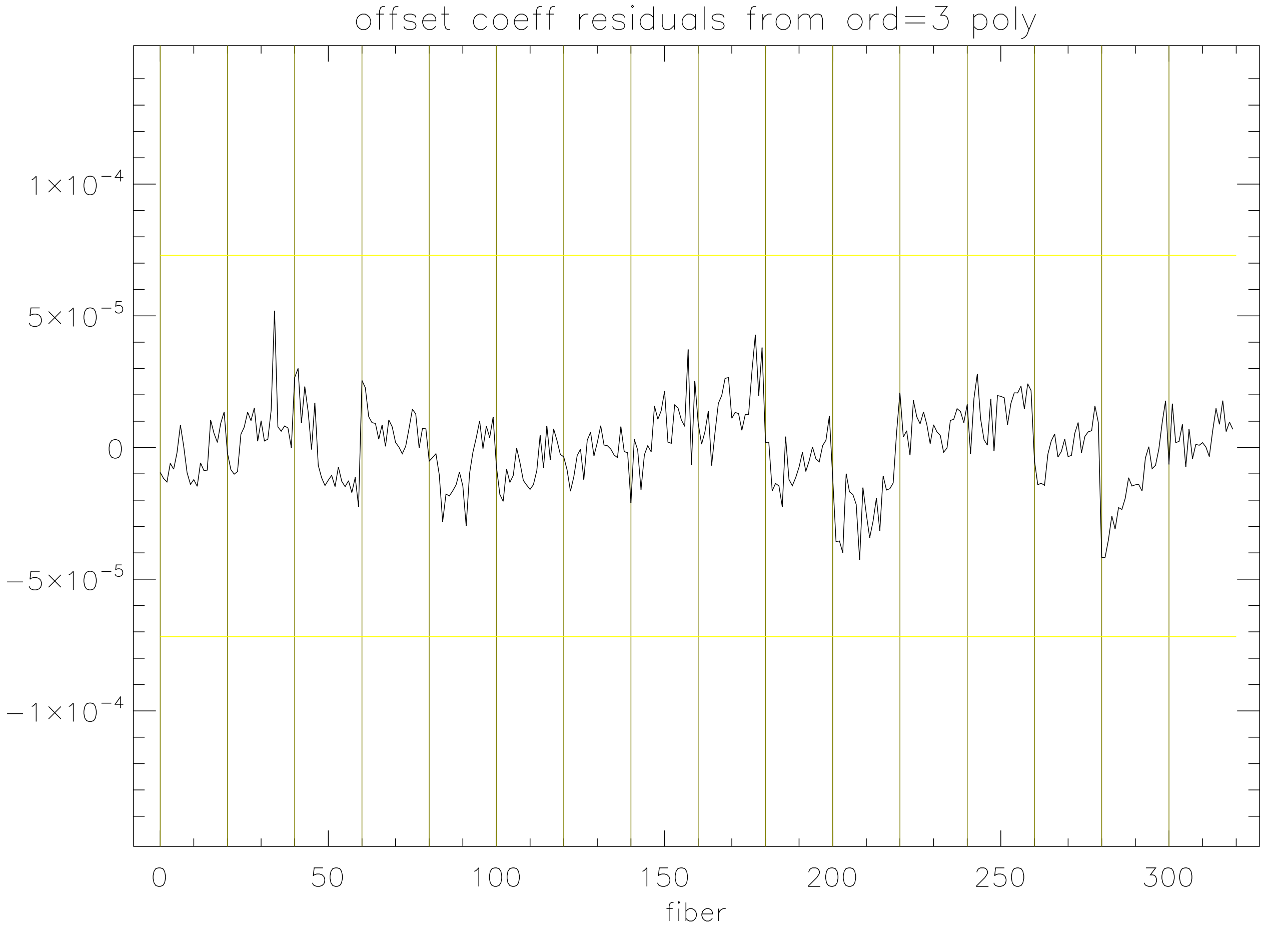
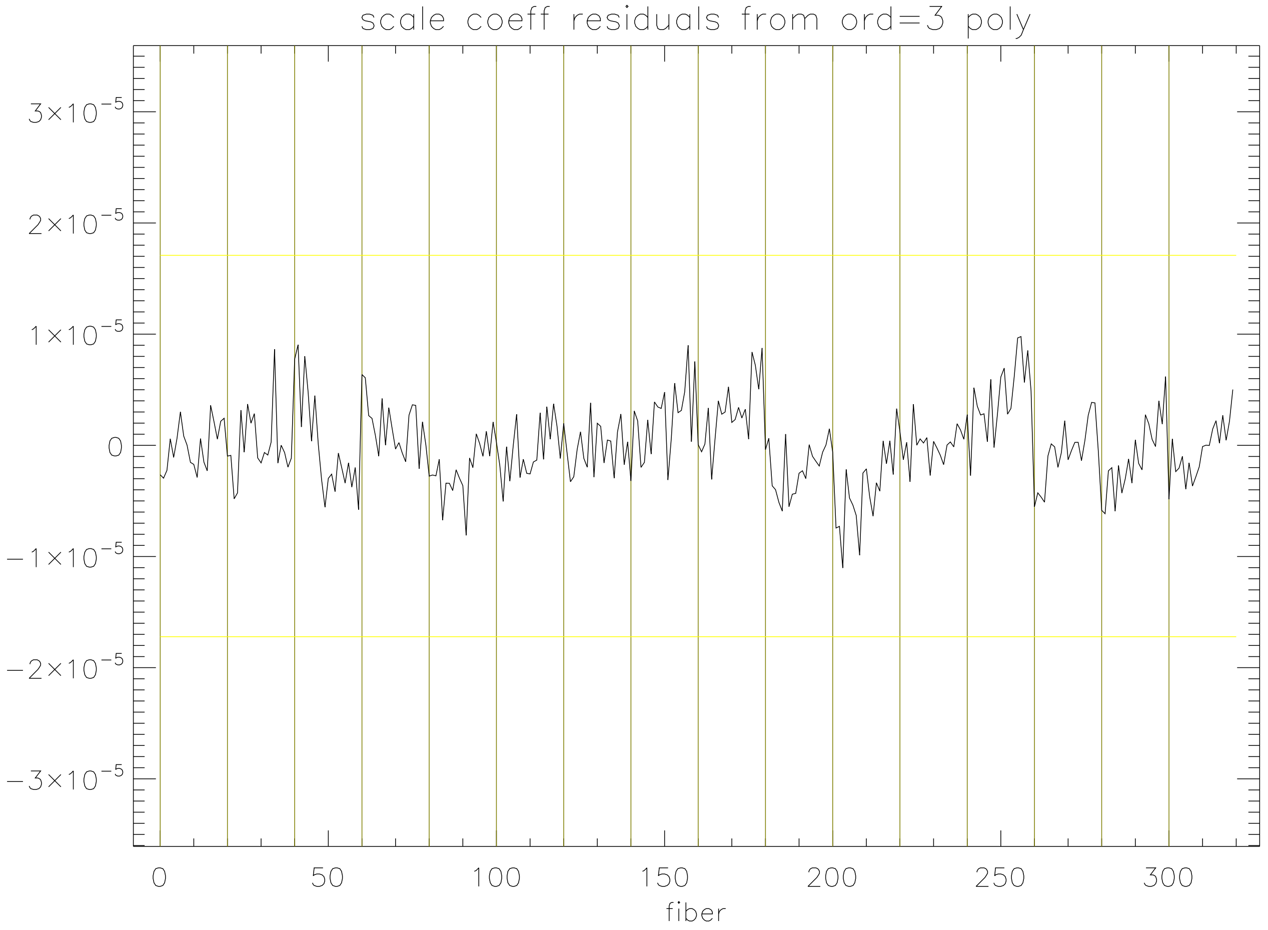
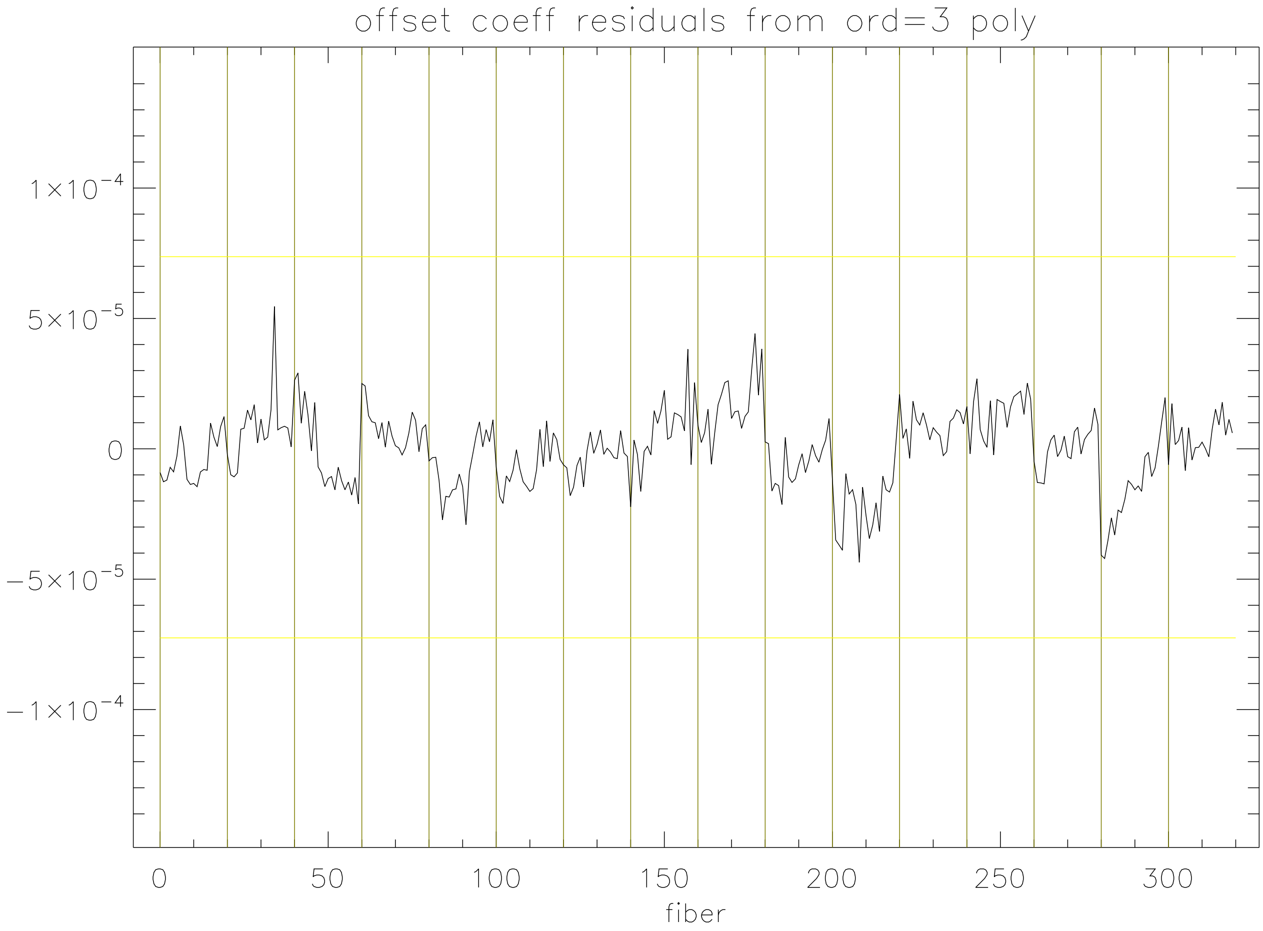
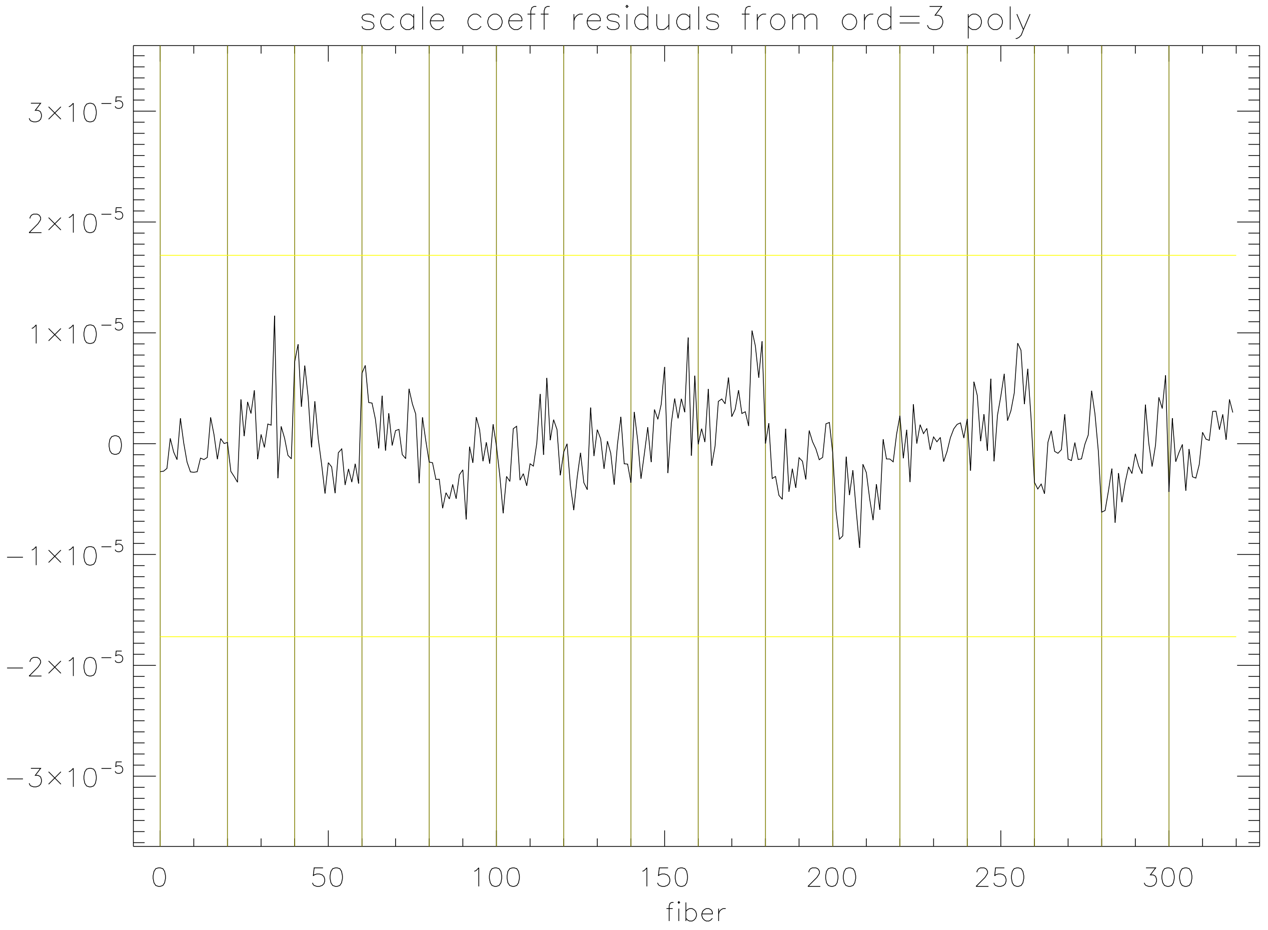
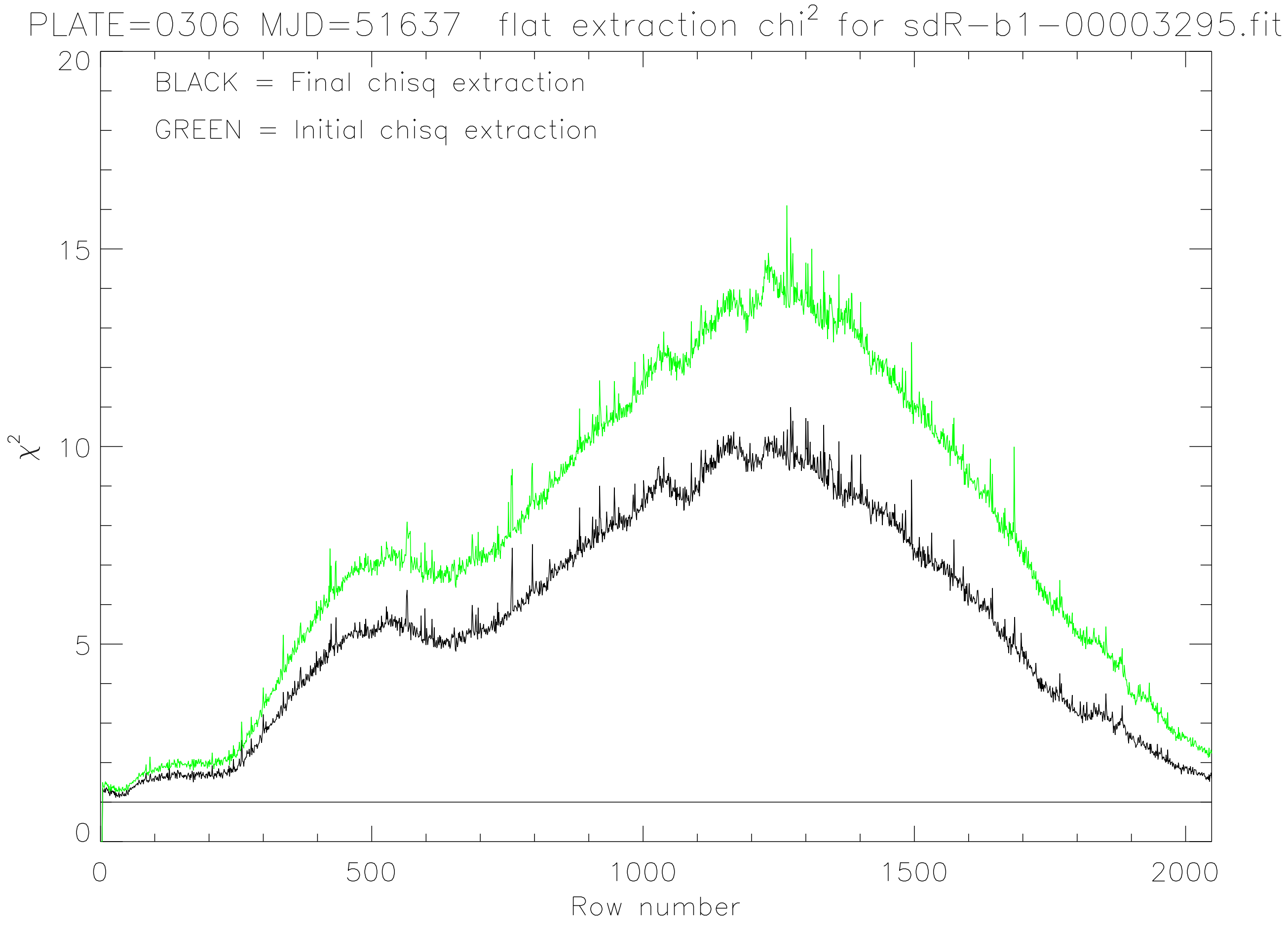
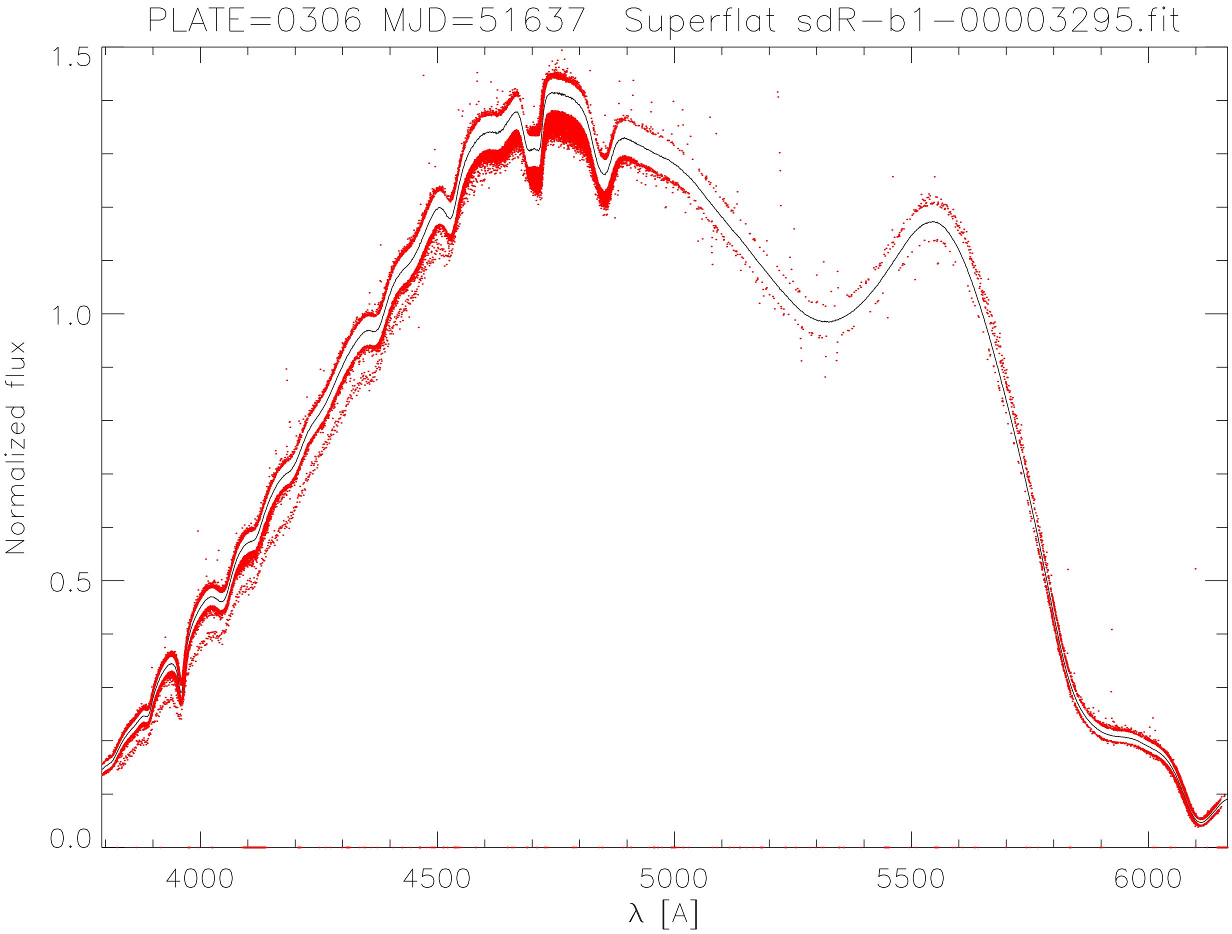

offset coeff residuals from ord=3 poly
1×10⁻⁴
5×10⁻⁵
0
−5×10⁻⁵
−1×10⁻⁴
0
50
100
150
200
250
300
fiber

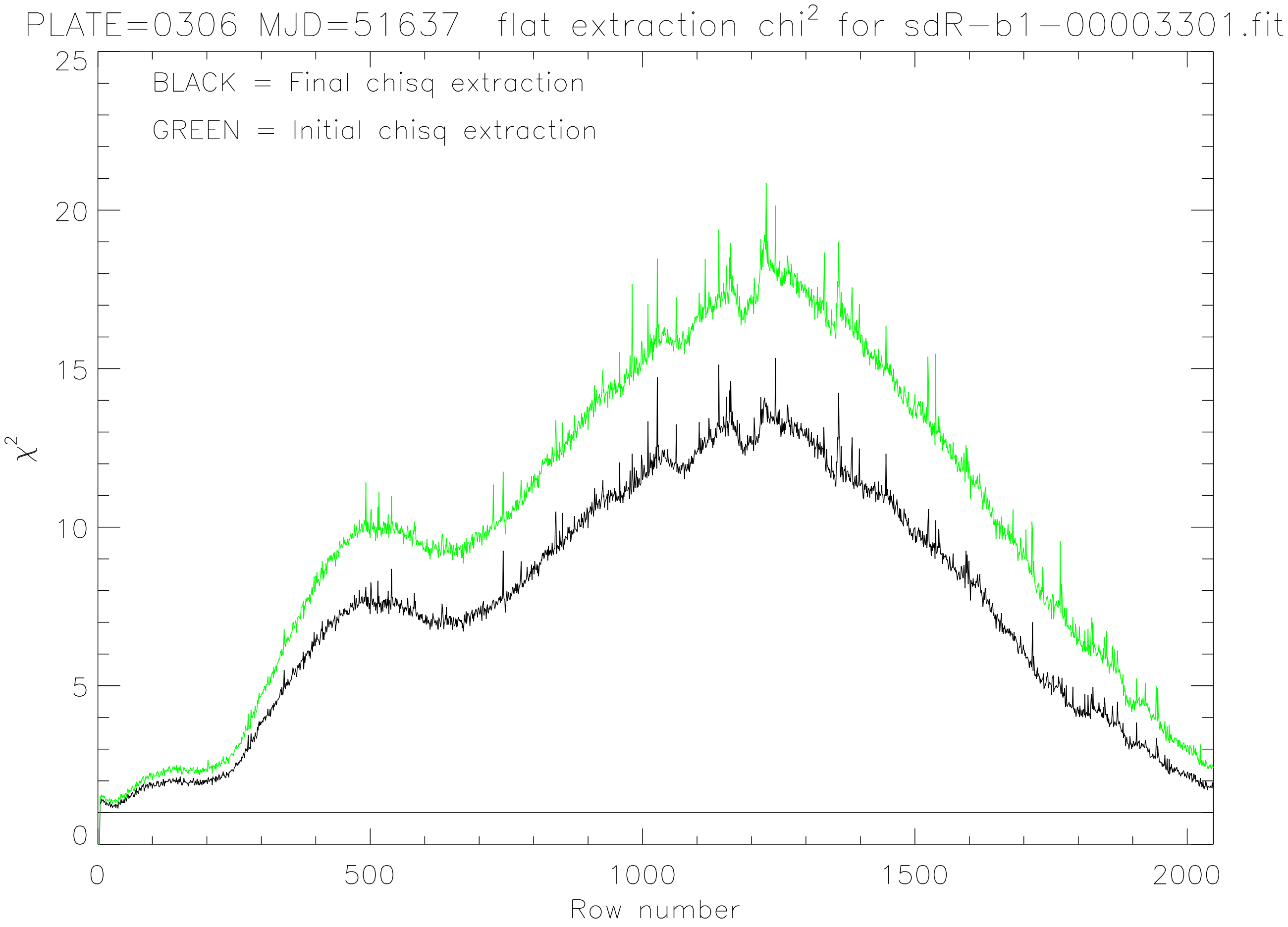

scale coeff residuals from ord=3 poly
3×10^{-5}
2×10^{-5}
1×10^{-5}
0
-1×10^{-5}
-2×10^{-5}
-3×10^{-5}
0
50
100
150
200
250
300
fiber


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

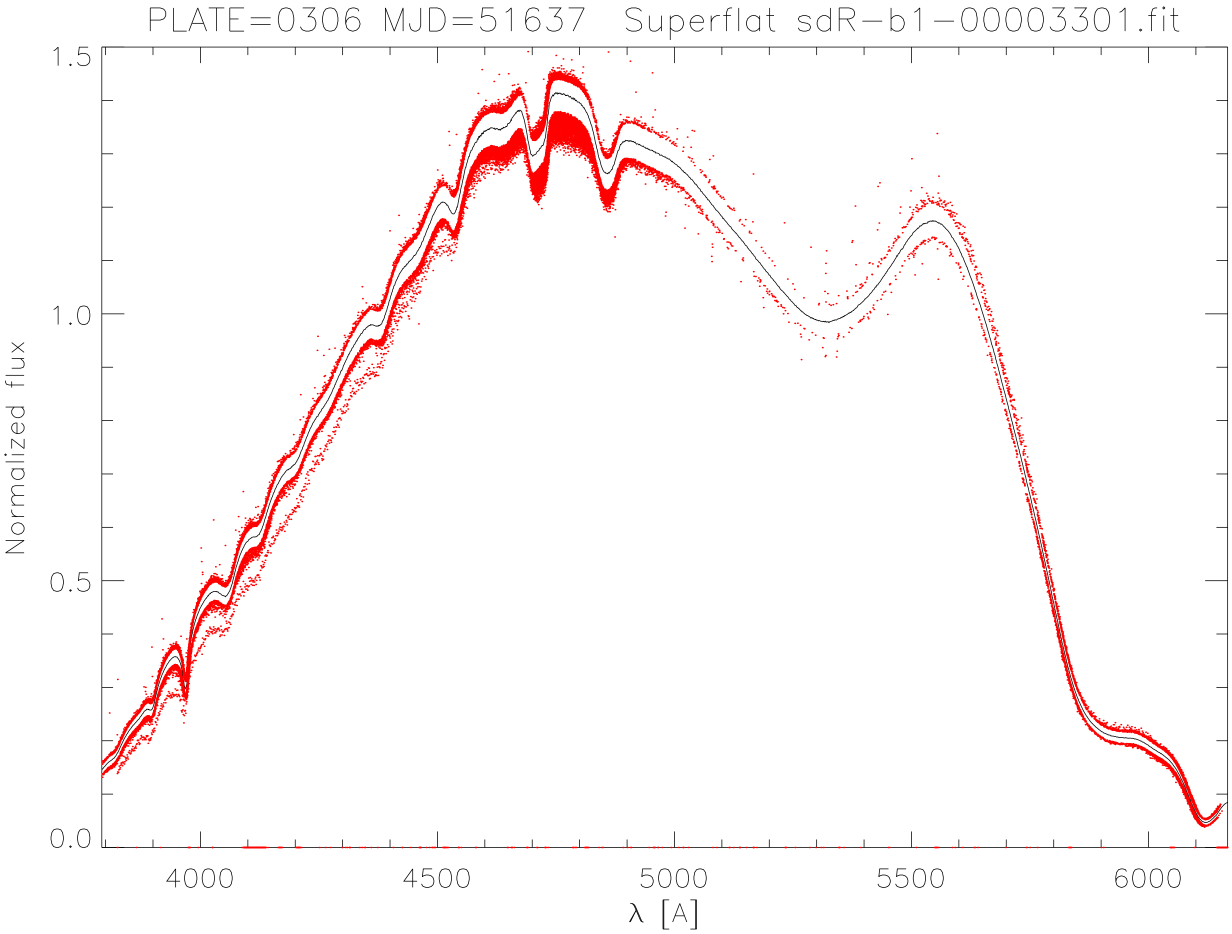

scale coeff residuals from ord=3 poly
3×10⁻⁵
2×10⁻⁵
1×10⁻⁵
0
−1×10⁻⁵
−2×10⁻⁵
−3×10⁻⁵
0
50
100
150
200
250
300
fiber


PLATE=0306 MJD=51637 flat extraction chi^2 for sdR-b1-00003295.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
0
5
10
15
20
0
500
1000
1500
2000
Row number

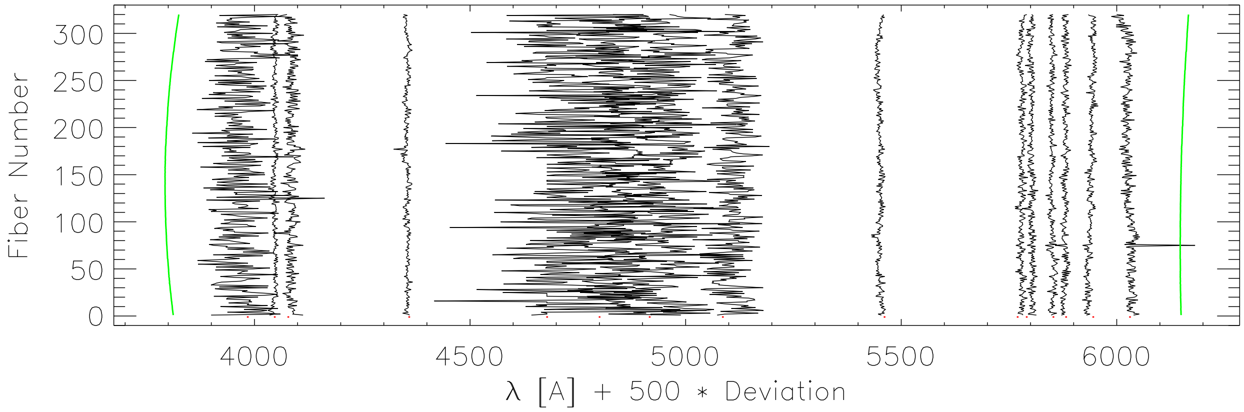

PLATE=0306 MJD=51637 Superflat sdR-b1-00003295.fit
Normalized flux
λ [A]
0.0
0.5
1.0
1.5
4000
4500
5000
5500
6000

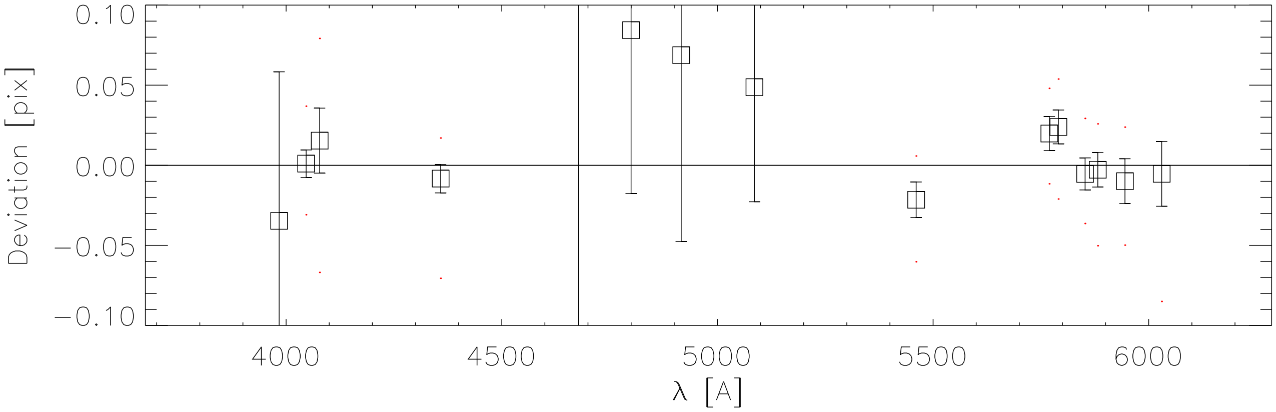


PLATE=0306 MJD=51637 flat extraction chi^2 for sdR-b1-00003301.fit

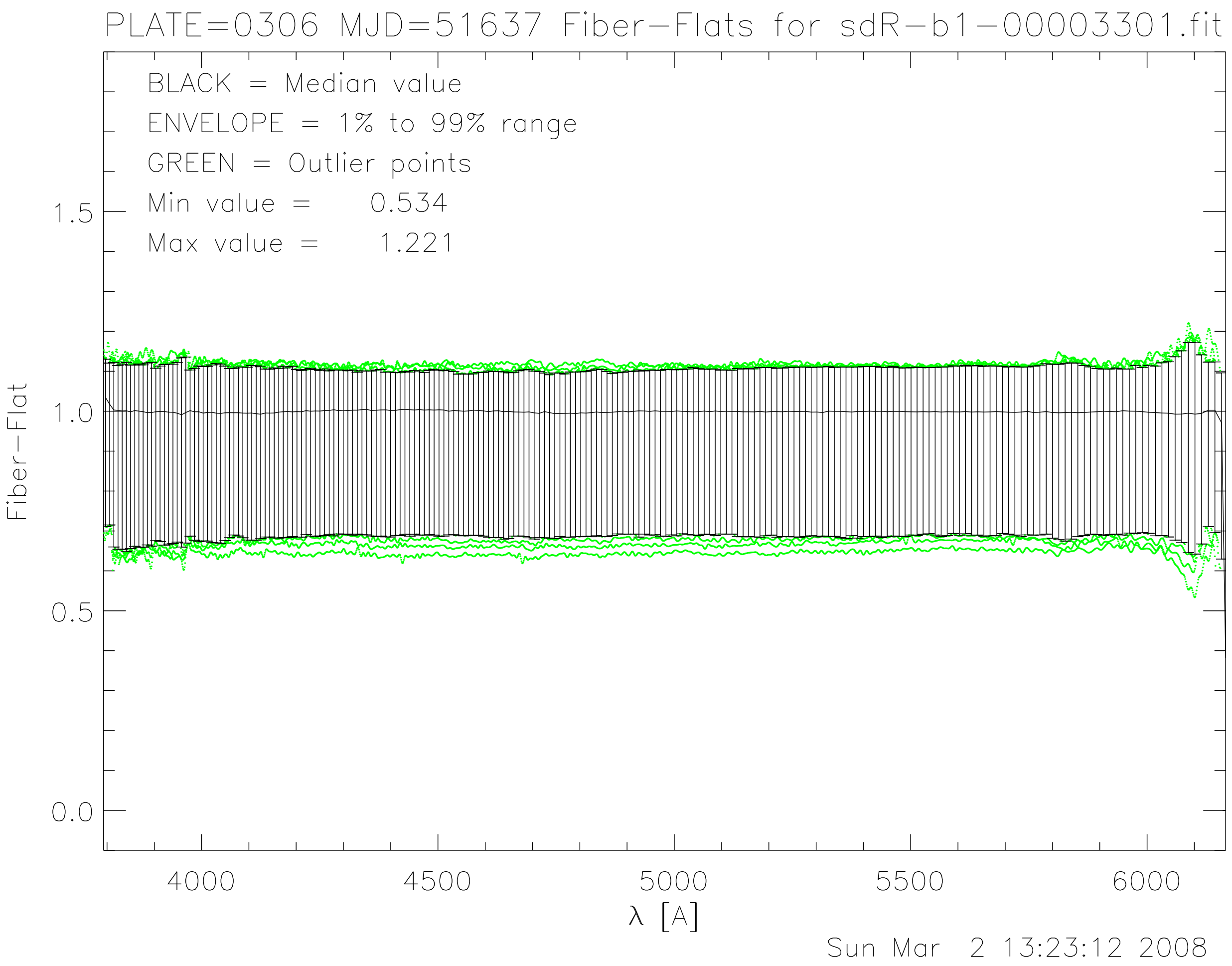

PLATE=0306 MJD=51637 Superflat sdR-b1-00003301.fit
Normalized flux
0.0
0.5
1.0
1.5
4000
4500
5000
5500
6000
λ [A]

PLATE=0306 MJD=51637 Arcline Fit for sdR-b1-00003302.fit

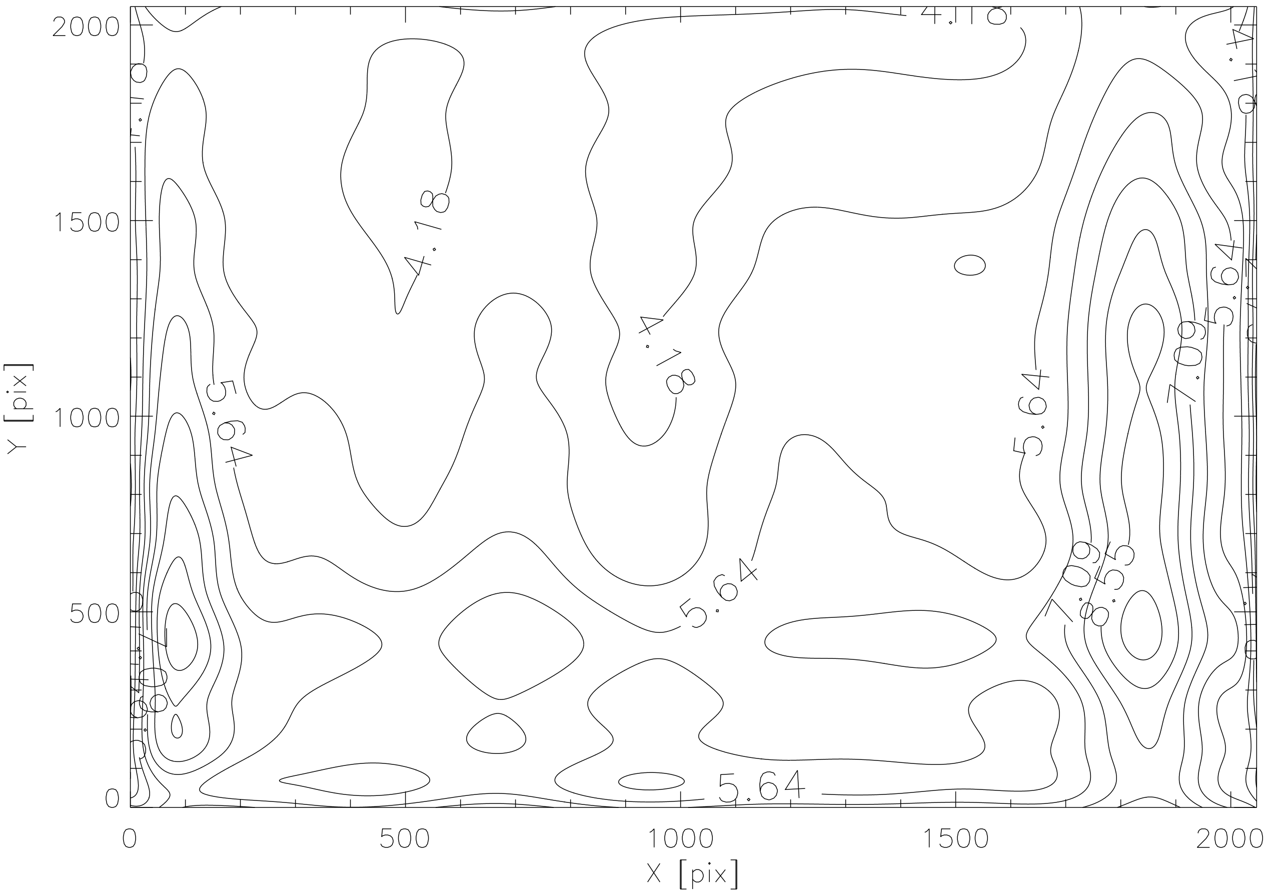




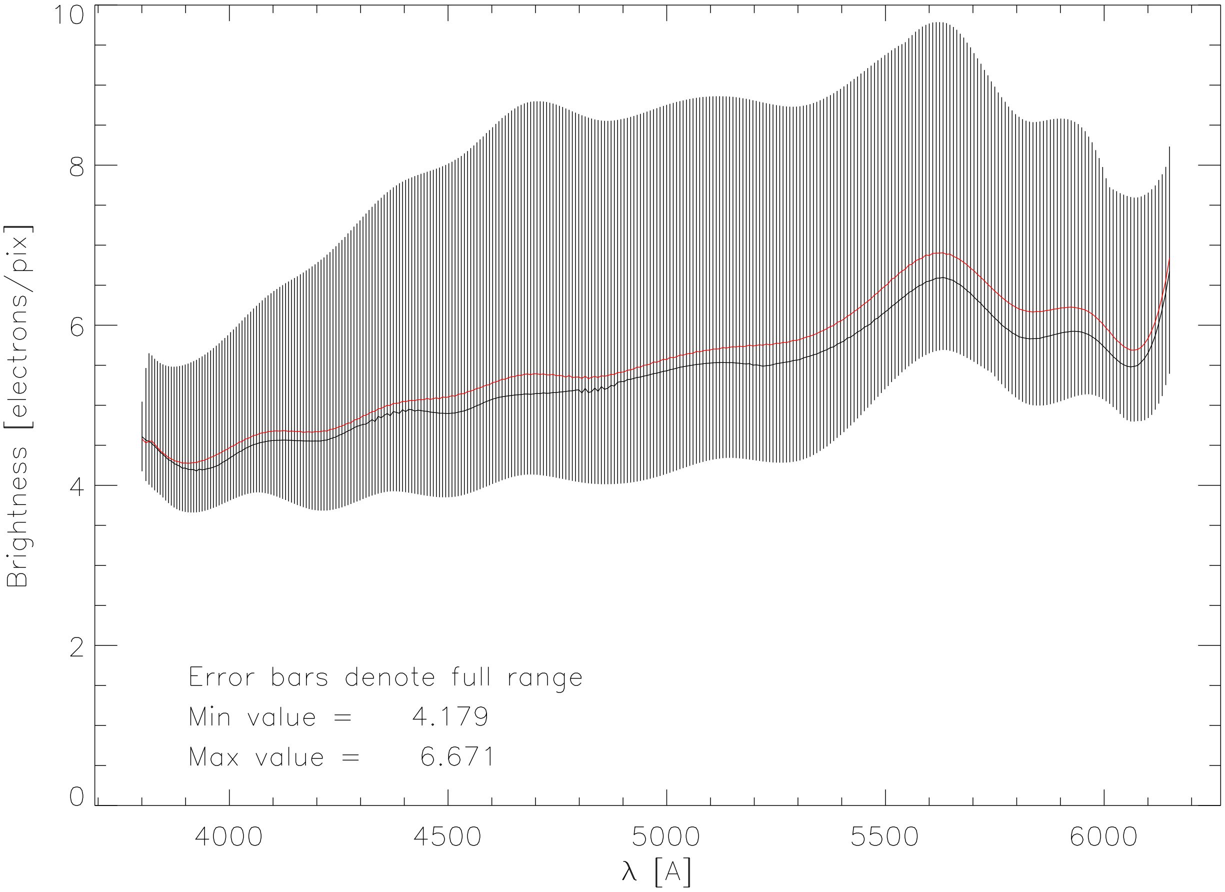
Sun Mar 2 13:23:04 2008


PLATE=0306 MJD=51637 Fiber−Flats for sdR−b1−00003301.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.534
Max value = 1.221
Fiber−Flat
0.0
0.5
1.0
1.5
4000
4500
5000
5500
6000
λ [A]
Sun Mar 2 13:23:12 2008

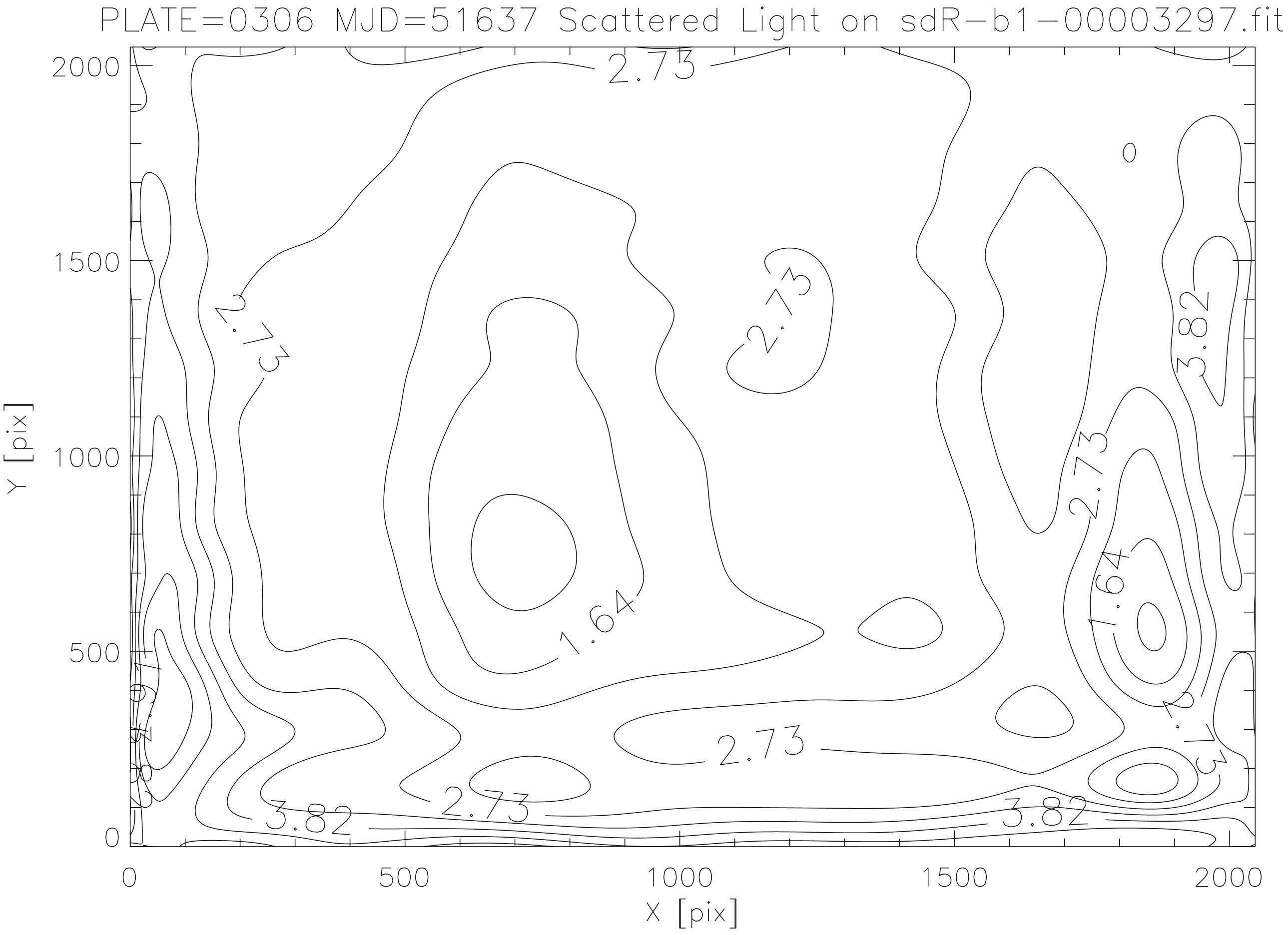
PLATE=0306 MJD=51637 Scattered Light before halo removal on sdR-b1-00003297.f

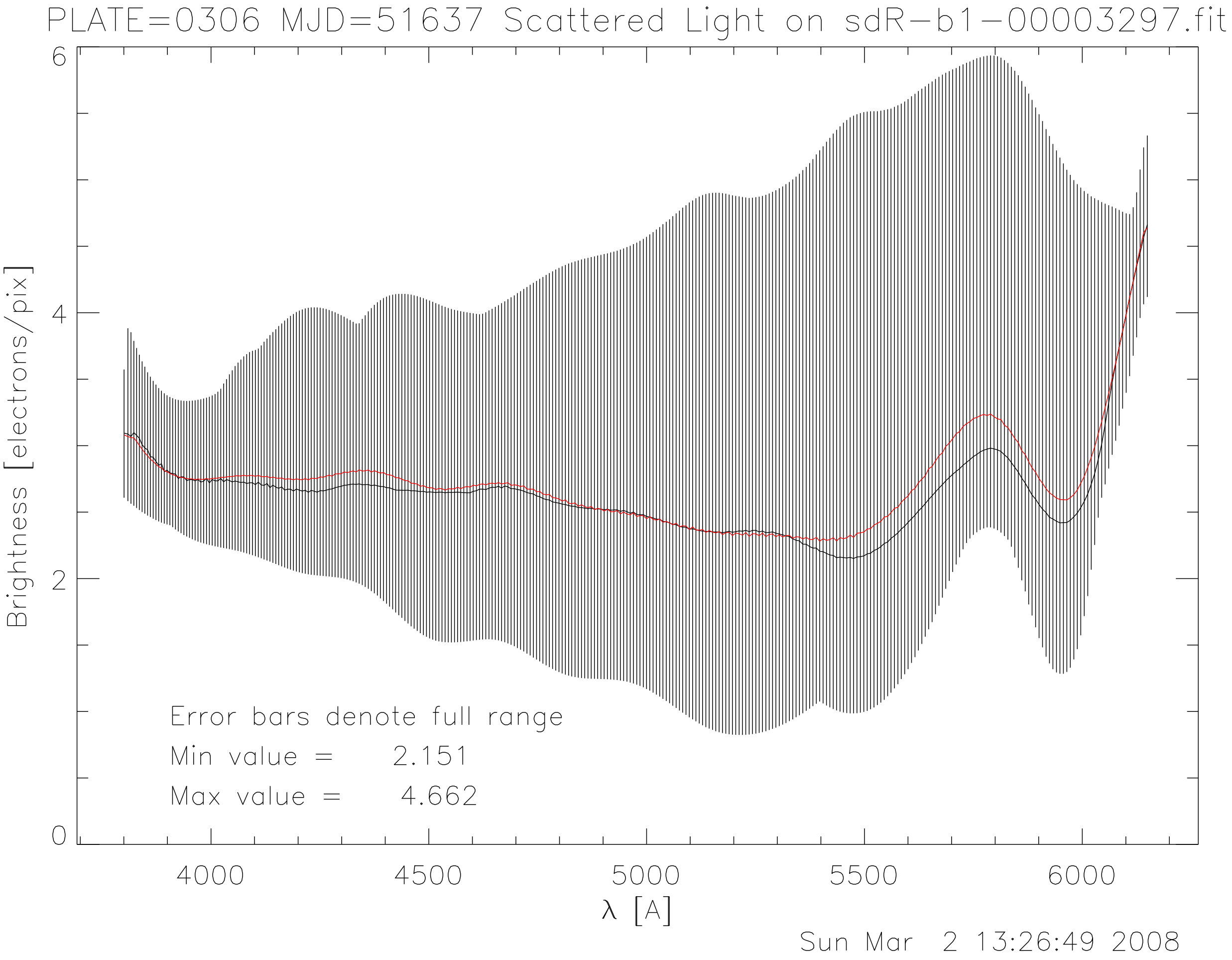


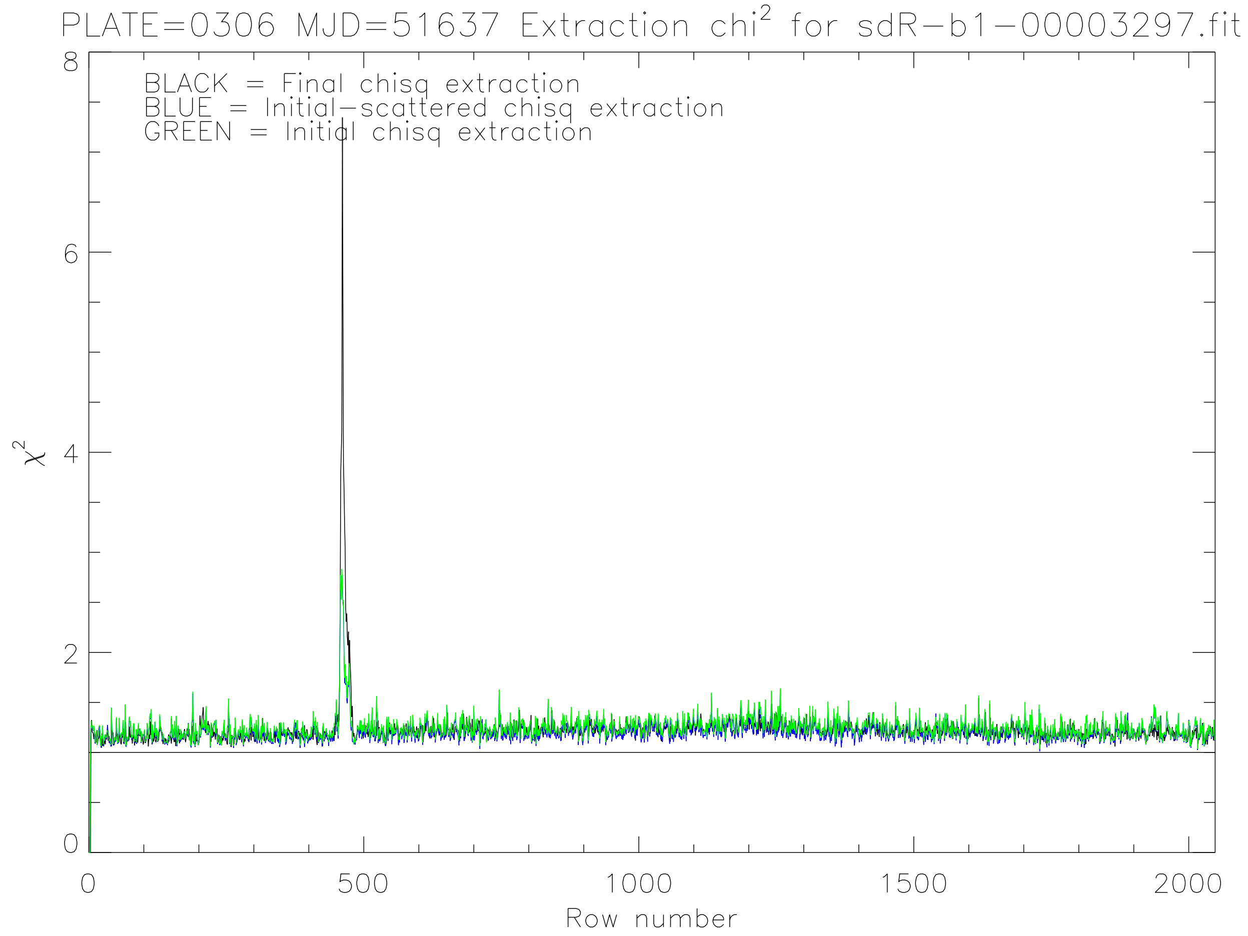
PLATE=0306 MJD=51637 Scattered Light before halo removal on sdR-b1-00003297.f

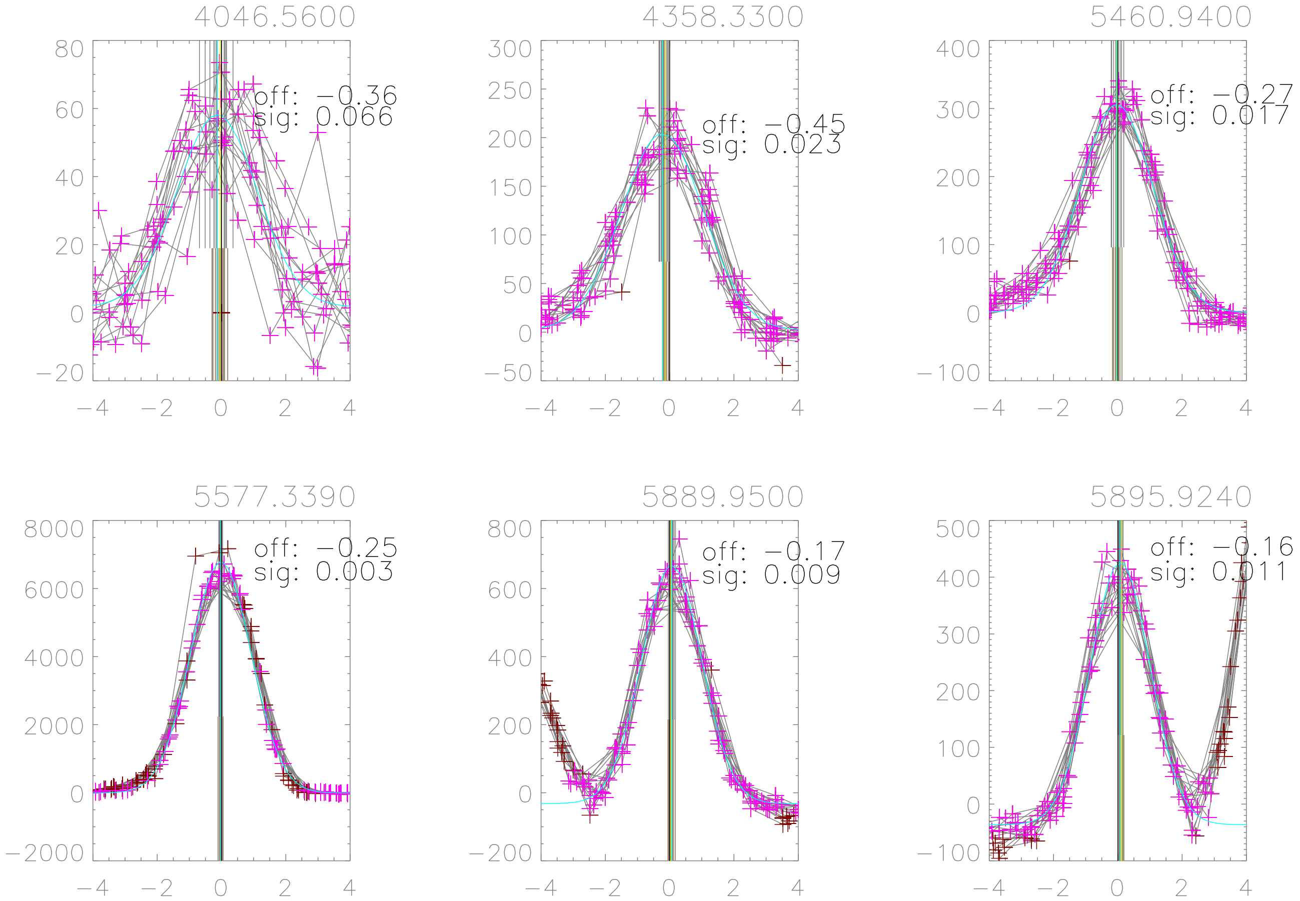


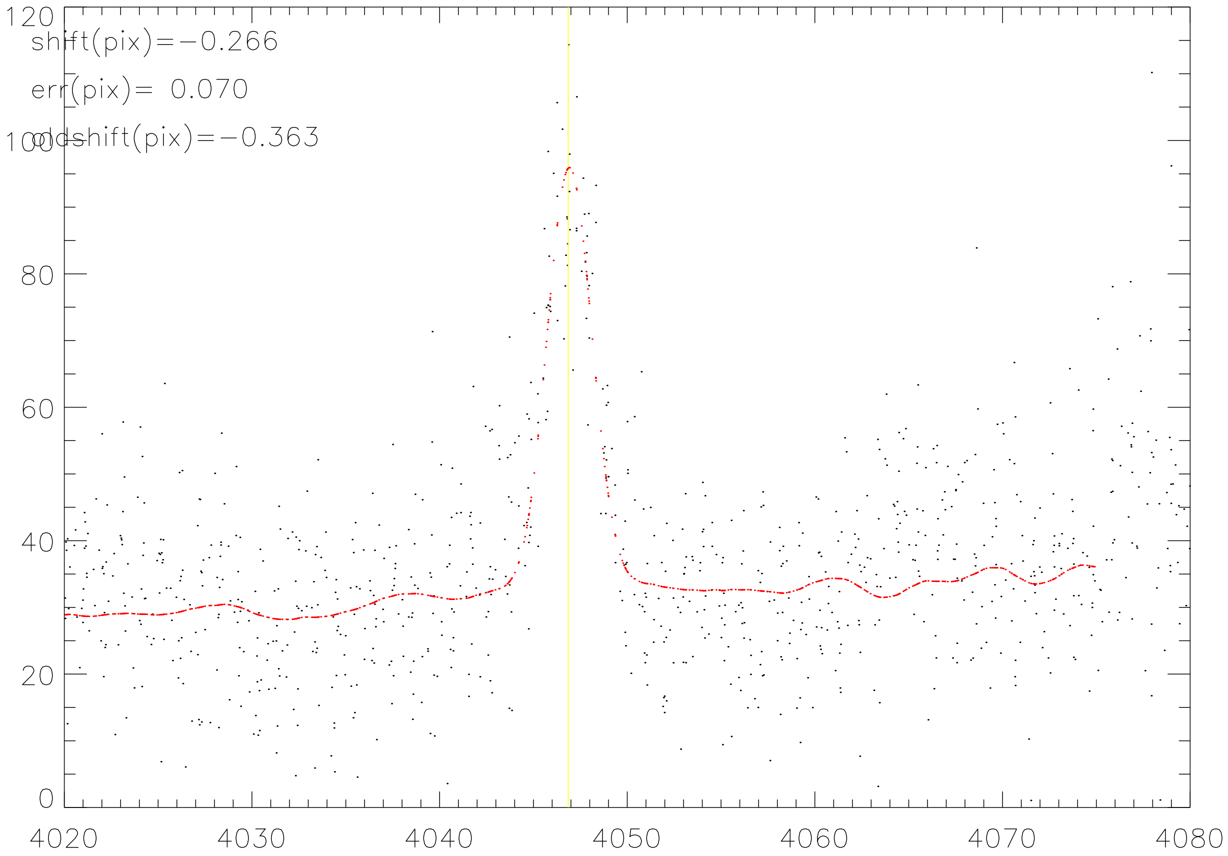
Sun Mar 2 13:24:04 2008

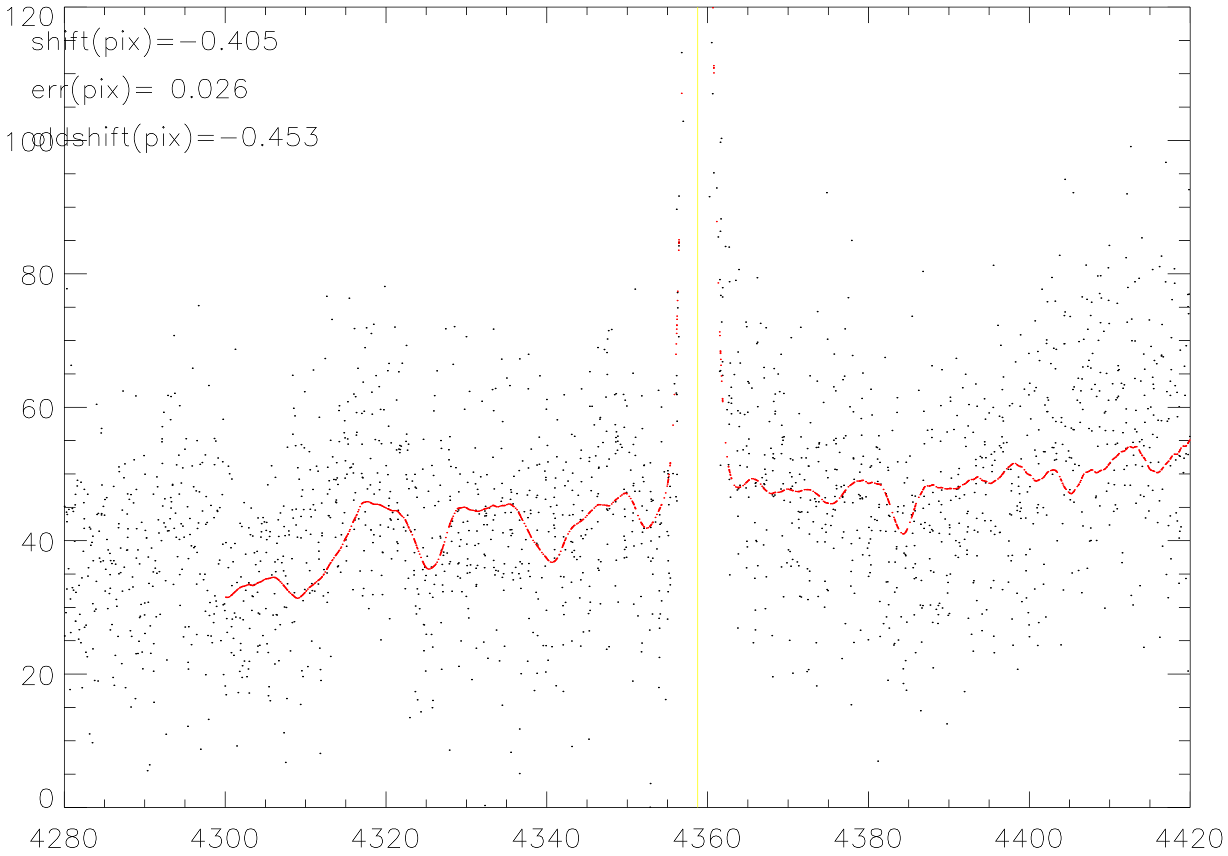

PLATE=0306 MJD=51637 Scattered Light on sdR-b1-00003297.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
0
500
1000
1500
2000
2.73
2.73
2.73
2.73
2.73
2.73
2.73
1.64
1.64
3.82
3.82
3.82
0

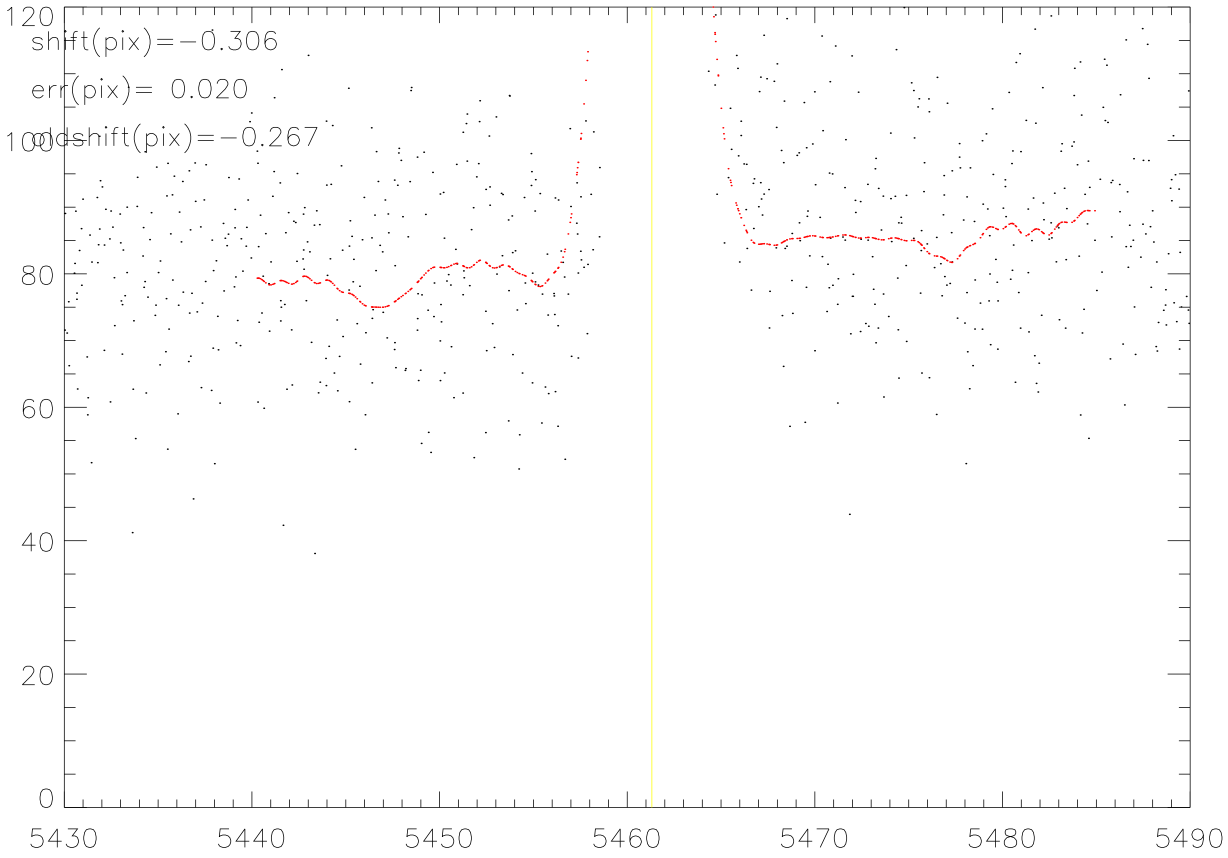

PLATE=0306 MJD=51637 Scattered Light on sdR-b1-00003297.fit
Brightness [electrons/pix]
0
2
4
6
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 2.151
Max value = 4.662
Sun Mar 2 13:26:49 2008

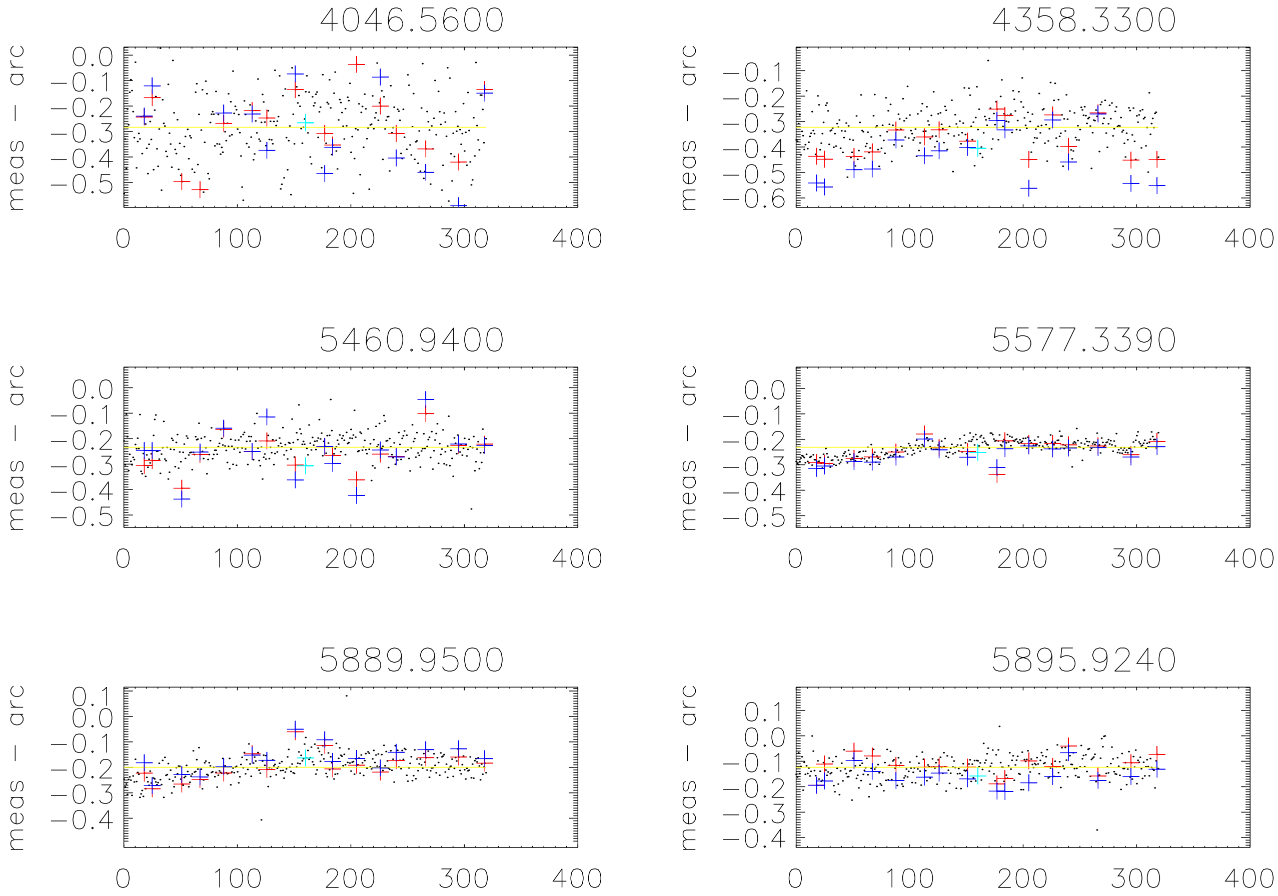

PLATE=0306 MJD=51637 Extraction chi^2 for sdR-b1-00003297.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
0
500
1000
1500
2000
Row number

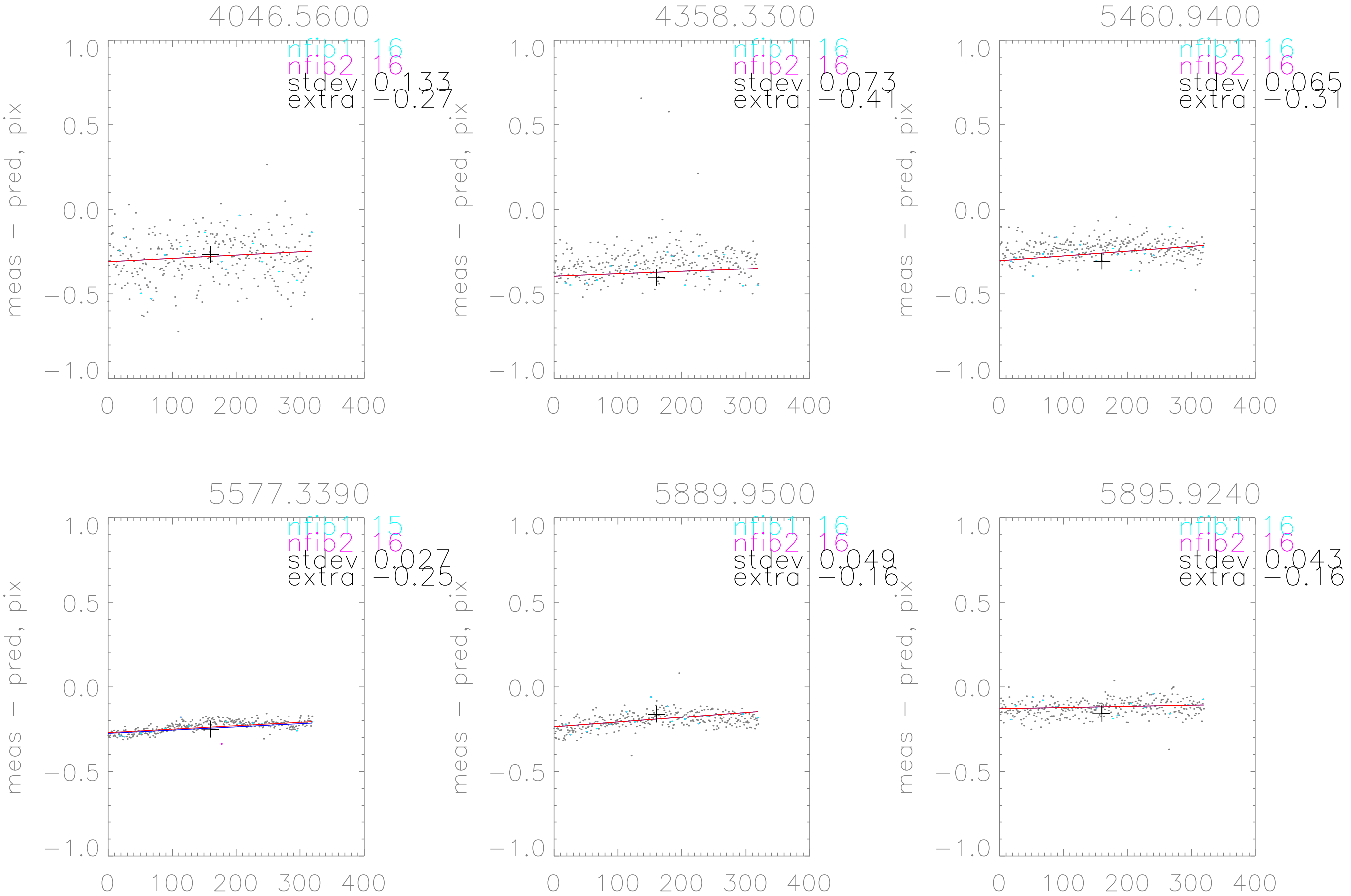

4046.5600
off: −0.36
sig: 0.066
80
60
40
20
0
−20
−4
−2
0
2
4
4358.3300
off: −0.45
sig: 0.023
300
250
200
150
100
50
0
−50
−4
−2
0
2
4
5460.9400
off: −0.27
sig: 0.017
400
300
200
100
0
−100
−4
−2
0
2
4
5577.3390
off: −0.25
sig: 0.003
8000
6000
4000
2000
0
−2000
−4
−2
0
2
4
5889.9500
off: −0.17
sig: 0.009
800
600
400
200
0
−200
−4
−2
0
2
4
5895.9240
off: −0.16
sig: 0.011
500
400
300
200
100
0
−100
−4
−2
0
2
4

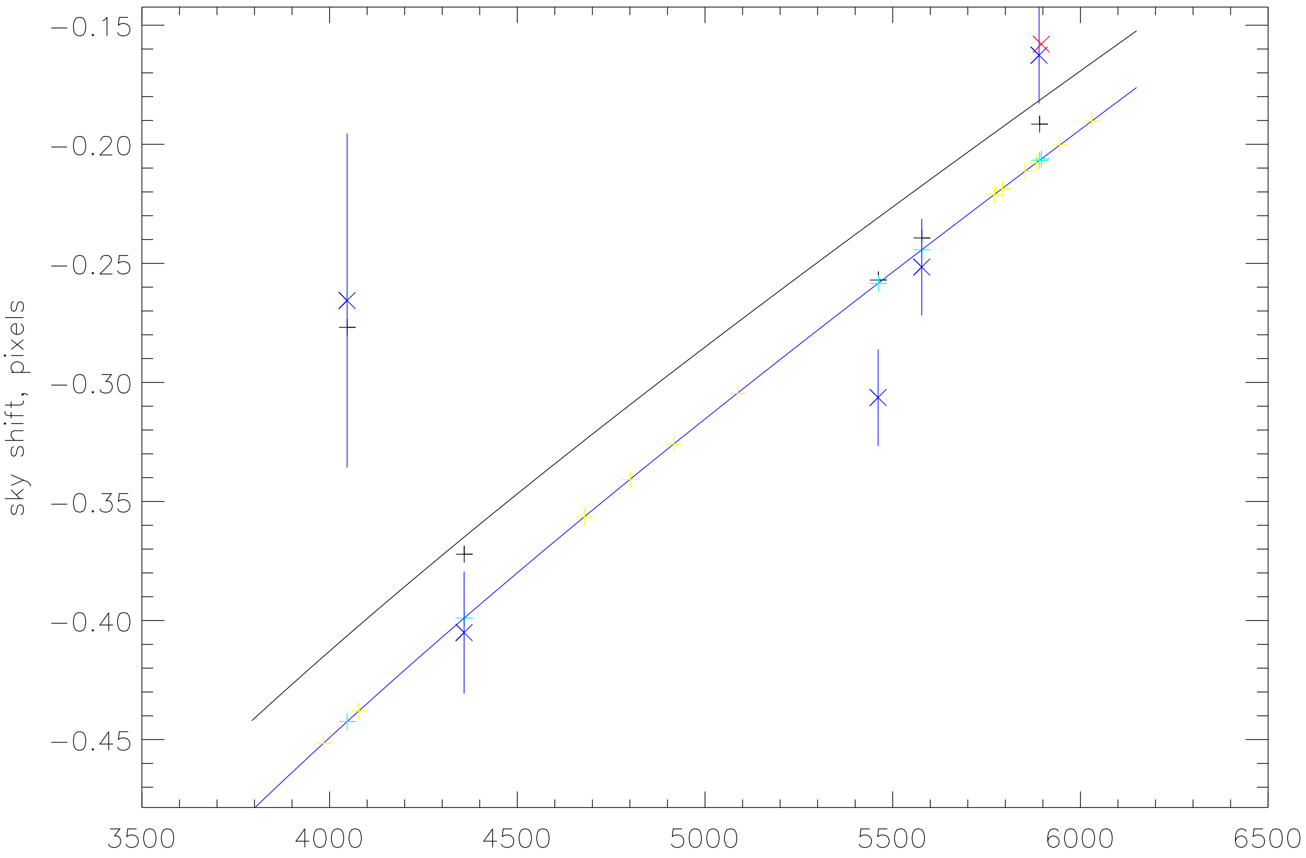

shift(pix)=−0.266
err(pix)= 0.070
oldshift(pix)=−0.363
120
100
80
60
40
20
0
4020
4030
4040
4050
4060
4070
4080

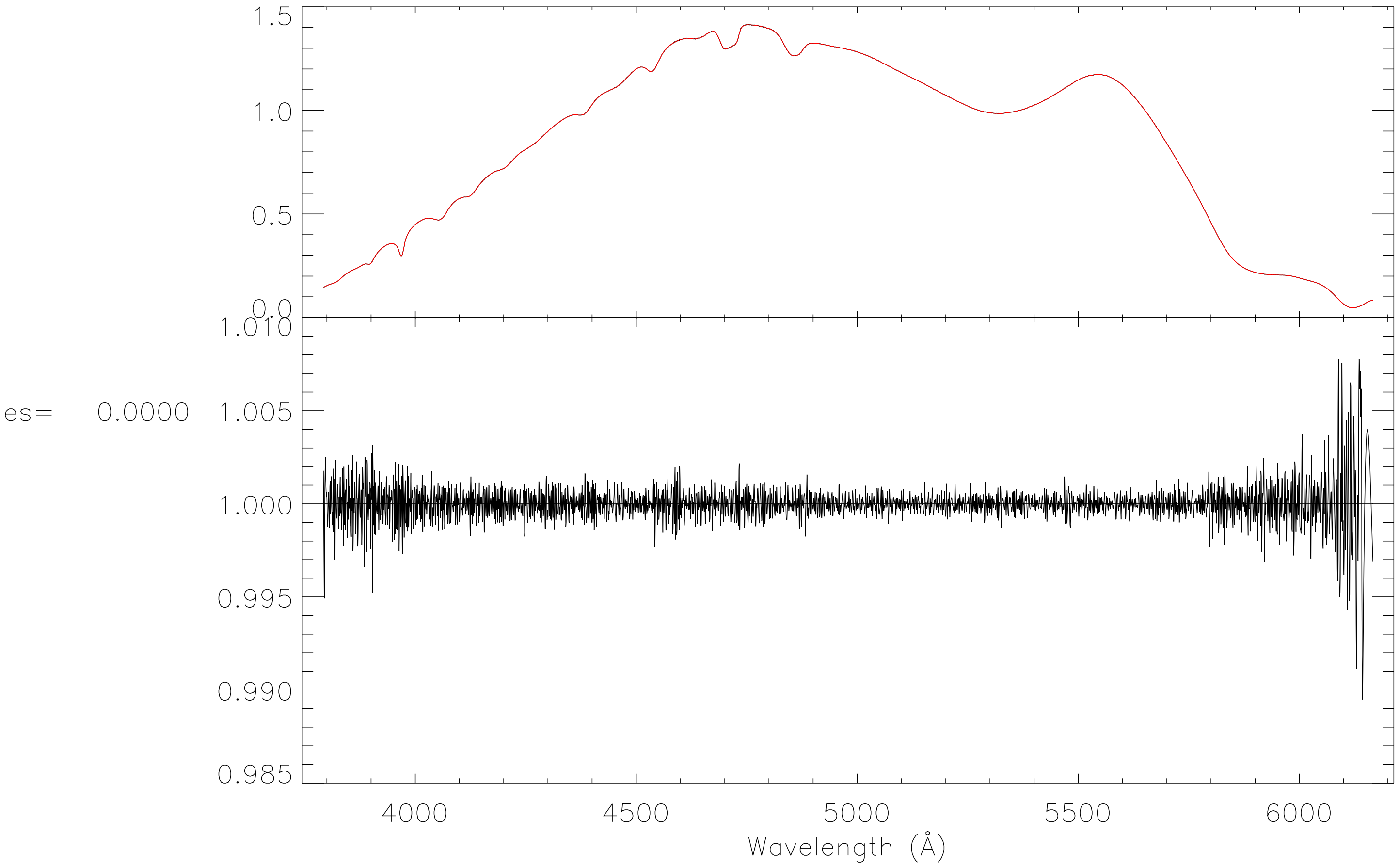

shift(pix)=−0.405
err(pix)= 0.026
oldshift(pix)=−0.453
120
100
80
60
40
20
0
4280
4300
4320
4340
4360
4380
4400
4420


shift(pix)=−0.306
err(pix)= 0.020
oldshift(pix)=−0.267
120
100
80
60
40
20
0
5430
5440
5450
5460
5470
5480
5490

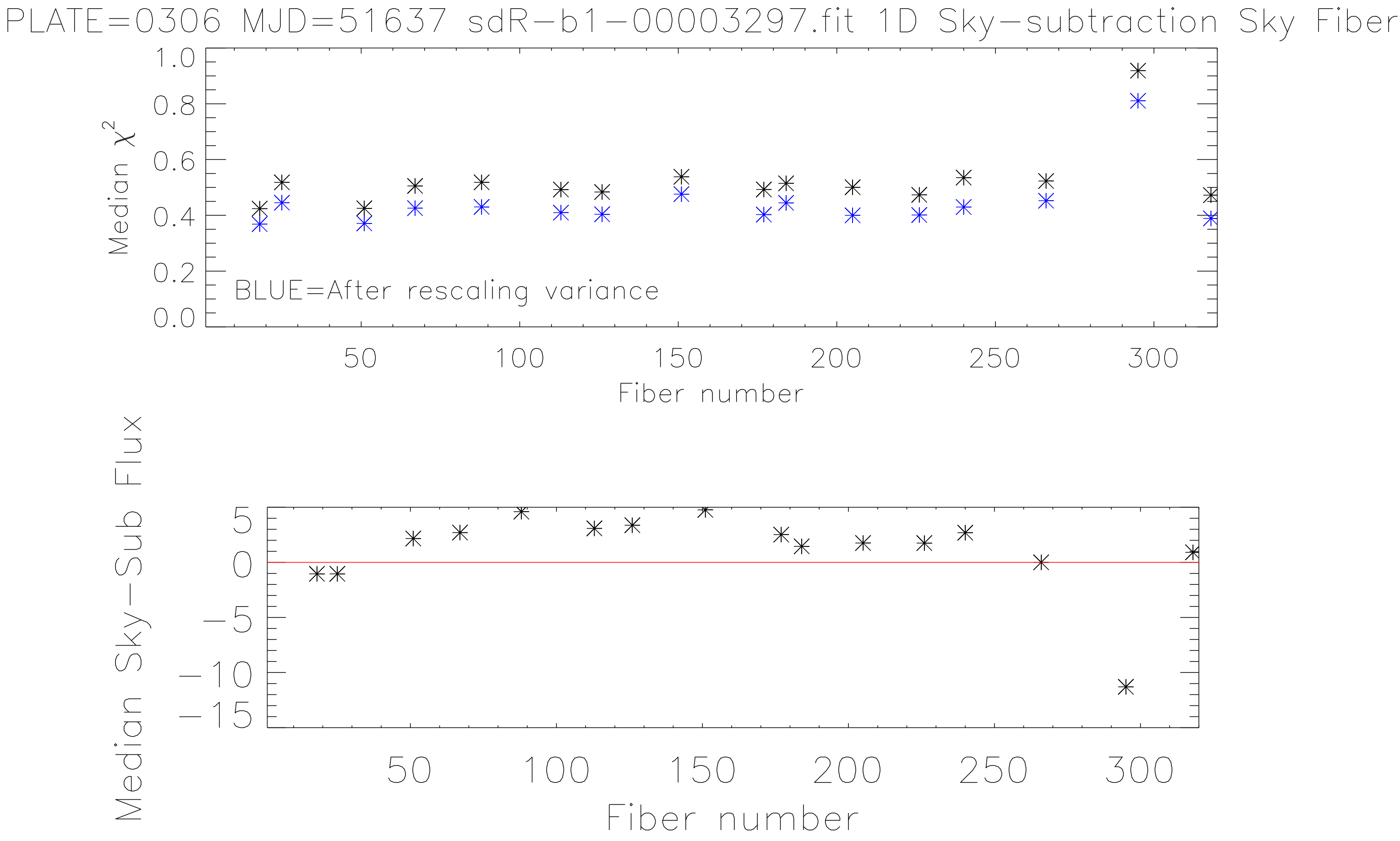

4046.5600
4358.3300
5460.9400
5577.3390
5889.9500
5895.9240
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

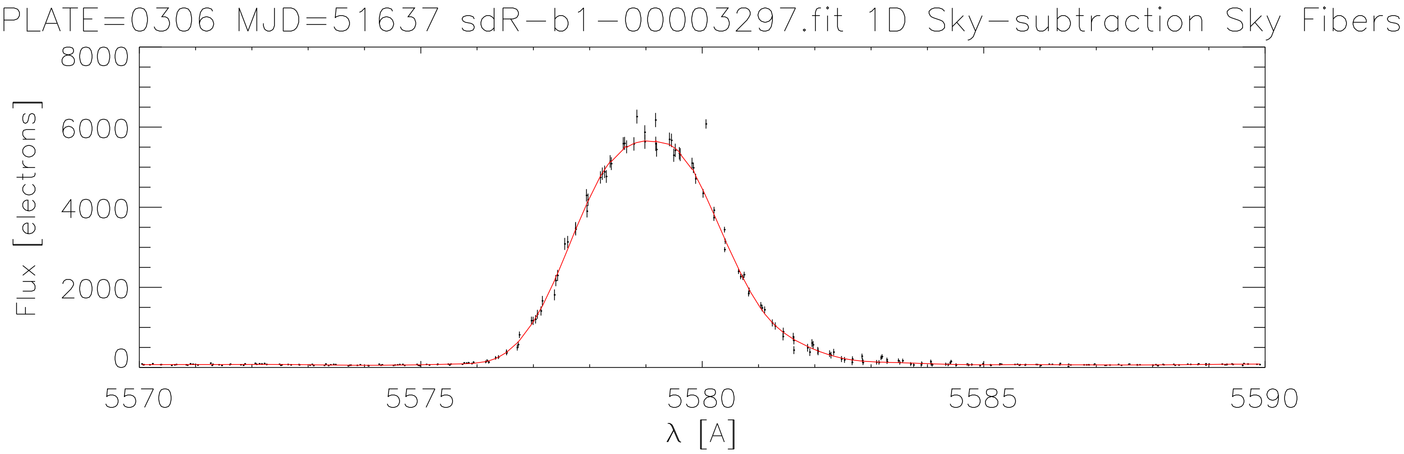

4046.5600
nfib1 16
nfib2 16
stdev 0.133
extra −0.27
4358.3300
nfib1 16
nfib2 16
stdev 0.073
extra −0.41
5460.9400
nfib1 16
nfib2 16
stdev 0.065
extra −0.31
5577.3390
nfib1 15
nfib2 16
stdev 0.027
extra −0.25
5889.9500
nfib1 16
nfib2 16
stdev 0.049
extra −0.16
5895.9240
nfib1 16
nfib2 16
stdev 0.043
extra −0.16
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

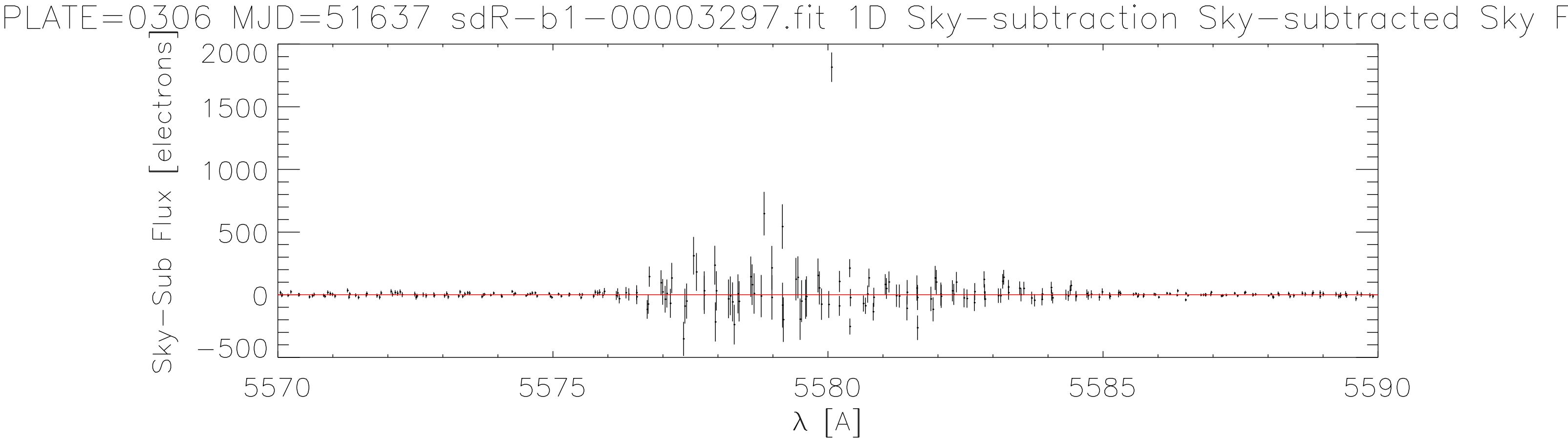

sky shift, pixels
−0.15
−0.20
−0.25
−0.30
−0.35
−0.40
−0.45
3500
4000
4500
5000
5500
6000
6500



PLATE=0306 MJD=51637 Smooth superflat for sdR-b1-00003297.fit

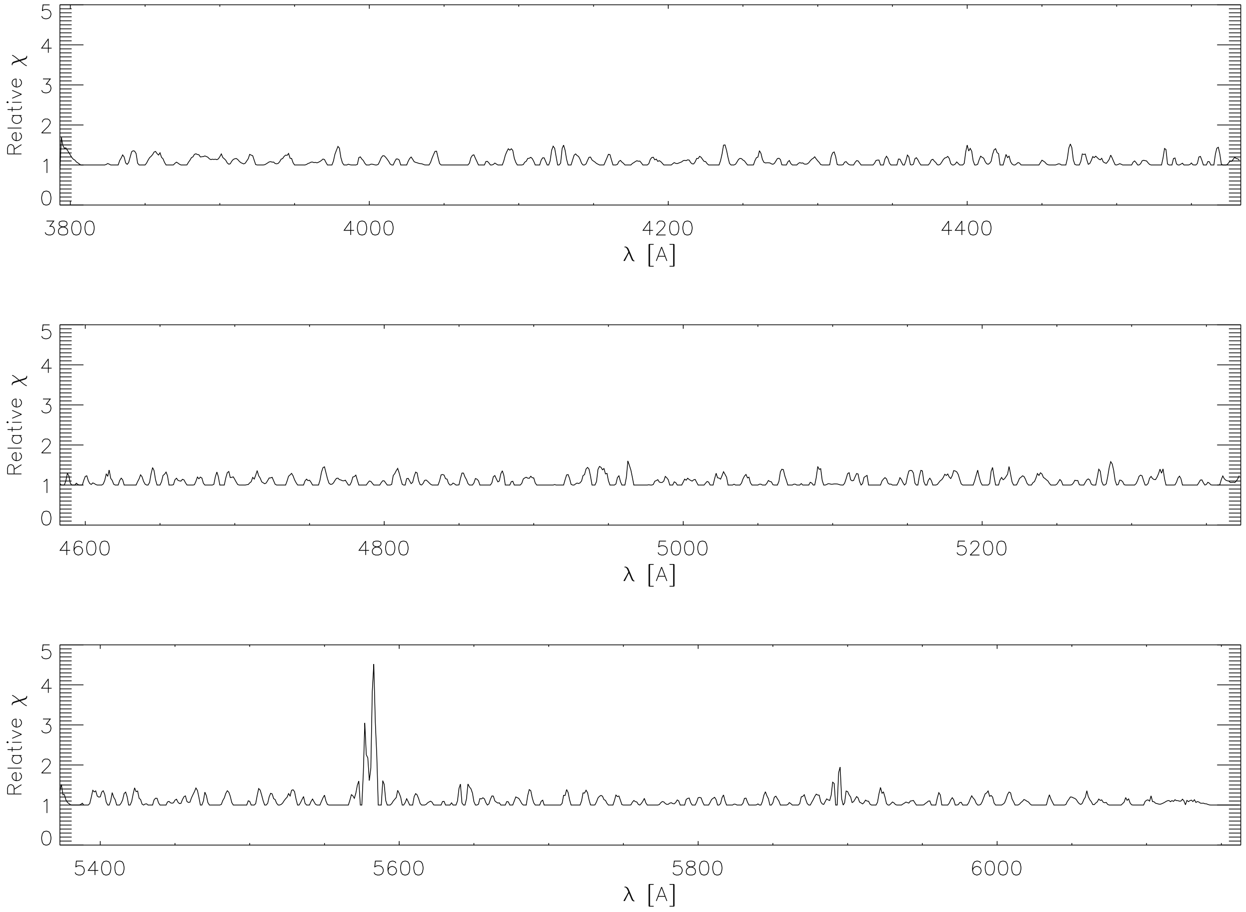

PLATE=0306 MJD=51637 sdR-b1-00003297.fit 1D Sky-subtraction Sky Fiber
Median χ^2
1.0
0.8
0.6
0.4
0.2
0.0
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
5
0
−5
−10
−15
50
100
150
200
250
300
Fiber number

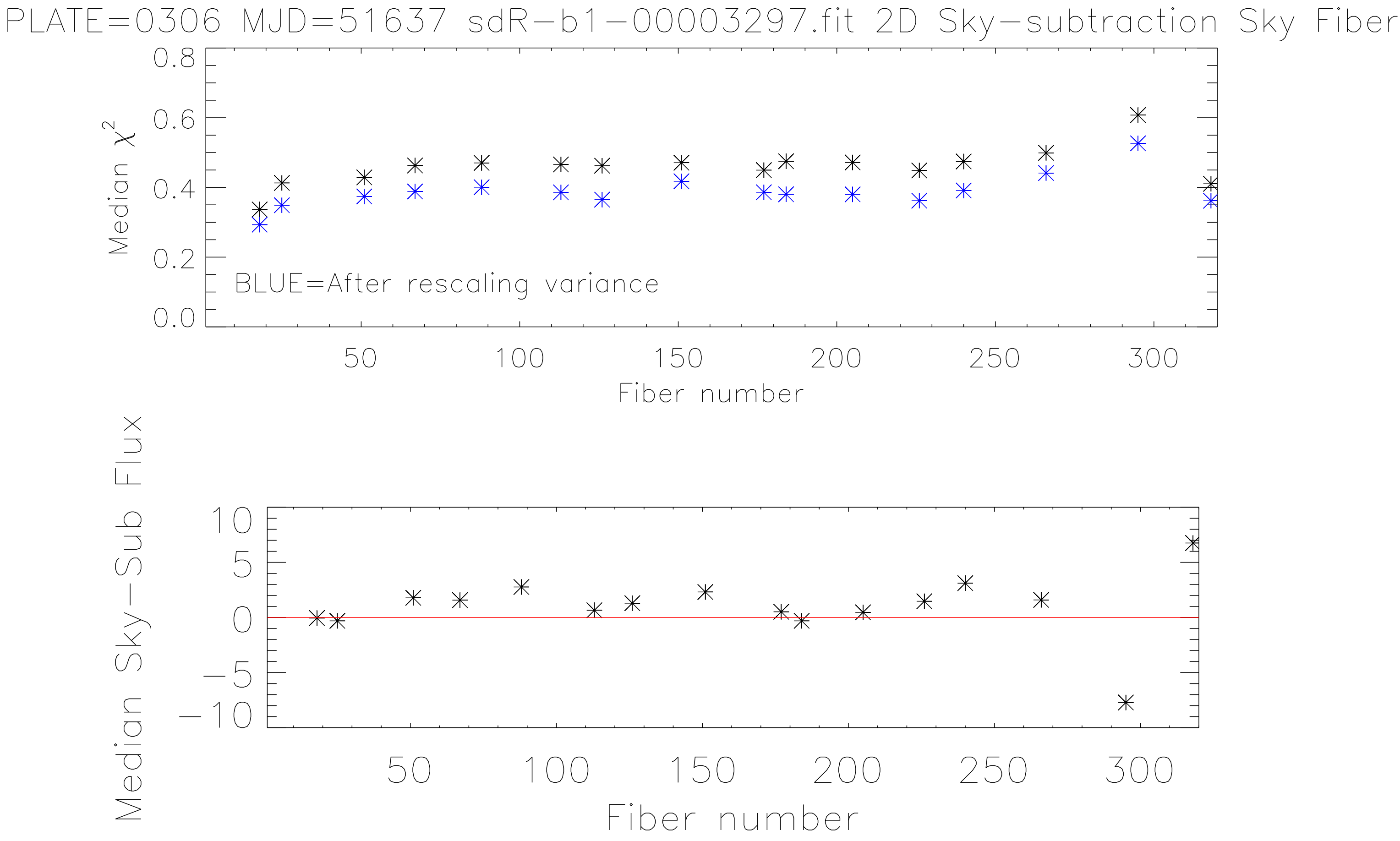

PLATE=0306 MJD=51637 sdR-b1-00003297.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

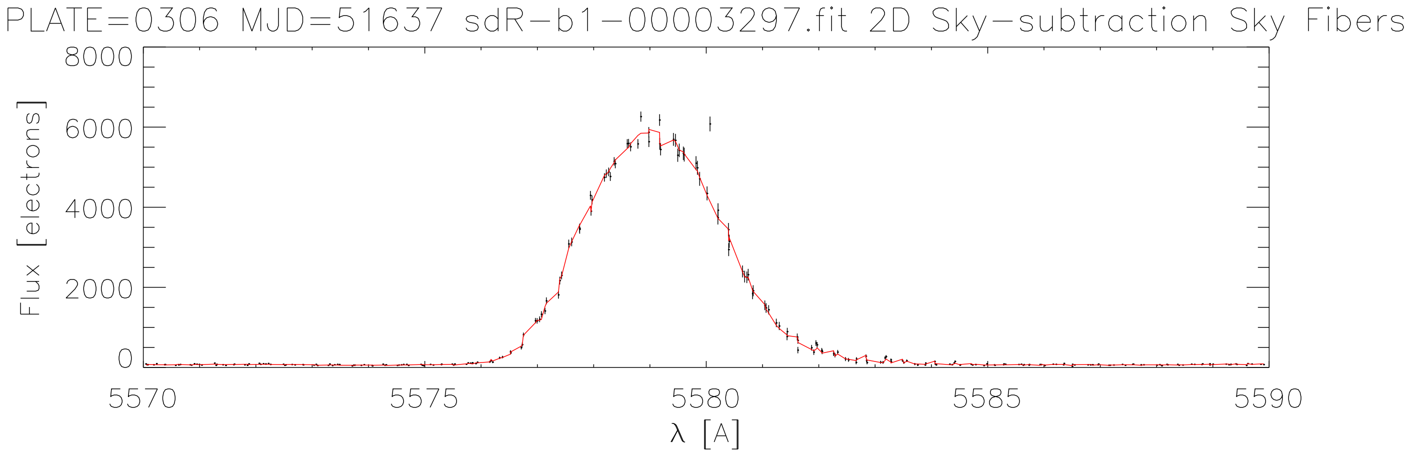

PLATE=0306 MJD=51637 sdR-b1-00003297.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
2000
1500
1000
500
0
−500
5570
5575
5580
5585
5590
λ [A]

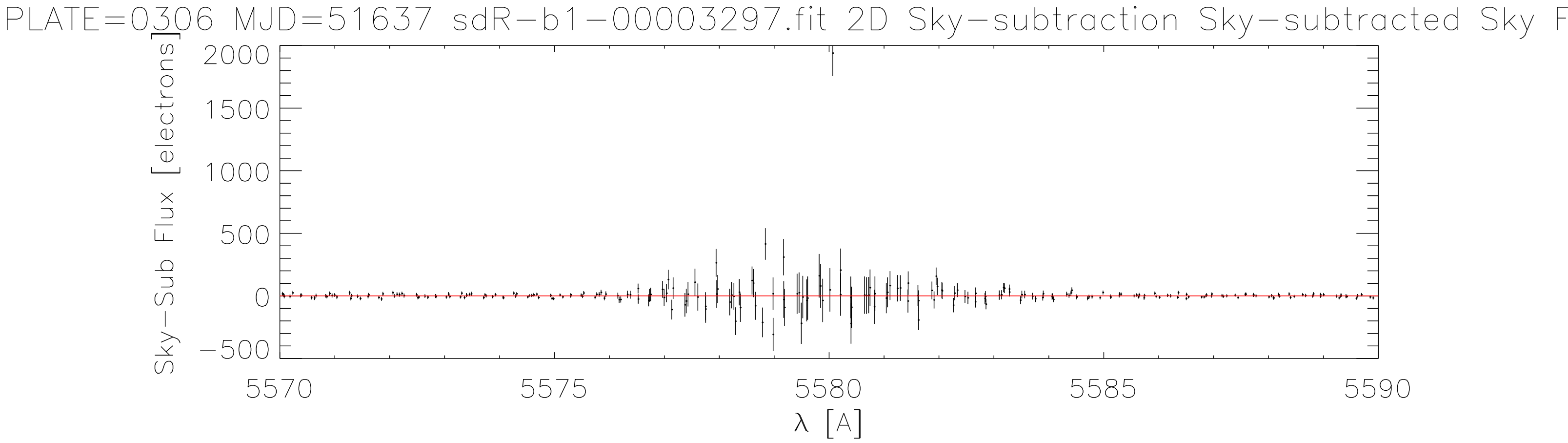
Number of sky fibers = 16

PLATE=0306 MJD=51637 sdR-b1-00003297.fit 1D Sky-subtraction Rescaled Errors



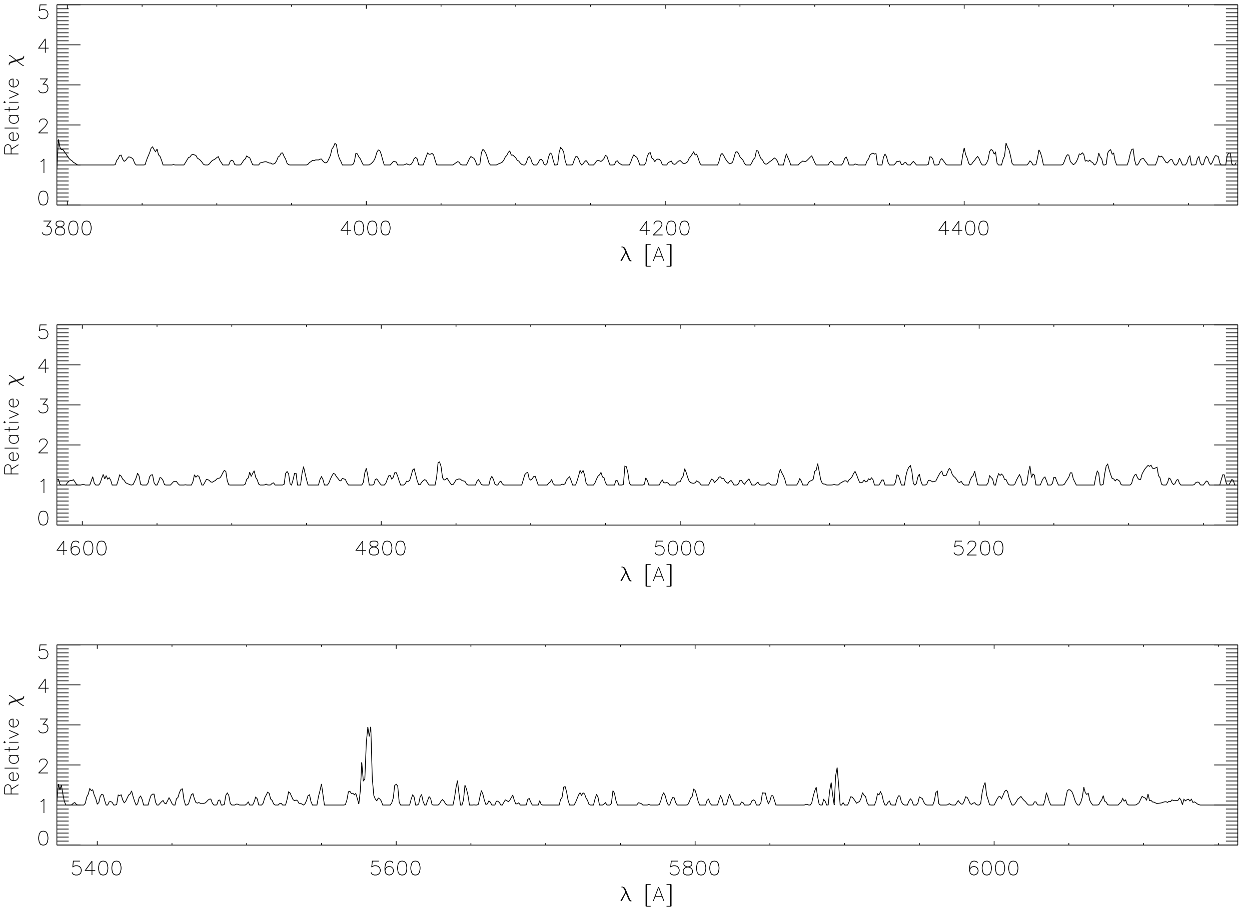

PLATE=0306 MJD=51637 sdR-b1-00003297.fit 2D Sky-subtraction Sky Fiber
Median χ^2
0.8
0.6
0.4
0.2
0.0
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
−5
−10
50
100
150
200
250
300
Fiber number

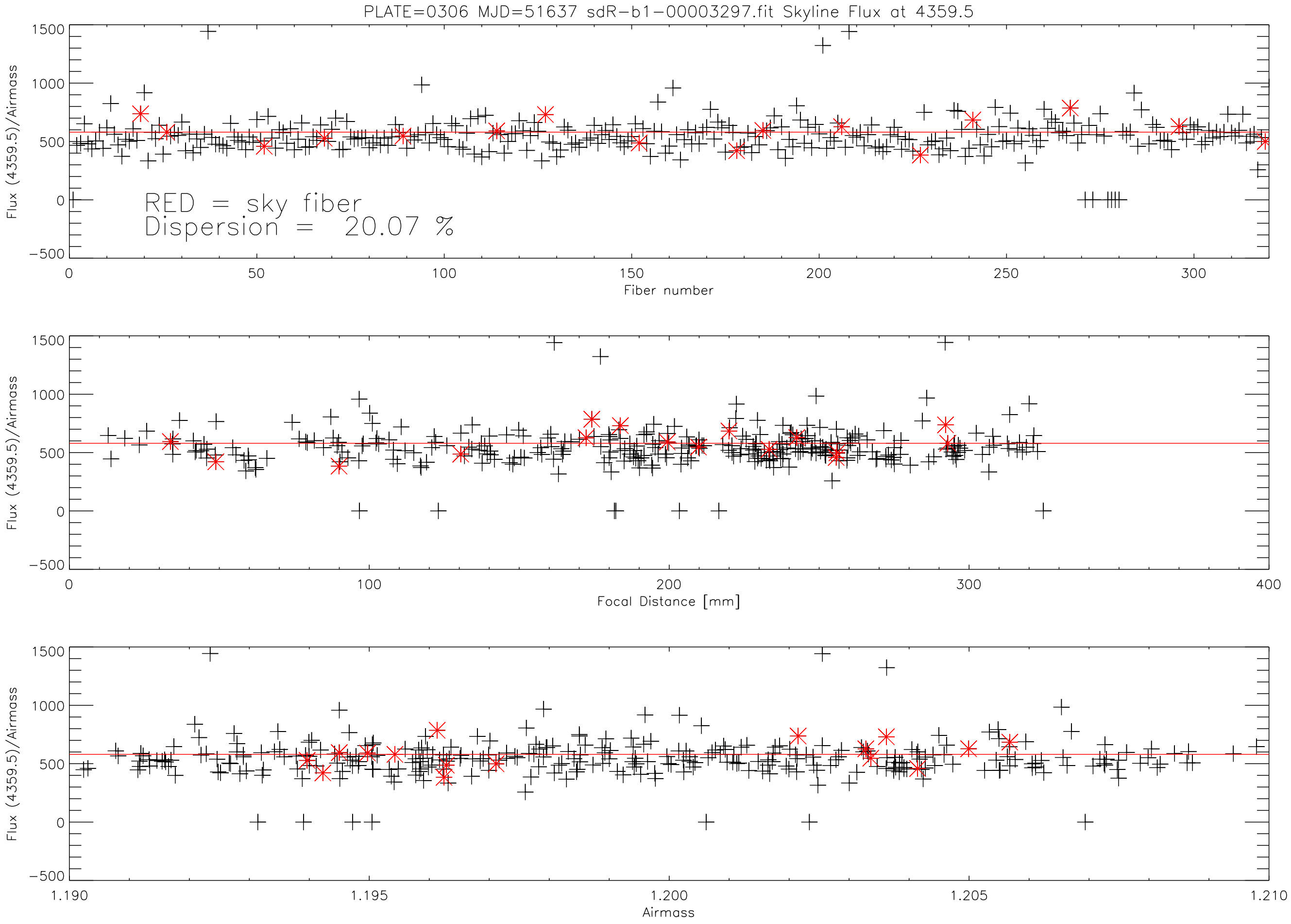

PLATE=0306 MJD=51637 sdR-b1-00003297.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

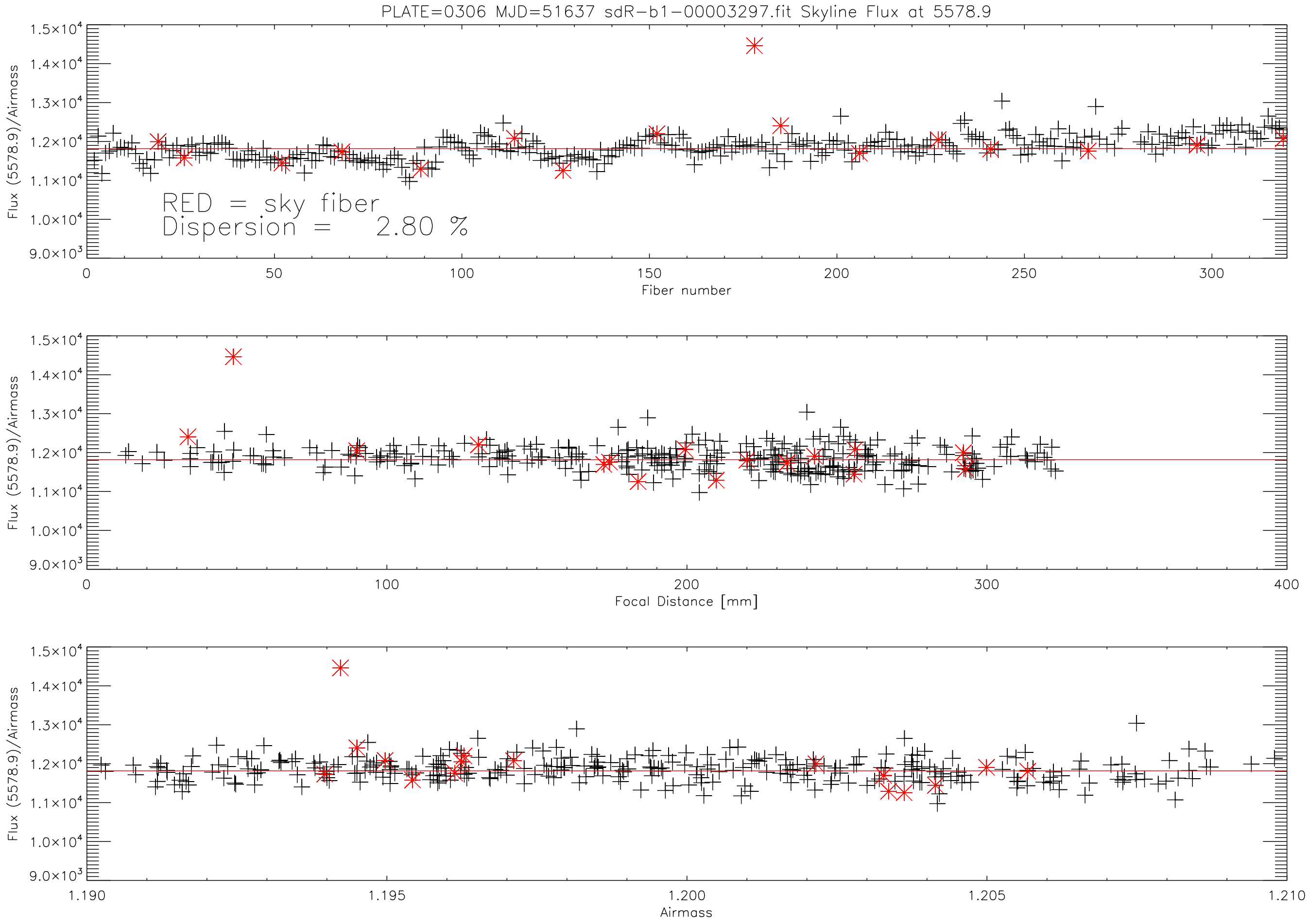

PLATE=0306 MJD=51637 sdR-b1-00003297.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
2000
1500
1000
500
0
−500
5570
5575
5580
5585
5590
λ [A]

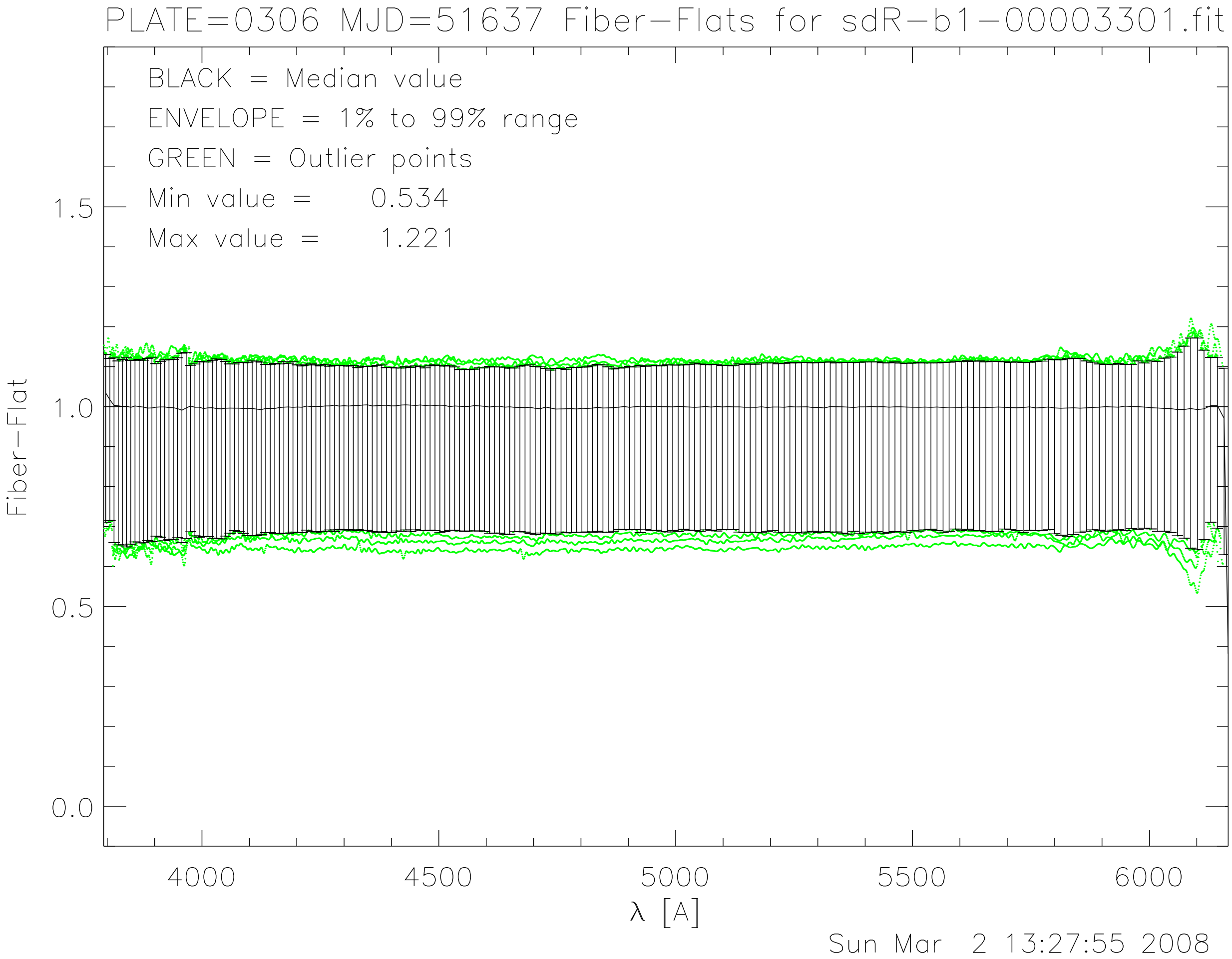
Number of sky fibers = 16

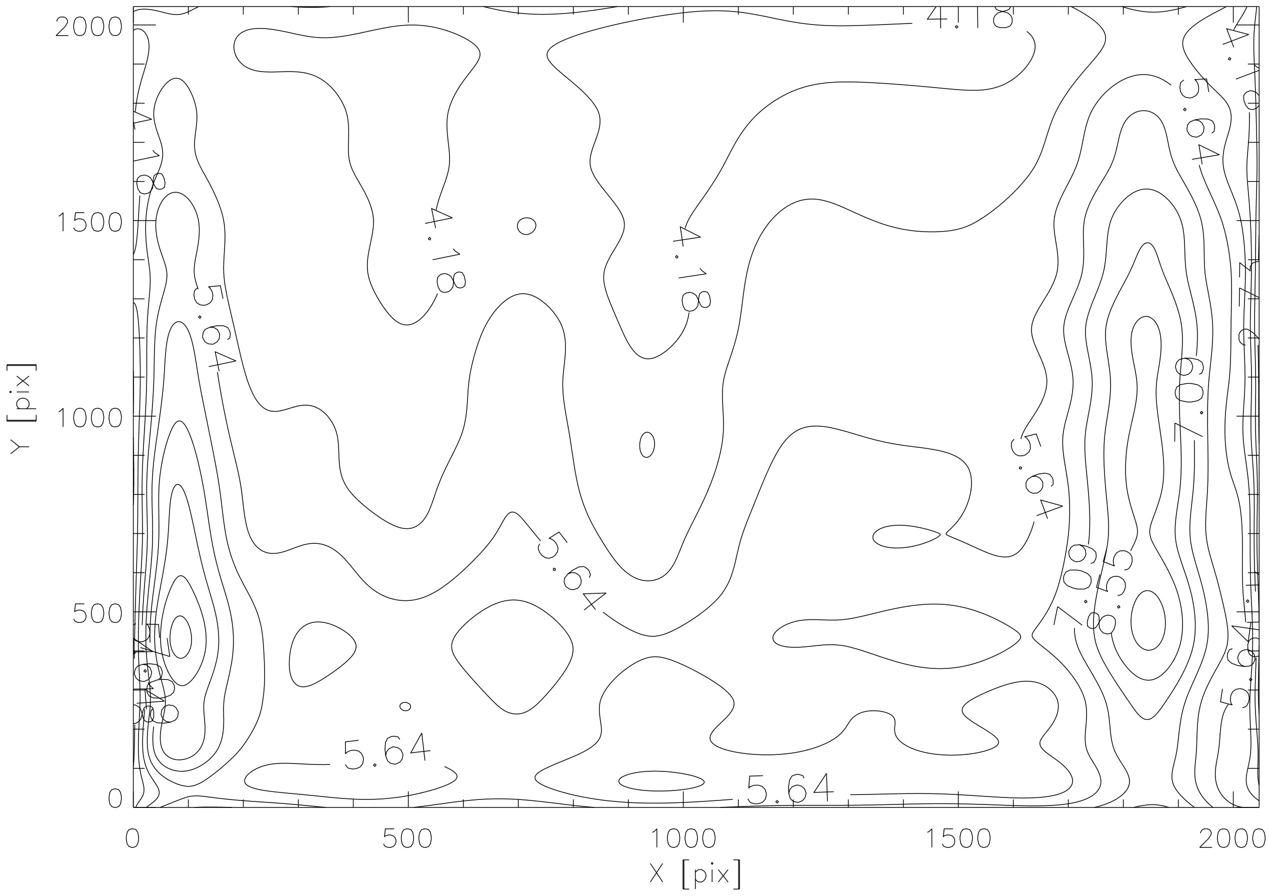
PLATE=0306 MJD=51637 sdR-b1-00003297.fit 2D Sky-subtraction Rescaled Errors




PLATE=0306 MJD=51637 sdR-b1-00003297.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
1500
1000
500
0
-500
RED = sky fiber
Dispersion = 20.07 %
0
50
100
150
200
250
300
Fiber number
Flux (4359.5)/Airmass
1500
1000
500
0
-500
0
100
200
300
400
Focal Distance [mm]
Flux (4359.5)/Airmass
1500
1000
500
0
-500
1.190
1.195
1.200
1.205
1.210
Airmass

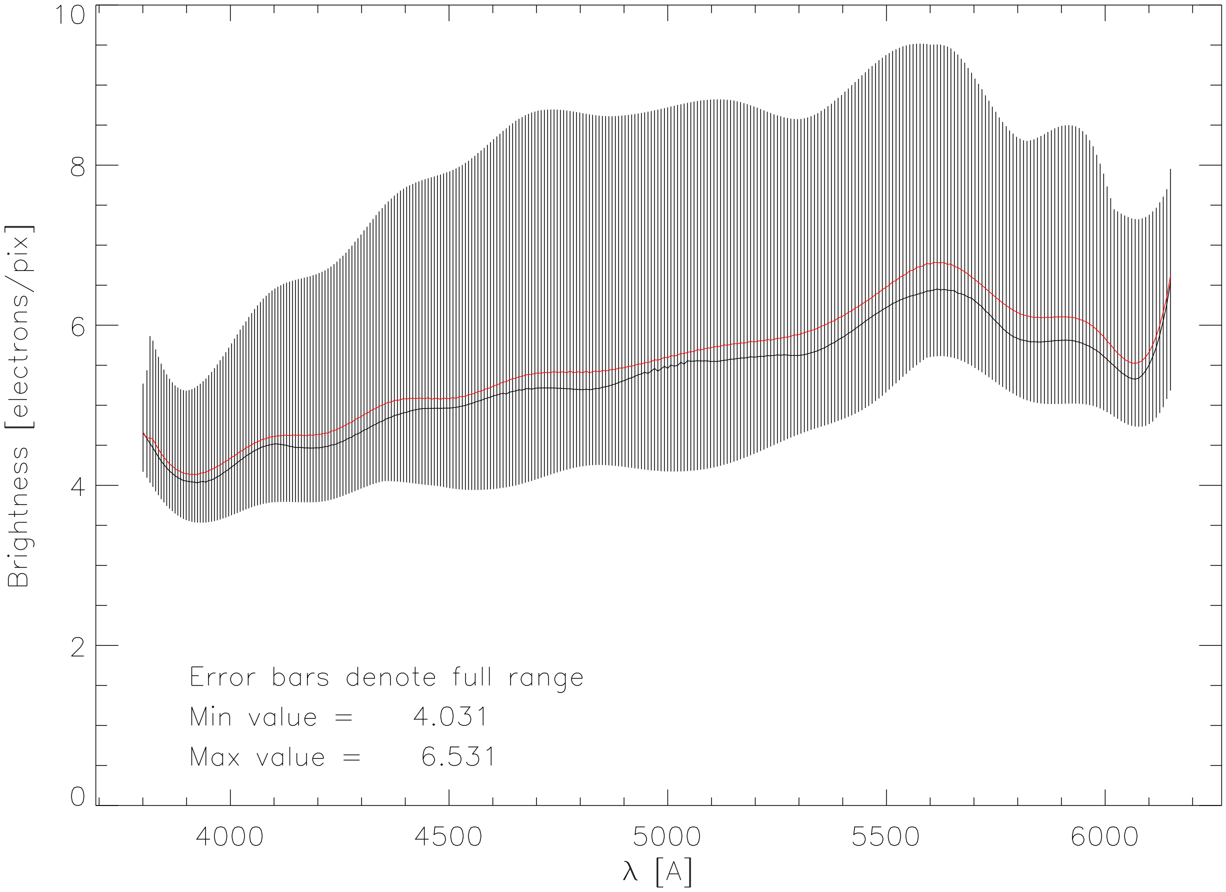

PLATE=0306 MJD=51637 sdR-b1-00003297.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
1.5×10^4
1.4×10^4
1.3×10^4
1.2×10^4
1.1×10^4
1.0×10^4
9.0×10^3
RED = sky fiber
Dispersion = 2.80 %
0
50
100
150
200
250
300
Fiber number
Flux (5578.9)/Airmass
0
100
200
300
400
Focal Distance [mm]
Flux (5578.9)/Airmass
1.190
1.195
1.200
1.205
1.210
Airmass


PLATE=0306 MJD=51637 Fiber-Flats for sdR-b1-00003301.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.534
Max value = 1.221
Fiber-Flat
0.0
0.5
1.0
1.5
4000
4500
5000
5500
6000
λ [A]
Sun Mar 2 13:27:55 2008

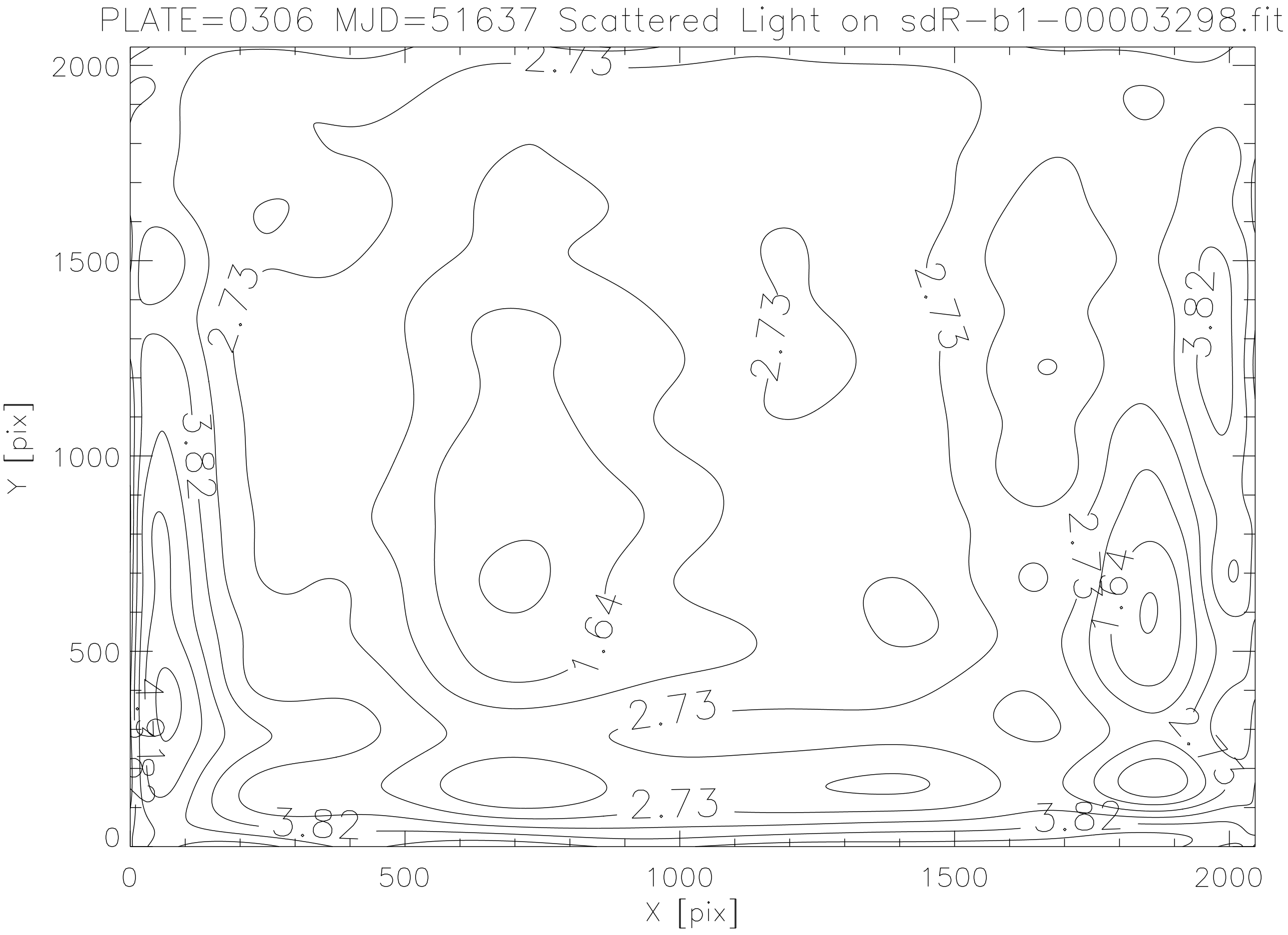


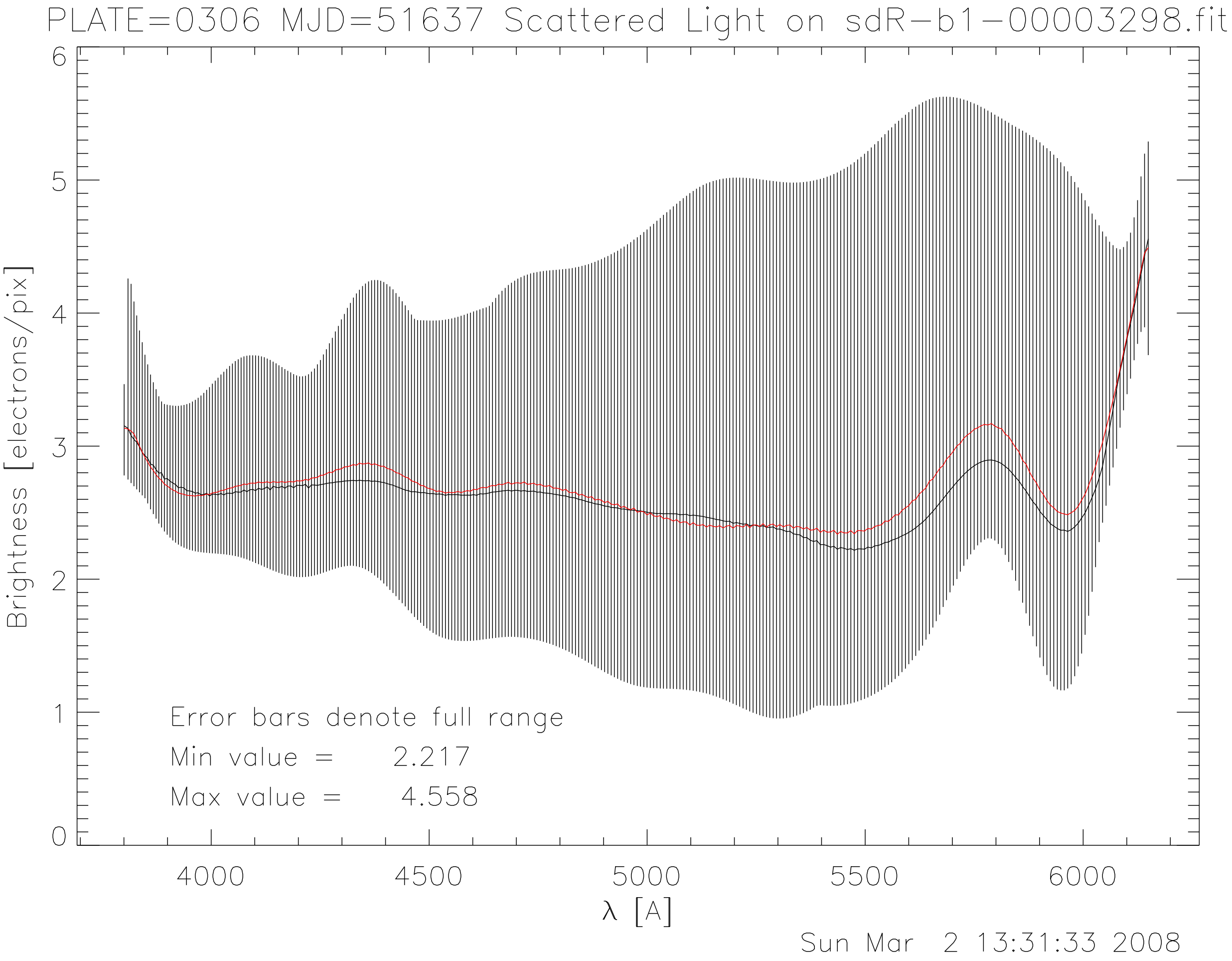
PLATE=0306 MJD=51637 Scattered Light before halo removal on sdR-b1-00003298.f

PLATE=0306 MJD=51637 Scattered Light before halo removal on sdR-b1-00003298.f

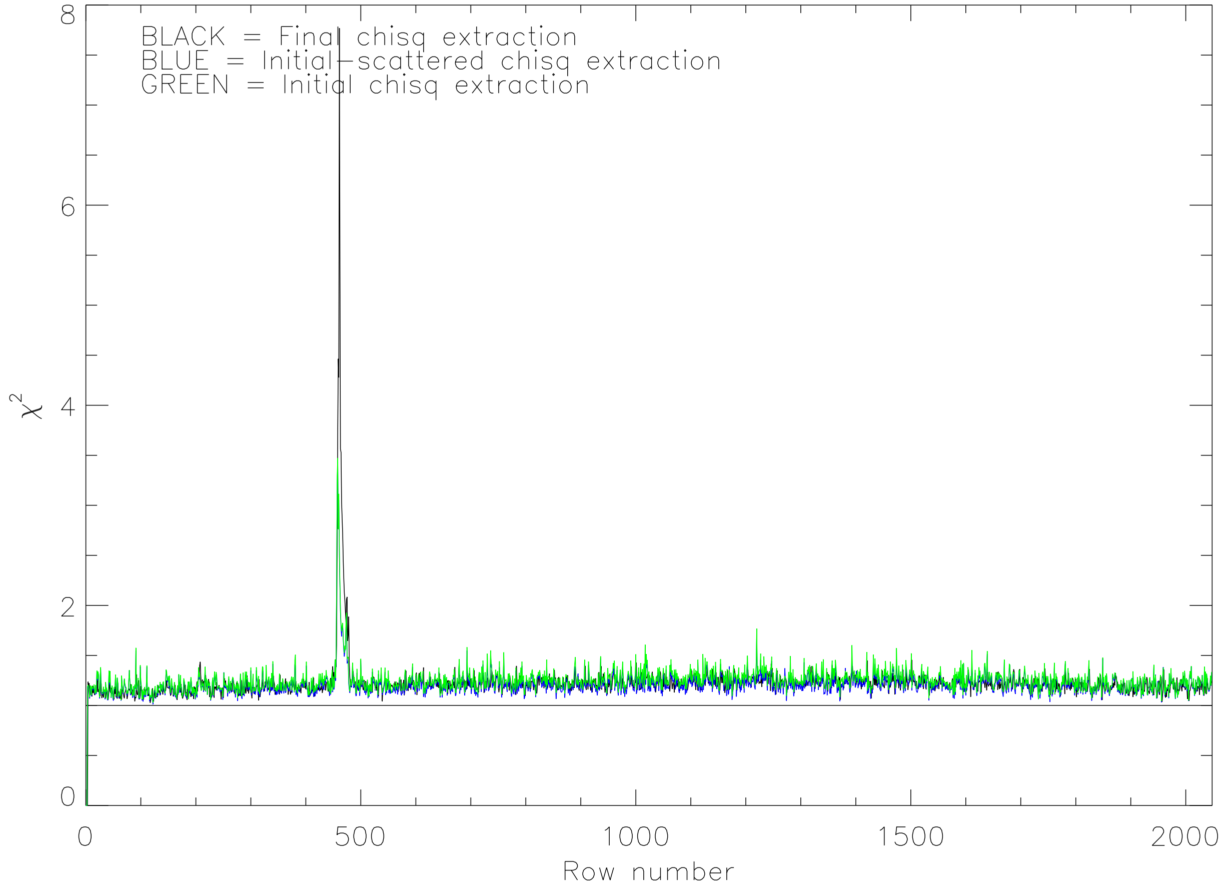


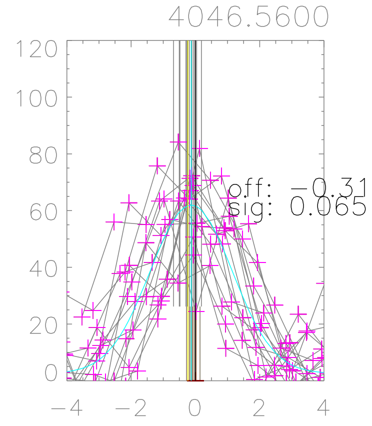
Sun Mar 2 13:28:48 2008

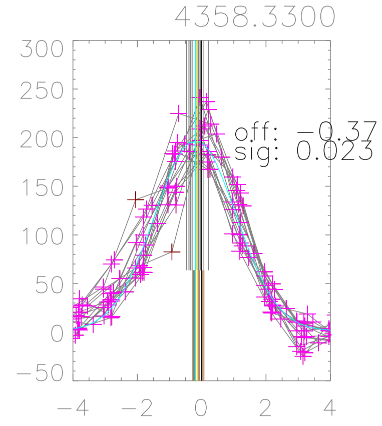

PLATE=0306 MJD=51637 Scattered Light on sdR-b1-00003298.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
2.73
3.82
1.64
4.91

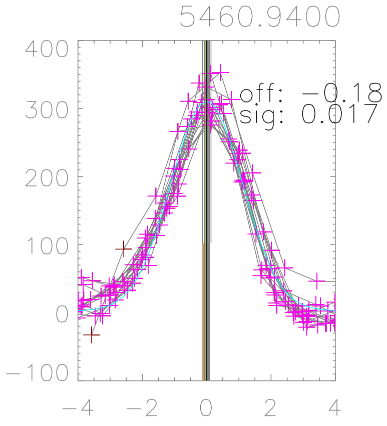

PLATE=0306 MJD=51637 Scattered Light on sdR-b1-00003298.fit
Brightness [electrons/pix]
0
1
2
3
4
5
6
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 2.217
Max value = 4.558
Sun Mar 2 13:31:33 2008

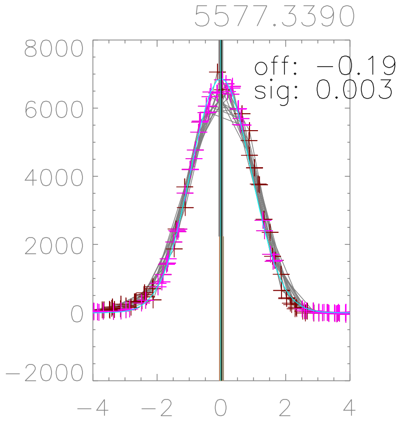
PLATE=0306 MJD=51637 Extraction chi^2 for sdR-b1-00003298.fit

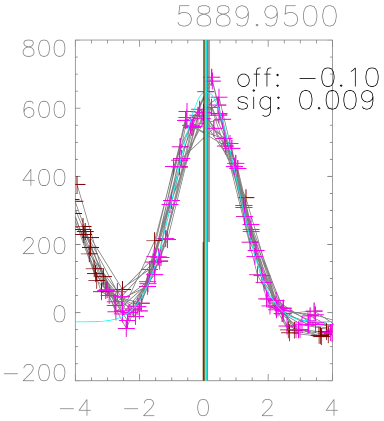


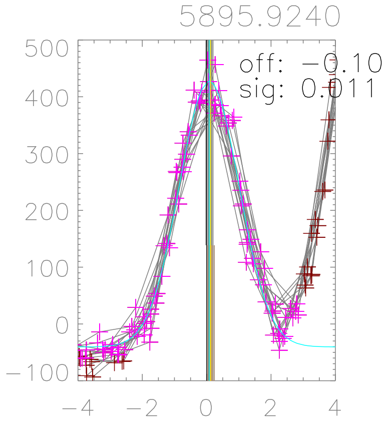

4046.5600
off: −0.31
sig: 0.065
120
100
80
60
40
20
0
−4
−2
0
2
4

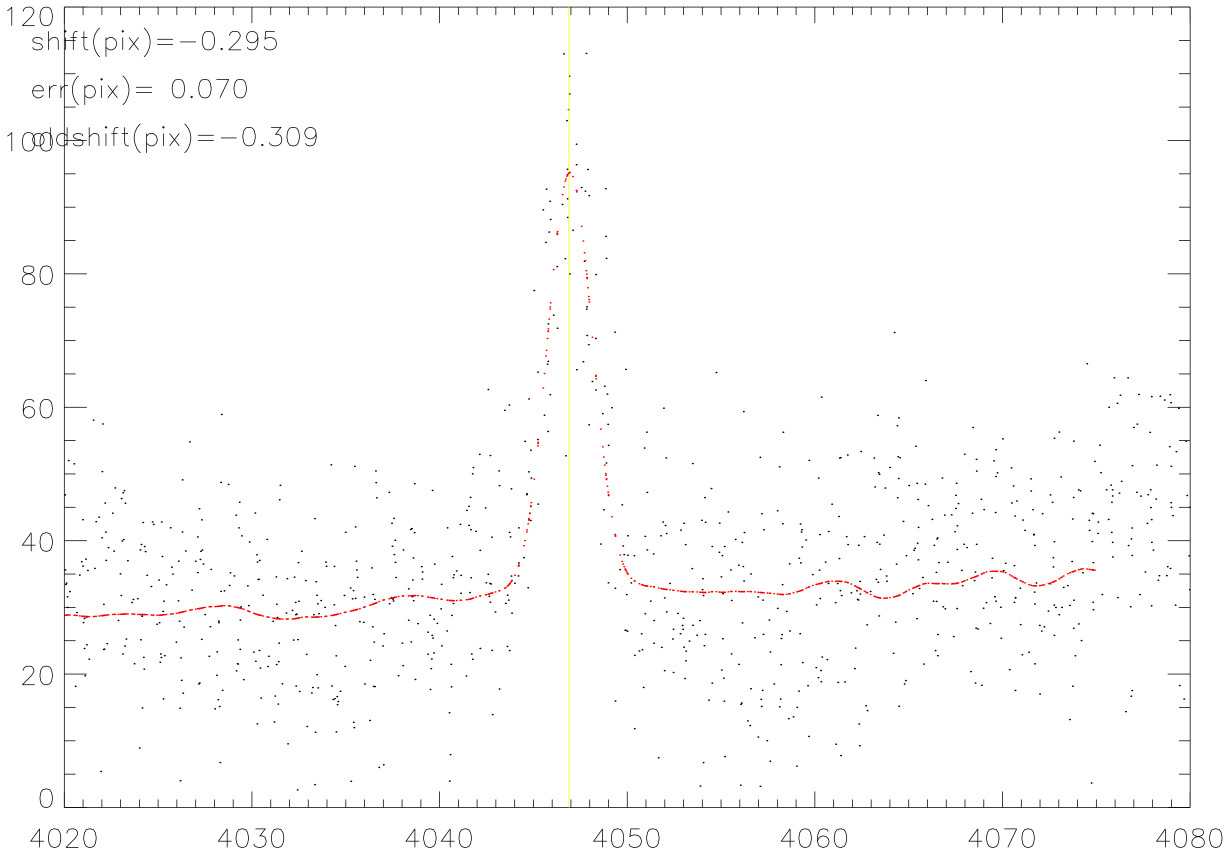

4358.3300
off: −0.37
sig: 0.023
300
250
200
150
100
50
0
−50
−4
−2
0
2
4

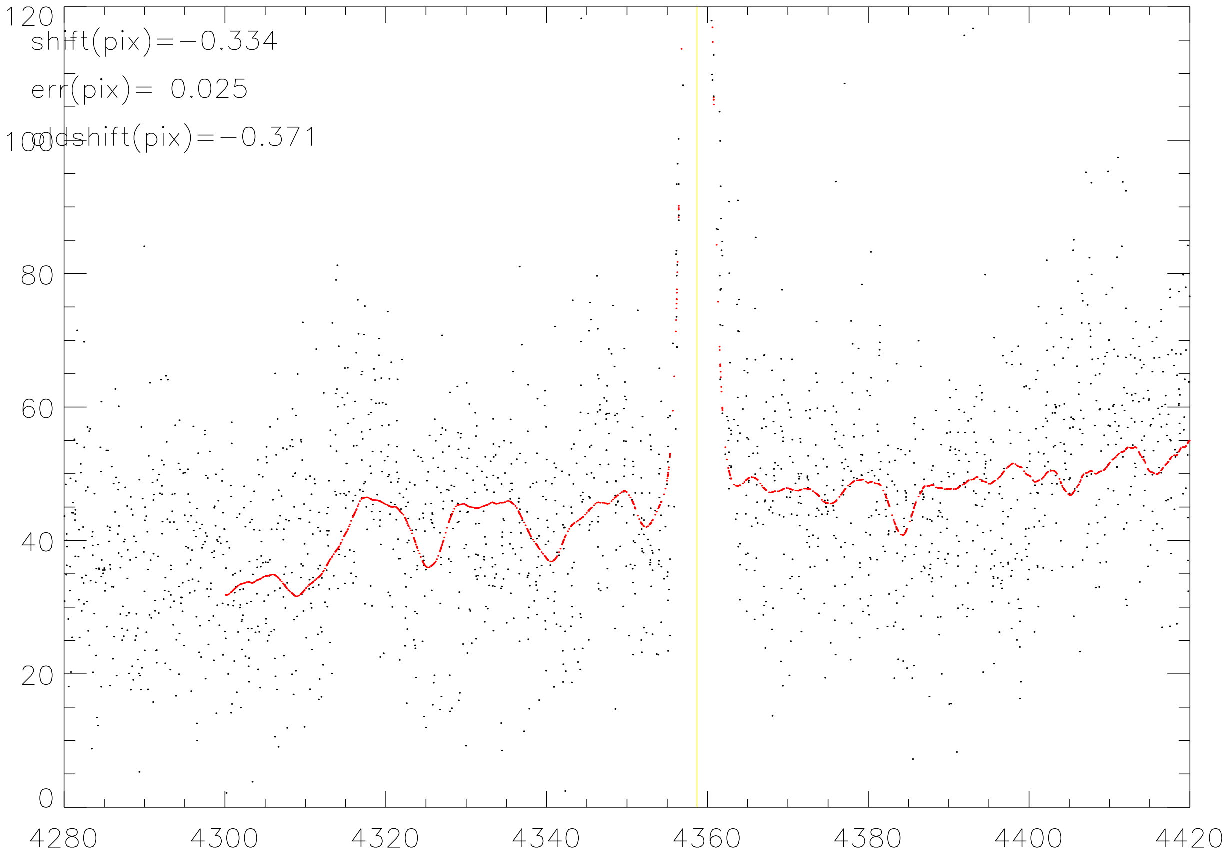

5460.9400
off: −0.18
sig: 0.017
400
300
200
100
0
−100
−4
−2
0
2
4

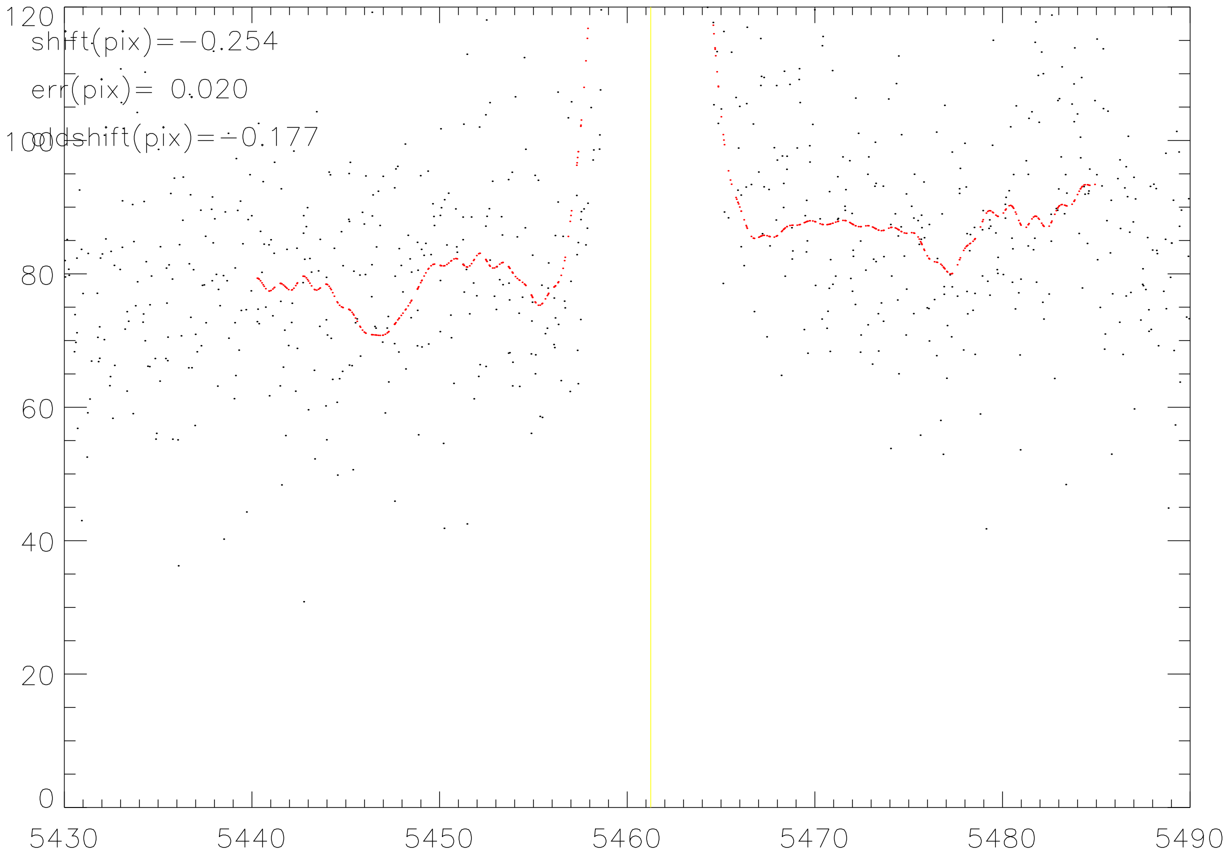

5577.3390
off: −0.19
sig: 0.003
8000
6000
4000
2000
0
−2000
−4
−2
0
2
4

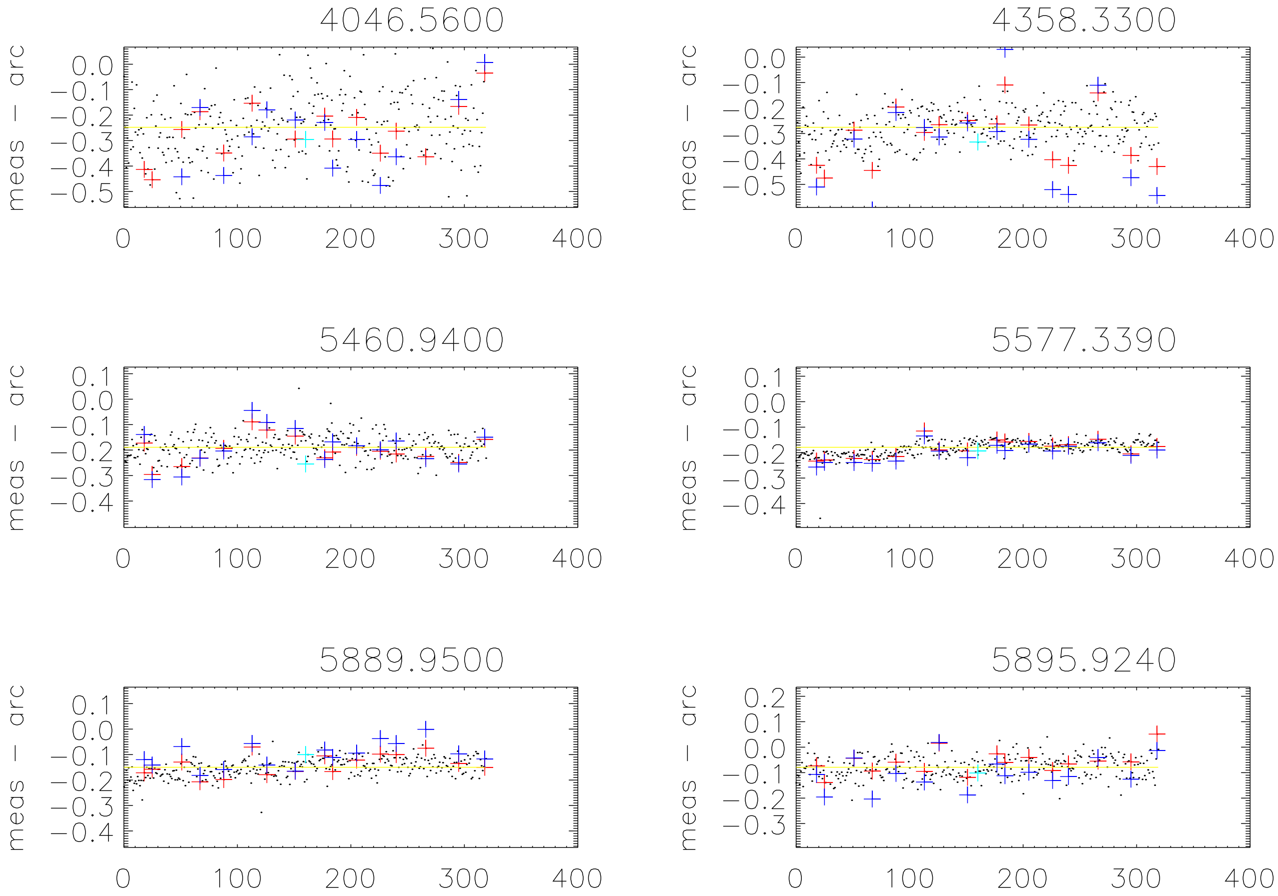

5889.9500
off: −0.10
sig: 0.009
800
600
400
200
0
−200
−4
−2
0
2
4

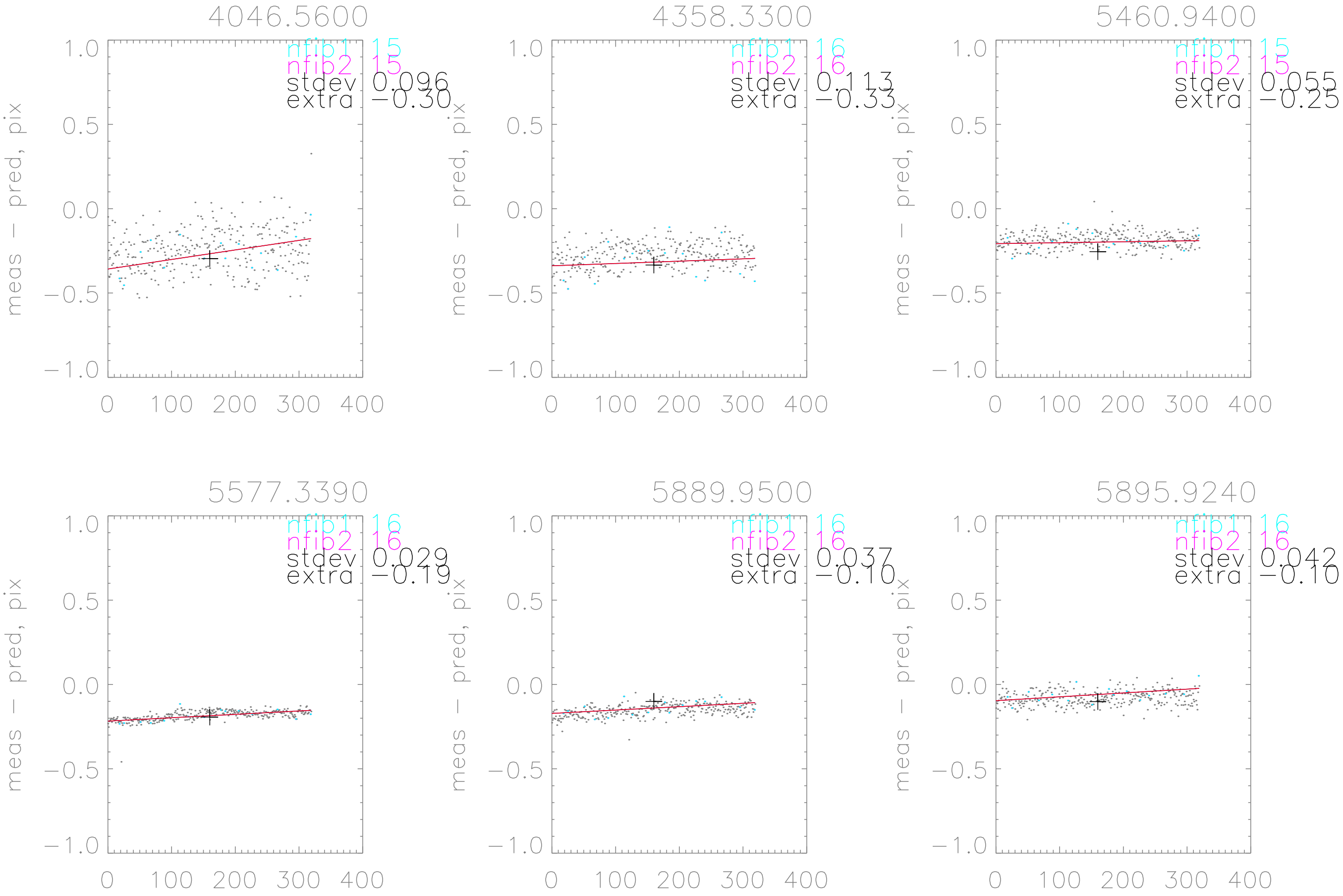

5895.9240
off: −0.10
sig: 0.011
500
400
300
200
100
0
−100
−4
−2
0
2
4

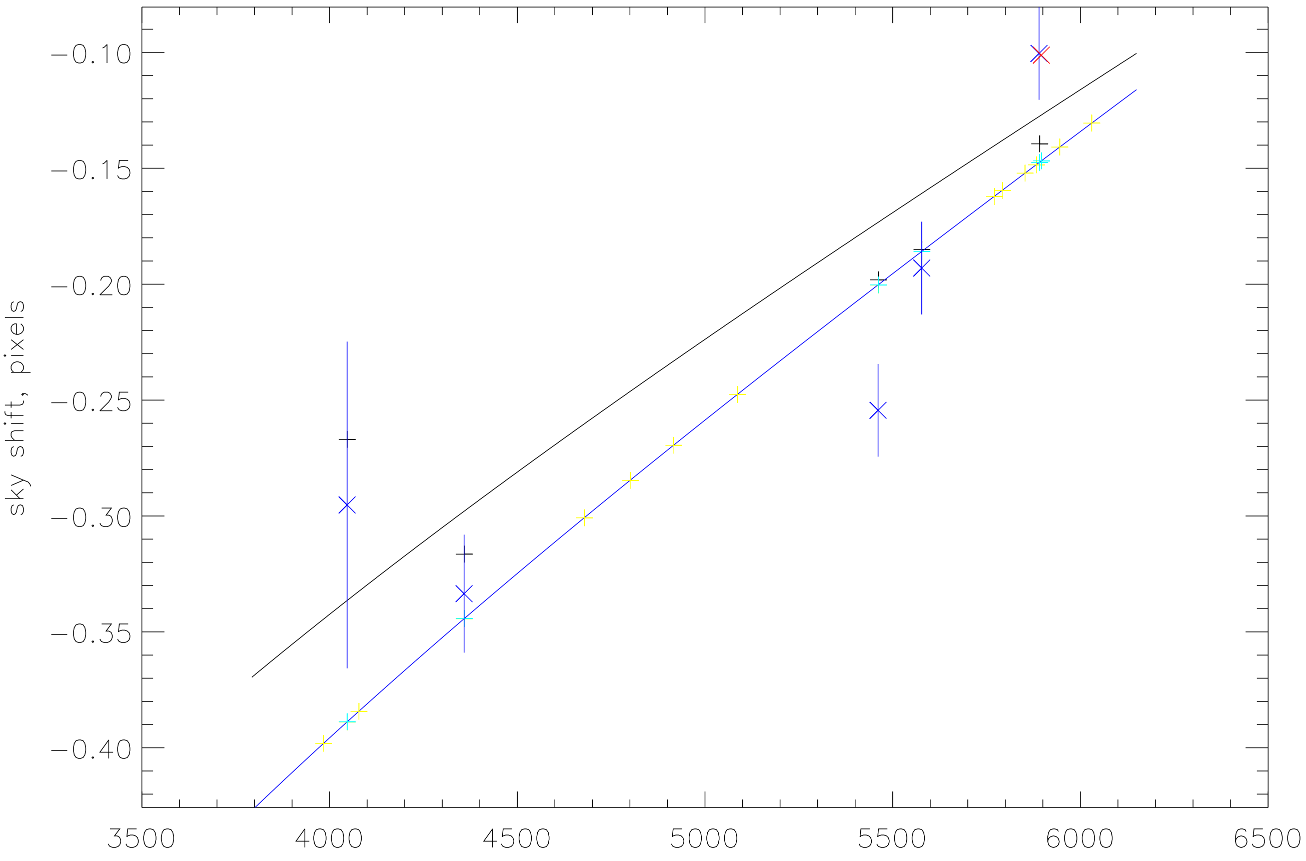

shift(pix)=−0.295
err(pix)= 0.070
oldshift(pix)=−0.309
120
100
80
60
40
20
0
4020
4030
4040
4050
4060
4070
4080

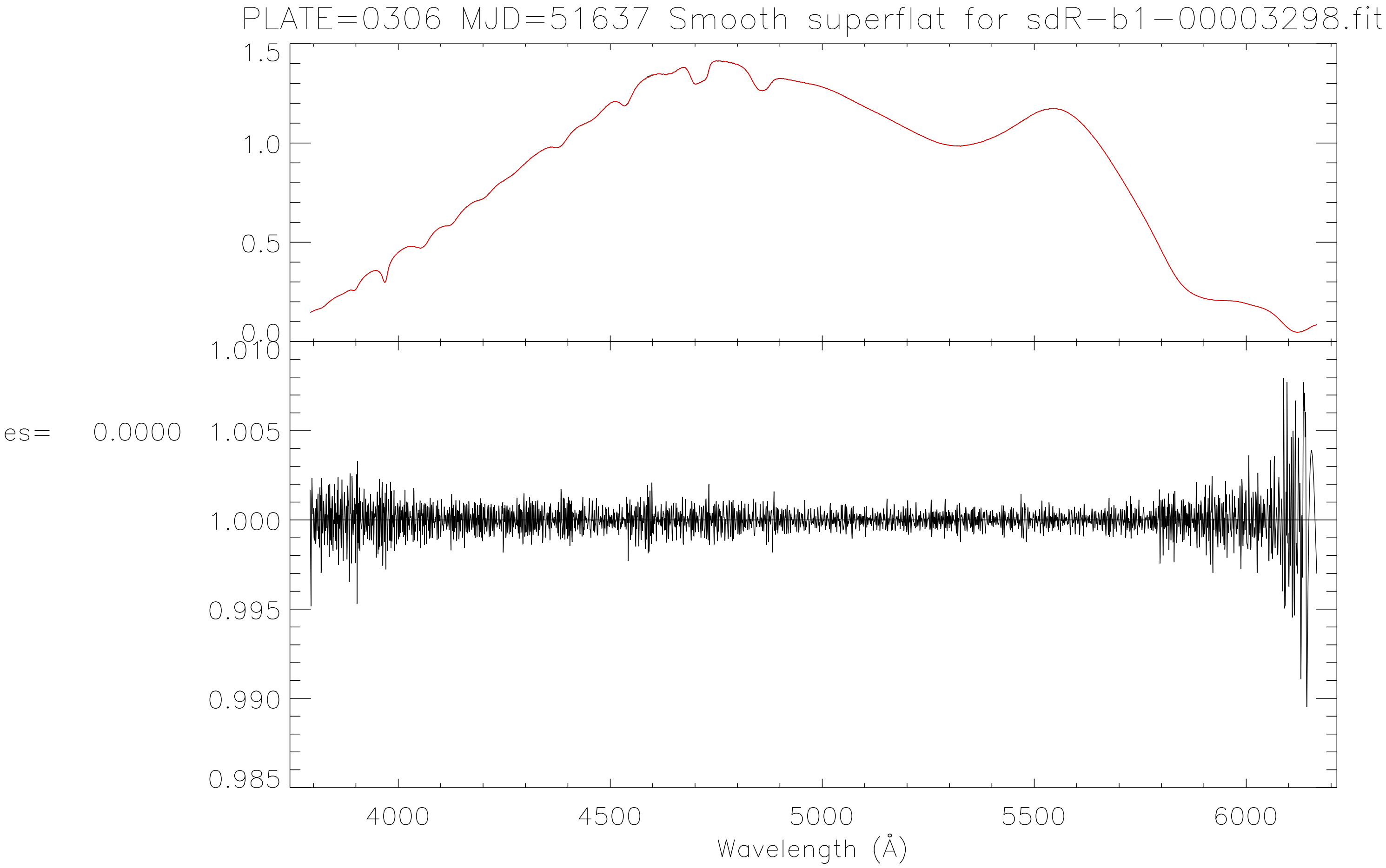

shift(pix)=-0.334
err(pix)= 0.025
oldshift(pix)=-0.371
120
100
80
60
40
20
0
4280
4300
4320
4340
4360
4380
4400
4420


shift(pix)=−0.254
err(pix)= 0.020
oldshift(pix)=−0.177
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

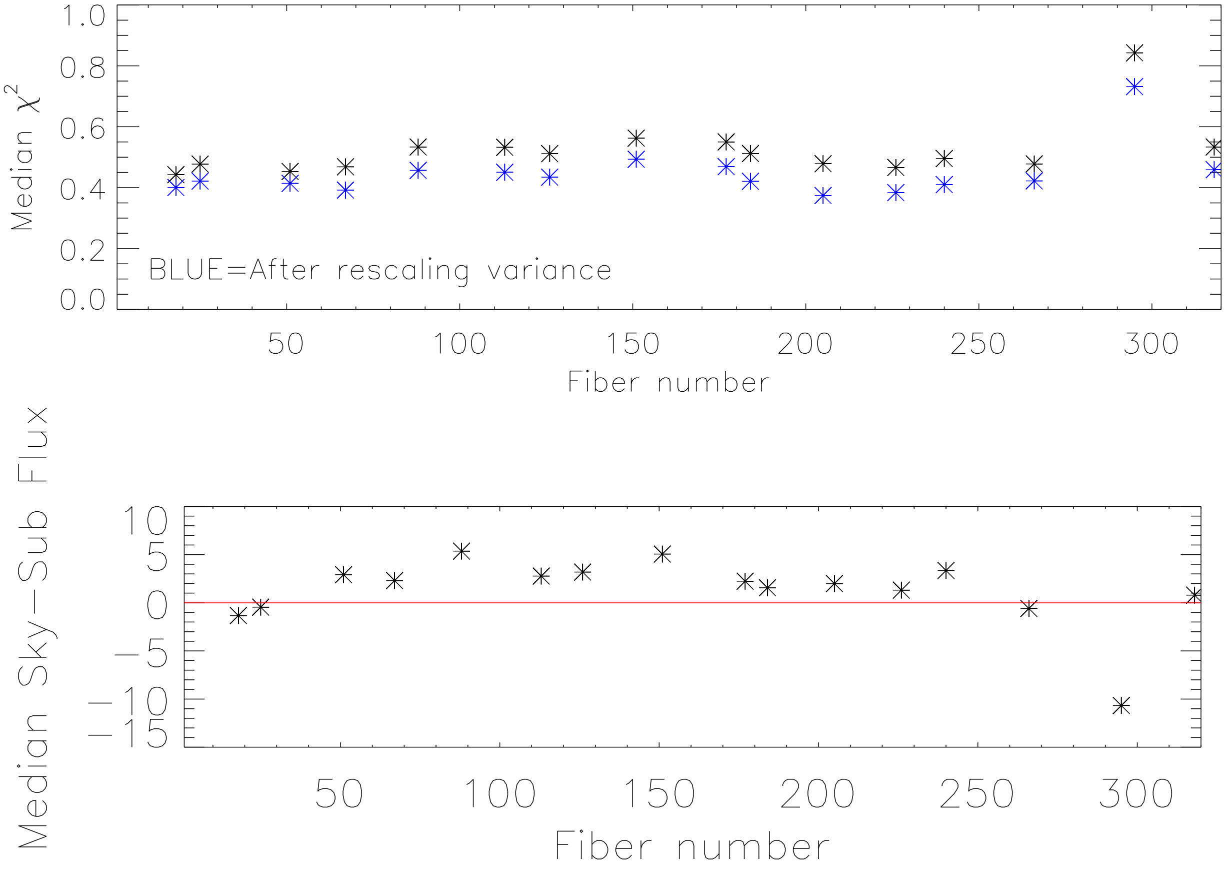

4046.5600
nfib1 15
nfib2 15
stdev 0.096
extra −0.30
4358.3300
nfib1 16
nfib2 16
stdev 0.113
extra −0.33
5460.9400
nfib1 15
nfib2 15
stdev 0.055
extra −0.25
5577.3390
nfib1 16
nfib2 16
stdev 0.029
extra −0.19
5889.9500
nfib1 16
nfib2 16
stdev 0.037
extra −0.10
5895.9240
nfib1 16
nfib2 16
stdev 0.042
extra −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

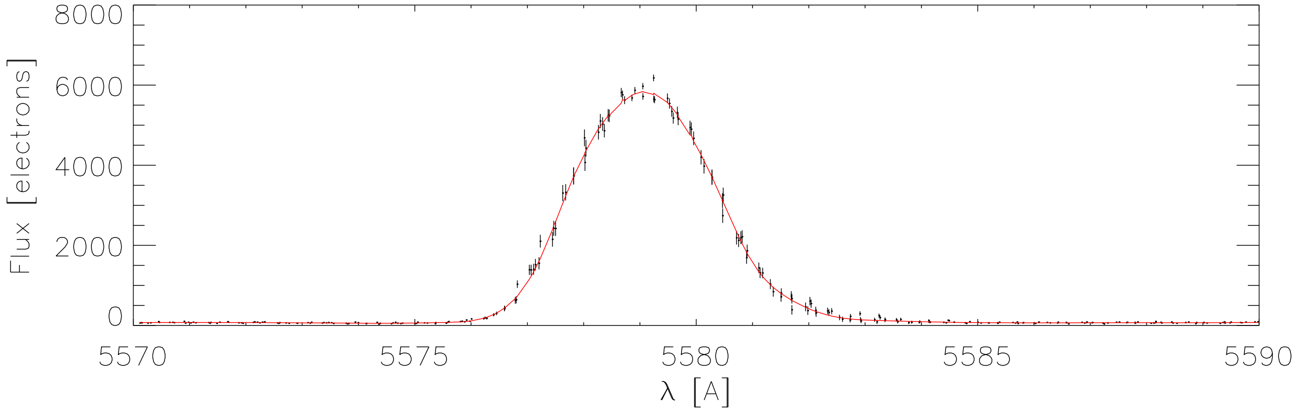


PLATE=0306 MJD=51637 Smooth superflat for sdR-b1-00003298.fit

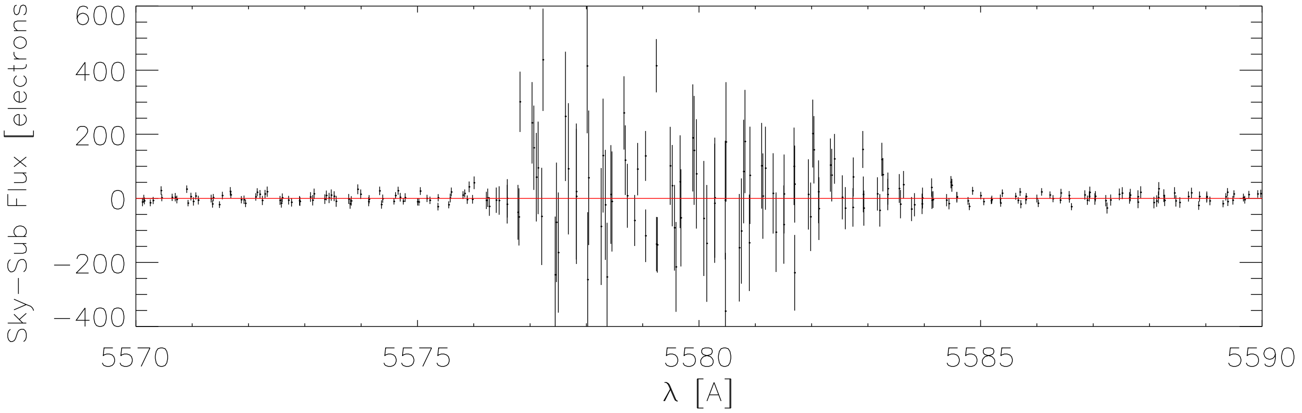
PLATE=0306 MJD=51637 sdR-b1-00003298.fit 1D Sky-subtraction Sky Fiber

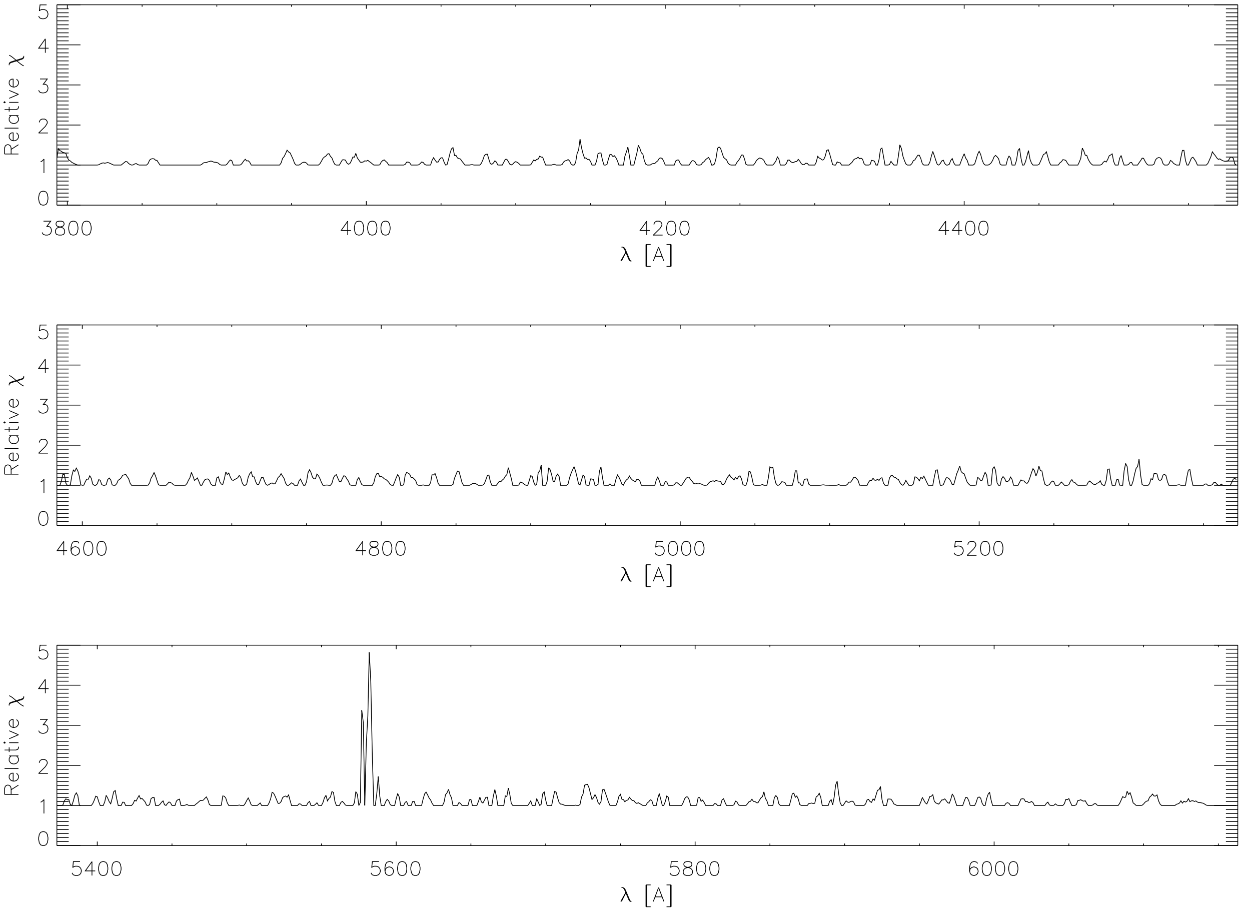


PLATE=0306 MJD=51637 sdR-b1-00003298.fit 1D Sky-subtraction Sky Fibers



PLATE=0306 MJD=51637 sdR-b1-00003298.fit 1D Sky-subtraction Sky-subtracted Sky F

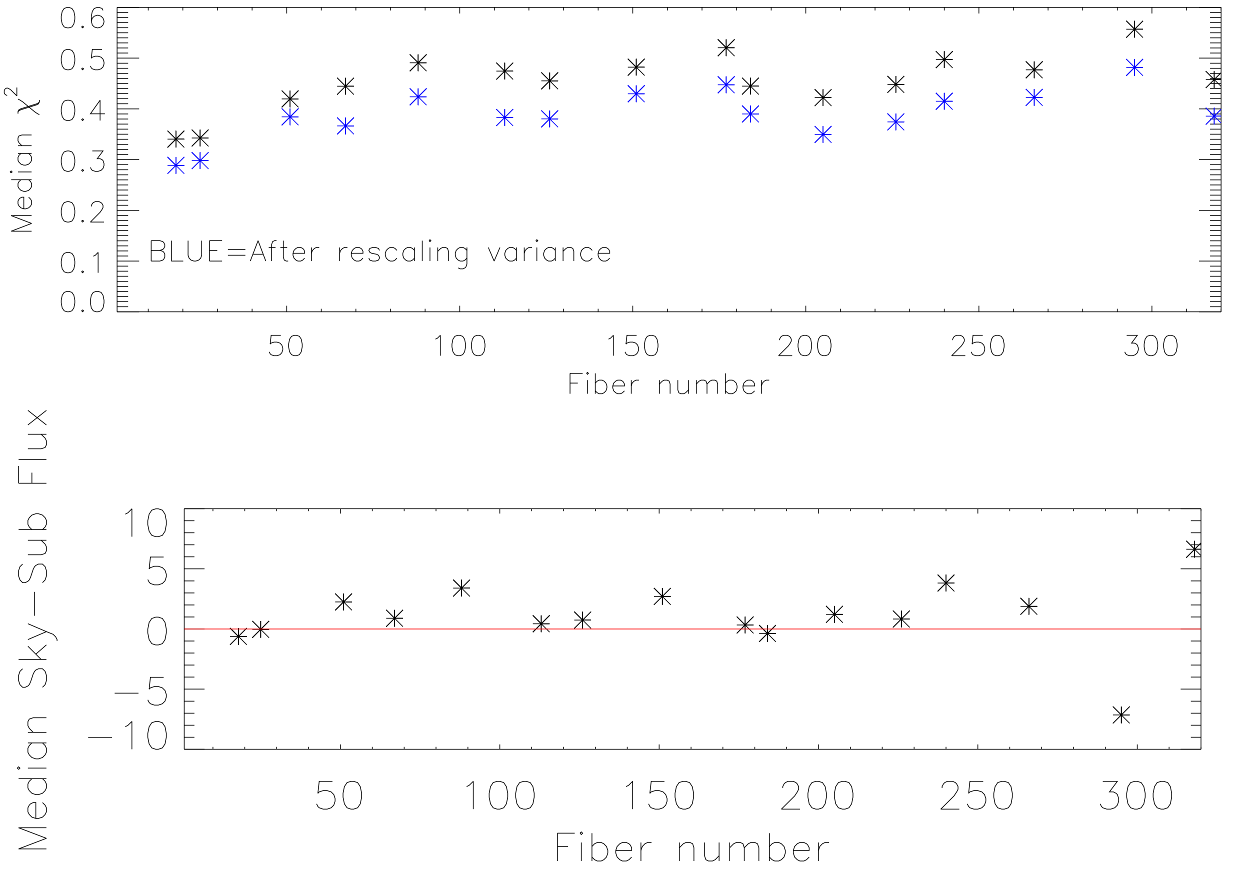


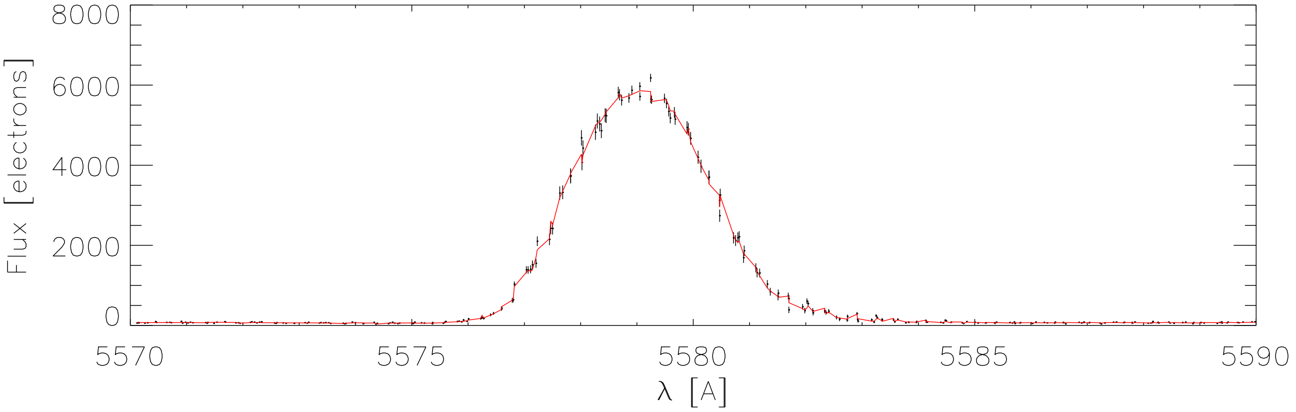


Number of sky fibers = 16

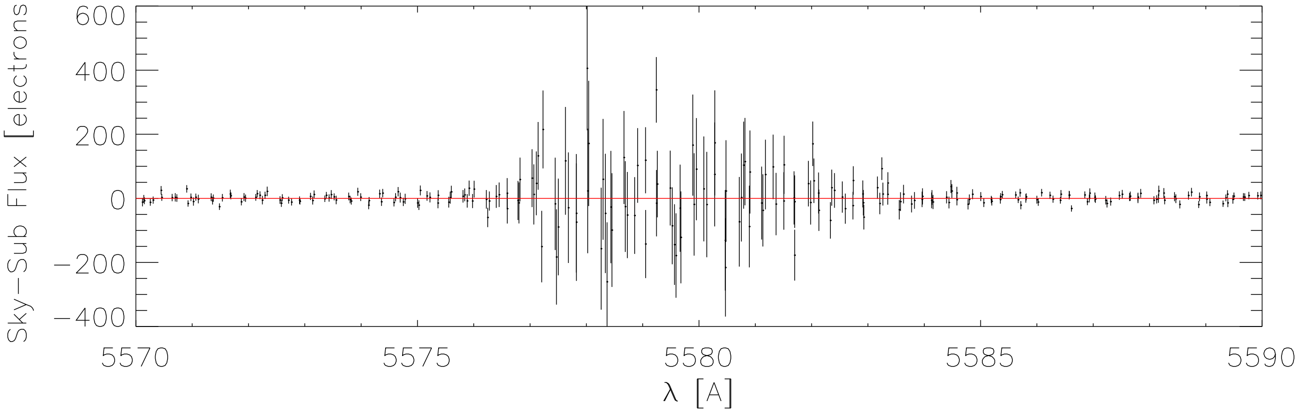
PLATE=0306 MJD=51637 sdR-b1-00003298.fit 1D Sky-subtraction Rescaled Errors

PLATE=0306 MJD=51637 sdR-b1-00003298.fit 2D Sky-subtraction Sky Fiber





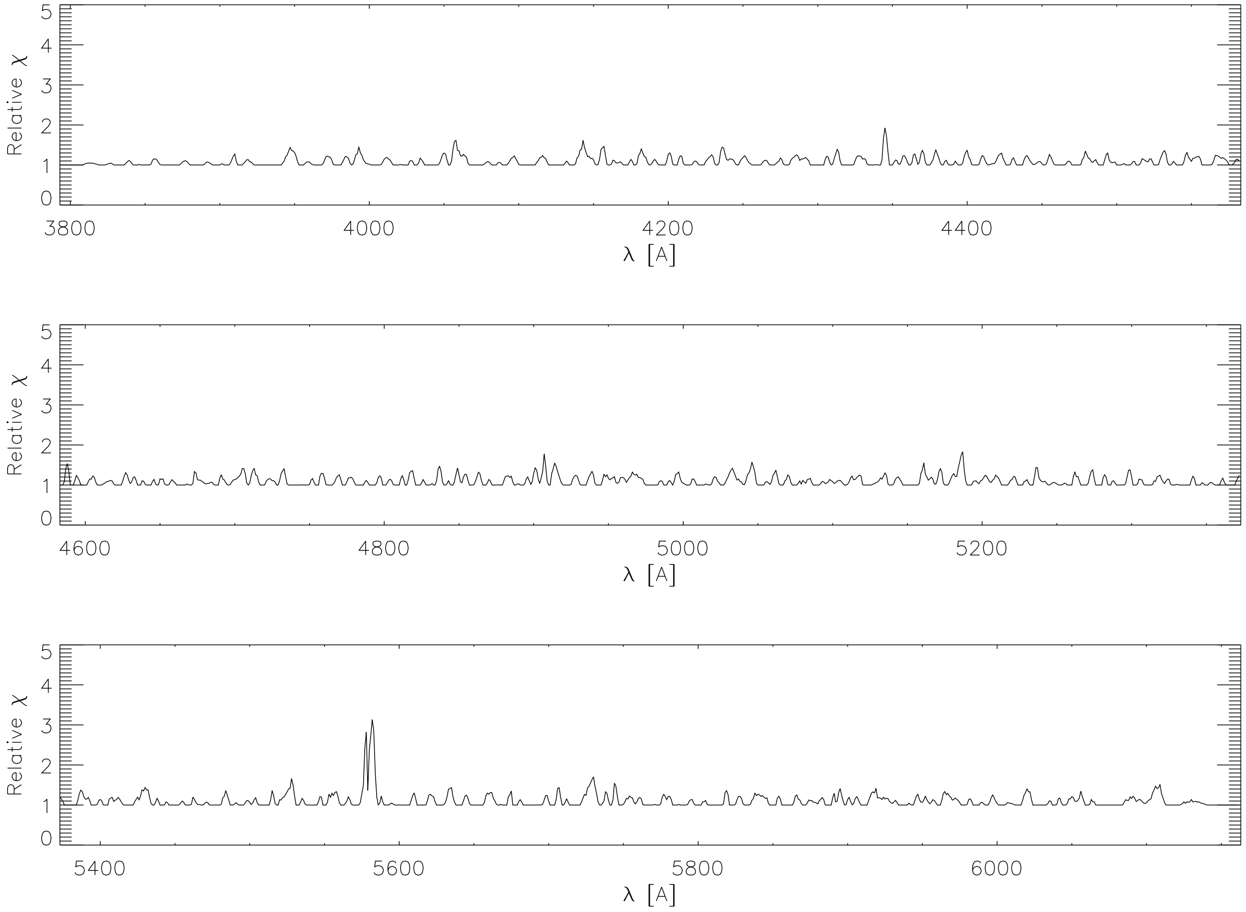
PLATE=0306 MJD=51637 sdR-b1-00003298.fit 2D Sky-subtraction Sky Fibers

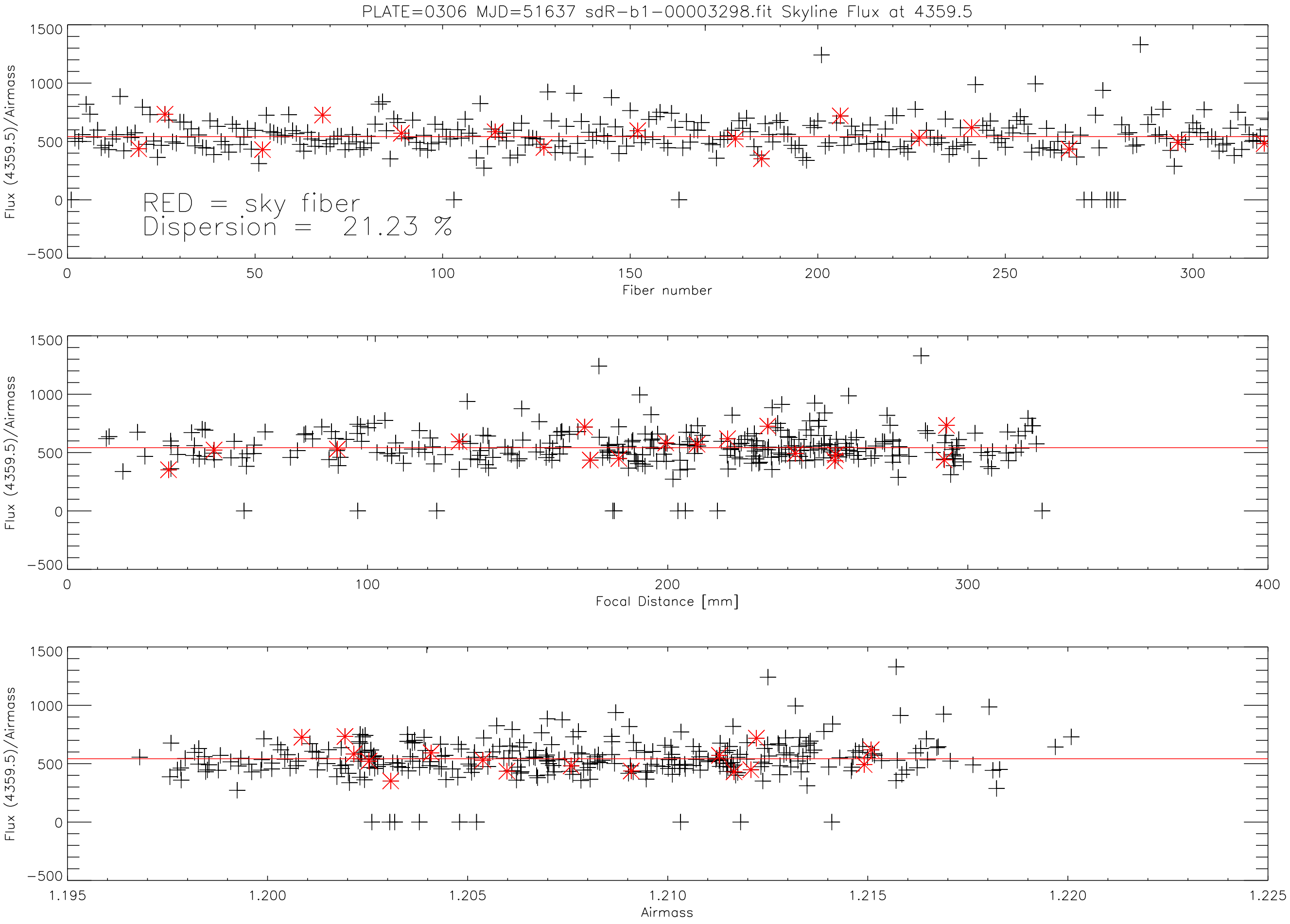


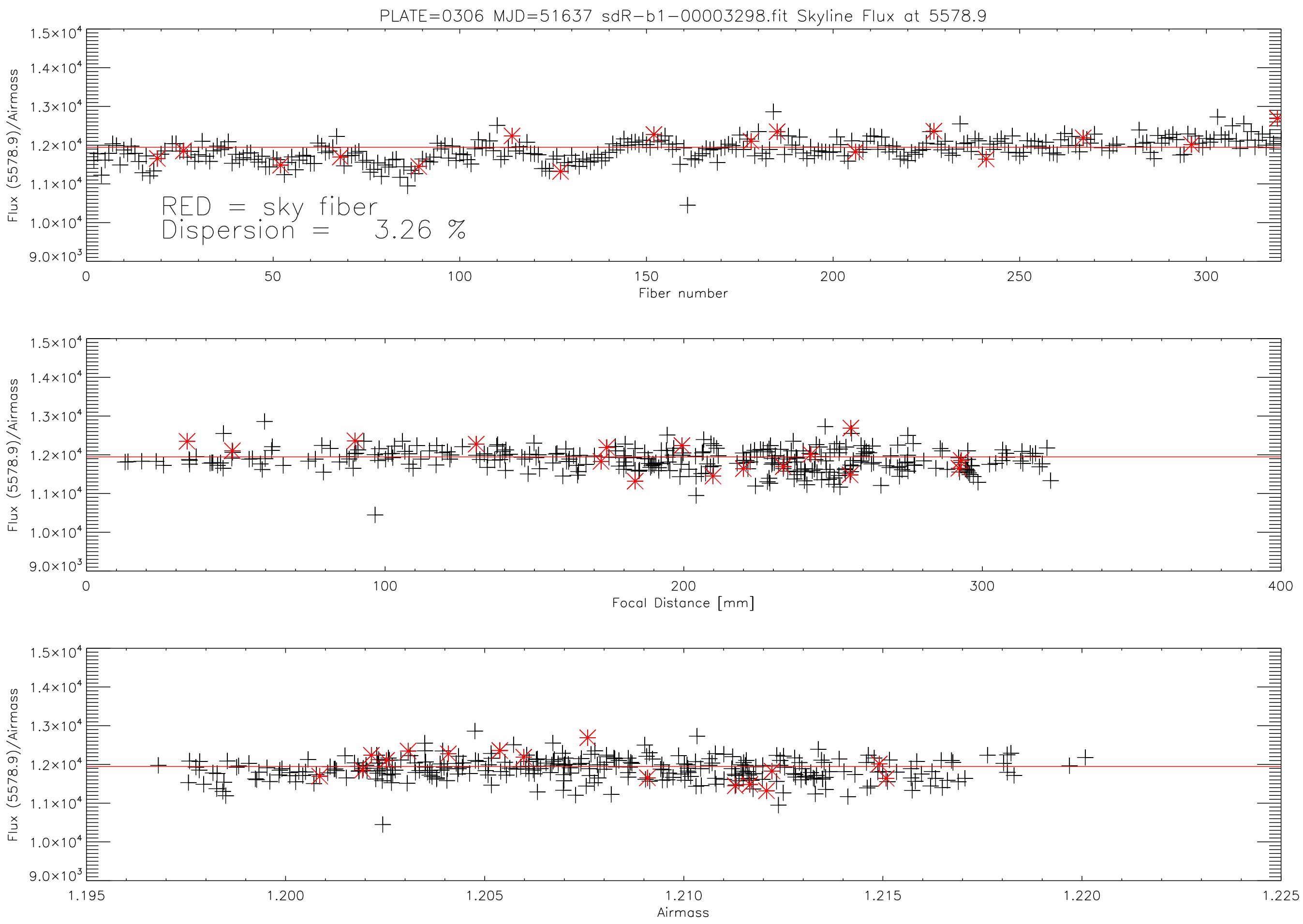
PLATE=0306 MJD=51637 sdR-b1-00003298.fit 2D Sky-subtraction Sky-subtracted Sky F

Number of sky fibers = 16

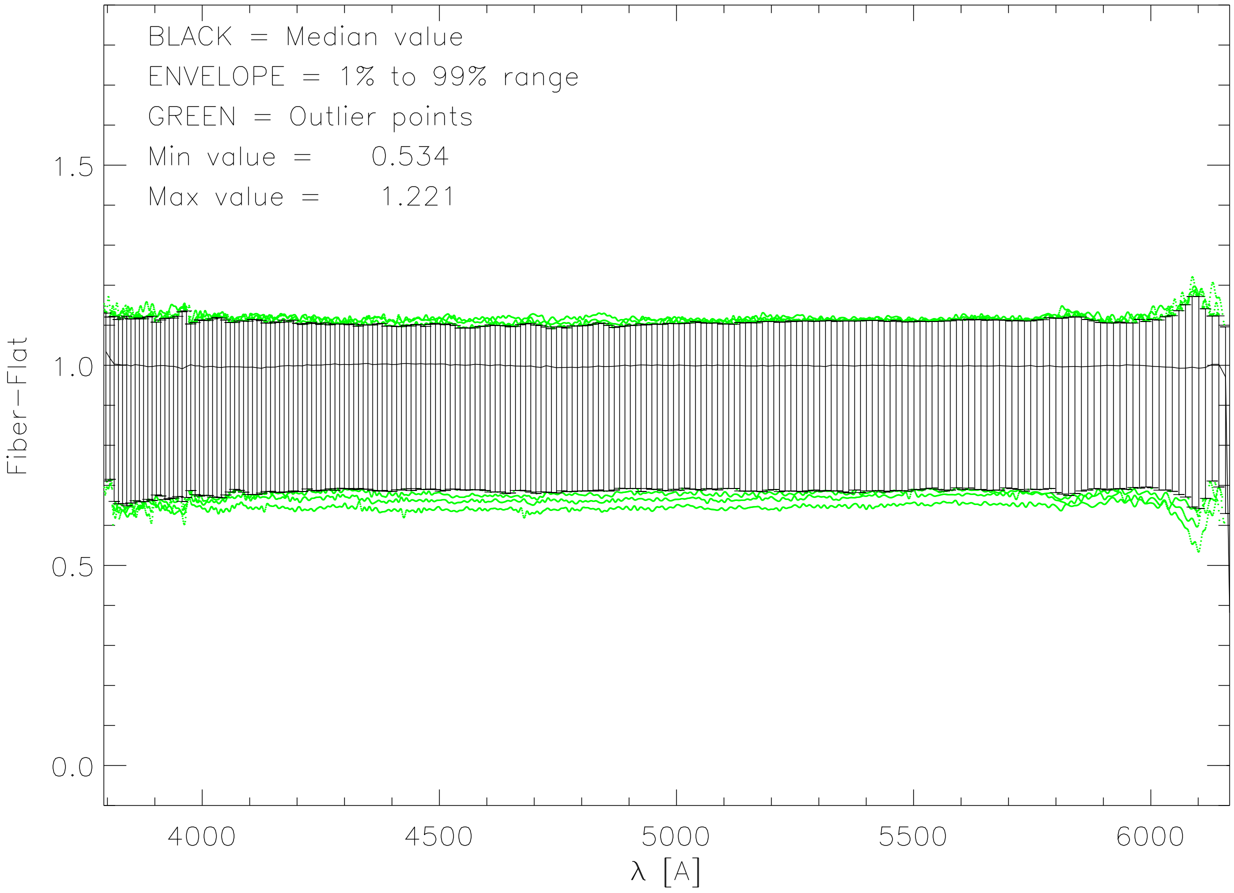
PLATE=0306 MJD=51637 sdR-b1-00003298.fit 2D Sky-subtraction Rescaled Errors




PLATE=0306 MJD=51637 sdR-b1-00003298.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
1500
1000
500
0
-500
RED = sky fiber
Dispersion = 21.23 %
0
50
100
150
200
250
300
Fiber number
Flux (4359.5)/Airmass
1500
1000
500
0
-500
0
100
200
300
400
Focal Distance [mm]
Flux (4359.5)/Airmass
1500
1000
500
0
-500
1.195
1.200
1.205
1.210
1.215
1.220
1.225
Airmass

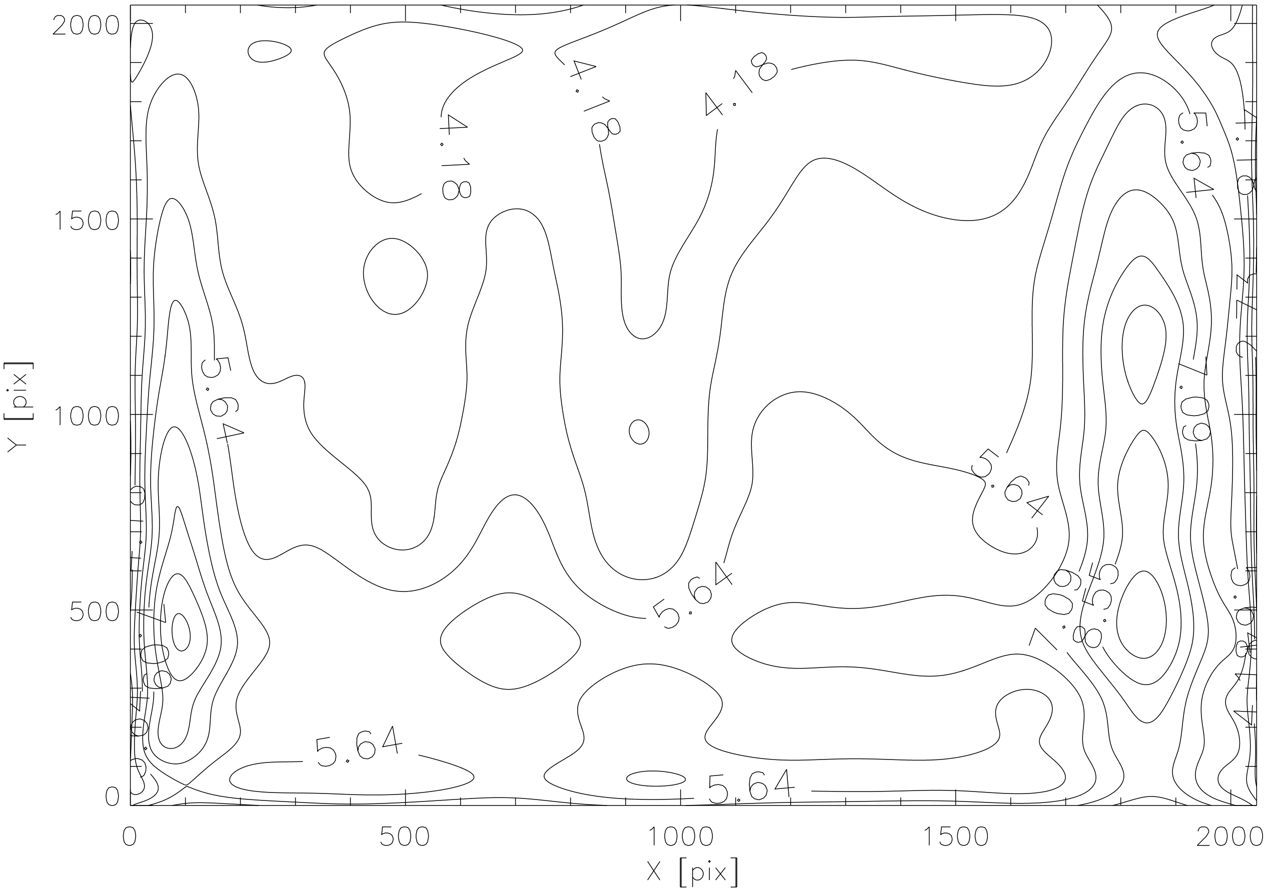

PLATE=0306 MJD=51637 sdR-b1-00003298.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
1.5×10⁴
1.4×10⁴
1.3×10⁴
1.2×10⁴
1.1×10⁴
1.0×10⁴
9.0×10³
RED = sky fiber
Dispersion = 3.26 %
0
50
100
150
200
250
300
Fiber number
Flux (5578.9)/Airmass
0
100
200
300
400
Focal Distance [mm]
Flux (5578.9)/Airmass
1.195
1.200
1.205
1.210
1.215
1.220
1.225
Airmass

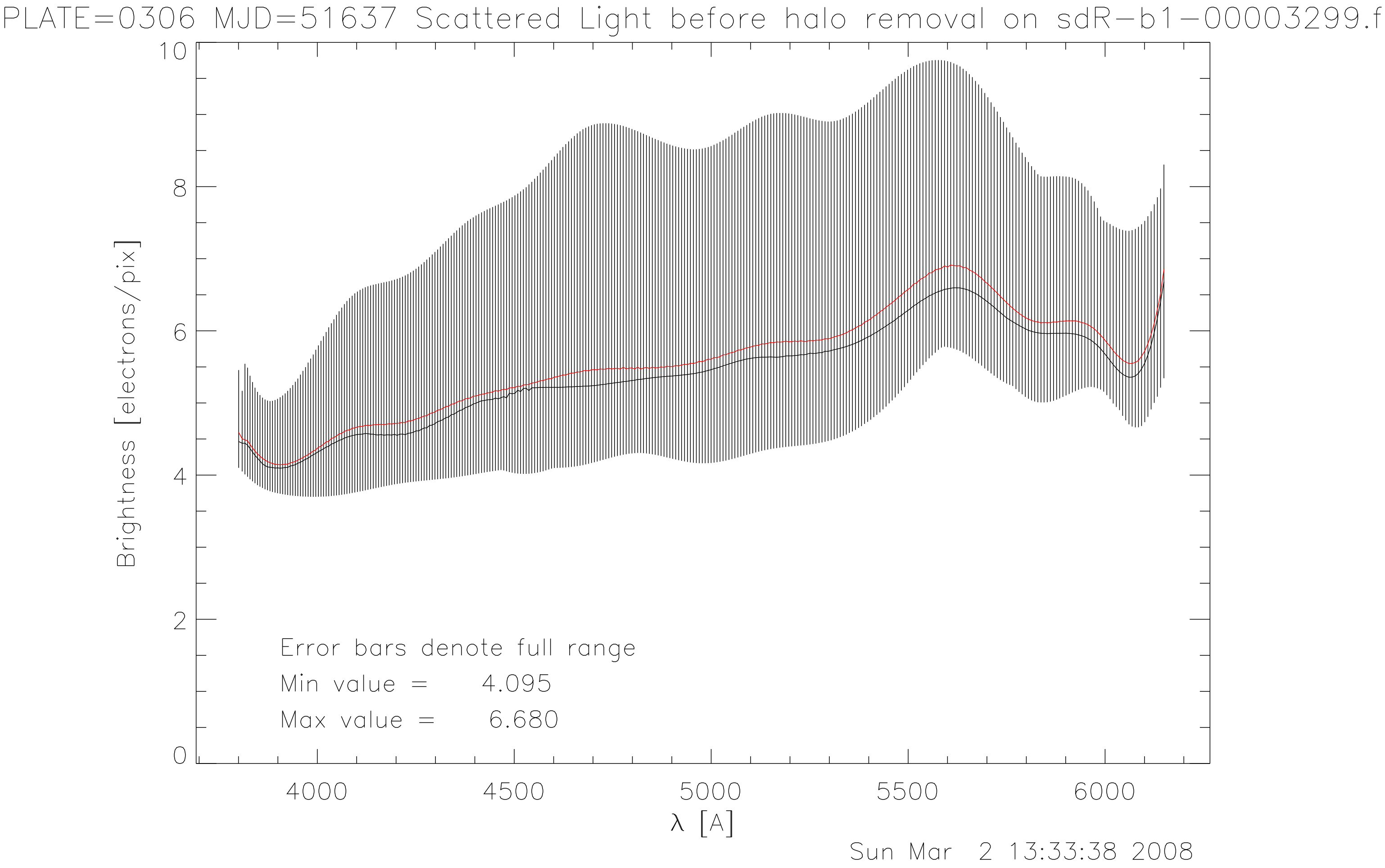
PLATE=0306 MJD=51637 Fiber-Flats for sdR-b1-00003301.fit

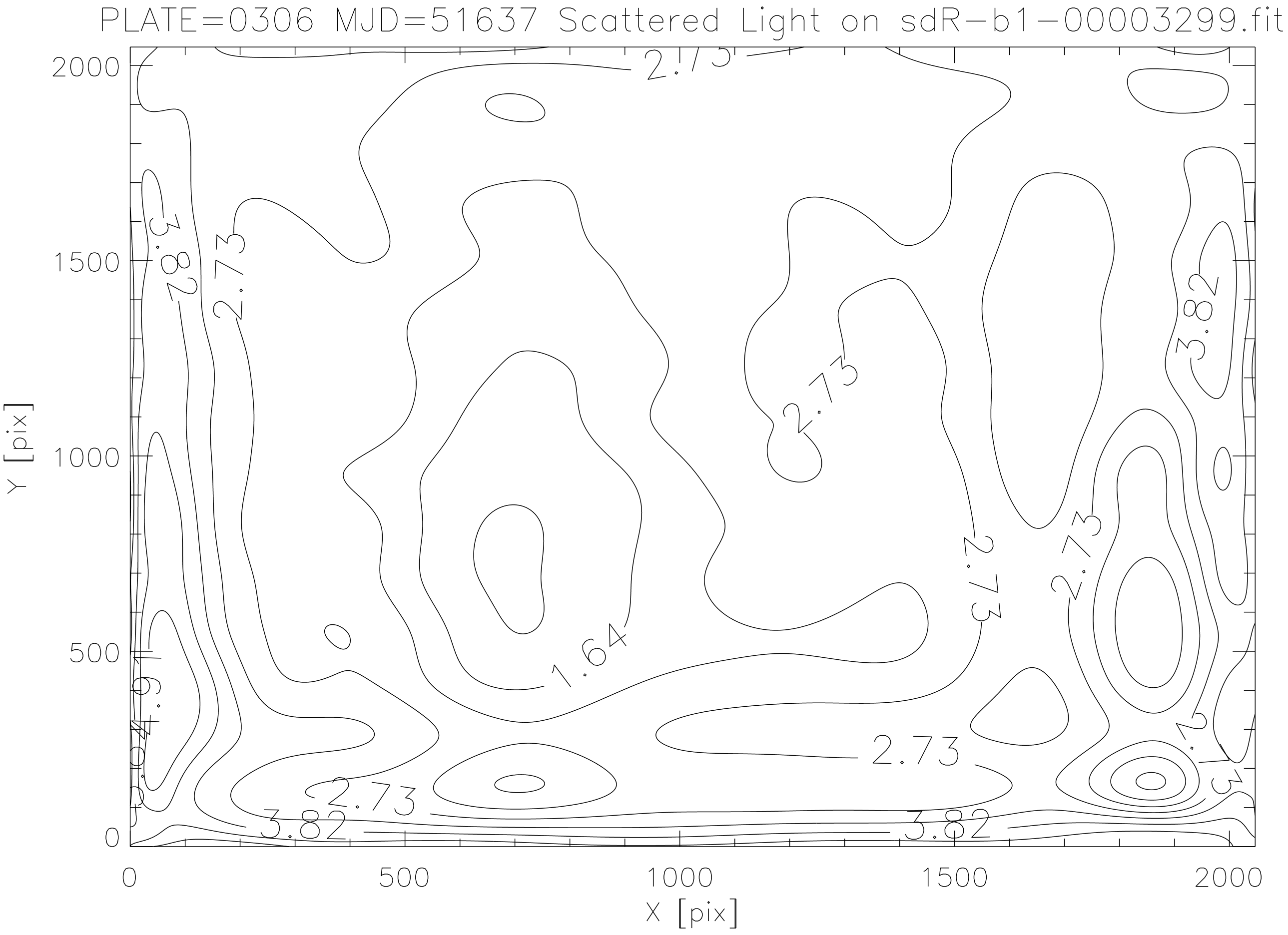


Sun Mar 2 13:32:44 2008

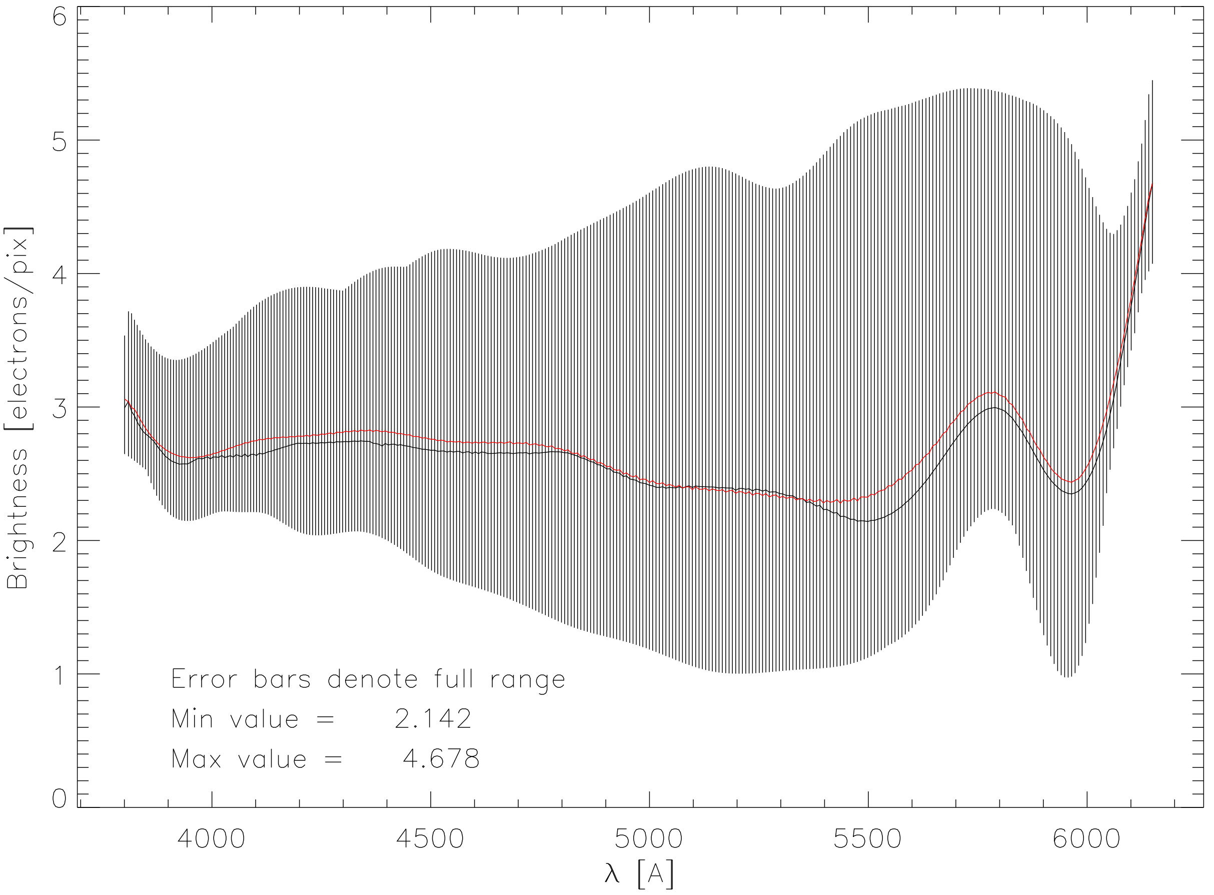
PLATE=0306 MJD=51637 Scattered Light before halo removal on sdR-b1-00003299.f



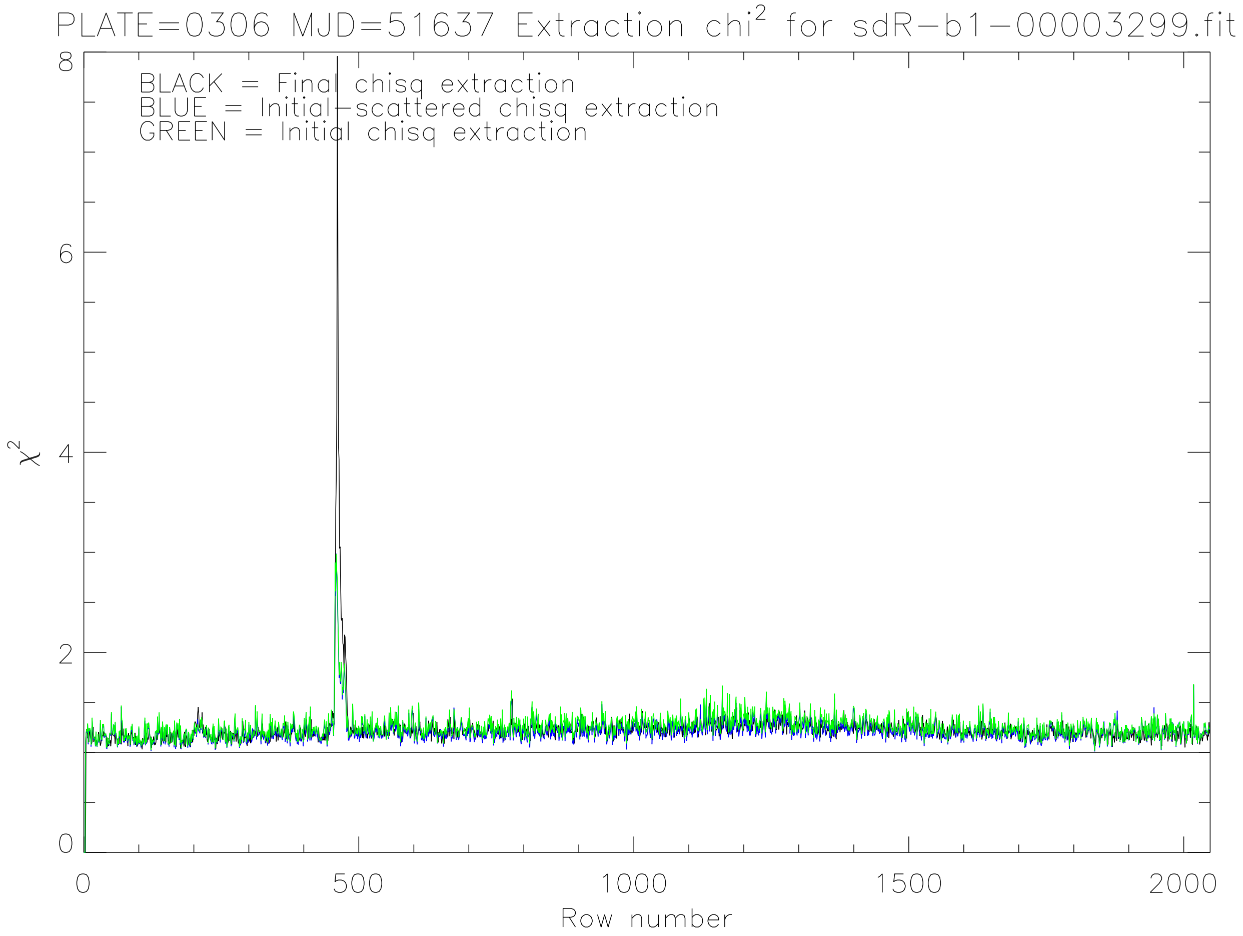

PLATE=0306 MJD=51637 Scattered Light before halo removal on sdR-b1-00003299.f
Brightness [electrons/pix]
0
2
4
6
8
10
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value =   4.095
Max value =   6.680
Sun Mar 2 13:33:38 2008

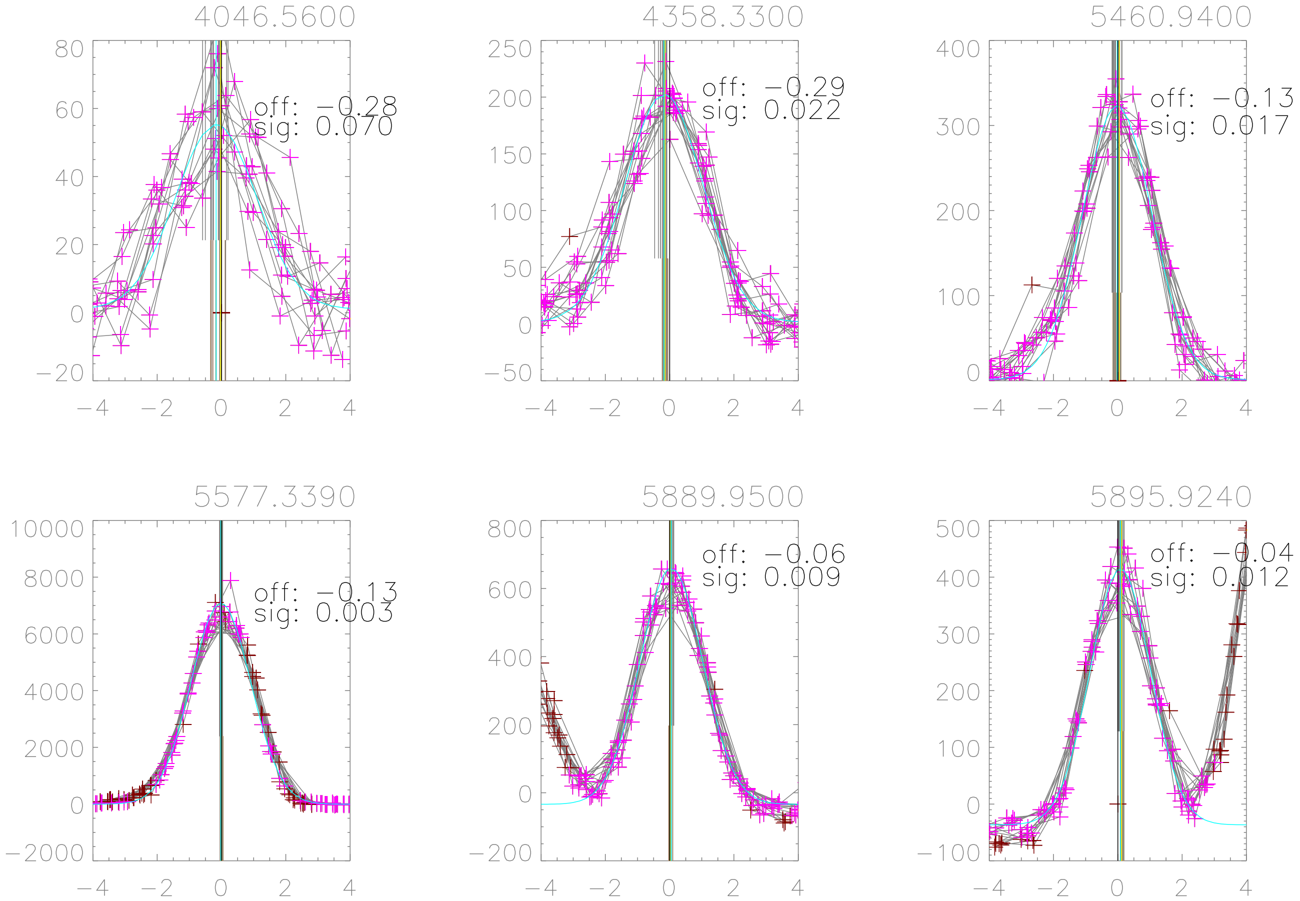

PLATE=0306 MJD=51637 Scattered Light on sdR-b1-00003299.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
0
500
1000
1500
2000
2.73
3.82
4.91
1.64
2.73
3.82

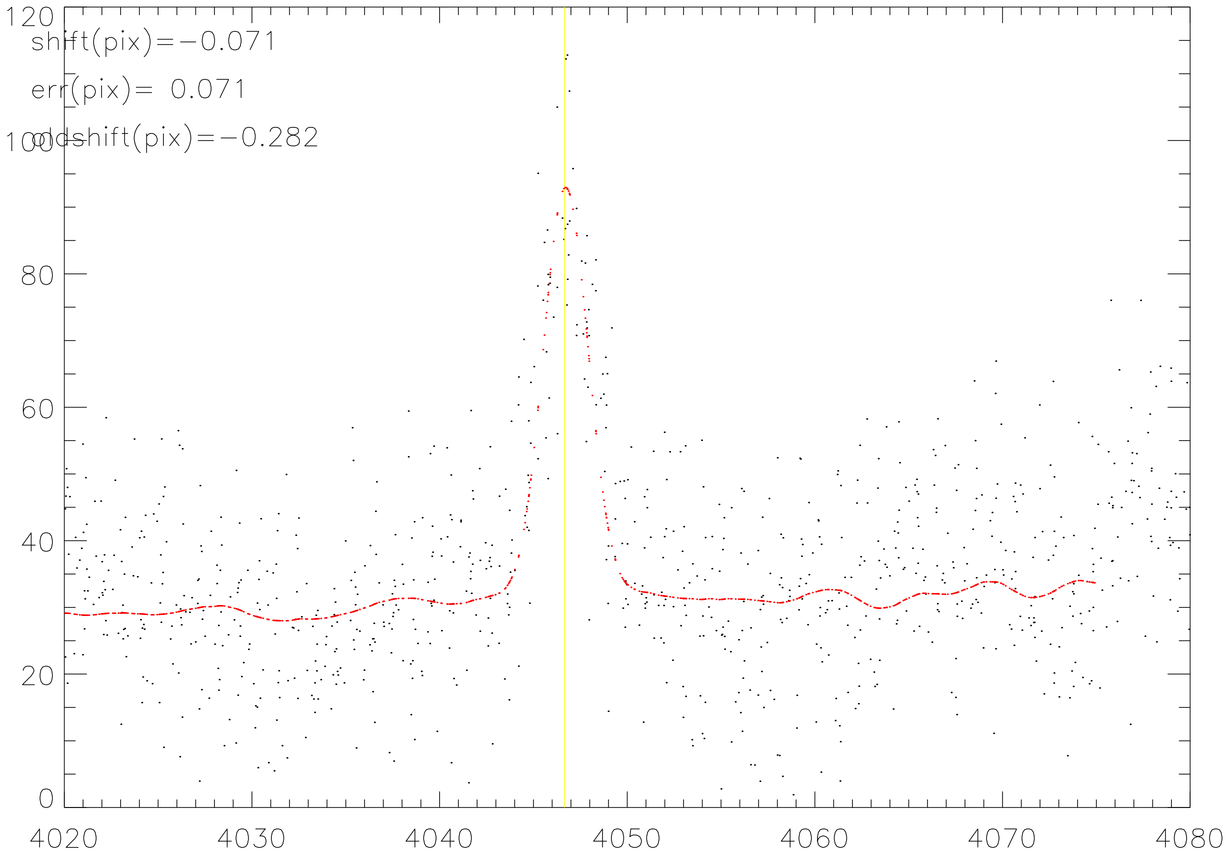
PLATE=0306 MJD=51637 Scattered Light on sdR-b1-00003299.fit

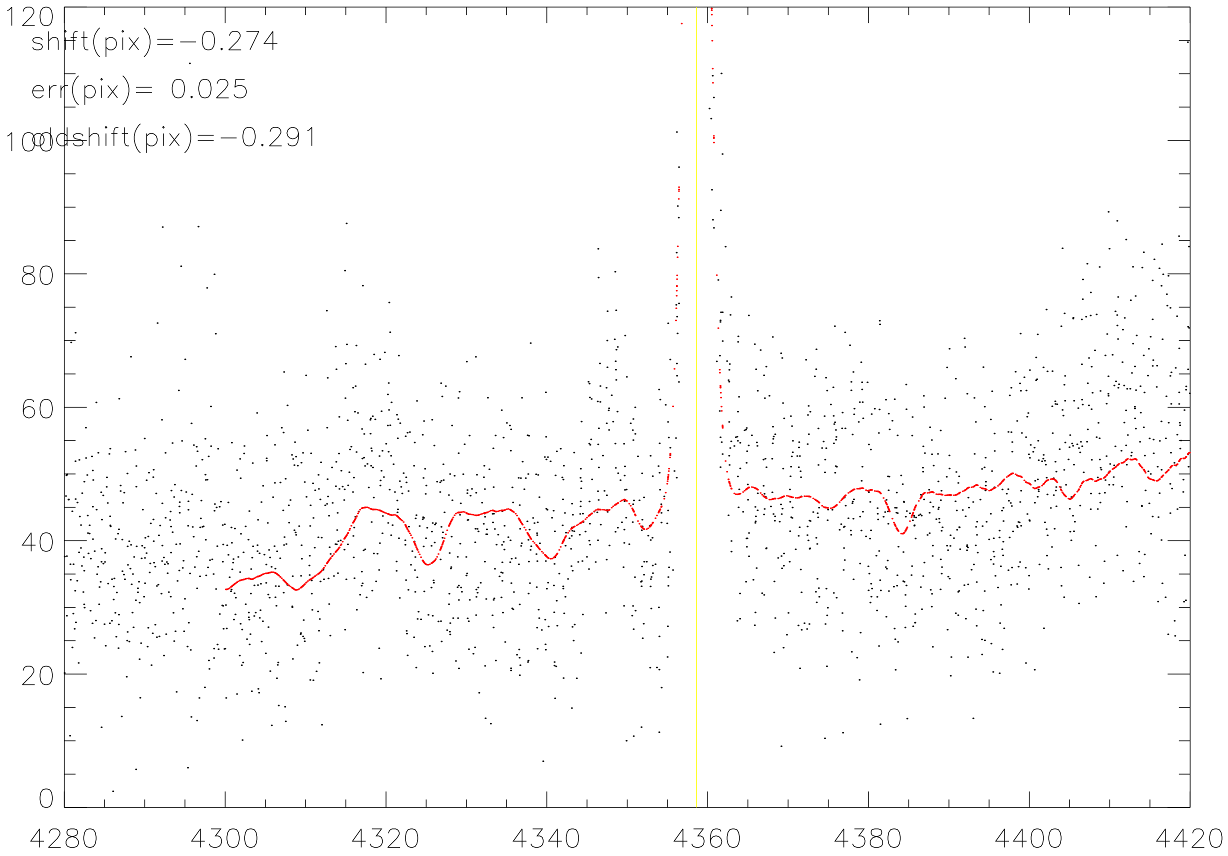


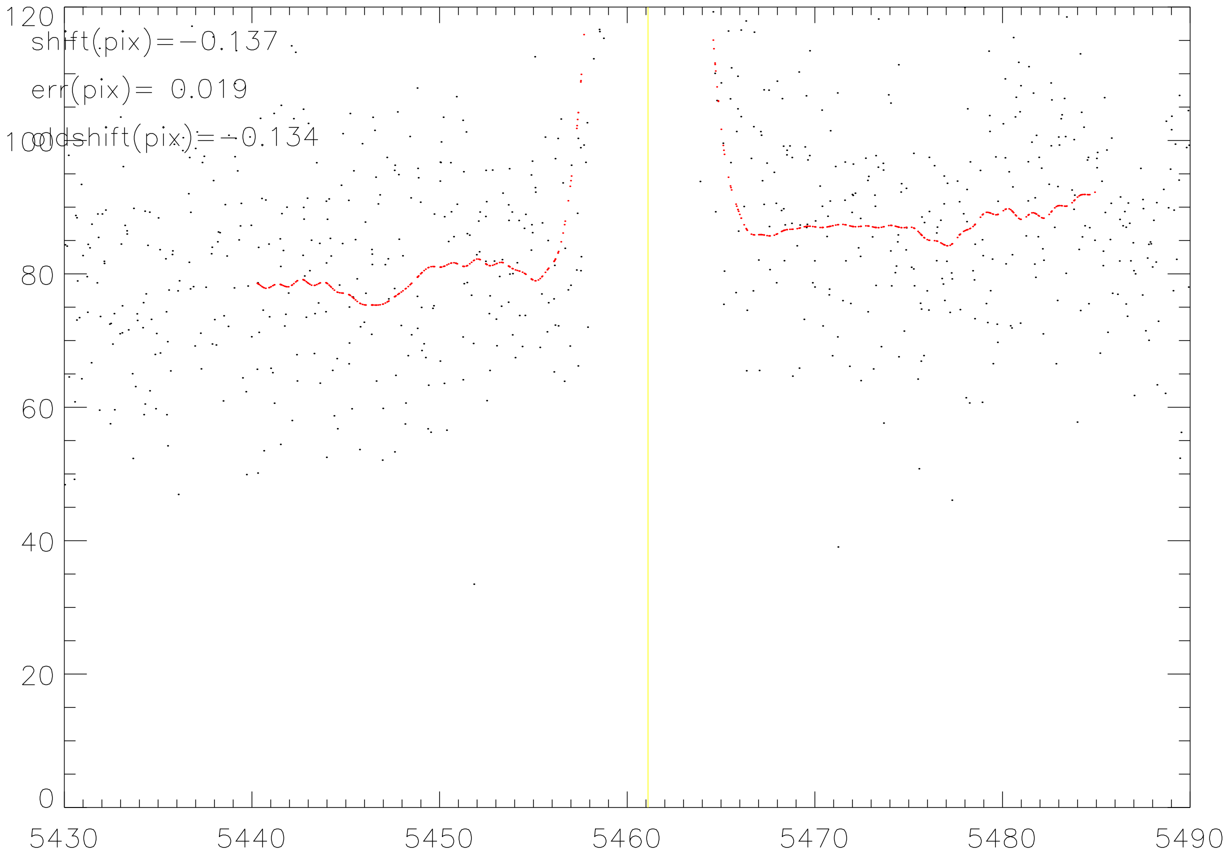
Sun Mar 2 13:36:25 2008


PLATE=0306 MJD=51637 Extraction chi^2 for sdR-b1-00003299.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
0
500
1000
1500
2000
Row number

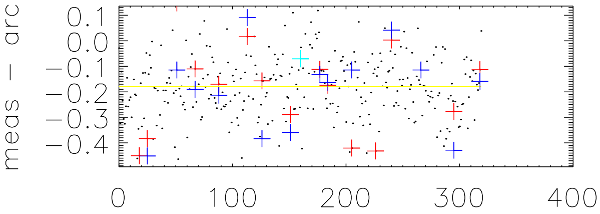

4046.5600
off: −0.28
sig: 0.070
80
60
40
20
0
−20
−4
−2
0
2
4
4358.3300
off: −0.29
sig: 0.022
250
200
150
100
50
0
−50
5460.9400
off: −0.13
sig: 0.017
400
300
200
100
0
5577.3390
off: −0.13
sig: 0.003
10000
8000
6000
4000
2000
0
−2000
5889.9500
off: −0.06
sig: 0.009
800
600
400
200
0
−200
5895.9240
off: −0.04
sig: 0.012
500
400
300
200
100
0
−100


shift(pix)=−0.071
err(pix)= 0.071
oldshift(pix)=−0.282
0
20
40
60
80
100
120
4020
4030
4040
4050
4060
4070
4080

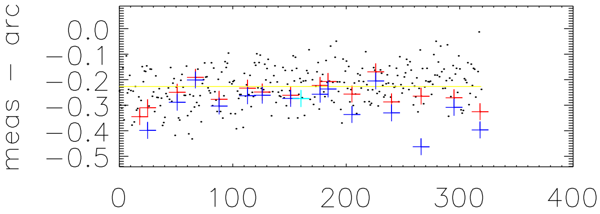

shift(pix)=−0.274
err(pix)= 0.025
oldshift(pix)=−0.291
120
100
80
60
40
20
0
4280
4300
4320
4340
4360
4380
4400
4420


shift(pix)=−0.137
err(pix)= 0.019
oldshift(pix)=−0.134
120
100
80
60
40
20
0
5430
5440
5450
5460
5470
5480
5490

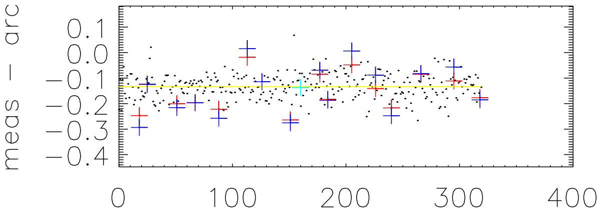
4046.5600



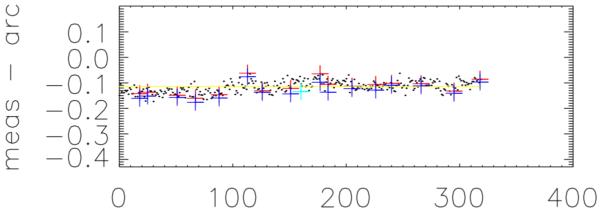
4358.3300



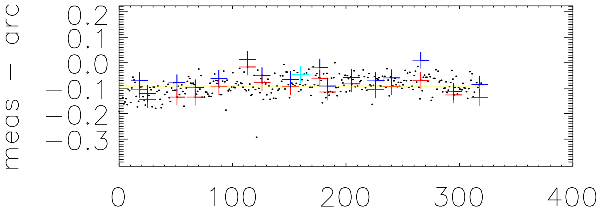
5460.9400



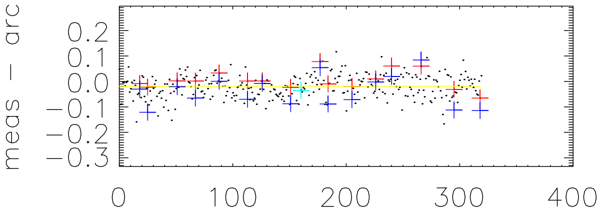
5577.3390

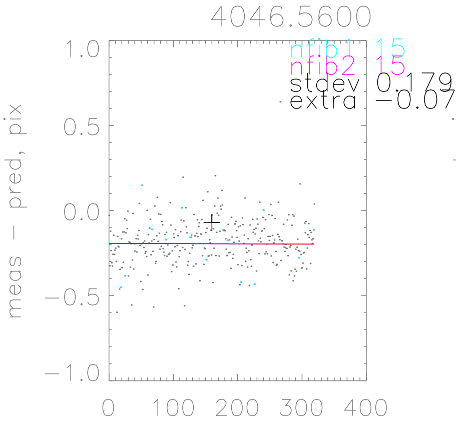


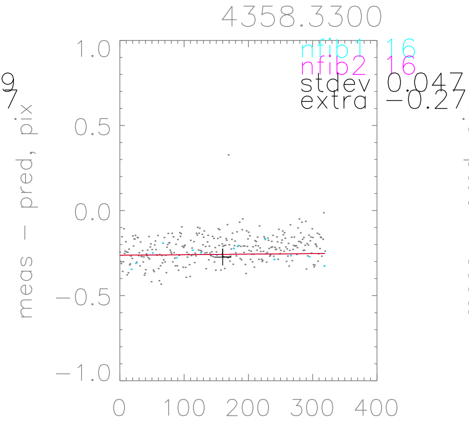
5889.9500

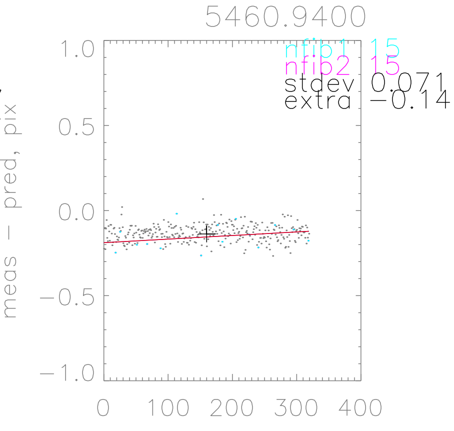


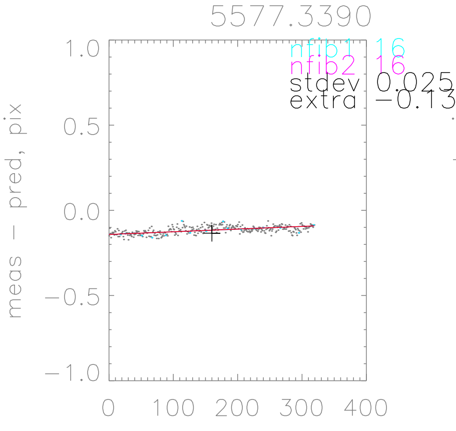
5895.9240

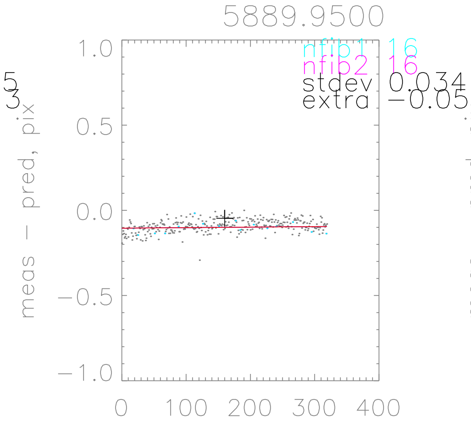


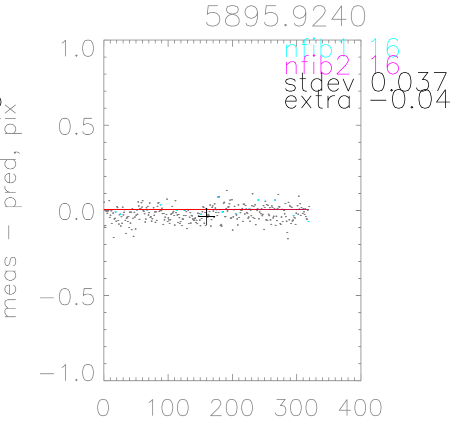

4046.5600
nfib1 15
nfib2 15
stdev 0.179
extra −0.07
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

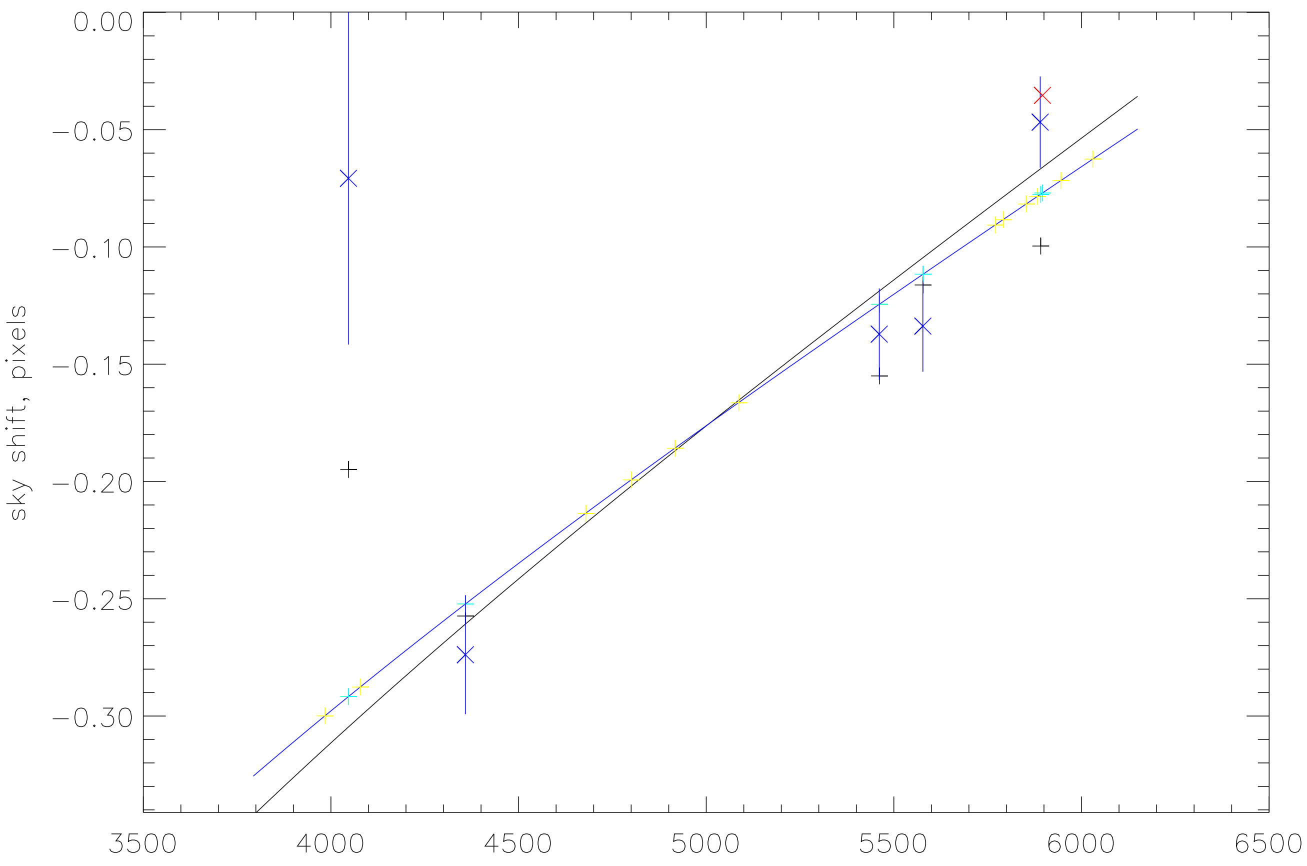

4358.3300
nfib1 16
nfib2 16
stdev 0.047
extra −0.27
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

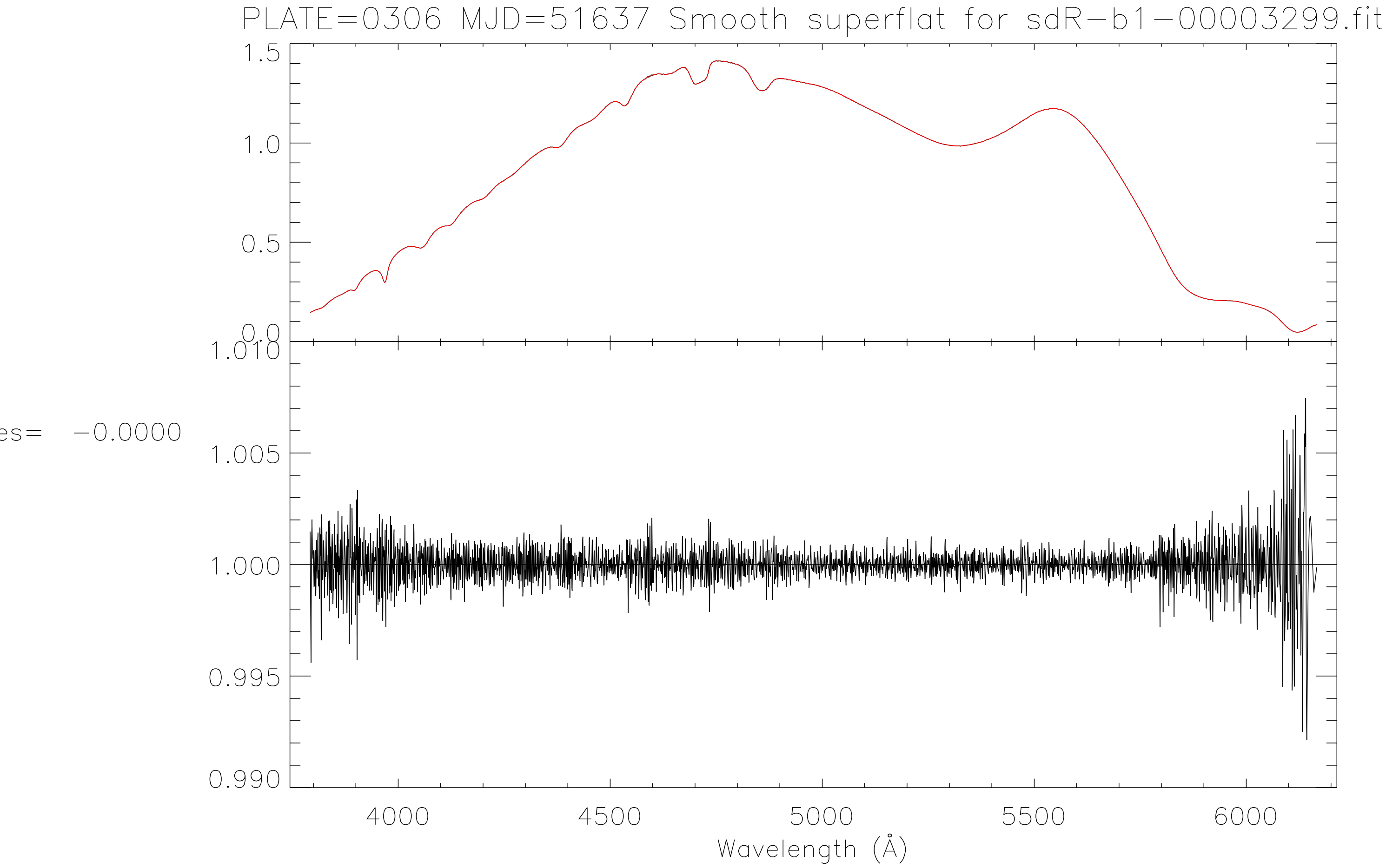

5460.9400
nfib1 15
nfib2 15
stdev 0.071
extra −0.14
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

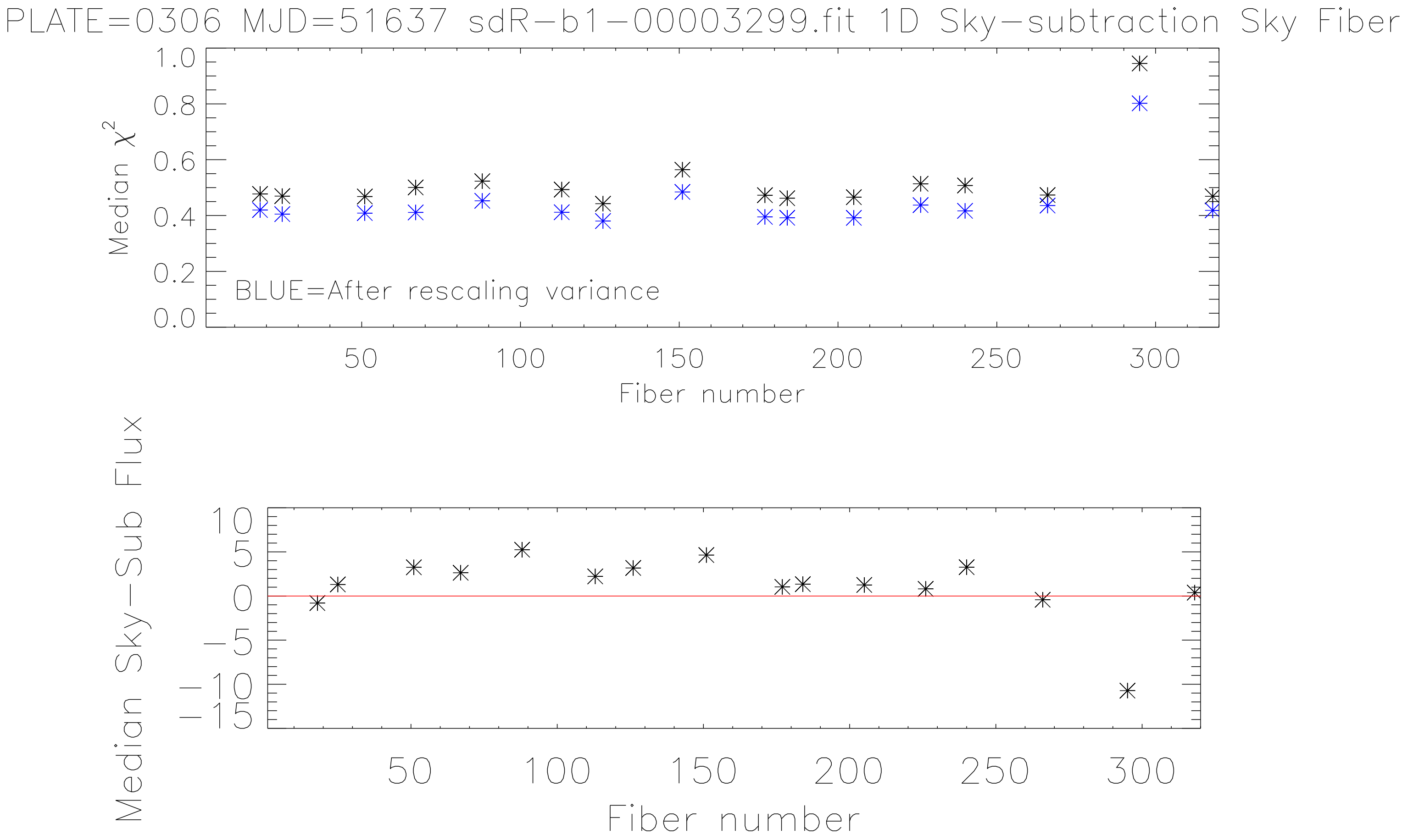

5577.3390
nfib1 16
nfib2 16
stdev 0.025
extra −0.13
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

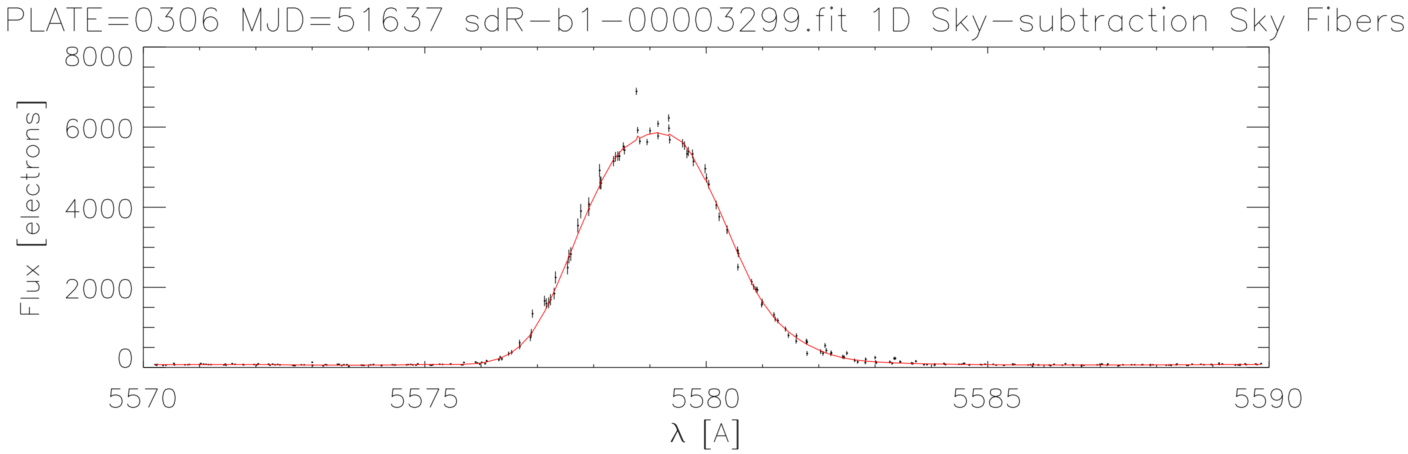

5889.9500
nfib1 16
nfib2 16
stdev 0.034
extra −0.05
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

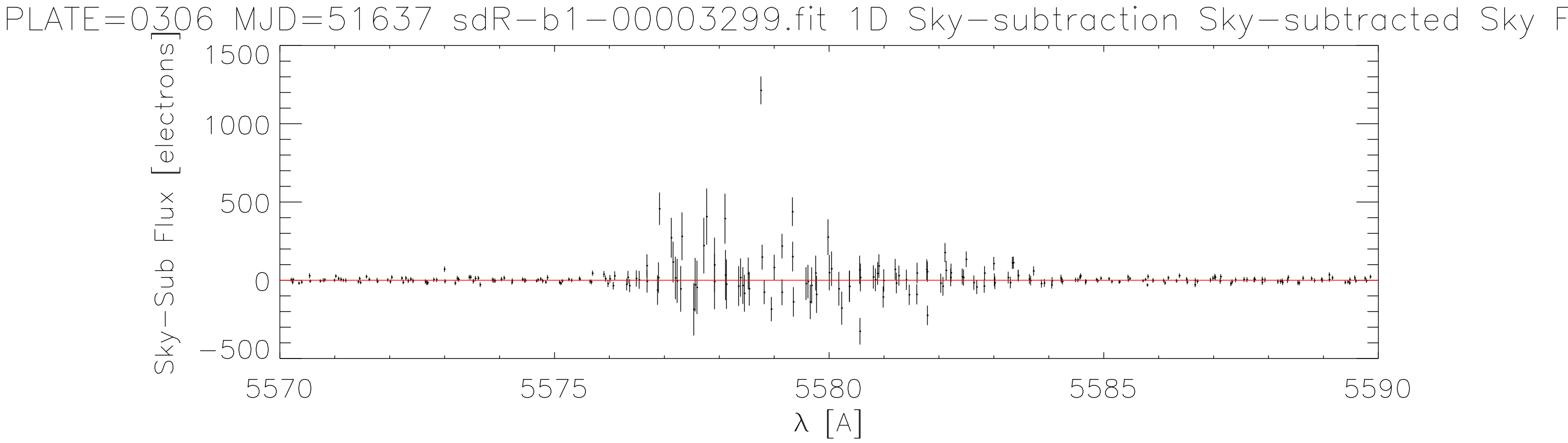

5895.9240
nfib1 16
nfib2 16
stdev 0.037
extra −0.04
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400


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


PLATE=0306 MJD=51637 Smooth superflat for sdR-b1-00003299.fit
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
es= −0.0000
4000
4500
5000
5500
6000
Wavelength (Å)

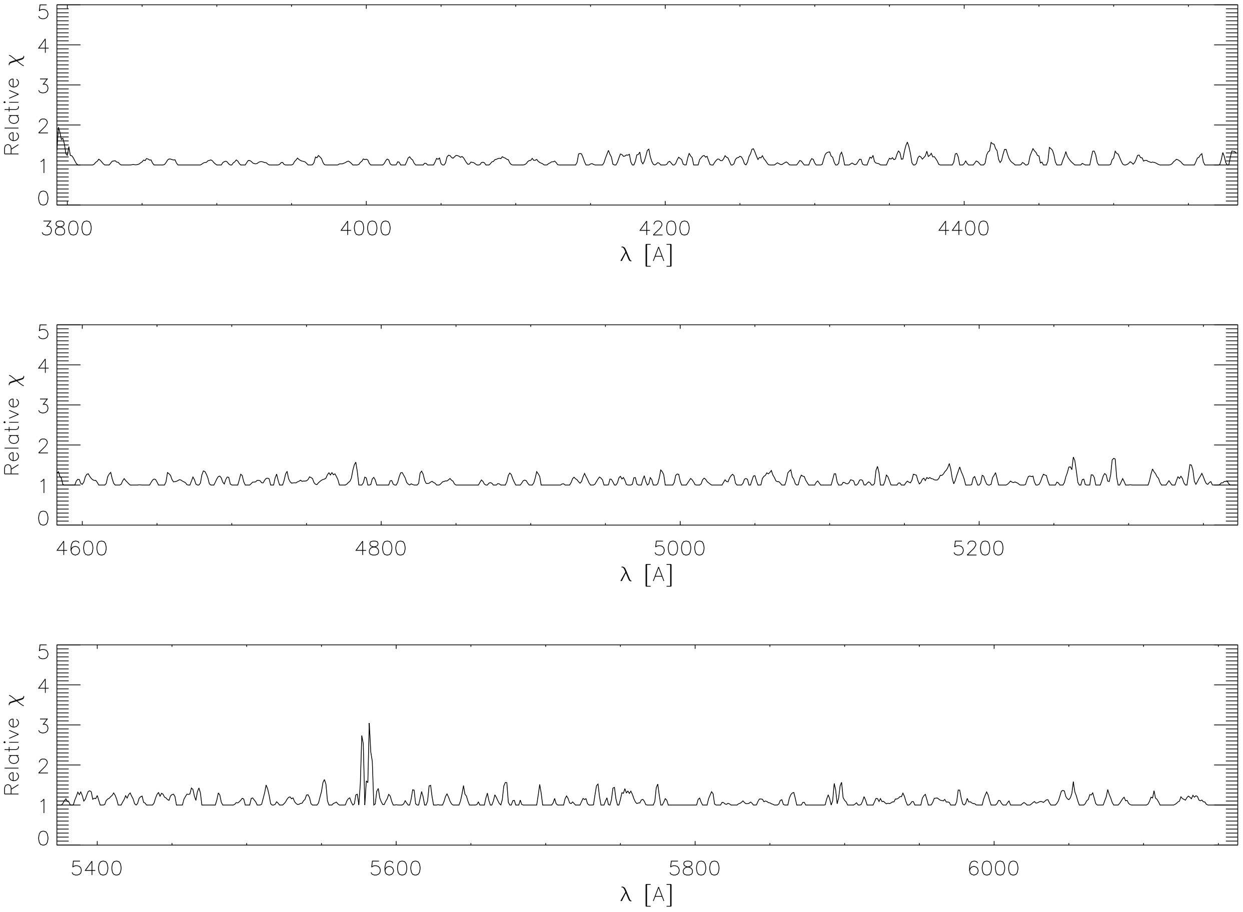

PLATE=0306 MJD=51637 sdR-b1-00003299.fit 1D Sky-subtraction Sky Fiber
Median χ^2
1.0
0.8
0.6
0.4
0.2
0.0
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
-5
-10
-15
50
100
150
200
250
300
Fiber number

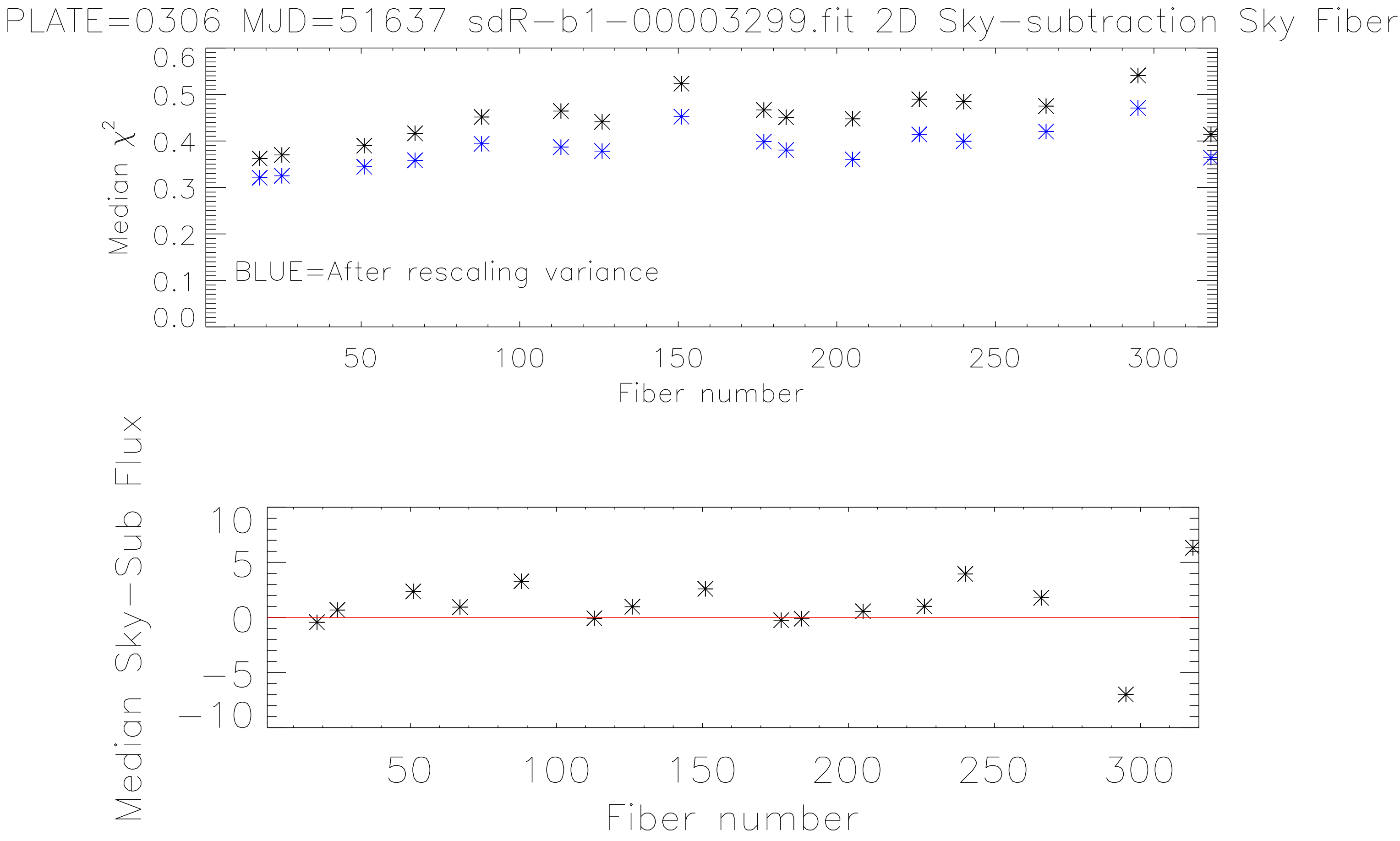

PLATE=0306 MJD=51637 sdR-b1-00003299.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]


PLATE=0306 MJD=51637 sdR-b1-00003299.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
1500
1000
500
0
−500
5570
5575
5580
5585
5590
λ [A]

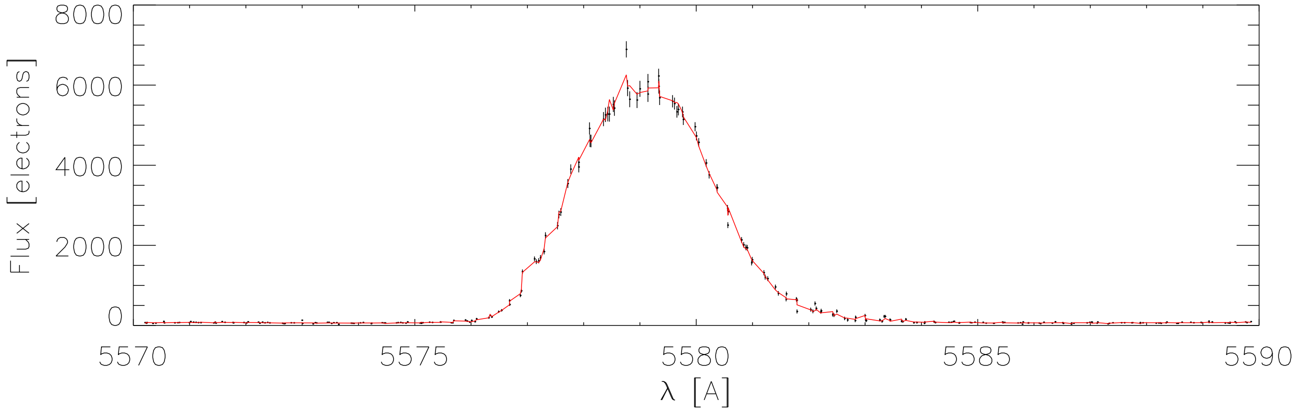
Number of sky fibers = 16

PLATE=0306 MJD=51637 sdR-b1-00003299.fit 1D Sky-subtraction Rescaled Errors

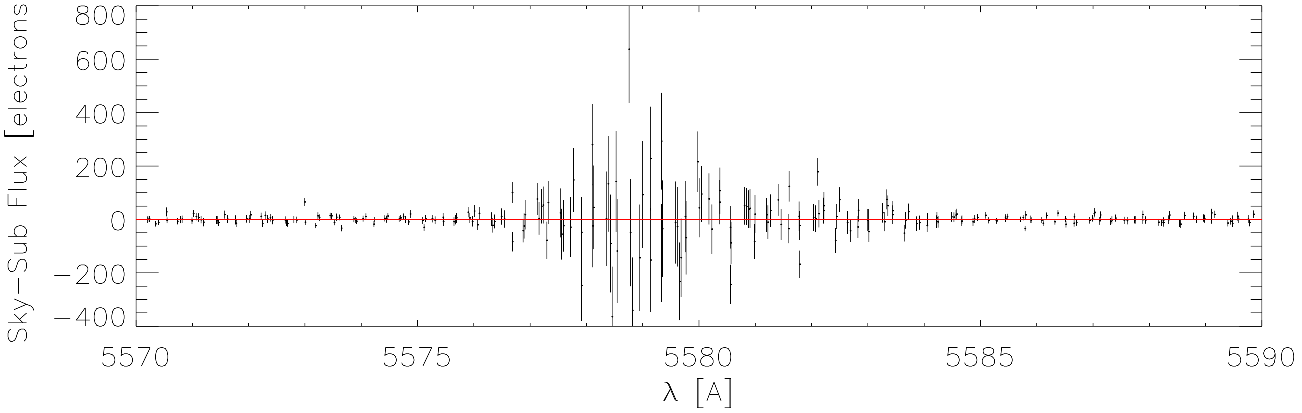


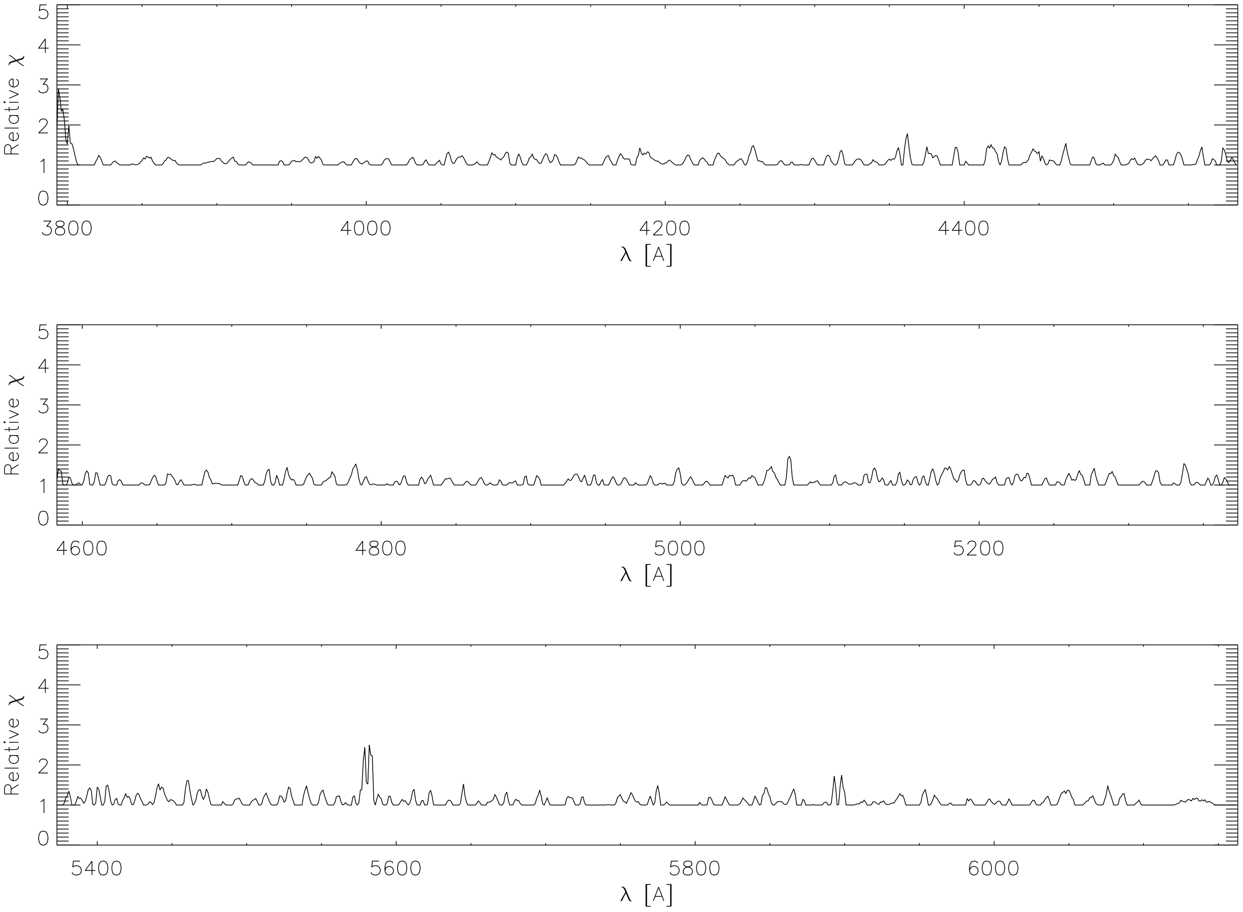

PLATE=0306 MJD=51637 sdR-b1-00003299.fit 2D Sky-subtraction Sky Fiber
Median χ^2
0.6
0.5
0.4
0.3
0.2
0.1
0.0
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
−5
−10
50
100
150
200
250
300
Fiber number

PLATE=0306 MJD=51637 sdR-b1-00003299.fit 2D Sky-subtraction Sky Fibers



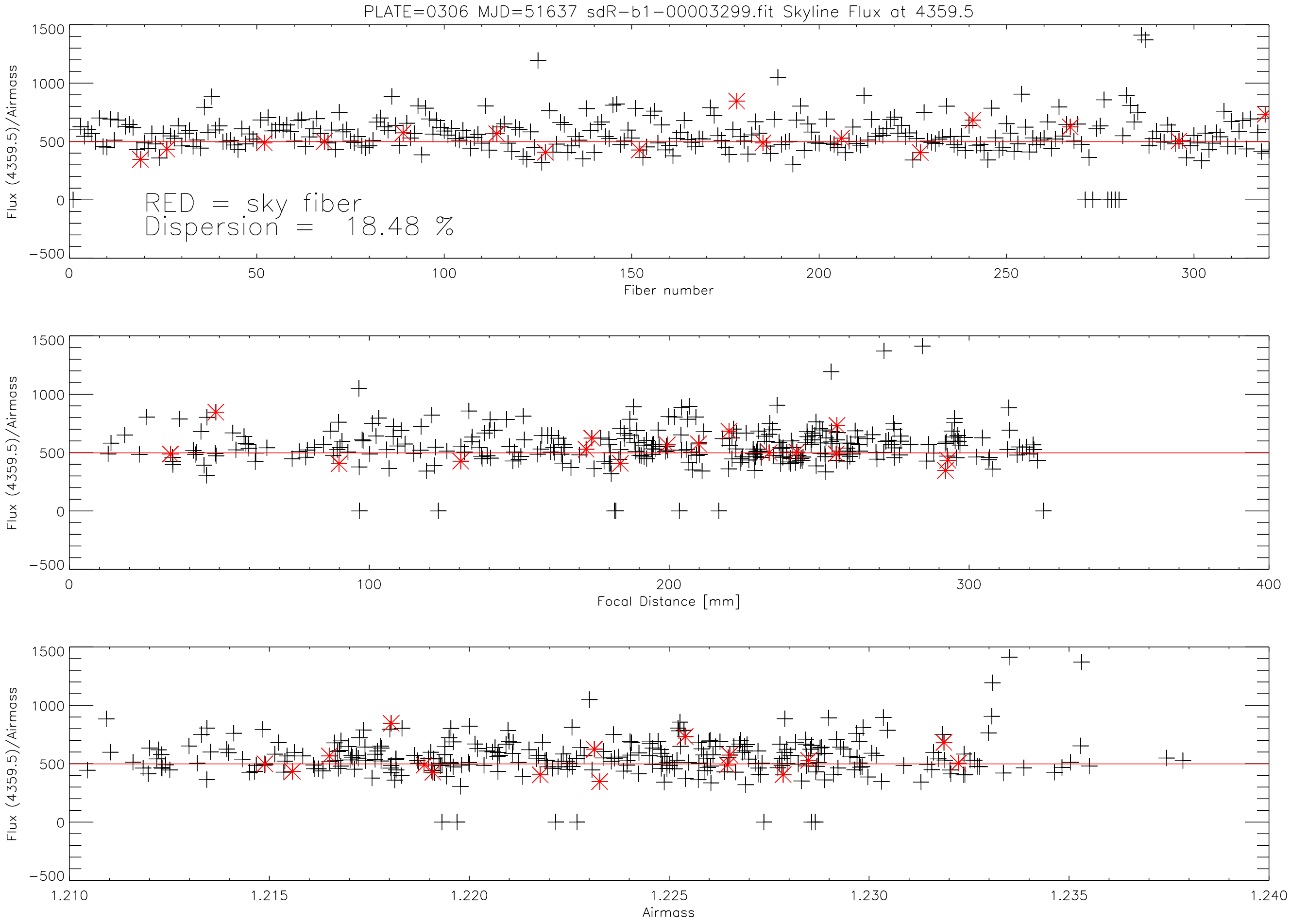
PLATE=0306 MJD=51637 sdR-b1-00003299.fit 2D Sky-subtraction Sky-subtracted Sky F

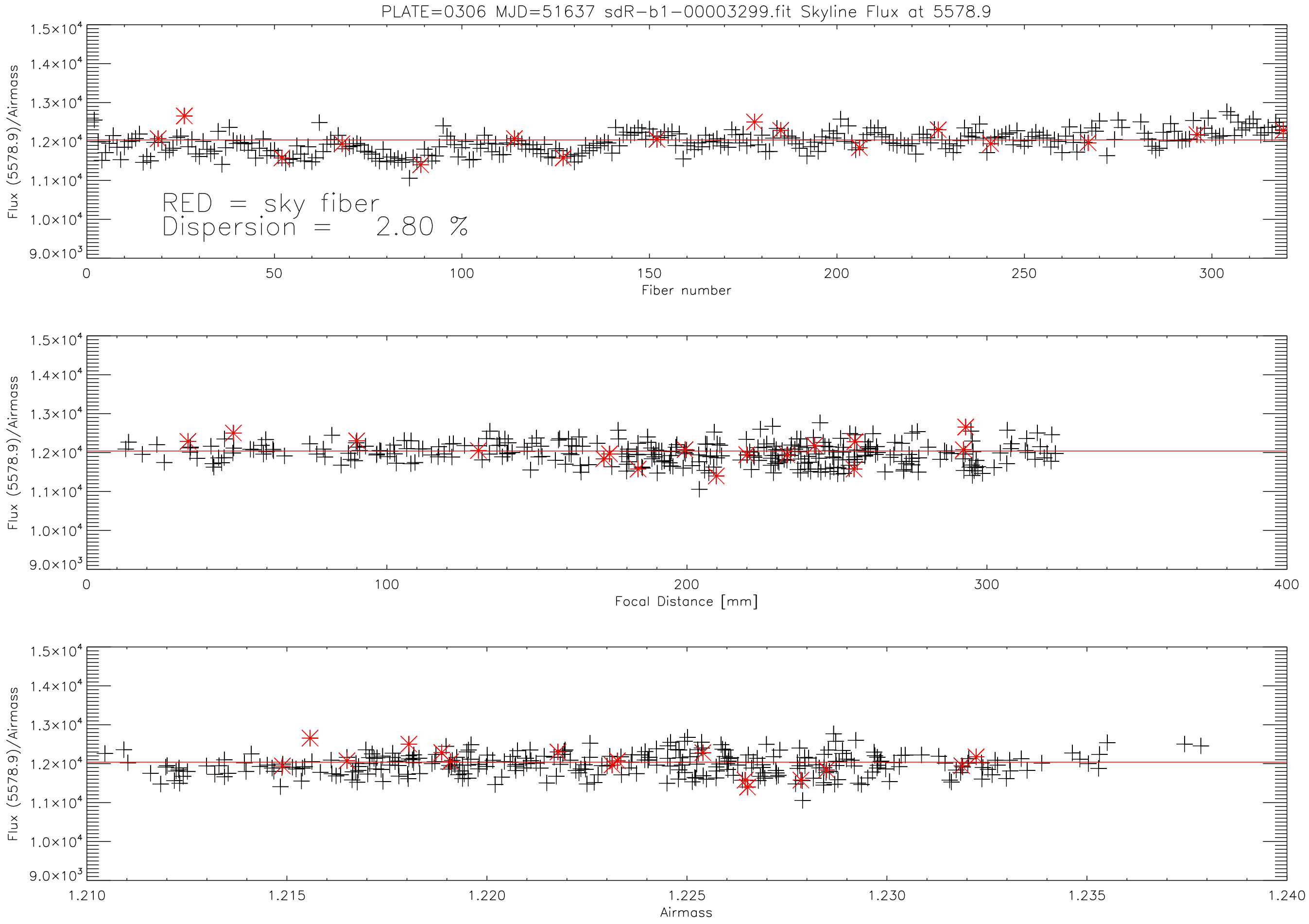


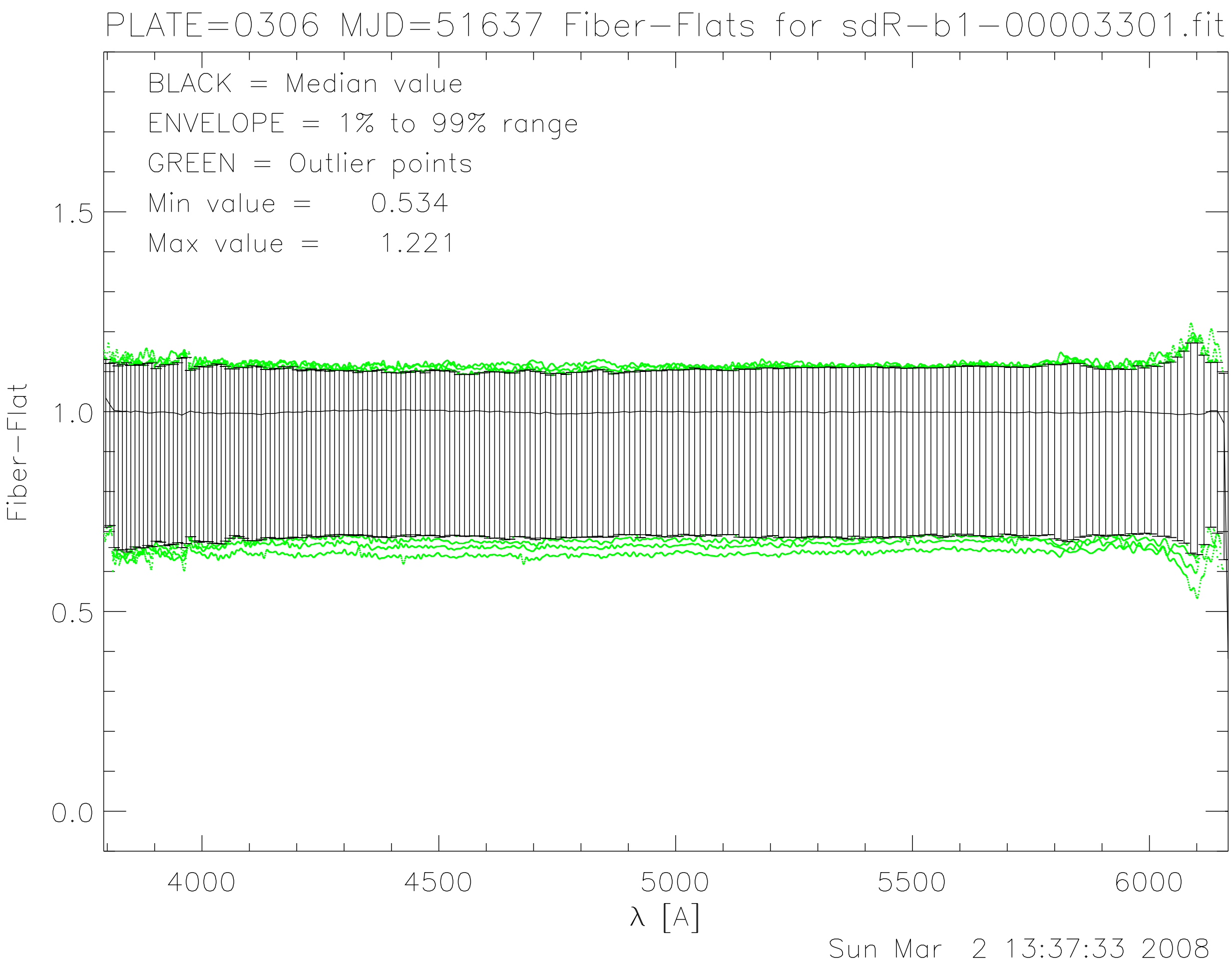


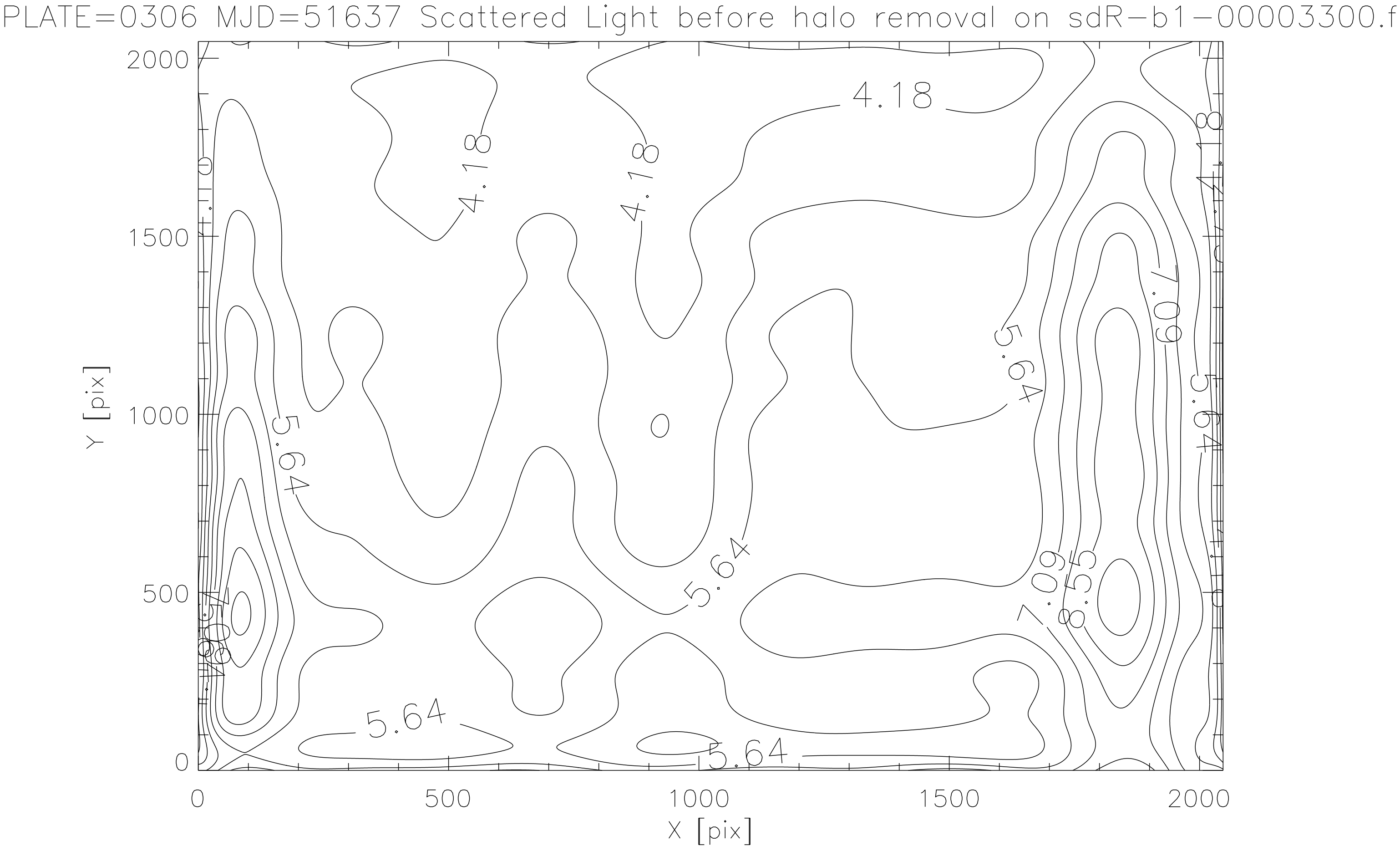
Number of sky fibers = 16

PLATE=0306 MJD=51637 sdR-b1-00003299.fit 2D Sky-subtraction Rescaled Errors

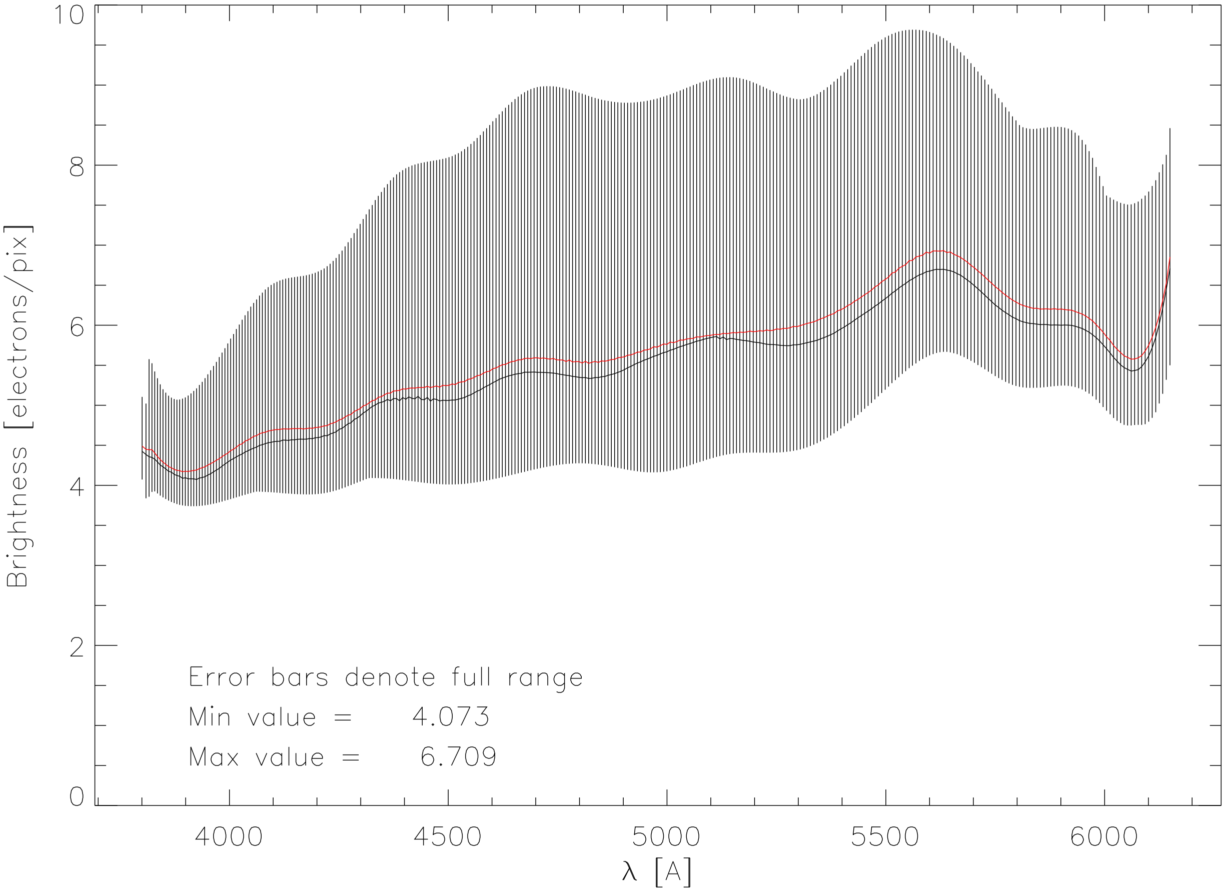

PLATE=0306 MJD=51637 sdR-b1-00003299.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
1500
1000
500
0
-500
RED = sky fiber
Dispersion = 18.48 %
0
50
100
150
200
250
300
Fiber number
Flux (4359.5)/Airmass
1500
1000
500
0
-500
0
100
200
300
400
Focal Distance [mm]
Flux (4359.5)/Airmass
1500
1000
500
0
-500
1.210
1.215
1.220
1.225
1.230
1.235
1.240
Airmass


PLATE=0306 MJD=51637 sdR-b1-00003299.fit Skyline Flux at 5578.9
RED = sky fiber
Dispersion = 2.80 %
Flux (5578.9)/Airmass
1.5×10⁴
1.4×10⁴
1.3×10⁴
1.2×10⁴
1.1×10⁴
1.0×10⁴
9.0×10³
0
50
100
150
200
250
300
Fiber number
0
100
200
300
400
Focal Distance [mm]
1.210
1.215
1.220
1.225
1.230
1.235
1.240
Airmass

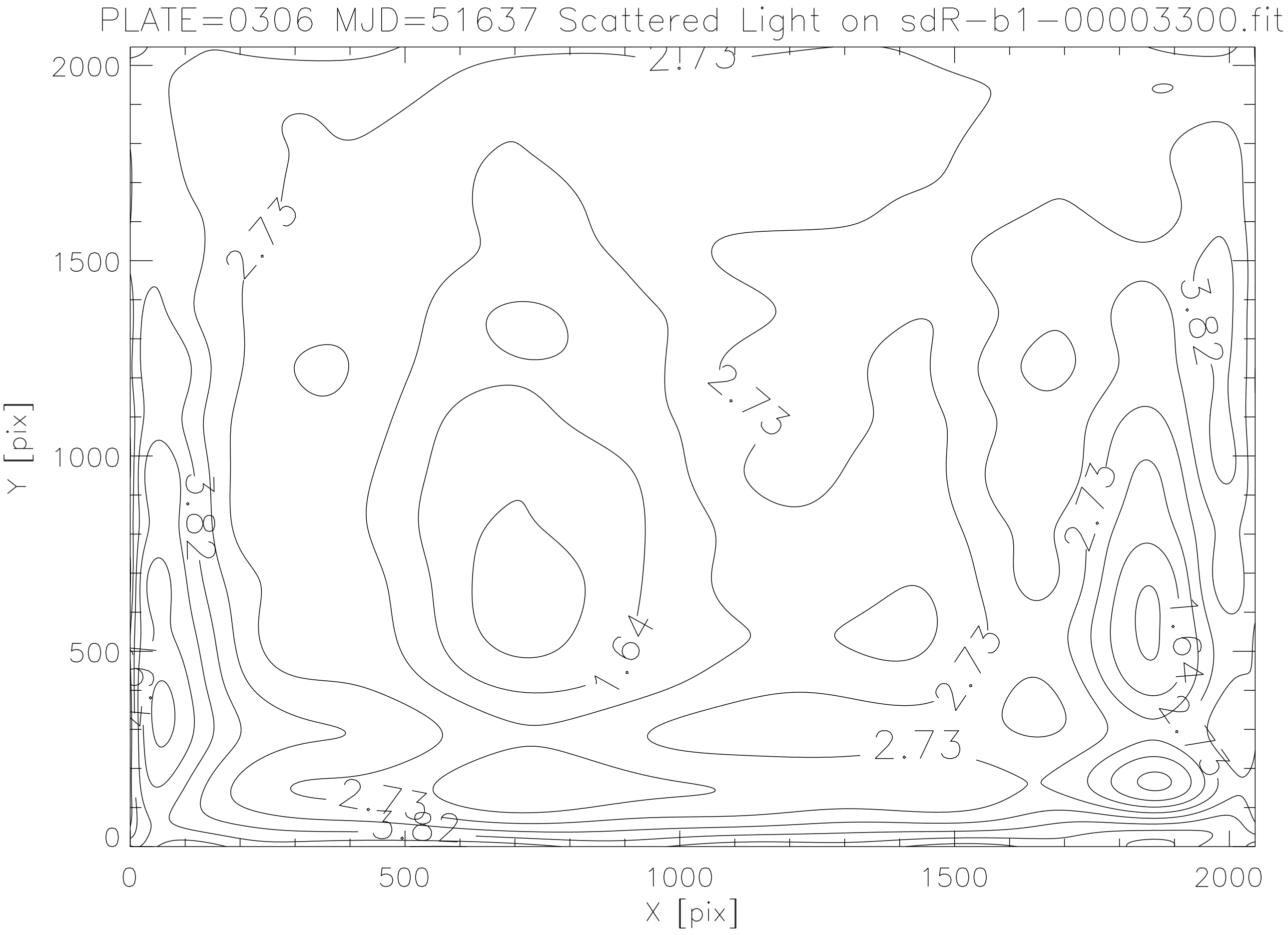

PLATE=0306 MJD=51637 Fiber-Flats for sdR-b1-00003301.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.534
Max value = 1.221
1.5
1.0
0.5
0.0
Fiber-Flat
4000
4500
5000
5500
6000
λ [A]
Sun Mar 2 13:37:33 2008

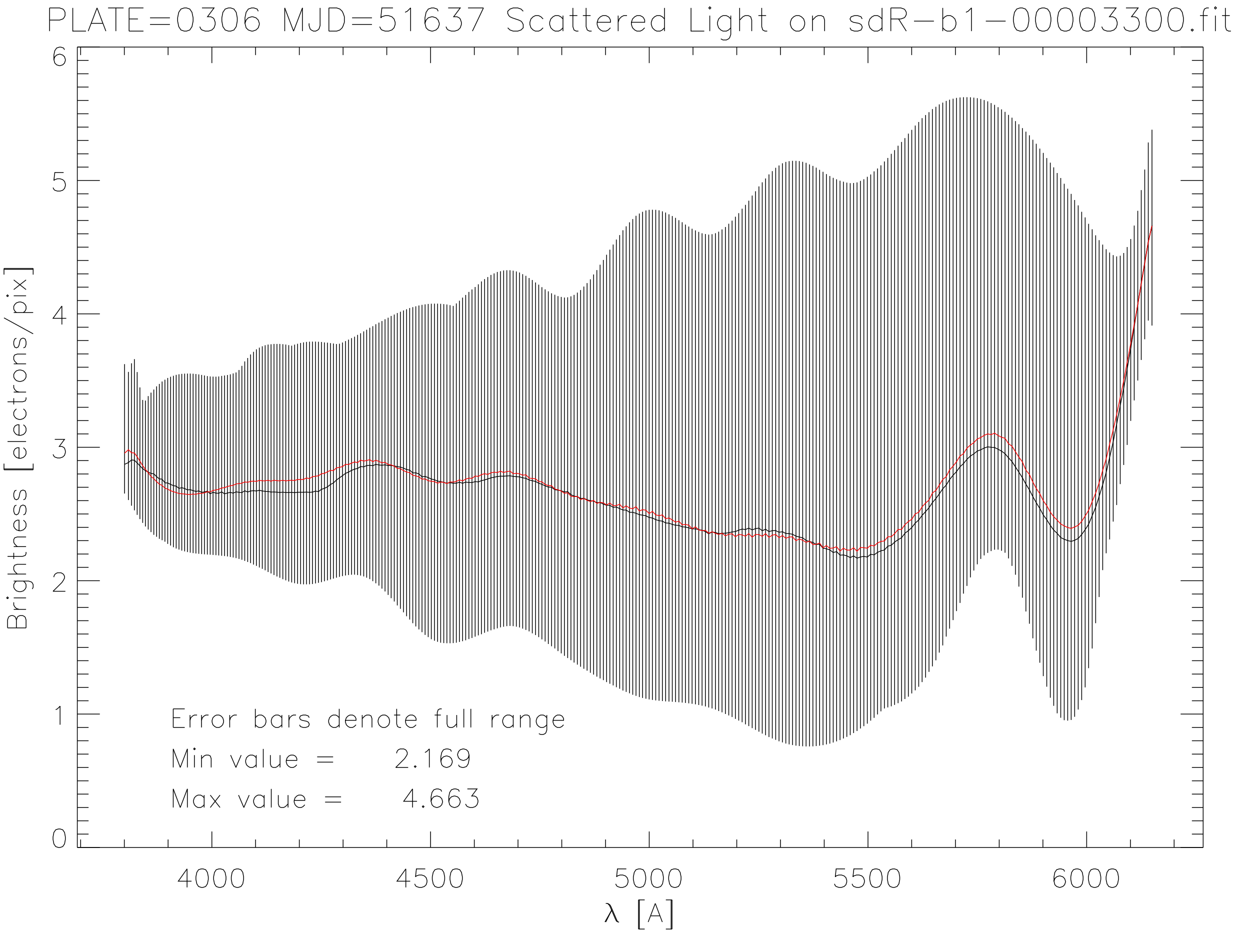

PLATE=0306 MJD=51637 Scattered Light before halo removal on sdR-b1-00003300.f
Y [pix]
X [pix]
0
500
1000
1500
2000
0
500
1000
1500
2000
4.18
4.18
4.18
5.64
5.64
5.64
5.64
5.64
5.64
7.09
7.09
8.55

PLATE=0306 MJD=51637 Scattered Light before halo removal on sdR-b1-00003300.f



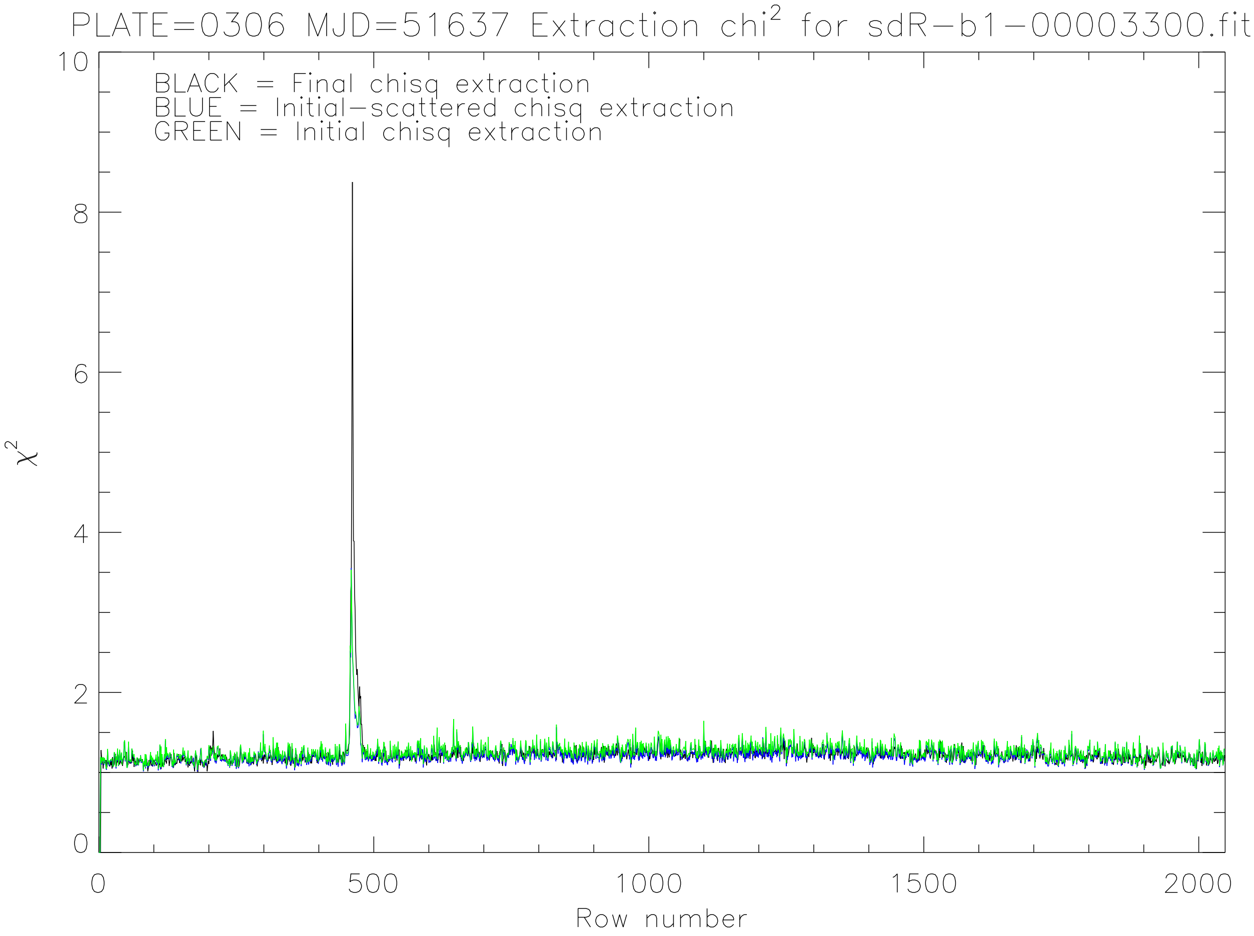
Sun Mar 2 13:38:26 2008

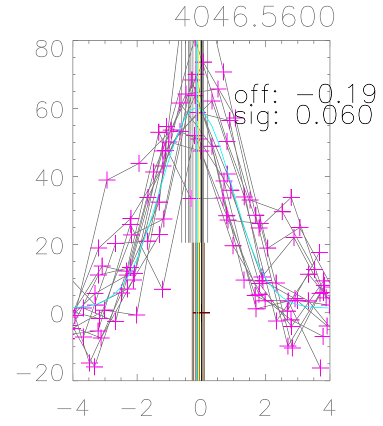

PLATE=0306 MJD=51637 Scattered Light on sdR-b1-00003300.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
2.73
3.82
1.64

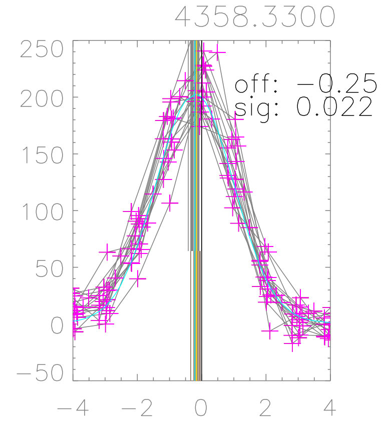


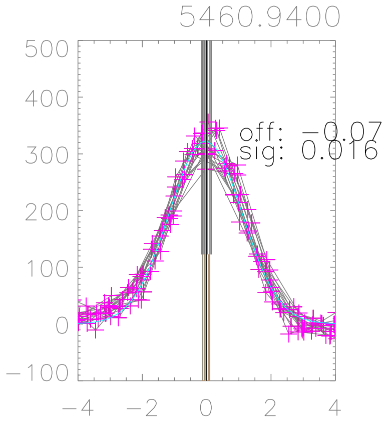
PLATE=0306 MJD=51637 Scattered Light on sdR-b1-00003300.fit

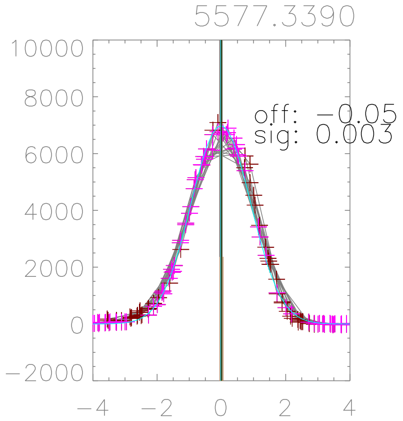
Sun Mar 2 13:41:06 2008

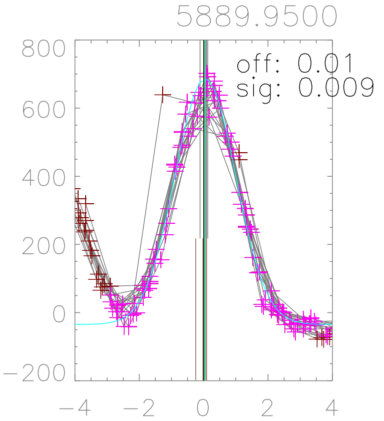

PLATE=0306 MJD=51637 Extraction chi^2 for sdR-b1-00003300.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
10
0
500
1000
1500
2000
Row number

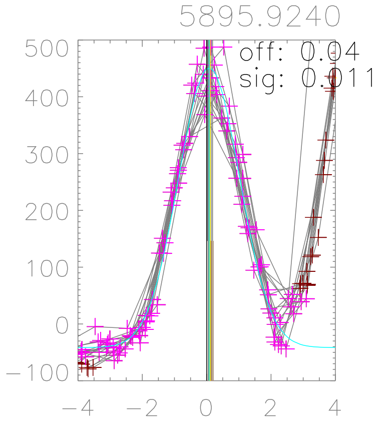

4046.5600
off: −0.19
sig: 0.060
80
60
40
20
0
−20
−4
−2
0
2
4

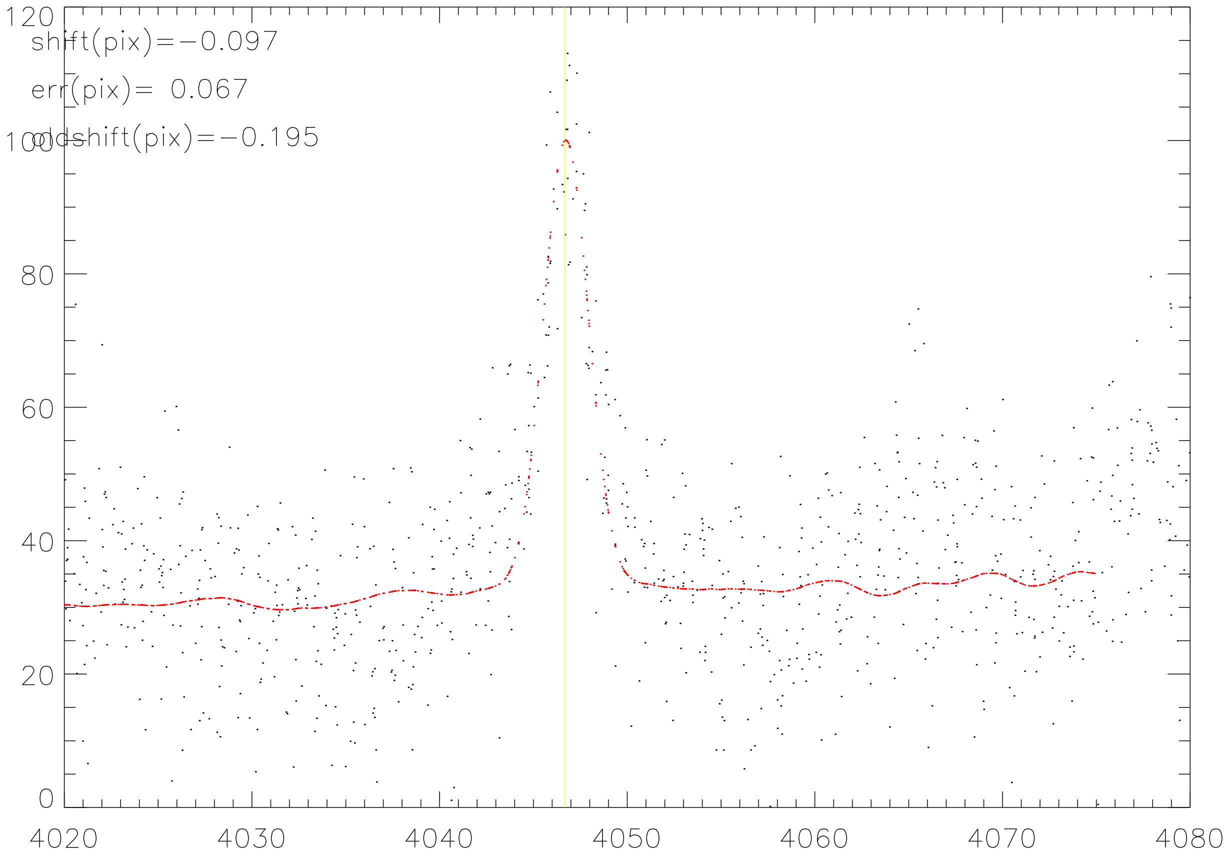

4358.3300
off: −0.25
sig: 0.022
250
200
150
100
50
0
−50
−4
−2
0
2
4

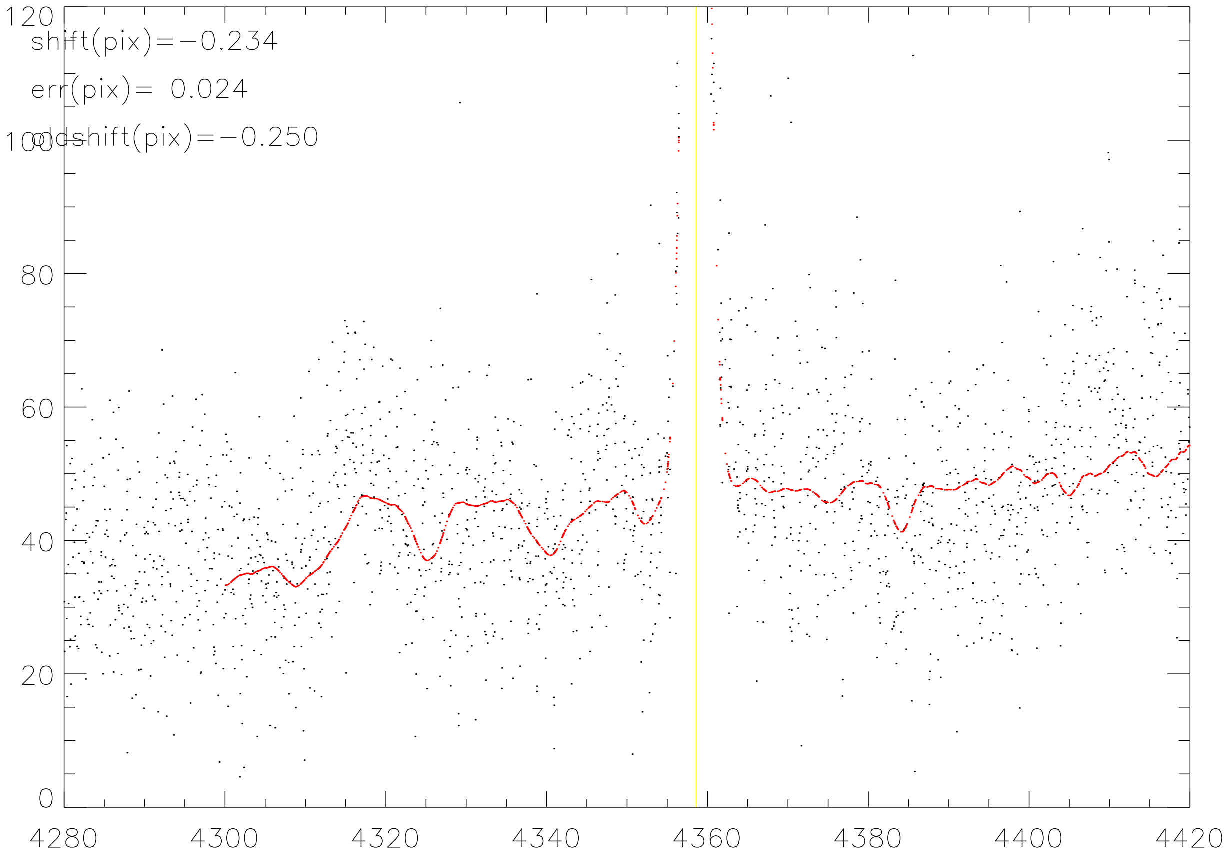

5460.9400
off: −0.07
sig: 0.016
500
400
300
200
100
0
−100
−4
−2
0
2
4

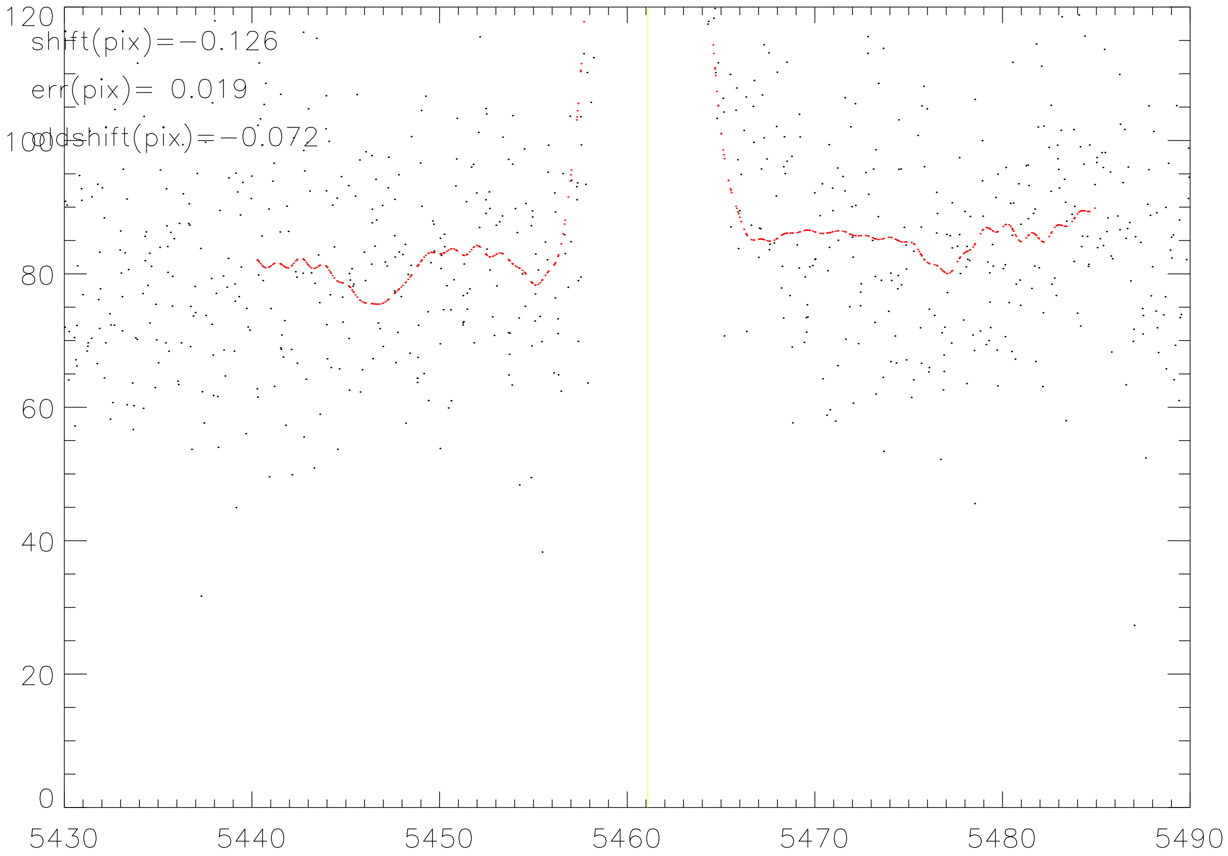

5577.3390
off: −0.05
sig: 0.003
10000
8000
6000
4000
2000
0
−2000
−4
−2
0
2
4

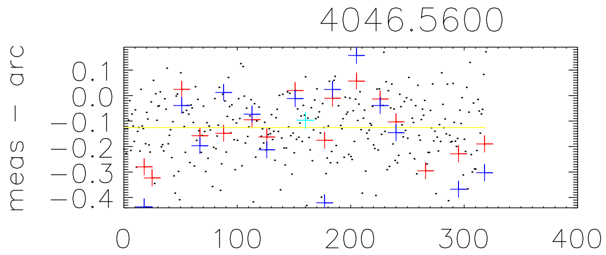

5889.9500
off: 0.01
sig: 0.009
800
600
400
200
0
−200
−4
−2
0
2
4

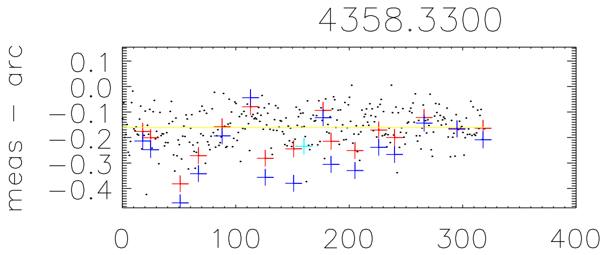

5895.9240
off: 0.04
sig: 0.011
500
400
300
200
100
0
−100
−4
−2
0
2
4

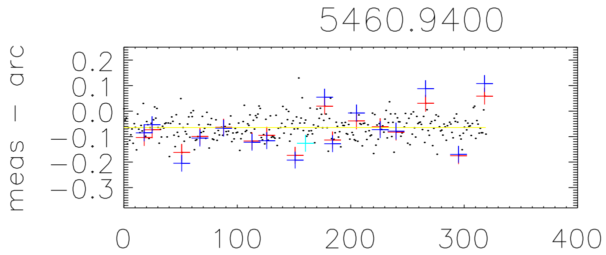

shift(pix)=−0.097
err(pix)= 0.067
oldshift(pix)=−0.195
0
20
40
60
80
100
120
4020
4030
4040
4050
4060
4070
4080

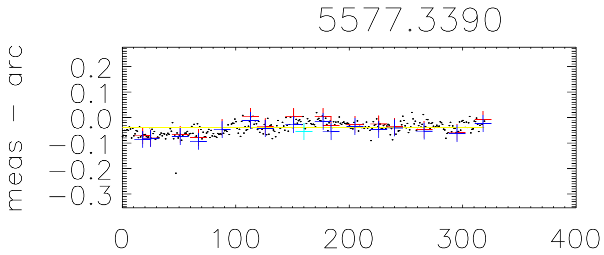

shift(pix)=−0.234
err(pix)= 0.024
oldshift(pix)=−0.250
120
100
80
60
40
20
0
4280
4300
4320
4340
4360
4380
4400
4420

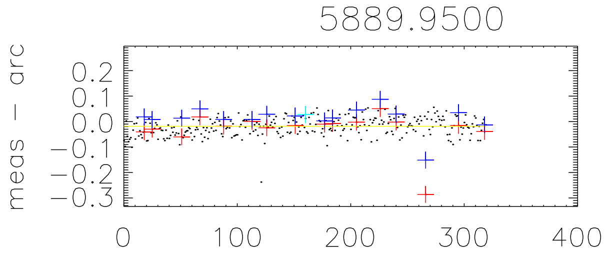

shift(pix)=−0.126
err(pix)= 0.019
oldshift(pix)=−0.072
120
100
80
60
40
20
0
5430
5440
5450
5460
5470
5480
5490

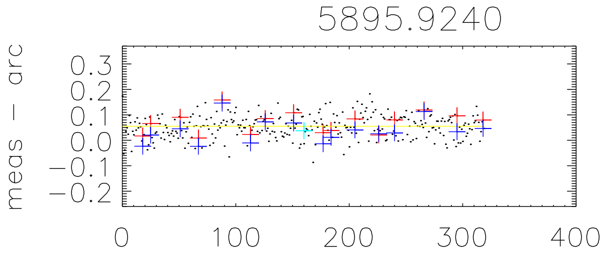

4046.5600
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

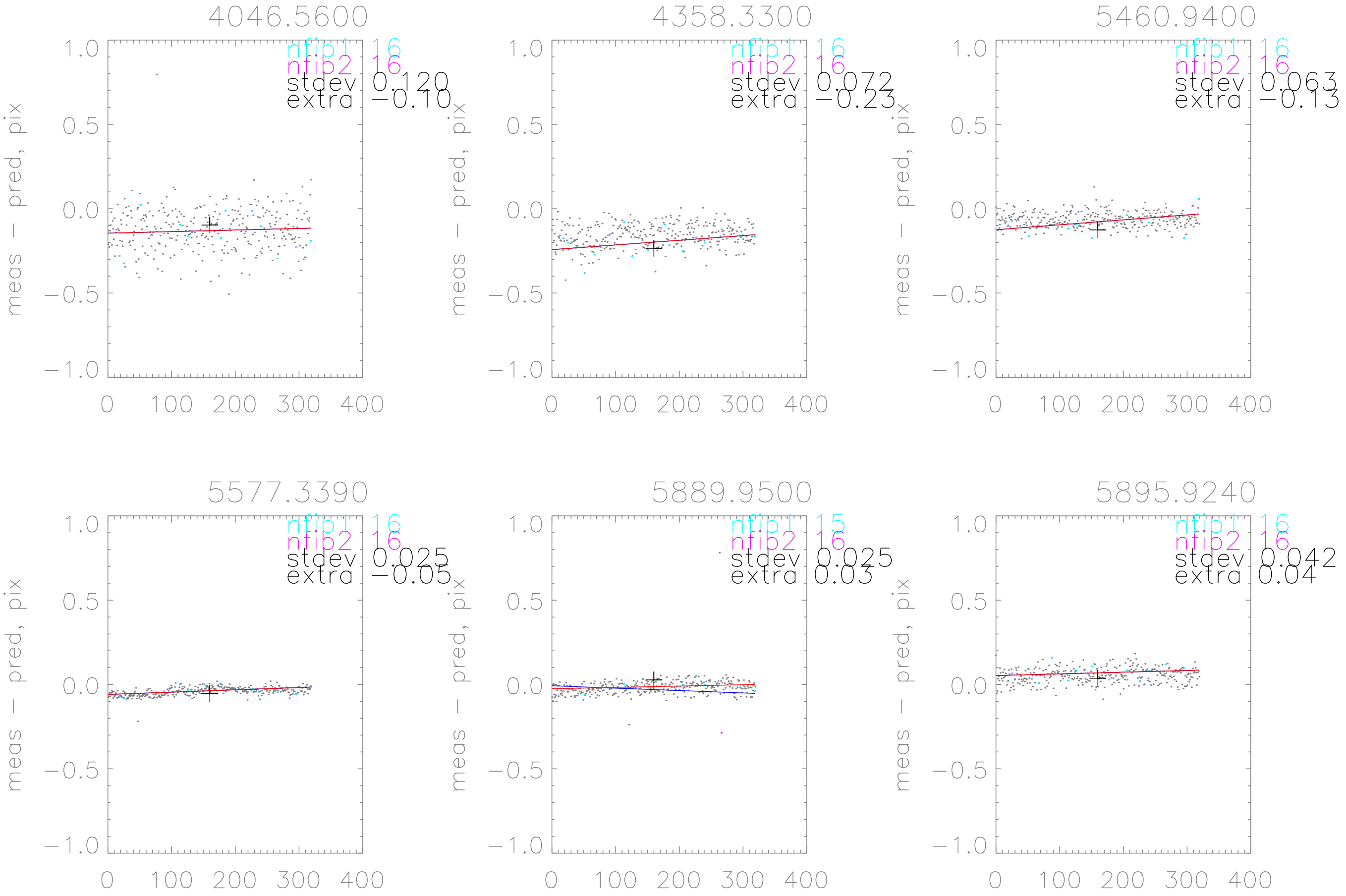

4358.3300
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

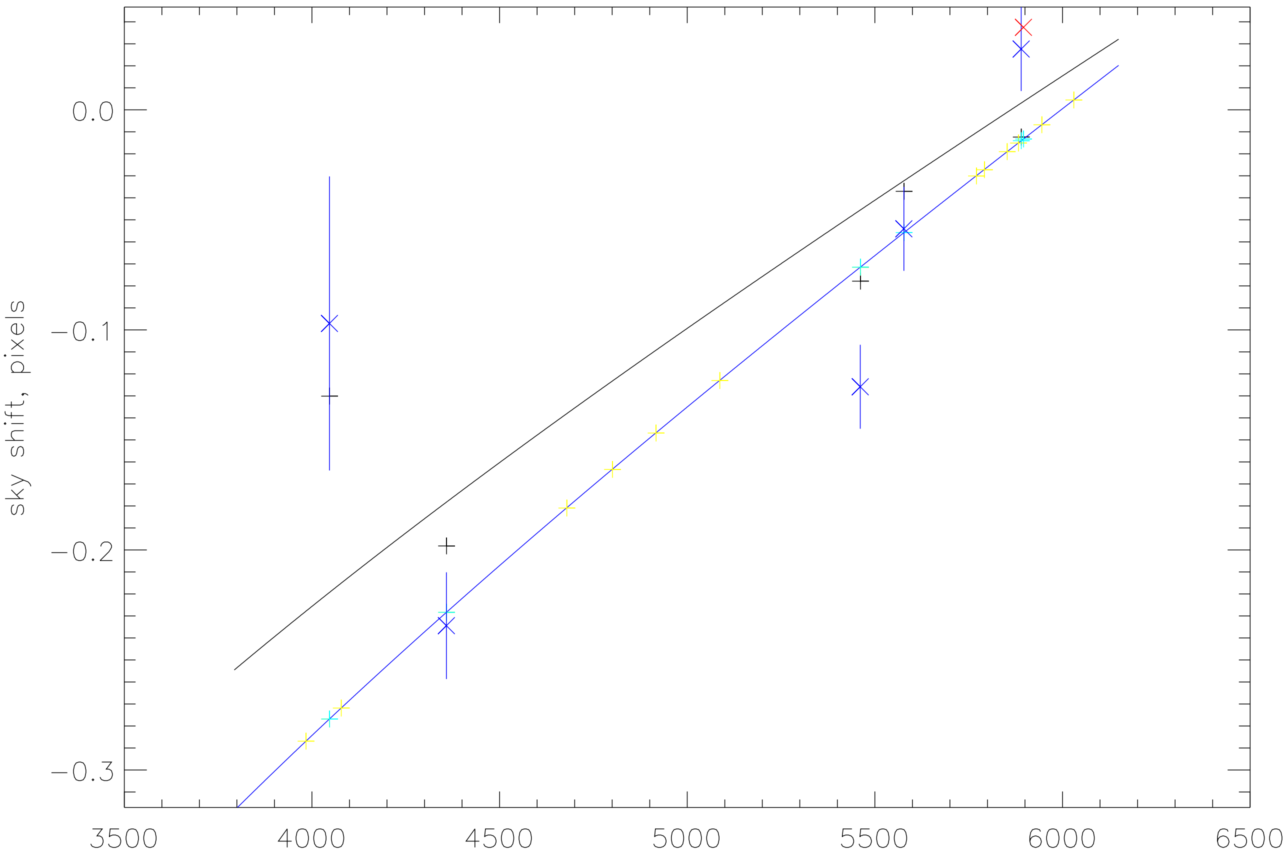

5460.9400
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

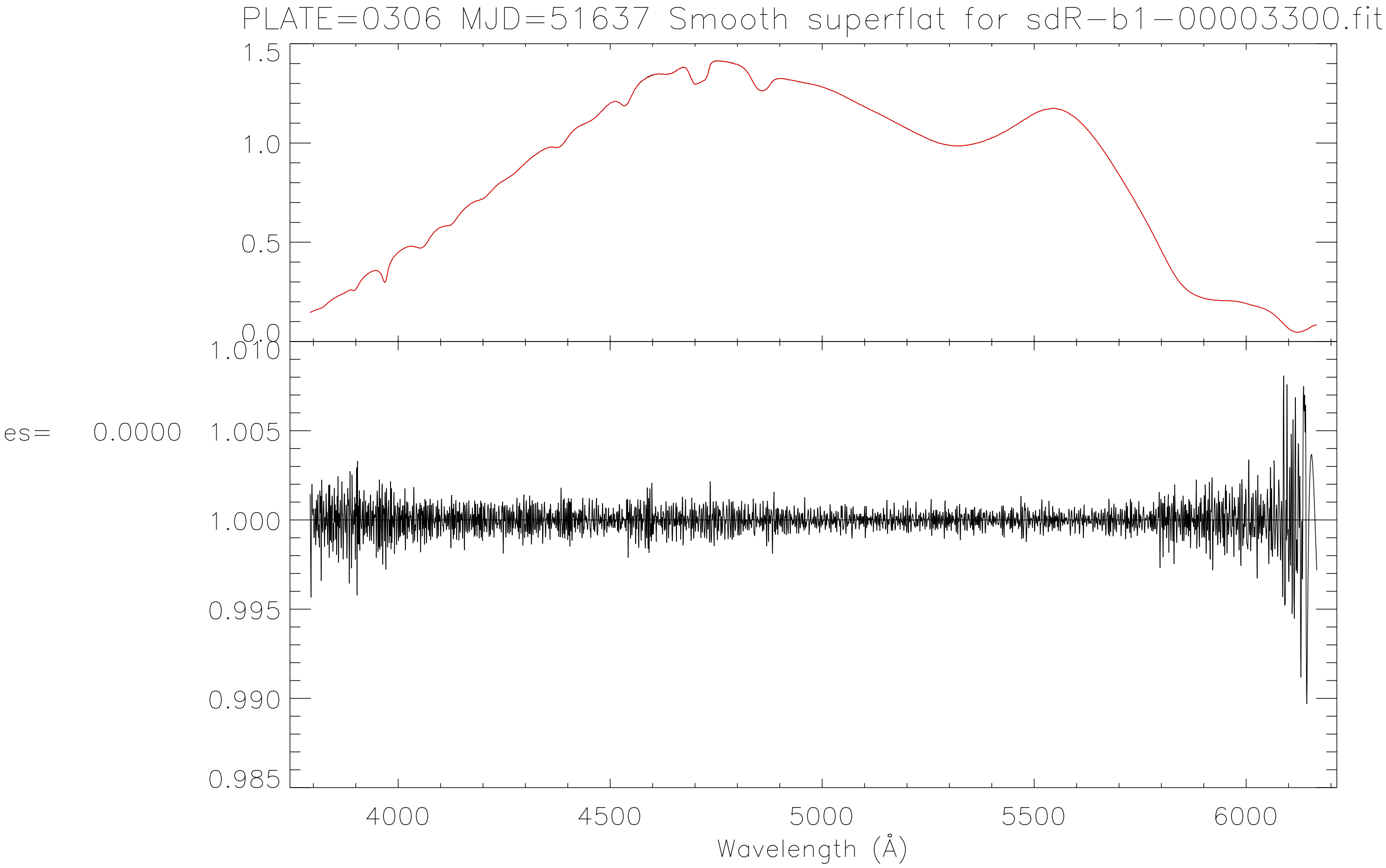

5577.3390
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400


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

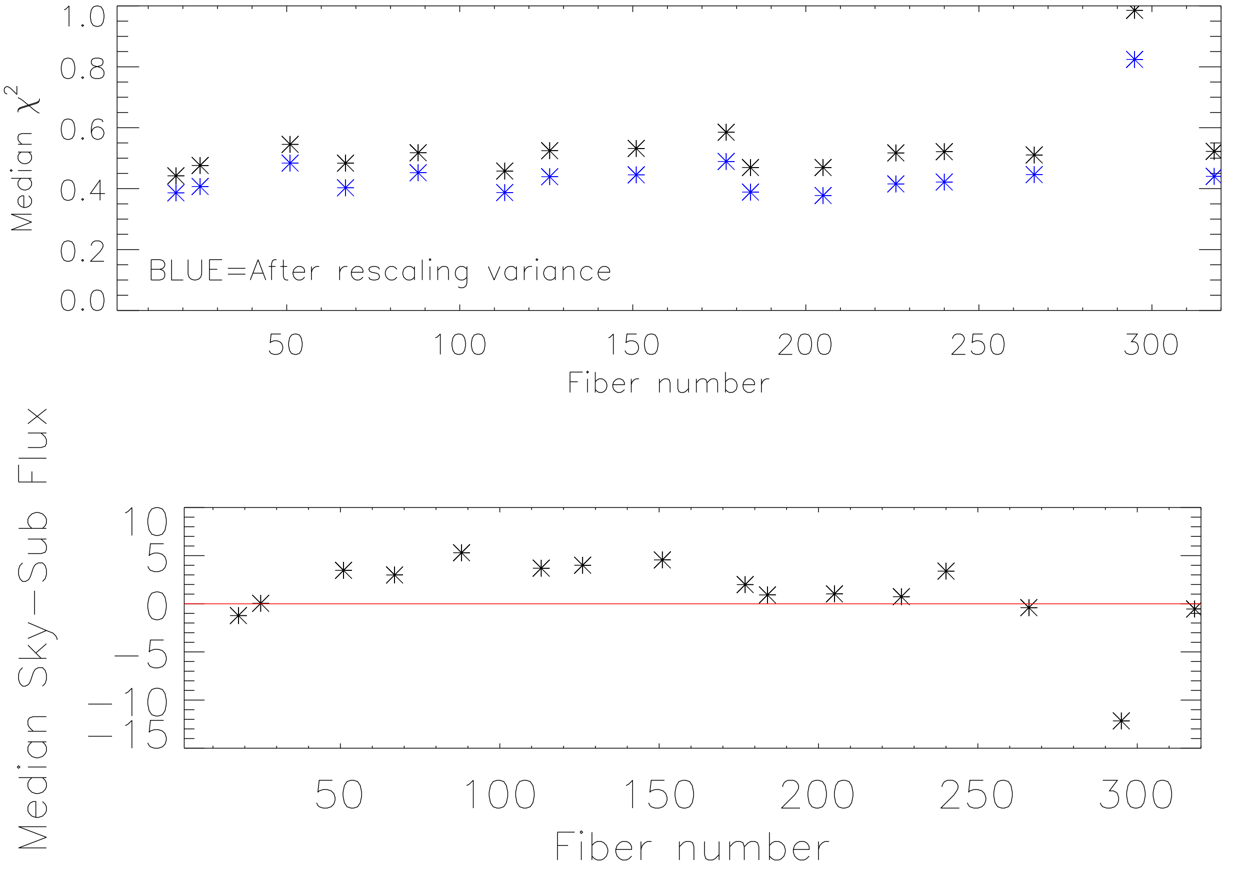

5895.9240
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

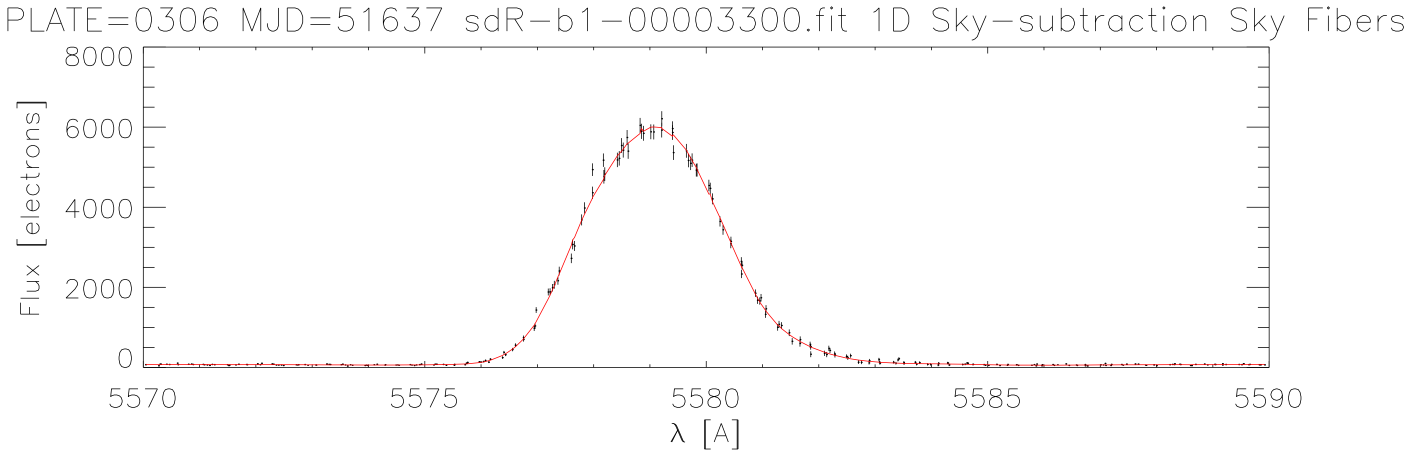

4046.5600
nfib1 16
nfib2 16
stdev 0.120
extra −0.10
4358.3300
nfib1 16
nfib2 16
stdev 0.072
extra −0.23
5460.9400
nfib1 16
nfib2 16
stdev 0.063
extra −0.13
5577.3390
nfib1 16
nfib2 16
stdev 0.025
extra −0.05
5889.9500
nfib1 15
nfib2 16
stdev 0.025
extra 0.03
5895.9240
nfib1 16
nfib2 16
stdev 0.042
extra 0.04
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

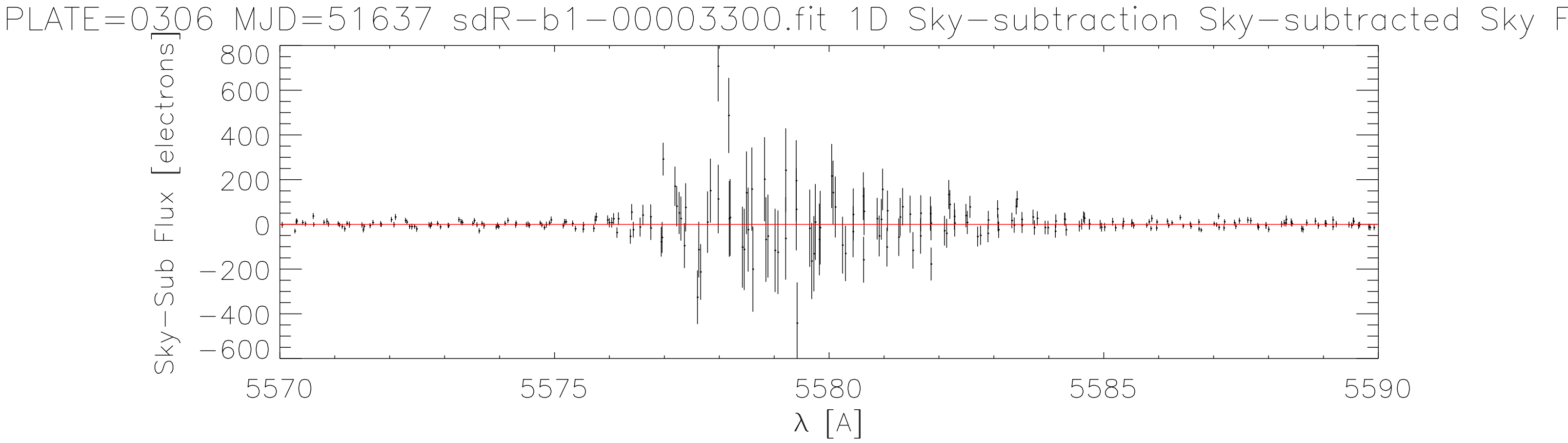

sky shift, pixels
0.0
−0.1
−0.2
−0.3
3500
4000
4500
5000
5500
6000
6500


PLATE=0306 MJD=51637 Smooth superflat for sdR-b1-00003300.fit
1.5
1.0
0.5
0.0
1.010
es=   0.0000
1.005
1.000
0.995
0.990
0.985
4000
4500
5000
5500
6000
Wavelength (Å)

PLATE=0306 MJD=51637 sdR-b1-00003300.fit 1D Sky-subtraction Sky Fiber

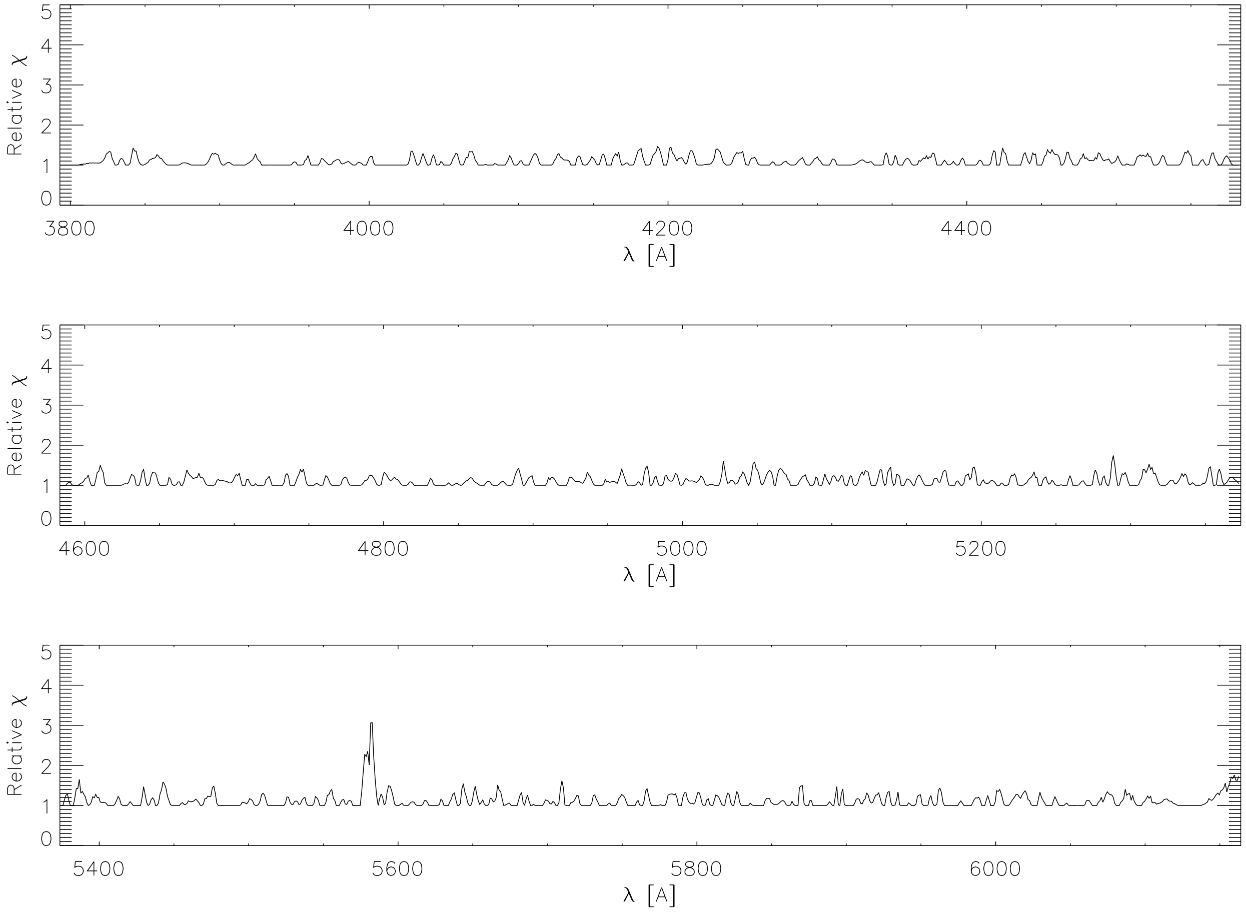


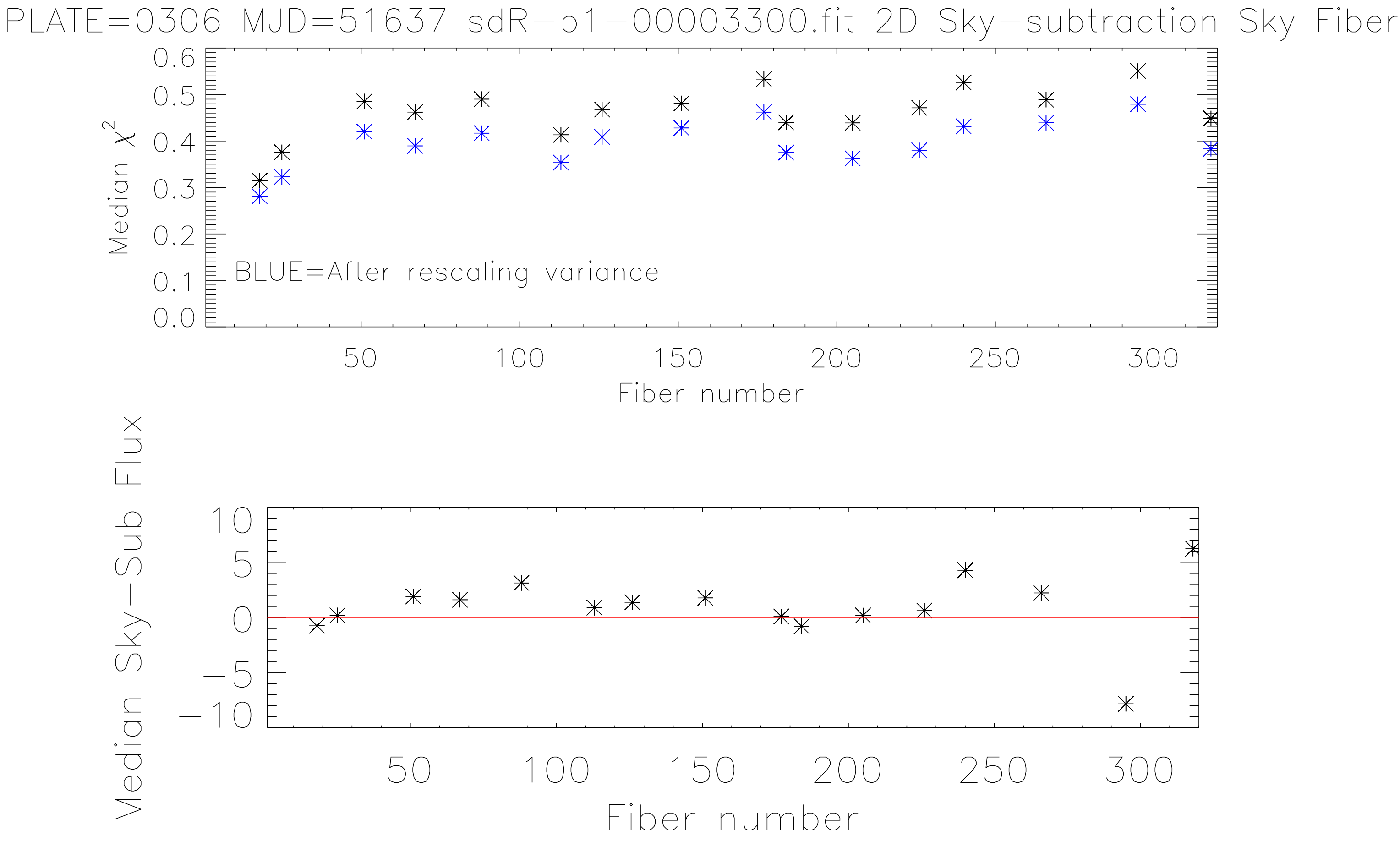

PLATE=0306 MJD=51637 sdR-b1-00003300.fit 1D Sky-subtraction Sky Fibers


PLATE=0306 MJD=51637 sdR-b1-00003300.fit 1D Sky-subtraction Sky-subtracted Sky F

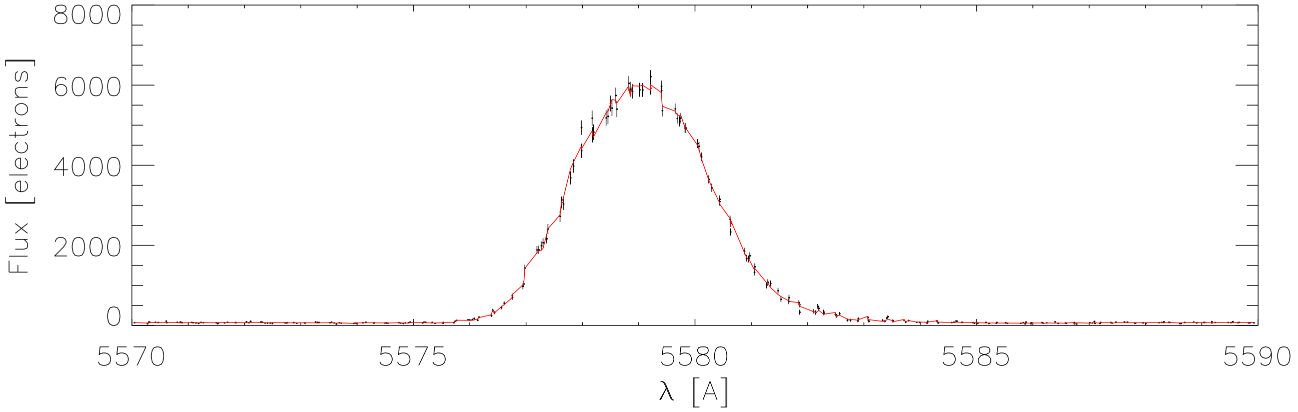
Number of sky fibers = 16

PLATE=0306 MJD=51637 sdR-b1-00003300.fit 1D Sky-subtraction Rescaled Errors

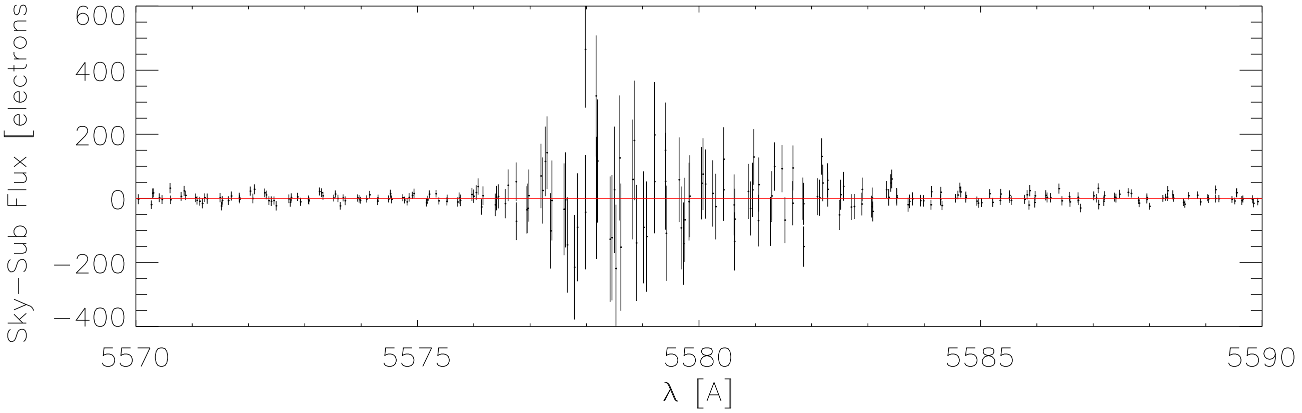


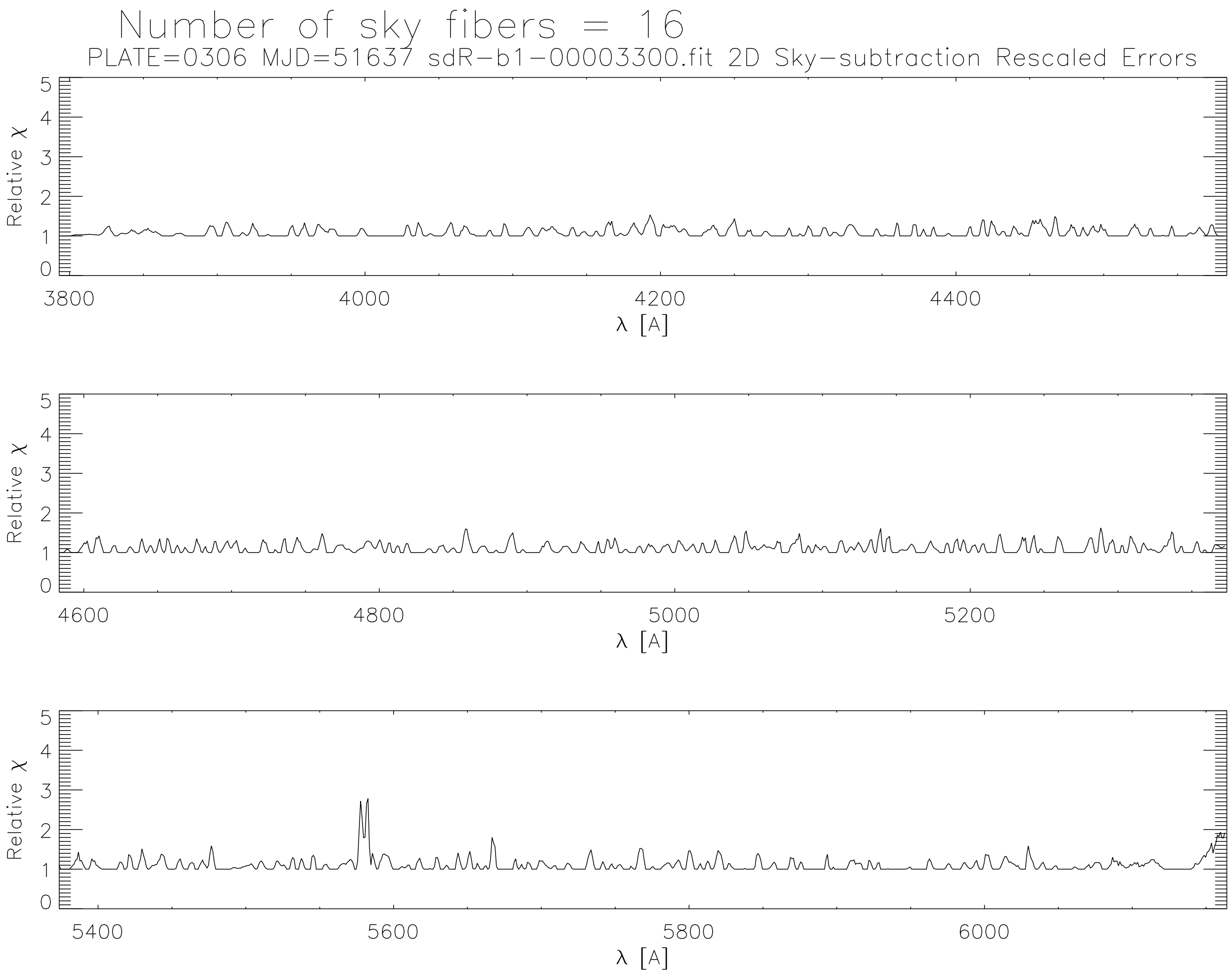

PLATE=0306 MJD=51637 sdR-b1-00003300.fit 2D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
−5
−10
50
100
150
200
250
300
Fiber number

PLATE=0306 MJD=51637 sdR-b1-00003300.fit 2D Sky-subtraction Sky Fibers



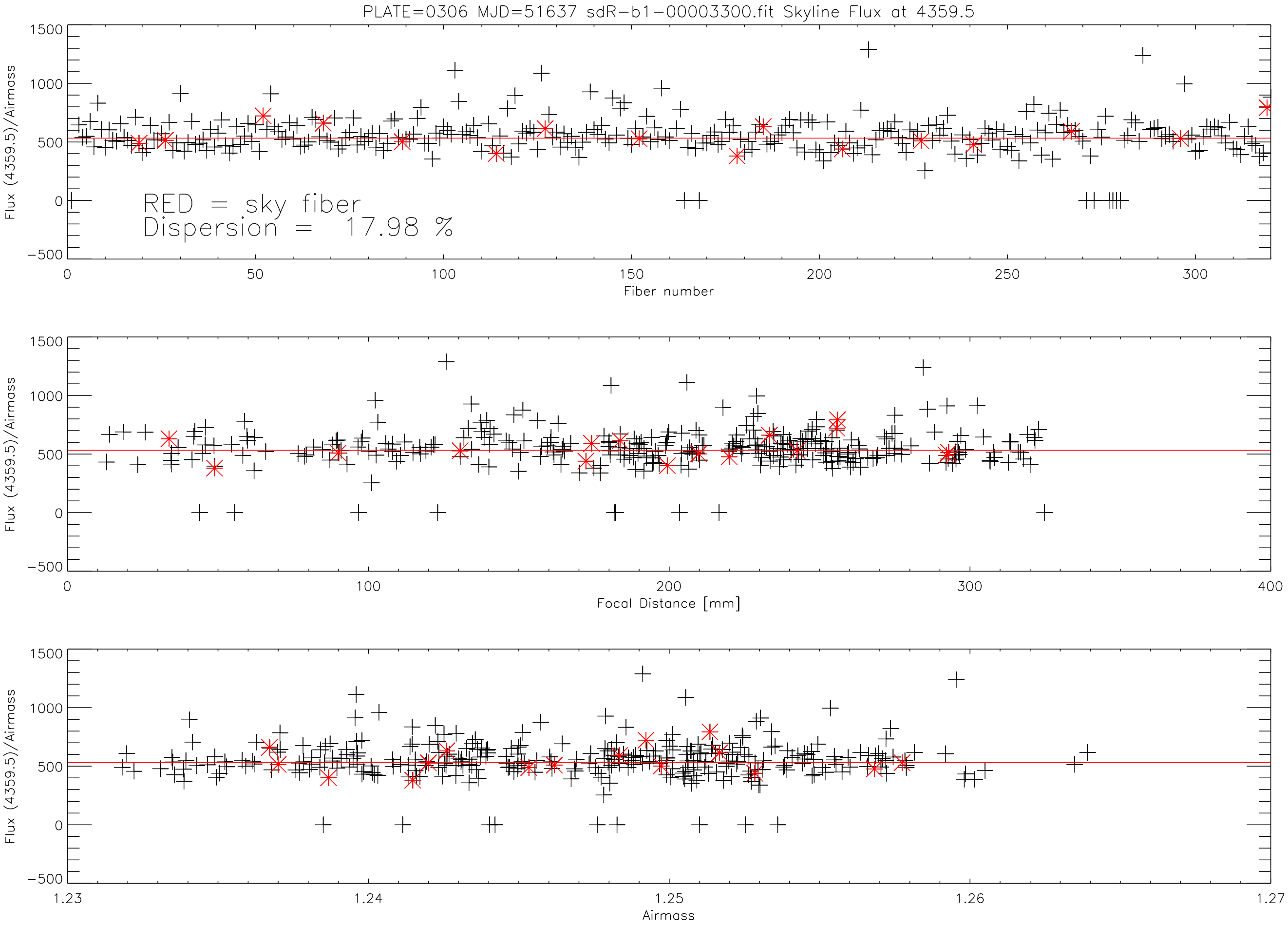
PLATE=0306 MJD=51637 sdR-b1-00003300.fit 2D Sky-subtraction Sky-subtracted Sky F

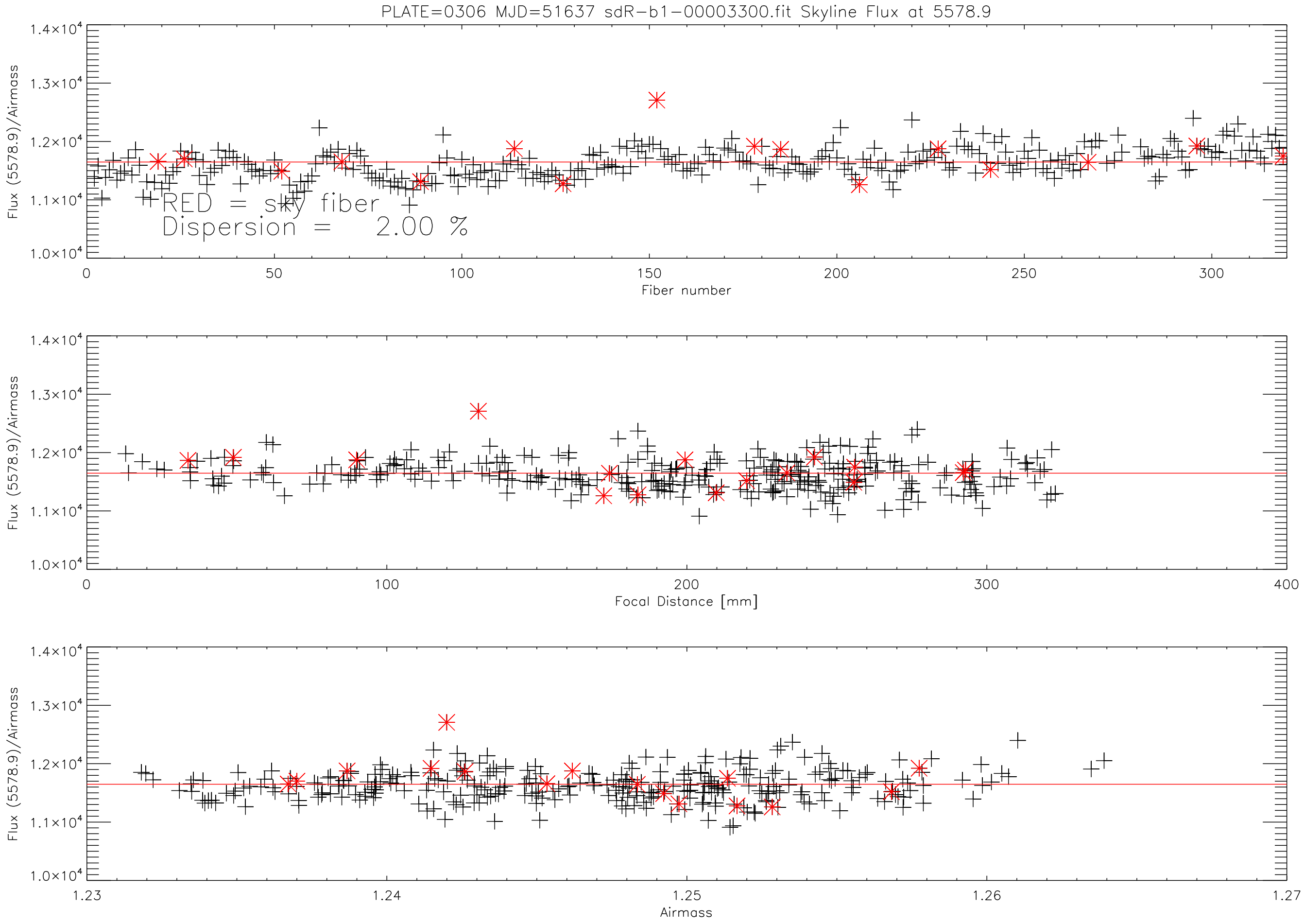


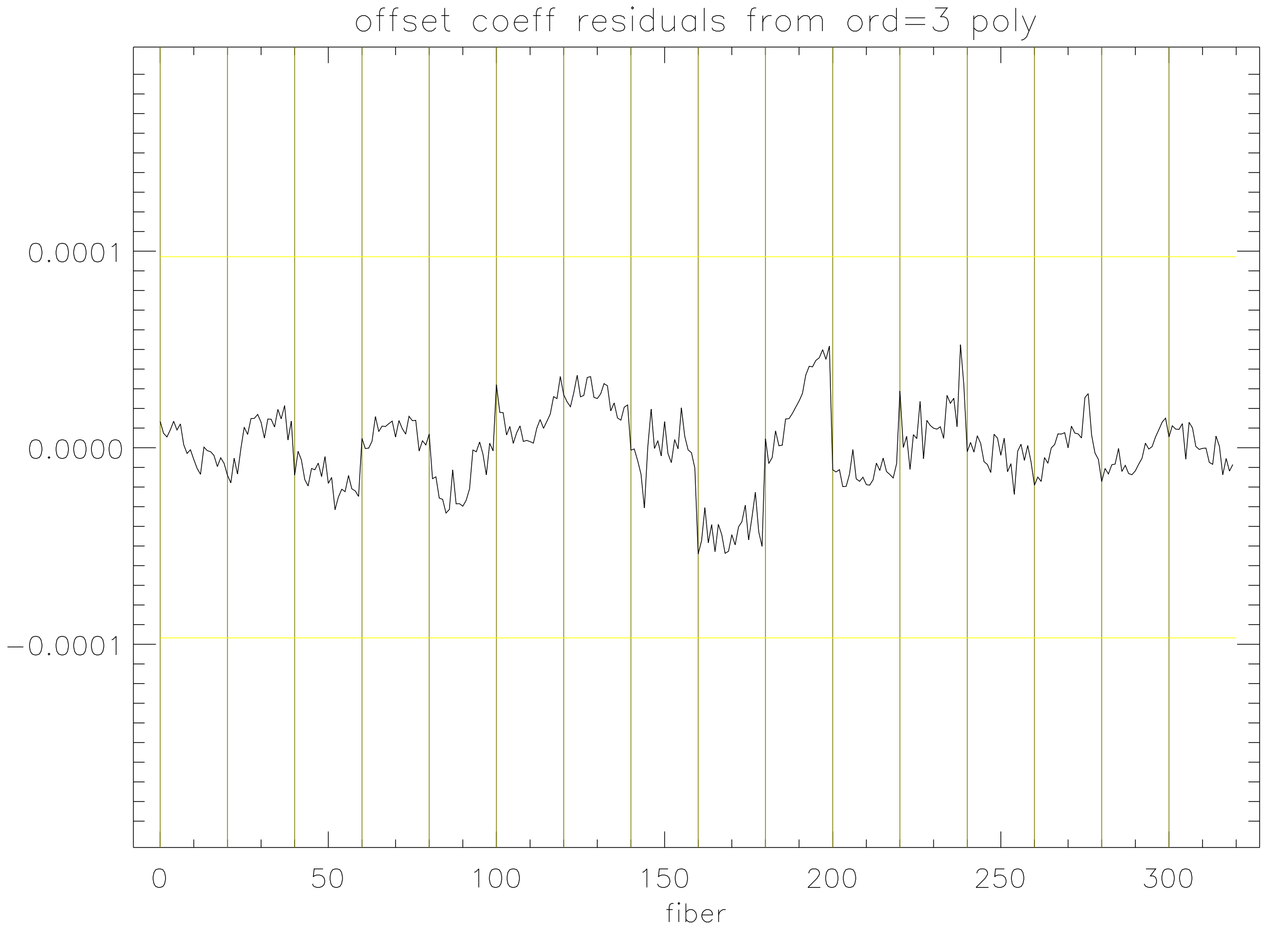


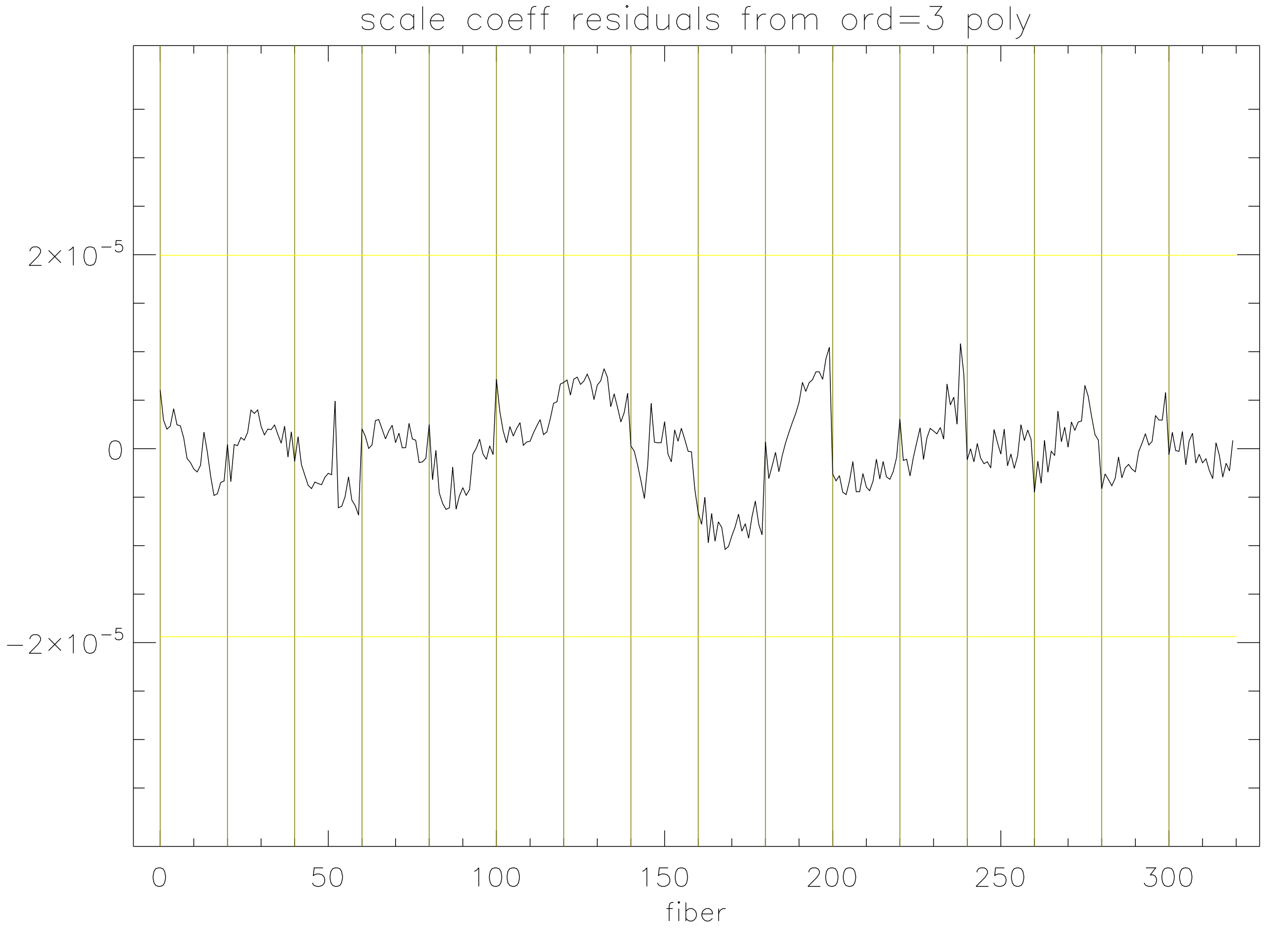
Number of sky fibers = 16

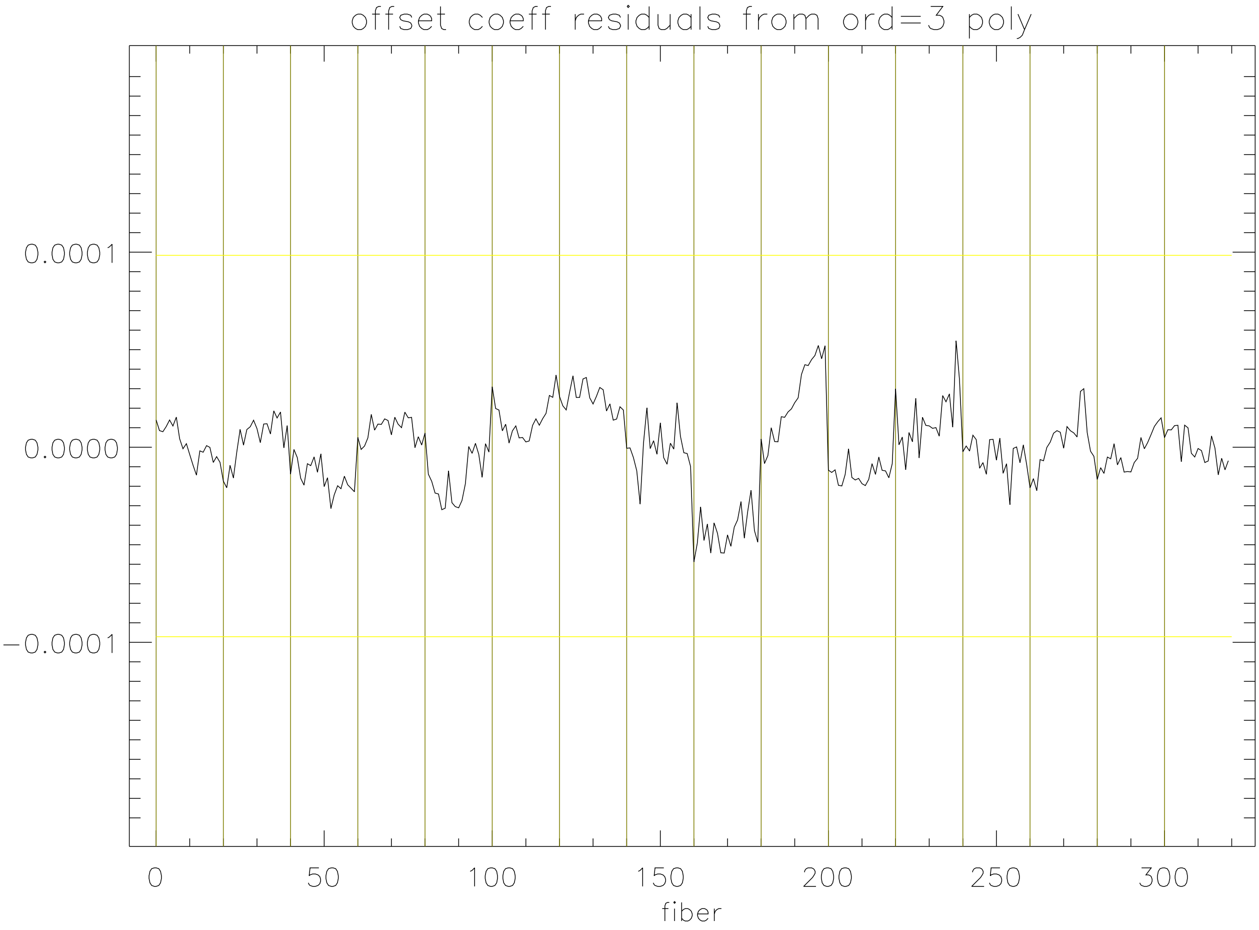
PLATE=0306 MJD=51637 sdR-b1-00003300.fit 2D Sky-subtraction Rescaled Errors

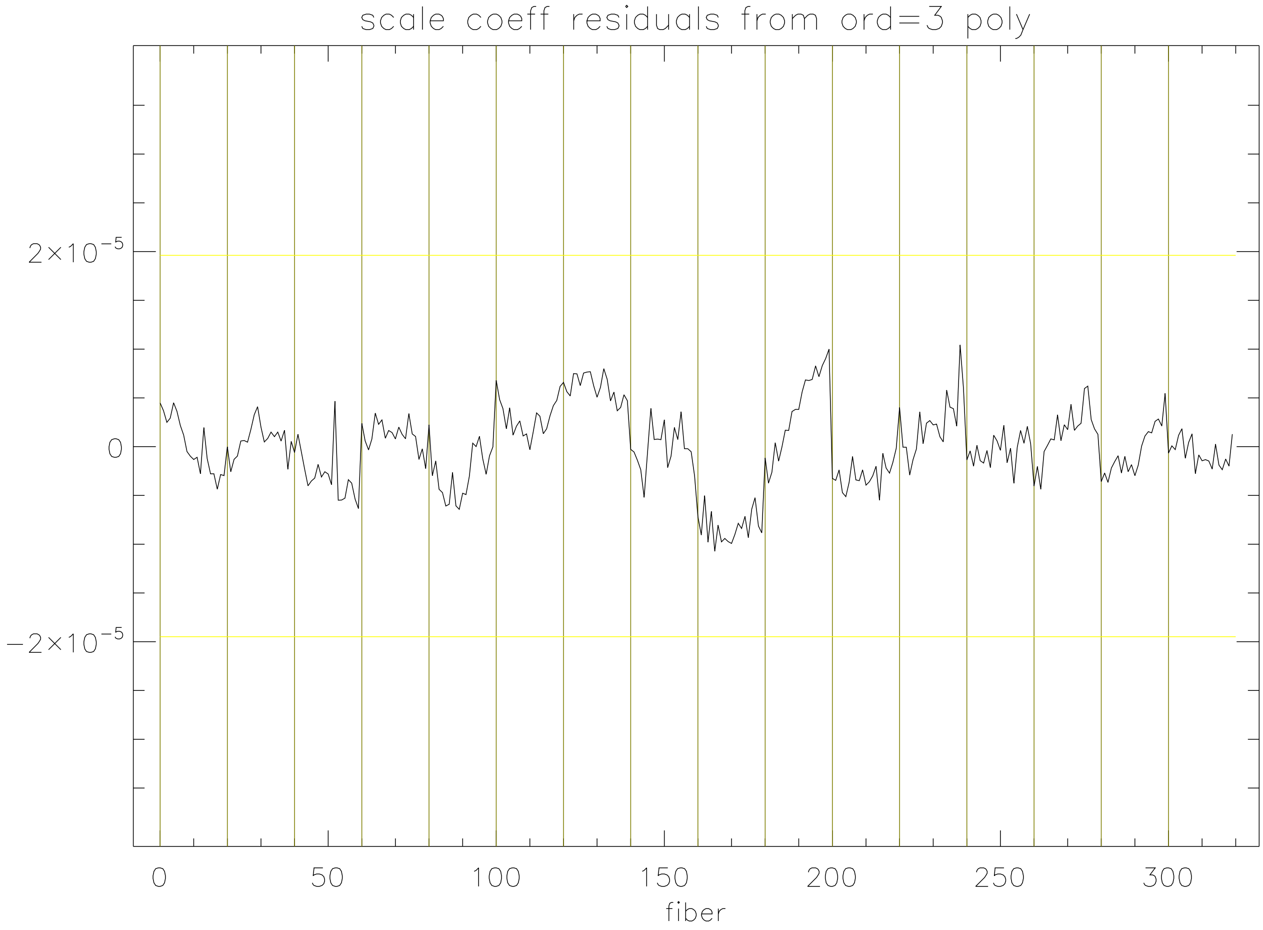

PLATE=0306 MJD=51637 sdR-b1-00003300.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
1500
1000
500
0
-500
RED = sky fiber
Dispersion = 17.98 %
0
50
100
150
200
250
300
Fiber number
Flux (4359.5)/Airmass
1500
1000
500
0
-500
0
100
200
300
400
Focal Distance [mm]
Flux (4359.5)/Airmass
1500
1000
500
0
-500
1.23
1.24
1.25
1.26
1.27
Airmass

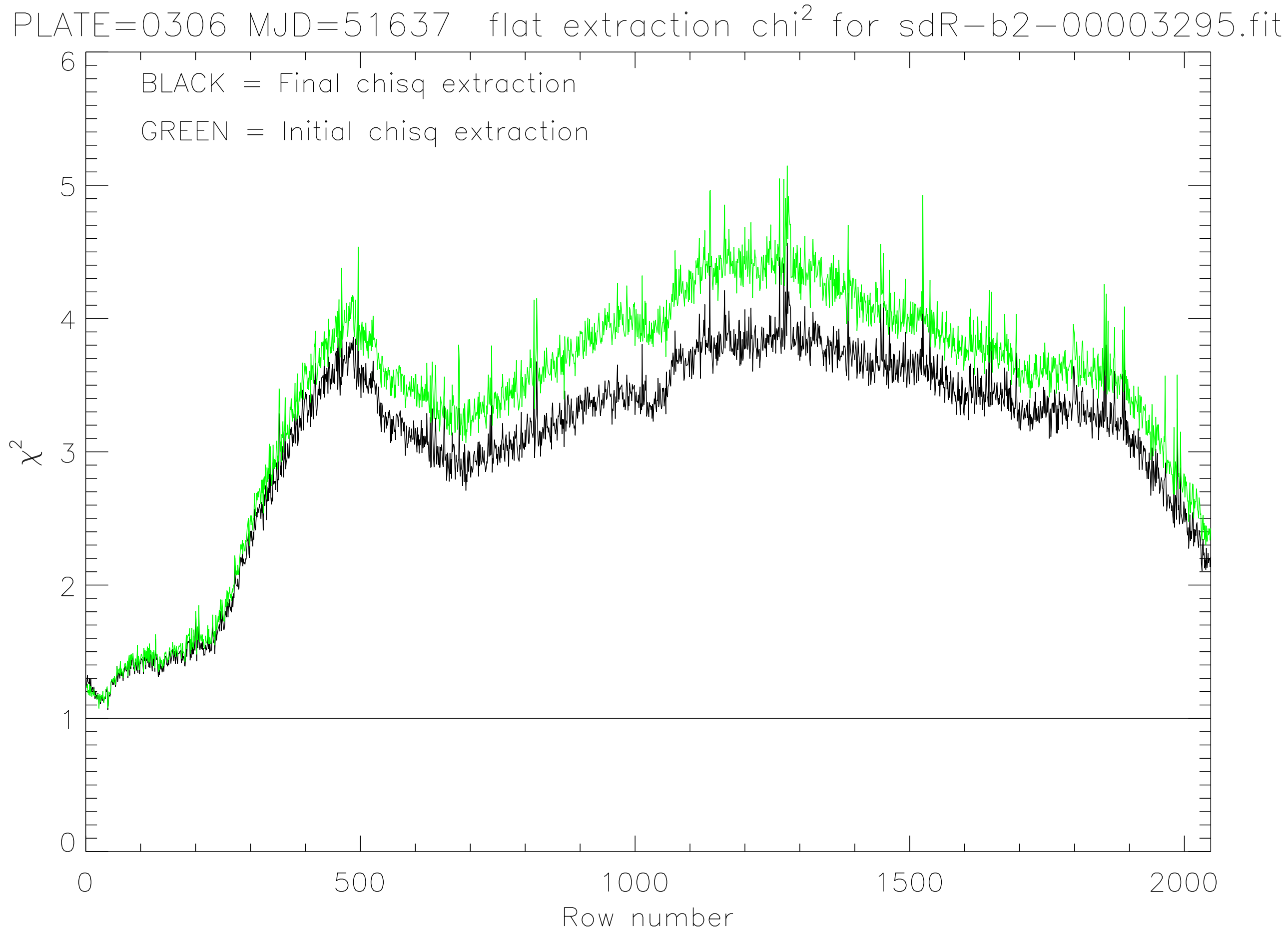

PLATE=0306 MJD=51637 sdR-b1-00003300.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
1.4×10^4
1.3×10^4
1.2×10^4
1.1×10^4
1.0×10^4
RED = sky fiber
Dispersion = 2.00 %
0
50
100
150
200
250
300
Fiber number
Flux (5578.9)/Airmass
1.4×10^4
1.3×10^4
1.2×10^4
1.1×10^4
1.0×10^4
0
100
200
300
400
Focal Distance [mm]
Flux (5578.9)/Airmass
1.4×10^4
1.3×10^4
1.2×10^4
1.1×10^4
1.0×10^4
1.23
1.24
1.25
1.26
1.27
Airmass

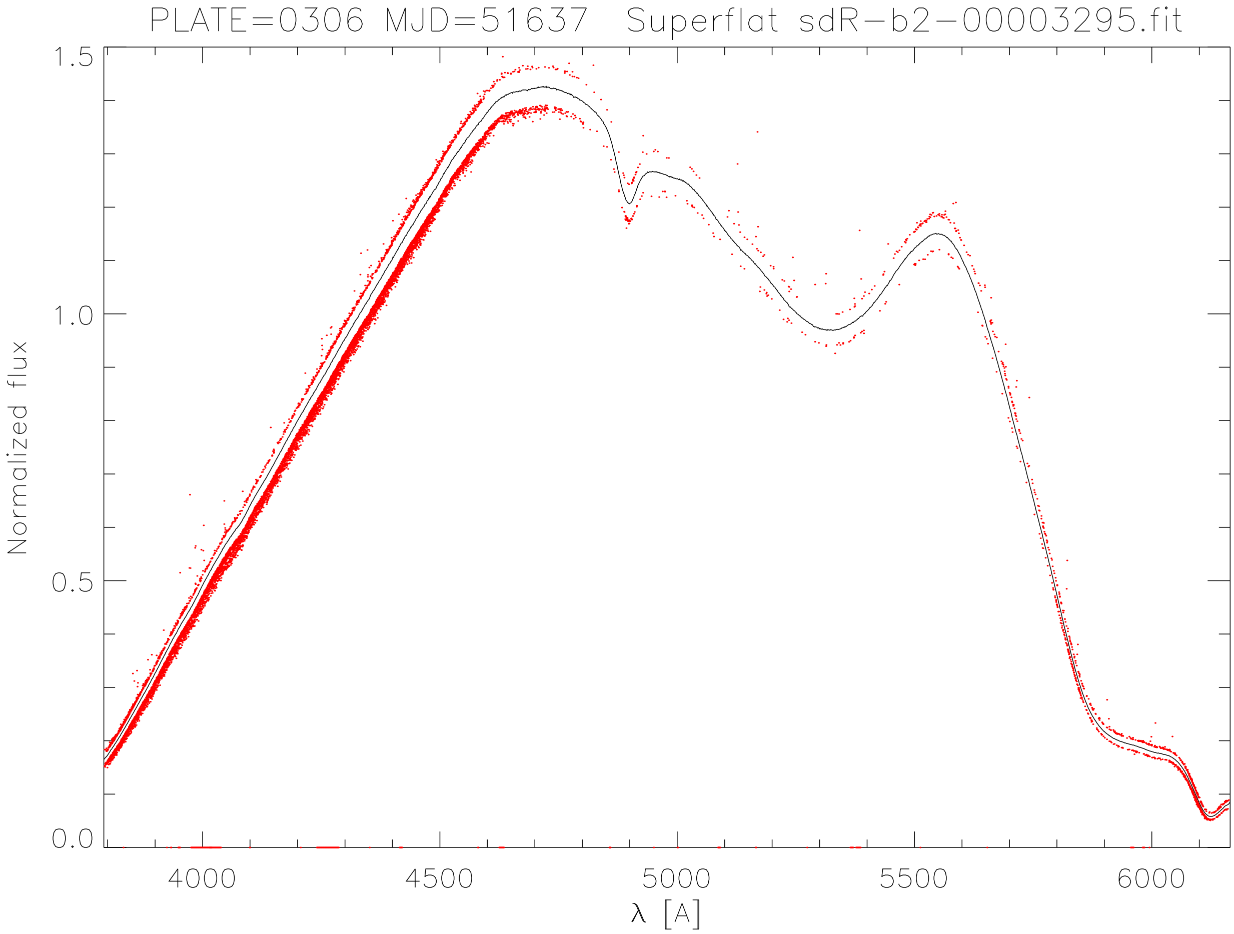

offset coeff residuals from ord=3 poly
0.0001
0.0000
−0.0001
0
50
100
150
200
250
300
fiber

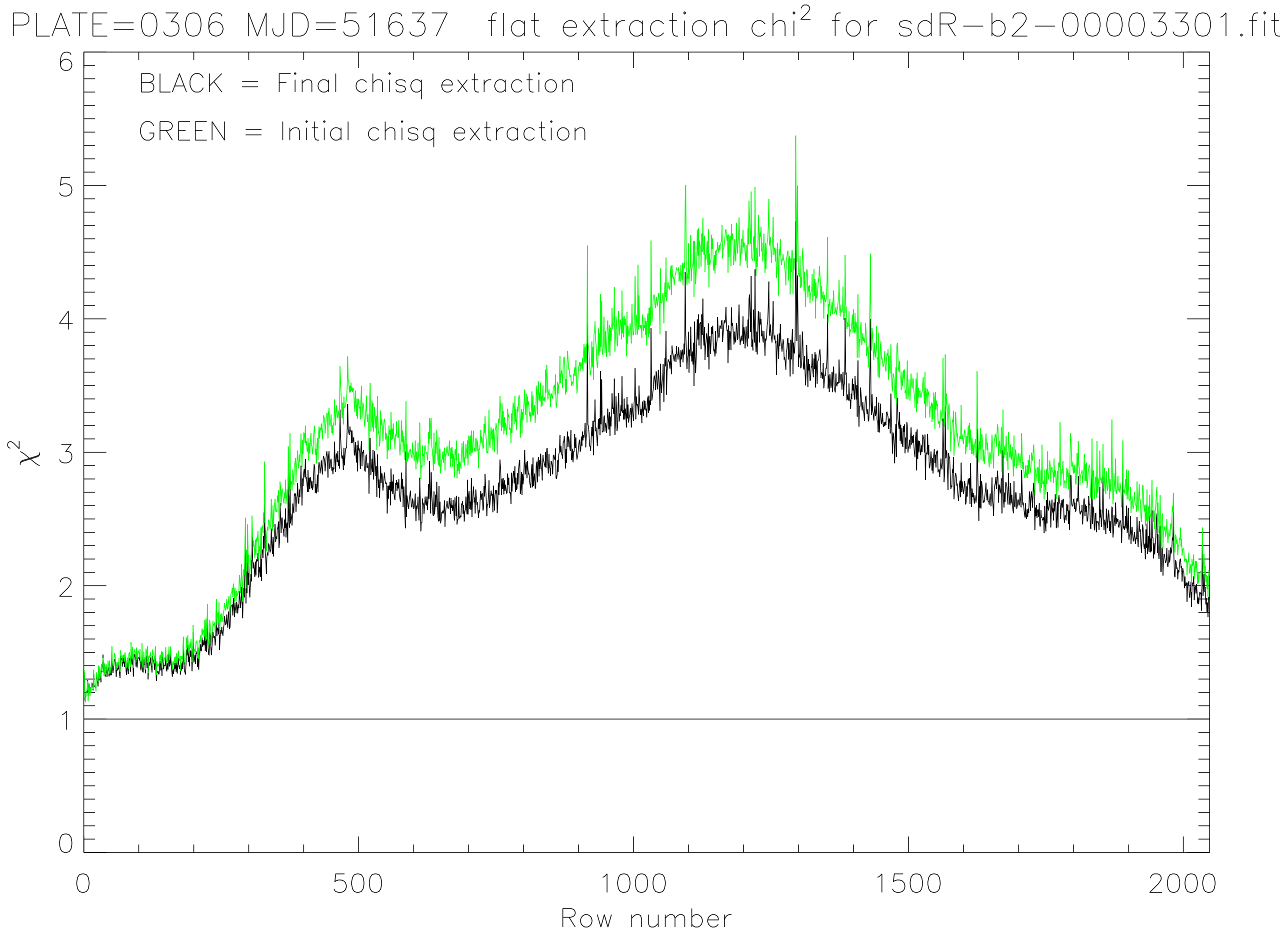

scale coeff residuals from ord=3 poly
2×10^{-5}
0
−2×10^{-5}
0
50
100
150
200
250
300
fiber


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

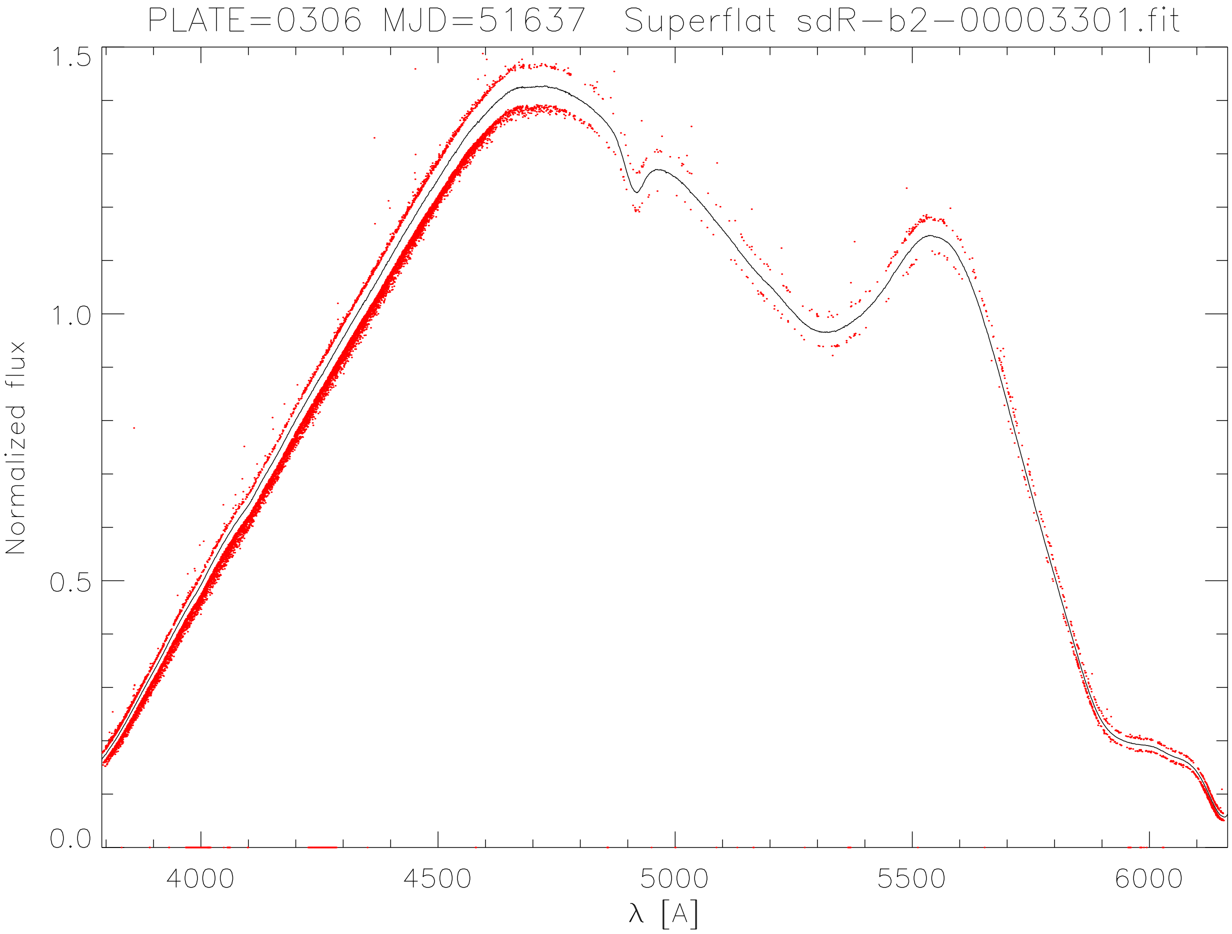

scale coeff residuals from ord=3 poly
2×10⁻⁵
0
−2×10⁻⁵
0
50
100
150
200
250
300
fiber

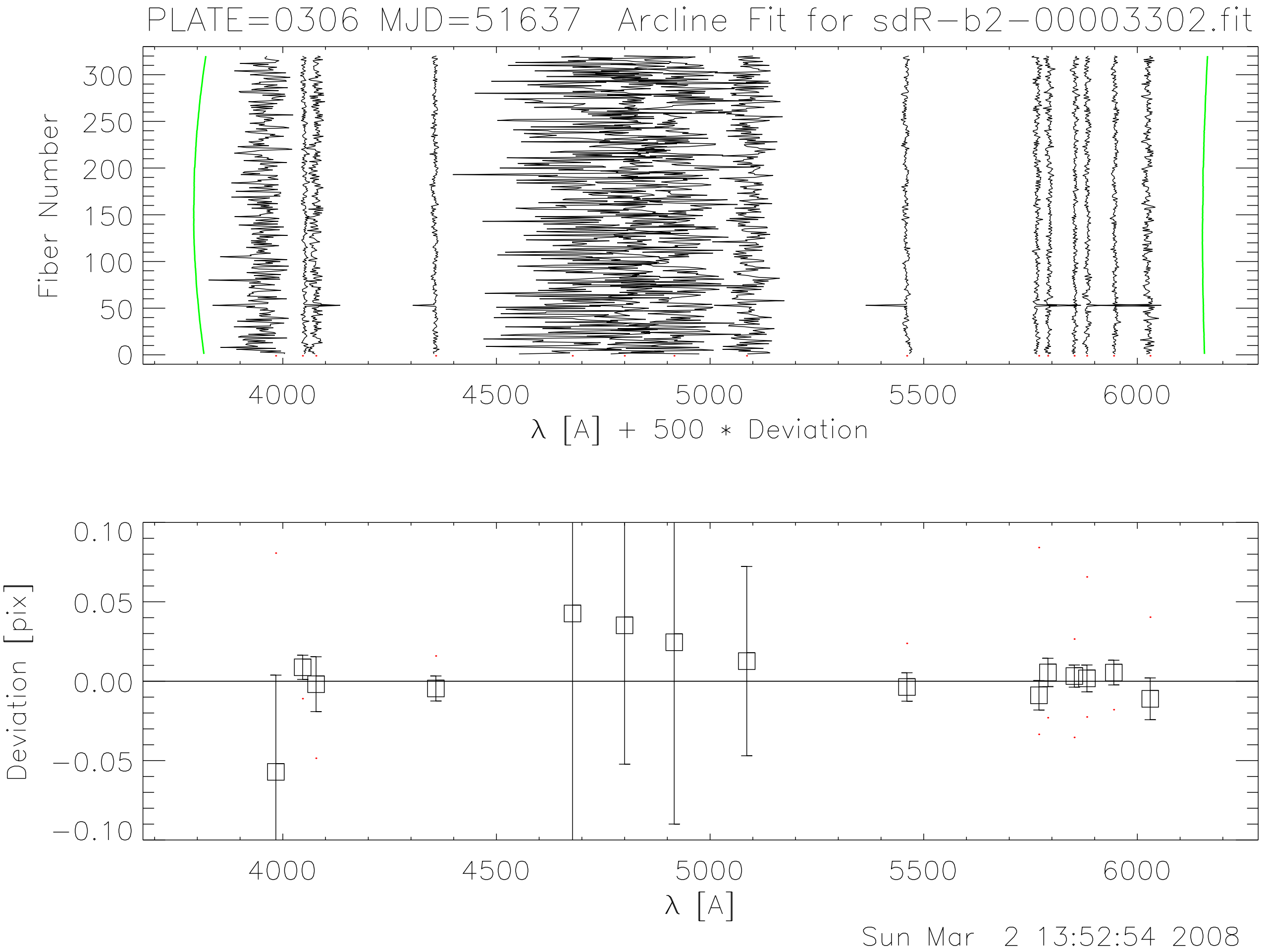

PLATE=0306 MJD=51637 flat extraction chi^2 for sdR-b2-00003295.fit

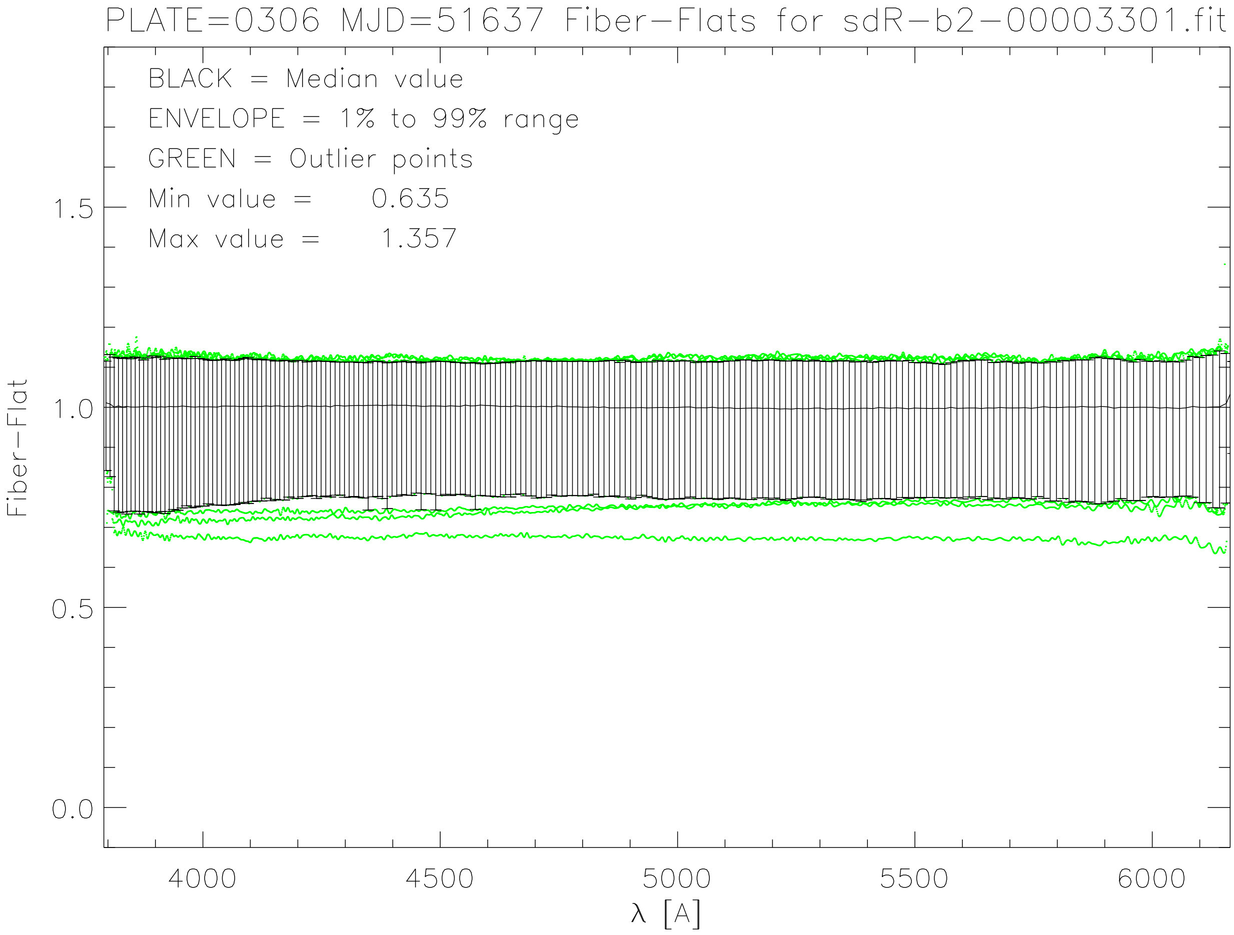

PLATE=0306 MJD=51637 Superflat sdR-b2-00003295.fit
Normalized flux
λ [A]
0.0
0.5
1.0
1.5
4000
4500
5000
5500
6000



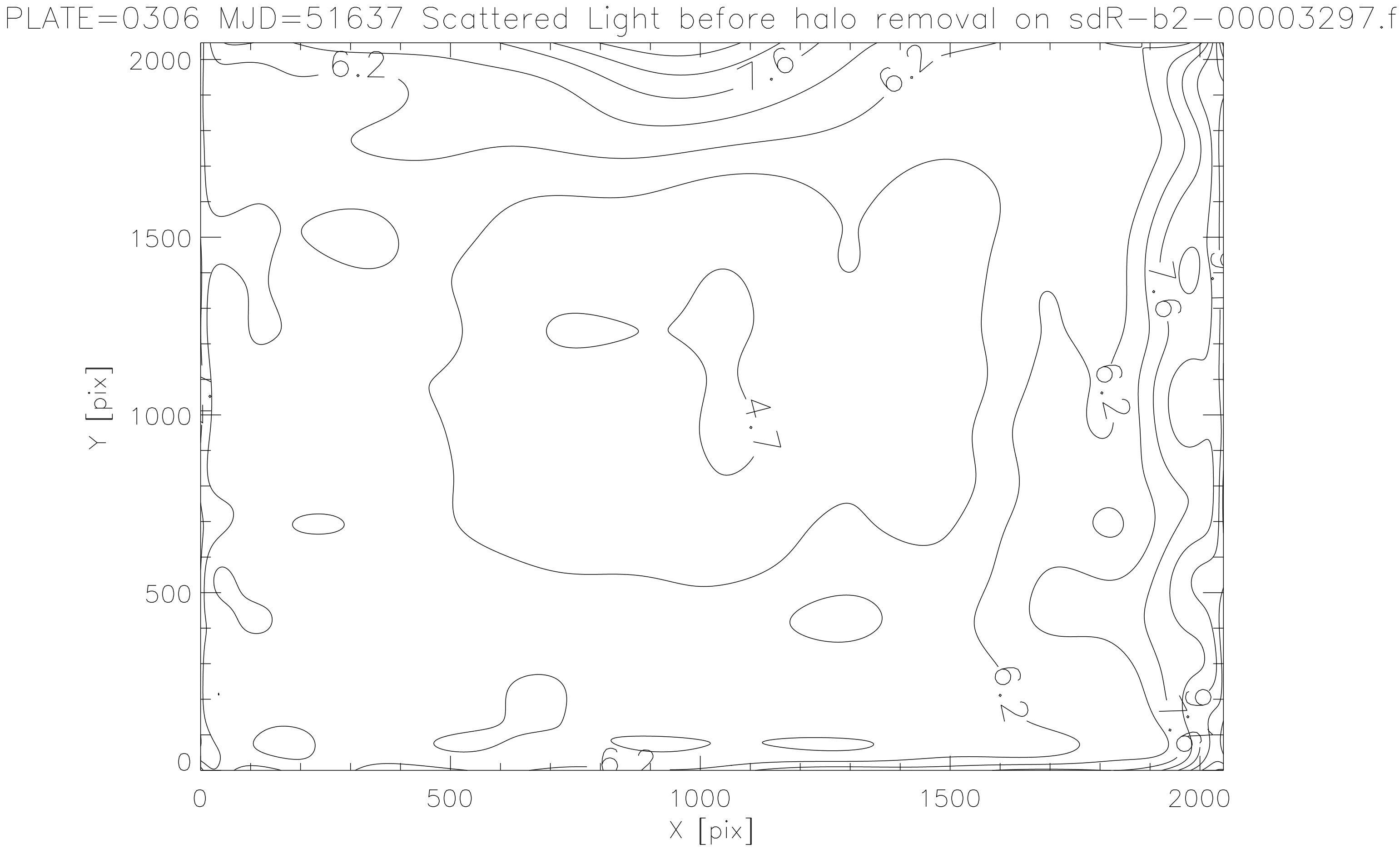
PLATE=0306 MJD=51637 flat extraction chi^2 for sdR-b2-00003301.fit


PLATE=0306 MJD=51637 Superflat sdR-b2-00003301.fit
Normalized flux
λ [A]
0.0
0.5
1.0
1.5
4000
4500
5000
5500
6000

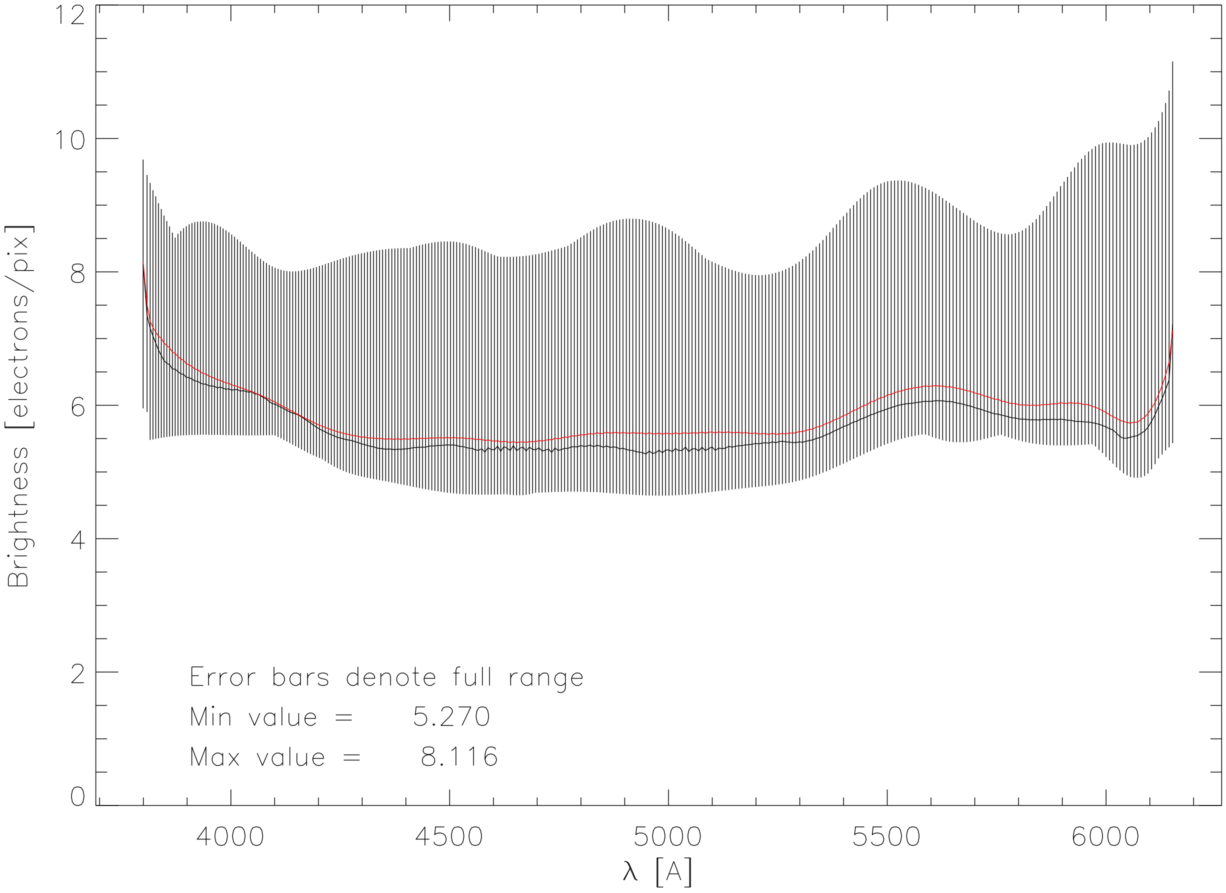

PLATE=0306 MJD=51637 Arcline Fit for sdR-b2-00003302.fit
Fiber Number
0
50
100
150
200
250
300
4000
4500
5000
5500
6000
λ [A] + 500 * Deviation
Deviation [pix]
−0.10
−0.05
0.00
0.05
0.10
4000
4500
5000
5500
6000
λ [A]
Sun Mar 2 13:52:54 2008



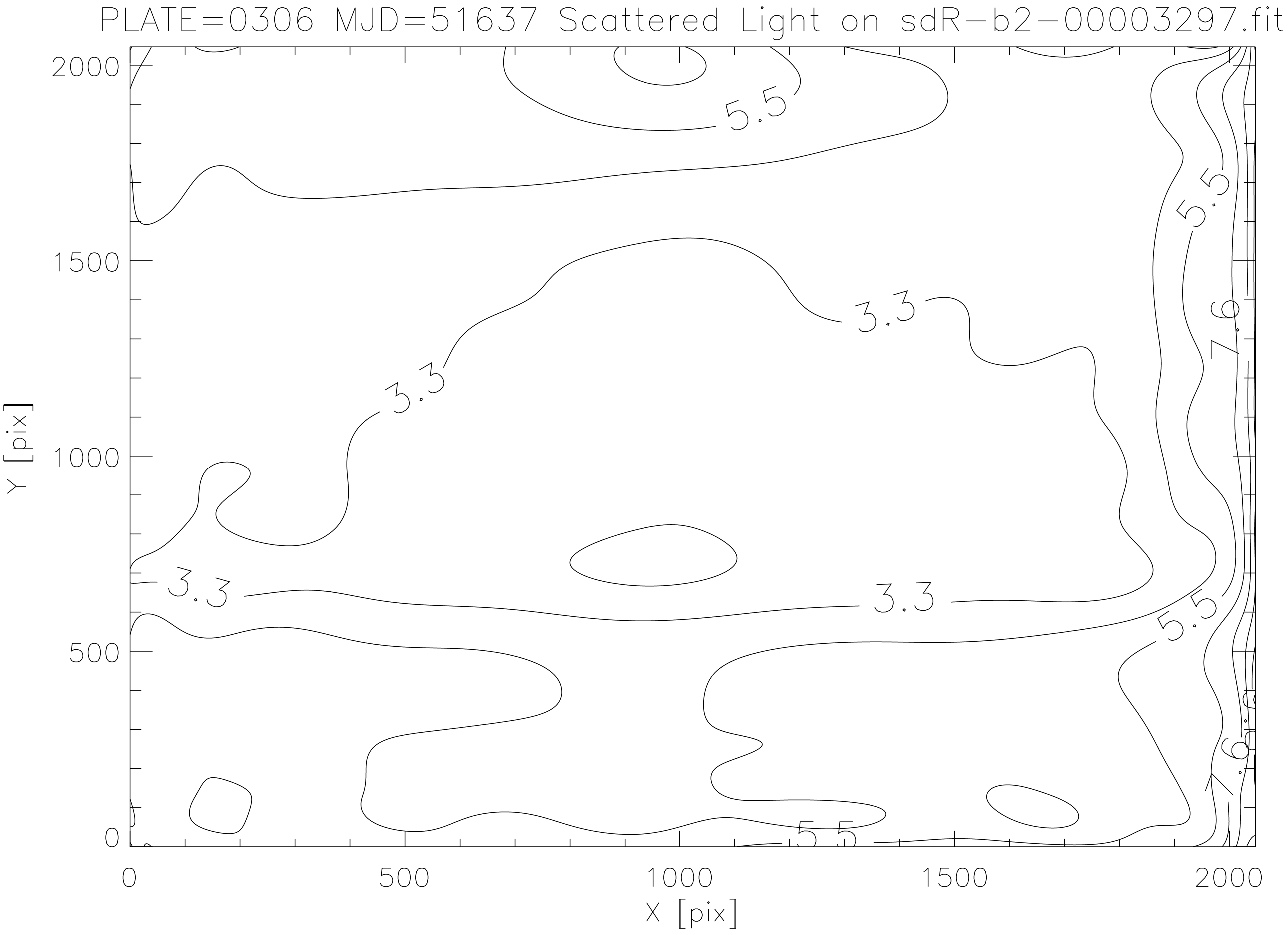
Sun Mar 2 13:53:02 2008

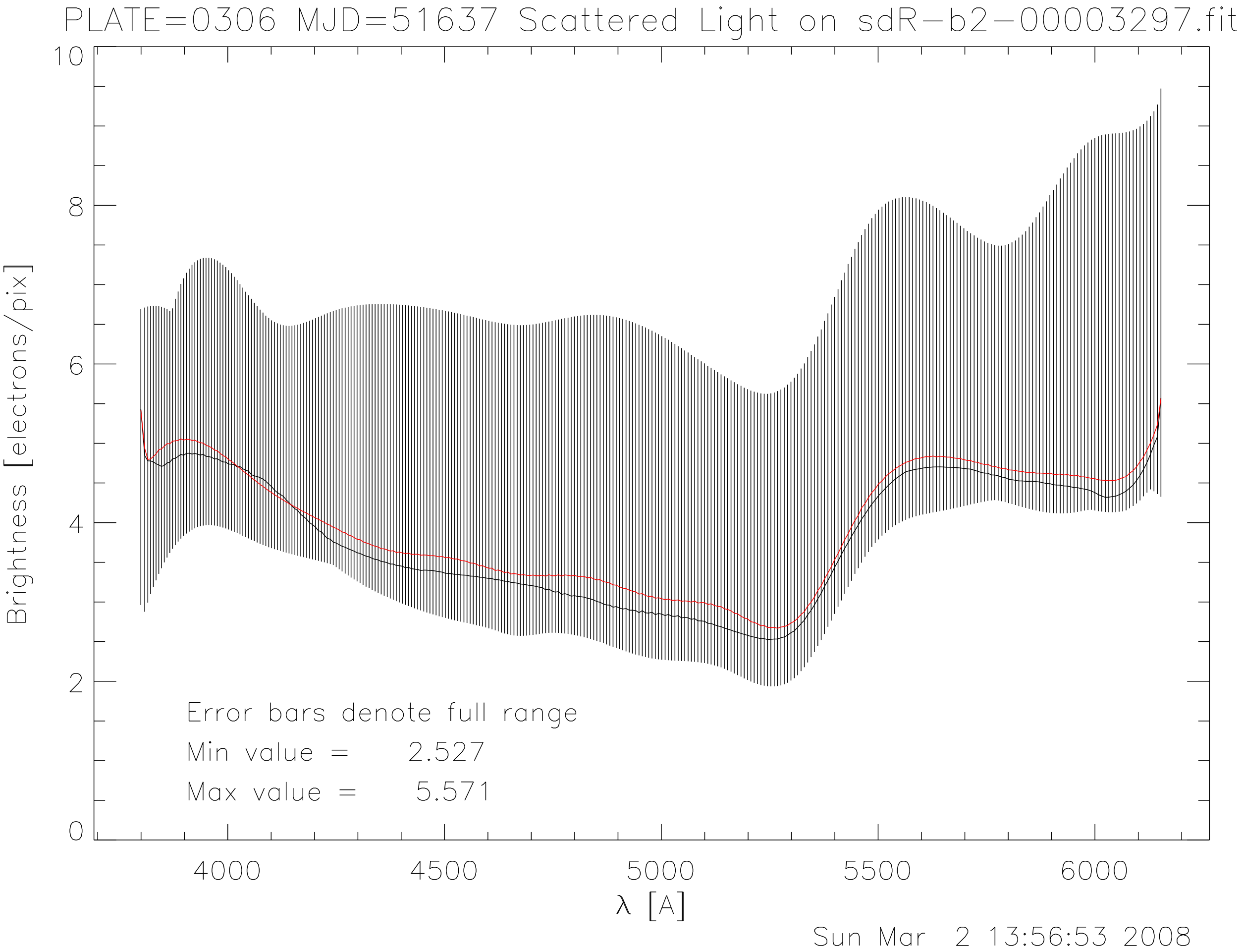

PLATE=0306 MJD=51637 Scattered Light before halo removal on sdR-b2-00003297.f
Y [pix]
X [pix]
0
500
1000
1500
2000
6.2
7.6
4.7
9.

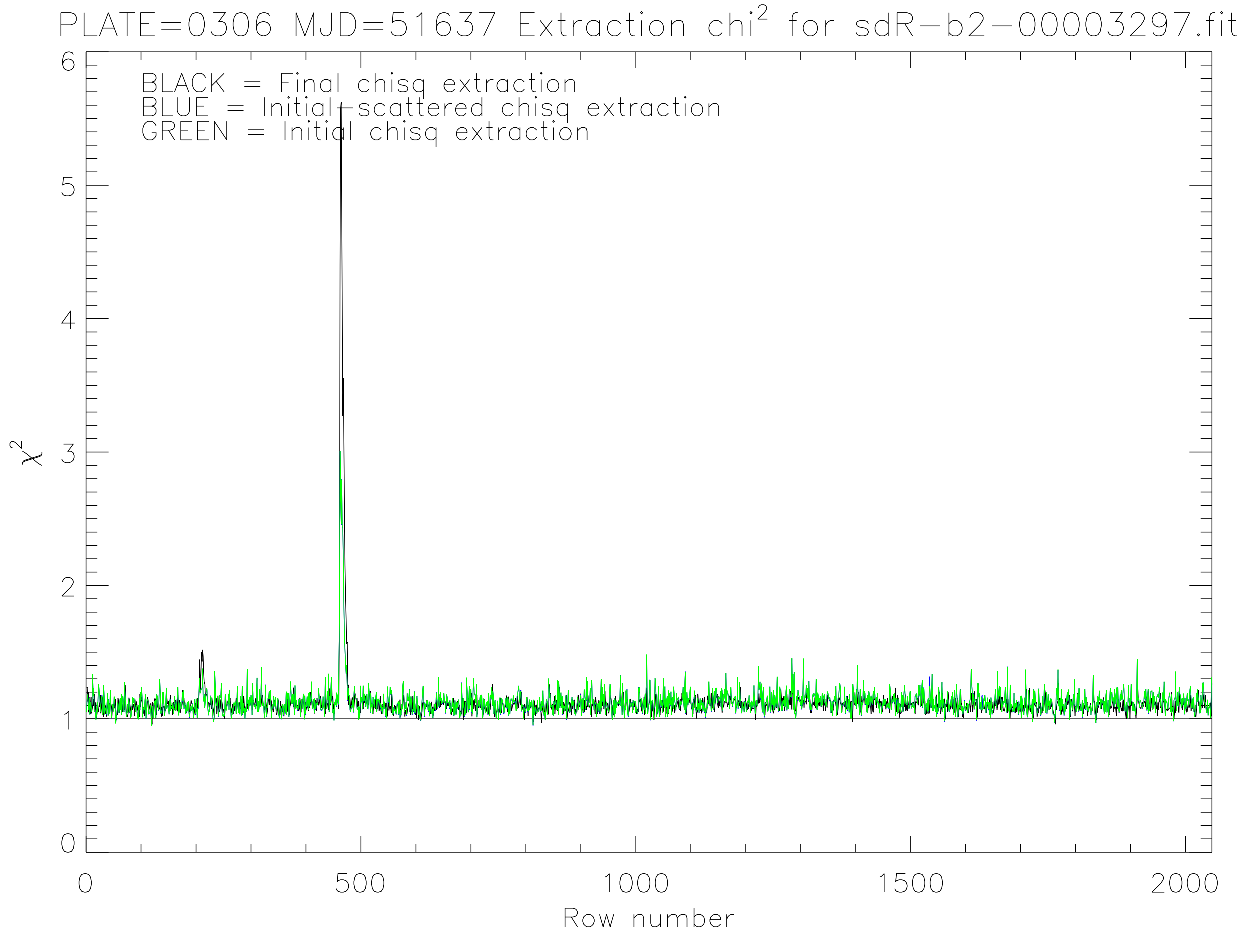
PLATE=0306 MJD=51637 Scattered Light before halo removal on sdR-b2-00003297.f

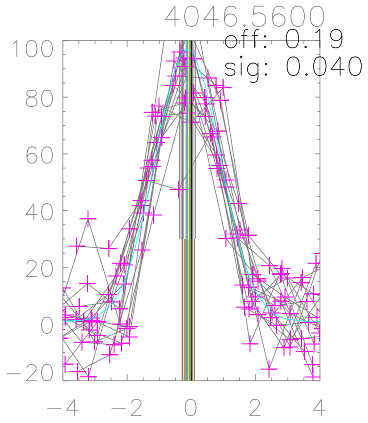


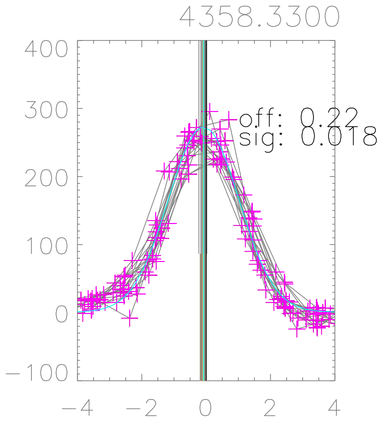
Sun Mar 2 13:53:51 2008

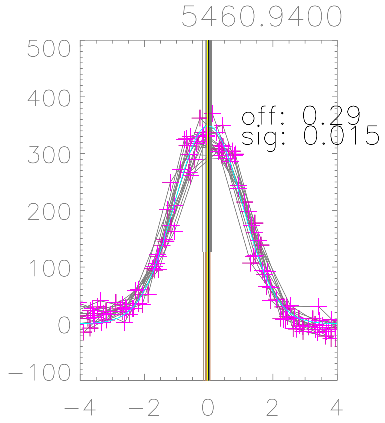

PLATE=0306 MJD=51637 Scattered Light on sdR-b2-00003297.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
5.5
3.3
7.6

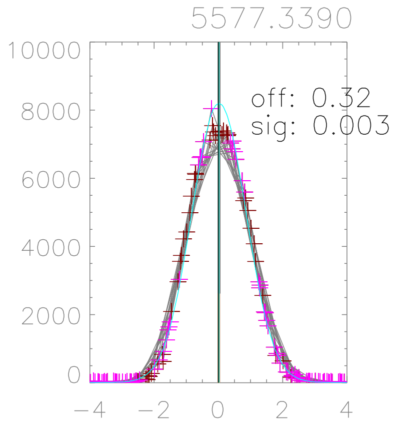


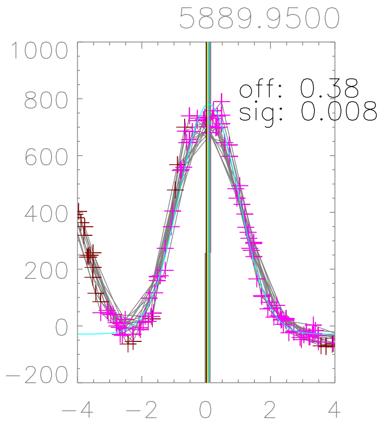

PLATE=0306 MJD=51637 Extraction chi^2 for sdR-b2-00003297.fit
BLACK = Final chisq extraction
BLUE = Initial+scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
5
6
Row number
0
500
1000
1500
2000

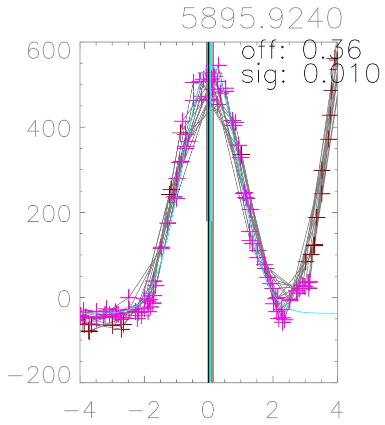

4046.5600
off: 0.19
sig: 0.040
100
80
60
40
20
0
−20
−4
−2
0
2
4

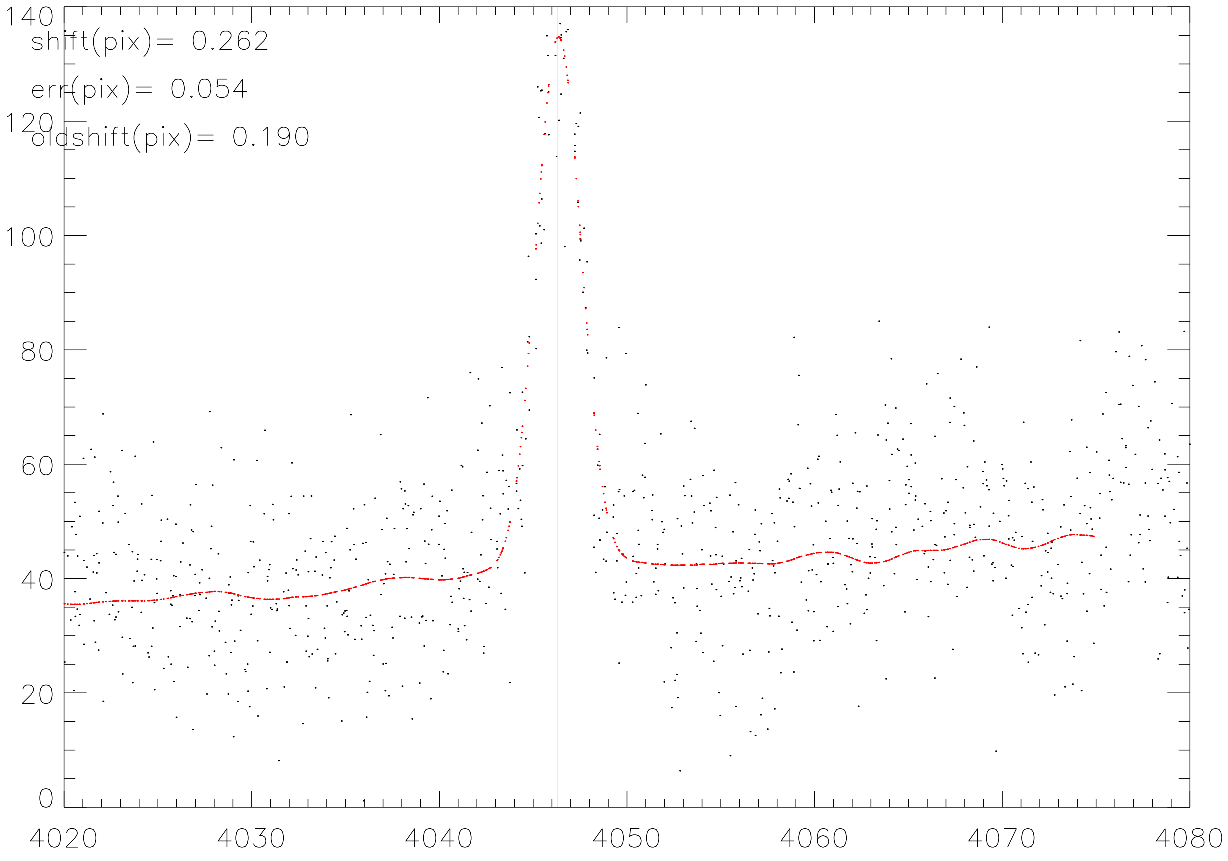

4358.3300
off: 0.22
sig: 0.018
400
300
200
100
0
−100
−4
−2
0
2
4

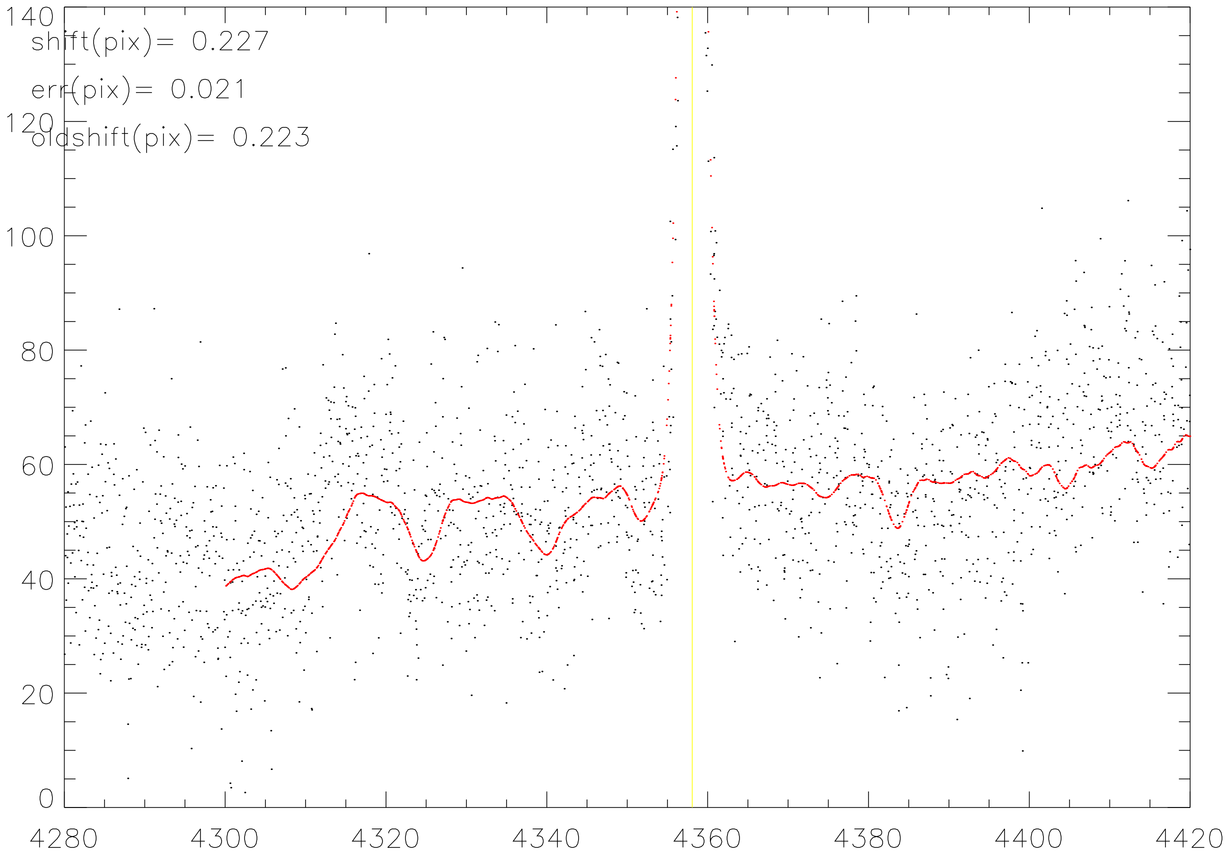

5460.9400
off: 0.29
sig: 0.015
500
400
300
200
100
0
−100
−4
−2
0
2
4

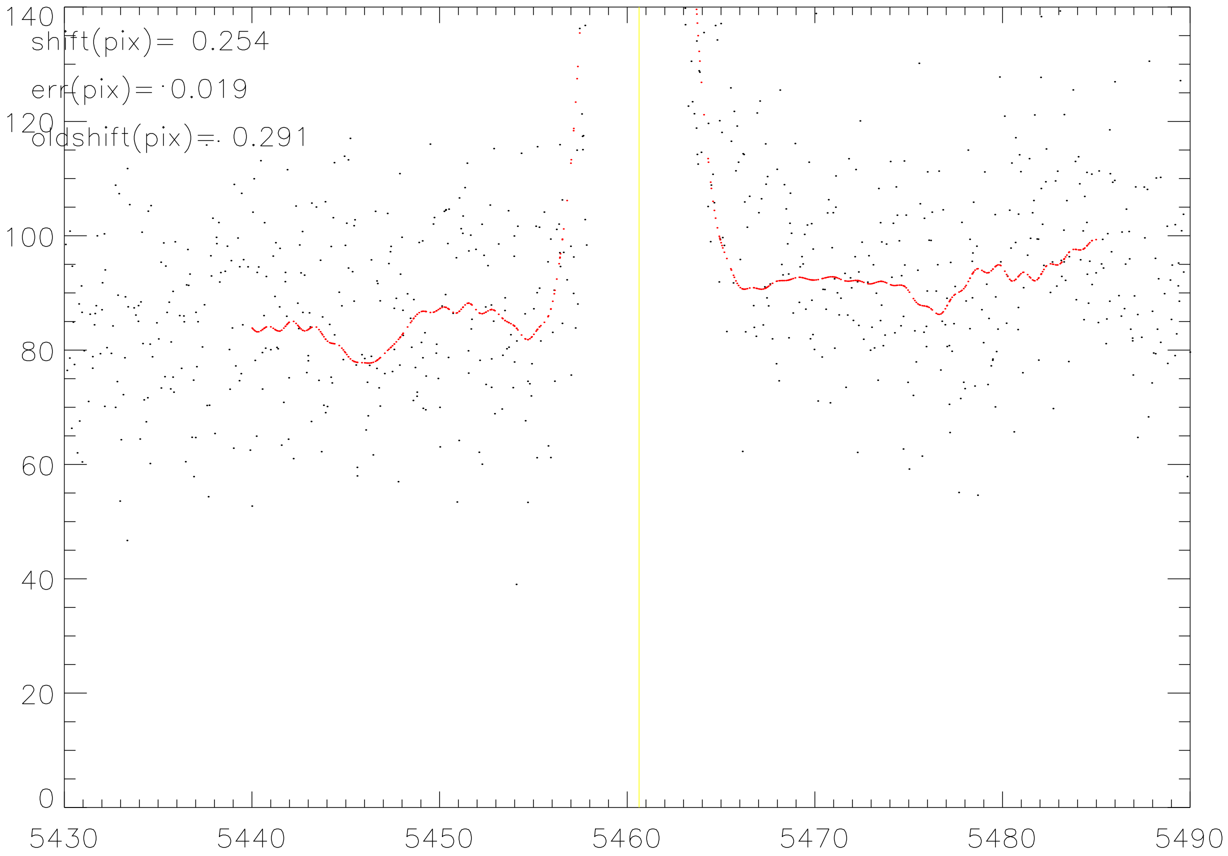

5577.3390
off: 0.32
sig: 0.003
10000
8000
6000
4000
2000
0
−4
−2
0
2
4

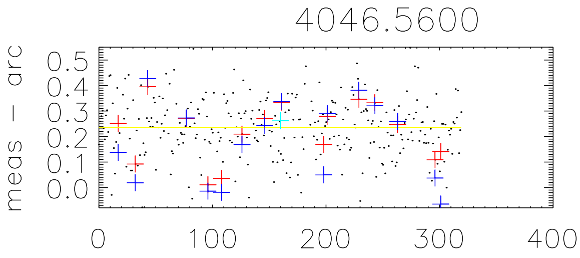

5889.9500
off: 0.38
sig: 0.008
1000
800
600
400
200
0
−200
−4
−2
0
2
4

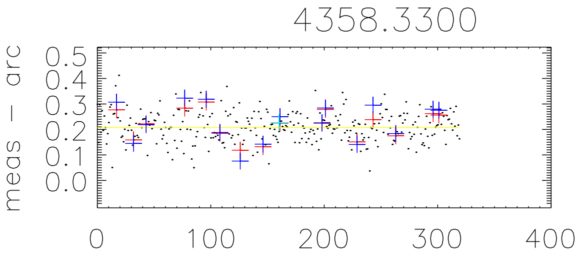

5895.9240
off: 0.36
sig: 0.010
600
400
200
0
−200
−4
−2
0
2
4

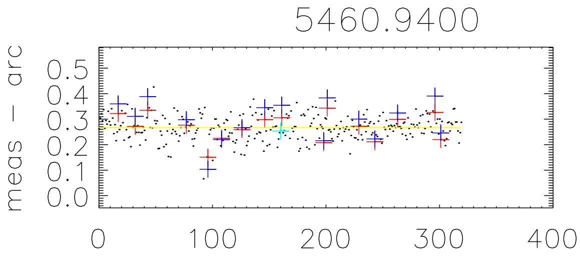

shift(pix)= 0.262
err(pix)= 0.054
oldshift(pix)= 0.190
0
20
40
60
80
100
120
140
4020
4030
4040
4050
4060
4070
4080

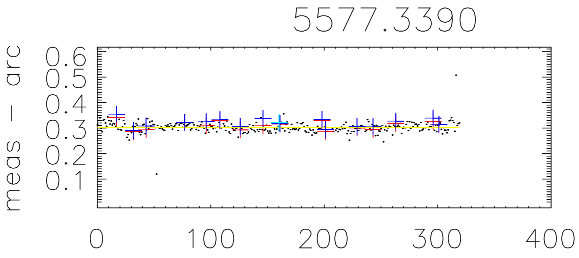

shift(pix)= 0.227
err(pix)= 0.021
oldshift(pix)= 0.223
140
120
100
80
60
40
20
0
4280
4300
4320
4340
4360
4380
4400
4420

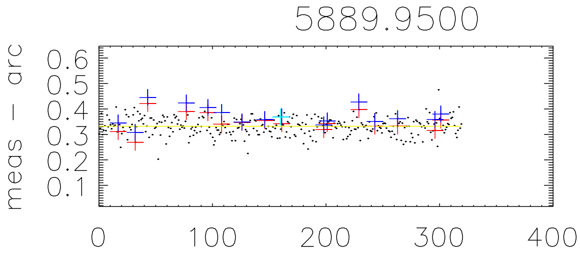

shift(pix)= 0.254
err(pix)= 0.019
oldshift(pix)= 0.291
0
20
40
60
80
100
120
140
5430
5440
5450
5460
5470
5480
5490

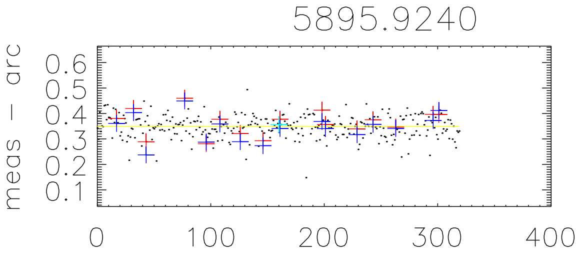

4046.5600
meas - arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400

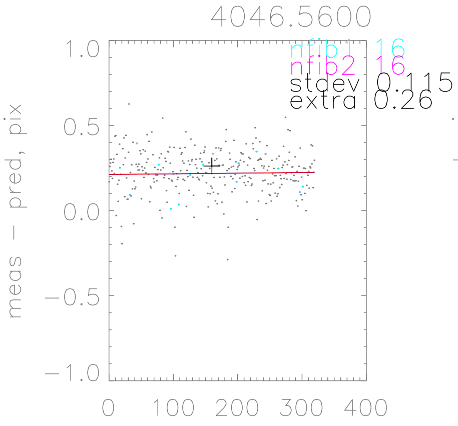

4358.3300
meas - arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400

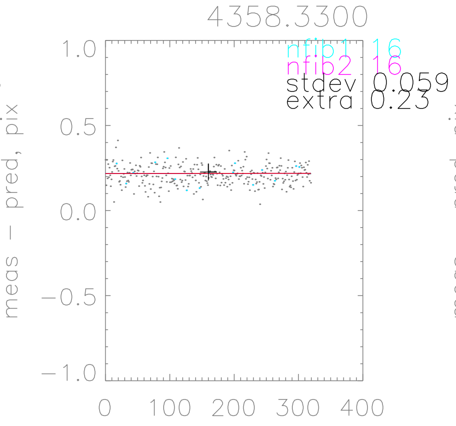

5460.9400
meas - arc
0.0
0.1
0.2
0.3
0.4
0.5
0
100
200
300
400

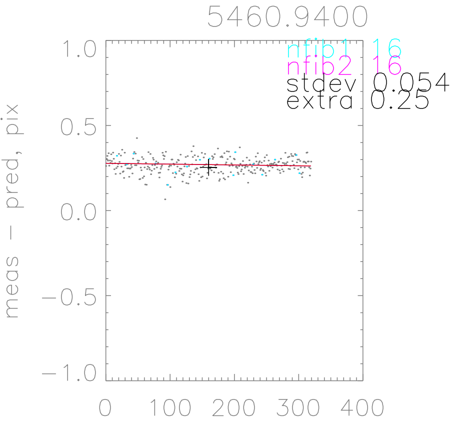

5577.3390
meas - arc
0.1
0.2
0.3
0.4
0.5
0.6
0
100
200
300
400

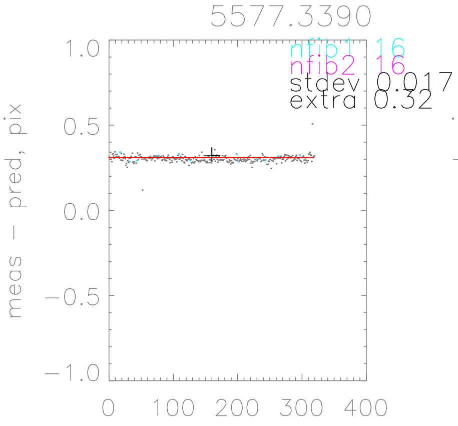

5889.9500
meas - arc
0.1
0.2
0.3
0.4
0.5
0.6
0
100
200
300
400

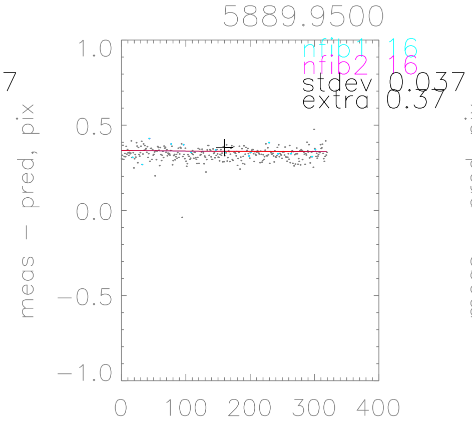

5895.9240
meas - arc
0.1
0.2
0.3
0.4
0.5
0.6
0
100
200
300
400

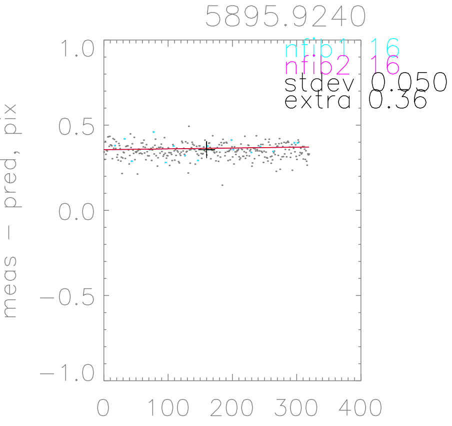

4046.5600
nfib1 16
nfib2 16
stdev 0.115
extra 0.26
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

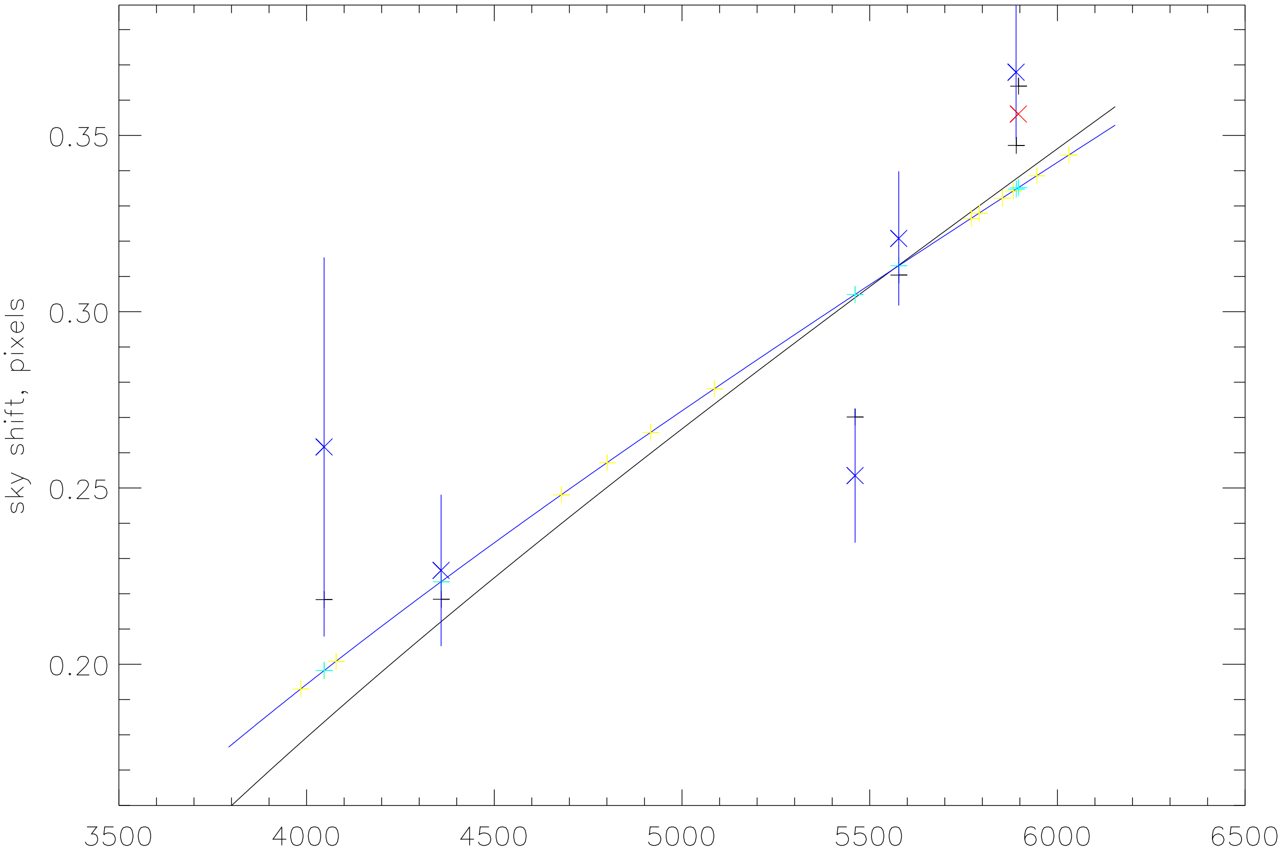

4358.3300
nfib1 16
nfib2 16
stdev 0.059
extra 0.23
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

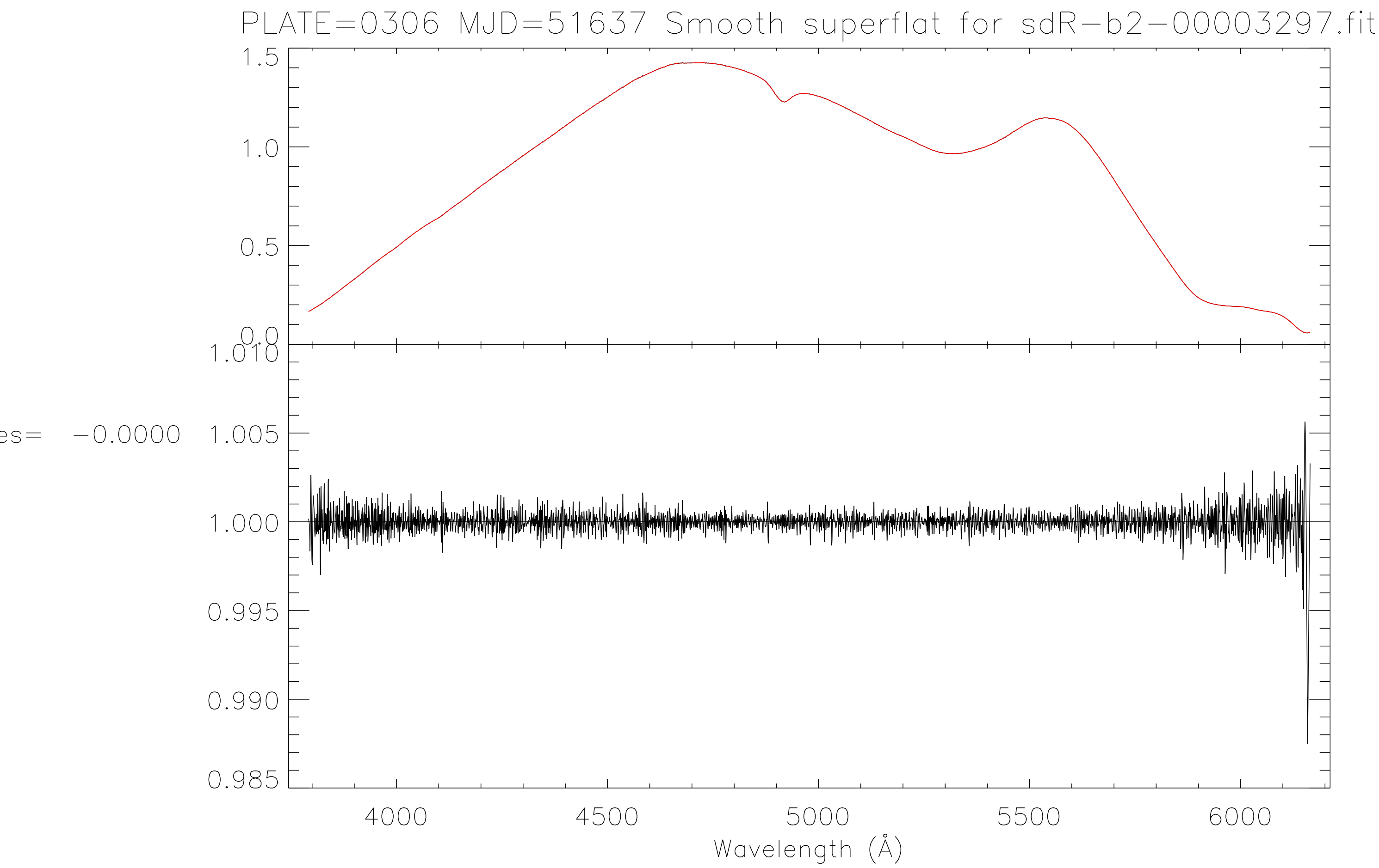

5460.9400
nfib1 16
nfib2 16
stdev 0.054
extra 0.25
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

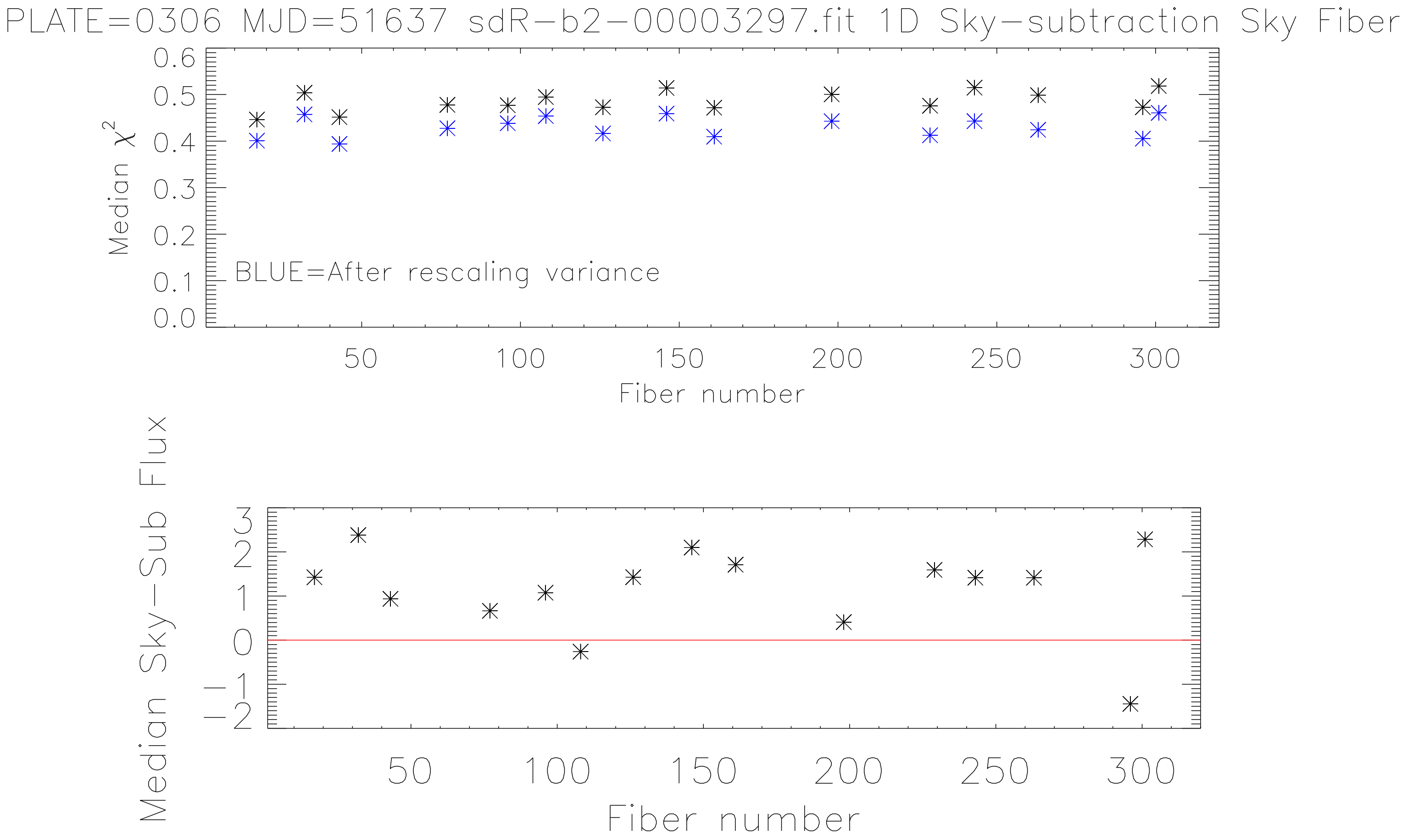

5577.3390
nfib1 16
nfib2 16
stdev 0.017
extra 0.32
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

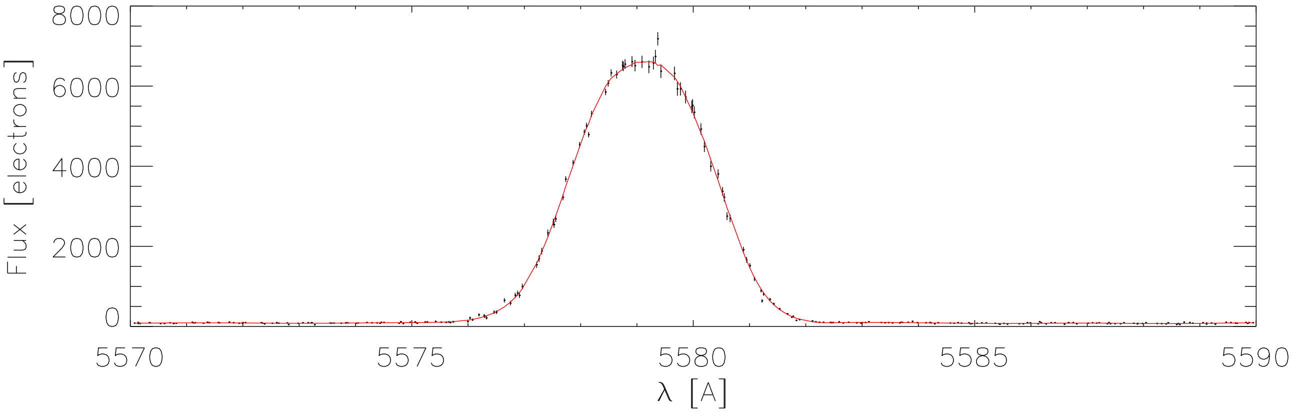

5889.9500
nfib1 16
nfib2 16
stdev 0.037
extra 0.37
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400


5895.9240
nfib1 16
nfib2 16
stdev 0.050
extra 0.36
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

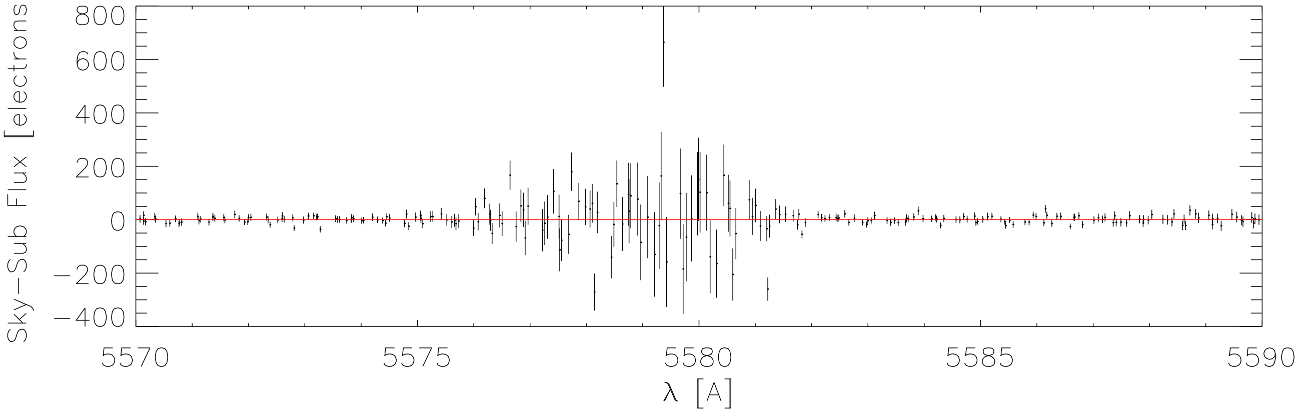

sky shift, pixels
0.20
0.25
0.30
0.35
3500
4000
4500
5000
5500
6000
6500


PLATE=0306 MJD=51637 Smooth superflat for sdR-b2-00003297.fit
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
0.985
es= −0.0000
4000
4500
5000
5500
6000
Wavelength (Å)


PLATE=0306 MJD=51637 sdR-b2-00003297.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-2
-1
0
1
2
3
50
100
150
200
250
300
Fiber number



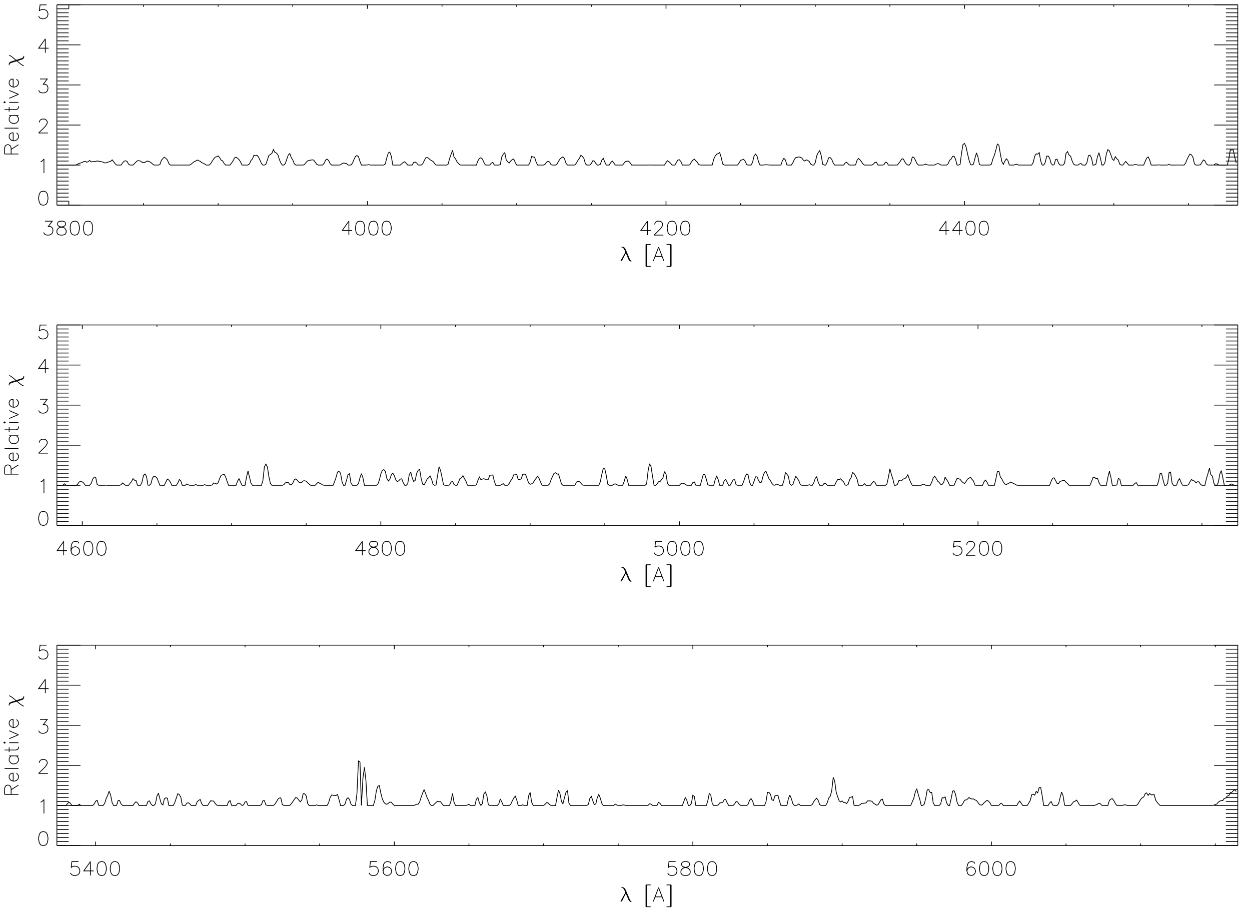
PLATE=0306 MJD=51637 sdR-b2-00003297.fit 1D Sky-subtraction Sky Fibers

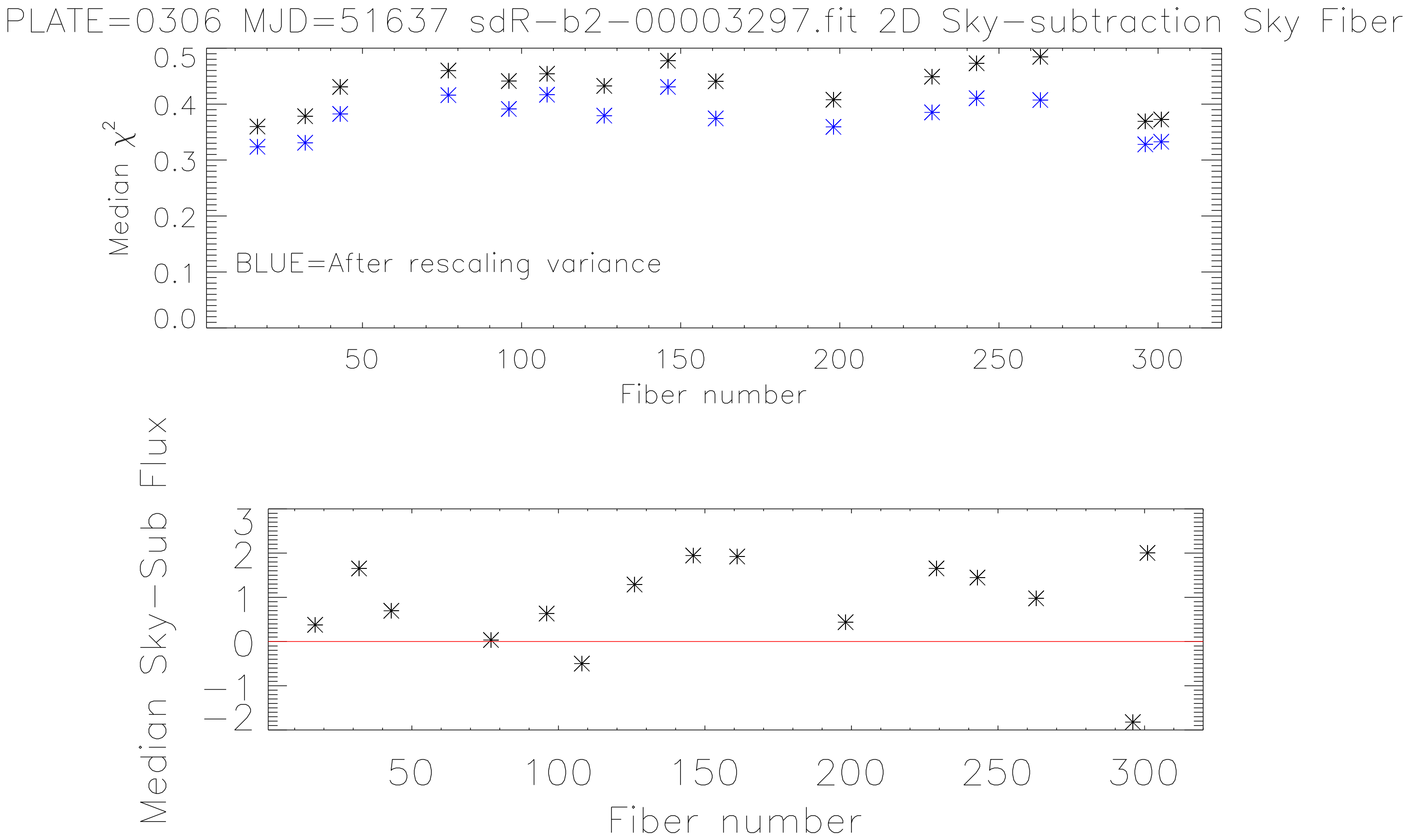


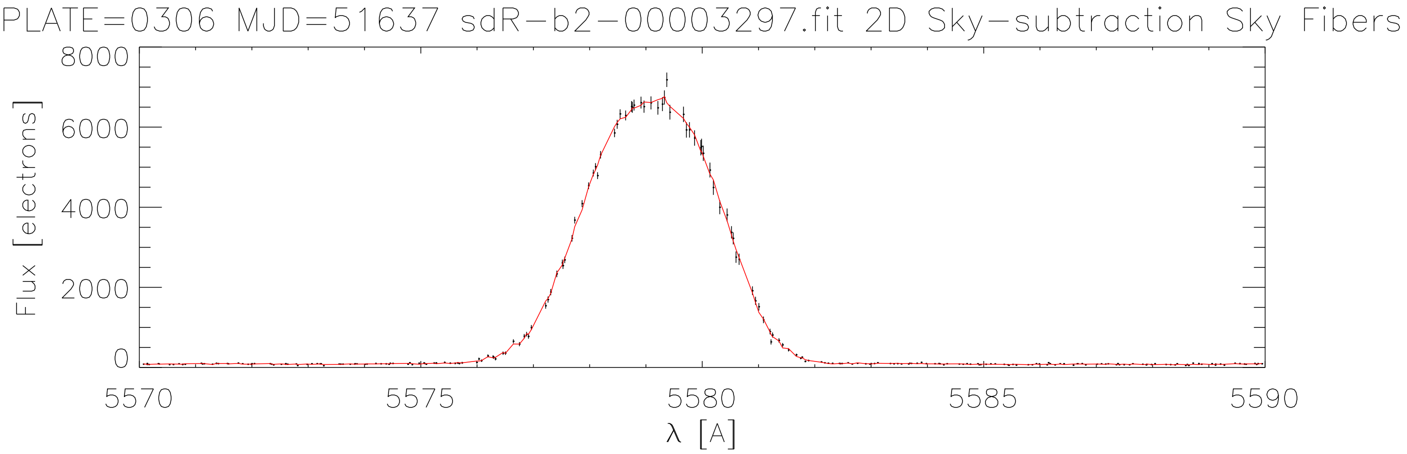
PLATE=0306 MJD=51637 sdR-b2-00003297.fit 1D Sky-subtraction Sky-subtracted Sky F

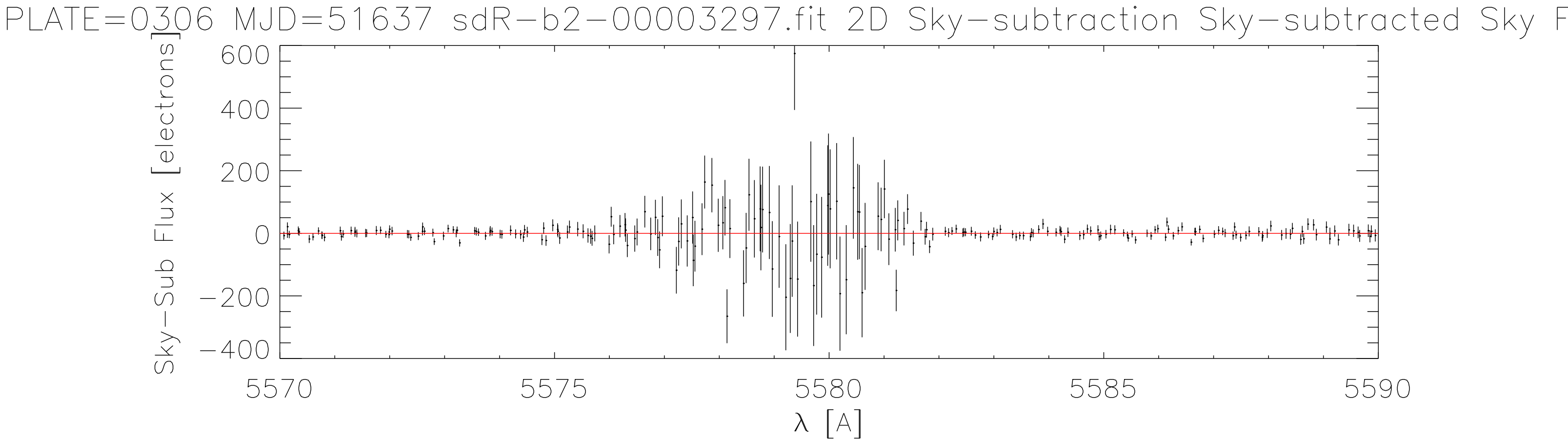
Number of sky fibers = 15

PLATE=0306 MJD=51637 sdR-b2-00003297.fit 1D Sky-subtraction Rescaled Errors



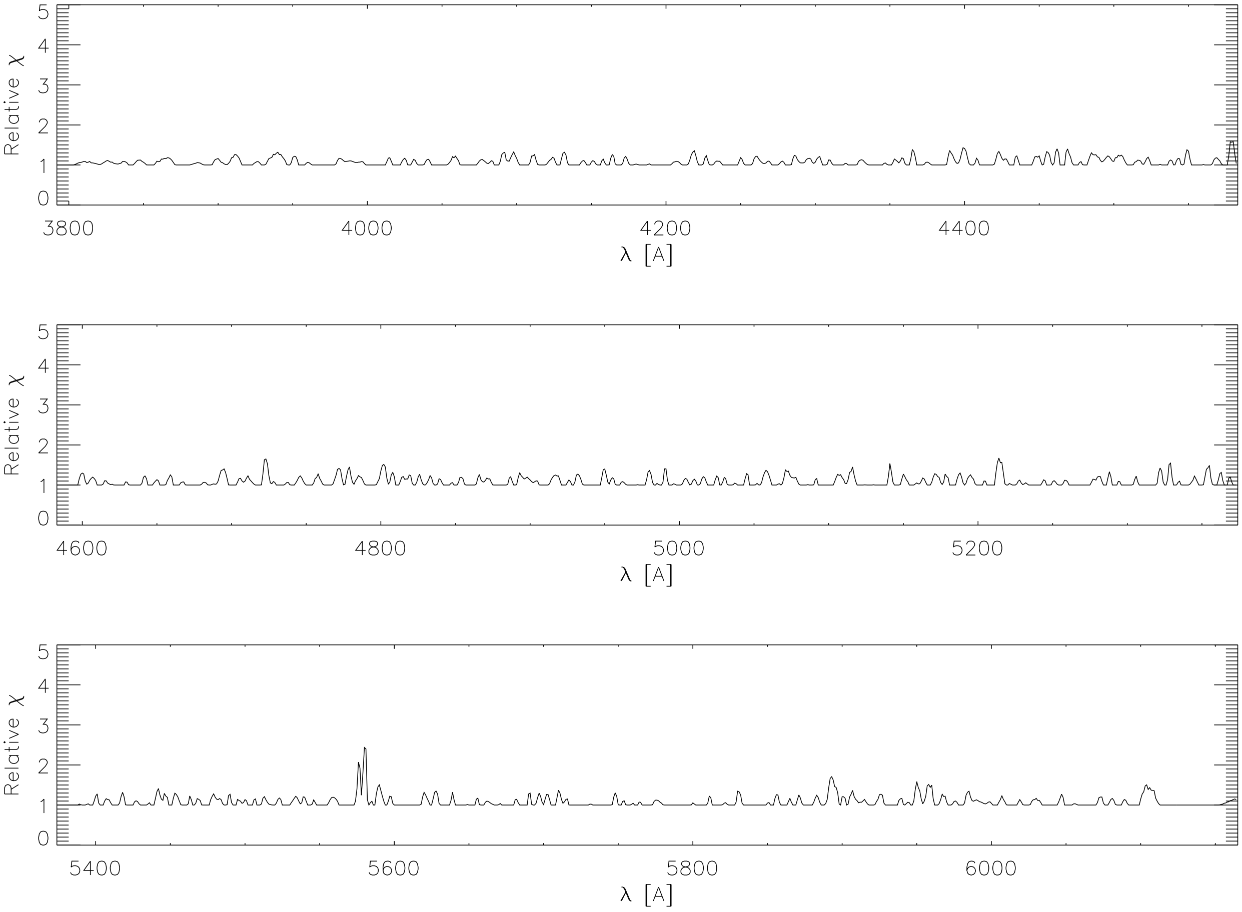

PLATE=0306 MJD=51637 sdR-b2-00003297.fit 2D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
−2
−1
0
1
2
3
50
100
150
200
250
300
Fiber number

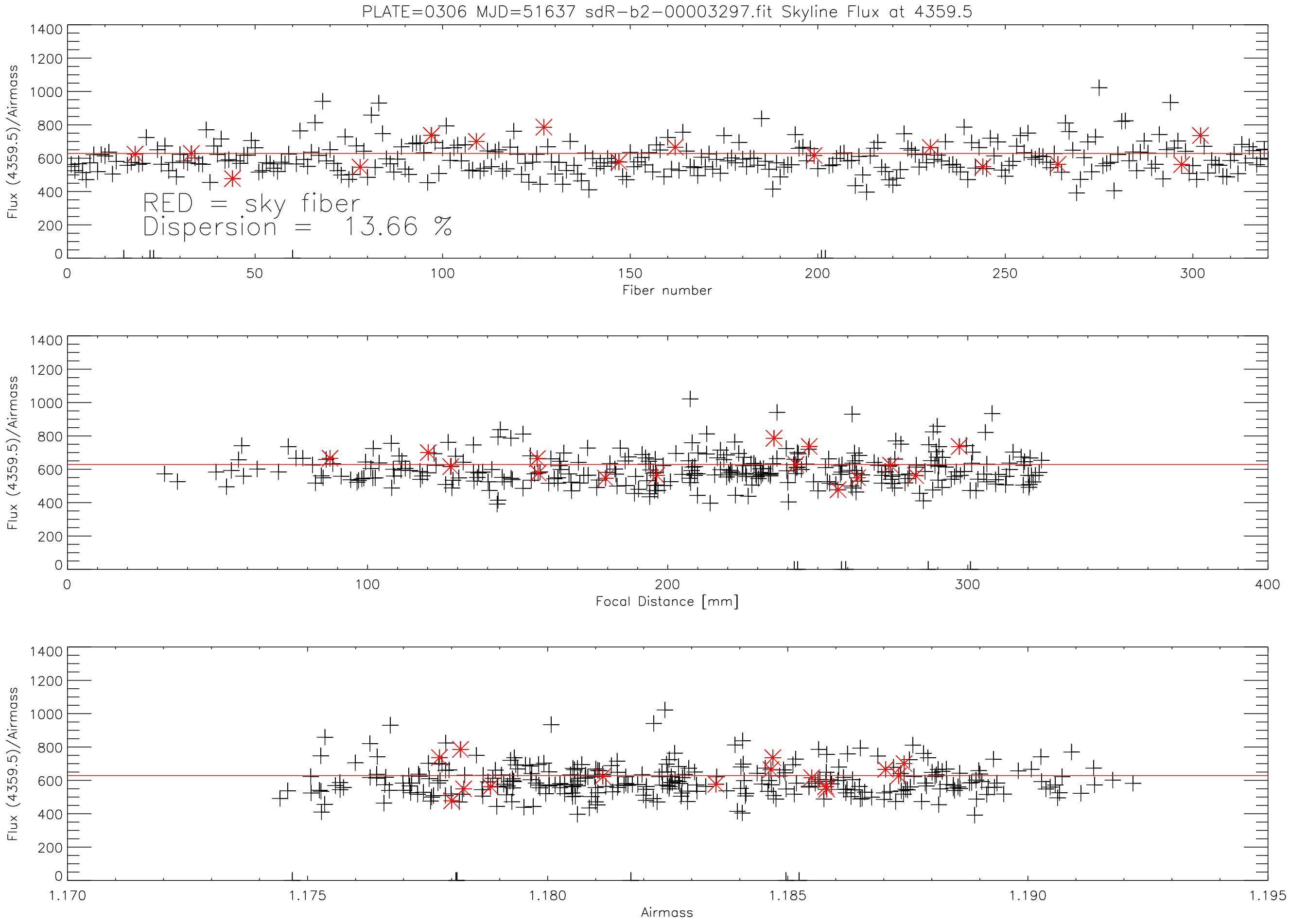

PLATE=0306 MJD=51637 sdR-b2-00003297.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
8000
6000
4000
2000
0
5570
5575
5580
5585
5590
λ [A]

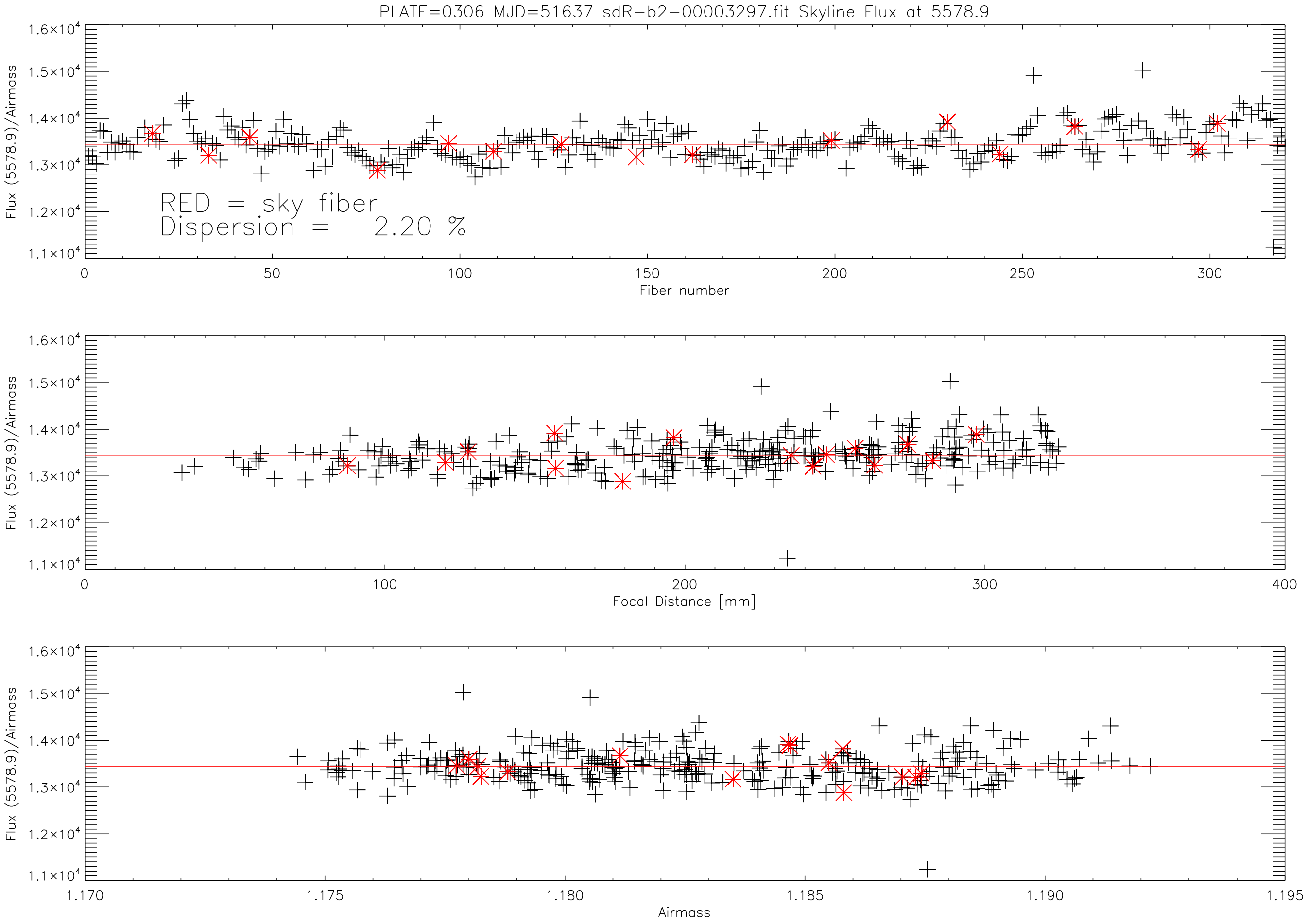

PLATE=0306 MJD=51637 sdR-b2-00003297.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
−200
−400
5570
5575
5580
5585
5590
λ [A]

Number of sky fibers = 15

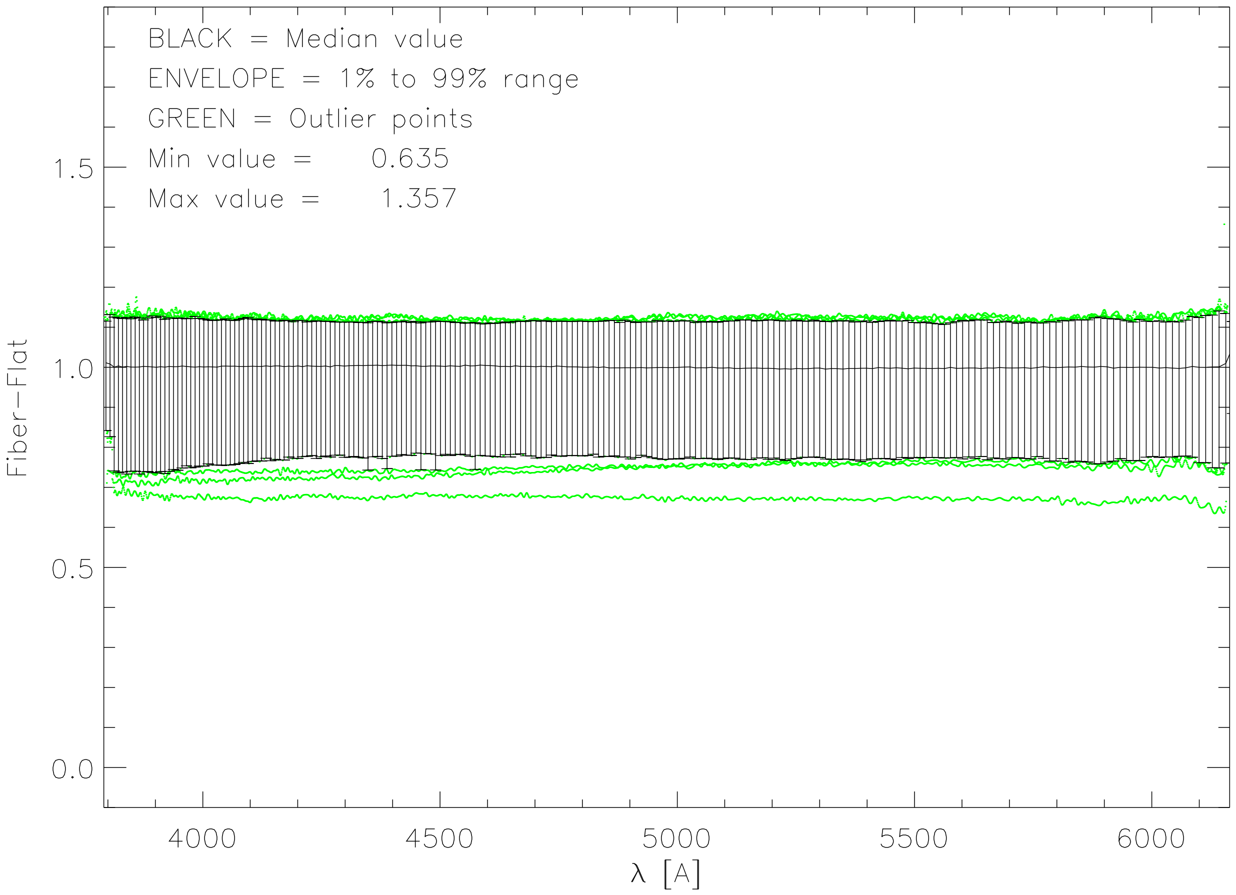
PLATE=0306 MJD=51637 sdR-b2-00003297.fit 2D Sky-subtraction Rescaled Errors



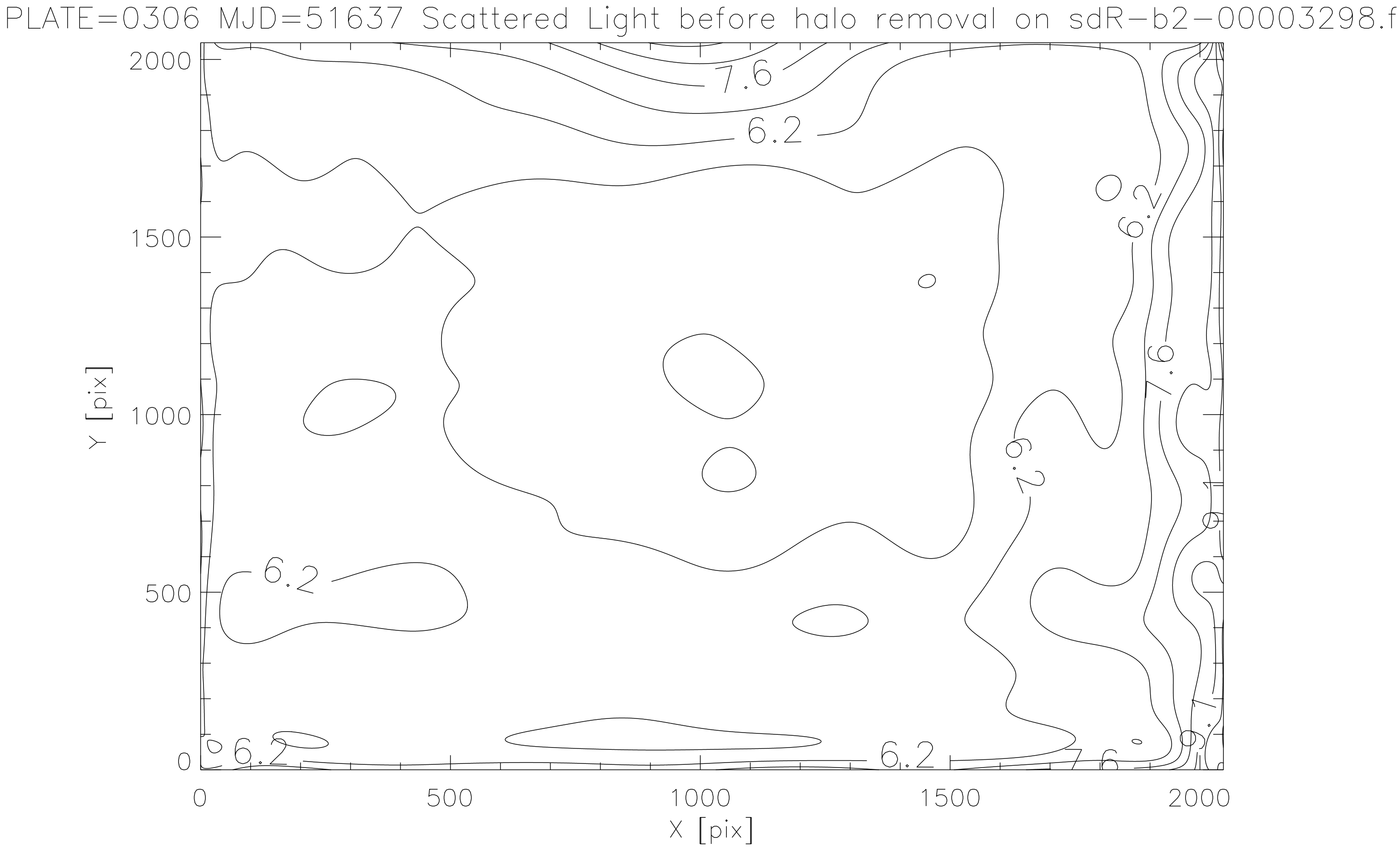

PLATE=0306 MJD=51637 sdR-b2-00003297.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
0
200
400
600
800
1000
1200
1400
RED = sky fiber
Dispersion = 13.66 %
0
50
100
150
200
250
300
Fiber number
Flux (4359.5)/Airmass
0
100
200
300
400
Focal Distance [mm]
Flux (4359.5)/Airmass
1.170
1.175
1.180
1.185
1.190
1.195
Airmass


PLATE=0306 MJD=51637 sdR-b2-00003297.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
1.6×10⁴
1.5×10⁴
1.4×10⁴
1.3×10⁴
1.2×10⁴
1.1×10⁴
RED = sky fiber
Dispersion = 2.20 %
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
1.170
1.175
1.180
1.185
1.190
1.195
Airmass

PLATE=0306 MJD=51637 Fiber-Flats for sdR-b2-00003301.fit

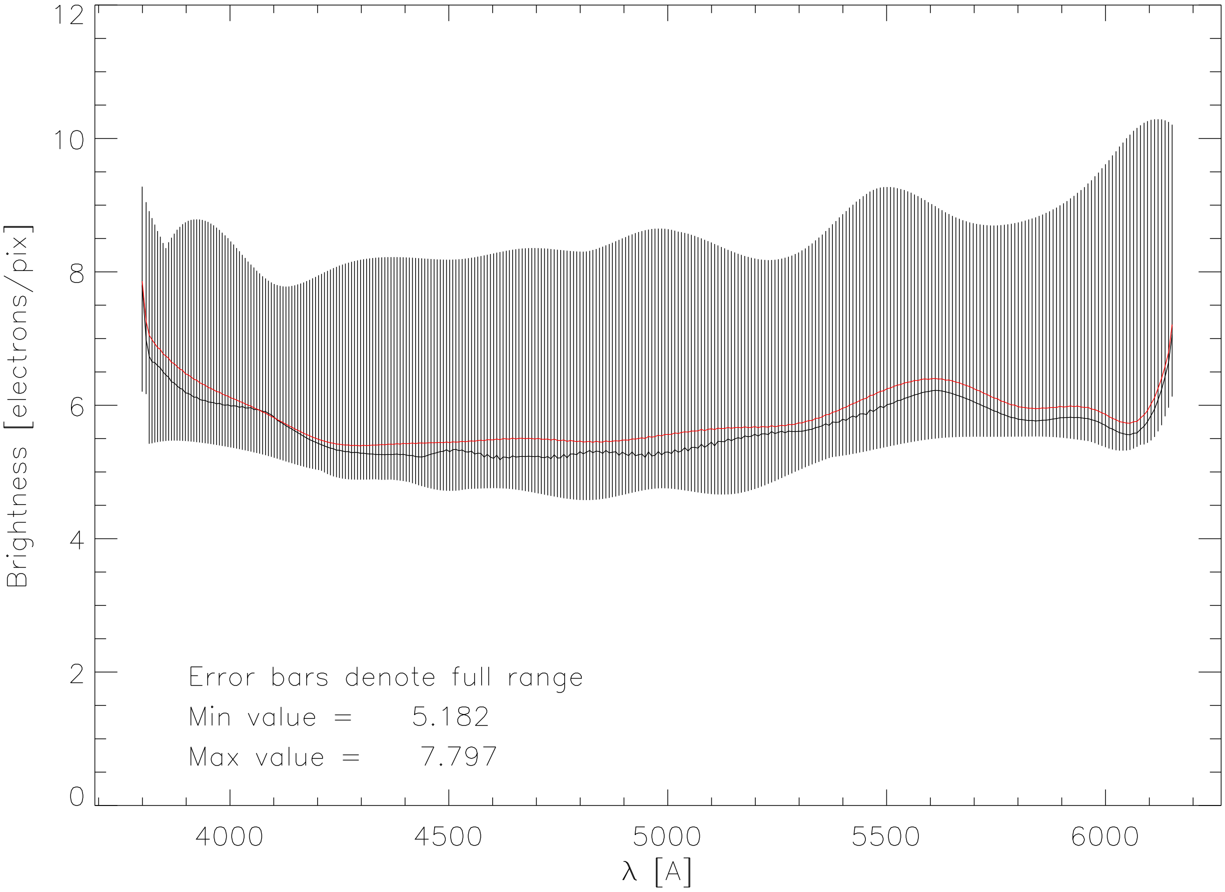


Sun Mar 2 13:57:59 2008

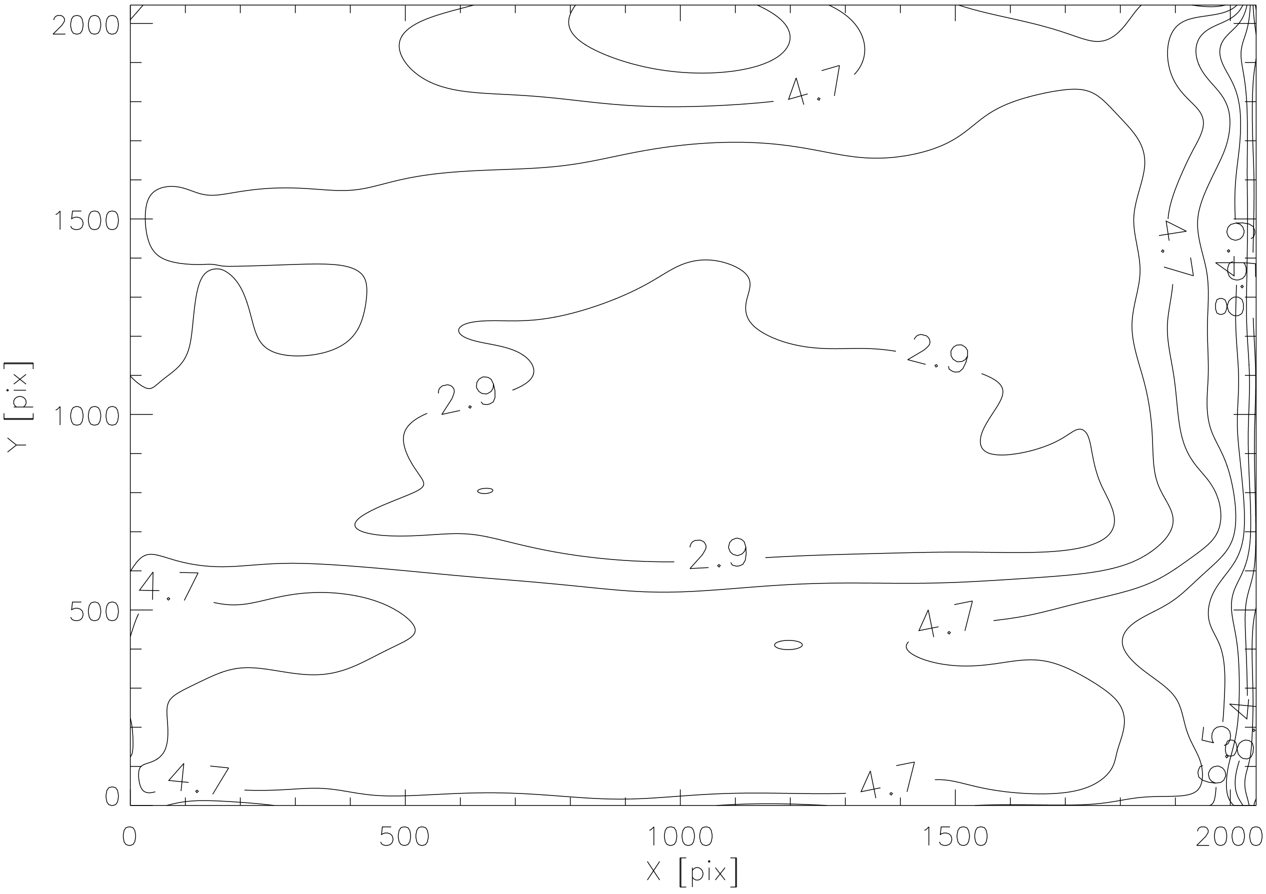


PLATE=0306 MJD=51637 Scattered Light before halo removal on sdR-b2-00003298.f

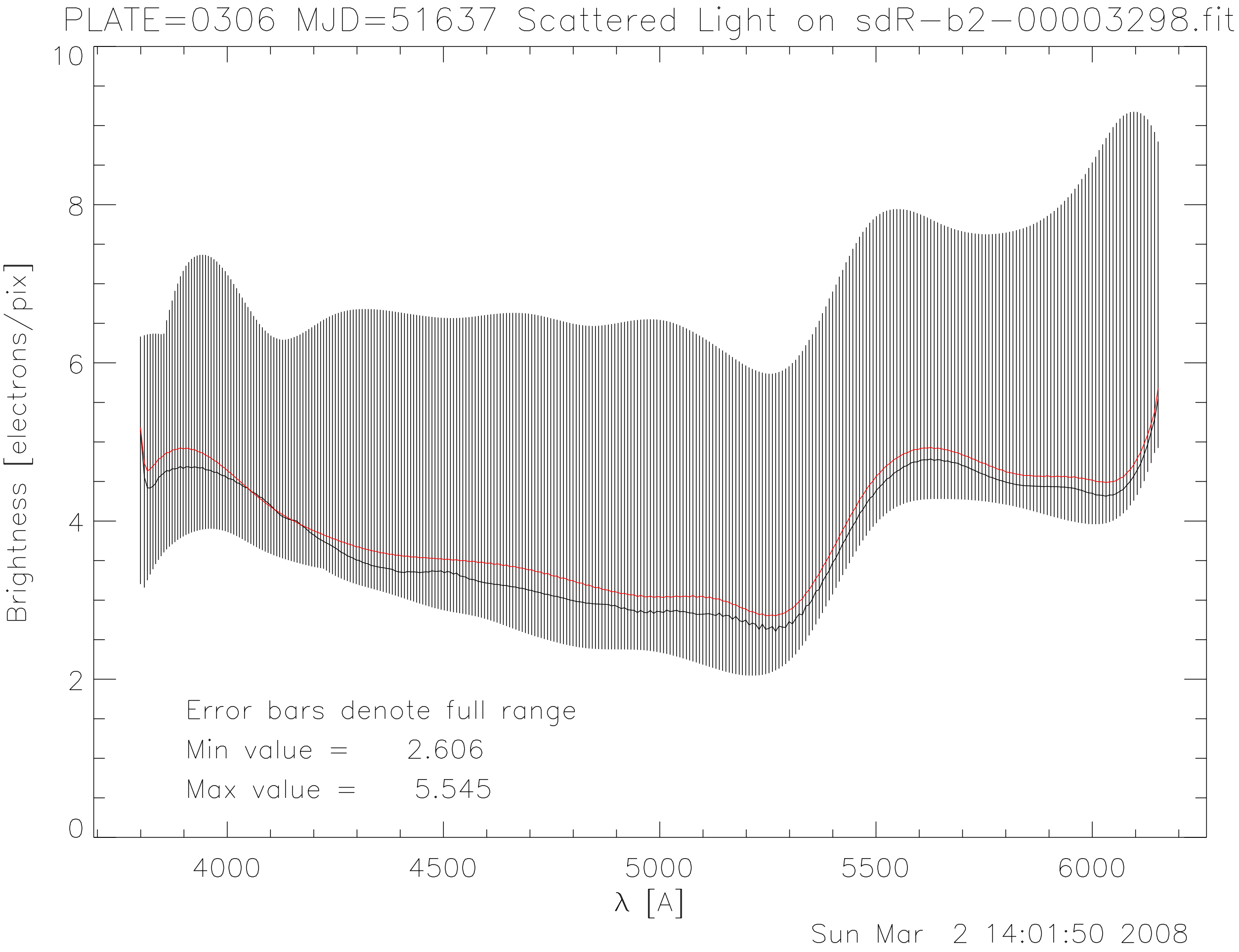
PLATE=0306 MJD=51637 Scattered Light before halo removal on sdR-b2-00003298.f

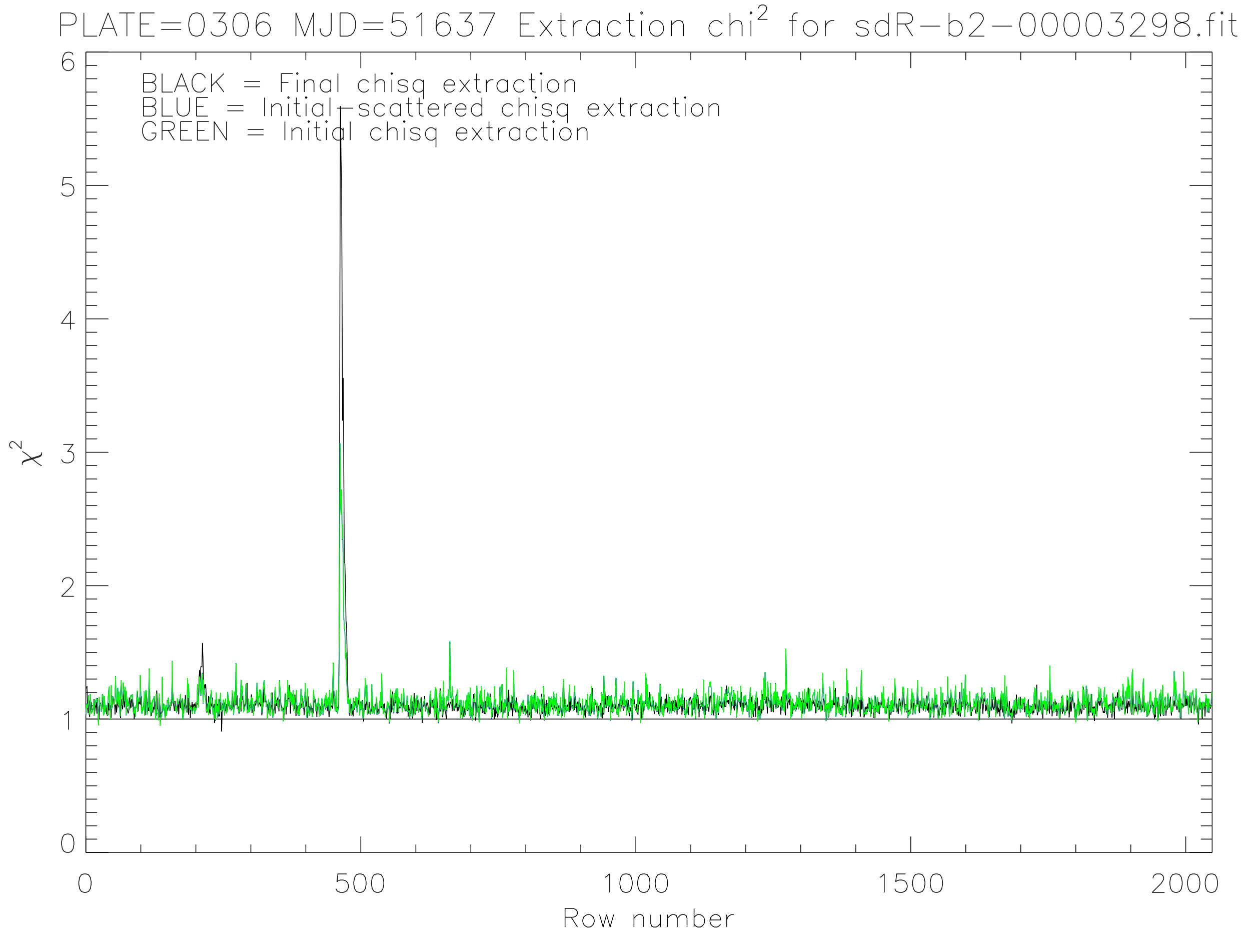


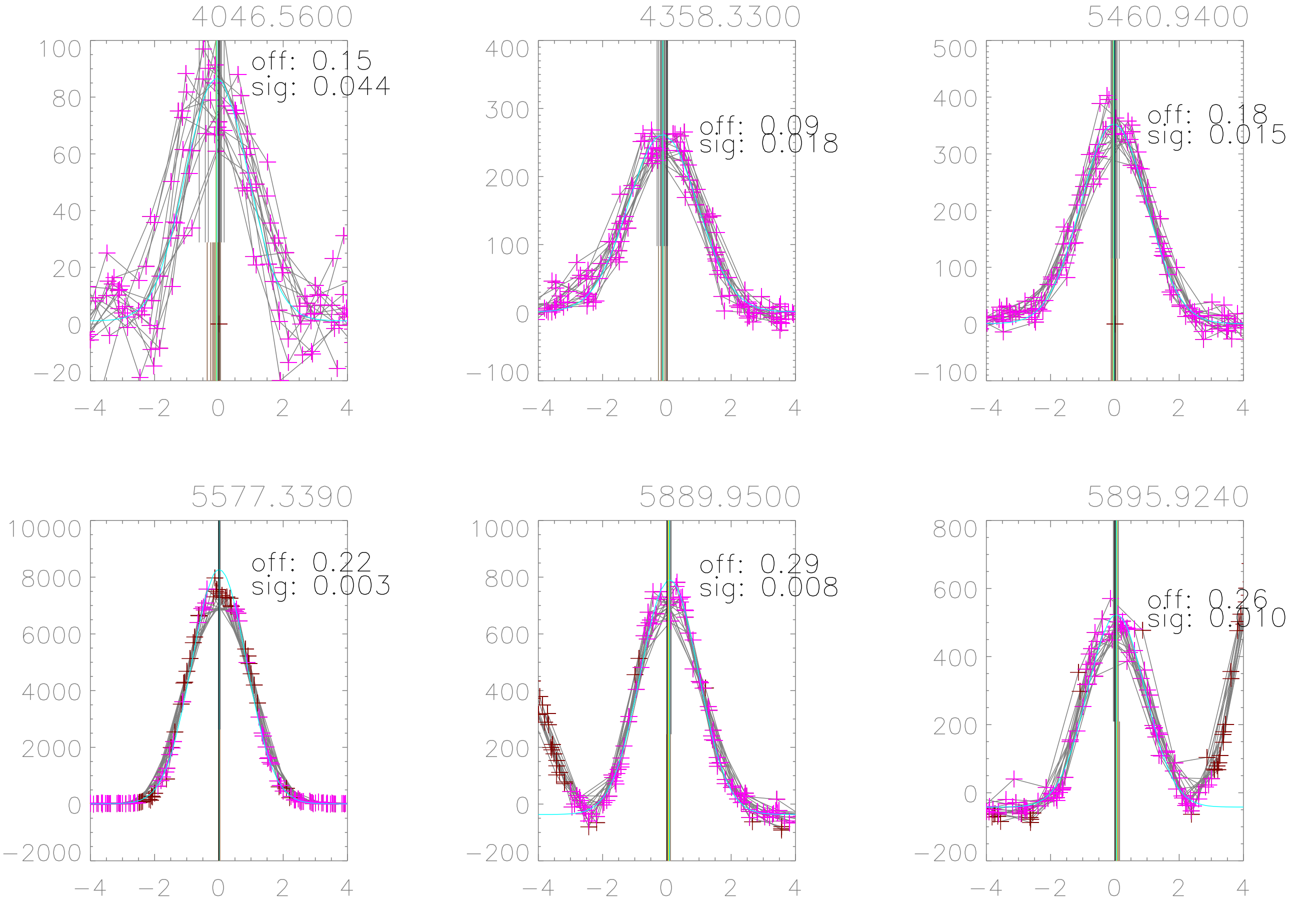
Sun Mar 2 13:58:48 2008

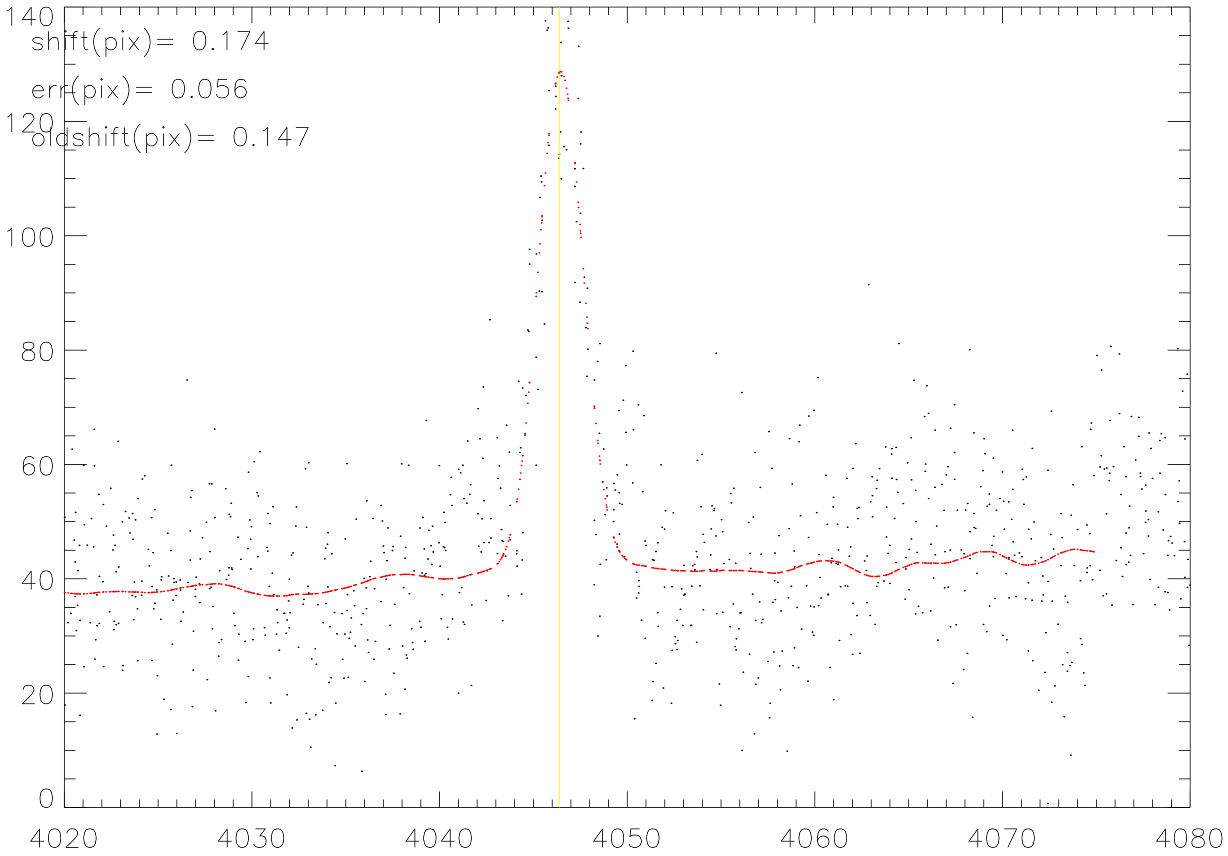


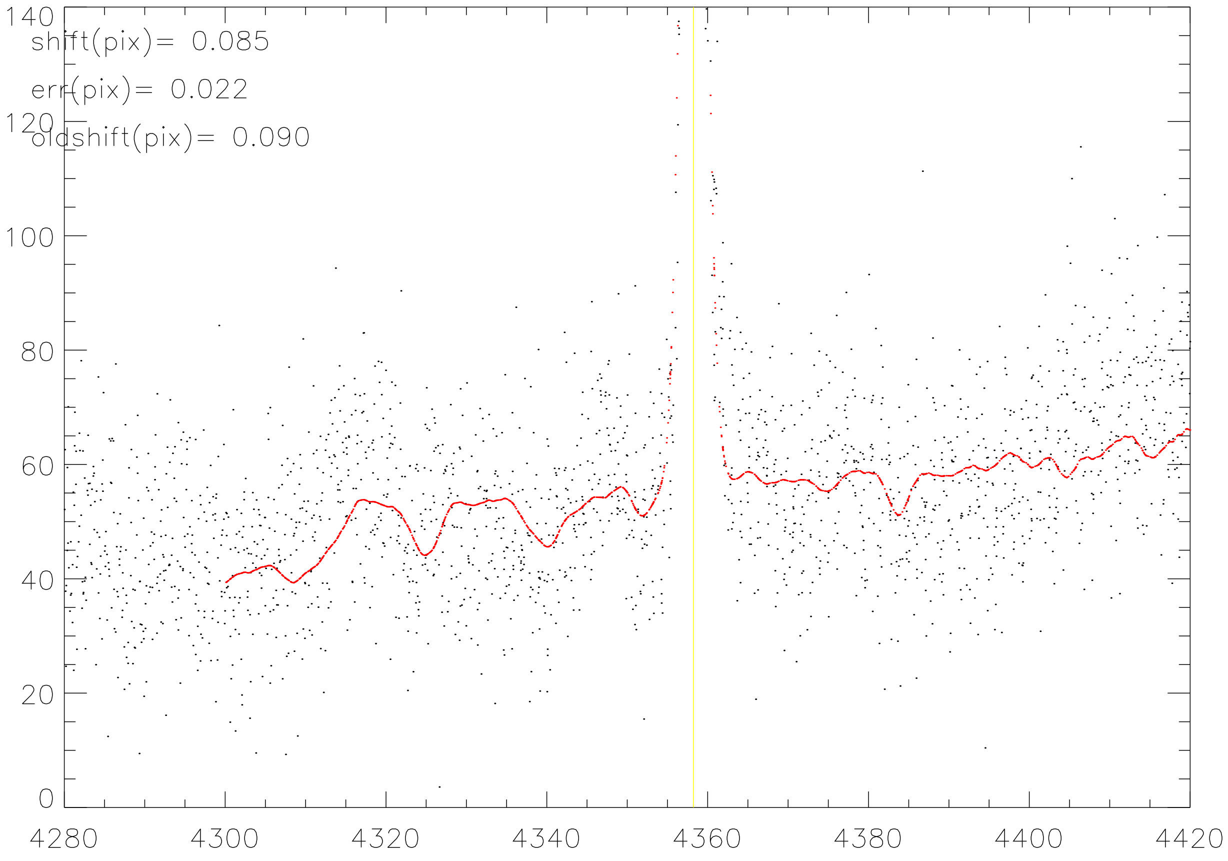
PLATE=0306 MJD=51637 Scattered Light on sdR-b2-00003298.fit

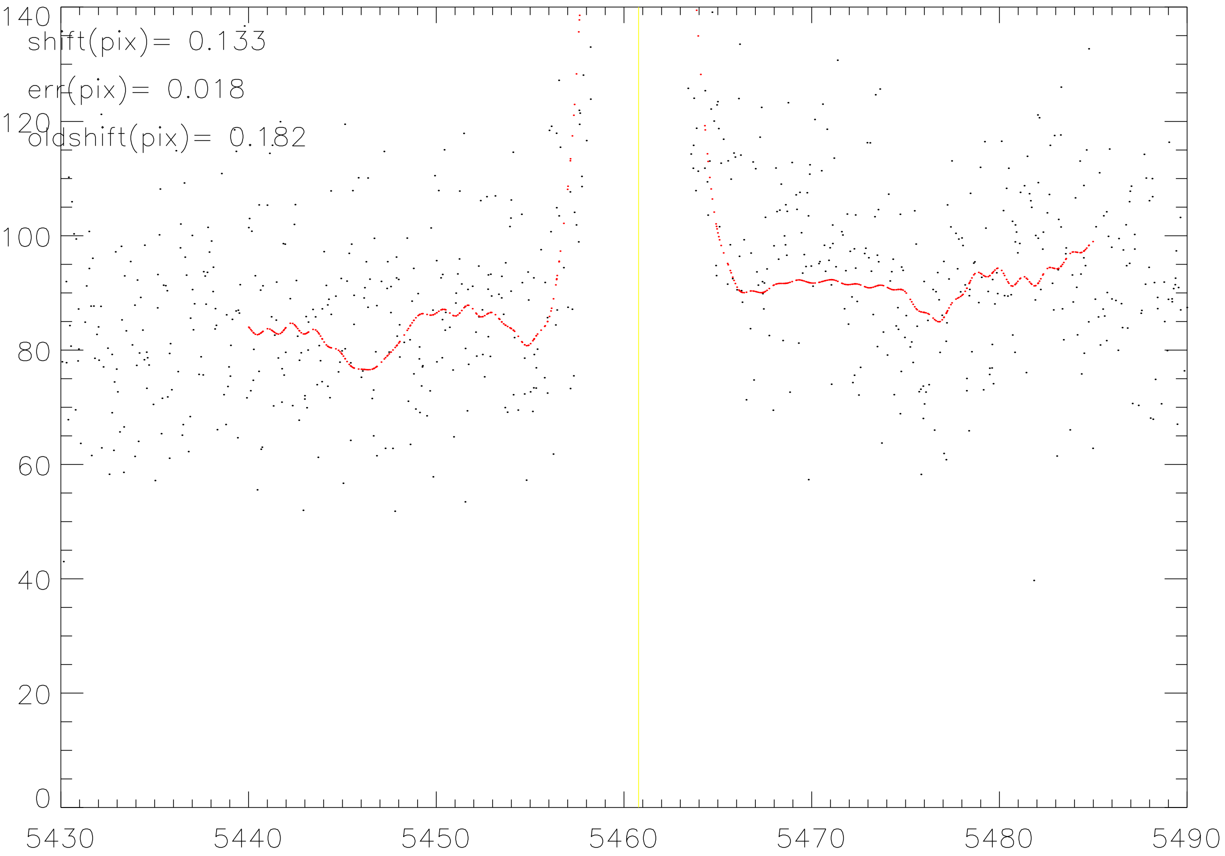

PLATE=0306 MJD=51637 Scattered Light on sdR-b2-00003298.fit
Brightness [electrons/pix]
0
2
4
6
8
10
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 2.606
Max value = 5.545
Sun Mar 2 14:01:50 2008

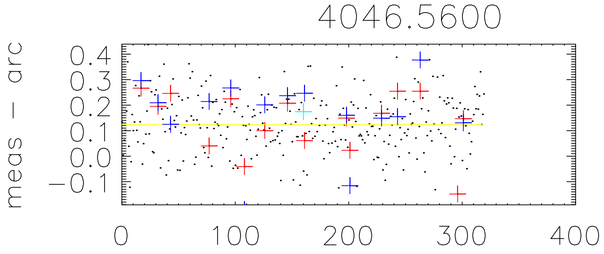

PLATE=0306 MJD=51637 Extraction chi^2 for sdR-b2-00003298.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
5
6
0
500
1000
1500
2000
Row number

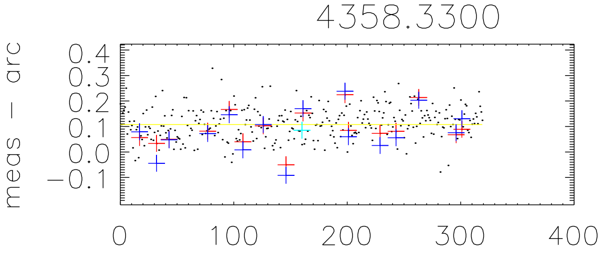

4046.5600
off: 0.15
sig: 0.044
100
80
60
40
20
0
−20
−4
−2
0
2
4
4358.3300
off: 0.09
sig: 0.018
400
300
200
100
0
−100
5460.9400
off: 0.18
sig: 0.015
500
400
300
200
100
0
−100
5577.3390
off: 0.22
sig: 0.003
10000
8000
6000
4000
2000
0
−2000
5889.9500
off: 0.29
sig: 0.008
1000
800
600
400
200
0
−200
5895.9240
off: 0.26
sig: 0.010
800
600
400
200
0
−200

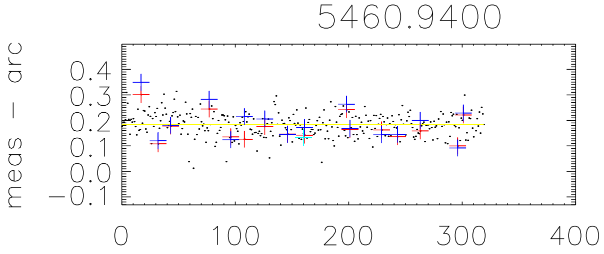

shift(pix)= 0.174
err(pix)= 0.056
oldshift(pix)= 0.147
0
20
40
60
80
100
120
140
4020
4030
4040
4050
4060
4070
4080

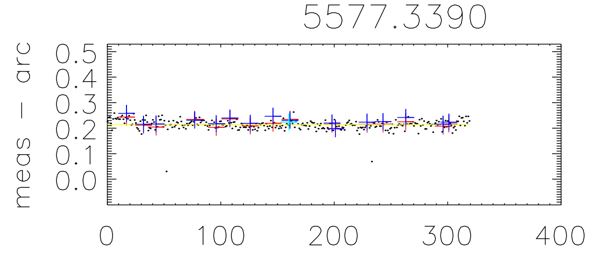

shift(pix)= 0.085
err(pix)= 0.022
oldshift(pix)= 0.090
0
20
40
60
80
100
120
140
4280
4300
4320
4340
4360
4380
4400
4420

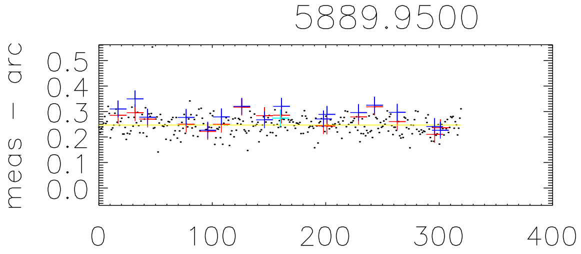

shift(pix)= 0.133
err(pix)= 0.018
oldshift(pix)= 0.182
140
120
100
80
60
40
20
0
5430
5440
5450
5460
5470
5480
5490

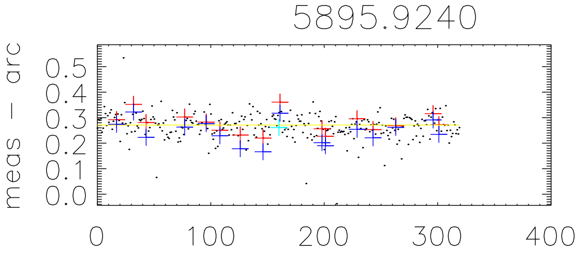

4046.5600
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

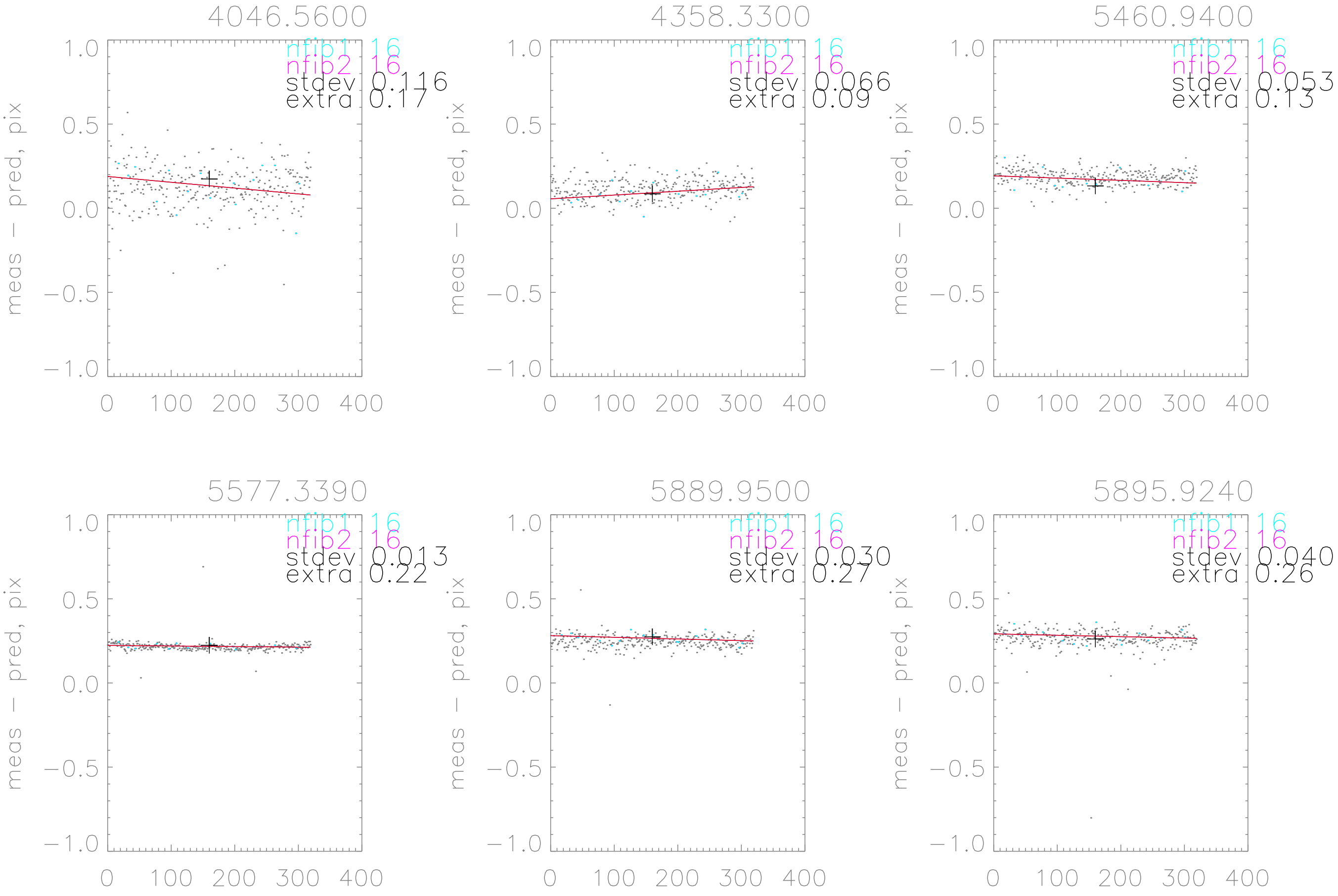

4358.3300
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

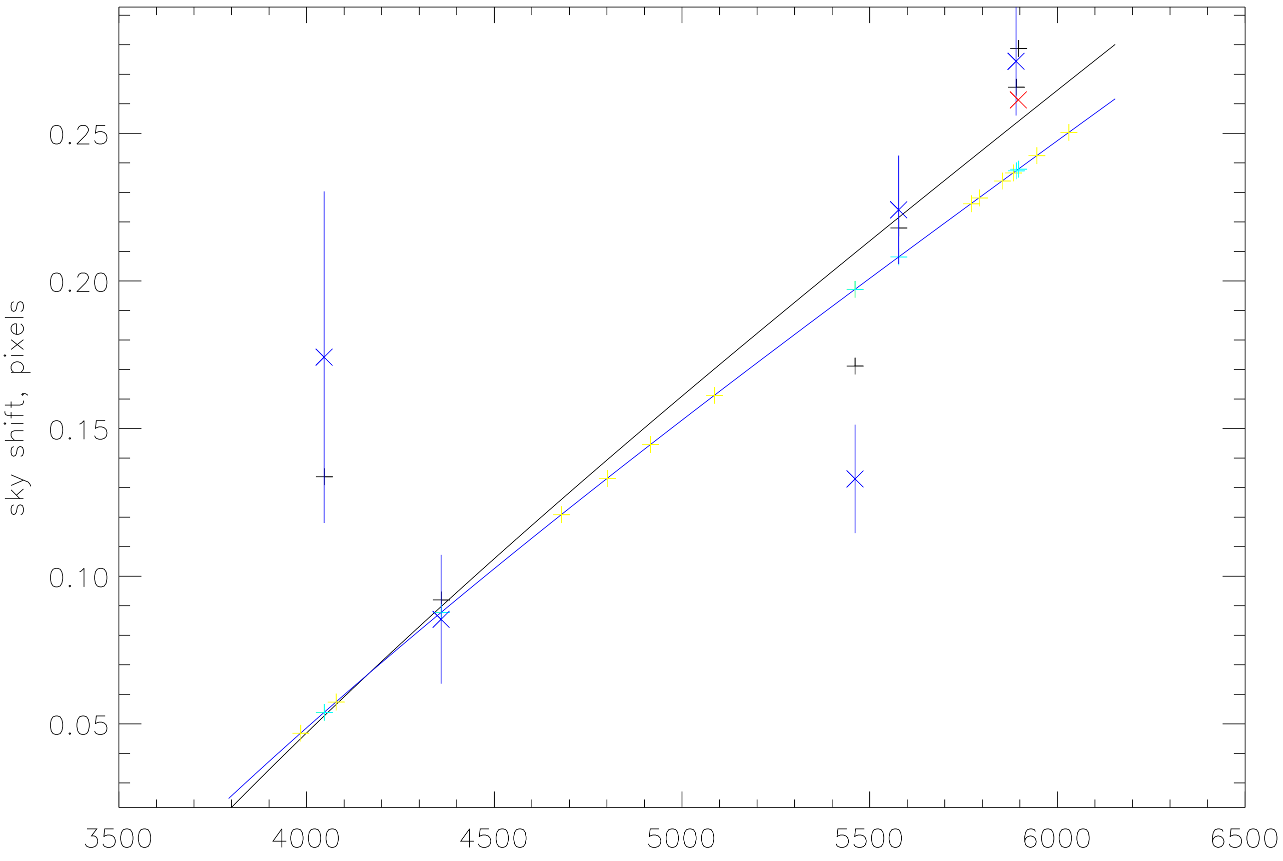

5460.9400
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

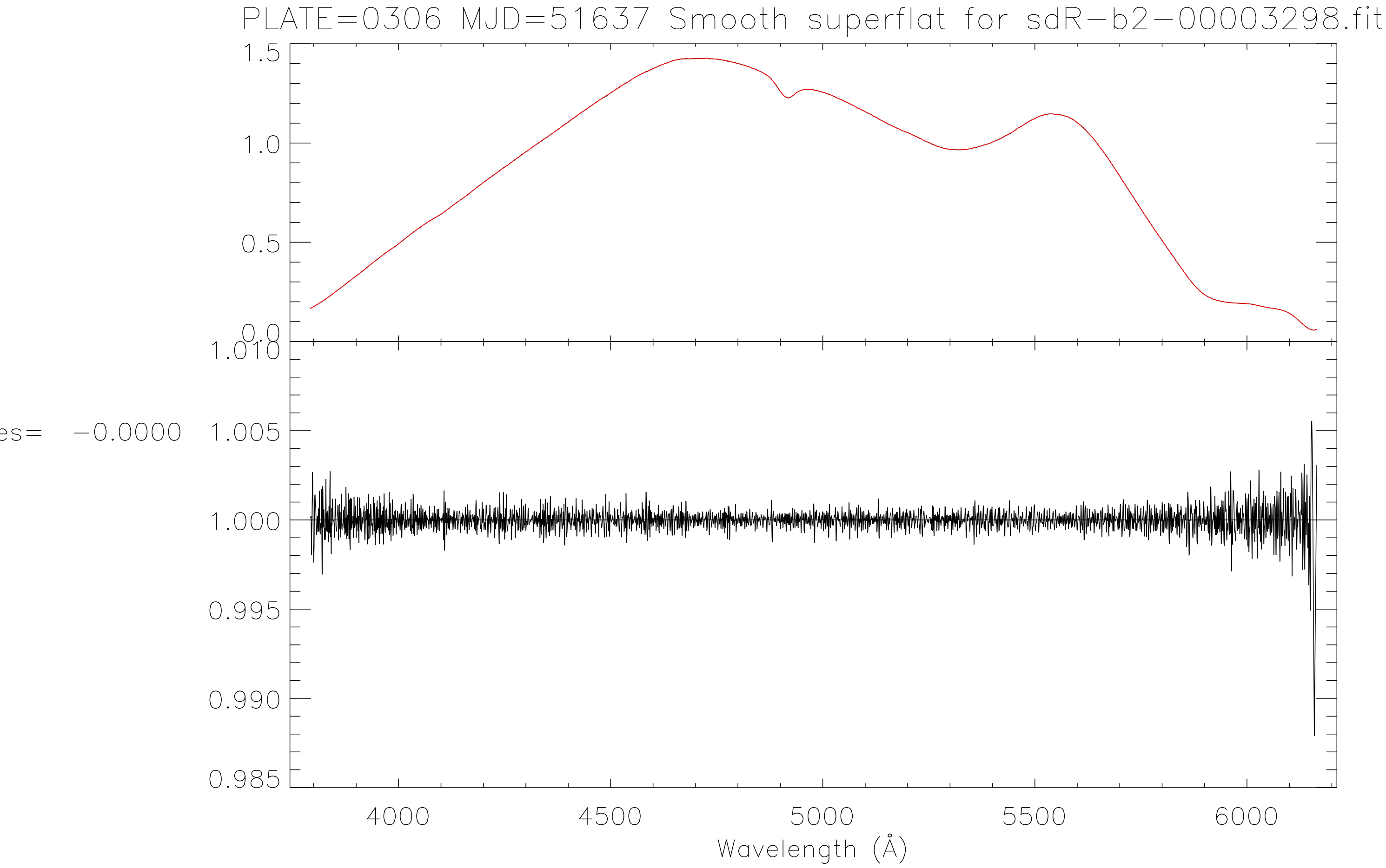

5577.3390
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

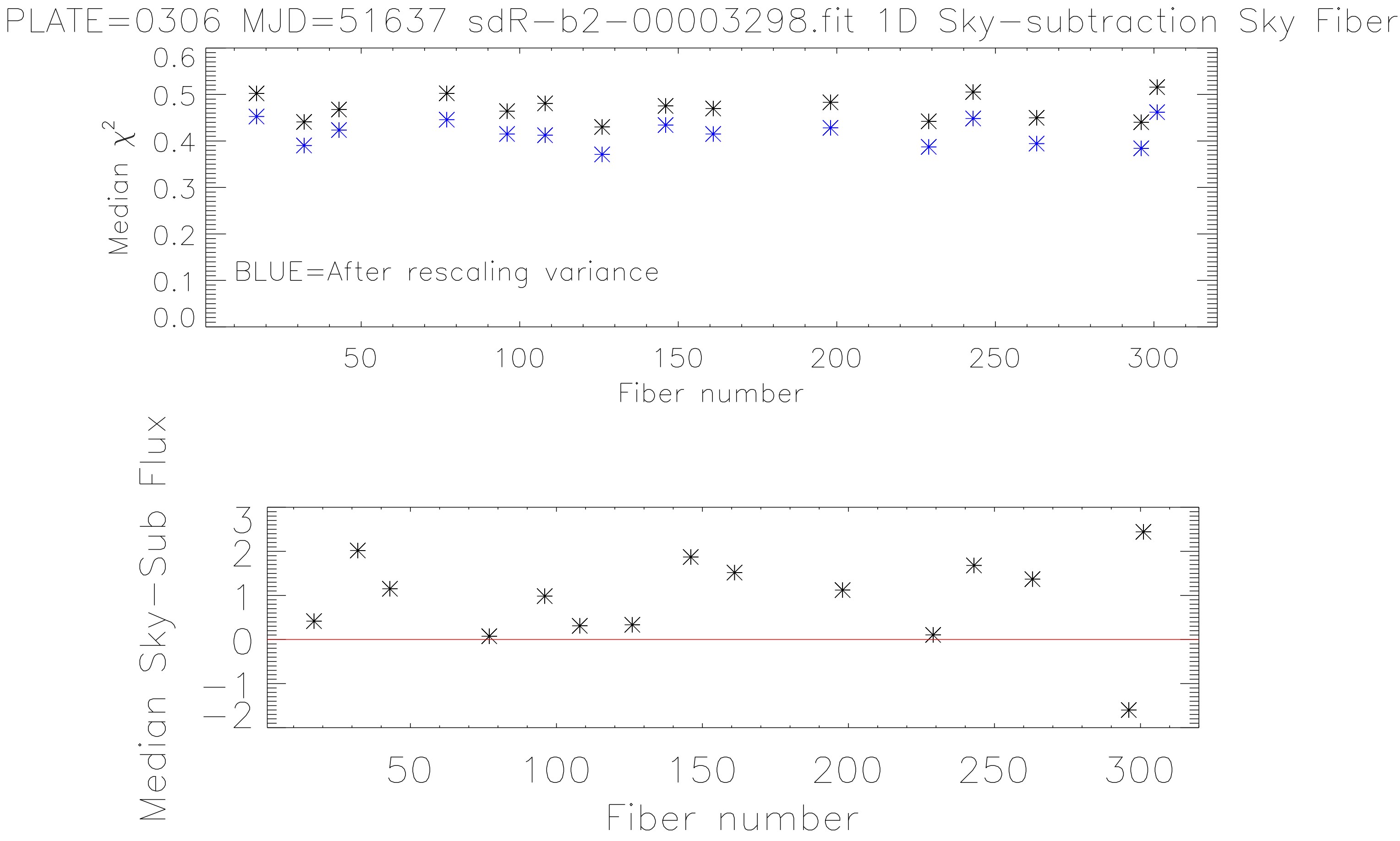

5889.9500
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400


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

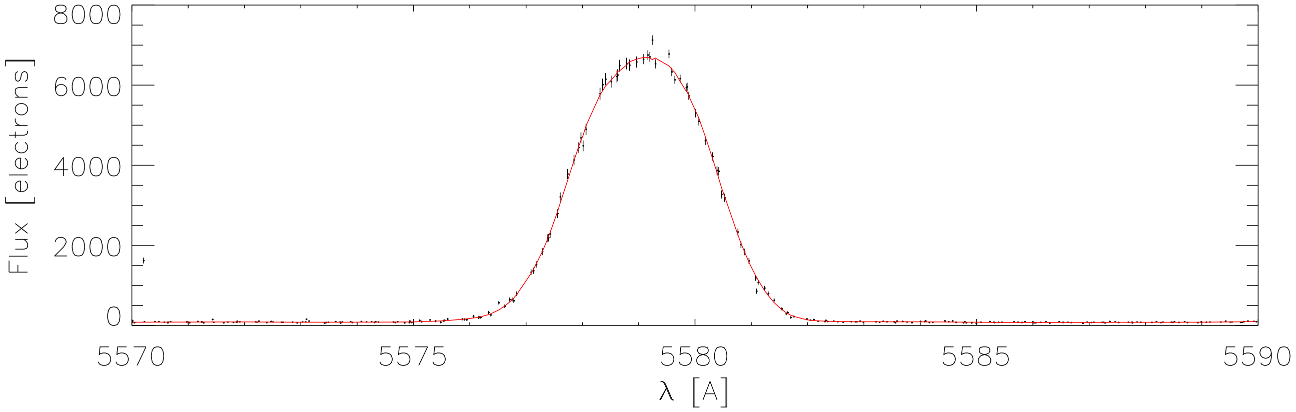

4046.5600
nfib1 16
nfib2 16
stdev 0.116
extra 0.17
4358.3300
nfib1 16
nfib2 16
stdev 0.066
extra 0.09
5460.9400
nfib1 16
nfib2 16
stdev 0.053
extra 0.13
5577.3390
nfib1 16
nfib2 16
stdev 0.013
extra 0.22
5889.9500
nfib1 16
nfib2 16
stdev 0.030
extra 0.27
5895.9240
nfib1 16
nfib2 16
stdev 0.040
extra 0.26
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400


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

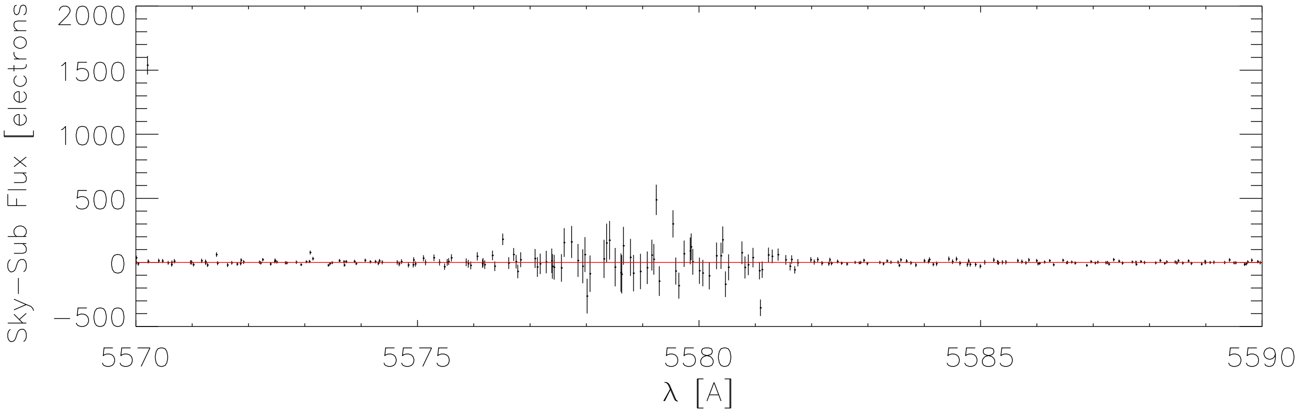

PLATE=0306 MJD=51637 Smooth superflat for sdR-b2-00003298.fit
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
0.985
es= −0.0000
4000
4500
5000
5500
6000
Wavelength (Å)


PLATE=0306 MJD=51637 sdR-b2-00003298.fit 1D 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
3
2
1
0
-1
-2
50
100
150
200
250
300
Fiber number

PLATE=0306 MJD=51637 sdR-b2-00003298.fit 1D Sky-subtraction Sky Fibers

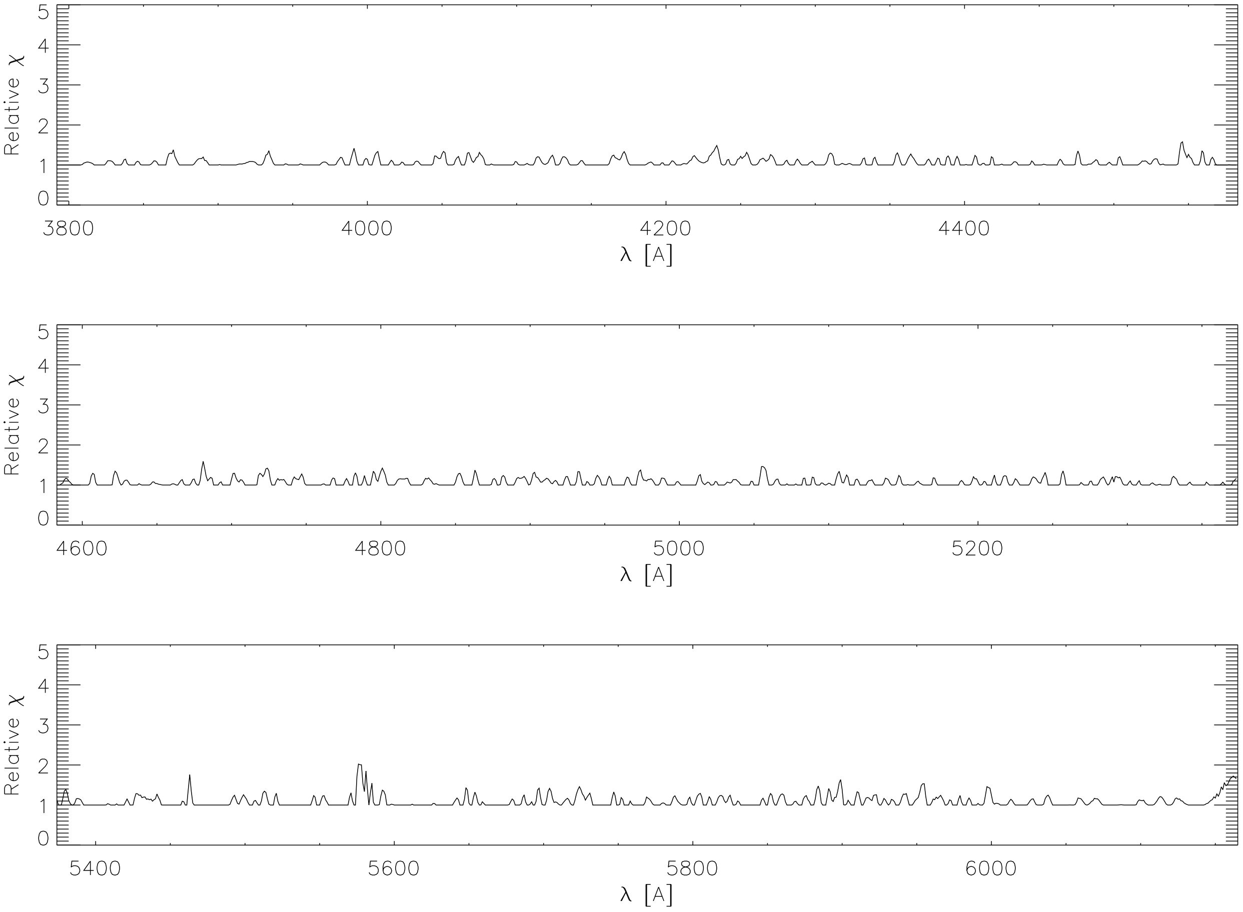


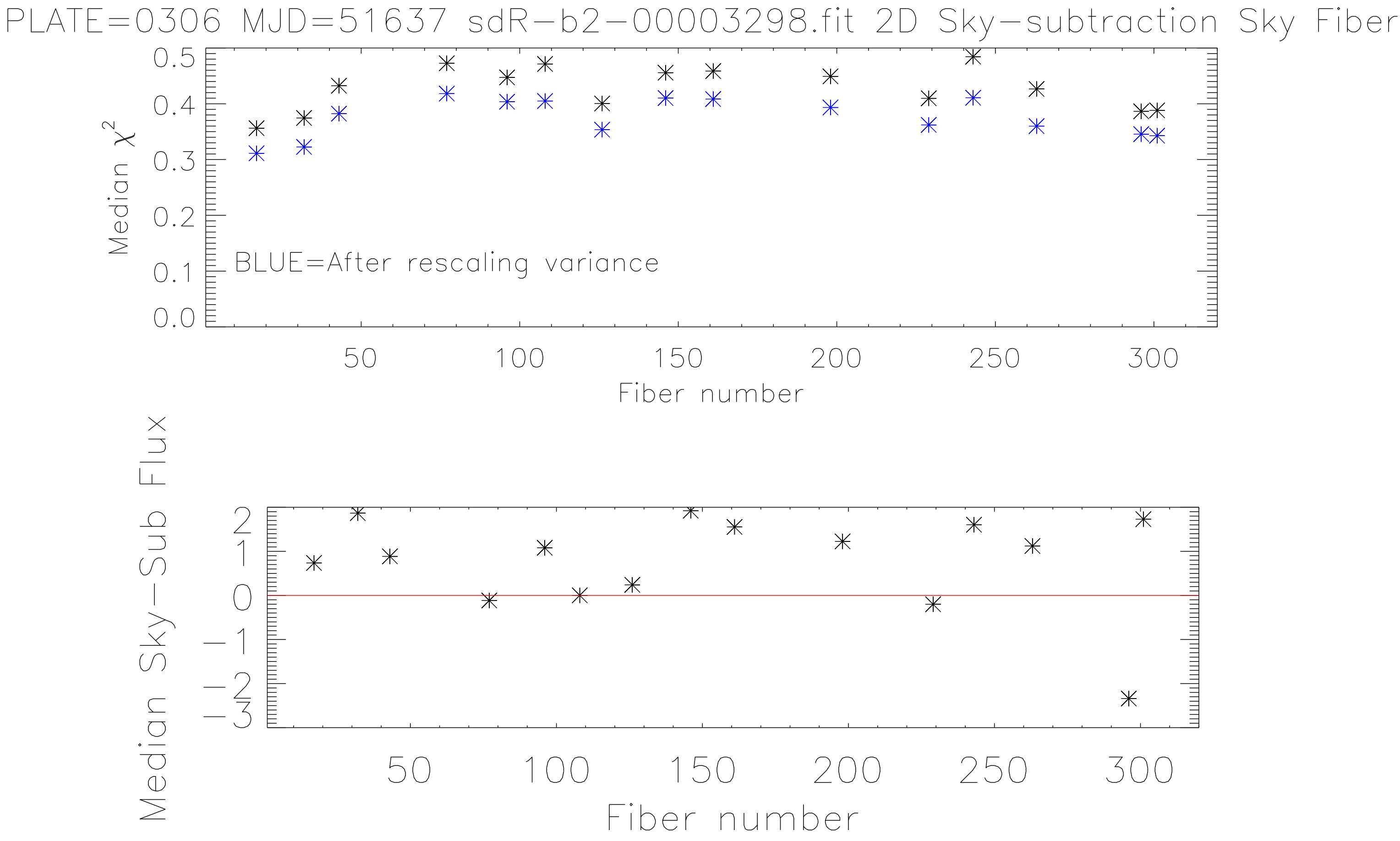
PLATE=0306 MJD=51637 sdR-b2-00003298.fit 1D Sky-subtraction Sky-subtracted Sky F



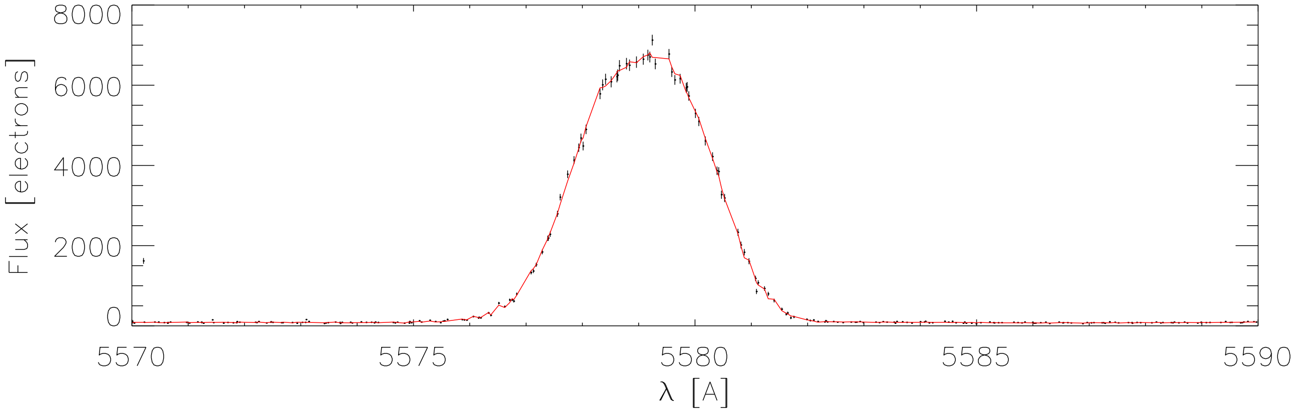
Number of sky fibers = 15

PLATE=0306 MJD=51637 sdR-b2-00003298.fit 1D Sky-subtraction Rescaled Errors

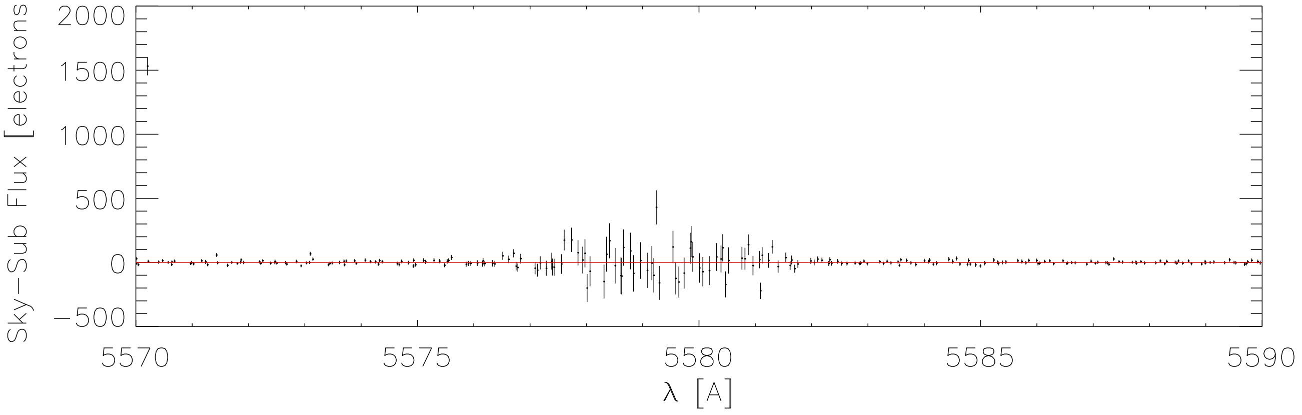


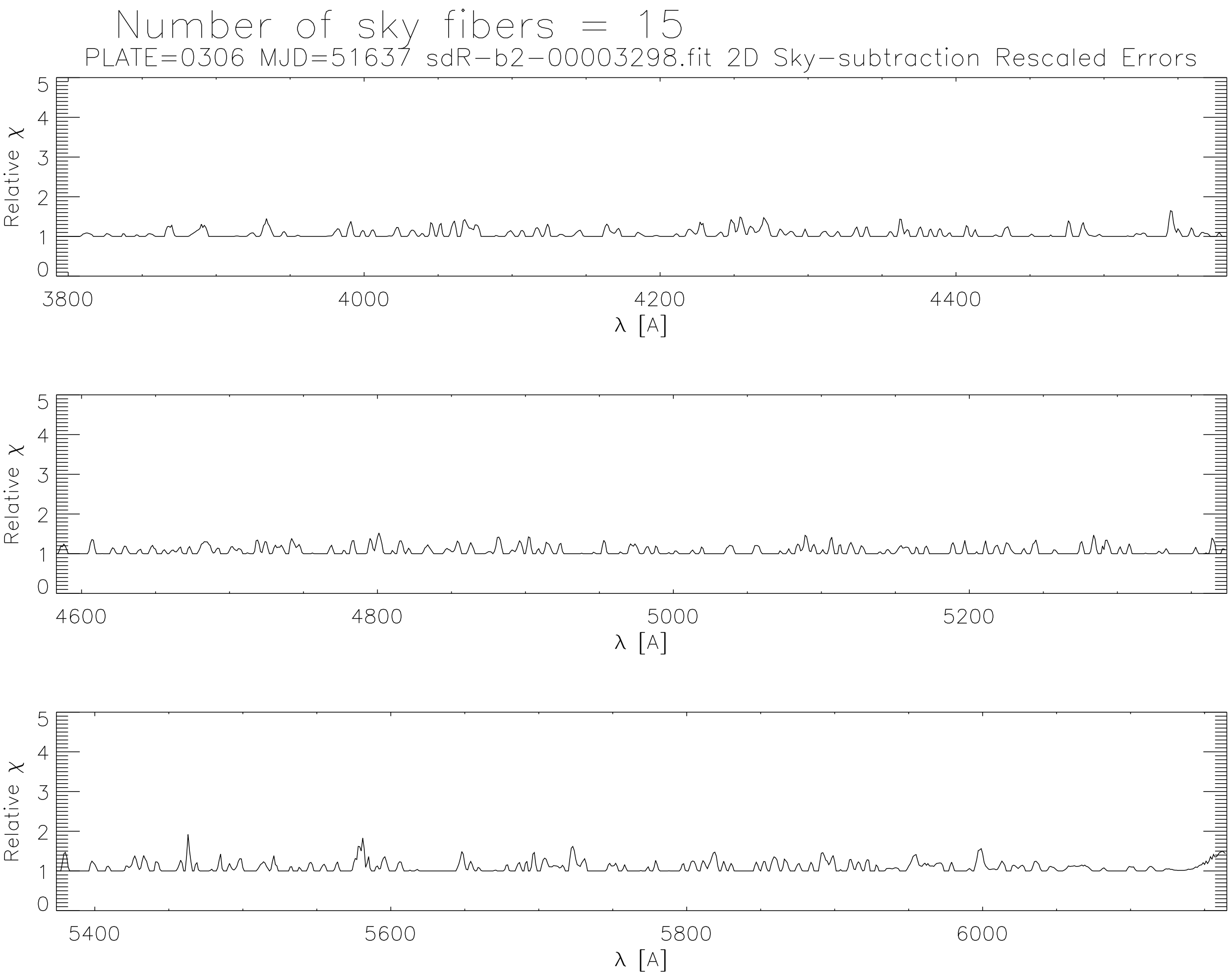

PLATE=0306 MJD=51637 sdR-b2-00003298.fit 2D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
2
1
0
-1
-2
-3
50
100
150
200
250
300
Fiber number

PLATE=0306 MJD=51637 sdR-b2-00003298.fit 2D Sky-subtraction Sky Fibers



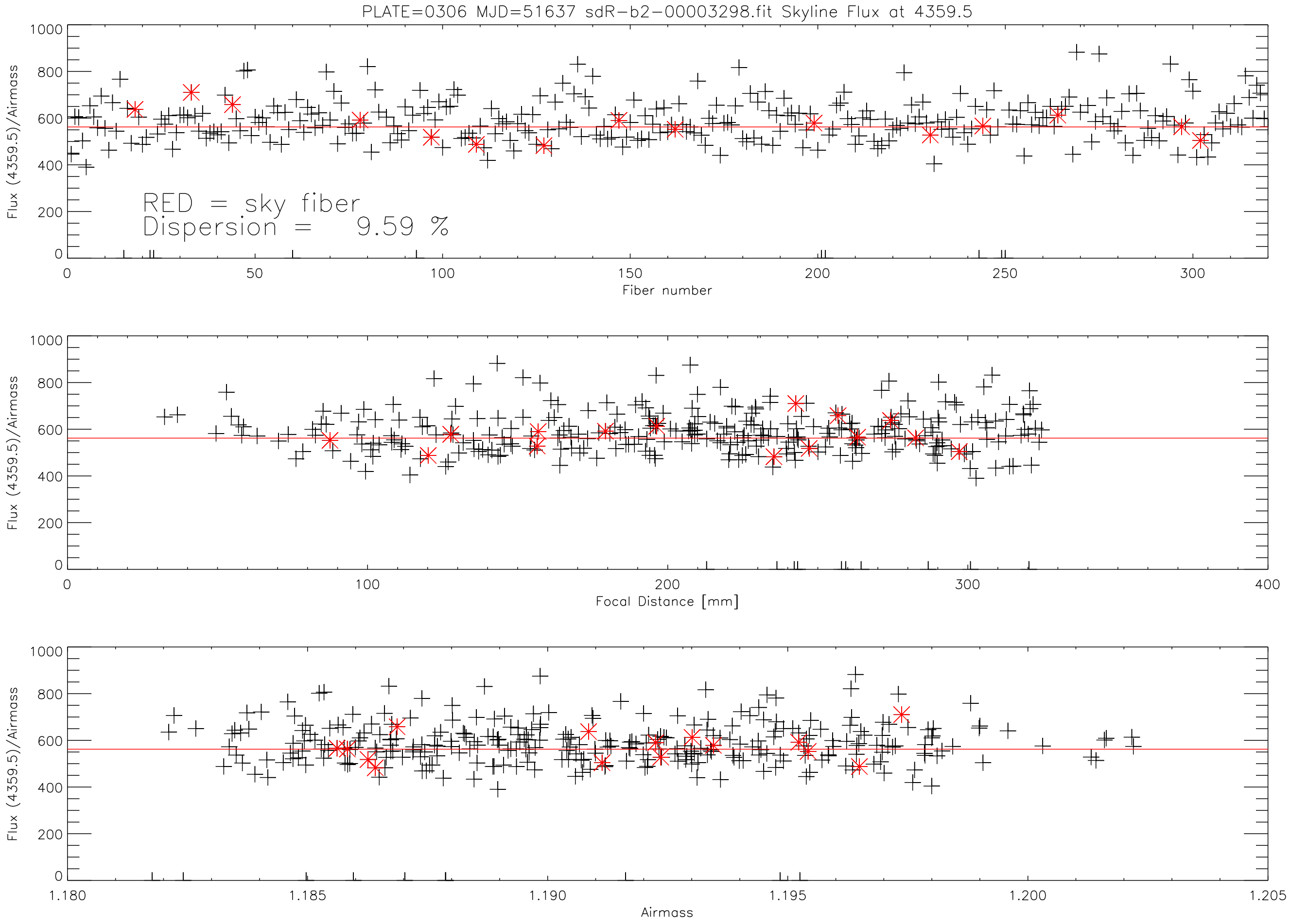
PLATE=0306 MJD=51637 sdR-b2-00003298.fit 2D Sky-subtraction Sky-subtracted Sky F

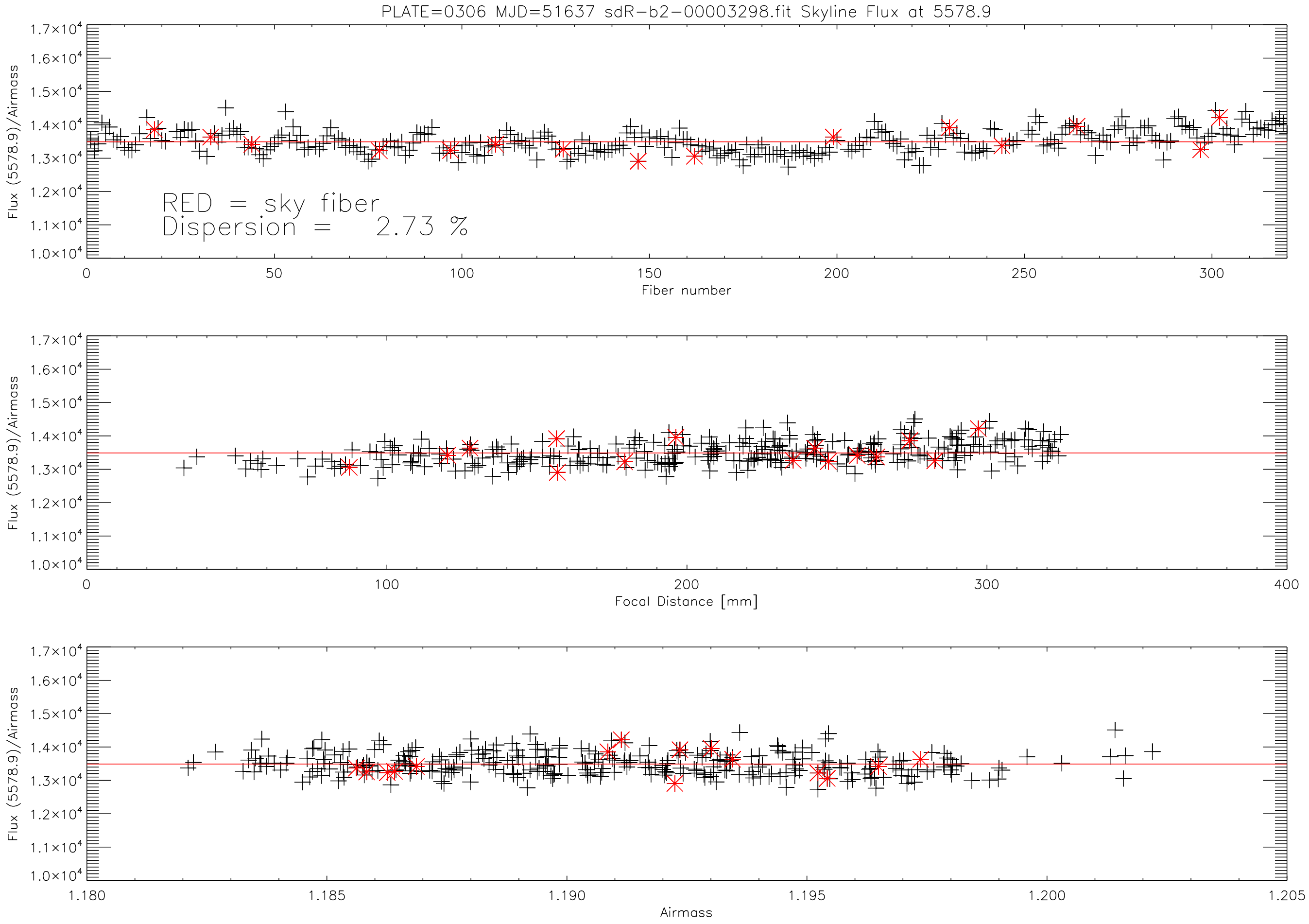


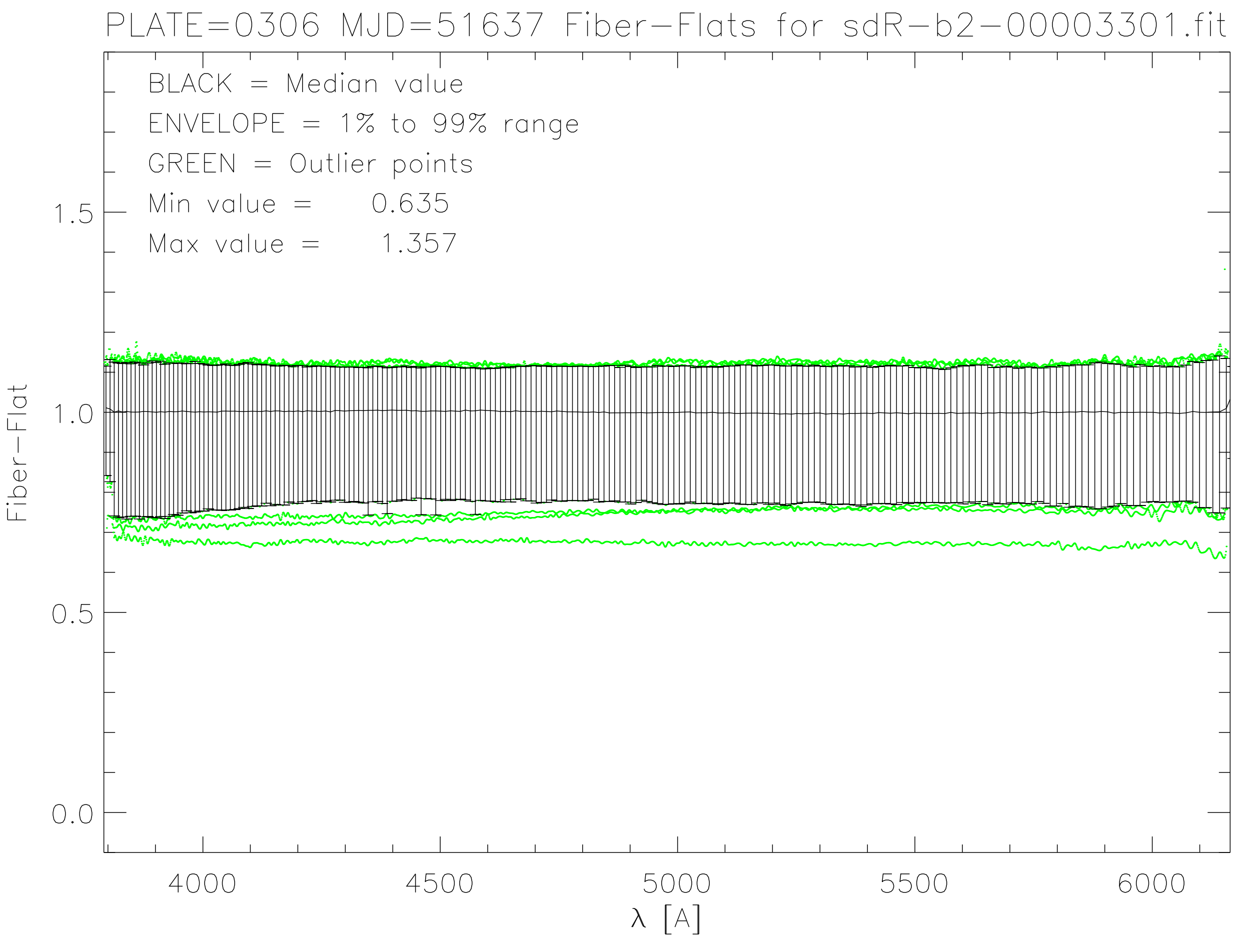


Number of sky fibers = 15

PLATE=0306 MJD=51637 sdR-b2-00003298.fit 2D Sky-subtraction Rescaled Errors

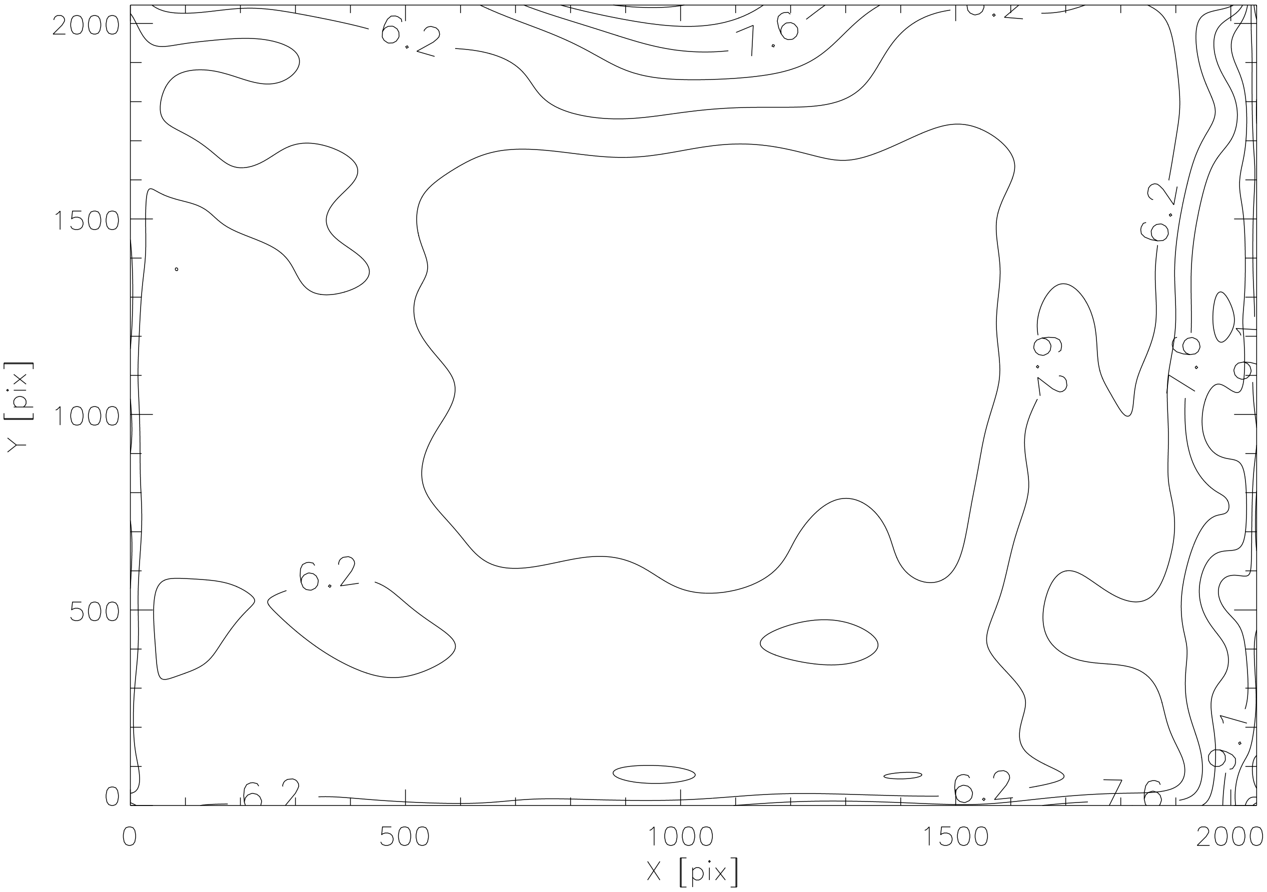

PLATE=0306 MJD=51637 sdR-b2-00003298.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
1000
800
600
400
200
0
RED = sky fiber
Dispersion = 9.59 %
0
50
100
150
200
250
300
Fiber number
Flux (4359.5)/Airmass
0
100
200
300
400
Focal Distance [mm]
Flux (4359.5)/Airmass
1.180
1.185
1.190
1.195
1.200
1.205
Airmass

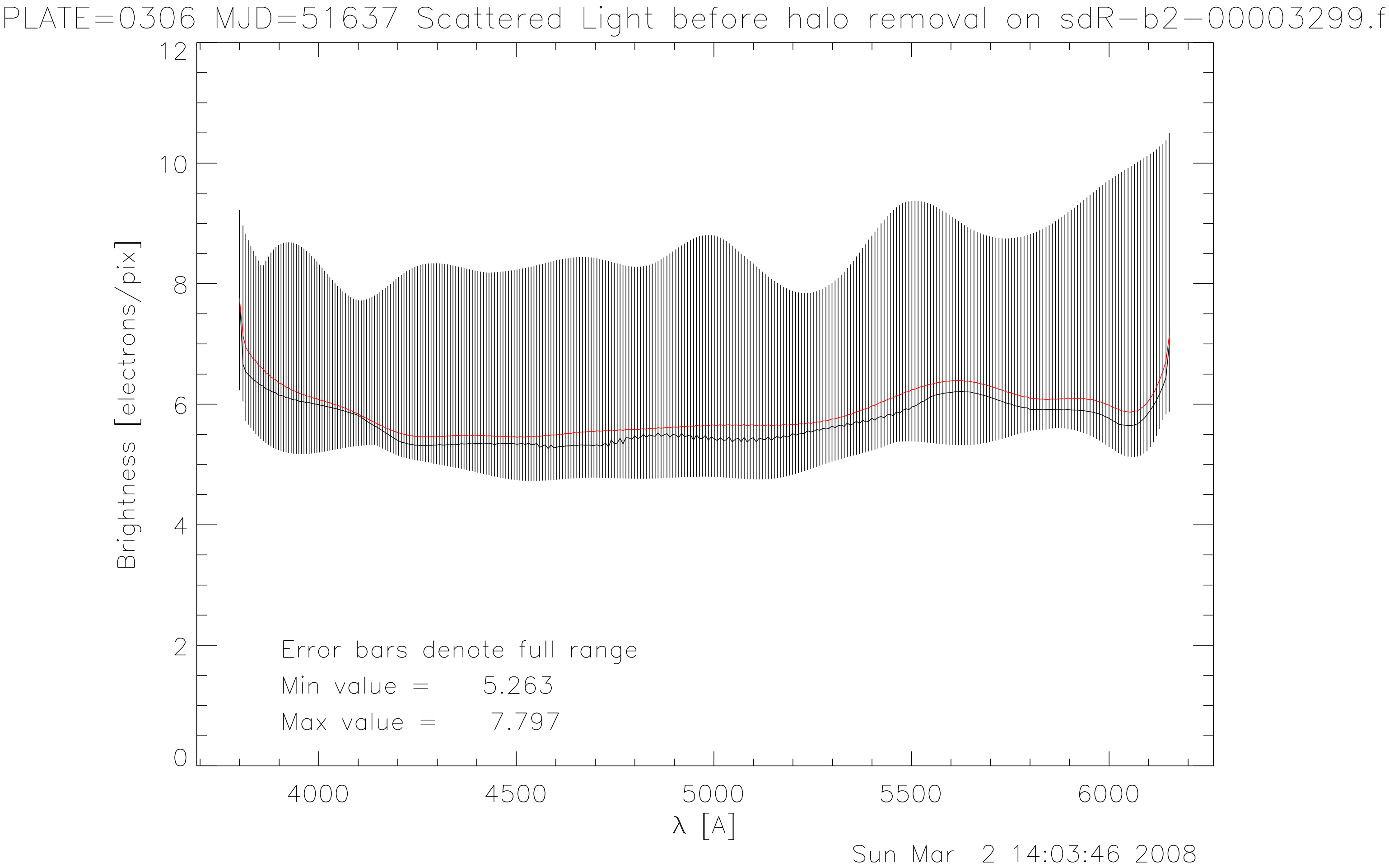

PLATE=0306 MJD=51637 sdR-b2-00003298.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
1.7×10^4
1.6×10^4
1.5×10^4
1.4×10^4
1.3×10^4
1.2×10^4
1.1×10^4
1.0×10^4
RED = sky fiber
Dispersion = 2.73 %
0
50
100
150
200
250
300
Fiber number
0
100
200
300
400
Focal Distance [mm]
1.180
1.185
1.190
1.195
1.200
1.205
Airmass

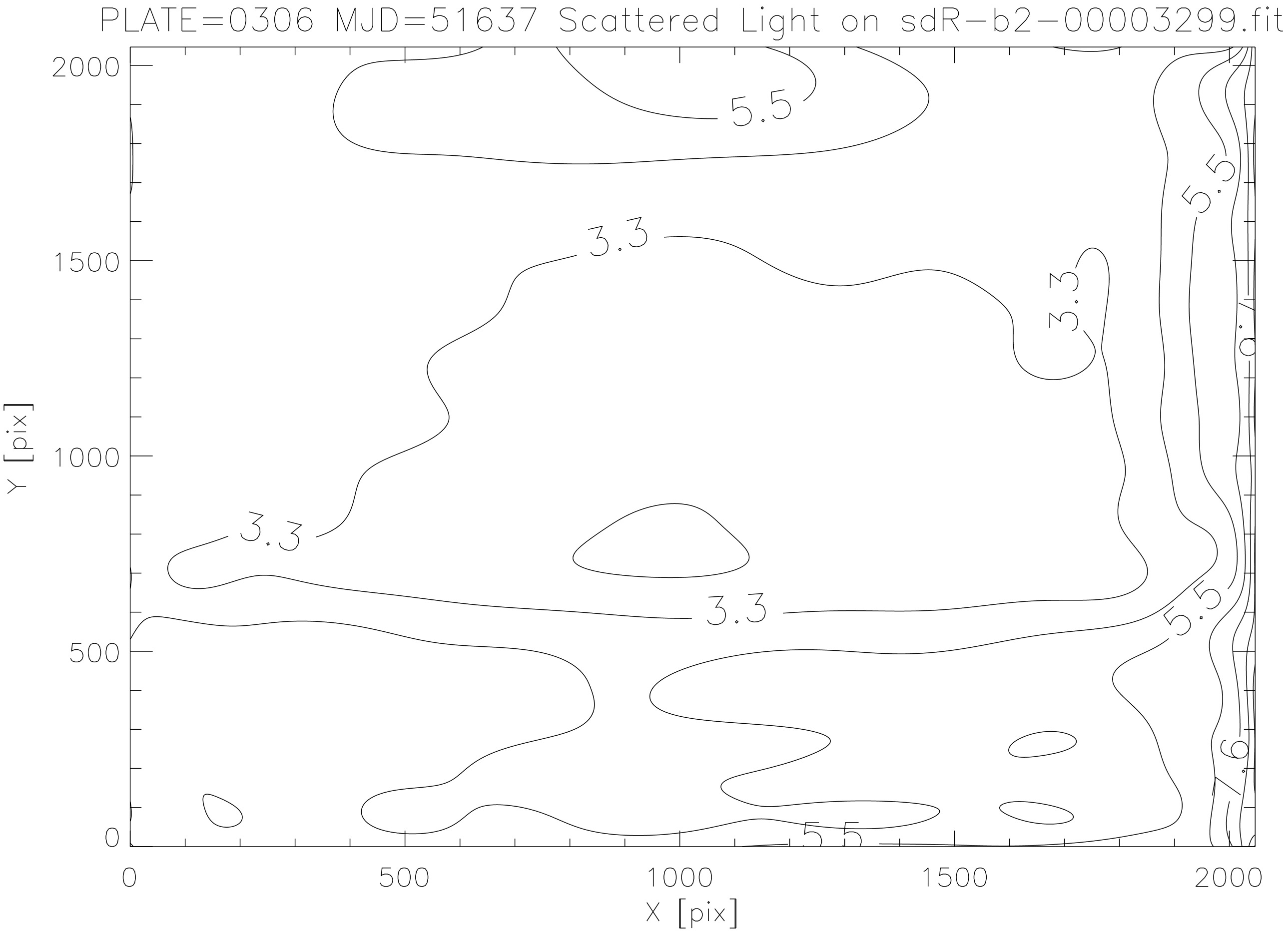


Sun Mar 2 14:02:58 2008

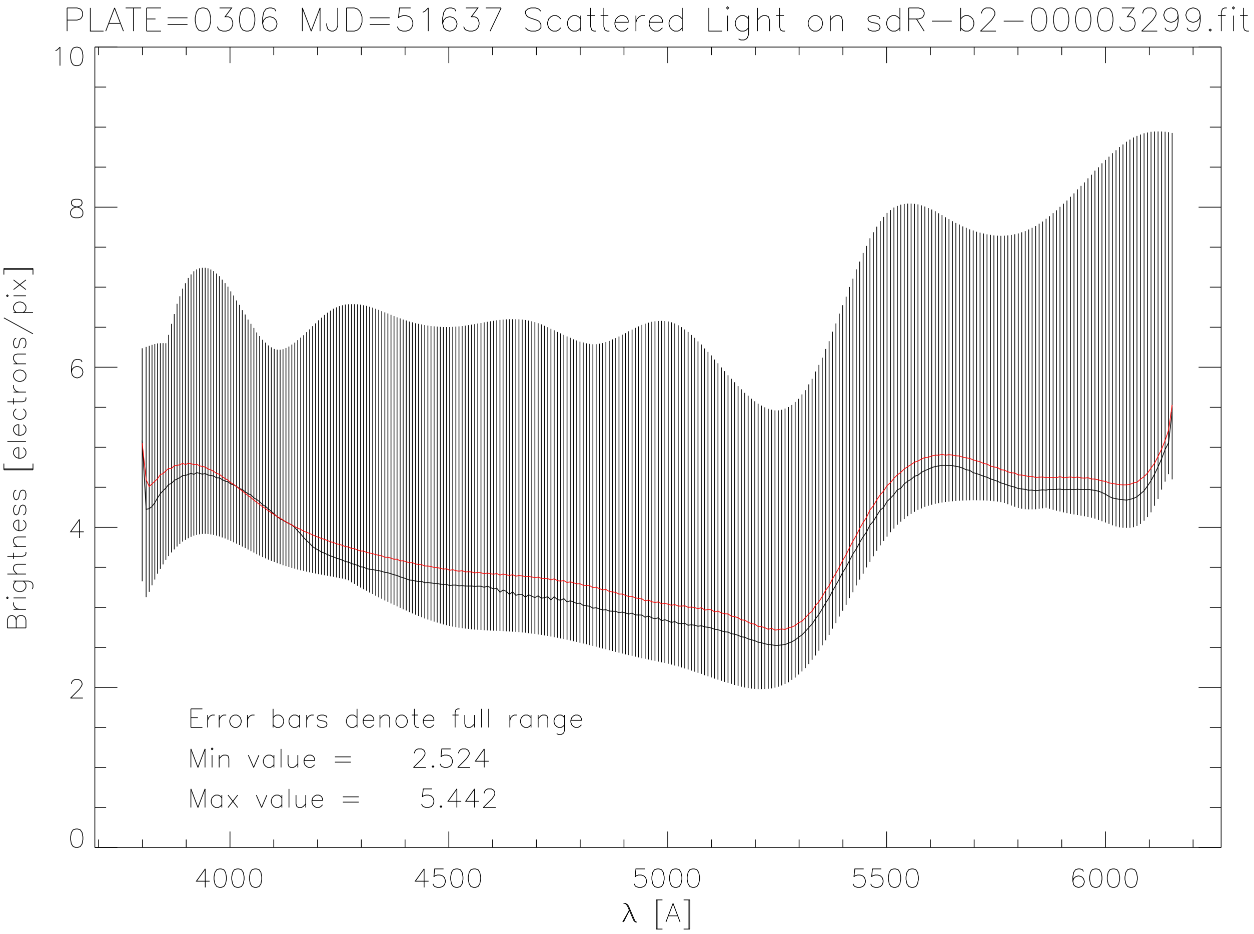
PLATE=0306 MJD=51637 Scattered Light before halo removal on sdR-b2-00003299.f




PLATE=0306 MJD=51637 Scattered Light before halo removal on sdR-b2-00003299.f

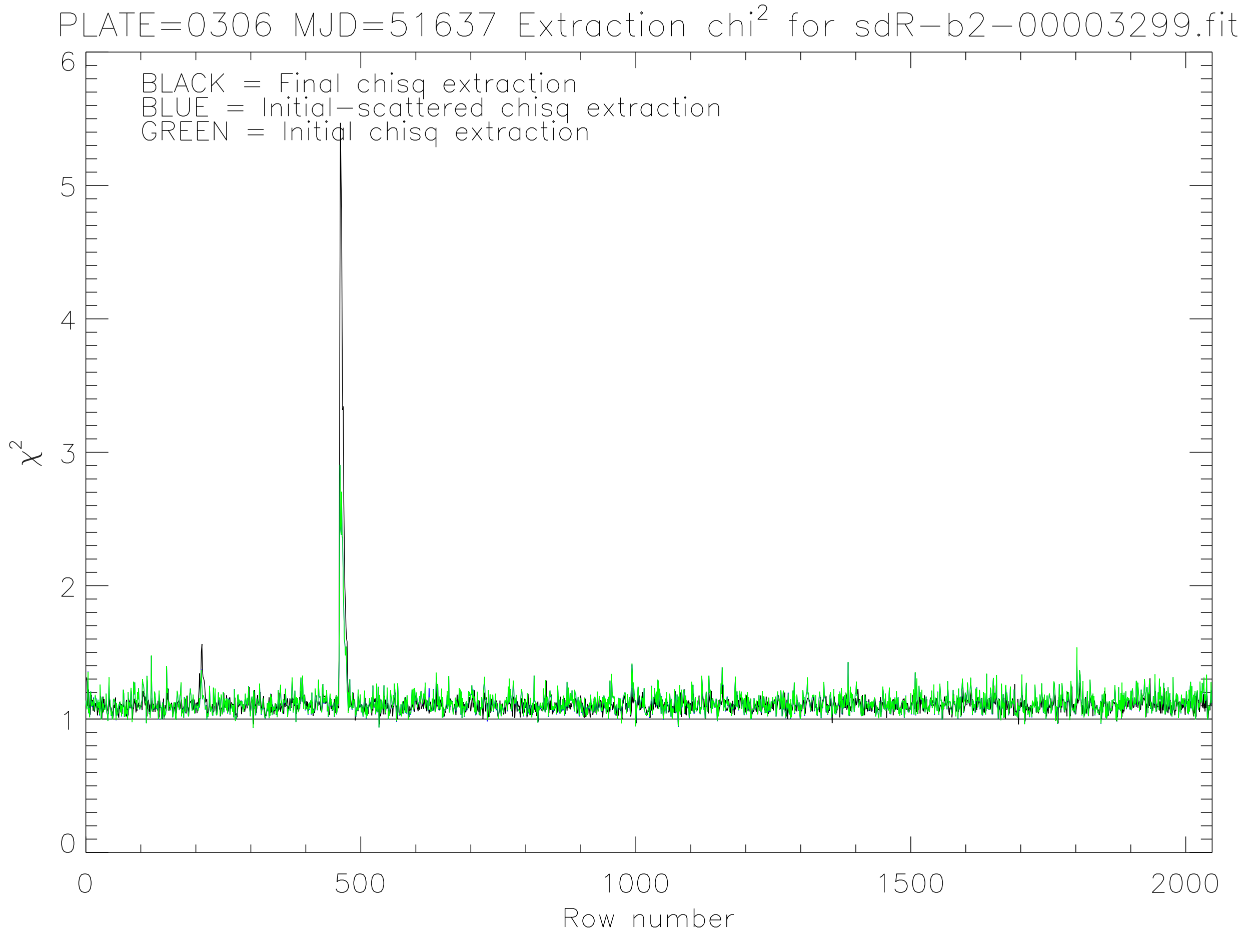


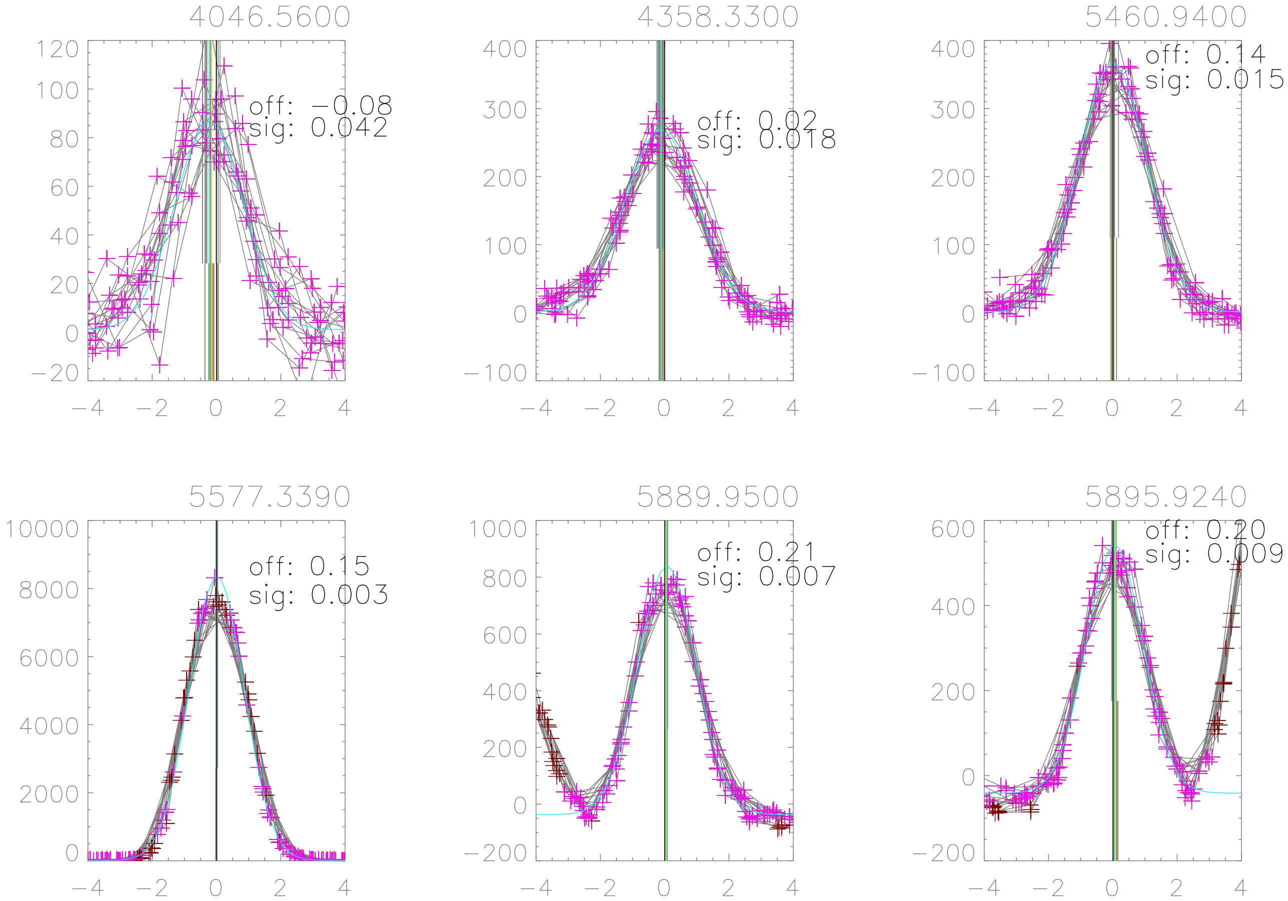
PLATE=0306 MJD=51637 Scattered Light on sdR-b2-00003299.fit

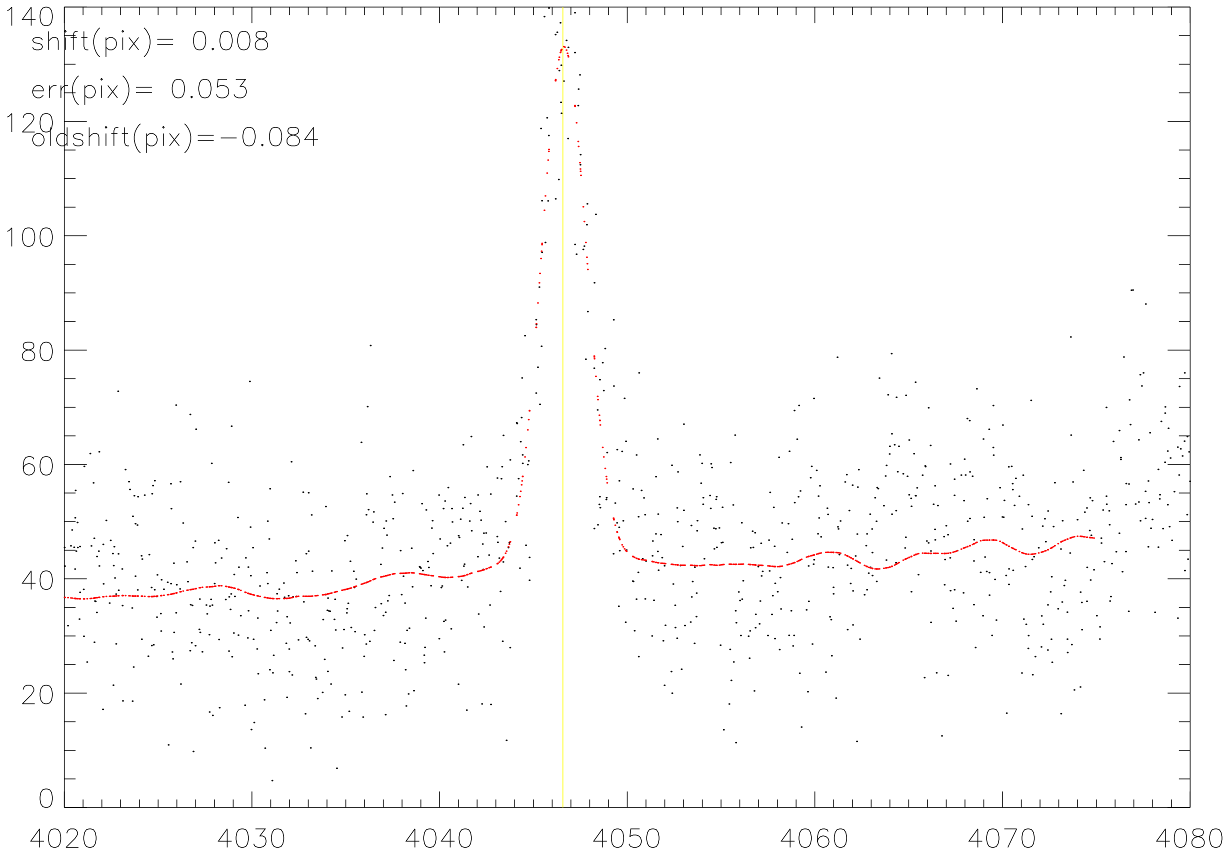


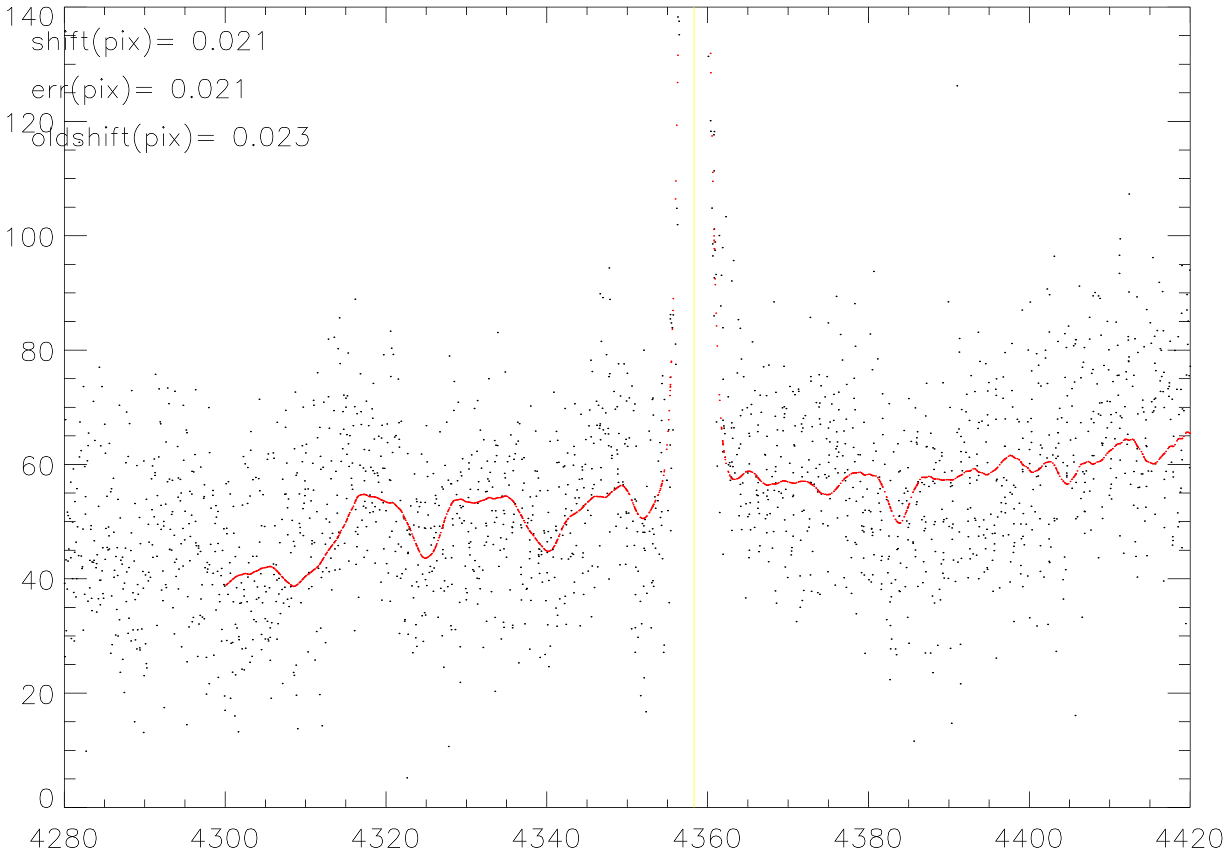
PLATE=0306 MJD=51637 Scattered Light on sdR-b2-00003299.fit

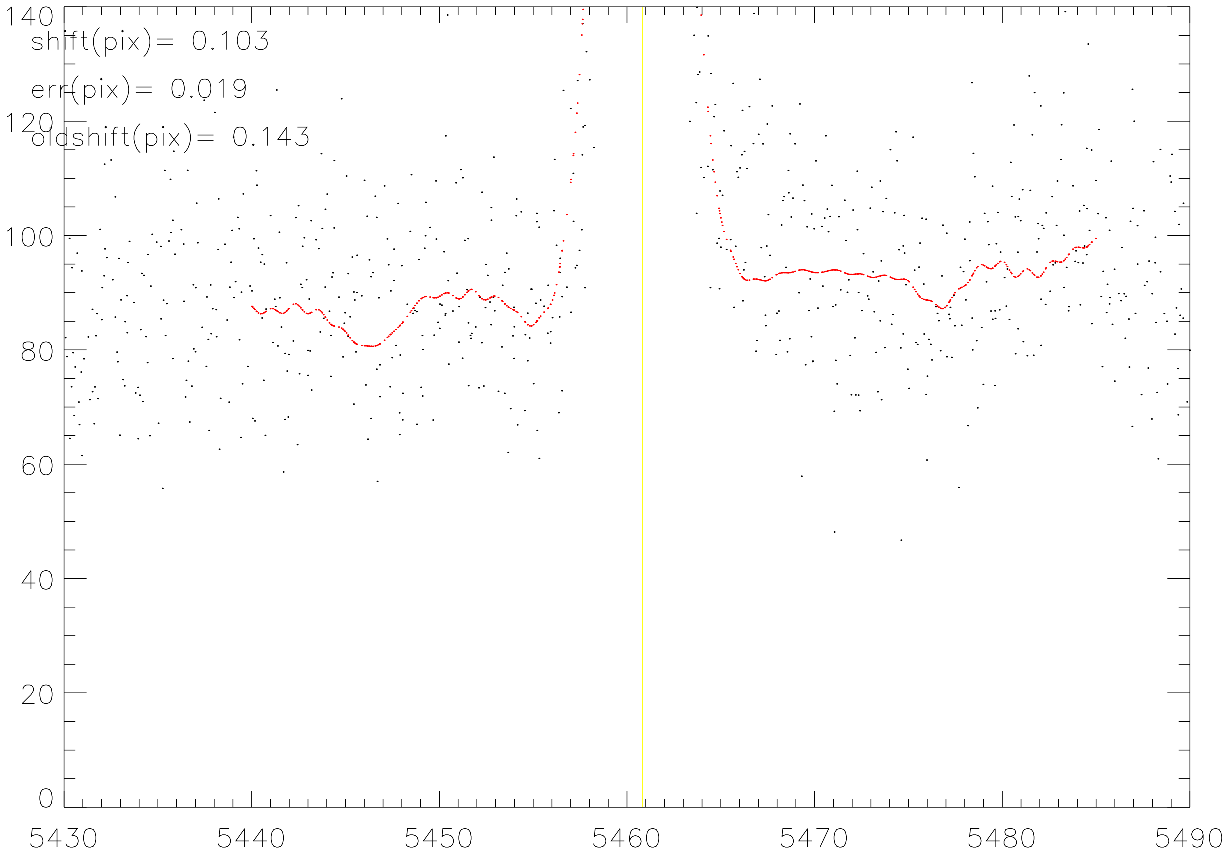
Sun Mar 2 14:06:39 2008

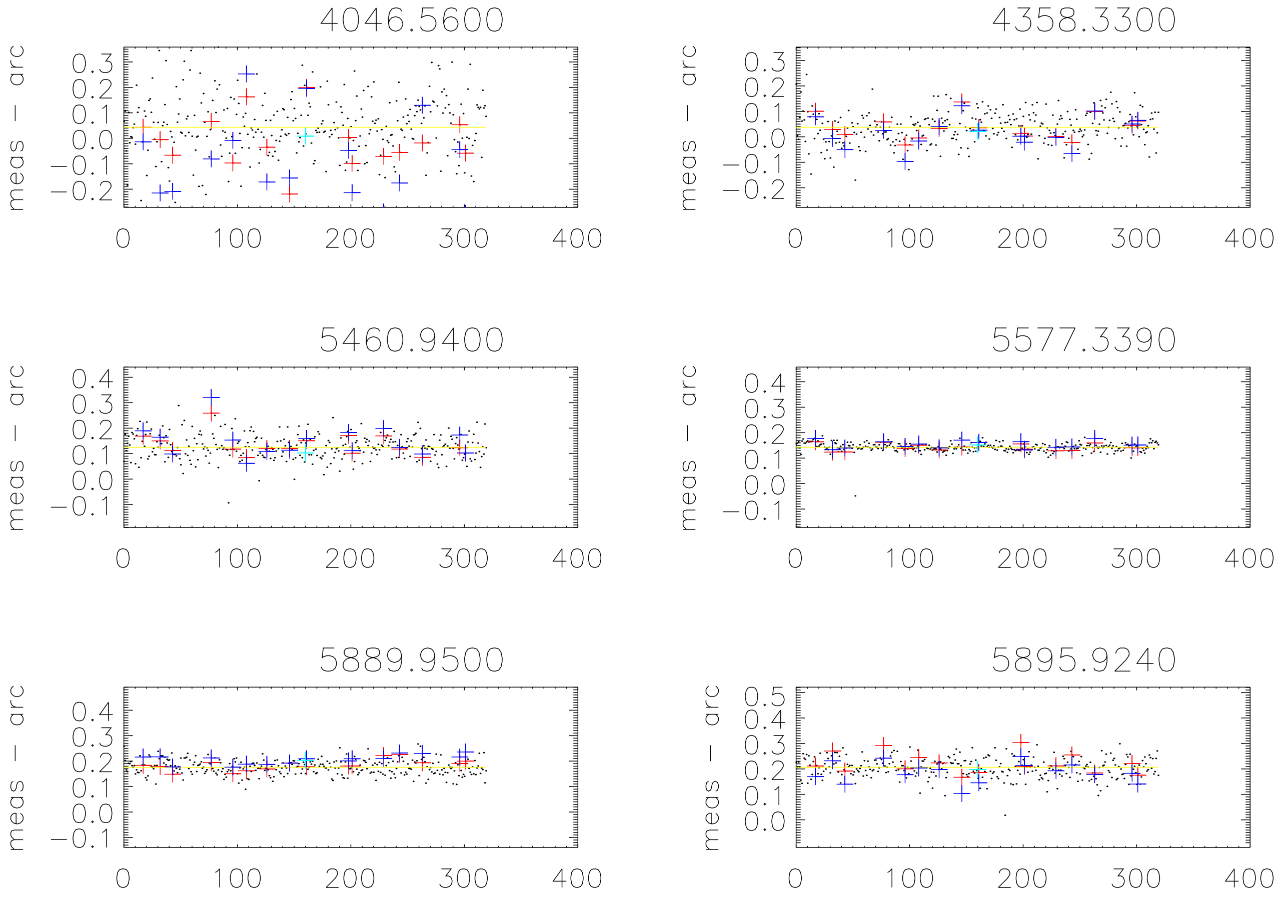

PLATE=0306 MJD=51637 Extraction chi^2 for sdR-b2-00003299.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
5
6
0
500
1000
1500
2000
Row number

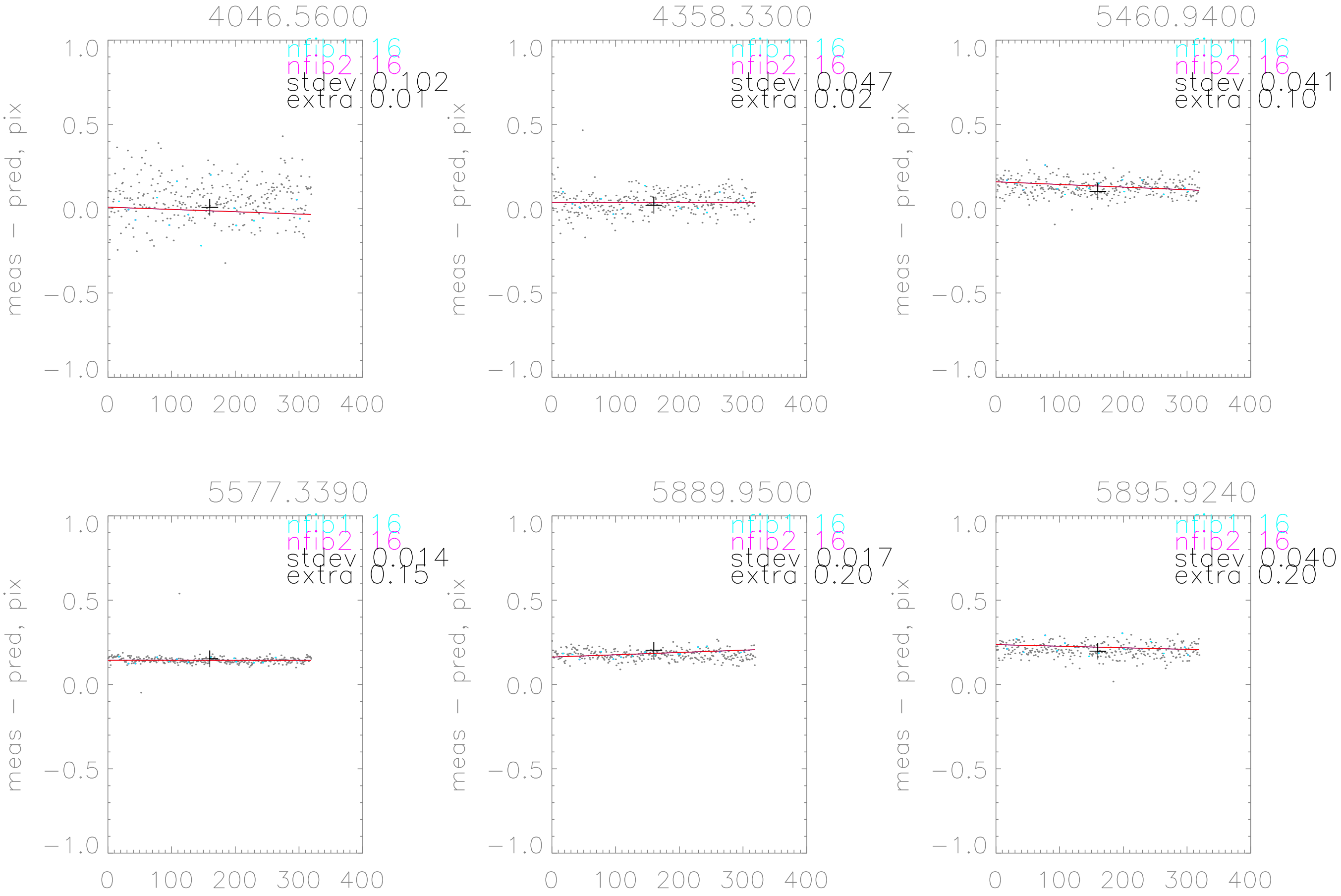

4046.5600
off: −0.08
sig: 0.042
4358.3300
off: 0.02
sig: 0.018
5460.9400
off: 0.14
sig: 0.015
5577.3390
off: 0.15
sig: 0.003
5889.9500
off: 0.21
sig: 0.007
5895.9240
off: 0.20
sig: 0.009
120
100
80
60
40
20
0
−20
400
300
200
100
0
−100
10000
8000
6000
4000
2000
1000
800
600
400
200
−200
−4
−2
0
2
4

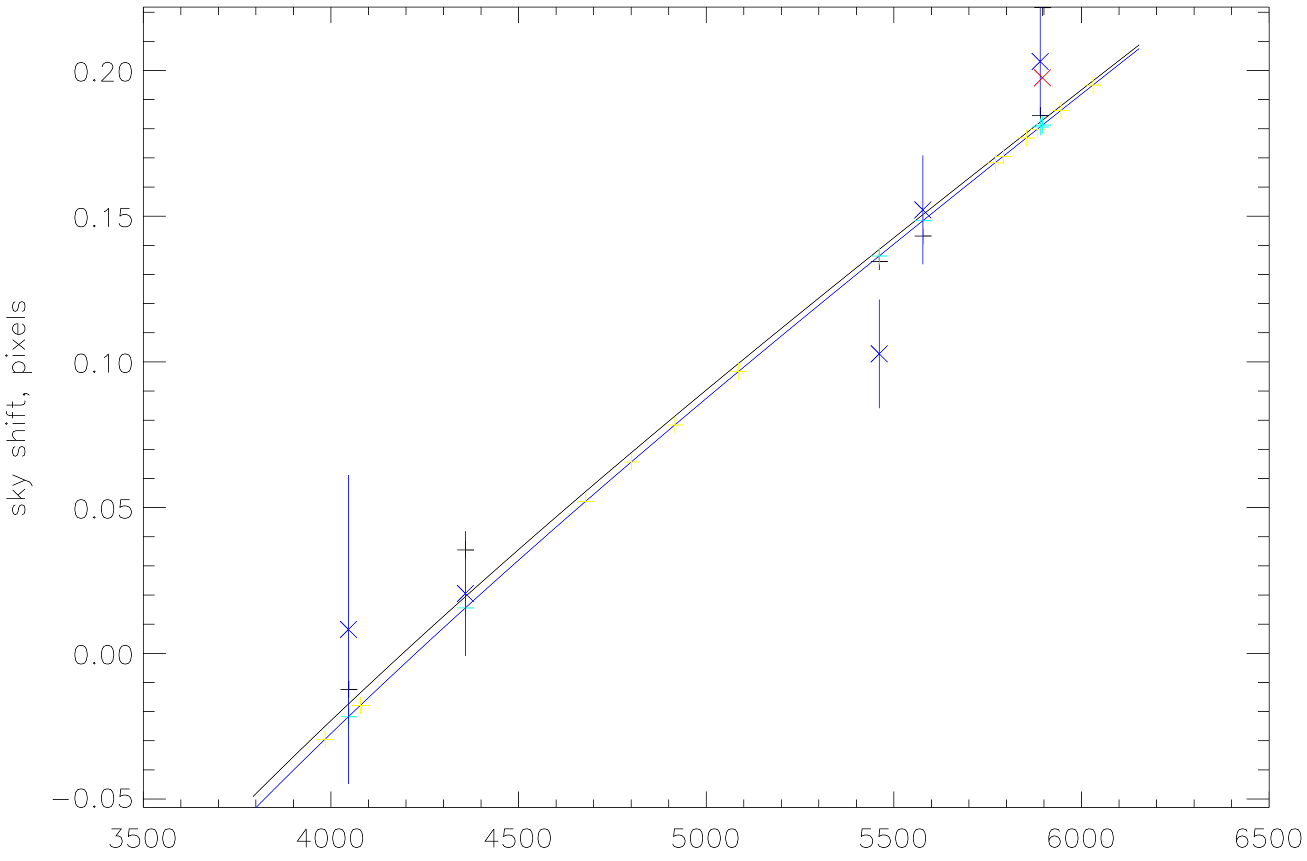

shift(pix)= 0.008
err(pix)= 0.053
oldshift(pix)=−0.084
0
20
40
60
80
100
120
140
4020
4030
4040
4050
4060
4070
4080

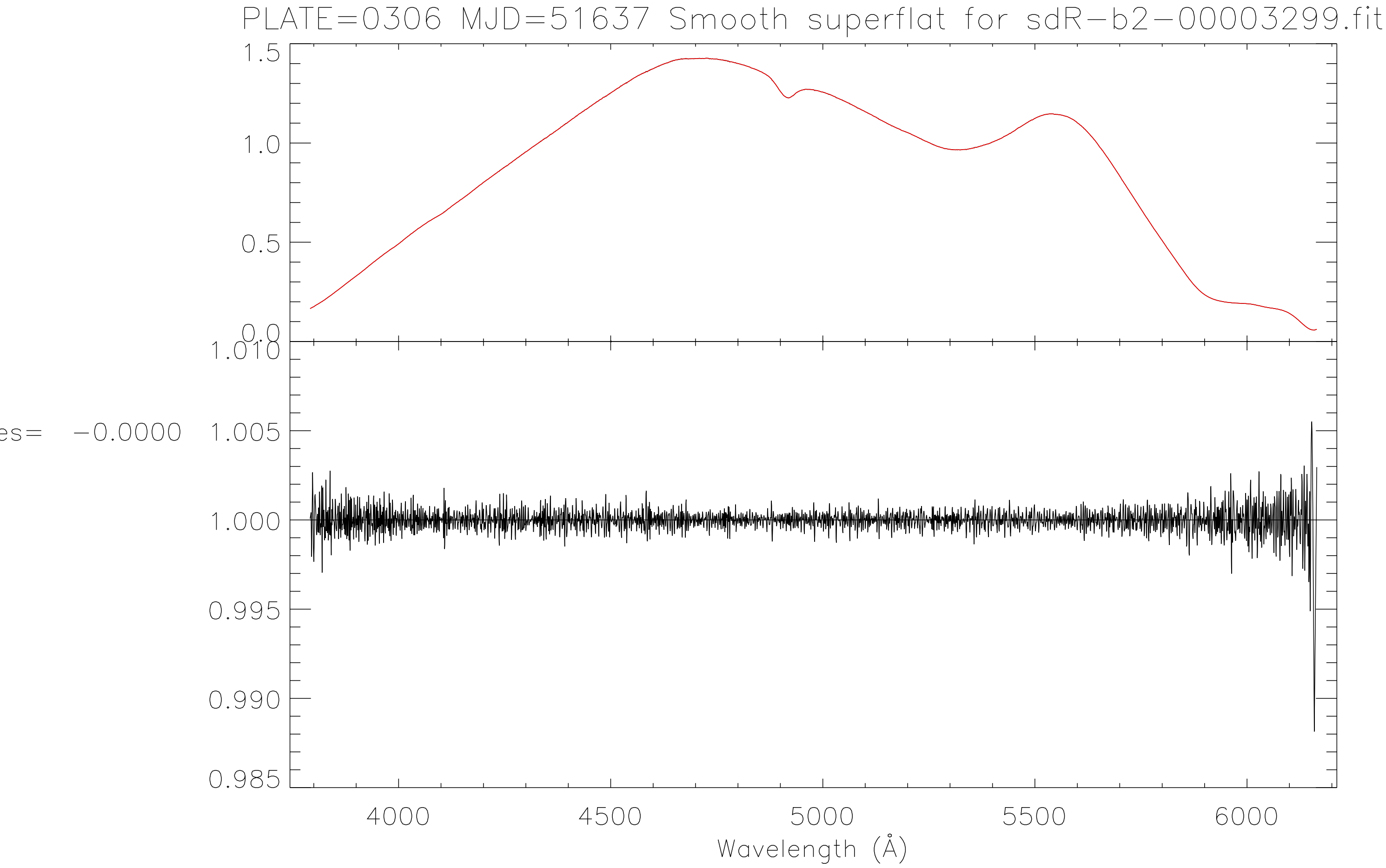

shift(pix)= 0.021
err(pix)= 0.021
oldshift(pix)= 0.023
0
20
40
60
80
100
120
140
4280
4300
4320
4340
4360
4380
4400
4420


shift(pix)= 0.103
err(pix)= 0.019
oldshift(pix)= 0.143
140
120
100
80
60
40
20
0
5430
5440
5450
5460
5470
5480
5490

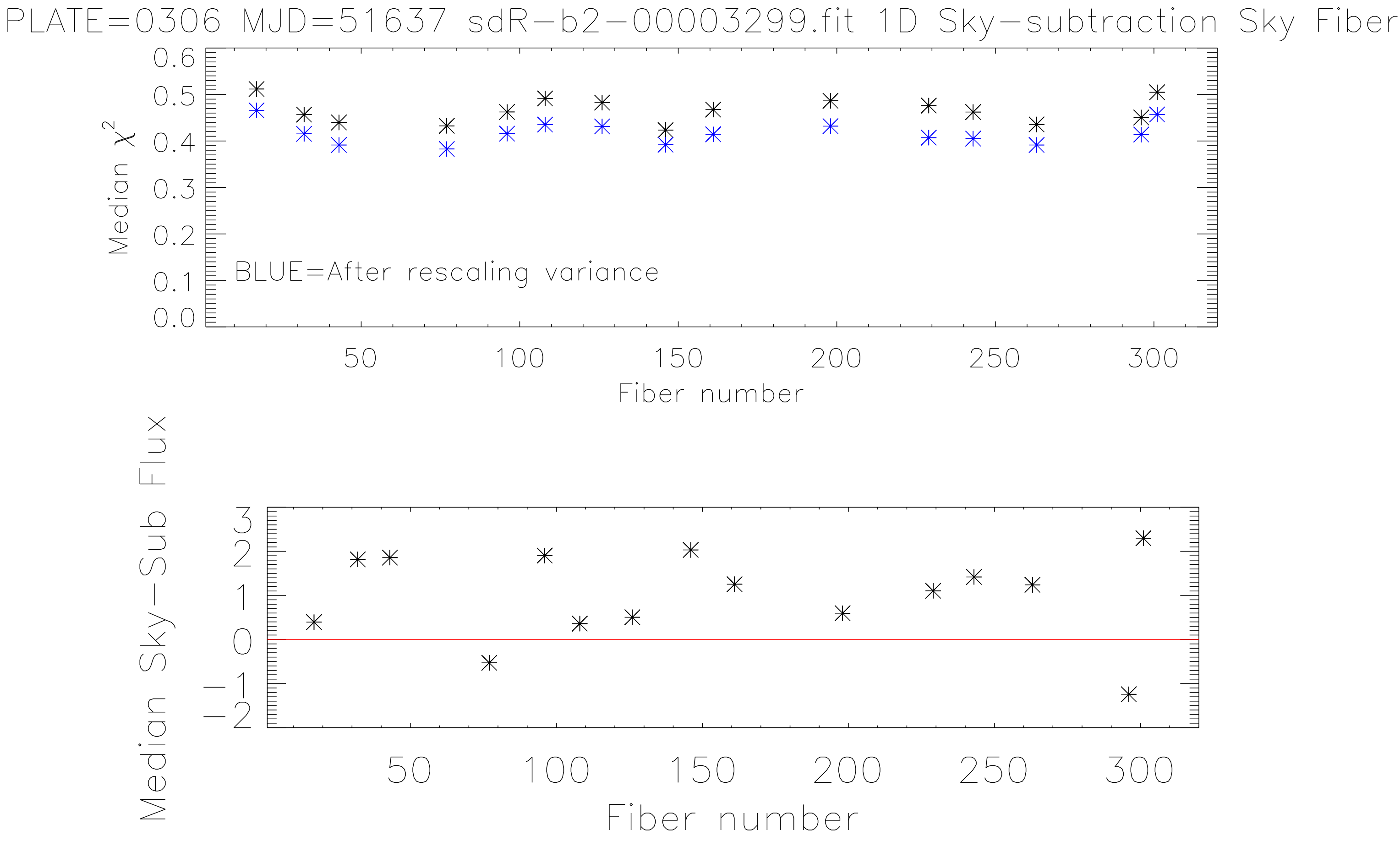

4046.5600
4358.3300
5460.9400
5577.3390
5889.9500
5895.9240
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0.4
0.5
0
100
200
300
400

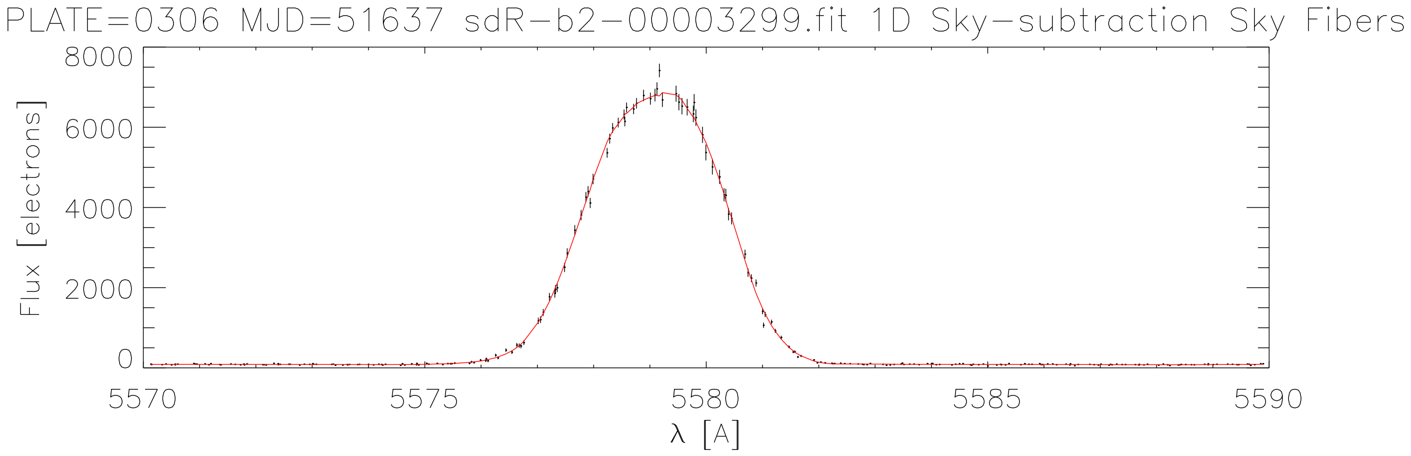

4046.5600
nfib1 16
nfib2 16
stdev 0.102
extra 0.01
4358.3300
nfib1 16
nfib2 16
stdev 0.047
extra 0.02
5460.9400
nfib1 16
nfib2 16
stdev 0.041
extra 0.10
5577.3390
nfib1 16
nfib2 16
stdev 0.014
extra 0.15
5889.9500
nfib1 16
nfib2 16
stdev 0.017
extra 0.20
5895.9240
nfib1 16
nfib2 16
stdev 0.040
extra 0.20
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400


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

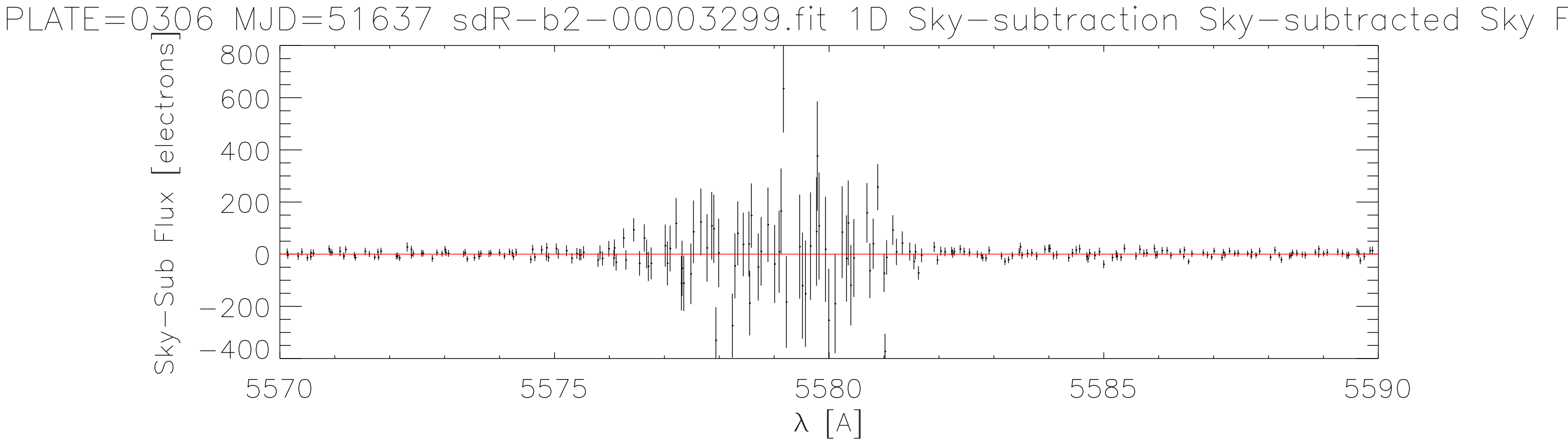


PLATE=0306 MJD=51637 Smooth superflat for sdR-b2-00003299.fit


PLATE=0306 MJD=51637 sdR-b2-00003299.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-2
-1
0
1
2
3
50
100
150
200
250
300
Fiber number



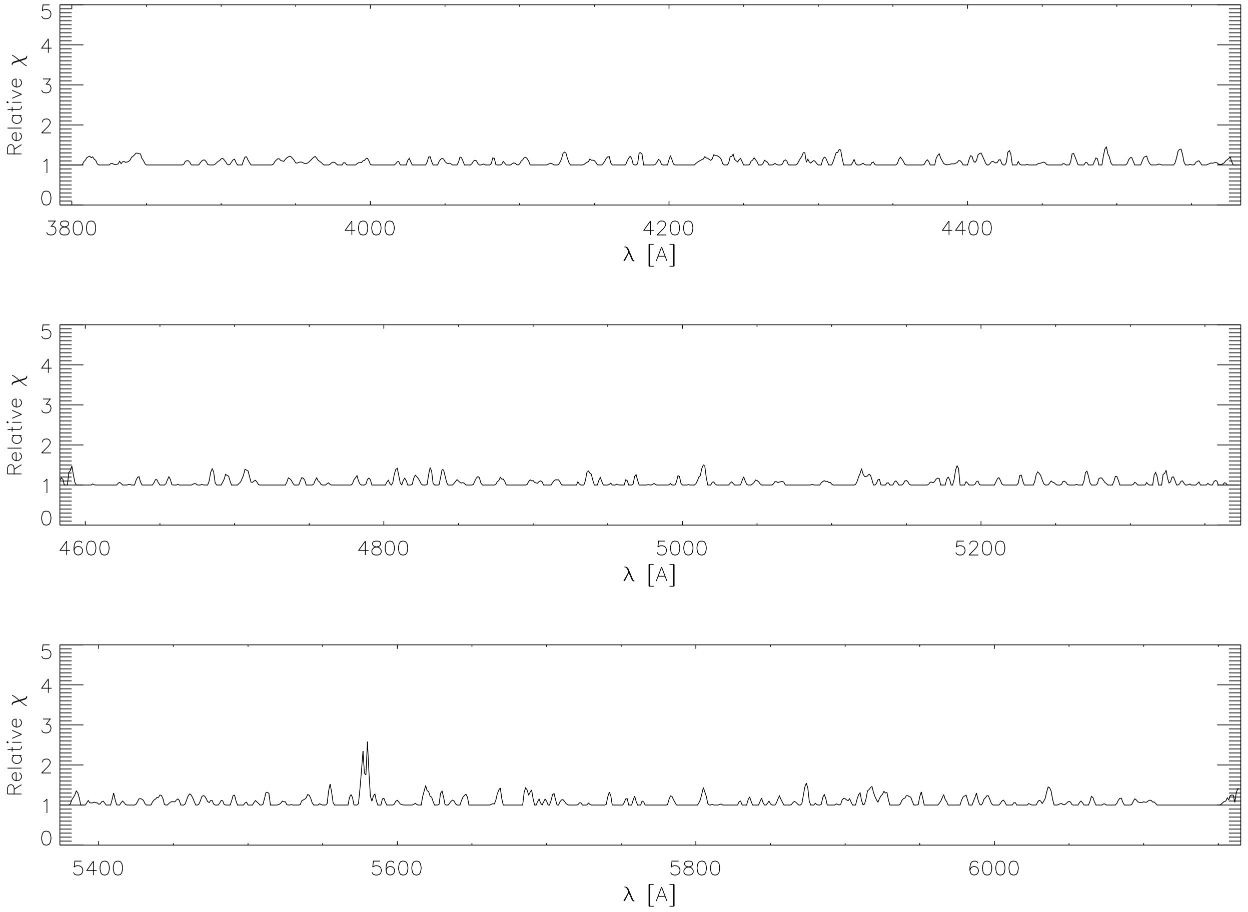
PLATE=0306 MJD=51637 sdR-b2-00003299.fit 1D Sky-subtraction Sky Fibers

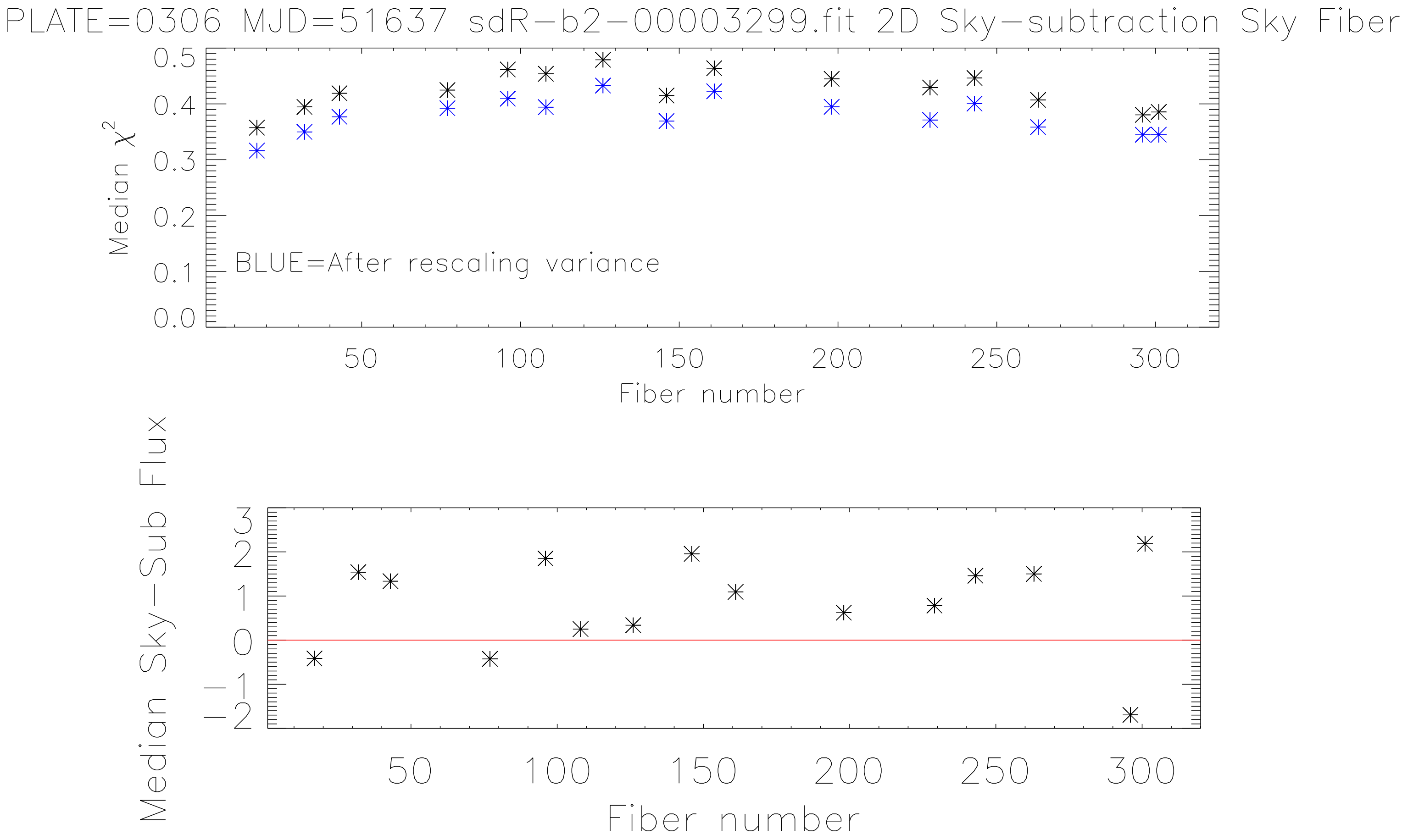


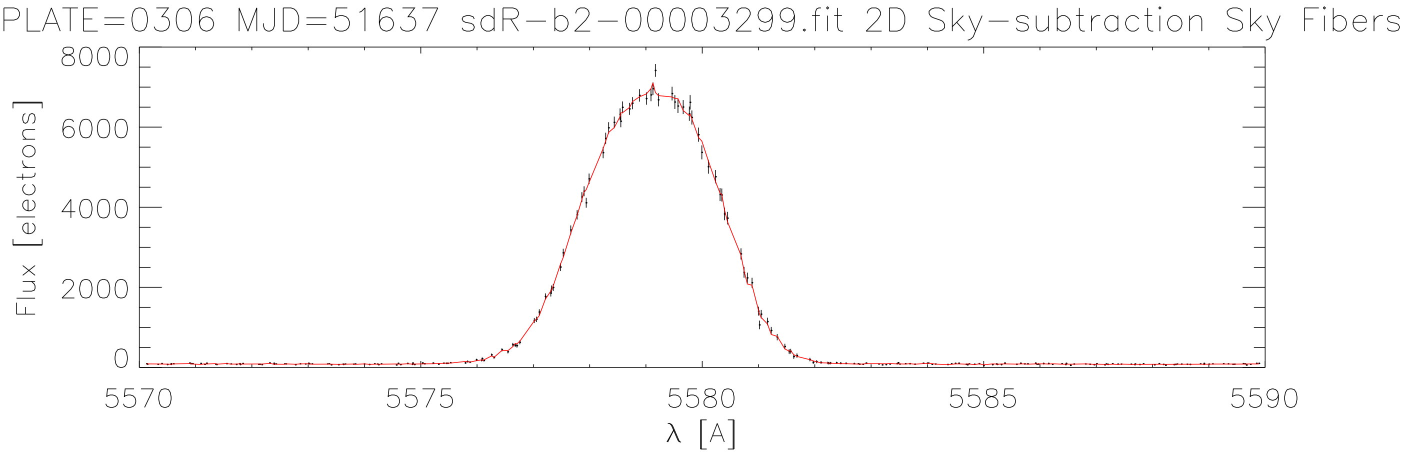
PLATE=0306 MJD=51637 sdR-b2-00003299.fit 1D Sky-subtraction Sky-subtracted Sky F

Number of sky fibers = 15

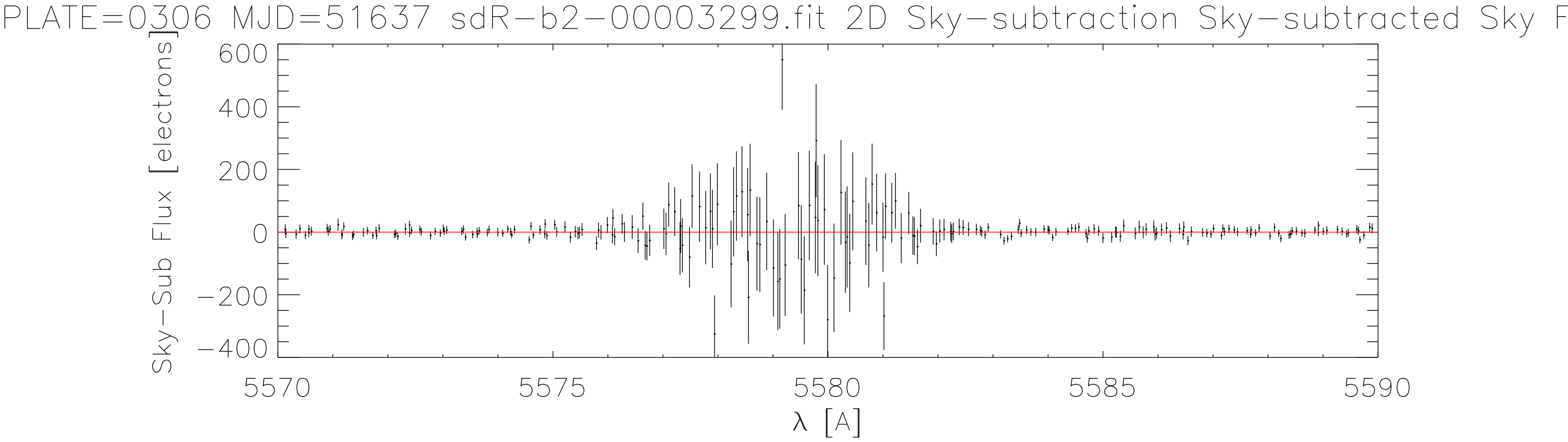
PLATE=0306 MJD=51637 sdR-b2-00003299.fit 1D Sky-subtraction Rescaled Errors



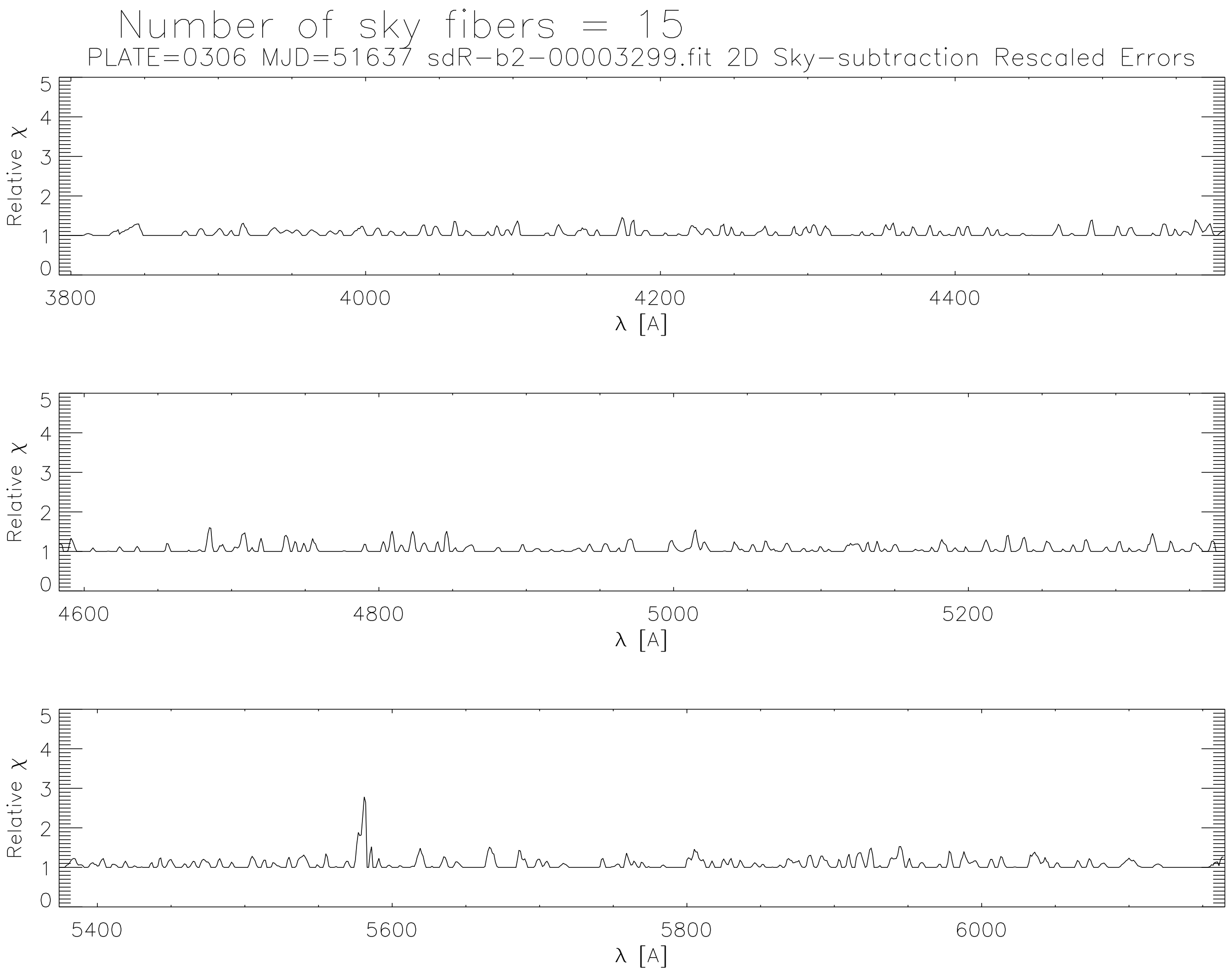

PLATE=0306 MJD=51637 sdR-b2-00003299.fit 2D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-2
-1
0
1
2
3
50
100
150
200
250
300
Fiber number



PLATE=0306 MJD=51637 sdR-b2-00003299.fit 2D Sky-subtraction Sky Fibers

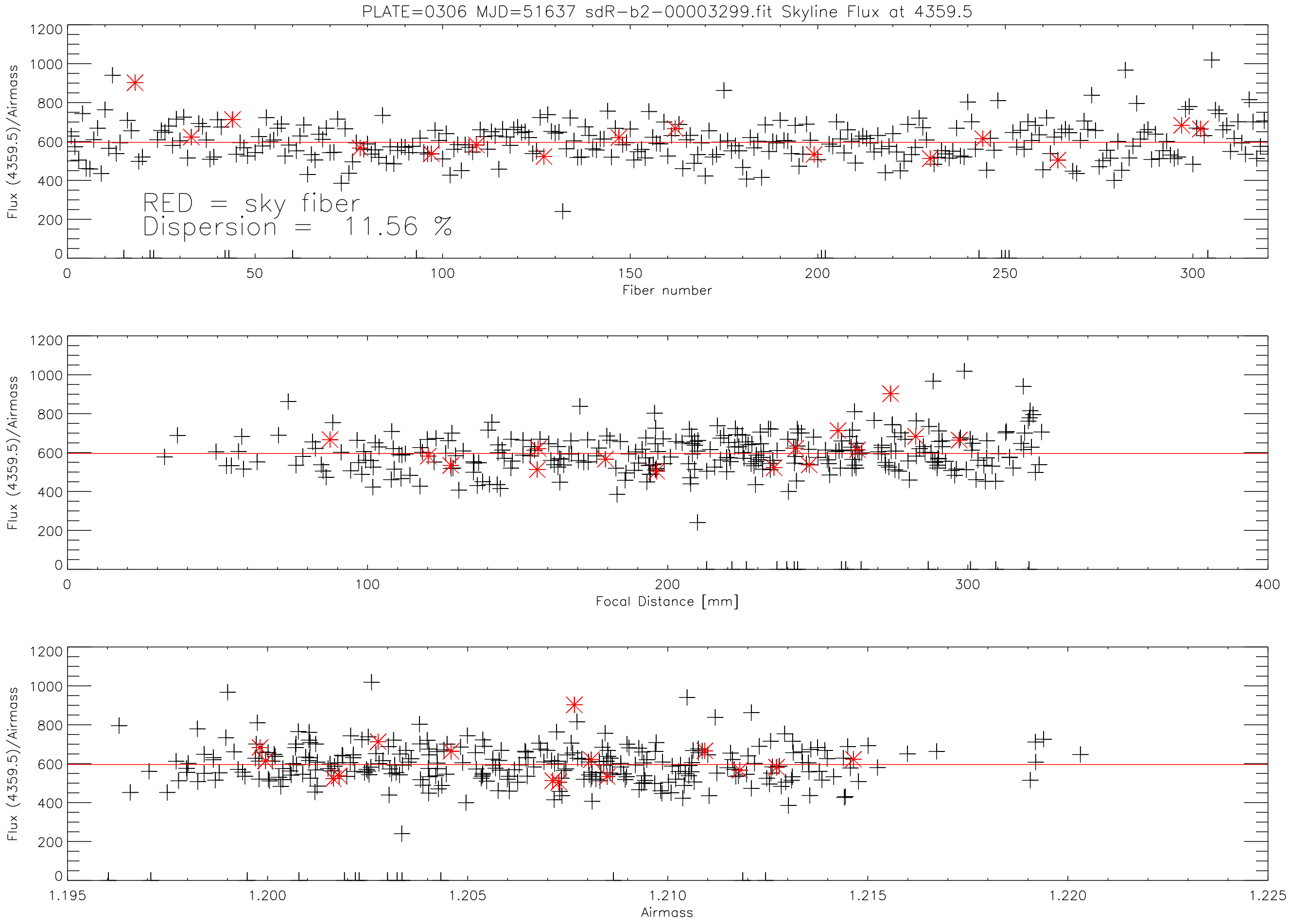


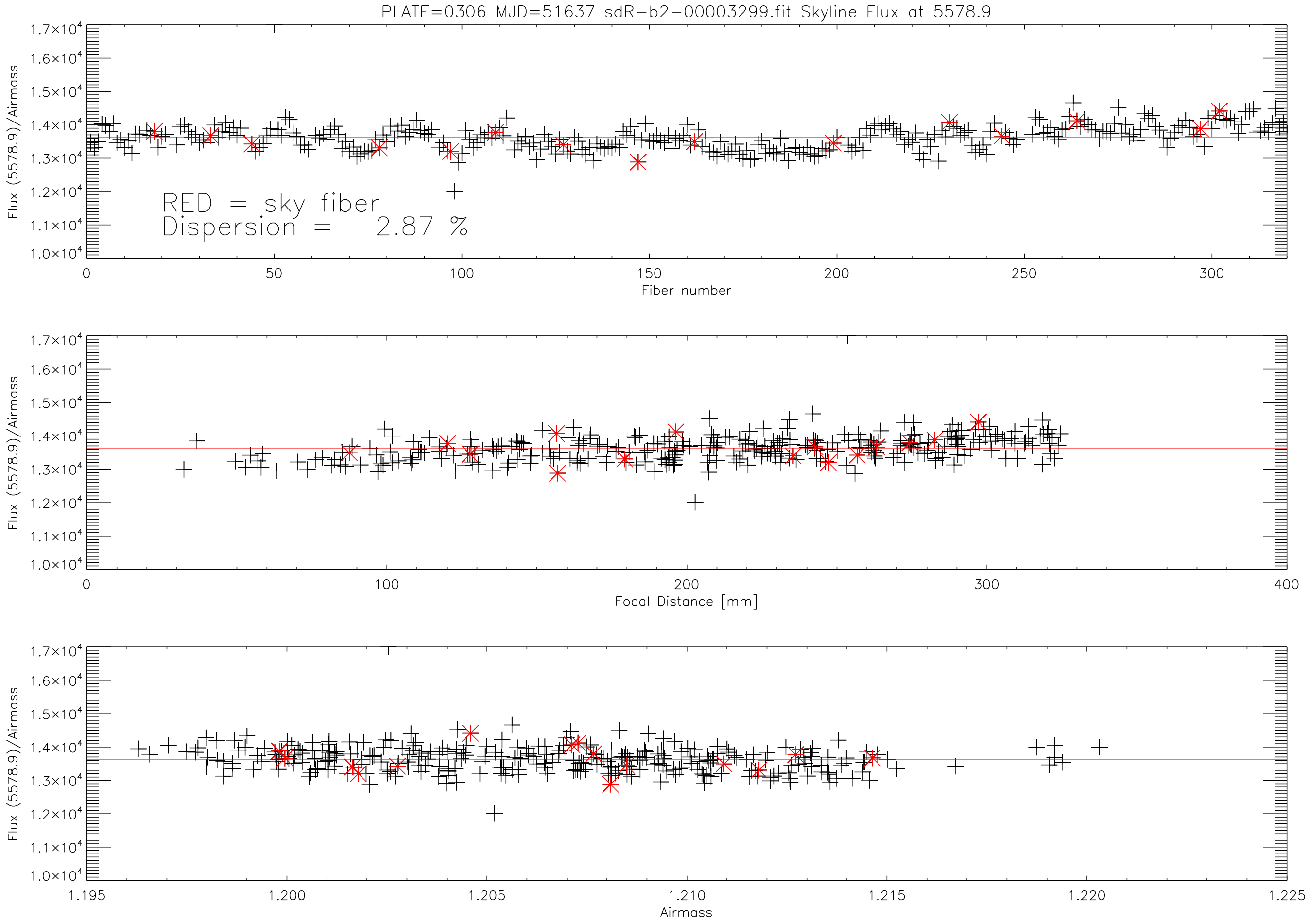
PLATE=0306 MJD=51637 sdR-b2-00003299.fit 2D Sky-subtraction Sky-subtracted Sky F

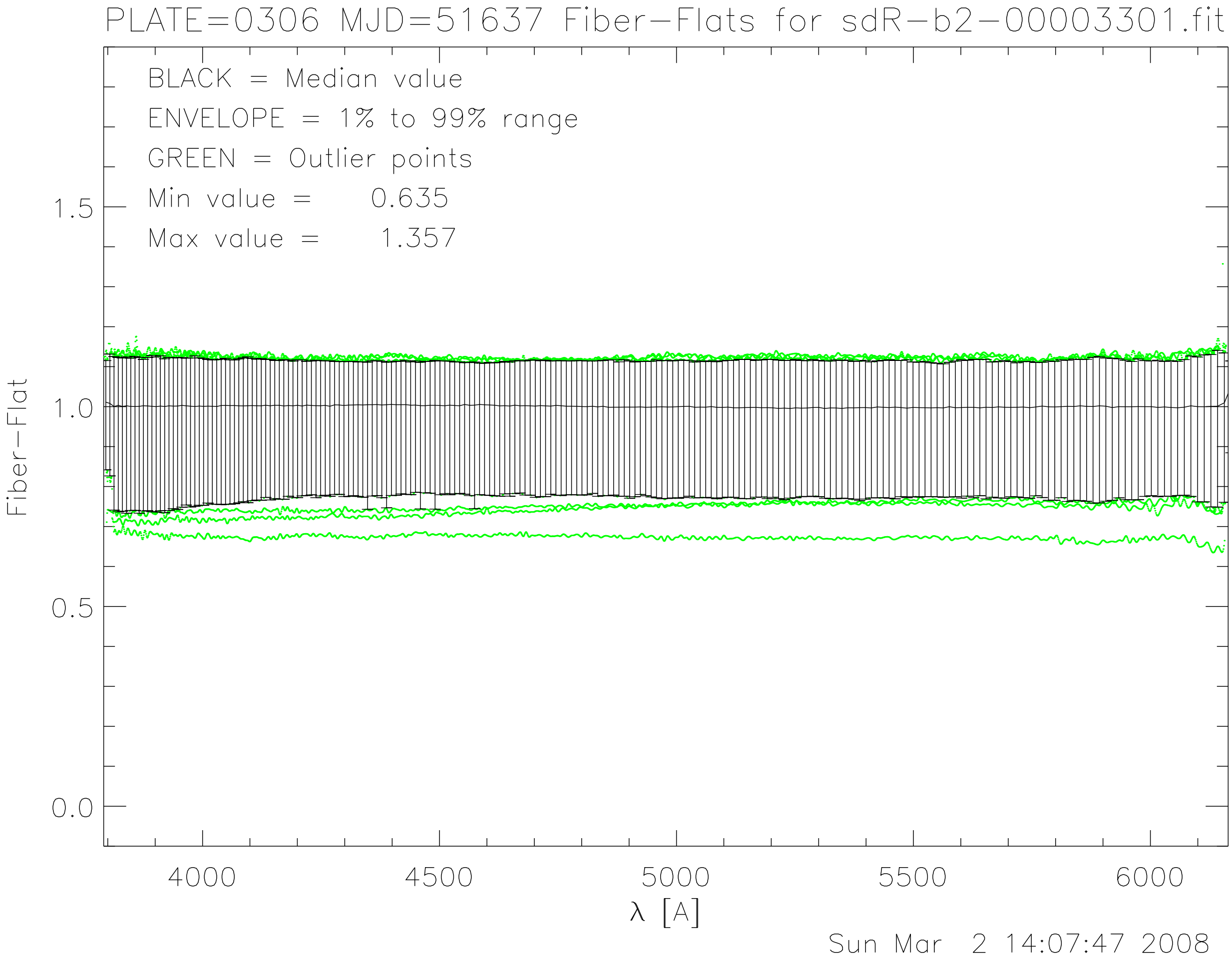


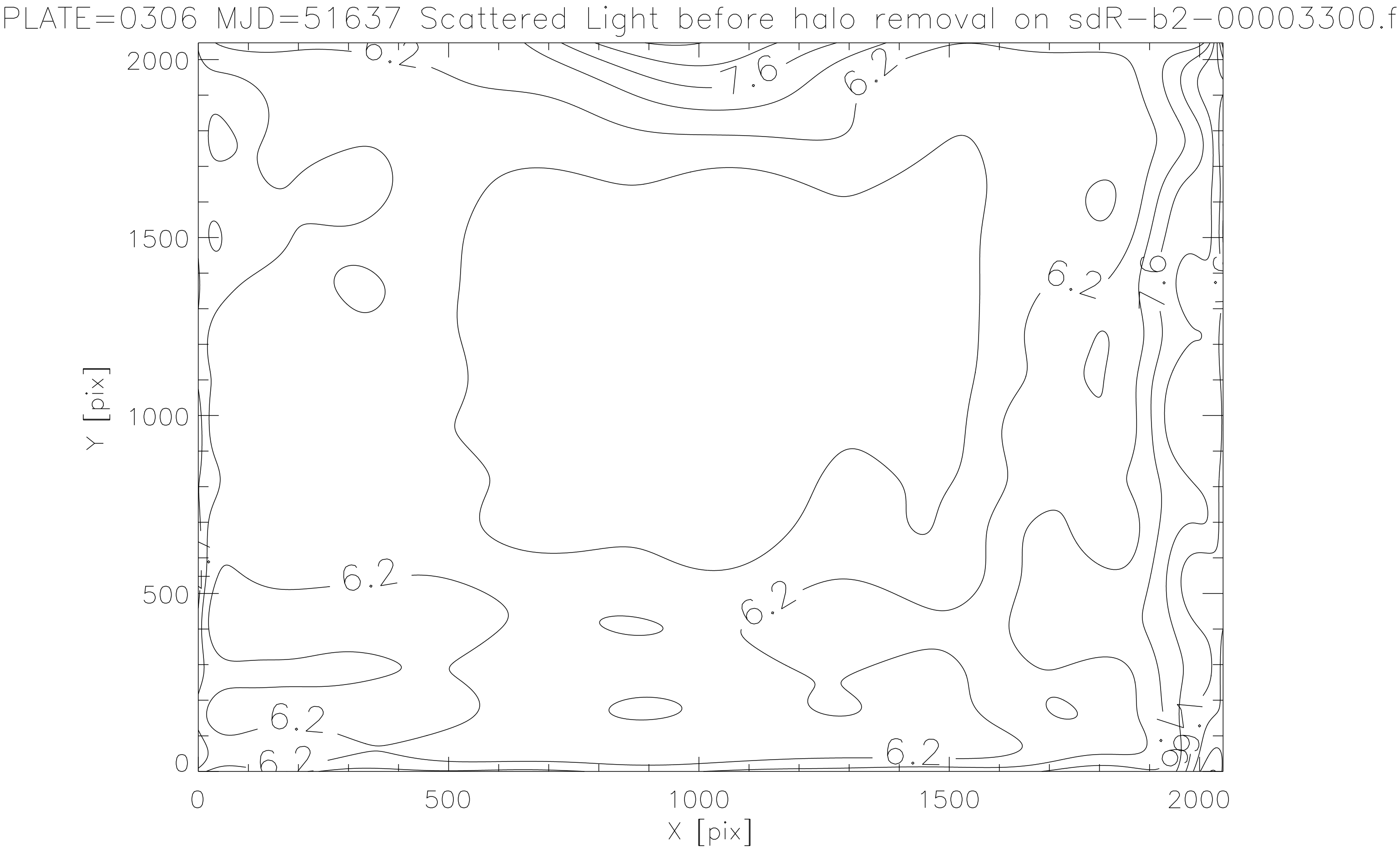
Number of sky fibers = 15

PLATE=0306 MJD=51637 sdR-b2-00003299.fit 2D Sky-subtraction Rescaled Errors

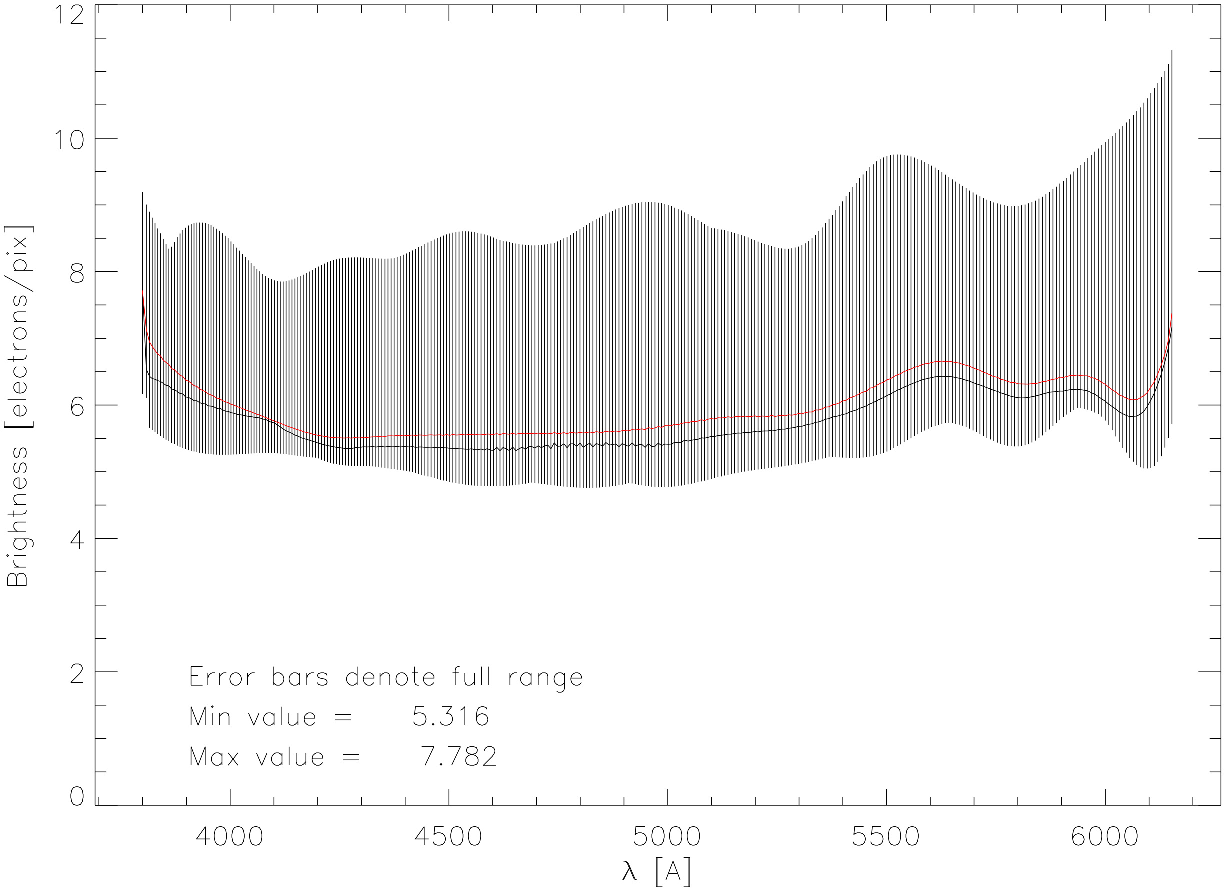

PLATE=0306 MJD=51637 sdR-b2-00003299.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
0
200
400
600
800
1000
1200
RED = sky fiber
Dispersion = 11.56 %
0
50
100
150
200
250
300
Fiber number
Flux (4359.5)/Airmass
0
200
400
600
800
1000
1200
0
100
200
300
400
Focal Distance [mm]
Flux (4359.5)/Airmass
0
200
400
600
800
1000
1200
1.195
1.200
1.205
1.210
1.215
1.220
1.225
Airmass


PLATE=0306 MJD=51637 sdR-b2-00003299.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
1.7×10^4
1.6×10^4
1.5×10^4
1.4×10^4
1.3×10^4
1.2×10^4
1.1×10^4
1.0×10^4
RED = sky fiber
Dispersion = 2.87 %
0
50
100
150
200
250
300
Fiber number
0
100
200
300
400
Focal Distance [mm]
1.195
1.200
1.205
1.210
1.215
1.220
1.225
Airmass

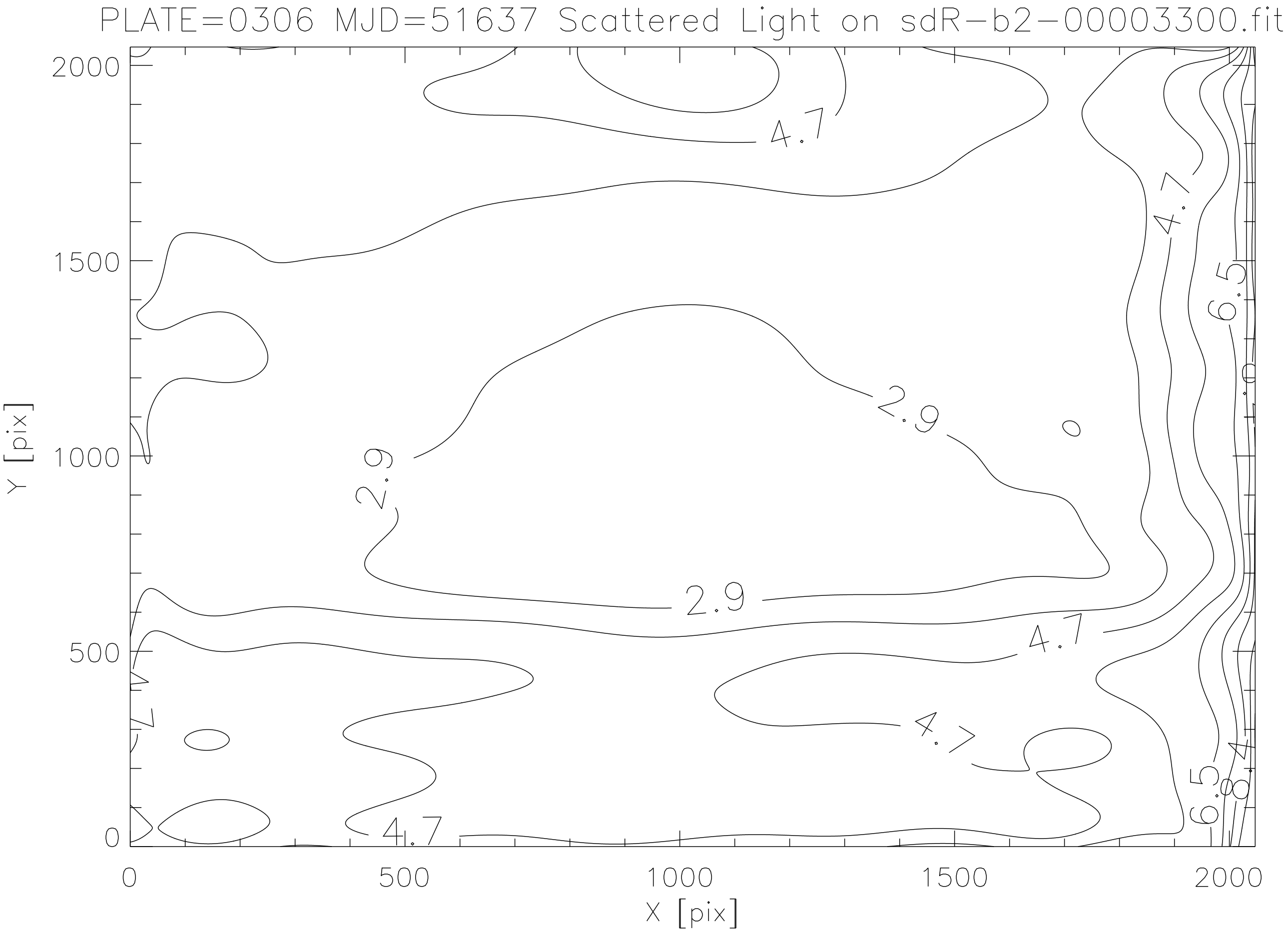

PLATE=0306 MJD=51637 Fiber-Flats for sdR-b2-00003301.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.635
Max value = 1.357
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Sun Mar 2 14:07:47 2008

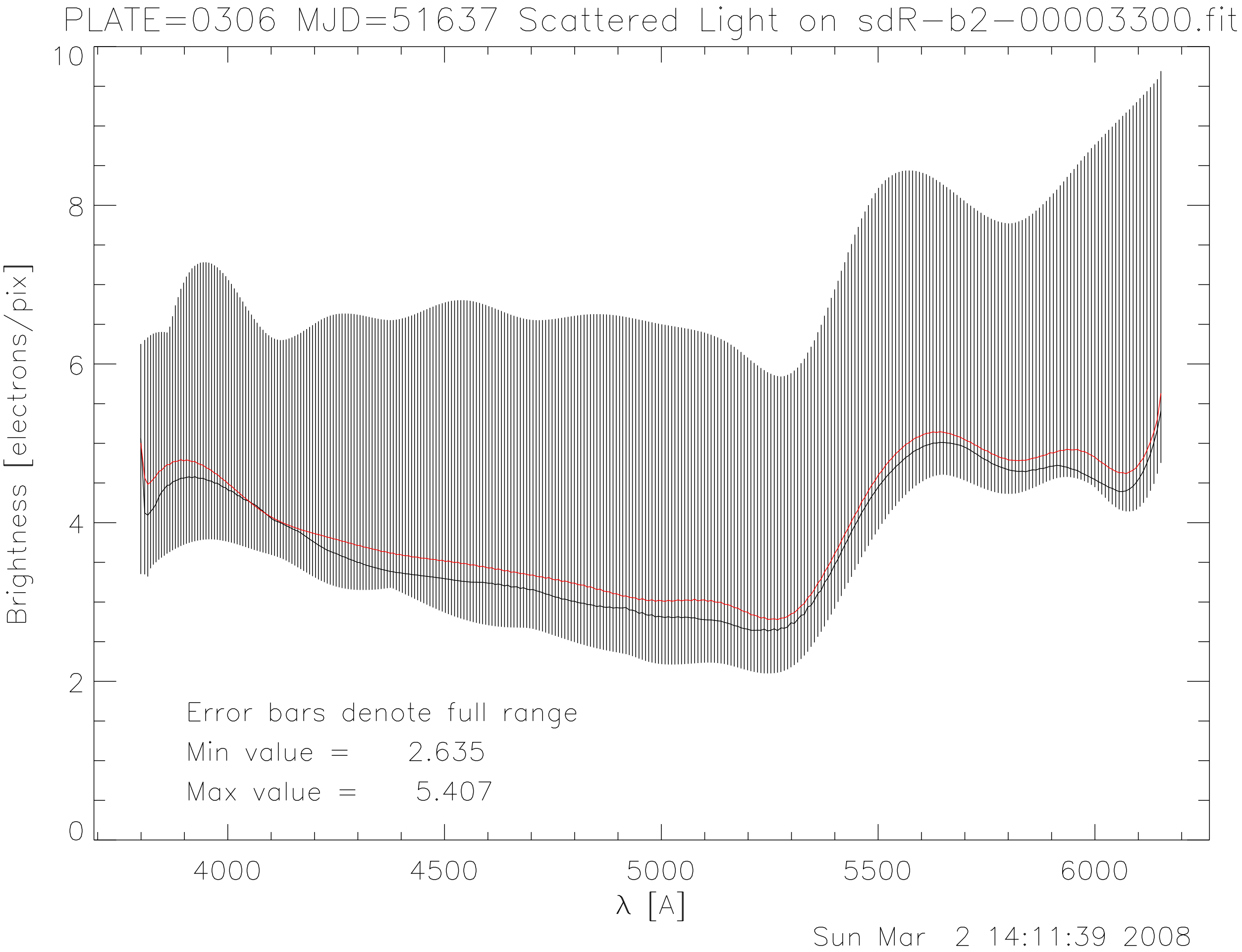

PLATE=0306 MJD=51637 Scattered Light before halo removal on sdR-b2-00003300.f
Y [pix]
X [pix]
0
500
1000
1500
2000
0
500
1000
1500
2000
6.2
7.6
6.2
6.2
7.6
6.2
6.2
6.2
6.2
6.2

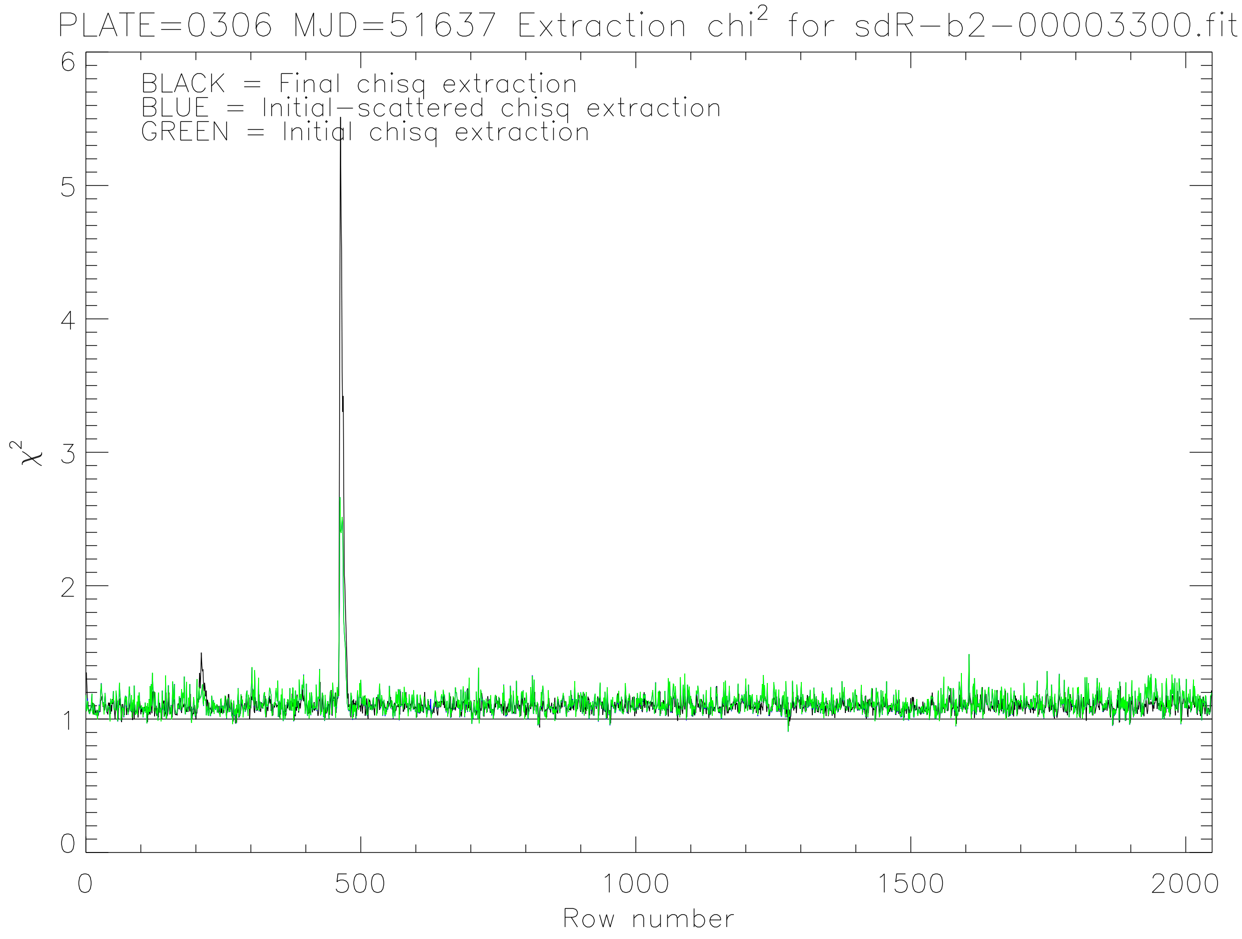
PLATE=0306 MJD=51637 Scattered Light before halo removal on sdR-b2-00003300.f

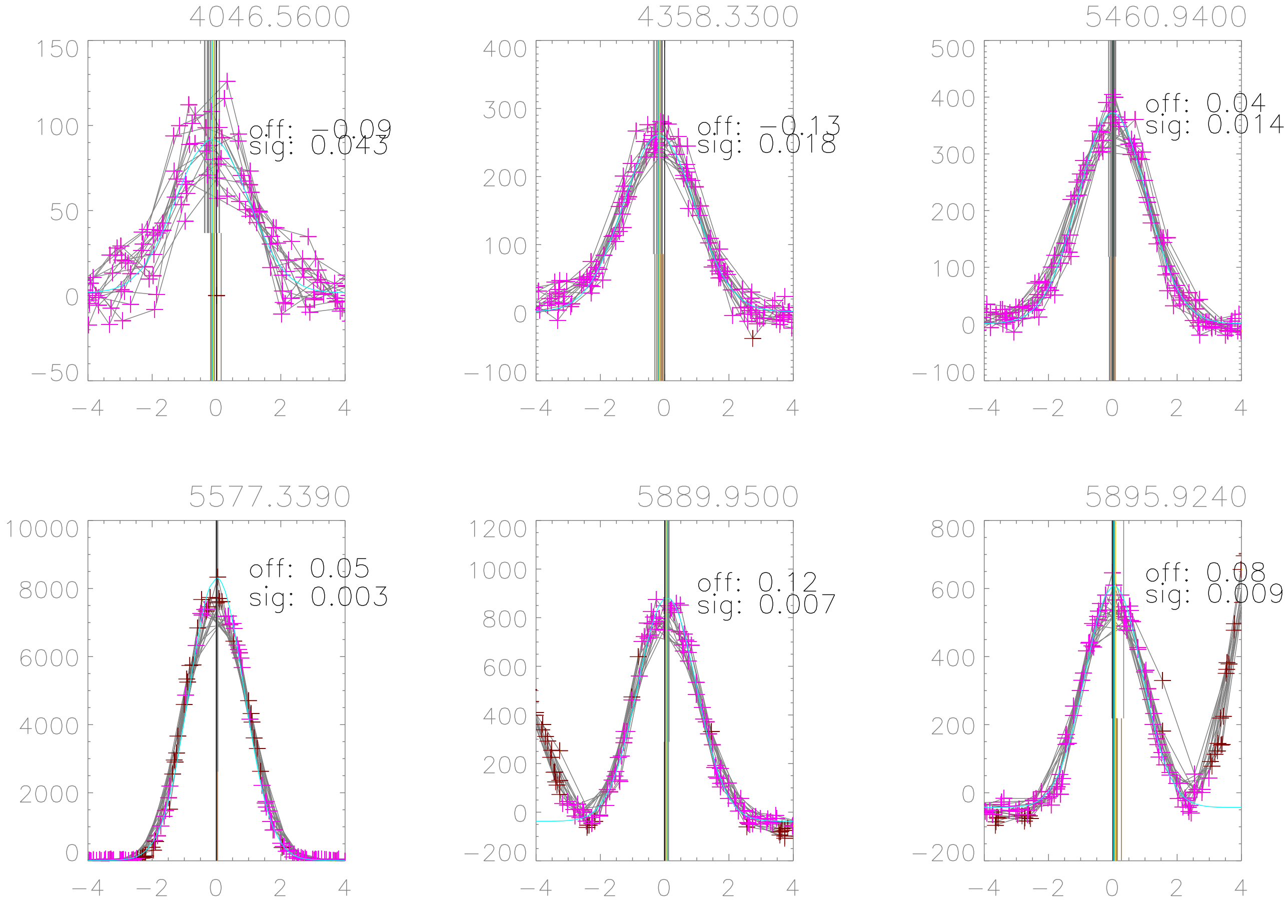


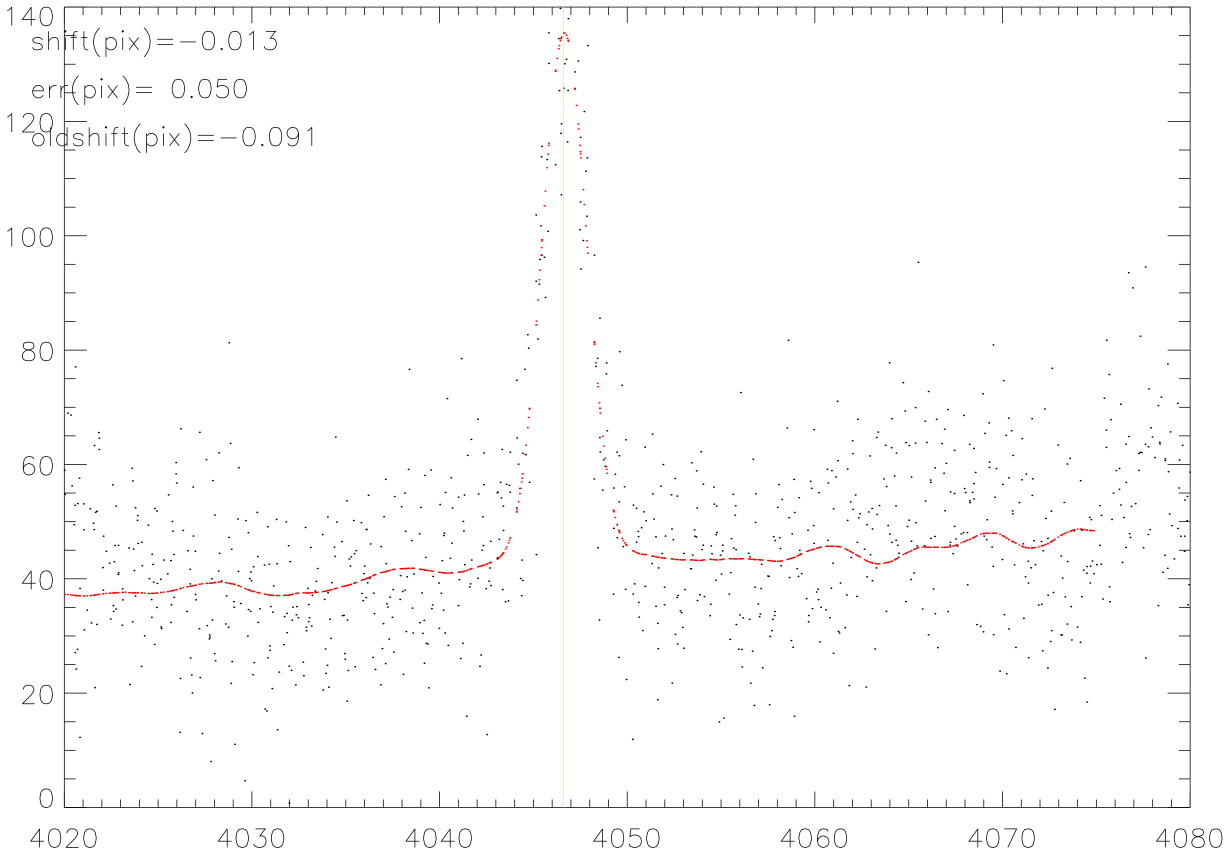
Sun Mar 2 14:08:37 2008

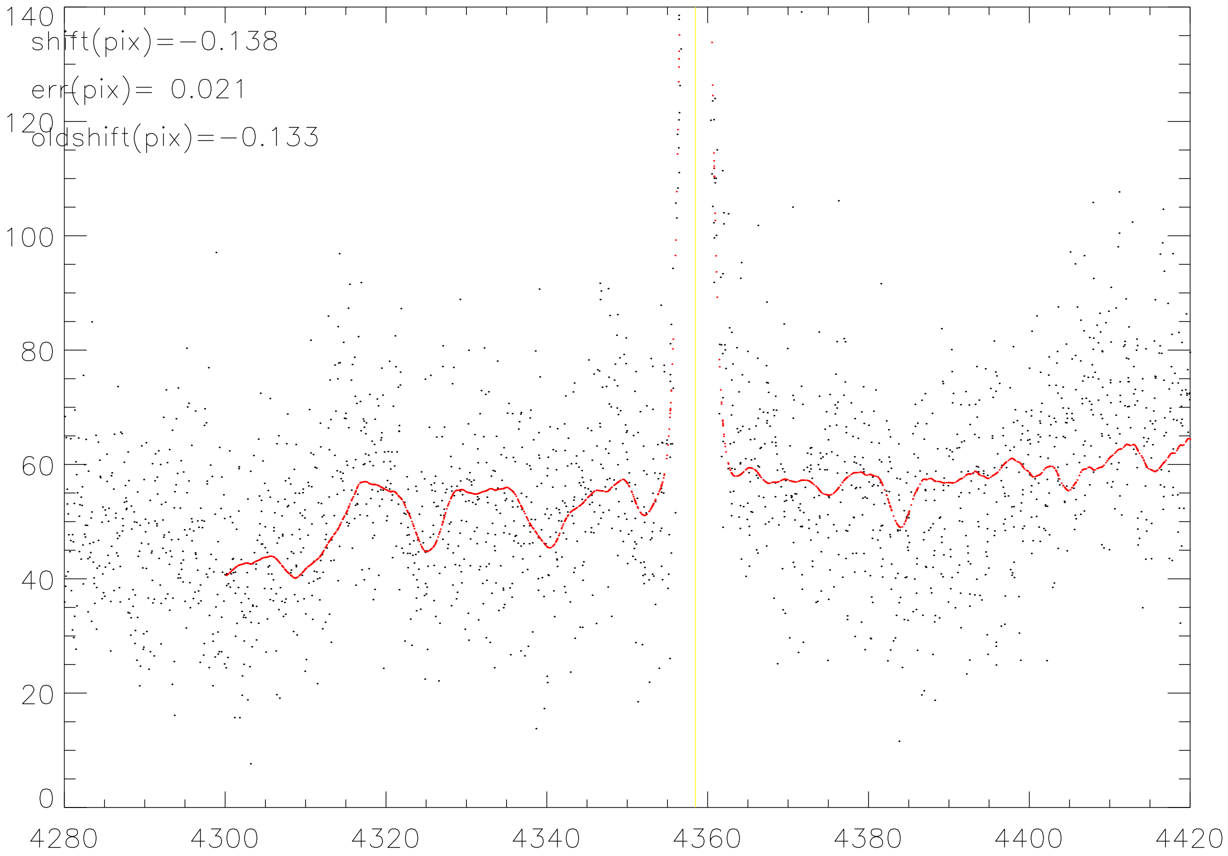

PLATE=0306 MJD=51637 Scattered Light on sdR-b2-00003300.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
0
500
1000
1500
2000
4.7
4.7
6.5
2.9
2.9
2.9
4.7
4.7
4.7
6.5
8.4

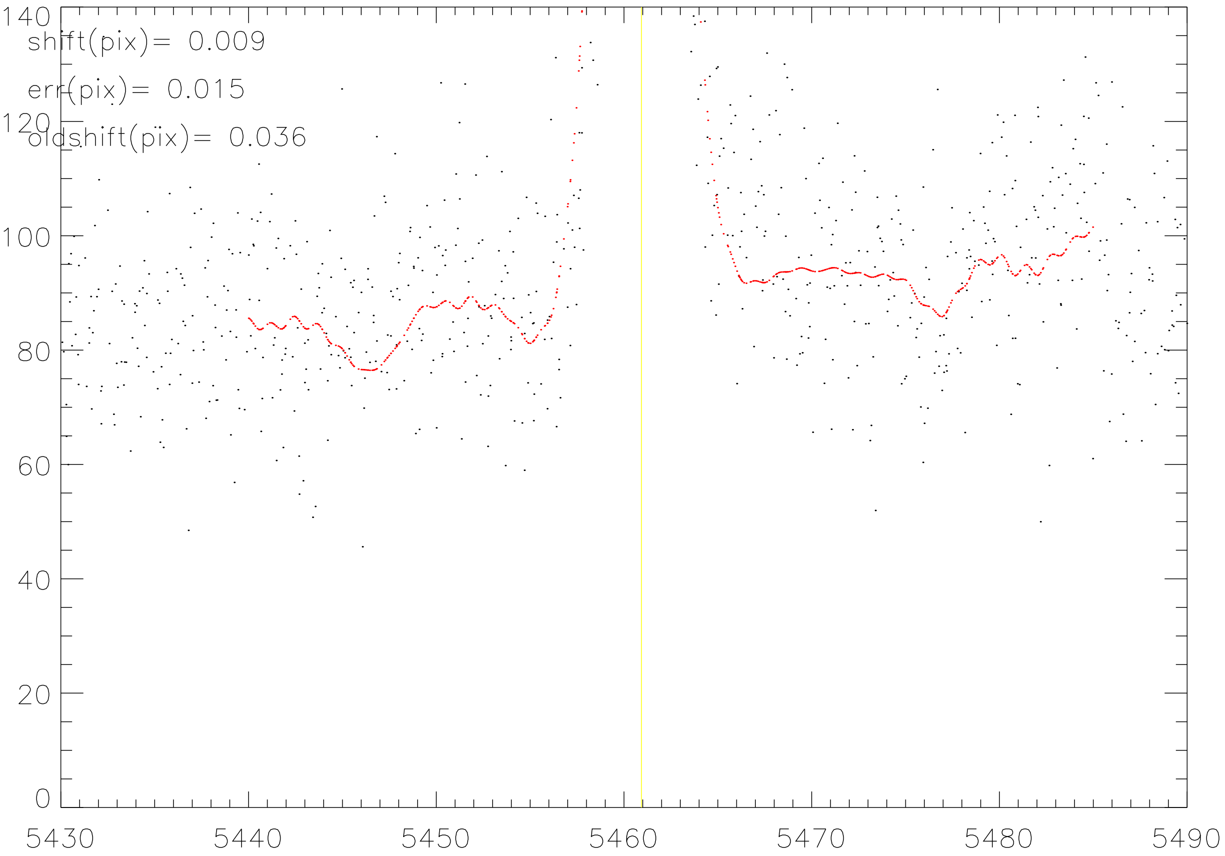

PLATE=0306 MJD=51637 Scattered Light on sdR-b2-00003300.fit
Brightness [electrons/pix]
0
2
4
6
8
10
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 2.635
Max value = 5.407
Sun Mar 2 14:11:39 2008

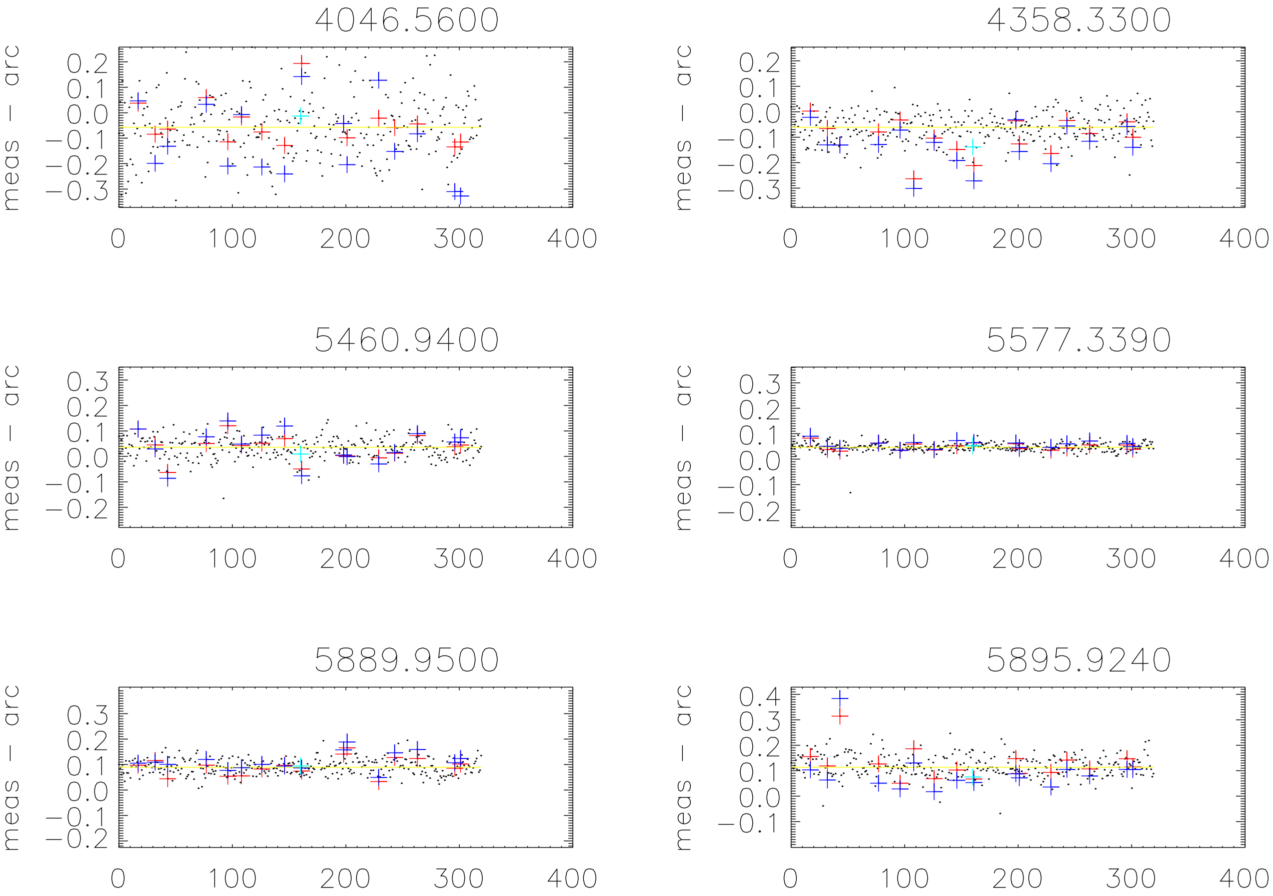

PLATE=0306 MJD=51637 Extraction chi^2 for sdR-b2-00003300.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
5
6
0
500
1000
1500
2000
Row number

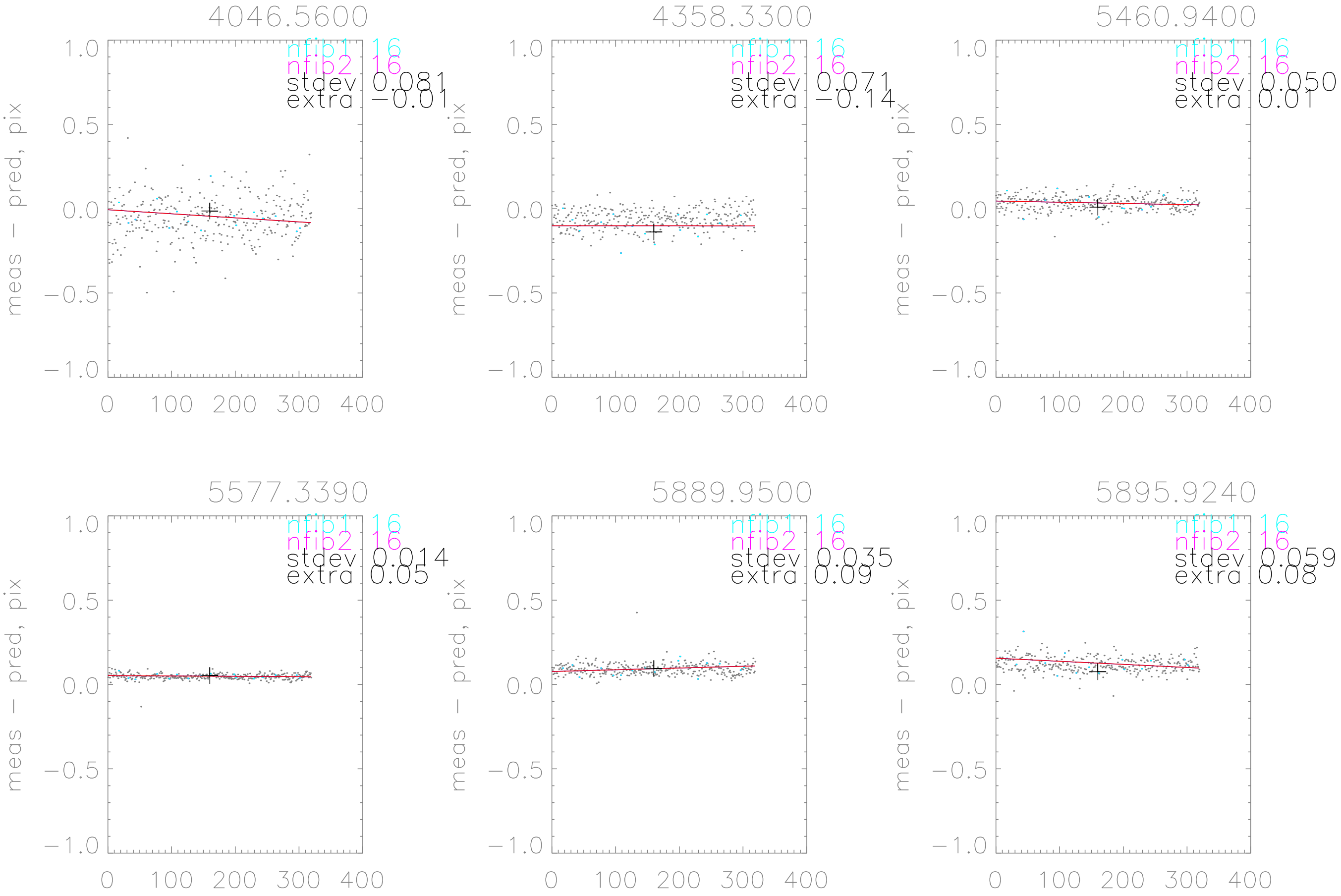

4046.5600
off: −0.09
sig: 0.043
4358.3300
off: −0.13
sig: 0.018
5460.9400
off: 0.04
sig: 0.014
5577.3390
off: 0.05
sig: 0.003
5889.9500
off: 0.12
sig: 0.007
5895.9240
off: 0.08
sig: 0.009
150
100
50
0
−50
400
300
200
100
0
−100
500
10000
8000
6000
4000
2000
1200
1000
800
600
400
200
−200
−4
−2
2
4

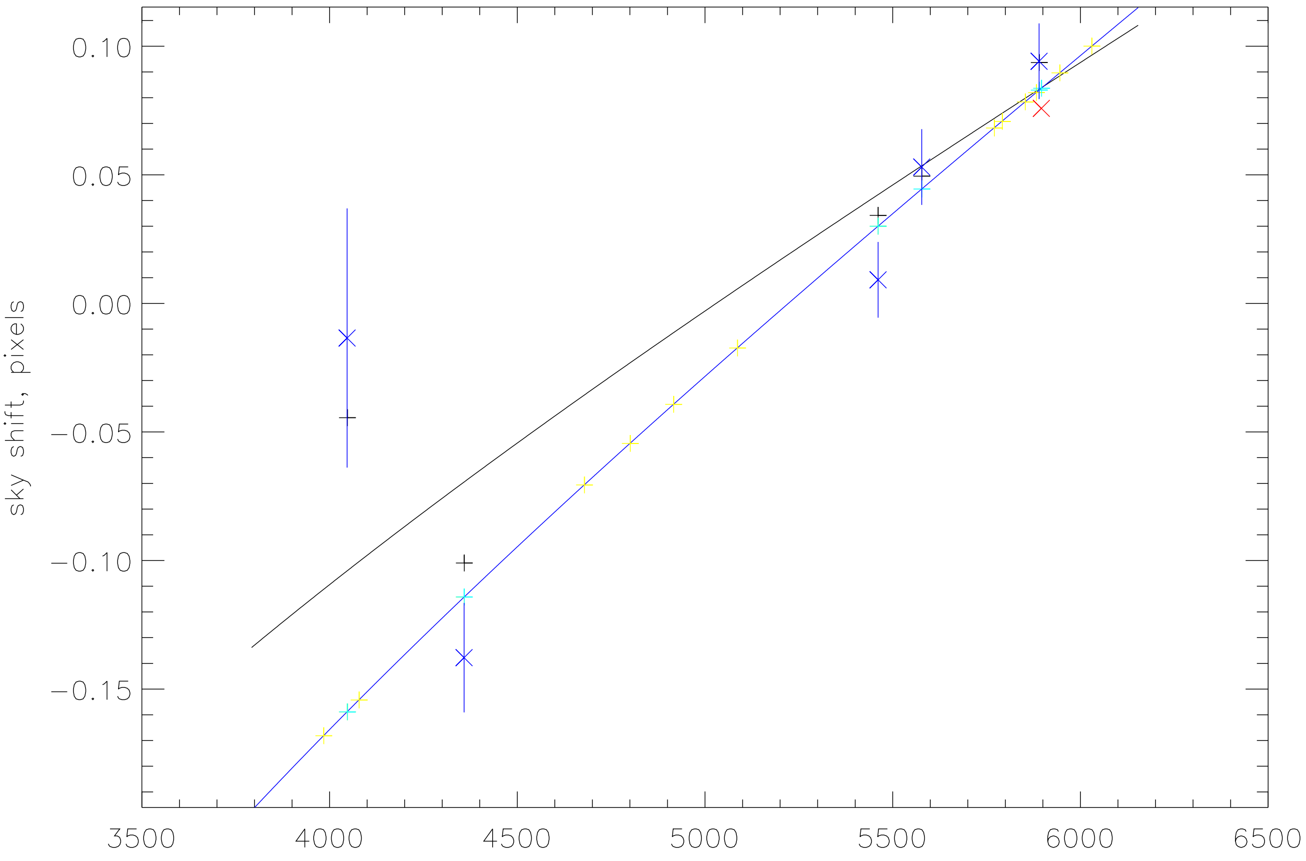

shift(pix)=−0.013
err(pix)= 0.050
oldshift(pix)=−0.091
0
20
40
60
80
100
120
140
4020
4030
4040
4050
4060
4070
4080

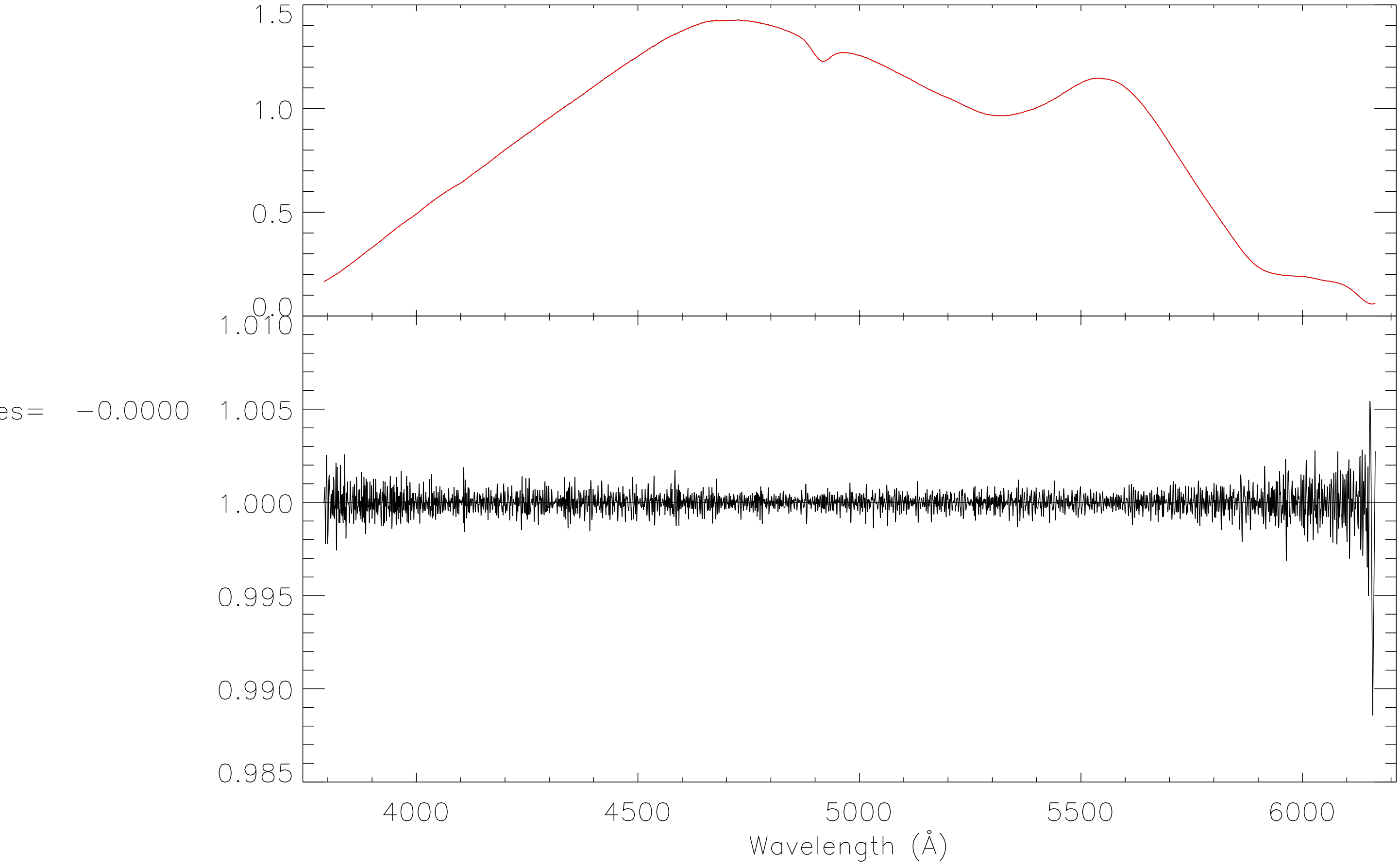

shift(pix)=−0.138
err(pix)= 0.021
oldshift(pix)=−0.133
0
20
40
60
80
100
120
140
4280
4300
4320
4340
4360
4380
4400
4420

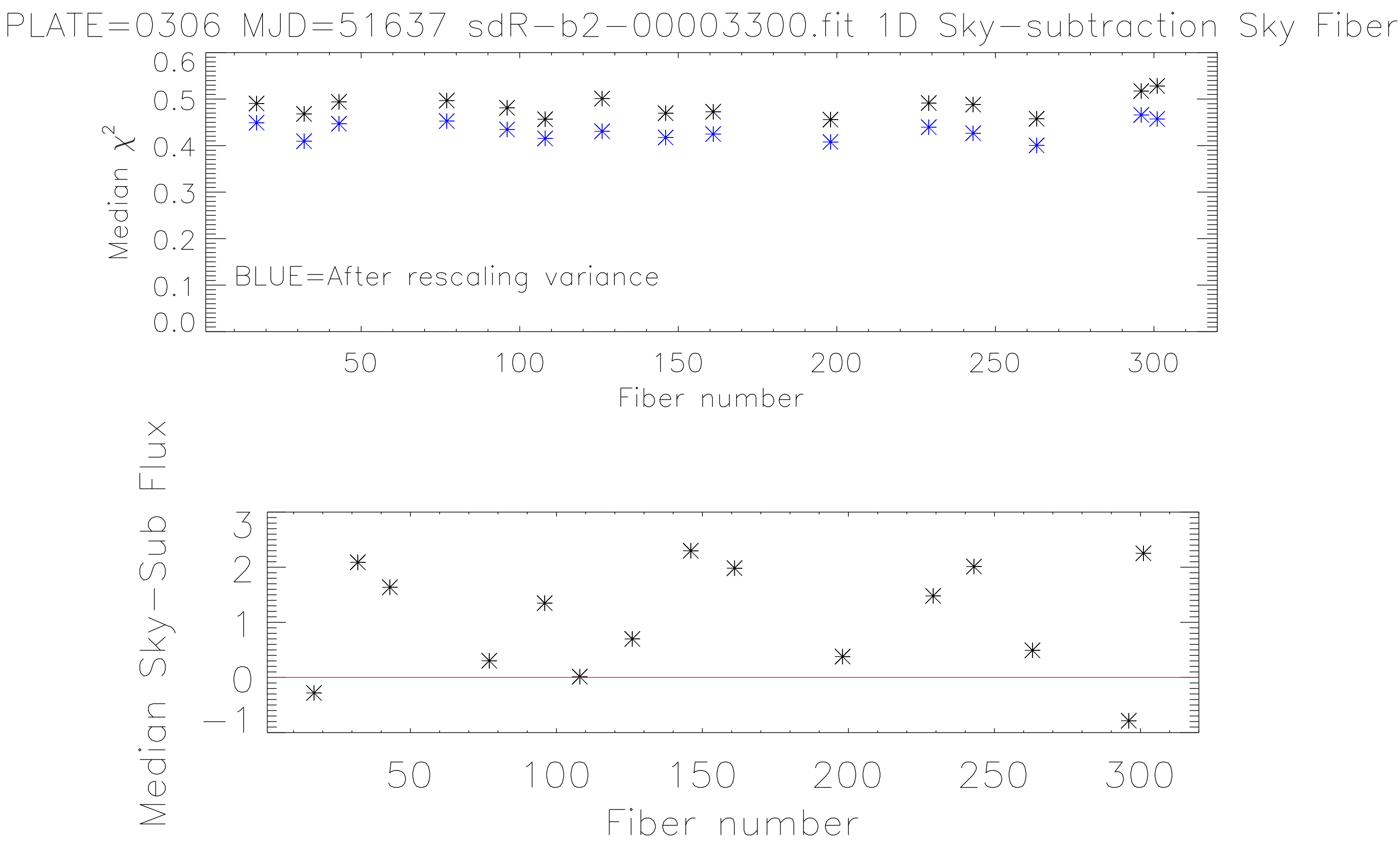

shift(pix)= 0.009
err(pix)= 0.015
oldshift(pix)= 0.036
140
120
100
80
60
40
20
0
5430
5440
5450
5460
5470
5480
5490


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

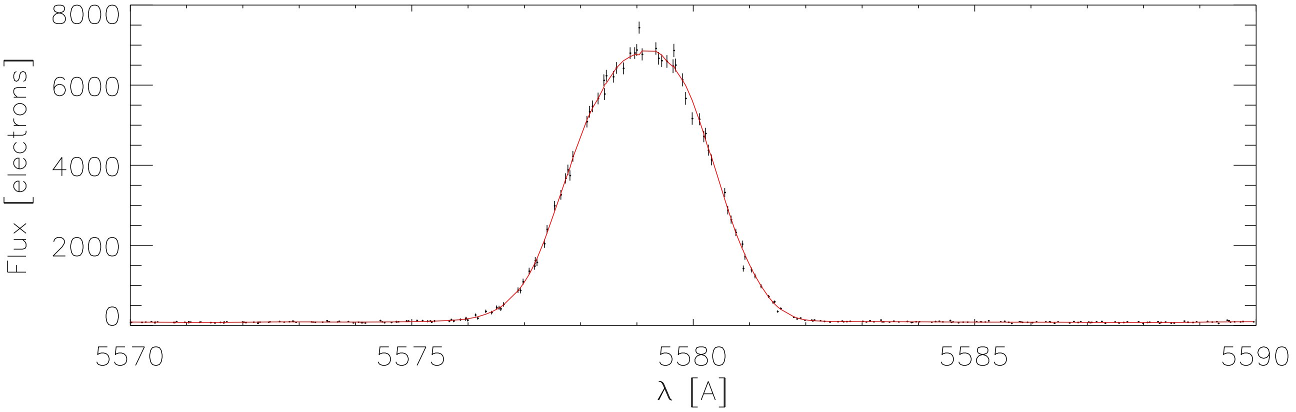

4046.5600
nfib1 16
nfib2 16
stdev 0.081
extra −0.01
4358.3300
nfib1 16
nfib2 16
stdev 0.071
extra −0.14
5460.9400
nfib1 16
nfib2 16
stdev 0.050
extra 0.01
5577.3390
nfib1 16
nfib2 16
stdev 0.014
extra 0.05
5889.9500
nfib1 16
nfib2 16
stdev 0.035
extra 0.09
5895.9240
nfib1 16
nfib2 16
stdev 0.059
extra 0.08
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400


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

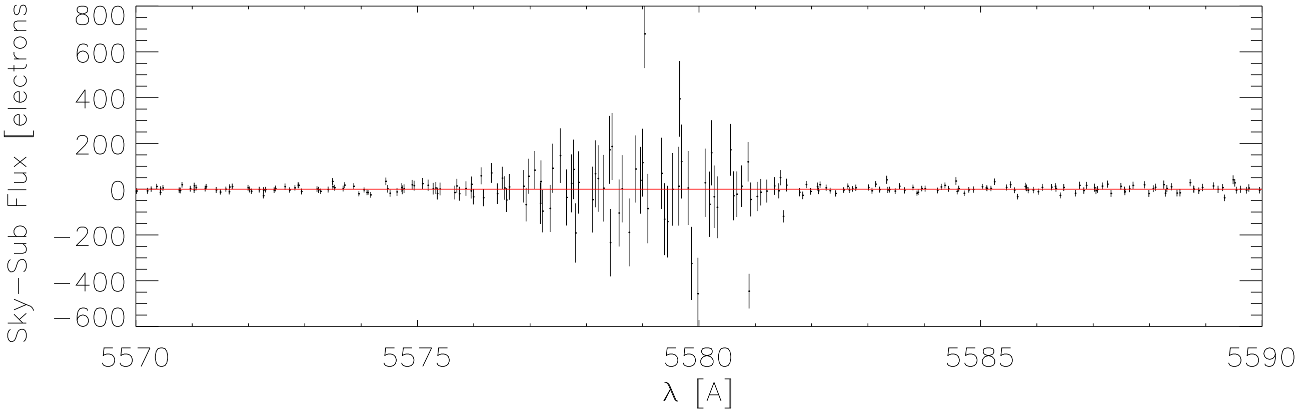

PLATE=0306 MJD=51637 Smooth superflat for sdR-b2-00003300.fit


PLATE=0306 MJD=51637 sdR-b2-00003300.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
-1
0
1
2
3
50
100
150
200
250
300
Fiber number

PLATE=0306 MJD=51637 sdR-b2-00003300.fit 1D Sky-subtraction Sky Fibers

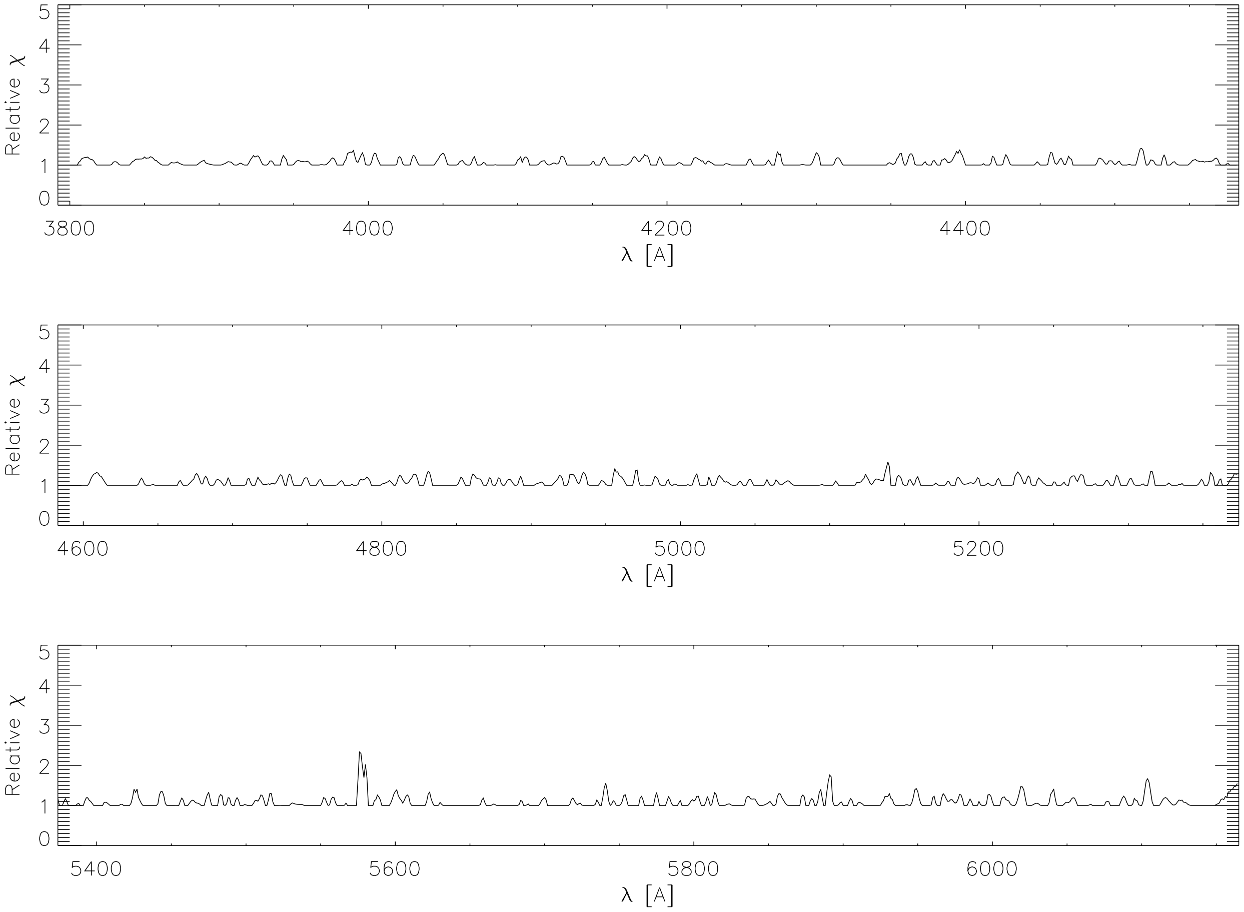


PLATE=0306 MJD=51637 sdR-b2-00003300.fit 1D Sky-subtraction Sky-subtracted Sky F

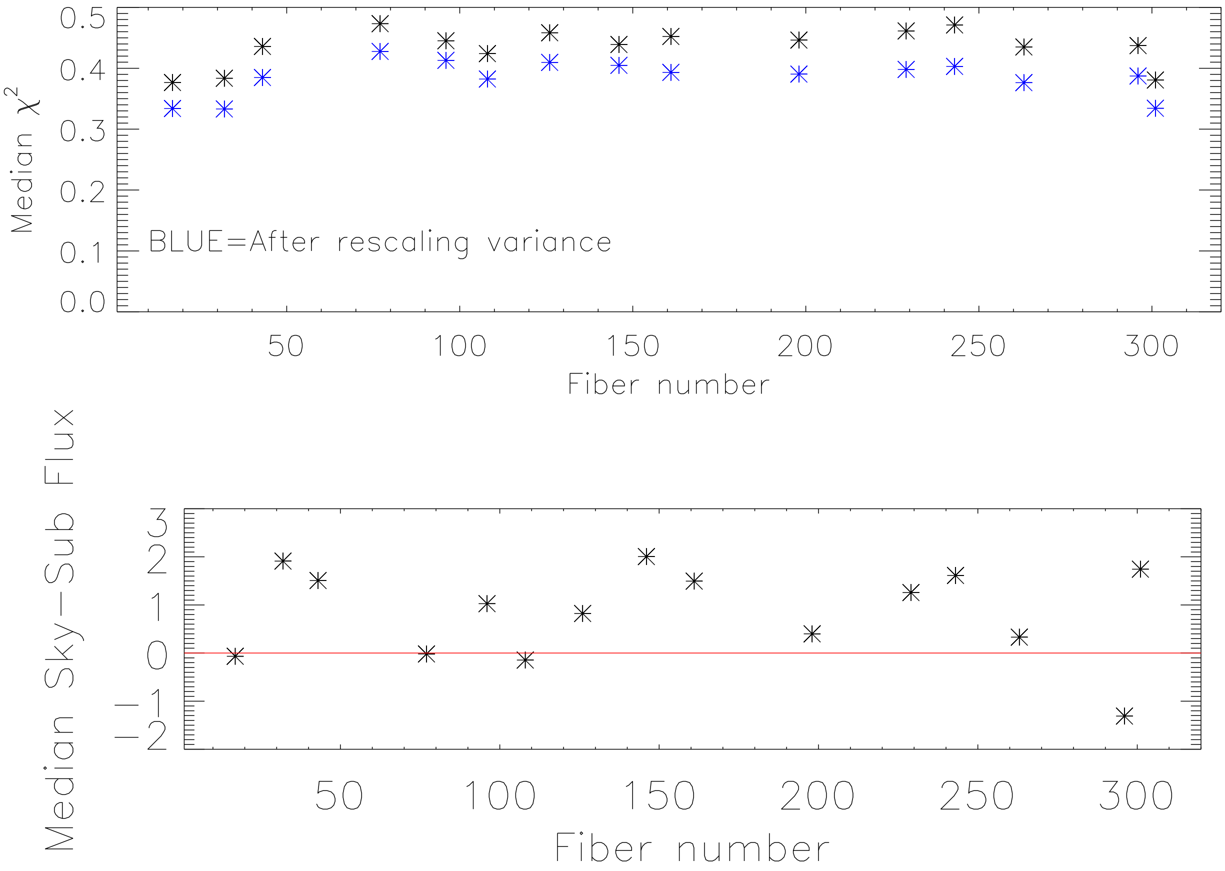


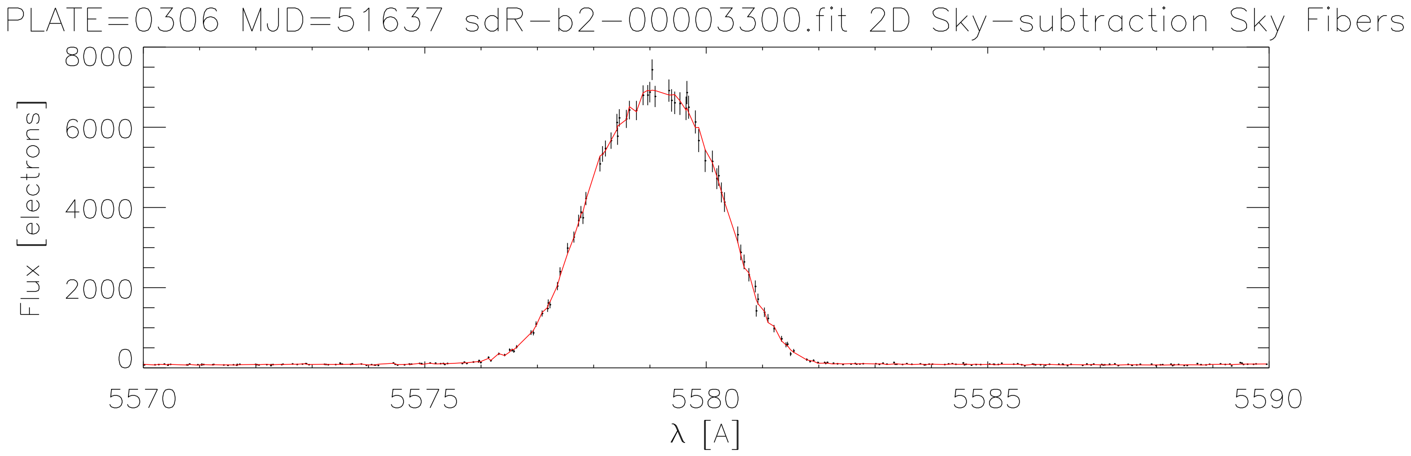
Number of sky fibers = 15

PLATE=0306 MJD=51637 sdR-b2-00003300.fit 1D Sky-subtraction Rescaled Errors

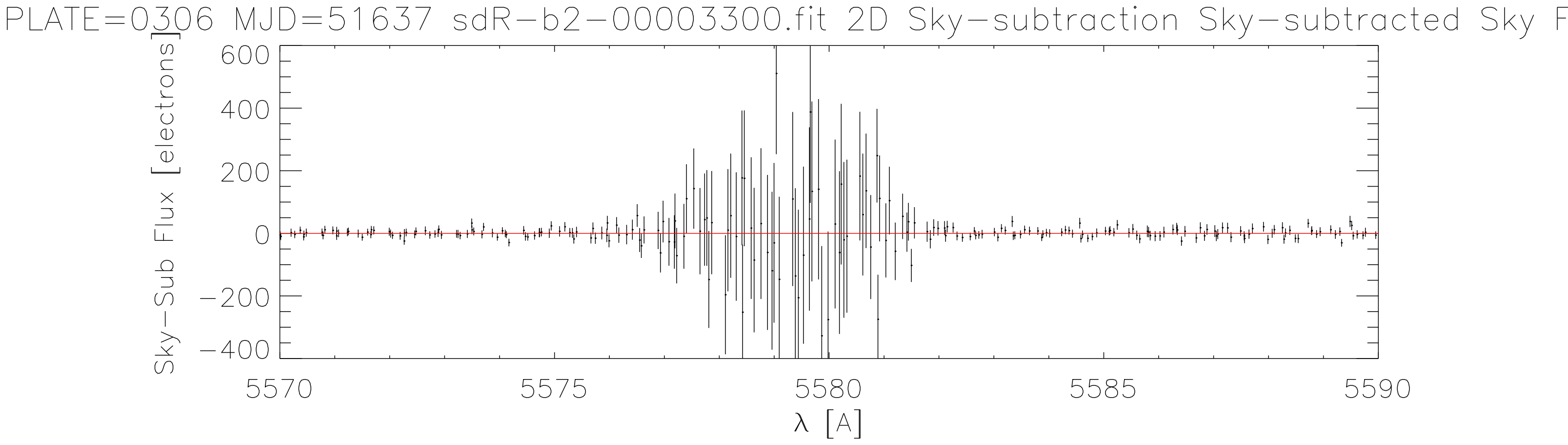


PLATE=0306 MJD=51637 sdR-b2-00003300.fit 2D Sky-subtraction Sky Fiber

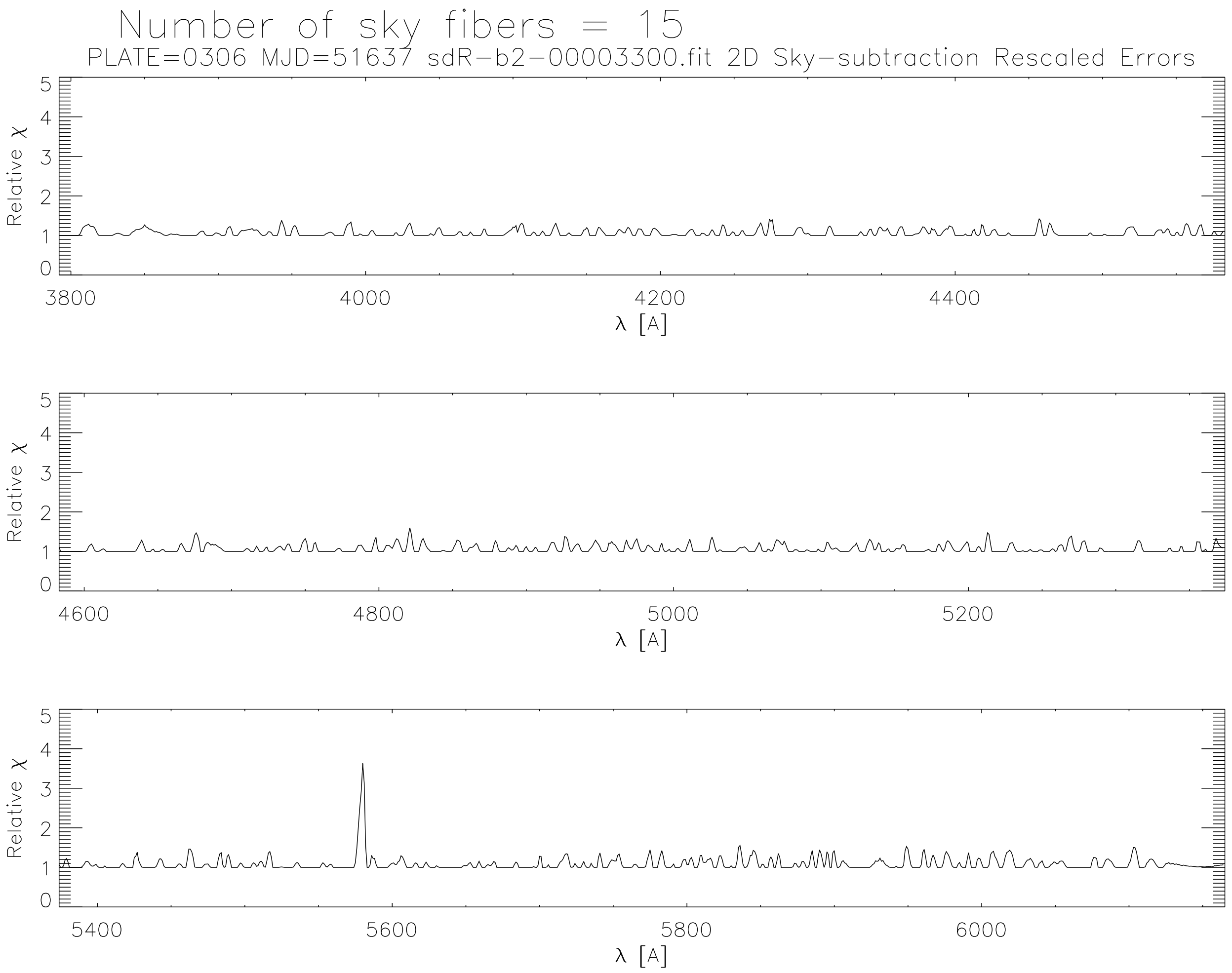




PLATE=0306 MJD=51637 sdR-b2-00003300.fit 2D Sky-subtraction Sky Fibers

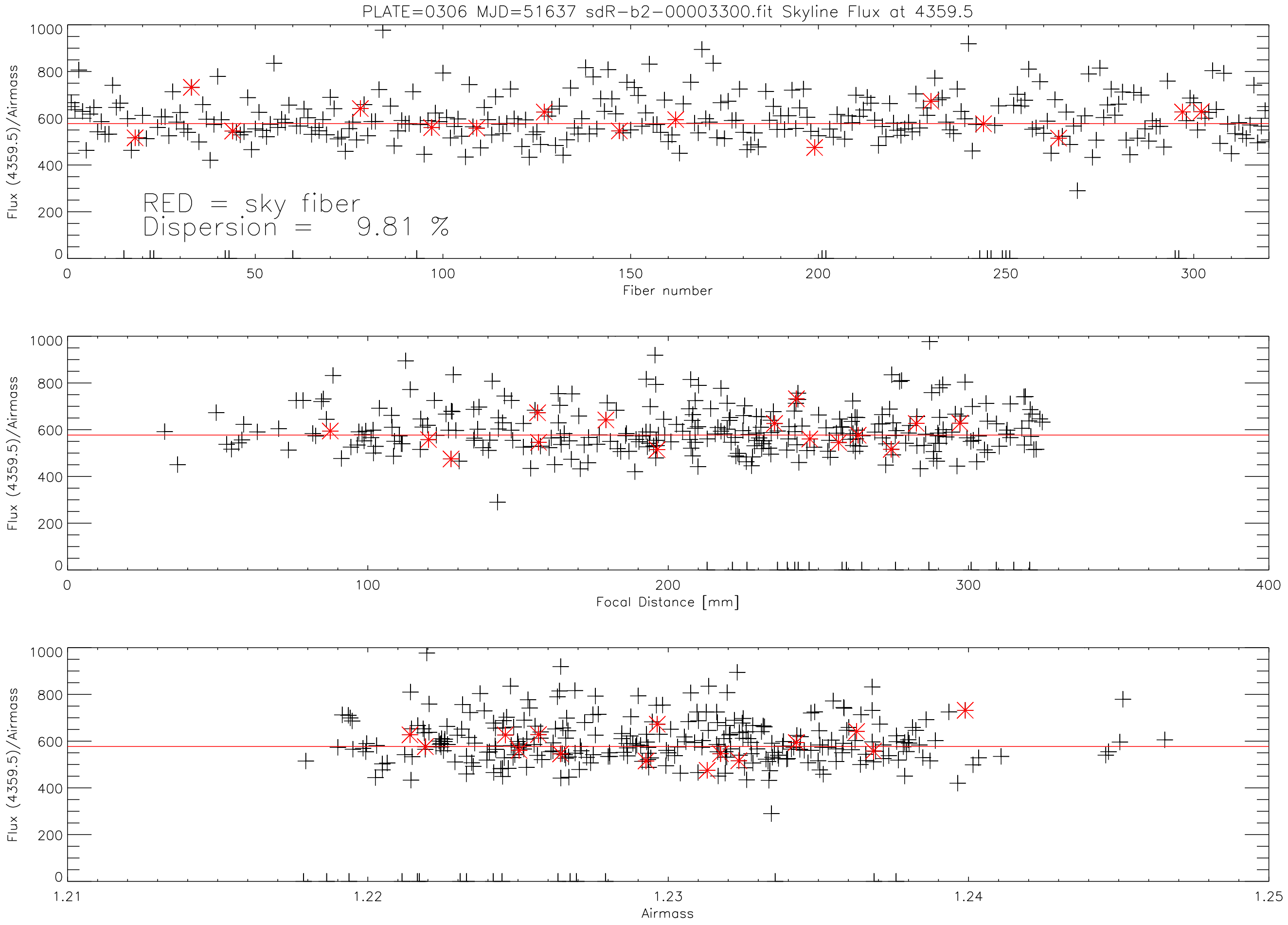


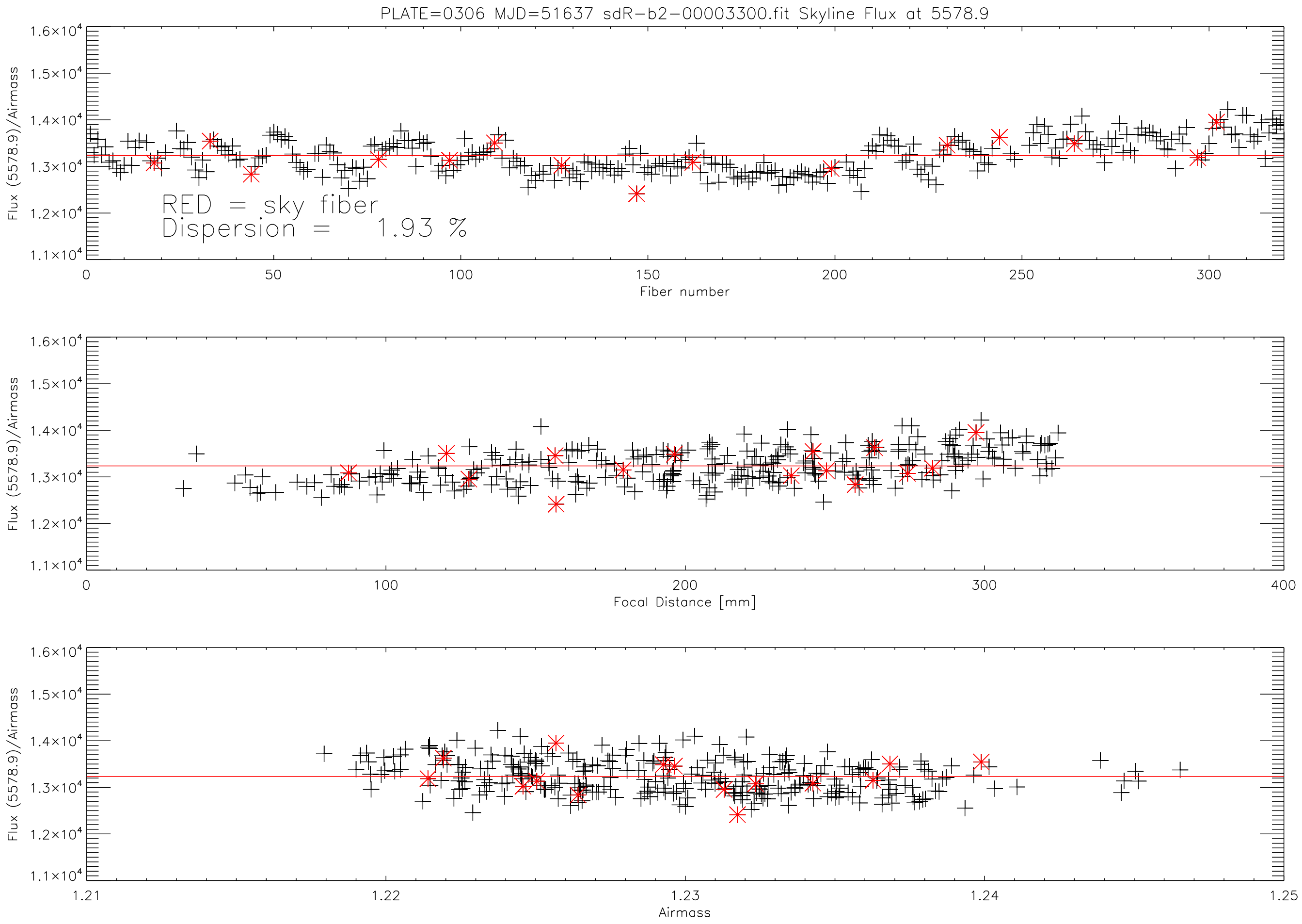
PLATE=0306 MJD=51637 sdR-b2-00003300.fit 2D Sky-subtraction Sky-subtracted Sky F

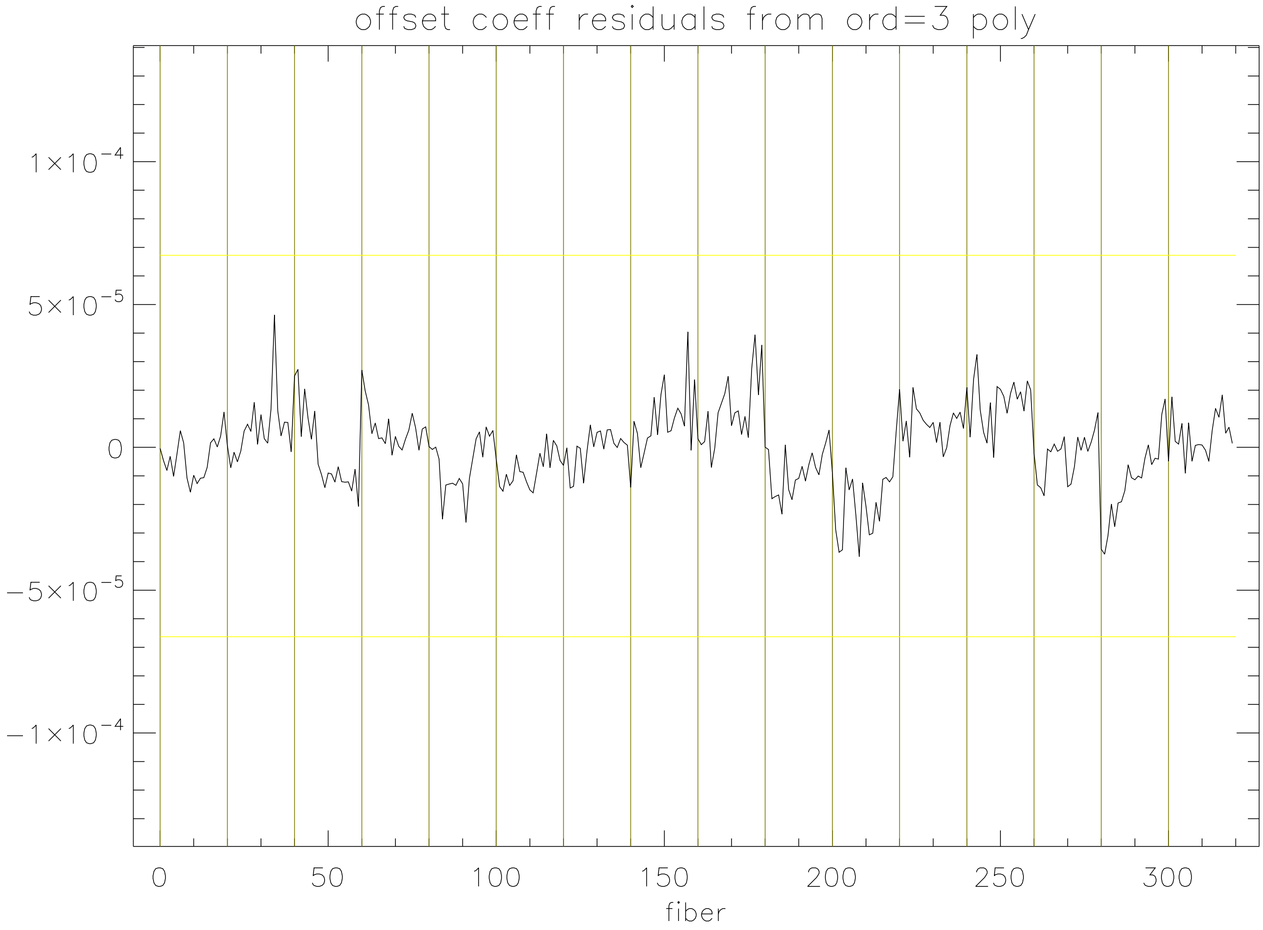


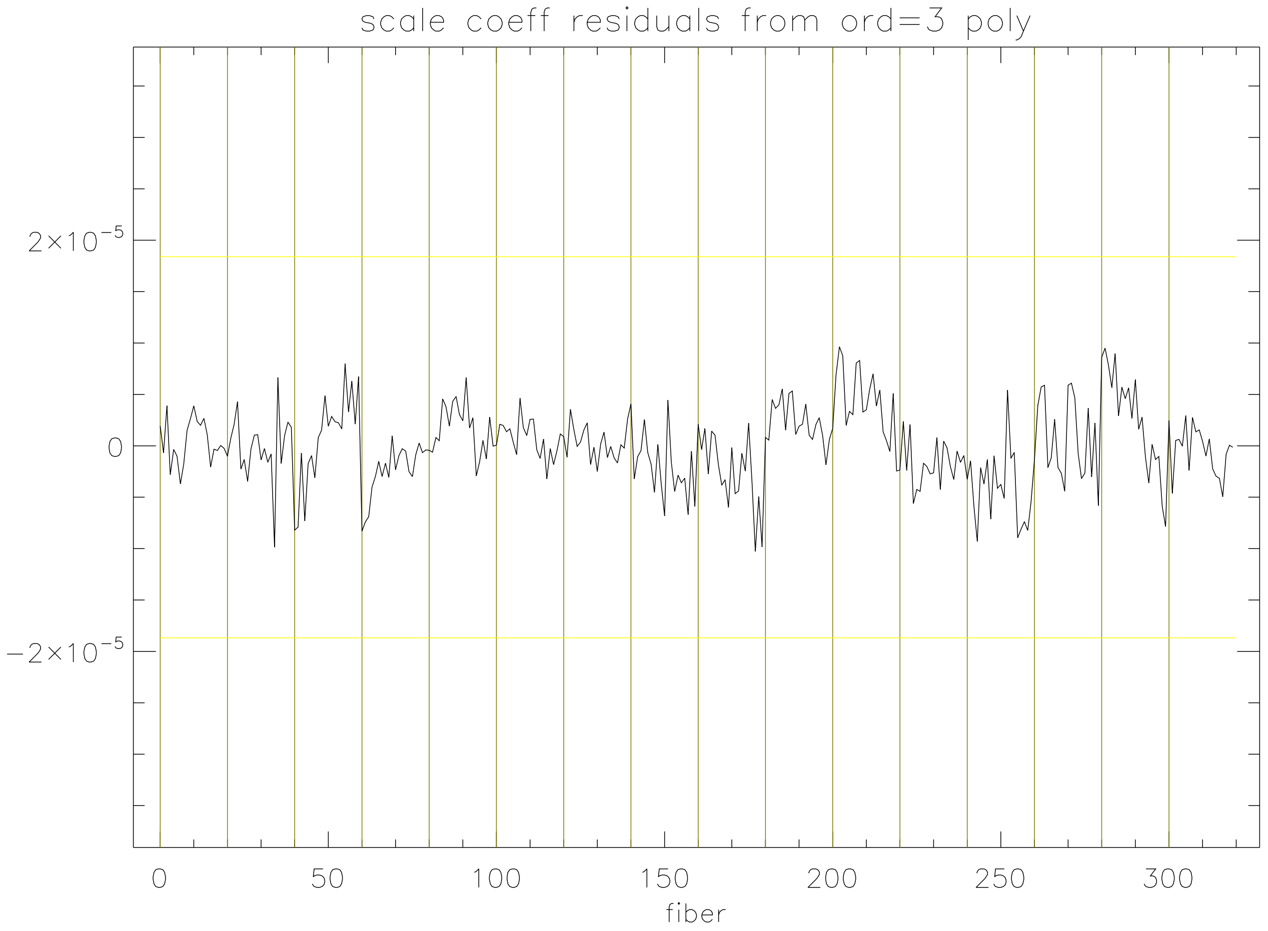
Number of sky fibers = 15

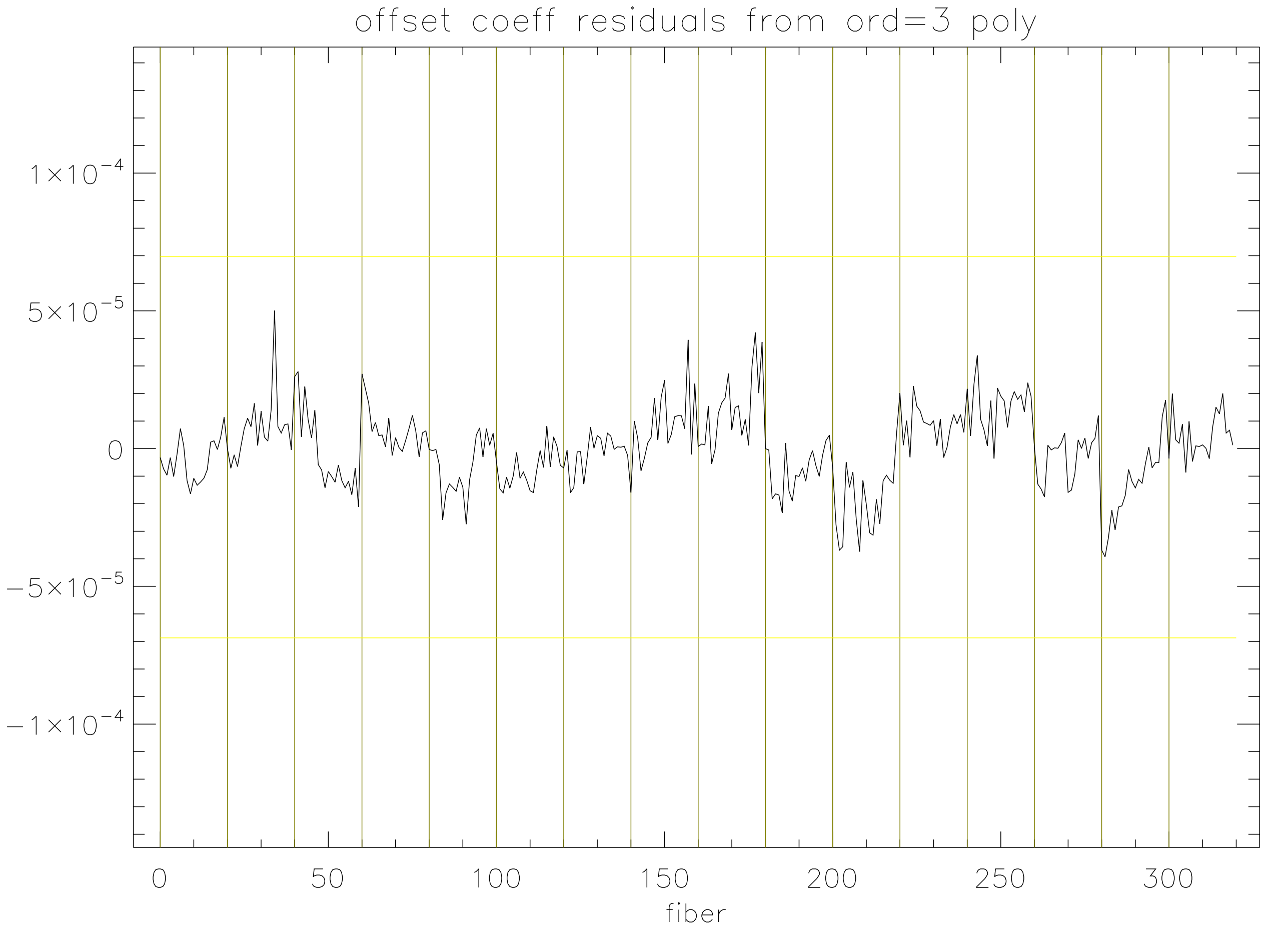
PLATE=0306 MJD=51637 sdR-b2-00003300.fit 2D Sky-subtraction Rescaled Errors

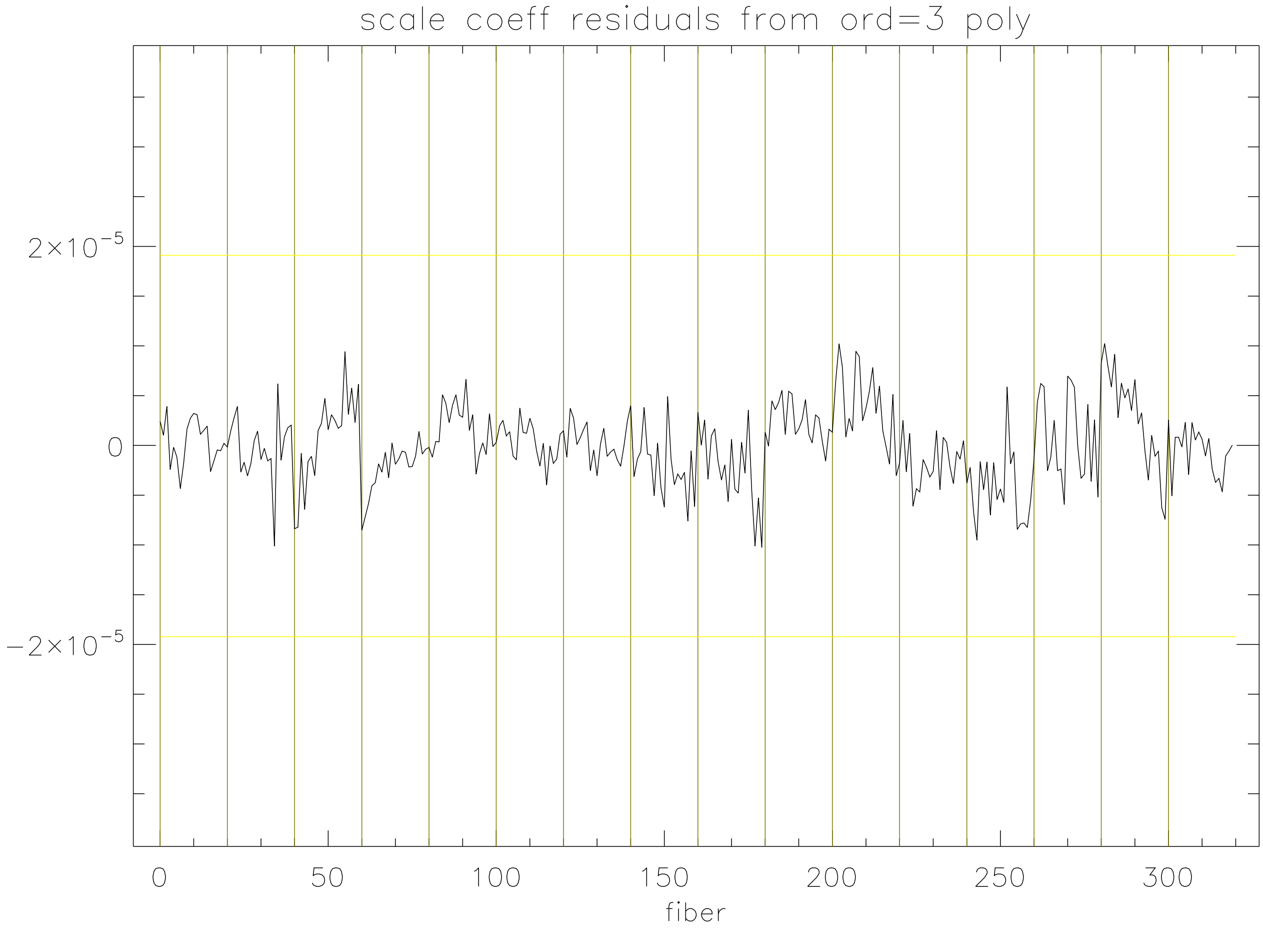

PLATE=0306 MJD=51637 sdR-b2-00003300.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 9.81 %
0
200
400
600
800
1000
0
50
100
150
200
250
300
Fiber number
Flux (4359.5)/Airmass
0
100
200
300
400
Focal Distance [mm]
Flux (4359.5)/Airmass
1.21
1.22
1.23
1.24
1.25
Airmass

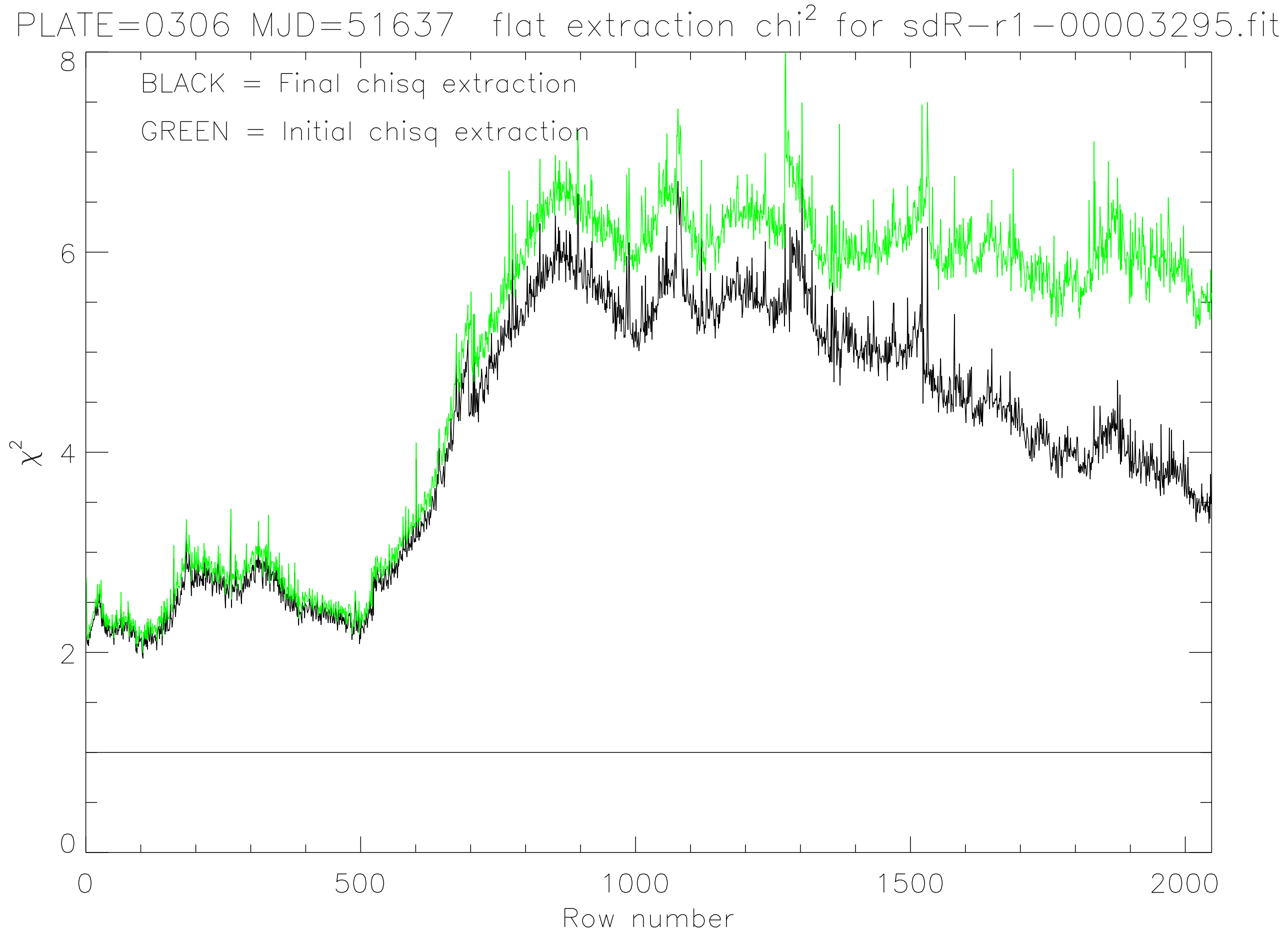

PLATE=0306 MJD=51637 sdR-b2-00003300.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
1.6×10⁴
1.5×10⁴
1.4×10⁴
1.3×10⁴
1.2×10⁴
1.1×10⁴
RED = sky fiber
Dispersion = 1.93 %
0
50
100
150
200
250
300
Fiber number
Flux (5578.9)/Airmass
1.6×10⁴
1.5×10⁴
1.4×10⁴
1.3×10⁴
1.2×10⁴
1.1×10⁴
0
100
200
300
400
Focal Distance [mm]
Flux (5578.9)/Airmass
1.6×10⁴
1.5×10⁴
1.4×10⁴
1.3×10⁴
1.2×10⁴
1.1×10⁴
1.21
1.22
1.23
1.24
1.25
Airmass

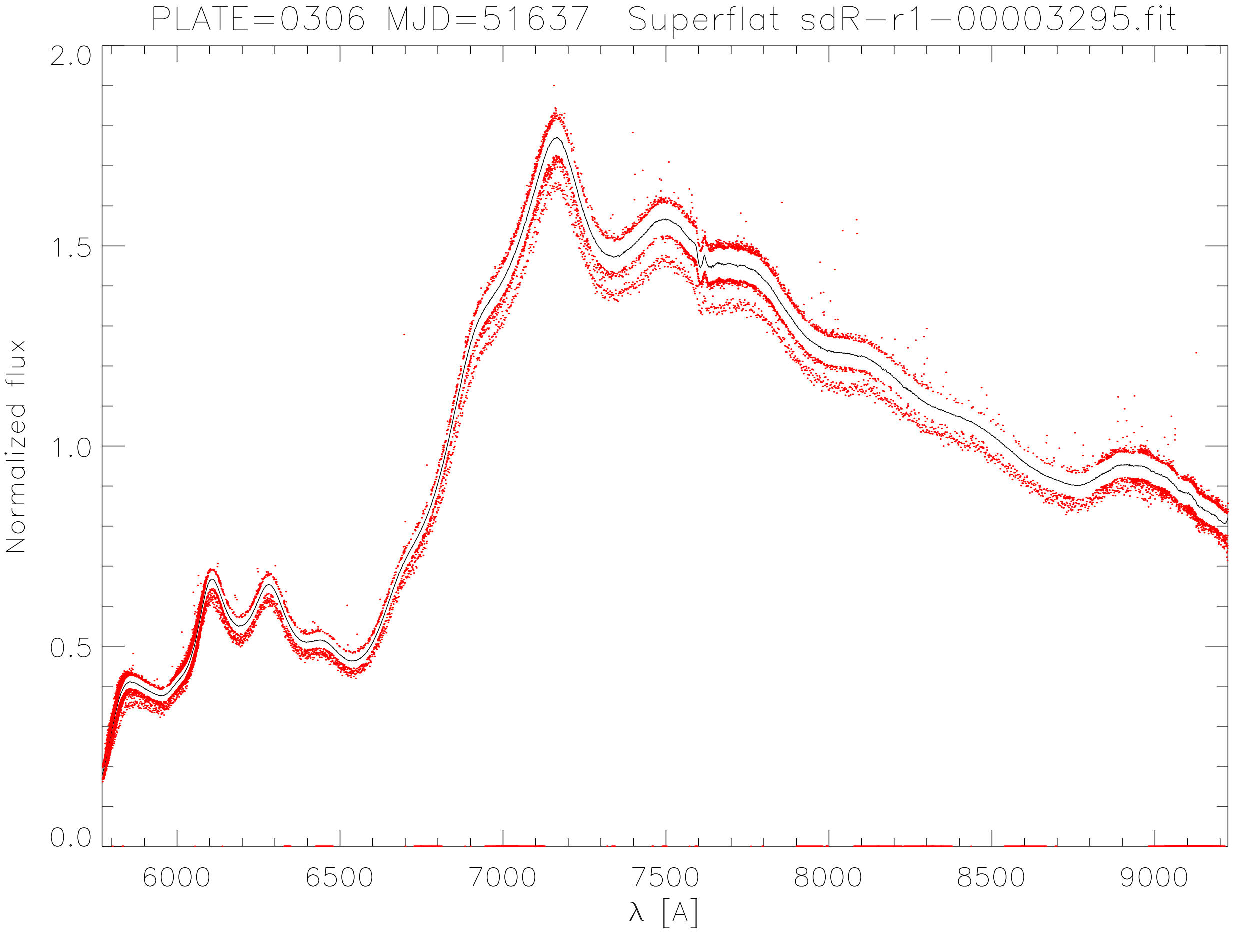

offset coeff residuals from ord=3 poly
1×10⁻⁴
5×10⁻⁵
0
−5×10⁻⁵
−1×10⁻⁴
0
50
100
150
200
250
300
fiber

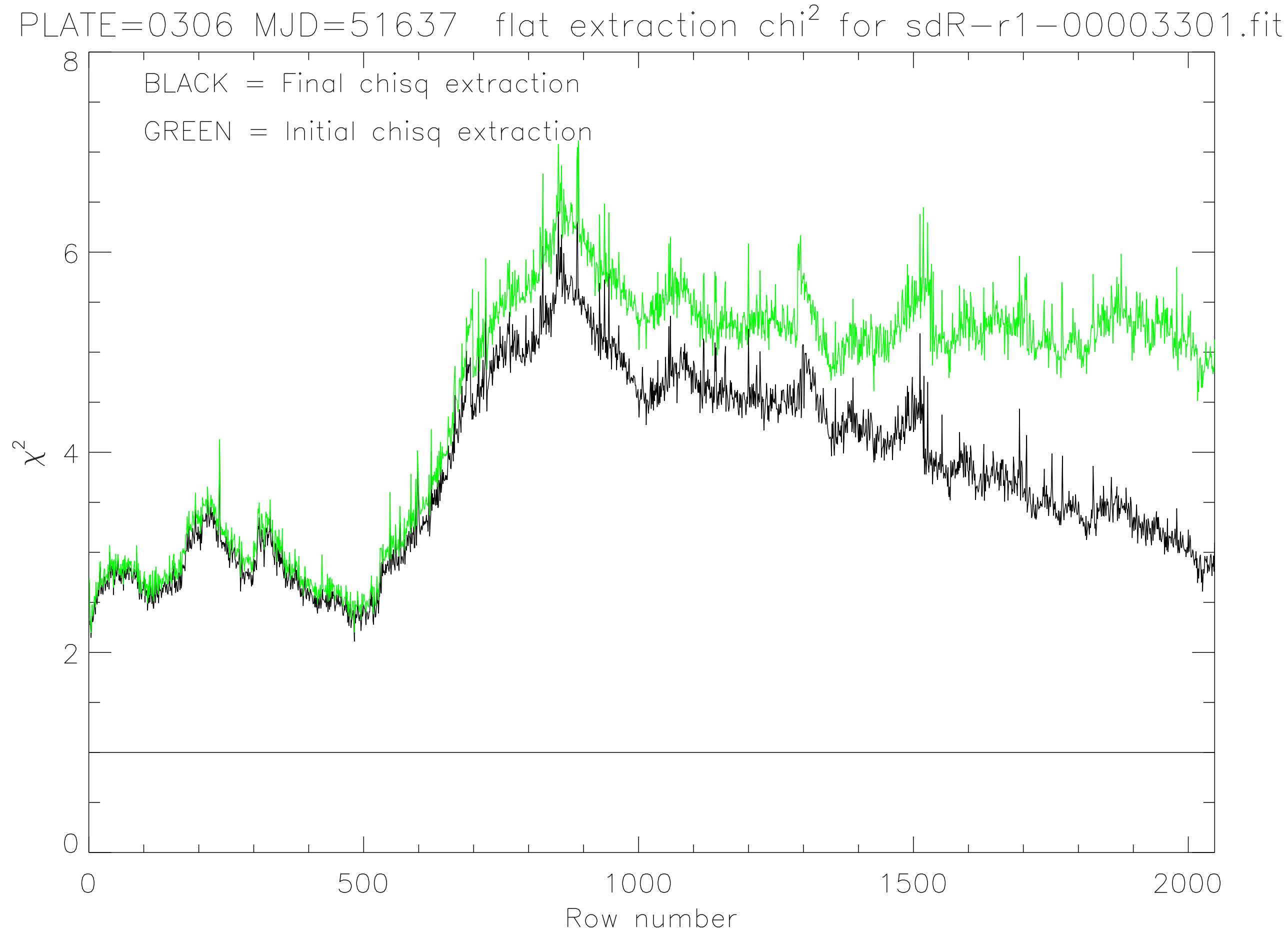

scale coeff residuals from ord=3 poly
2×10^{-5}
0
−2×10^{-5}
0
50
100
150
200
250
300
fiber


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

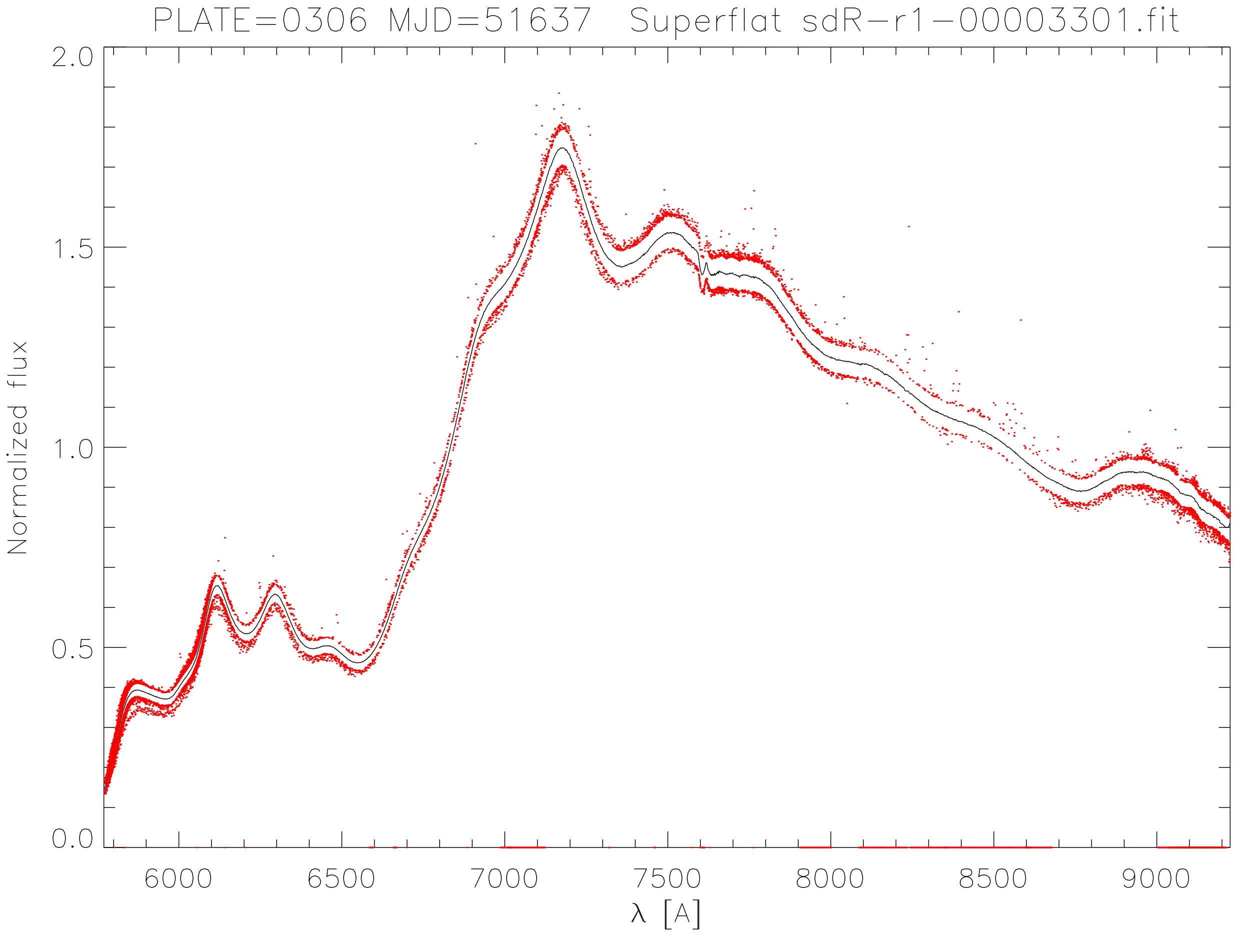

scale coeff residuals from ord=3 poly
2×10^-5
0
−2×10^-5
0
50
100
150
200
250
300
fiber

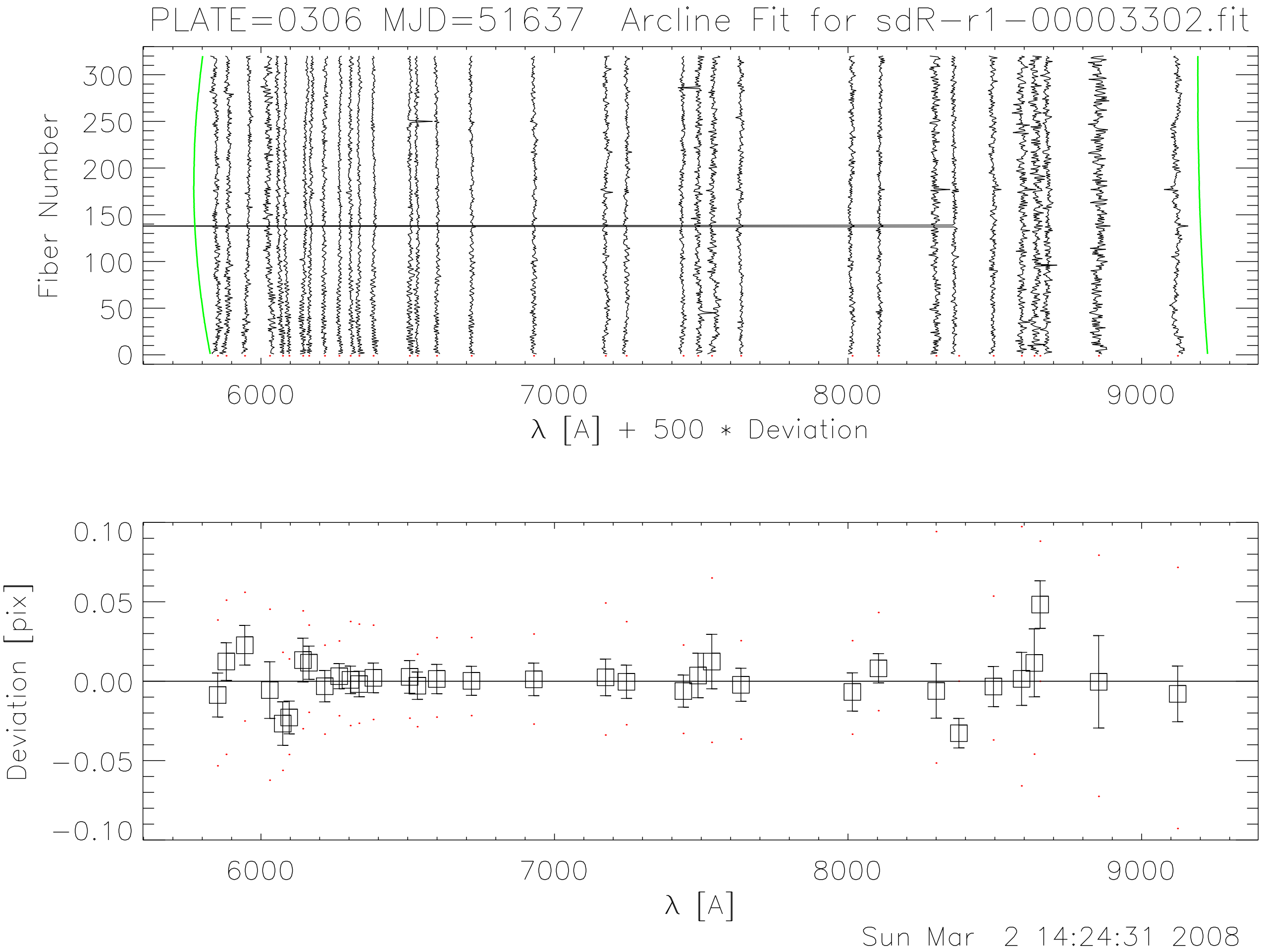

PLATE=0306 MJD=51637 flat extraction chi^2 for sdR-r1-00003295.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
0
500
1000
1500
2000
Row number


PLATE=0306 MJD=51637 Superflat sdR-r1-00003295.fit
Normalized flux
2.0
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]



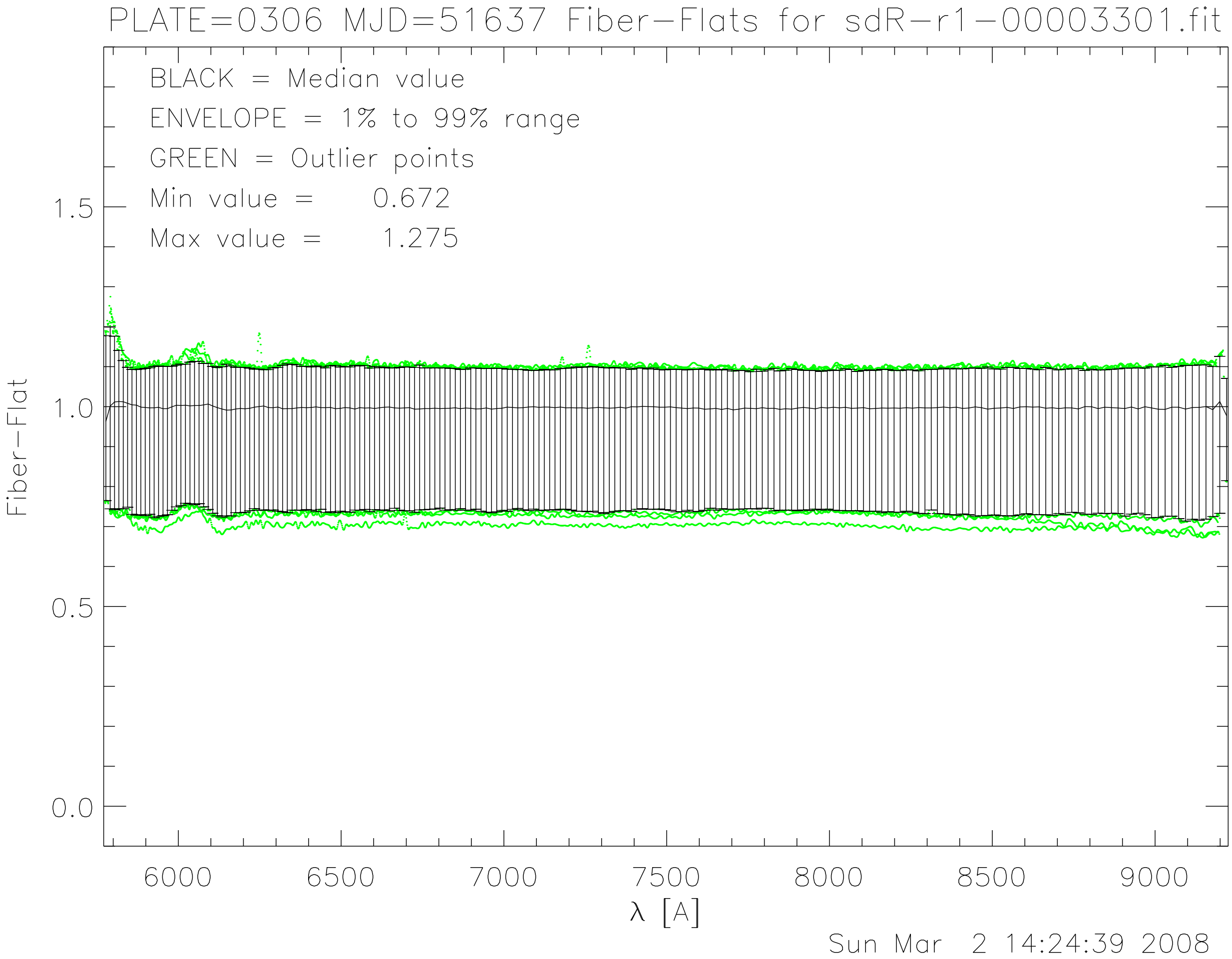
PLATE=0306 MJD=51637 flat extraction chi^2 for sdR-r1-00003301.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
0
500
1000
1500
2000
Row number


PLATE=0306 MJD=51637 Superflat sdR-r1-00003301.fit
Normalized flux
2.0
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

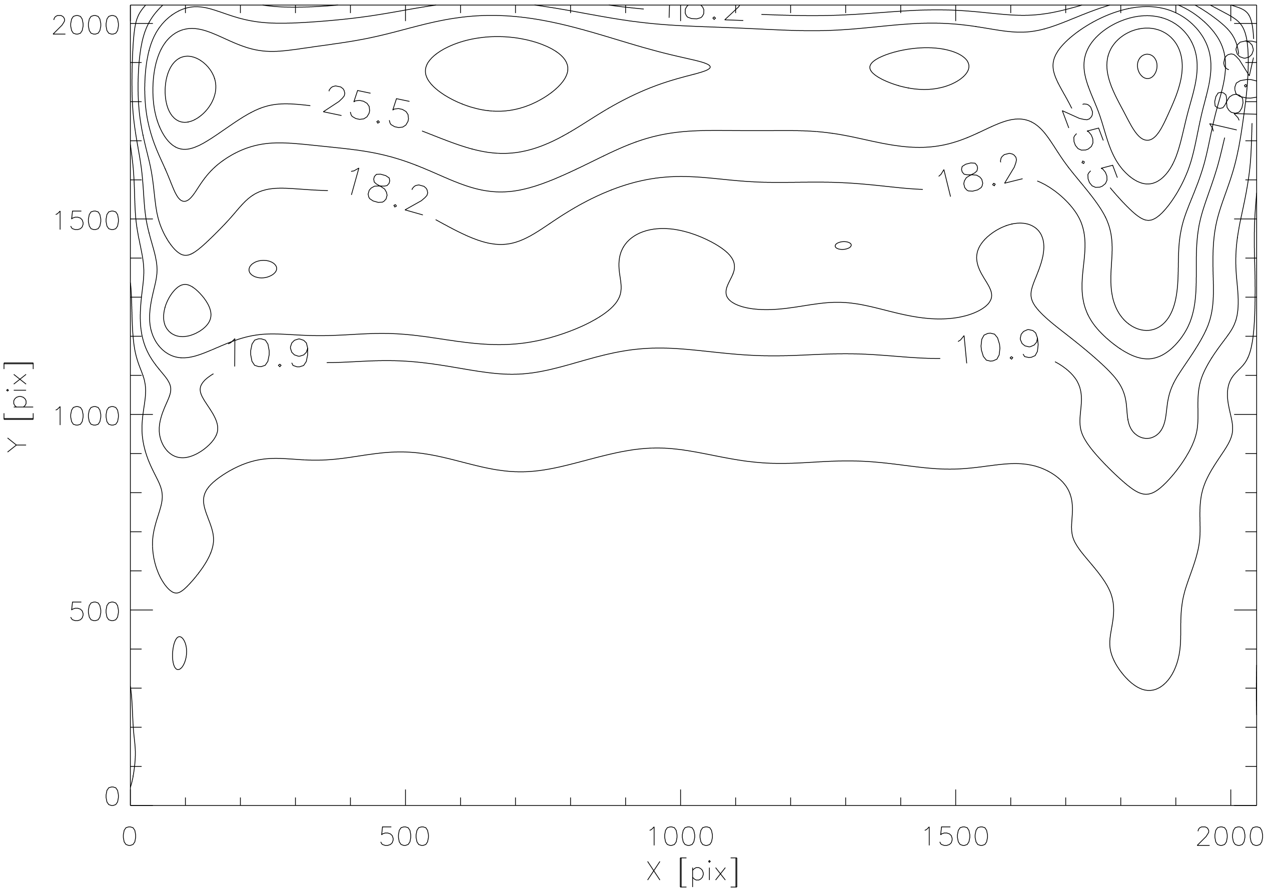


PLATE=0306 MJD=51637 Arcline Fit for sdR-r1-00003302.fit

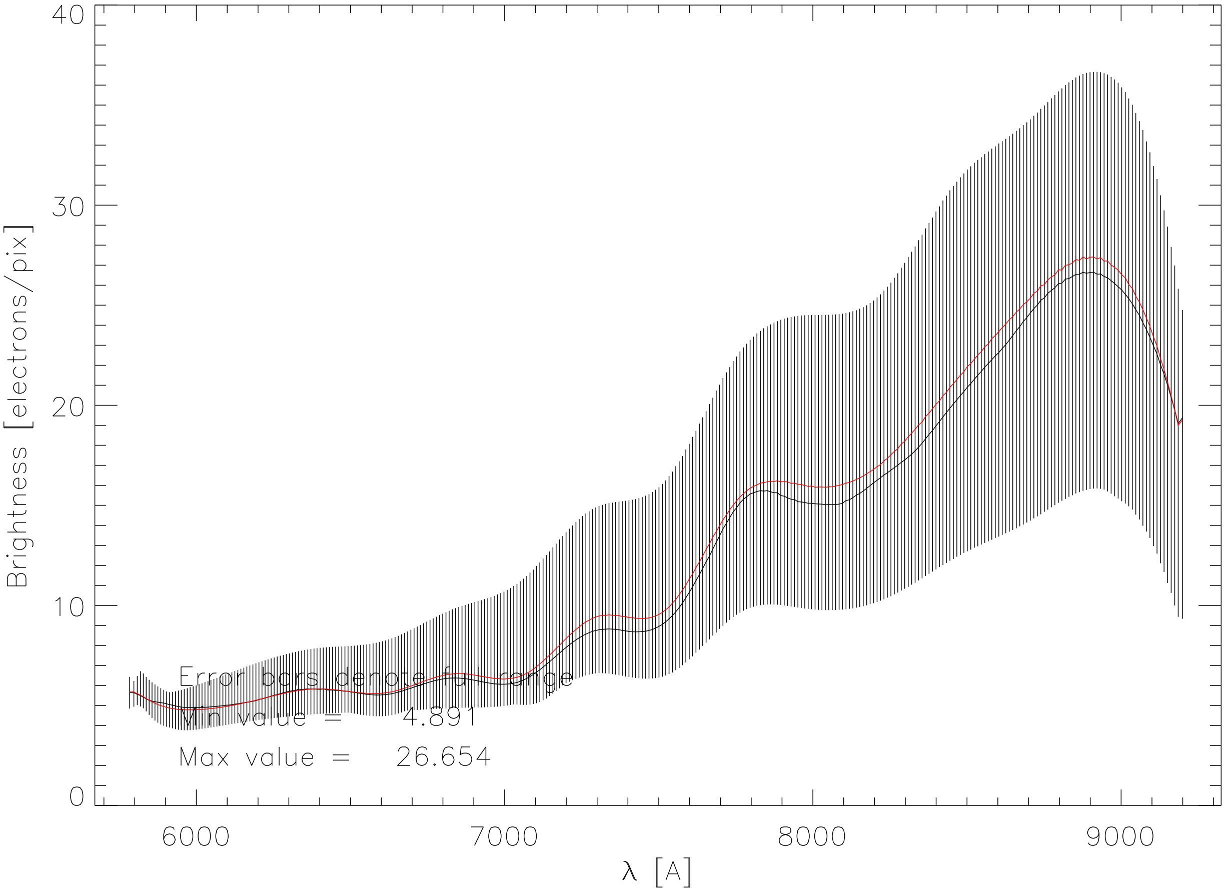
Sun Mar 2 14:24:31 2008


PLATE=0306 MJD=51637 Fiber-Flats for sdR-r1-00003301.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.672
Max value = 1.275
Fiber-Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sun Mar 2 14:24:39 2008

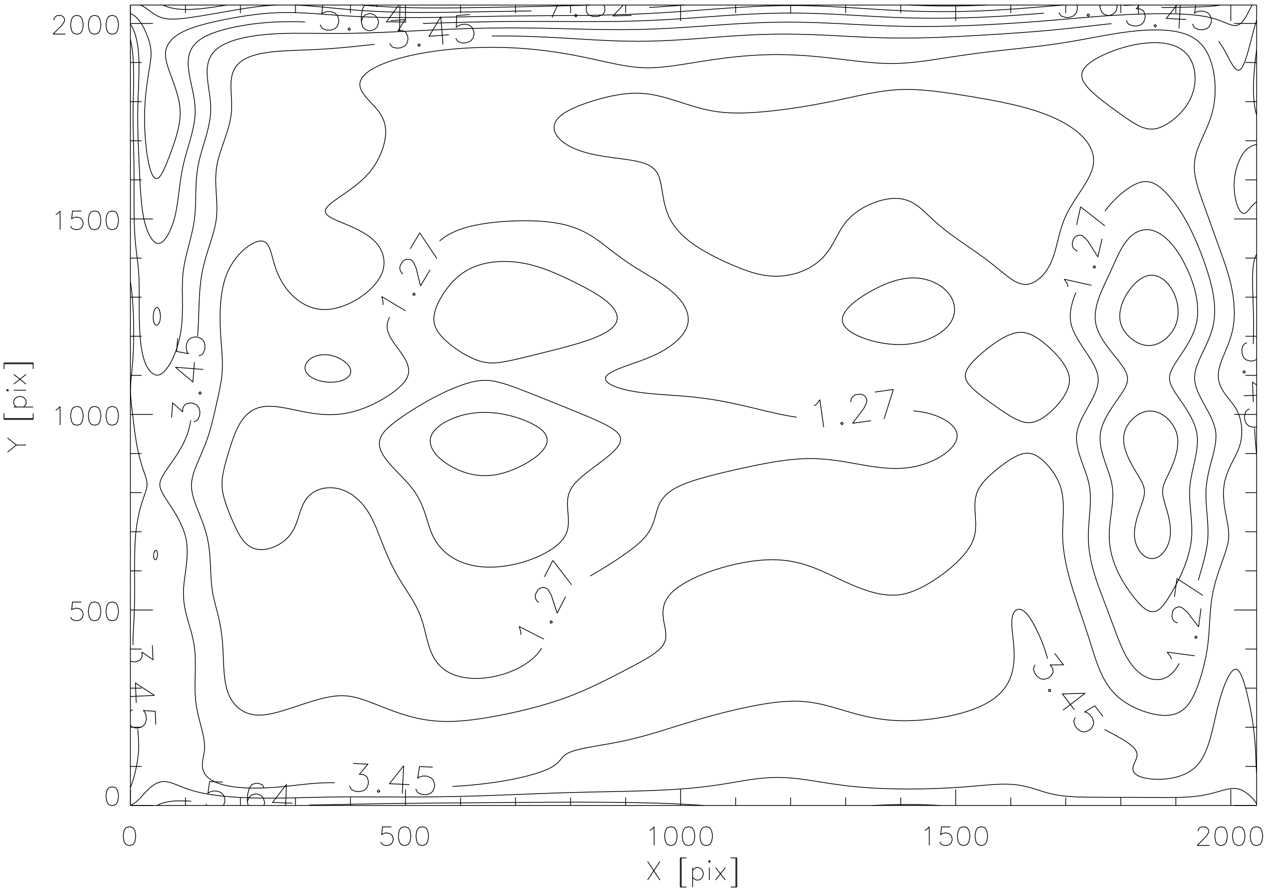
PLATE=0306 MJD=51637 Scattered Light before halo removal on sdR-r1-00003297.fi



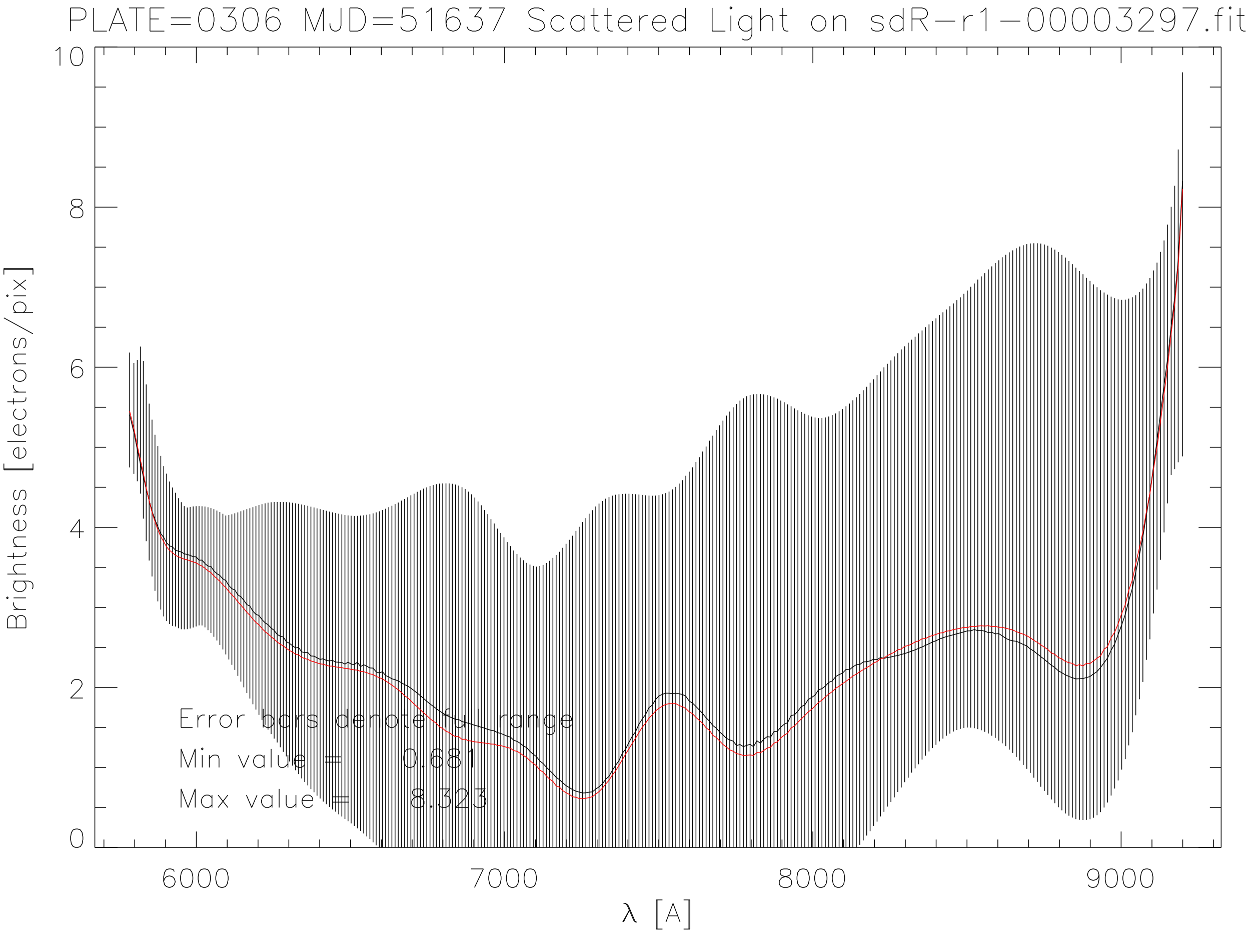
PLATE=0306 MJD=51637 Scattered Light before halo removal on sdR-r1-00003297.fi



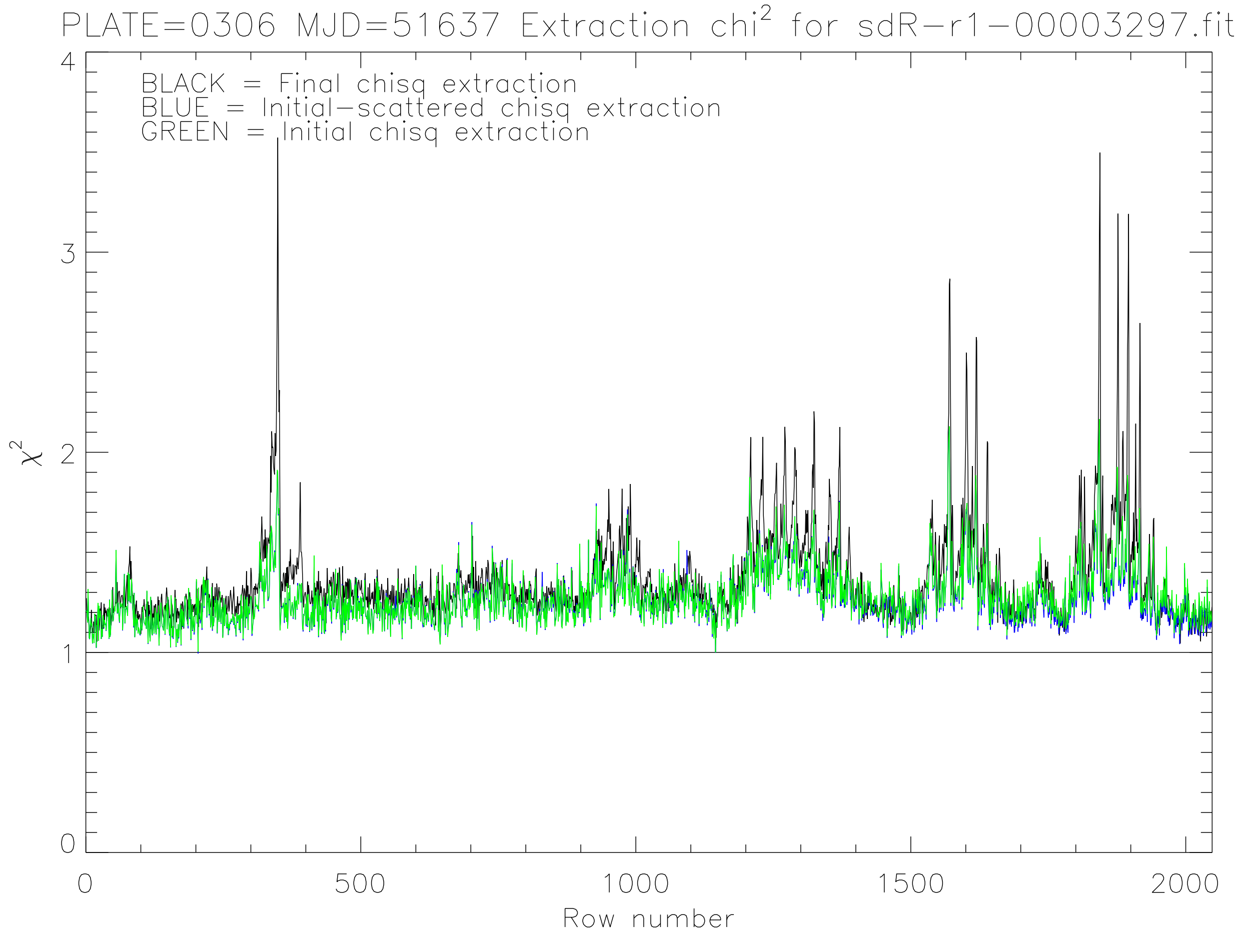
Sun Mar 2 14:25:29 2008

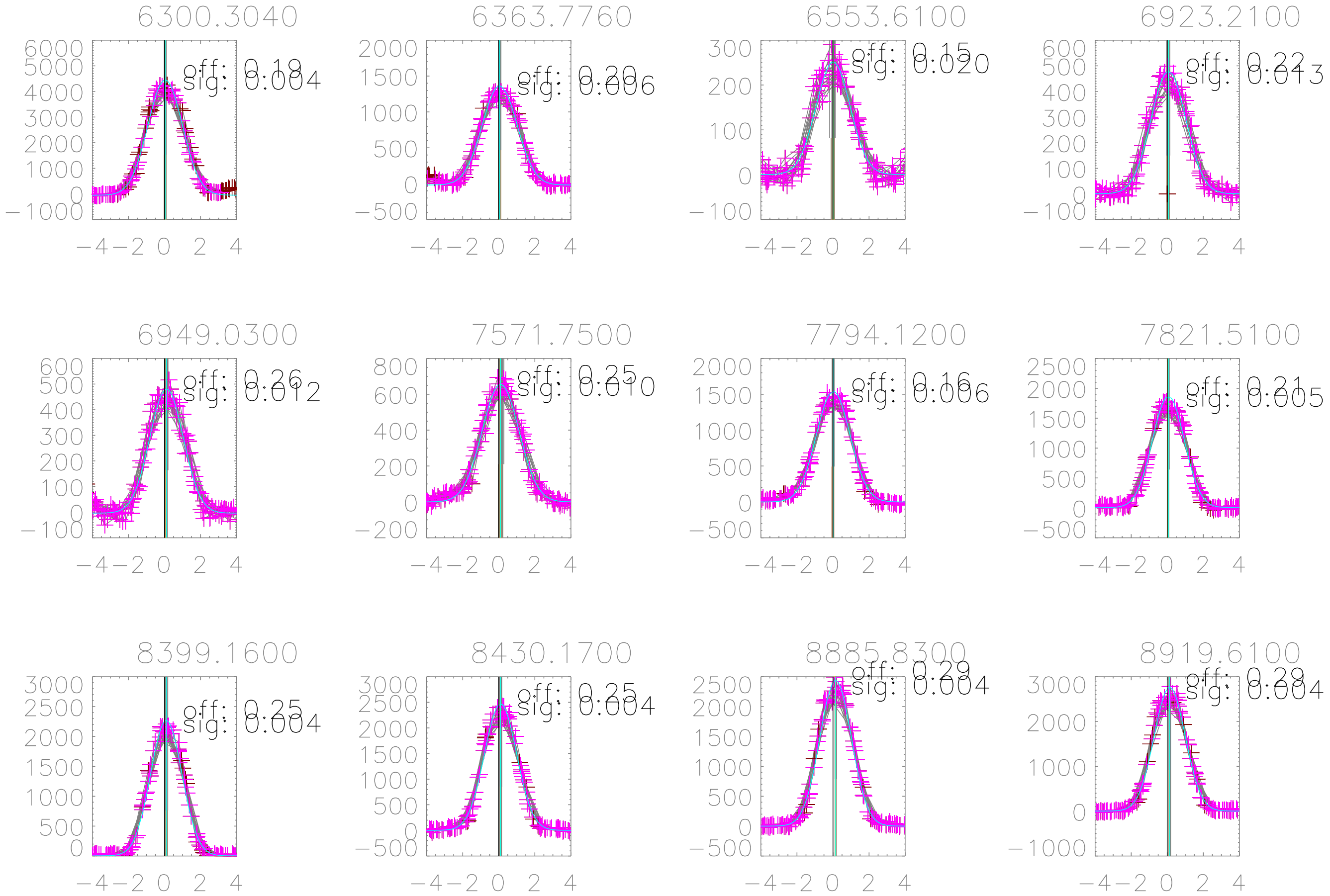


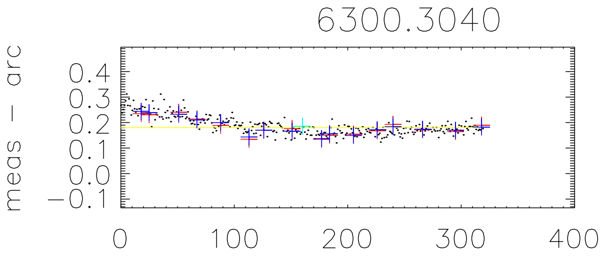
PLATE=0306 MJD=51637 Scattered Light on sdR-r1-00003297.fit

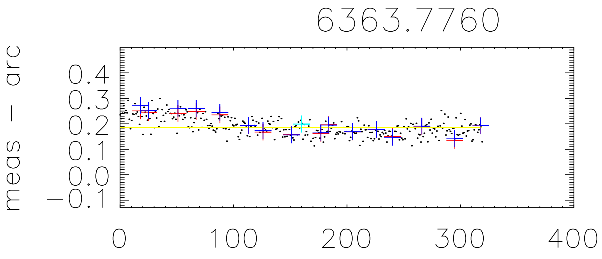


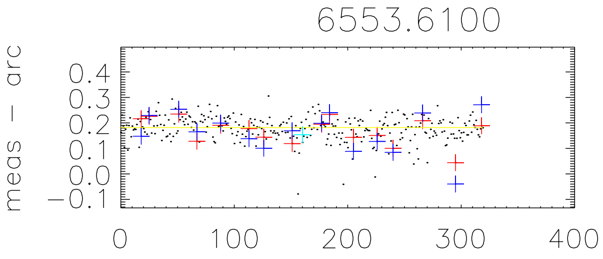
Sun Mar 2 14:28:26 2008

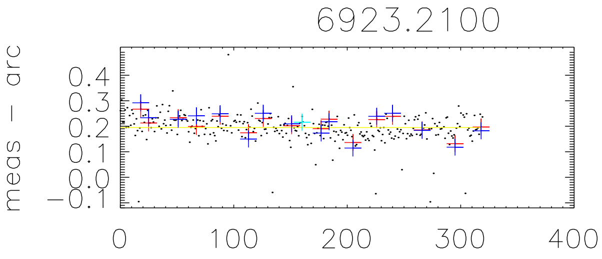

PLATE=0306 MJD=51637 Extraction chi^2 for sdR-r1-00003297.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
0
500
1000
1500
2000
Row number

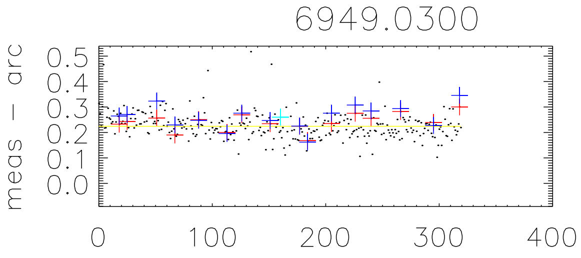

6300.3040
off: 0.19
sig: 0.004
6363.7760
off: 0.20
sig: 0.006
6553.6100
off: 0.15
sig: 0.020
6923.2100
off: 0.22
sig: 0.013
6949.0300
off: 0.26
sig: 0.012
7571.7500
off: 0.25
sig: 0.010
7794.1200
off: 0.16
sig: 0.006
7821.5100
off: 0.21
sig: 0.005
8399.1600
off: 0.25
sig: 0.004
8430.1700
off: 0.25
sig: 0.004
8885.8300
off: 0.29
sig: 0.004
8919.6100
off: 0.29
sig: 0.004
−4 −2 0 2 4

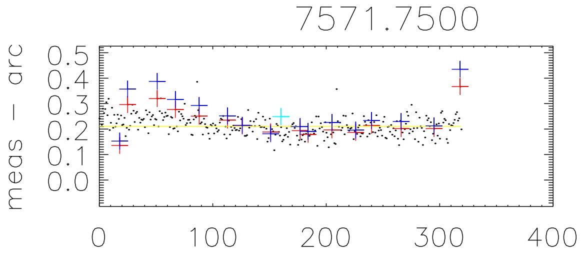

6300.3040
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400


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

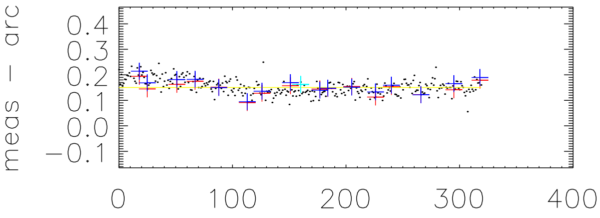

6553.6100
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400


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

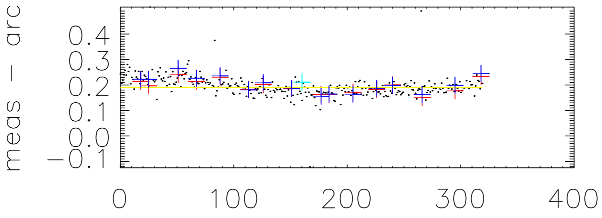

6949.0300
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400


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

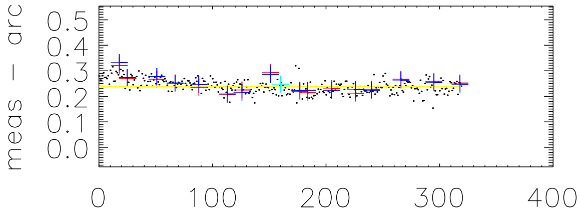
7794.1200



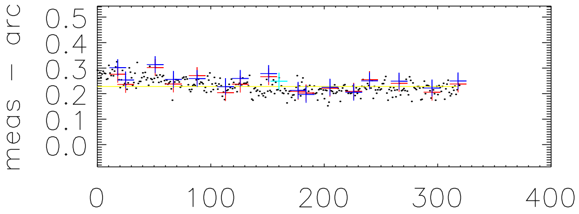
7821.5100



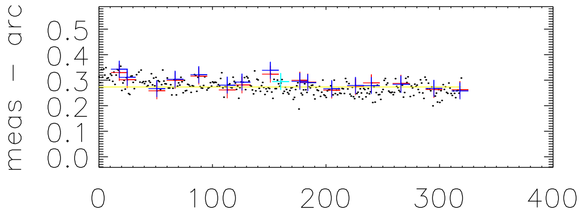
8399.1600



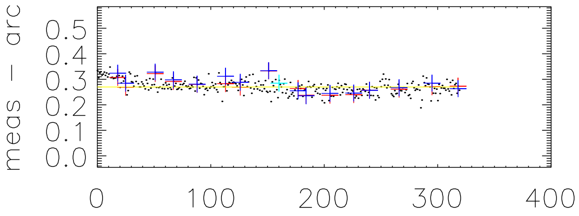
8430.1700

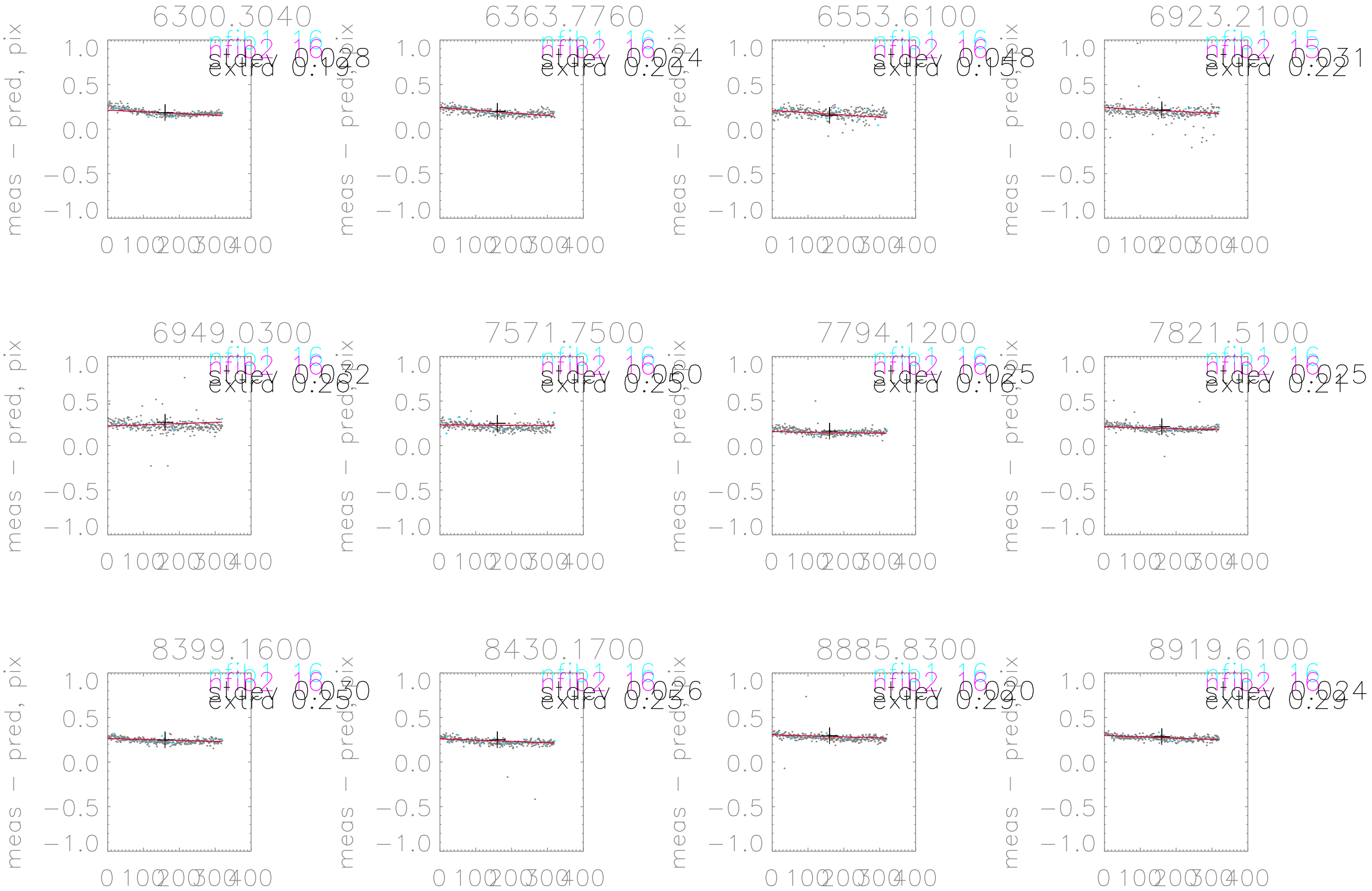


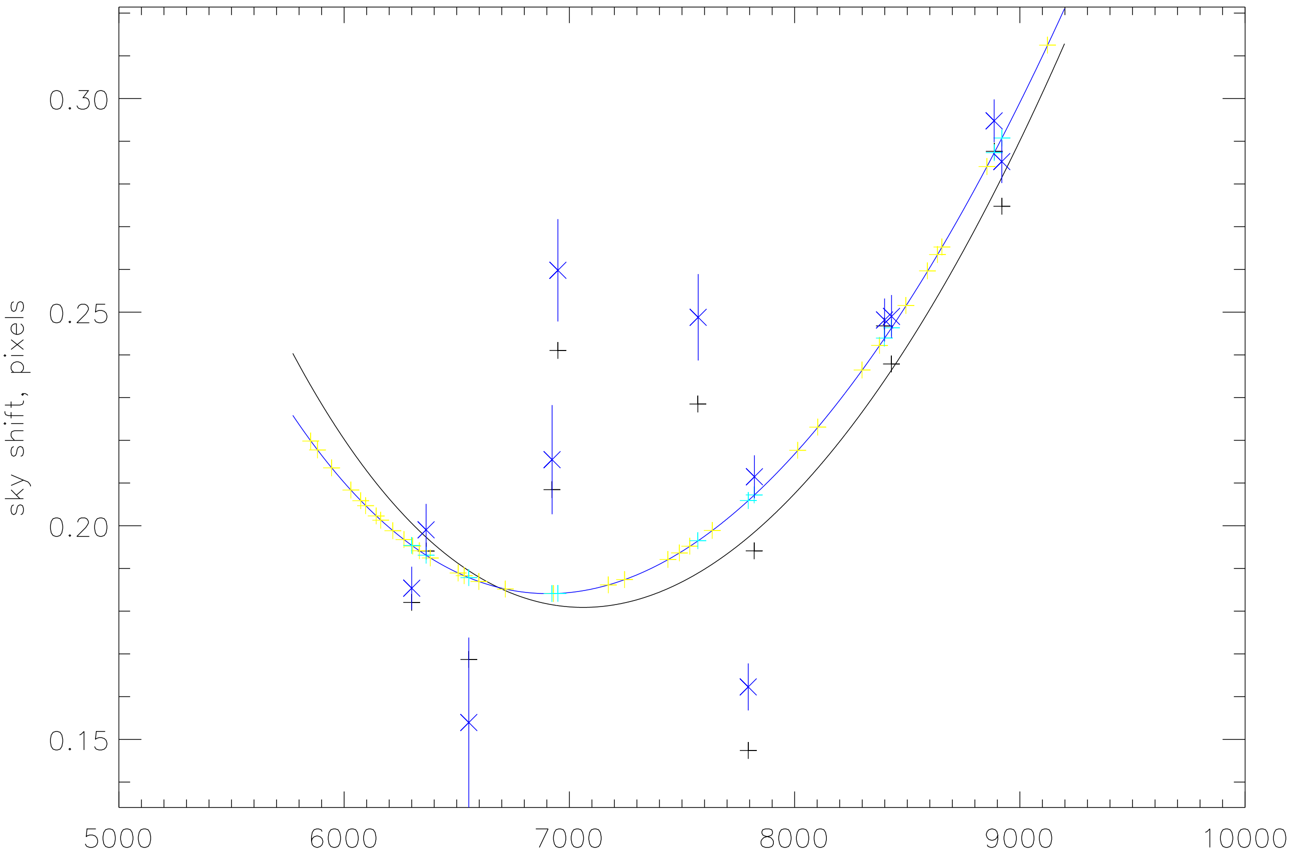
8885.8300

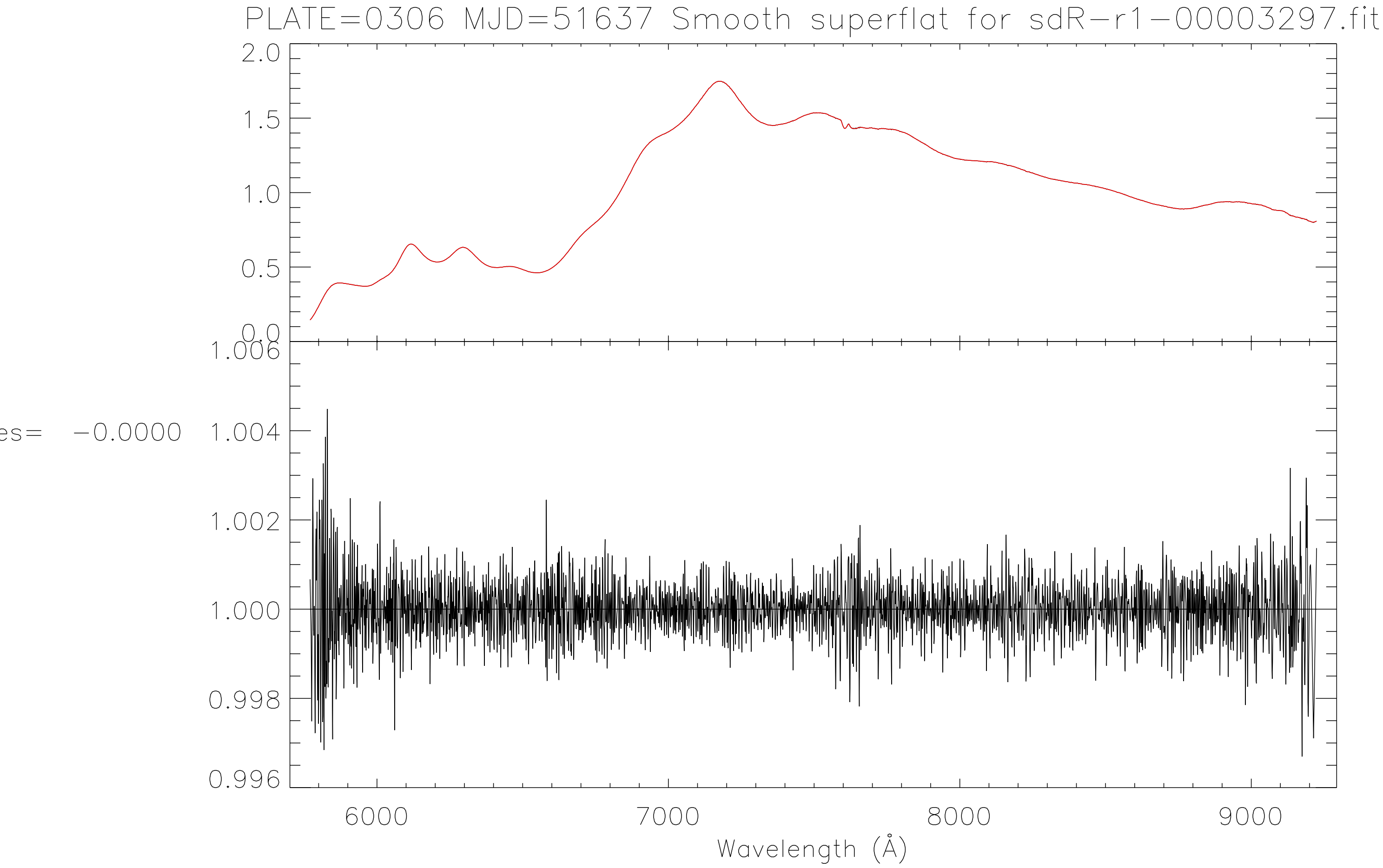


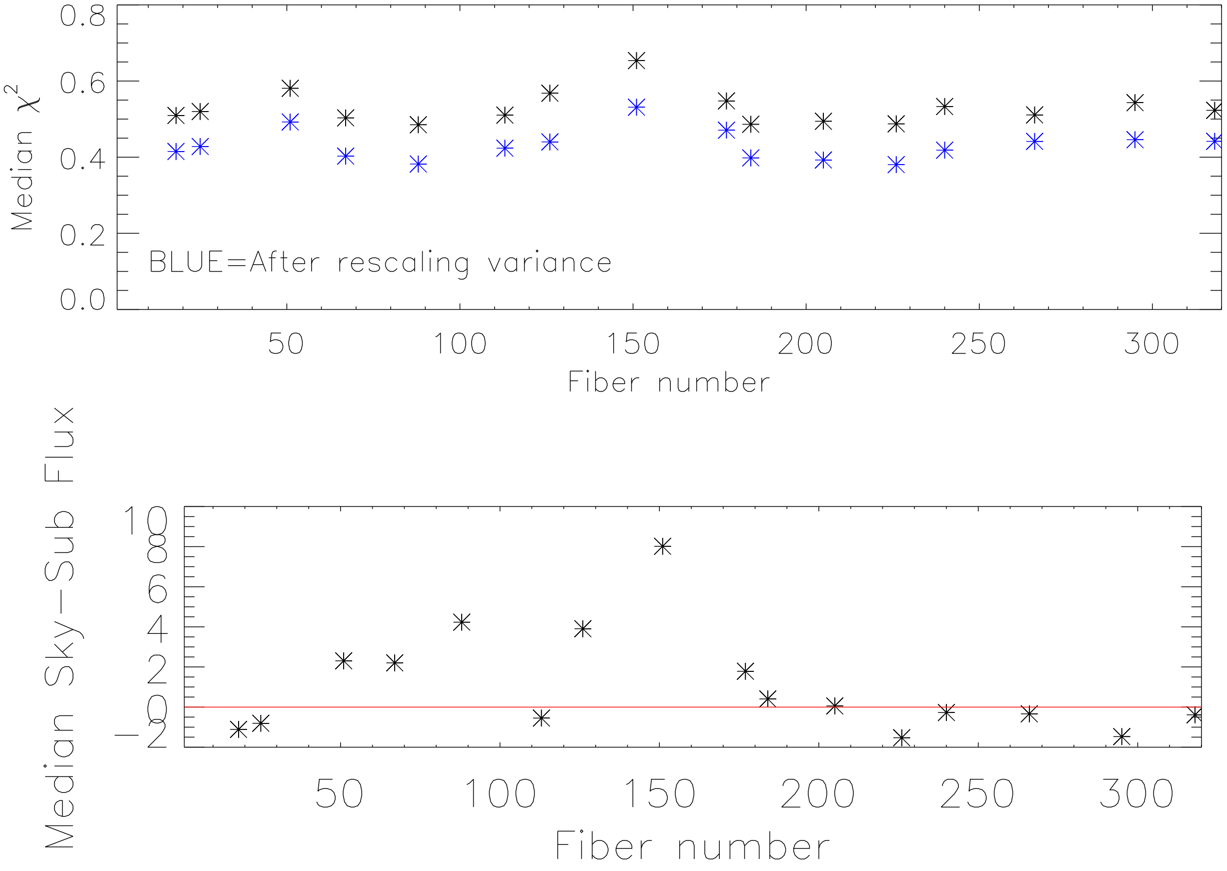
8919.6100



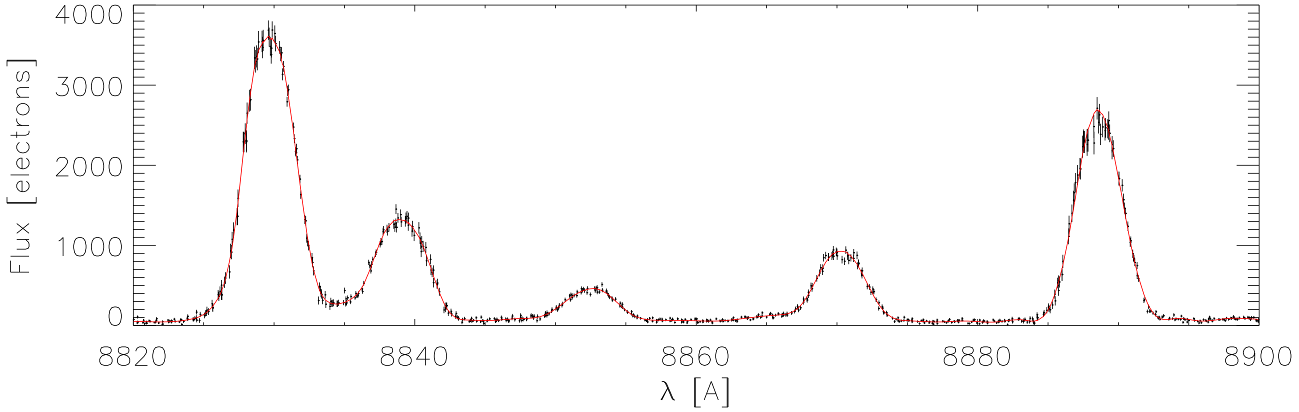

6300.3040
nfib1 16
nfib2 16
stdev 0.028
extrd 0.19
6363.7760
nfib1 16
nfib2 16
stdev 0.024
extrd 0.20
6553.6100
nfib1 16
nfib2 16
stdev 0.048
extrd 0.15
6923.2100
nfib1 15
nfib2 15
stdev 0.031
extrd 0.22
6949.0300
nfib1 16
nfib2 16
stdev 0.032
extrd 0.26
7571.7500
nfib1 16
nfib2 16
stdev 0.060
extrd 0.25
7794.1200
nfib1 16
nfib2 16
stdev 0.025
extrd 0.16
7821.5100
nfib1 16
nfib2 16
stdev 0.025
extrd 0.21
8399.1600
nfib1 16
nfib2 16
stdev 0.030
extrd 0.25
8430.1700
nfib1 16
nfib2 16
stdev 0.026
extrd 0.25
8885.8300
nfib1 16
nfib2 16
stdev 0.020
extrd 0.29
8919.6100
nfib1 16
nfib2 16
stdev 0.024
extrd 0.29
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400


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

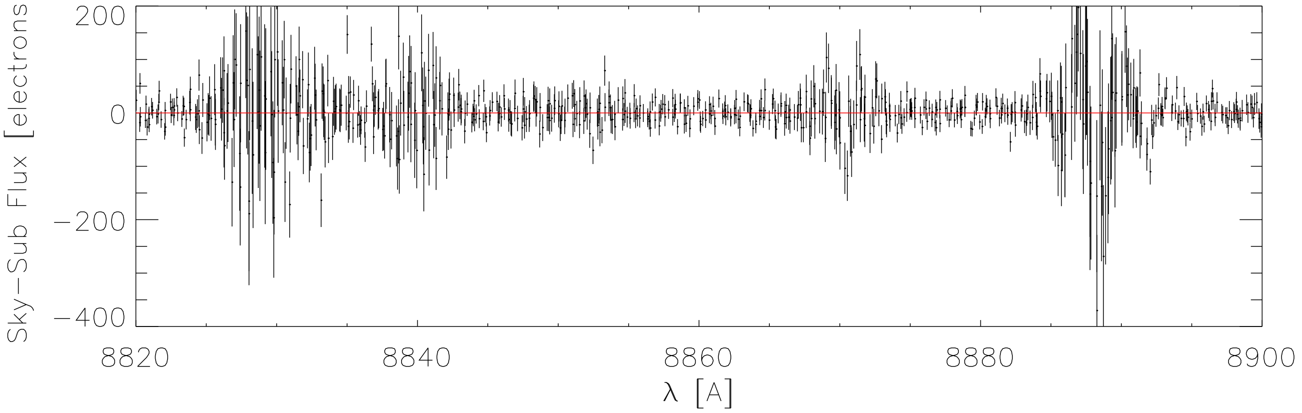

PLATE=0306 MJD=51637 Smooth superflat for sdR-r1-00003297.fit
2.0
1.5
1.0
0.5
0.0
1.006
es=
-0.0000
1.004
1.002
1.000
0.998
0.996
6000
7000
8000
9000
Wavelength (Å)



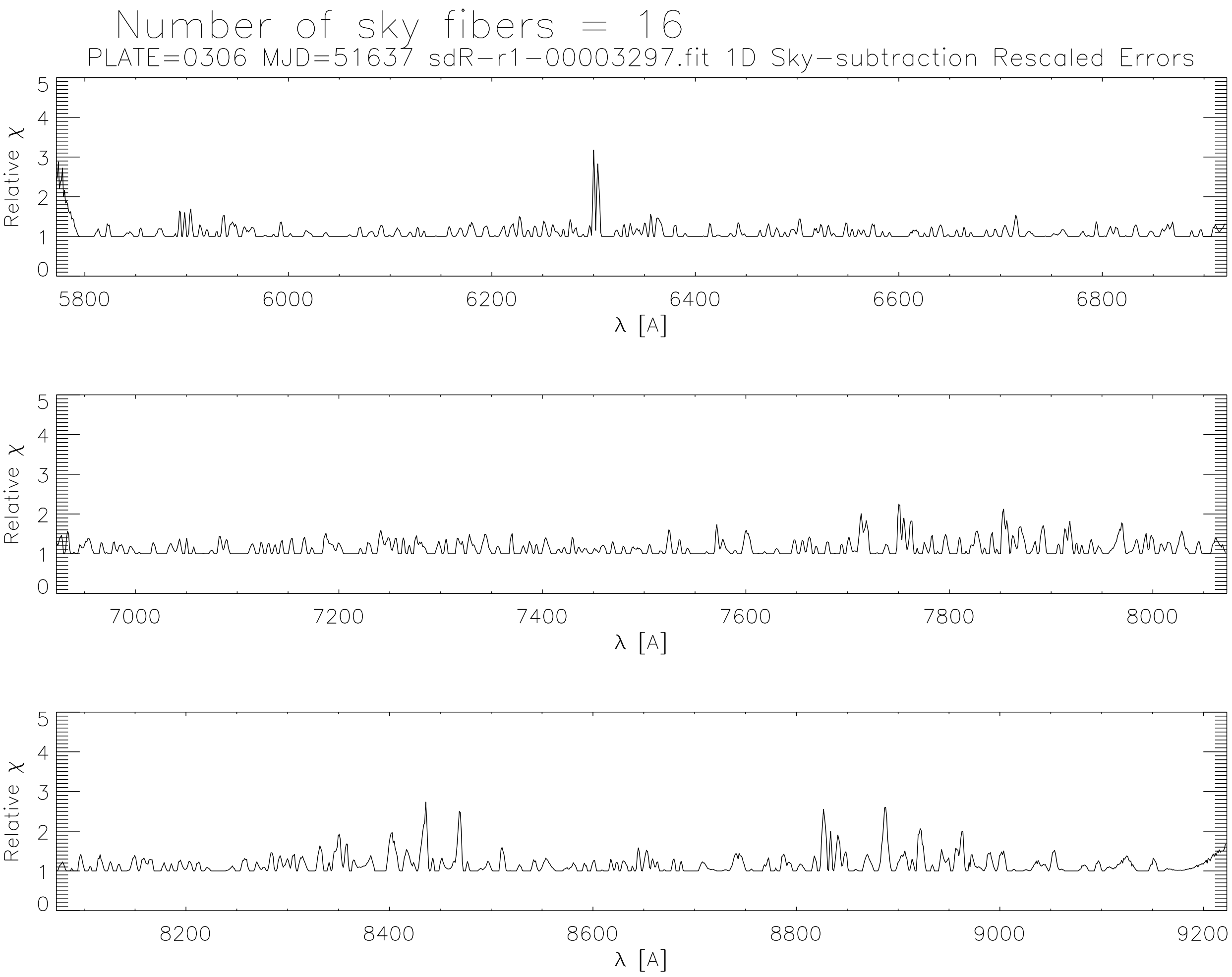
PLATE=0306 MJD=51637 sdR-r1-00003297.fit 1D Sky-subtraction Sky Fiber



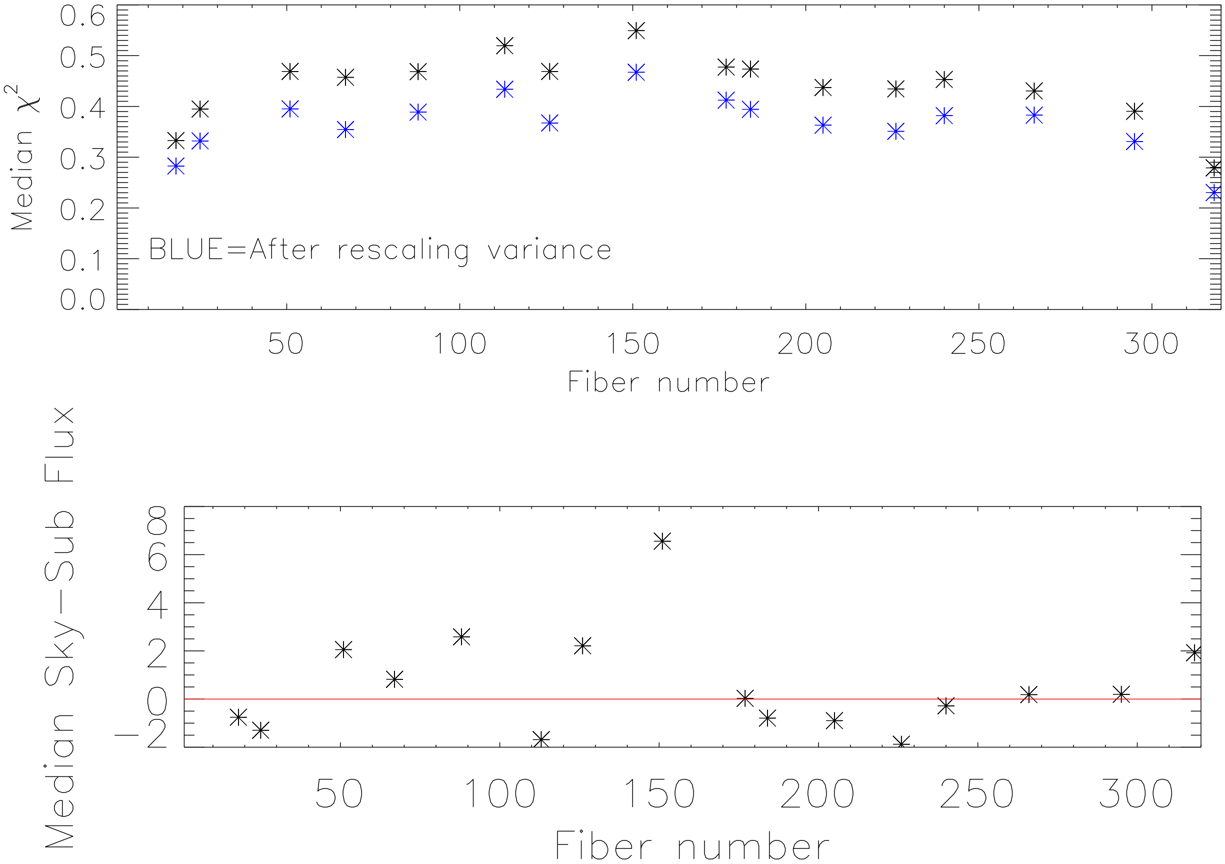
PLATE=0306 MJD=51637 sdR-r1-00003297.fit 1D Sky-subtraction Sky Fibers

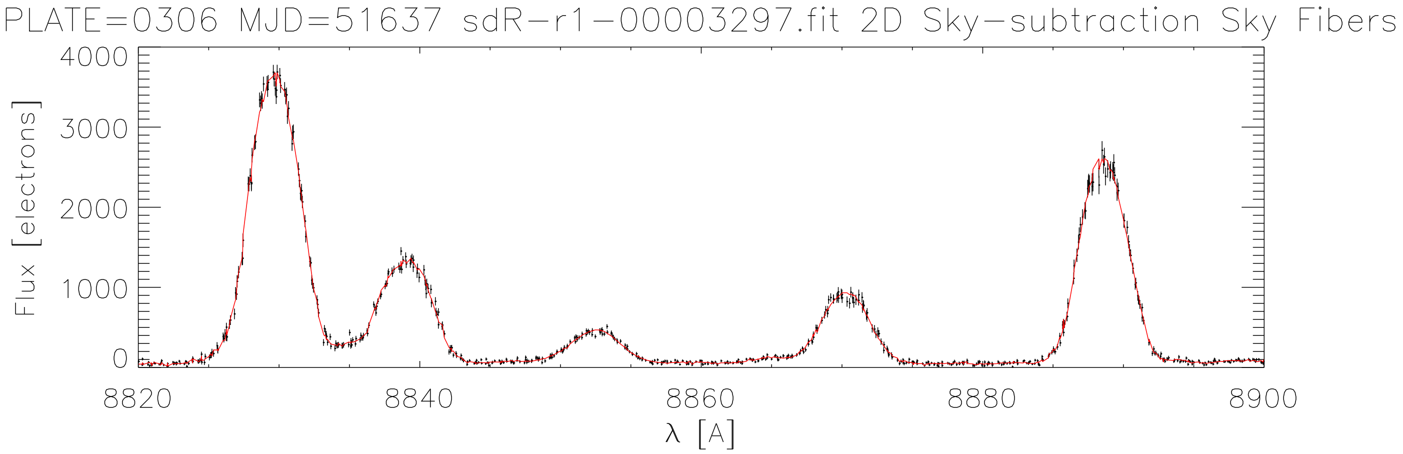


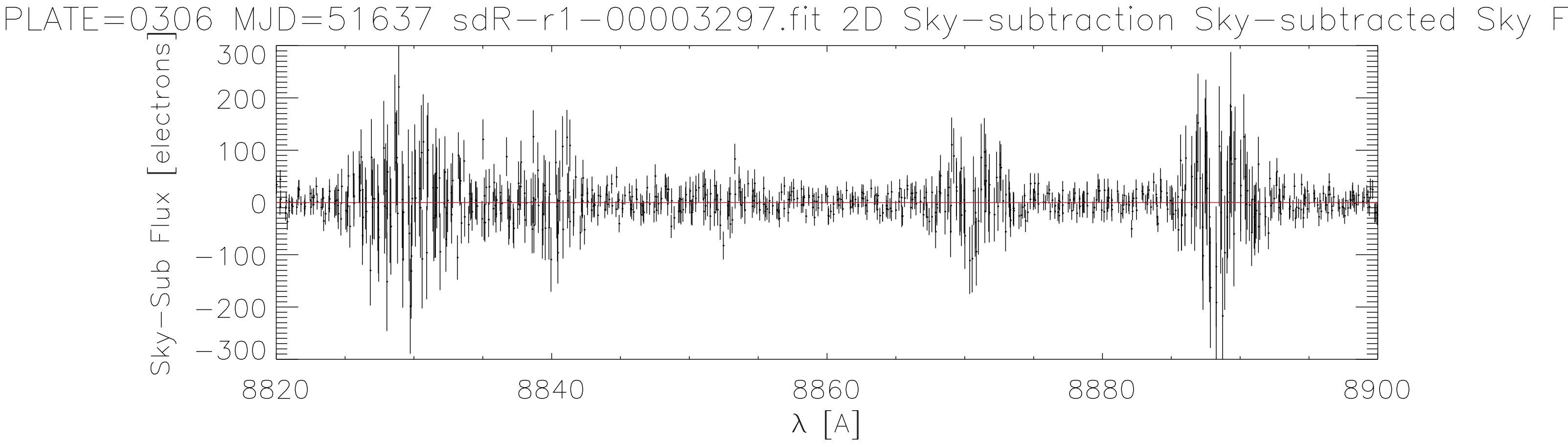
PLATE=0306 MJD=51637 sdR-r1-00003297.fit 1D Sky-subtraction Sky-subtracted Sky F


Number of sky fibers = 16
PLATE=0306 MJD=51637 sdR-r1-00003297.fit 1D Sky-subtraction Rescaled Errors
Relative χ
0
1
2
3
4
5
5800
6000
6200
6400
6600
6800
λ [A]
Relative χ
7000
7200
7400
7600
7800
8000
λ [A]
Relative χ
8200
8400
8600
8800
9000
9200
λ [A]

PLATE=0306 MJD=51637 sdR-r1-00003297.fit 2D Sky-subtraction Sky Fibers

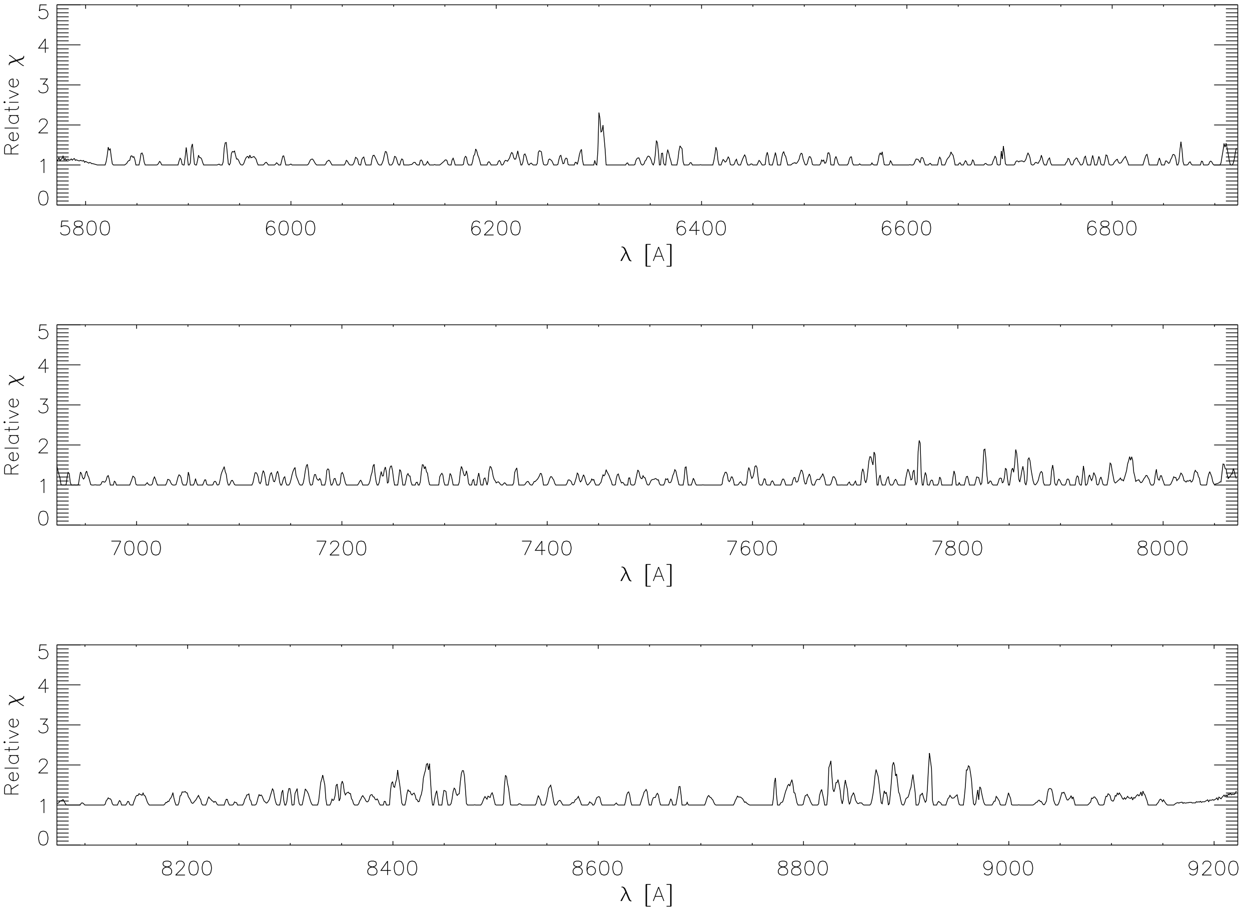



PLATE=0306 MJD=51637 sdR-r1-00003297.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

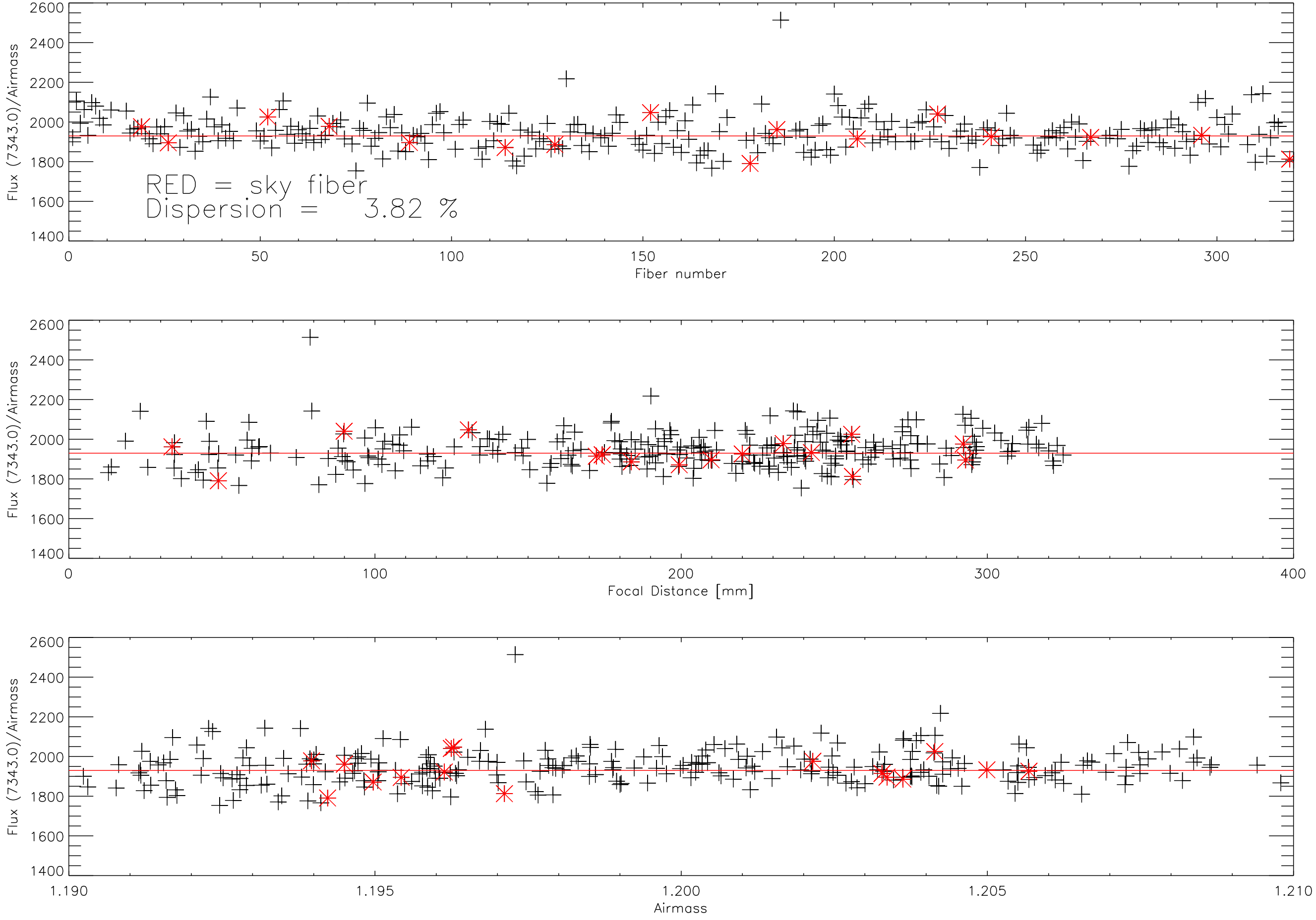

PLATE=0306 MJD=51637 sdR-r1-00003297.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
−100
−200
−300
8820
8840
8860
8880
8900
λ [A]

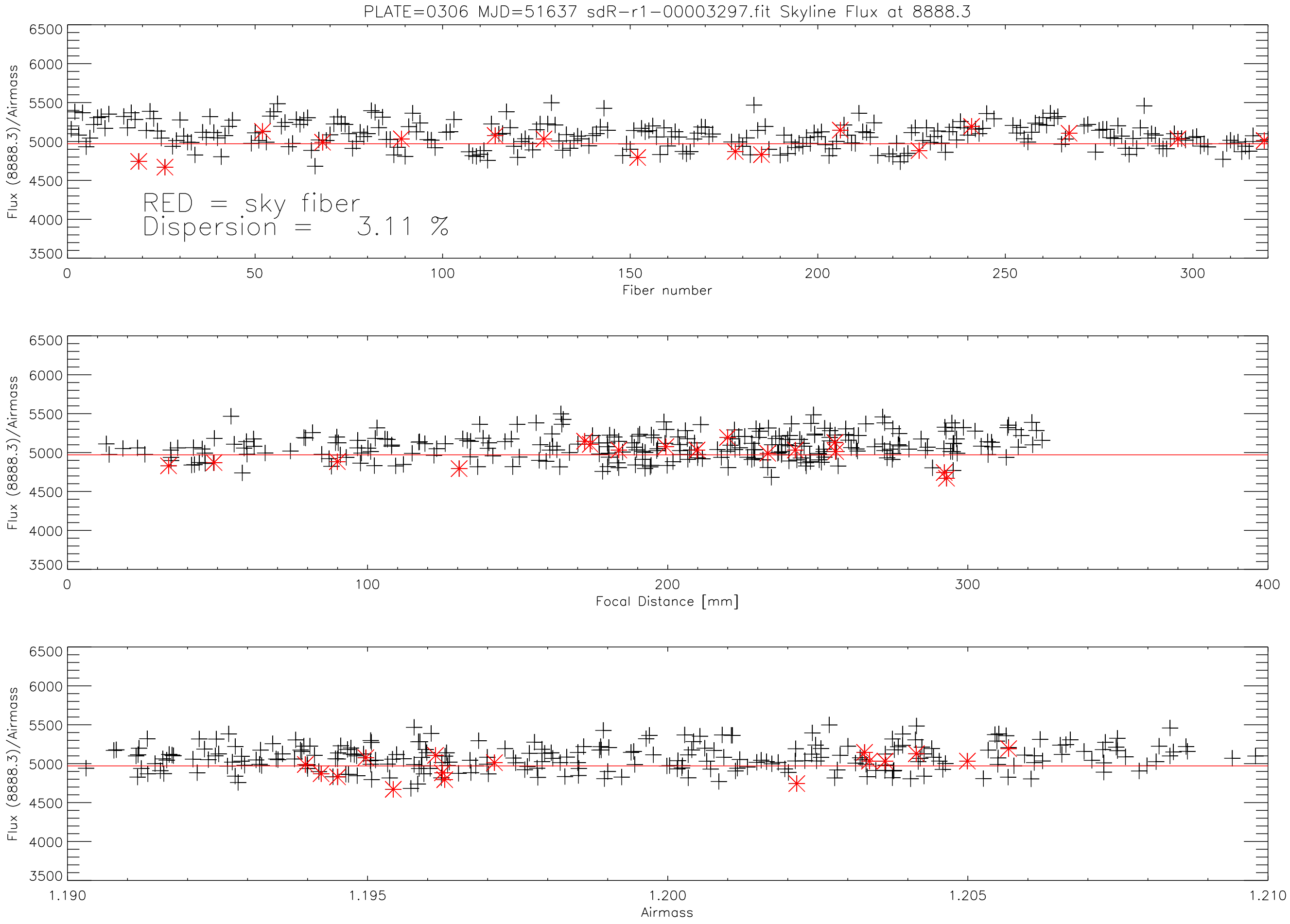
Number of sky fibers = 16

PLATE=0306 MJD=51637 sdR-r1-00003297.fit 2D Sky-subtraction Rescaled Errors

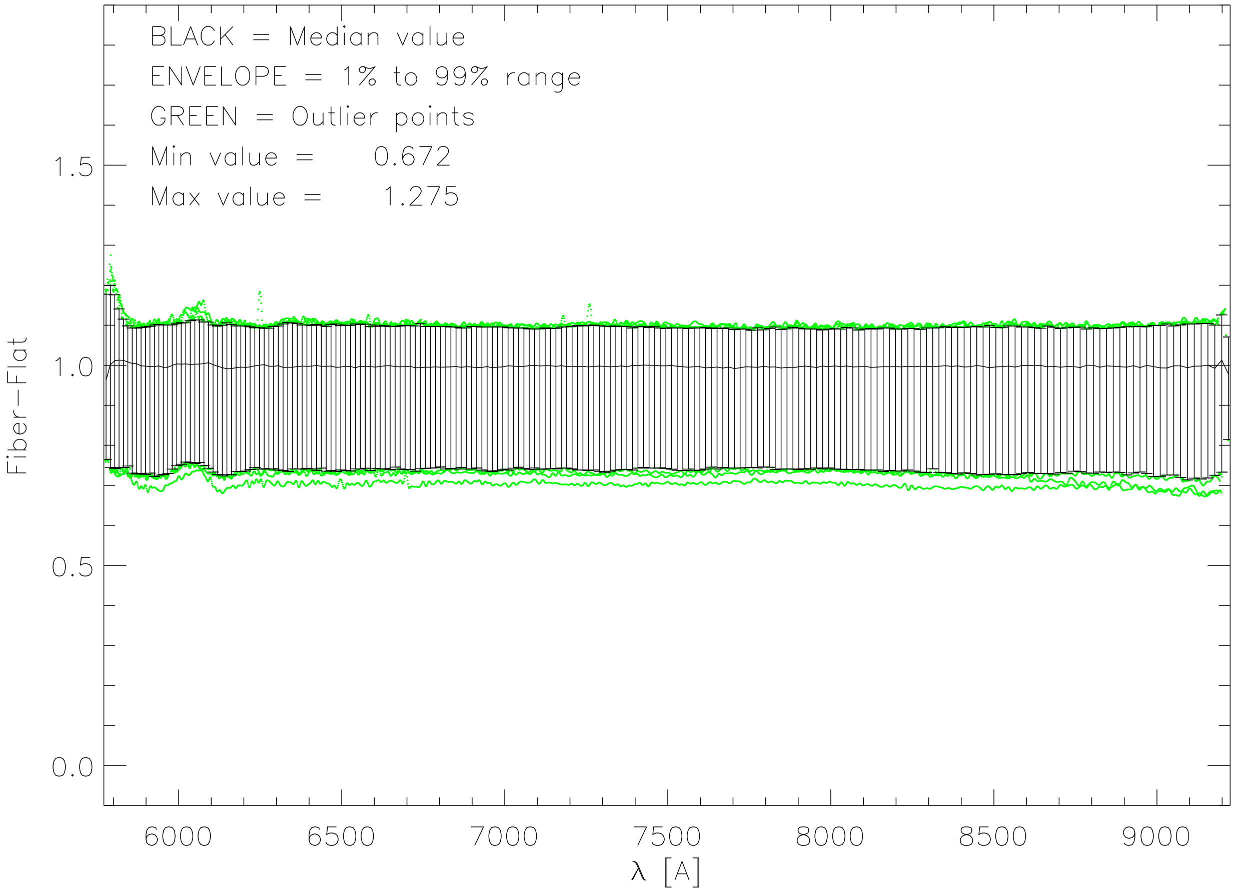


PLATE=0306 MJD=51637 sdR-r1-00003297.fit Skyline Flux at 7343,0



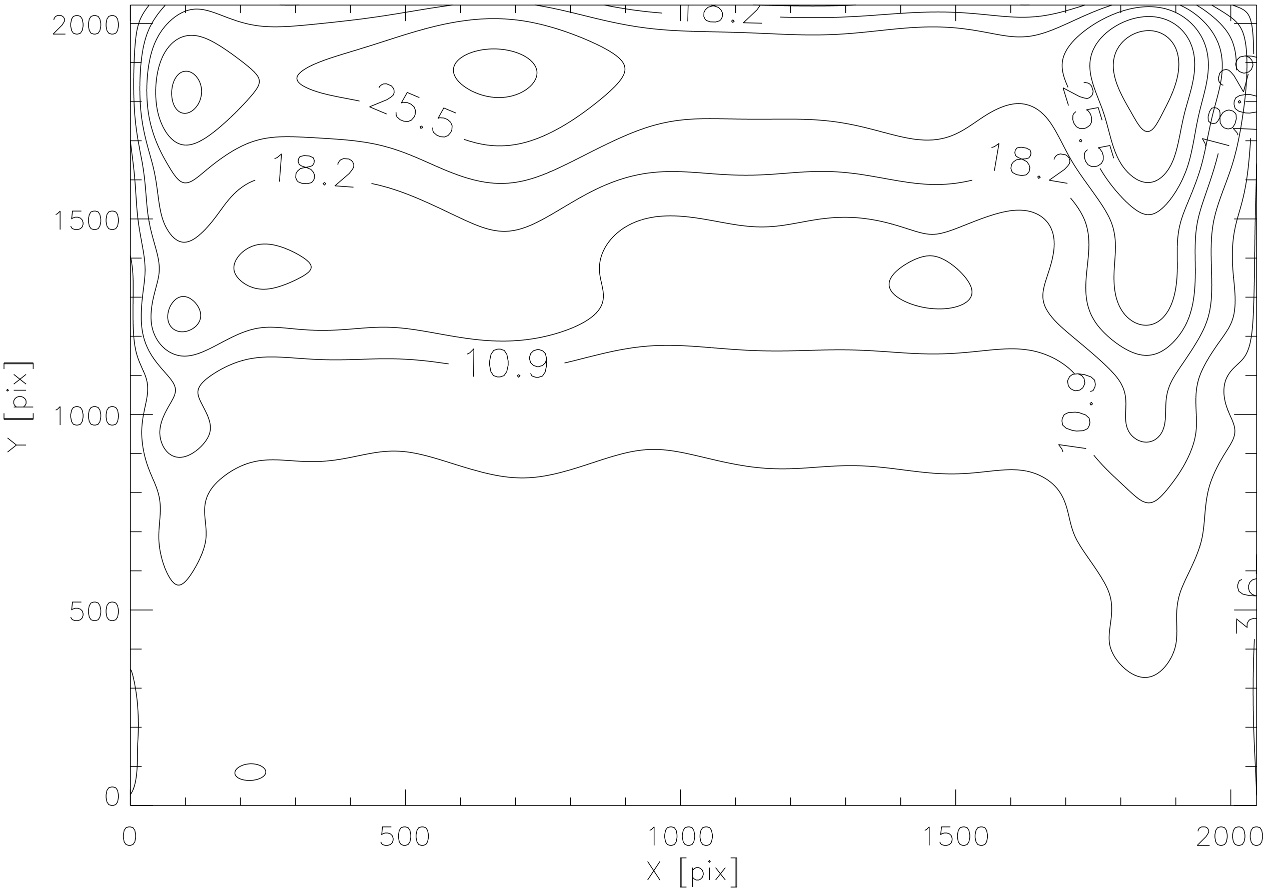

PLATE=0306 MJD=51637 sdR-r1-00003297.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
6500
6000
5500
5000
4500
4000
3500
RED = sky fiber
Dispersion = 3.11 %
0
50
100
150
200
250
300
Fiber number
Flux (8888.3)/Airmass
6500
6000
5500
5000
4500
4000
3500
0
100
200
300
400
Focal Distance [mm]
Flux (8888.3)/Airmass
6500
6000
5500
5000
4500
4000
3500
1.190
1.195
1.200
1.205
1.210
Airmass

PLATE=0306 MJD=51637 Fiber−Flats for sdR−r1−00003301.fit

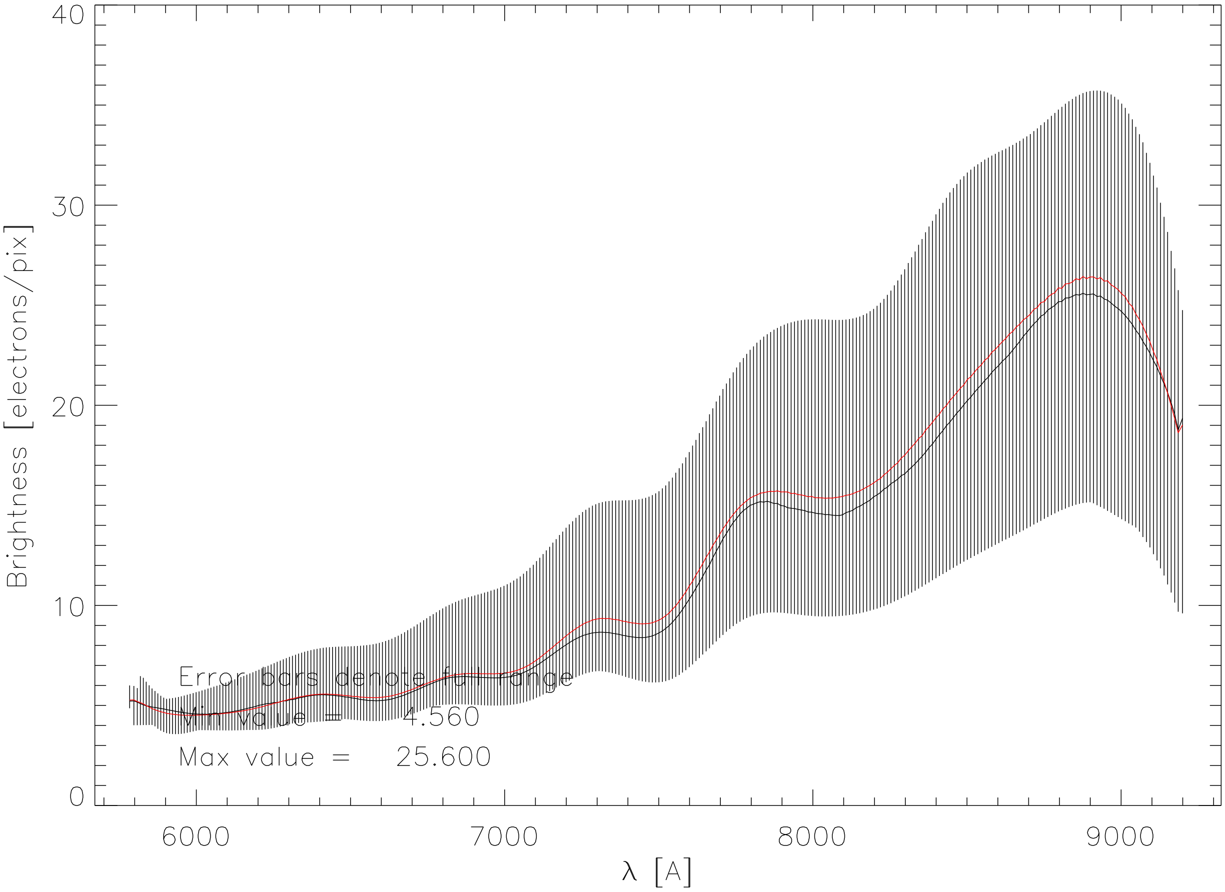


Sun Mar 2 14:29:32 2008

PLATE=0306 MJD=51637 Scattered Light before halo removal on sdR-r1-00003298.fi

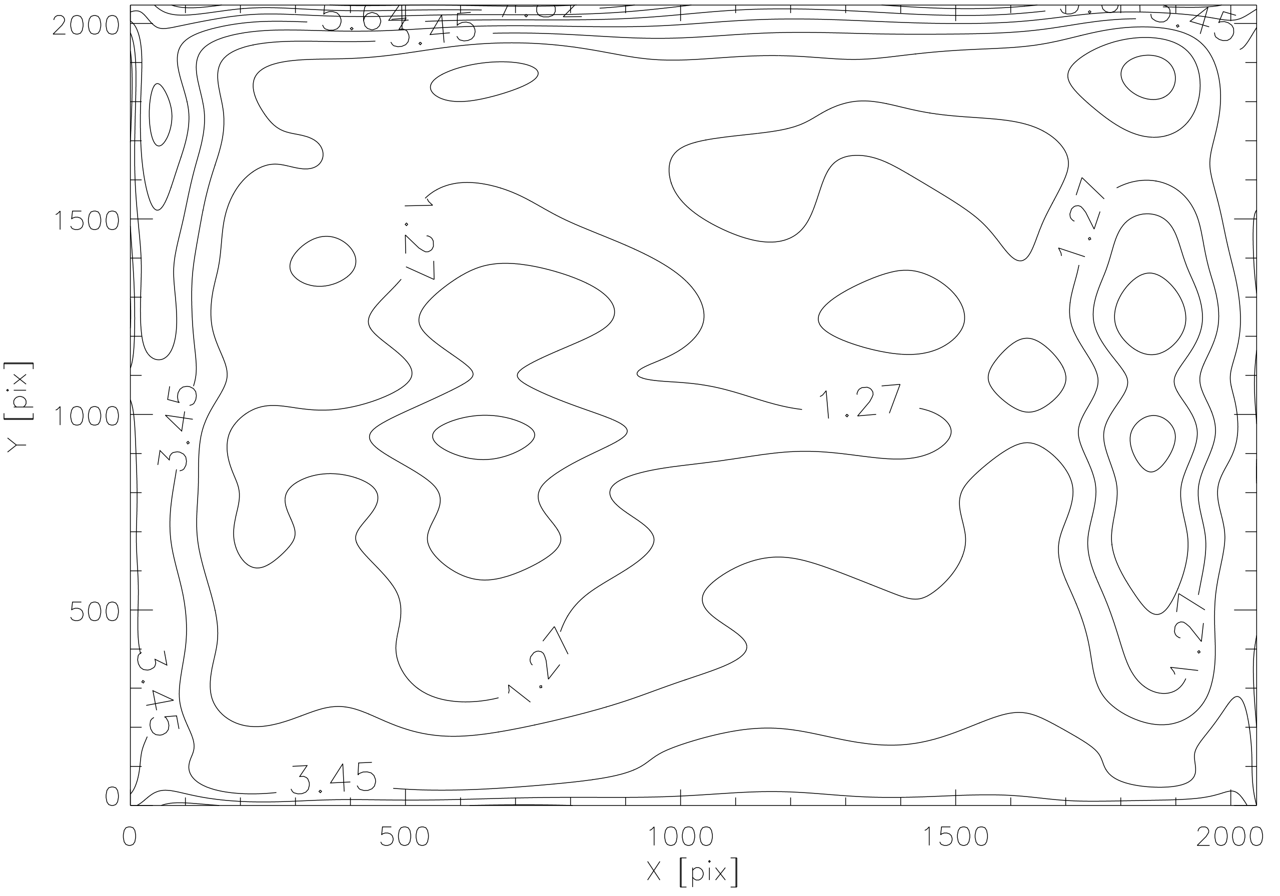


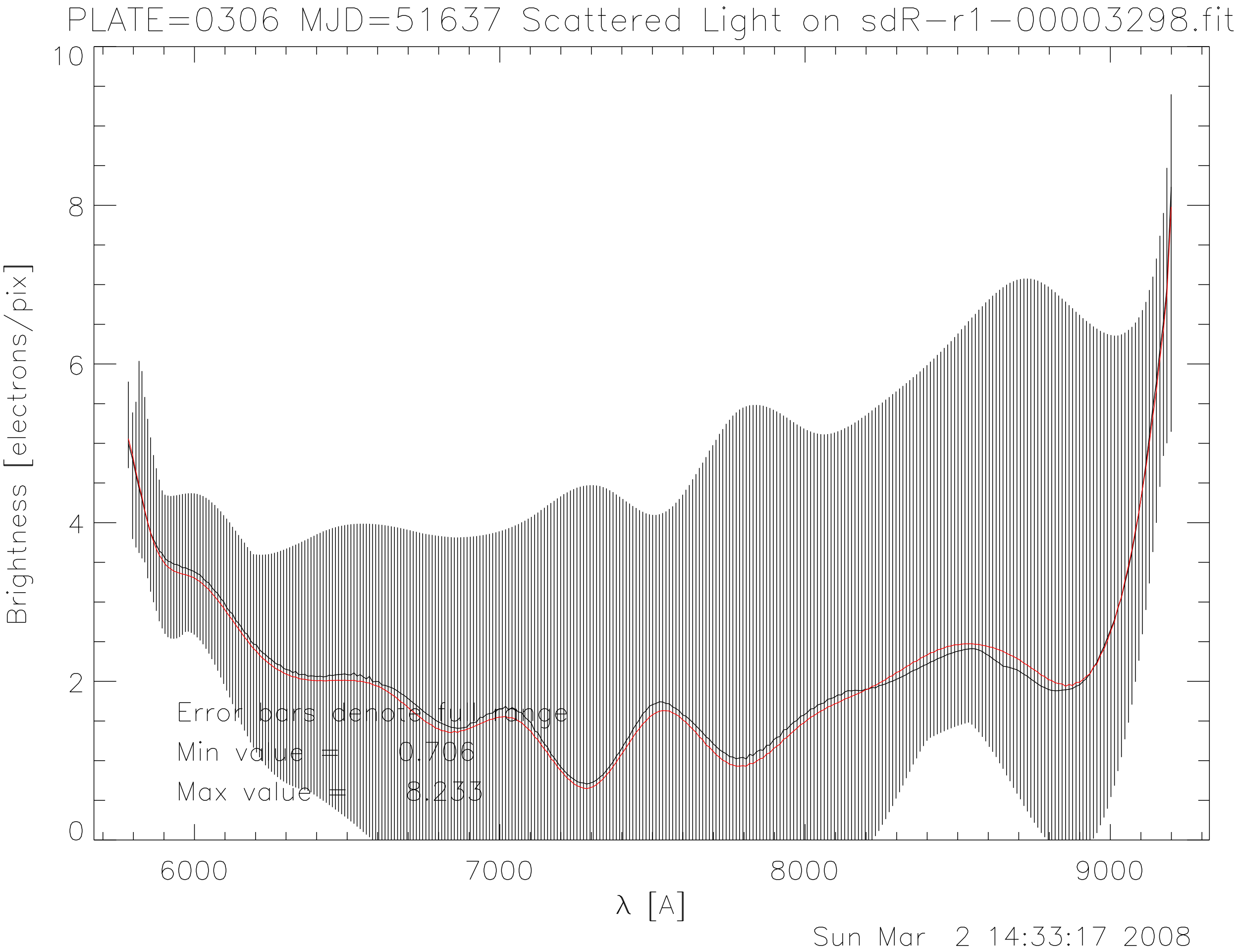
PLATE=0306 MJD=51637 Scattered Light before halo removal on sdR-r1-00003298.fi

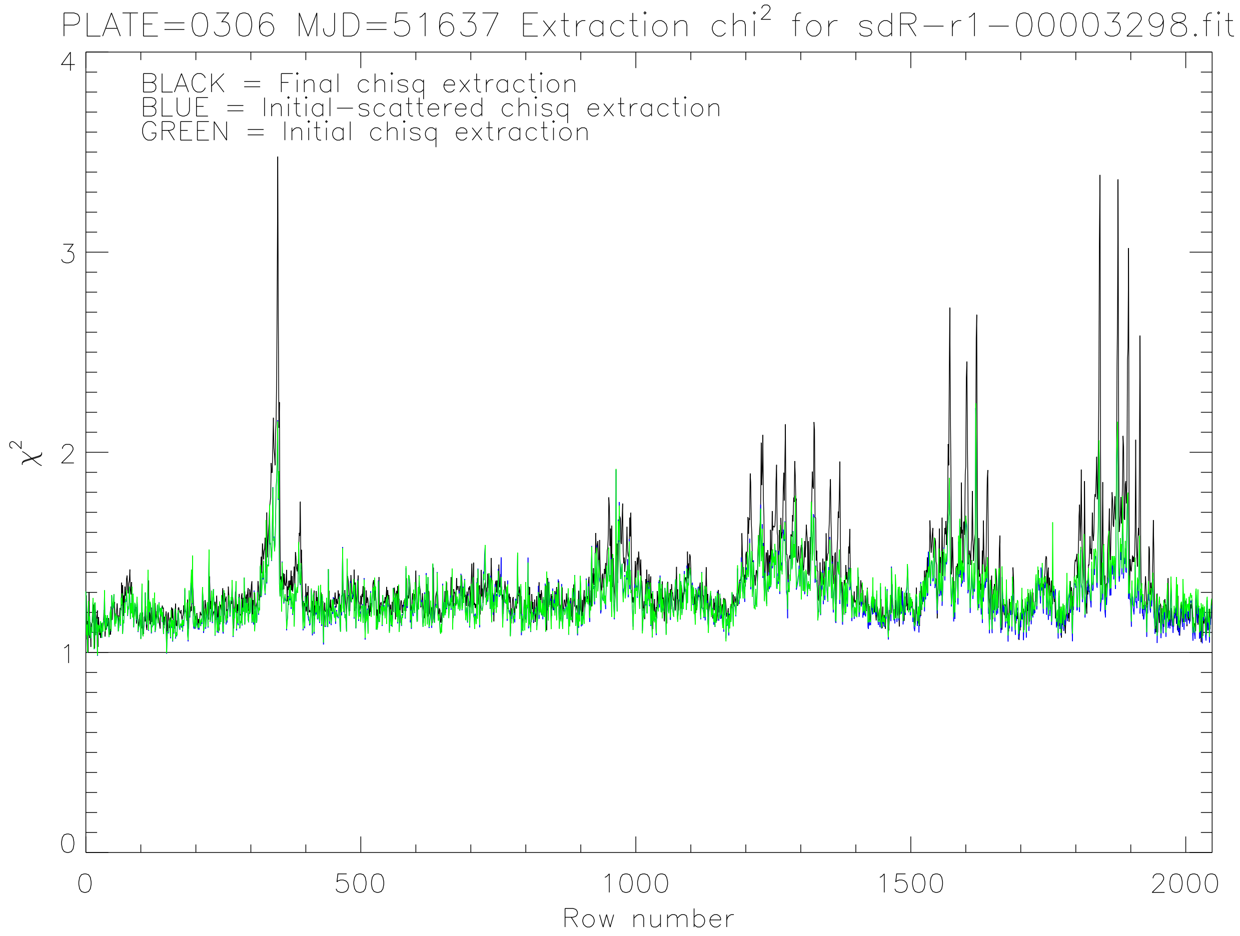


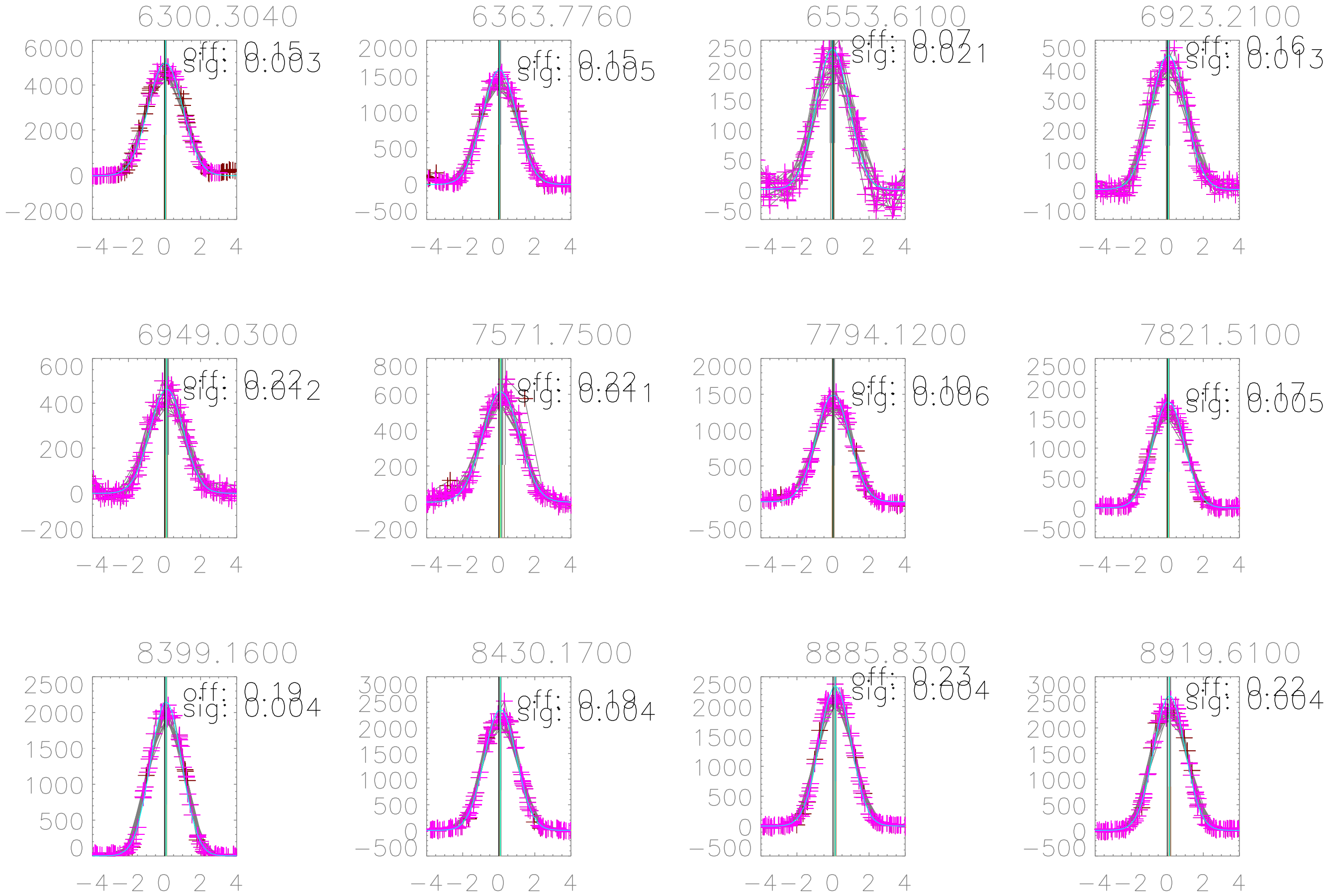
Sun Mar 2 14:30:20 2008

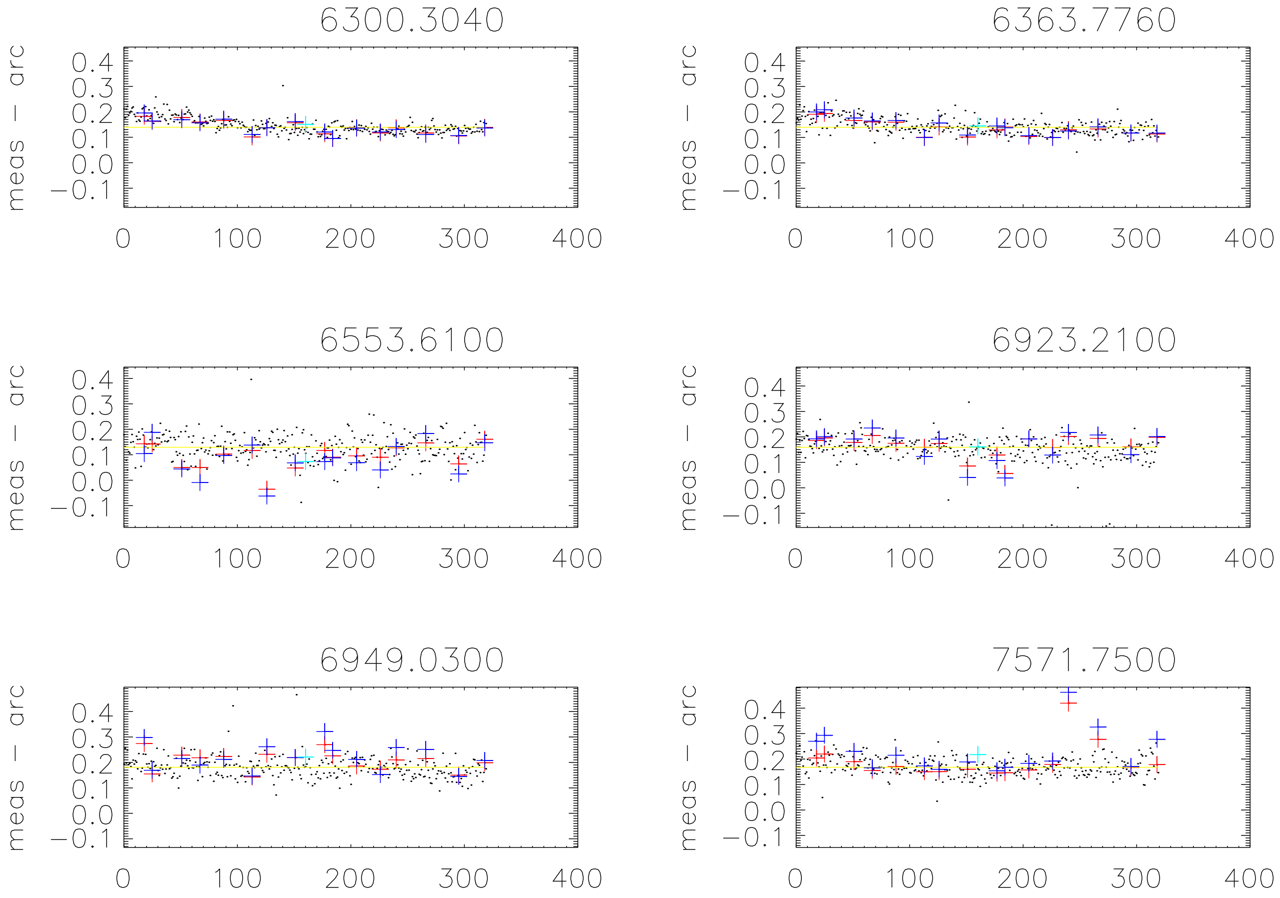
PLATE=0306 MJD=51637 Scattered Light on sdR-r1-00003298.fit

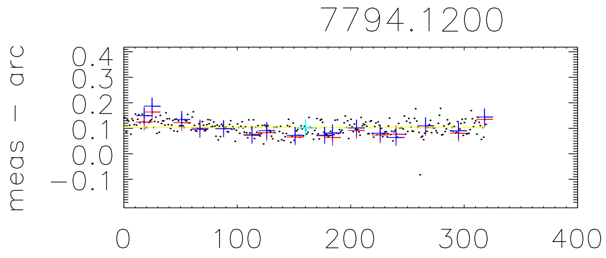


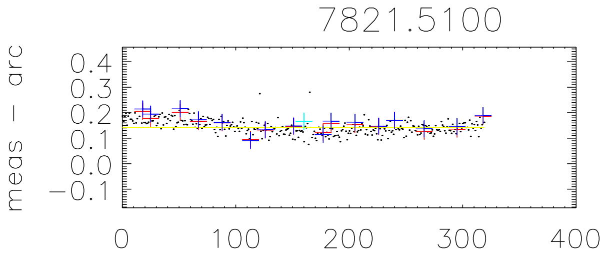

PLATE=0306 MJD=51637 Scattered Light on sdR-r1-00003298.fit
Brightness [electrons/pix]
0
2
4
6
8
10
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 0.706
Max value = 8.233
Sun Mar 2 14:33:17 2008

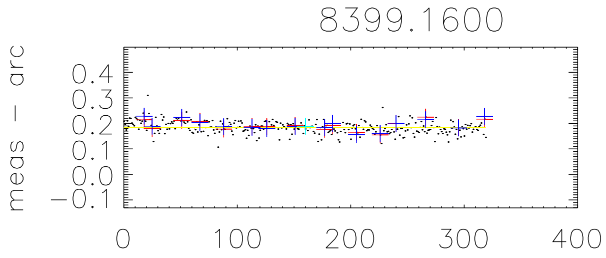

PLATE=0306 MJD=51637 Extraction chi^2 for sdR-r1-00003298.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
0
500
1000
1500
2000
Row number

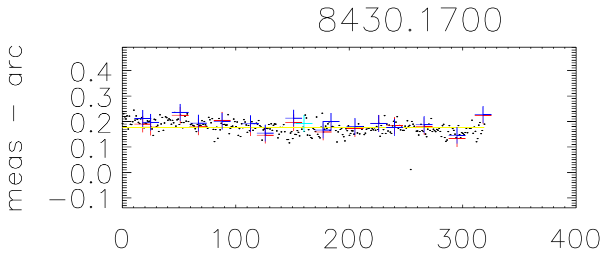

6300.3040
off: 0.15
sig: 0.003
6000
4000
2000
0
−2000
6363.7760
off: 0.15
sig: 0.005
2000
1500
1000
500
0
−500
6553.6100
off: 0.07
sig: 0.021
250
200
150
100
50
0
−50
6923.2100
off: 0.16
sig: 0.013
500
400
300
200
100
0
−100
6949.0300
off: 0.22
sig: 0.012
600
400
200
0
−200
7571.7500
off: 0.22
sig: 0.011
800
600
400
200
0
−200
7794.1200
off: 0.10
sig: 0.006
2000
1500
1000
500
0
−500
7821.5100
off: 0.17
sig: 0.005
2500
2000
1500
1000
500
0
−500
8399.1600
off: 0.19
sig: 0.004
2500
2000
1500
1000
500
0
8430.1700
off: 0.18
sig: 0.004
3000
2500
2000
1500
1000
500
0
−500
8885.8300
off: 0.23
sig: 0.004
2500
2000
1500
1000
500
0
−500
8919.6100
off: 0.22
sig: 0.004
3000
2500
2000
1500
1000
500
0
−500
−4 −2 0 2 4

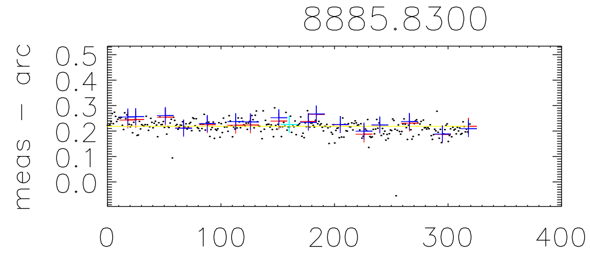

6300.3040
6363.7760
6553.6100
6923.2100
6949.0300
7571.7500
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

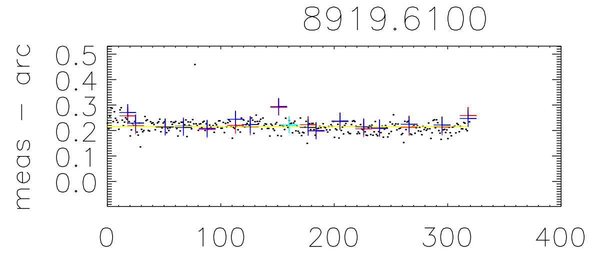

7794.1200

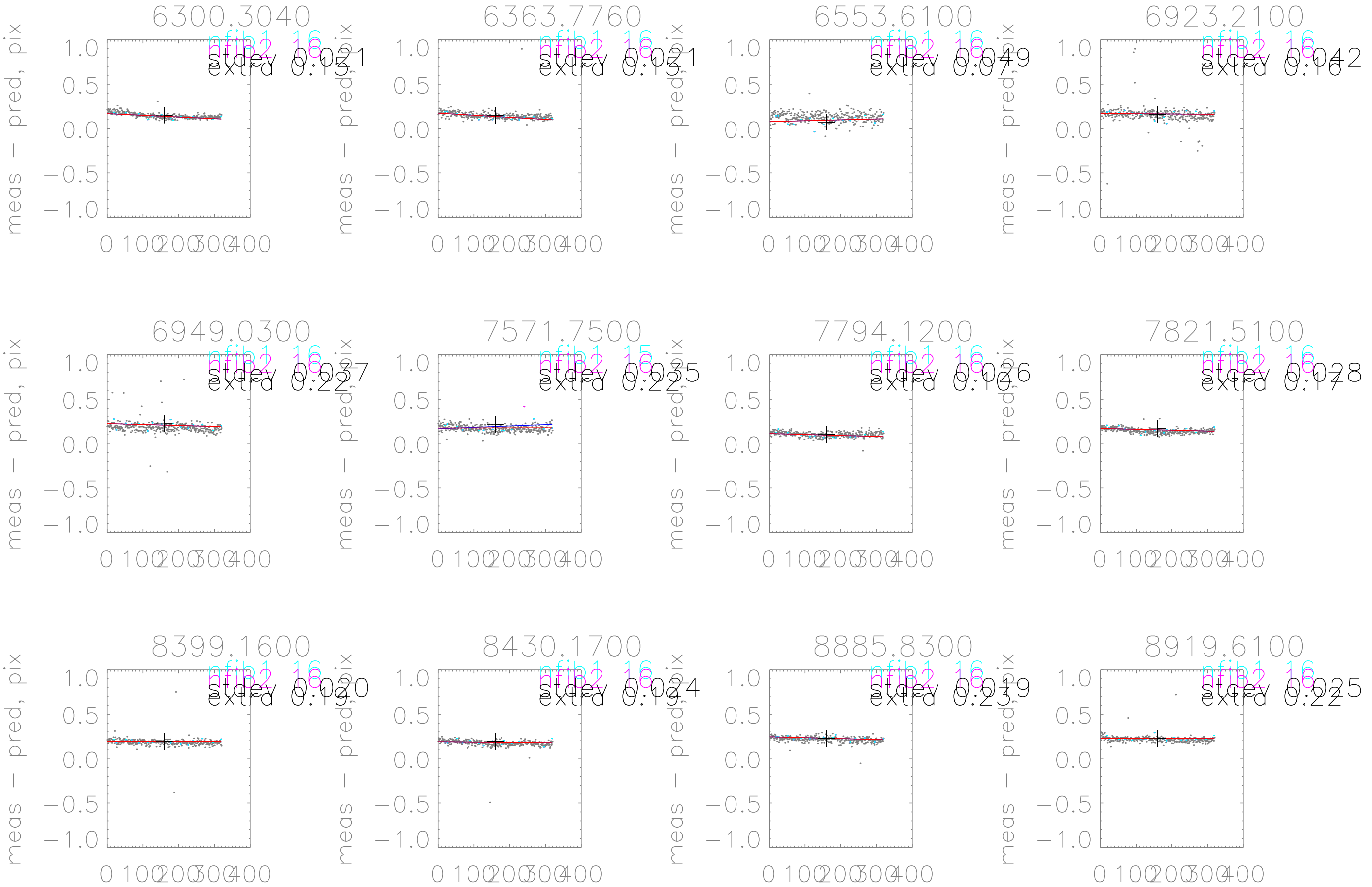

7821.5100

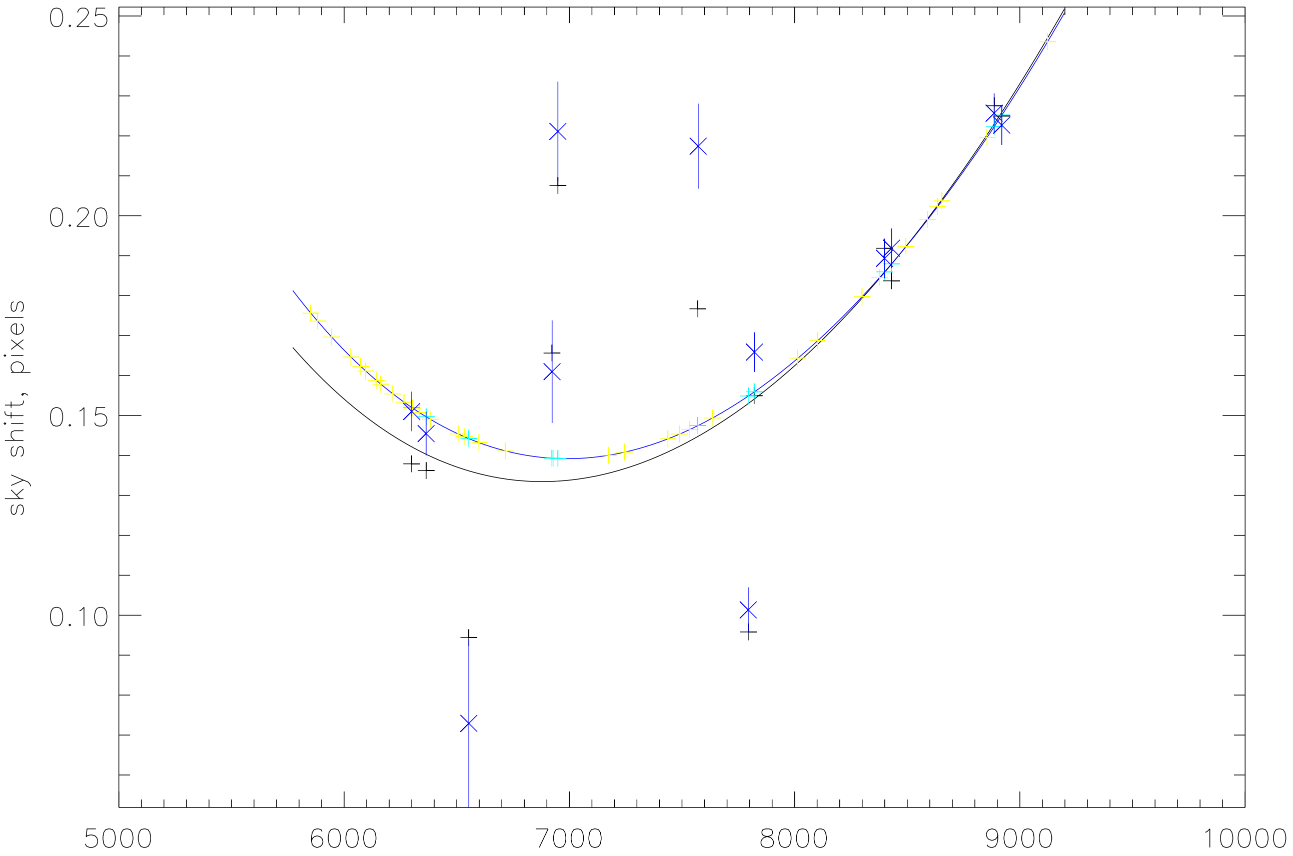

8399.1600

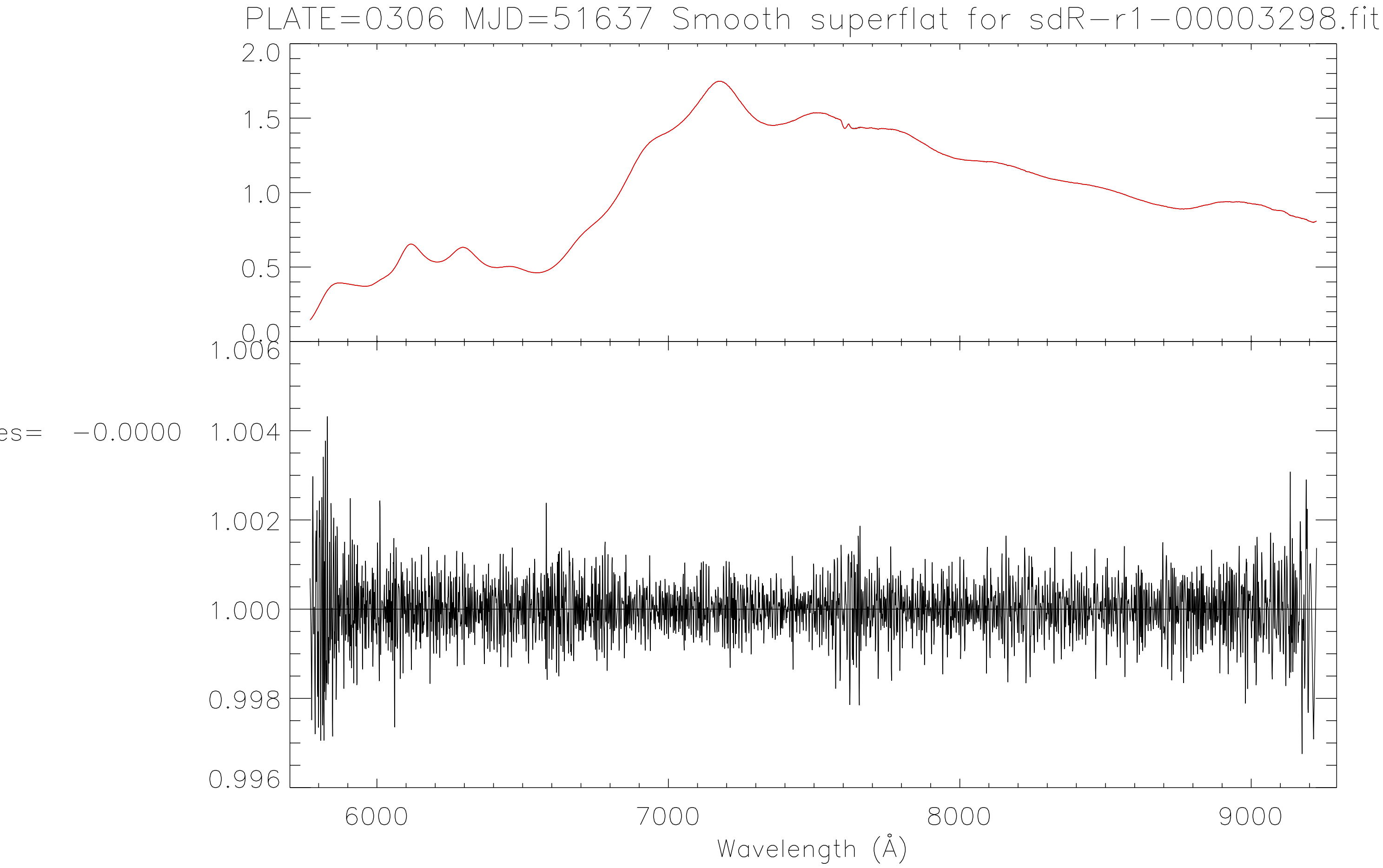

8430.1700

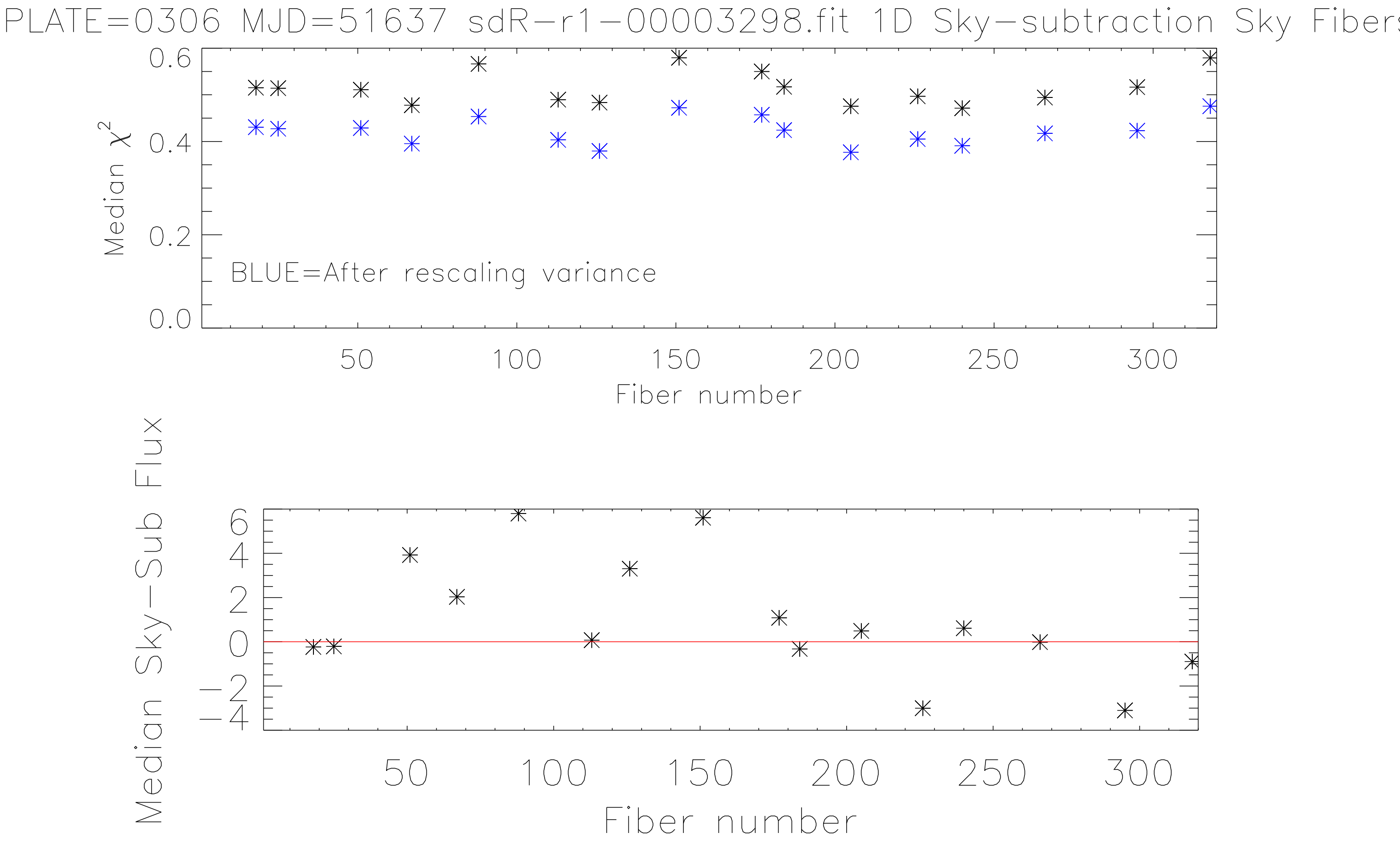

8885.8300

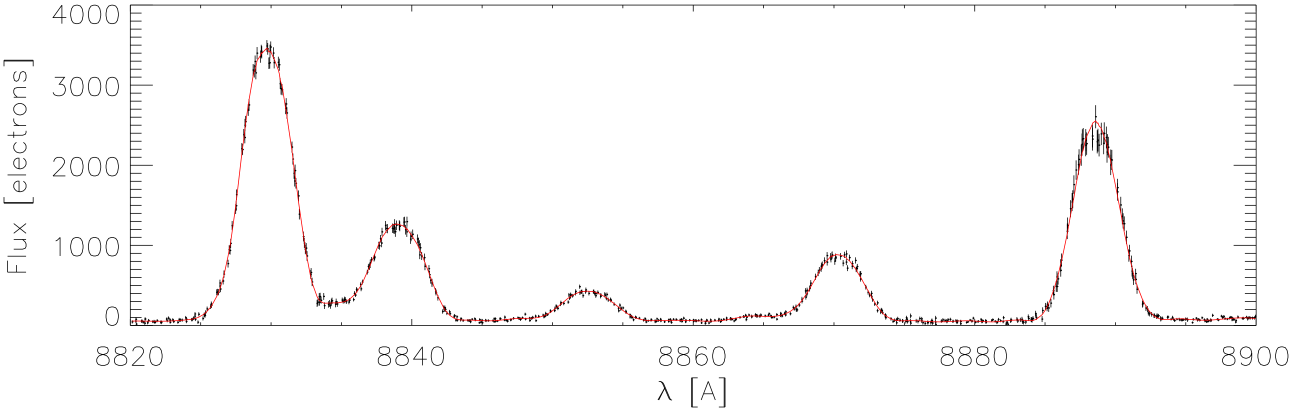

8919.6100

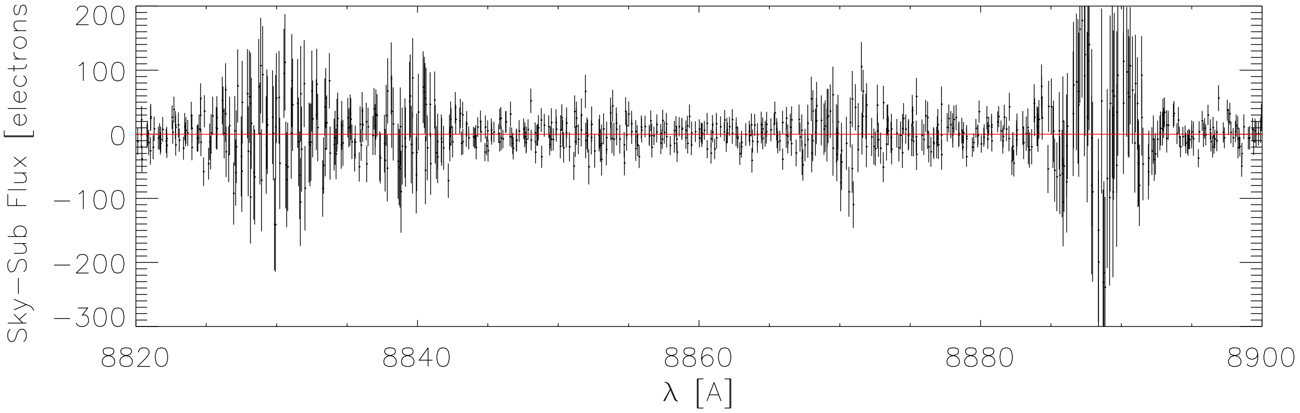

6300.3040
nfib1 16
nfib2 16
stdev 0.021
extrd 0.13
6363.7760
nfib1 16
nfib2 16
stdev 0.021
extrd 0.13
6553.6100
nfib1 16
nfib2 16
stdev 0.049
extrd 0.07
6923.2100
nfib1 16
nfib2 16
stdev 0.042
extrd 0.16
6949.0300
nfib1 16
nfib2 16
stdev 0.037
extrd 0.22
7571.7500
nfib1 15
nfib2 16
stdev 0.035
extrd 0.22
7794.1200
nfib1 16
nfib2 16
stdev 0.026
extrd 0.10
7821.5100
nfib1 16
nfib2 16
stdev 0.028
extrd 0.17
8399.1600
nfib1 16
nfib2 16
stdev 0.020
extrd 0.19
8430.1700
nfib1 16
nfib2 16
stdev 0.024
extrd 0.19
8885.8300
nfib1 16
nfib2 16
stdev 0.019
extrd 0.23
8919.6100
nfib1 16
nfib2 16
stdev 0.025
extrd 0.22
meas – pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

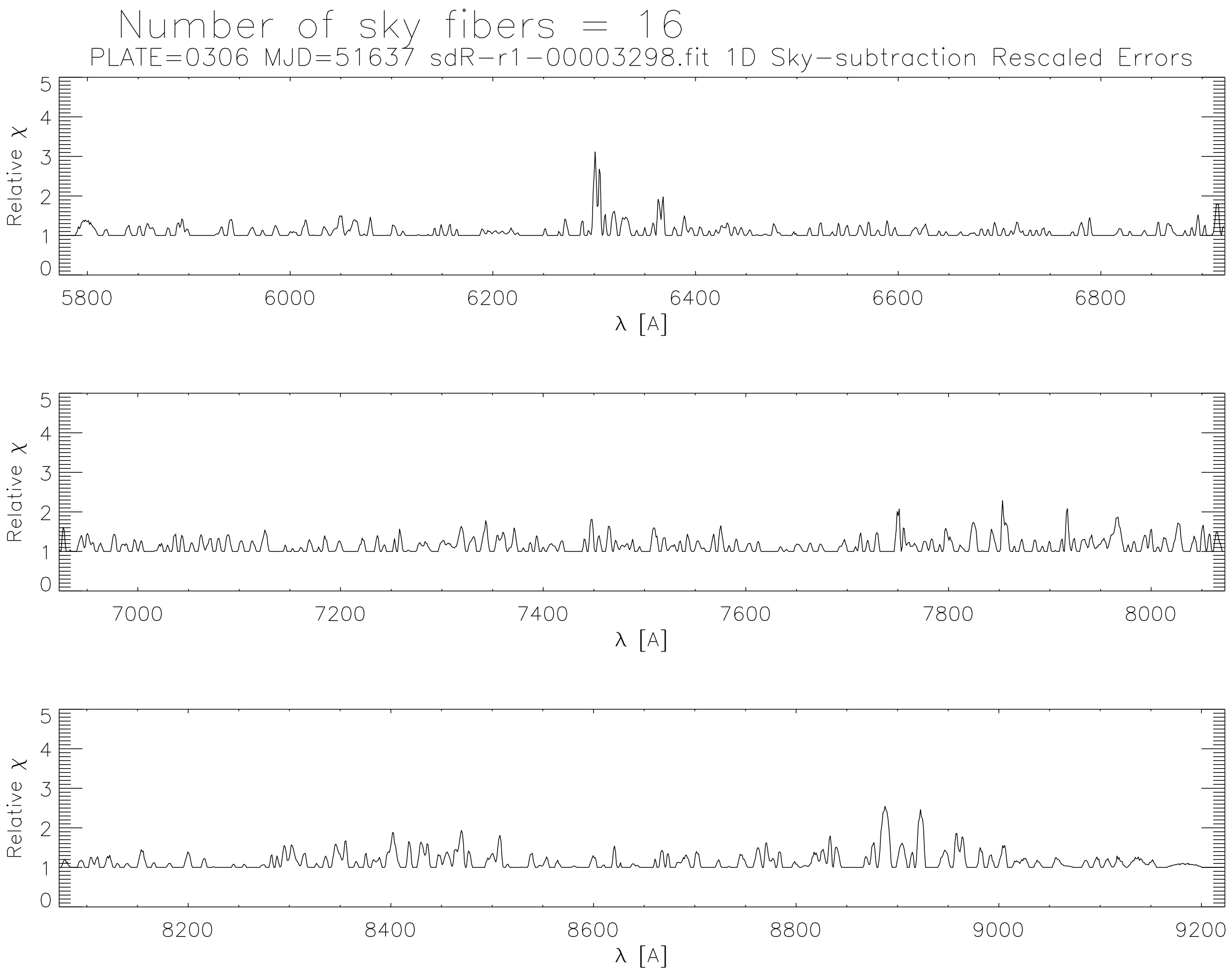

sky shift, pixels
0.25
0.20
0.15
0.10
5000
6000
7000
8000
9000
10000


PLATE=0306 MJD=51637 Smooth superflat for sdR-r1-00003298.fit
2.0
1.5
1.0
0.5
0.0
1.006
1.004
1.002
1.000
0.998
0.996
es= −0.0000
6000
7000
8000
9000
Wavelength (Å)

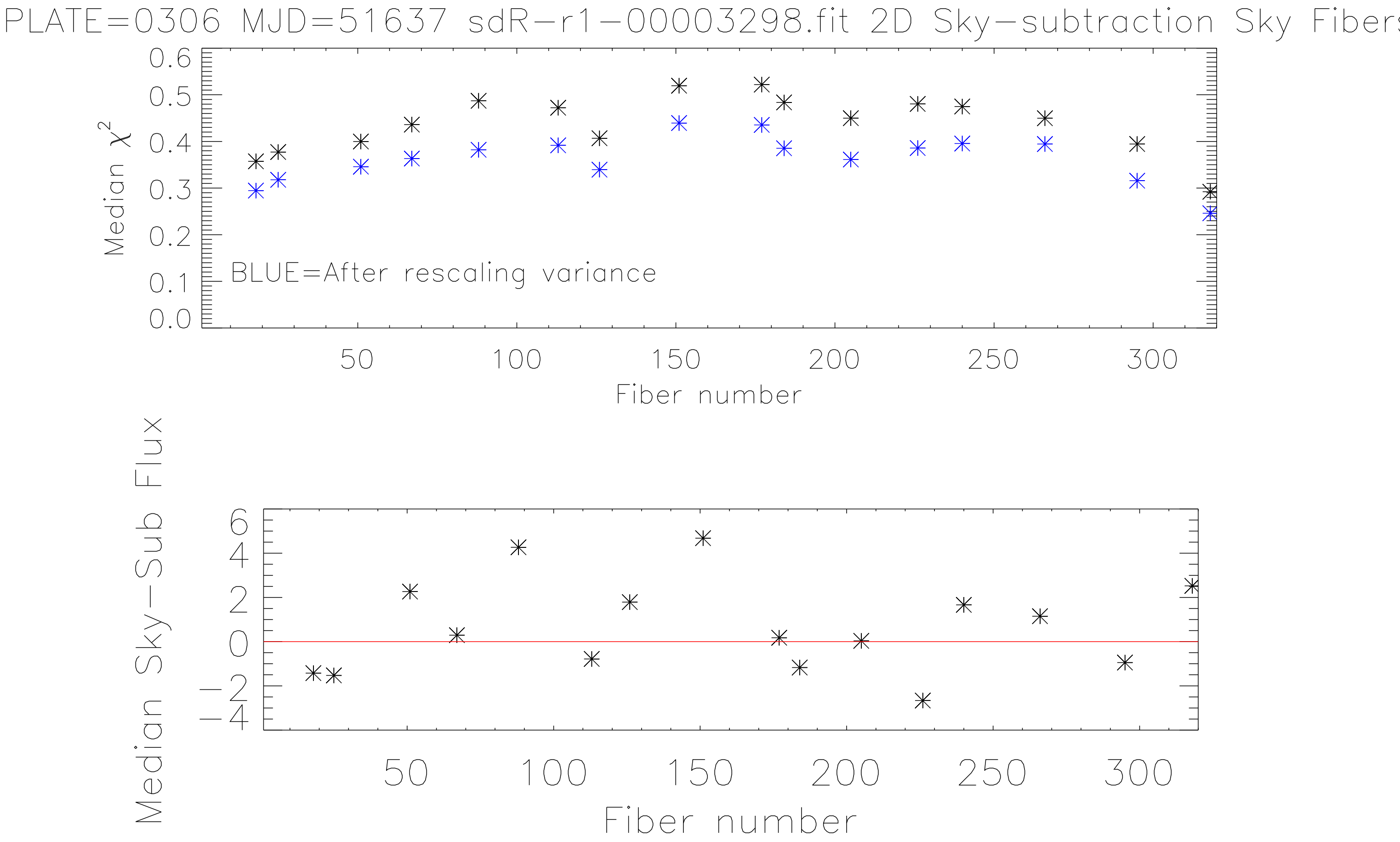

PLATE=0306 MJD=51637 sdR-r1-00003298.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.6
0.4
0.2
0.0
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
6
4
2
0
-2
-4
50
100
150
200
250
300
Fiber number

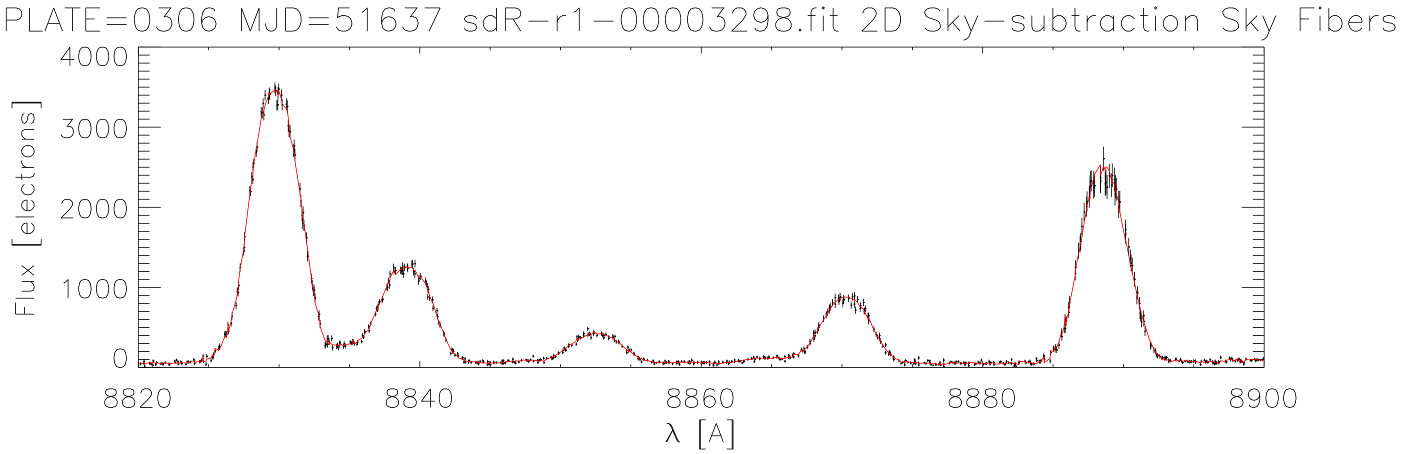

PLATE=0306 MJD=51637 sdR-r1-00003298.fit 1D Sky-subtraction Sky Fibers

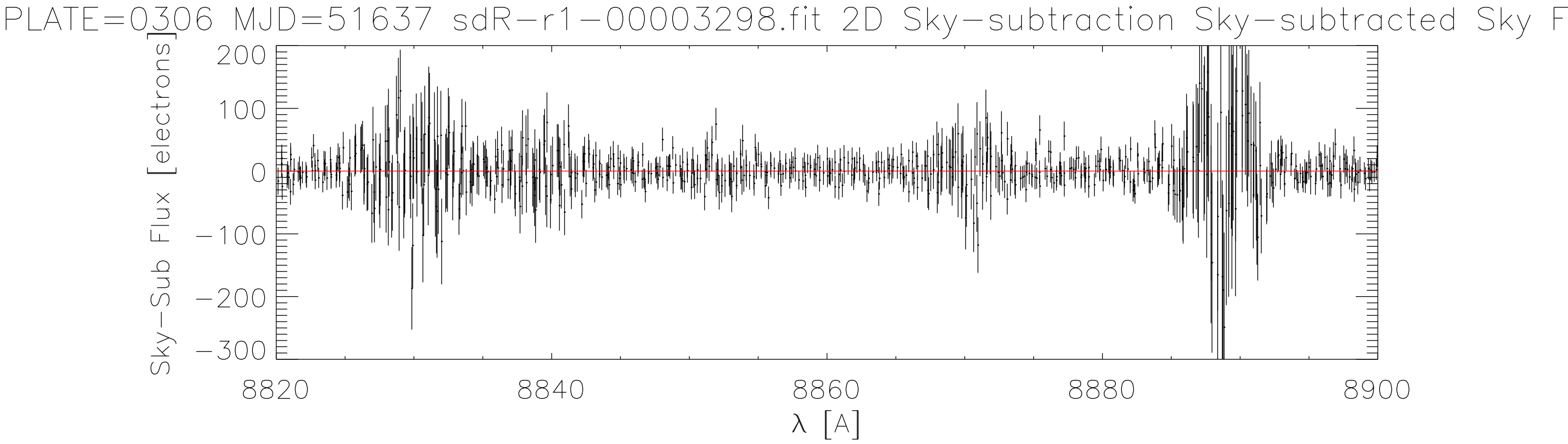

PLATE=0306 MJD=51637 sdR-r1-00003298.fit 1D Sky-subtraction Sky-subtracted Sky F


Number of sky fibers = 16

PLATE=0306 MJD=51637 sdR-r1-00003298.fit 1D Sky-subtraction Rescaled Errors

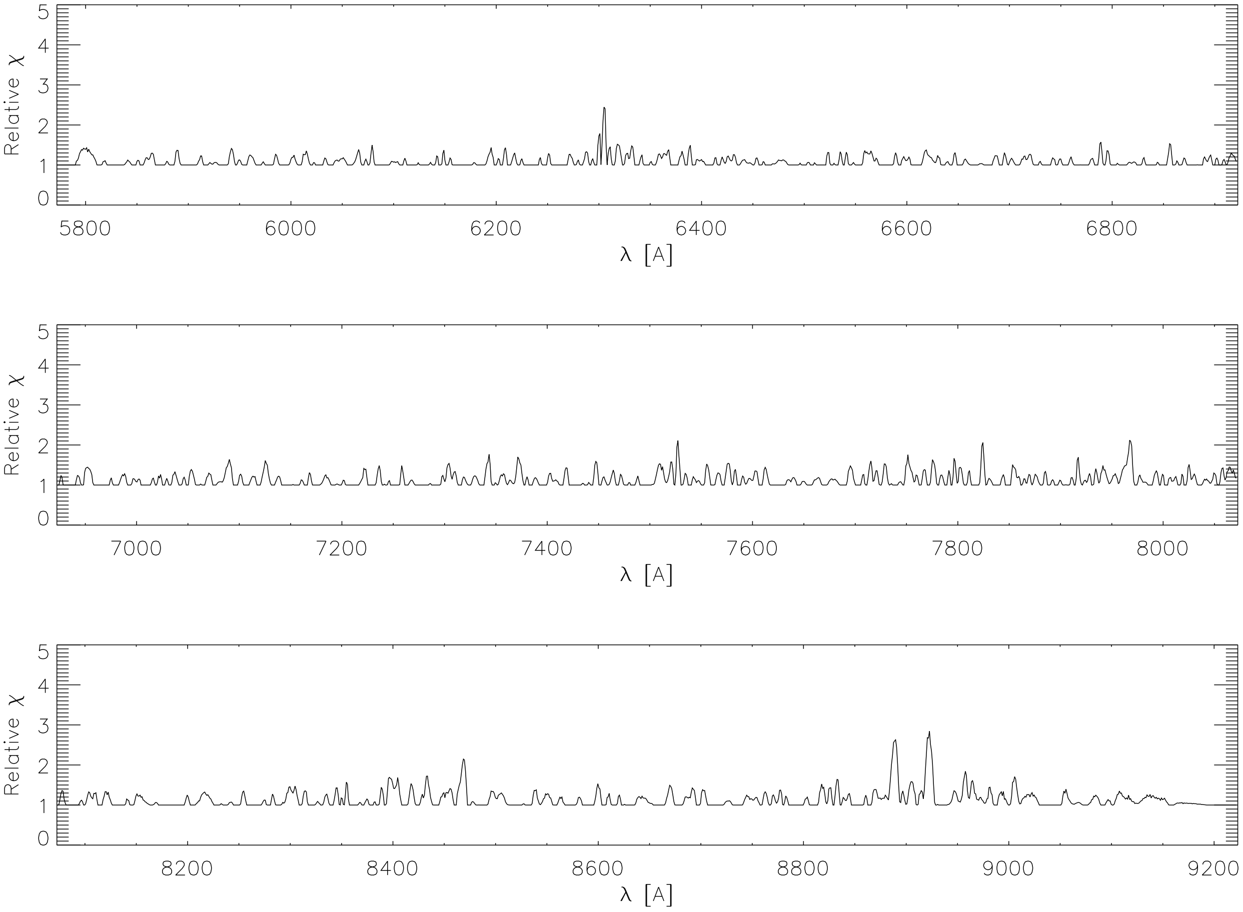

PLATE=0306 MJD=51637 sdR-r1-00003298.fit 2D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-4
-2
0
2
4
6
50
100
150
200
250
300
Fiber number

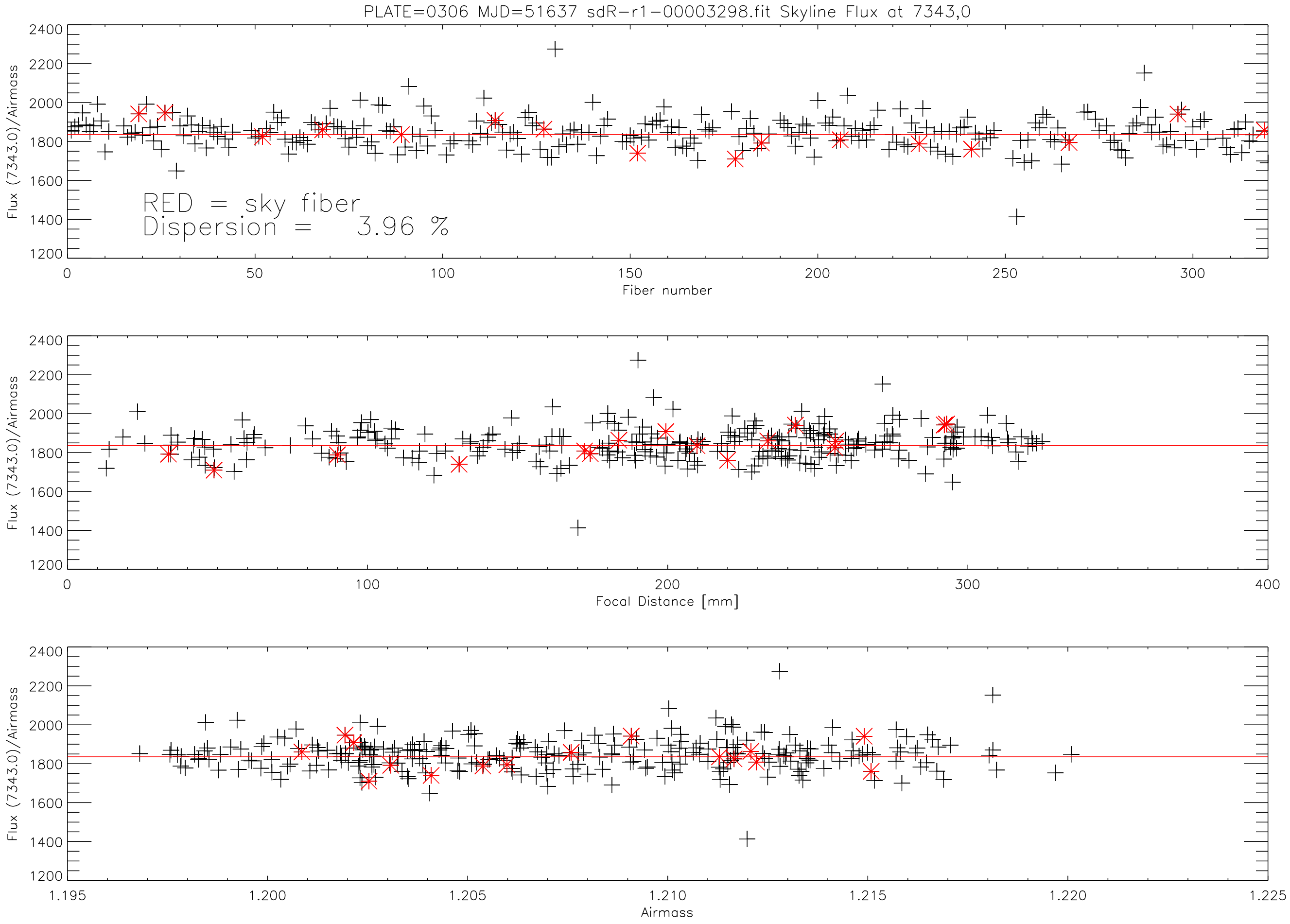

PLATE=0306 MJD=51637 sdR-r1-00003298.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

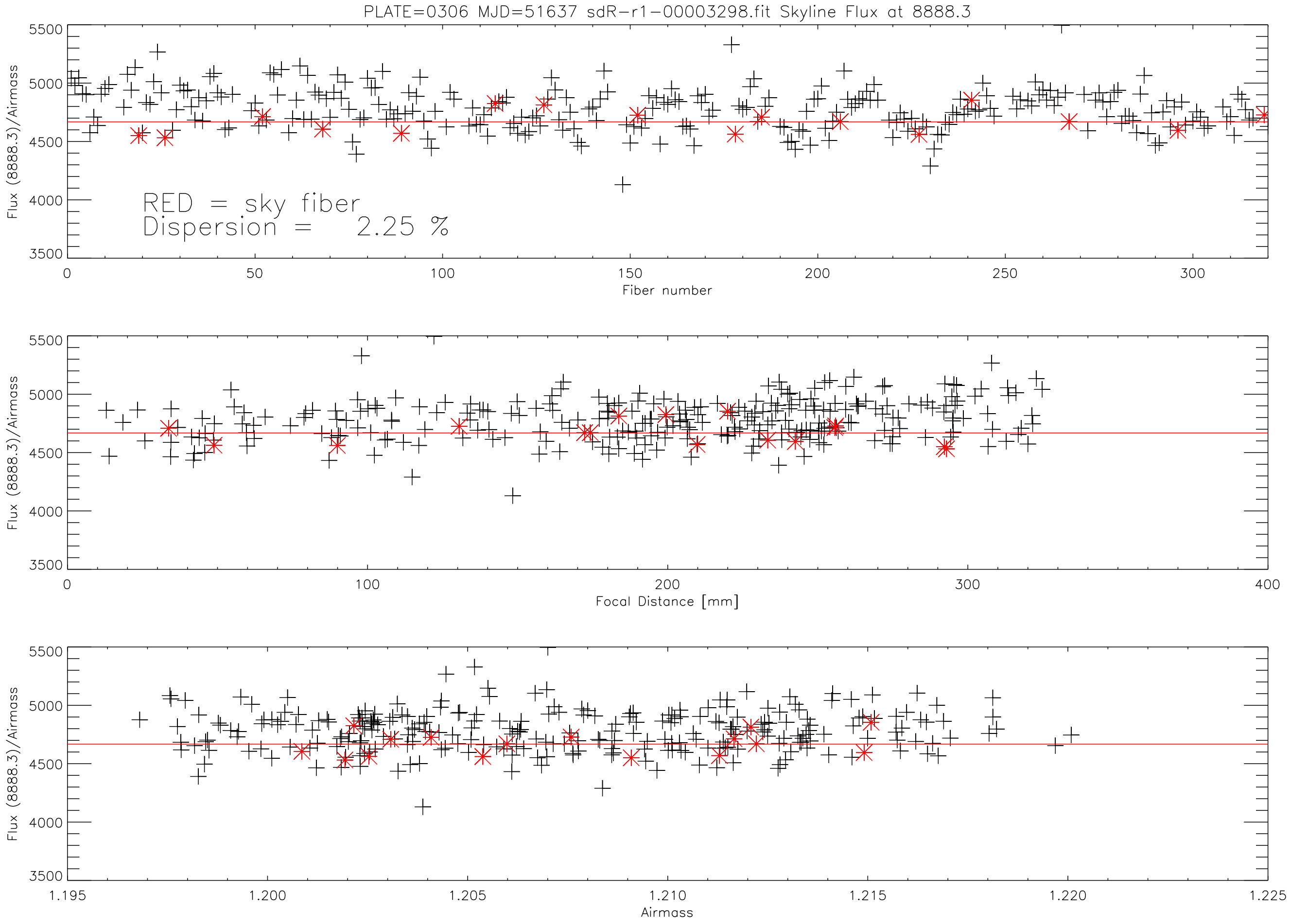

PLATE=0306 MJD=51637 sdR-r1-00003298.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
−100
−200
−300
8820
8840
8860
8880
8900
λ [A]

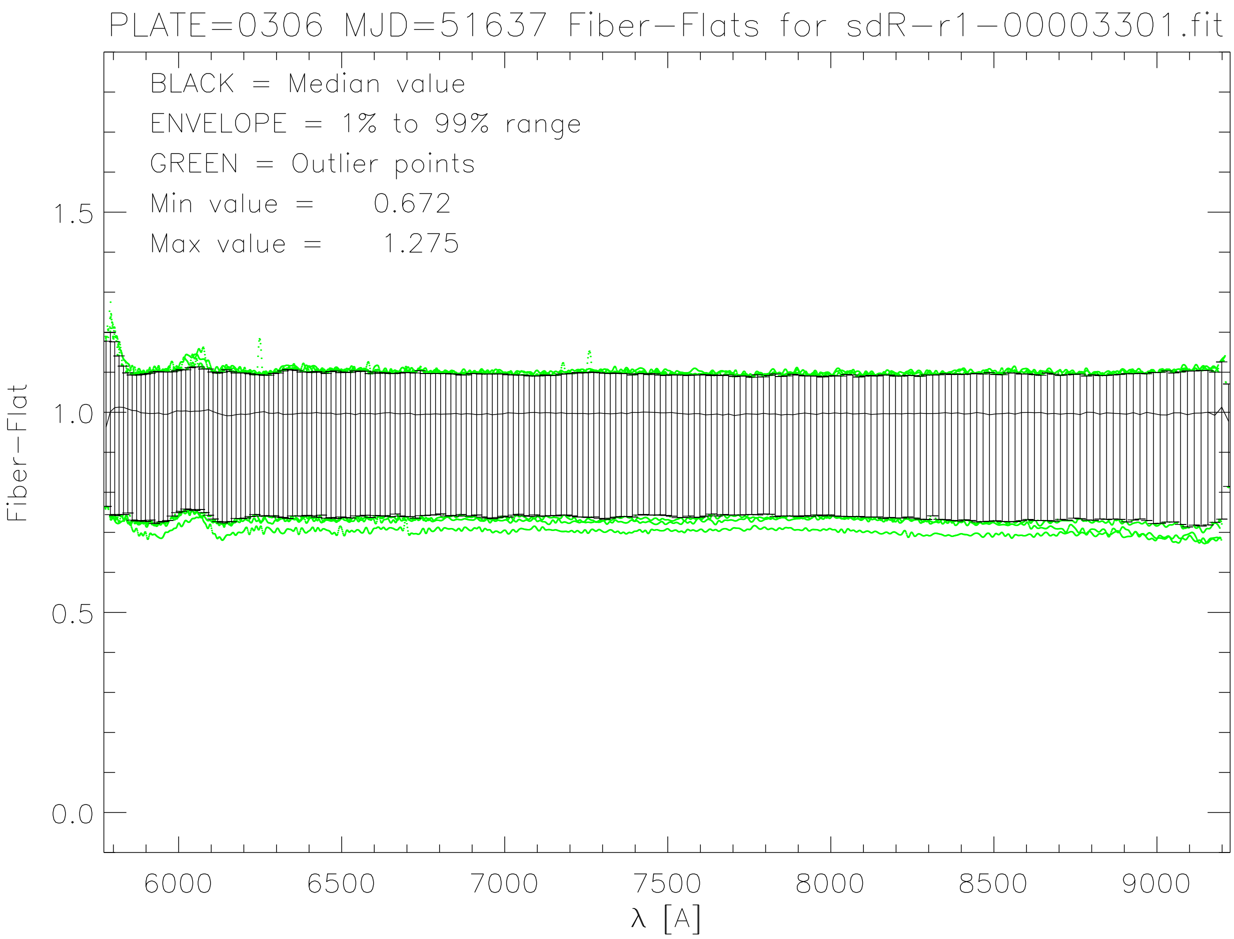
Number of sky fibers = 16

PLATE=0306 MJD=51637 sdR-r1-00003298.fit 2D Sky-subtraction Rescaled Errors



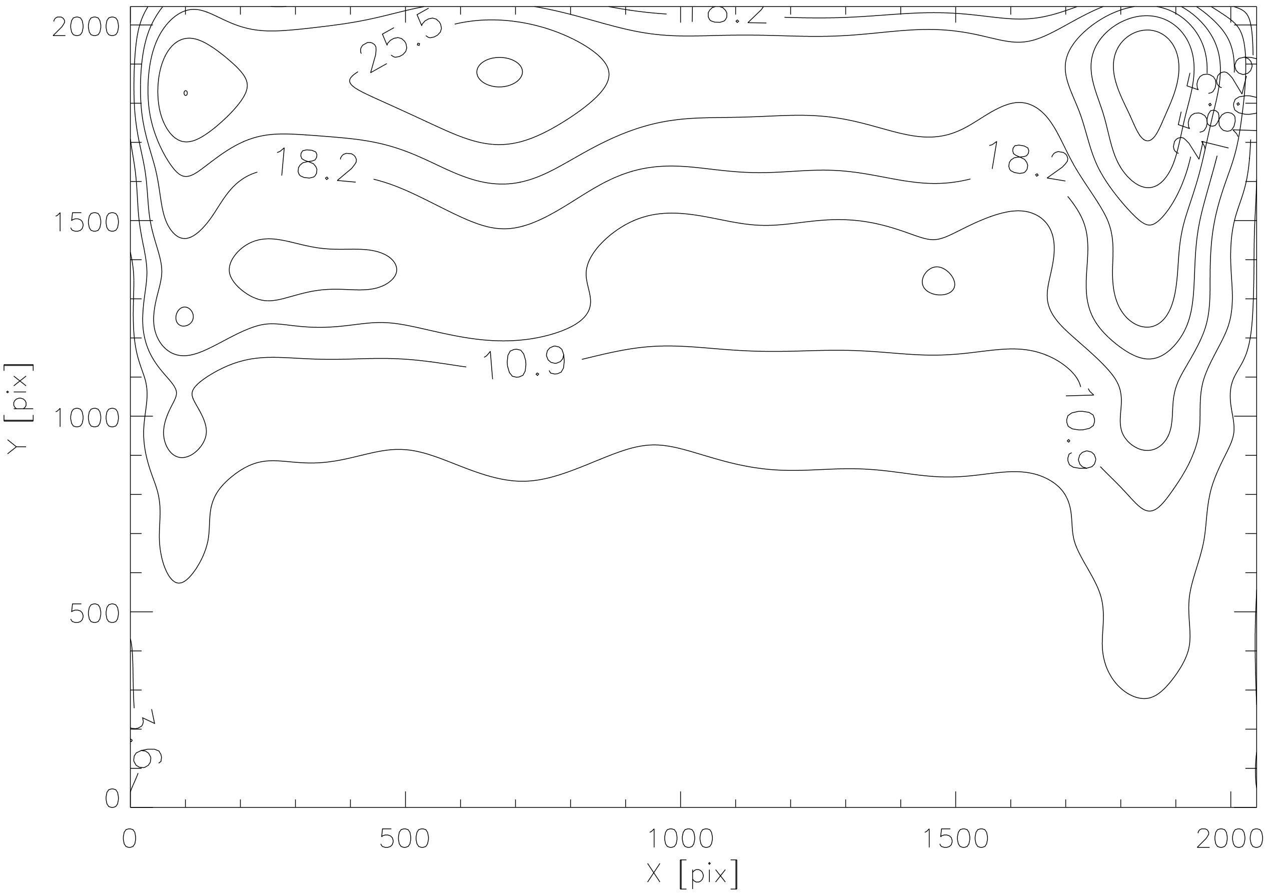

PLATE=0306 MJD=51637 sdR-r1-00003298.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
2400
2200
2000
1800
1600
1400
1200
RED = sky fiber
Dispersion = 3.96 %
0
50
100
150
200
250
300
Fiber number
Flux (7343.0)/Airmass
2400
2200
2000
1800
1600
1400
1200
0
100
200
300
400
Focal Distance [mm]
Flux (7343.0)/Airmass
2400
2200
2000
1800
1600
1400
1200
1.195
1.200
1.205
1.210
1.215
1.220
1.225
Airmass

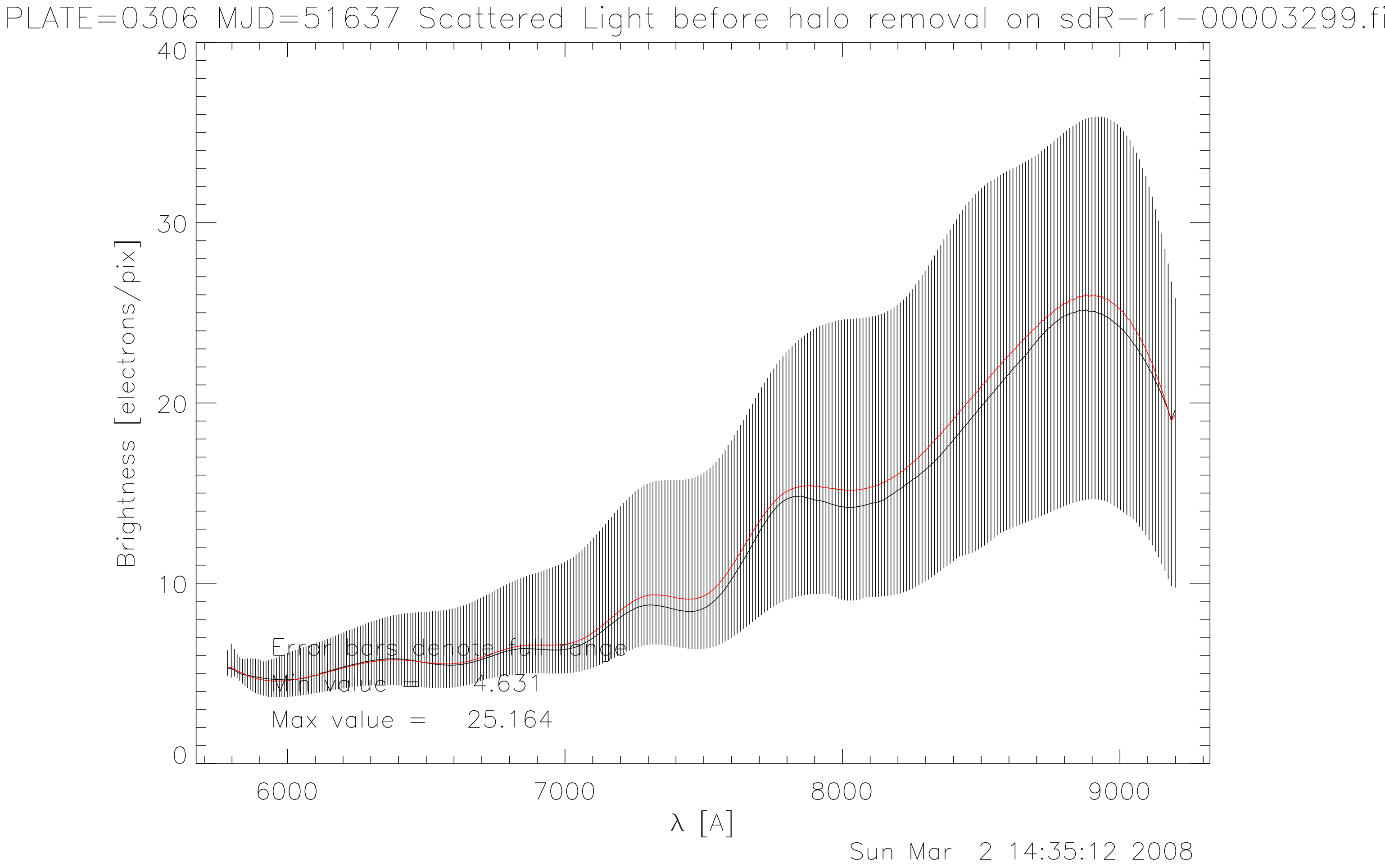

PLATE=0306 MJD=51637 sdR-r1-00003298.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
5500
5000
4500
4000
3500
RED = sky fiber
Dispersion = 2.25 %
0
50
100
150
200
250
300
Fiber number
Flux (8888.3)/Airmass
5500
5000
4500
4000
3500
0
100
200
300
400
Focal Distance [mm]
Flux (8888.3)/Airmass
5500
5000
4500
4000
3500
1.195
1.200
1.205
1.210
1.215
1.220
1.225
Airmass

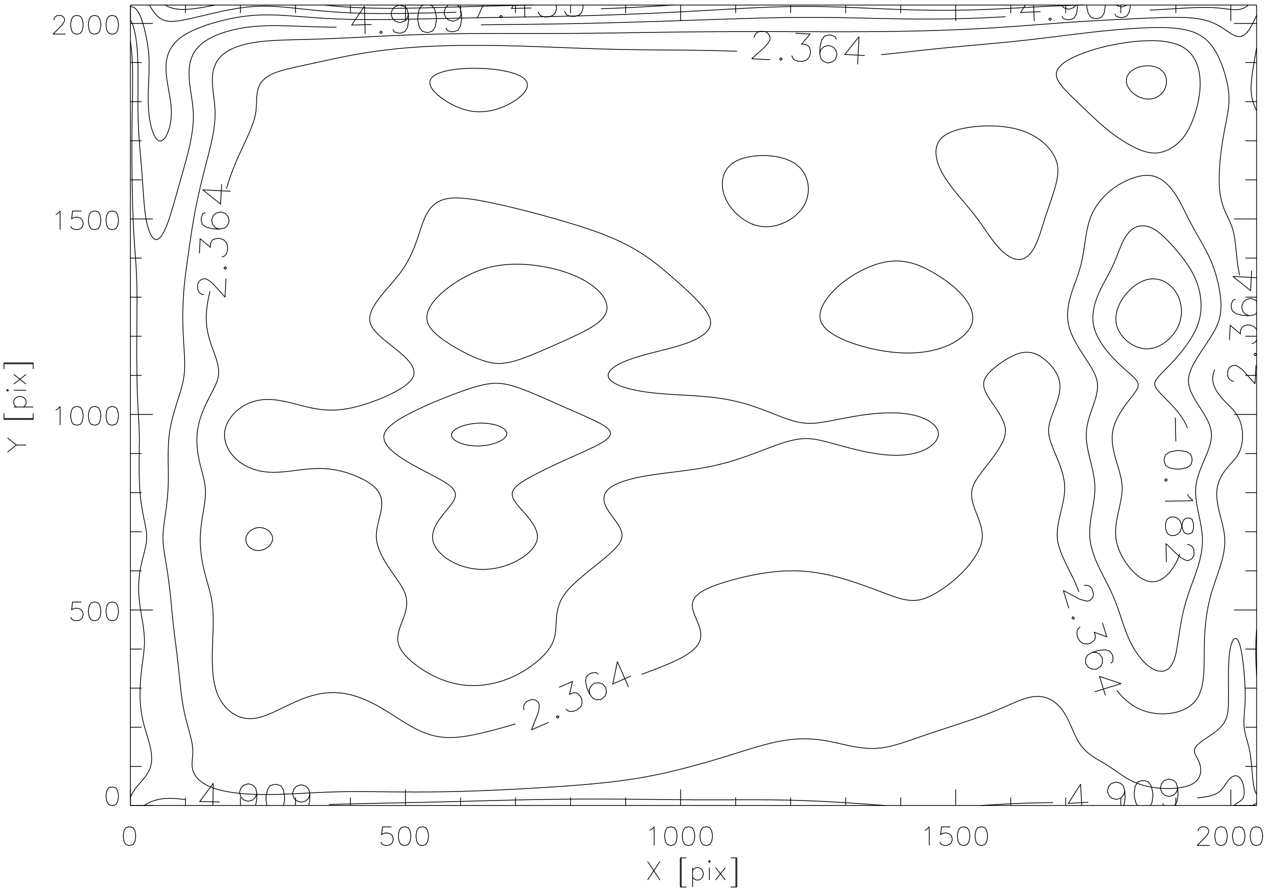


Sun Mar 2 14:34:23 2008

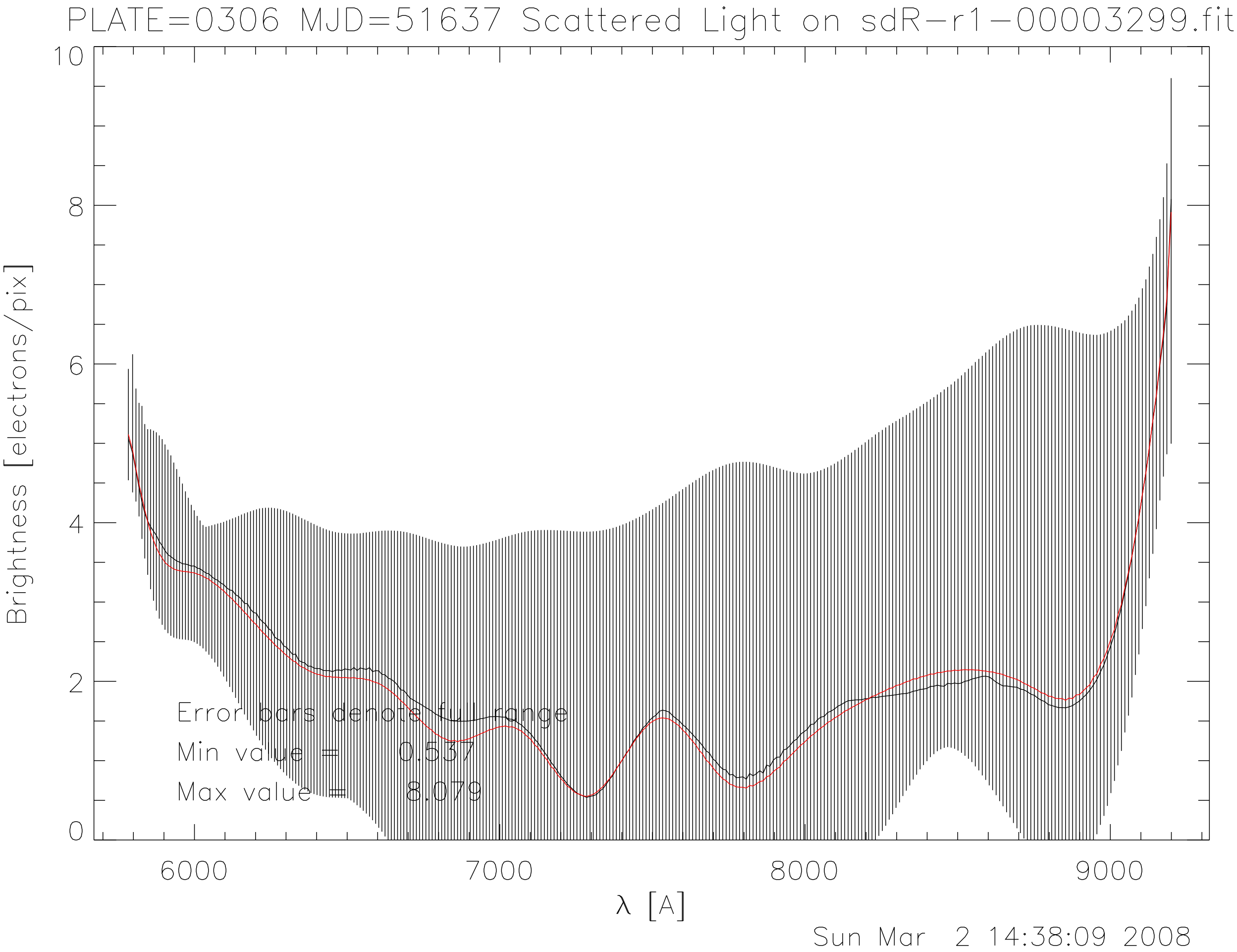
PLATE=0306 MJD=51637 Scattered Light before halo removal on sdR-r1-00003299.fi



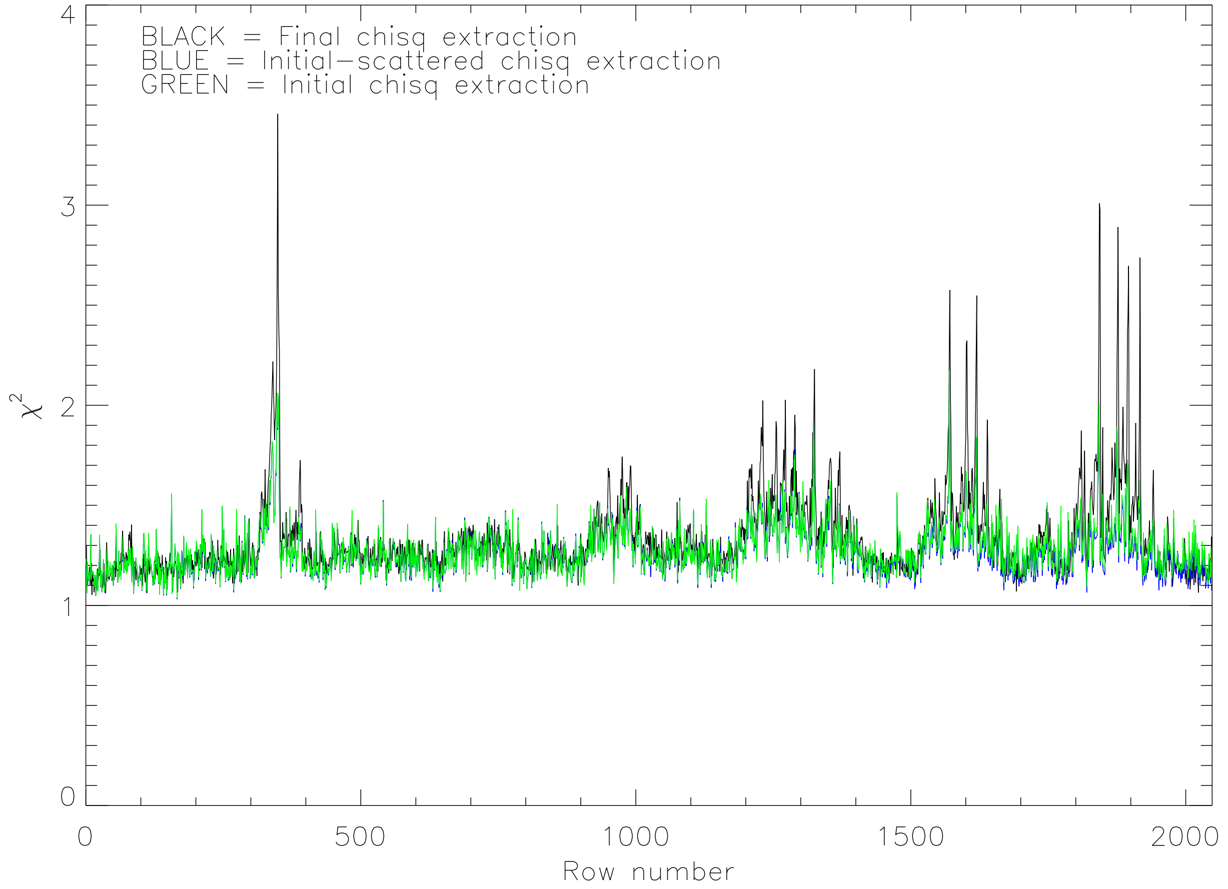

PLATE=0306 MJD=51637 Scattered Light before halo removal on sdR-r1-00003299.fi
Brightness [electrons/pix]
0
10
20
30
40
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 4.631
Max value = 25.164
Sun Mar 2 14:35:12 2008

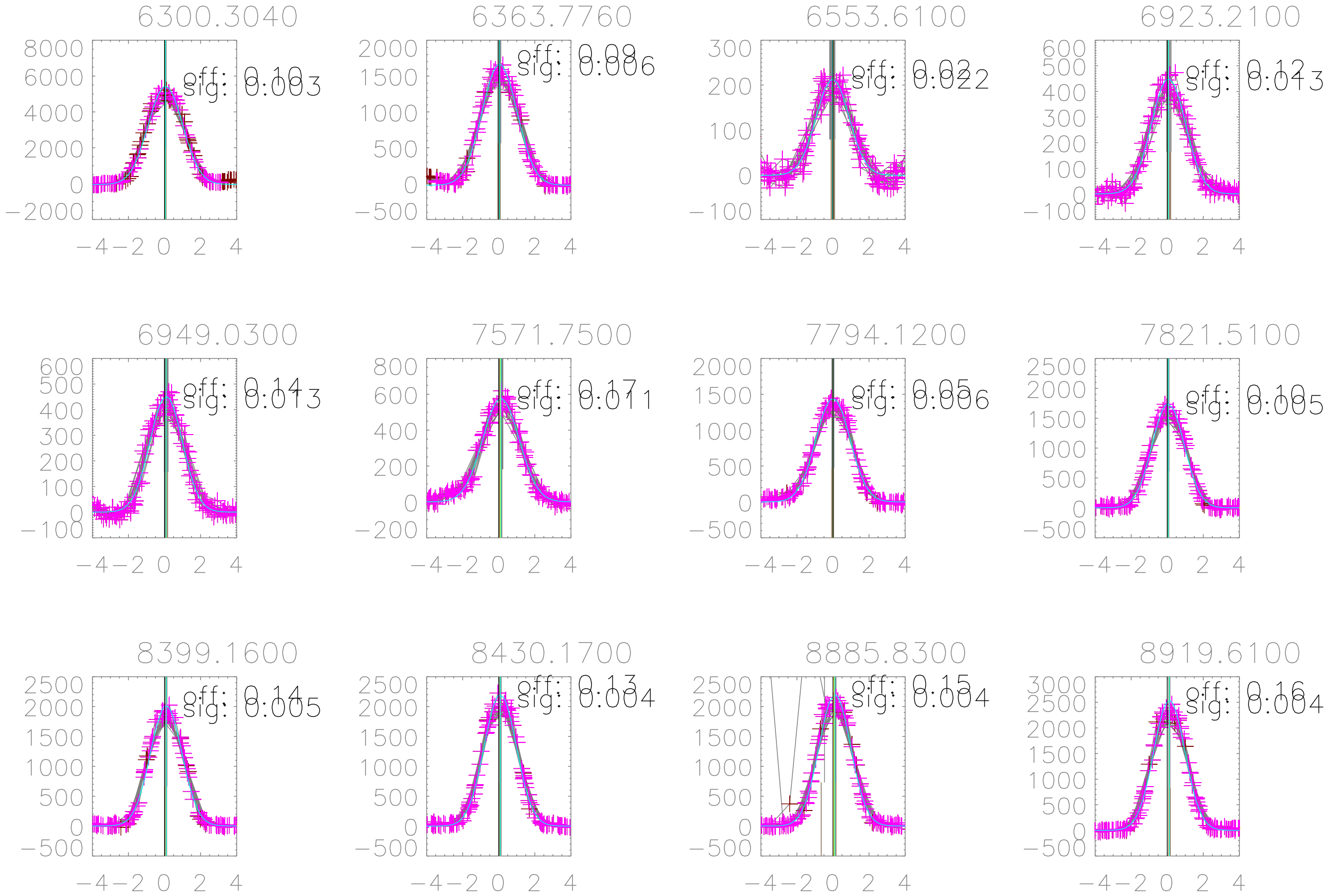


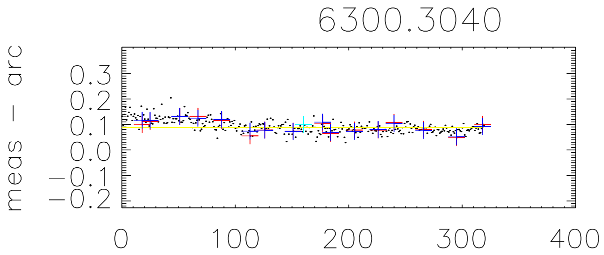
PLATE=0306 MJD=51637 Scattered Light on sdR-r1-00003299.fit

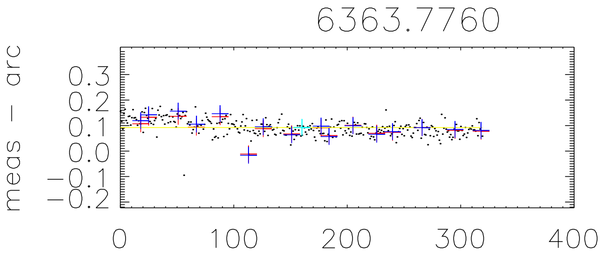

PLATE=0306 MJD=51637 Scattered Light on sdR-r1-00003299.fit
Brightness [electrons/pix]
0
2
4
6
8
10
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 0.537
Max value = 8.079
Sun Mar 2 14:38:09 2008

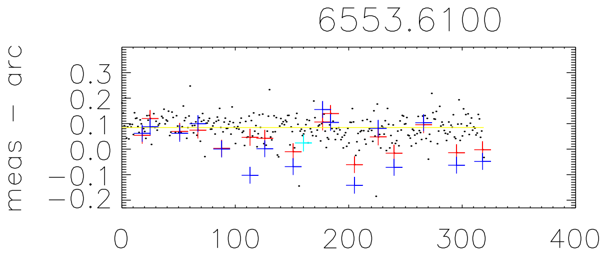
PLATE=0306 MJD=51637 Extraction chi^2 for sdR-r1-00003299.fit

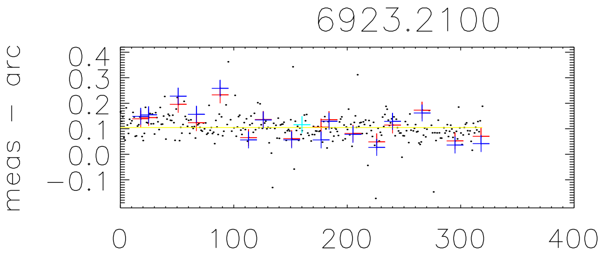


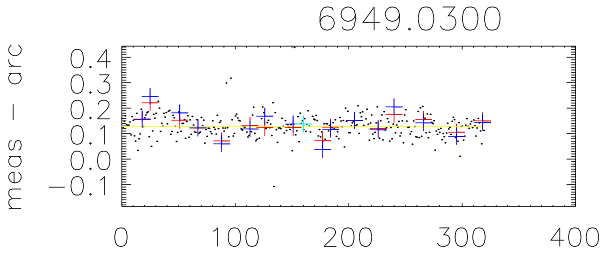

6300.3040
off: 0.10
sig: 0.003
6363.7760
off: 0.09
sig: 0.006
6553.6100
off: 0.02
sig: 0.022
6923.2100
off: 0.12
sig: 0.013
6949.0300
off: 0.14
sig: 0.013
7571.7500
off: 0.17
sig: 0.011
7794.1200
off: 0.05
sig: 0.006
7821.5100
off: 0.10
sig: 0.005
8399.1600
off: 0.14
sig: 0.005
8430.1700
off: 0.13
sig: 0.004
8885.8300
off: 0.15
sig: 0.004
8919.6100
off: 0.16
sig: 0.004
−4 −2 0 2 4

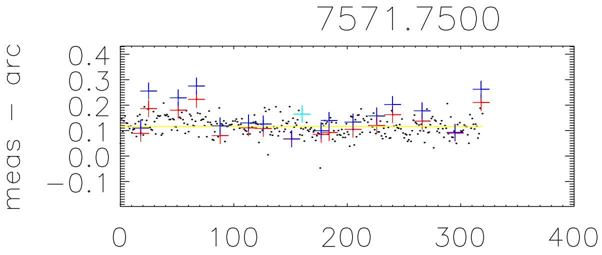

6300.3040
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

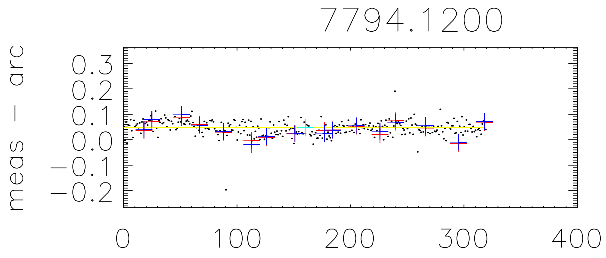

6363.7760
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

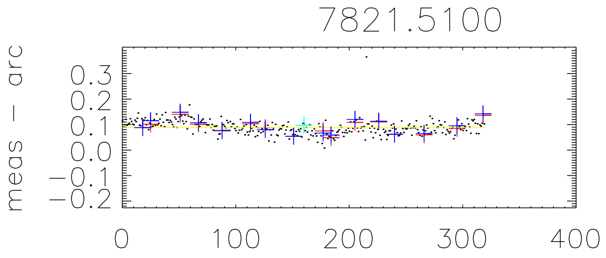

6553.6100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

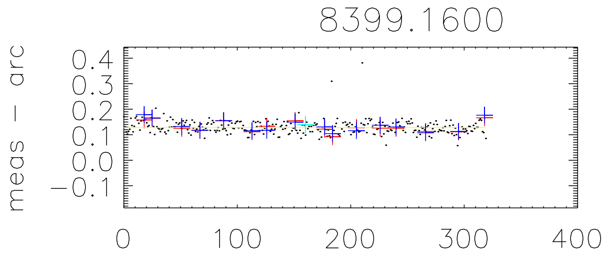

6923.2100
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

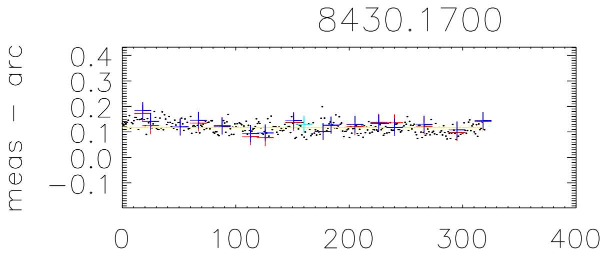

6949.0300
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

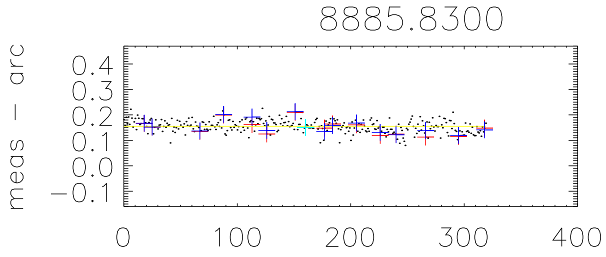

7571.7500
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

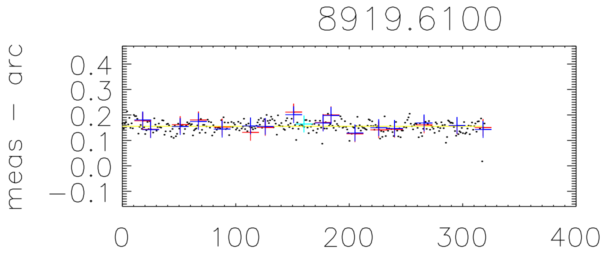

7794.1200
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

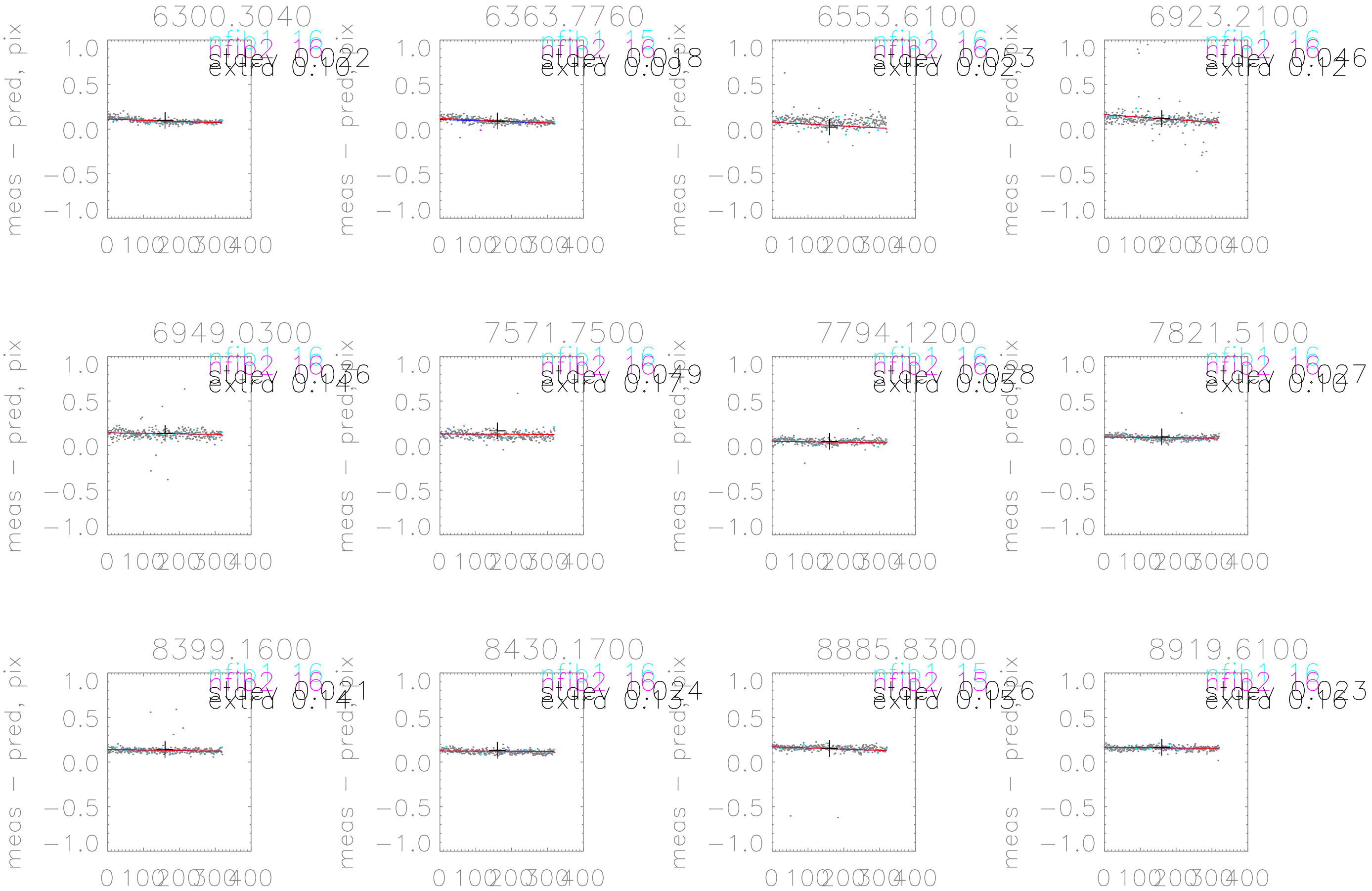

7821.5100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

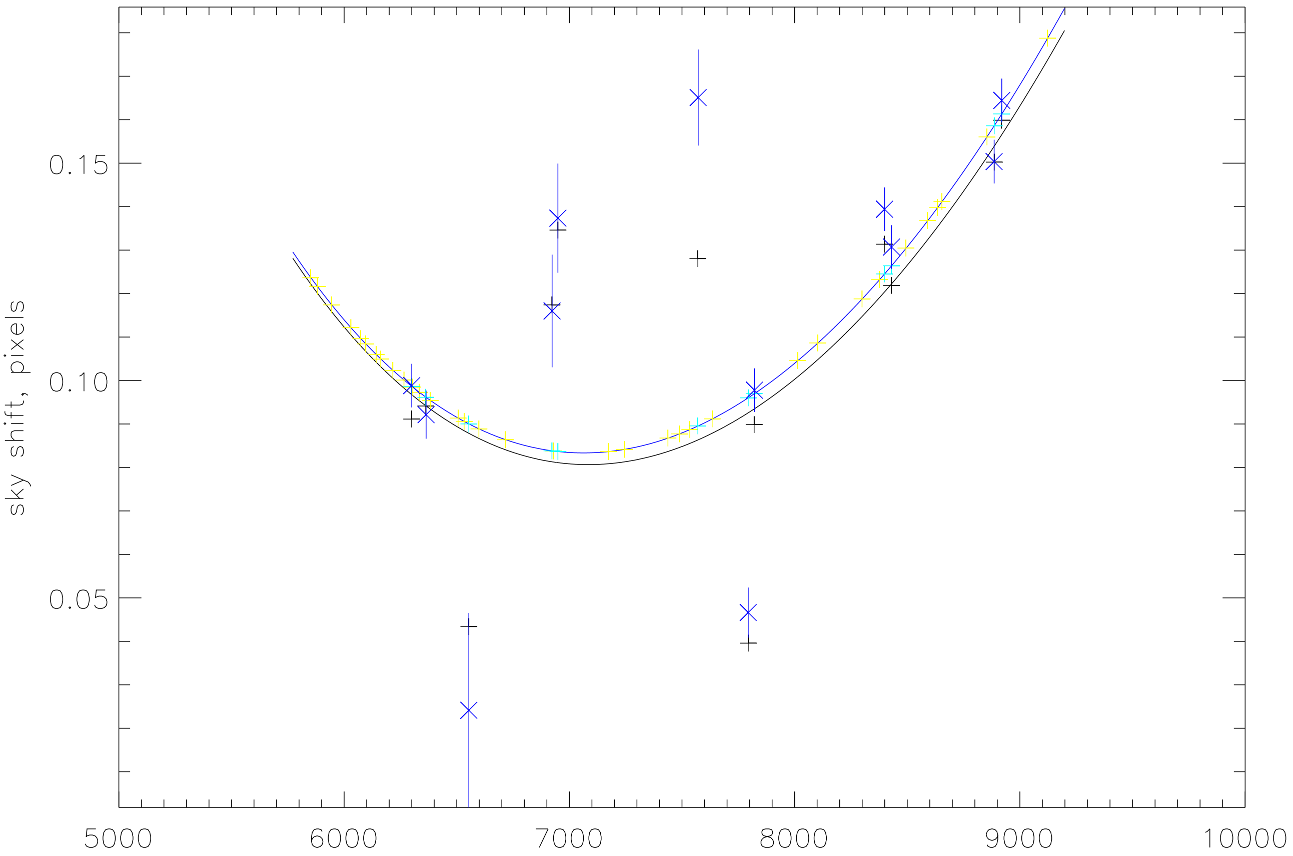

8399.1600
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

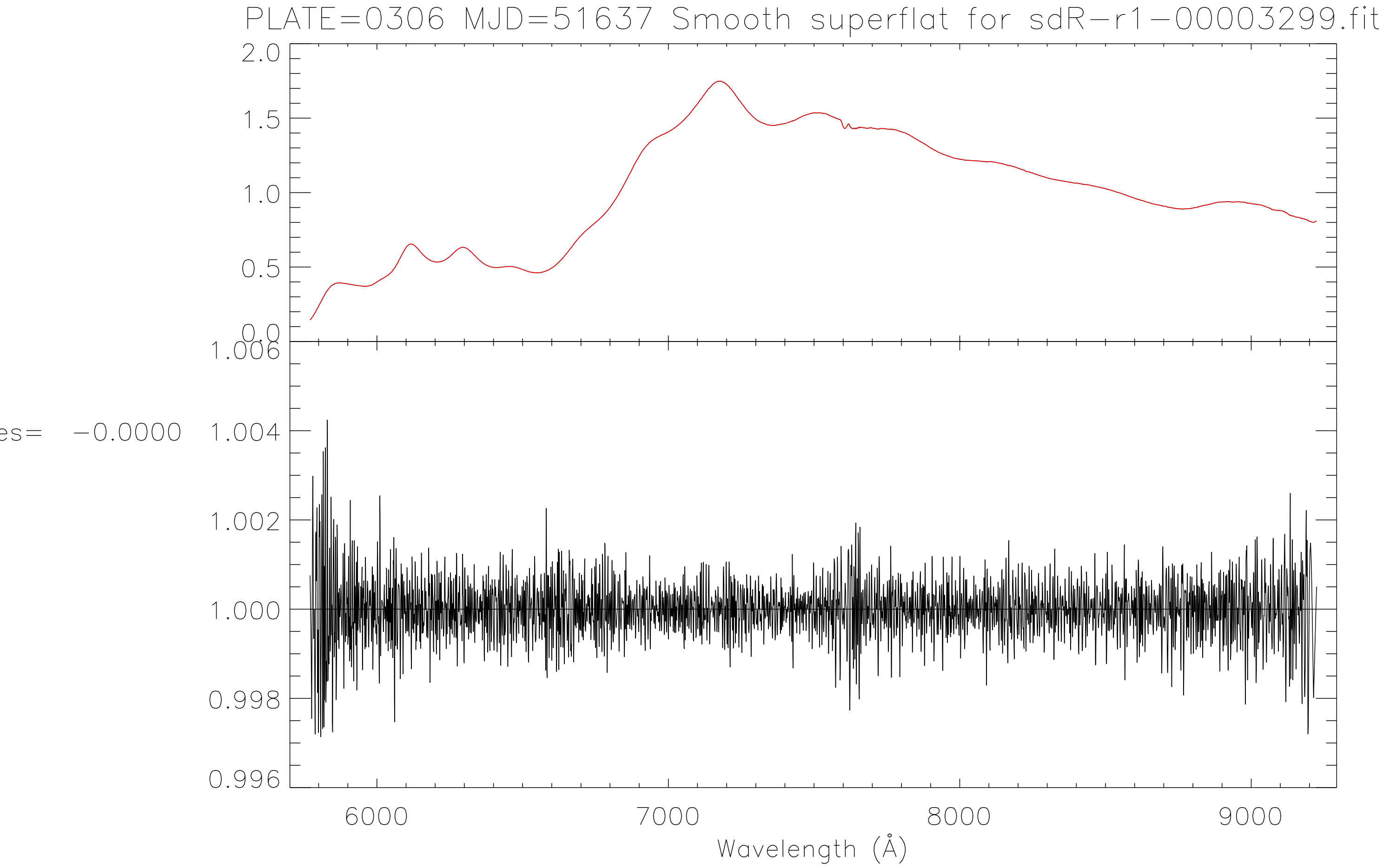

8430.1700
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

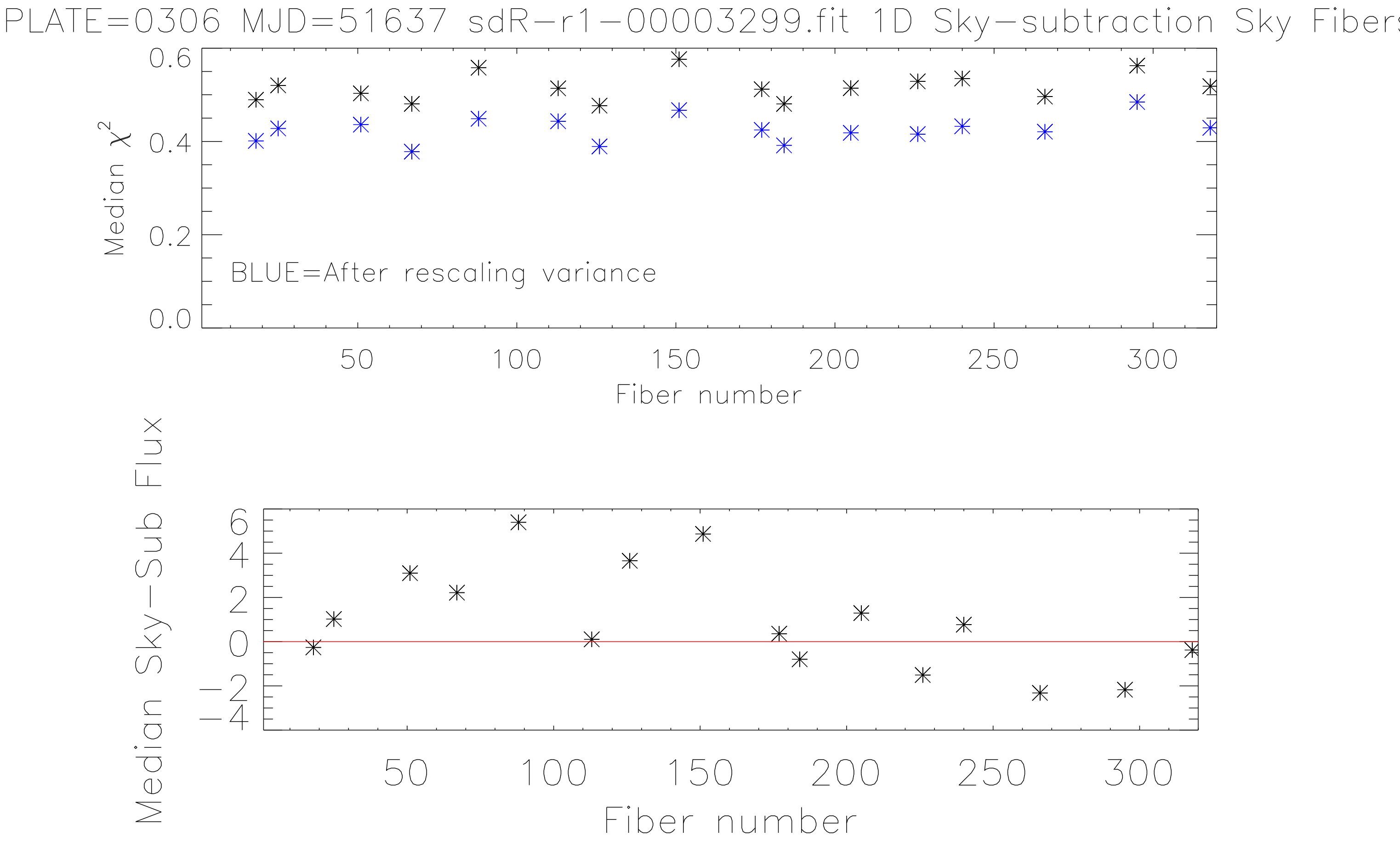

8885.8300
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

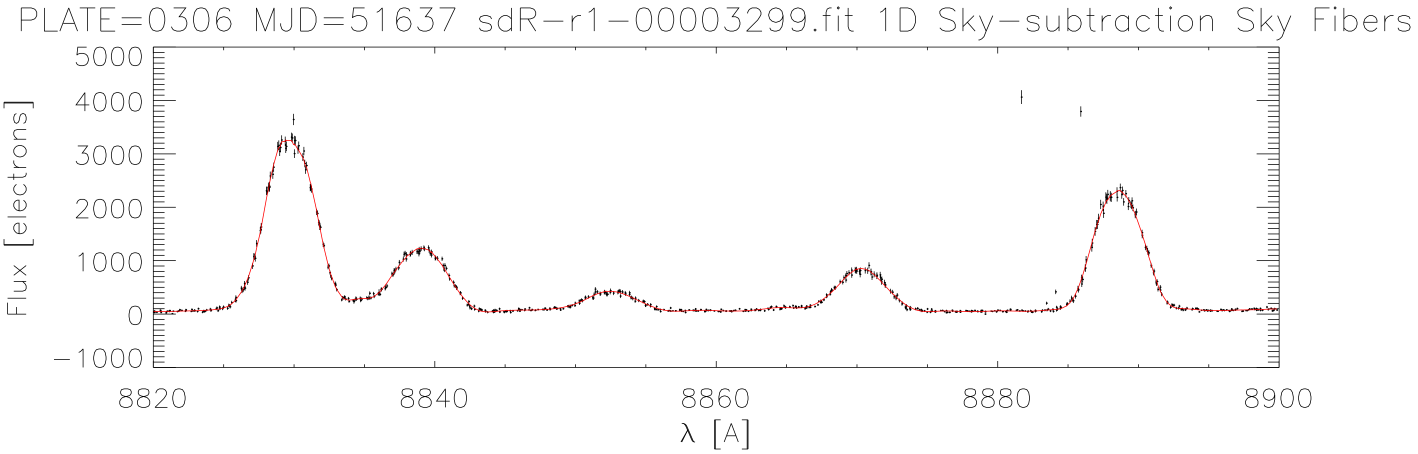

8919.6100
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

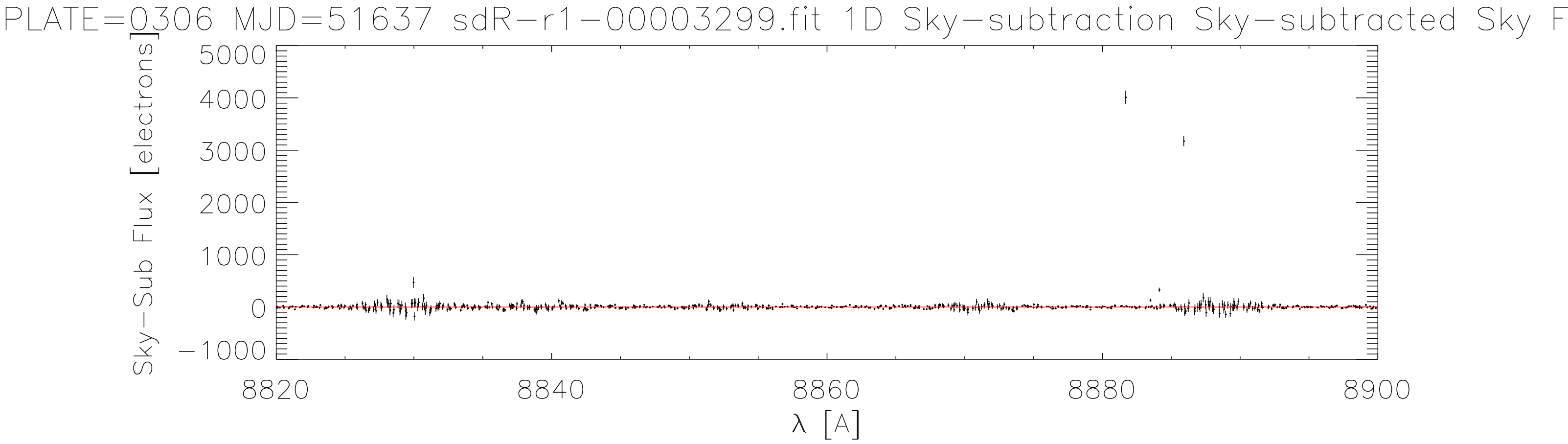

6300.3040
nfib1 16
nfib2 16
stdev 0.022
extrd 0.10
6363.7760
nfib1 15
nfib2 16
stdev 0.018
extrd 0.09
6553.6100
nfib1 16
nfib2 16
stdev 0.053
extrd 0.02
6923.2100
nfib1 16
nfib2 16
stdev 0.046
extrd 0.12
6949.0300
nfib1 16
nfib2 16
stdev 0.036
extrd 0.14
7571.7500
nfib1 16
nfib2 16
stdev 0.049
extrd 0.17
7794.1200
nfib1 16
nfib2 16
stdev 0.028
extrd 0.03
7821.5100
nfib1 16
nfib2 16
stdev 0.027
extrd 0.10
8399.1600
nfib1 16
nfib2 16
stdev 0.021
extrd 0.14
8430.1700
nfib1 16
nfib2 16
stdev 0.024
extrd 0.13
8885.8300
nfib1 15
nfib2 15
stdev 0.026
extrd 0.13
8919.6100
nfib1 16
nfib2 16
stdev 0.023
extrd 0.16
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400


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


PLATE=0306 MJD=51637 Smooth superflat for sdR-r1-00003299.fit
2.0
1.5
1.0
0.5
0.0
1.006
1.004
1.002
1.000
0.998
0.996
es= −0.0000
6000
7000
8000
9000
Wavelength (Å)

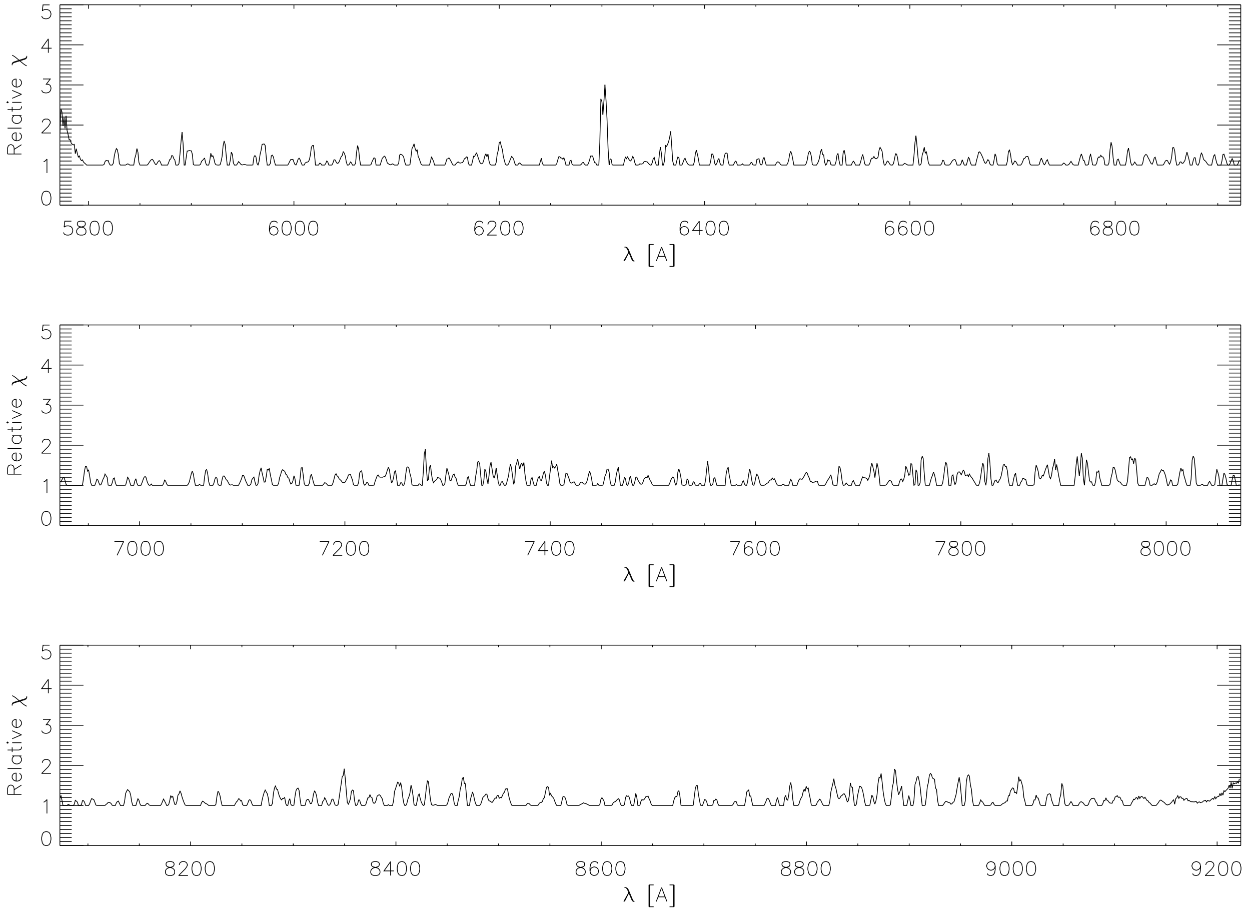

PLATE=0306 MJD=51637 sdR-r1-00003299.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.6
0.4
0.2
0.0
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
6
4
2
0
-2
-4
50
100
150
200
250
300
Fiber number

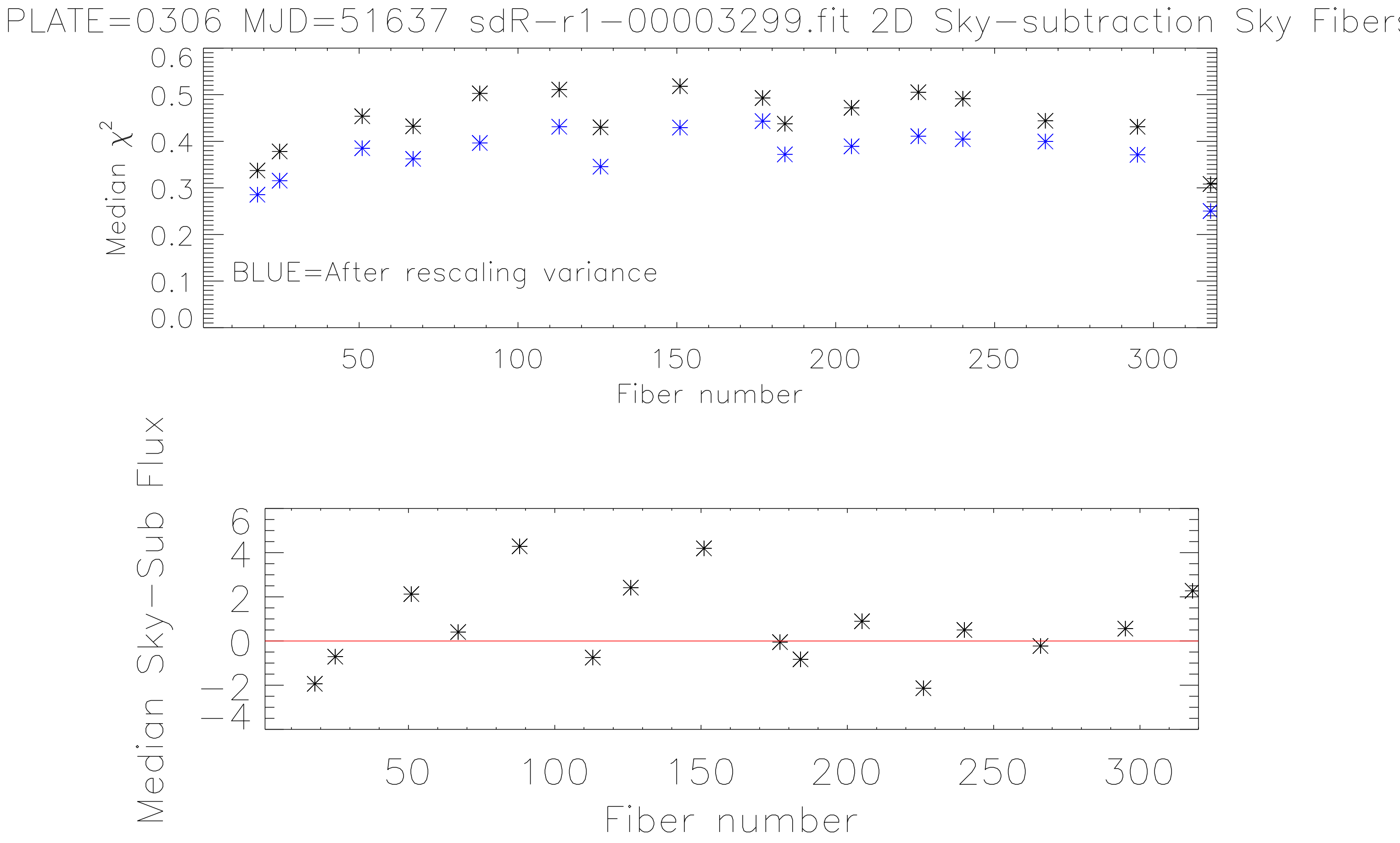

PLATE=0306 MJD=51637 sdR-r1-00003299.fit 1D Sky-subtraction Sky Fibers

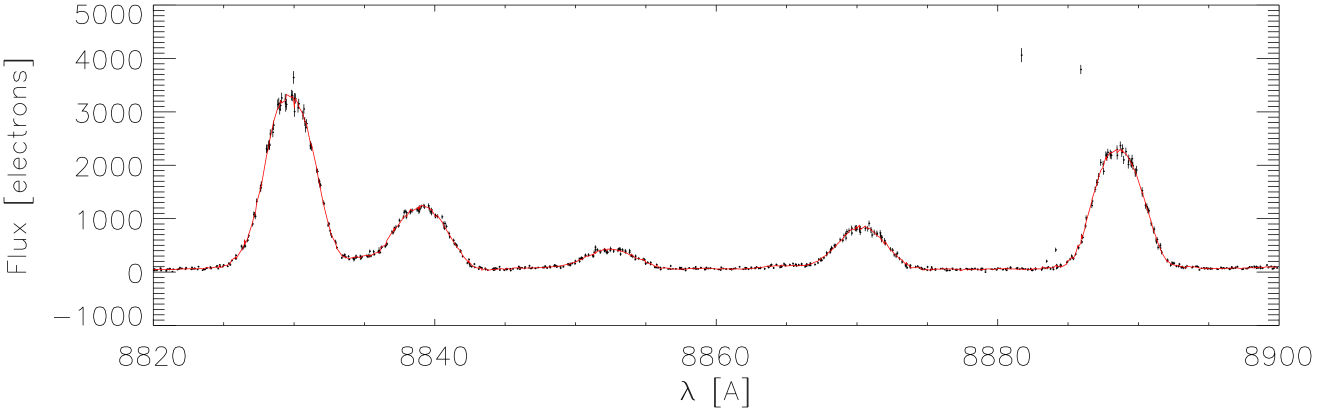

PLATE=0306 MJD=51637 sdR-r1-00003299.fit 1D Sky-subtraction Sky-subtracted Sky F

Number of sky fibers = 16

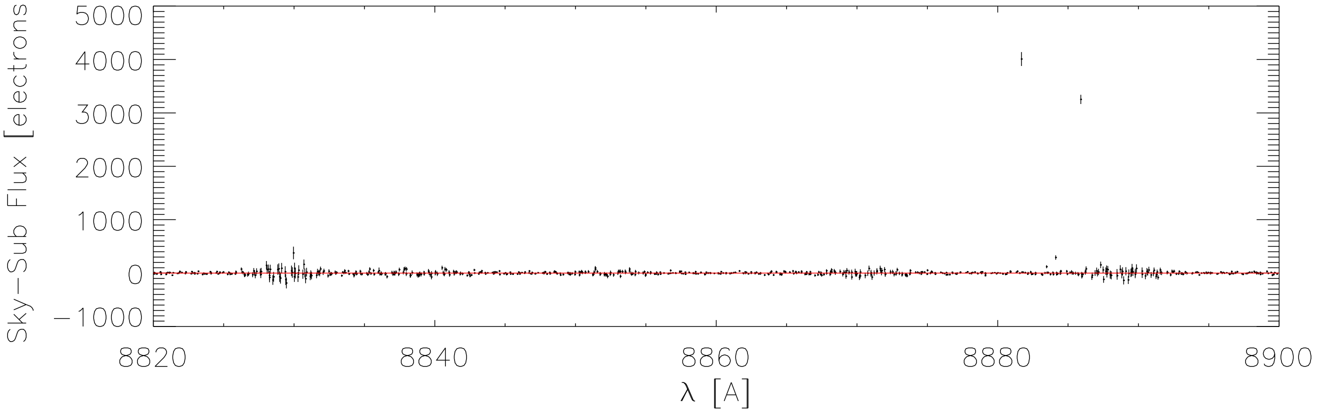
PLATE=0306 MJD=51637 sdR-r1-00003299.fit 1D Sky-subtraction Rescaled Errors




PLATE=0306 MJD=51637 sdR-r1-00003299.fit 2D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-4
-2
0
2
4
6
50
100
150
200
250
300
Fiber number



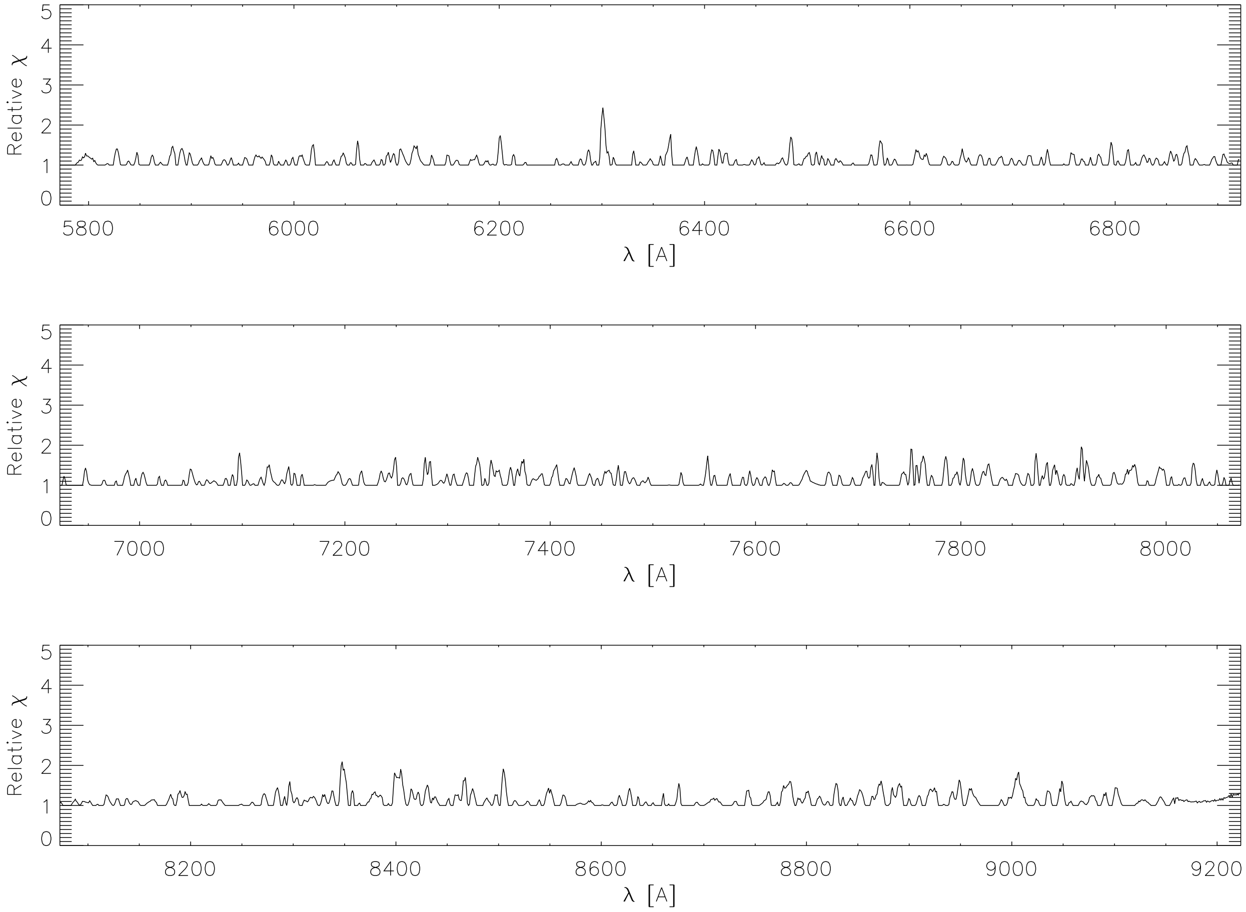
PLATE=0306 MJD=51637 sdR-r1-00003299.fit 2D Sky-subtraction Sky Fibers

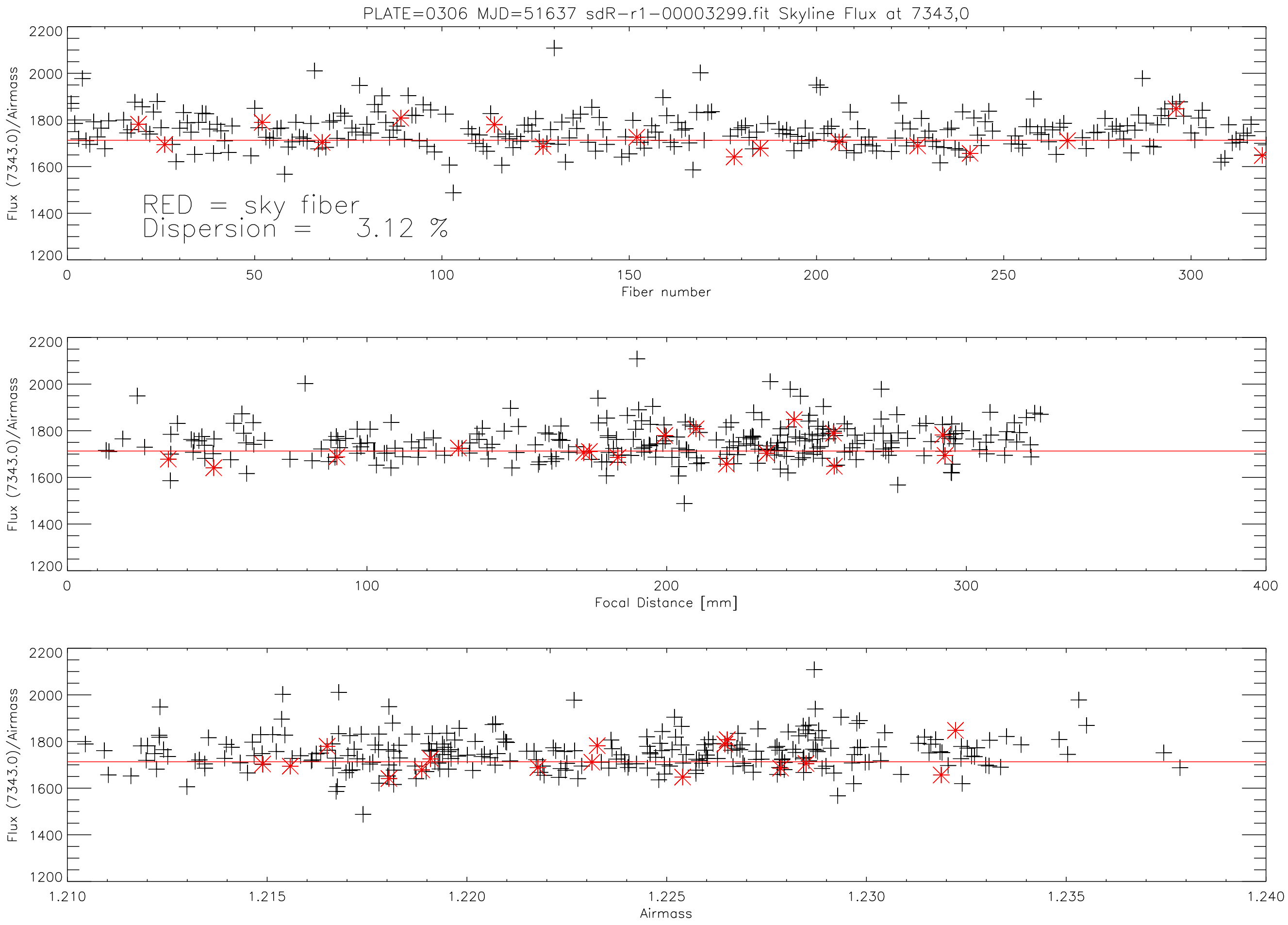


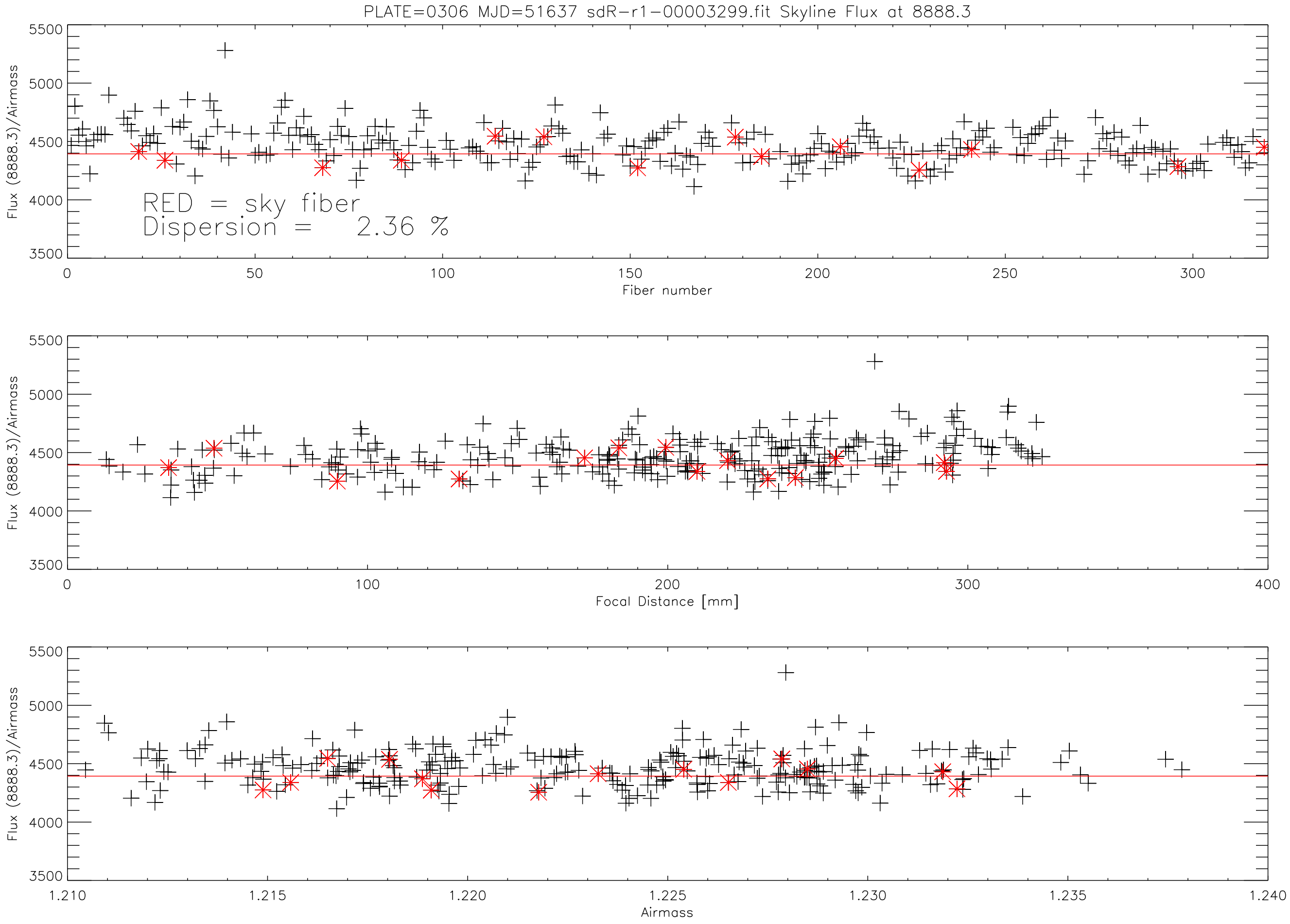
PLATE=0306 MJD=51637 sdR-r1-00003299.fit 2D Sky-subtraction Sky-subtracted Sky F

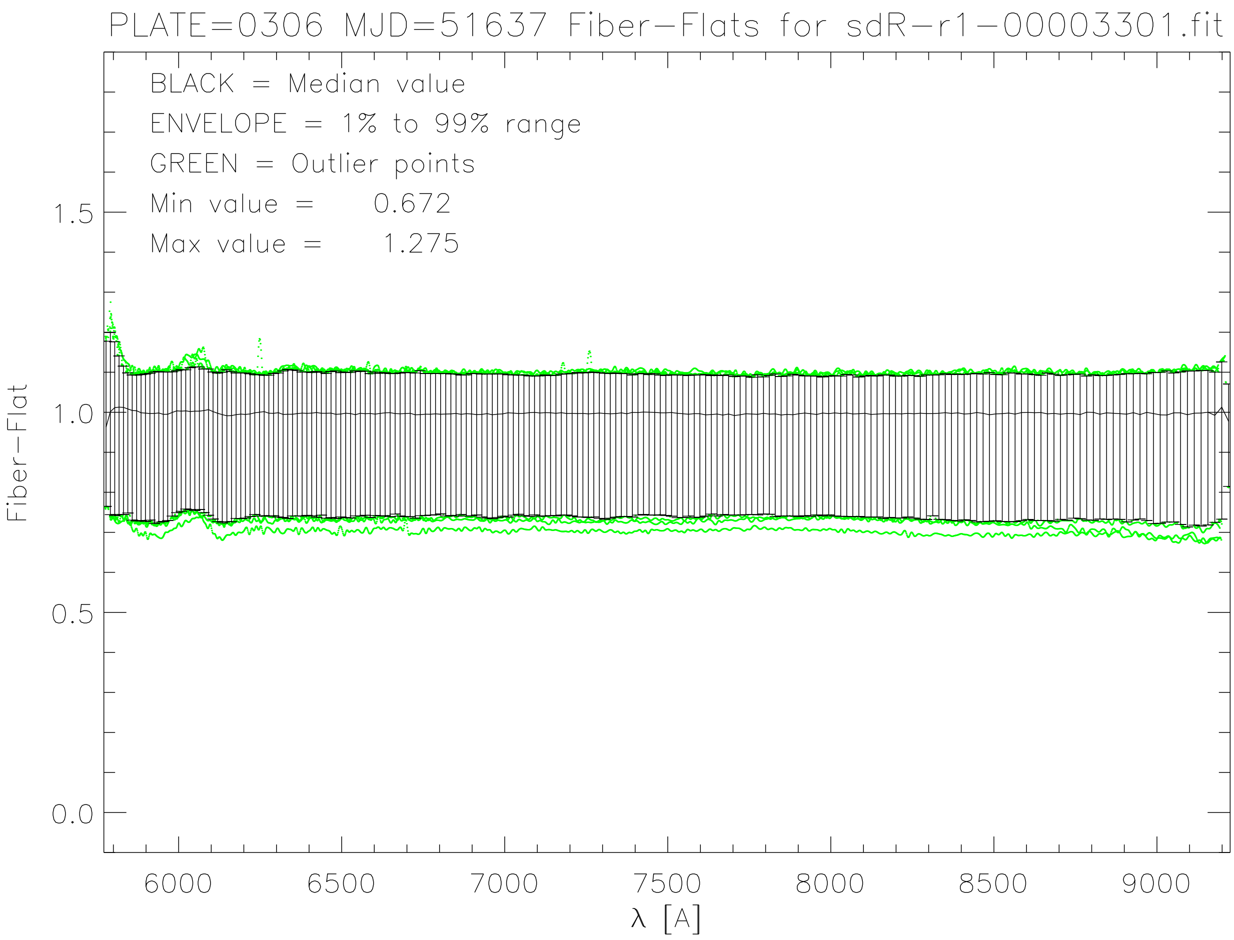
Number of sky fibers = 16

PLATE=0306 MJD=51637 sdR-r1-00003299.fit 2D Sky-subtraction Rescaled Errors

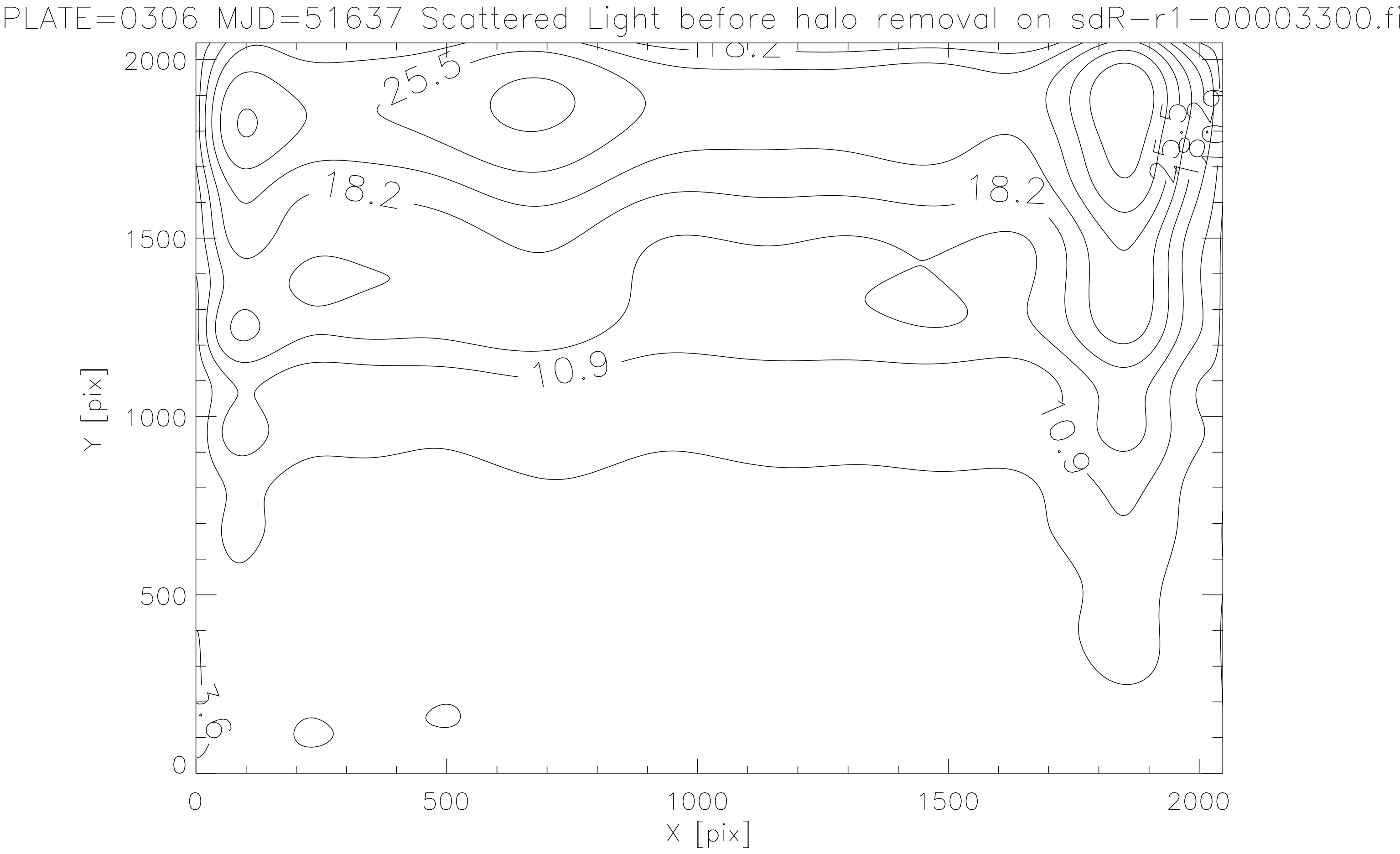



PLATE=0306 MJD=51637 sdR-r1-00003299.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
2200
2000
1800
1600
1400
1200
RED = sky fiber
Dispersion = 3.12 %
0
50
100
150
200
250
300
Fiber number
Flux (7343.0)/Airmass
2200
2000
1800
1600
1400
1200
0
100
200
300
400
Focal Distance [mm]
Flux (7343.0)/Airmass
2200
2000
1800
1600
1400
1200
1.210
1.215
1.220
1.225
1.230
1.235
1.240
Airmass

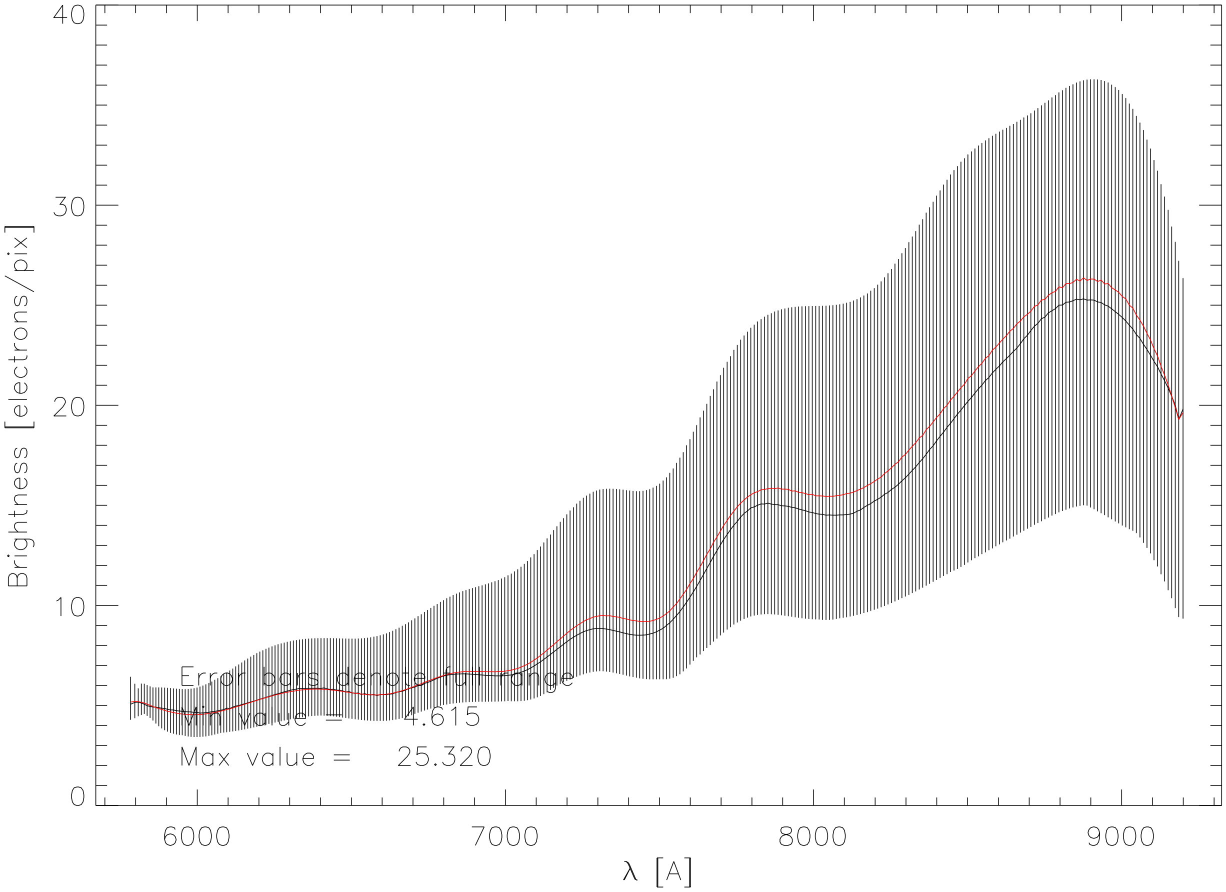

PLATE=0306 MJD=51637 sdR-r1-00003299.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
5500
5000
4500
4000
3500
RED = sky fiber
Dispersion = 2.36 %
0
50
100
150
200
250
300
Fiber number
Flux (8888.3)/Airmass
5500
5000
4500
4000
3500
0
100
200
300
400
Focal Distance [mm]
Flux (8888.3)/Airmass
5500
5000
4500
4000
3500
1.210
1.215
1.220
1.225
1.230
1.235
1.240
Airmass



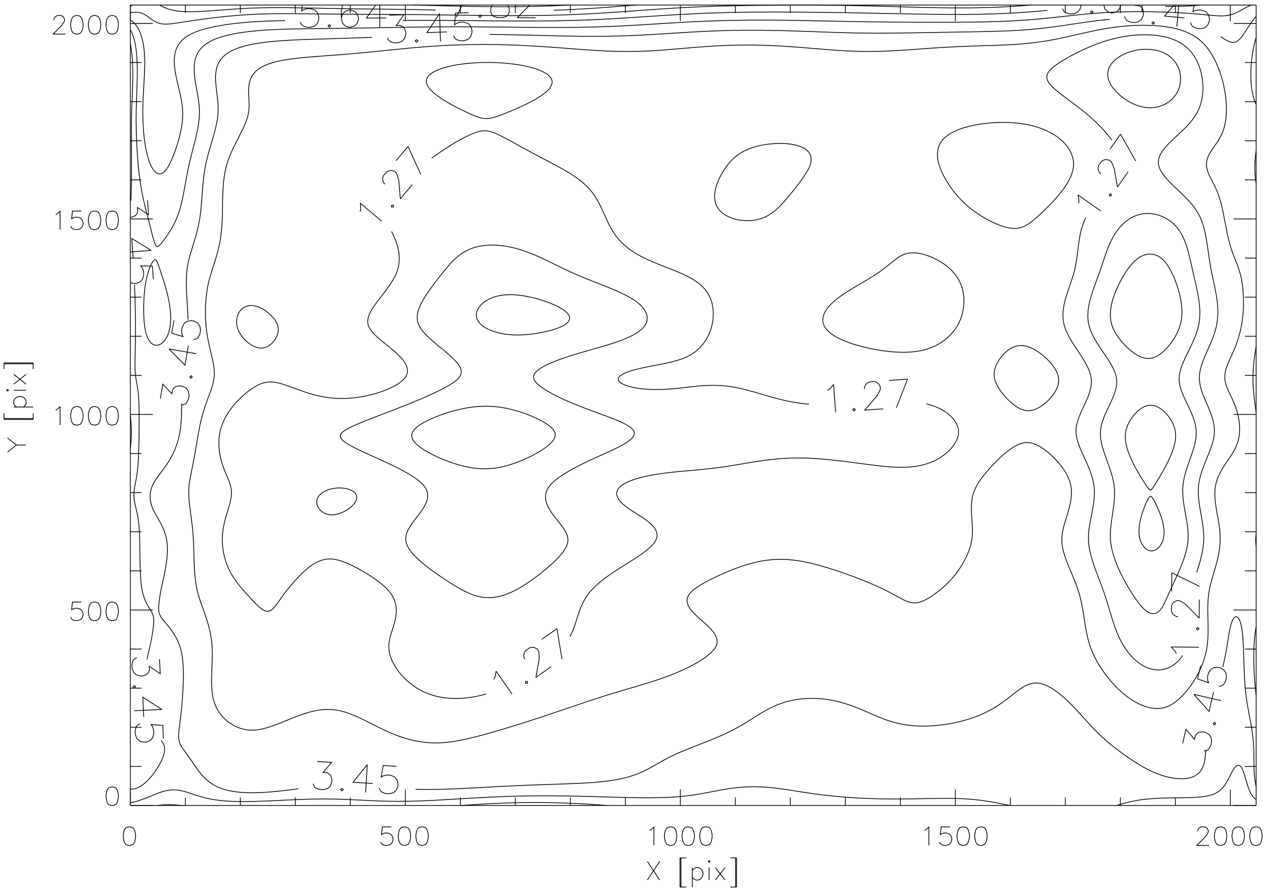
Sun Mar 2 14:39:16 2008

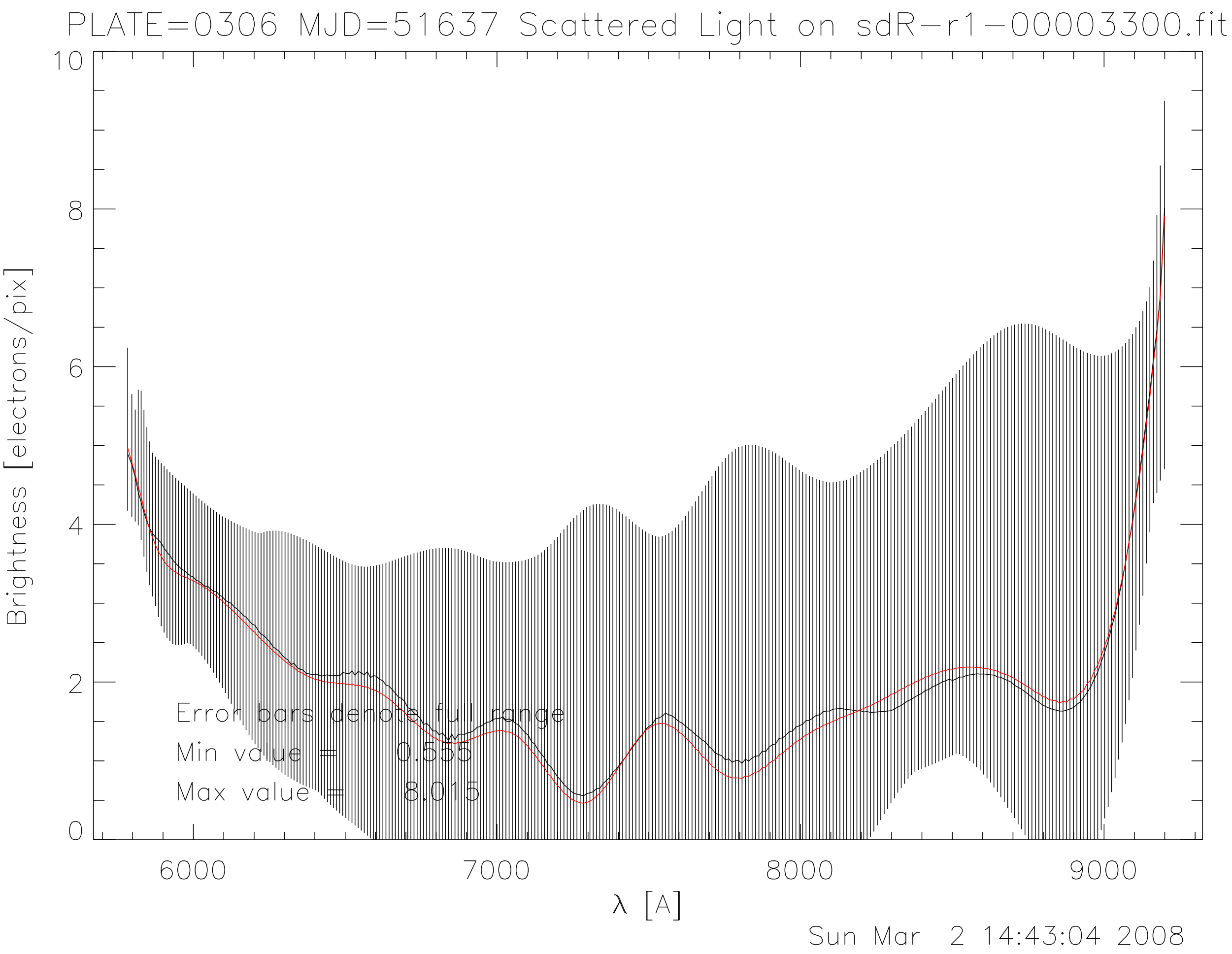

PLATE=0306 MJD=51637 Scattered Light before halo removal on sdR-r1-00003300.fi
Y [pix]
X [pix]
0
500
1000
1500
2000
0
500
1000
1500
2000
18.2
25.5
18.2
18.2
10.9
10.9
25.5
18.2
3.6

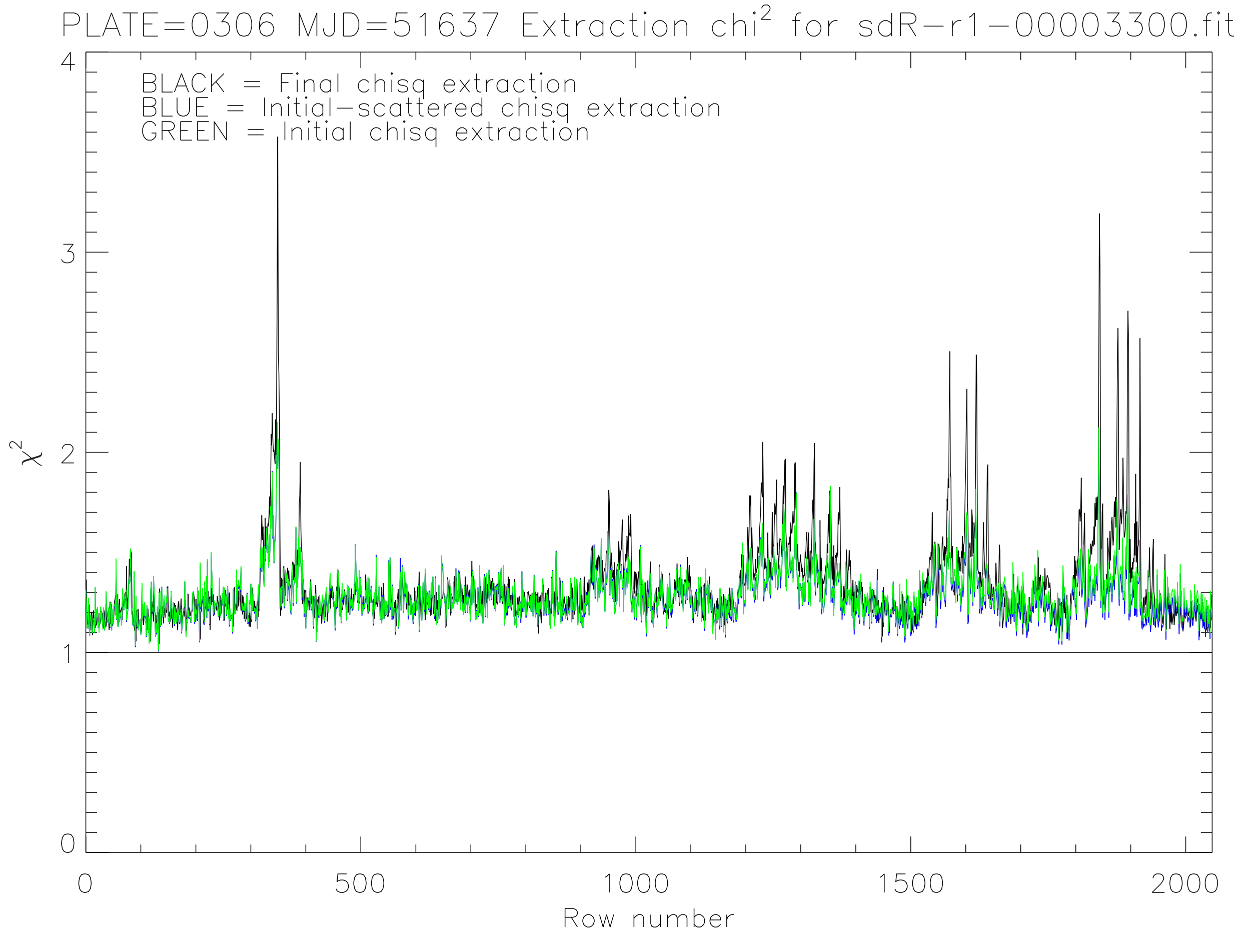
PLATE=0306 MJD=51637 Scattered Light before halo removal on sdR-r1-00003300.fi

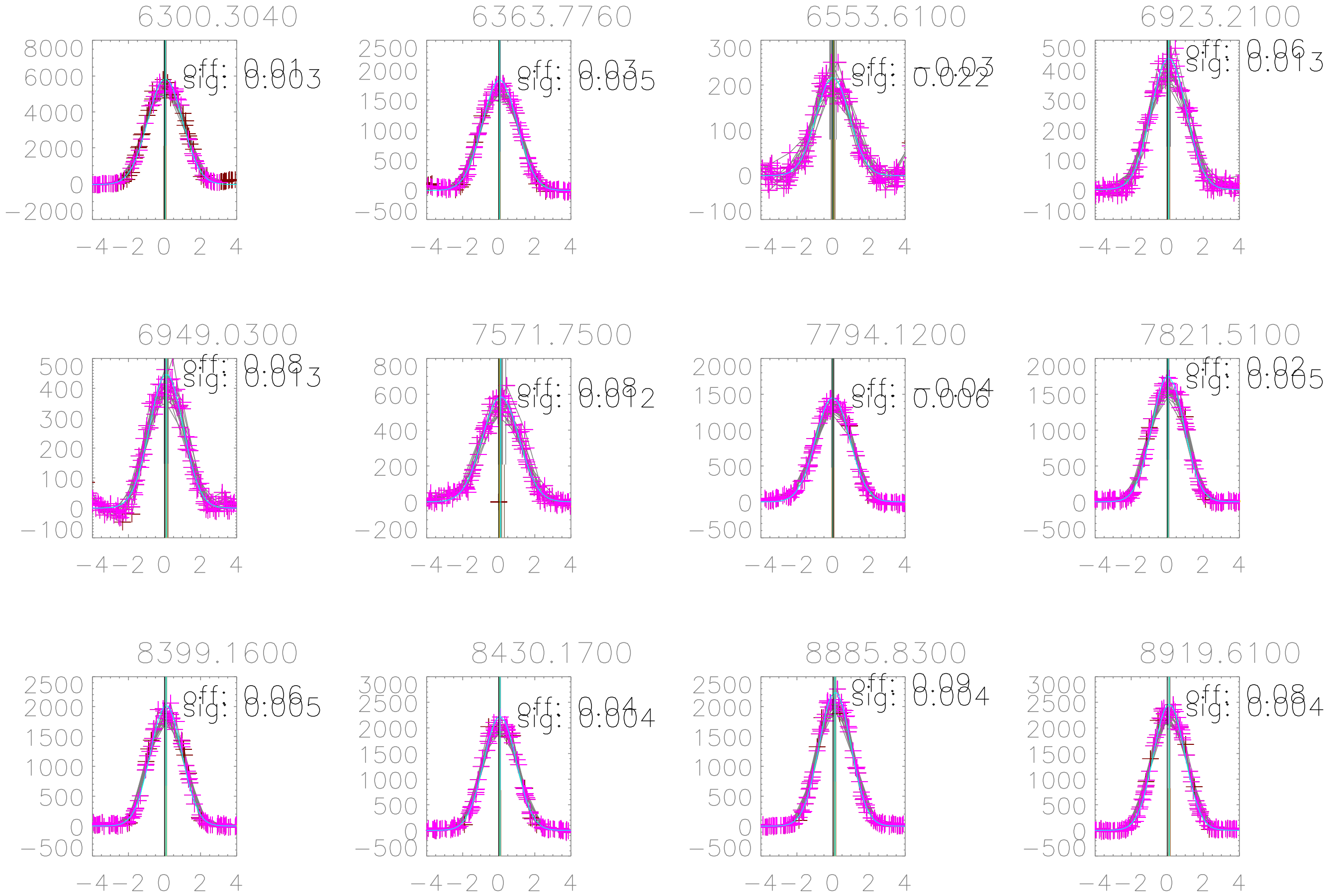


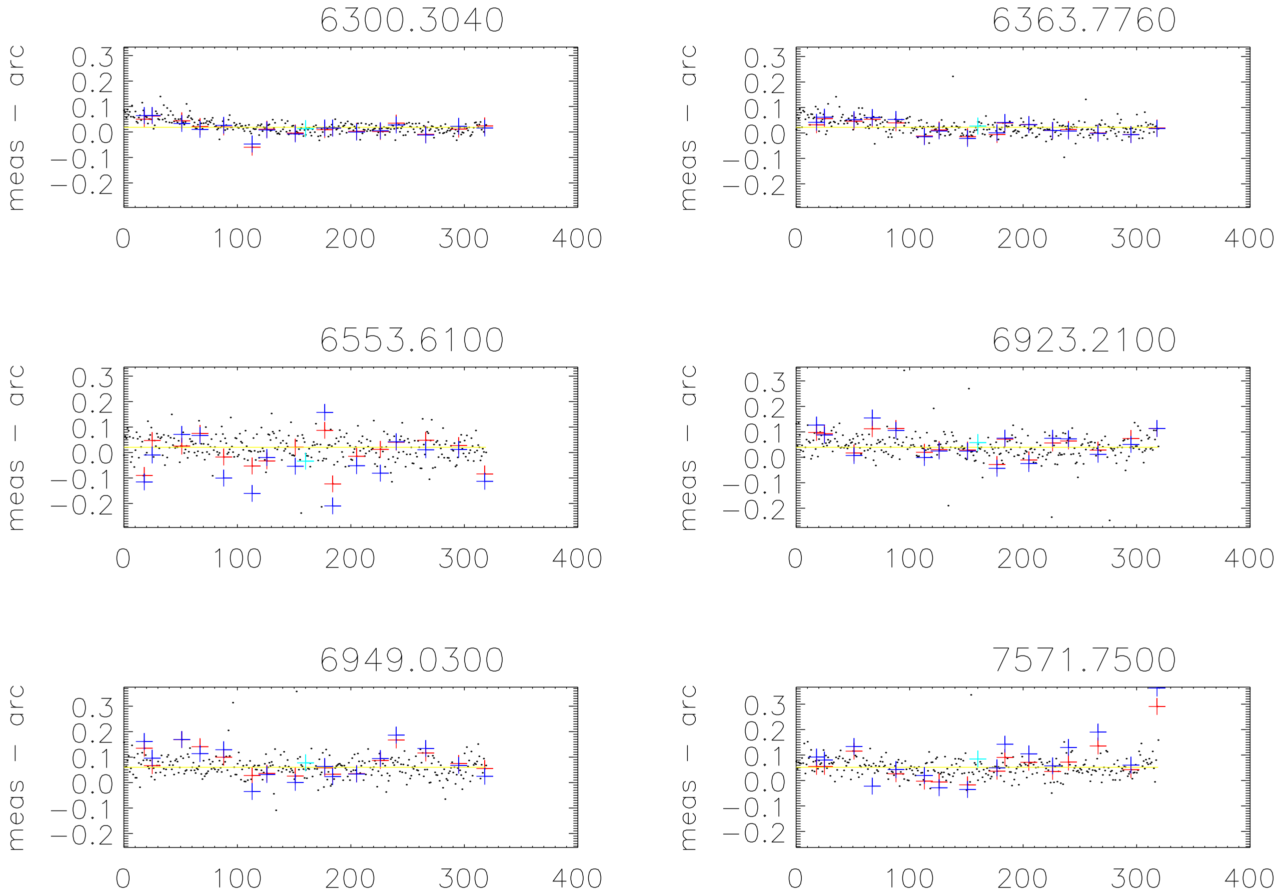
Sun Mar 2 14:40:07 2008

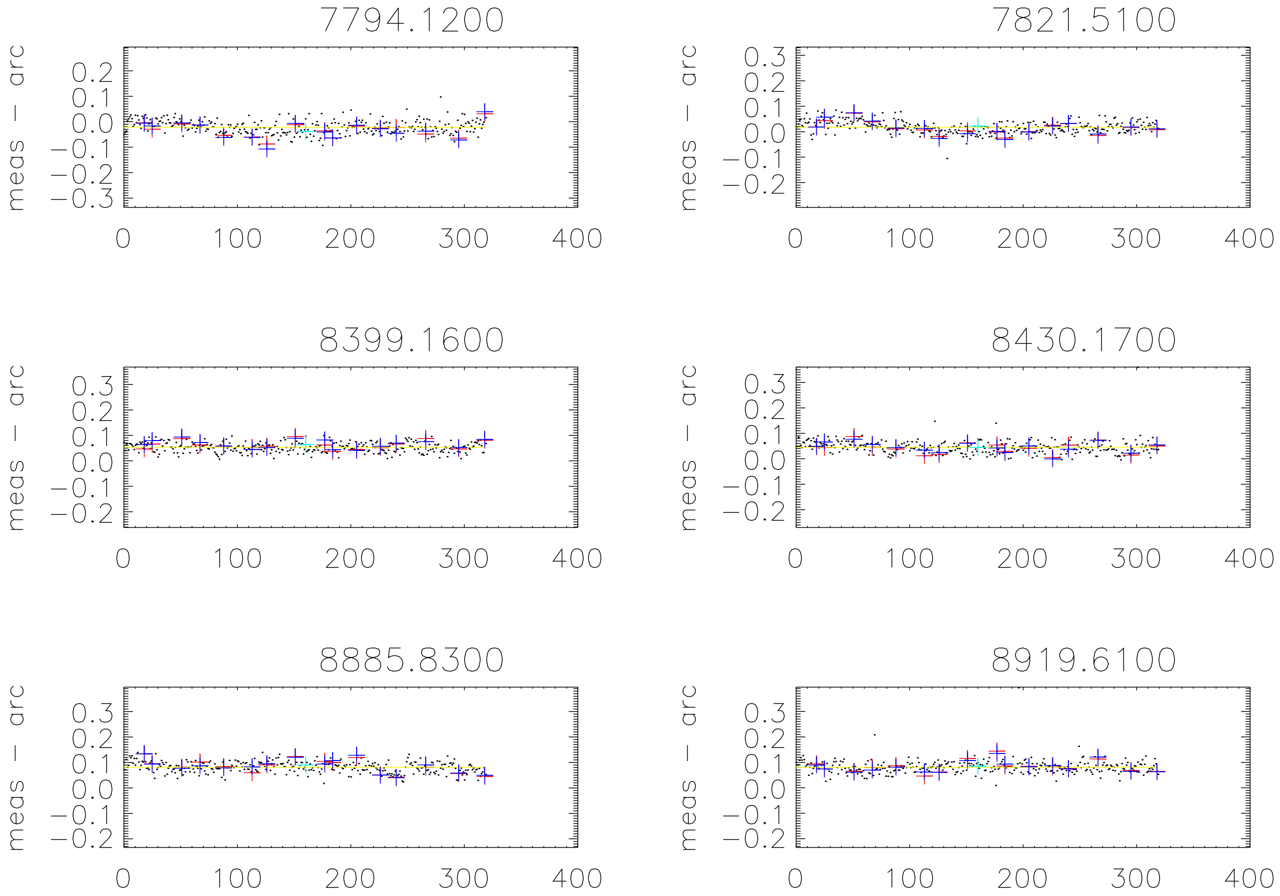

PLATE=0306 MJD=51637 Scattered Light on sdR-r1-00003300.fit

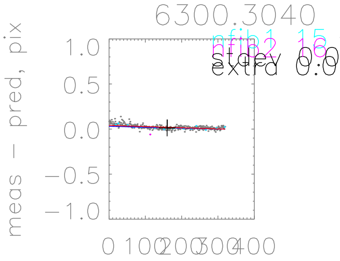

PLATE=0306 MJD=51637 Scattered Light on sdR-r1-00003300.fit
Brightness [electrons/pix]
0
2
4
6
8
10
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 0.555
Max value = 8.015
Sun Mar 2 14:43:04 2008

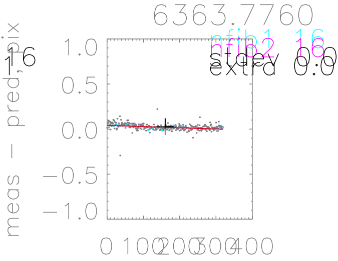

PLATE=0306 MJD=51637 Extraction chi^2 for sdR-r1-00003300.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
0
500
1000
1500
2000
Row number

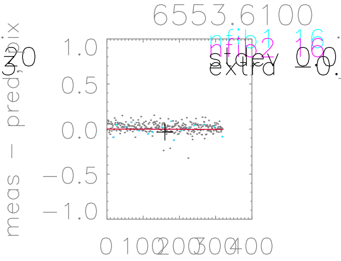

6300.3040
off: 0.01
sig: 0.003
6363.7760
off: 0.03
sig: 0.005
6553.6100
off: −0.03
sig: 0.022
6923.2100
off: 0.06
sig: 0.013
6949.0300
off: 0.08
sig: 0.013
7571.7500
off: 0.08
sig: 0.012
7794.1200
off: −0.04
sig: 0.006
7821.5100
off: 0.02
sig: 0.005
8399.1600
off: 0.06
sig: 0.005
8430.1700
off: 0.04
sig: 0.004
8885.8300
off: 0.09
sig: 0.004
8919.6100
off: 0.08
sig: 0.004
−4 −2 0 2 4

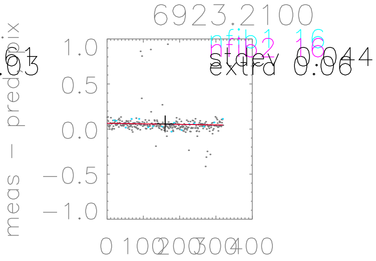

6300.3040
6363.7760
6553.6100
6923.2100
6949.0300
7571.7500
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

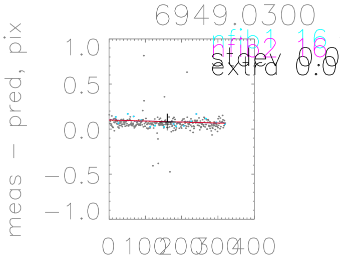

7794.1200
7821.5100
8399.1600
8430.1700
8885.8300
8919.6100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

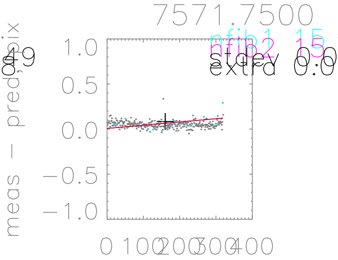

6300.3040
nfib1 15
nfib2 16
stdev 0.016
extrd 0.01
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400

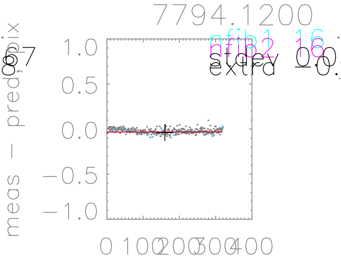

6363.7760
nfib1 16
nfib2 16
stdev 0.020
extrd 0.03
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400

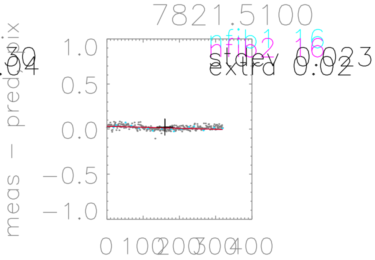

6553.6100
nfib1 16
nfib2 16
stdev 0.061
extrd −0.03
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400

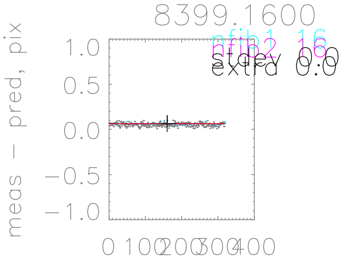

6923.2100
nfib1 16
nfib2 16
stdev 0.044
extrd 0.06
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400

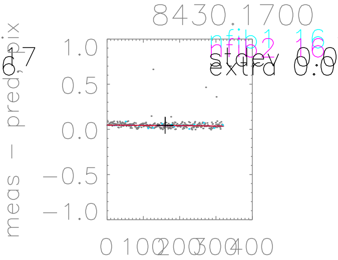

6949.0300
nfib1 16
nfib2 16
stdev 0.049
extrd 0.08
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400

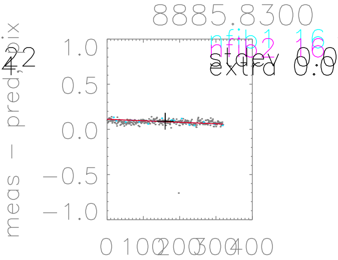

7571.7500
nfib1 15
nfib2 15
stdev 0.087
extrd 0.08
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400

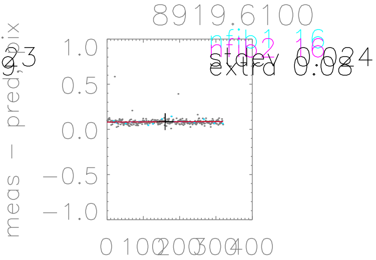

7794.1200
nfib1 16
nfib2 16
stdev 0.030
extrd −0.04
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400

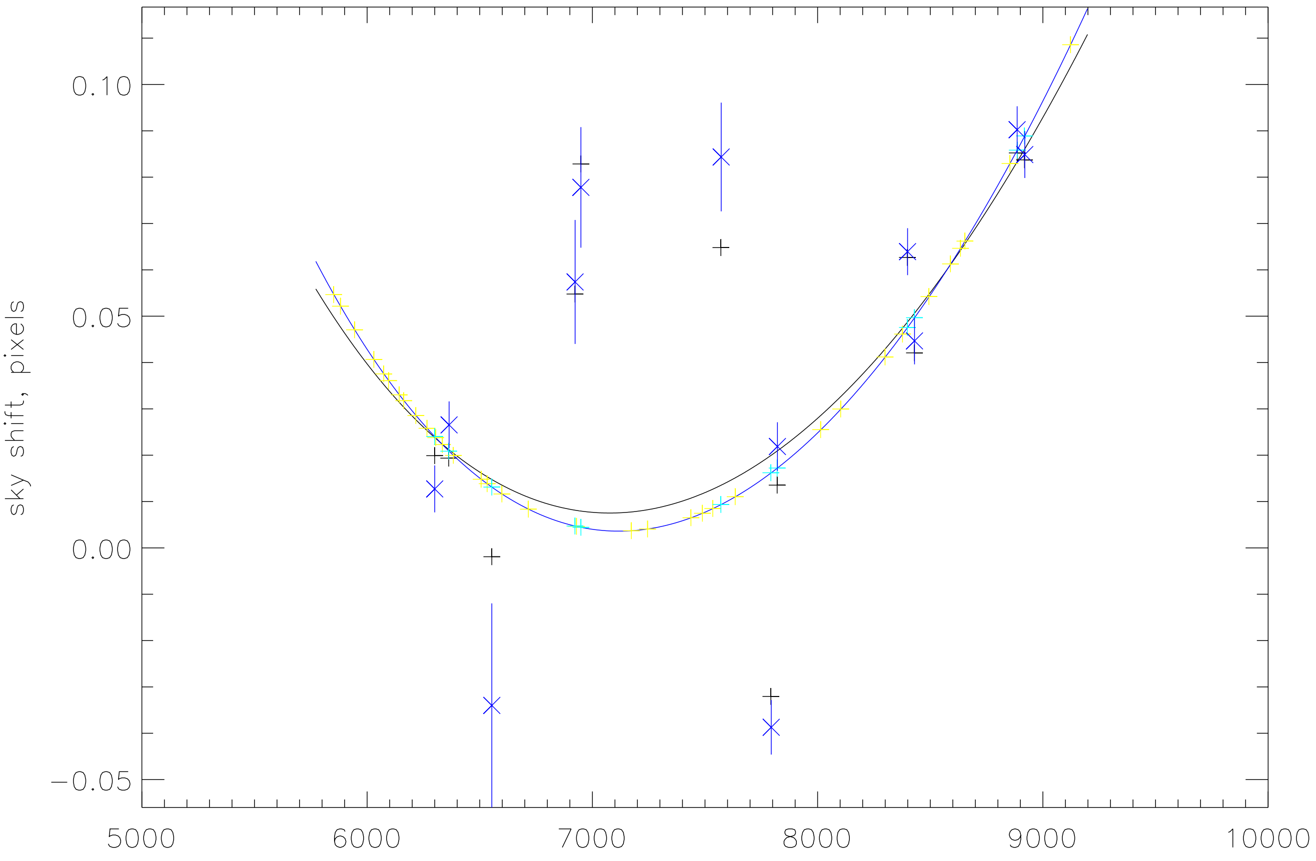

7821.5100
nfib1 16
nfib2 16
stdev 0.023
extrd 0.02
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400

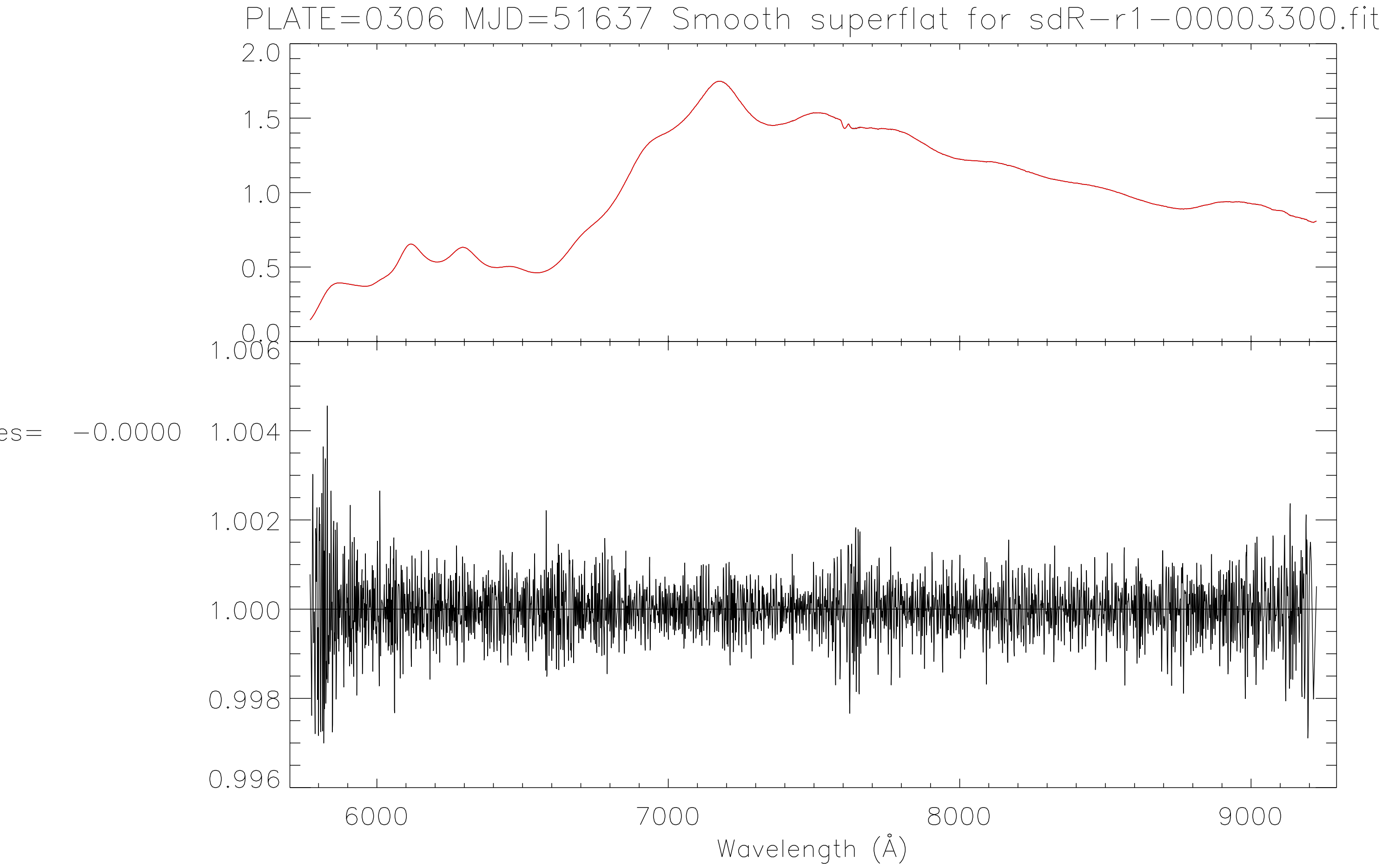

8399.1600
nfib1 16
nfib2 16
stdev 0.017
extrd 0.06
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400

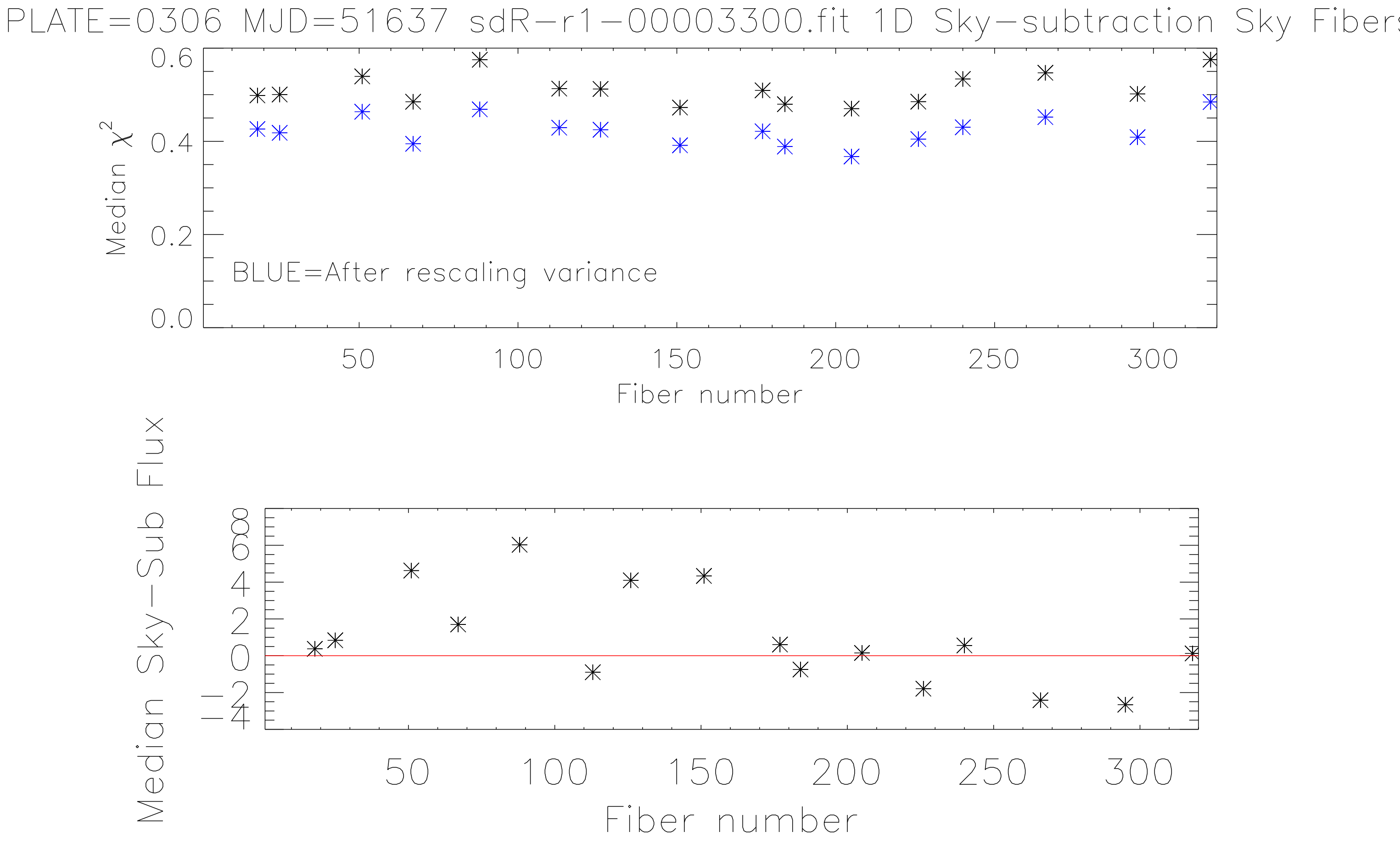

8430.1700
nfib1 16
nfib2 16
stdev 0.022
extrd 0.04
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400

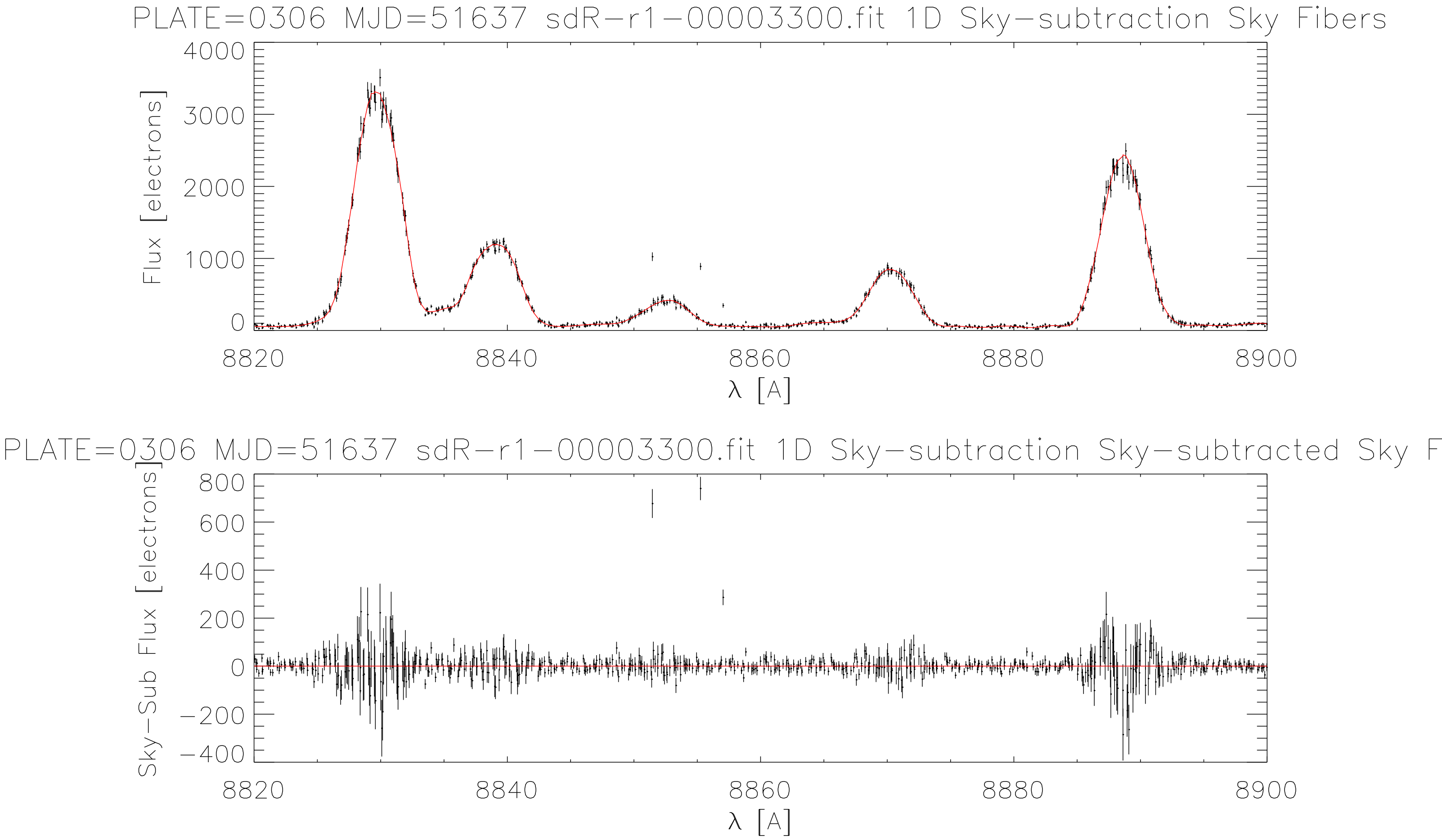

8885.8300
nfib1 16
nfib2 16
stdev 0.023
extrd 0.09
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400


8919.6100
nfib1 16
nfib2 16
stdev 0.024
extrd 0.08
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0 100 200 300 400


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

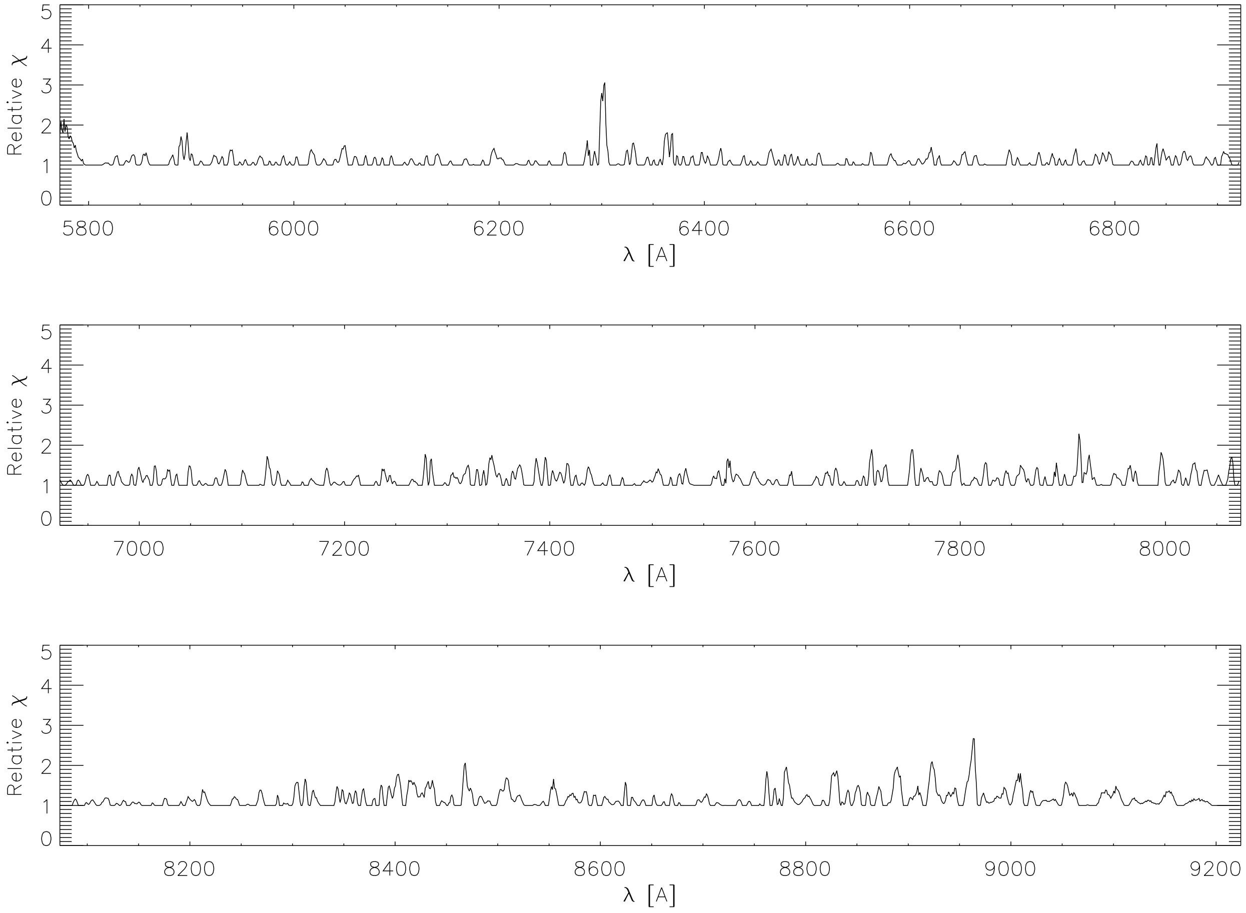

PLATE=0306 MJD=51637 Smooth superflat for sdR-r1-00003300.fit
2.0
1.5
1.0
0.5
0.0
1.006
1.004
1.002
1.000
0.998
0.996
es=
−0.0000
6000
7000
8000
9000
Wavelength (Å)

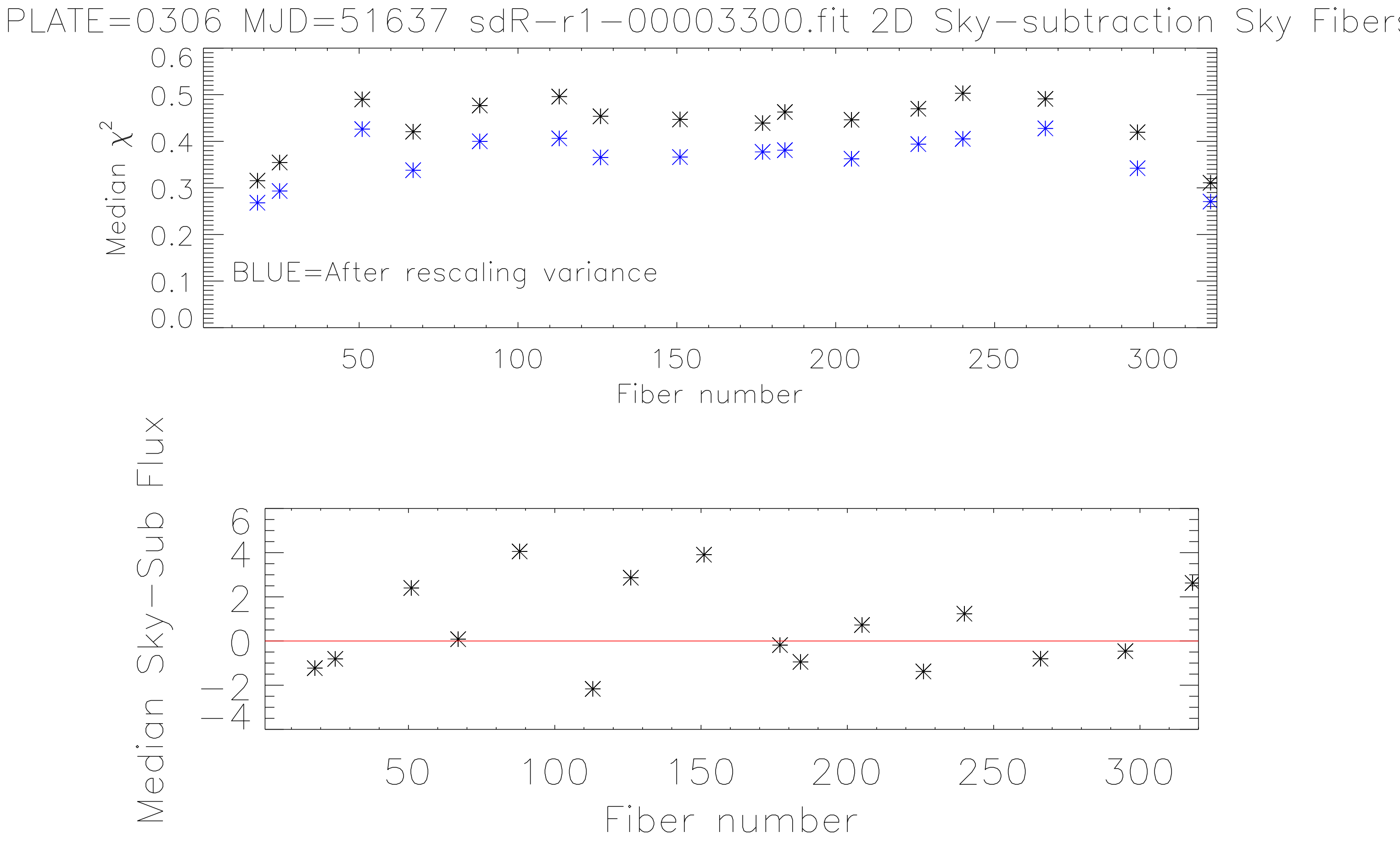

PLATE=0306 MJD=51637 sdR-r1-00003300.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.2
0.4
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-4
-2
0
2
4
6
8
50
100
150
200
250
300
Fiber number

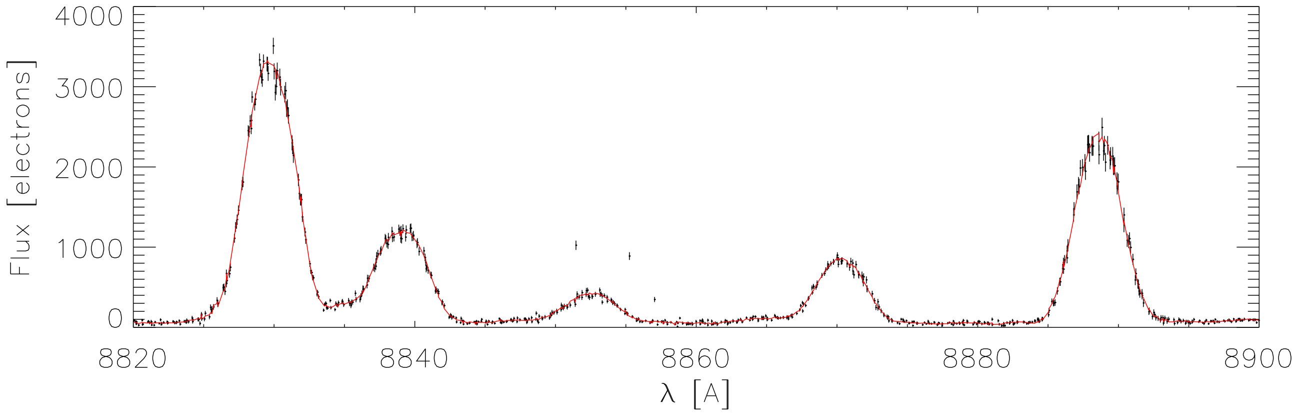

PLATE=0306 MJD=51637 sdR-r1-00003300.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]
PLATE=0306 MJD=51637 sdR-r1-00003300.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
800
600
400
200
0
−200
−400
8820
8840
8860
8880
8900
λ [A]

Number of sky fibers = 16

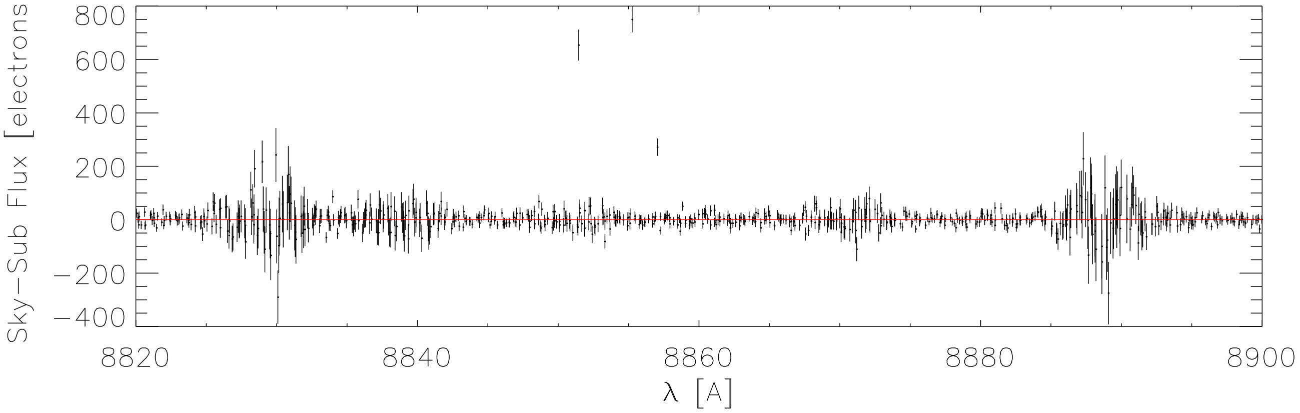
PLATE=0306 MJD=51637 sdR-r1-00003300.fit 1D Sky-subtraction Rescaled Errors




PLATE=0306 MJD=51637 sdR-r1-00003300.fit 2D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-4
-2
0
2
4
6
50
100
150
200
250
300
Fiber number



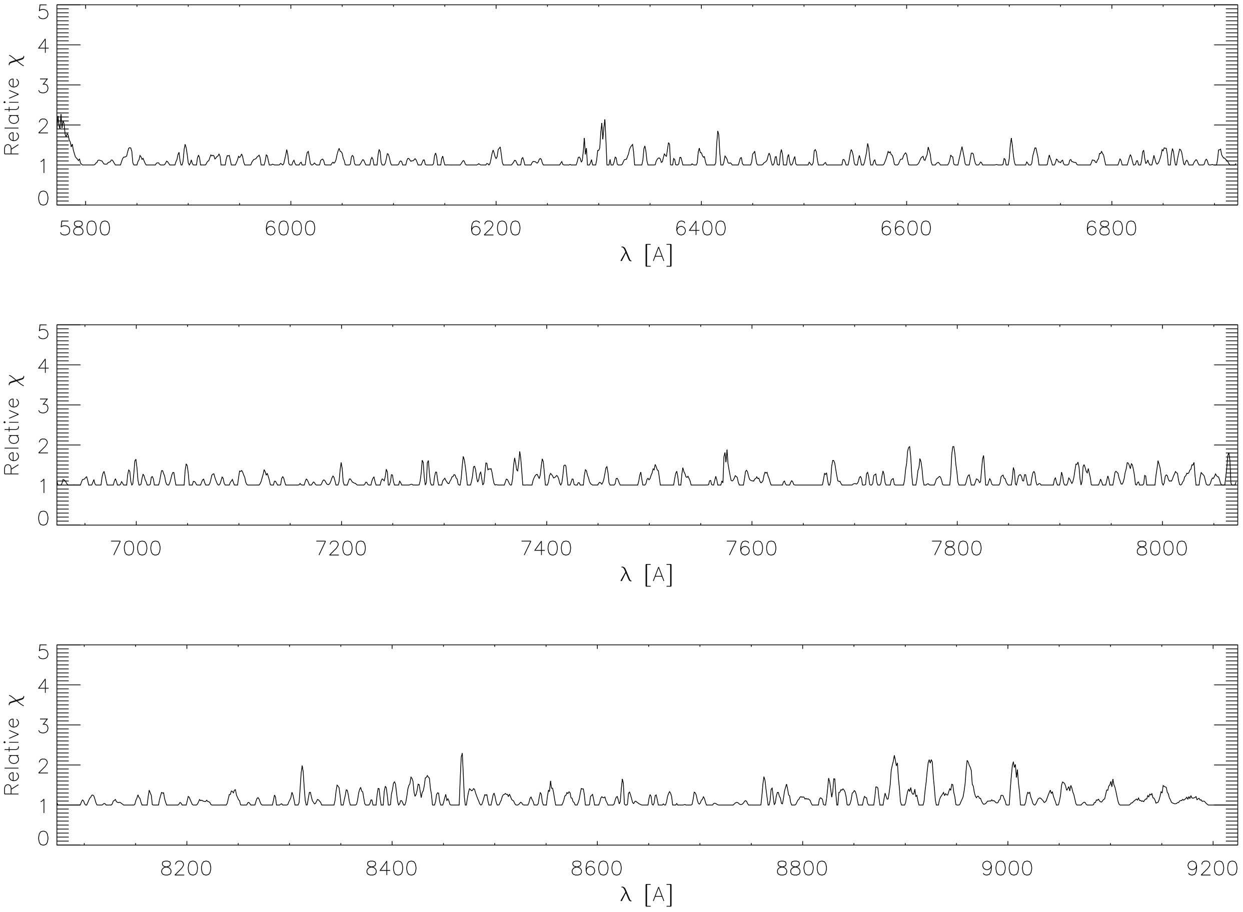
PLATE=0306 MJD=51637 sdR-r1-00003300.fit 2D Sky-subtraction Sky Fibers

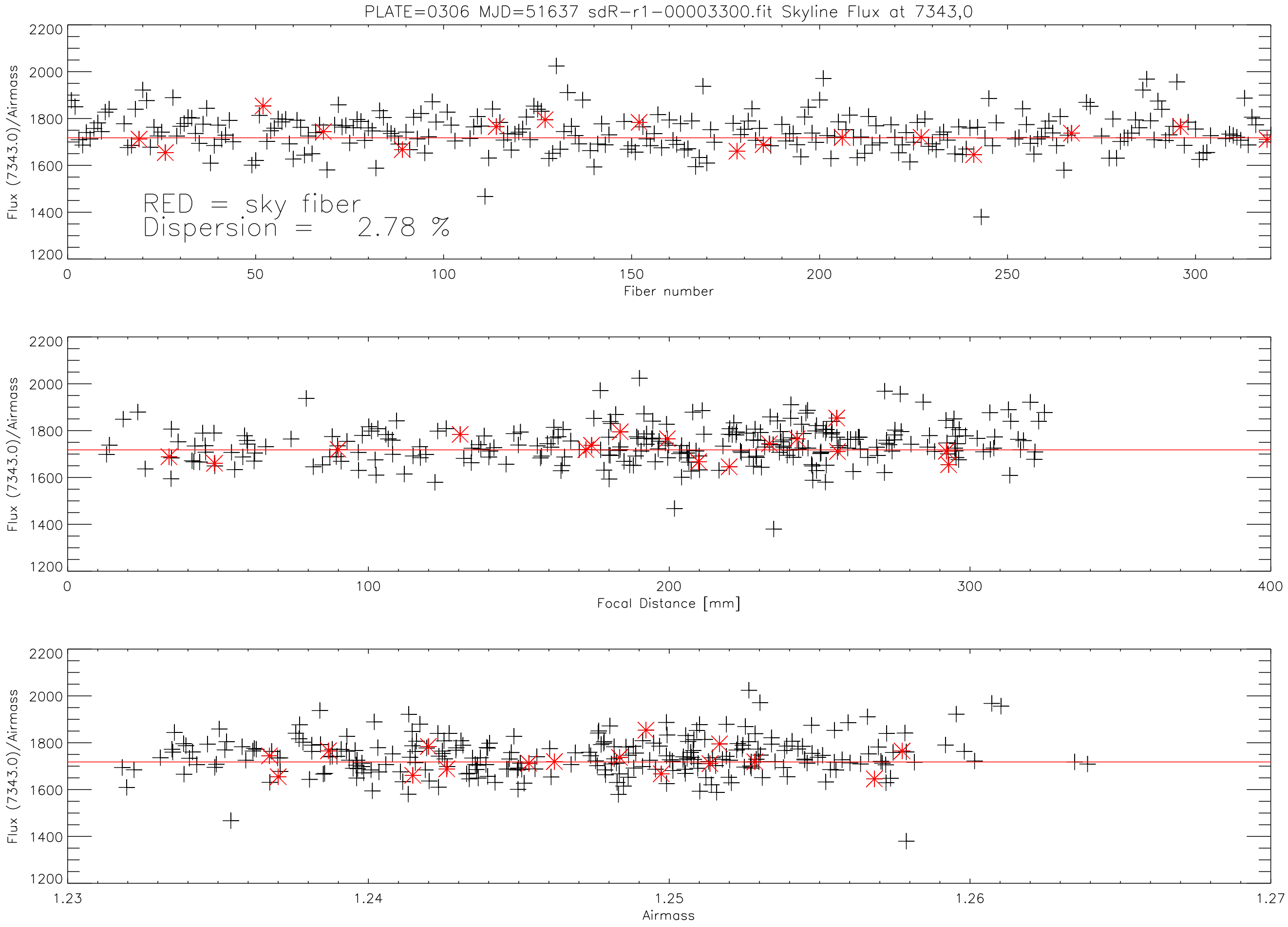


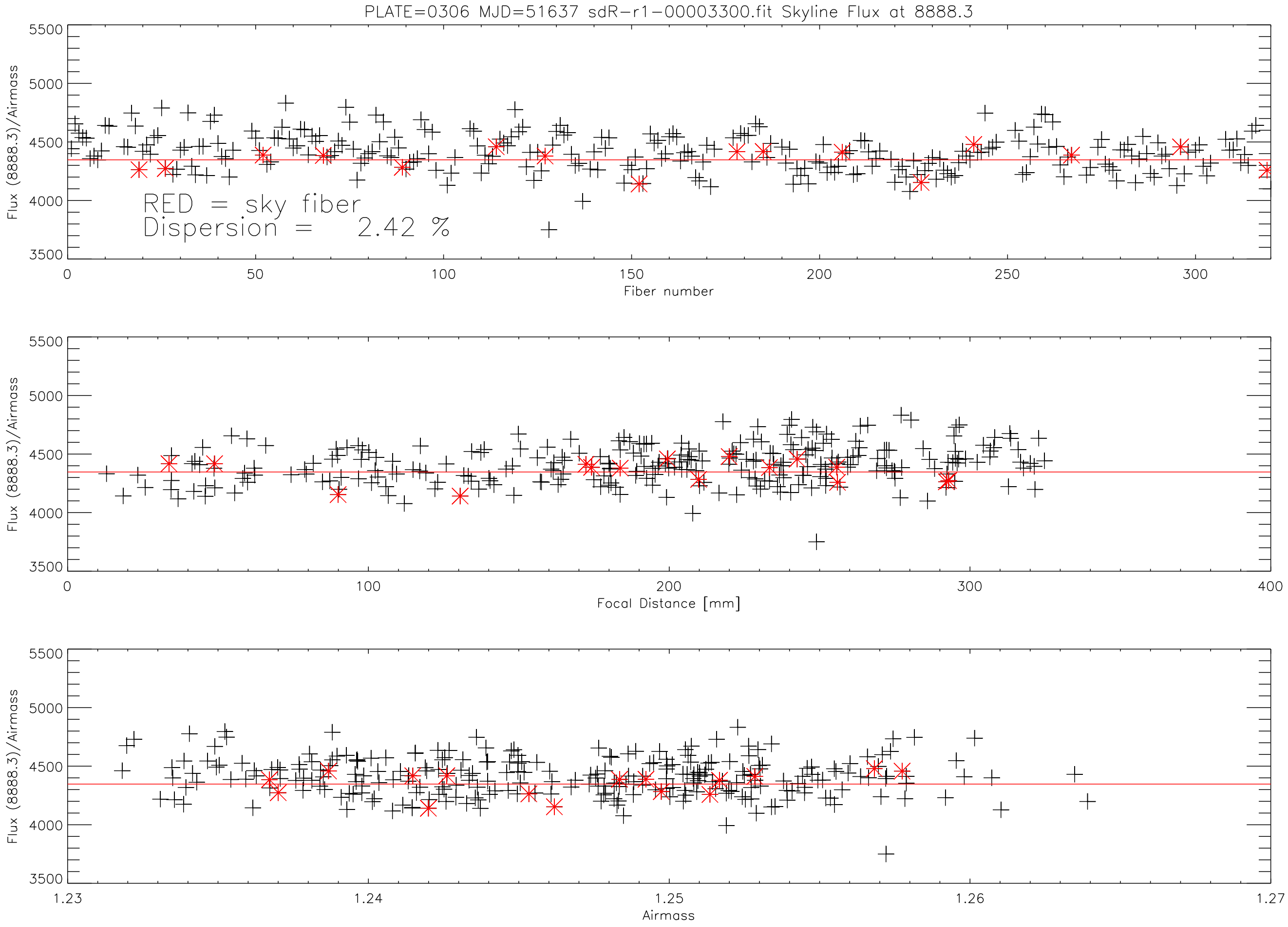
PLATE=0306 MJD=51637 sdR-r1-00003300.fit 2D Sky-subtraction Sky-subtracted Sky F

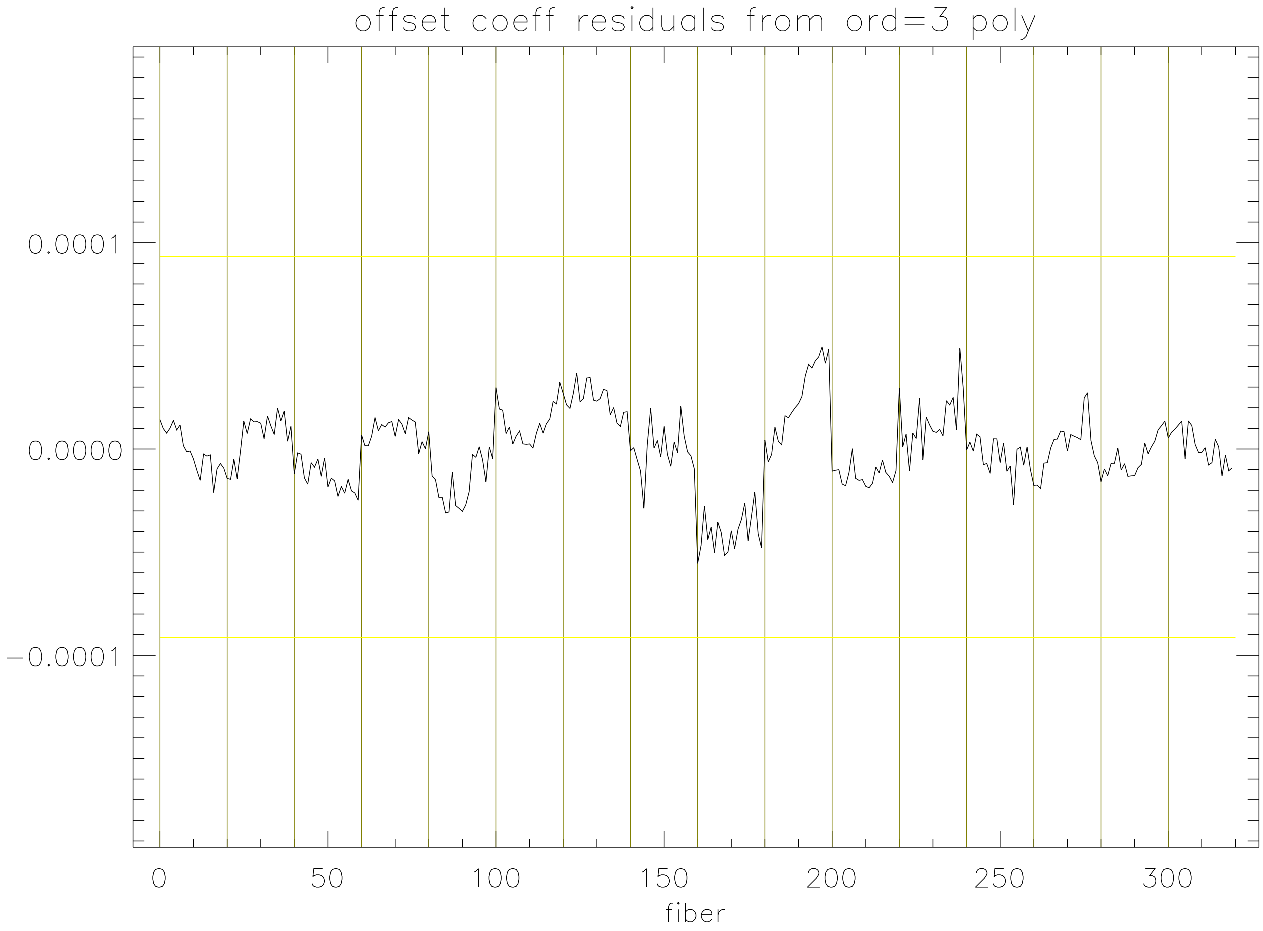
Number of sky fibers = 16

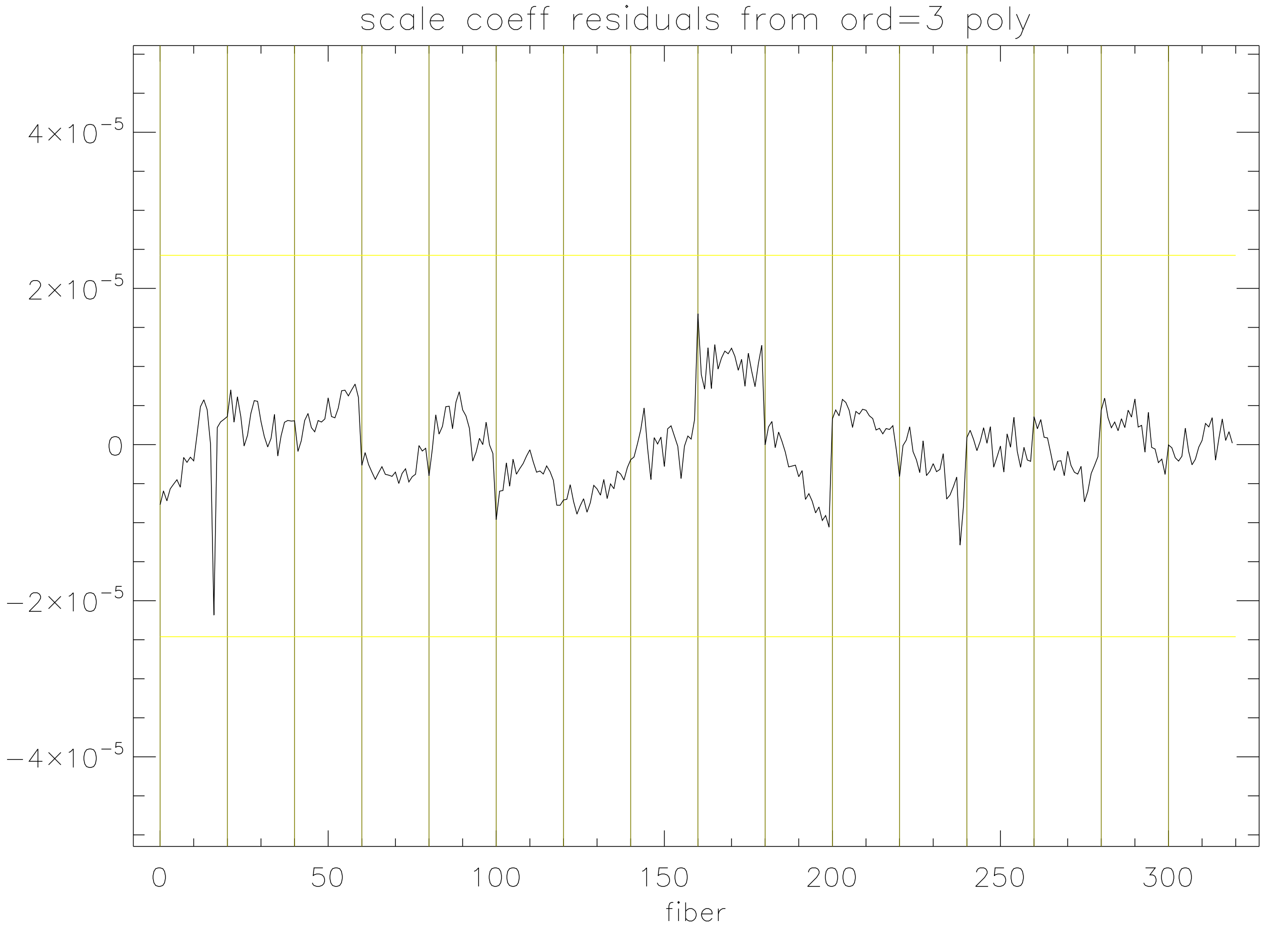
PLATE=0306 MJD=51637 sdR-r1-00003300.fit 2D Sky-subtraction Rescaled Errors

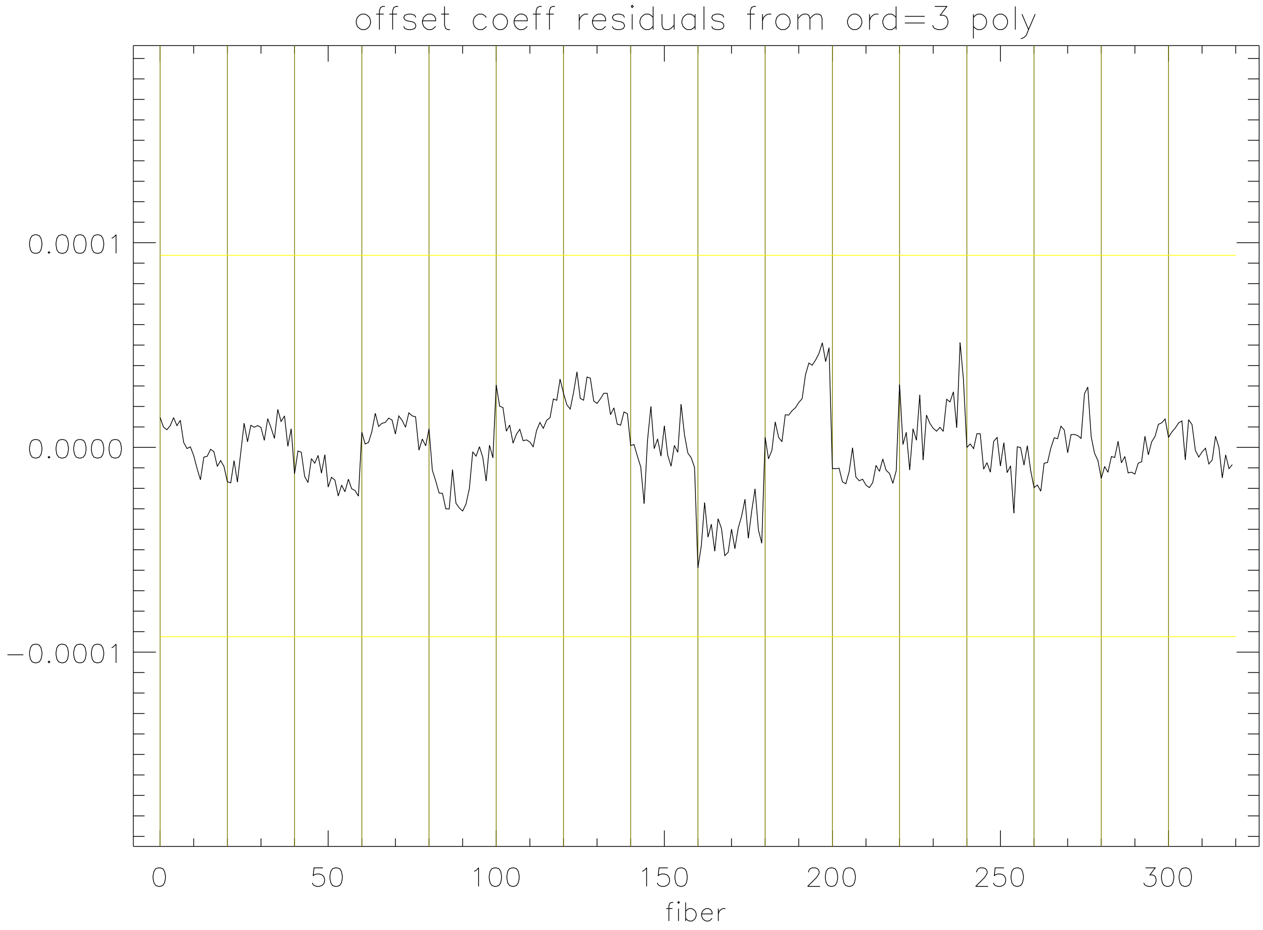


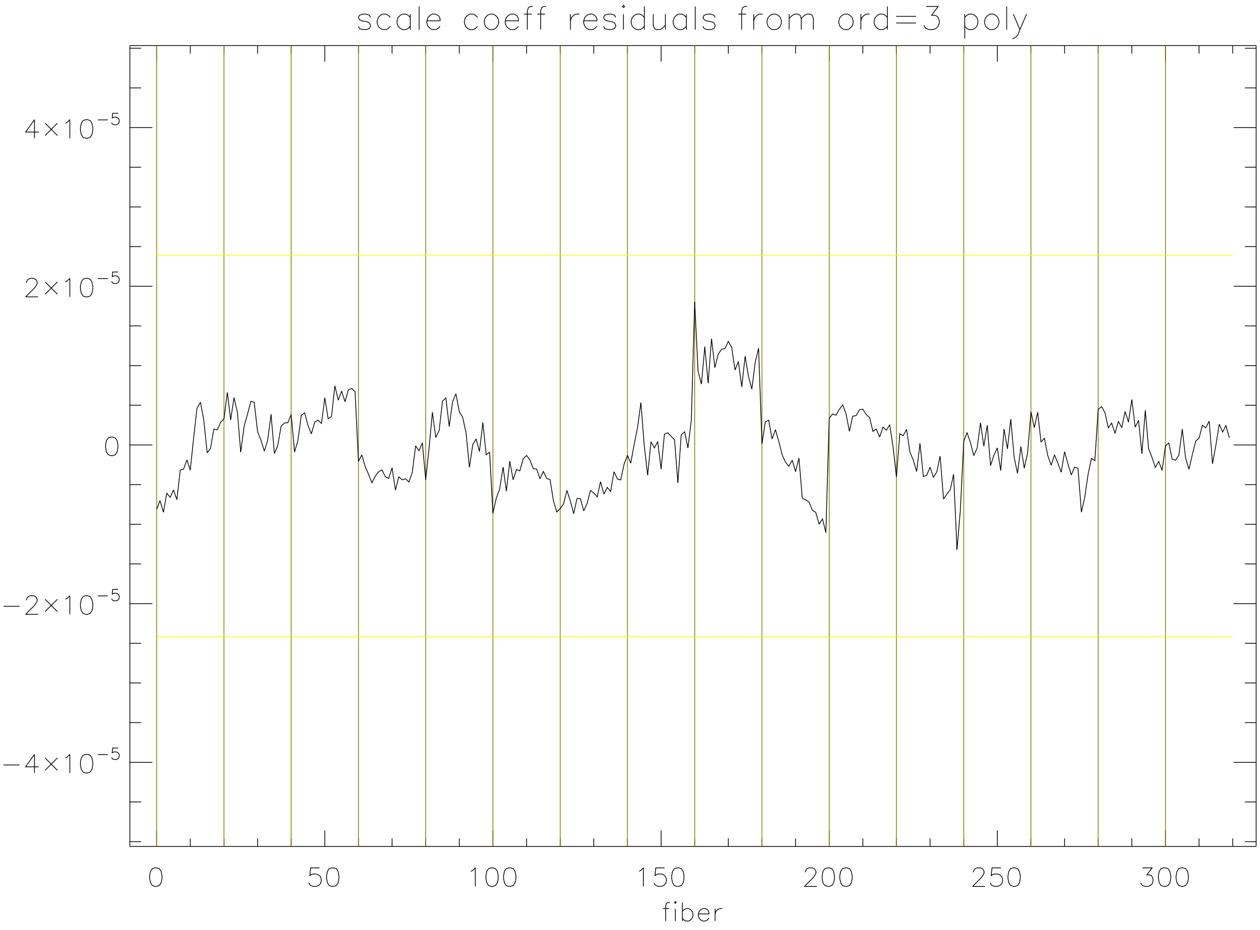

PLATE=0306 MJD=51637 sdR-r1-00003300.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
2200
2000
1800
1600
1400
1200
0
50
100
150
200
250
300
Fiber number
RED = sky fiber
Dispersion = 2.78 %
Flux (7343.0)/Airmass
2200
2000
1800
1600
1400
1200
0
100
200
300
400
Focal Distance [mm]
Flux (7343.0)/Airmass
2200
2000
1800
1600
1400
1200
1.23
1.24
1.25
1.26
1.27
Airmass

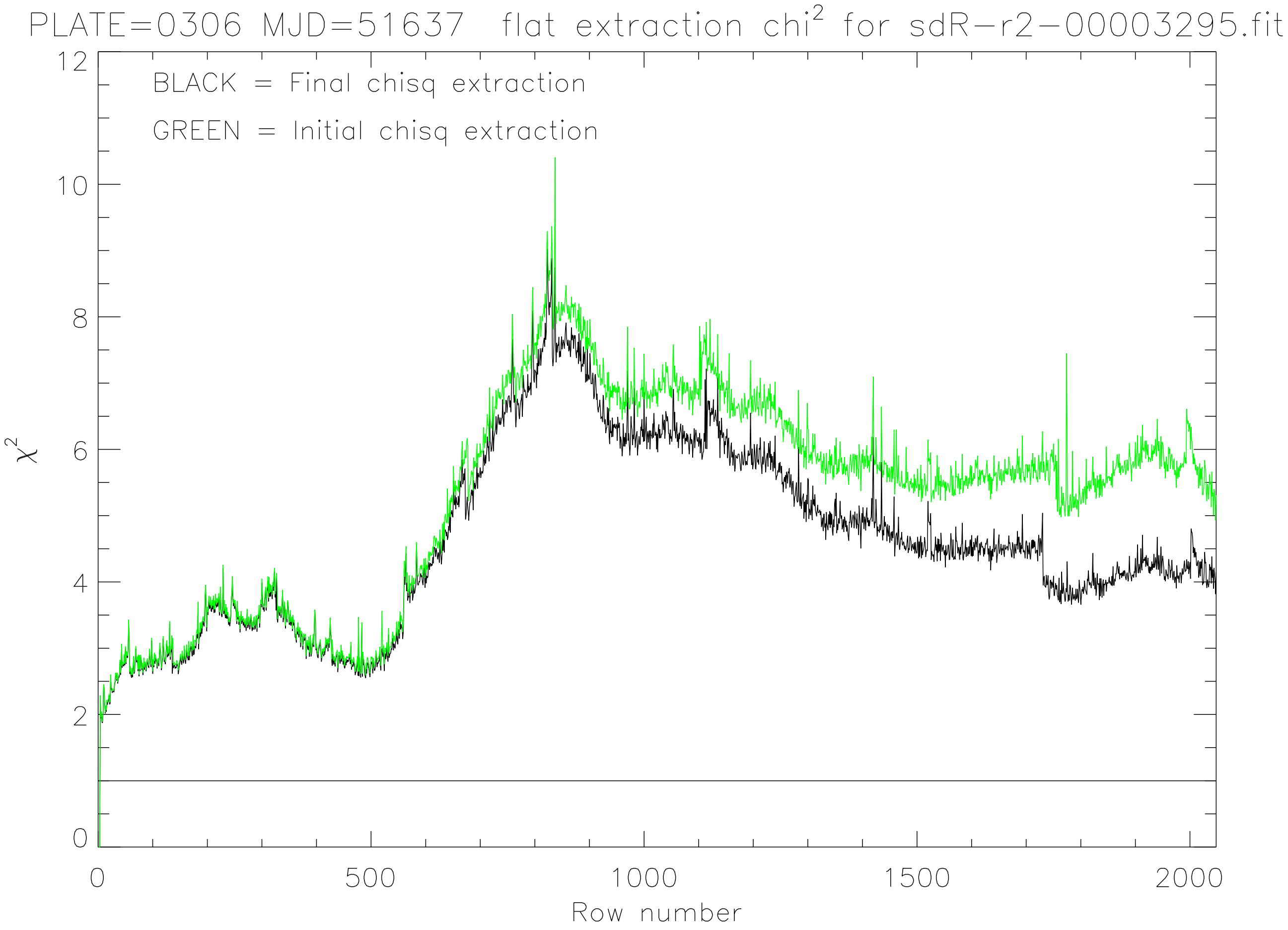

PLATE=0306 MJD=51637 sdR-r1-00003300.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
5500
5000
4500
4000
3500
RED = sky fiber
Dispersion = 2.42 %
0
50
100
150
200
250
300
Fiber number
Flux (8888.3)/Airmass
5500
5000
4500
4000
3500
0
100
200
300
400
Focal Distance [mm]
Flux (8888.3)/Airmass
5500
5000
4500
4000
3500
1.23
1.24
1.25
1.26
1.27
Airmass

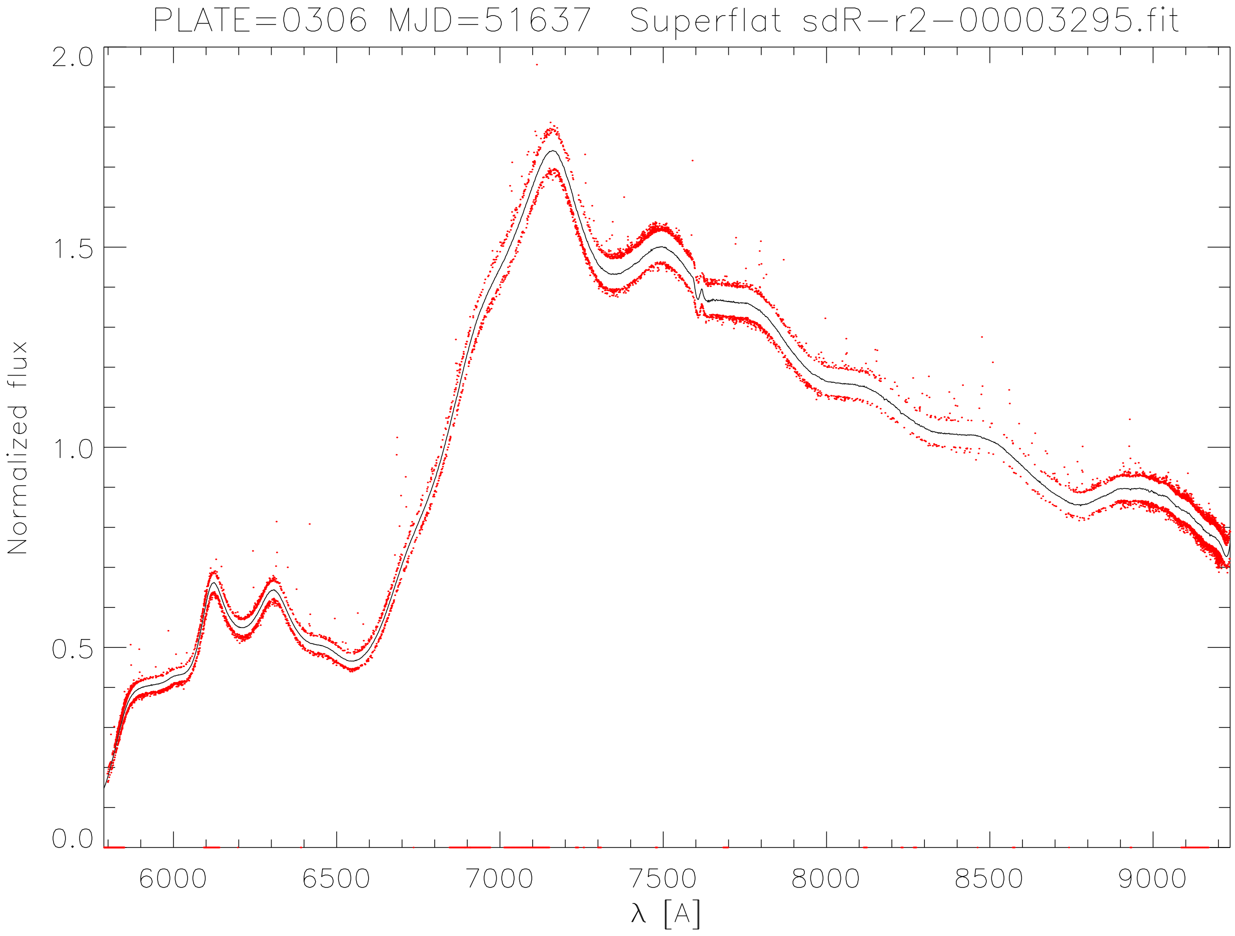

offset coeff residuals from ord=3 poly
0.0001
0.0000
−0.0001
0
50
100
150
200
250
300
fiber

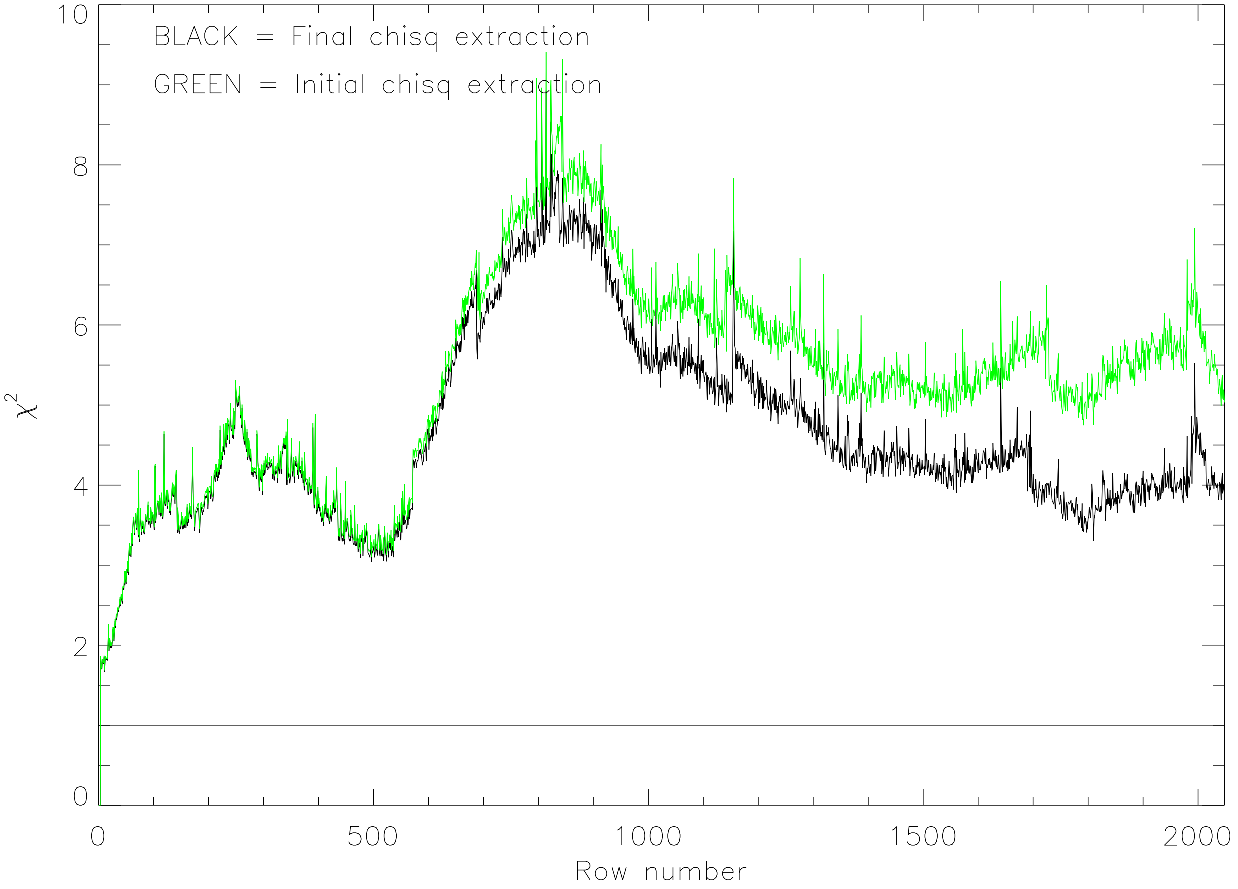

scale coeff residuals from ord=3 poly
4×10⁻⁵
2×10⁻⁵
0
−2×10⁻⁵
−4×10⁻⁵
0
50
100
150
200
250
300
fiber


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

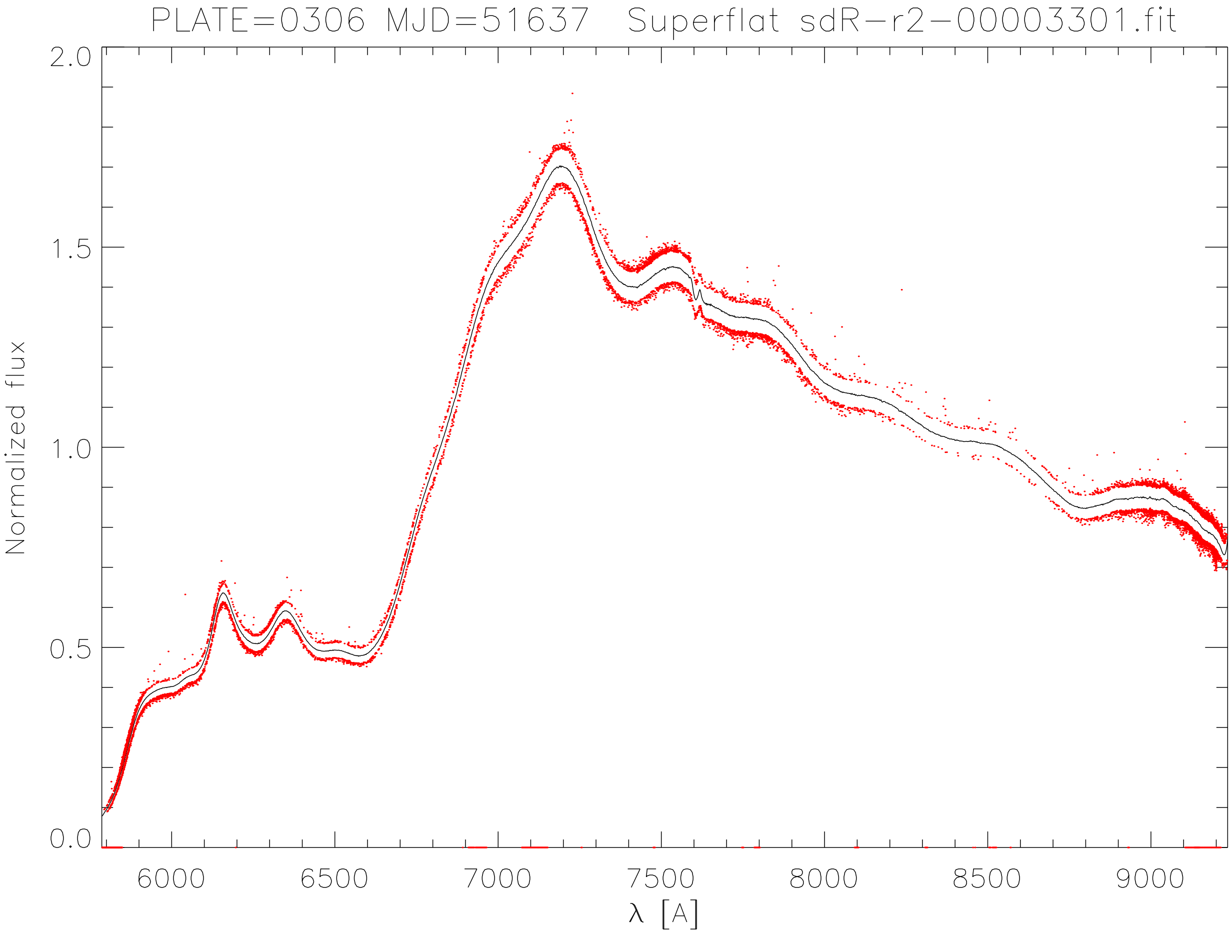

scale coeff residuals from ord=3 poly
4×10⁻⁵
2×10⁻⁵
0
−2×10⁻⁵
−4×10⁻⁵
0
50
100
150
200
250
300
fiber

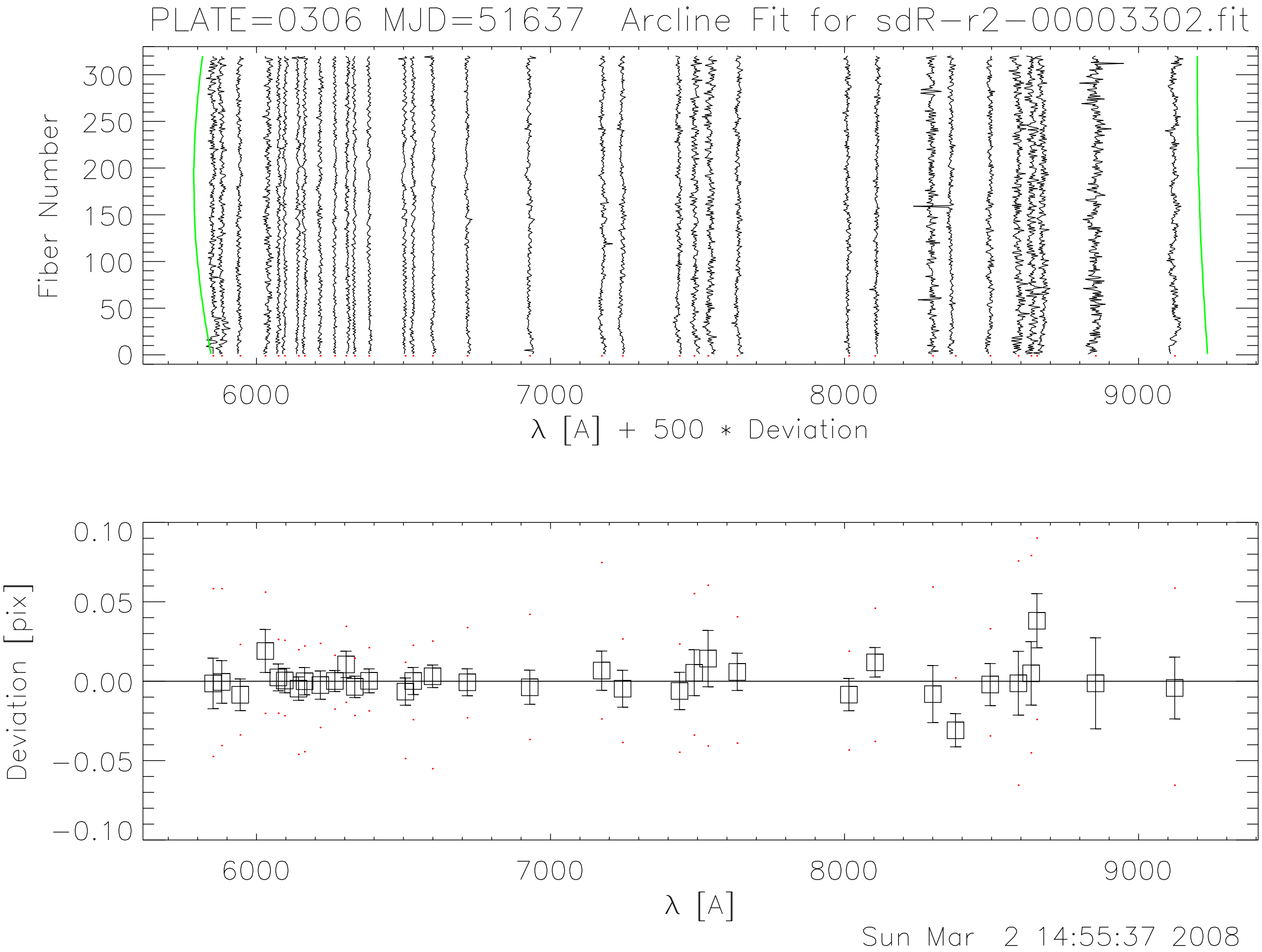


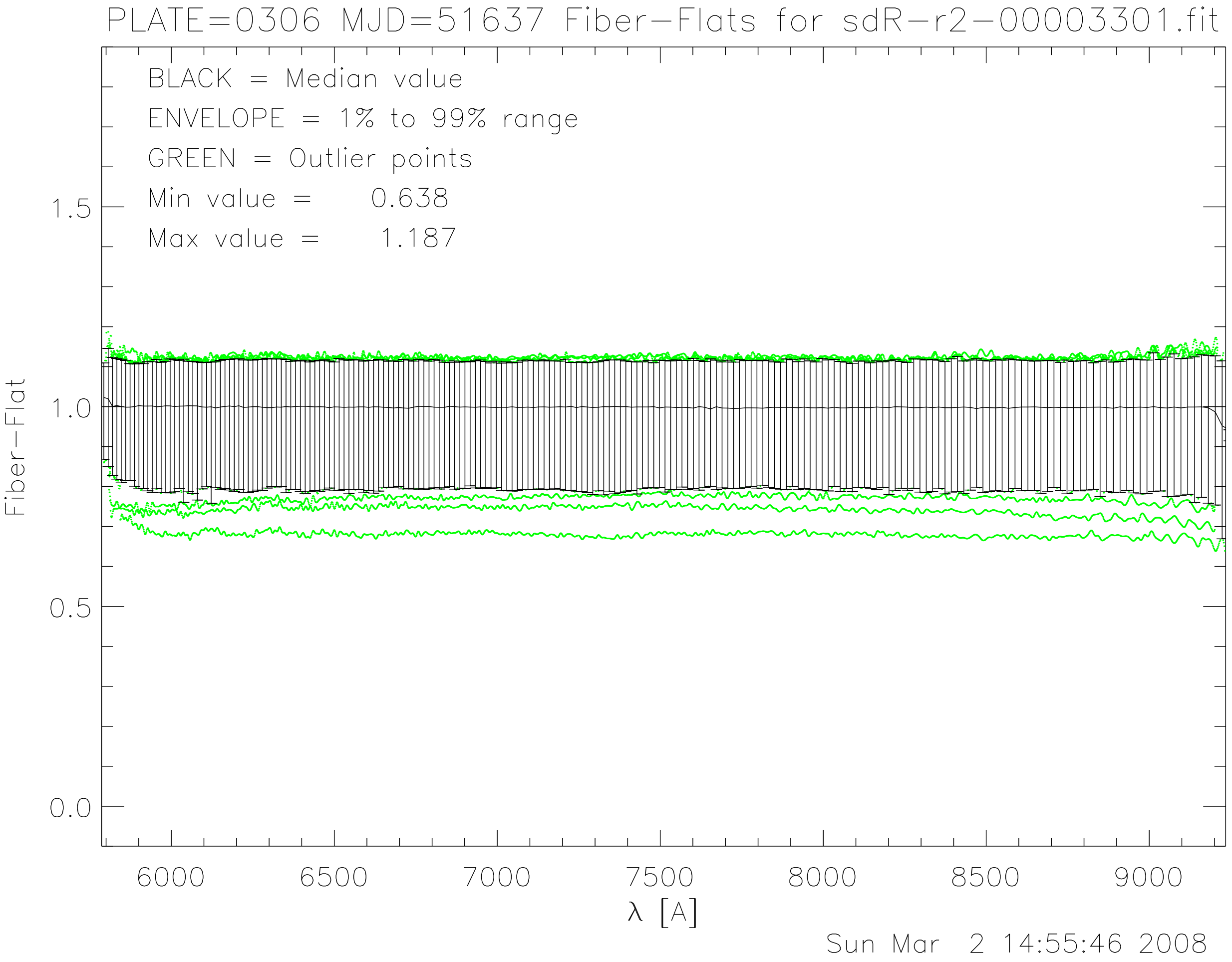

PLATE=0306 MJD=51637 Superflat sdR-r2-00003295.fit
Normalized flux
0.0
0.5
1.0
1.5
2.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

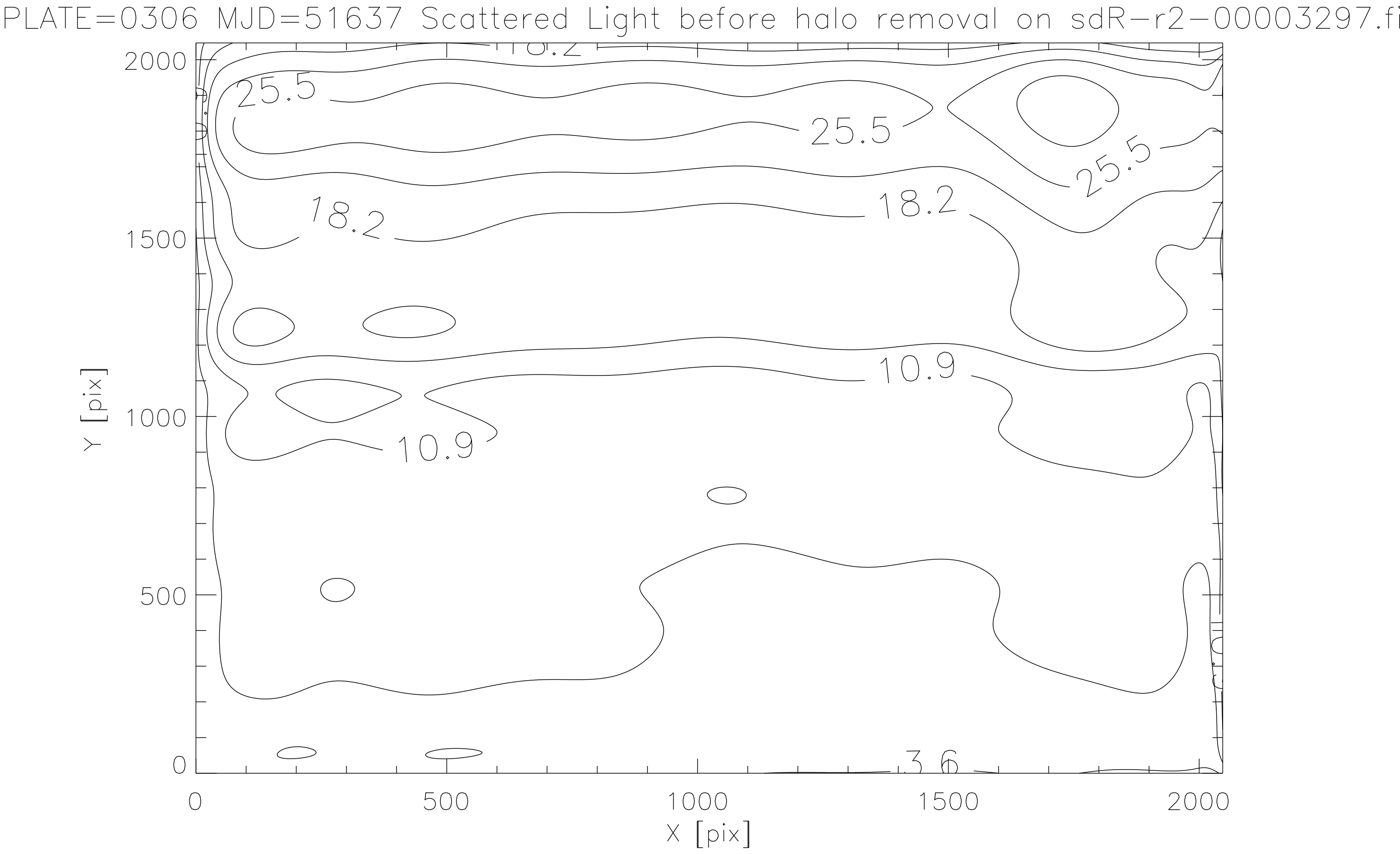


PLATE=0306 MJD=51637 flat extraction χ^2 for sdR-r2-00003301.fit

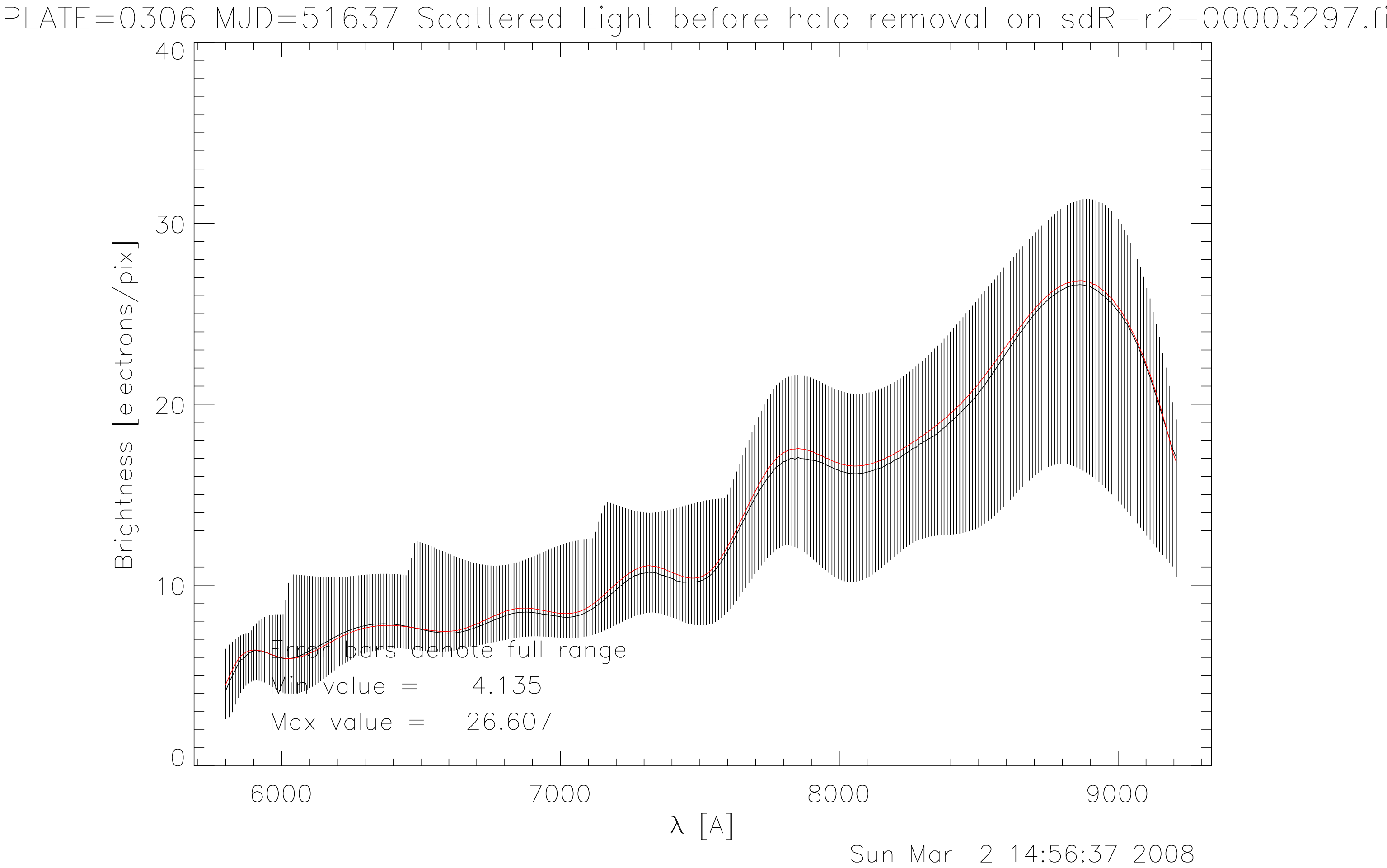

PLATE=0306 MJD=51637 Superflat sdR-r2-00003301.fit
Normalized flux
0.0
0.5
1.0
1.5
2.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

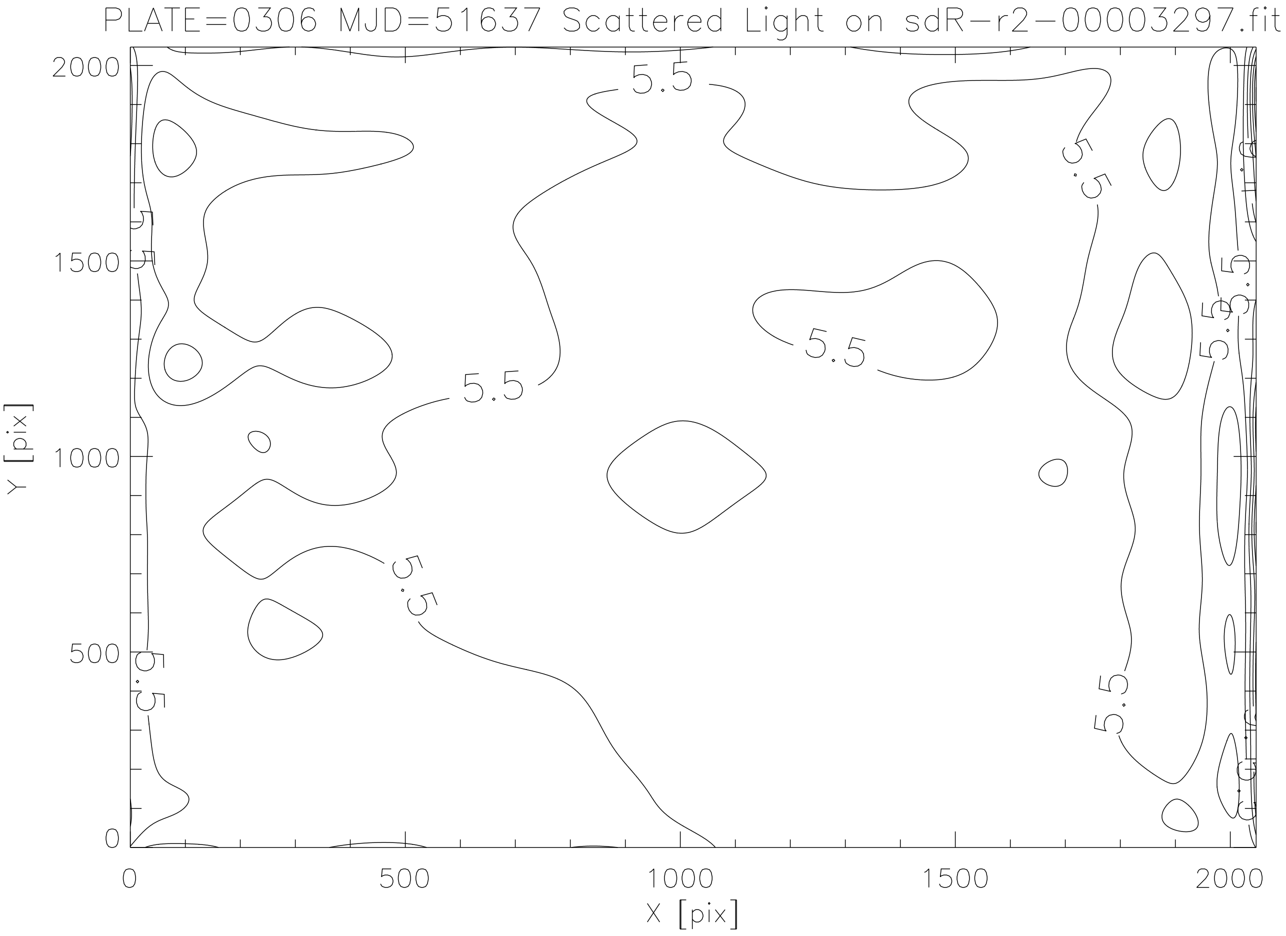

PLATE=0306 MJD=51637 Arcline Fit for sdR-r2-00003302.fit
Fiber Number
0
50
100
150
200
250
300
6000
7000
8000
9000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
6000
7000
8000
9000
λ [A]
Sun Mar 2 14:55:37 2008

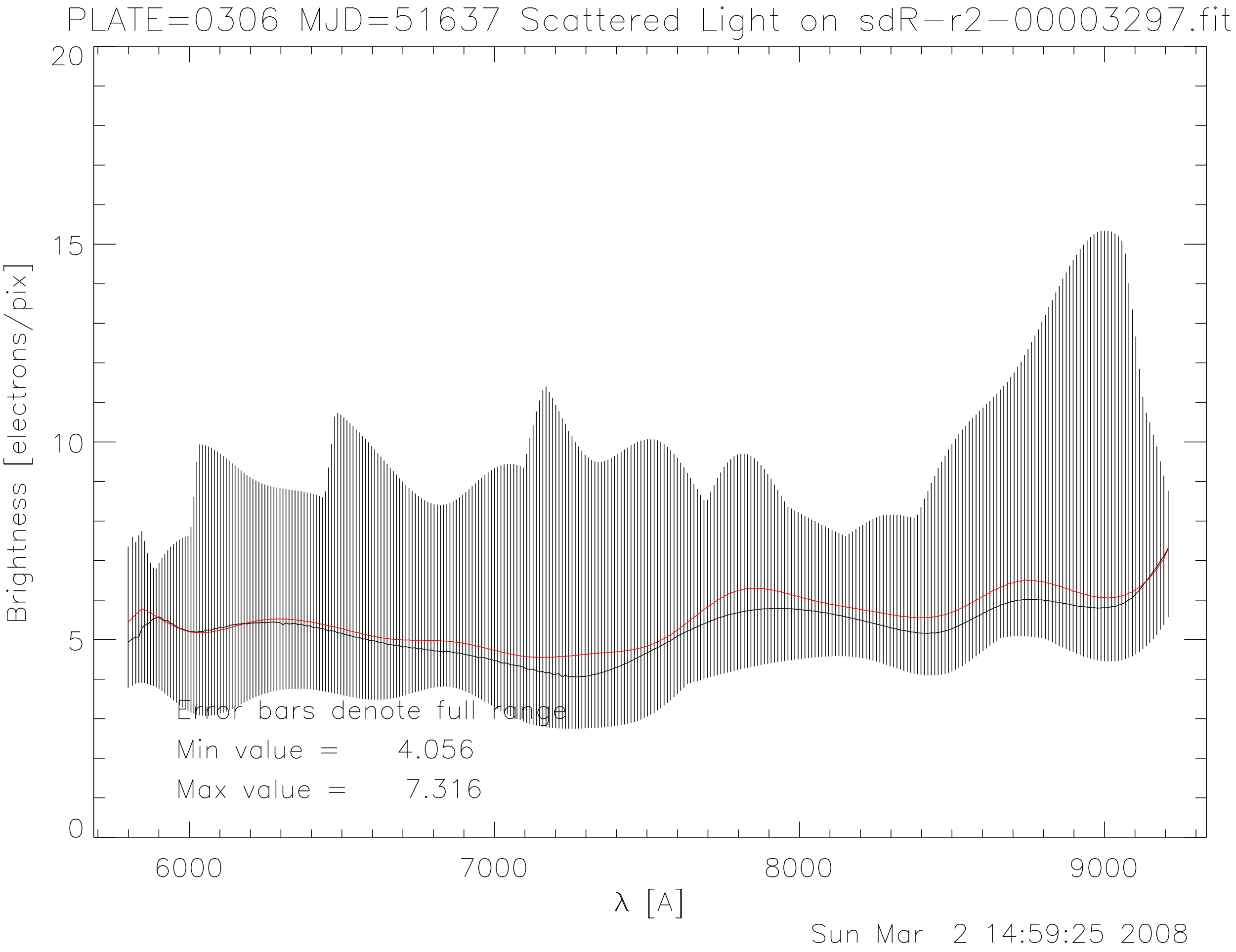

PLATE=0306 MJD=51637 Fiber−Flats for sdR−r2−00003301.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.638
Max value = 1.187
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sun Mar 2 14:55:46 2008

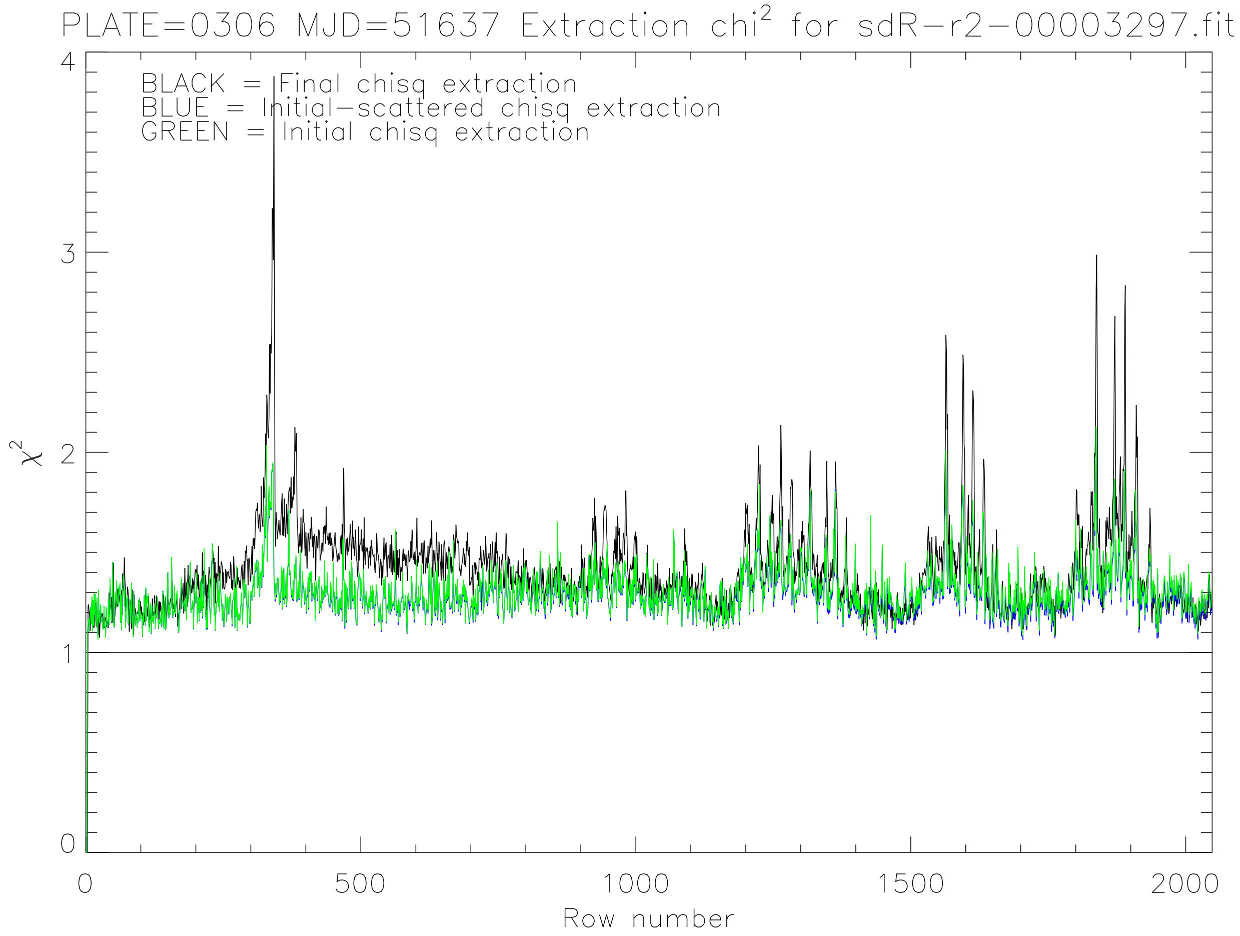


PLATE=0306 MJD=51637 Scattered Light before halo removal on sdR-r2-00003297.fi

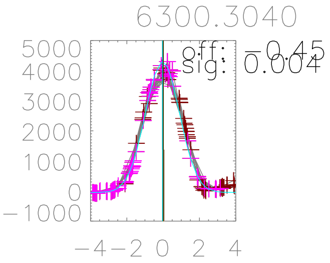

PLATE=0306 MJD=51637 Scattered Light before halo removal on sdR-r2-00003297.fi
Brightness [electrons/pix]
0
10
20
30
40
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 4.135
Max value = 26.607
Sun Mar 2 14:56:37 2008

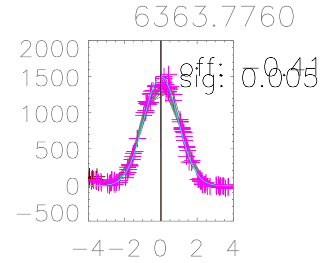

PLATE=0306 MJD=51637 Scattered Light on sdR-r2-00003297.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
0
500
1000
1500
2000
5.5
5.5
5.5
5.5
5.5
5.5
5.5
5.5
5.5
5.5

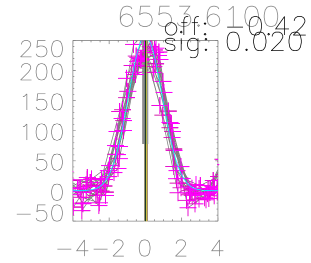

PLATE=0306 MJD=51637 Scattered Light on sdR-r2-00003297.fit
Brightness [electrons/pix]
0
5
10
15
20
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 4.056
Max value = 7.316
Sun Mar 2 14:59:25 2008

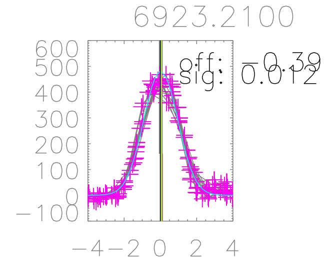


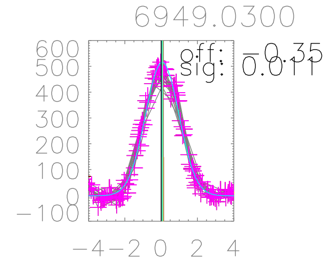
PLATE=0306 MJD=51637 Extraction chi^2 for sdR-r2-00003297.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
0
500
1000
1500
2000
Row number

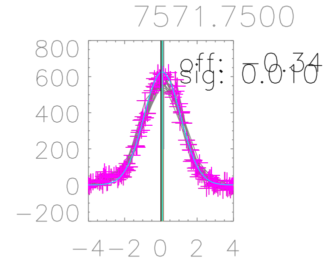

6300.3040
off: −0.45
sig: 0.004
5000
4000
3000
2000
1000
0
−1000
−4 −2 0 2 4

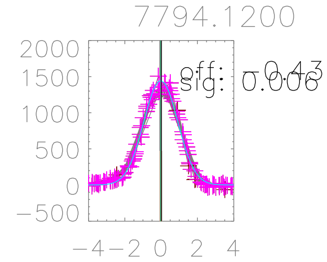

6363.7760
off: −0.41
sig: 0.005
2000
1500
1000
500
0
−500
−4 −2 0 2 4

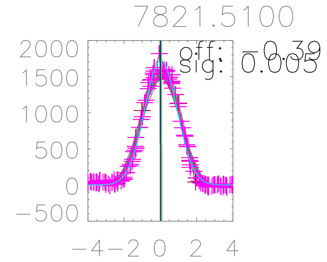

6553.6100
off: −0.42
sig: 0.020
250
200
150
100
50
0
−50
−4 −2 0 2 4

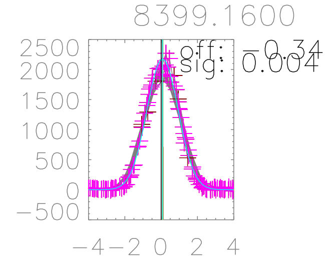

6923.2100
off: −0.39
sig: 0.012
600
500
400
300
200
100
0
−100
−4 −2 0 2 4

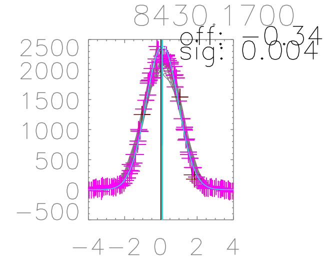

6949.0300
off: −0.35
sig: 0.011
600
500
400
300
200
100
0
−100
−4 −2 0 2 4

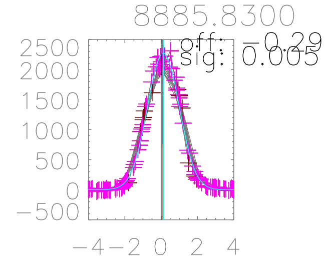

7571.7500
off: −0.34
sig: 0.010
800
600
400
200
0
−200
−4 −2 0 2 4

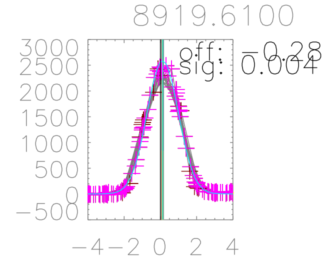

7794.1200
off: −0.43
sig: 0.006
2000
1500
1000
500
0
−500
−4 −2 0 2 4

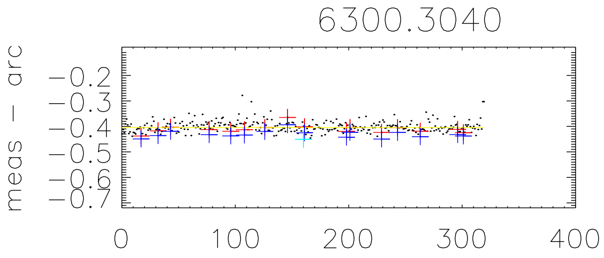

7821.5100
off: −0.39
sig: 0.005
2000
1500
1000
500
0
−500
−4 −2 0 2 4

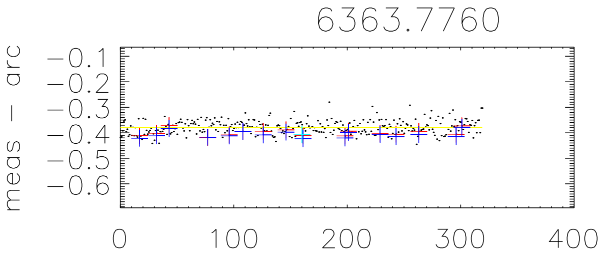

8399.1600
off: −0.34
sig: 0.004
2500
2000
1500
1000
500
0
−500
−4 −2 0 2 4

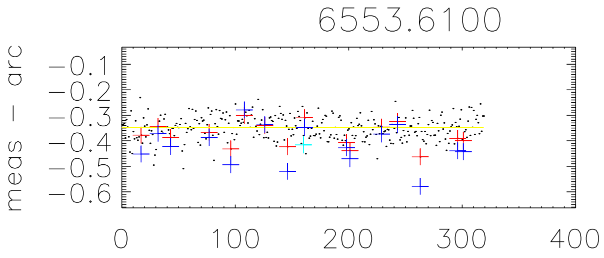

8430.1700
off: −0.34
sig: 0.004
2500
2000
1500
1000
500
0
−500
−4 −2 0 2 4

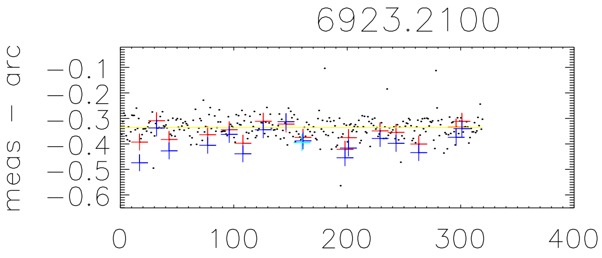

8885.8300
off: −0.29
sig: 0.005
2500
2000
1500
1000
500
0
−500
−4 −2 0 2 4

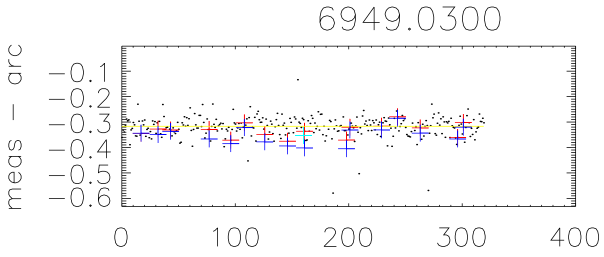

8919.6100
off: −0.28
sig: 0.004
3000
2500
2000
1500
1000
500
0
−500
−4 −2 0 2 4

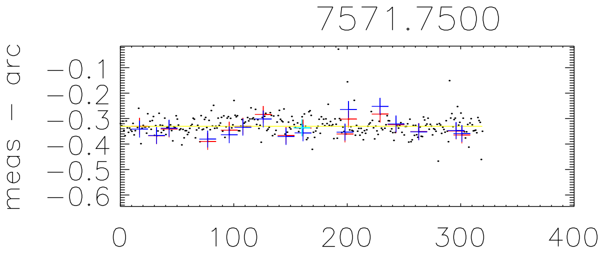

6300.3040
meas − arc
−0.2
−0.3
−0.4
−0.5
−0.6
−0.7
0
100
200
300
400

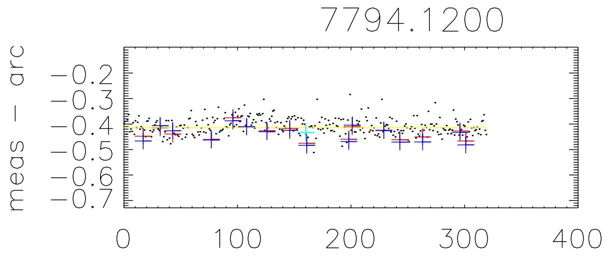

6363.7760
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

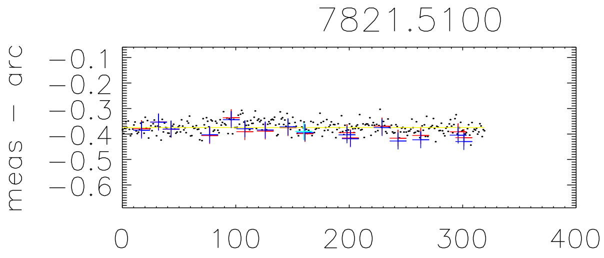

6553.6100
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

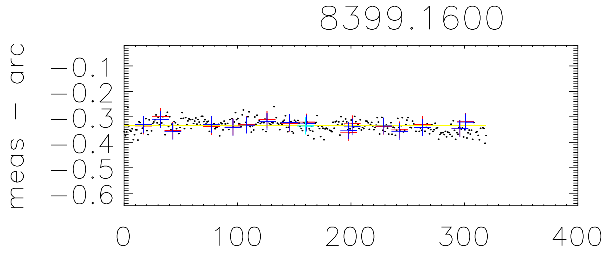

6923.2100
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

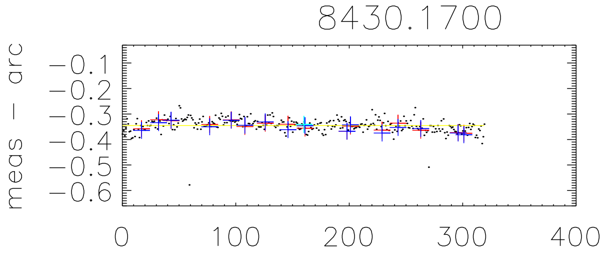

6949.0300
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

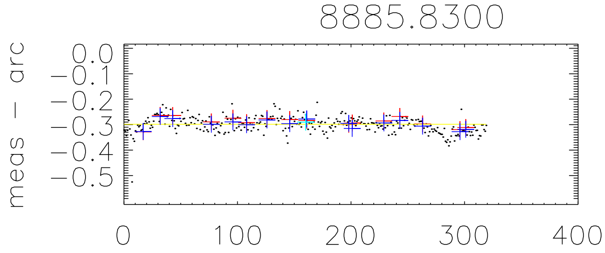

7571.7500
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

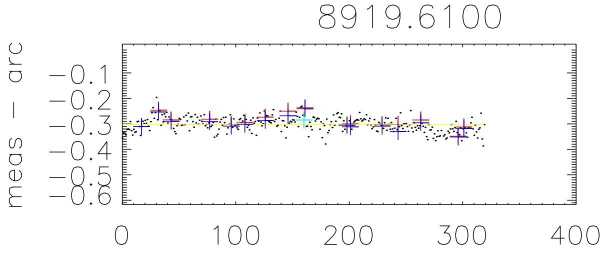

7794.1200
meas − arc
−0.2
−0.3
−0.4
−0.5
−0.6
−0.7
0
100
200
300
400

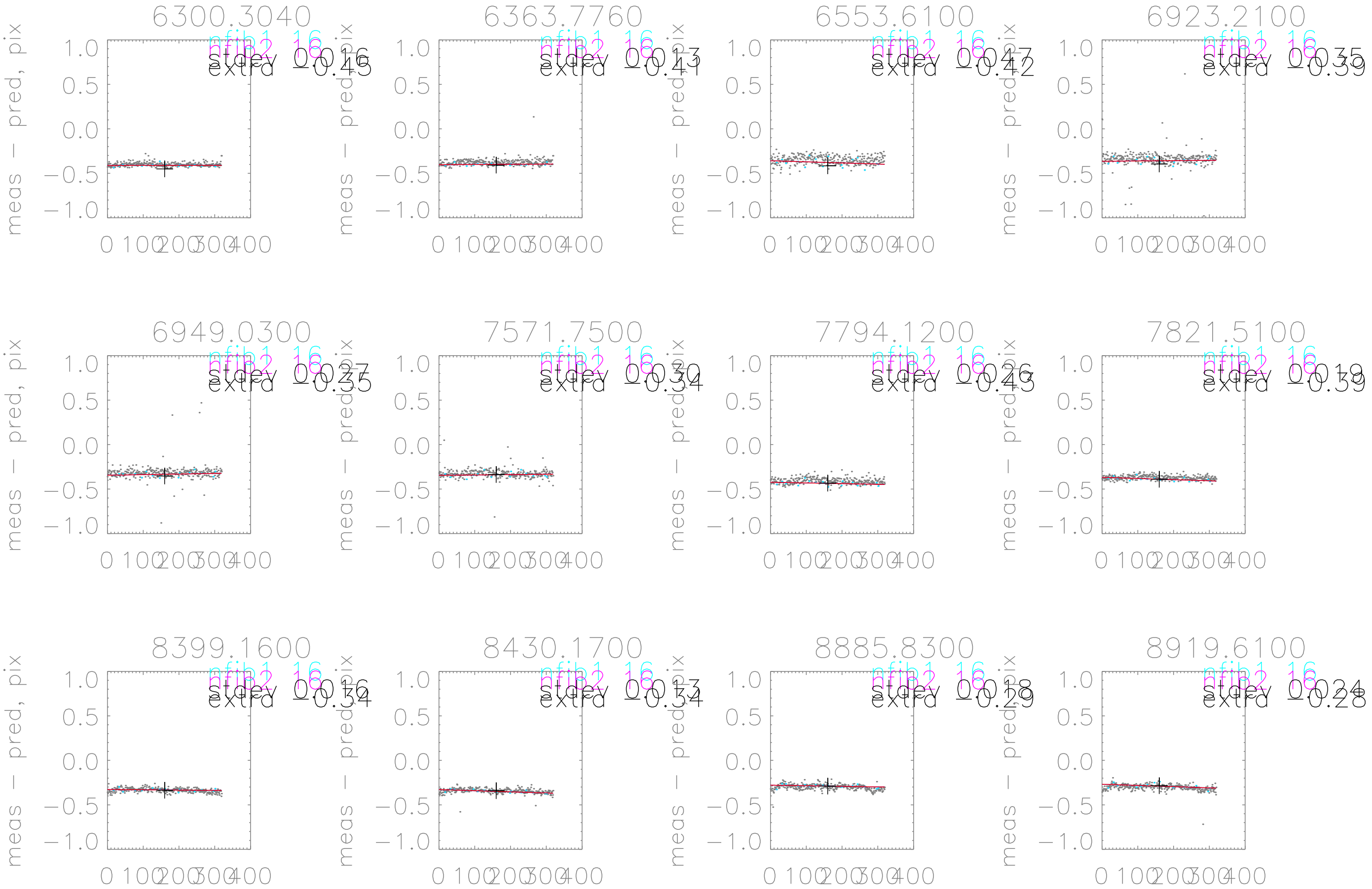

7821.5100
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

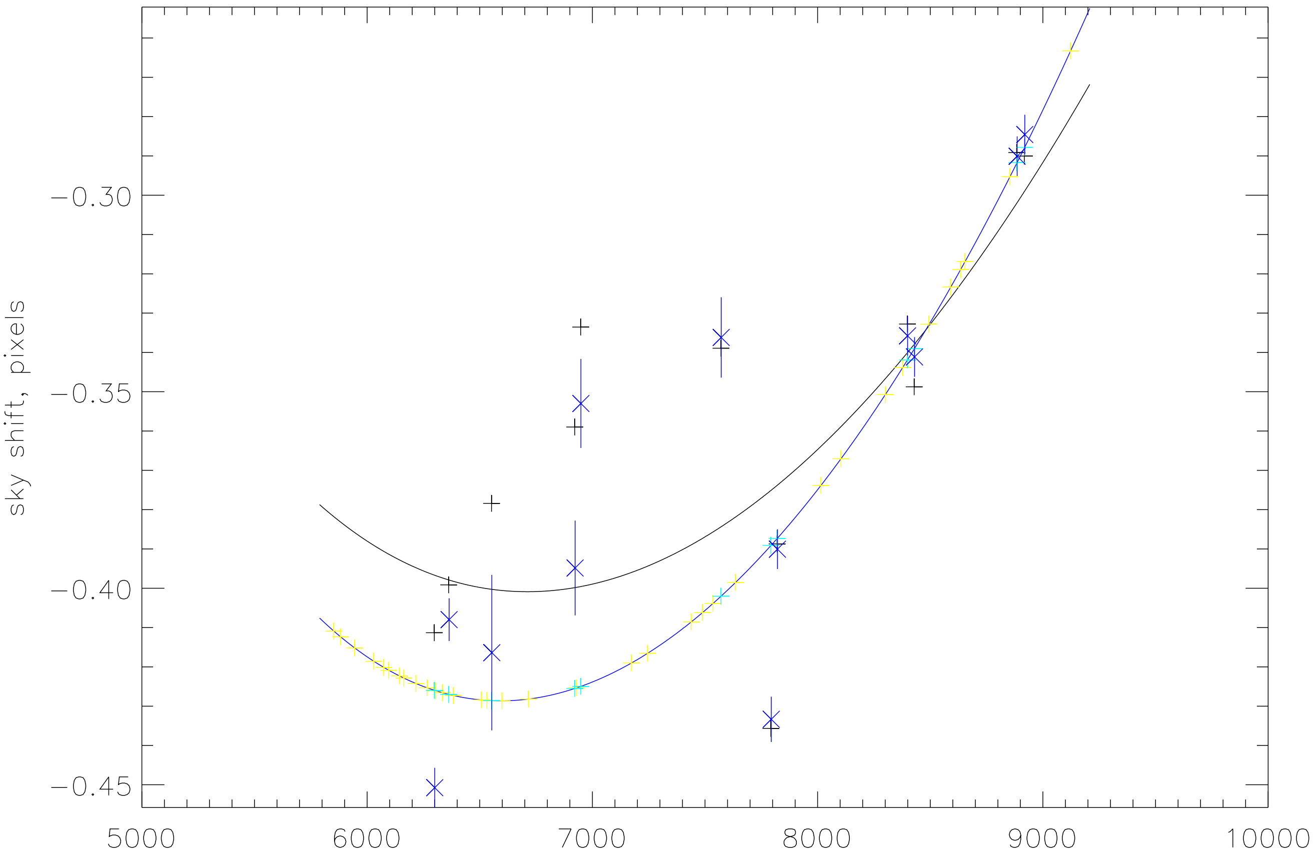

8399.1600
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

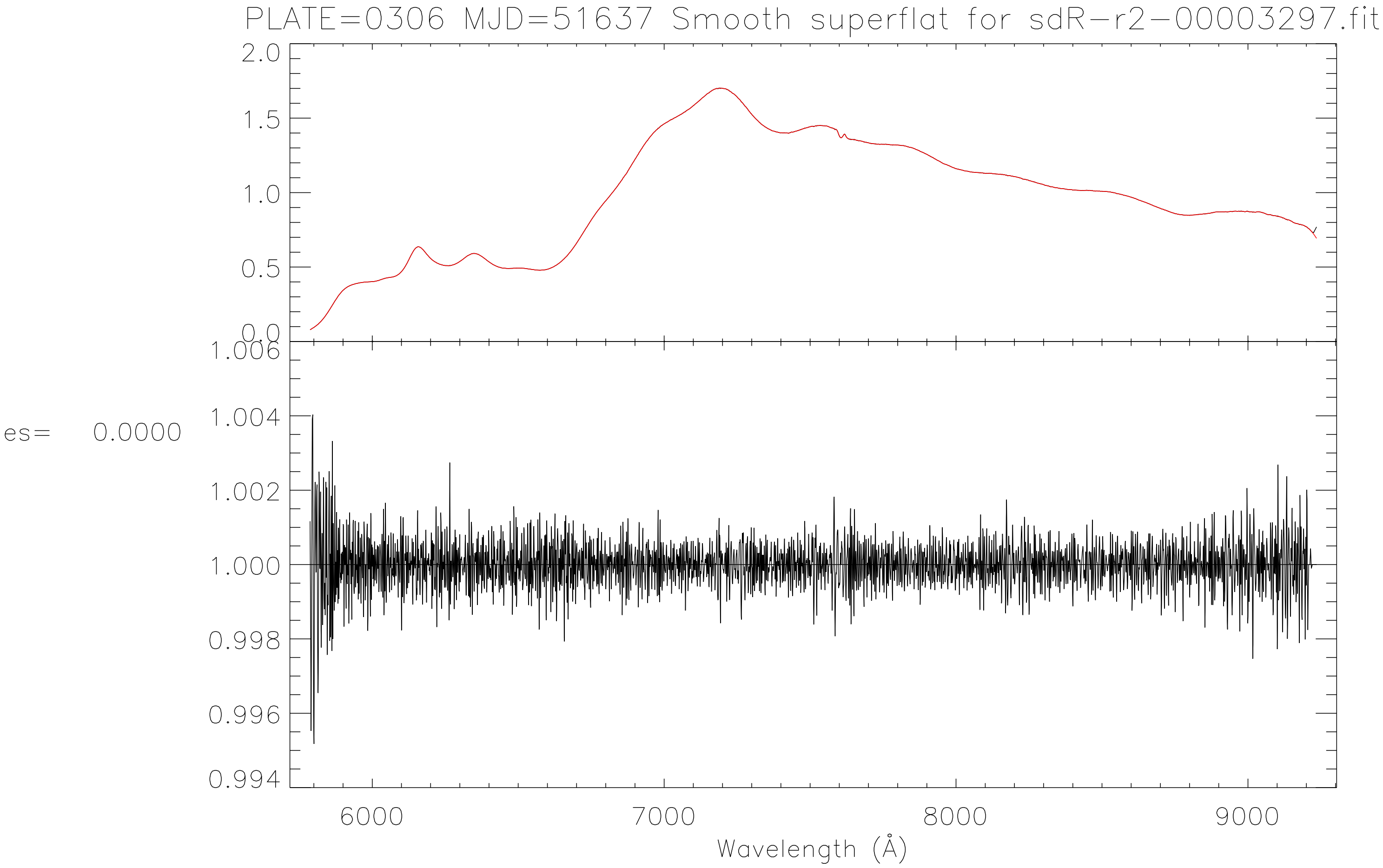

8430.1700
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

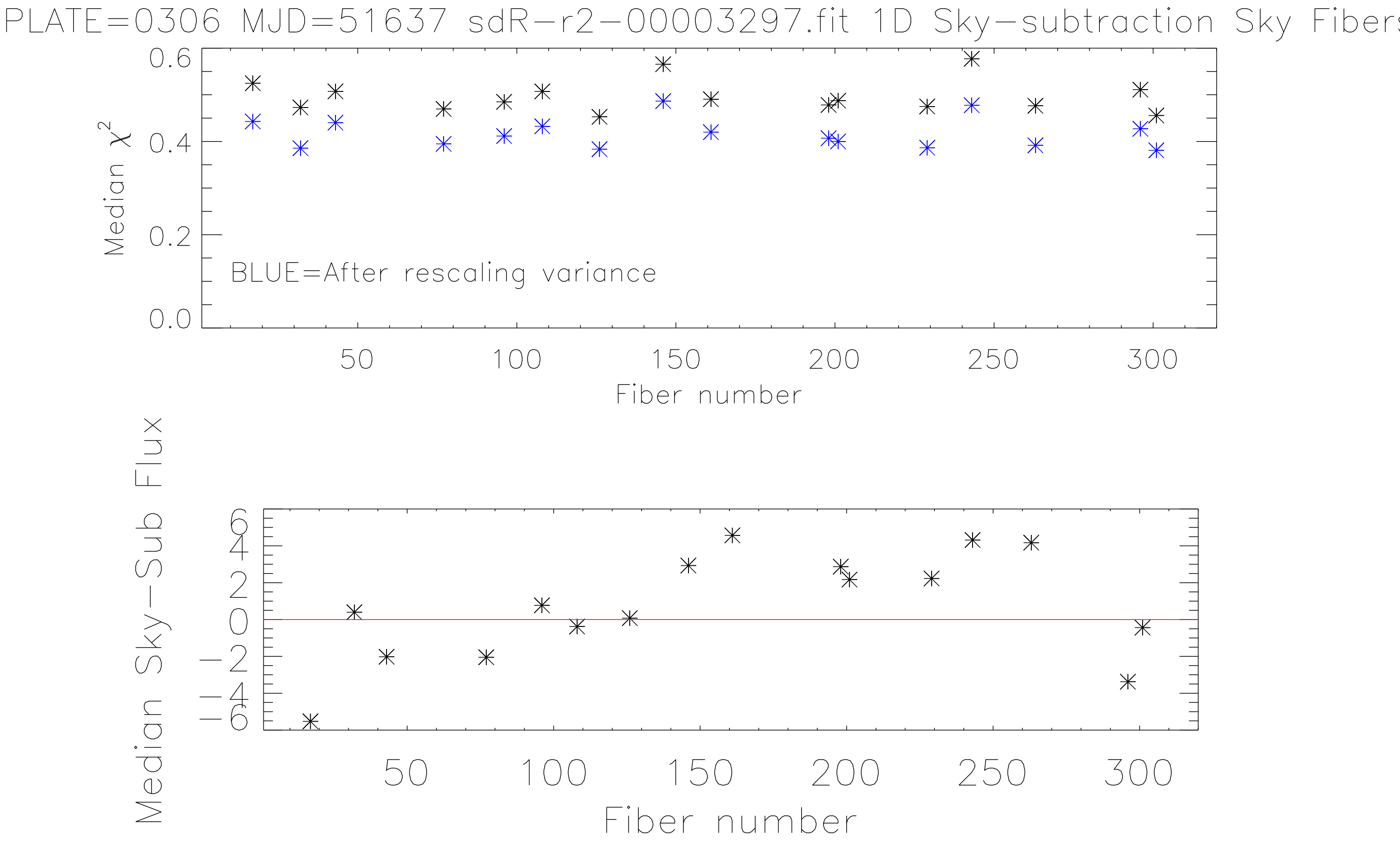

8885.8300
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

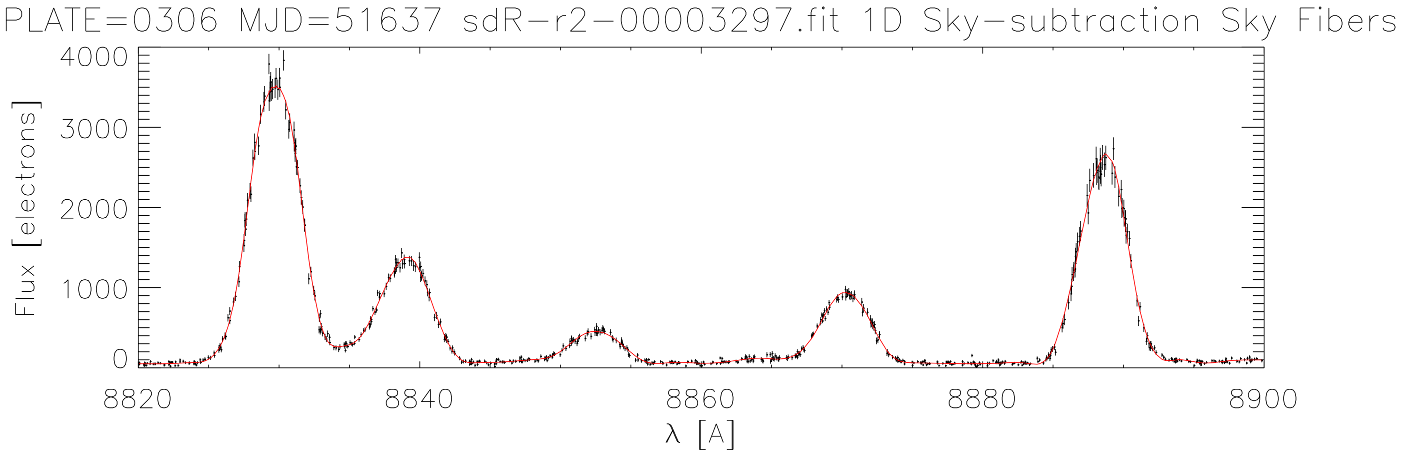

8919.6100
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

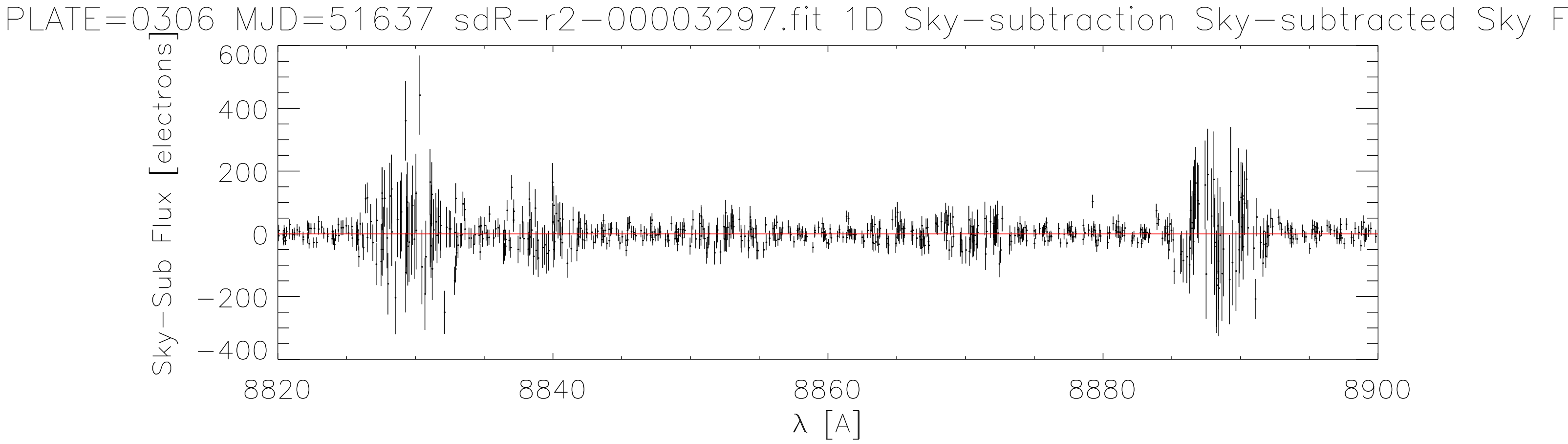

6300.3040
nfib1 16
nfib2 16
stdev 0.016
extrd −0.45
6363.7760
nfib1 16
nfib2 16
stdev 0.013
extrd −0.41
6553.6100
nfib1 16
nfib2 16
stdev 0.047
extrd −0.42
6923.2100
nfib1 16
nfib2 16
stdev 0.035
extrd −0.39
6949.0300
nfib1 16
nfib2 16
stdev 0.027
extrd −0.35
7571.7500
nfib1 16
nfib2 16
stdev 0.030
extrd −0.34
7794.1200
nfib1 16
nfib2 16
stdev 0.026
extrd −0.43
7821.5100
nfib1 16
nfib2 16
stdev 0.019
extrd −0.39
8399.1600
nfib1 16
nfib2 16
stdev 0.016
extrd −0.34
8430.1700
nfib1 16
nfib2 16
stdev 0.013
extrd −0.34
8885.8300
nfib1 16
nfib2 16
stdev 0.018
extrd −0.29
8919.6100
nfib1 16
nfib2 16
stdev 0.024
extrd −0.28
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400


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


PLATE=0306 MJD=51637 Smooth superflat for sdR-r2-00003297.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)

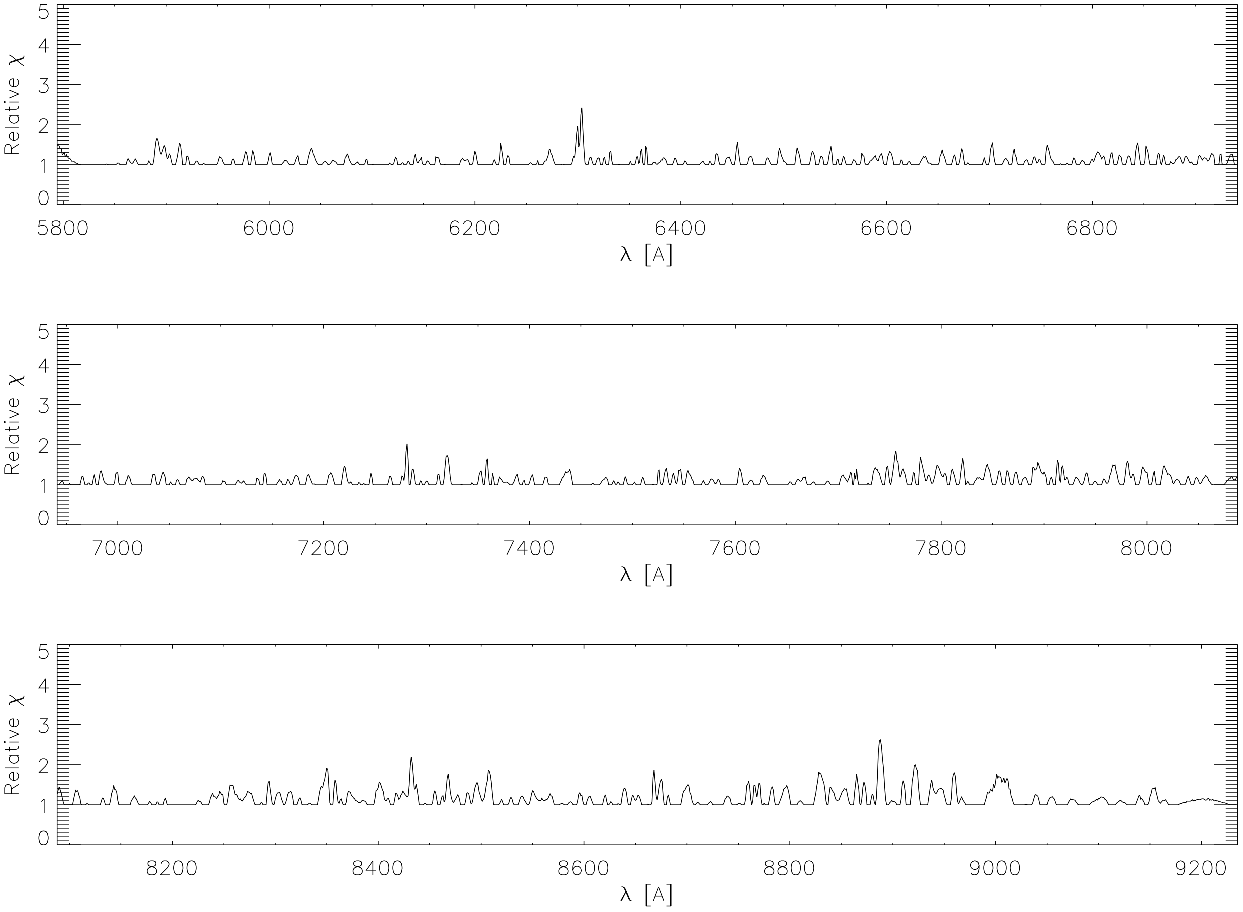

PLATE=0306 MJD=51637 sdR-r2-00003297.fit 1D Sky-subtraction Sky Fibers

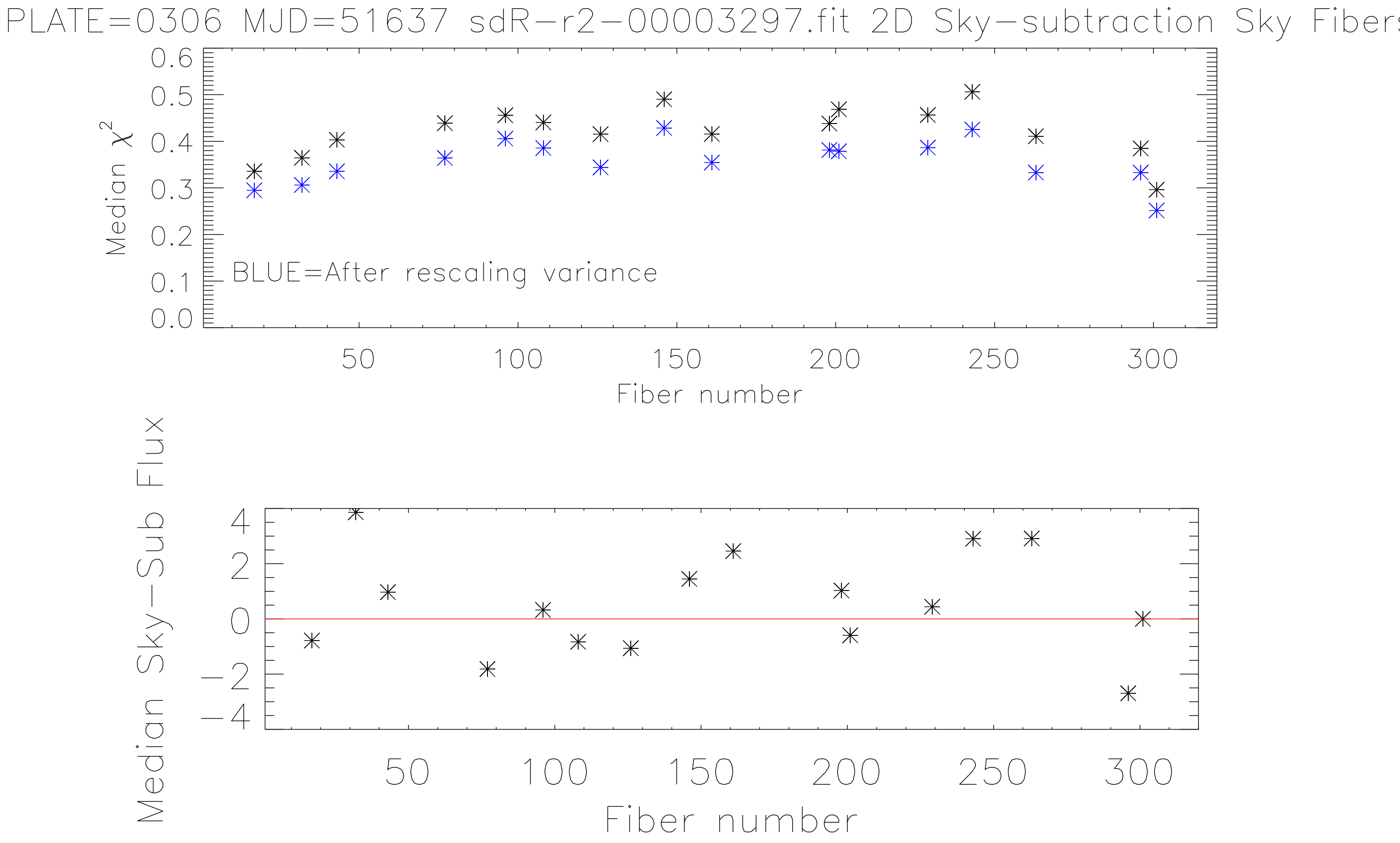

PLATE=0306 MJD=51637 sdR-r2-00003297.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

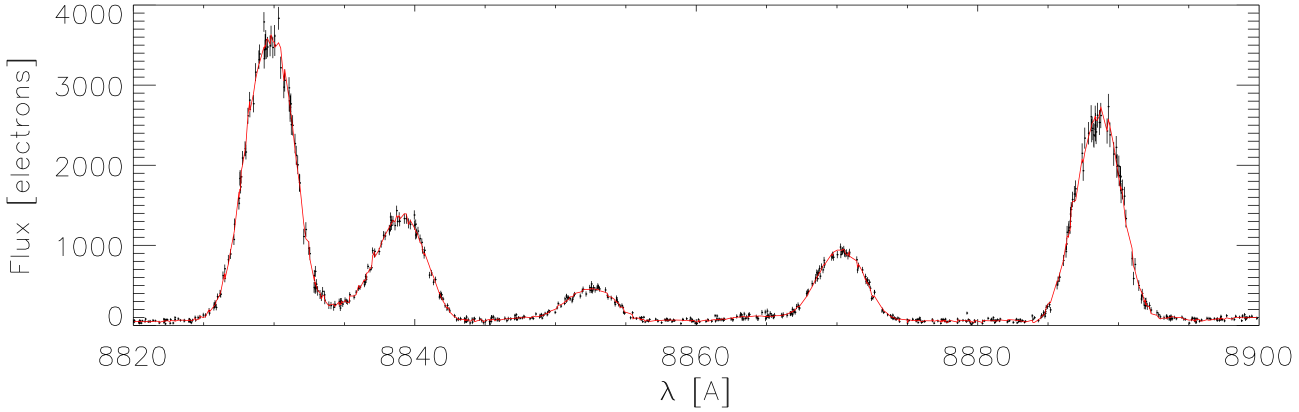

PLATE=0306 MJD=51637 sdR-r2-00003297.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
600
400
200
0
−200
−400
8820
8840
8860
8880
8900
λ [A]

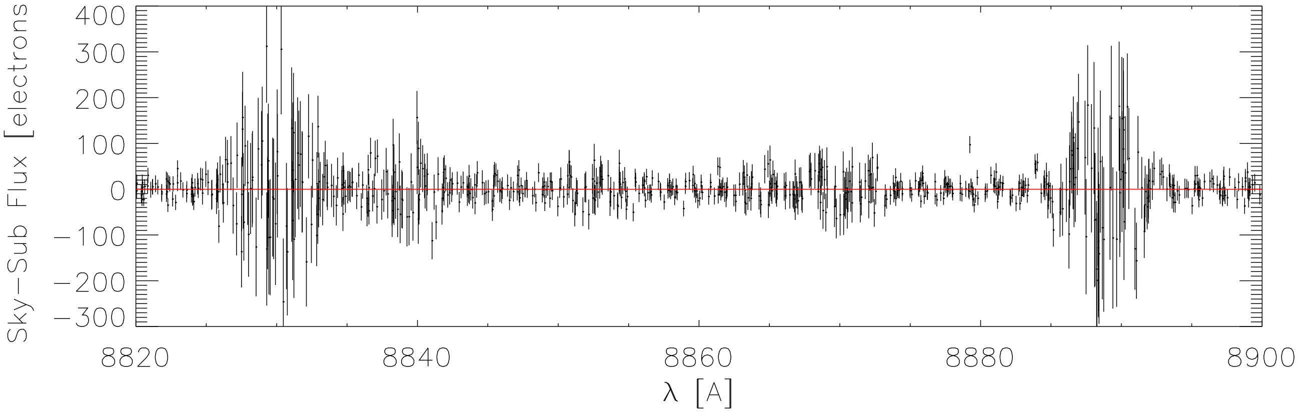
Number of sky fibers = 16

PLATE=0306 MJD=51637 sdR-r2-00003297.fit 1D Sky-subtraction Rescaled Errors



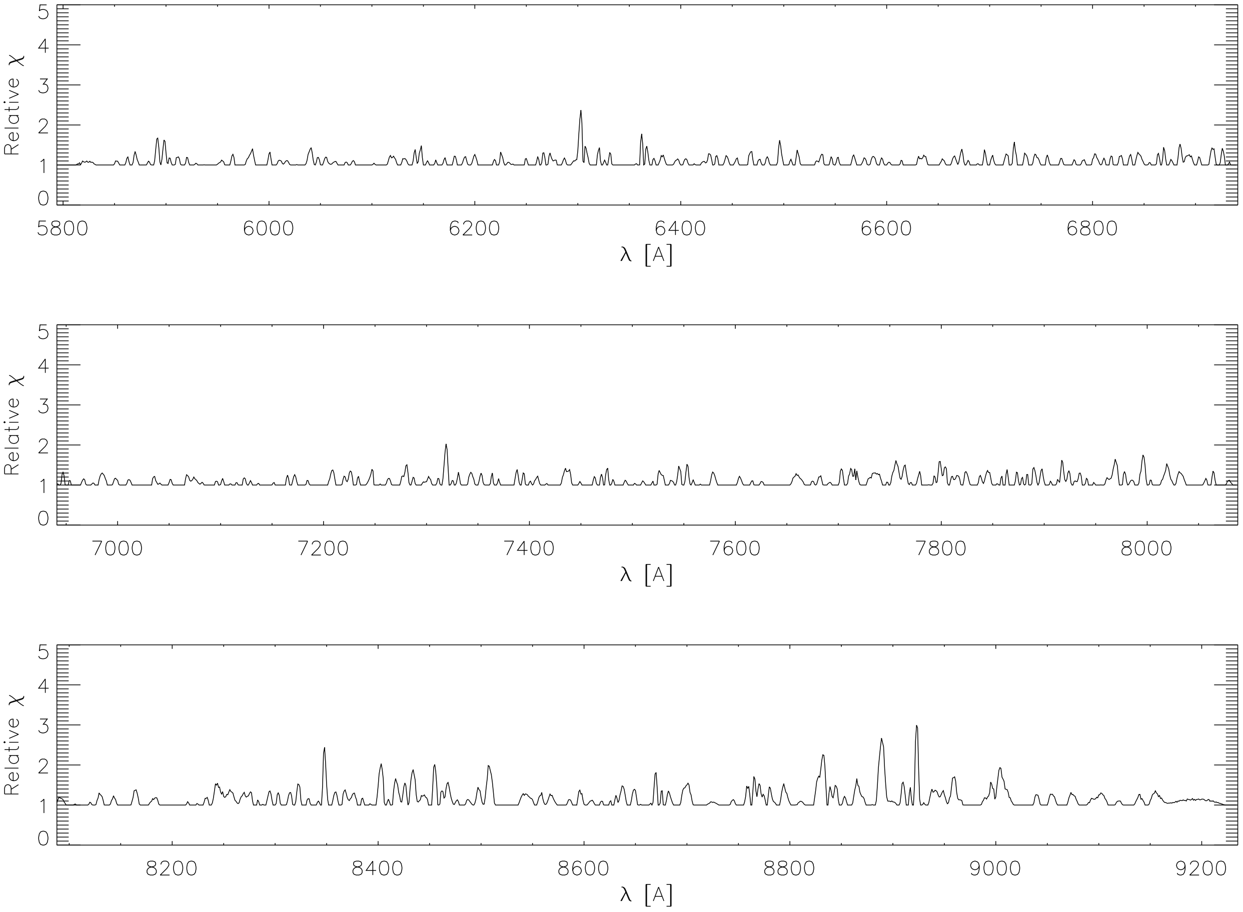

PLATE=0306 MJD=51637 sdR-r2-00003297.fit 2D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
−4
−2
0
2
4
50
100
150
200
250
300
Fiber number

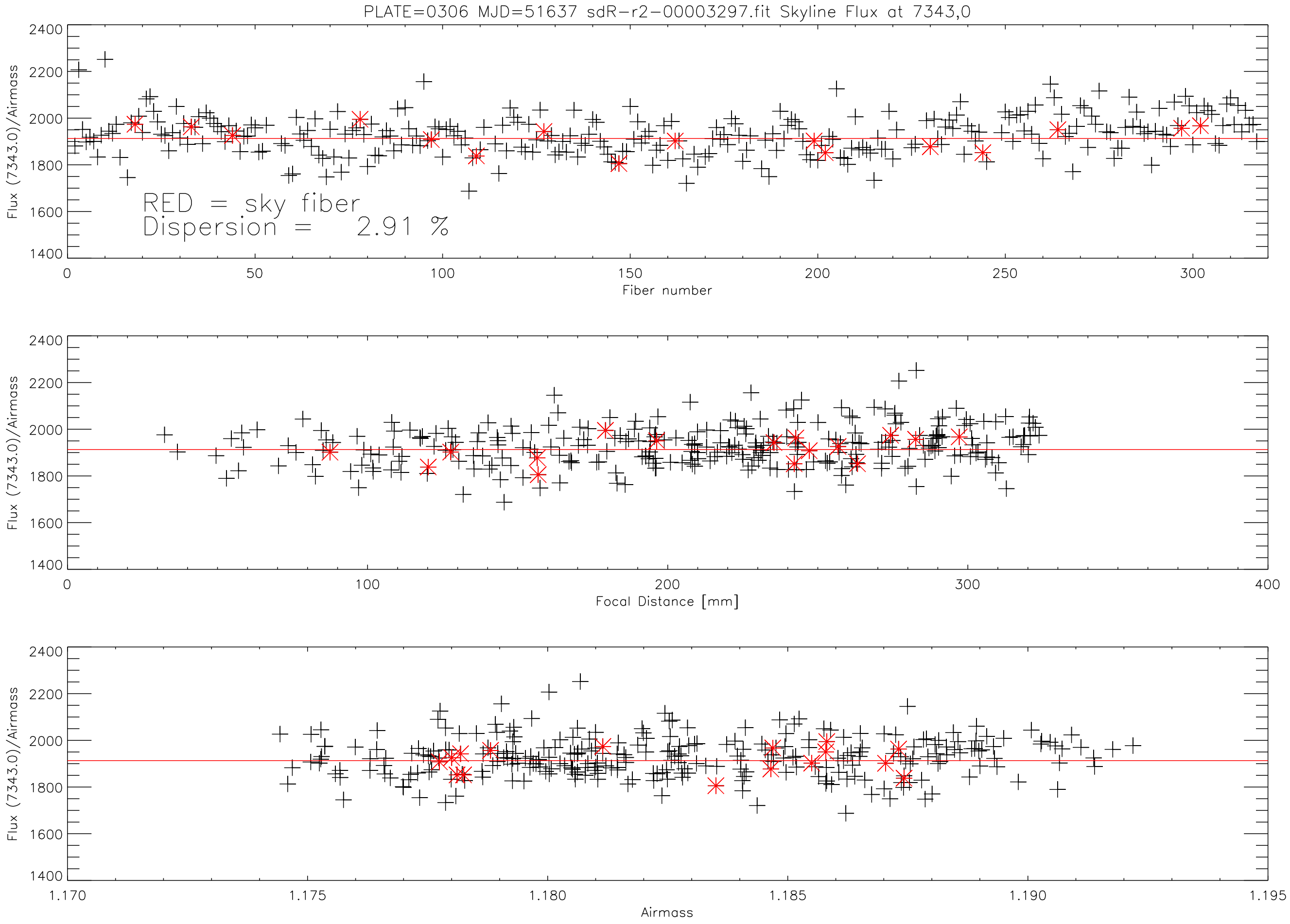

PLATE=0306 MJD=51637 sdR-r2-00003297.fit 2D Sky-subtraction Sky Fibers

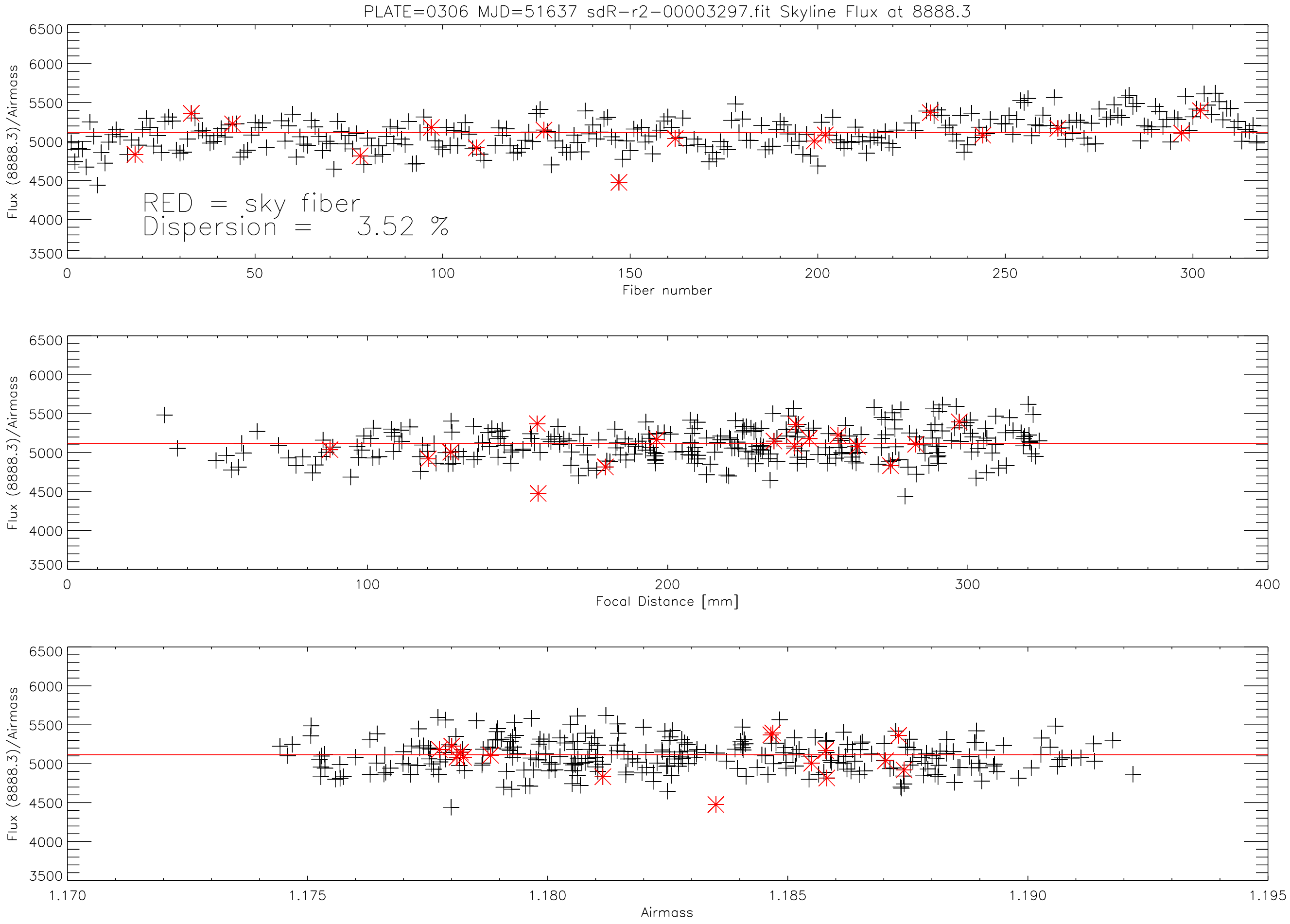

PLATE=0306 MJD=51637 sdR-r2-00003297.fit 2D Sky-subtraction Sky-subtracted Sky F

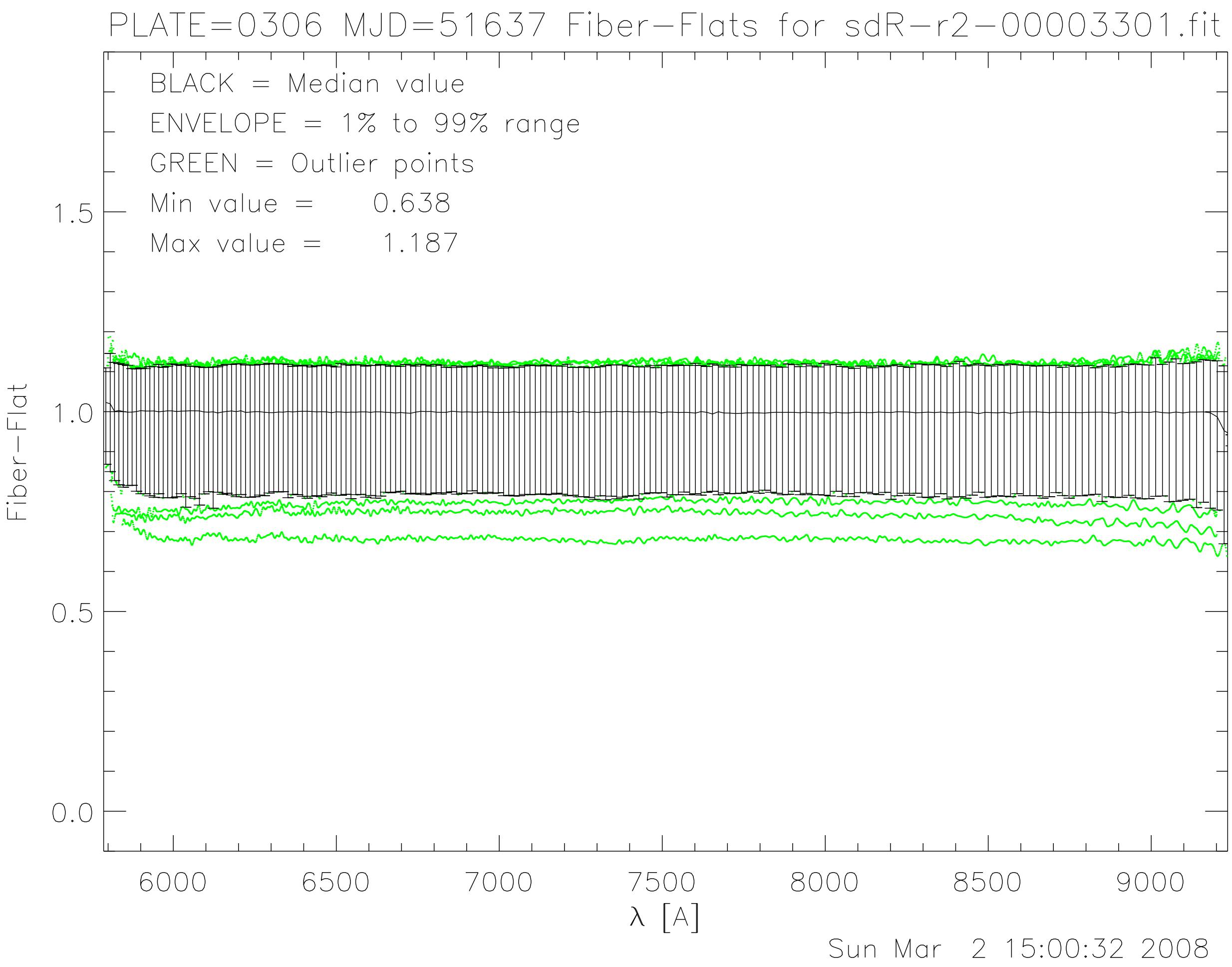
Number of sky fibers = 16

PLATE=0306 MJD=51637 sdR-r2-00003297.fit 2D Sky-subtraction Rescaled Errors

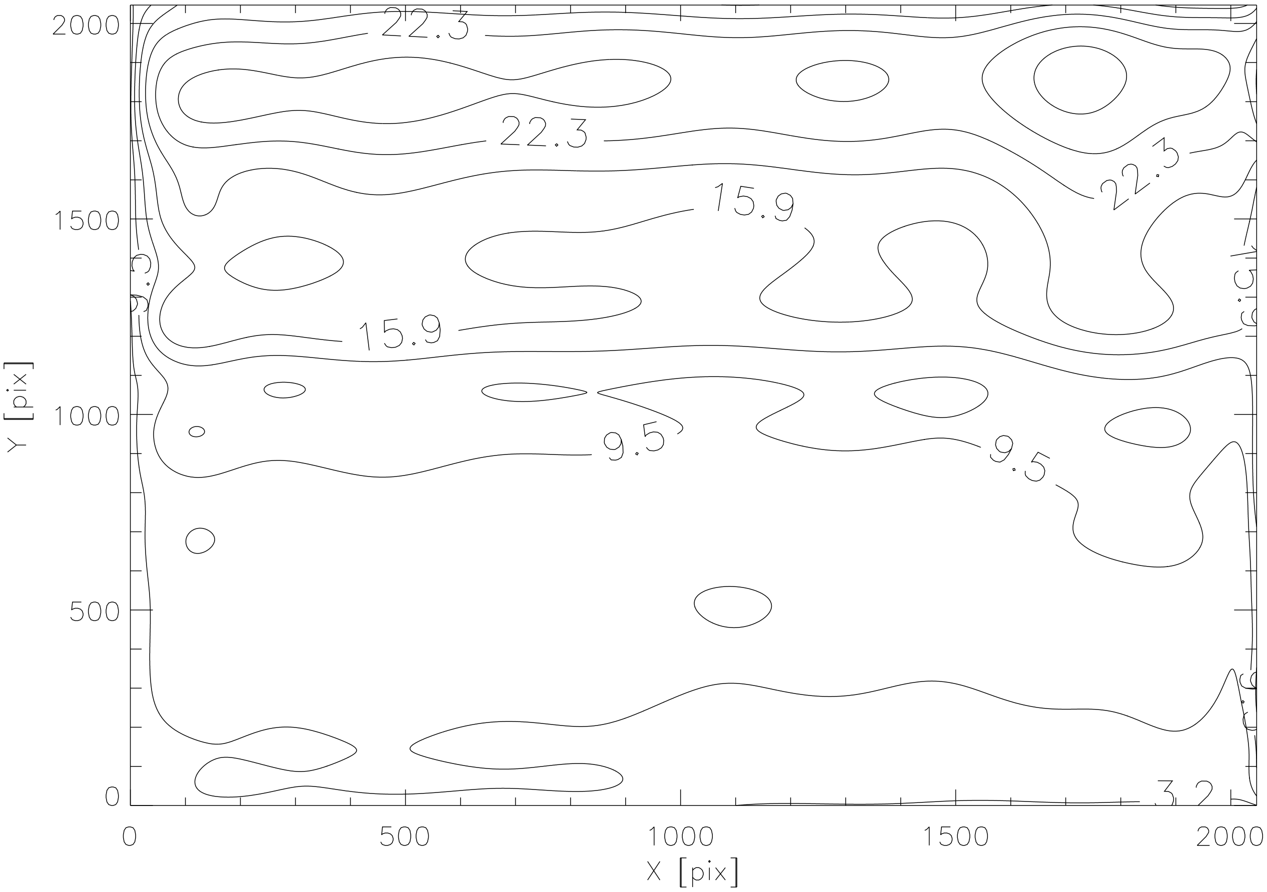


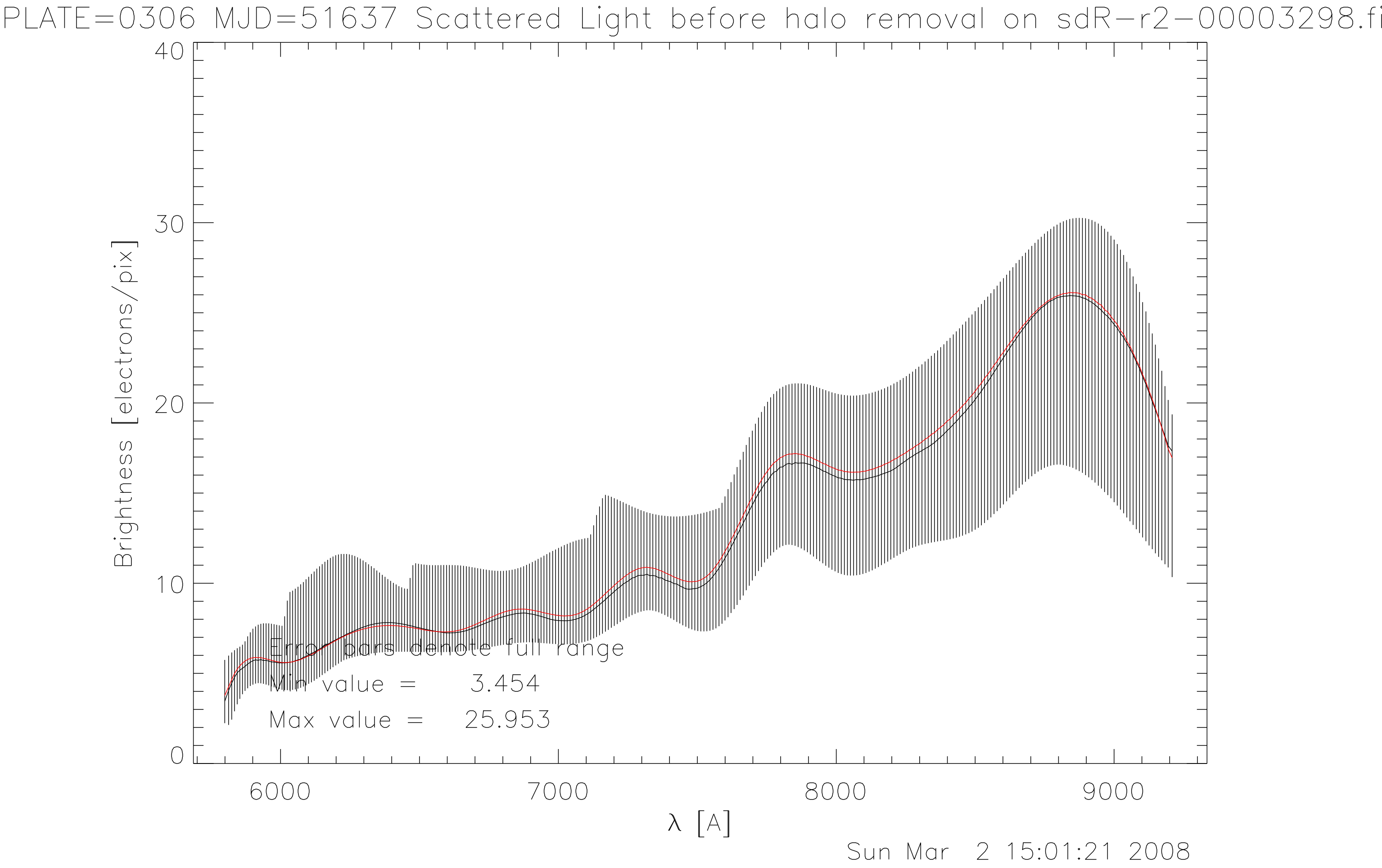

PLATE=0306 MJD=51637 sdR-r2-00003297.fit Skyline Flux at 7343,0
RED = sky fiber
Dispersion = 2.91 %
Flux (7343.0)/Airmass
2400
2200
2000
1800
1600
1400
0
50
100
150
200
250
300
Fiber number
Flux (7343.0)/Airmass
2400
2200
2000
1800
1600
1400
0
100
200
300
400
Focal Distance [mm]
Flux (7343.0)/Airmass
2400
2200
2000
1800
1600
1400
1.170
1.175
1.180
1.185
1.190
1.195
Airmass

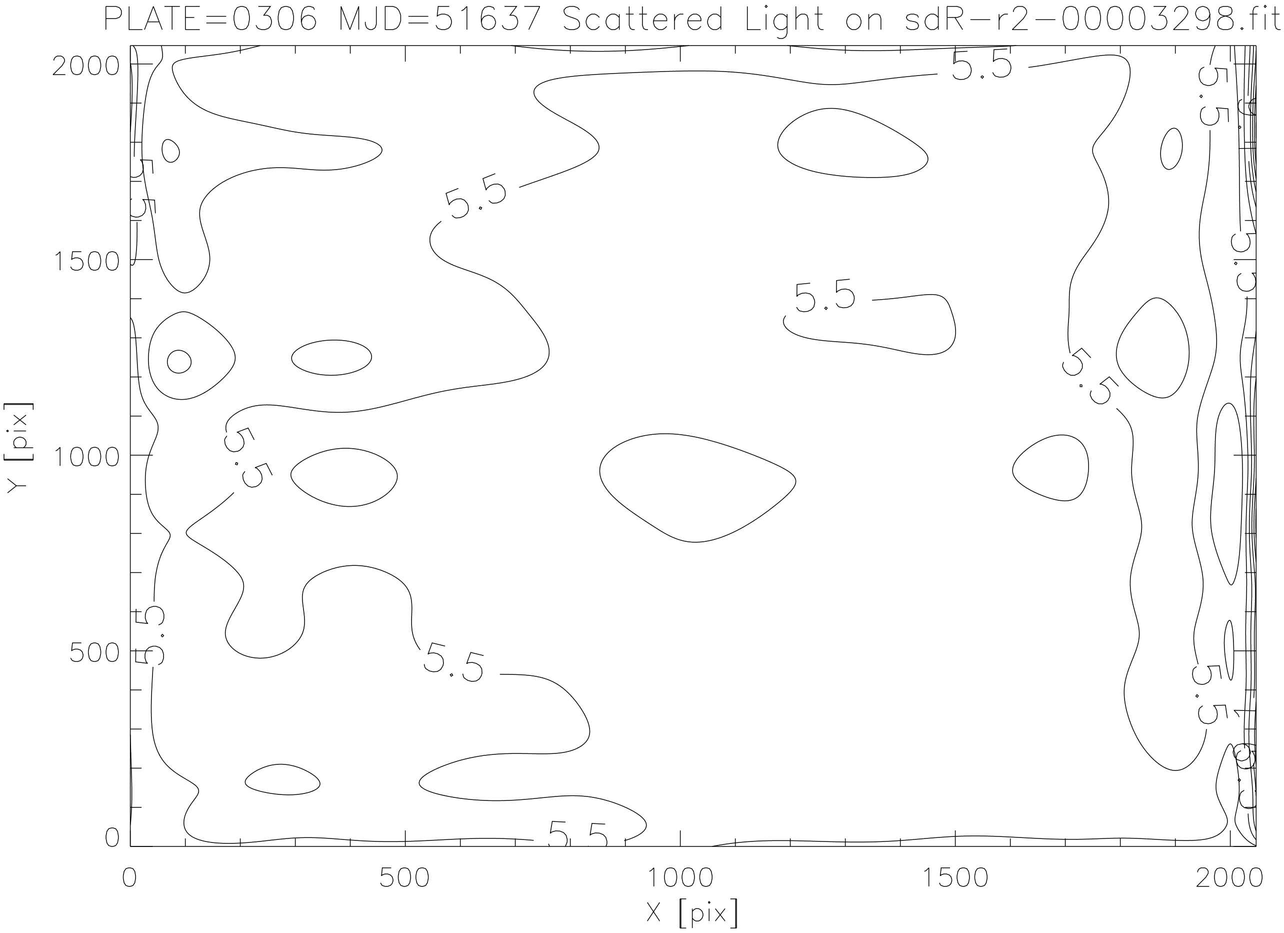

PLATE=0306 MJD=51637 sdR-r2-00003297.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
6500
6000
5500
5000
4500
4000
3500
RED = sky fiber
Dispersion = 3.52 %
0
50
100
150
200
250
300
Fiber number
Flux (8888.3)/Airmass
6500
6000
5500
5000
4500
4000
3500
0
100
200
300
400
Focal Distance [mm]
Flux (8888.3)/Airmass
6500
6000
5500
5000
4500
4000
3500
1.170
1.175
1.180
1.185
1.190
1.195
Airmass

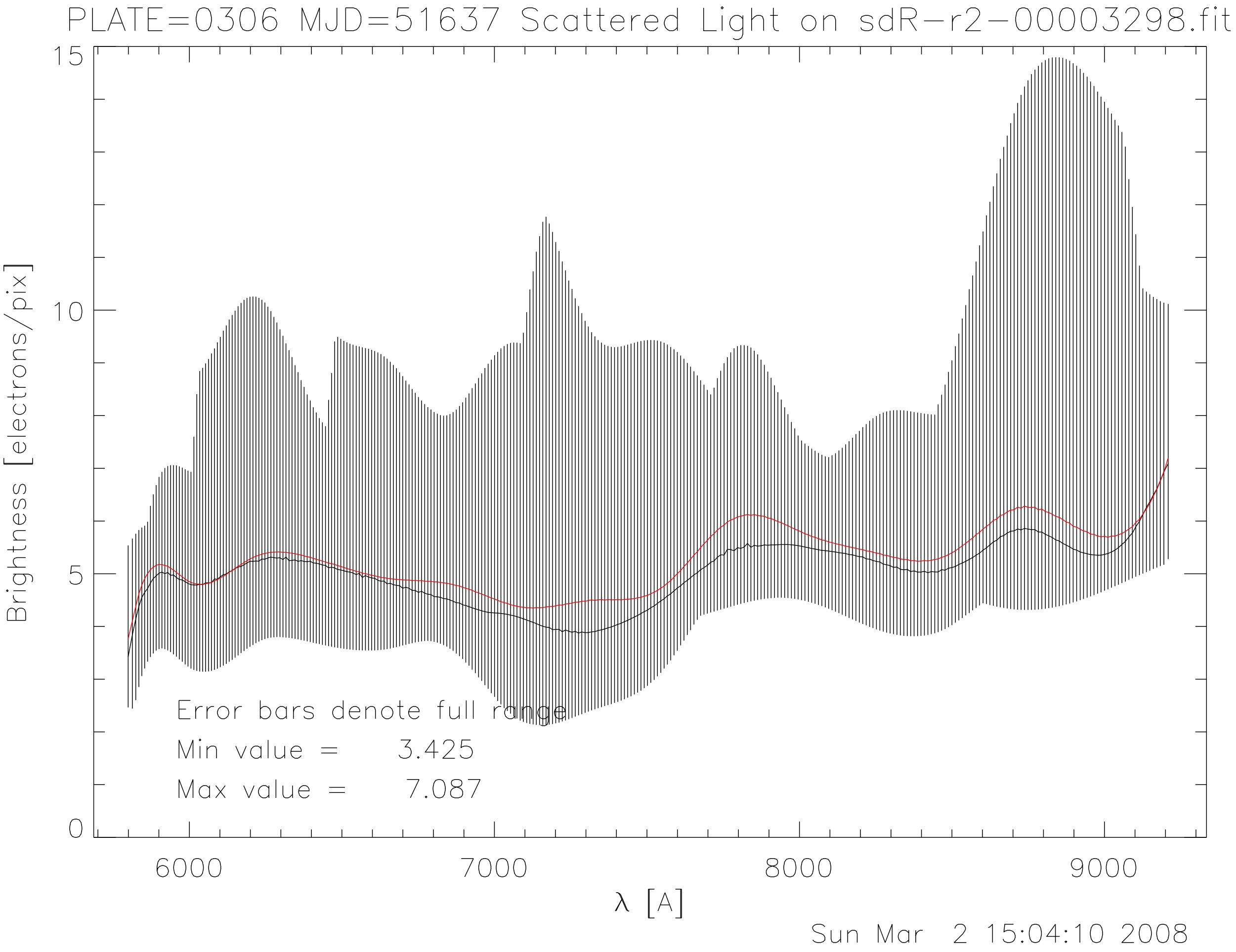

PLATE=0306 MJD=51637 Fiber-Flats for sdR-r2-00003301.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.638
Max value = 1.187
1.5
1.0
0.5
0.0
Fiber-Flat
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sun Mar 2 15:00:32 2008

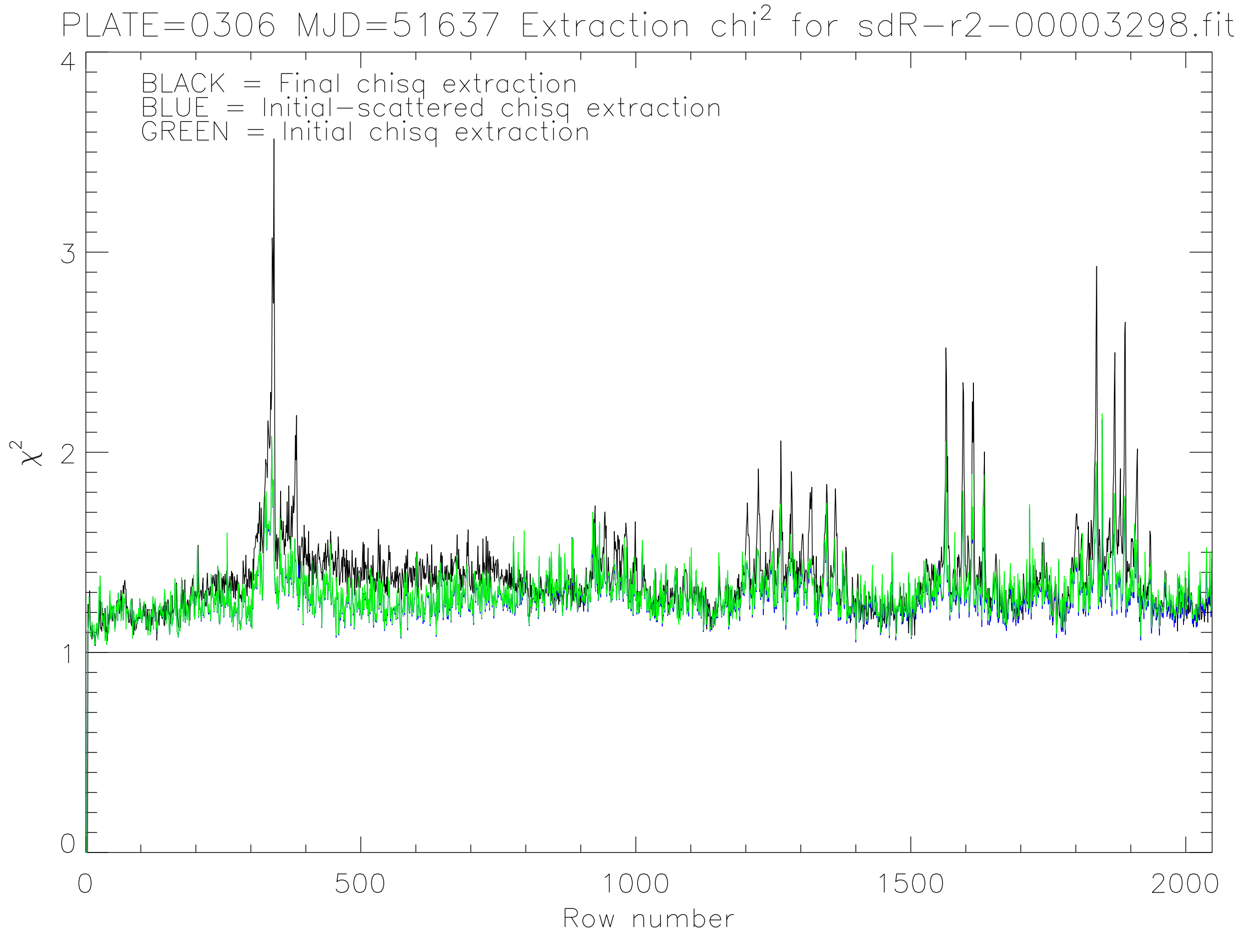
PLATE=0306 MJD=51637 Scattered Light before halo removal on sdR-r2-00003298.fi

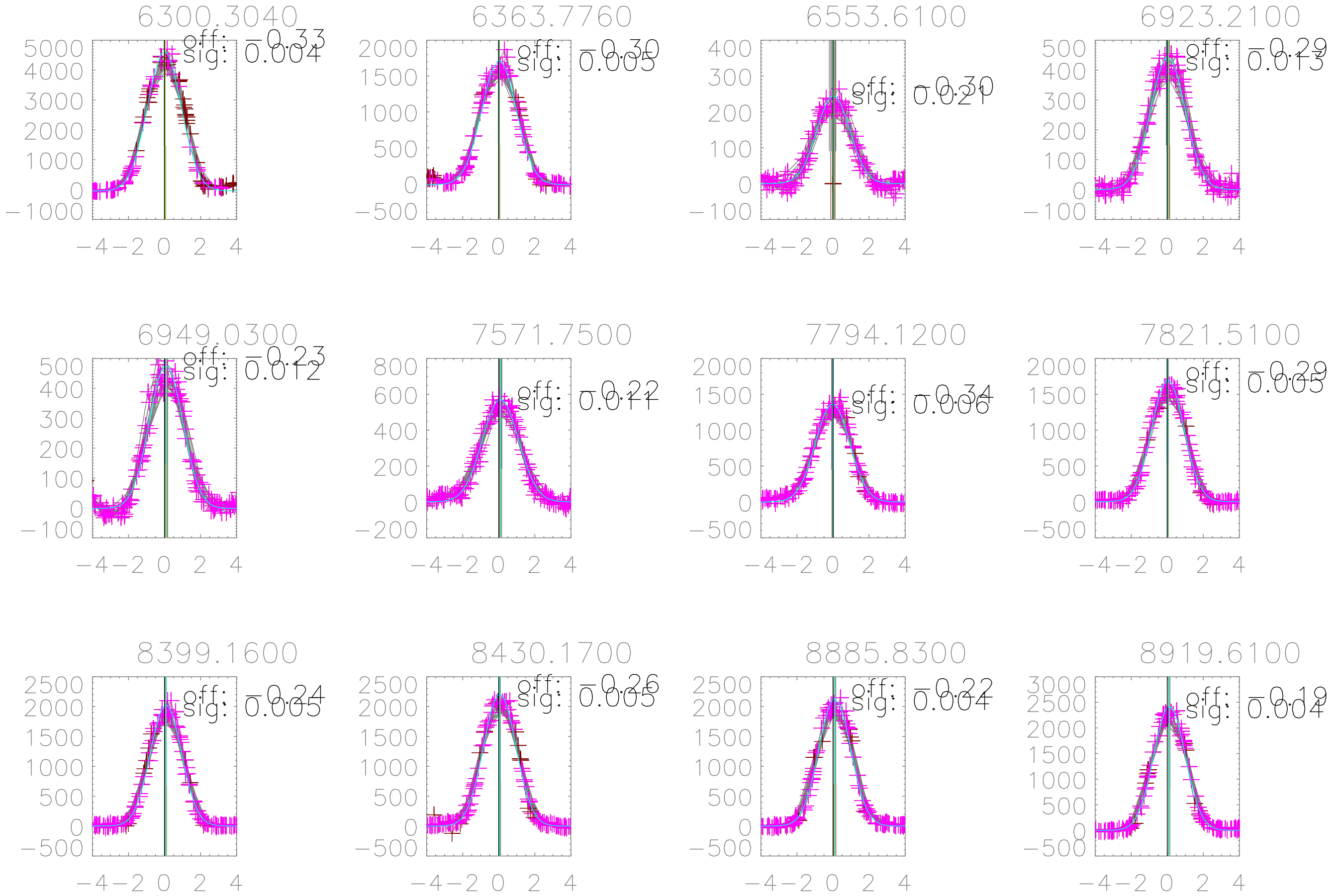


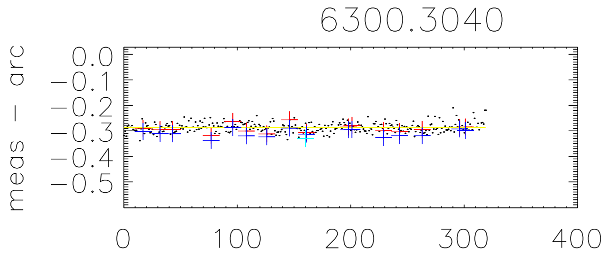

PLATE=0306 MJD=51637 Scattered Light before halo removal on sdR-r2-00003298.fi
Brightness [electrons/pix]
0
10
20
30
40
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 3.454
Max value = 25.953
Sun Mar 2 15:01:21 2008

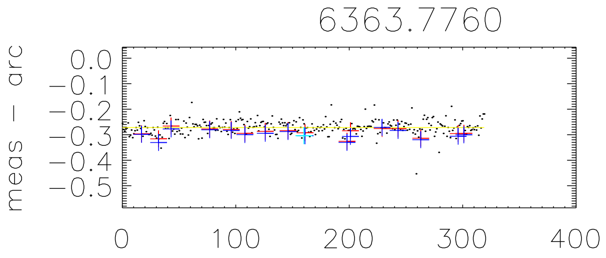

PLATE=0306 MJD=51637 Scattered Light on sdR-r2-00003298.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
5.5

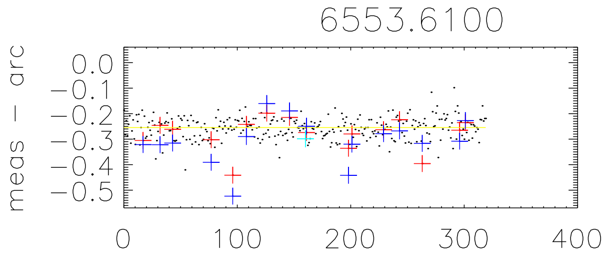

PLATE=0306 MJD=51637 Scattered Light on sdR-r2-00003298.fit
Brightness [electrons/pix]
15
10
5
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 3.425
Max value = 7.087
Sun Mar 2 15:04:10 2008

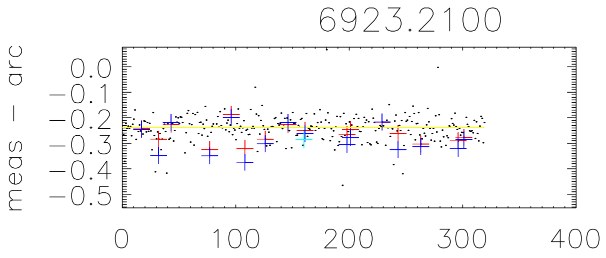

PLATE=0306 MJD=51637 Extraction chi^2 for sdR-r2-00003298.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
0
500
1000
1500
2000
Row number

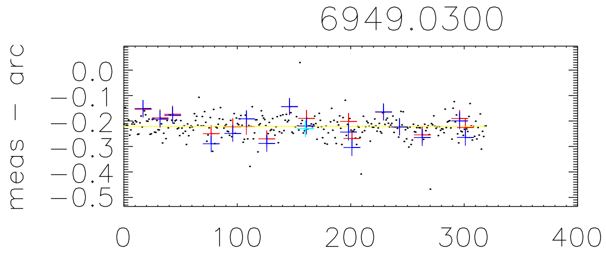

6300.3040
off: −0.33
sig: 0.004
6363.7760
off: −0.30
sig: 0.005
6553.6100
off: −0.30
sig: 0.021
6923.2100
off: −0.29
sig: 0.013
6949.0300
off: −0.23
sig: 0.012
7571.7500
off: −0.22
sig: 0.011
7794.1200
off: −0.34
sig: 0.006
7821.5100
off: −0.29
sig: 0.005
8399.1600
off: −0.24
sig: 0.005
8430.1700
off: −0.26
sig: 0.005
8885.8300
off: −0.22
sig: 0.004
8919.6100
off: −0.19
sig: 0.004
−4 −2 0 2 4

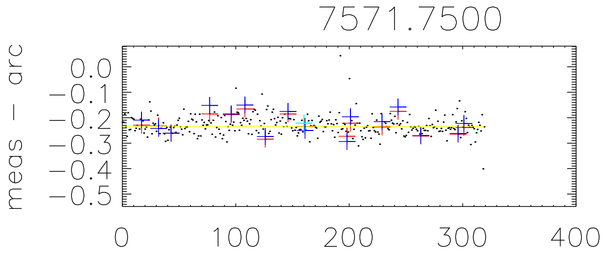

6300.3040
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

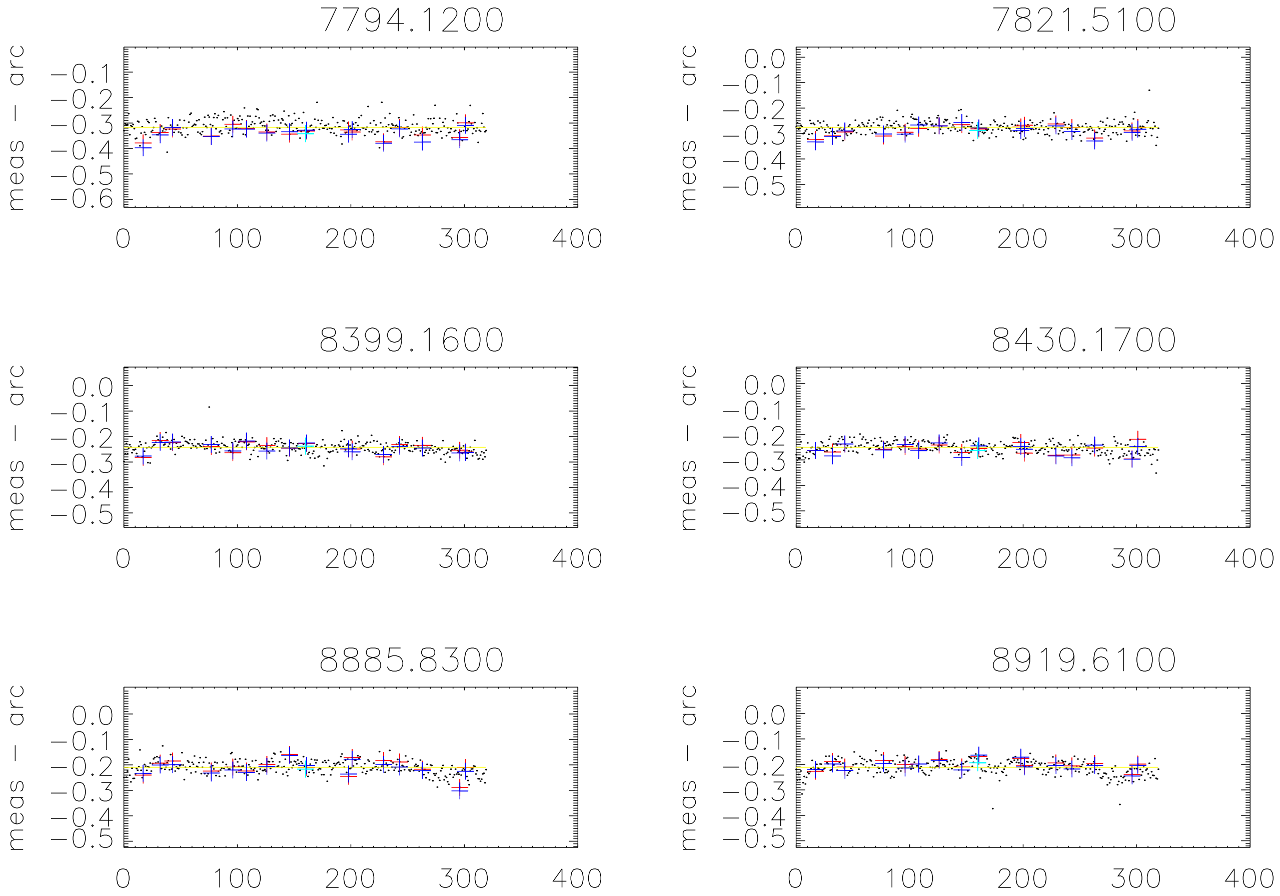

6363.7760
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

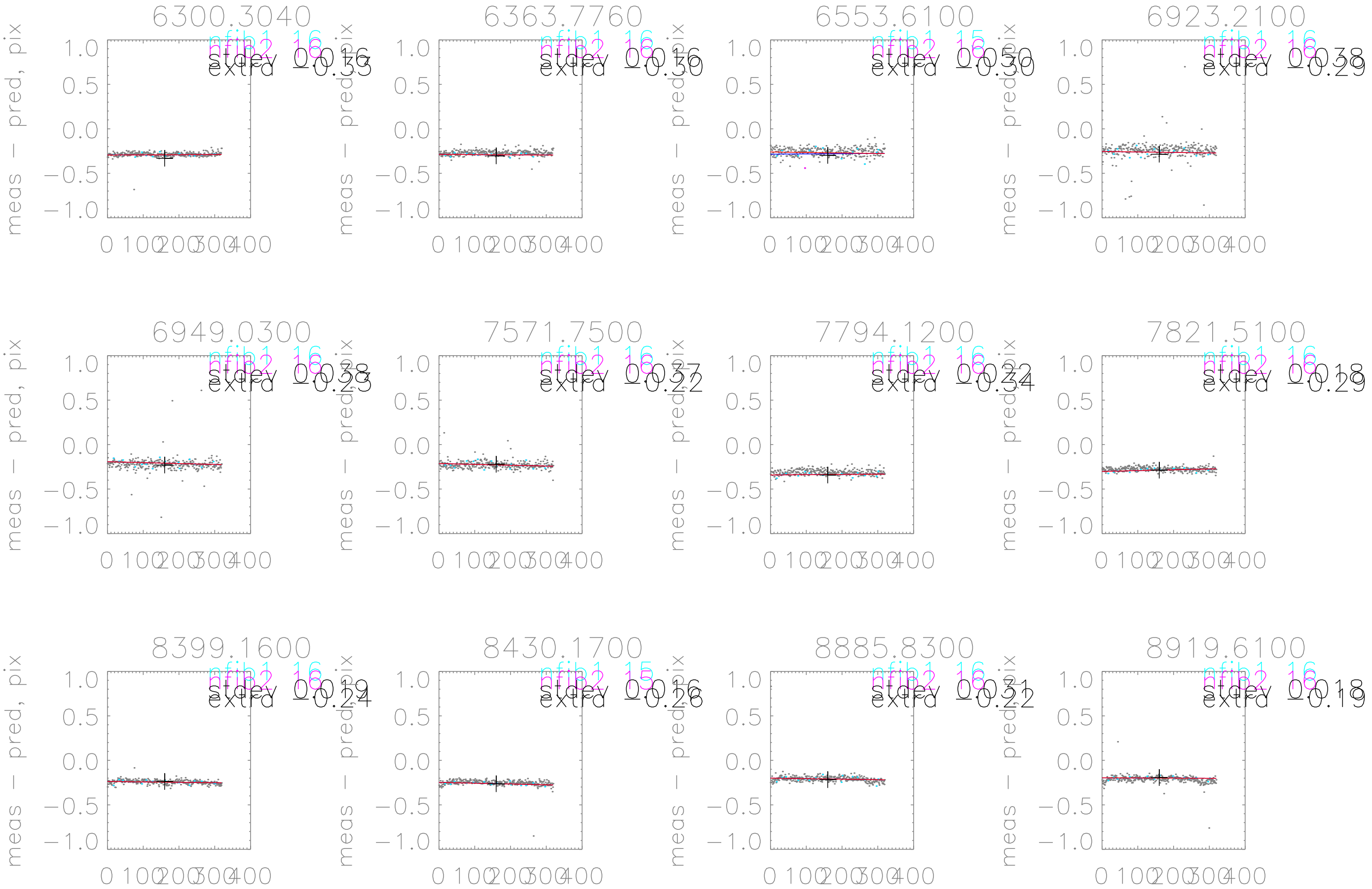

6553.6100
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

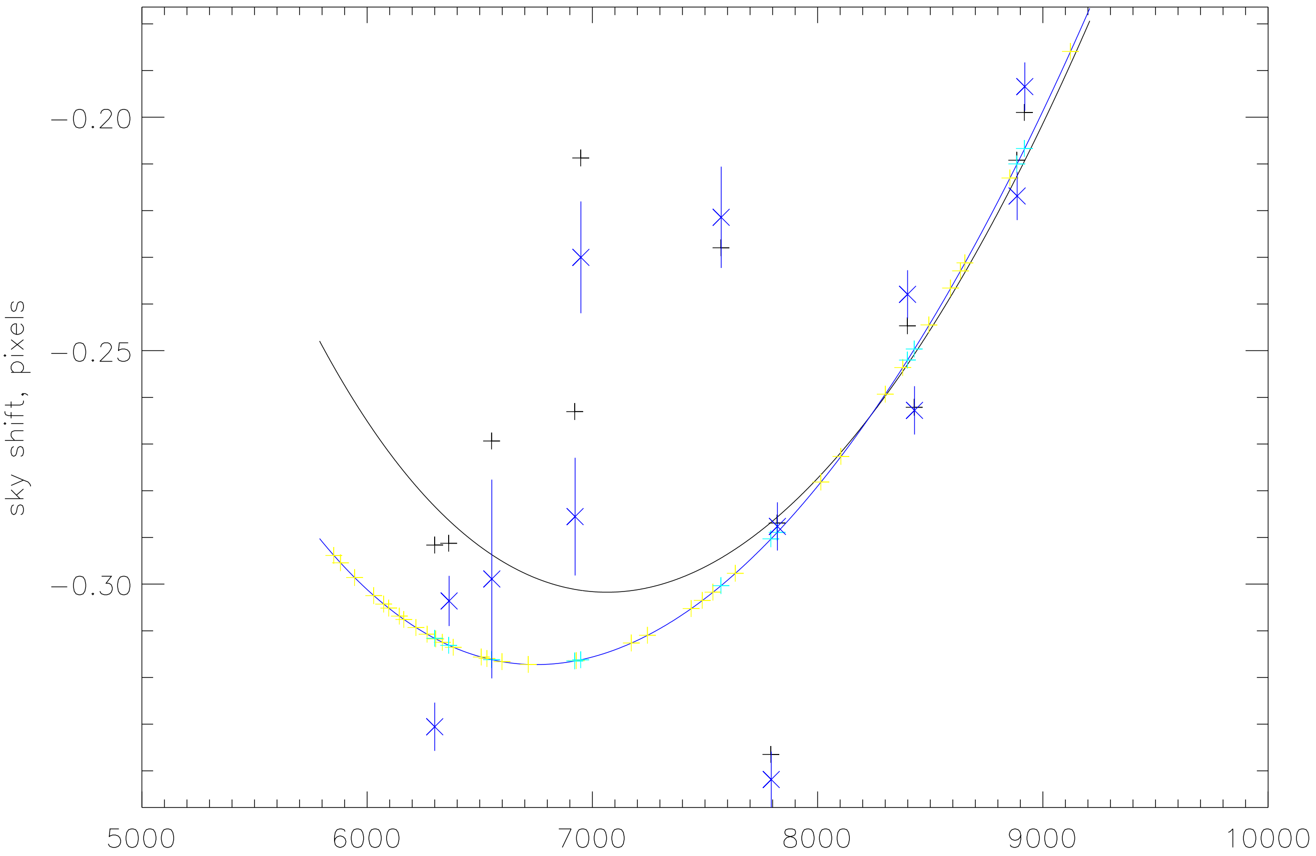

6923.2100
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

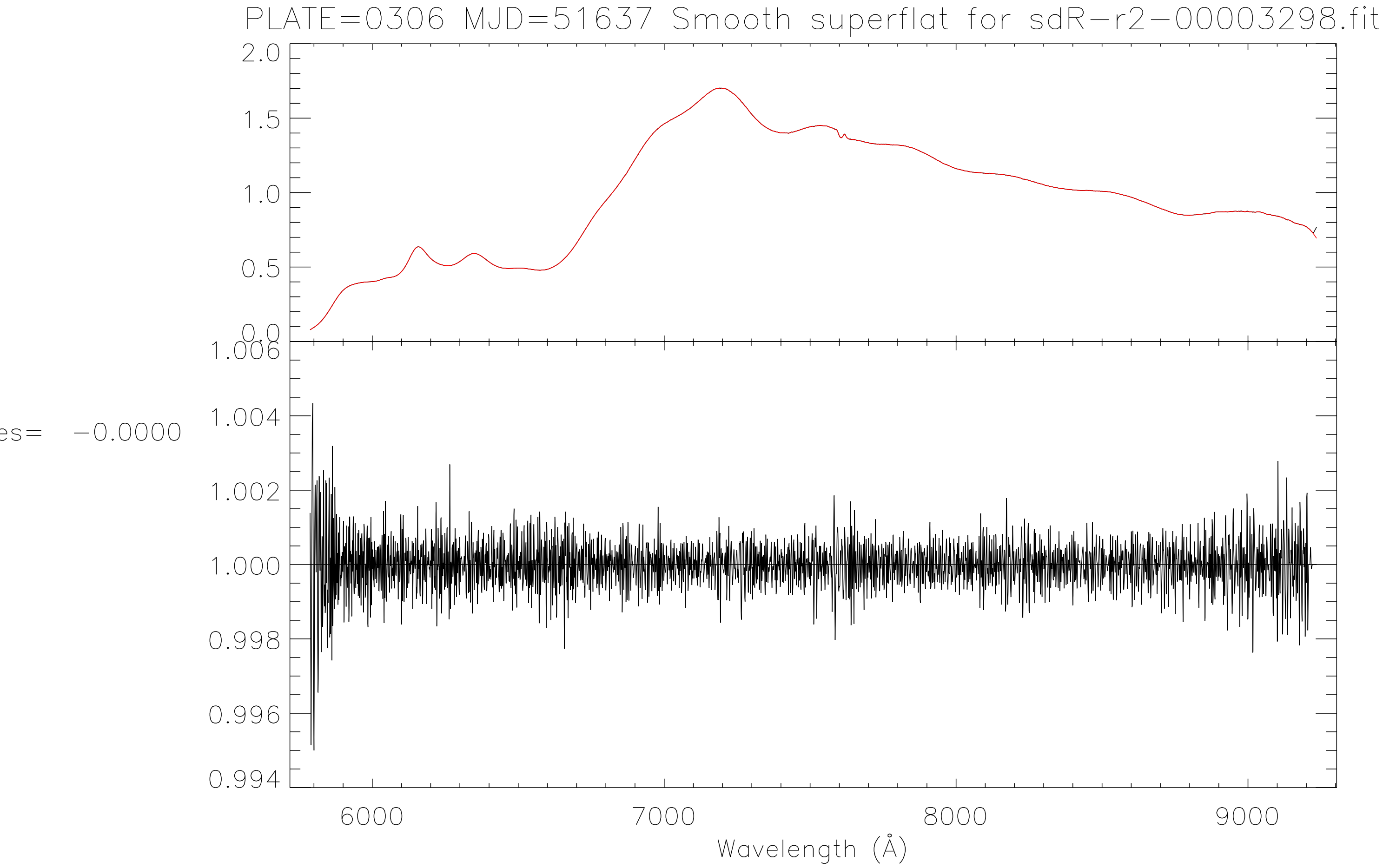

6949.0300
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

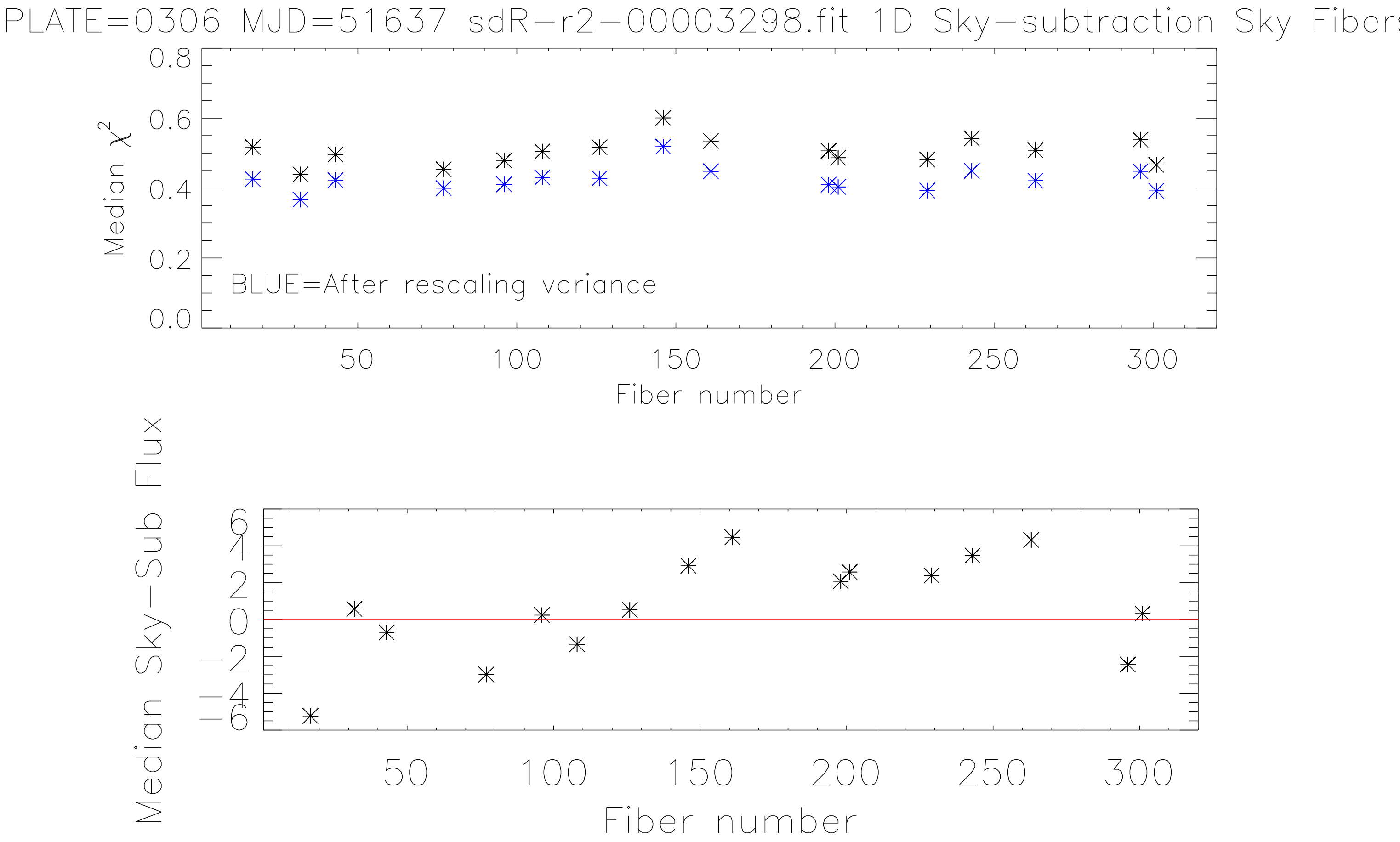

7571.7500
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400


7794.1200
7821.5100
8399.1600
8430.1700
8885.8300
8919.6100
meas − arc
−0.6
−0.5
−0.4
−0.3
−0.2
−0.1
0.0
0
100
200
300
400

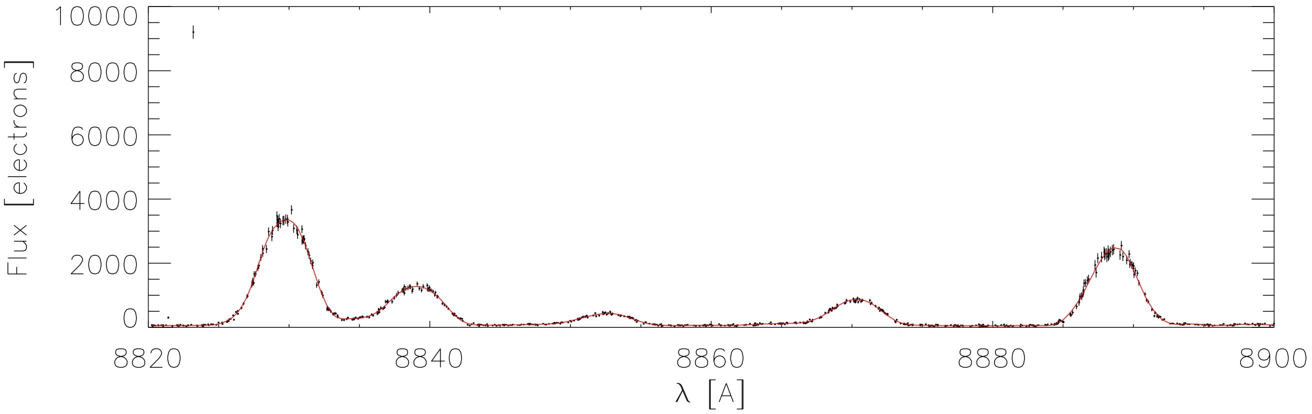

6300.3040
nfib1 16
nfib2 16
stdev 0.016
extrd −0.33
6363.7760
nfib1 16
nfib2 16
stdev 0.016
extrd −0.30
6553.6100
nfib1 15
nfib2 16
stdev 0.050
extrd −0.30
6923.2100
nfib1 16
nfib2 16
stdev 0.038
extrd −0.29
6949.0300
nfib1 16
nfib2 16
stdev 0.038
extrd −0.23
7571.7500
nfib1 16
nfib2 16
stdev 0.037
extrd −0.22
7794.1200
nfib1 16
nfib2 16
stdev 0.032
extrd −0.34
7821.5100
nfib1 16
nfib2 16
stdev 0.018
extrd −0.29
8399.1600
nfib1 16
nfib2 16
stdev 0.019
extrd −0.24
8430.1700
nfib1 15
nfib2 16
stdev 0.016
extrd −0.26
8885.8300
nfib1 16
nfib2 16
stdev 0.031
extrd −0.22
8919.6100
nfib1 16
nfib2 16
stdev 0.018
extrd −0.19
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400


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

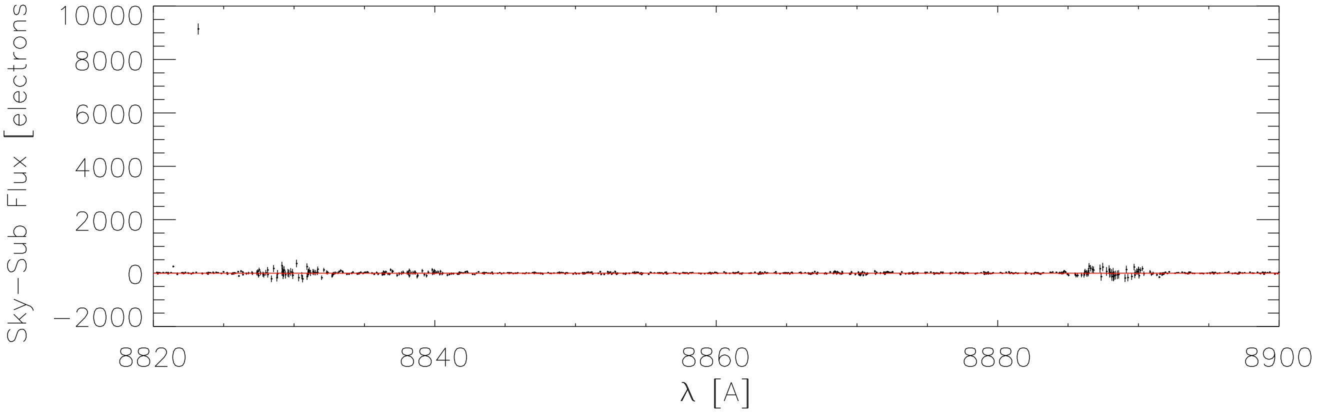

PLATE=0306 MJD=51637 Smooth superflat for sdR-r2-00003298.fit
2.0
1.5
1.0
0.5
0.0
1.006
1.004
1.002
1.000
0.998
0.996
0.994
es= −0.0000
6000
7000
8000
9000
Wavelength (Å)


PLATE=0306 MJD=51637 sdR-r2-00003298.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-6
-4
-2
0
2
4
6
50
100
150
200
250
300
Fiber number

PLATE=0306 MJD=51637 sdR-r2-00003298.fit 1D Sky-subtraction Sky Fibers

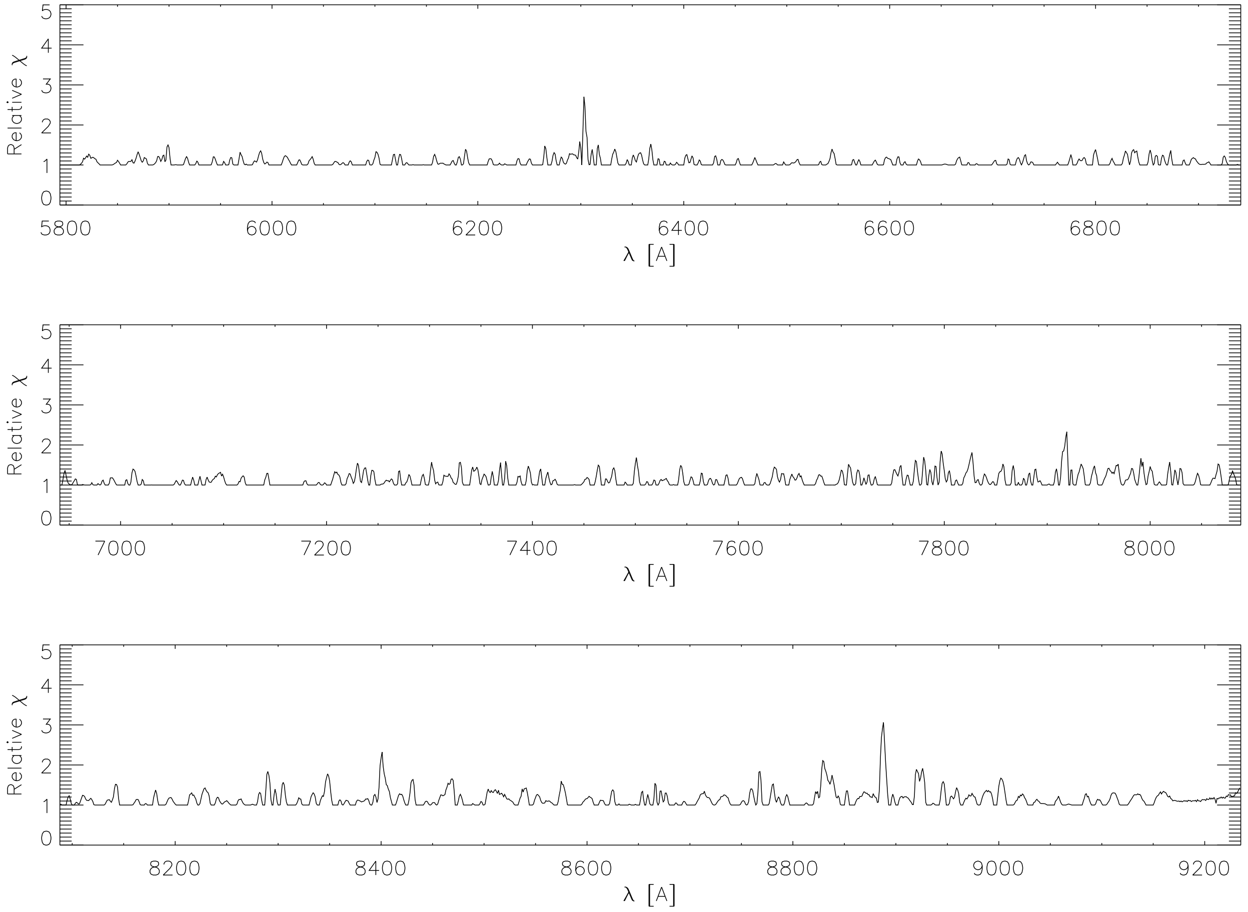


PLATE=0306 MJD=51637 sdR-r2-00003298.fit 1D Sky-subtraction Sky-subtracted Sky F

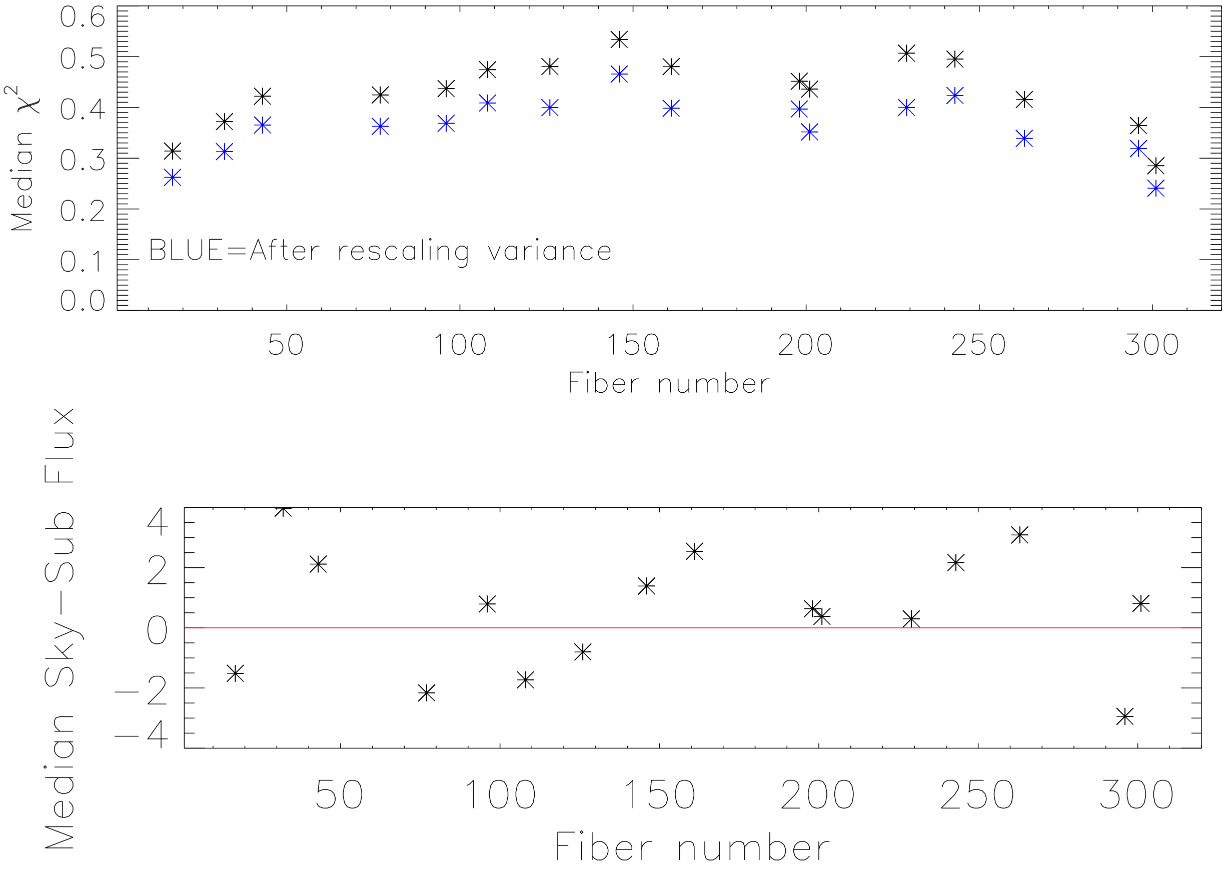


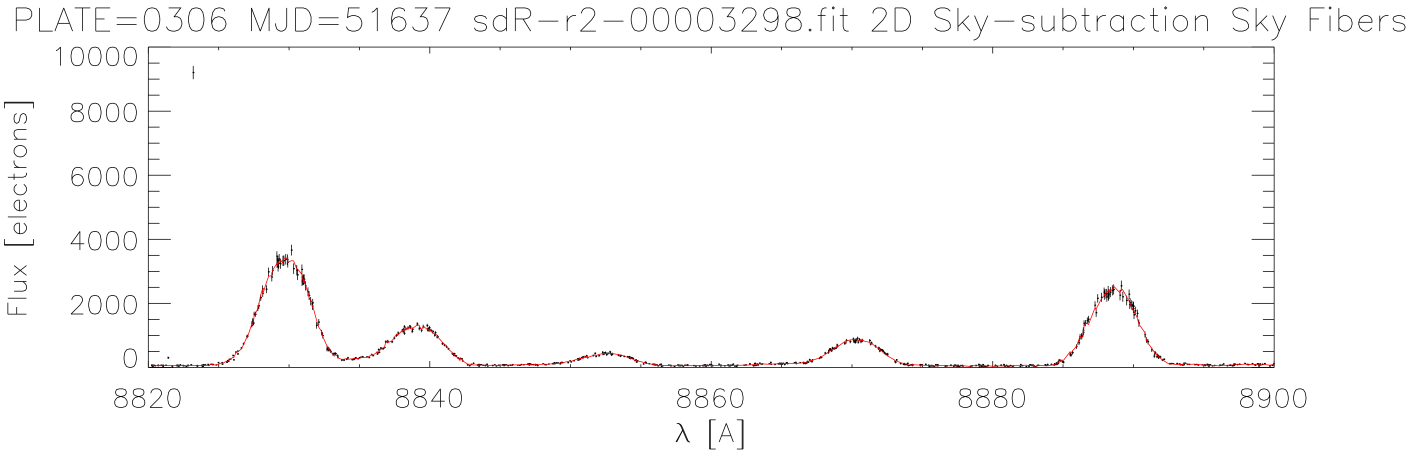
Number of sky fibers = 16

PLATE=0306 MJD=51637 sdR-r2-00003298.fit 1D Sky-subtraction Rescaled Errors

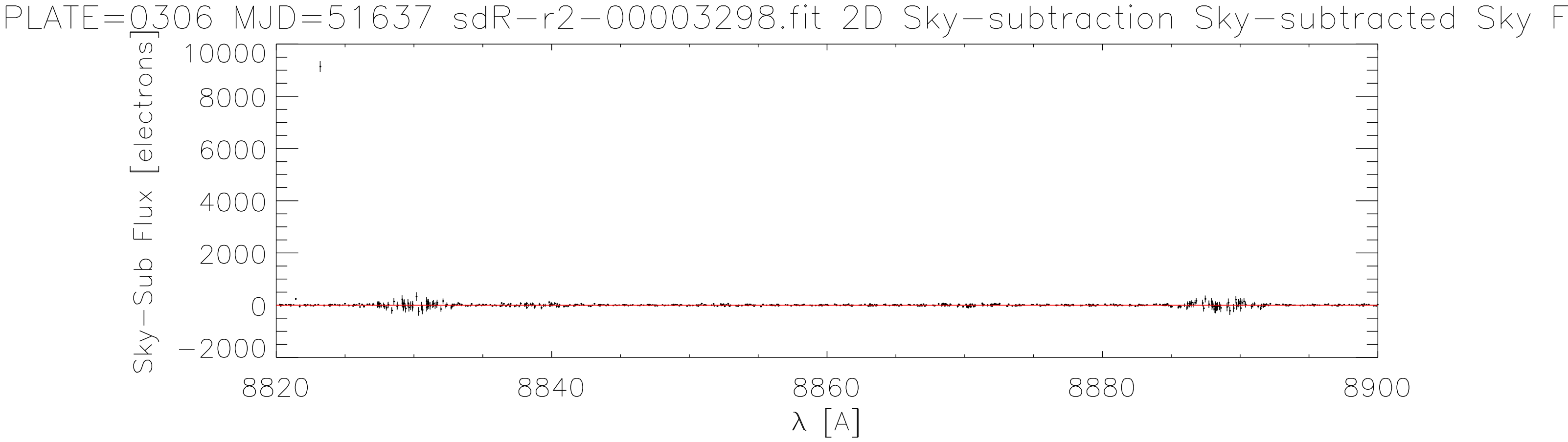


PLATE=0306 MJD=51637 sdR-r2-00003298.fit 2D Sky-subtraction Sky Fibers





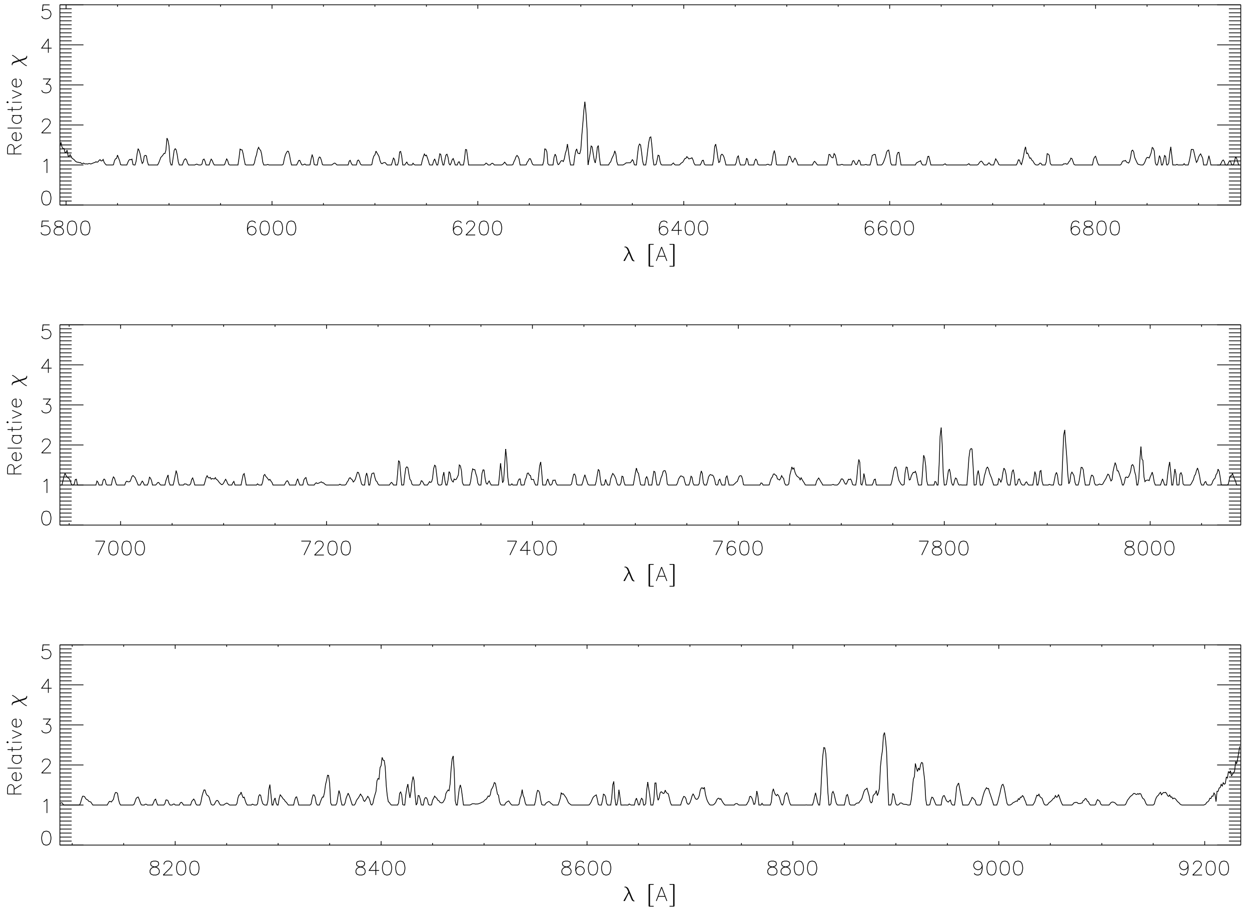
PLATE=0306 MJD=51637 sdR-r2-00003298.fit 2D Sky-subtraction Sky Fibers

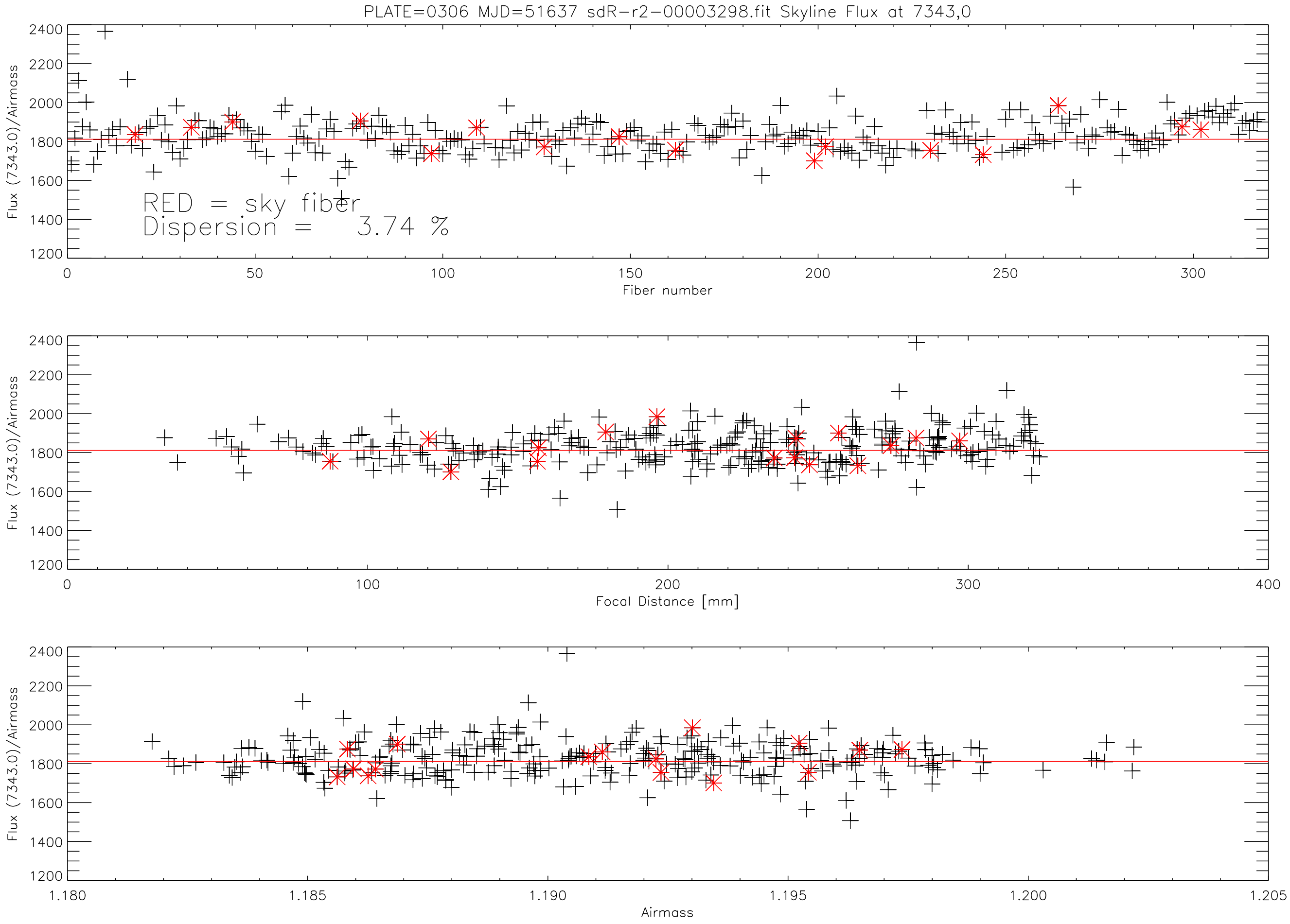


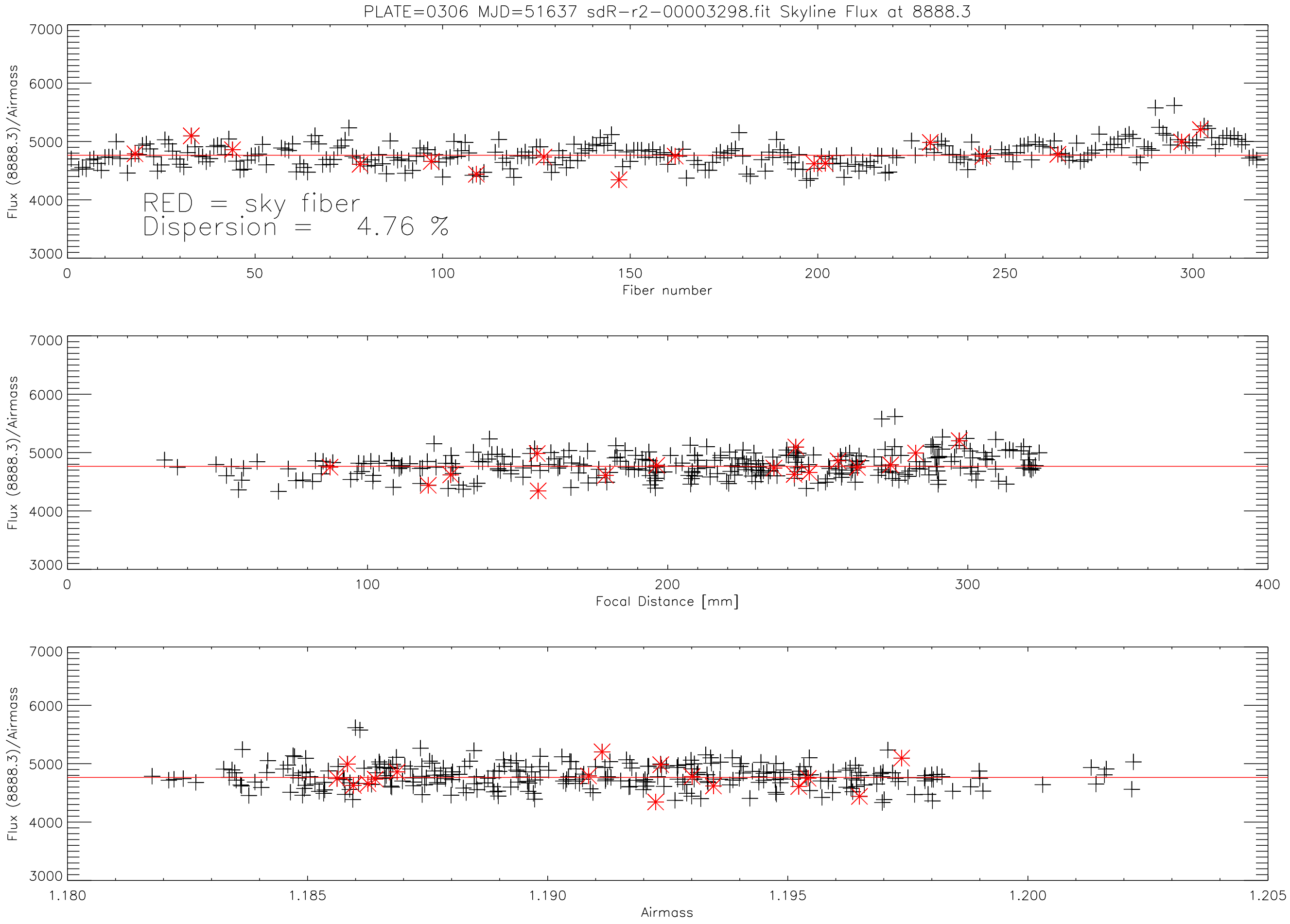
PLATE=0306 MJD=51637 sdR-r2-00003298.fit 2D Sky-subtraction Sky-subtracted Sky F

Number of sky fibers = 16

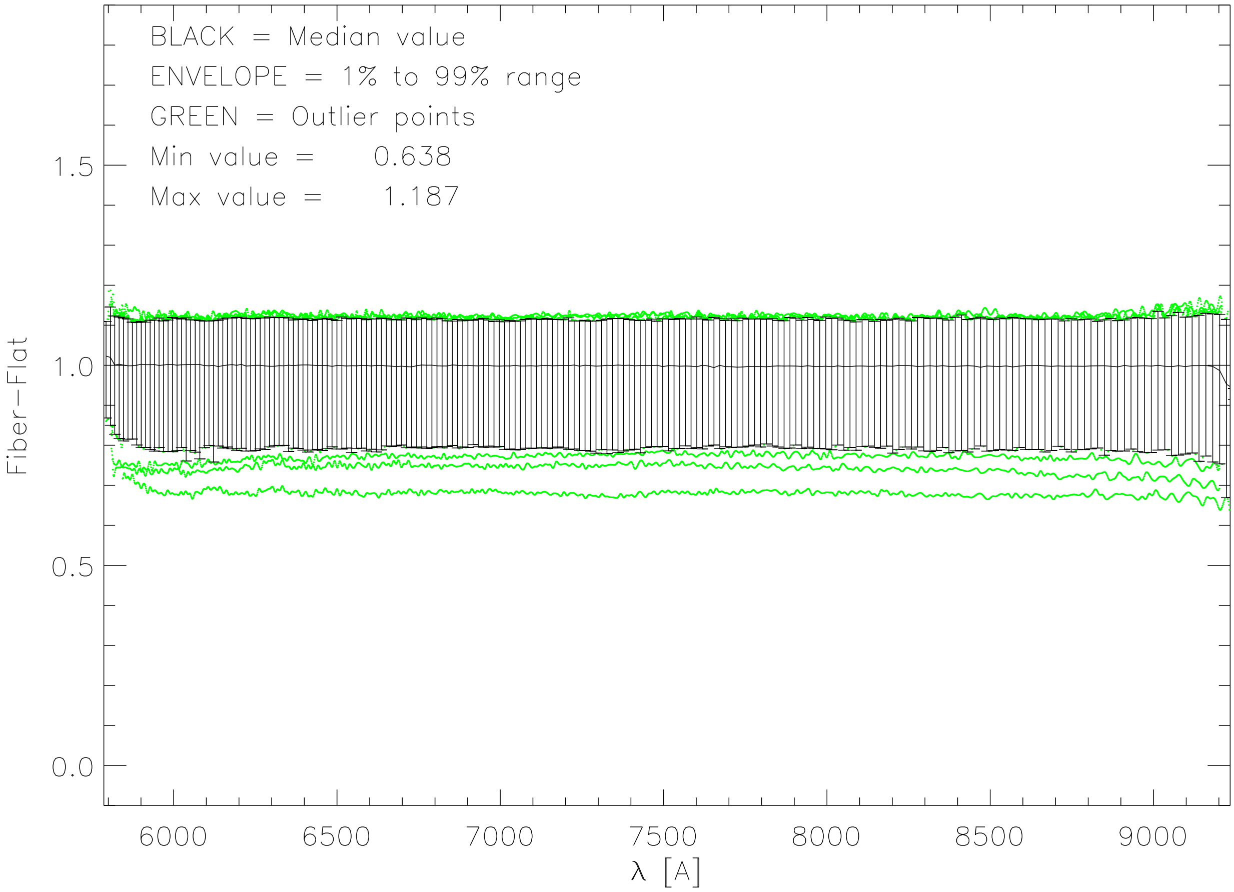
PLATE=0306 MJD=51637 sdR-r2-00003298.fit 2D Sky-subtraction Rescaled Errors




PLATE=0306 MJD=51637 sdR-r2-00003298.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
2400
2200
2000
1800
1600
1400
1200
RED = sky fiber
Dispersion = 3.74 %
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
1.180
1.185
1.190
1.195
1.200
1.205
Airmass

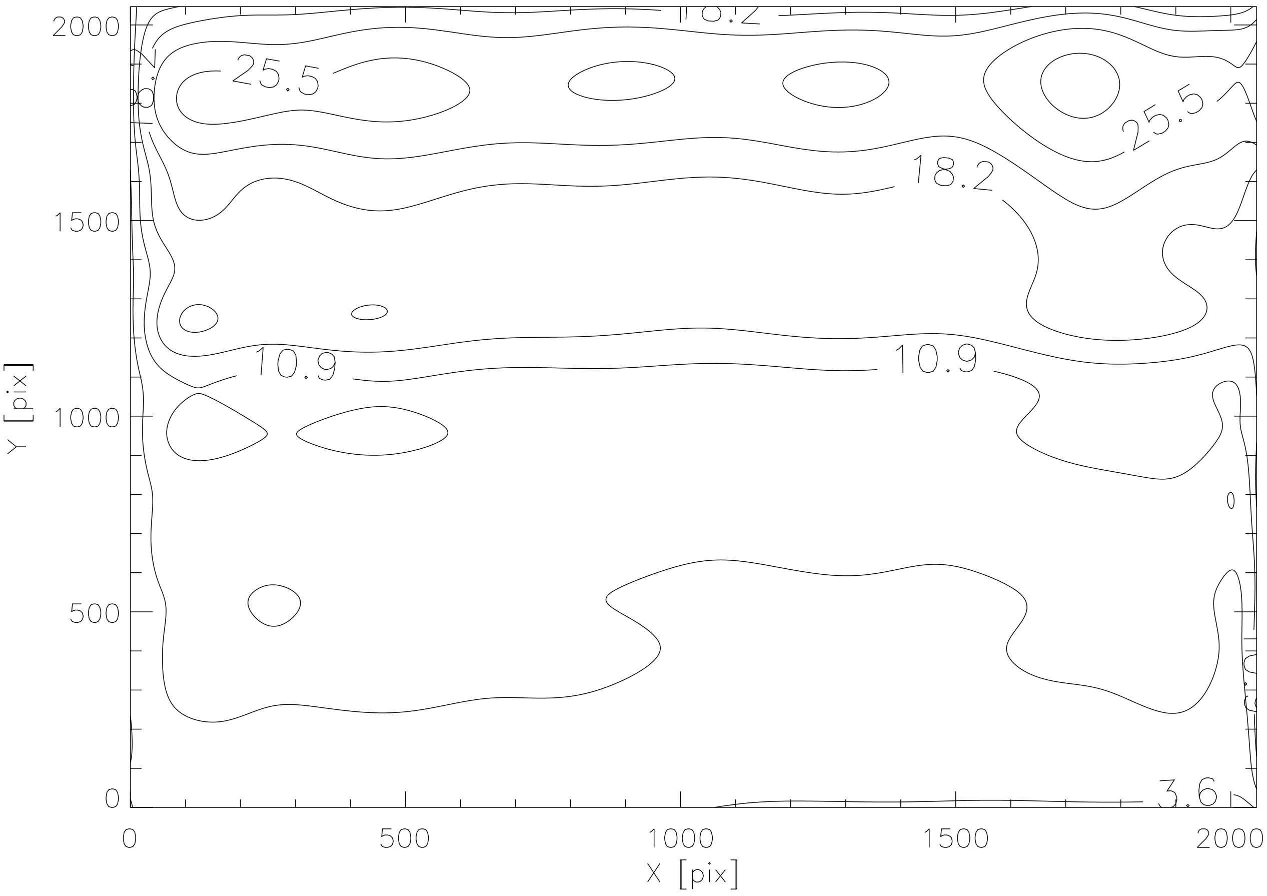

PLATE=0306 MJD=51637 sdR-r2-00003298.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
7000
6000
5000
4000
3000
RED = sky fiber
Dispersion = 4.76 %
0
50
100
150
200
250
300
Fiber number
Flux (8888.3)/Airmass
7000
6000
5000
4000
3000
0
100
200
300
400
Focal Distance [mm]
Flux (8888.3)/Airmass
7000
6000
5000
4000
3000
1.180
1.185
1.190
1.195
1.200
1.205
Airmass

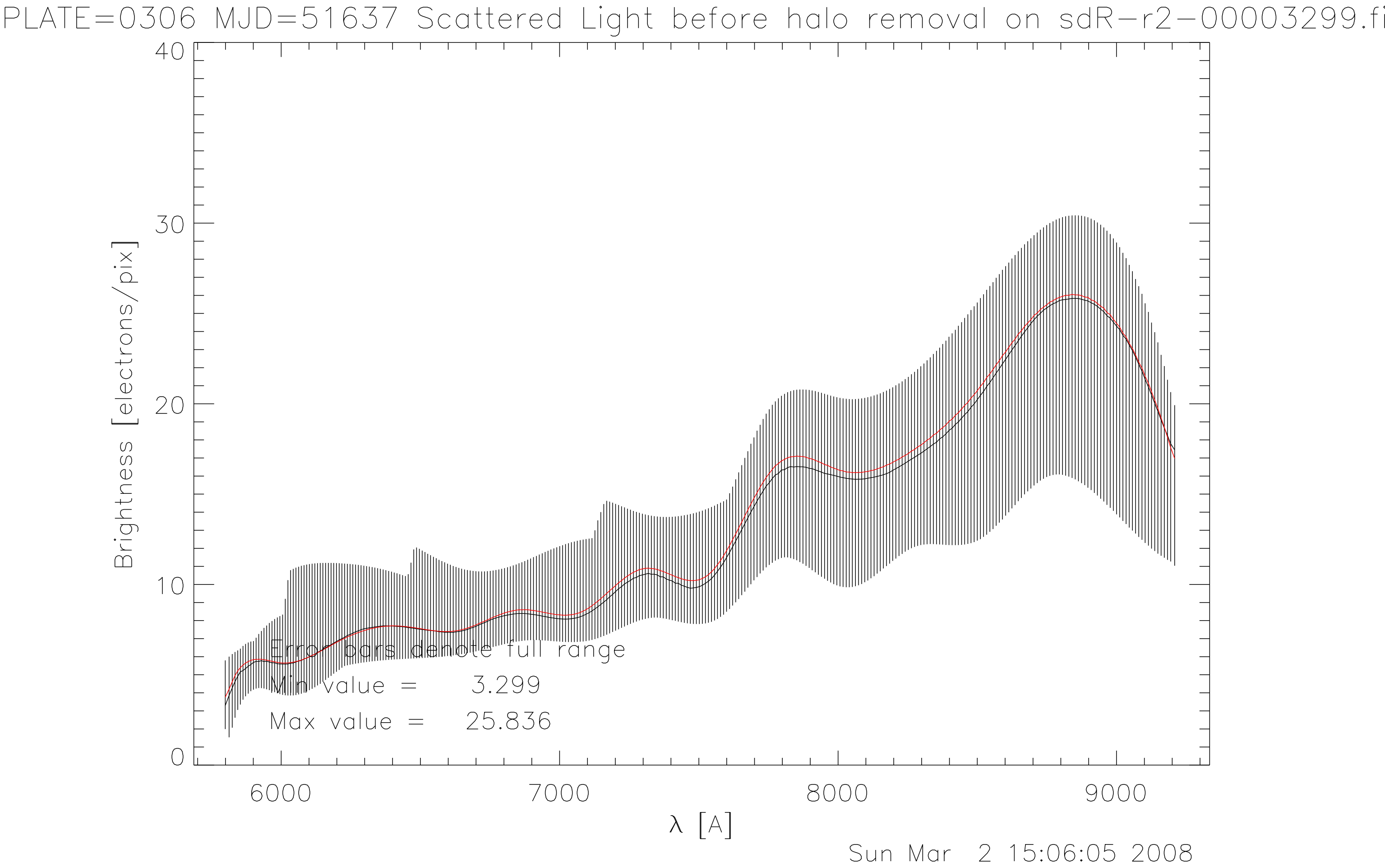
PLATE=0306 MJD=51637 Fiber−Flats for sdR−r2−00003301.fit

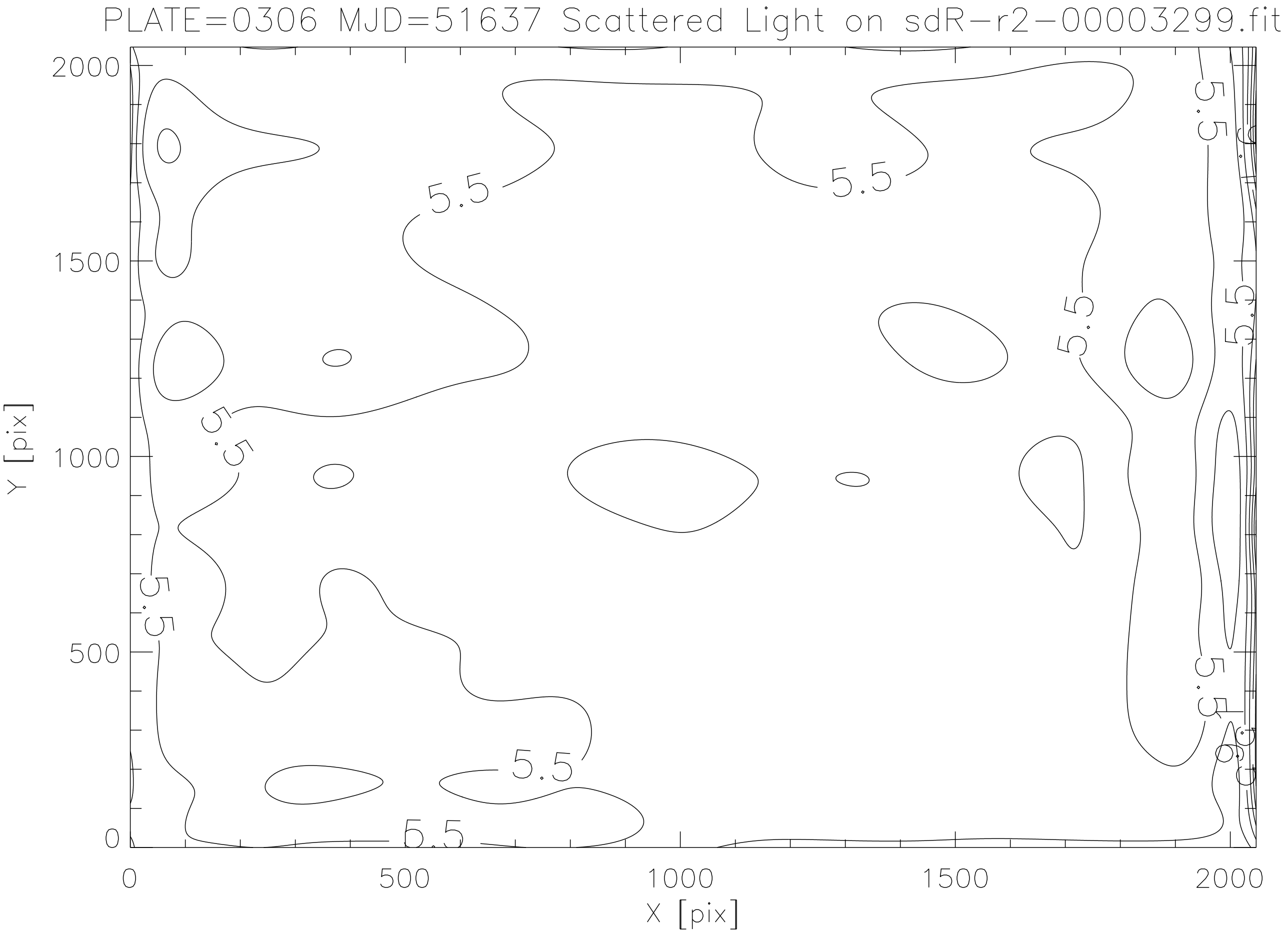


Sun Mar 2 15:05:16 2008

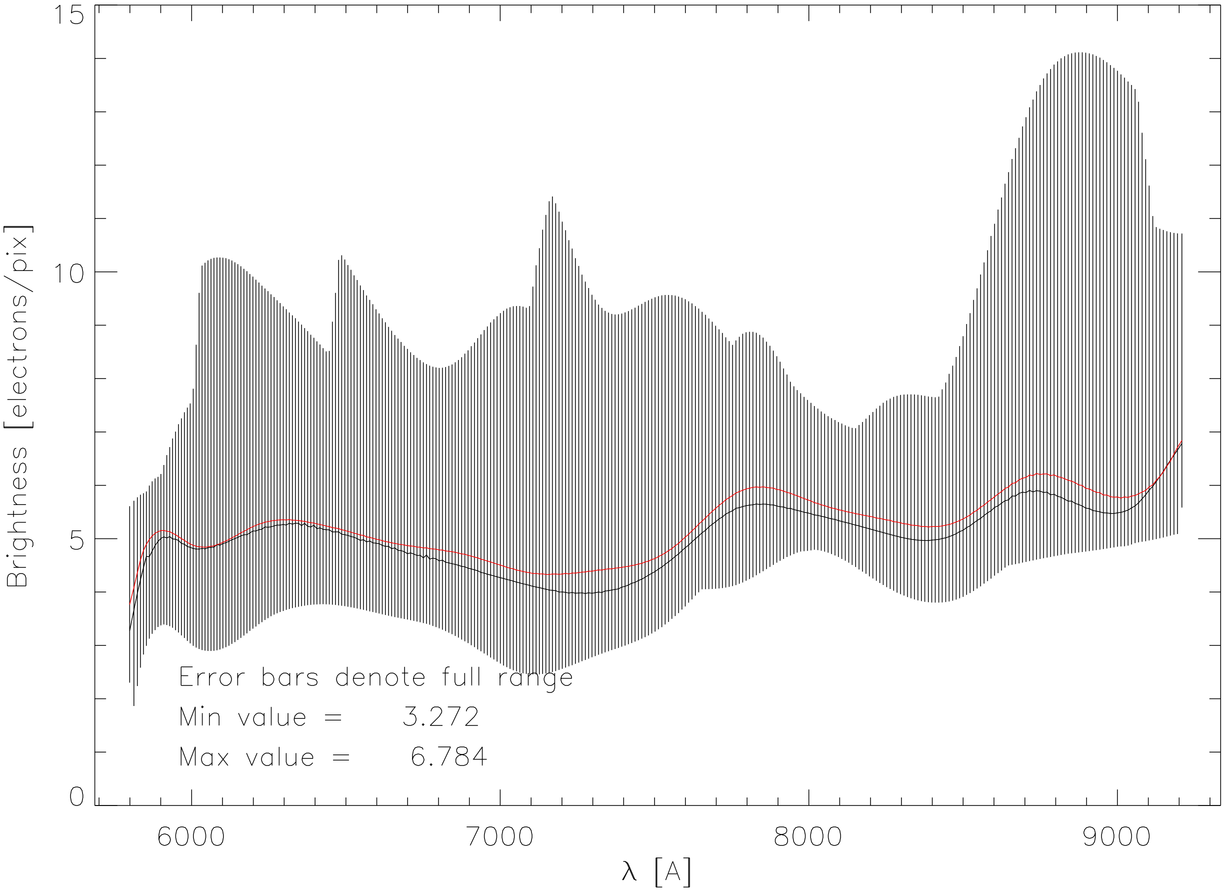
PLATE=0306 MJD=51637 Scattered Light before halo removal on sdR-r2-00003299.fi



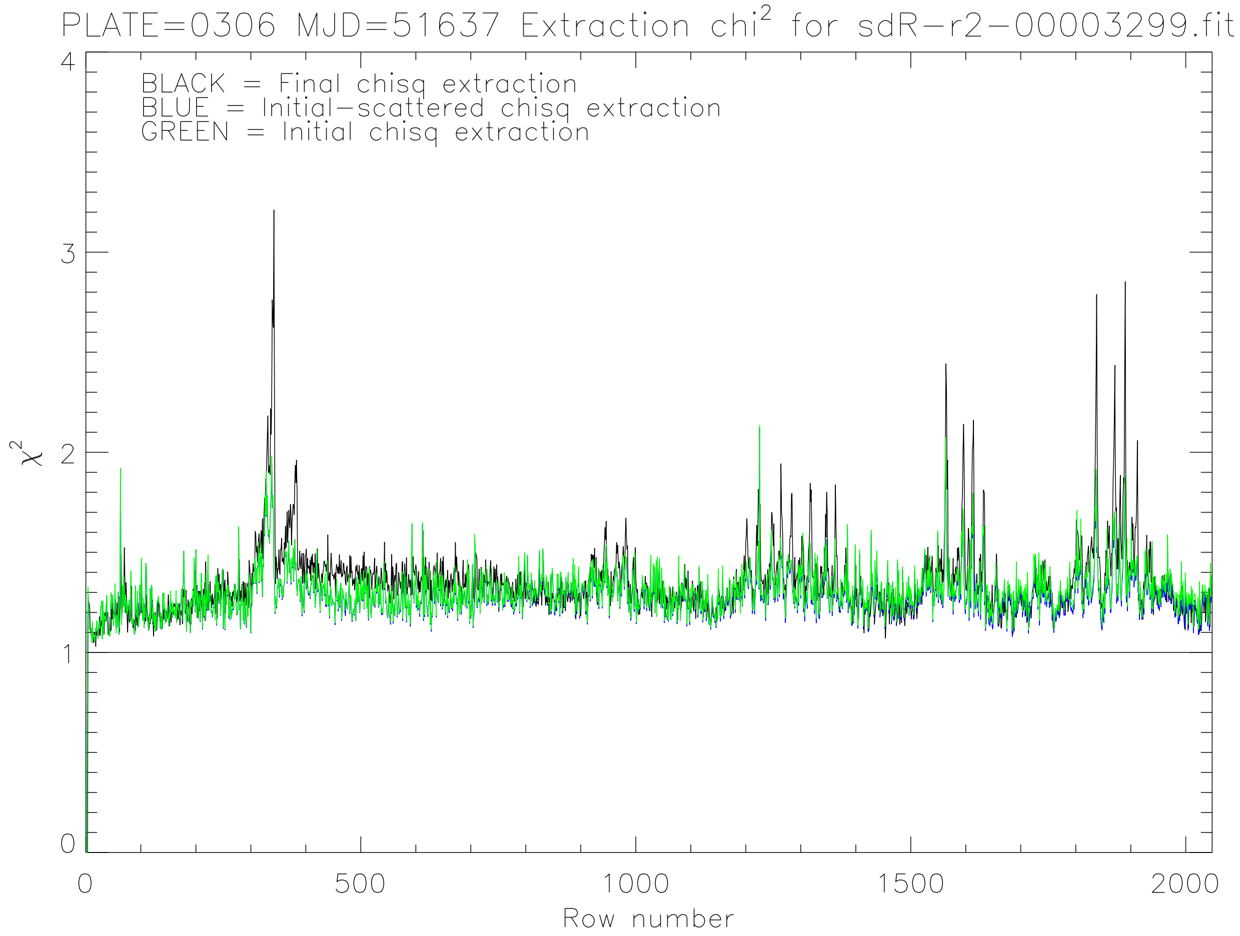

PLATE=0306 MJD=51637 Scattered Light before halo removal on sdR-r2-00003299.fi
Brightness [electrons/pix]
0
10
20
30
40
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 3.299
Max value = 25.836
Sun Mar 2 15:06:05 2008

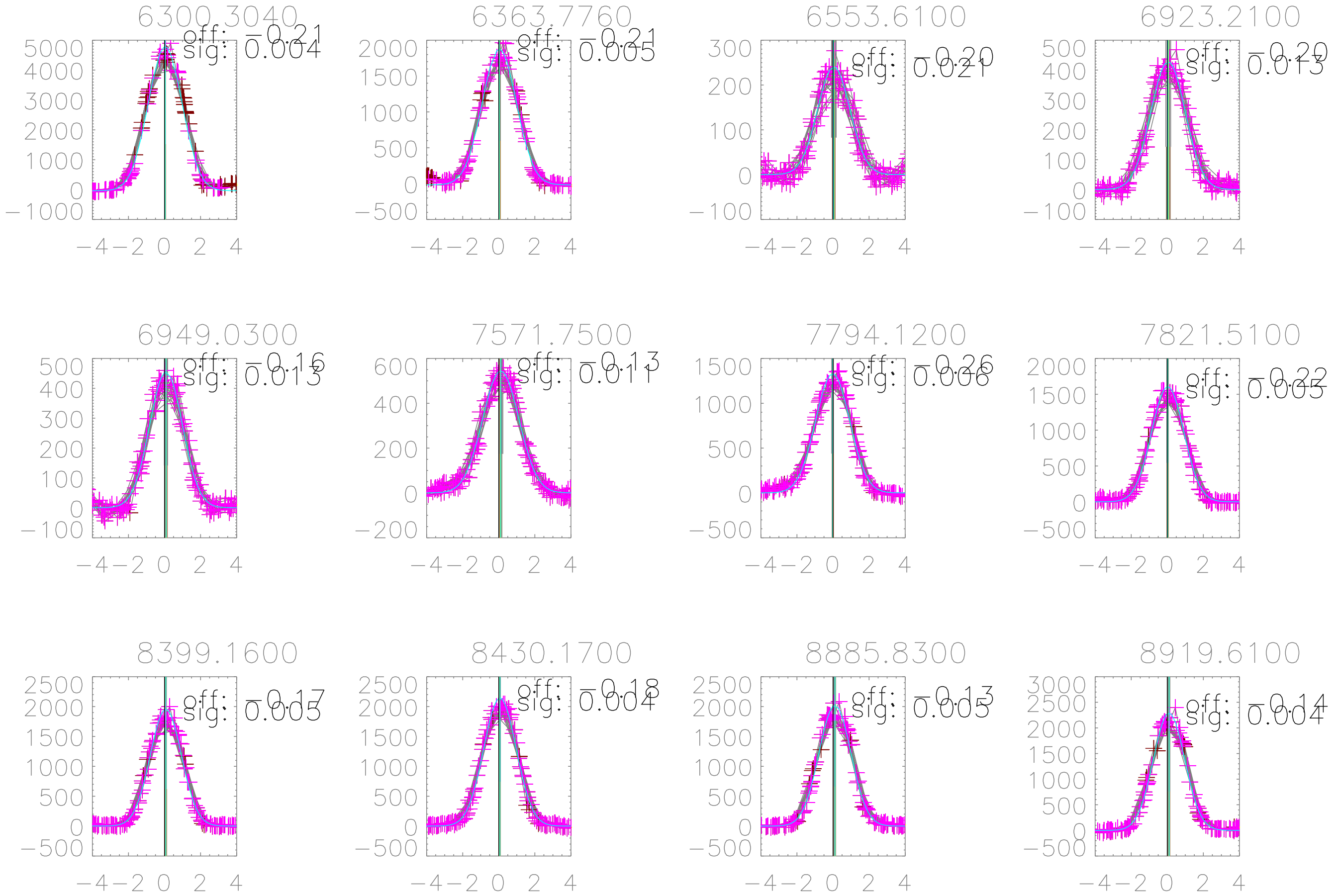

PLATE=0306 MJD=51637 Scattered Light on sdR-r2-00003299.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
5.5

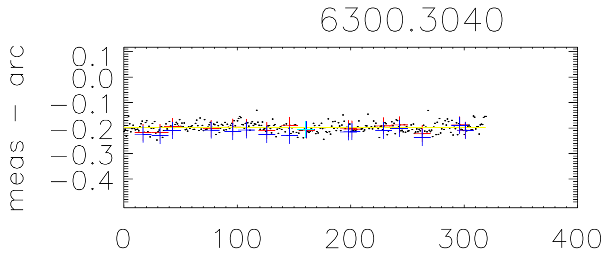
PLATE=0306 MJD=51637 Scattered Light on sdR-r2-00003299.fit

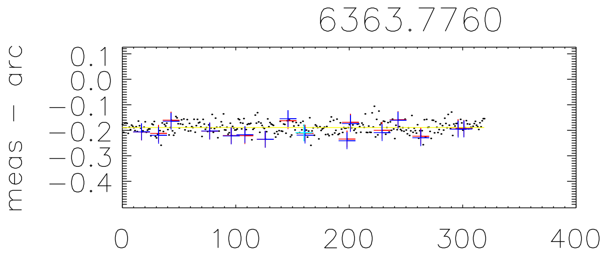


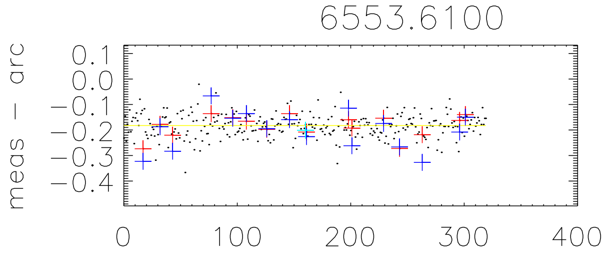
Sun Mar 2 15:08:52 2008

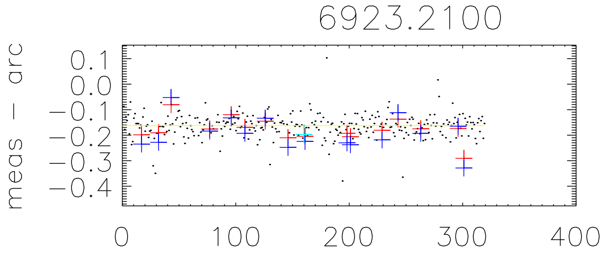

PLATE=0306 MJD=51637 Extraction chi^2 for sdR-r2-00003299.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
Row number
0
500
1000
1500
2000

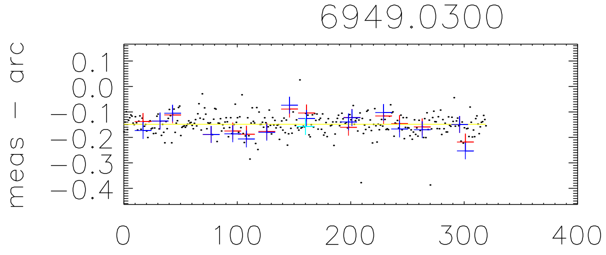

6300.3040
off: −0.21
sig: 0.004
6363.7760
off: −0.21
sig: 0.005
6553.6100
off: −0.20
sig: 0.021
6923.2100
off: −0.20
sig: 0.013
6949.0300
off: −0.16
sig: 0.013
7571.7500
off: −0.13
sig: 0.011
7794.1200
off: −0.26
sig: 0.006
7821.5100
off: −0.22
sig: 0.005
8399.1600
off: −0.17
sig: 0.005
8430.1700
off: −0.18
sig: 0.004
8885.8300
off: −0.13
sig: 0.005
8919.6100
off: −0.14
sig: 0.004
−4 −2 0 2 4

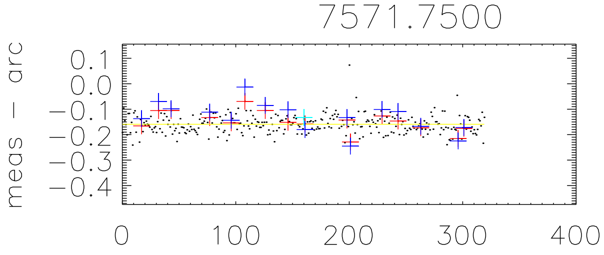

6300.3040
meas – arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

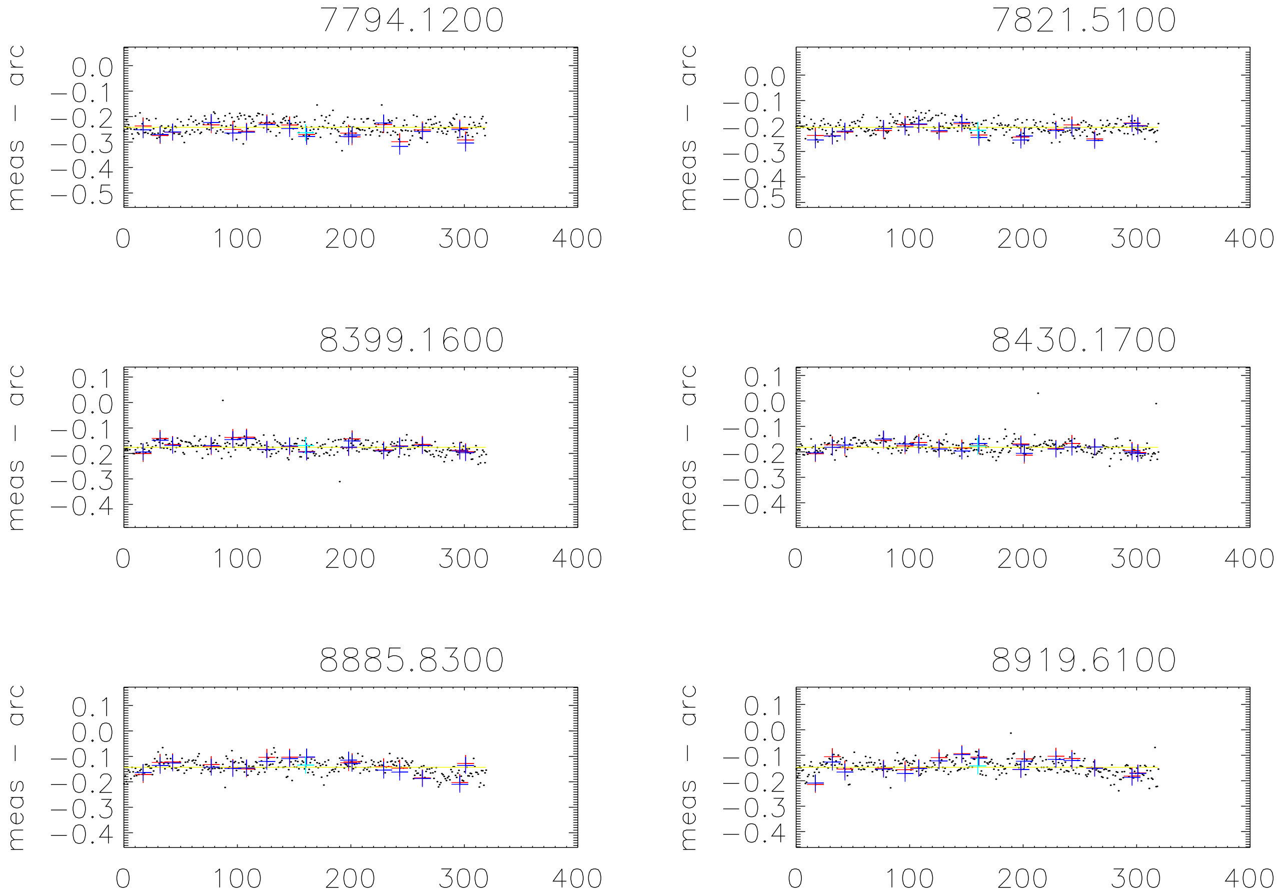

6363.7760
meas – arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

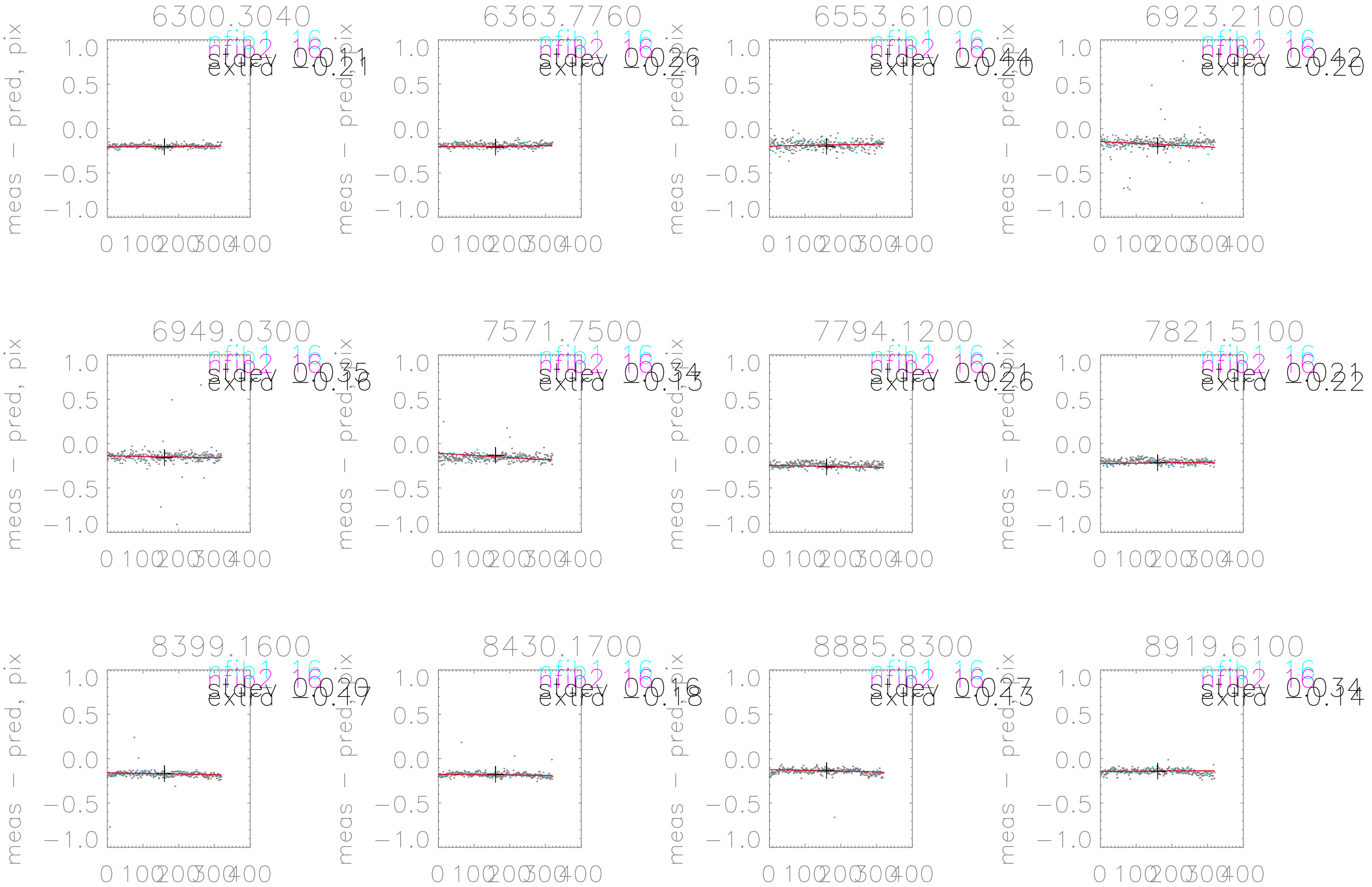

6553.6100
meas – arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400


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

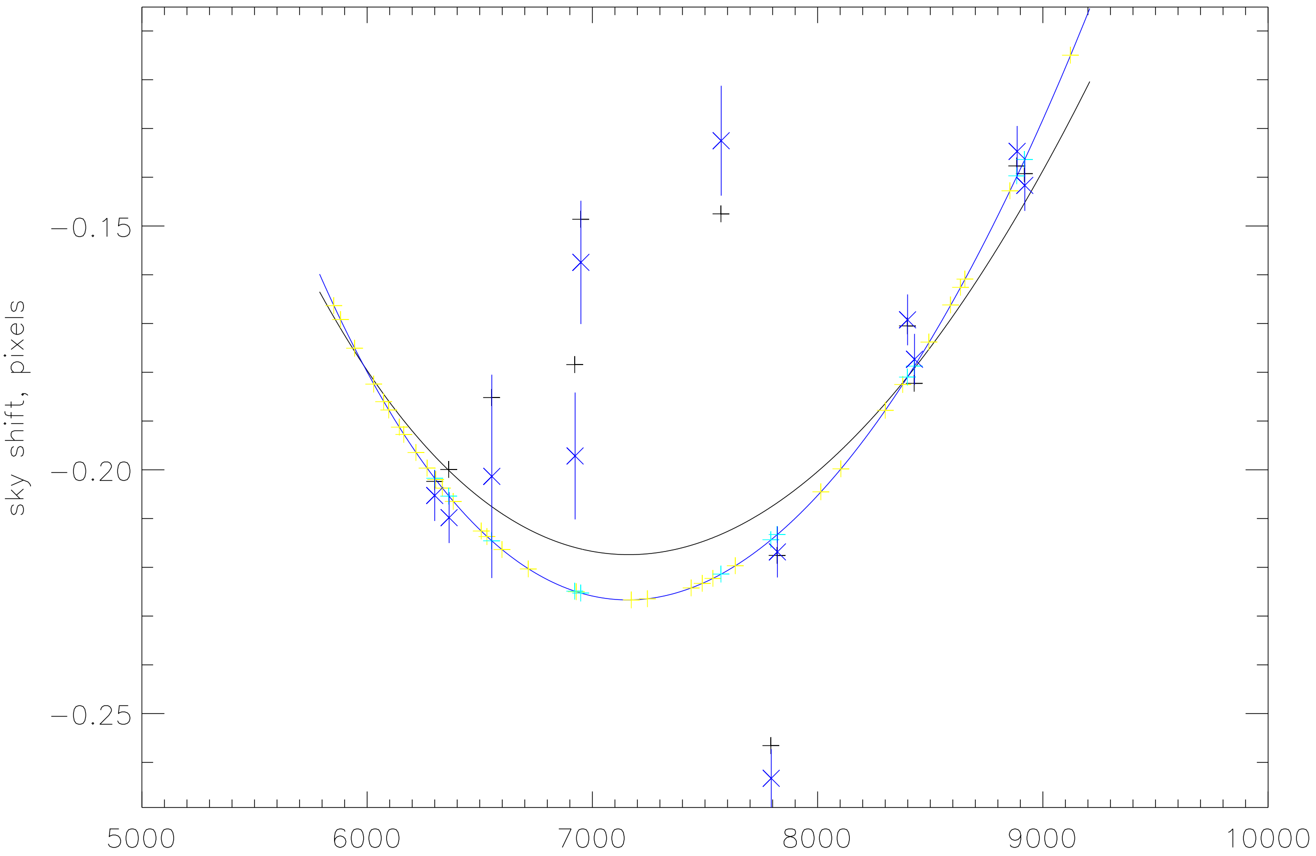

6949.0300
meas – arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

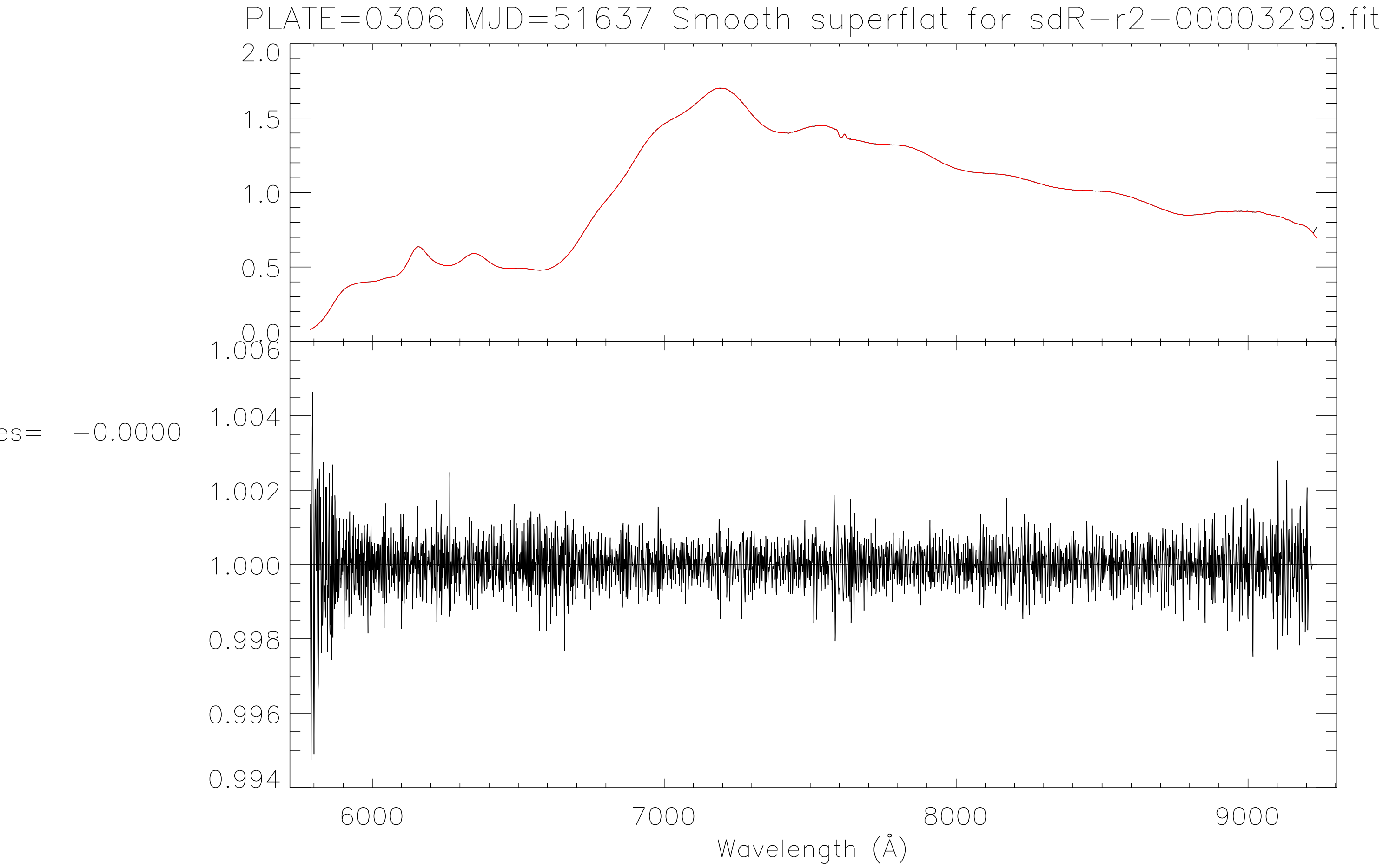

7571.7500
meas – arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

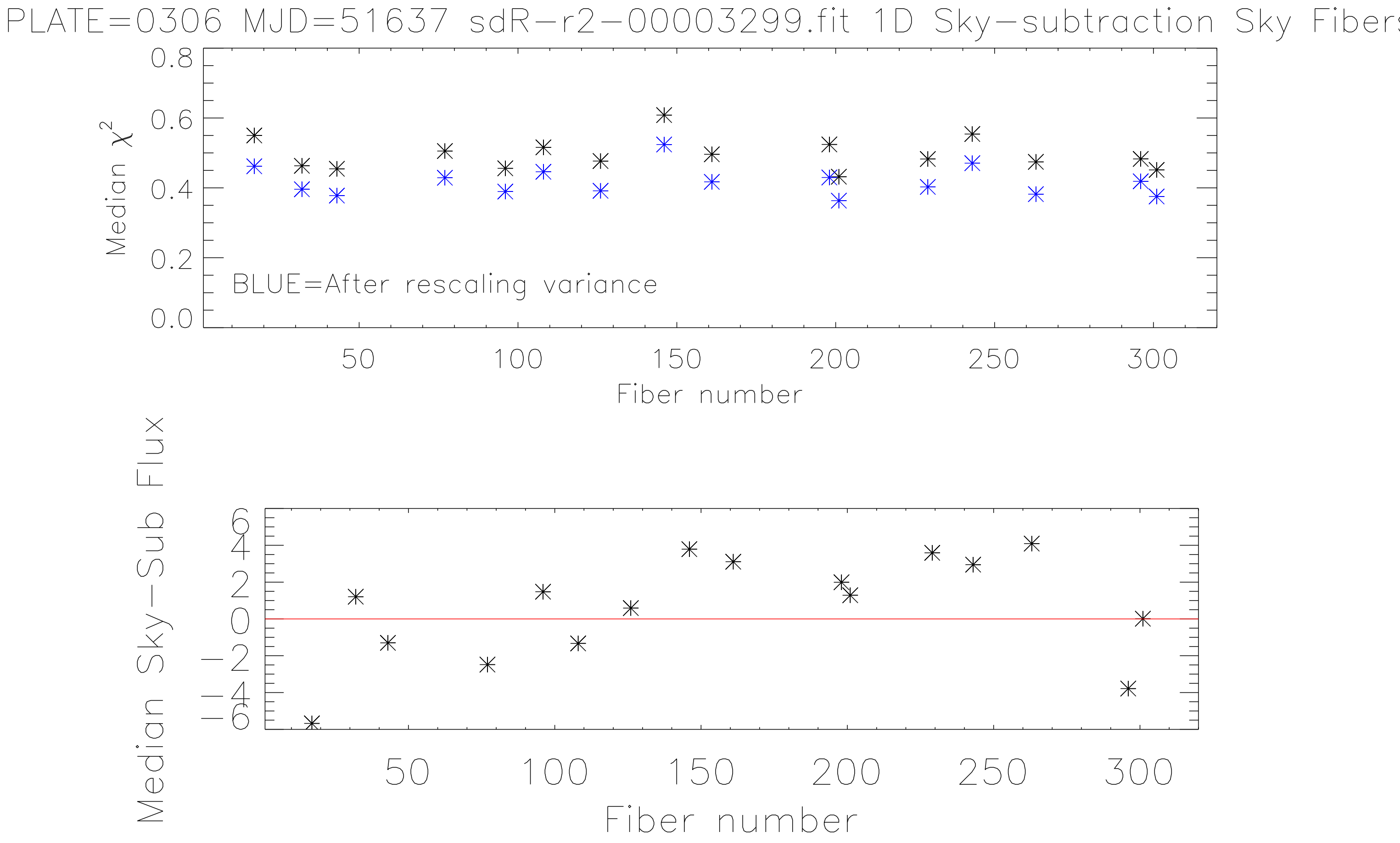

7794.1200
7821.5100
8399.1600
8430.1700
8885.8300
8919.6100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400



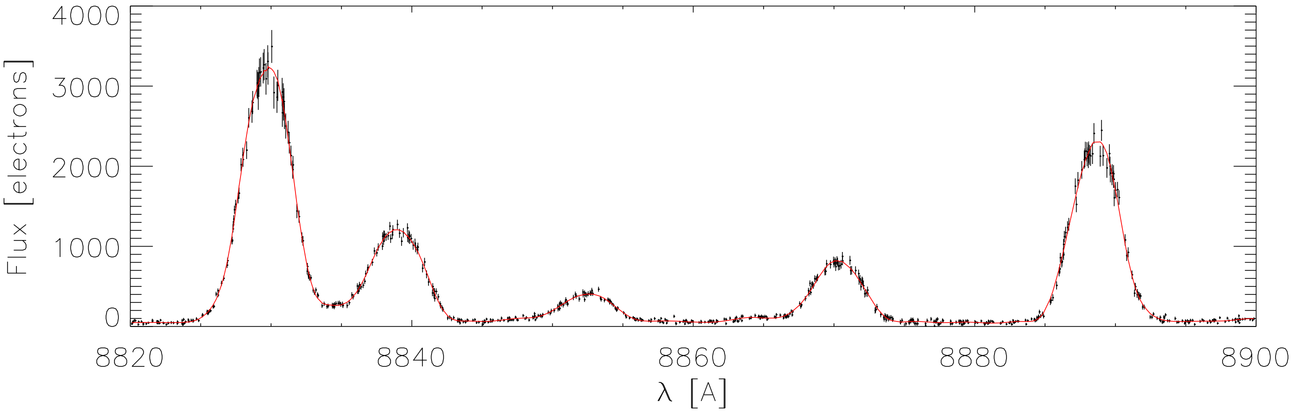
6300.3040
nfib1 16
nfib2 16
stdev 0.011
extrd −0.21
6363.7760
nfib1 16
nfib2 16
stdev 0.026
extrd −0.21
6553.6100
nfib1 16
nfib2 16
stdev 0.044
extrd −0.20
6923.2100
nfib1 16
nfib2 16
stdev 0.042
extrd −0.20
6949.0300
nfib1 16
nfib2 16
stdev 0.035
extrd −0.16
7571.7500
nfib1 16
nfib2 16
stdev 0.034
extrd −0.13
7794.1200
nfib1 16
nfib2 16
stdev 0.021
extrd −0.26
7821.5100
nfib1 16
nfib2 16
stdev 0.021
extrd −0.22
8399.1600
nfib1 16
nfib2 16
stdev 0.020
extrd −0.17
8430.1700
nfib1 16
nfib2 16
stdev 0.016
extrd −0.18
8885.8300
nfib1 16
nfib2 16
stdev 0.027
extrd −0.13
8919.6100
nfib1 16
nfib2 16
stdev 0.034
extrd −0.14
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400


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

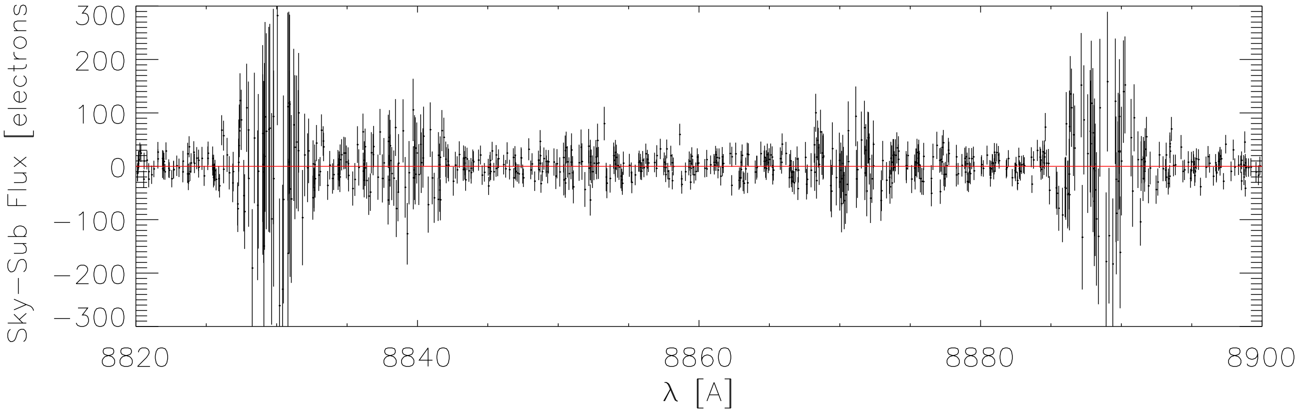

PLATE=0306 MJD=51637 Smooth superflat for sdR-r2-00003299.fit
2.0
1.5
1.0
0.5
0.0
1.006
1.004
1.002
1.000
0.998
0.996
0.994
es= −0.0000
6000
7000
8000
9000
Wavelength (Å)


PLATE=0306 MJD=51637 sdR-r2-00003299.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
-6
-4
-2
0
2
4
6
50
100
150
200
250
300
Fiber number

PLATE=0306 MJD=51637 sdR-r2-00003299.fit 1D Sky-subtraction Sky Fibers

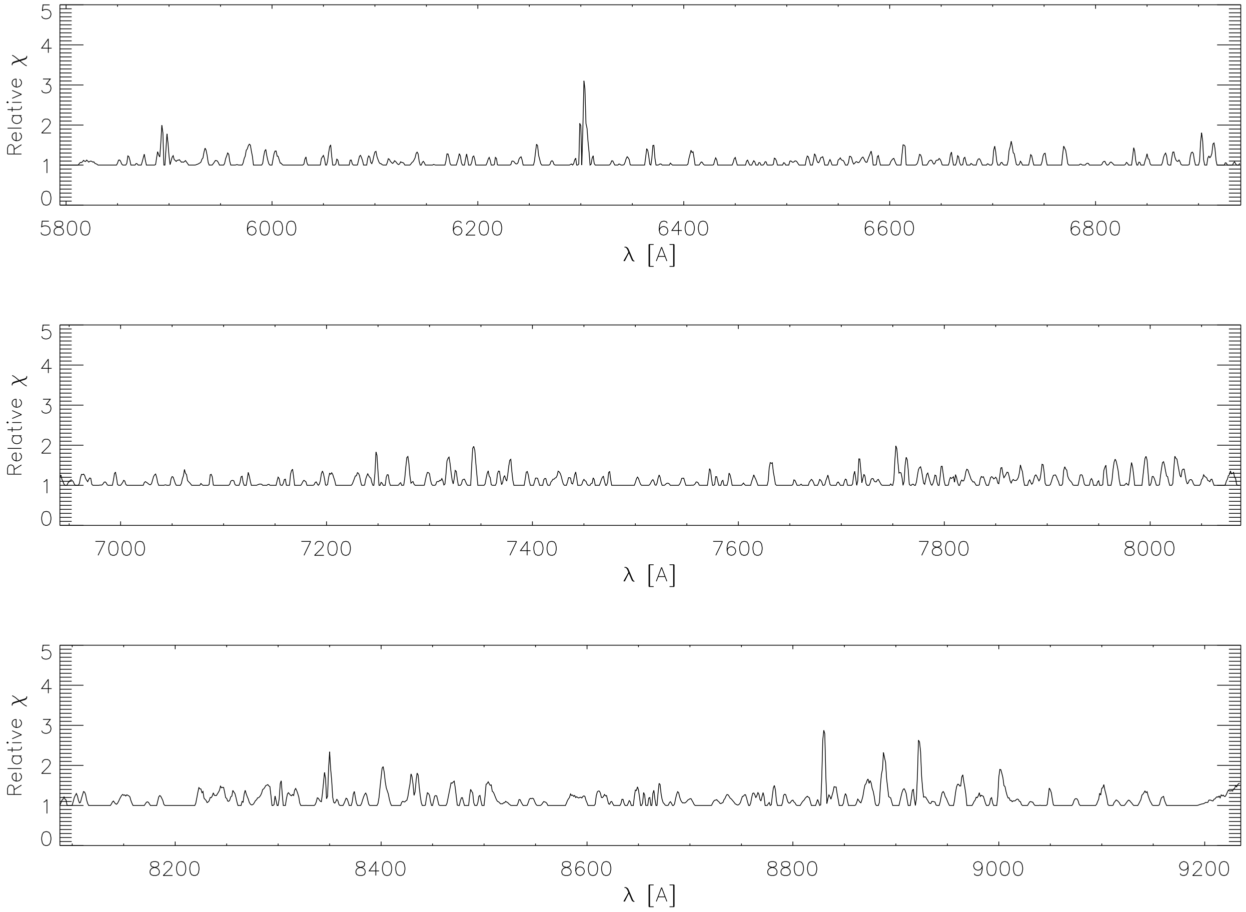


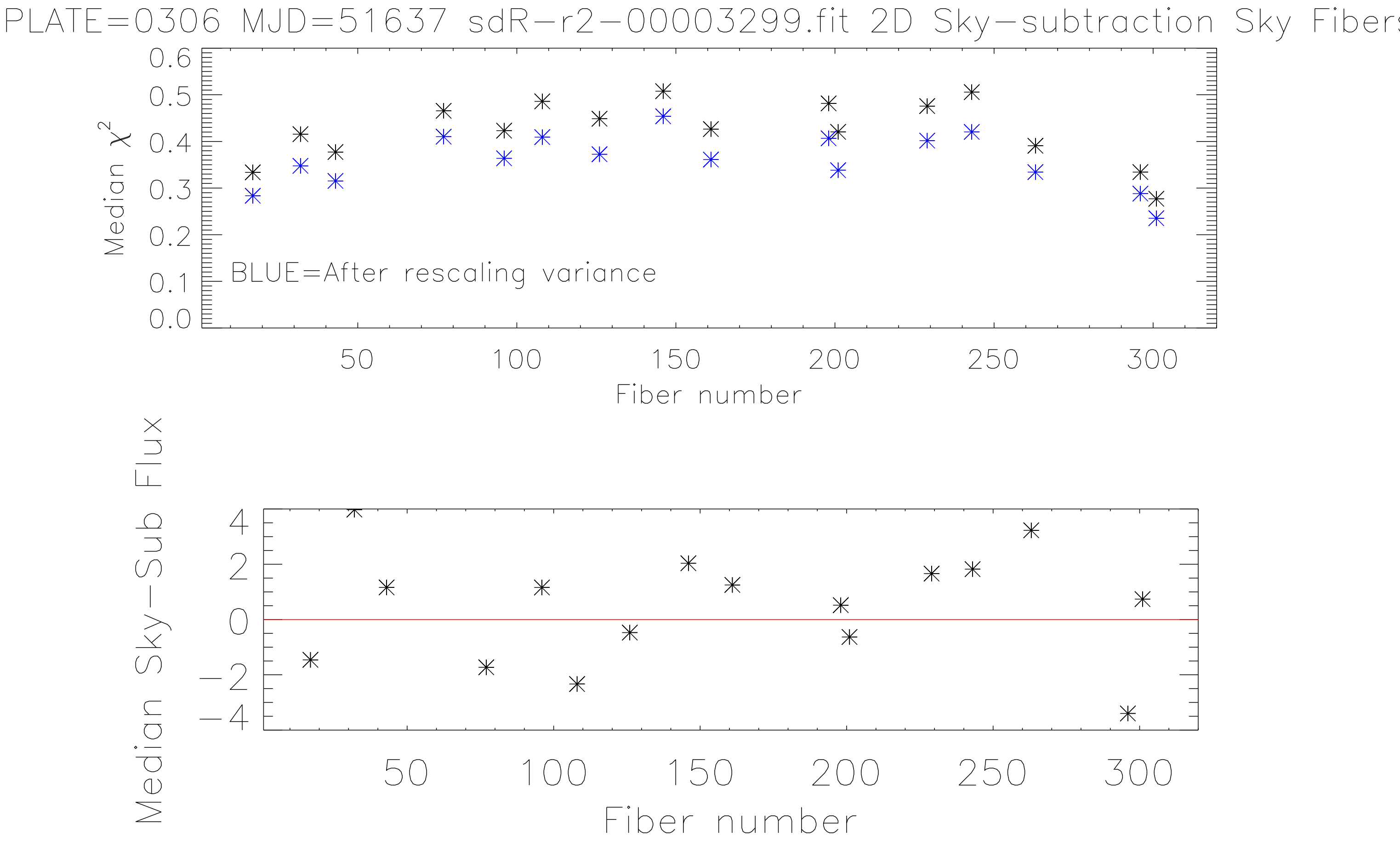
PLATE=0306 MJD=51637 sdR-r2-00003299.fit 1D Sky-subtraction Sky-subtracted Sky F

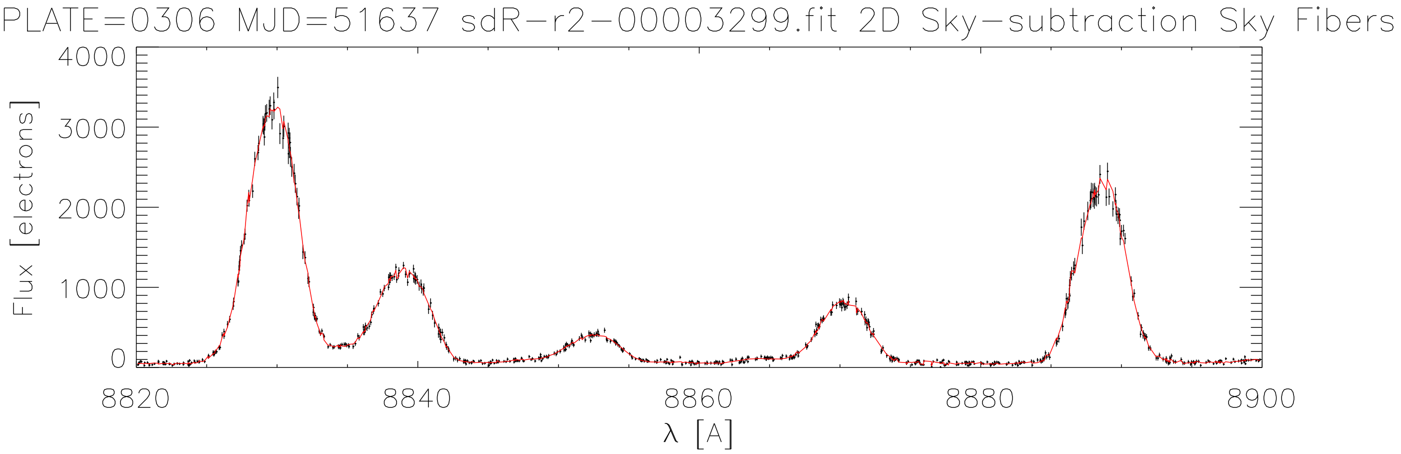


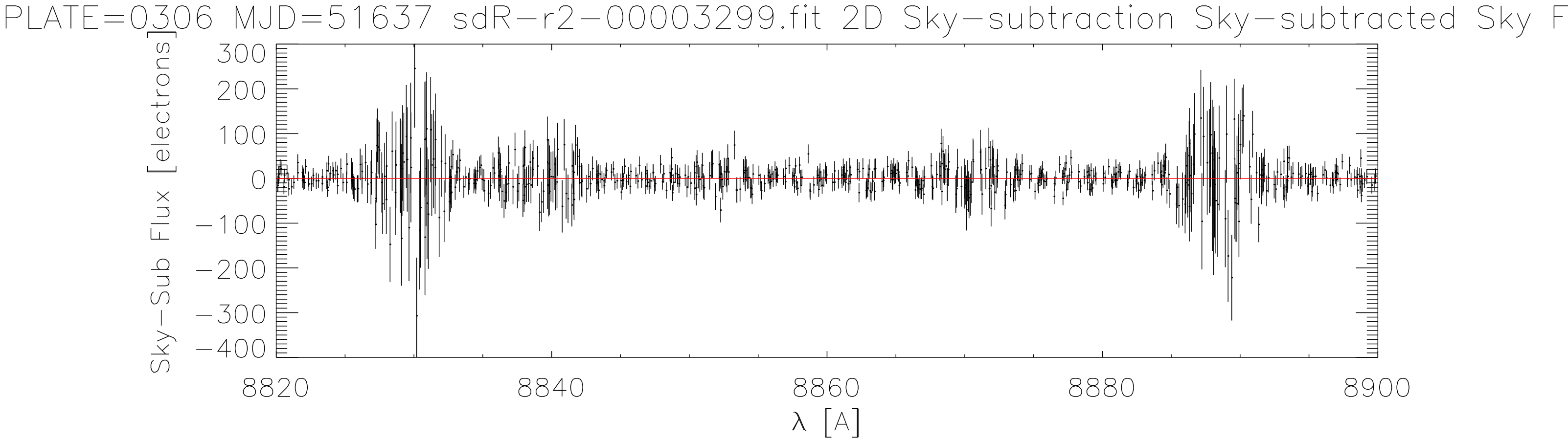
Number of sky fibers = 16

PLATE=0306 MJD=51637 sdR-r2-00003299.fit 1D Sky-subtraction Rescaled Errors



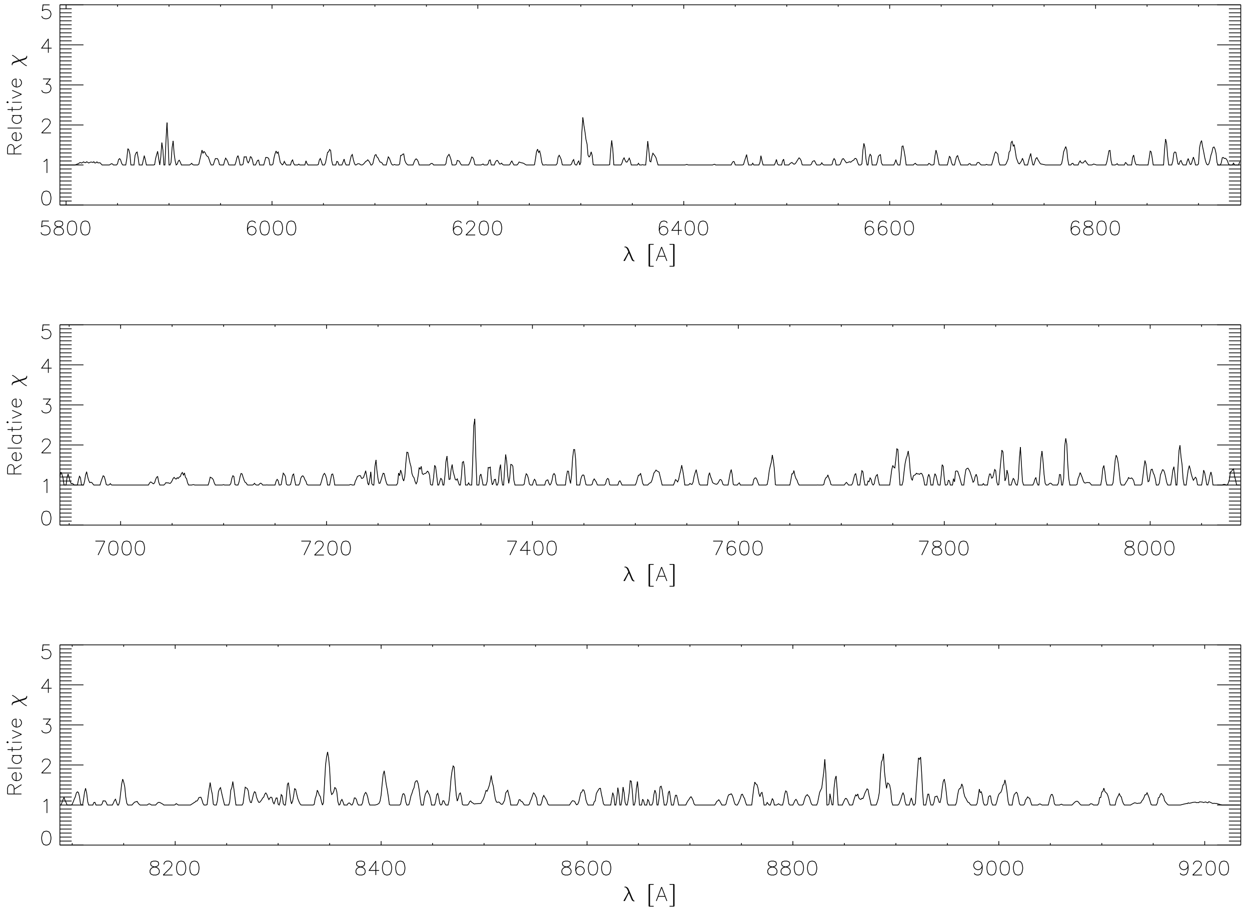

PLATE=0306 MJD=51637 sdR-r2-00003299.fit 2D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-4
-2
0
2
4
50
100
150
200
250
300
Fiber number

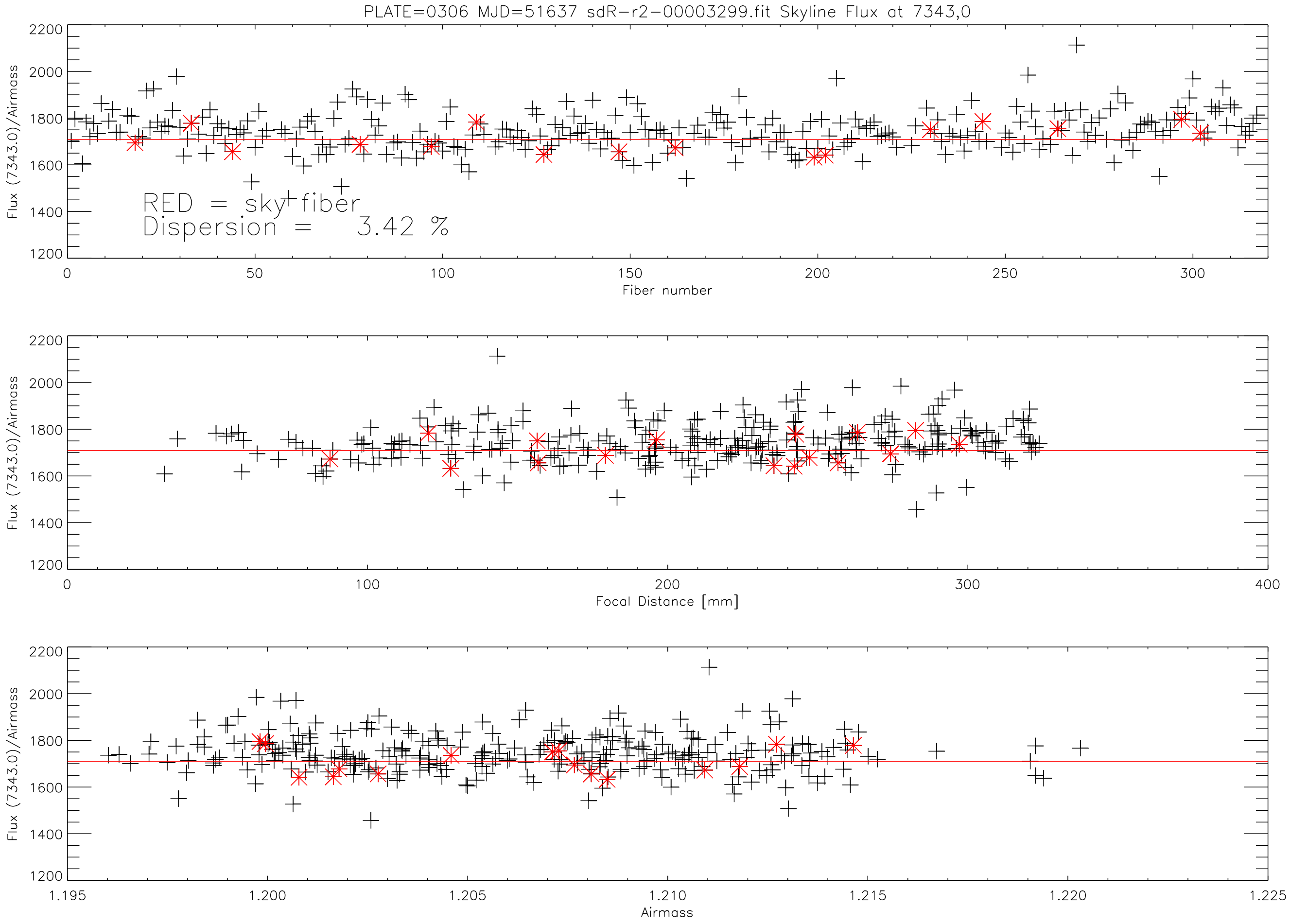

PLATE=0306 MJD=51637 sdR-r2-00003299.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

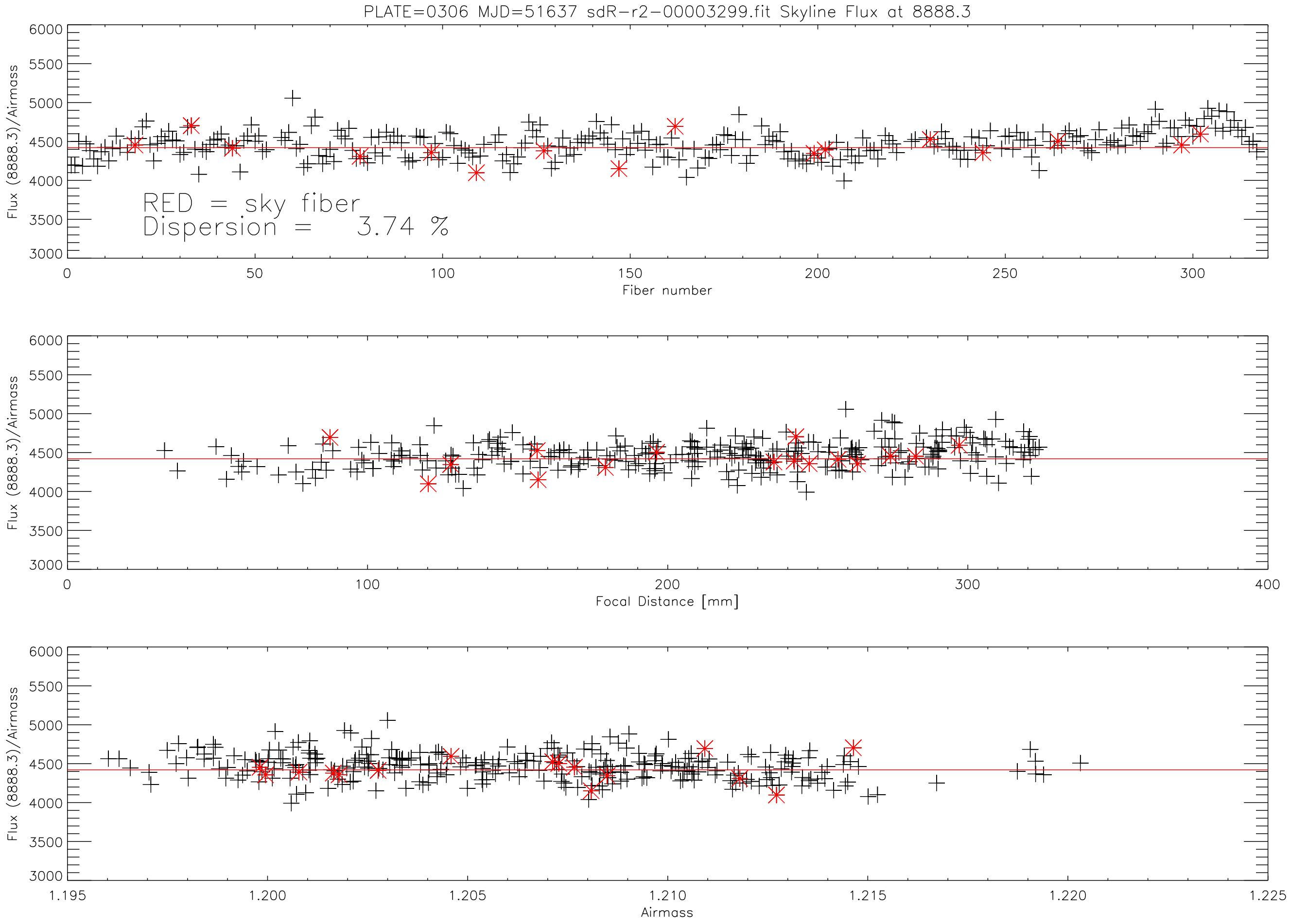

PLATE=0306 MJD=51637 sdR-r2-00003299.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
−100
−200
−300
−400
8820
8840
8860
8880
8900
λ [A]

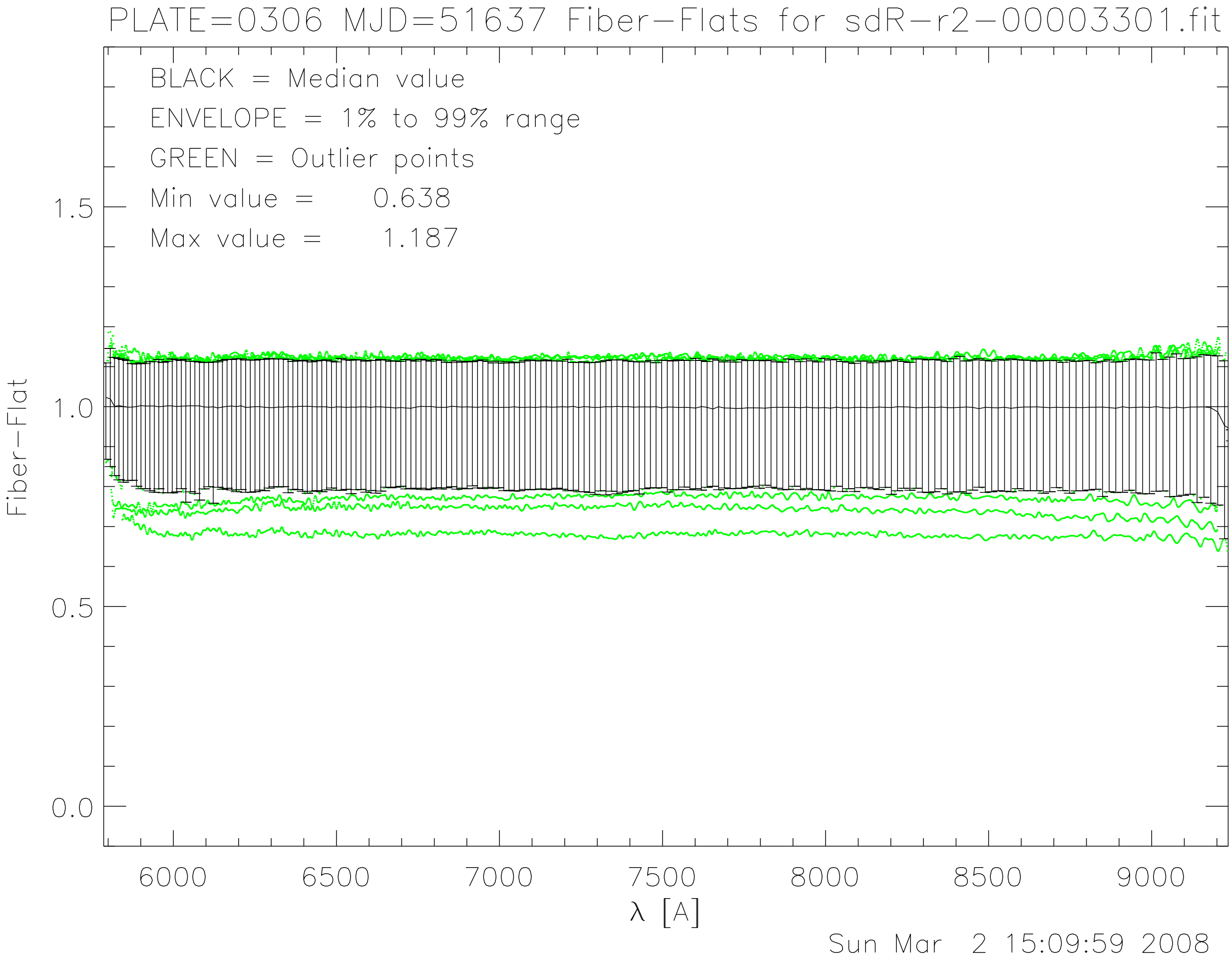
Number of sky fibers = 16

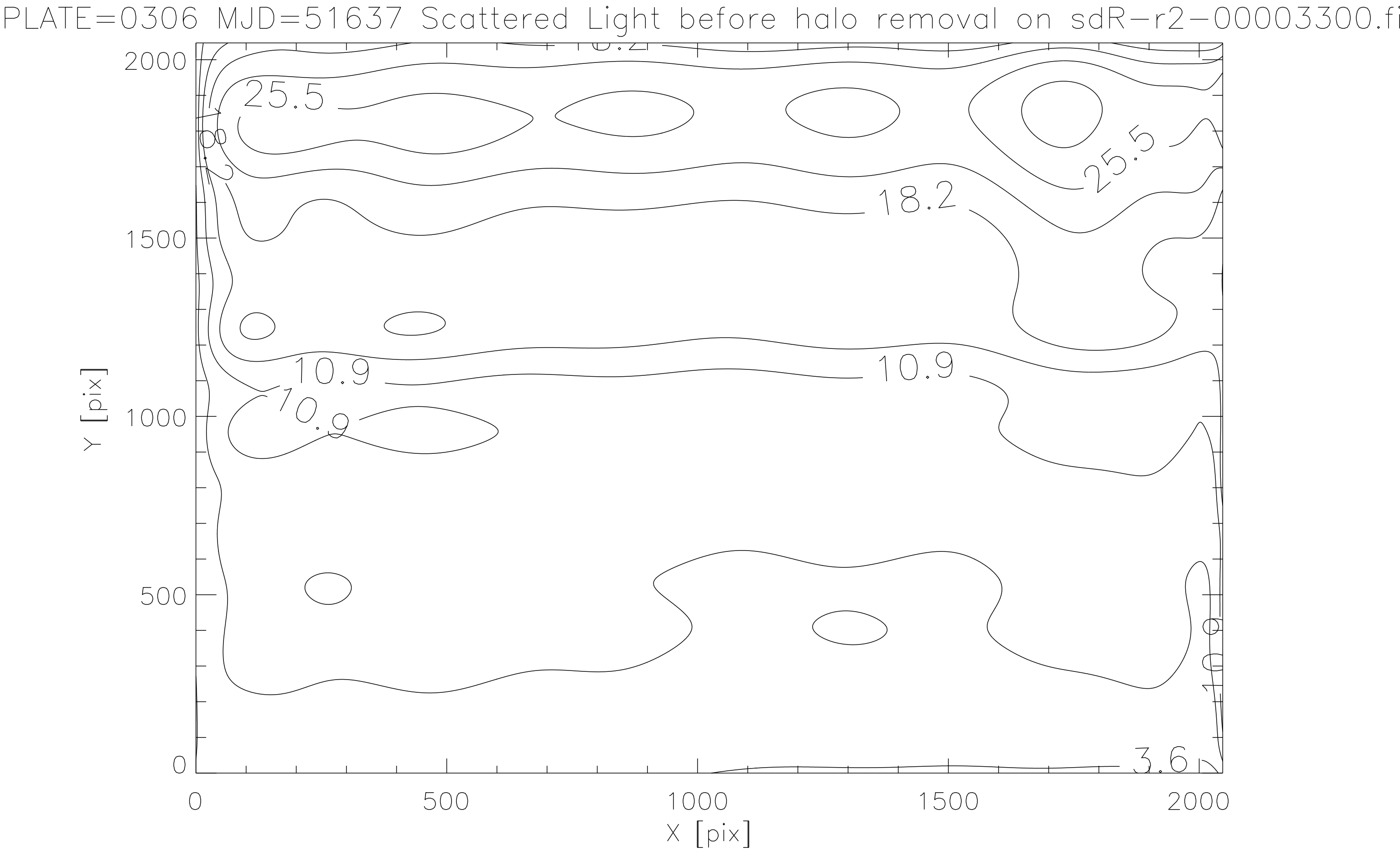
PLATE=0306 MJD=51637 sdR-r2-00003299.fit 2D Sky-subtraction Rescaled Errors

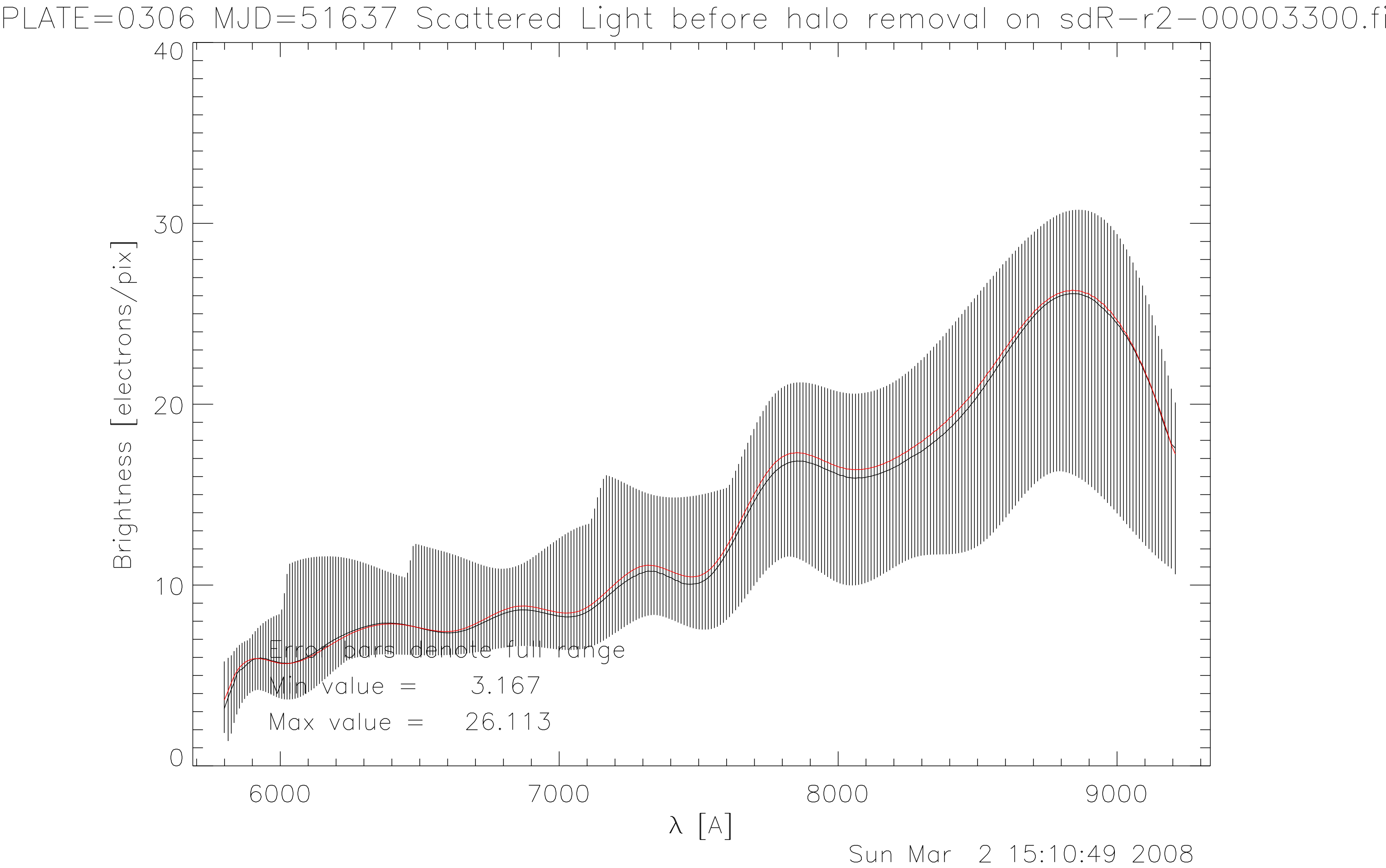


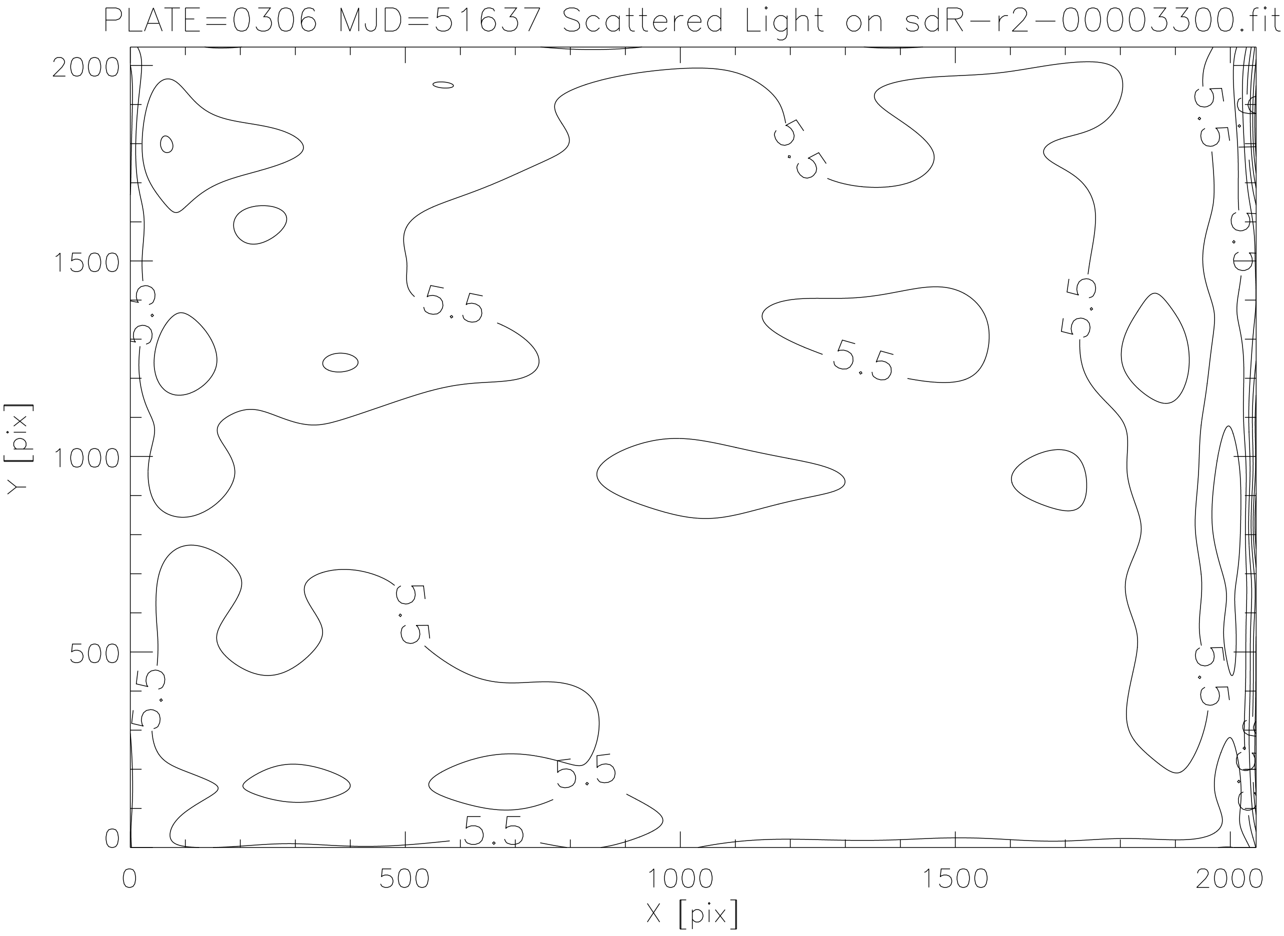

PLATE=0306 MJD=51637 sdR−r2−00003299.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
2200
2000
1800
1600
1400
1200
RED = sky fiber
Dispersion = 3.42 %
0
50
100
150
200
250
300
Fiber number
Flux (7343.0)/Airmass
0
100
200
300
400
Focal Distance [mm]
Flux (7343.0)/Airmass
1.195
1.200
1.205
1.210
1.215
1.220
1.225
Airmass


PLATE=0306 MJD=51637 sdR-r2-00003299.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
6000
5500
5000
4500
4000
3500
3000
RED = sky fiber
Dispersion = 3.74 %
0
50
100
150
200
250
300
Fiber number
Flux (8888.3)/Airmass
6000
5500
5000
4500
4000
3500
3000
0
100
200
300
400
Focal Distance [mm]
Flux (8888.3)/Airmass
6000
5500
5000
4500
4000
3500
3000
1.195
1.200
1.205
1.210
1.215
1.220
1.225
Airmass

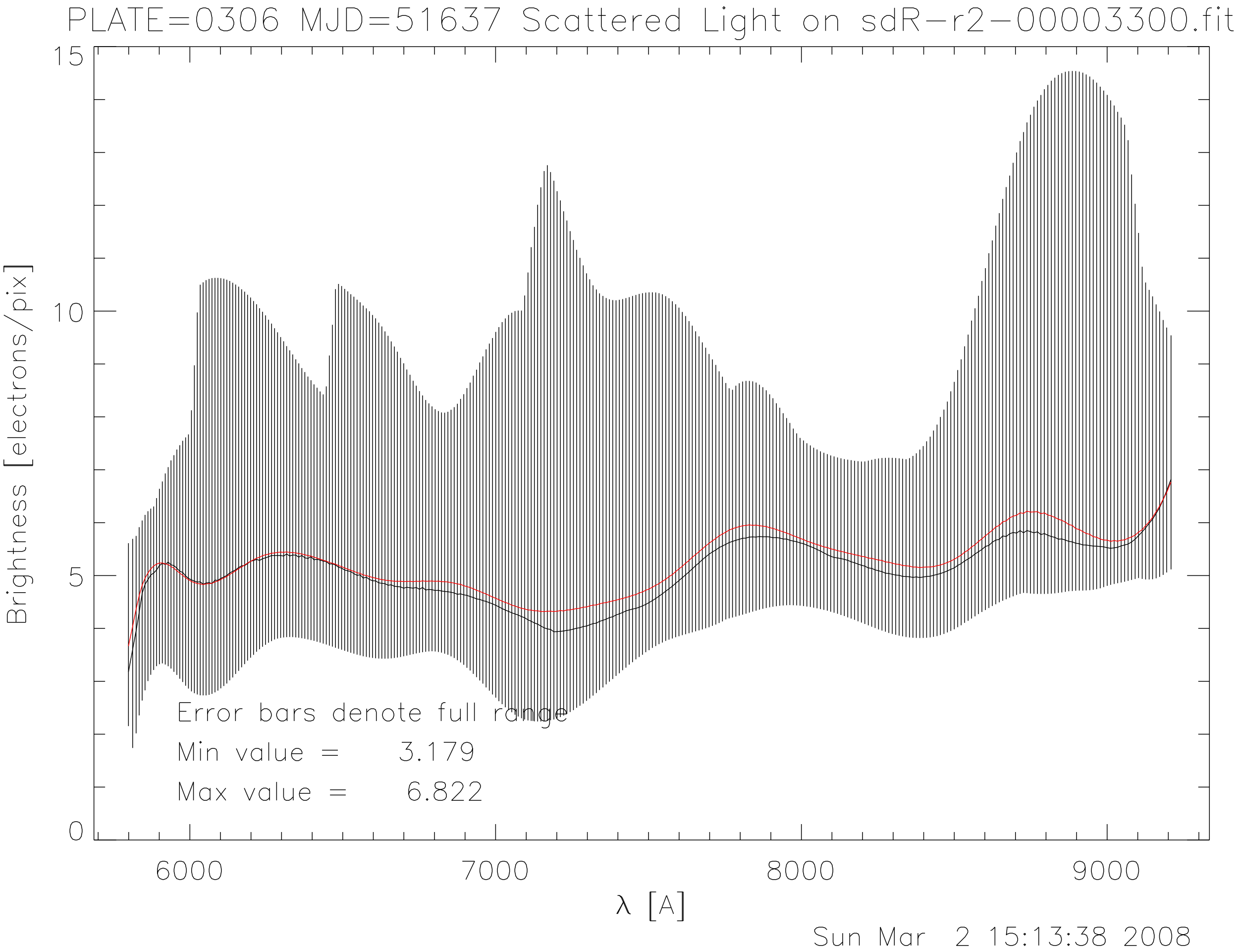

PLATE=0306 MJD=51637 Fiber−Flats for sdR−r2−00003301.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.638
Max value = 1.187
Fiber−Flat
0.0
0.5
1.0
1.5
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sun Mar 2 15:09:59 2008

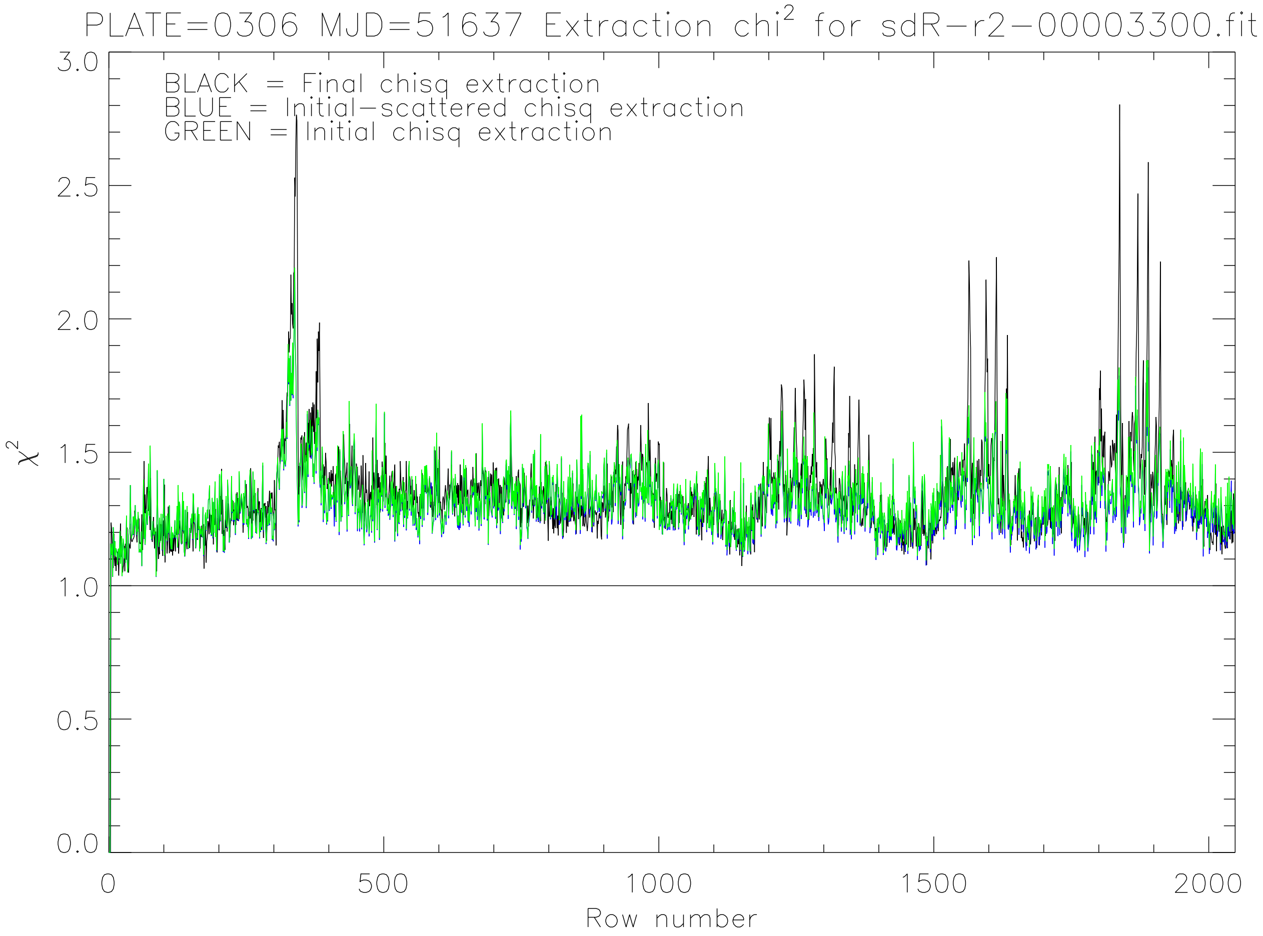

PLATE=0306 MJD=51637 Scattered Light before halo removal on sdR-r2-00003300.fi
Y [pix]
X [pix]
0
500
1000
1500
2000
25.5
25.5
18.2
10.9
10.9
10.9
10.9
3.6

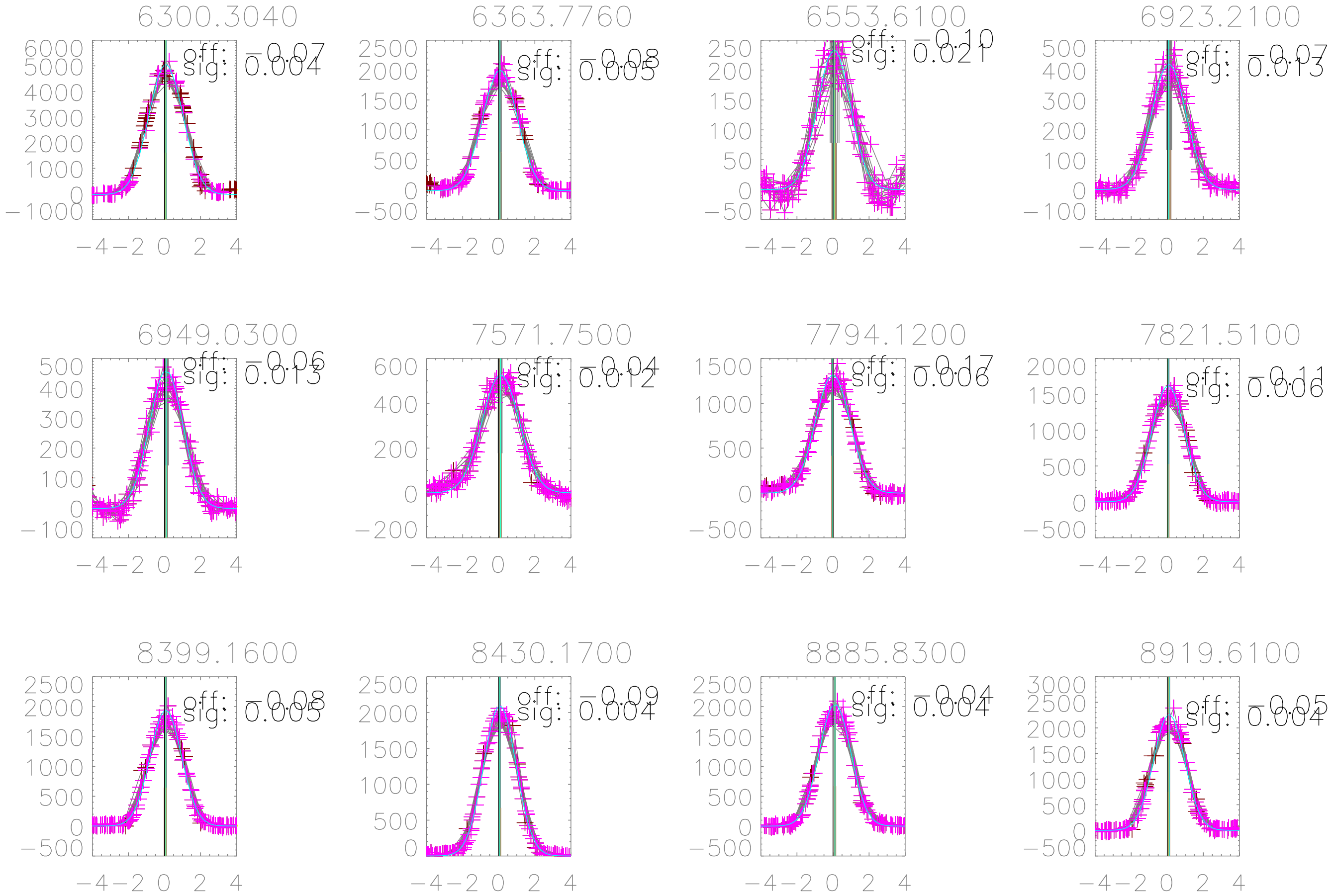

PLATE=0306 MJD=51637 Scattered Light before halo removal on sdR-r2-00003300.fi
Brightness [electrons/pix]
0
10
20
30
40
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 3.167
Max value = 26.113
Sun Mar 2 15:10:49 2008

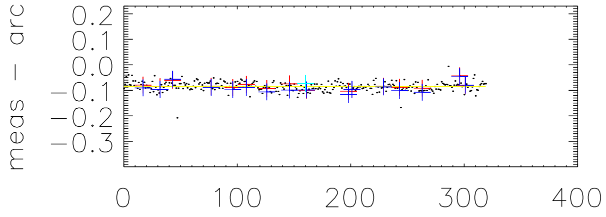


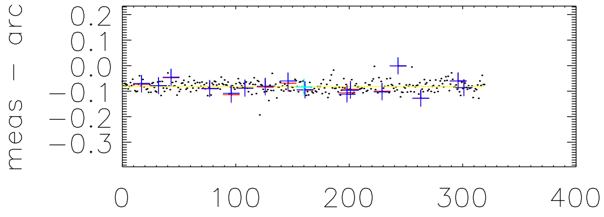
PLATE=0306 MJD=51637 Scattered Light on sdR-r2-00003300.fit

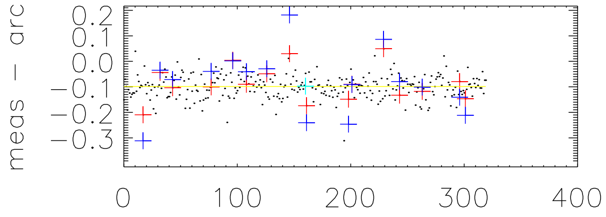

PLATE=0306 MJD=51637 Scattered Light on sdR-r2-00003300.fit
Brightness [electrons/pix]
0
5
10
15
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 3.179
Max value = 6.822
Sun Mar 2 15:13:38 2008


PLATE=0306 MJD=51637 Extraction chi^2 for sdR-r2-00003300.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
500
1000
1500
2000
Row number


6300.3040
off: −0.07
sig: 0.004
6363.7760
off: −0.08
sig: 0.005
6553.6100
off: −0.10
sig: 0.021
6923.2100
off: −0.07
sig: 0.013
6949.0300
off: −0.06
sig: 0.013
7571.7500
off: −0.04
sig: 0.012
7794.1200
off: −0.17
sig: 0.006
7821.5100
off: −0.11
sig: 0.006
8399.1600
off: −0.08
sig: 0.005
8430.1700
off: −0.09
sig: 0.004
8885.8300
off: −0.04
sig: 0.004
8919.6100
off: −0.05
sig: 0.004
−4 −2 0 2 4


6300.3040


6363.7760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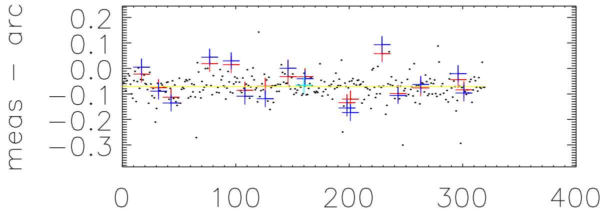
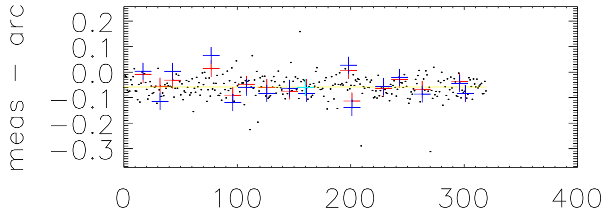

6923.2100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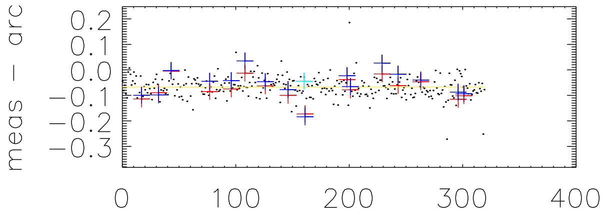
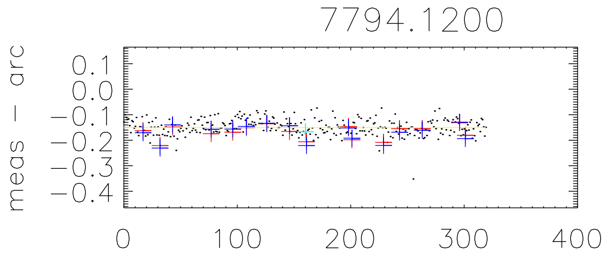
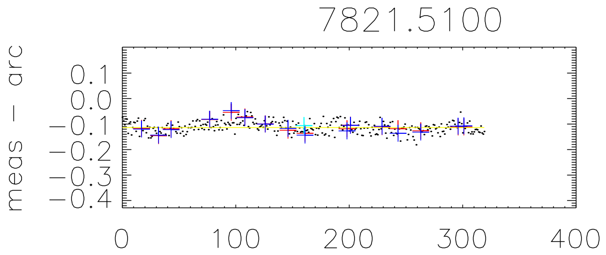
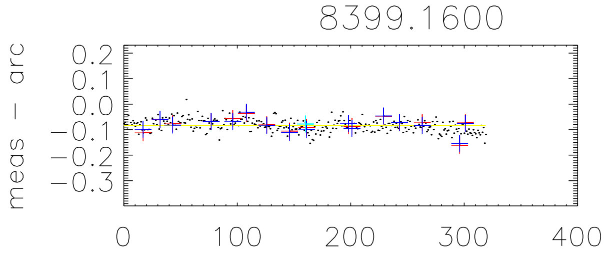
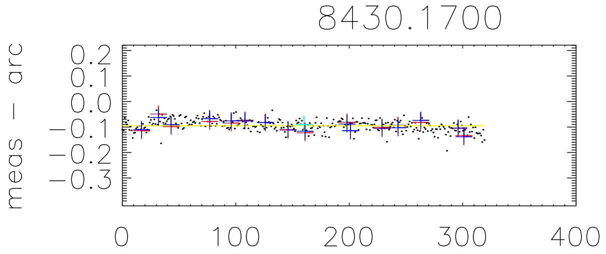
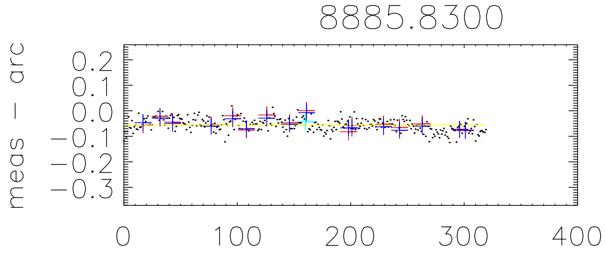

7571.7500

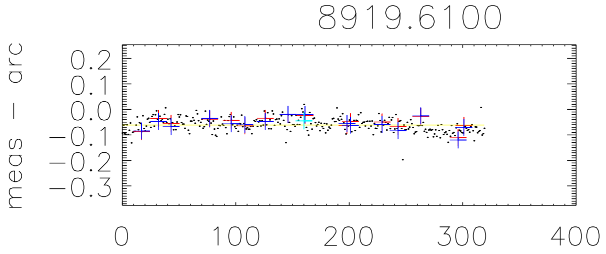

7794.1200
meas - arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

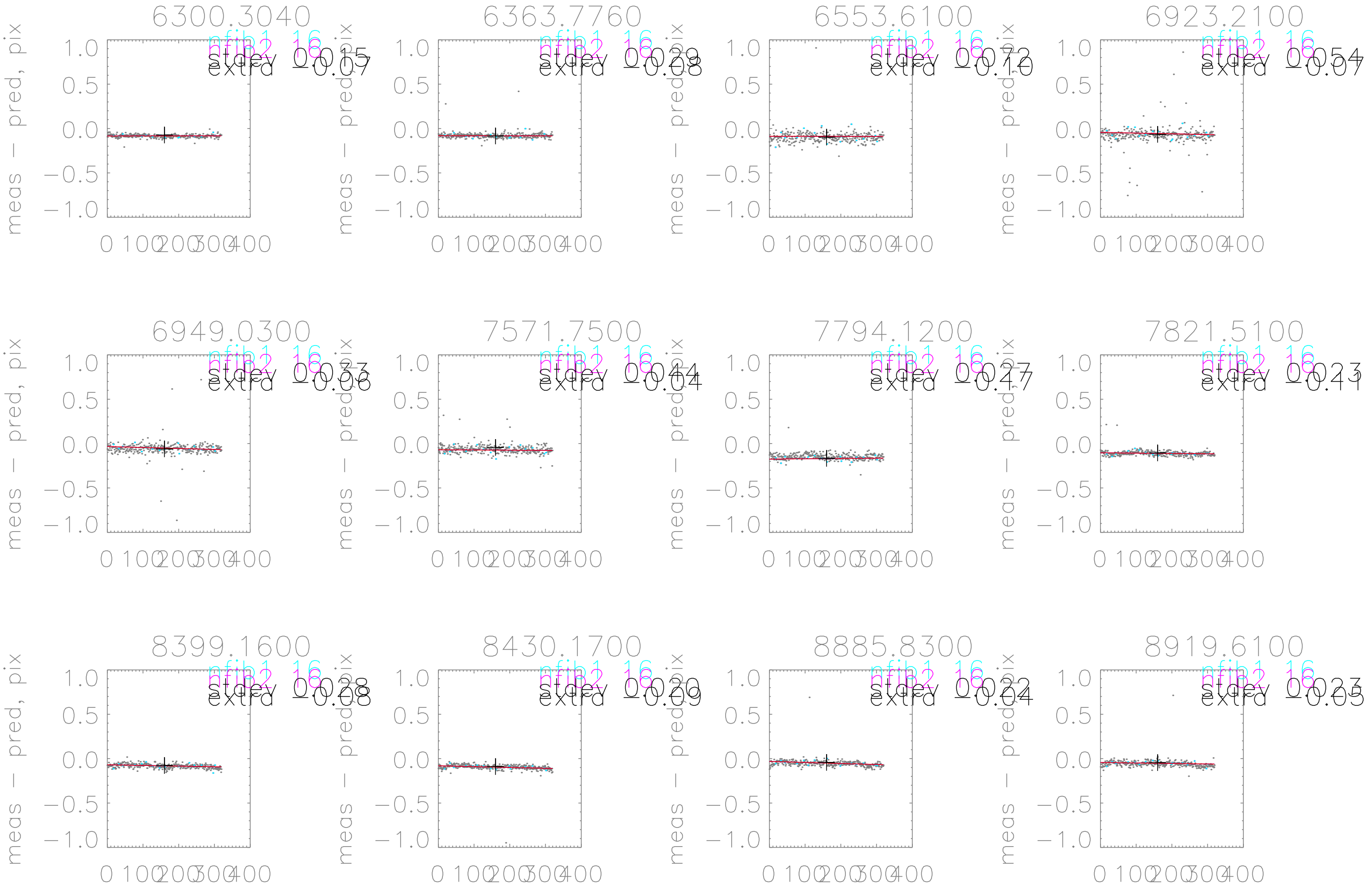

7821.5100
meas - arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

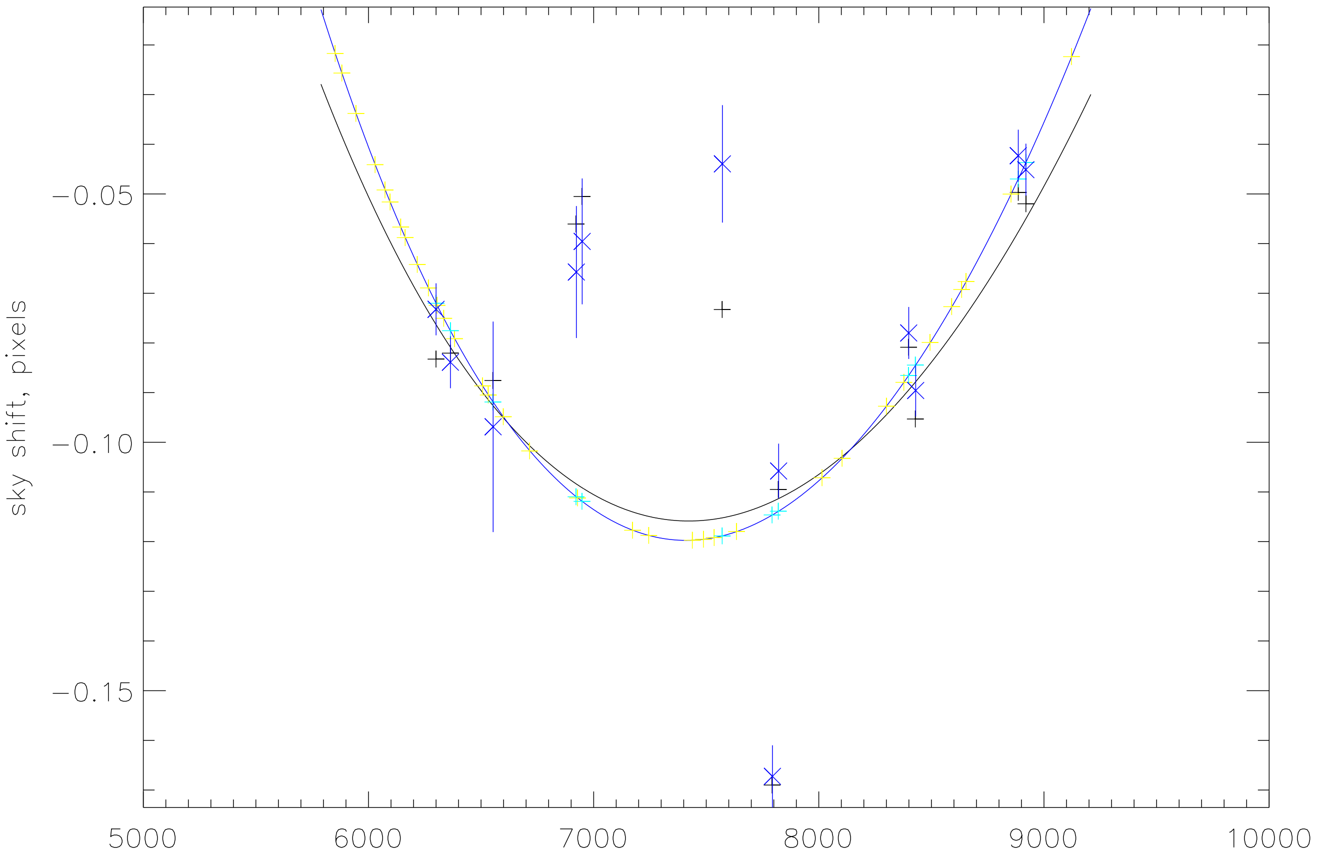

8399.1600
meas - arc
0.2
0.1
−0.0
−0.1
−0.2
−0.3
0
100
200
300
400

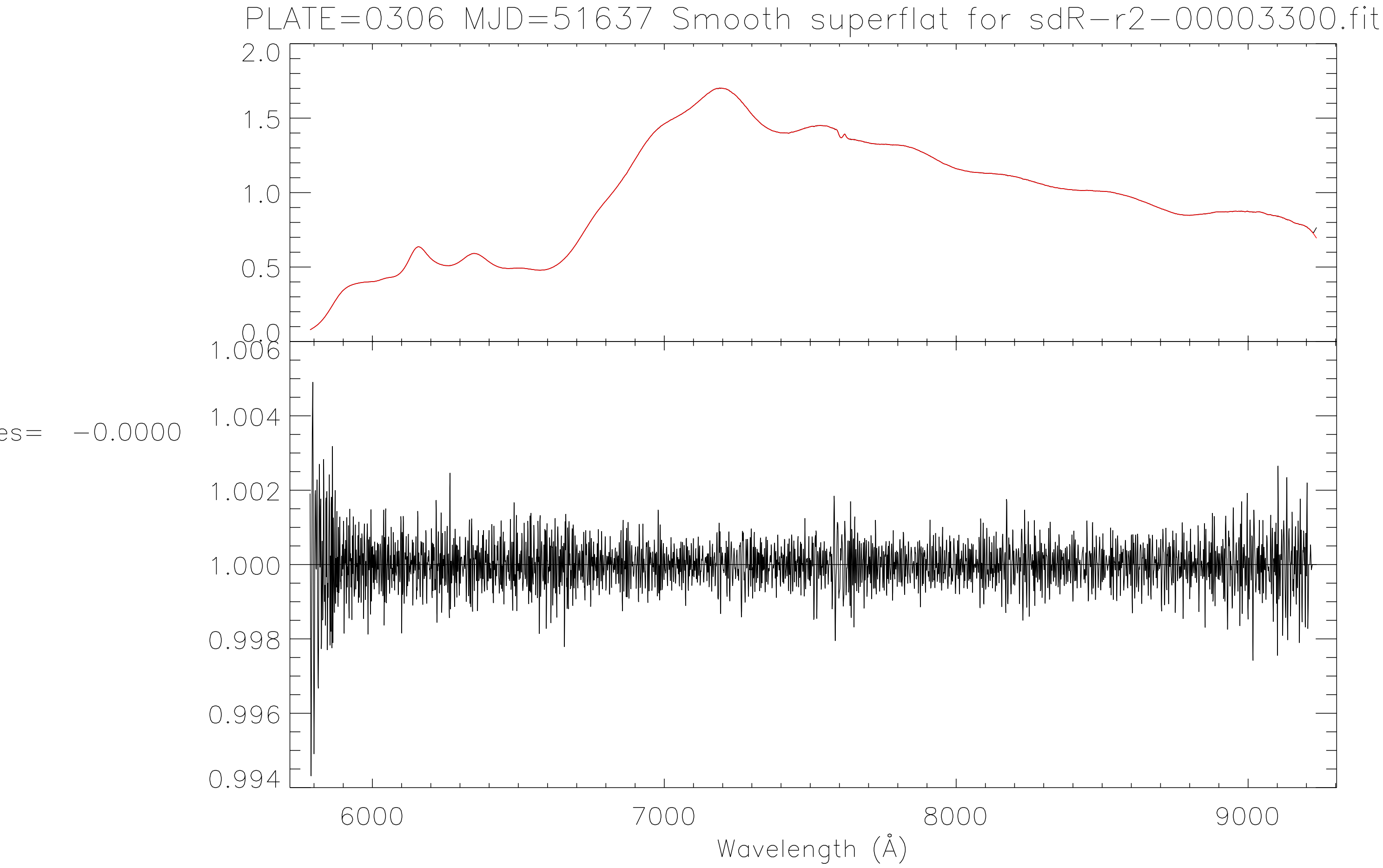

8430.1700
meas - arc
0.2
0.1
−0.0
−0.1
−0.2
−0.3
0
100
200
300
400

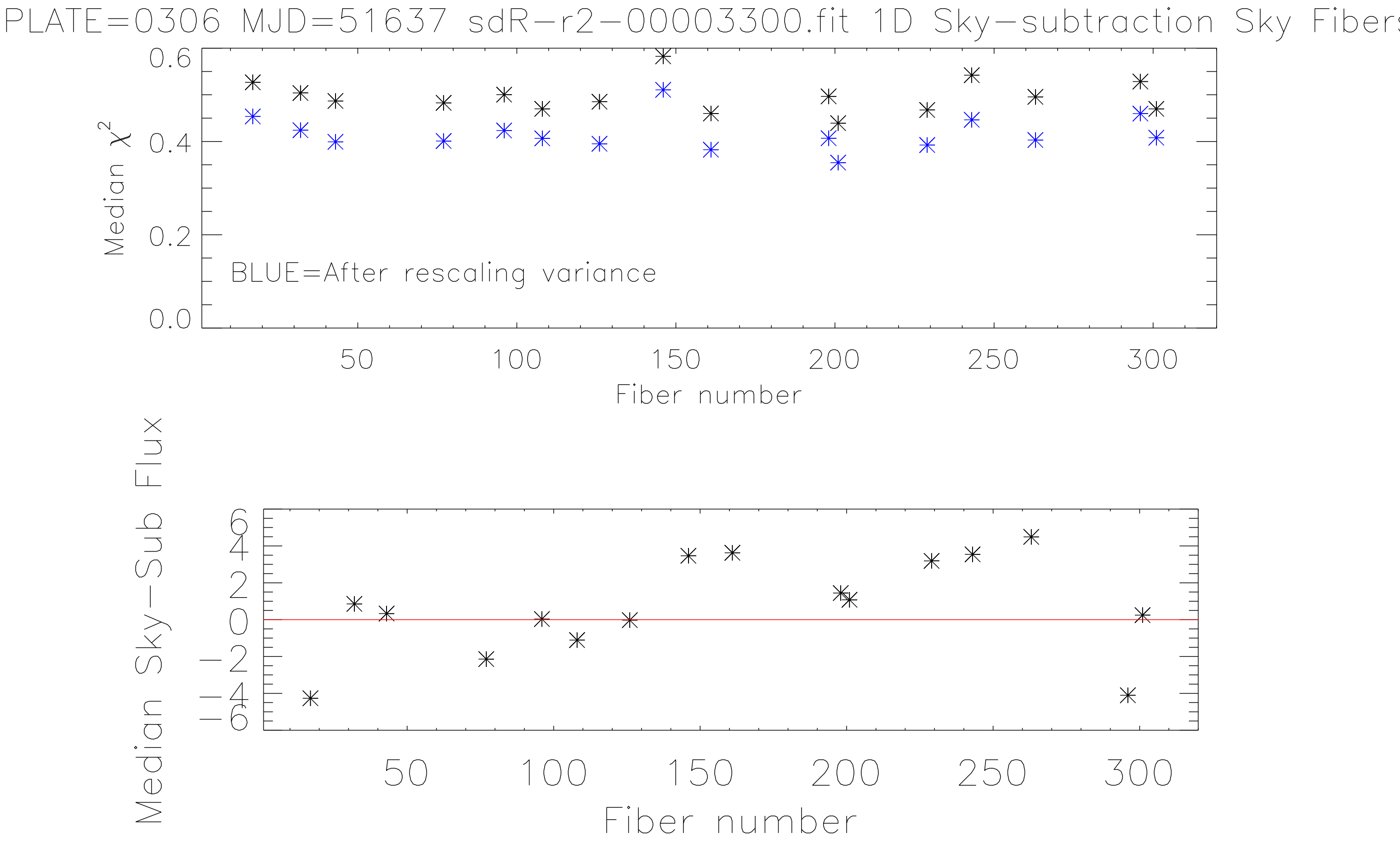

8885.8300
meas - arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

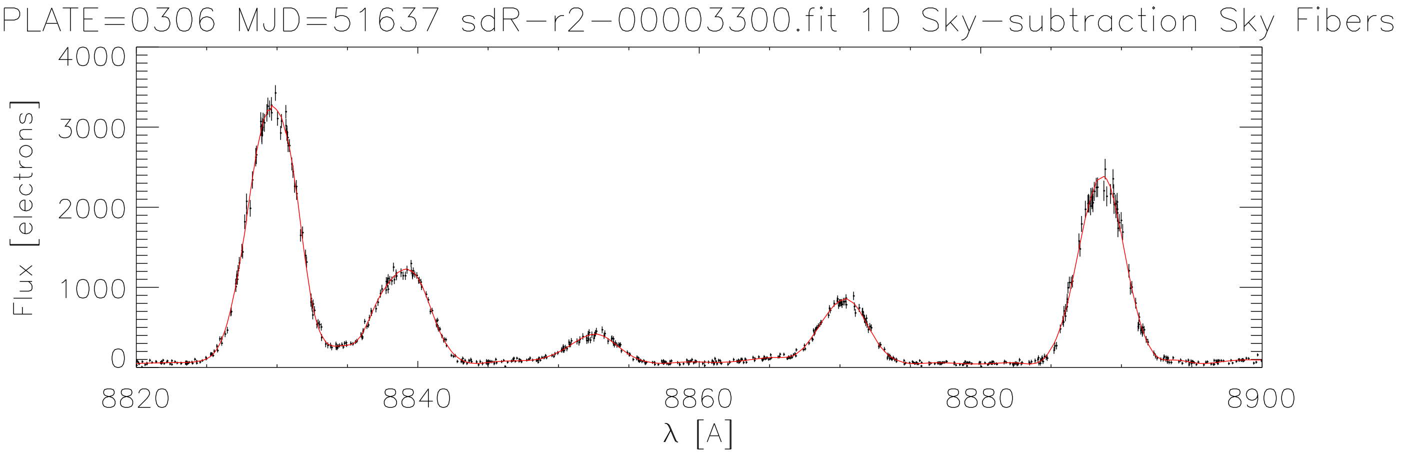

8919.6100
meas - arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

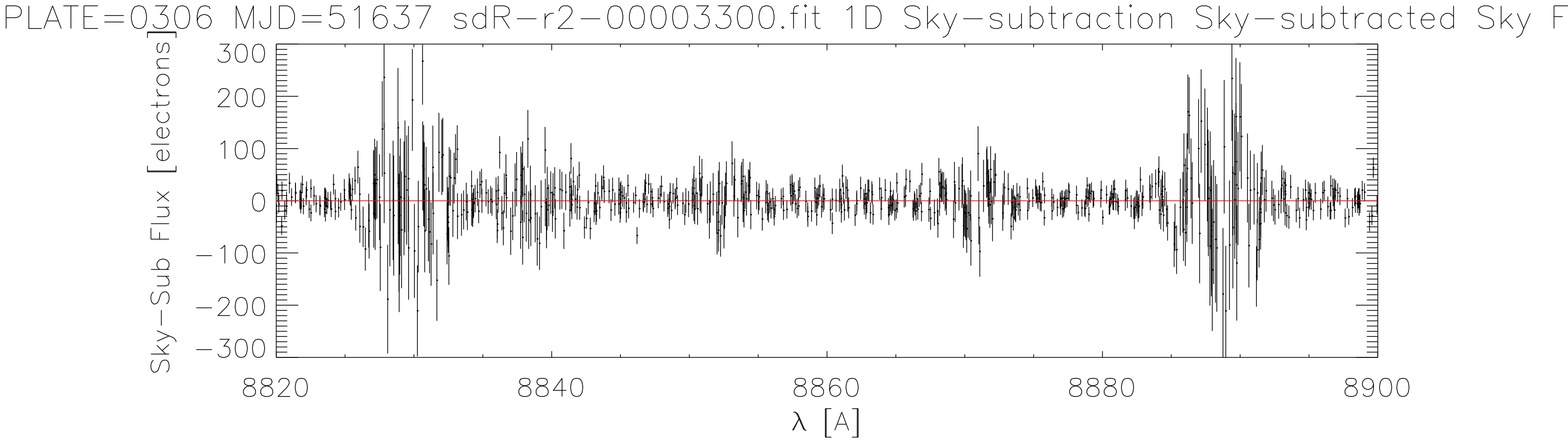

6300.3040
nfib1 16
nfib2 16
stdev 0.015
extrd −0.07
6363.7760
nfib1 16
nfib2 16
stdev 0.029
extrd −0.08
6553.6100
nfib1 16
nfib2 16
stdev 0.072
extrd −0.10
6923.2100
nfib1 16
nfib2 16
stdev 0.054
extrd −0.07
6949.0300
nfib1 16
nfib2 16
stdev 0.033
extrd −0.06
7571.7500
nfib1 16
nfib2 16
stdev 0.044
extrd −0.04
7794.1200
nfib1 16
nfib2 16
stdev 0.027
extrd −0.17
7821.5100
nfib1 16
nfib2 16
stdev 0.023
extrd −0.11
8399.1600
nfib1 16
nfib2 16
stdev 0.028
extrd −0.08
8430.1700
nfib1 16
nfib2 16
stdev 0.020
extrd −0.09
8885.8300
nfib1 16
nfib2 16
stdev 0.022
extrd −0.04
8919.6100
nfib1 16
nfib2 16
stdev 0.023
extrd −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
−0.10
−0.15
5000
6000
7000
8000
9000
10000


PLATE=0306 MJD=51637 Smooth superflat for sdR-r2-00003300.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)

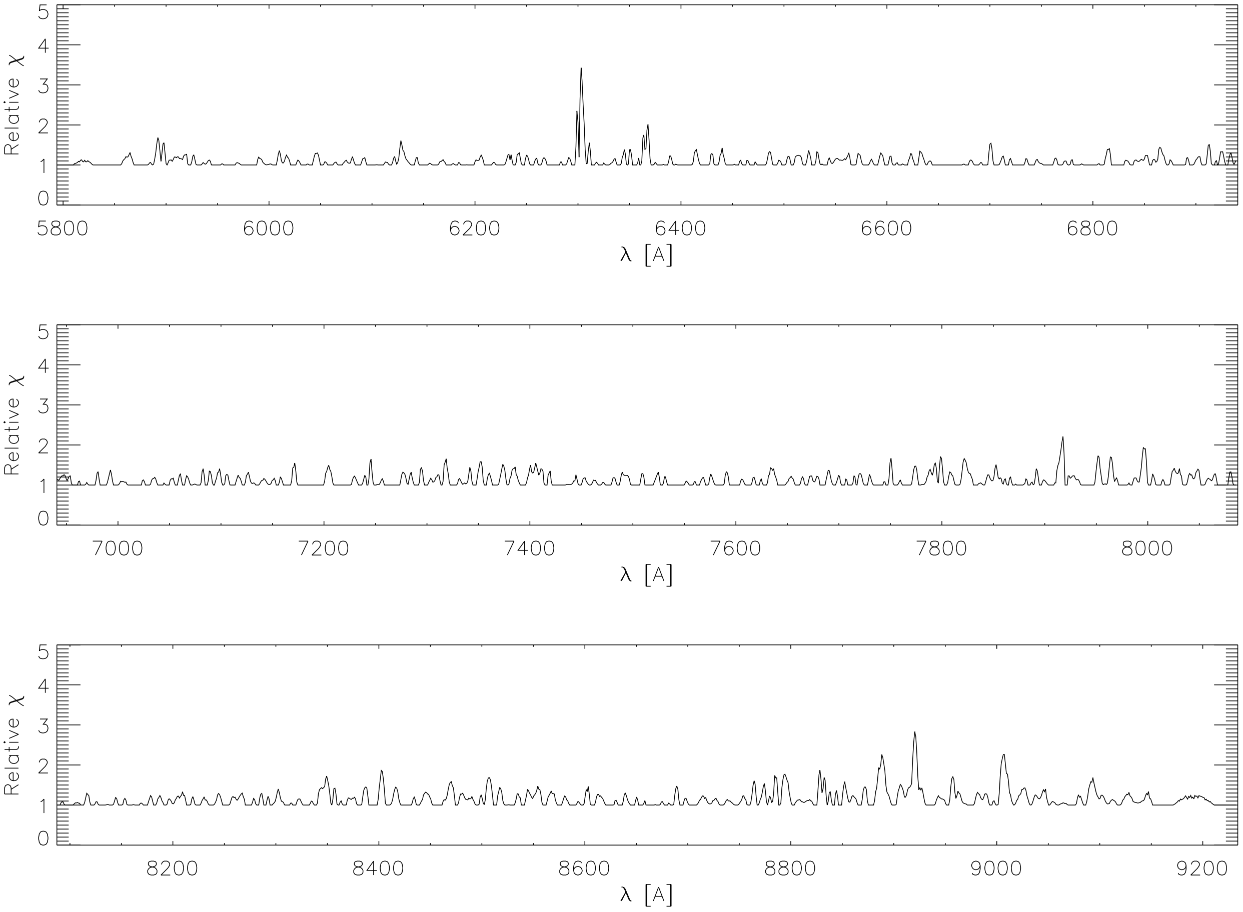

PLATE=0306 MJD=51637 sdR-r2-00003300.fit 1D Sky-subtraction Sky Fiber
Median χ²
0.6
0.4
0.2
0.0
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
6
4
2
0
-2
-4
-6
50
100
150
200
250
300
Fiber number

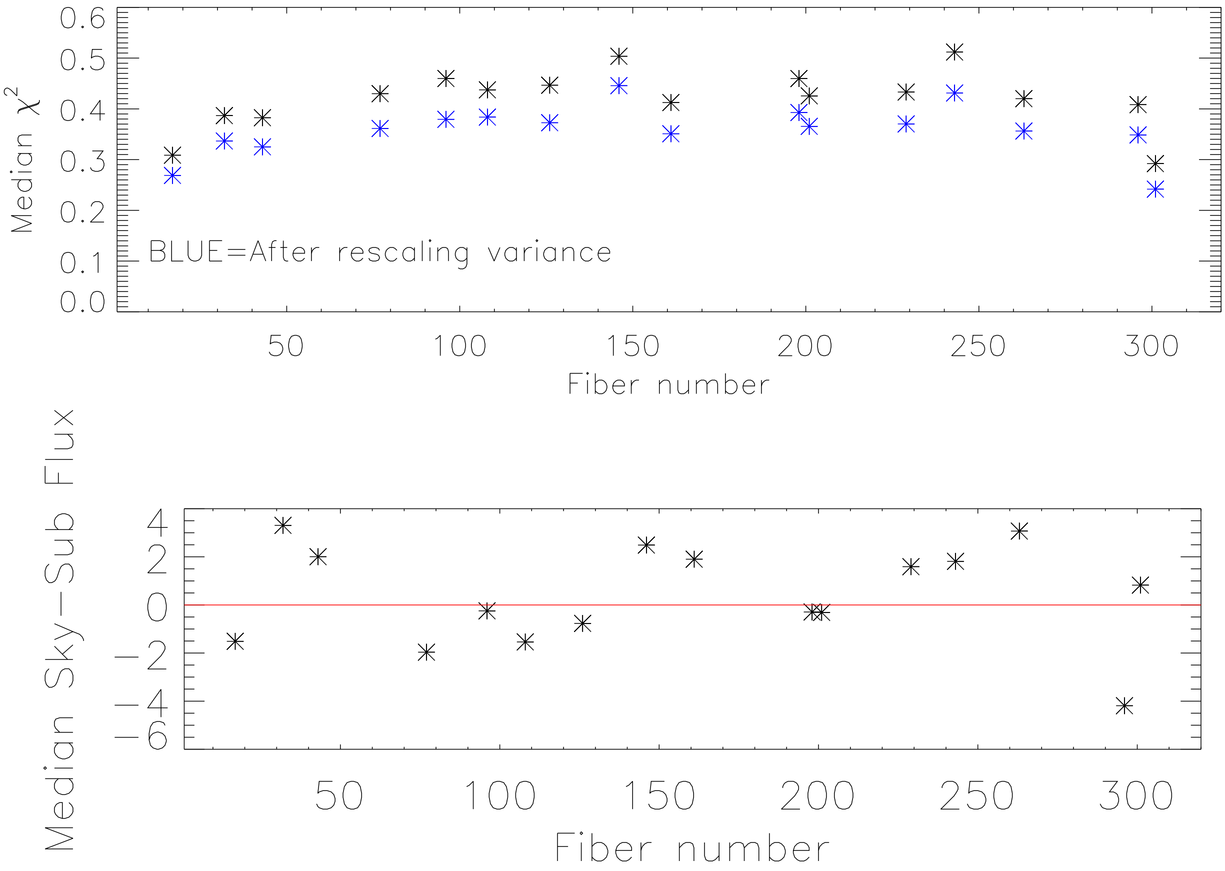

PLATE=0306 MJD=51637 sdR-r2-00003300.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]


PLATE=0306 MJD=51637 sdR-r2-00003300.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]

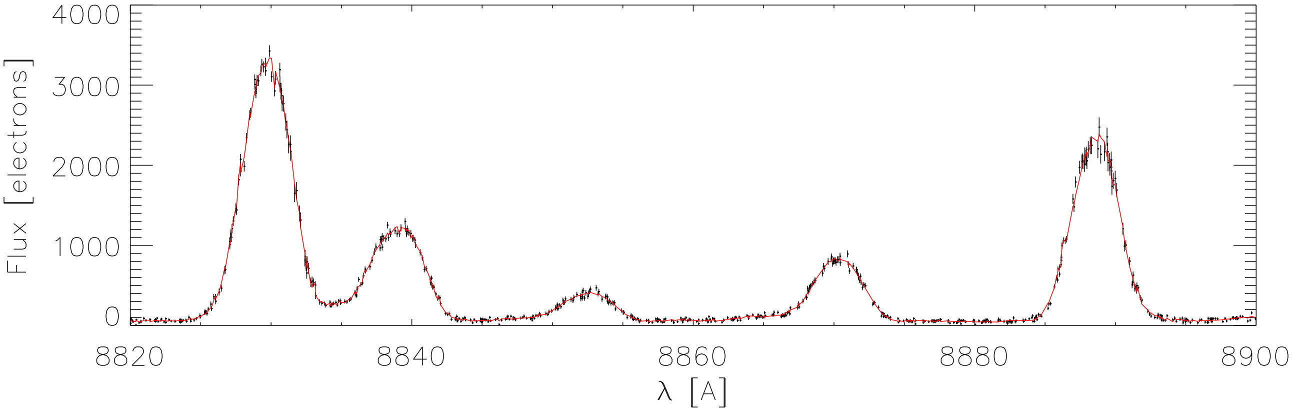
Number of sky fibers = 16

PLATE=0306 MJD=51637 sdR-r2-00003300.fit 1D Sky-subtraction Rescaled Errors

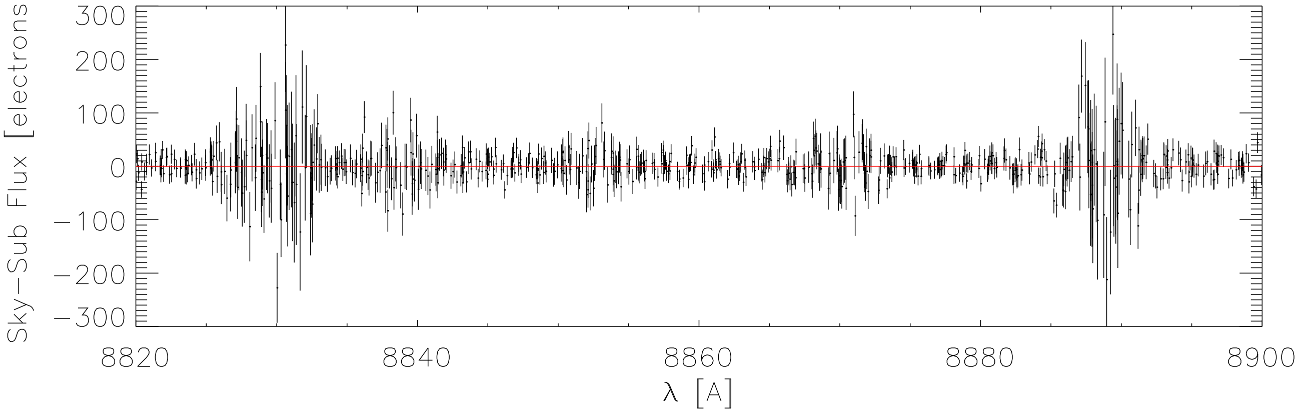




PLATE=0306 MJD=51637 sdR-r2-00003300.fit 2D Sky-subtraction Sky Fiber



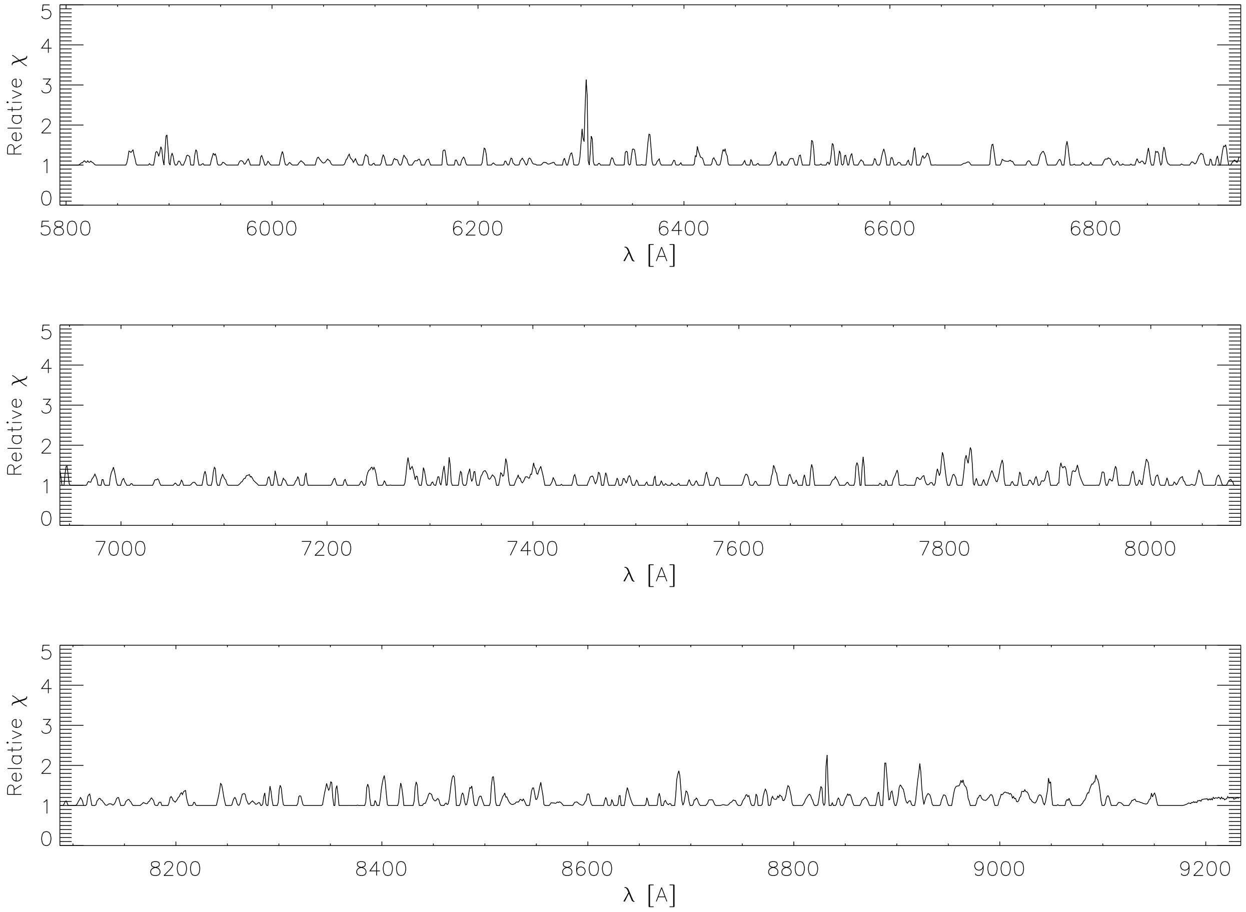
PLATE=0306 MJD=51637 sdR-r2-00003300.fit 2D Sky-subtraction Sky Fibers

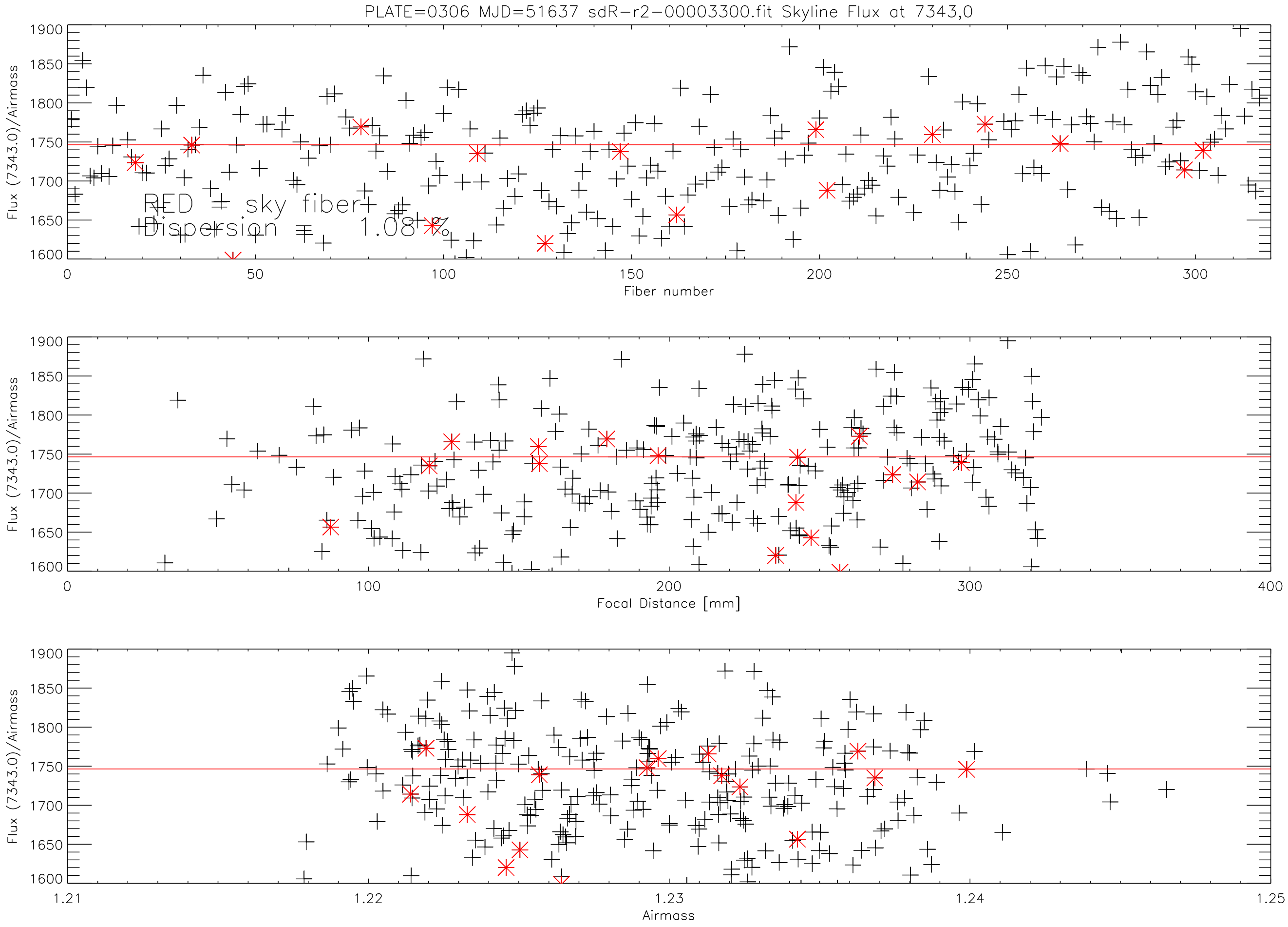


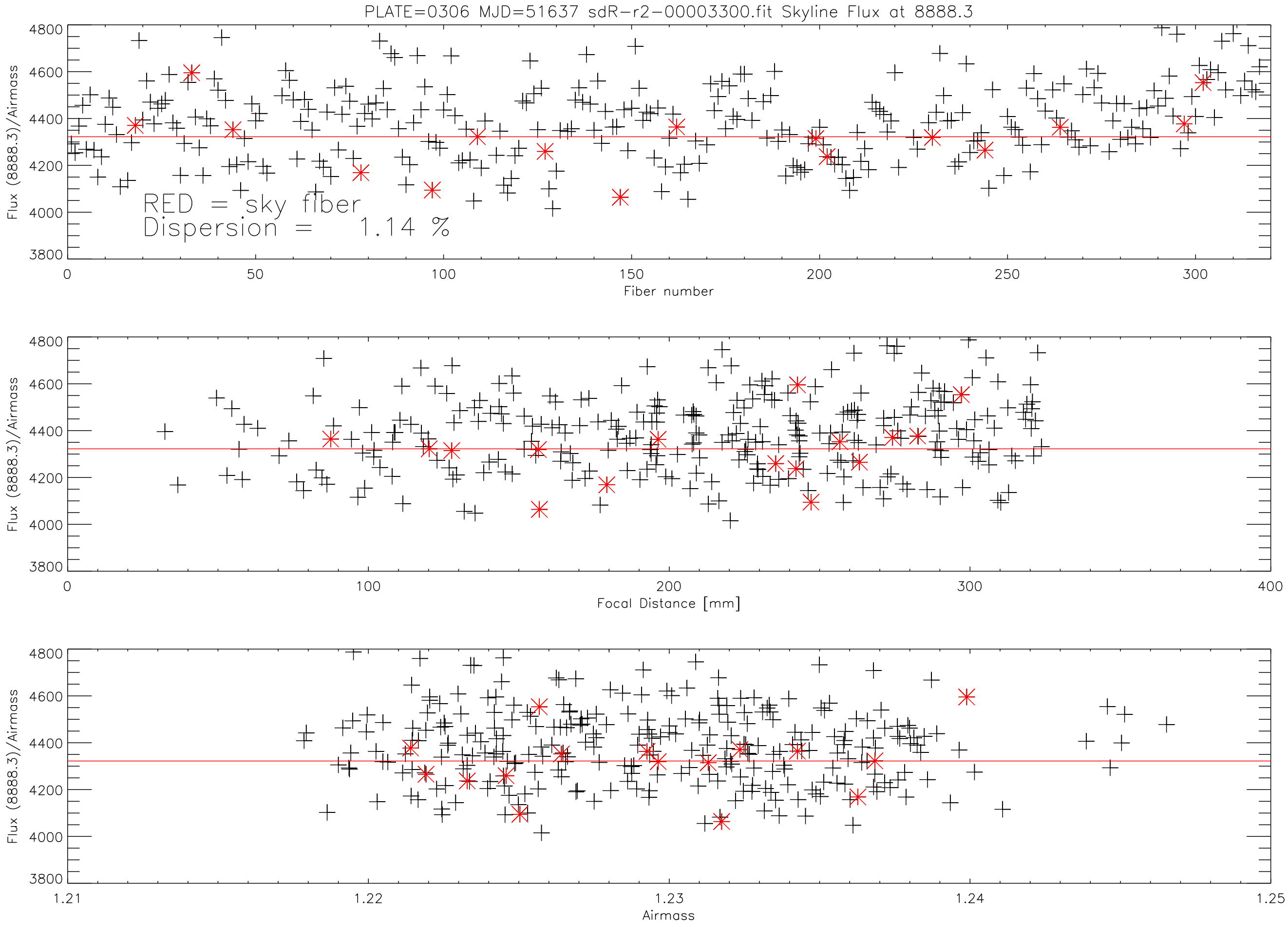
PLATE=0306 MJD=51637 sdR-r2-00003300.fit 2D Sky-subtraction Sky-subtracted Sky F

Number of sky fibers = 16

PLATE=0306 MJD=51637 sdR-r2-00003300.fit 2D Sky-subtraction Rescaled Errors



PLATE=0306 MJD=51637 sdR-r2-00003300.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
1900
1850
1800
1750
1700
1650
1600
RED sky fiber
Dispersion = 1.08 %
0
50
100
150
200
250
300
Fiber number
Flux (7343.0)/Airmass
1900
1850
1800
1750
1700
1650
1600
0
100
200
300
400
Focal Distance [mm]
Flux (7343.0)/Airmass
1900
1850
1800
1750
1700
1650
1600
1.21
1.22
1.23
1.24
1.25
Airmass


PLATE=0306 MJD=51637 sdR-r2-00003300.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
4800
4600
4400
4200
4000
3800
RED = sky fiber
Dispersion = 1.14 %
0
50
100
150
200
250
300
Fiber number
Flux (8888.3)/Airmass
4800
4600
4400
4200
4000
3800
0
100
200
300
400
Focal Distance [mm]
Flux (8888.3)/Airmass
4800
4600
4400
4200
4000
3800
1.21
1.22
1.23
1.24
1.25
Airmass