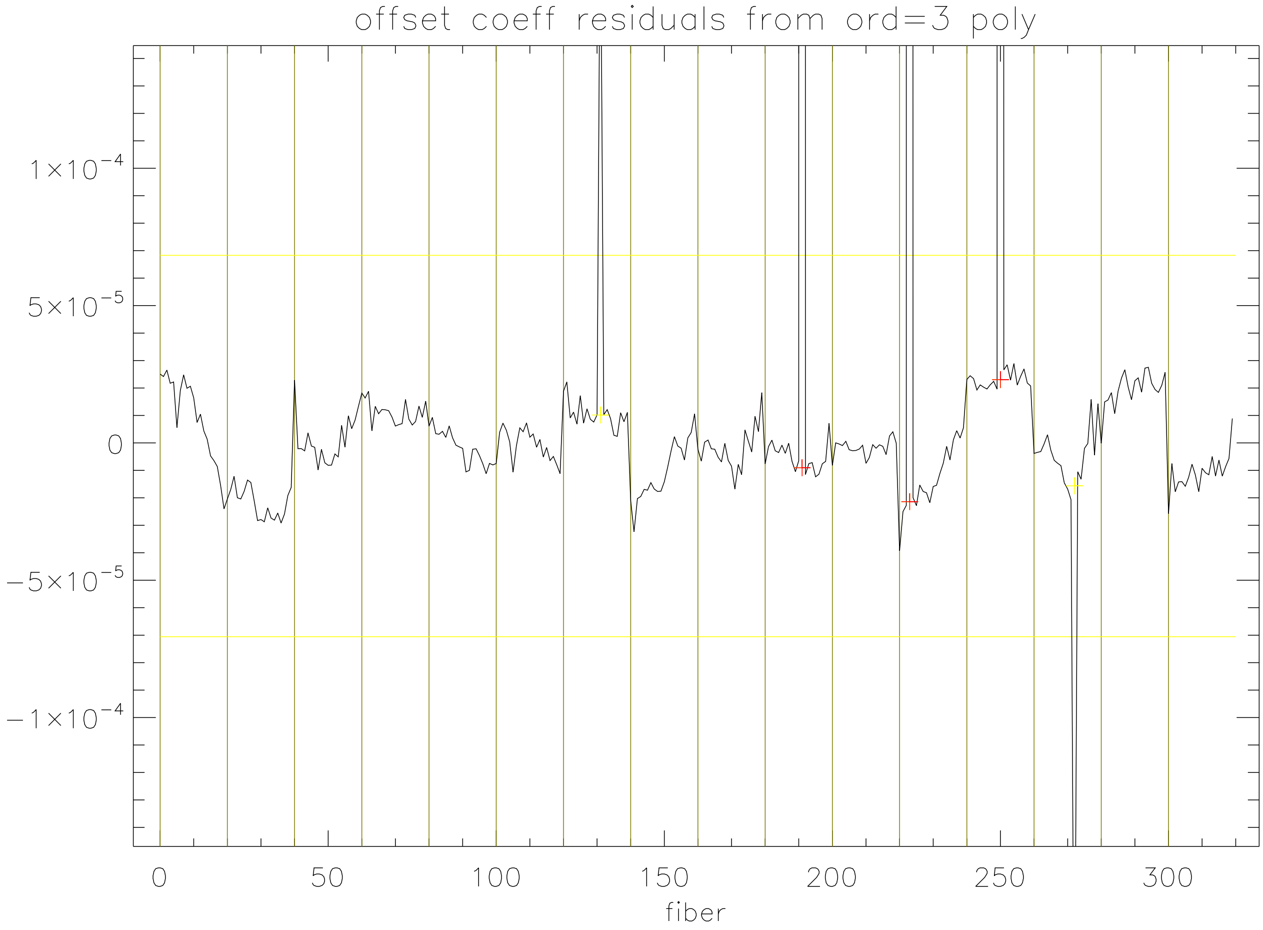
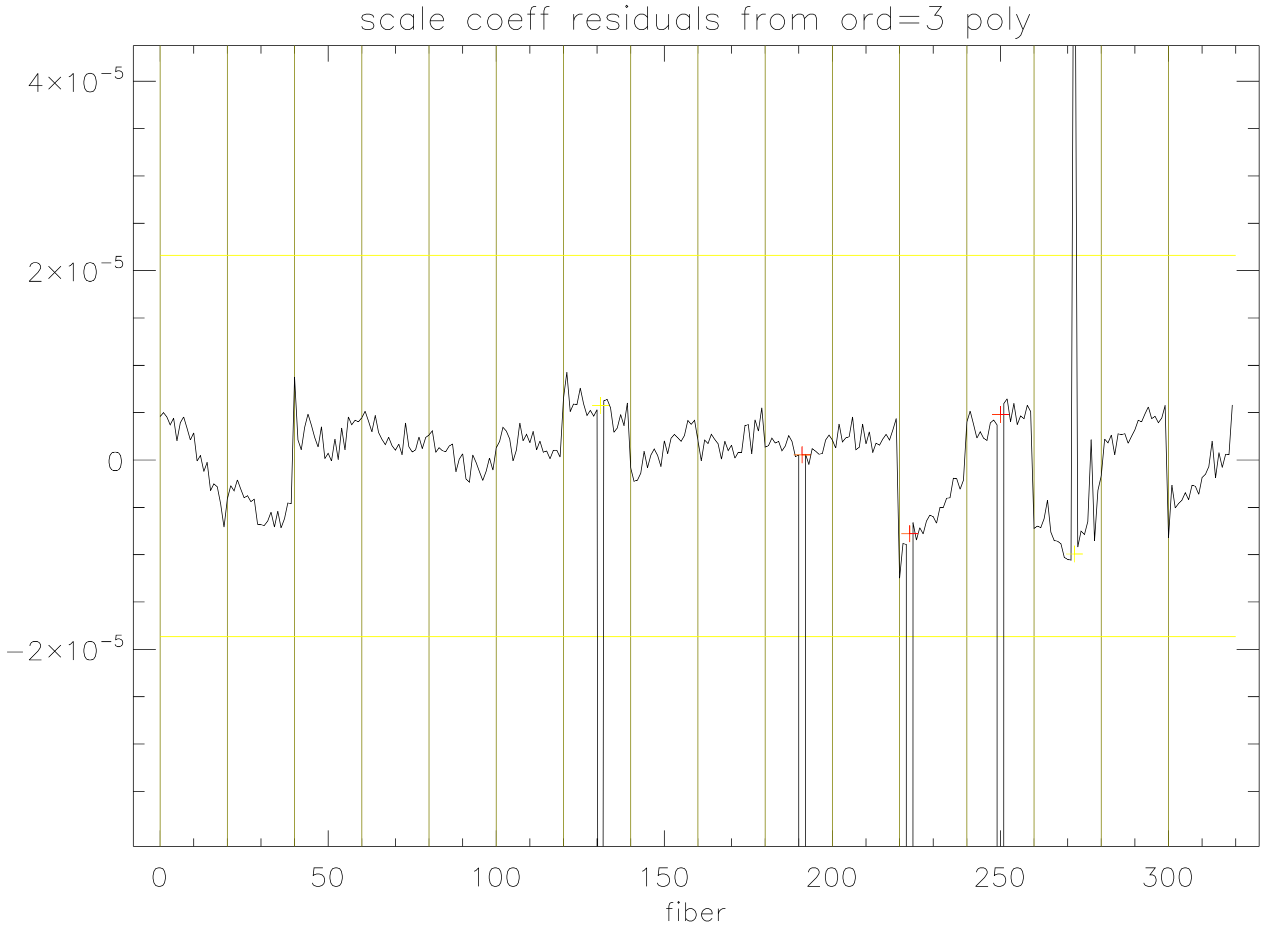
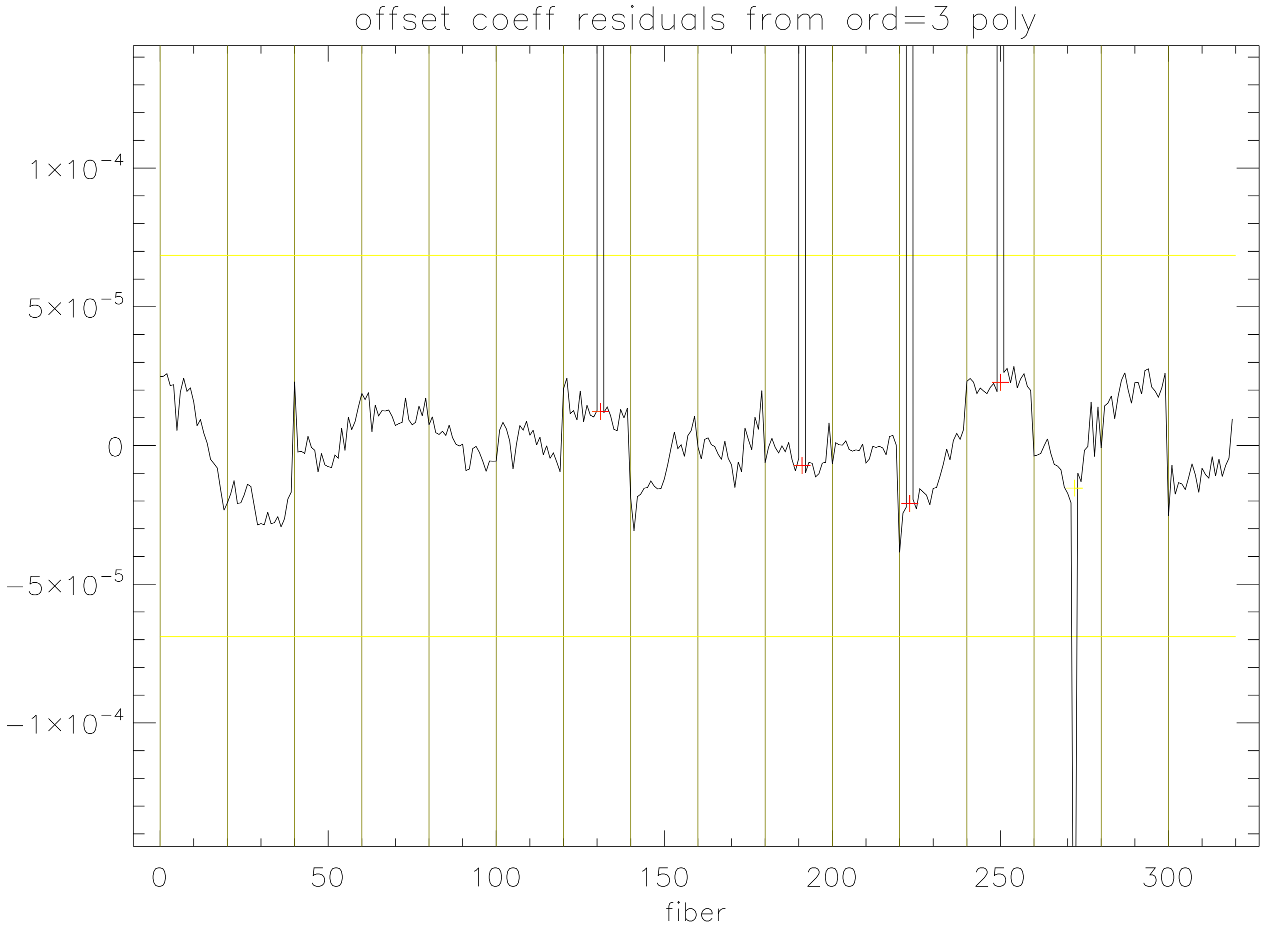
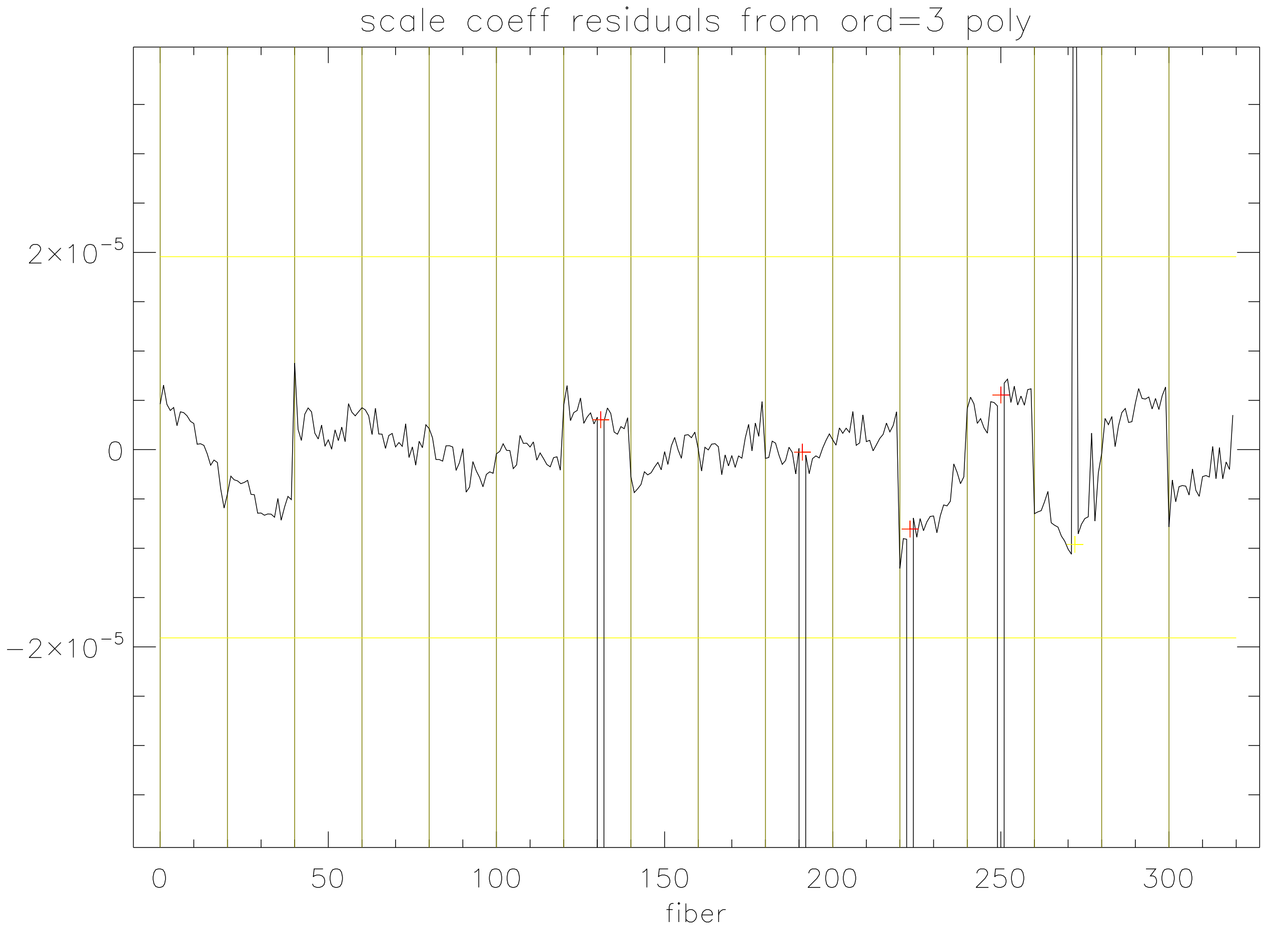
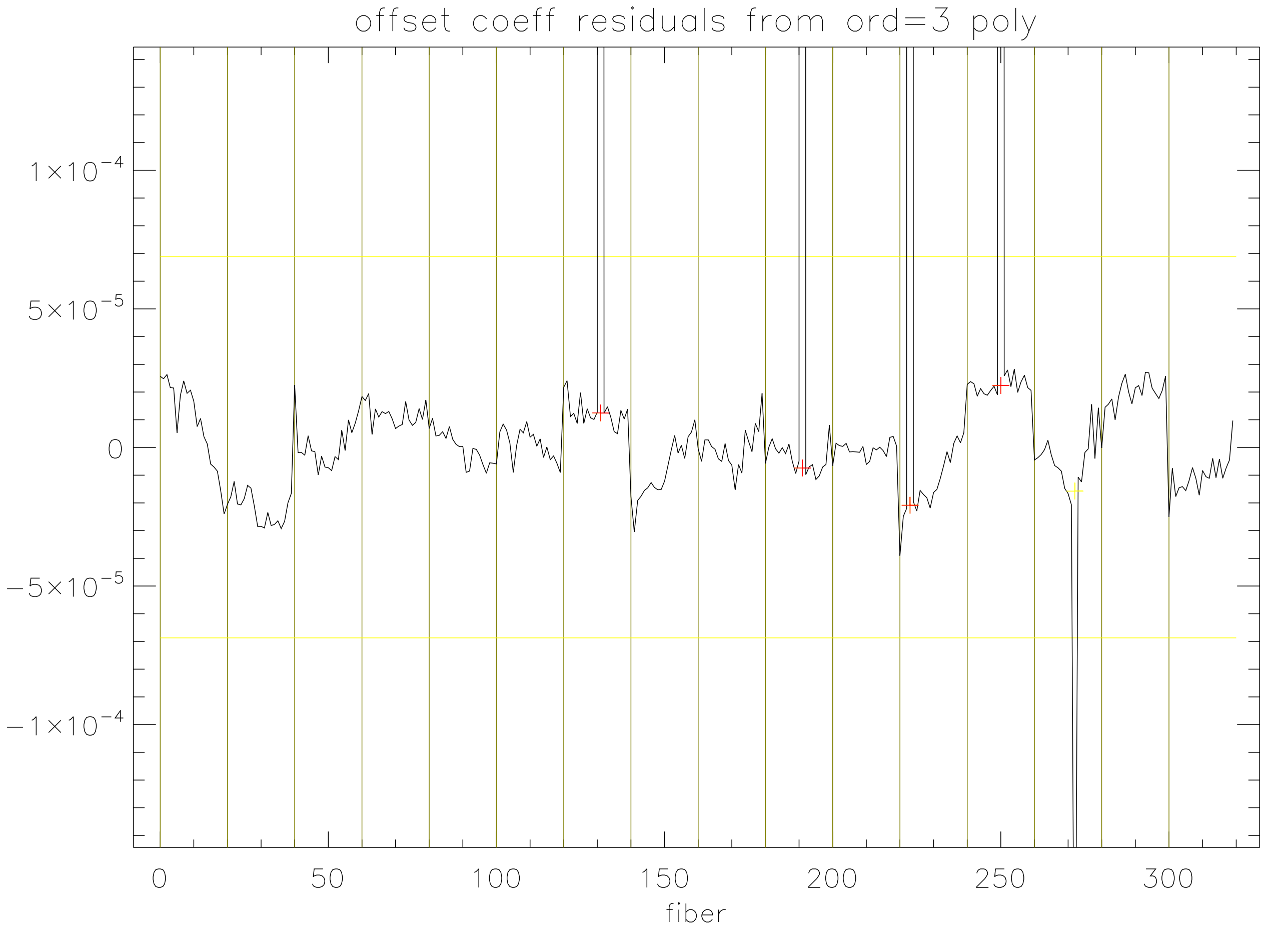
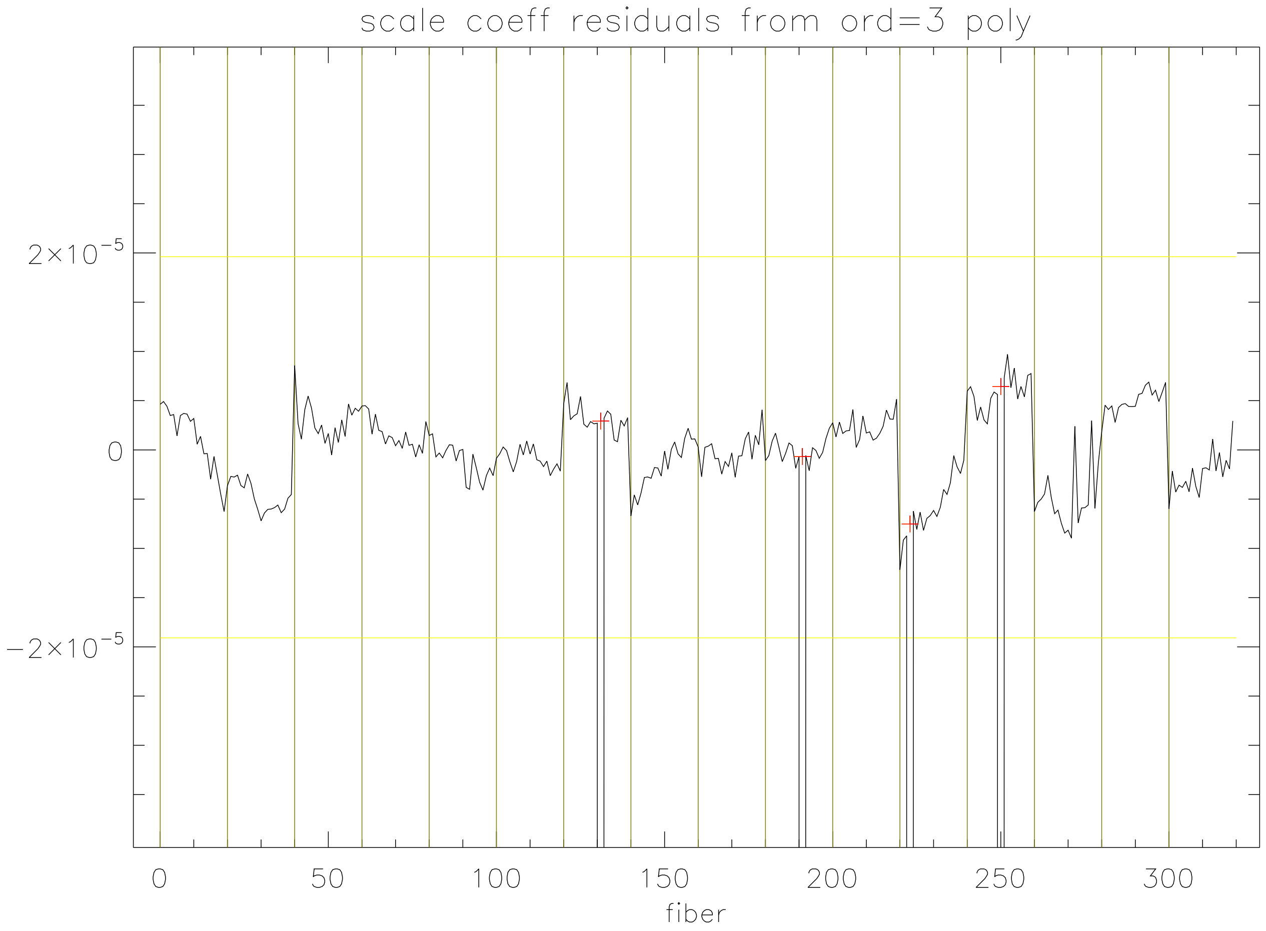

offset coeff residuals from ord=3 poly
1×10⁻⁴
5×10⁻⁵
0
−5×10⁻⁵
−1×10⁻⁴
0
50
100
150
200
250
300
fiber

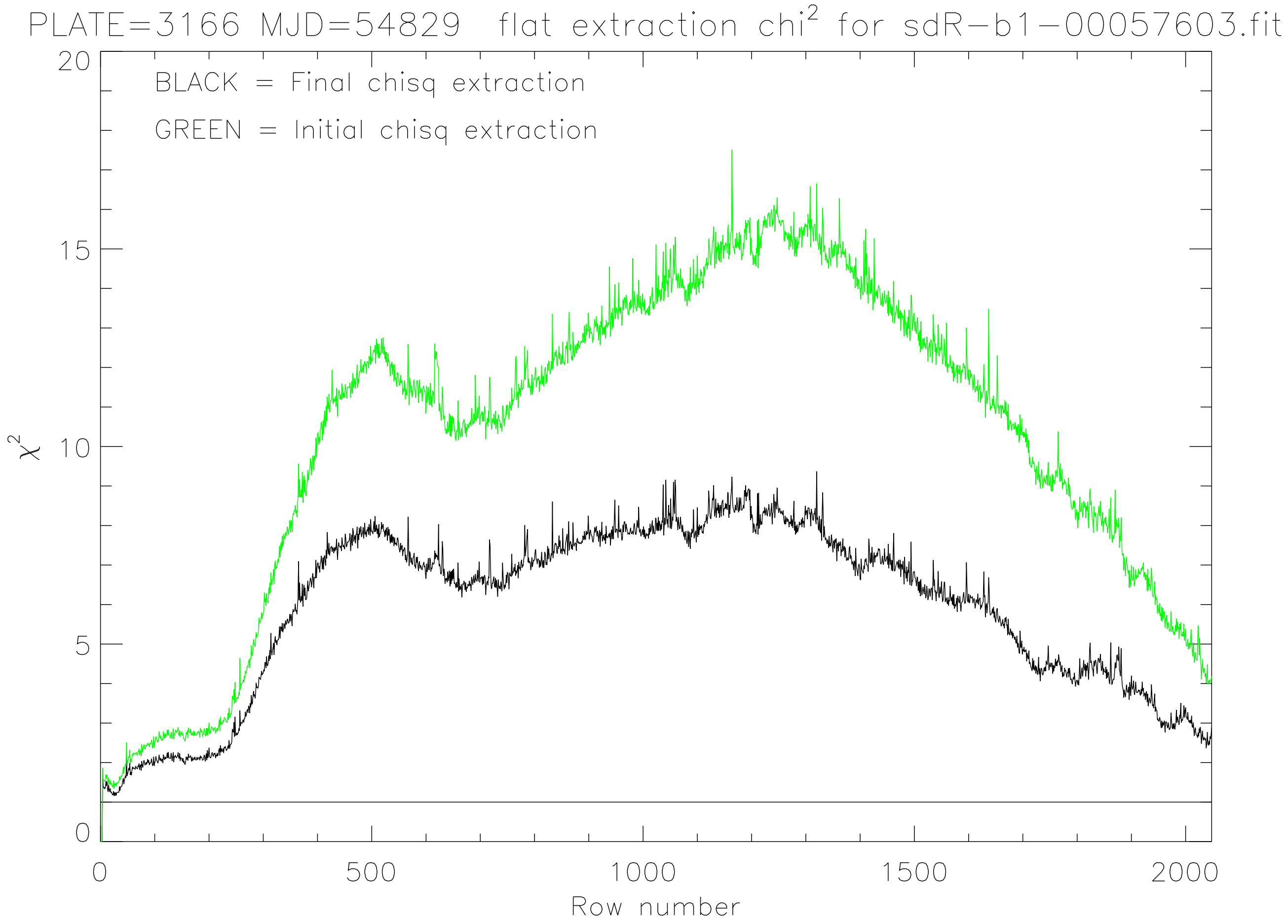

scale coeff residuals from ord=3 poly
4×10⁻⁵
2×10⁻⁵
0
−2×10⁻⁵
0
50
100
150
200
250
300
fiber


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

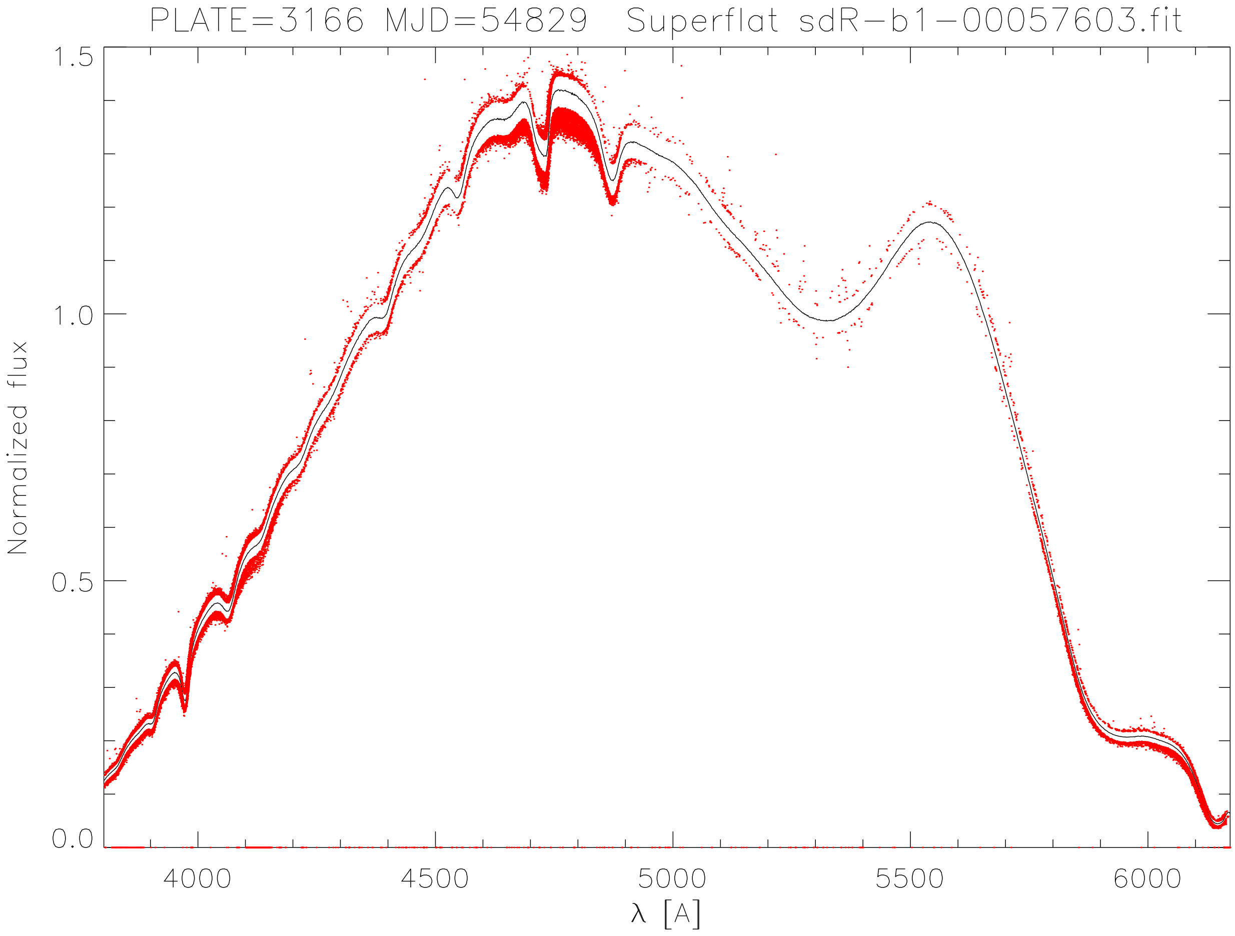

scale coeff residuals from ord=3 poly
2×10⁻⁵
0
−2×10⁻⁵
0
50
100
150
200
250
300
fiber

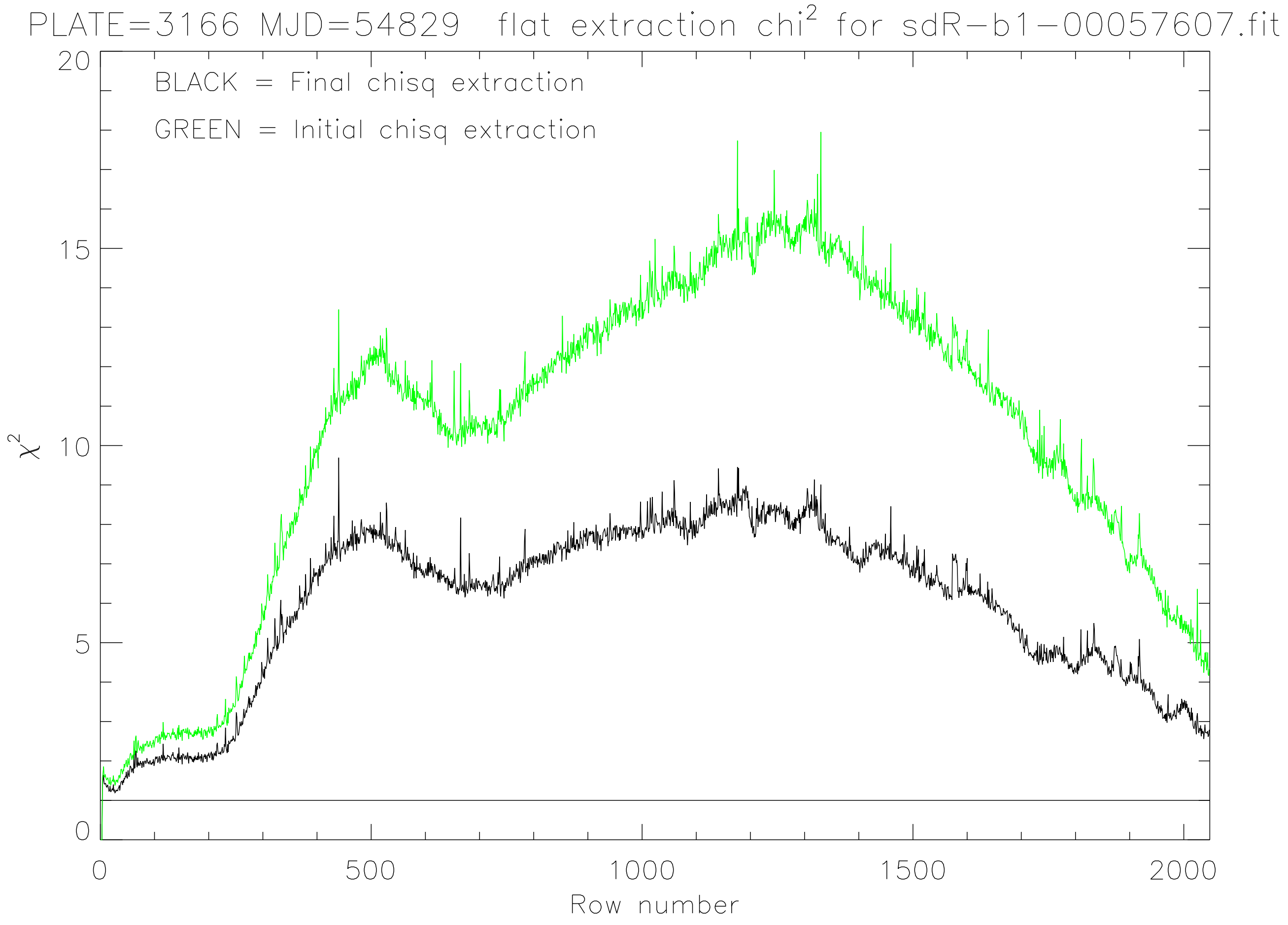

offset coeff residuals from ord=3 poly
1×10⁻⁴
5×10⁻⁵
0
−5×10⁻⁵
−1×10⁻⁴
0
50
100
150
200
250
300
fiber

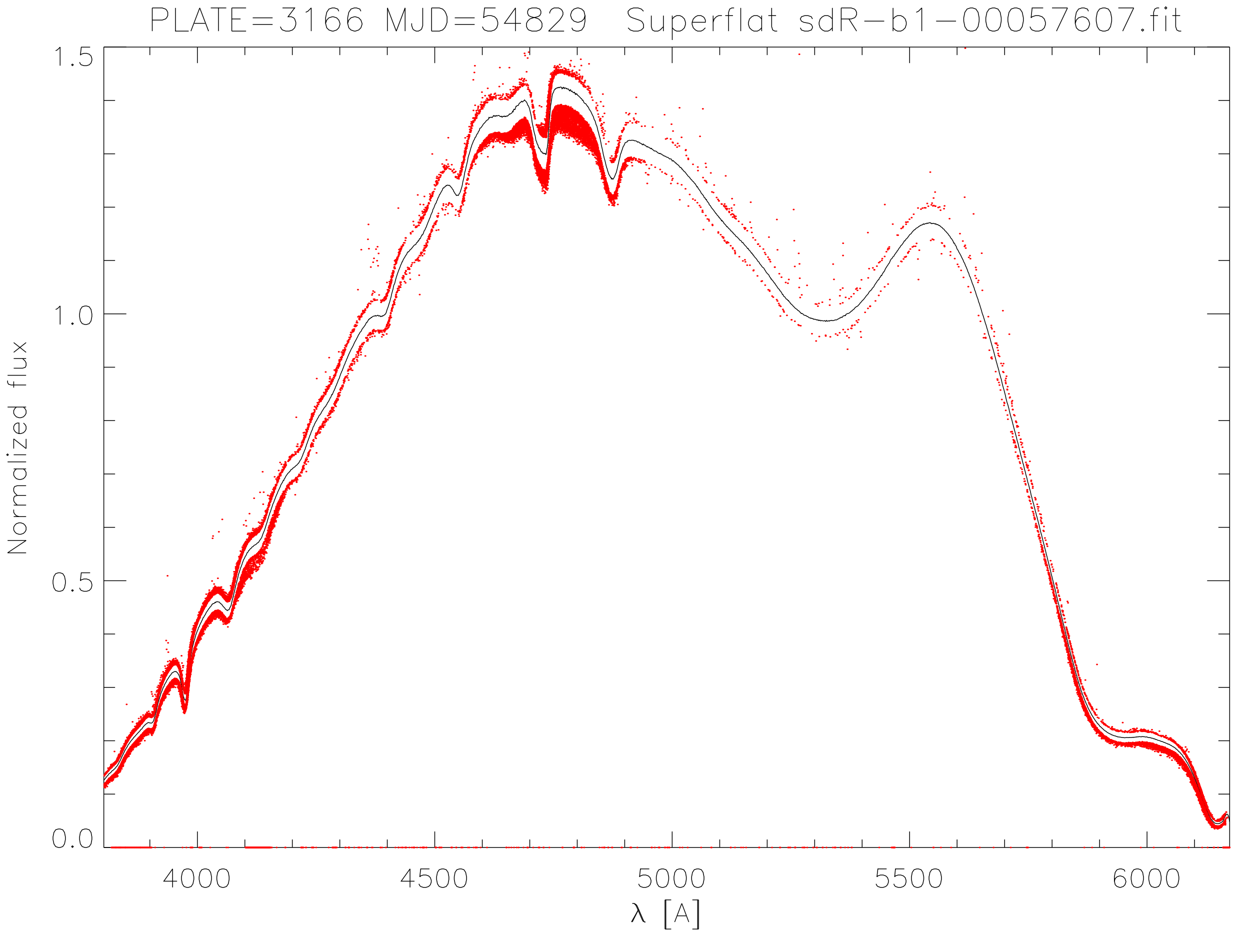

scale coeff residuals from ord=3 poly
2×10^{-5}
0
-2×10^{-5}
0
50
100
150
200
250
300
fiber

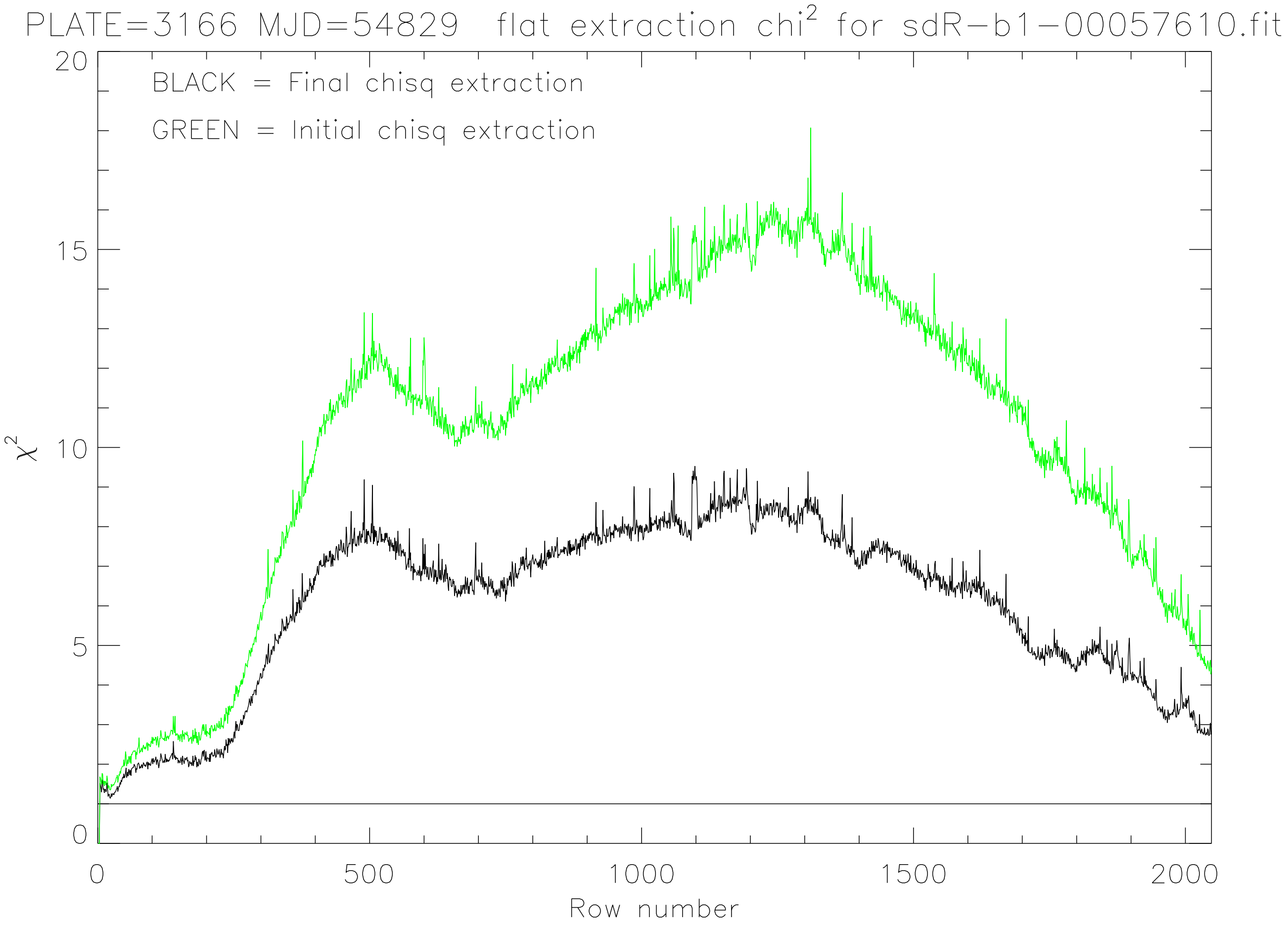


PLATE=3166 MJD=54829 flat extraction χ^2 for sdR-b1-00057603.fit

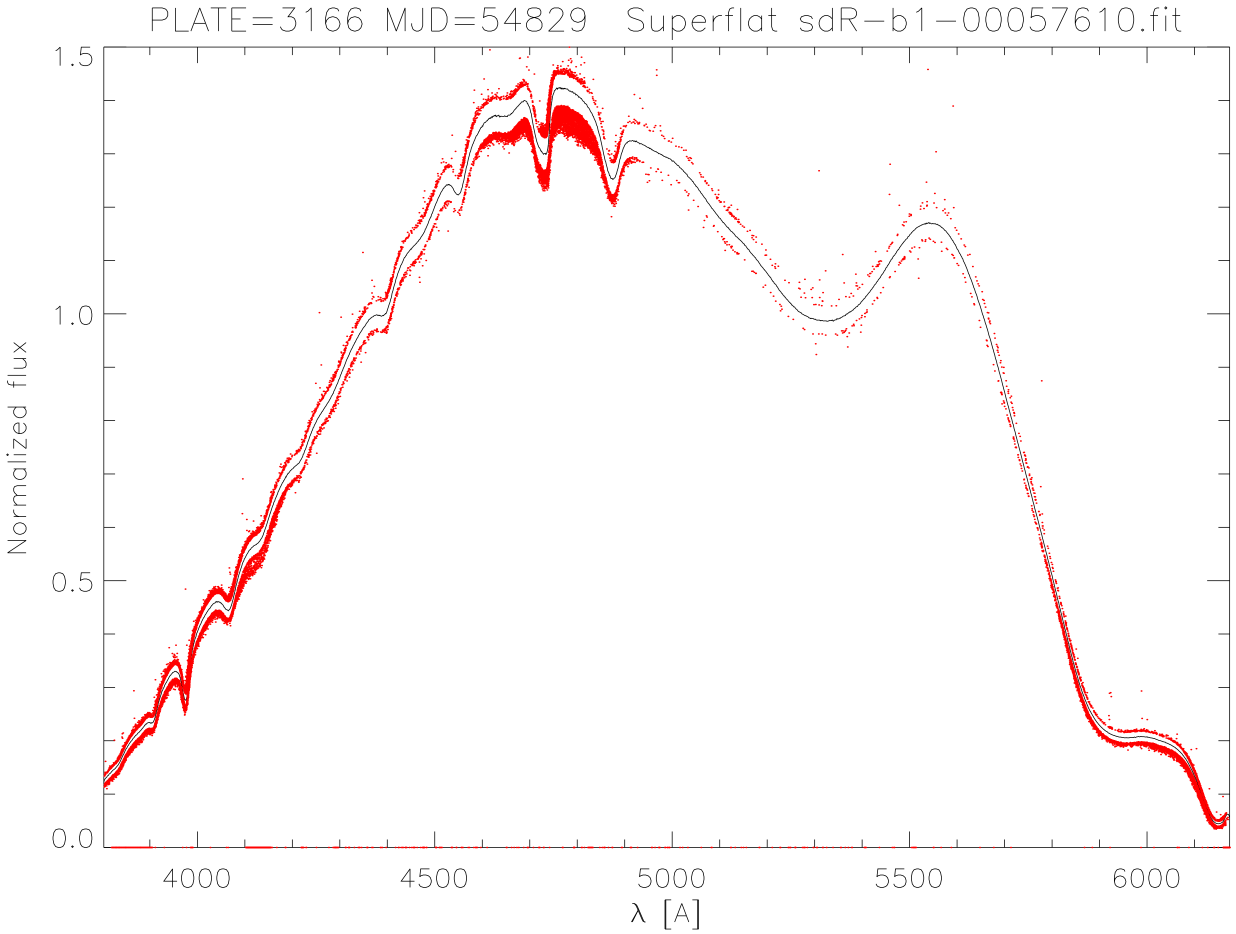

PLATE=3166 MJD=54829 Superflat sdR-b1-00057603.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

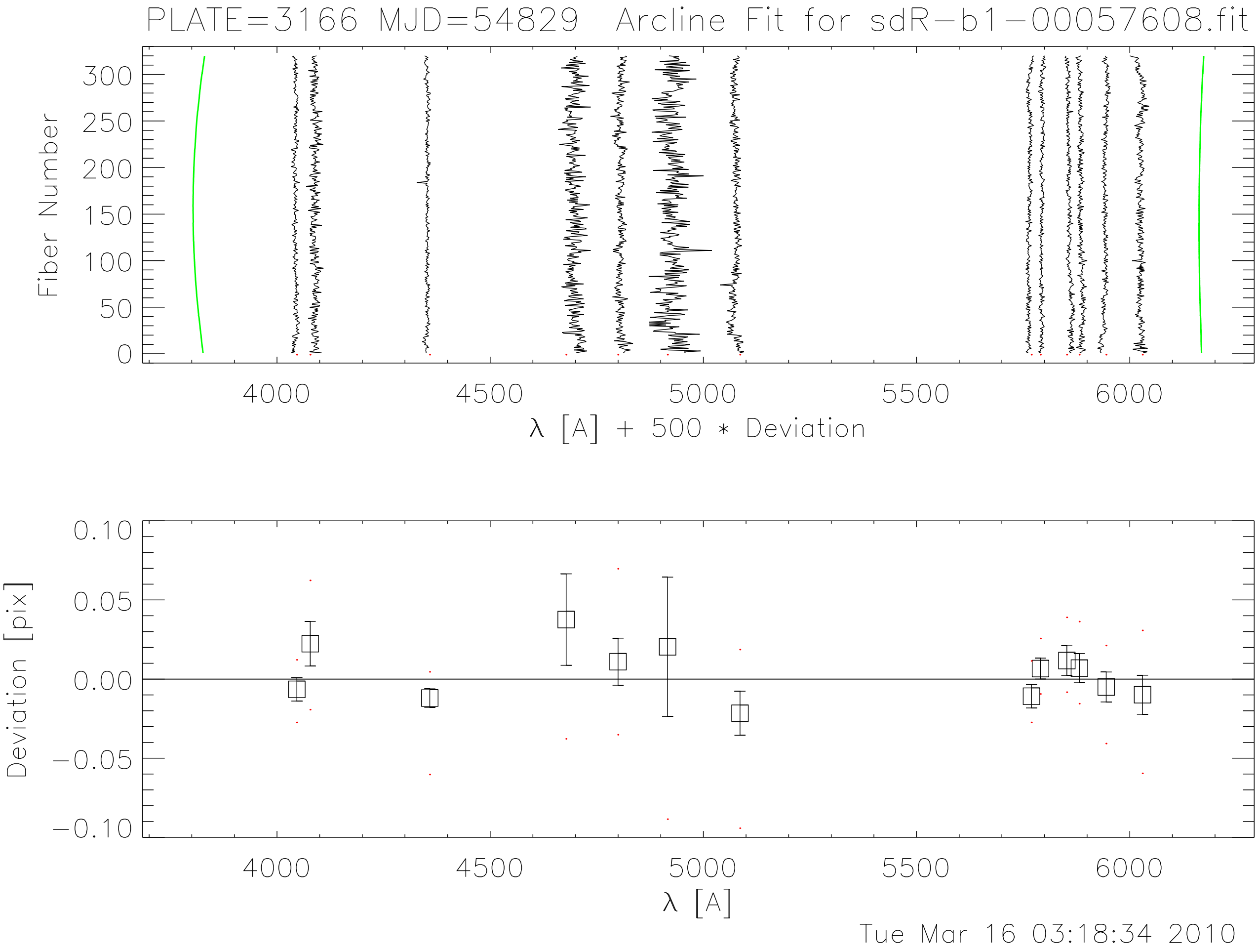

PLATE=3166 MJD=54829 flat extraction chi^2 for sdR-b1-00057607.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
0
5
10
15
20
0
500
1000
1500
2000
Row number


PLATE=3166 MJD=54829 Superflat sdR-b1-00057607.fit
Normalized flux
0.0
0.5
1.0
1.5
4000
4500
5000
5500
6000
λ [A]

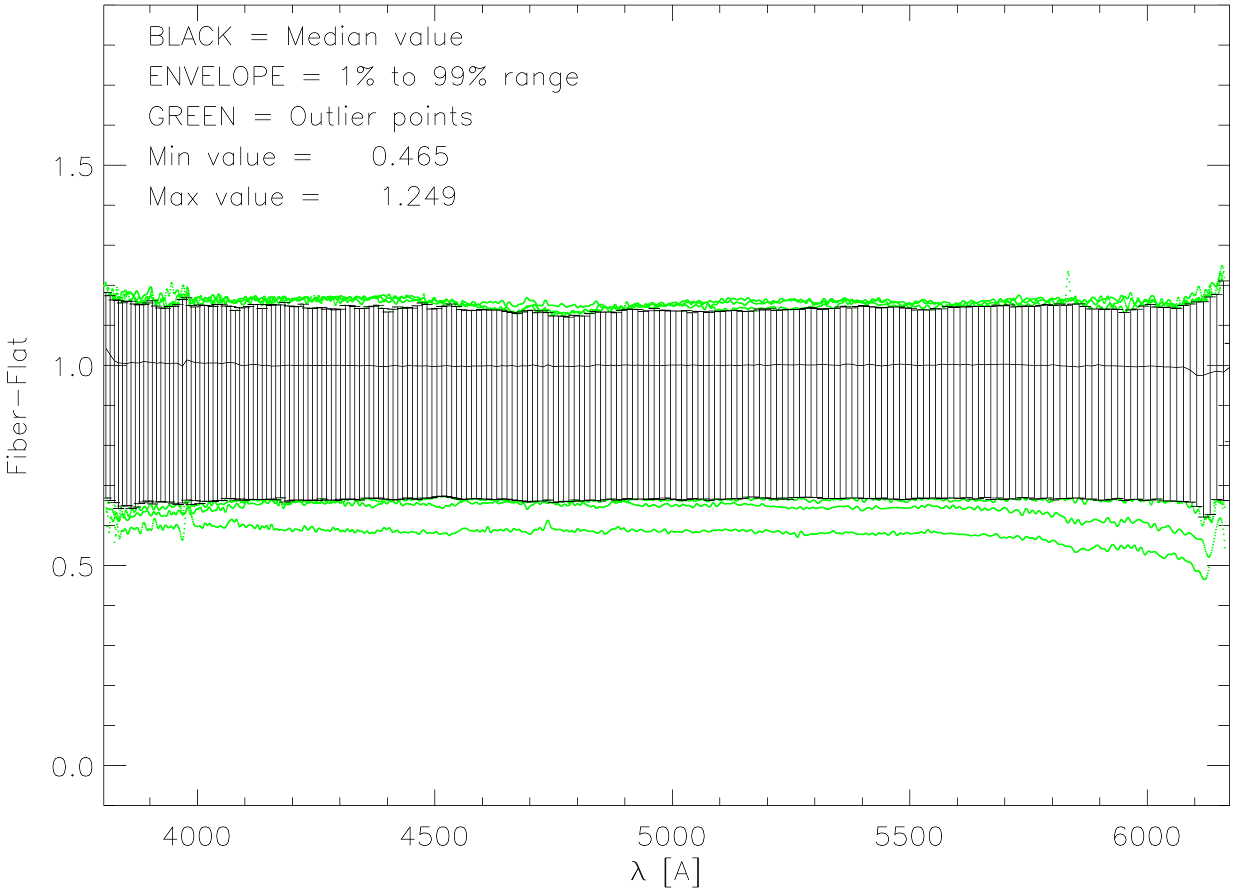


PLATE=3166 MJD=54829 flat extraction chi^2 for sdR-b1-00057610.fit

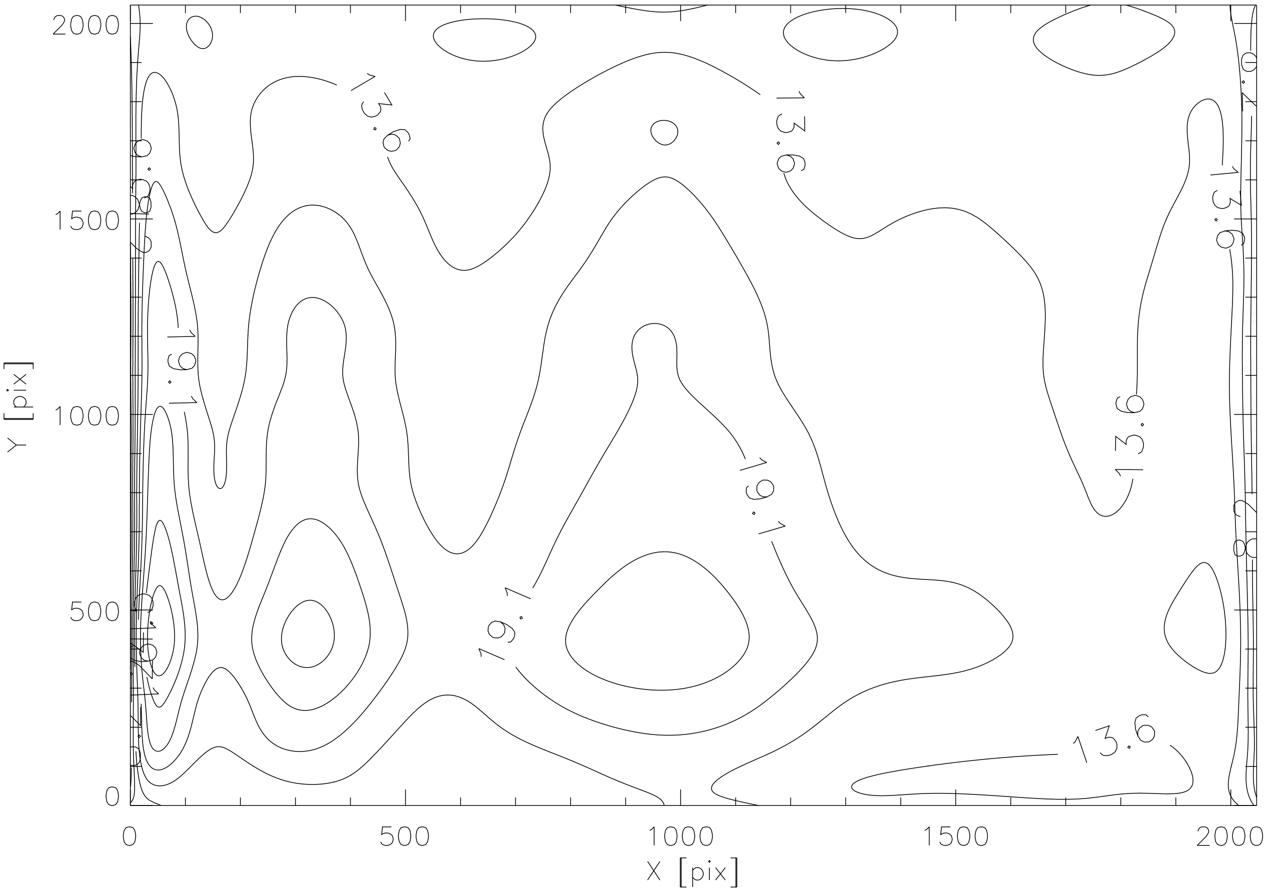

PLATE=3166 MJD=54829 Superflat sdR-b1-00057610.fit
Normalized flux
0.0
0.5
1.0
1.5
4000
4500
5000
5500
6000
λ [A]


PLATE=3166 MJD=54829 Arcline Fit for sdR-b1-00057608.fit
Fiber Number
0
50
100
150
200
250
300
4000
4500
5000
5500
6000
λ [A] + 500 * Deviation
Deviation [pix]
−0.10
−0.05
0.00
0.05
0.10
4000
4500
5000
5500
6000
λ [A]
Tue Mar 16 03:18:34 2010

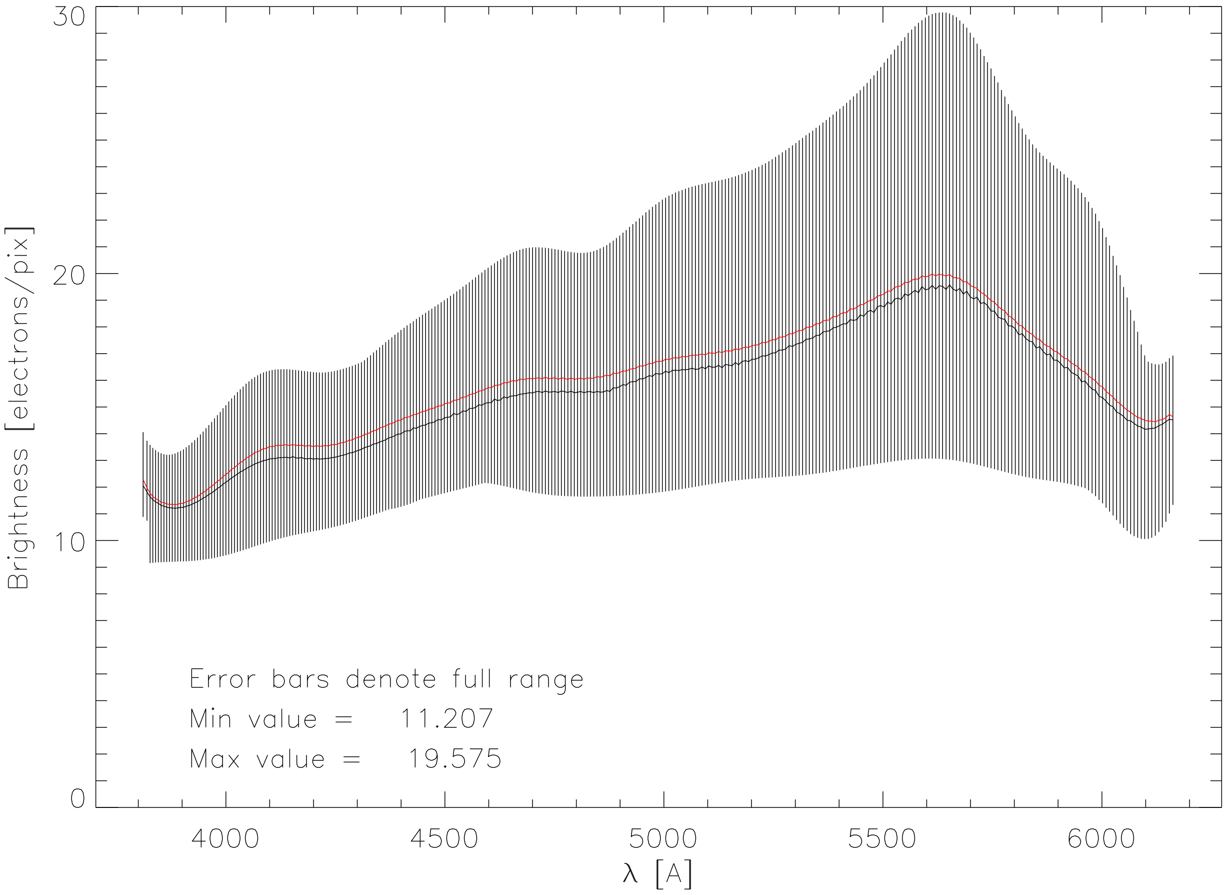
PLATE=3166 MJD=54829 Fiber-Flats for sdR-b1-00057607.fit



Tue Mar 16 03:18:39 2010

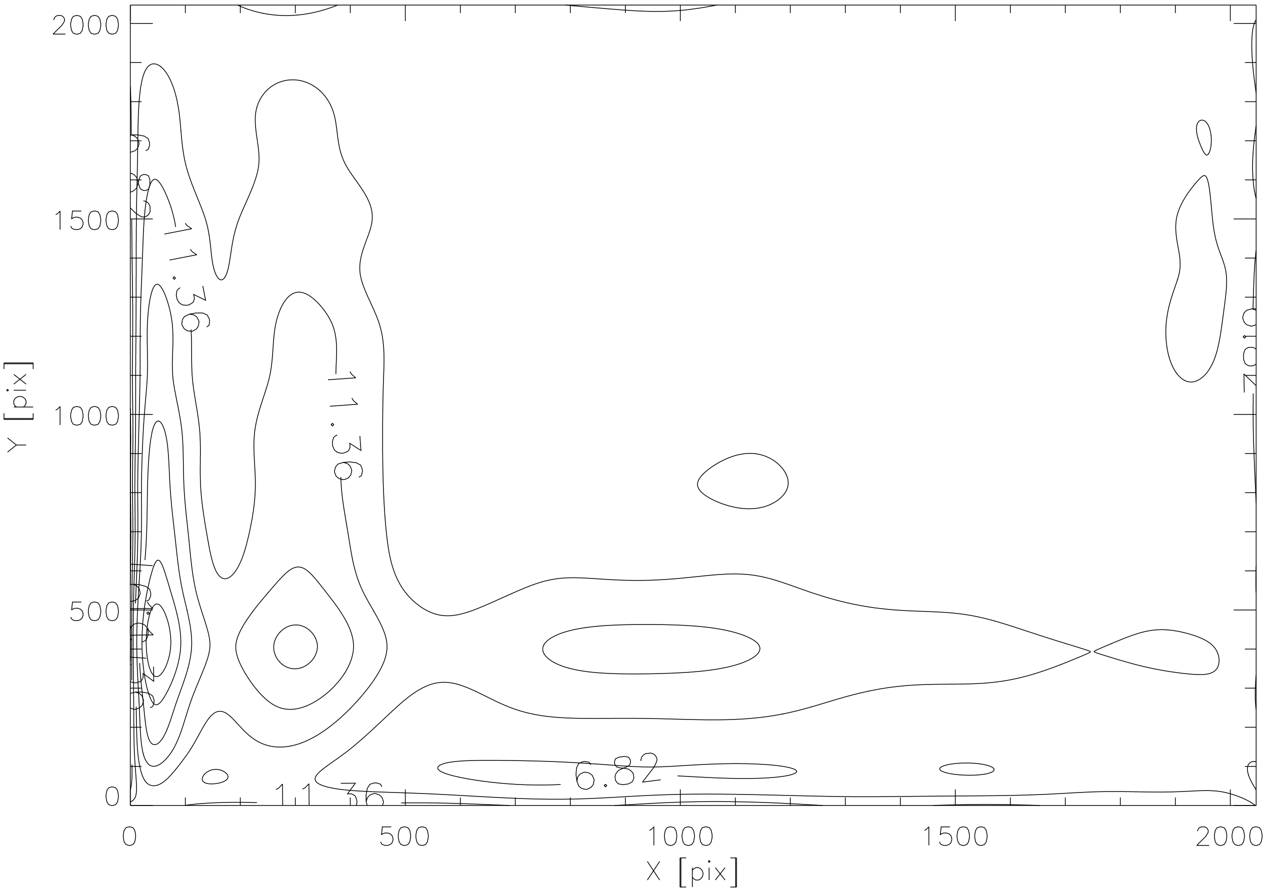


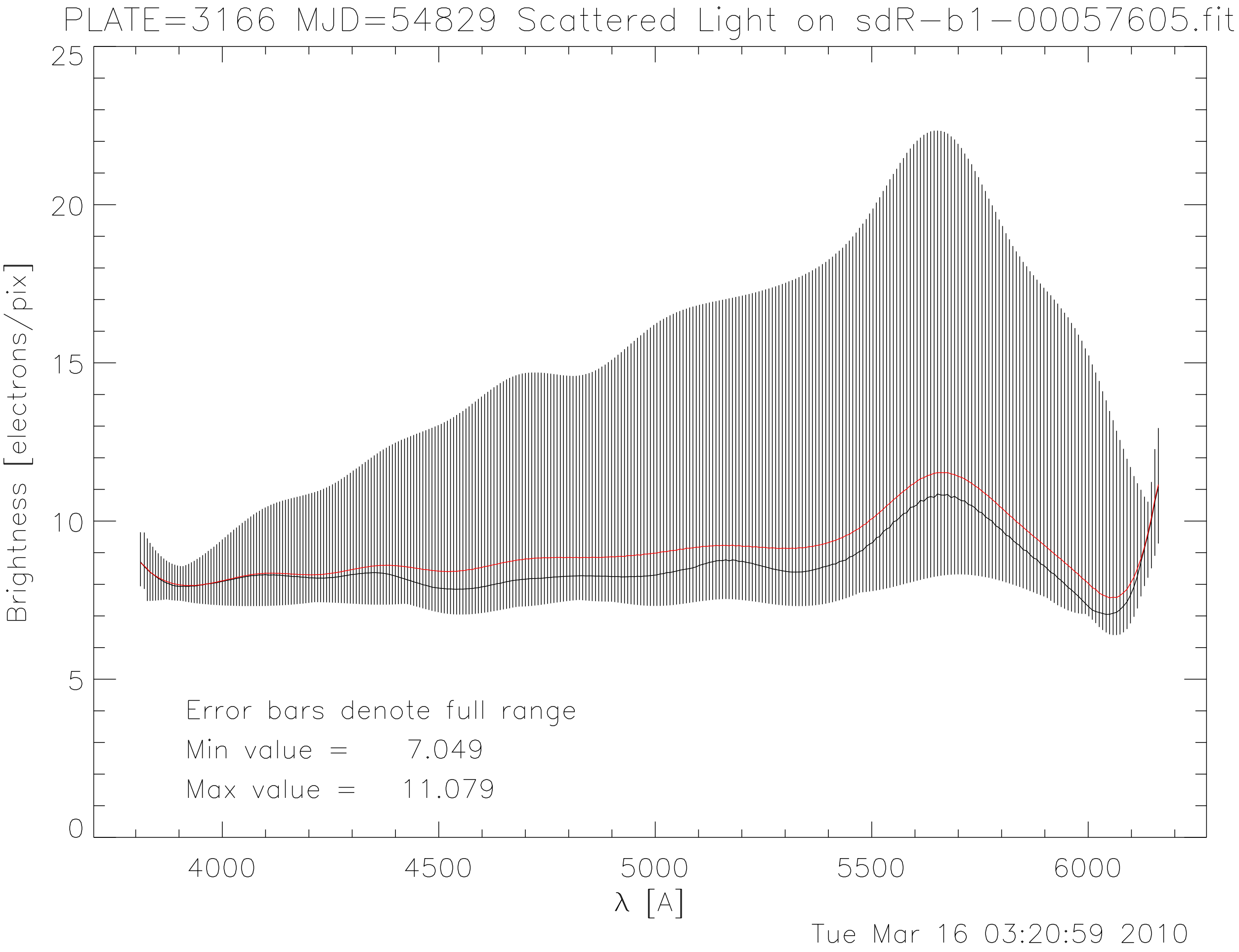
PLATE=3166 MJD=54829 Scattered Light before halo removal on sdR-b1-00057605.f

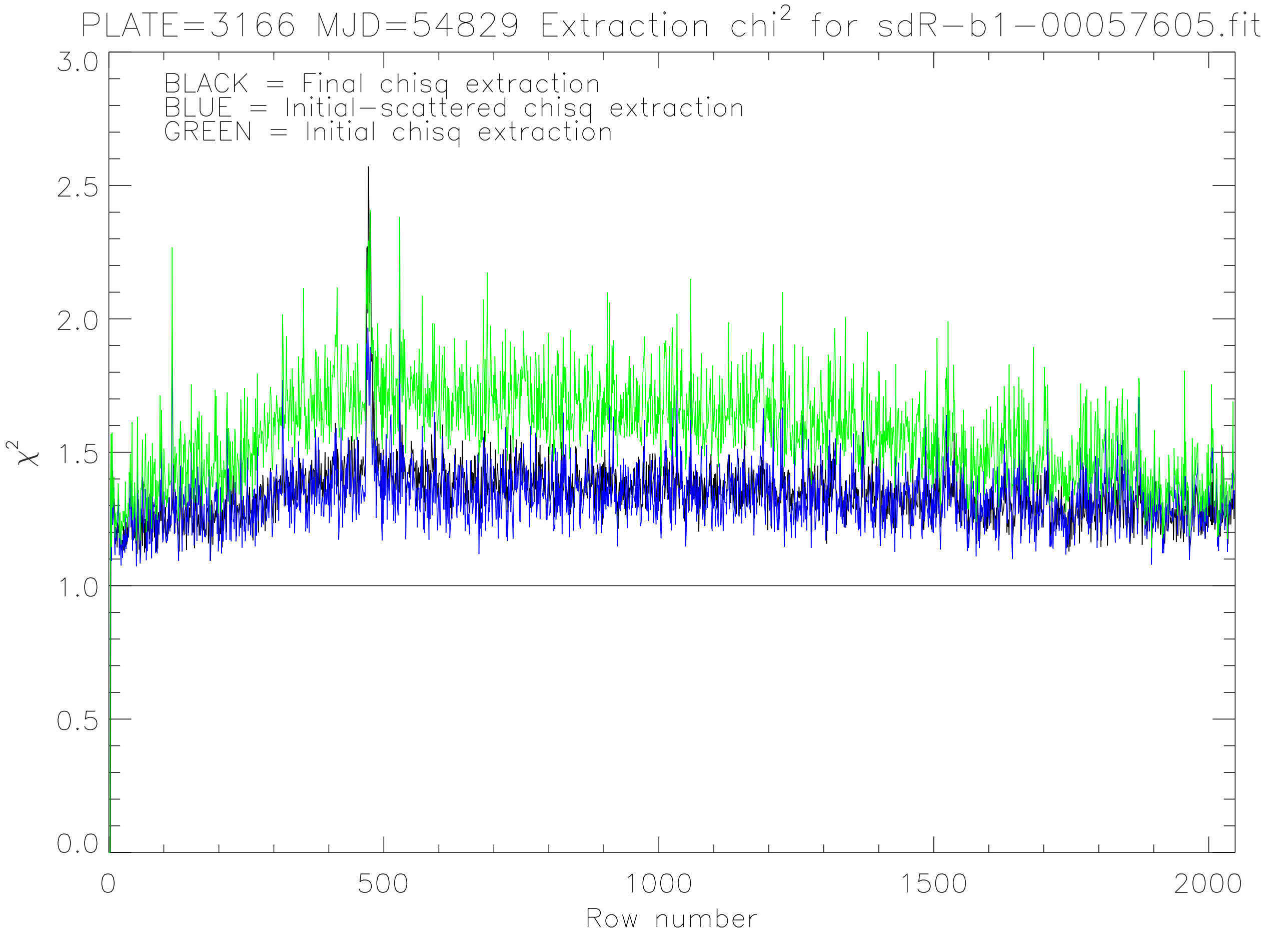


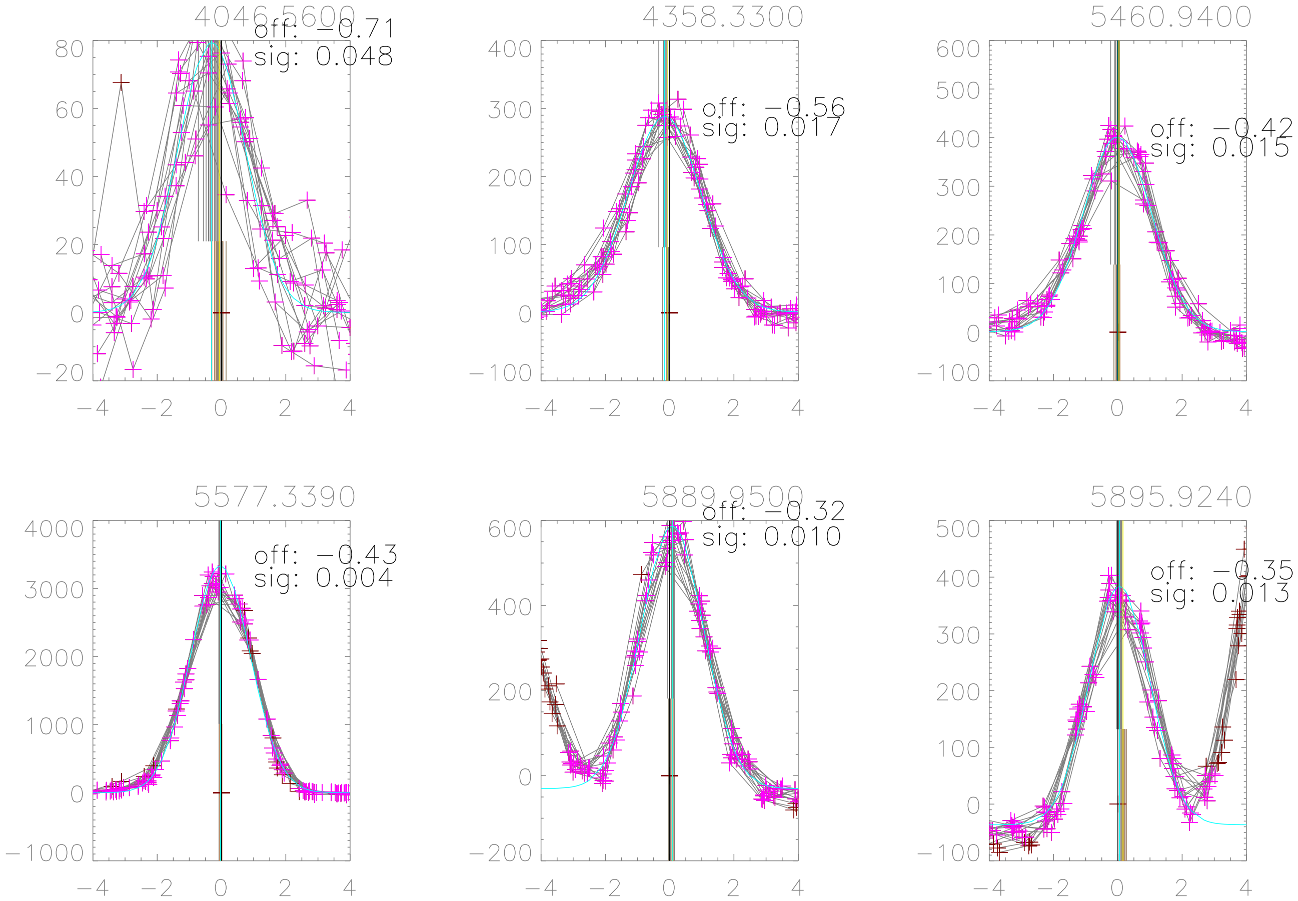
PLATE=3166 MJD=54829 Scattered Light before halo removal on sdR-b1-00057605.f

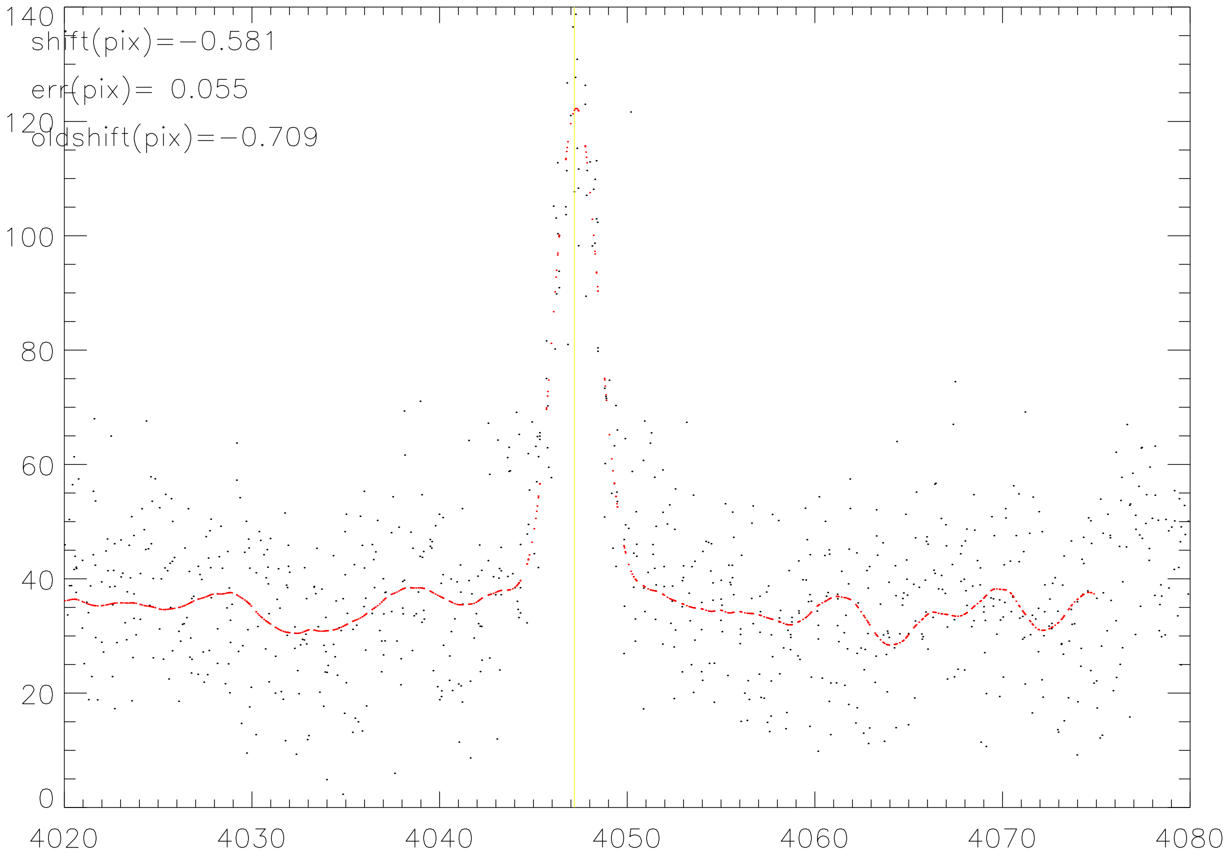
PLATE=3166 MJD=54829 Scattered Light on sdR-b1-00057605.fit

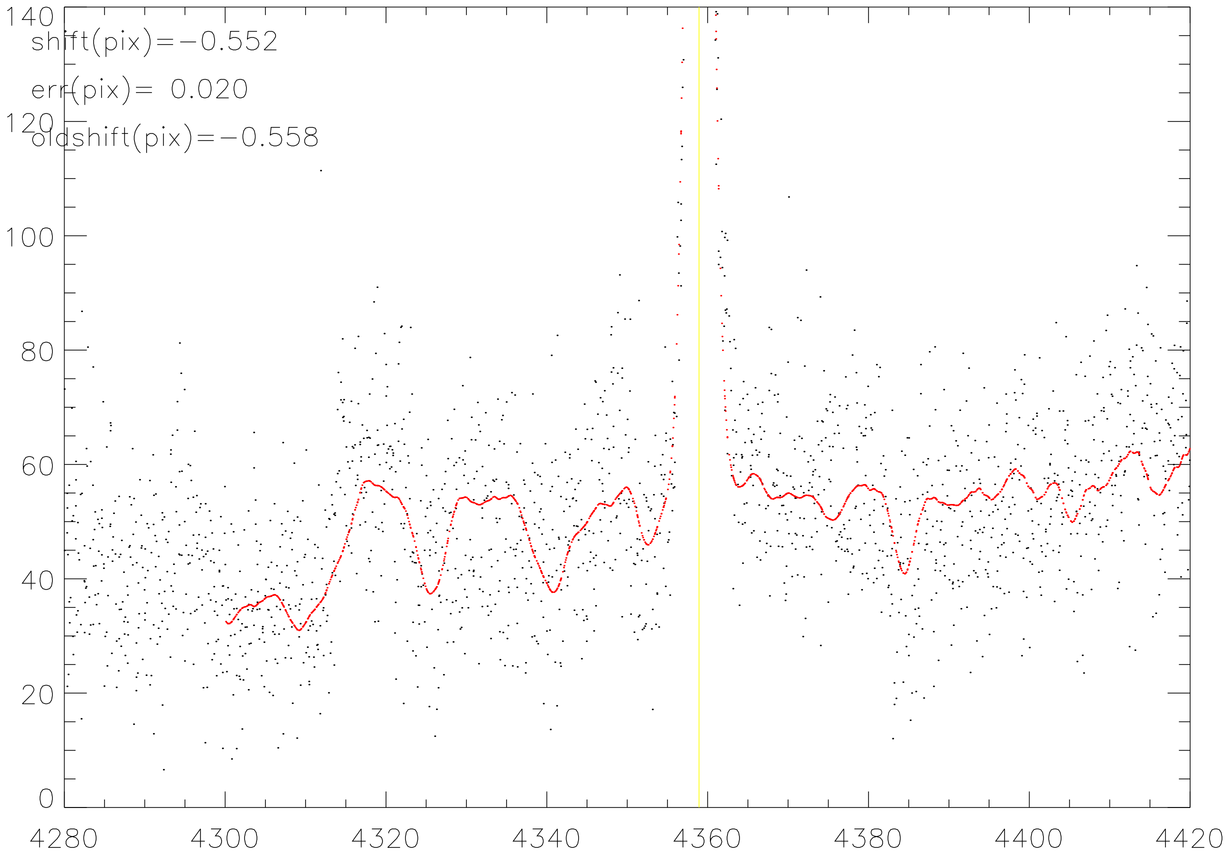


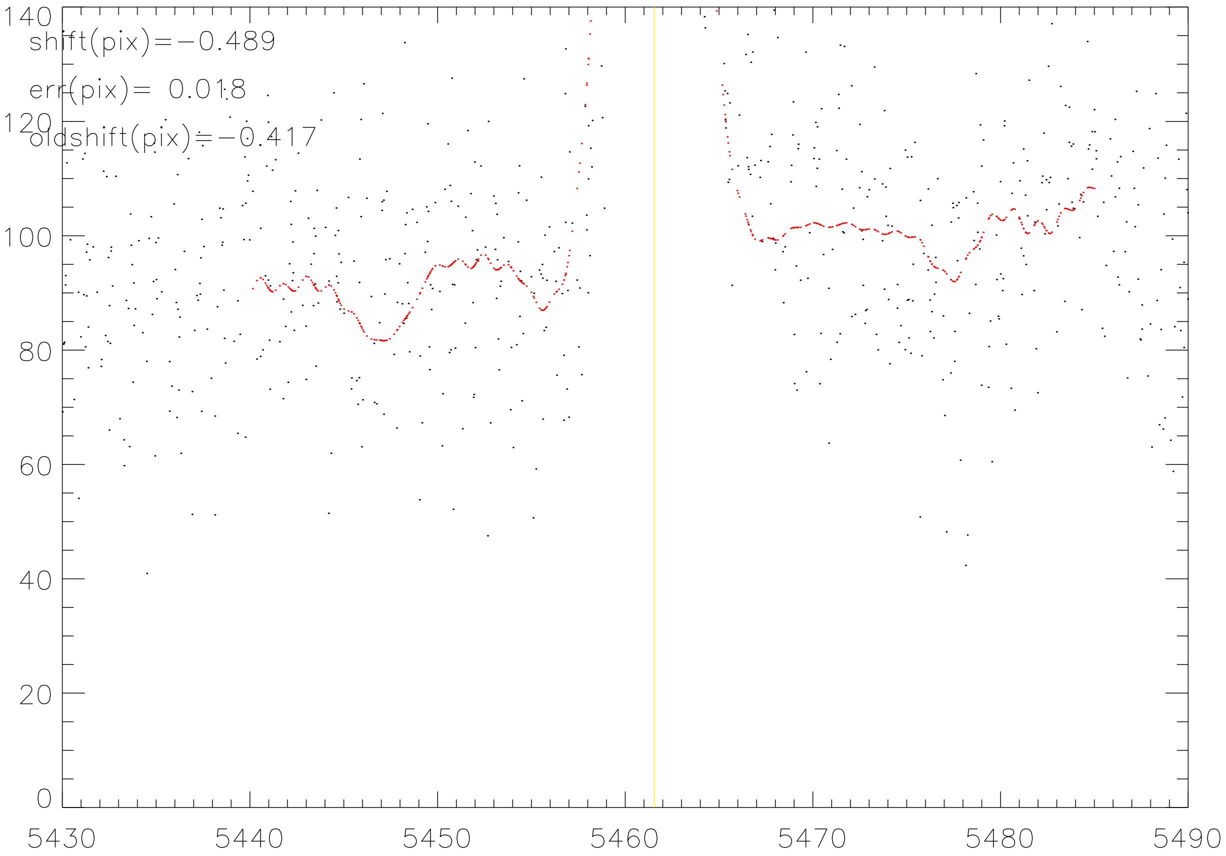

PLATE=3166 MJD=54829 Scattered Light on sdR-b1-00057605.fit
Brightness [electrons/pix]
0
5
10
15
20
25
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 7.049
Max value = 11.079
Tue Mar 16 03:20:59 2010

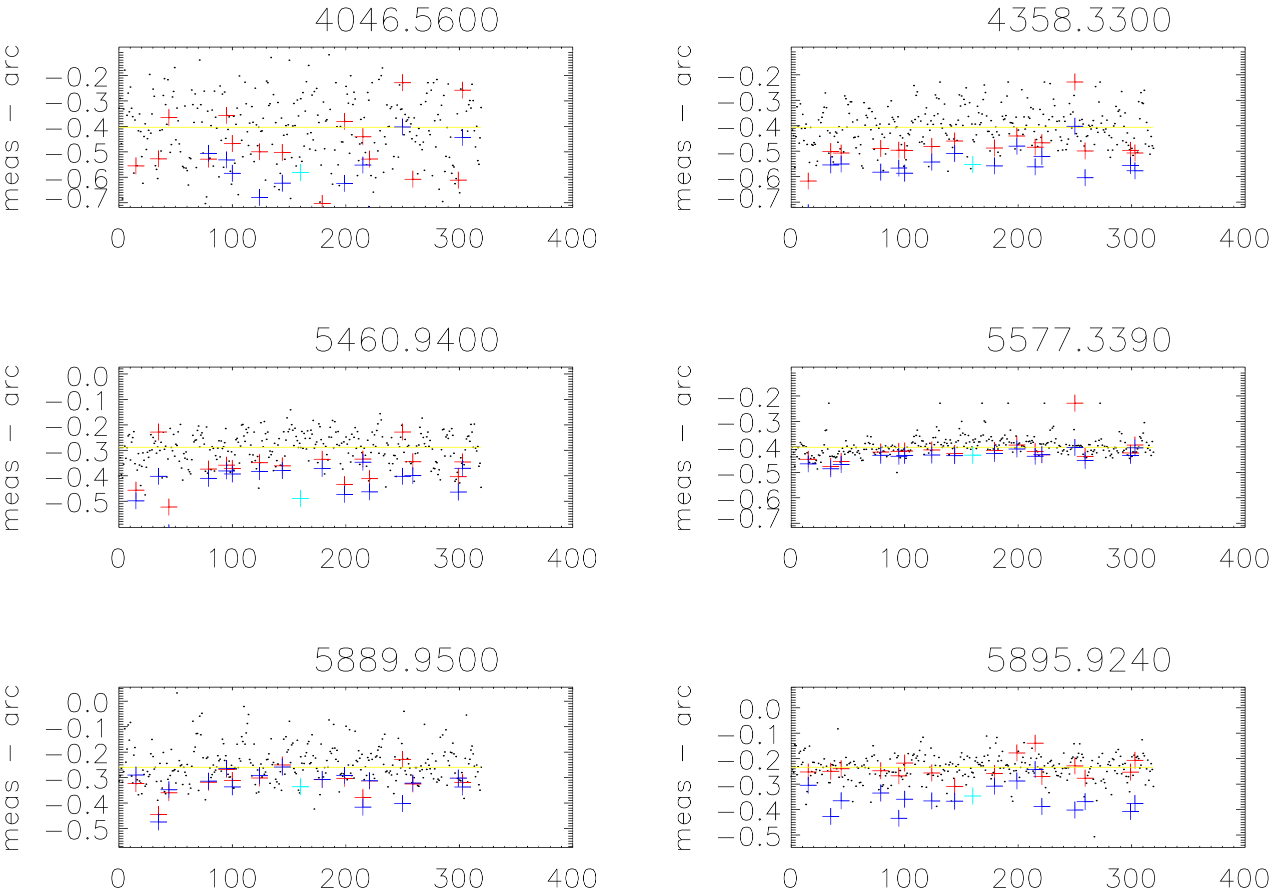

PLATE=3166 MJD=54829 Extraction chi^2 for sdR-b1-00057605.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
500
1000
1500
2000
Row number

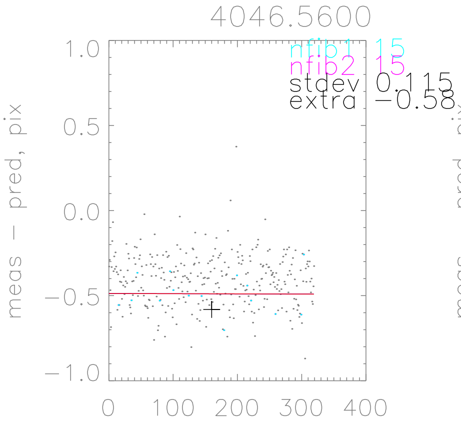

4046.5600
off: −0.71
sig: 0.048
80
60
40
20
0
−20
−4
−2
0
2
4
4358.3300
off: −0.56
sig: 0.017
400
300
200
100
0
−100
−4
−2
0
2
4
5460.9400
off: −0.42
sig: 0.015
600
500
400
300
200
100
0
−100
−4
−2
0
2
4
5577.3390
off: −0.43
sig: 0.004
4000
3000
2000
1000
0
−1000
−4
−2
0
2
4
5889.9500
off: −0.32
sig: 0.010
600
400
200
0
−200
−4
−2
0
2
4
5895.9240
off: −0.35
sig: 0.013
500
400
300
200
100
0
−100
−4
−2
0
2
4

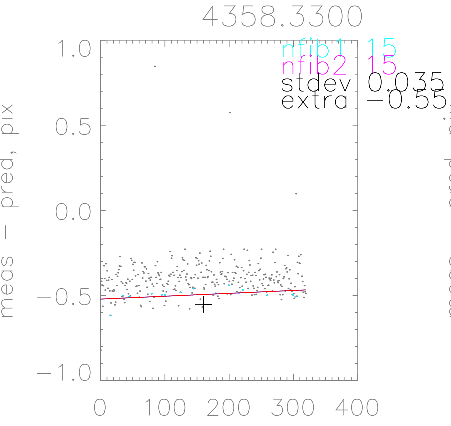

shift(pix)=−0.581
err(pix)= 0.055
oldshift(pix)=−0.709
0
20
40
60
80
100
120
140
4020
4030
4040
4050
4060
4070
4080

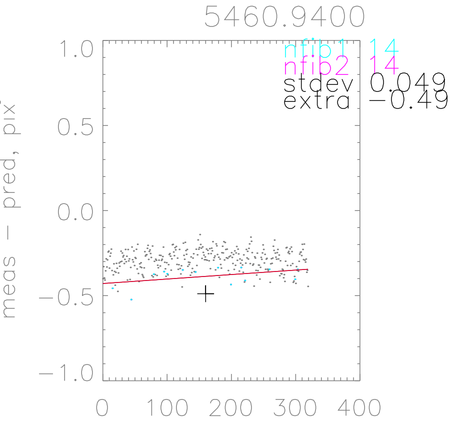

shift(pix)=−0.552
err(pix)= 0.020
oldshift(pix)=−0.558
0
20
40
60
80
100
120
140
4280
4300
4320
4340
4360
4380
4400
4420

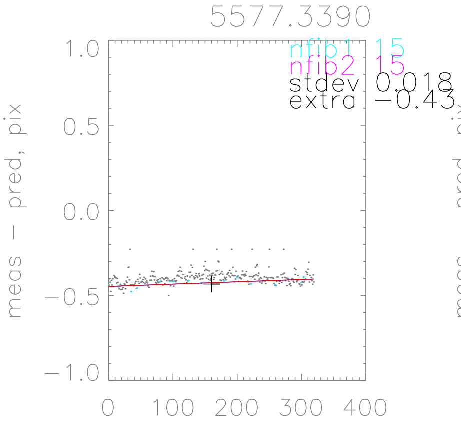

shift(pix)=-0.489
err(pix)= 0.018
oldshift(pix)=-0.417
0
20
40
60
80
100
120
140
5430
5440
5450
5460
5470
5480
5490

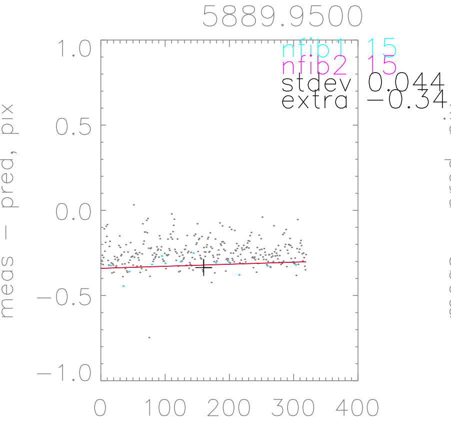

4046.5600
meas − arc
−0.2
−0.3
−0.4
−0.5
−0.6
−0.7
0
100
200
300
400
4358.3300
meas − arc
−0.2
−0.3
−0.4
−0.5
−0.6
−0.7
0
100
200
300
400
5460.9400
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400
5577.3390
meas − arc
−0.2
−0.3
−0.4
−0.5
−0.6
−0.7
0
100
200
300
400
5889.9500
meas − arc
0.0
−0.1
−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

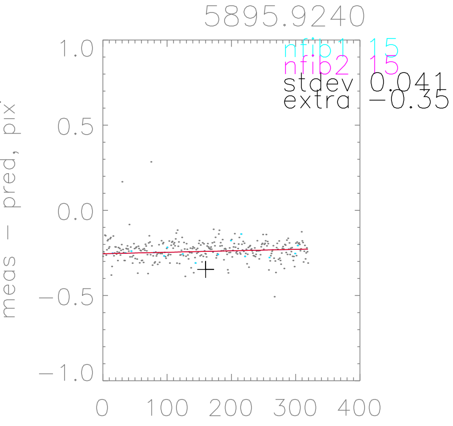

4046.5600
nfib1 15
nfib2 15
stdev 0.115
extra −0.58
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

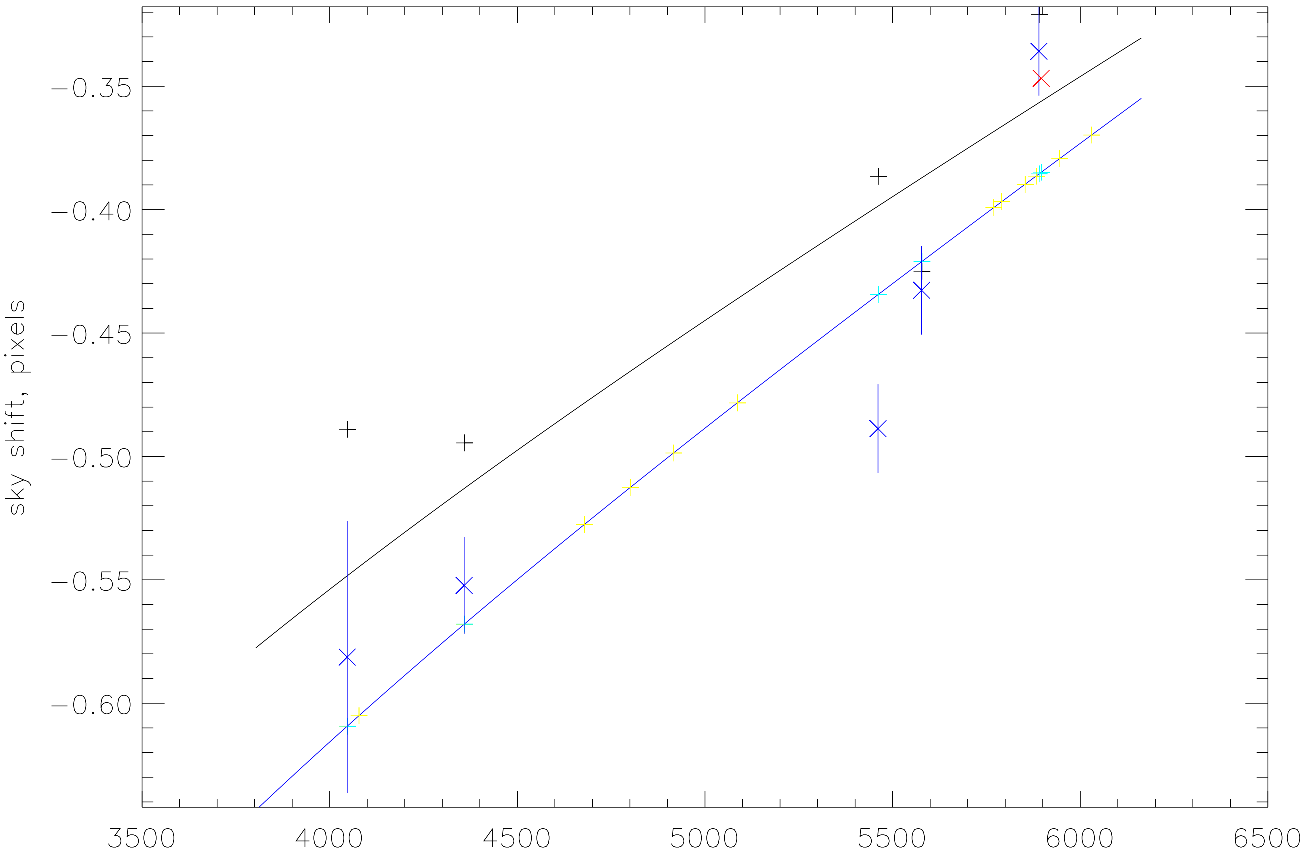

4358.3300
nfib1 15
nfib2 15
stdev 0.035
extra −0.55
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

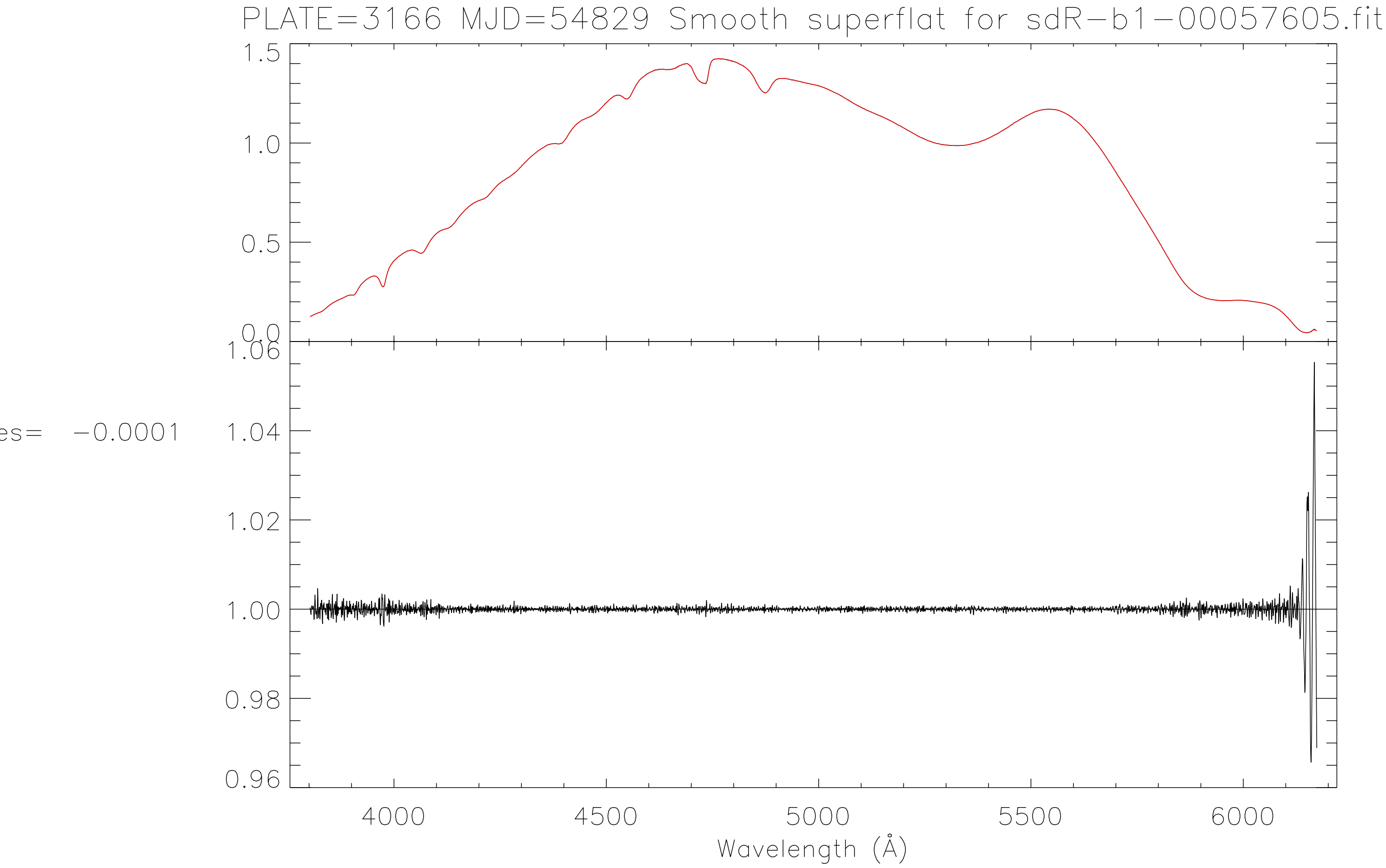

5460.9400
nfib1 14
nfib2 14
stdev 0.049
extra −0.49
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

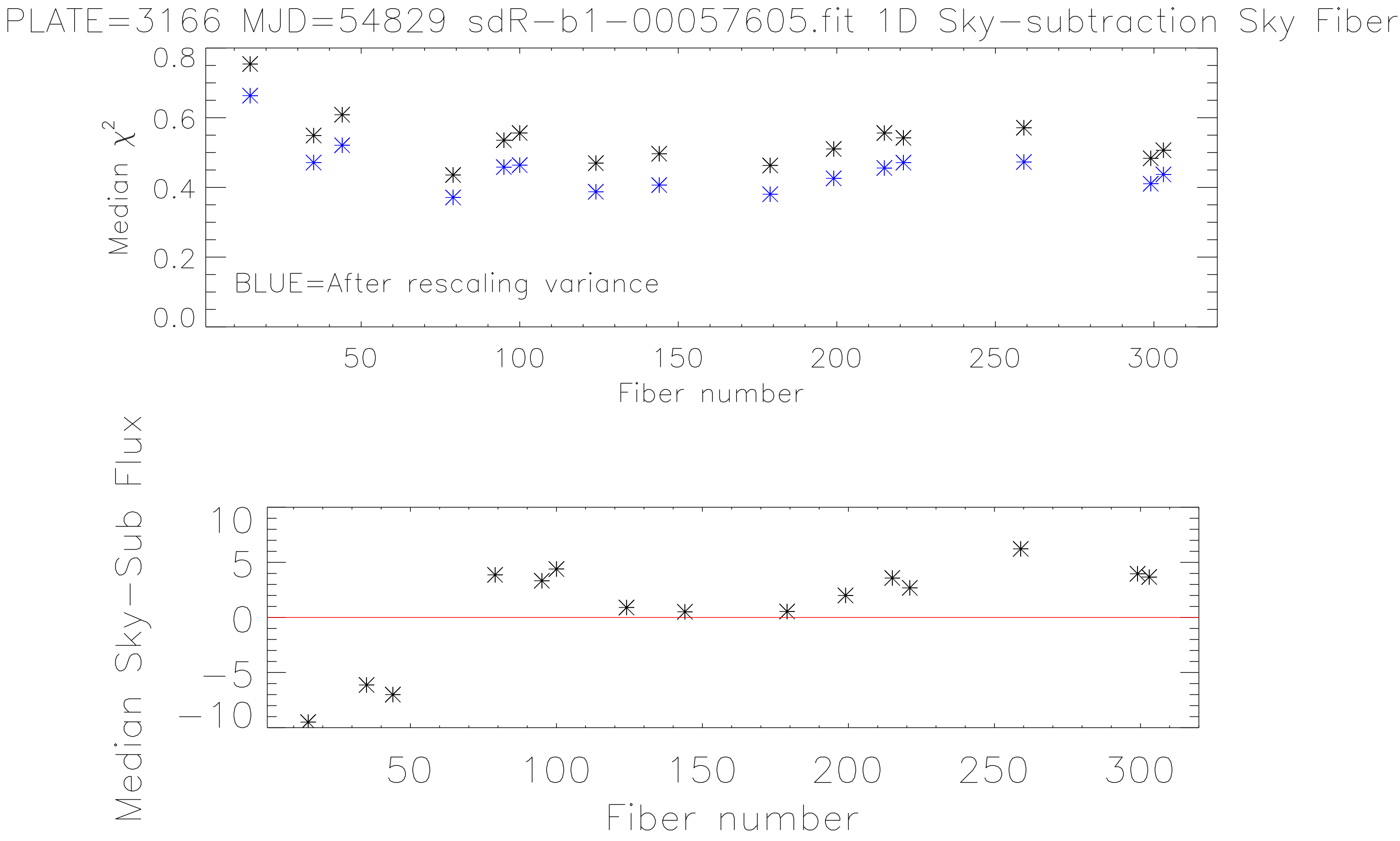

5577.3390
nfib1 15
nfib2 15
stdev 0.018
extra −0.43
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

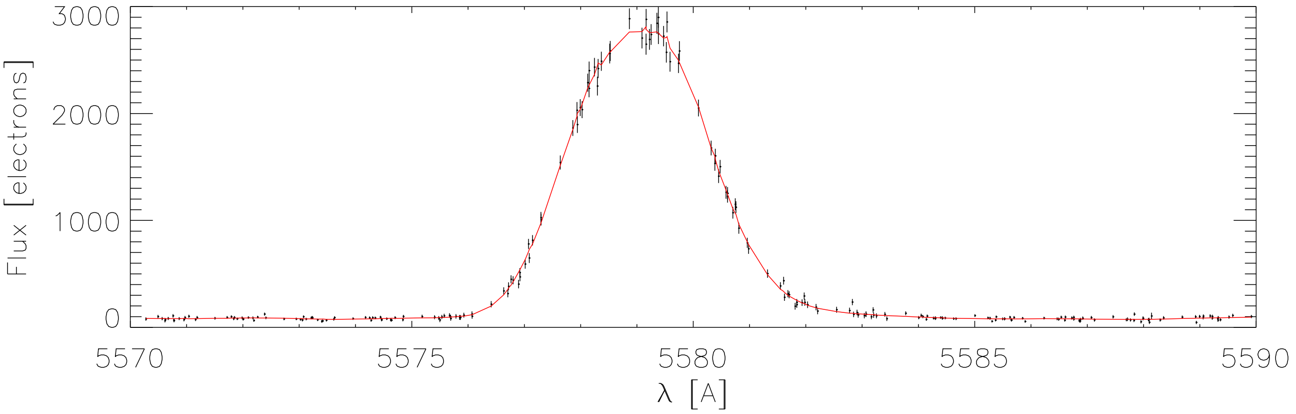

5889.9500
nfib1 15
nfib2 15
stdev 0.044
extra −0.34
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400


5895.9240
nfib1 15
nfib2 15
stdev 0.041
extra −0.35
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

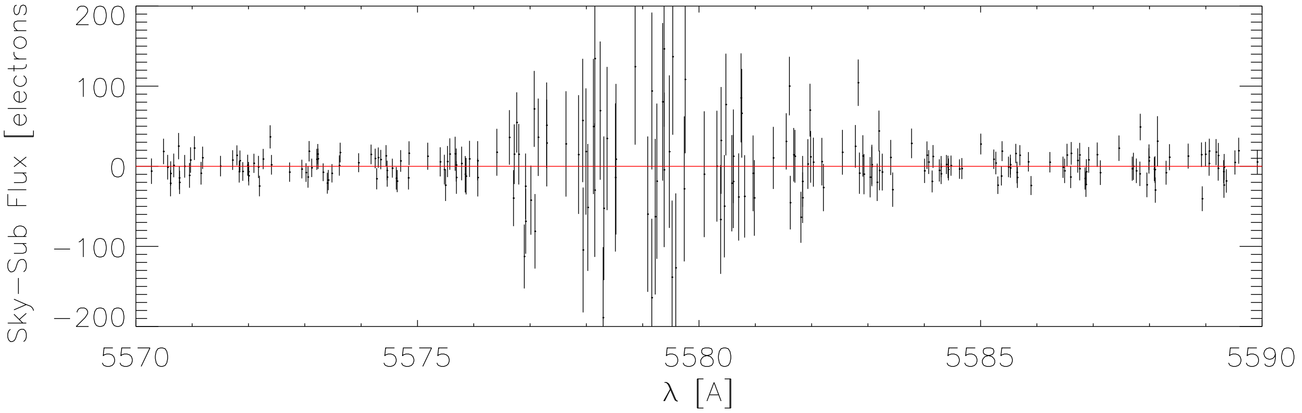

sky shift, pixels
−0.35
−0.40
−0.45
−0.50
−0.55
−0.60
3500
4000
4500
5000
5500
6000
6500


PLATE=3166 MJD=54829 Smooth superflat for sdR-b1-00057605.fit
1.5
1.0
0.5
0.0
1.06
1.04
1.02
1.00
0.98
0.96
es= −0.0001
4000
4500
5000
5500
6000
Wavelength (Å)

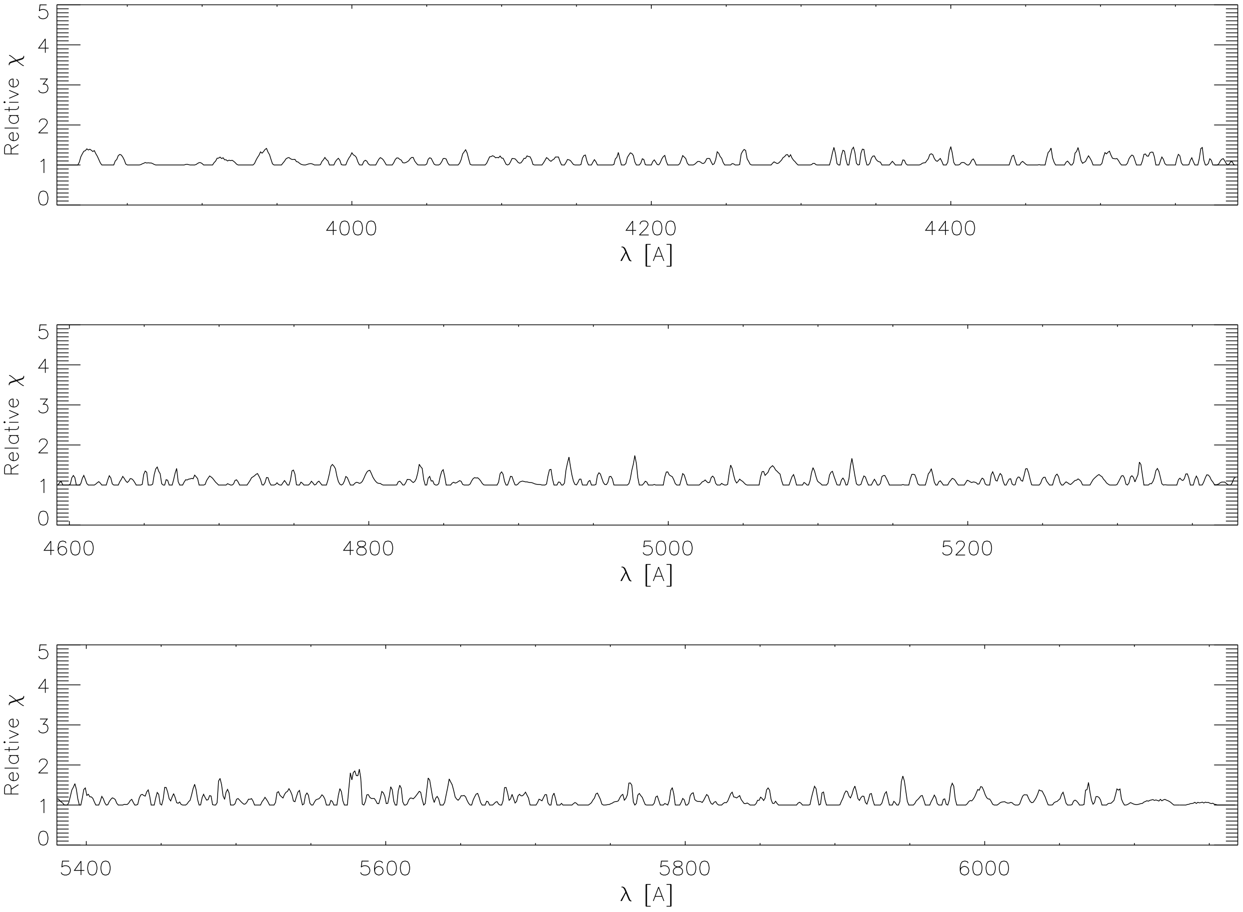

PLATE=3166 MJD=54829 sdR-b1-00057605.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
−10
−5
0
5
10
50
100
150
200
250
300
Fiber number



PLATE=3166 MJD=54829 sdR-b1-00057605.fit 1D Sky-subtraction Sky Fibers

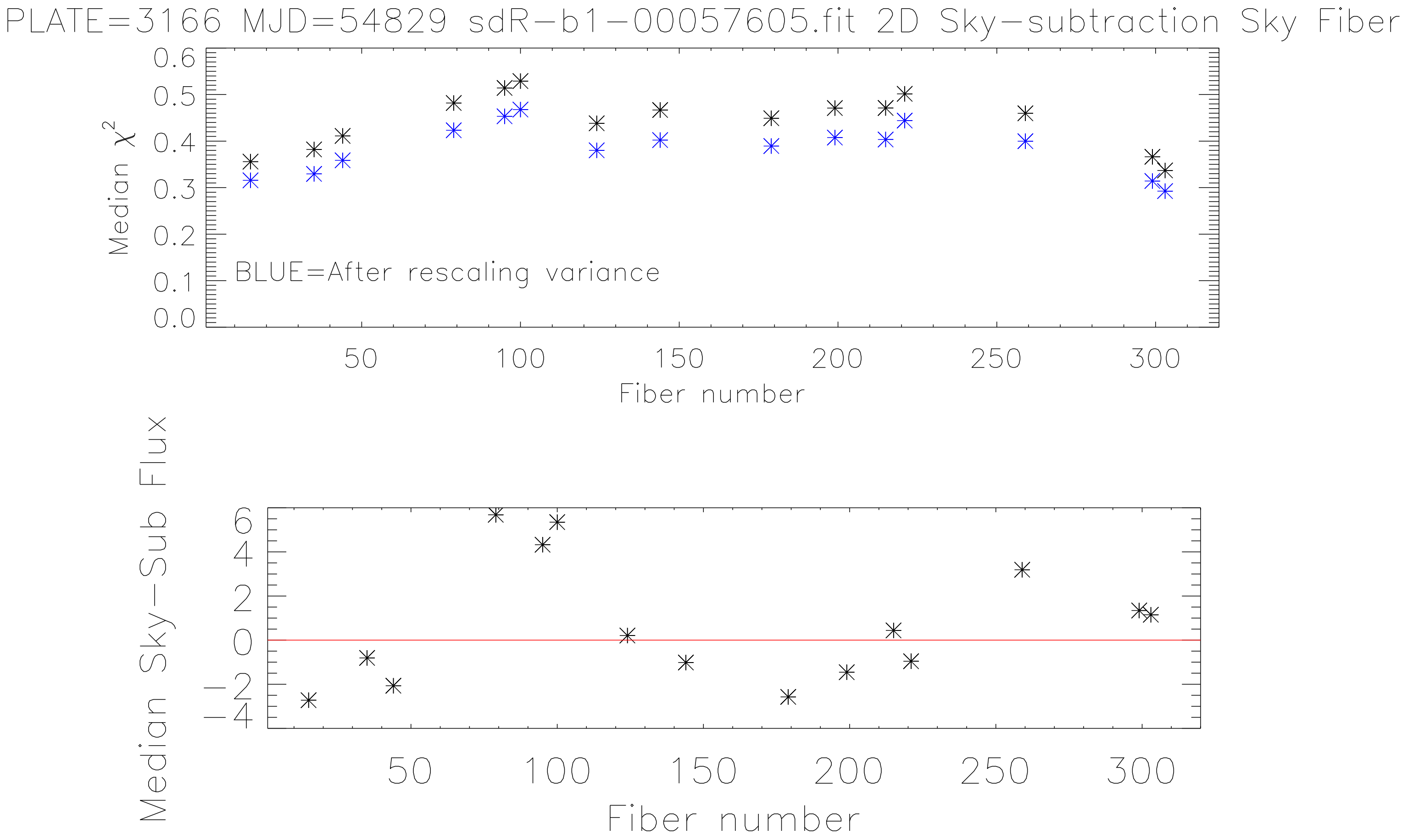


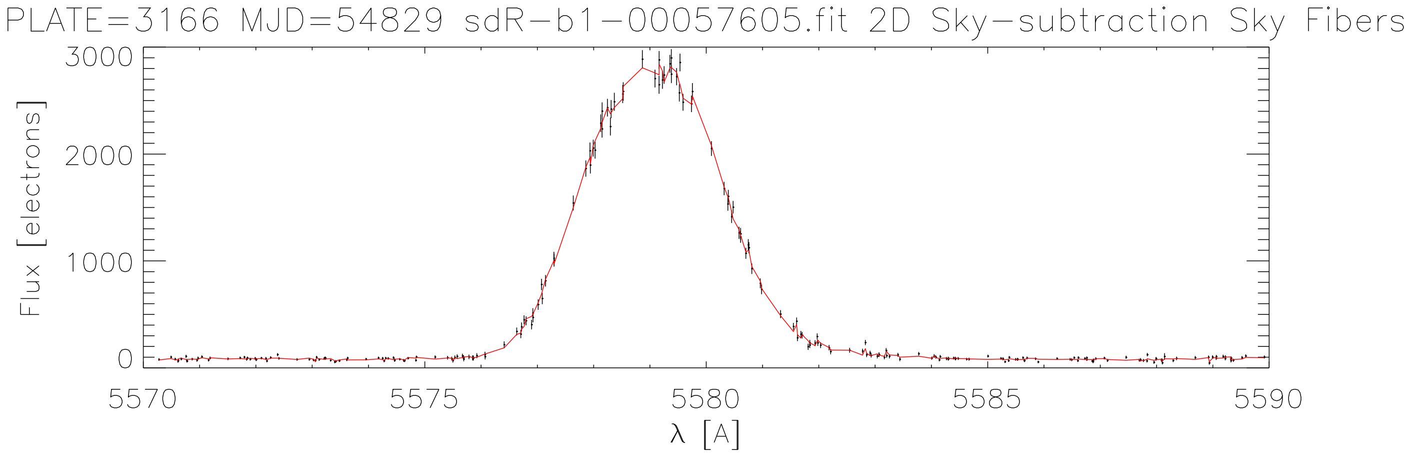
PLATE=3166 MJD=54829 sdR-b1-00057605.fit 1D Sky-subtraction Sky-subtracted Sky F

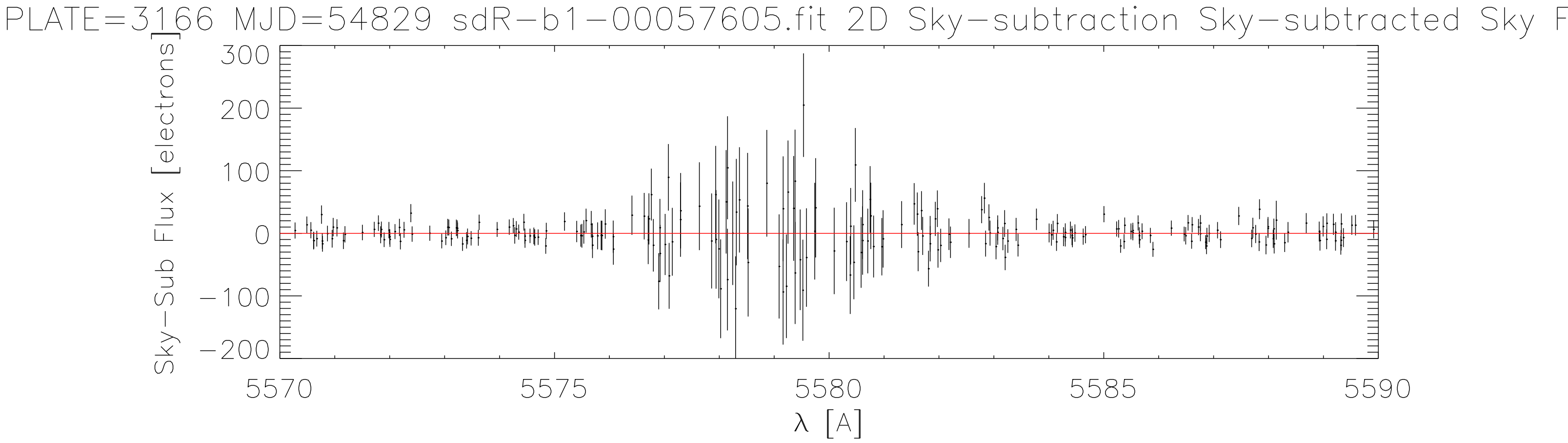


Number of sky fibers = 15

PLATE=3166 MJD=54829 sdR-b1-00057605.fit 1D Sky-subtraction Rescaled Errors

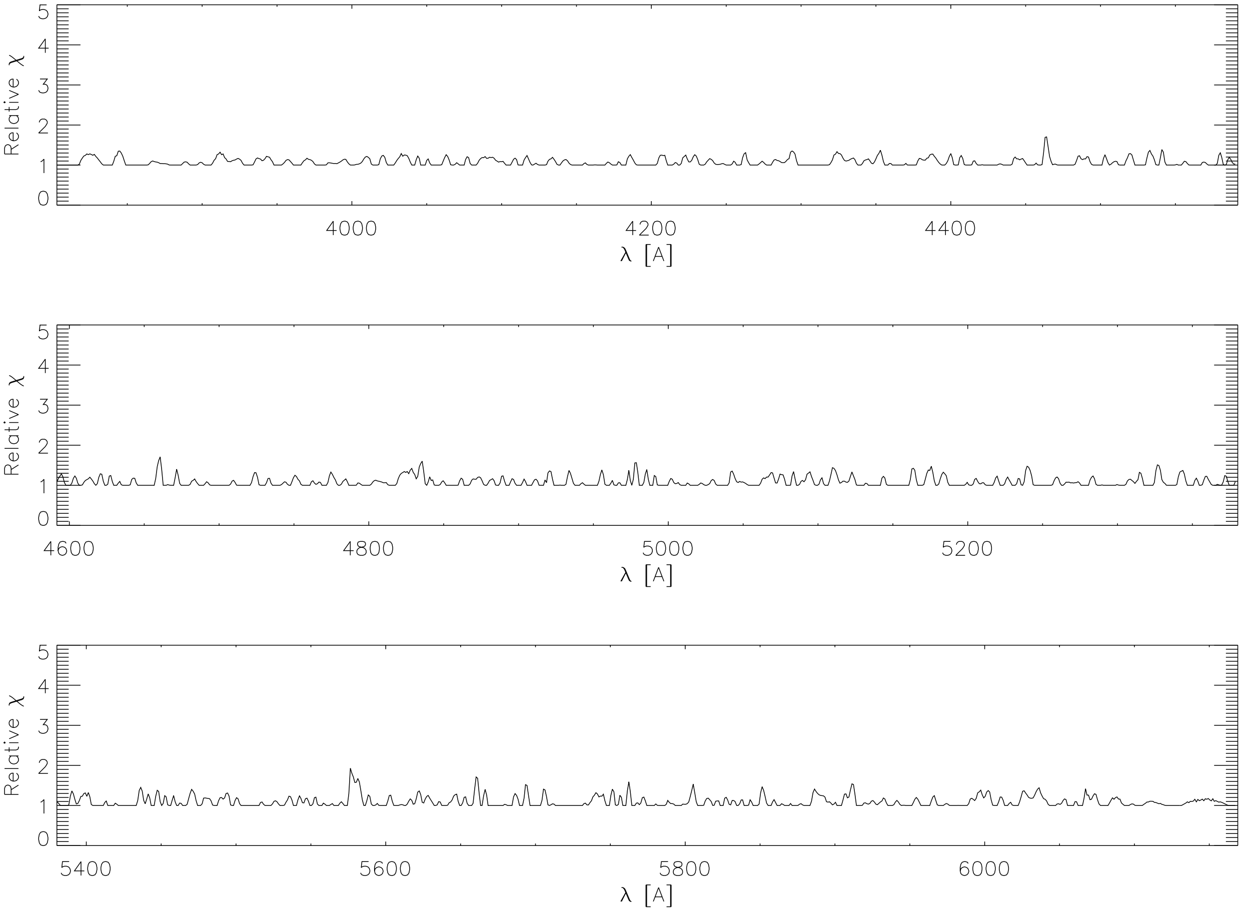

PLATE=3166 MJD=54829 sdR-b1-00057605.fit 2D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-4
-2
0
2
4
6
50
100
150
200
250
300
Fiber number

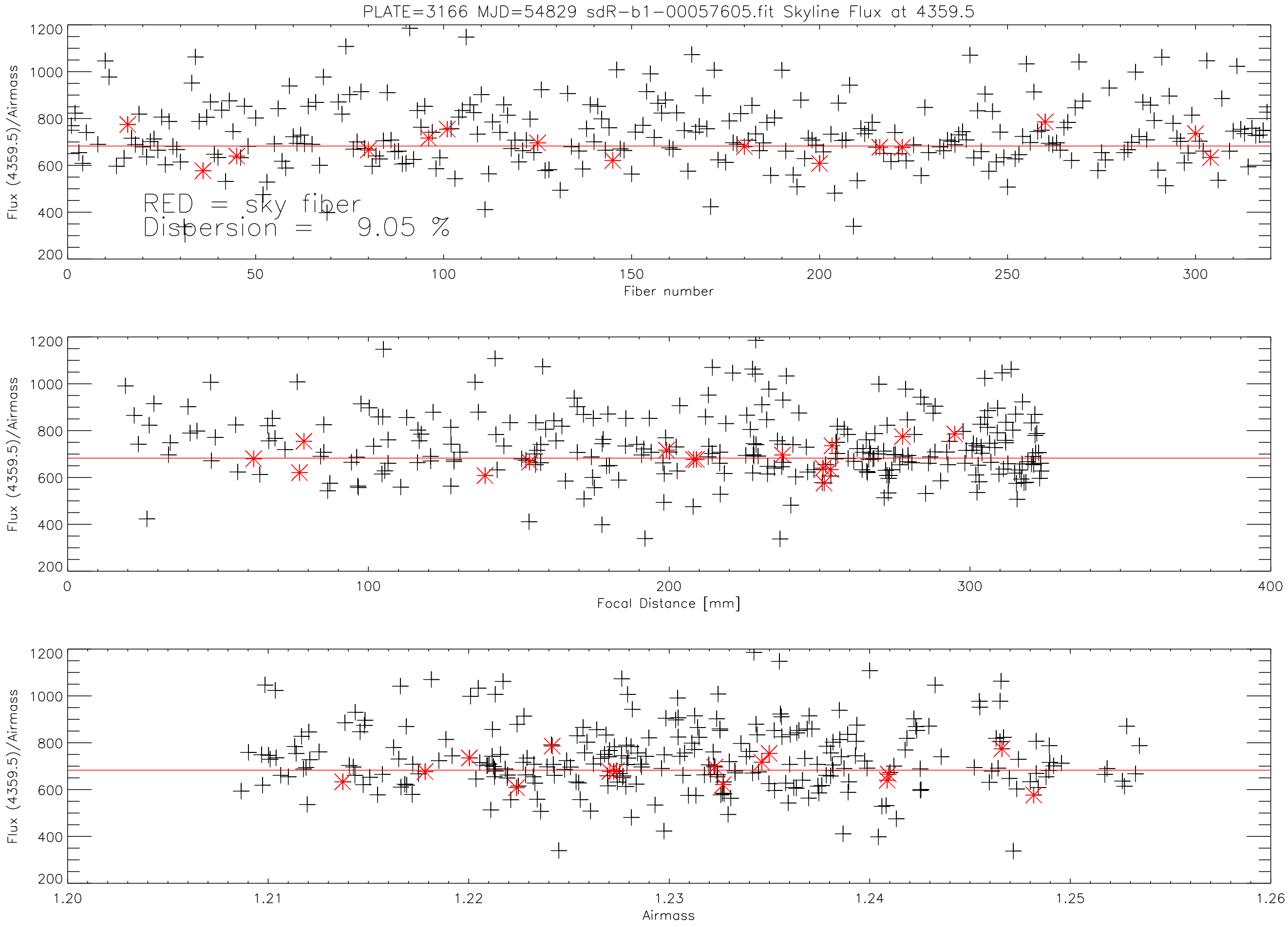

PLATE=3166 MJD=54829 sdR-b1-00057605.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

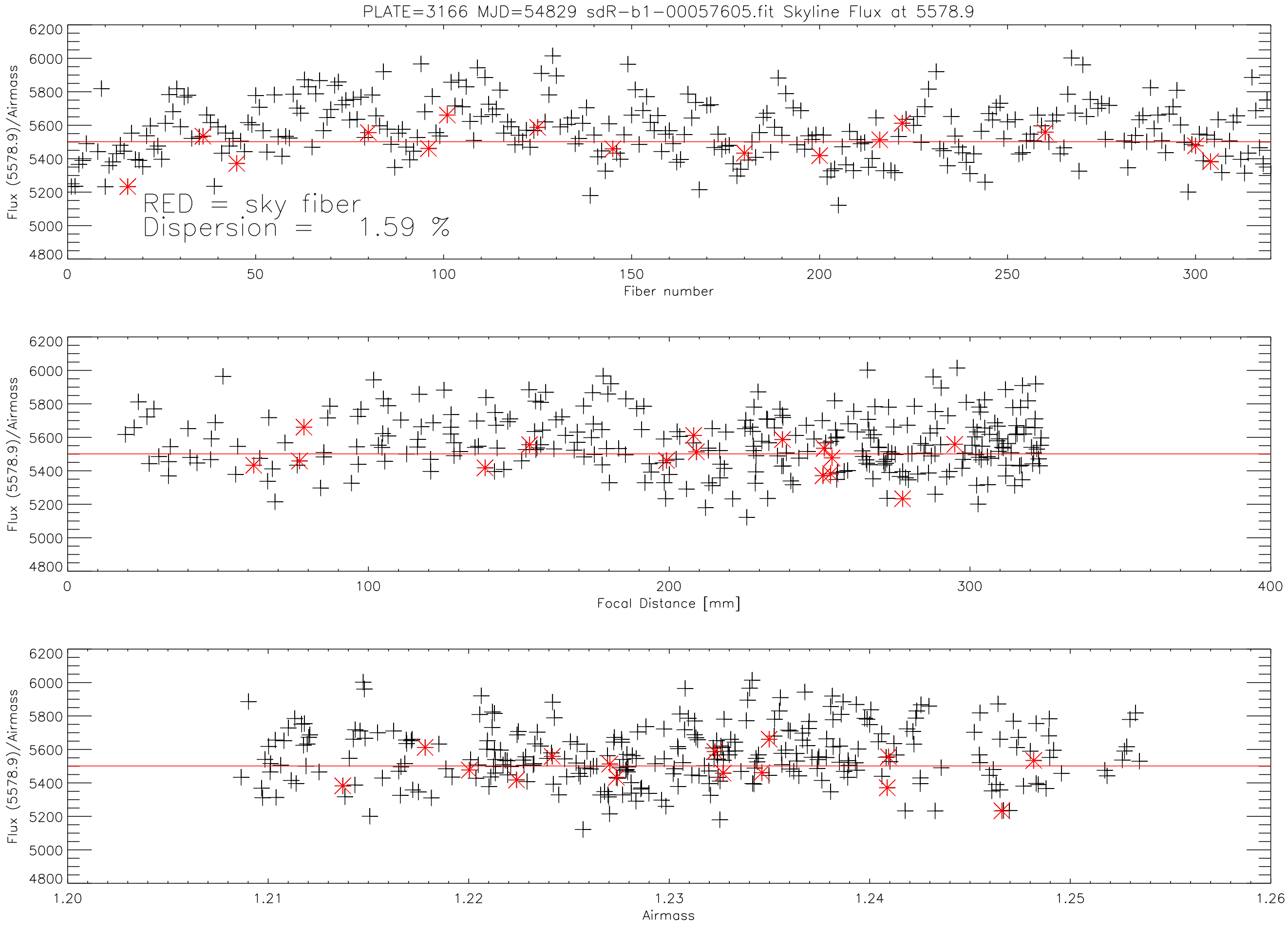

PLATE=3166 MJD=54829 sdR-b1-00057605.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
−100
−200
5570
5575
5580
5585
5590
λ [A]

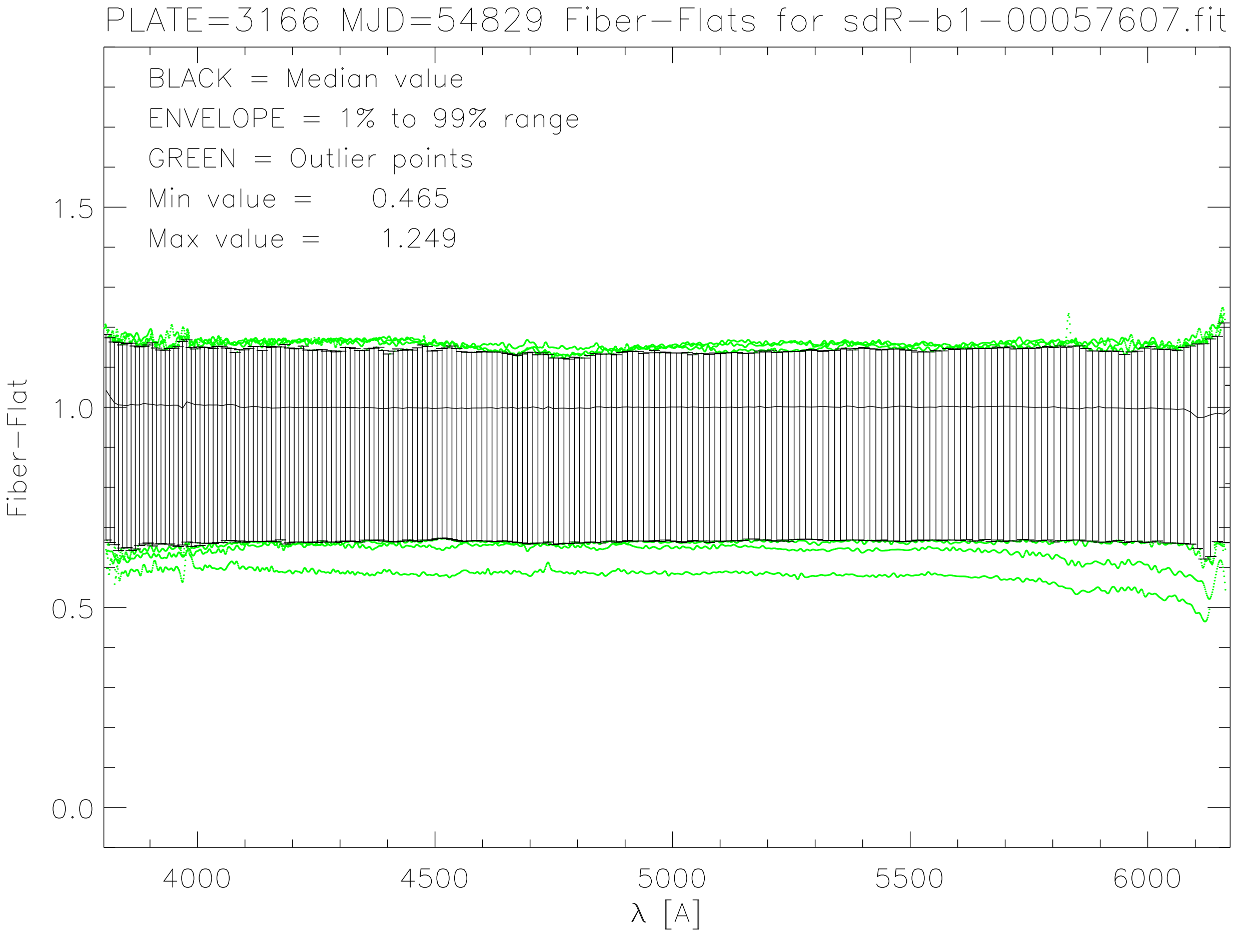
Number of sky fibers = 15

PLATE=3166 MJD=54829 sdR-b1-00057605.fit 2D Sky-subtraction Rescaled Errors




PLATE=3166 MJD=54829 sdR-b1-00057605.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 9.05 %
Fiber number
0
50
100
150
200
250
300
200
400
600
800
1000
1200
Focal Distance [mm]
0
100
200
300
400
Airmass
1.20
1.21
1.22
1.23
1.24
1.25
1.26


PLATE=3166 MJD=54829 sdR-b1-00057605.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
6200
6000
5800
5600
5400
5200
5000
4800
RED = sky fiber
Dispersion = 1.59 %
0
50
100
150
200
250
300
Fiber number
Flux (5578.9)/Airmass
6200
6000
5800
5600
5400
5200
5000
4800
0
100
200
300
400
Focal Distance [mm]
Flux (5578.9)/Airmass
6200
6000
5800
5600
5400
5200
5000
4800
1.20
1.21
1.22
1.23
1.24
1.25
1.26
Airmass



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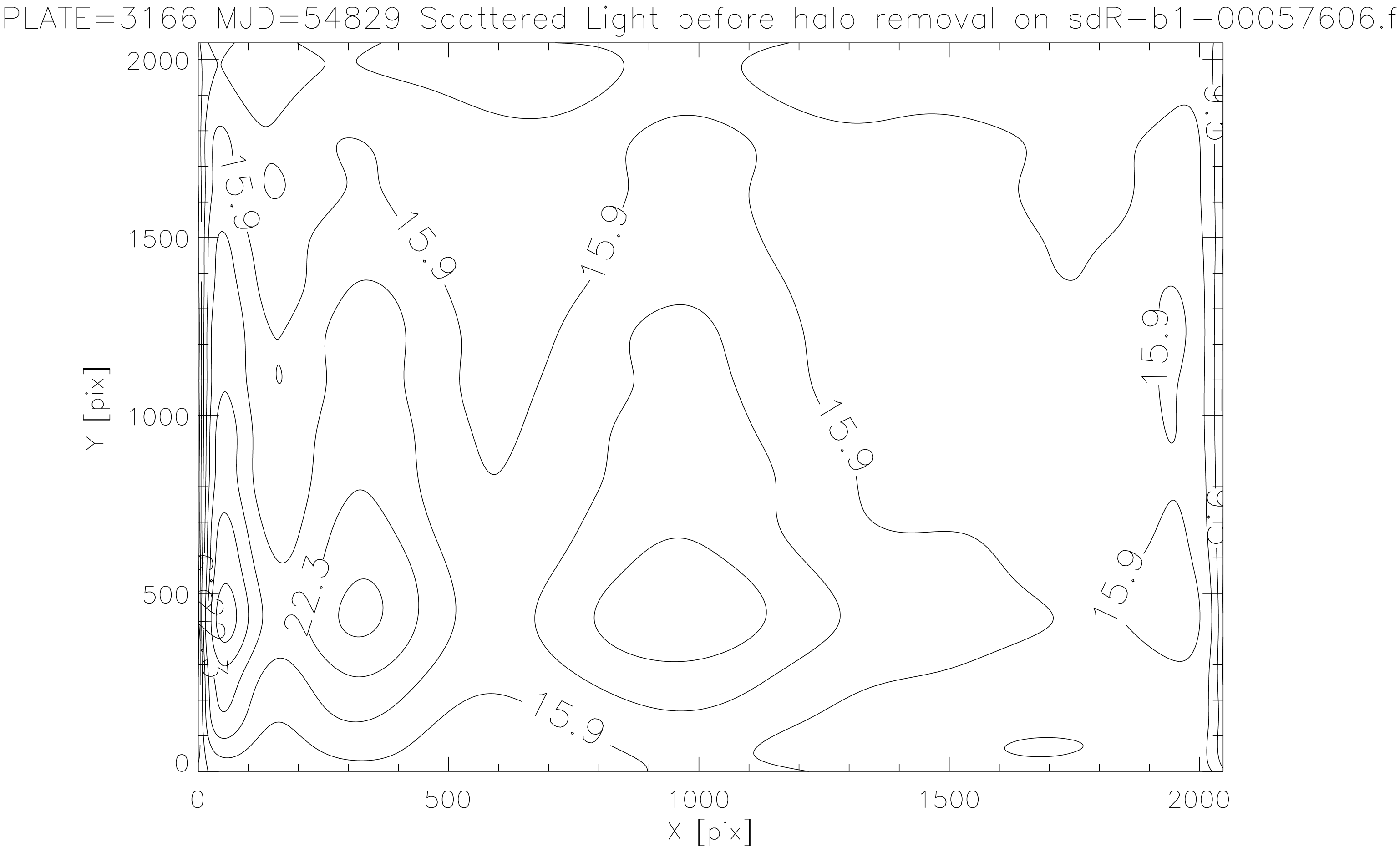
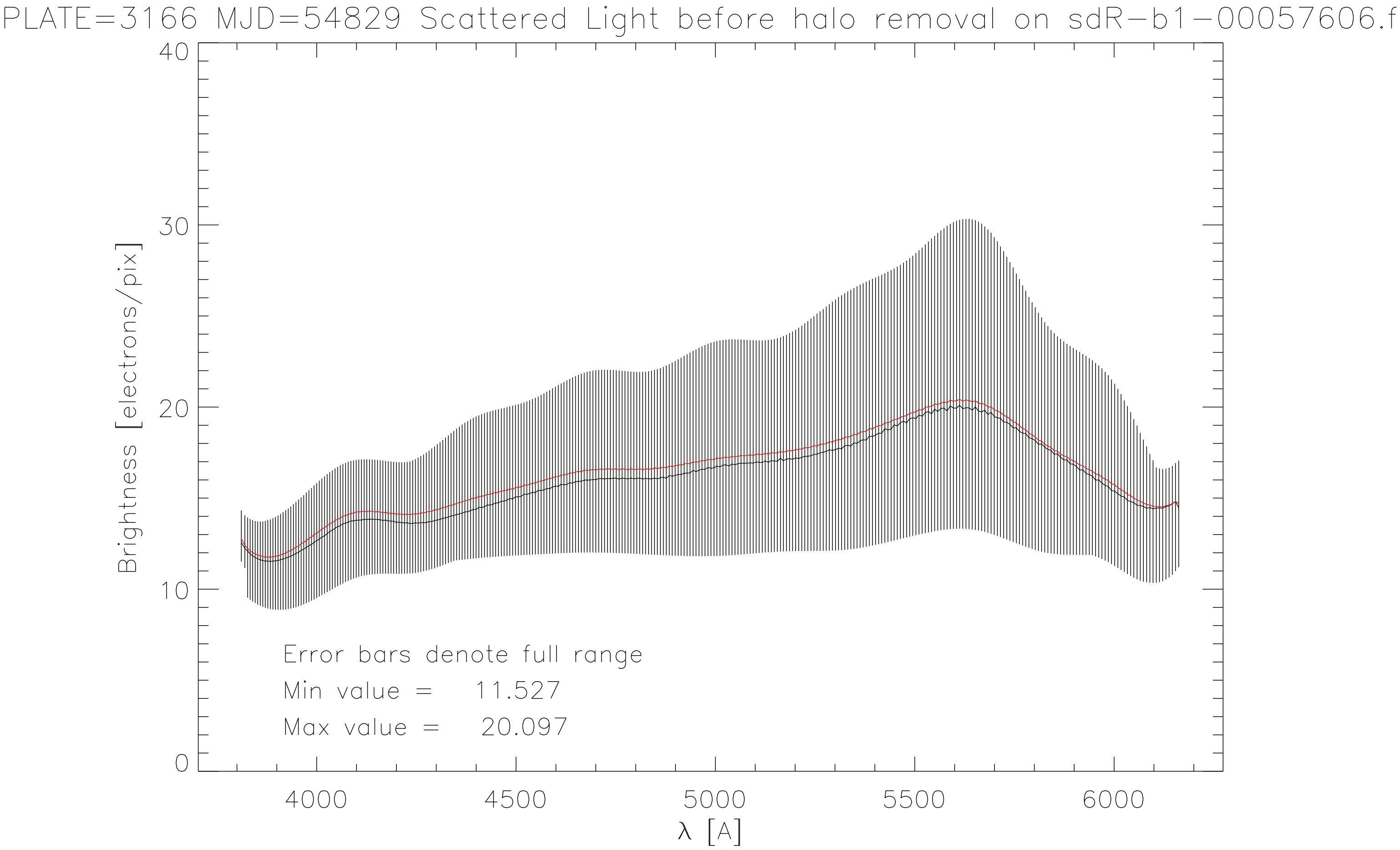
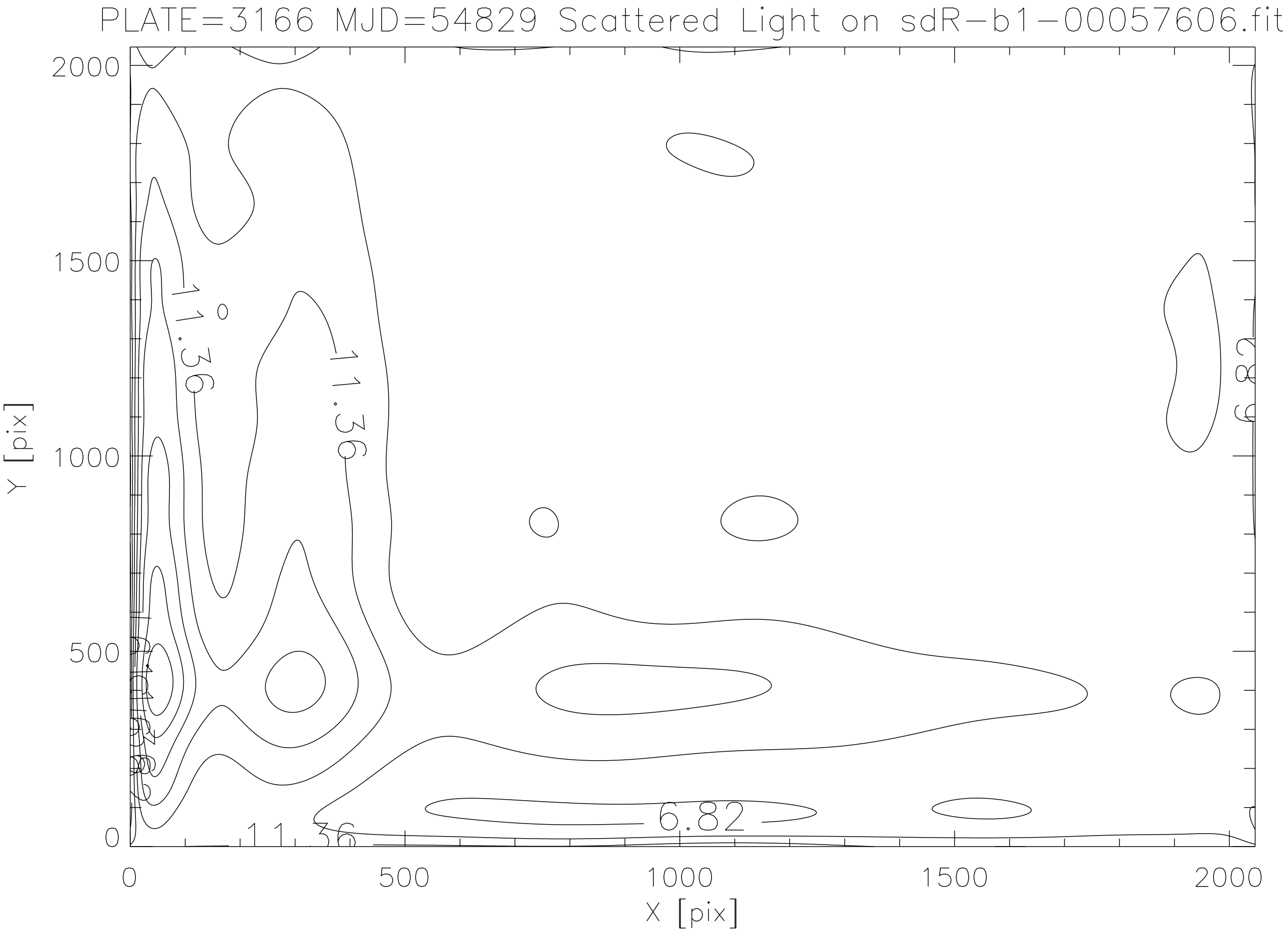
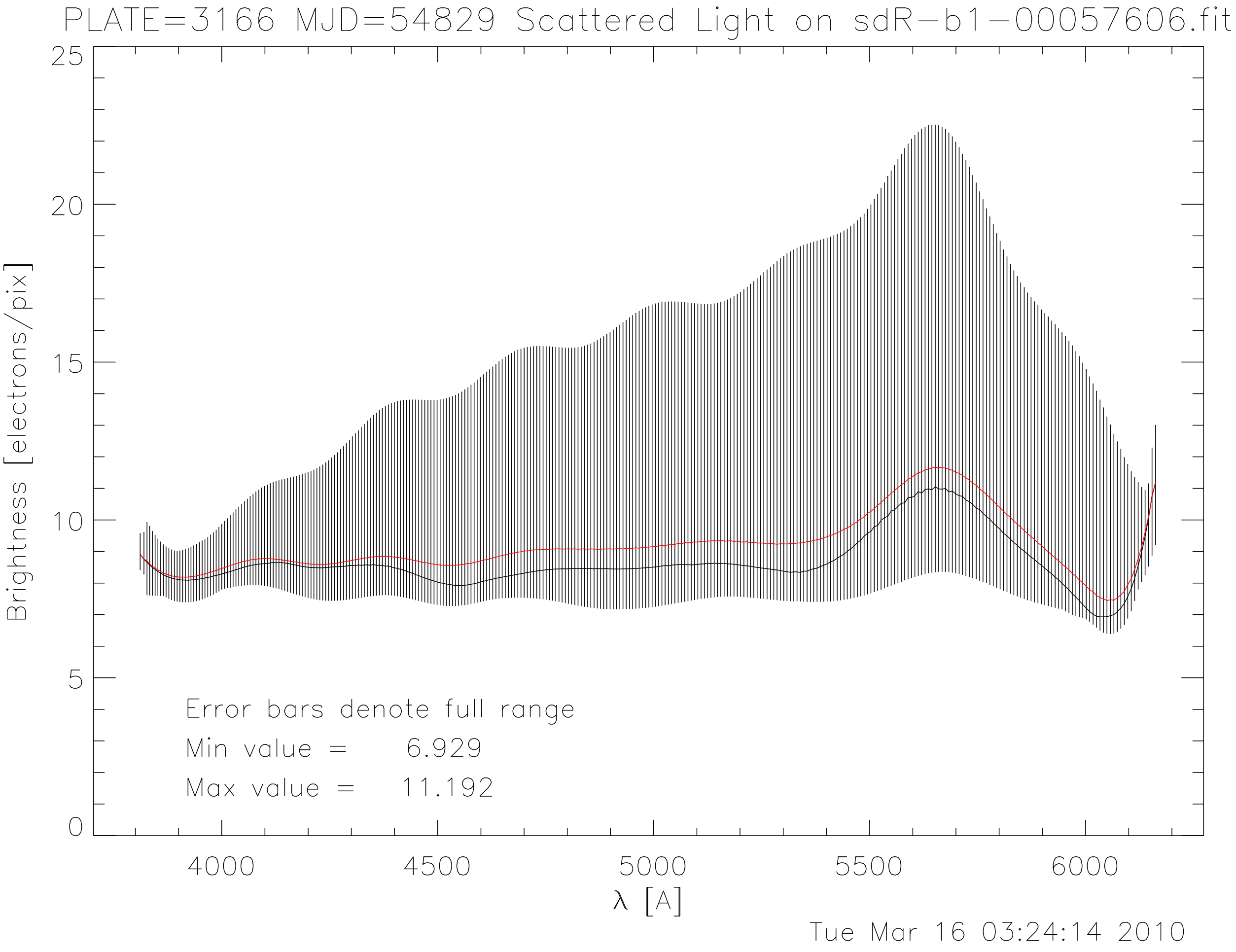
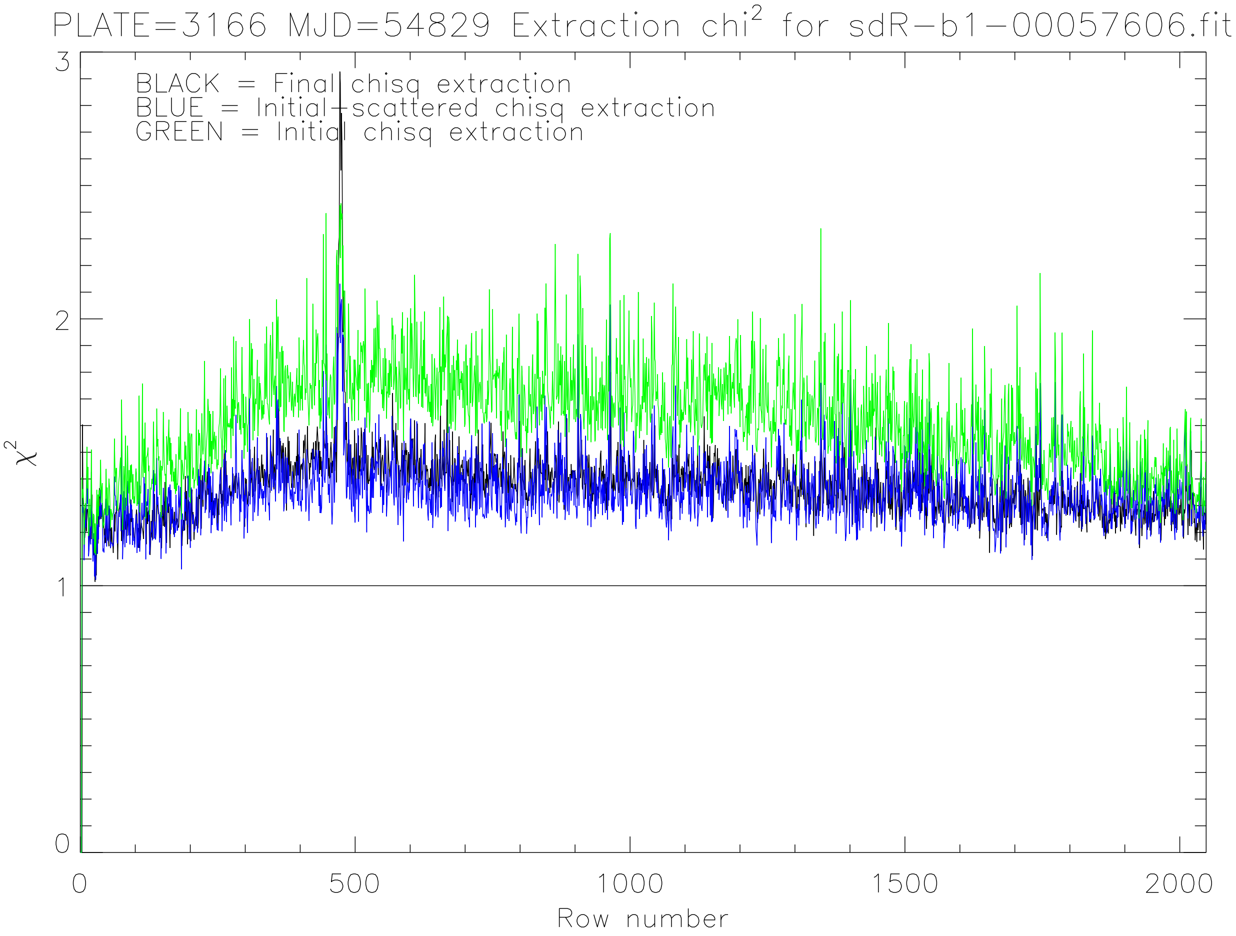

PLATE=3166 MJD=54829 Scattered Light before halo removal on sdR-b1-00057606.f
Y [pix]
X [pix]
0
500
1000
1500
2000
0
500
1000
1500
2000
15.9
15.9
15.9
15.9
15.9
15.9
15.9
15.9
9.6
9.6
22.3
22.3

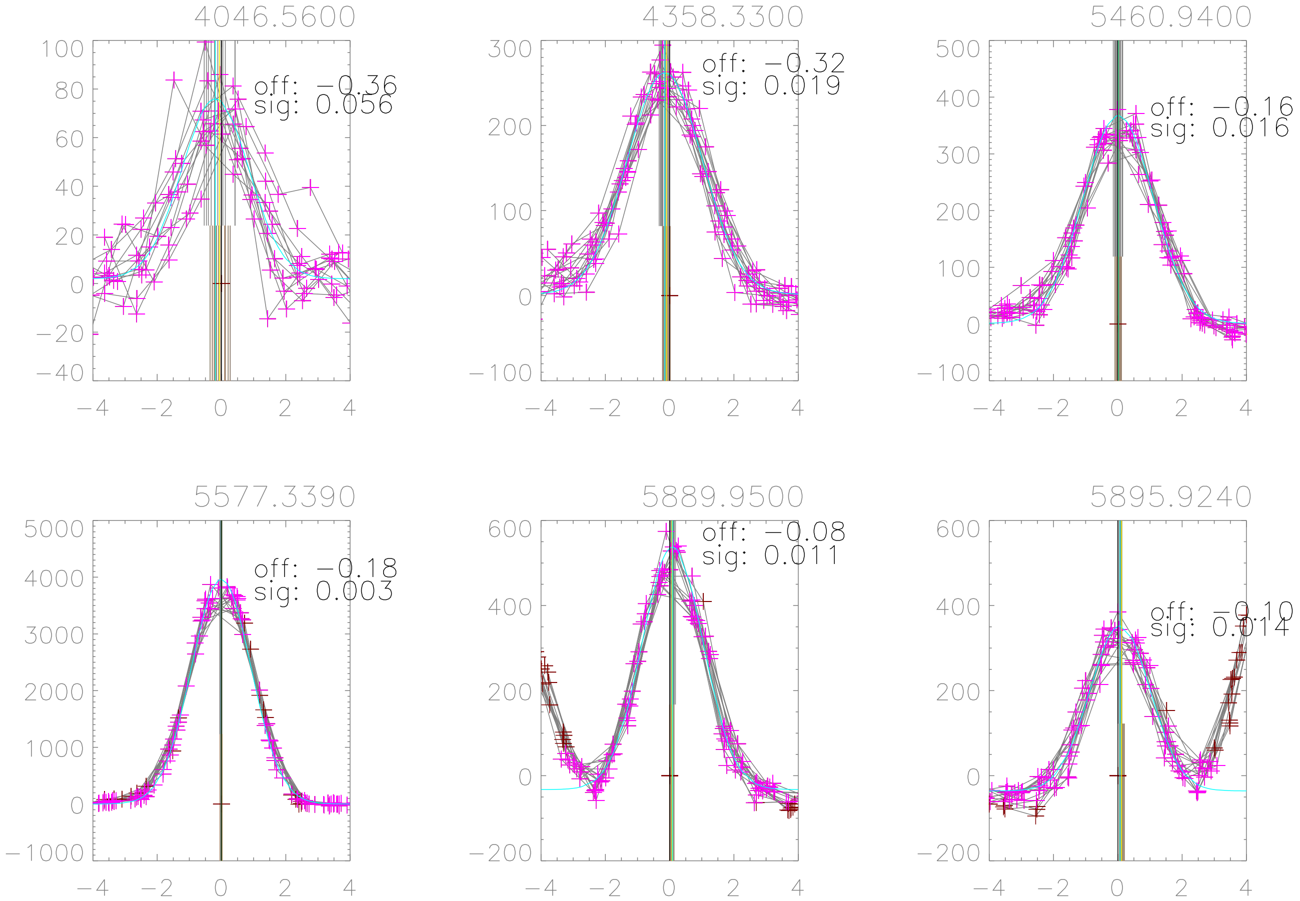


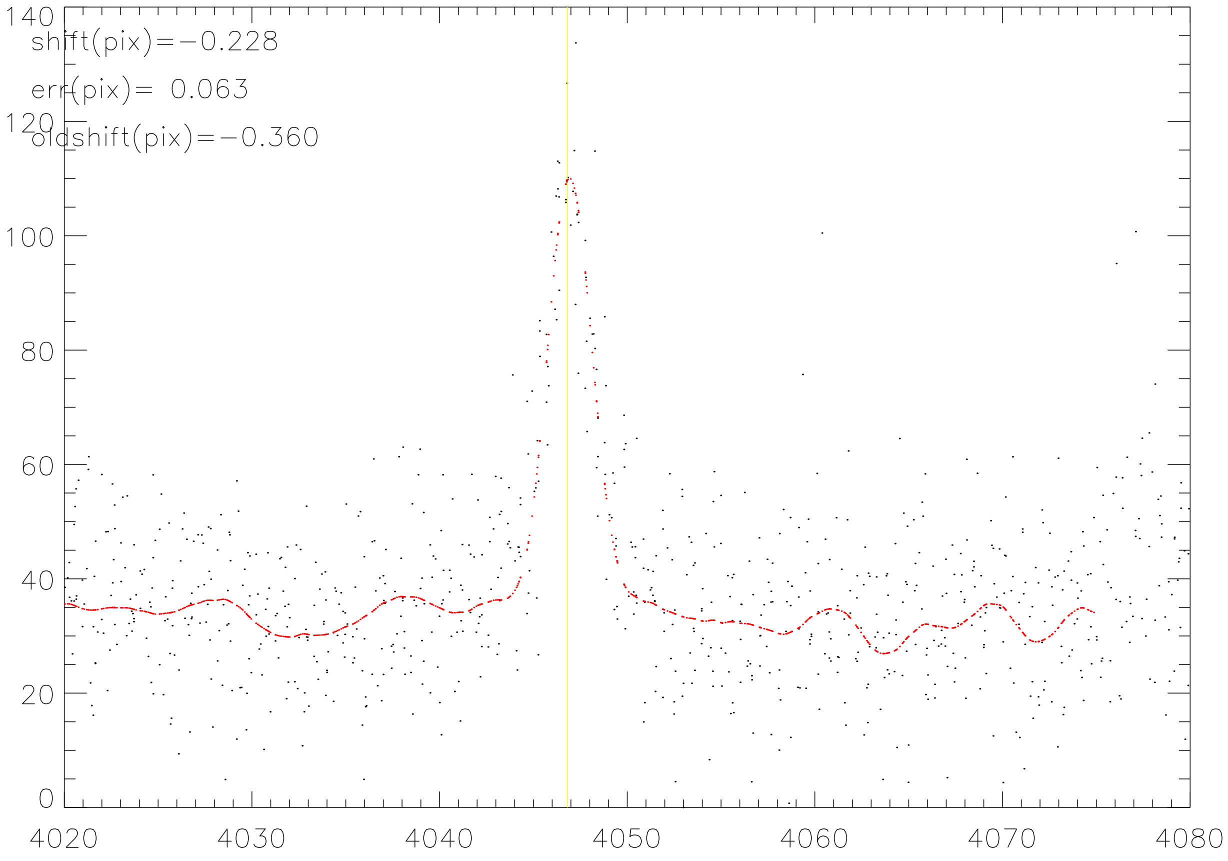
Tue Mar 16 03:22:30 2010

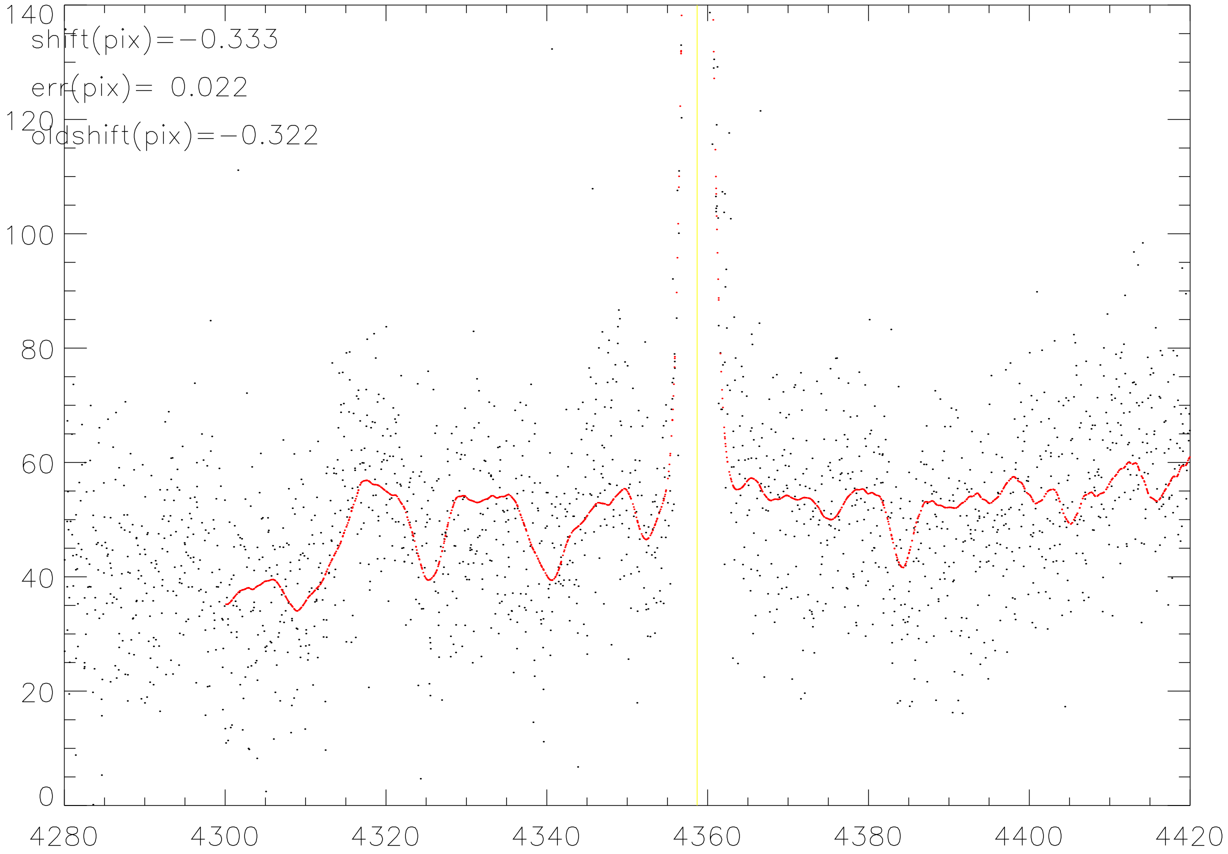

PLATE=3166 MJD=54829 Scattered Light on sdR-b1-00057606.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
0
500
1000
1500
2000
11.36
11.36
11.36
6.82
6.82

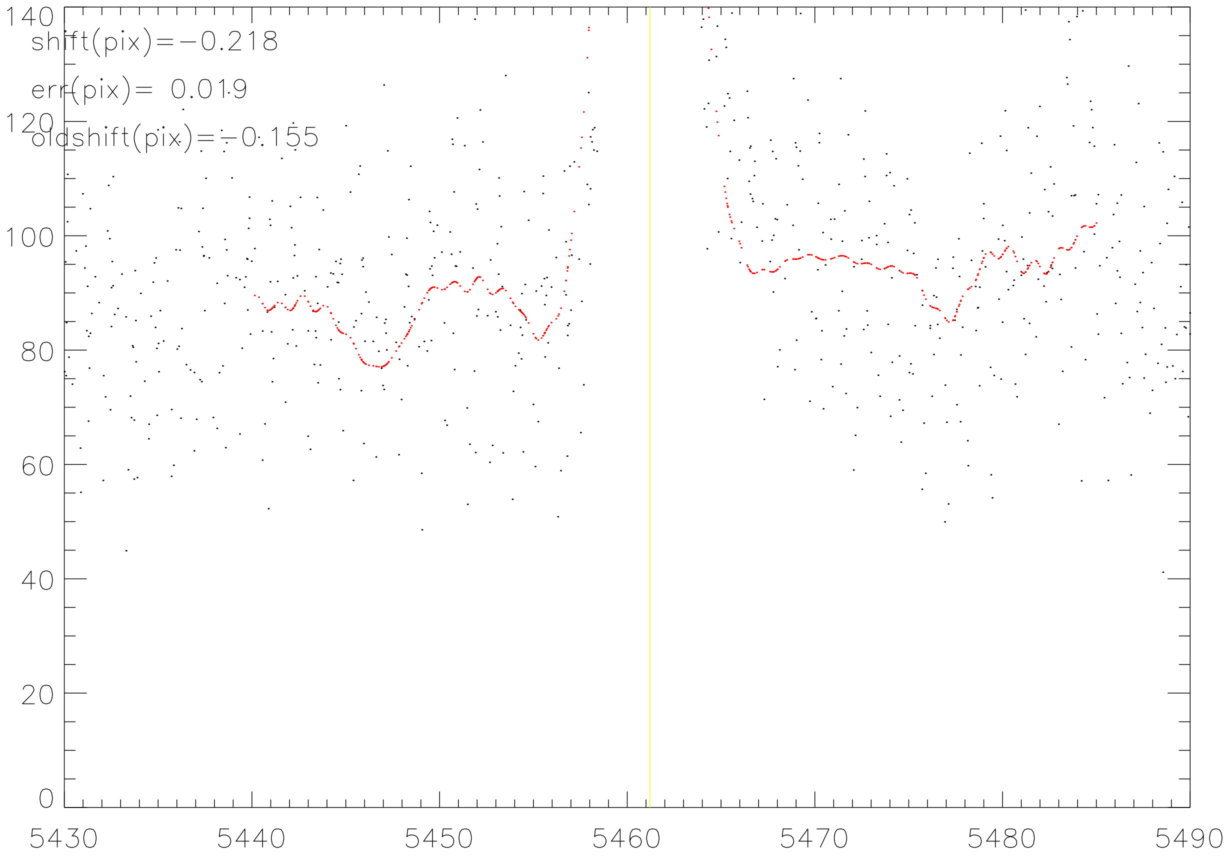

PLATE=3166 MJD=54829 Scattered Light on sdR-b1-00057606.fit
Brightness [electrons/pix]
0
5
10
15
20
25
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value =   6.929
Max value =   11.192
Tue Mar 16 03:24:14 2010

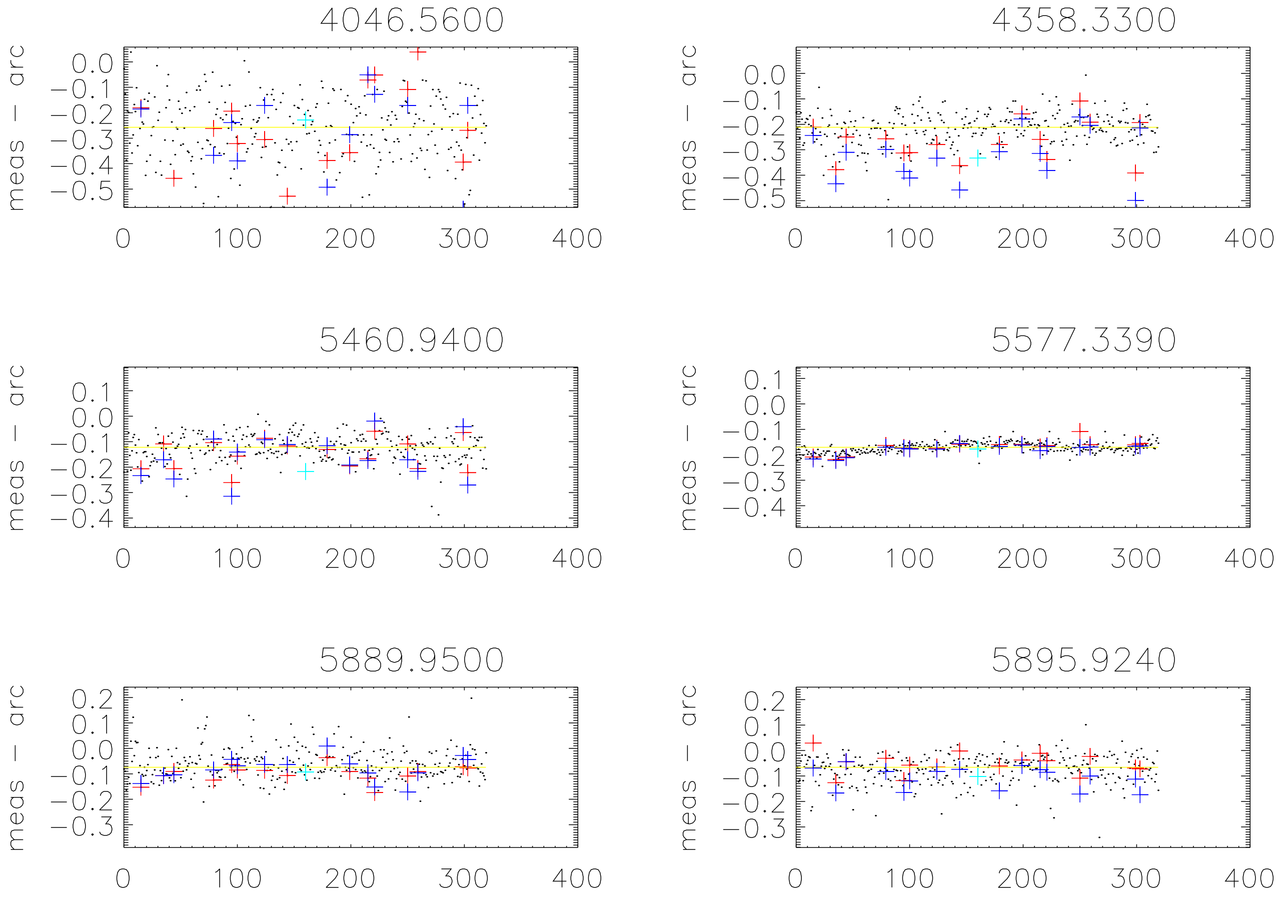

PLATE=3166 MJD=54829 Extraction chi^2 for sdR-b1-00057606.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
0
500
1000
1500
2000
Row number

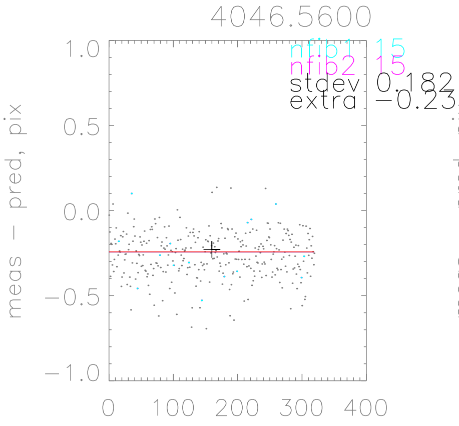

4046.5600
off: −0.36
sig: 0.056
100
80
60
40
20
0
−20
−40
−4
−2
0
2
4
4358.3300
off: −0.32
sig: 0.019
300
200
100
0
−100
−4
−2
0
2
4
5460.9400
off: −0.16
sig: 0.016
500
400
300
200
100
0
−100
−4
−2
0
2
4
5577.3390
off: −0.18
sig: 0.003
5000
4000
3000
2000
1000
0
−1000
−4
−2
0
2
4
5889.9500
off: −0.08
sig: 0.011
600
400
200
0
−200
−4
−2
0
2
4
5895.9240
off: −0.10
sig: 0.014
600
400
200
0
−200
−4
−2
0
2
4

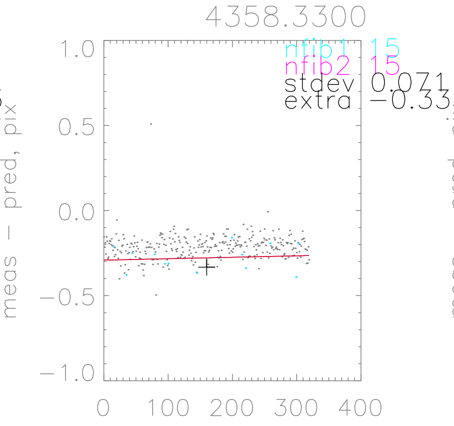

shift(pix)=-0.228
err(pix)= 0.063
oldshift(pix)=-0.360
140
120
100
80
60
40
20
0
4020
4030
4040
4050
4060
4070
4080

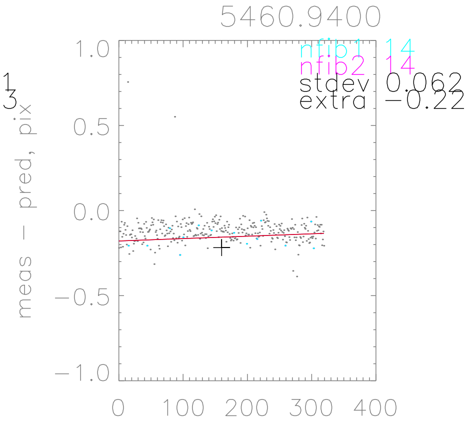

shift(pix)=−0.333
err(pix)= 0.022
oldshift(pix)=−0.322
0
20
40
60
80
100
120
140
4280
4300
4320
4340
4360
4380
4400
4420

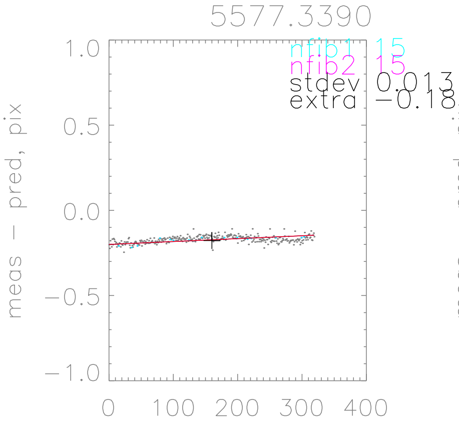

shift(pix)=−0.218
err(pix)= 0.019
oldshift(pix)=−0.155
140
120
100
80
60
40
20
0
5430
5440
5450
5460
5470
5480
5490

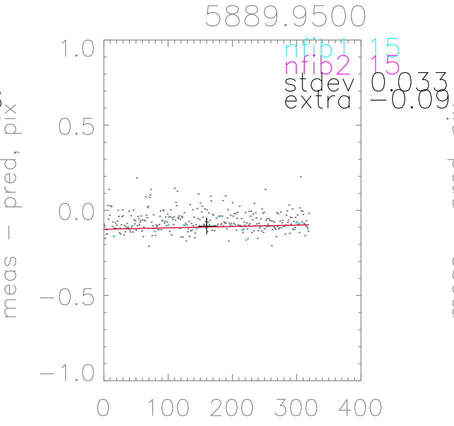

4046.5600
4358.3300
5460.9400
5577.3390
5889.9500
5895.9240
meas − arc
0
100
200
300
400
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0.1
0.2
−0.3

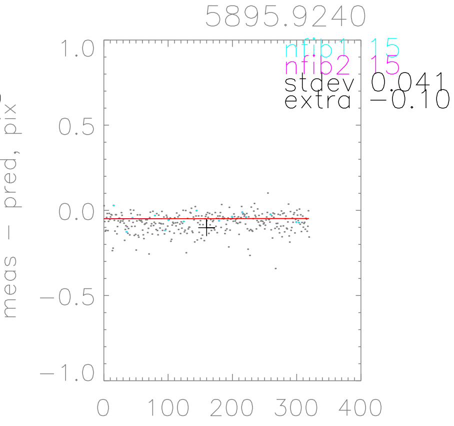

4046.5600
nfib1 15
nfib2 15
stdev 0.182
extra −0.23
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

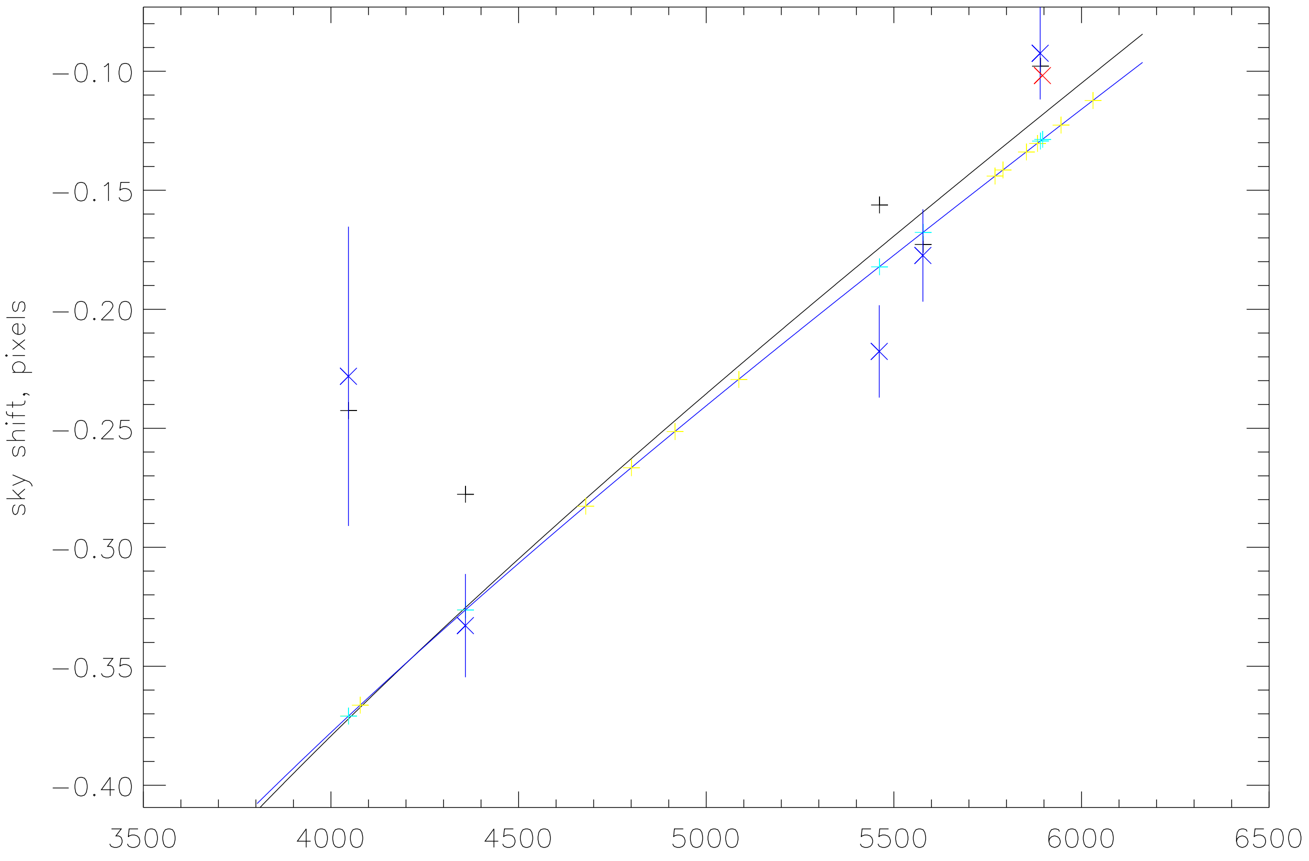

4358.3300
nfib1 15
nfib2 15
stdev 0.071
extra −0.33
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

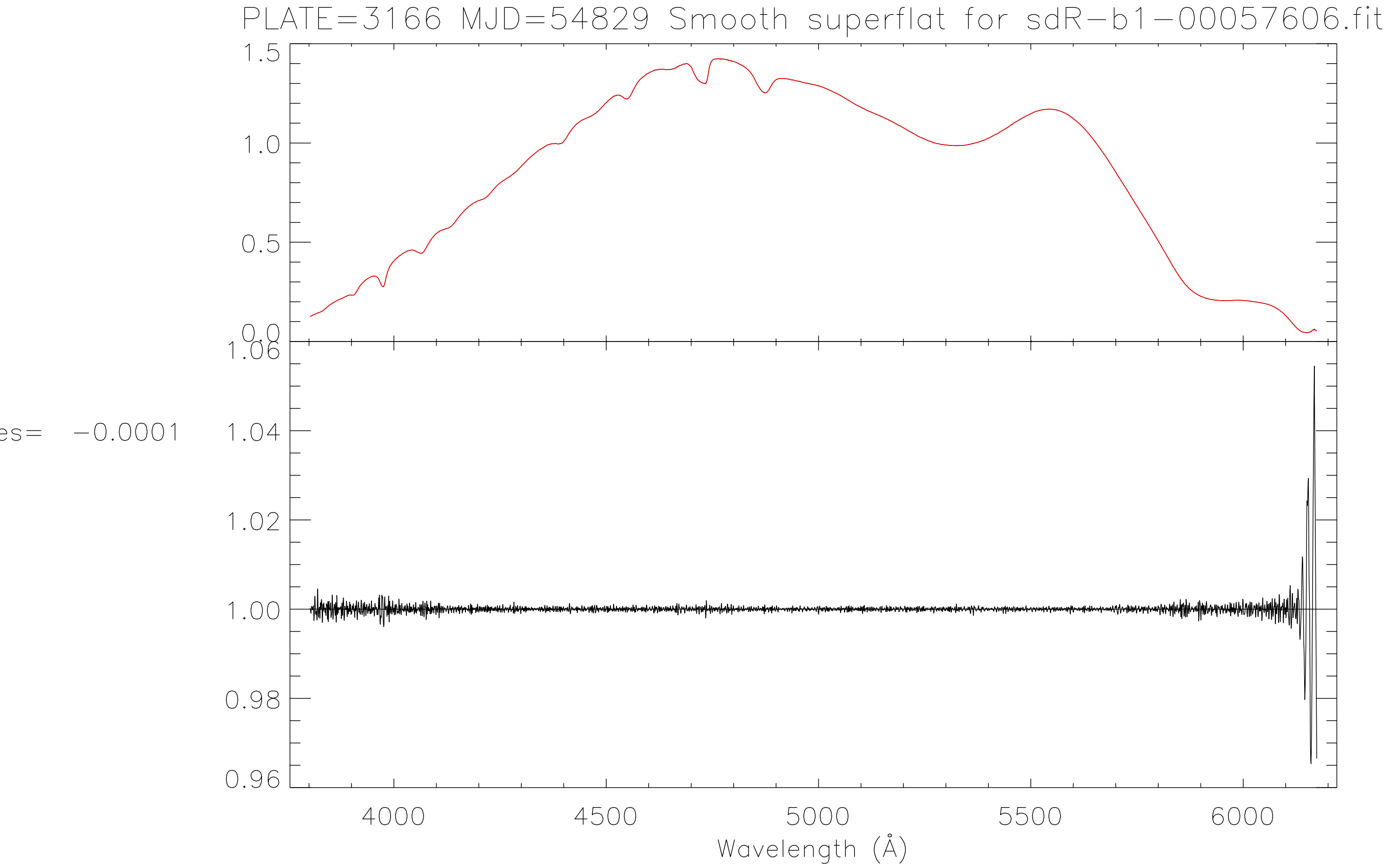

5460.9400
nfib1 14
nfib2 14
stdev 0.062
extra −0.22
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

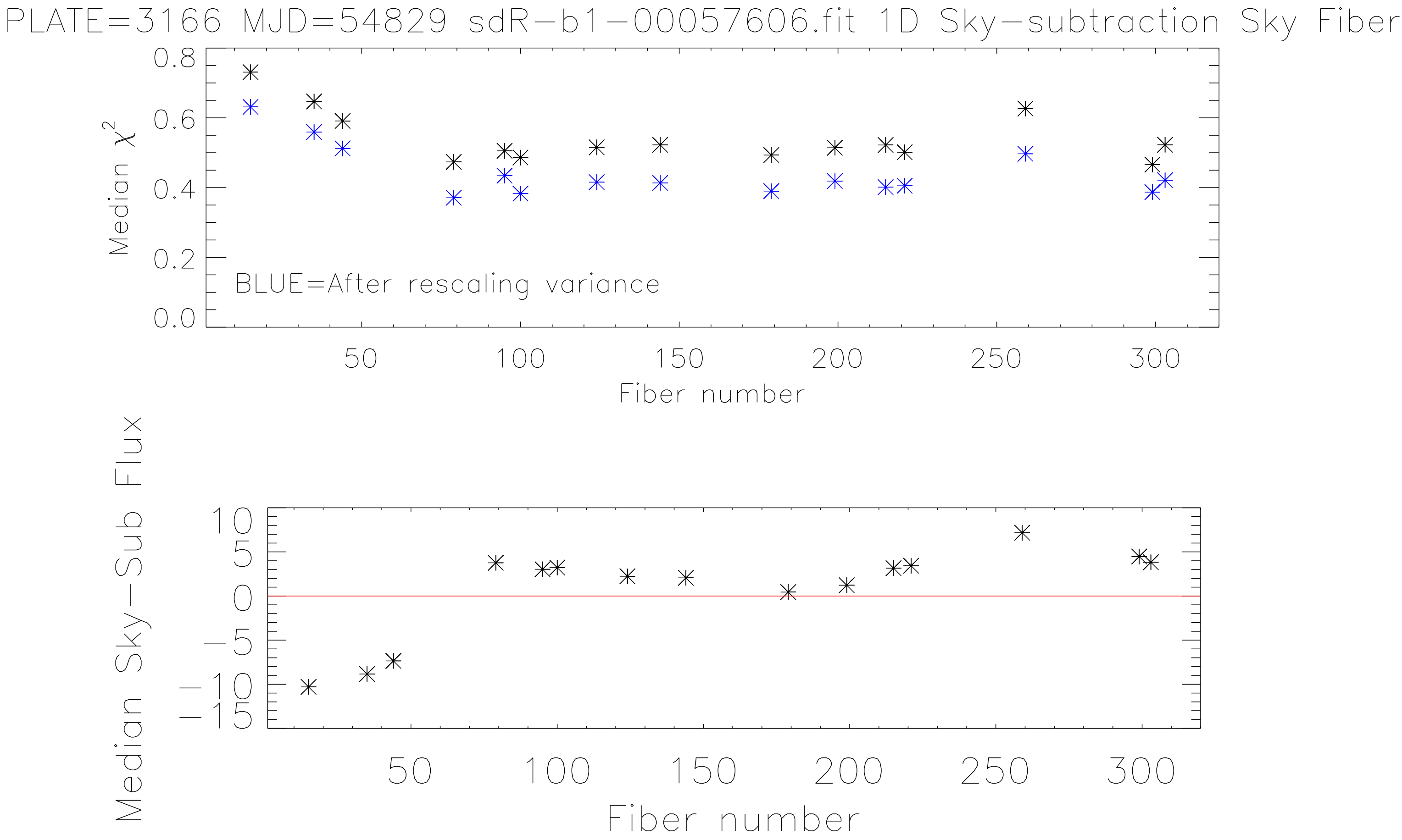

5577.3390
nfib1 15
nfib2 15
stdev 0.013
extra −0.18
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

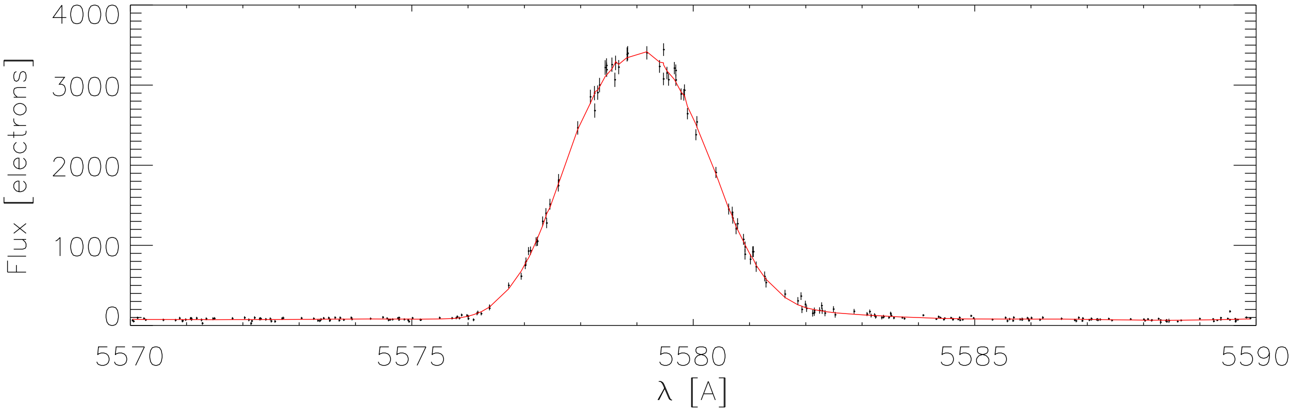

5889.9500
nfib1 15
nfib2 15
stdev 0.033
extra −0.09
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

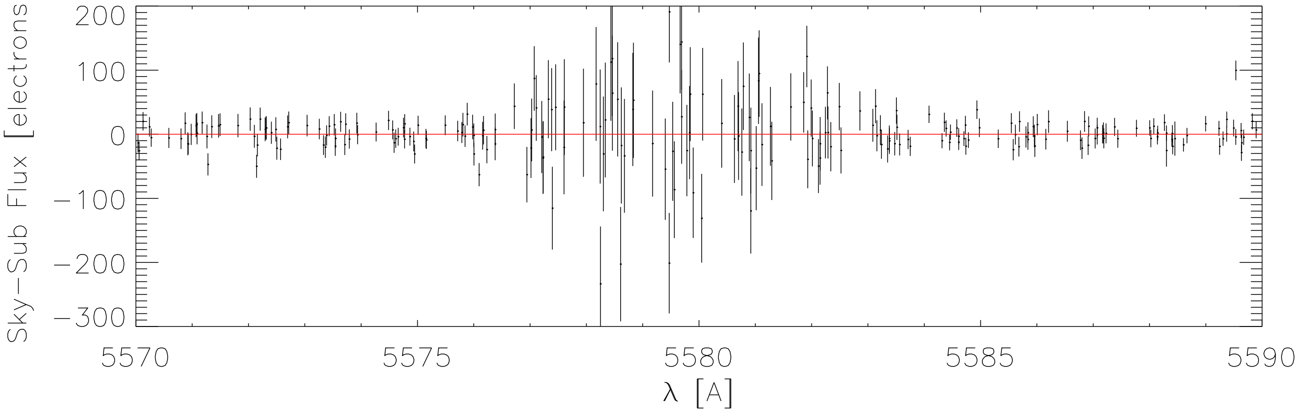

5895.9240
nfib1 15
nfib2 15
stdev 0.041
extra −0.10
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

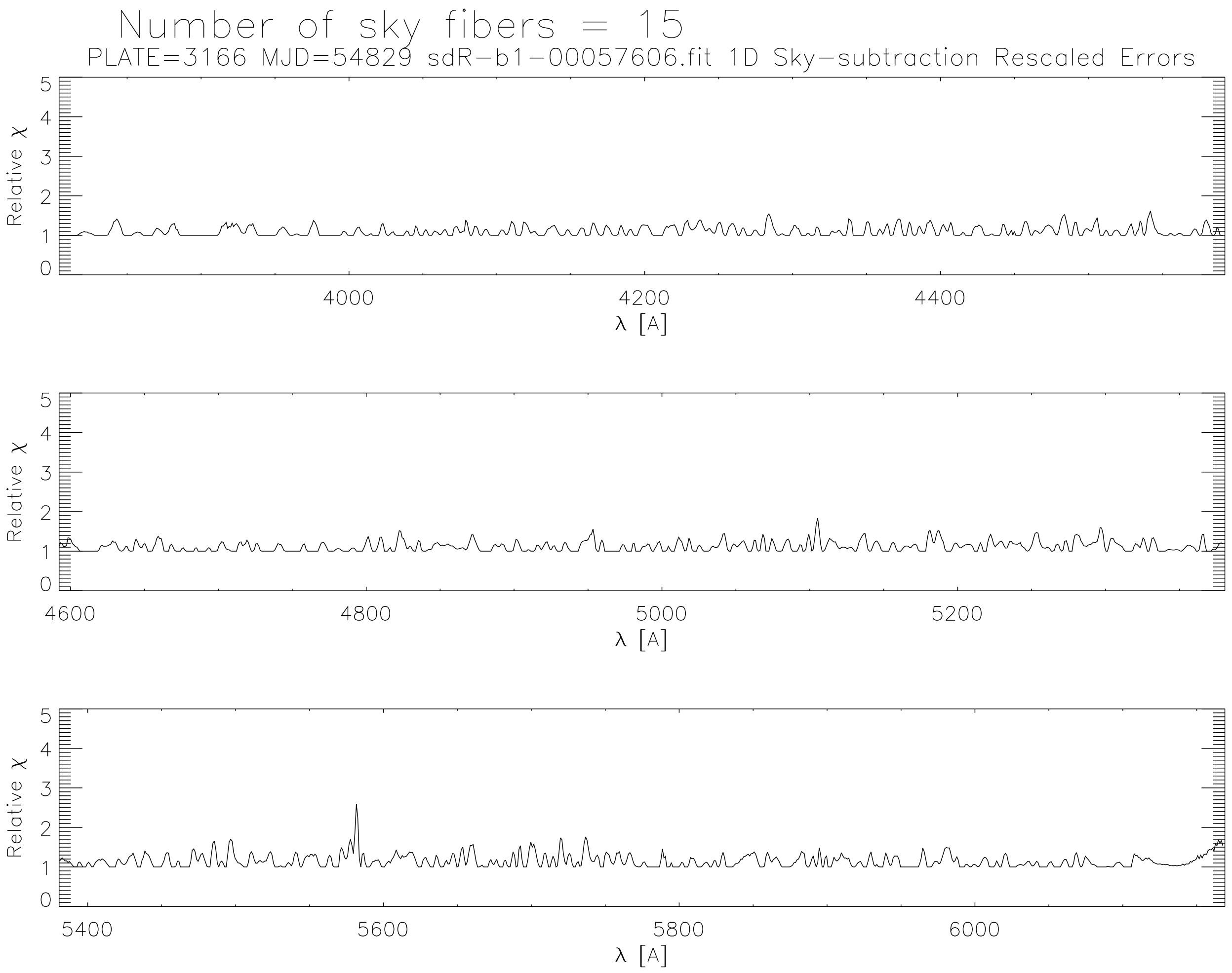

sky shift, pixels
−0.10
−0.15
−0.20
−0.25
−0.30
−0.35
−0.40
3500
4000
4500
5000
5500
6000
6500

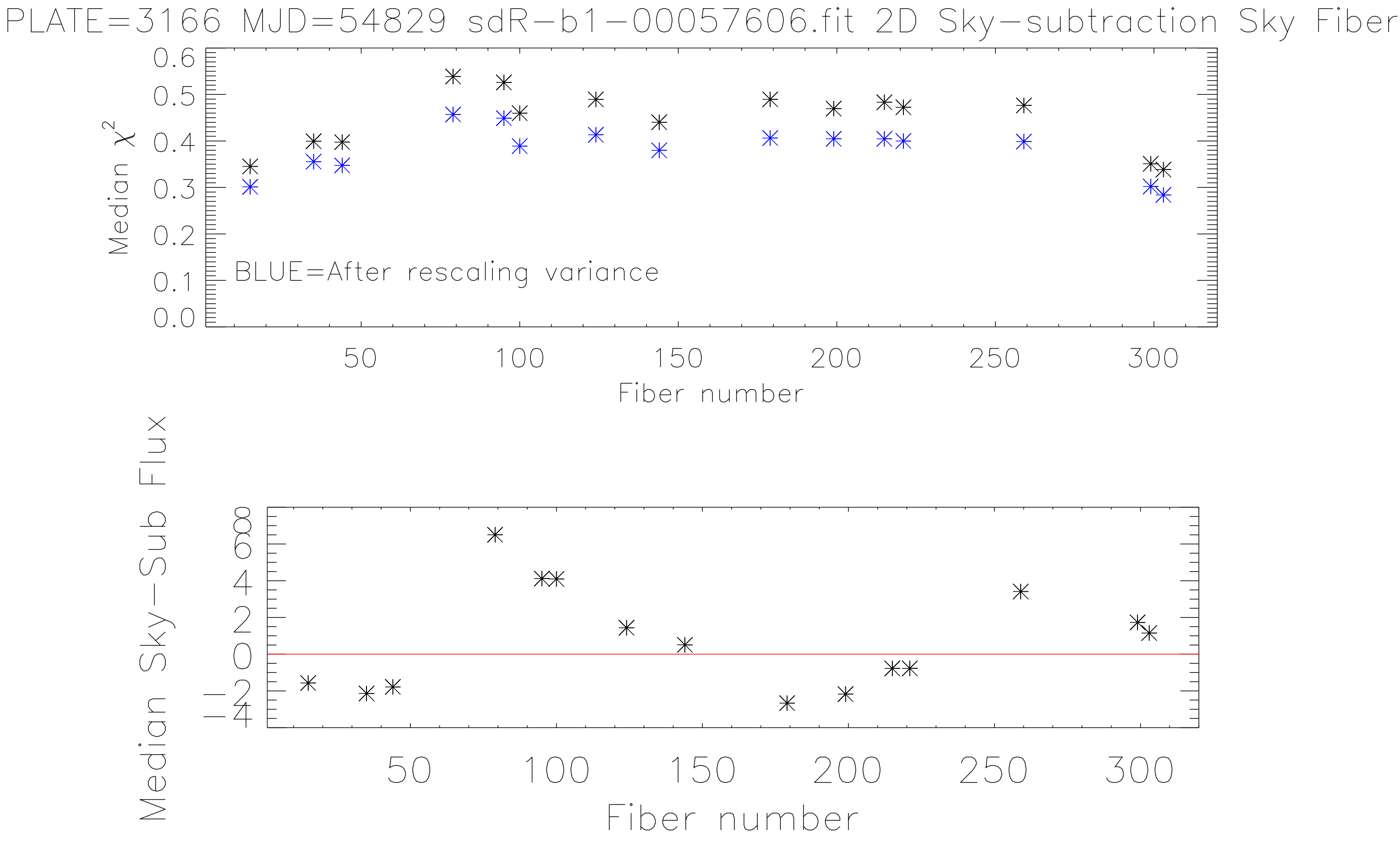

PLATE=3166 MJD=54829 Smooth superflat for sdR-b1-00057606.fit
1.5
1.0
0.5
0.0
1.06
1.04
1.02
1.00
0.98
0.96
es=   −0.0001
4000
4500
5000
5500
6000
Wavelength (Å)

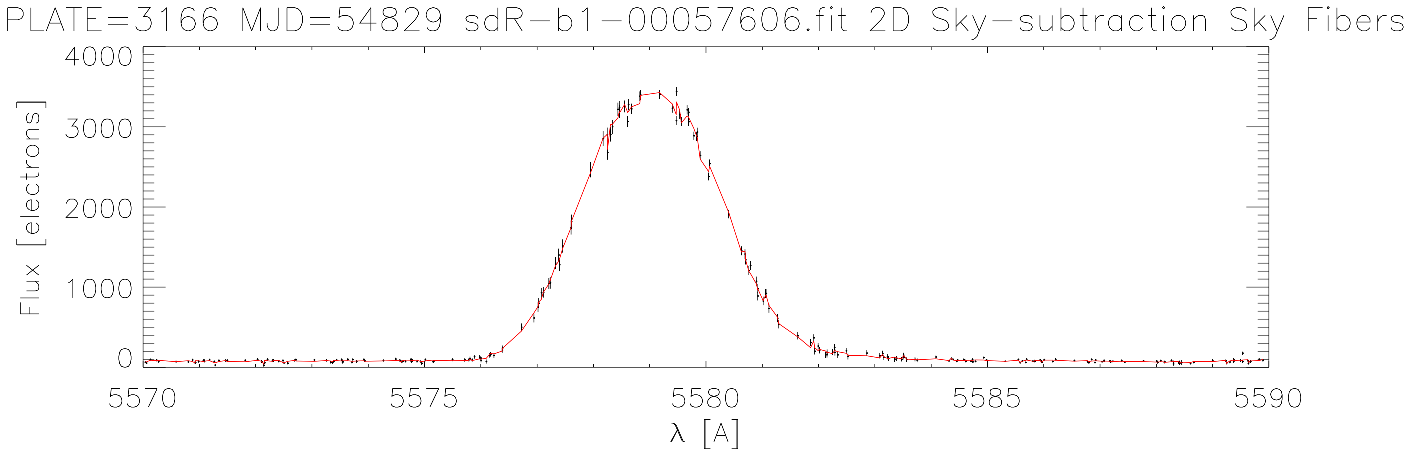

PLATE=3166 MJD=54829 sdR-b1-00057606.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.8
0.6
0.4
0.2
0.0
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
-5
-10
-15
50
100
150
200
250
300
Fiber number

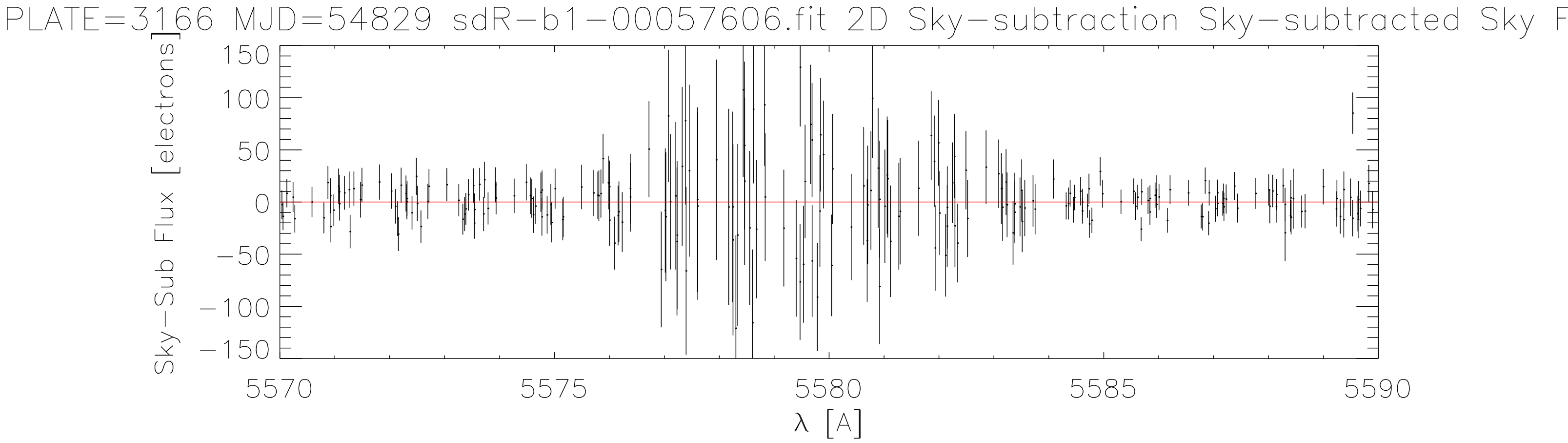

PLATE=3166 MJD=54829 sdR-b1-00057606.fit 1D Sky-subtraction Sky Fibers


PLATE=3166 MJD=54829 sdR-b1-00057606.fit 1D Sky-subtraction Sky-subtracted Sky F


Number of sky fibers = 15
PLATE=3166 MJD=54829 sdR-b1-00057606.fit 1D 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]

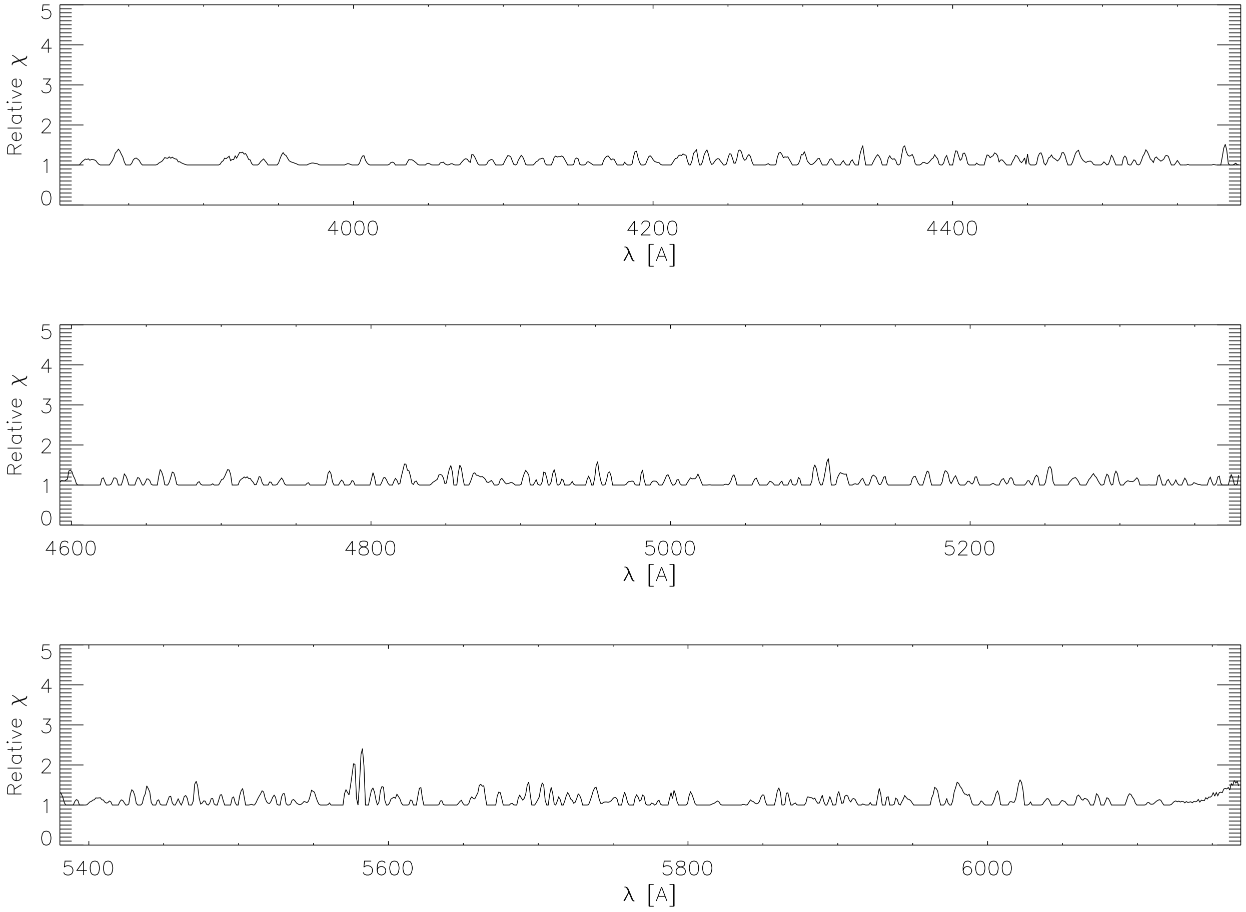

PLATE=3166 MJD=54829 sdR-b1-00057606.fit 2D Sky-subtraction Sky Fiber
Median χ^2
0.6
0.5
0.4
0.3
0.2
0.1
0.0
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
8
6
4
2
0
-2
-4
50
100
150
200
250
300
Fiber number

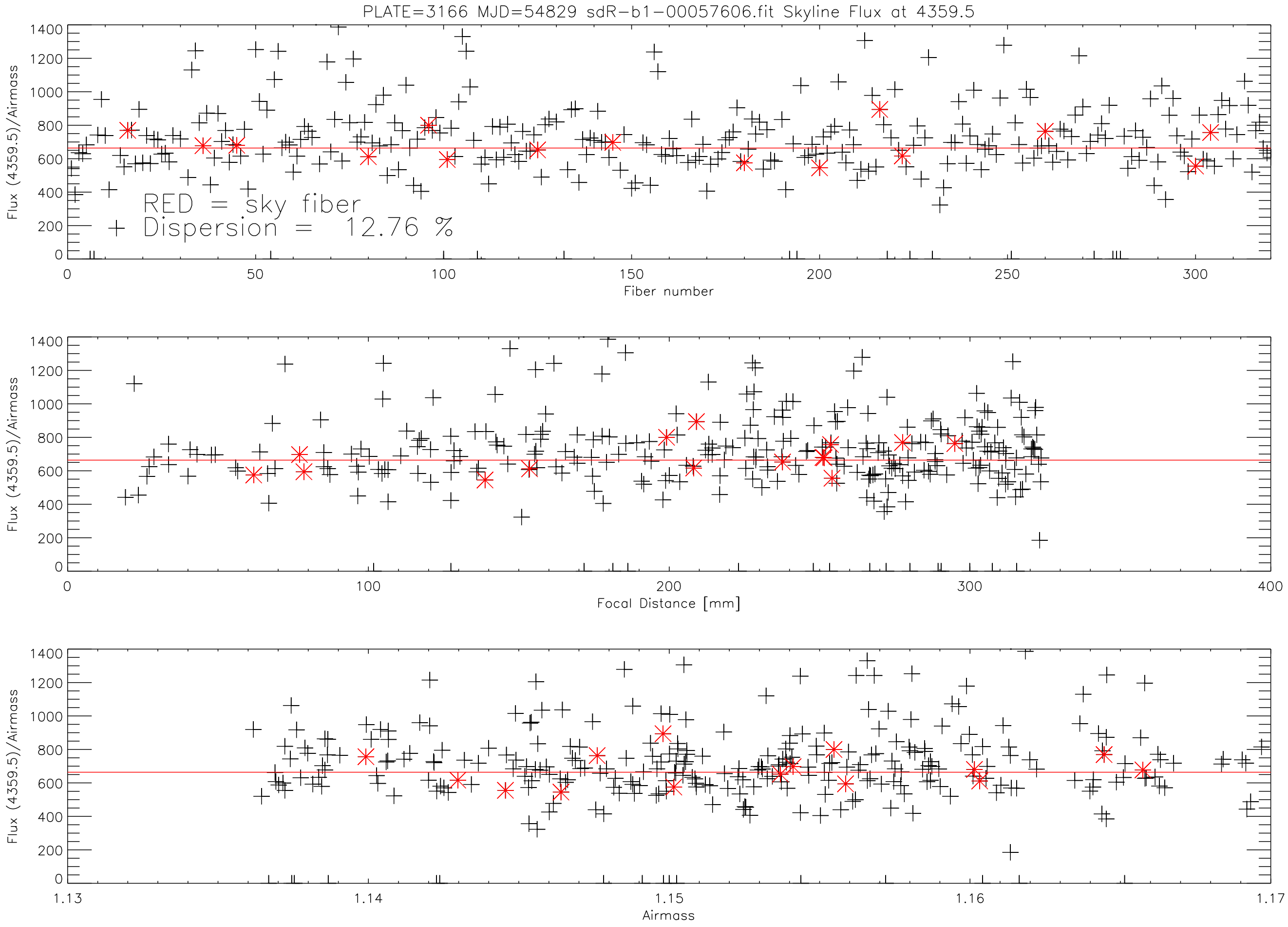

PLATE=3166 MJD=54829 sdR-b1-00057606.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

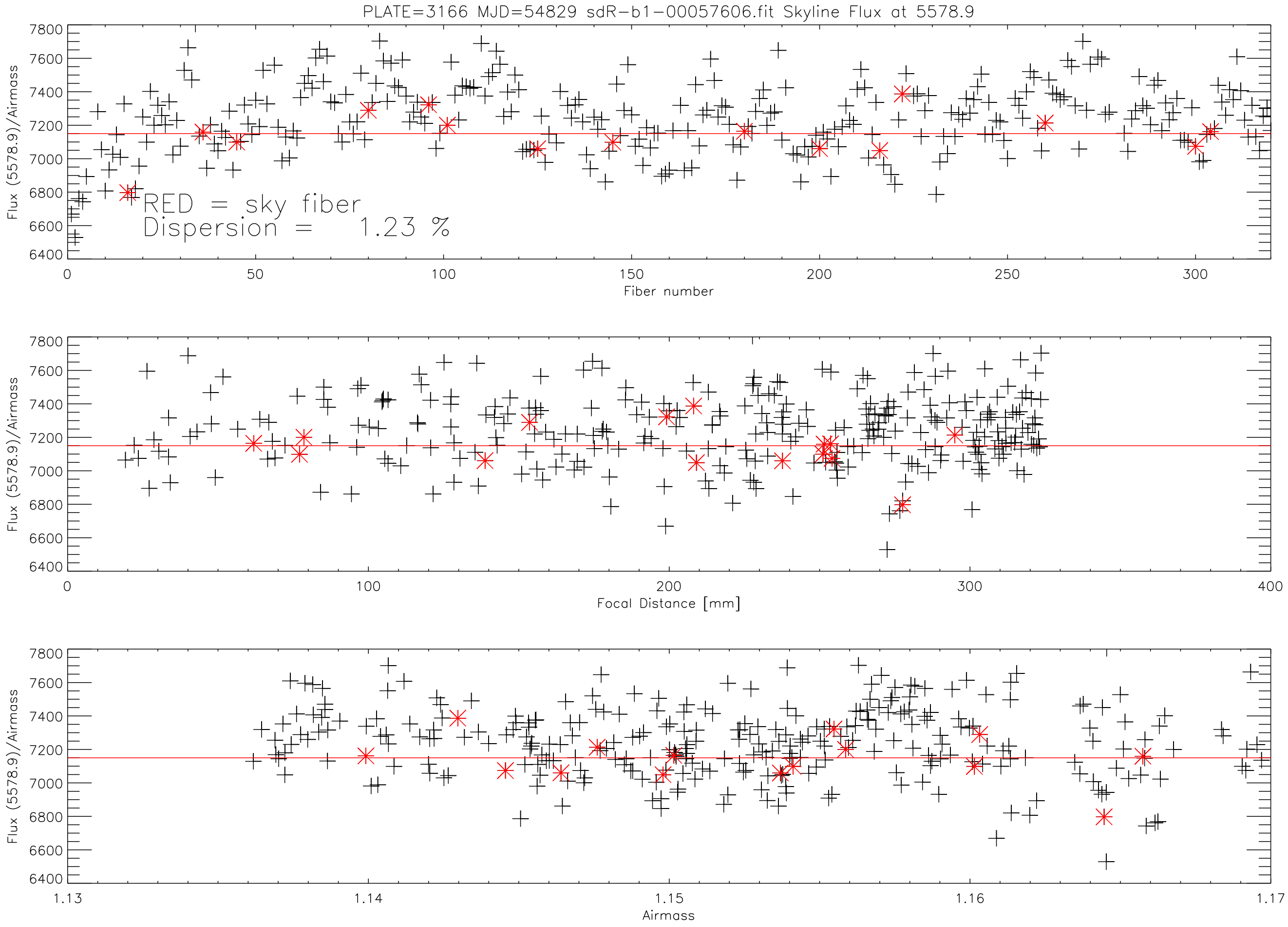

PLATE=3166 MJD=54829 sdR-b1-00057606.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
150
100
50
0
−50
−100
−150
5570
5575
5580
5585
5590
λ [A]

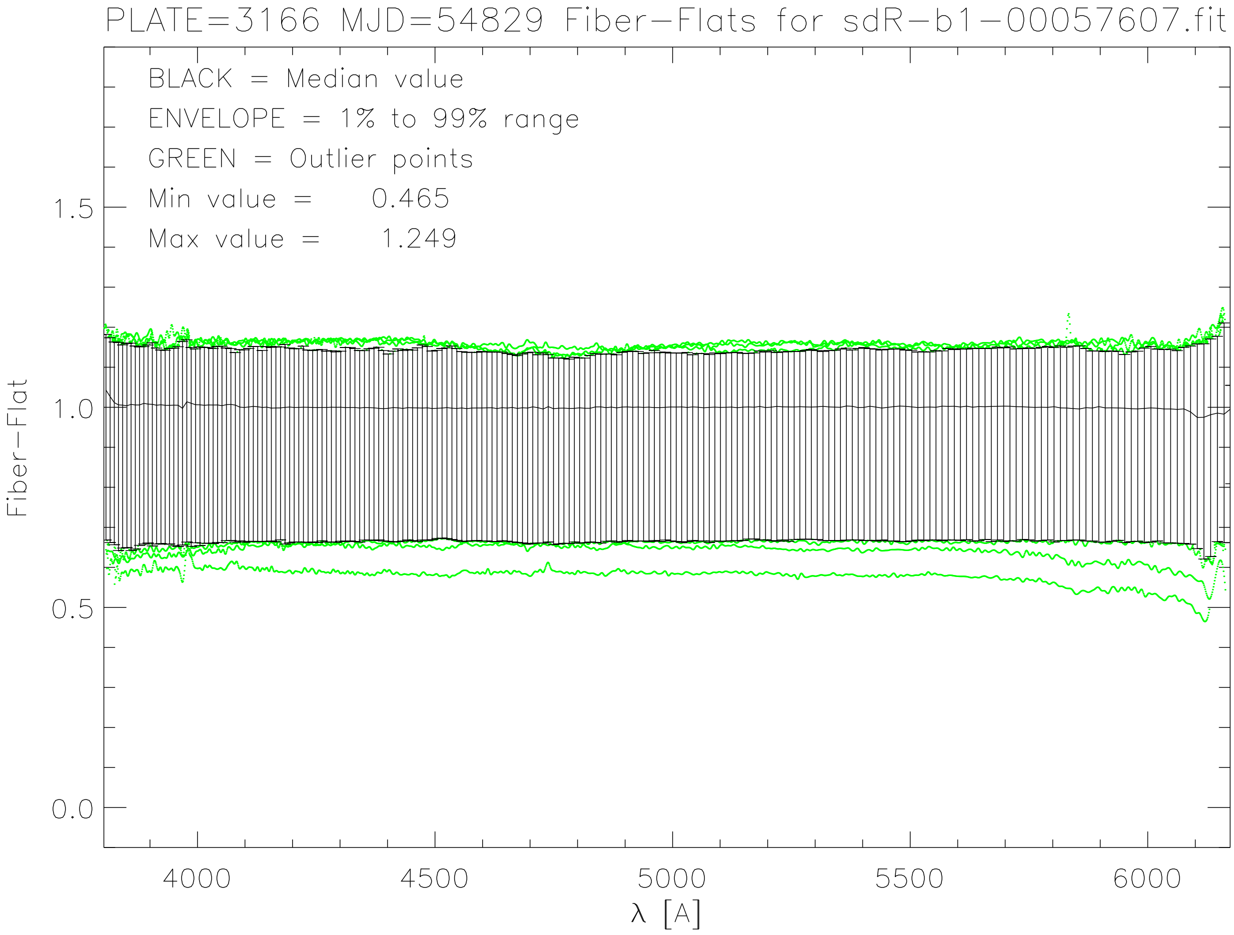
Number of sky fibers = 15

PLATE=3166 MJD=54829 sdR-b1-00057606.fit 2D Sky-subtraction Rescaled Errors




PLATE=3166 MJD=54829 sdR-b1-00057606.fit Skyline Flux at 4359.5


PLATE=3166 MJD=54829 sdR-b1-00057606.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
7800
7600
7400
7200
7000
6800
6600
6400
RED = sky fiber
Dispersion = 1.23 %
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
1.13
1.14
1.15
1.16
1.17
Airmass



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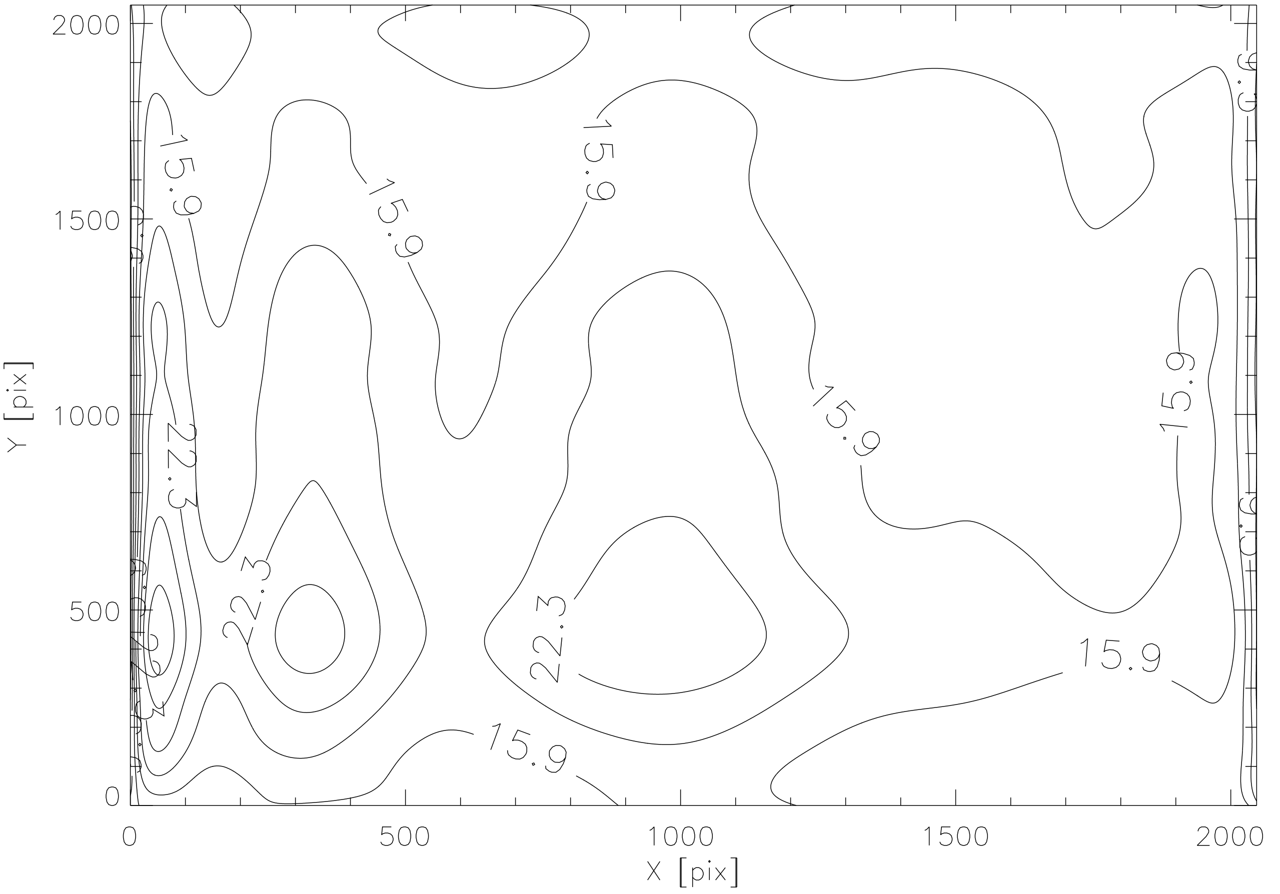
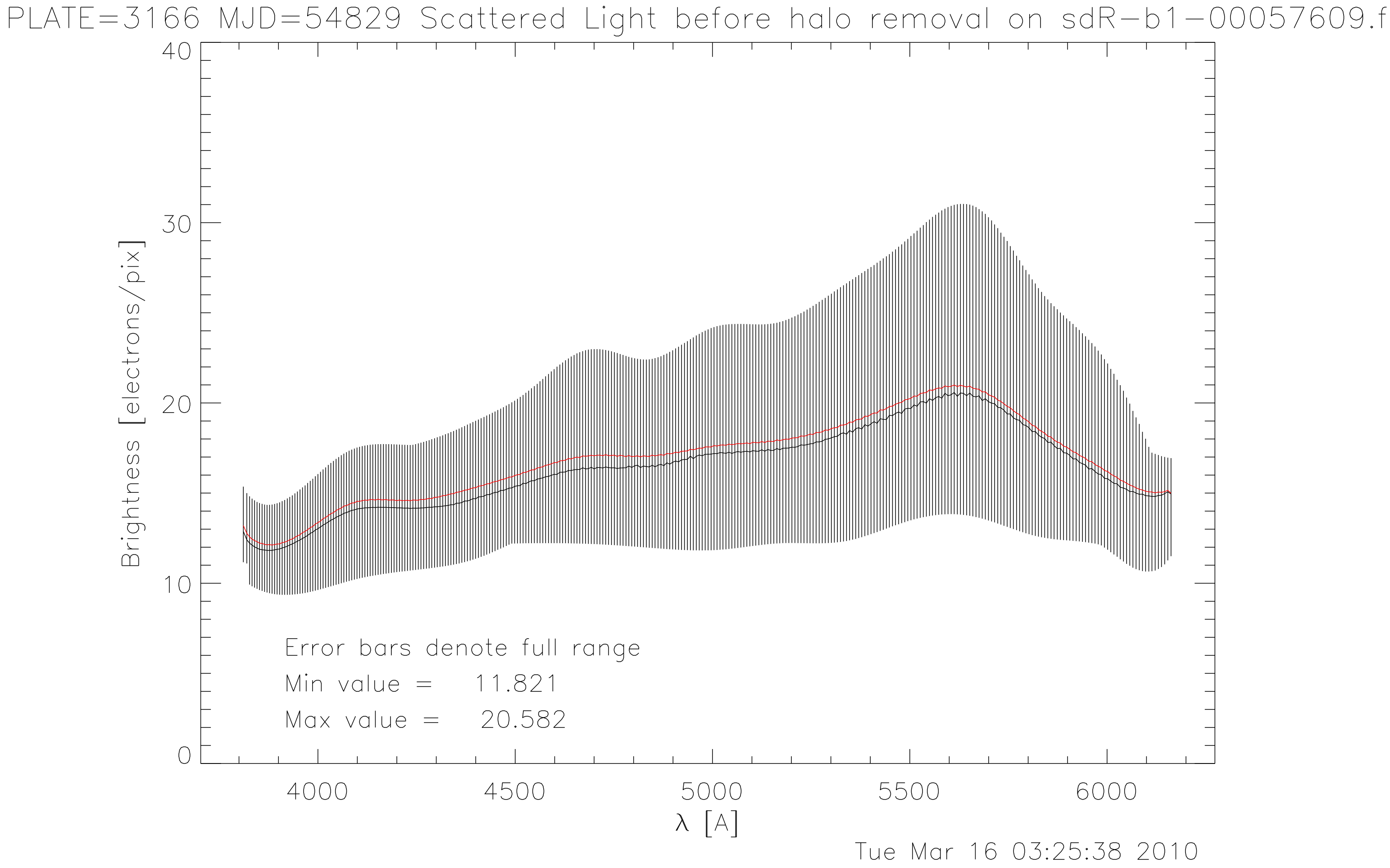
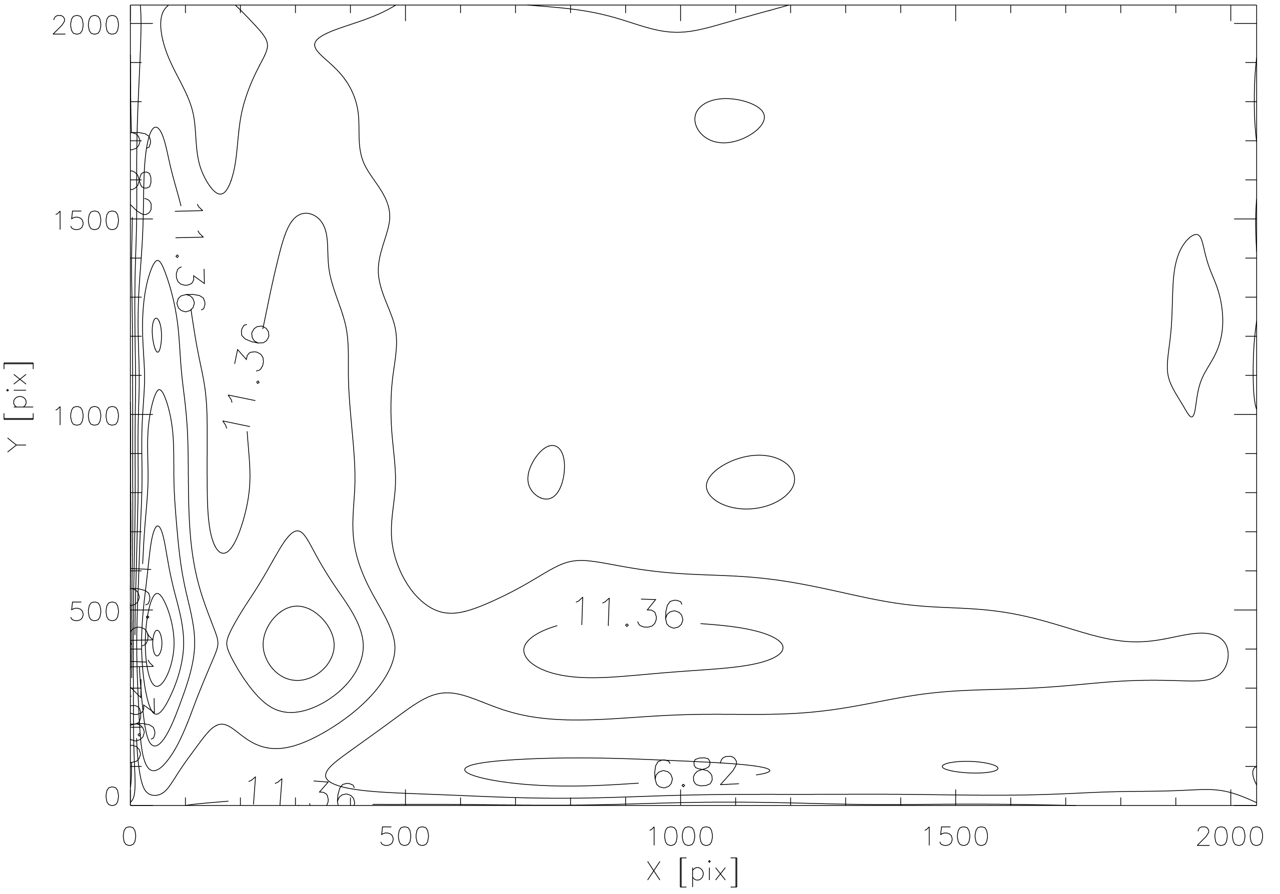
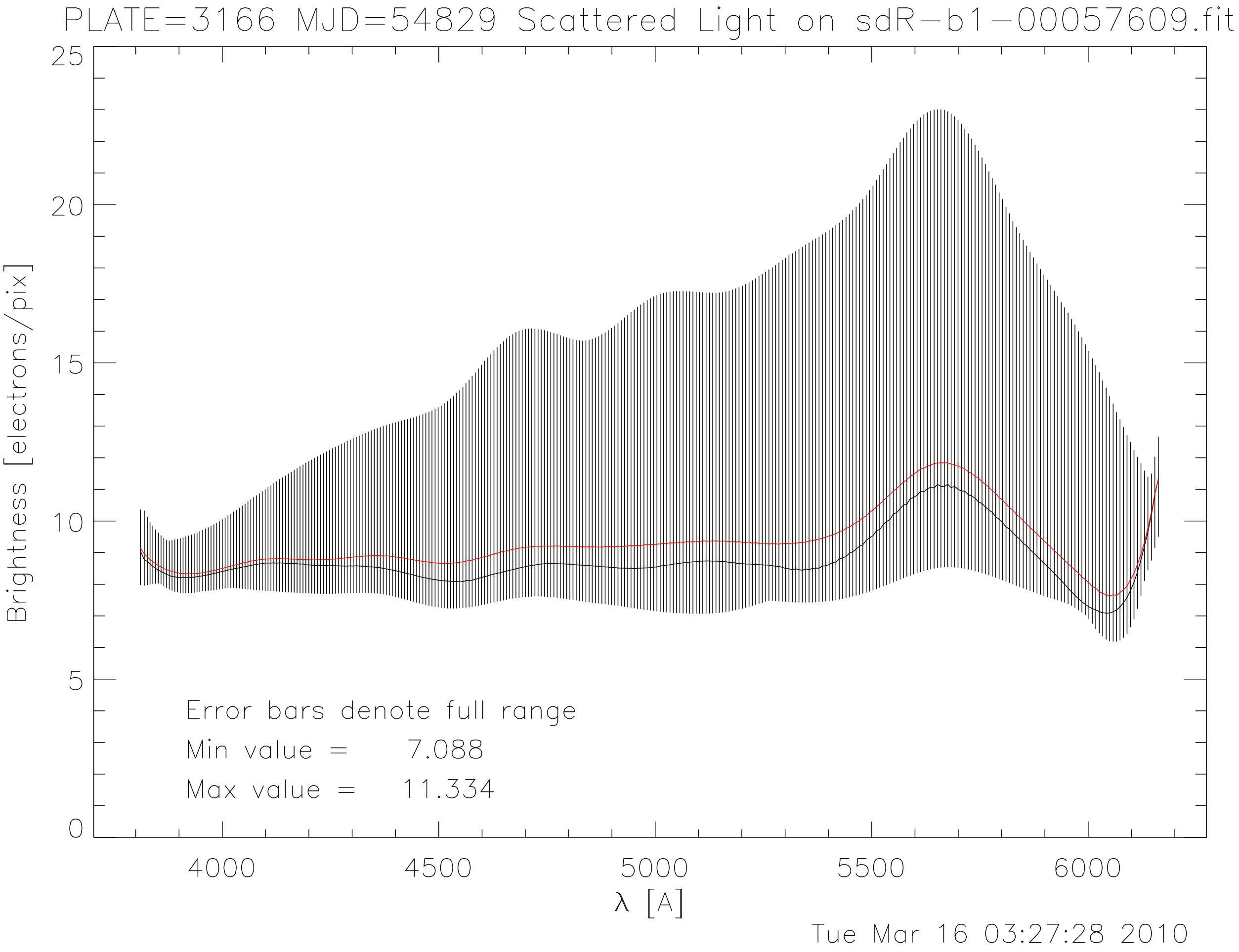


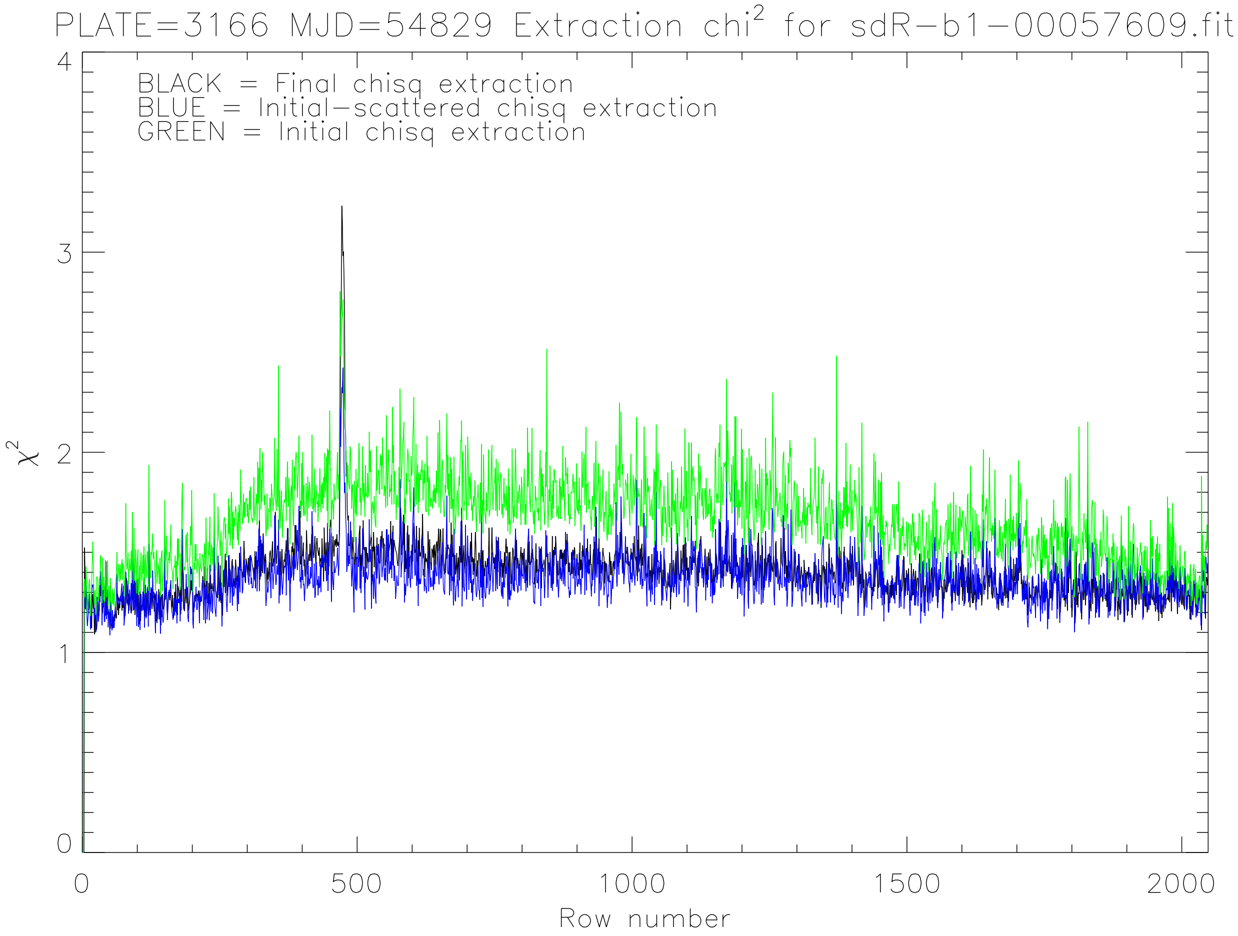
PLATE=3166 MJD=54829 Scattered Light before halo removal on sdR-b1-00057609.f

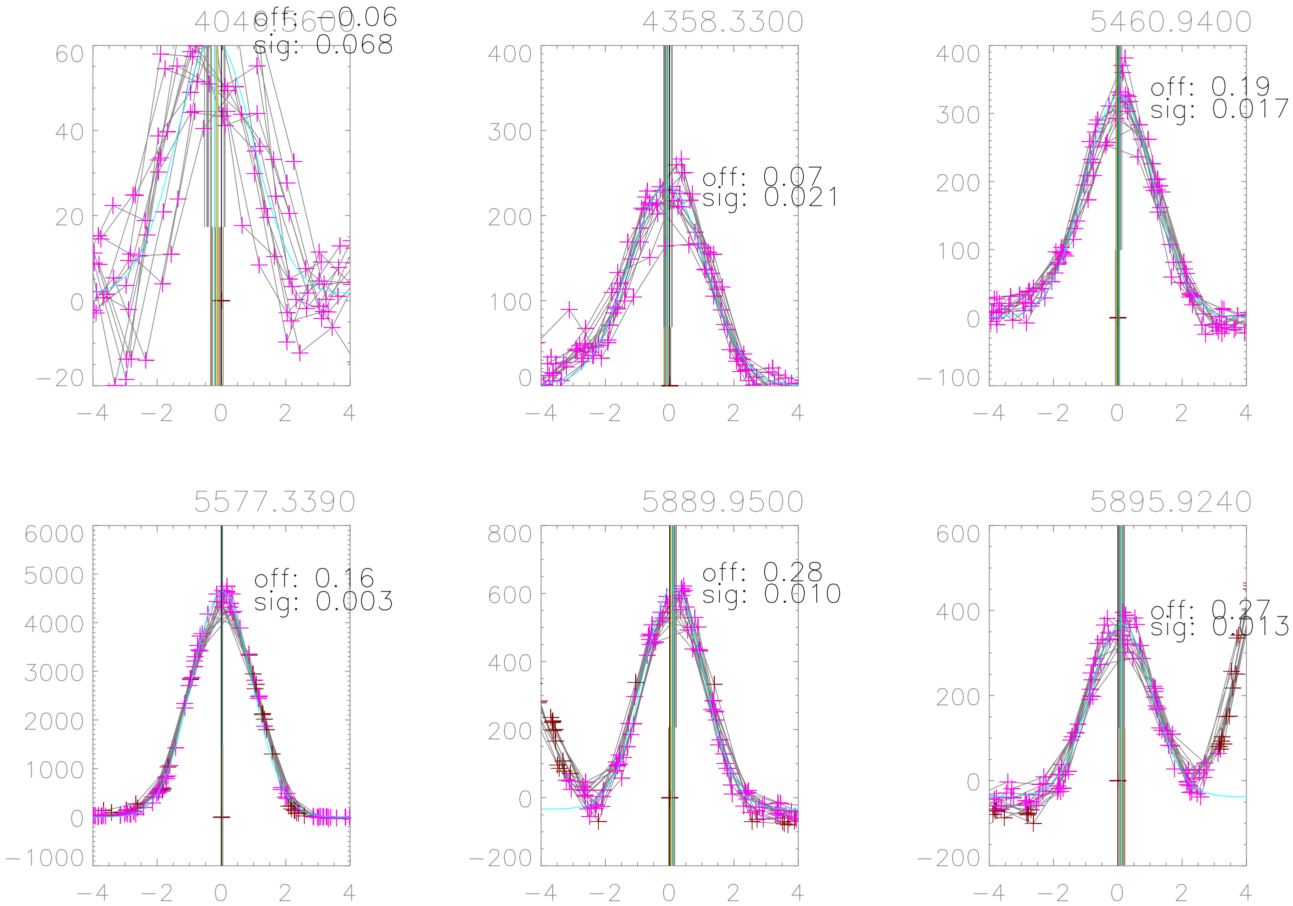

PLATE=3166 MJD=54829 Scattered Light before halo removal on sdR-b1-00057609.f
Brightness [electrons/pix]
0
10
20
30
40
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value =   11.821
Max value =   20.582
Tue Mar 16 03:25:38 2010

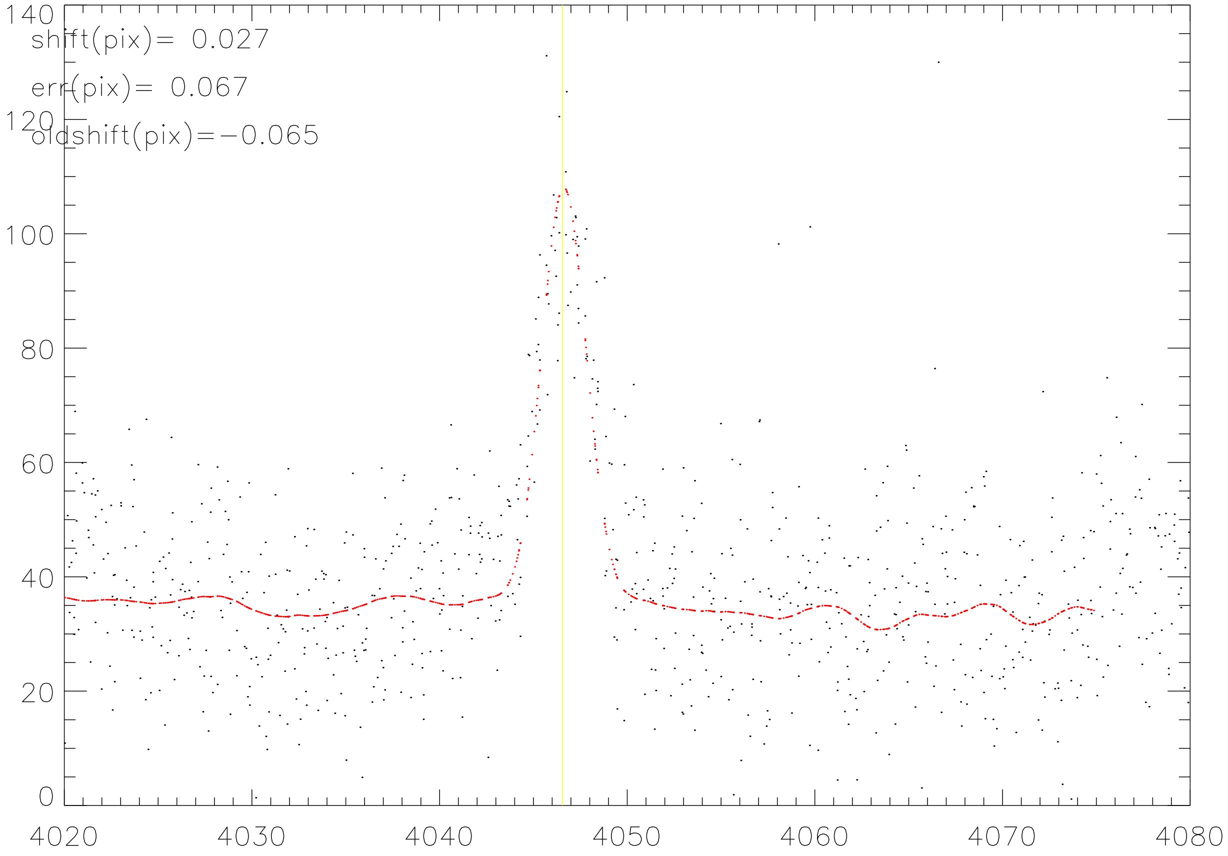
PLATE=3166 MJD=54829 Scattered Light on sdR-b1-00057609.fit

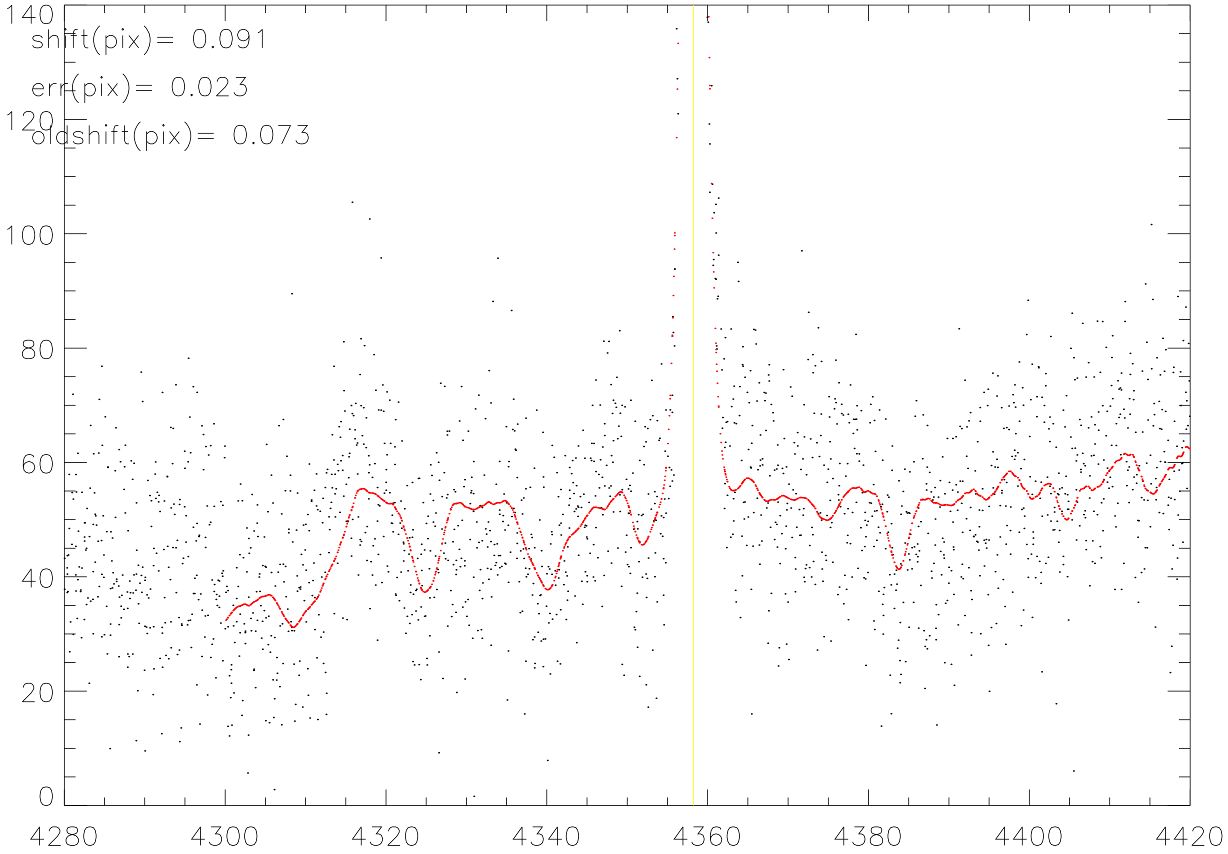


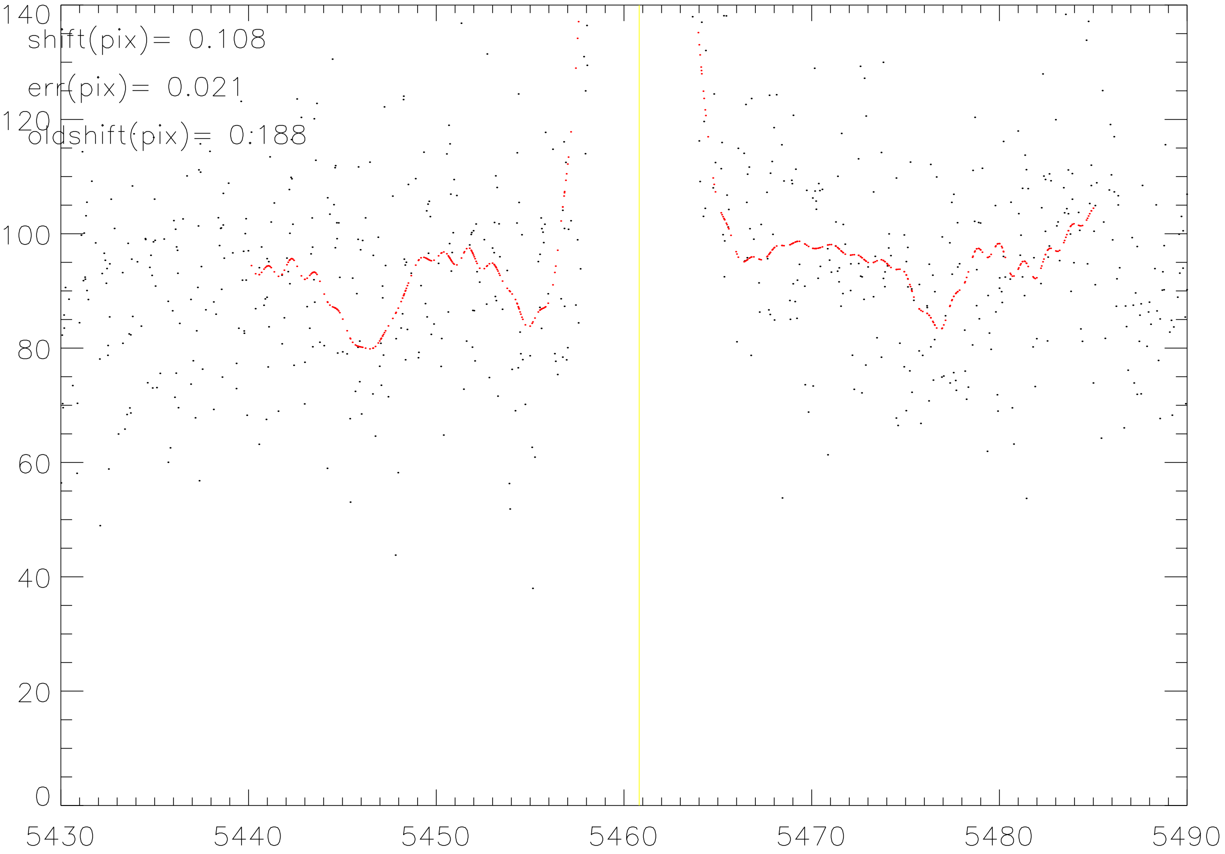

PLATE=3166 MJD=54829 Scattered Light on sdR-b1-00057609.fit
Brightness [electrons/pix]
0
5
10
15
20
25
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 7.088
Max value = 11.334
Tue Mar 16 03:27:28 2010

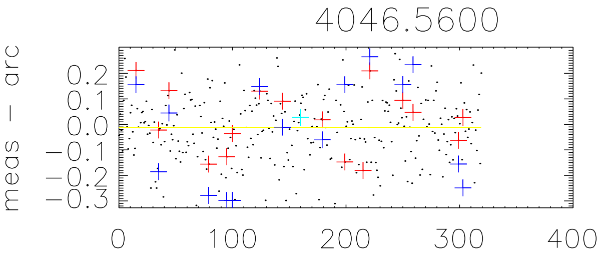

PLATE=3166 MJD=54829 Extraction chi^2 for sdR-b1-00057609.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
0
500
1000
1500
2000
Row number

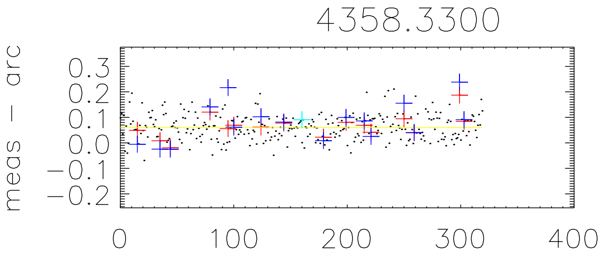

4046.5600
off: −0.06
sig: 0.068
60
40
20
0
−20
−4
−2
0
2
4
4358.3300
off: 0.07
sig: 0.021
400
300
200
100
0
5460.9400
off: 0.19
sig: 0.017
400
300
200
100
0
−100
5577.3390
off: 0.16
sig: 0.003
6000
5000
4000
3000
2000
1000
0
−1000
5889.9500
off: 0.28
sig: 0.010
800
600
400
200
0
−200
5895.9240
off: 0.27
sig: 0.013
600
400
200
0
−200

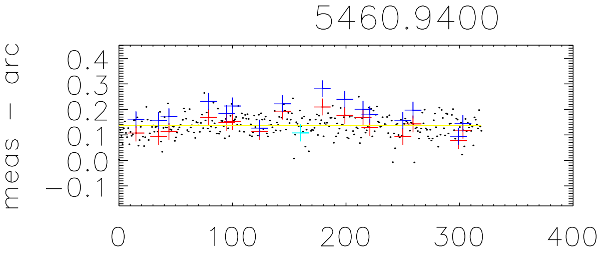

shift(pix)= 0.027
err(pix)= 0.067
oldshift(pix)=−0.065
140
120
100
80
60
40
20
0
4020
4030
4040
4050
4060
4070
4080

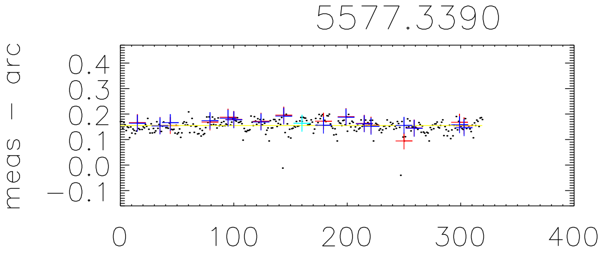

shift(pix)= 0.091
err(pix)= 0.023
oldshift(pix)= 0.073
0
20
40
60
80
100
120
140
4280
4300
4320
4340
4360
4380
4400
4420

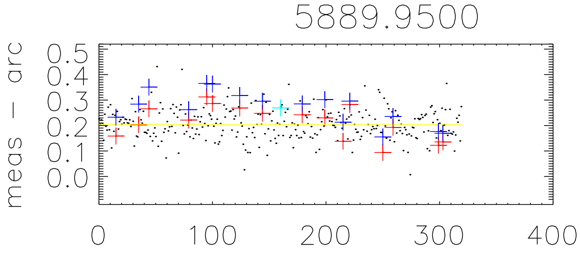

shift(pix)= 0.108
err(pix)= 0.021
oldshift(pix)= 0:188
140
120
100
80
60
40
20
0
5430
5440
5450
5460
5470
5480
5490

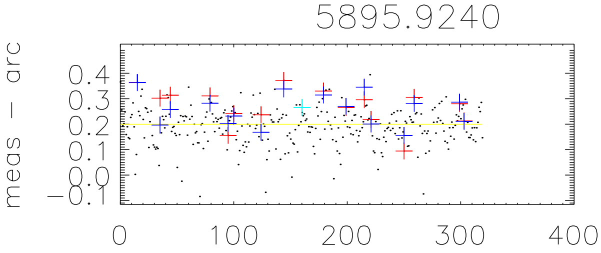

4046.5600

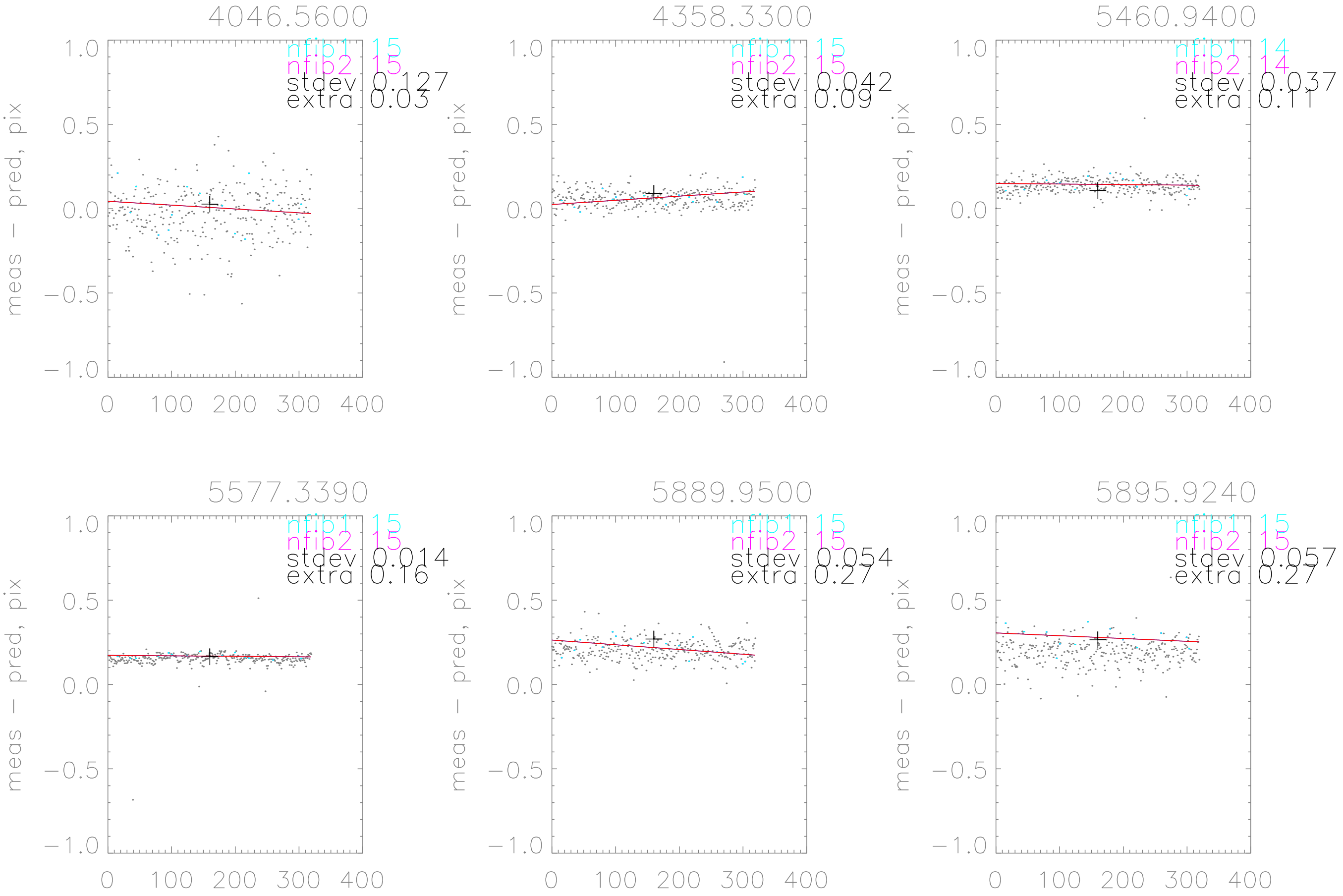

4358.3300

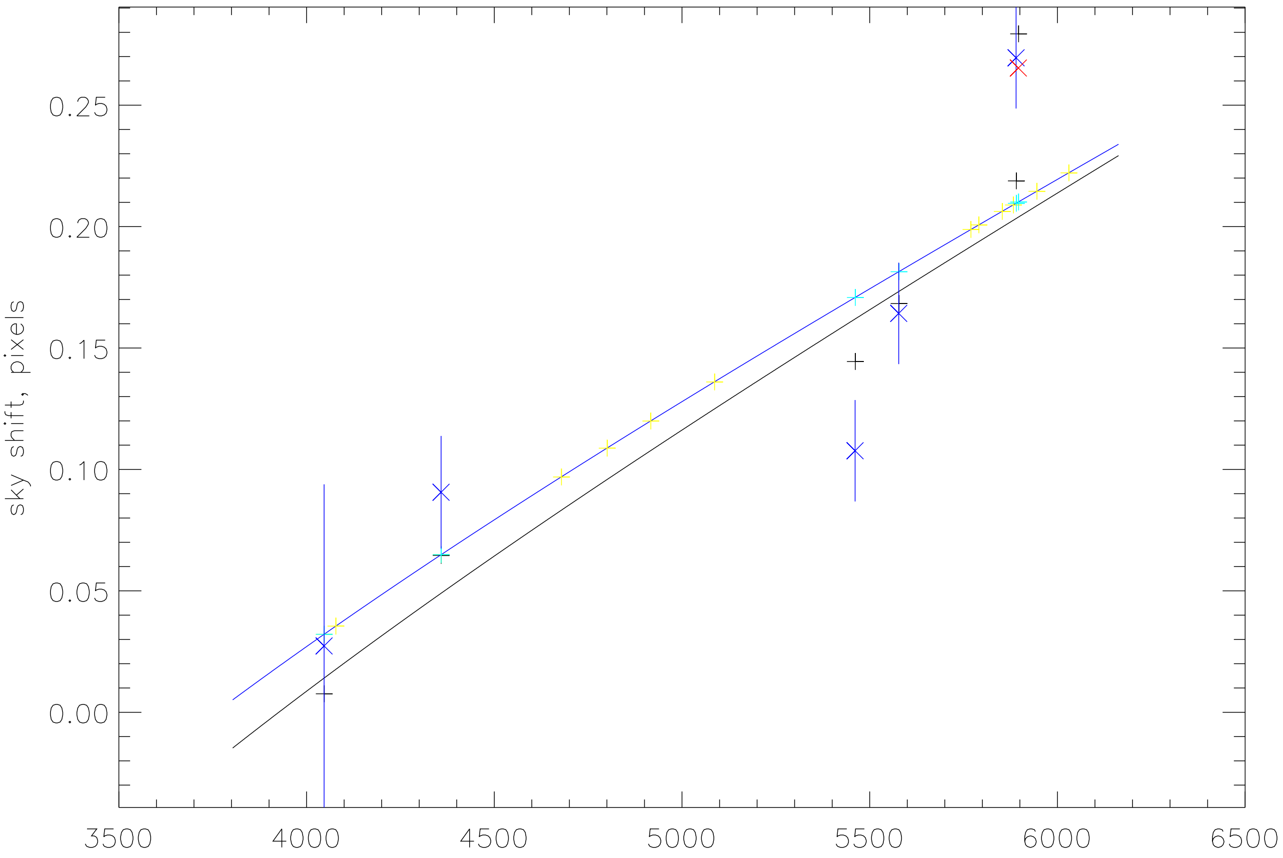

5460.9400

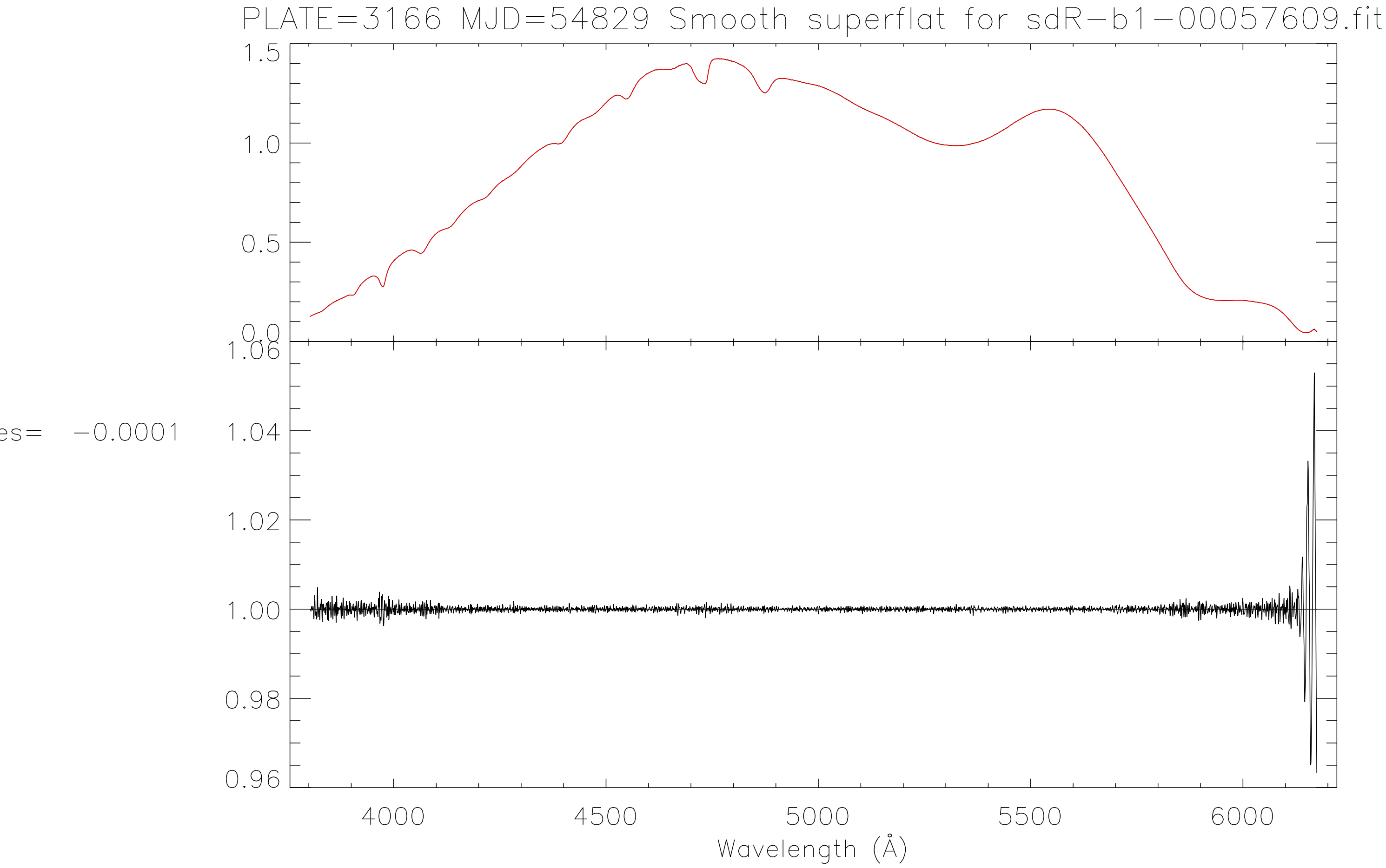

5577.3390


5889.9500

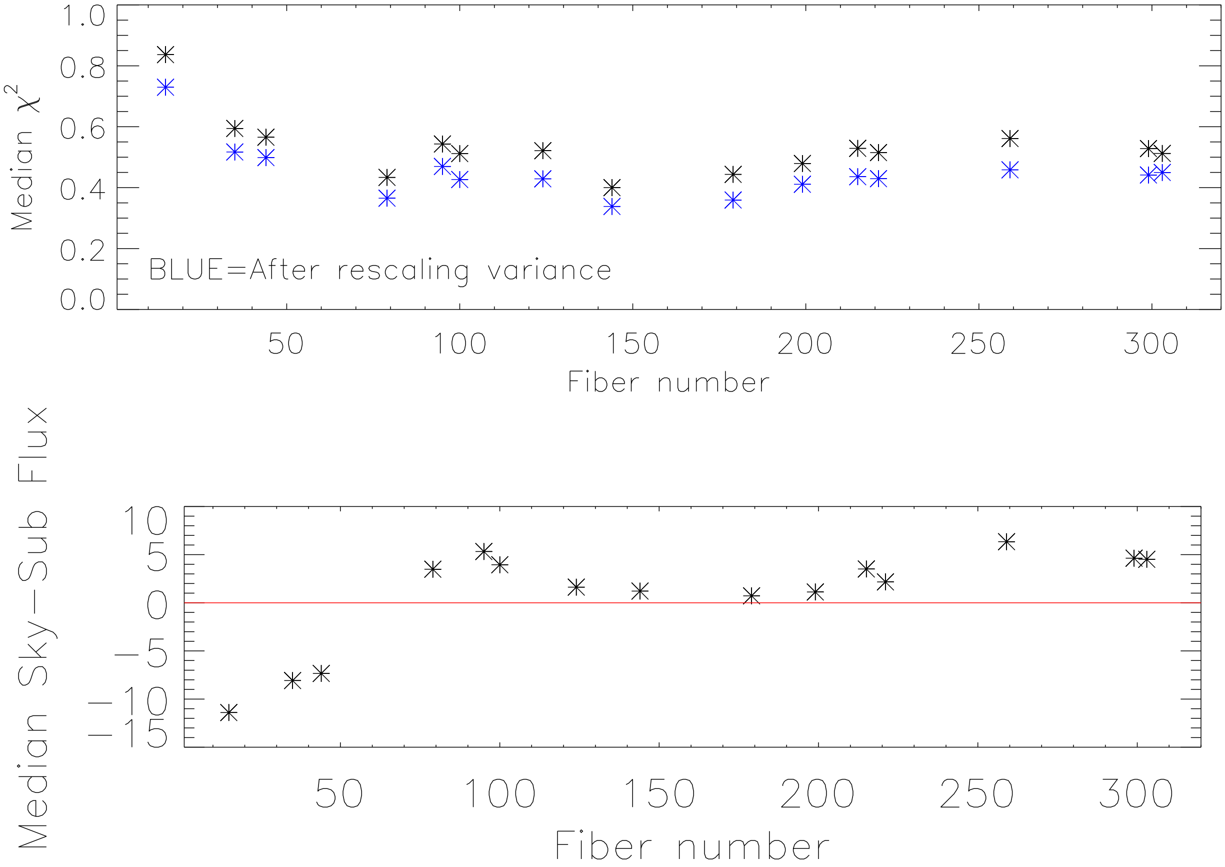

5895.9240


4046.5600
nfib1 15
nfib2 15
stdev 0.127
extra 0.03
4358.3300
nfib1 15
nfib2 15
stdev 0.042
extra 0.09
5460.9400
nfib1 14
nfib2 14
stdev 0.037
extra 0.11
5577.3390
nfib1 15
nfib2 15
stdev 0.014
extra 0.16
5889.9500
nfib1 15
nfib2 15
stdev 0.054
extra 0.27
5895.9240
nfib1 15
nfib2 15
stdev 0.057
extra 0.27
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

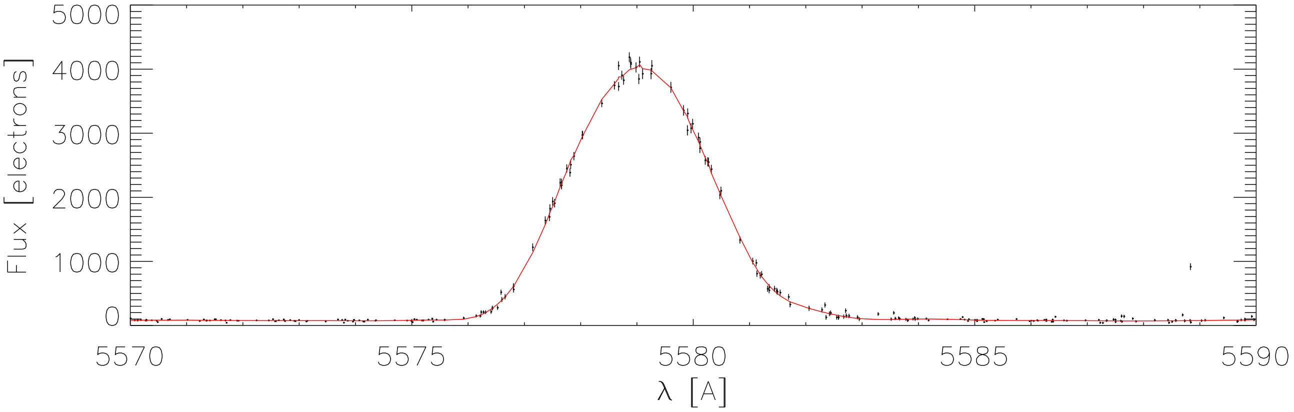
sky shift, pixels
0.25
0.20
0.15
0.10
0.05
0.00
3500
4000
4500
5000
5500
6000
6500


PLATE=3166 MJD=54829 Smooth superflat for sdR−b1−00057609.fit
1.5
1.0
0.5
0.0
1.06
1.04
1.02
1.00
0.98
0.96
es= −0.0001
4000
4500
5000
5500
6000
Wavelength (Å)

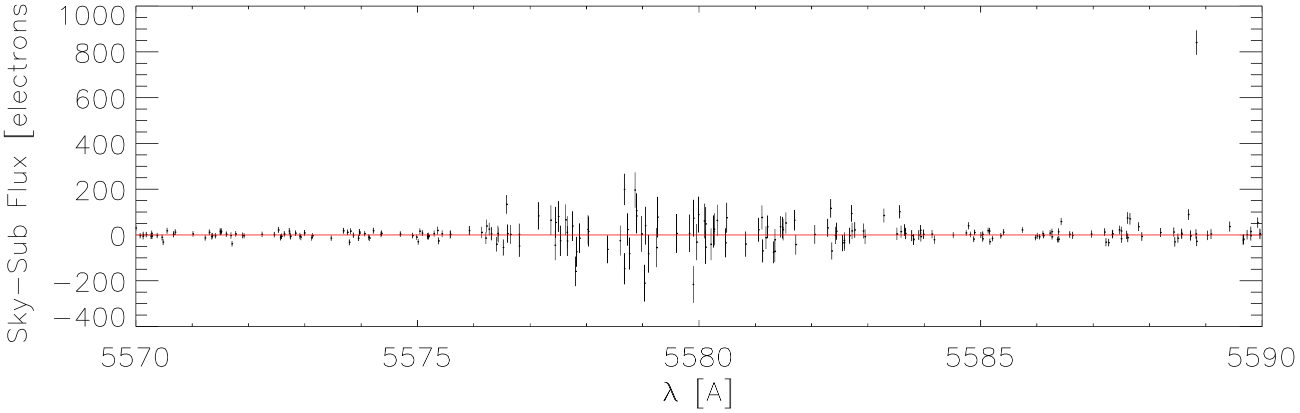
PLATE=3166 MJD=54829 sdR-b1-00057609.fit 1D Sky-subtraction Sky Fiber



PLATE=3166 MJD=54829 sdR-b1-00057609.fit 1D Sky-subtraction Sky Fibers

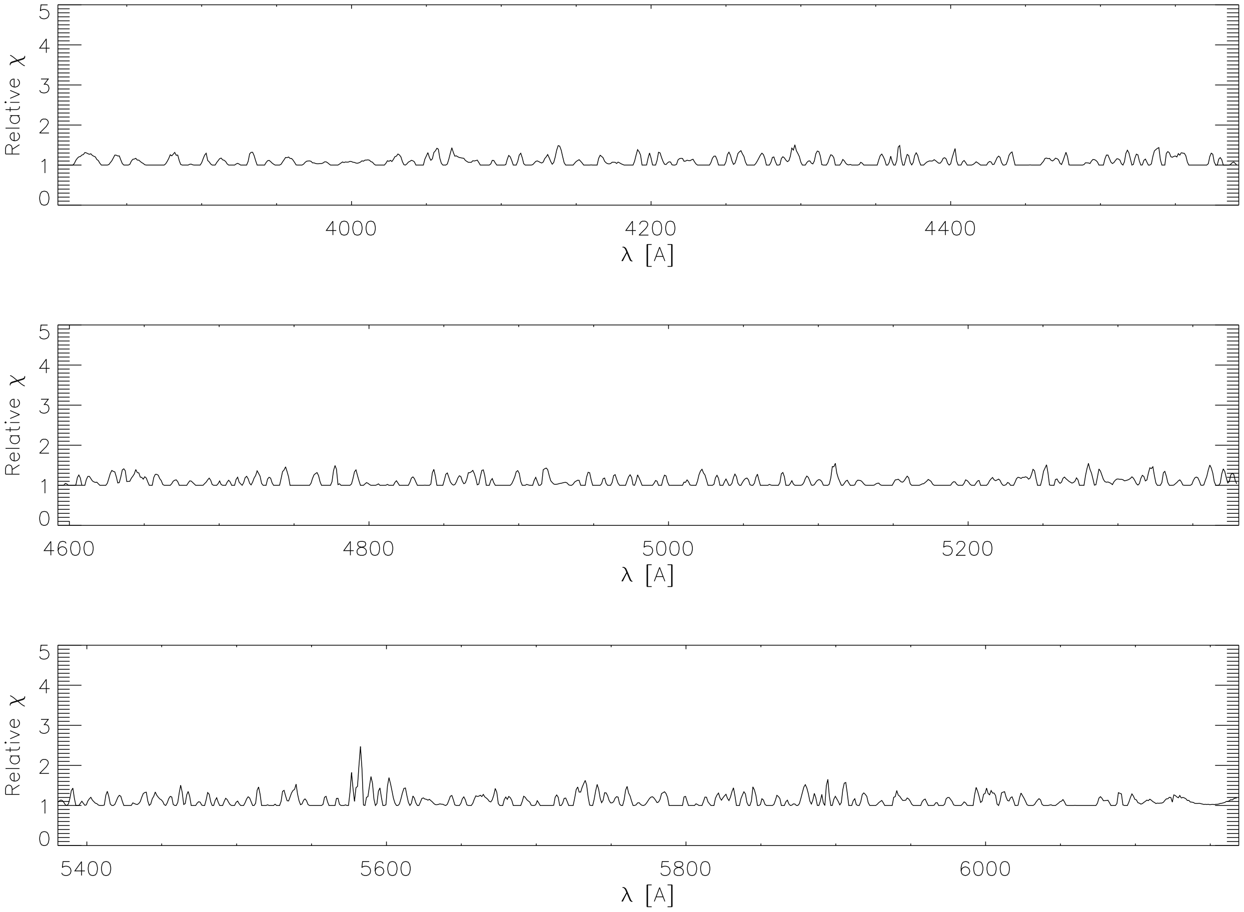


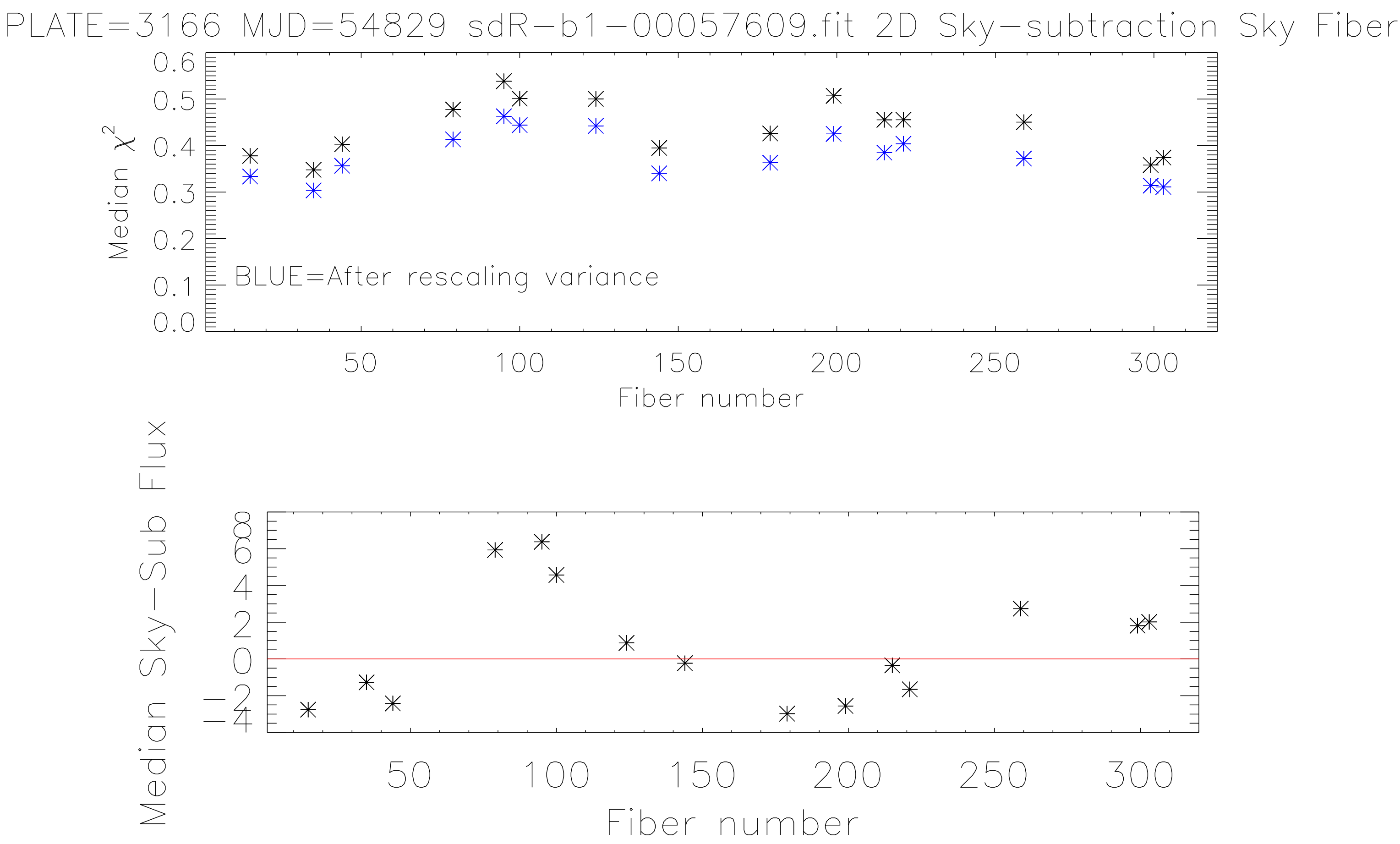
PLATE=3166 MJD=54829 sdR-b1-00057609.fit 1D Sky-subtraction Sky-subtracted Sky F

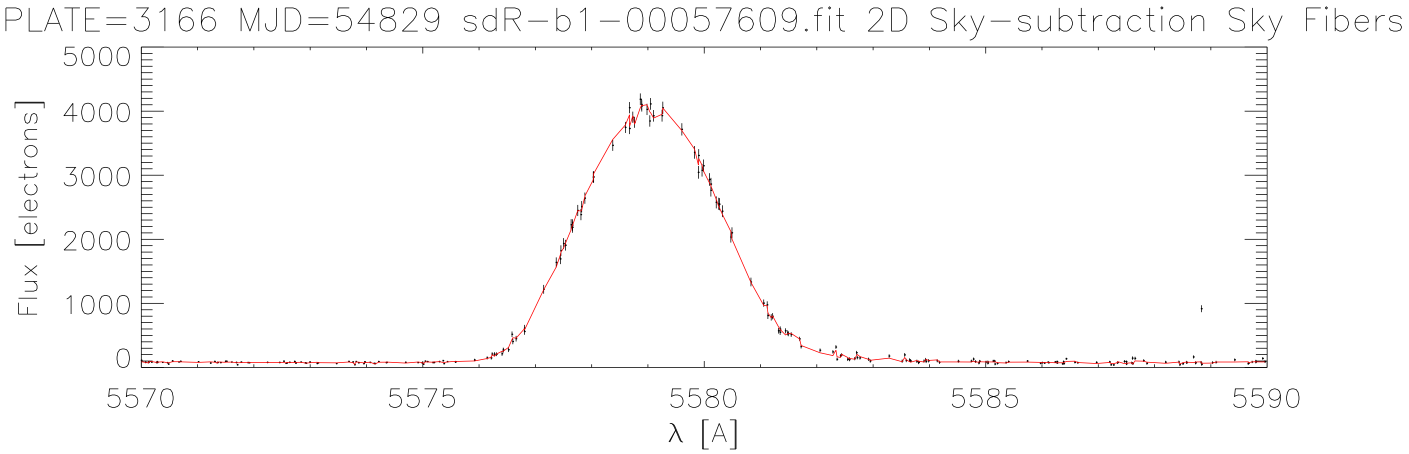


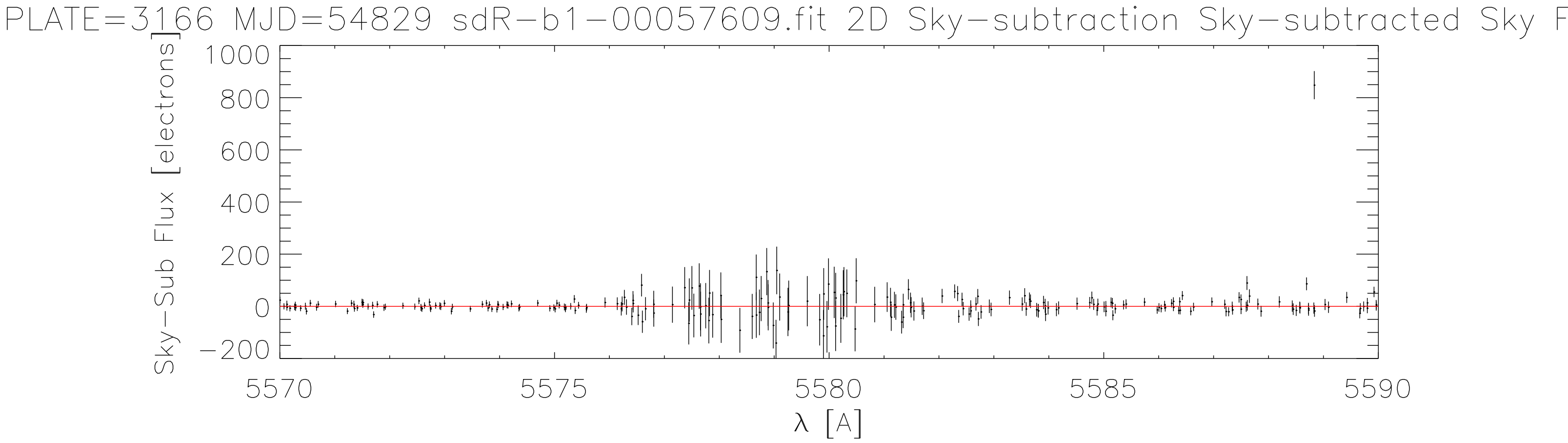
Number of sky fibers = 15

PLATE=3166 MJD=54829 sdR-b1-00057609.fit 1D Sky-subtraction Rescaled Errors



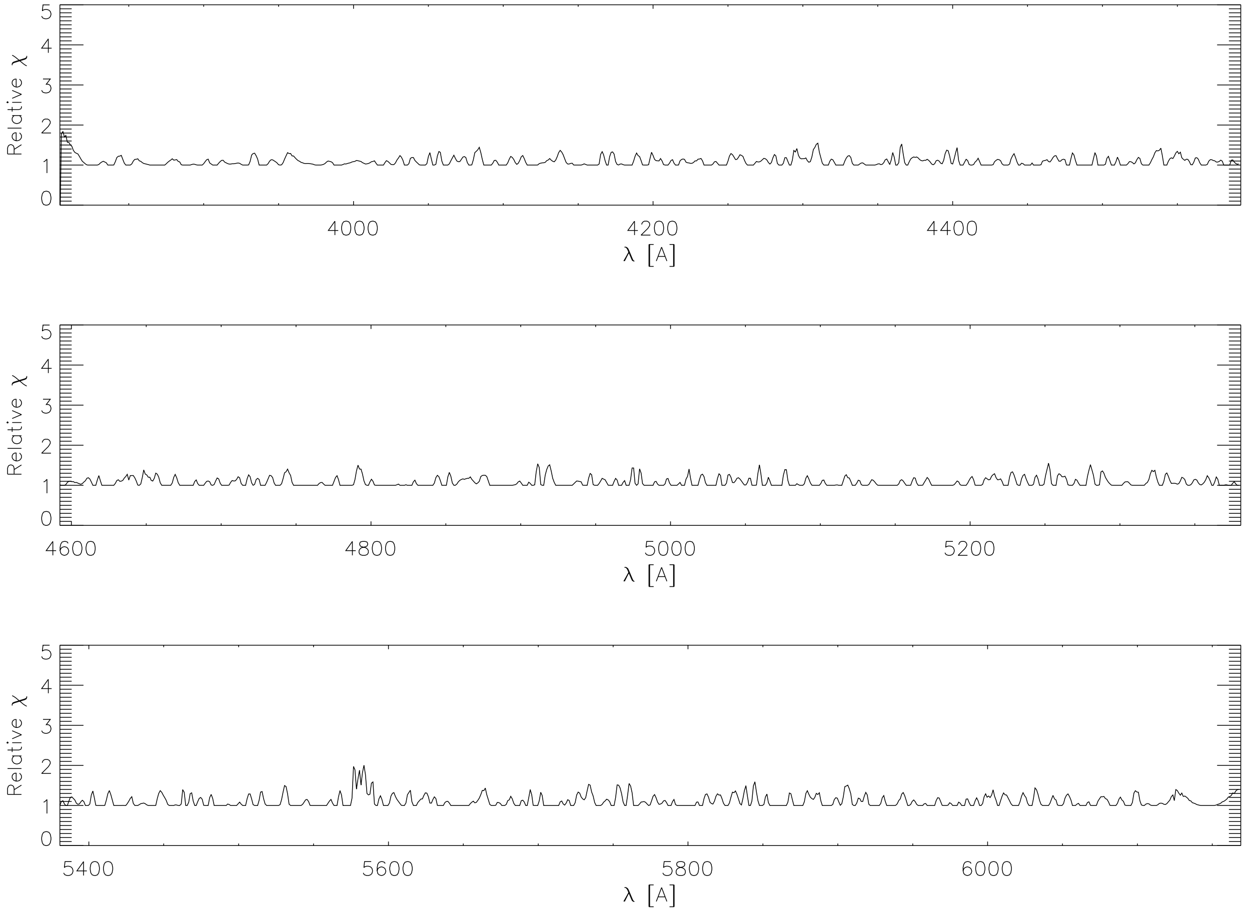

PLATE=3166 MJD=54829 sdR-b1-00057609.fit 2D Sky-subtraction Sky Fiber

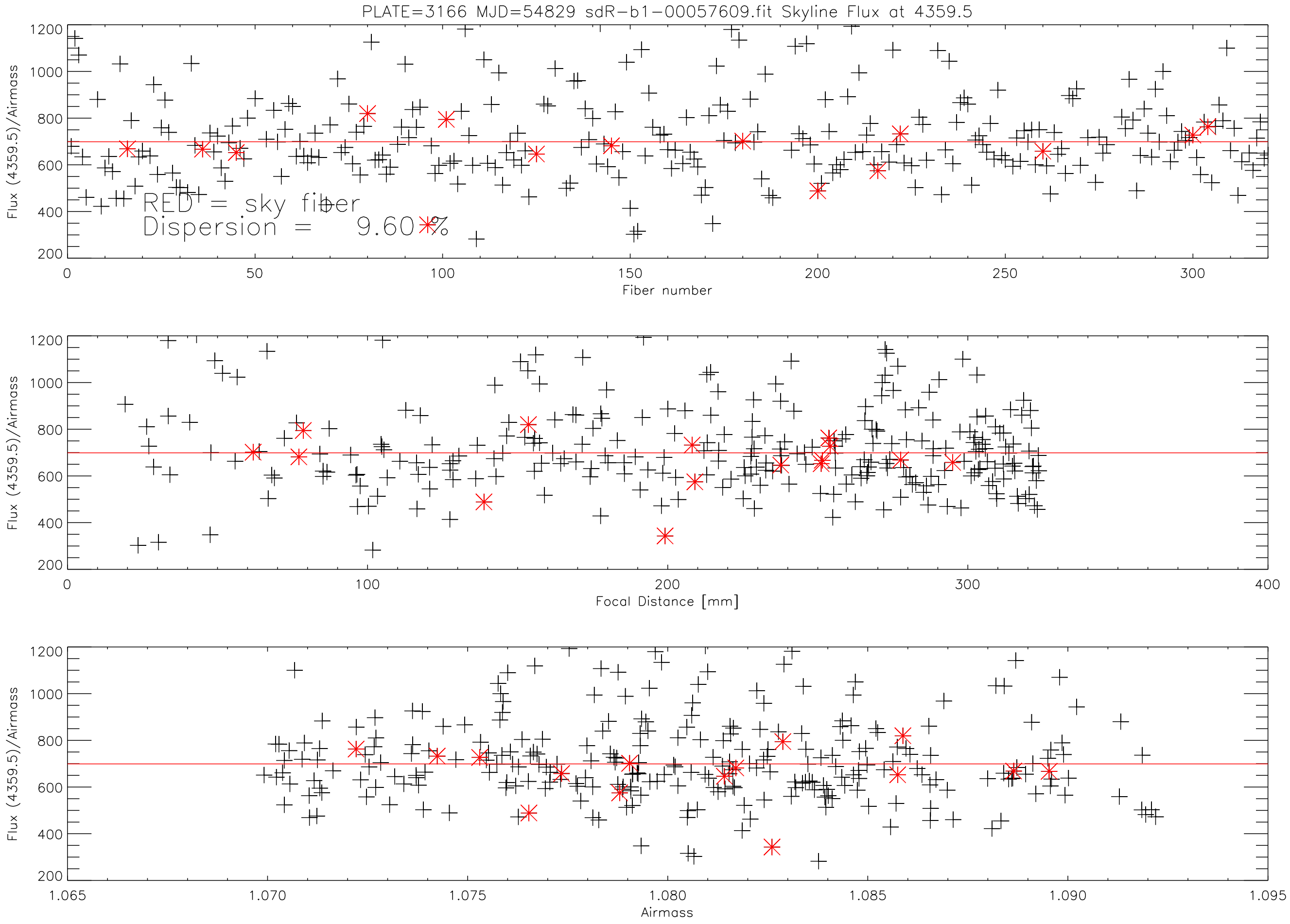

PLATE=3166 MJD=54829 sdR-b1-00057609.fit 2D Sky-subtraction Sky Fibers

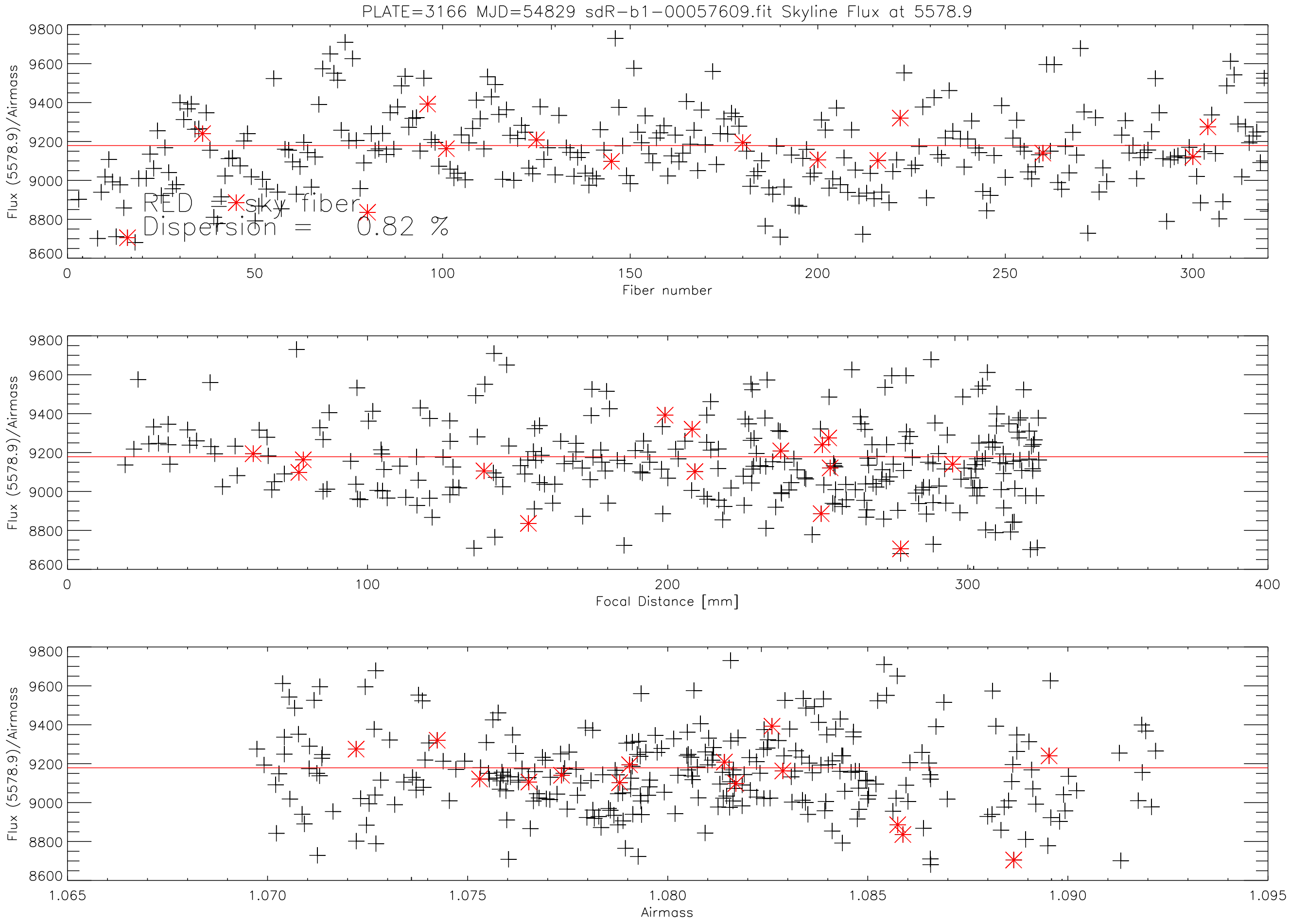

PLATE=3166 MJD=54829 sdR-b1-00057609.fit 2D Sky-subtraction Sky-subtracted Sky F

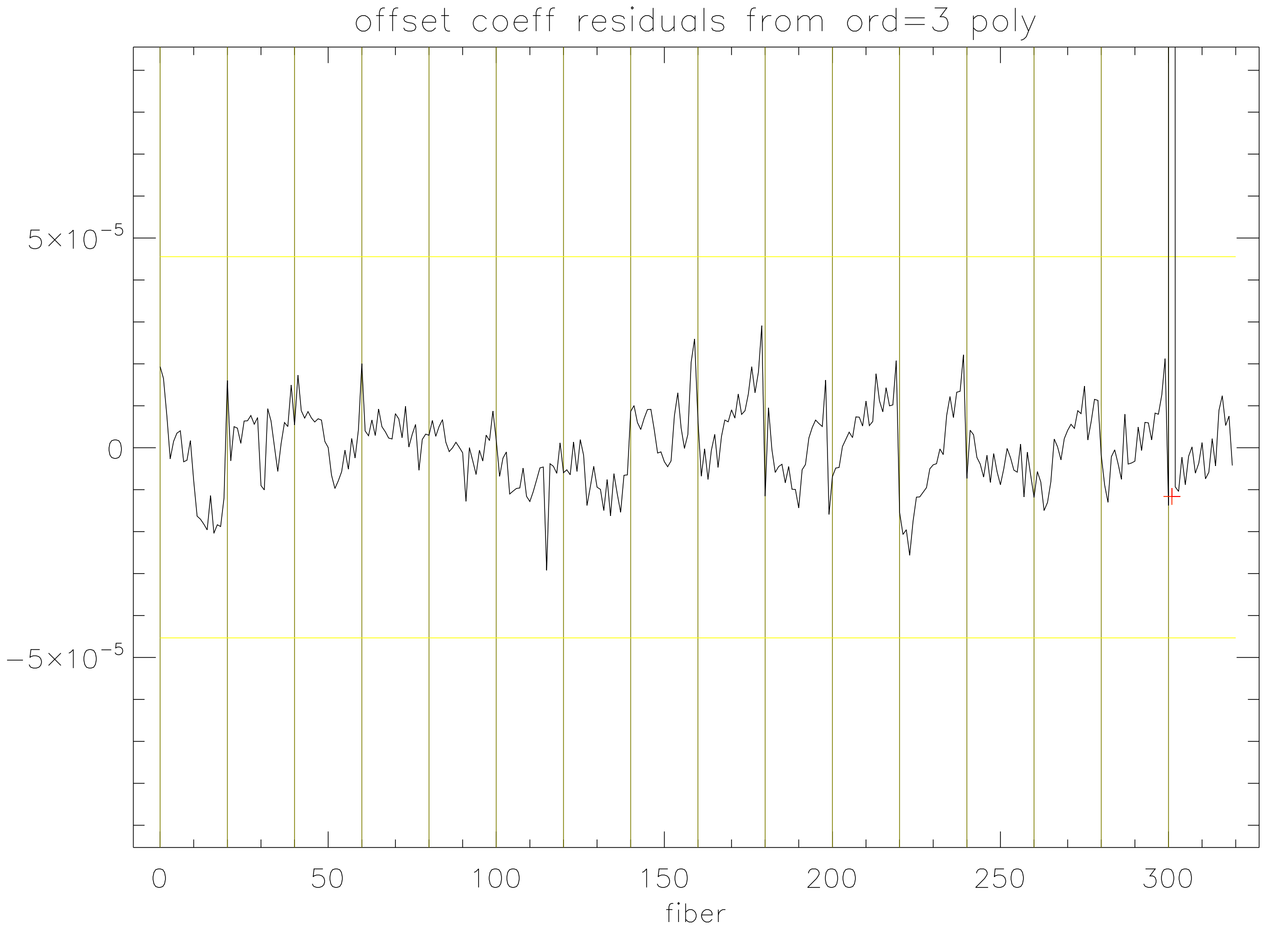
Number of sky fibers = 15

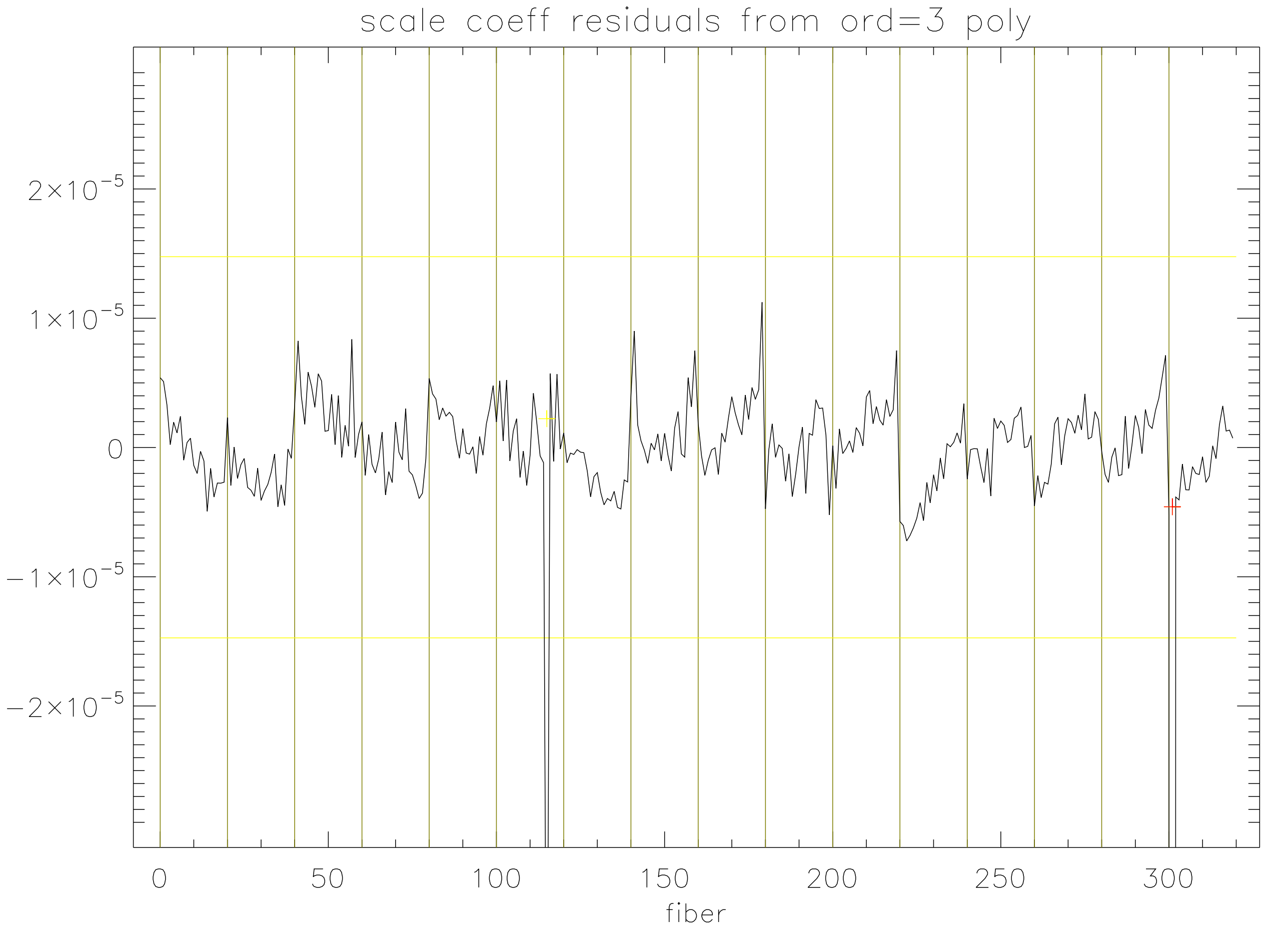
PLATE=3166 MJD=54829 sdR-b1-00057609.fit 2D Sky-subtraction Rescaled Errors

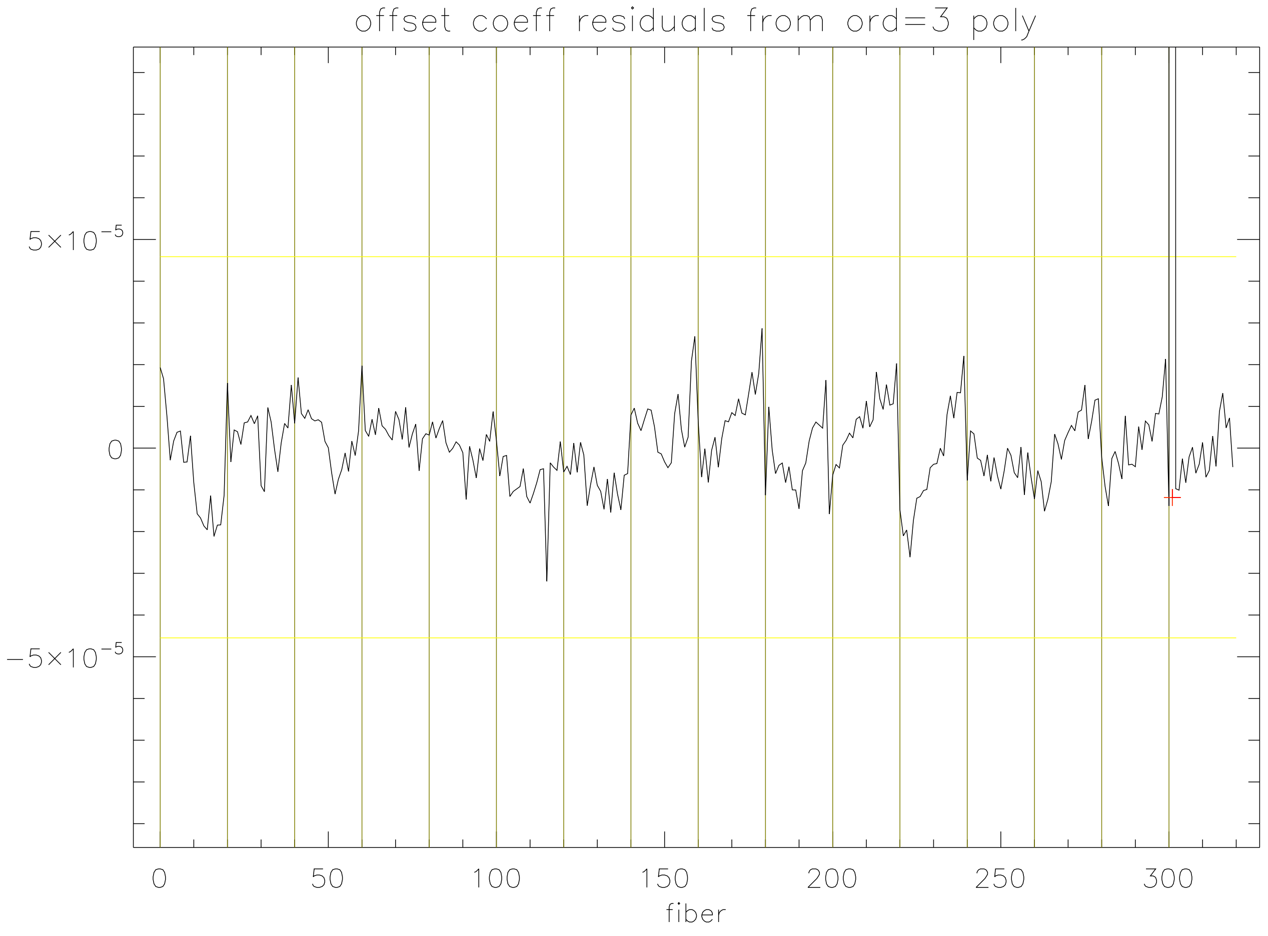


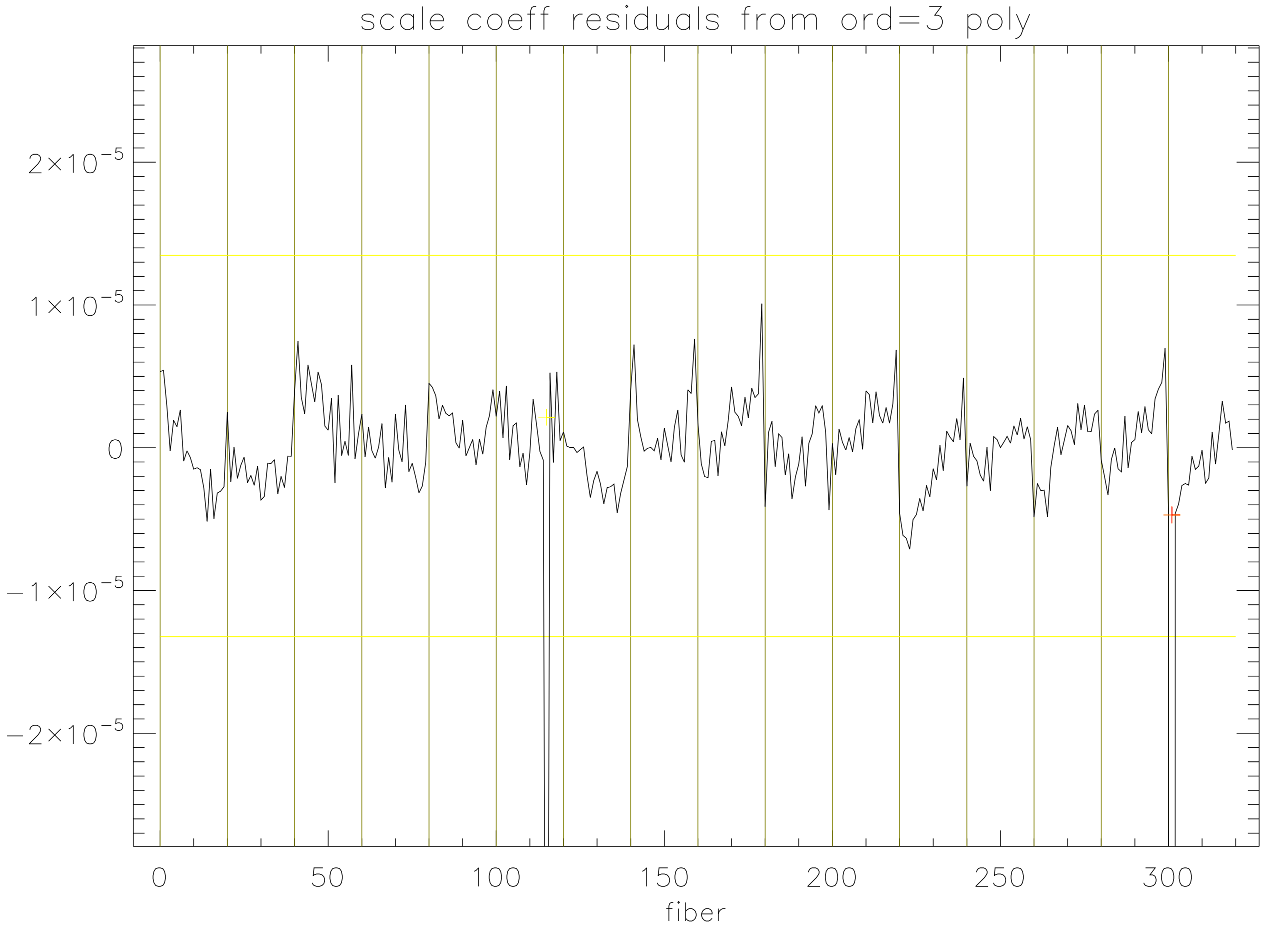

PLATE=3166 MJD=54829 sdR-b1-00057609.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 9.60 %
Fiber number
0
50
100
150
200
250
300
200
400
600
800
1000
1200
Focal Distance [mm]
0
100
200
300
400
Airmass
1.065
1.070
1.075
1.080
1.085
1.090
1.095

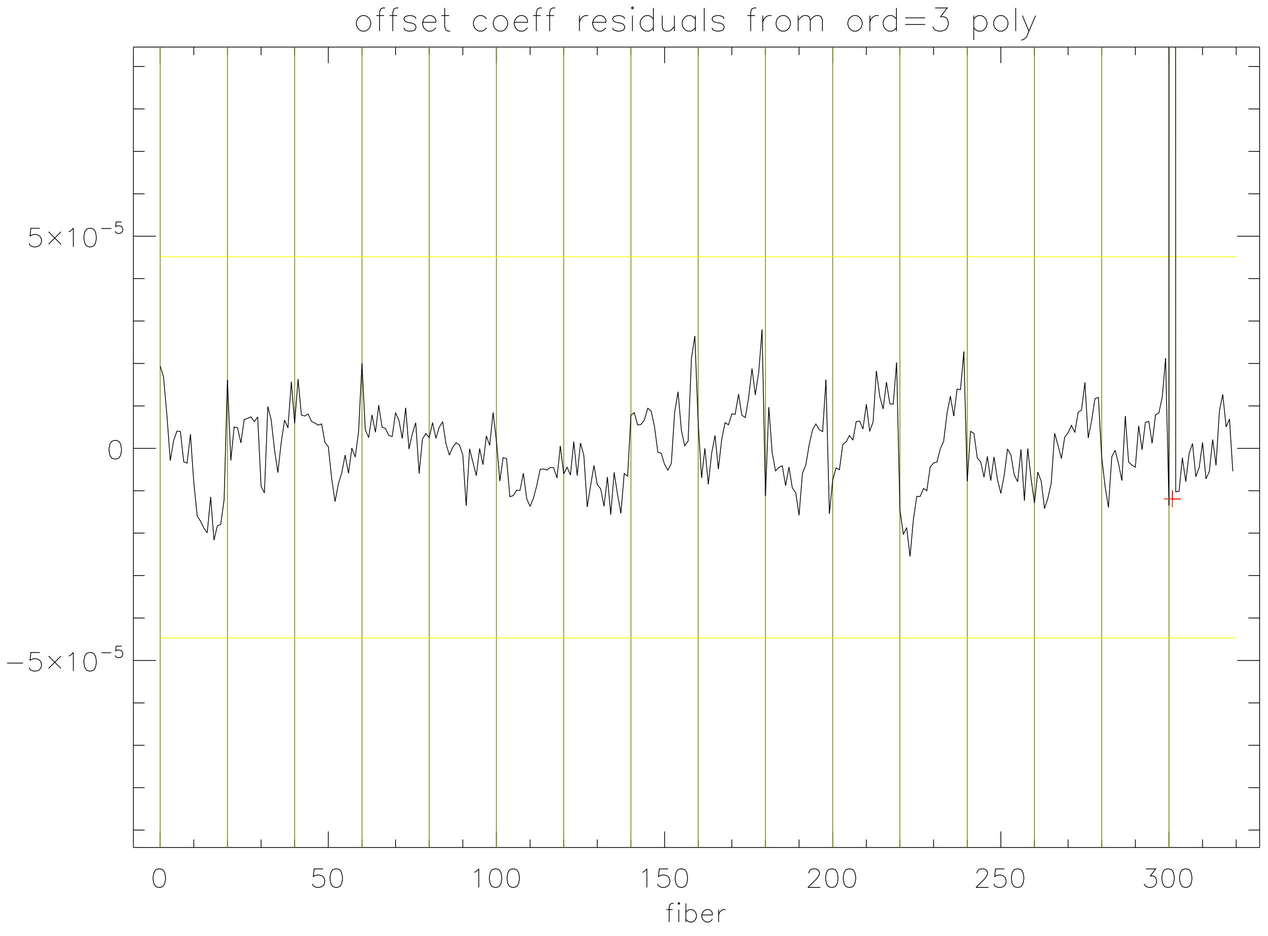

PLATE=3166 MJD=54829 sdR-b1-00057609.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
9800
9600
9400
9200
9000
8800
8600
RED = sky fiber
Dispersion = 0.82 %
0
50
100
150
200
250
300
Fiber number
Flux (5578.9)/Airmass
9800
9600
9400
9200
9000
8800
8600
0
100
200
300
400
Focal Distance [mm]
Flux (5578.9)/Airmass
9800
9600
9400
9200
9000
8800
8600
1.065
1.070
1.075
1.080
1.085
1.090
1.095
Airmass

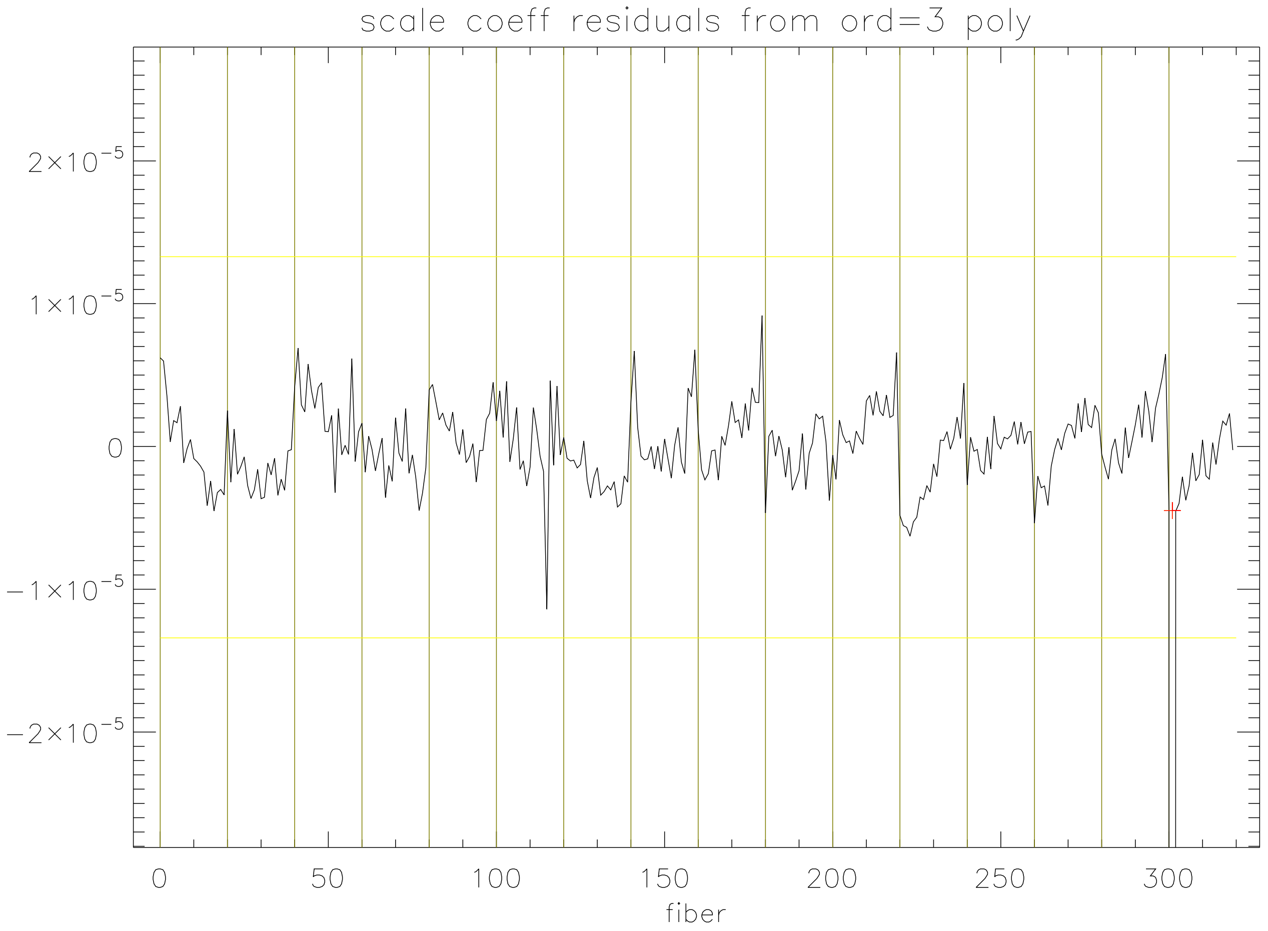

offset coeff residuals from ord=3 poly
5×10⁻⁵
0
−5×10⁻⁵
0
50
100
150
200
250
300
fiber


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

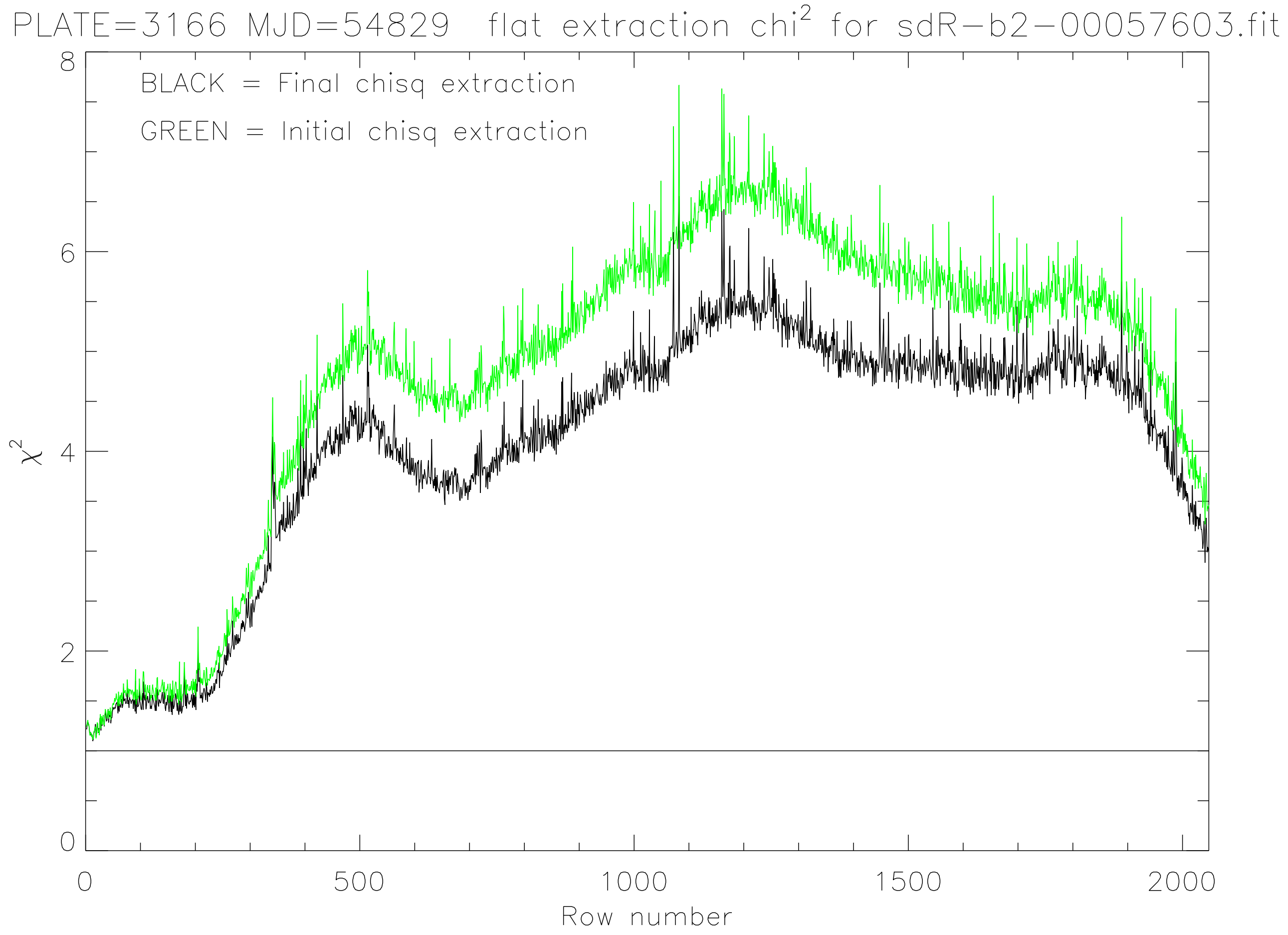

offset coeff residuals from ord=3 poly
5×10^{-5}
0
−5×10^{-5}
0
50
100
150
200
250
300
fiber

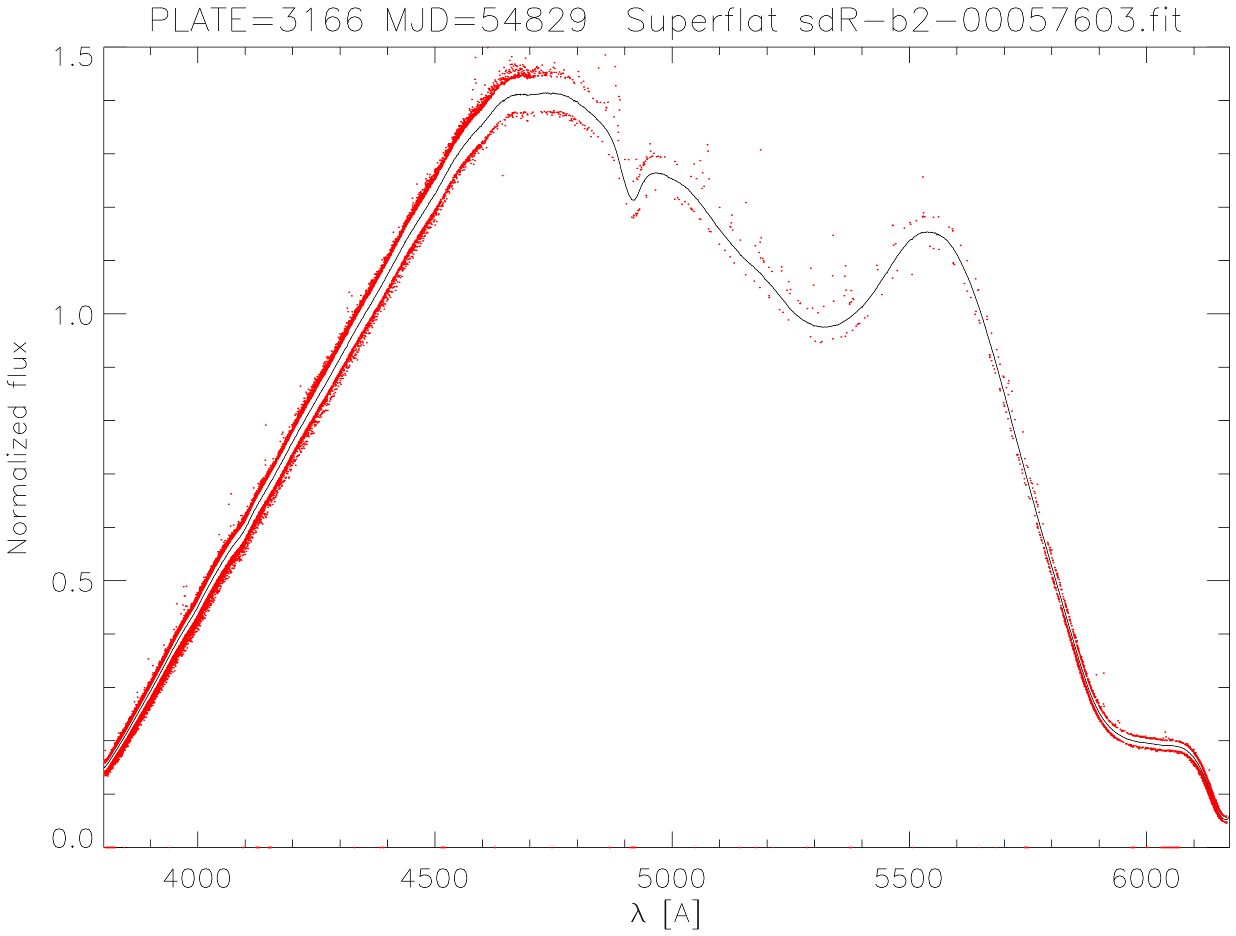

scale coeff residuals from ord=3 poly
2×10⁻⁵
1×10⁻⁵
0
−1×10⁻⁵
−2×10⁻⁵
0
50
100
150
200
250
300
fiber

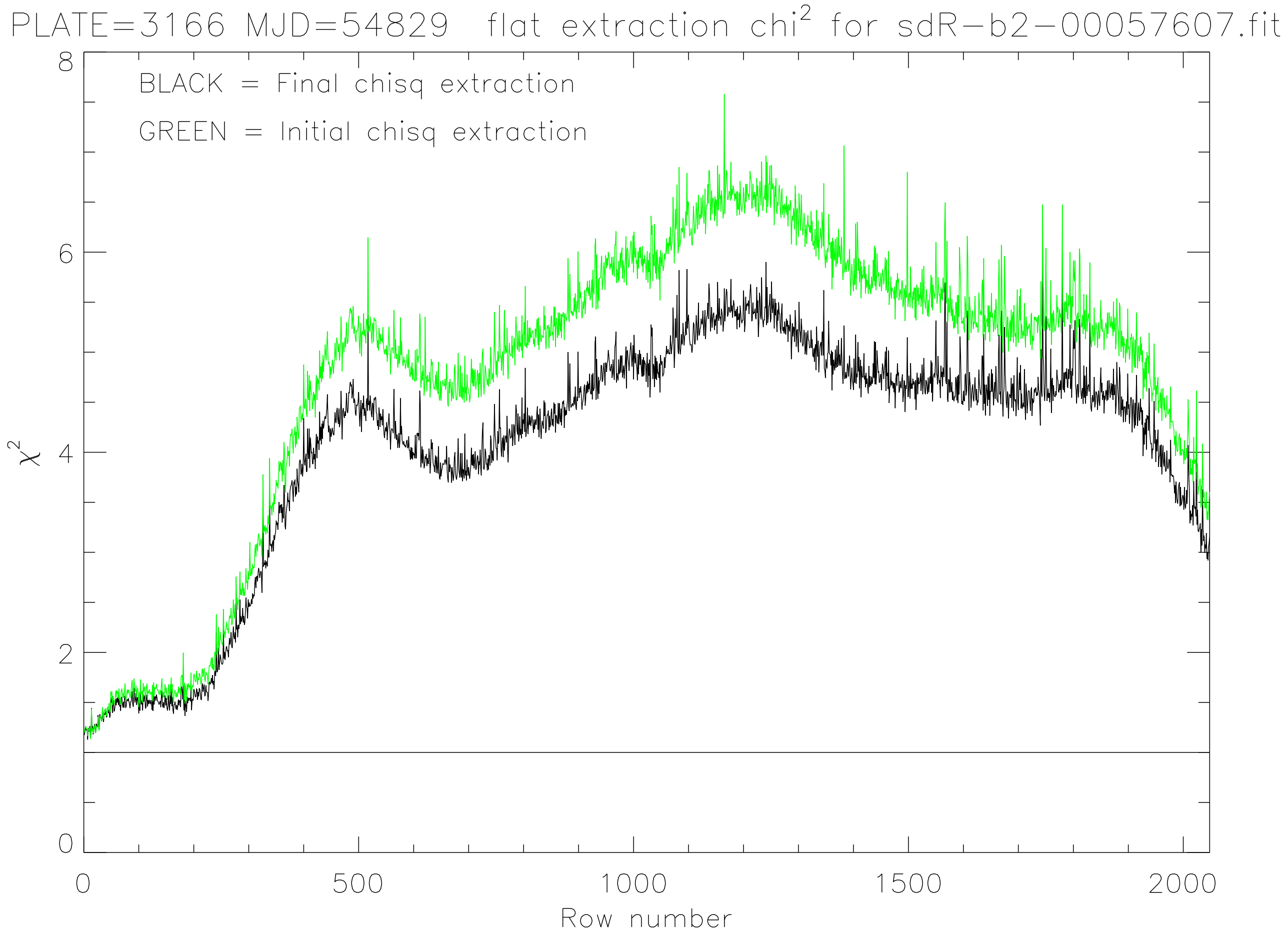

offset coeff residuals from ord=3 poly
5×10^{-5}
0
−5×10^{-5}
0
50
100
150
200
250
300
fiber

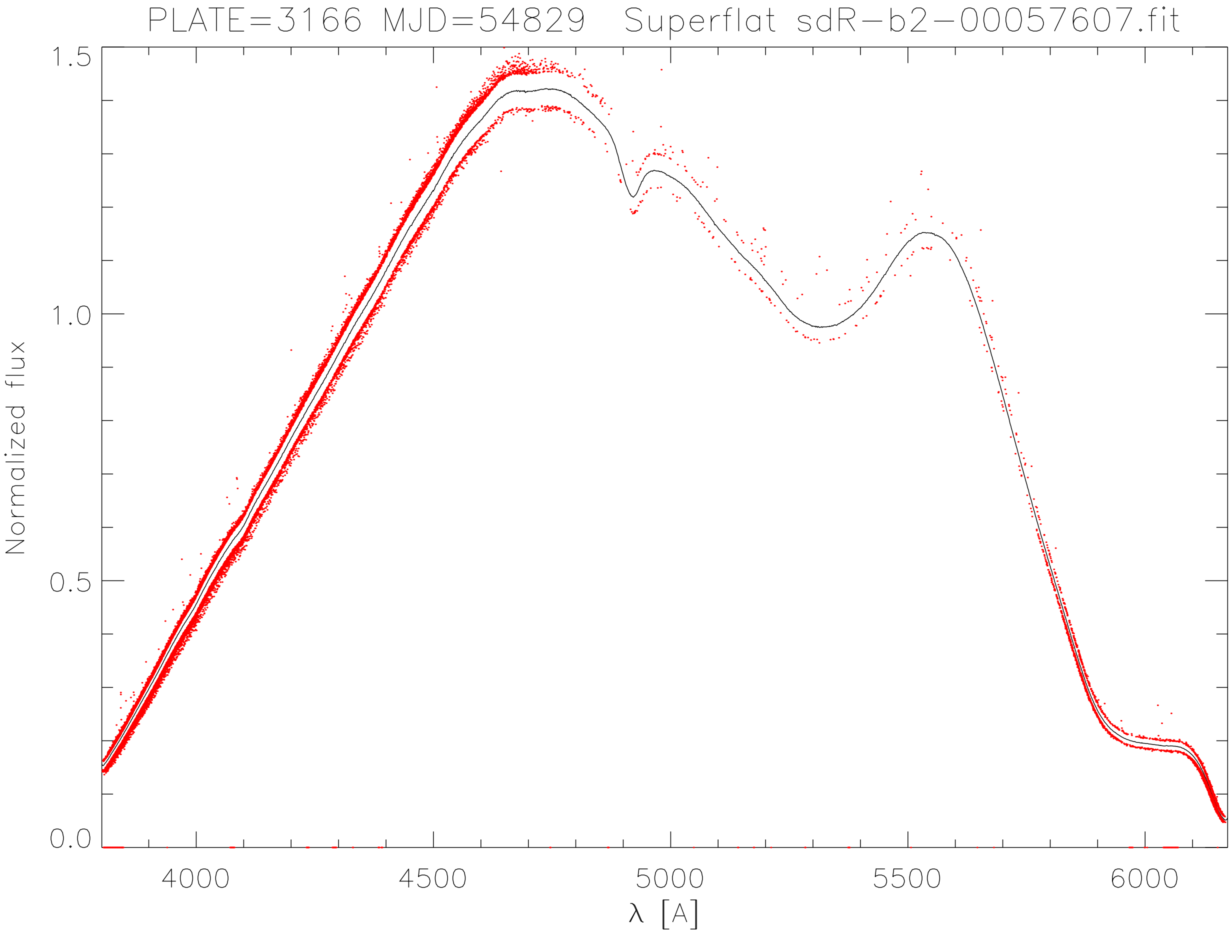


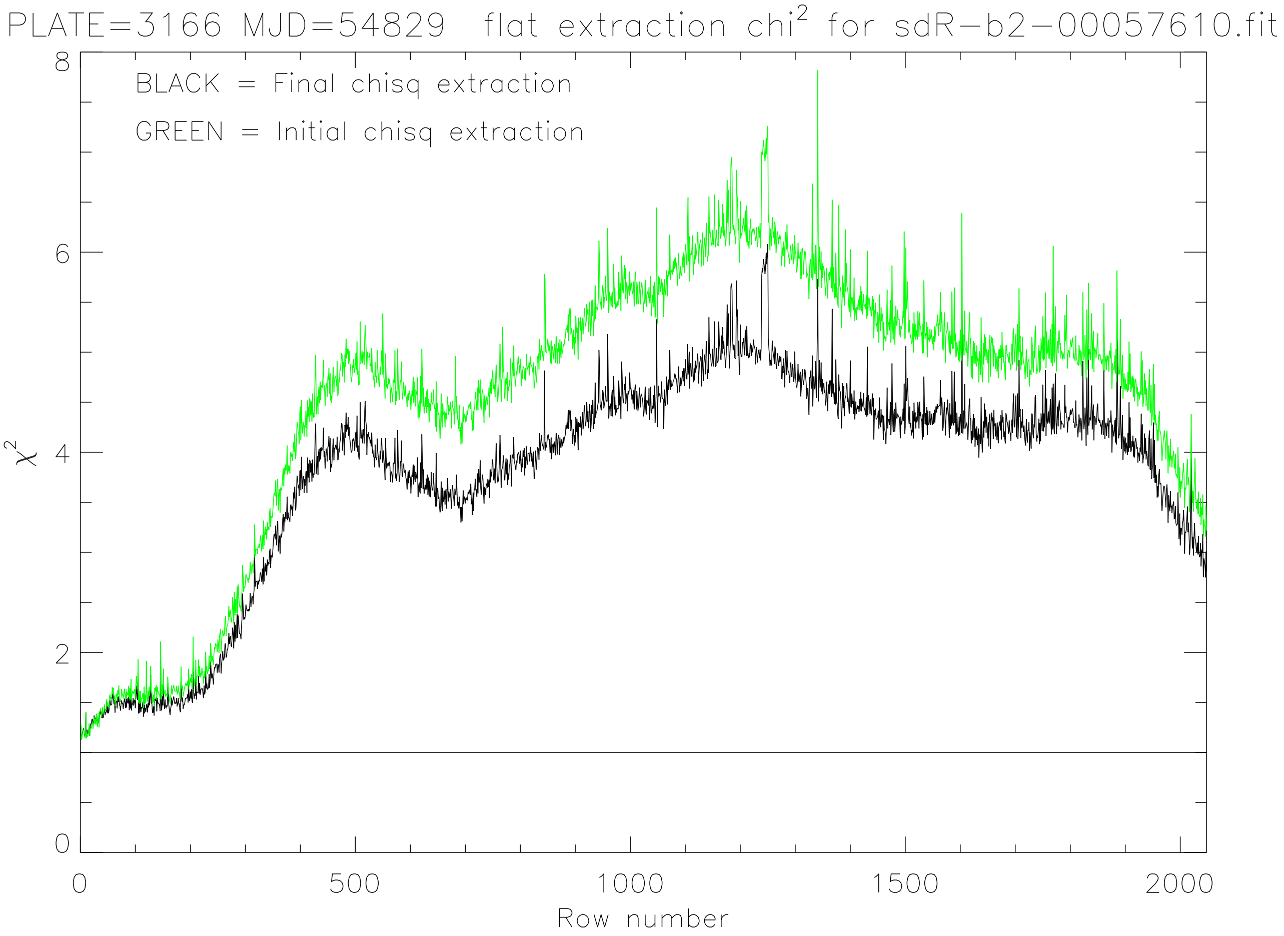
scale coeff residuals from ord=3 poly
2×10⁻⁵
1×10⁻⁵
0
−1×10⁻⁵
−2×10⁻⁵
0
50
100
150
200
250
300
fiber

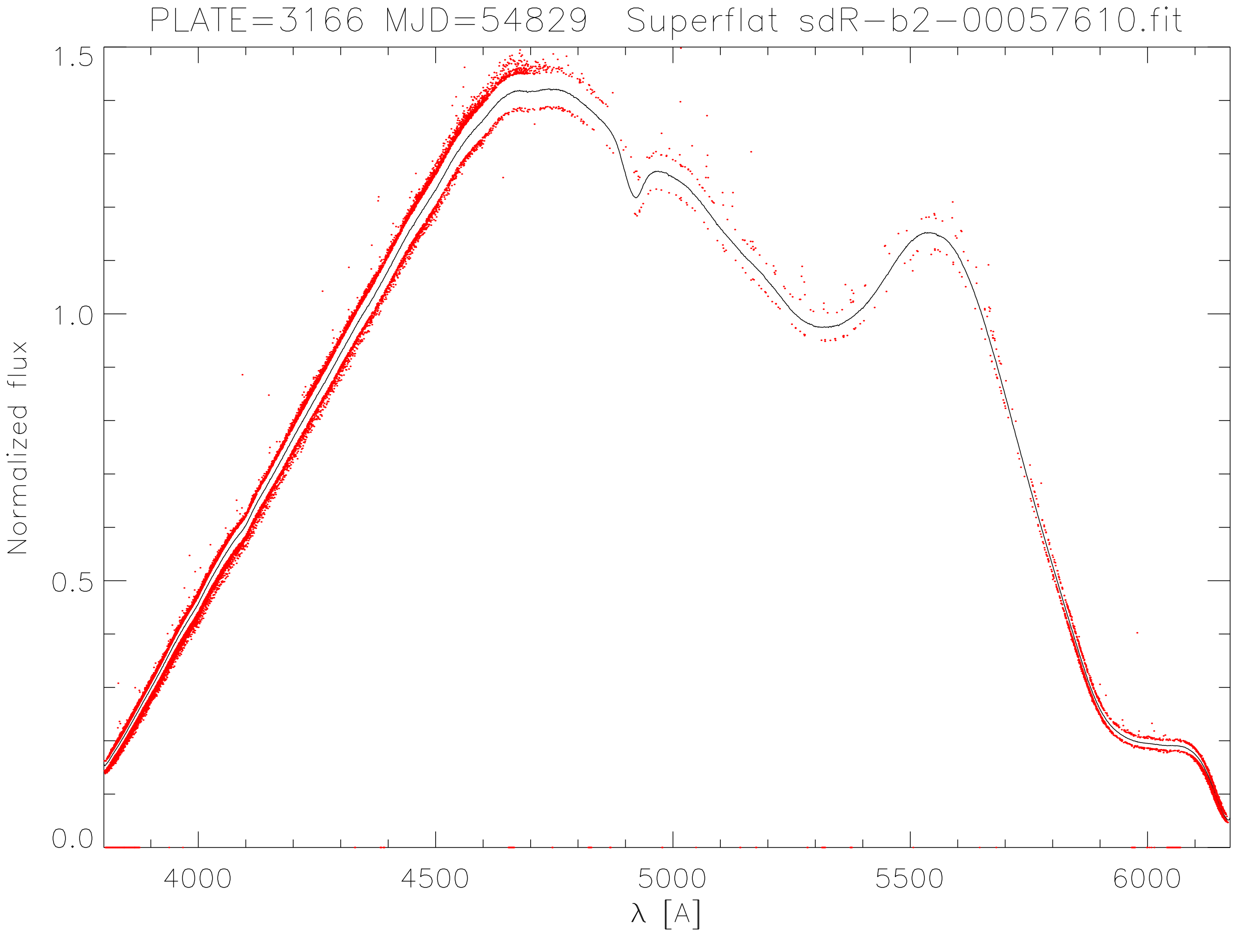

PLATE=3166 MJD=54829 flat extraction chi^2 for sdR-b2-00057603.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
0
500
1000
1500
2000
Row number


PLATE=3166 MJD=54829 Superflat sdR-b2-00057603.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

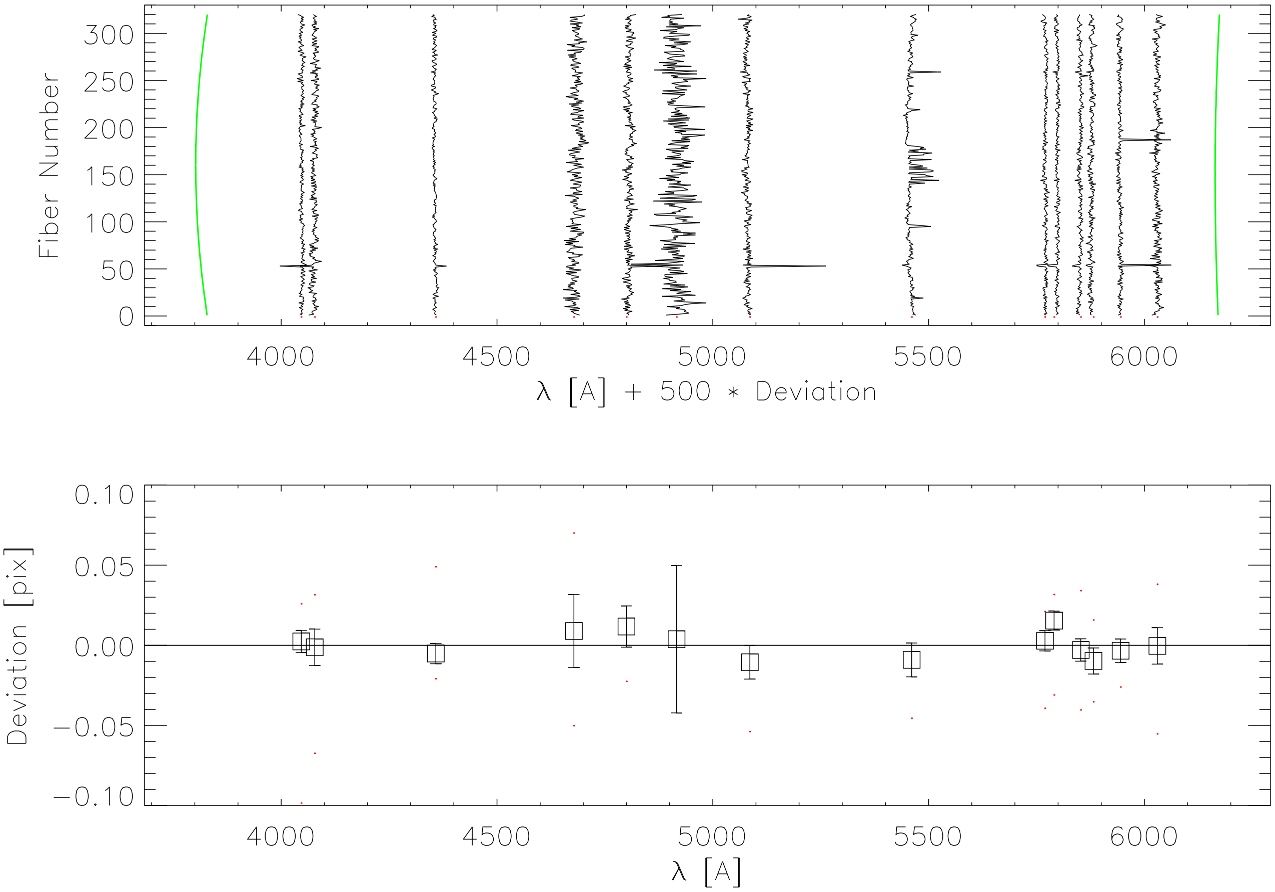

PLATE=3166 MJD=54829 flat extraction chi^2 for sdR-b2-00057607.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
0
500
1000
1500
2000
Row number


PLATE=3166 MJD=54829 Superflat sdR-b2-00057607.fit
Normalized flux
0.0
0.5
1.0
1.5
4000
4500
5000
5500
6000
λ [A]

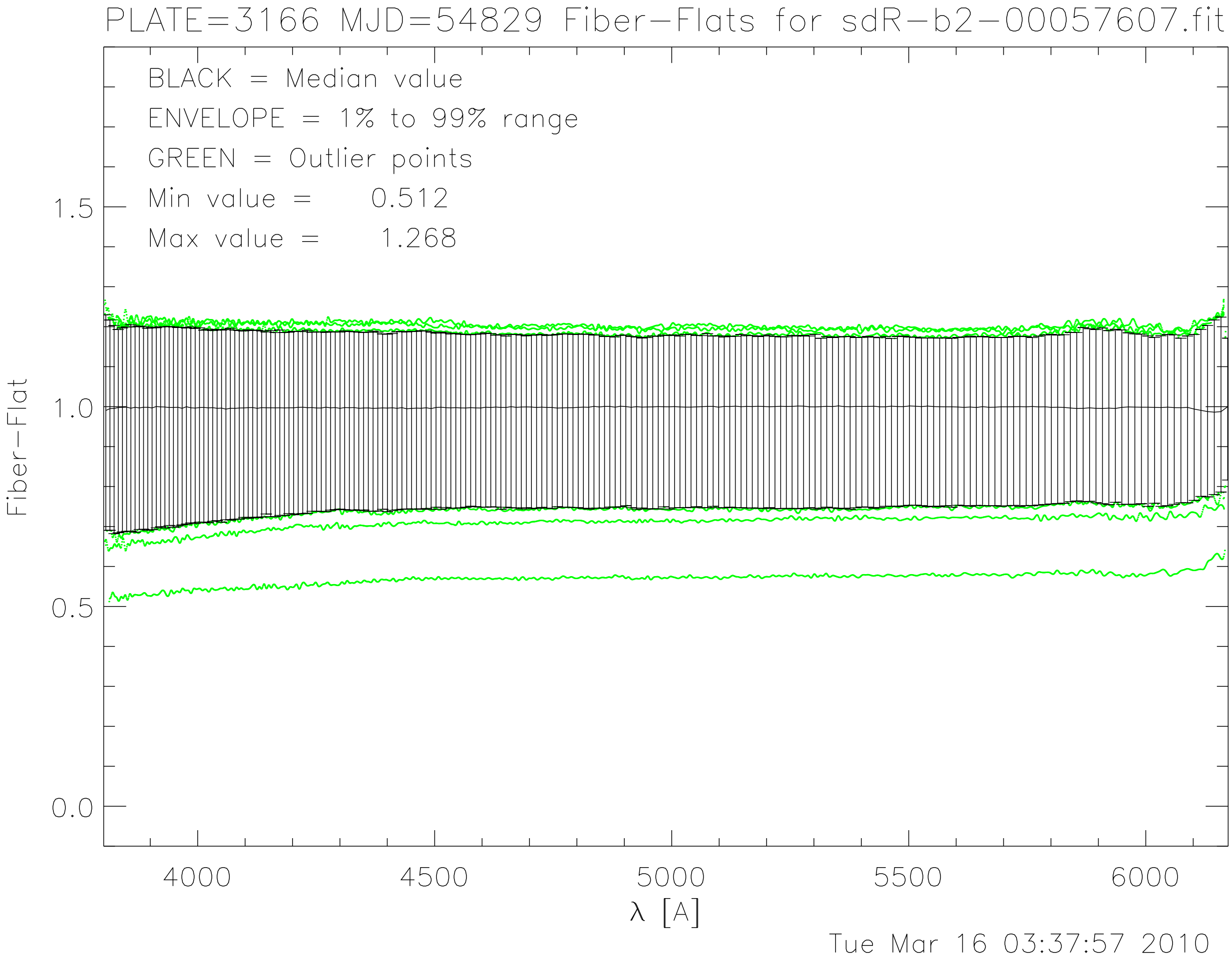

PLATE=3166 MJD=54829 flat extraction chi^2 for sdR-b2-00057610.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
0
500
1000
1500
2000
Row number

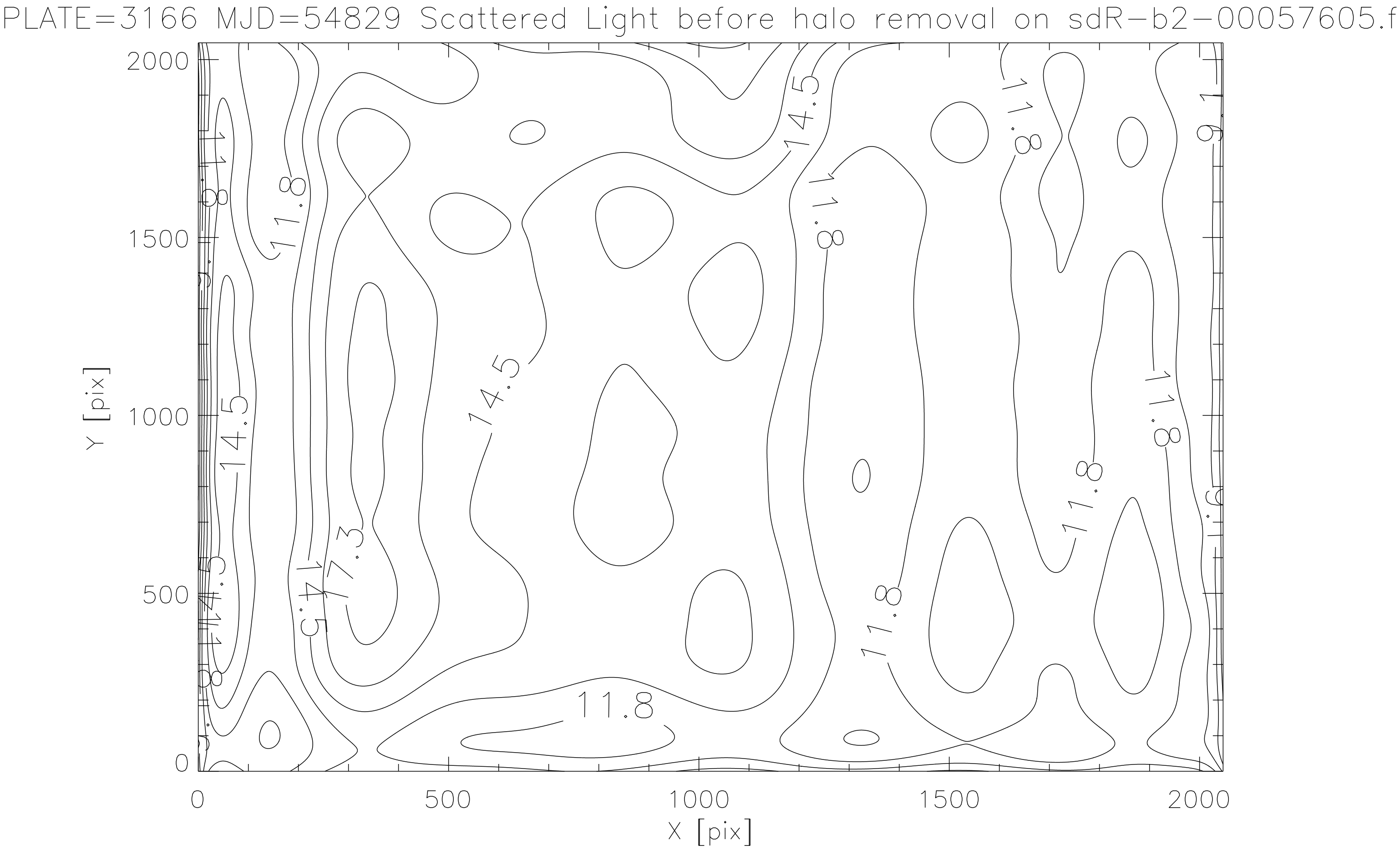

PLATE=3166 MJD=54829 Superflat sdR-b2-00057610.fit
Normalized flux
0.0
0.5
1.0
1.5
4000
4500
5000
5500
6000
λ [A]

PLATE=3166 MJD=54829 Arcline Fit for sdR-b2-00057608.fit

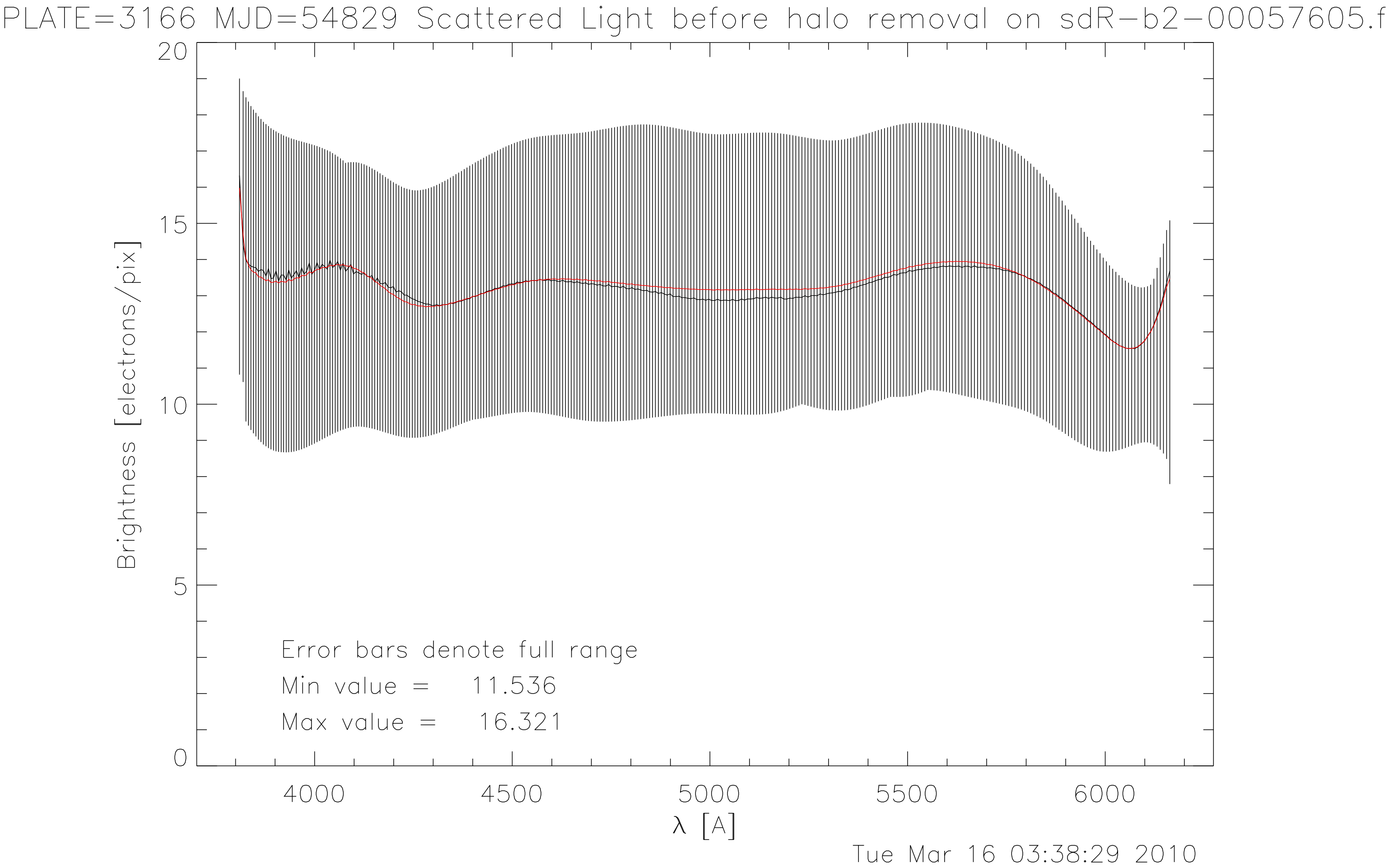


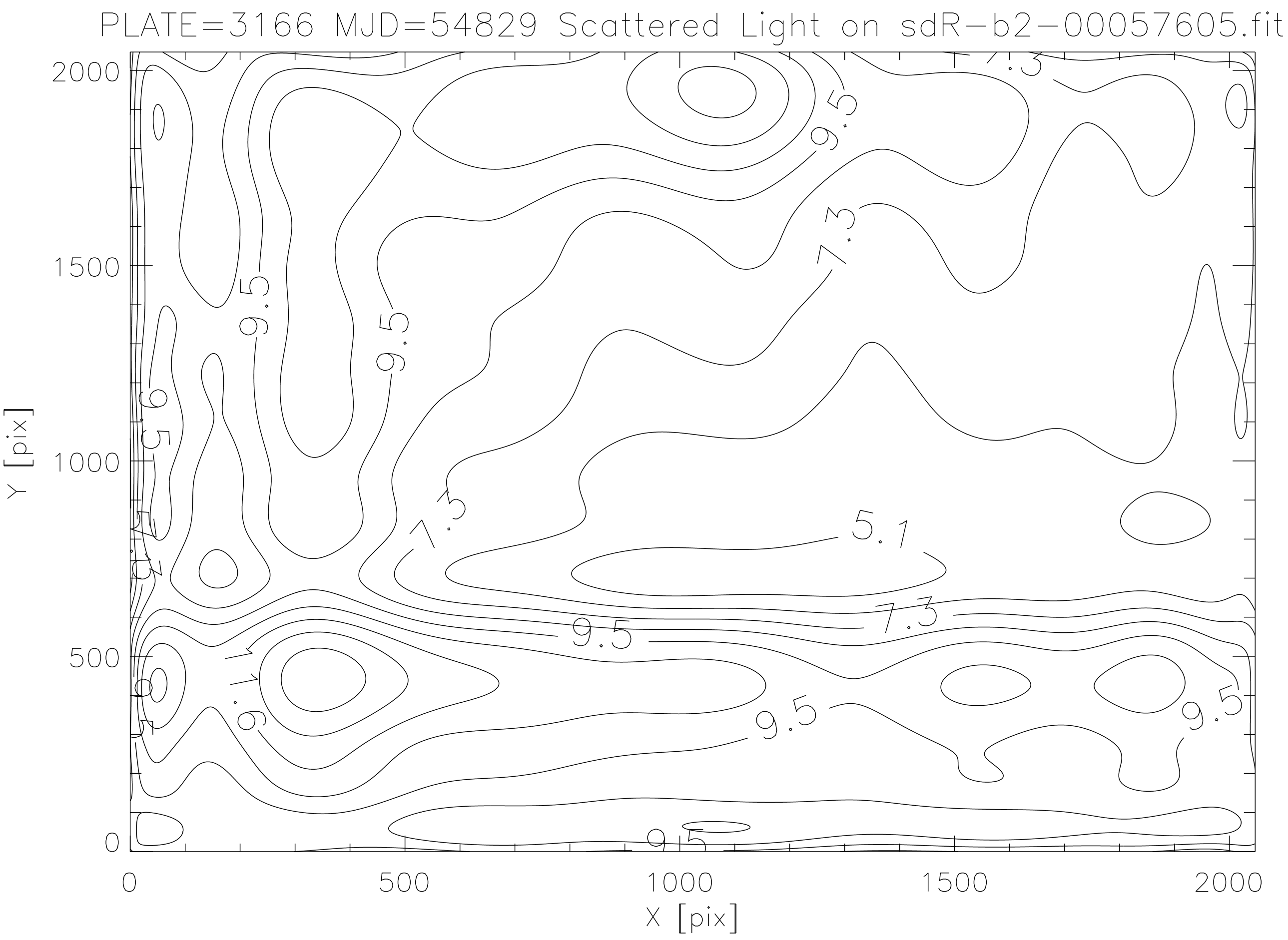
Tue Mar 16 03:37:52 2010

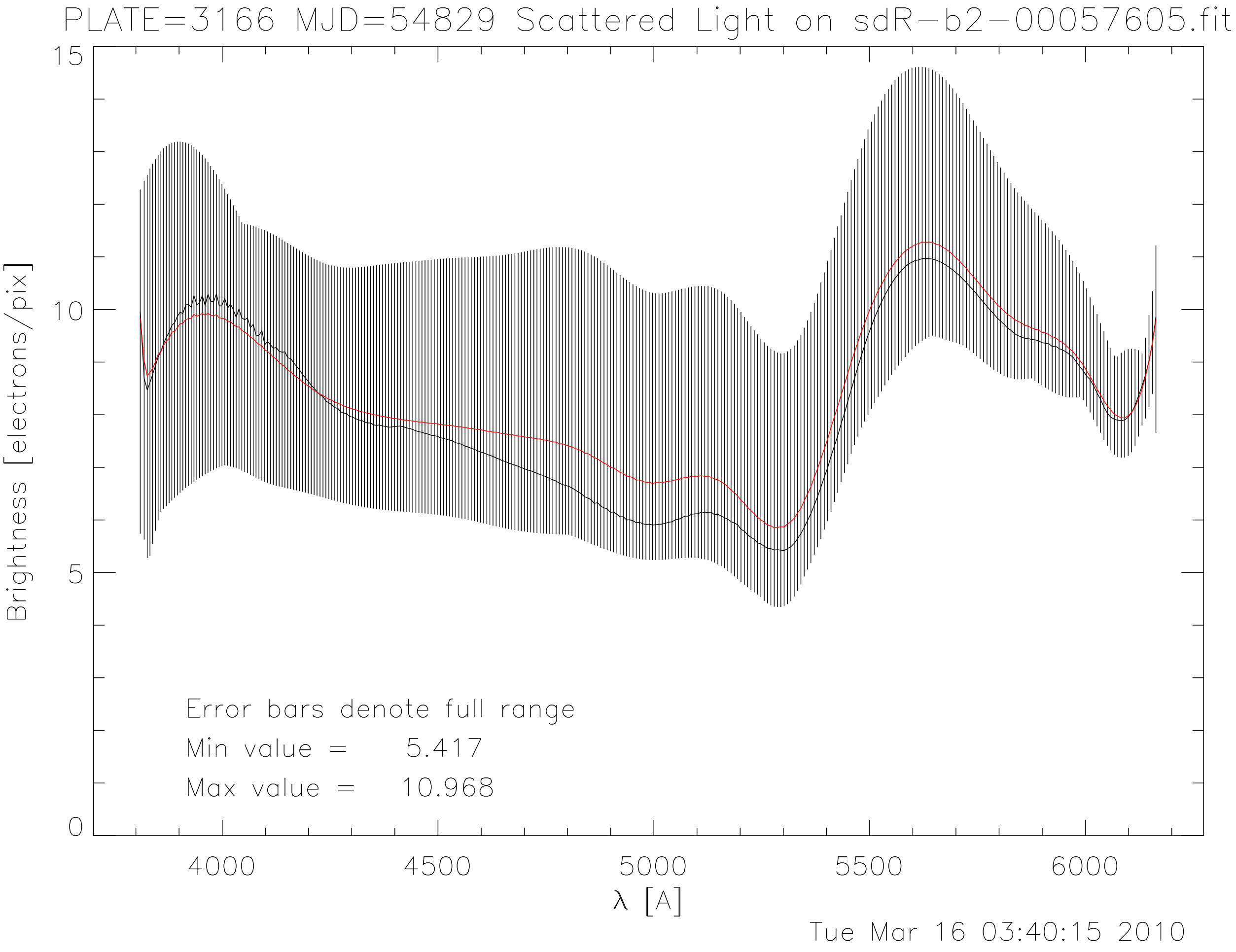

PLATE=3166 MJD=54829 Fiber−Flats for sdR−b2−00057607.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.512
Max value = 1.268
1.5
1.0
0.5
0.0
Fiber−Flat
4000
4500
5000
5500
6000
λ [A]
Tue Mar 16 03:37:57 2010

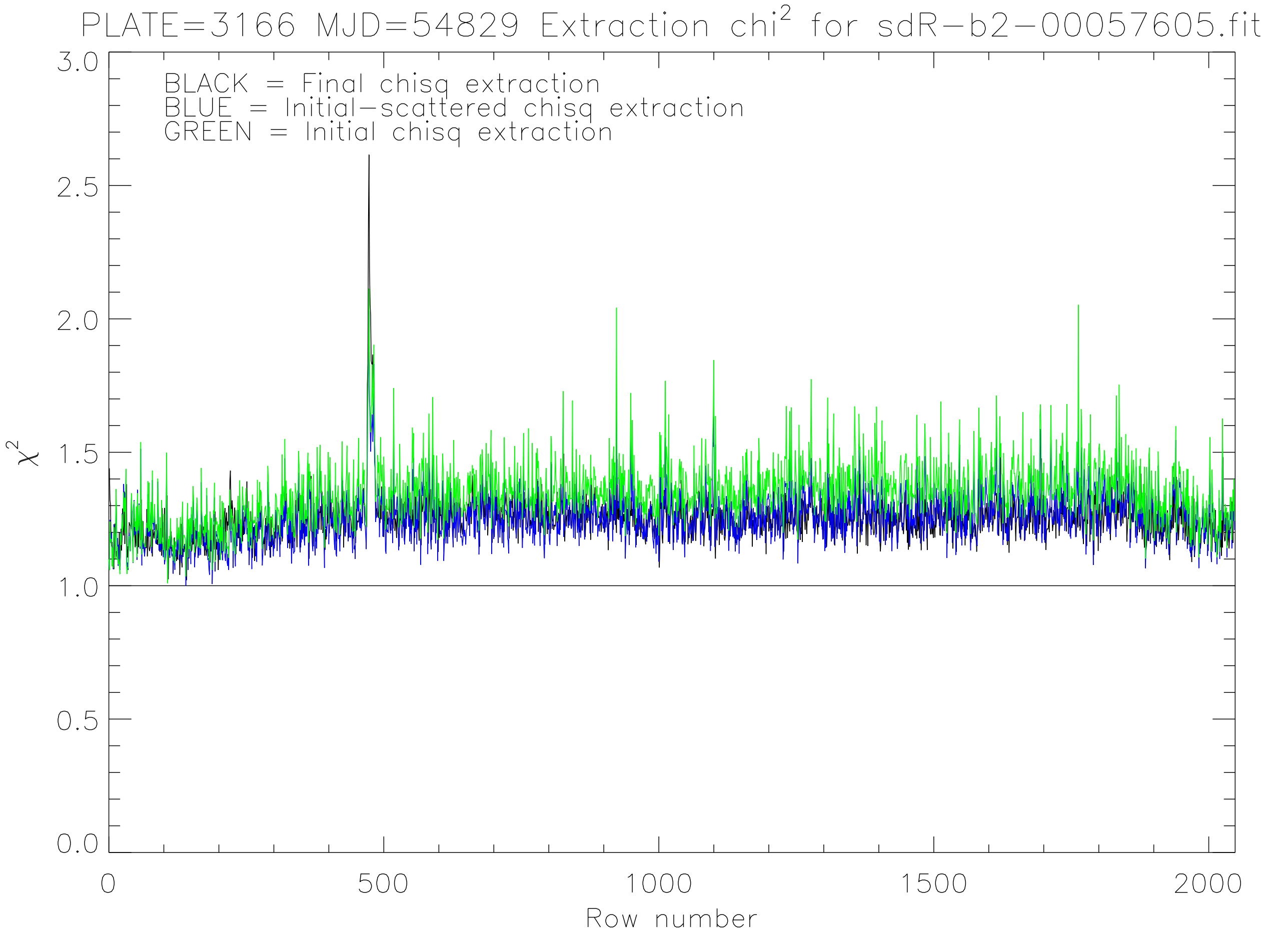


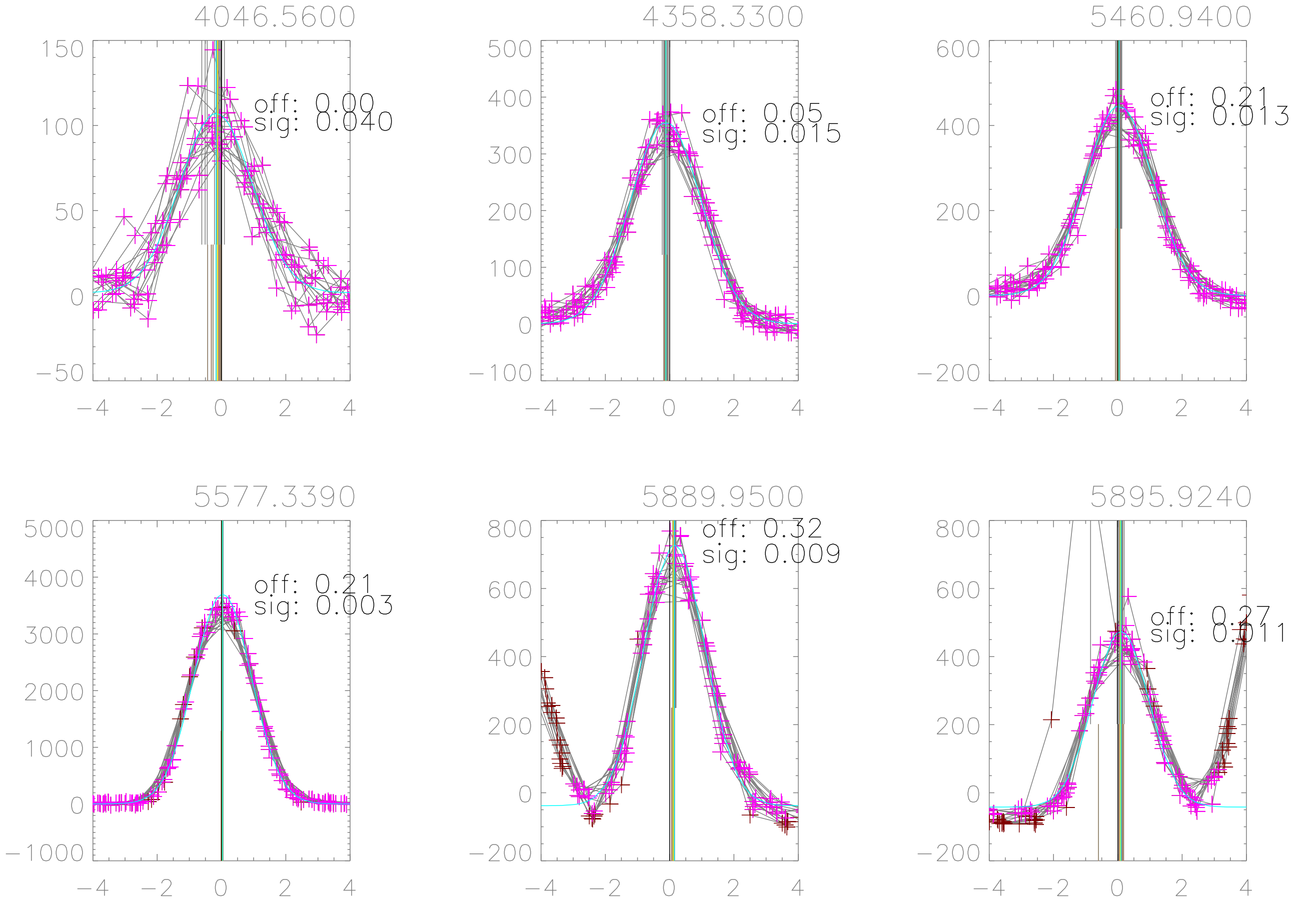
PLATE=3166 MJD=54829 Scattered Light before halo removal on sdR-b2-00057605.f


PLATE=3166 MJD=54829 Scattered Light before halo removal on sdR-b2-00057605.f
Brightness [electrons/pix]
20
15
10
5
0
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 11.536
Max value = 16.321
Tue Mar 16 03:38:29 2010

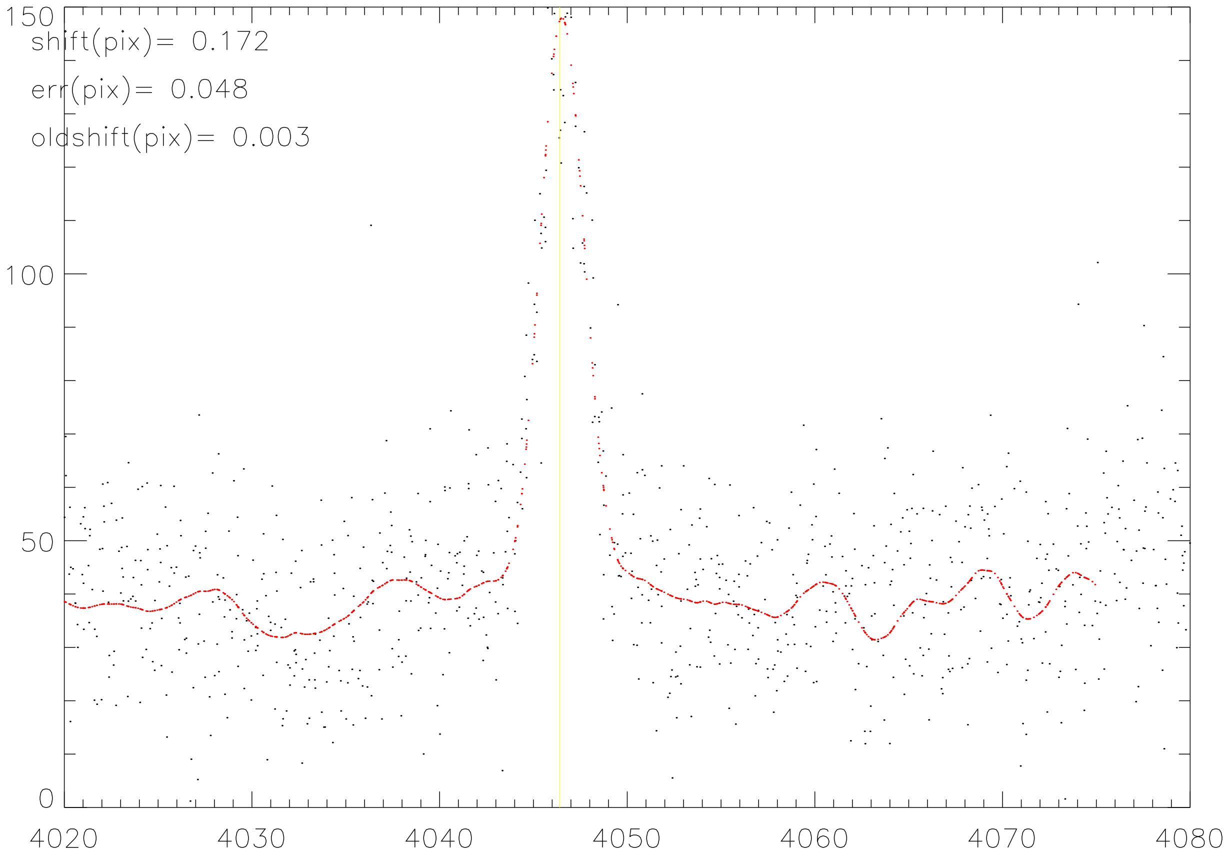

PLATE=3166 MJD=54829 Scattered Light on sdR-b2-00057605.fit

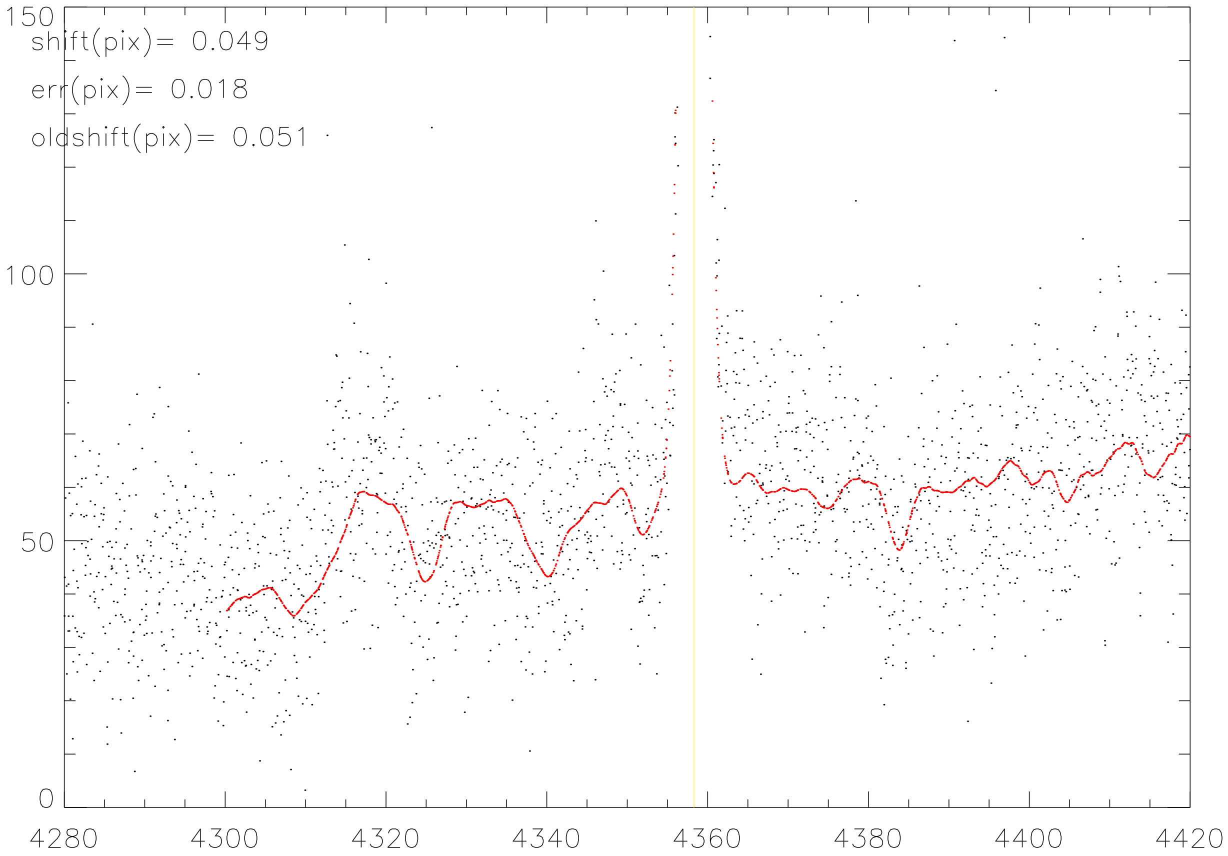

PLATE=3166 MJD=54829 Scattered Light on sdR-b2-00057605.fit
Brightness [electrons/pix]
15
10
5
0
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 5.417
Max value = 10.968
Tue Mar 16 03:40:15 2010

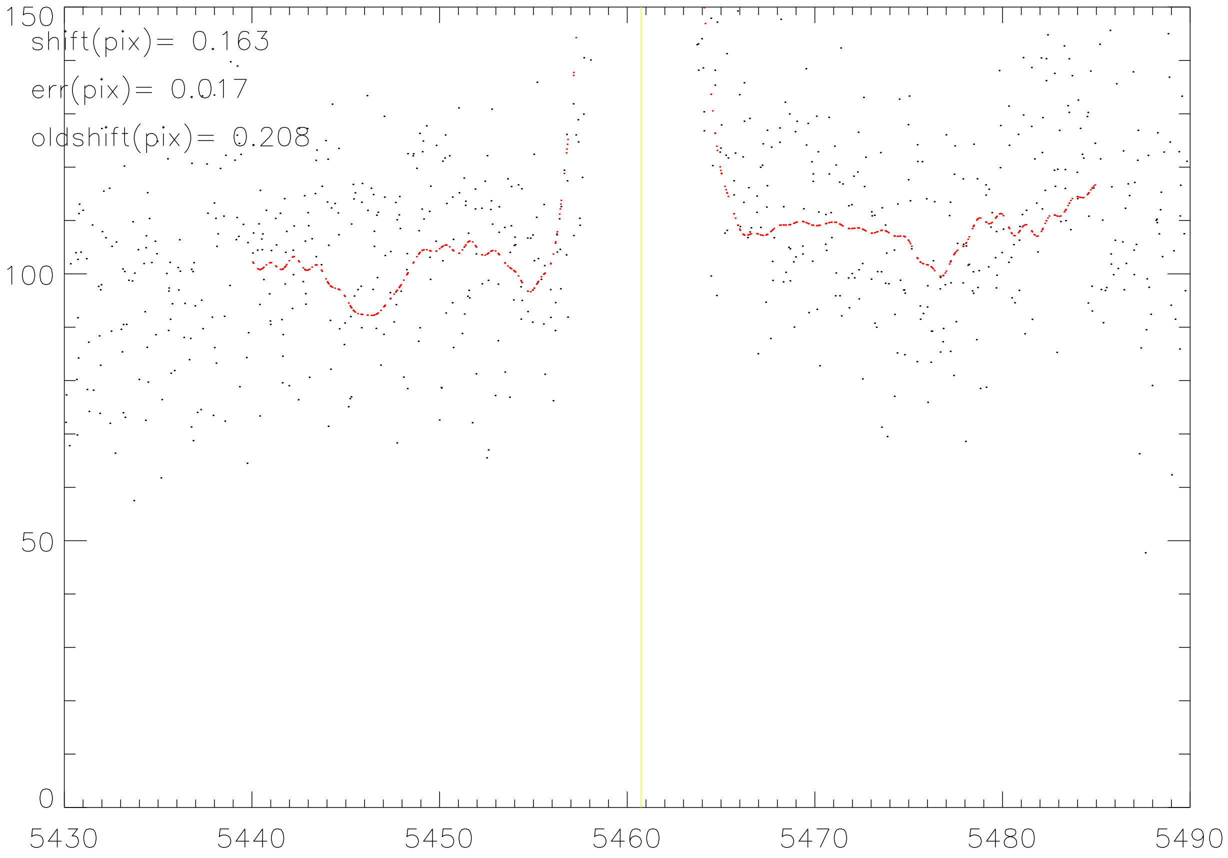

PLATE=3166 MJD=54829 Extraction chi^2 for sdR-b2-00057605.fit



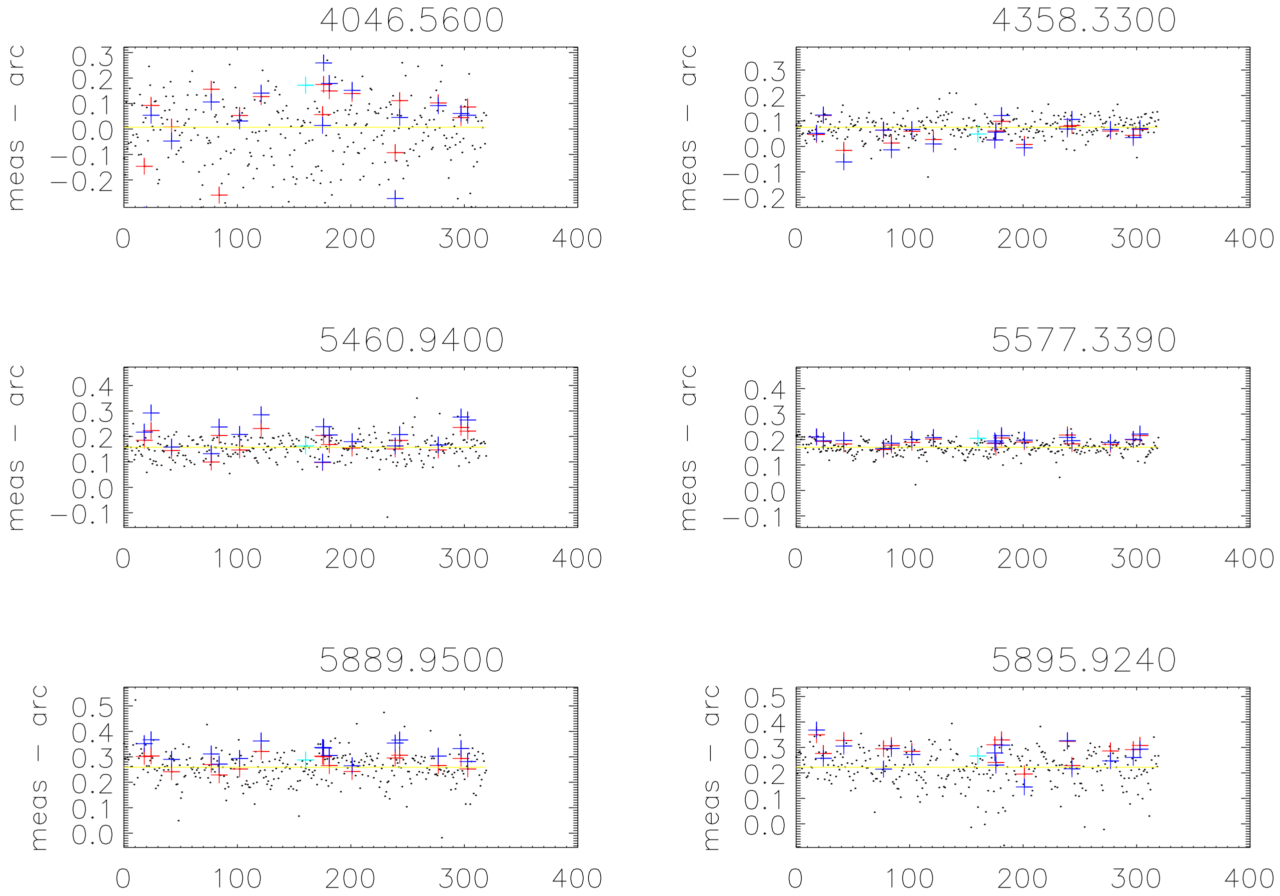
4046.5600
off: 0.00
sig: 0.040
150
100
50
0
−50
−4
−2
0
2
4
4358.3300
off: 0.05
sig: 0.015
500
400
300
200
100
0
−100
5460.9400
off: 0.21
sig: 0.013
600
400
200
0
−200
5577.3390
off: 0.21
sig: 0.003
5000
4000
3000
2000
1000
0
−1000
5889.9500
off: 0.32
sig: 0.009
800
600
400
200
0
−200
5895.9240
off: 0.27
sig: 0.011
800
600
400
200
0
−200

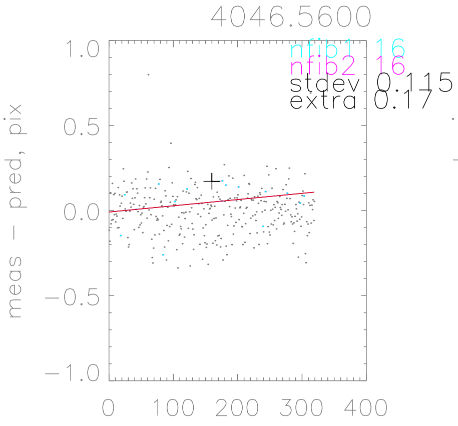

shift(pix)= 0.172
err(pix)= 0.048
oldshift(pix)= 0.003
150
100
50
0
4020
4030
4040
4050
4060
4070
4080

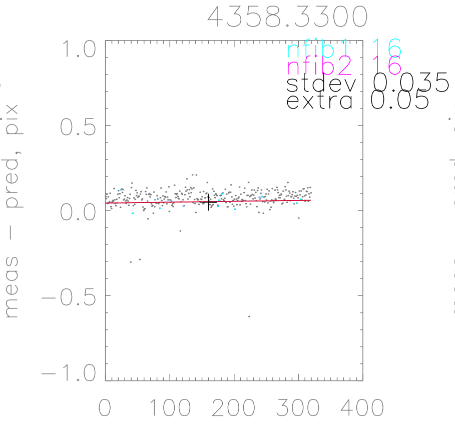

shift(pix)= 0.049
err(pix)= 0.018
oldshift(pix)= 0.051
150
100
50
0
4280
4300
4320
4340
4360
4380
4400
4420

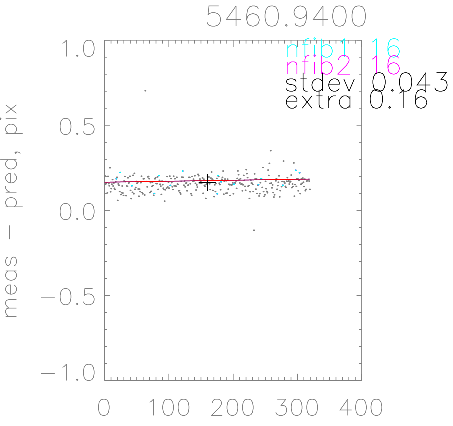


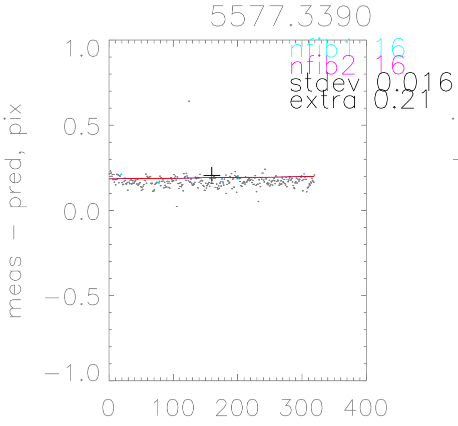
shift(pix)= 0.163
err(pix)= 0.017
oldshift(pix)= 0.208
150
100
50
0
5430
5440
5450
5460
5470
5480
5490

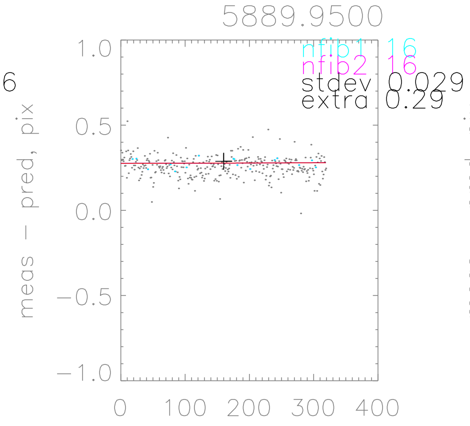

4046.5600
4358.3300
5460.9400
5577.3390
5889.9500
5895.9240
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0.4
0.5
0
100
200
300
400

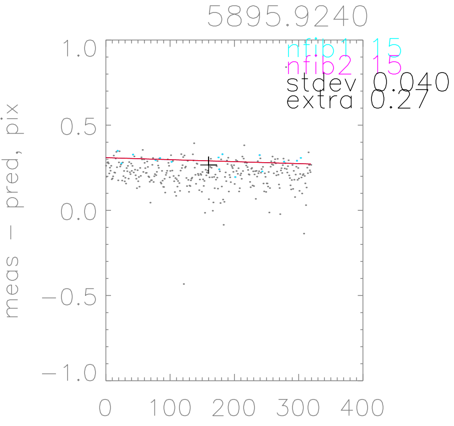

4046.5600
nfib1 16
nfib2 16
stdev 0.115
extra 0.17
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

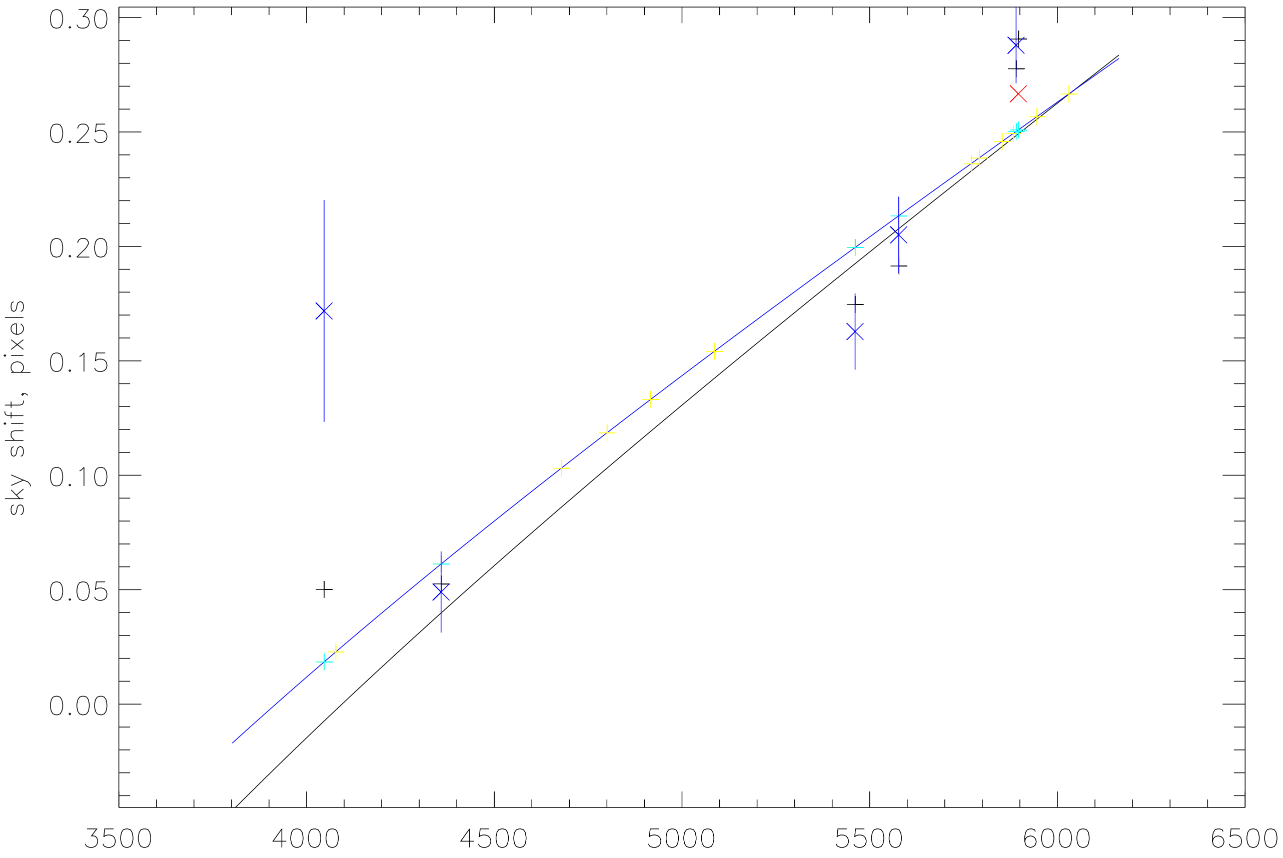

4358.3300
nfib1 16
nfib2 16
stdev 0.035
extra 0.05
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

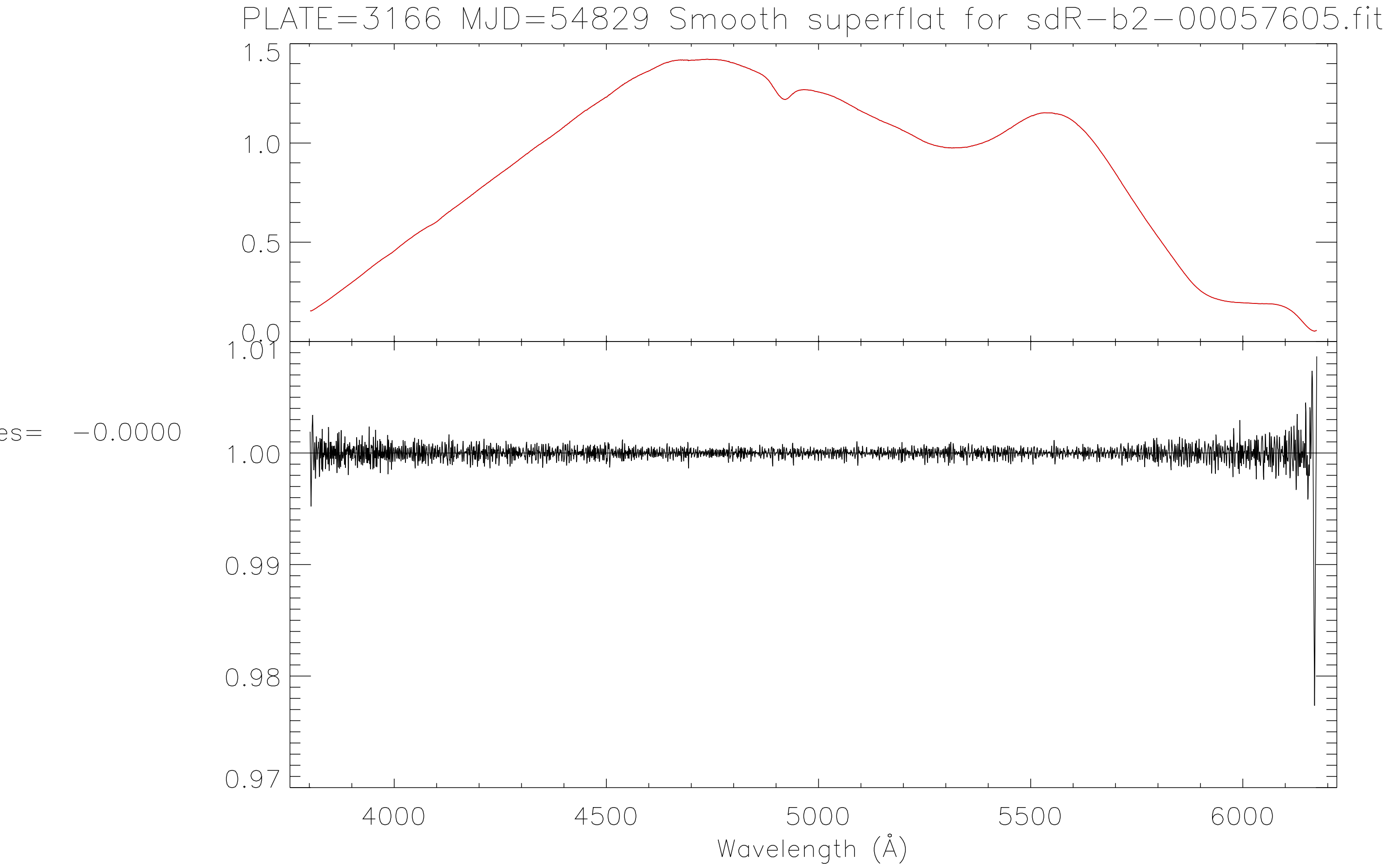

5460.9400
nfib1 16
nfib2 16
stdev 0.043
extra 0.16
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

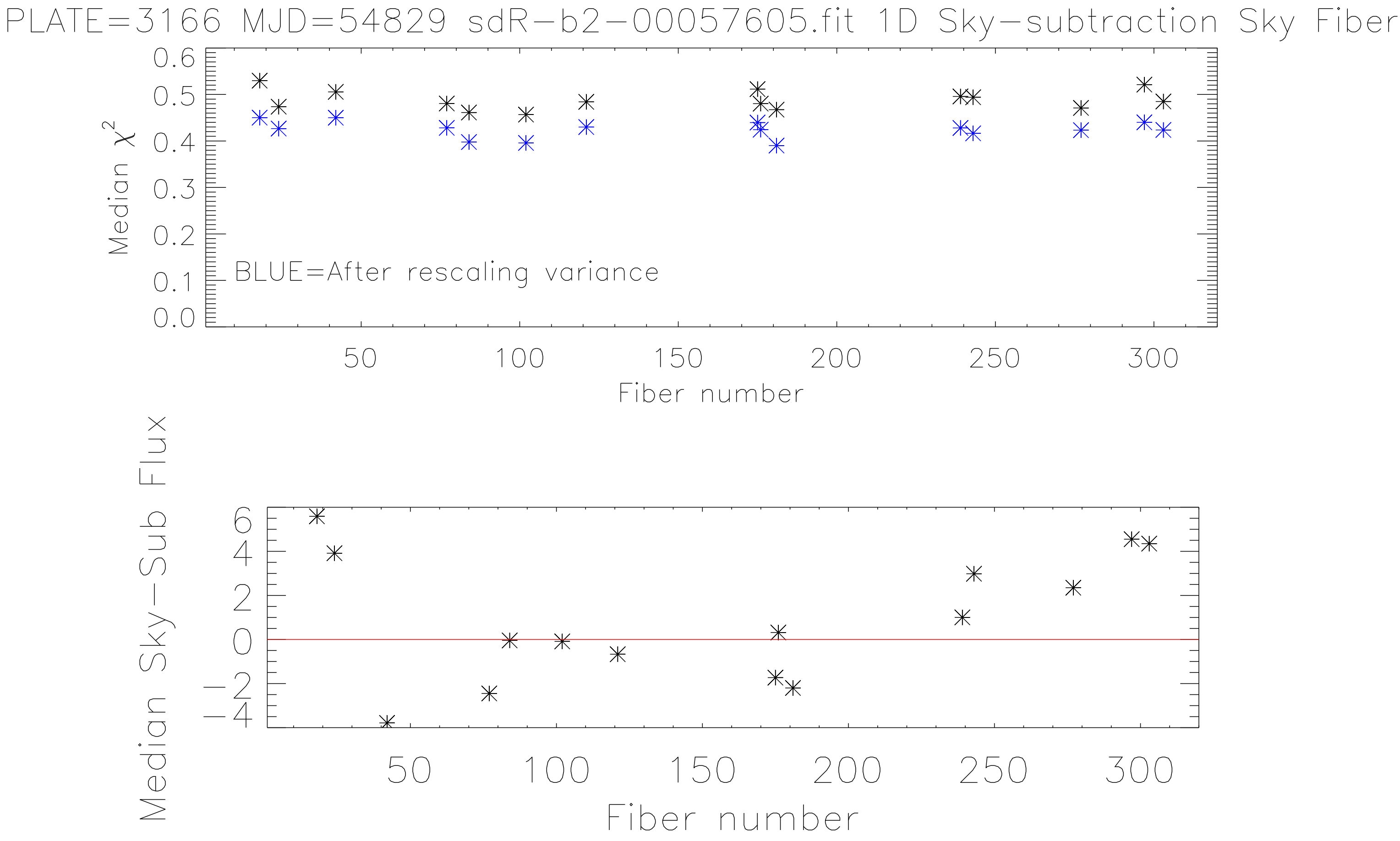

5577.3390
nfib1 16
nfib2 16
stdev 0.016
extra 0.21
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400


5889.9500
nfib1 16
nfib2 16
stdev 0.029
extra 0.29
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

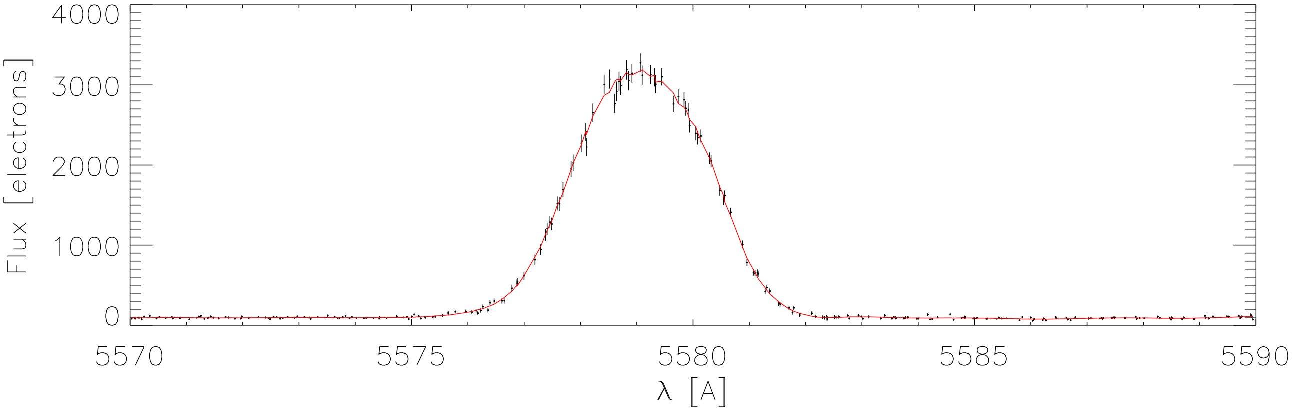

5895.9240
nfib1 15
nfib2 15
stdev 0.040
extra 0.27
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400


sky shift, pixels
0.30
0.25
0.20
0.15
0.10
0.05
0.00
3500
4000
4500
5000
5500
6000
6500

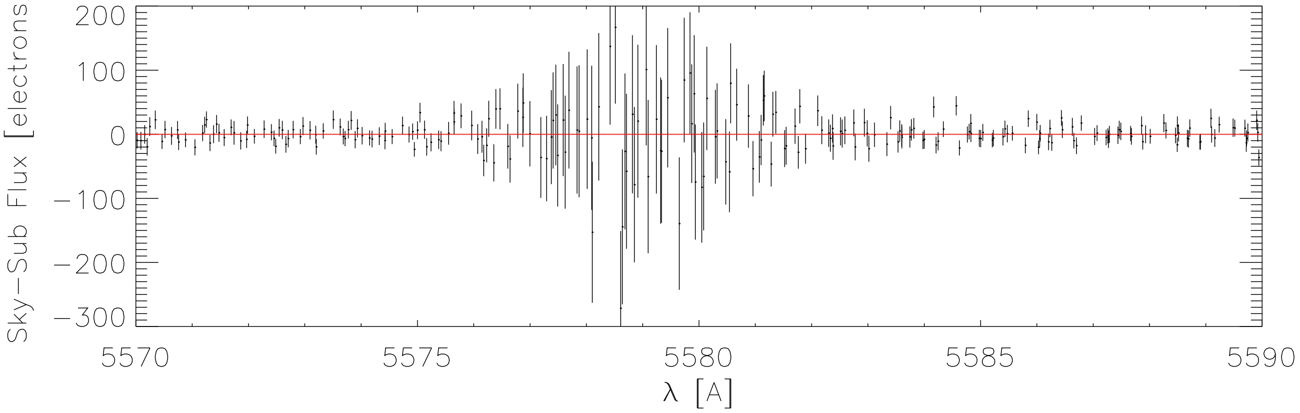

PLATE=3166 MJD=54829 Smooth superflat for sdR-b2-00057605.fit
1.5
1.0
0.5
0.0
1.01
1.00
0.99
0.98
0.97
es= −0.0000
4000
4500
5000
5500
6000
Wavelength (Å)


PLATE=3166 MJD=54829 sdR-b2-00057605.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
−4
−2
0
2
4
6
50
100
150
200
250
300
Fiber number

PLATE=3166 MJD=54829 sdR-b2-00057605.fit 1D Sky-subtraction Sky Fibers

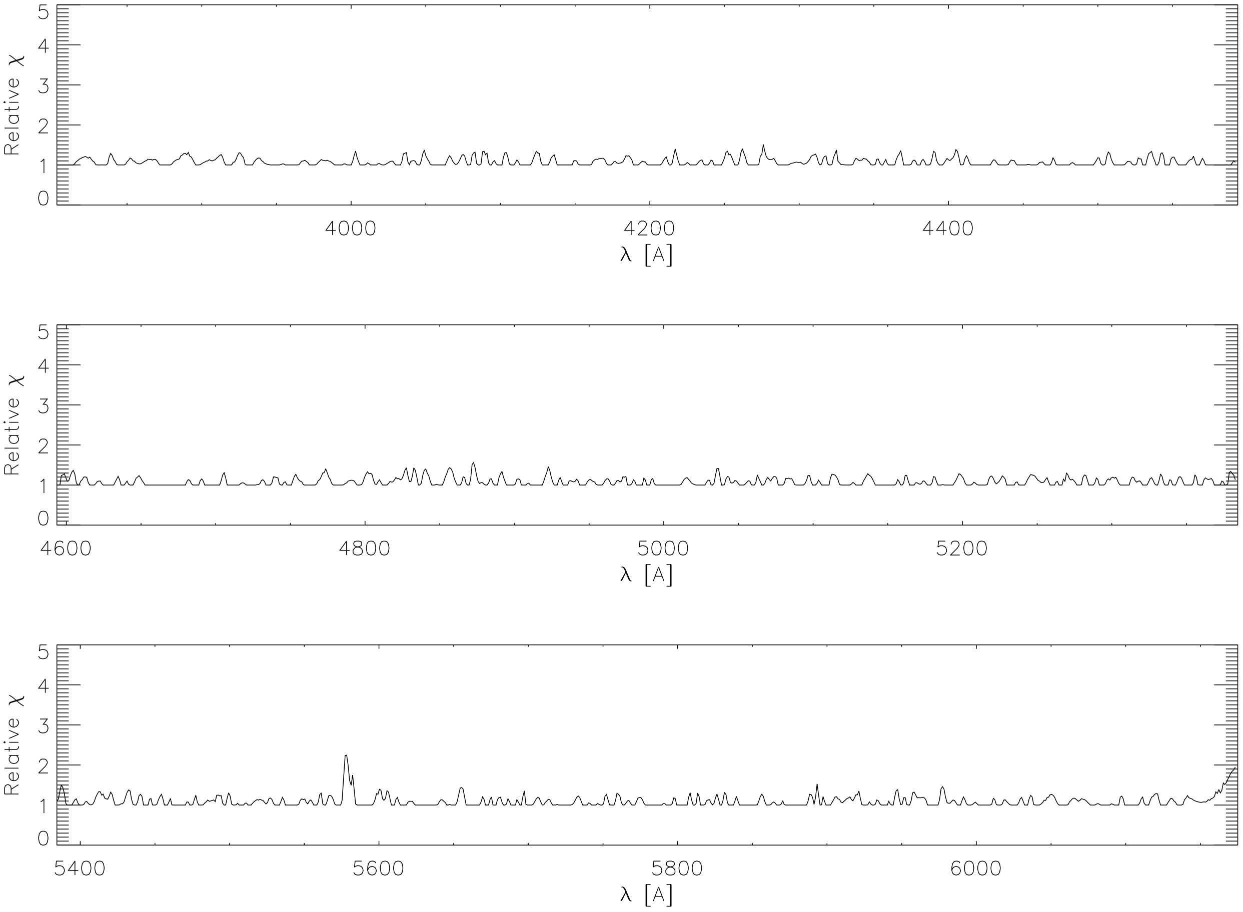


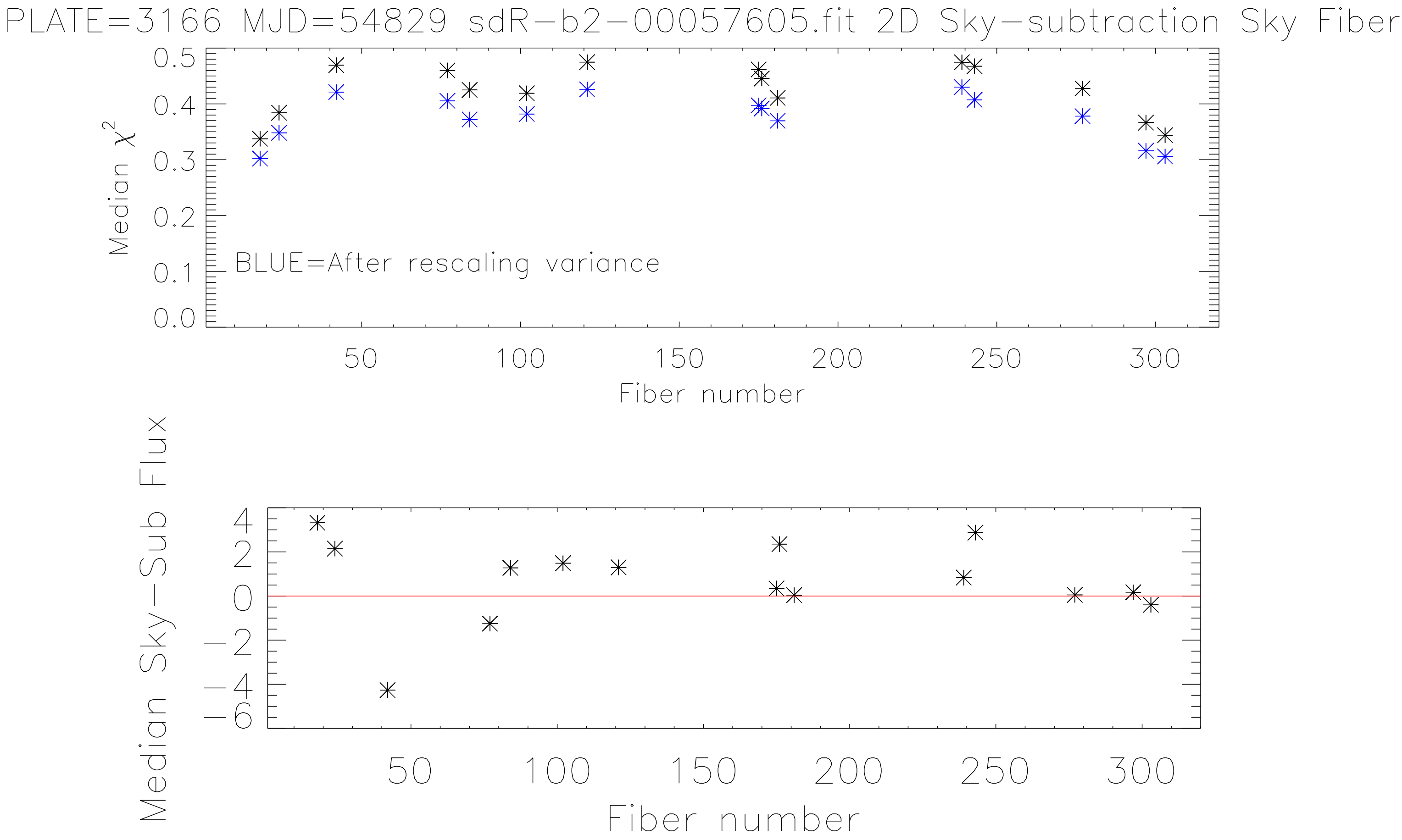
PLATE=3166 MJD=54829 sdR-b2-00057605.fit 1D Sky-subtraction Sky-subtracted Sky F

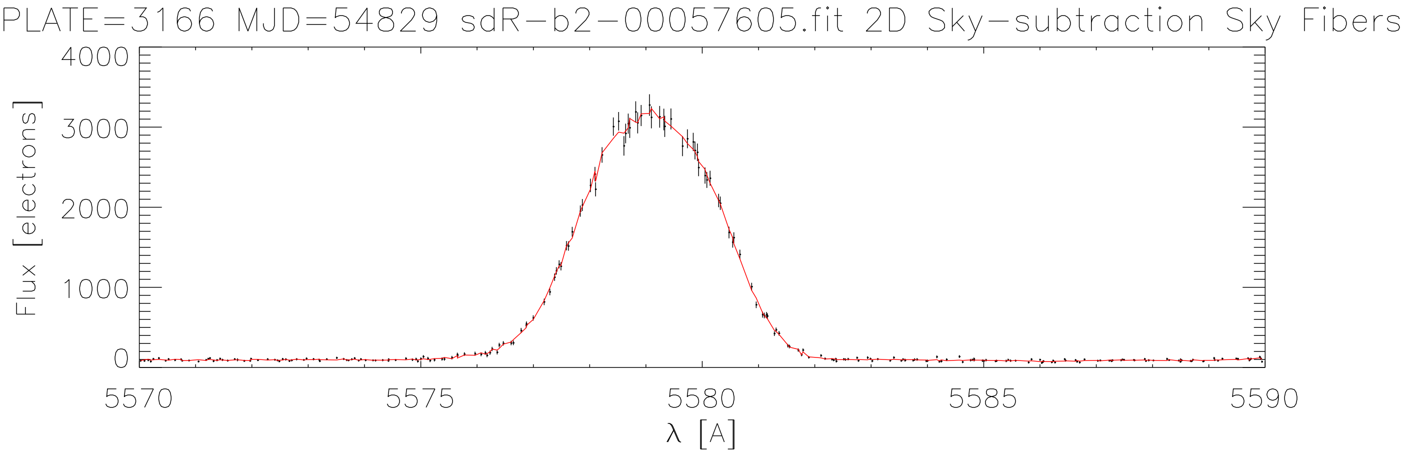


Number of sky fibers = 15

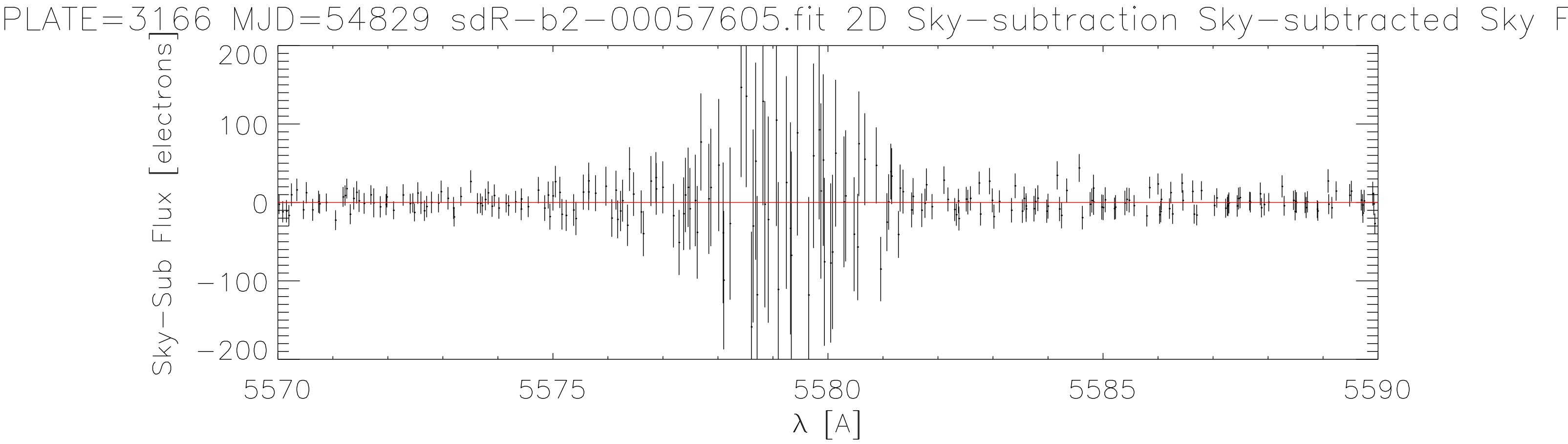
PLATE=3166 MJD=54829 sdR-b2-00057605.fit 1D Sky-subtraction Rescaled Errors




PLATE=3166 MJD=54829 sdR-b2-00057605.fit 2D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
4
2
0
-2
-4
-6
50
100
150
200
250
300
Fiber number



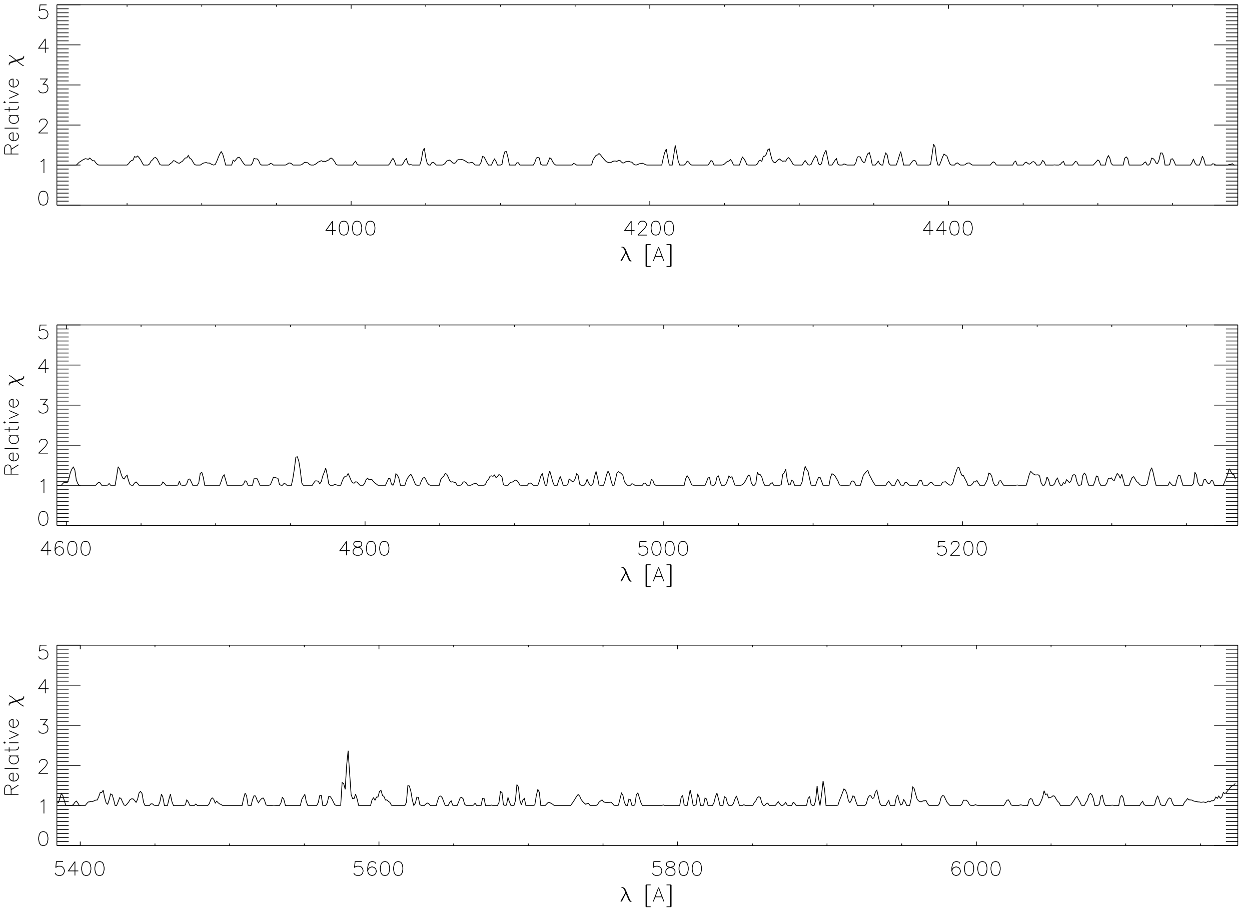
PLATE=3166 MJD=54829 sdR-b2-00057605.fit 2D Sky-subtraction Sky Fibers

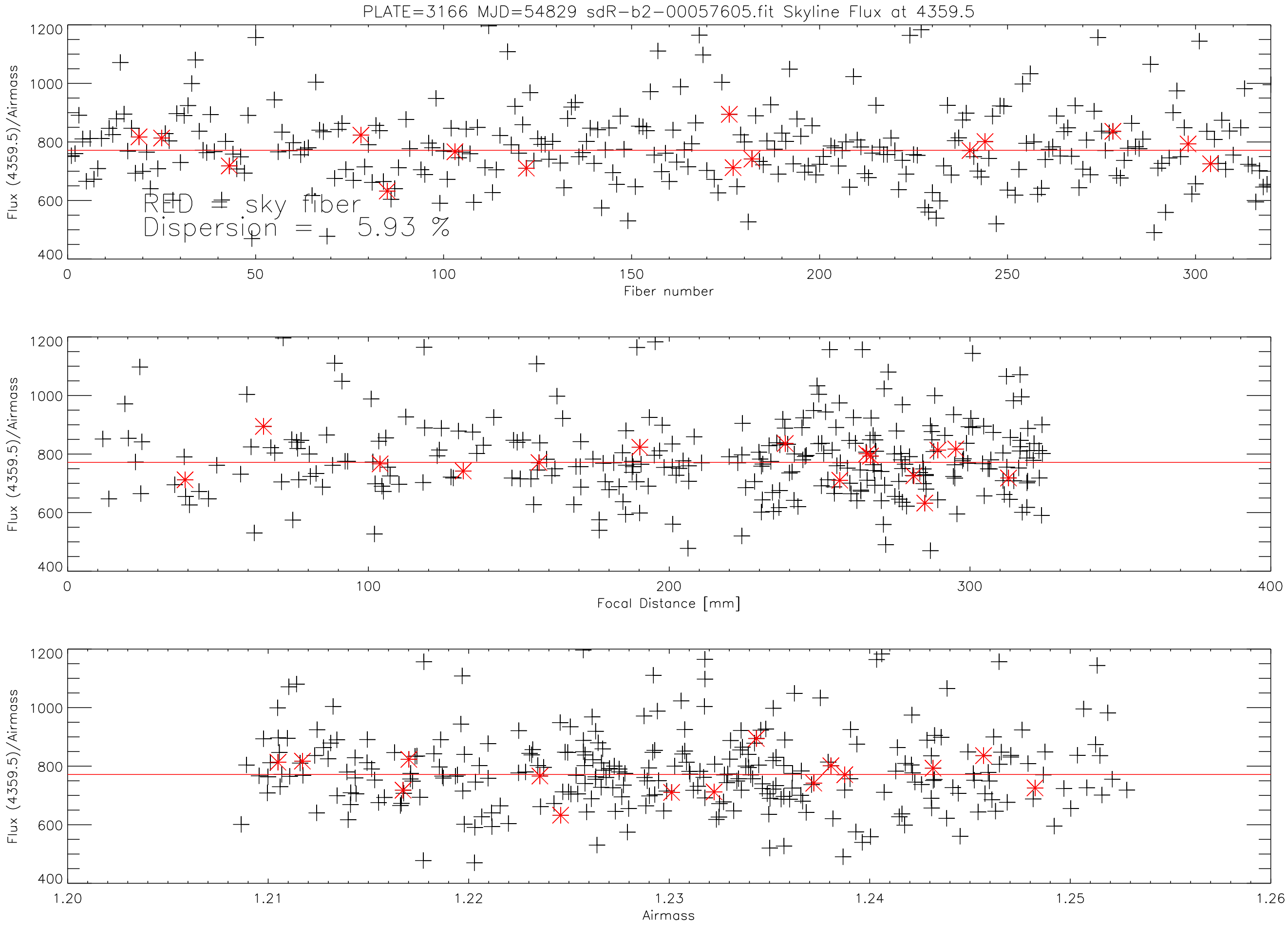


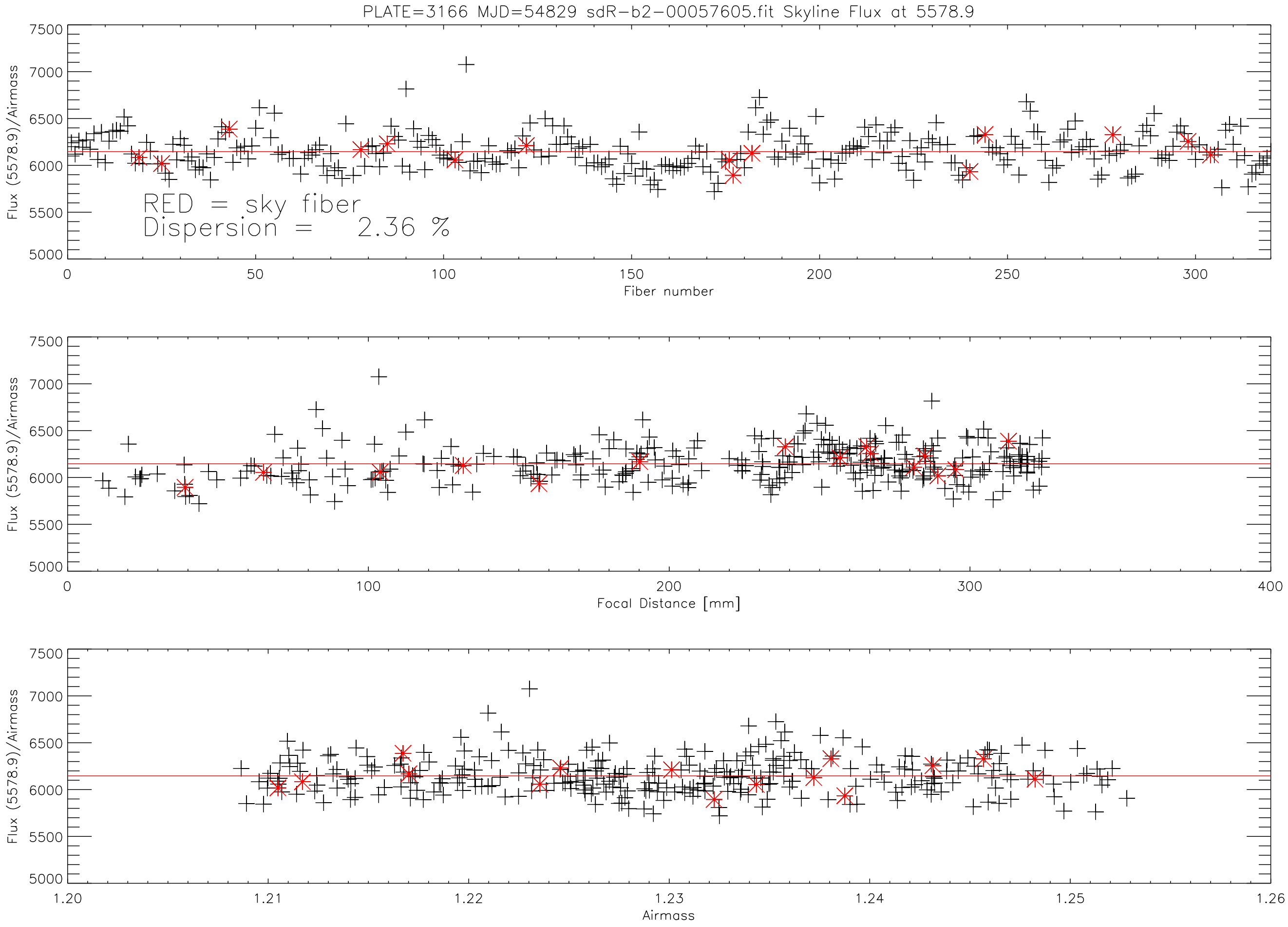
PLATE=3166 MJD=54829 sdR-b2-00057605.fit 2D Sky-subtraction Sky-subtracted Sky F

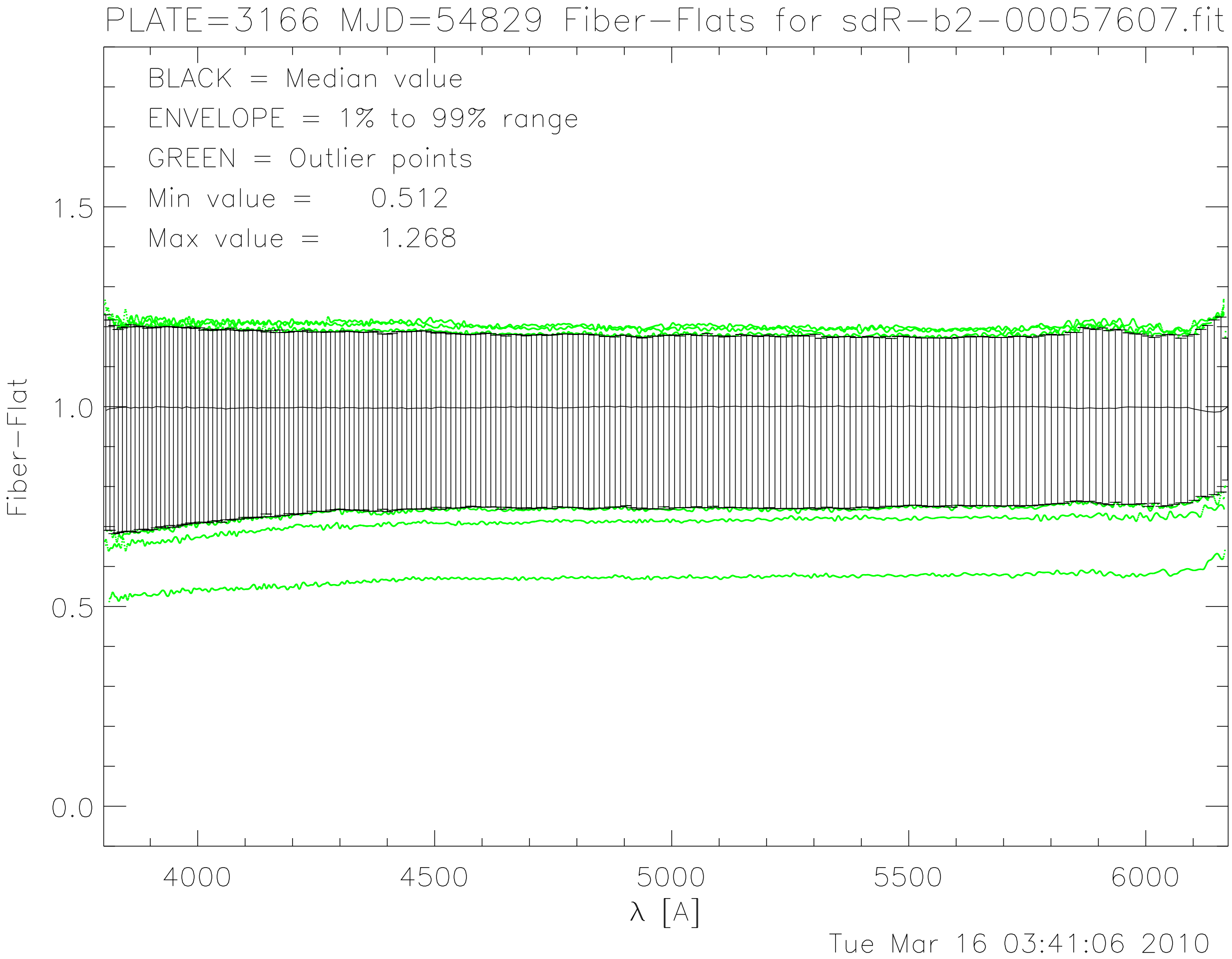
Number of sky fibers = 15

PLATE=3166 MJD=54829 sdR-b2-00057605.fit 2D Sky-subtraction Rescaled Errors

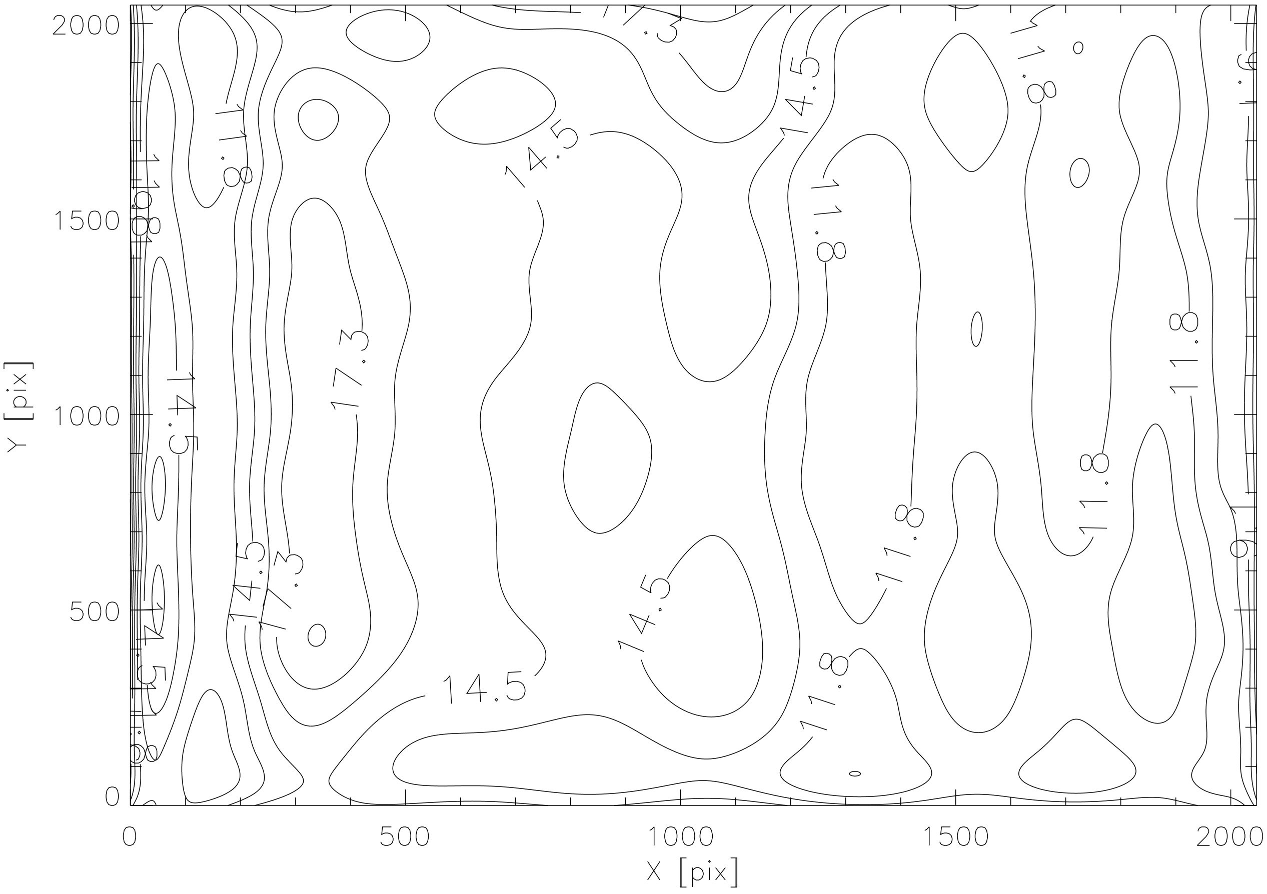



PLATE=3166 MJD=54829 sdR-b2-00057605.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
1200
1000
800
600
400
RED = sky fiber
Dispersion = 5.93 %
0
50
100
150
200
250
300
Fiber number
Flux (4359.5)/Airmass
1200
1000
800
600
400
0
100
200
300
400
Focal Distance [mm]
Flux (4359.5)/Airmass
1200
1000
800
600
400
1.20
1.21
1.22
1.23
1.24
1.25
1.26
Airmass

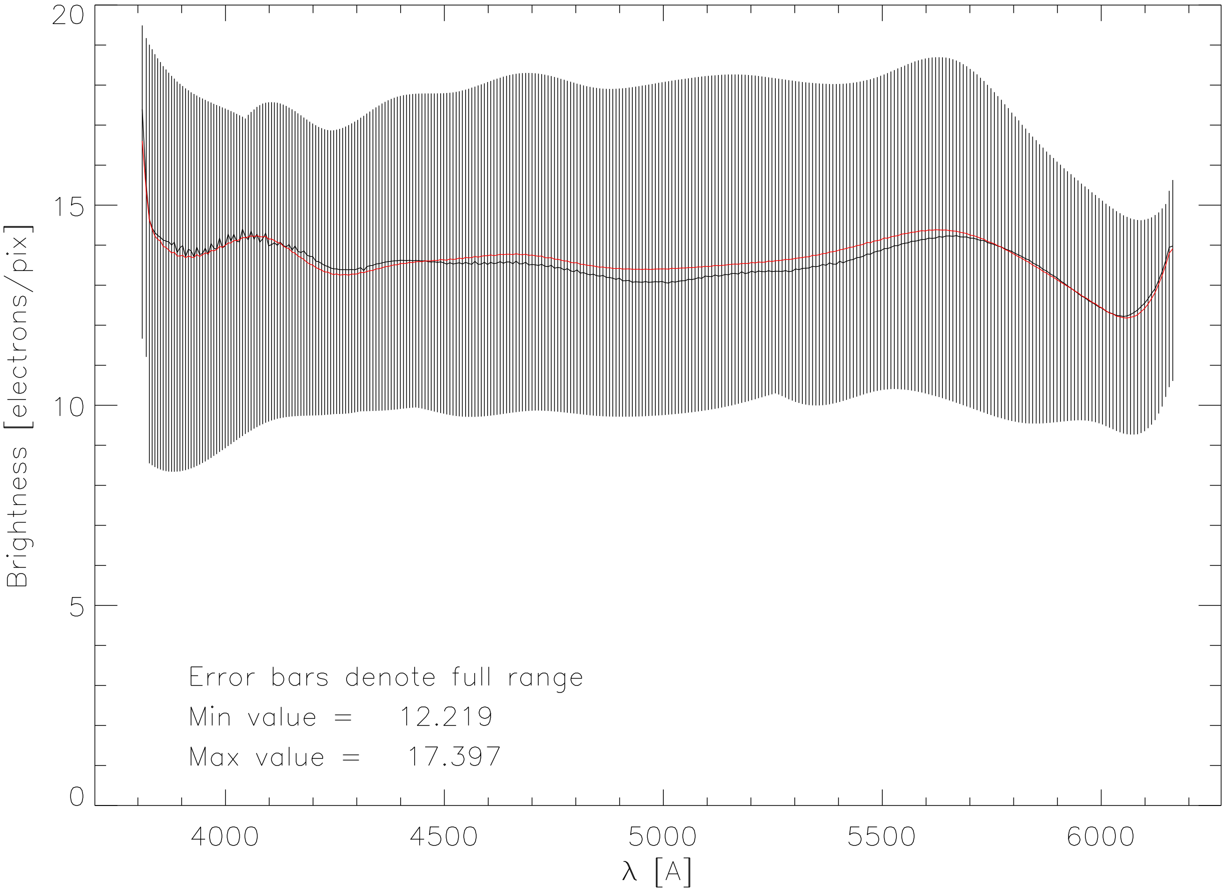

PLATE=3166 MJD=54829 sdR-b2-00057605.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
7500
7000
6500
6000
5500
5000
RED = sky fiber
Dispersion = 2.36 %
0
50
100
150
200
250
300
Fiber number
Flux (5578.9)/Airmass
7500
7000
6500
6000
5500
5000
0
100
200
300
400
Focal Distance [mm]
Flux (5578.9)/Airmass
7500
7000
6500
6000
5500
5000
1.20
1.21
1.22
1.23
1.24
1.25
1.26
Airmass


PLATE=3166 MJD=54829 Fiber−Flats for sdR−b2−00057607.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.512
Max value = 1.268
Fiber−Flat
0.0
0.5
1.0
1.5
4000
4500
5000
5500
6000
λ [A]
Tue Mar 16 03:41:06 2010

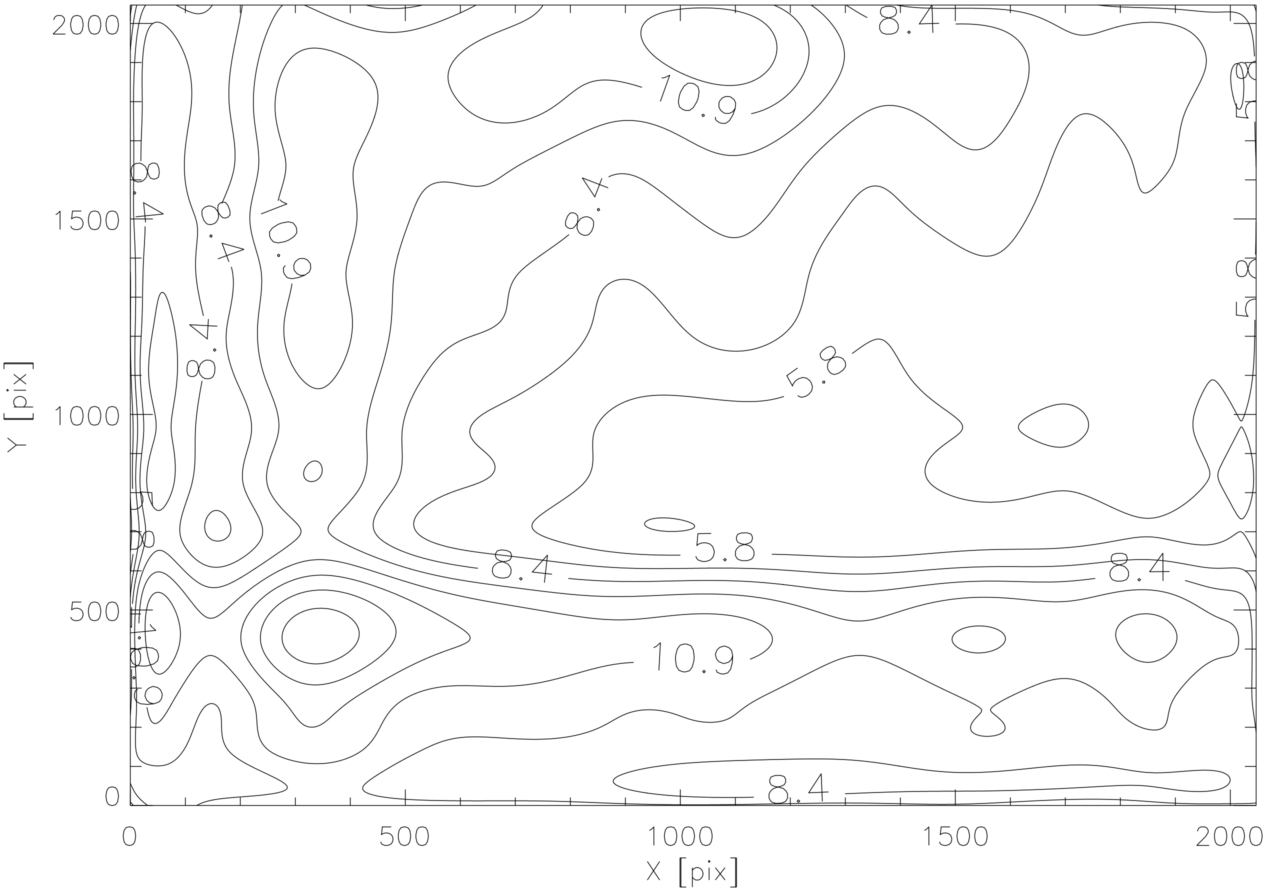
PLATE=3166 MJD=54829 Scattered Light before halo removal on sdR-b2-00057606.f



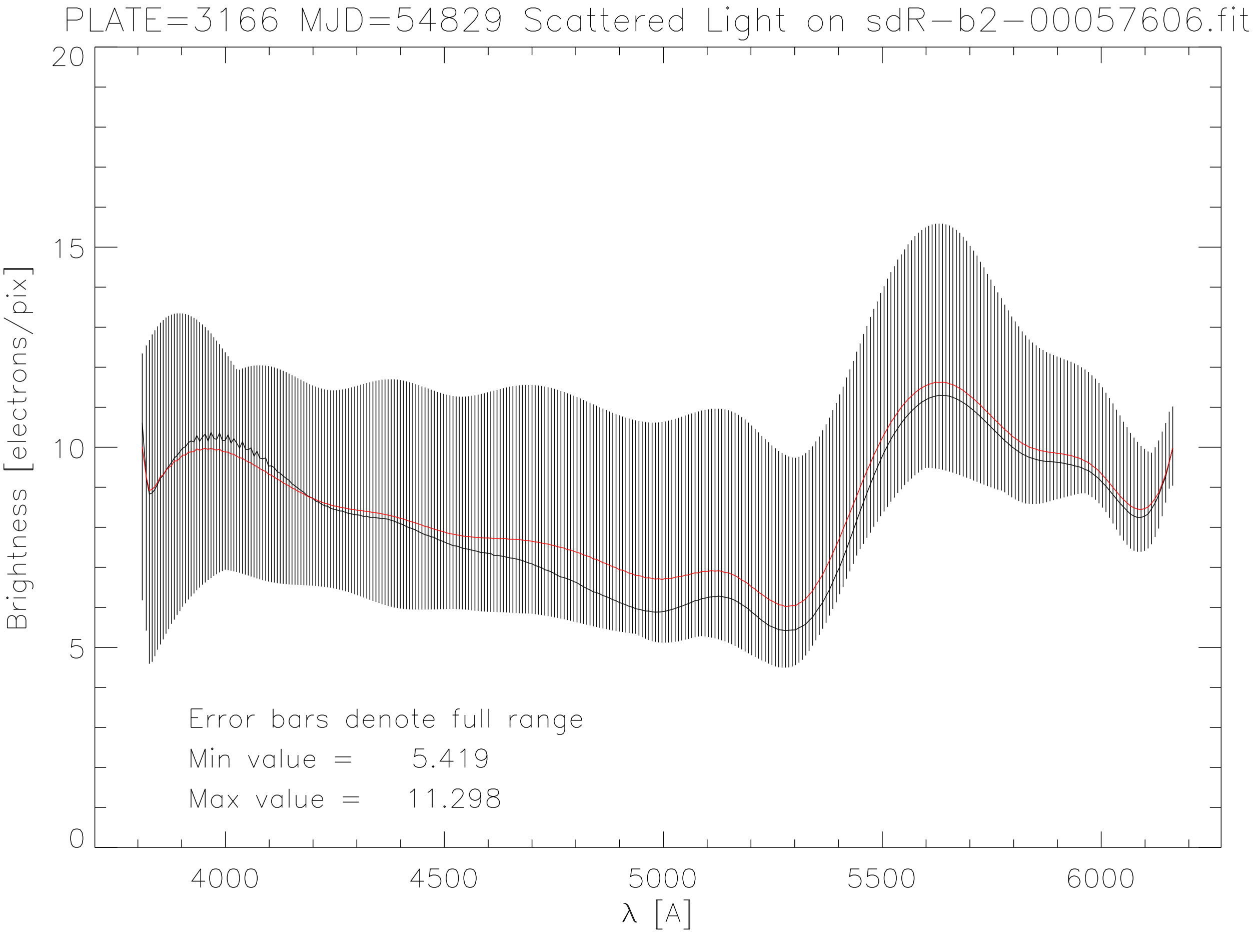
PLATE=3166 MJD=54829 Scattered Light before halo removal on sdR-b2-00057606.f



Tue Mar 16 03:41:36 2010



PLATE=3166 MJD=54829 Scattered Light on sdR-b2-00057606.fit

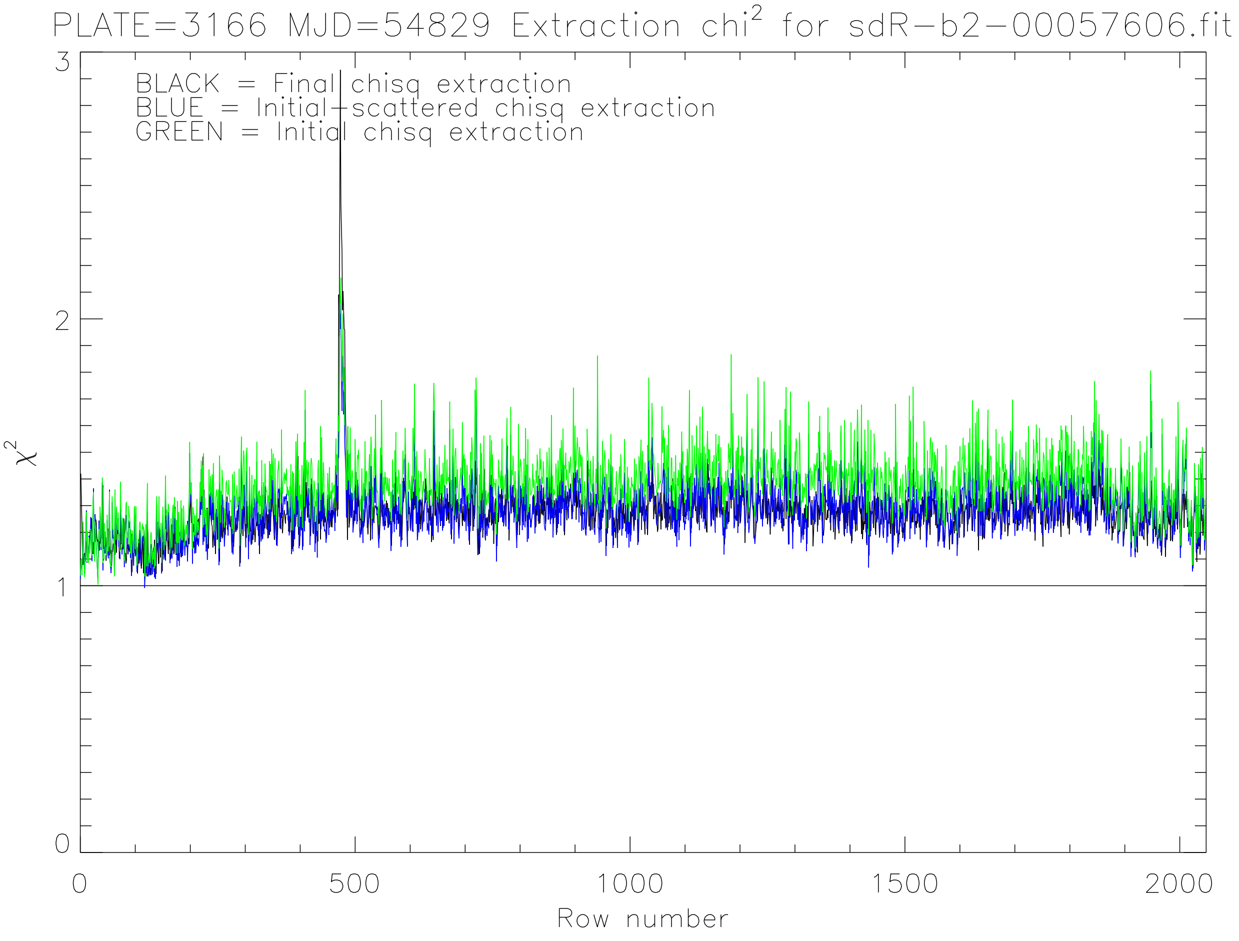

PLATE=3166 MJD=54829 Scattered Light on sdR-b2-00057606.fit

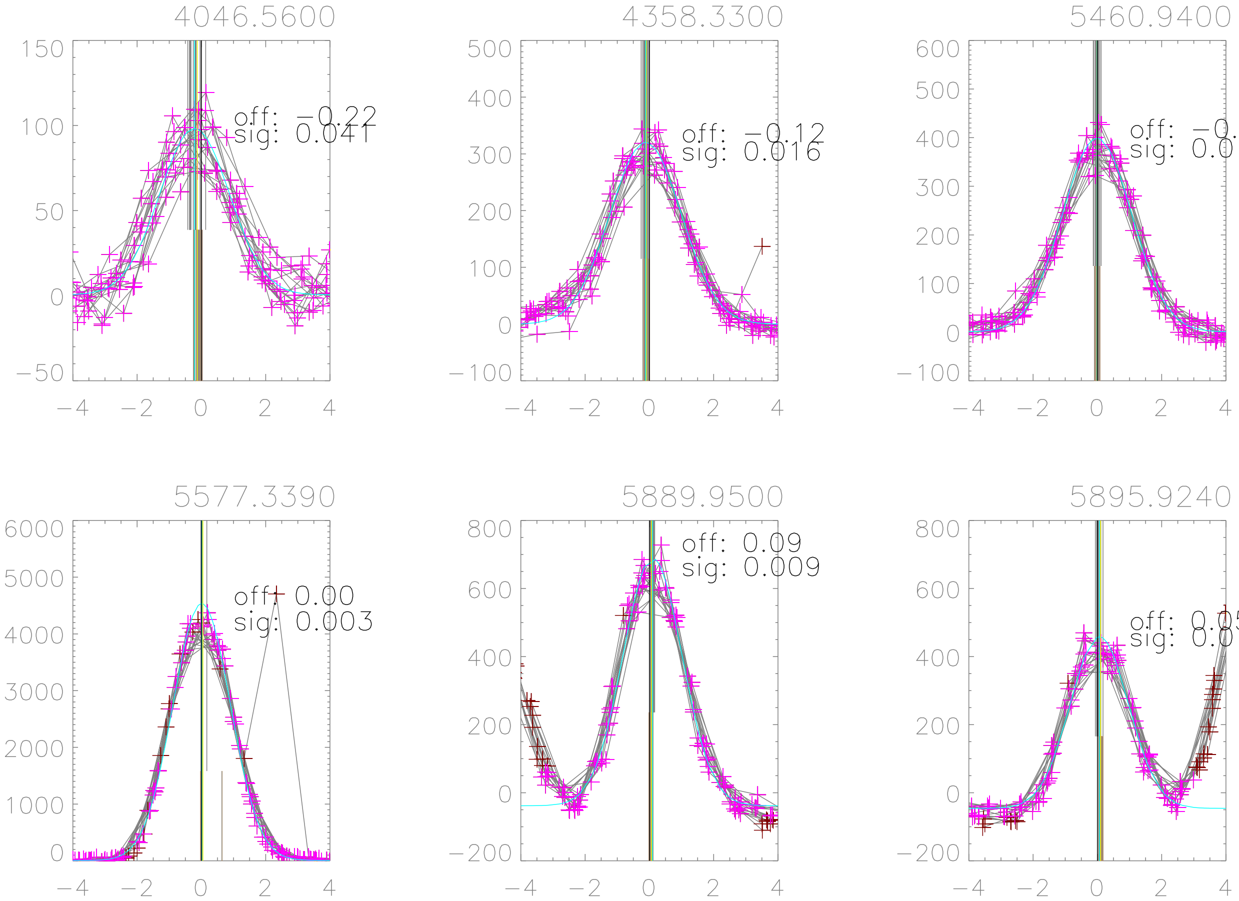
Error bars denote full range

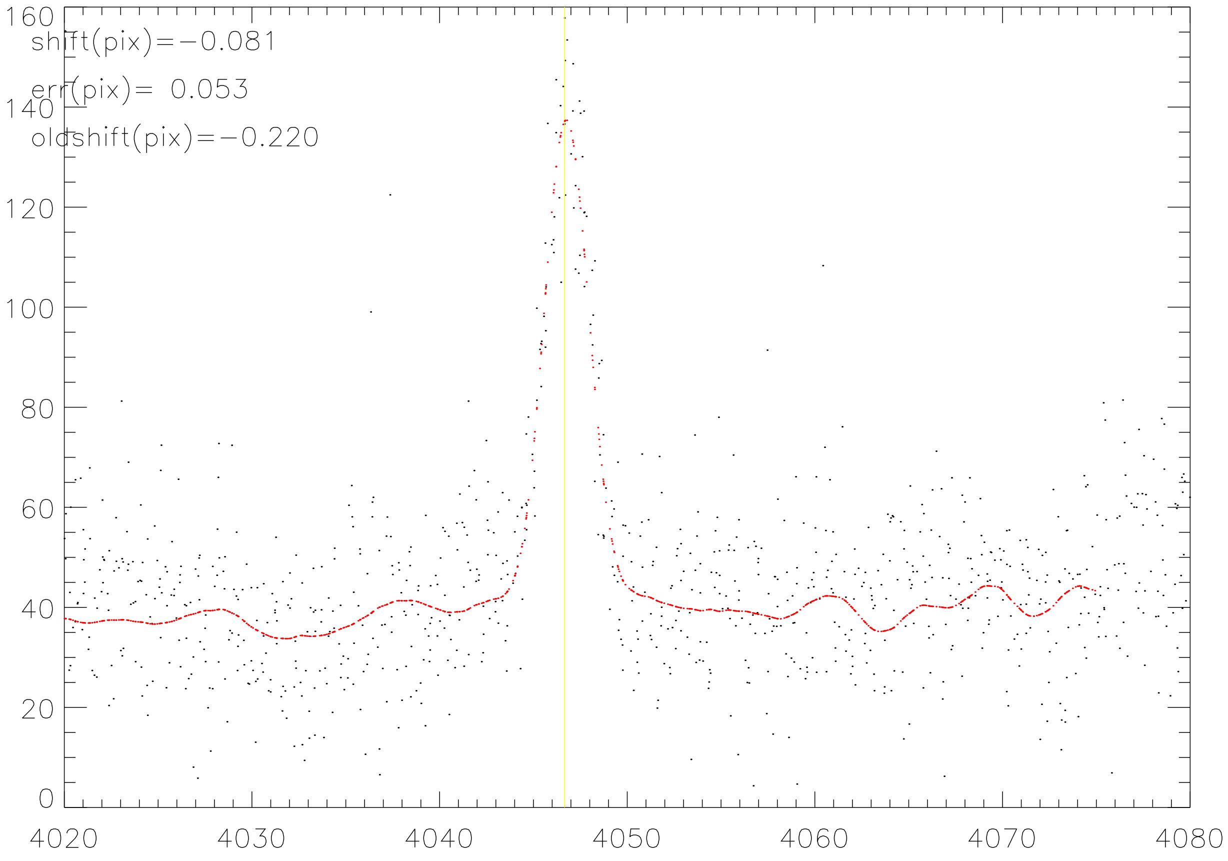
Min value = 5.419

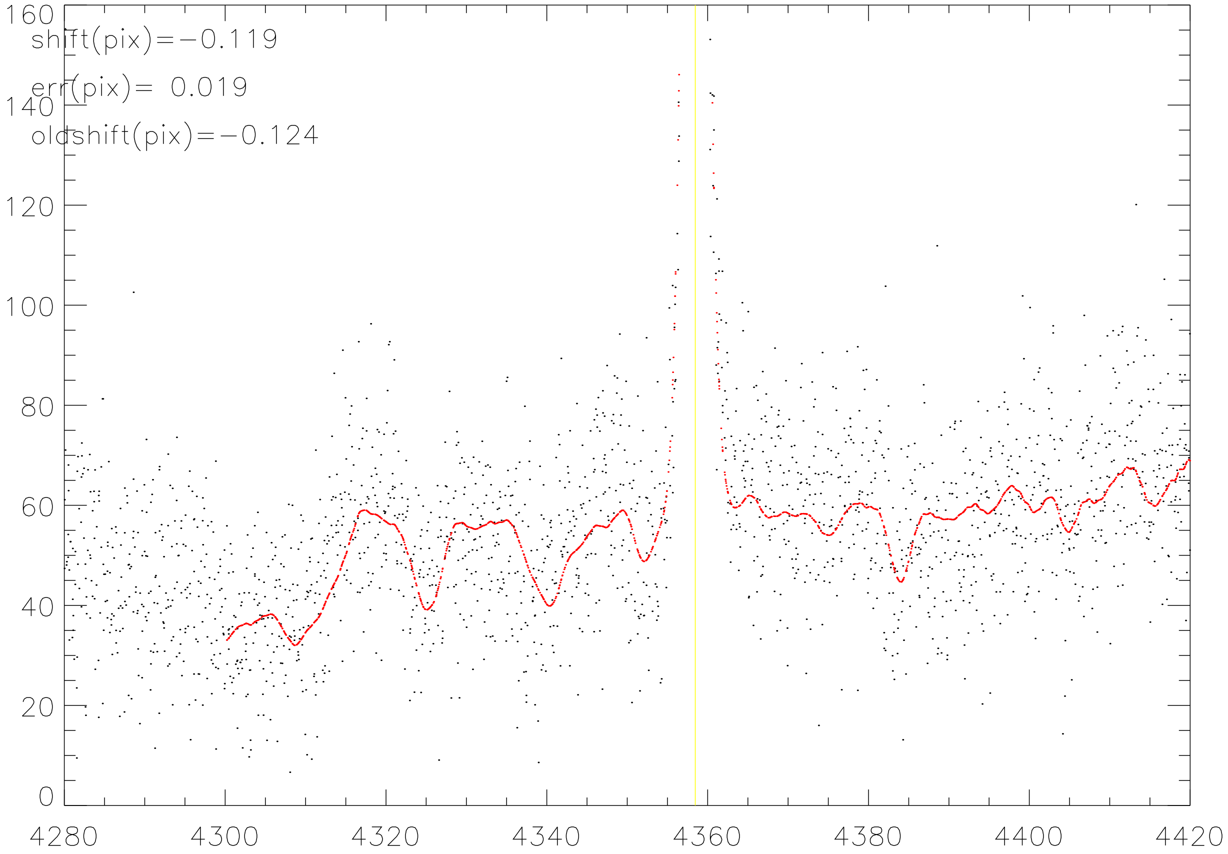
Max value = 11.298

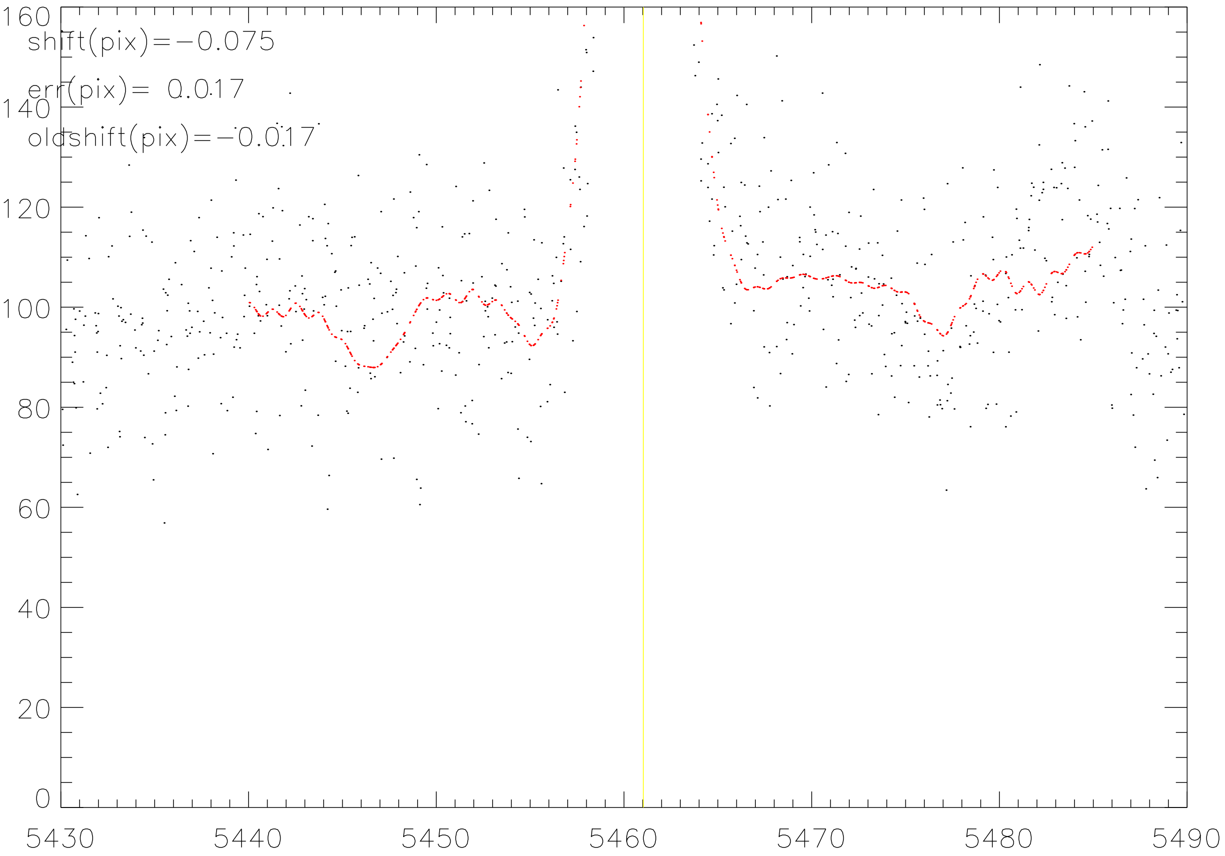
Tue Mar 16 03:43:18 2010

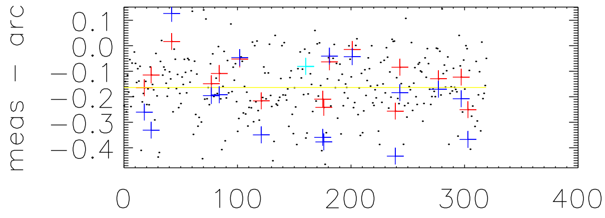

PLATE=3166 MJD=54829 Extraction chi^2 for sdR-b2-00057606.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
0
500
1000
1500
2000
Row number


4046.5600
off: −0.22
sig: 0.041
4358.3300
off: −0.12
sig: 0.016
5460.9400
off: −0.02
sig: 0.014
5577.3390
off: 0.00
sig: 0.003
5889.9500
off: 0.09
sig: 0.009
5895.9240
off: 0.05
sig: 0.011
−4
−2
0
2
4

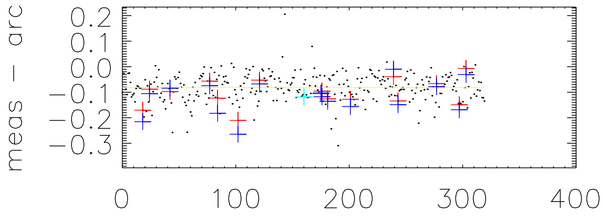

shift(pix)=−0.081
err(pix)= 0.053
oldshift(pix)=−0.220
160
140
120
100
80
60
40
20
0
4020
4030
4040
4050
4060
4070
4080


shift(pix)=−0.119
err(pix)= 0.019
oldshift(pix)=−0.124
0
20
40
60
80
100
120
140
160
4280
4300
4320
4340
4360
4380
4400
4420

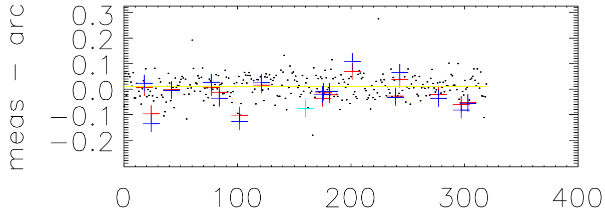

shift(pix)=−0.075
err(pix)= 0.017
oldshift(pix)=−0.017
160
140
120
100
80
60
40
20
0
5430
5440
5450
5460
5470
5480
5490



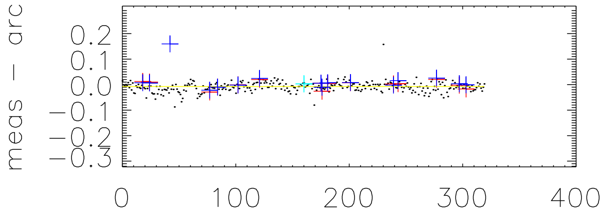
4046.5600



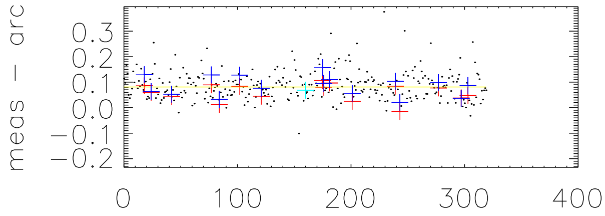
4358.3300



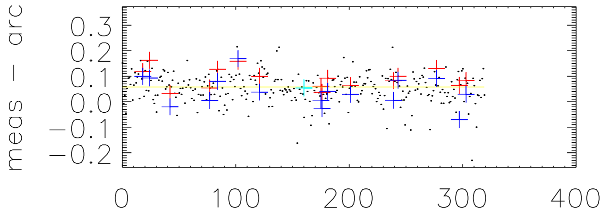
5460.9400



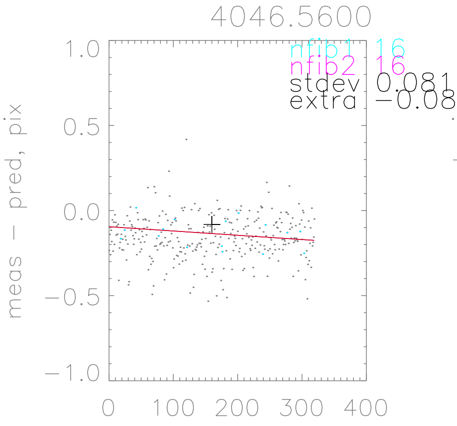
5577.3390

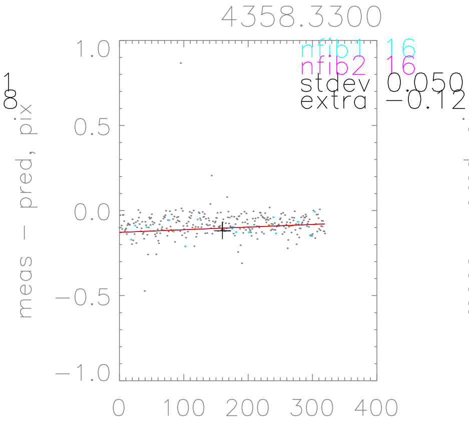


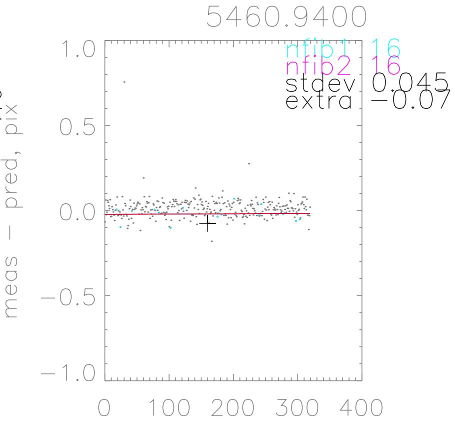
5889.9500

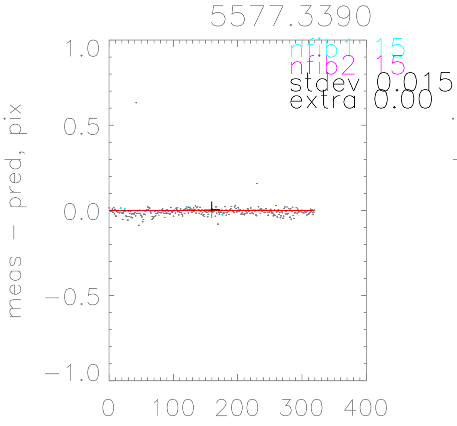


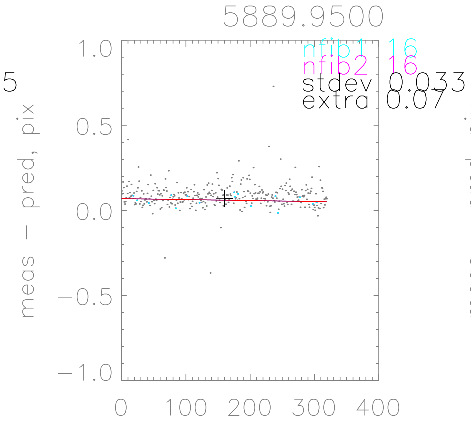
5895.9240

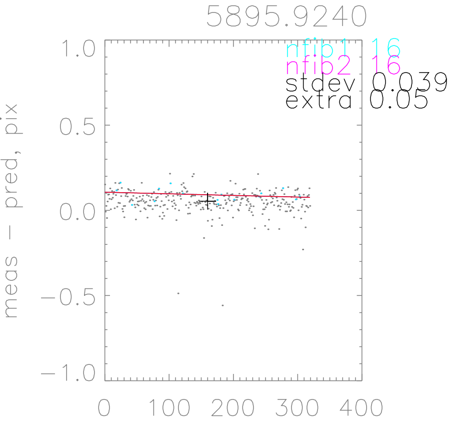

4046.5600
nfib1 16
nfib2 16
stdev 0.081
extra −0.08
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

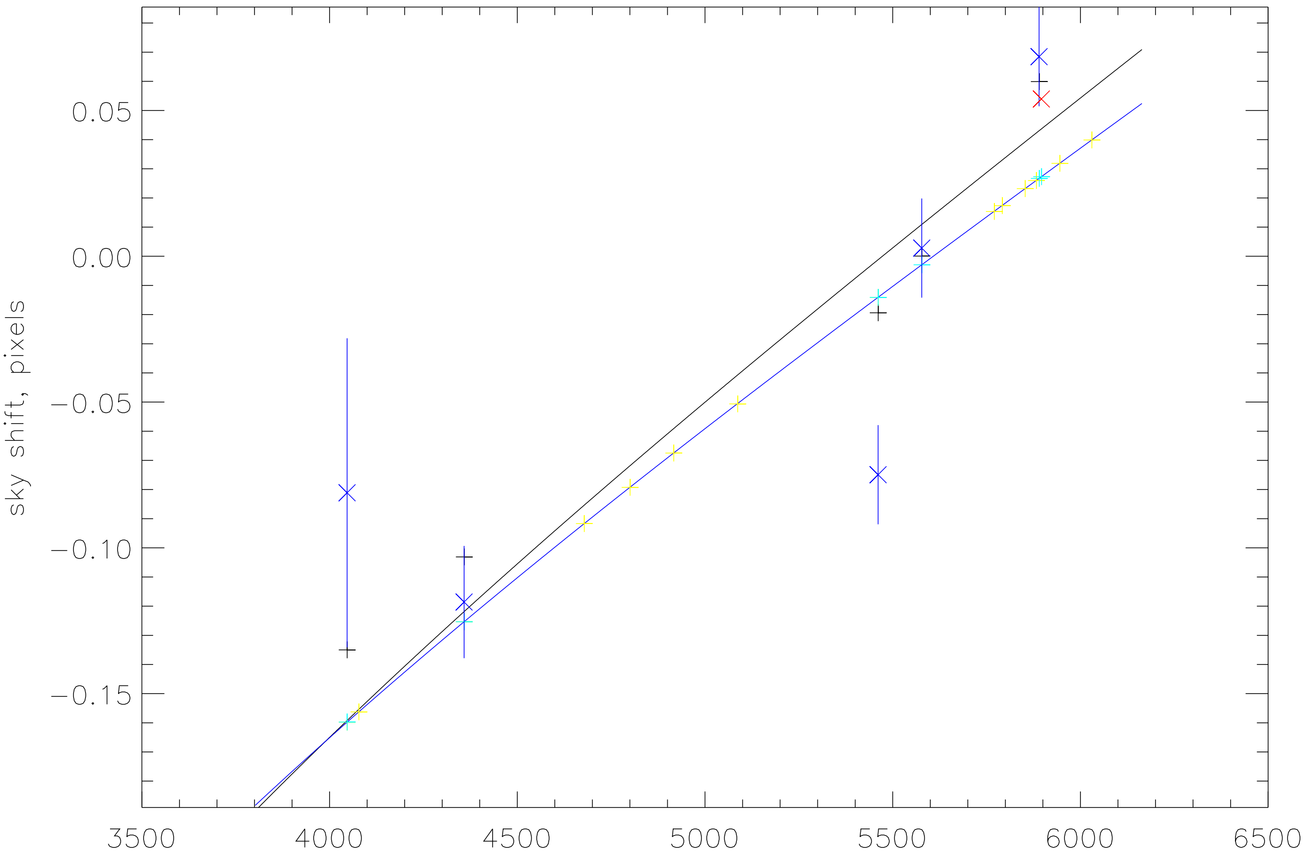

4358.3300
nfib1 16
nfib2 16
stdev 0.050
extra −0.12
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

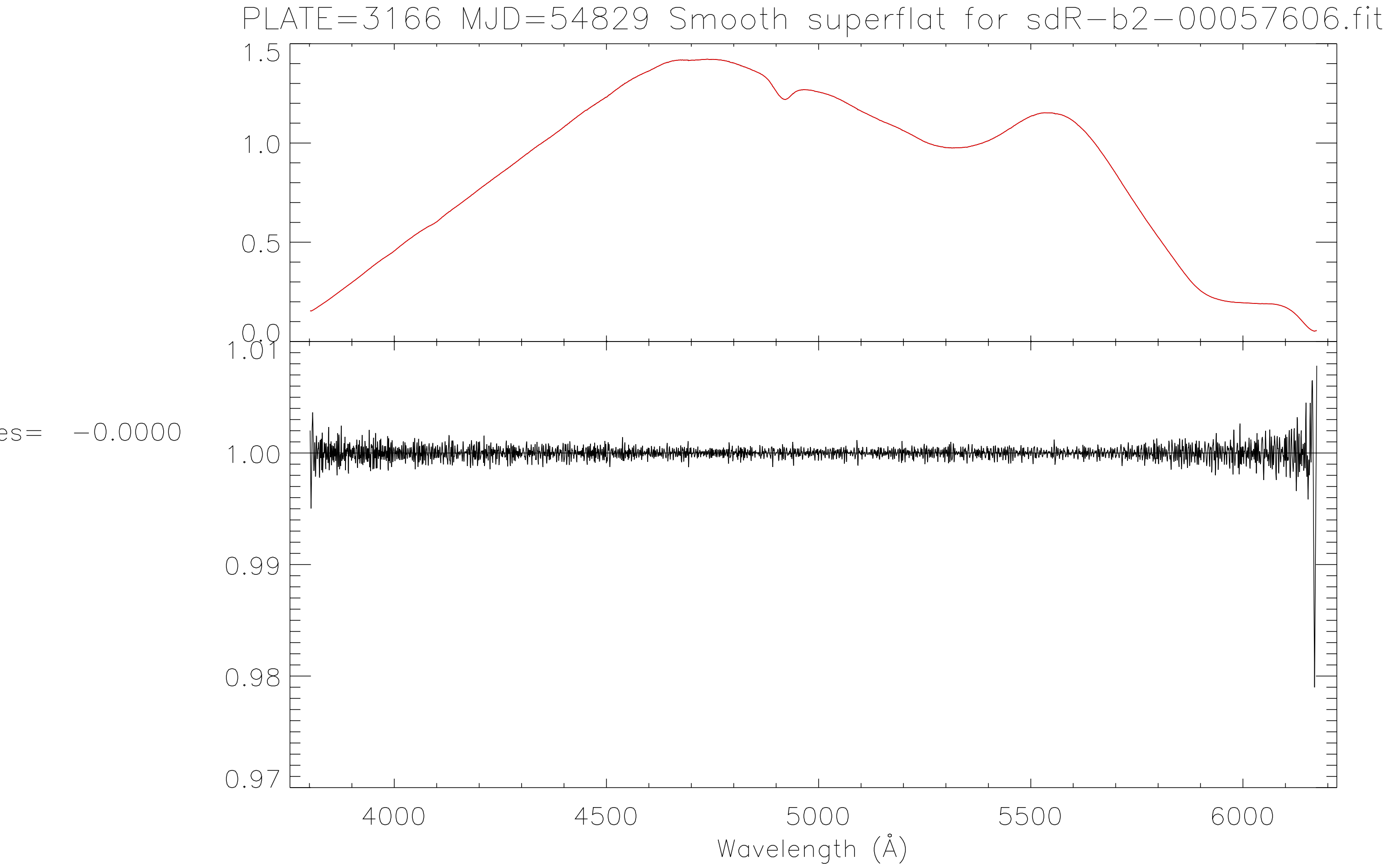

5460.9400
nfib1 16
nfib2 16
stdev 0.045
extra −0.07
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400


5577.3390
nfib1 15
nfib2 15
stdev 0.015
extra 0.00
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

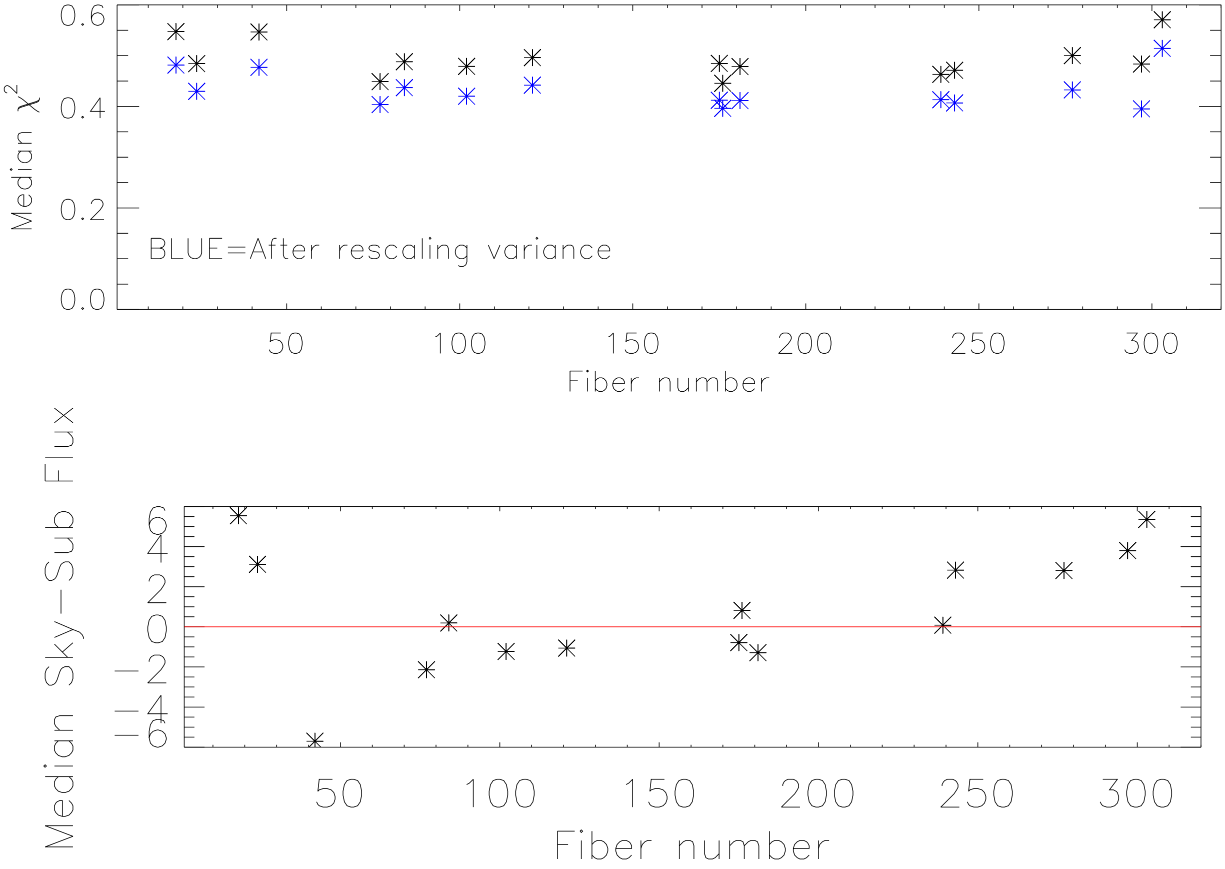

5889.9500
nfib1 16
nfib2 16
stdev 0.033
extra 0.07
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

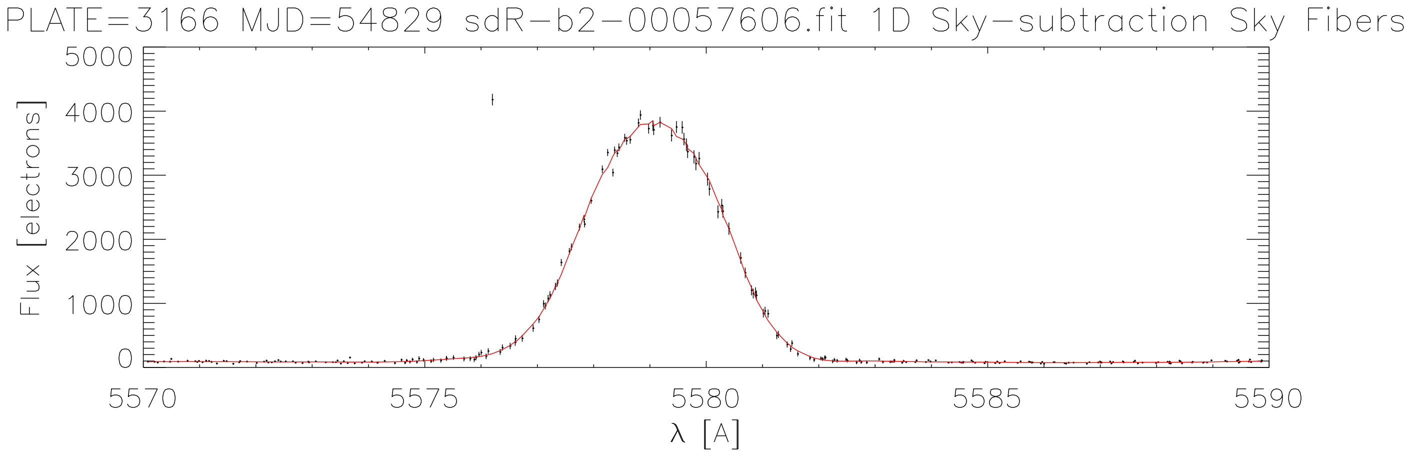

5895.9240
nfib1 16
nfib2 16
stdev 0.039
extra 0.05
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

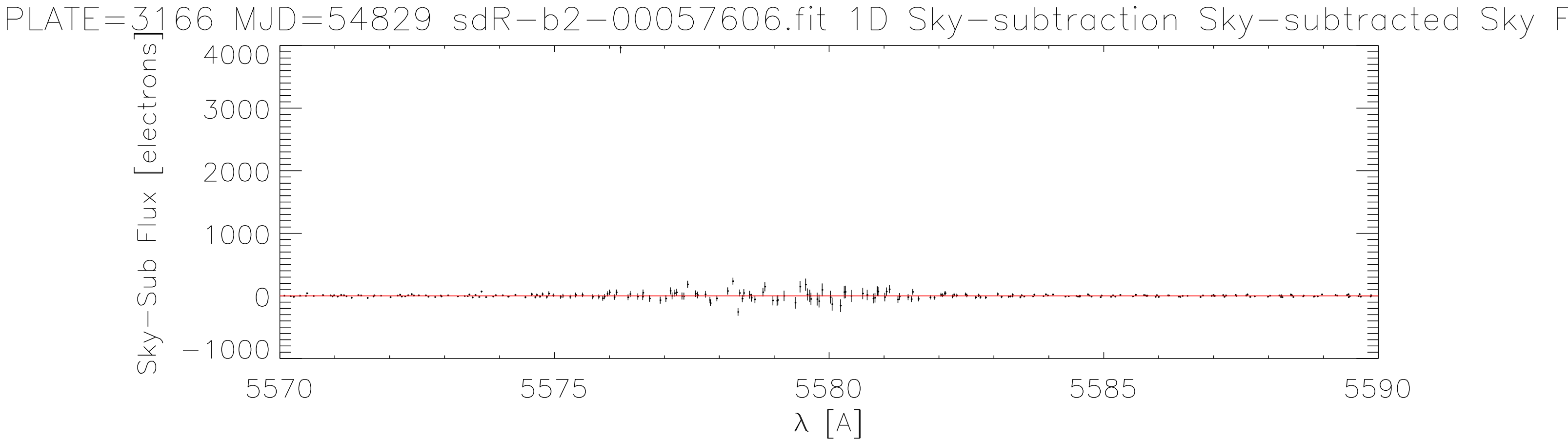

sky shift, pixels
0.05
0.00
−0.05
−0.10
−0.15
3500
4000
4500
5000
5500
6000
6500


PLATE=3166 MJD=54829 Smooth superflat for sdR-b2-00057606.fit
1.5
1.0
0.5
0.0
1.01
1.00
0.99
0.98
0.97
es= −0.0000
4000
4500
5000
5500
6000
Wavelength (Å)

PLATE=3166 MJD=54829 sdR-b2-00057606.fit 1D Sky-subtraction Sky Fiber

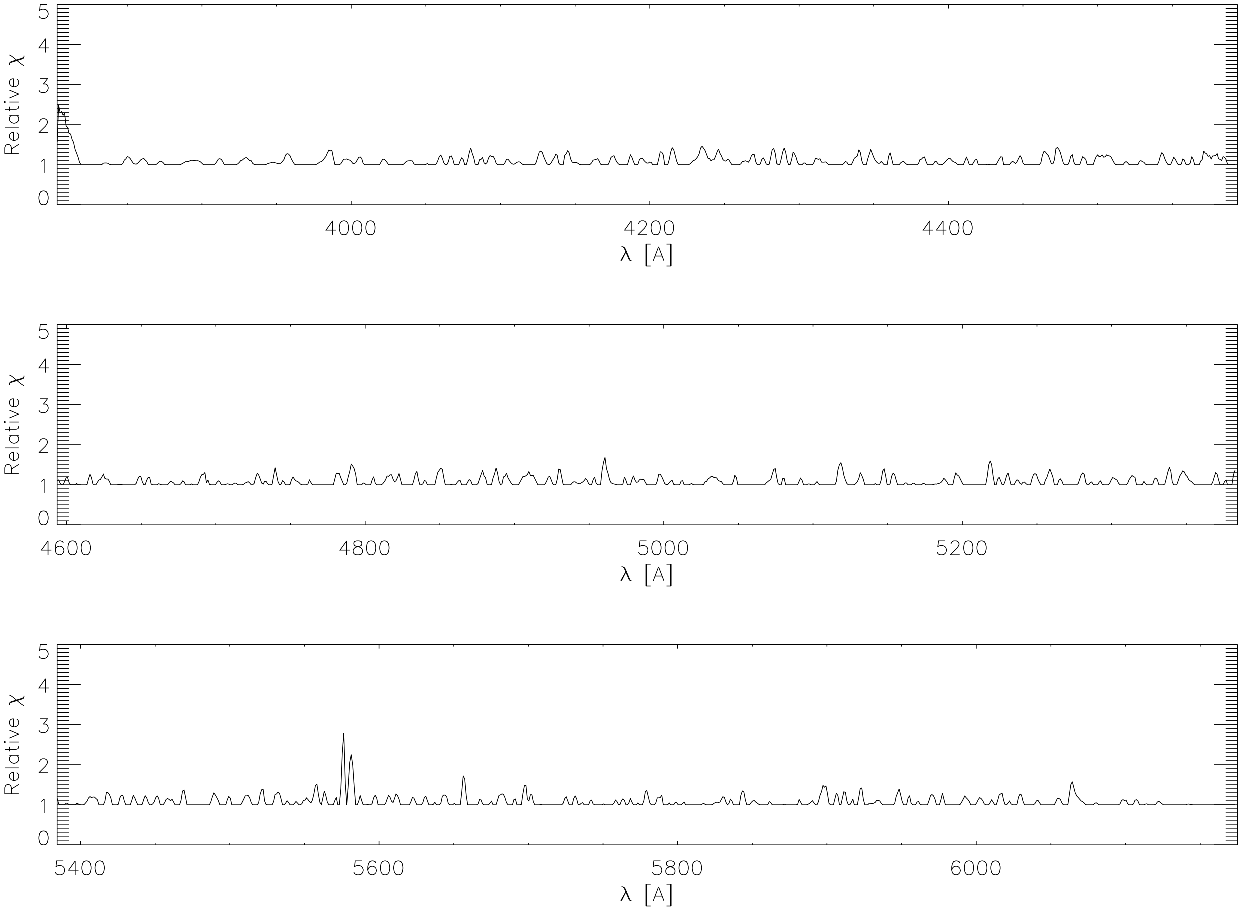


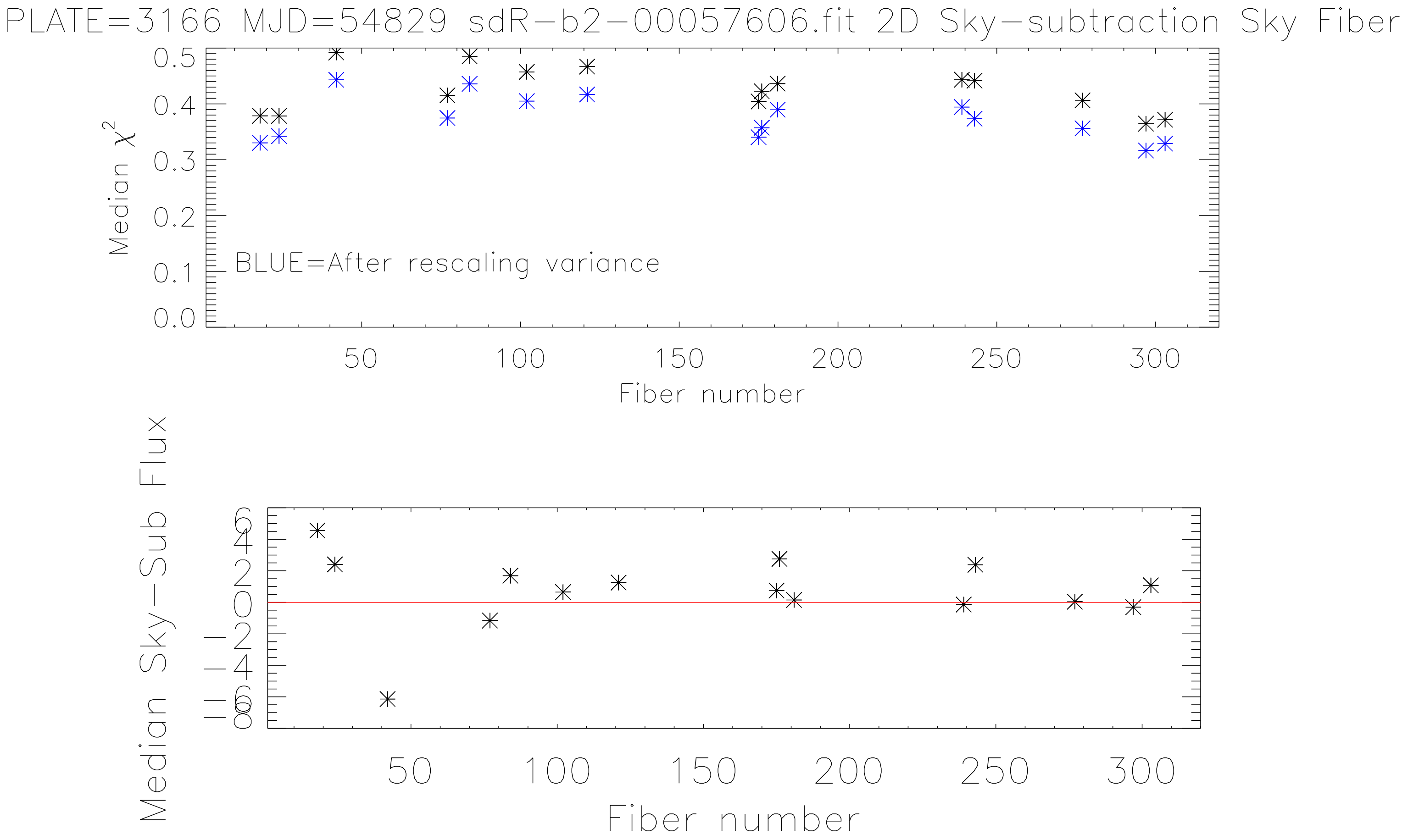

PLATE=3166 MJD=54829 sdR-b2-00057606.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

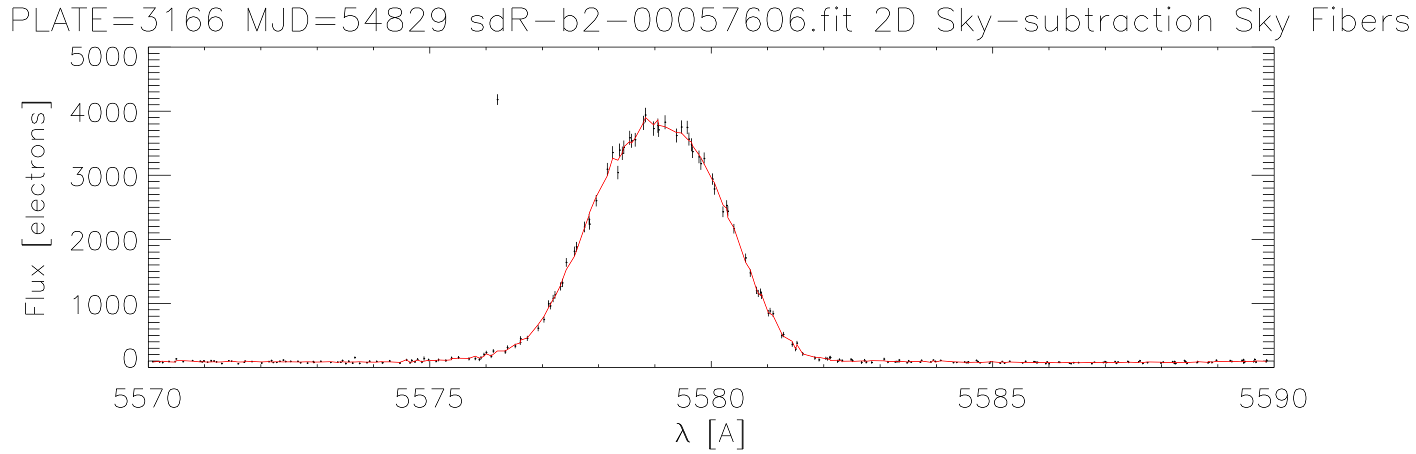

PLATE=3166 MJD=54829 sdR-b2-00057606.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
4000
3000
2000
1000
0
−1000
5570
5575
5580
5585
5590
λ [A]

Number of sky fibers = 15

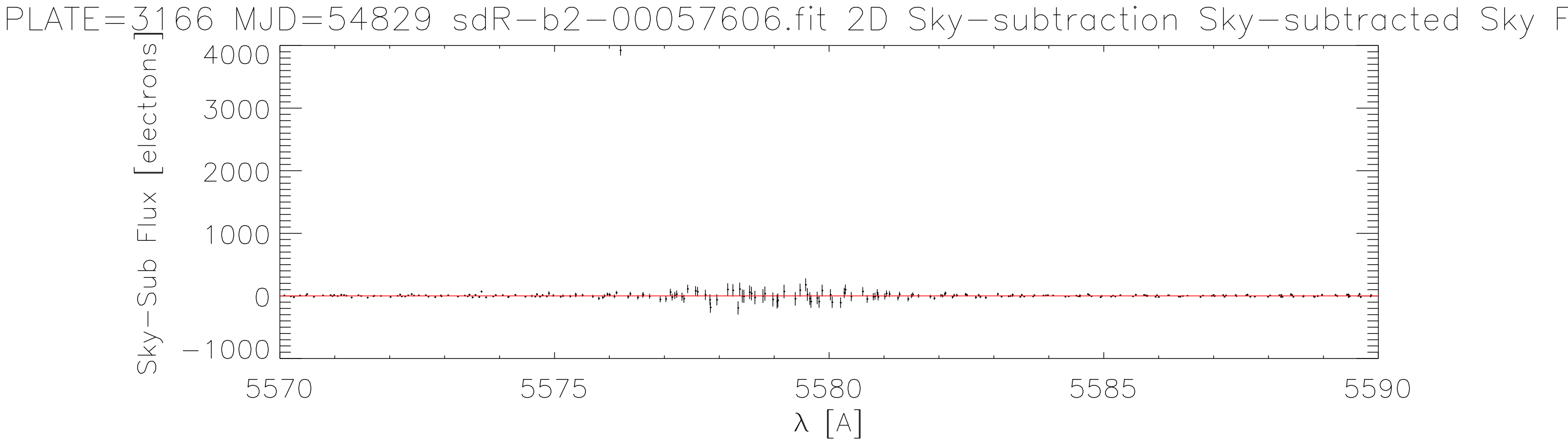
PLATE=3166 MJD=54829 sdR-b2-00057606.fit 1D Sky-subtraction Rescaled Errors




PLATE=3166 MJD=54829 sdR-b2-00057606.fit 2D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-8
-6
-4
-2
0
2
4
6
50
100
150
200
250
300
Fiber number



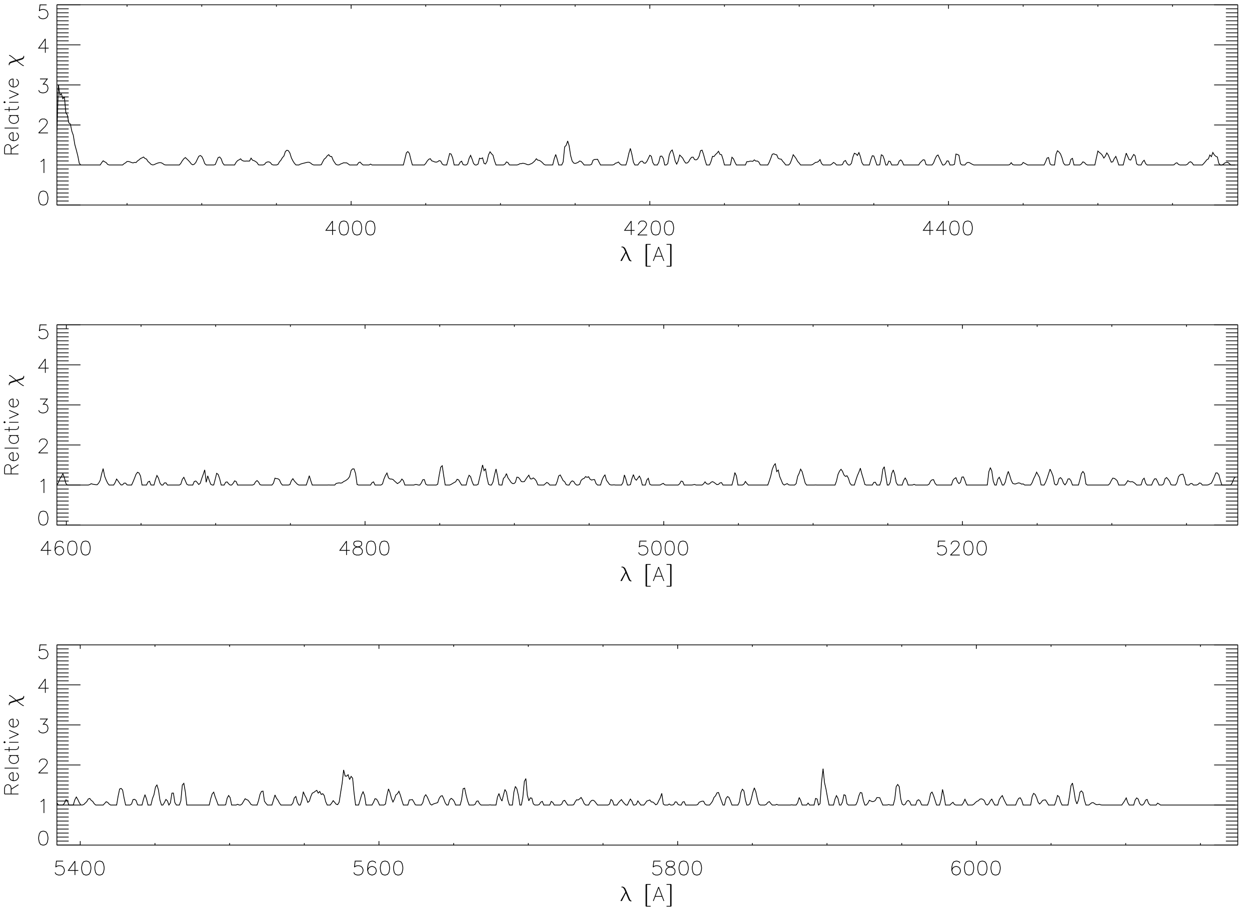
PLATE=3166 MJD=54829 sdR-b2-00057606.fit 2D Sky-subtraction Sky Fibers

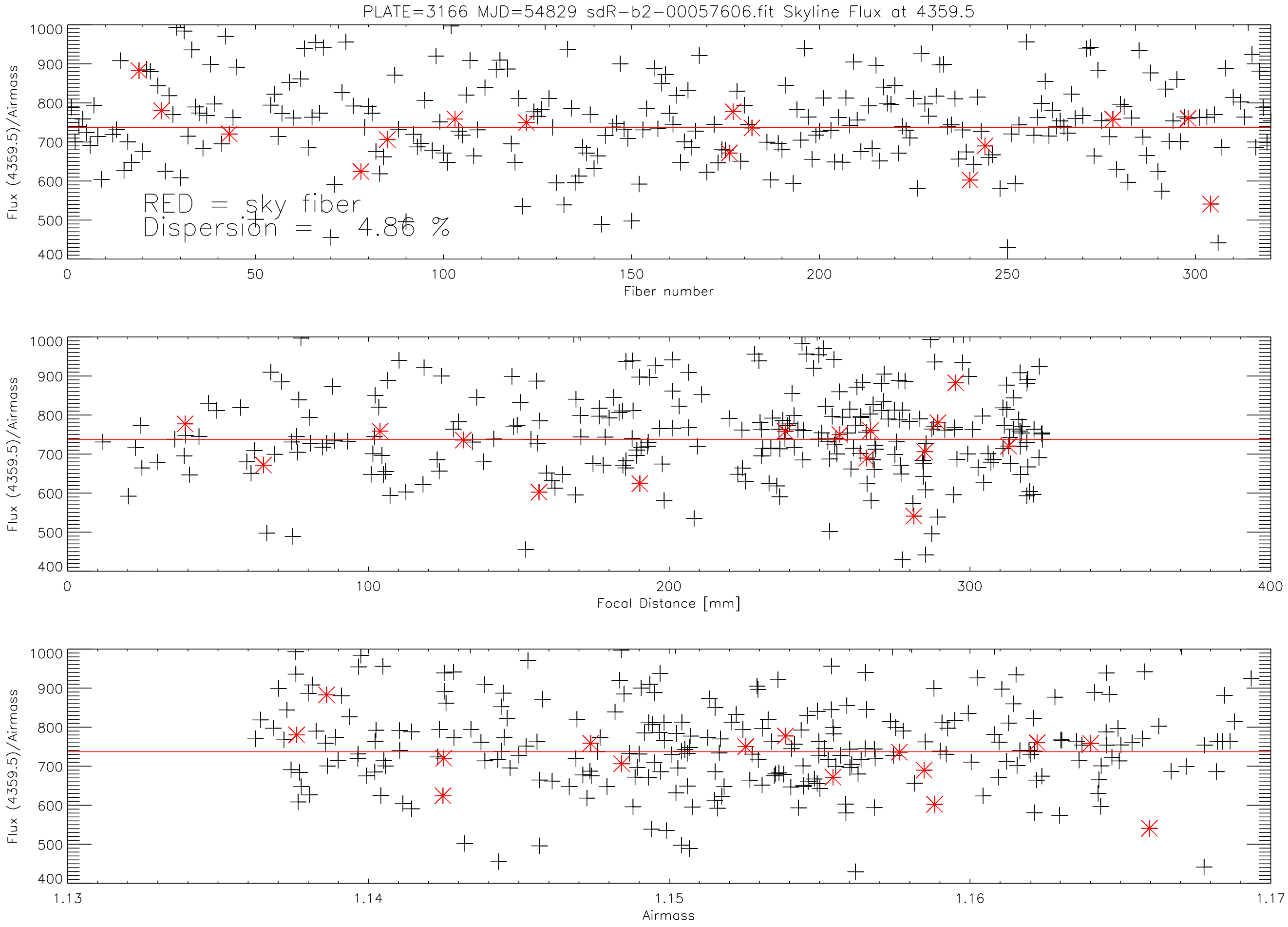


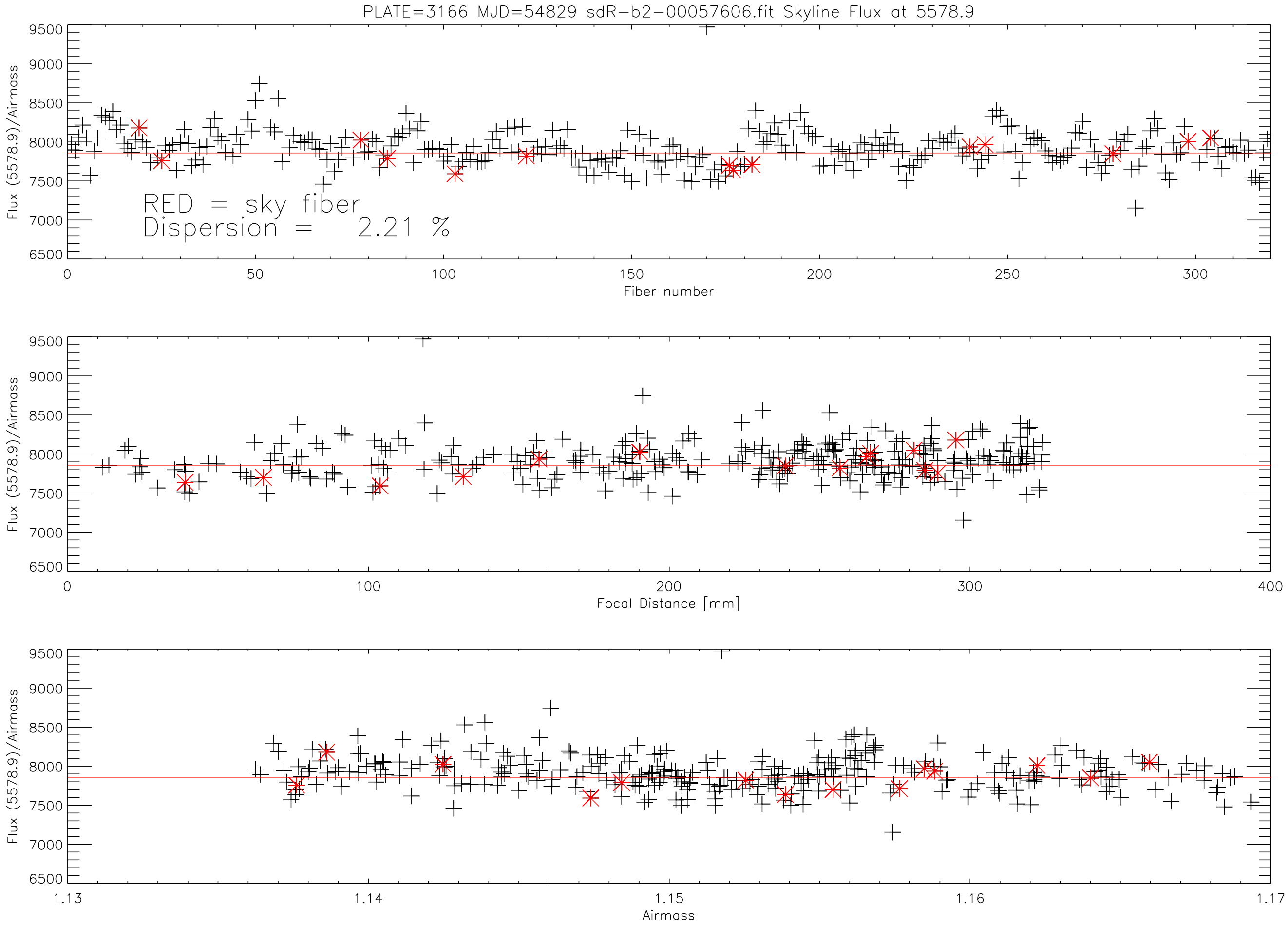
PLATE=3166 MJD=54829 sdR-b2-00057606.fit 2D Sky-subtraction Sky-subtracted Sky F

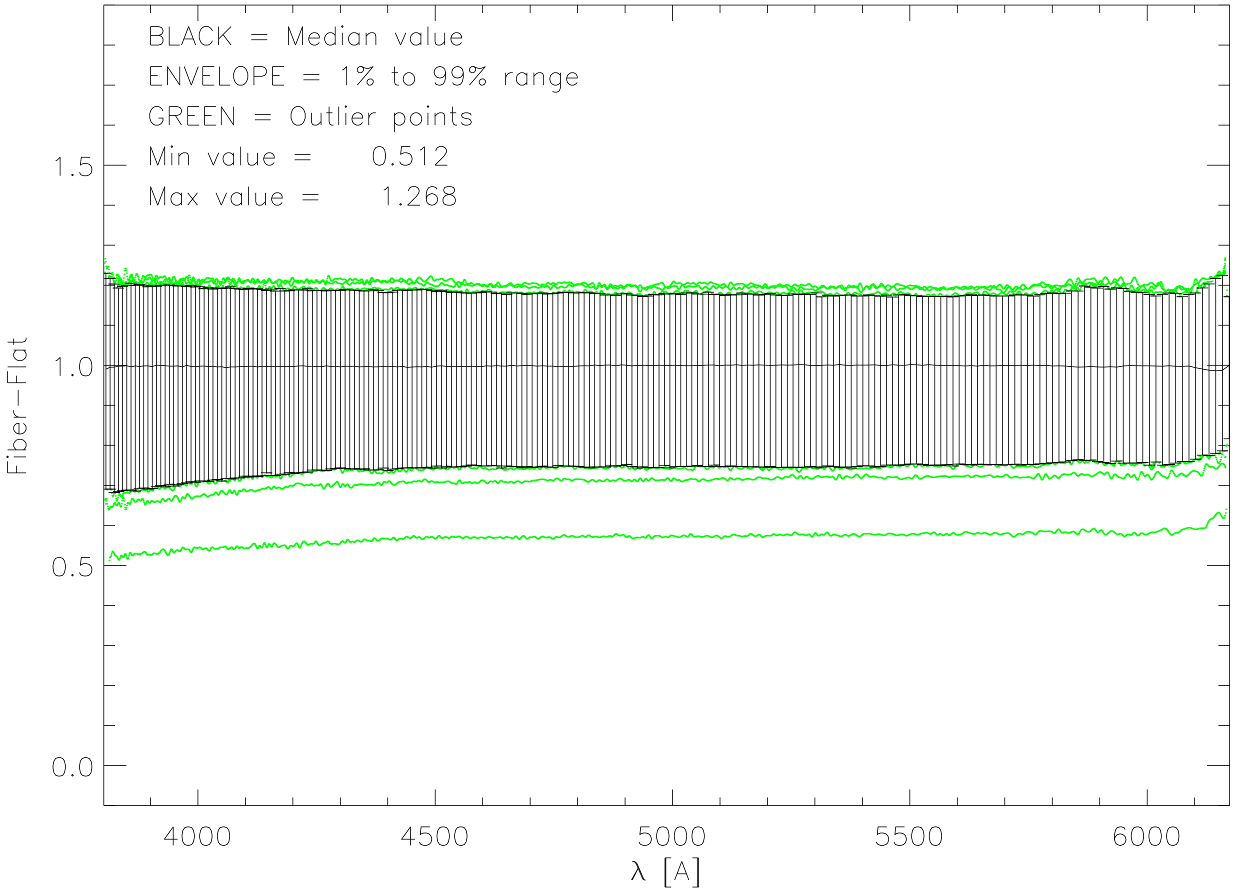
Number of sky fibers = 15

PLATE=3166 MJD=54829 sdR-b2-00057606.fit 2D Sky-subtraction Rescaled Errors



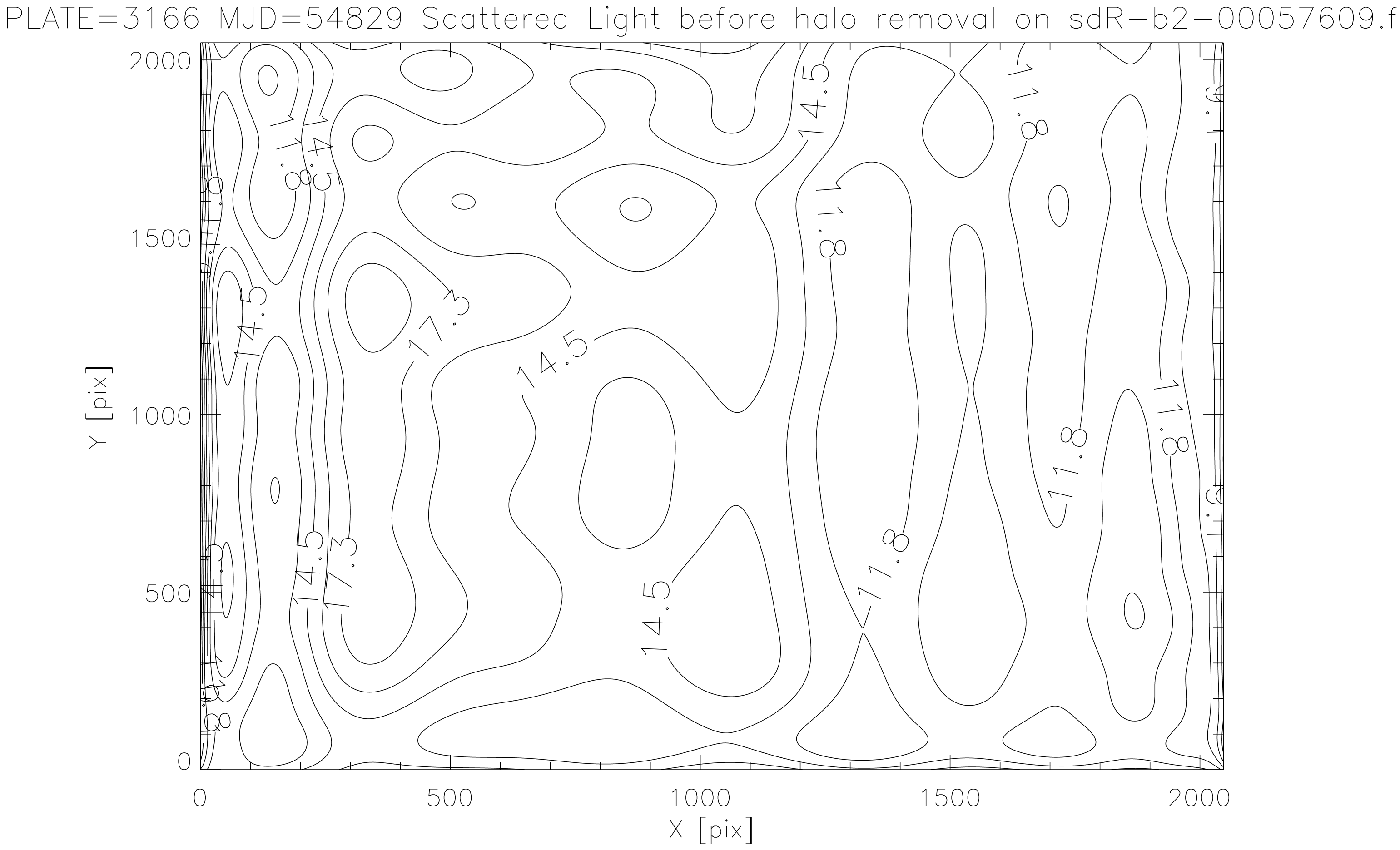

PLATE=3166 MJD=54829 sdR-b2-00057606.fit Skyline Flux at 4359.5
RED = sky fiber
Dispersion = 4.86 %
Flux (4359.5)/Airmass
1000
900
800
700
600
500
400
0
50
100
150
200
250
300
Fiber number
Flux (4359.5)/Airmass
0
100
200
300
400
Focal Distance [mm]
Flux (4359.5)/Airmass
1.13
1.14
1.15
1.16
1.17
Airmass


PLATE=3166 MJD=54829 sdR-b2-00057606.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
9500
9000
8500
8000
7500
7000
6500
RED = sky fiber
Dispersion = 2.21 %
0
50
100
150
200
250
300
Fiber number
Flux (5578.9)/Airmass
9500
9000
8500
8000
7500
7000
6500
0
100
200
300
400
Focal Distance [mm]
Flux (5578.9)/Airmass
9500
9000
8500
8000
7500
7000
6500
1.13
1.14
1.15
1.16
1.17
Airmass

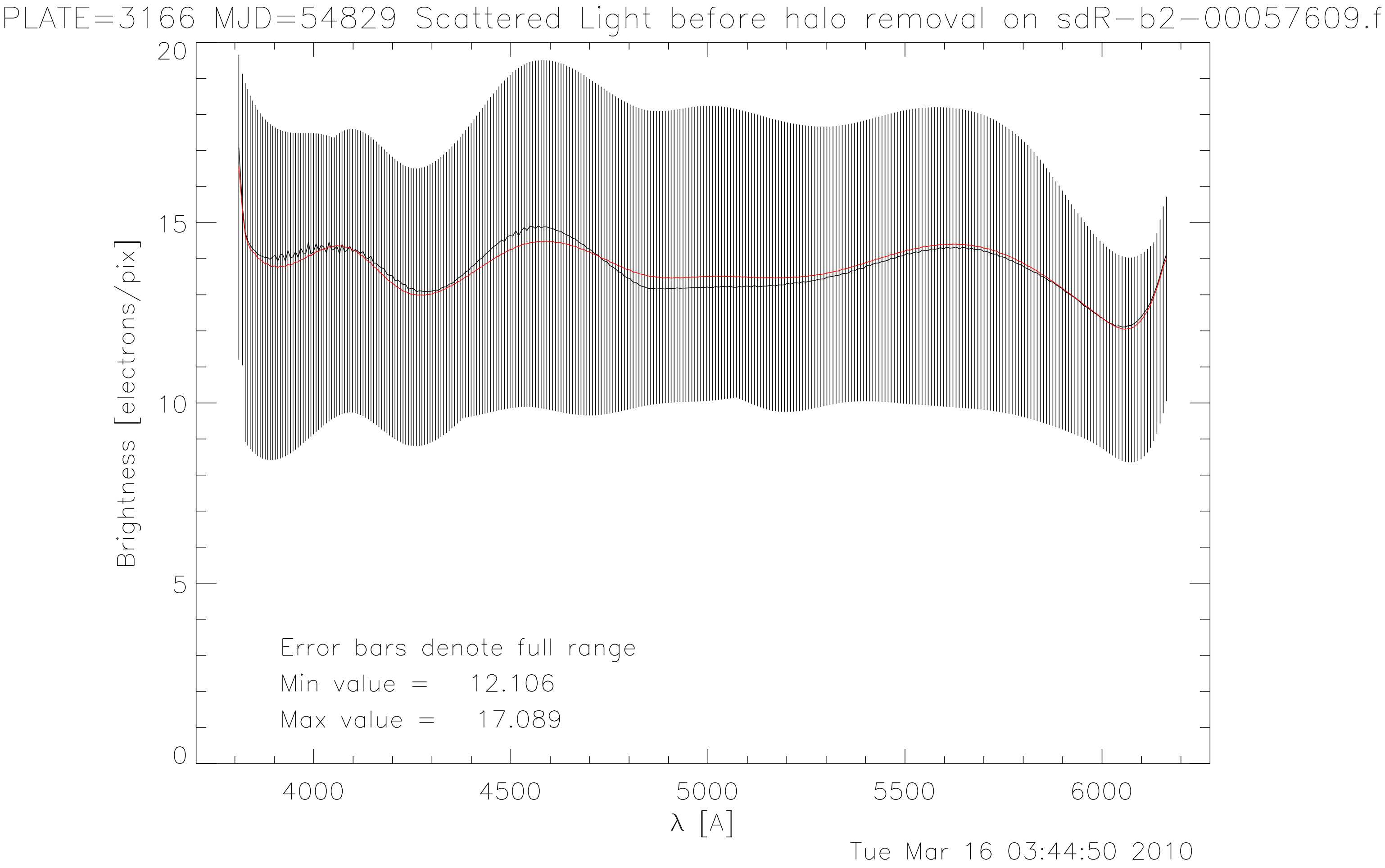


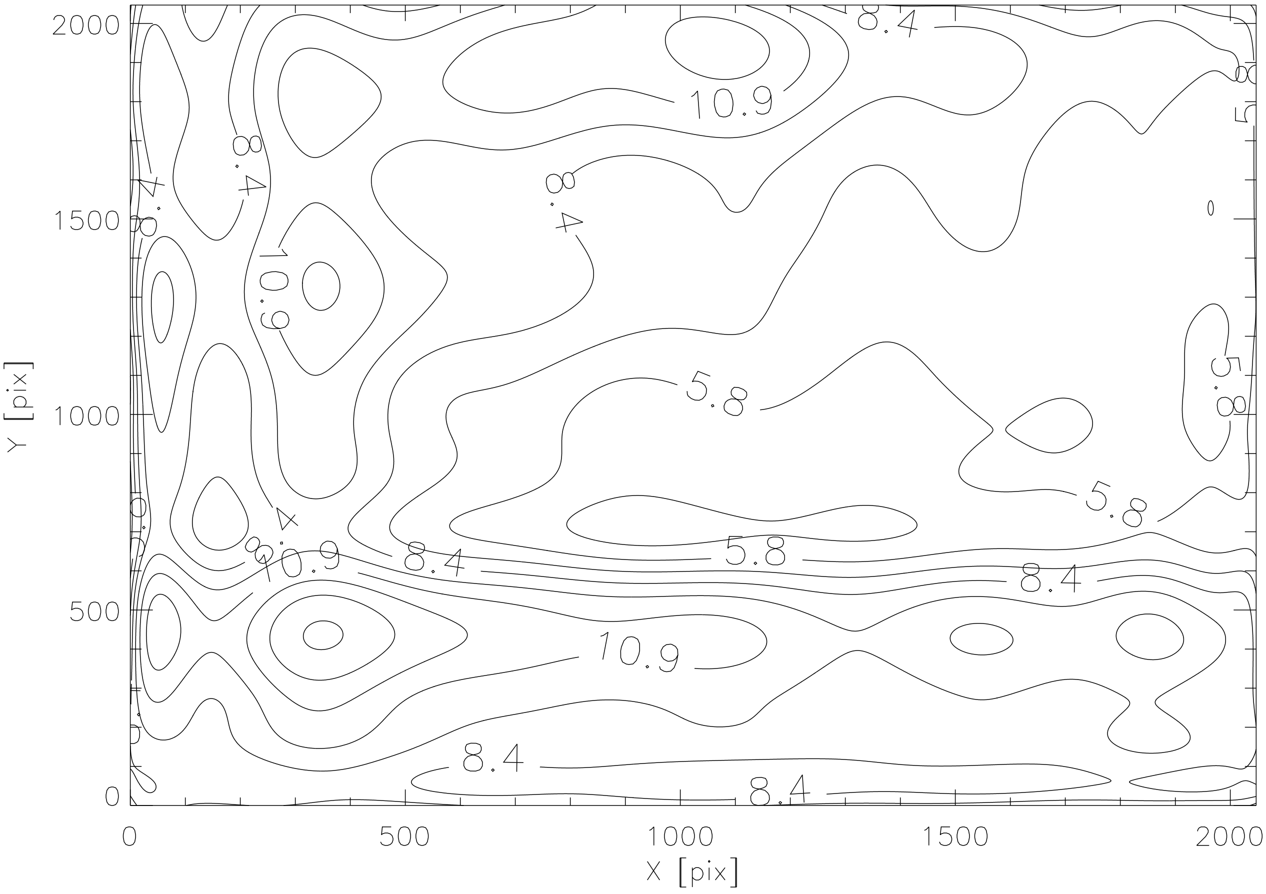
PLATE=3166 MJD=54829 Fiber−Flats for sdR−b2−00057607.fit

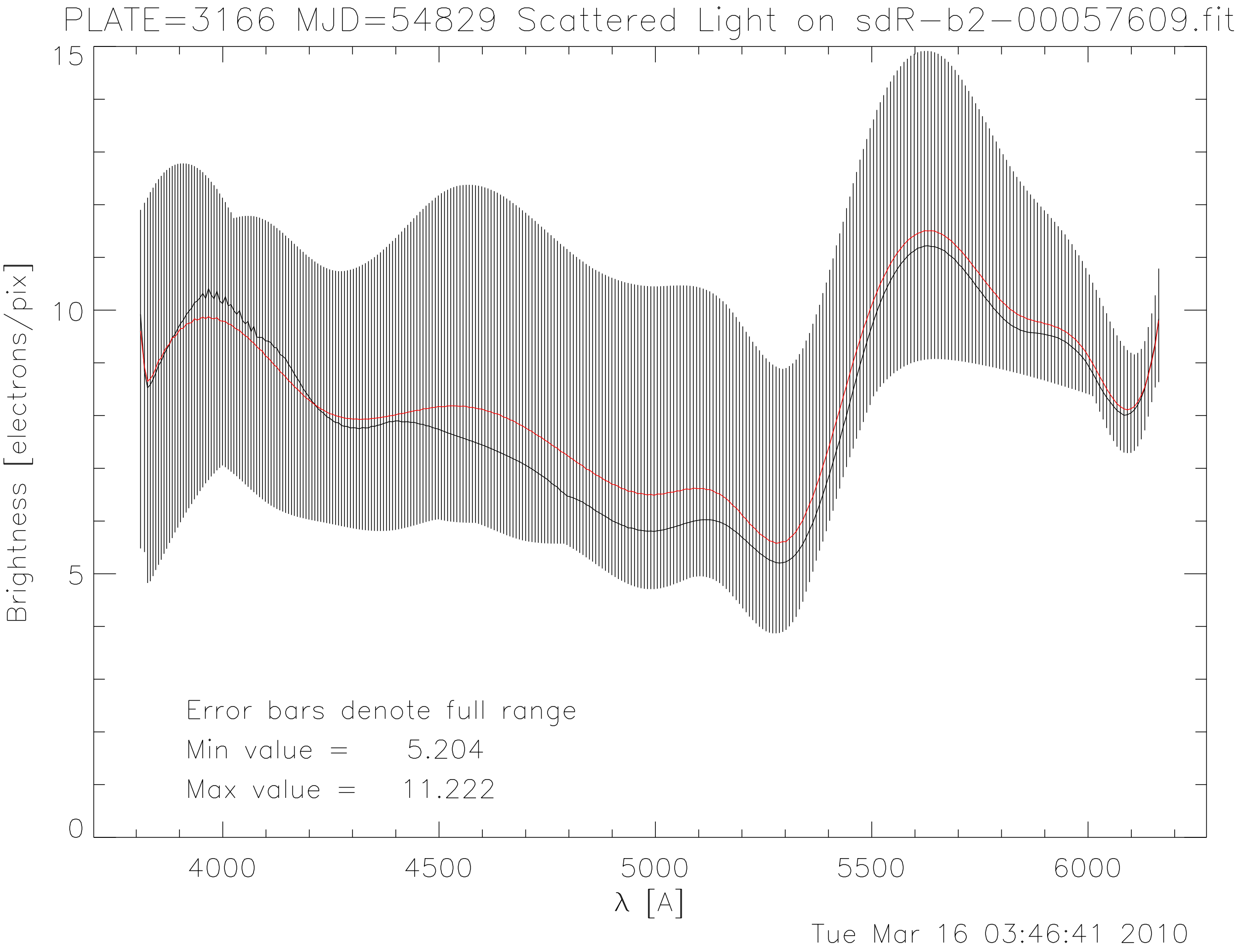
Tue Mar 16 03:44:12 2010

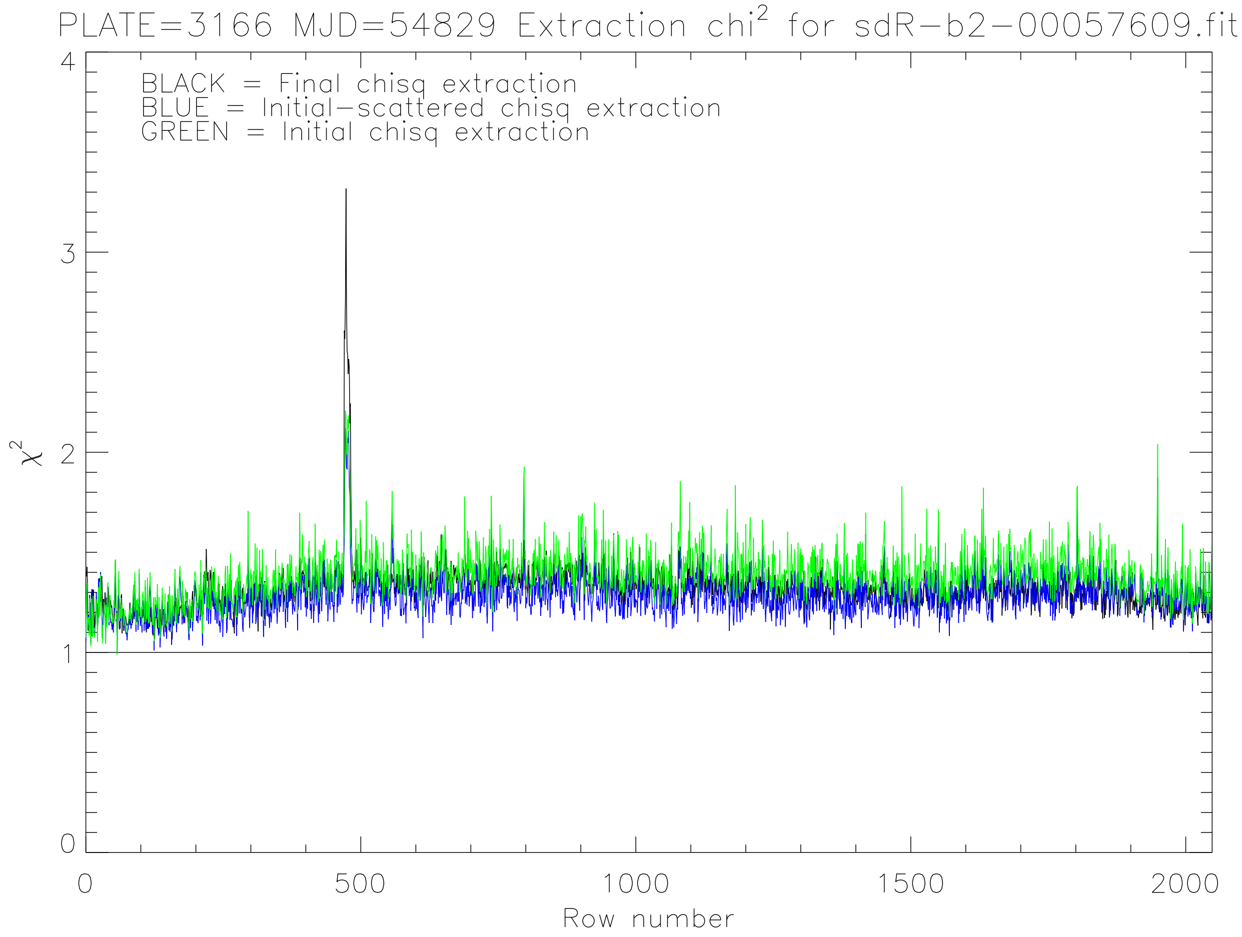


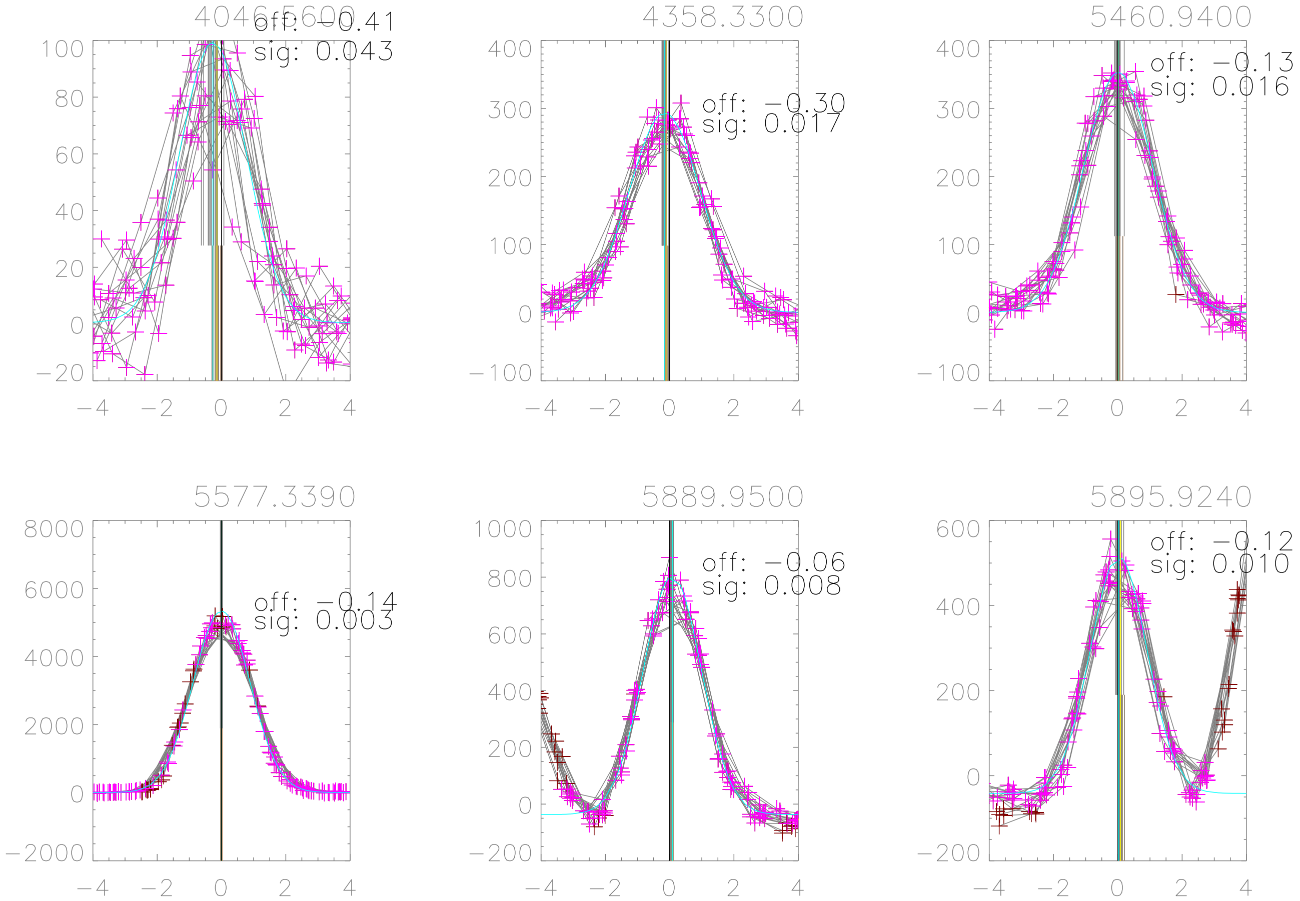
PLATE=3166 MJD=54829 Scattered Light before halo removal on sdR-b2-00057609.f

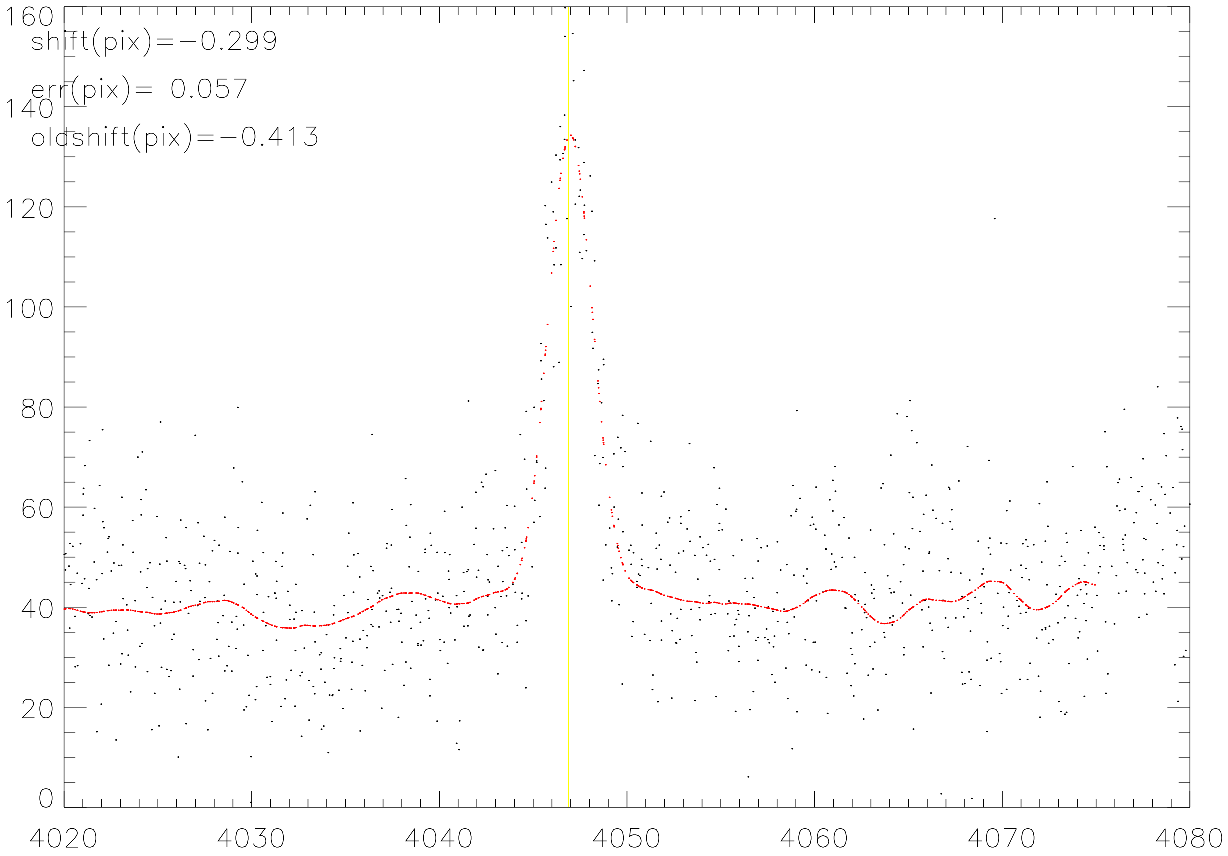

PLATE=3166 MJD=54829 Scattered Light before halo removal on sdR-b2-00057609.f
Brightness [electrons/pix]
0
5
10
15
20
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 12.106
Max value = 17.089
Tue Mar 16 03:44:50 2010

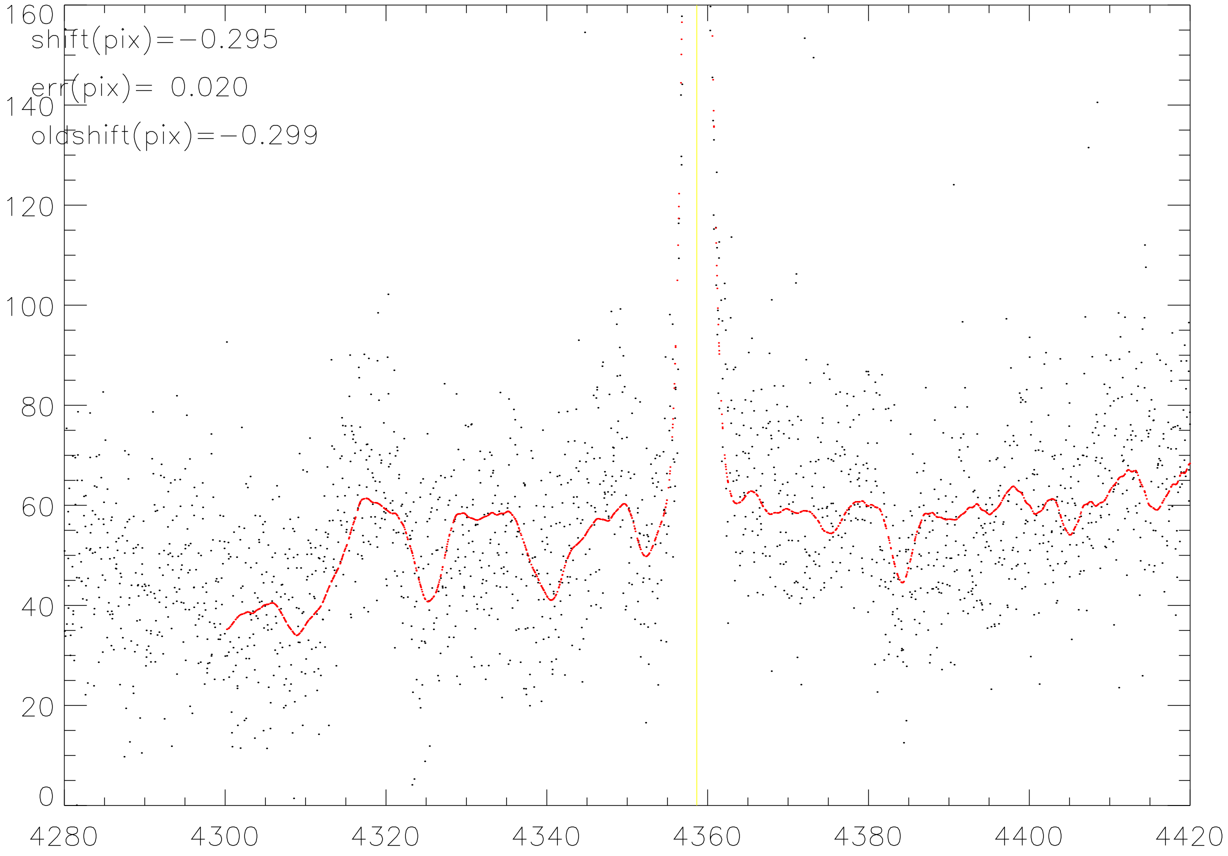

PLATE=3166 MJD=54829 Scattered Light on sdR-b2-00057609.fit

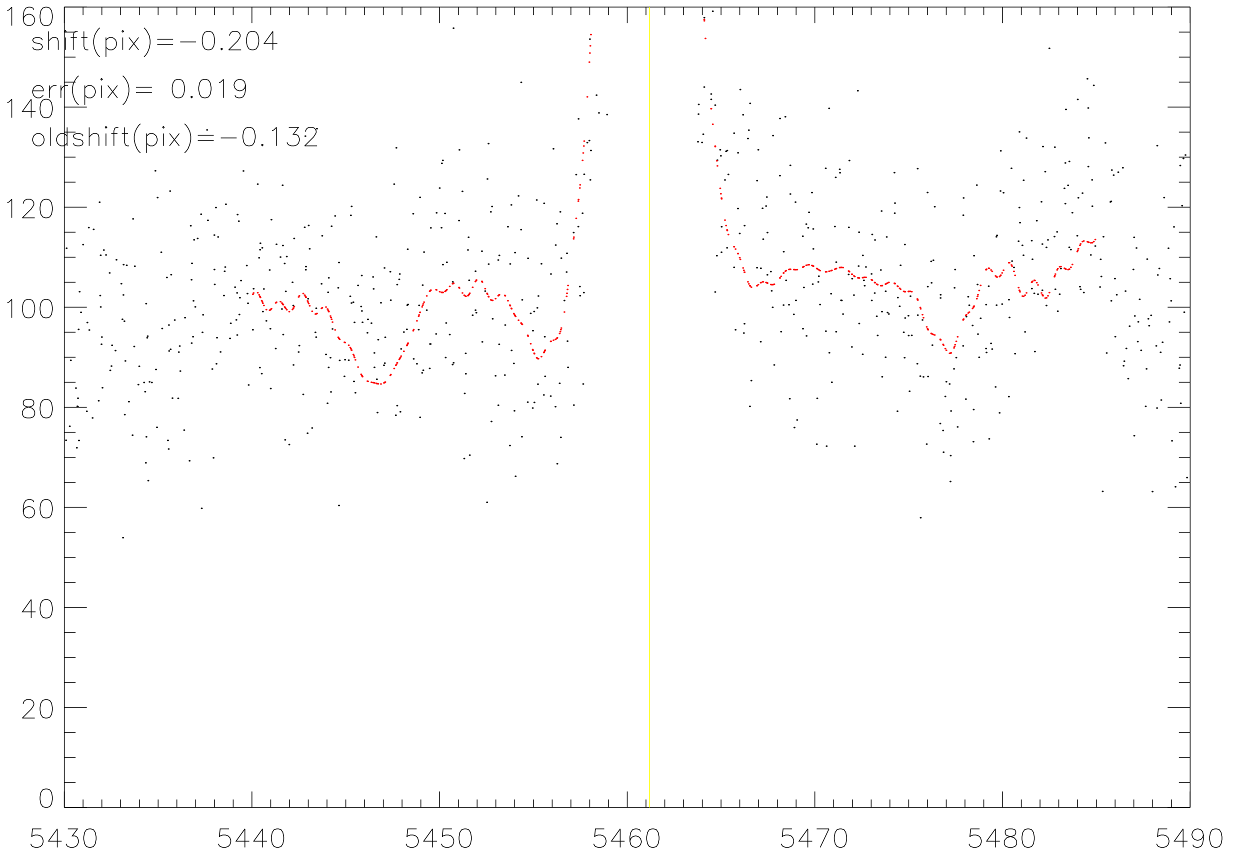

PLATE=3166 MJD=54829 Scattered Light on sdR-b2-00057609.fit
Brightness [electrons/pix]
15
10
5
0
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 5.204
Max value = 11.222
Tue Mar 16 03:46:41 2010

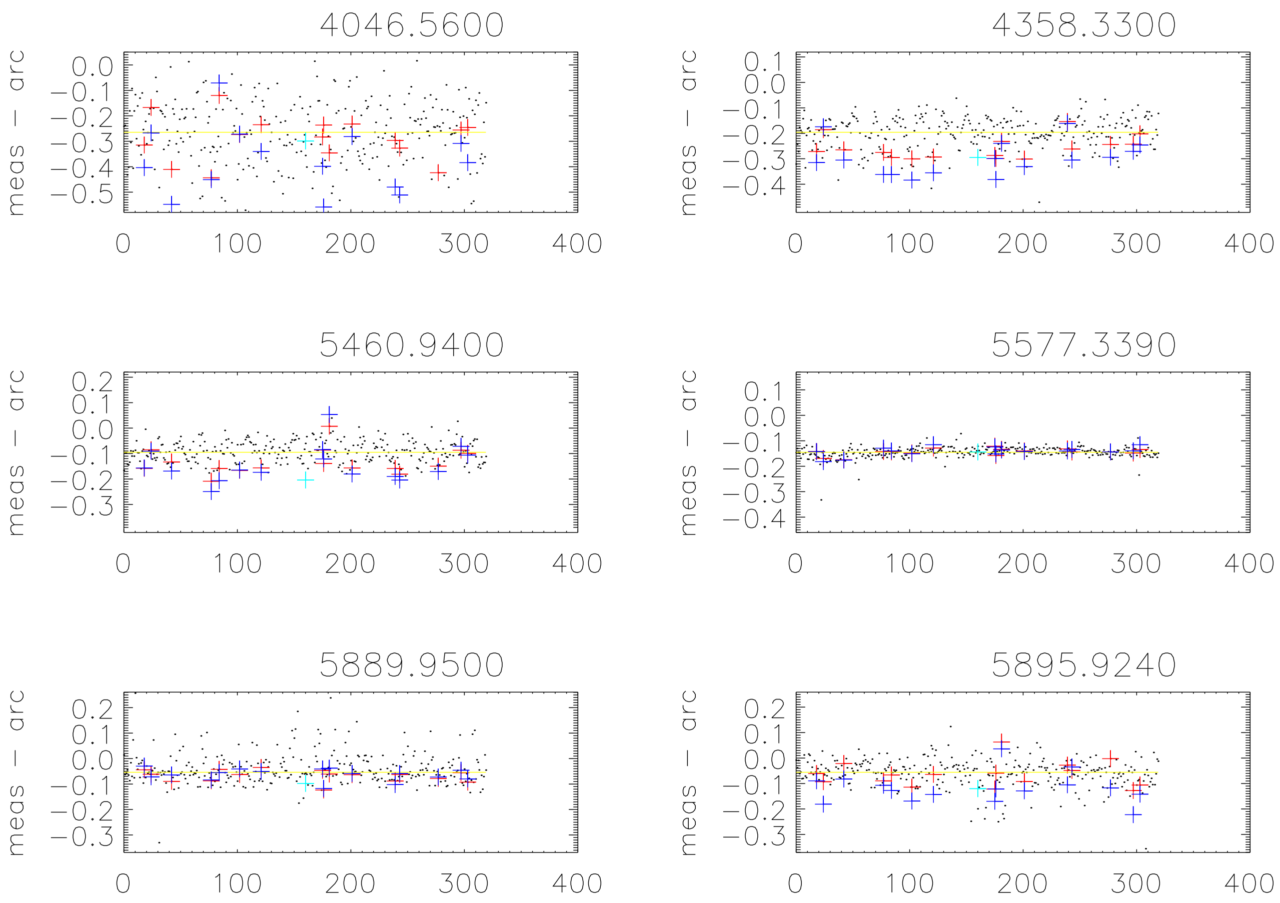

PLATE=3166 MJD=54829 Extraction chi^2 for sdR-b2-00057609.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
0
500
1000
1500
2000
Row number

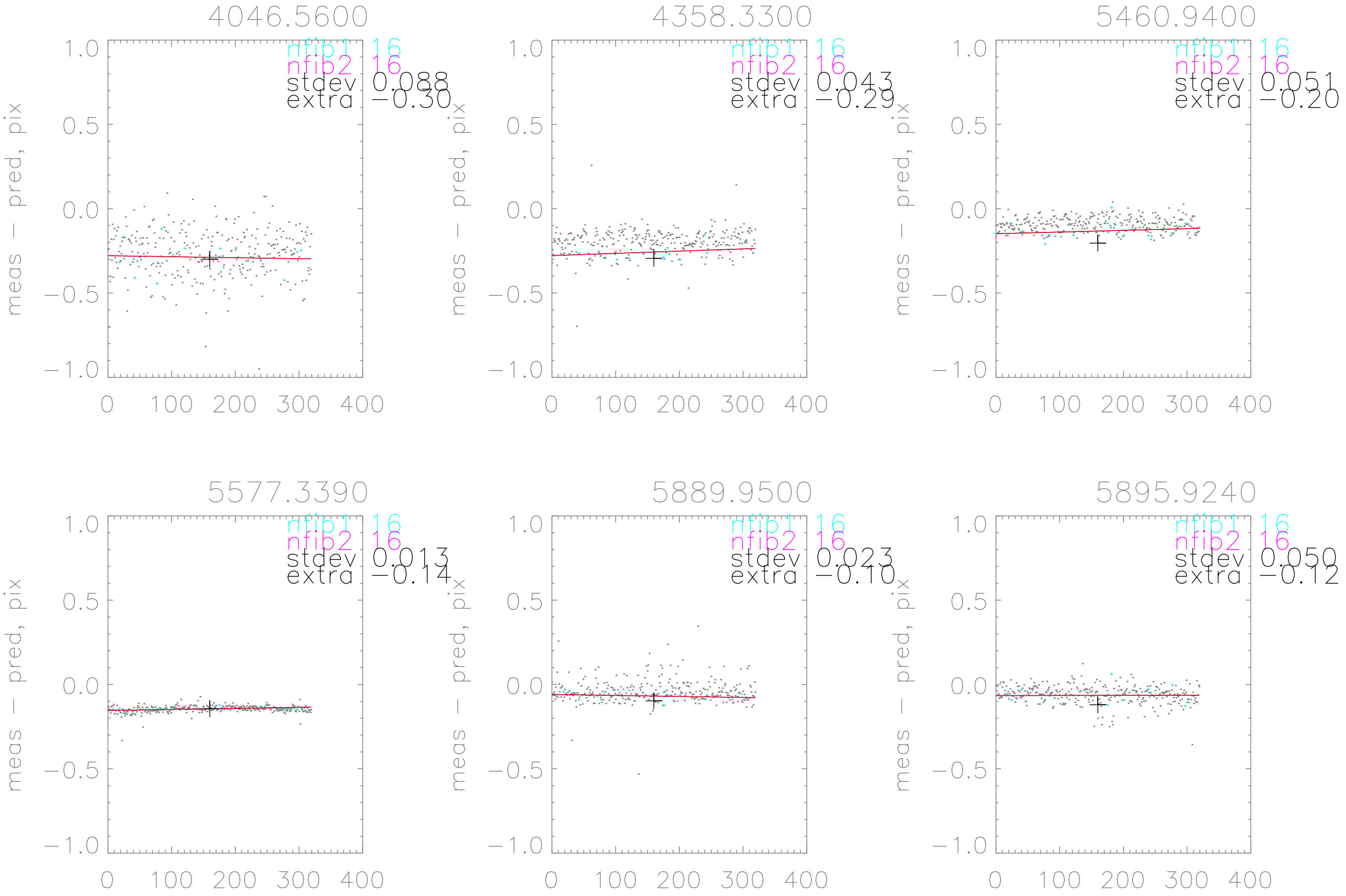

4046.5600
off: −0.41
sig: 0.043
100
80
60
40
20
0
−20
−4
−2
0
2
4
4358.3300
off: −0.30
sig: 0.017
400
300
200
100
0
−100
5460.9400
off: −0.13
sig: 0.016
5577.3390
off: −0.14
sig: 0.003
8000
6000
4000
2000
0
−2000
5889.9500
off: −0.06
sig: 0.008
1000
800
600
400
200
0
−200
5895.9240
off: −0.12
sig: 0.010
600
400
200
0
−200

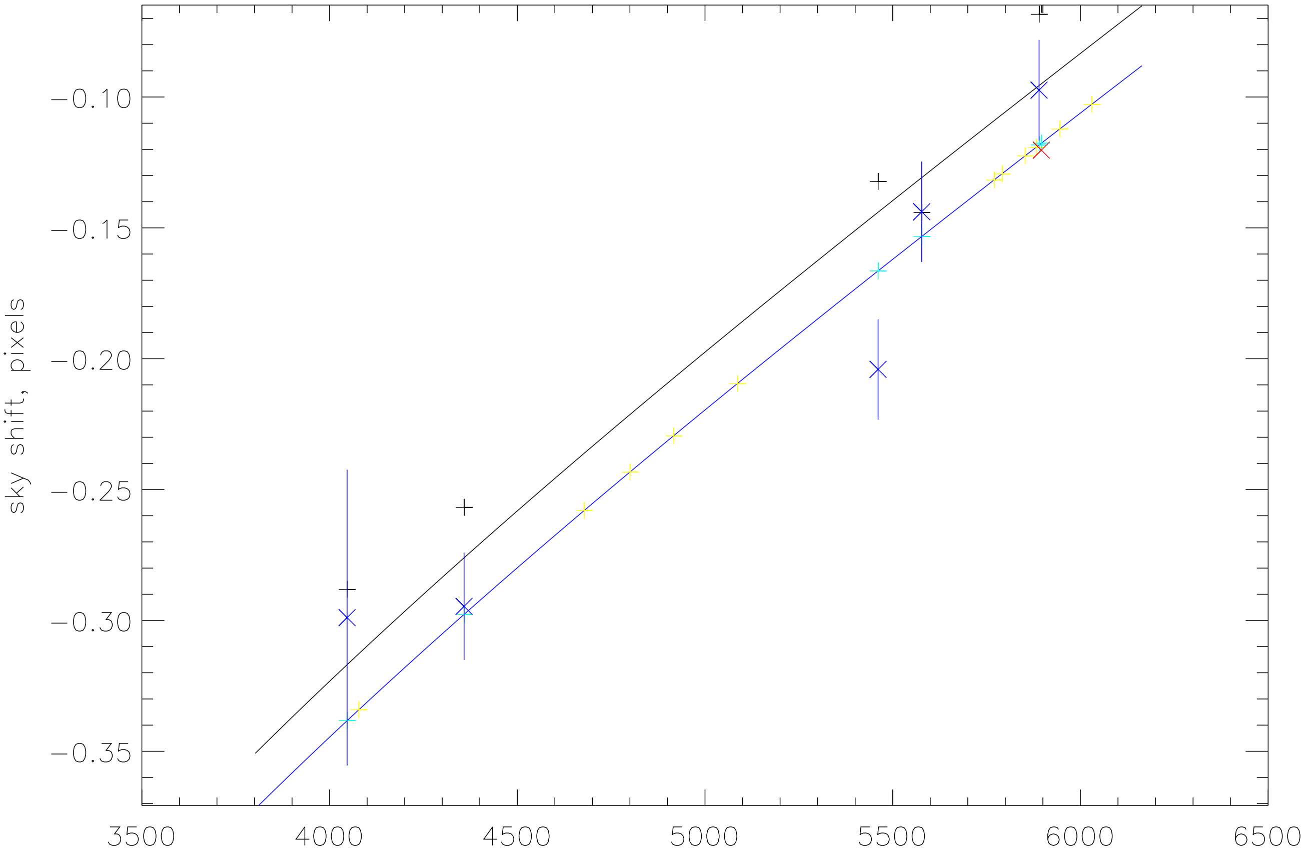

shift(pix)=−0.299
err(pix)= 0.057
oldshift(pix)=−0.413
0
20
40
60
80
100
120
140
160
4020
4030
4040
4050
4060
4070
4080

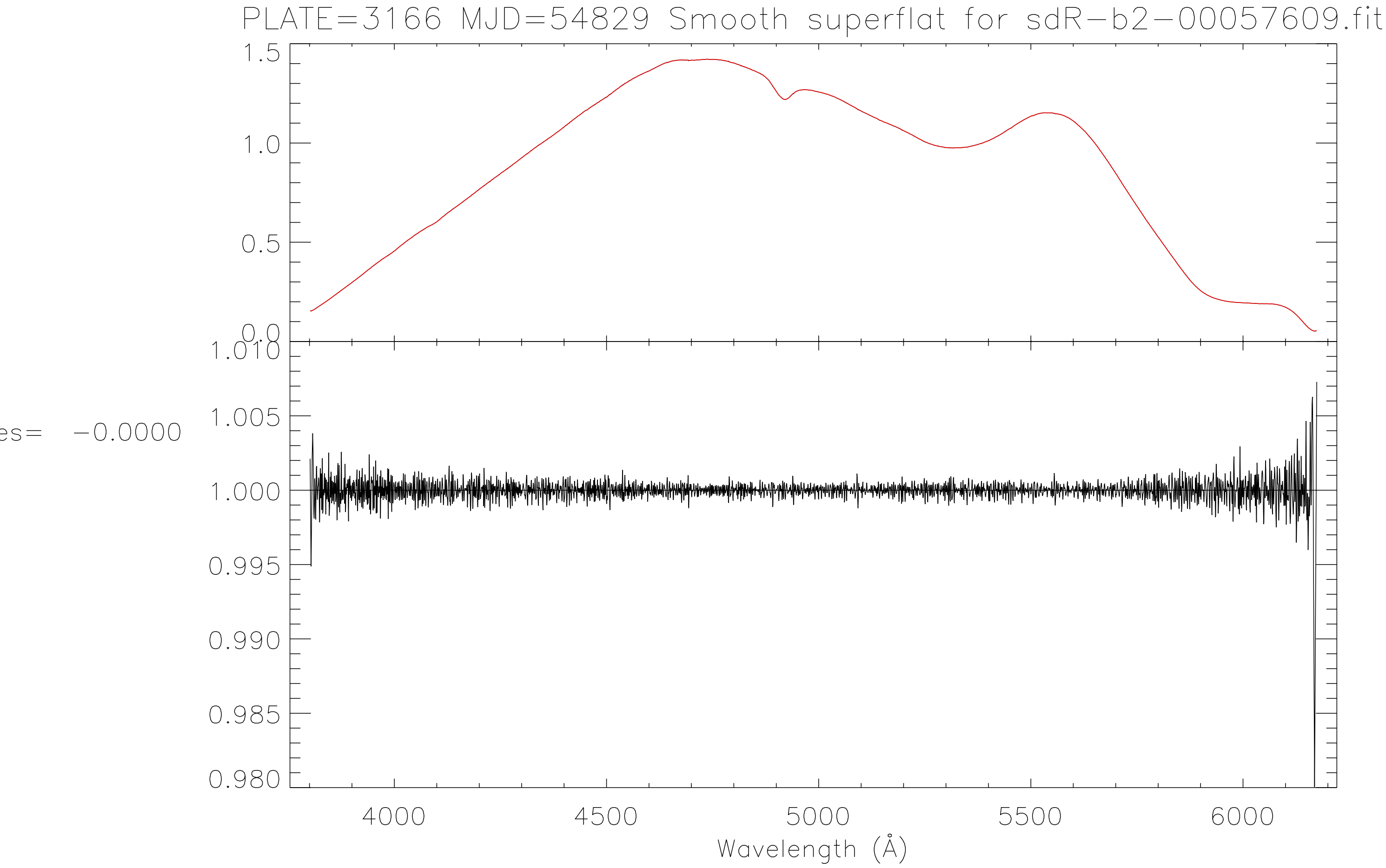

shift(pix)=−0.295
err(pix)= 0.020
oldshift(pix)=−0.299
0
20
40
60
80
100
120
140
160
4280
4300
4320
4340
4360
4380
4400
4420

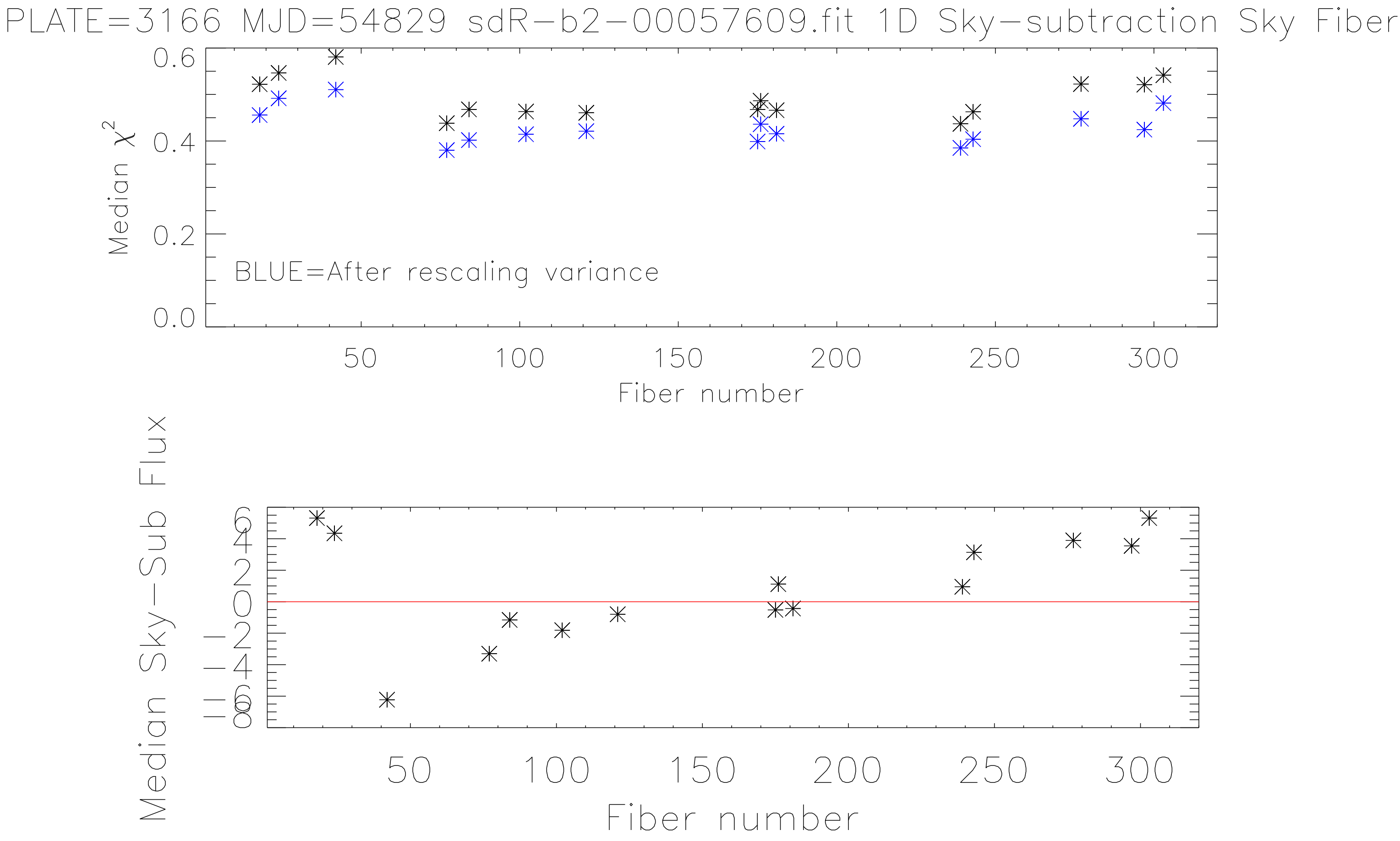

shift(pix)=−0.204
err(pix)= 0.019
oldshift(pix)=−0.132
160
140
120
100
80
60
40
20
0
5430
5440
5450
5460
5470
5480
5490

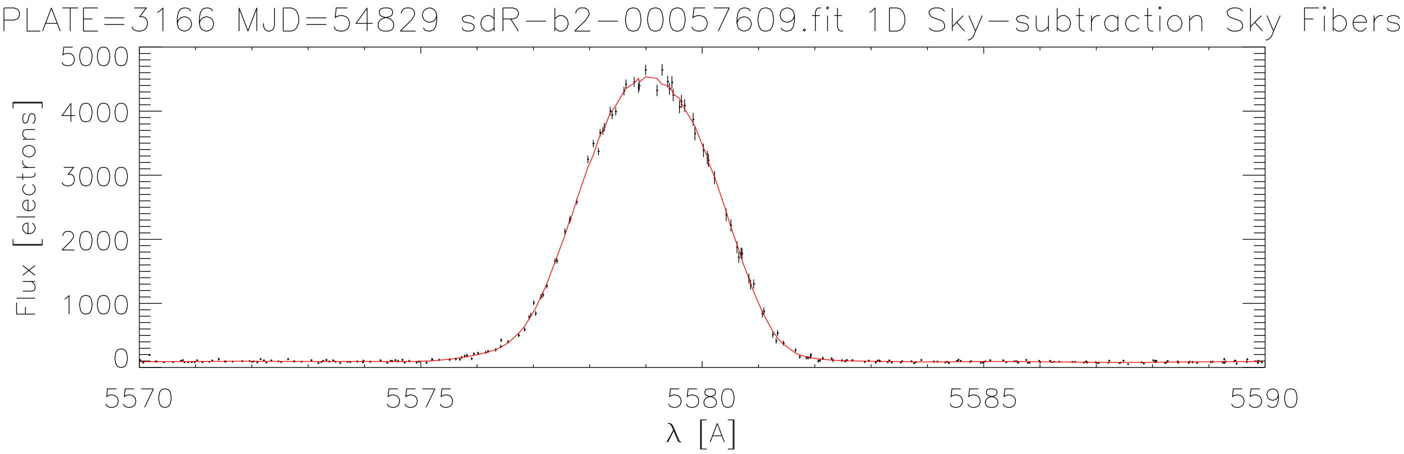

4046.5600
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400
4358.3300
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400
5460.9400
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400
5577.3390
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400
5889.9500
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400
5895.9240
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400


4046.5600
nfib1 16
nfib2 16
stdev 0.088
extra −0.30
4358.3300
nfib1 16
nfib2 16
stdev 0.043
extra −0.29
5460.9400
nfib1 16
nfib2 16
stdev 0.051
extra −0.20
5577.3390
nfib1 16
nfib2 16
stdev 0.013
extra −0.14
5889.9500
nfib1 16
nfib2 16
stdev 0.023
extra −0.10
5895.9240
nfib1 16
nfib2 16
stdev 0.050
extra −0.12
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

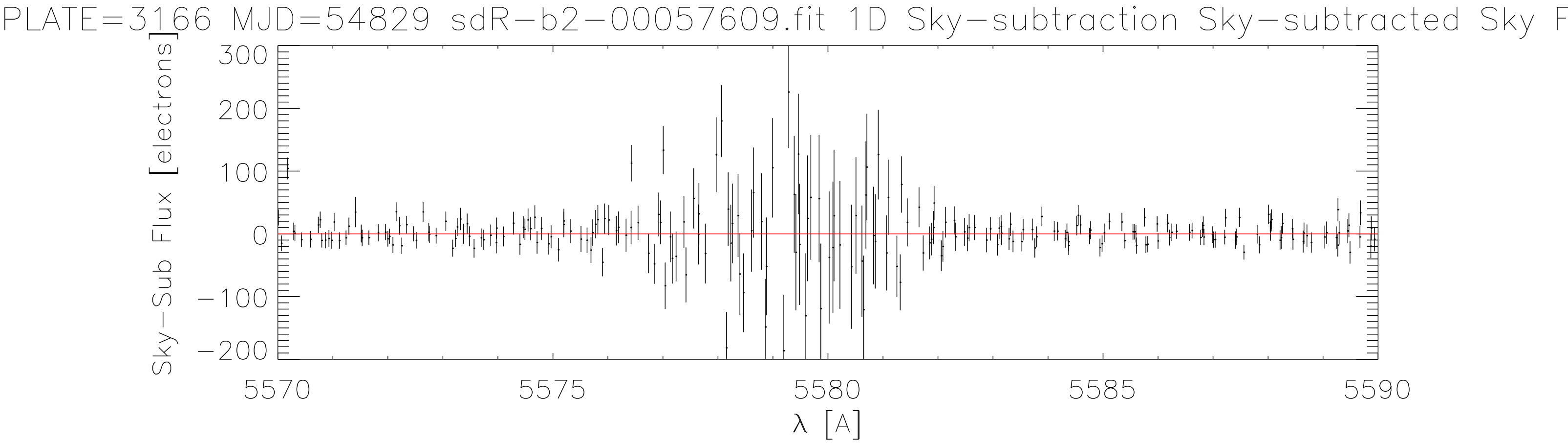

sky shift, pixels
−0.10
−0.15
−0.20
−0.25
−0.30
−0.35
3500
4000
4500
5000
5500
6000
6500


PLATE=3166 MJD=54829 Smooth superflat for sdR-b2-00057609.fit
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
0.985
0.980
es= −0.0000
4000
4500
5000
5500
6000
Wavelength (Å)


PLATE=3166 MJD=54829 sdR-b2-00057609.fit 1D Sky-subtraction Sky Fiber
Median χ^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
6
4
2
0
-2
-4
-6
-8
50
100
150
200
250
300
Fiber number



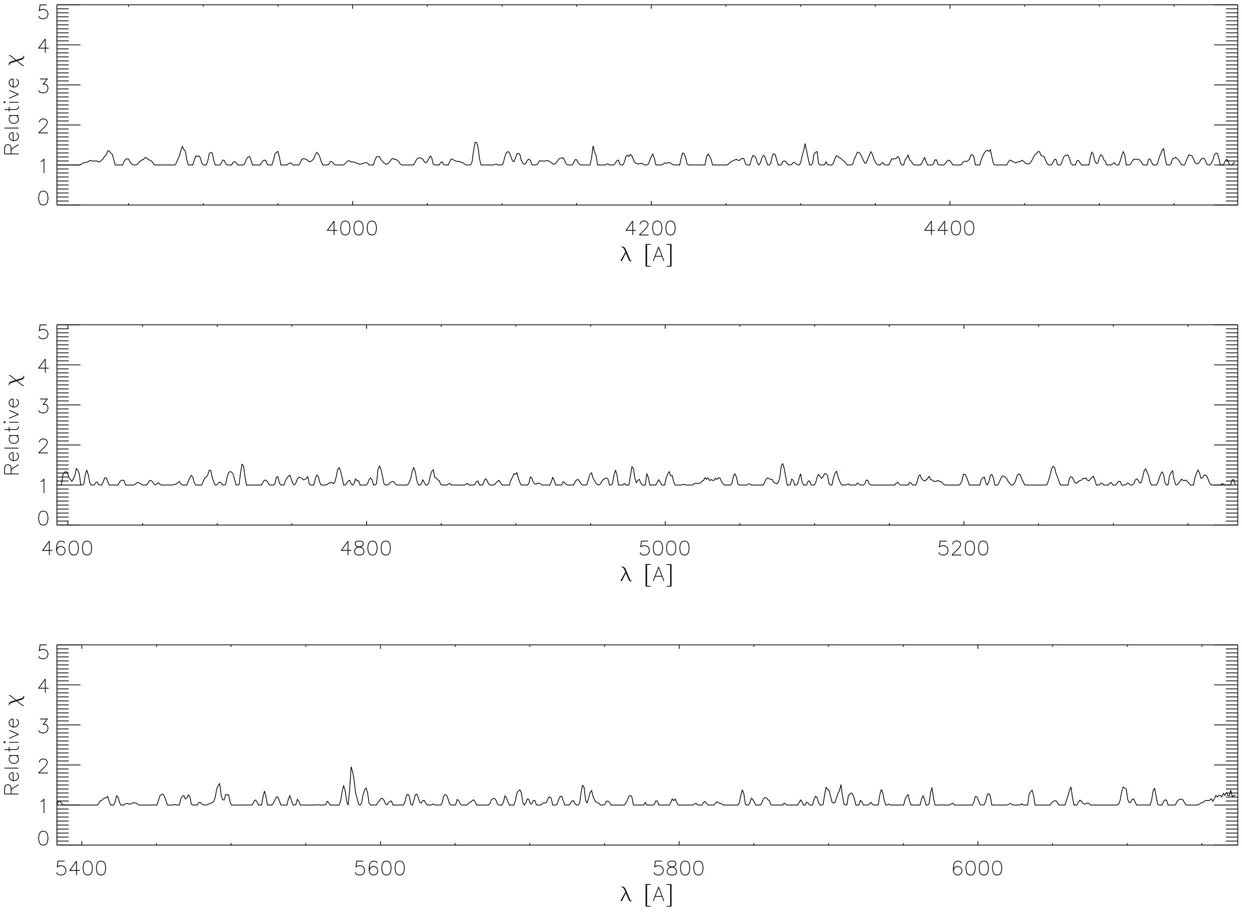
PLATE=3166 MJD=54829 sdR-b2-00057609.fit 1D Sky-subtraction Sky Fibers

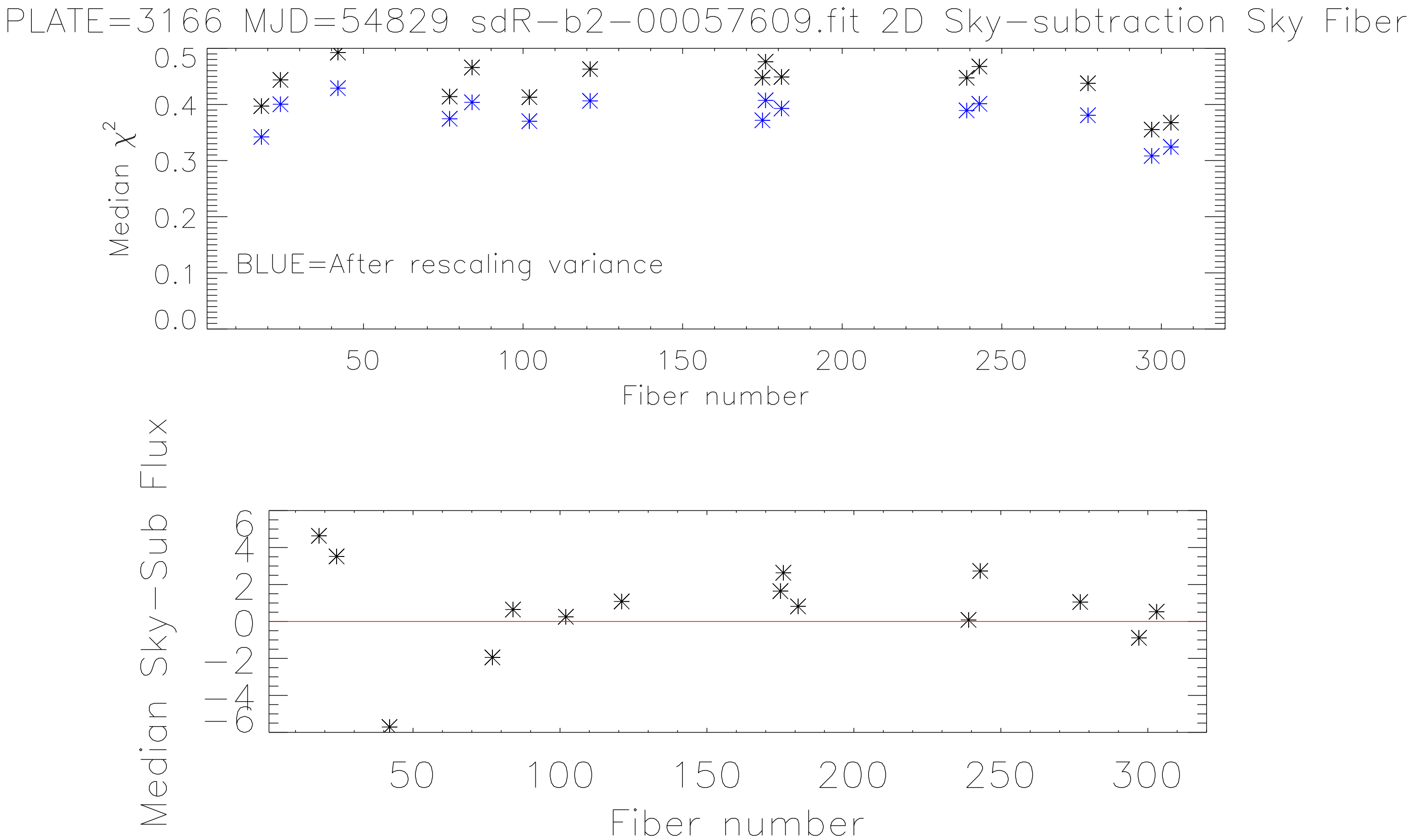


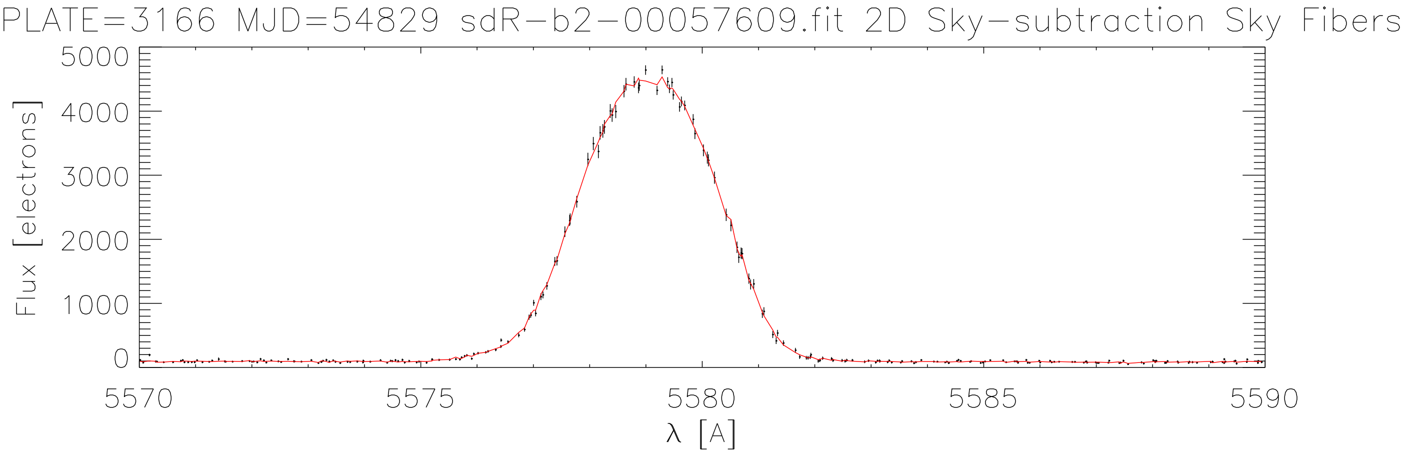
PLATE=3166 MJD=54829 sdR-b2-00057609.fit 1D Sky-subtraction Sky-subtracted Sky F

Number of sky fibers = 15

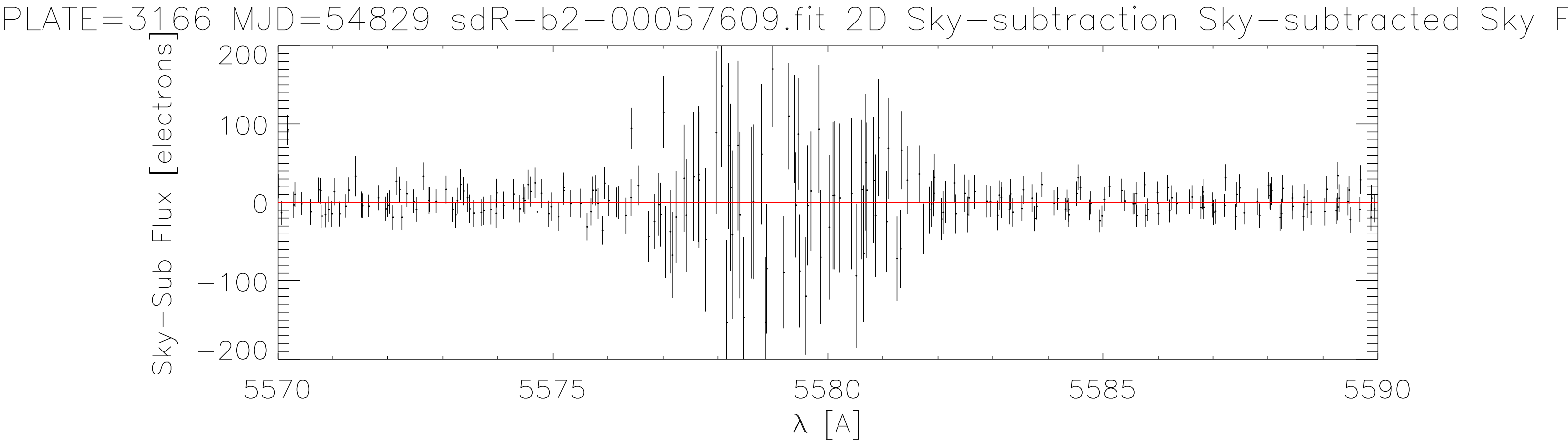
PLATE=3166 MJD=54829 sdR-b2-00057609.fit 1D Sky-subtraction Rescaled Errors




PLATE=3166 MJD=54829 sdR-b2-00057609.fit 2D Sky-subtraction Sky Fiber
Median χ²
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
-6
-4
-2
0
2
4
6
50
100
150
200
250
300
Fiber number



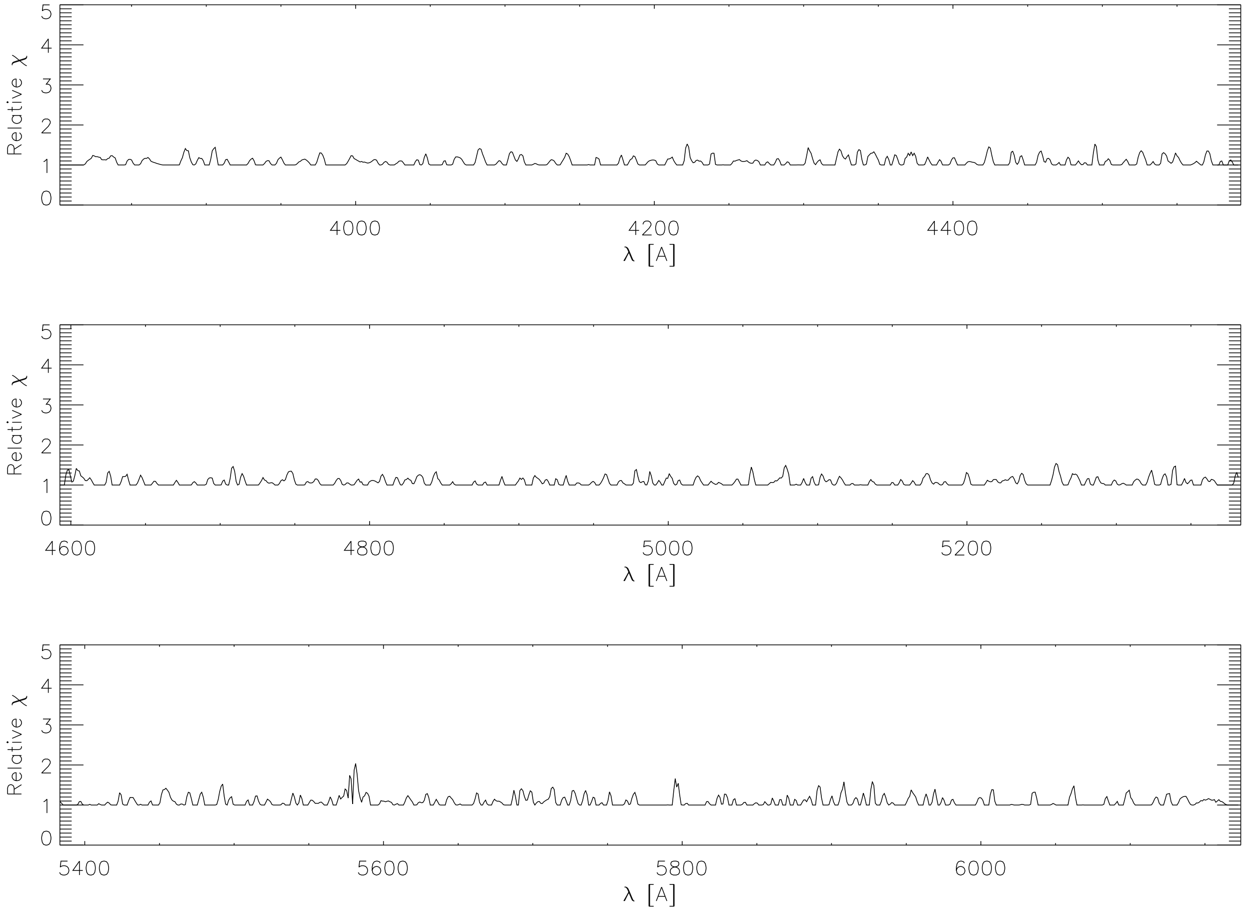
PLATE=3166 MJD=54829 sdR-b2-00057609.fit 2D Sky-subtraction Sky Fibers

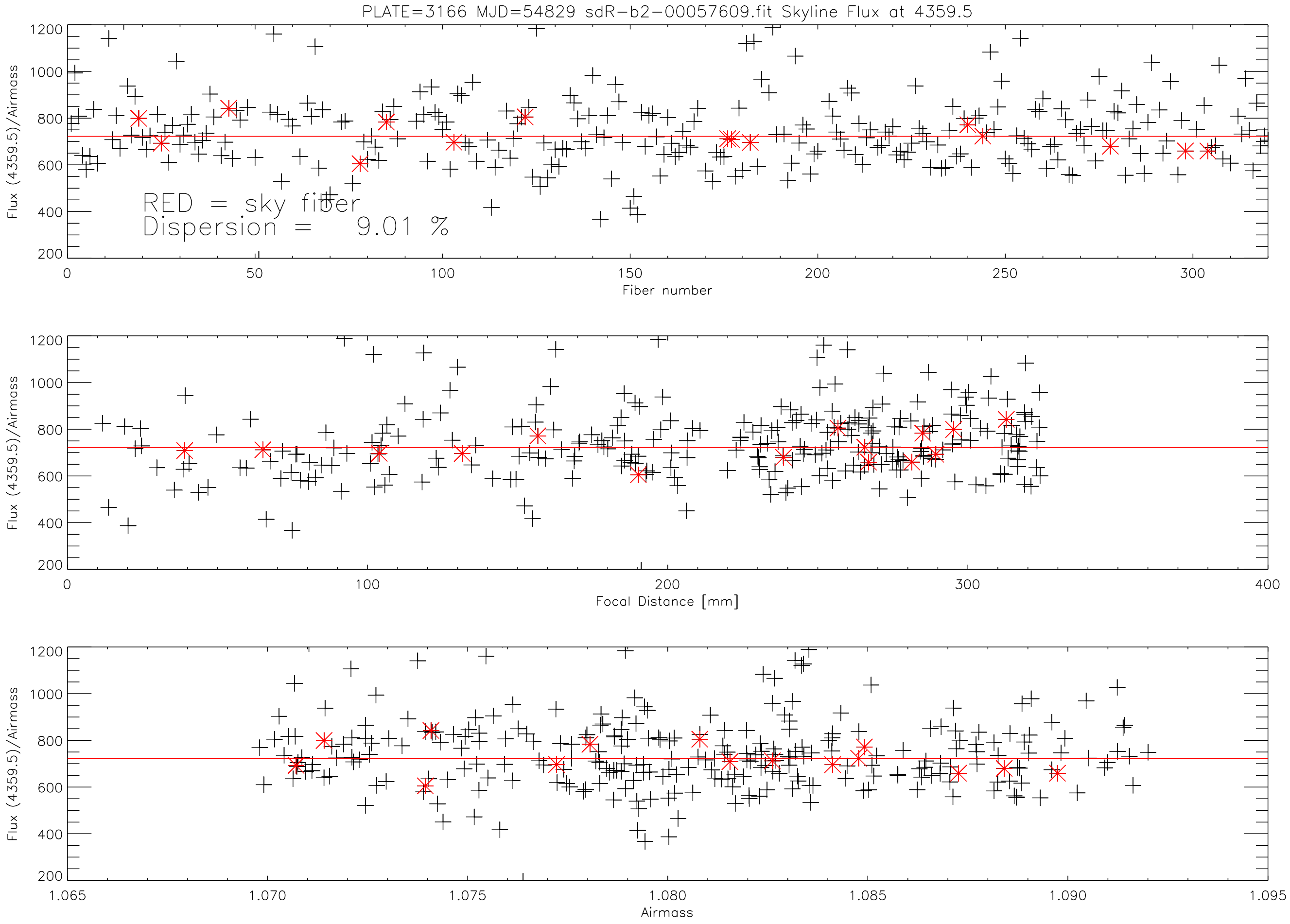


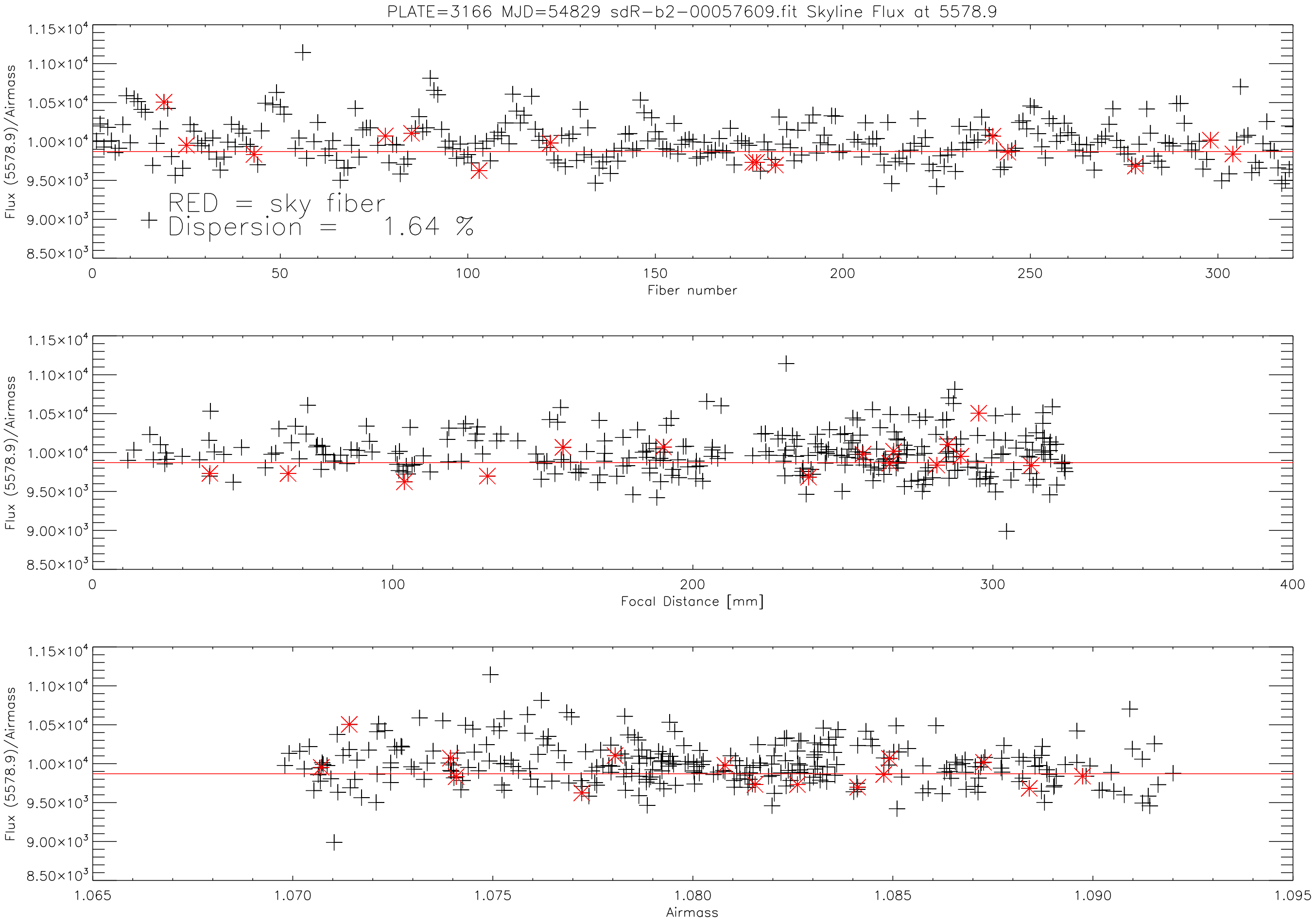
PLATE=3166 MJD=54829 sdR-b2-00057609.fit 2D Sky-subtraction Sky-subtracted Sky F

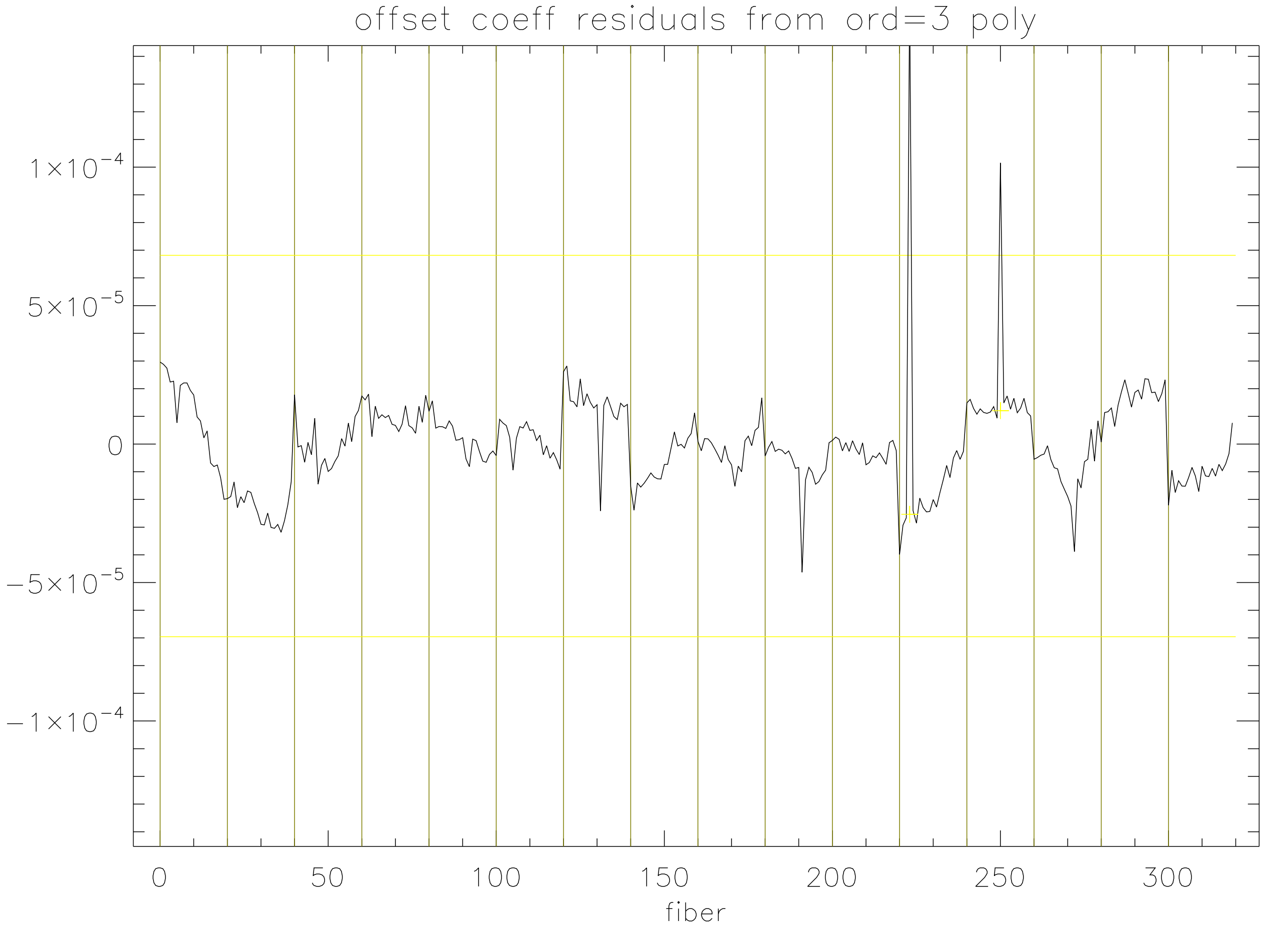
Number of sky fibers = 15

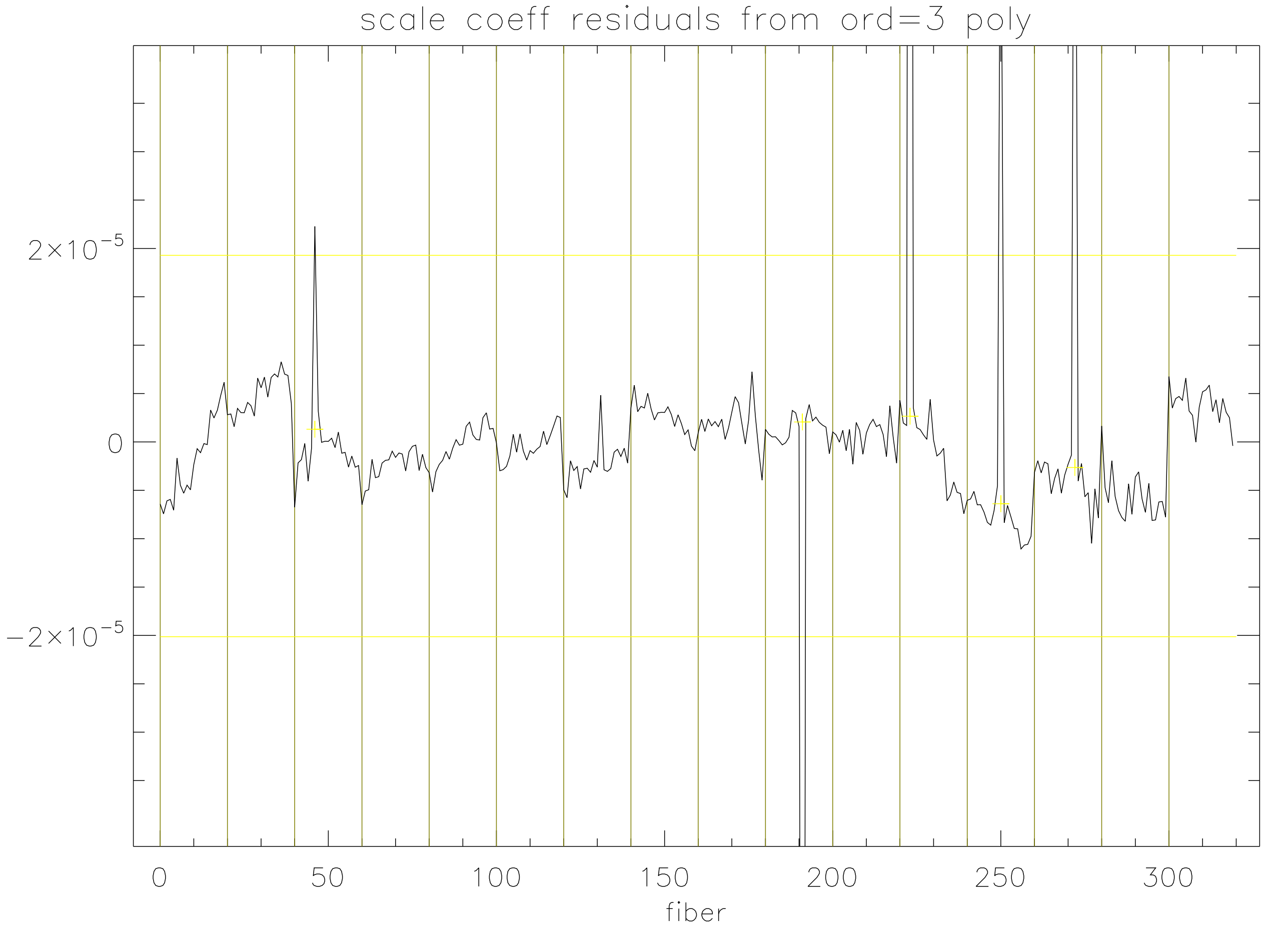
PLATE=3166 MJD=54829 sdR-b2-00057609.fit 2D Sky-subtraction Rescaled Errors

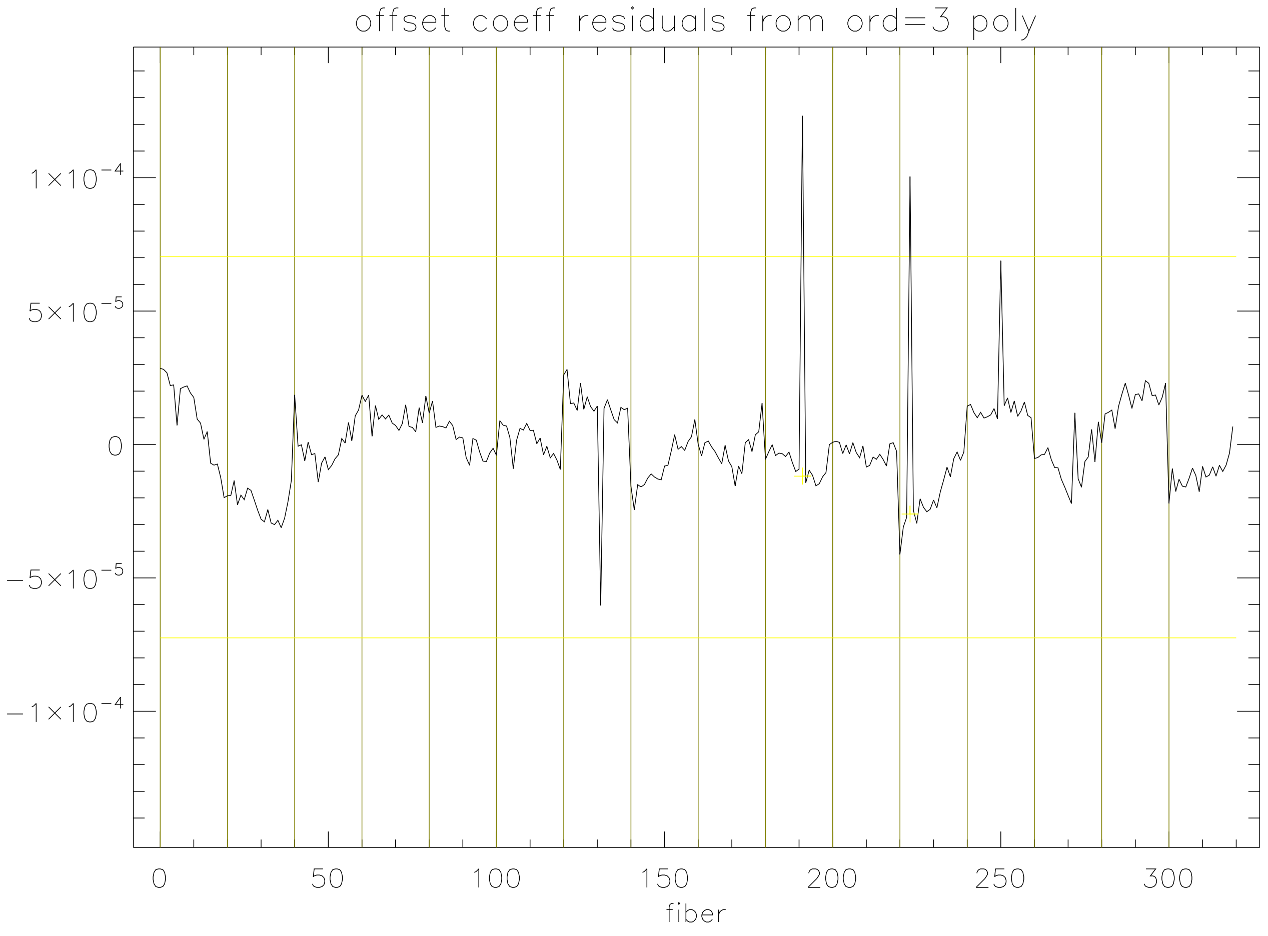


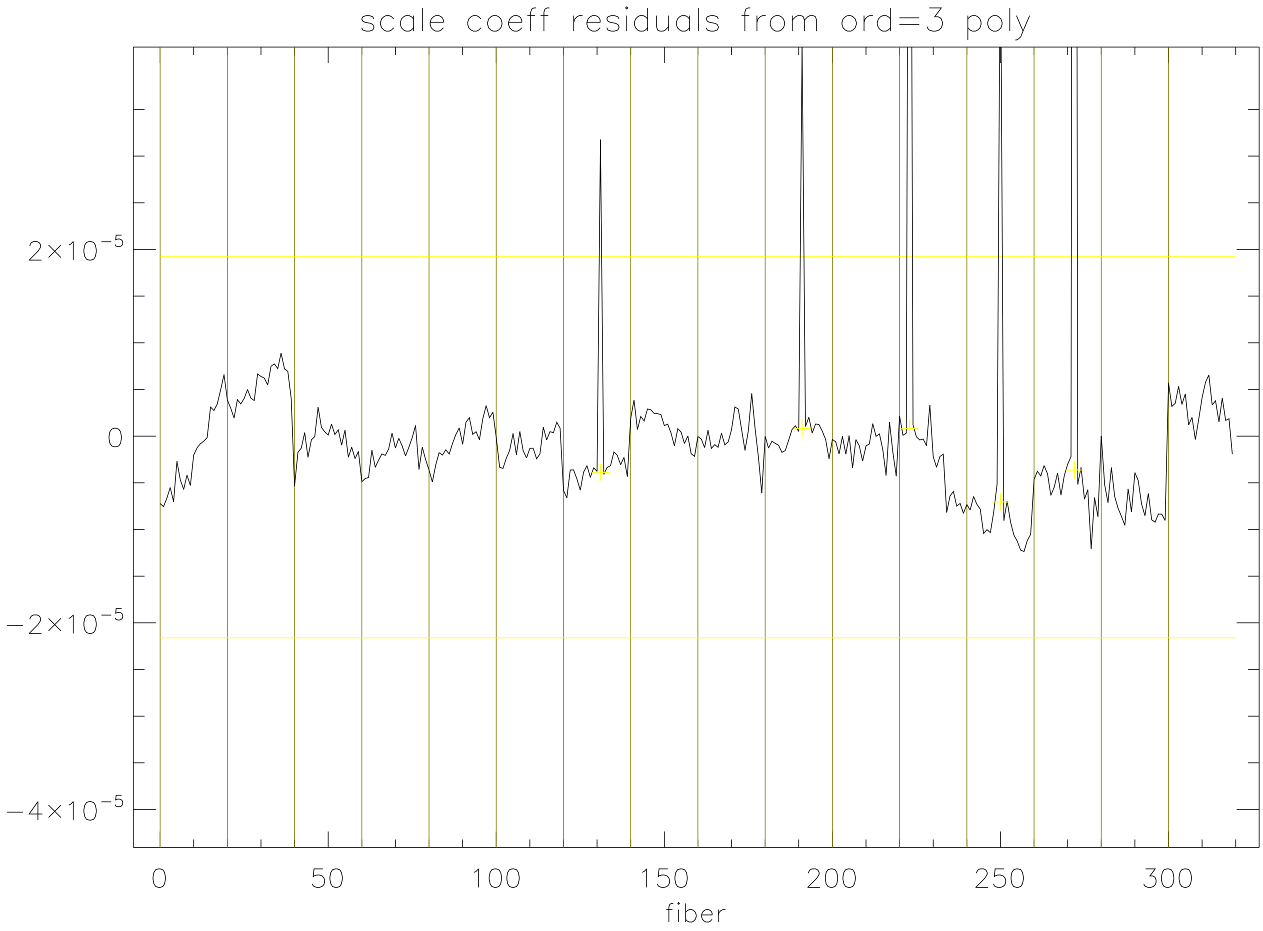

PLATE=3166 MJD=54829 sdR-b2-00057609.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
1200
1000
800
600
400
200
RED = sky fiber
Dispersion = 9.01 %
0
50
100
150
200
250
300
Fiber number
Flux (4359.5)/Airmass
1200
1000
800
600
400
200
0
100
200
300
400
Focal Distance [mm]
Flux (4359.5)/Airmass
1200
1000
800
600
400
200
1.065
1.070
1.075
1.080
1.085
1.090
1.095
Airmass

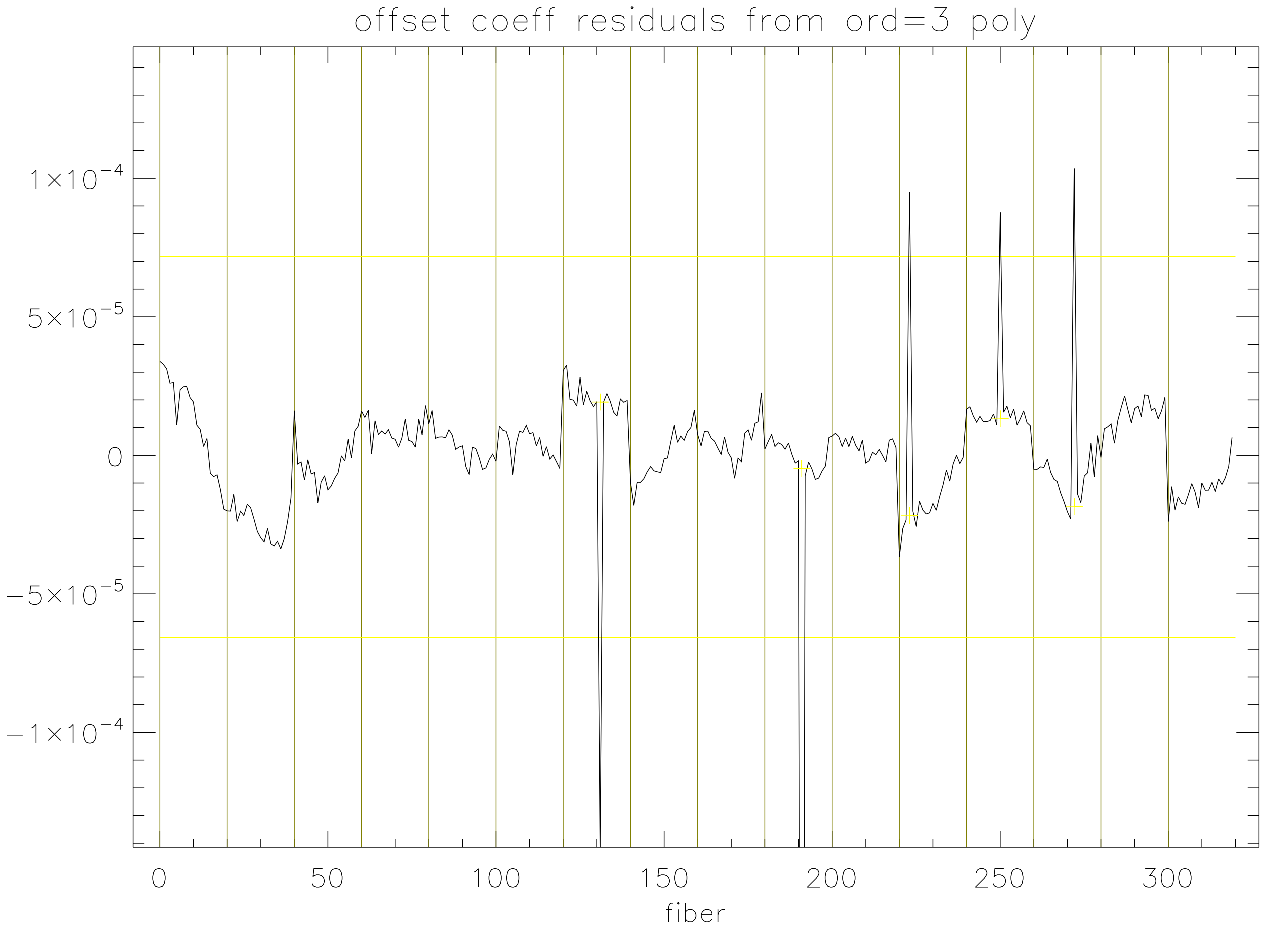

PLATE=3166 MJD=54829 sdR-b2-00057609.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
1.15×10⁴
1.10×10⁴
1.05×10⁴
1.00×10⁴
9.50×10³
9.00×10³
8.50×10³
RED = sky fiber
Dispersion = 1.64 %
0
50
100
150
200
250
300
Fiber number
0
100
200
300
400
Focal Distance [mm]
1.065
1.070
1.075
1.080
1.085
1.090
1.095
Airmass

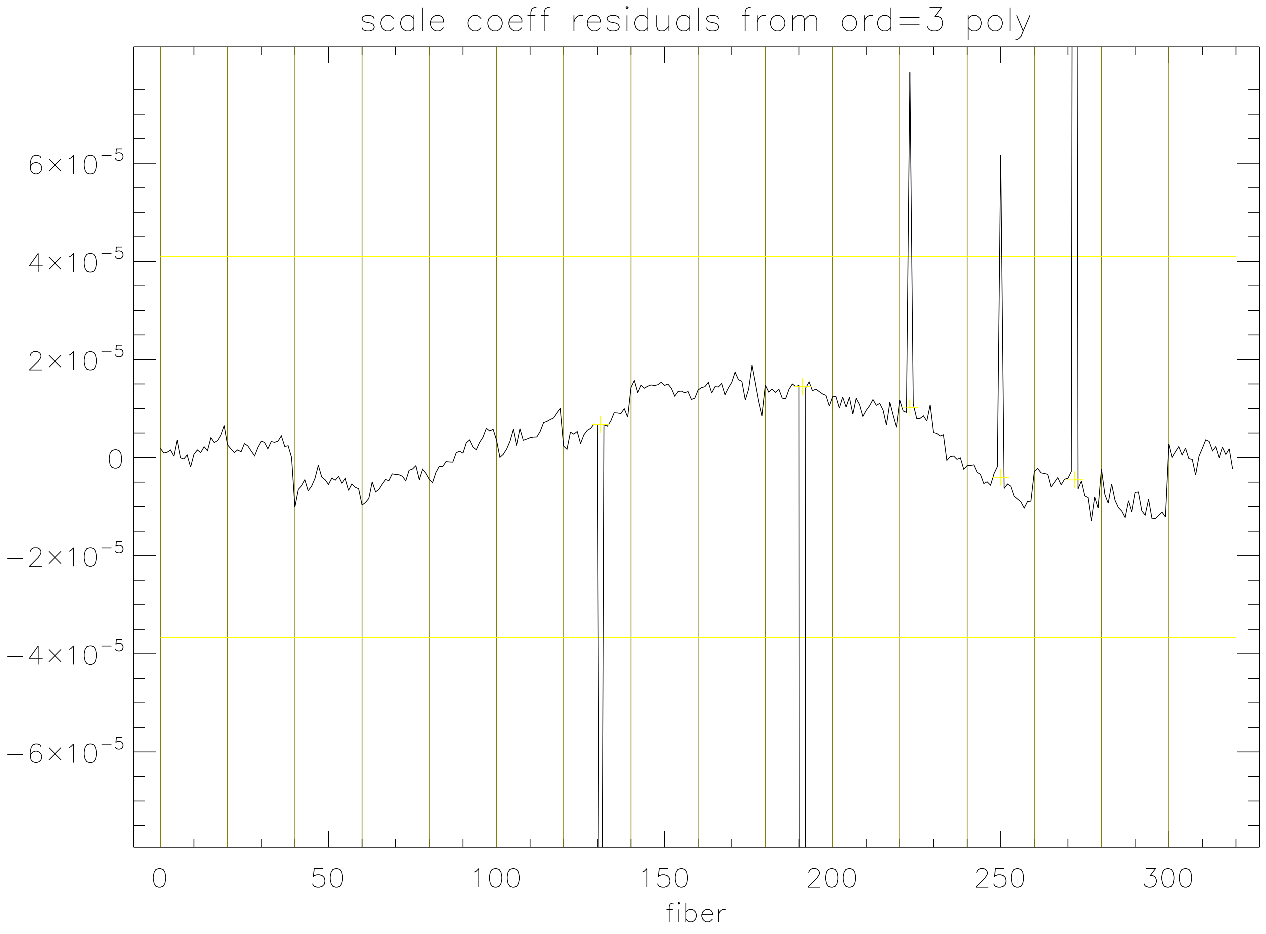

offset coeff residuals from ord=3 poly
1×10⁻⁴
5×10⁻⁵
0
−5×10⁻⁵
−1×10⁻⁴
0
50
100
150
200
250
300
fiber

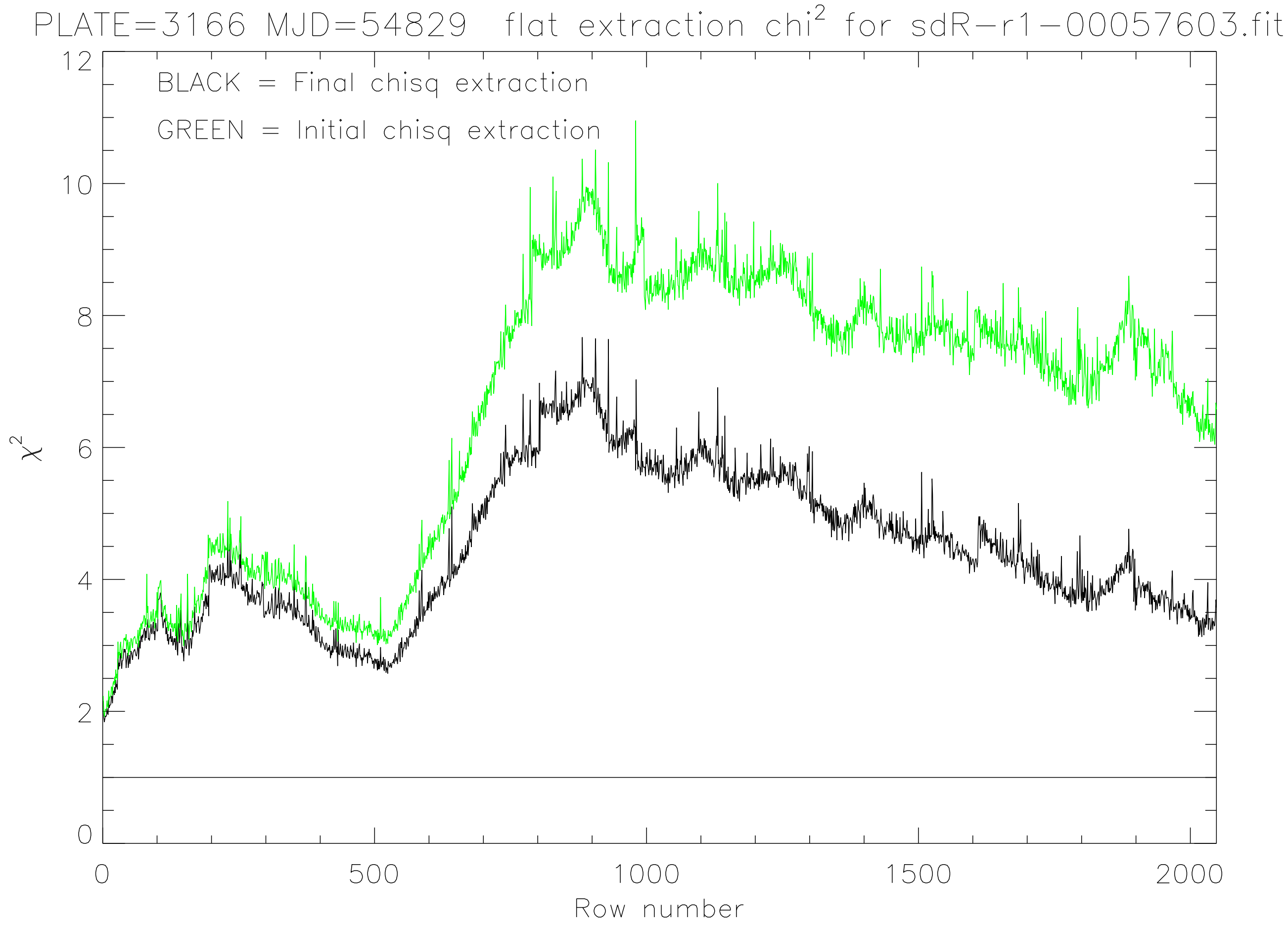

scale coeff residuals from ord=3 poly
2×10⁻⁵
0
−2×10⁻⁵
0
50
100
150
200
250
300
fiber

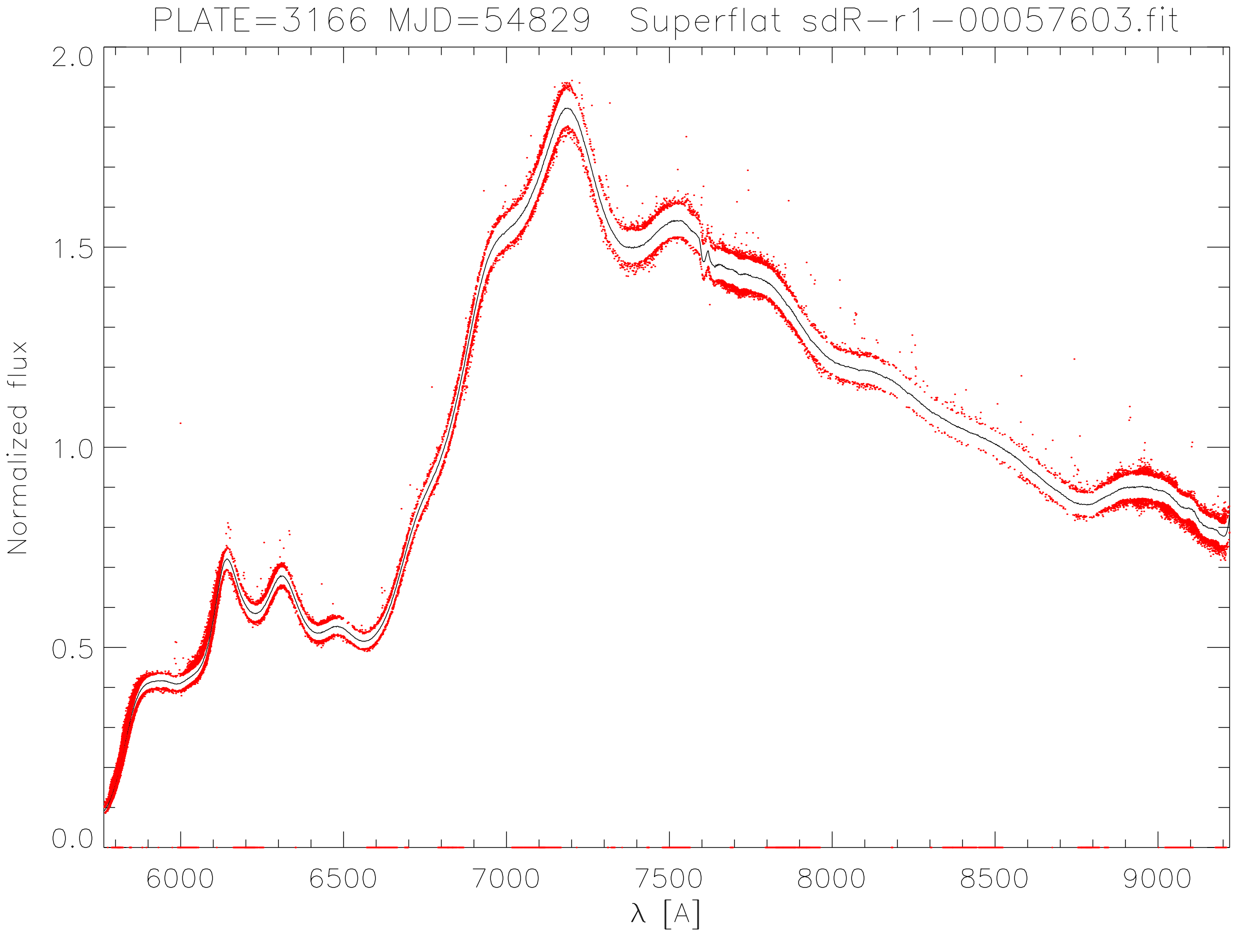

offset coeff residuals from ord=3 poly
1×10⁻⁴
5×10⁻⁵
0
−5×10⁻⁵
−1×10⁻⁴
0
50
100
150
200
250
300
fiber

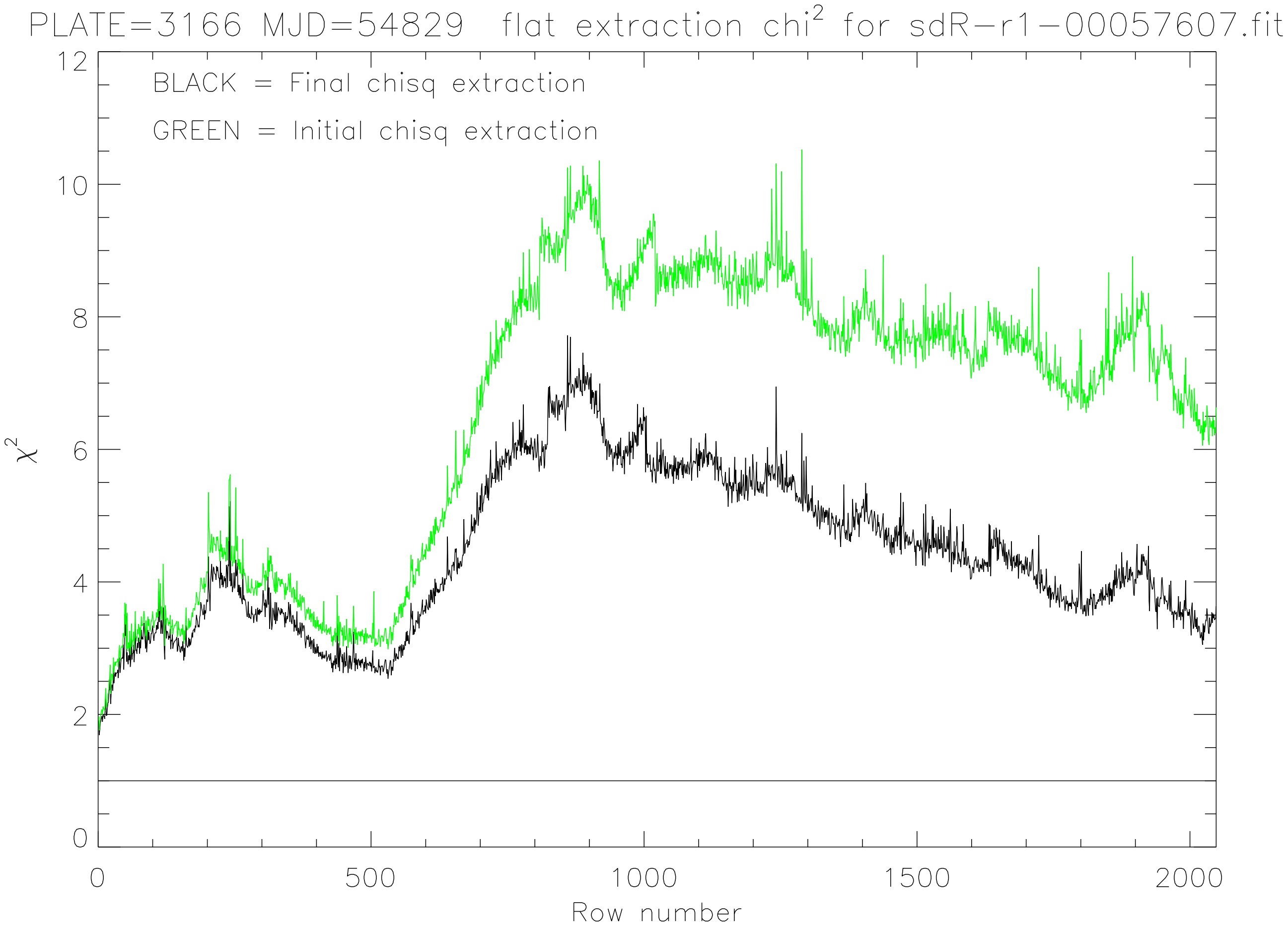

scale coeff residuals from ord=3 poly
2×10⁻⁵
0
−2×10⁻⁵
−4×10⁻⁵
0
50
100
150
200
250
300
fiber

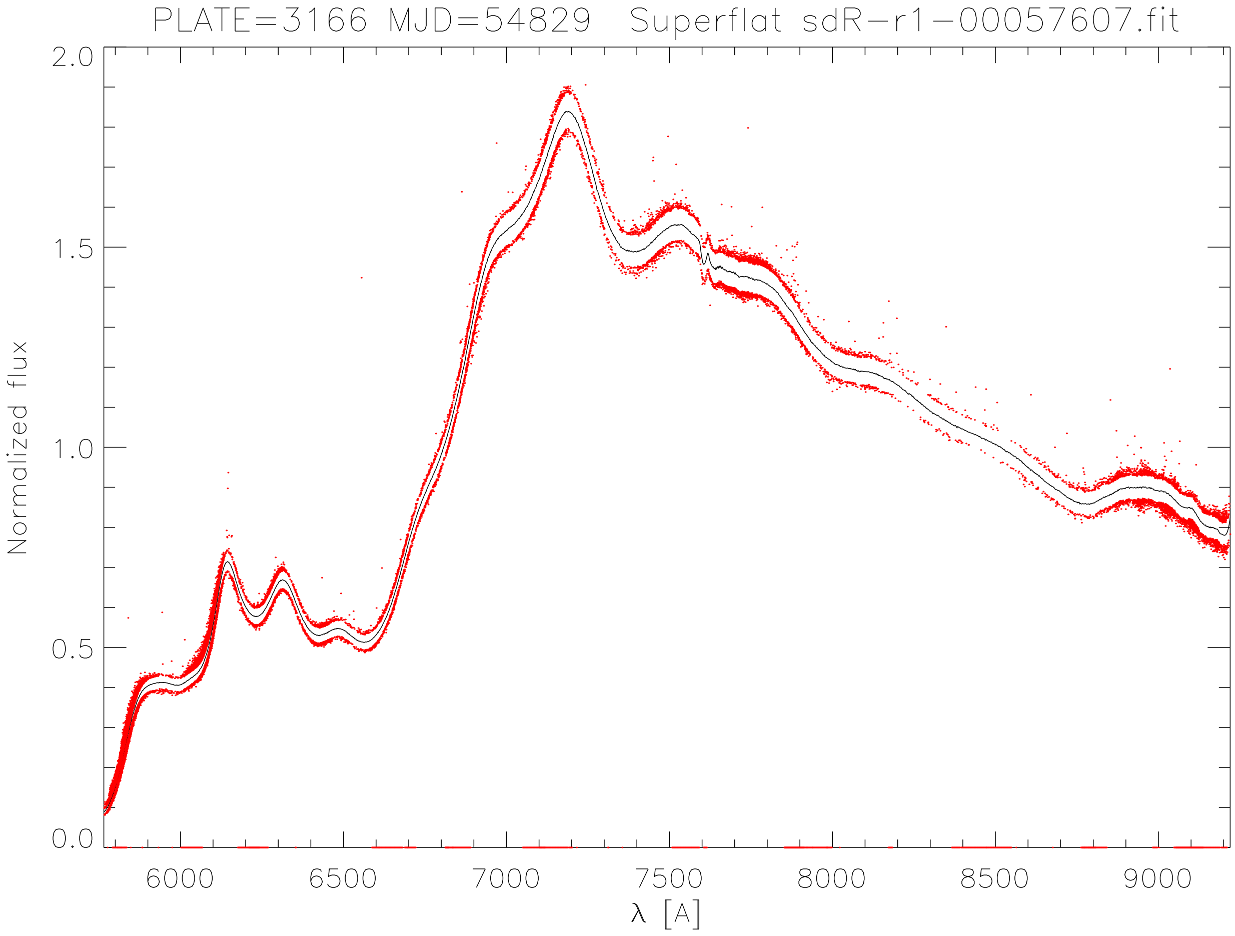

offset coeff residuals from ord=3 poly
1×10⁻⁴
5×10⁻⁵
0
−5×10⁻⁵
−1×10⁻⁴
0
50
100
150
200
250
300
fiber

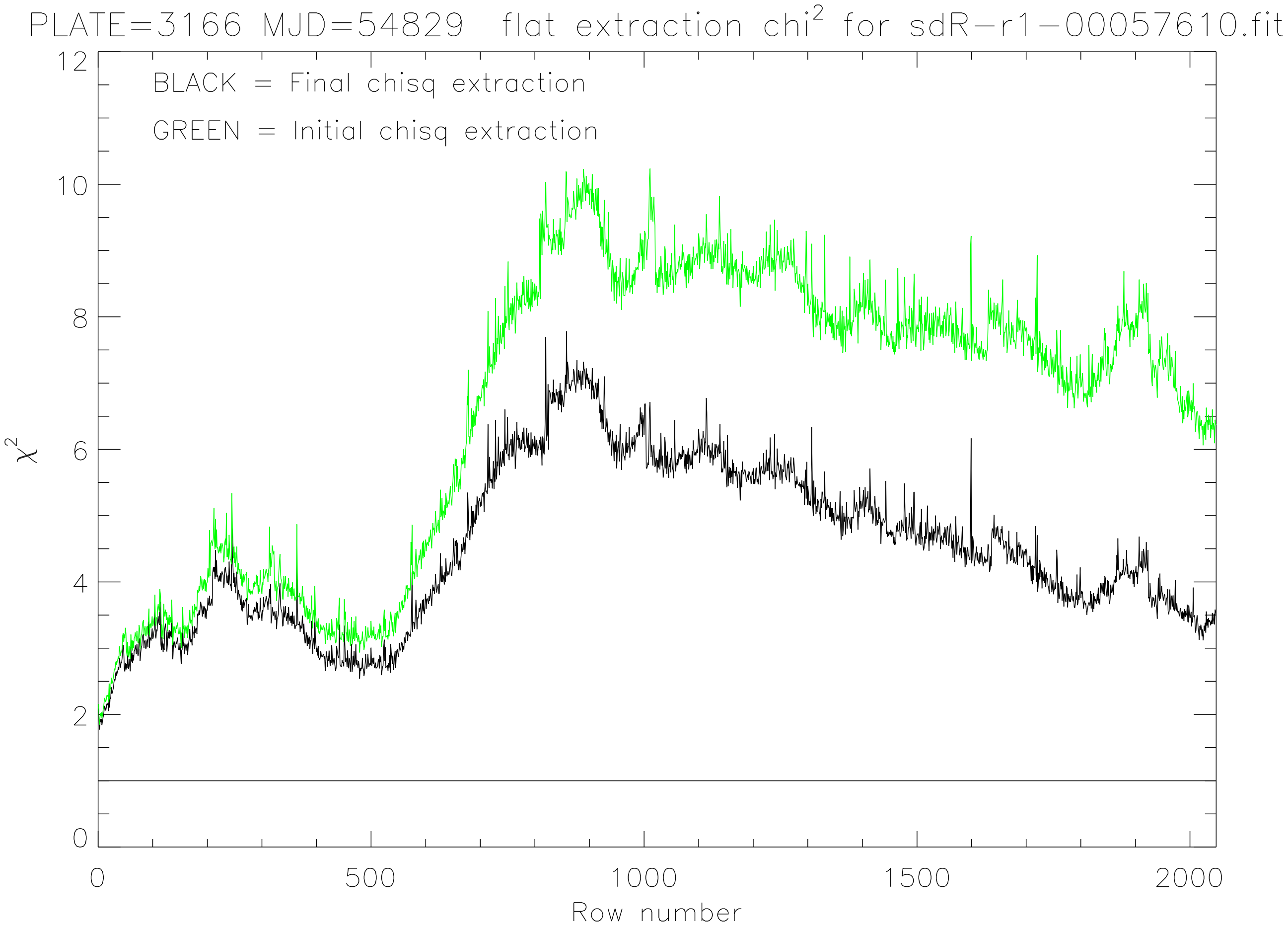

scale coeff residuals from ord=3 poly
6×10⁻⁵
4×10⁻⁵
2×10⁻⁵
0
−2×10⁻⁵
−4×10⁻⁵
−6×10⁻⁵
0
50
100
150
200
250
300
fiber

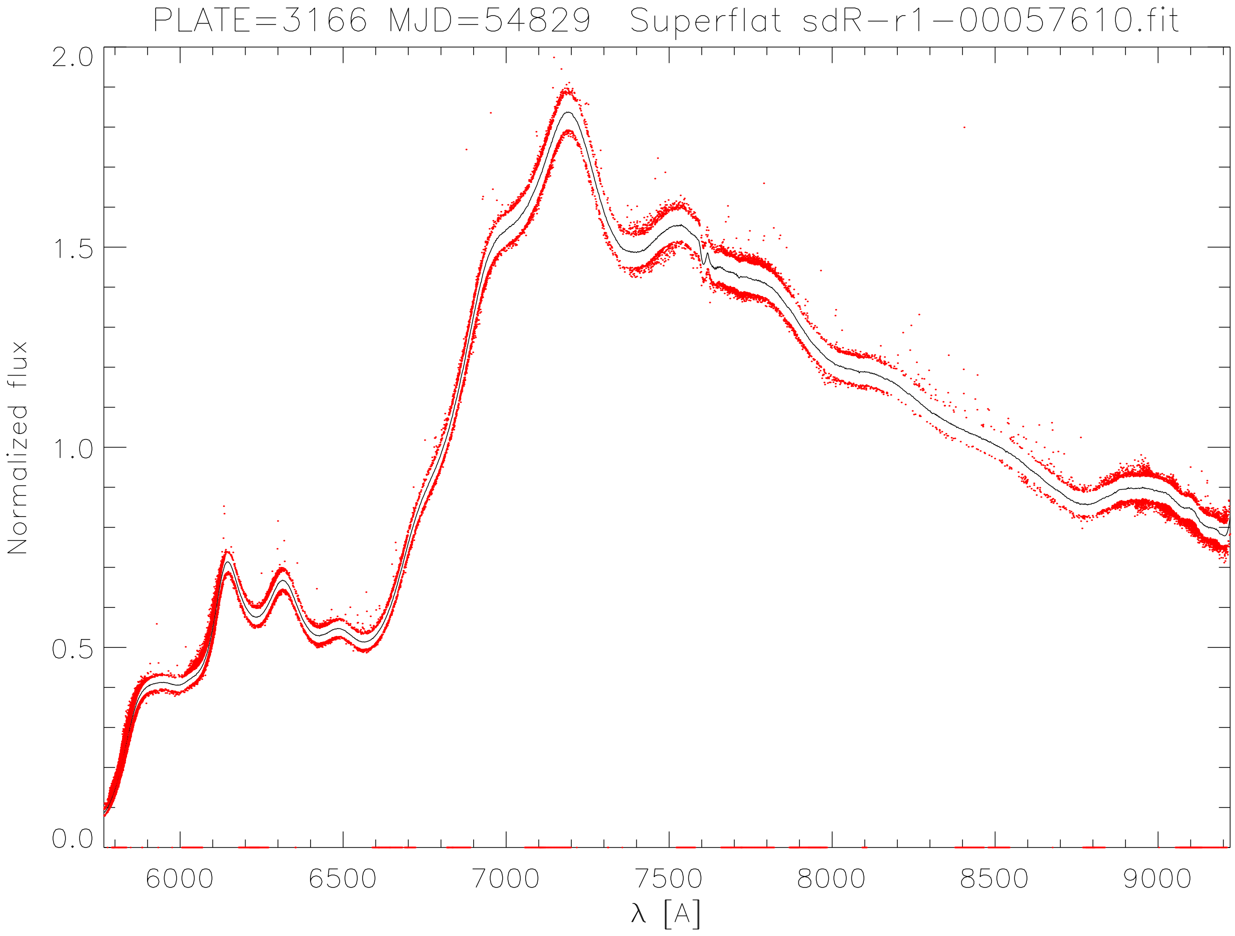

PLATE=3166 MJD=54829 flat extraction chi^2 for sdR−r1−00057603.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
10
12
0
500
1000
1500
2000
Row number


PLATE=3166 MJD=54829 Superflat sdR-r1-00057603.fit
Normalized flux
λ [A]
0.0
0.5
1.0
1.5
2.0
6000
6500
7000
7500
8000
8500
9000

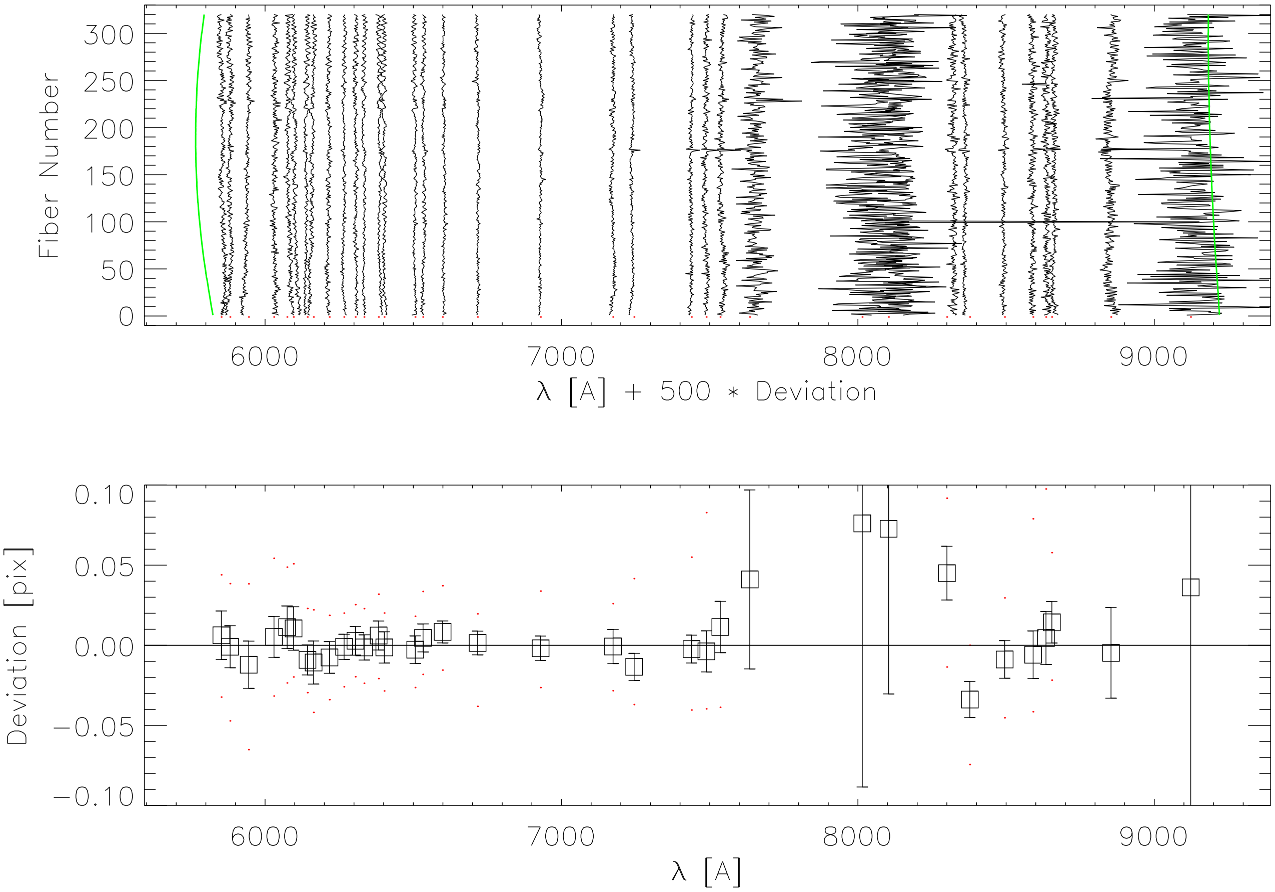

PLATE=3166 MJD=54829 flat extraction chi^2 for sdR-r1-00057607.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
10
12
0
500
1000
1500
2000
Row number


PLATE=3166 MJD=54829 Superflat sdR-r1-00057607.fit
Normalized flux
λ [A]
0.0
0.5
1.0
1.5
2.0
6000
6500
7000
7500
8000
8500
9000


PLATE=3166 MJD=54829 flat extraction chi^2 for sdR-r1-00057610.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
10
12
0
500
1000
1500
2000
Row number


PLATE=3166 MJD=54829 Superflat sdR-r1-00057610.fit
Normalized flux
λ [A]
0.0
0.5
1.0
1.5
2.0
6000
6500
7000
7500
8000
8500
9000

PLATE=3166 MJD=54829 Arcline Fit for sdR-r1-00057608.fit



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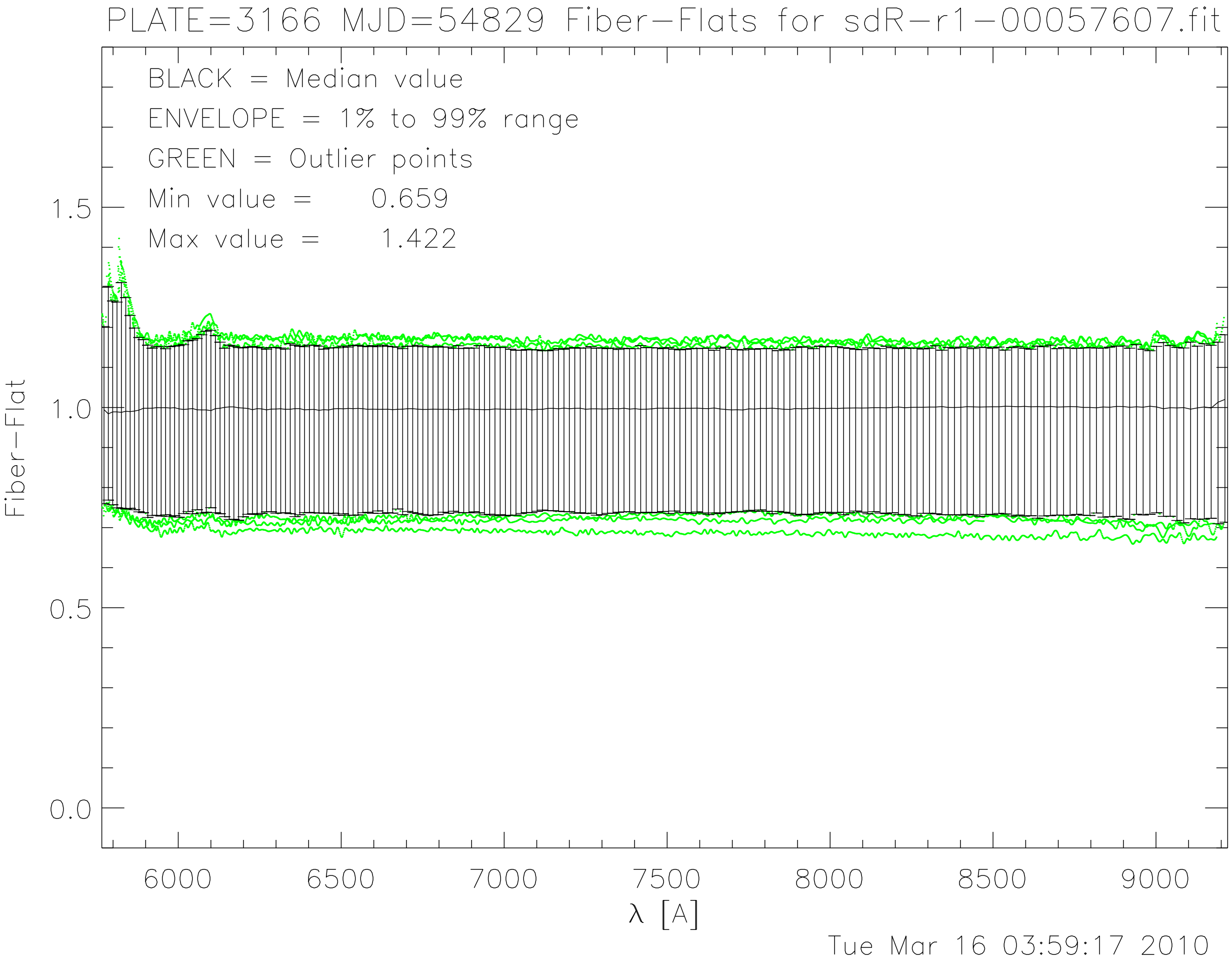
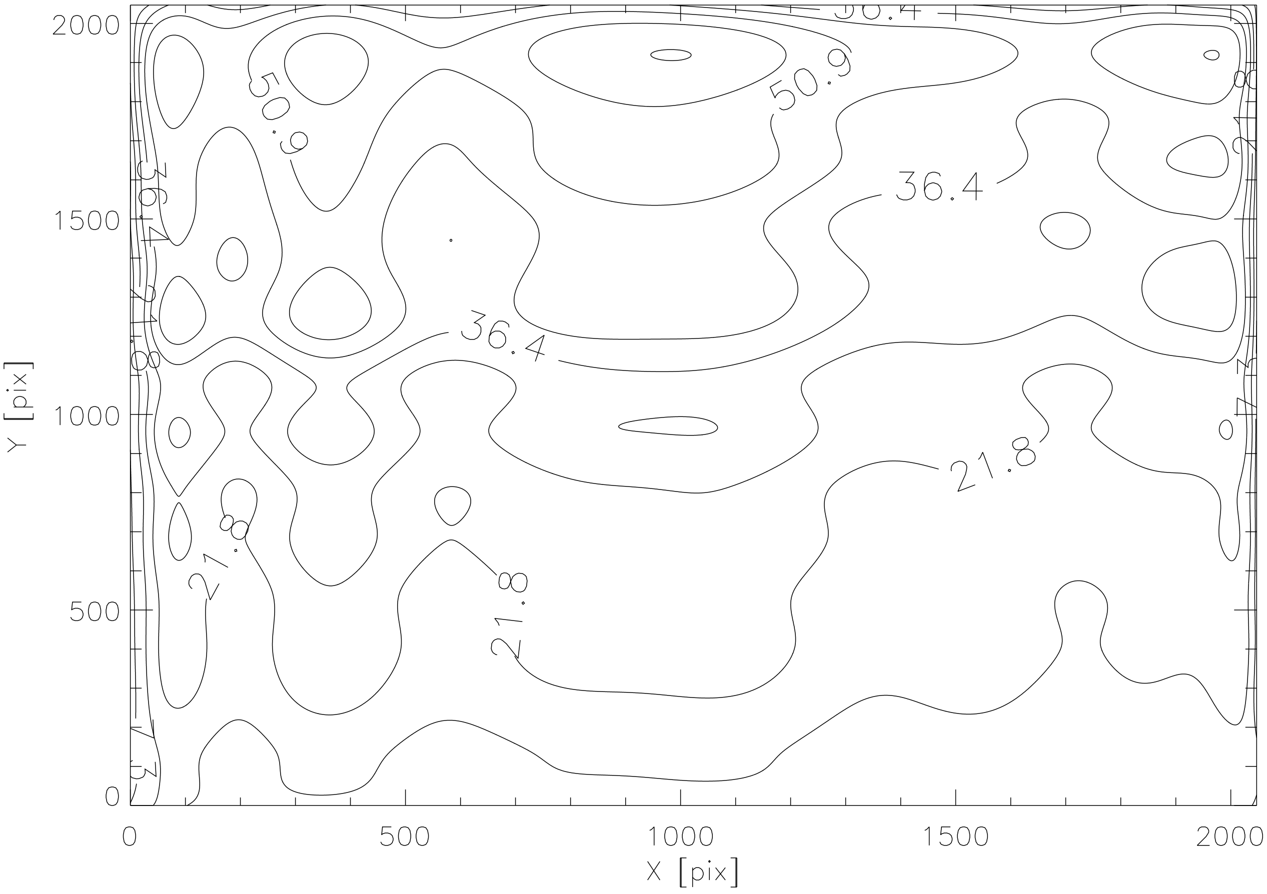
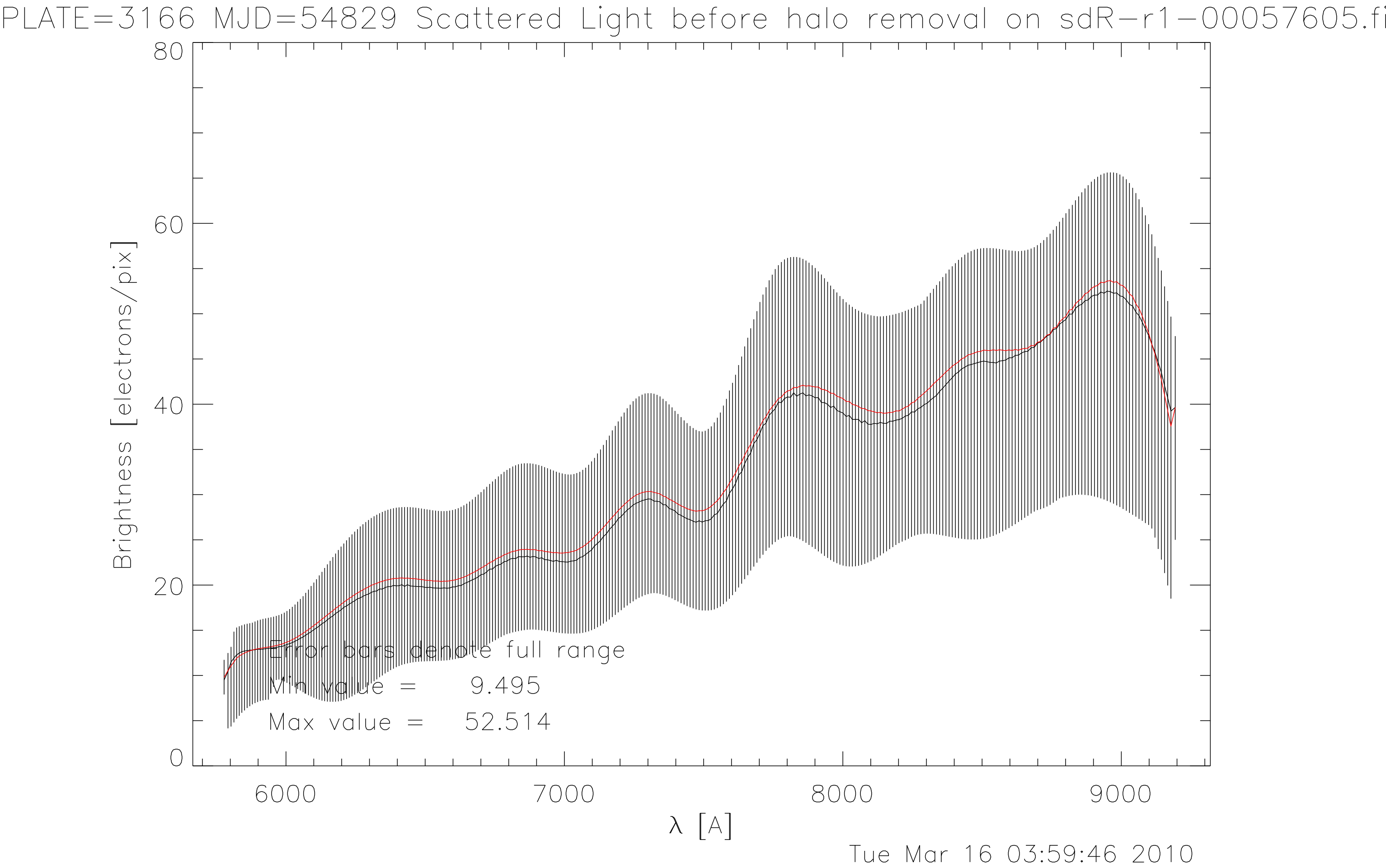
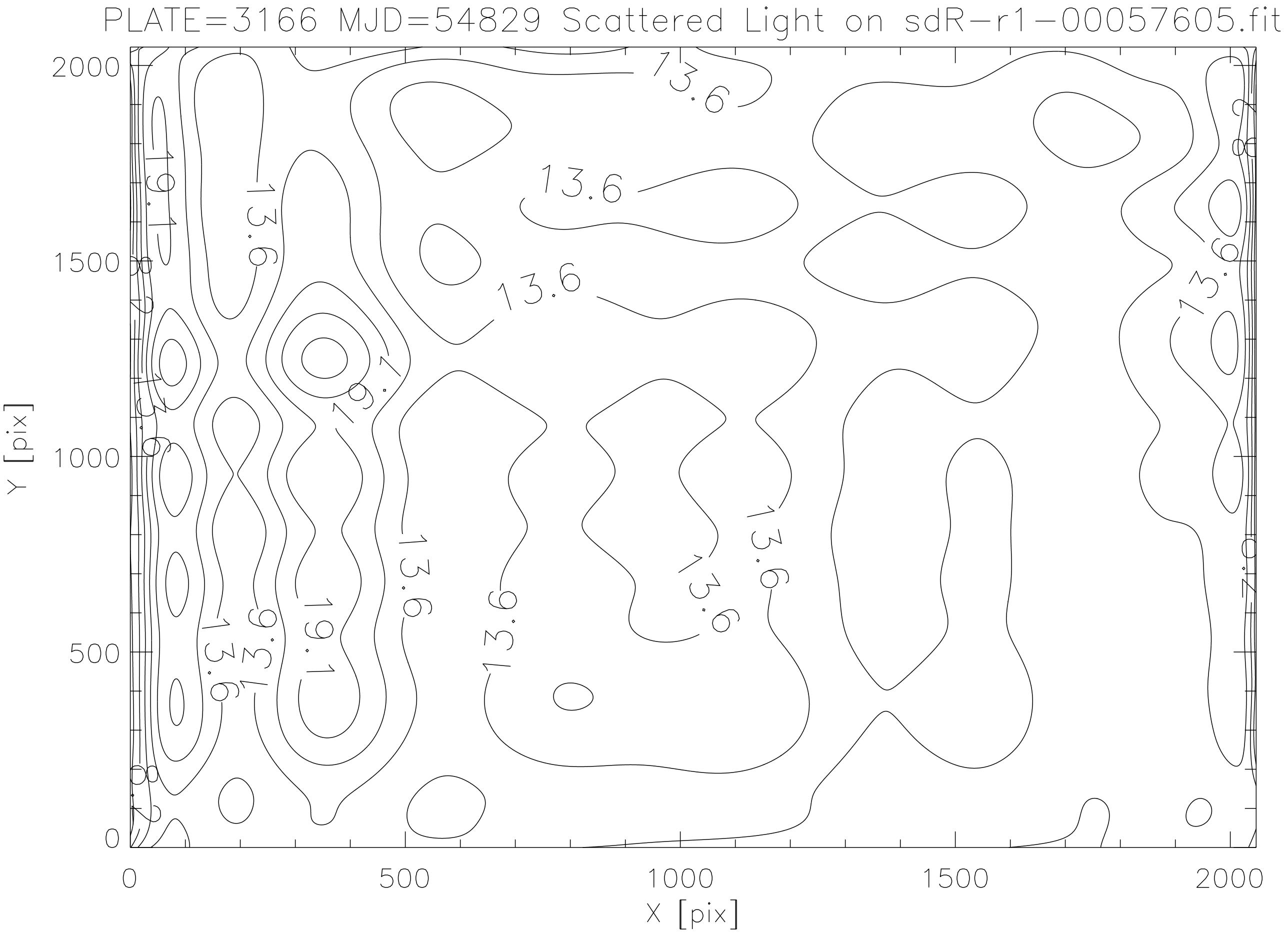
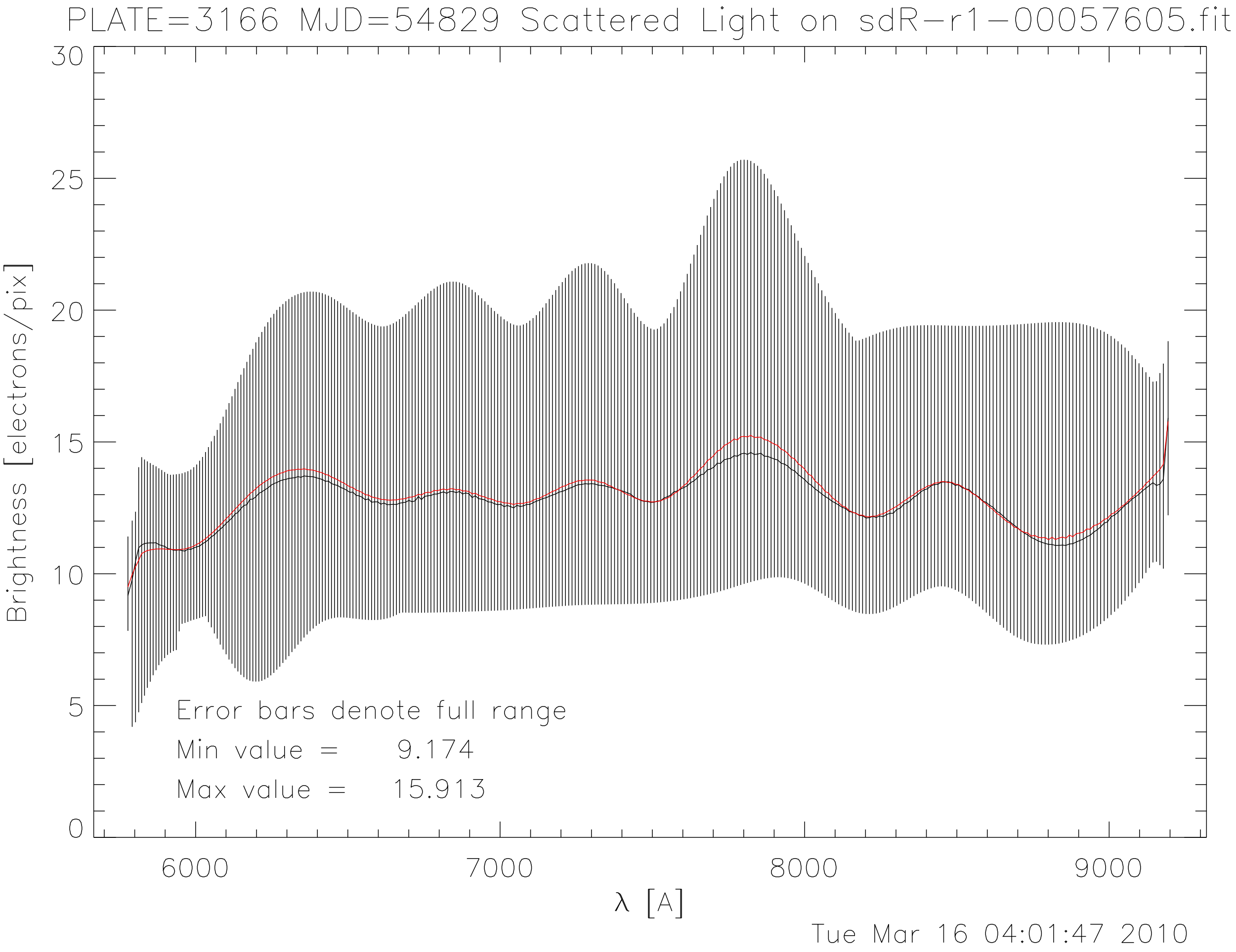
PLATE=3166 MJD=54829 Fiber-Flats for sdR-r1-00057607.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.659
Max value = 1.422
Fiber-Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Tue Mar 16 03:59:17 2010

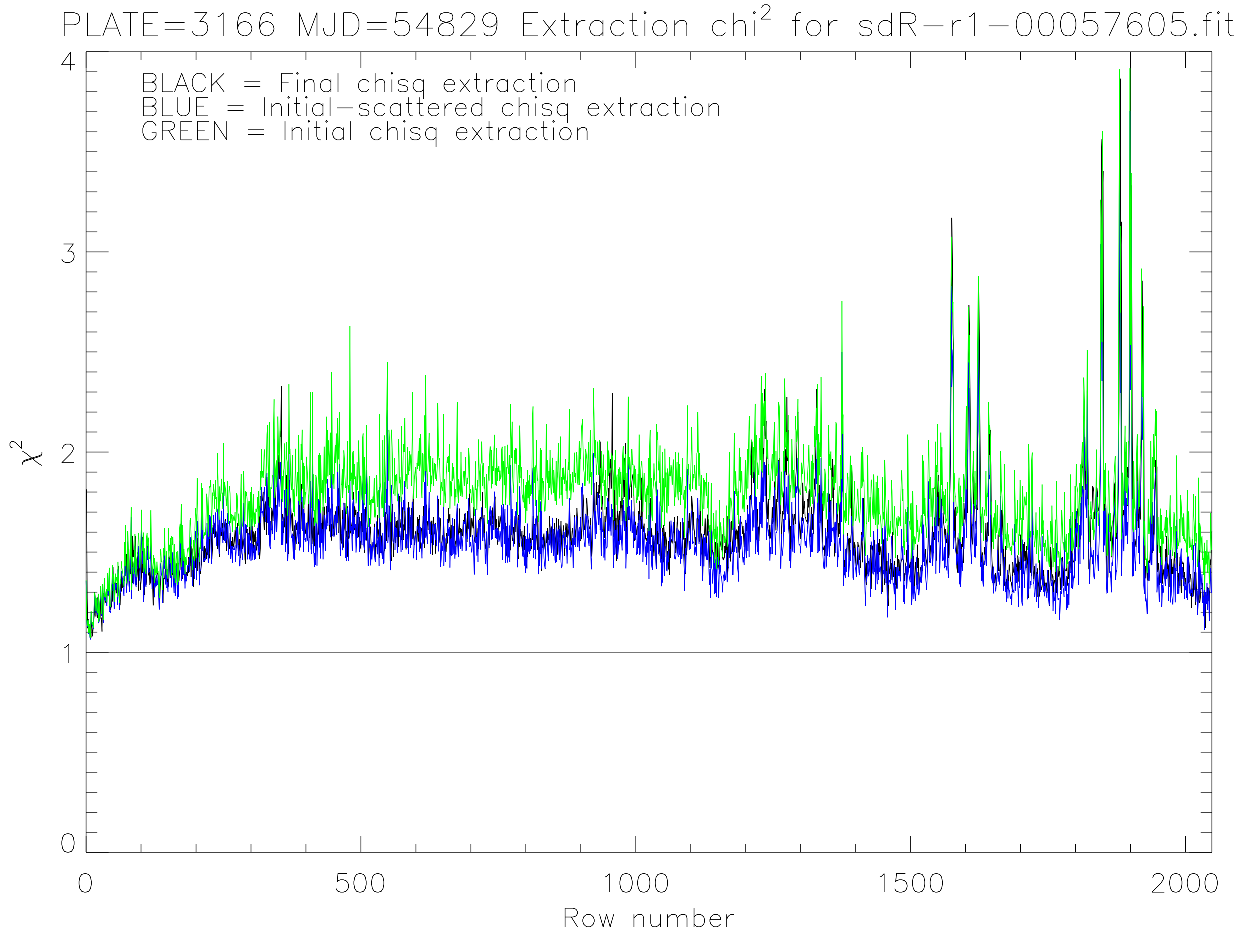


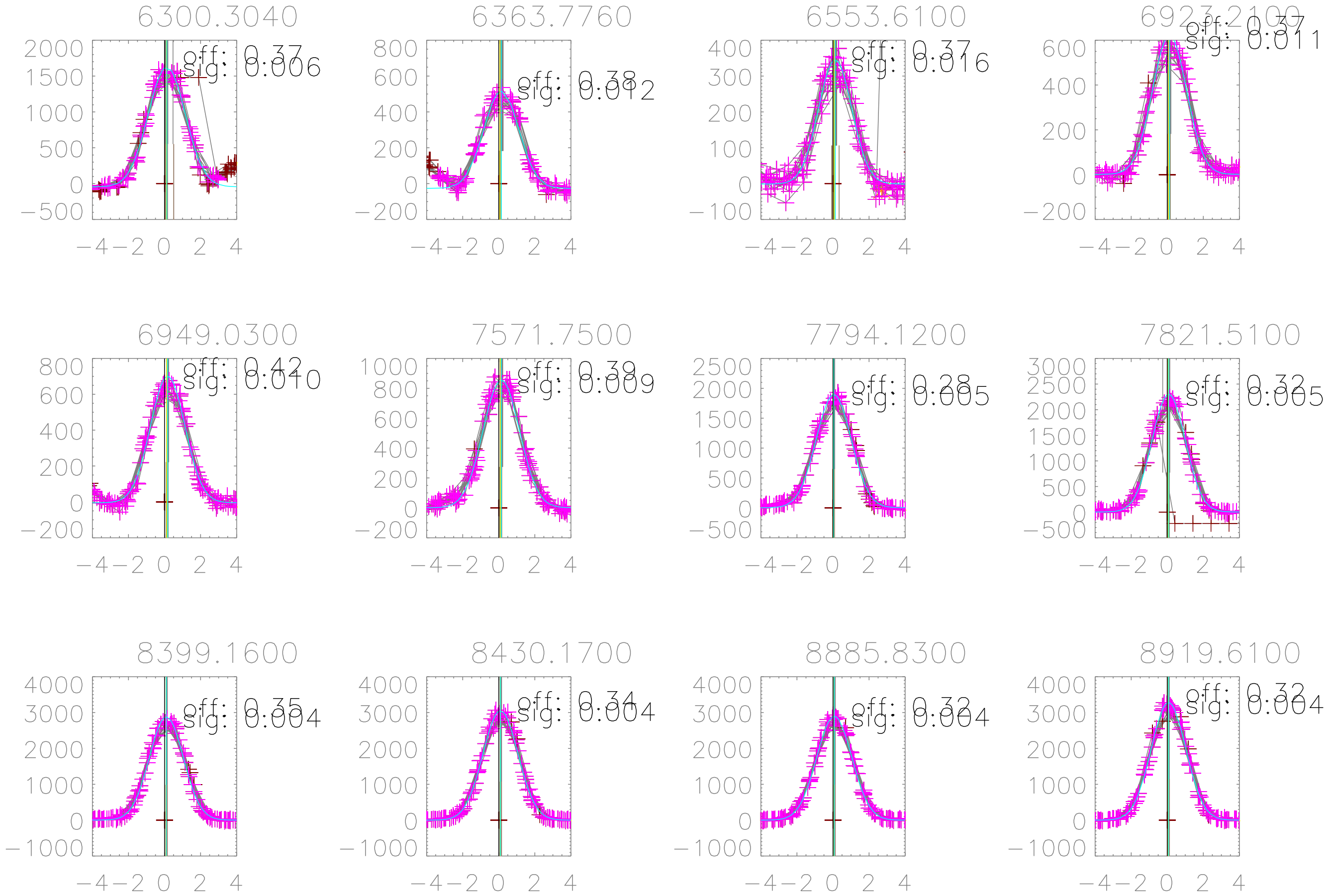
PLATE=3166 MJD=54829 Scattered Light before halo removal on sdR-r1-00057605.fi

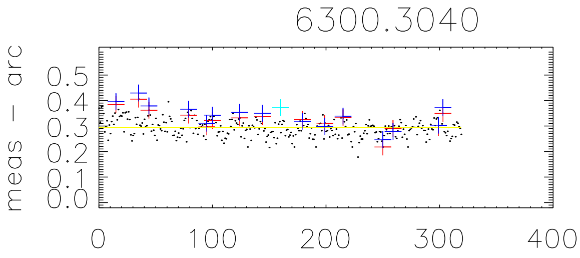

PLATE=3166 MJD=54829 Scattered Light before halo removal on sdR-r1-00057605.fi
Brightness [electrons/pix]
0
20
40
60
80
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 9.495
Max value = 52.514
Tue Mar 16 03:59:46 2010

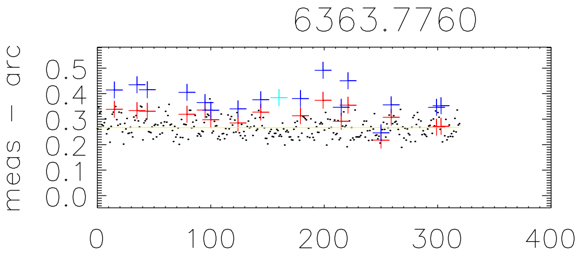

PLATE=3166 MJD=54829 Scattered Light on sdR-r1-00057605.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
0
500
1000
1500
2000
13.6
13.6
13.6
13.6
13.6
13.6
13.6
13.6
13.6
13.6
13.6
13.6
19.1
19.1
19.1
8.2
8.2
8.2
8.2

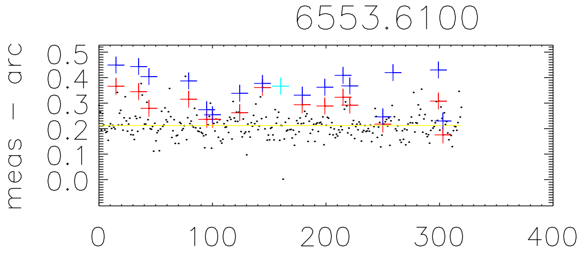

PLATE=3166 MJD=54829 Scattered Light on sdR-r1-00057605.fit
Brightness [electrons/pix]
0
5
10
15
20
25
30
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 9.174
Max value = 15.913
Tue Mar 16 04:01:47 2010

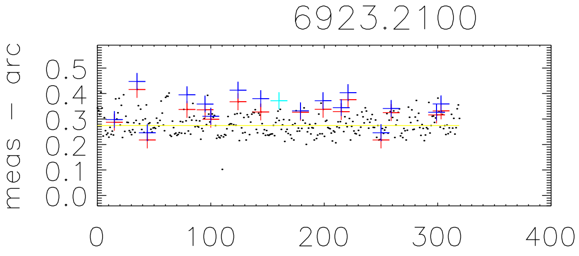

PLATE=3166 MJD=54829 Extraction chi^2 for sdR-r1-00057605.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
0
500
1000
1500
2000
Row number

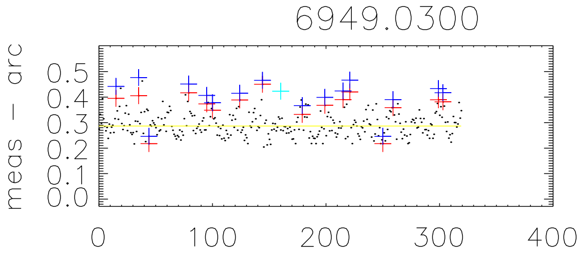

6300.3040
off: 0.37
sig: 0.006
2000
1500
1000
500
0
−500
6363.7760
off: 0.38
sig: 0.012
800
600
400
200
0
−200
6553.6100
off: 0.37
sig: 0.016
400
300
200
100
0
−100
6923.2100
off: 0.37
sig: 0.011
600
400
200
0
−200
6949.0300
off: 0.42
sig: 0.010
800
600
400
200
0
−200
7571.7500
off: 0.39
sig: 0.009
1000
800
600
400
200
0
−200
7794.1200
off: 0.28
sig: 0.005
2500
2000
1500
1000
500
0
−500
7821.5100
off: 0.32
sig: 0.005
3000
2500
2000
1500
1000
500
0
−500
8399.1600
off: 0.35
sig: 0.004
8430.1700
off: 0.34
sig: 0.004
8885.8300
off: 0.32
sig: 0.004
8919.6100
off: 0.32
sig: 0.004
4000
3000
2000
1000
0
−1000
−4
−2
0
2
4

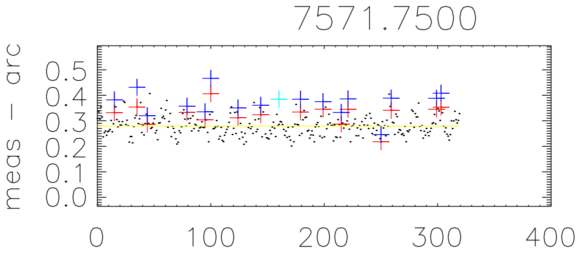

6300.3040
meas - arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400

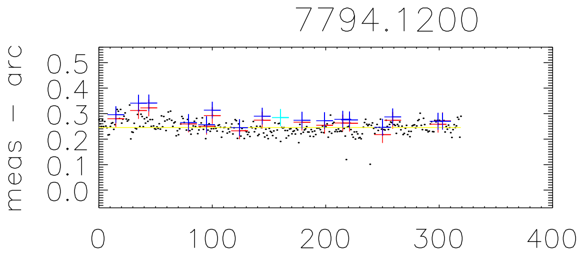

6363.7760
meas - arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400

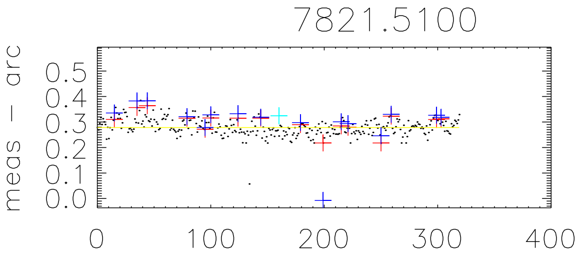

6553.6100
meas - arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400

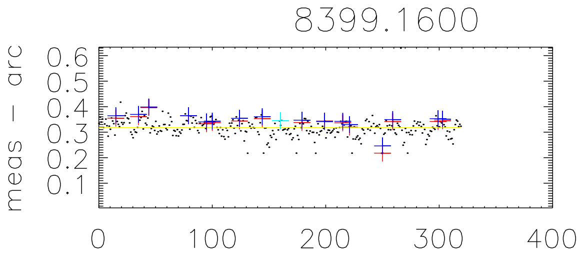

6923.2100
meas - arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400

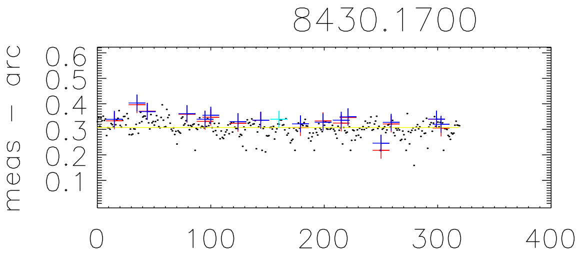

6949.0300
meas - arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400

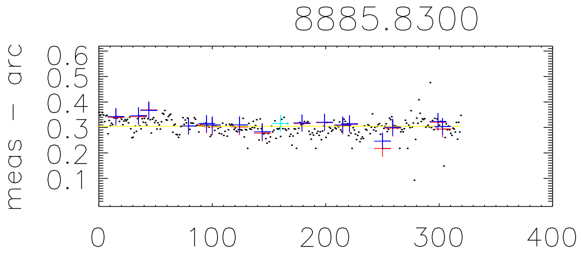

7571.7500
meas - arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400

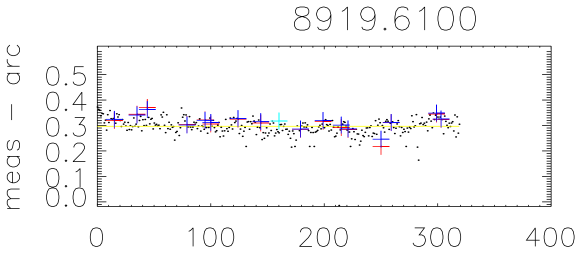

7794.1200
meas - arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400

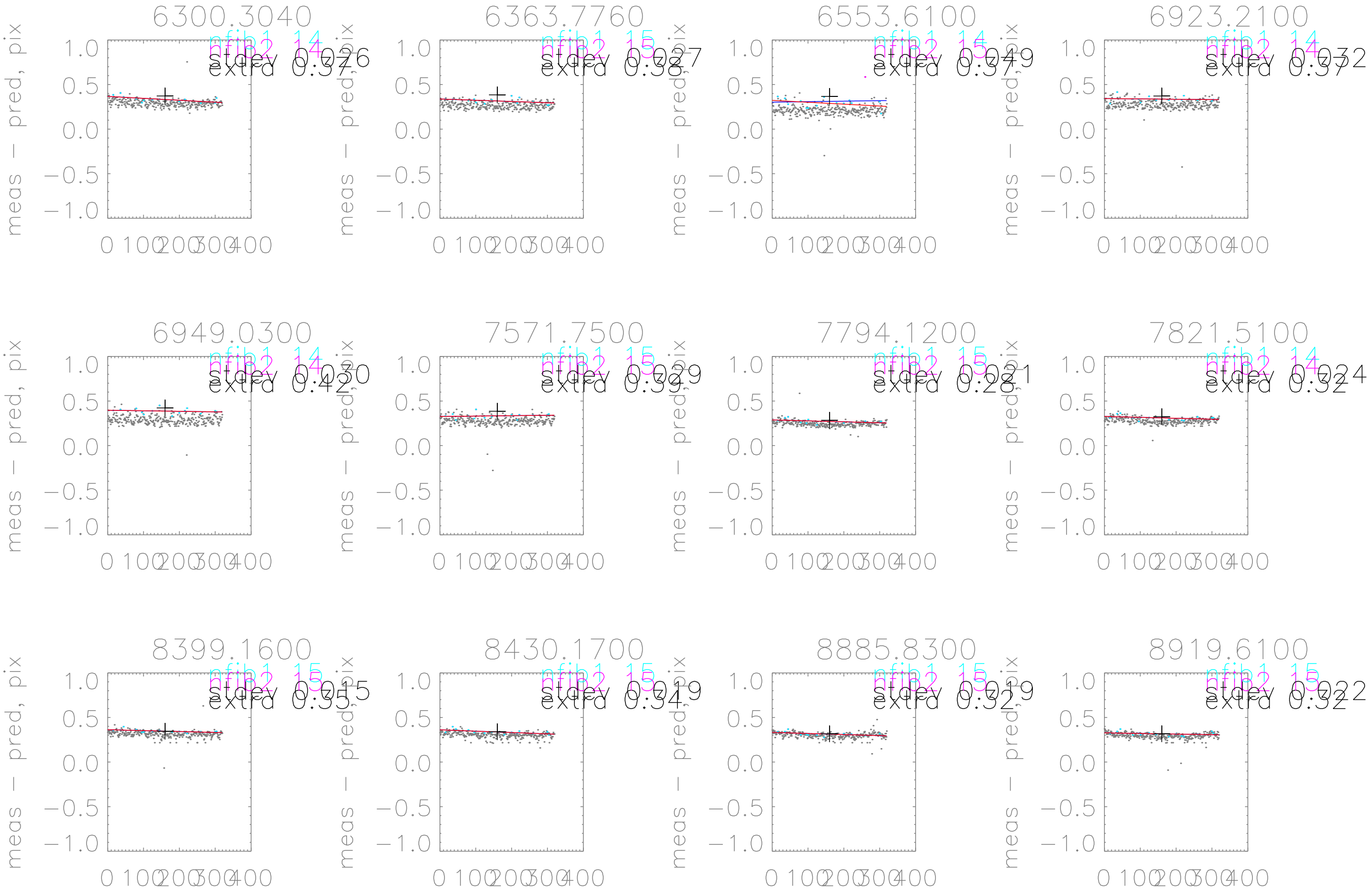

7821.5100
meas - arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400

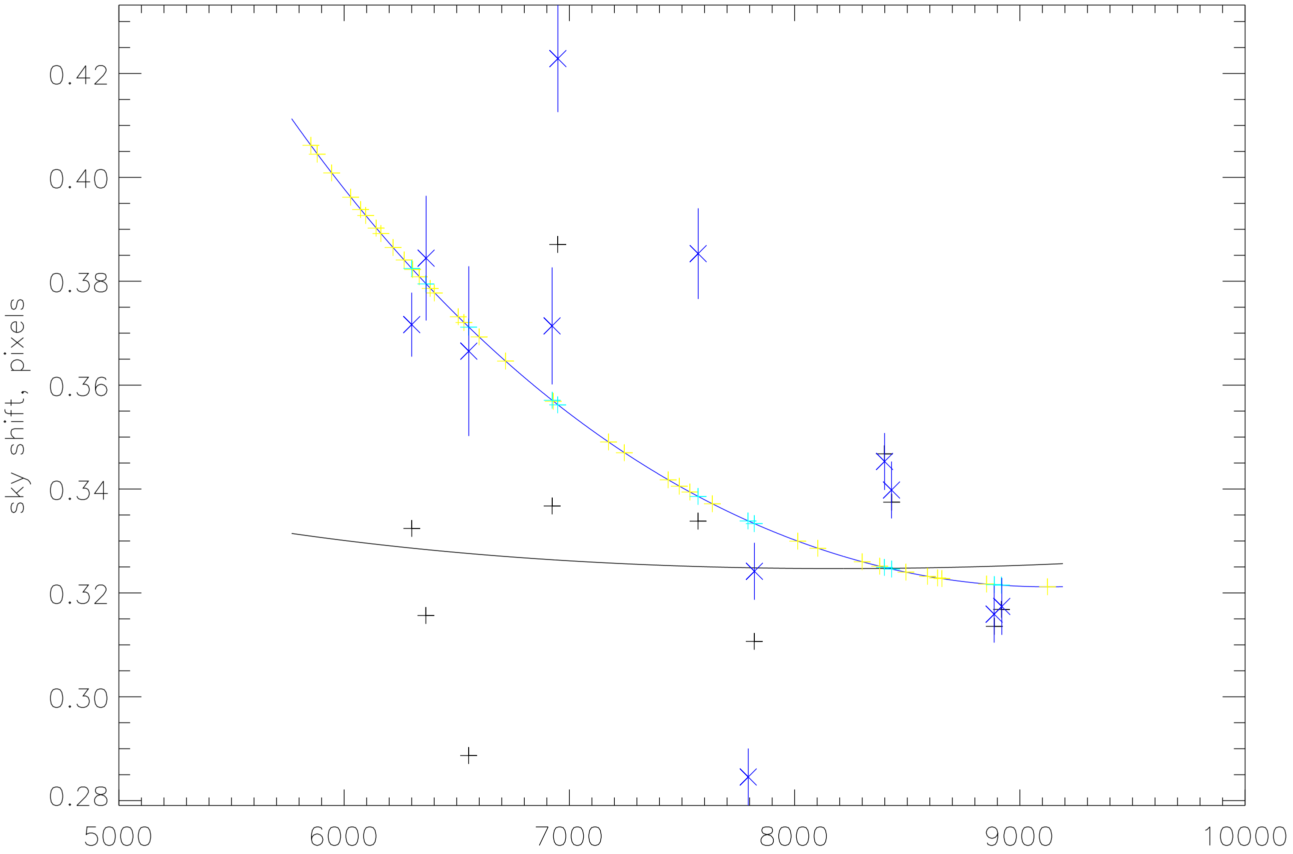

8399.1600
meas - arc
0.1
0.2
0.3
0.4
0.5
0.6
0
100
200
300
400

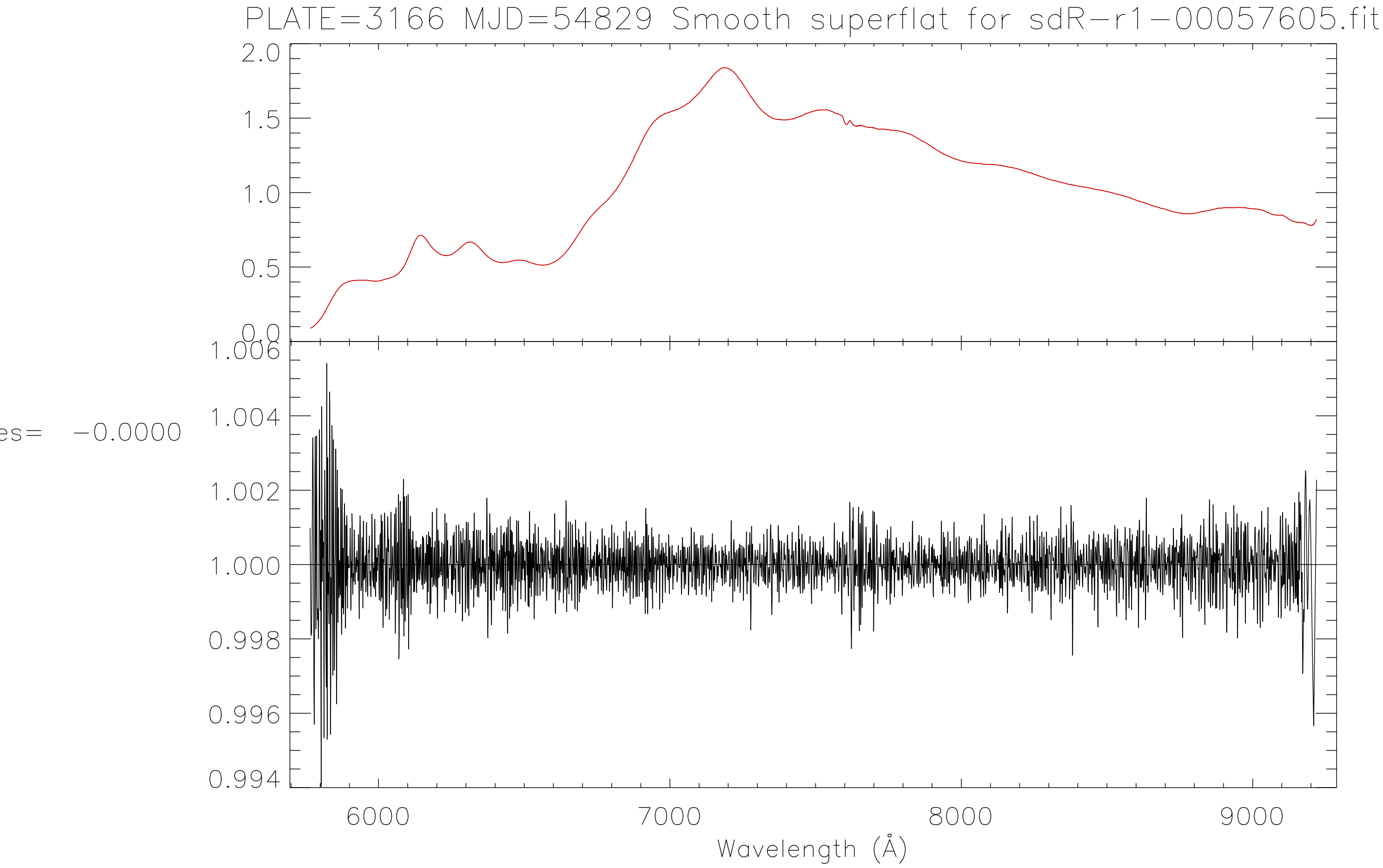

8430.1700
meas - arc
0.1
0.2
0.3
0.4
0.5
0.6
0
100
200
300
400

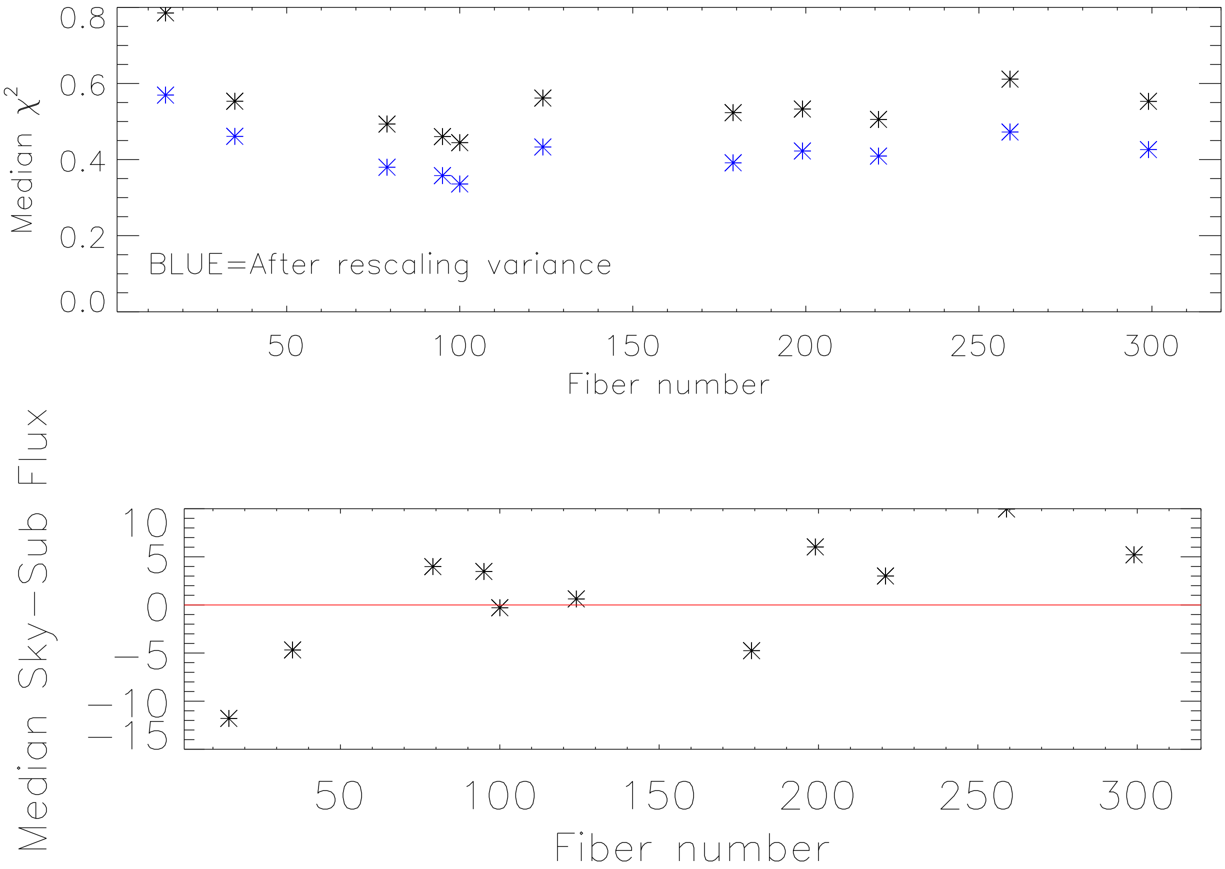

8885.8300
meas - arc
0.1
0.2
0.3
0.4
0.5
0.6
0
100
200
300
400


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

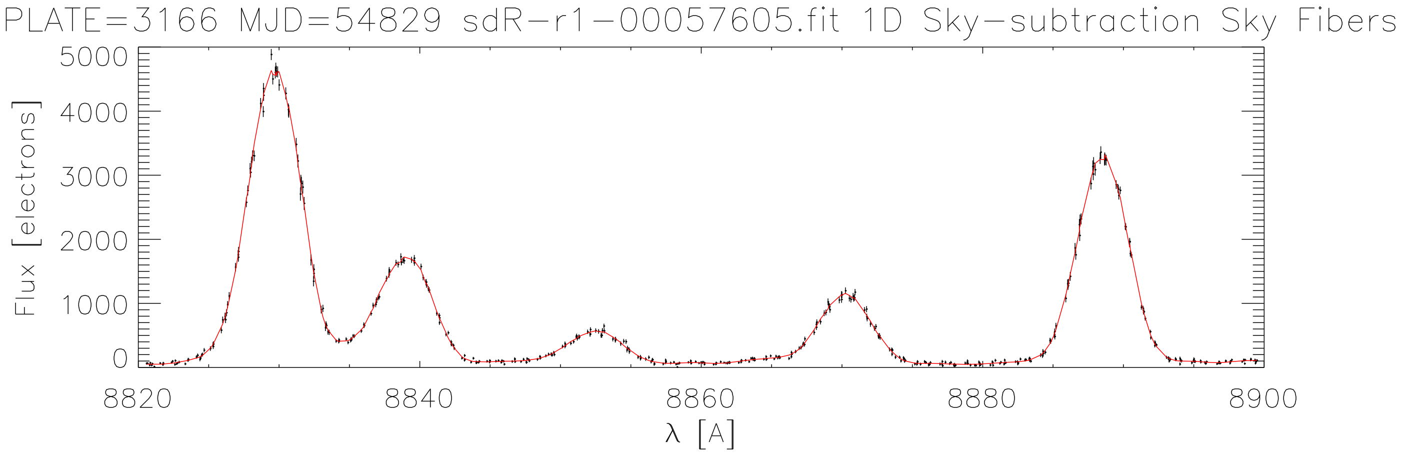

6300.3040
nfib1 14
nfib2 14
stdev 0.026
extrd 0.37
6363.7760
nfib1 15
nfib2 15
stdev 0.027
extrd 0.38
6553.6100
nfib1 14
nfib2 15
stdev 0.049
extrd 0.37
6923.2100
nfib1 14
nfib2 14
stdev 0.032
extrd 0.37
6949.0300
nfib1 14
nfib2 14
stdev 0.030
extrd 0.42
7571.7500
nfib1 15
nfib2 15
stdev 0.029
extrd 0.39
7794.1200
nfib1 15
nfib2 15
stdev 0.021
extrd 0.28
7821.5100
nfib1 14
nfib2 14
stdev 0.024
extrd 0.32
8399.1600
nfib1 15
nfib2 15
stdev 0.015
extrd 0.35
8430.1700
nfib1 15
nfib2 15
stdev 0.019
extrd 0.34
8885.8300
nfib1 15
nfib2 15
stdev 0.019
extrd 0.32
8919.6100
nfib1 15
nfib2 15
stdev 0.022
extrd 0.32
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

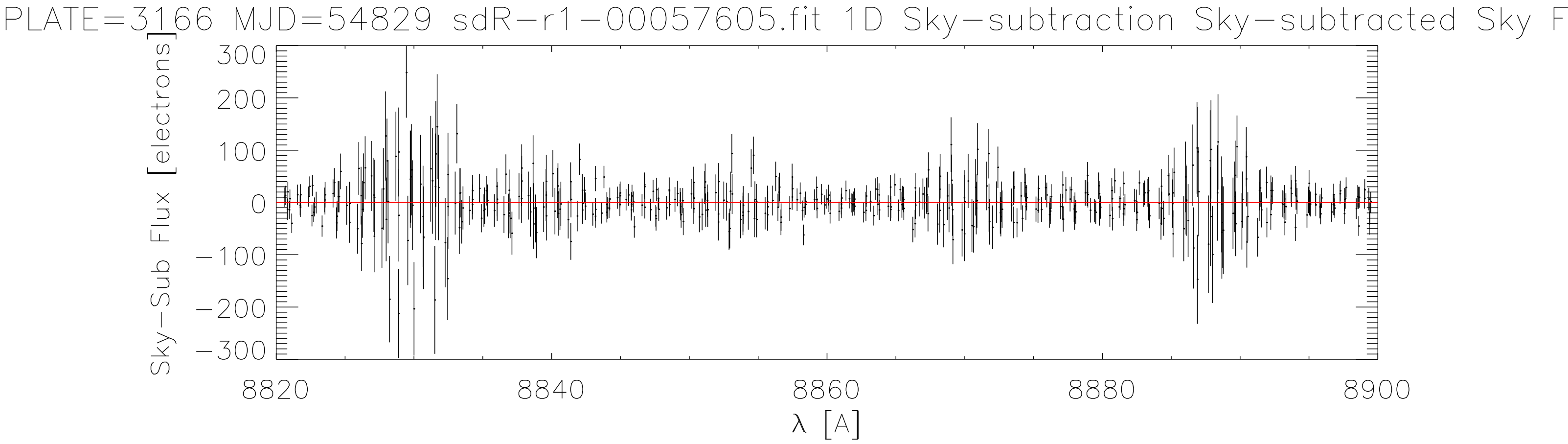

sky shift, pixels
0.28
0.30
0.32
0.34
0.36
0.38
0.40
0.42
5000
6000
7000
8000
9000
10000

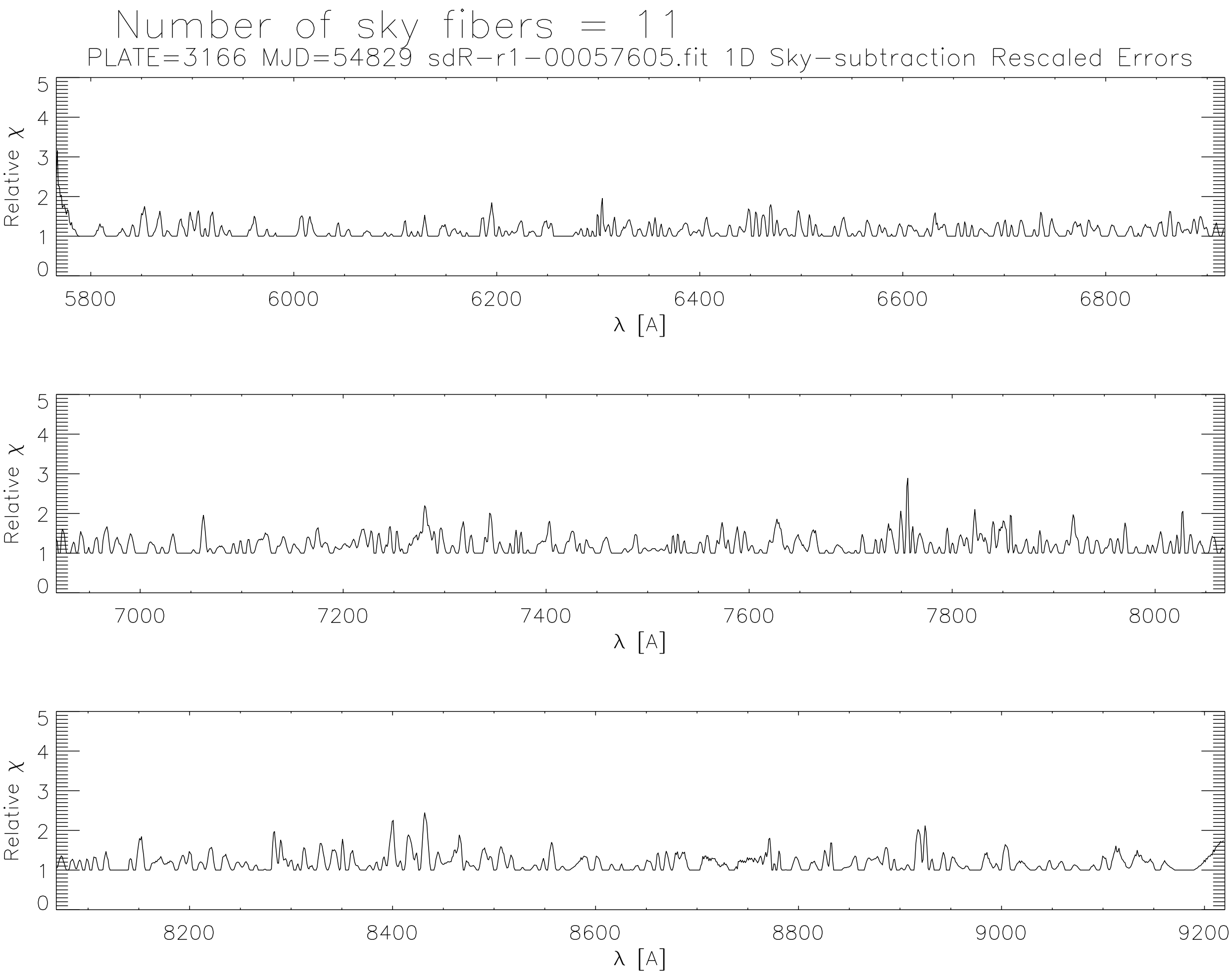

PLATE=3166 MJD=54829 Smooth superflat for sdR-r1-00057605.fit
2.0
1.5
1.0
0.5
0.0
1.006
1.004
1.002
1.000
0.998
0.996
0.994
es= -0.0000
6000
7000
8000
9000
Wavelength (Å)

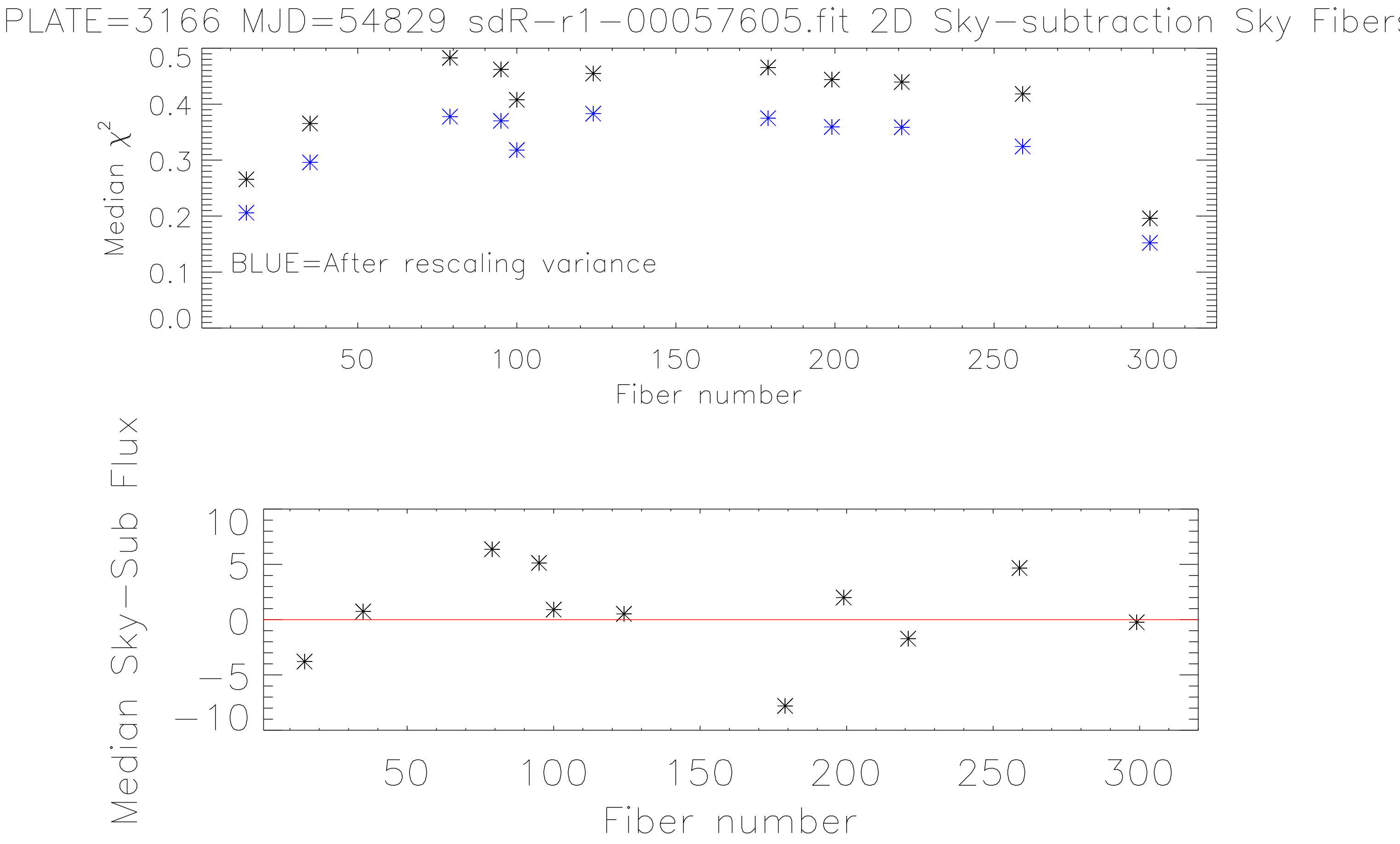


PLATE=3166 MJD=54829 sdR-r1-00057605.fit 1D Sky-subtraction Sky Fiber

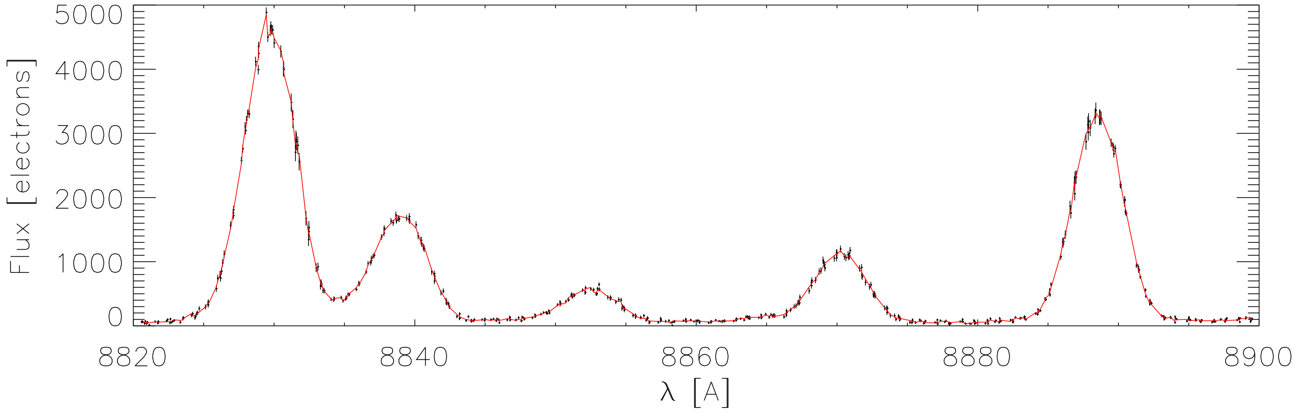

PLATE=3166 MJD=54829 sdR-r1-00057605.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]


PLATE=3166 MJD=54829 sdR-r1-00057605.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
−100
−200
−300
8820
8840
8860
8880
8900
λ [A]

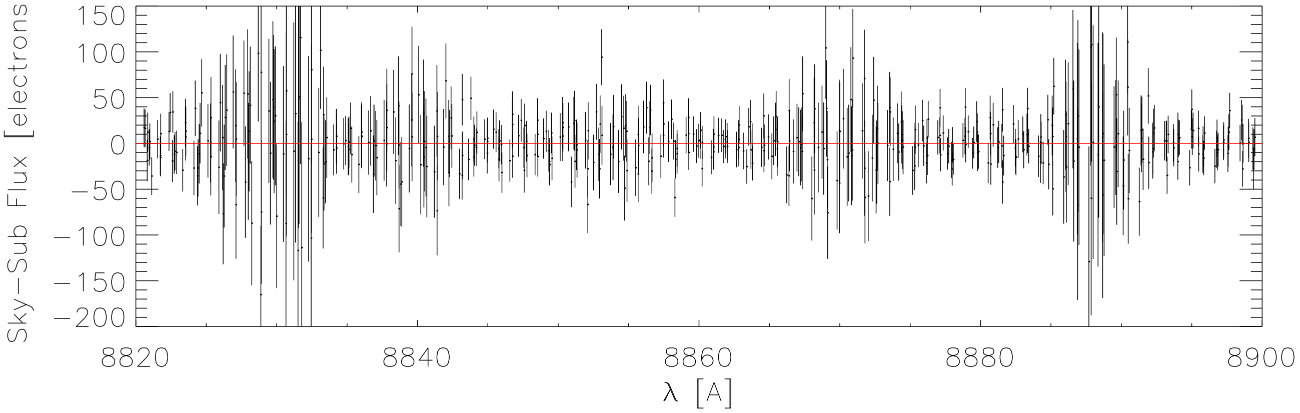

Number of sky fibers = 11
PLATE=3166 MJD=54829 sdR-r1-00057605.fit 1D Sky-subtraction Rescaled Errors
Relative χ
0
1
2
3
4
5
5800
6000
6200
6400
6600
6800
λ [A]
Relative χ
0
1
2
3
4
5
7000
7200
7400
7600
7800
8000
λ [A]
Relative χ
0
1
2
3
4
5
8200
8400
8600
8800
9000
9200
λ [A]


PLATE=3166 MJD=54829 sdR-r1-00057605.fit 2D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
−5
−10
50
100
150
200
250
300
Fiber number

PLATE=3166 MJD=54829 sdR-r1-00057605.fit 2D Sky-subtraction Sky Fibers

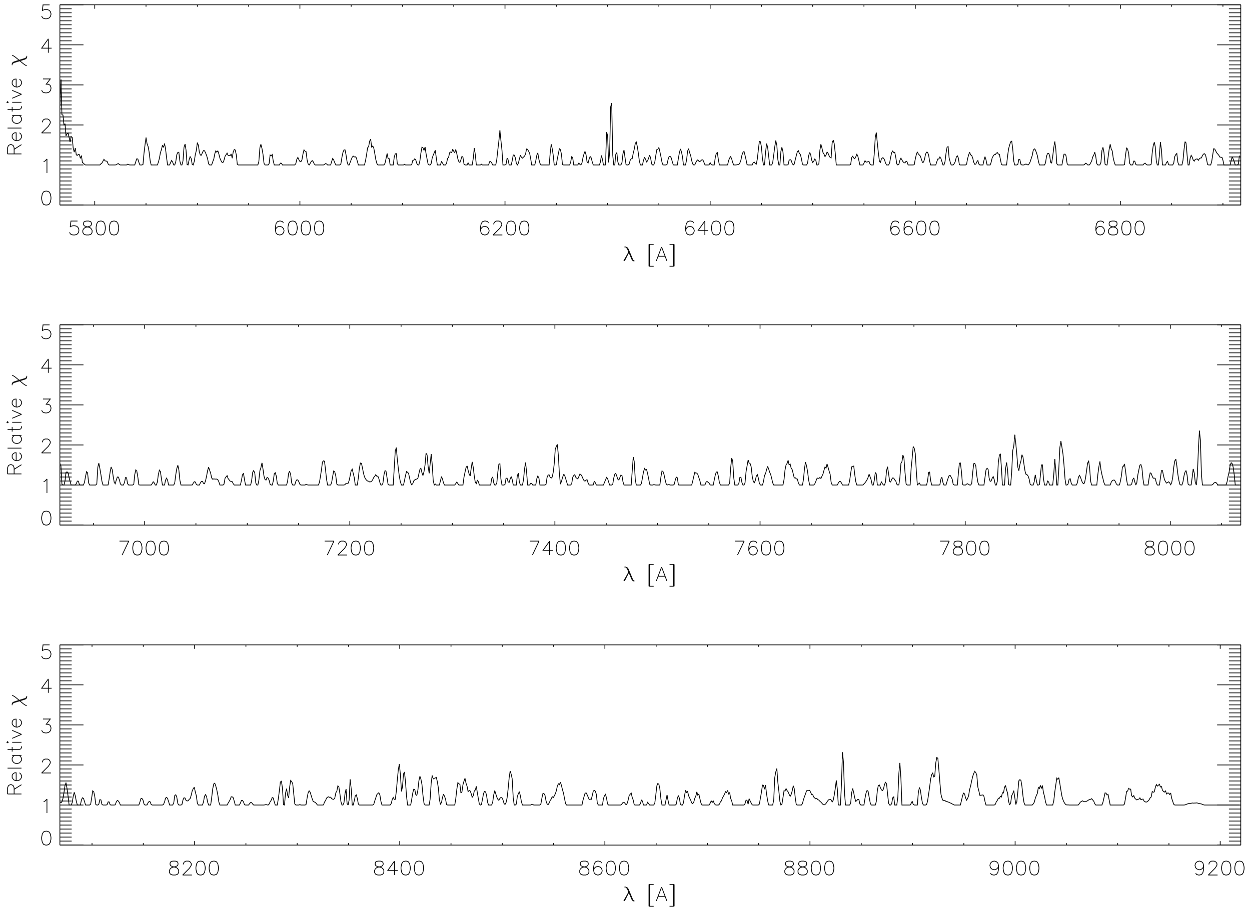


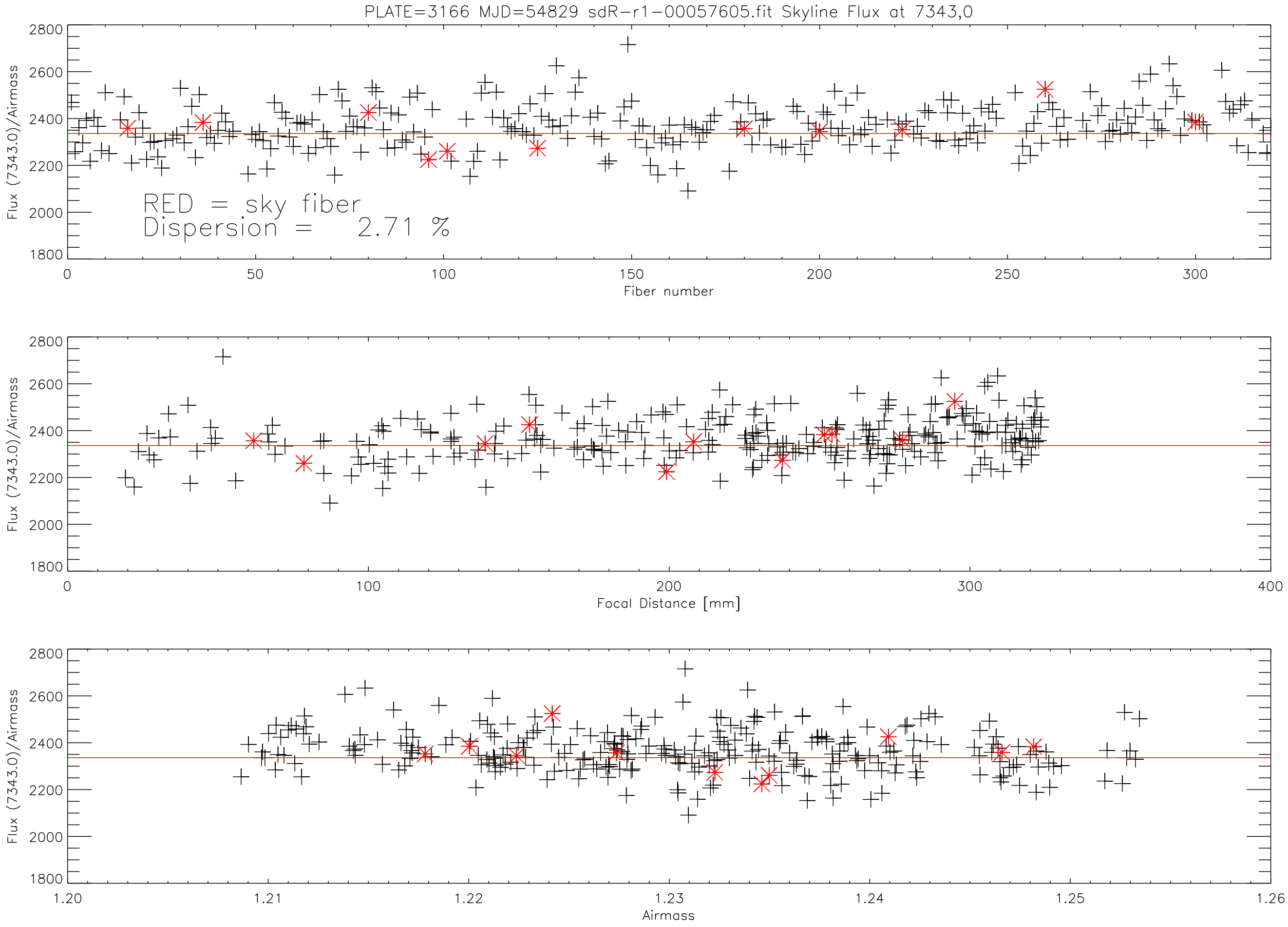
PLATE=3166 MJD=54829 sdR-r1-00057605.fit 2D Sky-subtraction Sky-subtracted Sky F

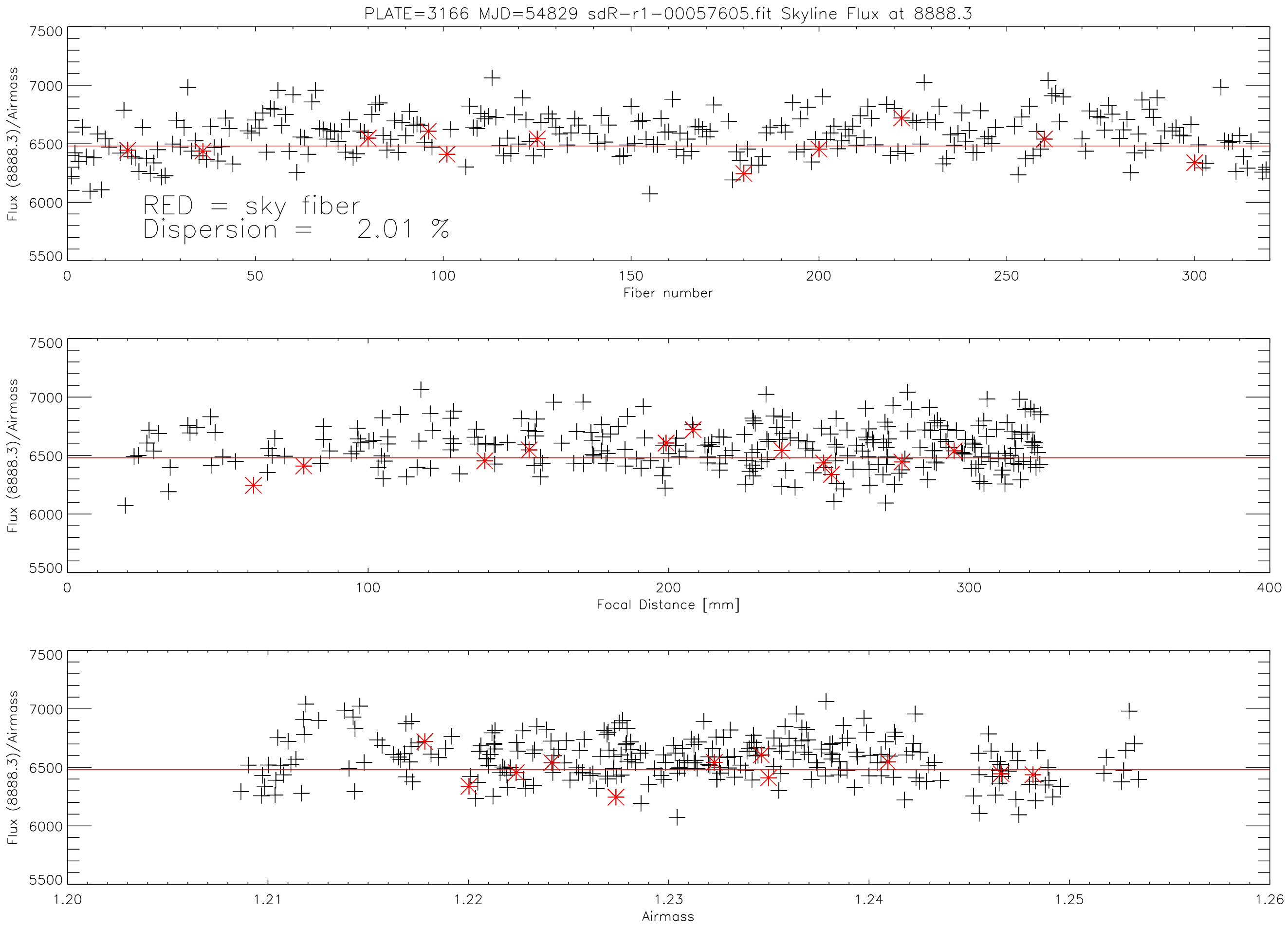


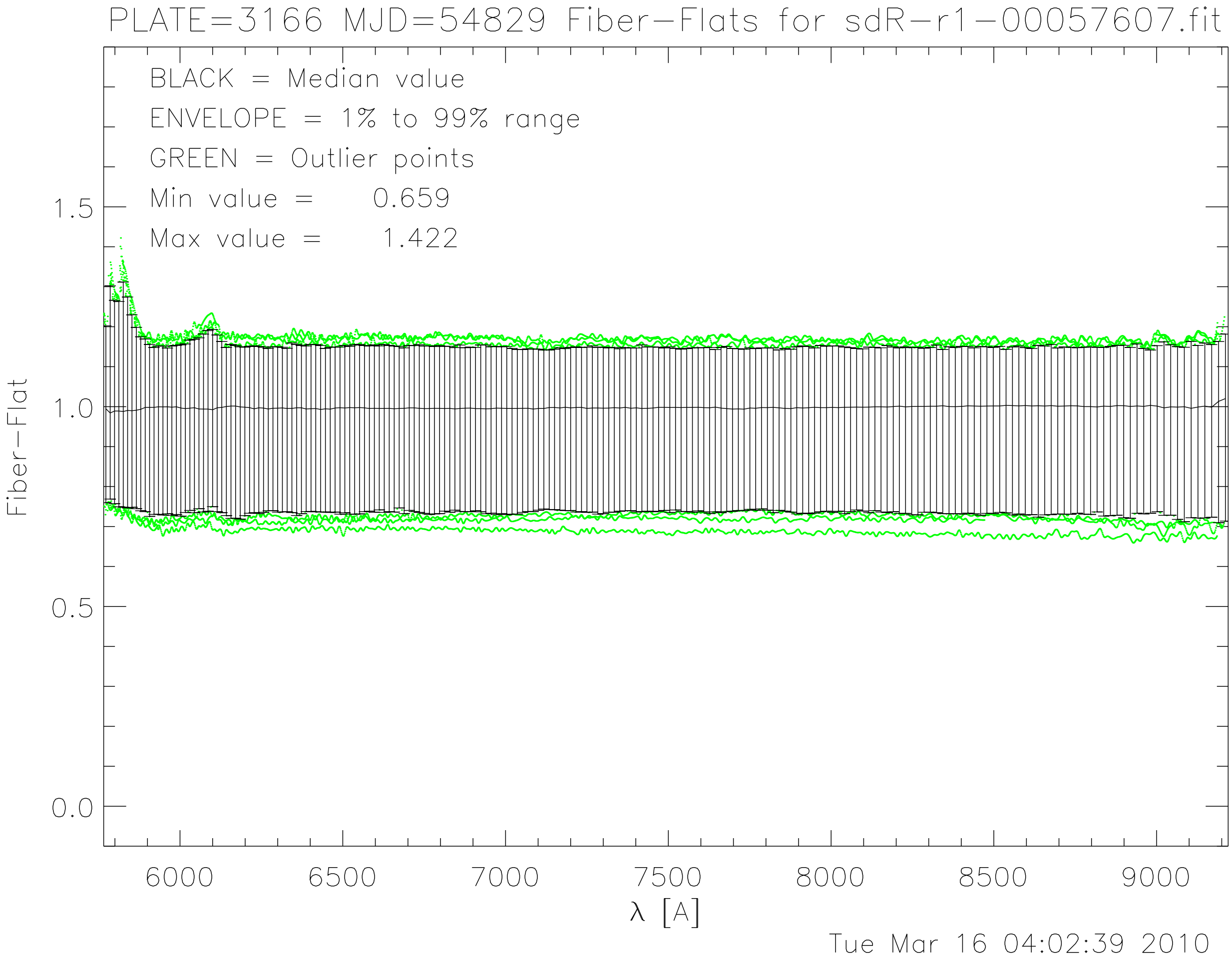
Number of sky fibers = 11

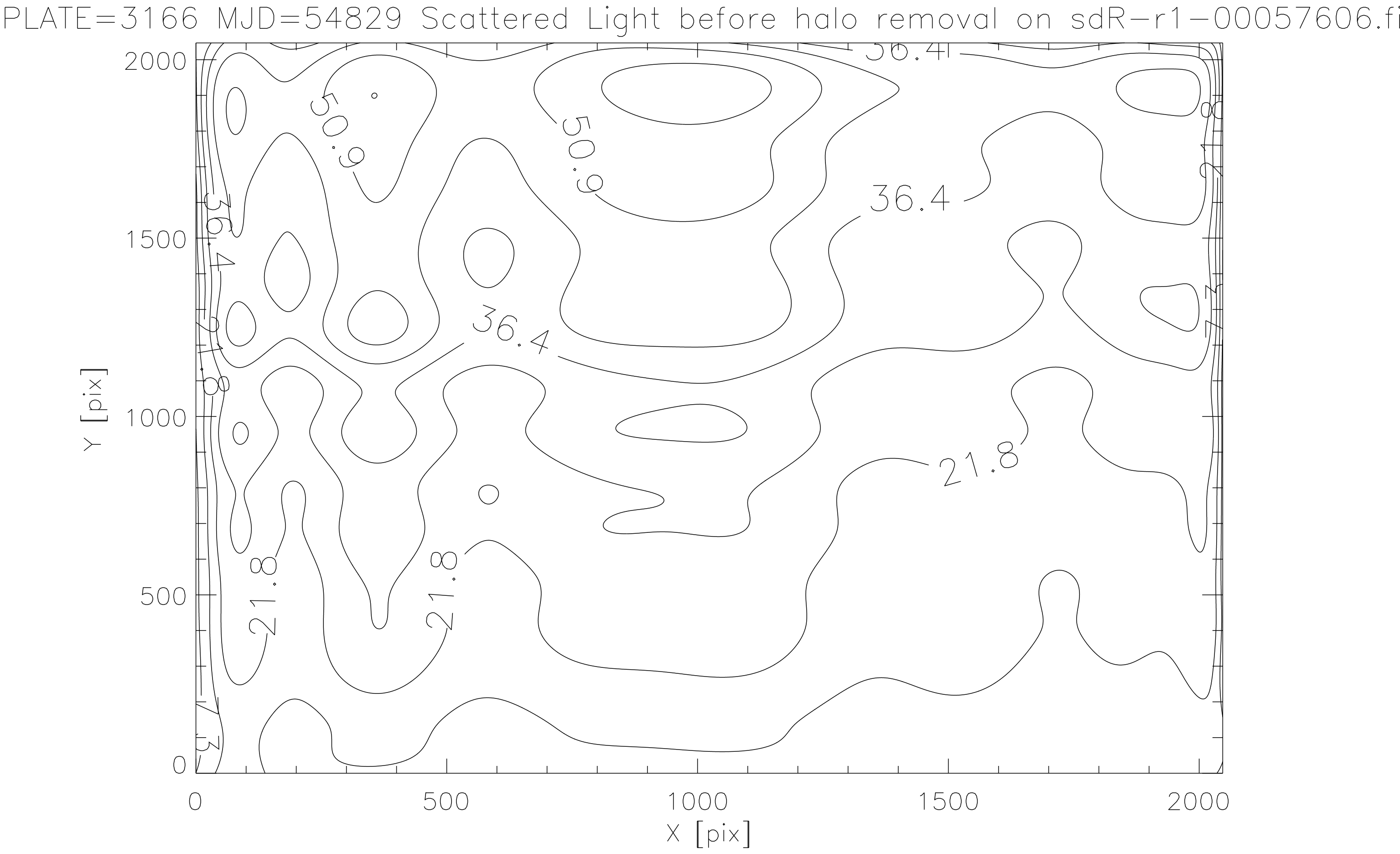
PLATE=3166 MJD=54829 sdR-r1-00057605.fit 2D Sky-subtraction Rescaled Errors

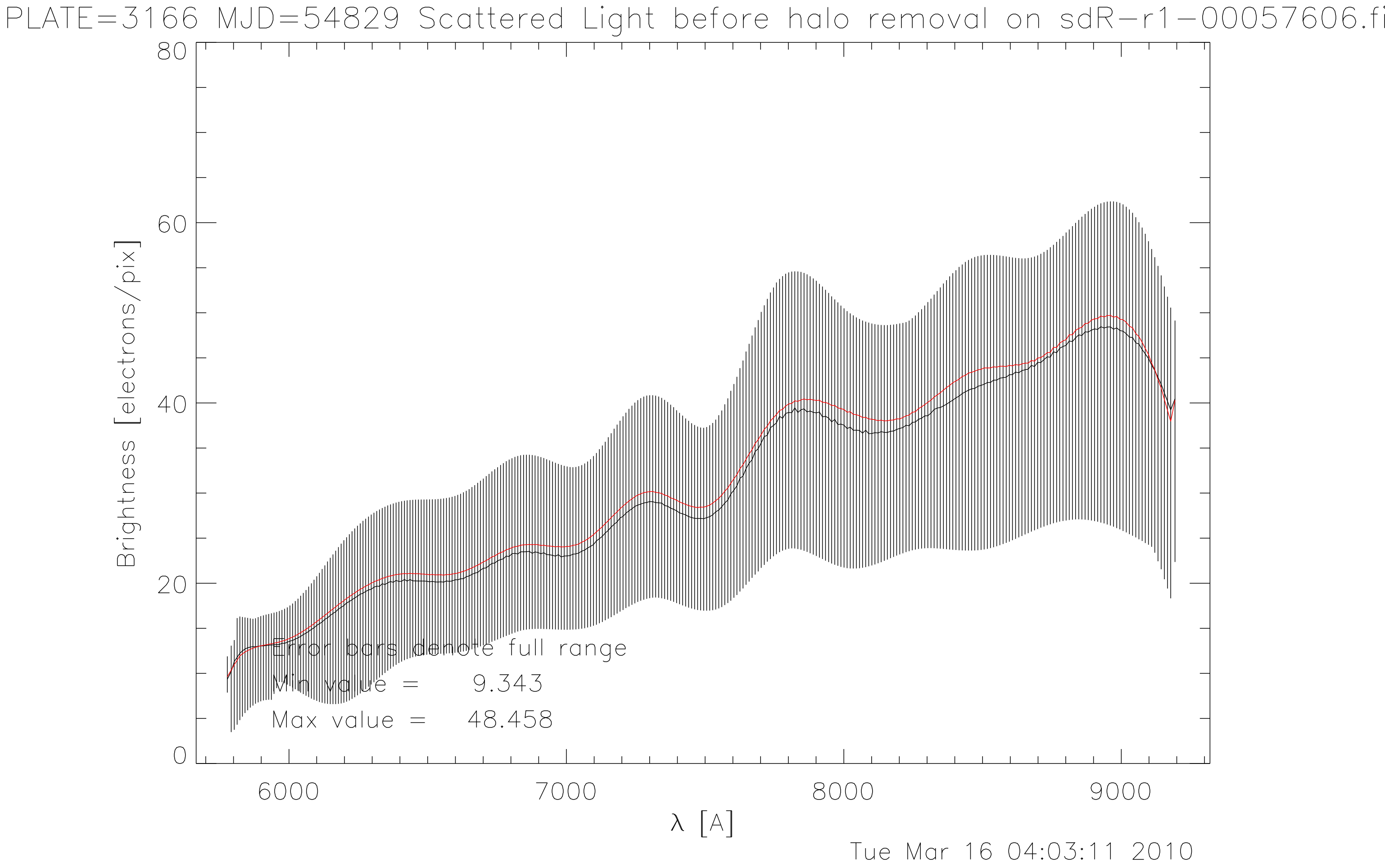



PLATE=3166 MJD=54829 sdR-r1-00057605.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
1800
2000
2200
2400
2600
2800
RED = sky fiber
Dispersion = 2.71 %
0
50
100
150
200
250
300
Fiber number
Flux (7343.0)/Airmass
0
100
200
300
400
Focal Distance [mm]
Flux (7343.0)/Airmass
1.20
1.21
1.22
1.23
1.24
1.25
1.26
Airmass


PLATE=3166 MJD=54829 sdR-r1-00057605.fit Skyline Flux at 8888.3
RED = sky fiber
Dispersion = 2.01 %
Flux (8888.3)/Airmass
7500
7000
6500
6000
5500
0
50
100
150
200
250
300
Fiber number
Flux (8888.3)/Airmass
7500
7000
6500
6000
5500
0
100
200
300
400
Focal Distance [mm]
Flux (8888.3)/Airmass
7500
7000
6500
6000
5500
1.20
1.21
1.22
1.23
1.24
1.25
1.26
Airmass


PLATE=3166 MJD=54829 Fiber−Flats for sdR−r1−00057607.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.659
Max value = 1.422
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Tue Mar 16 04:02:39 2010


PLATE=3166 MJD=54829 Scattered Light before halo removal on sdR-r1-00057606.fi
Y [pix]
X [pix]
0
500
1000
1500
2000
50.9
50.9
36.4
36.4
36.4
36.4
21.8
21.8
21.8
21.8
21.8
21.8
7.3
7.3



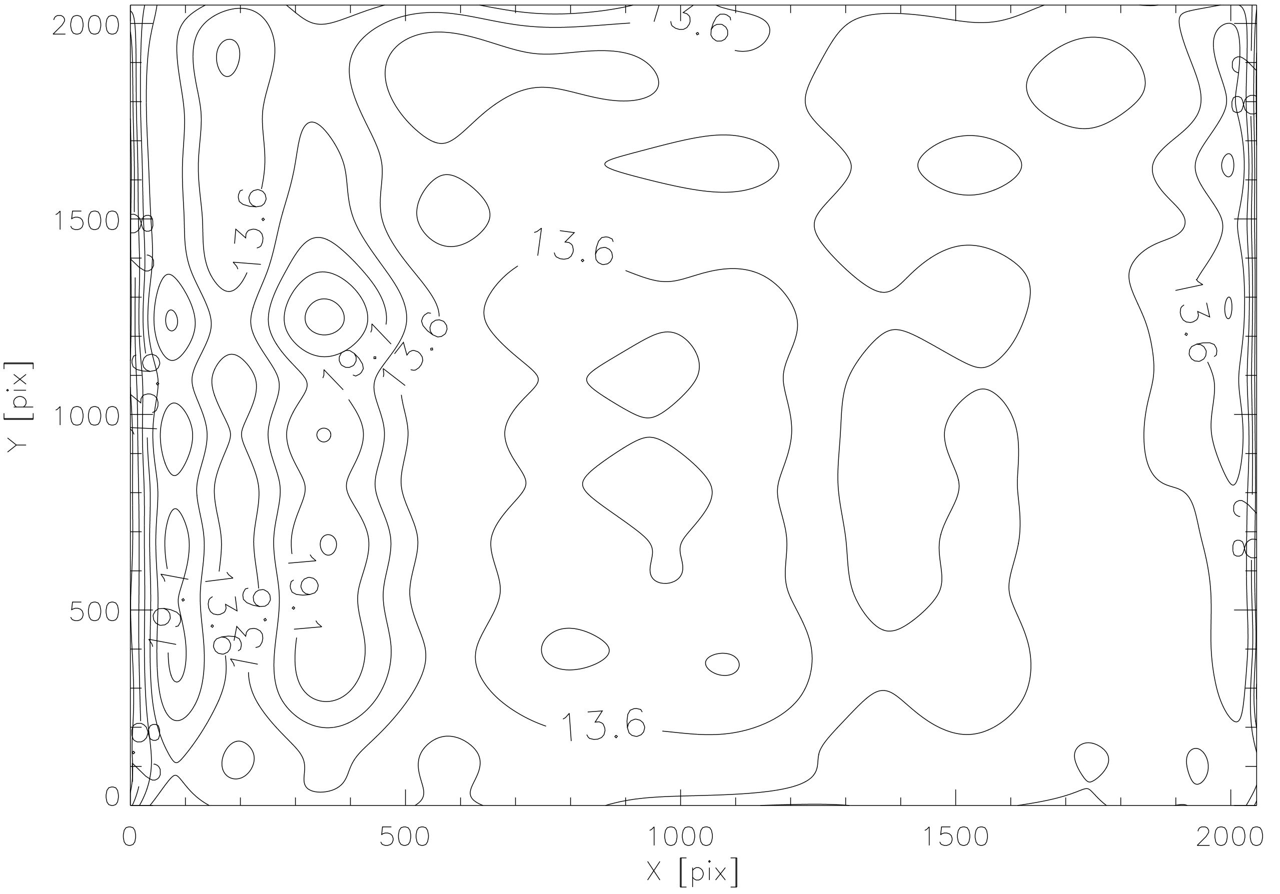
PLATE=3166 MJD=54829 Scattered Light before halo removal on sdR-r1-00057606.fi

Error bars denote full range

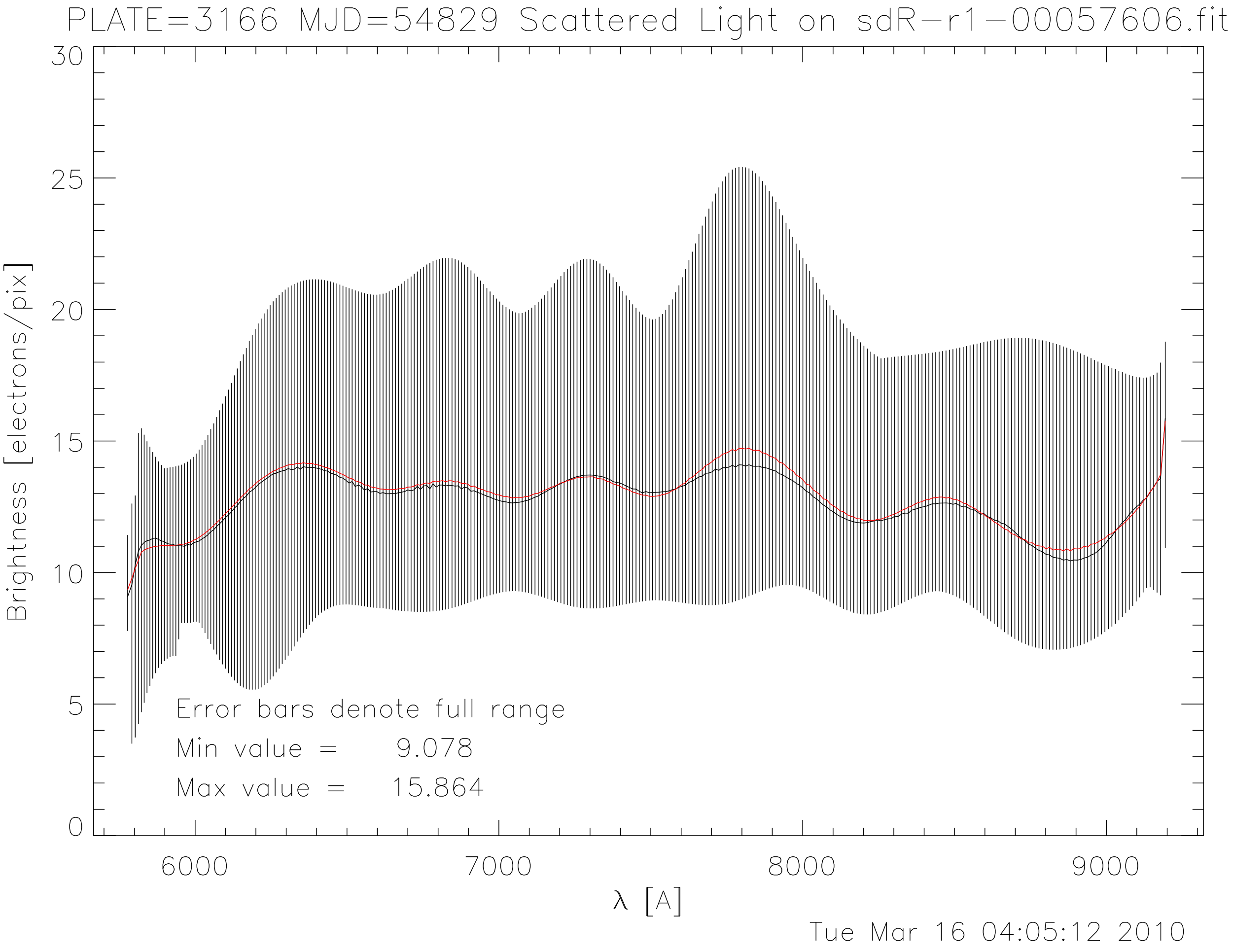
Min value = 9.343

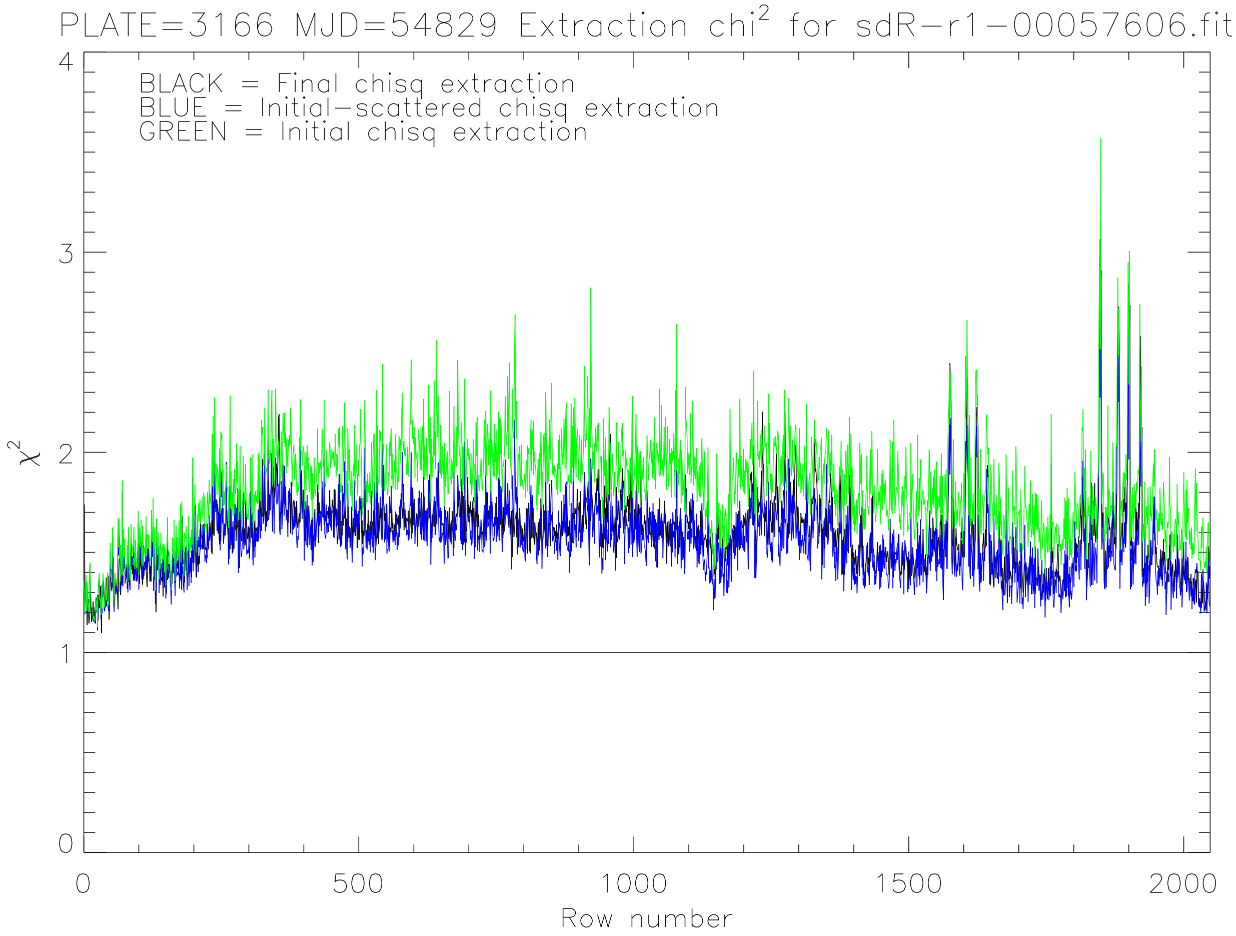
Max value = 48.458

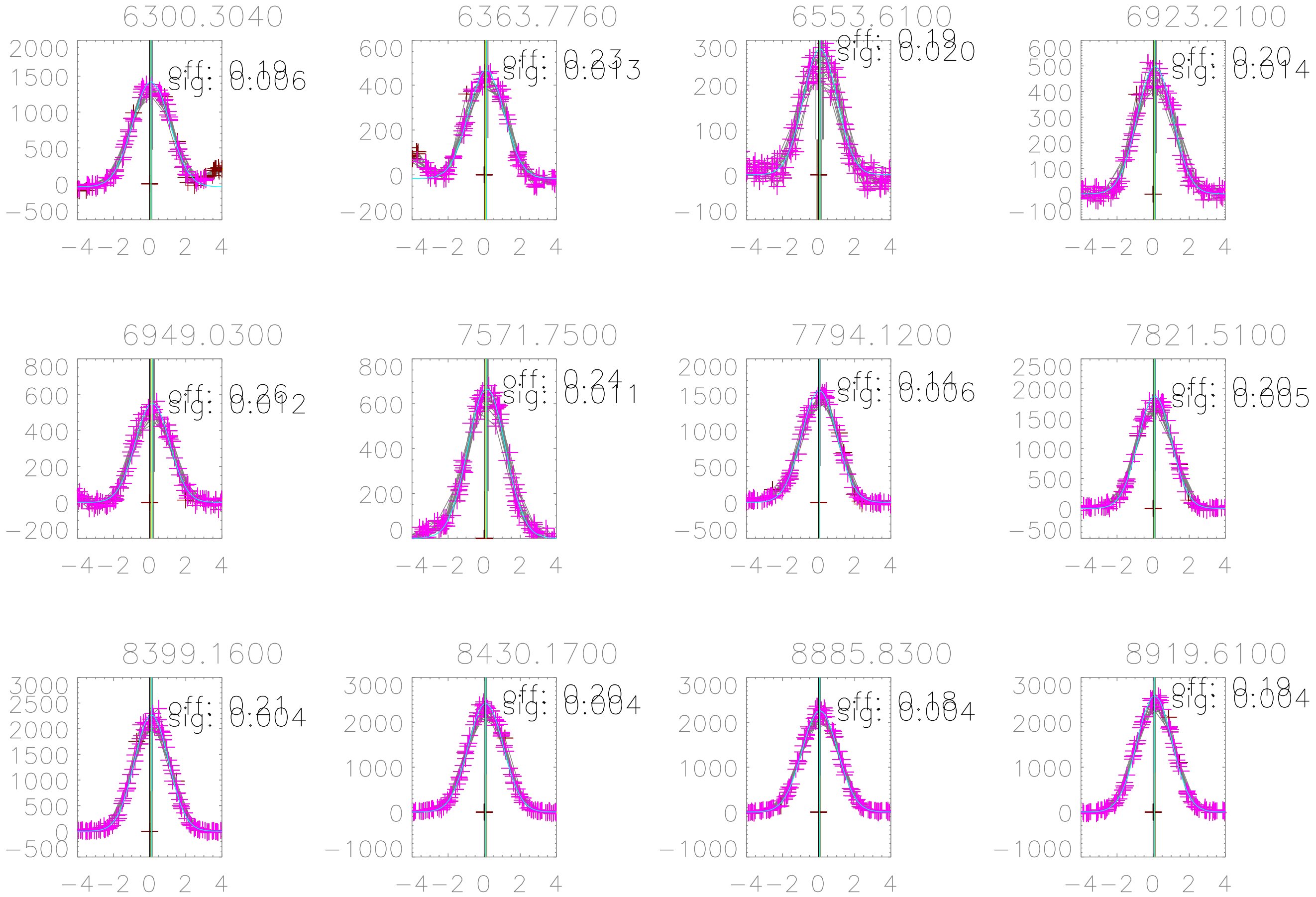
Tue Mar 16 04:03:11 2010

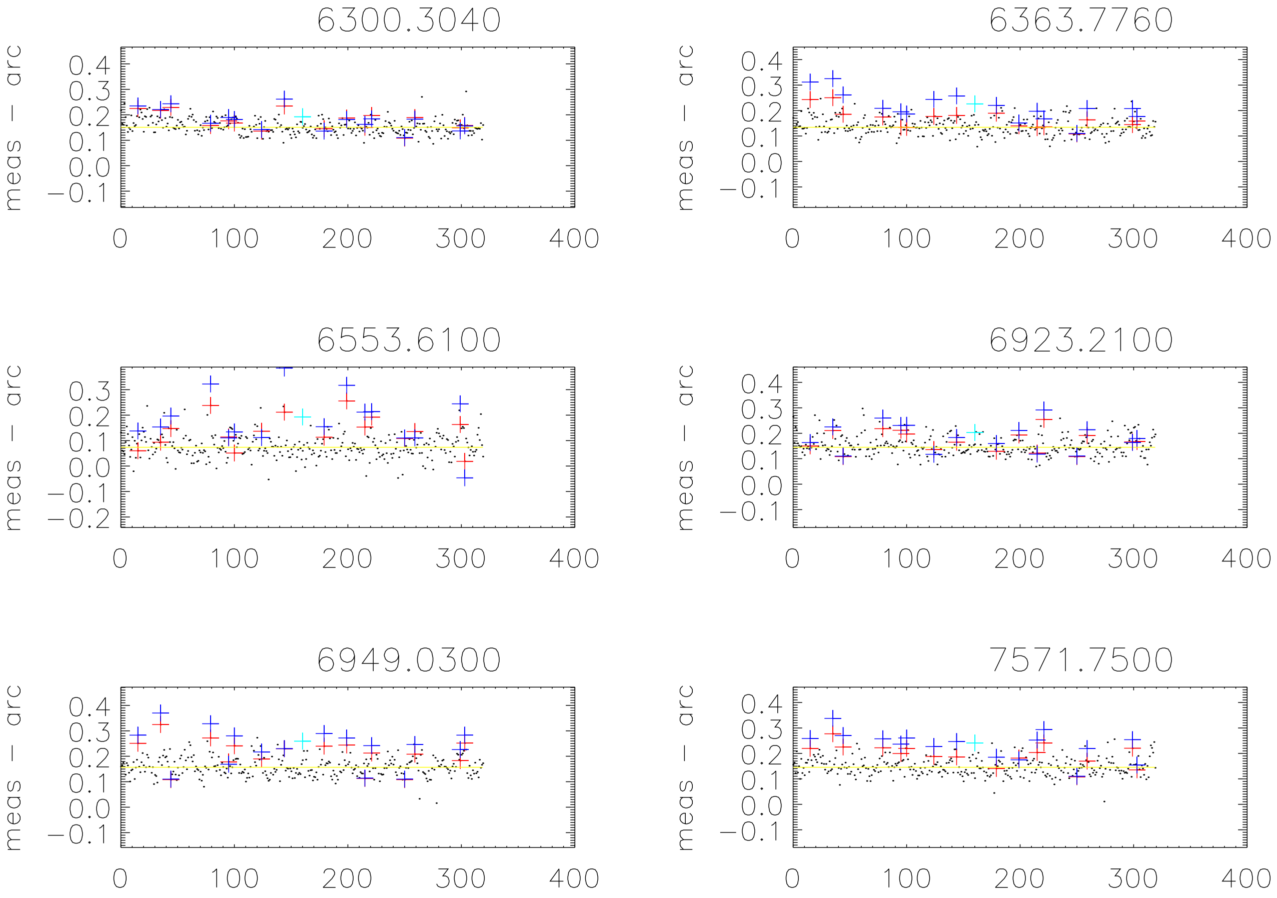


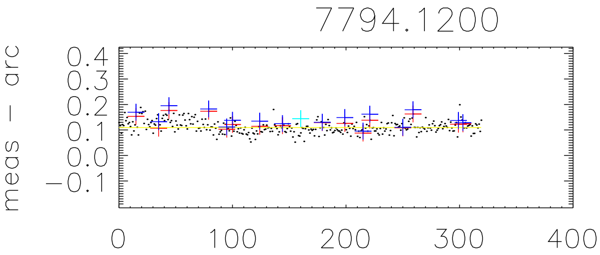
PLATE=3166 MJD=54829 Scattered Light on sdR-r1-00057606.fit

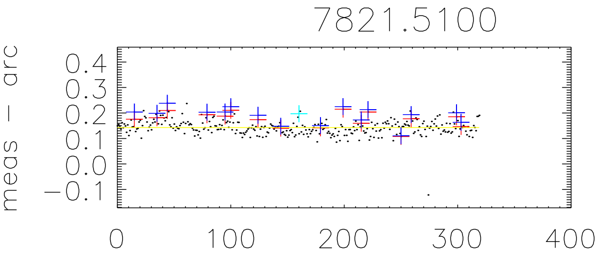

PLATE=3166 MJD=54829 Scattered Light on sdR-r1-00057606.fit
Brightness [electrons/pix]
0
5
10
15
20
25
30
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 9.078
Max value = 15.864
Tue Mar 16 04:05:12 2010

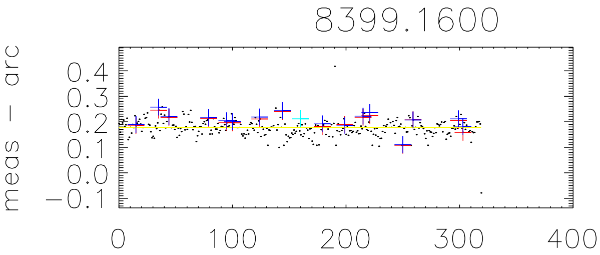

PLATE=3166 MJD=54829 Extraction chi^2 for sdR-r1-00057606.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
0
500
1000
1500
2000
Row number

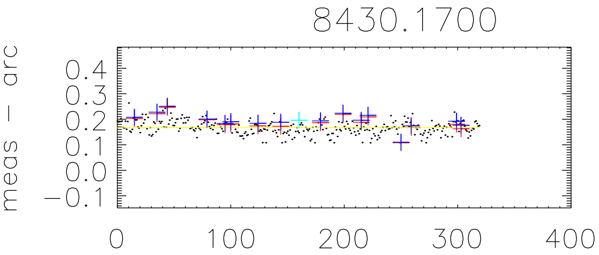

6300.3040
off: 0.19
sig: 0:006
6363.7760
off: 0.23
sig: 0:013
6553.6100
off: 0.19
sig: 0:020
6923.2100
off: 0.20
sig: 0:014
6949.0300
off: 0.26
sig: 0:012
7571.7500
off: 0.24
sig: 0:011
7794.1200
off: 0.14
sig: 0:006
7821.5100
off: 0.20
sig: 0:005
8399.1600
off: 0.21
sig: 0:004
8430.1700
off: 0.20
sig: 0:004
8885.8300
off: 0.18
sig: 0:004
8919.6100
off: 0.19
sig: 0:004
−4 −2 0 2 4

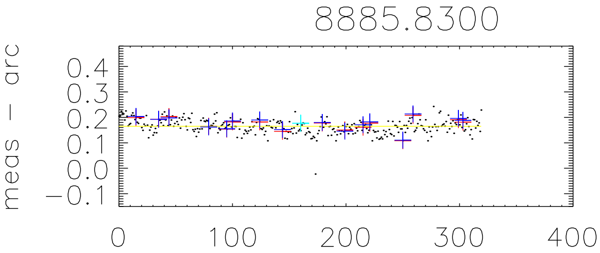

6300.3040
6363.7760
6553.6100
6923.2100
6949.0300
7571.7500
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

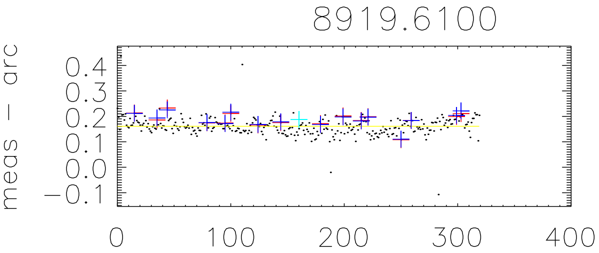

7794.1200
meas – arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

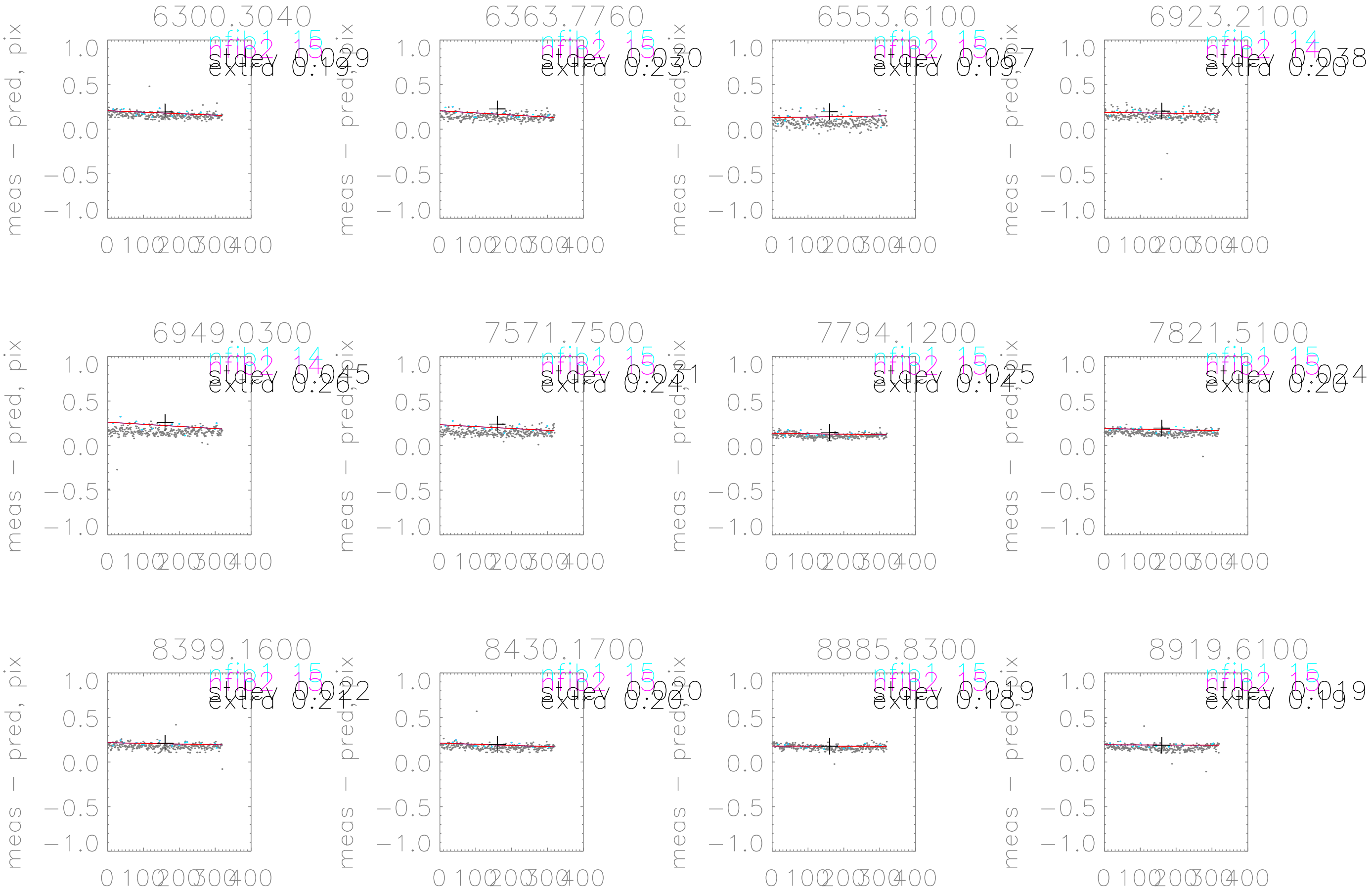

7821.5100
meas – arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

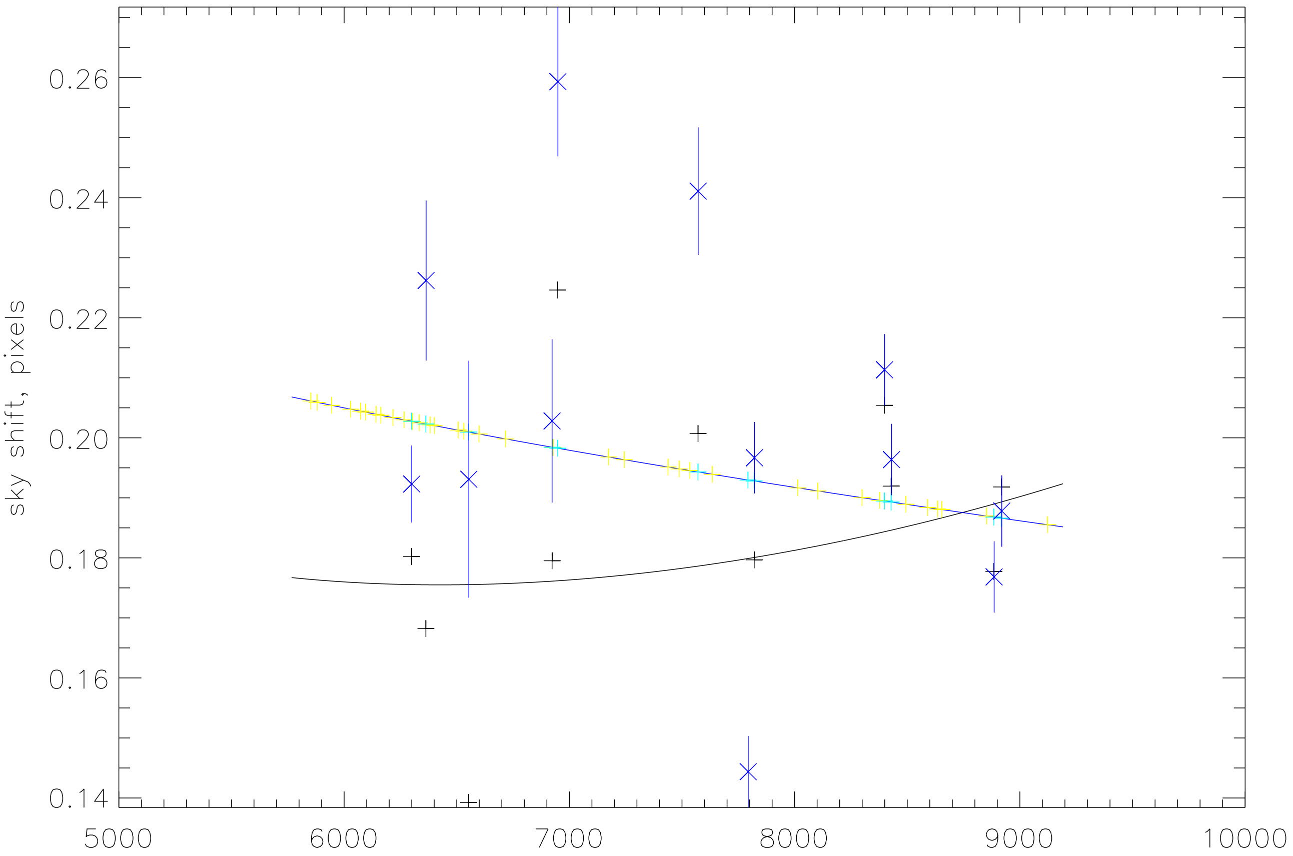

8399.1600
meas – arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

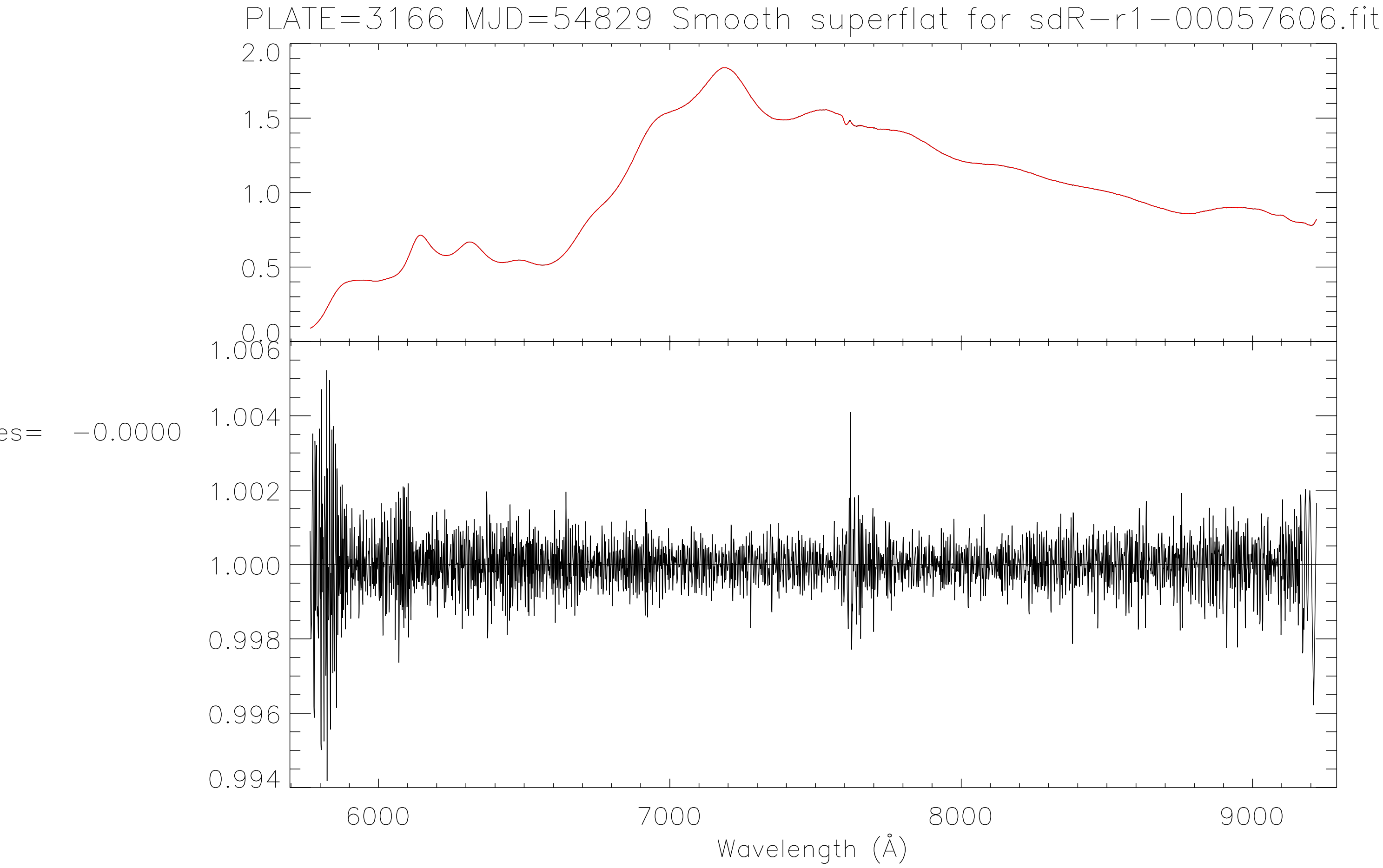

8430.1700
meas – arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400


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

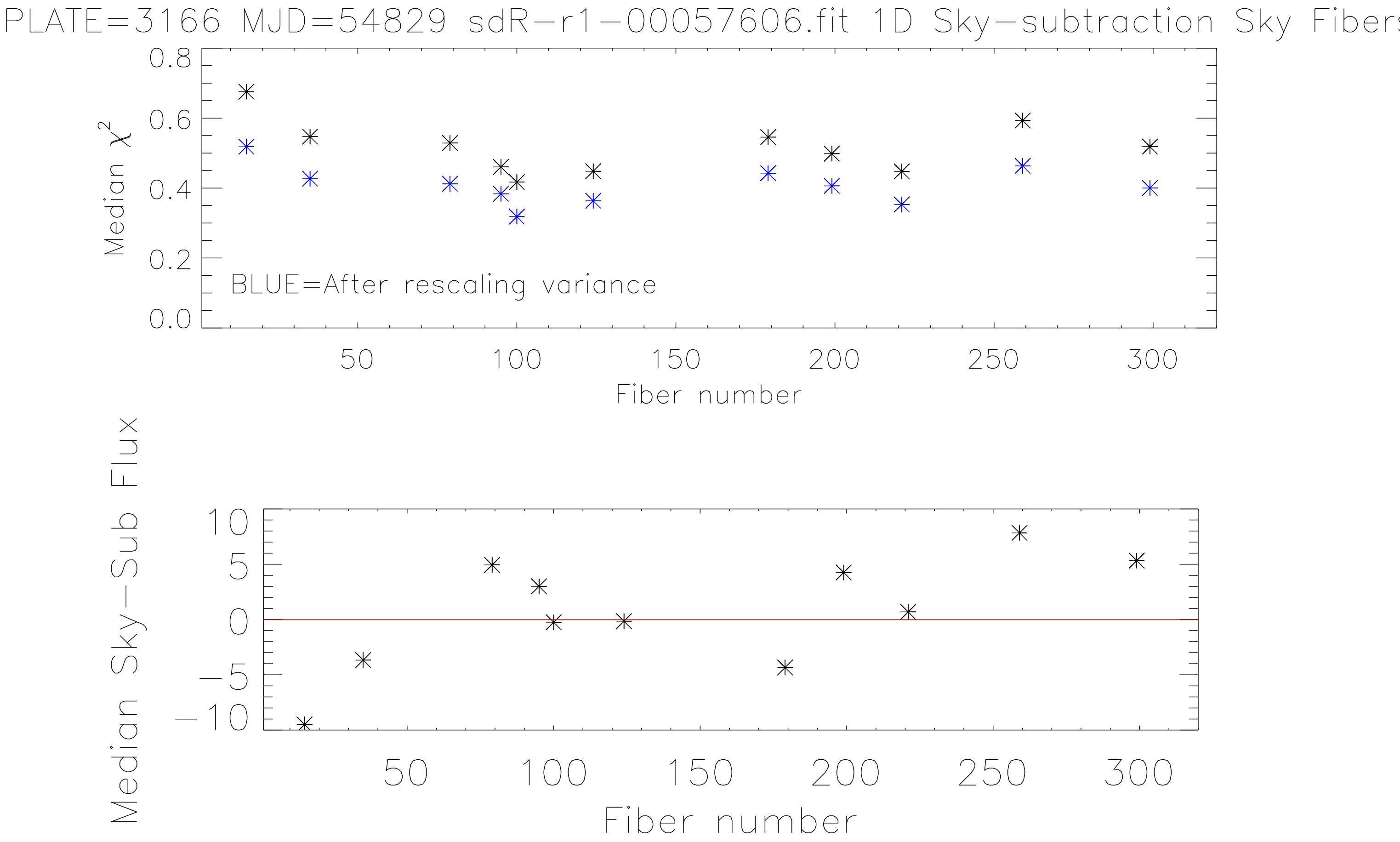

8919.6100
meas – arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

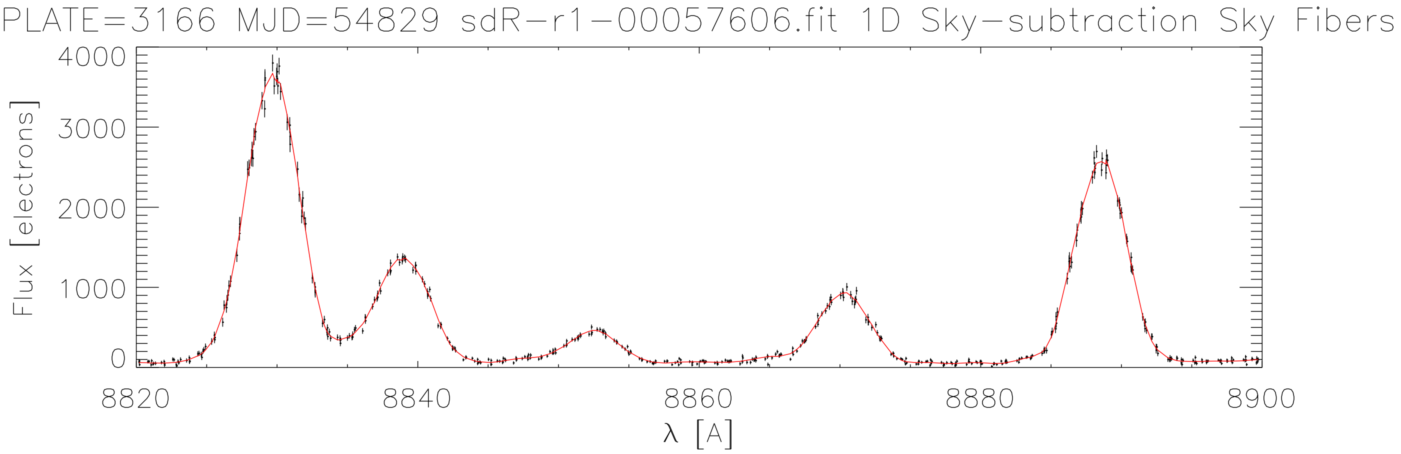

6300.3040
nfib1 15
nfib2 15
stdev 0.029
extrd 0.19
6363.7760
nfib1 15
nfib2 15
stdev 0.030
extrd 0.23
6553.6100
nfib1 15
nfib2 15
stdev 0.067
extrd 0.19
6923.2100
nfib1 14
nfib2 14
stdev 0.038
extrd 0.20
6949.0300
nfib1 14
nfib2 14
stdev 0.045
extrd 0.26
7571.7500
nfib1 15
nfib2 15
stdev 0.031
extrd 0.24
7794.1200
nfib1 15
nfib2 15
stdev 0.025
extrd 0.14
7821.5100
nfib1 15
nfib2 15
stdev 0.024
extrd 0.20
8399.1600
nfib1 15
nfib2 15
stdev 0.022
extrd 0.21
8430.1700
nfib1 15
nfib2 15
stdev 0.020
extrd 0.20
8885.8300
nfib1 15
nfib2 15
stdev 0.019
extrd 0.18
8919.6100
nfib1 15
nfib2 15
stdev 0.019
extrd 0.19
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

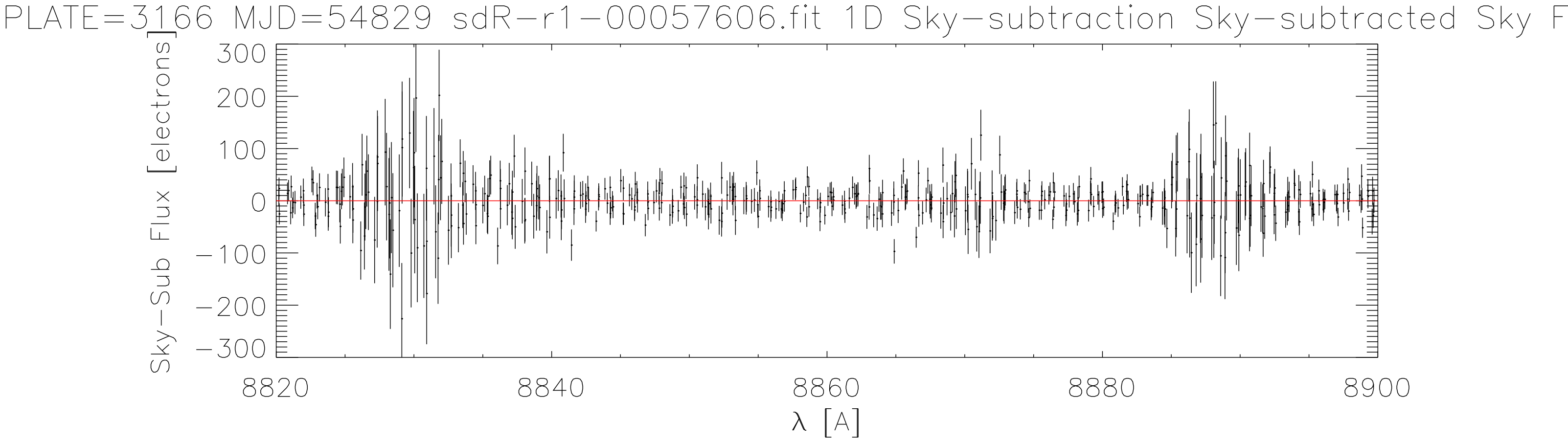

sky shift, pixels
0.26
0.24
0.22
0.20
0.18
0.16
0.14
5000
6000
7000
8000
9000
10000



PLATE=3166 MJD=54829 Smooth superflat for sdR-r1-00057606.fit

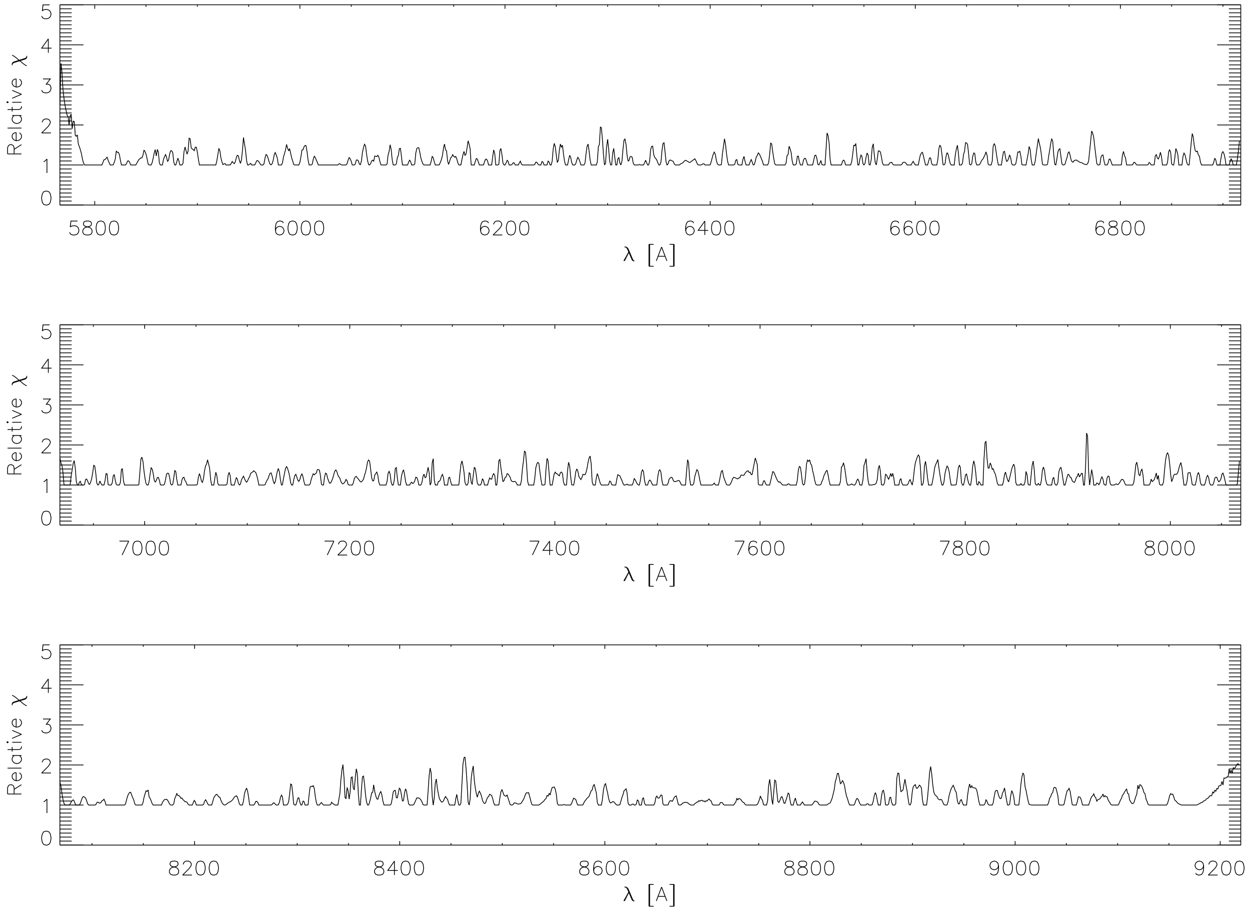

PLATE=3166 MJD=54829 sdR-r1-00057606.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.8
0.6
0.4
0.2
0.0
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
−5
−10
50
100
150
200
250
300
Fiber number

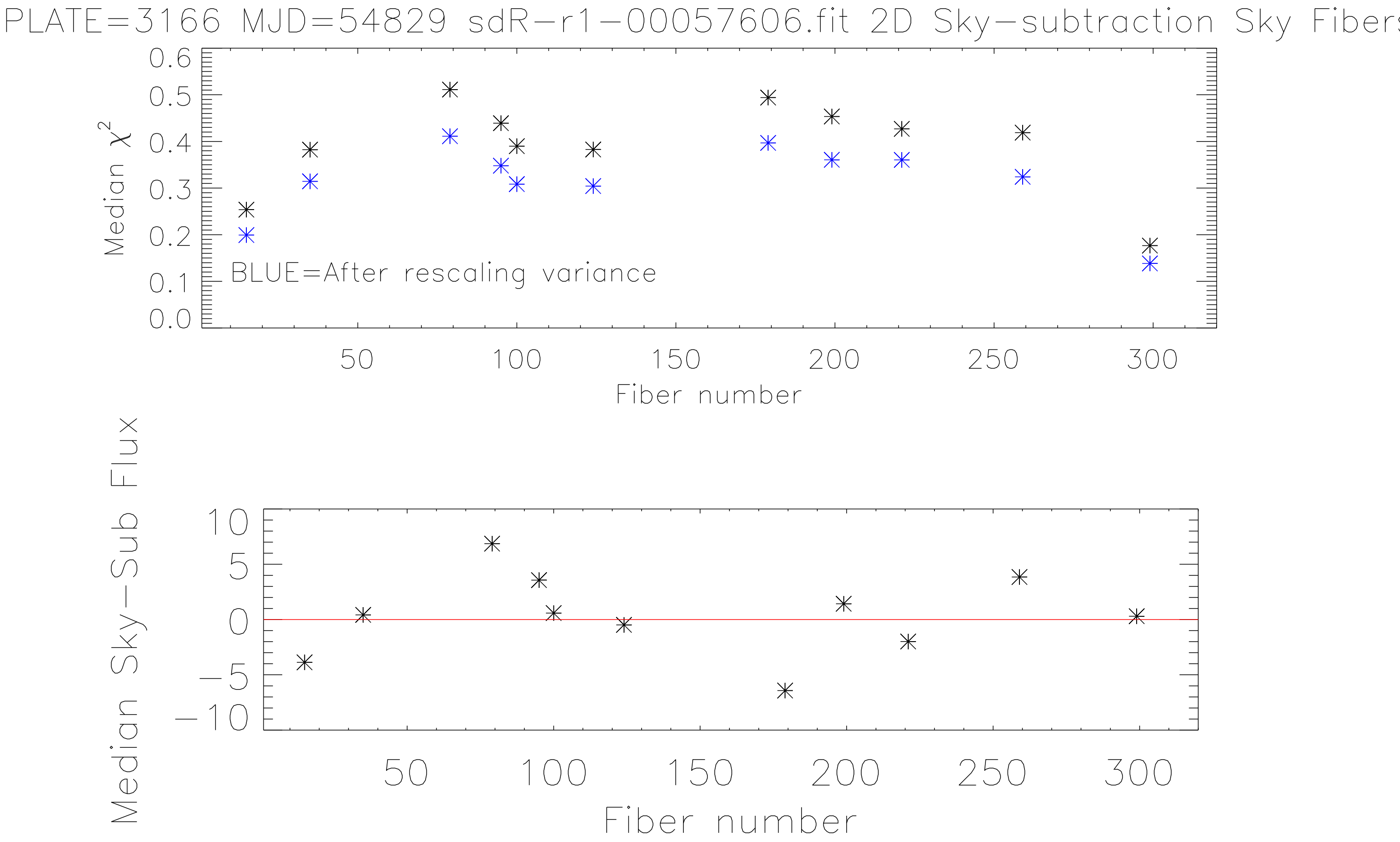

PLATE=3166 MJD=54829 sdR-r1-00057606.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]


PLATE=3166 MJD=54829 sdR-r1-00057606.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
−100
−200
−300
8820
8840
8860
8880
8900
λ [A]

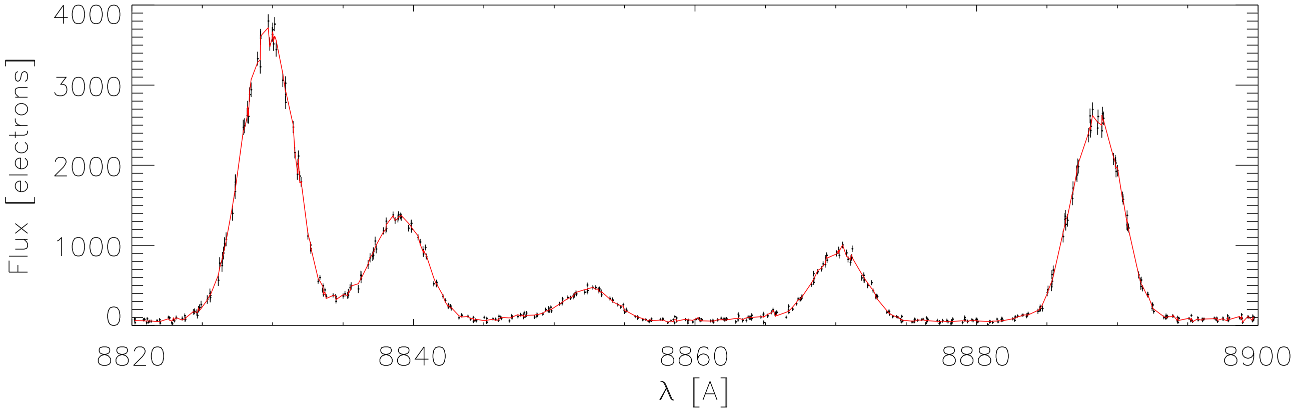
Number of sky fibers = 11

PLATE=3166 MJD=54829 sdR-r1-00057606.fit 1D Sky-subtraction Rescaled Errors

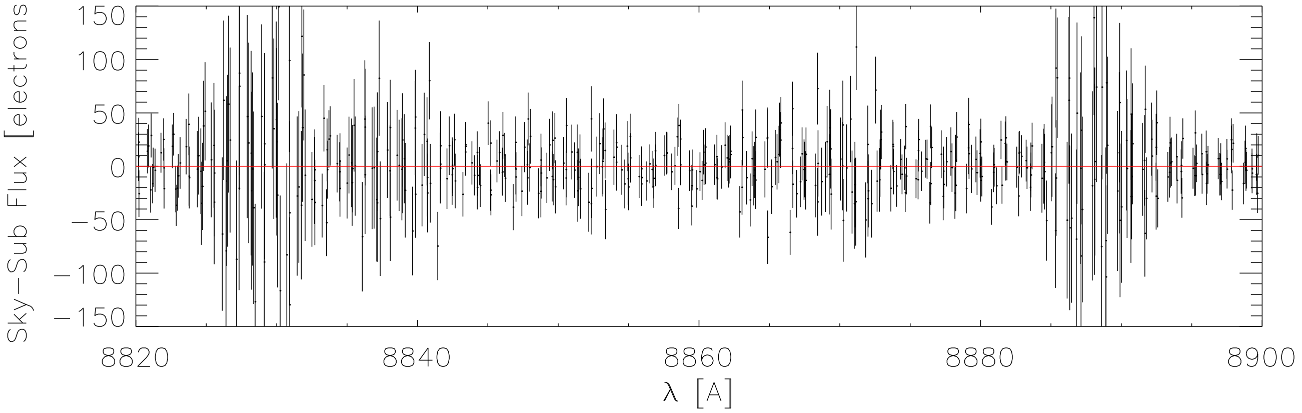



PLATE=3166 MJD=54829 sdR-r1-00057606.fit 2D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
−5
−10
50
100
150
200
250
300
Fiber number

PLATE=3166 MJD=54829 sdR-r1-00057606.fit 2D Sky-subtraction Sky Fibers

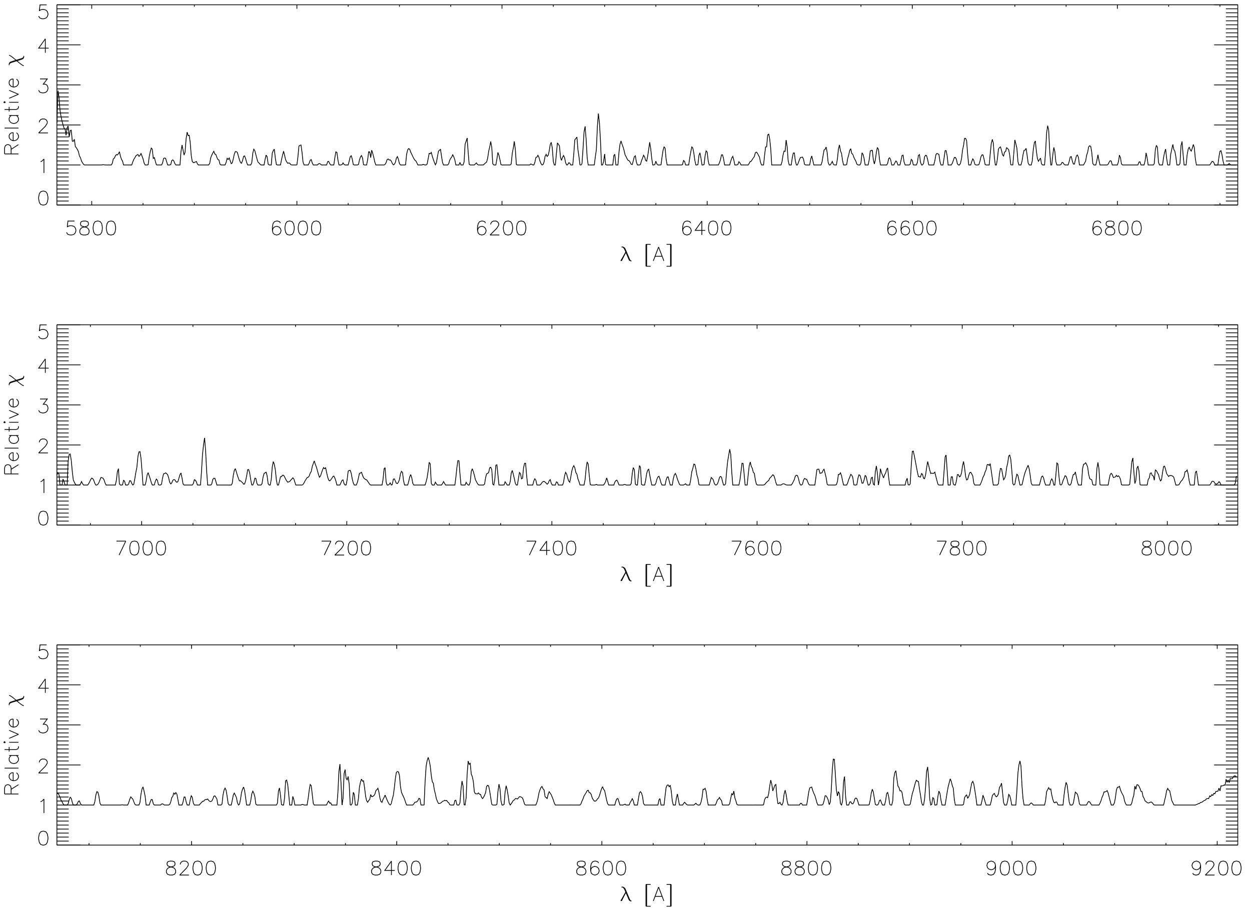


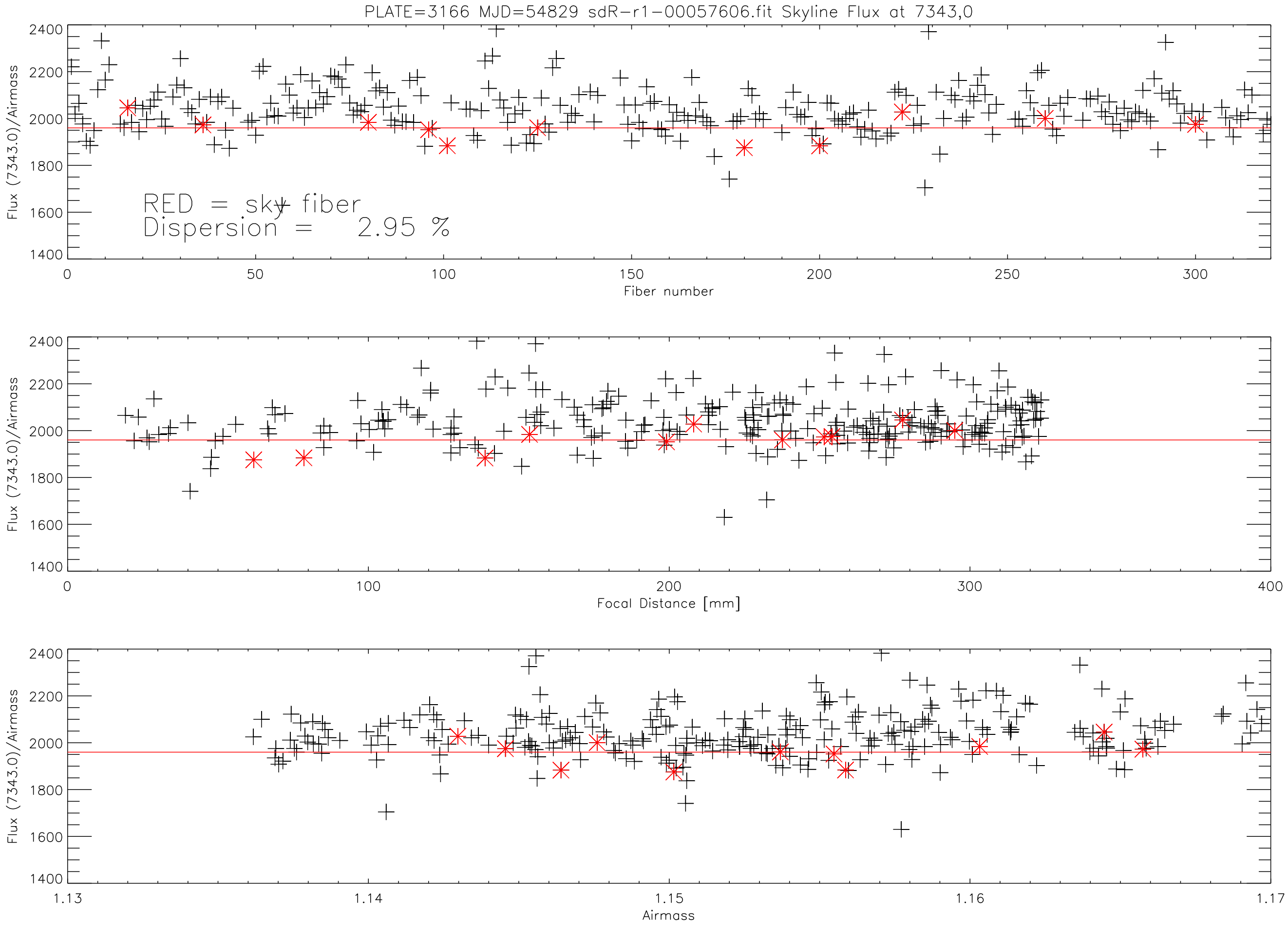
PLATE=3166 MJD=54829 sdR-r1-00057606.fit 2D Sky-subtraction Sky-subtracted Sky F

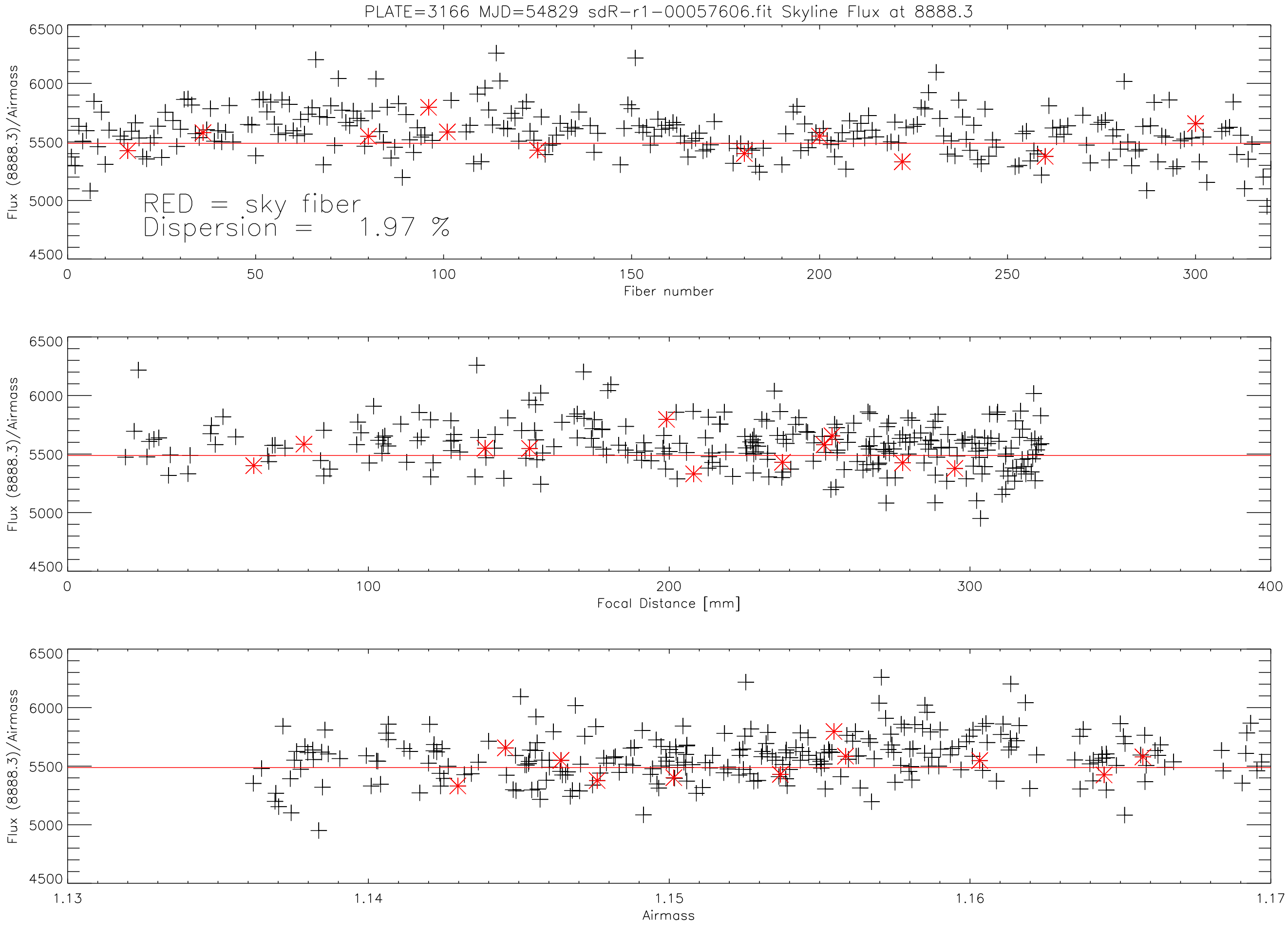


Number of sky fibers = 11

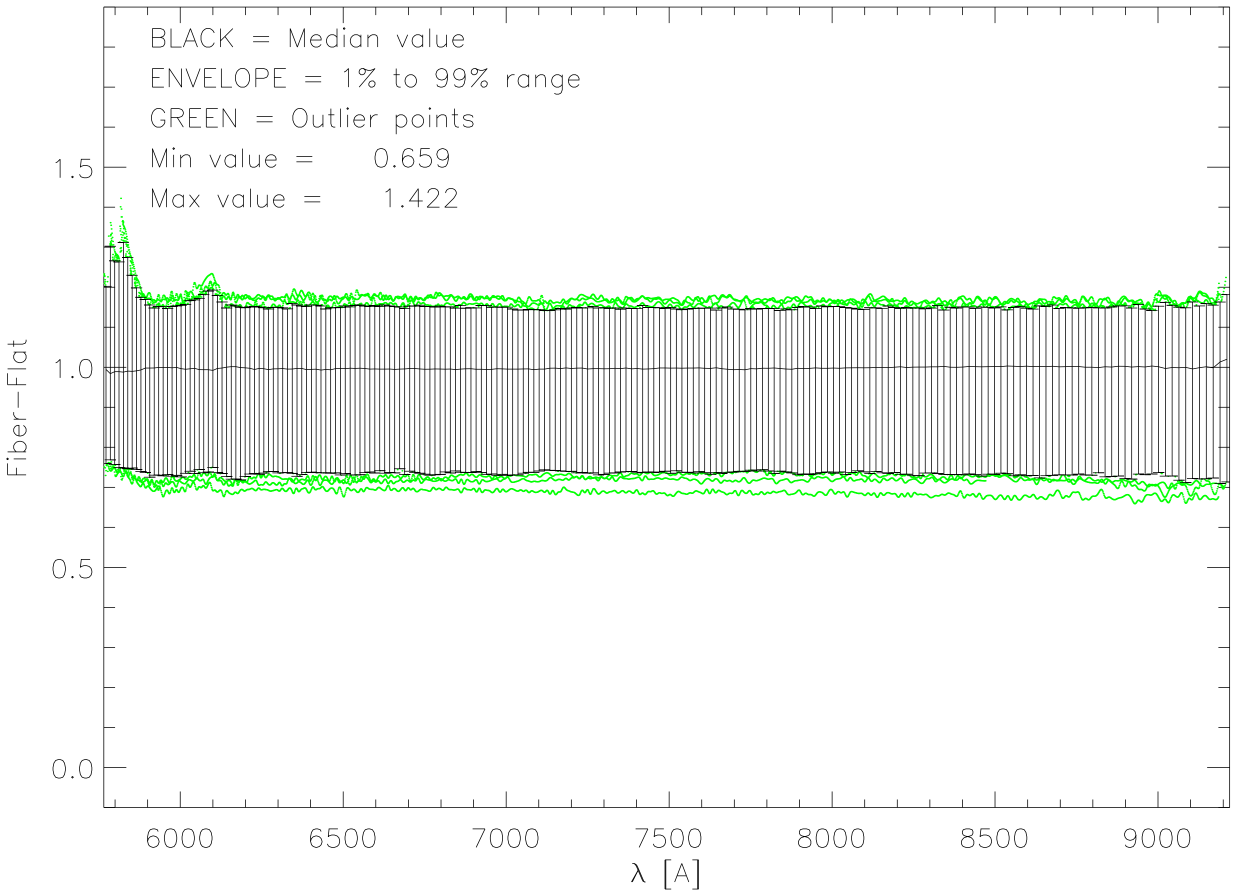
PLATE=3166 MJD=54829 sdR-r1-00057606.fit 2D Sky-subtraction Rescaled Errors



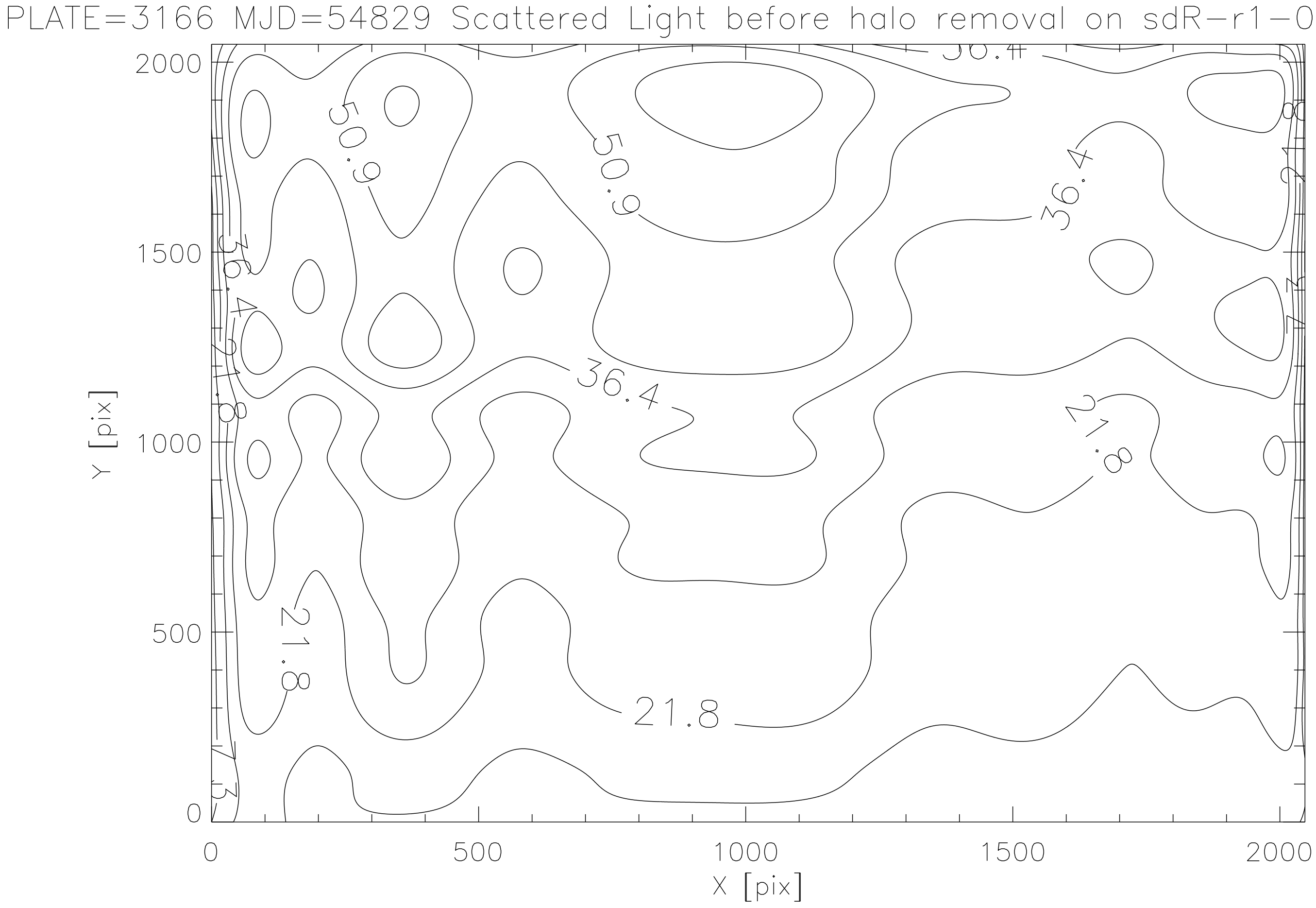

PLATE=3166 MJD=54829 sdR−r1−00057606.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
2400
2200
2000
1800
1600
1400
RED = sky fiber
Dispersion = 2.95 %
0
50
100
150
200
250
300
Fiber number
Flux (7343.0)/Airmass
0
100
200
300
400
Focal Distance [mm]
Flux (7343.0)/Airmass
1.13
1.14
1.15
1.16
1.17
Airmass


PLATE=3166 MJD=54829 sdR-r1-00057606.fit Skyline Flux at 8888.3
RED = sky fiber
Dispersion = 1.97 %
Flux (8888.3)/Airmass
6500
6000
5500
5000
4500
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
1.13
1.14
1.15
1.16
1.17
Airmass

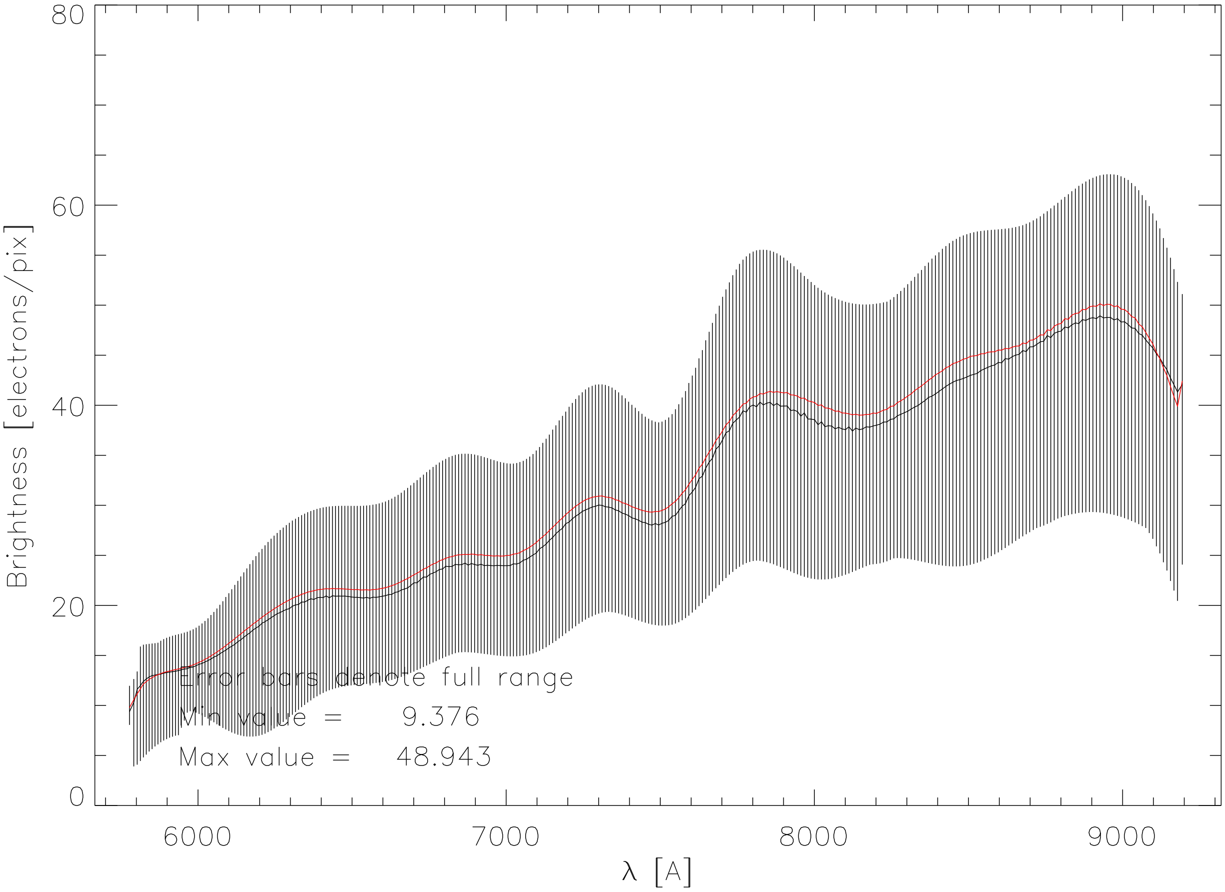
PLATE=3166 MJD=54829 Fiber-Flats for sdR-r1-00057607.fit



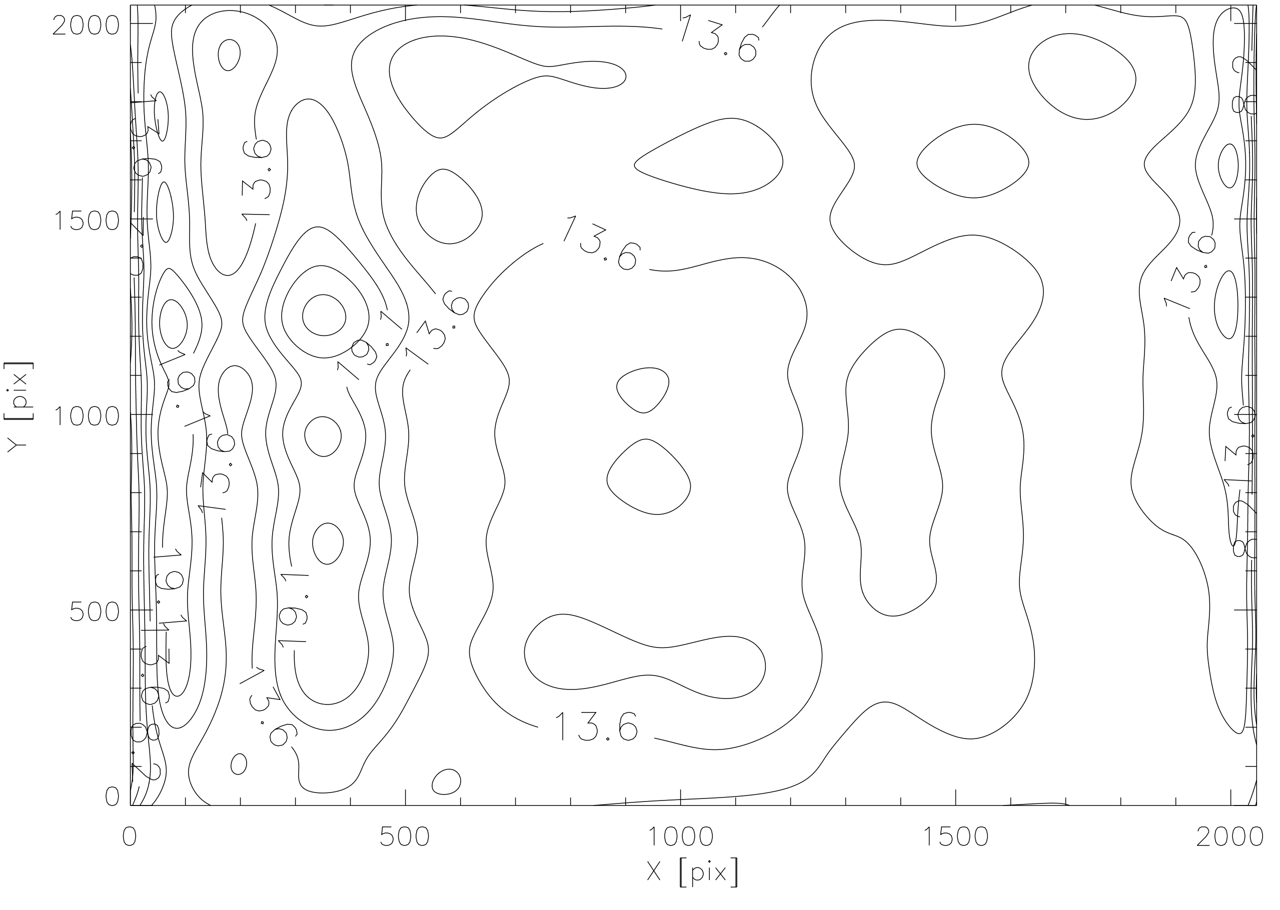
Tue Mar 16 04:06:03 2010


PLATE=3166 MJD=54829 Scattered Light before halo removal on sdR-r1-00057609.fi
Y [pix]
X [pix]
0
500
1000
1500
2000
0
500
1000
1500
2000
50.9
50.9
36.4
36.4
36.4
36.4
21.8
21.8
21.8
21.8
21.8

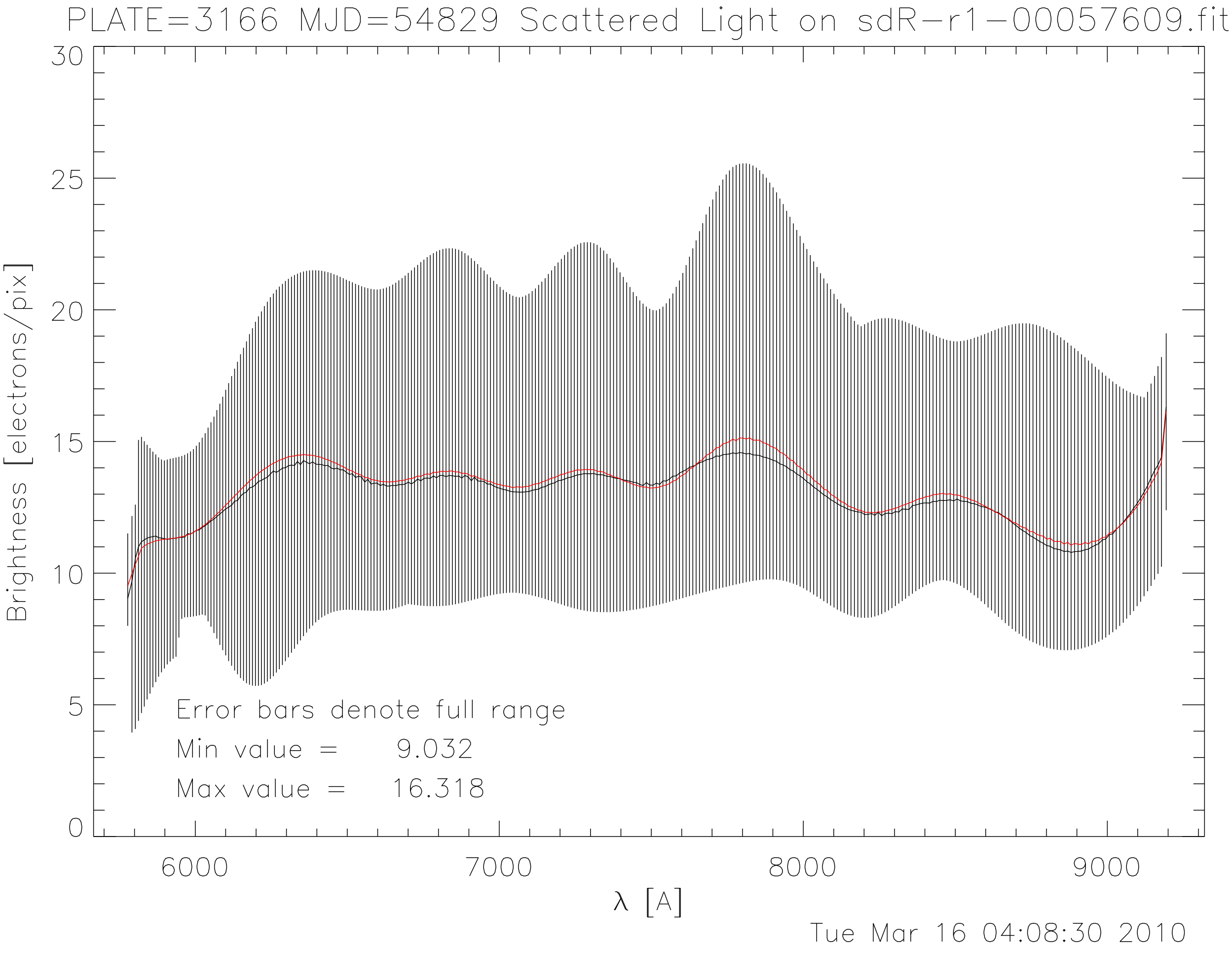
PLATE=3166 MJD=54829 Scattered Light before halo removal on sdR-r1-00057609.fi

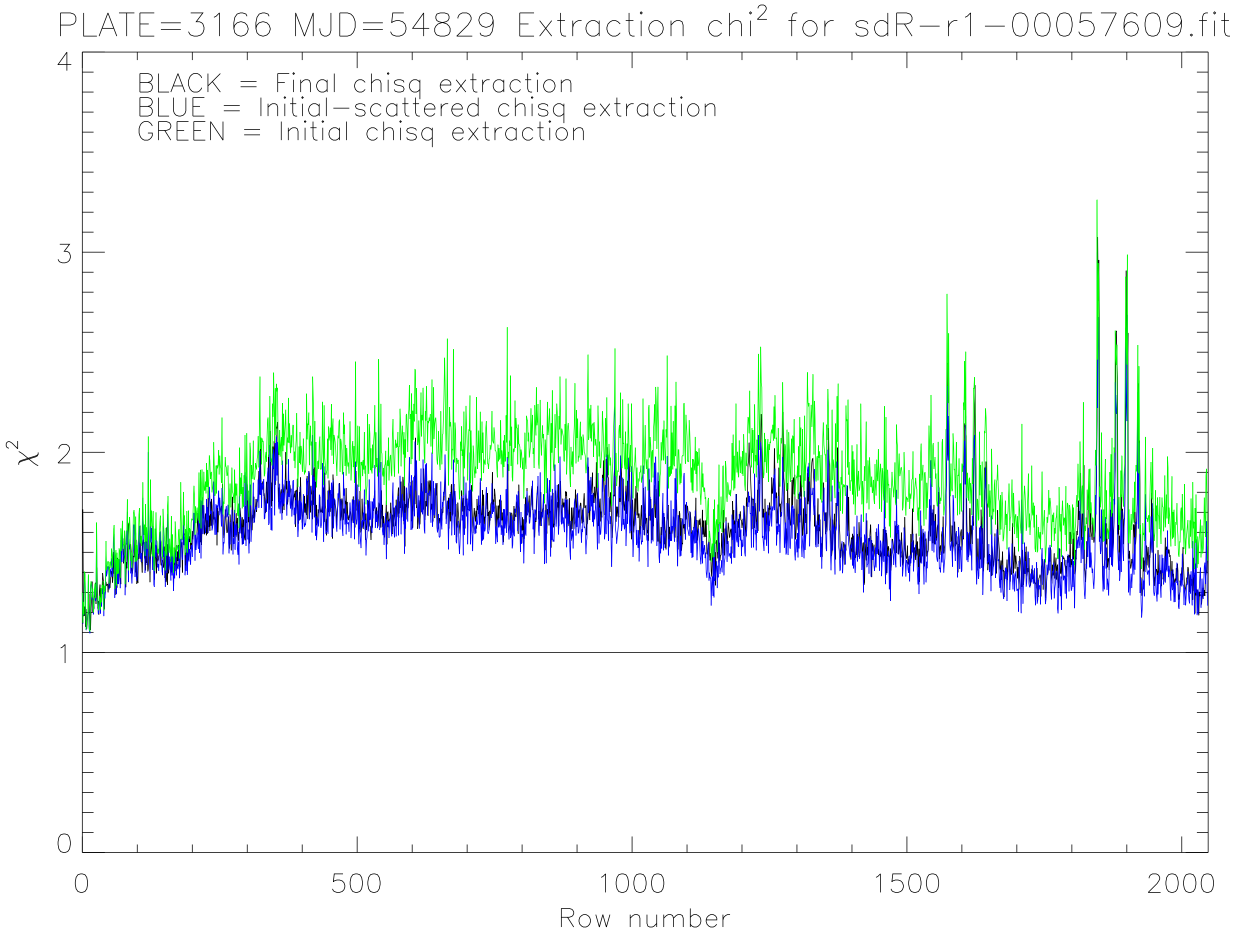


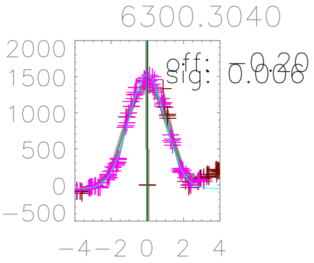
Tue Mar 16 04:06:31 2010

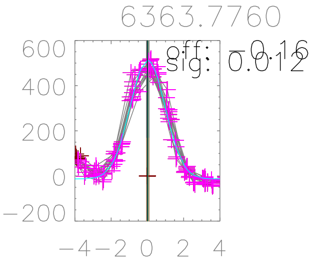


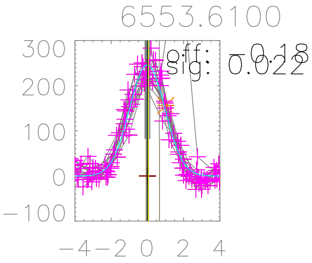
PLATE=3166 MJD=54829 Scattered Light on sdR-r1-00057609.fit

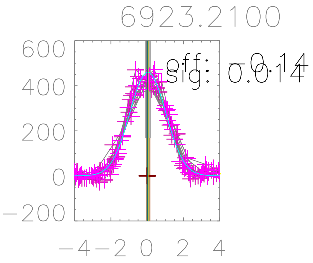

PLATE=3166 MJD=54829 Scattered Light on sdR-r1-00057609.fit
Brightness [electrons/pix]
λ [A]
0
5
10
15
20
25
30
6000
7000
8000
9000
Error bars denote full range
Min value = 9.032
Max value = 16.318
Tue Mar 16 04:08:30 2010

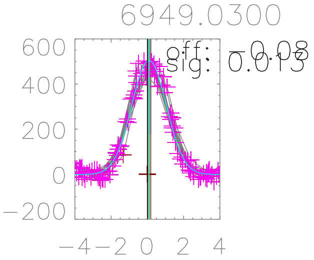

PLATE=3166 MJD=54829 Extraction chi^2 for sdR-r1-00057609.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
0
500
1000
1500
2000
Row number

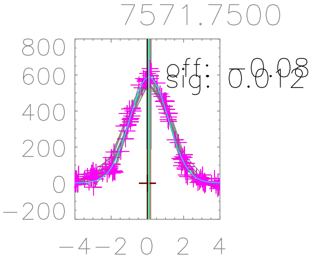

6300.3040

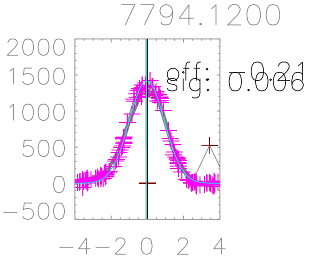

6363.7760

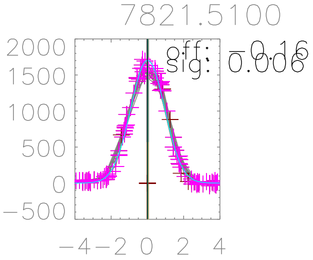

6553.6100

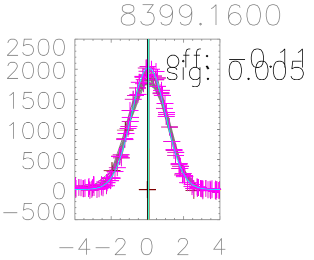

6923.2100

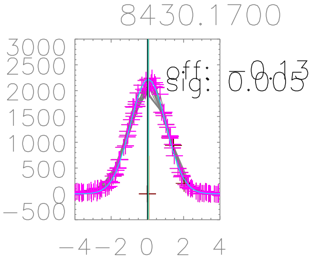

6949.0300

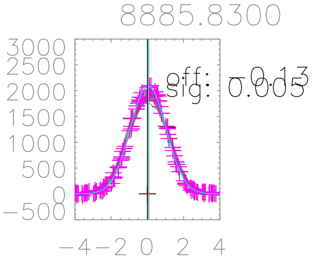

7571.7500

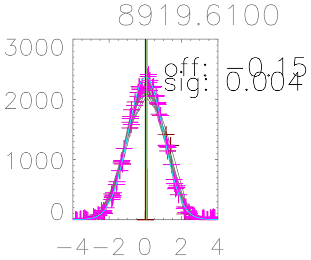

7794.1200

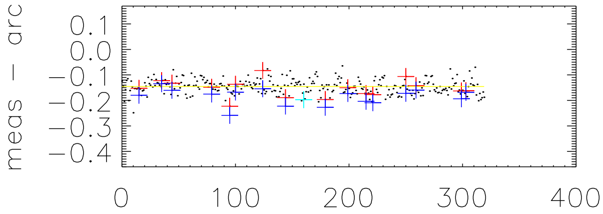

7821.5100


8399.1600

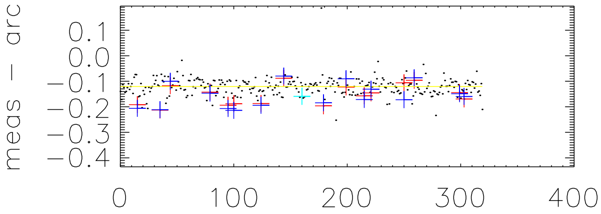

8430.1700


8885.8300

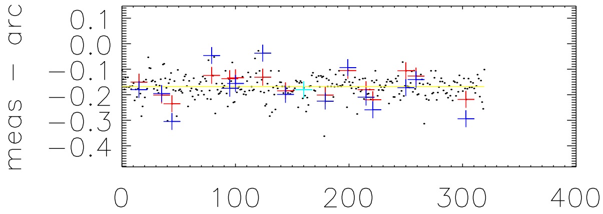

8919.6100



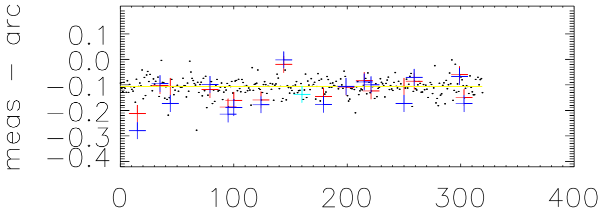
6300.3040



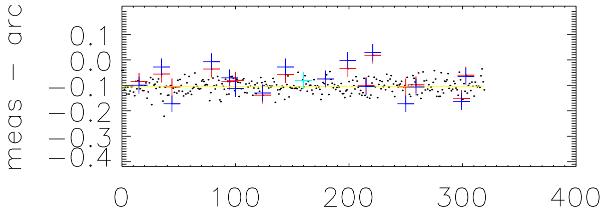
6363.7760



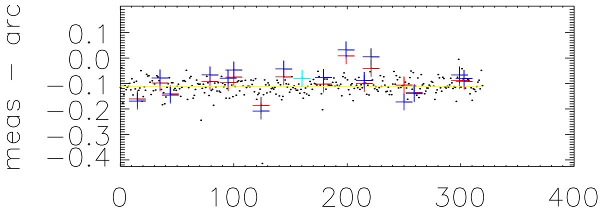
6553.6100



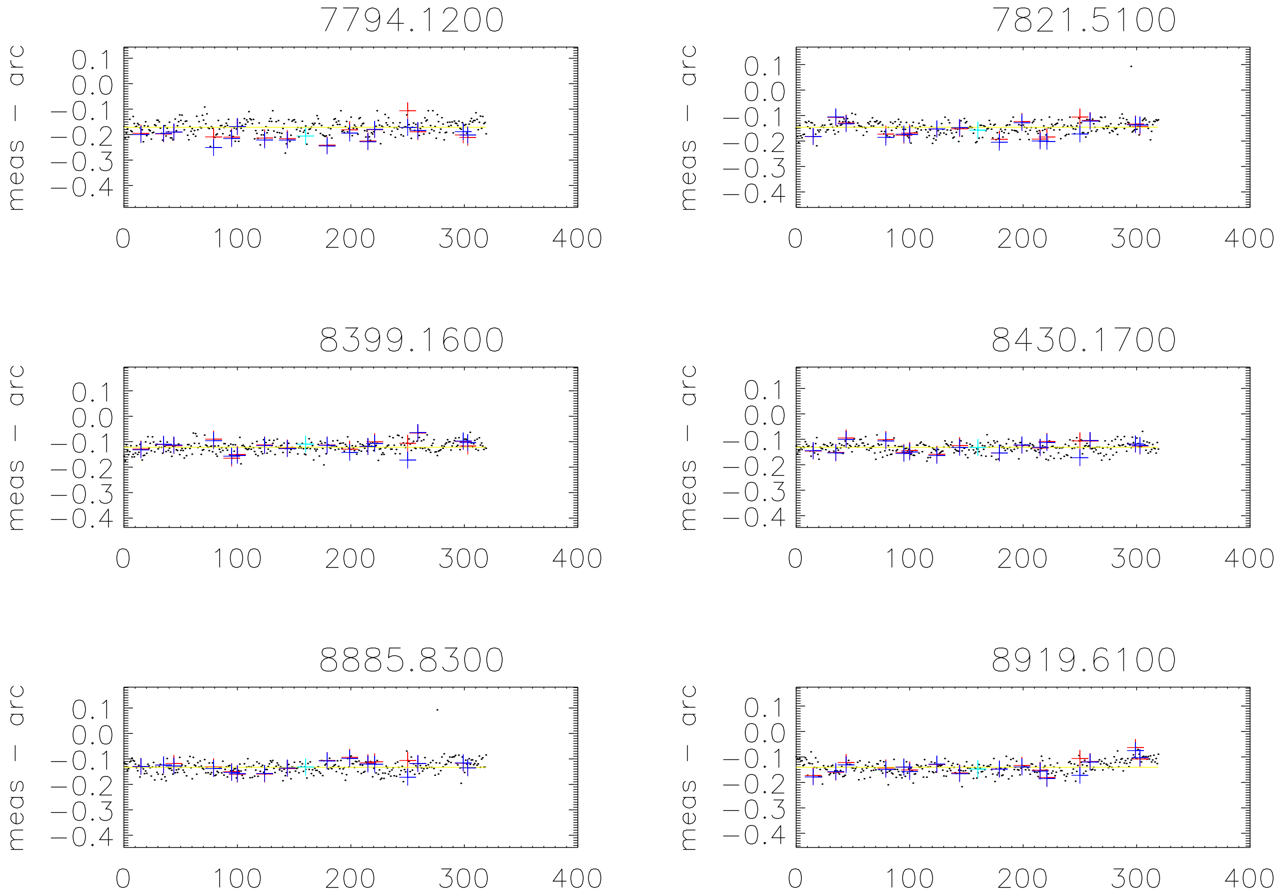
6923.2100

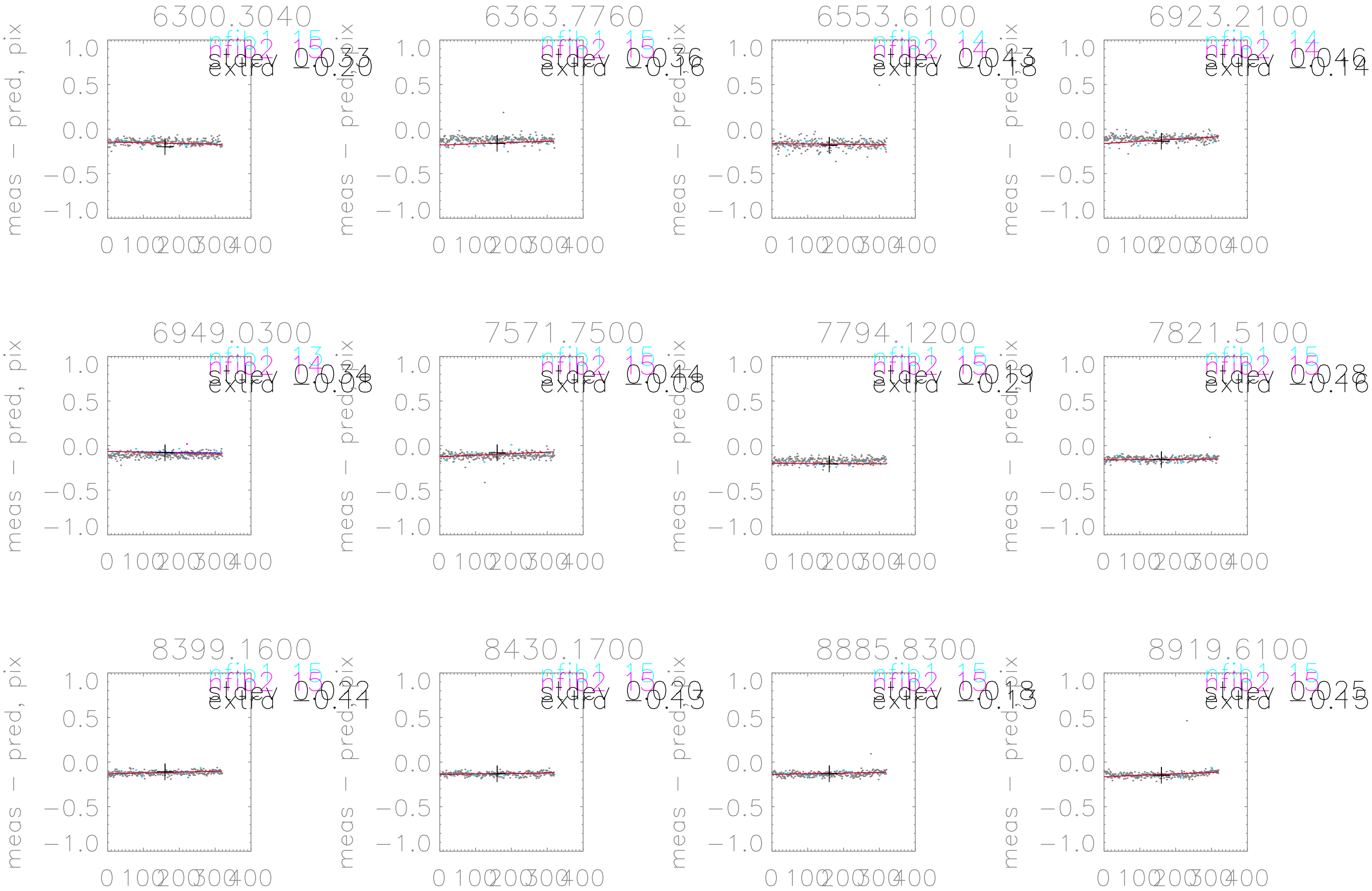


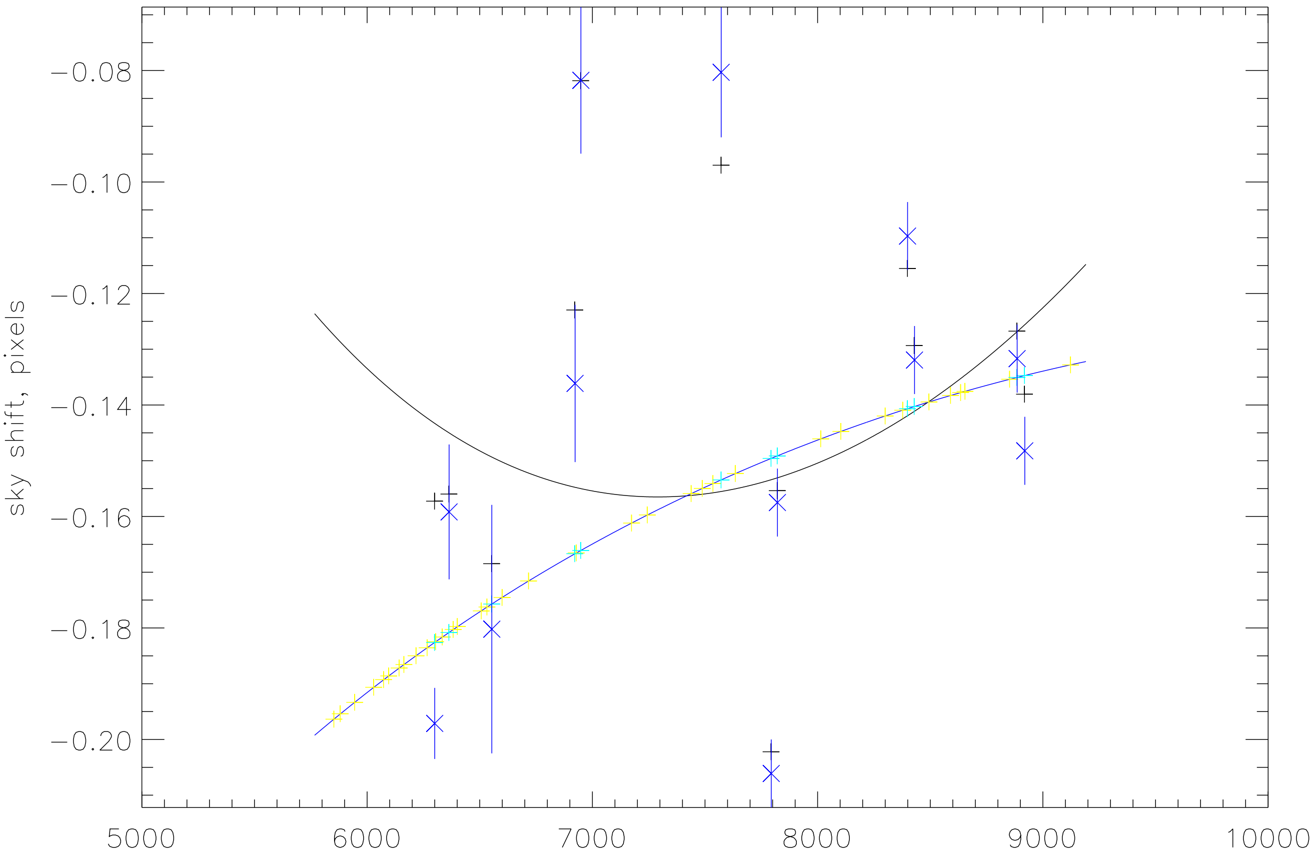
6949.0300

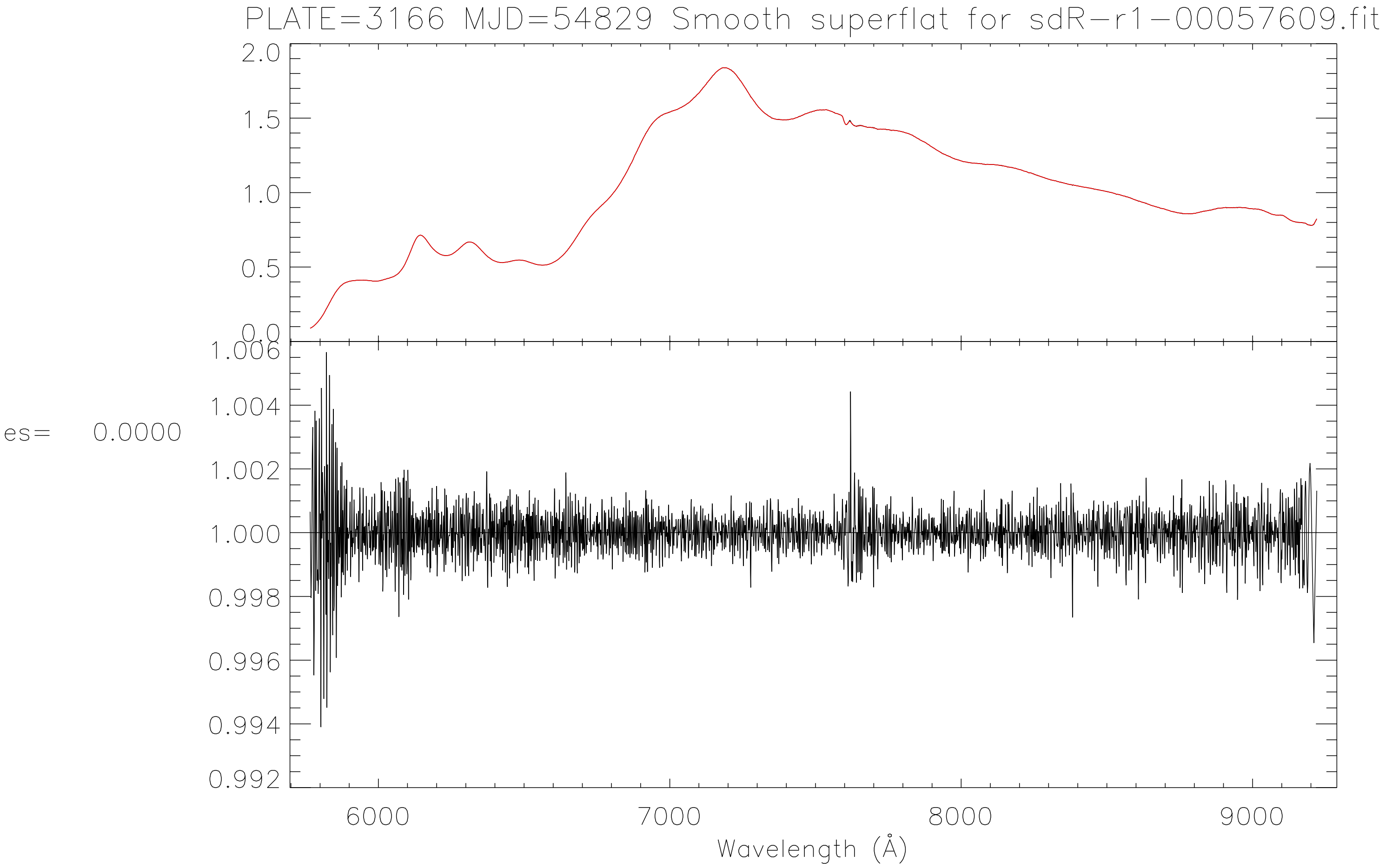


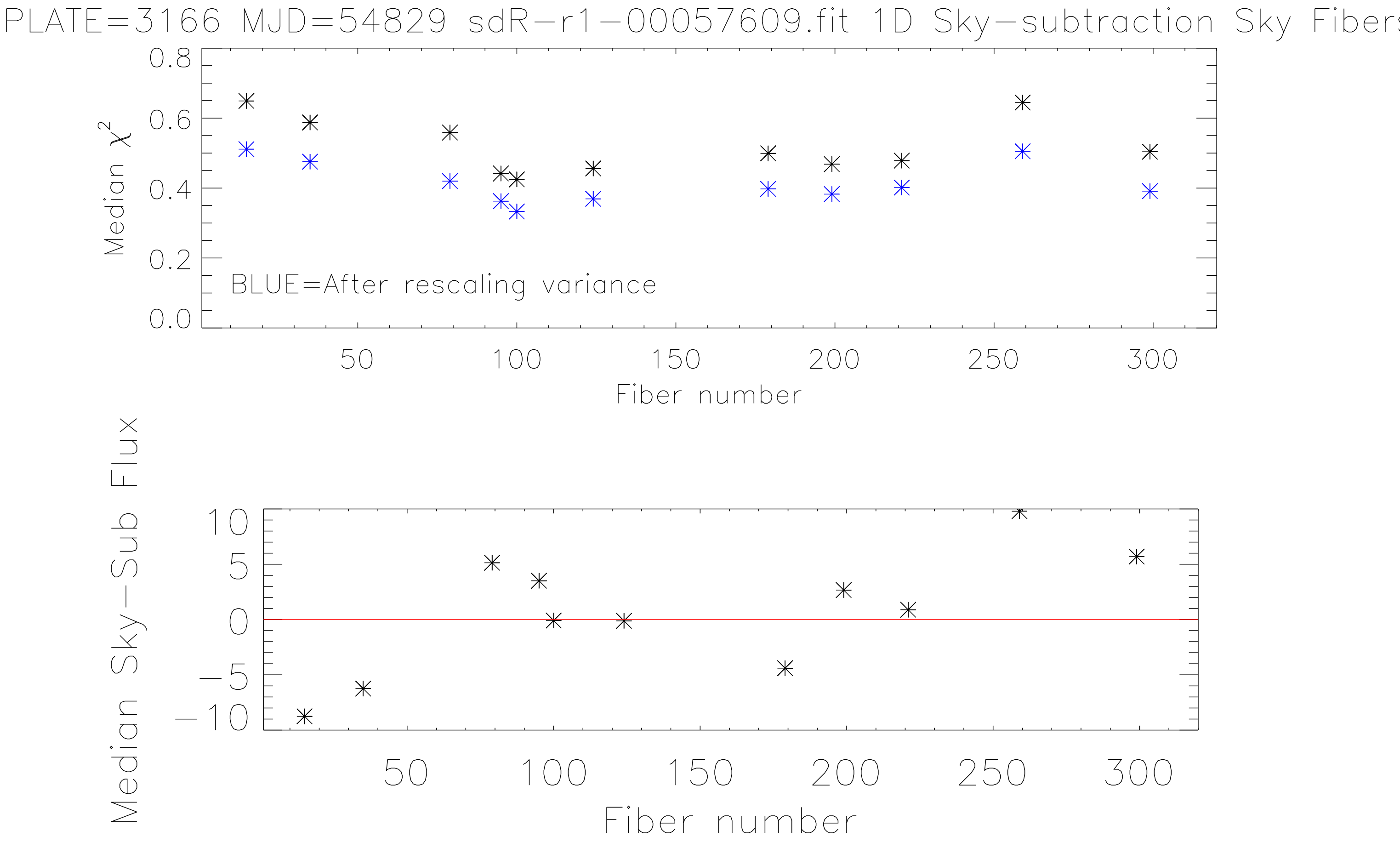
7571.7500

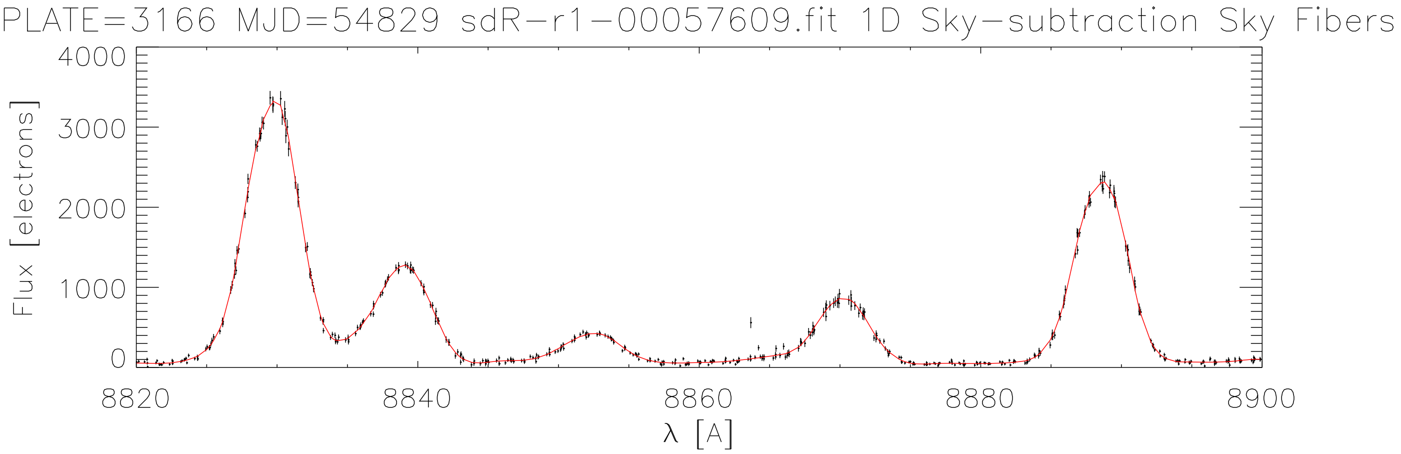

7794.1200
7821.5100
8399.1600
8430.1700
8885.8300
8919.6100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

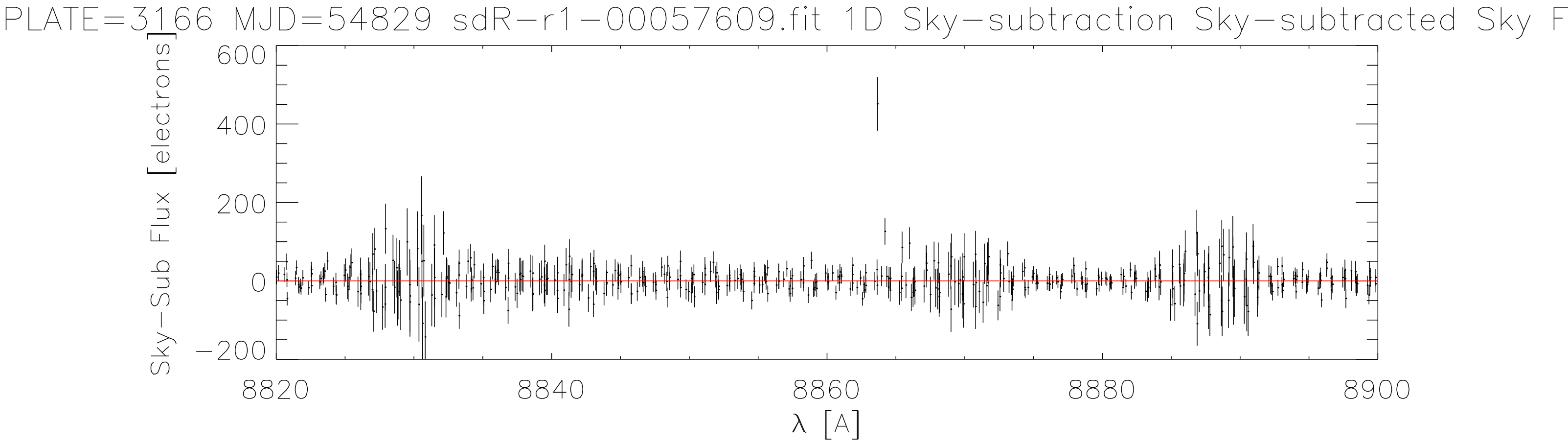

6300.3040
nfib1 15
nfib2 15
stdev 0.033
extrd −0.20
6363.7760
nfib1 15
nfib2 15
stdev 0.036
extrd −0.16
6553.6100
nfib1 14
nfib2 14
stdev 0.043
extrd −0.18
6923.2100
nfib1 14
nfib2 14
stdev 0.046
extrd −0.14
6949.0300
nfib1 13
nfib2 14
stdev 0.034
extrd −0.08
7571.7500
nfib1 15
nfib2 15
stdev 0.044
extrd −0.08
7794.1200
nfib1 15
nfib2 15
stdev 0.019
extrd −0.21
7821.5100
nfib1 15
nfib2 15
stdev 0.028
extrd −0.16
8399.1600
nfib1 15
nfib2 15
stdev 0.022
extrd −0.11
8430.1700
nfib1 15
nfib2 15
stdev 0.020
extrd −0.13
8885.8300
nfib1 15
nfib2 15
stdev 0.018
extrd −0.13
8919.6100
nfib1 15
nfib2 15
stdev 0.025
extrd −0.15
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400


sky shift, pixels
−0.08
−0.10
−0.12
−0.14
−0.16
−0.18
−0.20
5000
6000
7000
8000
9000
10000


PLATE=3166 MJD=54829 Smooth superflat for sdR-r1-00057609.fit
2.0
1.5
1.0
0.5
0.0
1.006
1.004
1.002
1.000
0.998
0.996
0.994
0.992
es= 0.0000
6000
7000
8000
9000
Wavelength (Å)

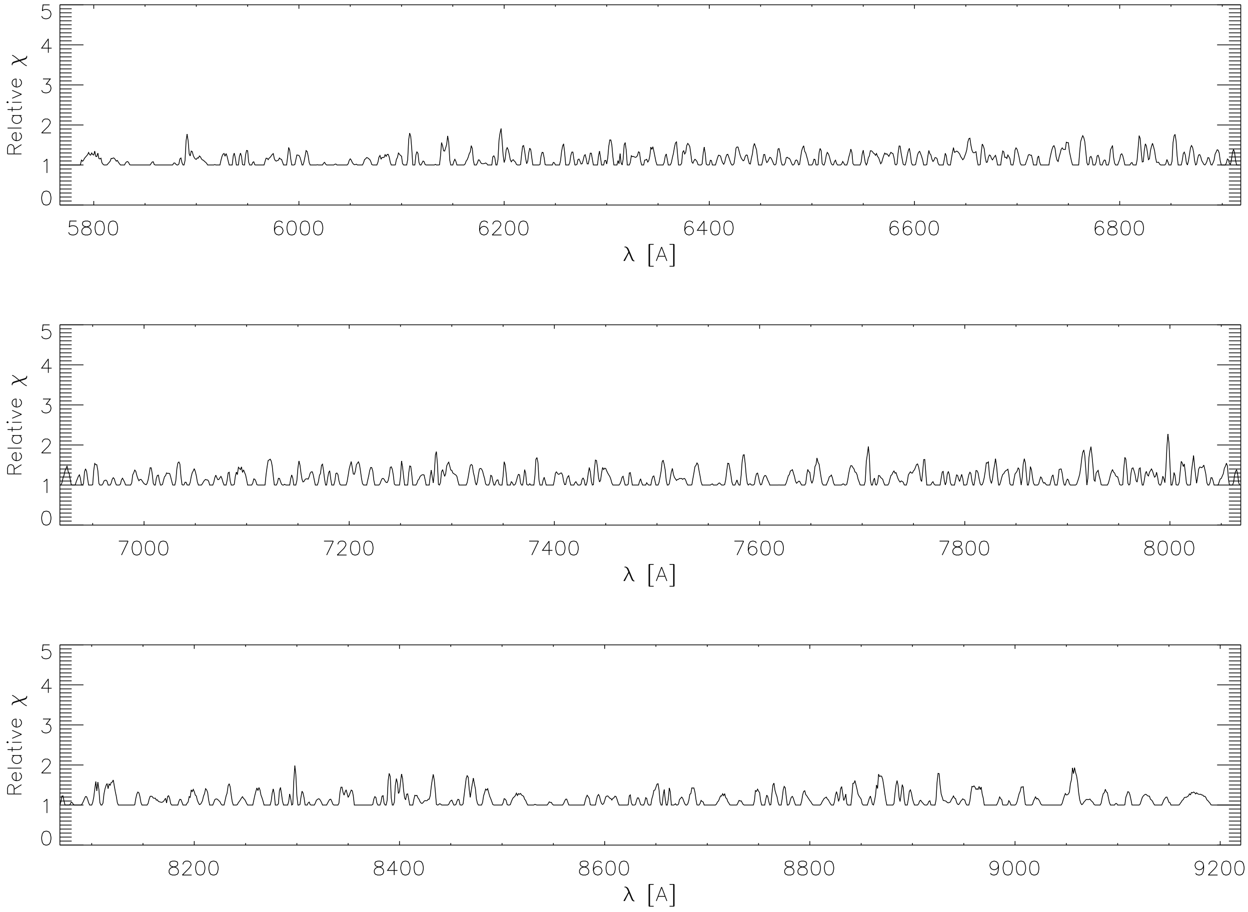

PLATE=3166 MJD=54829 sdR-r1-00057609.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
−10
−5
0
5
10
50
100
150
200
250
300
Fiber number


PLATE=3166 MJD=54829 sdR-r1-00057609.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

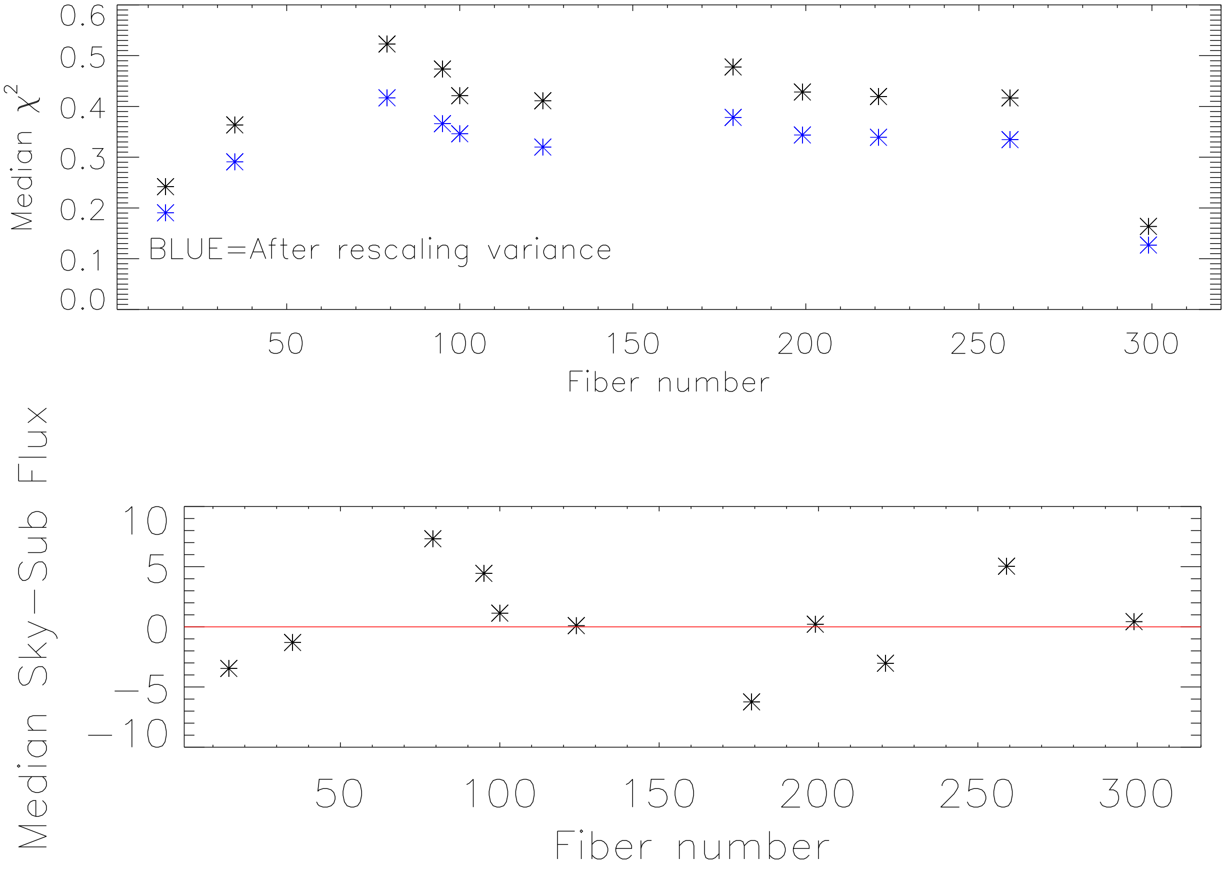

PLATE=3166 MJD=54829 sdR-r1-00057609.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
−200
8820
8840
8860
8880
8900
λ [A]

Number of sky fibers = 11

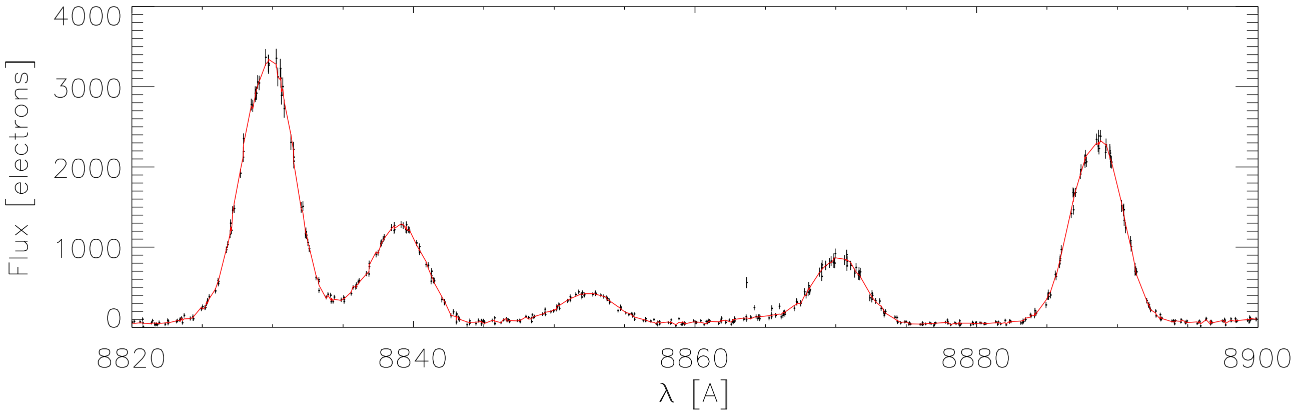
PLATE=3166 MJD=54829 sdR-r1-00057609.fit 1D Sky-subtraction Rescaled Errors



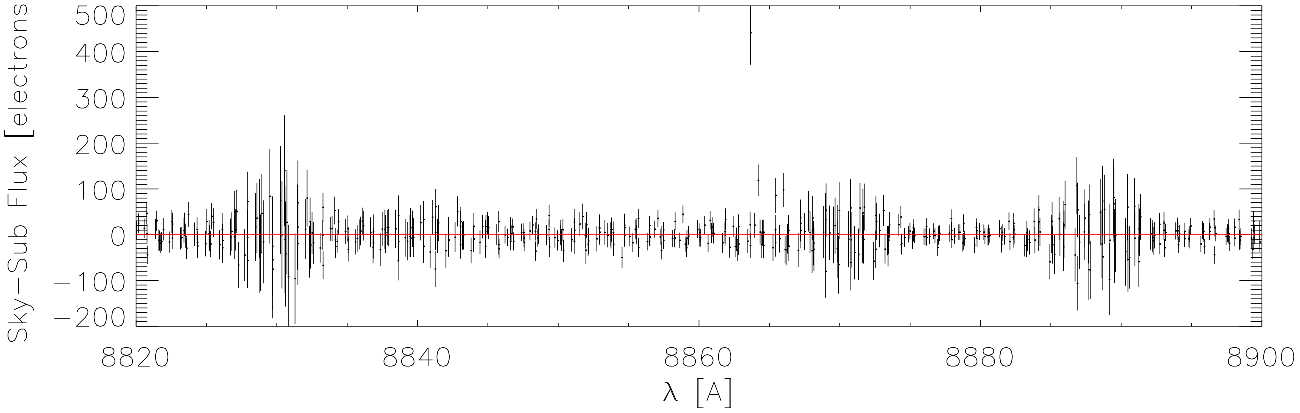
PLATE=3166 MJD=54829 sdR-r1-00057609.fit 2D Sky-subtraction Sky Fiber



PLATE=3166 MJD=54829 sdR-r1-00057609.fit 2D Sky-subtraction Sky Fibers

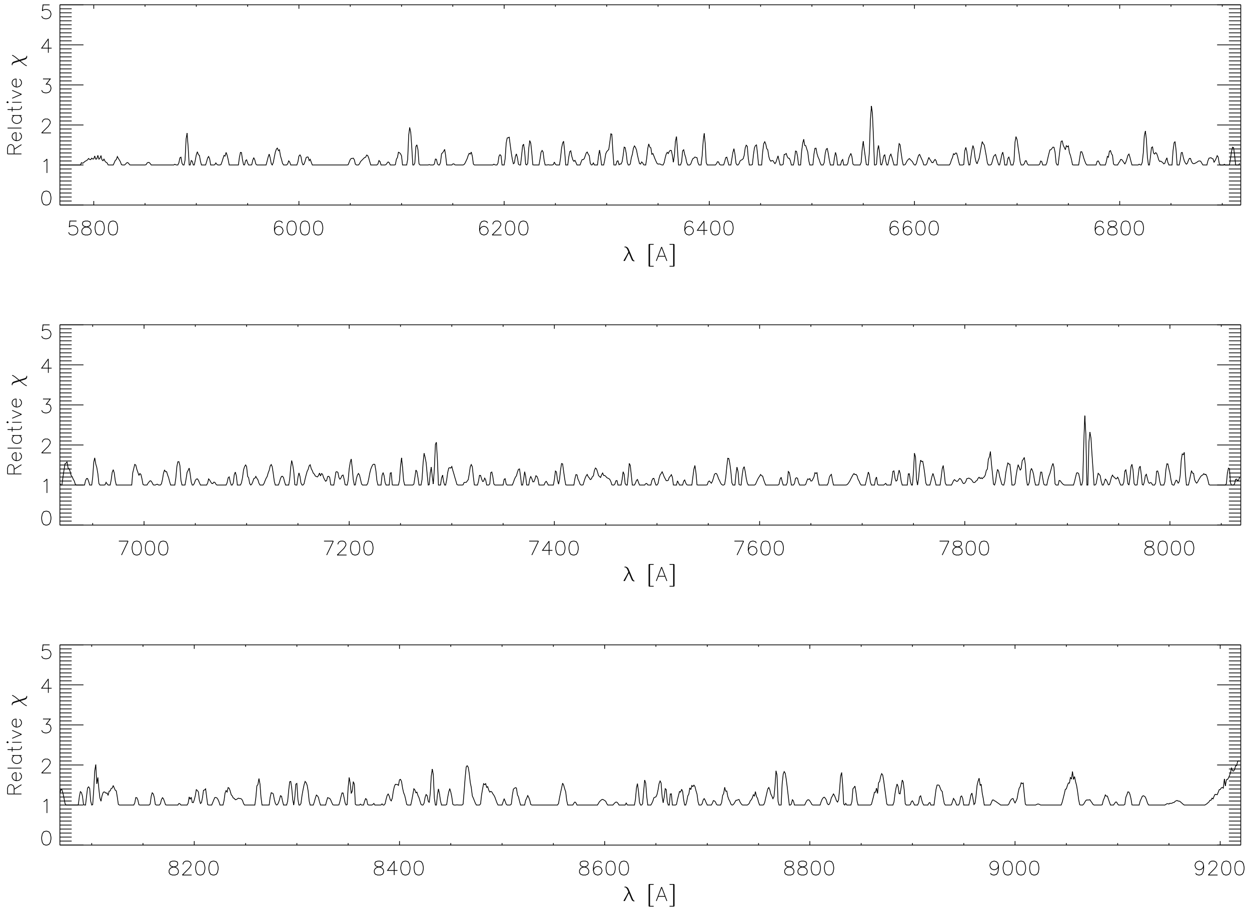


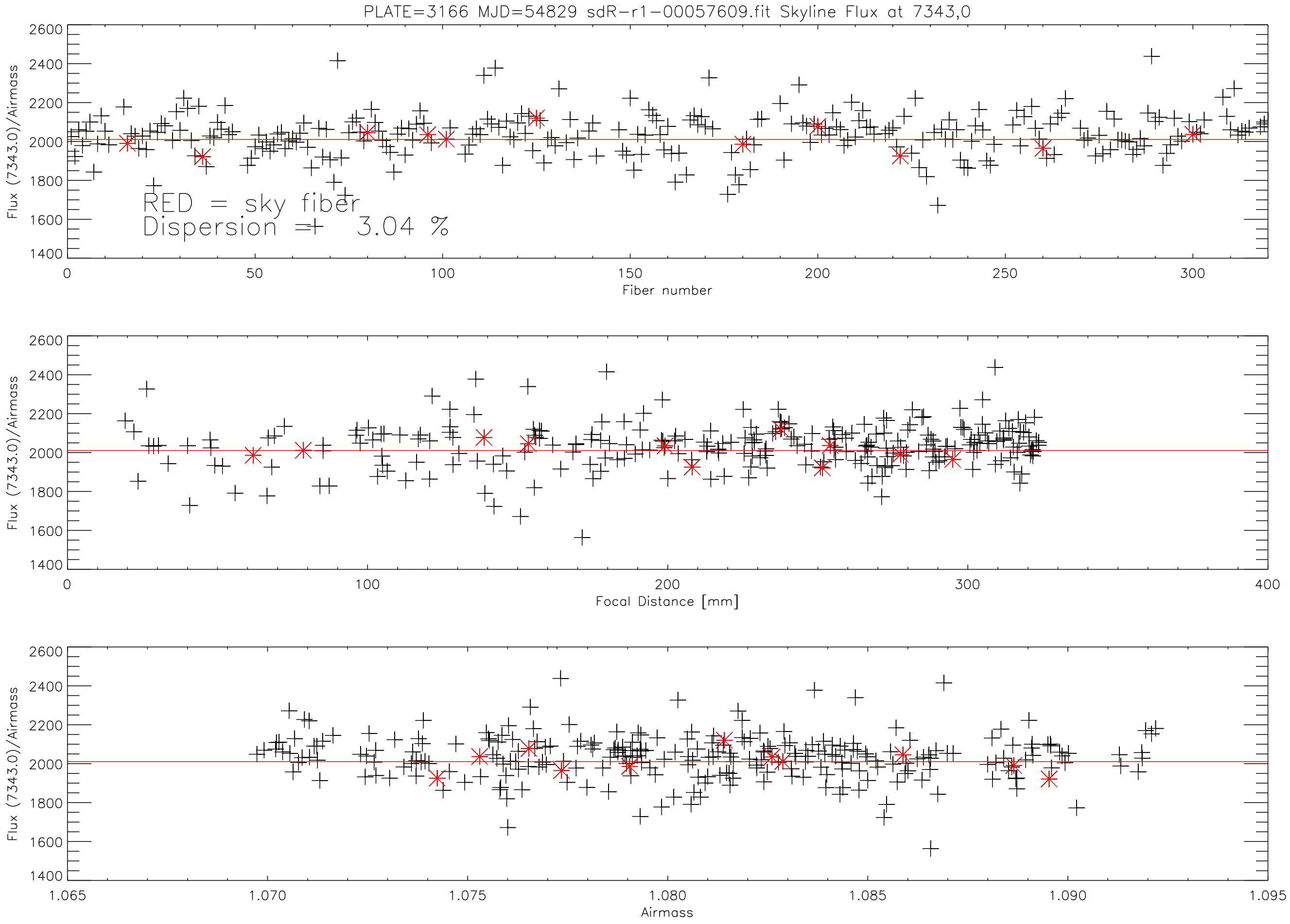
PLATE=3166 MJD=54829 sdR-r1-00057609.fit 2D Sky-subtraction Sky-subtracted Sky F

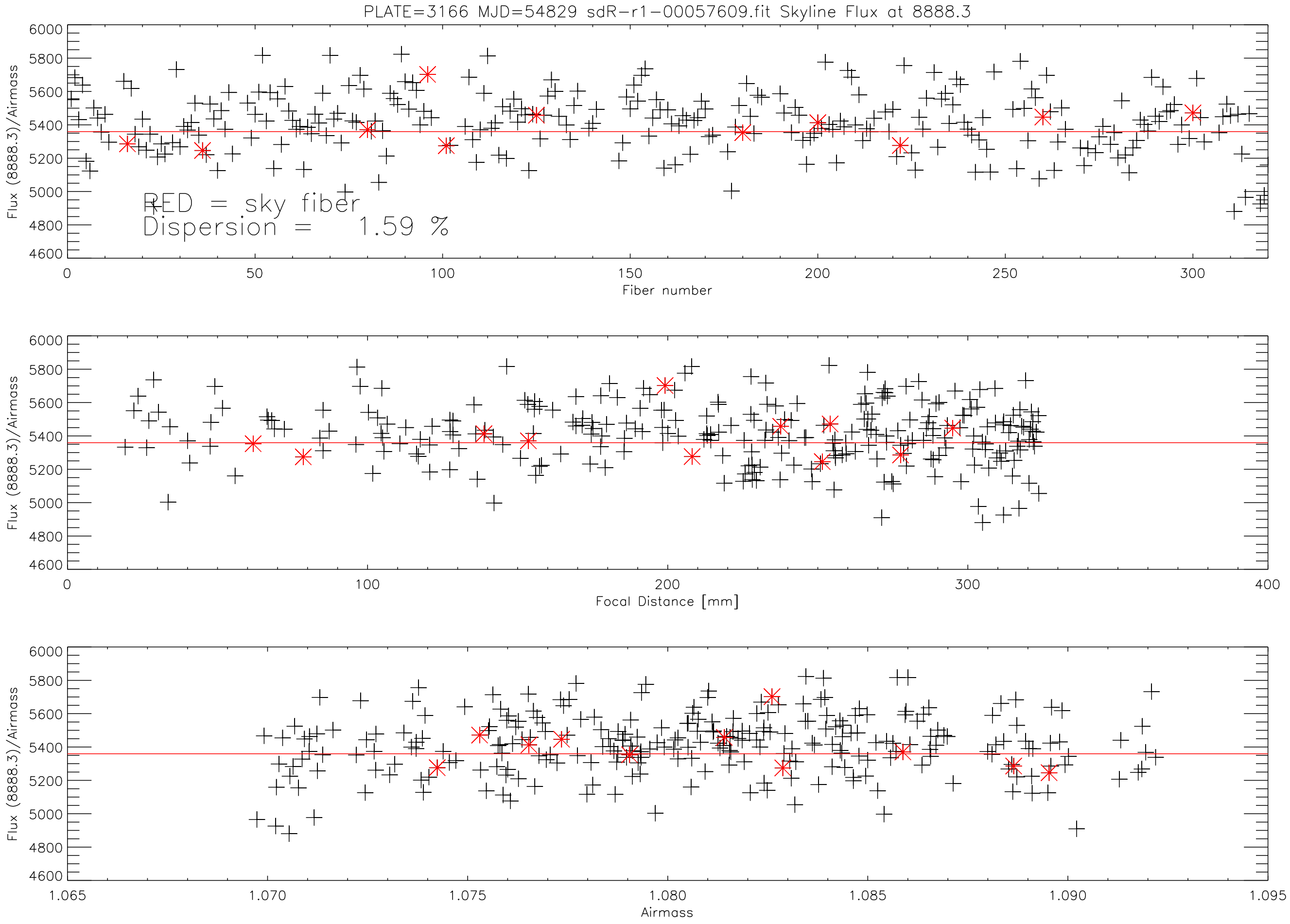


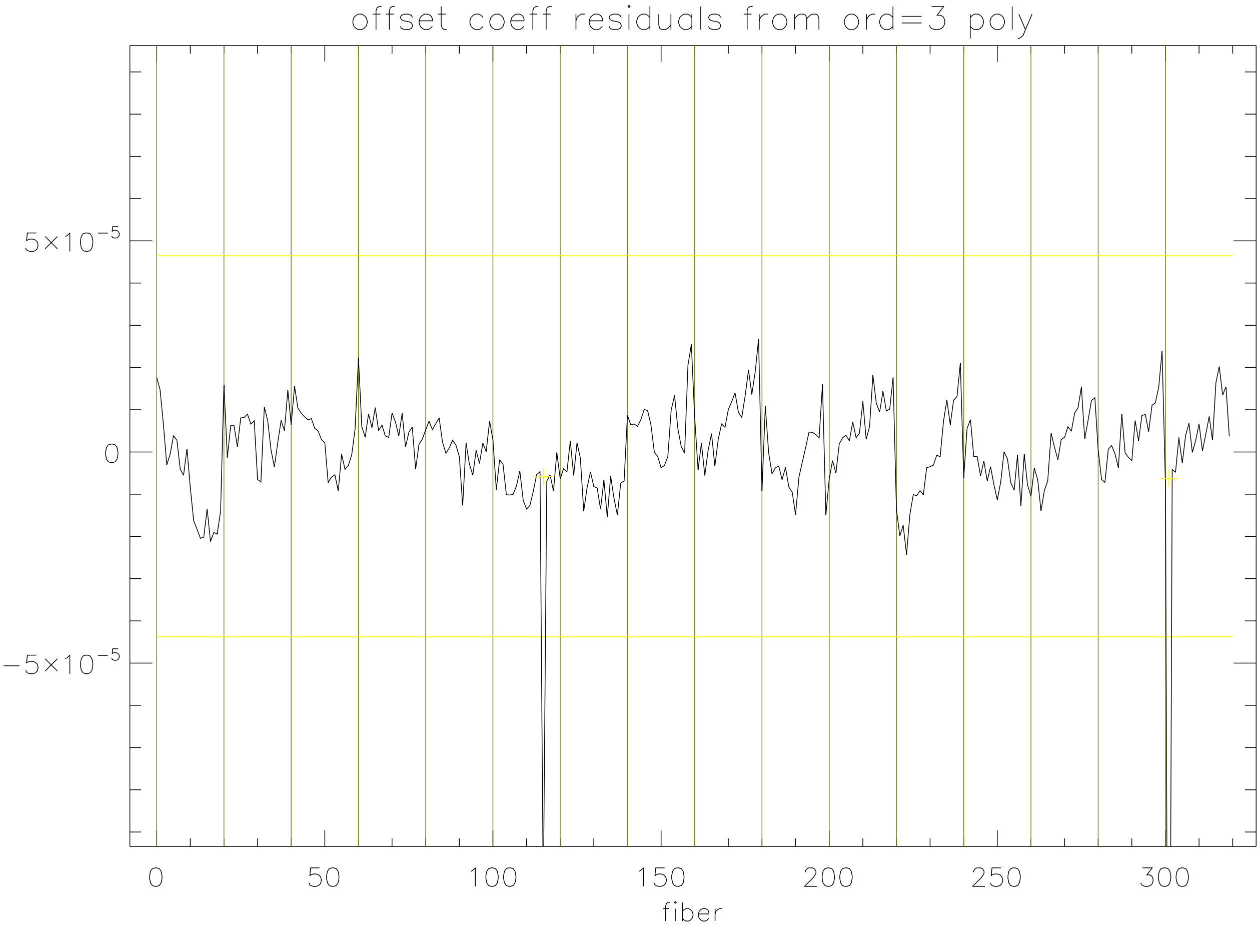
Number of sky fibers = 11

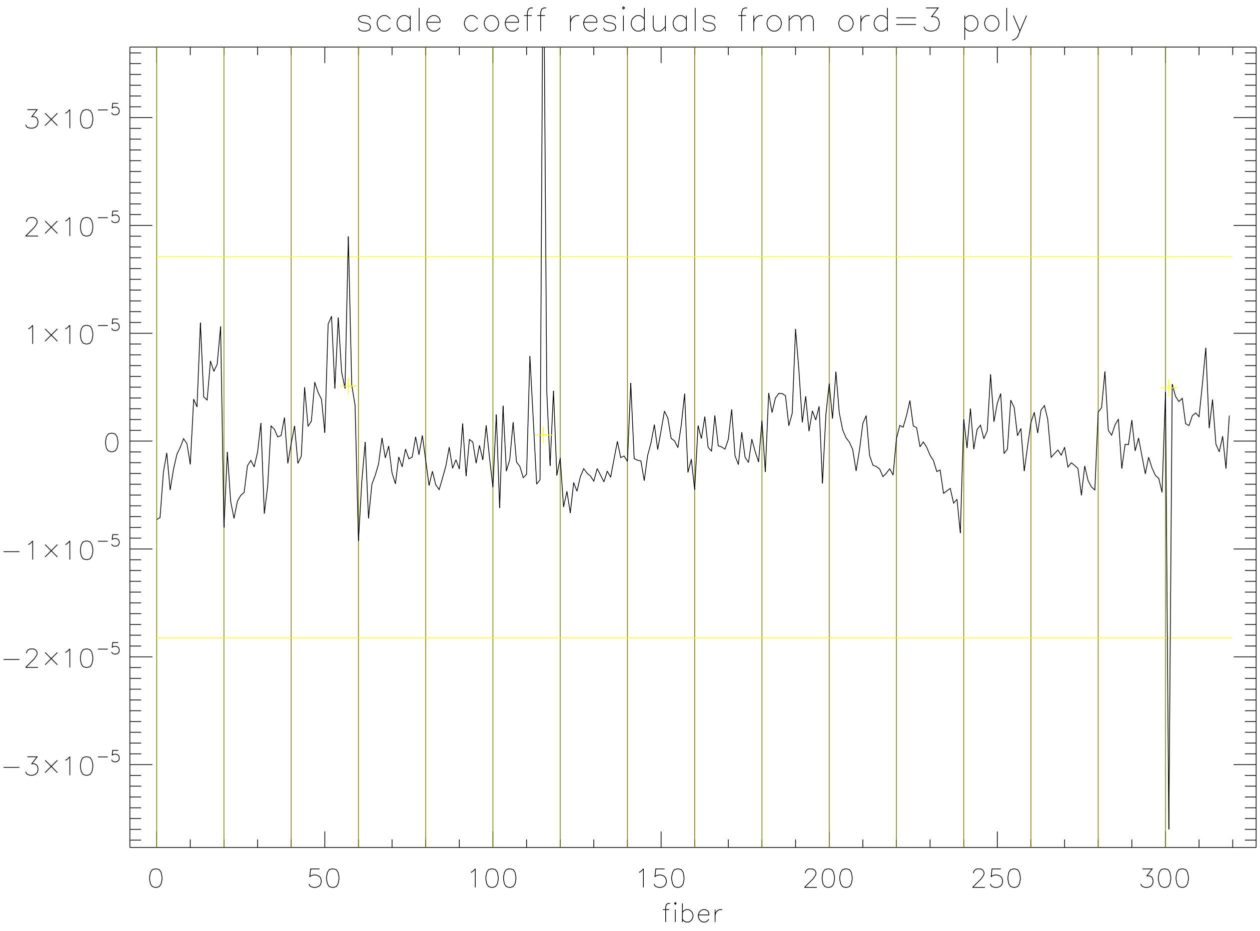
PLATE=3166 MJD=54829 sdR-r1-00057609.fit 2D Sky-subtraction Rescaled Errors

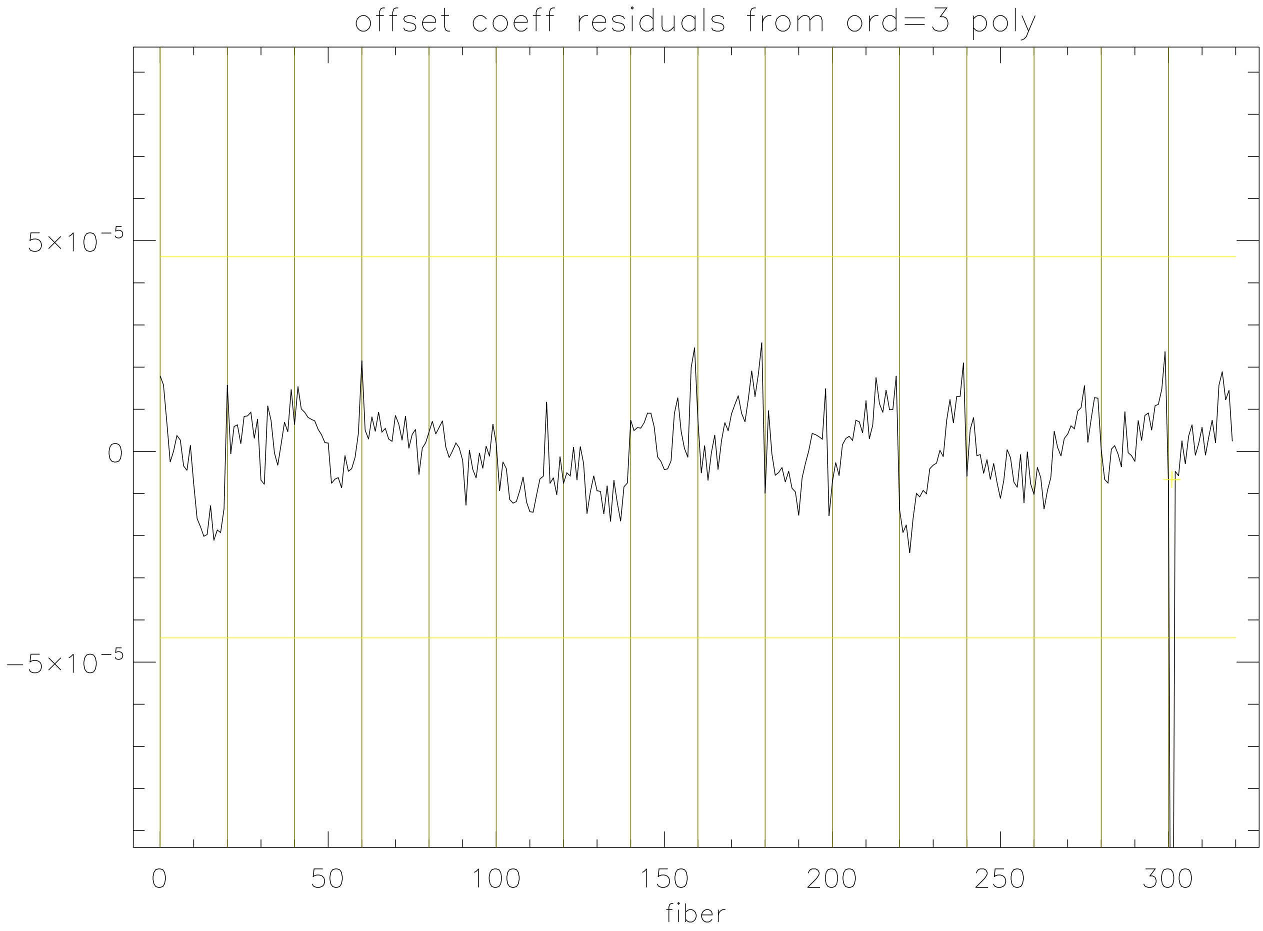


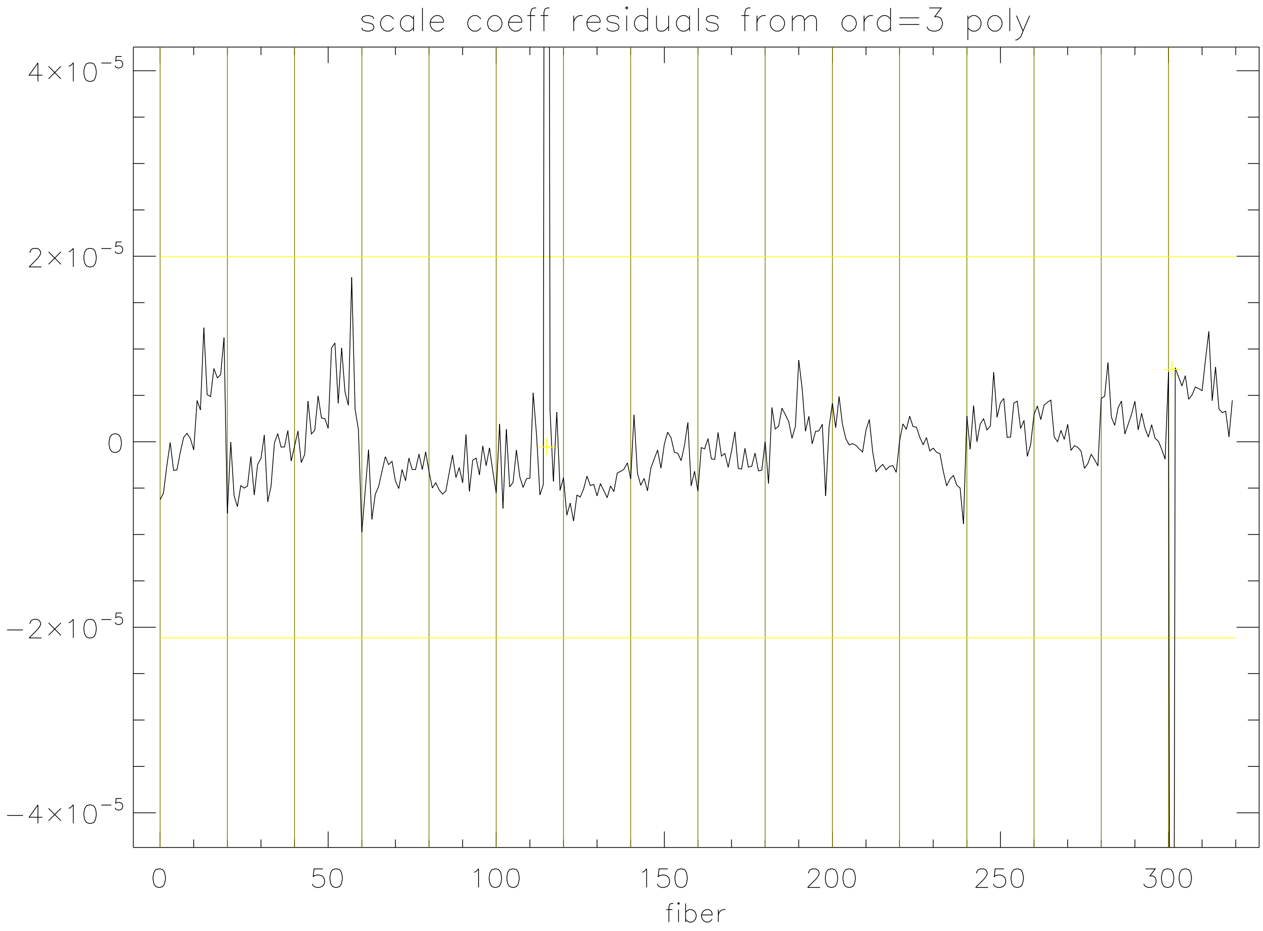

PLATE=3166 MJD=54829 sdR-r1-00057609.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
2600
2400
2200
2000
1800
1600
1400
RED = sky fiber
Dispersion = 3.04 %
0
50
100
150
200
250
300
Fiber number
Flux (7343.0)/Airmass
0
100
200
300
400
Focal Distance [mm]
Flux (7343.0)/Airmass
1.065
1.070
1.075
1.080
1.085
1.090
1.095
Airmass

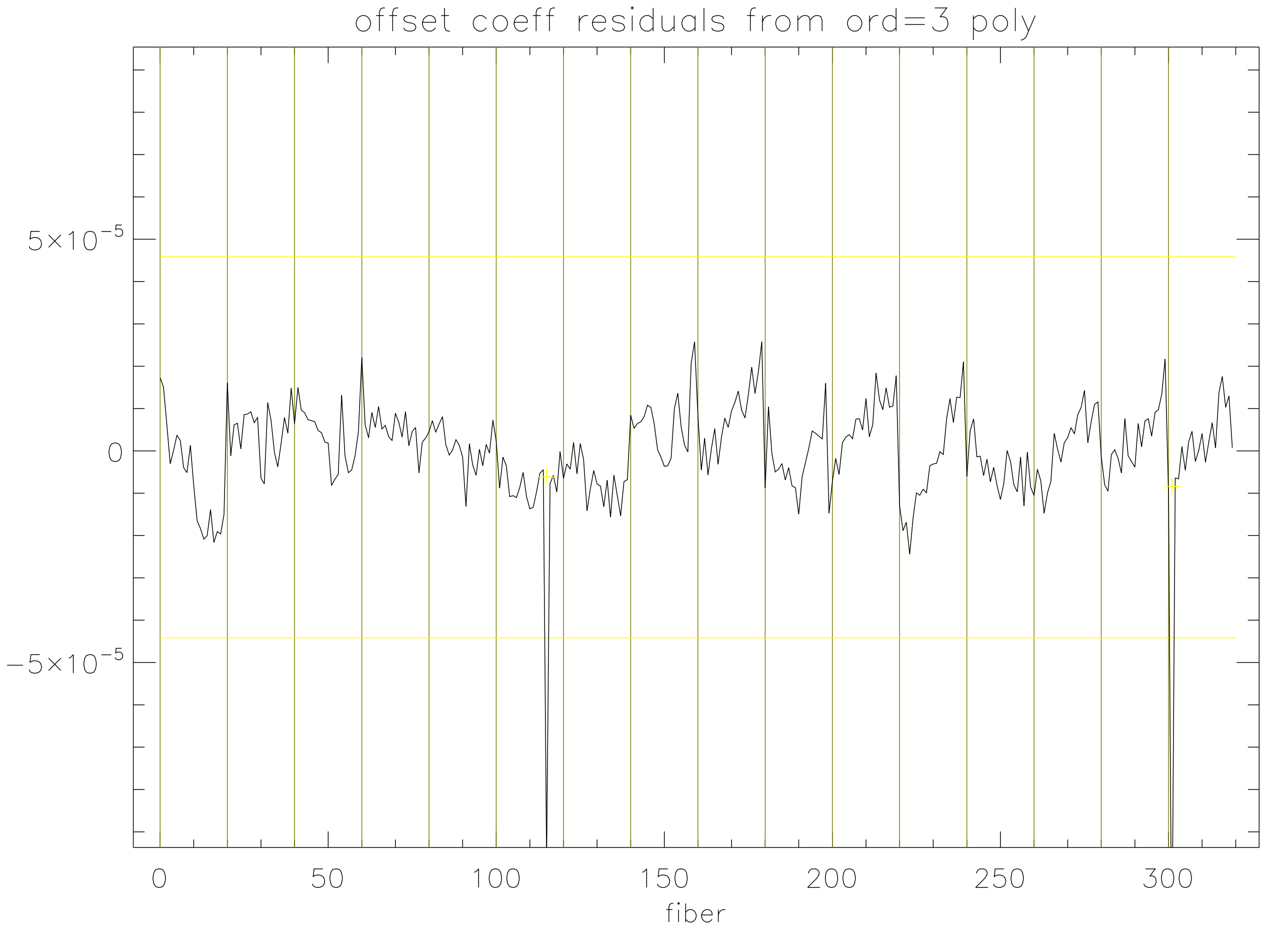
PLATE=3166 MJD=54829 sdR-r1-00057609.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
6000
5800
5600
5400
5200
5000
4800
4600
RED = sky fiber
Dispersion = 1.59 %
0
50
100
150
200
250
300
Fiber number
Flux (8888.3)/Airmass
0
100
200
300
400
Focal Distance [mm]
Flux (8888.3)/Airmass
1.065
1.070
1.075
1.080
1.085
1.090
1.095
Airmass

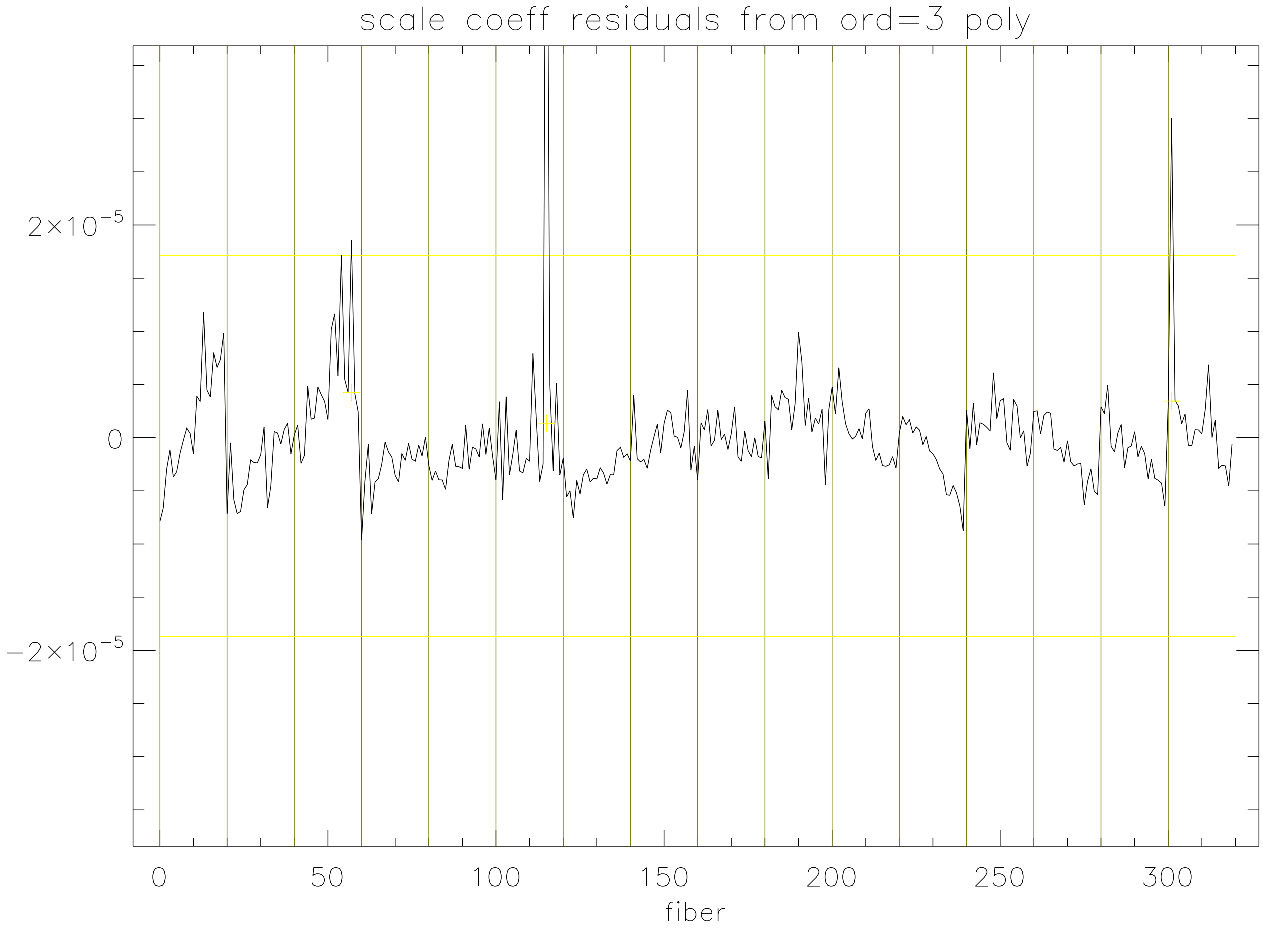

offset coeff residuals from ord=3 poly
5×10^{-5}
0
−5×10^{-5}
0
50
100
150
200
250
300
fiber

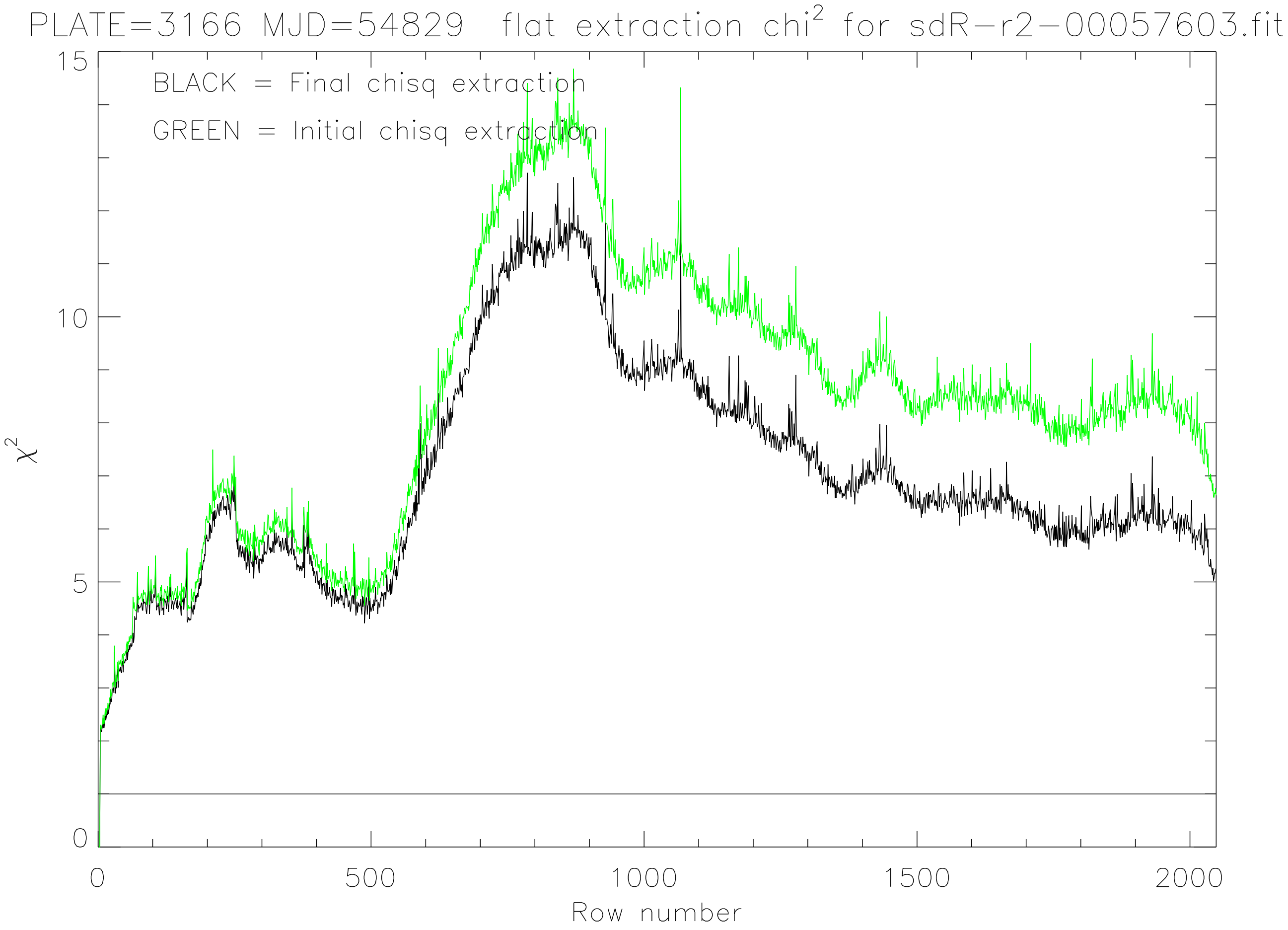

scale coeff residuals from ord=3 poly
3×10^{-5}
2×10^{-5}
1×10^{-5}
0
-1×10^{-5}
-2×10^{-5}
-3×10^{-5}
0
50
100
150
200
250
300
fiber

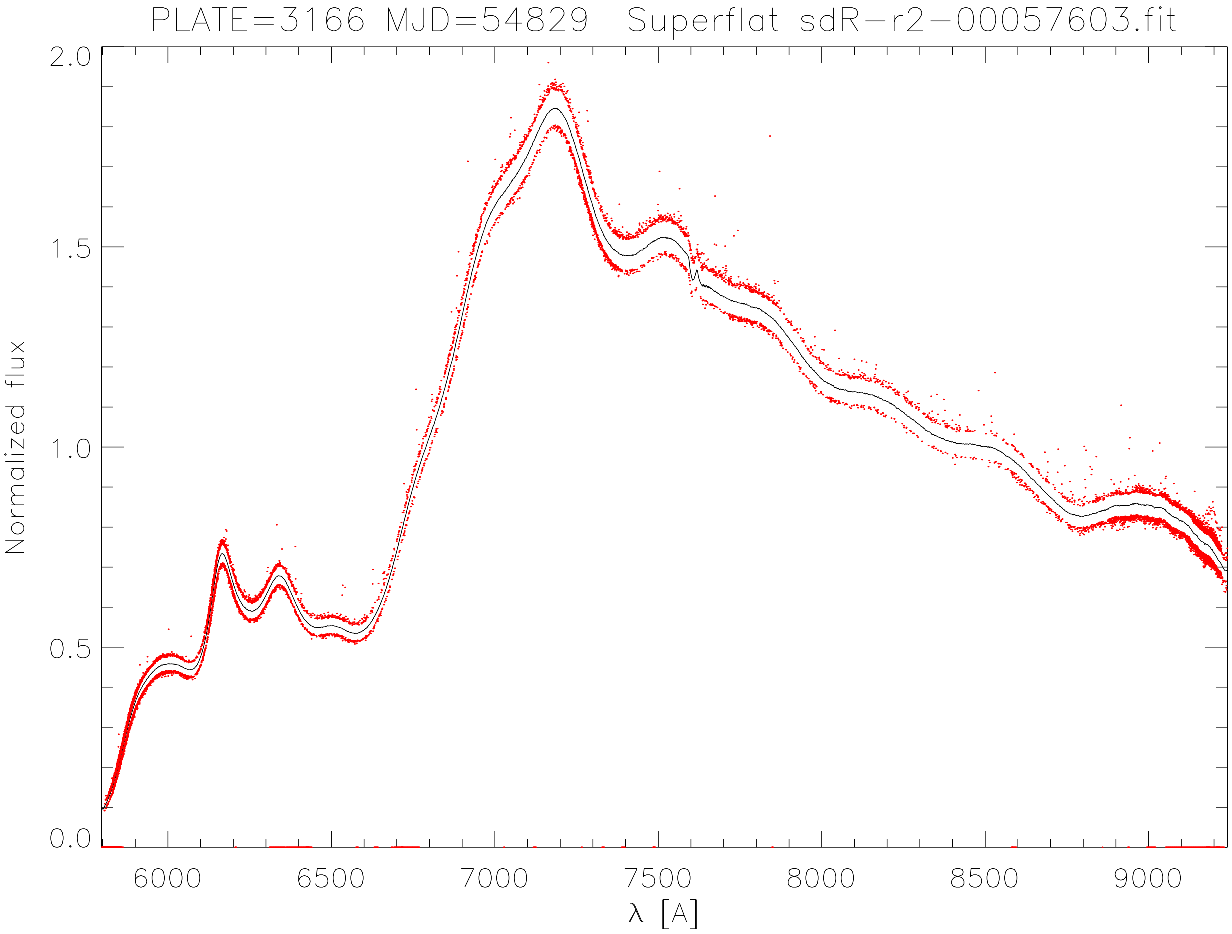

offset coeff residuals from ord=3 poly
5×10⁻⁵
0
−5×10⁻⁵
0
50
100
150
200
250
300
fiber


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

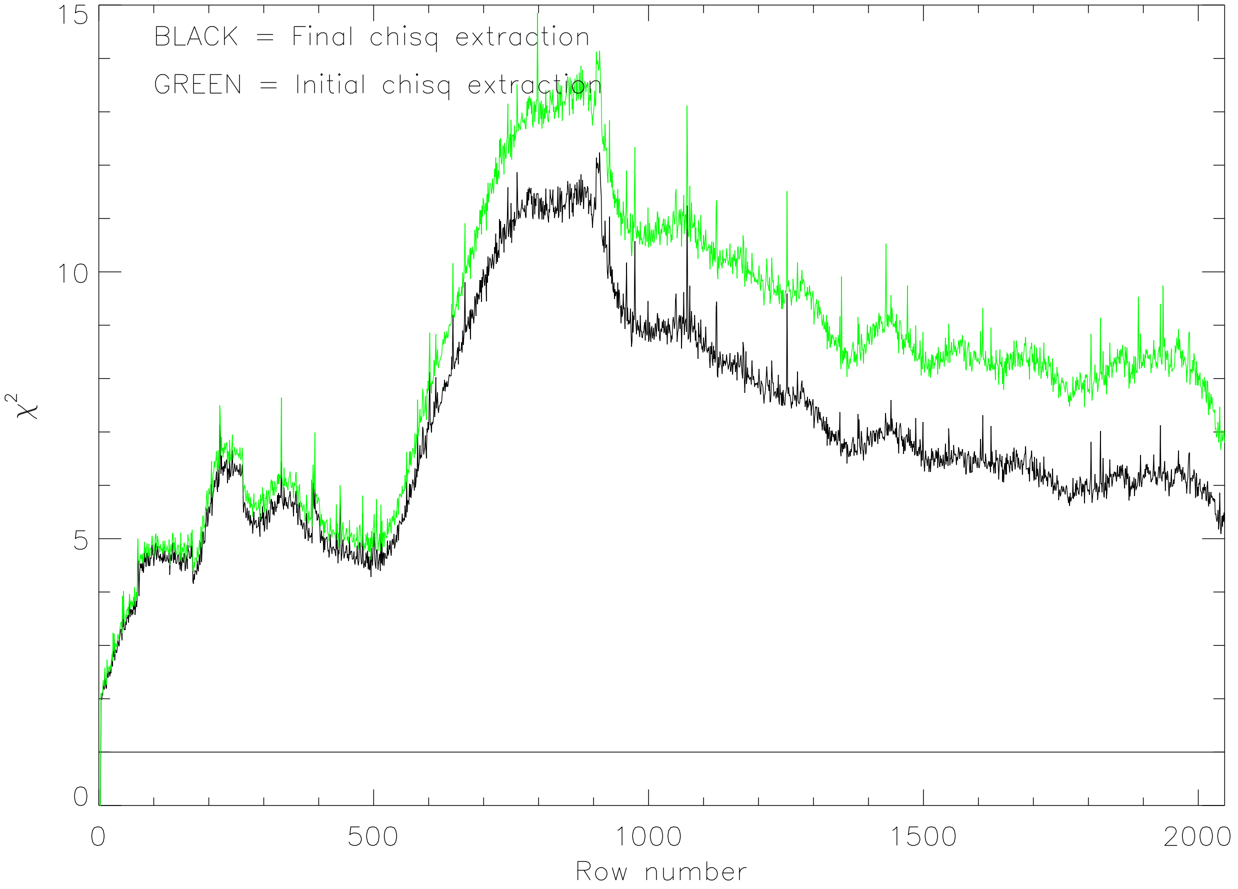

offset coeff residuals from ord=3 poly
5×10⁻⁵
0
−5×10⁻⁵
0
50
100
150
200
250
300
fiber

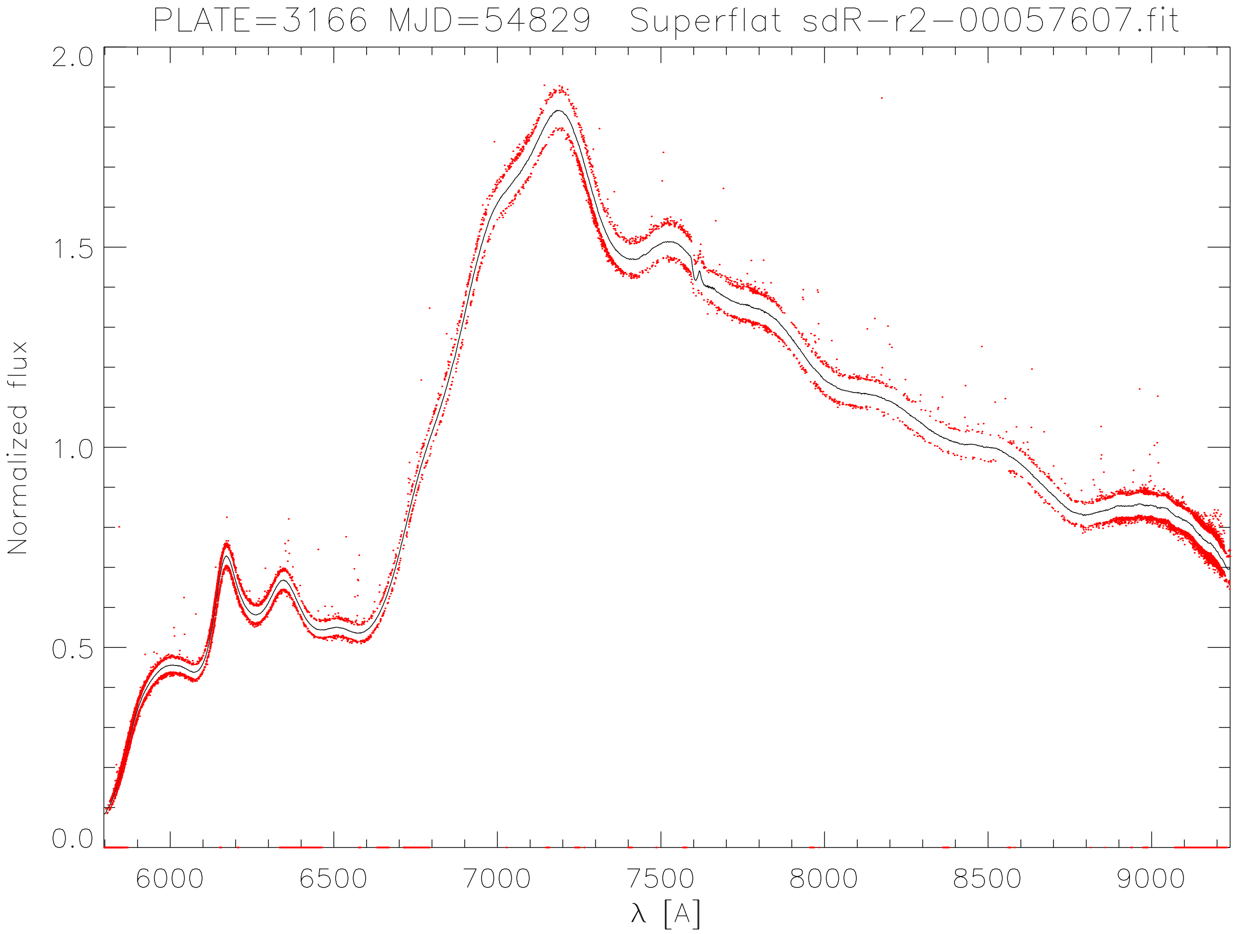

scale coeff residuals from ord=3 poly
2×10^{-5}
0
-2×10^{-5}
0
50
100
150
200
250
300
fiber

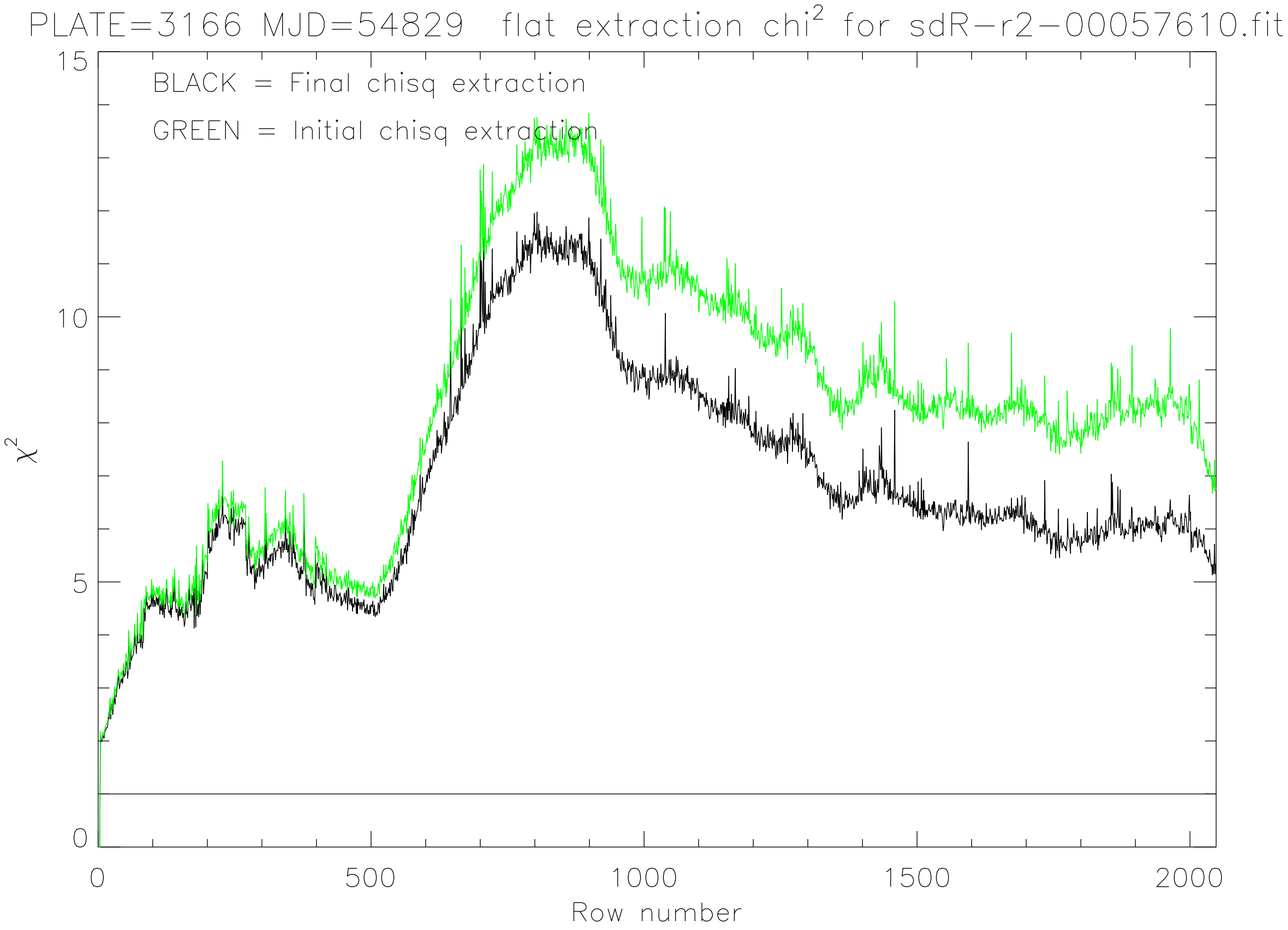

PLATE=3166 MJD=54829 flat extraction chi^2 for sdR-r2-00057603.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
0
5
10
15
0
500
1000
1500
2000
Row number

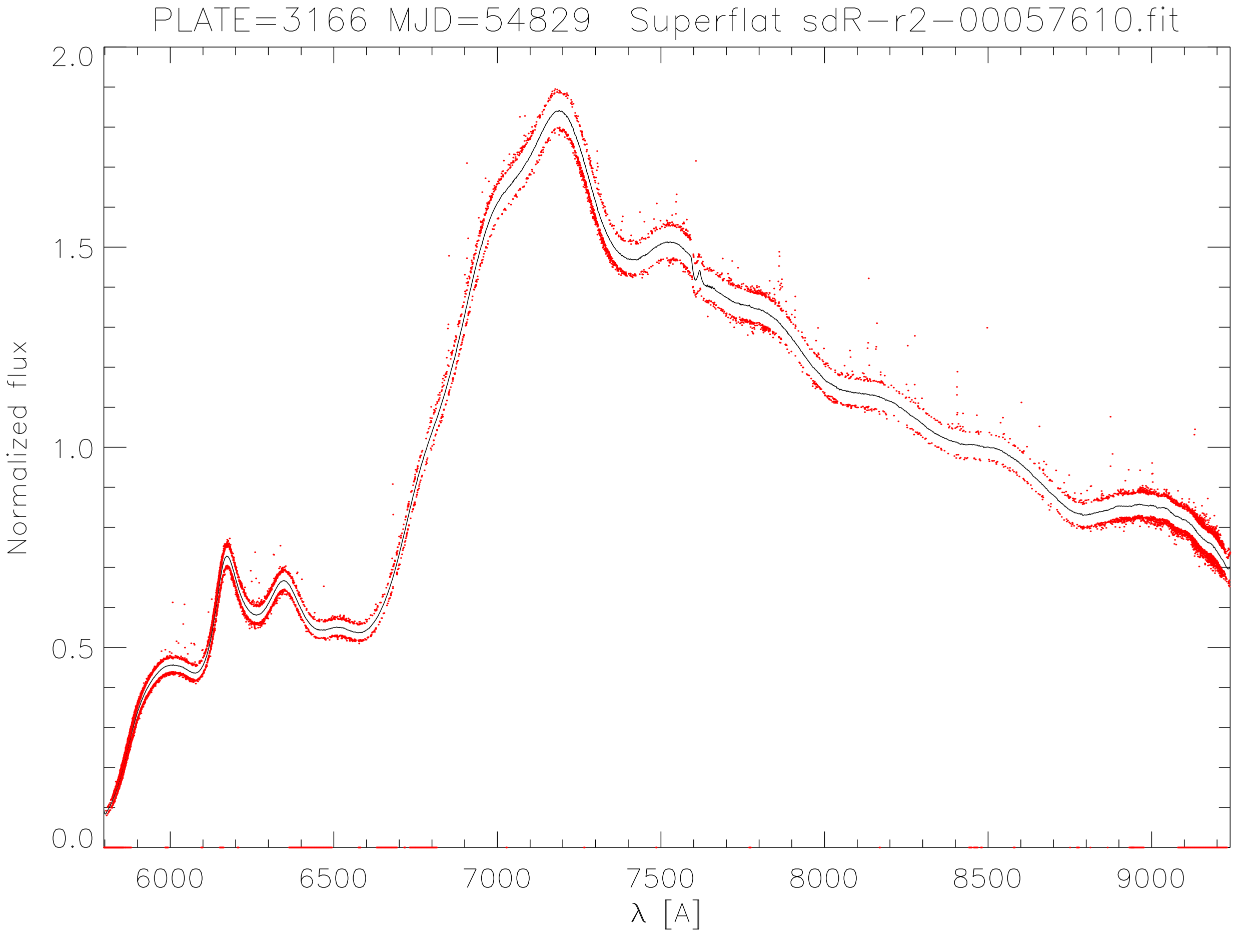

PLATE=3166 MJD=54829 Superflat sdR-r2-00057603.fit
Normalized flux
0.0
0.5
1.0
1.5
2.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

PLATE=3166 MJD=54829 flat extraction chi^2 for sdR-r2-00057607.fit

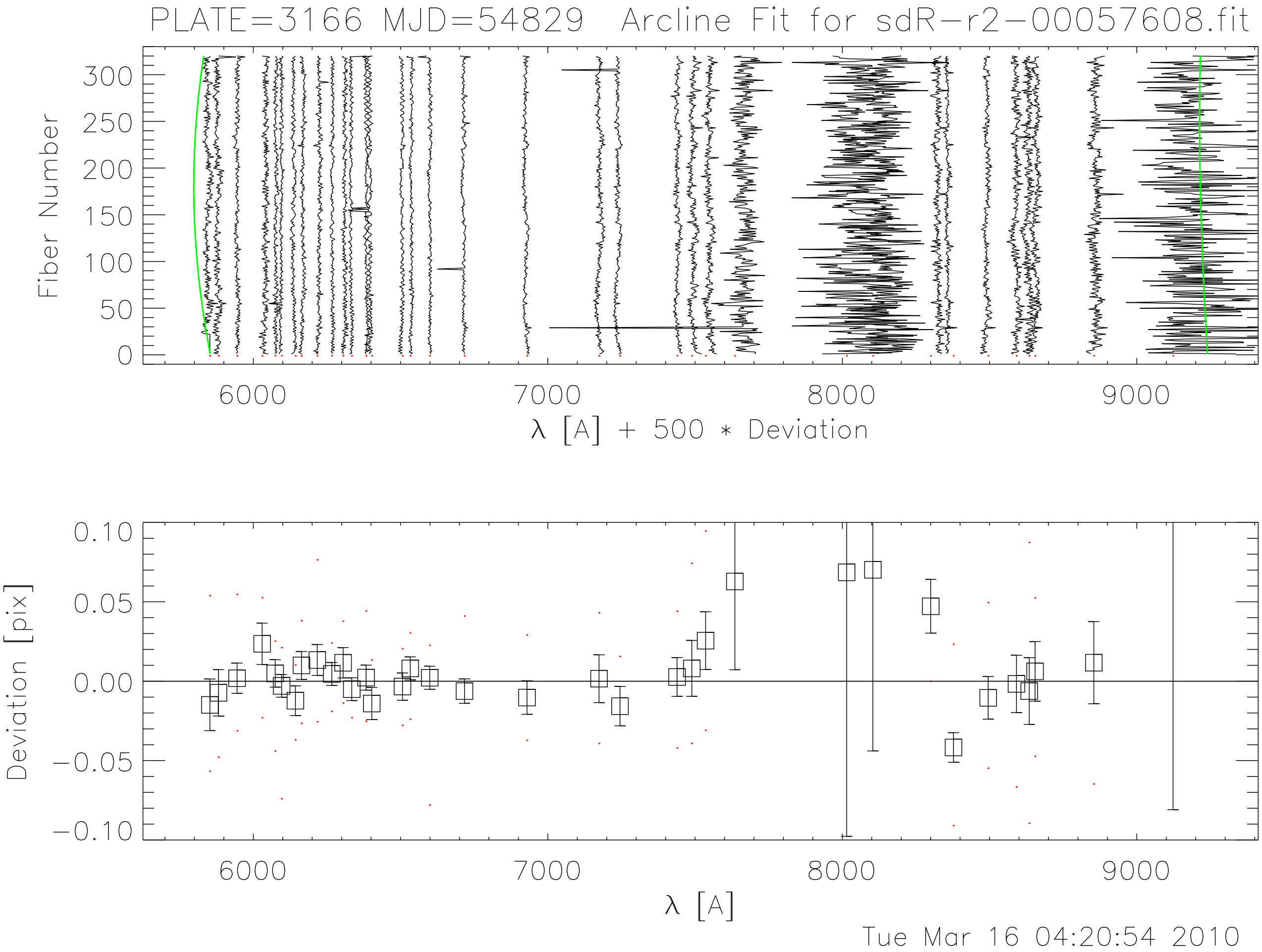


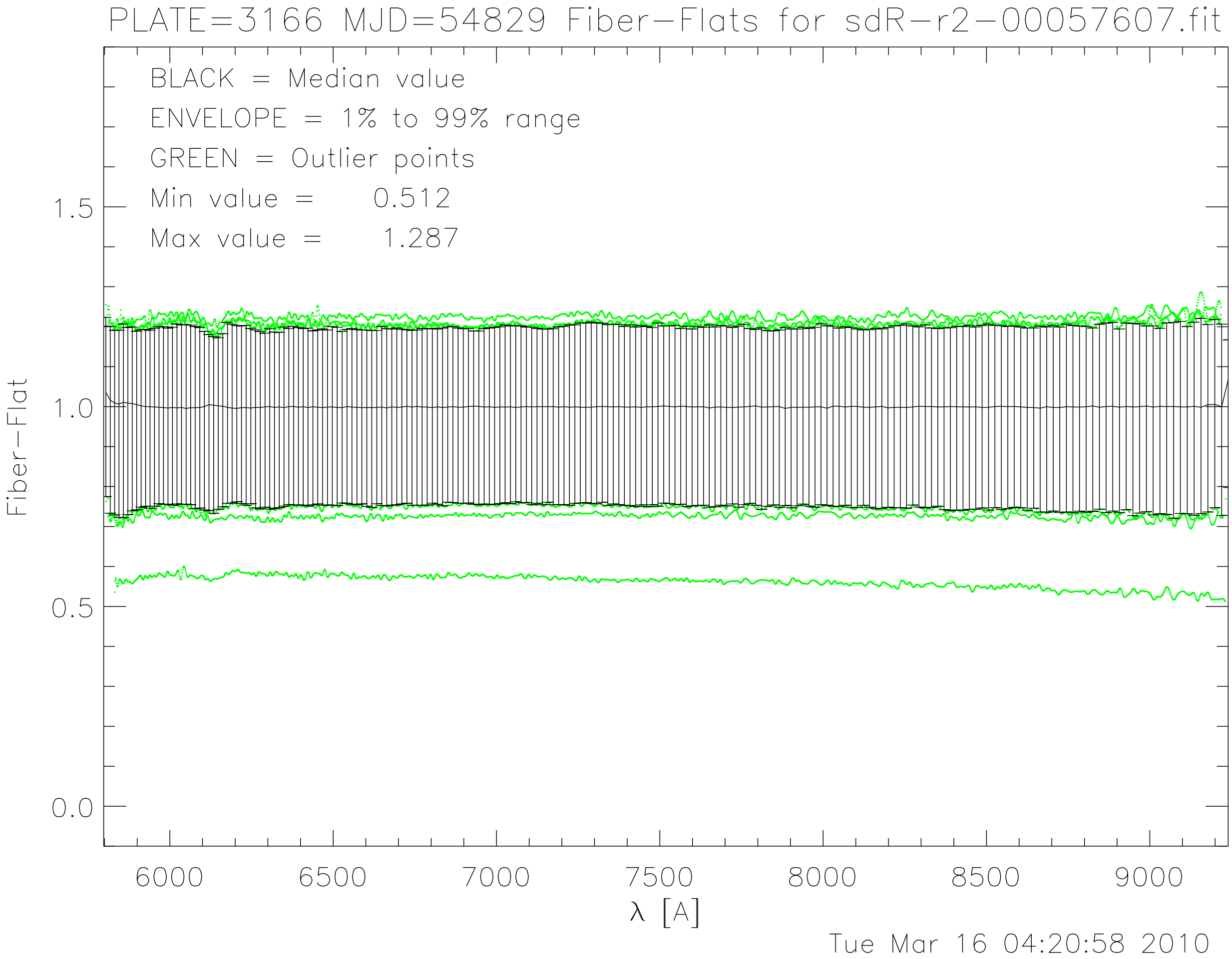

PLATE=3166 MJD=54829 Superflat sdR-r2-00057607.fit
Normalized flux
0.0
0.5
1.0
1.5
2.0
λ [A]
6000
6500
7000
7500
8000
8500
9000


PLATE=3166 MJD=54829 flat extraction chi^2 for sdR-r2-00057610.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
0
5
10
15
0
500
1000
1500
2000
Row number

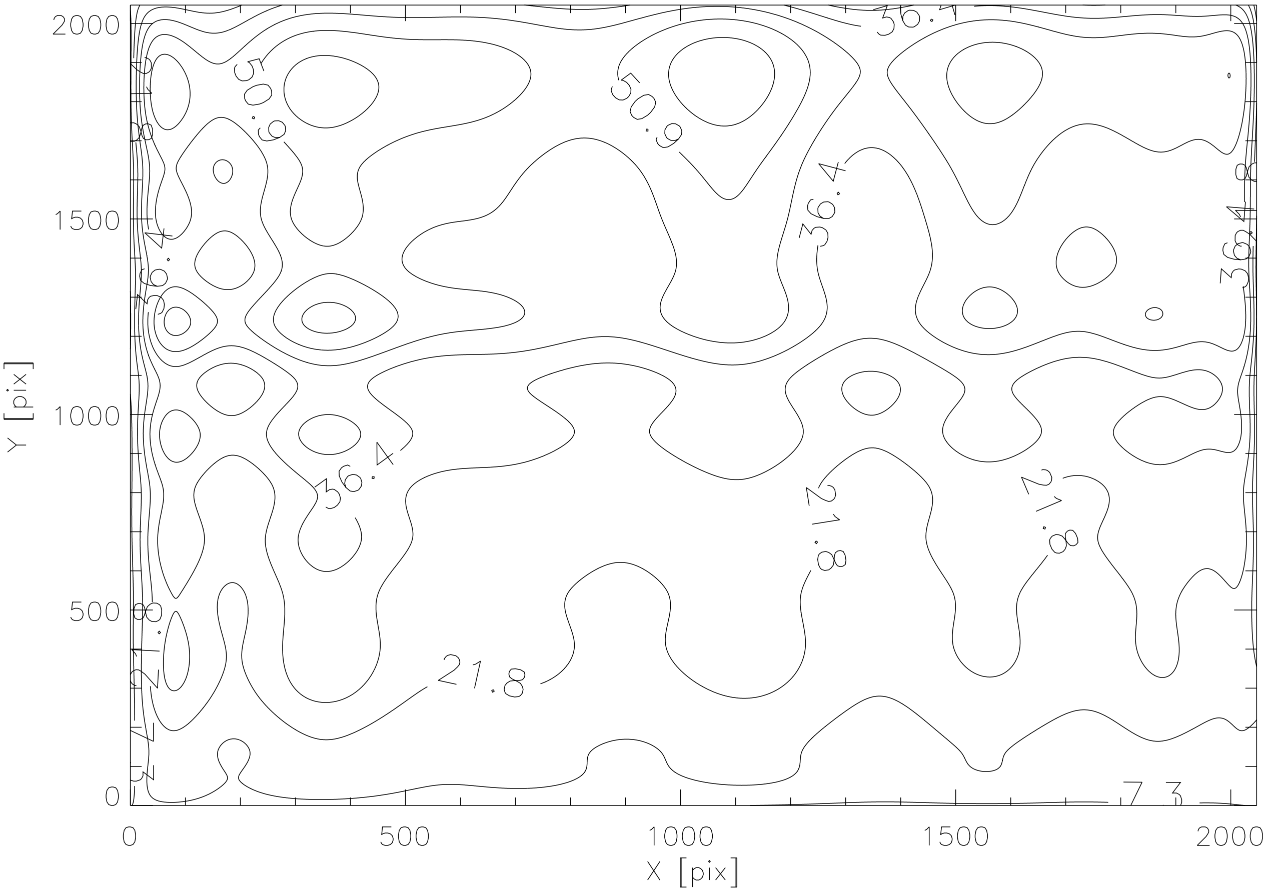


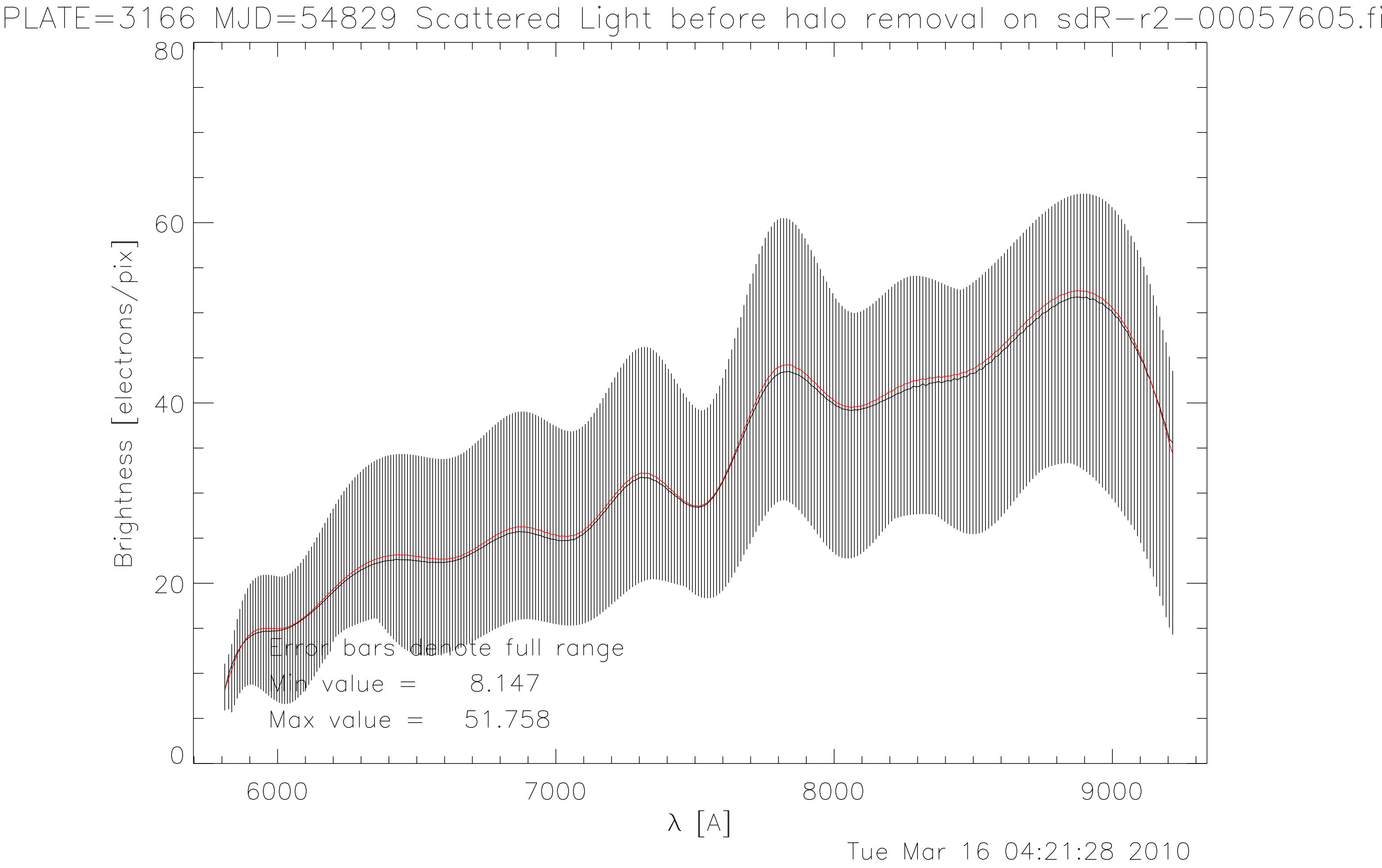
PLATE=3166 MJD=54829 Superflat sdR-r2-00057610.fit
Normalized flux
0.0
0.5
1.0
1.5
2.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

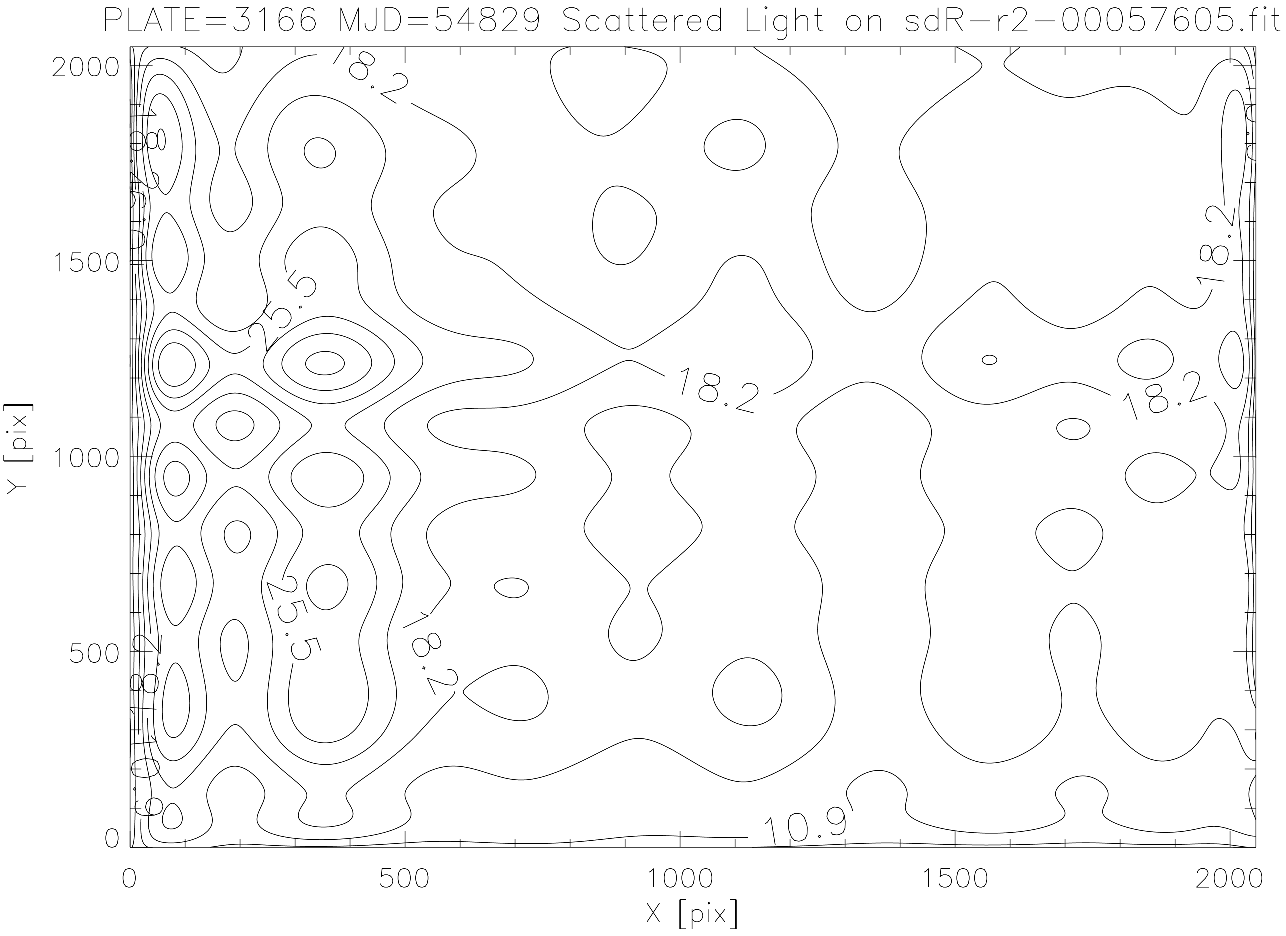

PLATE=3166 MJD=54829 Arcline Fit for sdR-r2-00057608.fit
Fiber Number
0
50
100
150
200
250
300
6000
7000
8000
9000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
6000
7000
8000
9000
λ [A]
Tue Mar 16 04:20:54 2010

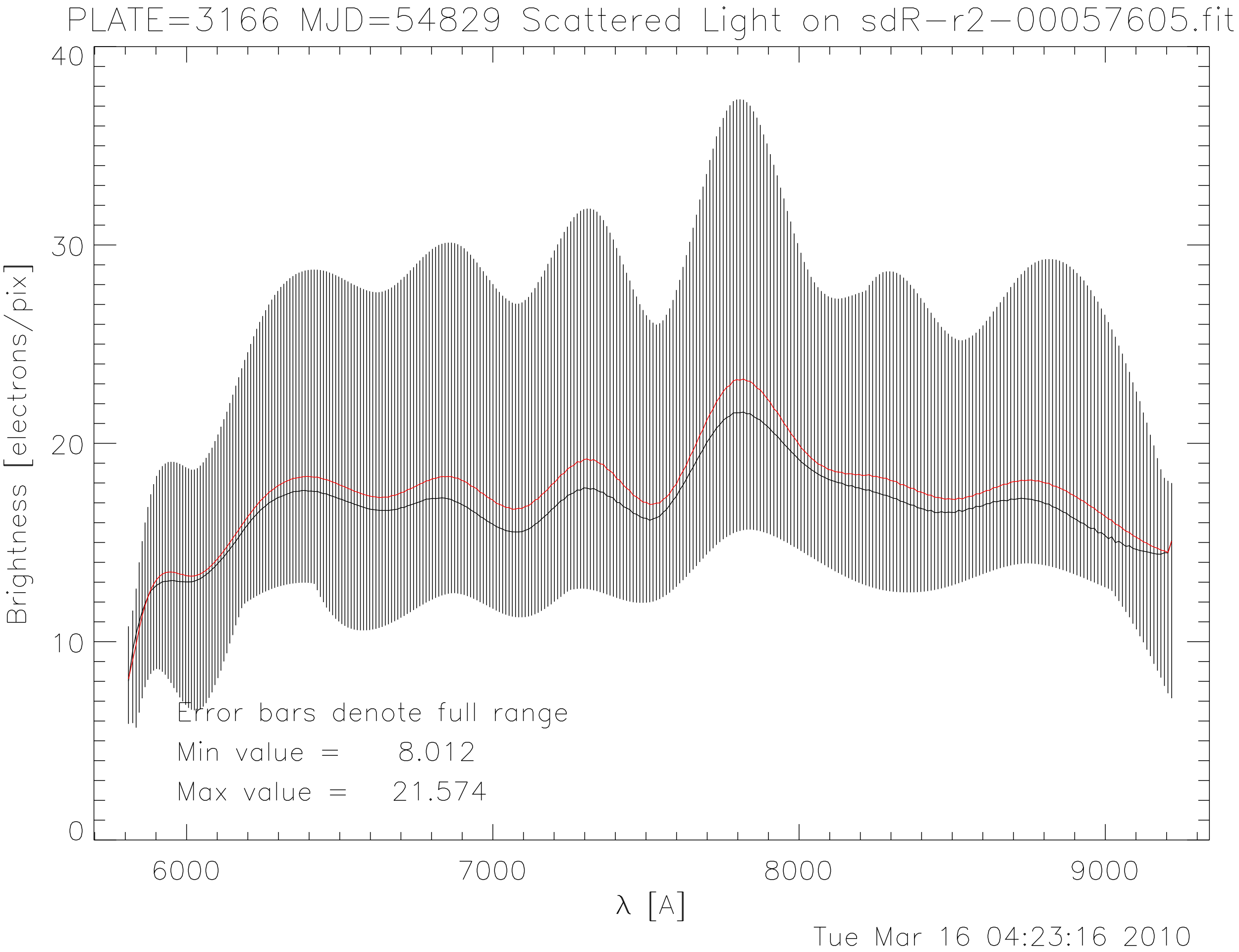

PLATE=3166 MJD=54829 Fiber−Flats for sdR−r2−00057607.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.512
Max value = 1.287
Fiber−Flat
0.0
0.5
1.0
1.5
6000
6500
7000
7500
8000
8500
9000
λ [A]
Tue Mar 16 04:20:58 2010

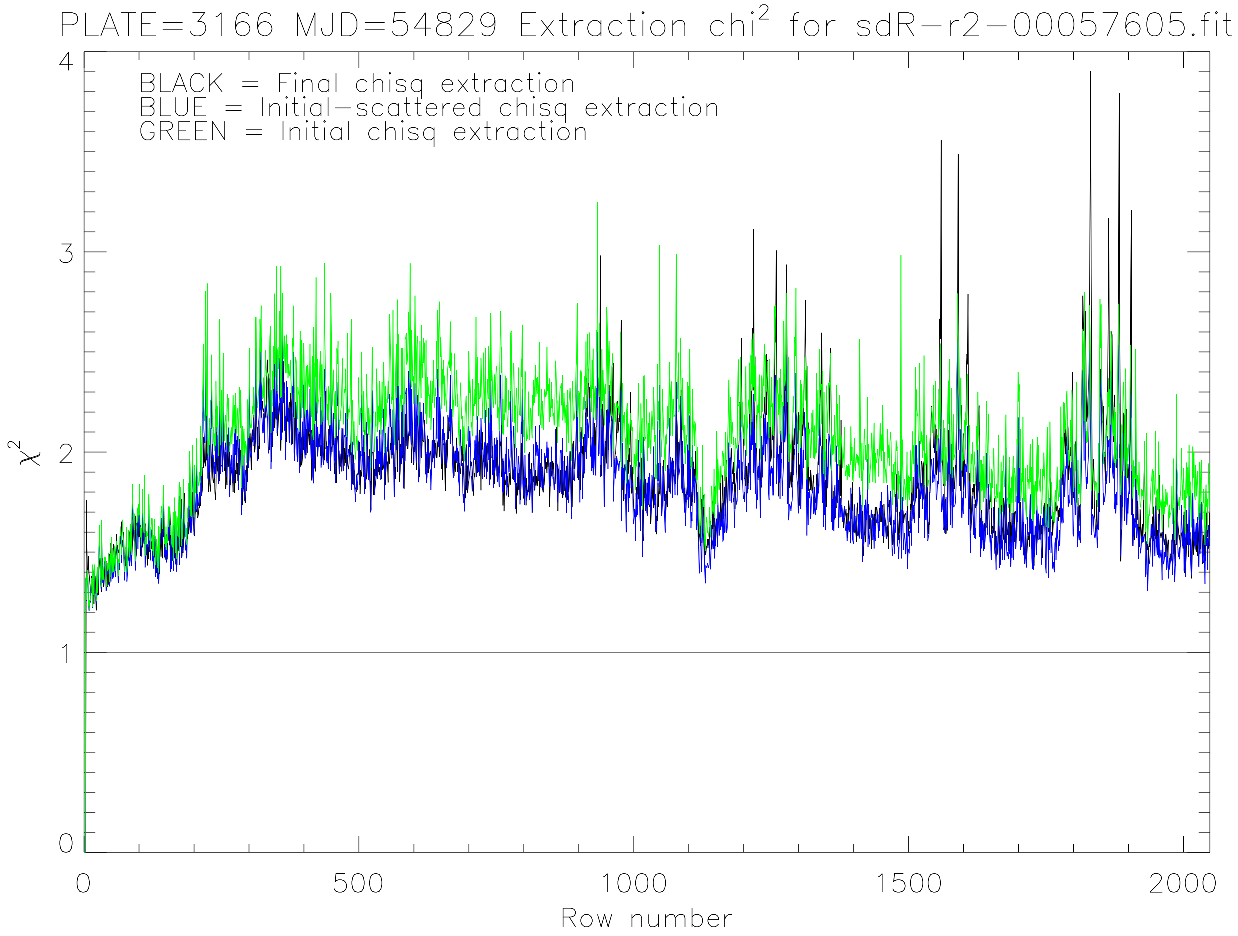
PLATE=3166 MJD=54829 Scattered Light before halo removal on sdR-r2-00057605.fi

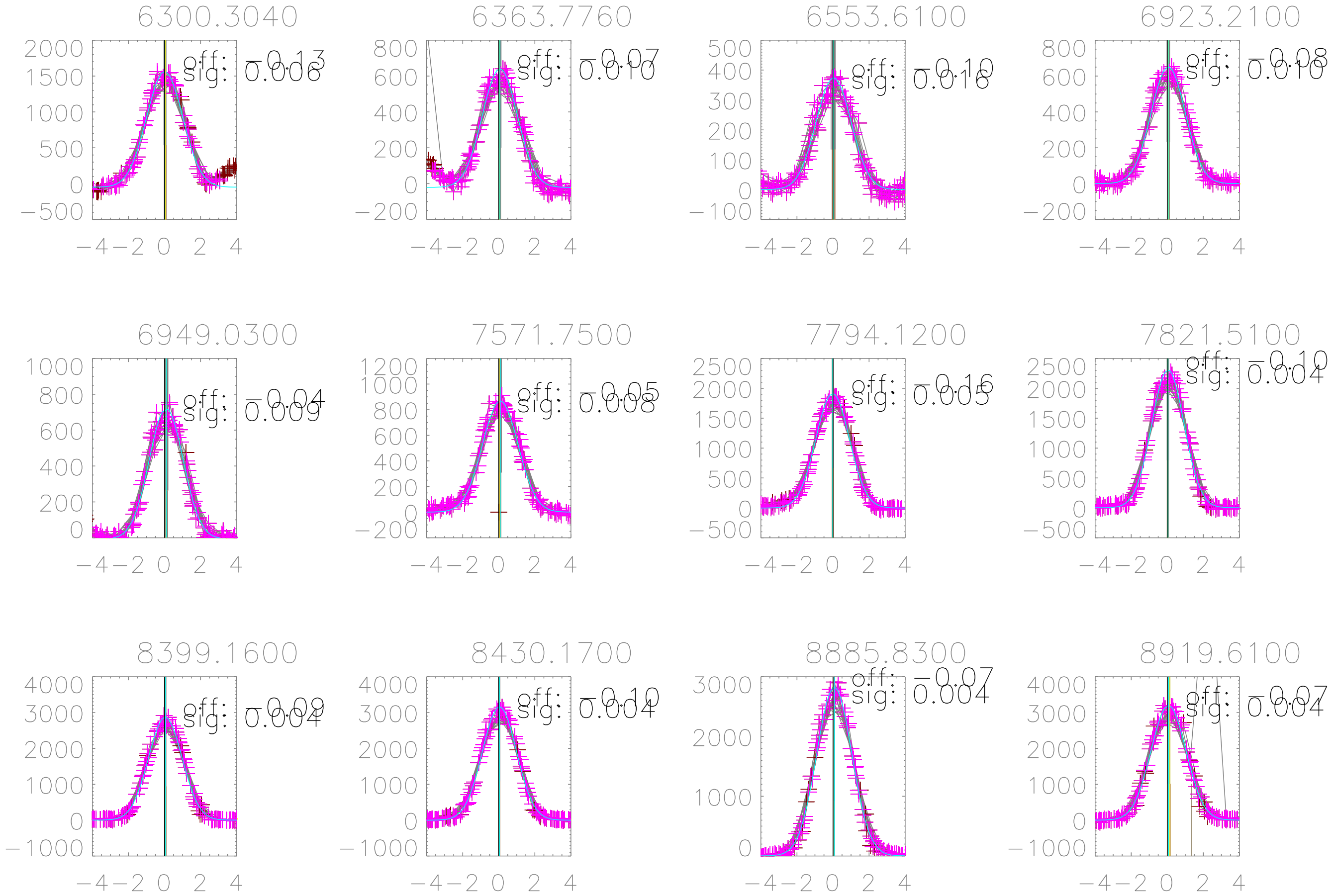


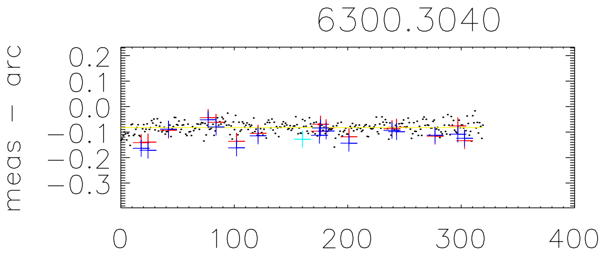

PLATE=3166 MJD=54829 Scattered Light before halo removal on sdR-r2-00057605.fi
Brightness [electrons/pix]
0
20
40
60
80
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 8.147
Max value = 51.758
Tue Mar 16 04:21:28 2010

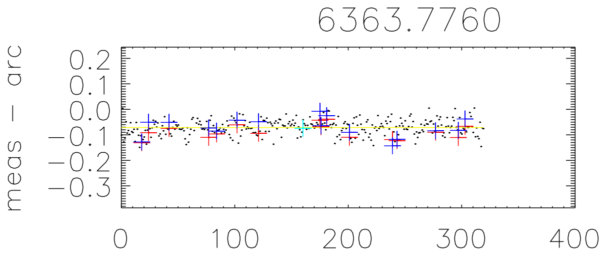

PLATE=3166 MJD=54829 Scattered Light on sdR-r2-00057605.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
0
500
1000
1500
2000
18.2
25.5
25.5
18.2
18.2
18.2
18.2
18.2
10.9

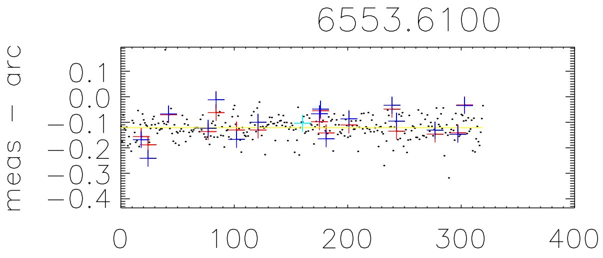

PLATE=3166 MJD=54829 Scattered Light on sdR-r2-00057605.fit
Brightness [electrons/pix]
0
10
20
30
40
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value =   8.012
Max value =   21.574
Tue Mar 16 04:23:16 2010

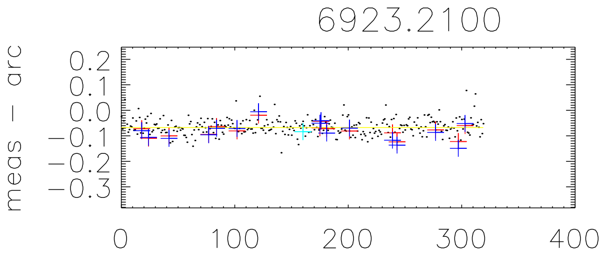

PLATE=3166 MJD=54829 Extraction chi^2 for sdR-r2-00057605.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
0
500
1000
1500
2000
Row number

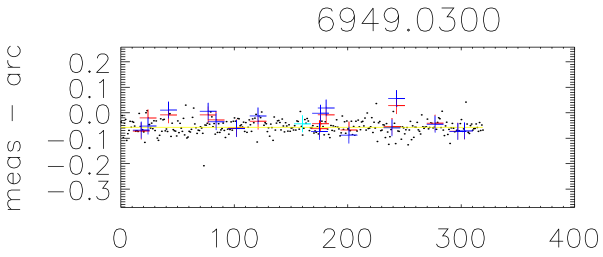

6300.3040
off: −0.13
sig: 0.006
6363.7760
off: −0.07
sig: 0.010
6553.6100
off: −0.10
sig: 0.016
6923.2100
off: −0.08
sig: 0.010
6949.0300
off: −0.04
sig: 0.009
7571.7500
off: −0.05
sig: 0.008
7794.1200
off: −0.16
sig: 0.005
7821.5100
off: −0.10
sig: 0.004
8399.1600
off: −0.09
sig: 0.004
8430.1700
off: −0.10
sig: 0.004
8885.8300
off: −0.07
sig: 0.004
8919.6100
off: −0.07
sig: 0.004
−4 −2 0 2 4

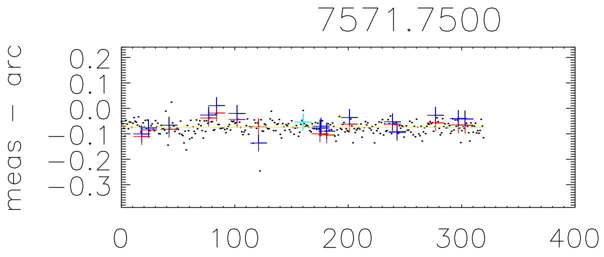

6300.3040
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

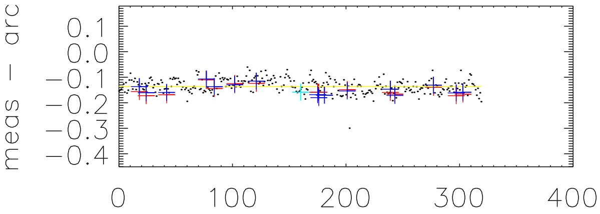

6363.7760
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400


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

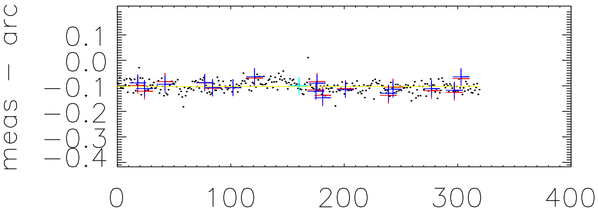

6923.2100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400


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

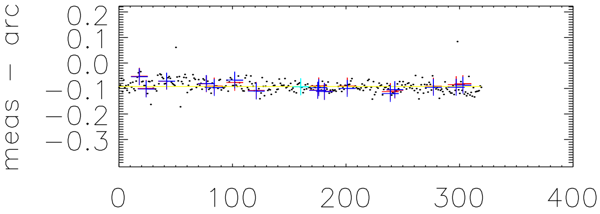

7571.7500
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400



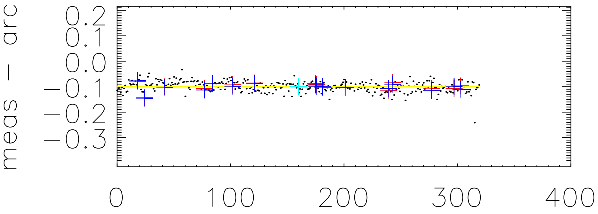
7794.1200



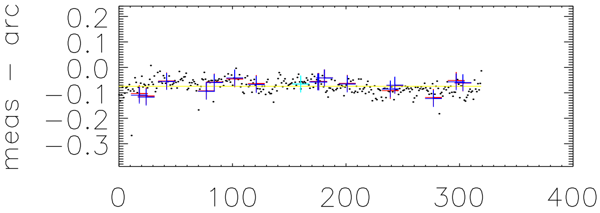
7821.5100



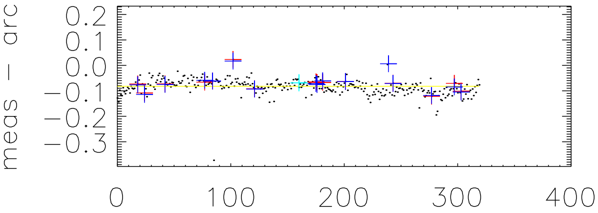
8399.1600



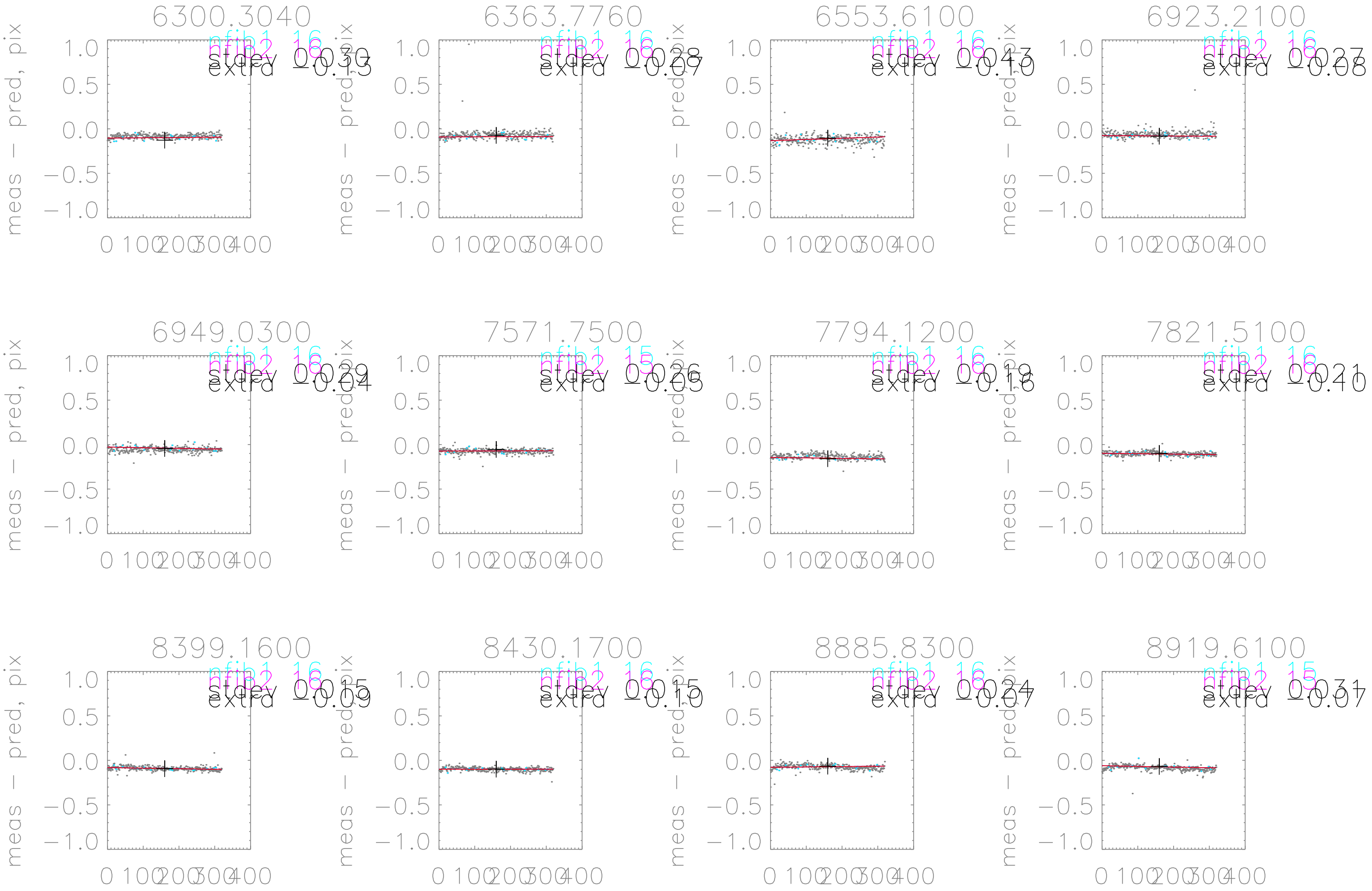
8430.1700

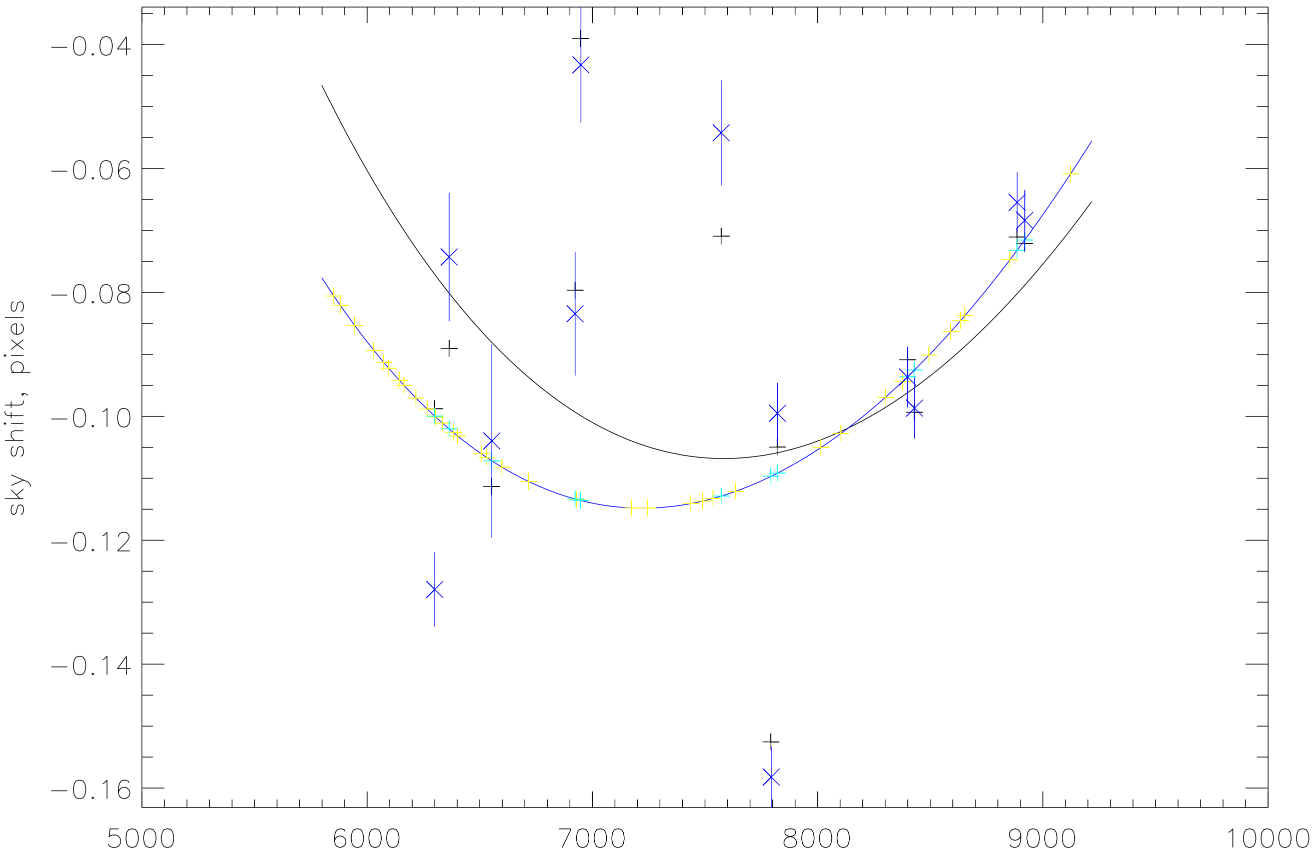


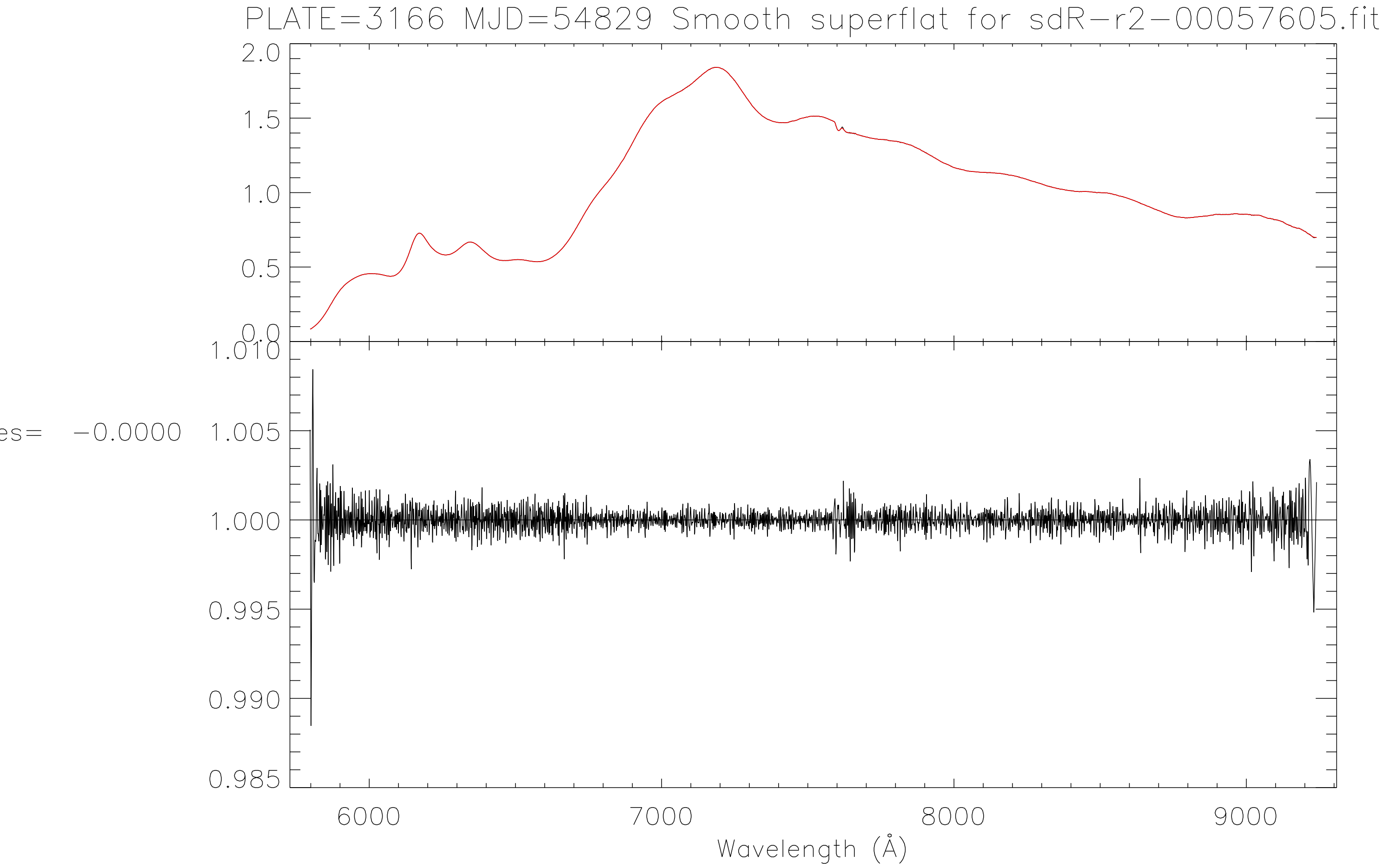
8885.8300

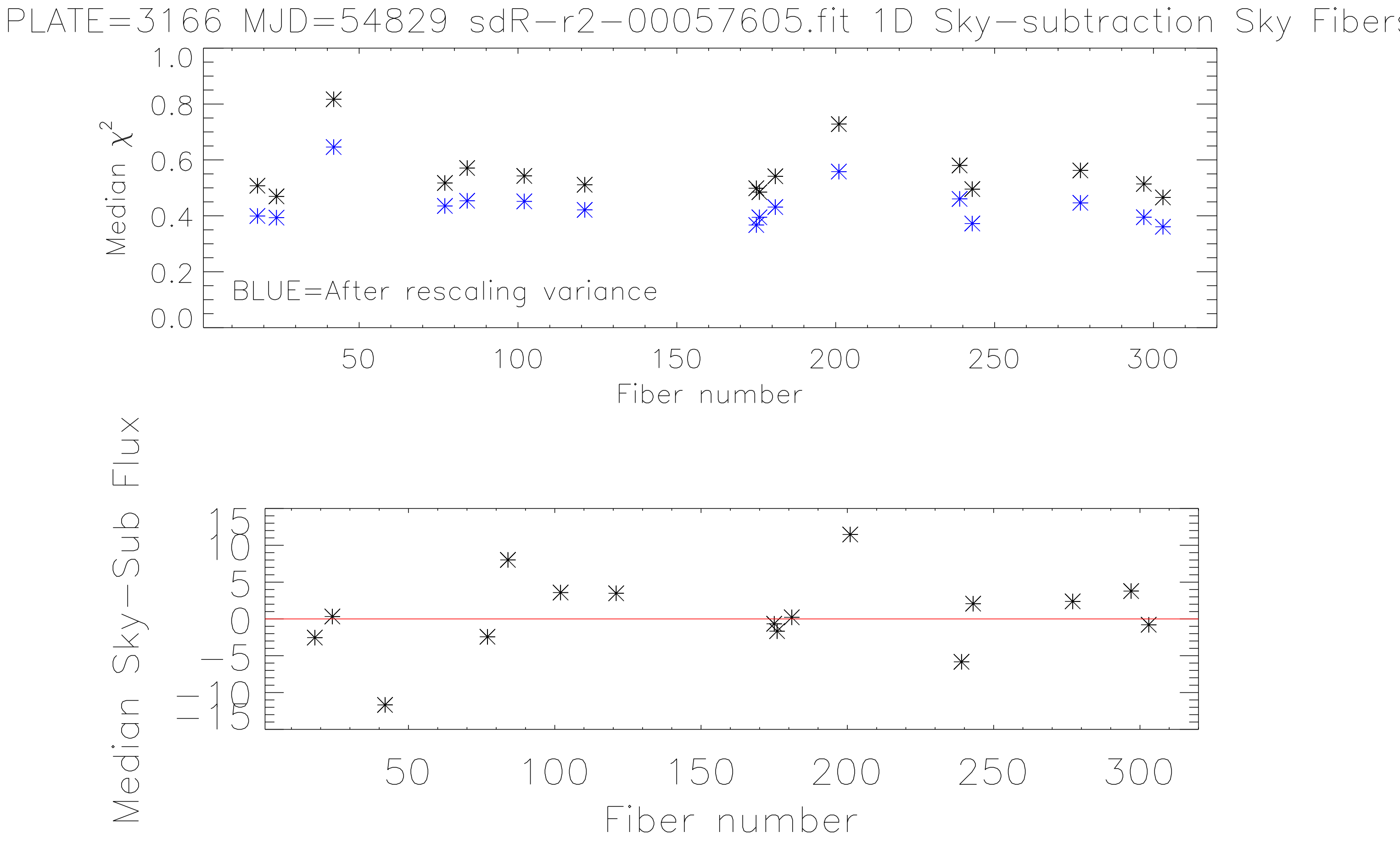


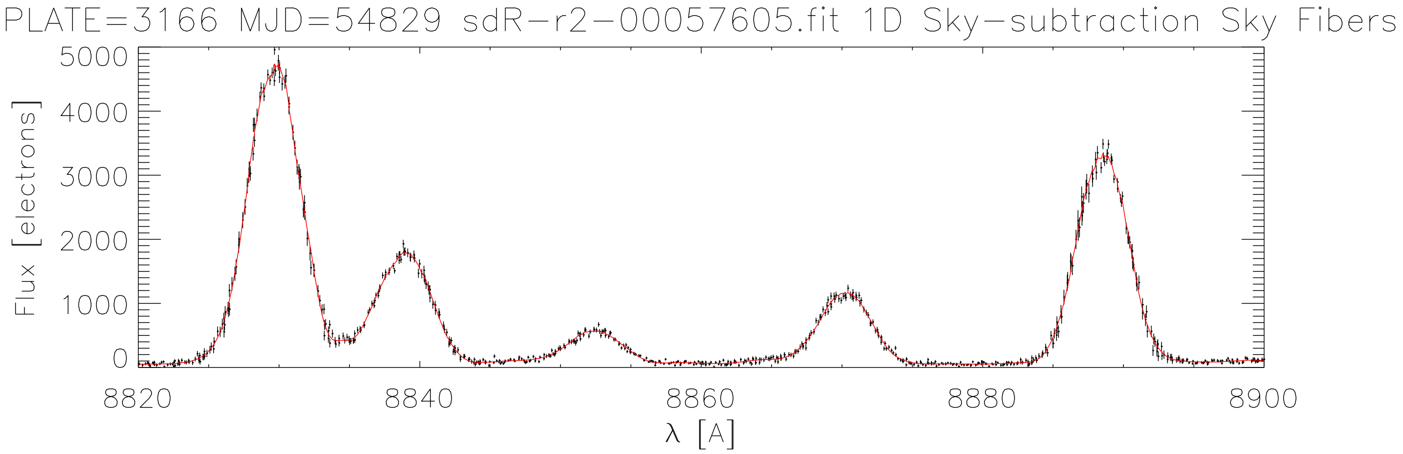
8919.6100

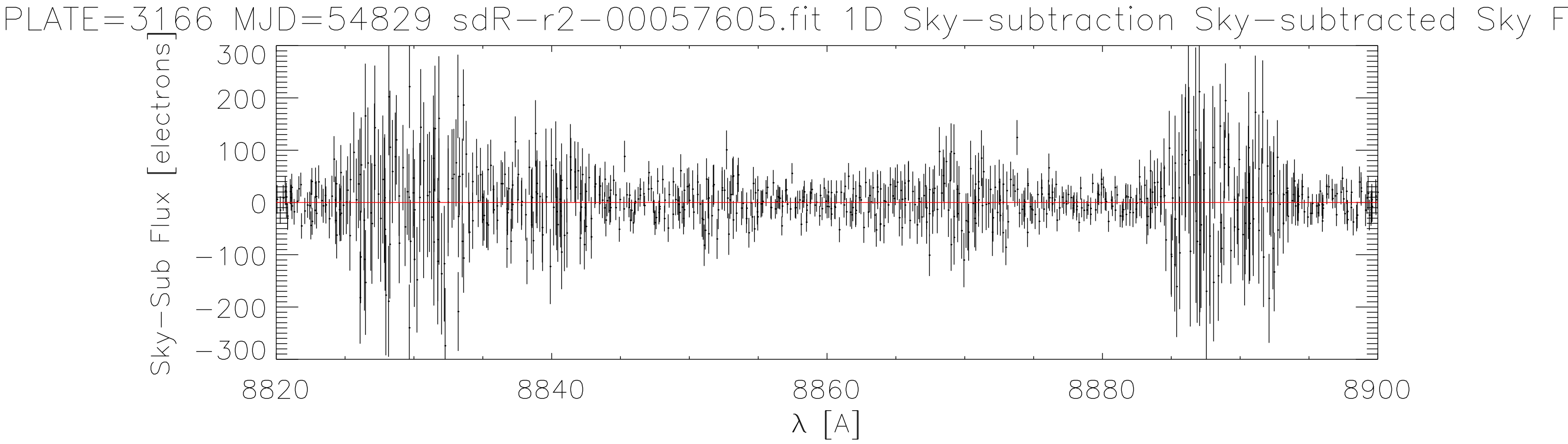

6300.3040
nfib1 16
nfib2 16
stdev 0.030
extrd −0.13
6363.7760
nfib1 16
nfib2 16
stdev 0.028
extrd −0.07
6553.6100
nfib1 16
nfib2 16
stdev 0.043
extrd −0.10
6923.2100
nfib1 16
nfib2 16
stdev 0.027
extrd −0.08
6949.0300
nfib1 16
nfib2 16
stdev 0.029
extrd −0.04
7571.7500
nfib1 15
nfib2 16
stdev 0.026
extrd −0.05
7794.1200
nfib1 16
nfib2 16
stdev 0.019
extrd −0.16
7821.5100
nfib1 16
nfib2 16
stdev 0.021
extrd −0.10
8399.1600
nfib1 16
nfib2 16
stdev 0.015
extrd −0.09
8430.1700
nfib1 16
nfib2 16
stdev 0.015
extrd −0.10
8885.8300
nfib1 16
nfib2 16
stdev 0.024
extrd −0.07
8919.6100
nfib1 15
nfib2 15
stdev 0.031
extrd −0.07
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400

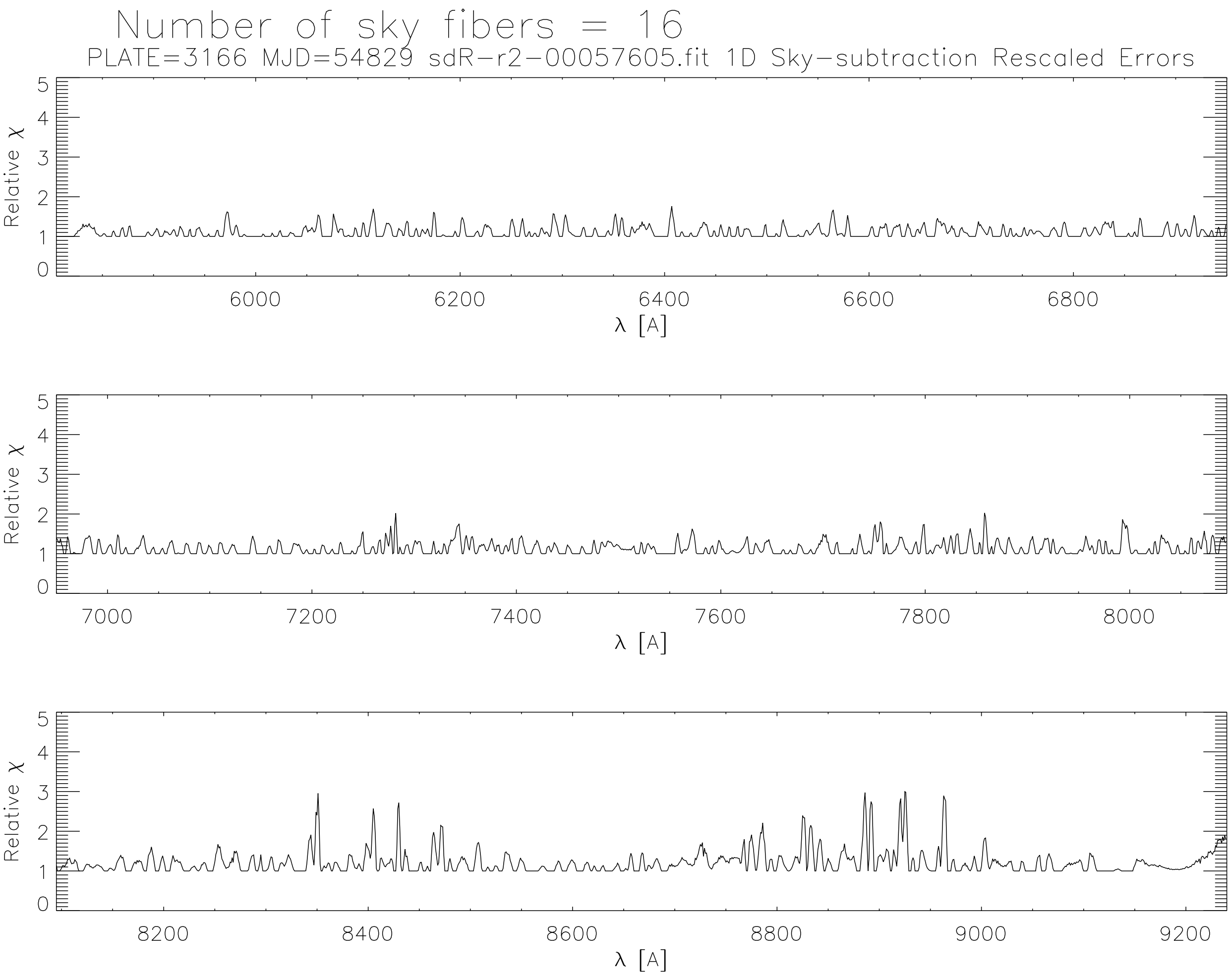

sky shift, pixels
−0.04
−0.06
−0.08
−0.10
−0.12
−0.14
−0.16
5000
6000
7000
8000
9000
10000


PLATE=3166 MJD=54829 Smooth superflat for sdR-r2-00057605.fit
2.0
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
0.985
es= −0.0000
6000
7000
8000
9000
Wavelength (Å)


PLATE=3166 MJD=54829 sdR-r2-00057605.fit 1D Sky-subtraction Sky Fiber
Median χ^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=3166 MJD=54829 sdR-r2-00057605.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
5000
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

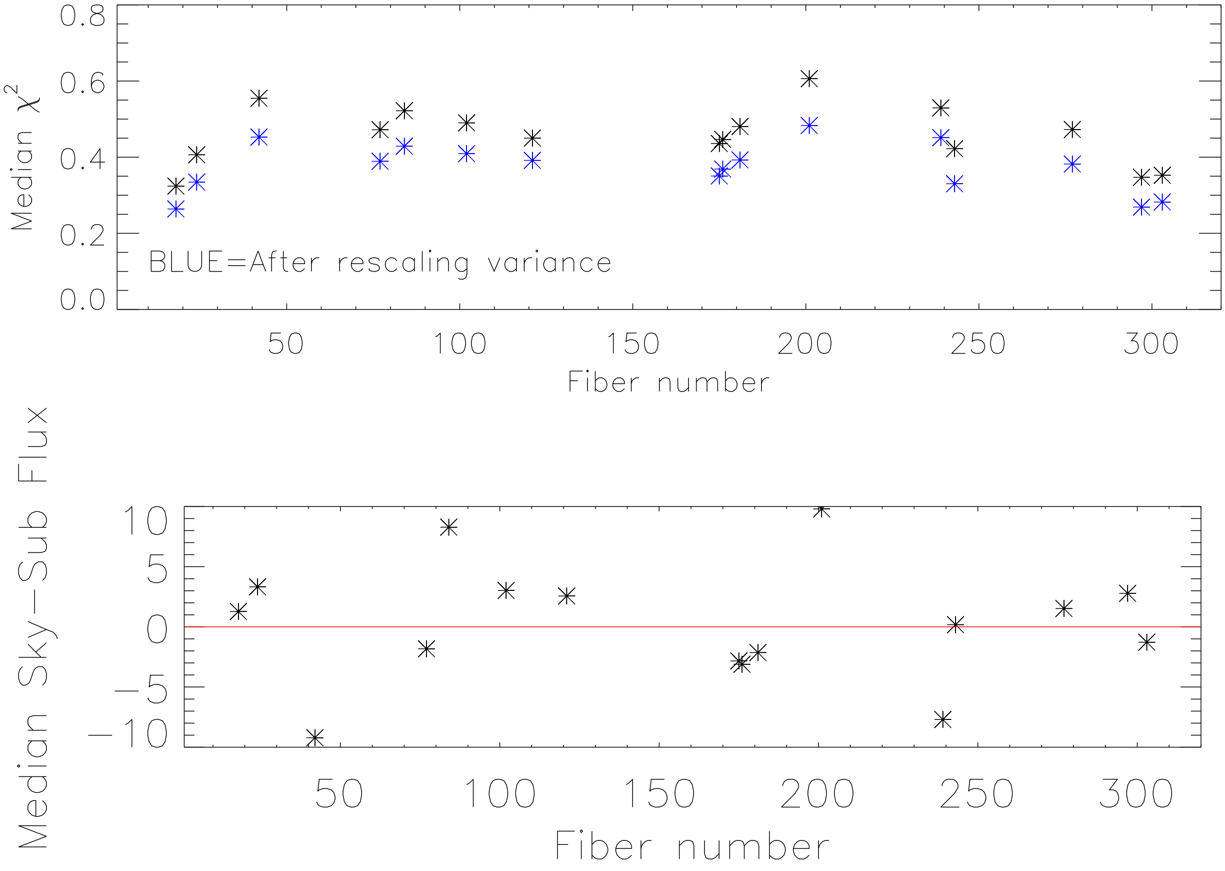

PLATE=3166 MJD=54829 sdR-r2-00057605.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
−100
−200
−300
8820
8840
8860
8880
8900
λ [A]

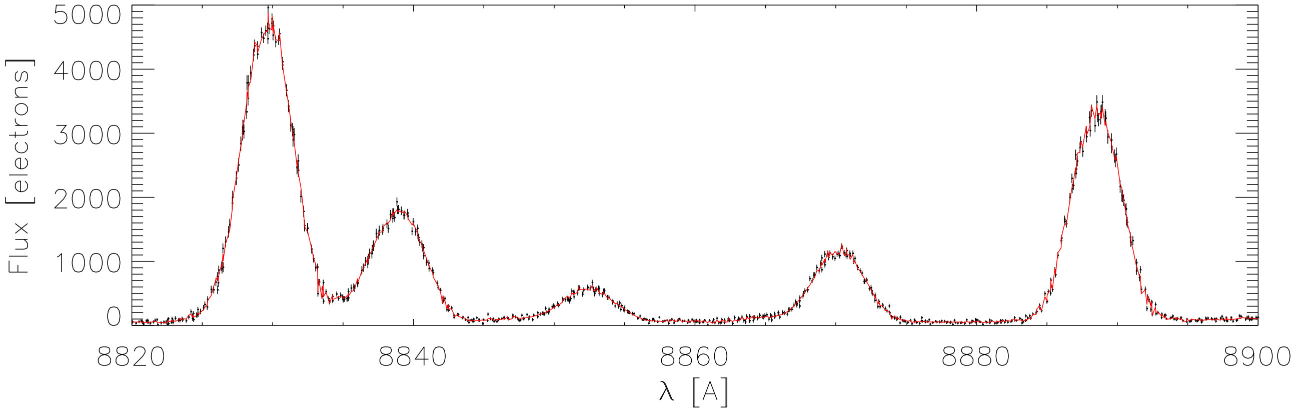


Number of sky fibers = 16

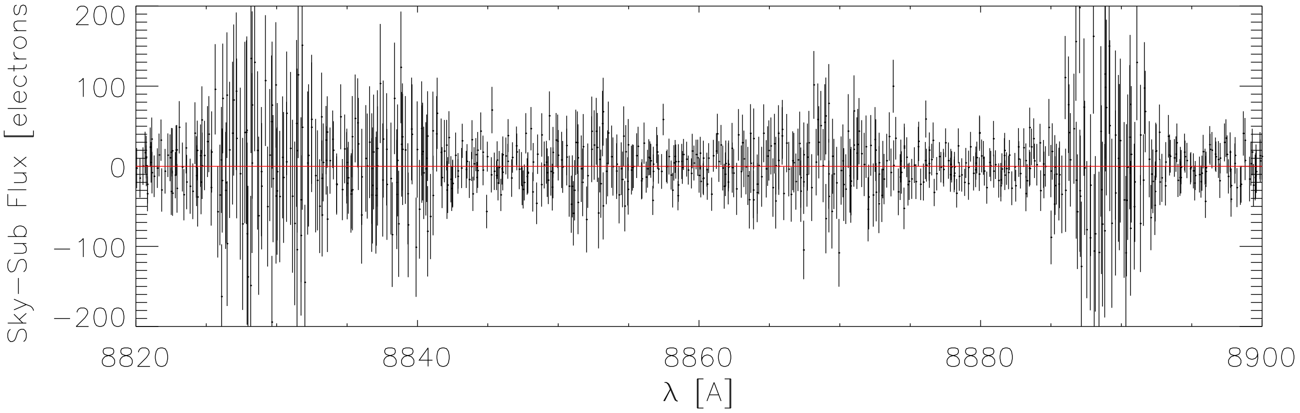
PLATE=3166 MJD=54829 sdR-r2-00057605.fit 1D Sky-subtraction Rescaled Errors

PLATE=3166 MJD=54829 sdR-r2-00057605.fit 2D Sky-subtraction Sky Fiber





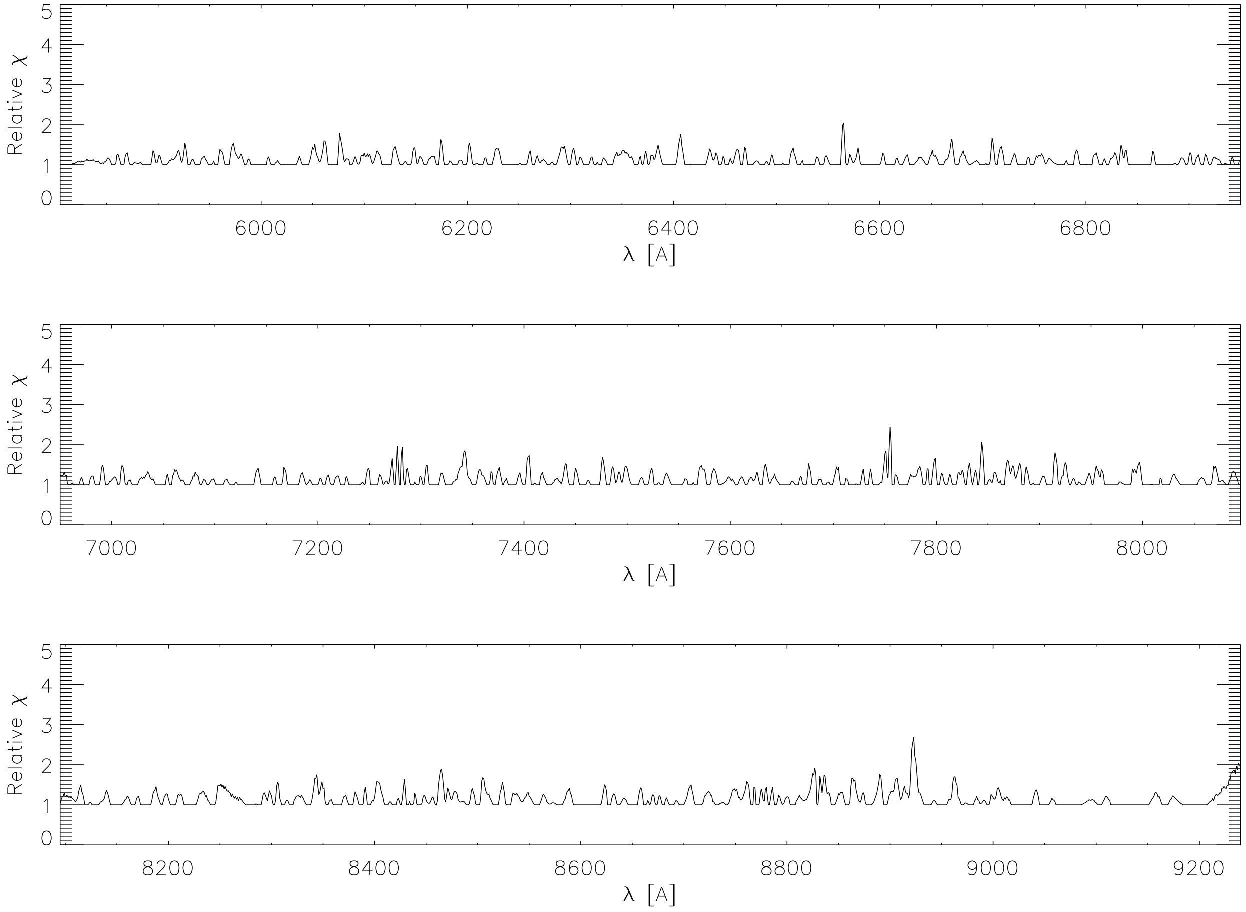
PLATE=3166 MJD=54829 sdR-r2-00057605.fit 2D Sky-subtraction Sky Fibers

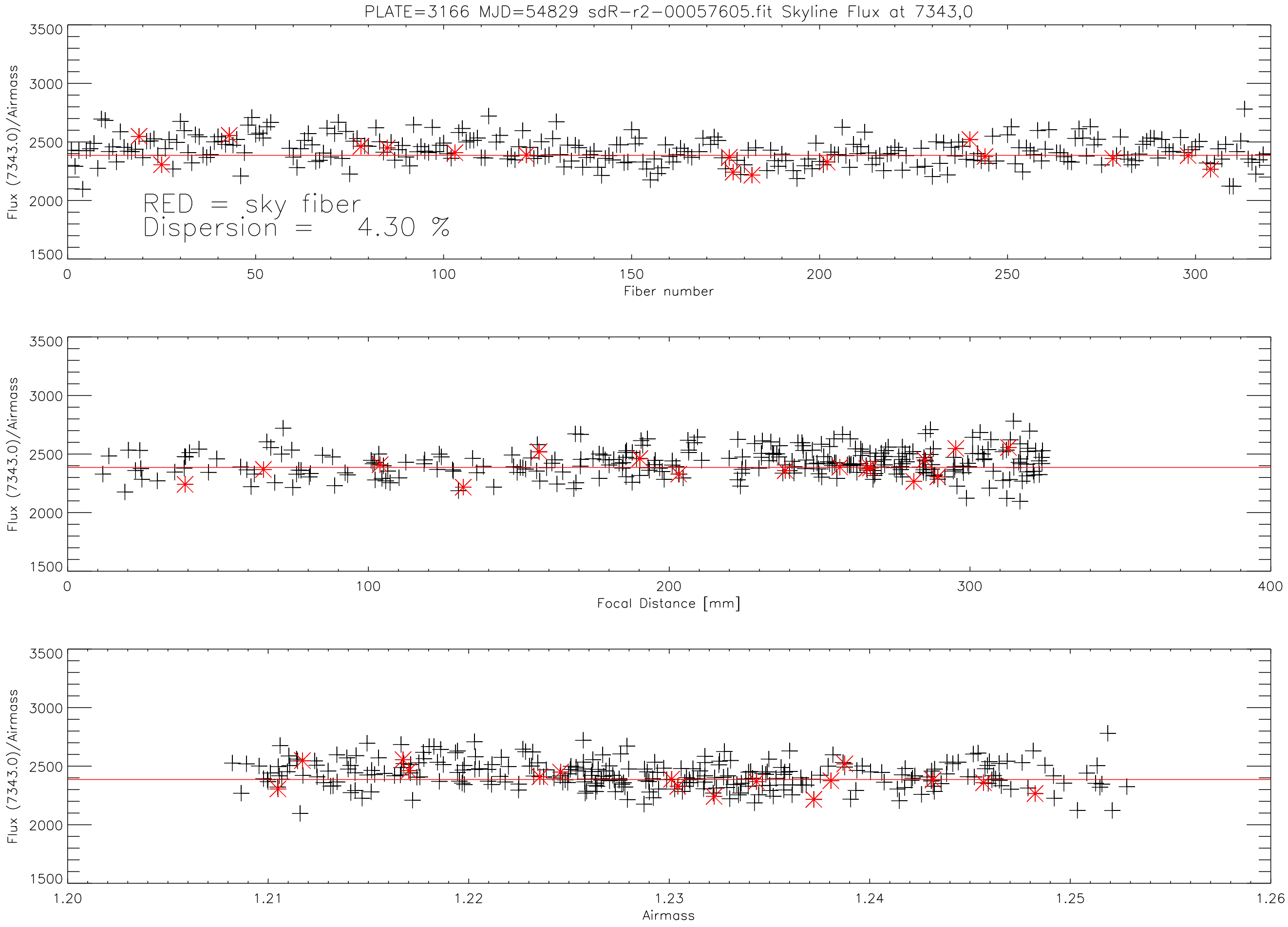


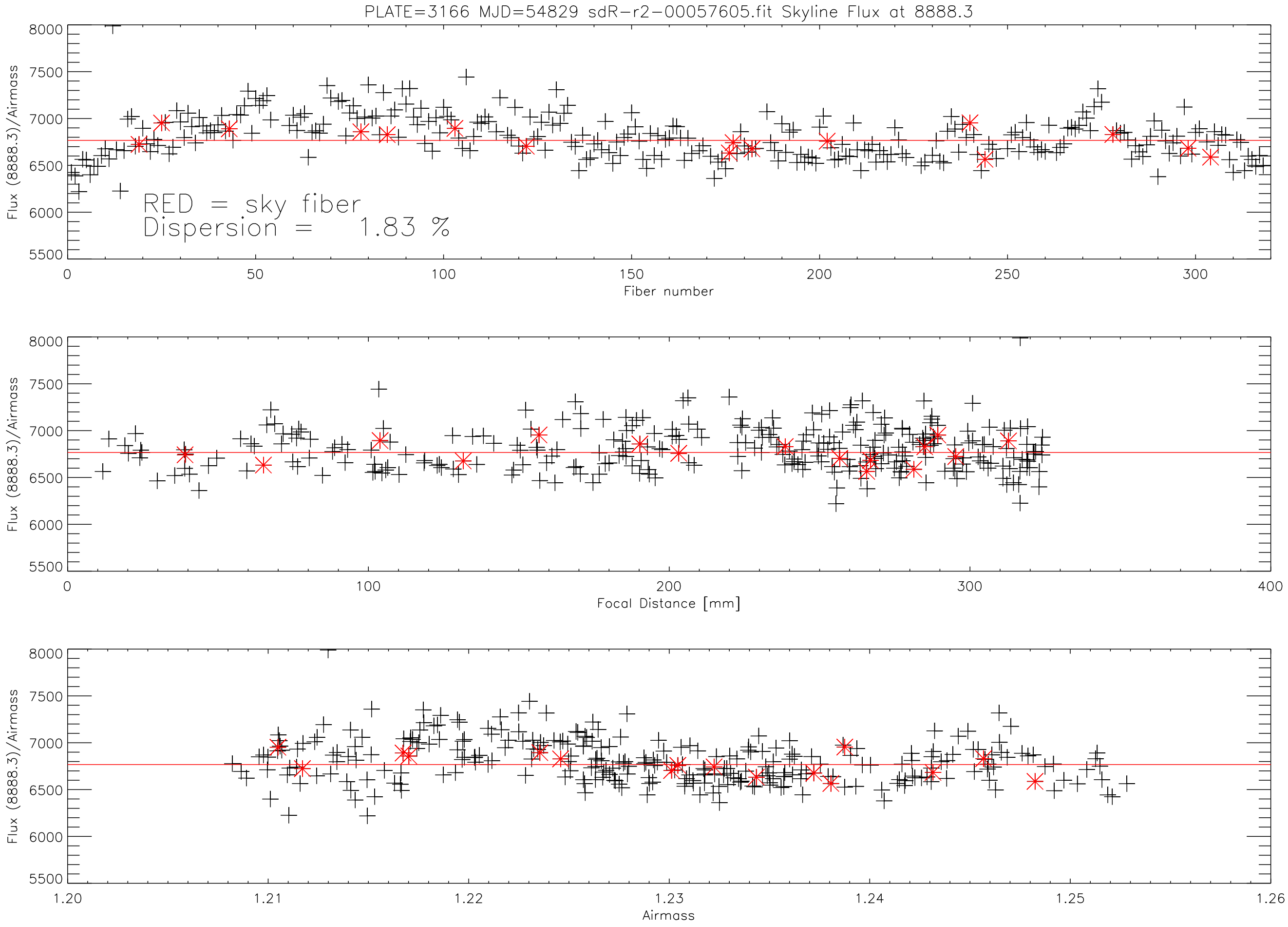
PLATE=3166 MJD=54829 sdR-r2-00057605.fit 2D Sky-subtraction Sky-subtracted Sky F

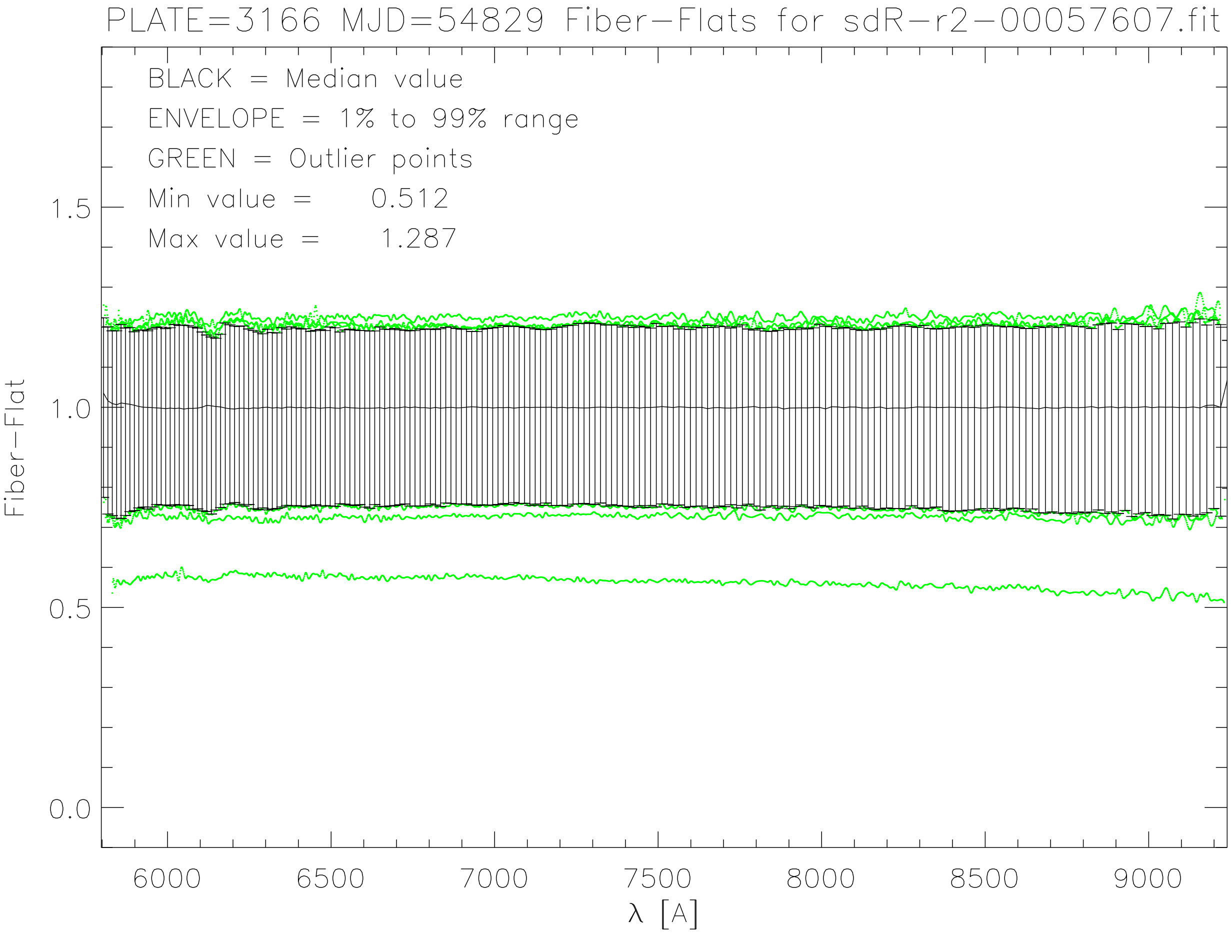
Number of sky fibers = 16

PLATE=3166 MJD=54829 sdR-r2-00057605.fit 2D Sky-subtraction Rescaled Errors



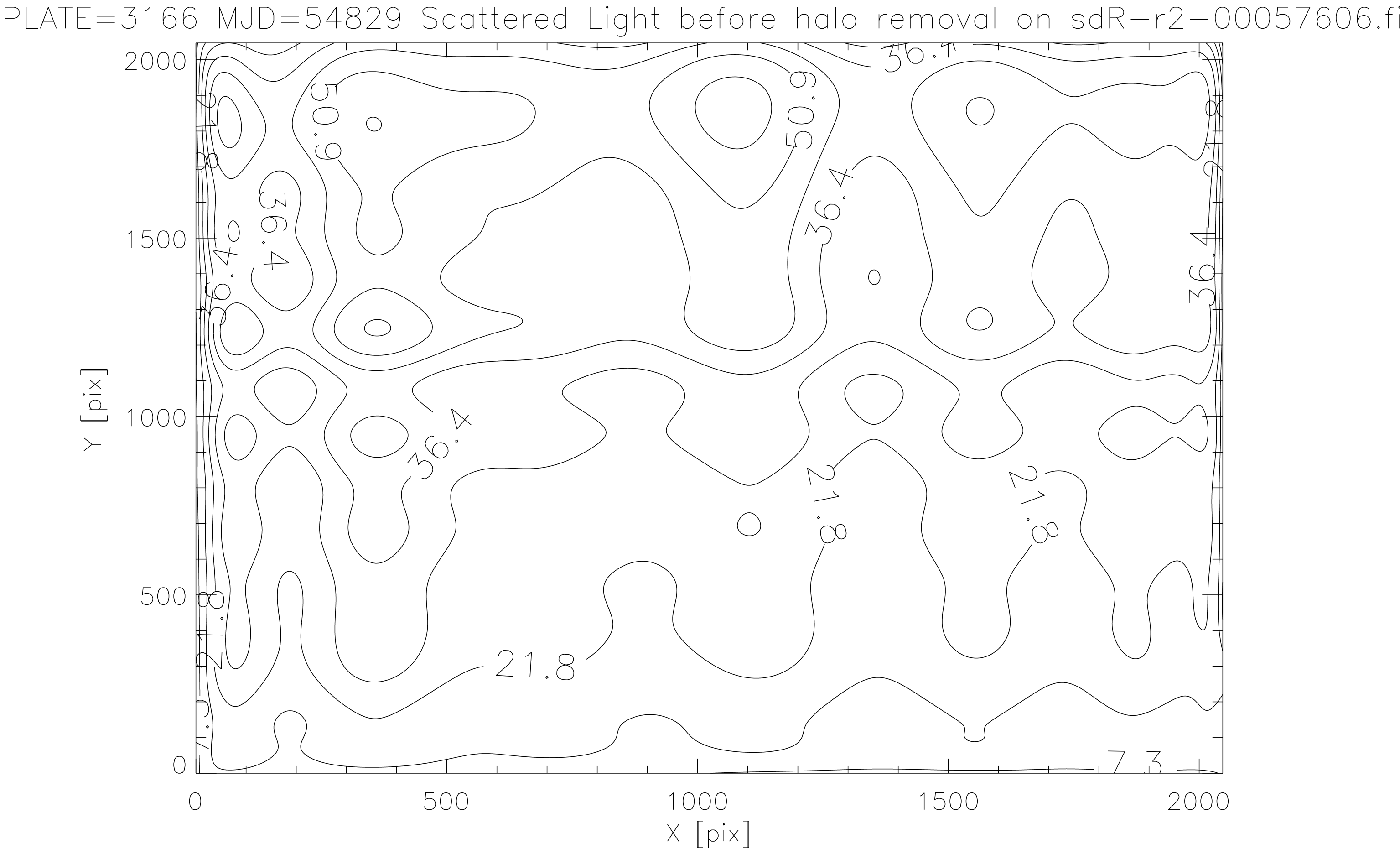

PLATE=3166 MJD=54829 sdR-r2-00057605.fit Skyline Flux at 7343,0
RED = sky fiber
Dispersion = 4.30 %
Flux (7343.0)/Airmass
3500
3000
2500
2000
1500
0
50
100
150
200
250
300
Fiber number
Flux (7343.0)/Airmass
3500
3000
2500
2000
1500
0
100
200
300
400
Focal Distance [mm]
Flux (7343.0)/Airmass
3500
3000
2500
2000
1500
1.20
1.21
1.22
1.23
1.24
1.25
1.26
Airmass

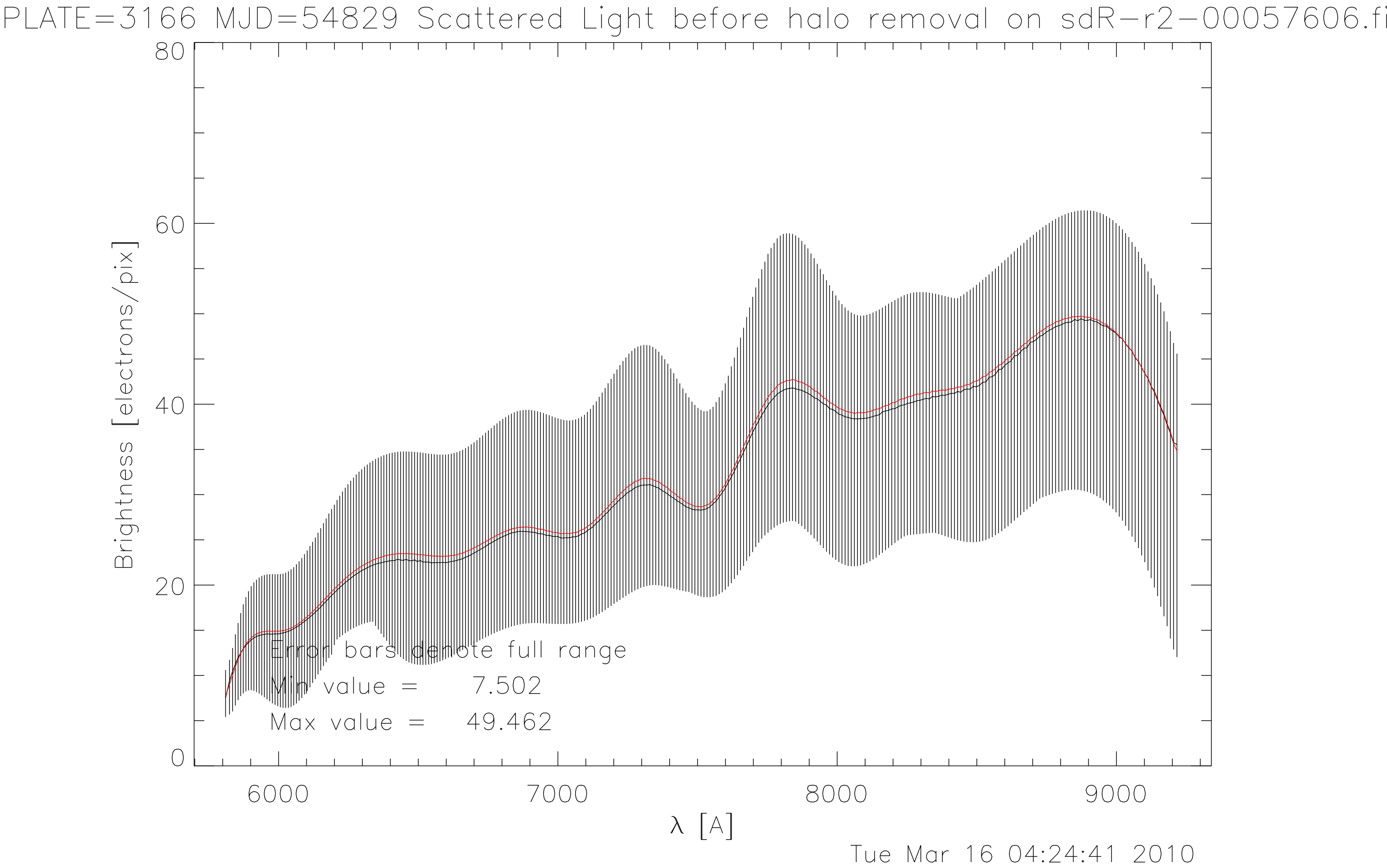

PLATE=3166 MJD=54829 sdR-r2-00057605.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
8000
7500
7000
6500
6000
5500
RED = sky fiber
Dispersion = 1.83 %
0
50
100
150
200
250
300
Fiber number
0
100
200
300
400
Focal Distance [mm]
1.20
1.21
1.22
1.23
1.24
1.25
1.26
Airmass



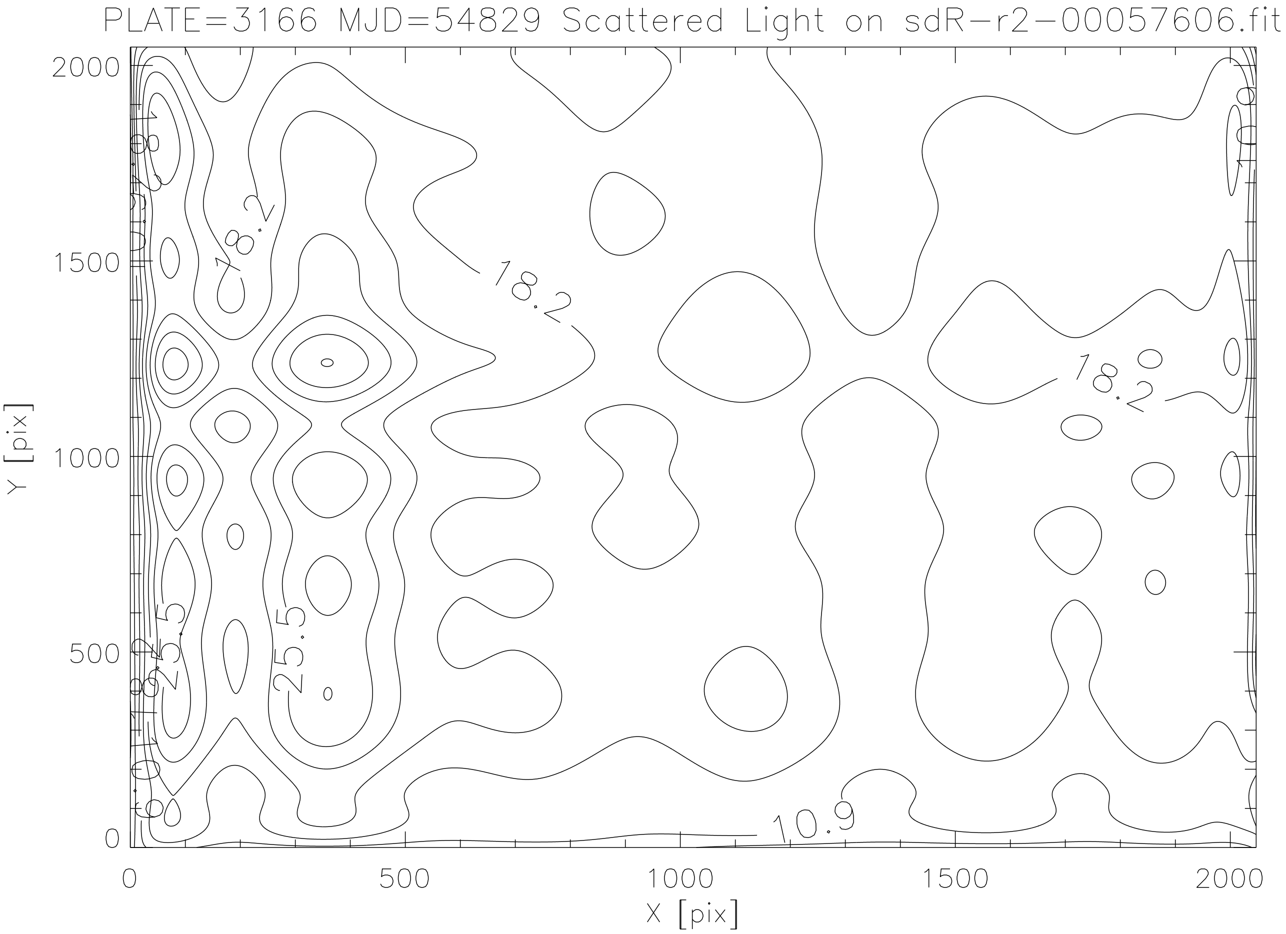
PLATE=3166 MJD=54829 Fiber−Flats for sdR−r2−00057607.fit

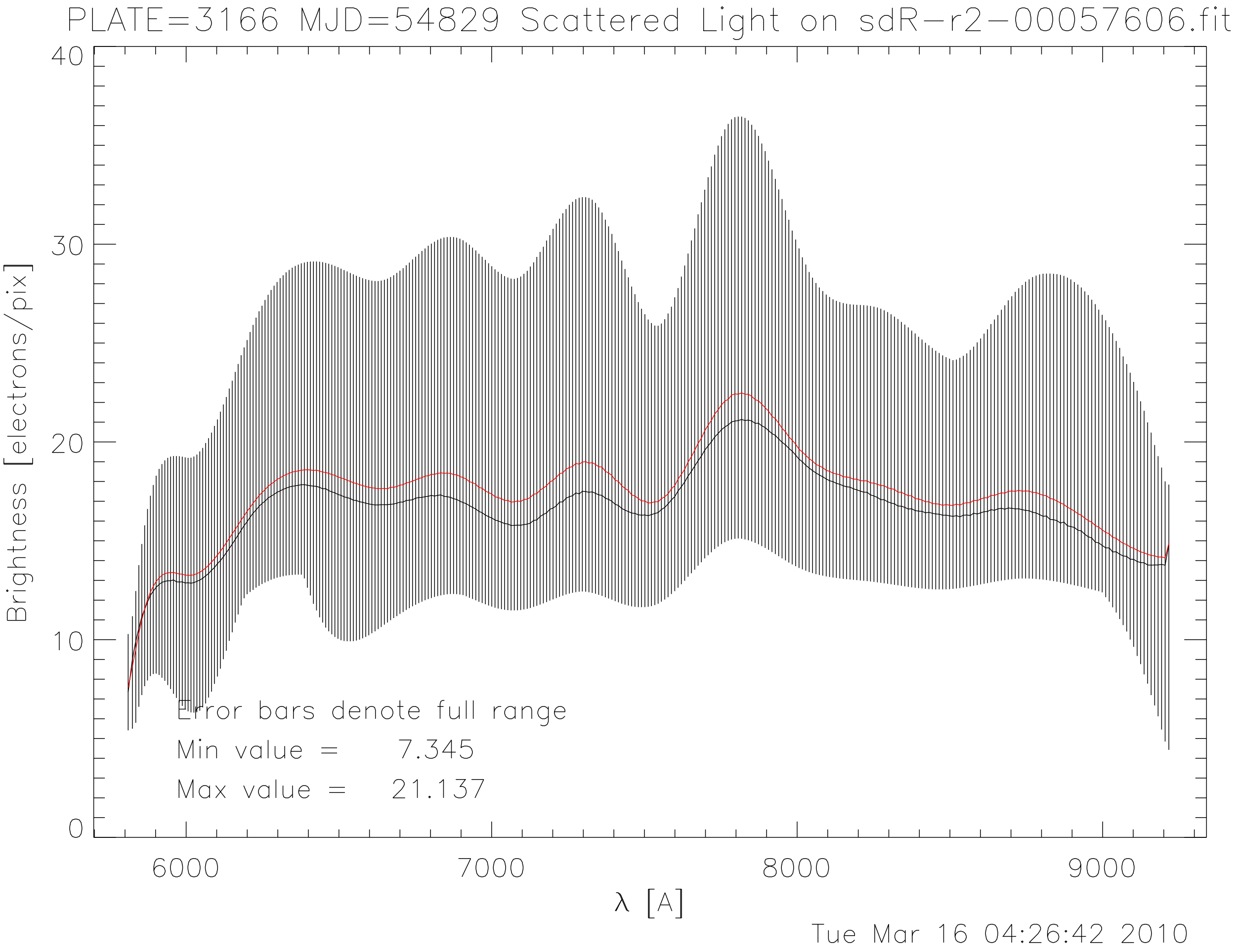
Tue Mar 16 04:24:09 2010

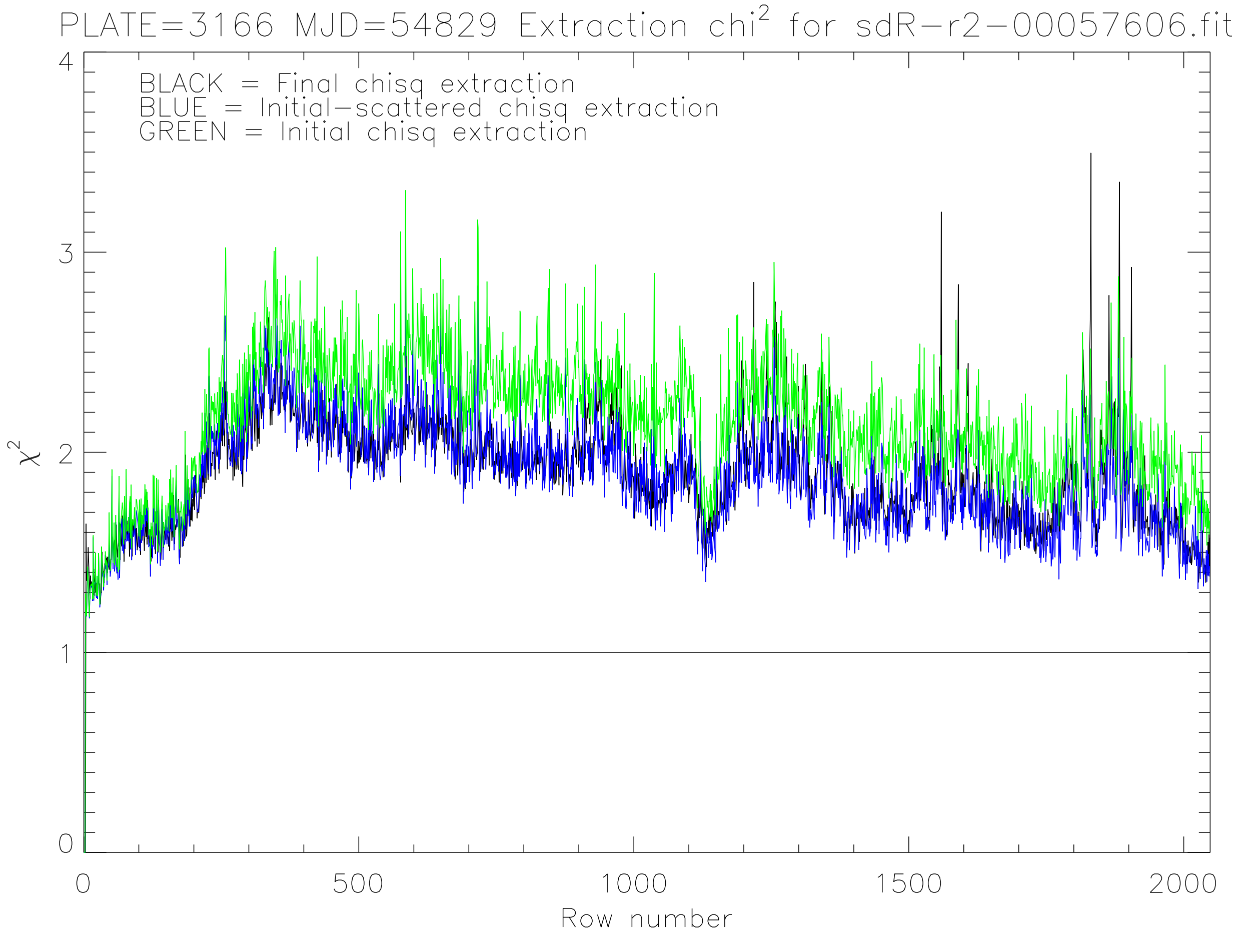

PLATE=3166 MJD=54829 Scattered Light before halo removal on sdR-r2-00057606.fi
Y [pix]
X [pix]
0
500
1000
1500
2000
0
500
1000
1500
2000
50.9
50.9
36.4
36.4
36.4
36.4
36.4
36.4
21.8
21.8
21.8
21.8
21.8
21.8
7.3

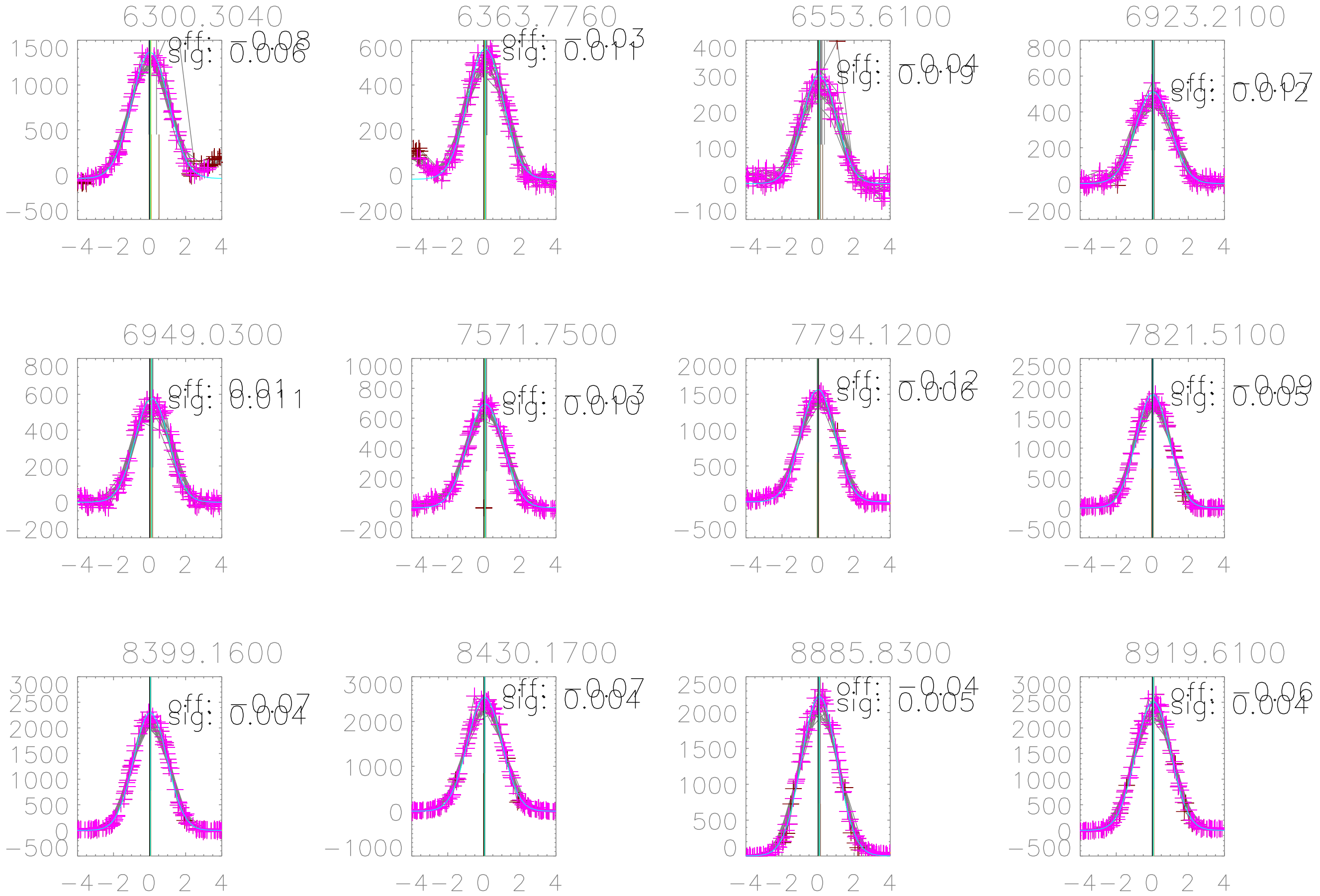


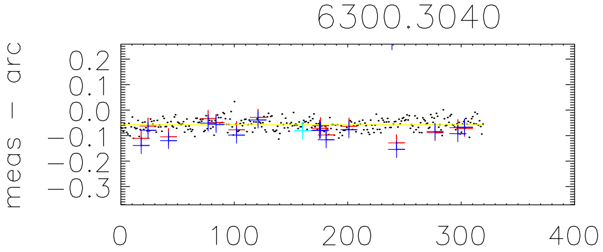
PLATE=3166 MJD=54829 Scattered Light before halo removal on sdR-r2-00057606.fi

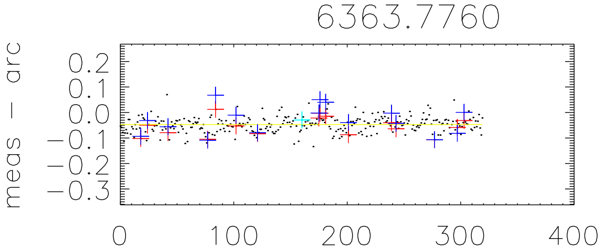

PLATE=3166 MJD=54829 Scattered Light on sdR-r2-00057606.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
0
500
1000
1500
2000
18.2
18.2
18.2
25.5
25.5
10.9

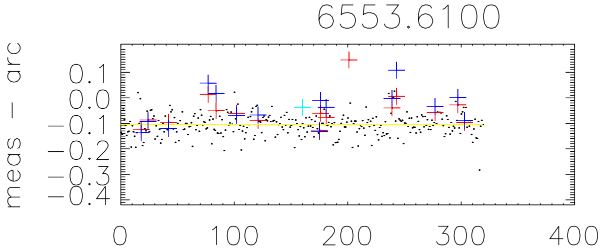

PLATE=3166 MJD=54829 Scattered Light on sdR-r2-00057606.fit
Brightness [electrons/pix]
0
10
20
30
40
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 7.345
Max value = 21.137
Tue Mar 16 04:26:42 2010

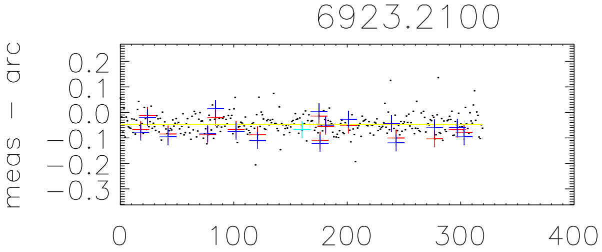

PLATE=3166 MJD=54829 Extraction chi^2 for sdR-r2-00057606.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
0
500
1000
1500
2000
Row number

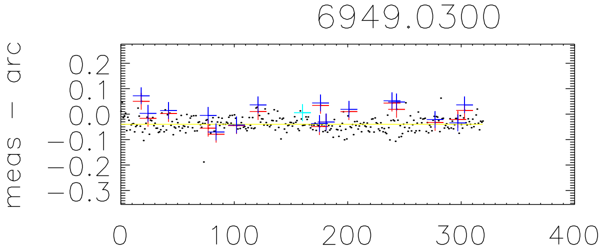

6300.3040
off: −0.08
sig: 0.006
6363.7760
off: −0.03
sig: 0.011
6553.6100
off: −0.04
sig: 0.019
6923.2100
off: −0.07
sig: 0.012
6949.0300
off: 0.01
sig: 0.011
7571.7500
off: −0.03
sig: 0.010
7794.1200
off: −0.12
sig: 0.006
7821.5100
off: −0.09
sig: 0.005
8399.1600
off: −0.07
sig: 0.004
8430.1700
off: −0.07
sig: 0.004
8885.8300
off: −0.04
sig: 0.005
8919.6100
off: −0.06
sig: 0.004
−4 −2 0 2 4

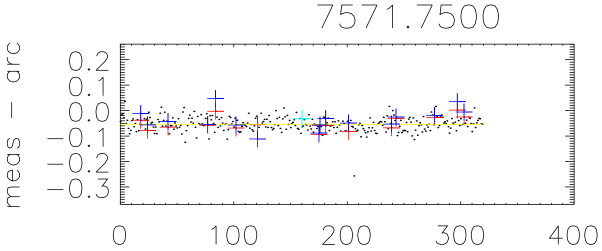

6300.3040
meas – arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

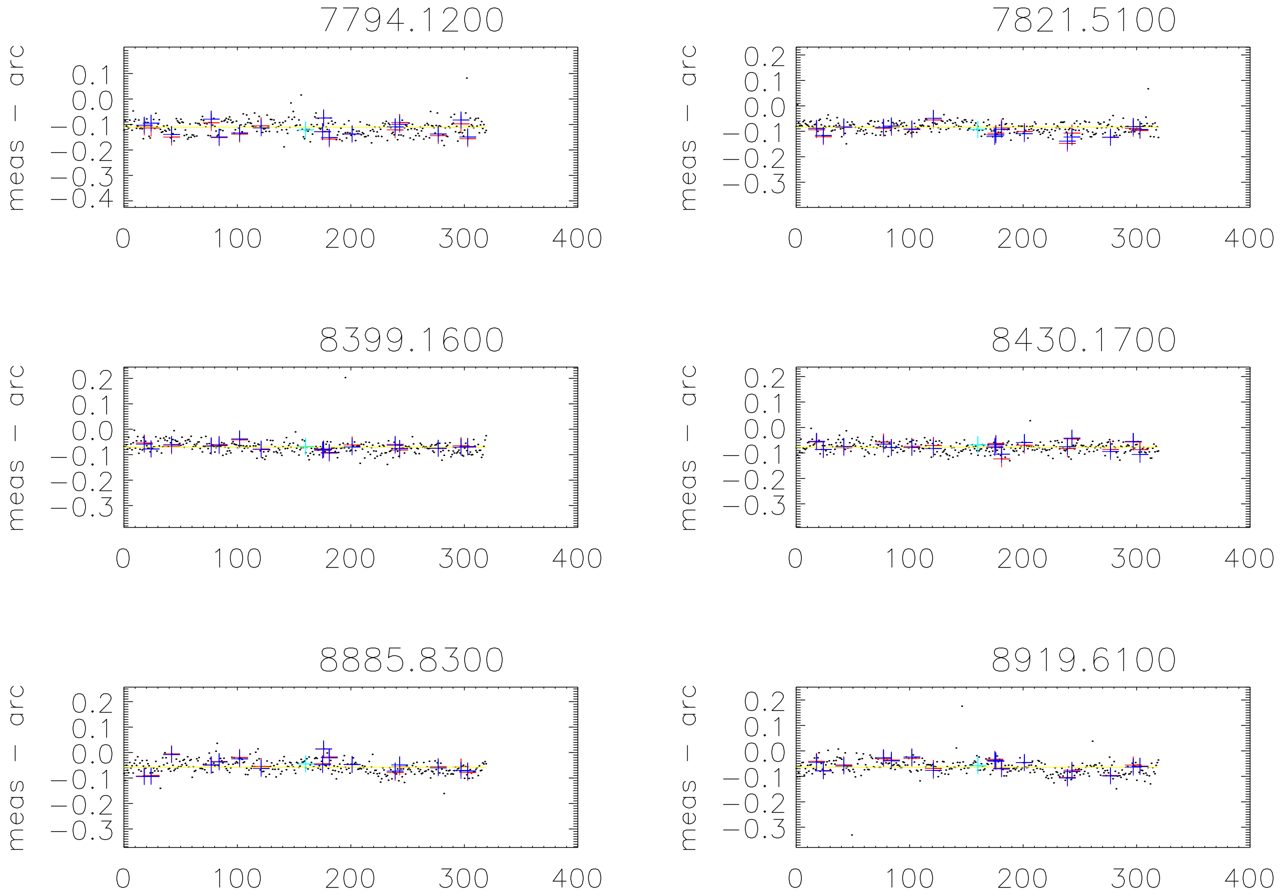

6363.7760
meas – arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

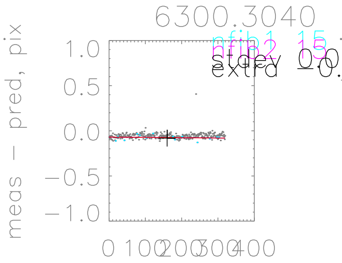

6553.6100
meas – arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

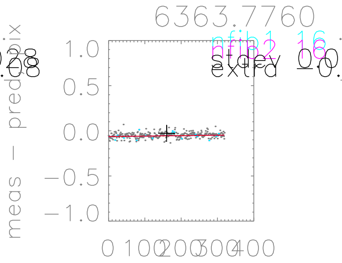

6923.2100
meas – arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

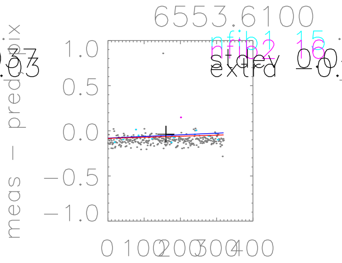

6949.0300
meas – arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

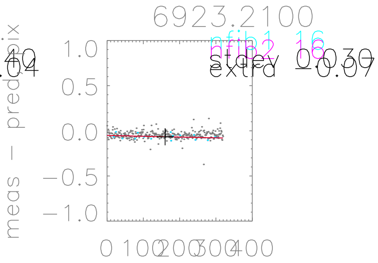

7571.7500
meas – arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

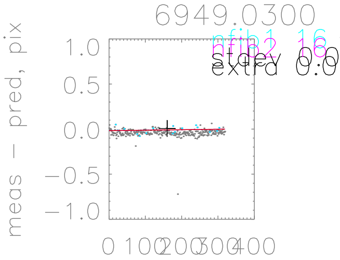

7794.1200
7821.5100
8399.1600
8430.1700
8885.8300
8919.6100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

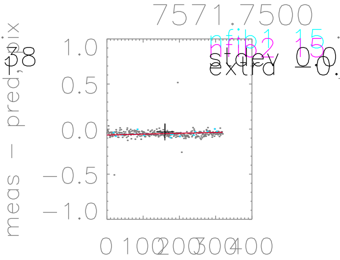

6300.3040
nfib1 15
nfib2 15
stdev 0.028
extrd −0.08
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400

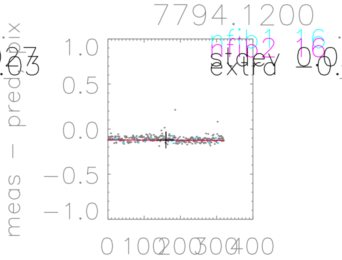

6363.7760
nfib1 16
nfib2 16
stdev 0.037
extrd −0.05
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400

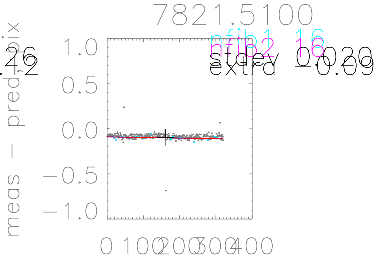

6553.6100
nfib1 15
nfib2 15
stdev 0.040
extrd −0.04
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400

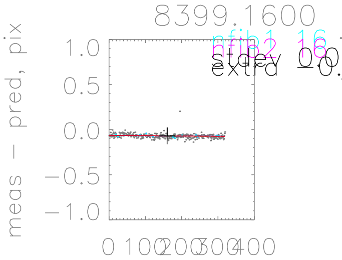

6923.2100
nfib1 16
nfib2 16
stdev 0.030
extrd −0.07
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400

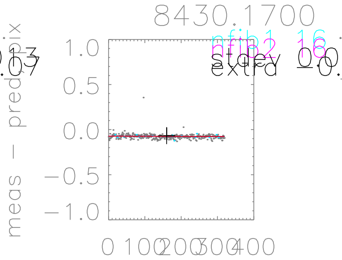

6949.0300
nfib1 16
nfib2 16
stdev 0.038
extrd 0.01
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400

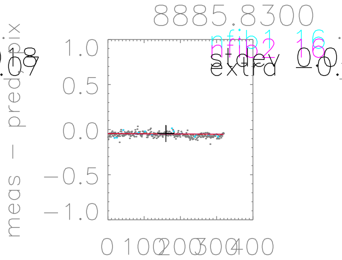

7571.7500
nfib1 15
nfib2 15
stdev 0.027
extrd −0.05
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400

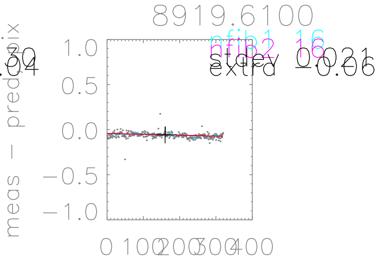

7794.1200
nfib1 16
nfib2 16
stdev 0.026
extrd −0.12
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400

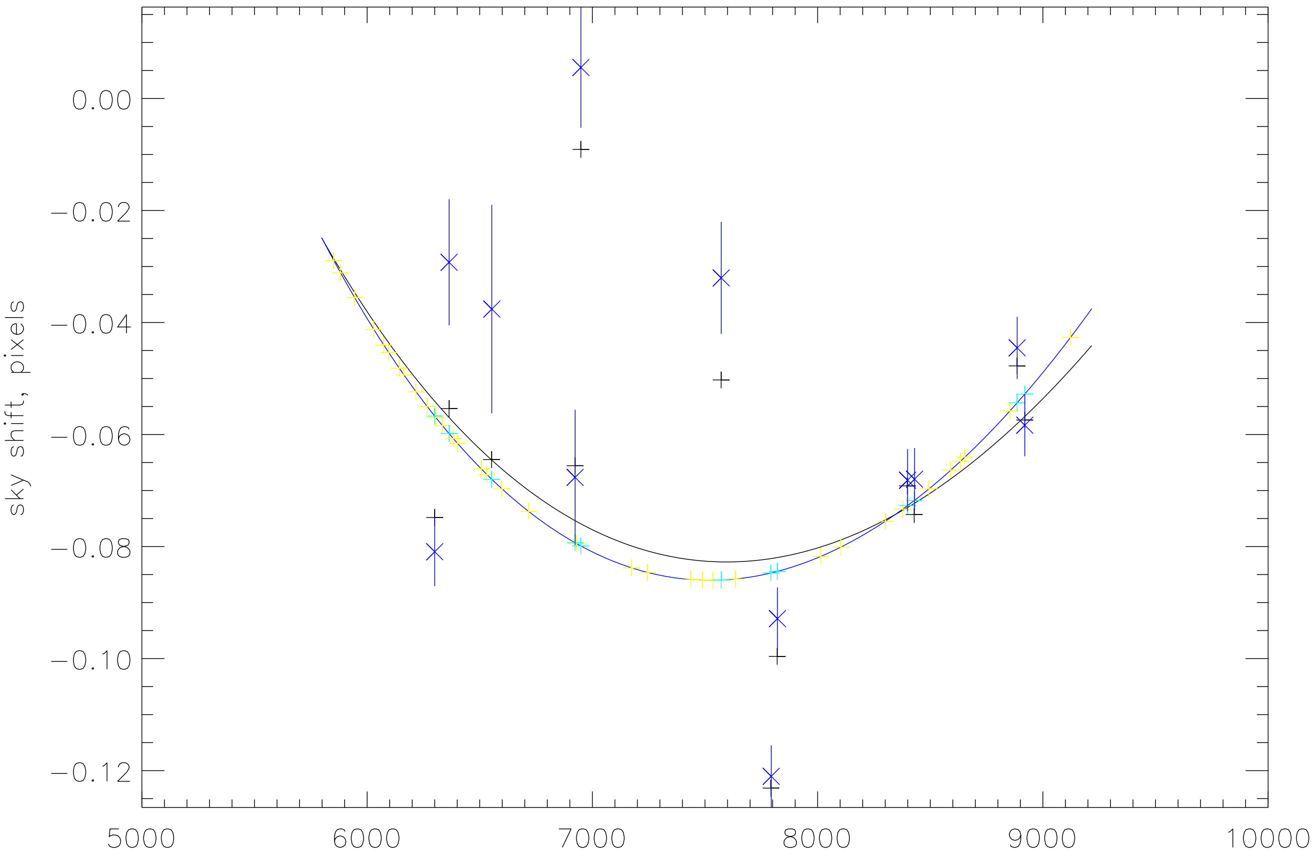

7821.5100
nfib1 16
nfib2 16
stdev 0.020
extrd −0.09
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400

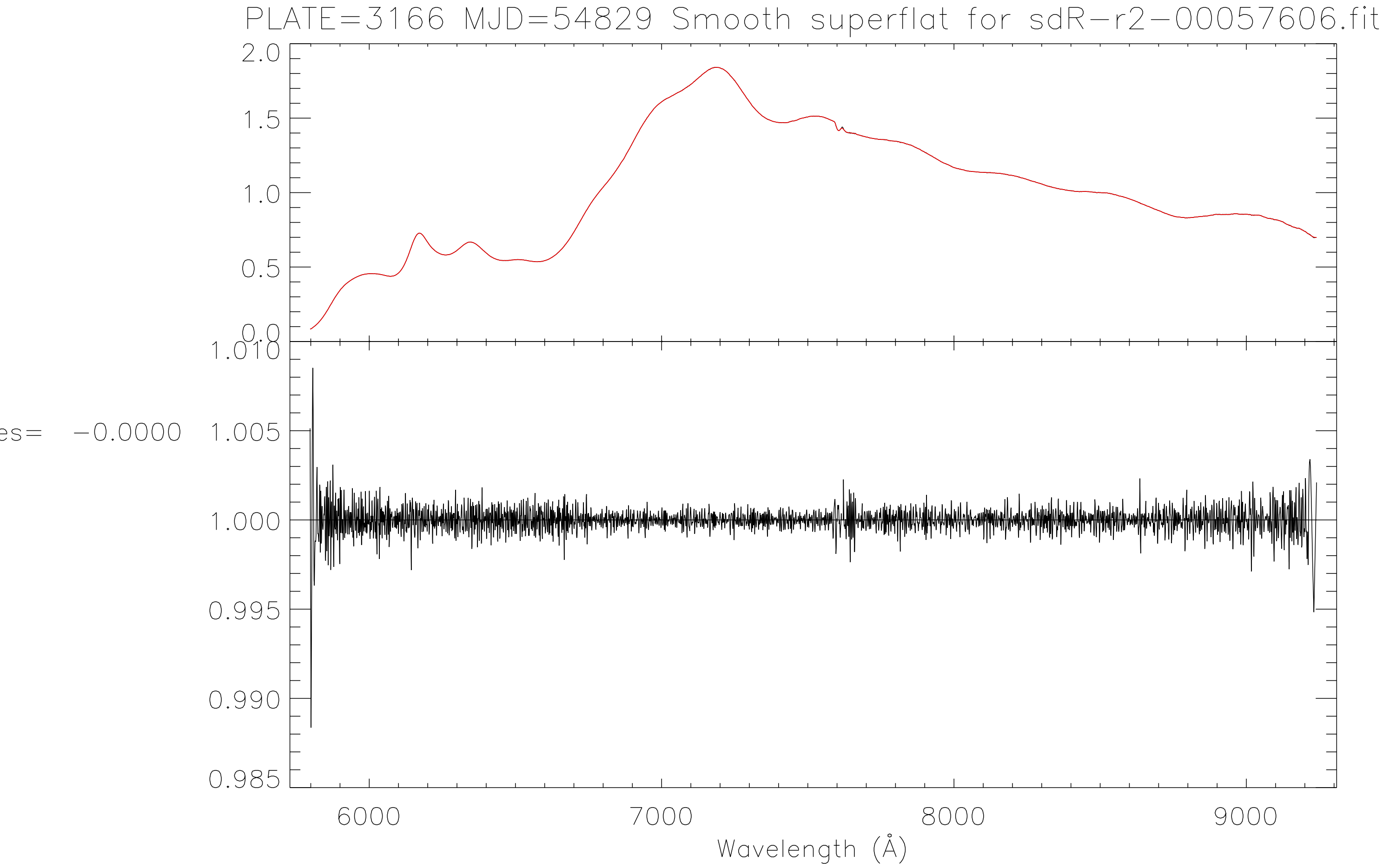

8399.1600
nfib1 16
nfib2 16
stdev 0.013
extrd −0.07
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400

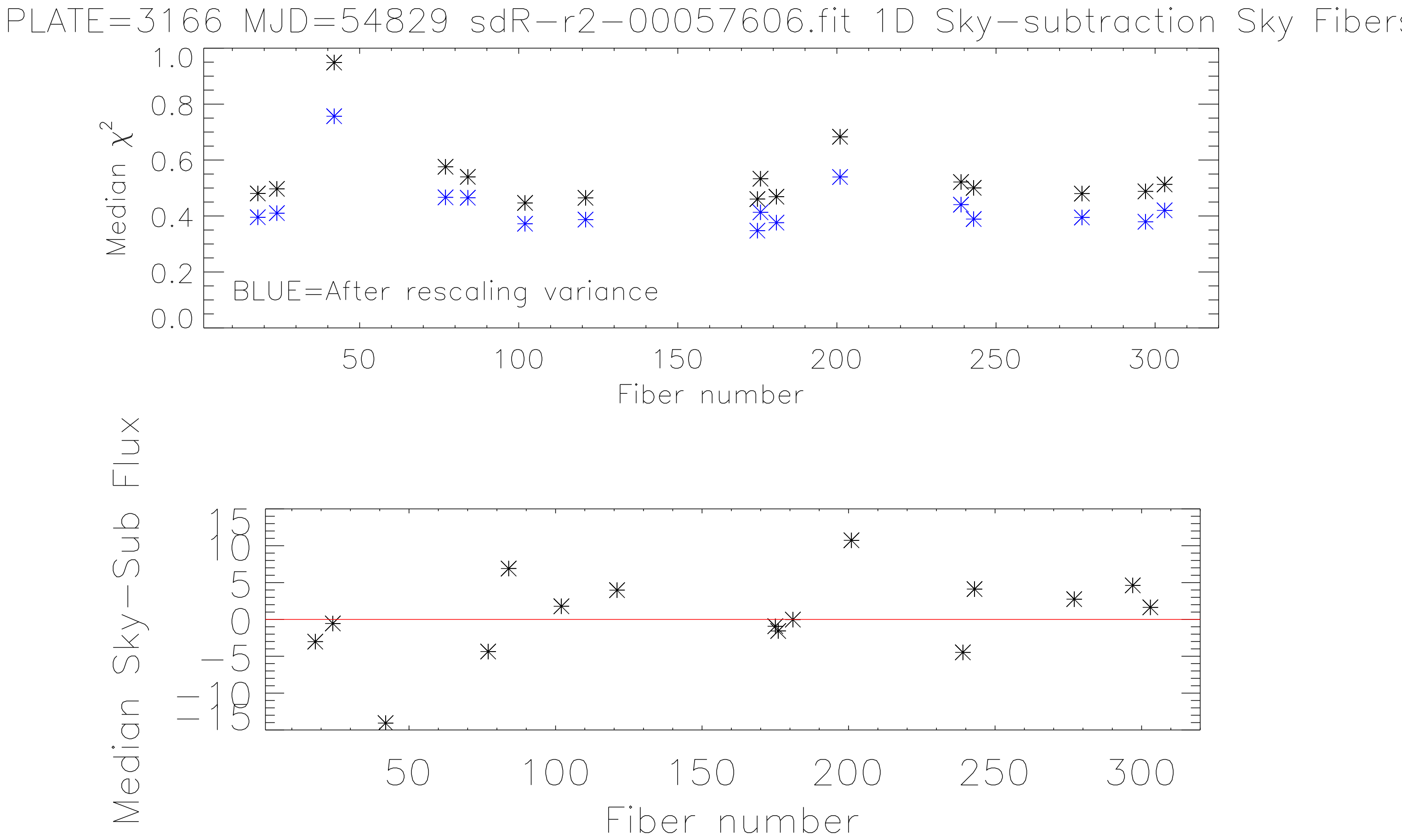

8430.1700
nfib1 16
nfib2 16
stdev 0.018
extrd −0.07
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400

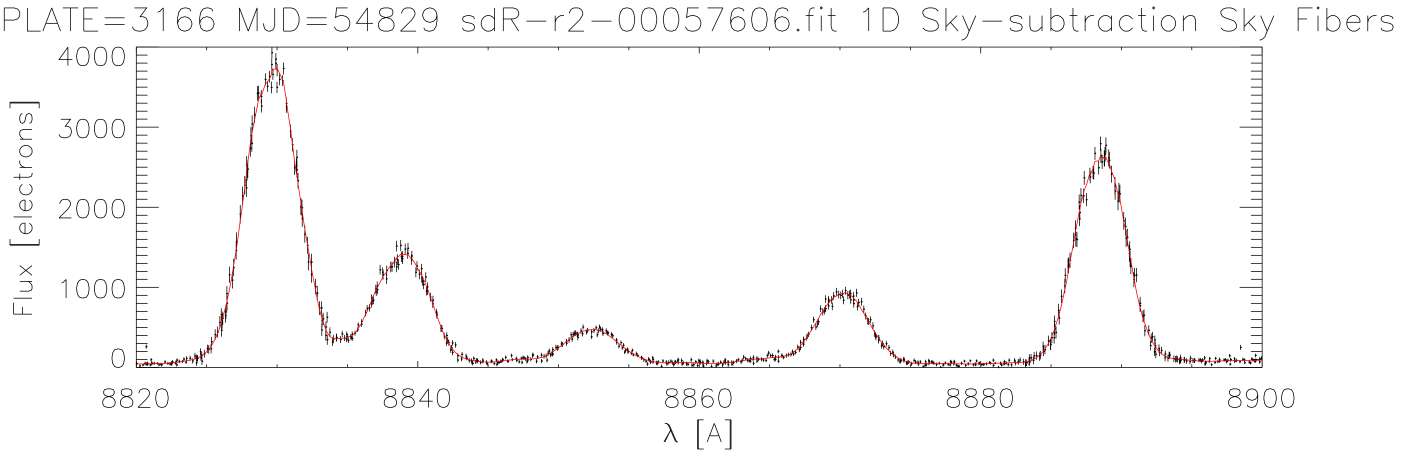

8885.8300
nfib1 16
nfib2 16
stdev 0.030
extrd −0.04
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400

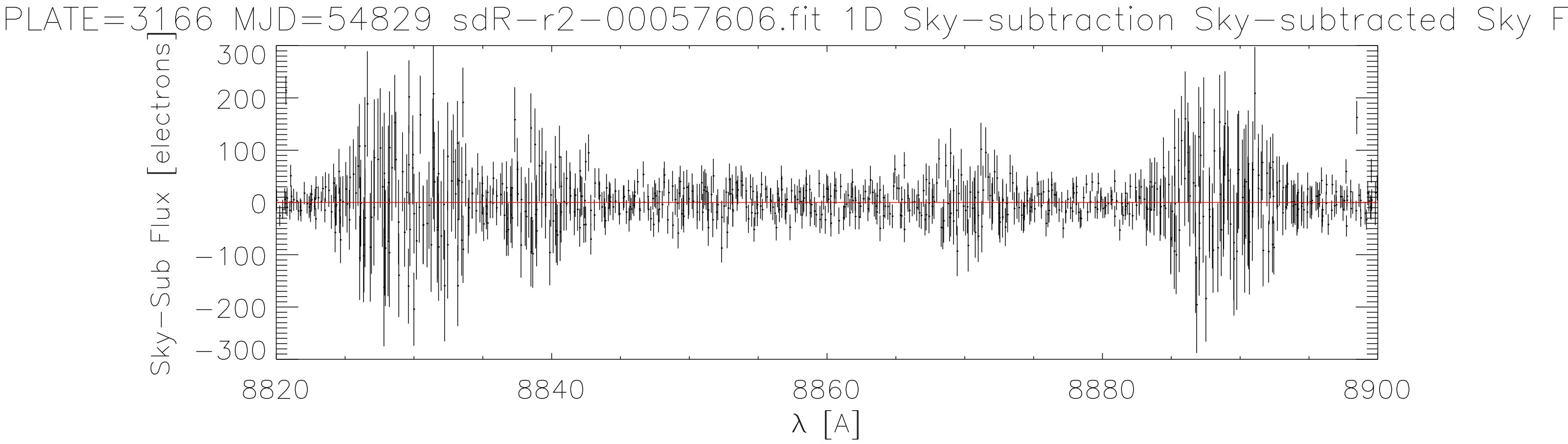

8919.6100
nfib1 16
nfib2 16
stdev 0.021
extrd −0.06
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400


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


PLATE=3166 MJD=54829 Smooth superflat for sdR-r2-00057606.fit
2.0
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
0.985
es= −0.0000
6000
7000
8000
9000
Wavelength (Å)

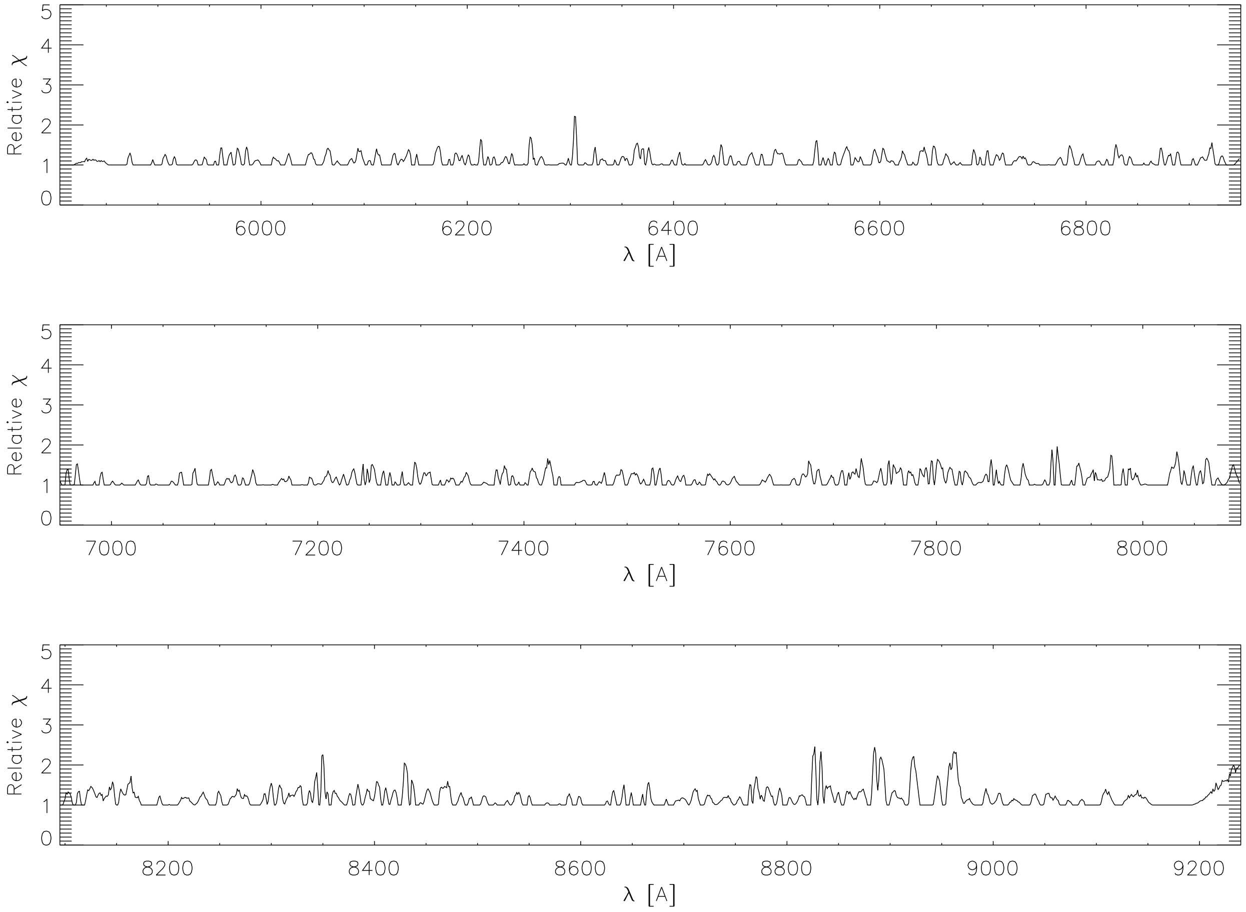

PLATE=3166 MJD=54829 sdR-r2-00057606.fit 1D Sky-subtraction Sky Fibers
Median χ^2
1.0
0.8
0.6
0.4
0.2
0.0
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
15
10
5
0
-5
-10
-15
50
100
150
200
250
300
Fiber number

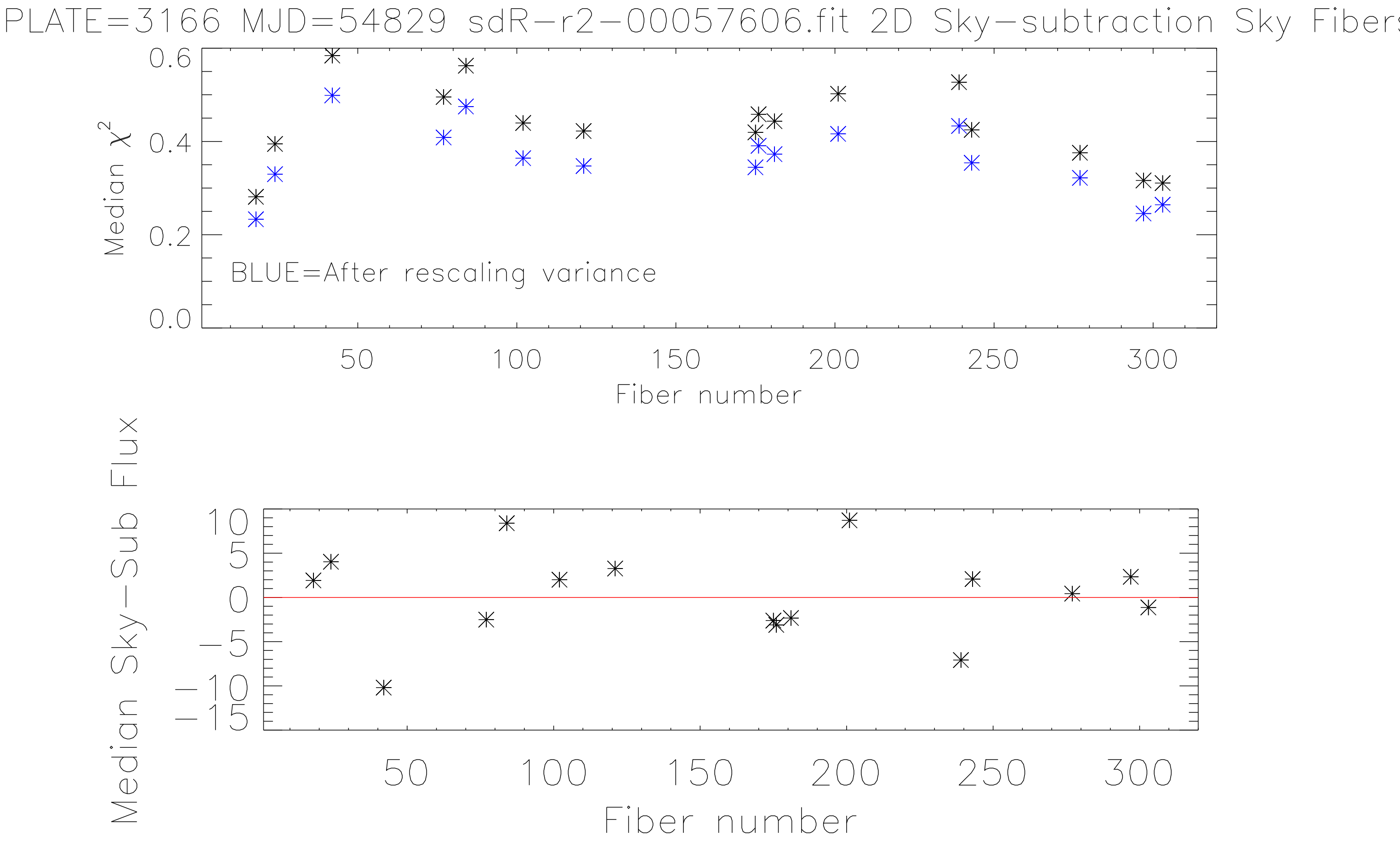

PLATE=3166 MJD=54829 sdR-r2-00057606.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]


PLATE=3166 MJD=54829 sdR-r2-00057606.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
−100
−200
−300
8820
8840
8860
8880
8900
λ [A]

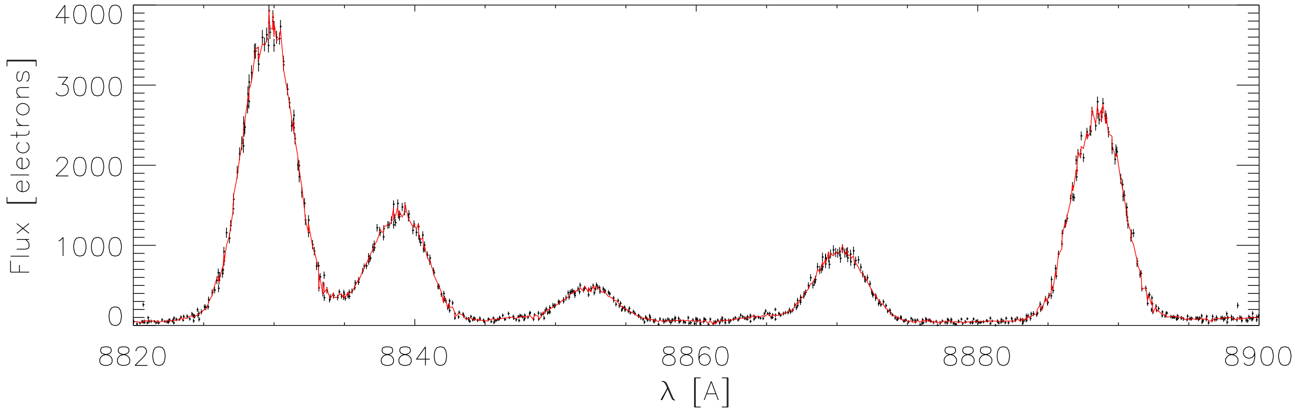
Number of sky fibers = 16

PLATE=3166 MJD=54829 sdR-r2-00057606.fit 1D Sky-subtraction Rescaled Errors

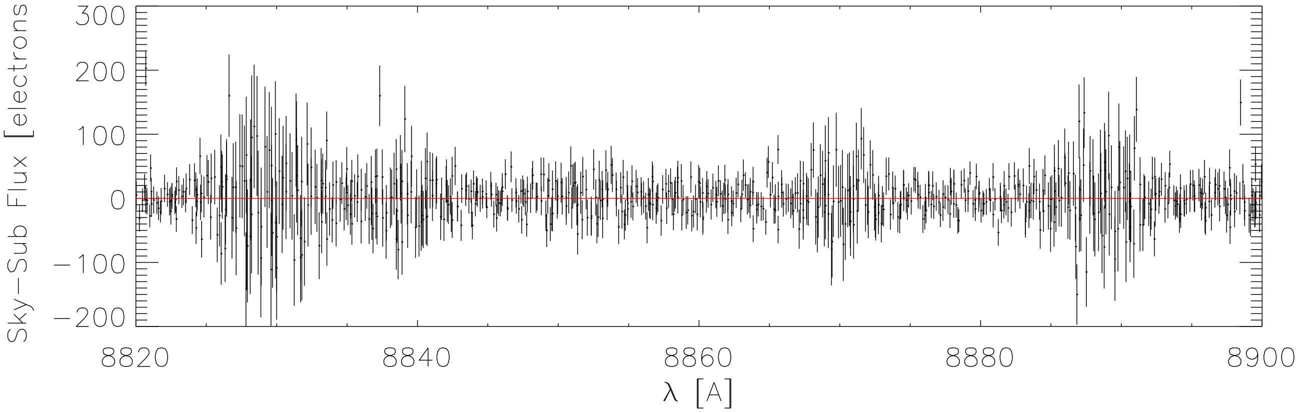



PLATE=3166 MJD=54829 sdR-r2-00057606.fit 2D Sky-subtraction Sky Fiber
Median χ^2
0.6
0.4
0.2
0.0
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
−5
−10
−15
50
100
150
200
250
300
Fiber number

PLATE=3166 MJD=54829 sdR-r2-00057606.fit 2D Sky-subtraction Sky Fibers

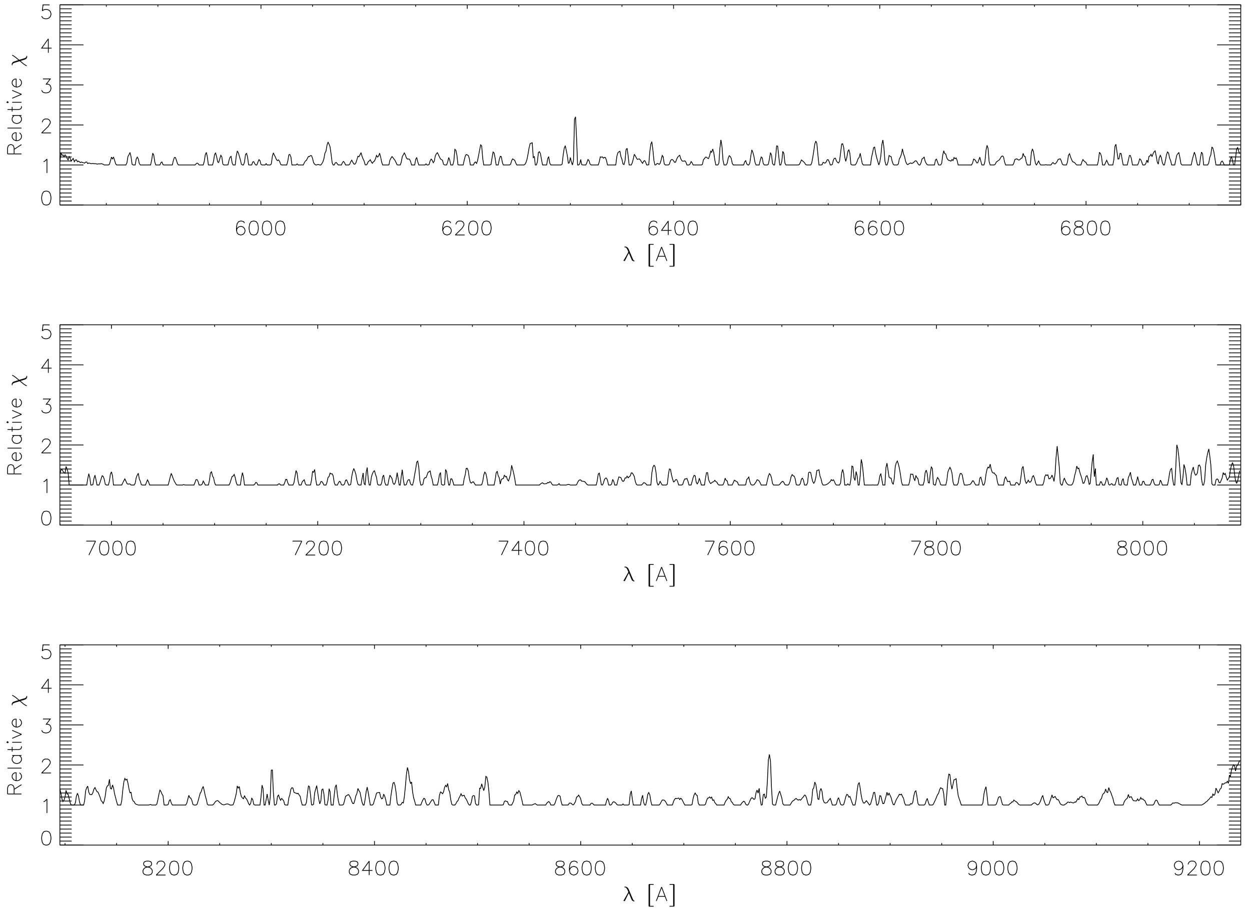


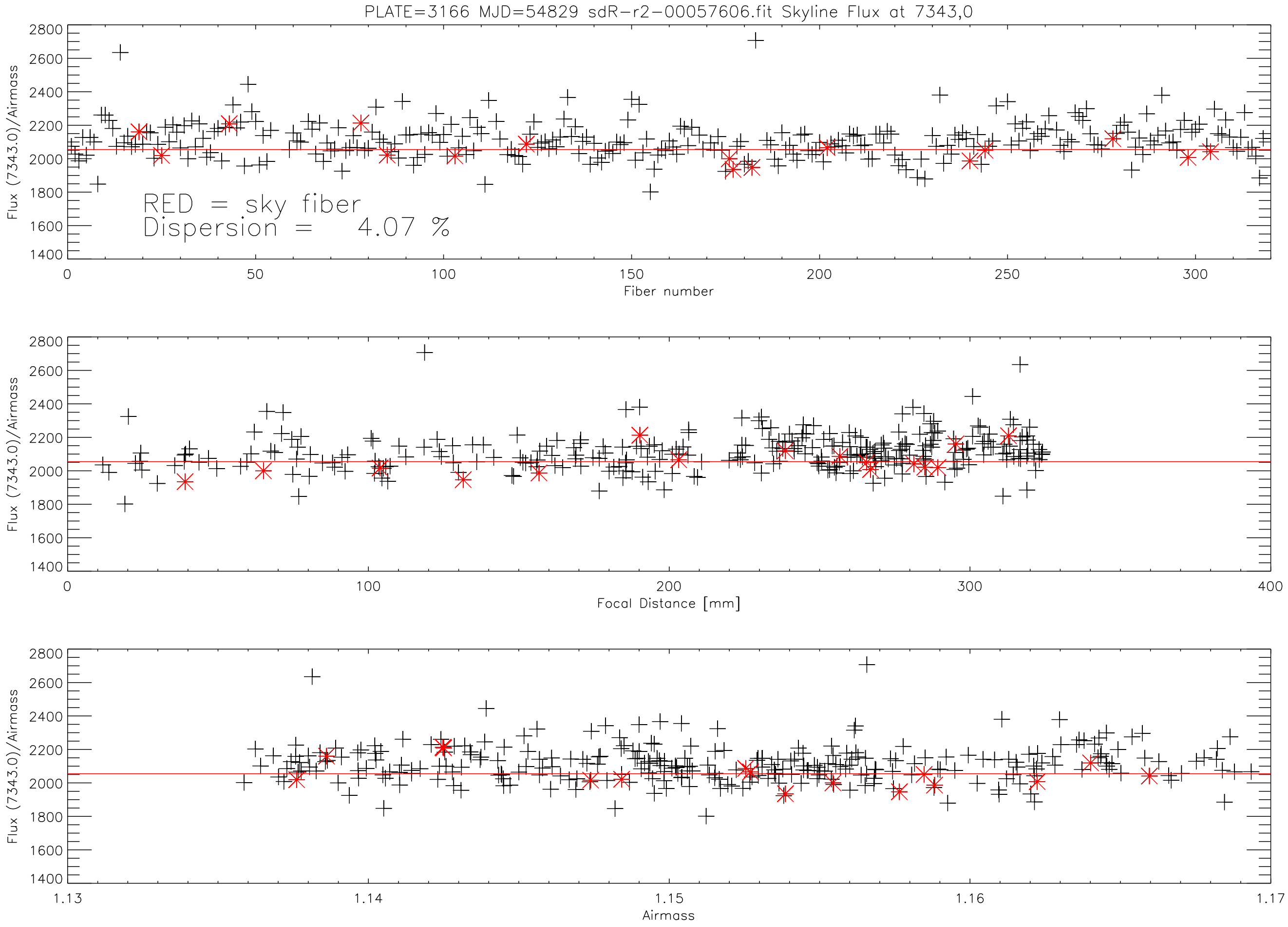
PLATE=3166 MJD=54829 sdR-r2-00057606.fit 2D Sky-subtraction Sky-subtracted Sky F

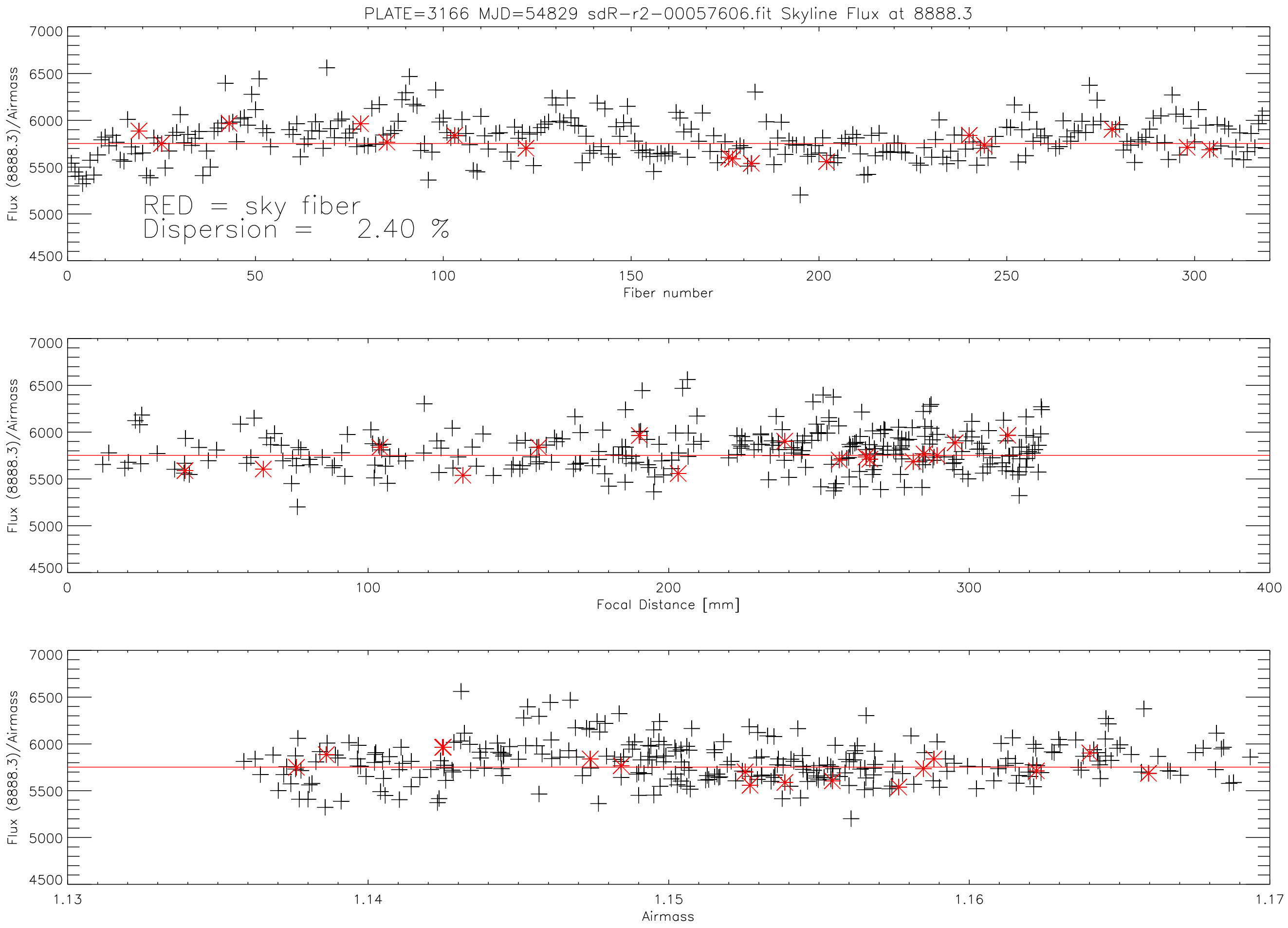


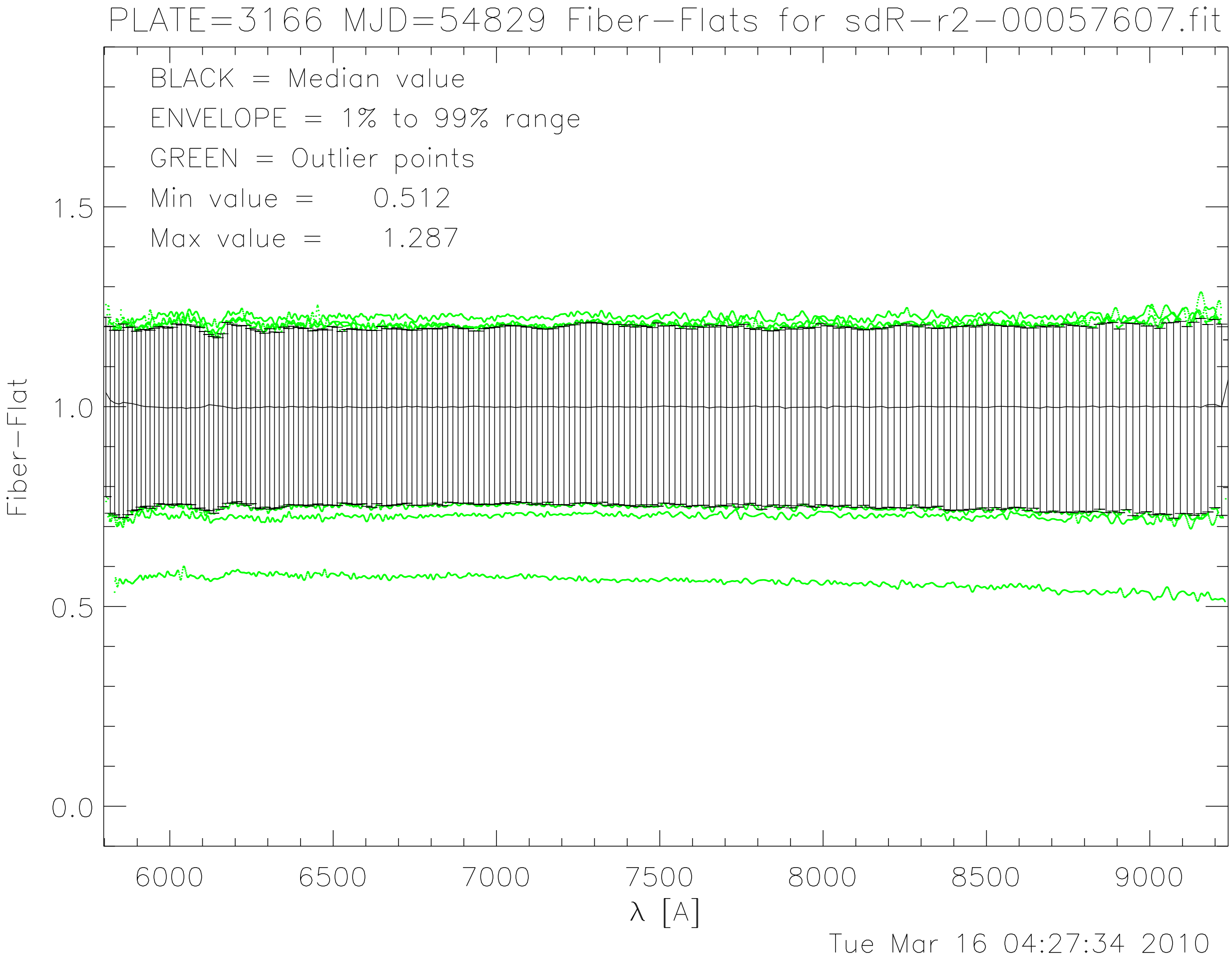
Number of sky fibers = 16

PLATE=3166 MJD=54829 sdR-r2-00057606.fit 2D Sky-subtraction Rescaled Errors

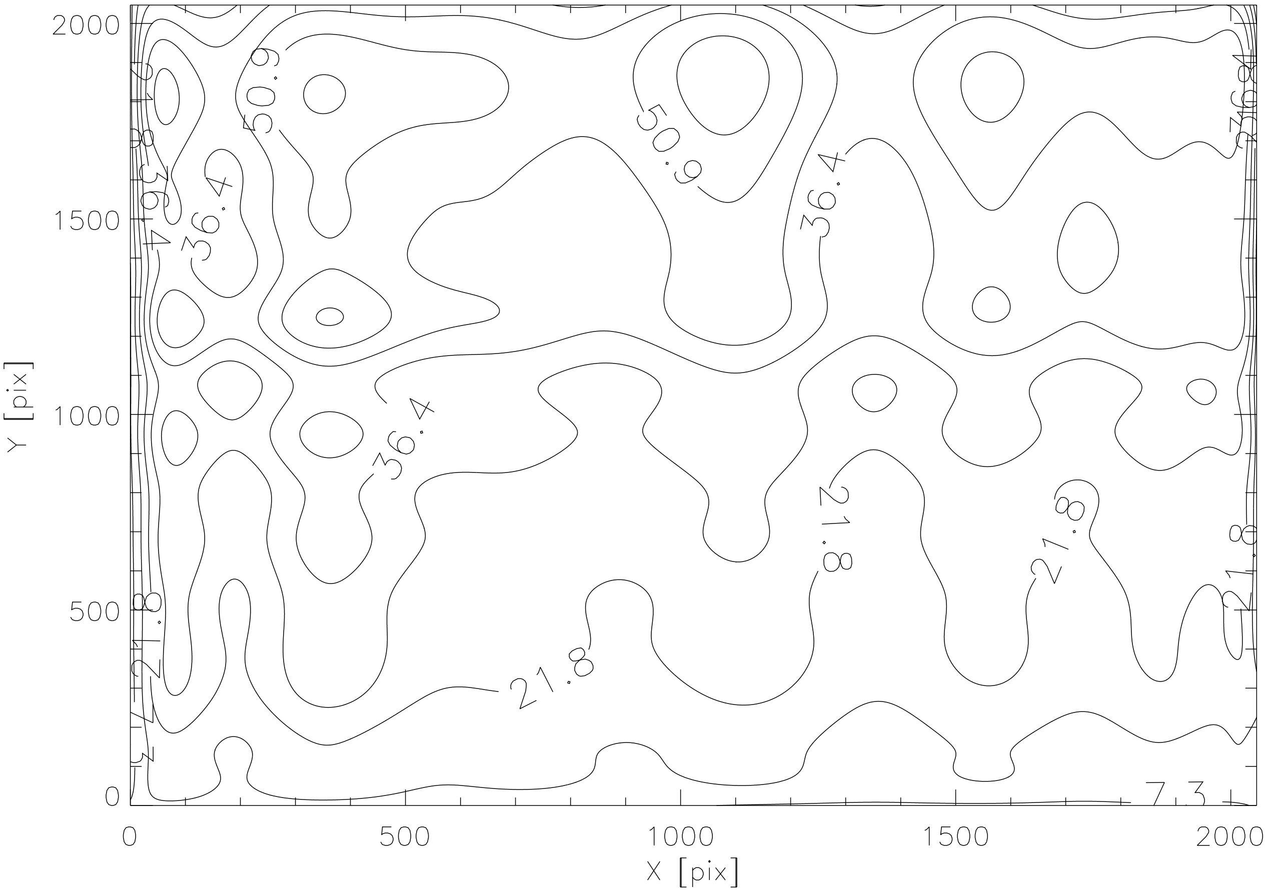



PLATE=3166 MJD=54829 sdR-r2-00057606.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
2800
2600
2400
2200
2000
1800
1600
1400
RED = sky fiber
Dispersion = 4.07 %
0
50
100
150
200
250
300
Fiber number
Flux (7343.0)/Airmass
0
100
200
300
400
Focal Distance [mm]
Flux (7343.0)/Airmass
1.13
1.14
1.15
1.16
1.17
Airmass

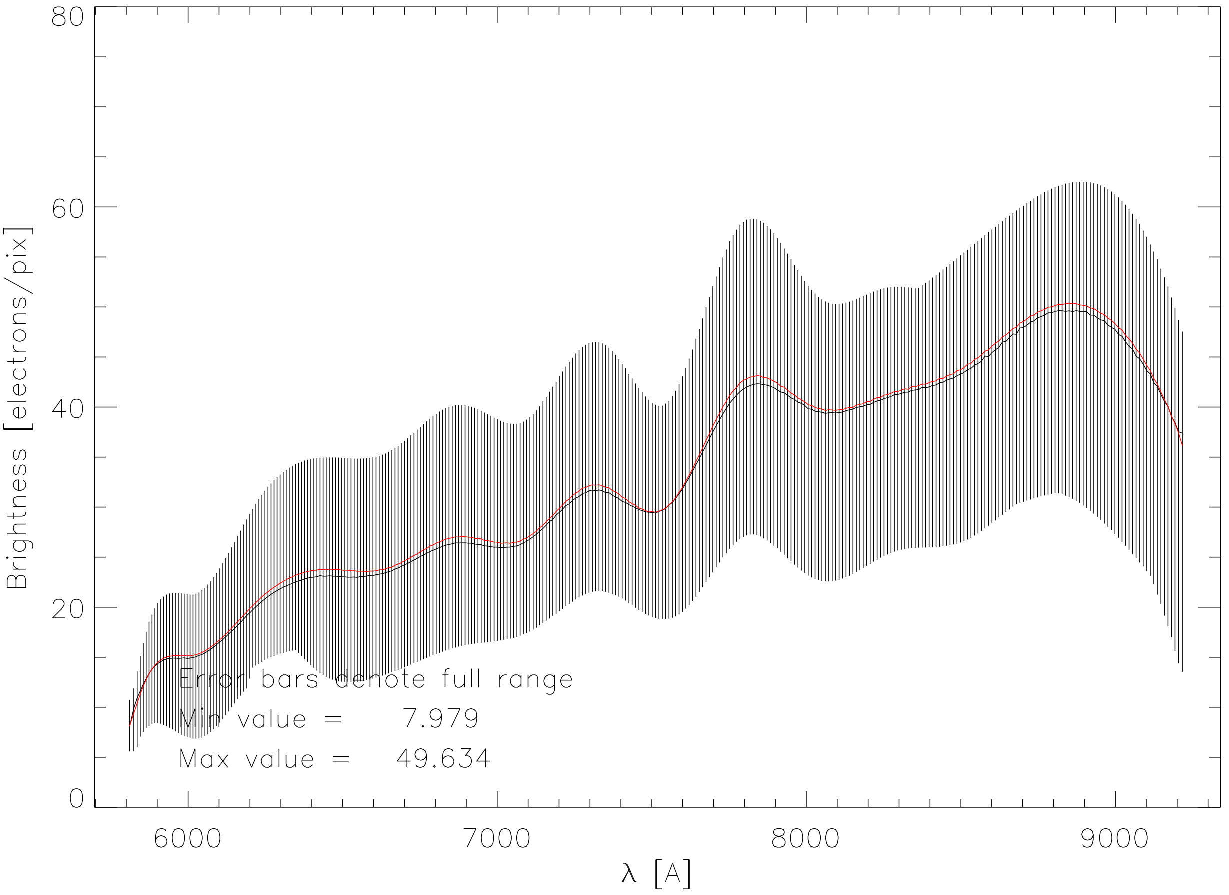

PLATE=3166 MJD=54829 sdR-r2-00057606.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
7000
6500
6000
5500
5000
4500
RED = sky fiber
Dispersion = 2.40 %
0
50
100
150
200
250
300
Fiber number
Flux (8888.3)/Airmass
7000
6500
6000
5500
5000
4500
0
100
200
300
400
Focal Distance [mm]
Flux (8888.3)/Airmass
7000
6500
6000
5500
5000
4500
1.13
1.14
1.15
1.16
1.17
Airmass


PLATE=3166 MJD=54829 Fiber−Flats for sdR−r2−00057607.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.512
Max value = 1.287
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Tue Mar 16 04:27:34 2010

PLATE=3166 MJD=54829 Scattered Light before halo removal on sdR-r2-00057609.fi



PLATE=3166 MJD=54829 Scattered Light before halo removal on sdR-r2-00057609.fi



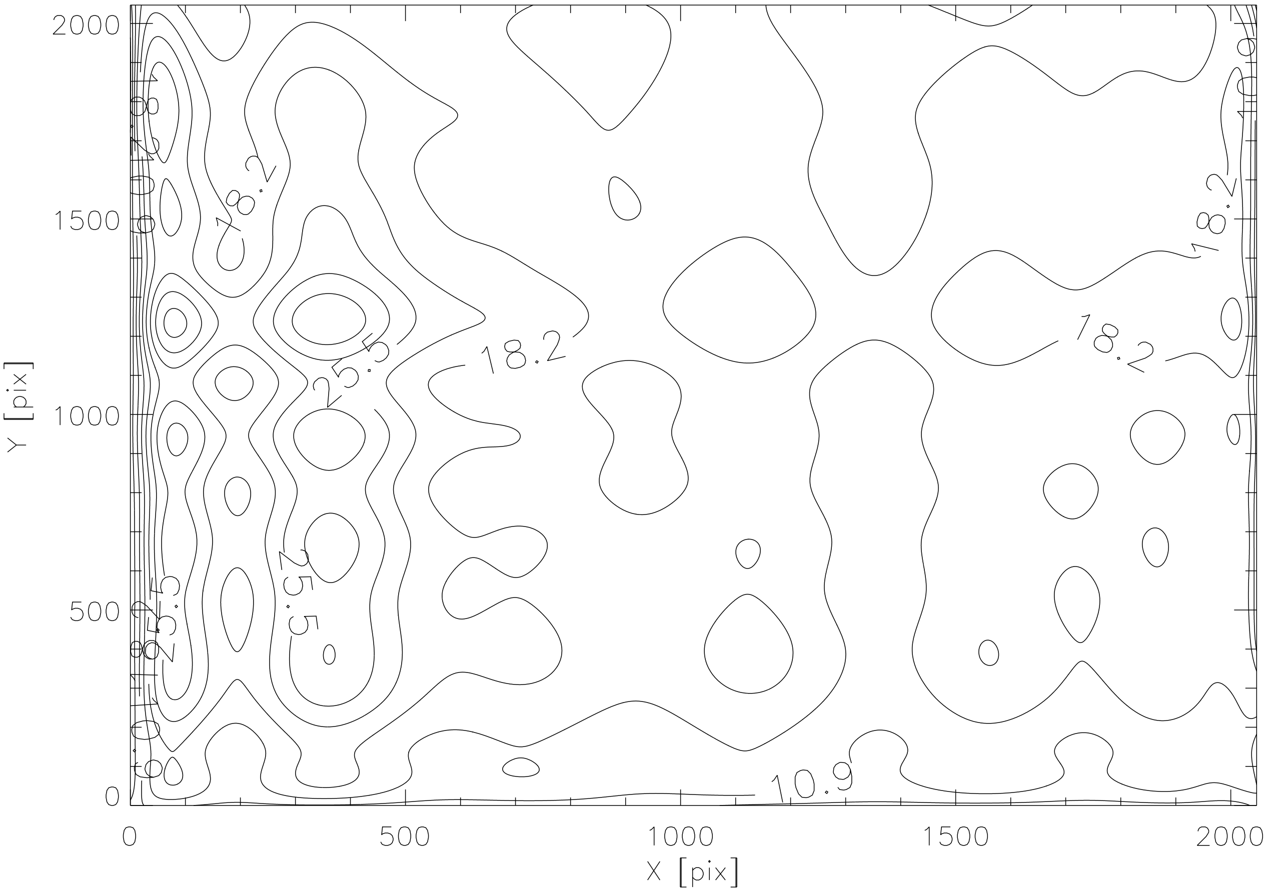
Error bars denote full range

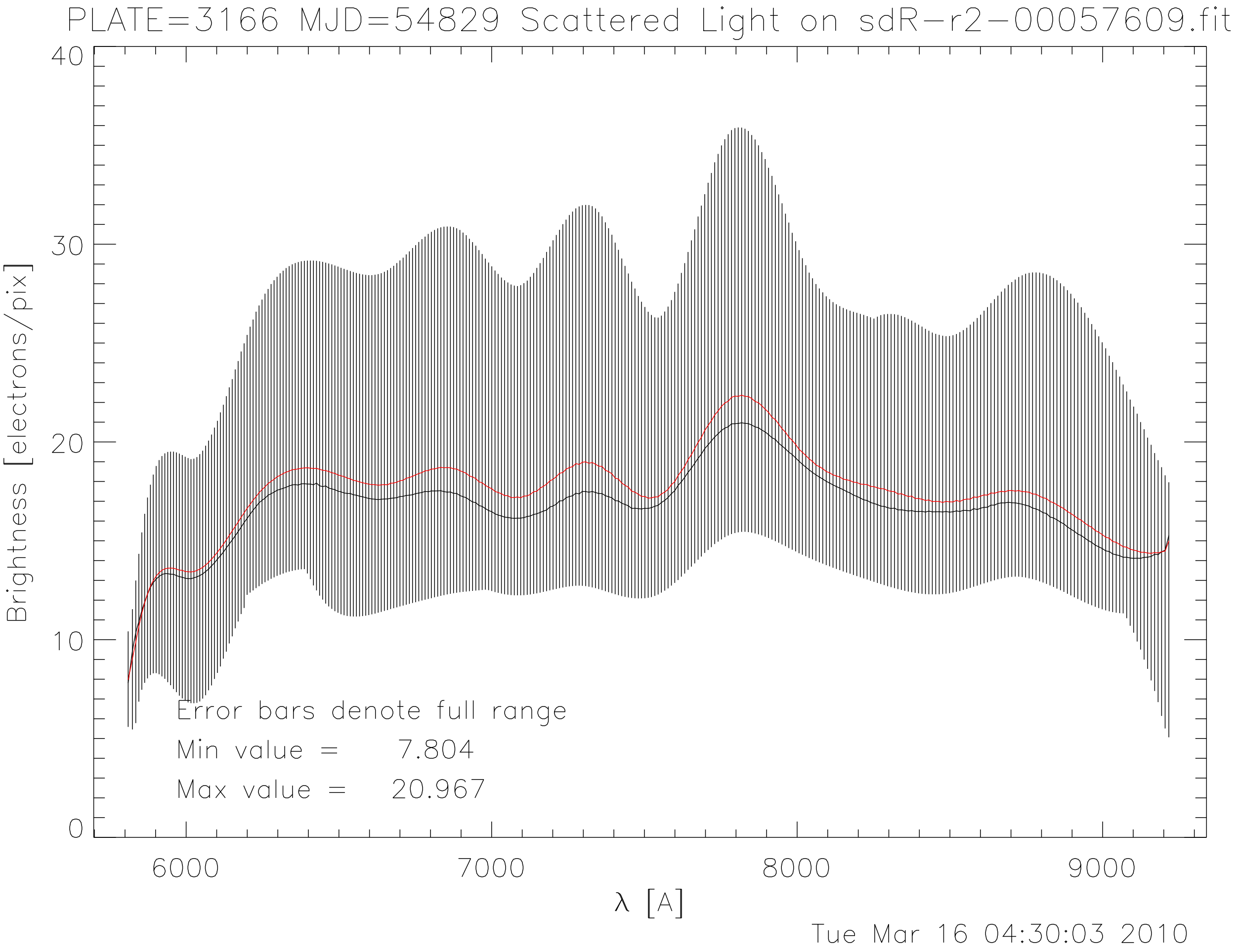
Min value = 7.979

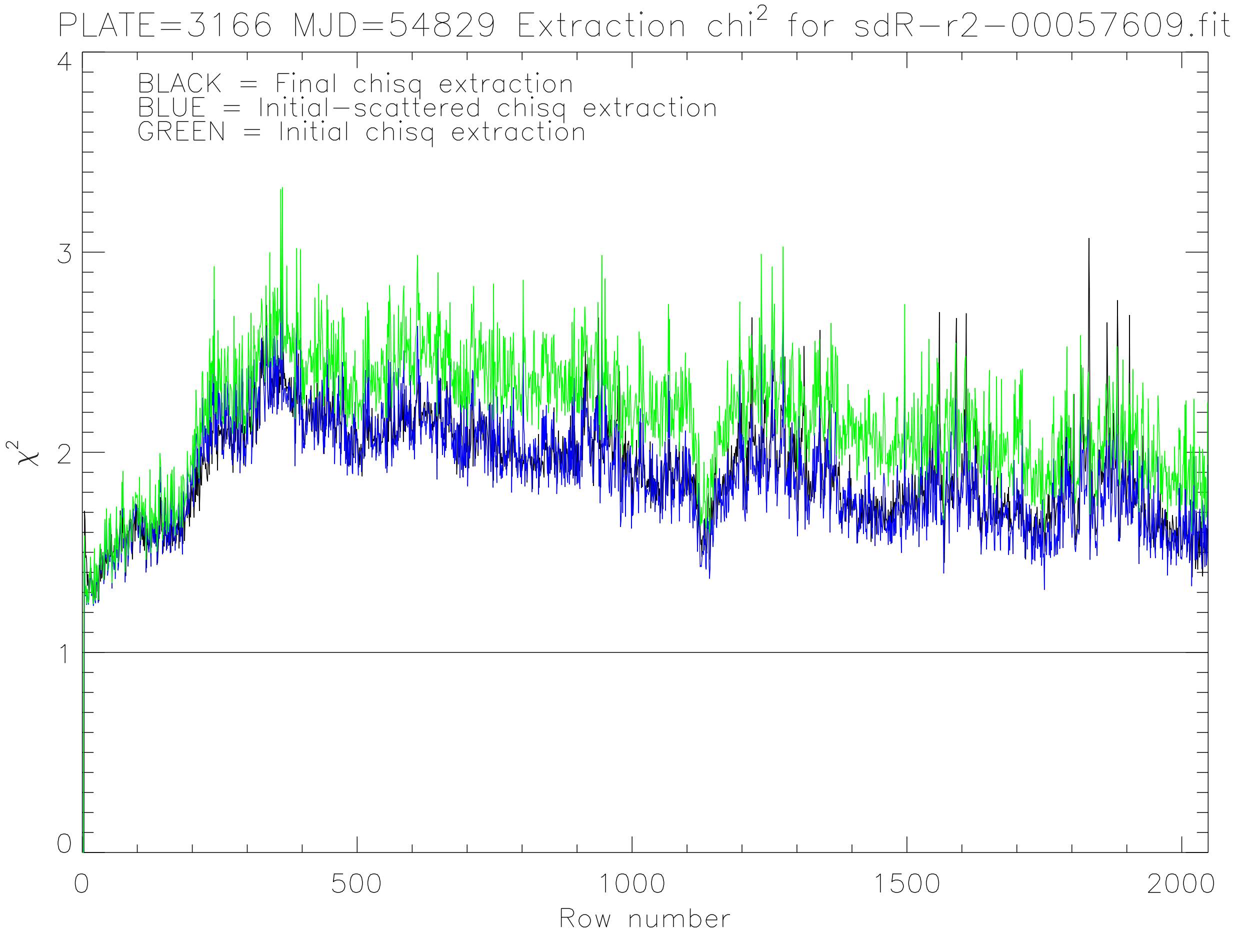
Max value = 49.634

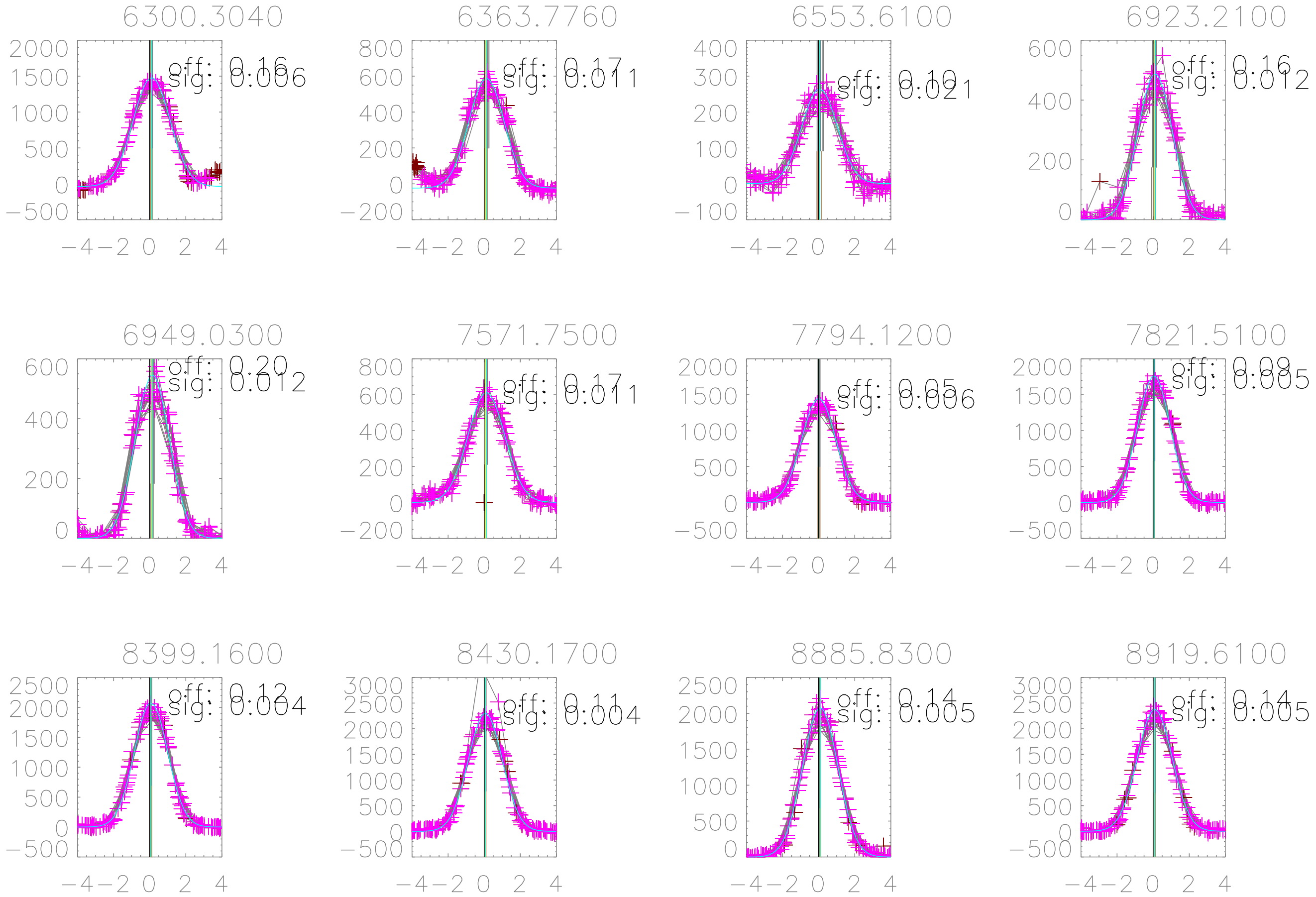
Tue Mar 16 04:28:08 2010

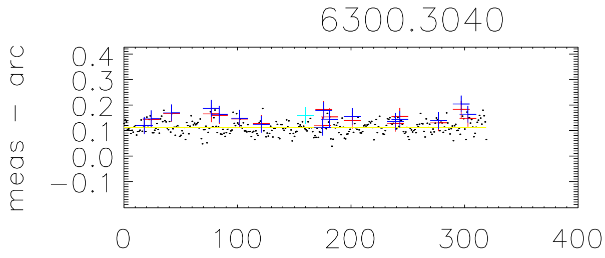
PLATE=3166 MJD=54829 Scattered Light on sdR-r2-00057609.fit

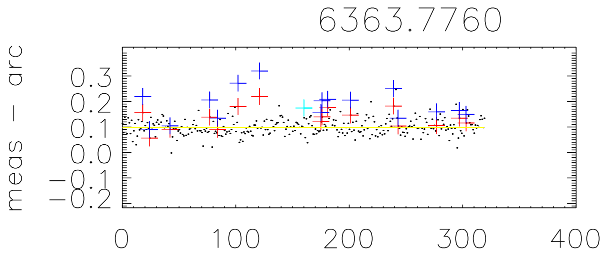


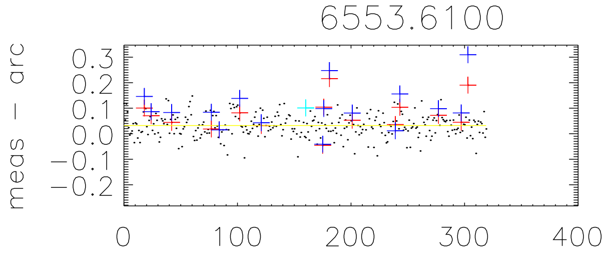

PLATE=3166 MJD=54829 Scattered Light on sdR-r2-00057609.fit
Brightness [electrons/pix]
0
10
20
30
40
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 7.804
Max value = 20.967
Tue Mar 16 04:30:03 2010

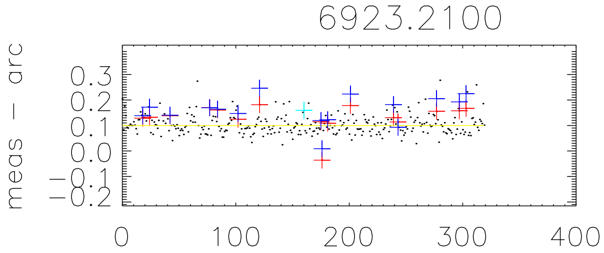

PLATE=3166 MJD=54829 Extraction chi^2 for sdR-r2-00057609.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
0
500
1000
1500
2000
Row number

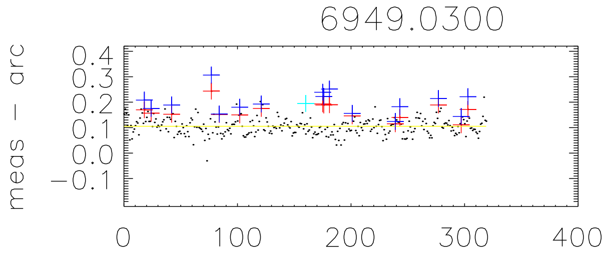

6300.3040
off: 0.16
sig: 0.006
6363.7760
off: 0.17
sig: 0.011
6553.6100
off: 0.10
sig: 0.021
6923.2100
off: 0.16
sig: 0.012
6949.0300
off: 0.20
sig: 0.012
7571.7500
off: 0.17
sig: 0.011
7794.1200
off: 0.05
sig: 0.006
7821.5100
off: 0.08
sig: 0.005
8399.1600
off: 0.12
sig: 0.004
8430.1700
off: 0.11
sig: 0.004
8885.8300
off: 0.14
sig: 0.005
8919.6100
off: 0.14
sig: 0.005
−4 −2 0 2 4

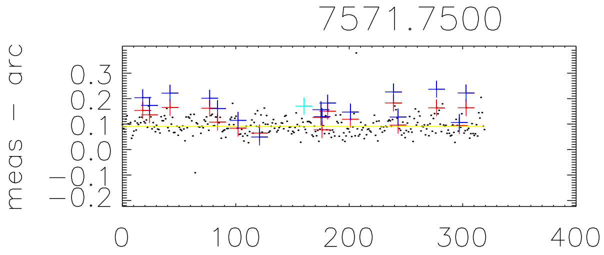

6300.3040

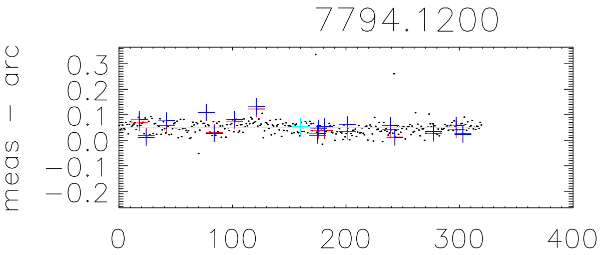

6363.7760

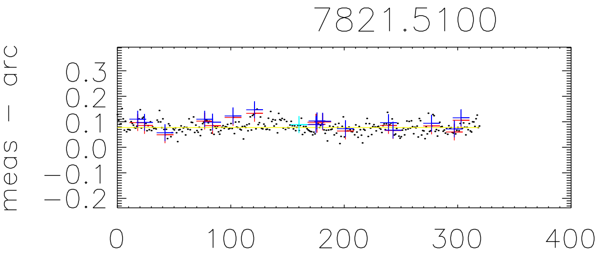

6553.6100

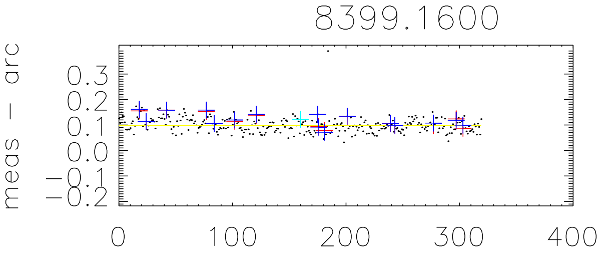

6923.2100

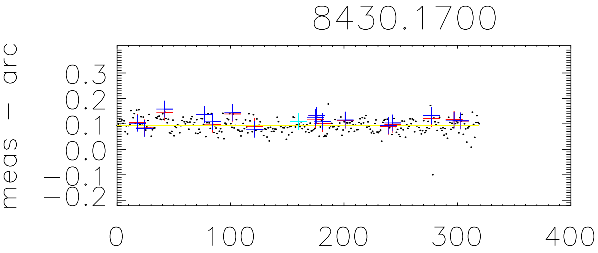

6949.0300

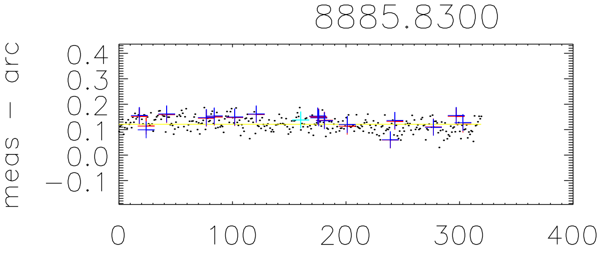

7571.7500

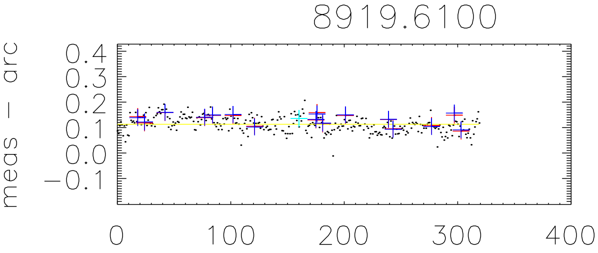

7794.1200

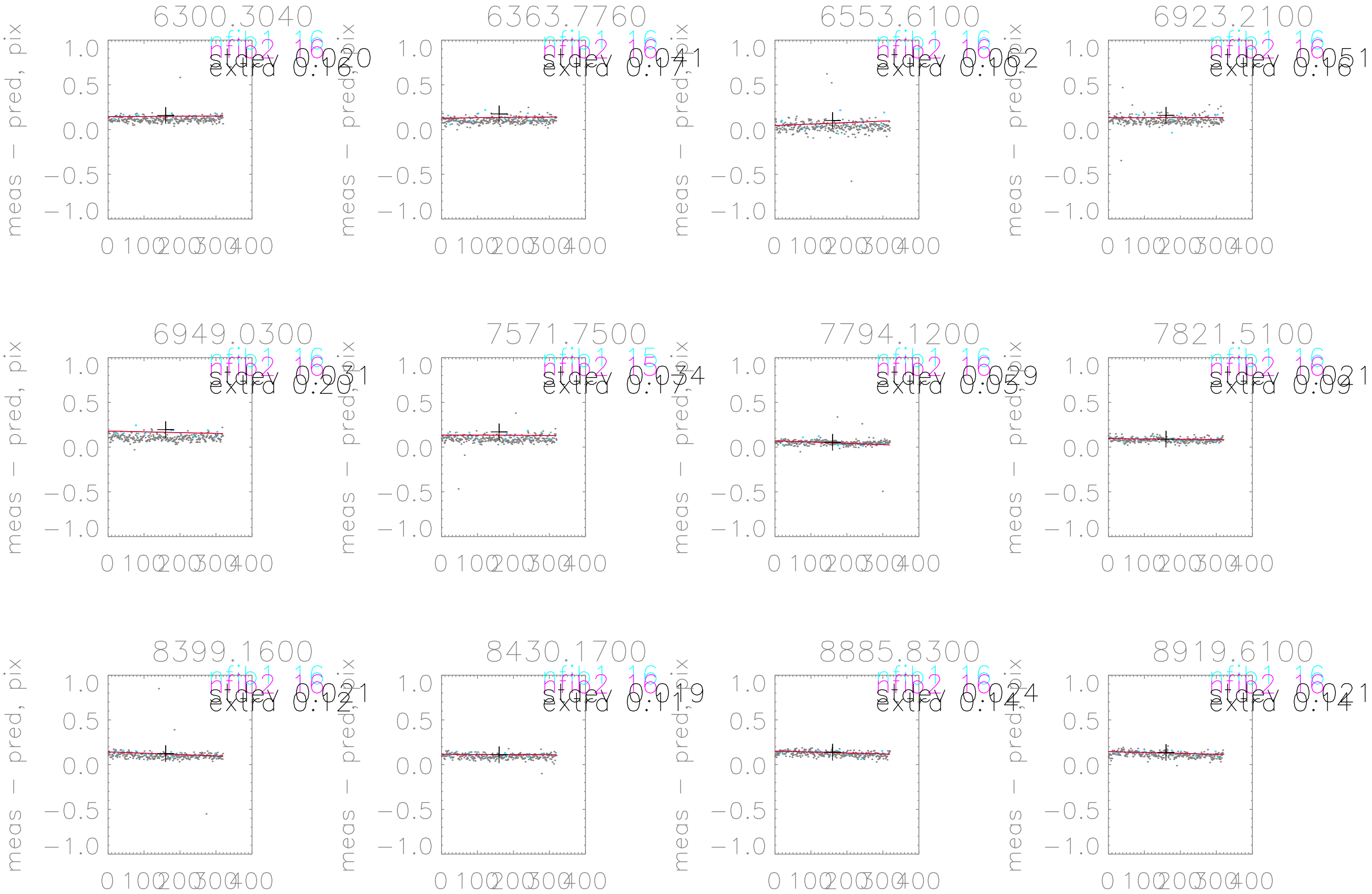

7821.5100

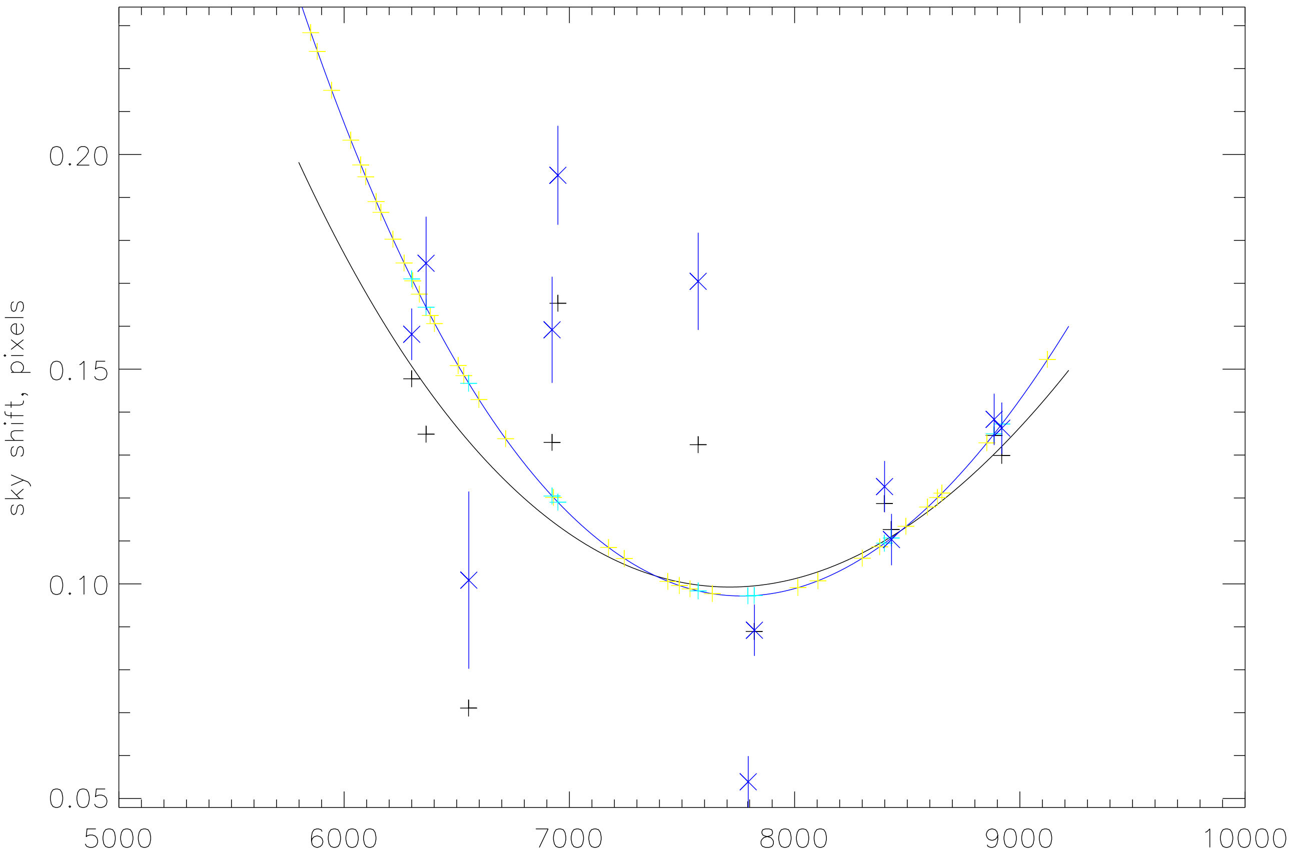

8399.1600

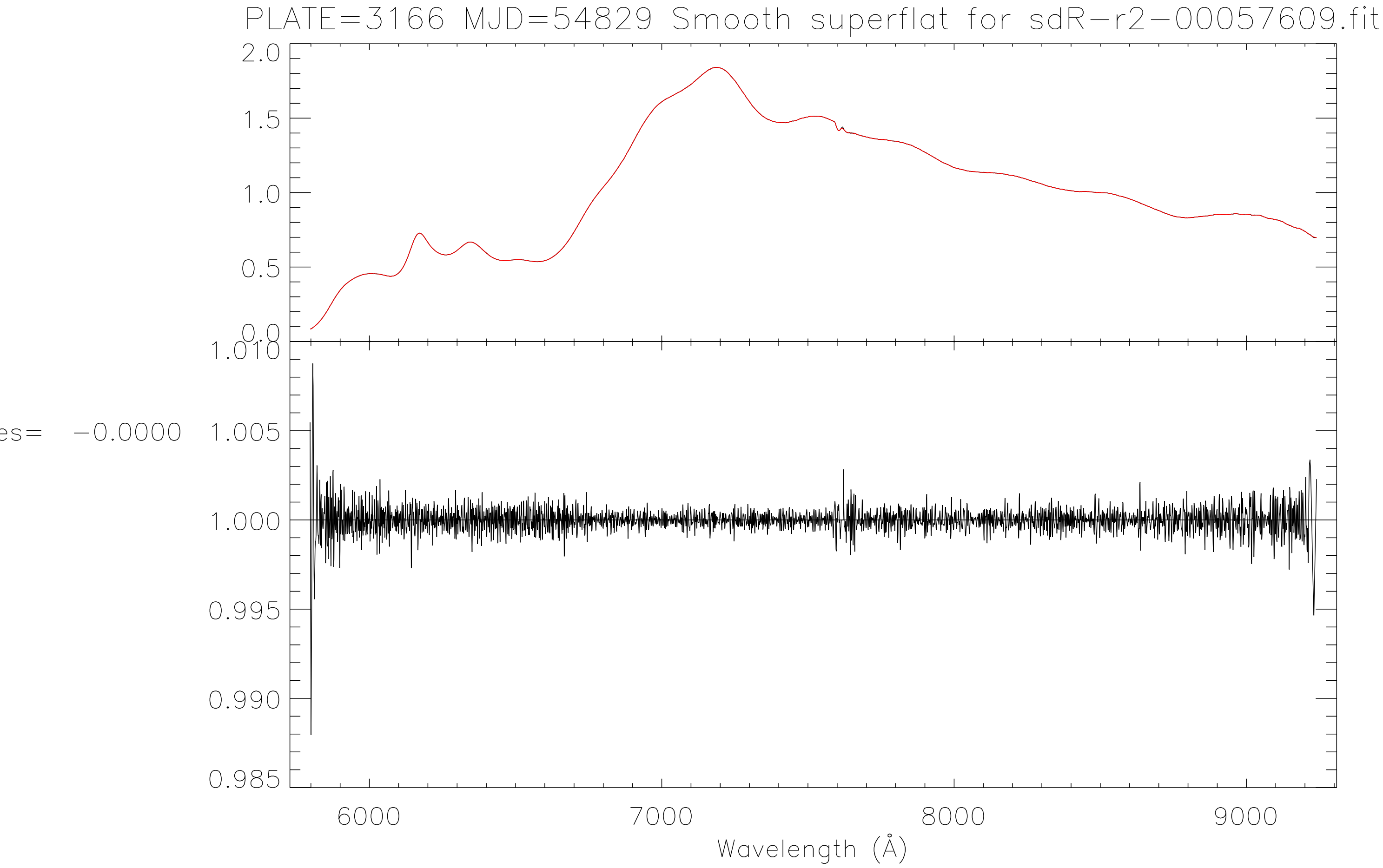

8430.1700

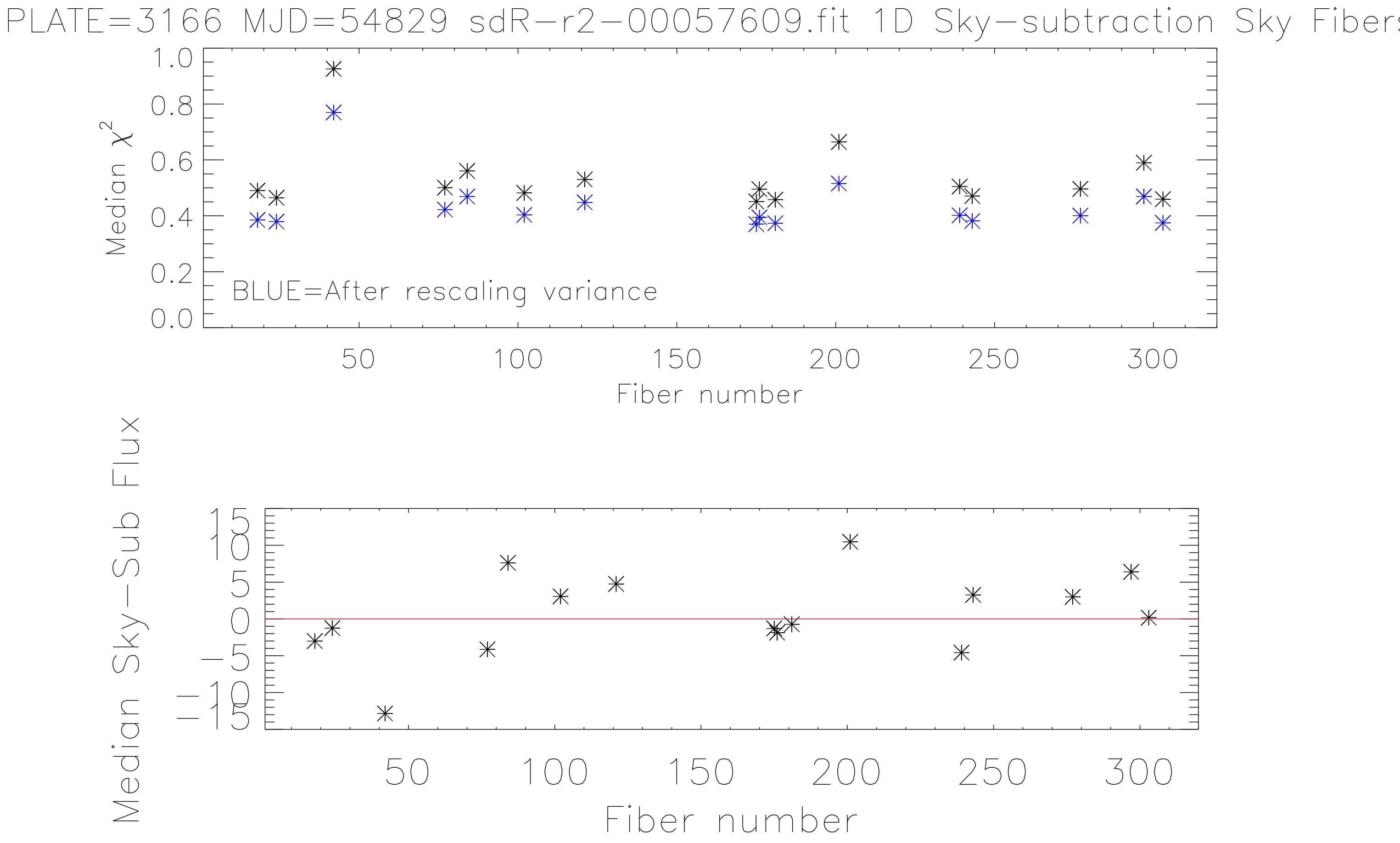

8885.8300

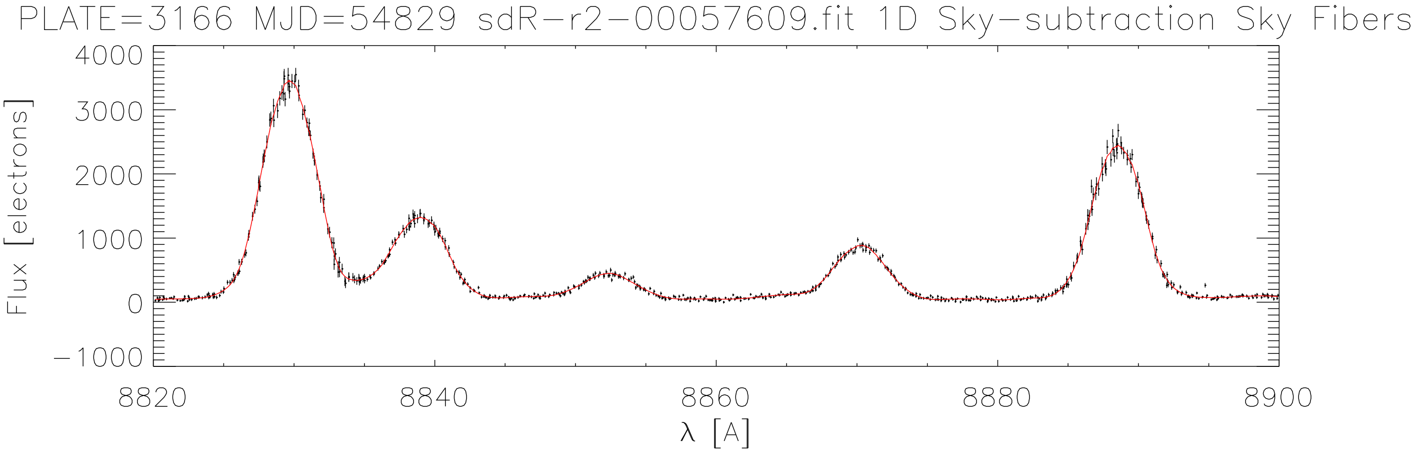

8919.6100

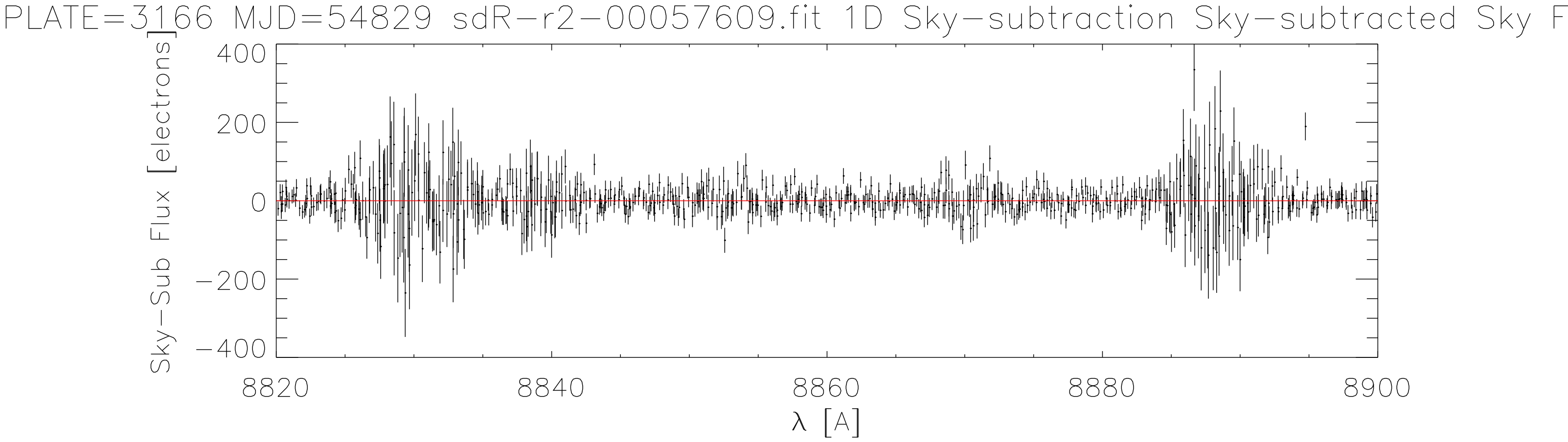

6300.3040
nfib1 16
nfib2 16
stdev 0.020
extrd 0.16
6363.7760
nfib1 16
nfib2 16
stdev 0.041
extrd 0.17
6553.6100
nfib1 16
nfib2 16
stdev 0.062
extrd 0.10
6923.2100
nfib1 16
nfib2 16
stdev 0.051
extrd 0.16
6949.0300
nfib1 16
nfib2 16
stdev 0.031
extrd 0.20
7571.7500
nfib1 15
nfib2 16
stdev 0.034
extrd 0.17
7794.1200
nfib1 16
nfib2 16
stdev 0.029
extrd 0.05
7821.5100
nfib1 16
nfib2 16
stdev 0.021
extrd 0.09
8399.1600
nfib1 16
nfib2 16
stdev 0.021
extrd 0.12
8430.1700
nfib1 16
nfib2 16
stdev 0.019
extrd 0.11
8885.8300
nfib1 16
nfib2 16
stdev 0.024
extrd 0.14
8919.6100
nfib1 16
nfib2 16
stdev 0.021
extrd 0.14
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400


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


PLATE=3166 MJD=54829 Smooth superflat for sdR-r2-00057609.fit
2.0
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
0.985
es= −0.0000
6000
7000
8000
9000
Wavelength (Å)

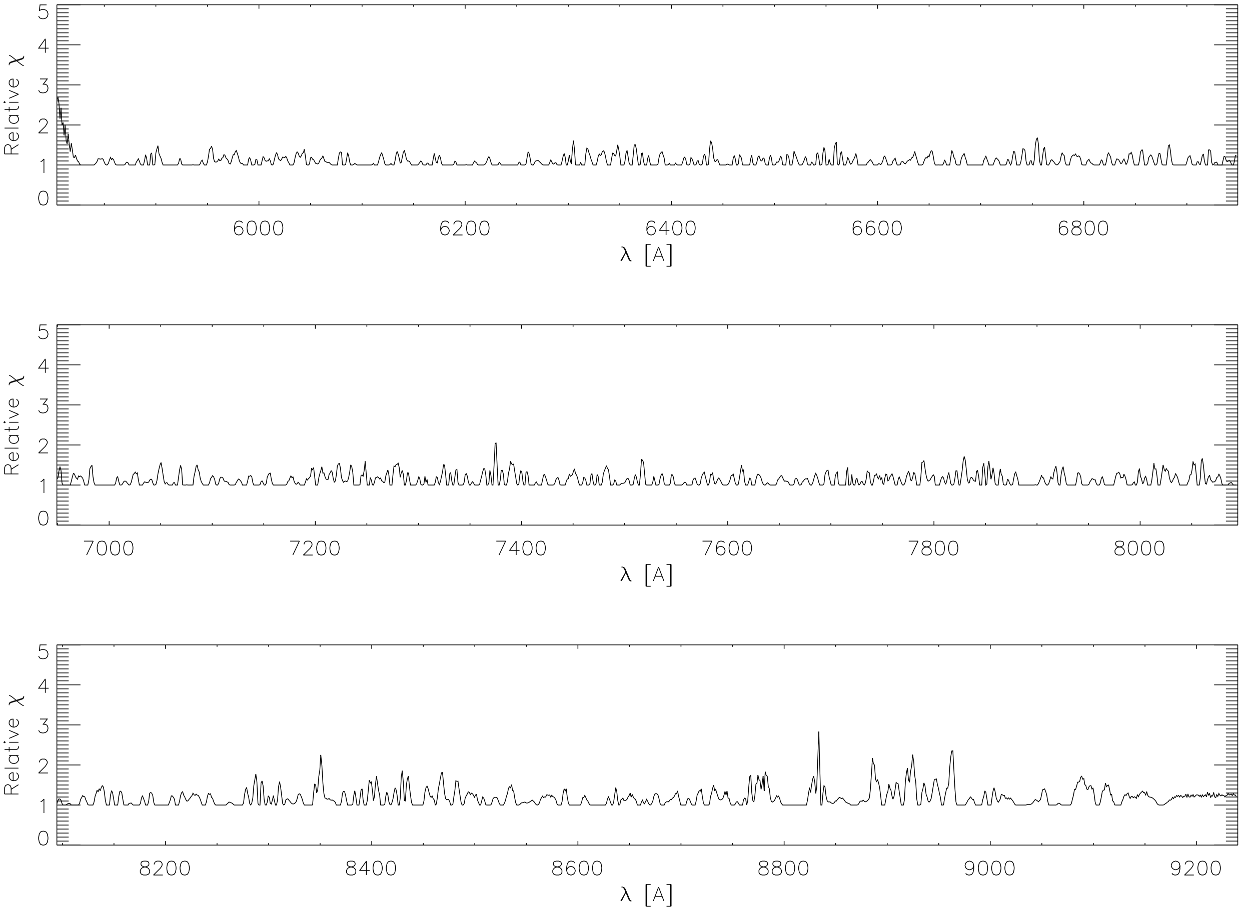

PLATE=3166 MJD=54829 sdR-r2-00057609.fit 1D Sky-subtraction Sky Fiber
Median χ^2
1.0
0.8
0.6
0.4
0.2
0.0
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
15
10
5
0
-5
-10
-15
50
100
150
200
250
300
Fiber number

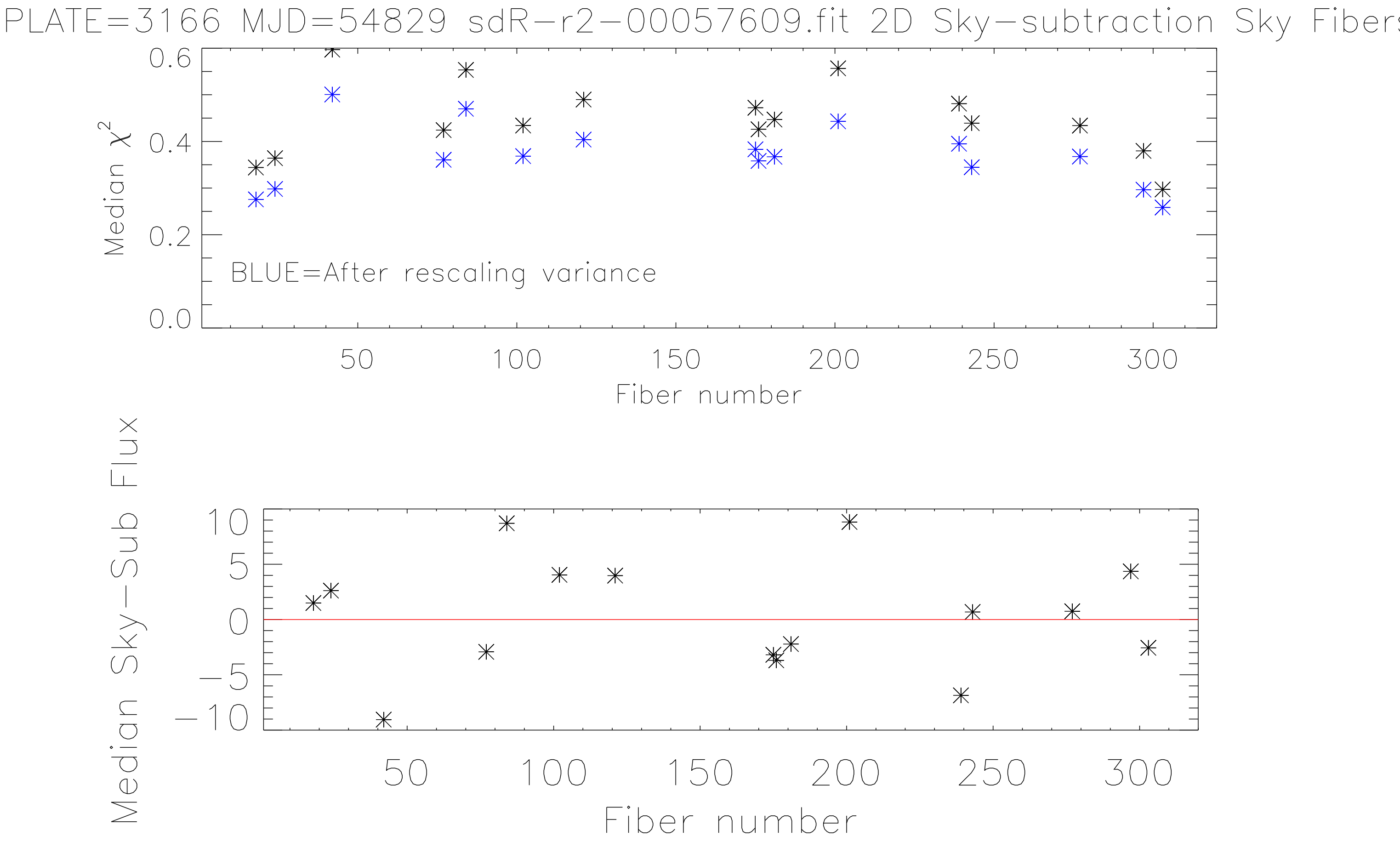

PLATE=3166 MJD=54829 sdR-r2-00057609.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
−1000
8820
8840
8860
8880
8900
λ [A]

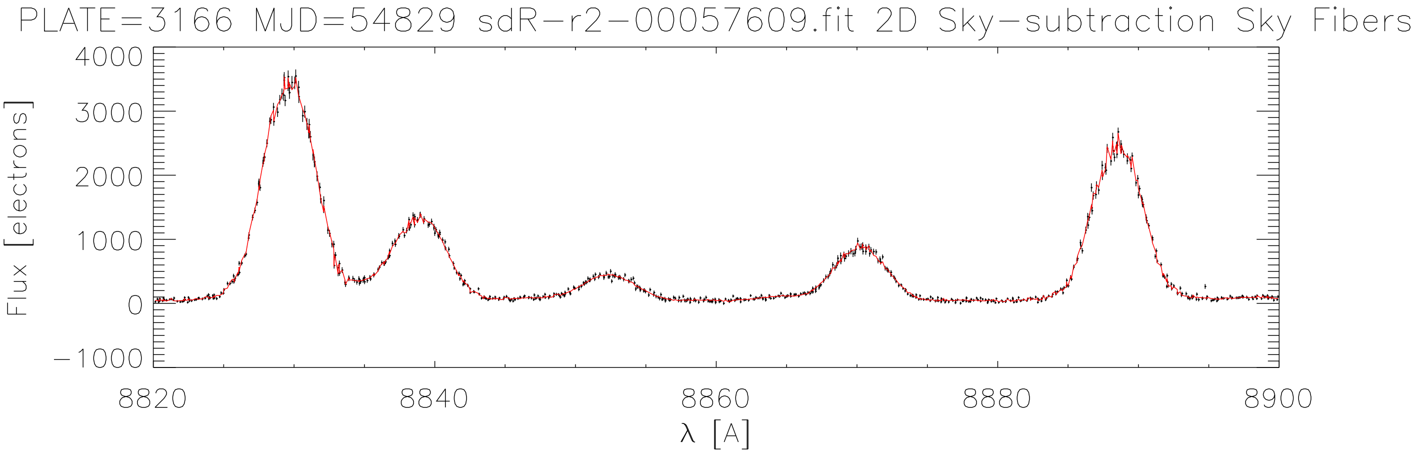

PLATE=3166 MJD=54829 sdR-r2-00057609.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
400
200
0
−200
−400
8820
8840
8860
8880
8900
λ [A]

Number of sky fibers = 16

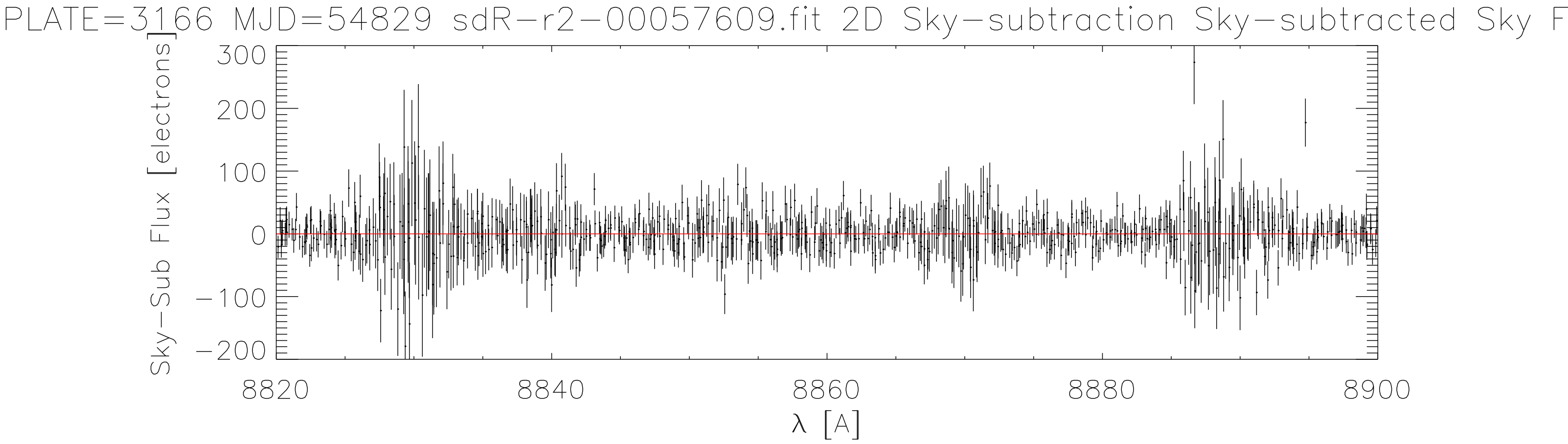
PLATE=3166 MJD=54829 sdR-r2-00057609.fit 1D Sky-subtraction Rescaled Errors




PLATE=3166 MJD=54829 sdR-r2-00057609.fit 2D Sky-subtraction Sky Fiber
Median χ^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
10
5
0
−5
−10
50
100
150
200
250
300
Fiber number



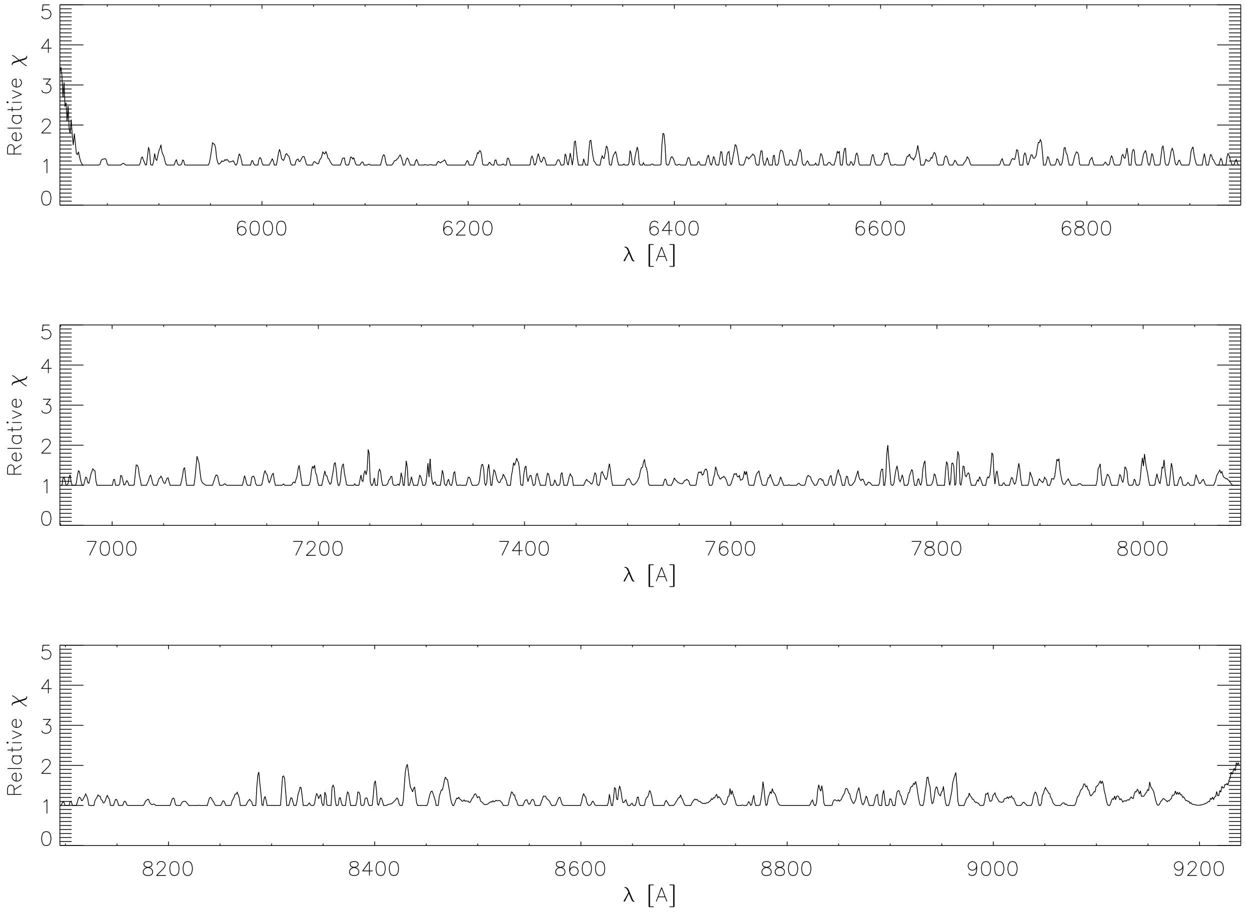
PLATE=3166 MJD=54829 sdR-r2-00057609.fit 2D Sky-subtraction Sky Fibers

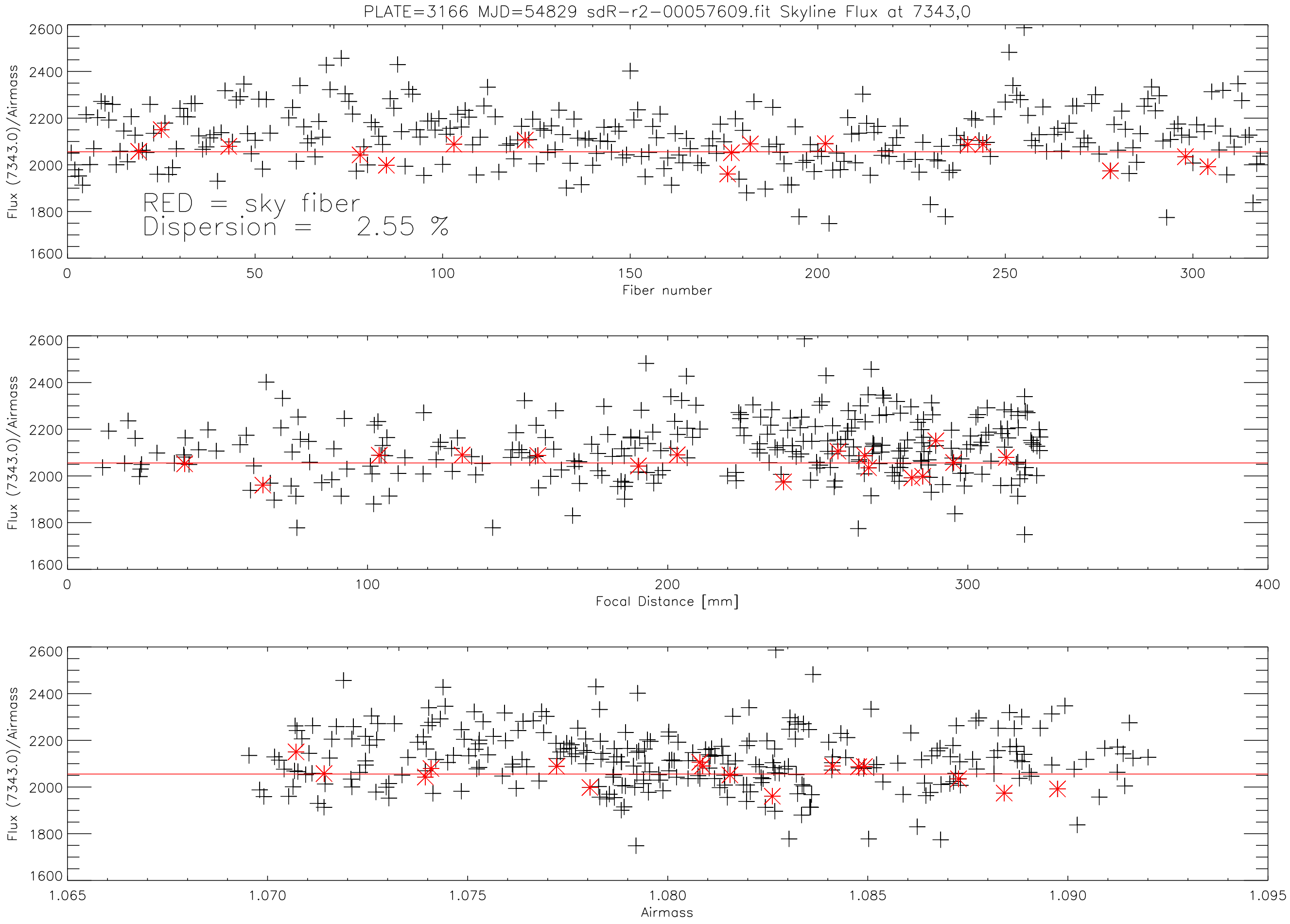


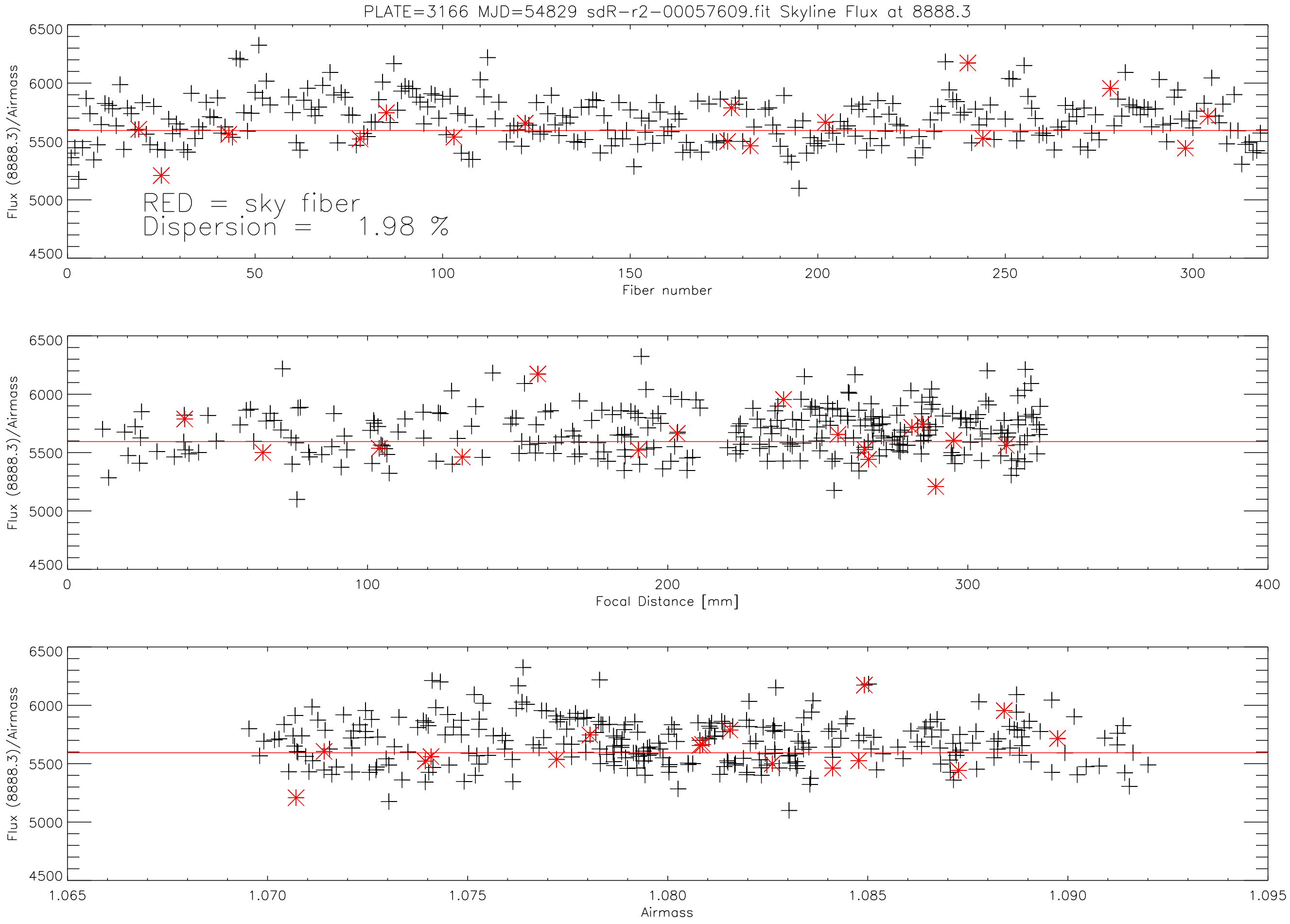
PLATE=3166 MJD=54829 sdR-r2-00057609.fit 2D Sky-subtraction Sky-subtracted Sky F

Number of sky fibers = 16

PLATE=3166 MJD=54829 sdR-r2-00057609.fit 2D Sky-subtraction Rescaled Errors




PLATE=3166 MJD=54829 sdR-r2-00057609.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
1600
1800
2000
2200
2400
2600
RED = sky fiber
Dispersion = 2.55 %
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
1.065
1.070
1.075
1.080
1.085
1.090
1.095
Airmass


PLATE=3166 MJD=54829 sdR-r2-00057609.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
6500
6000
5500
5000
4500
RED = sky fiber
Dispersion = 1.98 %
0
50
100
150
200
250
300
Fiber number
Flux (8888.3)/Airmass
6500
6000
5500
5000
4500
0
100
200
300
400
Focal Distance [mm]
Flux (8888.3)/Airmass
6500
6000
5500
5000
4500
1.065
1.070
1.075
1.080
1.085
1.090
1.095
Airmass