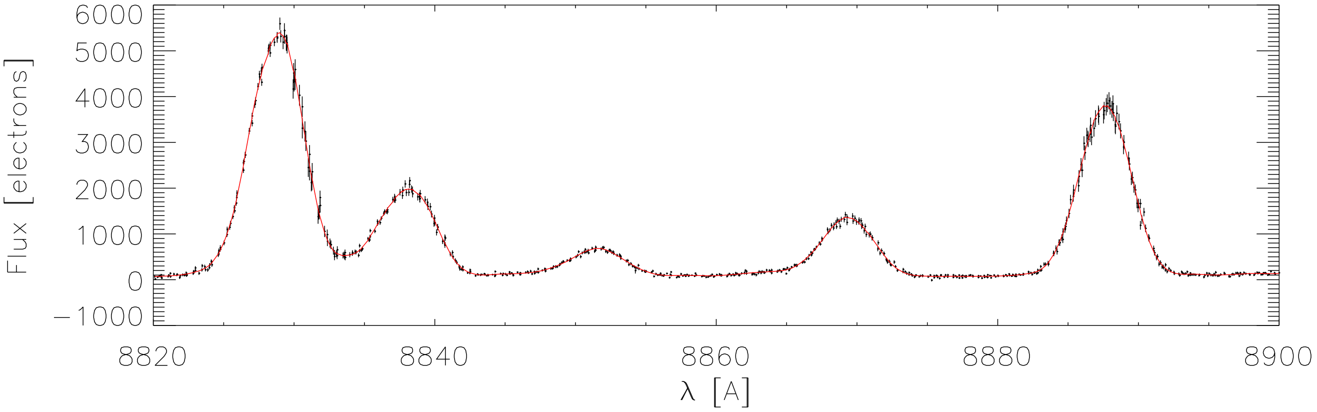

6300.3040
nfib1 16
nfib2 16
stdev 0.014
extrd 0.14
6363.7760
nfib1 16
nfib2 16
stdev 0.010
extrd 0.20
6553.6100
nfib1 16
nfib2 16
stdev 0.060
extrd 0.15
6923.2100
nfib1 16
nfib2 16
stdev 0.023
extrd 0.18
6949.0300
nfib1 16
nfib2 16
stdev 0.029
extrd 0.23
7571.7500
nfib1 16
nfib2 16
stdev 0.018
extrd 0.21
7794.1200
nfib1 16
nfib2 16
stdev 0.024
extrd 0.11
7821.5100
nfib1 16
nfib2 16
stdev 0.014
extrd 0.15
8399.1600
nfib1 16
nfib2 16
stdev 0.016
extrd 0.19
8430.1700
nfib1 16
nfib2 16
stdev 0.017
extrd 0.17
8885.8300
nfib1 16
nfib2 16
stdev 0.023
extrd 0.17
8919.6100
nfib1 16
nfib2 16
stdev 0.018
extrd 0.16
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400


sky shift, pixels
0.24
0.22
0.20
0.18
0.16
0.14
0.12
5000
6000
7000
8000
9000
10000

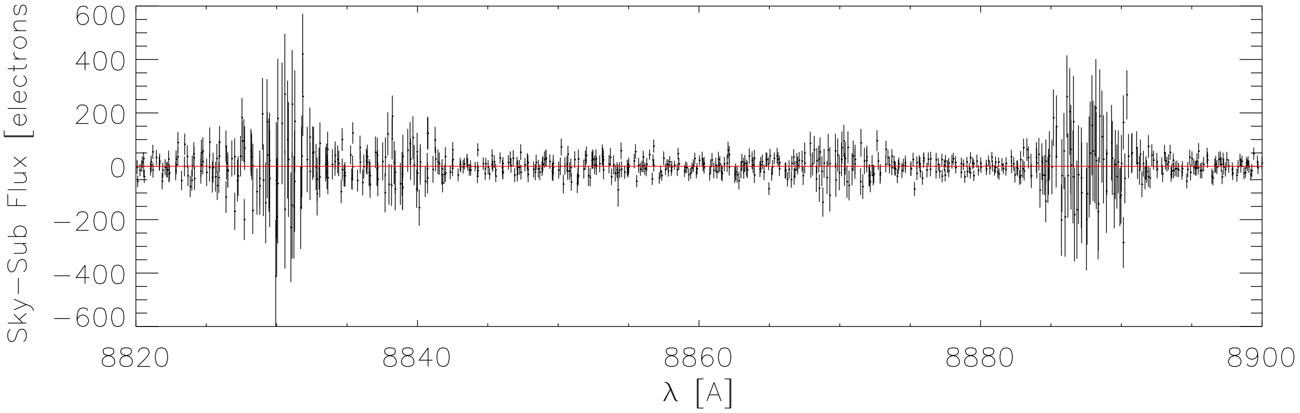

PLATE=3128 MJD=54770 Smooth superflat for sdR-r1-00056053.fit
2.0
1.5
1.0
0.5
0.0
1.01
1.00
0.99
0.98
es=   -0.0000
6000
7000
8000
9000
Wavelength (Å)


PLATE=3128 MJD=54770 sdR-r1-00056053.fit 1D Sky-subtraction Sky Fiber
Median $\chi^2$
1.0
0.8
0.6
0.4
0.2
0.0
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
15
10
5
0
−5
−10
−15
−20
50
100
150
200
250
300
Fiber number

PLATE=3128 MJD=54770 sdR-r1-00056053.fit 1D Sky-subtraction Sky Fibers

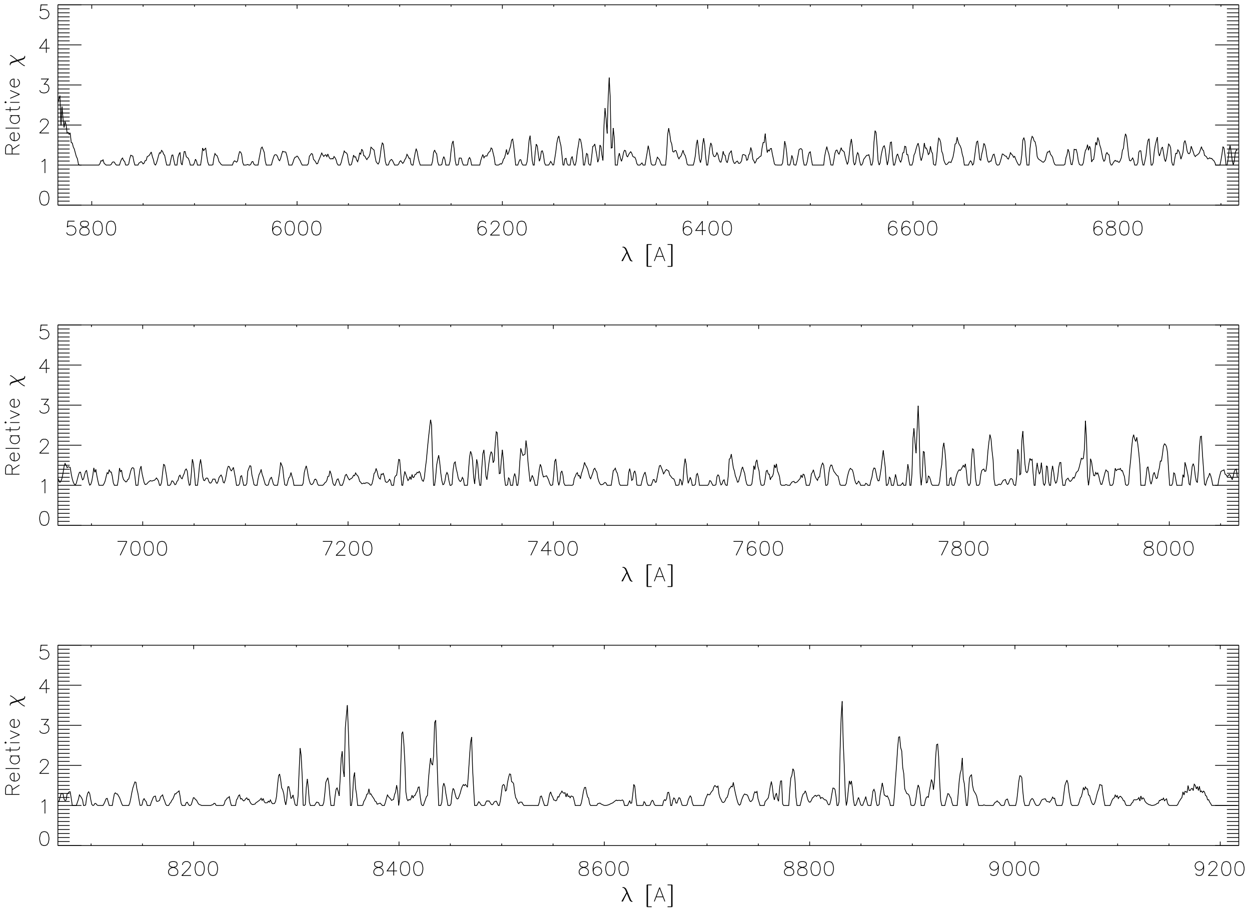


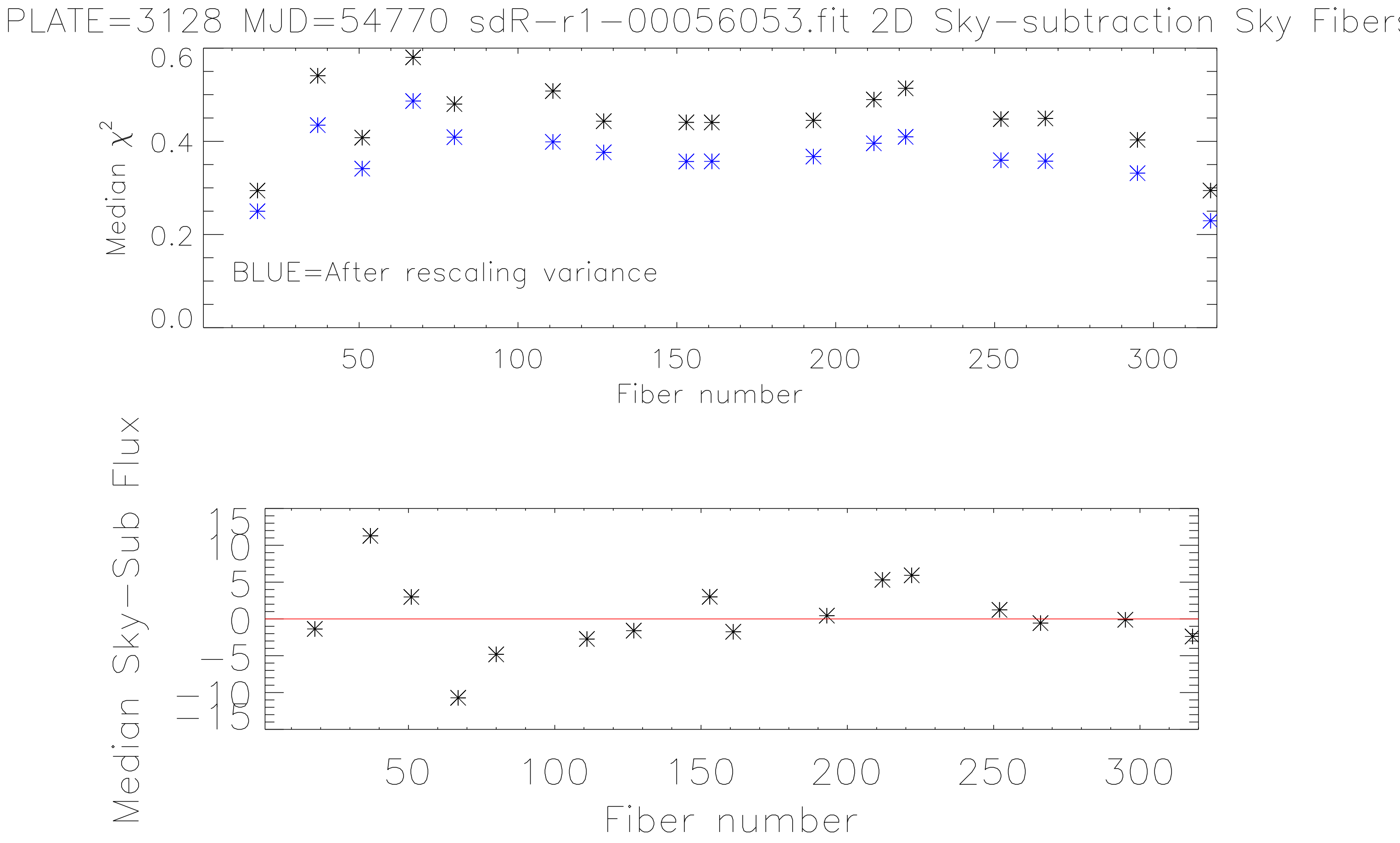
PLATE=3128 MJD=54770 sdR-r1-00056053.fit 1D Sky-subtraction Sky-subtracted Sky F

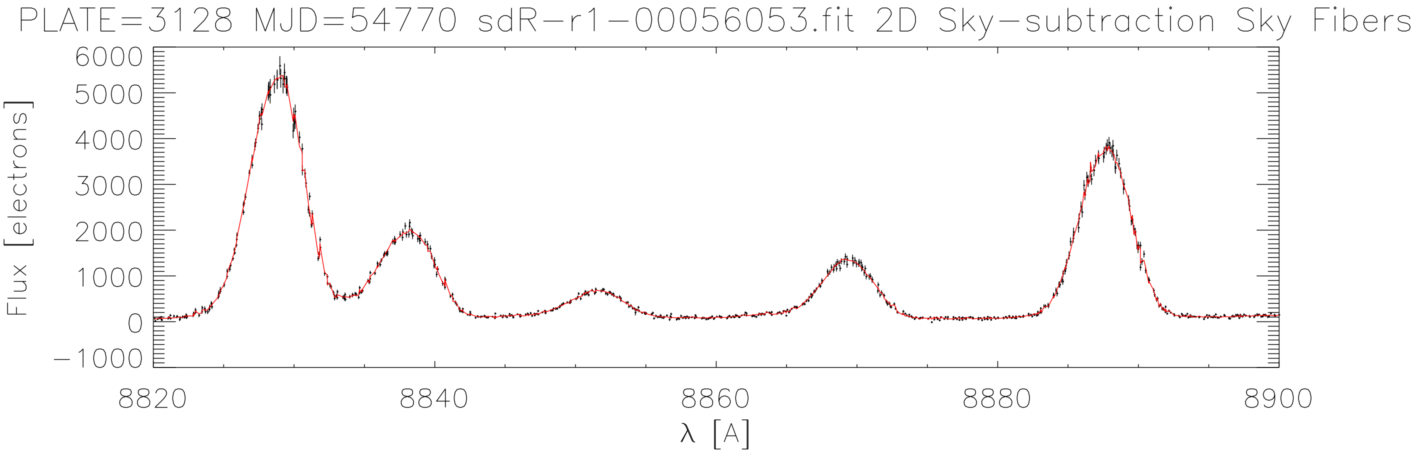


Number of sky fibers = 16

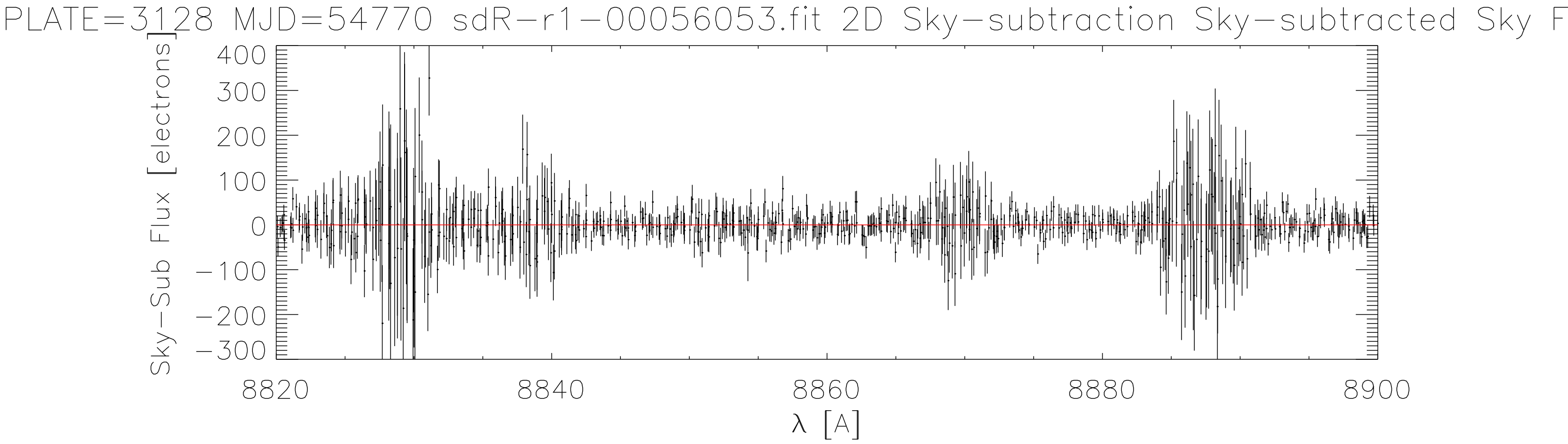
PLATE=3128 MJD=54770 sdR-r1-00056053.fit 1D Sky-subtraction Rescaled Errors



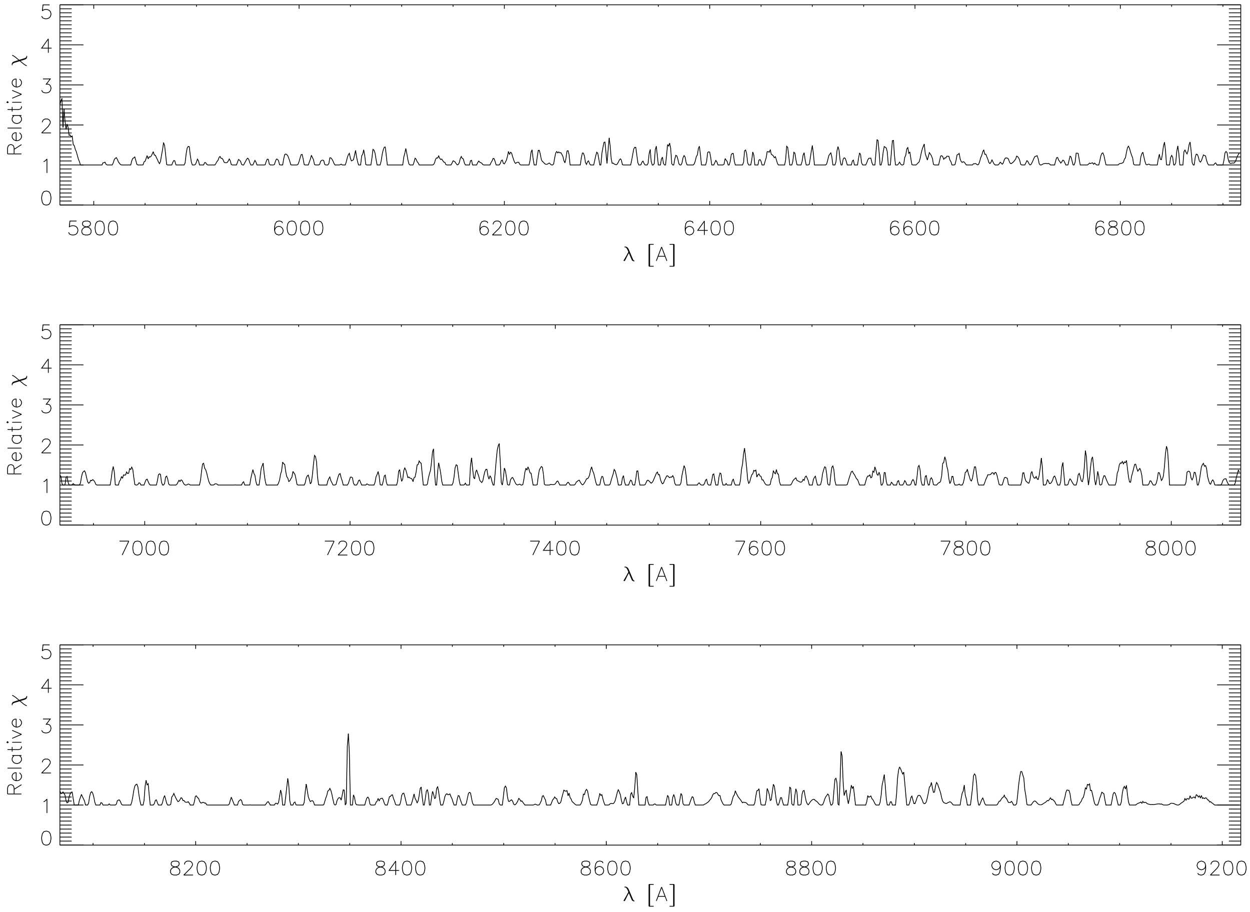

PLATE=3128 MJD=54770 sdR-r1-00056053.fit 2D Sky-subtraction Sky Fiber
Median $\chi^2$
0.6
0.4
0.2
0.0
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
15
10
5
0
−5
−10
−15
50
100
150
200
250
300
Fiber number



PLATE=3128 MJD=54770 sdR-r1-00056053.fit 2D Sky-subtraction Sky Fibers

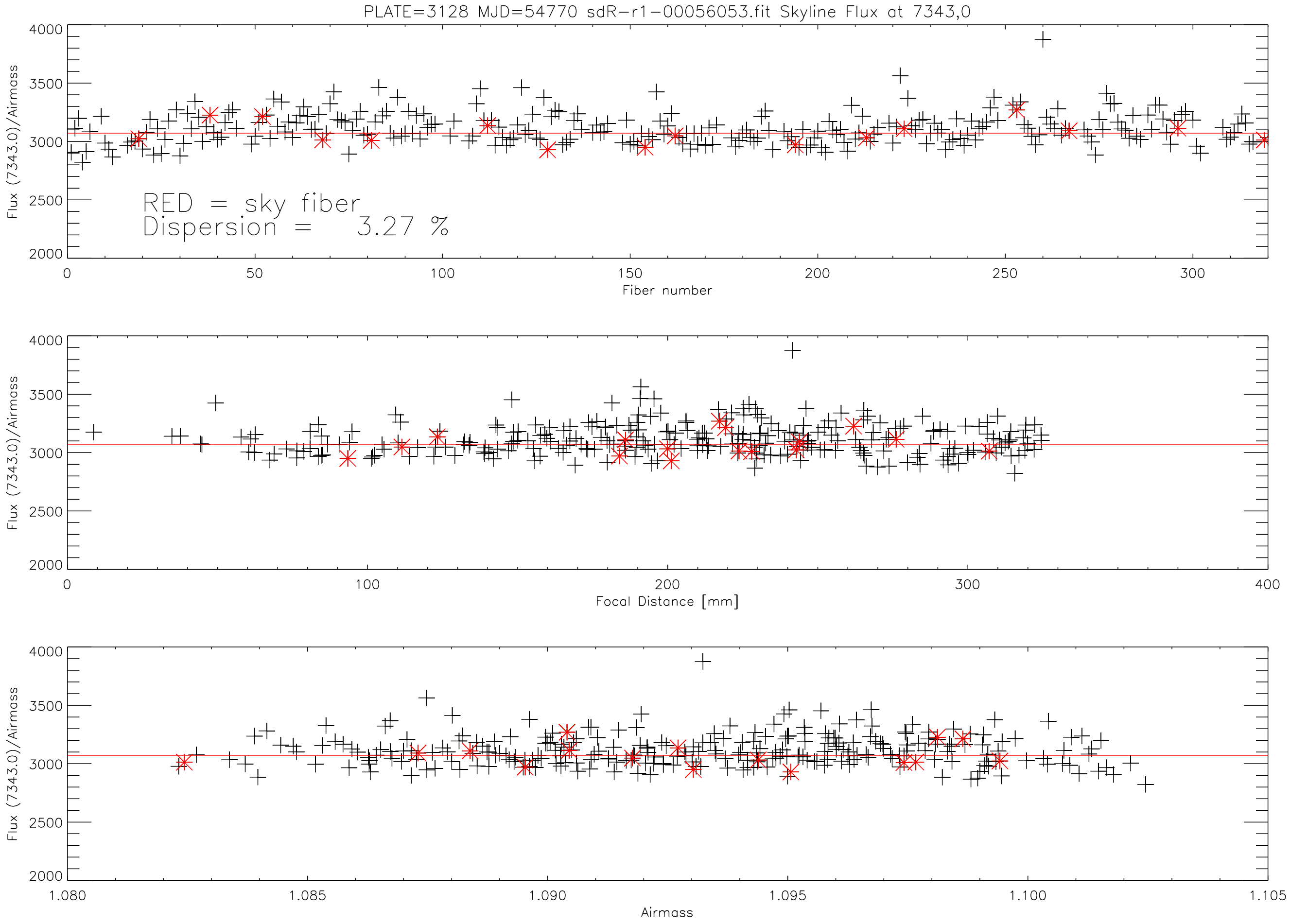


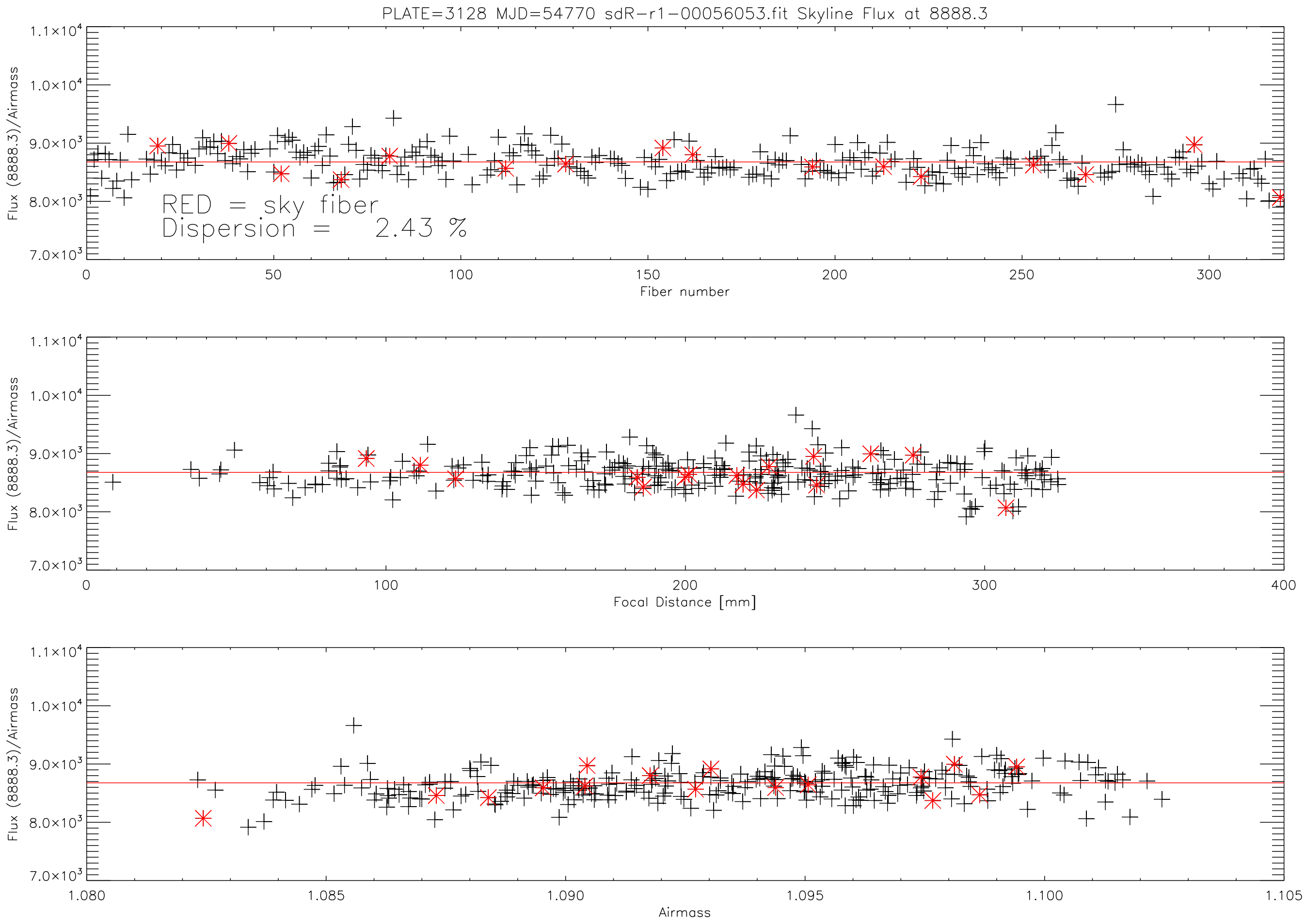
PLATE=3128 MJD=54770 sdR-r1-00056053.fit 2D Sky-subtraction Sky-subtracted Sky F

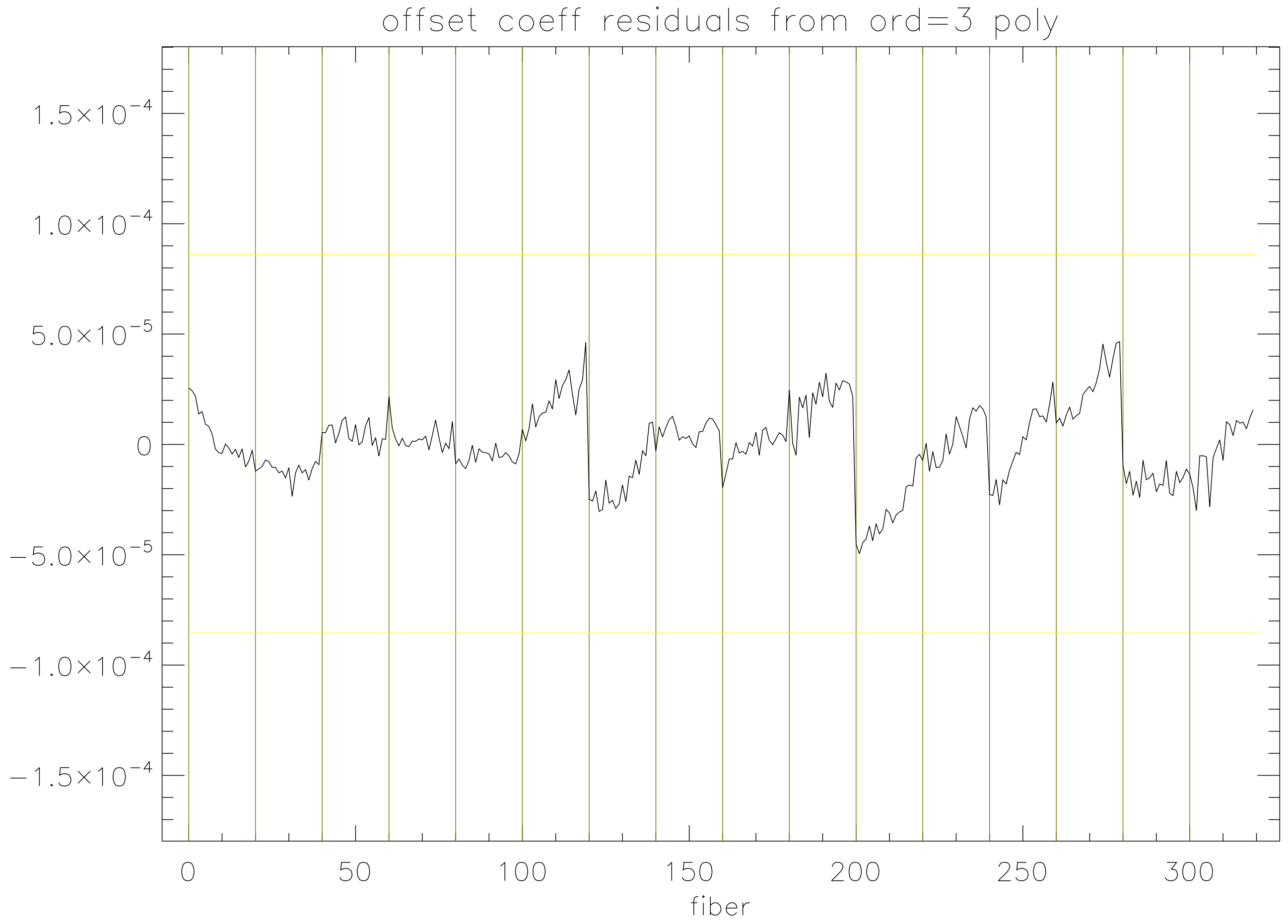


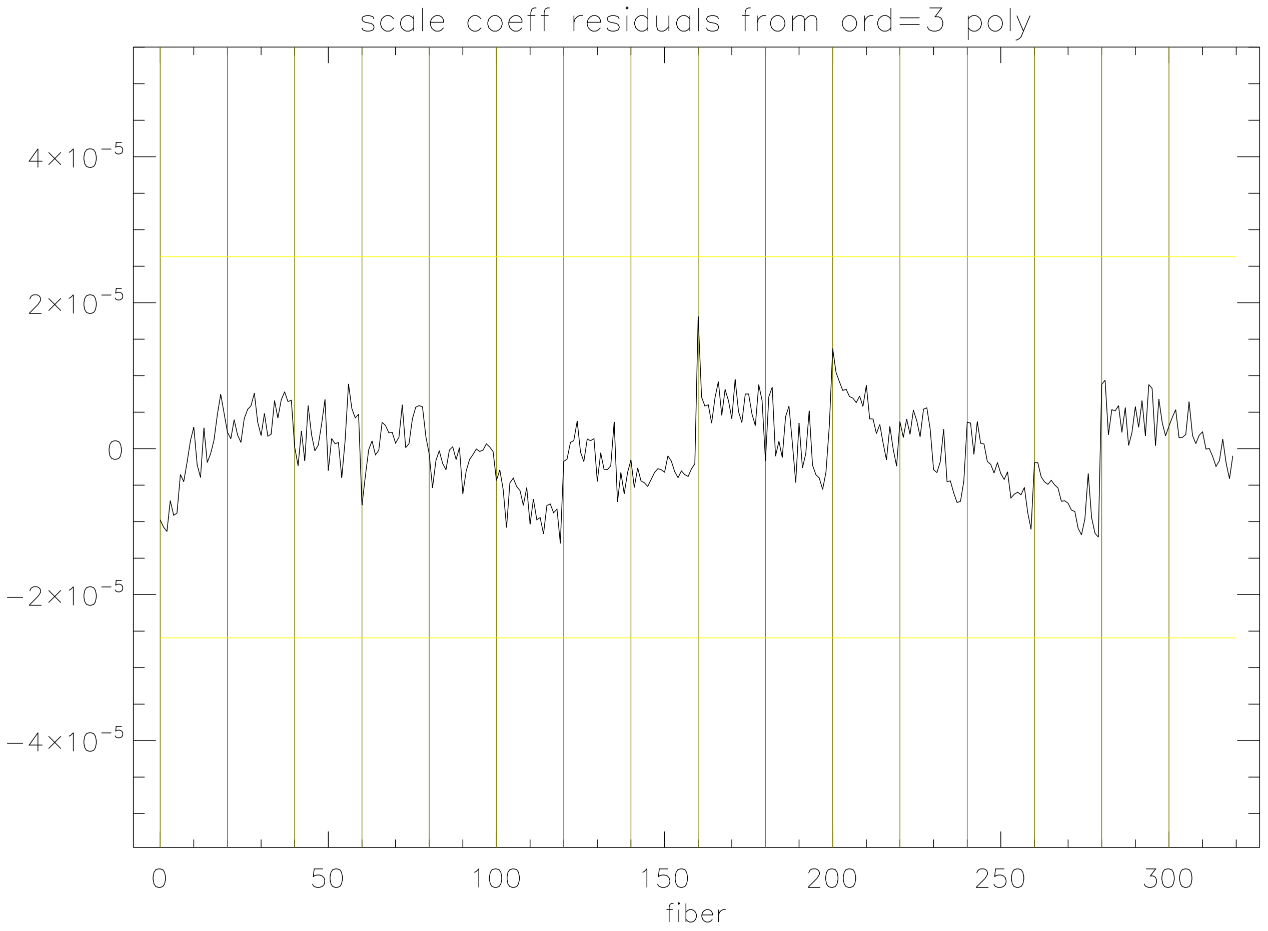
Number of sky fibers = 16

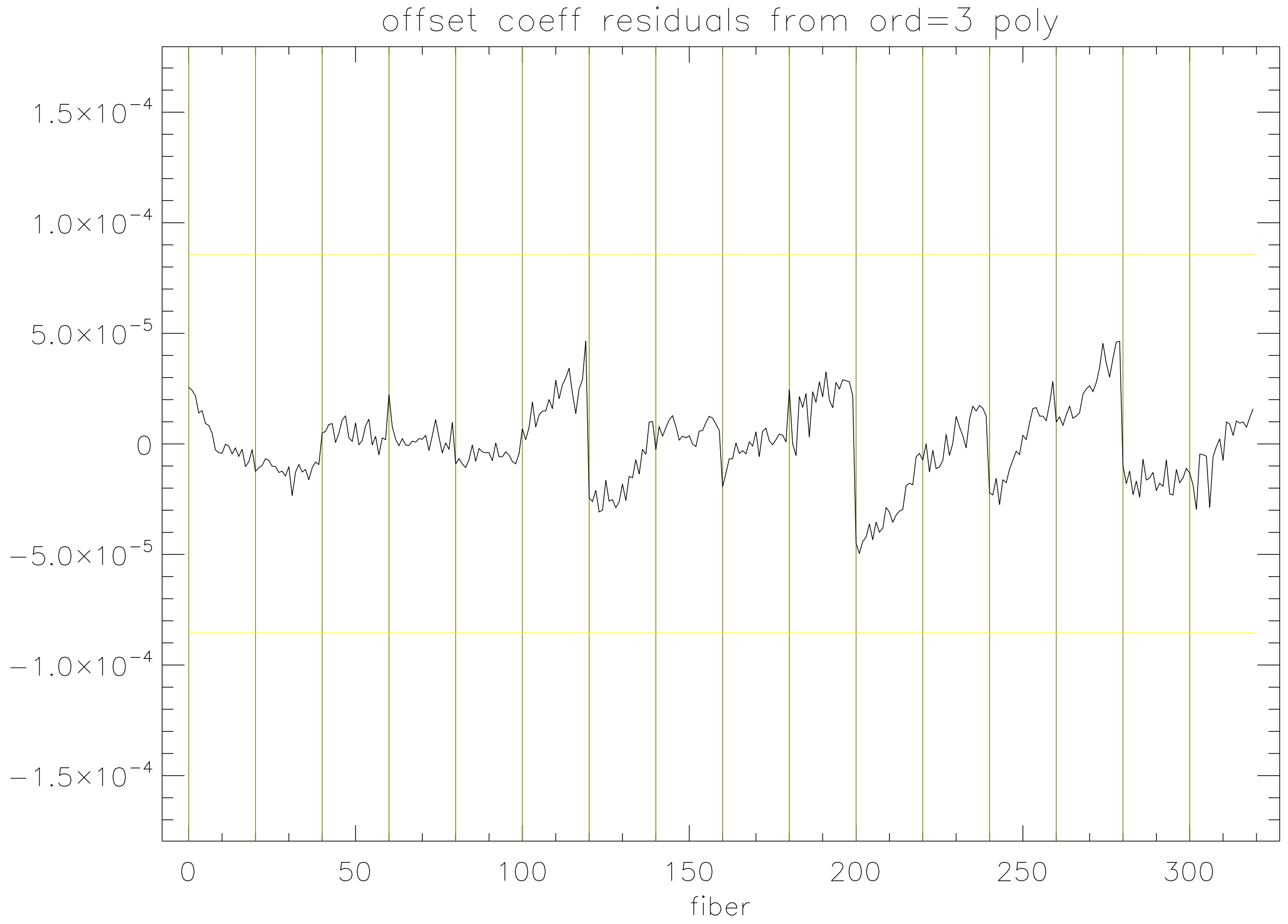
PLATE=3128 MJD=54770 sdR-r1-00056053.fit 2D Sky-subtraction Rescaled Errors

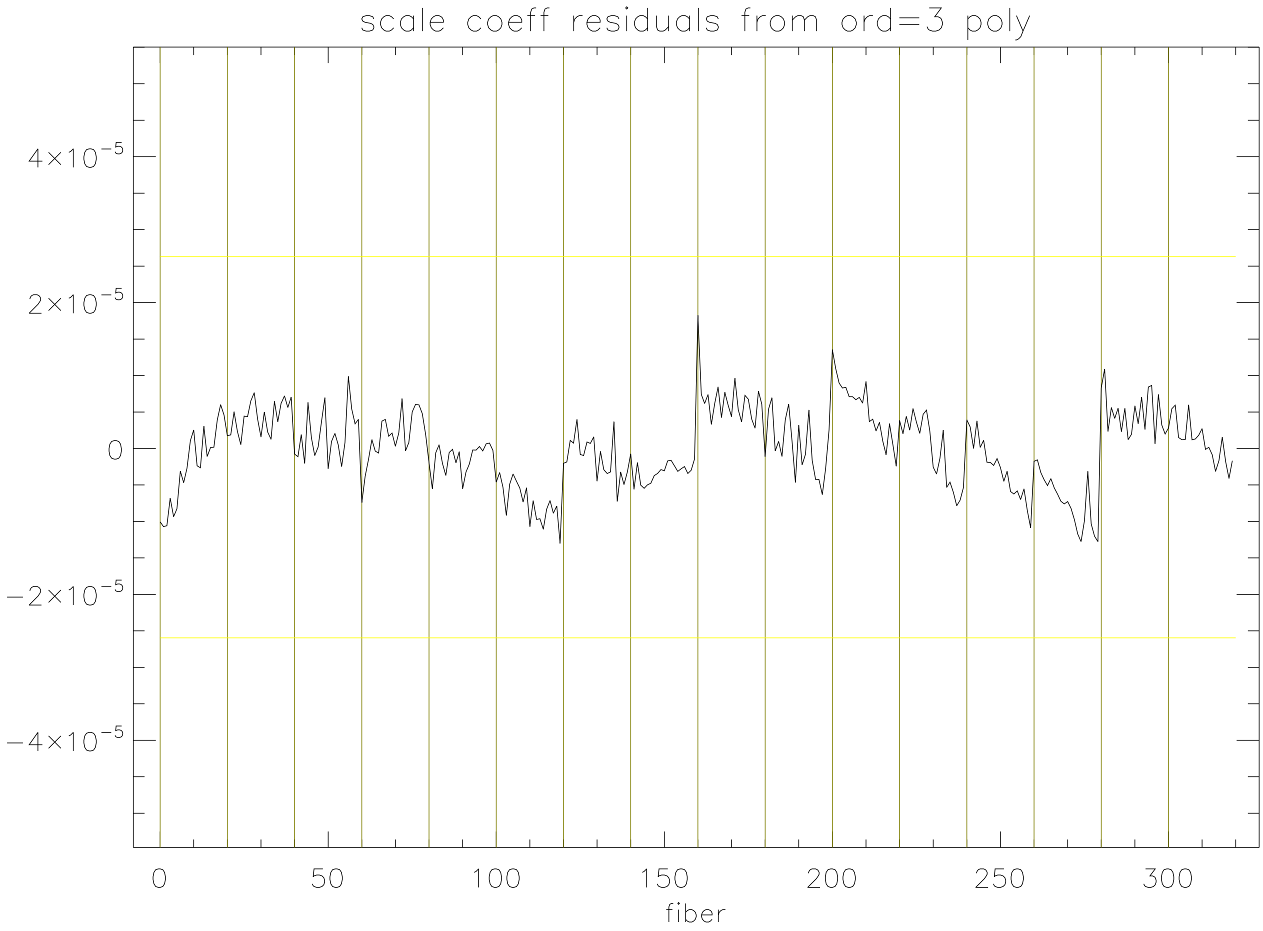

PLATE=3128 MJD=54770 sdR-r1-00056053.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
4000
3500
3000
2500
2000
RED = sky fiber
Dispersion = 3.27 %
0
50
100
150
200
250
300
Fiber number
Flux (7343.0)/Airmass
4000
3500
3000
2500
2000
0
100
200
300
400
Focal Distance [mm]
Flux (7343.0)/Airmass
4000
3500
3000
2500
2000
1.080
1.085
1.090
1.095
1.100
1.105
Airmass

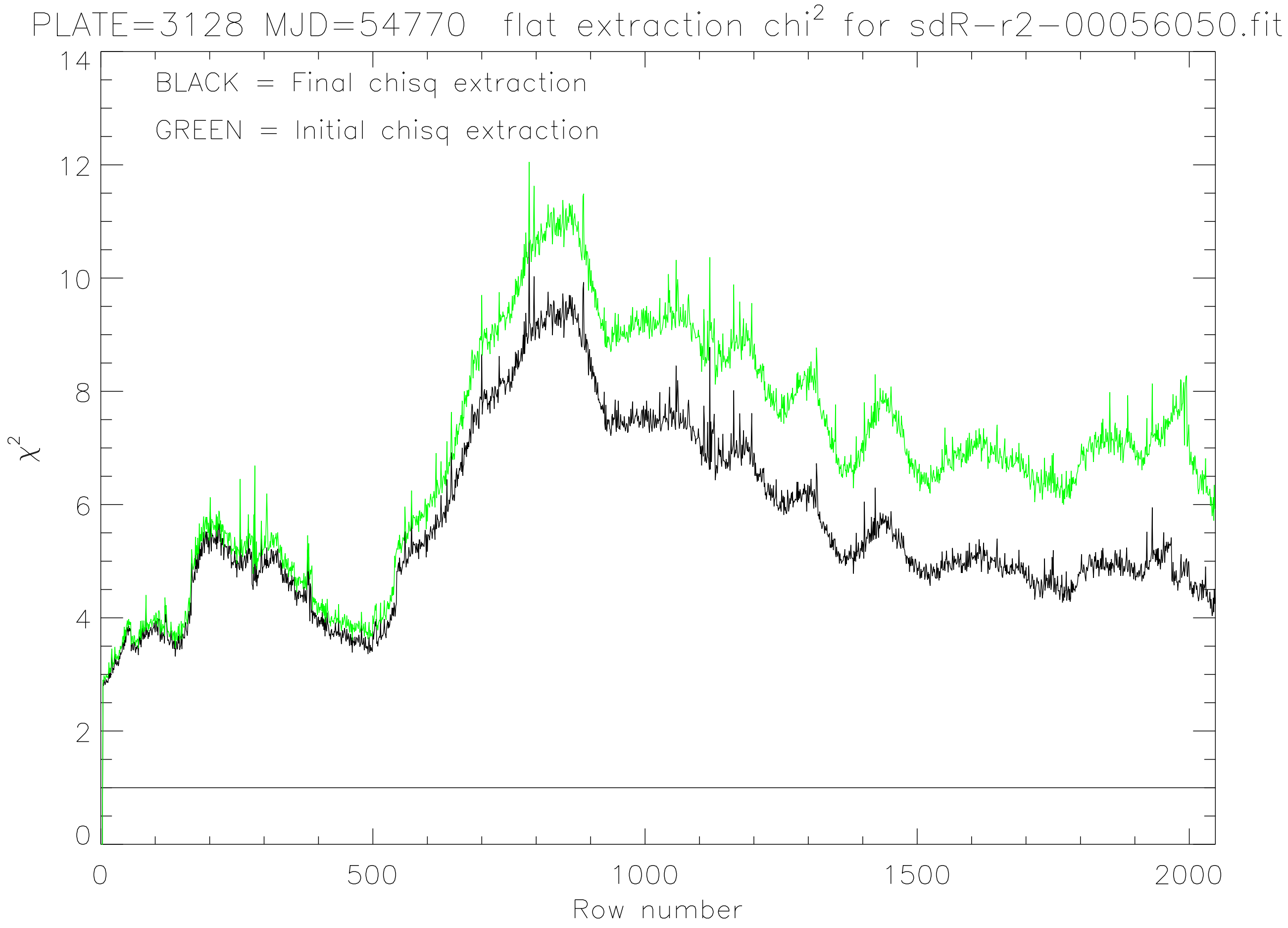

PLATE=3128 MJD=54770 sdR-r1-00056053.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
$1.1\times10^4$
$1.0\times10^4$
$9.0\times10^3$
$8.0\times10^3$
$7.0\times10^3$
RED = sky fiber
Dispersion = 2.43 %
0
50
100
150
200
250
300
Fiber number
Flux (8888.3)/Airmass
$1.1\times10^4$
$1.0\times10^4$
$9.0\times10^3$
$8.0\times10^3$
$7.0\times10^3$
0
100
200
300
400
Focal Distance [mm]
Flux (8888.3)/Airmass
$1.1\times10^4$
$1.0\times10^4$
$9.0\times10^3$
$8.0\times10^3$
$7.0\times10^3$
1.080
1.085
1.090
1.095
1.100
1.105
Airmass

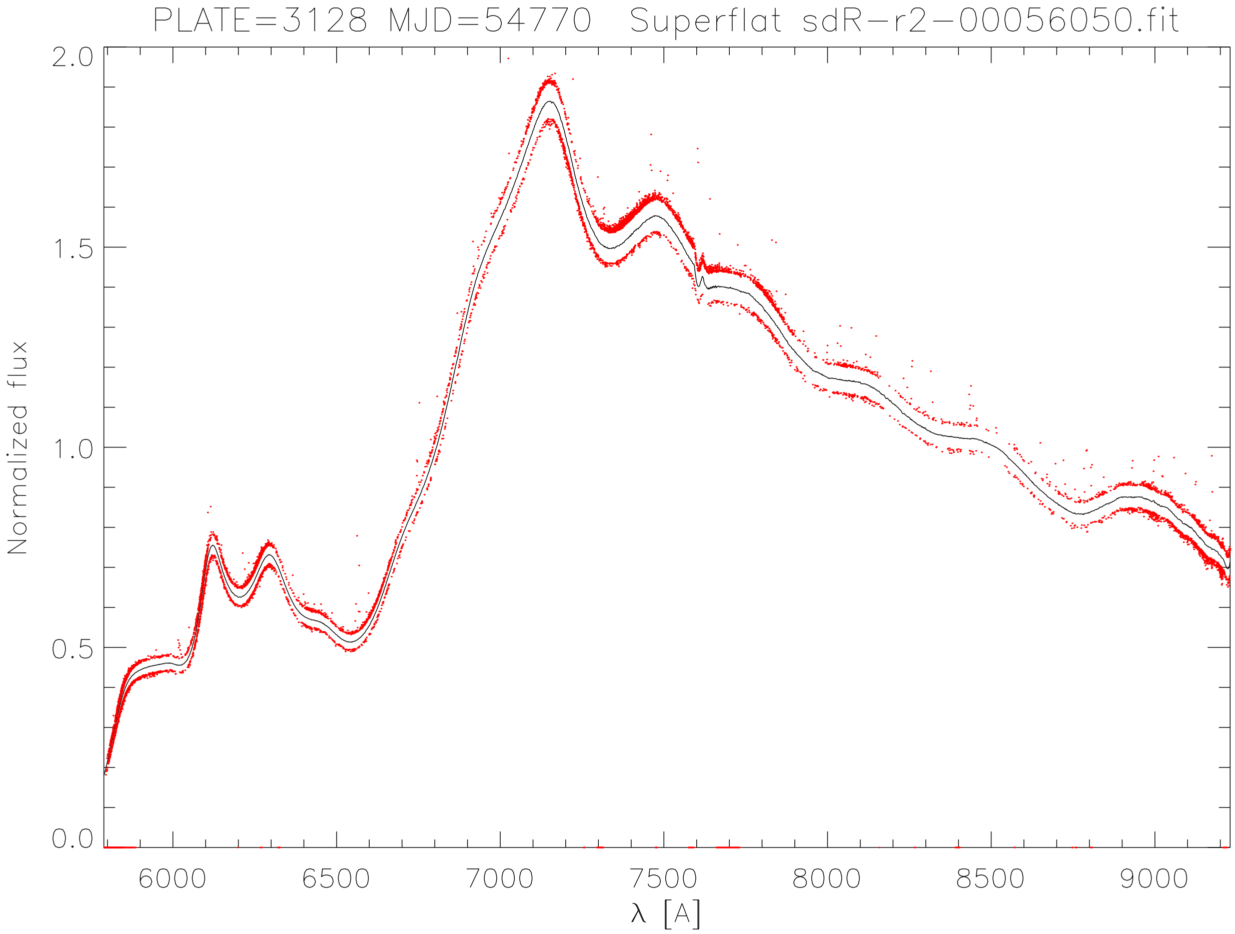

offset coeff residuals from ord=3 poly
1.5×10⁻⁴
1.0×10⁻⁴
5.0×10⁻⁵
0
−5.0×10⁻⁵
−1.0×10⁻⁴
−1.5×10⁻⁴
0
50
100
150
200
250
300
fiber

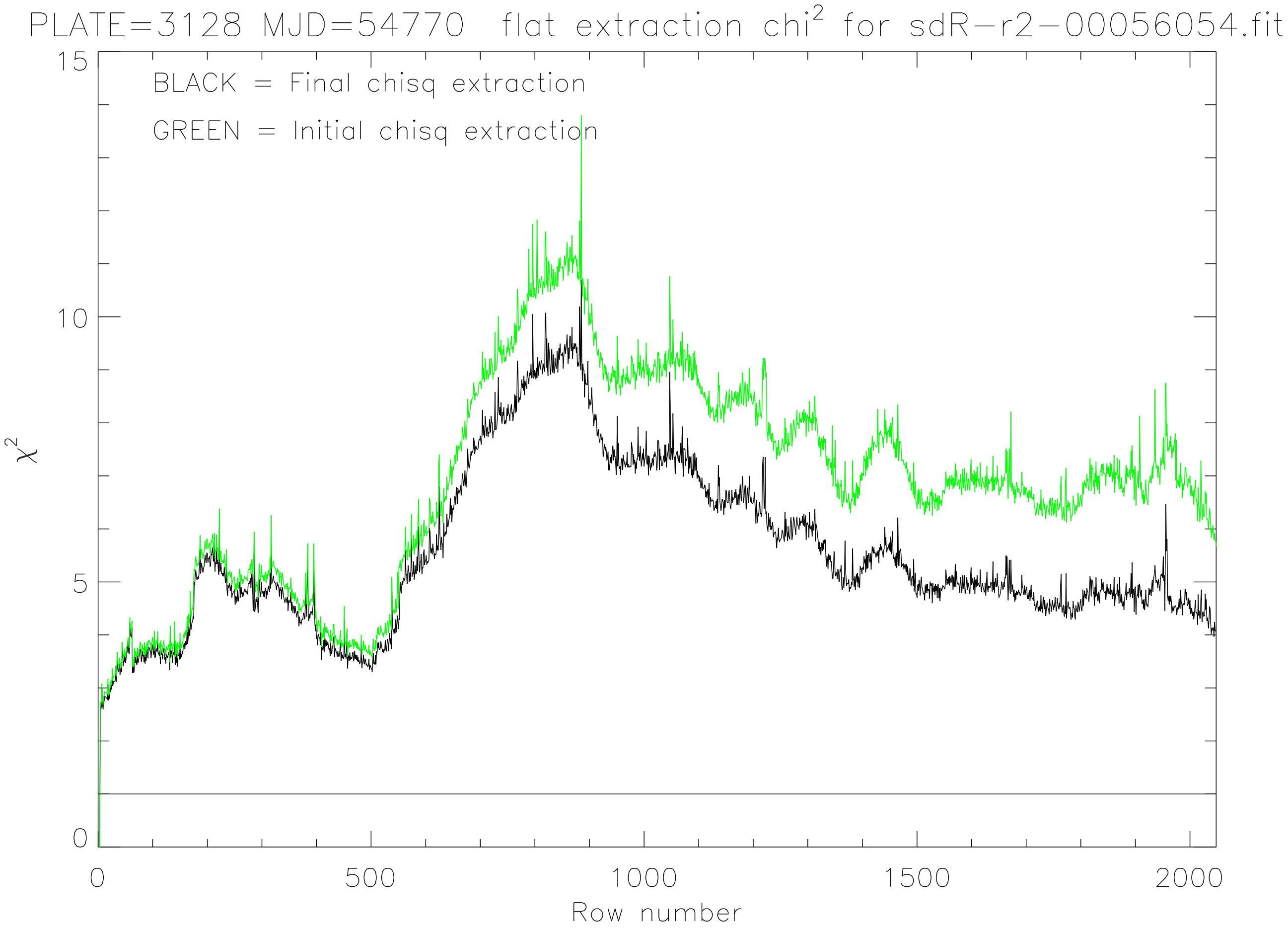

scale coeff residuals from ord=3 poly
$4\times10^{-5}$
$2\times10^{-5}$
0
$-2\times10^{-5}$
$-4\times10^{-5}$
0
50
100
150
200
250
300
fiber

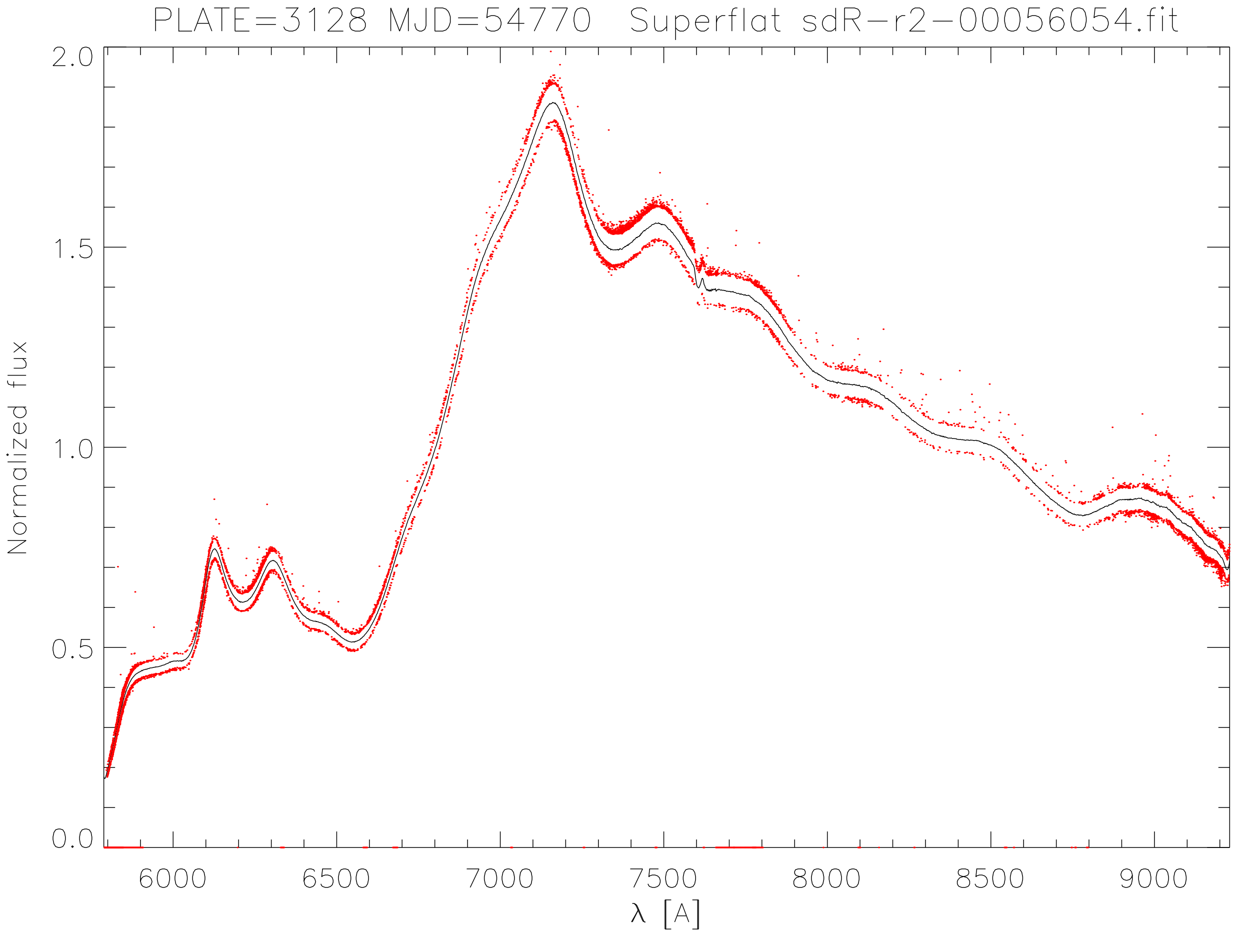

offset coeff residuals from ord=3 poly
1.5×10^-4
1.0×10^-4
5.0×10^-5
0
−5.0×10^-5
−1.0×10^-4
−1.5×10^-4
0
50
100
150
200
250
300
fiber


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

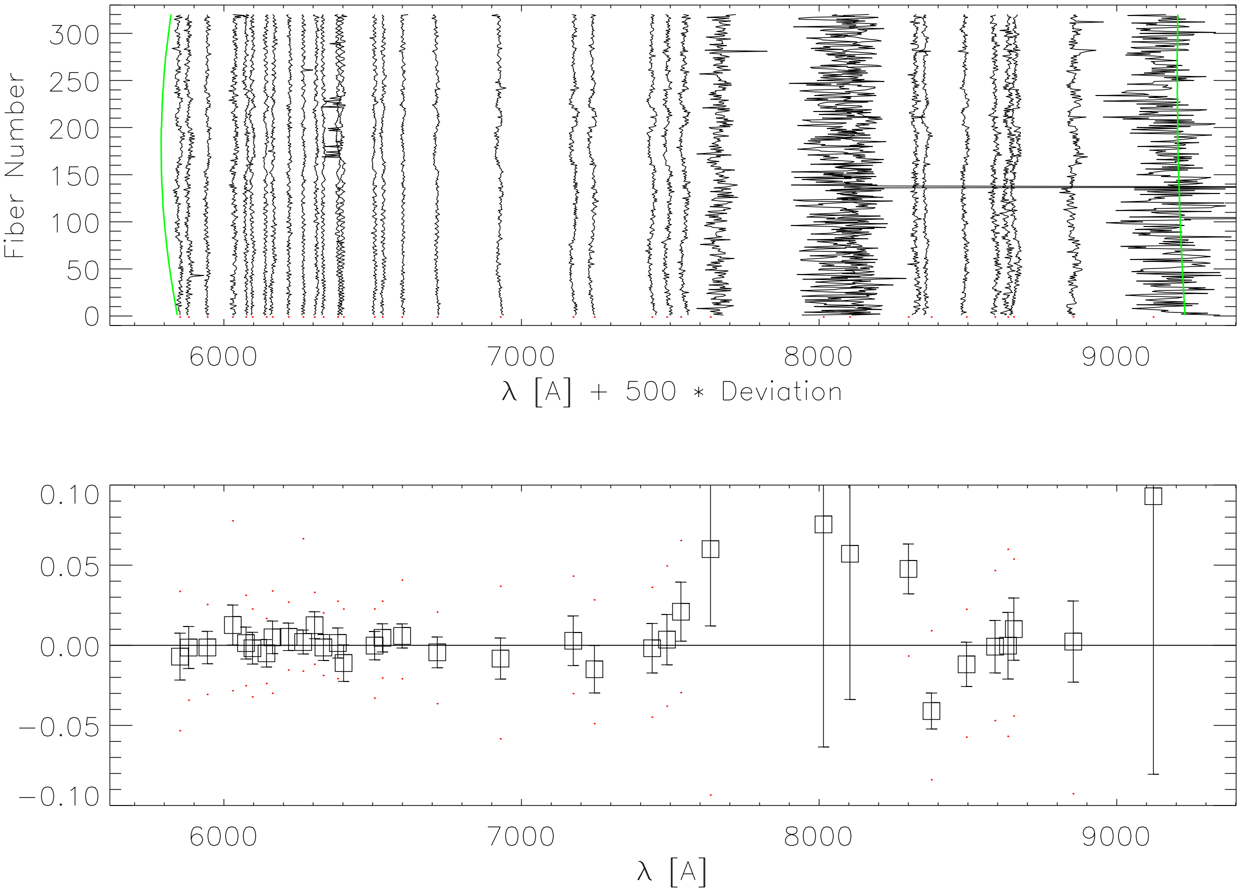

PLATE=3128 MJD=54770 flat extraction $chi^2$ for sdR-r2-00056050.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
$\chi^2$
0
2
4
6
8
10
12
14
0
500
1000
1500
2000
Row number


PLATE=3128 MJD=54770 Superflat sdR-r2-00056050.fit
Normalized flux
0.0
0.5
1.0
1.5
2.0
6000
6500
7000
7500
8000
8500
9000
λ [A]


PLATE=3128 MJD=54770 flat extraction chi$^2$ for sdR-r2-00056054.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
$\chi^2$
15
10
5
0
0
500
1000
1500
2000
Row number


PLATE=3128 MJD=54770 Superflat sdR-r2-00056054.fit
Normalized flux
0.0
0.5
1.0
1.5
2.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

PLATE=3128 MJD=54770 Arcline Fit for sdR-r2-00056055.fit



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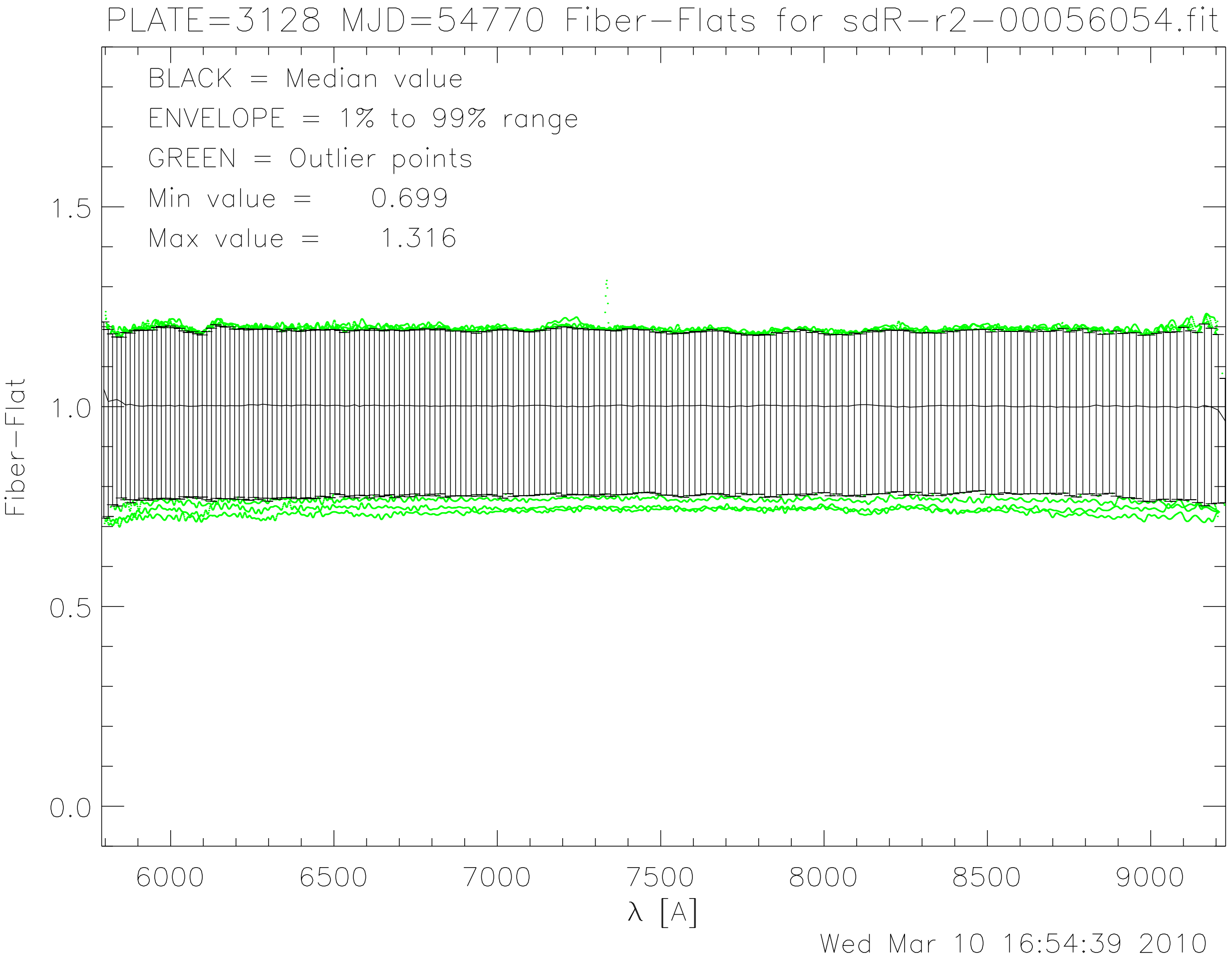
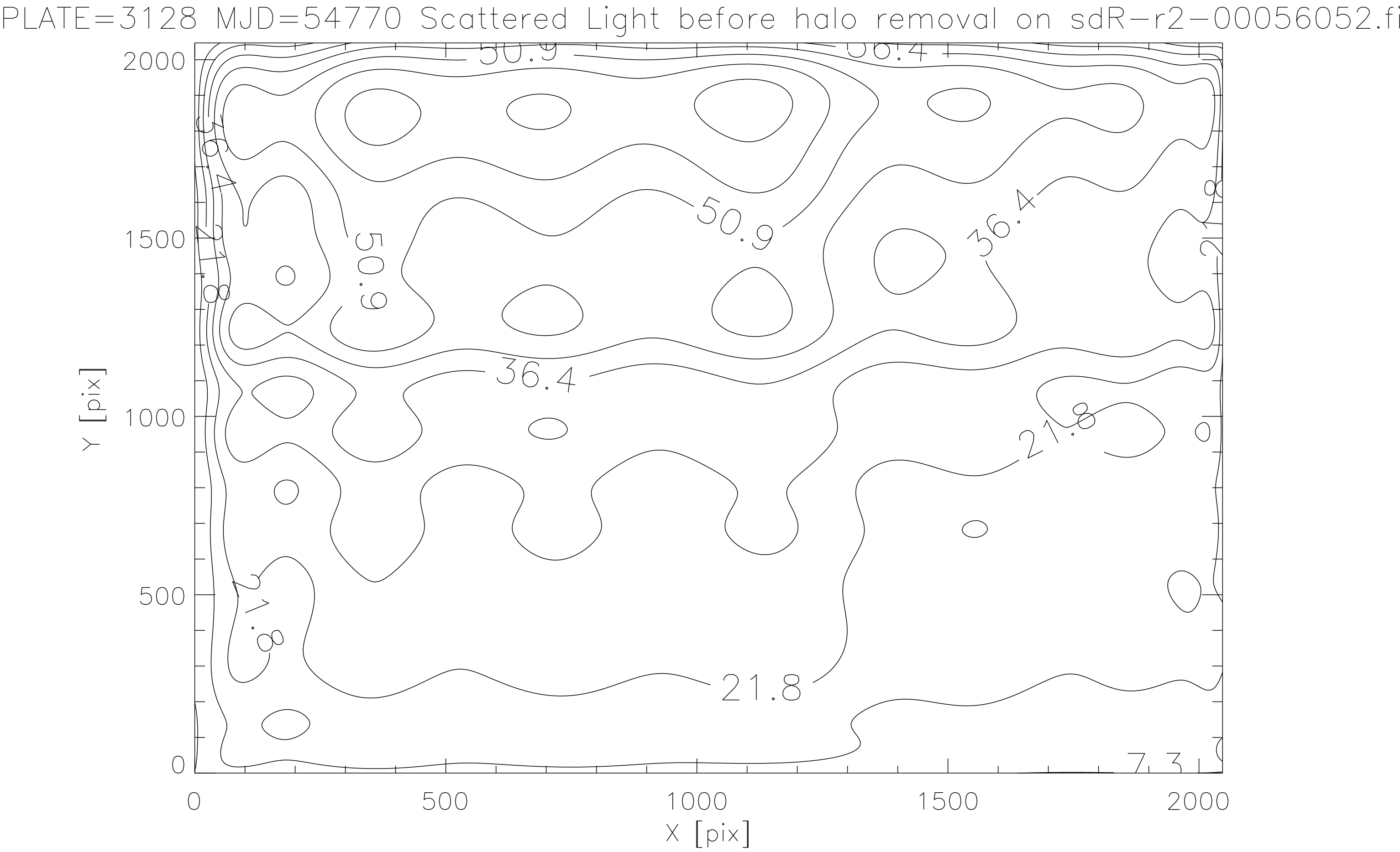
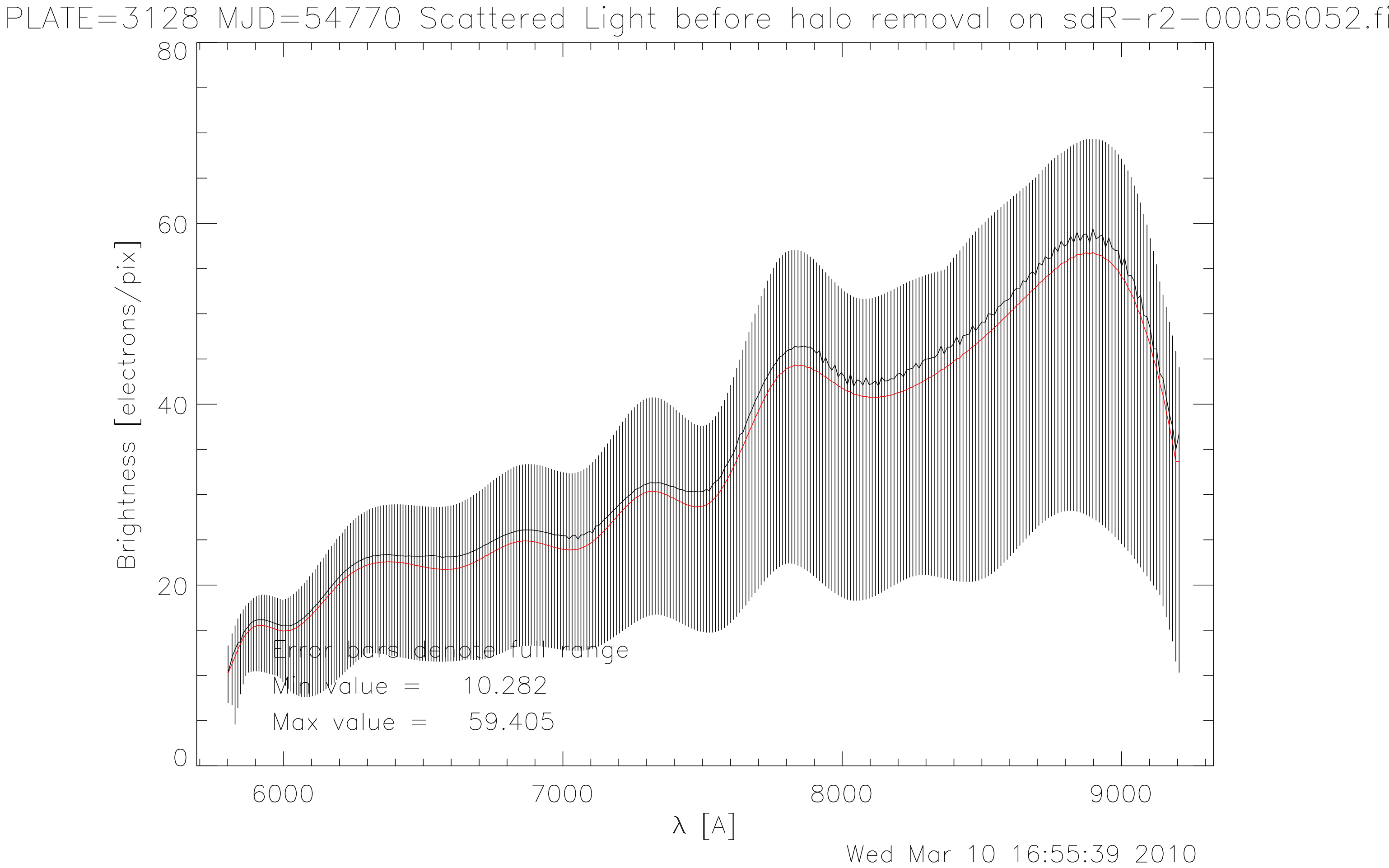
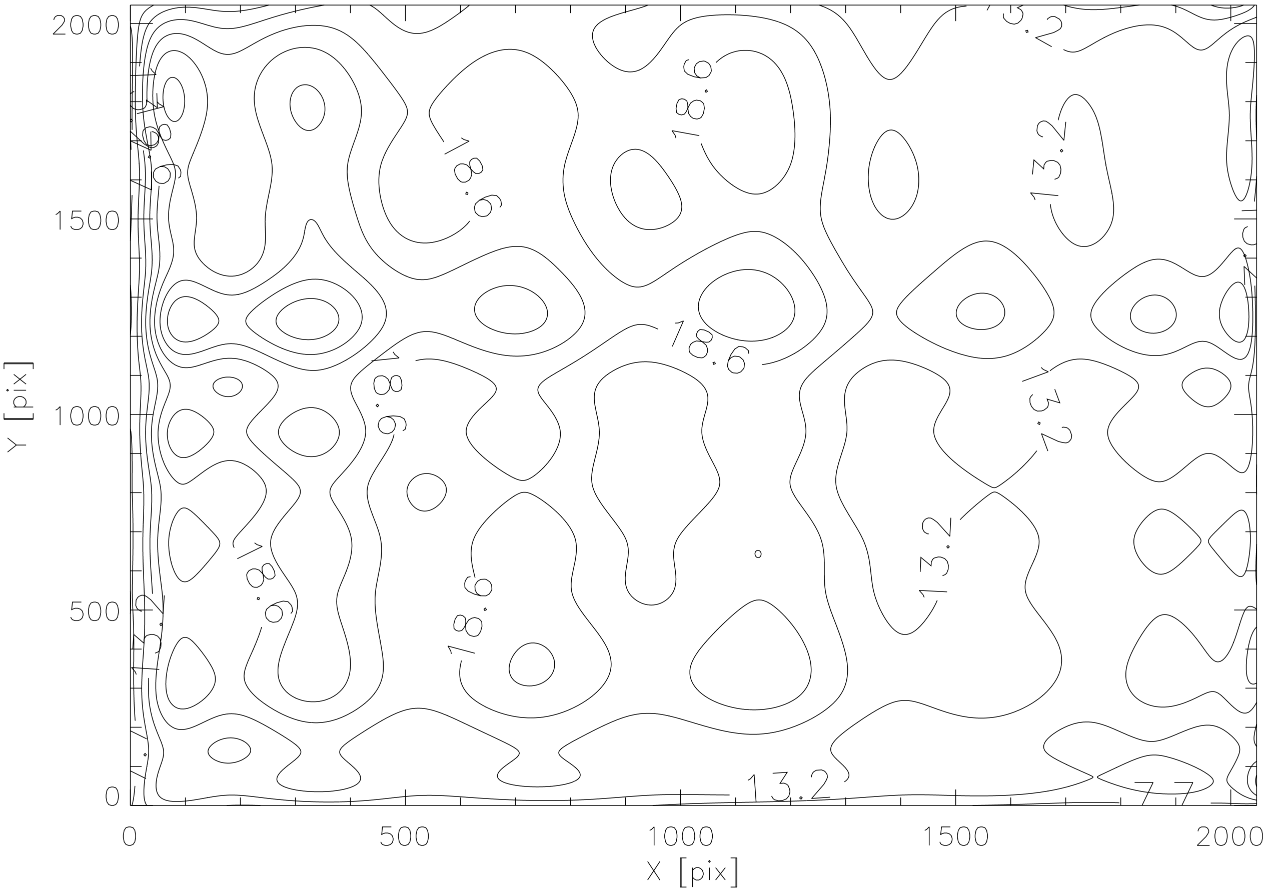
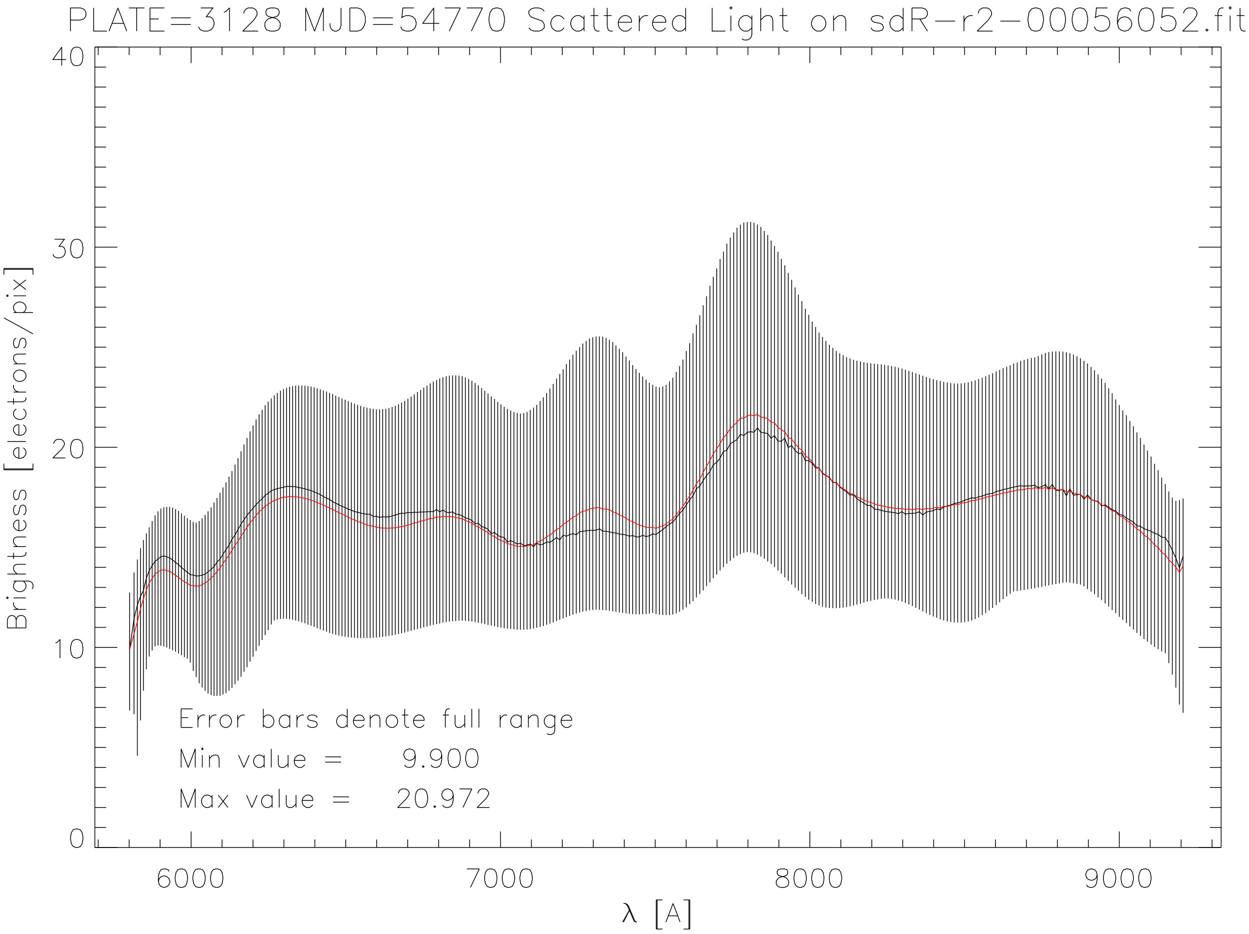

PLATE=3128 MJD=54770 Fiber−Flats for sdR−r2−00056054.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.699
Max value = 1.316
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Wed Mar 10 16:54:39 2010


PLATE=3128 MJD=54770 Scattered Light before halo removal on sdR-r2-00056052.fi


PLATE=3128 MJD=54770 Scattered Light before halo removal on sdR-r2-00056052.fi
Brightness [electrons/pix]
λ [A]
0
20
40
60
80
6000
7000
8000
9000
Error bars denote full range
Min value = 10.282
Max value = 59.405
Wed Mar 10 16:55:39 2010

PLATE=3128 MJD=54770 Scattered Light on sdR-r2-00056052.fit





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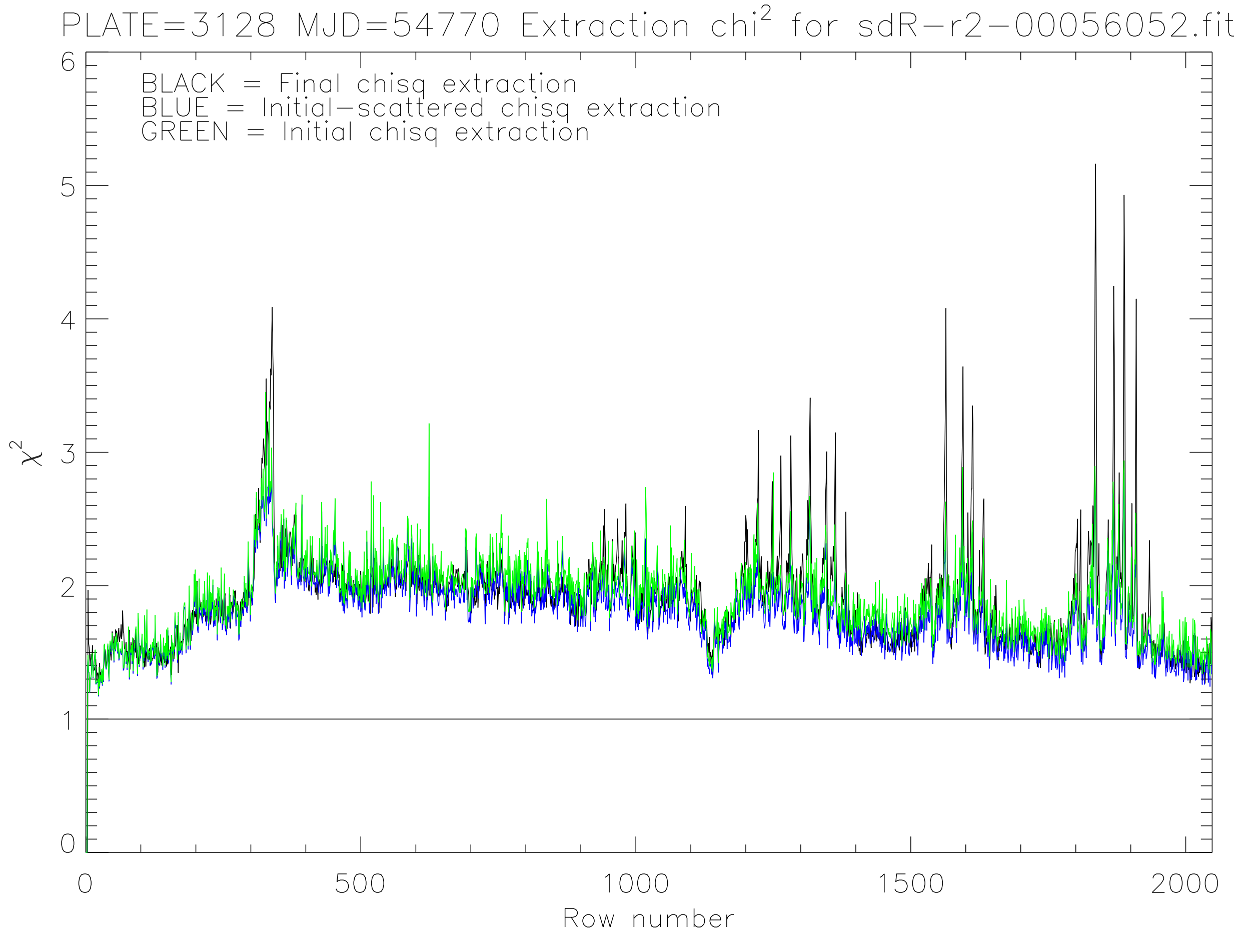
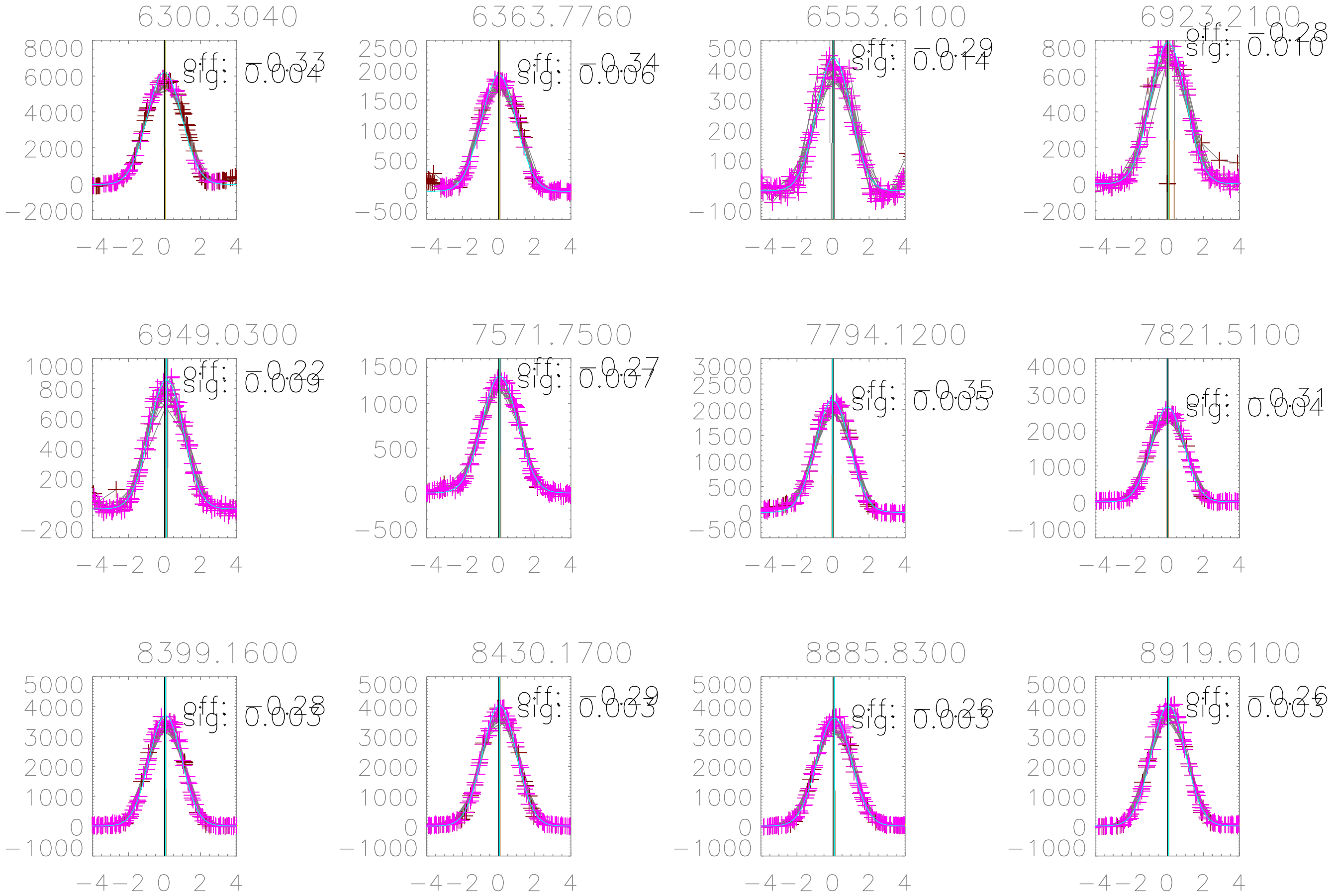
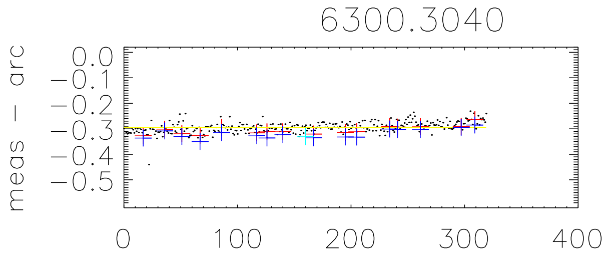
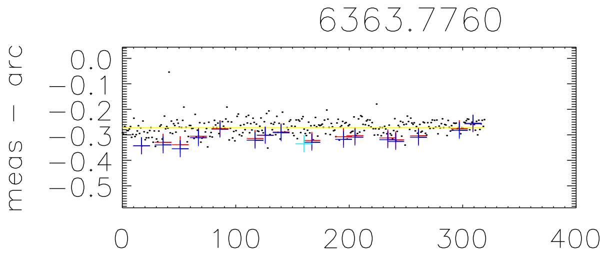
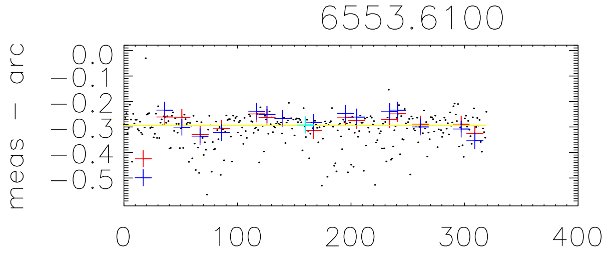
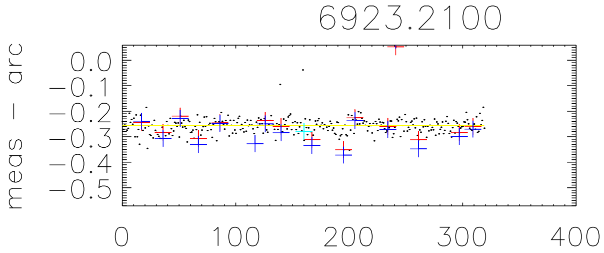

PLATE=3128 MJD=54770 Extraction chi$^2$ for sdR-r2-00056052.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
$\chi^2$
0
1
2
3
4
5
6
0
500
1000
1500
2000
Row number

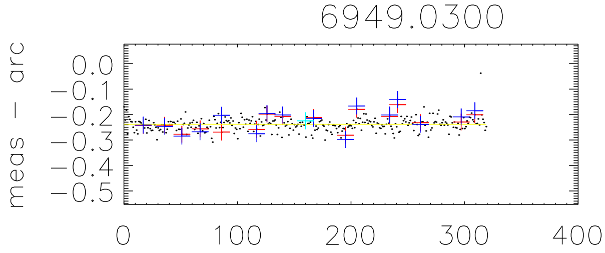

6300.3040
off: −0.33
sig: 0.004
6363.7760
off: −0.34
sig: 0.006
6553.6100
off: −0.29
sig: 0.014
6923.2100
off: −0.28
sig: 0.010
6949.0300
off: −0.22
sig: 0.009
7571.7500
off: −0.27
sig: 0.007
7794.1200
off: −0.35
sig: 0.005
7821.5100
off: −0.31
sig: 0.004
8399.1600
off: −0.28
sig: 0.003
8430.1700
off: −0.29
sig: 0.003
8885.8300
off: −0.26
sig: 0.003
8919.6100
off: −0.26
sig: 0.003
−4 −2 0 2 4

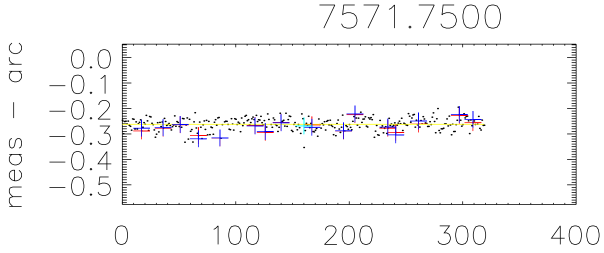

6300.3040
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400


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

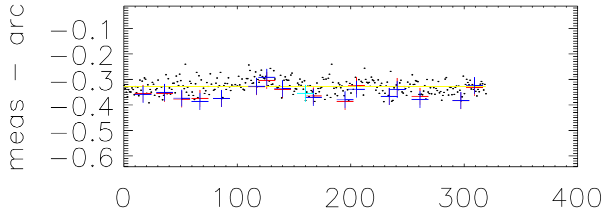

6553.6100
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400


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

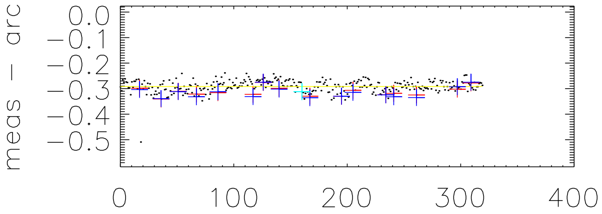

6949.0300
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400


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

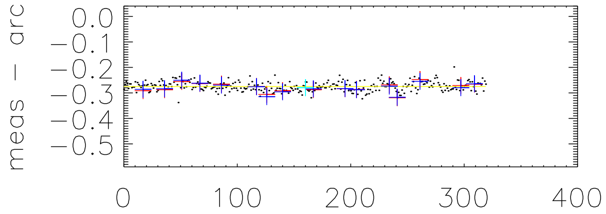
7794.1200



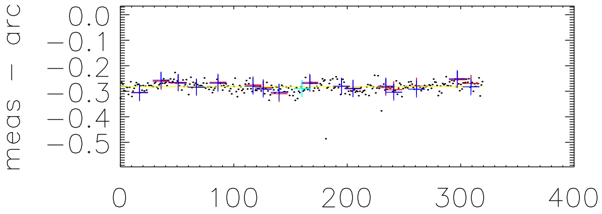
7821.5100



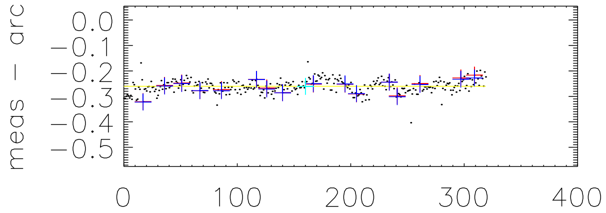
8399.1600



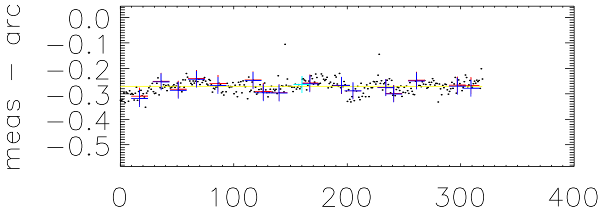
8430.1700

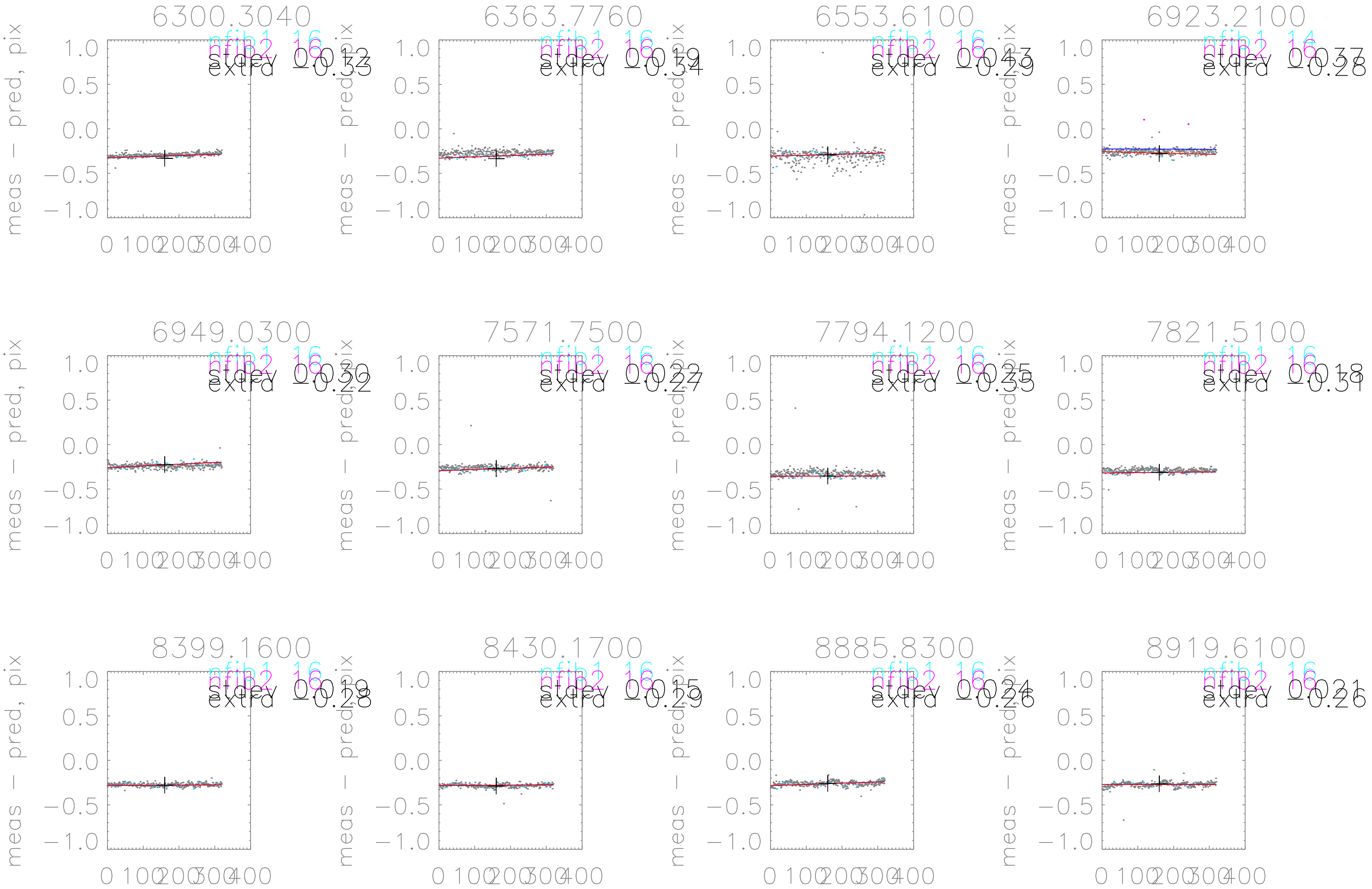


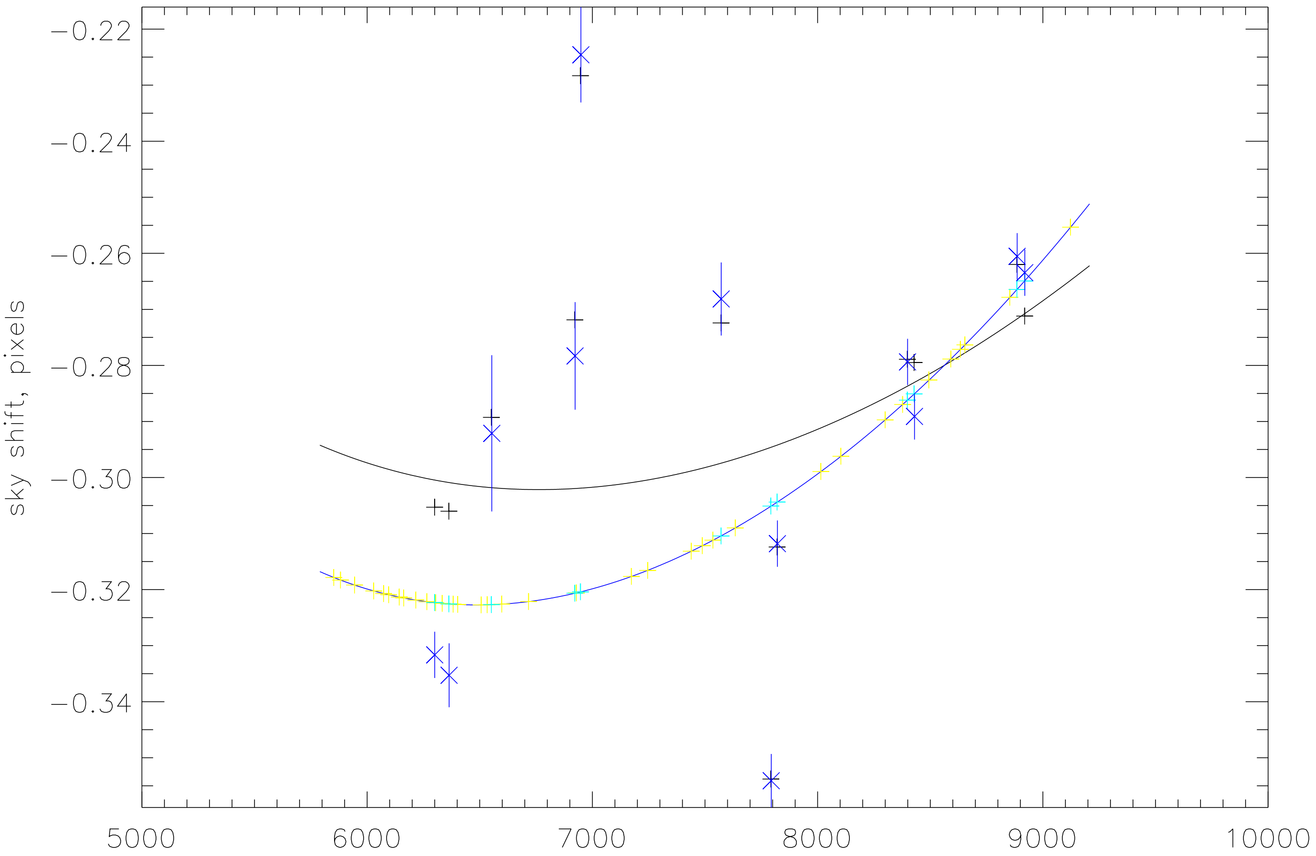
8885.8300

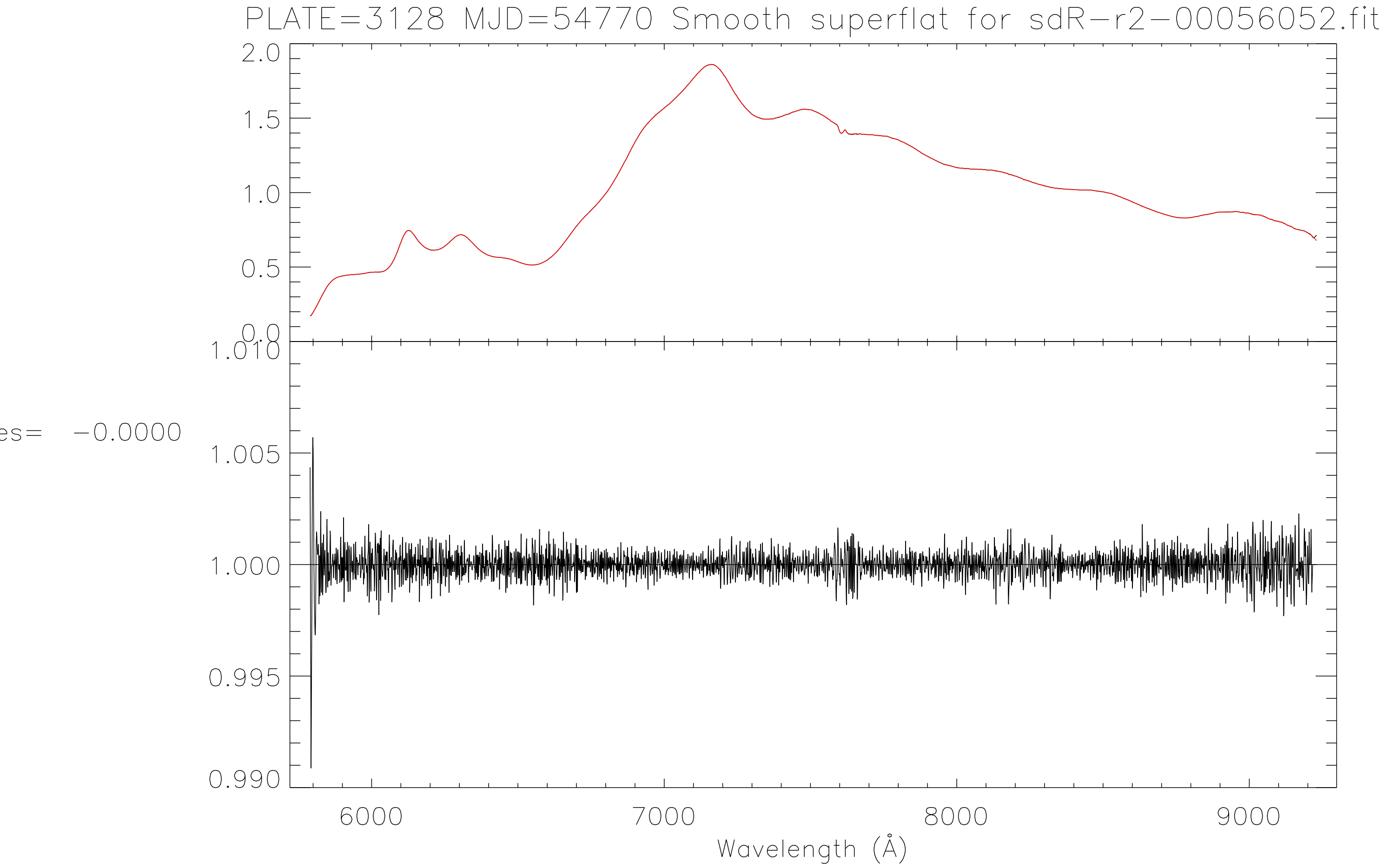


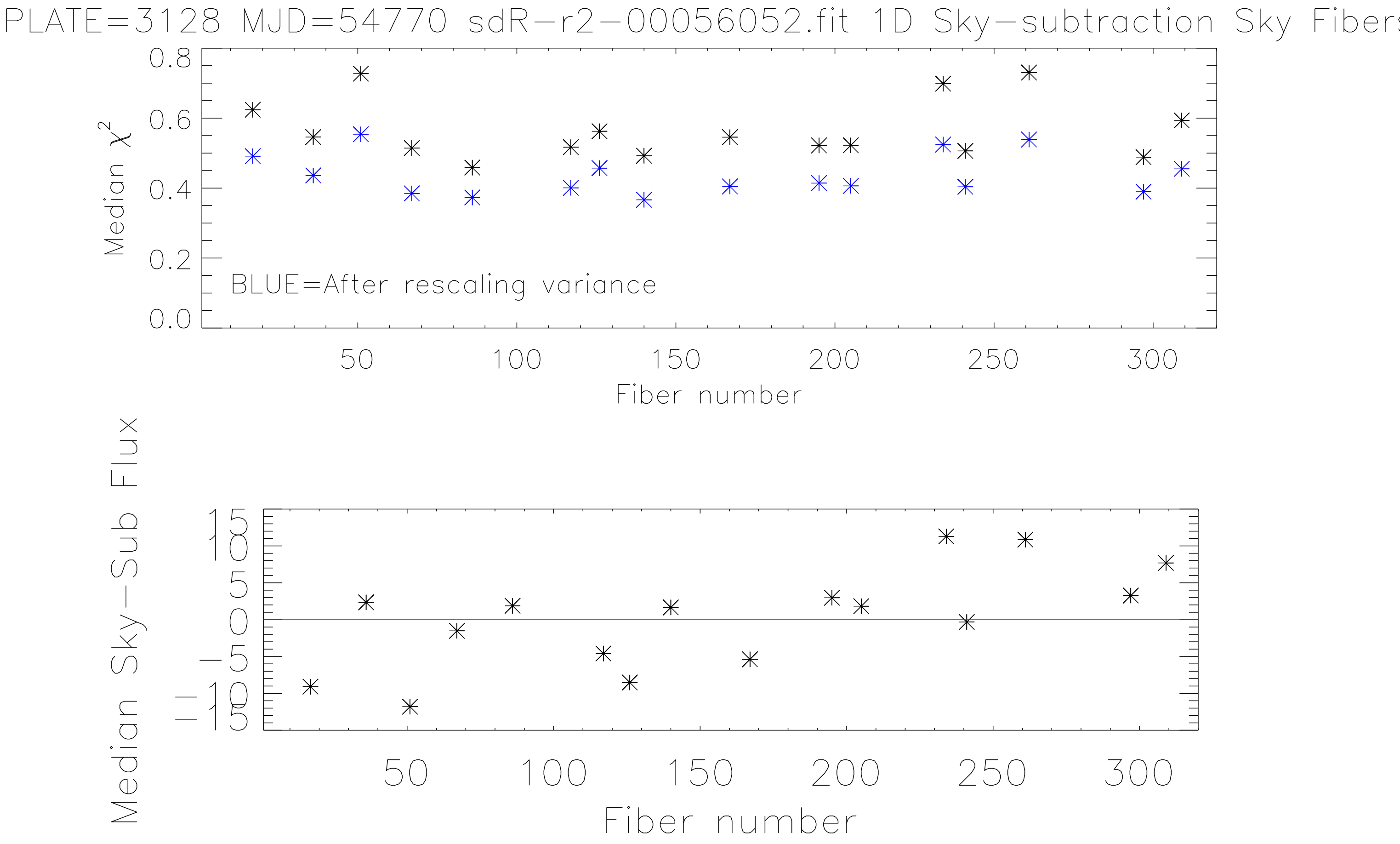
8919.6100

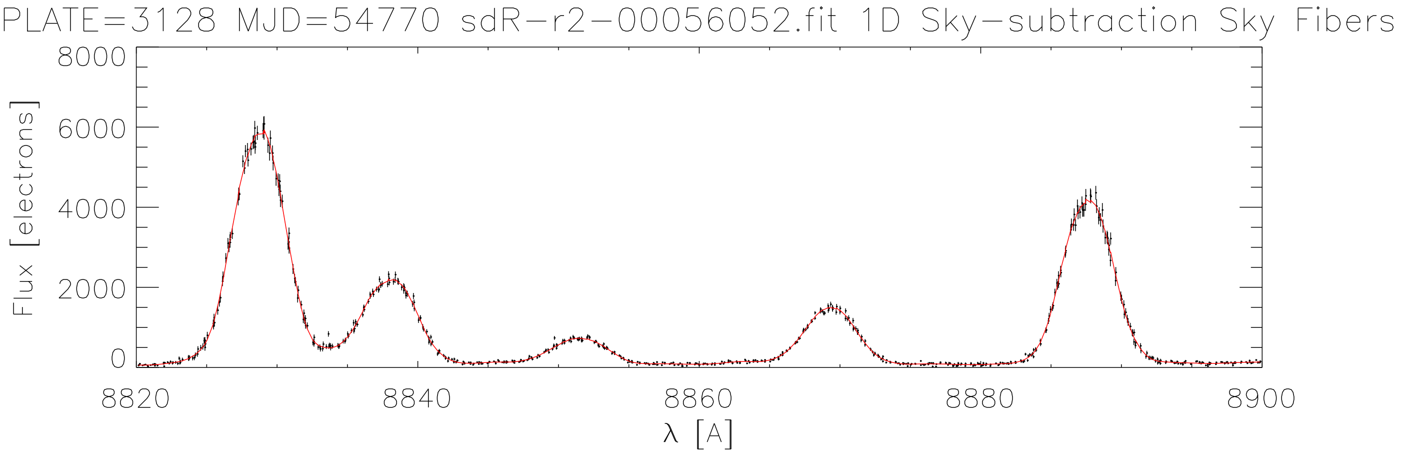


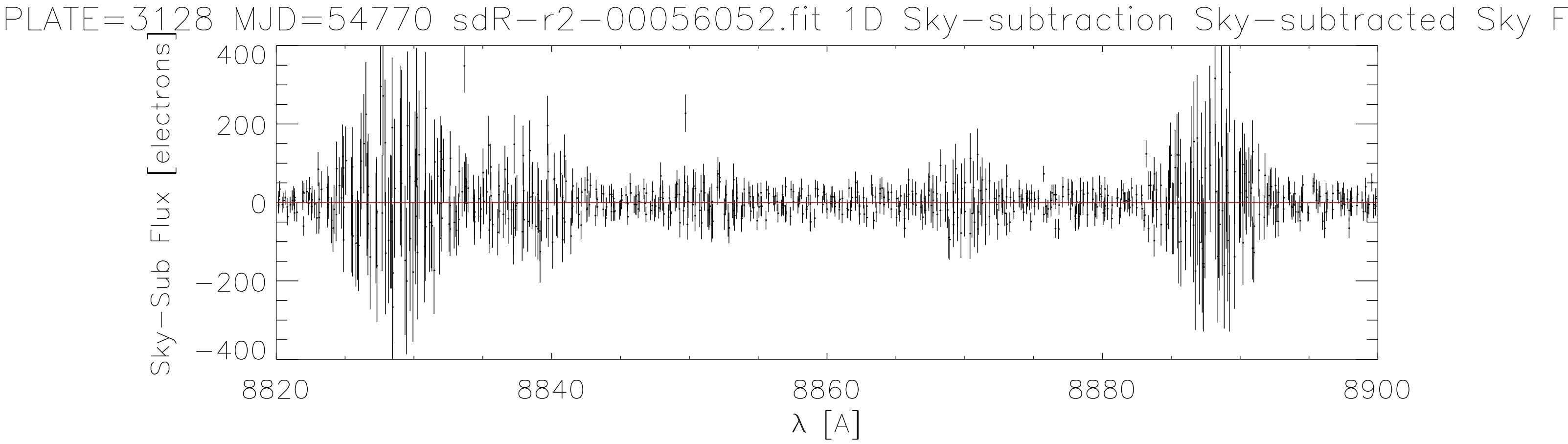

6300.3040
nfib1 16
nfib2 16
stdev 0.012
extrd −0.33
6363.7760
nfib1 16
nfib2 16
stdev 0.019
extrd −0.34
6553.6100
nfib1 16
nfib2 16
stdev 0.043
extrd −0.29
6923.2100
nfib1 14
nfib2 16
stdev 0.037
extrd −0.28
6949.0300
nfib1 16
nfib2 16
stdev 0.030
extrd −0.22
7571.7500
nfib1 16
nfib2 16
stdev 0.022
extrd −0.27
7794.1200
nfib1 16
nfib2 16
stdev 0.025
extrd −0.35
7821.5100
nfib1 16
nfib2 16
stdev 0.018
extrd −0.31
8399.1600
nfib1 16
nfib2 16
stdev 0.019
extrd −0.28
8430.1700
nfib1 16
nfib2 16
stdev 0.015
extrd −0.29
8885.8300
nfib1 16
nfib2 16
stdev 0.024
extrd −0.26
8919.6100
nfib1 16
nfib2 16
stdev 0.021
extrd −0.26
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

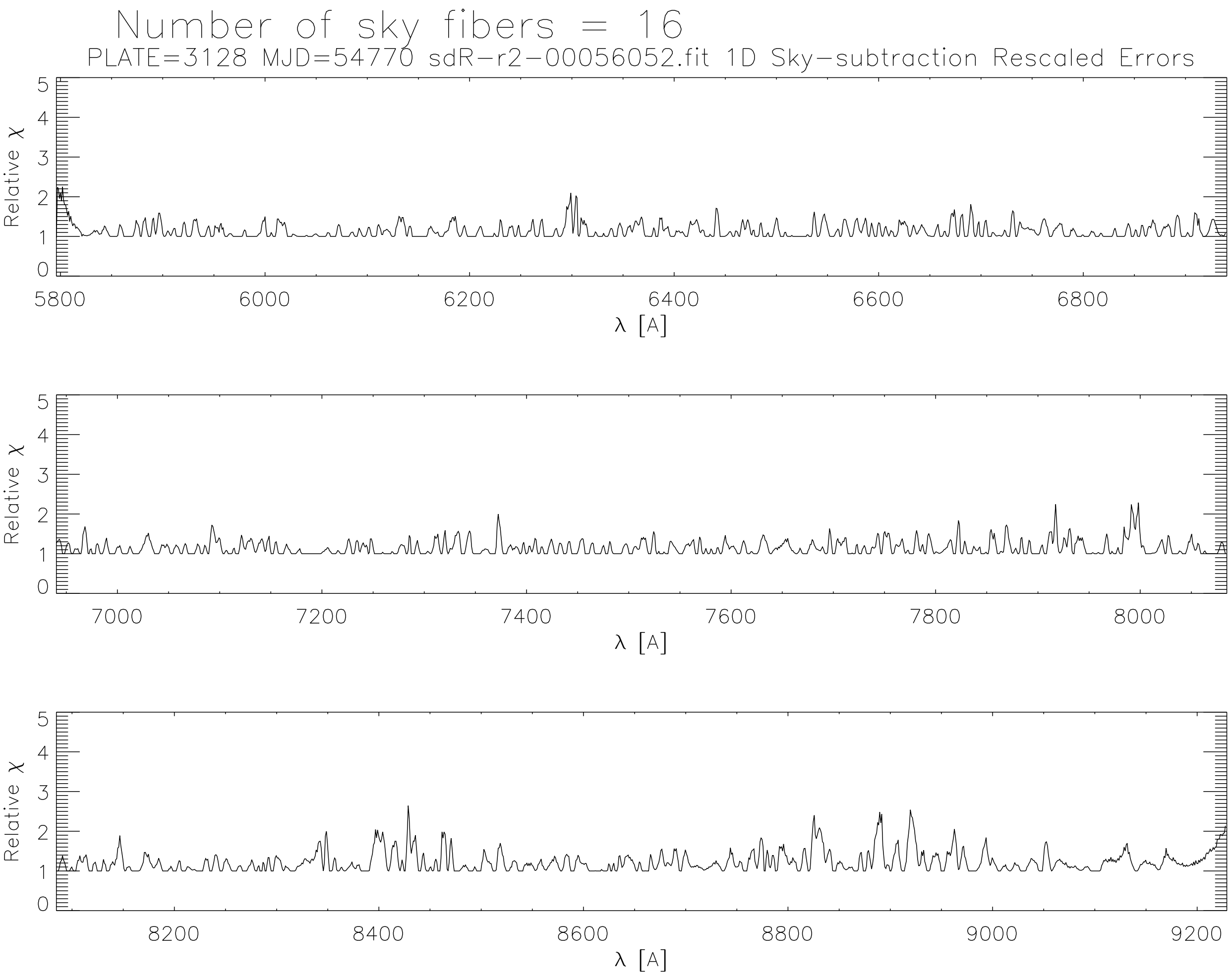

sky shift, pixels
−0.22
−0.24
−0.26
−0.28
−0.30
−0.32
−0.34
5000
6000
7000
8000
9000
10000


PLATE=3128 MJD=54770 Smooth superflat for sdR-r2-00056052.fit
2.0
1.5
1.0
0.5
0.0
1.010
es= −0.0000
1.005
1.000
0.995
0.990
6000
7000
8000
9000
Wavelength (Å)


PLATE=3128 MJD=54770 sdR-r2-00056052.fit 1D Sky-subtraction Sky Fibers
Median $\chi^2$
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
15
50
100
150
200
250
300
Fiber number

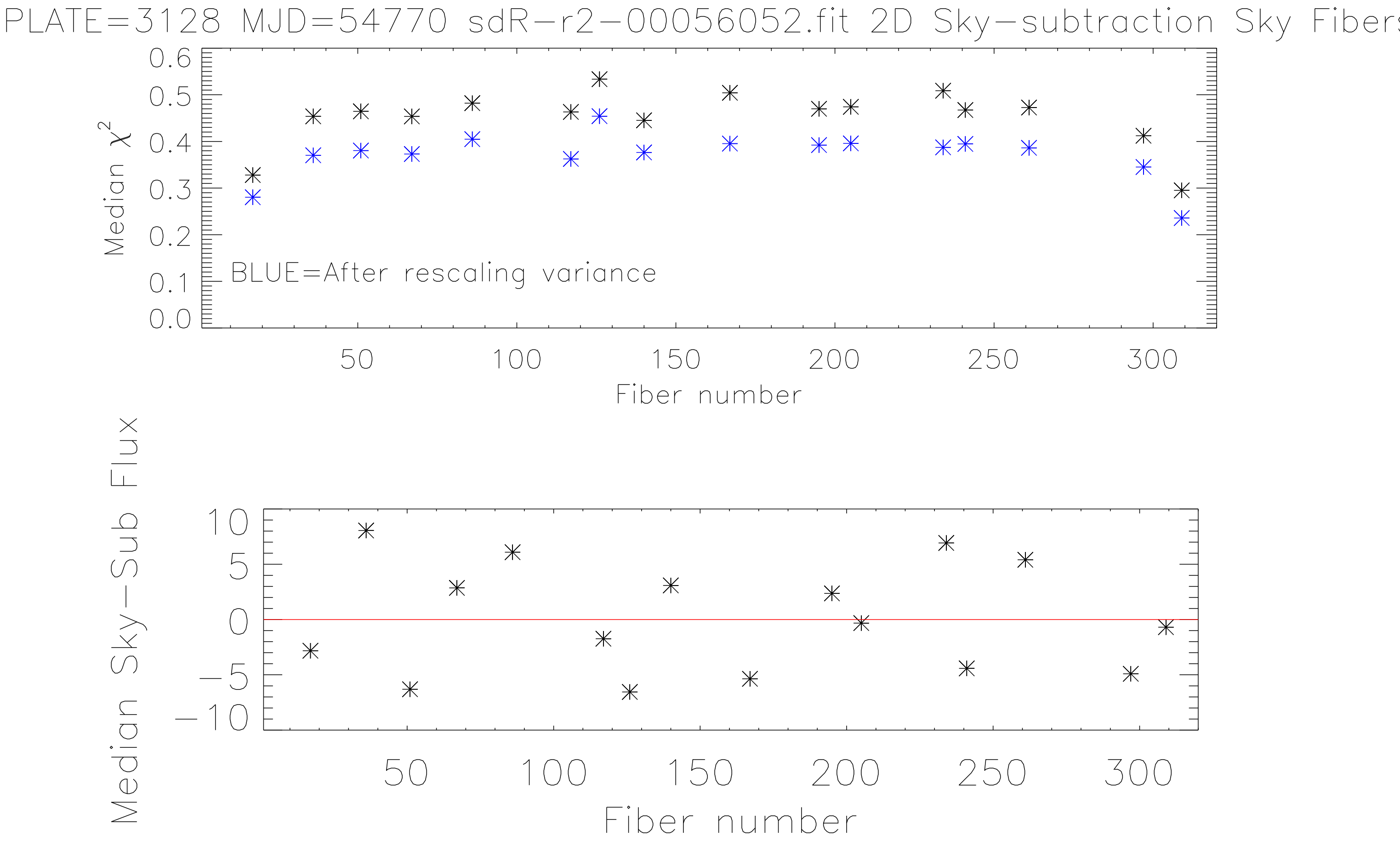

PLATE=3128 MJD=54770 sdR-r2-00056052.fit 1D Sky-subtraction Sky Fibers

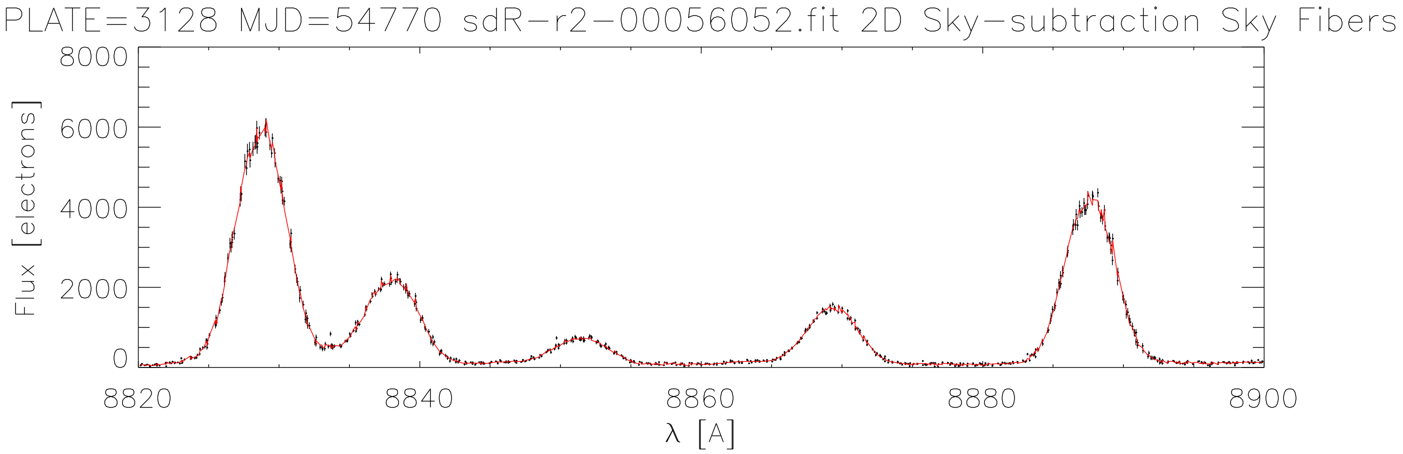

PLATE=3128 MJD=54770 sdR-r2-00056052.fit 1D Sky-subtraction Sky-subtracted Sky F



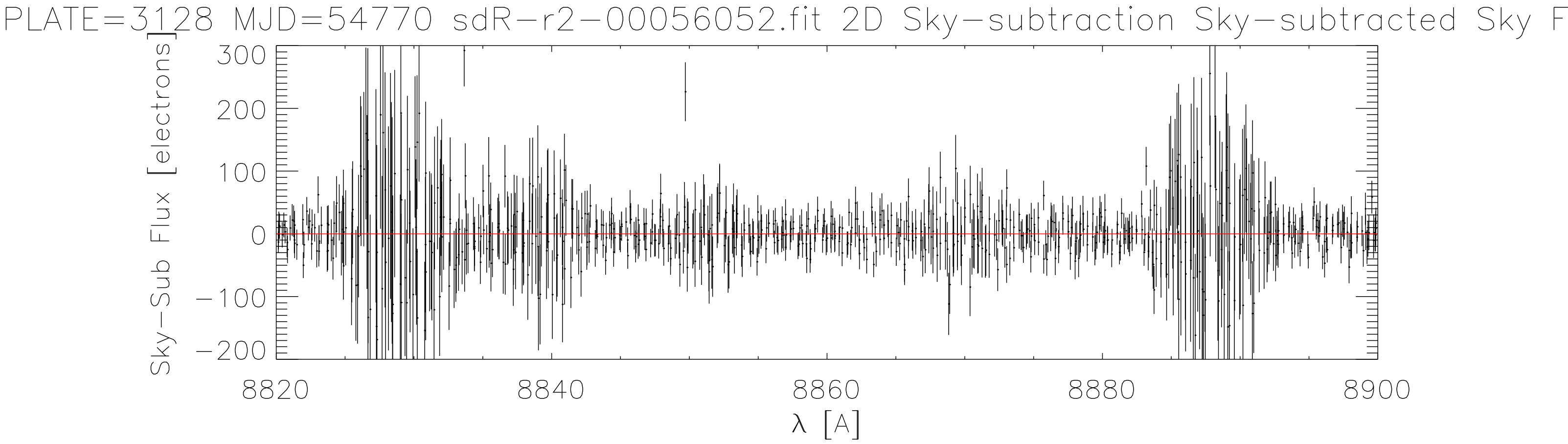
Number of sky fibers = 16

PLATE=3128 MJD=54770 sdR-r2-00056052.fit 1D Sky-subtraction Rescaled Errors


PLATE=3128 MJD=54770 sdR-r2-00056052.fit 2D Sky-subtraction Sky Fibers
Median $\chi^2$
0.6
0.5
0.4
0.3
0.2
0.1
0.0
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



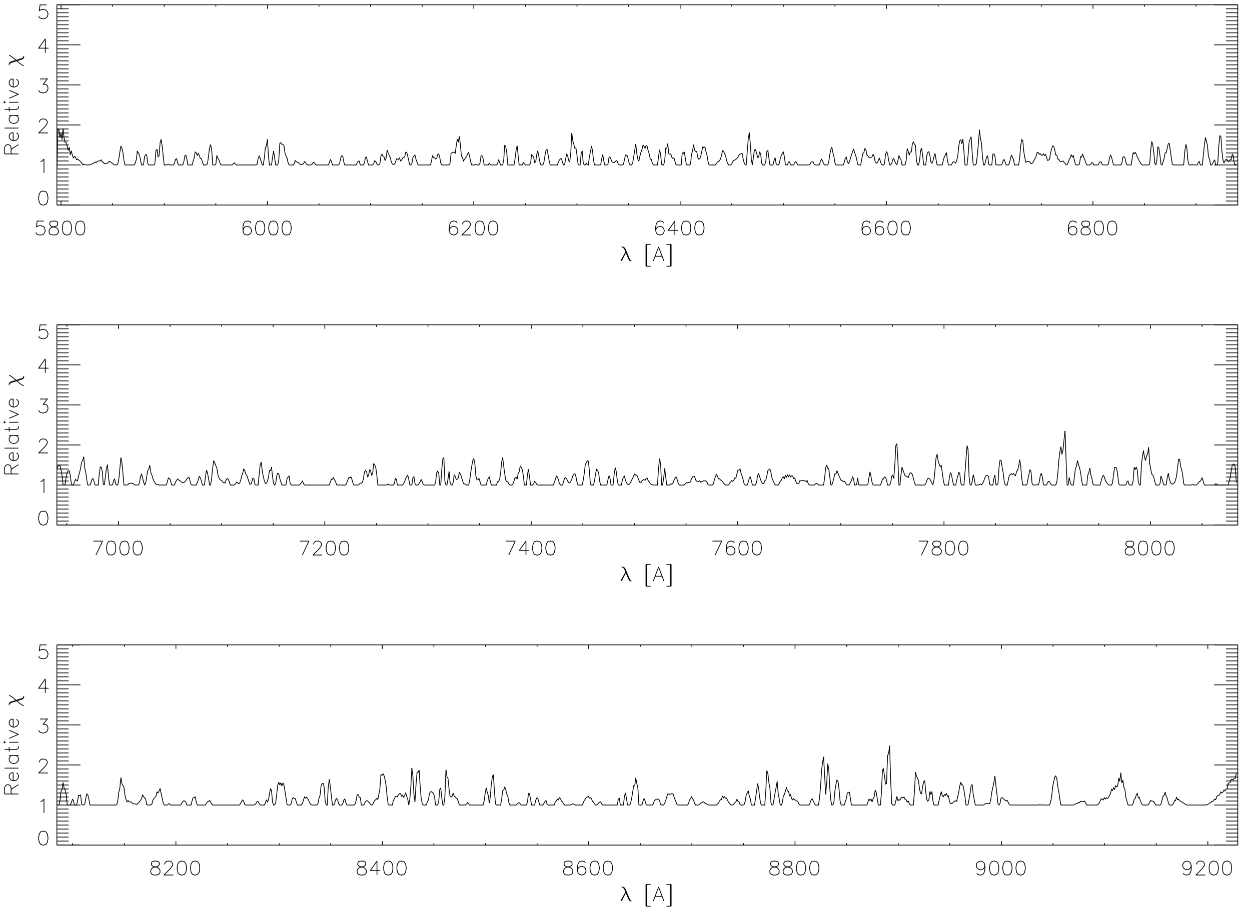
PLATE=3128 MJD=54770 sdR-r2-00056052.fit 2D Sky-subtraction Sky Fibers

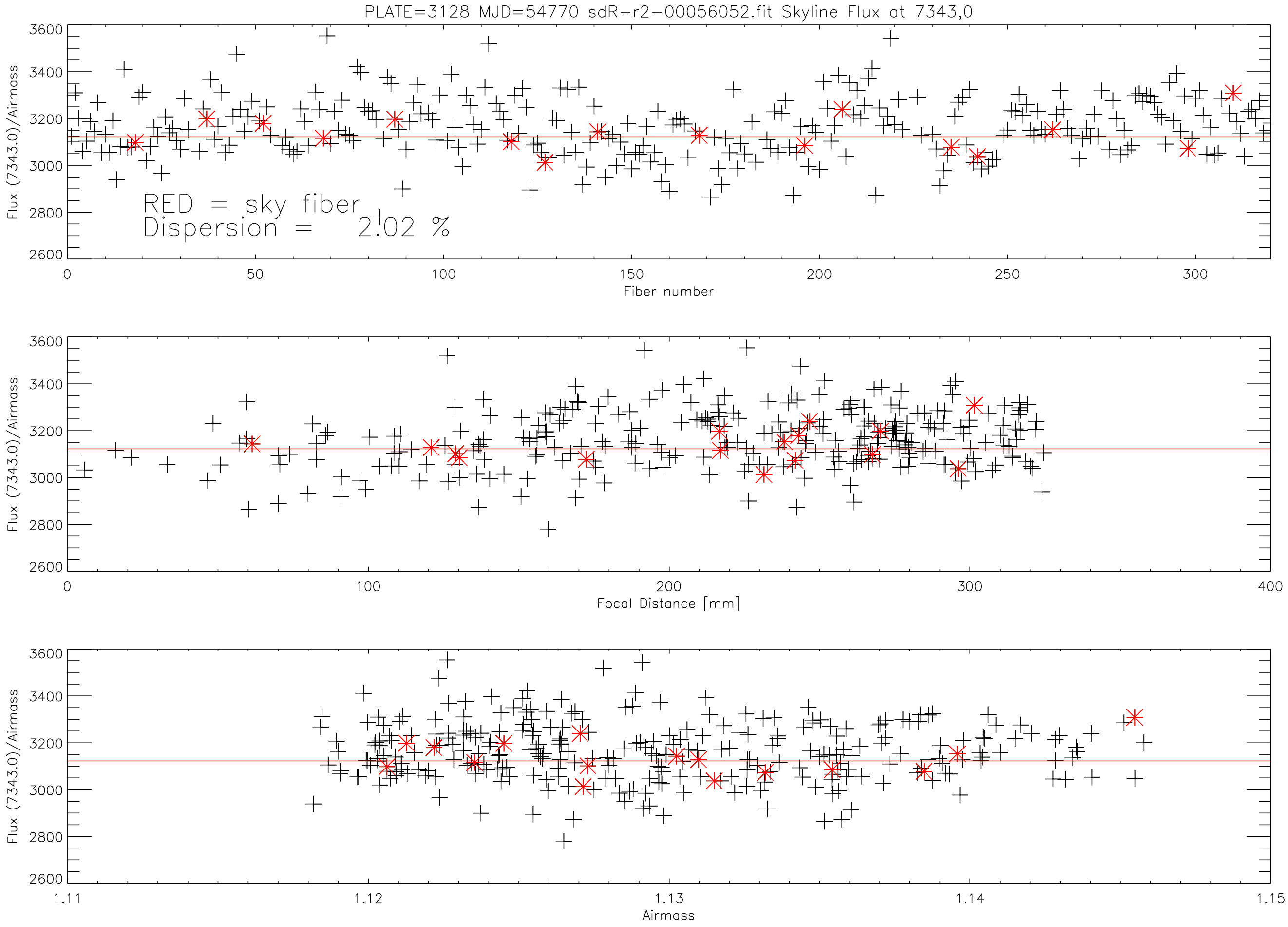


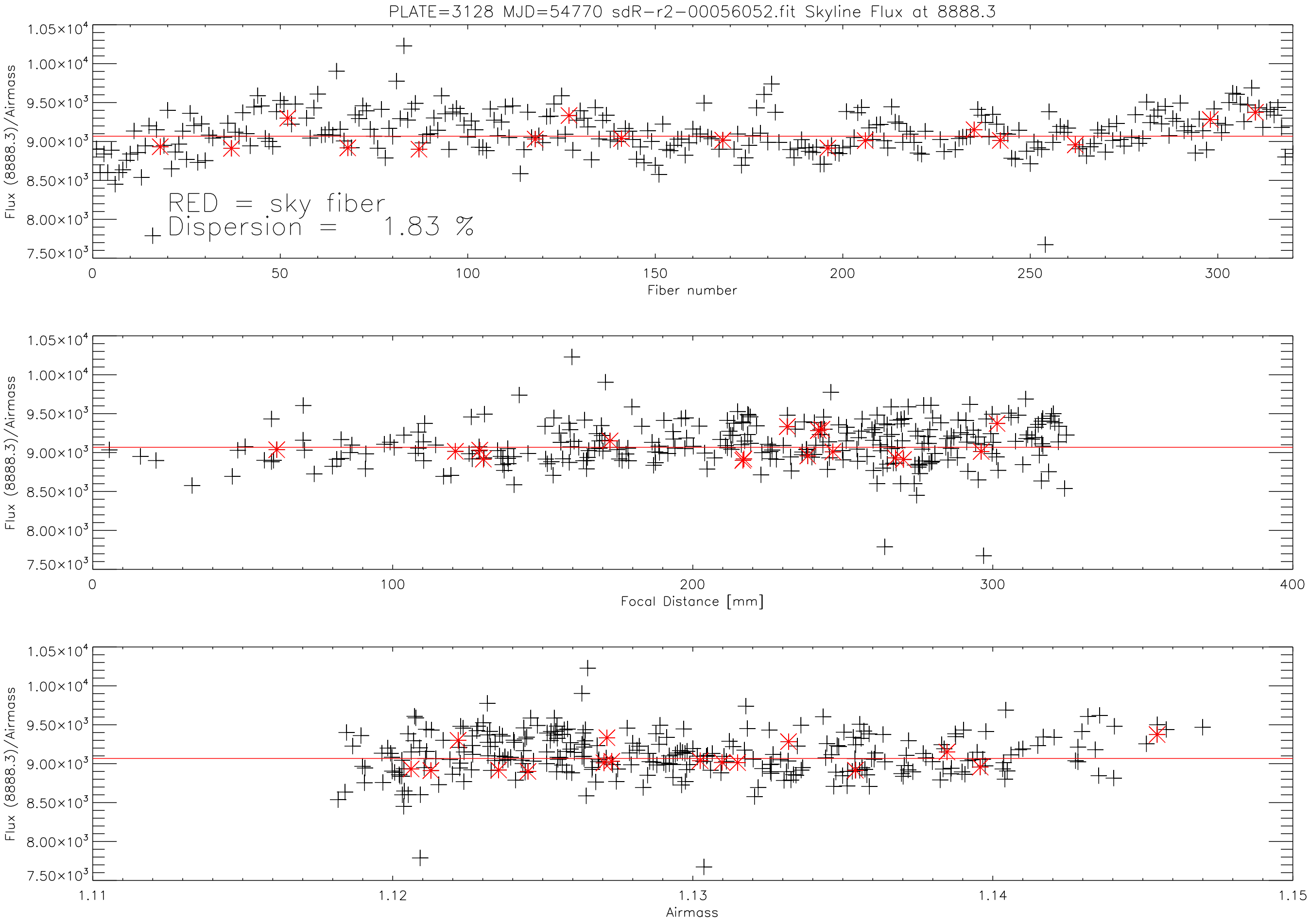
PLATE=3128 MJD=54770 sdR-r2-00056052.fit 2D Sky-subtraction Sky-subtracted Sky F

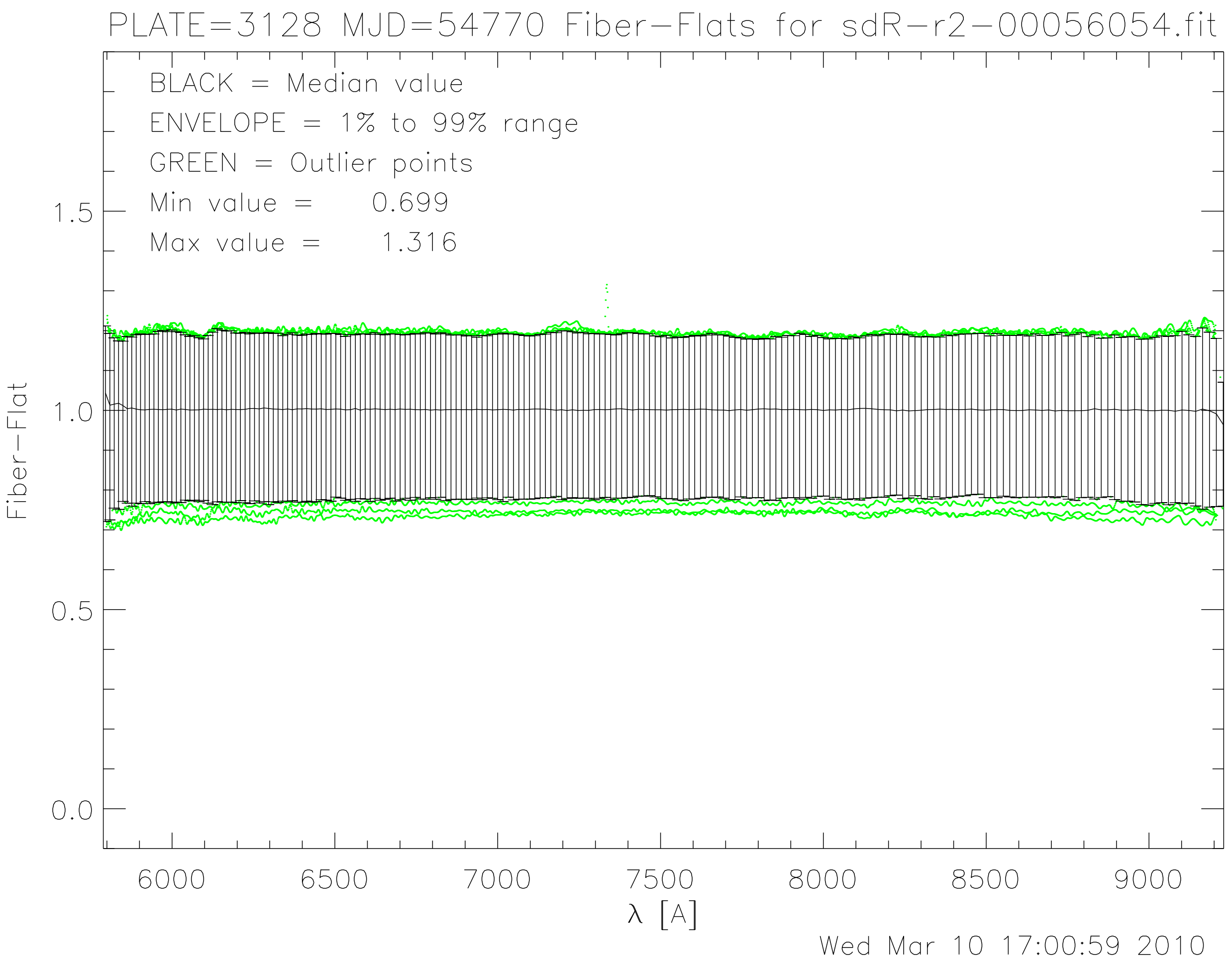
Number of sky fibers = 16

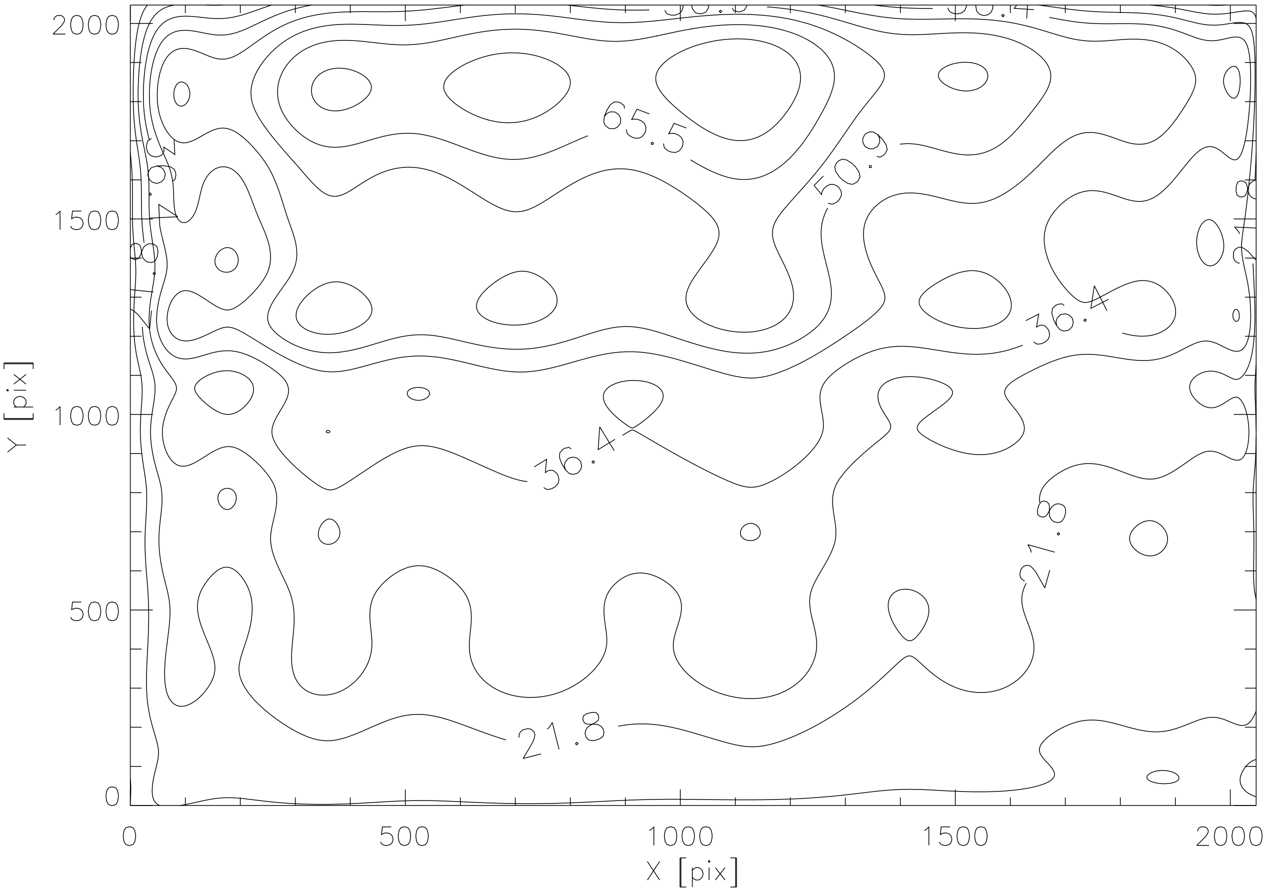
PLATE=3128 MJD=54770 sdR-r2-00056052.fit 2D Sky-subtraction Rescaled Errors




PLATE=3128 MJD=54770 sdR-r2-00056052.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
3600
3400
3200
3000
2800
2600
RED = sky fiber
Dispersion = 2.02 %
0
50
100
150
200
250
300
Fiber number
Flux (7343.0)/Airmass
0
100
200
300
400
Focal Distance [mm]
Flux (7343.0)/Airmass
1.11
1.12
1.13
1.14
1.15
Airmass

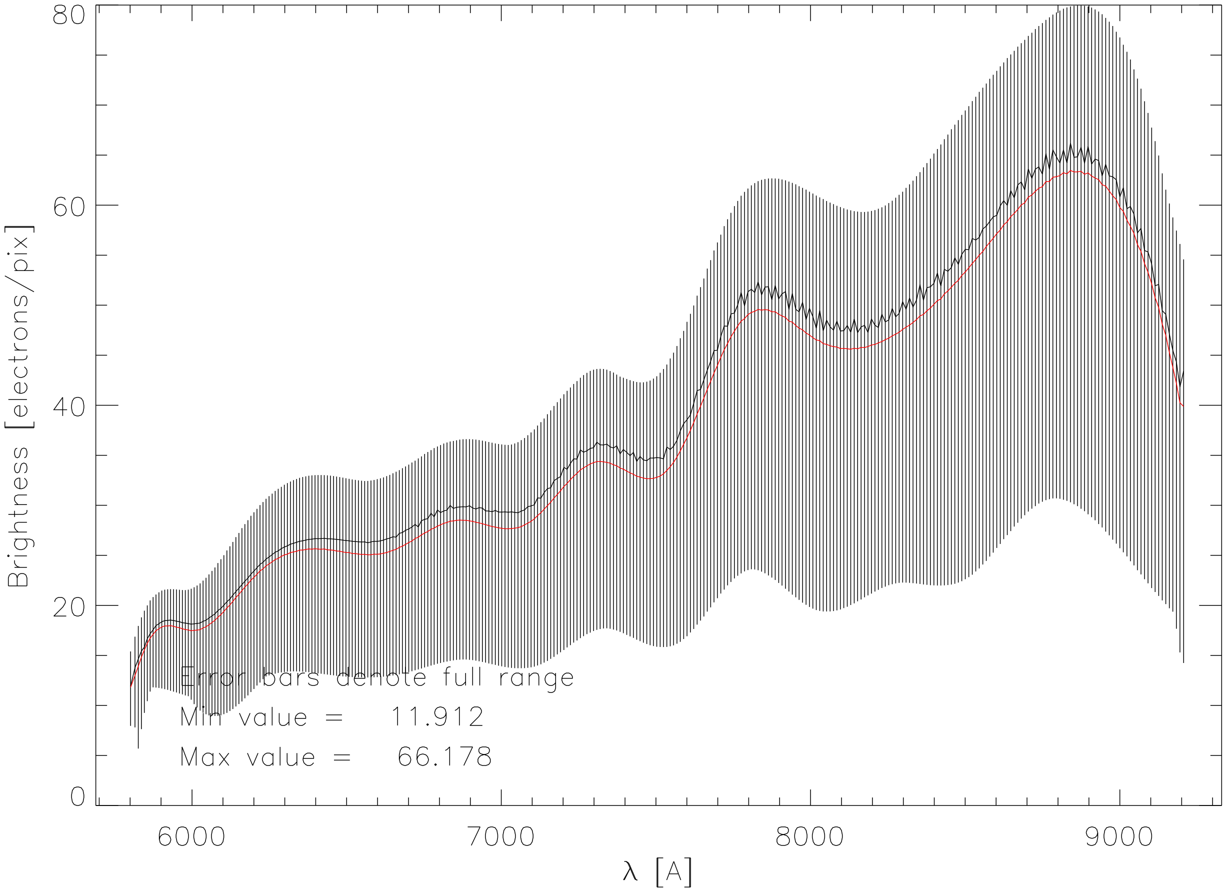

PLATE=3128 MJD=54770 sdR-r2-00056052.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
1.05×10⁴
1.00×10⁴
9.50×10³
9.00×10³
8.50×10³
8.00×10³
7.50×10³
RED = sky fiber
Dispersion = 1.83 %
0
50
100
150
200
250
300
Fiber number
0
100
200
300
400
Focal Distance [mm]
1.11
1.12
1.13
1.14
1.15
Airmass


PLATE=3128 MJD=54770 Fiber−Flats for sdR−r2−00056054.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.699
Max value = 1.316
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Wed Mar 10 17:00:59 2010



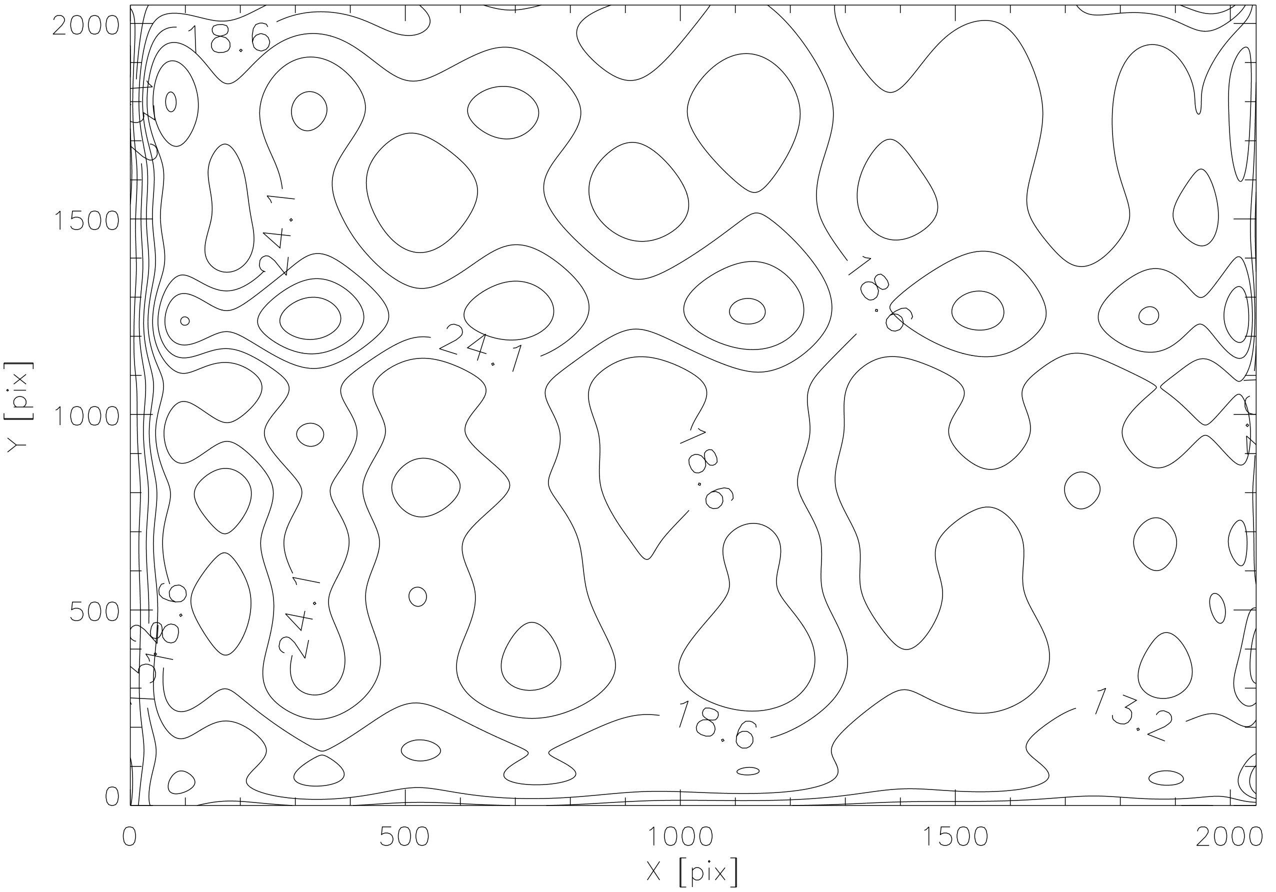
PLATE=3128 MJD=54770 Scattered Light before halo removal on sdR-r2-00056053.fi

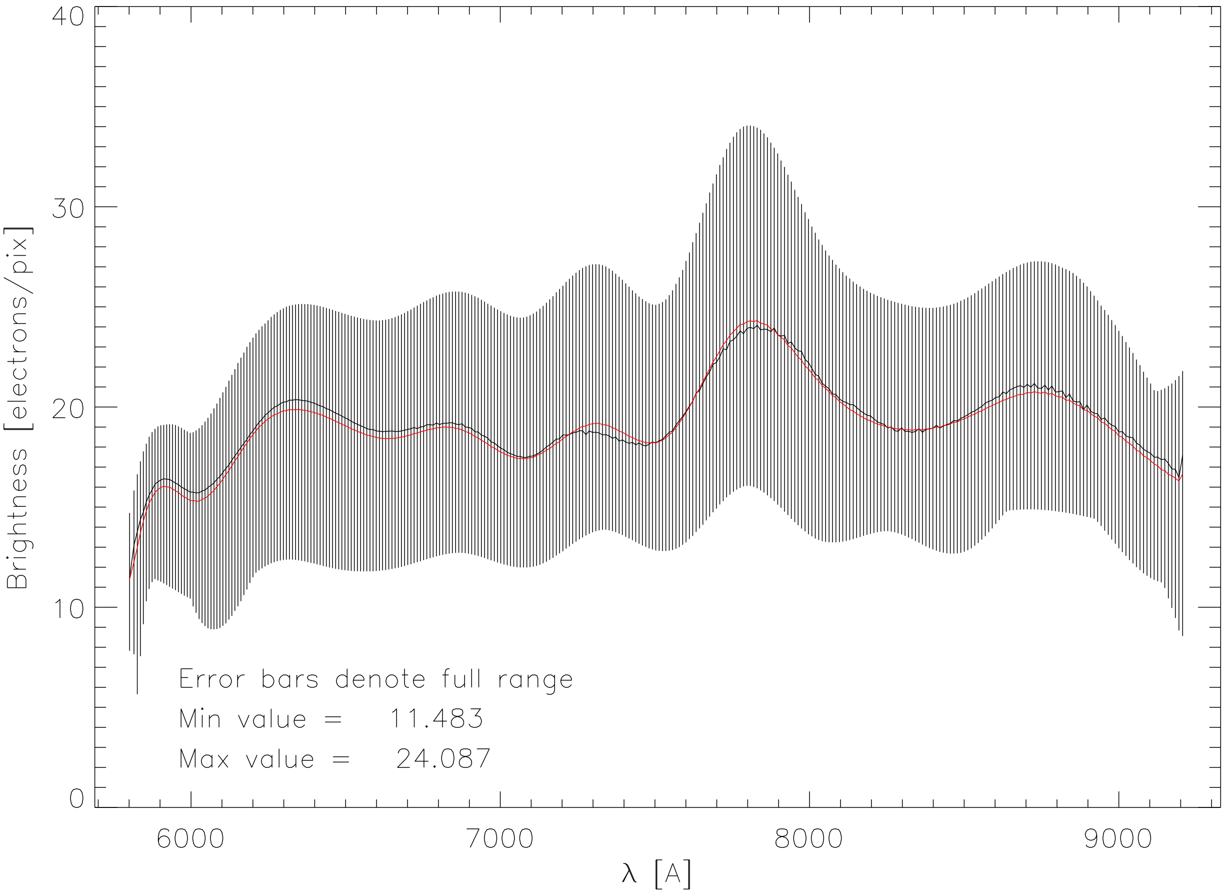
PLATE=3128 MJD=54770 Scattered Light before halo removal on sdR-r2-00056053.fi



Wed Mar 10 17:01:59 2010

PLATE=3128 MJD=54770 Scattered Light on sdR-r2-00056053.fit




PLATE=3128 MJD=54770 Scattered Light on sdR-r2-00056053.fit

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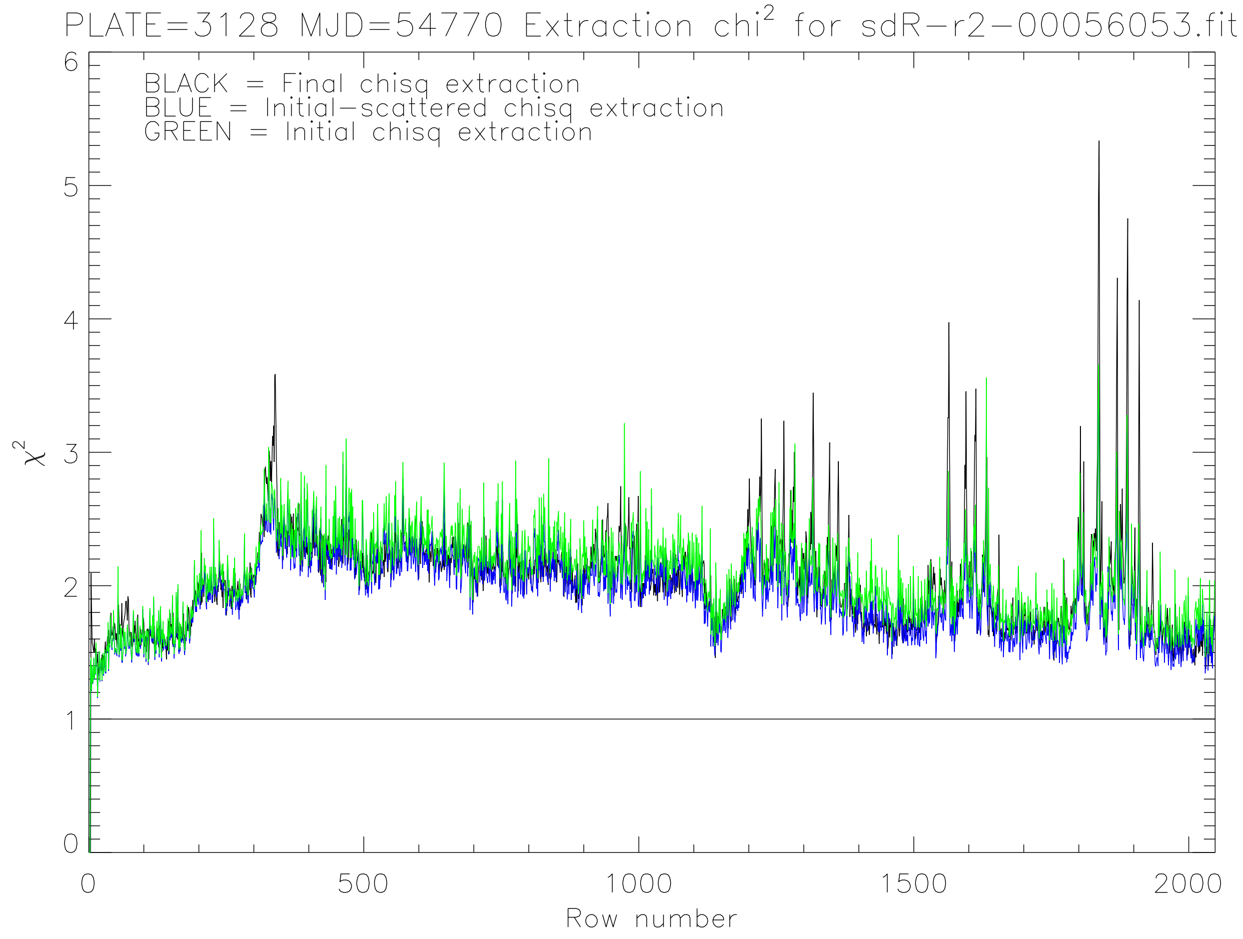
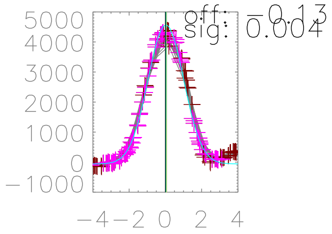
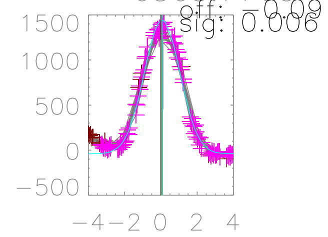

PLATE=3128 MJD=54770 Extraction chi$^2$ for sdR-r2-00056053.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
$\chi^2$
0
1
2
3
4
5
6
0
500
1000
1500
2000
Row number

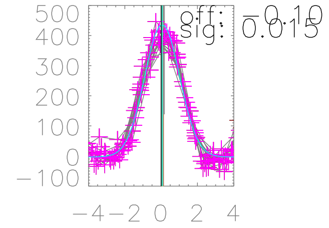
6300.3040



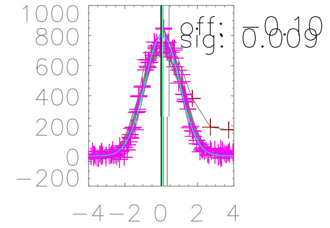
6363.7760



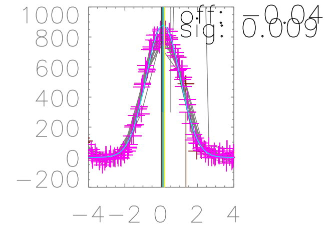
6553.6100



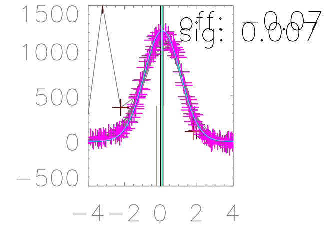
6923.2100



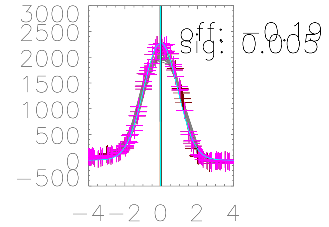
6949.0300



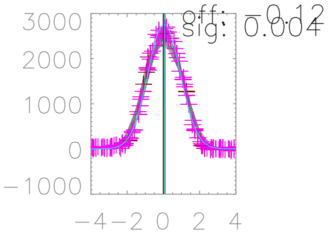
7571.7500



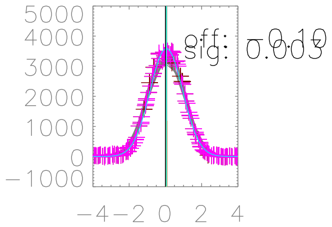
7794.1200



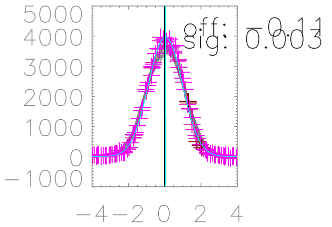
7821.5100



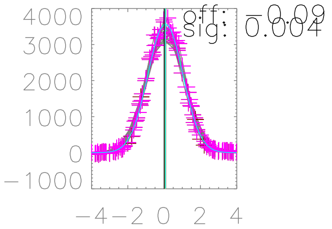
8399.1600



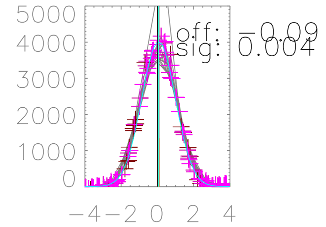
8430.1700

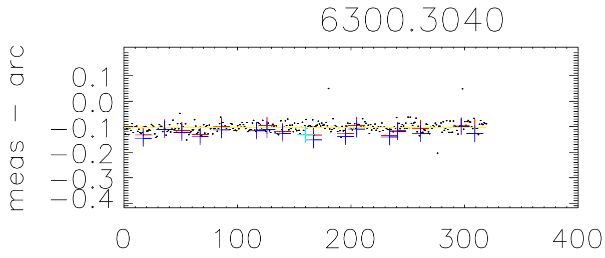


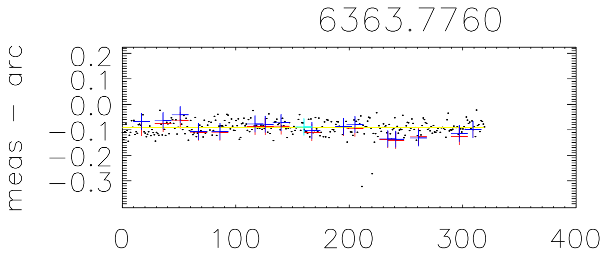
8885.8300

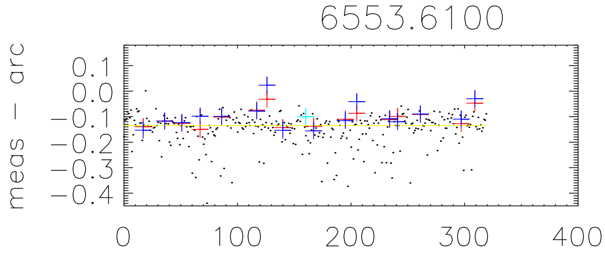


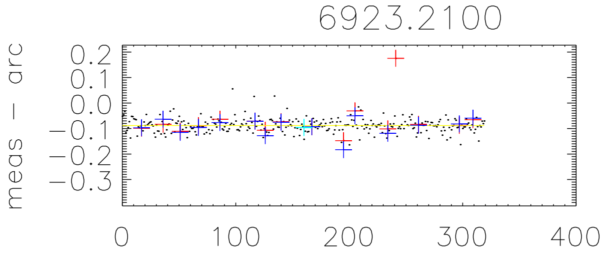
8919.6100

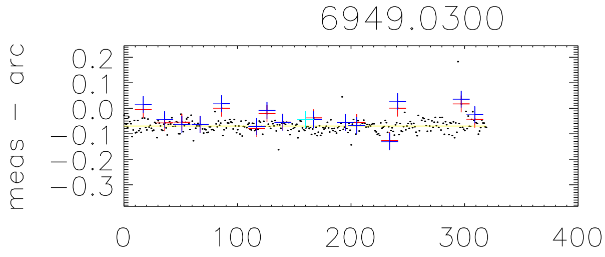


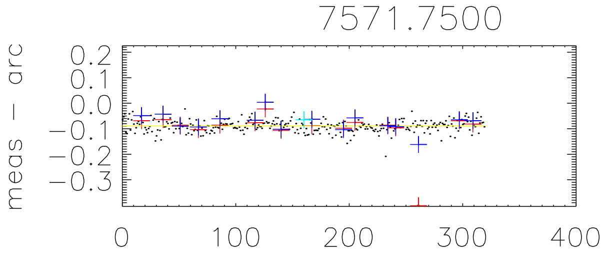

6300.3040
meas – arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

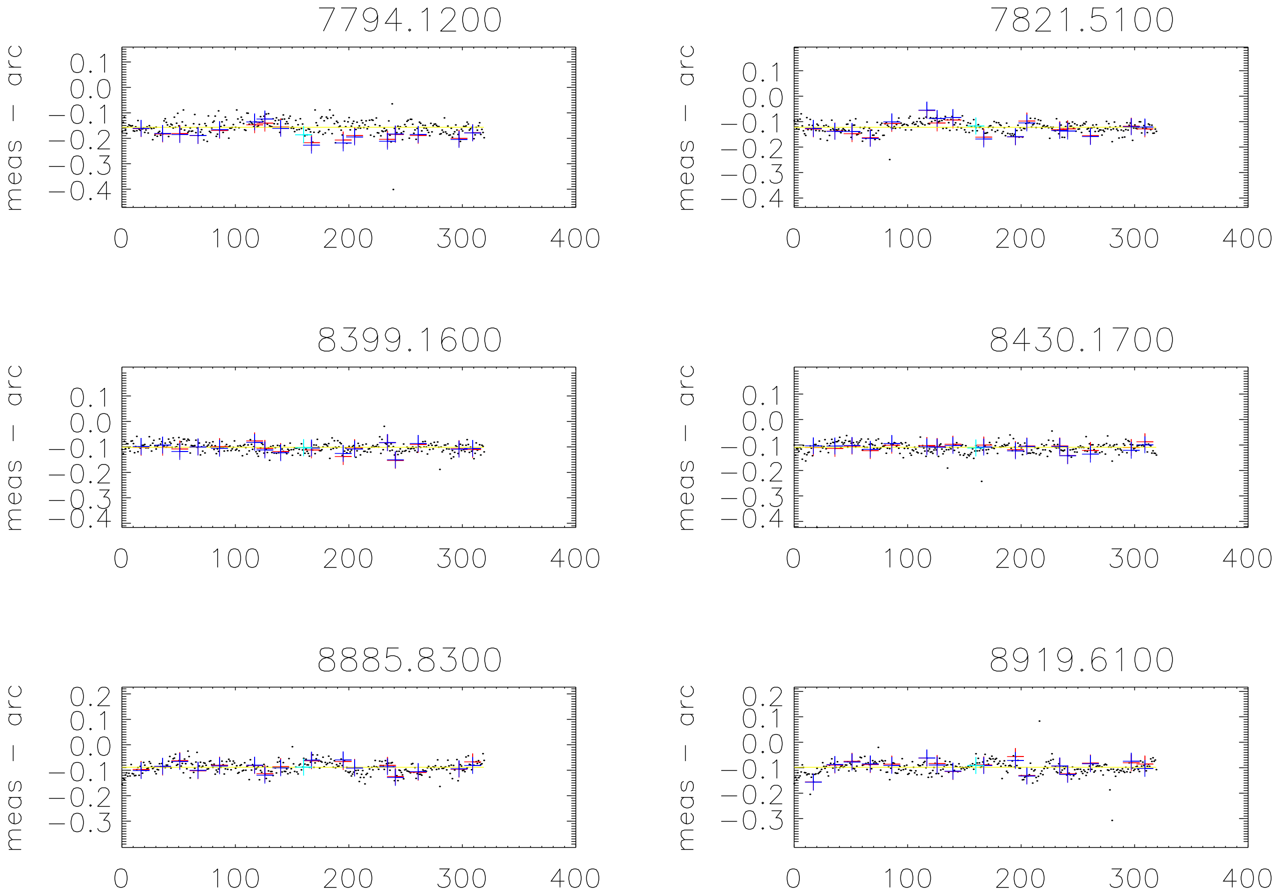

6363.7760
meas – arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

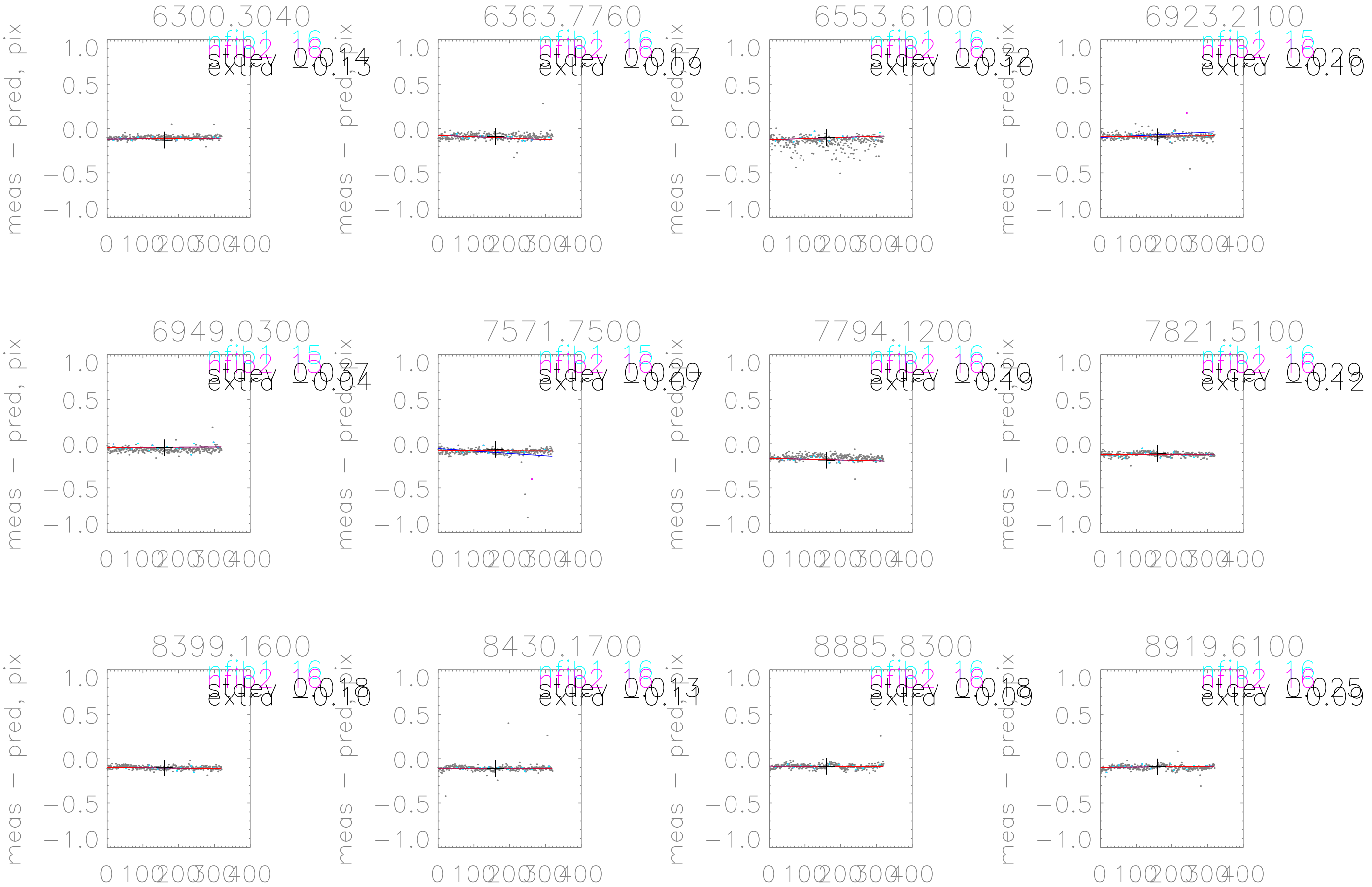

6553.6100
meas – arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

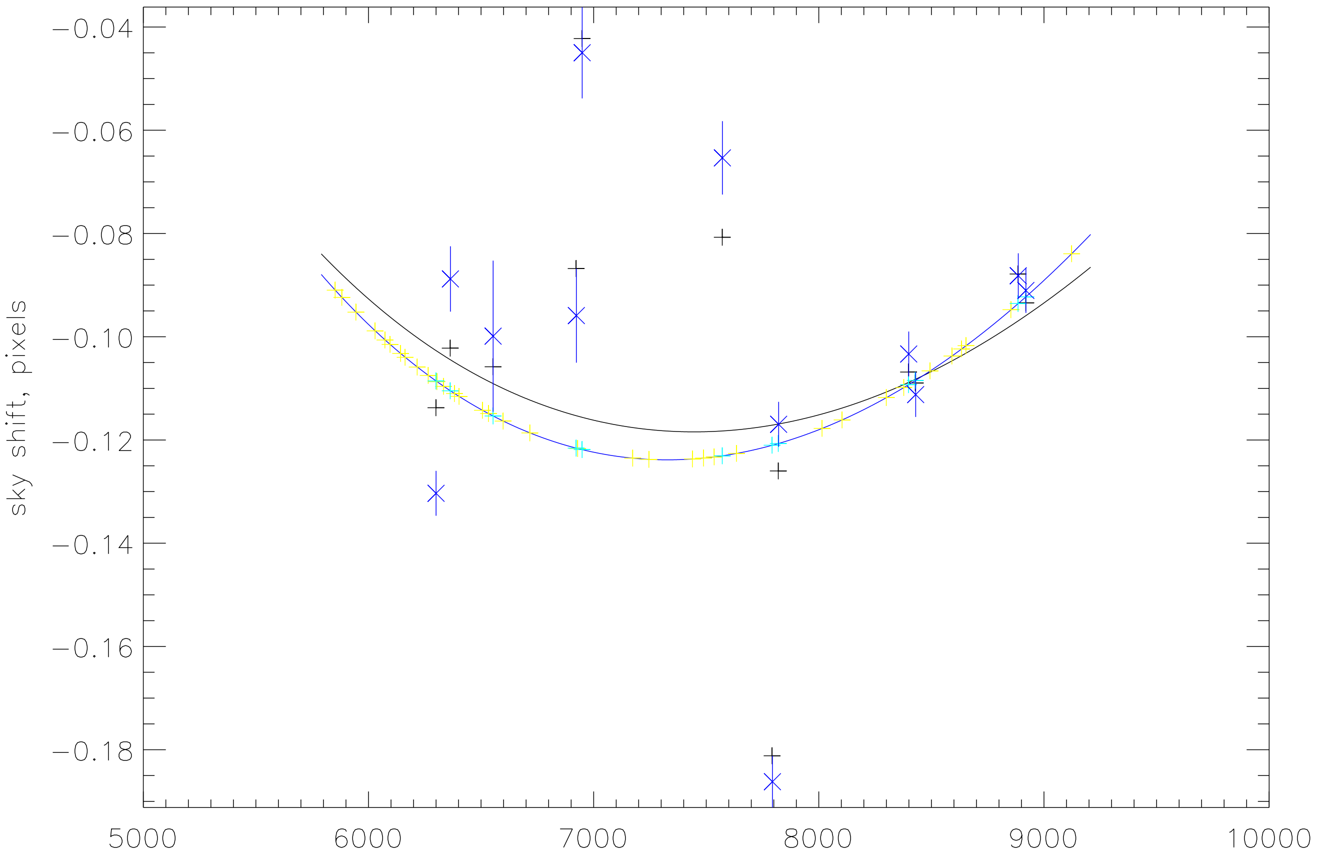

6923.2100
meas – arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

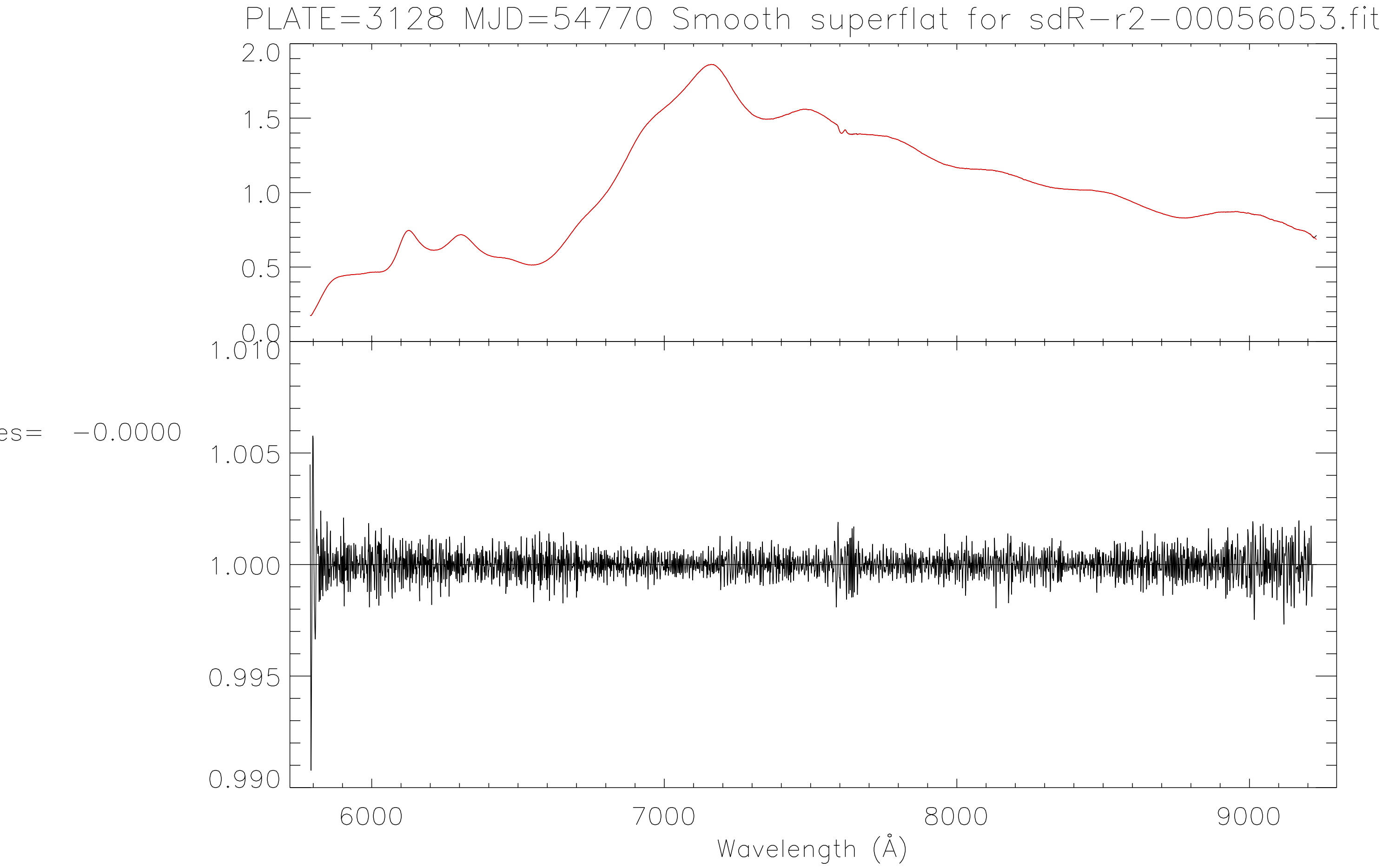

6949.0300
meas – arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

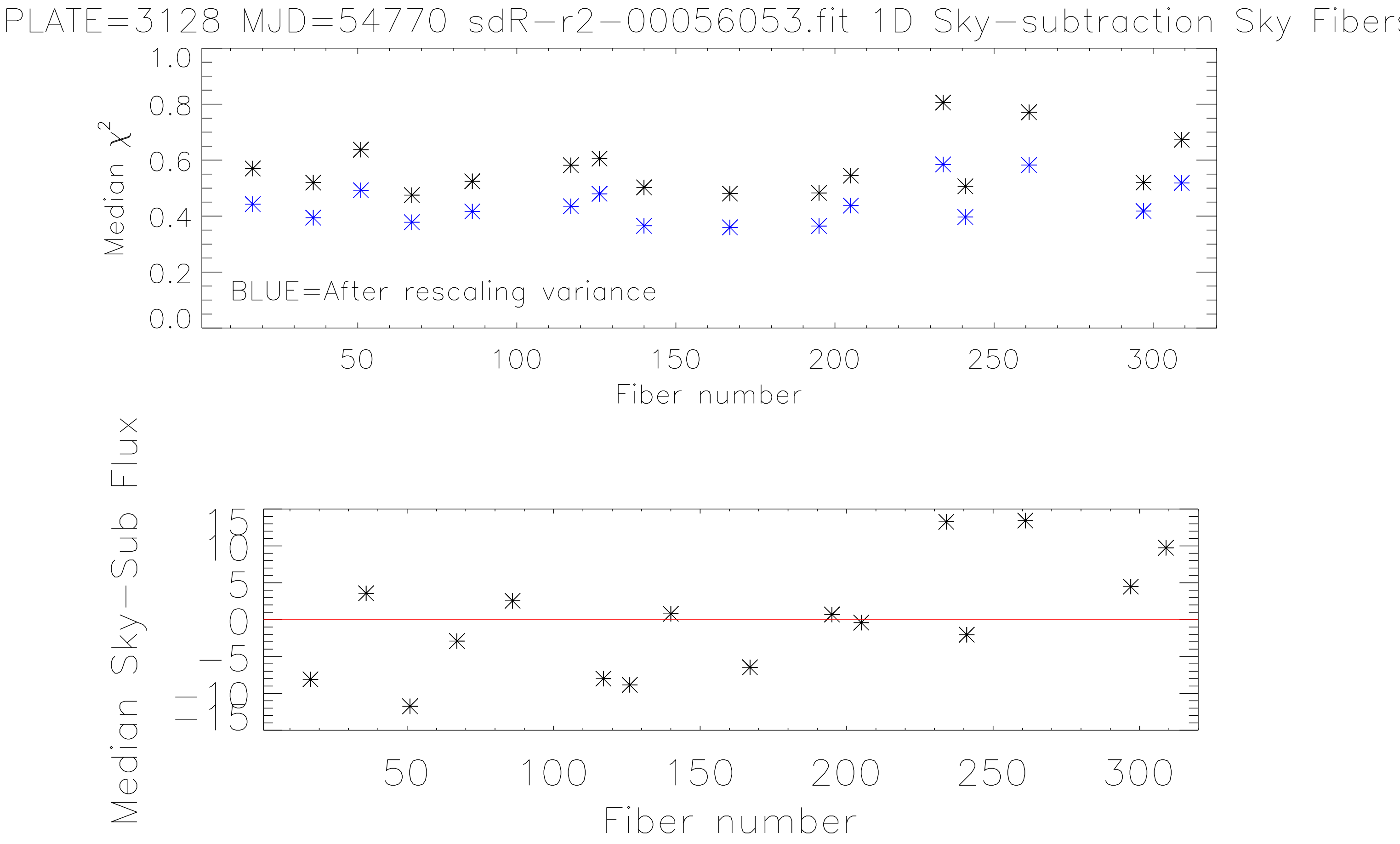

7571.7500
meas – arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

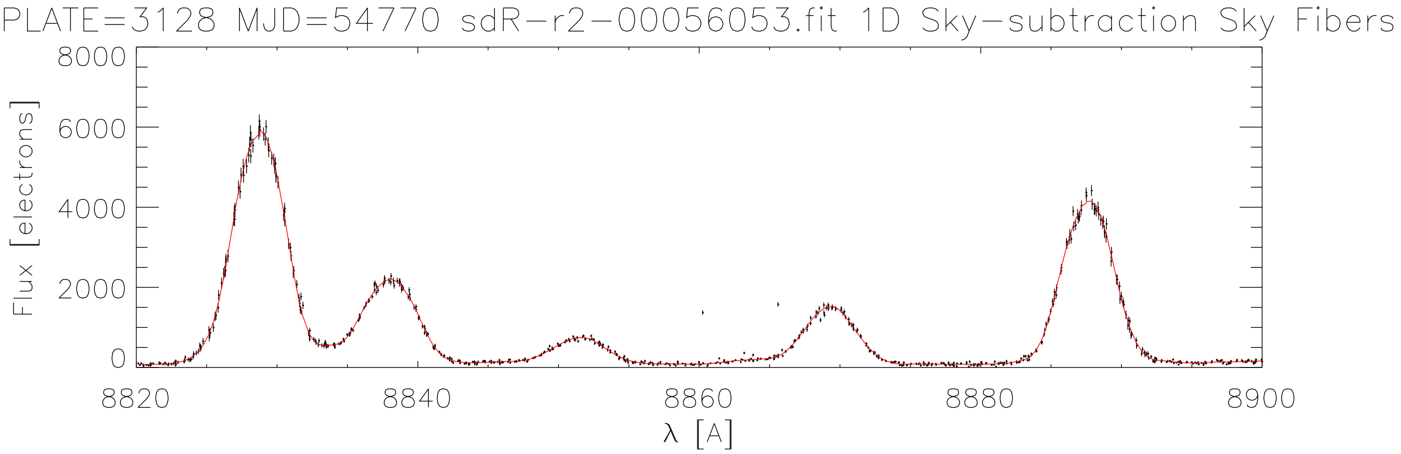

7794.1200
7821.5100
8399.1600
8430.1700
8885.8300
8919.6100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400


6300.3040
nfib1 16
nfib2 16
stdev 0.014
extrd −0.15
6363.7760
nfib1 16
nfib2 16
stdev 0.017
extrd −0.09
6553.6100
nfib1 16
nfib2 16
stdev 0.032
extrd −0.10
6923.2100
nfib1 15
nfib2 16
stdev 0.026
extrd −0.10
6949.0300
nfib1 15
nfib2 15
stdev 0.037
extrd −0.04
7571.7500
nfib1 15
nfib2 16
stdev 0.020
extrd −0.07
7794.1200
nfib1 16
nfib2 16
stdev 0.020
extrd −0.19
7821.5100
nfib1 16
nfib2 16
stdev 0.029
extrd −0.12
8399.1600
nfib1 16
nfib2 16
stdev 0.018
extrd −0.10
8430.1700
nfib1 16
nfib2 16
stdev 0.013
extrd −0.11
8885.8300
nfib1 16
nfib2 16
stdev 0.018
extrd −0.09
8919.6100
nfib1 16
nfib2 16
stdev 0.025
extrd −0.09
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

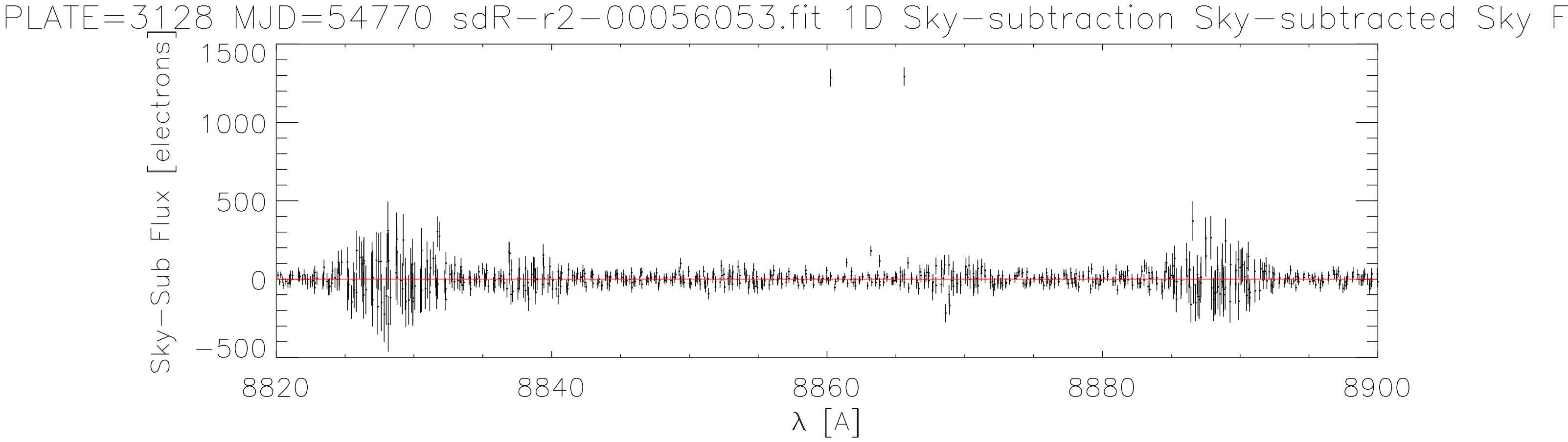

sky shift, pixels
−0.04
−0.06
−0.08
−0.10
−0.12
−0.14
−0.16
−0.18
5000
6000
7000
8000
9000
10000


PLATE=3128 MJD=54770 Smooth superflat for sdR-r2-00056053.fit
2.0
1.5
1.0
0.5
0.0
1.010
es= −0.0000
1.005
1.000
0.995
0.990
6000
7000
8000
9000
Wavelength (Å)


PLATE=3128 MJD=54770 sdR-r2-00056053.fit 1D Sky-subtraction Sky Fibers
Median $\chi^2$
1.0
0.8
0.6
0.4
0.2
0.0
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
15
10
5
0
-5
-10
-15
50
100
150
200
250
300
Fiber number



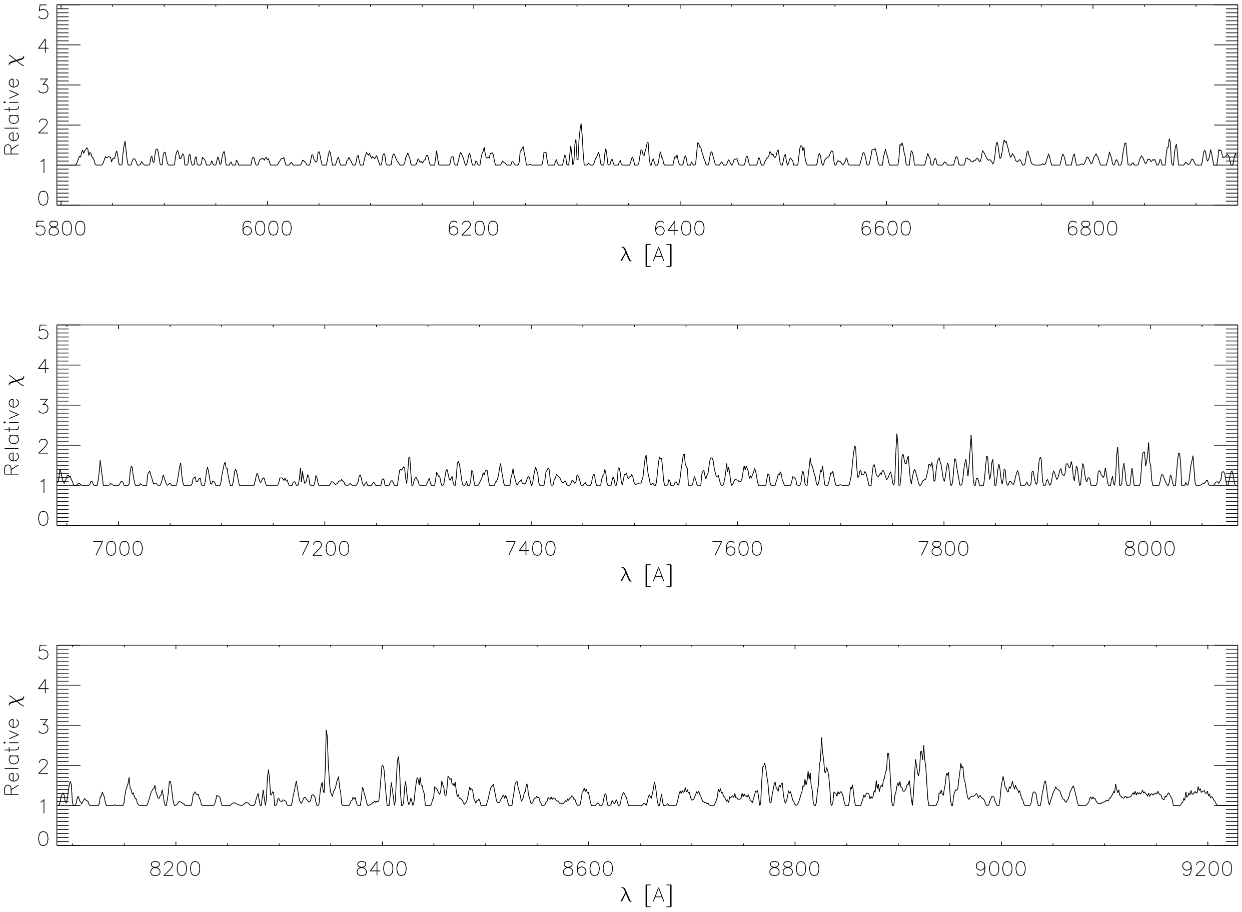
PLATE=3128 MJD=54770 sdR-r2-00056053.fit 1D Sky-subtraction Sky Fibers

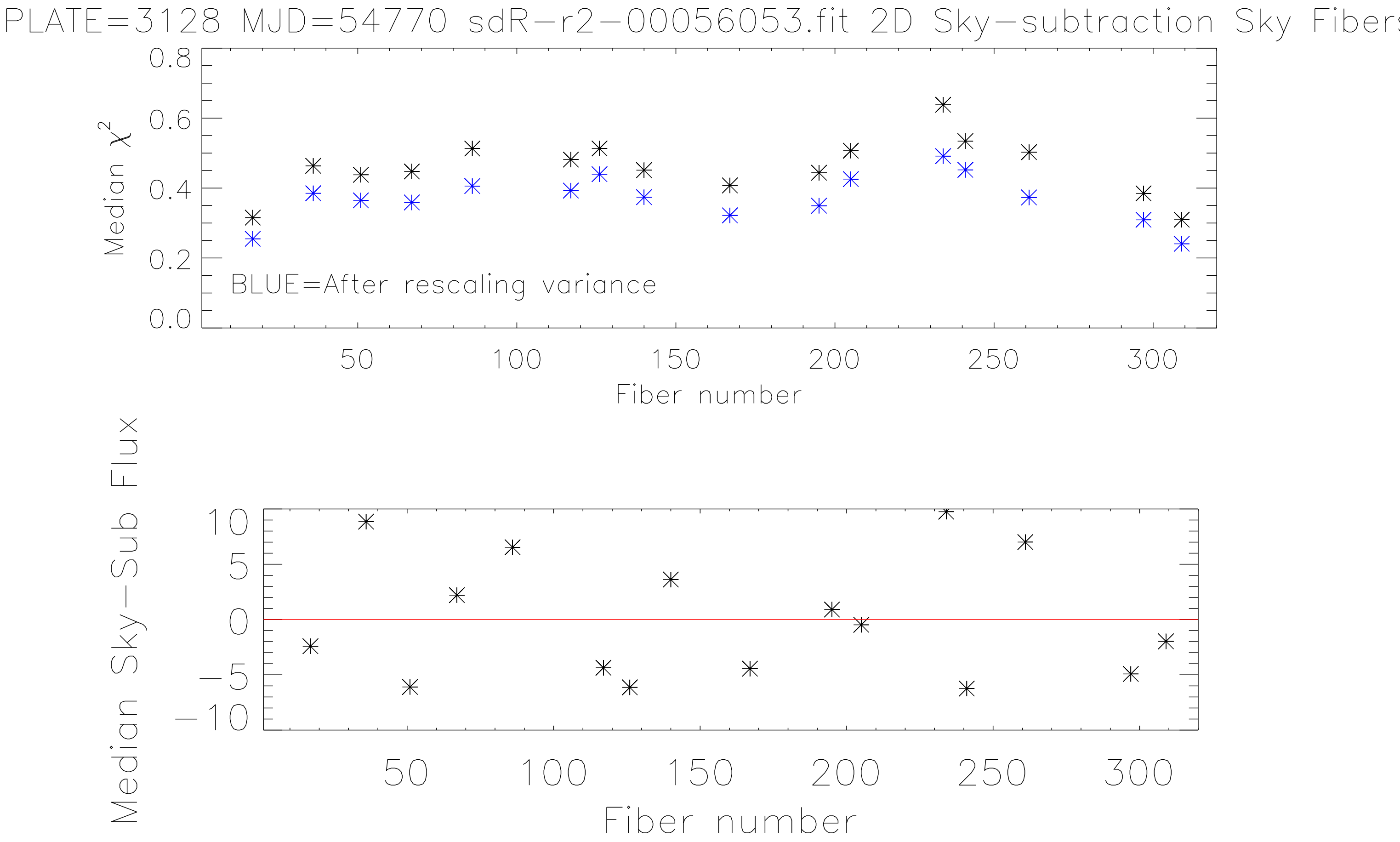


PLATE=3128 MJD=54770 sdR-r2-00056053.fit 1D Sky-subtraction Sky-subtracted Sky F

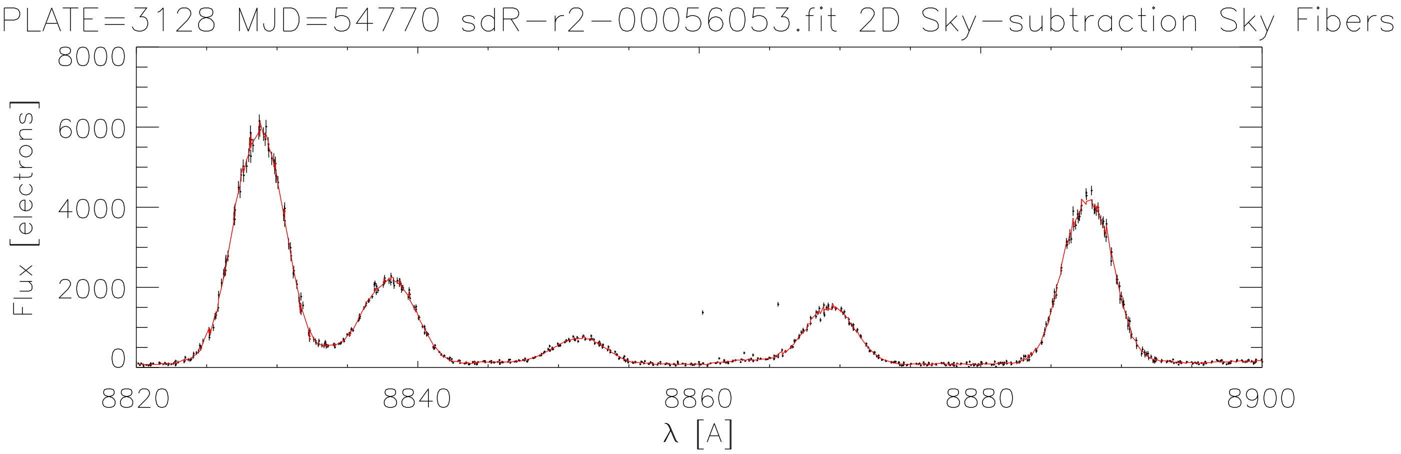
Number of sky fibers = 16

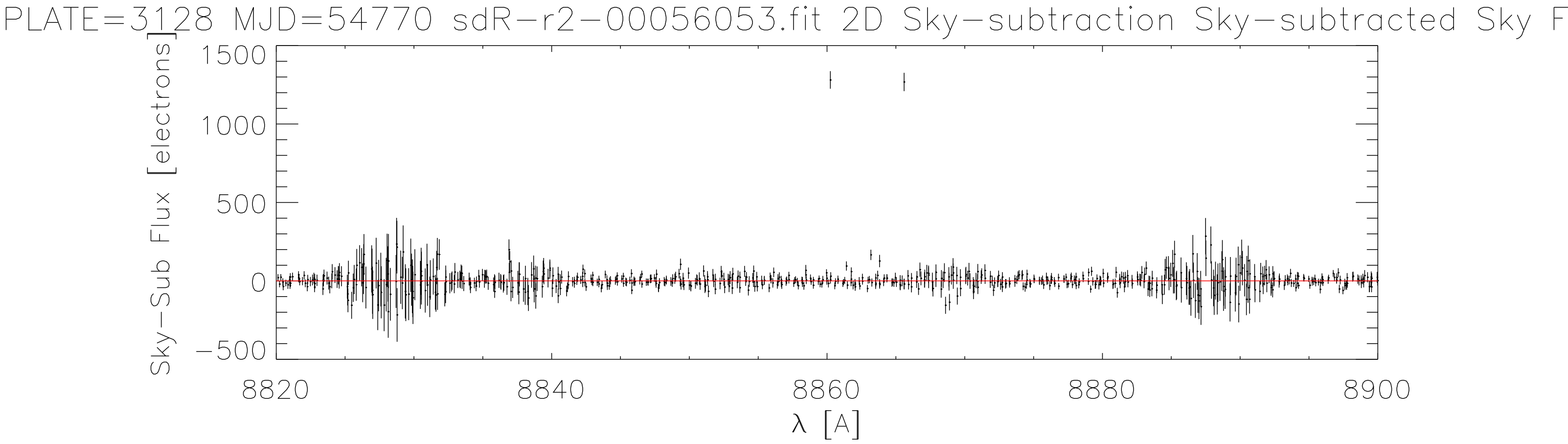
PLATE=3128 MJD=54770 sdR-r2-00056053.fit 1D Sky-subtraction Rescaled Errors





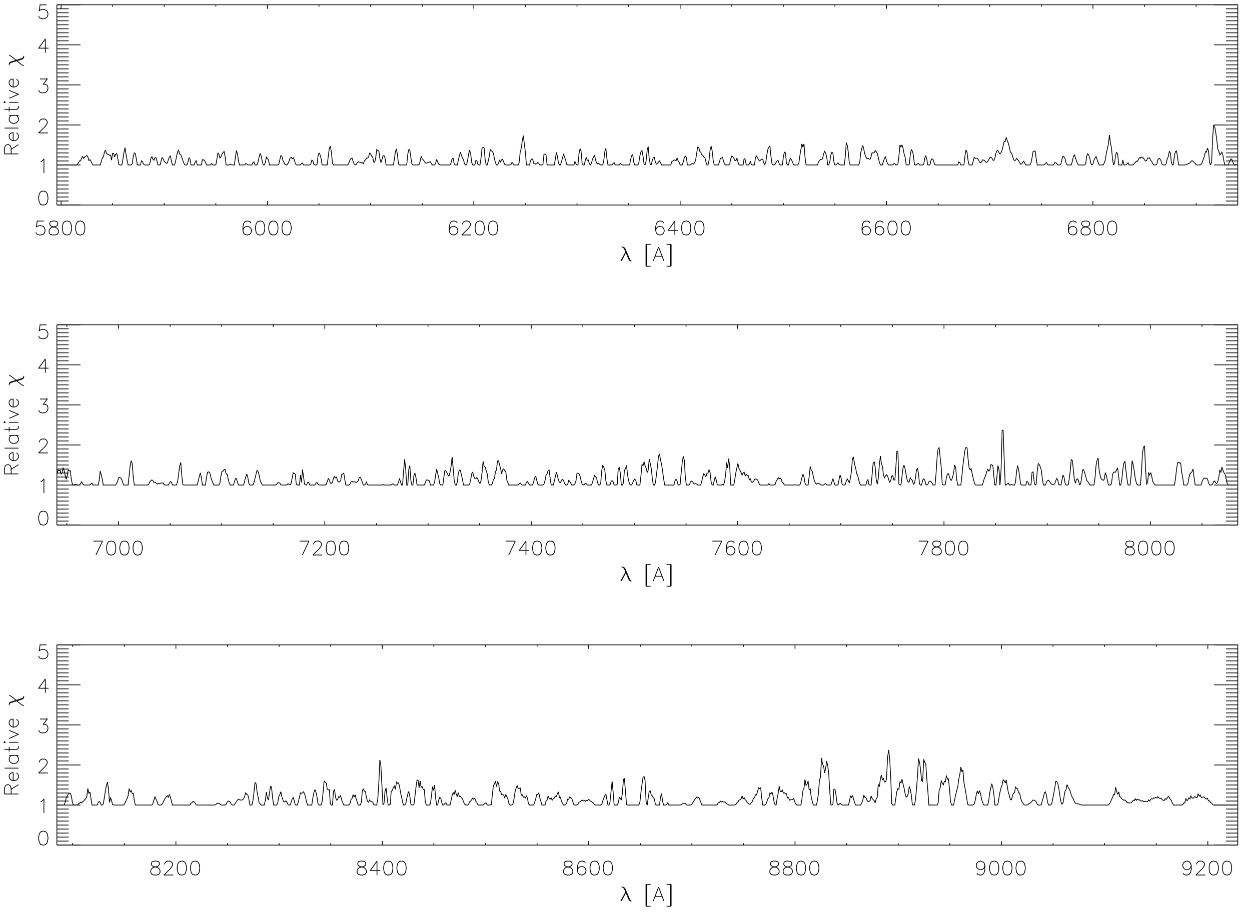
PLATE=3128 MJD=54770 sdR-r2-00056053.fit 2D Sky-subtraction Sky Fiber

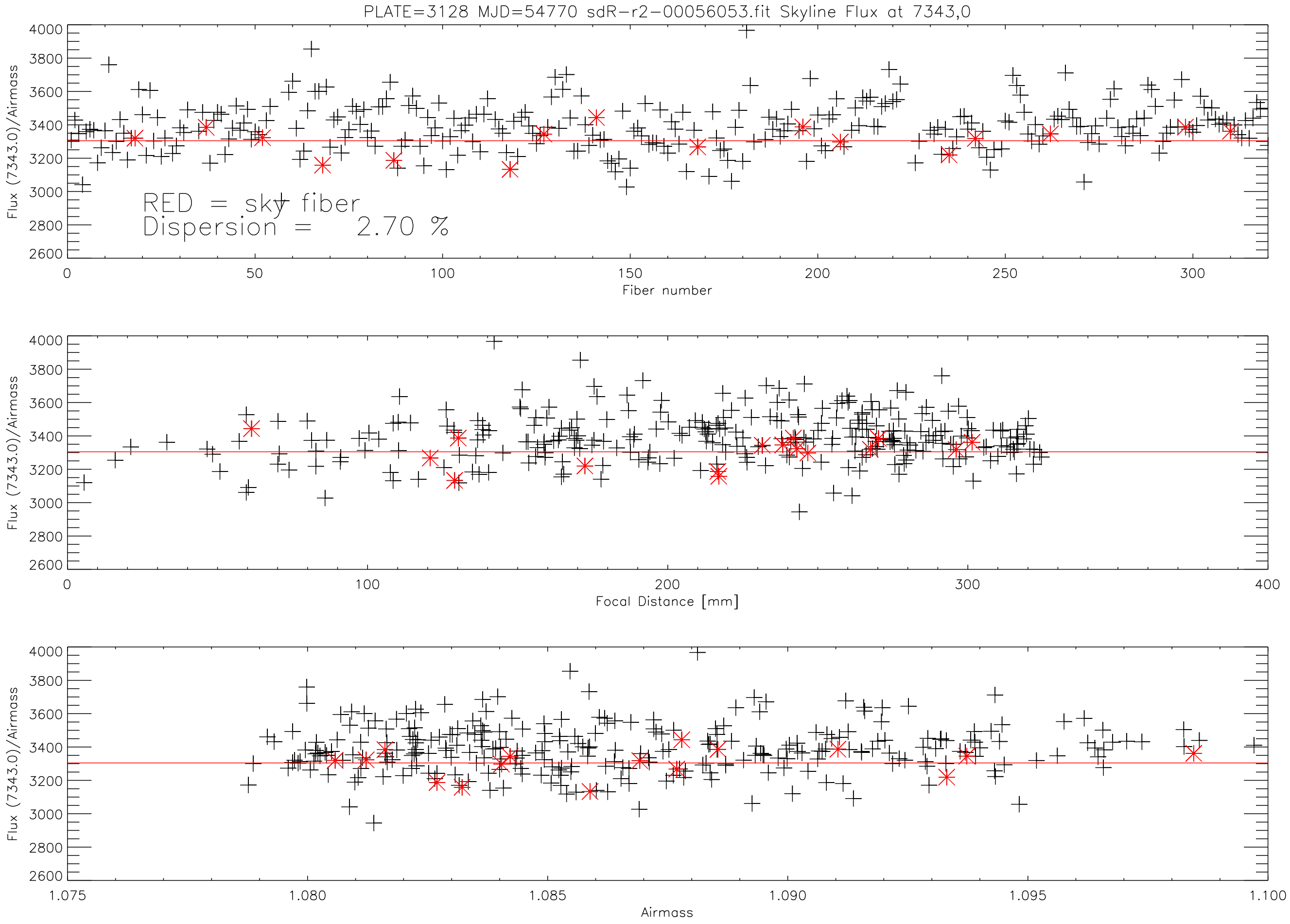

PLATE=3128 MJD=54770 sdR-r2-00056053.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
8820
8840
8860
8880
8900
λ [A]

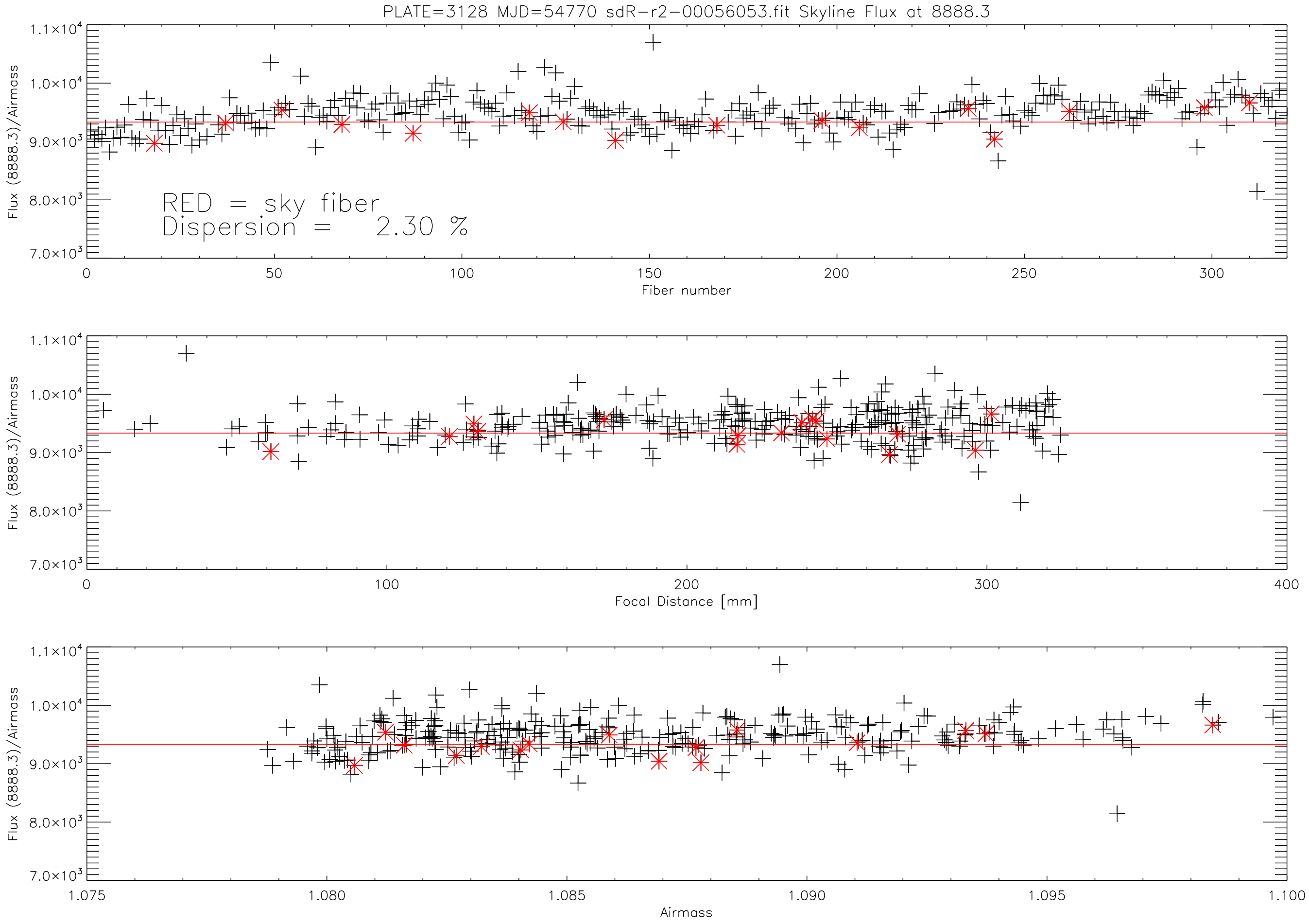

PLATE=3128 MJD=54770 sdR-r2-00056053.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
1500
1000
500
0
−500
8820
8840
8860
8880
8900
λ [A]

Number of sky fibers = 16

PLATE=3128 MJD=54770 sdR-r2-00056053.fit 2D Sky-subtraction Rescaled Errors




PLATE=3128 MJD=54770 sdR-r2-00056053.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
4000
3800
3600
3400
3200
3000
2800
2600
RED = sky fiber
Dispersion = 2.70 %
0
50
100
150
200
250
300
Fiber number
Flux (7343.0)/Airmass
4000
3800
3600
3400
3200
3000
2800
2600
0
100
200
300
400
Focal Distance [mm]
Flux (7343.0)/Airmass
4000
3800
3600
3400
3200
3000
2800
2600
1.075
1.080
1.085
1.090
1.095
1.100
Airmass


PLATE=3128 MJD=54770 sdR−r2−00056053.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
1.1×10⁴
1.0×10⁴
9.0×10³
8.0×10³
7.0×10³
RED = sky fiber
Dispersion = 2.30 %
0
50
100
150
200
250
300
Fiber number
Flux (8888.3)/Airmass
0
100
200
300
400
Focal Distance [mm]
Flux (8888.3)/Airmass
1.075
1.080
1.085
1.090
1.095
1.100
Airmass