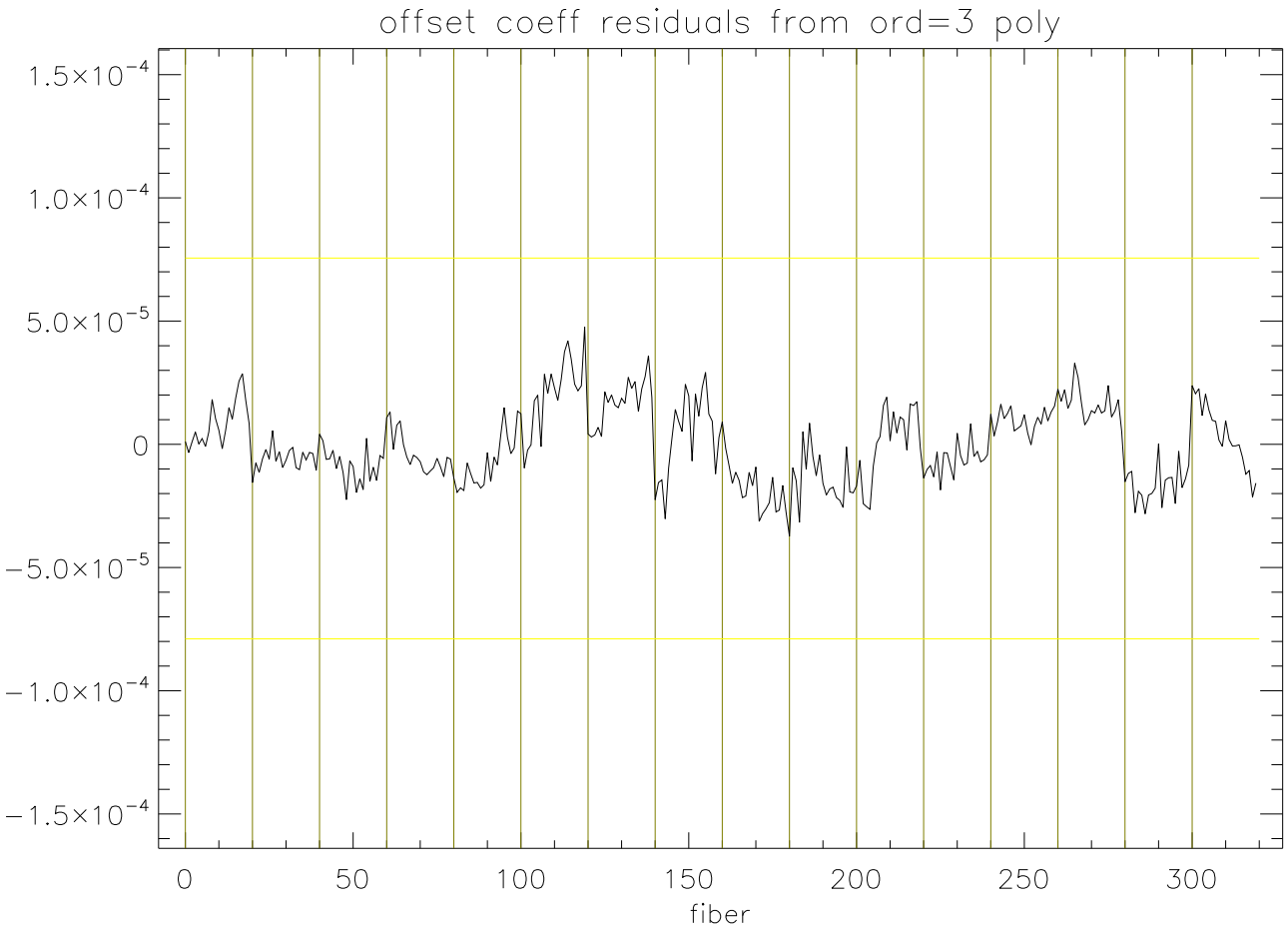
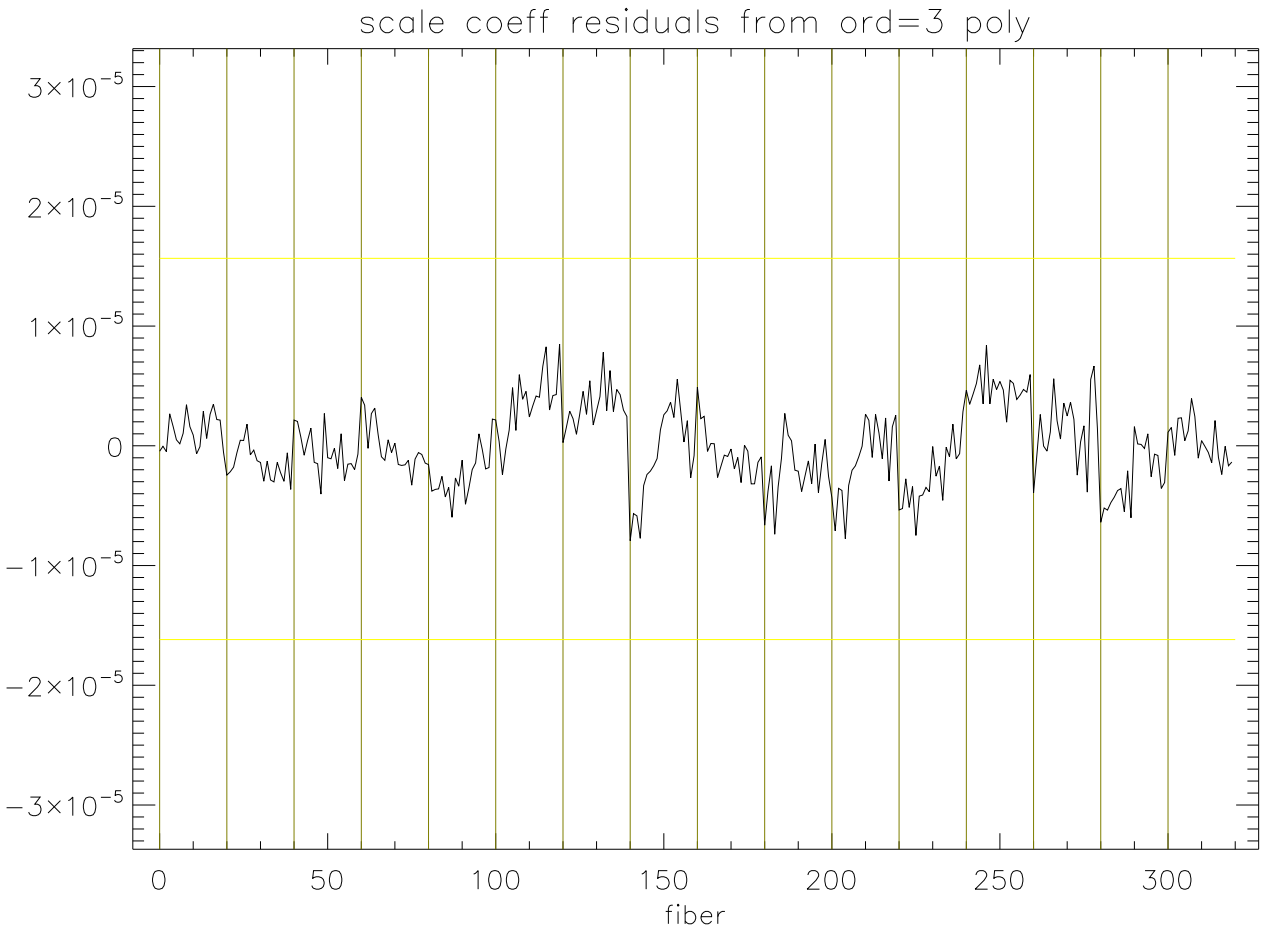
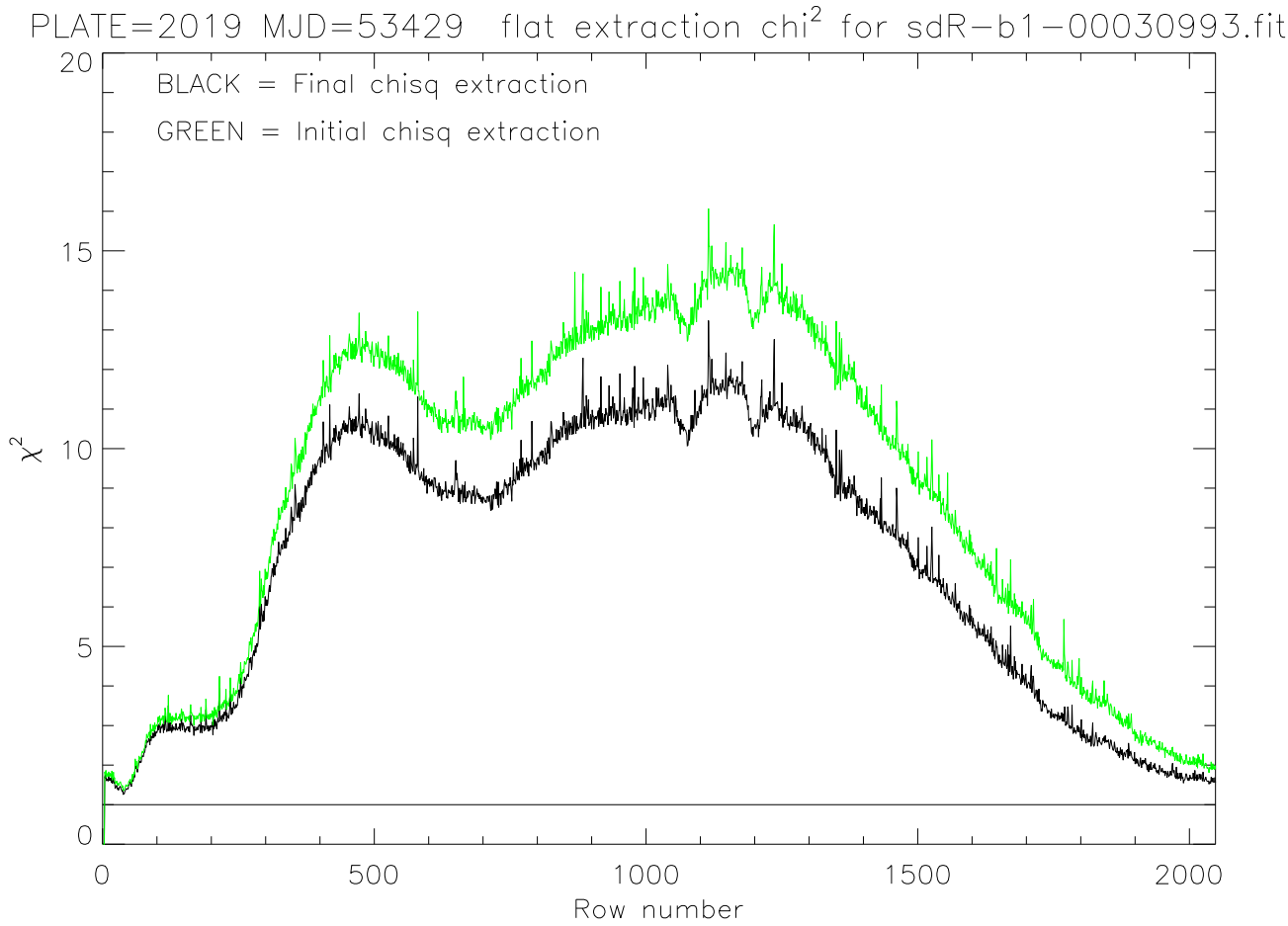
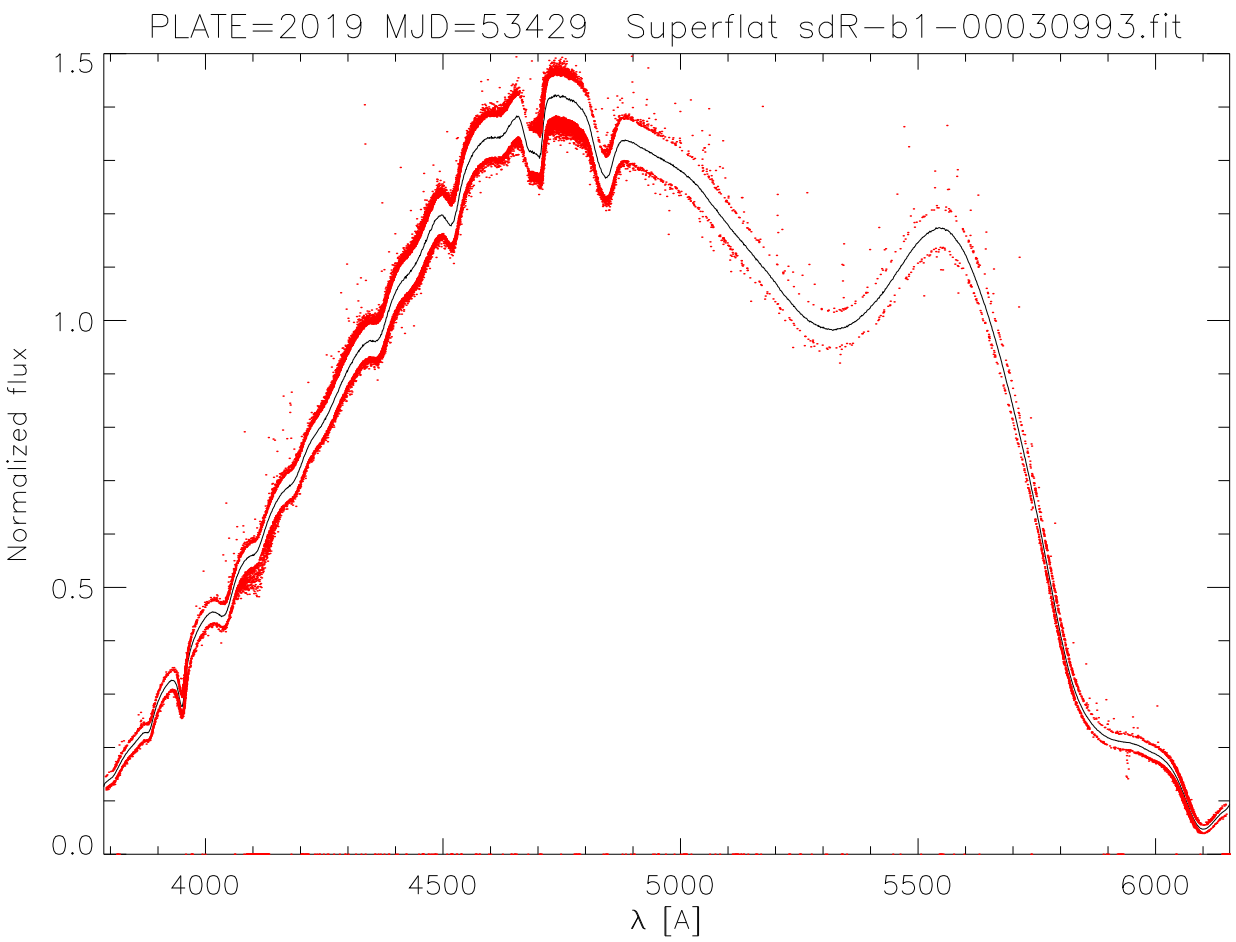
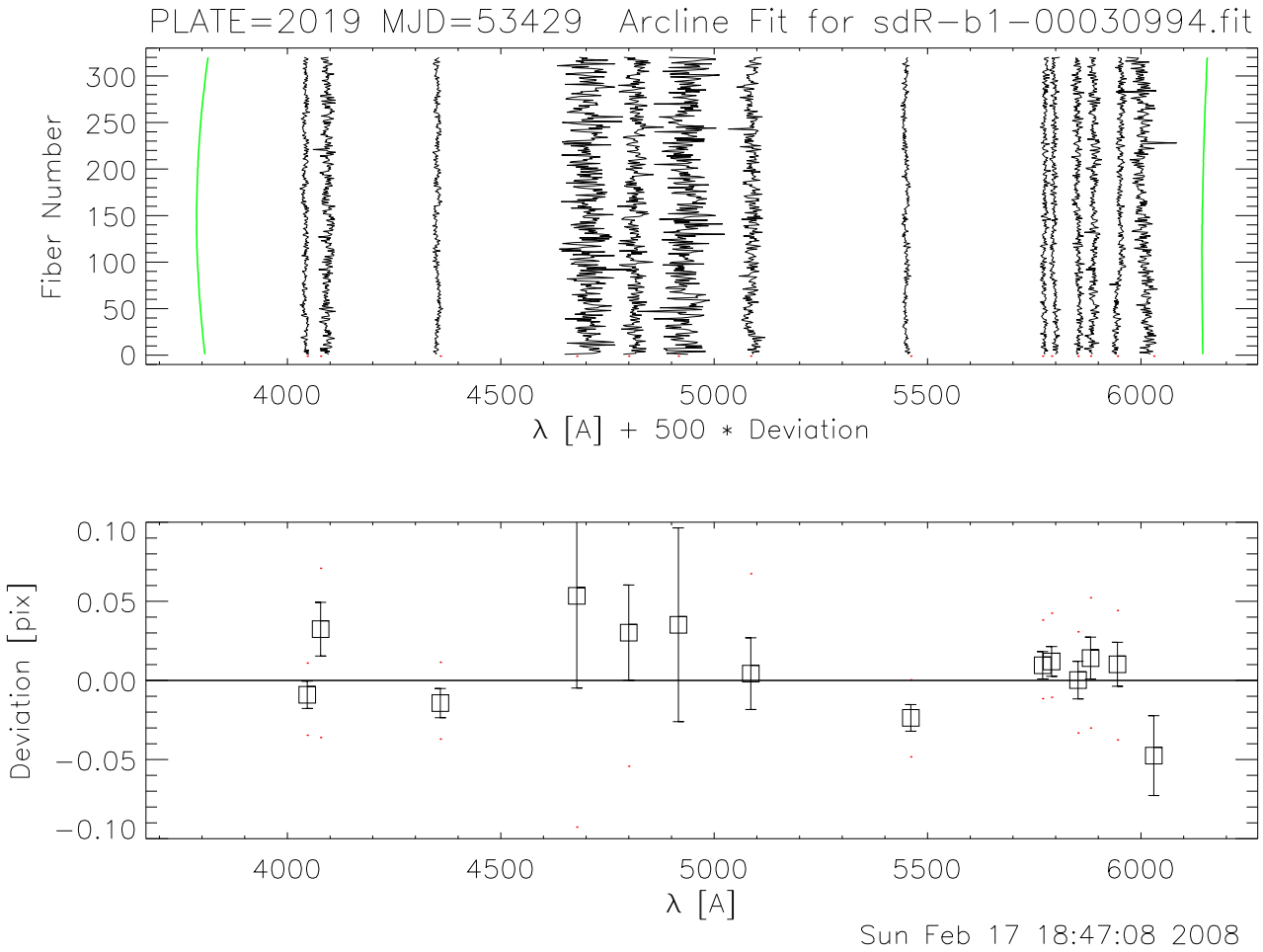
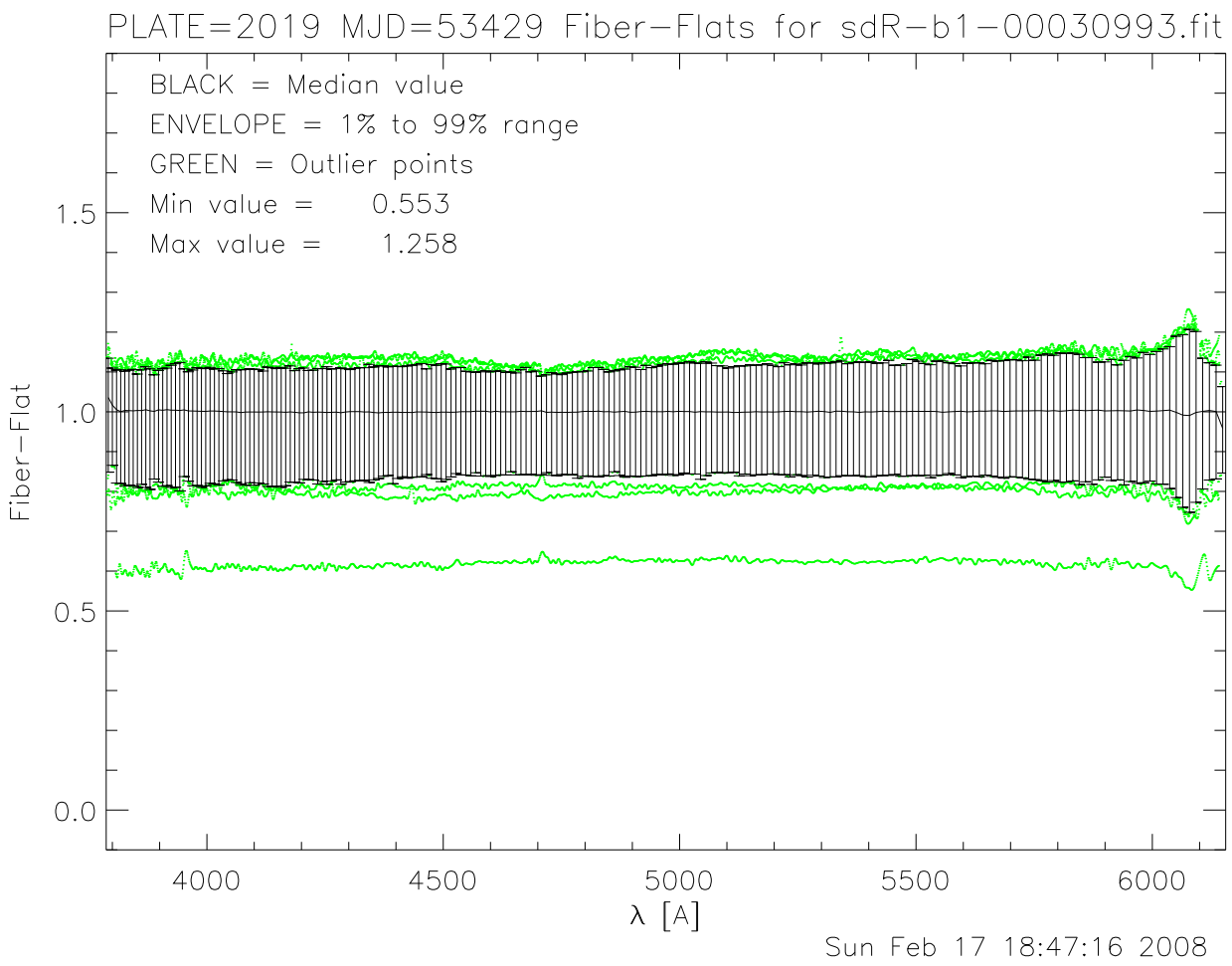

offset coeff residuals from ord=3 poly
1.5×10⁻⁴
1.0×10⁻⁴
5.0×10⁻⁵
0
−5.0×10⁻⁵
−1.0×10⁻⁴
−1.5×10⁻⁴
0
50
100
150
200
250
300
fiber

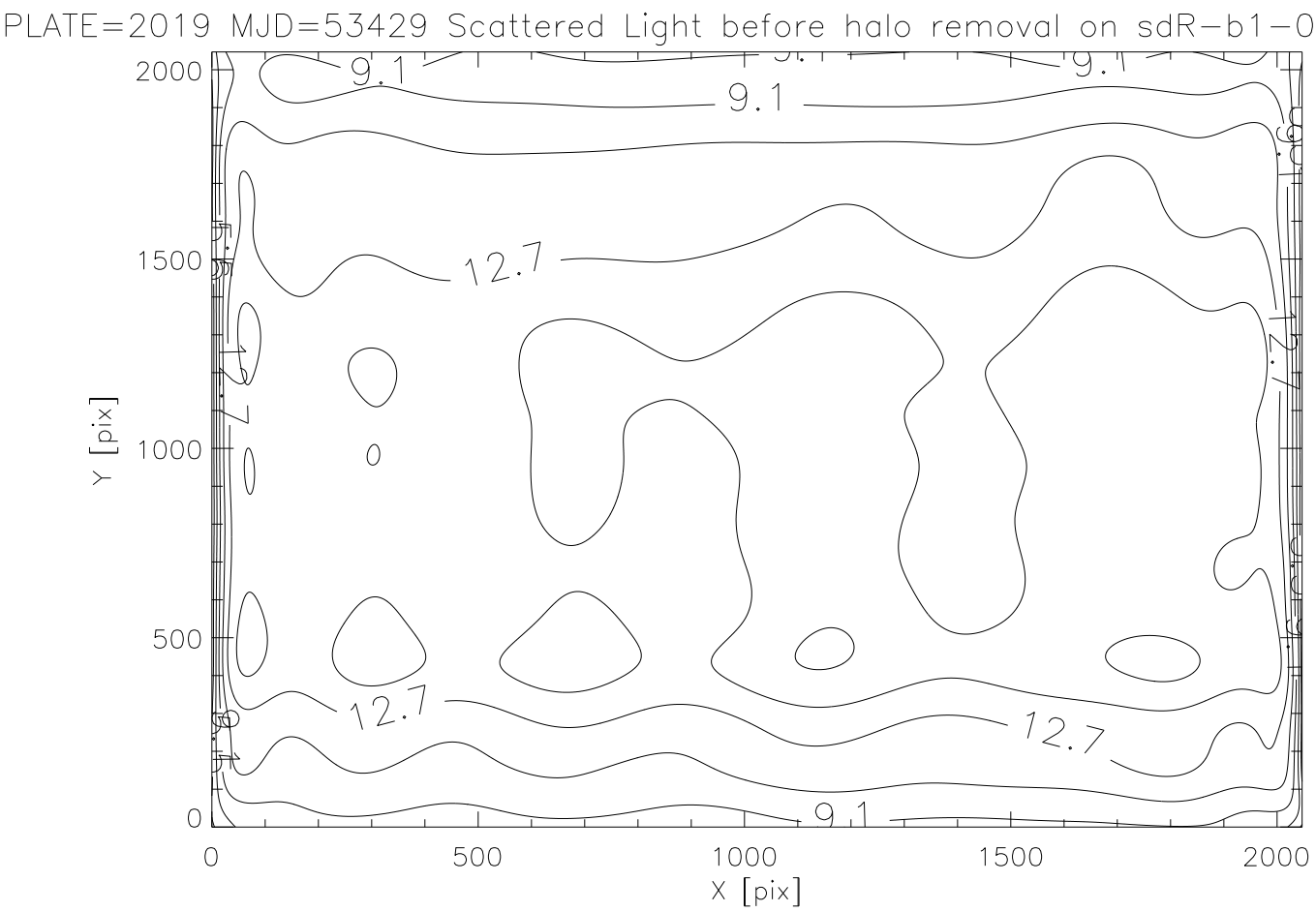

scale coeff residuals from ord=3 poly
3×10^-5
2×10^-5
1×10^-5
0
−1×10^-5
−2×10^-5
−3×10^-5
0
50
100
150
200
250
300
fiber

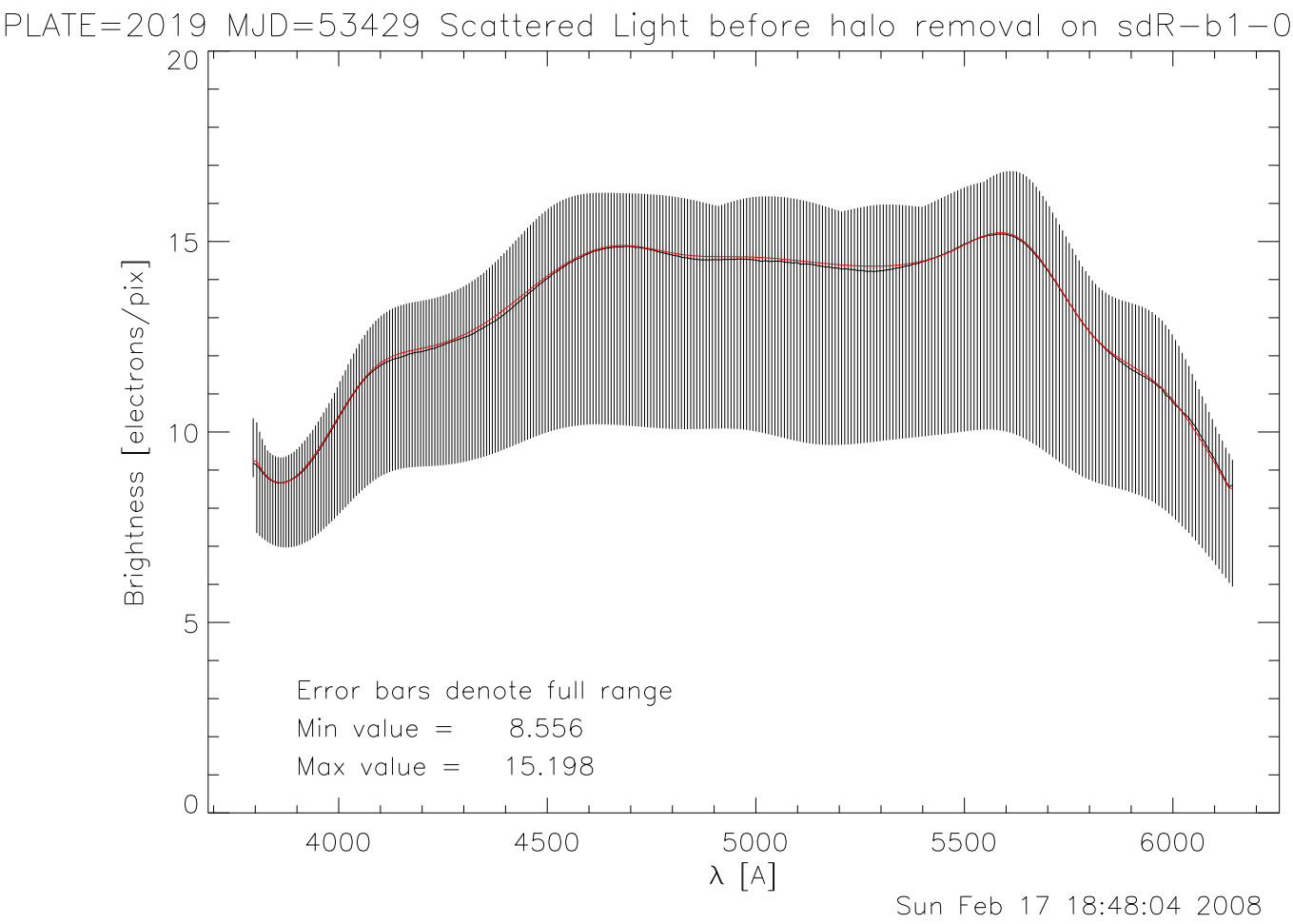

PLATE=2019 MJD=53429 flat extraction chi^2 for sdR−b1−00030993.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
Row number
0
5
10
15
20
0
500
1000
1500
2000

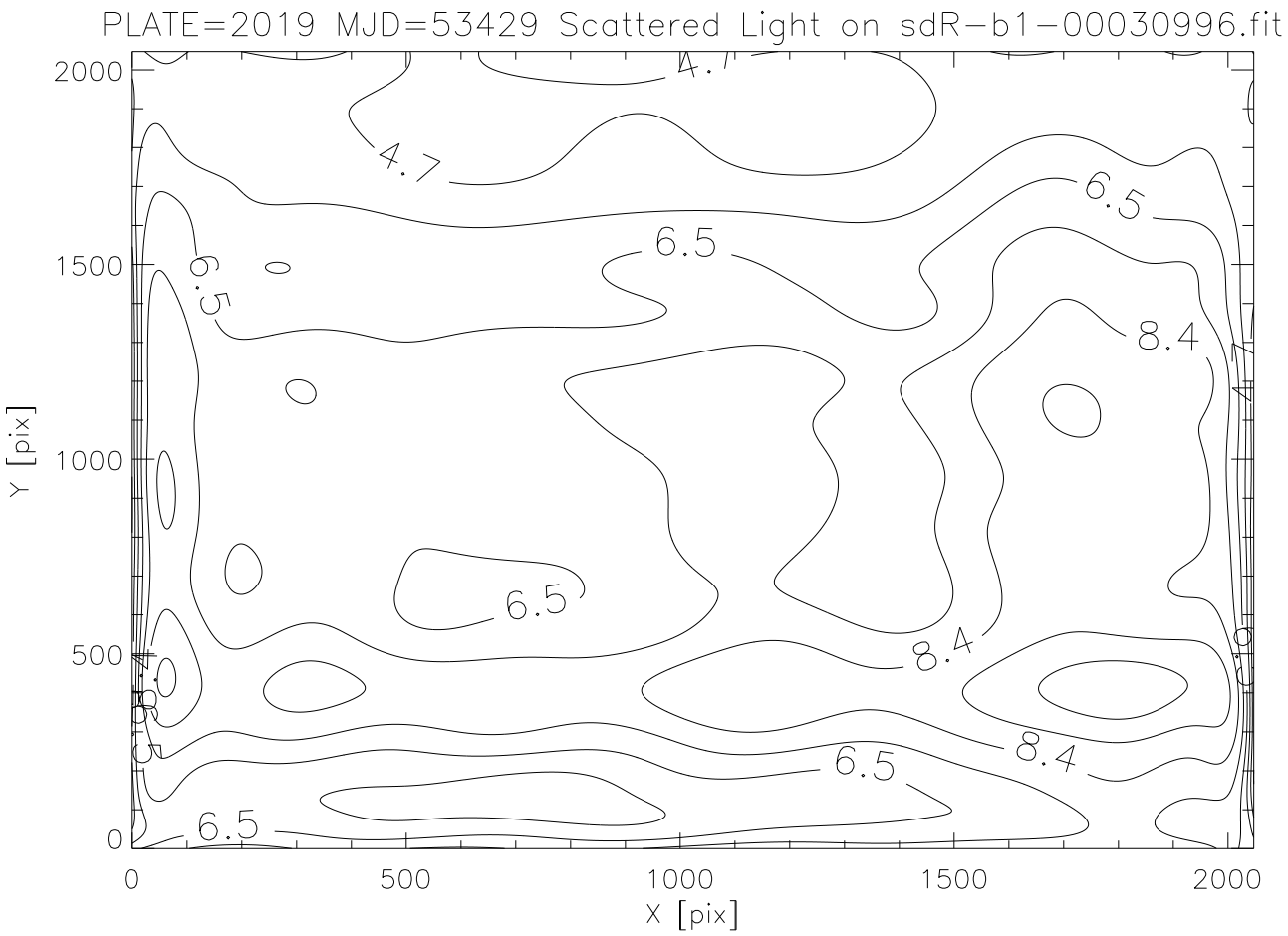

PLATE=2019 MJD=53429 Superflat sdR-b1-00030993.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

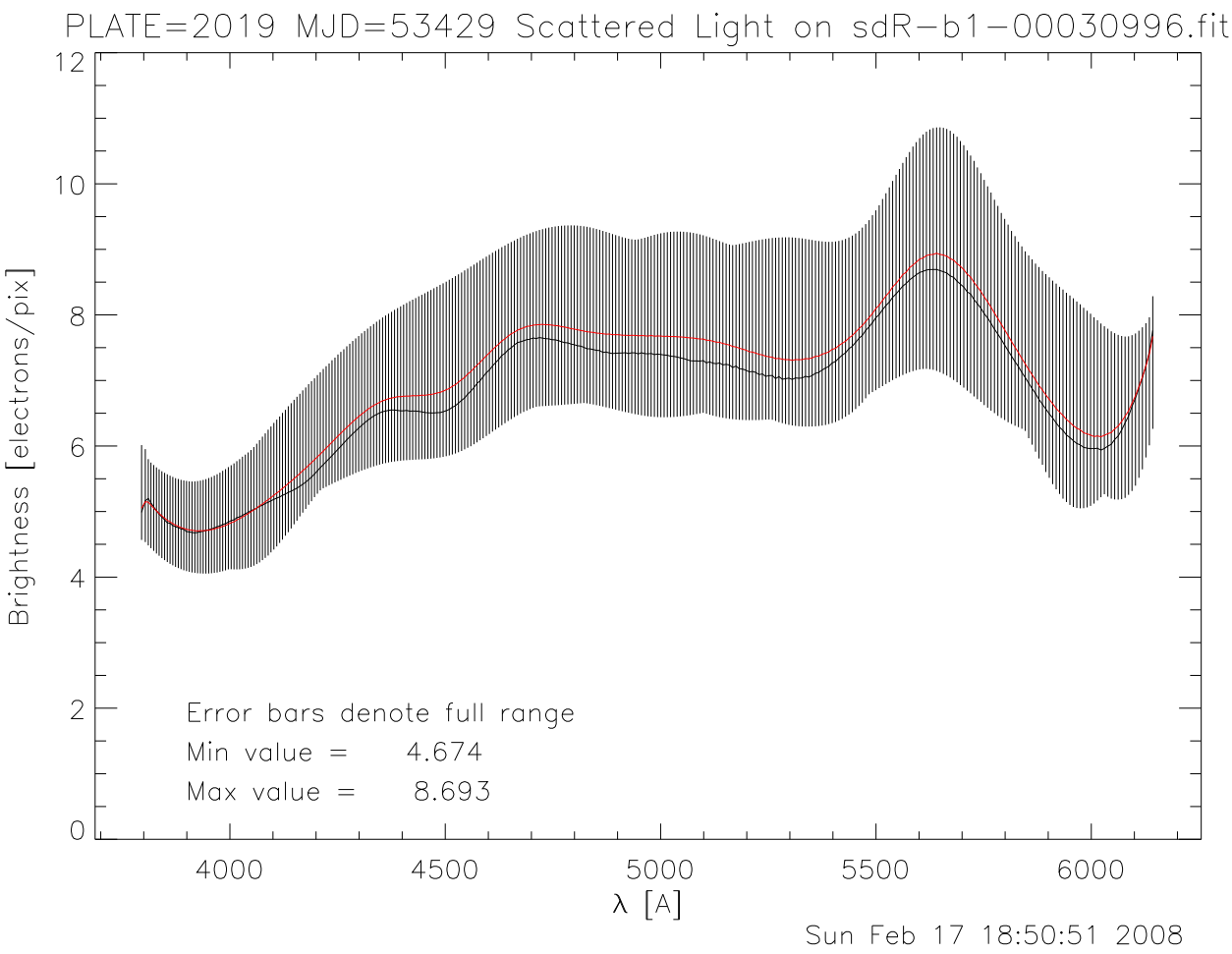

PLATE=2019 MJD=53429 Arcline Fit for sdR-b1-00030994.fit
Fiber Number
300
250
200
150
100
50
0
4000
4500
5000
5500
6000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
4000
4500
5000
5500
6000
λ [A]
Sun Feb 17 18:47:08 2008

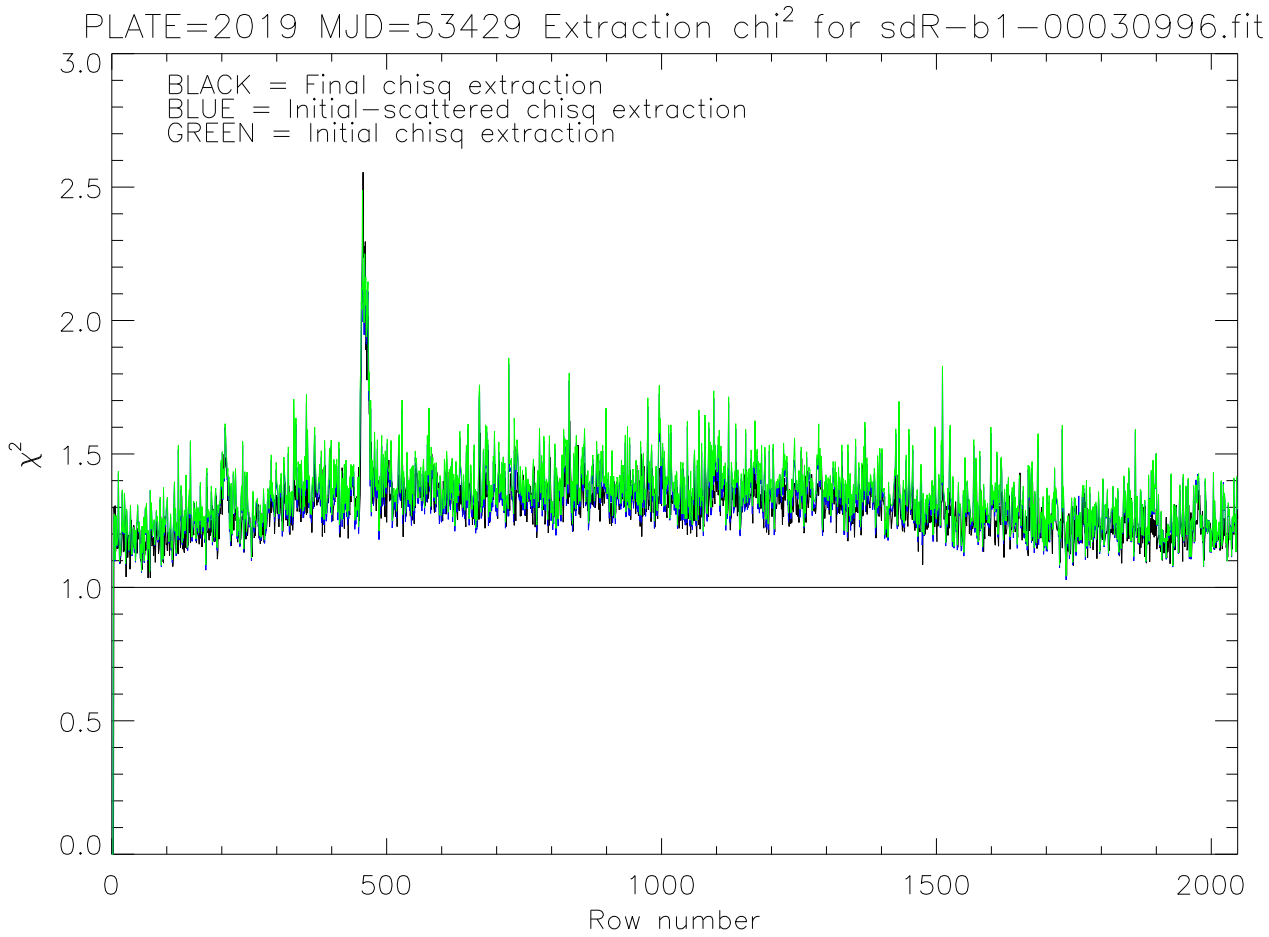

PLATE=2019 MJD=53429 Fiber−Flats for sdR−b1−00030993.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.553
Max value = 1.258
Fiber−Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Sun Feb 17 18:47:16 2008

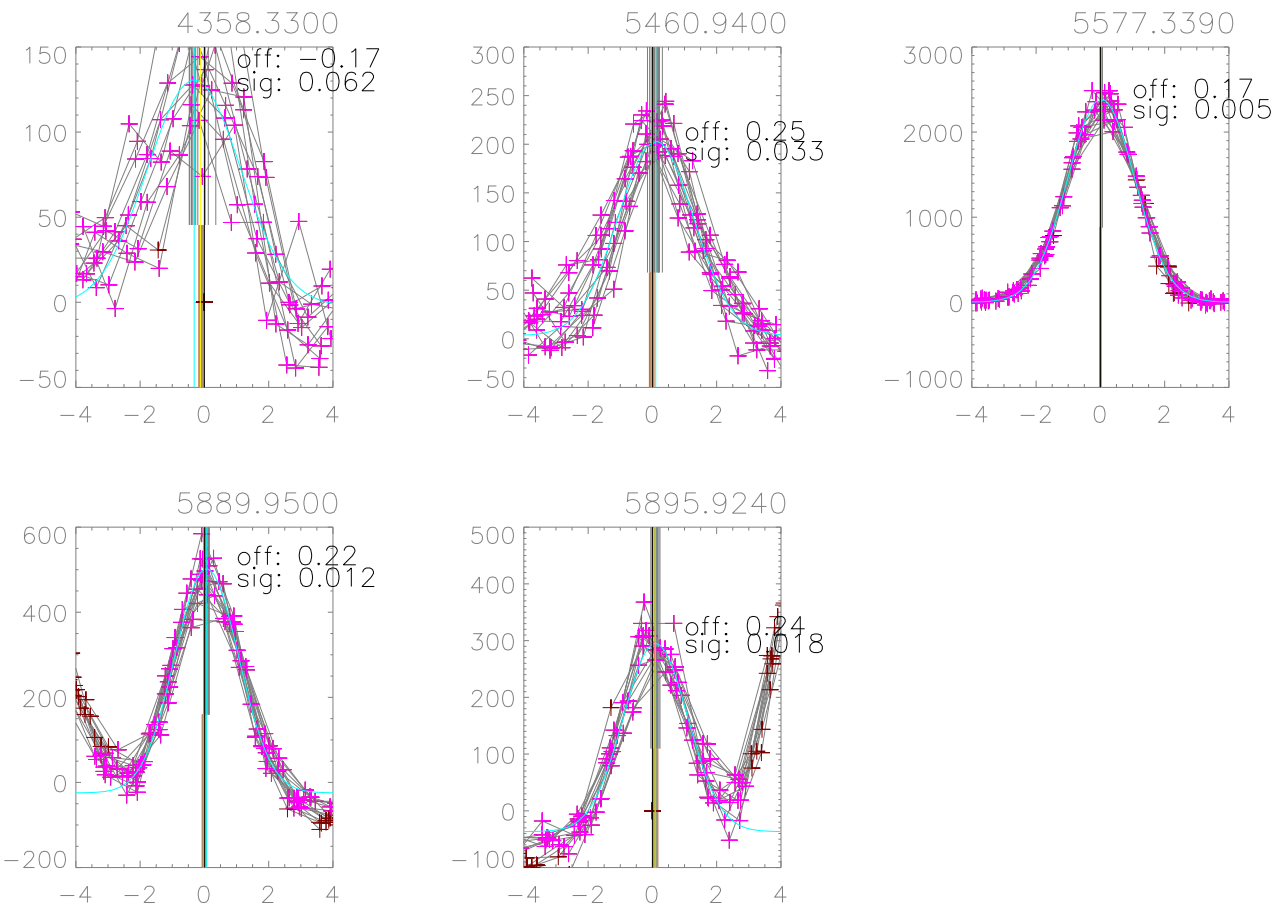

PLATE=2019 MJD=53429 Scattered Light before halo removal on sdR−b1−00030996.f
9.1
9.1
12.7
12.7
0
12.7
12.7
9.1
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]

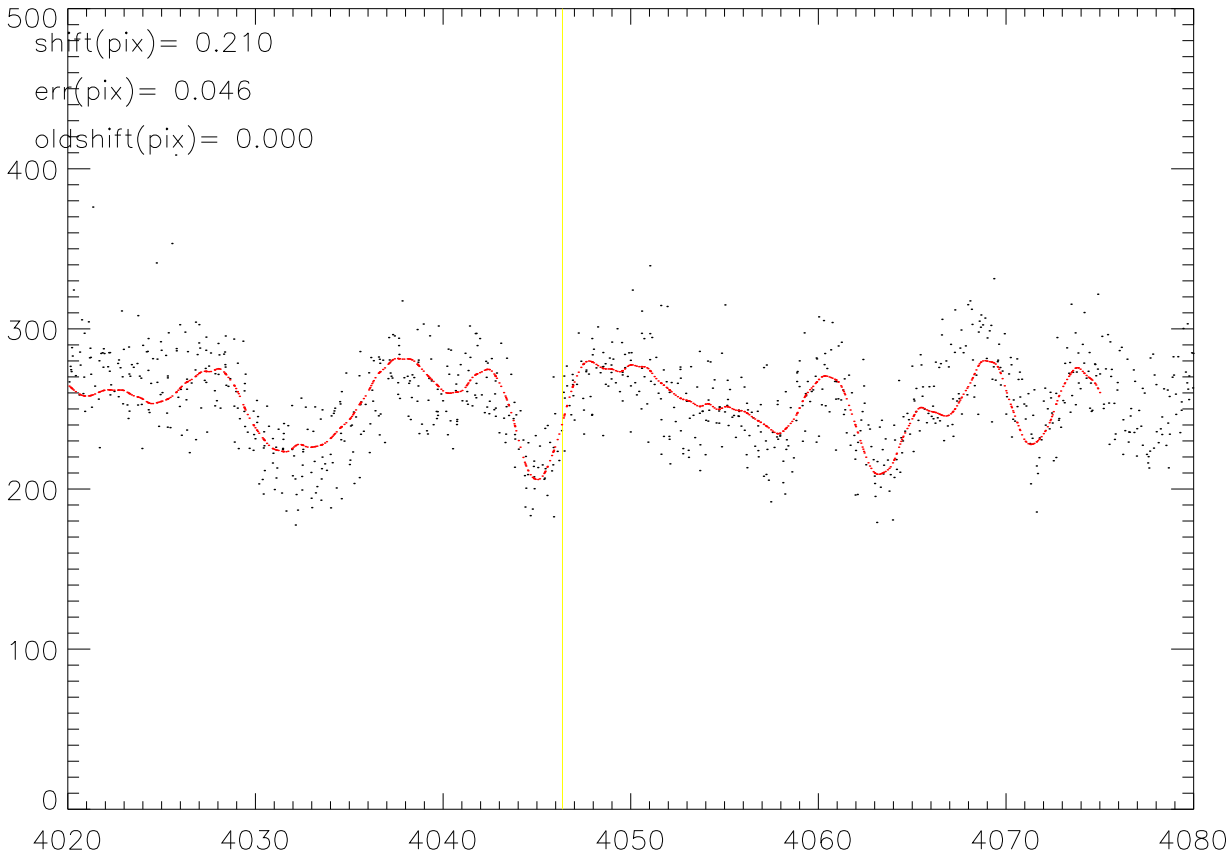

PLATE=2019 MJD=53429 Scattered Light before halo removal on sdR-b1-00030996.f
Brightness [electrons/pix]
20
15
10
5
0
Error bars denote full range
Min value = 8.556
Max value = 15.198
4000
4500
5000
5500
6000
λ [A]
Sun Feb 17 18:48:04 2008

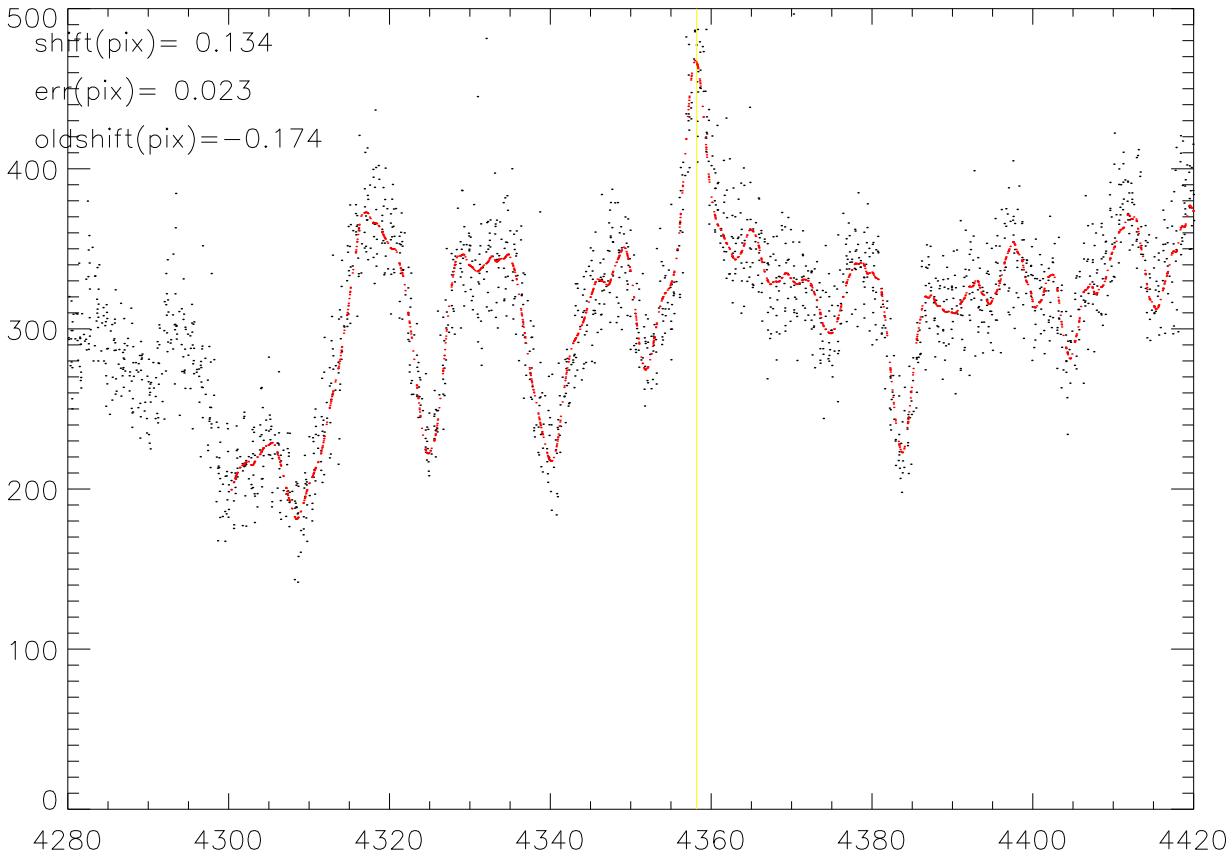

PLATE=2019 MJD=53429 Scattered Light on sdR-b1-00030996.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
4.7
6.5
8.4

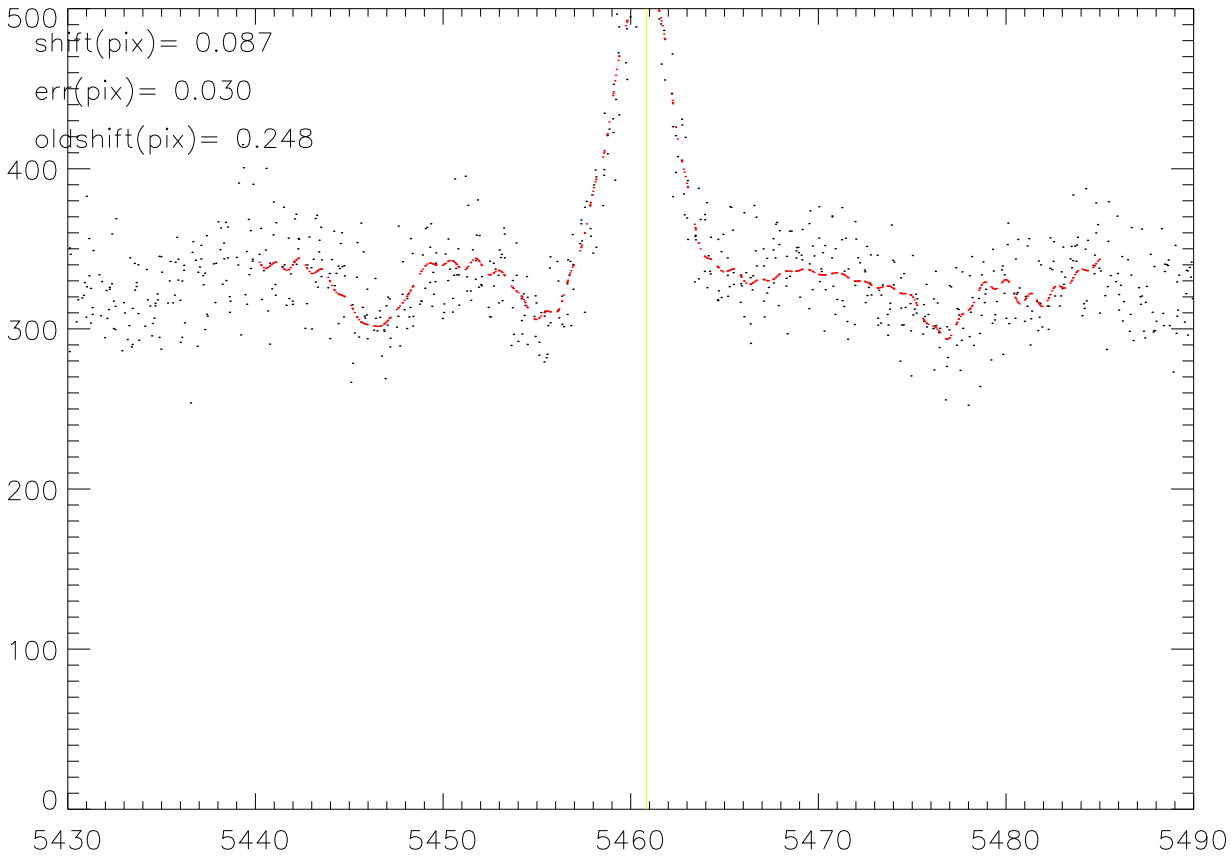

PLATE=2019 MJD=53429 Scattered Light on sdR-b1-00030996.fit
Brightness [electrons/pix]
12
10
8
6
4
2
0
Error bars denote full range
Min value = 4.674
Max value = 8.693
4000
4500
5000
5500
6000
λ [A]
Sun Feb 17 18:50:51 2008

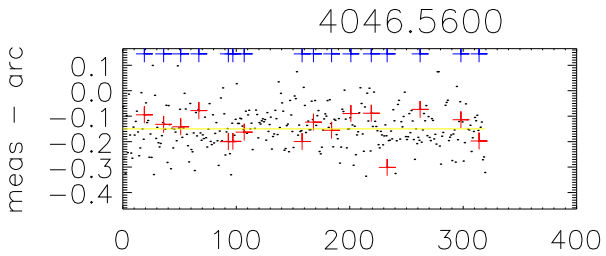

PLATE=2019 MJD=53429 Extraction chi^2 for sdR−b1−00030996.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
500
1000
1500
2000
Row number

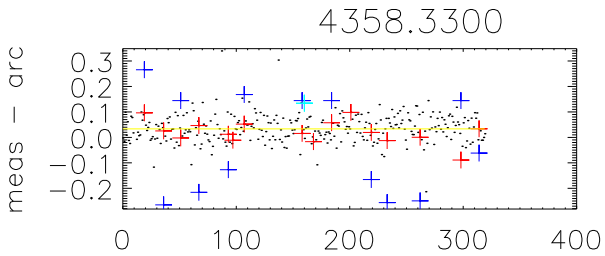

4358.3300
off: −0.17
sig: 0.062
5460.9400
off: 0.25
sig: 0.033
5577.3390
off: 0.17
sig: 0.005
5889.9500
off: 0.22
sig: 0.012
5895.9240
off: 0.24
sig: 0.018

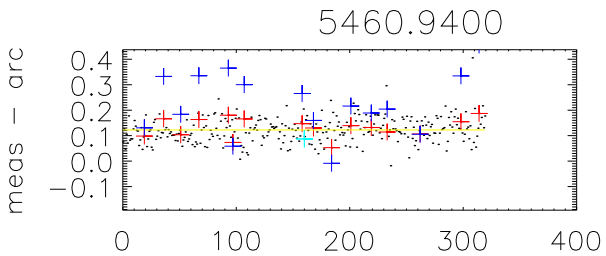

shift(pix)= 0.210
err(pix)= 0.046
oldshift(pix)= 0.000
500
400
300
200
100
0
4020
4030
4040
4050
4060
4070
4080

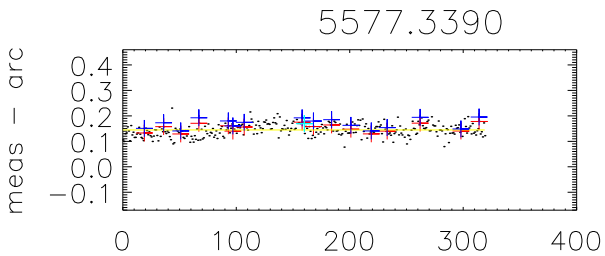

shift(pix)= 0.134
err(pix)= 0.023
oldshift(pix)=−0.174
500
400
300
200
100
0
4280
4300
4320
4340
4360
4380
4400
4420

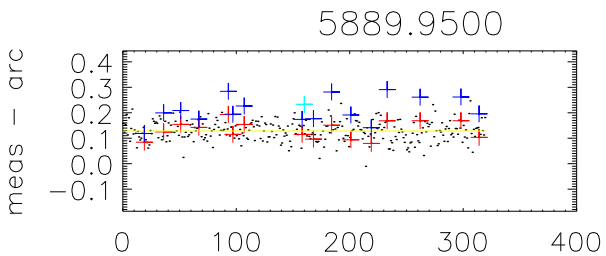

shift(pix)= 0.087
err(pix)= 0.030
oldshift(pix)= 0.248
500
400
300
200
100
0
5430
5440
5450
5460
5470
5480
5490

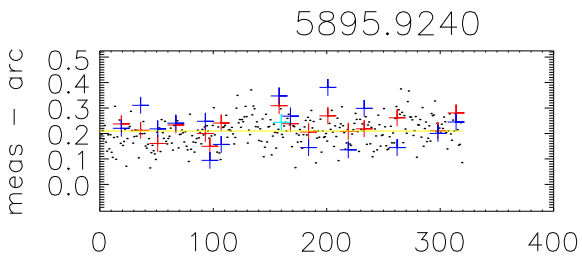

4046.5600
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

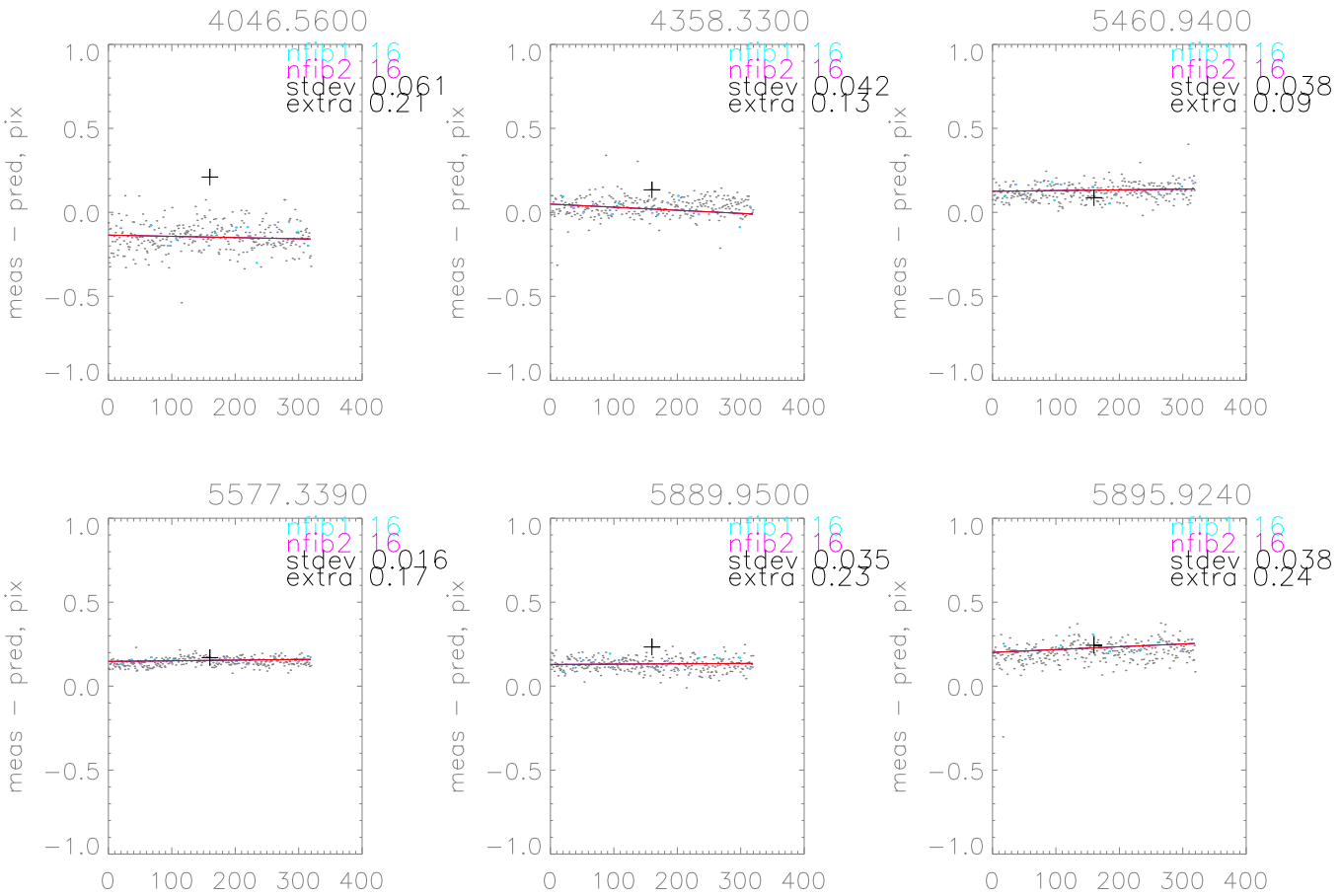

4358.3300
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

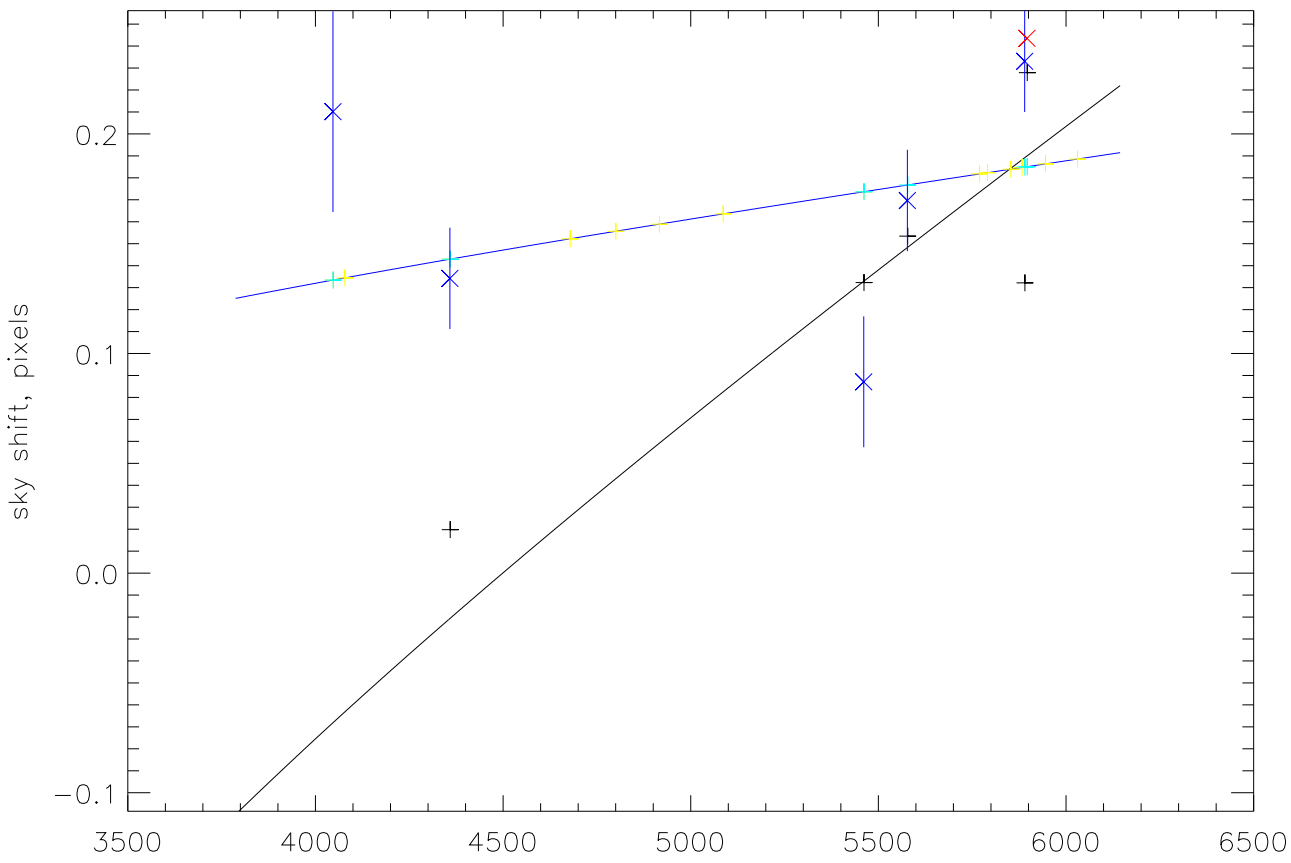

5460.9400
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

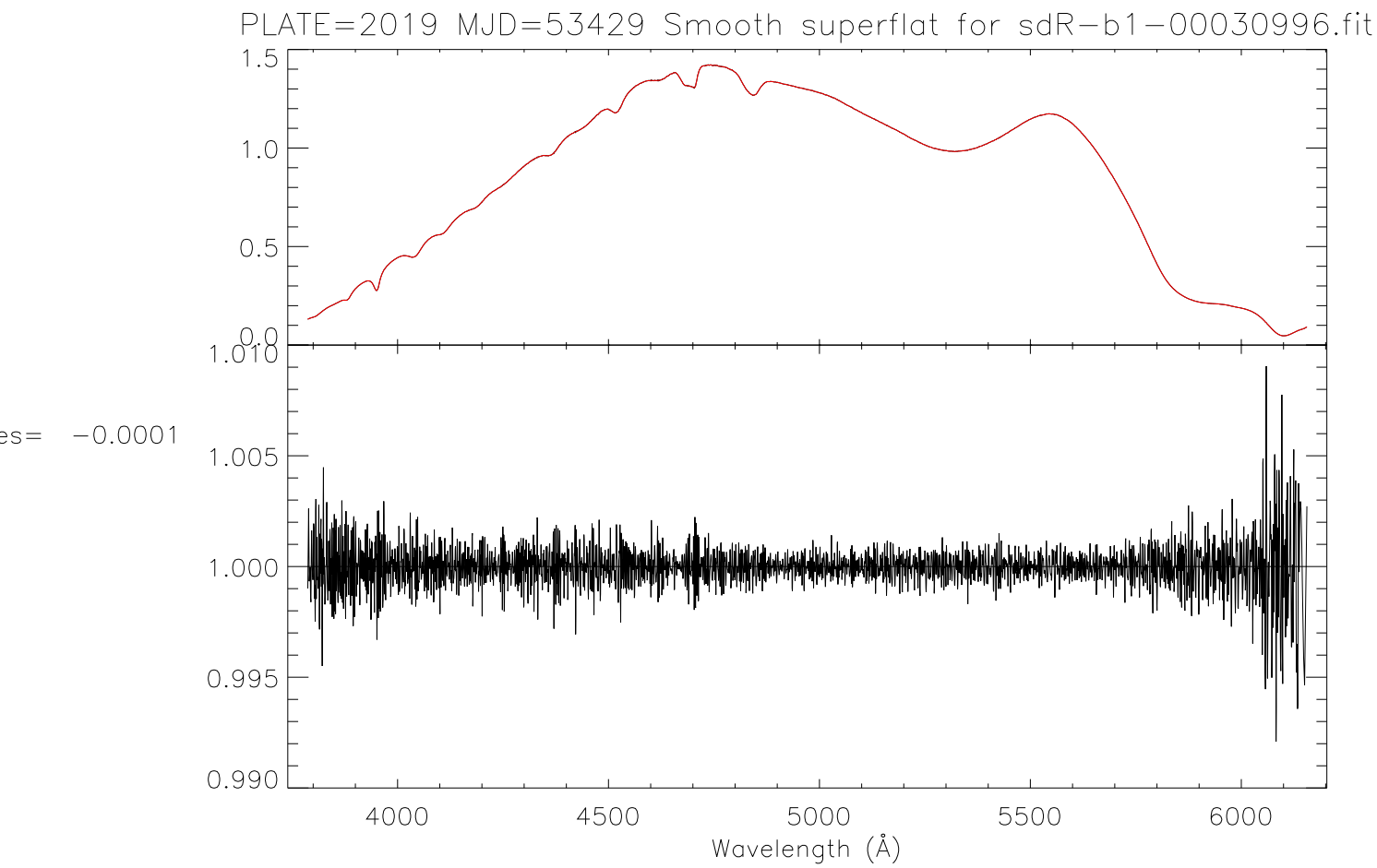

5577.3390
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400


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

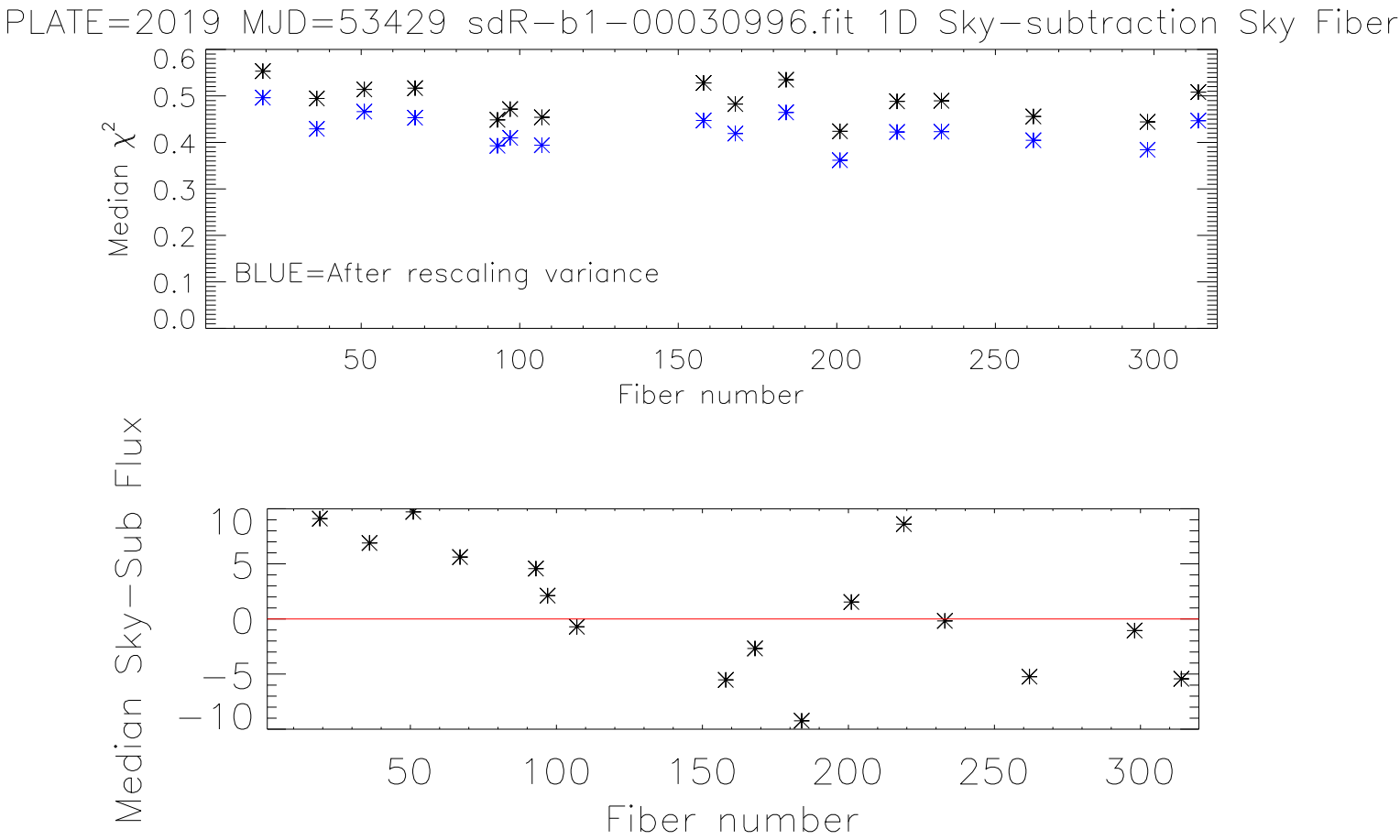

5895.9240
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

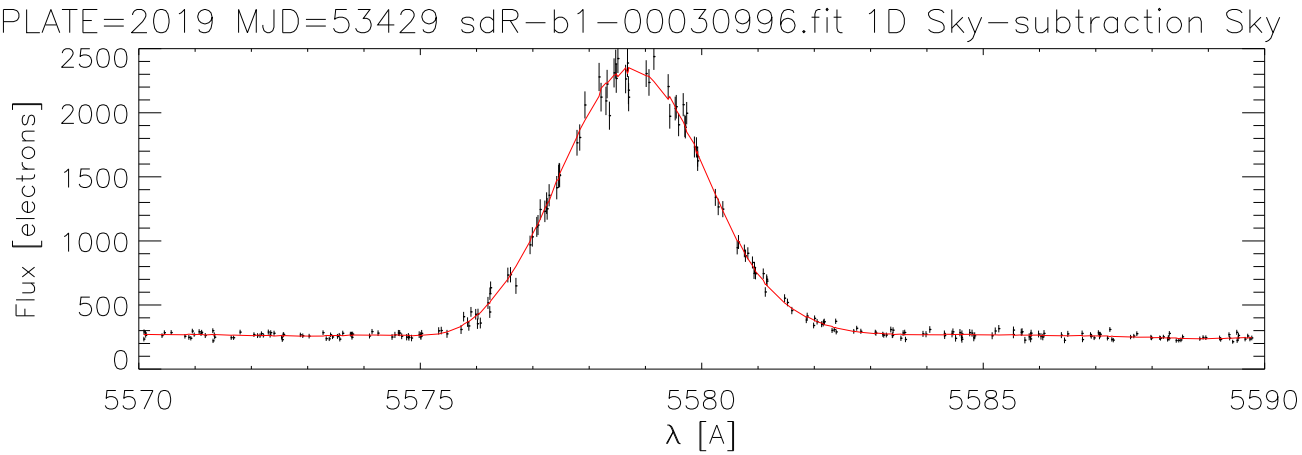

4046.5600
nfib1 16
nfib2 16
stdev 0.061
extra 0.21
4358.3300
nfib1 16
nfib2 16
stdev 0.042
extra 0.13
5460.9400
nfib1 16
nfib2 16
stdev 0.038
extra 0.09
5577.3390
nfib1 16
nfib2 16
stdev 0.016
extra 0.17
5889.9500
nfib1 16
nfib2 16
stdev 0.035
extra 0.23
5895.9240
nfib1 16
nfib2 16
stdev 0.038
extra 0.24
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

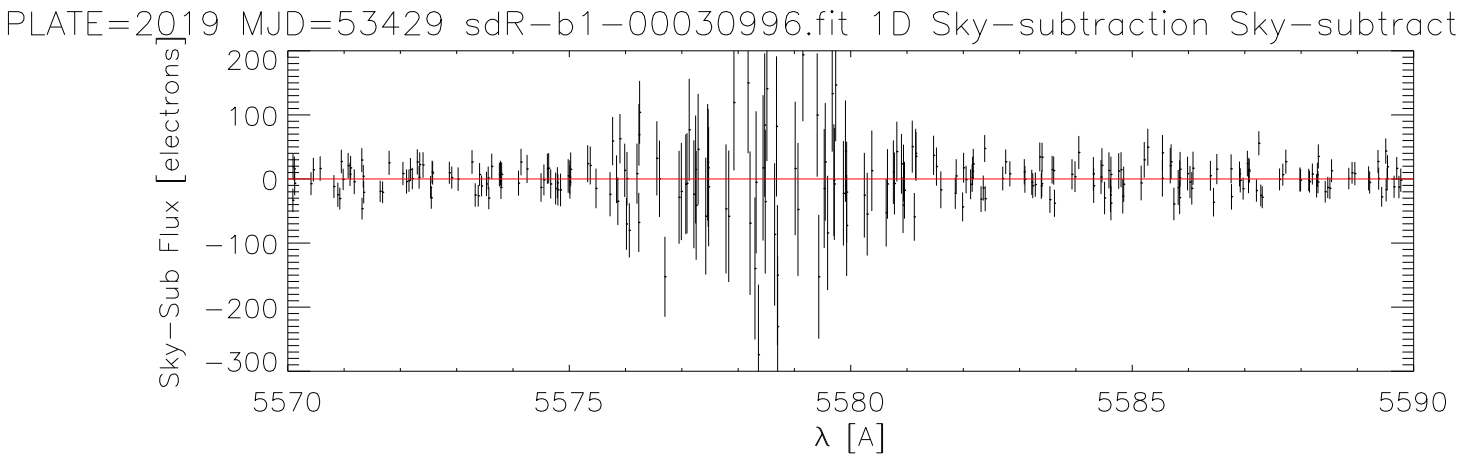

sky shift, pixels
0.2
0.1
0.0
−0.1
3500
4000
4500
5000
5500
6000
6500

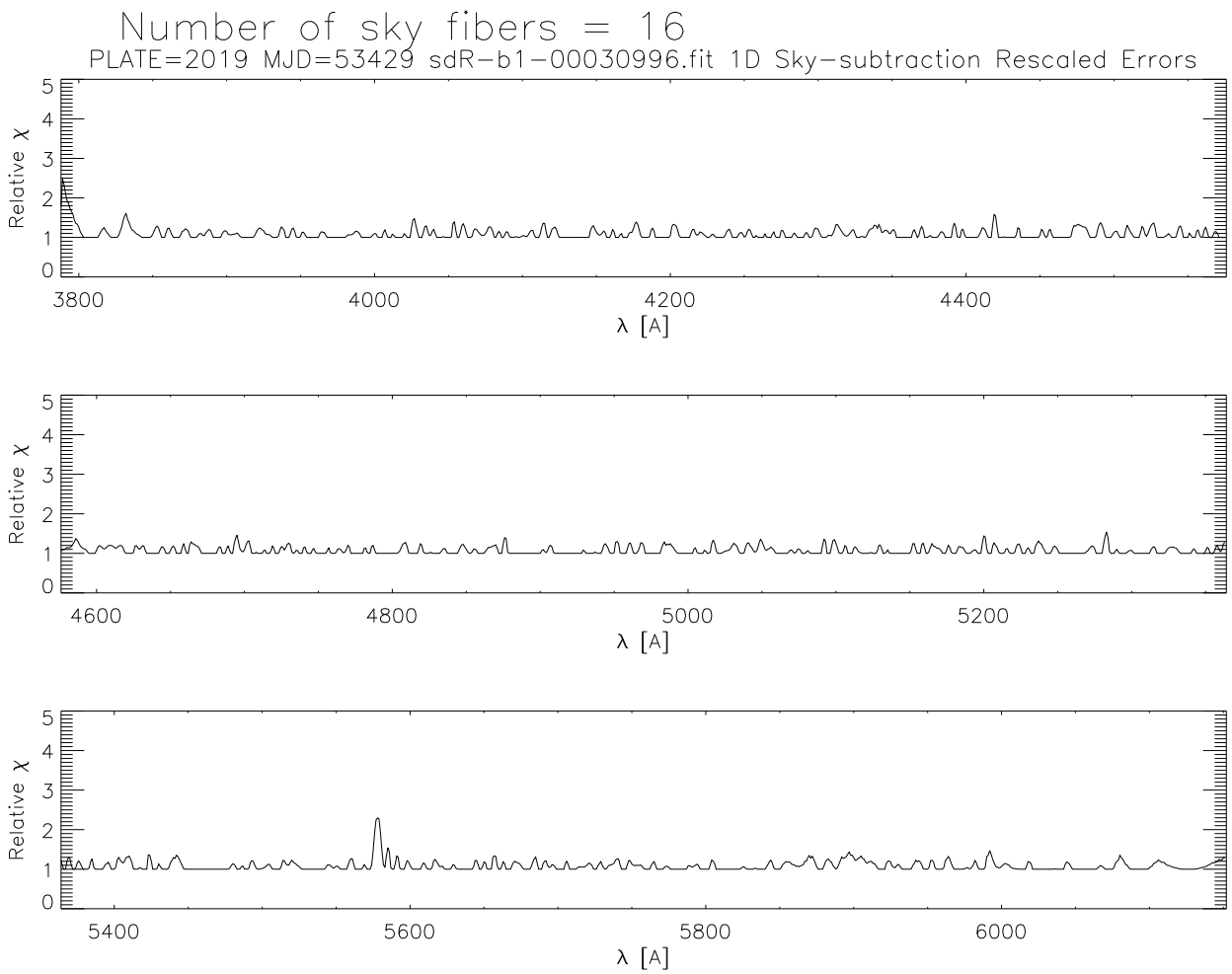

PLATE=2019 MJD=53429 Smooth superflat for sdR-b1-00030996.fit
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
4000
4500
5000
5500
6000
Wavelength (Å)

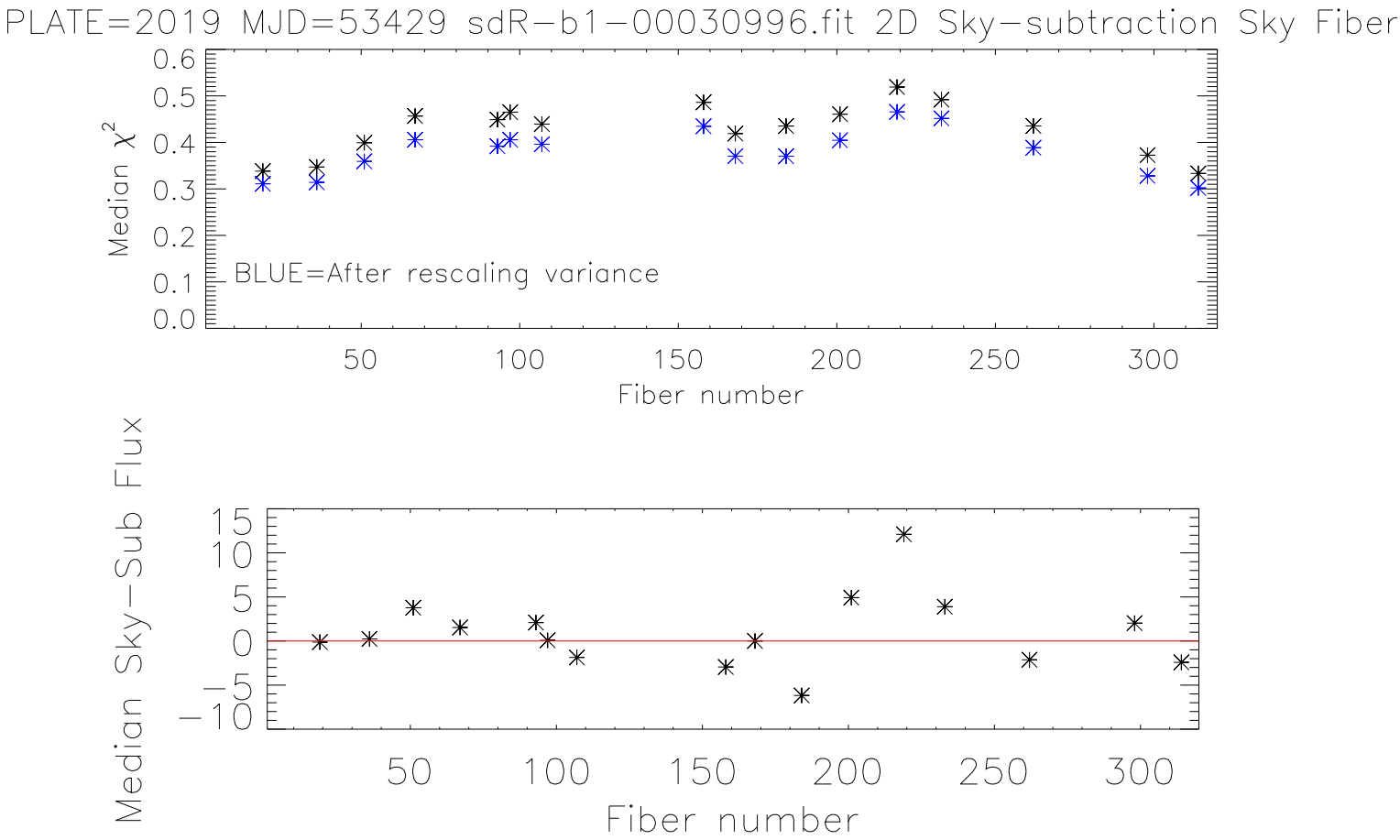
es= −0.0001

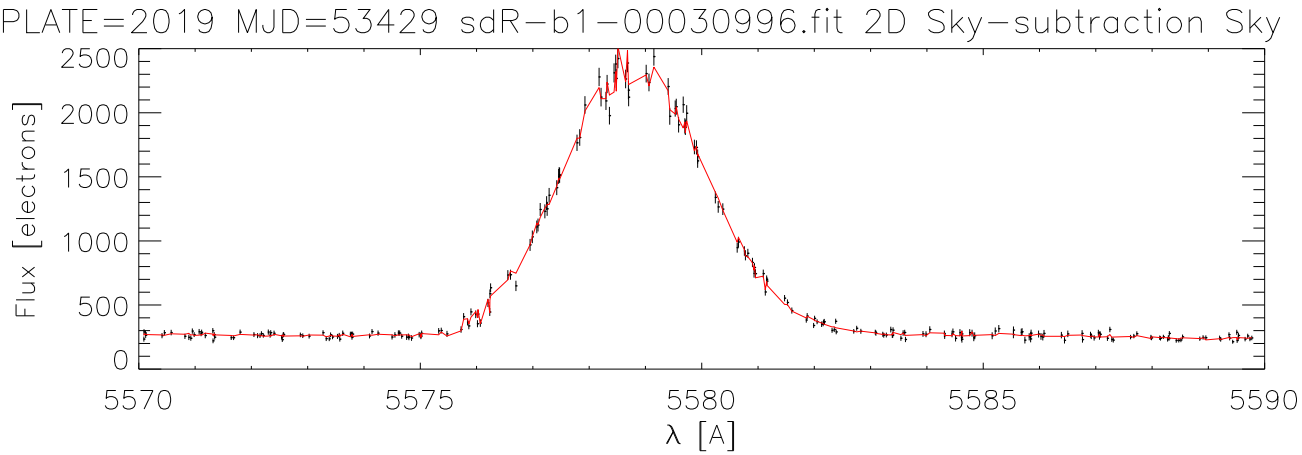

PLATE=2019 MJD=53429 sdR-b1-00030996.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
−5
−10
50
100
150
200
250
300
Fiber number

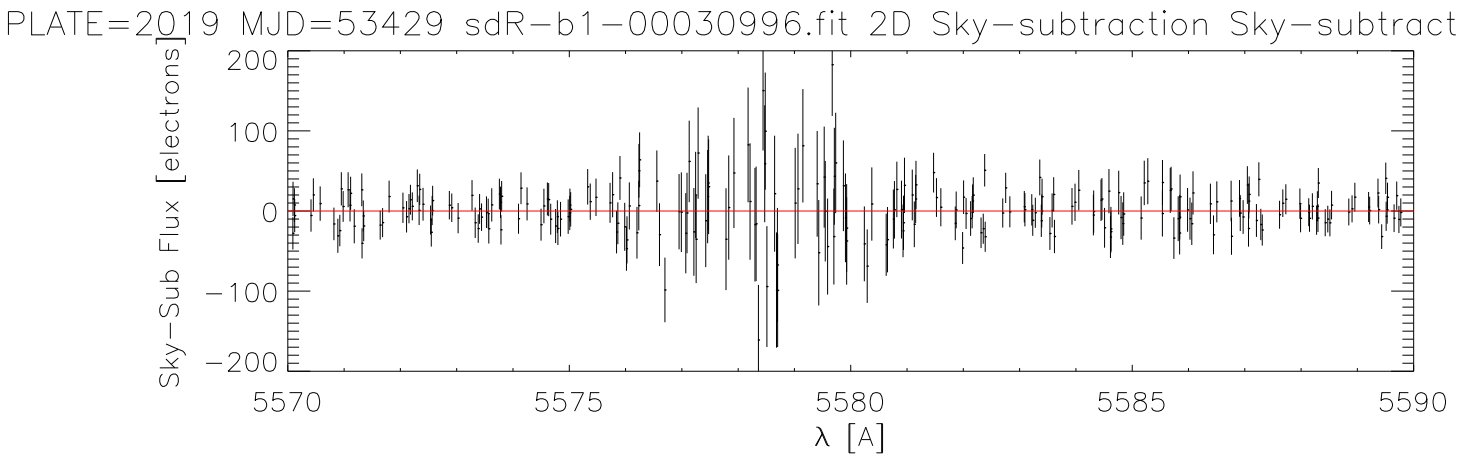

PLATE=2019 MJD=53429 sdR-b1-00030996.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
2500
2000
1500
1000
500
0
5570
5575
5580
5585
5590
λ [A]

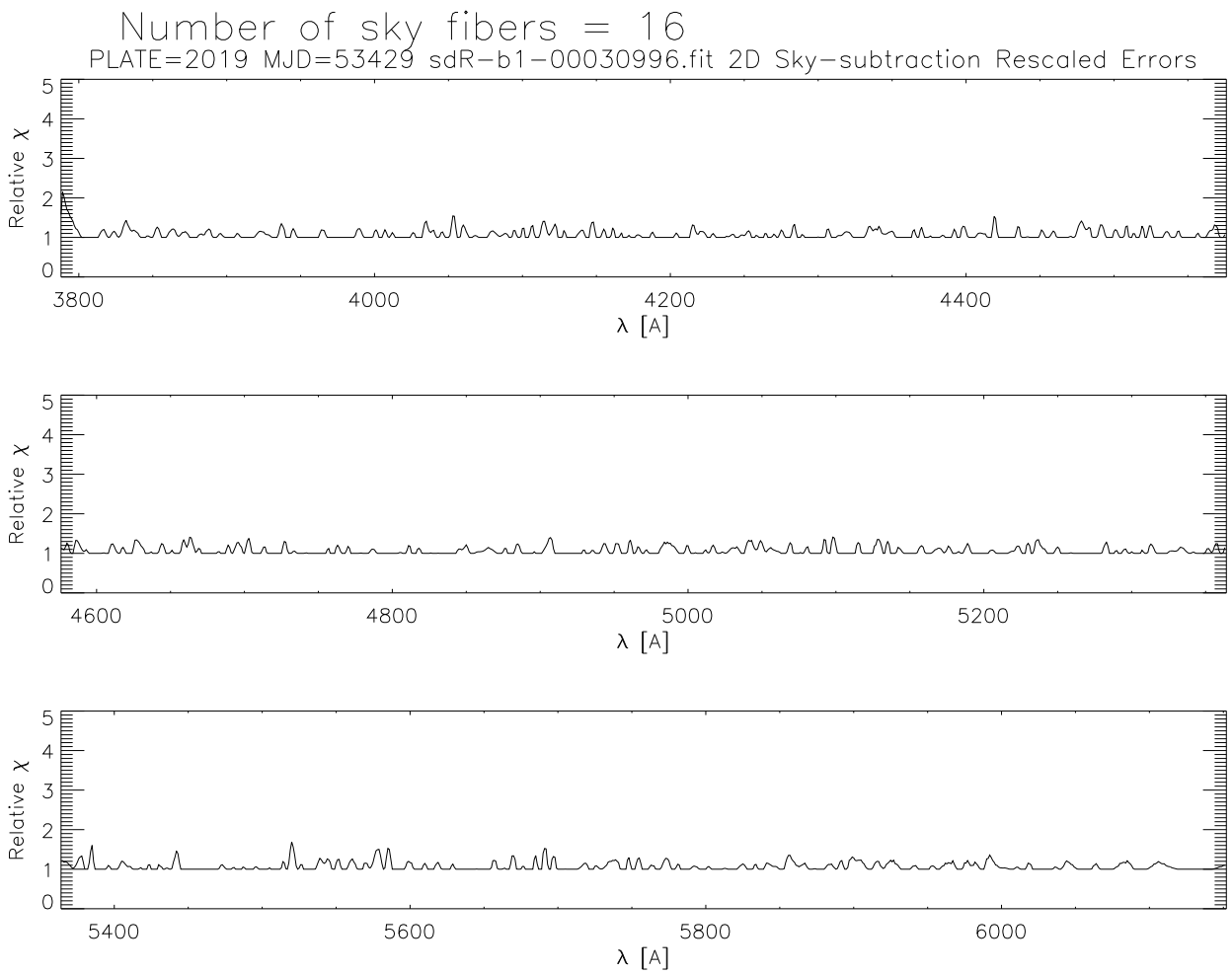

PLATE=2019 MJD=53429 sdR-b1-00030996.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
-300
5570
5575
5580
5585
5590
λ [A]

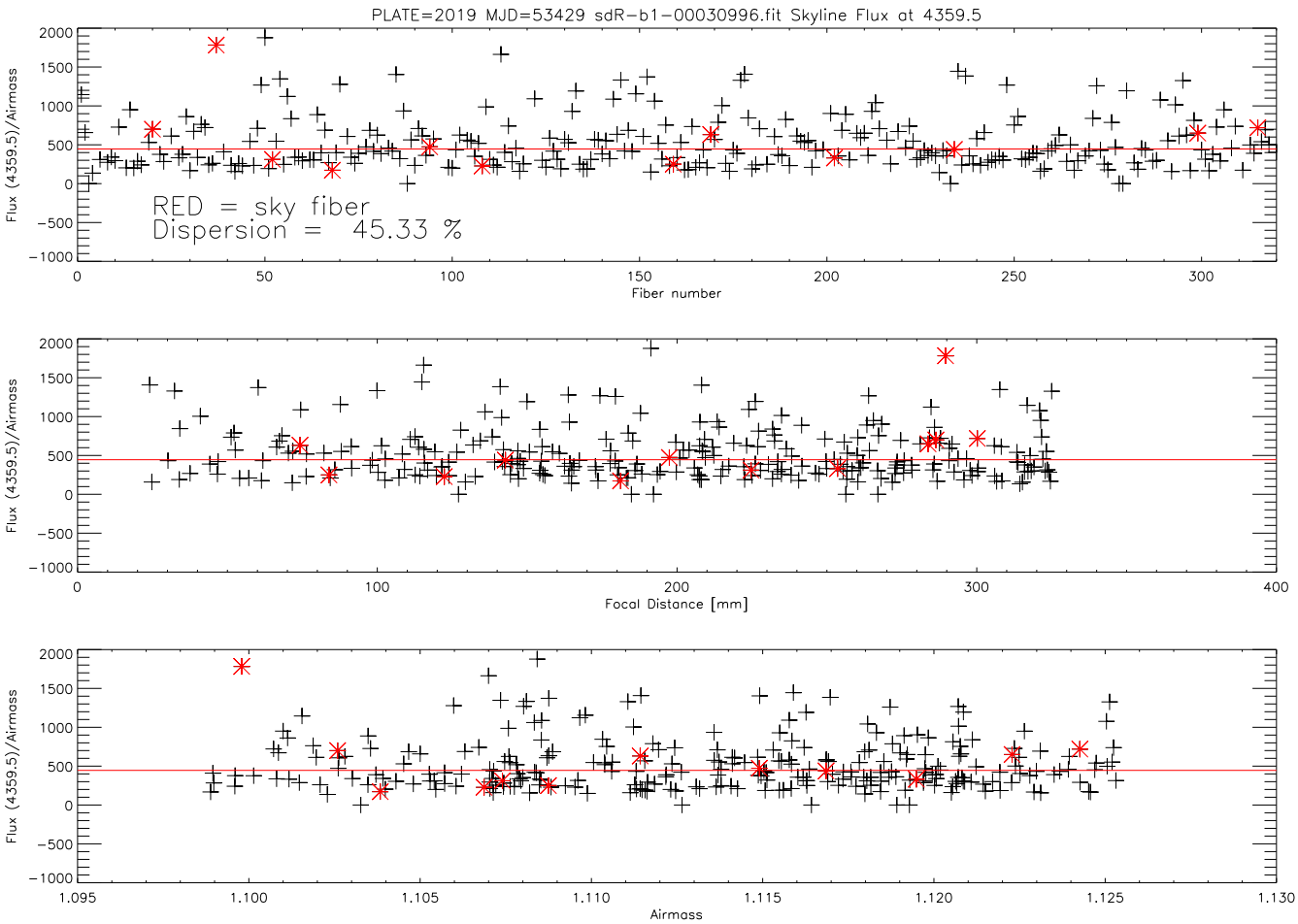

Number of sky fibers = 16
PLATE=2019 MJD=53429 sdR-b1-00030996.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

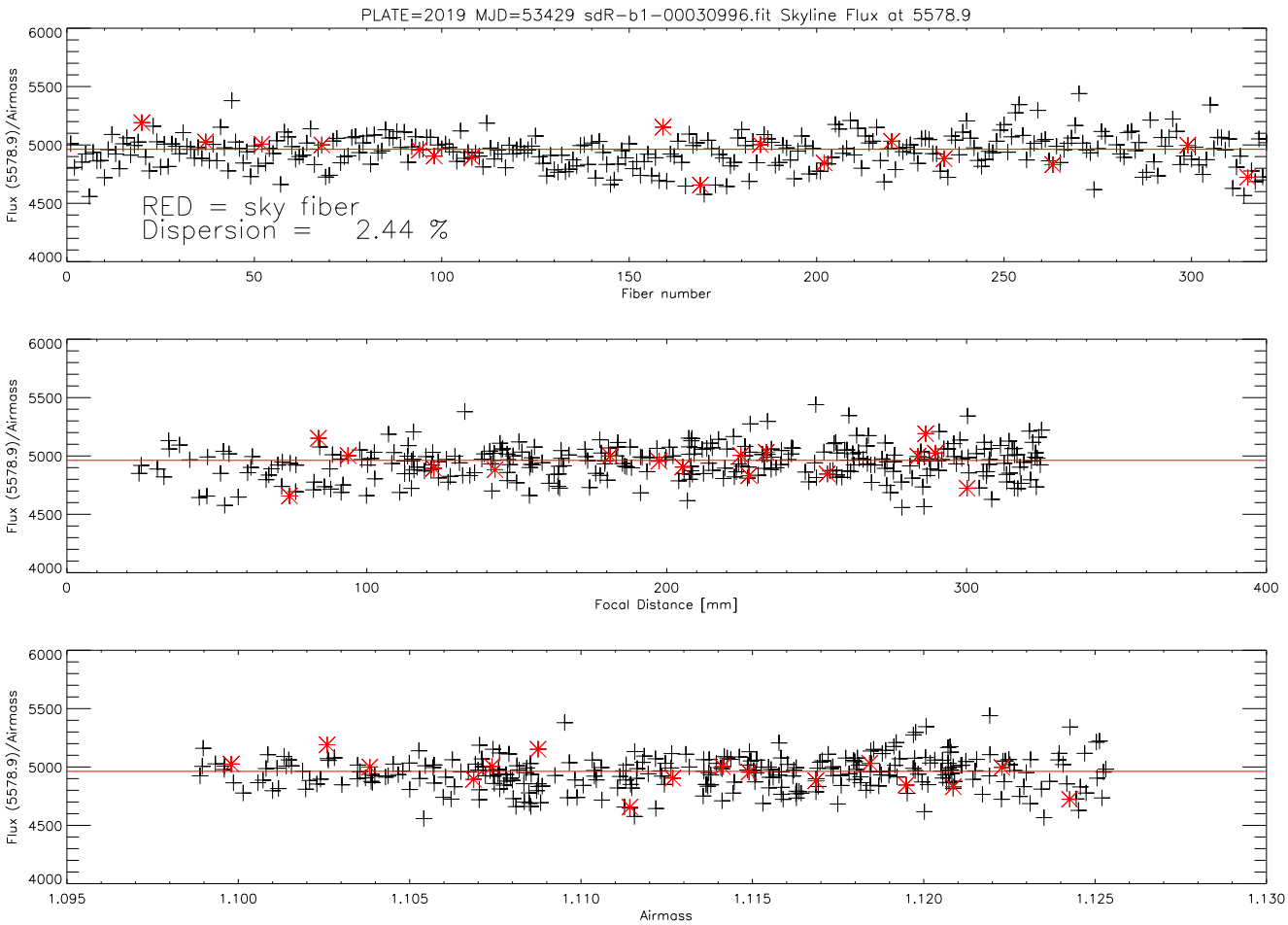

PLATE=2019 MJD=53429 sdR-b1-00030996.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

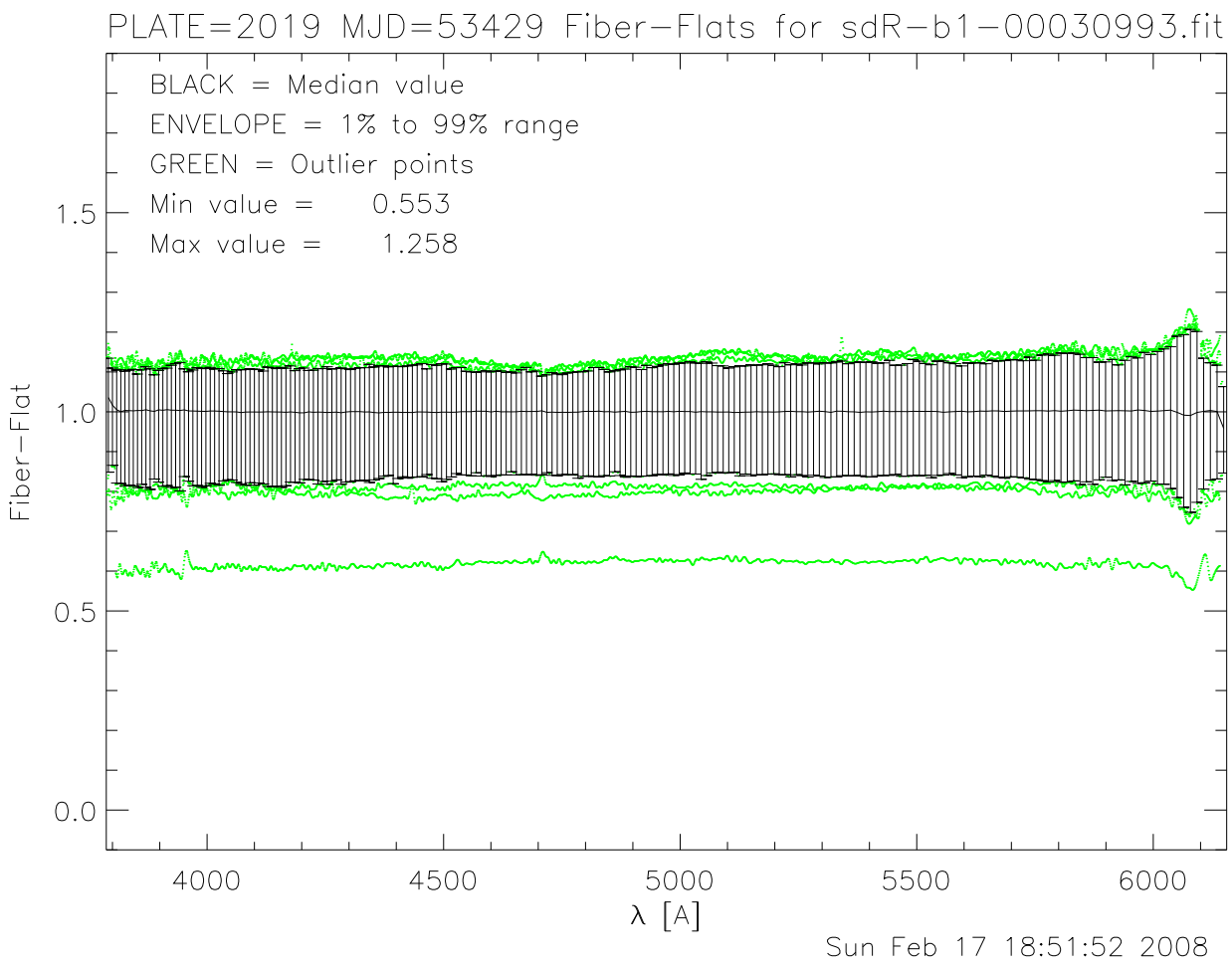

PLATE=2019 MJD=53429 sdR-b1-00030996.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
2500
2000
1500
1000
500
0
5570
5575
5580
5585
5590
λ [A]

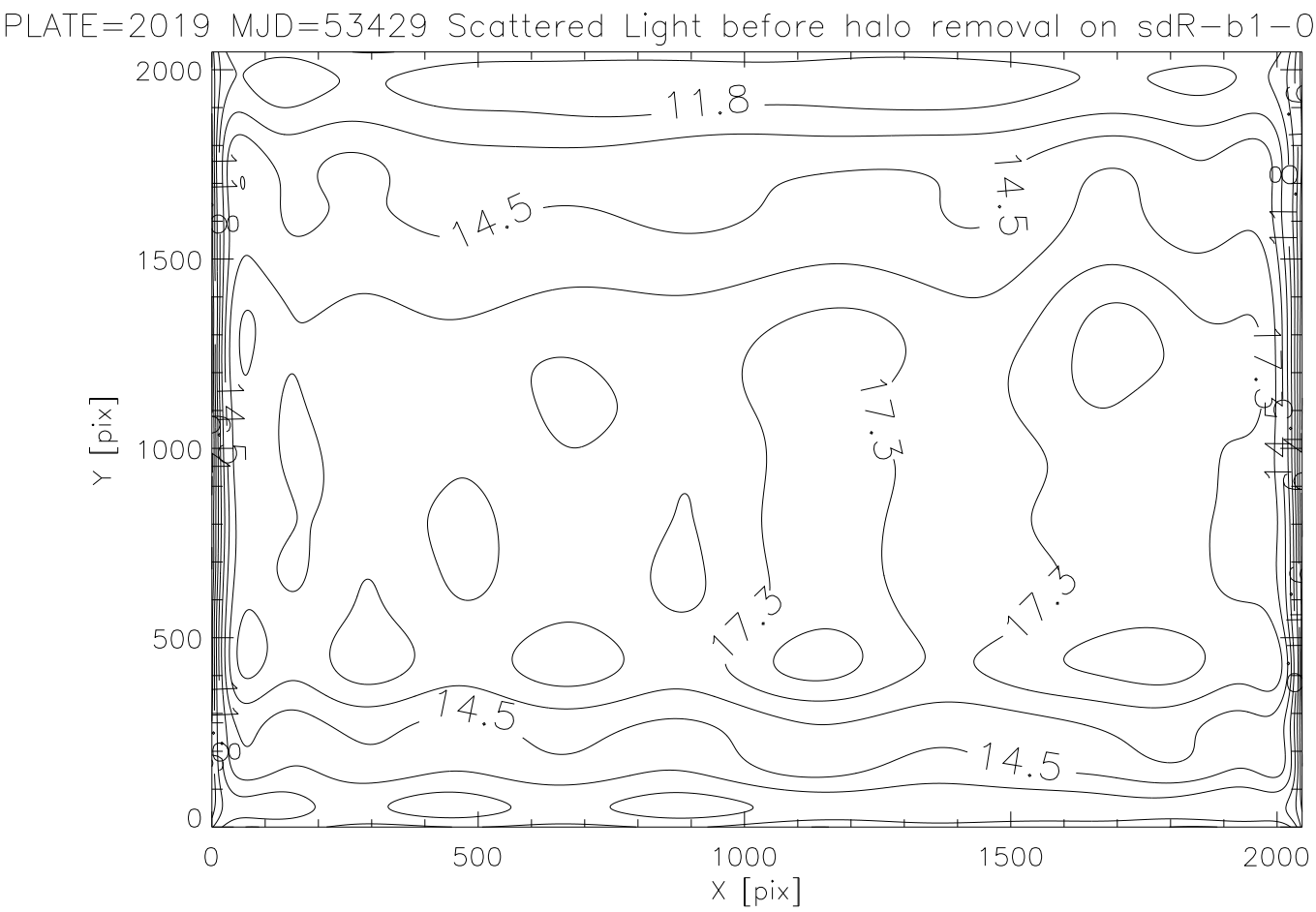

PLATE=2019 MJD=53429 sdR-b1-00030996.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
5570
5575
5580
5585
5590
λ [A]

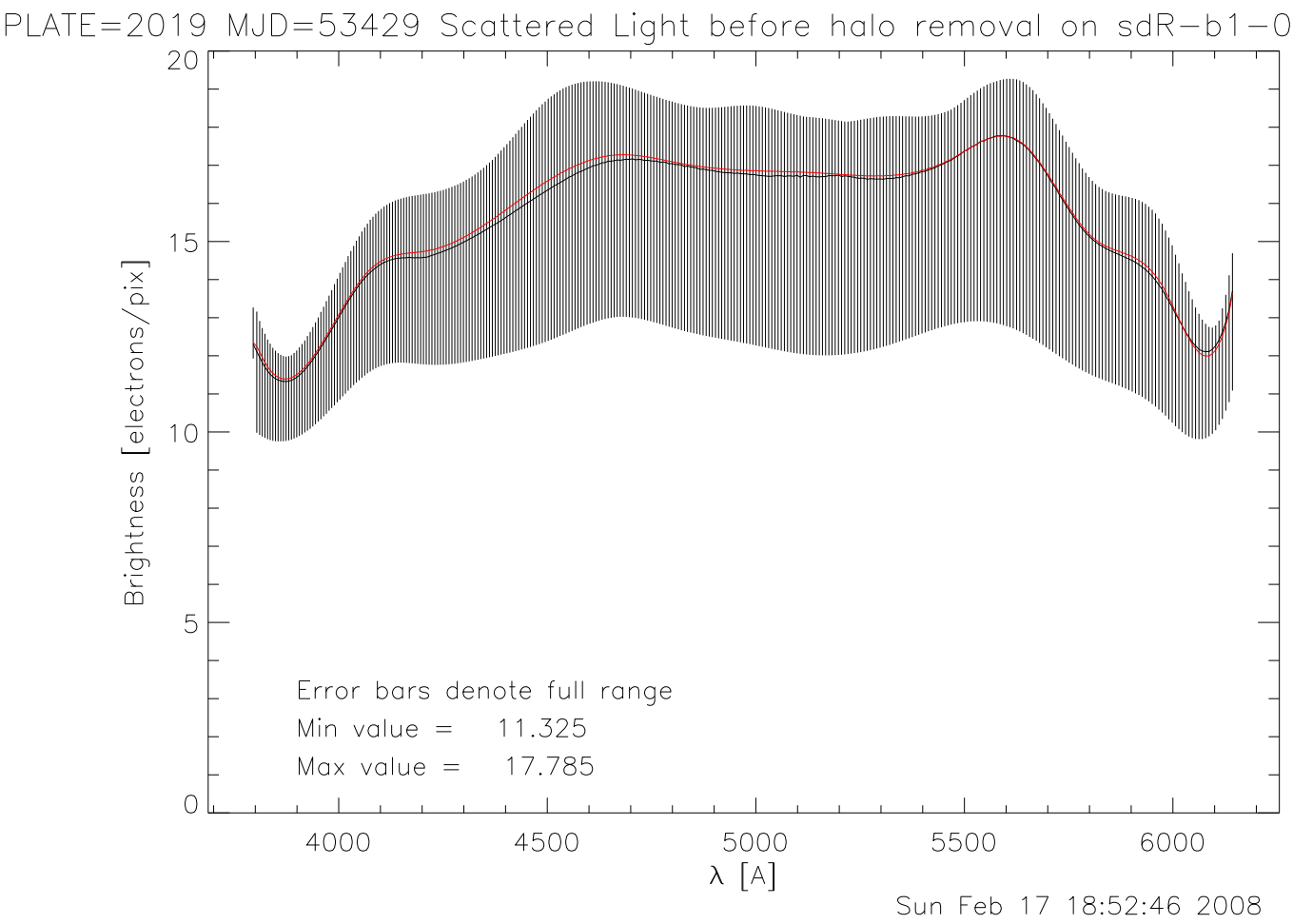

Number of sky fibers = 16
PLATE=2019 MJD=53429 sdR-b1-00030996.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

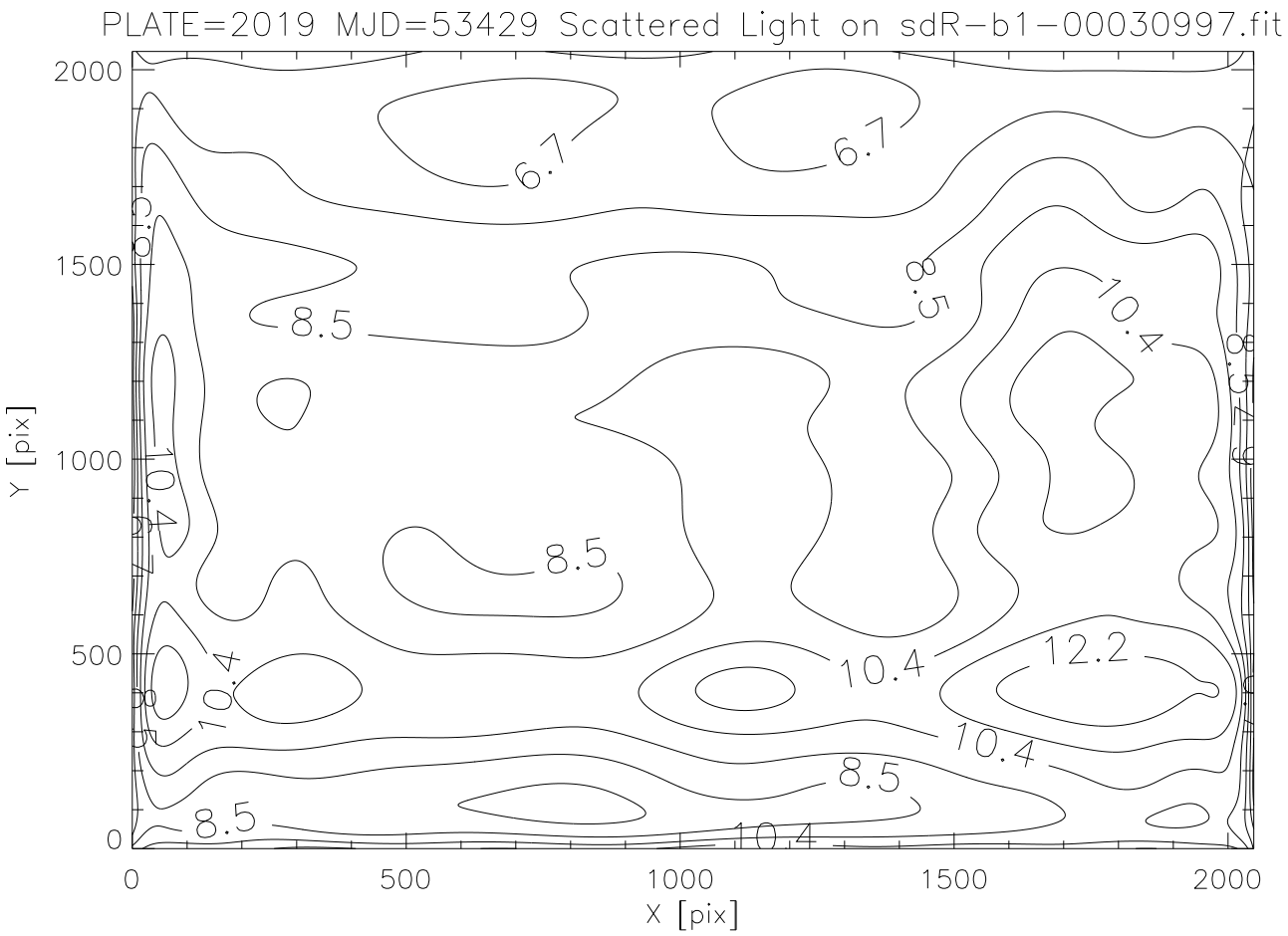

PLATE=2019 MJD=53429 sdR-b1-00030996.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 45.33 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

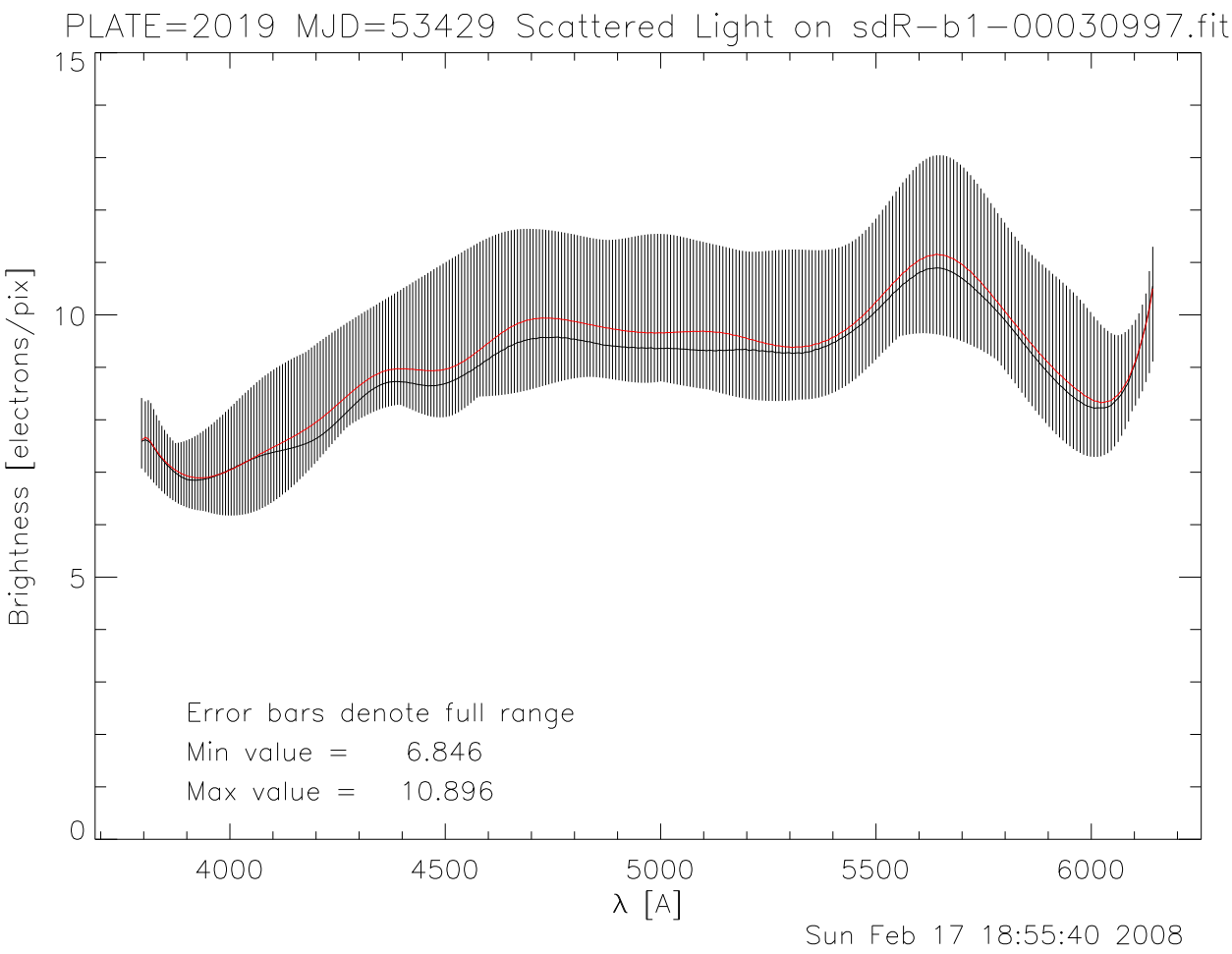

PLATE=2019 MJD=53429 sdR-b1-00030996.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 2.44 %
Fiber number
Focal Distance [mm]
Airmass

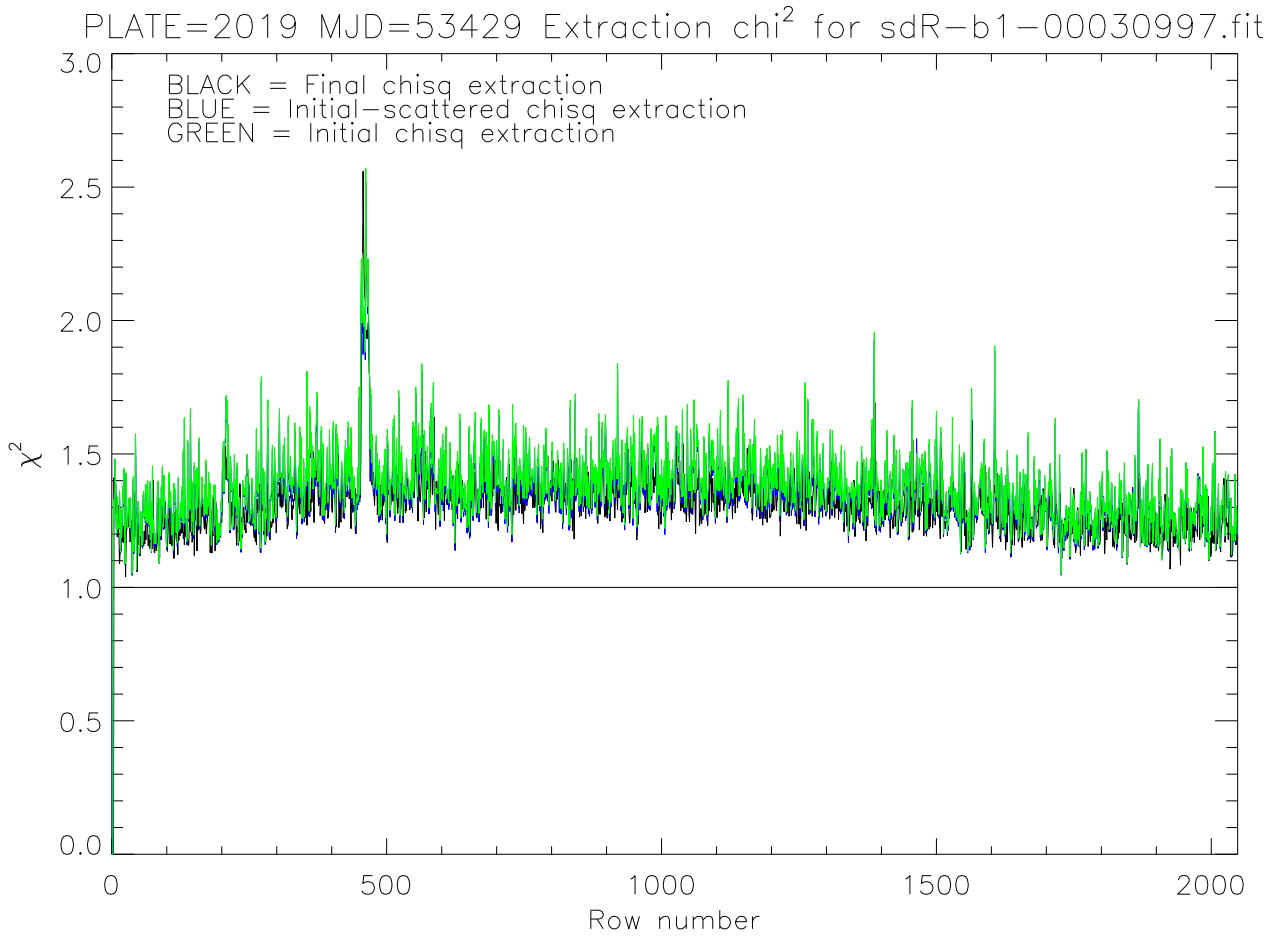

PLATE=2019 MJD=53429 Fiber−Flats for sdR−b1−00030993.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.553
Max value = 1.258
Fiber−Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Sun Feb 17 18:51:52 2008

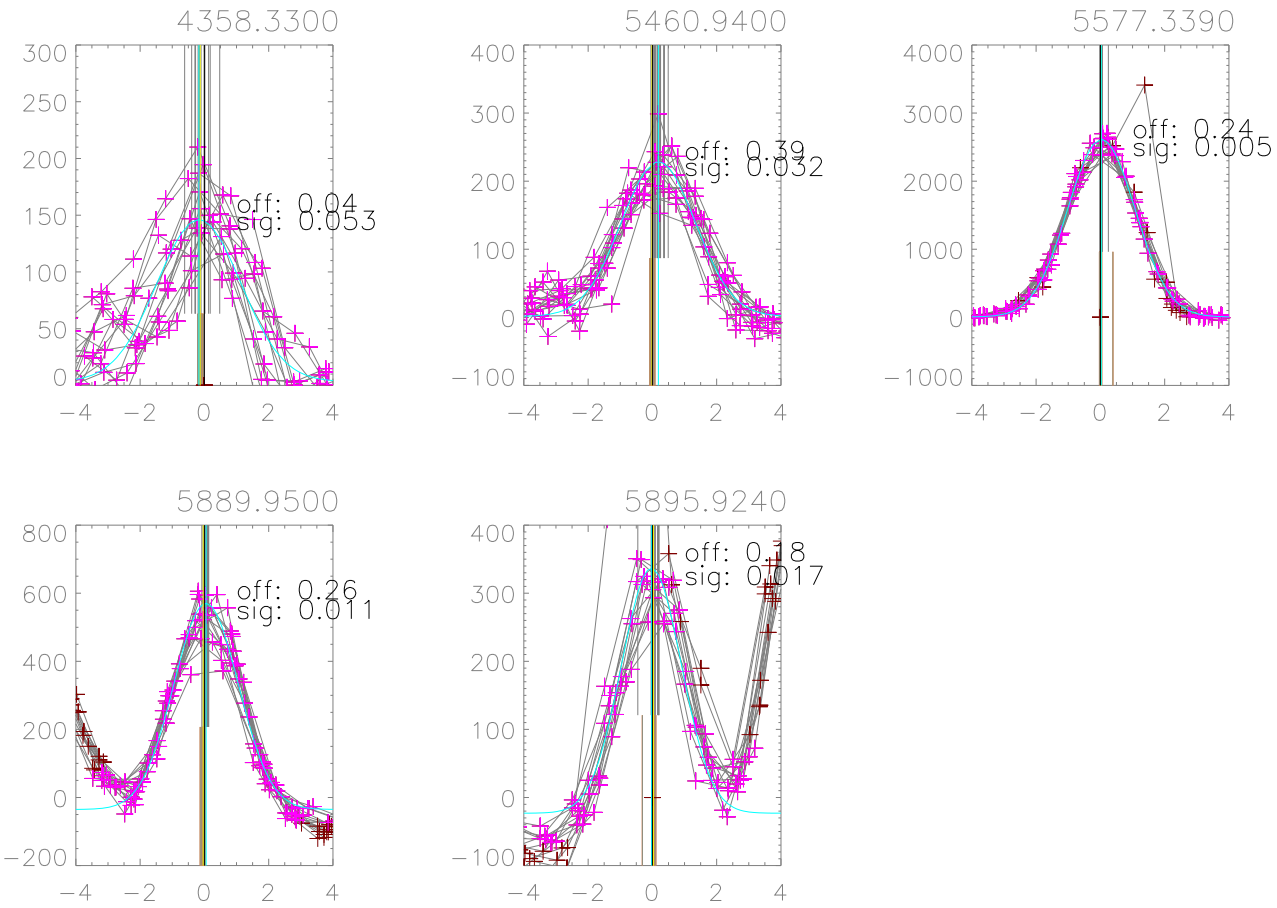

PLATE=2019 MJD=53429 Scattered Light before halo removal on sdR-b1-00030997.f
11.8
14.5
17.3
Y [pix]
X [pix]
0
500
1000
1500
2000

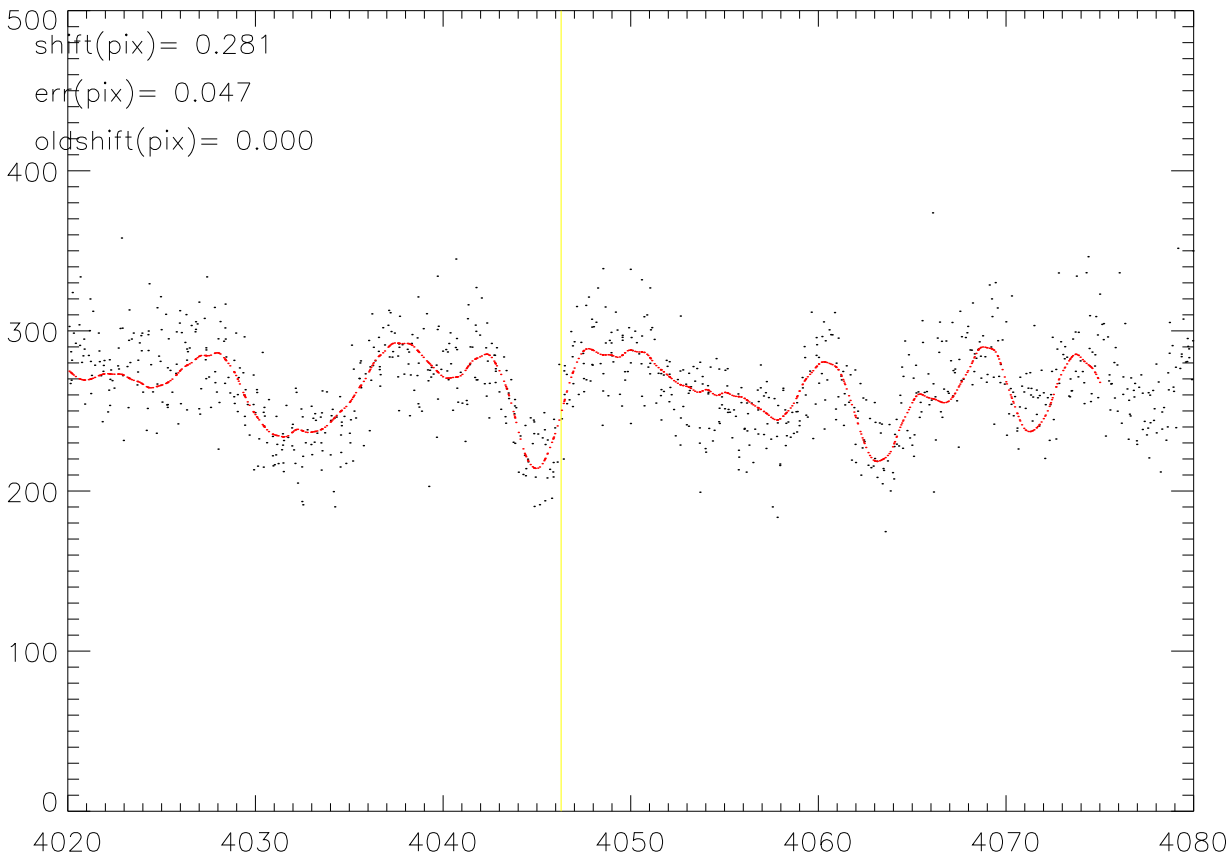

PLATE=2019 MJD=53429 Scattered Light before halo removal on sdR-b1-00030997.f
Brightness [electrons/pix]
20
15
10
5
0
Error bars denote full range
Min value = 11.325
Max value = 17.785
4000
4500
5000
5500
6000
λ [A]
Sun Feb 17 18:52:46 2008

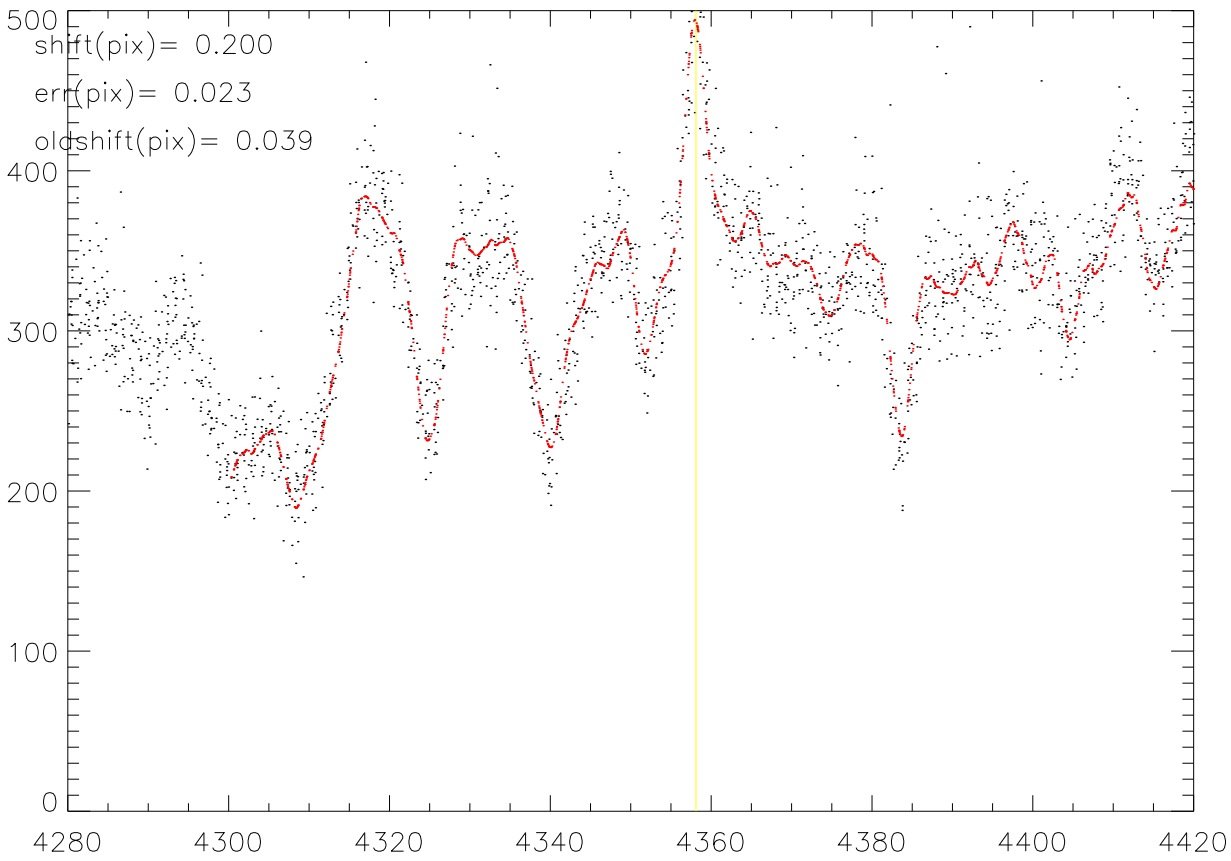

PLATE=2019 MJD=53429 Scattered Light on sdR-b1-00030997.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
6.7
8.5
10.4
12.2

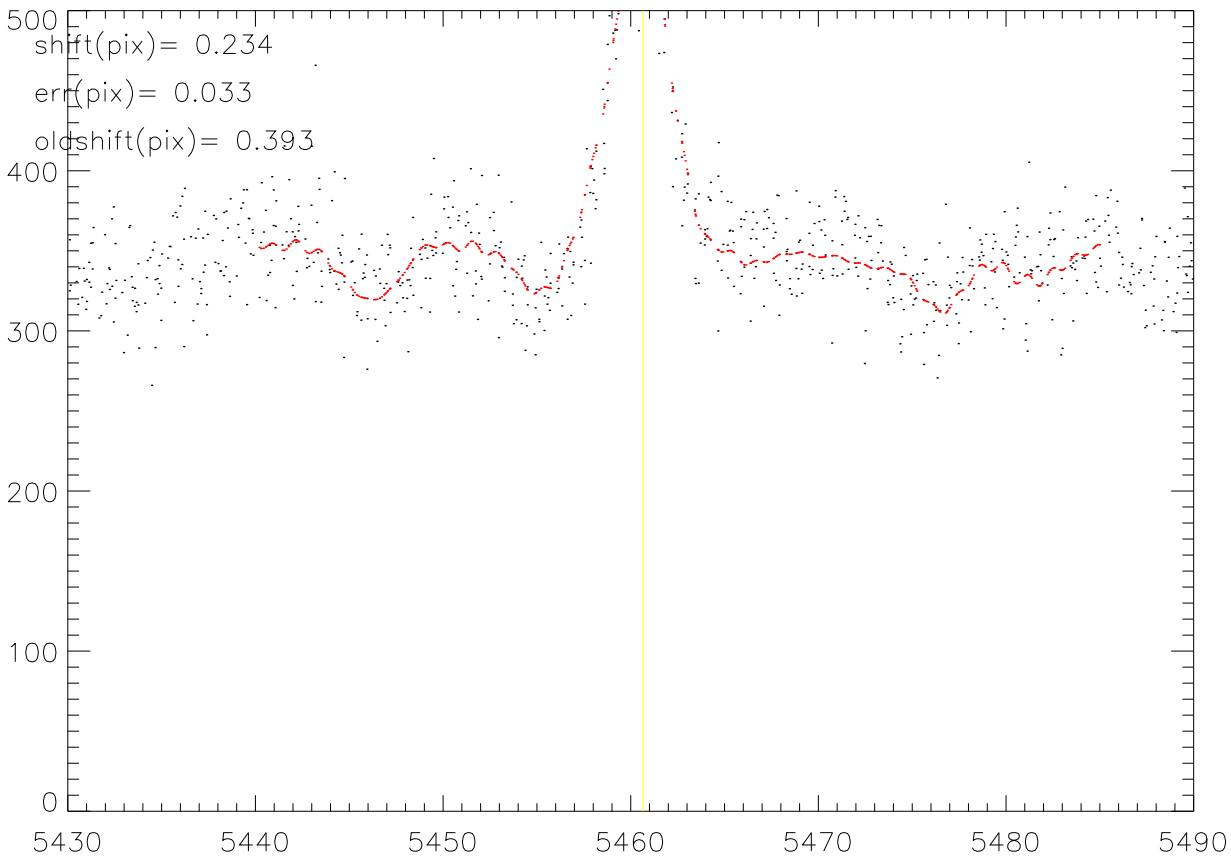

PLATE=2019 MJD=53429 Scattered Light on sdR-b1-00030997.fit
Brightness [electrons/pix]
15
10
5
0
4000
4500
5000
5500
6000
λ [A]
Error bars denote full range
Min value = 6.846
Max value = 10.896
Sun Feb 17 18:55:40 2008

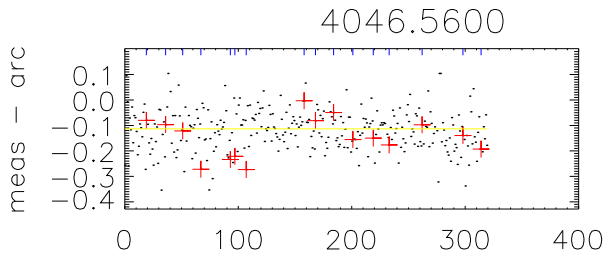

PLATE=2019 MJD=53429 Extraction chi^2 for sdR-b1-00030997.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
500
1000
1500
2000
Row number

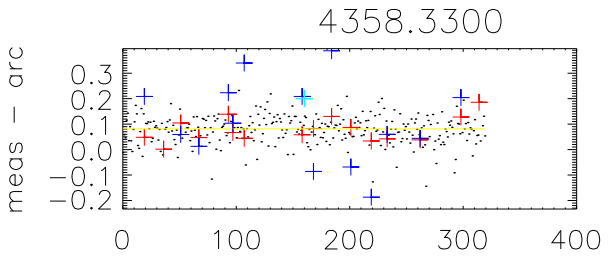

4358.3300
off: 0.04
sig: 0.053
5460.9400
off: 0.39
sig: 0.032
5577.3390
off: 0.24
sig: 0.005
5889.9500
off: 0.26
sig: 0.011
5895.9240
off: 0.18
sig: 0.017

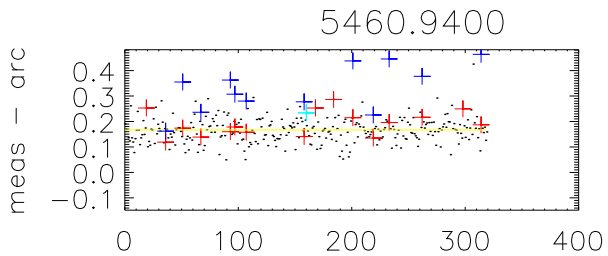

shift(pix)= 0.281
err(pix)= 0.047
oldshift(pix)= 0.000
500
400
300
200
100
0
4020
4030
4040
4050
4060
4070
4080

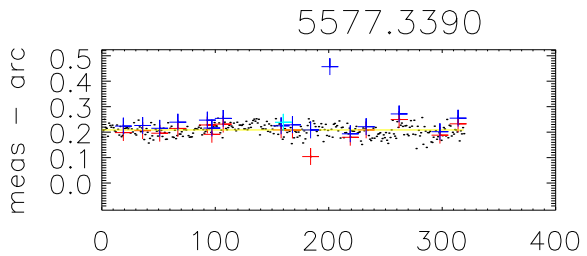

shift(pix)= 0.200
err(pix)= 0.023
oldshift(pix)= 0.039
500
400
300
200
100
0
4280
4300
4320
4340
4360
4380
4400
4420

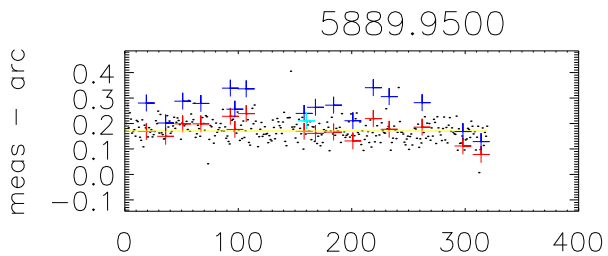

shift(pix)= 0.234
err(pix)= 0.033
oldshift(pix)= 0.393
500
400
300
200
100
0
5430
5440
5450
5460
5470
5480
5490

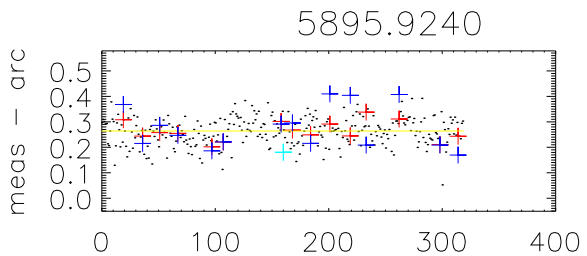

4046.5600
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

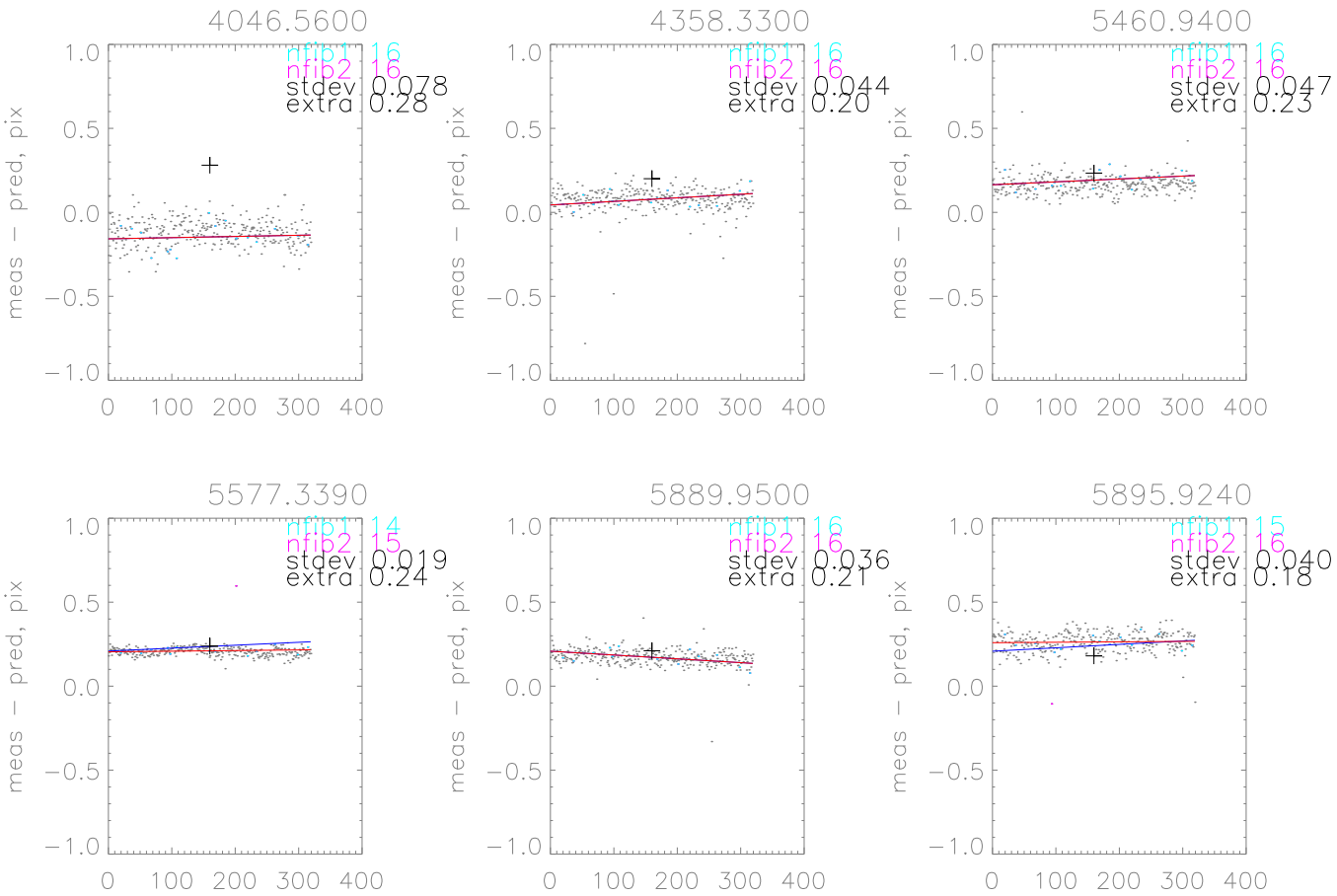

4358.3300
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

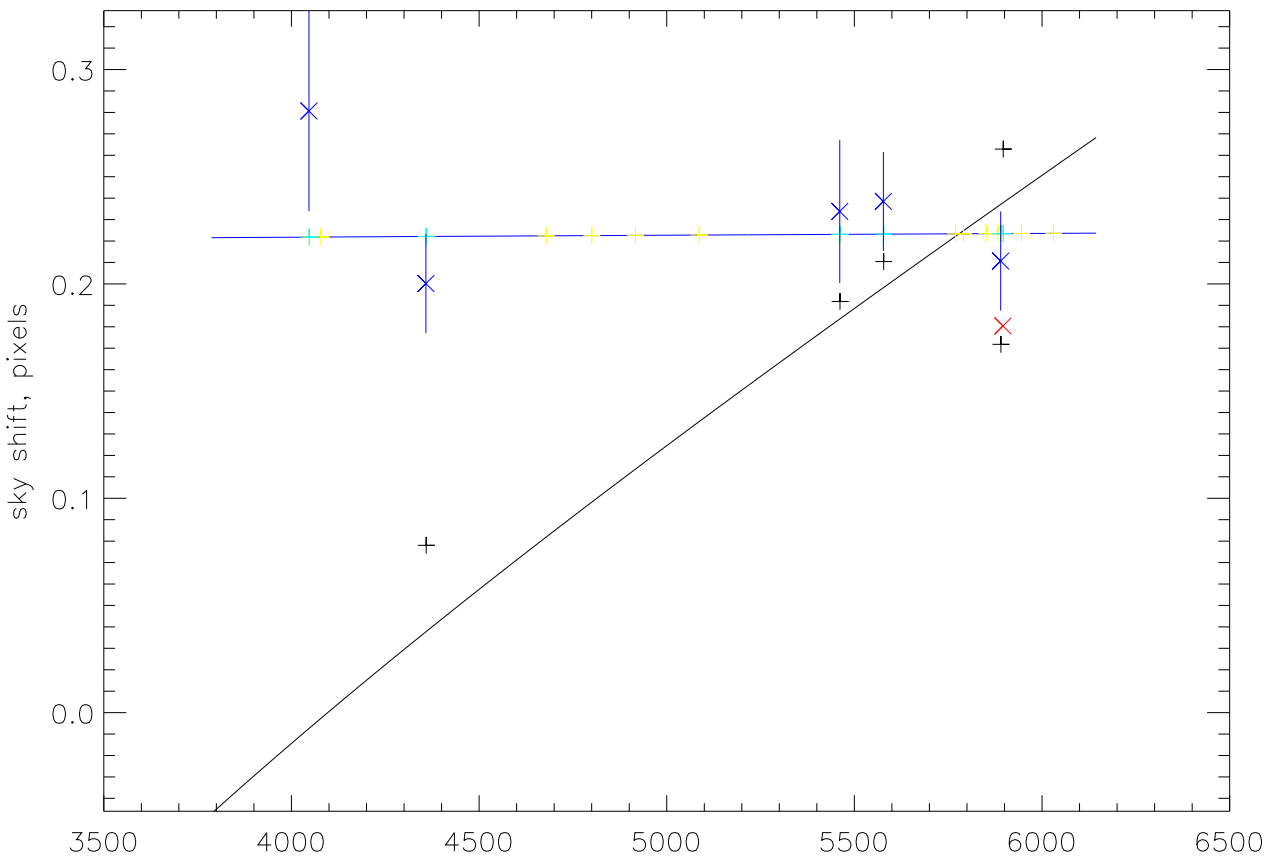

5460.9400
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400


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

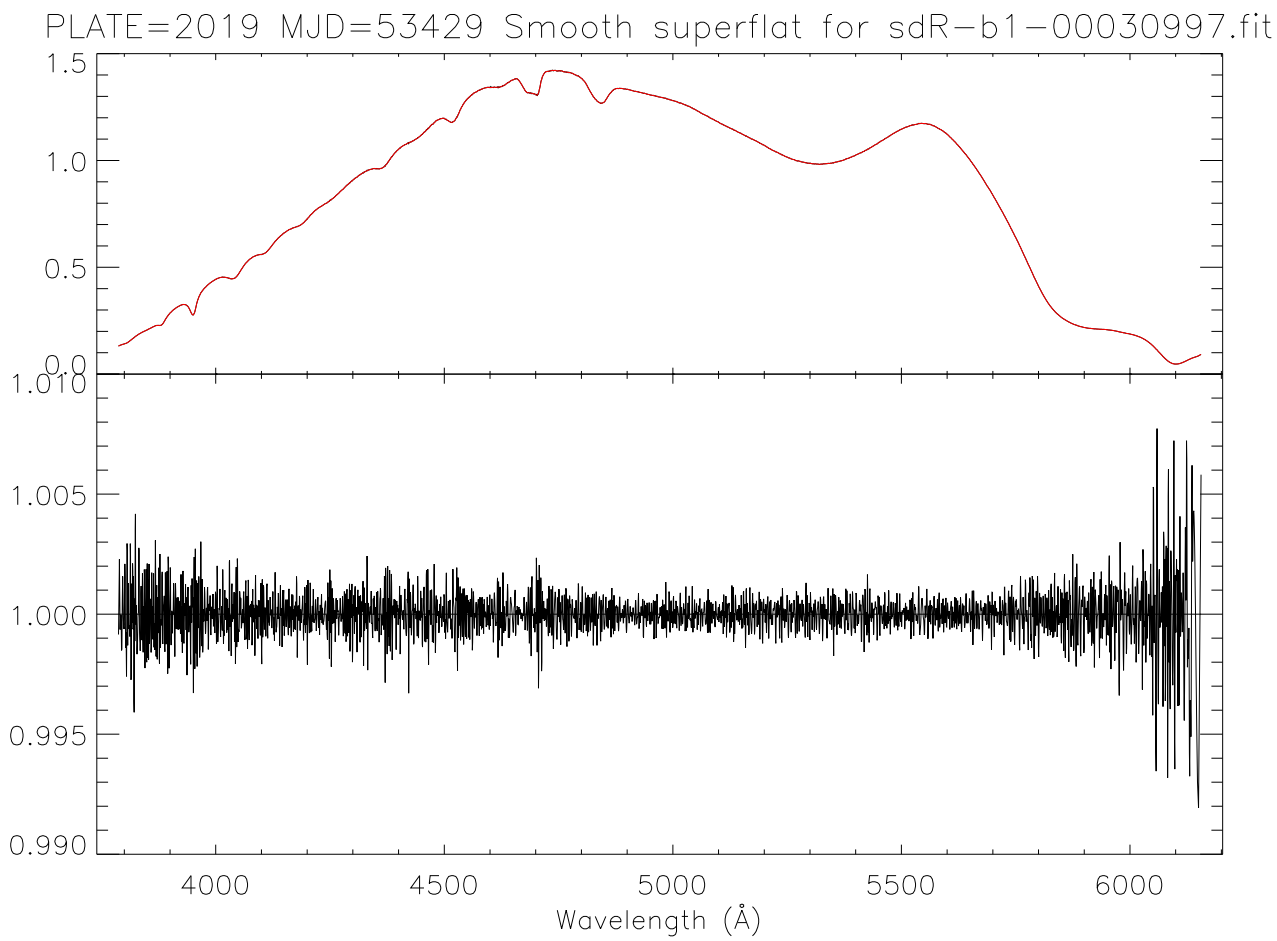

5889.9500
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

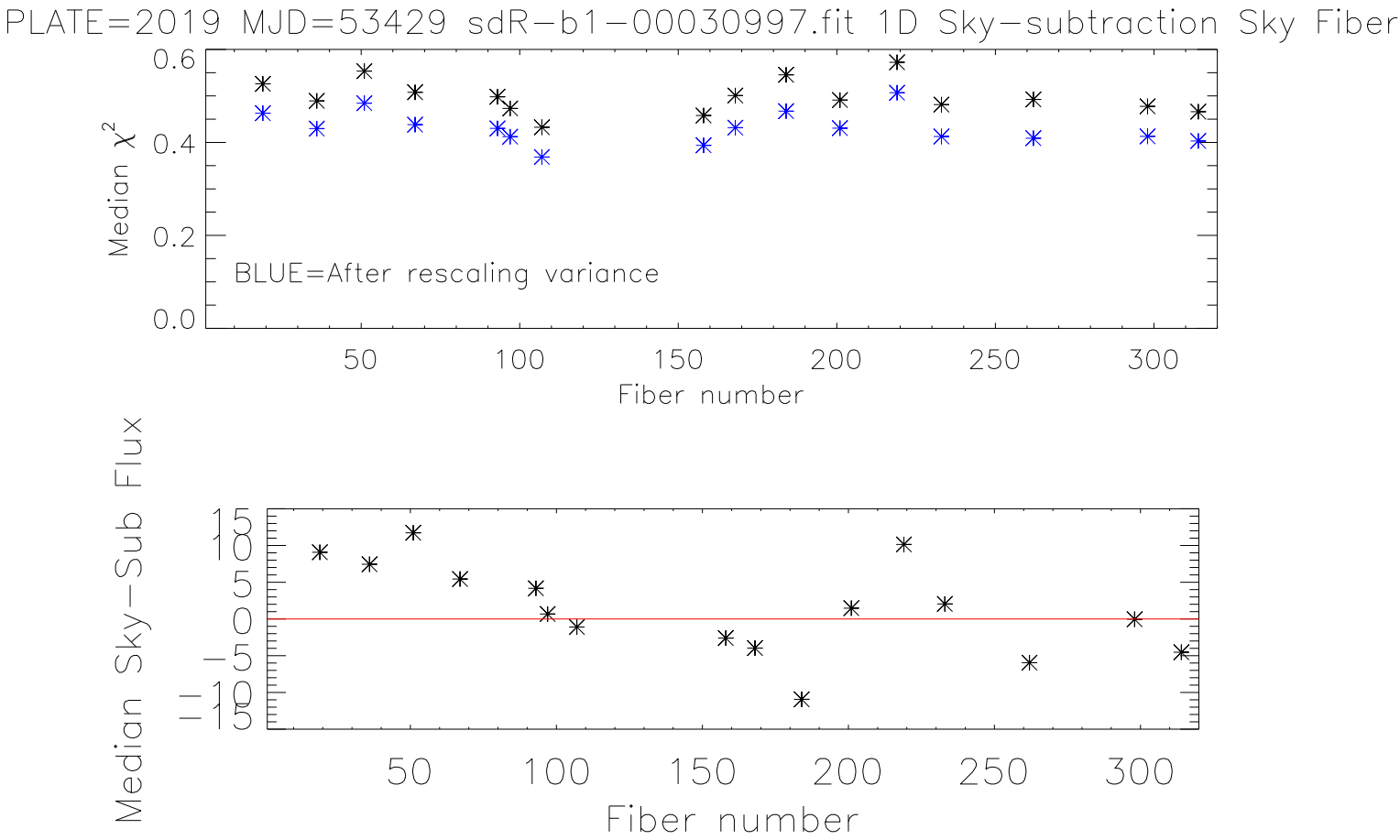

5895.9240
meas − arc
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400

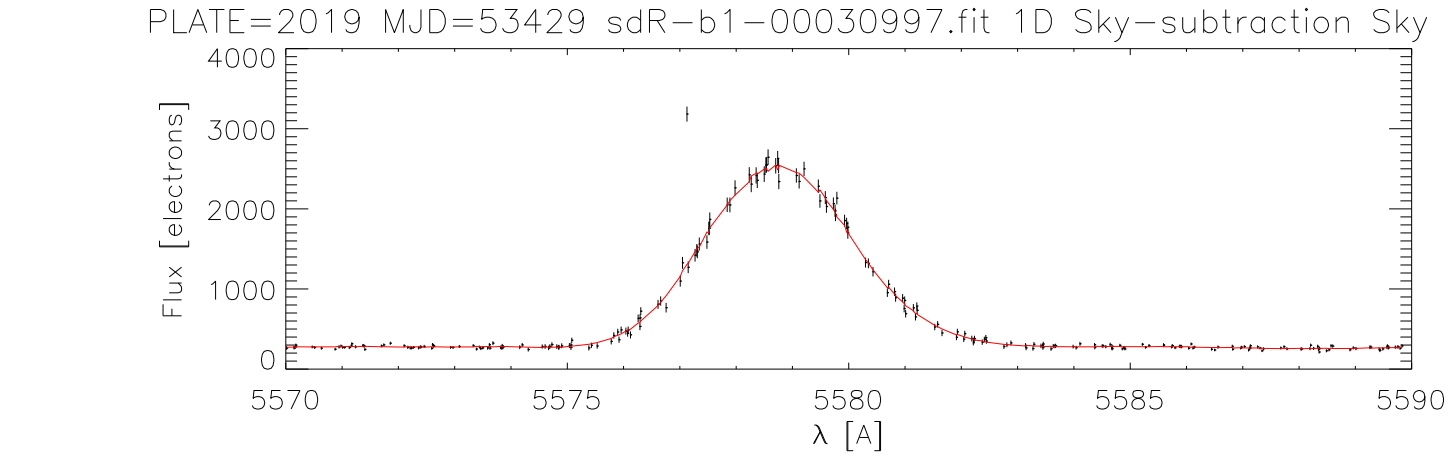

4046.5600
nfib1 16
nfib2 16
stdev 0.078
extra 0.28
4358.3300
nfib1 16
nfib2 16
stdev 0.044
extra 0.20
5460.9400
nfib1 16
nfib2 16
stdev 0.047
extra 0.23
5577.3390
nfib1 14
nfib2 15
stdev 0.019
extra 0.24
5889.9500
nfib1 16
nfib2 16
stdev 0.036
extra 0.21
5895.9240
nfib1 15
nfib2 16
stdev 0.040
extra 0.18
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

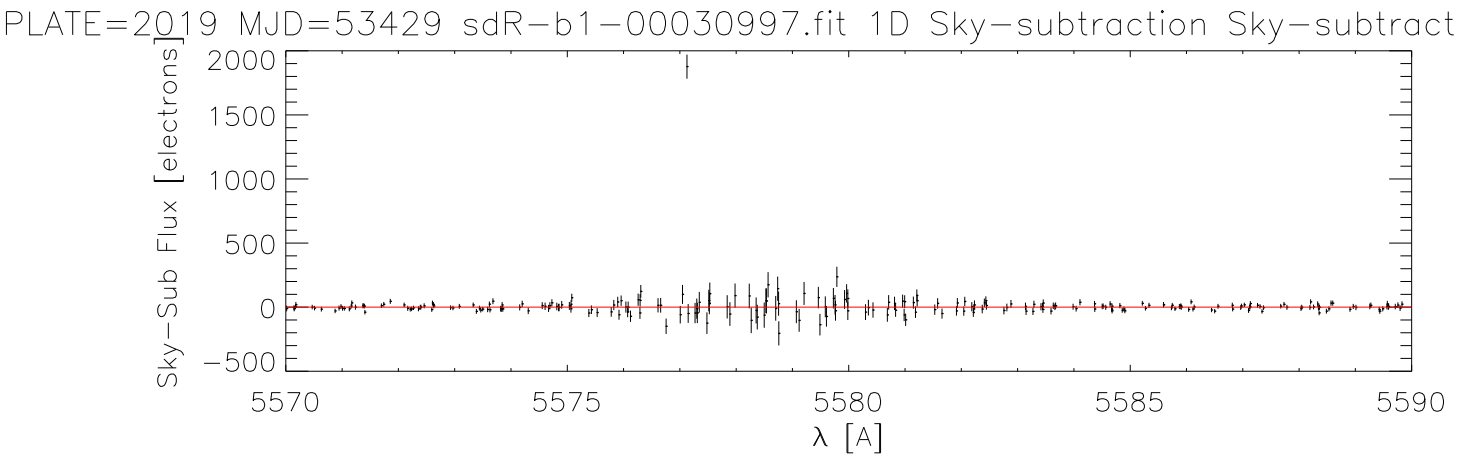

sky shift, pixels
0.3
0.2
0.1
0.0
3500
4000
4500
5000
5500
6000
6500

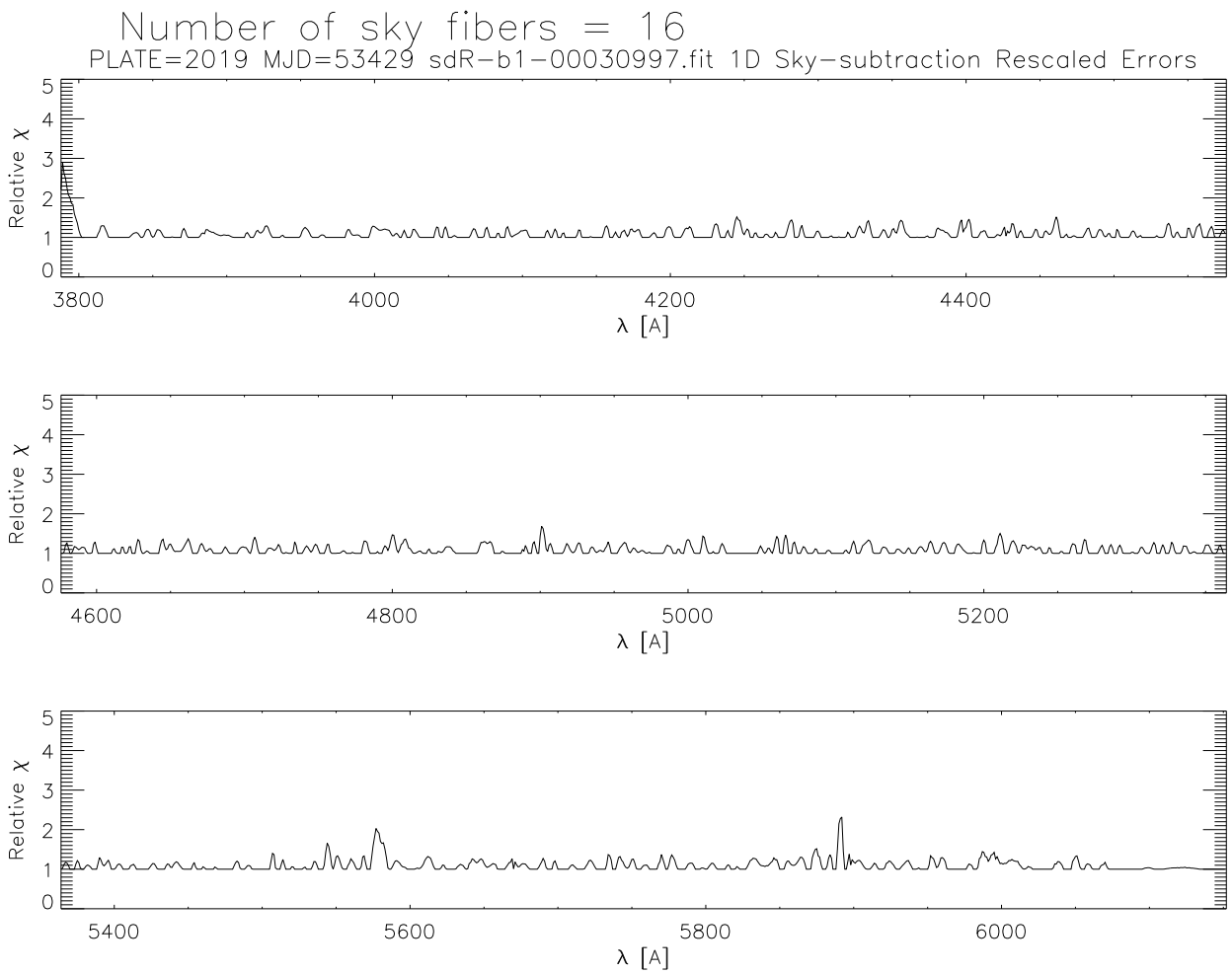
es= 0.0000

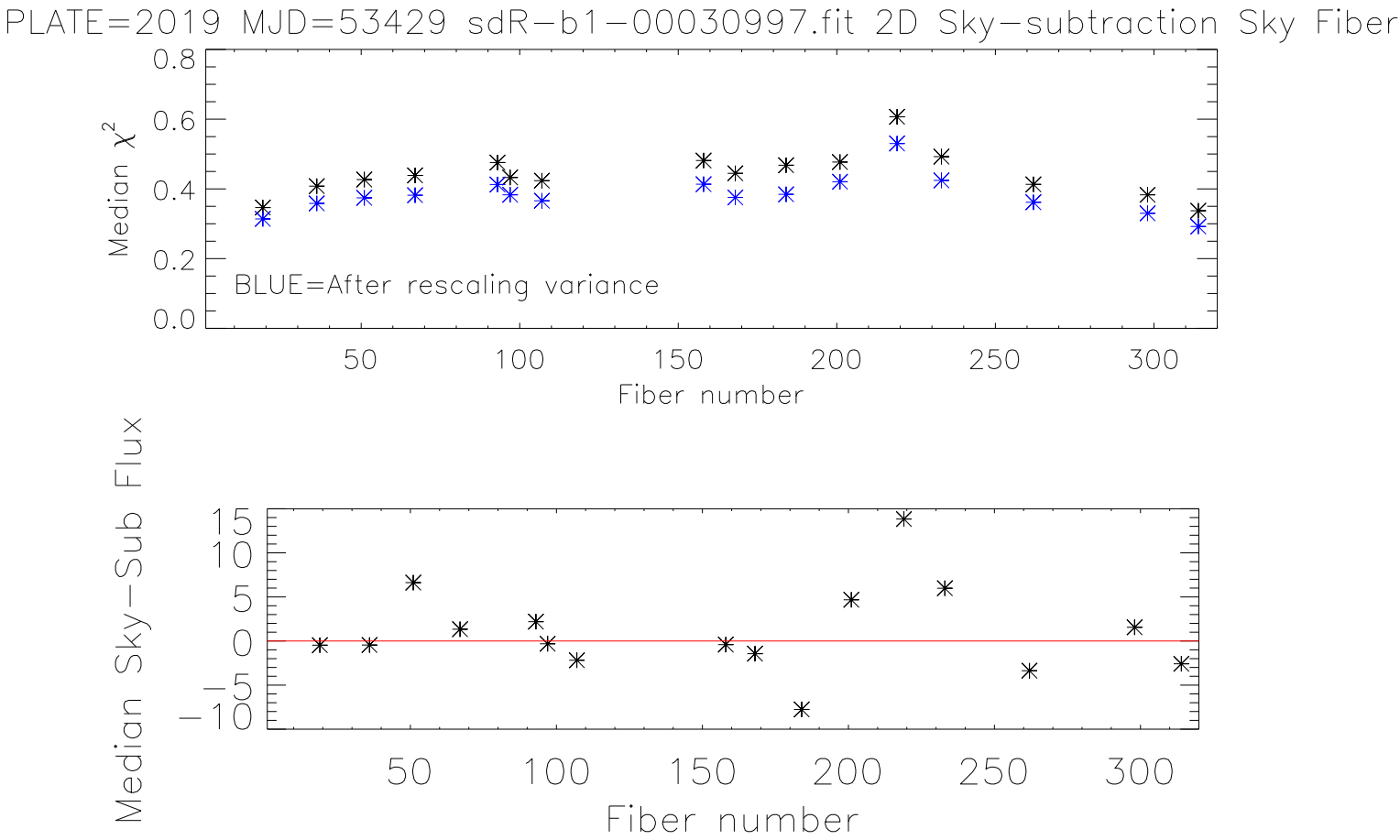

PLATE=2019 MJD=53429 Smooth superflat for sdR-b1-00030997.fit
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
4000
4500
5000
5500
6000
Wavelength (Å)

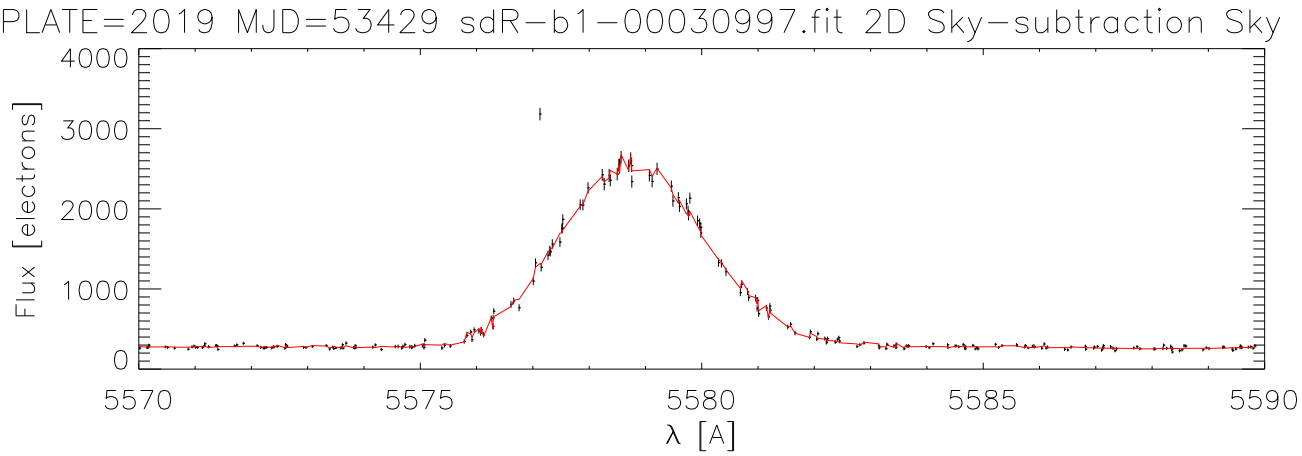

PLATE=2019 MJD=53429 sdR-b1-00030997.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.6
0.4
0.2
0.0
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
15
10
5
0
-5
-10
-15
50
100
150
200
250
300
Fiber number

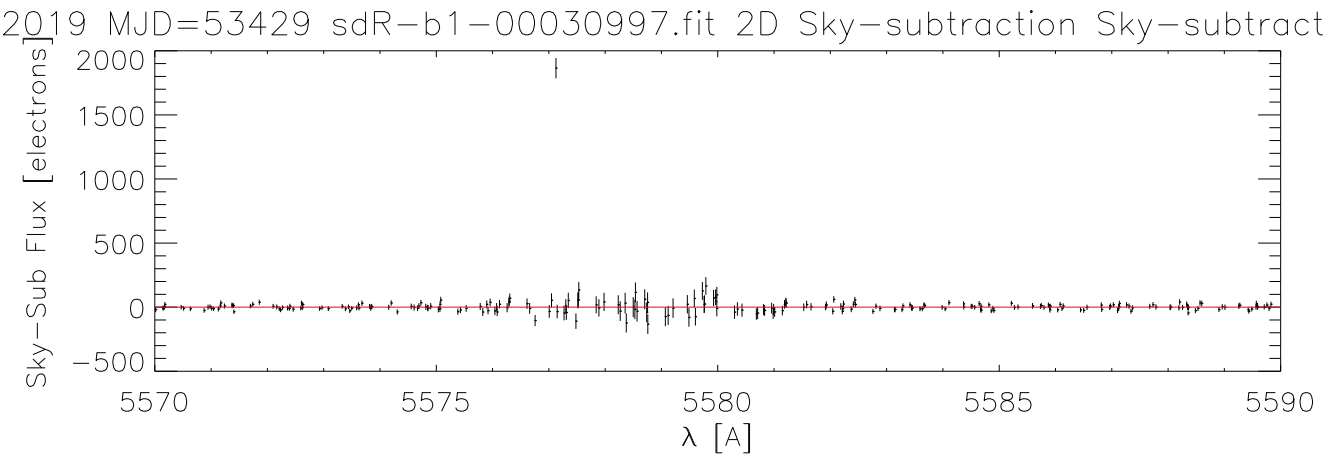

PLATE=2019 MJD=53429 sdR-b1-00030997.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

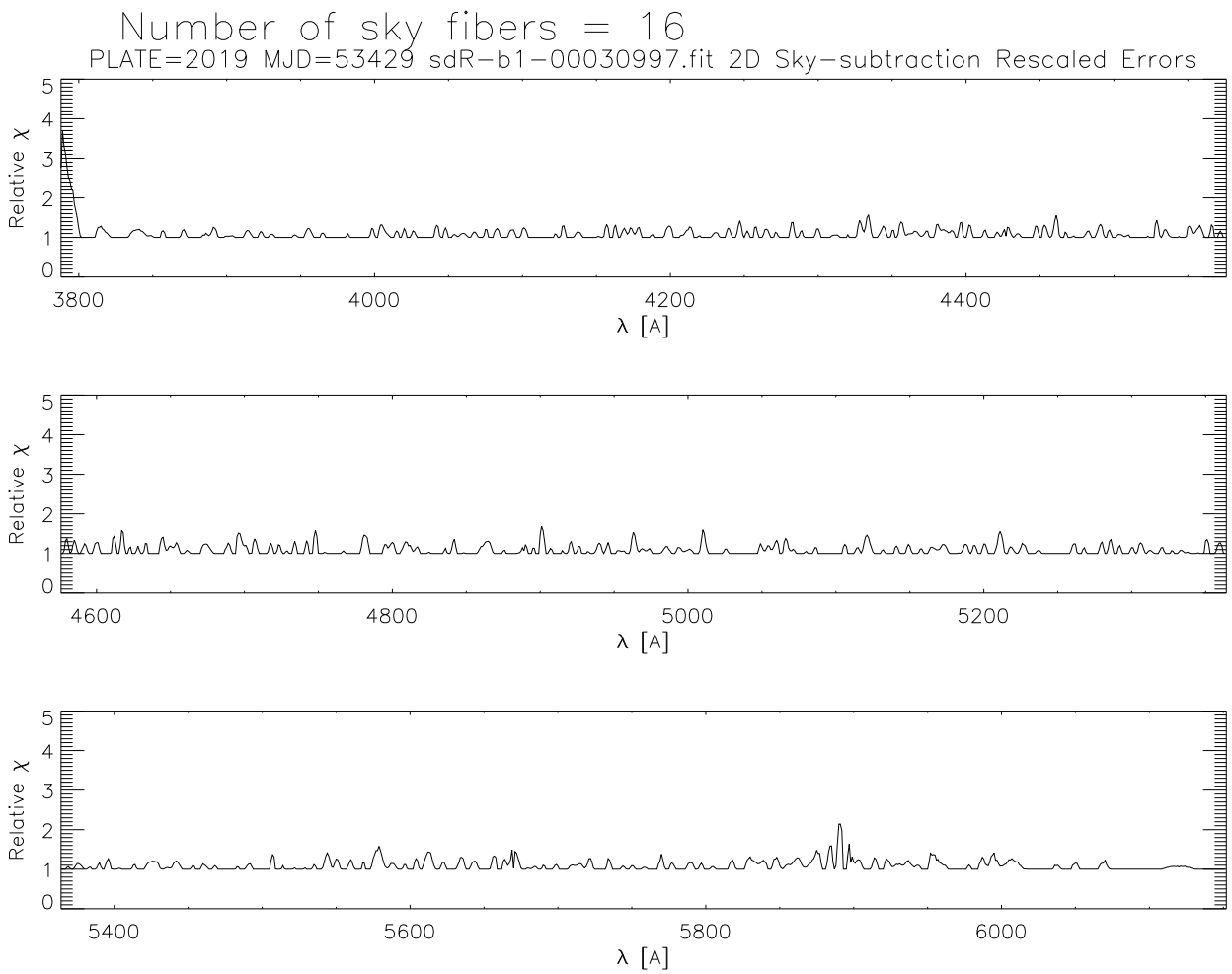

PLATE=2019 MJD=53429 sdR-b1-00030997.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
2000
1500
1000
500
0
-500
5570
5575
5580
5585
5590
λ [A]

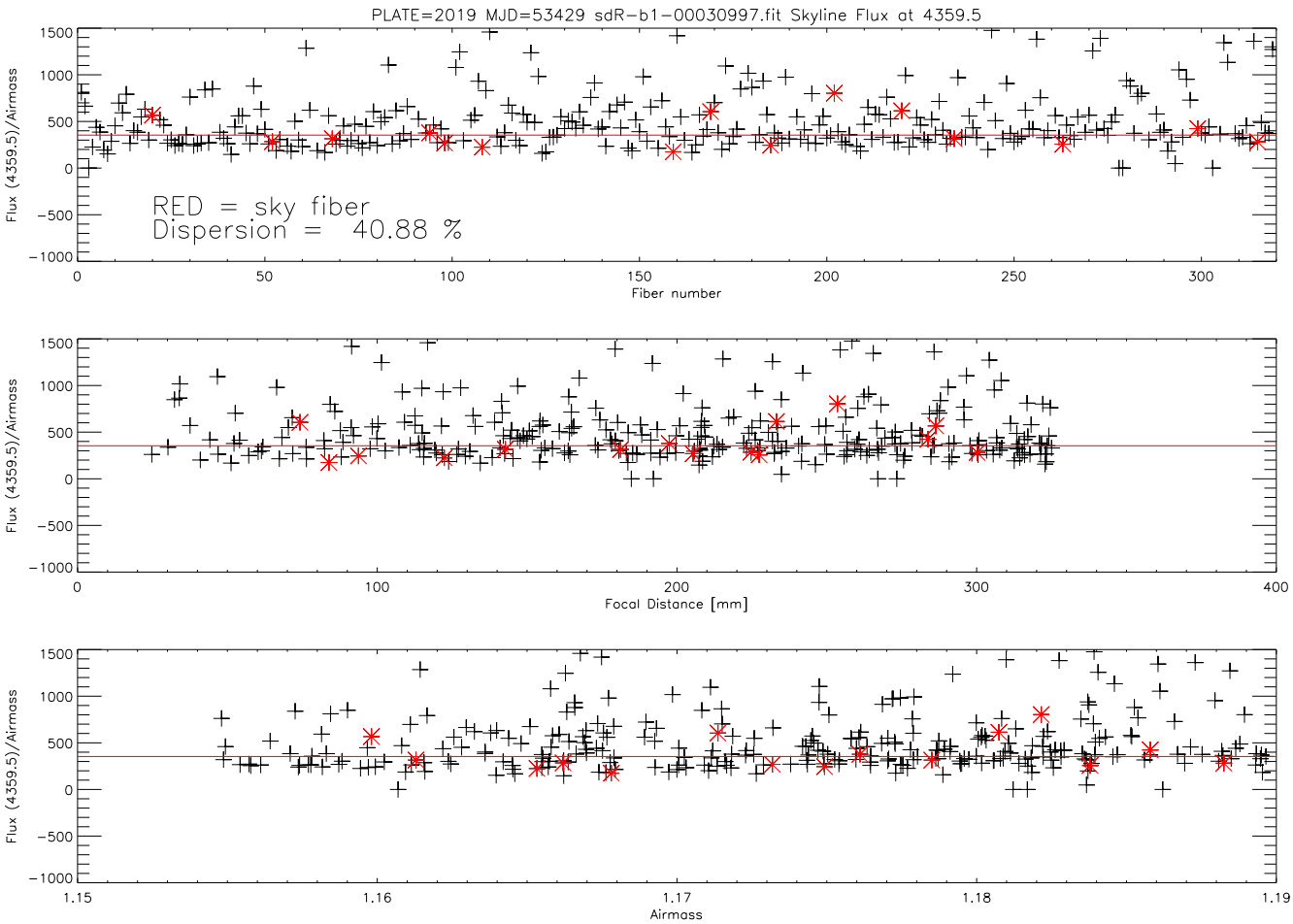

Number of sky fibers = 16
PLATE=2019 MJD=53429 sdR-b1-00030997.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

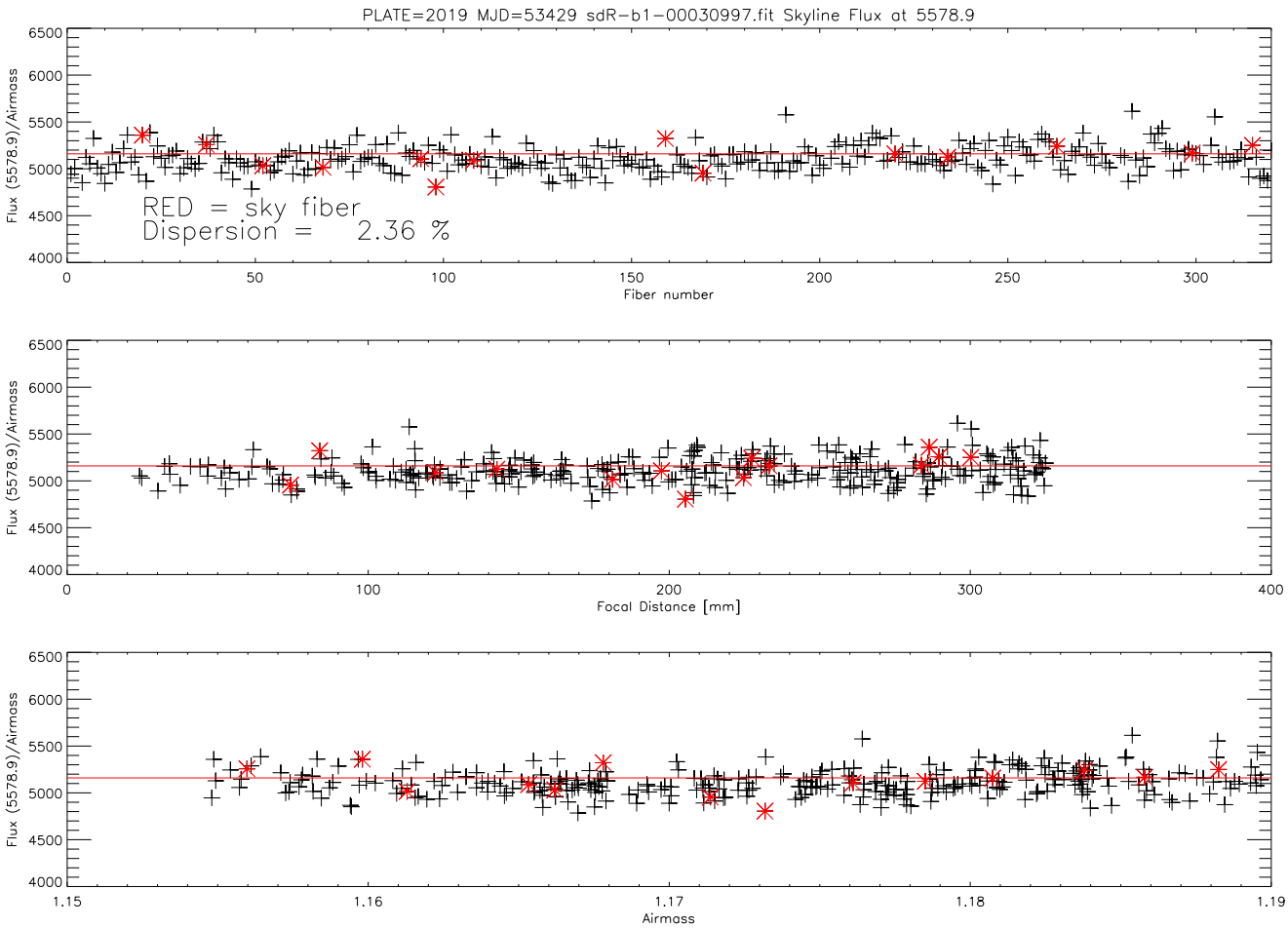

PLATE=2019 MJD=53429 sdR-b1-00030997.fit 2D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
15
10
5
0
-5
-10
50
100
150
200
250
300
Fiber number

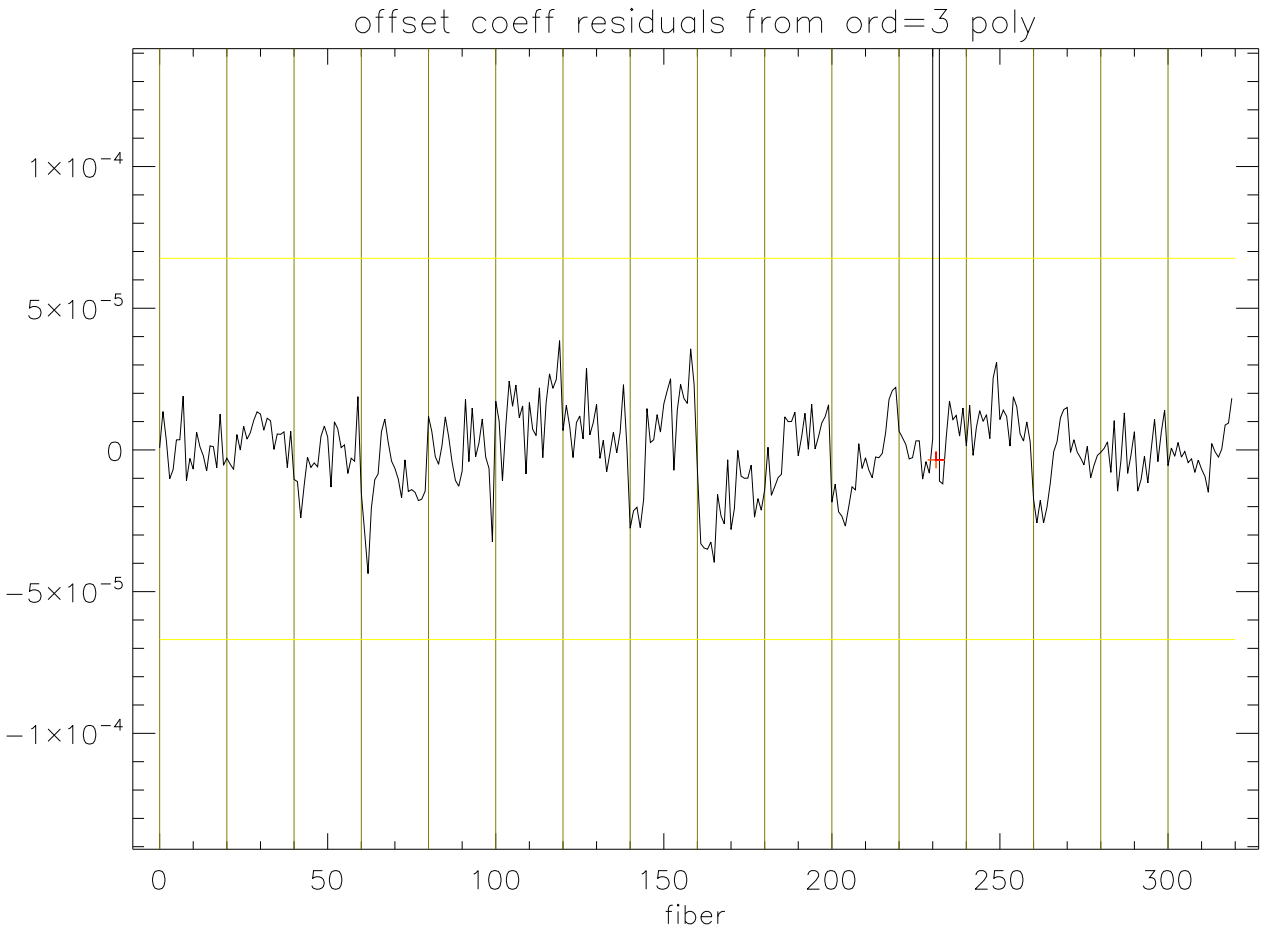

PLATE=2019 MJD=53429 sdR-b1-00030997.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

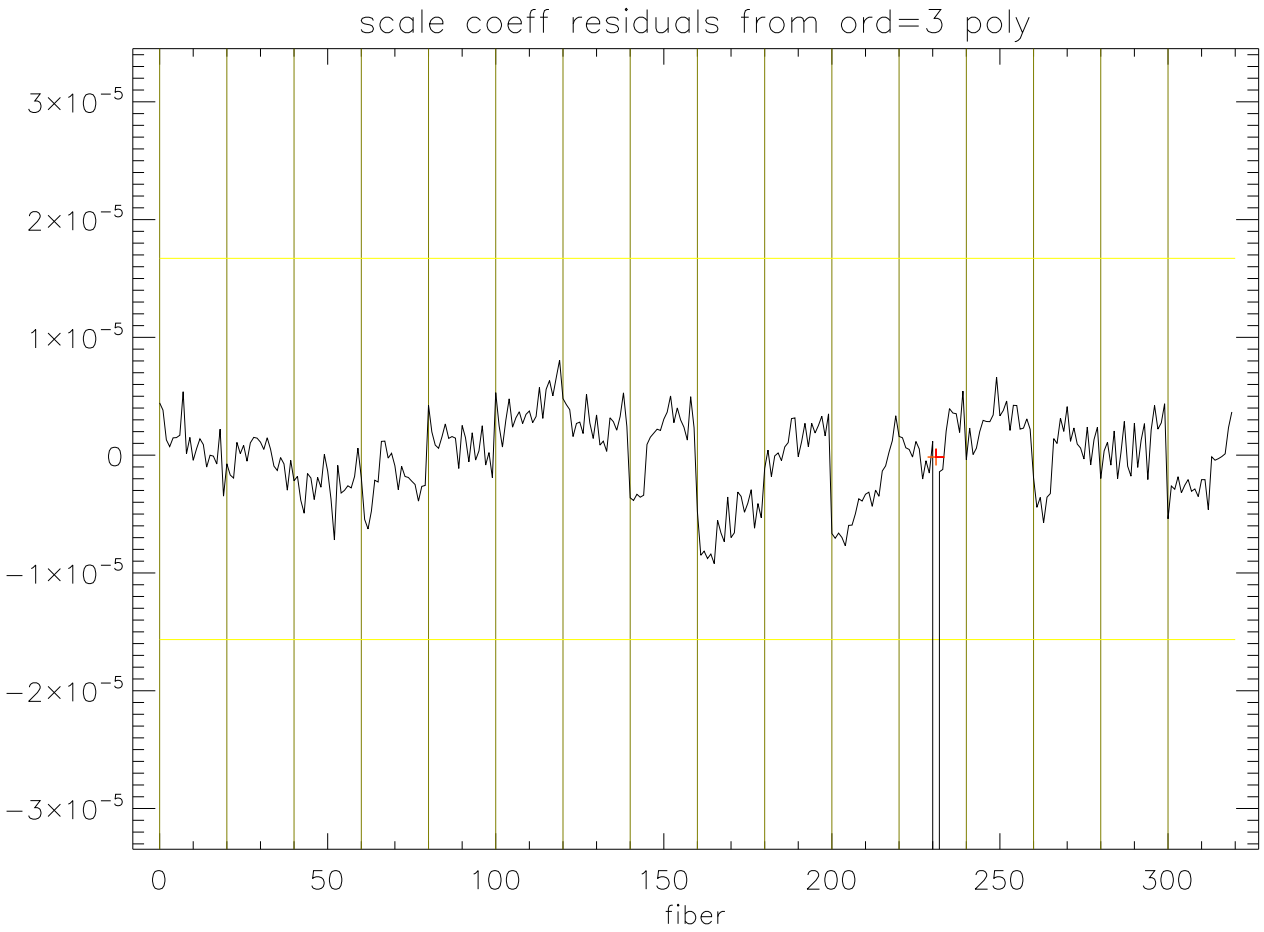

PLATE=2019 MJD=53429 sdR-b1-00030997.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
2000
1500
1000
500
0
-500
5570
5575
5580
5585
5590
λ [A]

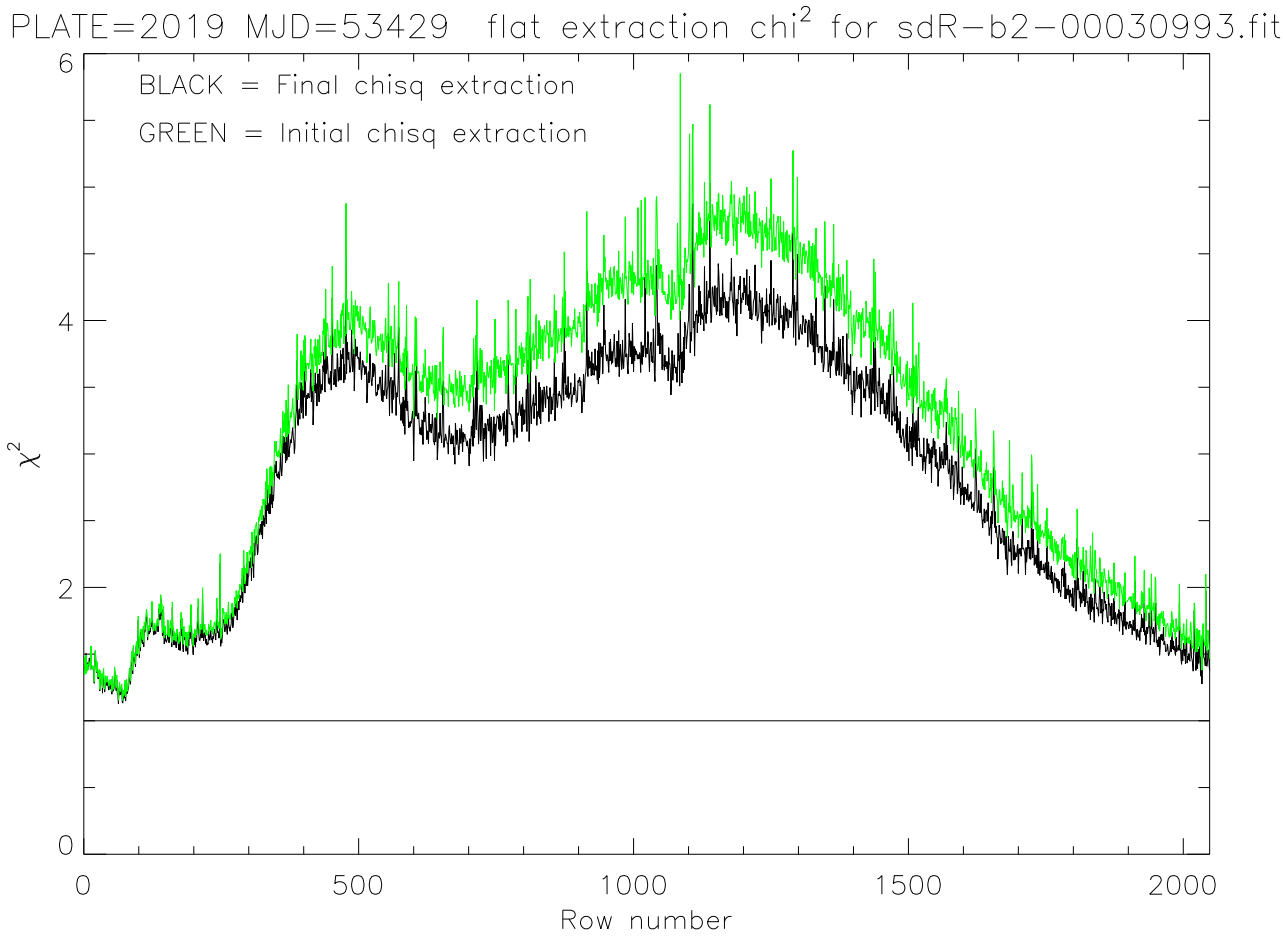

Number of sky fibers = 16
PLATE=2019 MJD=53429 sdR-b1-00030997.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
0
1
2
3
4
5

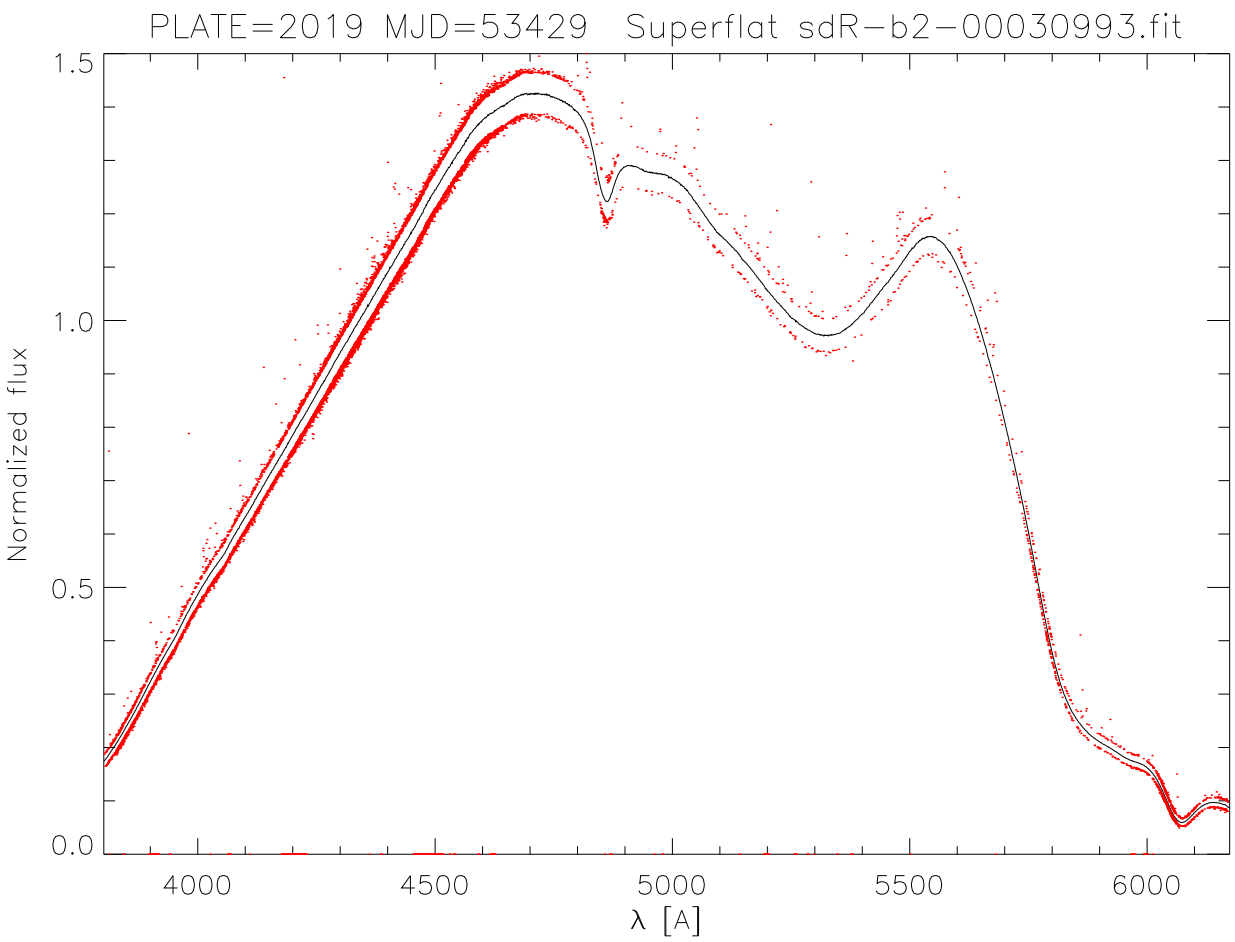

PLATE=2019 MJD=53429 sdR-b1-00030997.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 40.88 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

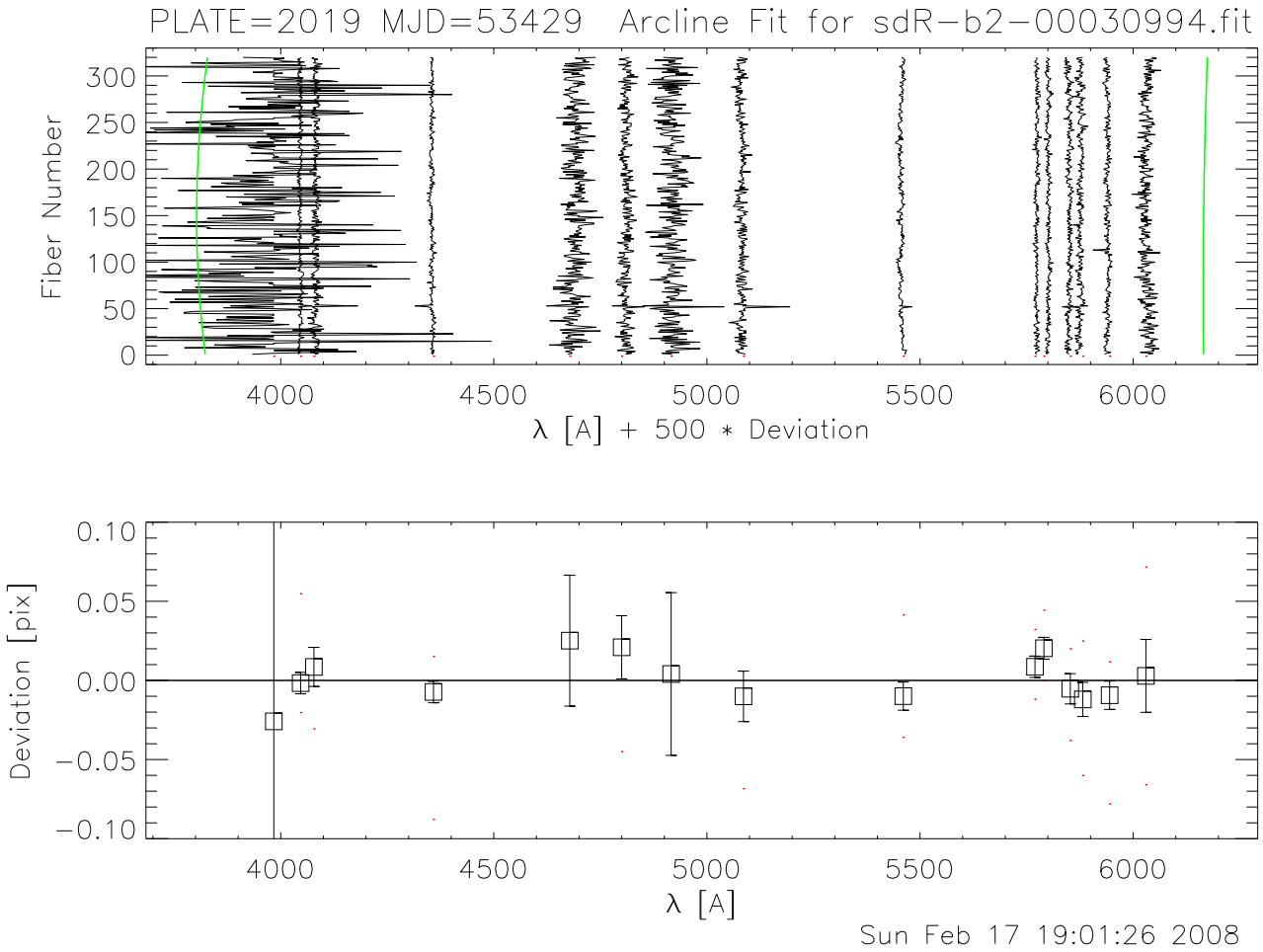

PLATE=2019 MJD=53429 sdR-b1-00030997.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 2.36 %
Fiber number
Flux (5578.9)/Airmass
Focal Distance [mm]
Flux (5578.9)/Airmass
Airmass

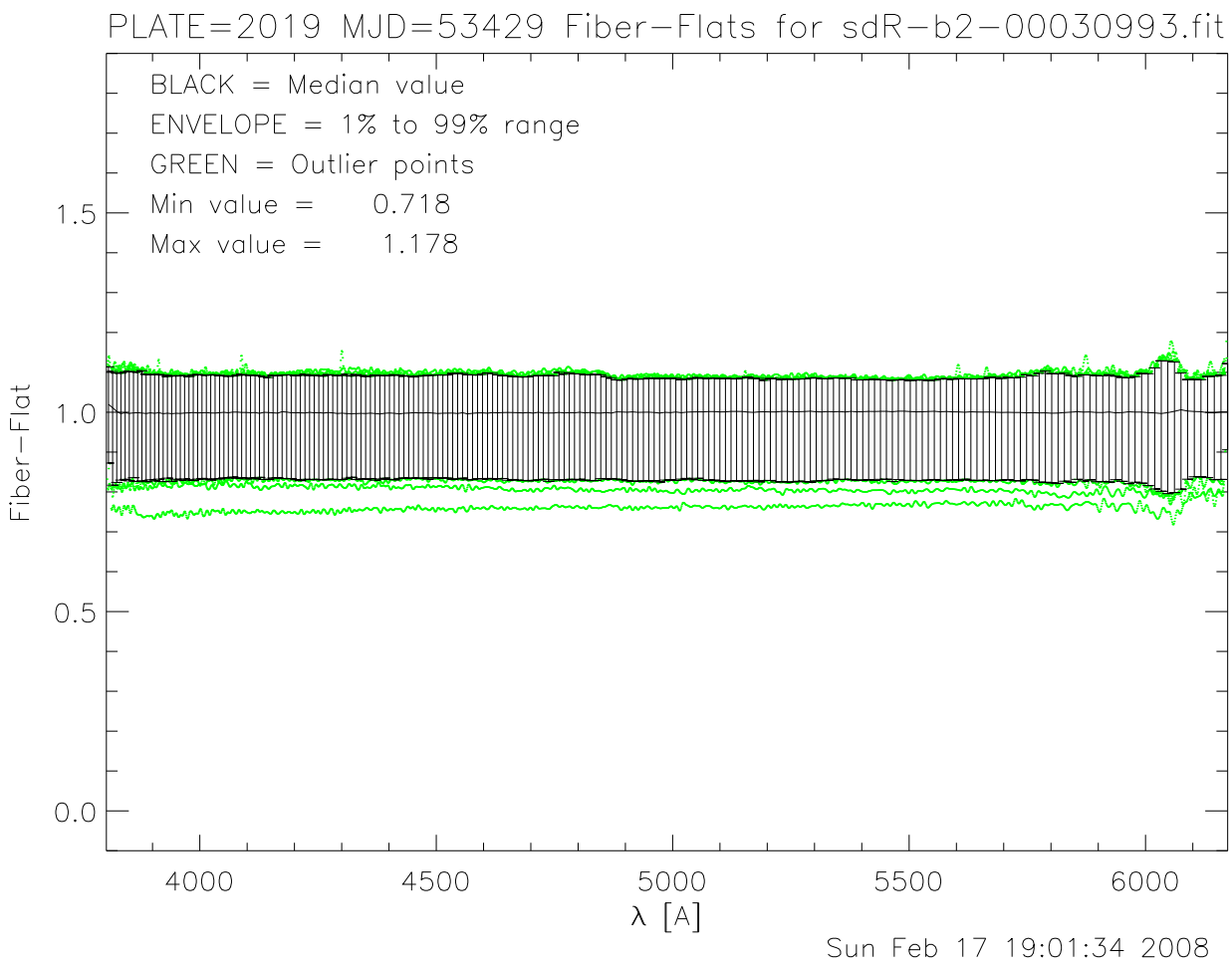

offset coeff residuals from ord=3 poly
1×10⁻⁴
5×10⁻⁵
0
−5×10⁻⁵
−1×10⁻⁴
0
50
100
150
200
250
300
fiber

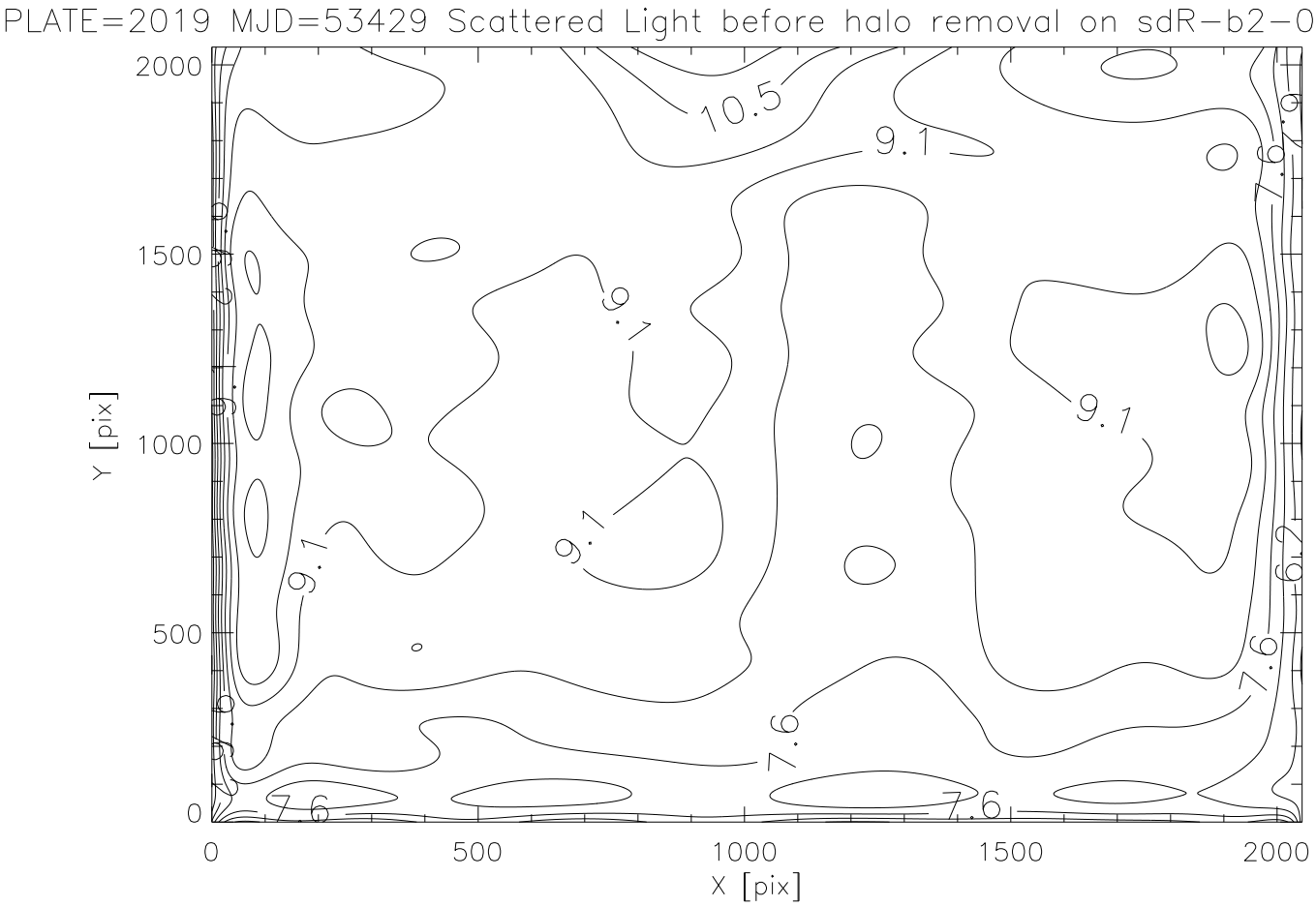

scale coeff residuals from ord=3 poly
3×10⁻⁵
2×10⁻⁵
1×10⁻⁵
0
−1×10⁻⁵
−2×10⁻⁵
−3×10⁻⁵
0
50
100
150
200
250
300
fiber

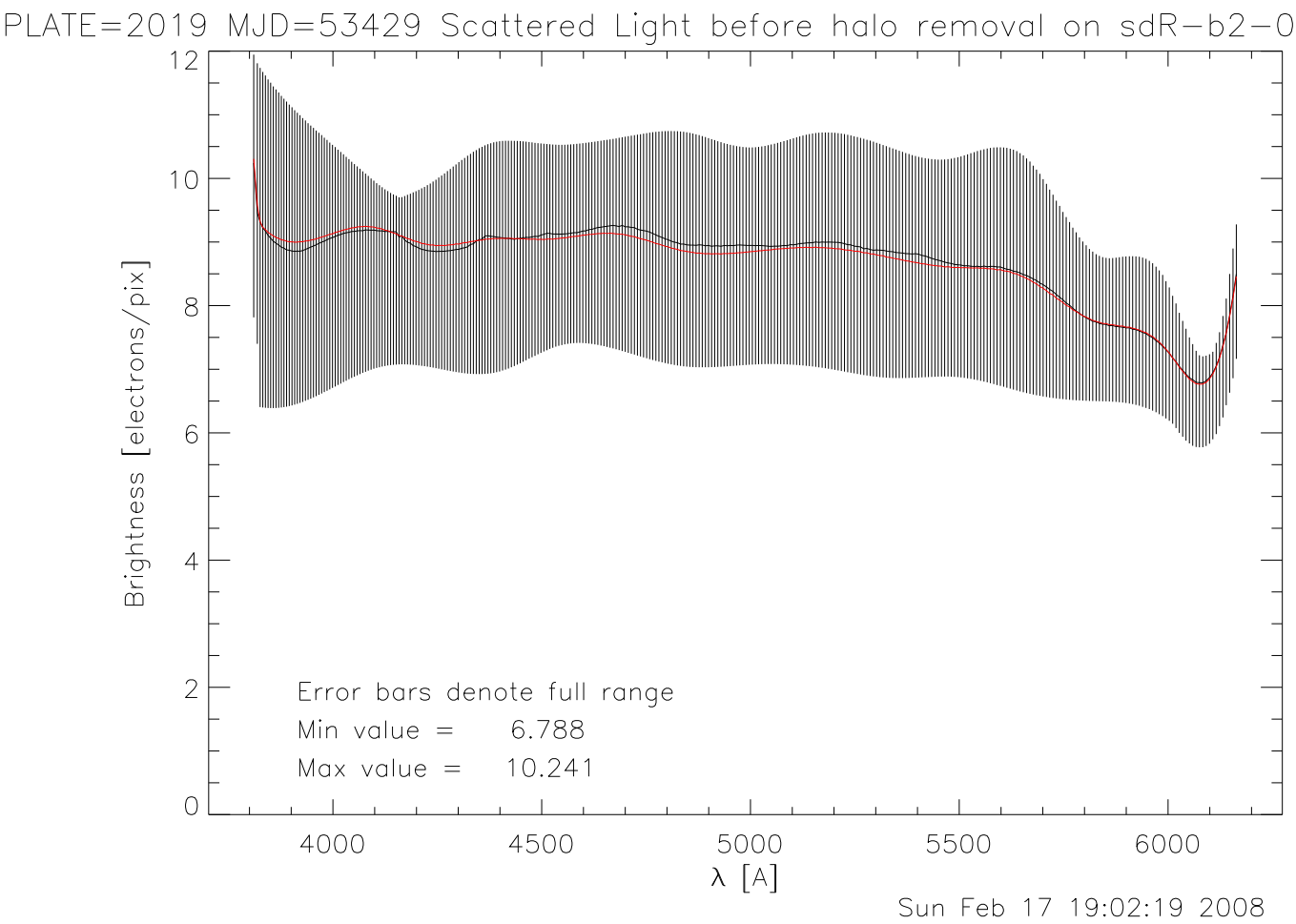

PLATE=2019 MJD=53429 flat extraction chi^2 for sdR−b2−00030993.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
0
500
1000
1500
2000
Row number

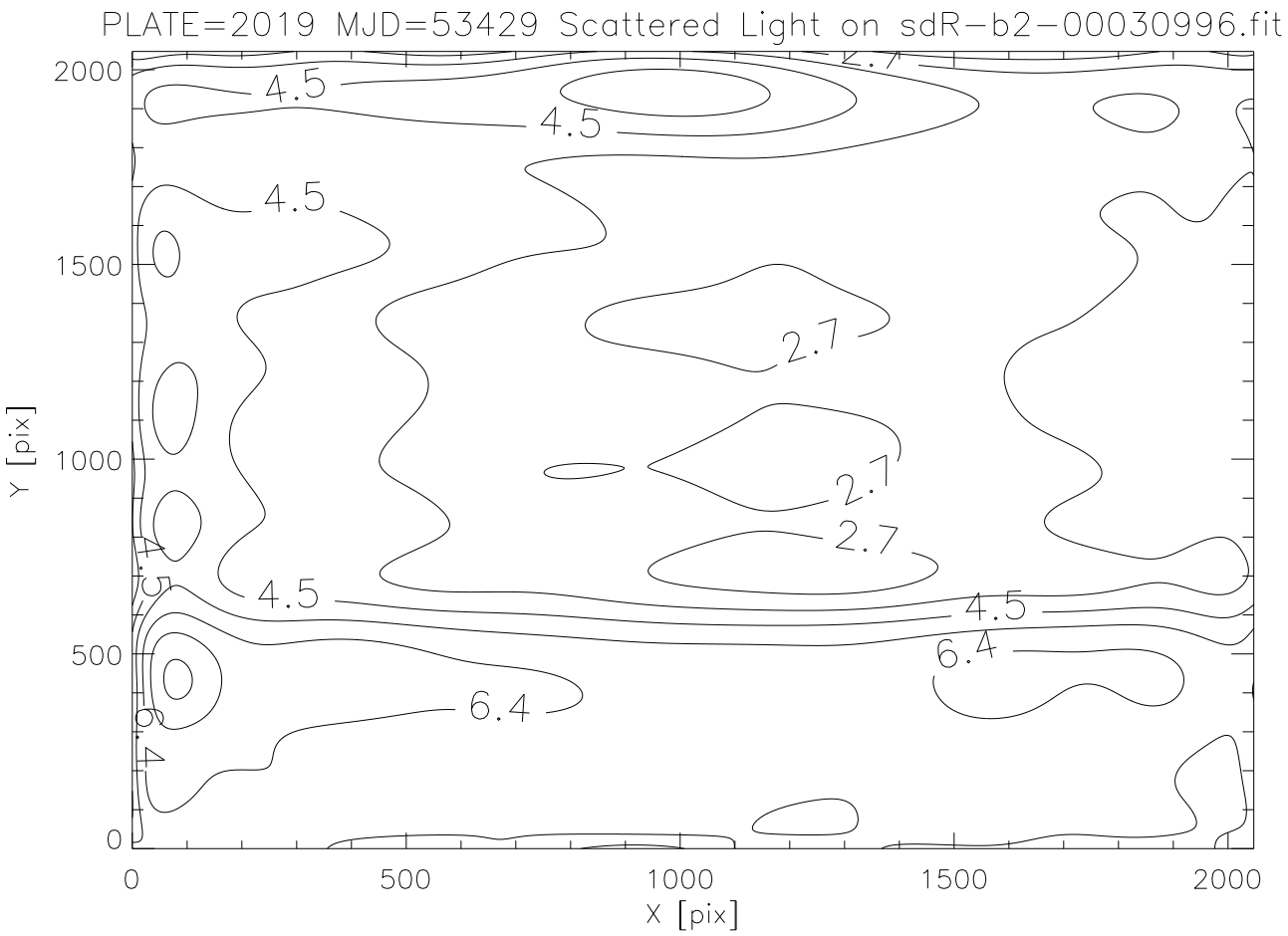

PLATE=2019 MJD=53429 Superflat sdR-b2-00030993.fit
Normalized flux
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]

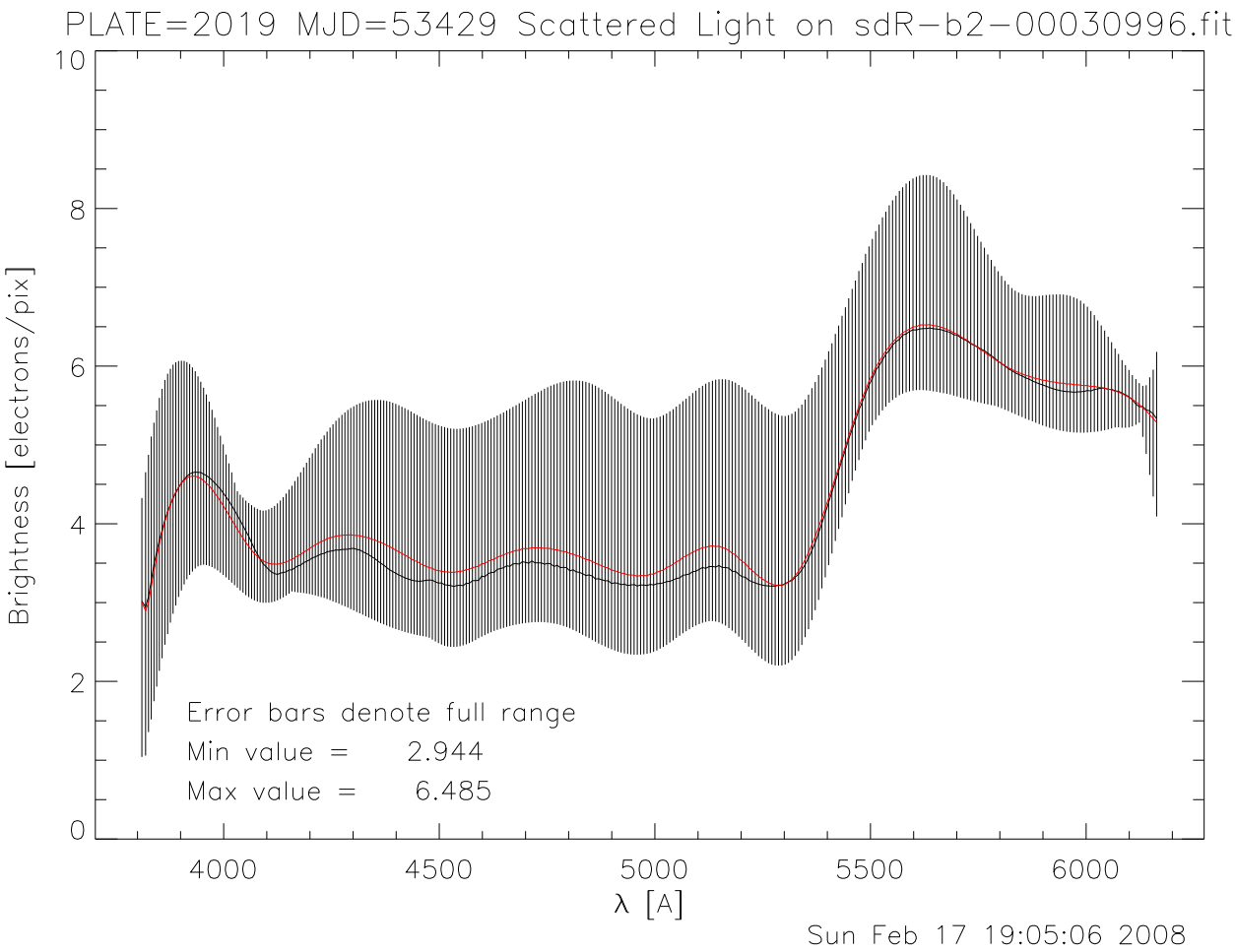

PLATE=2019 MJD=53429 Arcline Fit for sdR-b2-00030994.fit
Fiber Number
300
250
200
150
100
50
0
4000
4500
5000
5500
6000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
4000
4500
5000
5500
6000
λ [A]
Sun Feb 17 19:01:26 2008

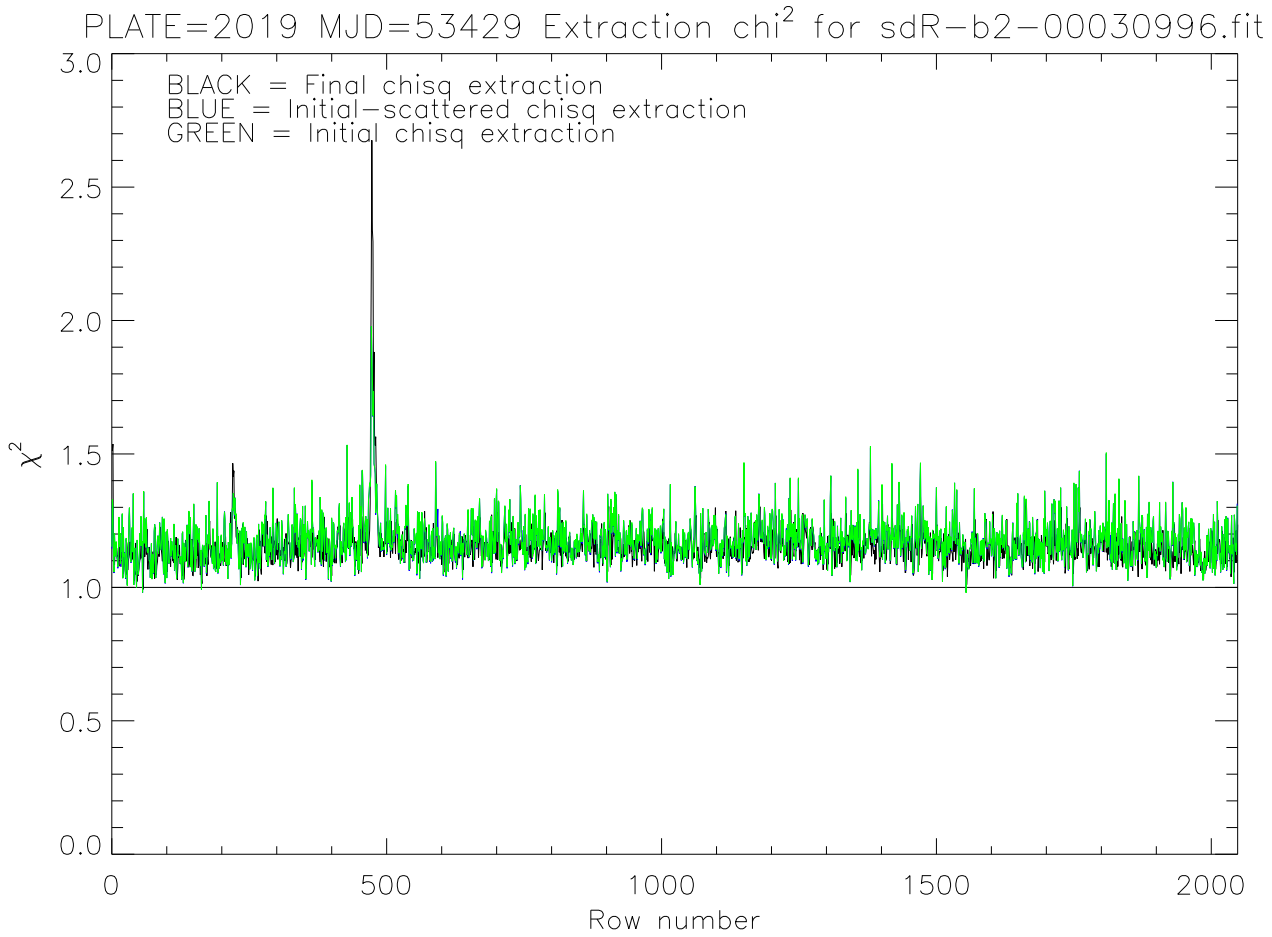

PLATE=2019 MJD=53429 Fiber-Flats for sdR-b2-00030993.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.718
Max value = 1.178
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Sun Feb 17 19:01:34 2008

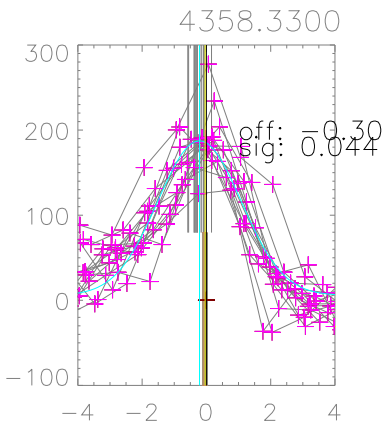

PLATE=2019 MJD=53429 Scattered Light before halo removal on sdR-b2-00030996.f
10.5
9.1
7.6
Y [pix]
X [pix]
0
500
1000
1500
2000

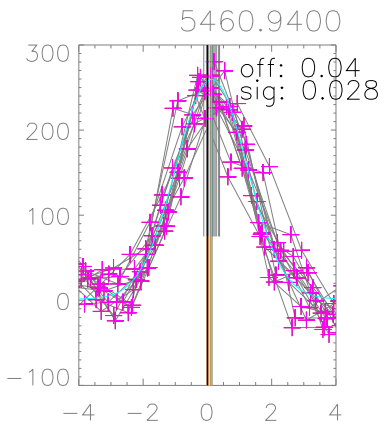

PLATE=2019 MJD=53429 Scattered Light before halo removal on sdR-b2-00030996.f
Brightness [electrons/pix]
12
10
8
6
4
2
0
Error bars denote full range
Min value = 6.788
Max value = 10.241
4000
4500
5000
5500
6000
λ [A]
Sun Feb 17 19:02:19 2008

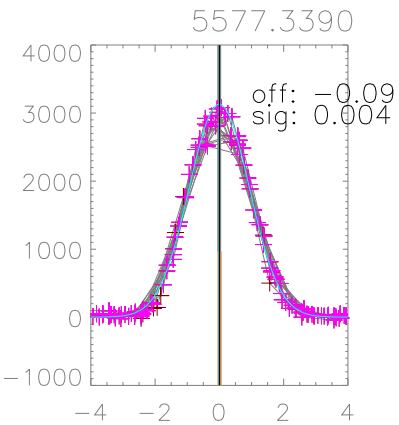

PLATE=2019 MJD=53429 Scattered Light on sdR-b2-00030996.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
4.5
2.7
6.4

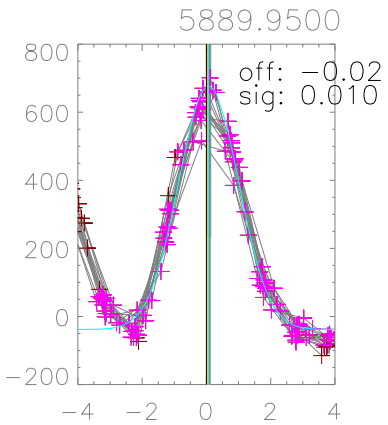

PLATE=2019 MJD=53429 Scattered Light on sdR-b2-00030996.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 2.944
Max value = 6.485
Sun Feb 17 19:05:06 2008

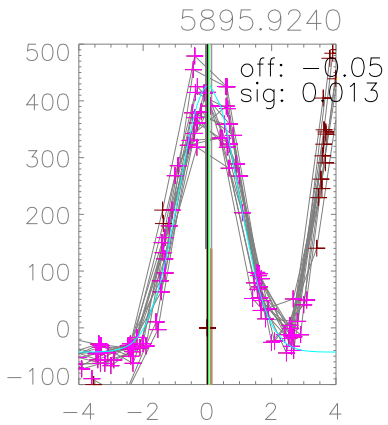

PLATE=2019 MJD=53429 Extraction chi^2 for sdR-b2-00030996.fit
BLACK = Final chisq extraction
BLUE = Initial-scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
500
1000
1500
2000
Row number

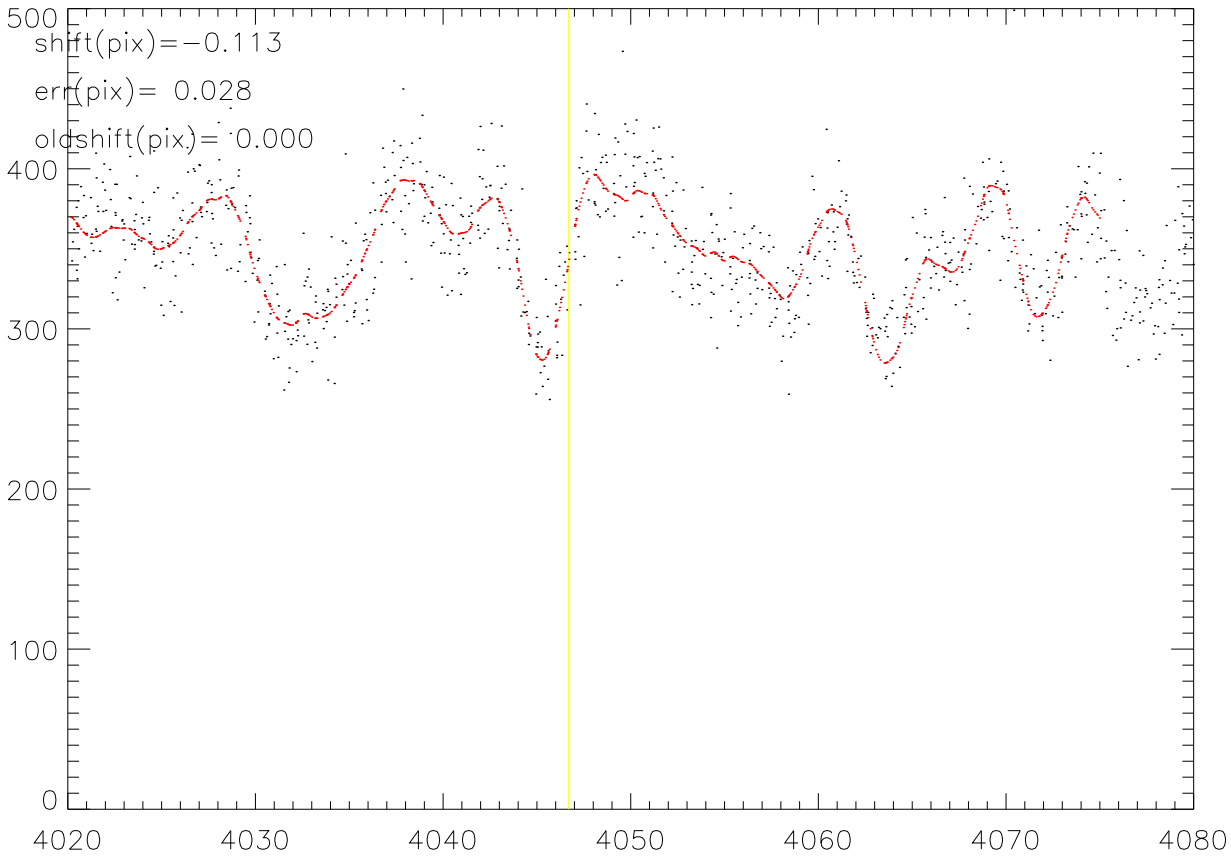

4358.3300
off: −0.30
sig: 0.044

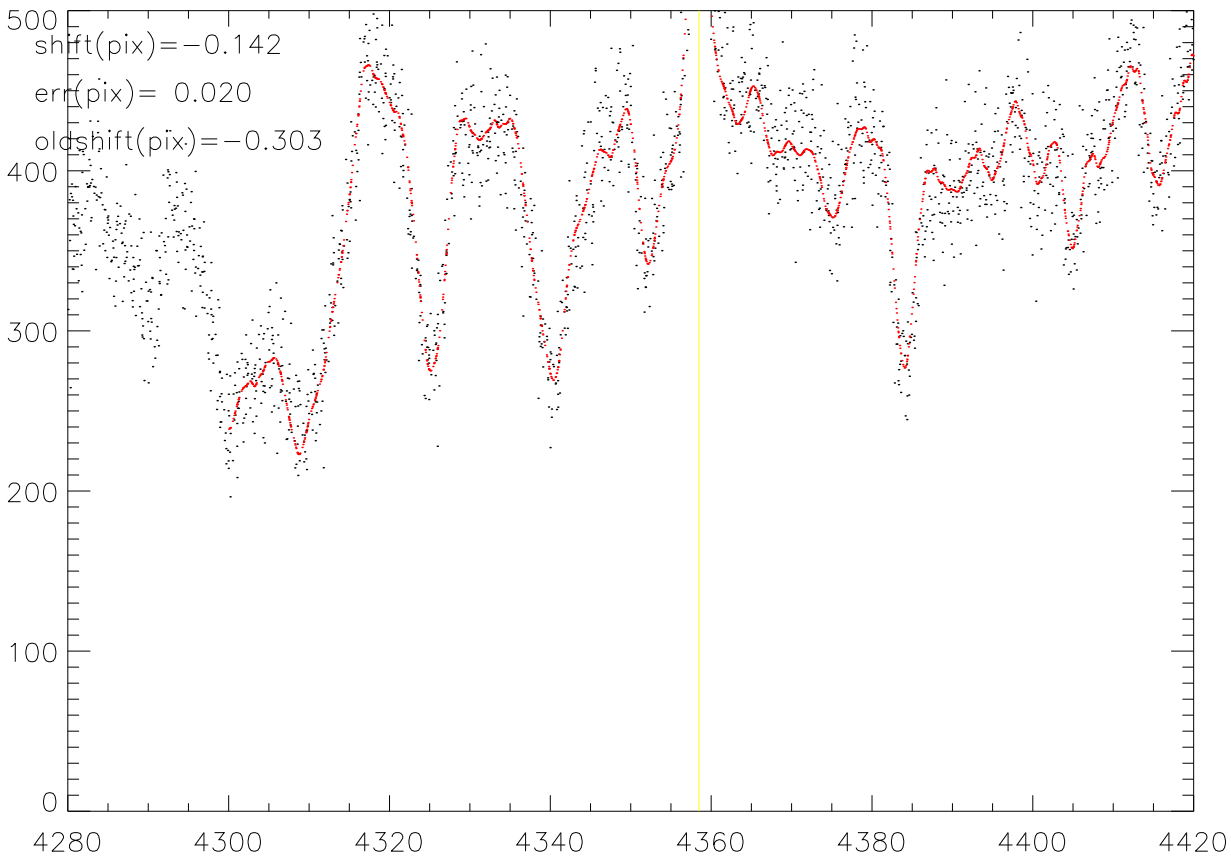

5460.9400
off: 0.04
sig: 0.028

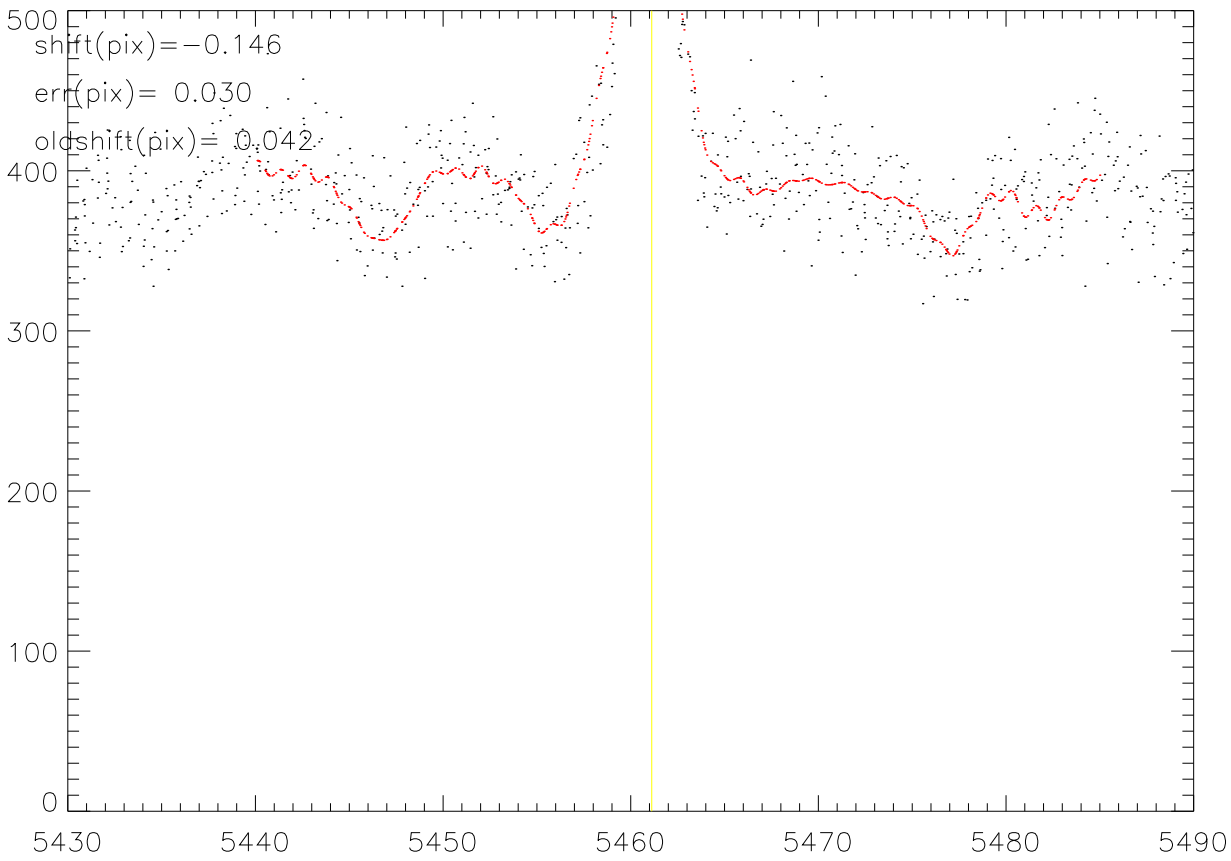

5577.3390
off: −0.09
sig: 0.004

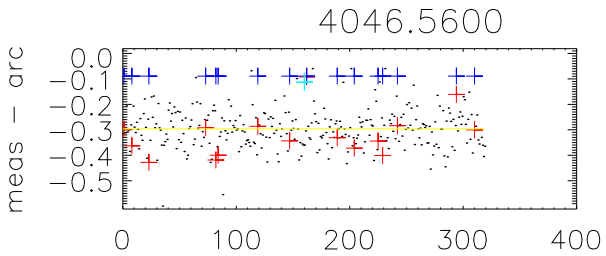

5889.9500
off: −0.02
sig: 0.010

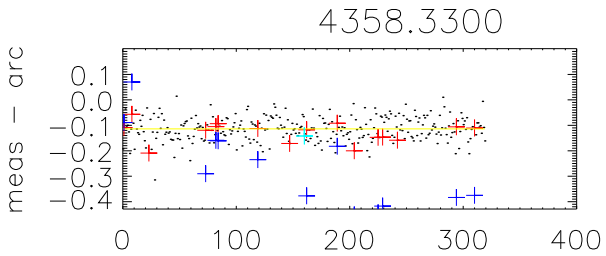

5895.9240
off: −0.05
sig: 0.013

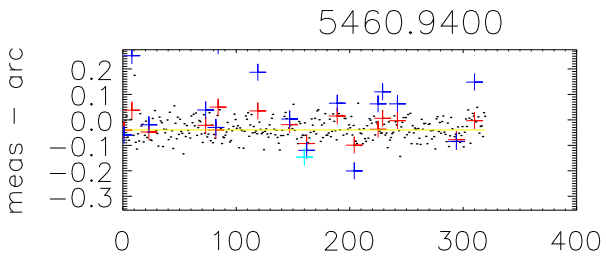

shift(pix)=−0.113
err(pix)= 0.028
oldshift(pix)= 0.000
500
400
300
200
100
0
4020
4030
4040
4050
4060
4070
4080

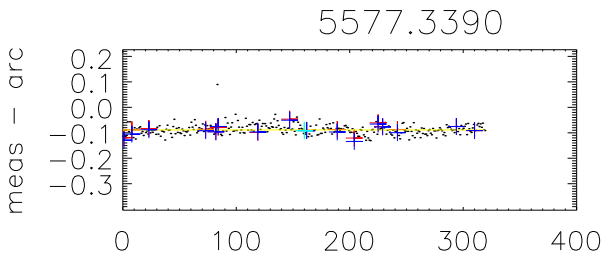

shift(pix)=−0.142
err(pix)= 0.020
oldshift(pix)=−0.303
500
400
300
200
100
0
4280
4300
4320
4340
4360
4380
4400
4420

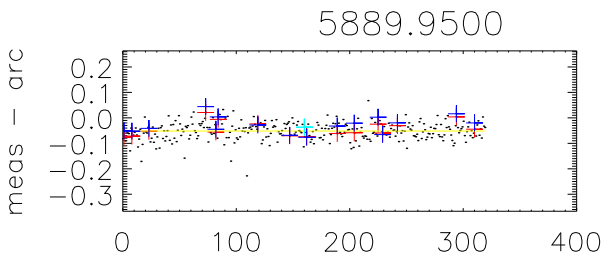

shift(pix)=−0.146
err(pix)= 0.030
oldshift(pix)= 0.042
500
400
300
200
100
0
5430
5440
5450
5460
5470
5480
5490

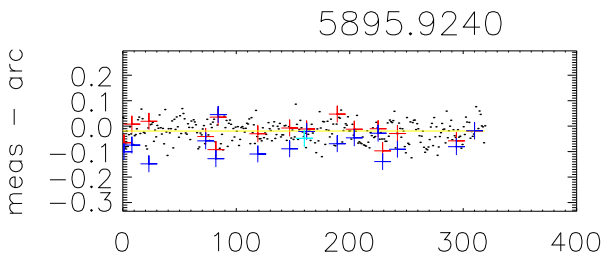

4046.5600
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

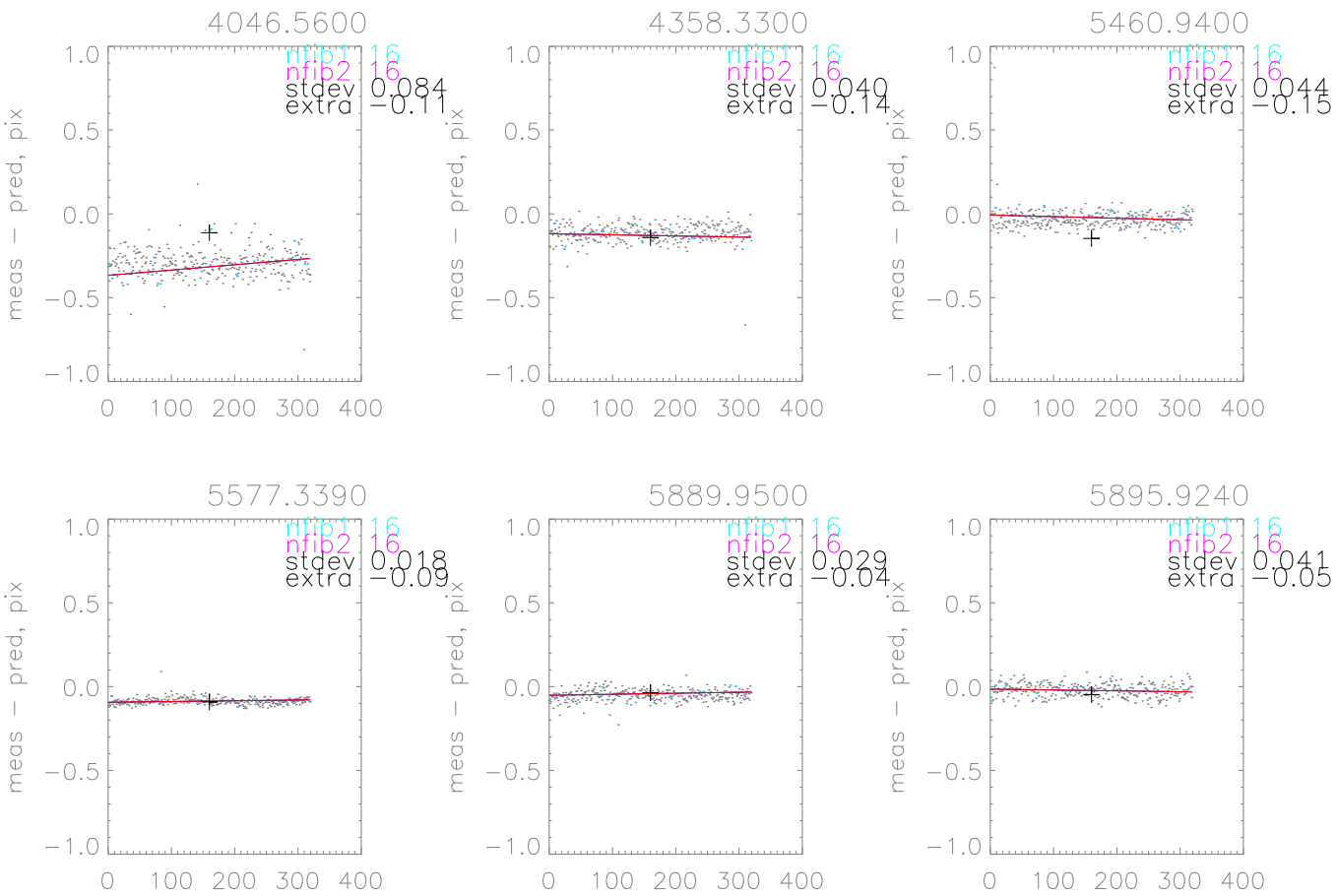

4358.3300
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

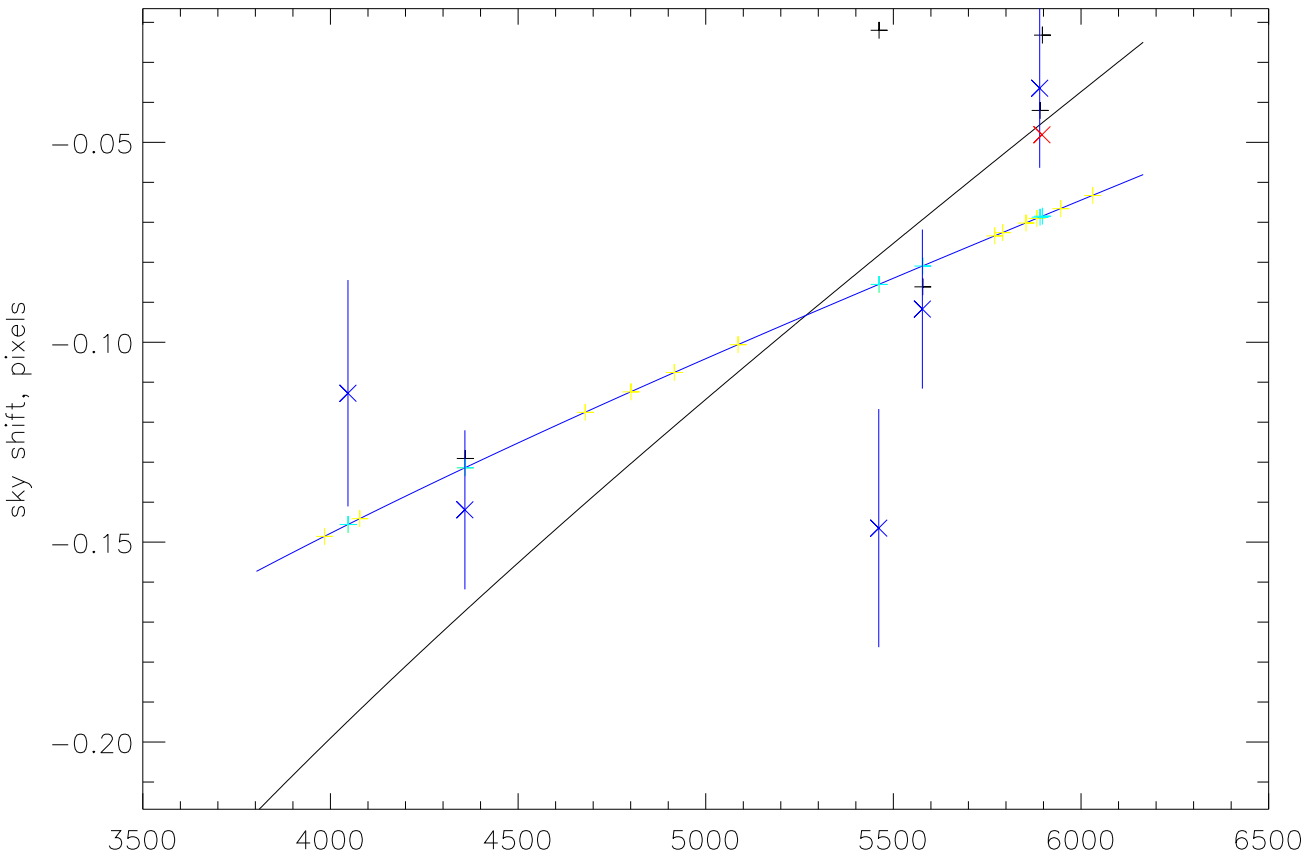

5460.9400
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

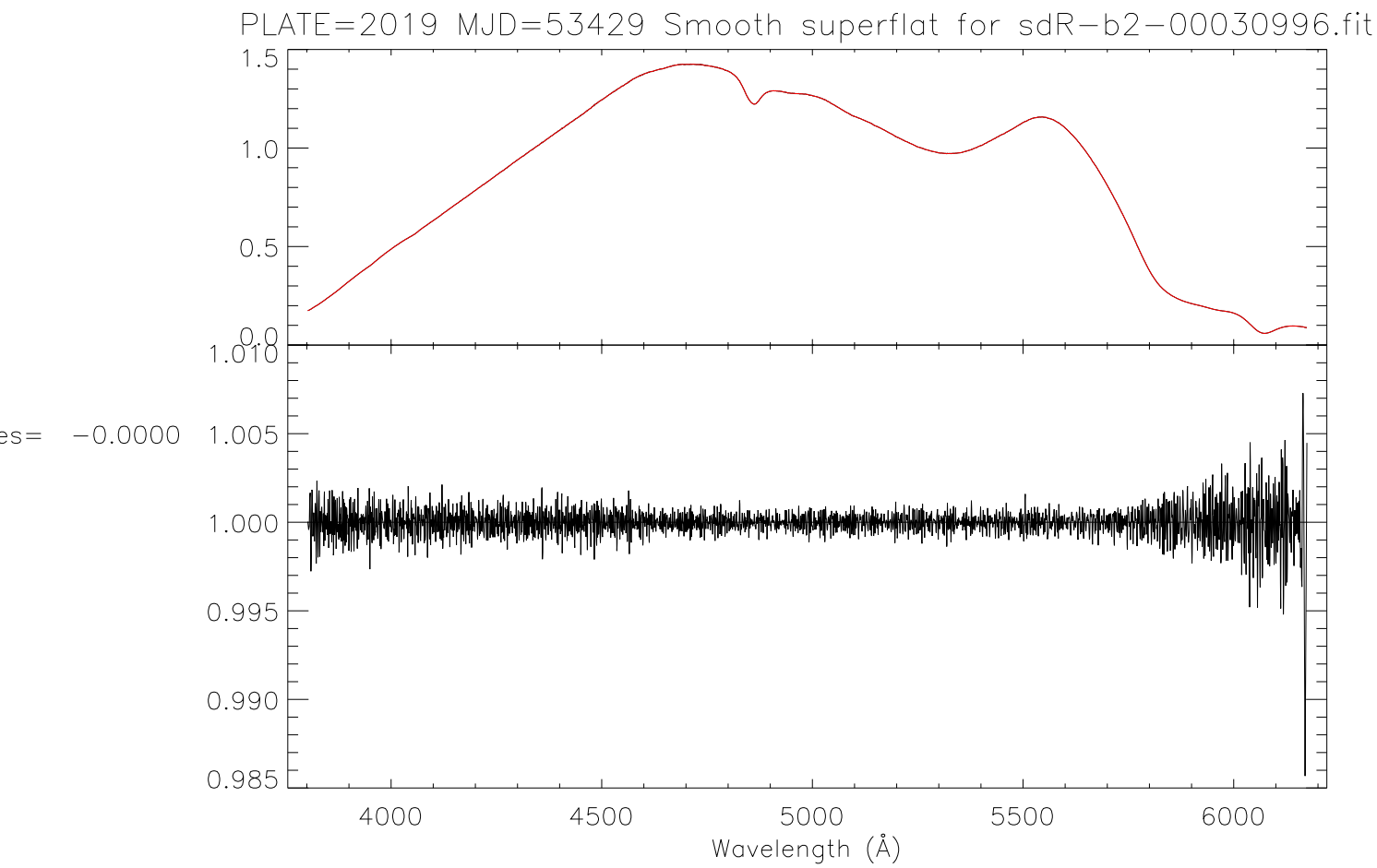

5577.3390
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

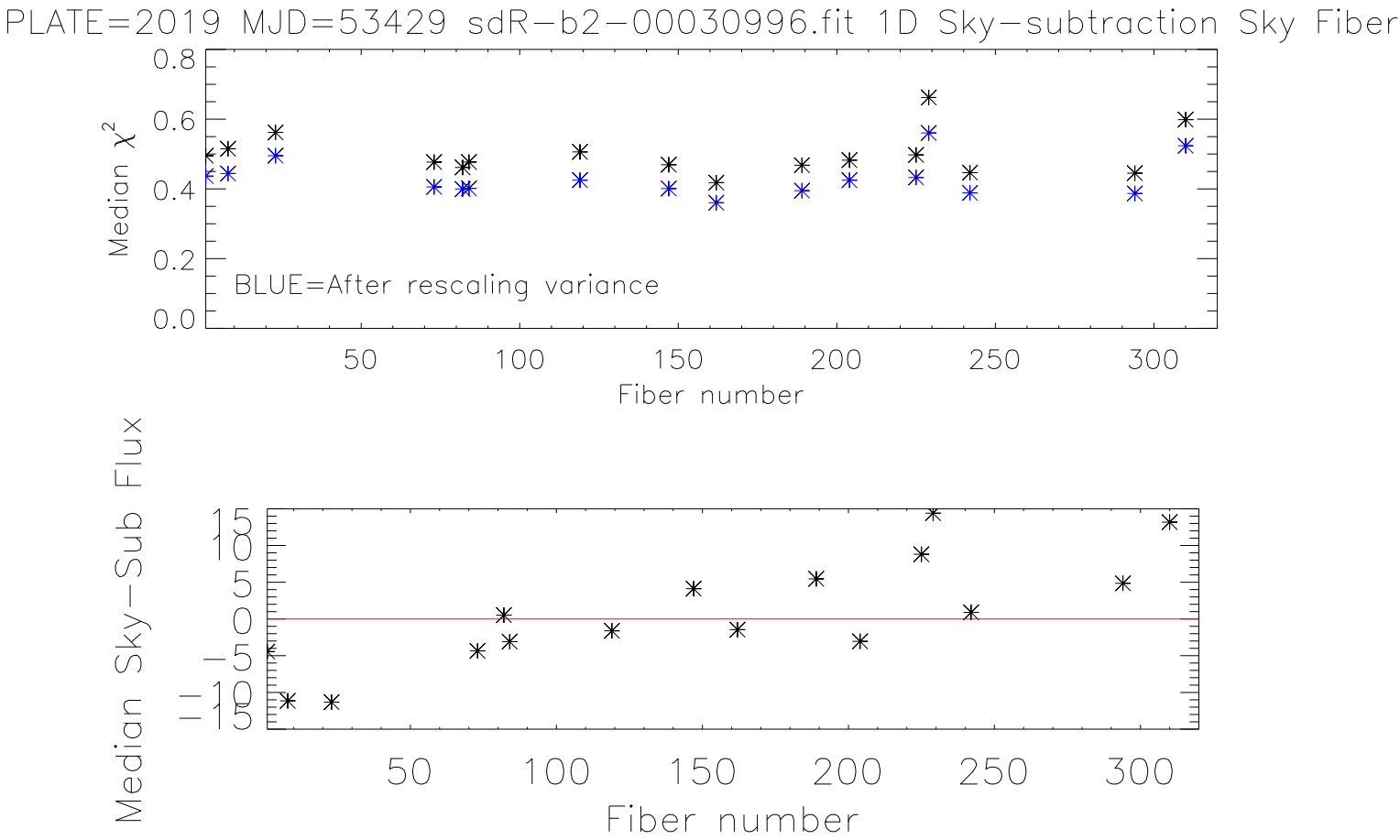

5889.9500
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

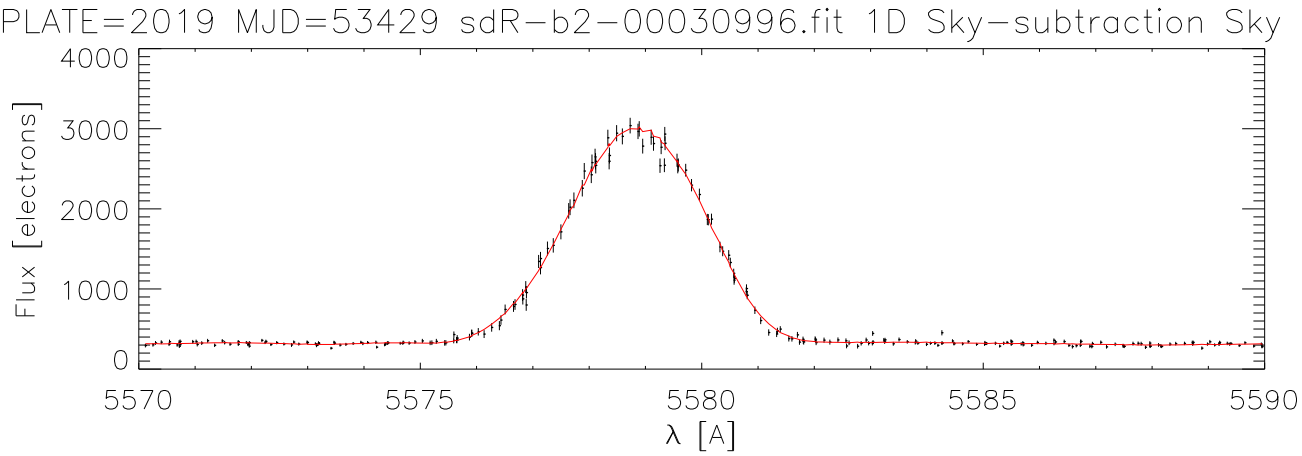

5895.9240
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

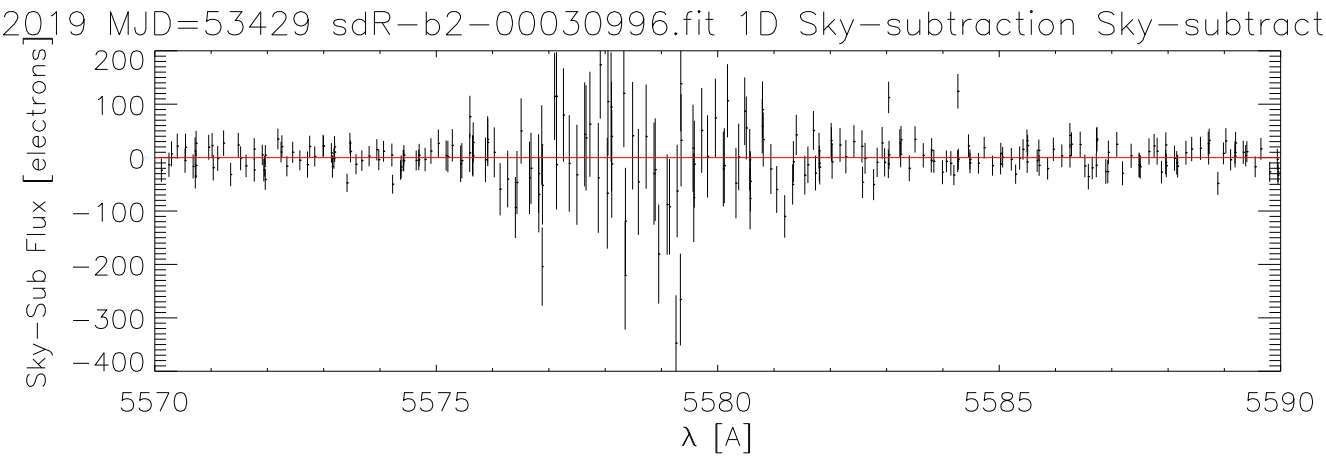

4046.5600
nfib1 16
nfib2 16
stdev 0.084
extra −0.11
4358.3300
nfib1 16
nfib2 16
stdev 0.040
extra −0.14
5460.9400
nfib1 16
nfib2 16
stdev 0.044
extra −0.15
5577.3390
nfib1 16
nfib2 16
stdev 0.018
extra −0.09
5889.9500
nfib1 16
nfib2 16
stdev 0.029
extra −0.04
5895.9240
nfib1 16
nfib2 16
stdev 0.041
extra −0.05
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

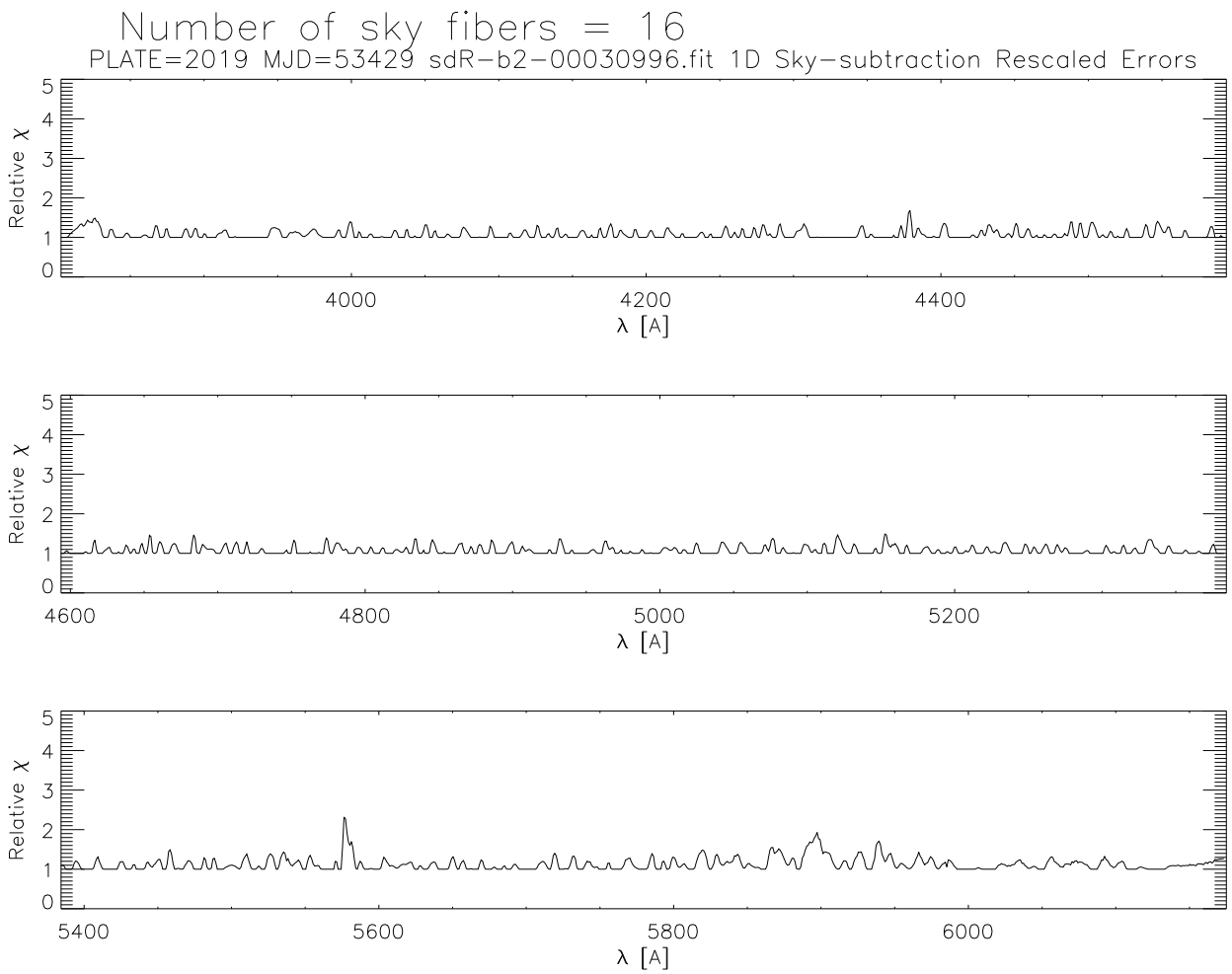

sky shift, pixels
−0.05
−0.10
−0.15
−0.20
3500
4000
4500
5000
5500
6000
6500

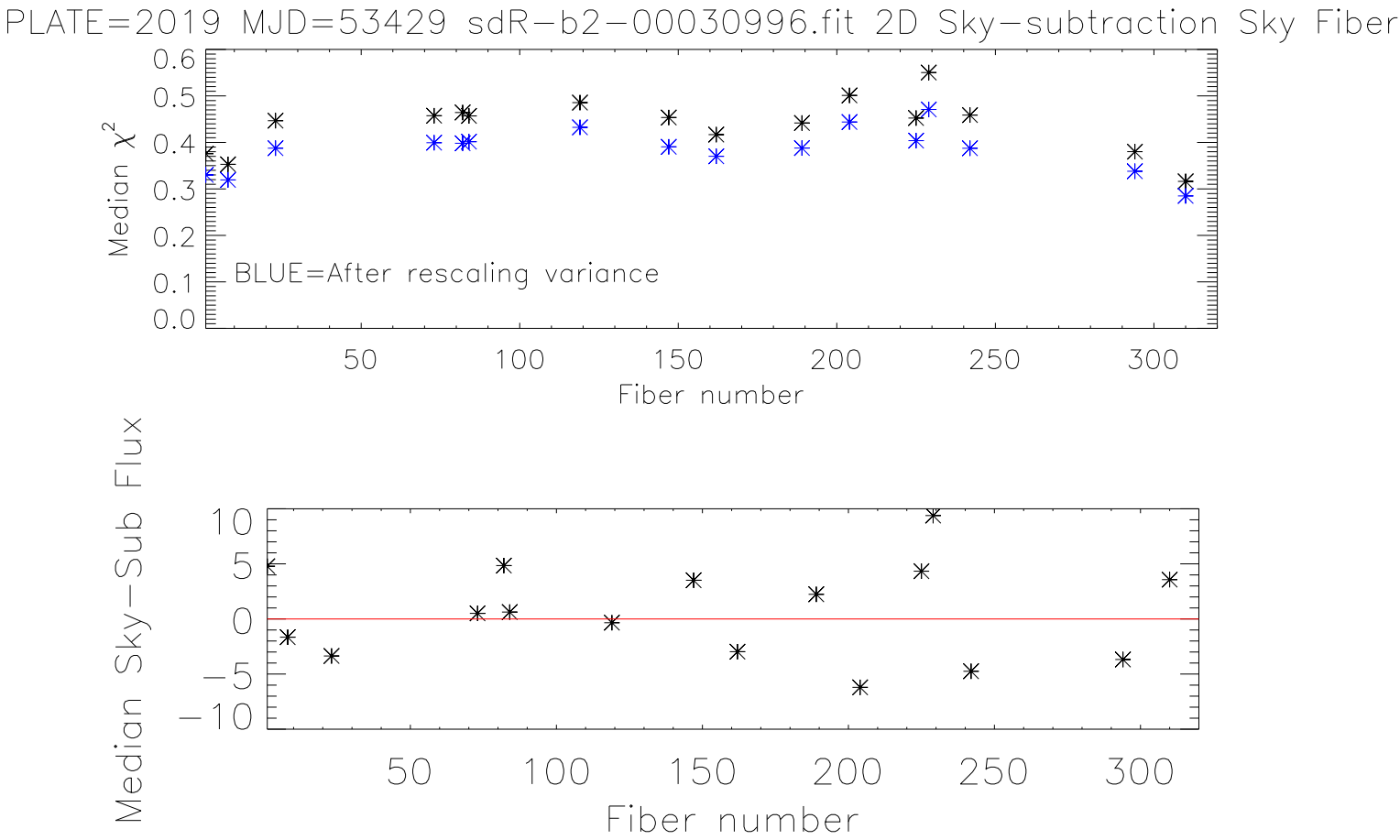

PLATE=2019 MJD=53429 Smooth superflat for sdR-b2-00030996.fit
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
0.985
es= −0.0000
4000
4500
5000
5500
6000
Wavelength (Å)

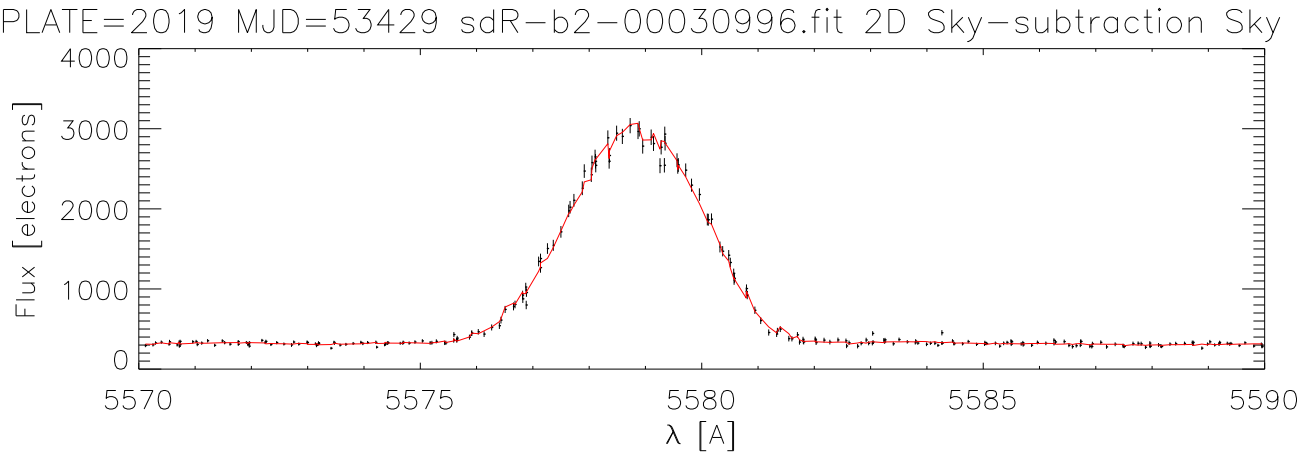

PLATE=2019 MJD=53429 sdR-b2-00030996.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
15
10
5
0
-5
-10
-15
50
100
150
200
250
300
Fiber number

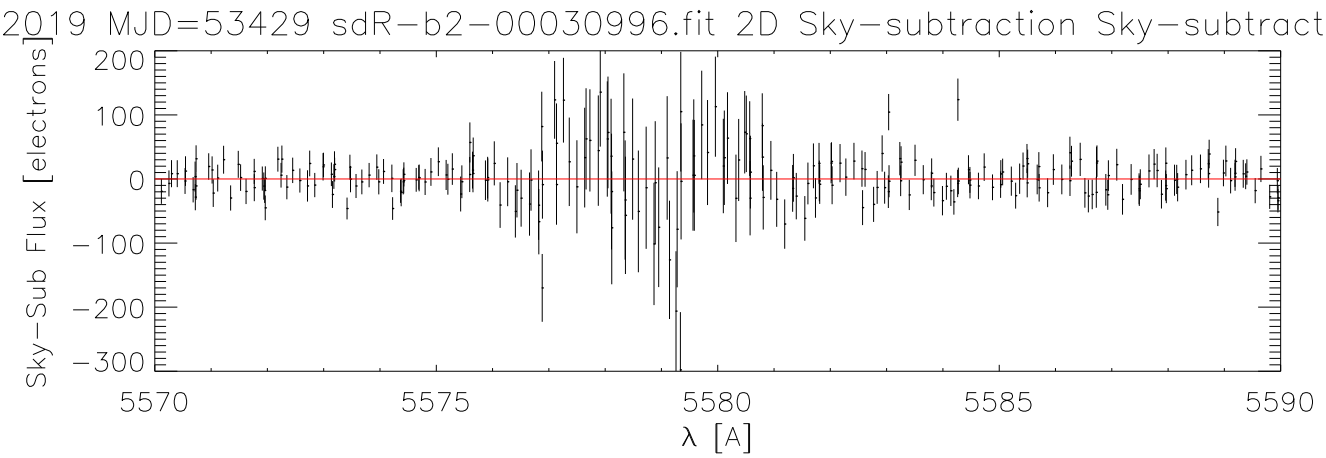

PLATE=2019 MJD=53429 sdR-b2-00030996.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

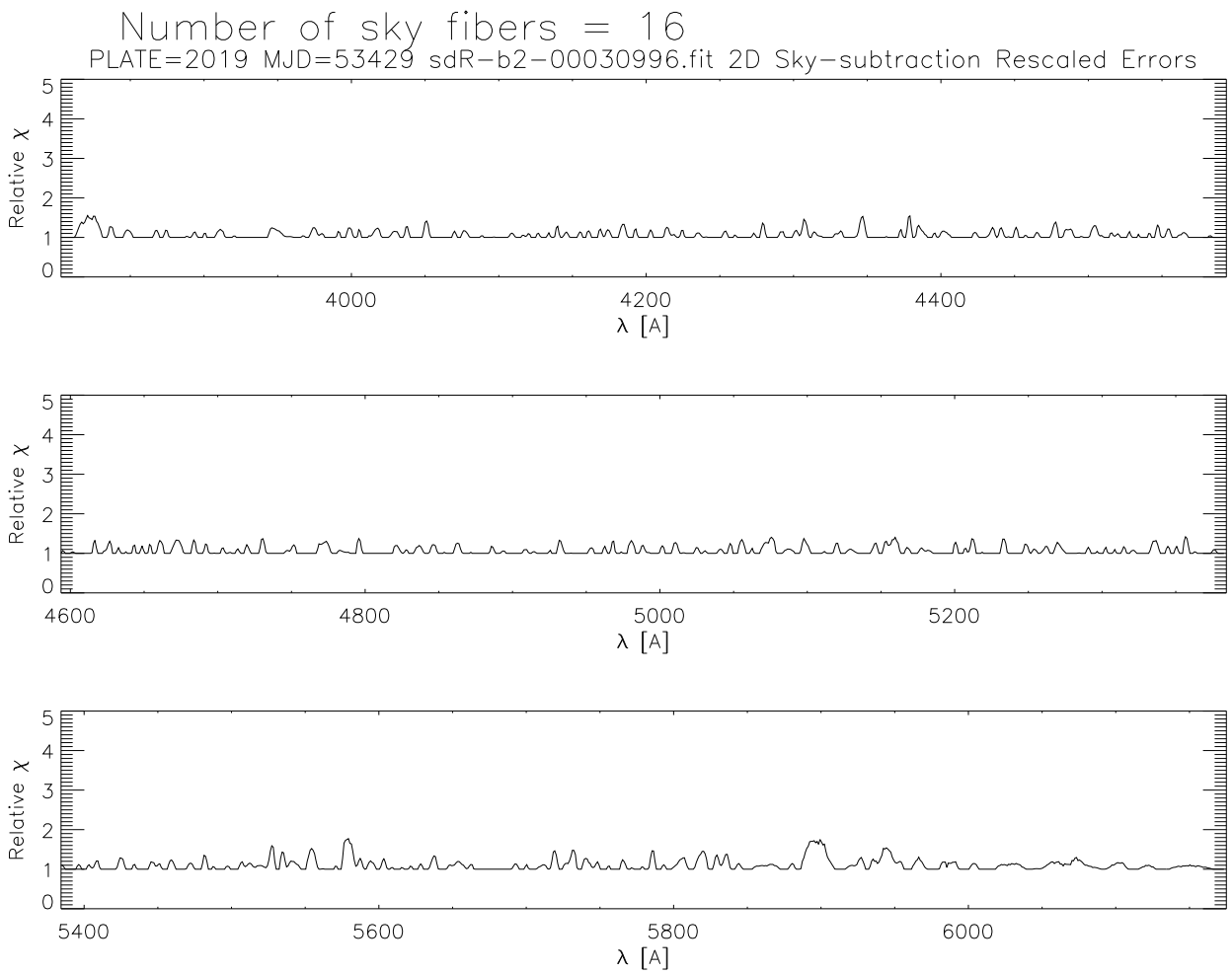

PLATE=2019 MJD=53429 sdR-b2-00030996.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
-300
-400
5570
5575
5580
5585
5590
λ [A]

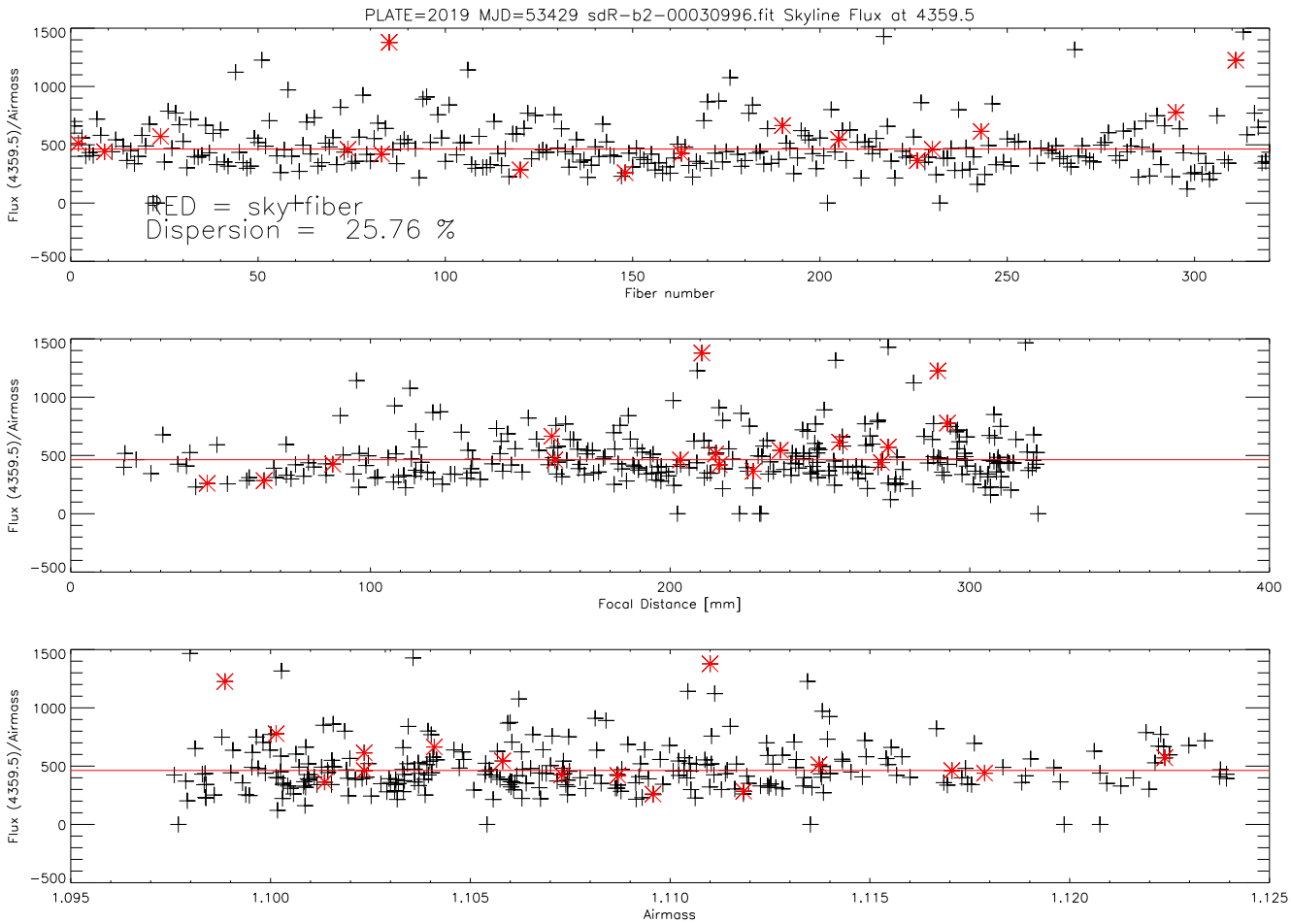

Number of sky fibers = 16
PLATE=2019 MJD=53429 sdR-b2-00030996.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

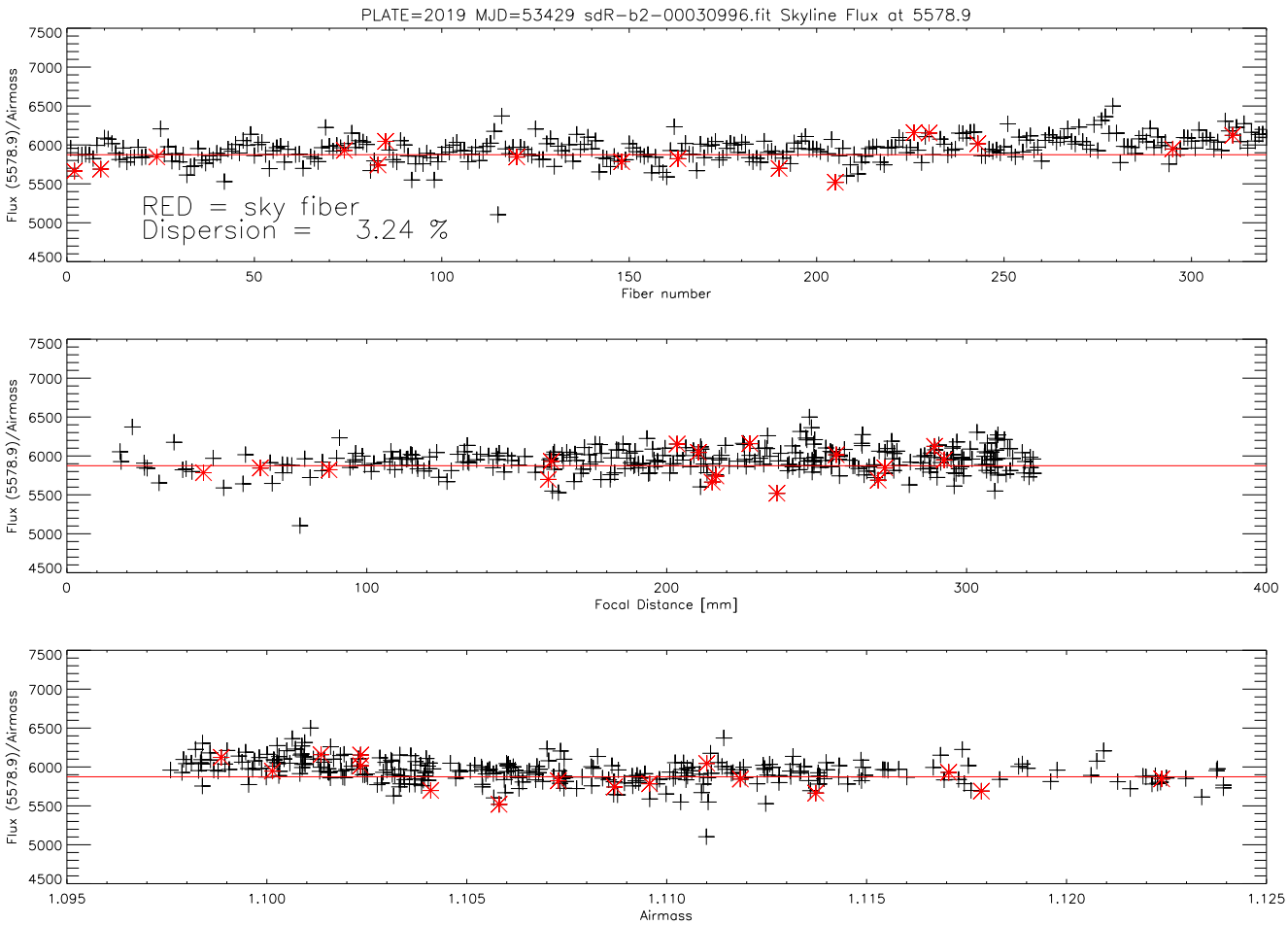

PLATE=2019 MJD=53429 sdR-b2-00030996.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

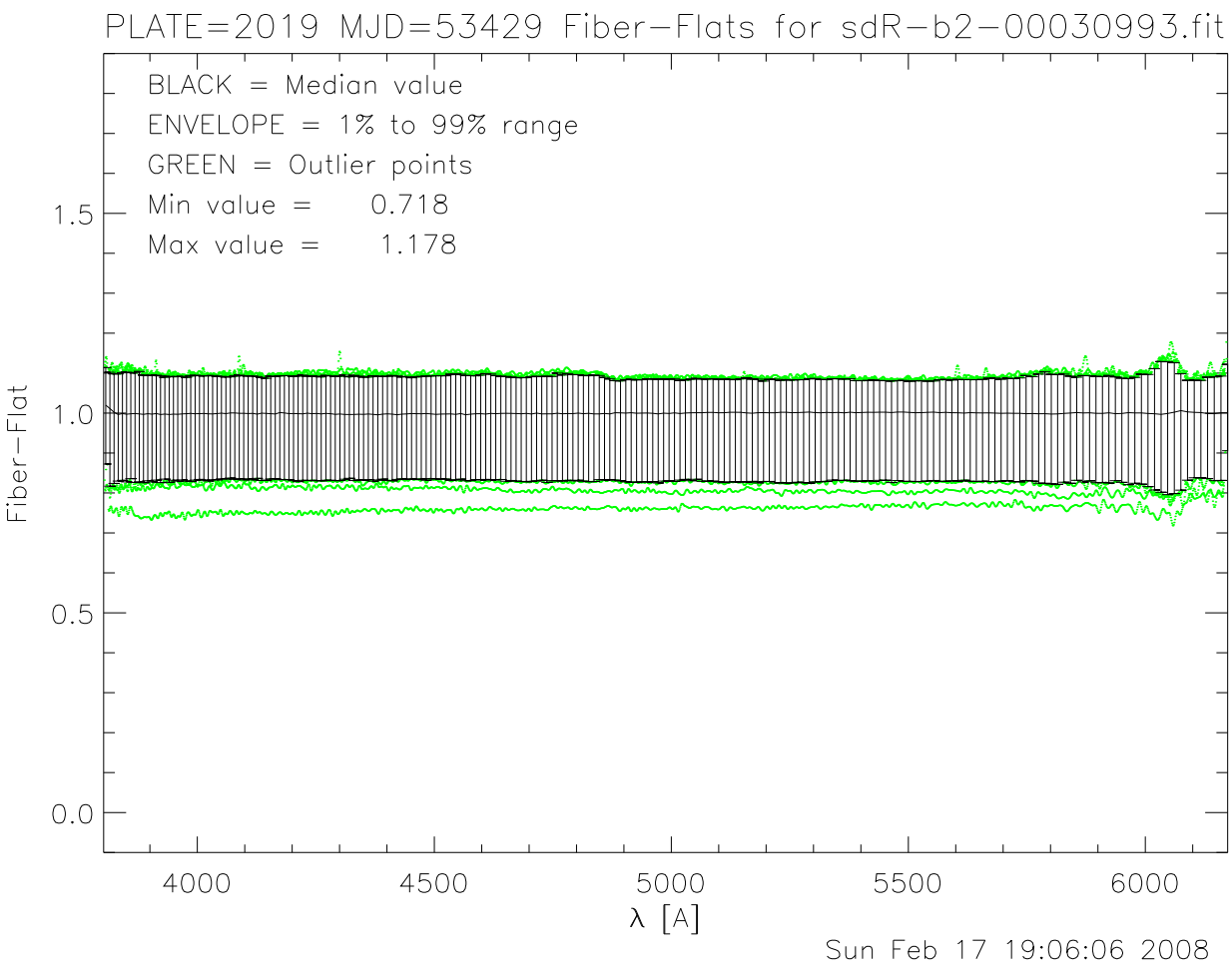

PLATE=2019 MJD=53429 sdR-b2-00030996.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

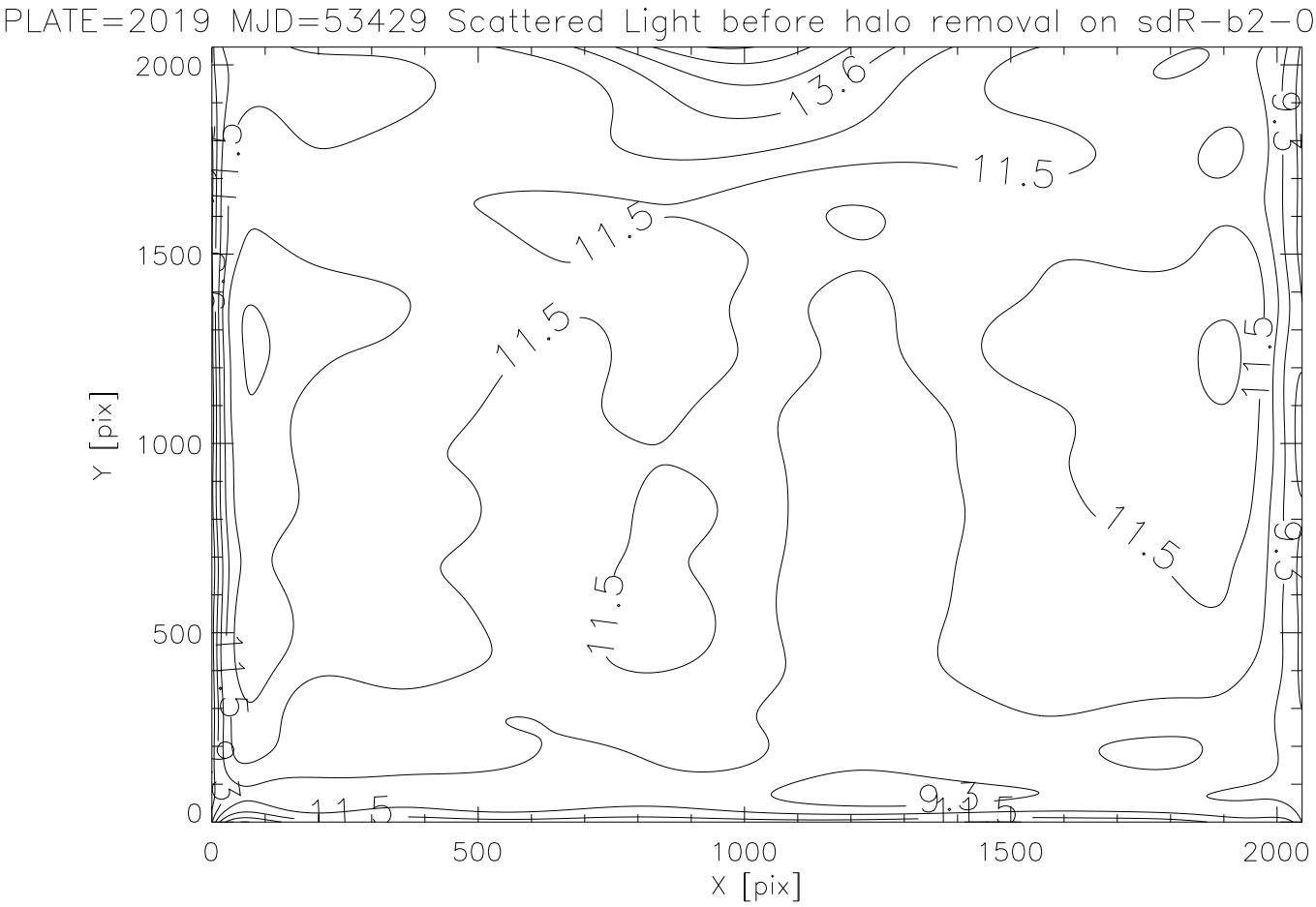

PLATE=2019 MJD=53429 sdR-b2-00030996.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
-300
5570
5575
5580
5585
5590
λ [A]

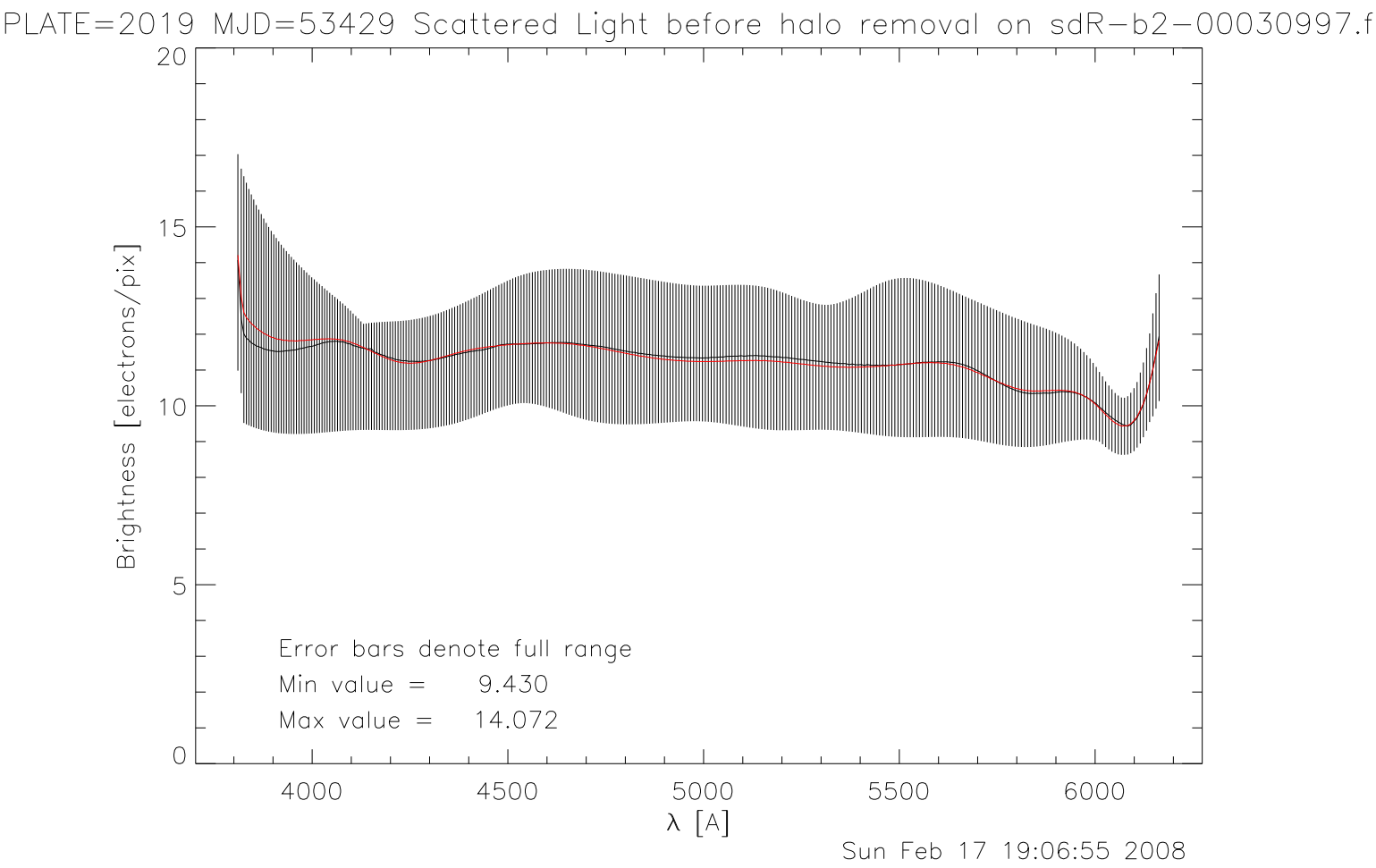

Number of sky fibers = 16
PLATE=2019 MJD=53429 sdR-b2-00030996.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

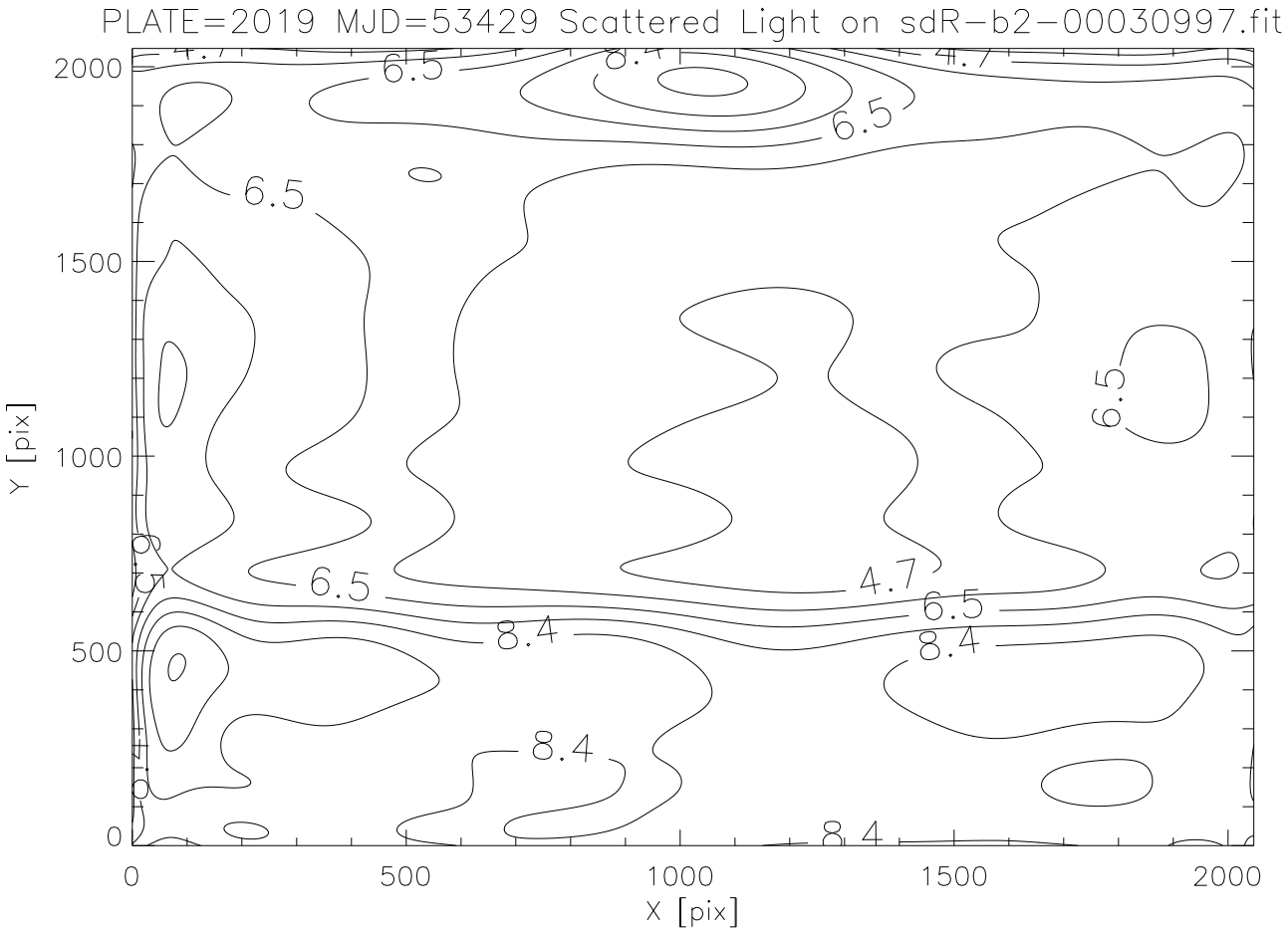

PLATE=2019 MJD=53429 sdR-b2-00030996.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky+fiber
Dispersion = 25.76 %
Fiber number
Focal Distance [mm]
Airmass

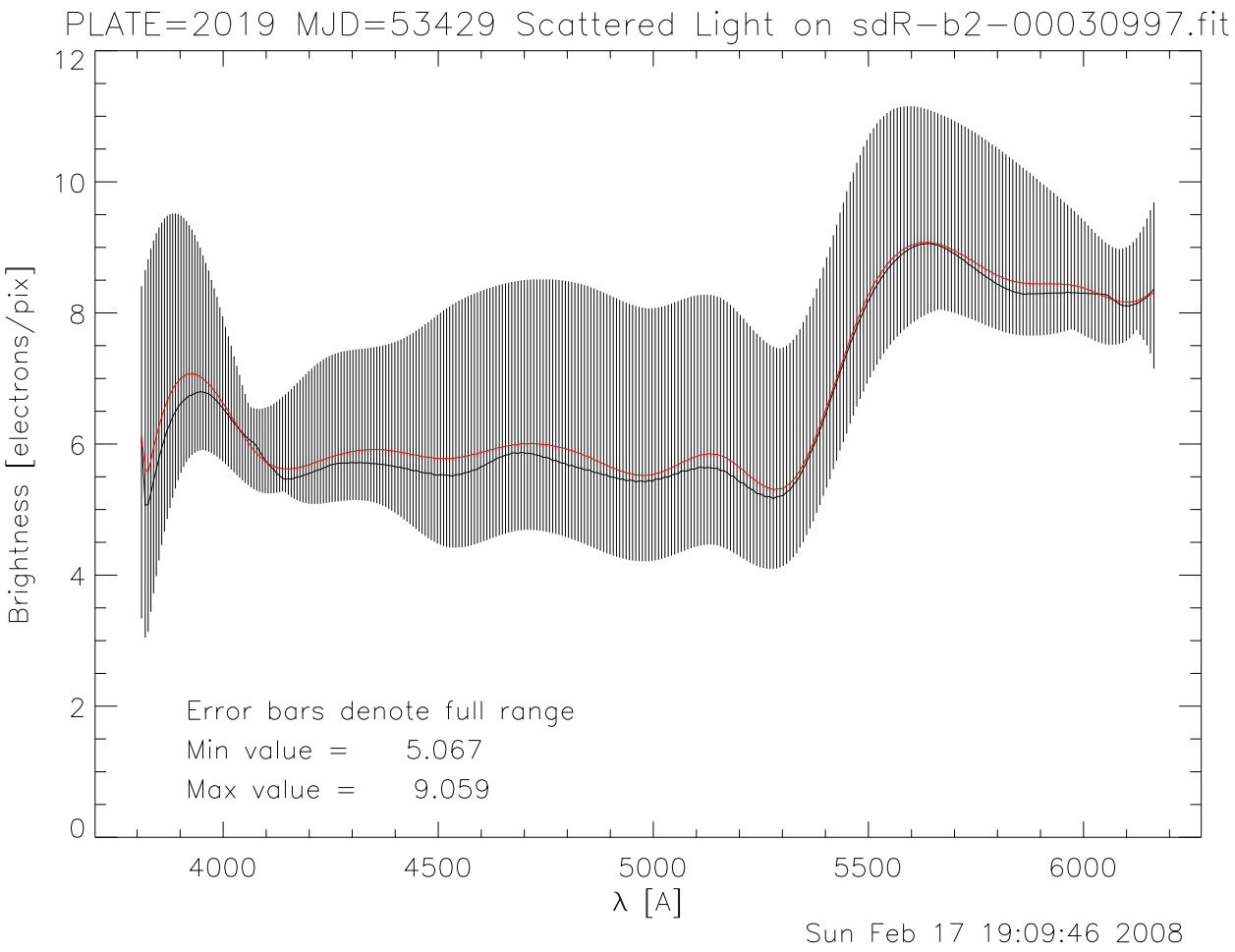

PLATE=2019 MJD=53429 sdR-b2-00030996.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 3.24 %
Fiber number
Flux (5578.9)/Airmass
Focal Distance [mm]
Flux (5578.9)/Airmass
Airmass

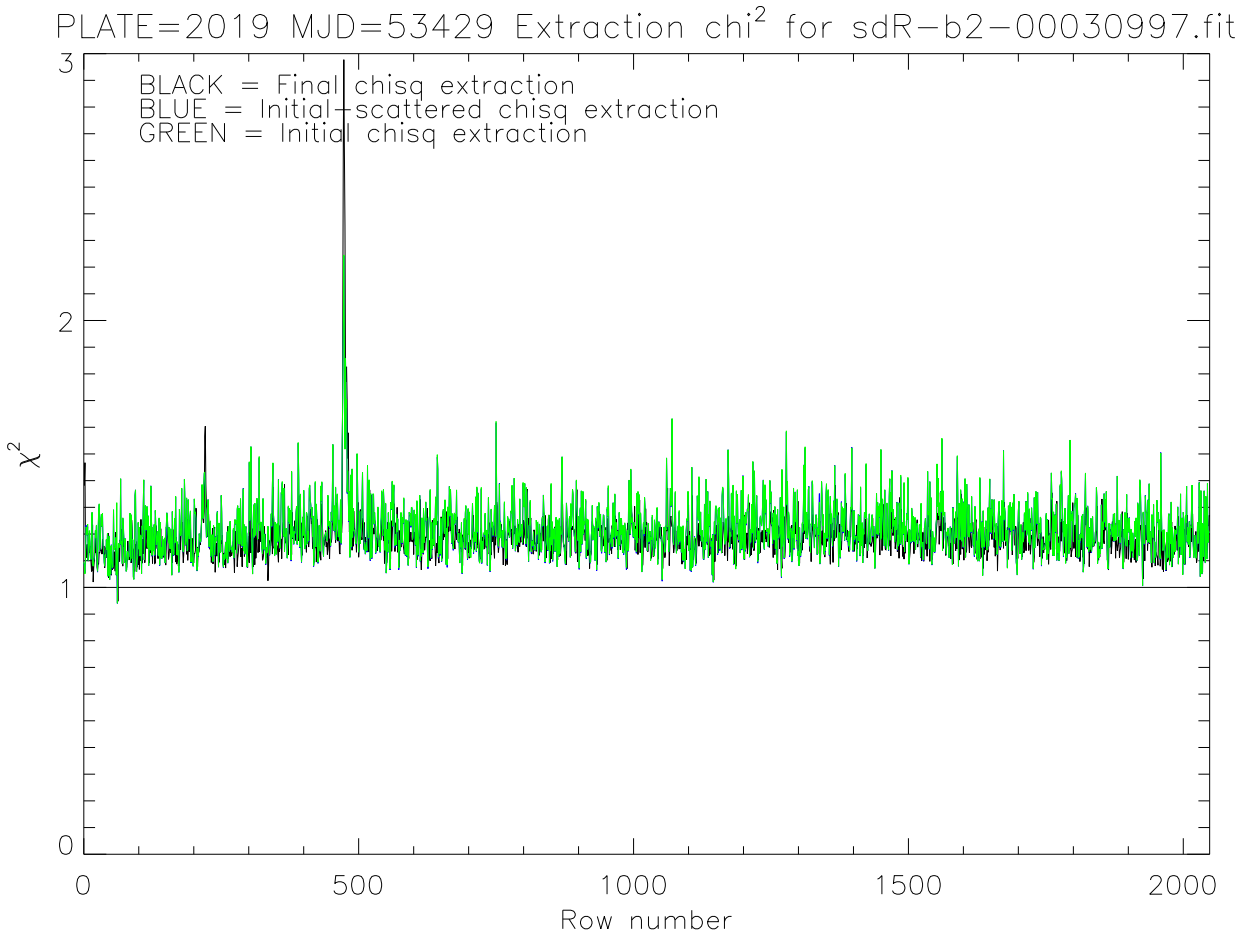

PLATE=2019 MJD=53429 Fiber-Flats for sdR-b2-00030993.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.718
Max value = 1.178
Fiber-Flat
1.5
1.0
0.5
0.0
4000
4500
5000
5500
6000
λ [A]
Sun Feb 17 19:06:06 2008

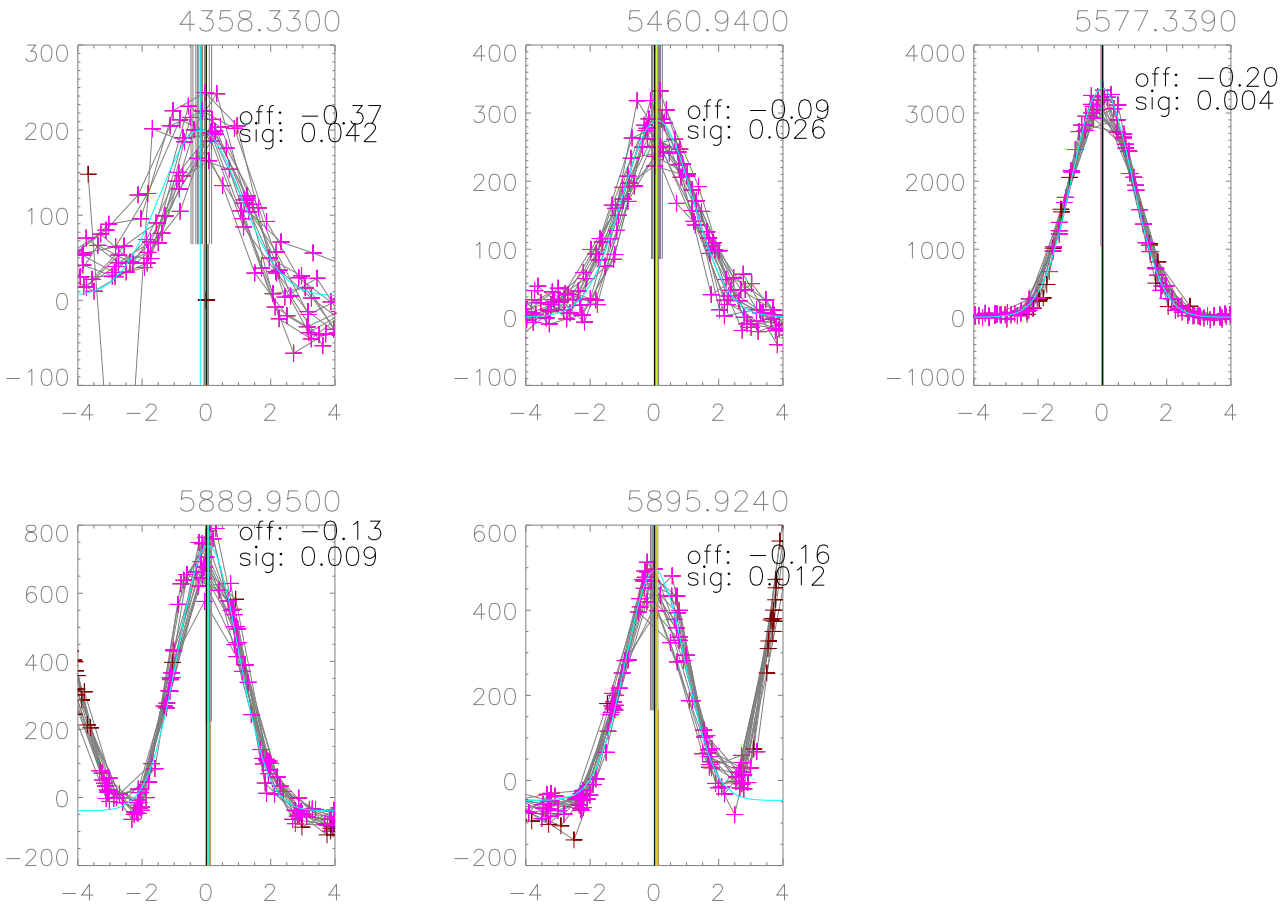

PLATE=2019 MJD=53429 Scattered Light before halo removal on sdR-b2-00030997.f
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
13.6
11.5
11.5
11.5
11.5
11.5
11.5
11.5
11.5
9.3
9.3
9.3
9.3

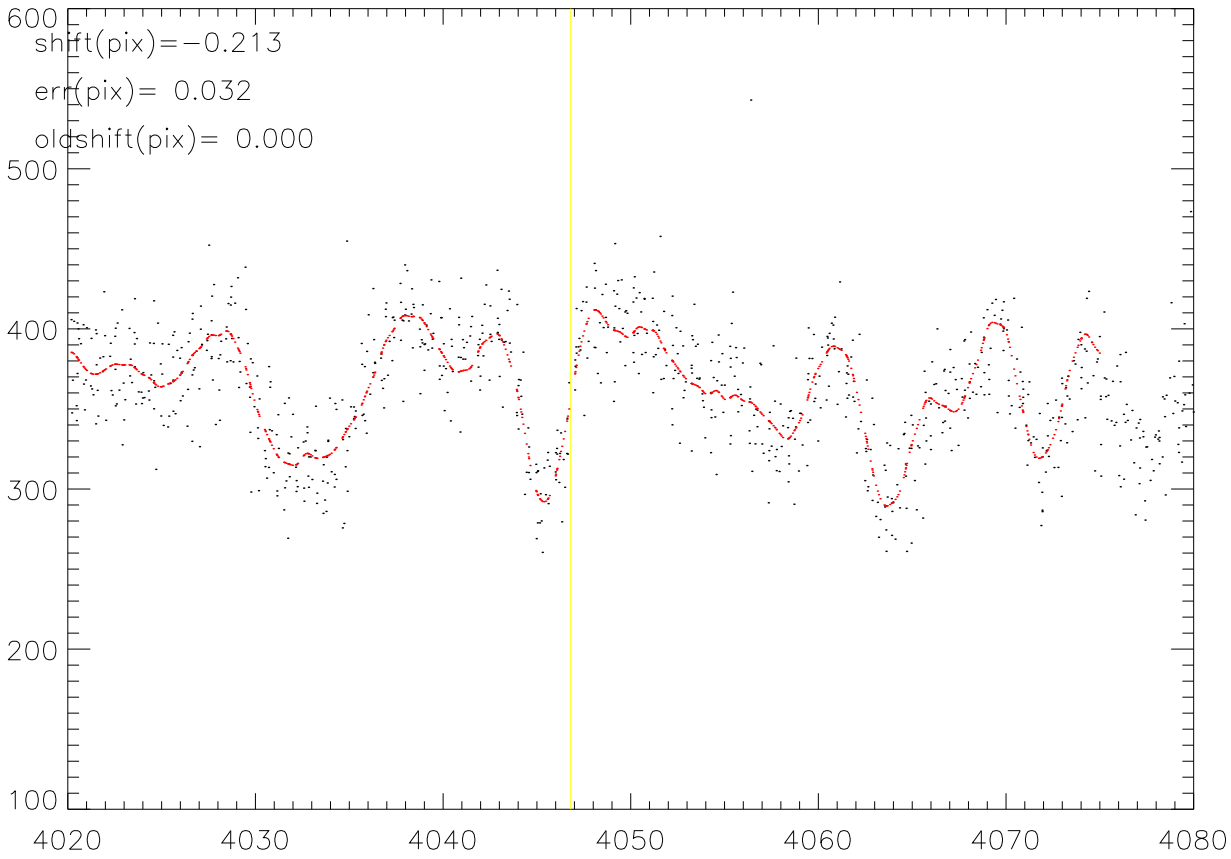

PLATE=2019 MJD=53429 Scattered Light before halo removal on sdR-b2-00030997.f
Brightness [electrons/pix]
20
15
10
5
0
Error bars denote full range
Min value = 9.430
Max value = 14.072
4000
4500
5000
5500
6000
λ [A]
Sun Feb 17 19:06:55 2008

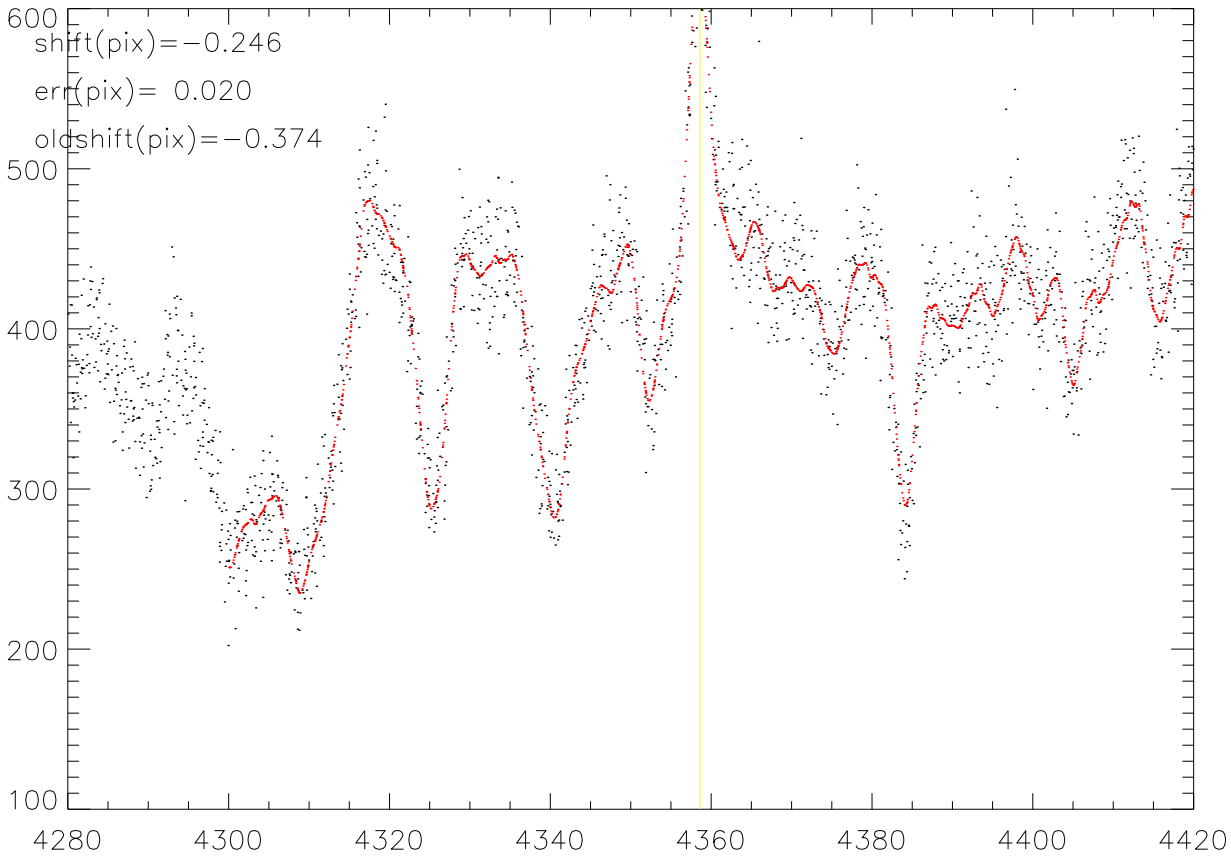

PLATE=2019 MJD=53429 Scattered Light on sdR-b2-00030997.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
6.5
8.4
4.7

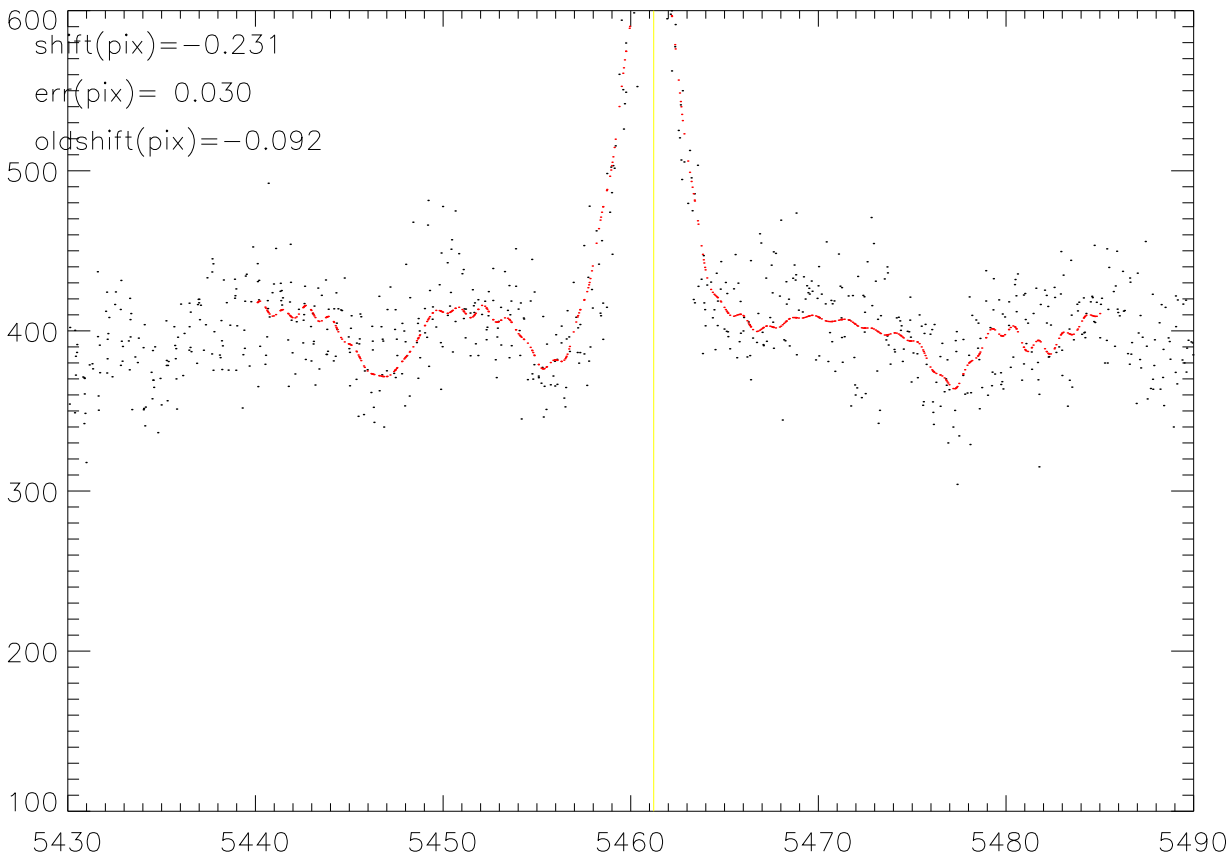

PLATE=2019 MJD=53429 Scattered Light on sdR-b2-00030997.fit
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 5.067
Max value = 9.059
Sun Feb 17 19:09:46 2008

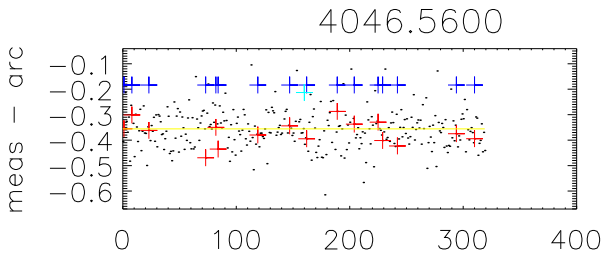

PLATE=2019 MJD=53429 Extraction chi^2 for sdR-b2-00030997.fit
BLACK = Final chisq extraction
BLUE = Initial+scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
0
500
1000
1500
2000
Row number

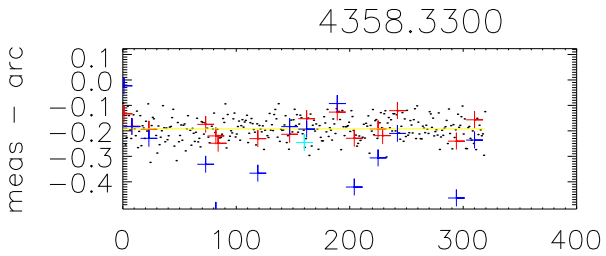

4358.3300
off: −0.37
sig: 0.042
5460.9400
off: −0.09
sig: 0.026
5577.3390
off: −0.20
sig: 0.004
5889.9500
off: −0.13
sig: 0.009
5895.9240
off: −0.16
sig: 0.012

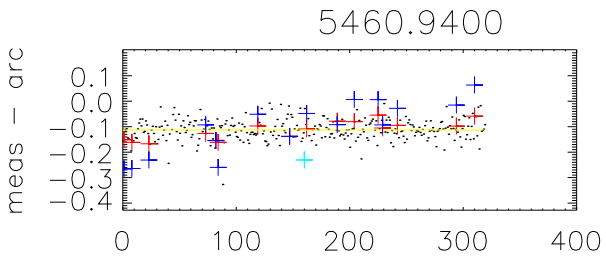

shift(pix)=−0.213
err(pix)= 0.032
oldshift(pix)= 0.000
600
500
400
300
200
100
4020
4030
4040
4050
4060
4070
4080

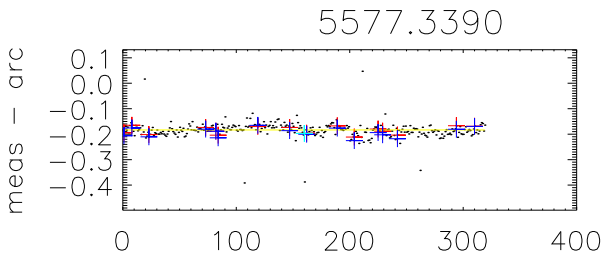

shift(pix)=−0.246
err(pix)= 0.020
oldshift(pix)=−0.374
600
500
400
300
200
100
4280
4300
4320
4340
4360
4380
4400
4420

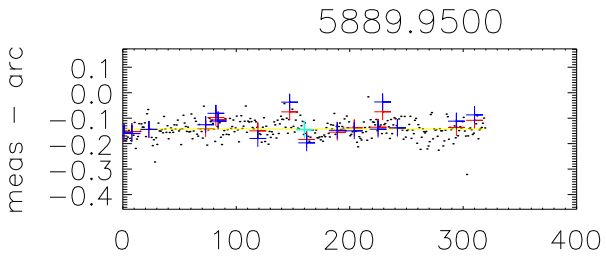

shift(pix)=−0.231
err(pix)= 0.030
oldshift(pix)=−0.092
600
500
400
300
200
100
5430
5440
5450
5460
5470
5480
5490

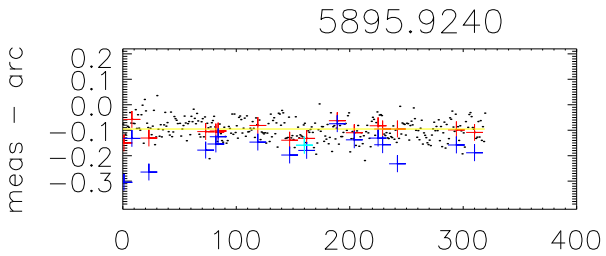

4046.5600
meas − arc
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
0
100
200
300
400

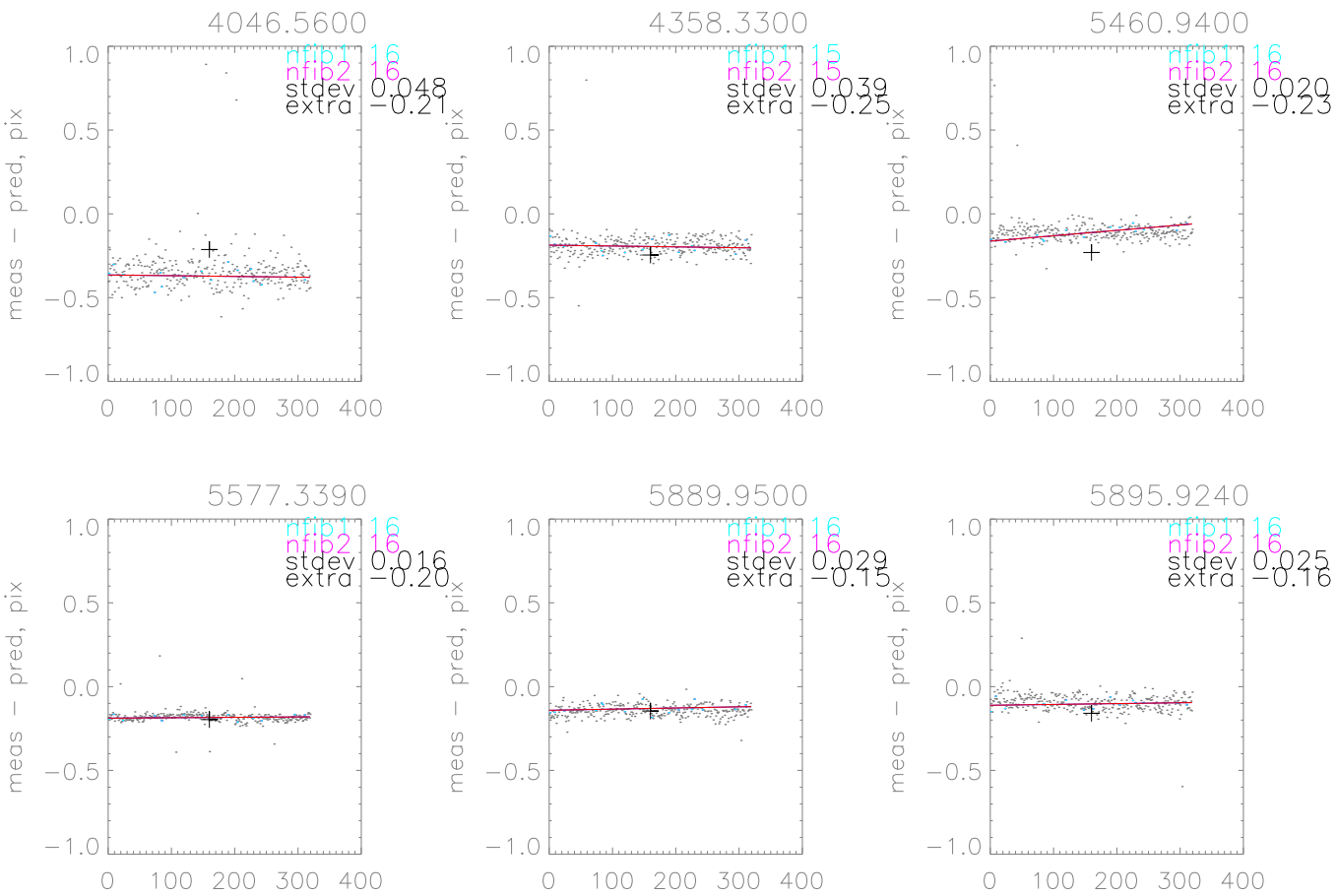

4358.3300
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

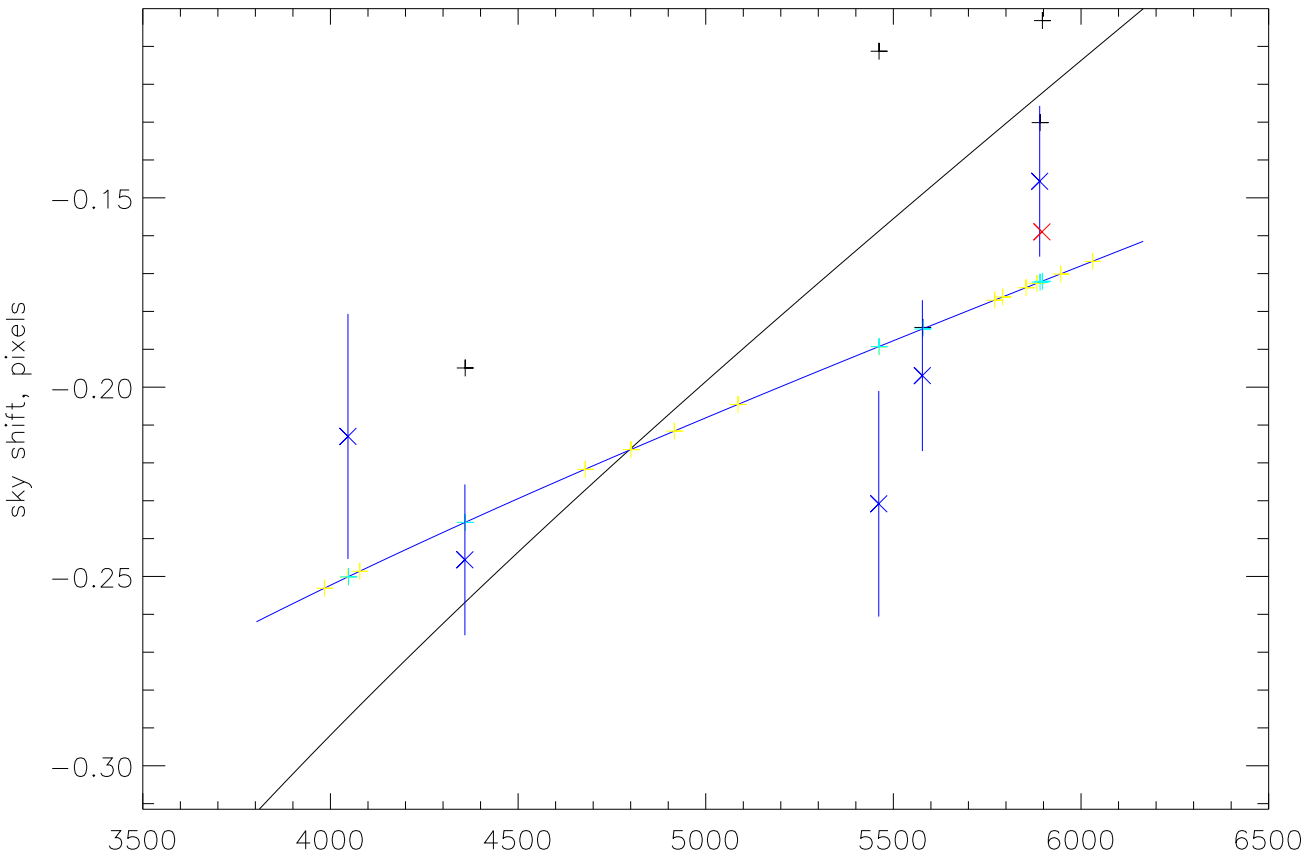

5460.9400
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

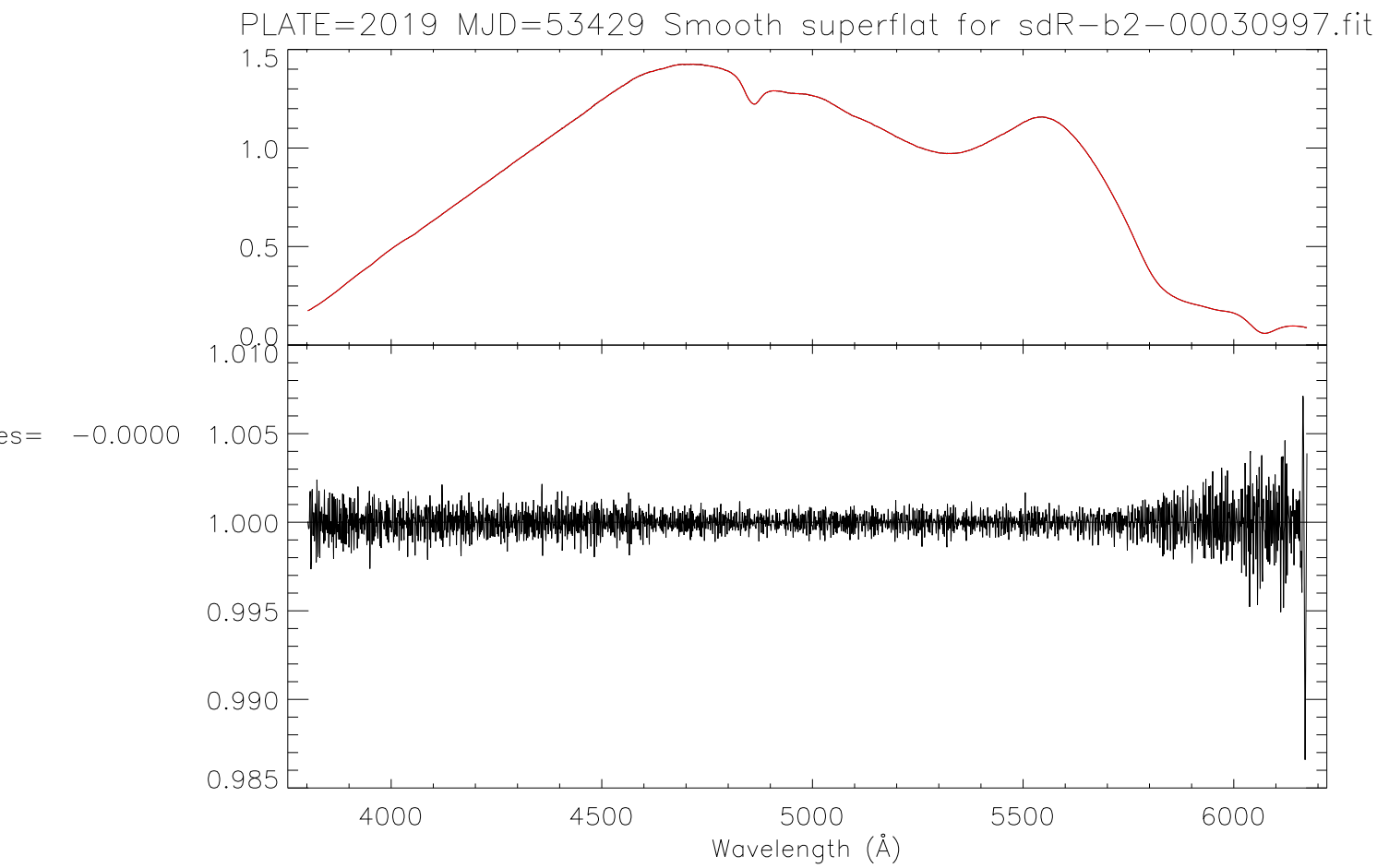

5577.3390
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

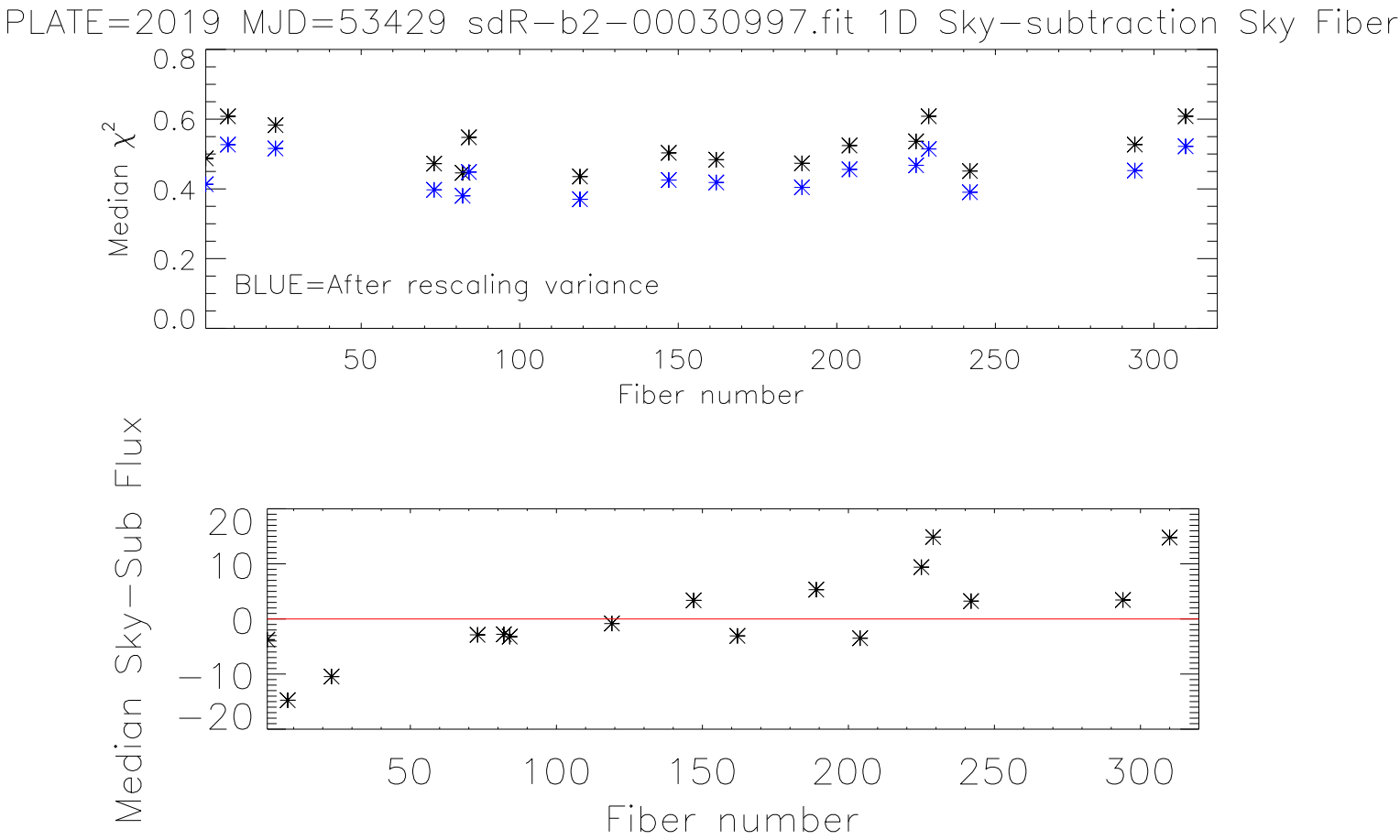

5889.9500
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

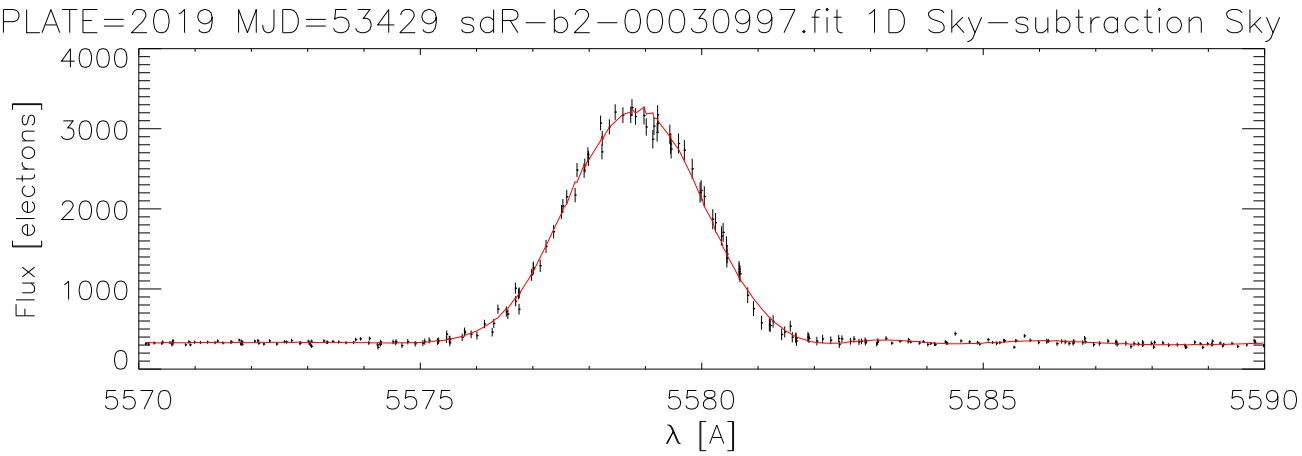

5895.9240
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

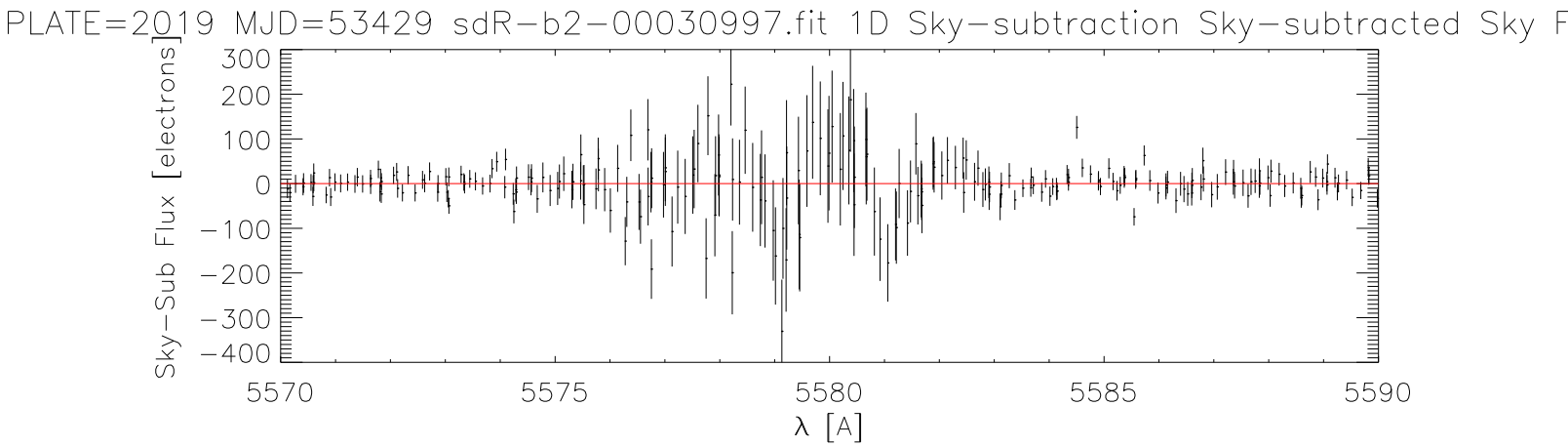

4046.5600
nfib1 16
nfib2 16
stdev 0.048
extra −0.21
4358.3300
nfib1 15
nfib2 15
stdev 0.039
extra −0.25
5460.9400
nfib1 16
nfib2 16
stdev 0.020
extra −0.23
5577.3390
nfib1 16
nfib2 16
stdev 0.016
extra −0.20
5889.9500
nfib1 16
nfib2 16
stdev 0.029
extra −0.15
5895.9240
nfib1 16
nfib2 16
stdev 0.025
extra −0.16
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

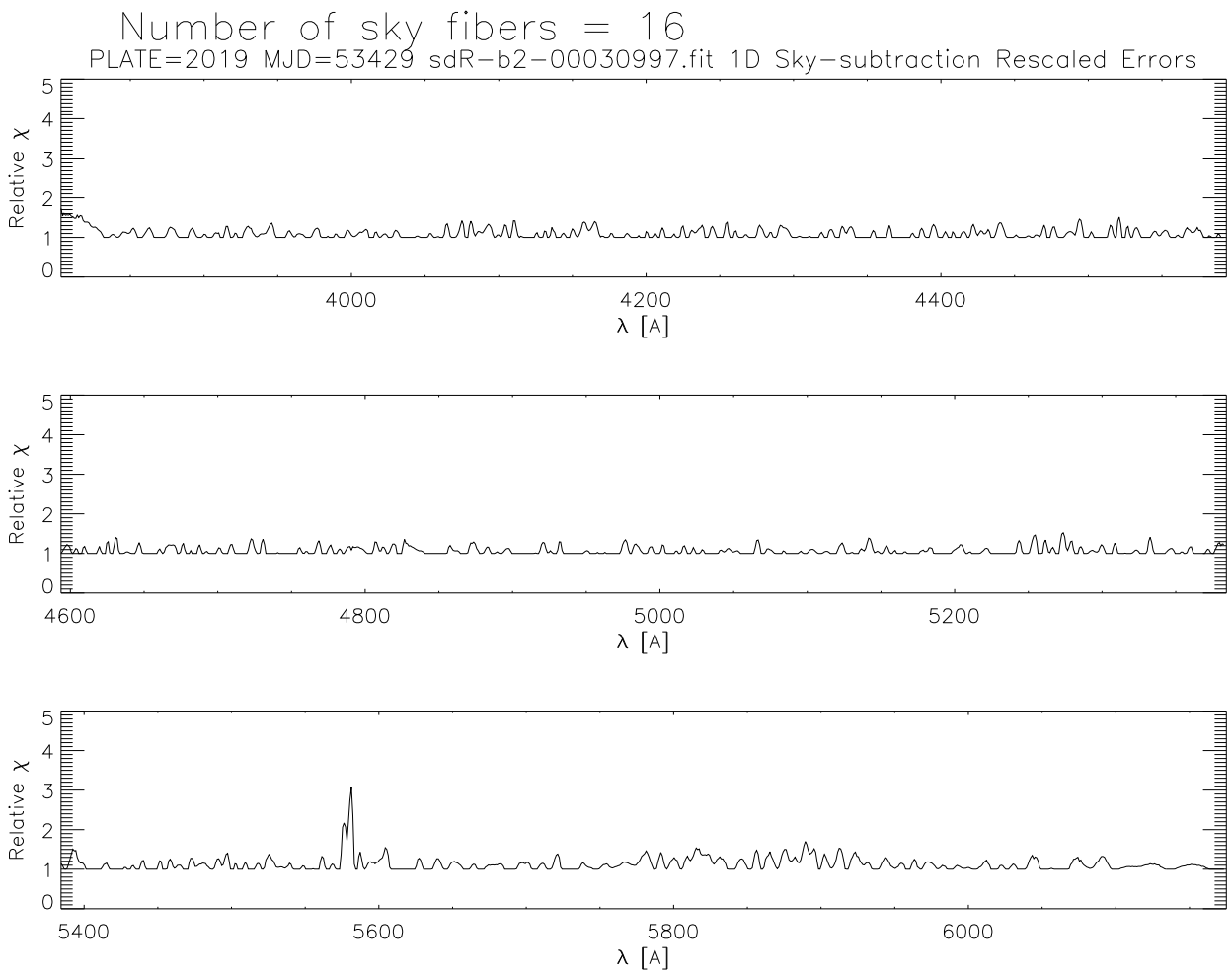

sky shift, pixels
−0.15
−0.20
−0.25
−0.30
3500
4000
4500
5000
5500
6000
6500

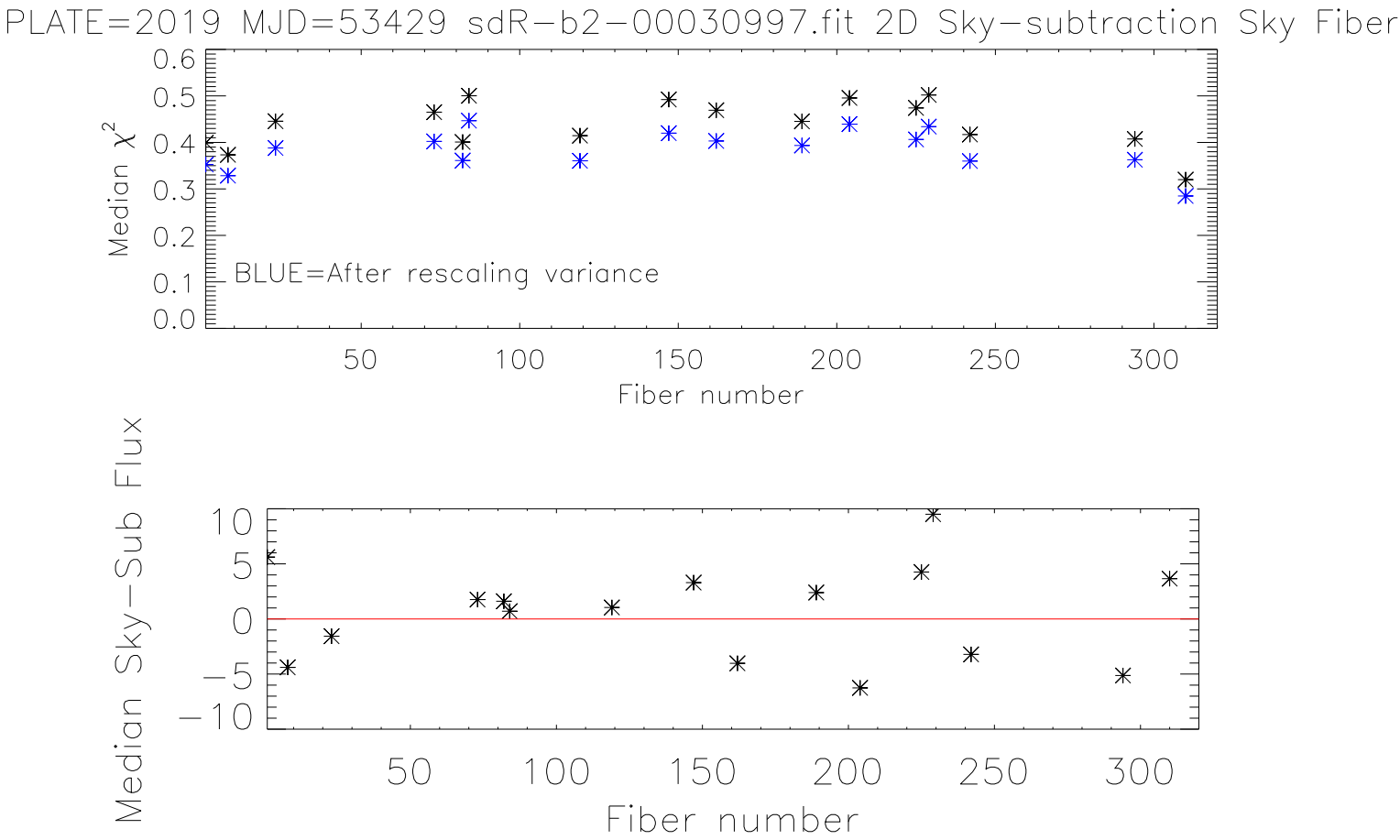

PLATE=2019 MJD=53429 Smooth superflat for sdR-b2-00030997.fit
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
0.985
es= −0.0000
4000
4500
5000
5500
6000
Wavelength (Å)

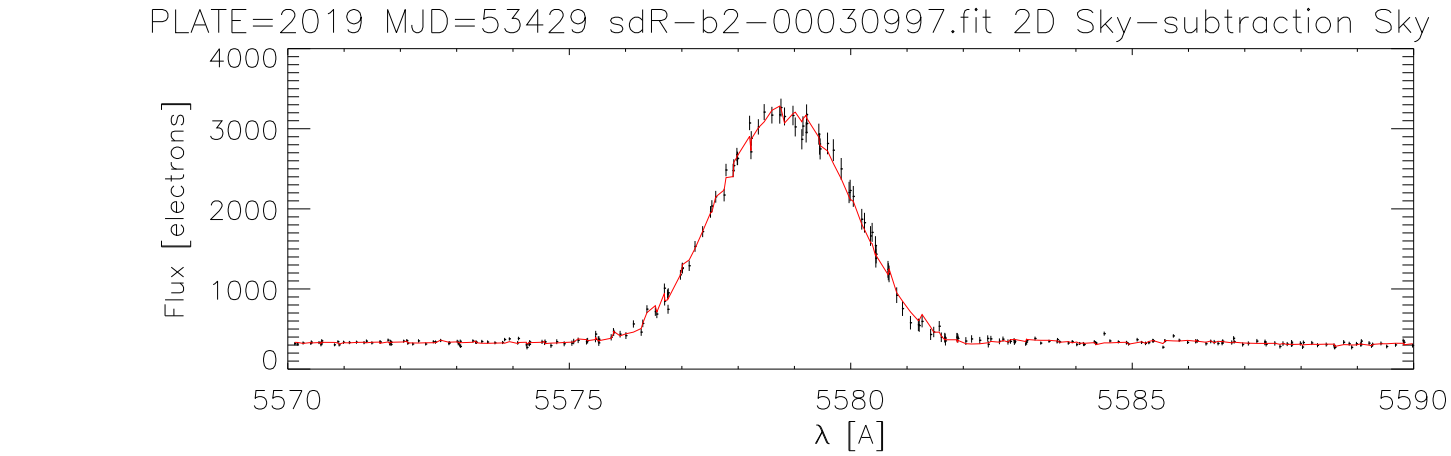

PLATE=2019 MJD=53429 sdR-b2-00030997.fit 1D Sky-subtraction Sky Fiber
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
20
10
0
-10
-20
50
100
150
200
250
300
Fiber number

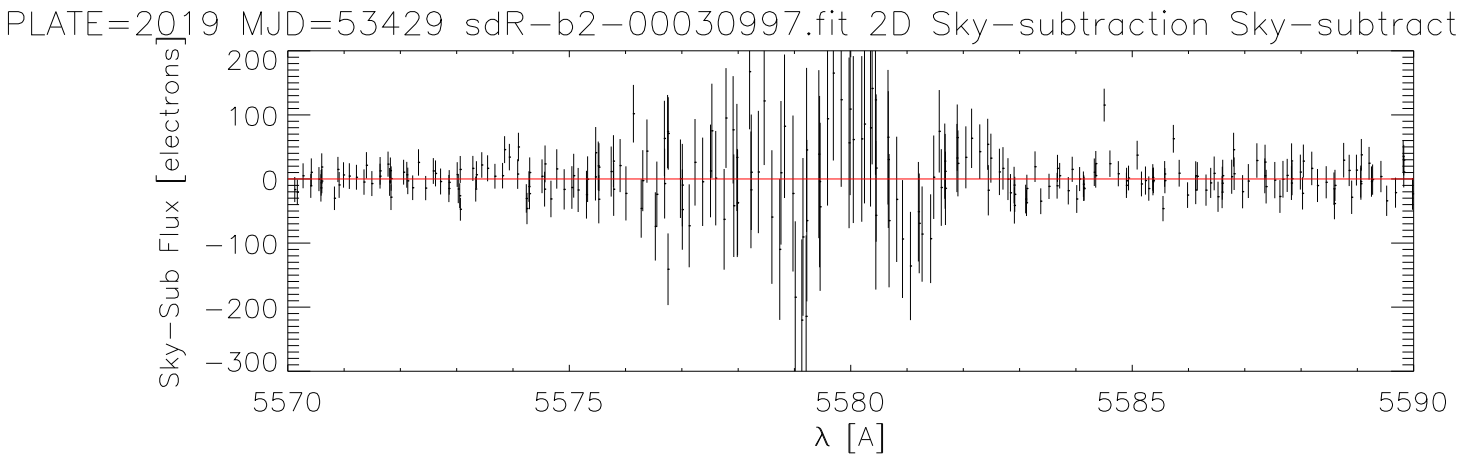

PLATE=2019 MJD=53429 sdR-b2-00030997.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

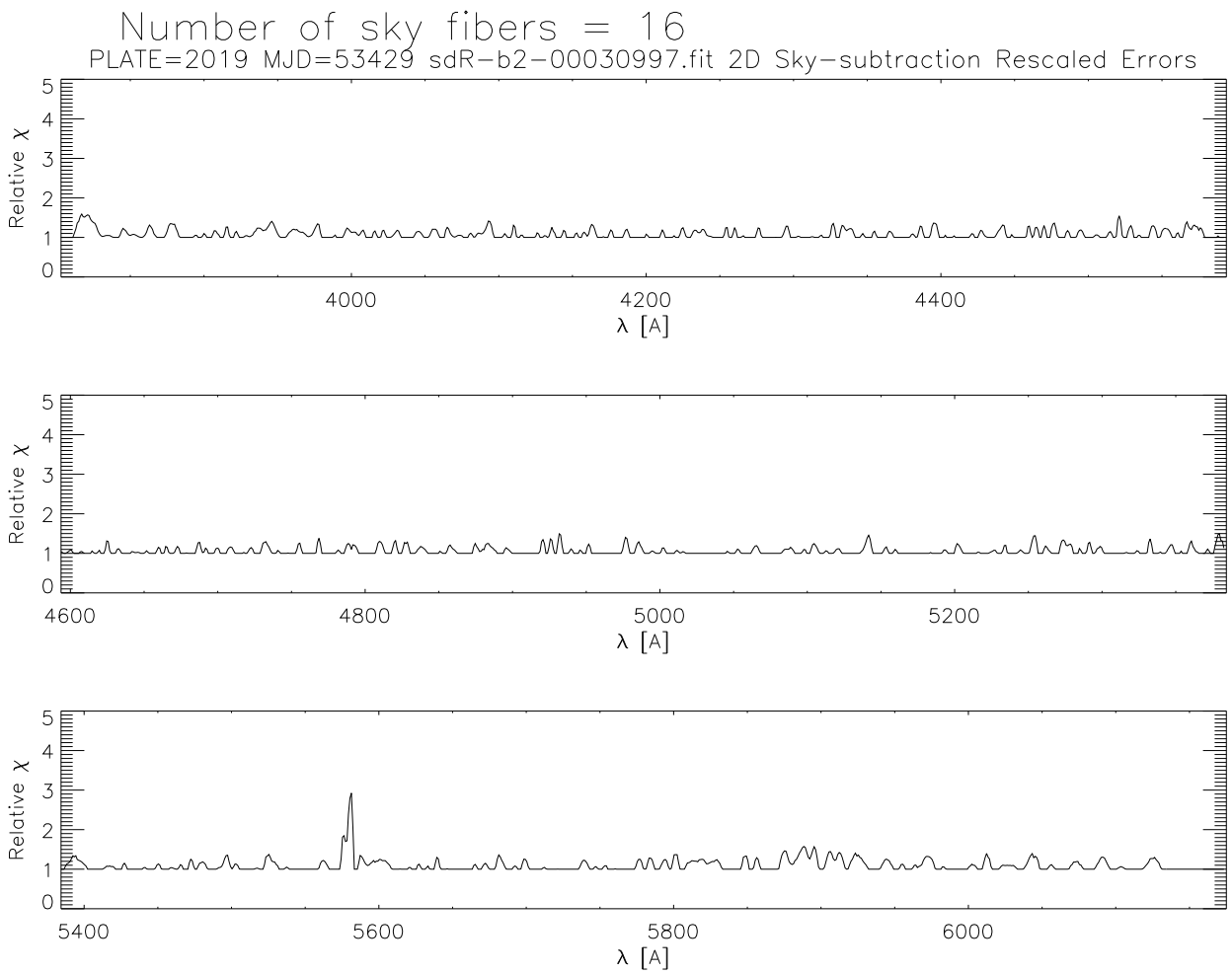

PLATE=2019 MJD=53429 sdR-b2-00030997.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
-300
-400
5570
5575
5580
5585
5590
λ [A]

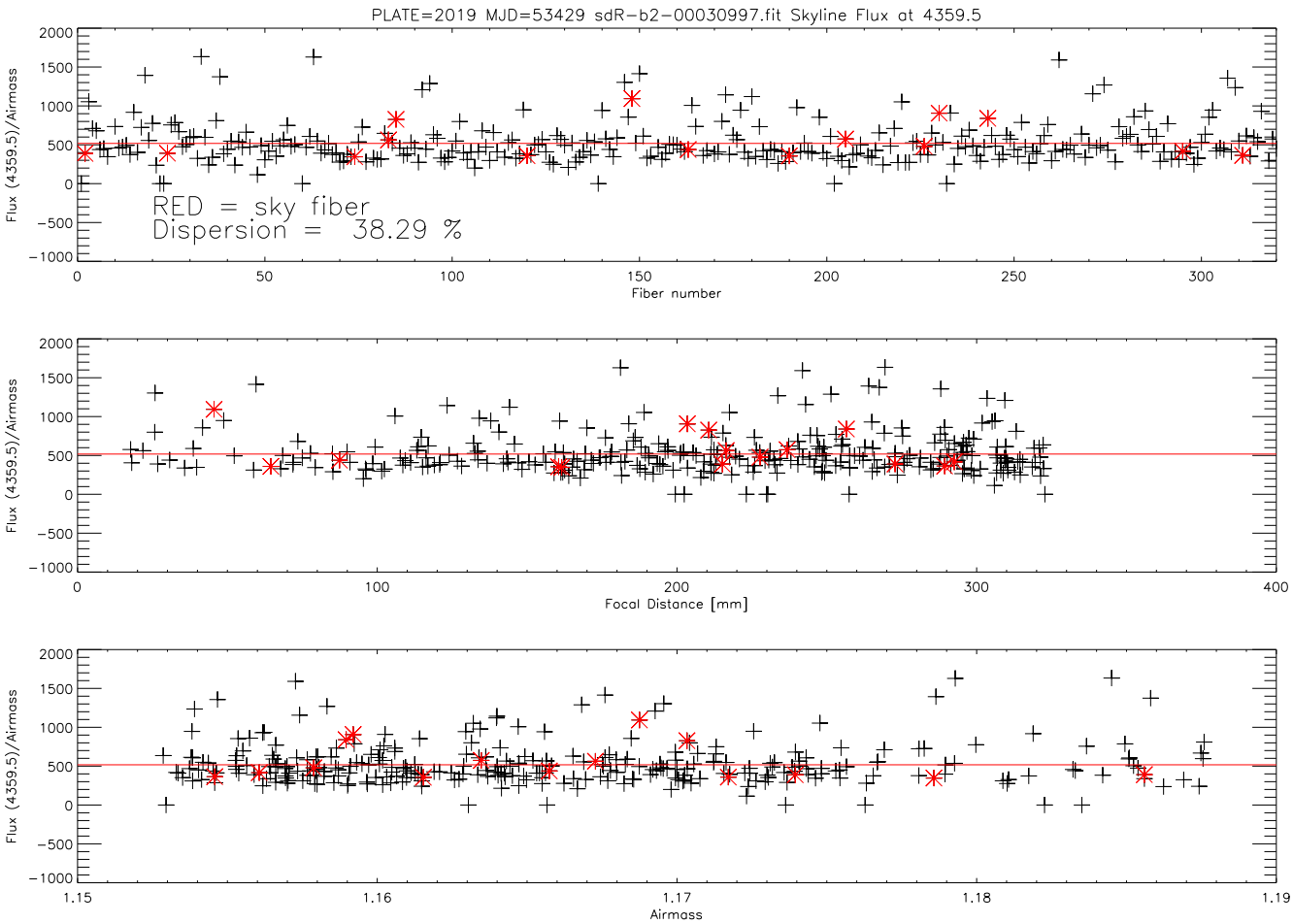

Number of sky fibers = 16
PLATE=2019 MJD=53429 sdR-b2-00030997.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

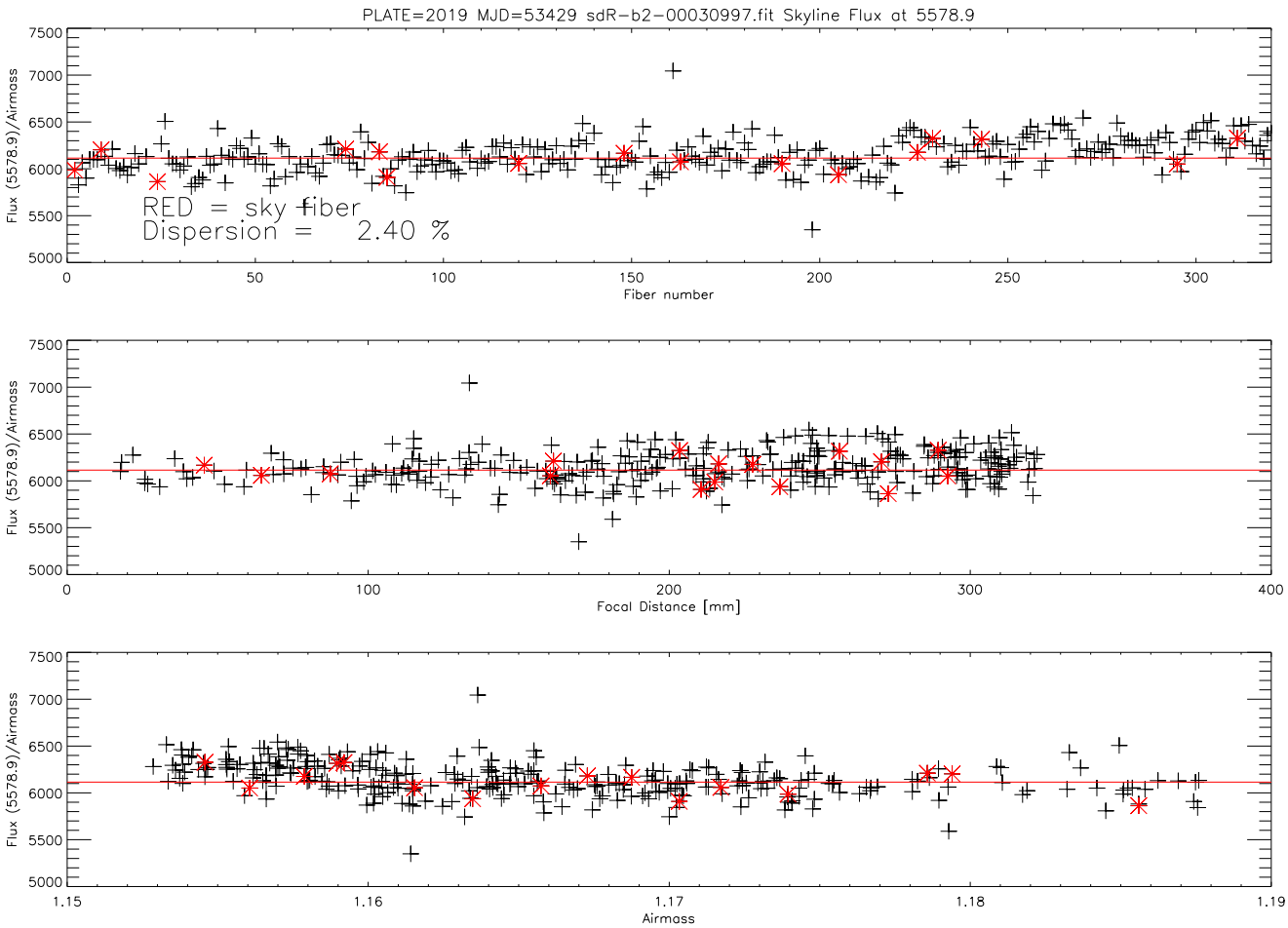

PLATE=2019 MJD=53429 sdR-b2-00030997.fit 2D Sky-subtraction Sky Fiber
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

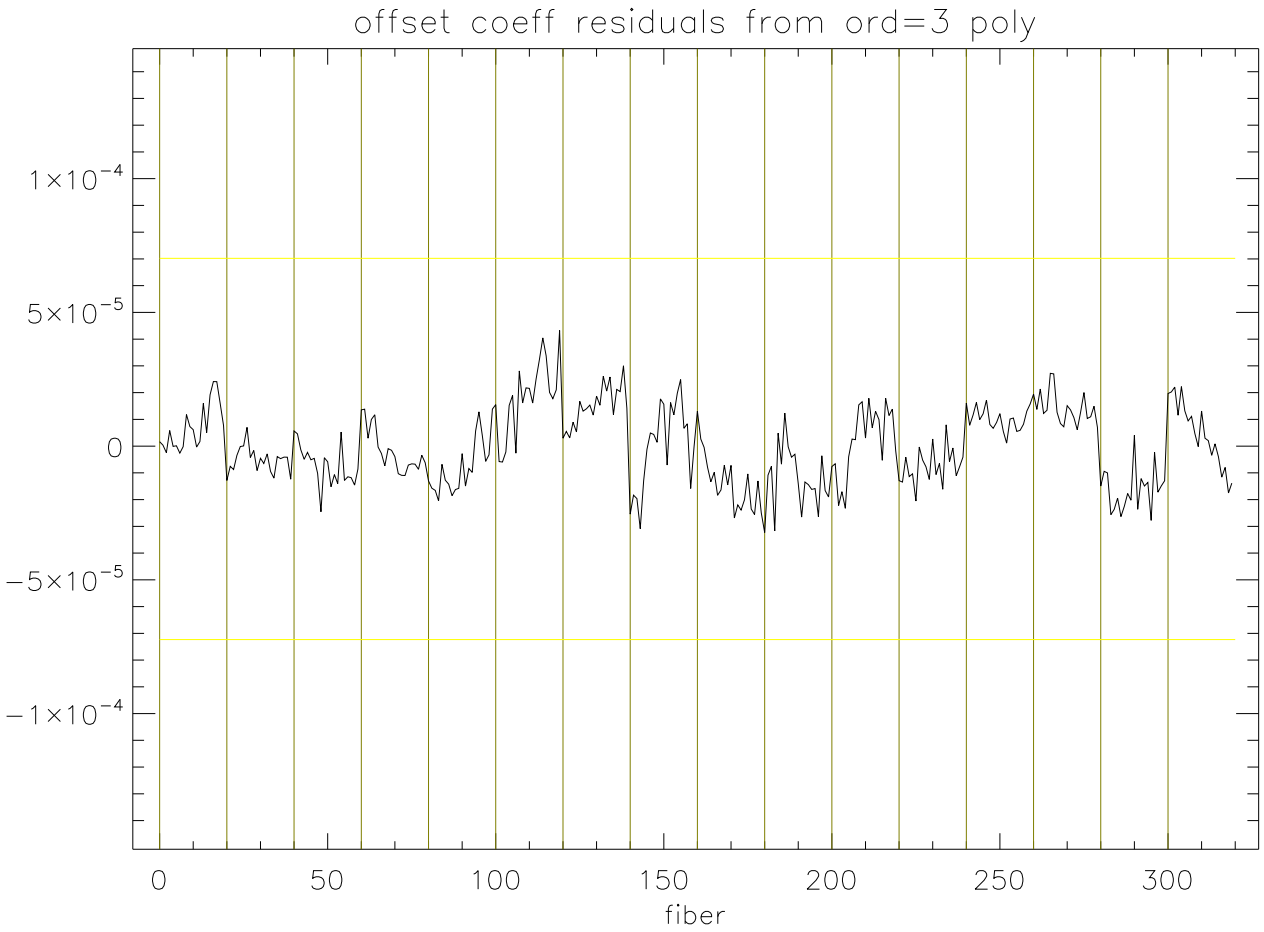

PLATE=2019 MJD=53429 sdR-b2-00030997.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
5570
5575
5580
5585
5590
λ [A]

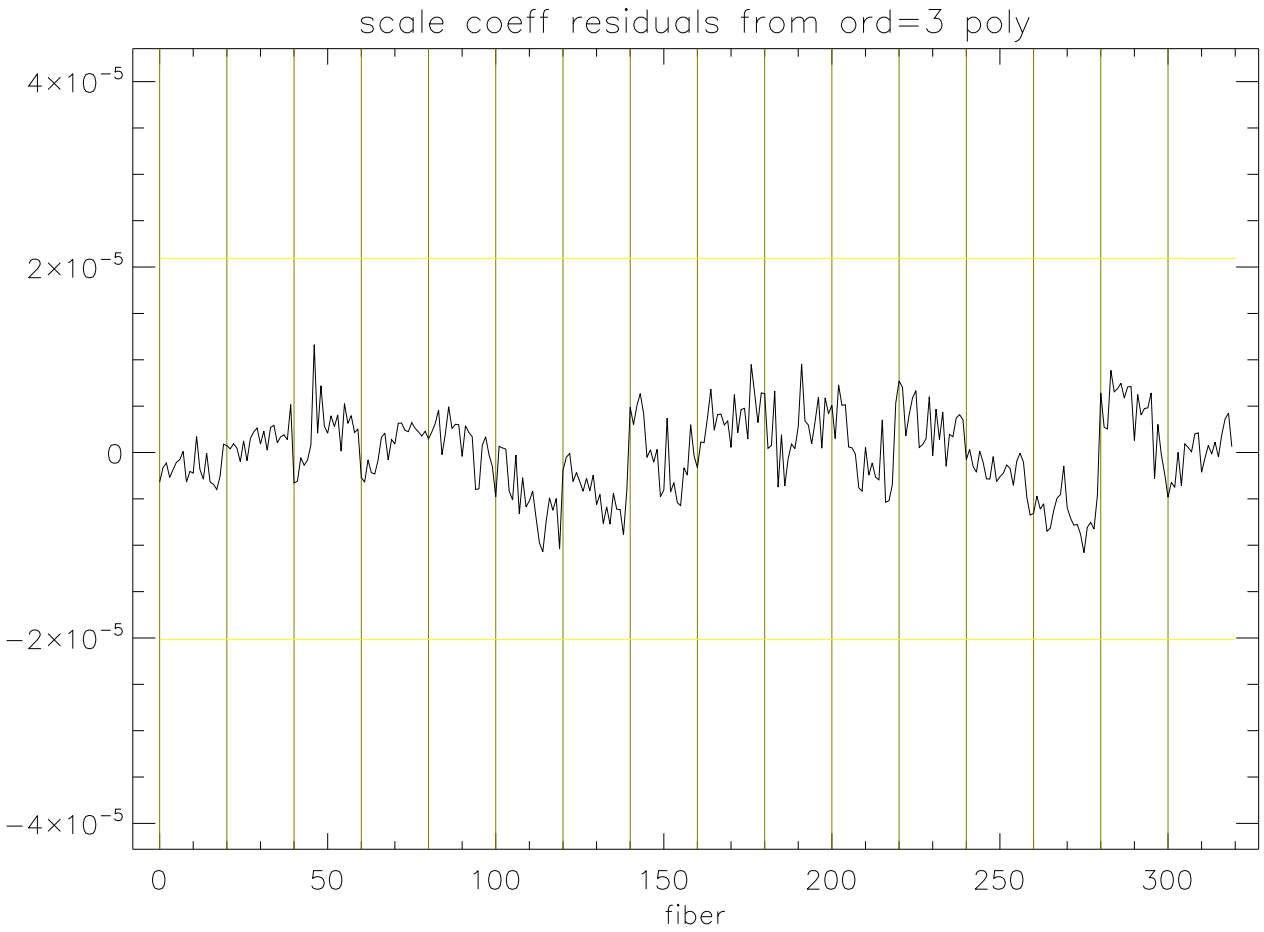

PLATE=2019 MJD=53429 sdR-b2-00030997.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
-300
5570
5575
5580
5585
5590
λ [A]

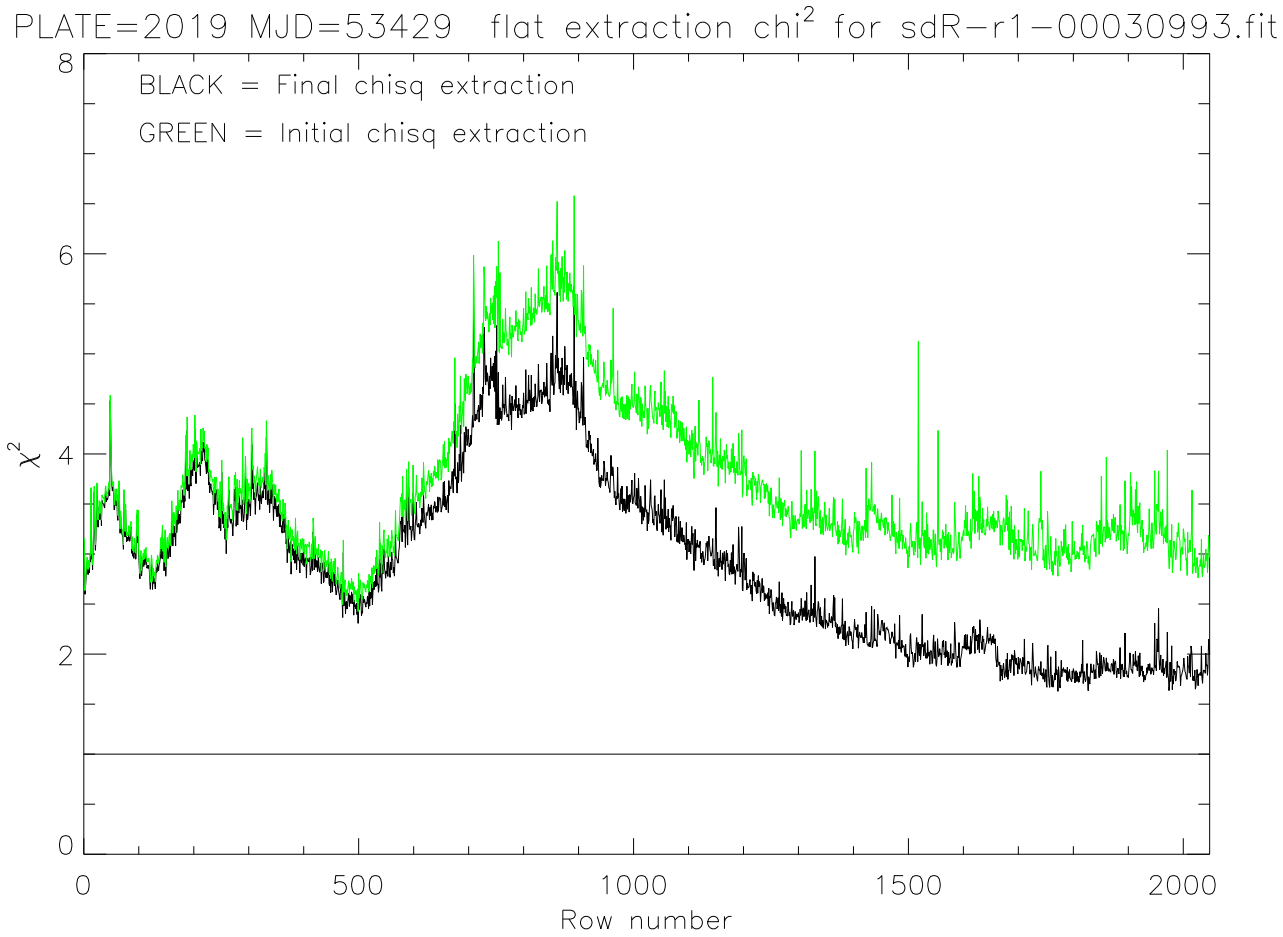

Number of sky fibers = 16
PLATE=2019 MJD=53429 sdR-b2-00030997.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000

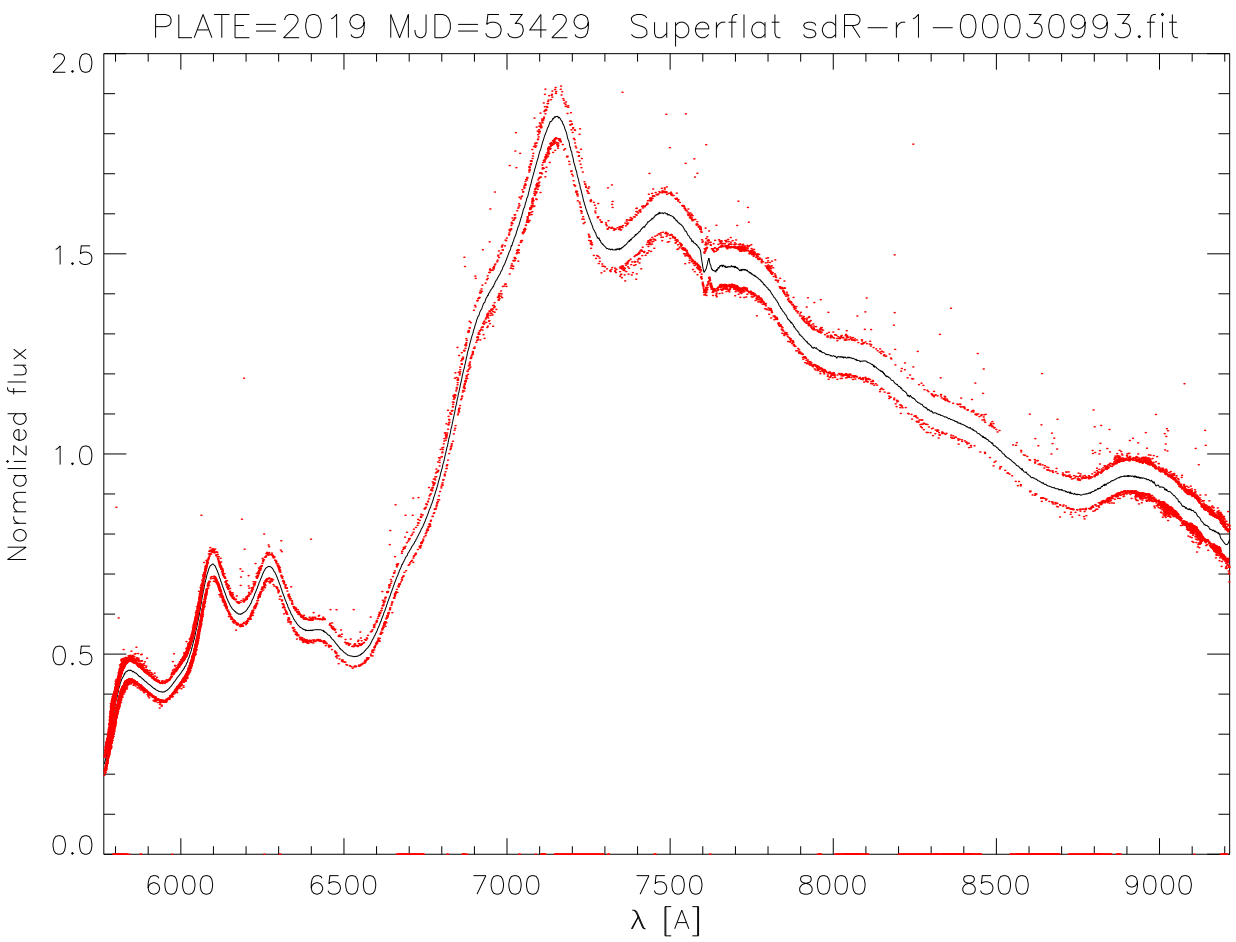

PLATE=2019 MJD=53429 sdR-b2-00030997.fit Skyline Flux at 4359.5
Flux (4359.5)/Airmass
RED = sky fiber
Dispersion = 38.29 %
Fiber number
Flux (4359.5)/Airmass
Focal Distance [mm]
Flux (4359.5)/Airmass
Airmass

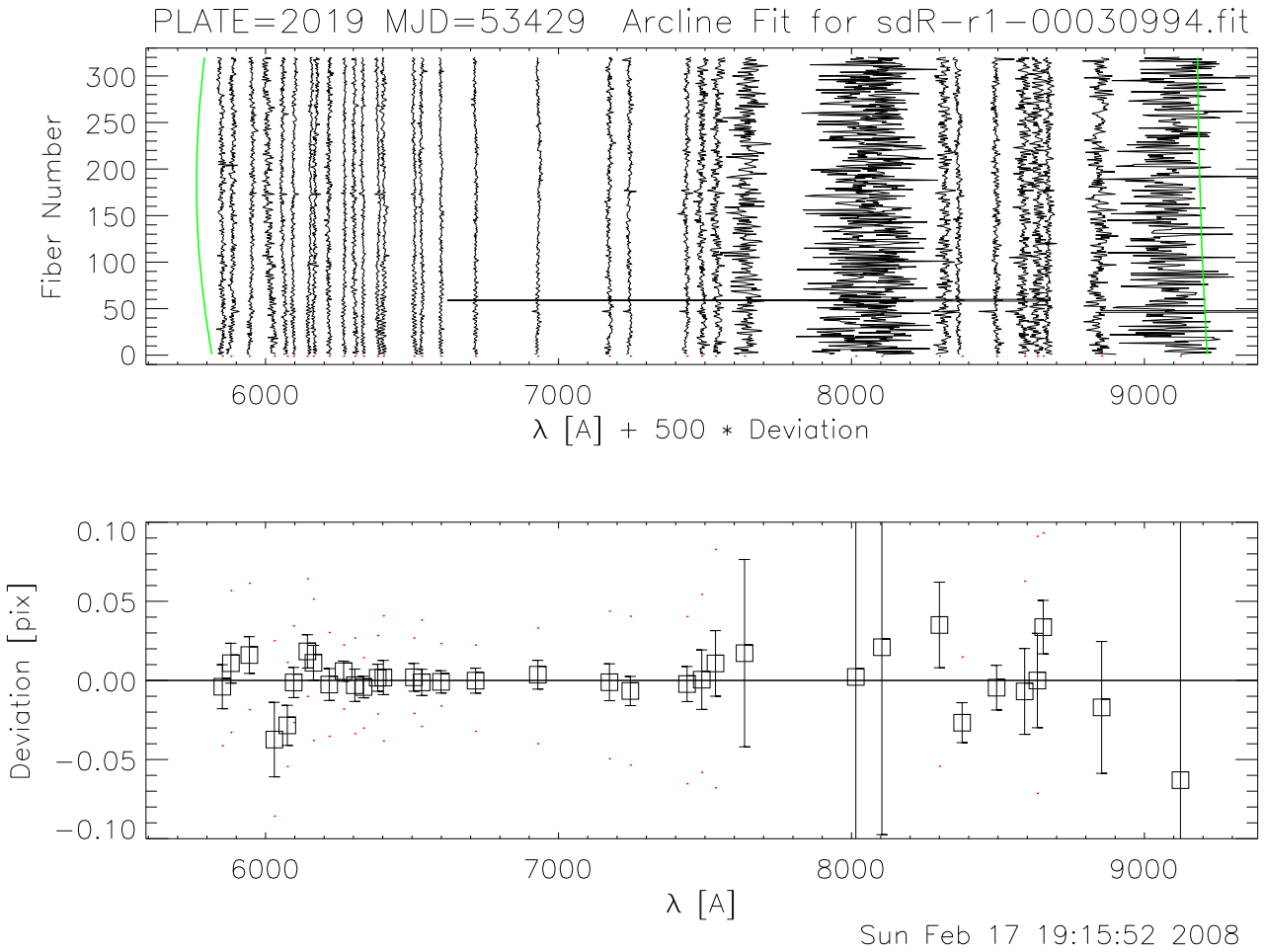

PLATE=2019 MJD=53429 sdR-b2-00030997.fit Skyline Flux at 5578.9
Flux (5578.9)/Airmass
RED = sky fiber
Dispersion = 2.40 %
Fiber number
Flux (5578.9)/Airmass
Focal Distance [mm]
Flux (5578.9)/Airmass
Airmass

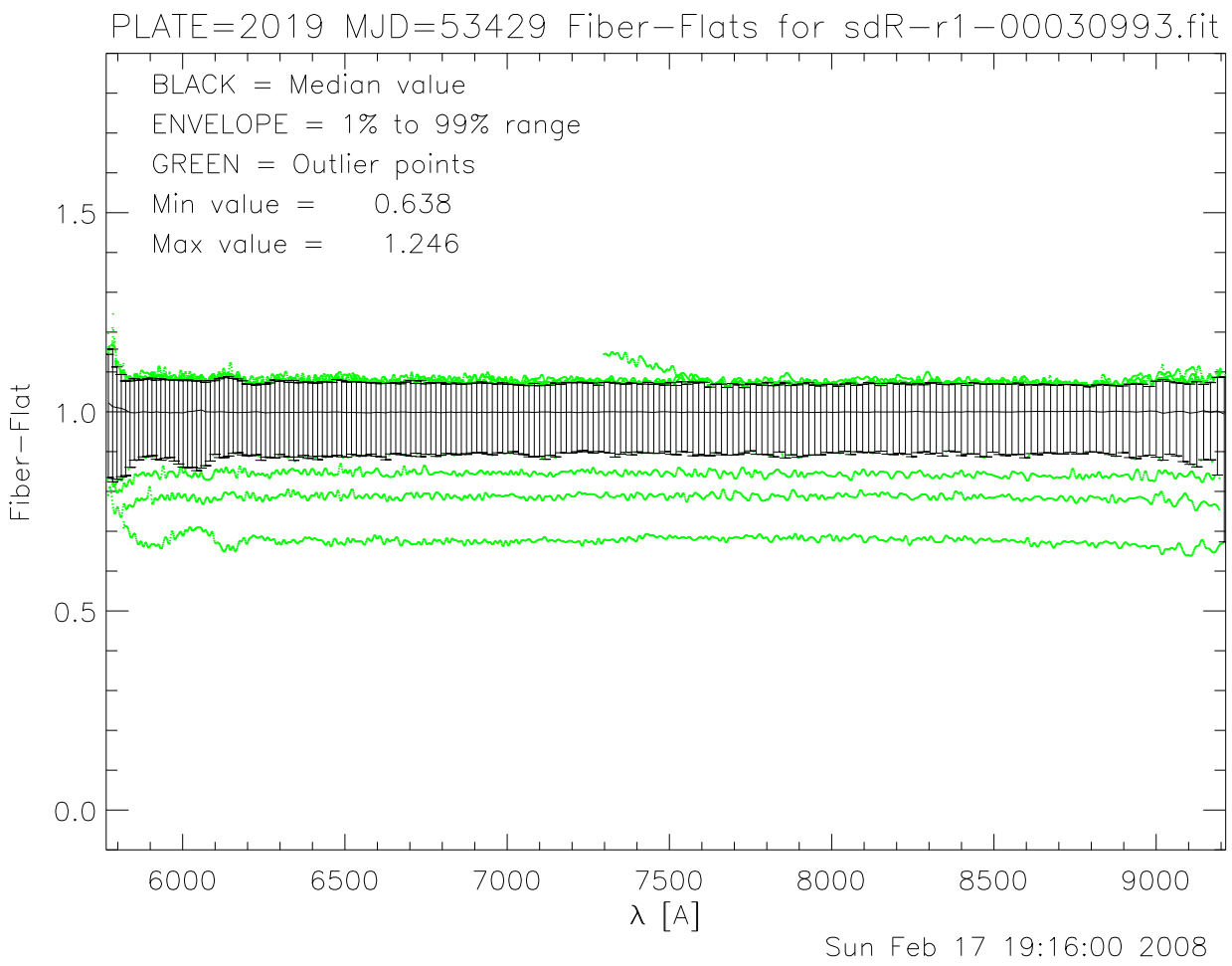

offset coeff residuals from ord=3 poly
1×10⁻⁴
5×10⁻⁵
0
−5×10⁻⁵
−1×10⁻⁴
0
50
100
150
200
250
300
fiber

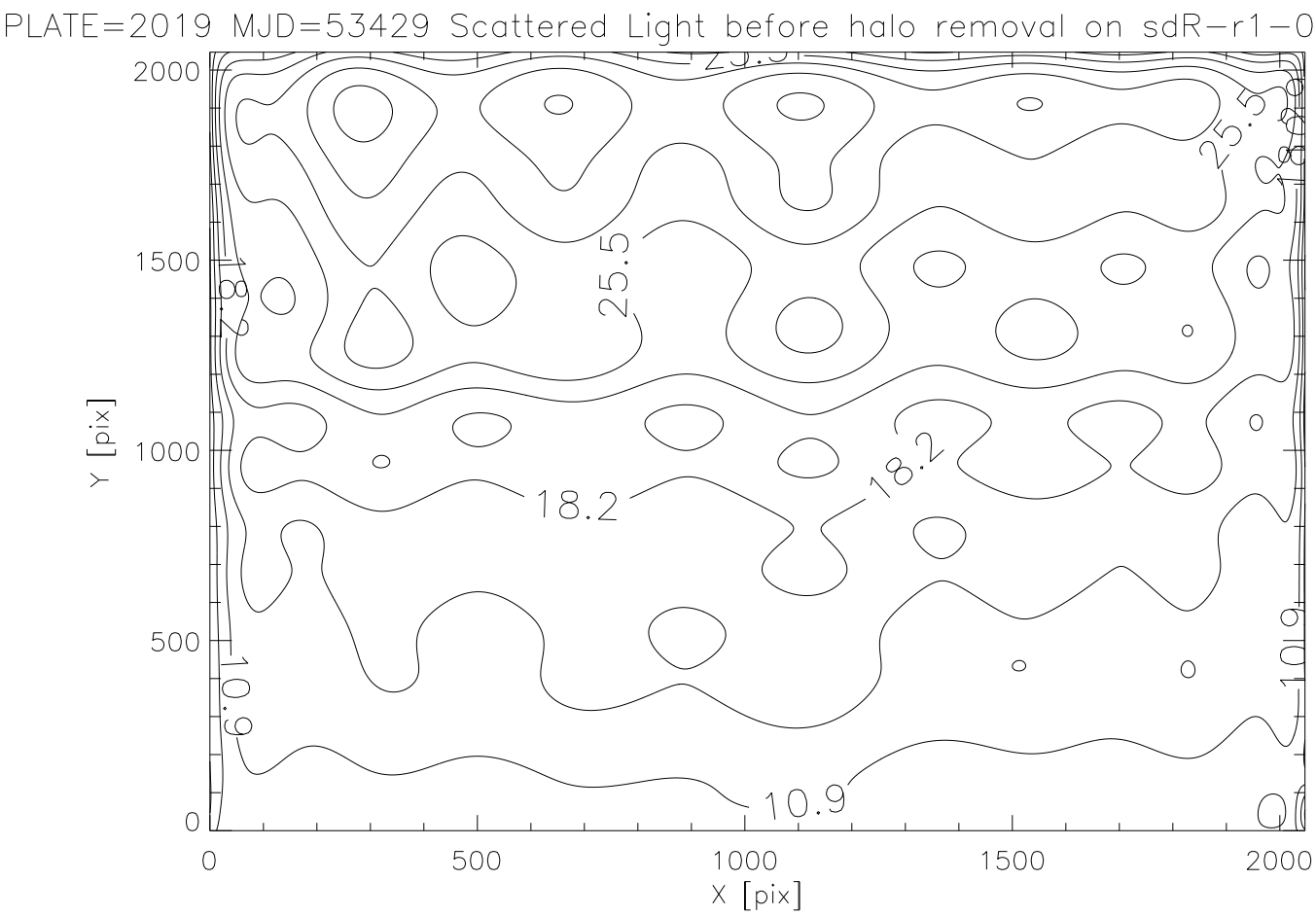

scale coeff residuals from ord=3 poly
4×10⁻⁵
2×10⁻⁵
0
−2×10⁻⁵
−4×10⁻⁵
0
50
100
150
200
250
300
fiber

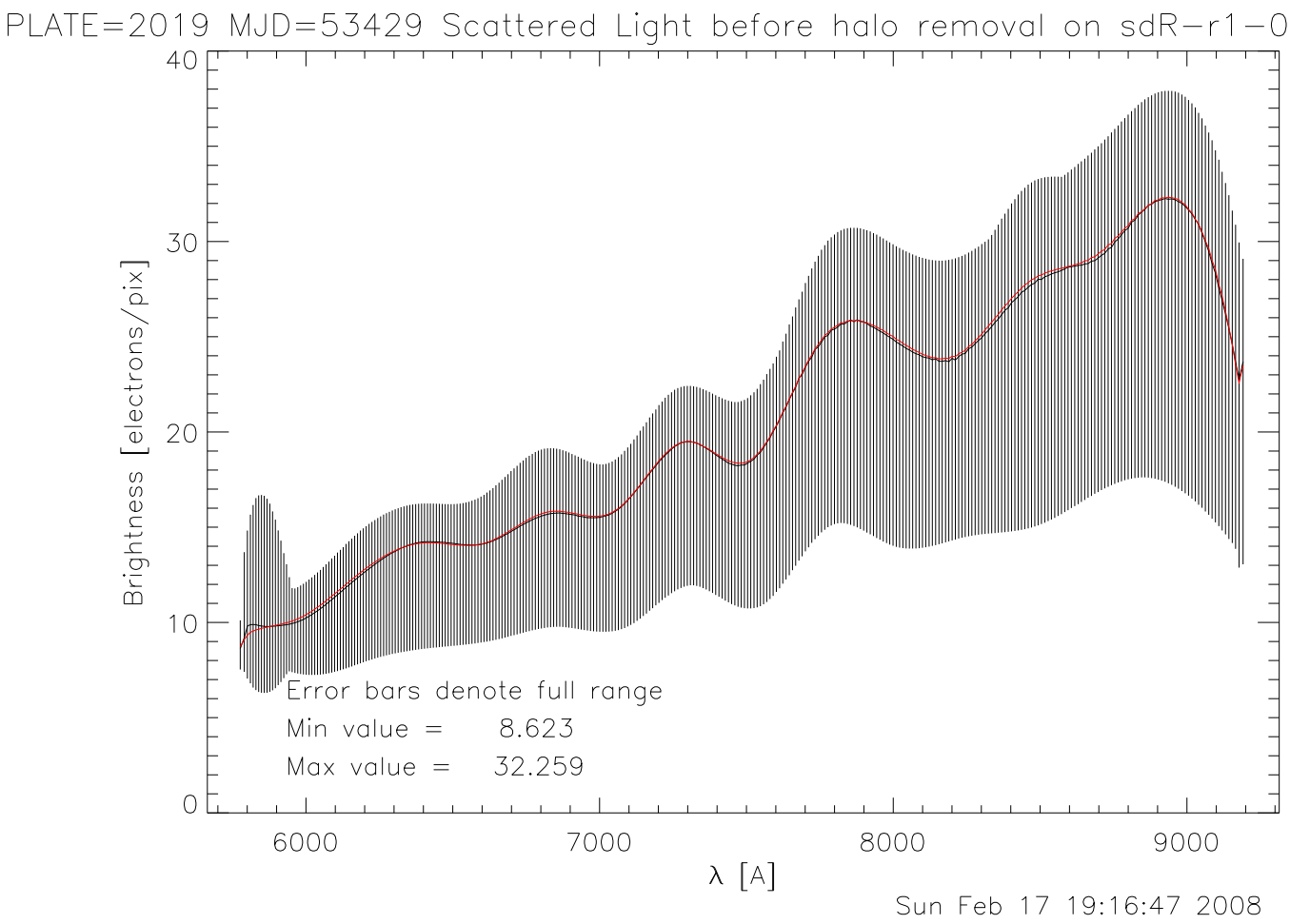

PLATE=2019 MJD=53429 flat extraction chi^2 for sdR−r1−00030993.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
0
500
1000
1500
2000
Row number

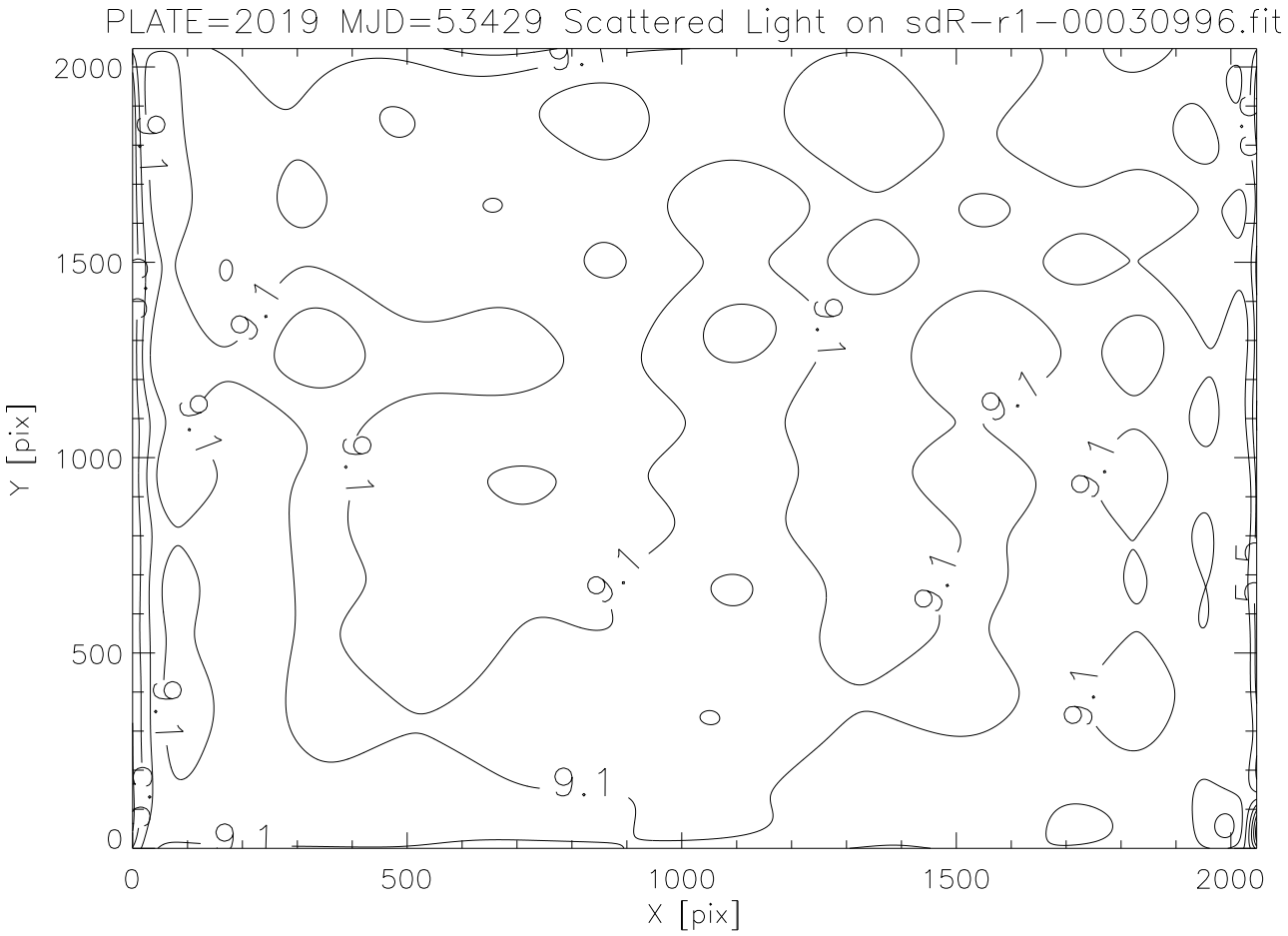

PLATE=2019 MJD=53429 Superflat sdR-r1-00030993.fit
Normalized flux
2.0
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]

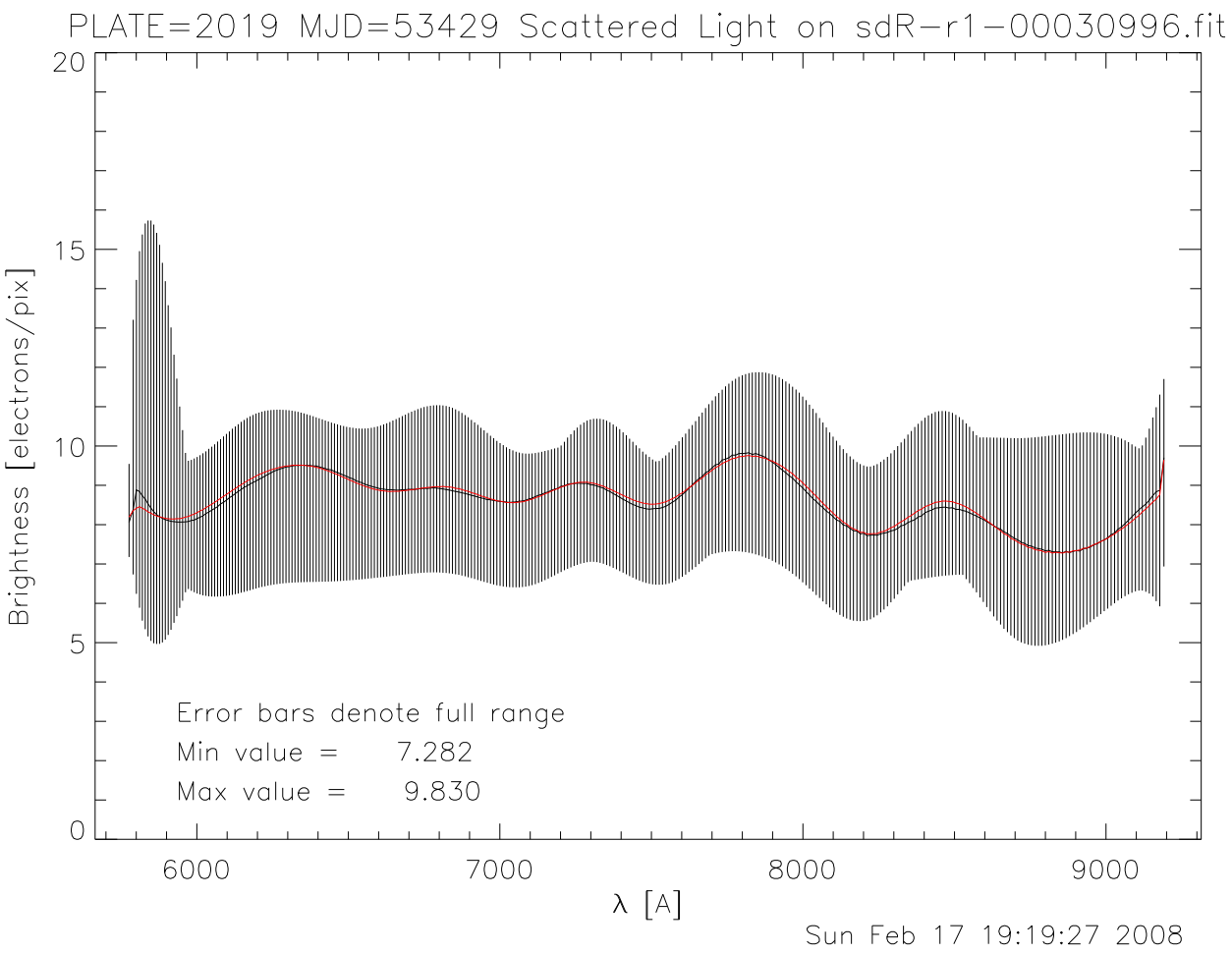

PLATE=2019 MJD=53429 Arcline Fit for sdR-r1-00030994.fit
Fiber Number
300
250
200
150
100
50
0
6000
7000
8000
9000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
6000
7000
8000
9000
λ [A]
Sun Feb 17 19:15:52 2008

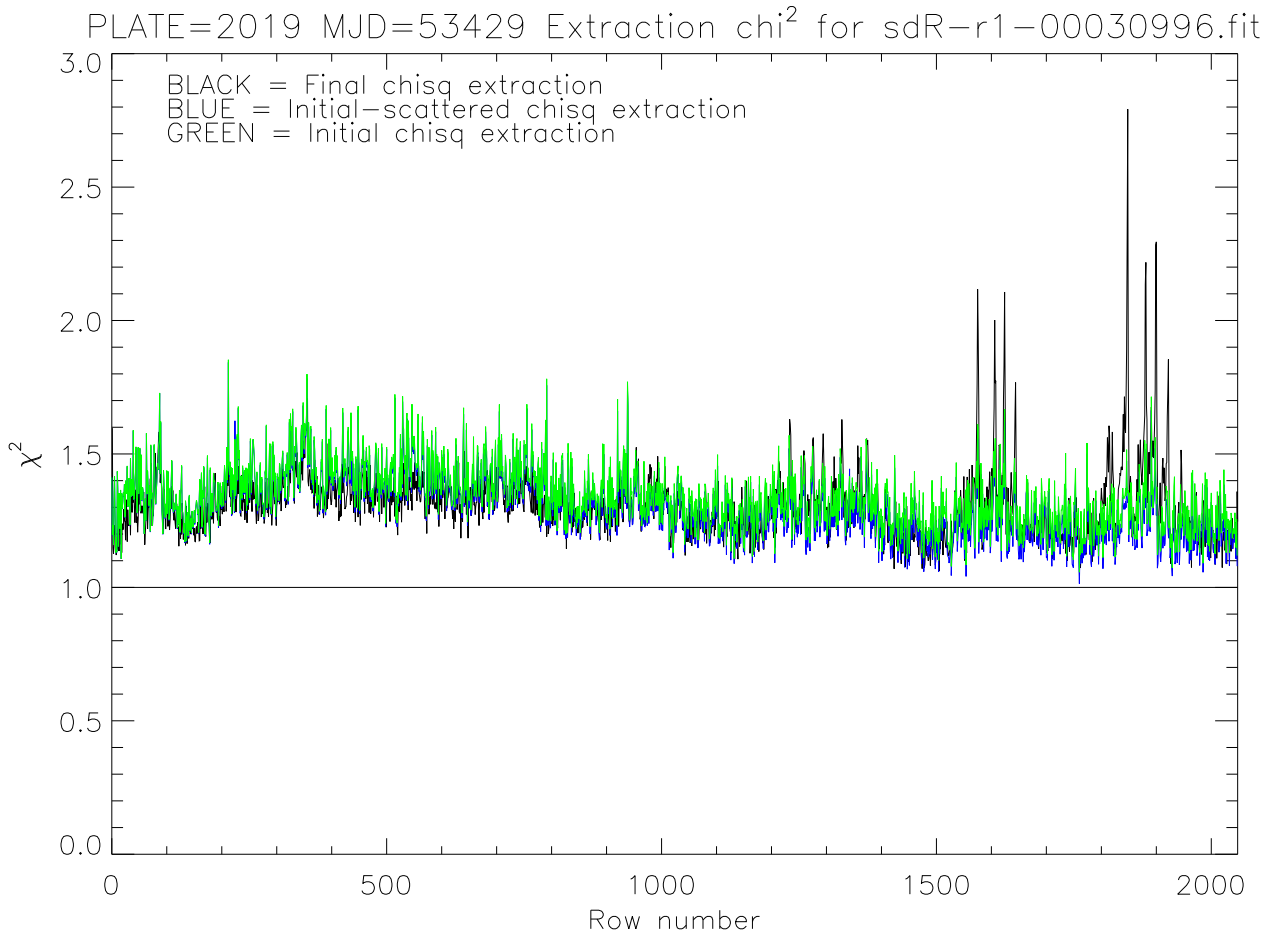

PLATE=2019 MJD=53429 Fiber−Flats for sdR−r1−00030993.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.638
Max value = 1.246
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sun Feb 17 19:16:00 2008

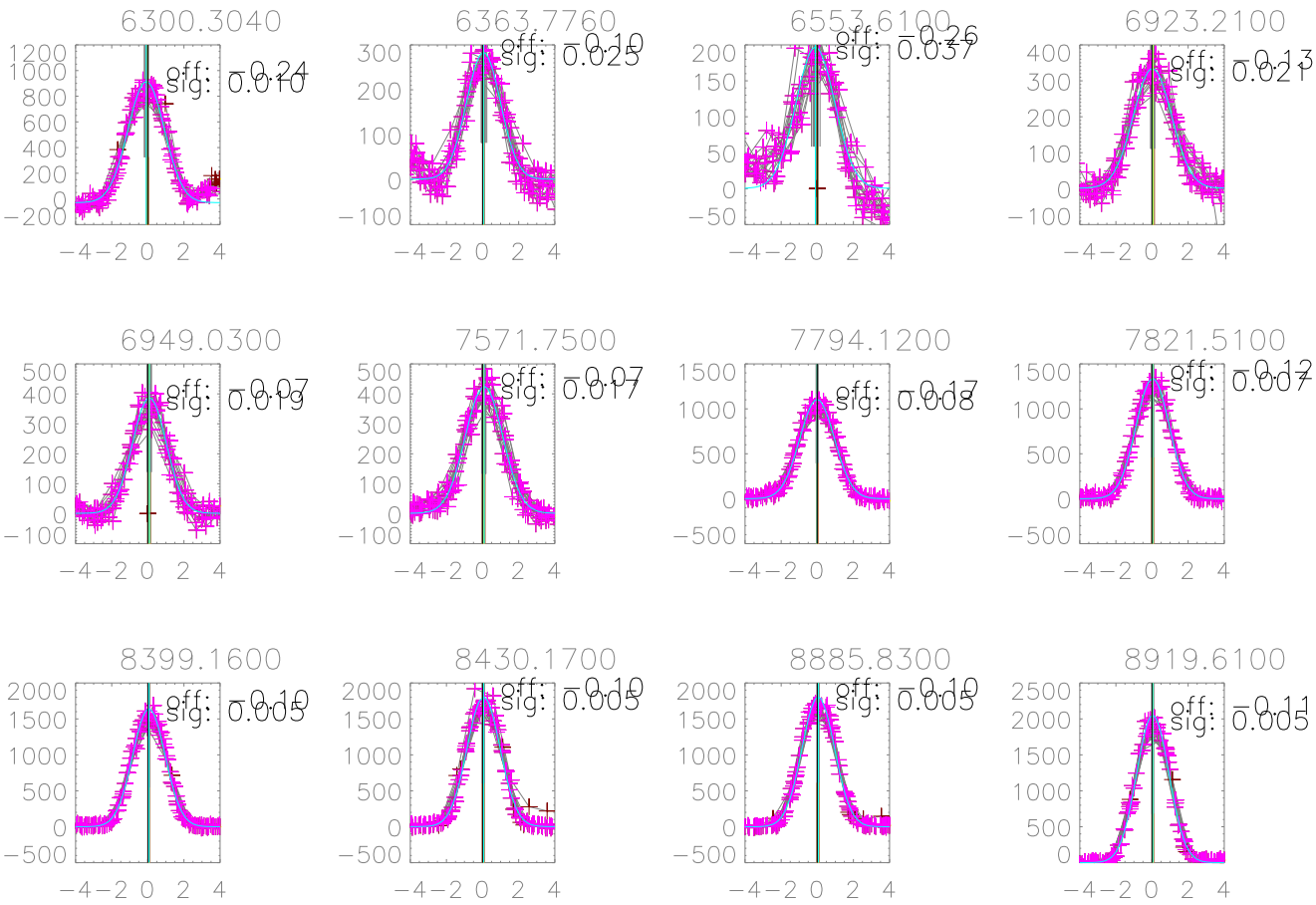

PLATE=2019 MJD=53429 Scattered Light before halo removal on sdR-r1-00030996.fi
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
25.5
18.2
10.9

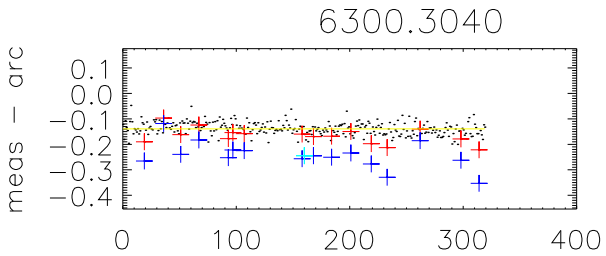

PLATE=2019 MJD=53429 Scattered Light before halo removal on sdR-r1-00030996.fi
Brightness [electrons/pix]
40
30
20
10
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 8.623
Max value = 32.259
Sun Feb 17 19:16:47 2008

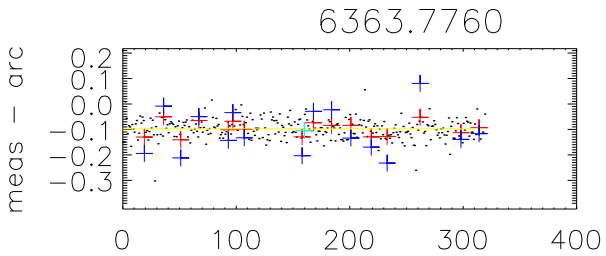

PLATE=2019 MJD=53429 Scattered Light on sdR-r1-00030996.fit
Y [pix]
X [pix]
0
500
1000
1500
2000
9.1
0

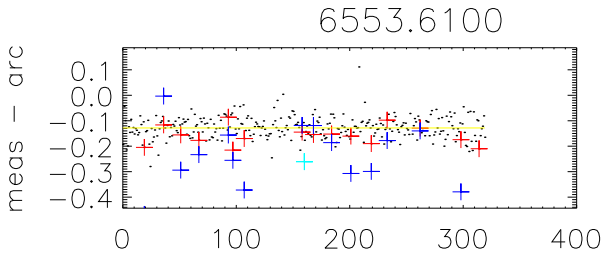

PLATE=2019 MJD=53429 Scattered Light on sdR-r1-00030996.fit
Brightness [electrons/pix]
20
15
10
5
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 7.282
Max value = 9.830
Sun Feb 17 19:19:27 2008

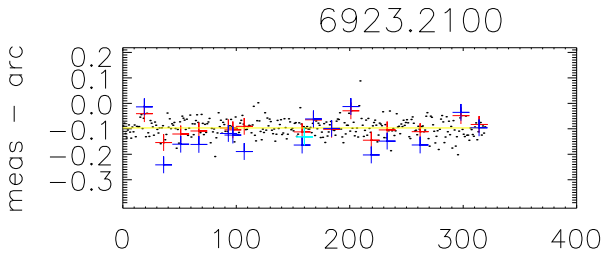

PLATE=2019 MJD=53429 Extraction chi^2 for sdR−r1−00030996.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
500
1000
1500
2000
Row number

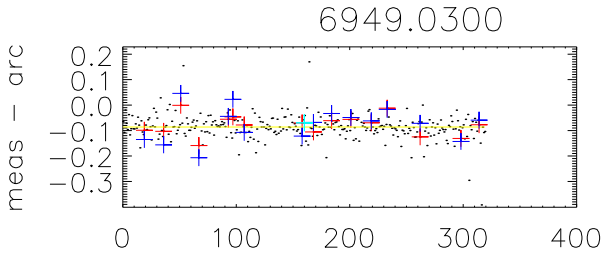

6300.3040
off: −0.24
sig: 0.010
6363.7760
off: −0.10
sig: 0.025
6553.6100
off: −0.26
sig: 0.037
6923.2100
off: −0.13
sig: 0.021
6949.0300
off: −0.07
sig: 0.019
7571.7500
off: −0.07
sig: 0.017
7794.1200
off: −0.17
sig: 0.008
7821.5100
off: −0.12
sig: 0.007
8399.1600
off: −0.10
sig: 0.005
8430.1700
off: −0.10
sig: 0.005
8885.8300
off: −0.10
sig: 0.005
8919.6100
off: −0.11
sig: 0.005

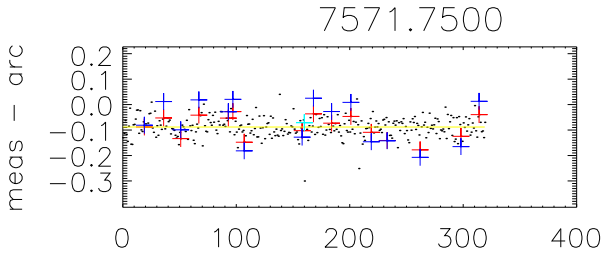

6300.3040
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

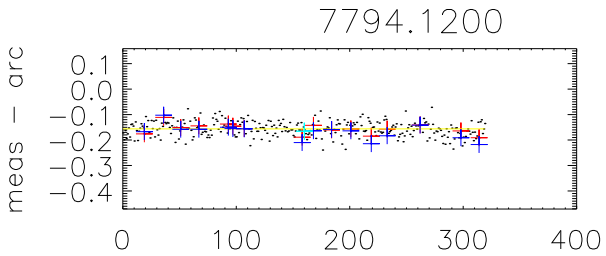

6363.7760
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

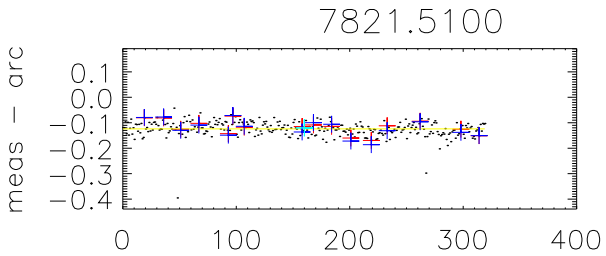

6553.6100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

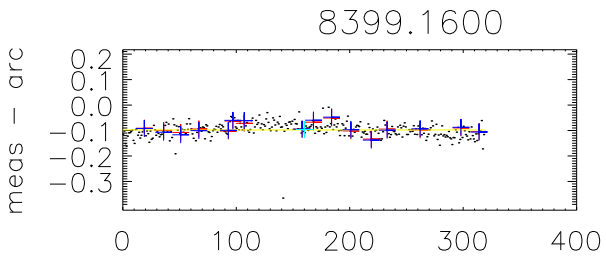

6923.2100
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

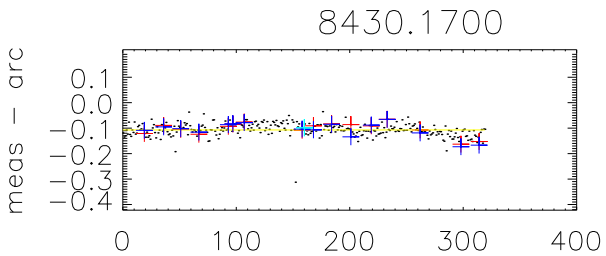

6949.0300
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

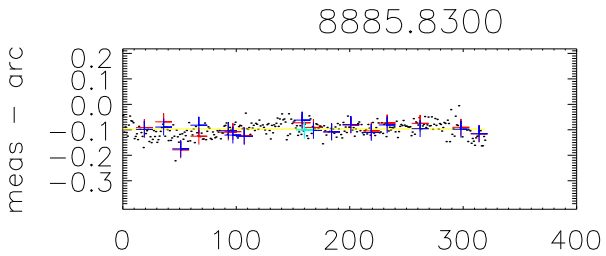

7571.7500
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

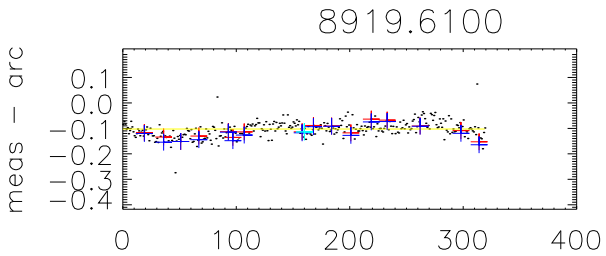

7794.1200
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

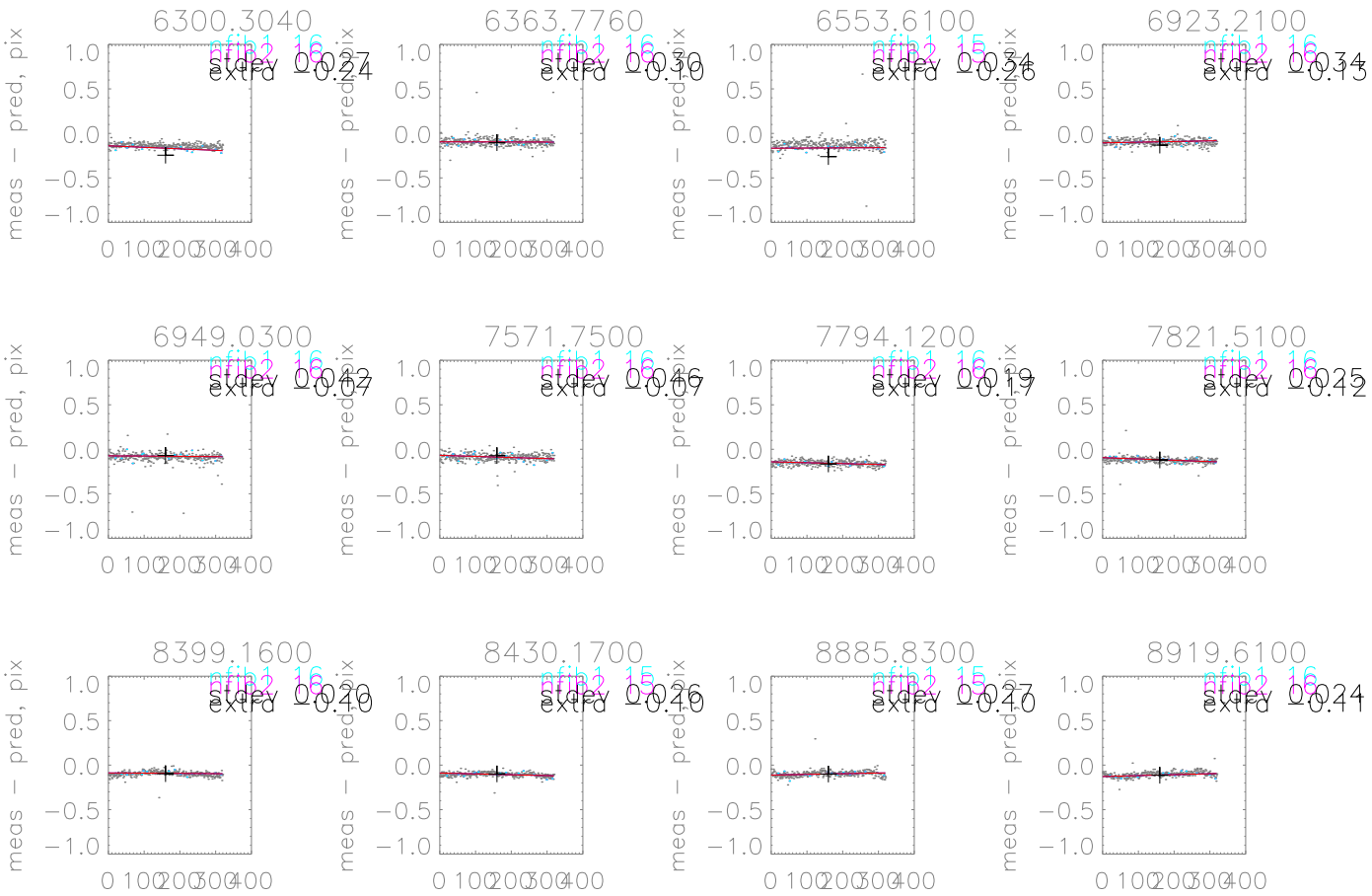

7821.5100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

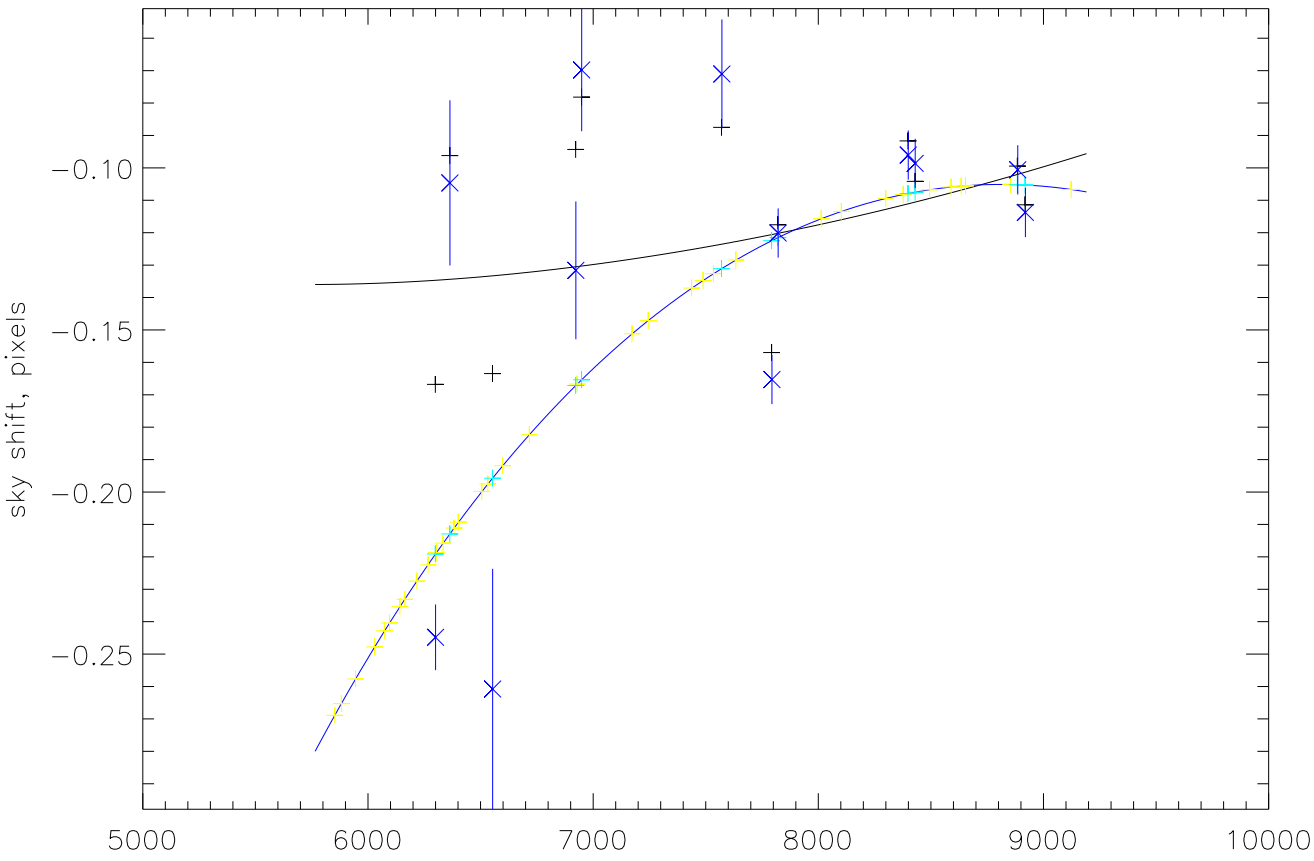

8399.1600
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

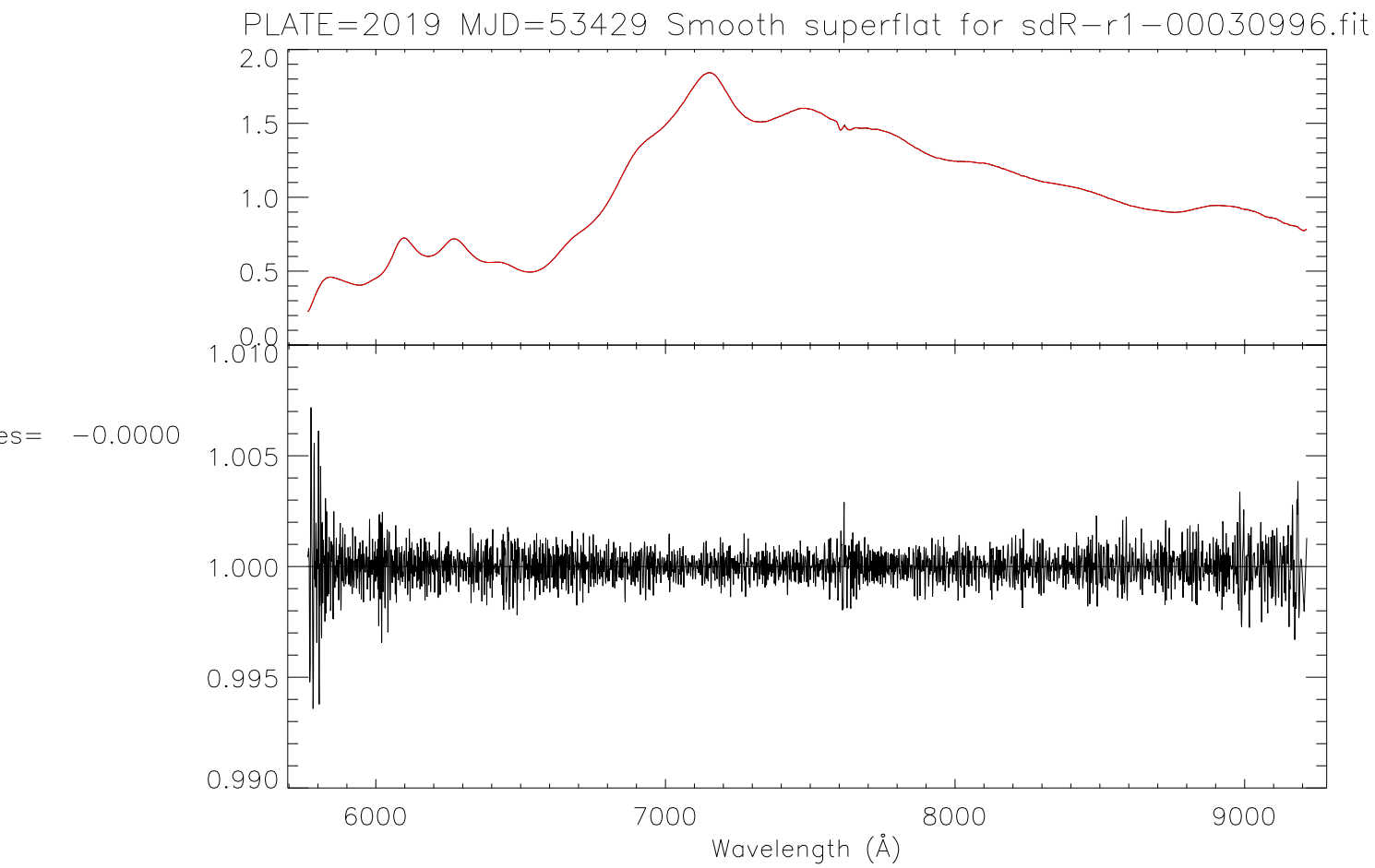

8430.1700
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

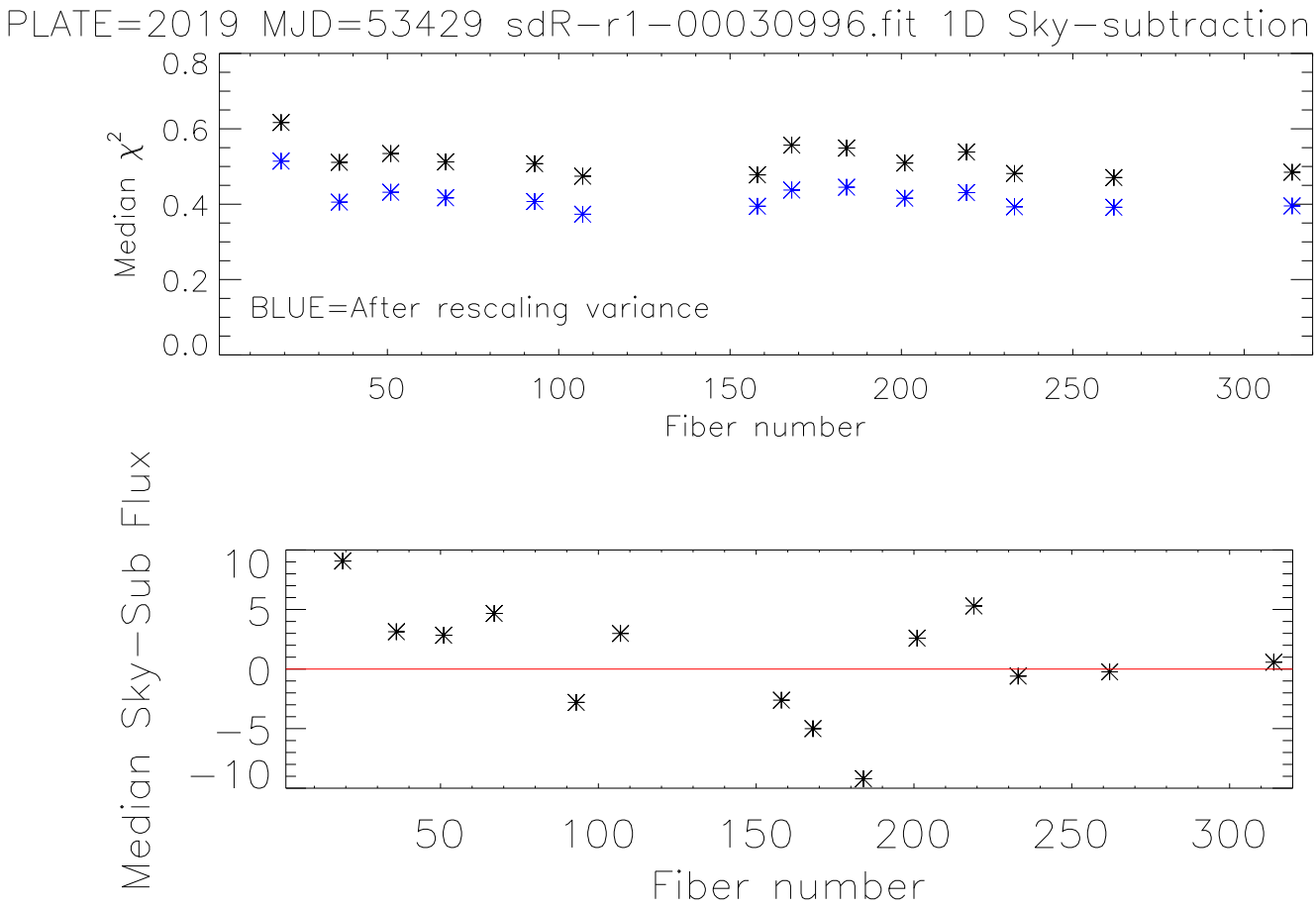

8885.8300
meas − arc
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
400

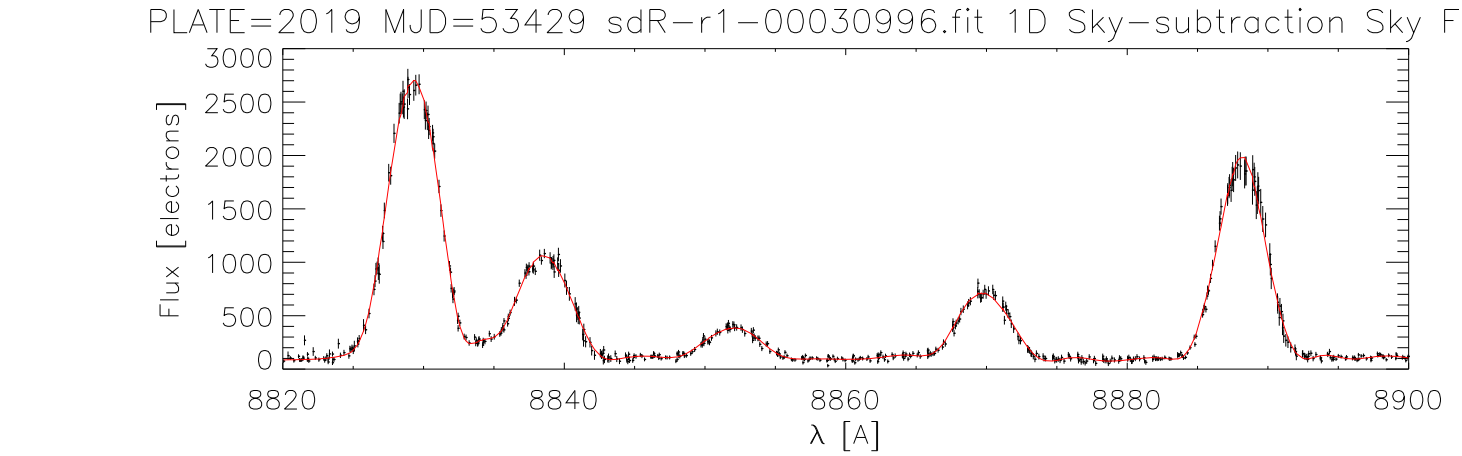

8919.6100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

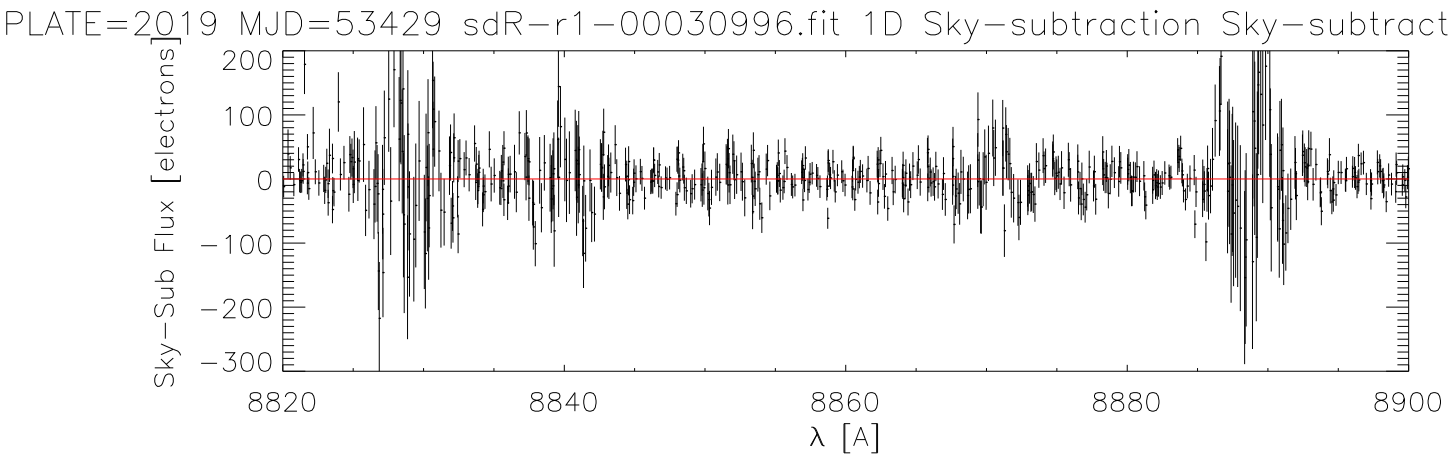

6300.3040
stdev 0.027
extra 0.24
6363.7760
stdev 0.030
extra 0.10
6553.6100
stdev 0.034
extra 0.26
6923.2100
stdev 0.034
extra 0.13
6949.0300
stdev 0.042
extra 0.07
7571.7500
stdev 0.046
extra 0.07
7794.1200
stdev 0.019
extra 0.17
7821.5100
stdev 0.025
extra 0.42
8399.1600
stdev 0.020
extra 0.40
8430.1700
stdev 0.026
extra 0.40
8885.8300
stdev 0.027
extra 0.40
8919.6100
stdev 0.024
extra 0.41
meas − pred, pix
meas − pred, pix

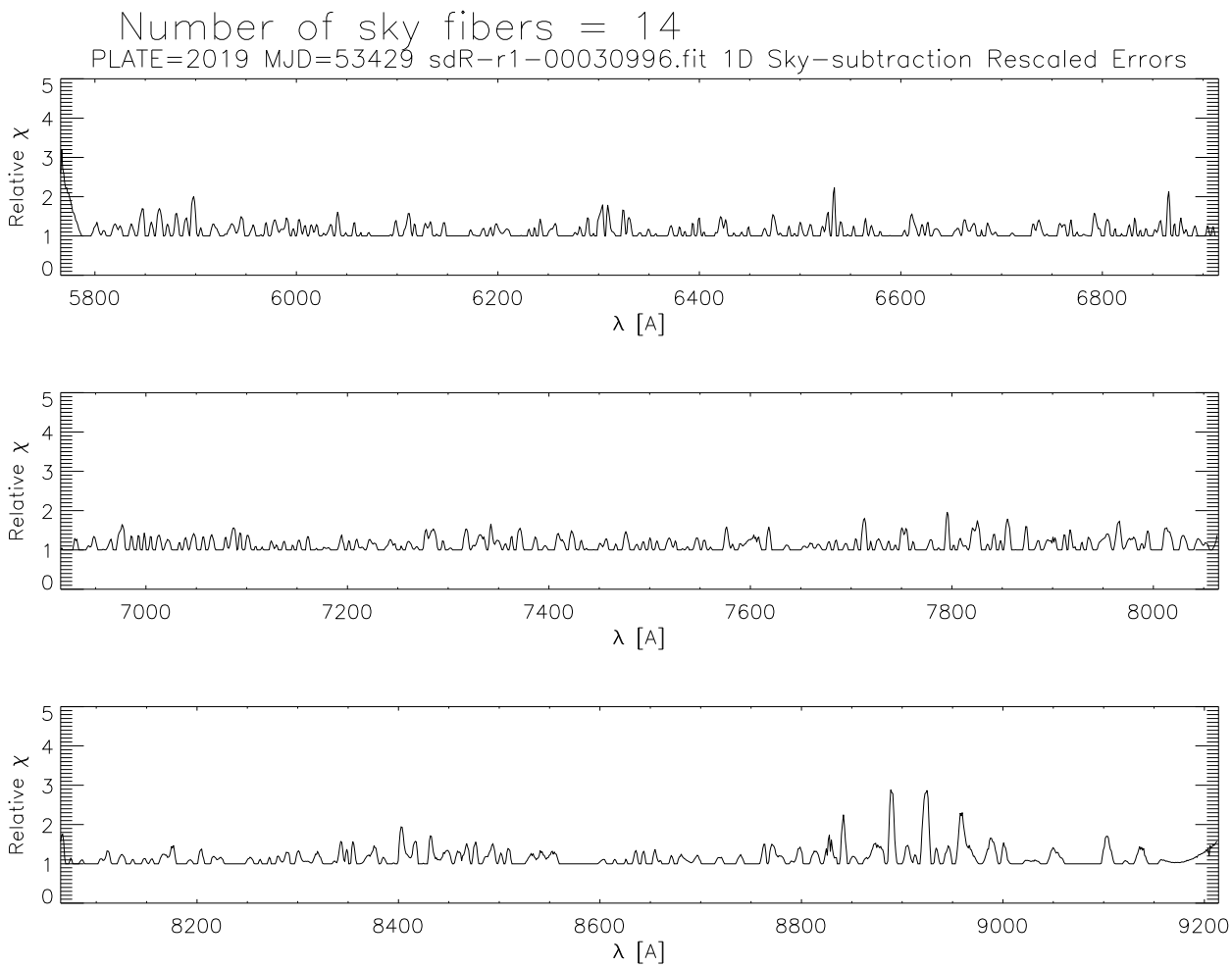

sky shift, pixels
−0.10
−0.15
−0.20
−0.25
5000
6000
7000
8000
9000
10000

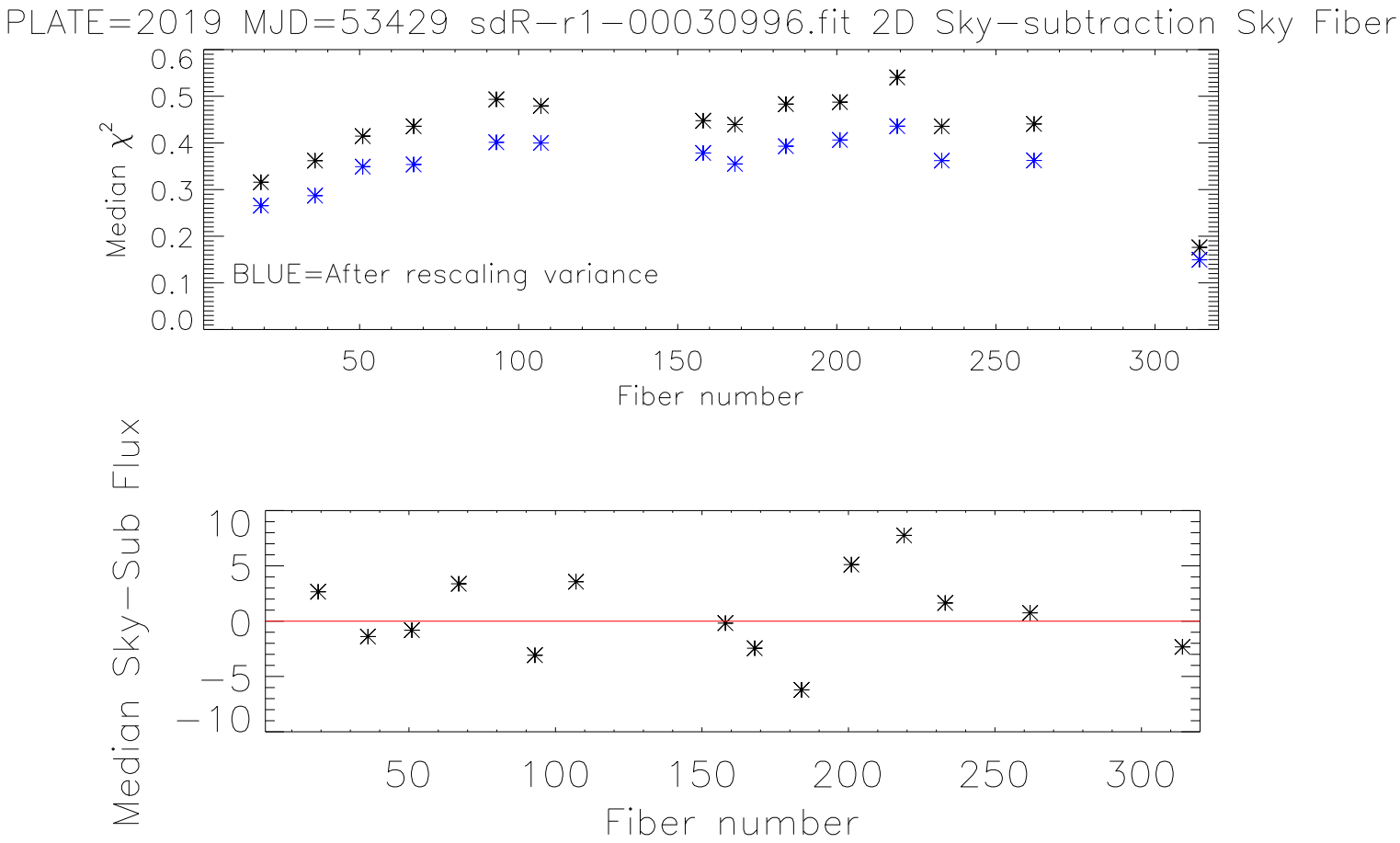

PLATE=2019 MJD=53429 Smooth superflat for sdR-r1-00030996.fit
2.0
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
es= -0.0000
6000
7000
8000
9000
Wavelength (Å)

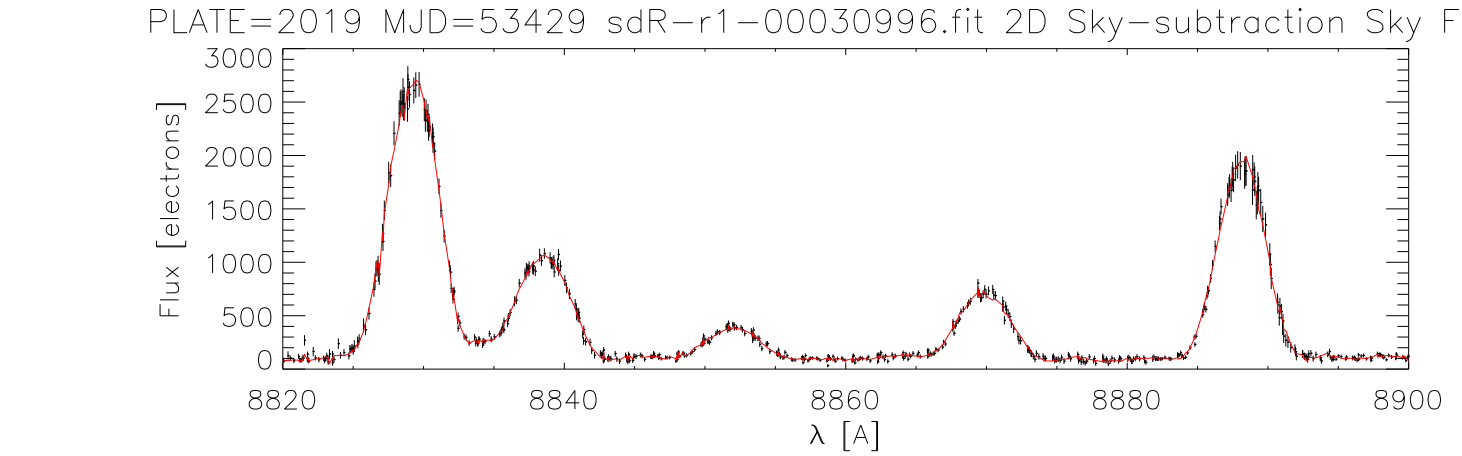

PLATE=2019 MJD=53429 sdR-r1-00030996.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
−5
−10
50
100
150
200
250
300
Fiber number

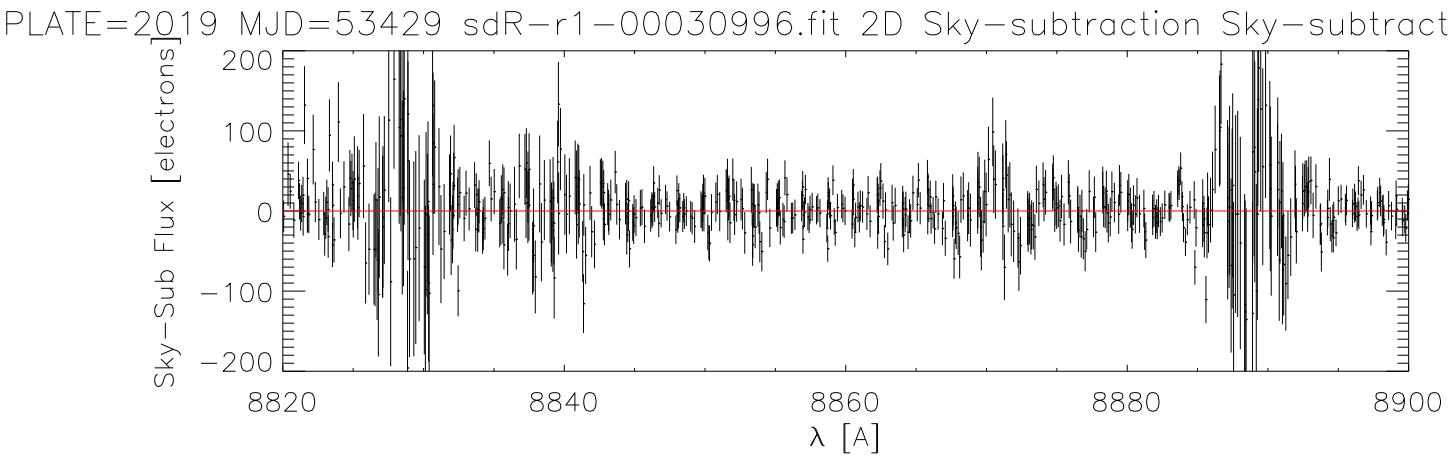

PLATE=2019 MJD=53429 sdR-r1-00030996.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
3000
2500
2000
1500
1000
500
0
8820
8840
8860
8880
8900
λ [A]

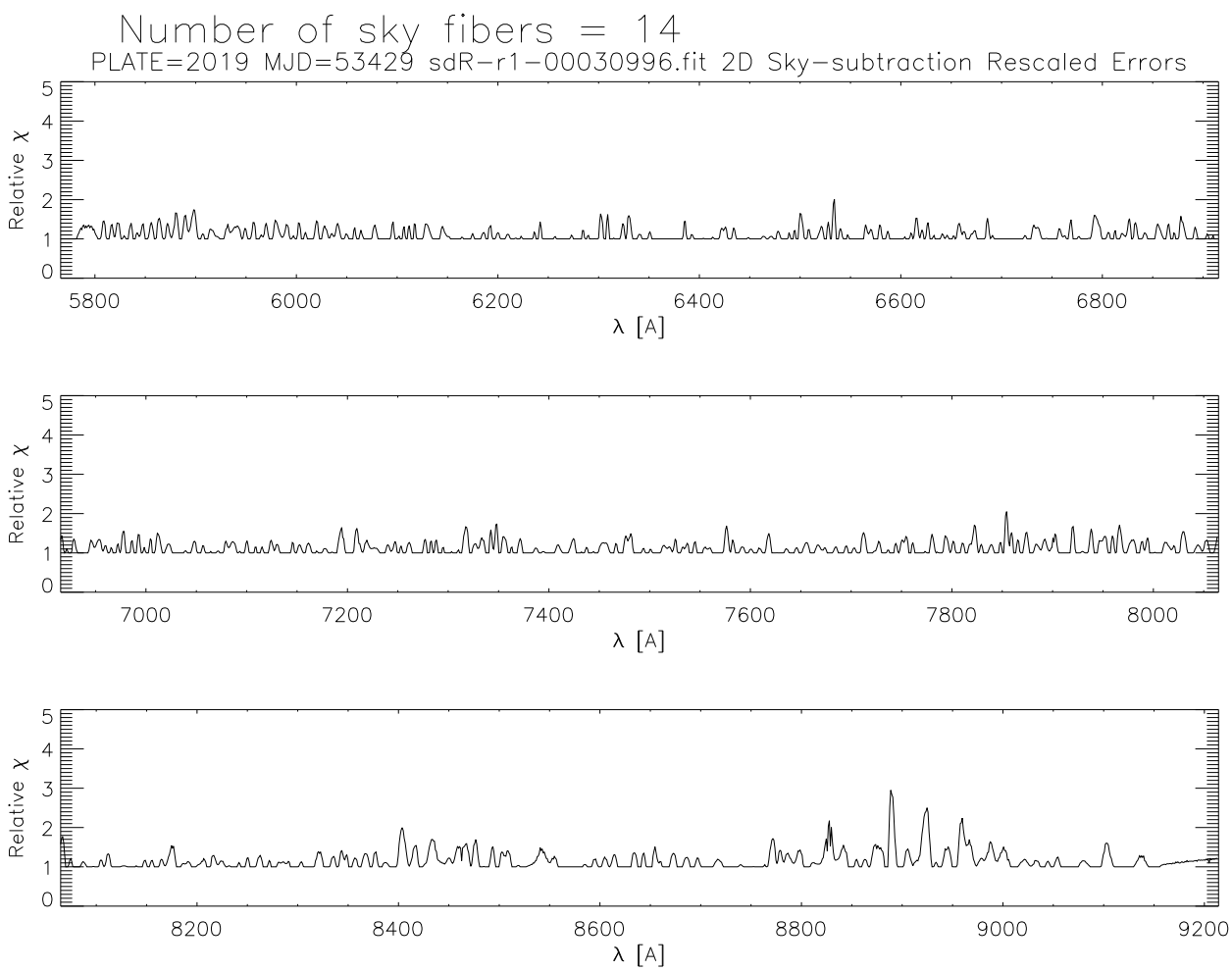

PLATE=2019 MJD=53429 sdR-r1-00030996.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
-300
8820
8840
8860
8880
8900
λ [A]

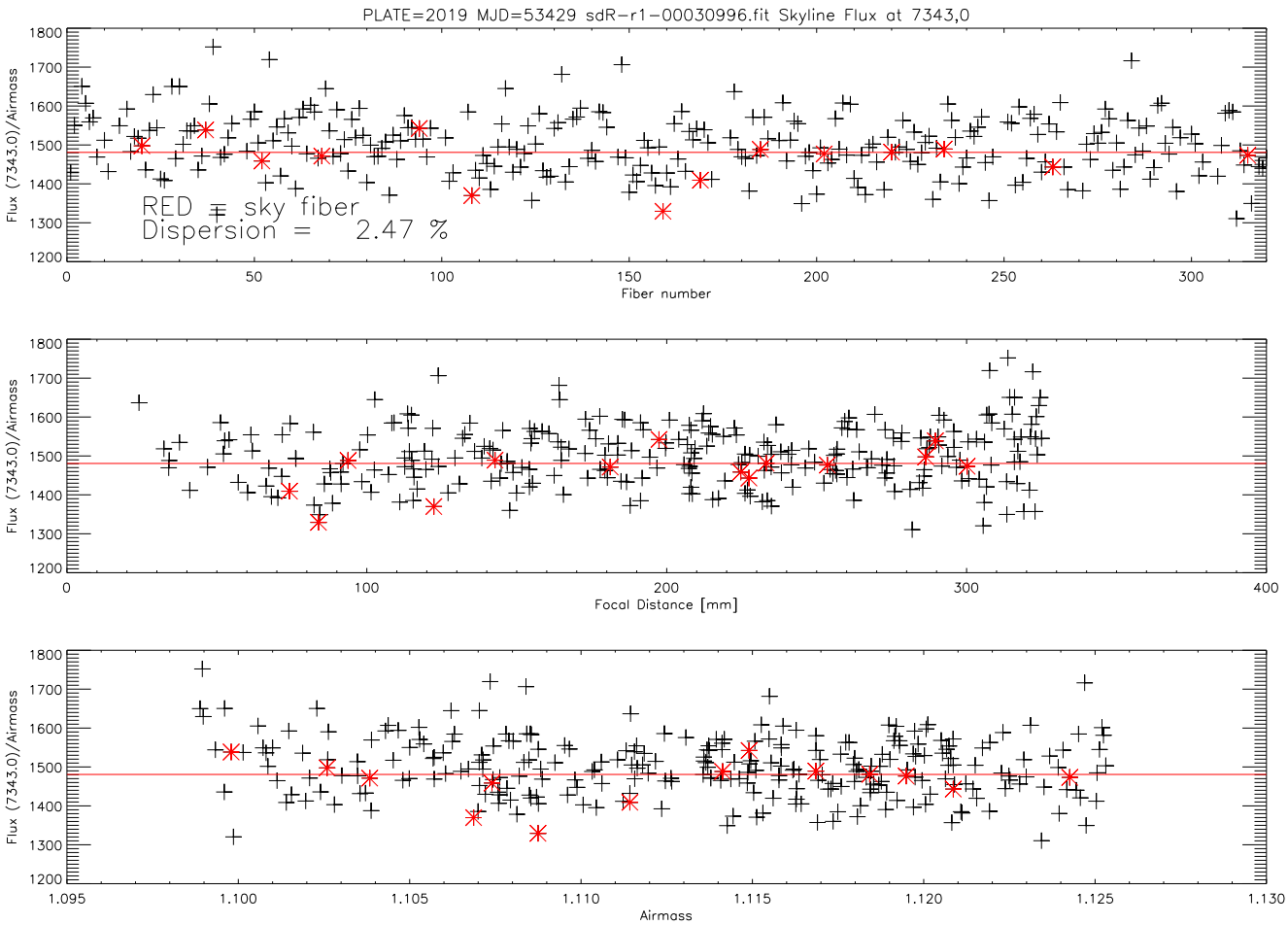

Number of sky fibers = 14
PLATE=2019 MJD=53429 sdR-r1-00030996.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

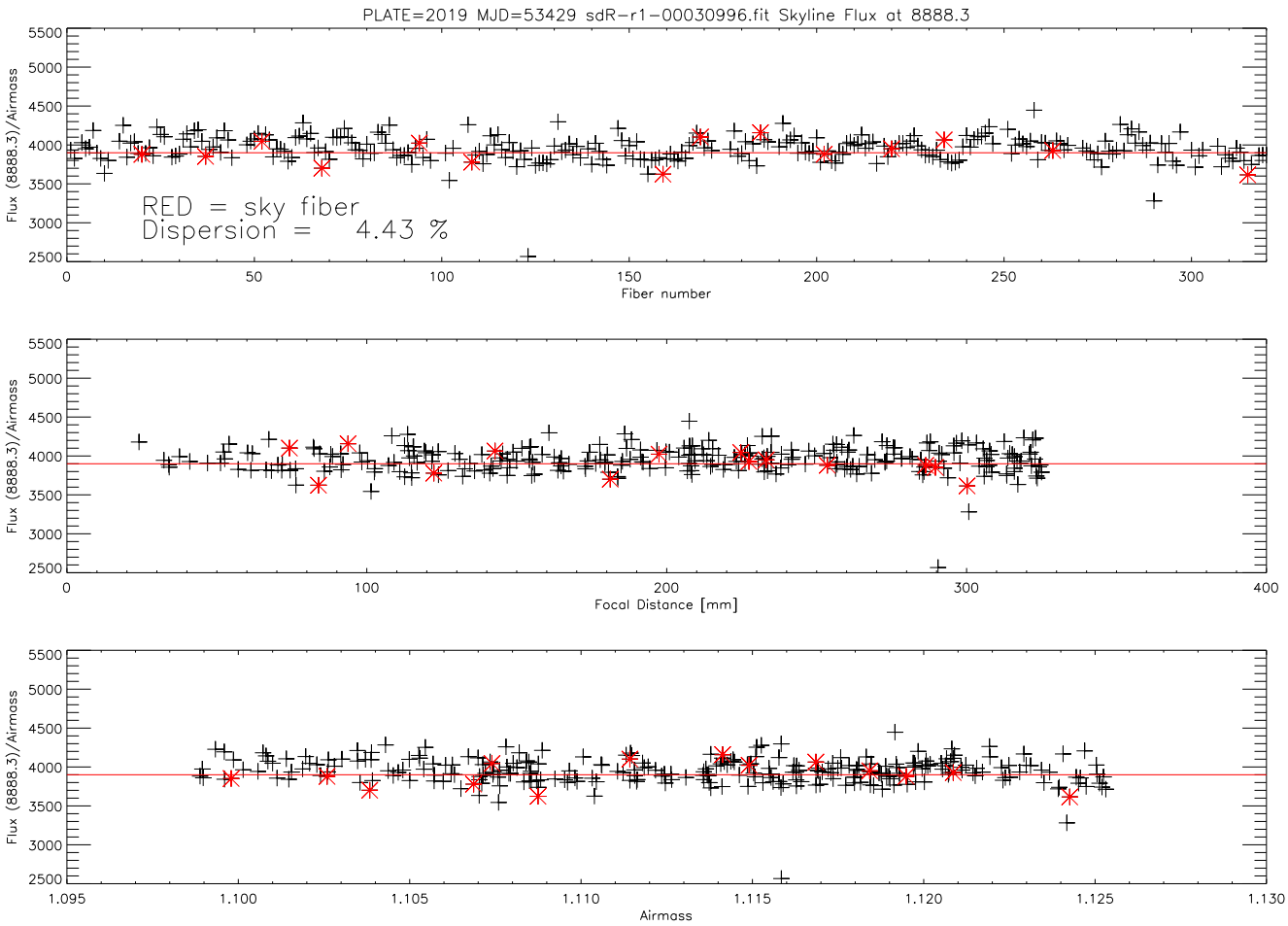

PLATE=2019 MJD=53429 sdR-r1-00030996.fit 2D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

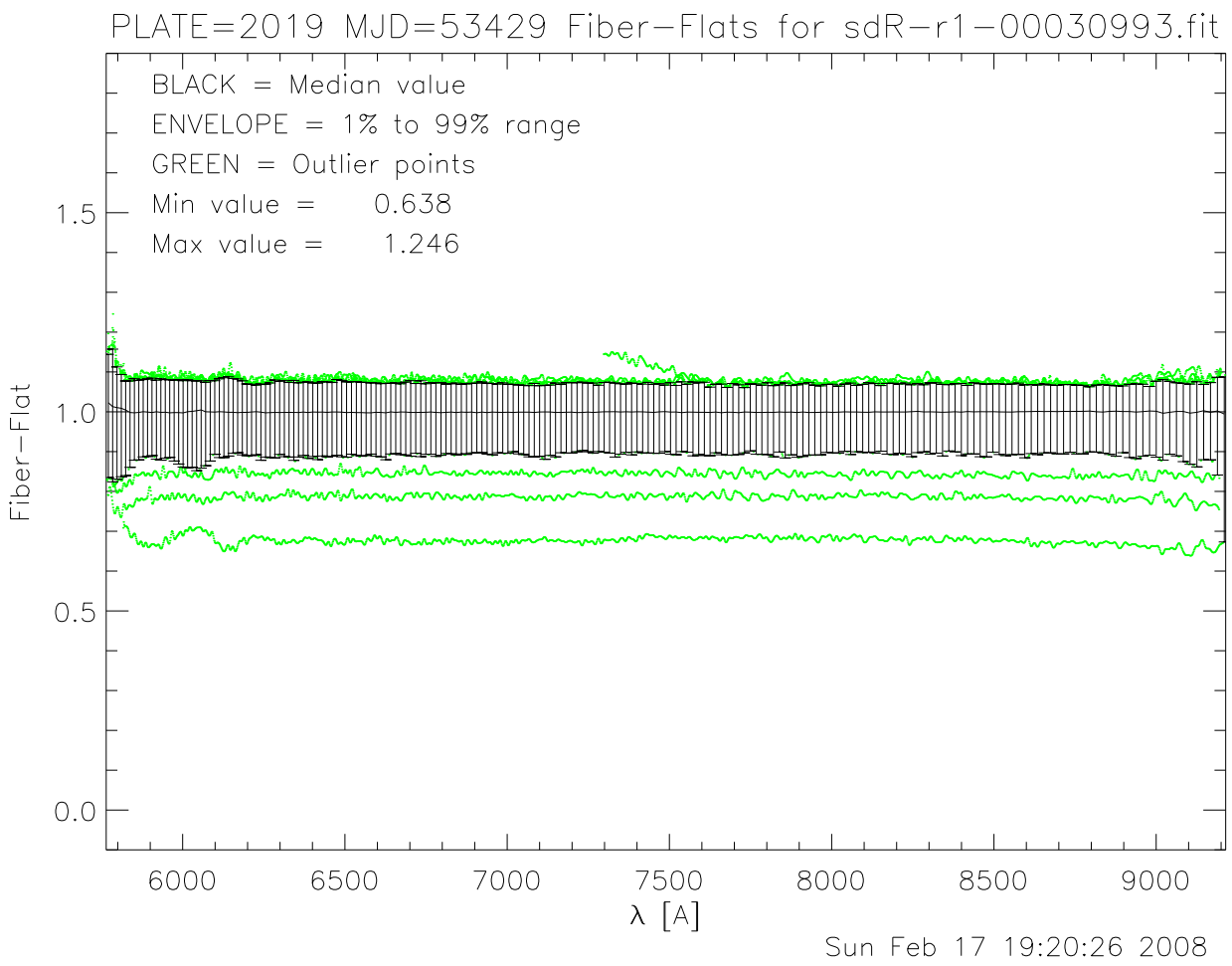

PLATE=2019 MJD=53429 sdR-r1-00030996.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
3000
2500
2000
1500
1000
500
0
8820
8840
8860
8880
8900
λ [A]

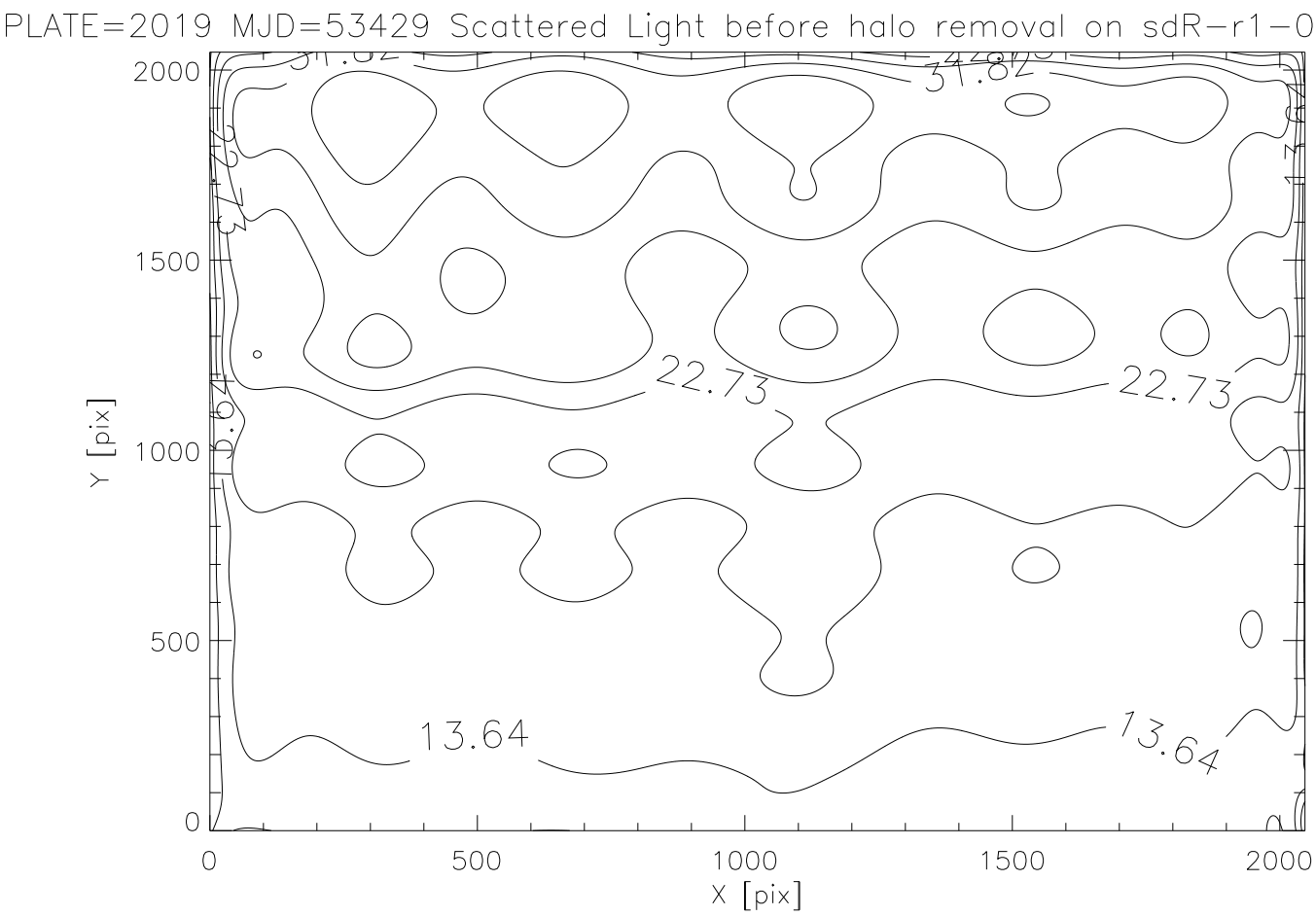

PLATE=2019 MJD=53429 sdR-r1-00030996.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
200
100
0
-100
-200
8820
8840
8860
8880
8900
λ [A]

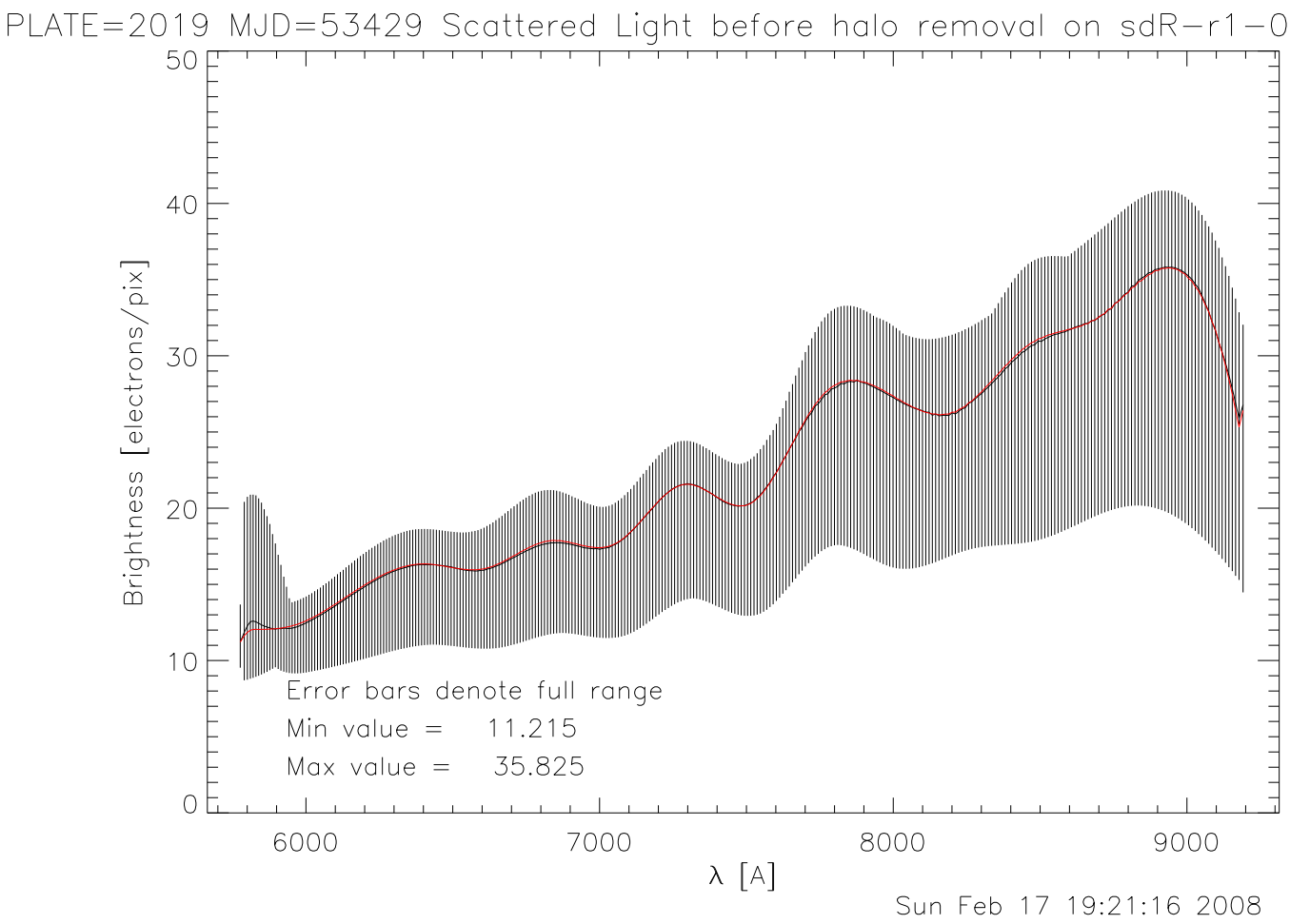

Number of sky fibers = 14
PLATE=2019 MJD=53429 sdR-r1-00030996.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

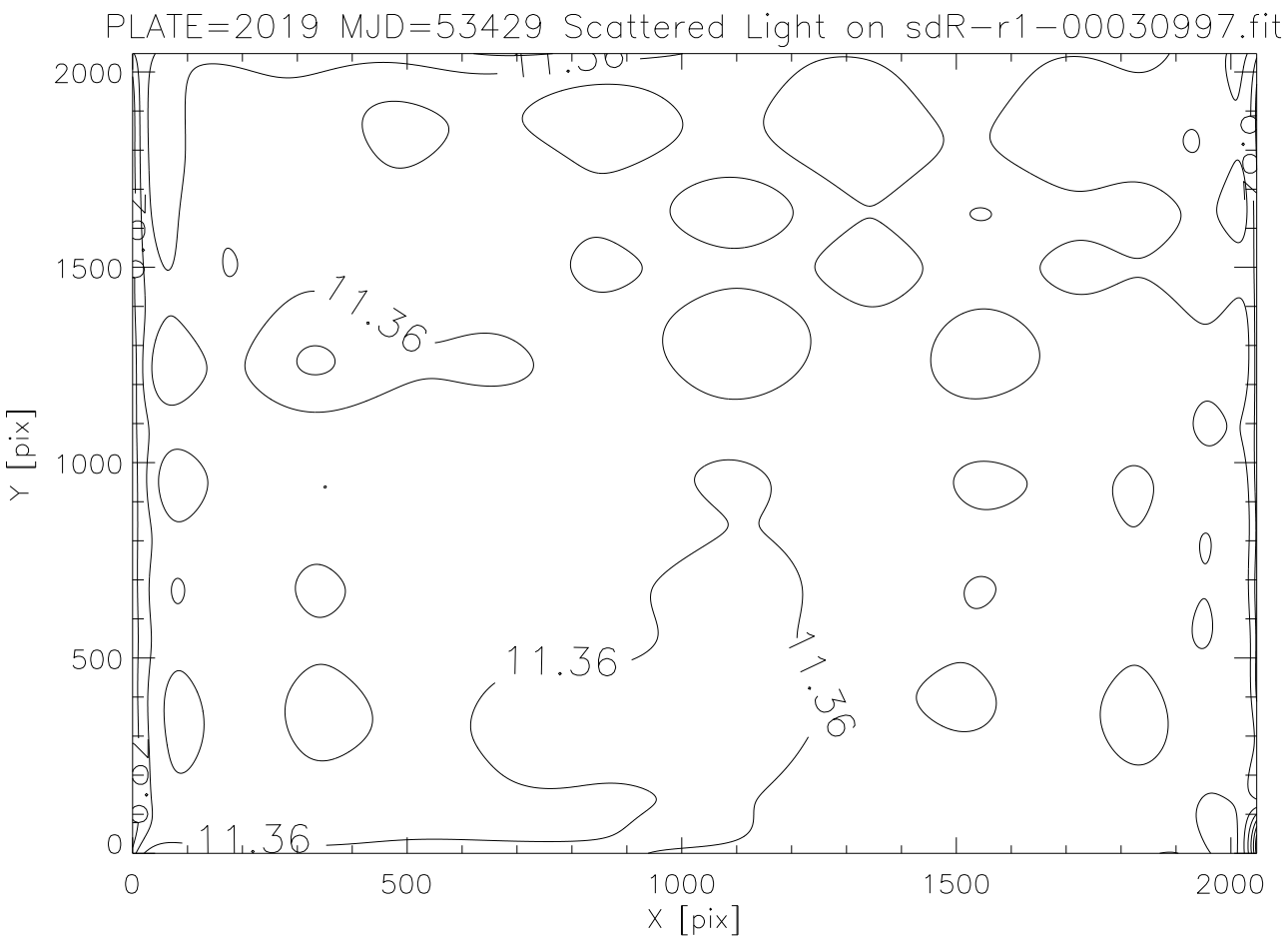

PLATE=2019 MJD=53429 sdR-r1-00030996.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
Fiber number
RED = sky fiber
Dispersion = 2.47 %
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

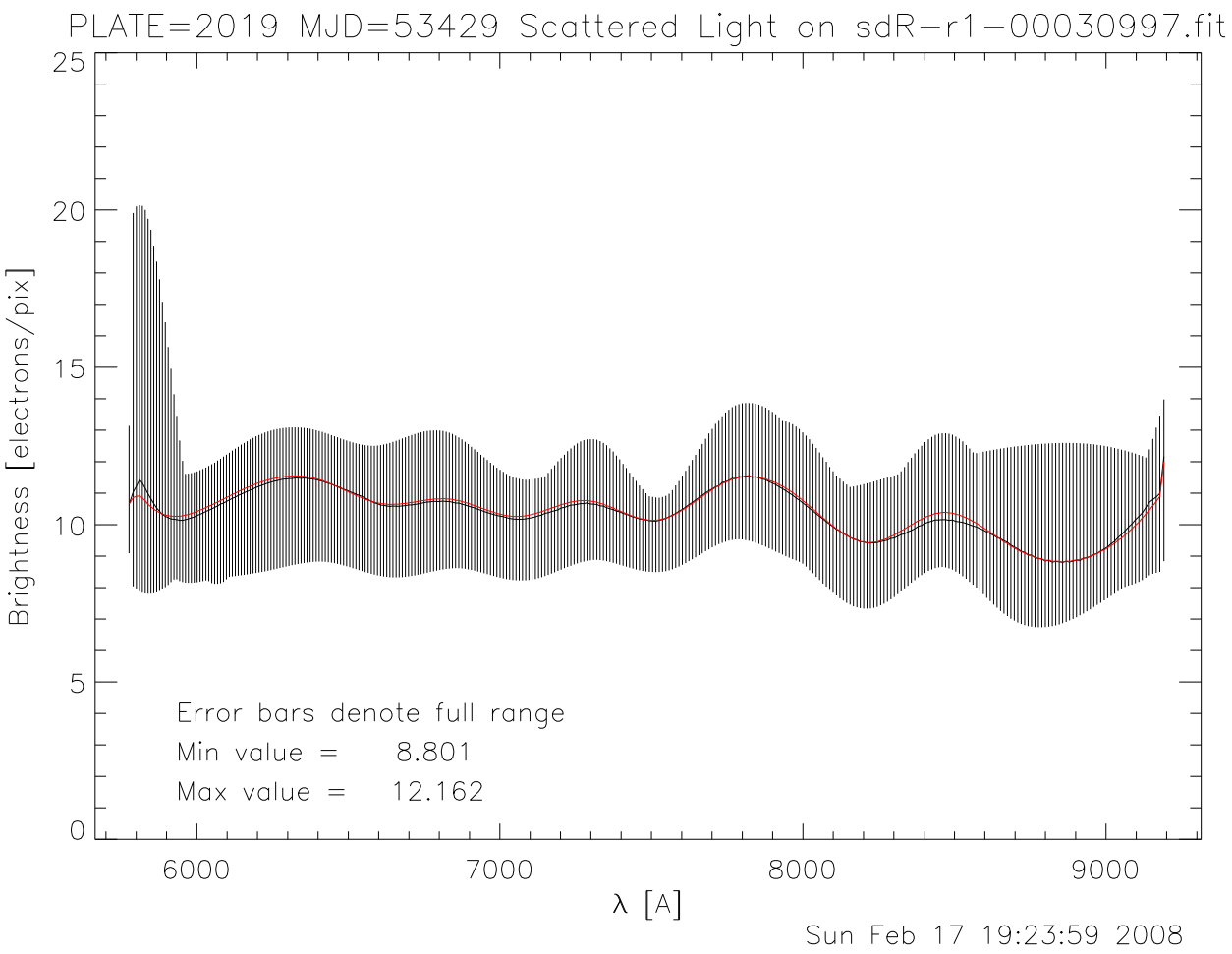

PLATE=2019 MJD=53429 sdR-r1-00030996.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 4.43 %
Fiber number
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass

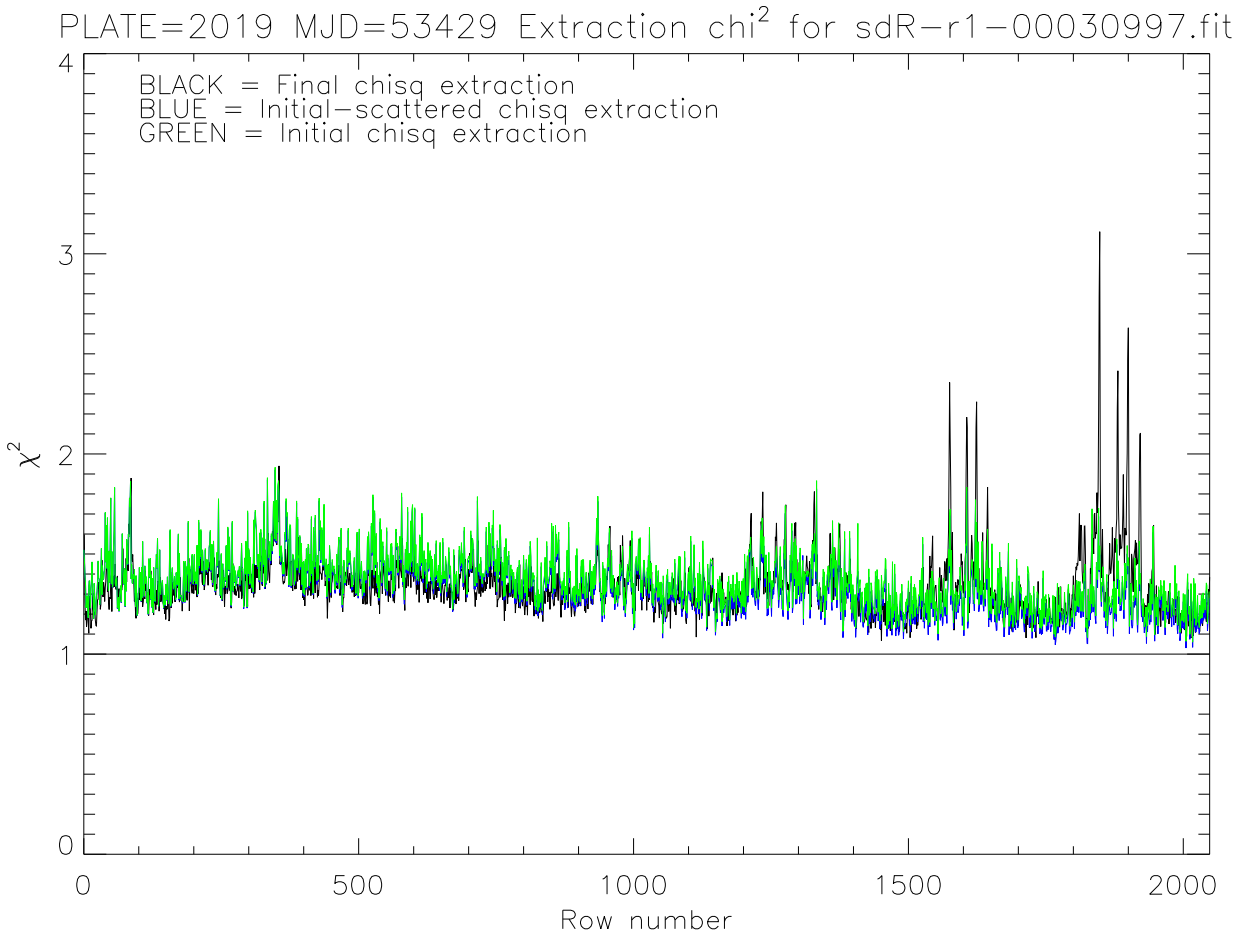

PLATE=2019 MJD=53429 Fiber−Flats for sdR−r1−00030993.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.638
Max value = 1.246
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sun Feb 17 19:20:26 2008

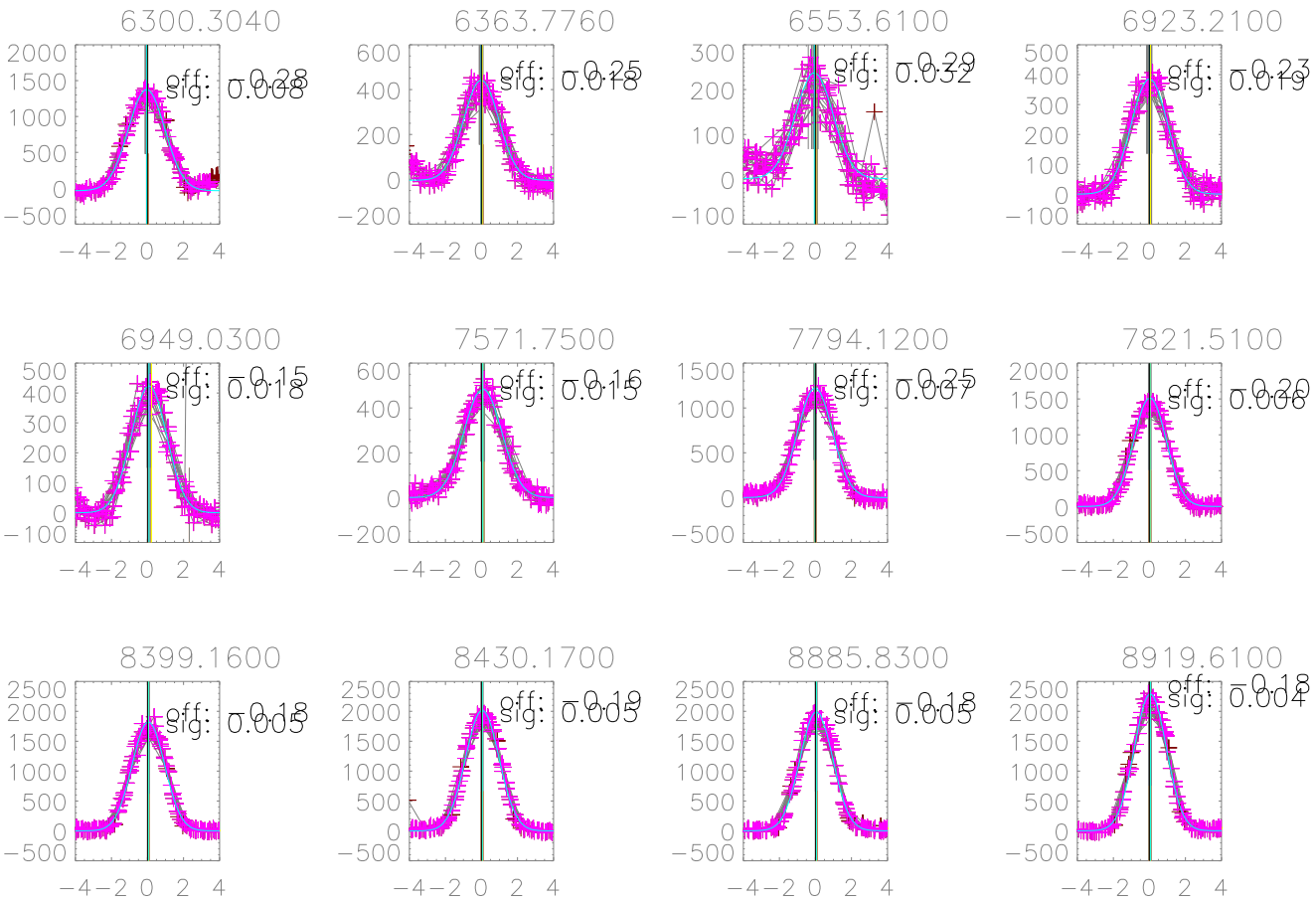

PLATE=2019 MJD=53429 Scattered Light before halo removal on sdR-r1-00030997.fi
31.82
22.73
13.64
0
Y [pix]
X [pix]
0
500
1000
1500
2000

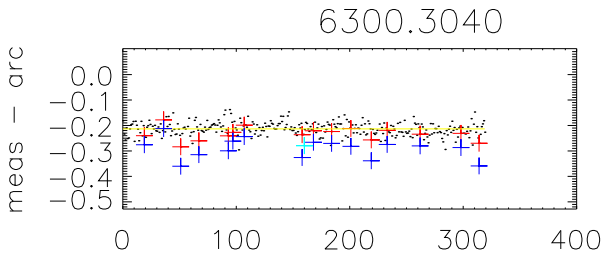

PLATE=2019 MJD=53429 Scattered Light before halo removal on sdR-r1-00030997.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 11.215
Max value = 35.825
Sun Feb 17 19:21:16 2008

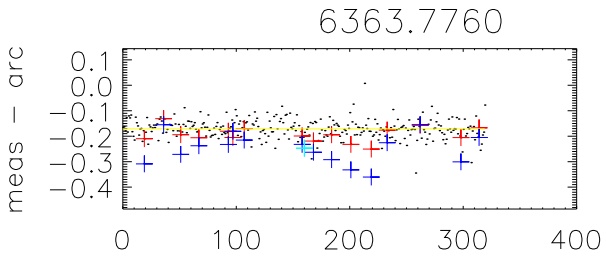

PLATE=2019 MJD=53429 Scattered Light on sdR-r1-00030997.fit
11.36
0
11.36
11.36
11.36
0
0
0
0
0
0
0
2000
1500
1000
500
0
0
500
1000
1500
2000
Y [pix]
X [pix]

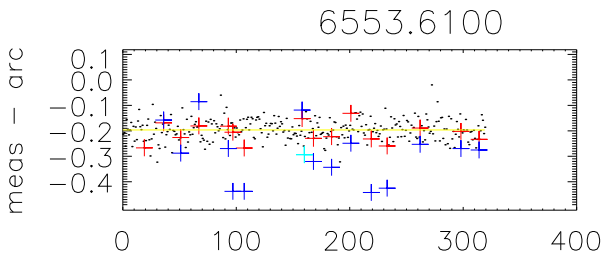

PLATE=2019 MJD=53429 Scattered Light on sdR-r1-00030997.fit
Brightness [electrons/pix]
25
20
15
10
5
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 8.801
Max value = 12.162
Sun Feb 17 19:23:59 2008

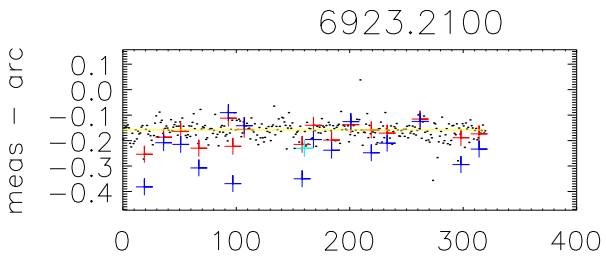

PLATE=2019 MJD=53429 Extraction chi^2 for sdR−r1−00030997.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
0
1
2
3
4
0
500
1000
1500
2000
Row number

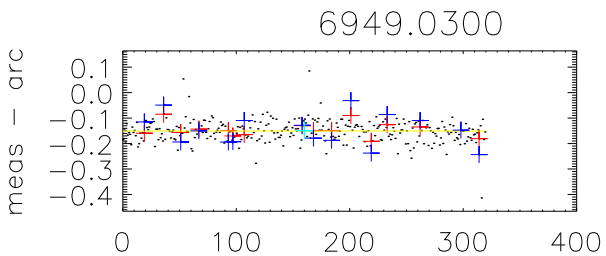

6300.3040
off: -0.28
sig: 0.008
6363.7760
off: -0.25
sig: 0.018
6553.6100
off: -0.29
sig: 0.032
6923.2100
off: -0.23
sig: 0.019
6949.0300
off: -0.15
sig: 0.018
7571.7500
off: -0.16
sig: 0.015
7794.1200
off: -0.25
sig: 0.007
7821.5100
off: -0.20
sig: 0.006
8399.1600
off: -0.18
sig: 0.005
8430.1700
off: -0.19
sig: 0.005
8885.8300
off: -0.18
sig: 0.005
8919.6100
off: -0.18
sig: 0.004

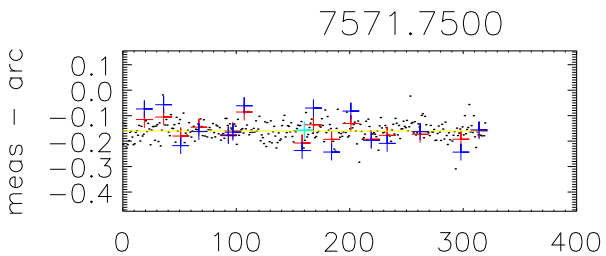

6300.3040
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

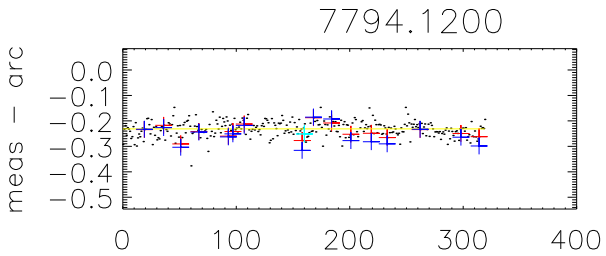

6363.7760
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

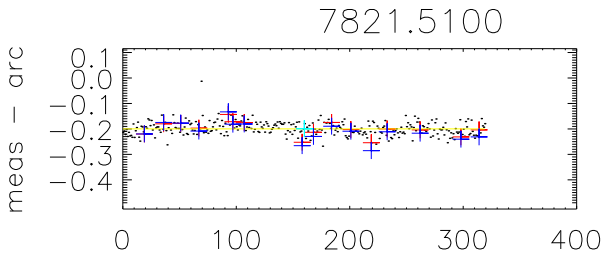

6553.6100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

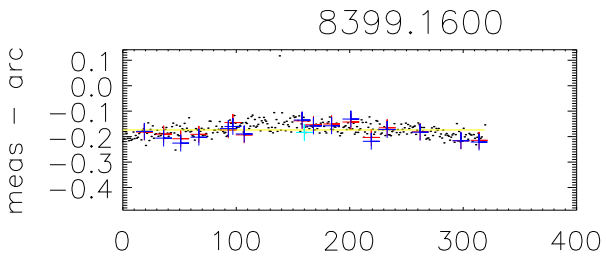

6923.2100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

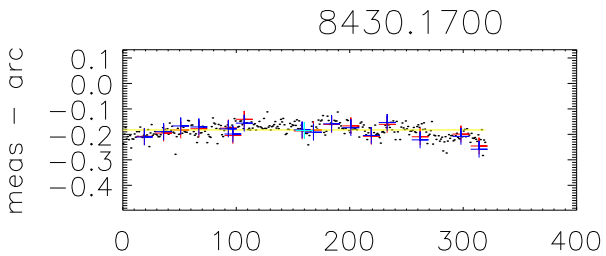

6949.0300
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

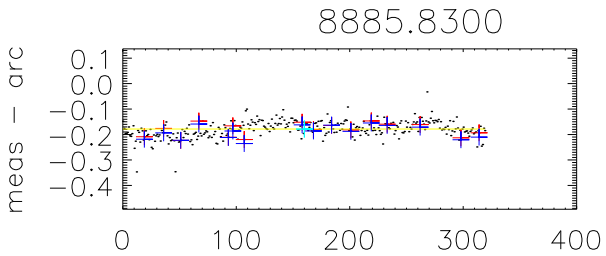

7571.7500
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

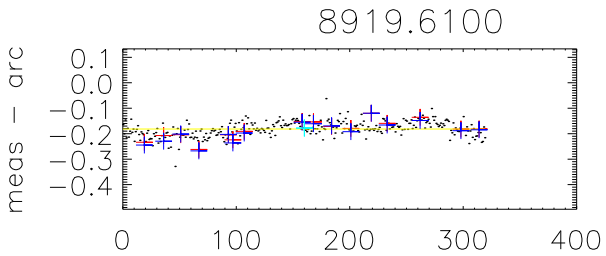

7794.1200
meas − arc
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0
100
200
300
400

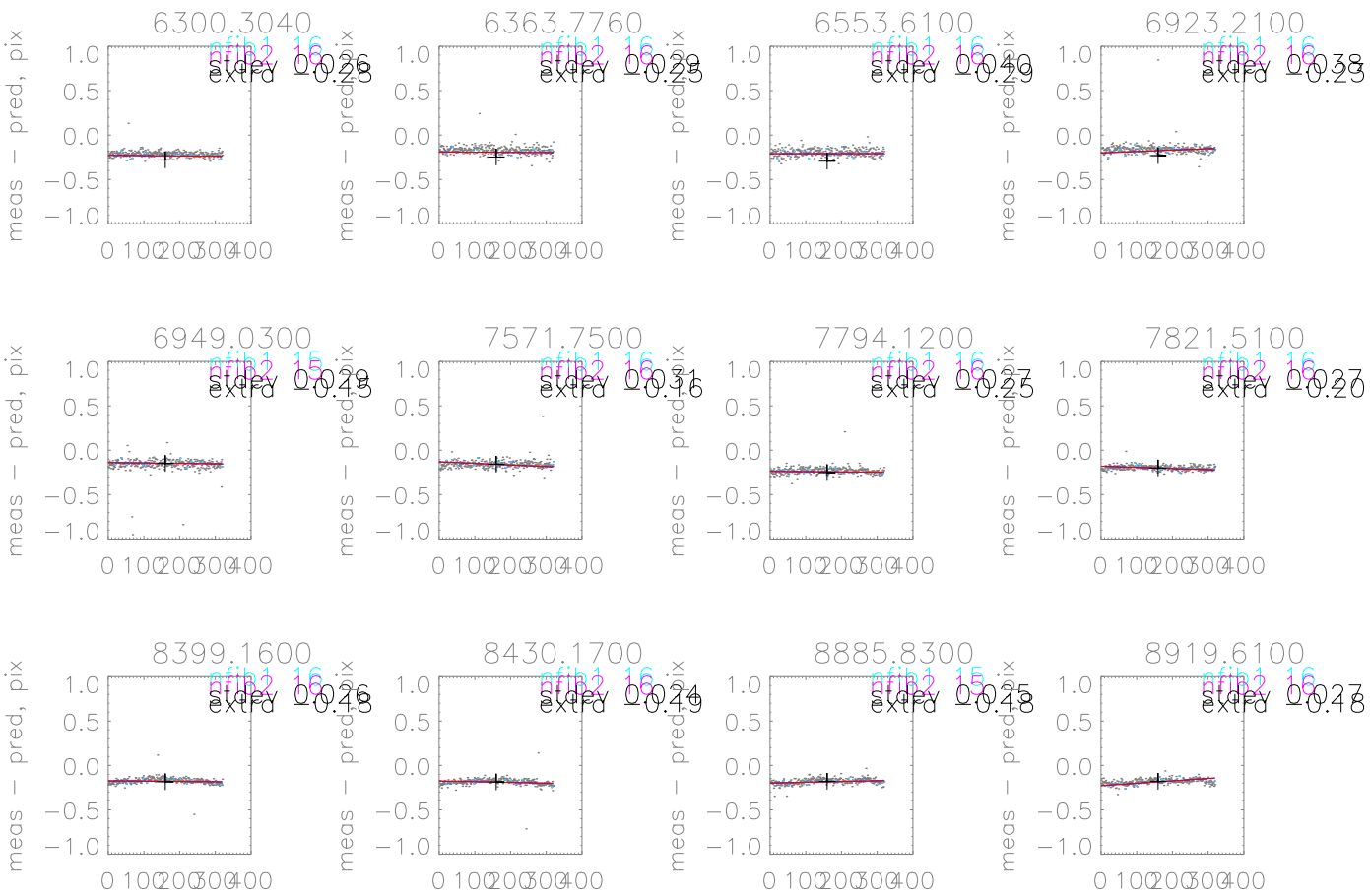

7821.5100
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

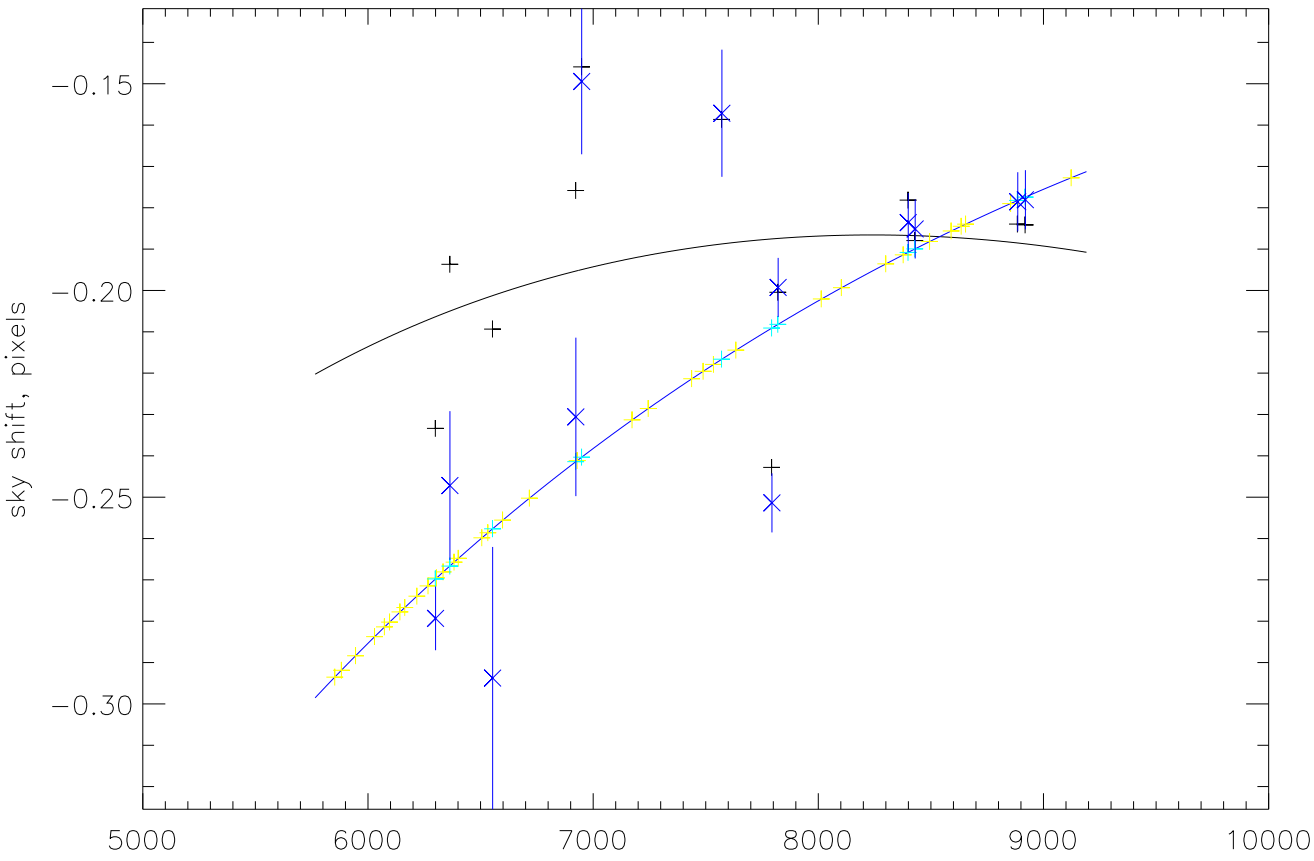

8399.1600
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

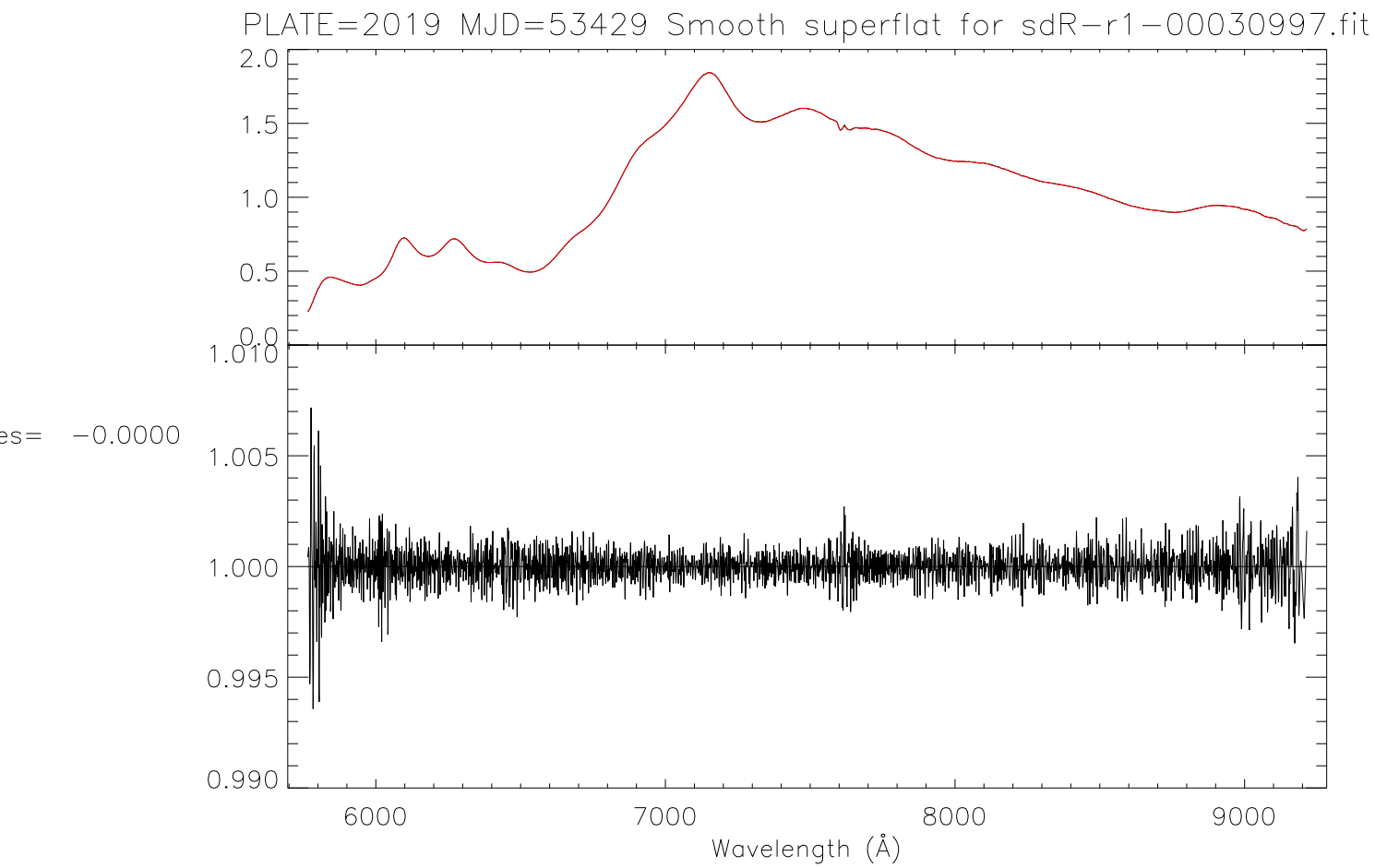

8430.1700
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400

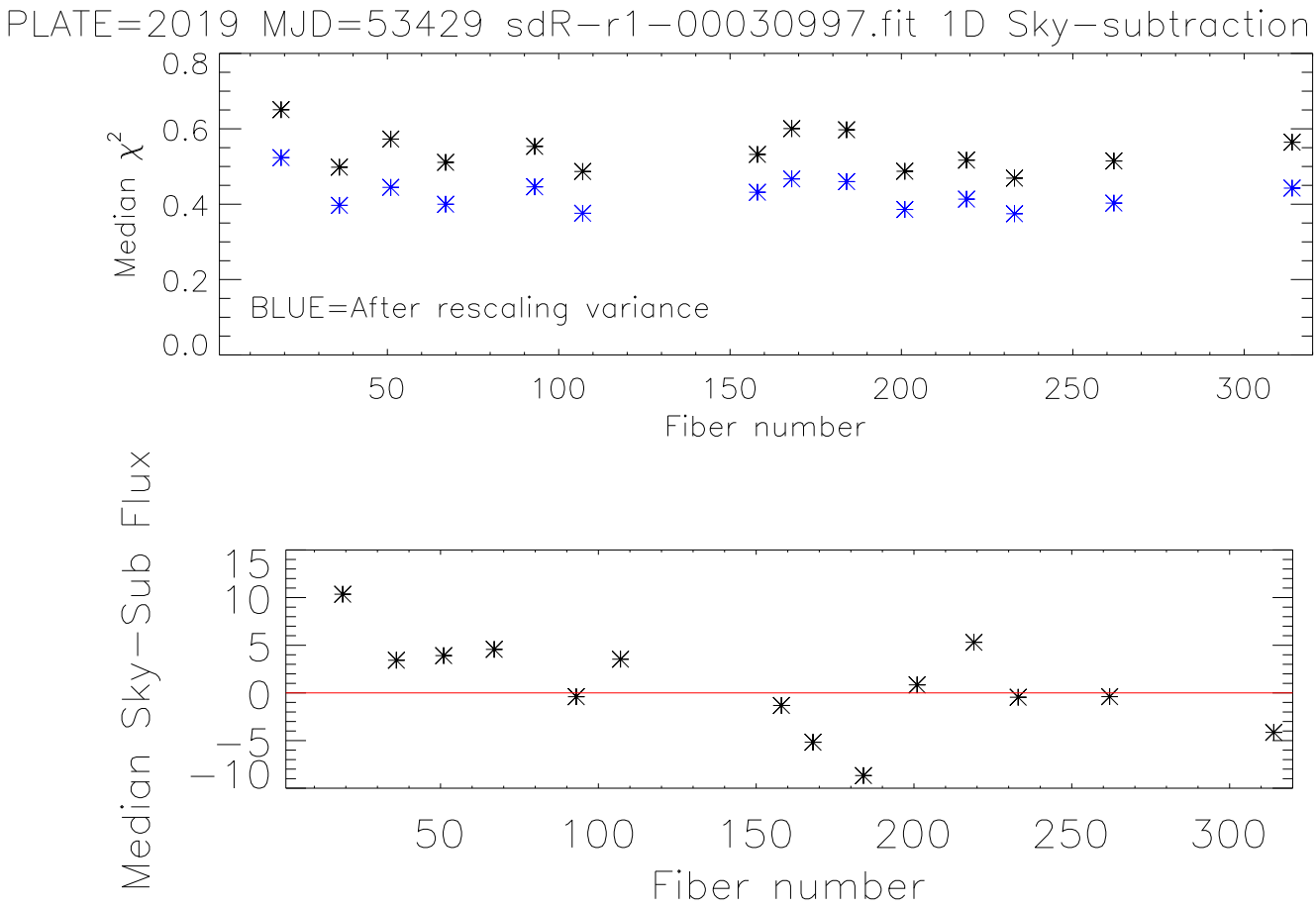

8885.8300
meas − arc
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400


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

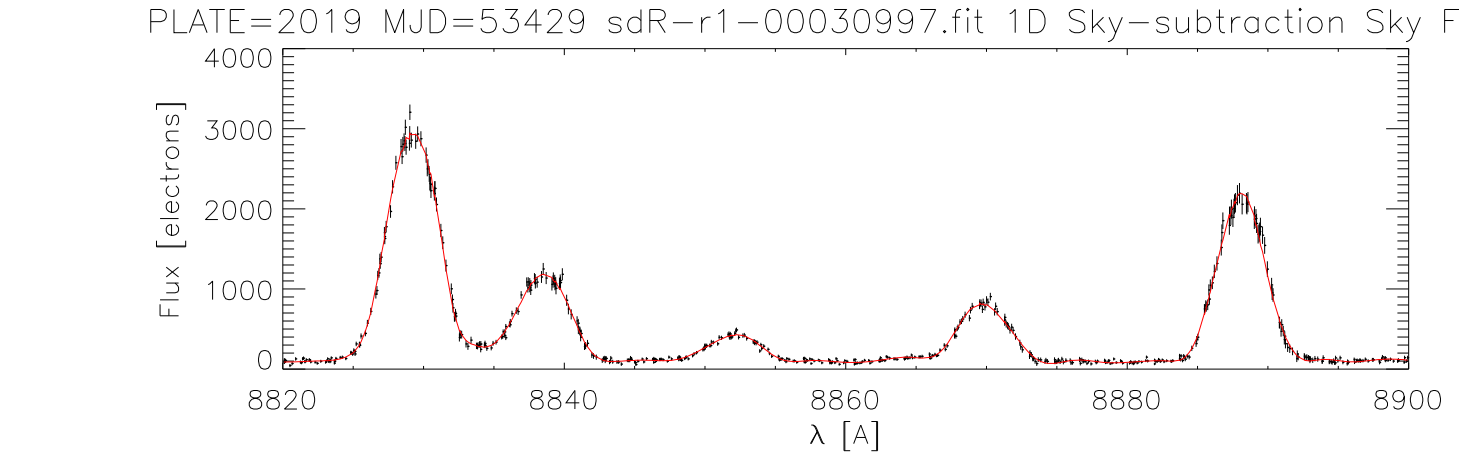

6300.3040
mfib1 16
mfib2 16
stdev 0.026
extra 0.28
6363.7760
mfib1 16
mfib2 16
stdev 0.029
extra 0.25
6553.6100
mfib1 16
mfib2 16
stdev 0.040
extra 0.29
6923.2100
mfib1 16
mfib2 16
stdev 0.038
extra 0.23
6949.0300
mfib1 15
mfib2 16
stdev 0.029
extra 0.45
7571.7500
mfib1 16
mfib2 16
stdev 0.031
extra 0.16
7794.1200
mfib1 16
mfib2 16
stdev 0.027
extra 0.25
7821.5100
mfib1 16
mfib2 16
stdev 0.027
extra 0.20
8399.1600
mfib1 16
mfib2 16
stdev 0.026
extra 0.48
8430.1700
mfib1 16
mfib2 16
stdev 0.024
extra 0.49
8885.8300
mfib1 15
mfib2 16
stdev 0.025
extra 0.48
8919.6100
mfib1 16
mfib2 16
stdev 0.027
extra 0.48
meas − pred, pix
1.0
0.5
0.0
−0.5
−1.0
0
100
200
300
400

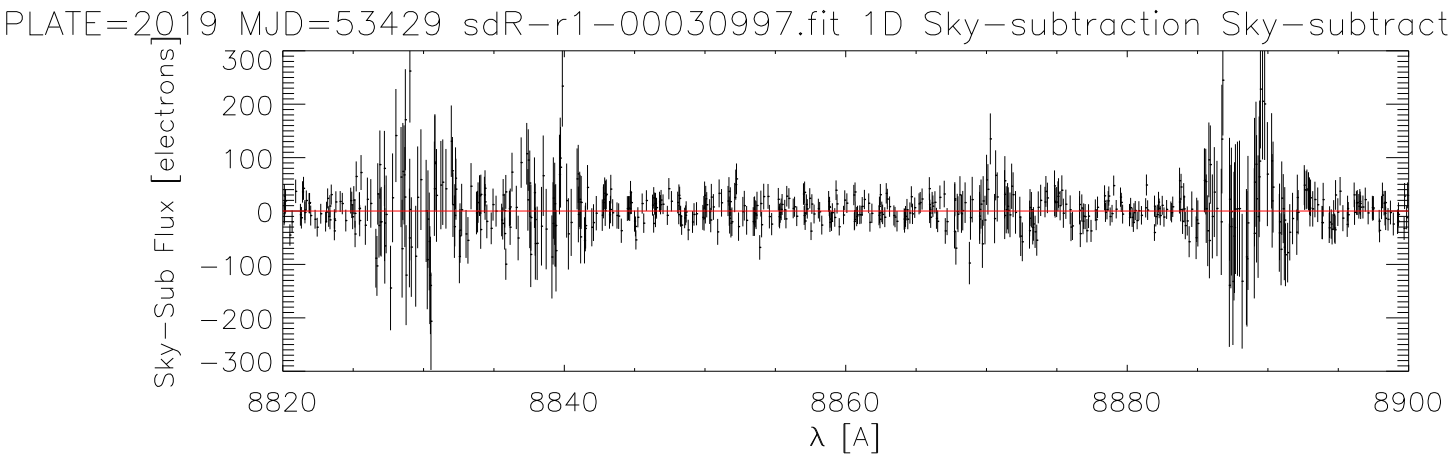

−0.15
−0.20
−0.25
−0.30
sky shift, pixels
5000
6000
7000
8000
9000
10000

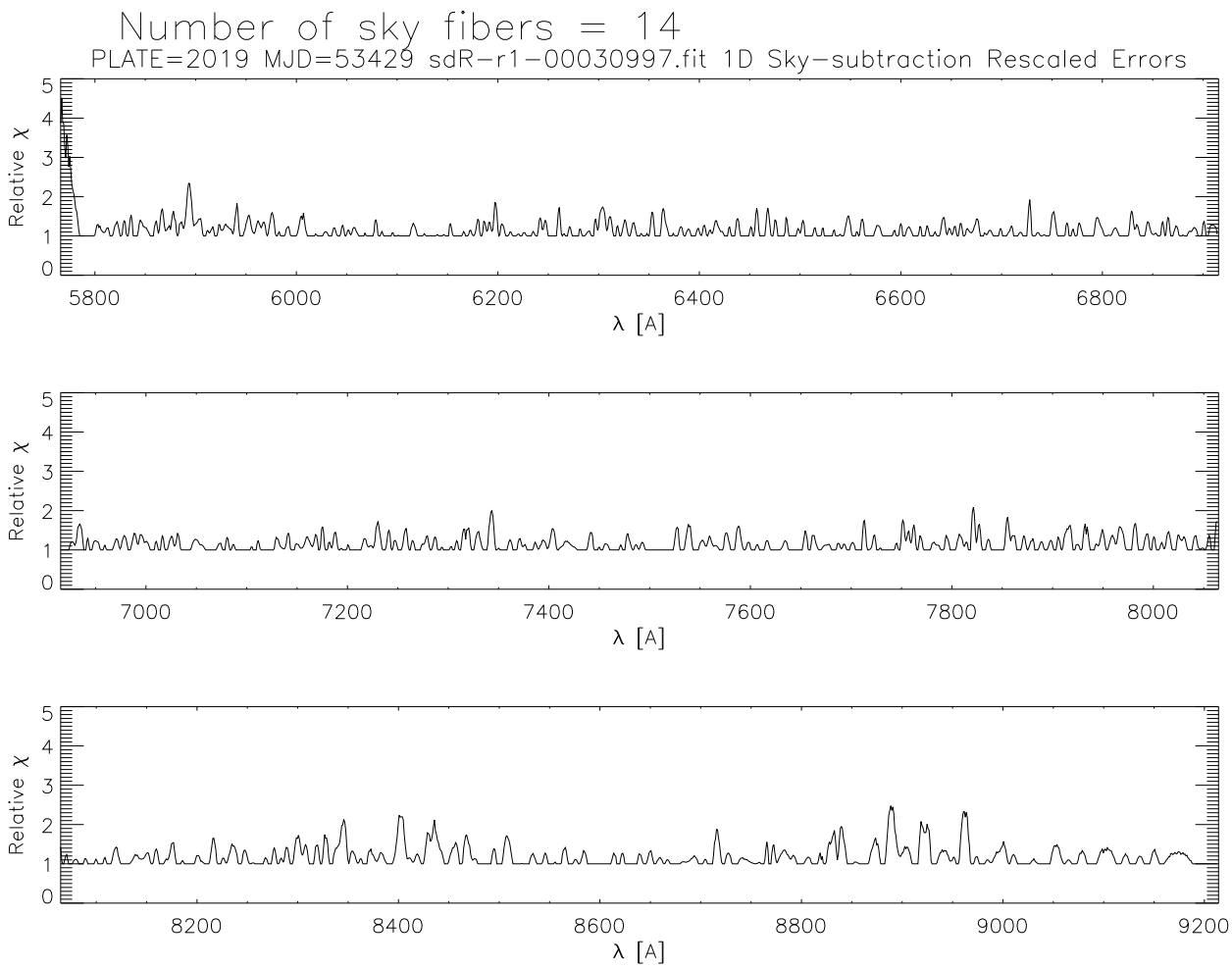

PLATE=2019 MJD=53429 Smooth superflat for sdR-r1-00030997.fit
2.0
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
es= -0.0000
6000
7000
8000
9000
Wavelength (Å)

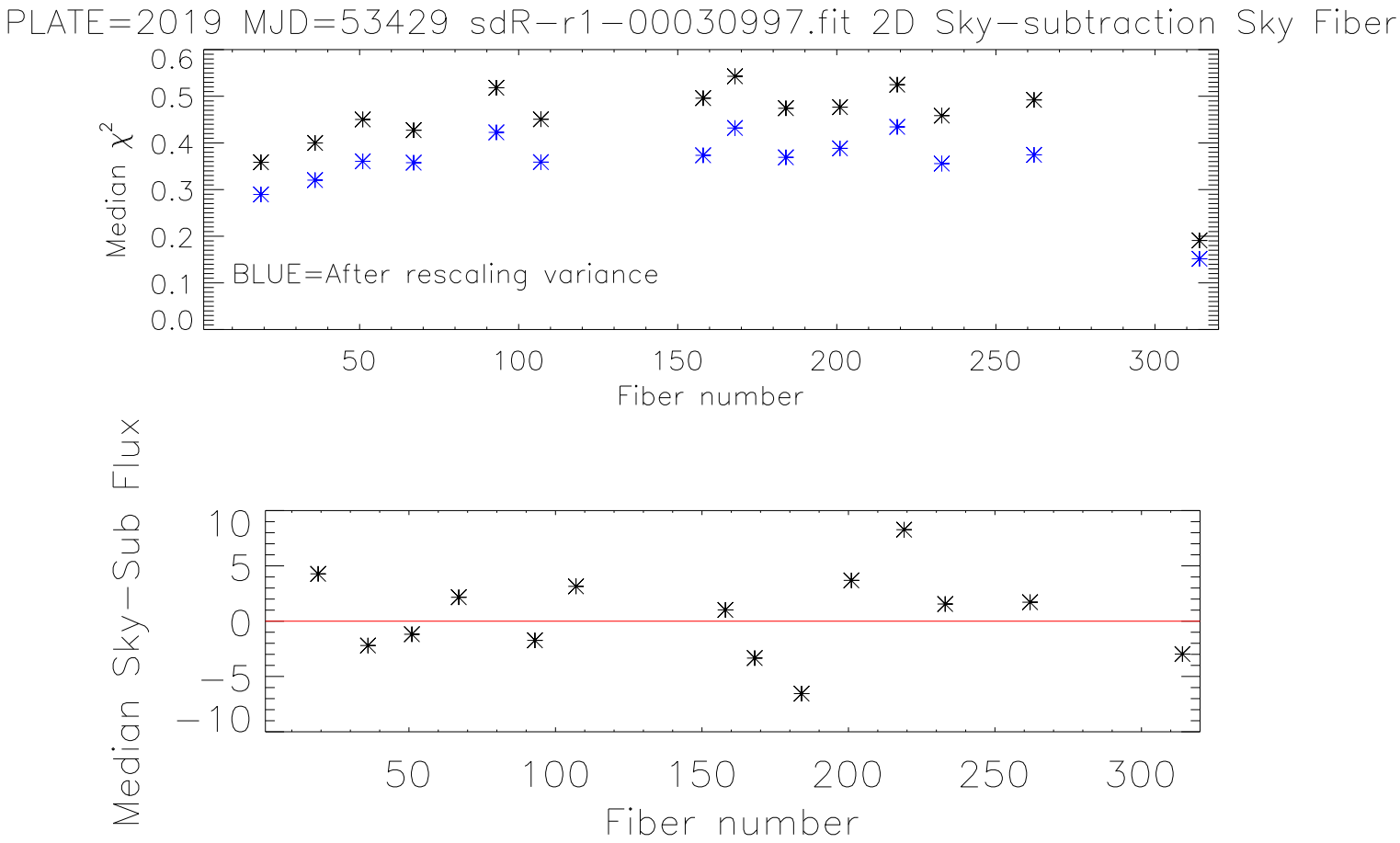

PLATE=2019 MJD=53429 sdR-r1-00030997.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number

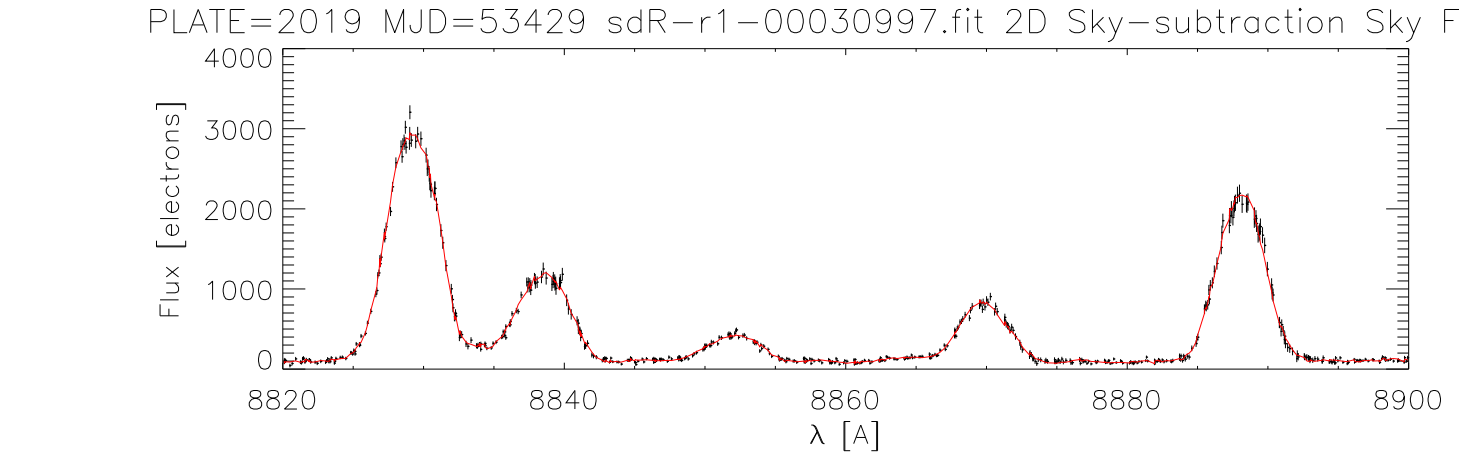
Median Sky-Sub Flux
15
10
5
0
−5
−10
50
100
150
200
250
300
Fiber number

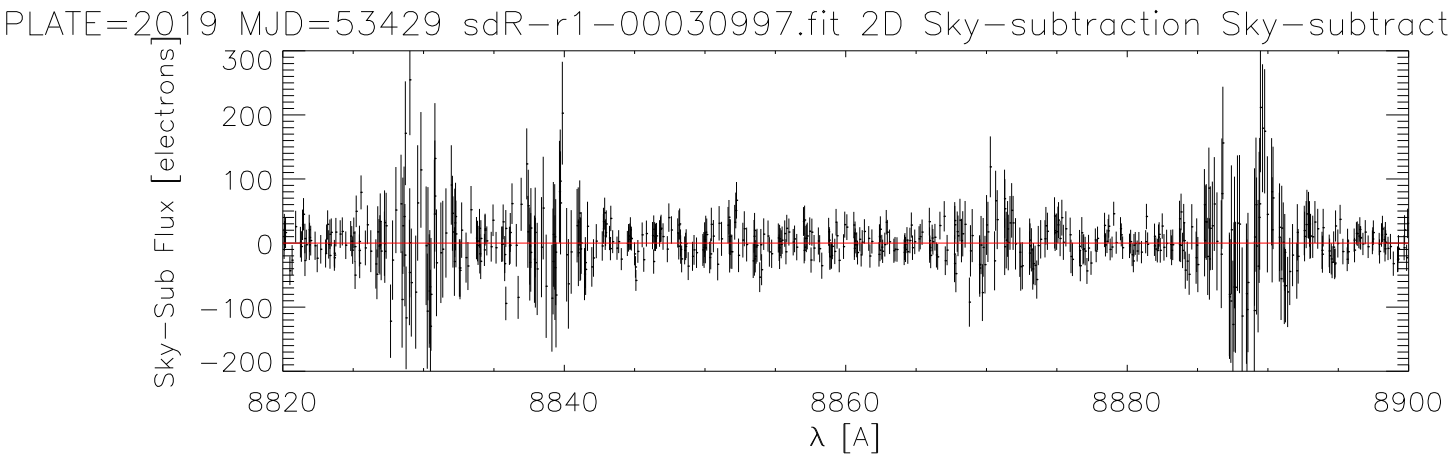

PLATE=2019 MJD=53429 sdR-r1-00030997.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

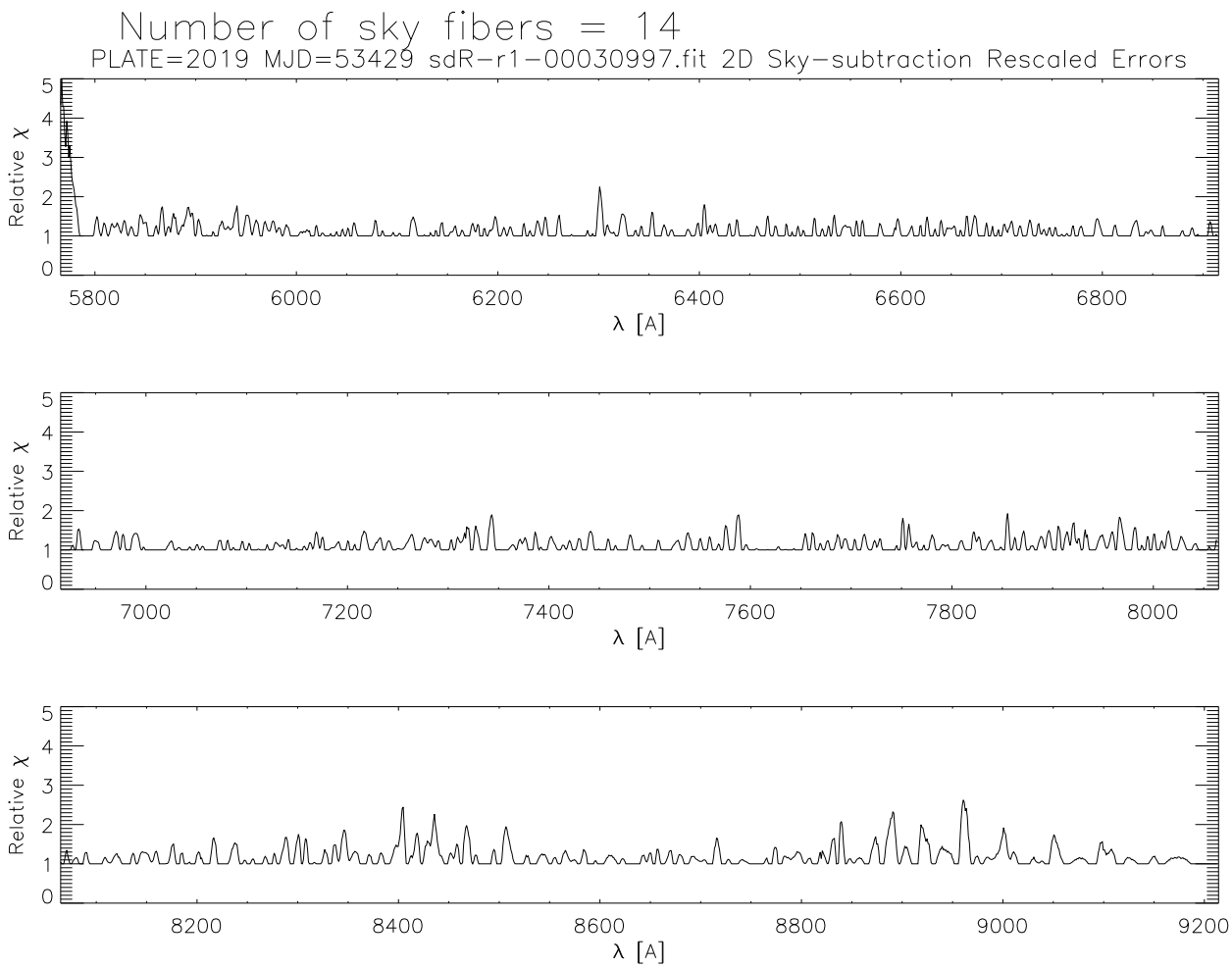

PLATE=2019 MJD=53429 sdR-r1-00030997.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
-300
8820
8840
8860
8880
8900
λ [A]

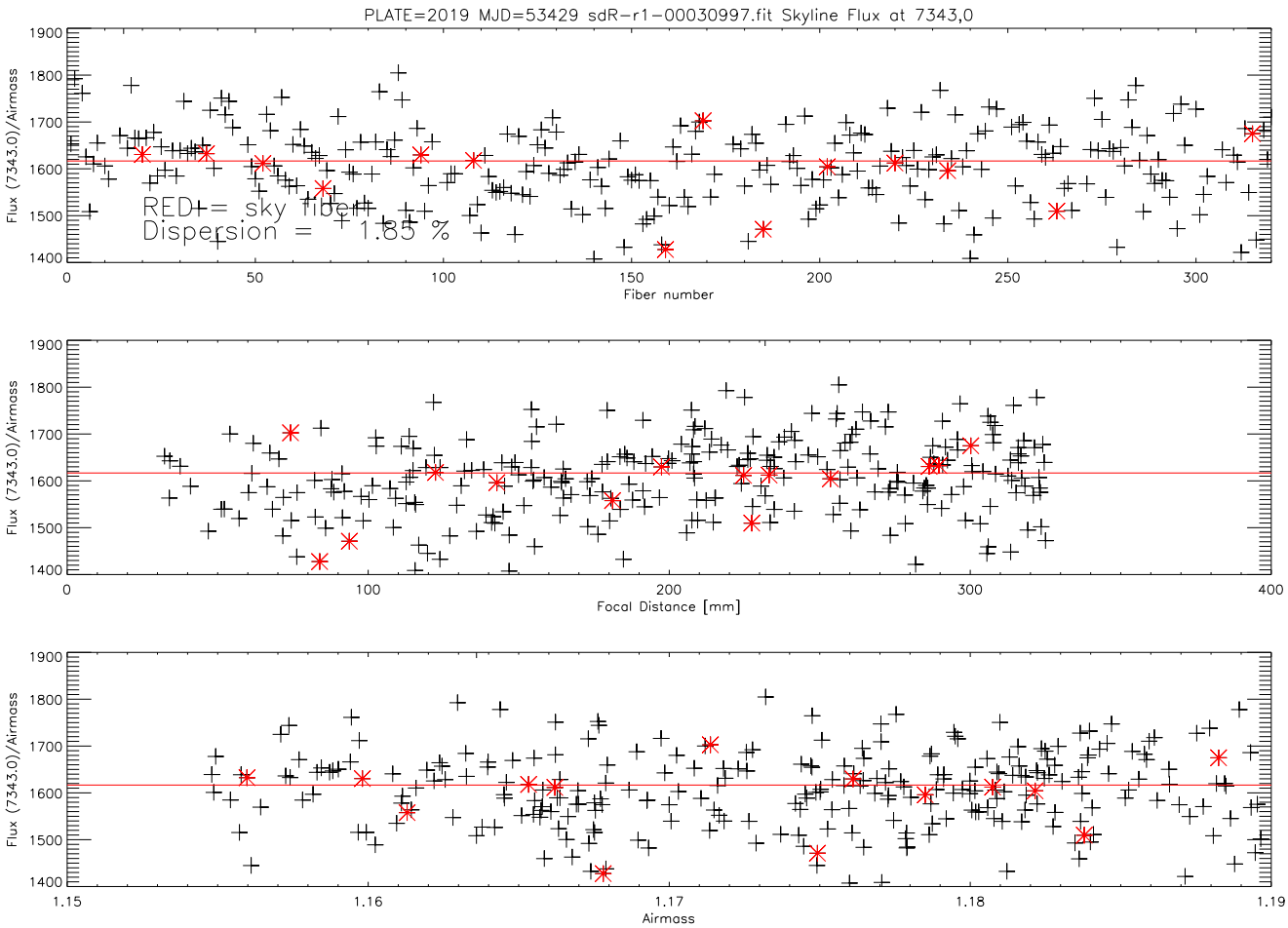

Number of sky fibers = 14
PLATE=2019 MJD=53429 sdR-r1-00030997.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

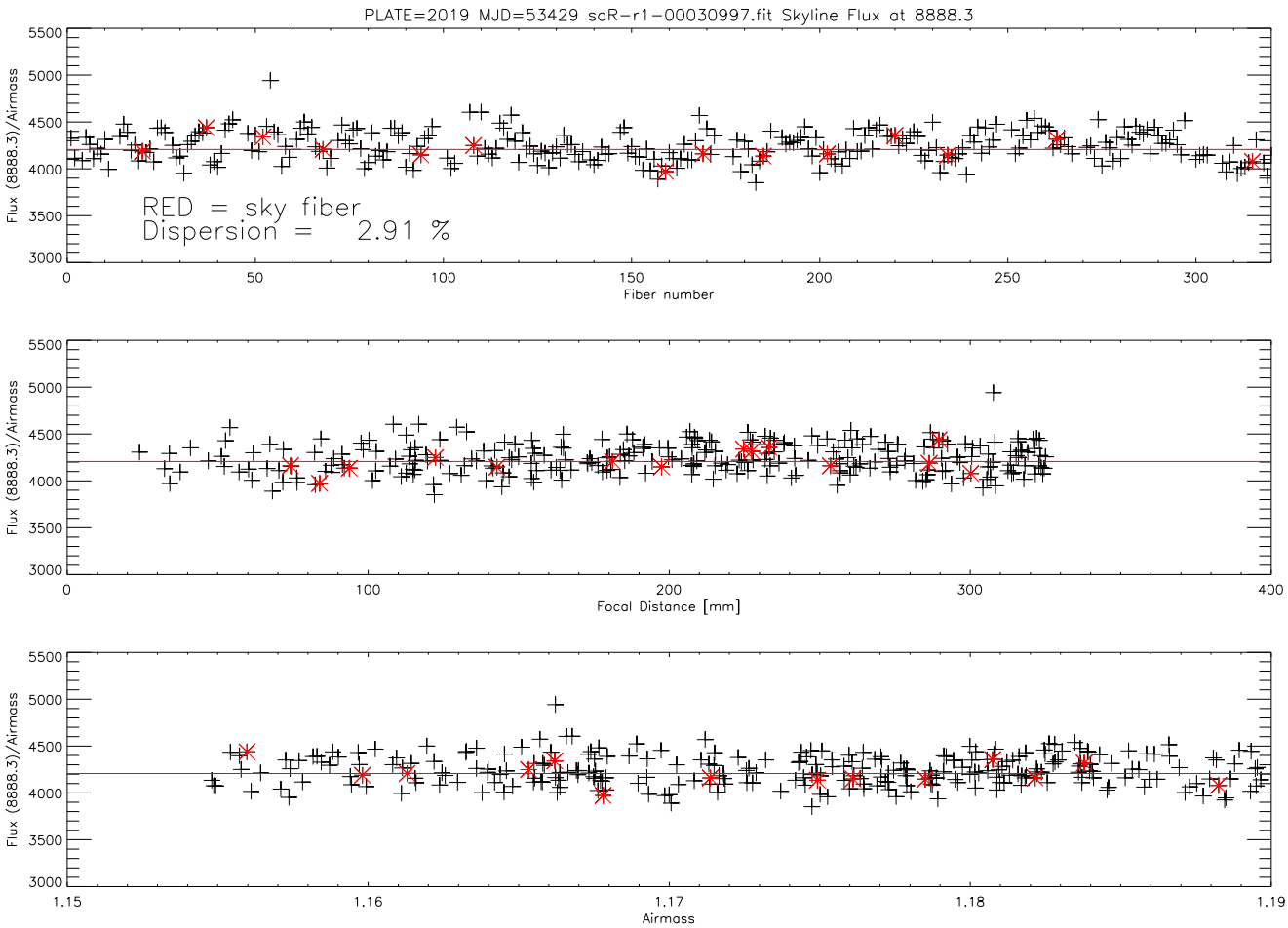

PLATE=2019 MJD=53429 sdR-r1-00030997.fit 2D Sky-subtraction Sky Fibers
Median χ^2
BLUE=After rescaling variance
Fiber number
Median Sky-Sub Flux
Fiber number

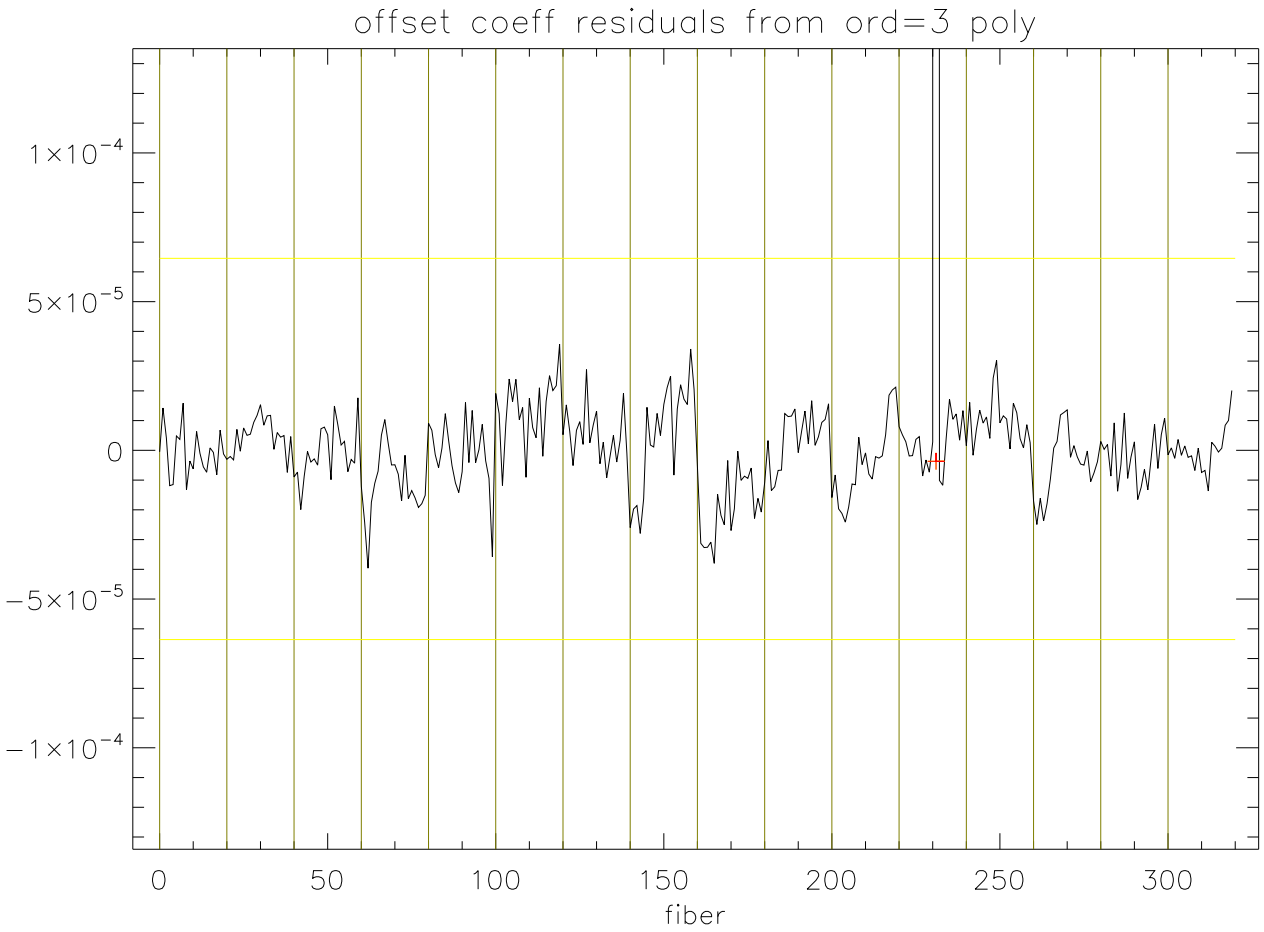

PLATE=2019 MJD=53429 sdR-r1-00030997.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

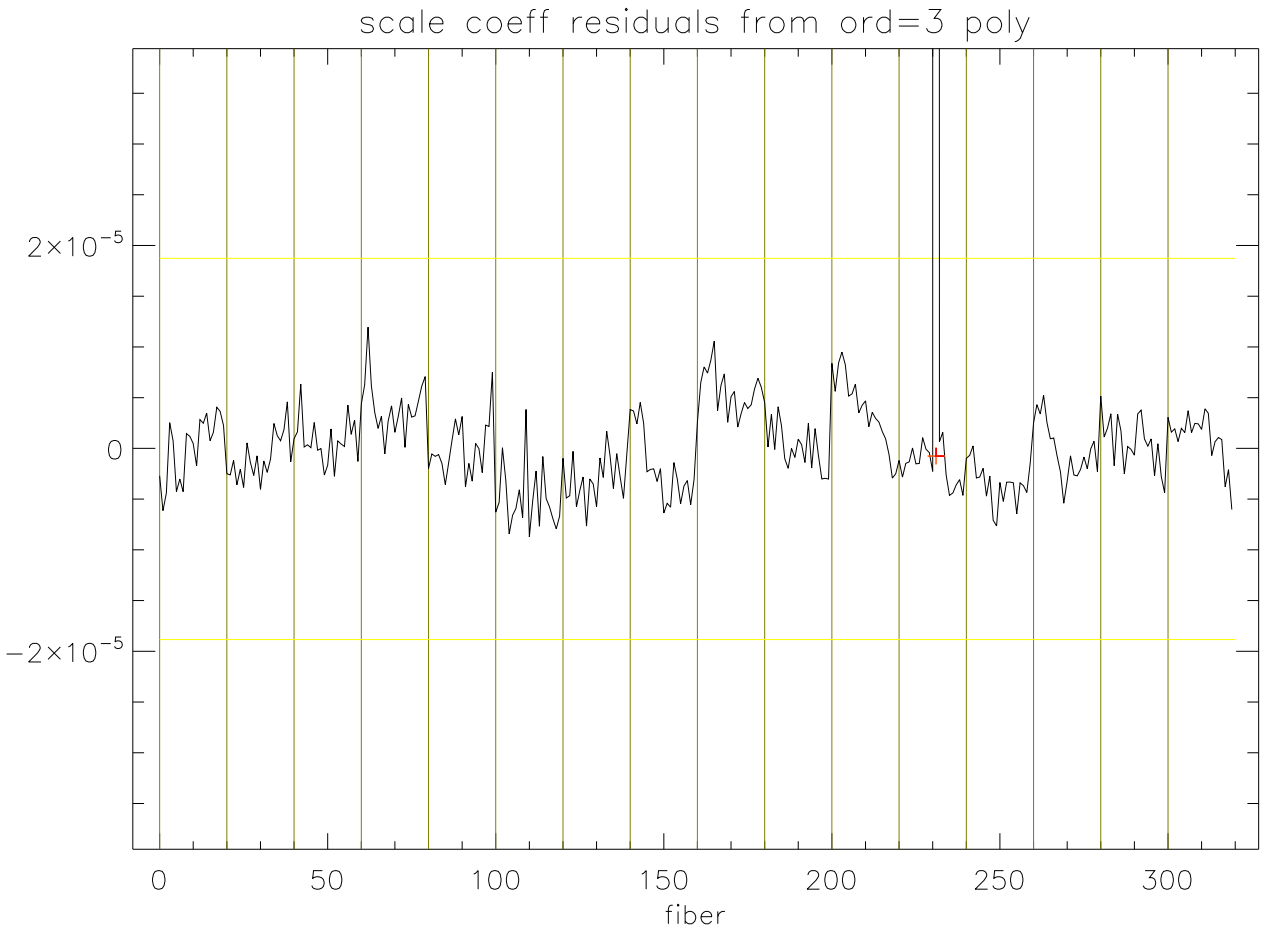

PLATE=2019 MJD=53429 sdR-r1-00030997.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
8820
8840
8860
8880
8900
λ [A]

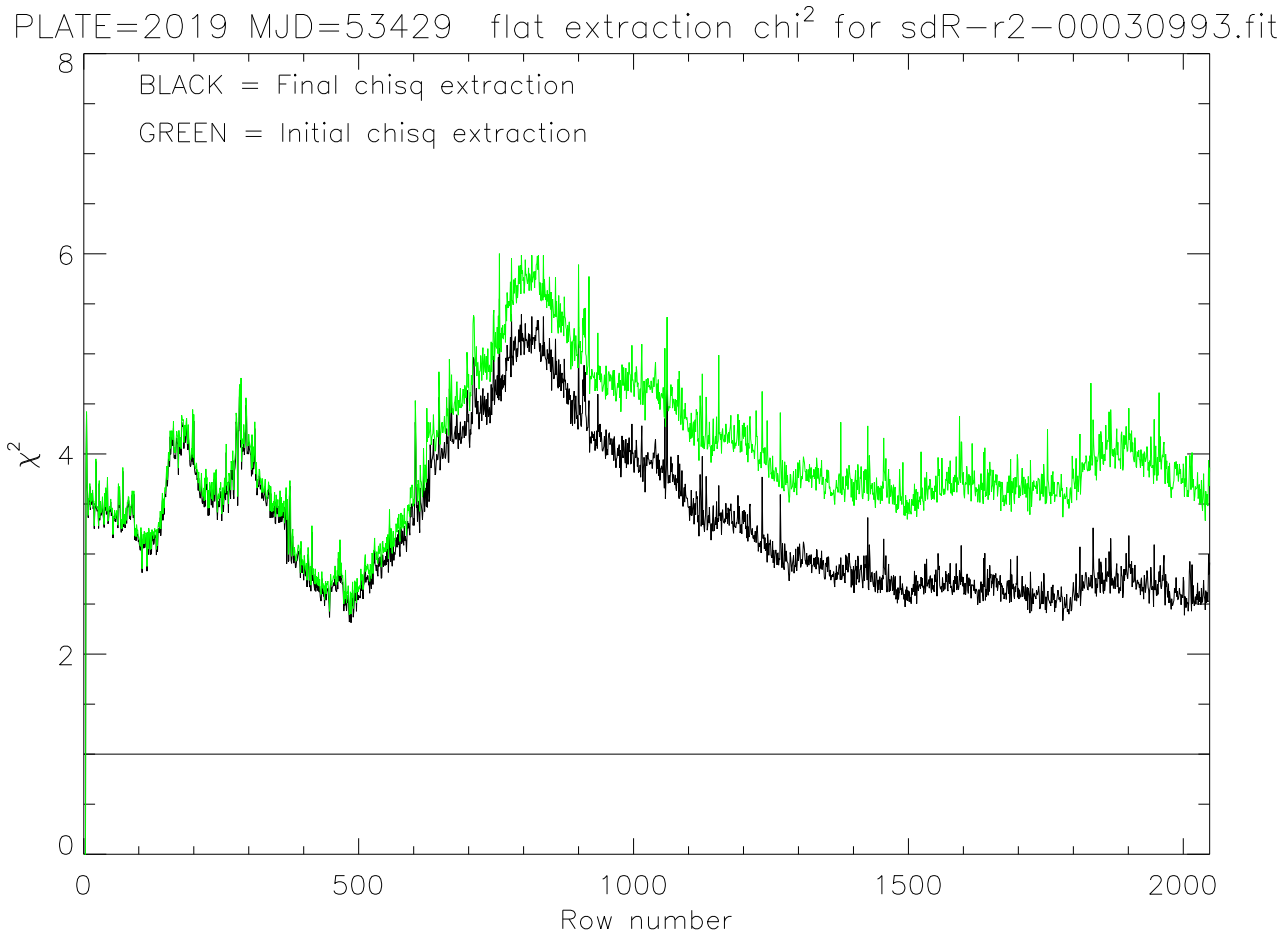

Number of sky fibers = 14
PLATE=2019 MJD=53429 sdR-r1-00030997.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

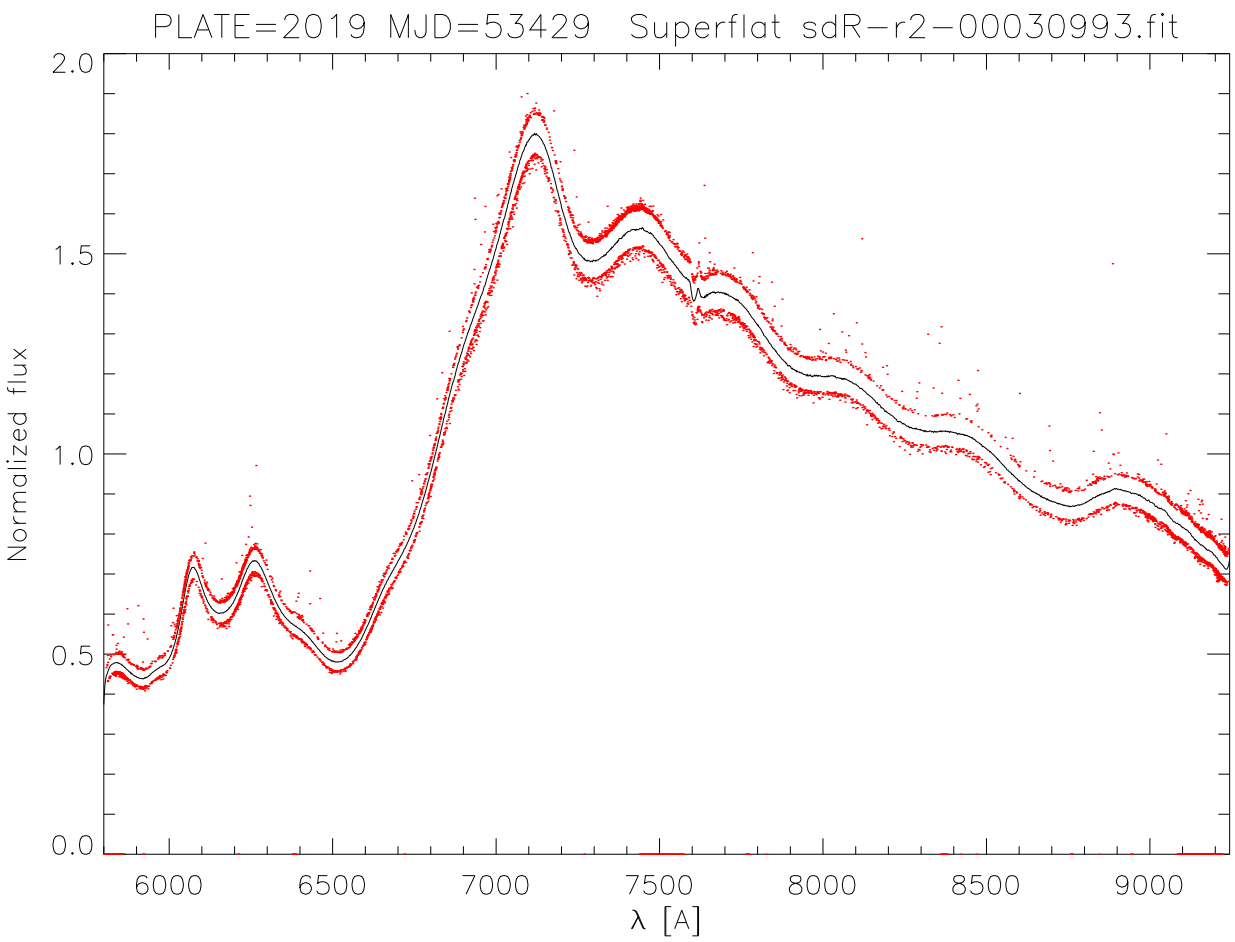

PLATE=2019 MJD=53429 sdR-r1-00030997.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
Fiber number
RED+= sky fiber
Dispersion = 1.85 %
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

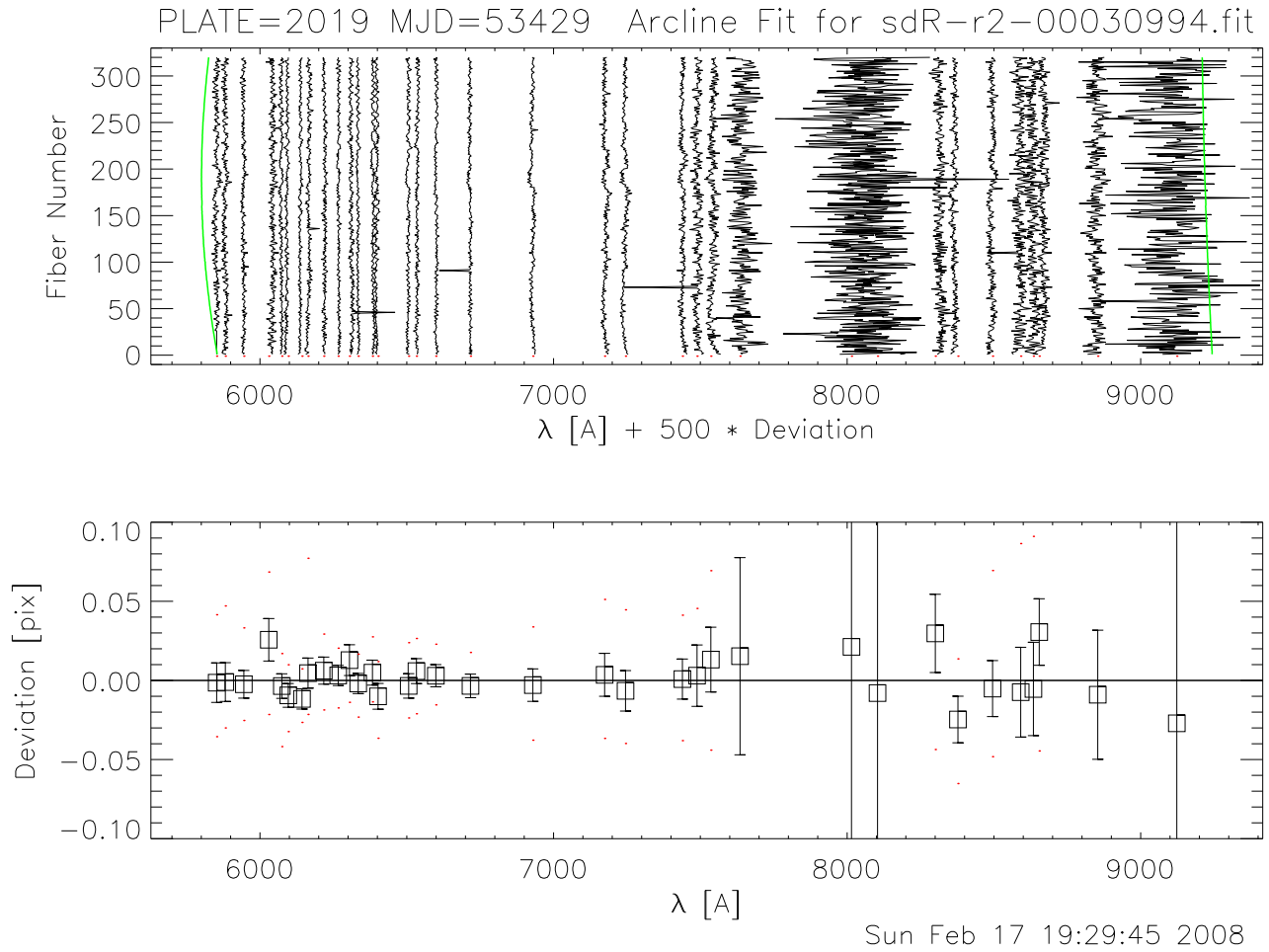

PLATE=2019 MJD=53429 sdR-r1-00030997.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 2.91 %
Fiber number
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass

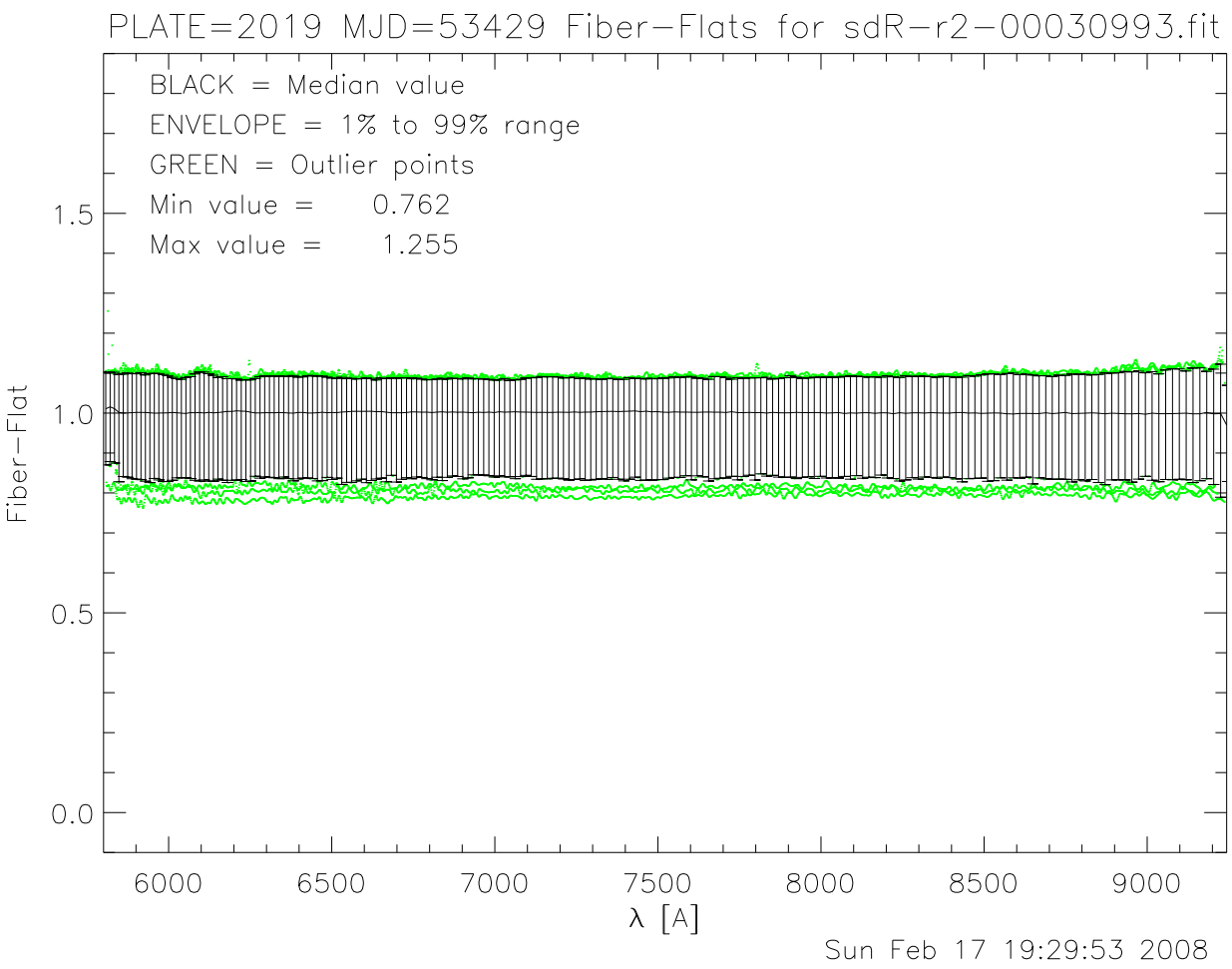

offset coeff residuals from ord=3 poly
1×10^-4
5×10^-5
0
−5×10^-5
−1×10^-4
0
50
100
150
200
250
300
fiber

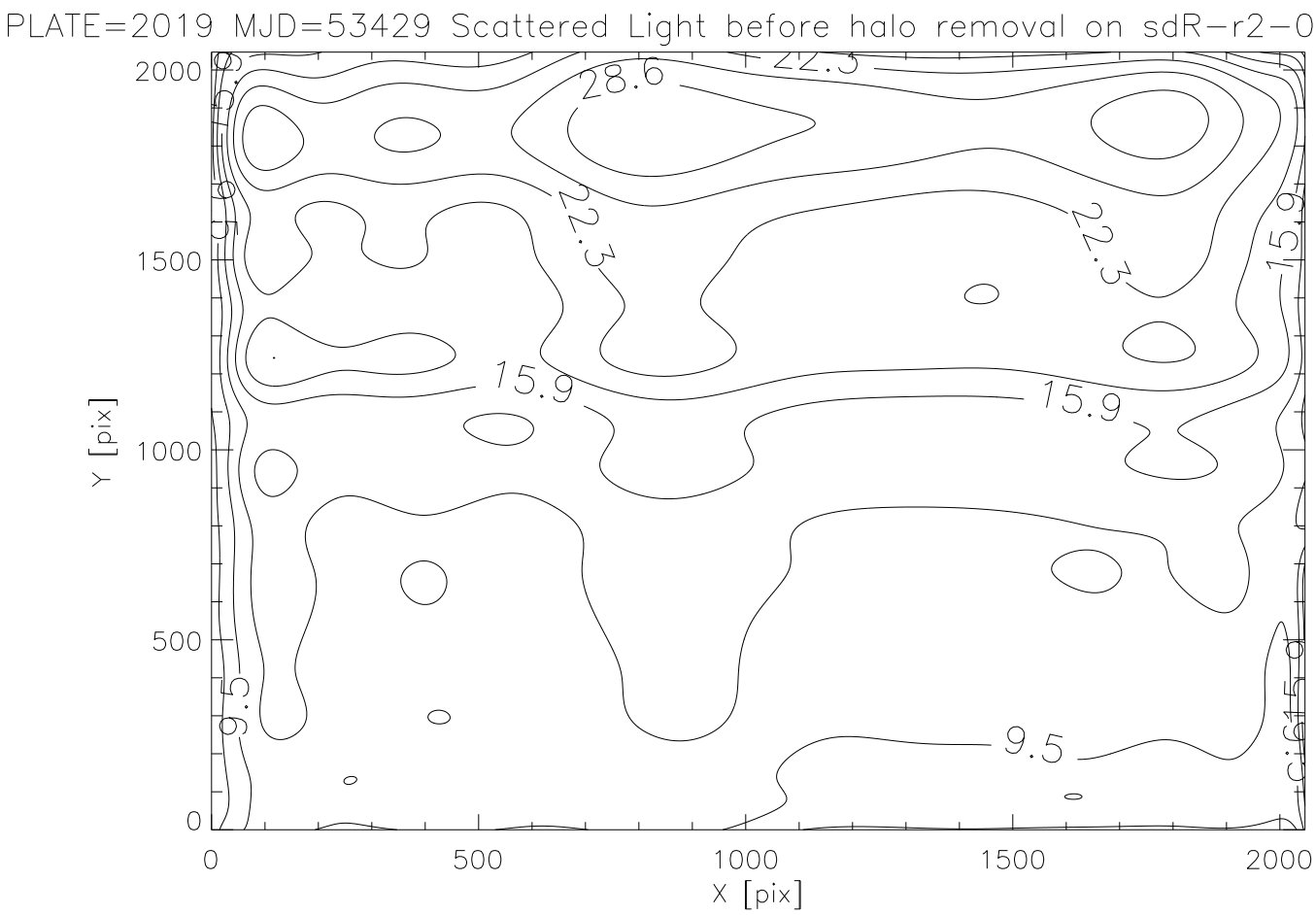

scale coeff residuals from ord=3 poly
2×10⁻⁵
0
−2×10⁻⁵
0
50
100
150
200
250
300
fiber

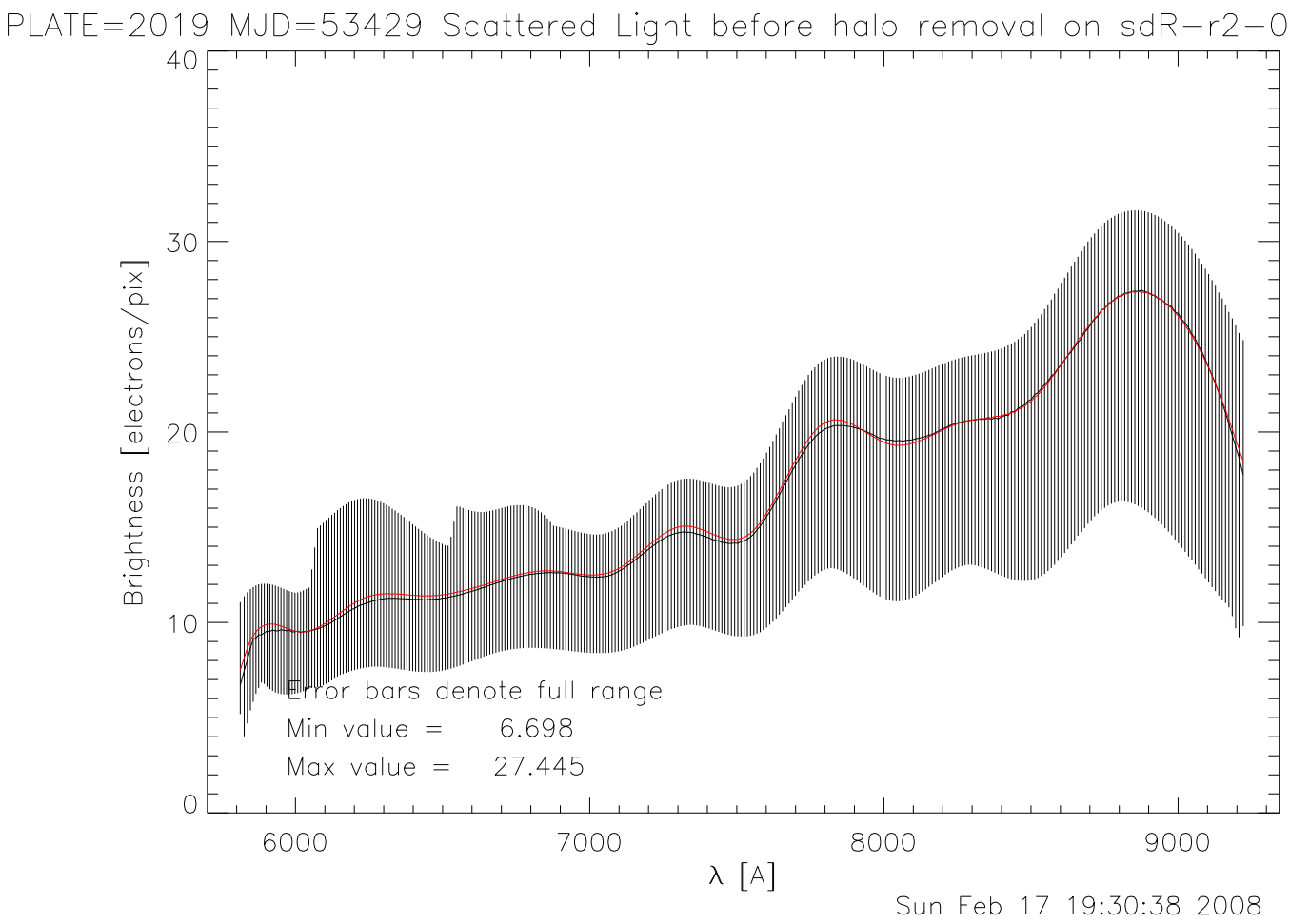

PLATE=2019 MJD=53429 flat extraction chi^2 for sdR−r2−00030993.fit
BLACK = Final chisq extraction
GREEN = Initial chisq extraction
χ^2
0
2
4
6
8
0
500
1000
1500
2000
Row number

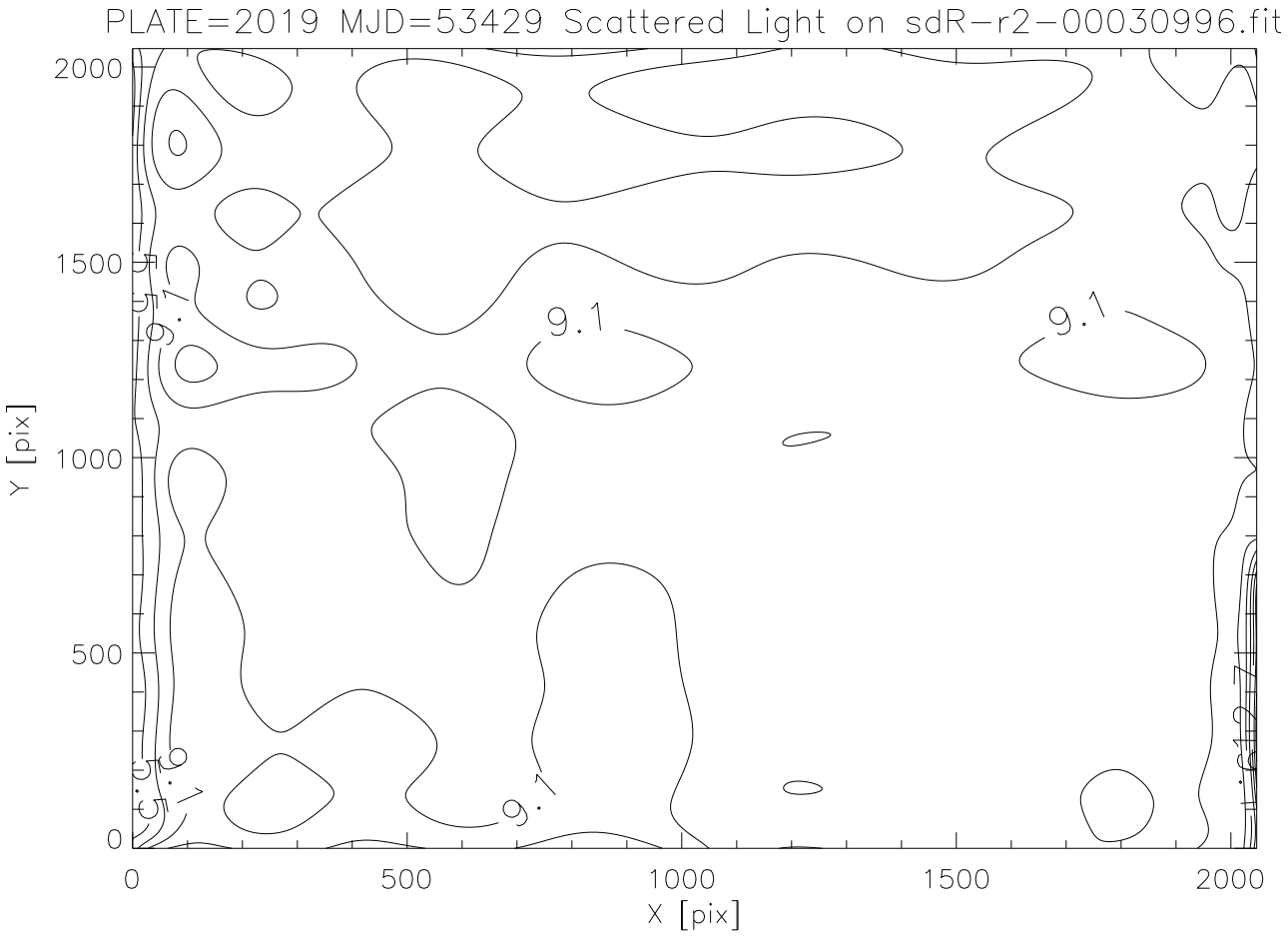

PLATE=2019 MJD=53429 Superflat sdR-r2-00030993.fit
Normalized flux
λ [A]
0.0
0.5
1.0
1.5
2.0
6000
6500
7000
7500
8000
8500
9000

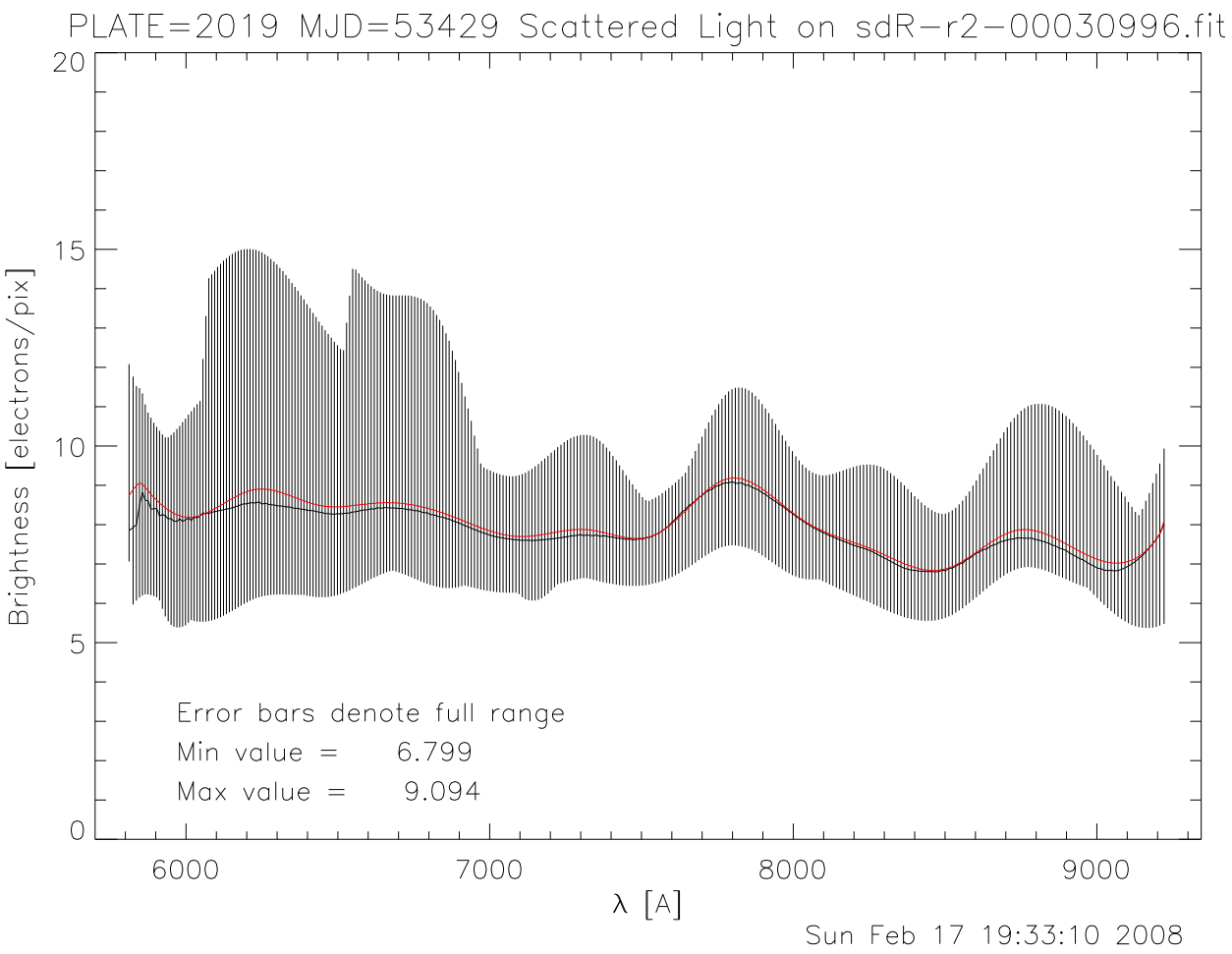

PLATE=2019 MJD=53429 Arcline Fit for sdR-r2-00030994.fit
Fiber Number
300
250
200
150
100
50
0
6000
7000
8000
9000
λ [A] + 500 * Deviation
Deviation [pix]
0.10
0.05
0.00
−0.05
−0.10
6000
7000
8000
9000
λ [A]
Sun Feb 17 19:29:45 2008

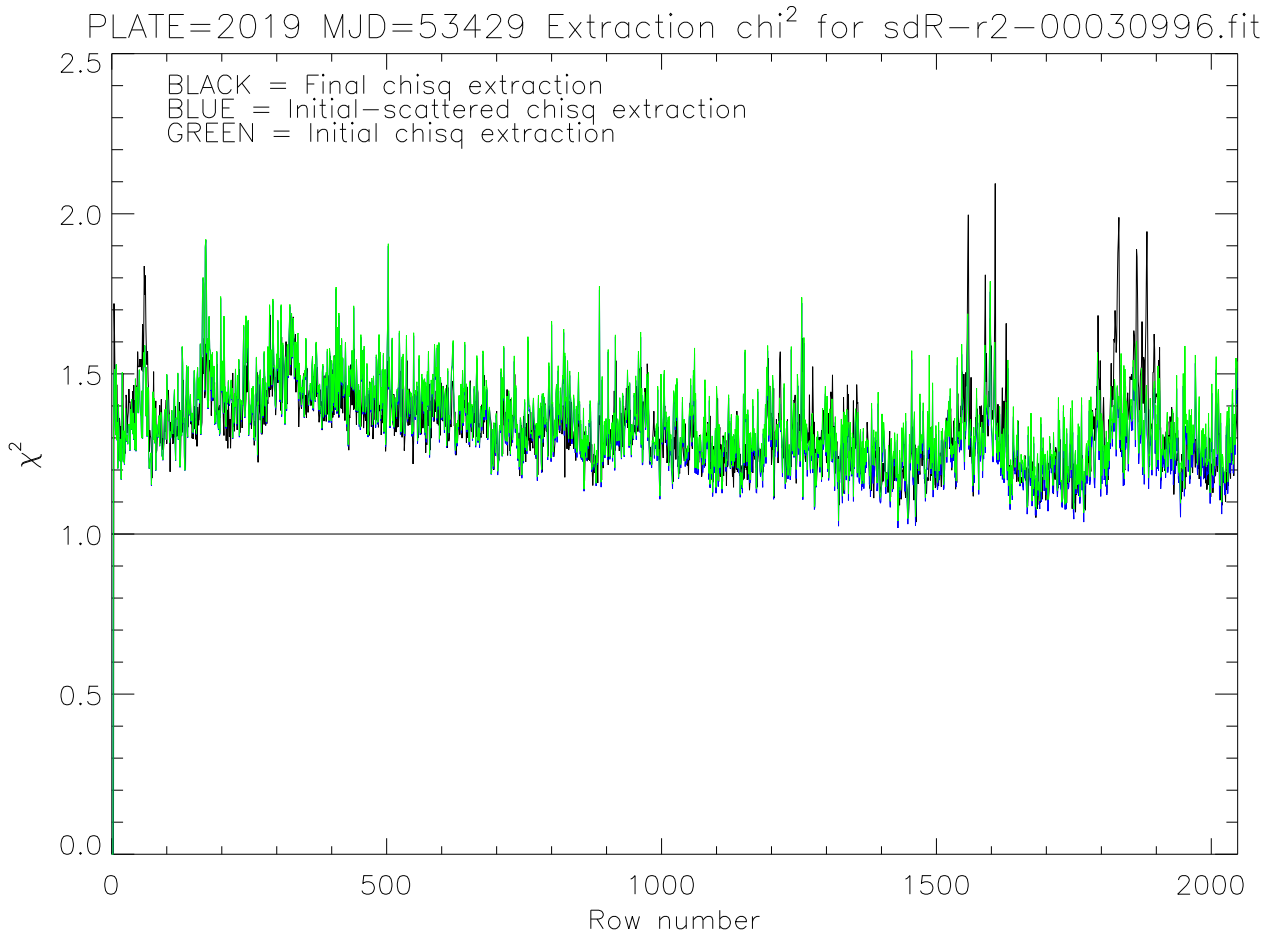

PLATE=2019 MJD=53429 Fiber−Flats for sdR−r2−00030993.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.762
Max value = 1.255
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sun Feb 17 19:29:53 2008

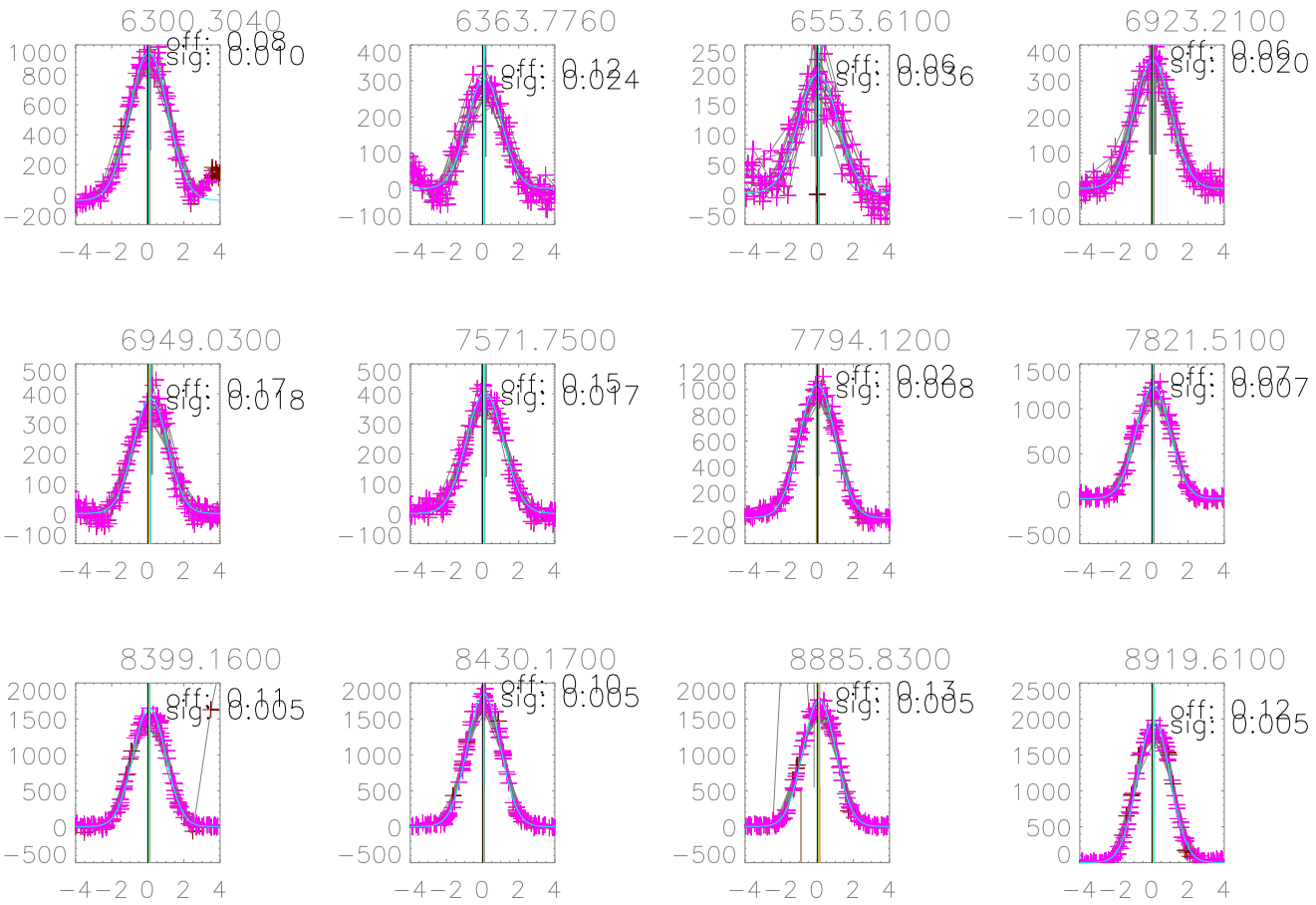

PLATE=2019 MJD=53429 Scattered Light before halo removal on sdR-r2-00030996.fi
28.6
22.3
22.3
15.9
15.9
15.9
9.5
9.5
9.5
Y [pix]
X [pix]
0
500
1000
1500
2000

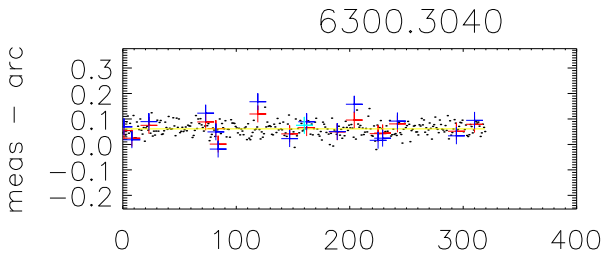

PLATE=2019 MJD=53429 Scattered Light before halo removal on sdR-r2-00030996.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 6.698
Max value = 27.445
Sun Feb 17 19:30:38 2008

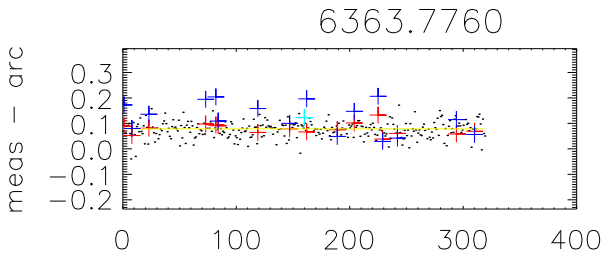

PLATE=2019 MJD=53429 Scattered Light on sdR-r2-00030996.fit
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
9.1
9.1
9.1
9.1
9.1
9.1

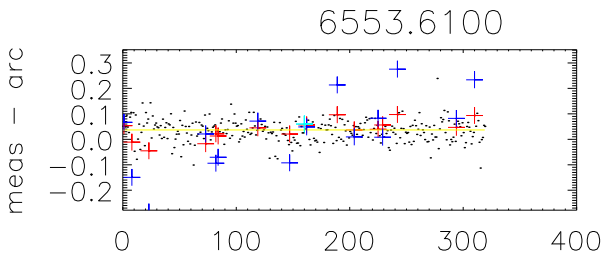

PLATE=2019 MJD=53429 Scattered Light on sdR-r2-00030996.fit
Brightness [electrons/pix]
20
15
10
5
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 6.799
Max value = 9.094
Sun Feb 17 19:33:10 2008

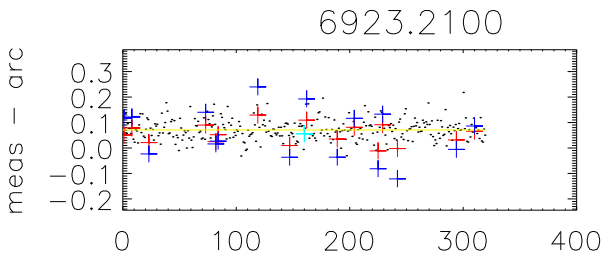

PLATE=2019 MJD=53429 Extraction chi^2 for sdR−r2−00030996.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
2.5
2.0
1.5
1.0
0.5
0.0
0
500
1000
1500
2000
Row number

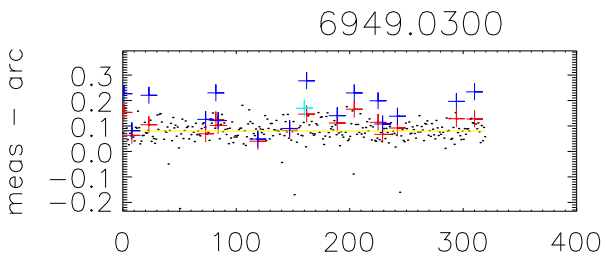

6300.3040
off: 0.08
sig: 0.010
6363.7760
off: 0.12
sig: 0.024
6553.6100
off: 0.06
sig: 0.036
6923.2100
off: 0.06
sig: 0.020
6949.0300
off: 0.17
sig: 0.018
7571.7500
off: 0.15
sig: 0.017
7794.1200
off: 0.02
sig: 0.008
7821.5100
off: 0.07
sig: 0.007
8399.1600
off: 0.11
sig: 0.005
8430.1700
off: 0.10
sig: 0.005
8885.8300
off: 0.13
sig: 0.005
8919.6100
off: 0.12
sig: 0.005

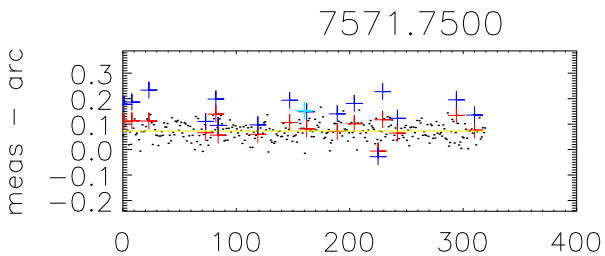

6300.3040
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

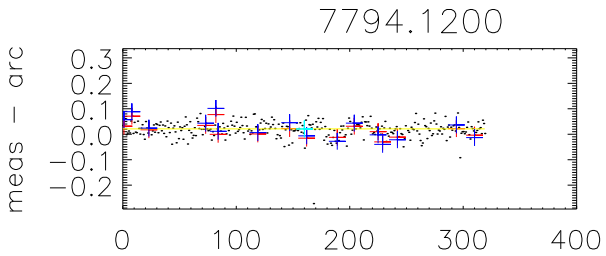

6363.7760
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

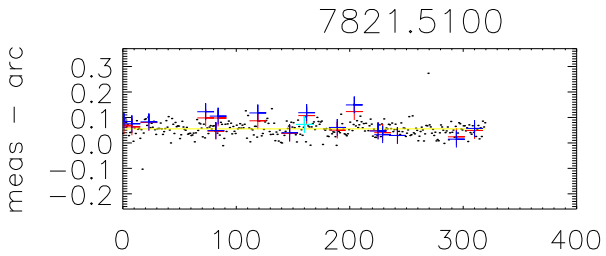

6553.6100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

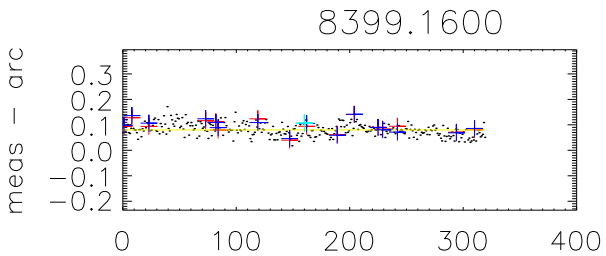

6923.2100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

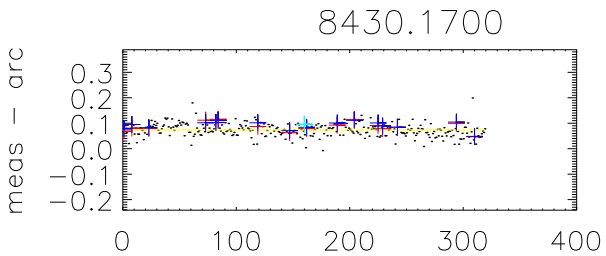

6949.0300
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

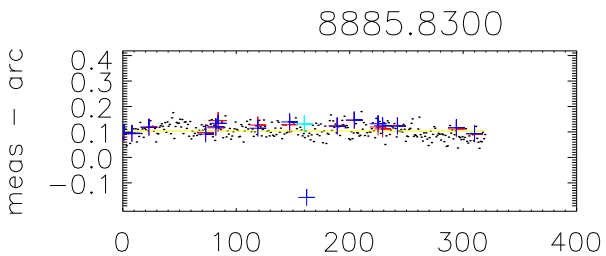

7571.7500
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

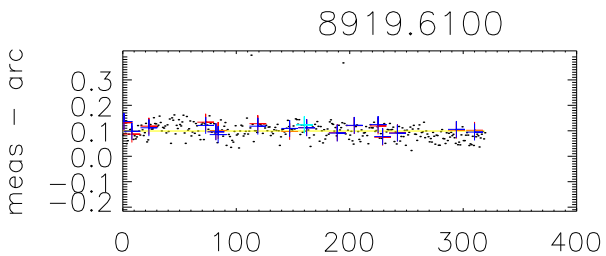

7794.1200
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

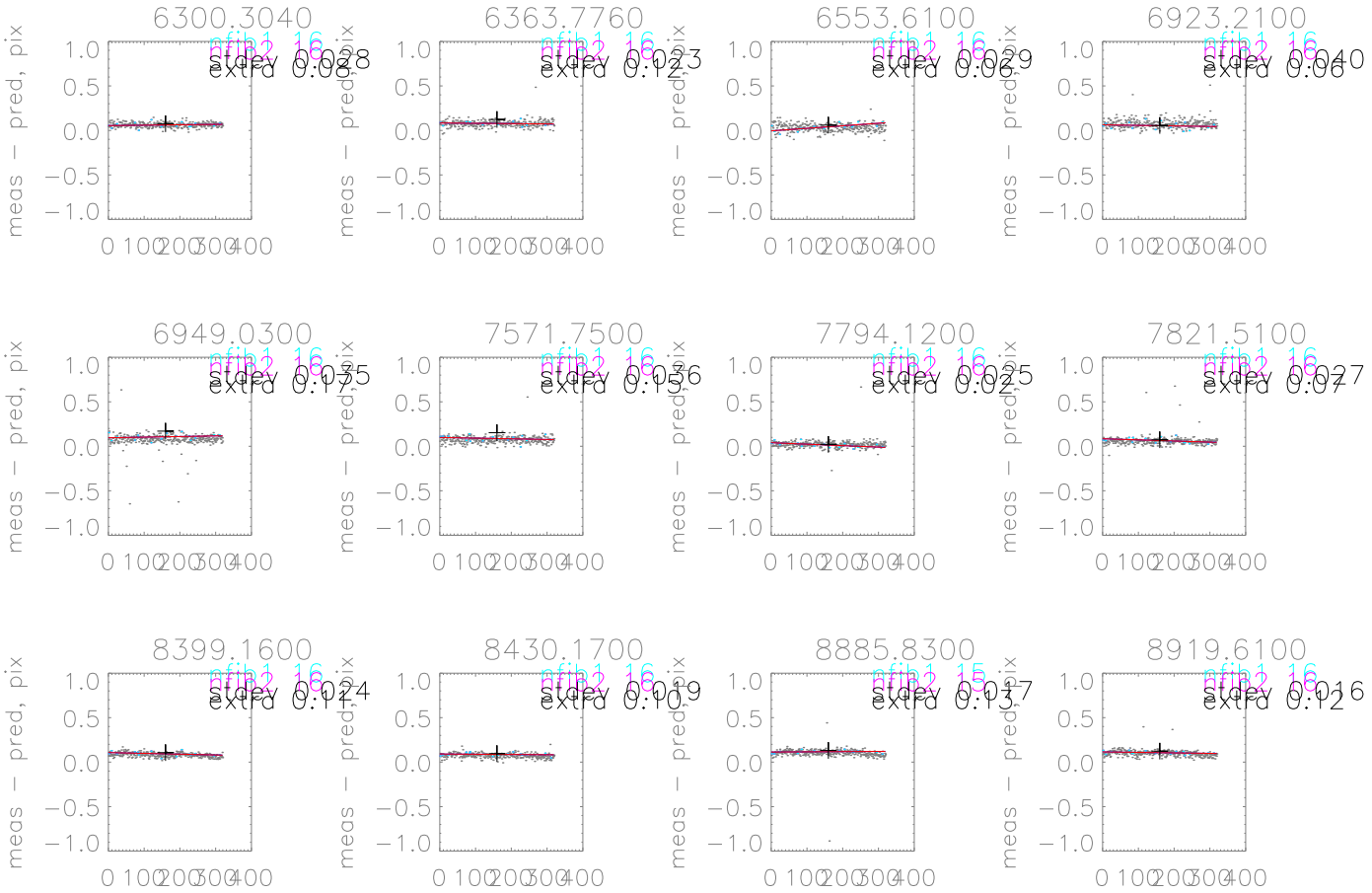

7821.5100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

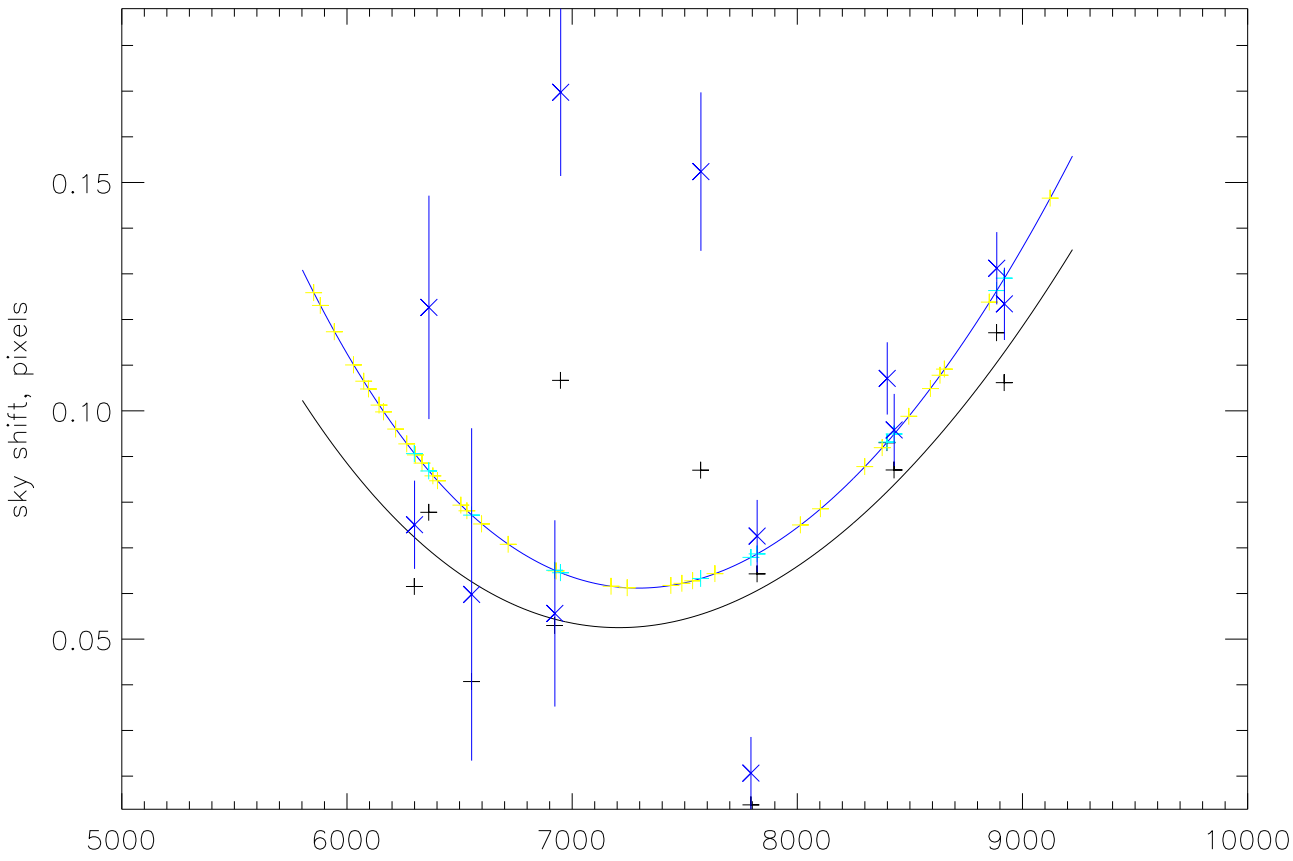

8399.1600
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

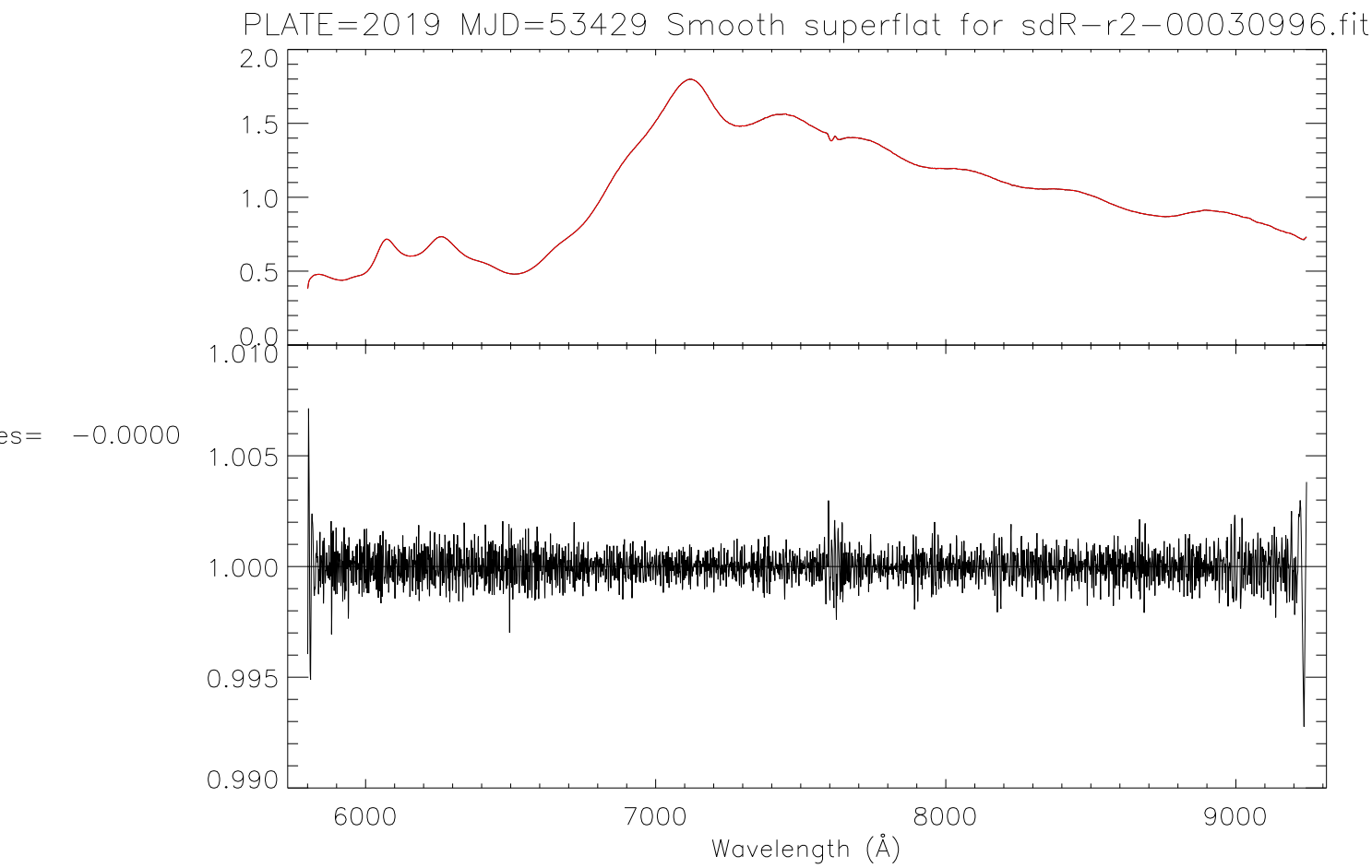

8430.1700
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400


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

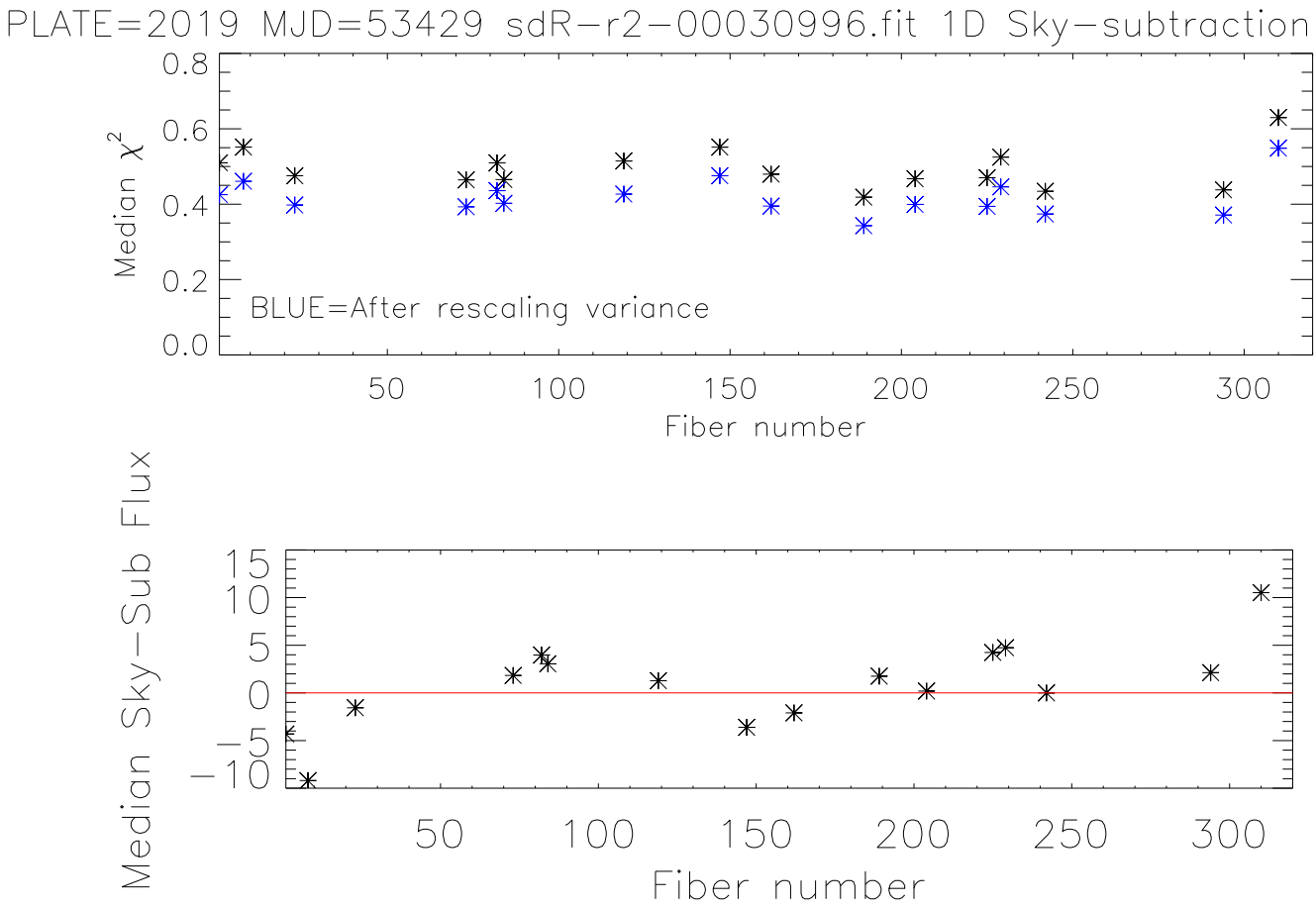

8919.6100
meas − arc
0.3
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400

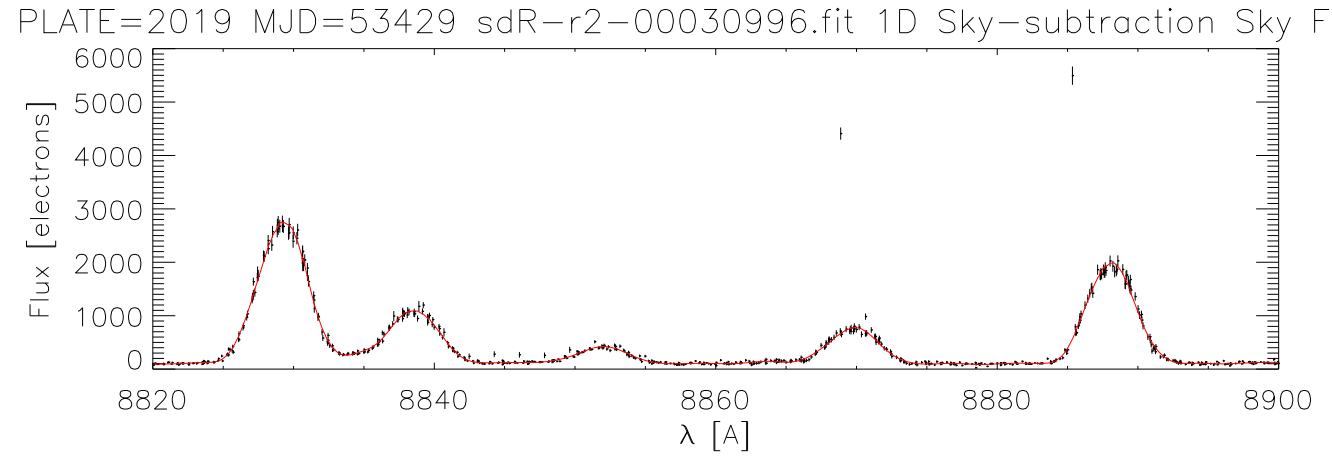

6300.3040
stdev 0.028
extra 0.08
6363.7760
stdev 0.023
extra 0.12
6553.6100
stdev 0.029
extra 0.06
6923.2100
stdev 0.040
extra 0.06
6949.0300
stdev 0.035
extra 0.17
7571.7500
stdev 0.036
extra 0.15
7794.1200
stdev 0.025
extra 0.02
7821.5100
stdev 0.027
extra 0.07
8399.1600
stdev 0.024
extra 0.11
8430.1700
stdev 0.019
extra 0.10
8885.8300
stdev 0.017
extra 0.13
8919.6100
stdev 0.016
extra 0.12
meas − pred, pix

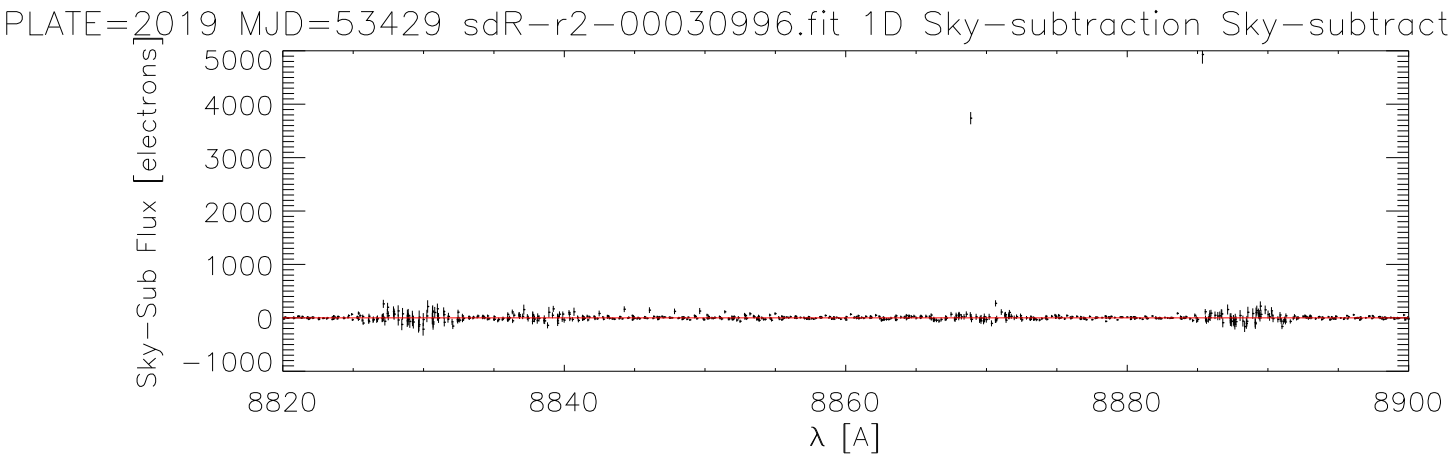

sky shift, pixels
0.15
0.10
0.05
5000
6000
7000
8000
9000
10000

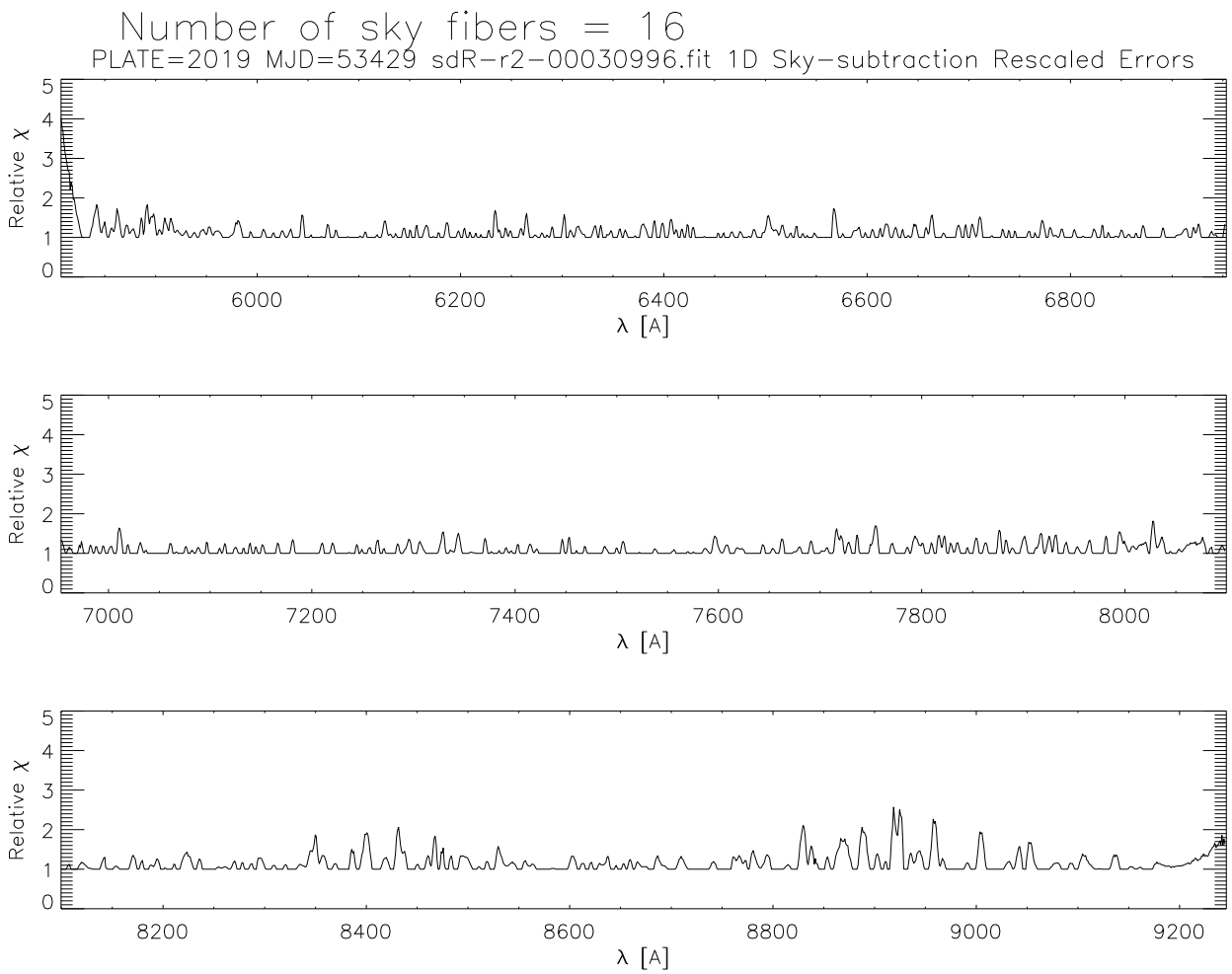

PLATE=2019 MJD=53429 Smooth superflat for sdR-r2-00030996.fit
2.0
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
6000
7000
8000
9000
Wavelength (Å)

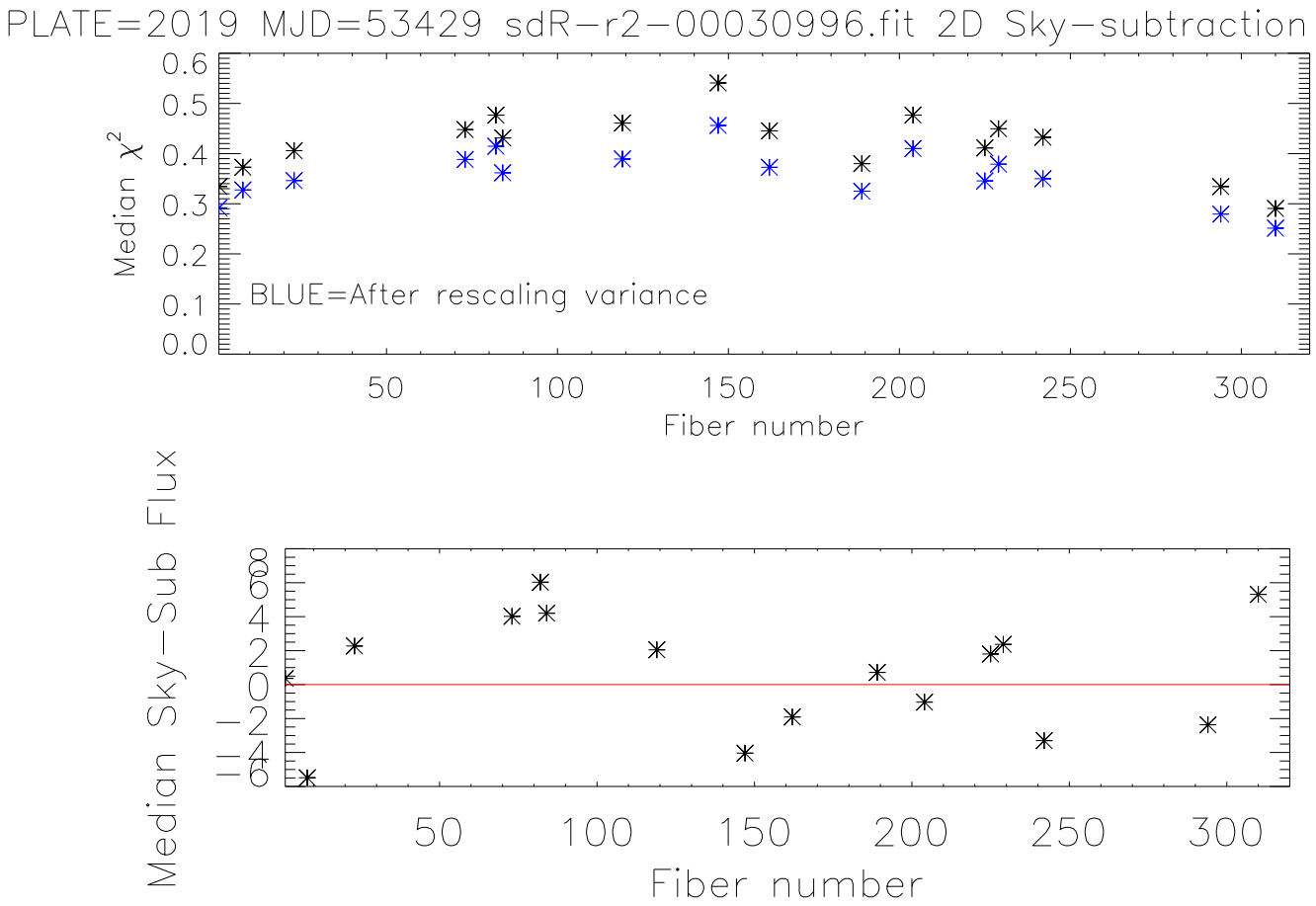
es= −0.0000

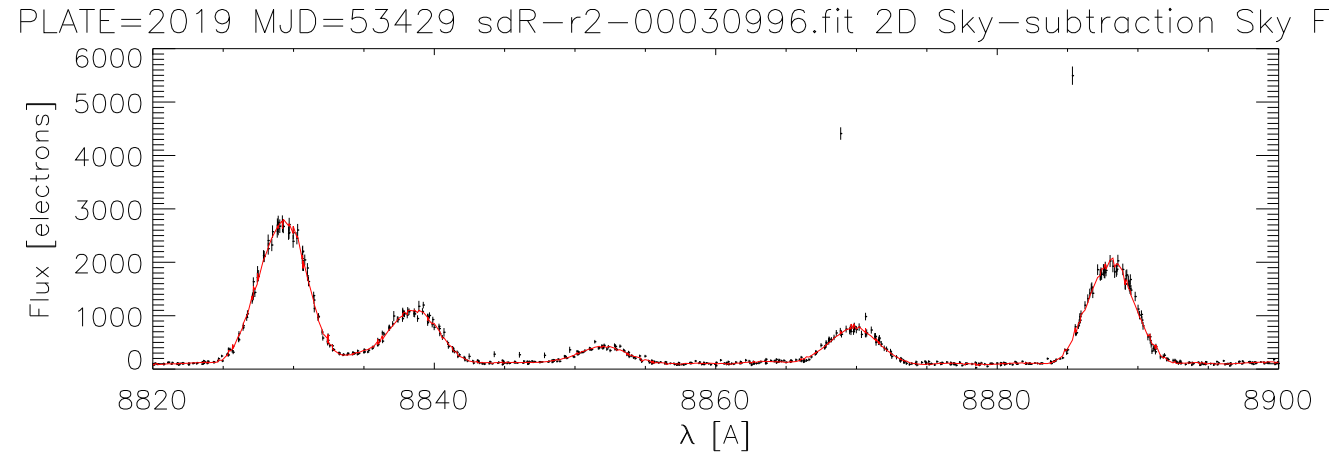

PLATE=2019 MJD=53429 sdR-r2-00030996.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.2
0.4
0.6
0.8
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
15
10
5
0
-5
-10
50
100
150
200
250
300
Fiber number

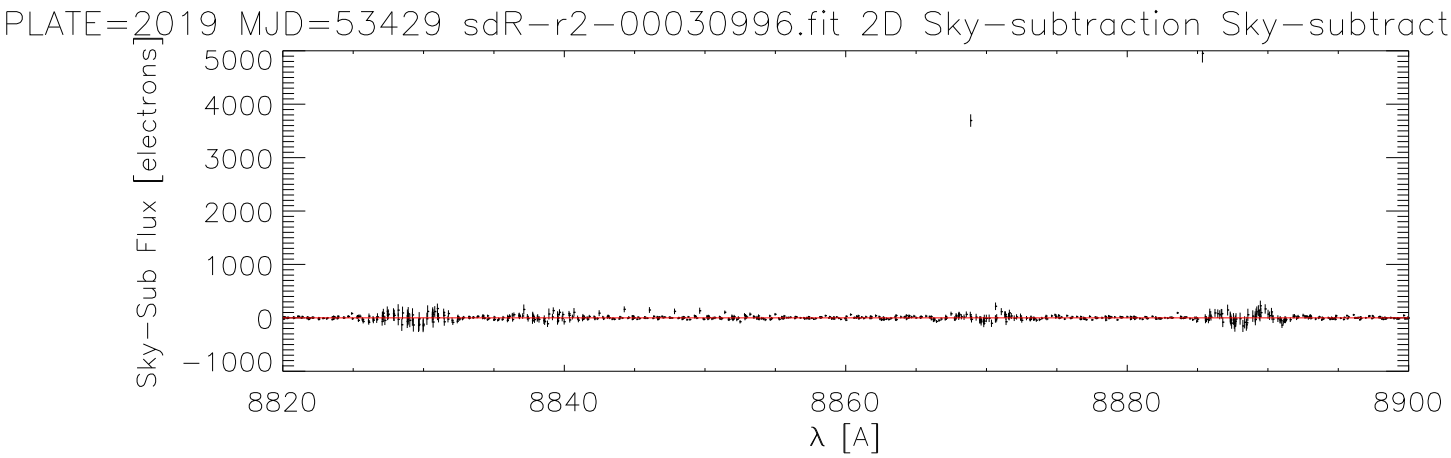

PLATE=2019 MJD=53429 sdR-r2-00030996.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
6000
5000
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

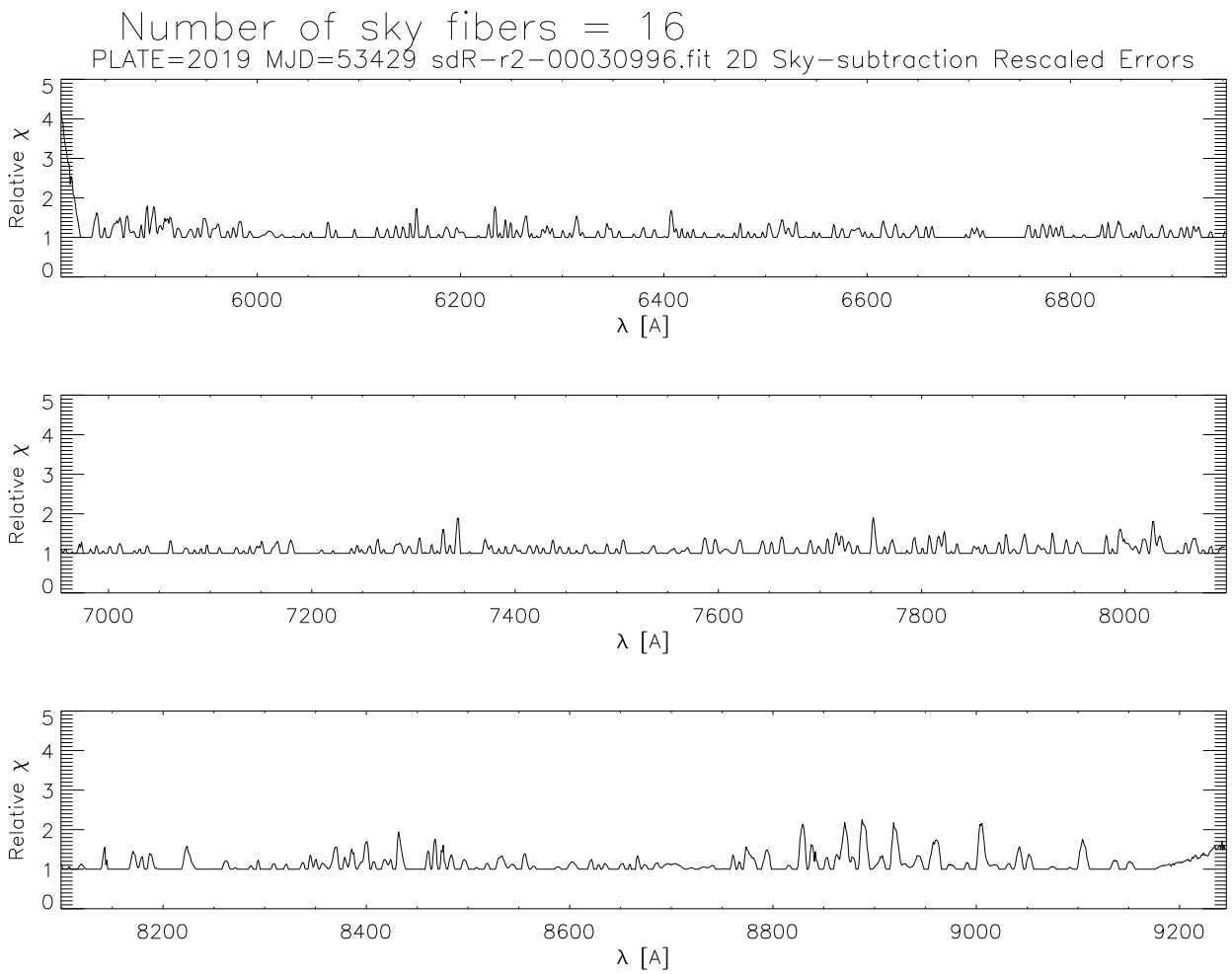

PLATE=2019 MJD=53429 sdR-r2-00030996.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
5000
4000
3000
2000
1000
0
-1000
8820
8840
8860
8880
8900
λ [A]

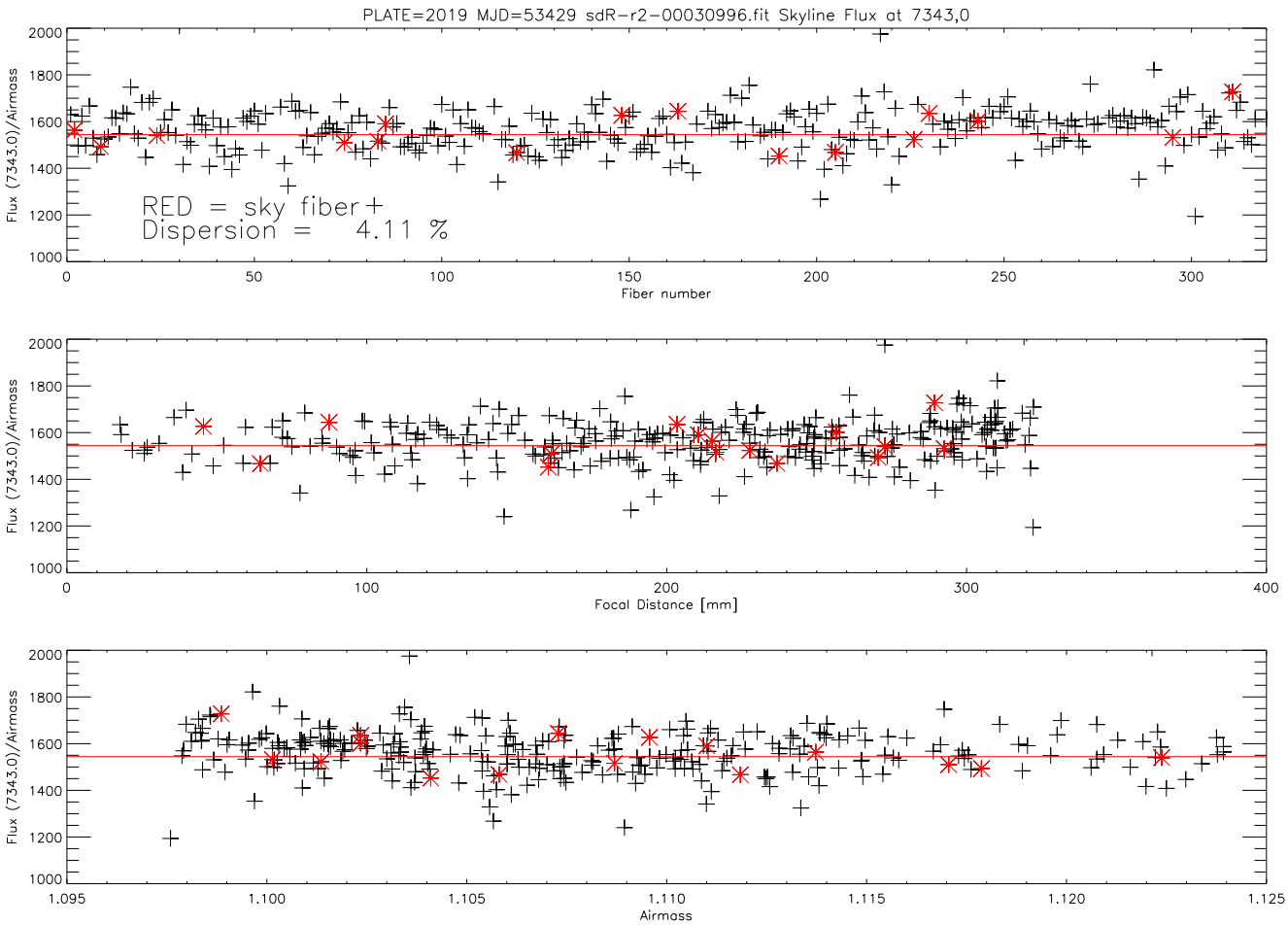

Number of sky fibers = 16
PLATE=2019 MJD=53429 sdR-r2-00030996.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
0
1
2
3
4
5

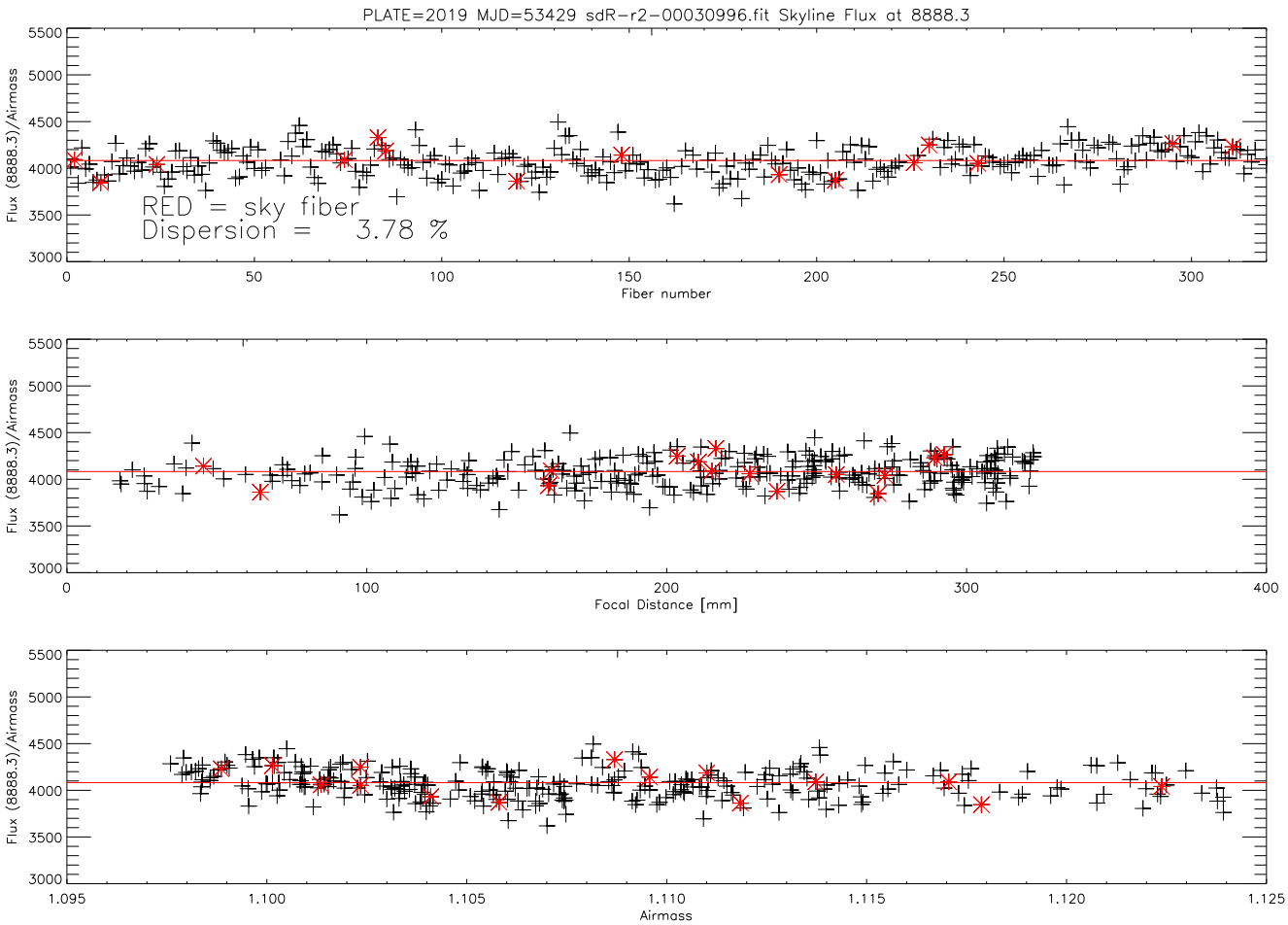

PLATE=2019 MJD=53429 sdR-r2-00030996.fit 2D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-11
-6
-4
-2
0
2
4
6
8
50
100
150
200
250
300
Fiber number

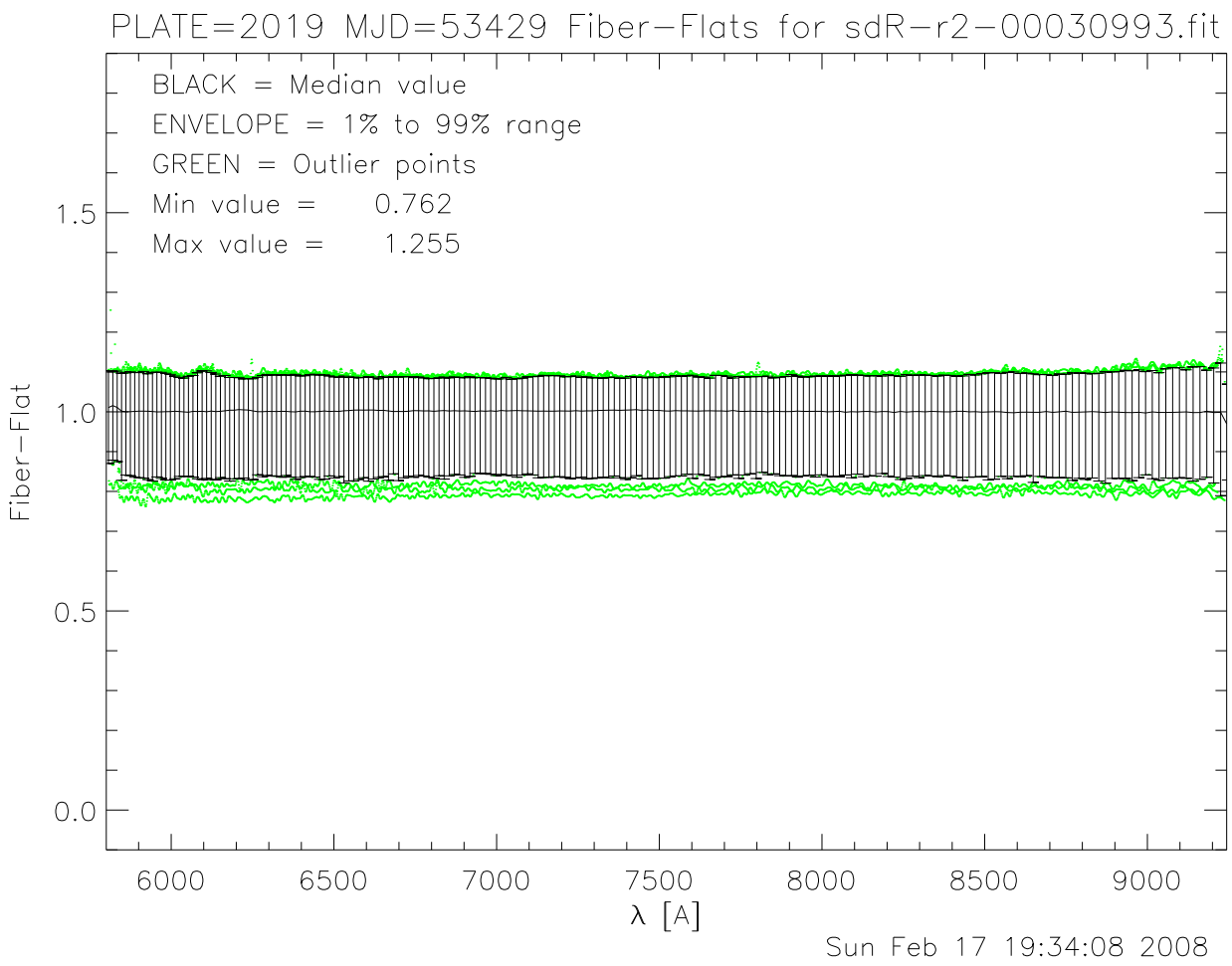

PLATE=2019 MJD=53429 sdR-r2-00030996.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
6000
5000
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

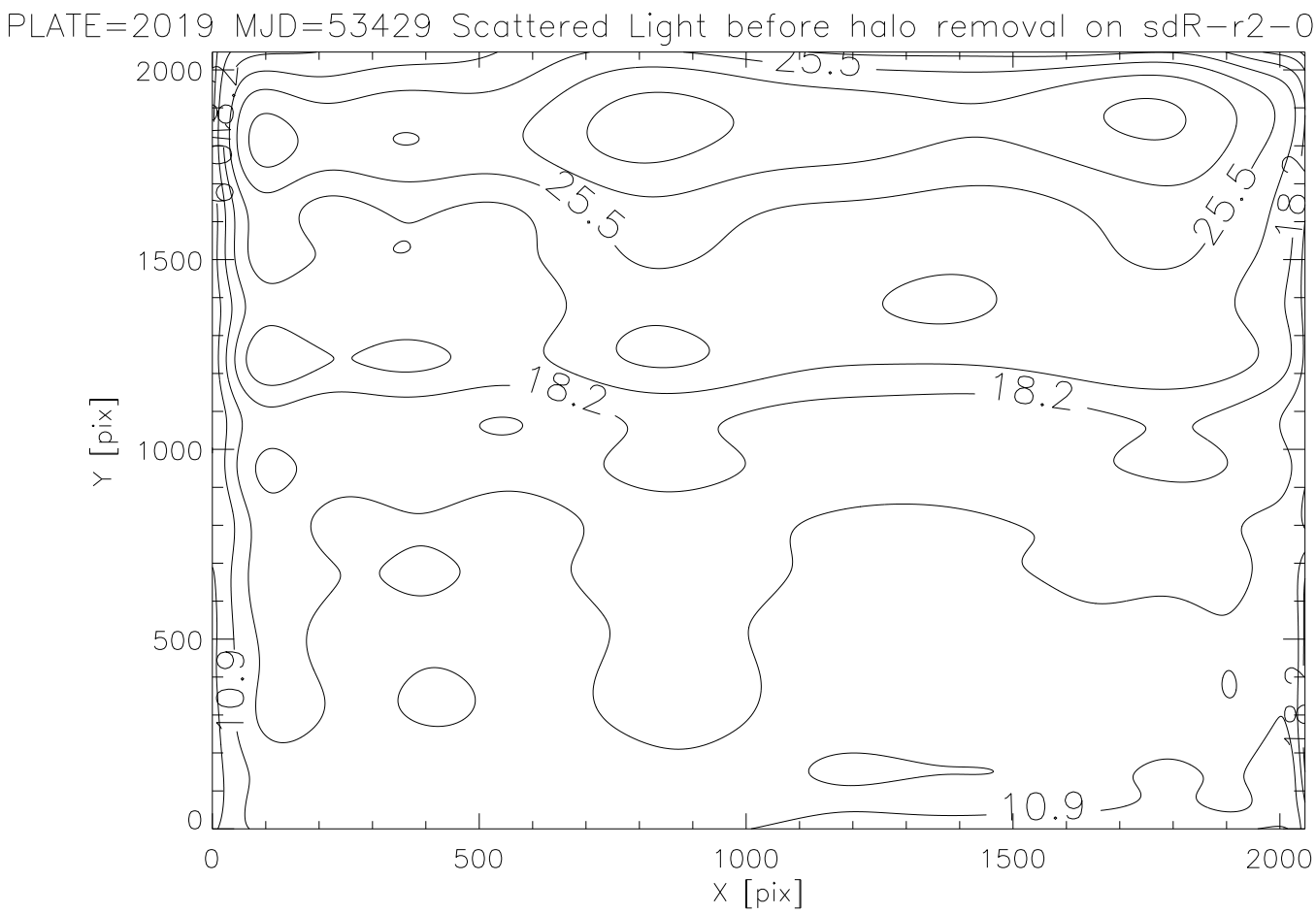

PLATE=2019 MJD=53429 sdR-r2-00030996.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
5000
4000
3000
2000
1000
0
-1000
8820
8840
8860
8880
8900
λ [A]

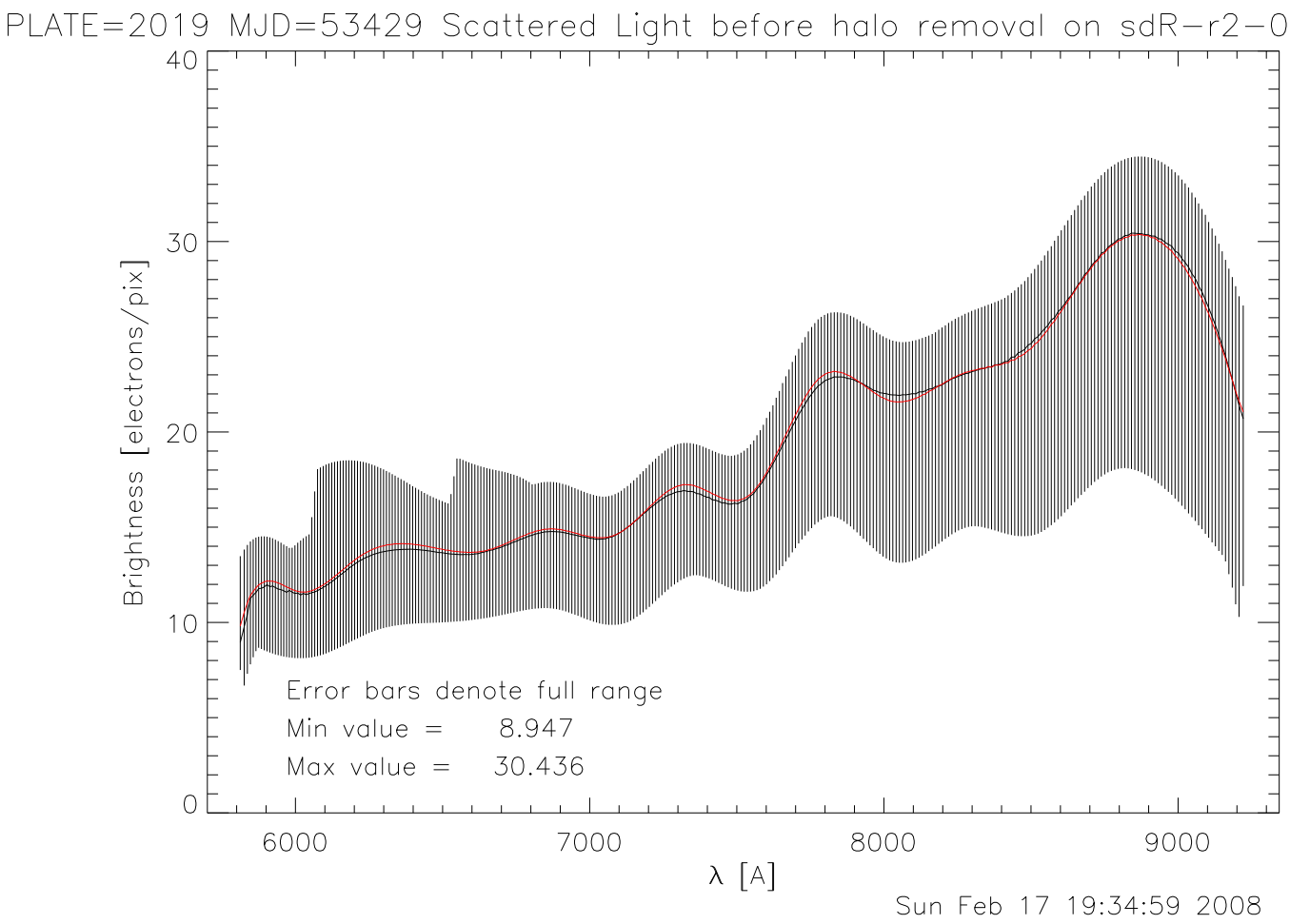

Number of sky fibers = 16
PLATE=2019 MJD=53429 sdR-r2-00030996.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

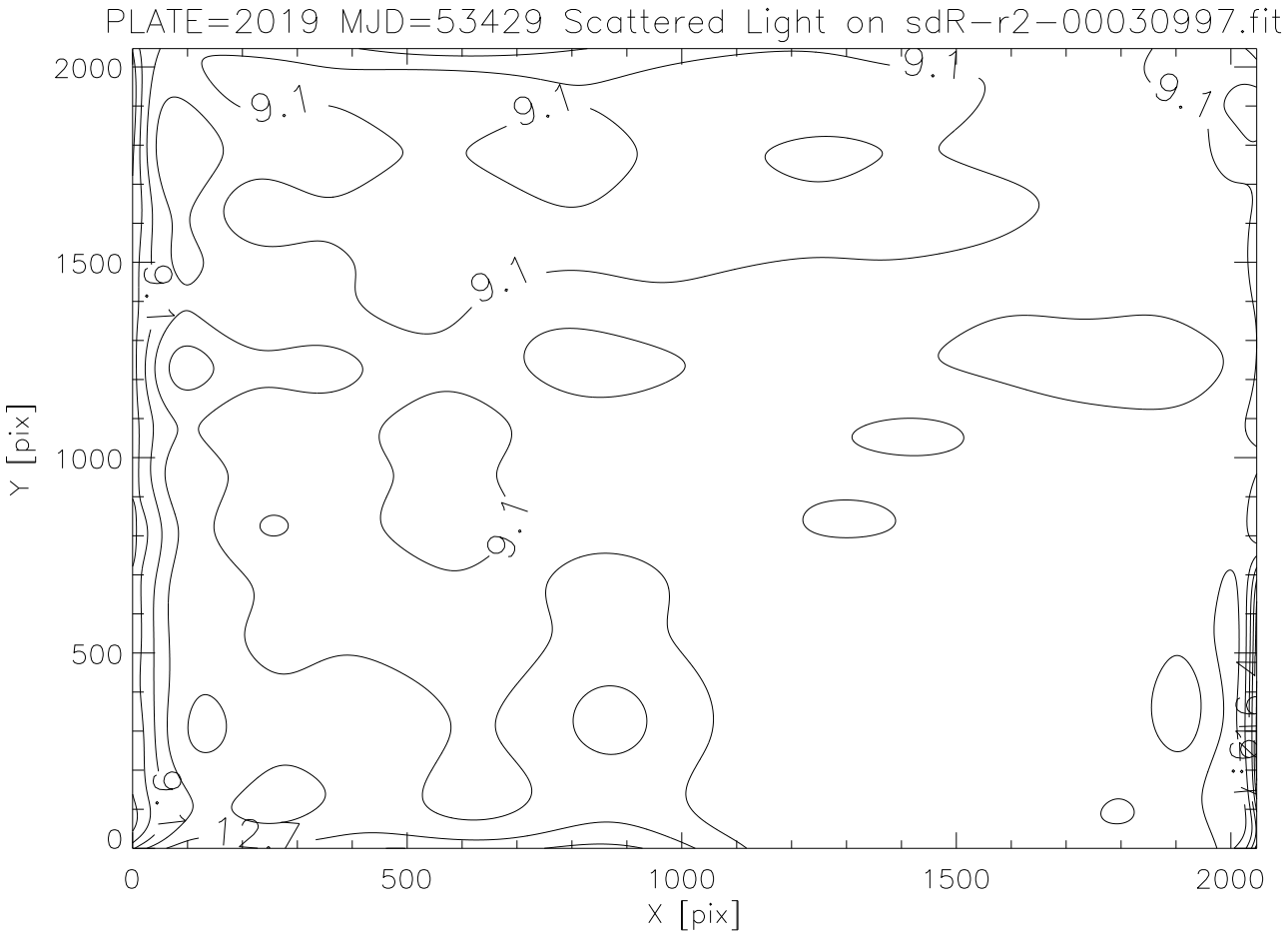

PLATE=2019 MJD=53429 sdR-r2-00030996.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber+
Dispersion = 4.11 %
Fiber number
Flux (7343.0)/Airmass
Focal Distance [mm]
Flux (7343.0)/Airmass
Airmass

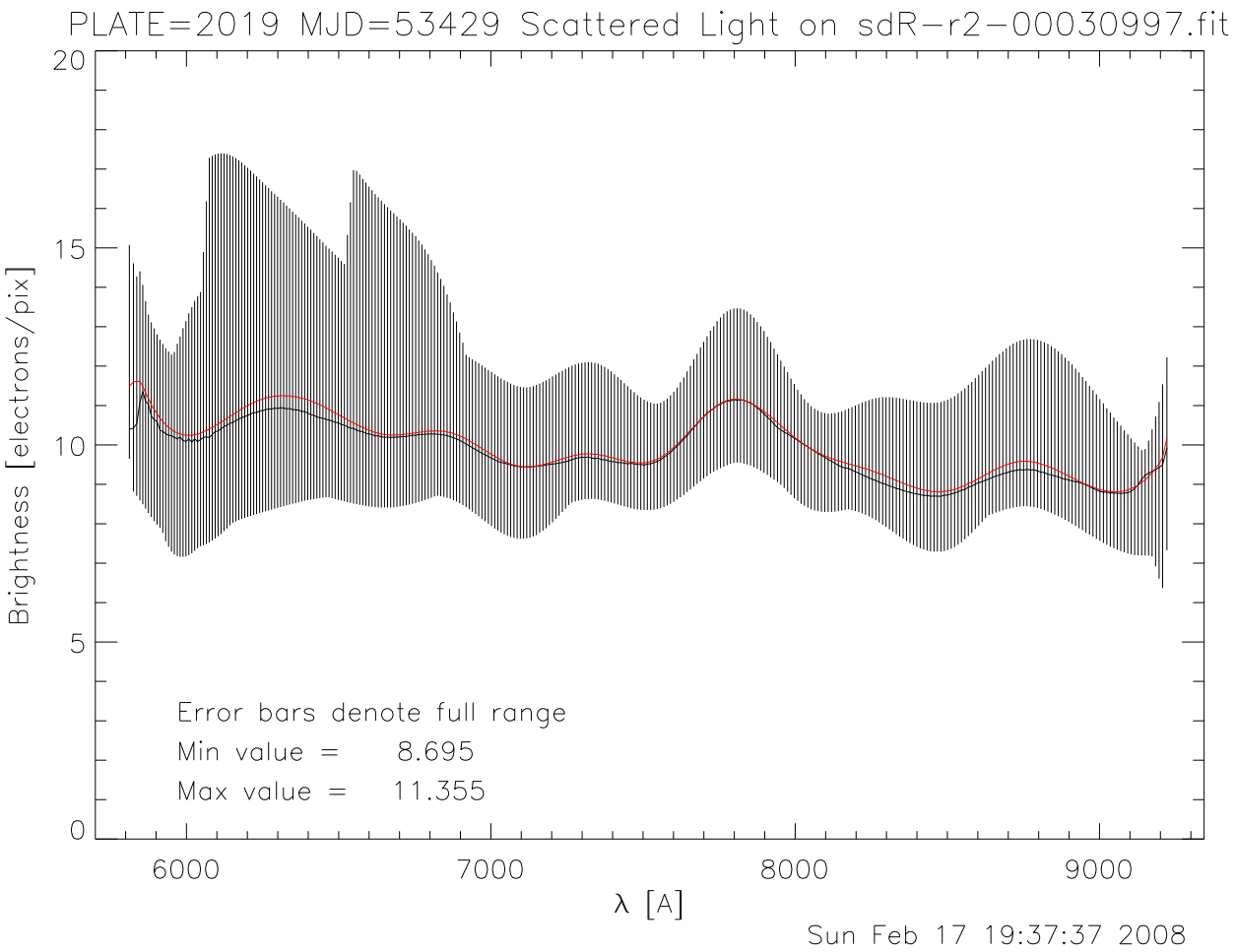

PLATE=2019 MJD=53429 sdR-r2-00030996.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion = 3.78 %
Fiber number
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass

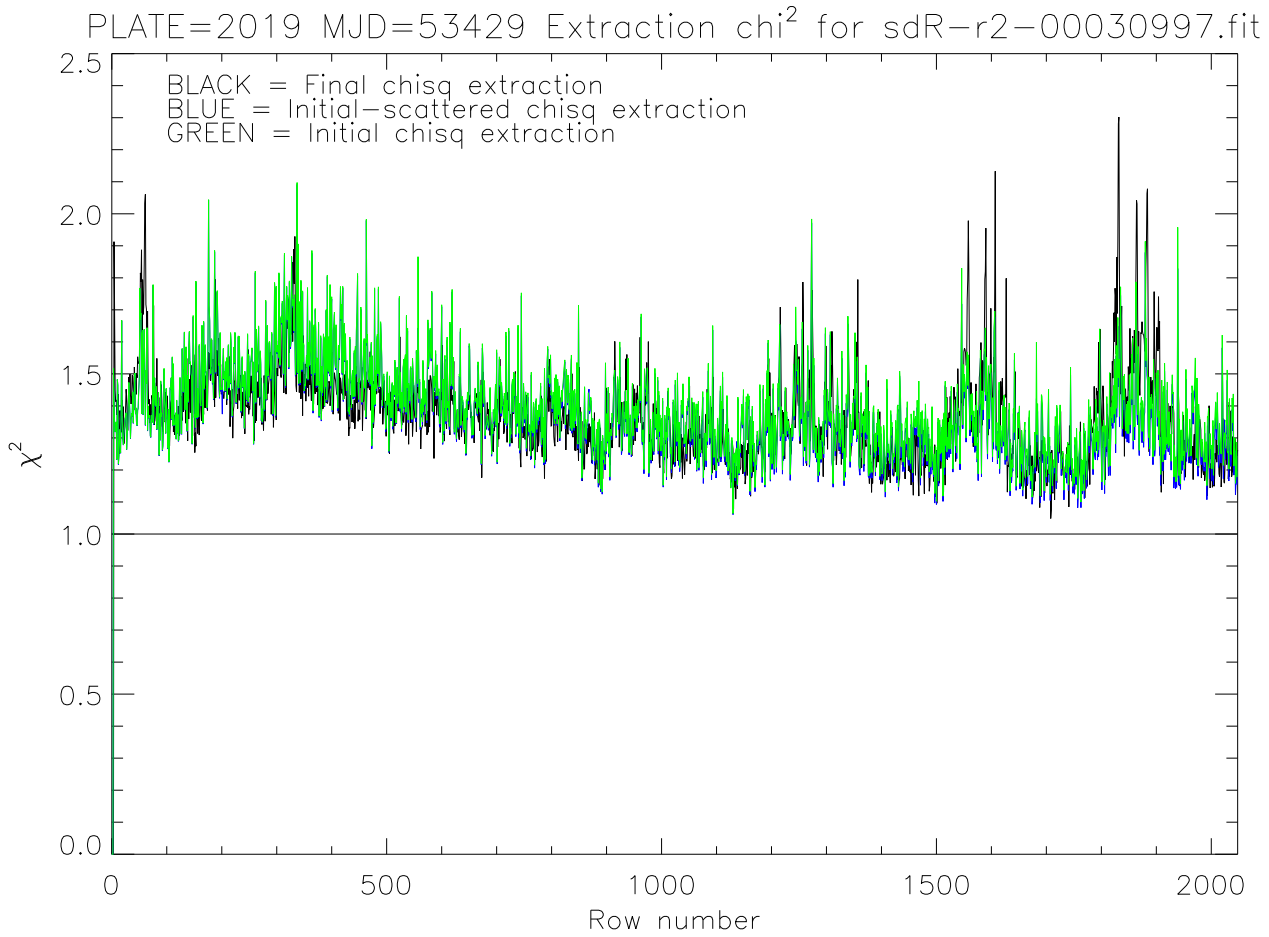

PLATE=2019 MJD=53429 Fiber−Flats for sdR−r2−00030993.fit
BLACK = Median value
ENVELOPE = 1% to 99% range
GREEN = Outlier points
Min value = 0.762
Max value = 1.255
Fiber−Flat
1.5
1.0
0.5
0.0
6000
6500
7000
7500
8000
8500
9000
λ [A]
Sun Feb 17 19:34:08 2008

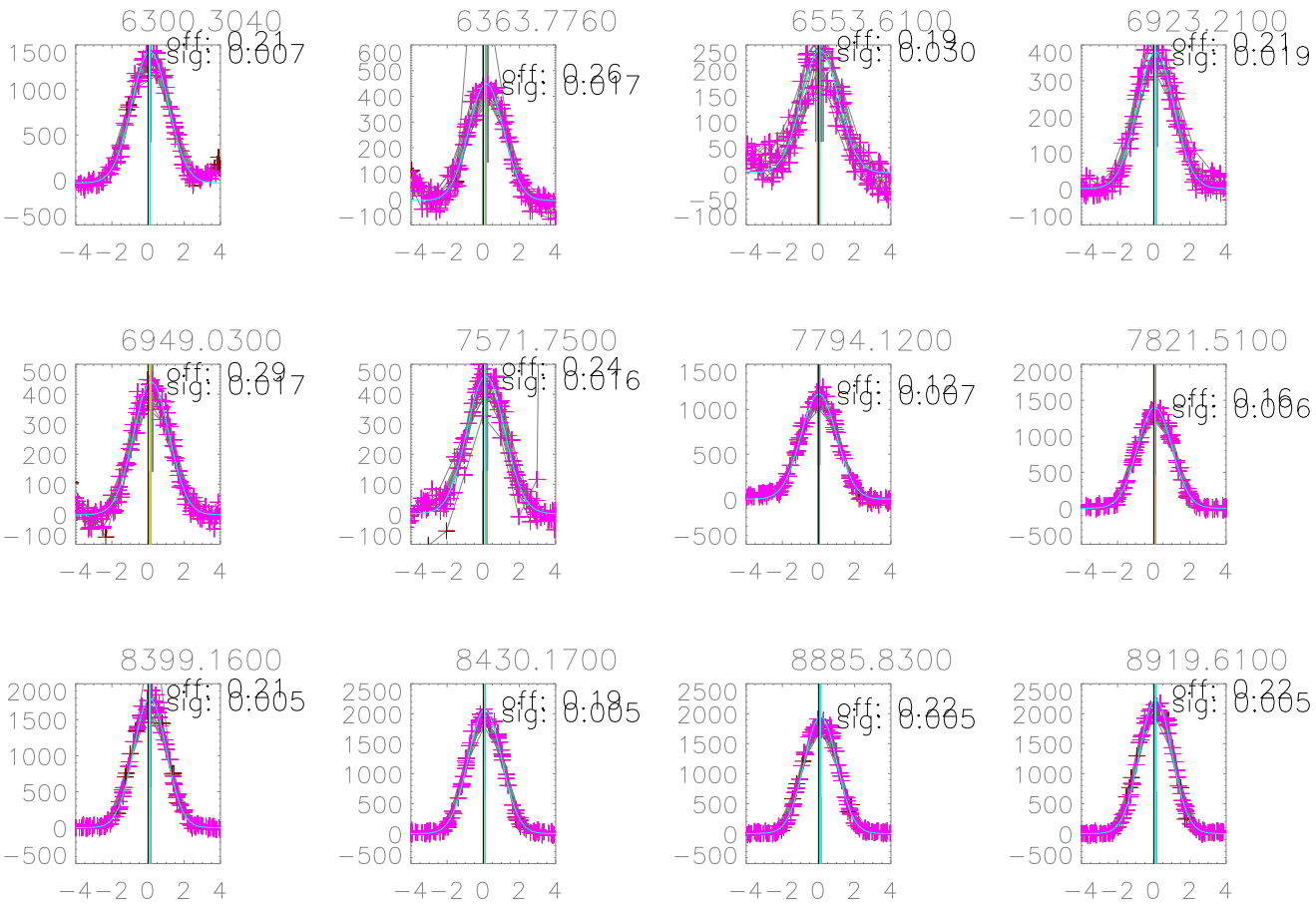

PLATE=2019 MJD=53429 Scattered Light before halo removal on sdR-r2-00030997.fi
25.5
25.5
25.5
18.2
18.2
18.2
10.9
10.9
0
0
500
1000
1500
2000
X [pix]
Y [pix]

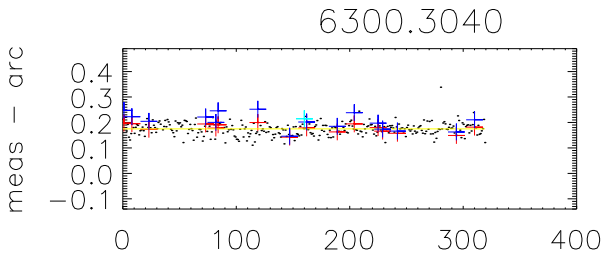

PLATE=2019 MJD=53429 Scattered Light before halo removal on sdR-r2-00030997.fi
Brightness [electrons/pix]
λ [A]
Error bars denote full range
Min value = 8.947
Max value = 30.436
Sun Feb 17 19:34:59 2008

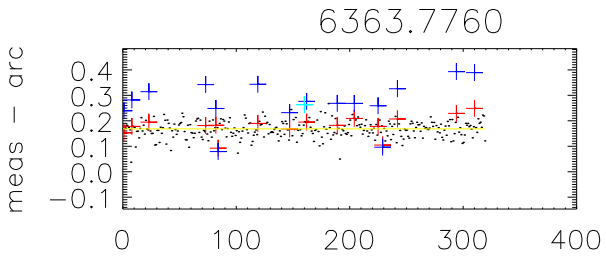

PLATE=2019 MJD=53429 Scattered Light on sdR-r2-00030997.fit
2000
1500
1000
500
0
Y [pix]
0
500
1000
1500
2000
X [pix]
9.1
9.1
9.1
9.1
9.1
9.1
12.7

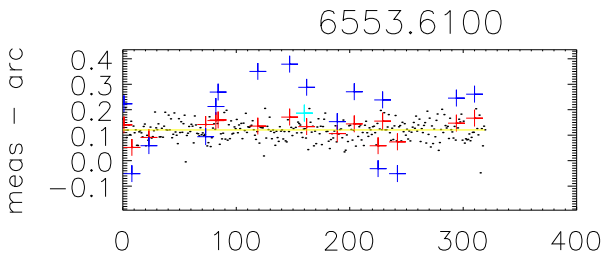

PLATE=2019 MJD=53429 Scattered Light on sdR-r2-00030997.fit
Brightness [electrons/pix]
20
15
10
5
0
6000
7000
8000
9000
λ [A]
Error bars denote full range
Min value = 8.695
Max value = 11.355
Sun Feb 17 19:37:37 2008

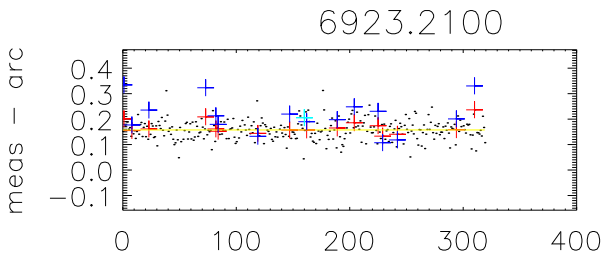

PLATE=2019 MJD=53429 Extraction chi^2 for sdR−r2−00030997.fit
BLACK = Final chisq extraction
BLUE = Initial−scattered chisq extraction
GREEN = Initial chisq extraction
χ^2
2.5
2.0
1.5
1.0
0.5
0.0
0
500
1000
1500
2000
Row number

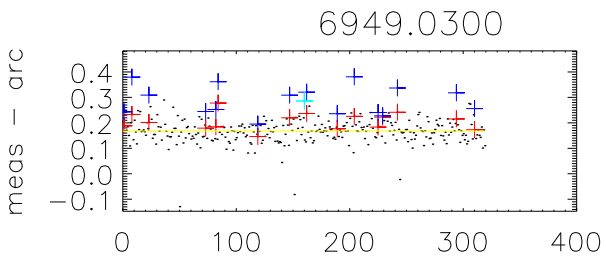

6300.3040
off: 0.21
sig: 0.007
6363.7760
off: 0.26
sig: 0.017
6553.6100
off: 0.19
sig: 0.030
6923.2100
off: 0.21
sig: 0.019
6949.0300
off: 0.29
sig: 0.017
7571.7500
off: 0.24
sig: 0.016
7794.1200
off: 0.12
sig: 0.007
7821.5100
off: 0.16
sig: 0.006
8399.1600
off: 0.21
sig: 0.005
8430.1700
off: 0.18
sig: 0.005
8885.8300
off: 0.22
sig: 0.005
8919.6100
off: 0.22
sig: 0.005

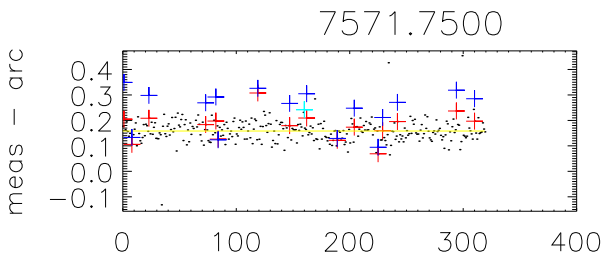

6300.3040
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

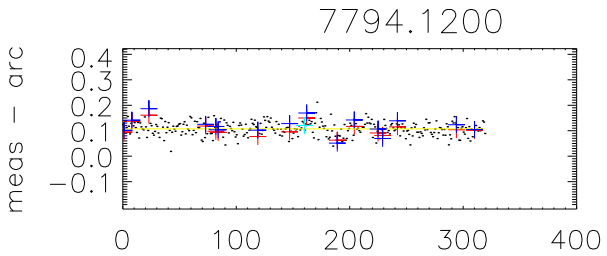

6363.7760
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

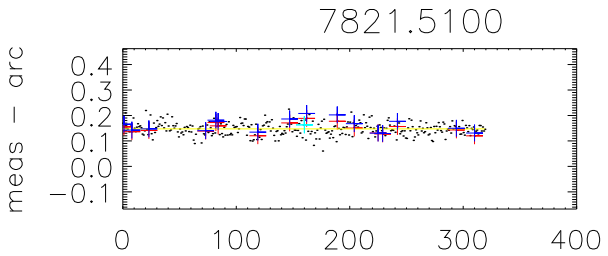

6553.6100
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

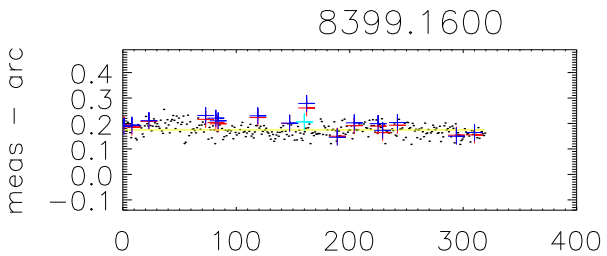

6923.2100
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

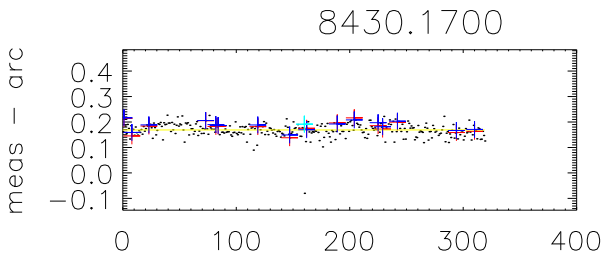

6949.0300
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

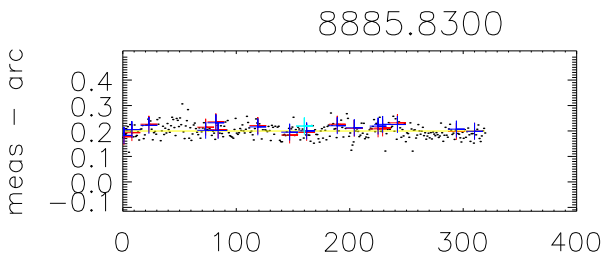

7571.7500
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

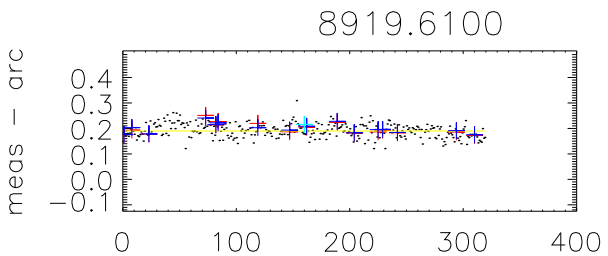

7794.1200
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

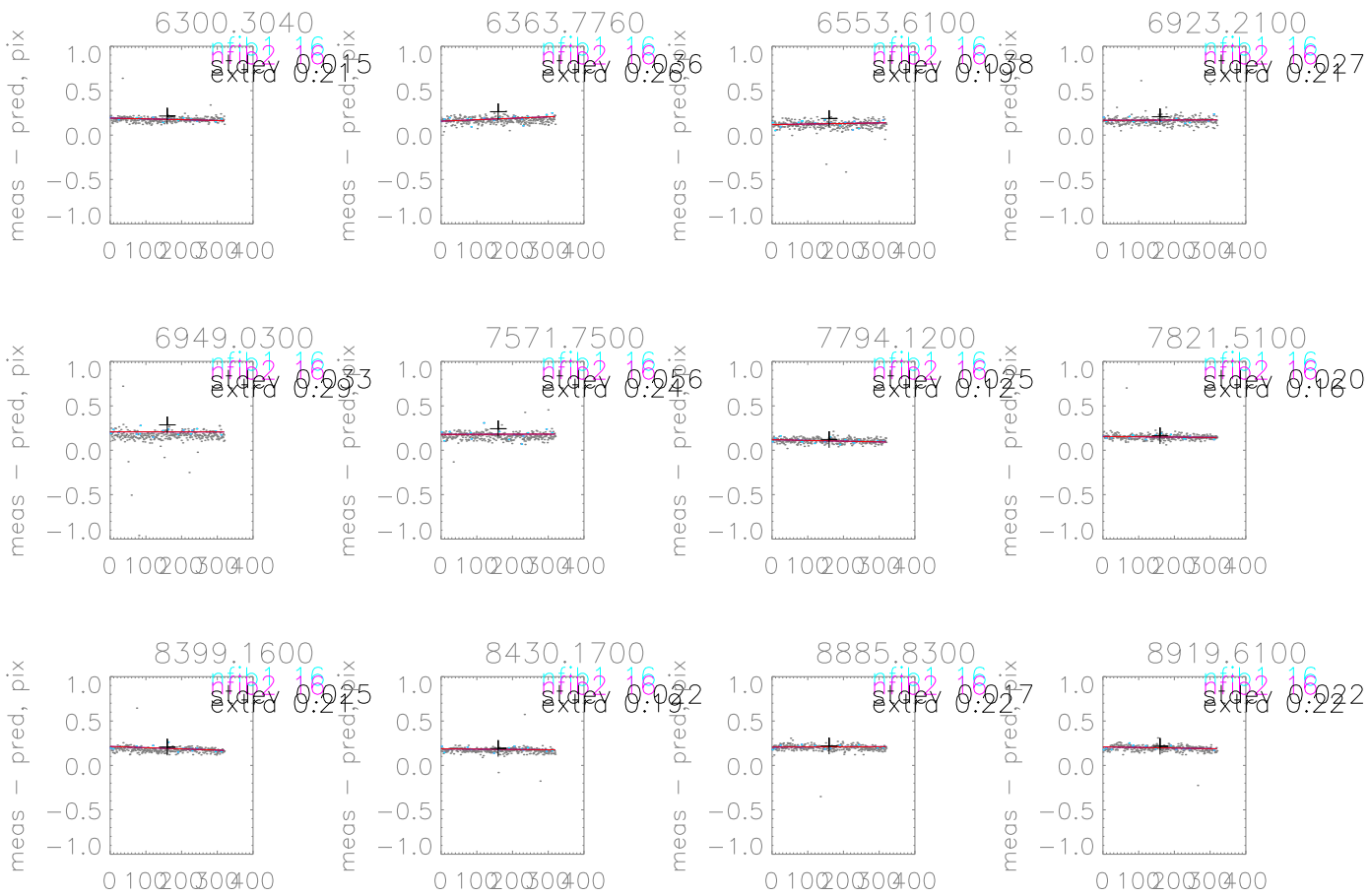

7821.5100
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

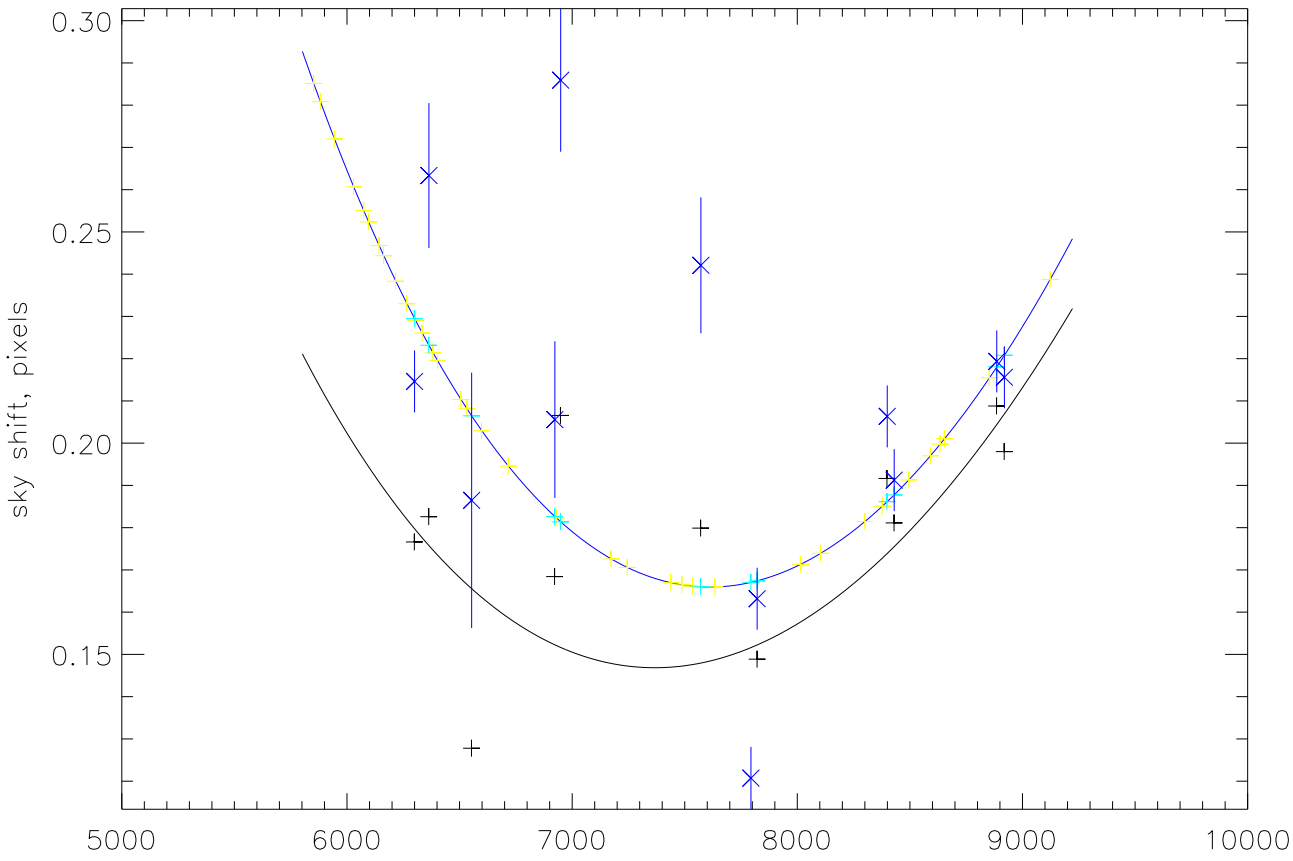

8399.1600
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400


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

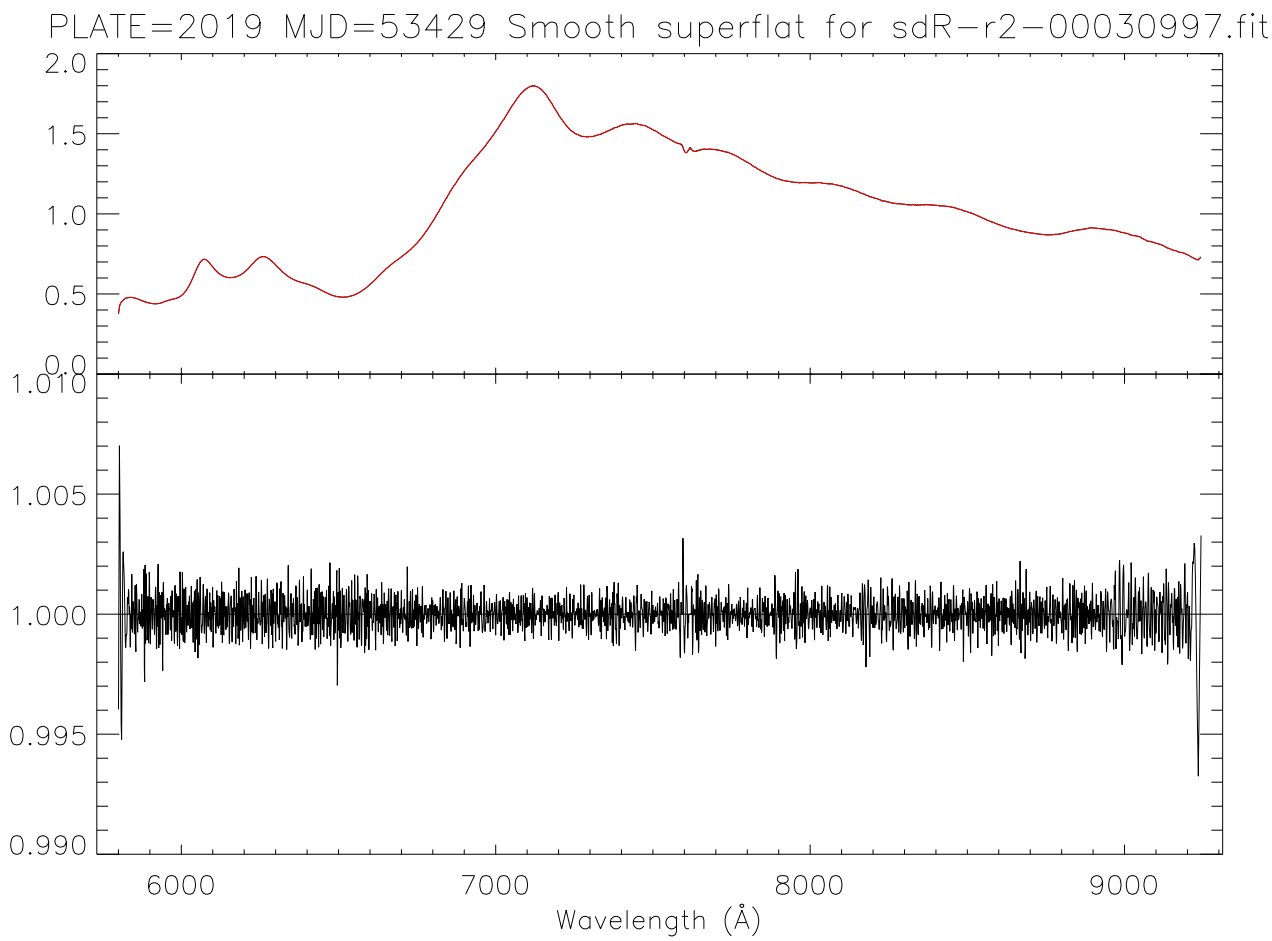

8885.8300
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

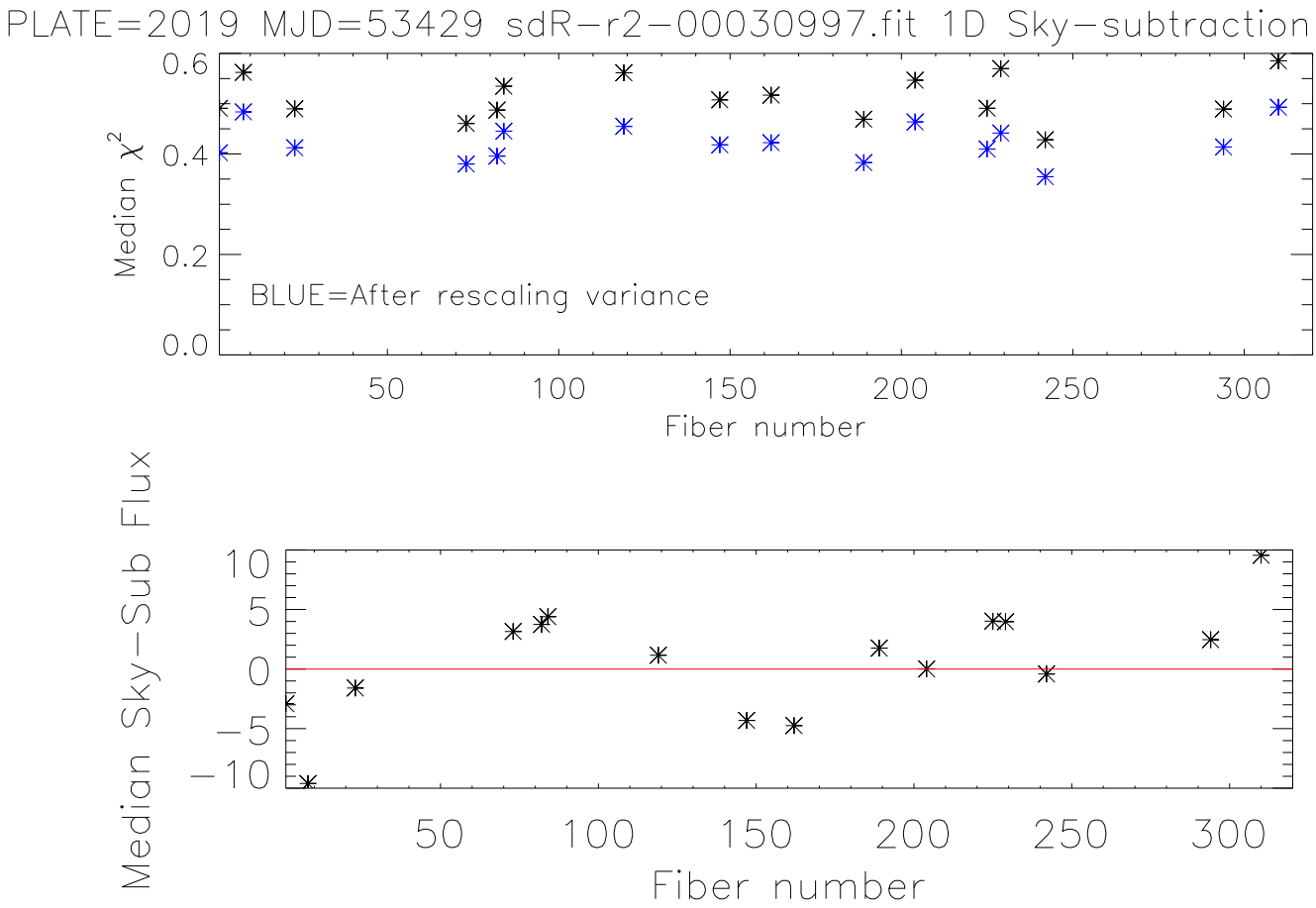

8919.6100
meas − arc
0.4
0.3
0.2
0.1
0.0
−0.1
0
100
200
300
400

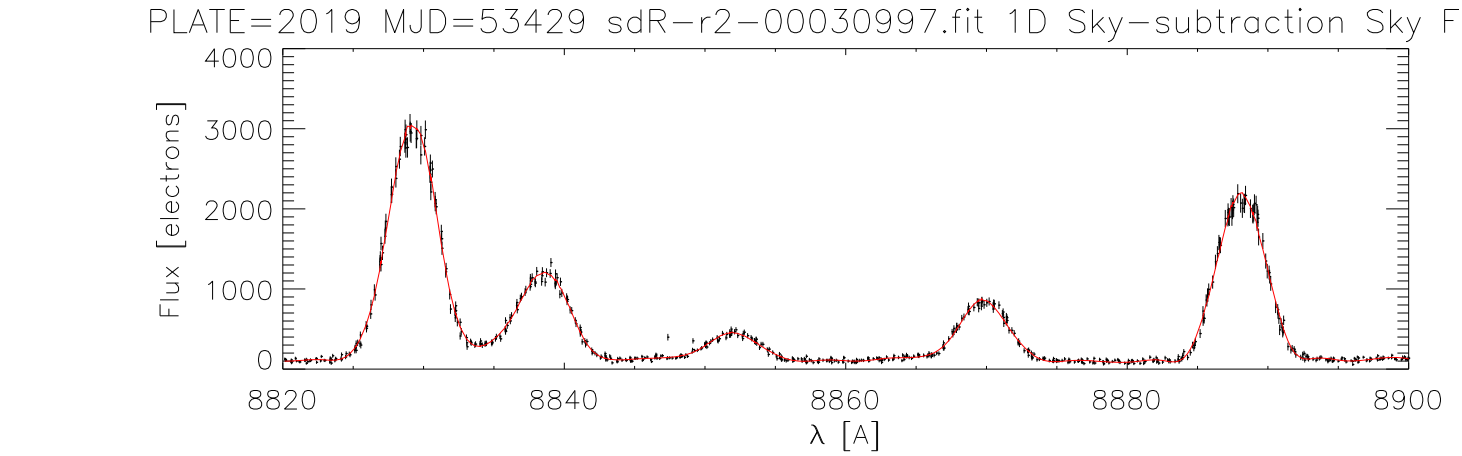

6300.3040
stdev 0.215
extra 0.21
6363.7760
stdev 0.236
extra 0.26
6553.6100
stdev 0.198
extra 0.19
6923.2100
stdev 0.227
extra 0.21
6949.0300
stdev 0.233
extra 0.29
7571.7500
stdev 0.256
extra 0.24
7794.1200
stdev 0.225
extra 0.12
7821.5100
stdev 0.220
extra 0.16
8399.1600
stdev 0.225
extra 0.21
8430.1700
stdev 0.222
extra 0.19
8885.8300
stdev 0.217
extra 0.22
8919.6100
stdev 0.222
extra 0.22
meas − pred, pix
mfhd2 16
mfhd1 16

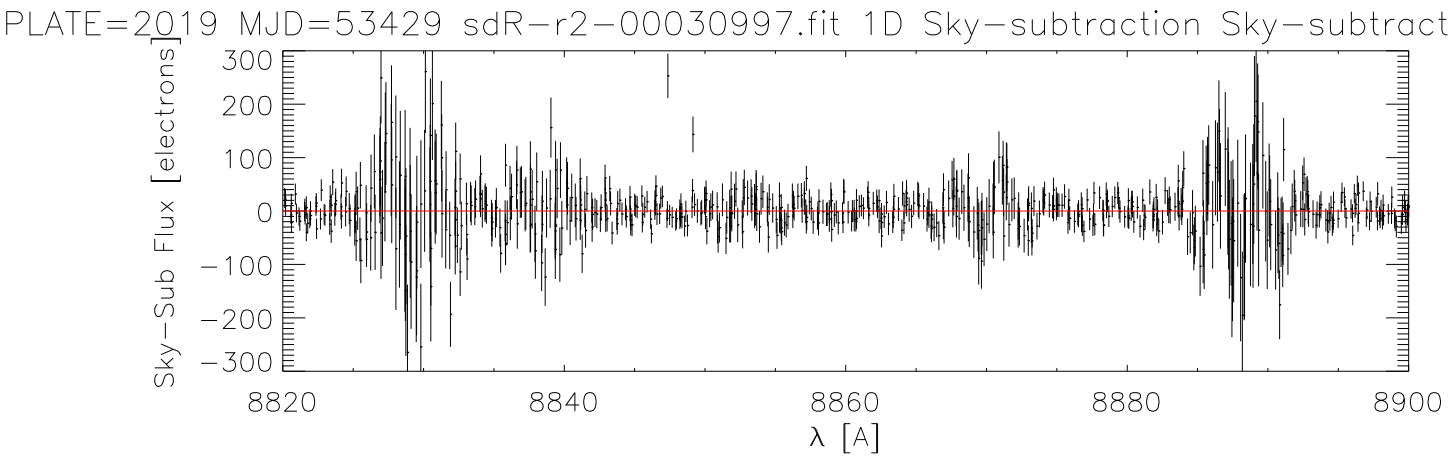

0.30
0.25
0.20
0.15
sky shift, pixels
5000
6000
7000
8000
9000
10000

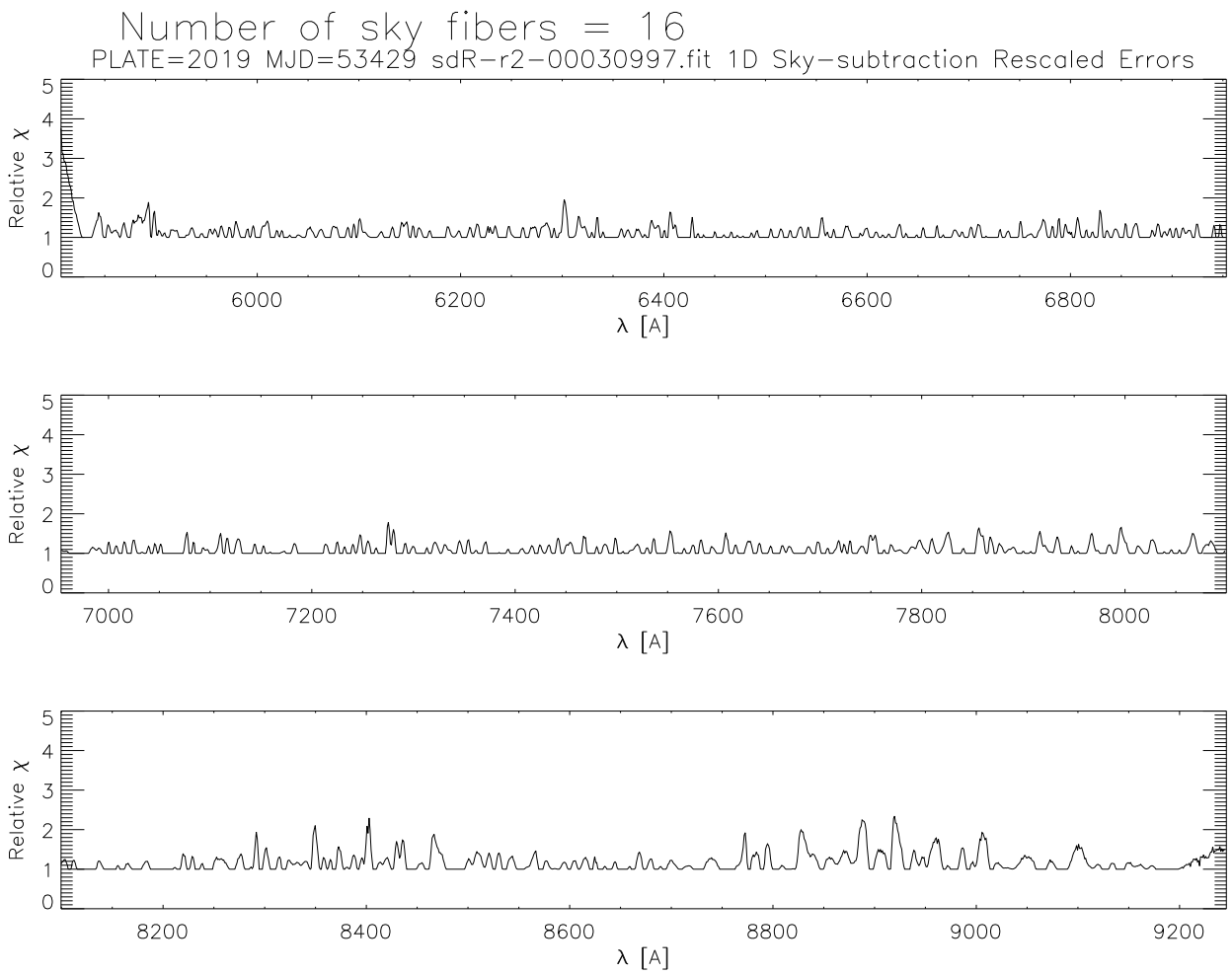
es= −0.0000

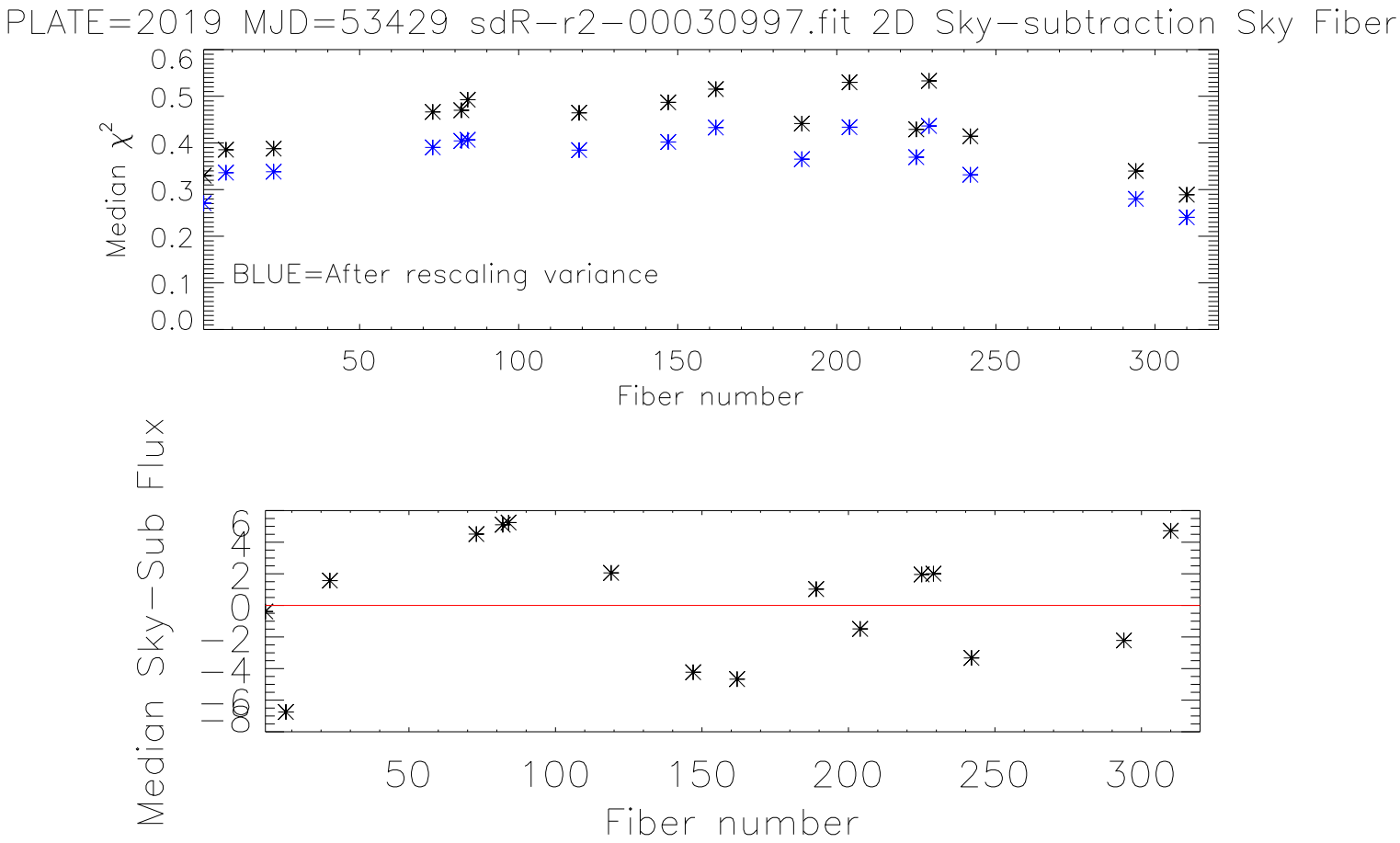

PLATE=2019 MJD=53429 Smooth superflat for sdR−r2−00030997.fit
2.0
1.5
1.0
0.5
0.0
1.010
1.005
1.000
0.995
0.990
6000
7000
8000
9000
Wavelength (Å)

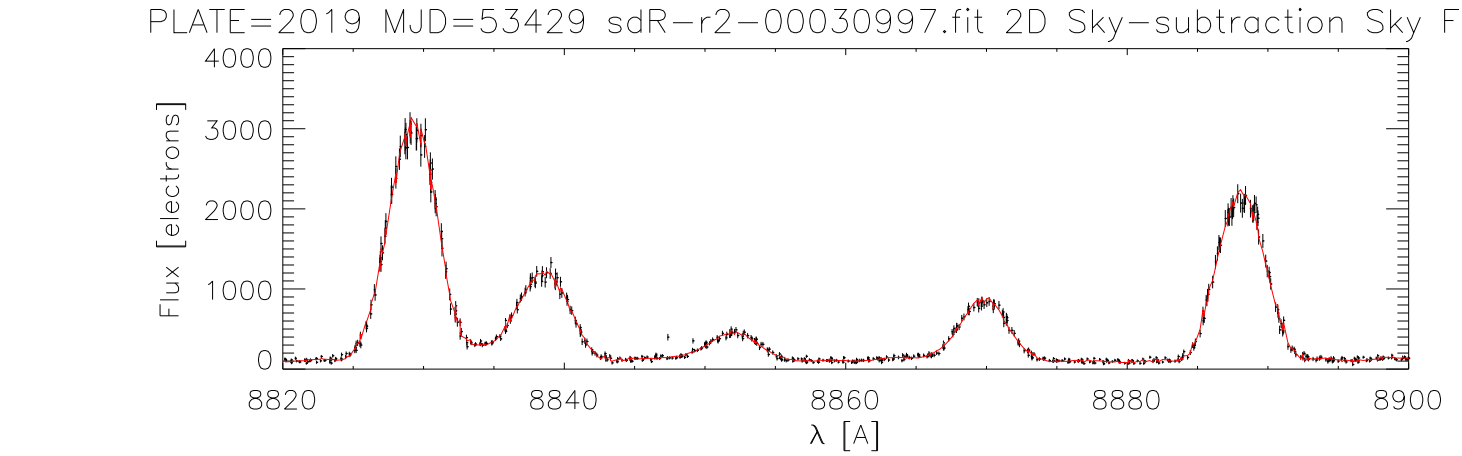

PLATE=2019 MJD=53429 sdR-r2-00030997.fit 1D Sky-subtraction Sky Fibers
Median χ^2
0.6
0.4
0.2
0.0
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
10
5
0
−5
−10
50
100
150
200
250
300
Fiber number

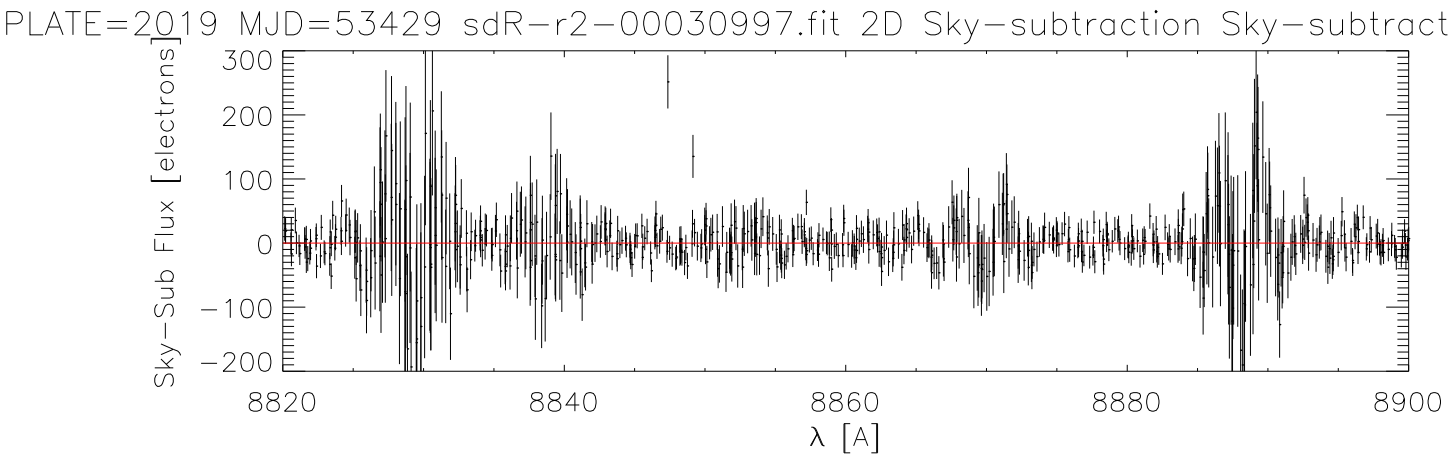

PLATE=2019 MJD=53429 sdR-r2-00030997.fit 1D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]

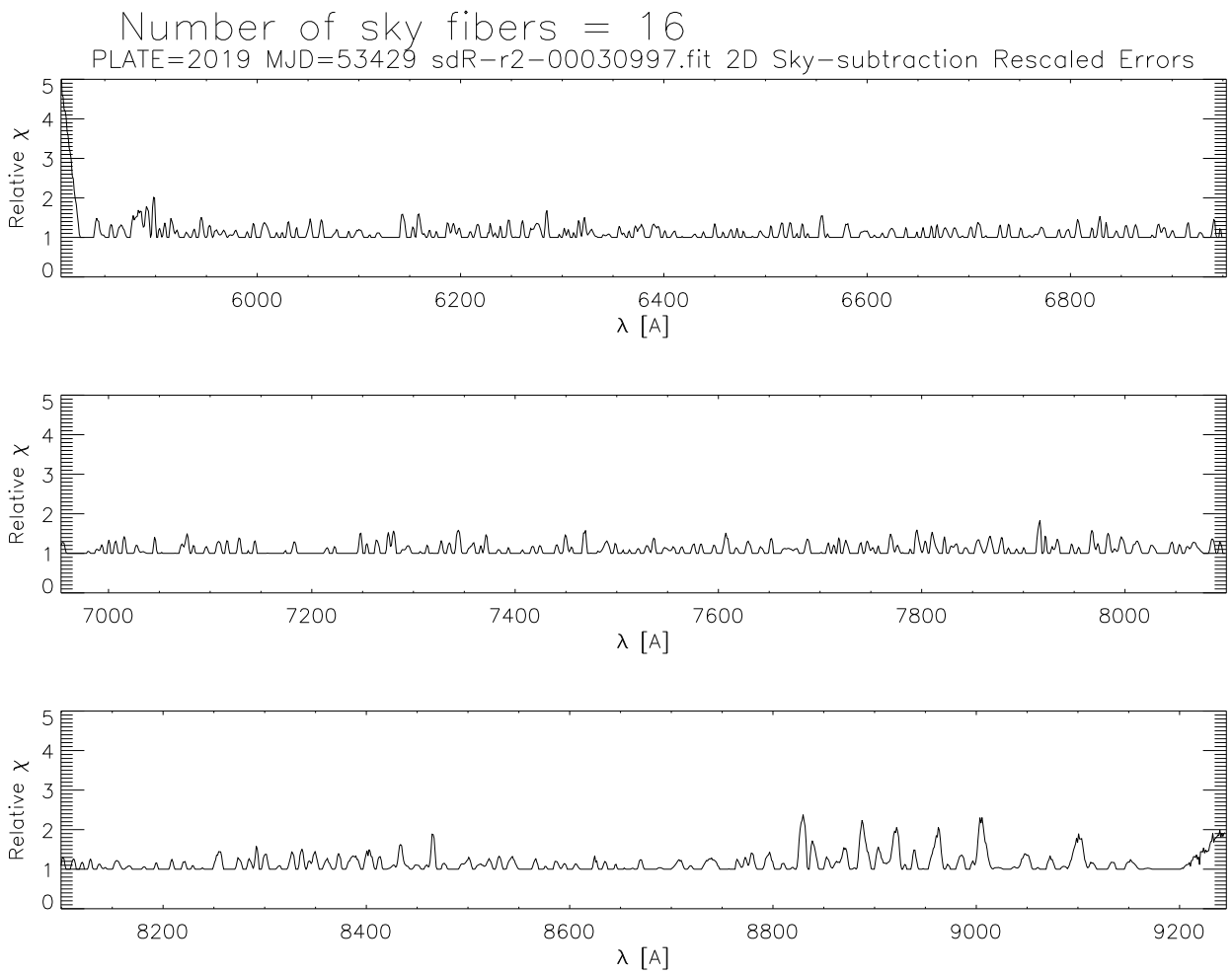

PLATE=2019 MJD=53429 sdR-r2-00030997.fit 1D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
-300
8820
8840
8860
8880
8900
λ [A]

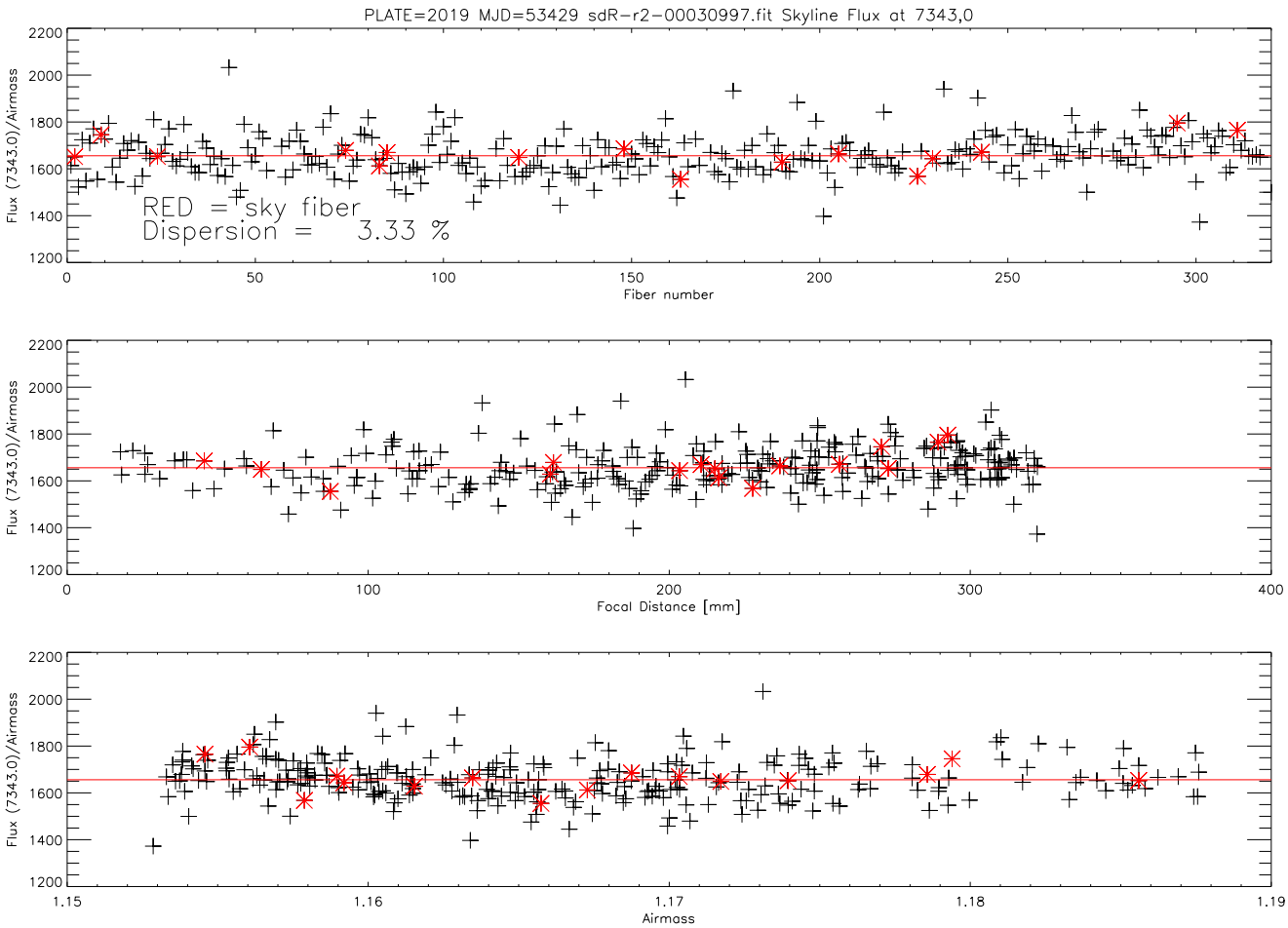

Number of sky fibers = 16
PLATE=2019 MJD=53429 sdR-r2-00030997.fit 1D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

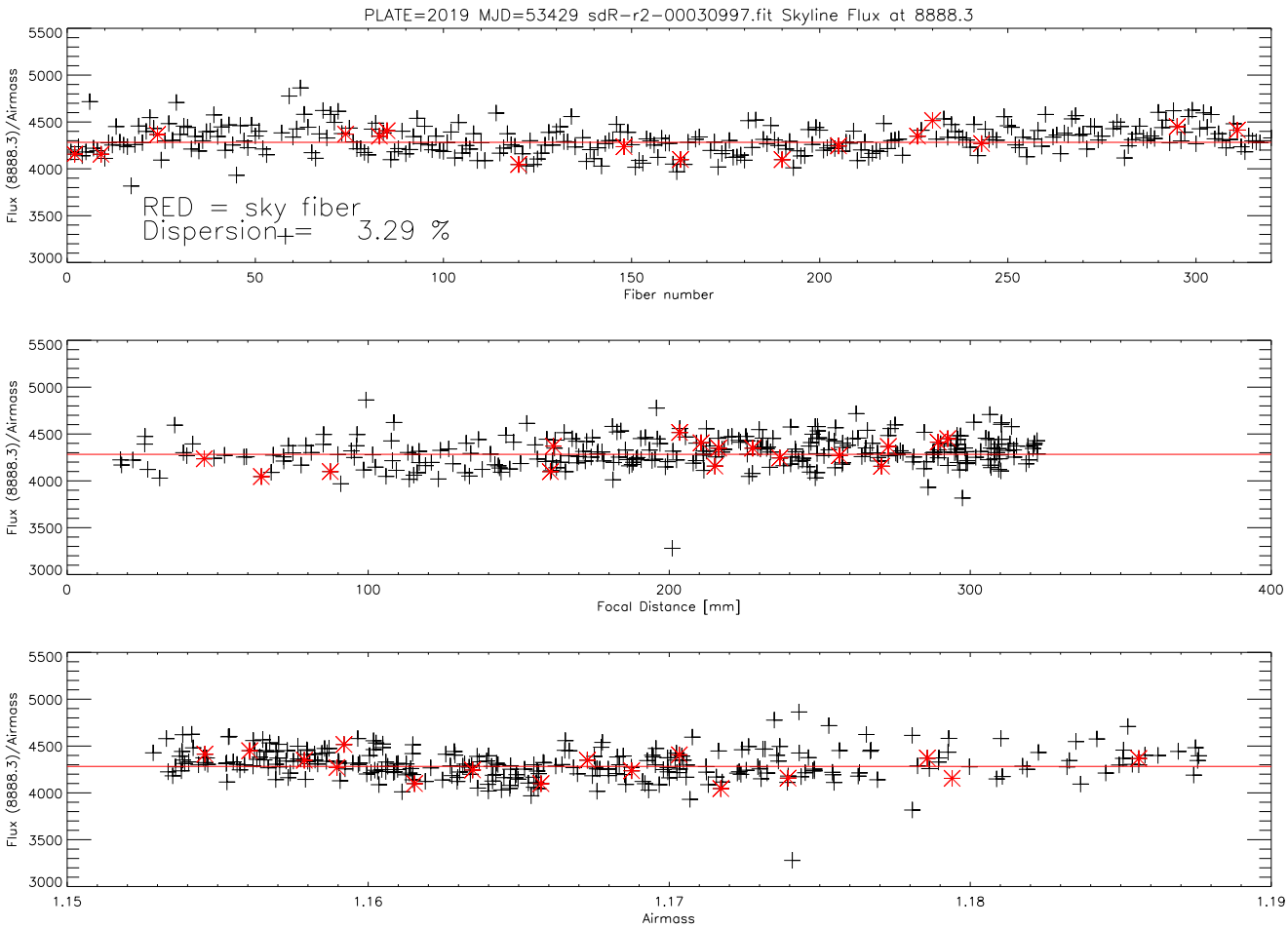

PLATE=2019 MJD=53429 sdR-r2-00030997.fit 2D Sky-subtraction Sky Fibers
Median χ^2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
BLUE=After rescaling variance
50
100
150
200
250
300
Fiber number
Median Sky-Sub Flux
-0.00066
-0.00044
-0.00022
0.00000
0.00022
0.00044
0.00066
50
100
150
200
250
300
Fiber number


PLATE=2019 MJD=53429 sdR-r2-00030997.fit 2D Sky-subtraction Sky Fibers
Flux [electrons]
4000
3000
2000
1000
0
8820
8840
8860
8880
8900
λ [A]


PLATE=2019 MJD=53429 sdR-r2-00030997.fit 2D Sky-subtraction Sky-subtracted Sky F
Sky-Sub Flux [electrons]
300
200
100
0
-100
-200
8820
8840
8860
8880
8900
λ [A]


Number of sky fibers = 16
PLATE=2019 MJD=53429 sdR-r2-00030997.fit 2D Sky-subtraction Rescaled Errors
Relative χ
λ [A]
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200


PLATE=2019 MJD=53429 sdR-r2-00030997.fit Skyline Flux at 7343,0
Flux (7343.0)/Airmass
RED = sky fiber
Dispersion = 3.33 %
Fiber number
Focal Distance [mm]
Airmass


PLATE=2019 MJD=53429 sdR-r2-00030997.fit Skyline Flux at 8888.3
Flux (8888.3)/Airmass
RED = sky fiber
Dispersion+= 3.29 %
Fiber number
Flux (8888.3)/Airmass
Focal Distance [mm]
Flux (8888.3)/Airmass
Airmass