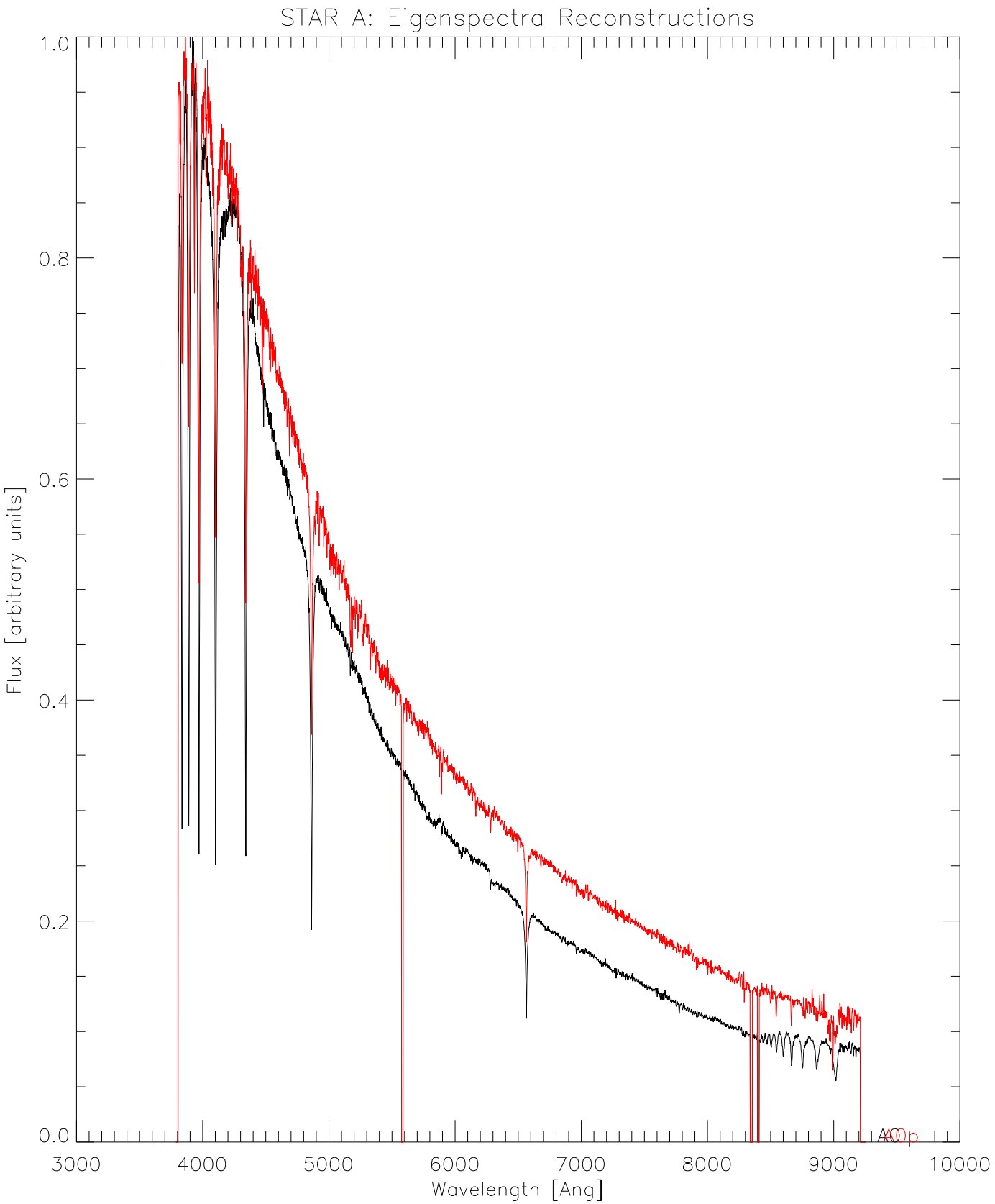
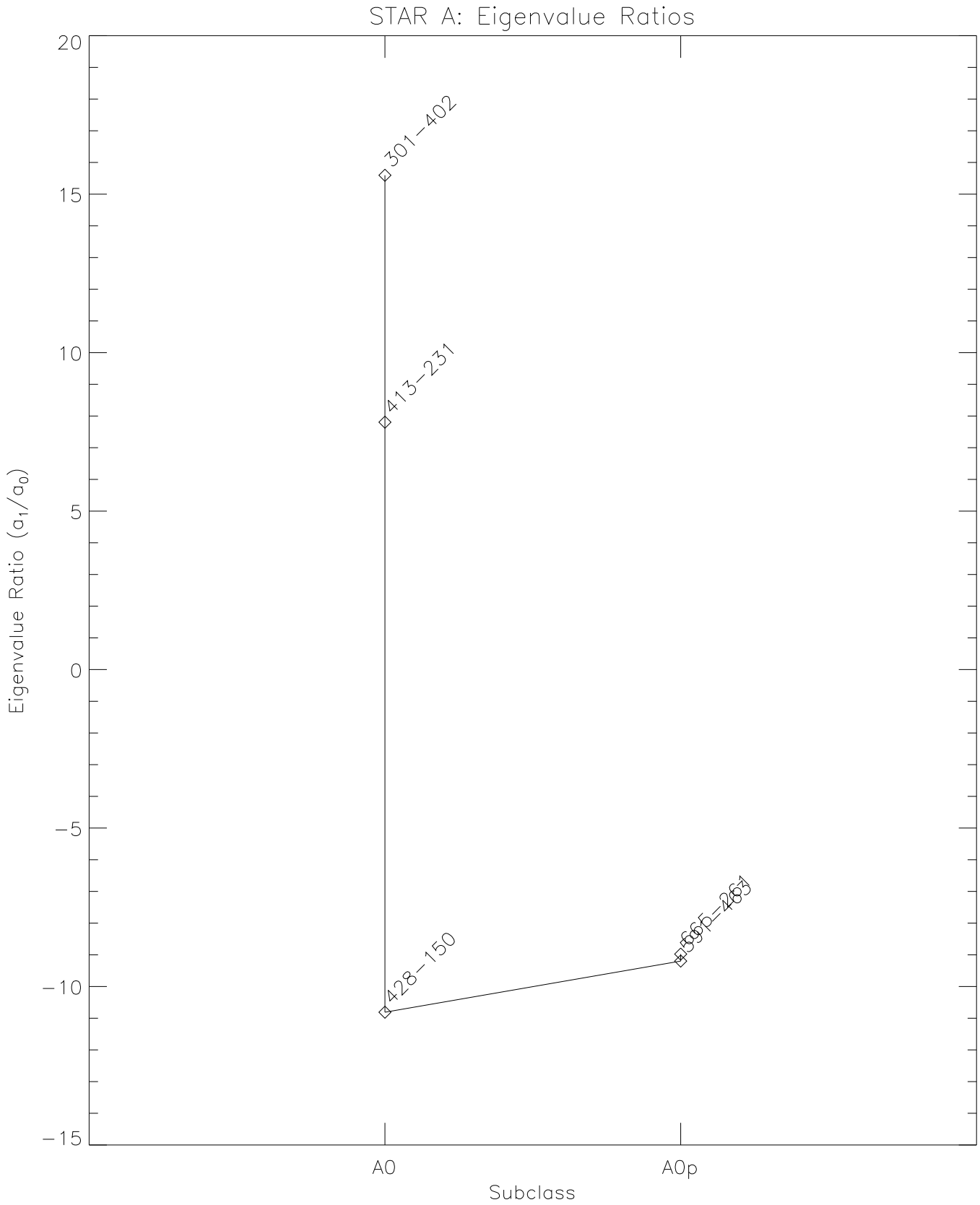
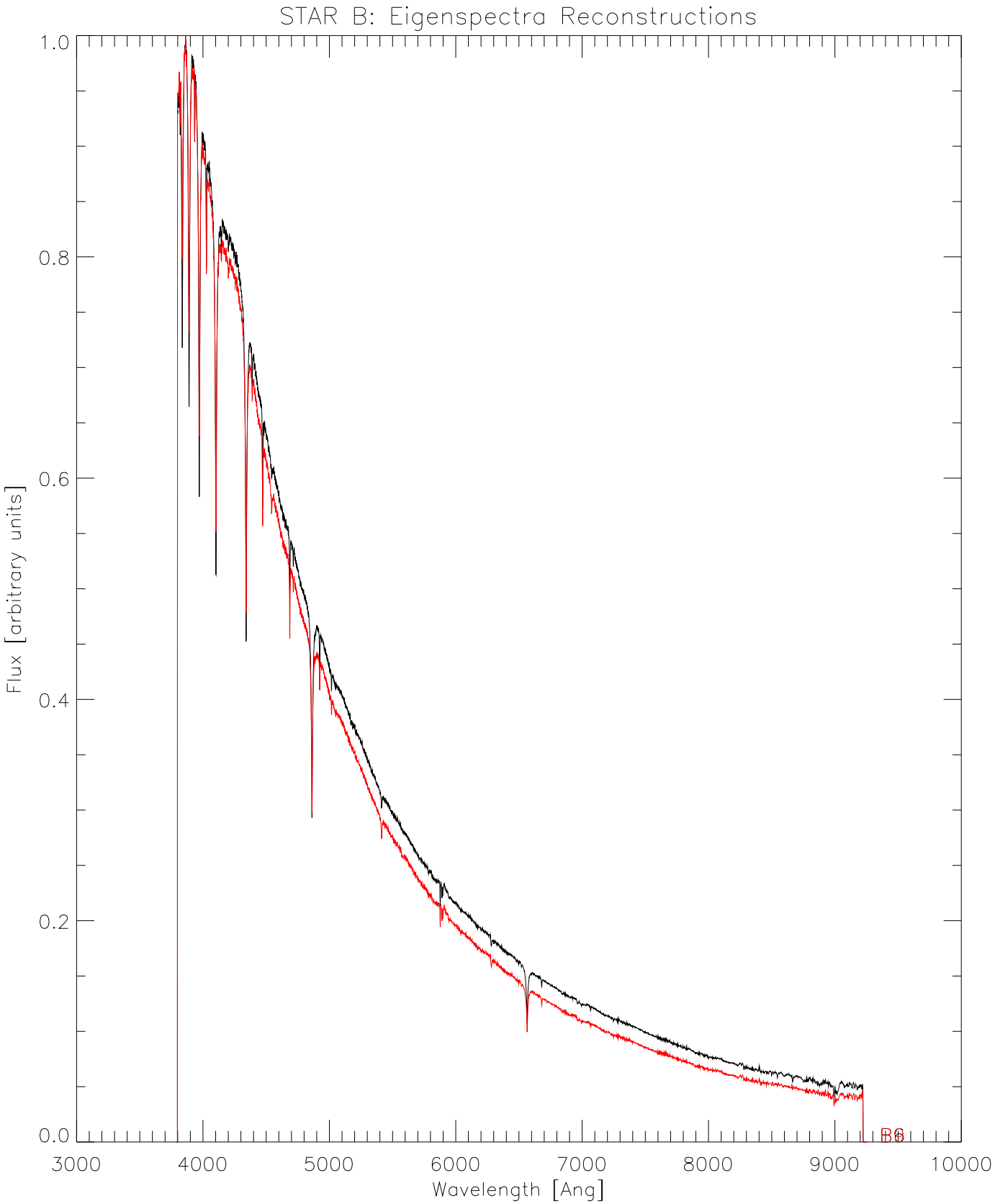
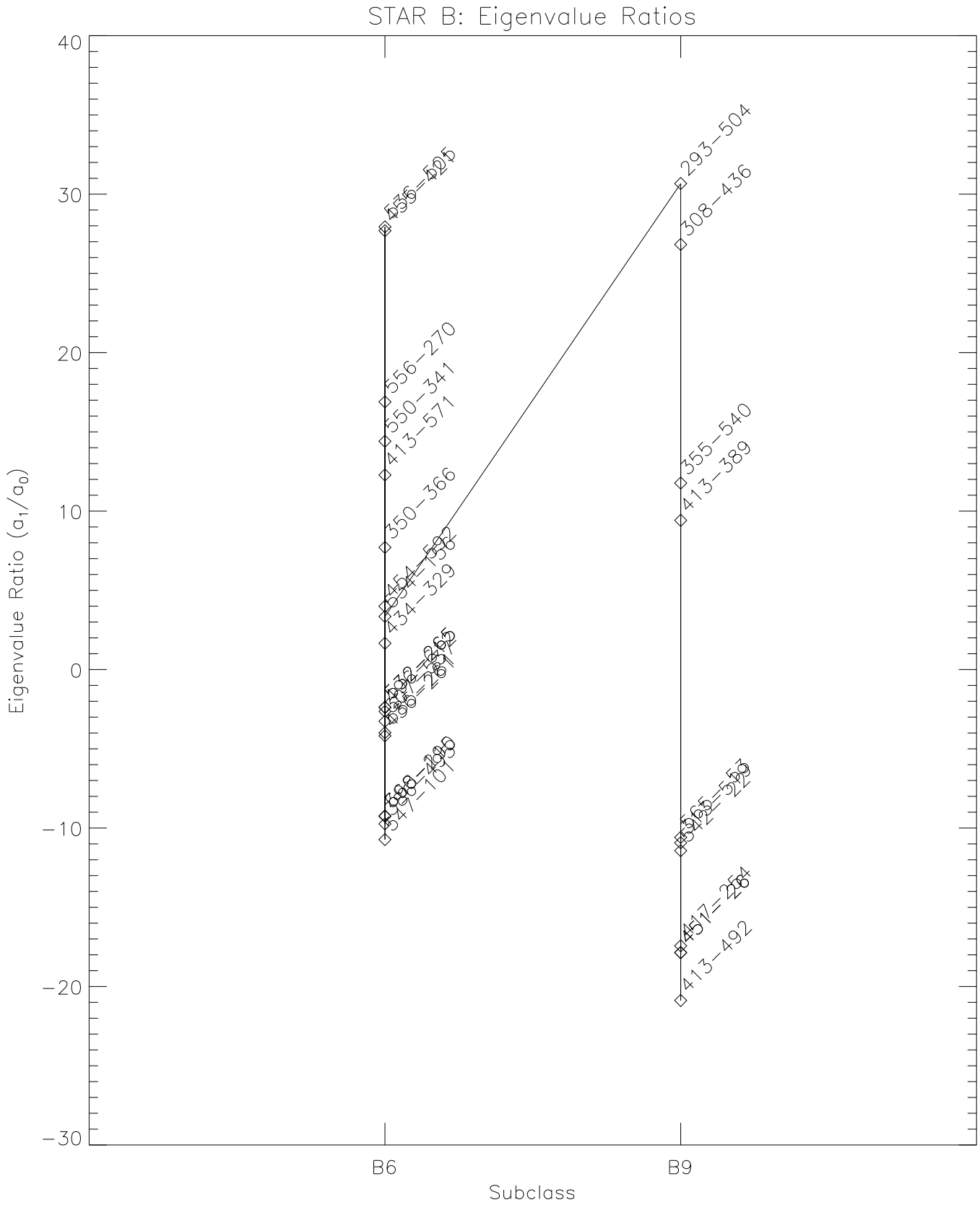
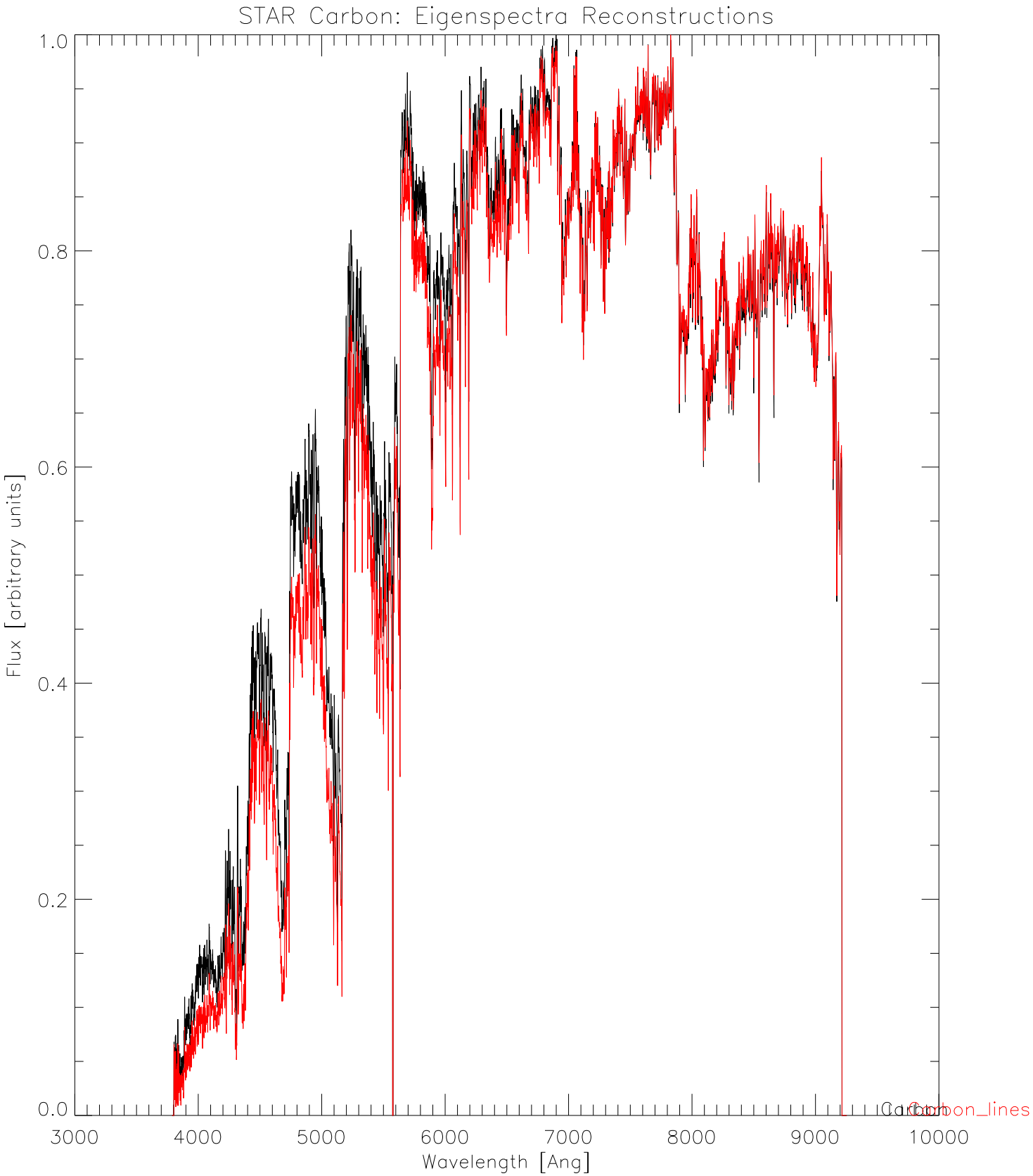
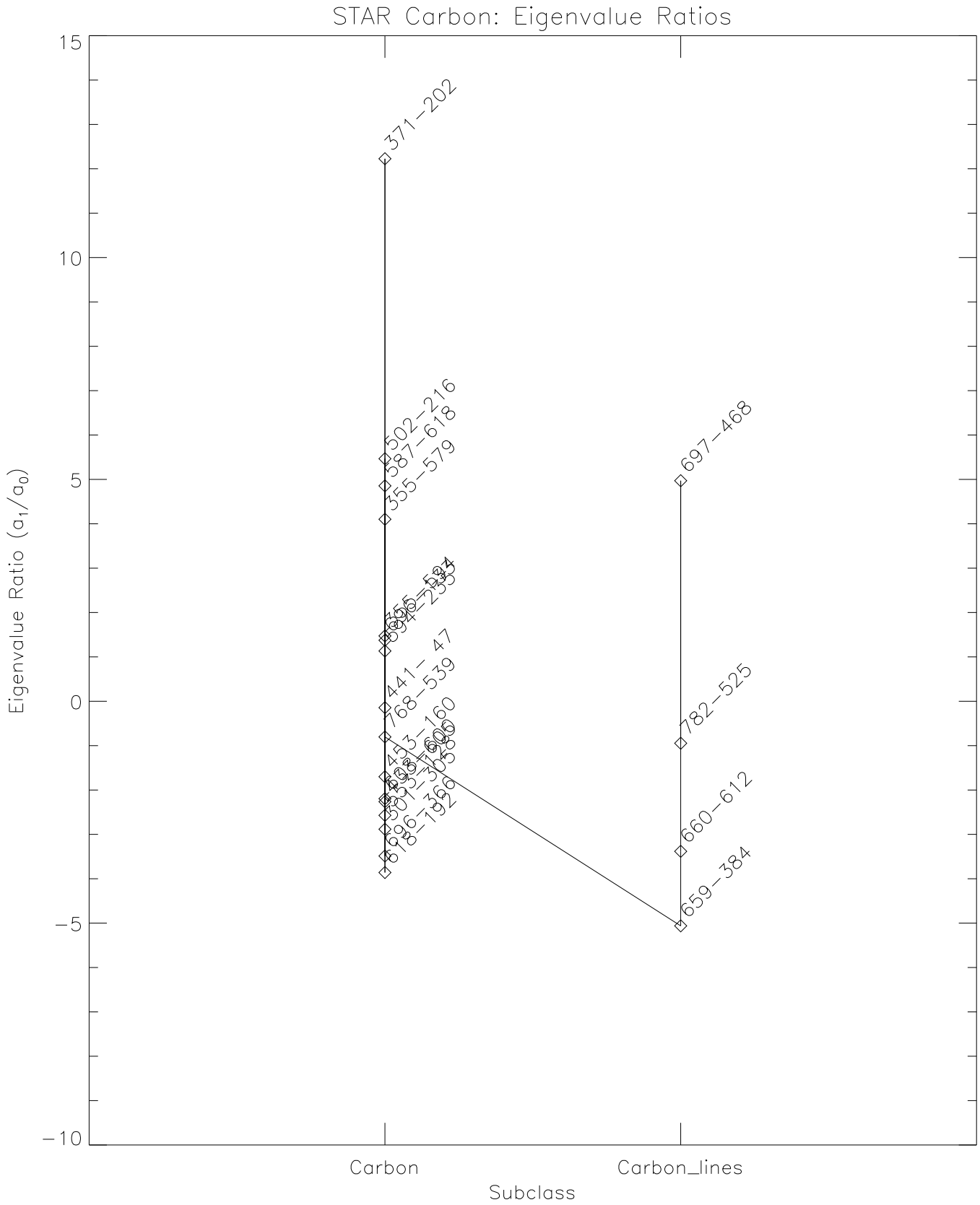

STAR A: Eigenspectra Reconstructions
1.0
0.8
0.6
0.4
0.2
0.0
Flux [arbitrary units]
3000
4000
5000
6000
7000
8000
9000
10000
Wavelength [Ang]
40p

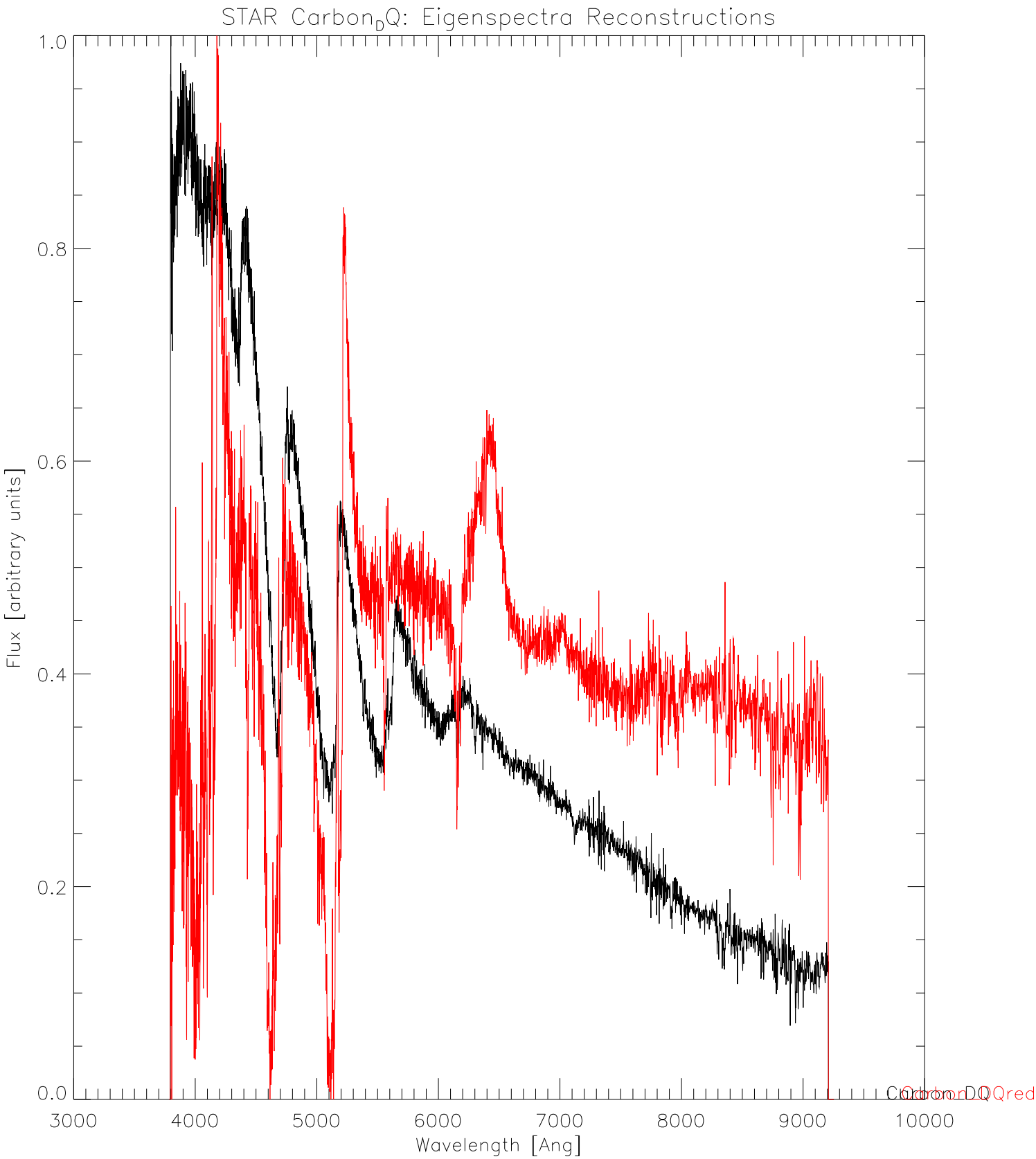

STAR A: Eigenvalue Ratios
20
15
10
5
0
−5
−10
−15
Eigenvalue Ratio (a_1/a_0)
301−402
413−231
428−150
A0
A0p
Subclass

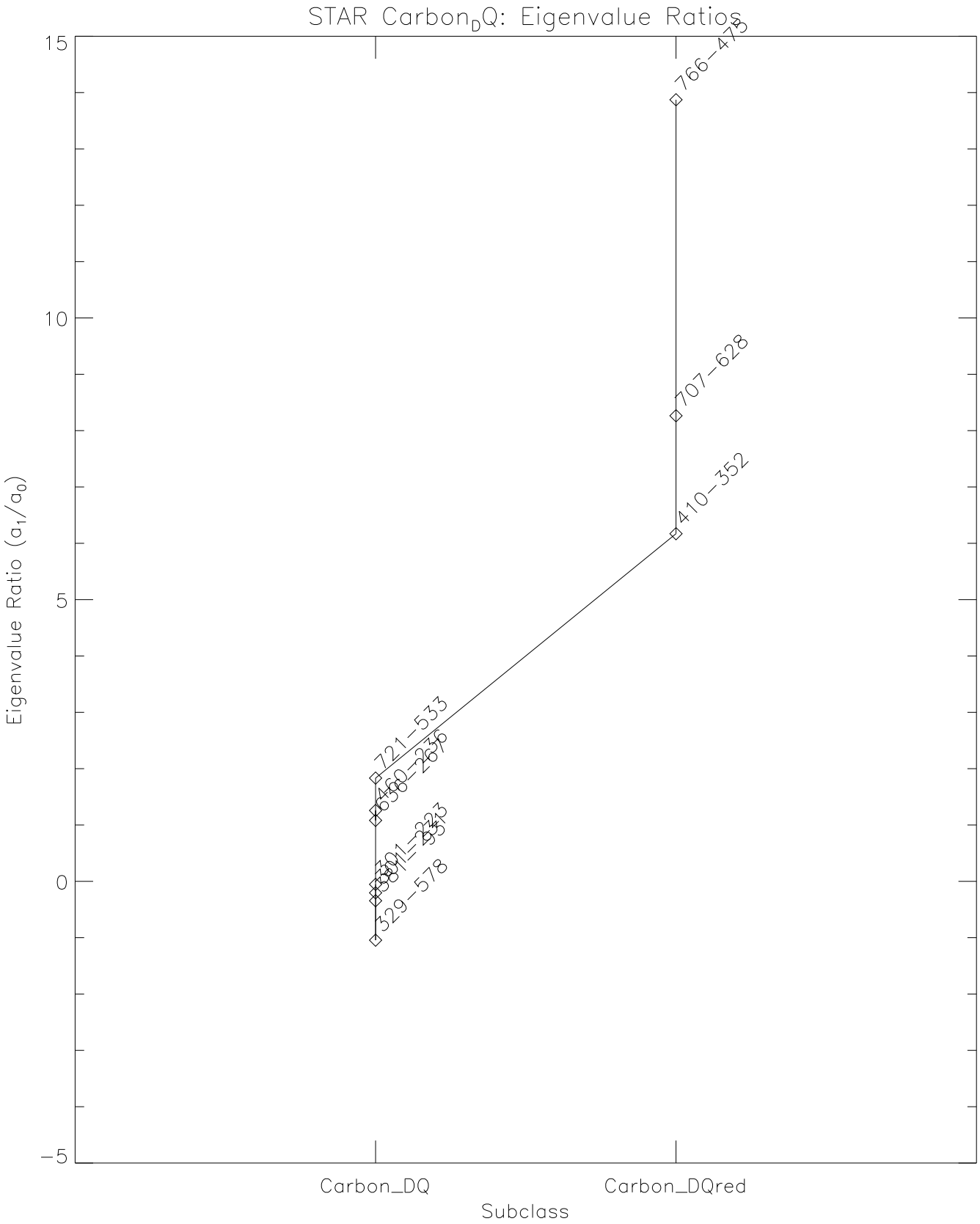

STAR B: Eigenspectra Reconstructions
Flux [arbitrary units]
Wavelength [Ang]
1.0
0.8
0.6
0.4
0.2
0.0
3000
4000
5000
6000
7000
8000
9000
10000
B6


STAR B: Eigenvalue Ratios
Eigenvalue Ratio (a_1/a_0)
40
30
20
10
0
−10
−20
−30
B6
B9
Subclass
293−504
308−436
556−270
550−341
413−571
355−540
413−389
350−366
434−329
413−492

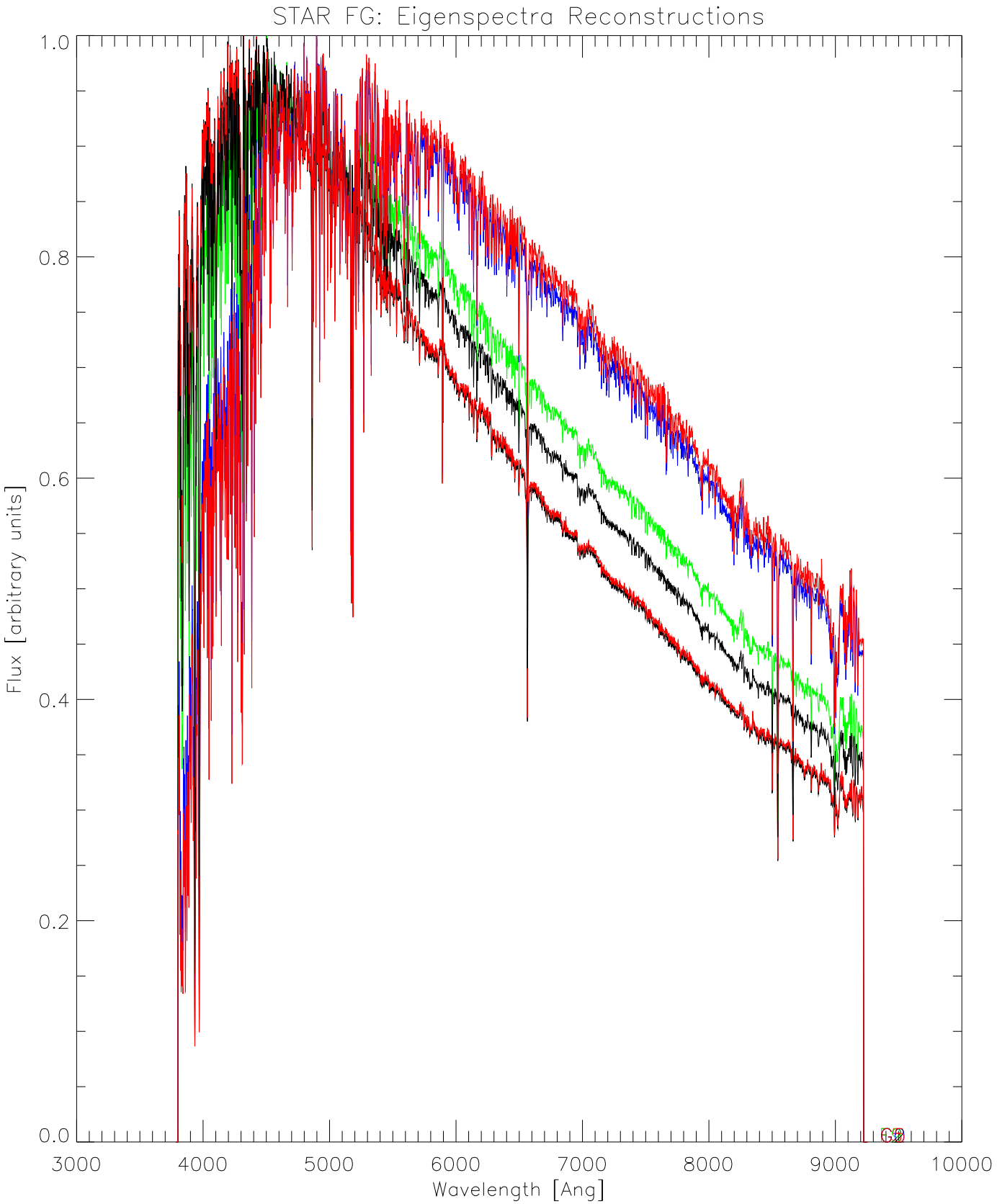

STAR Carbon: Eigenspectra Reconstructions
1.0
0.8
0.6
0.4
0.2
0.0
Flux [arbitrary units]
3000
4000
5000
6000
7000
8000
9000
10000
Wavelength [Ang]
Carbon
Carbon_lines

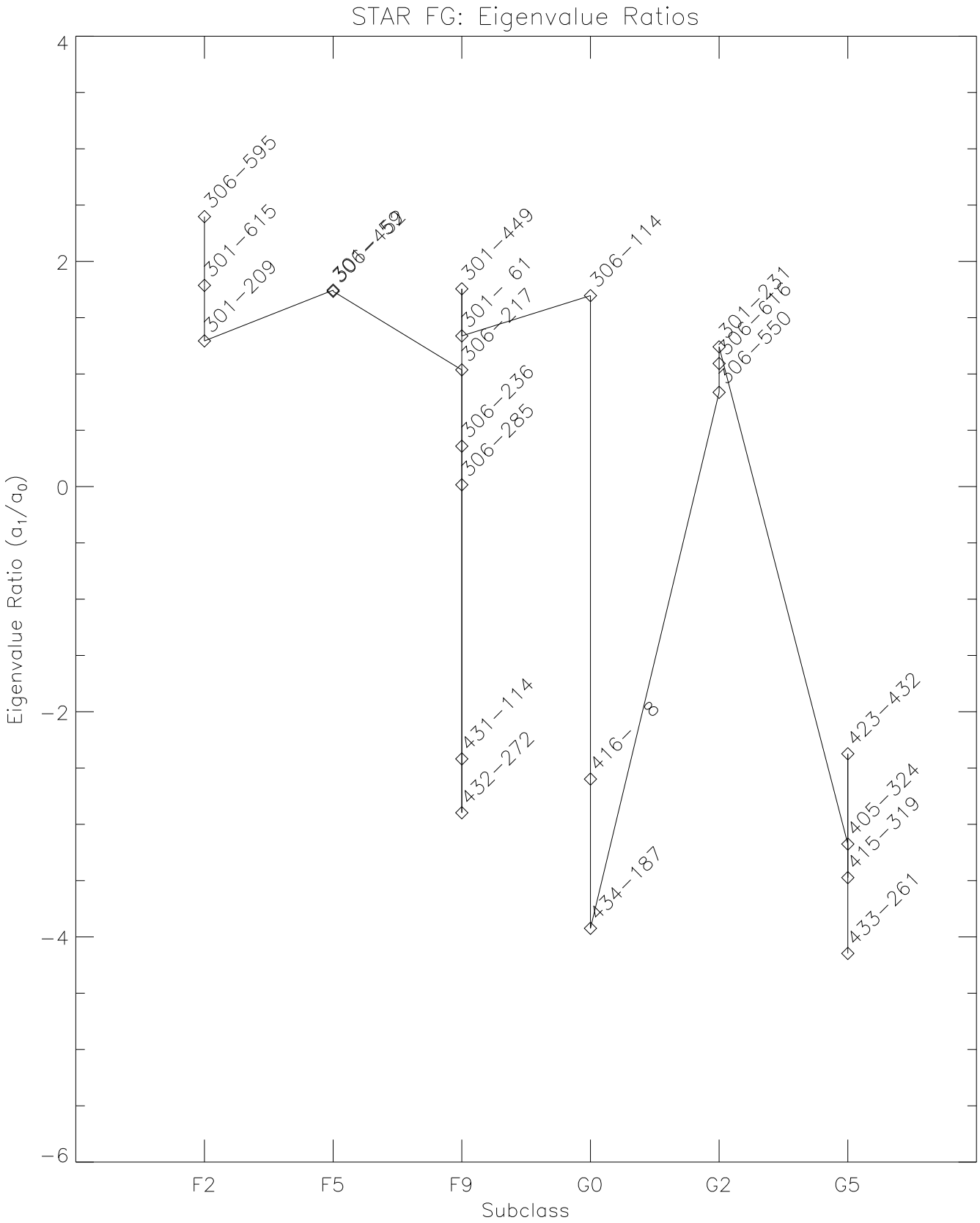

STAR Carbon: Eigenvalue Ratios
Eigenvalue Ratio (a_1/a_0)
15
10
5
0
−5
−10
371−202
502−216
587−618
355−579
697−468
441− 47
768−539
782−525
660−612
659−384
Carbon
Carbon_lines
Subclass

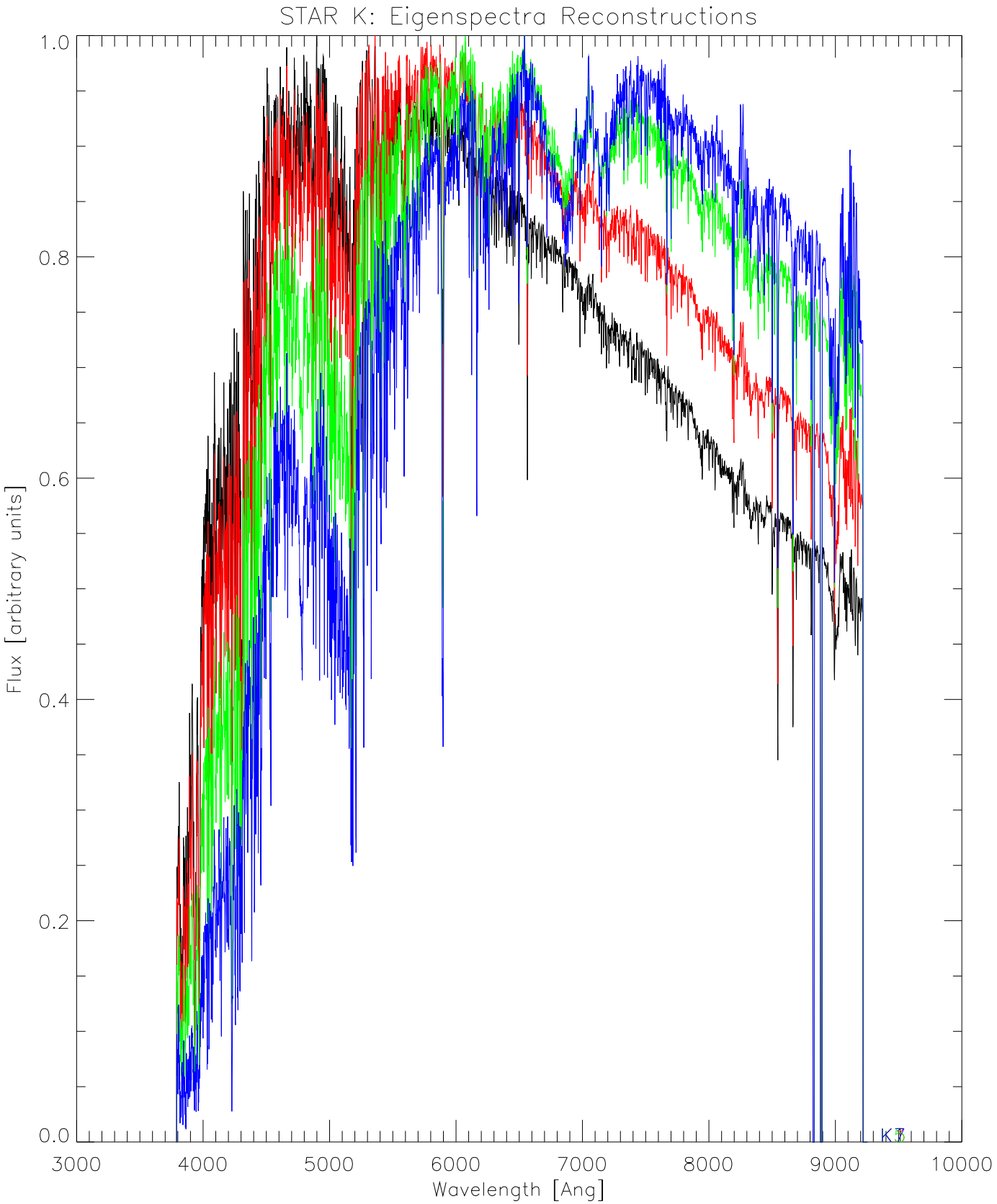

STAR Carbon$_D$Q: Eigenspectra Reconstructions
Flux [arbitrary units]
Wavelength [Ang]
1.0
0.8
0.6
0.4
0.2
0.0
3000
4000
5000
6000
7000
8000
9000
10000
CarbonDQ
CarbonDQred

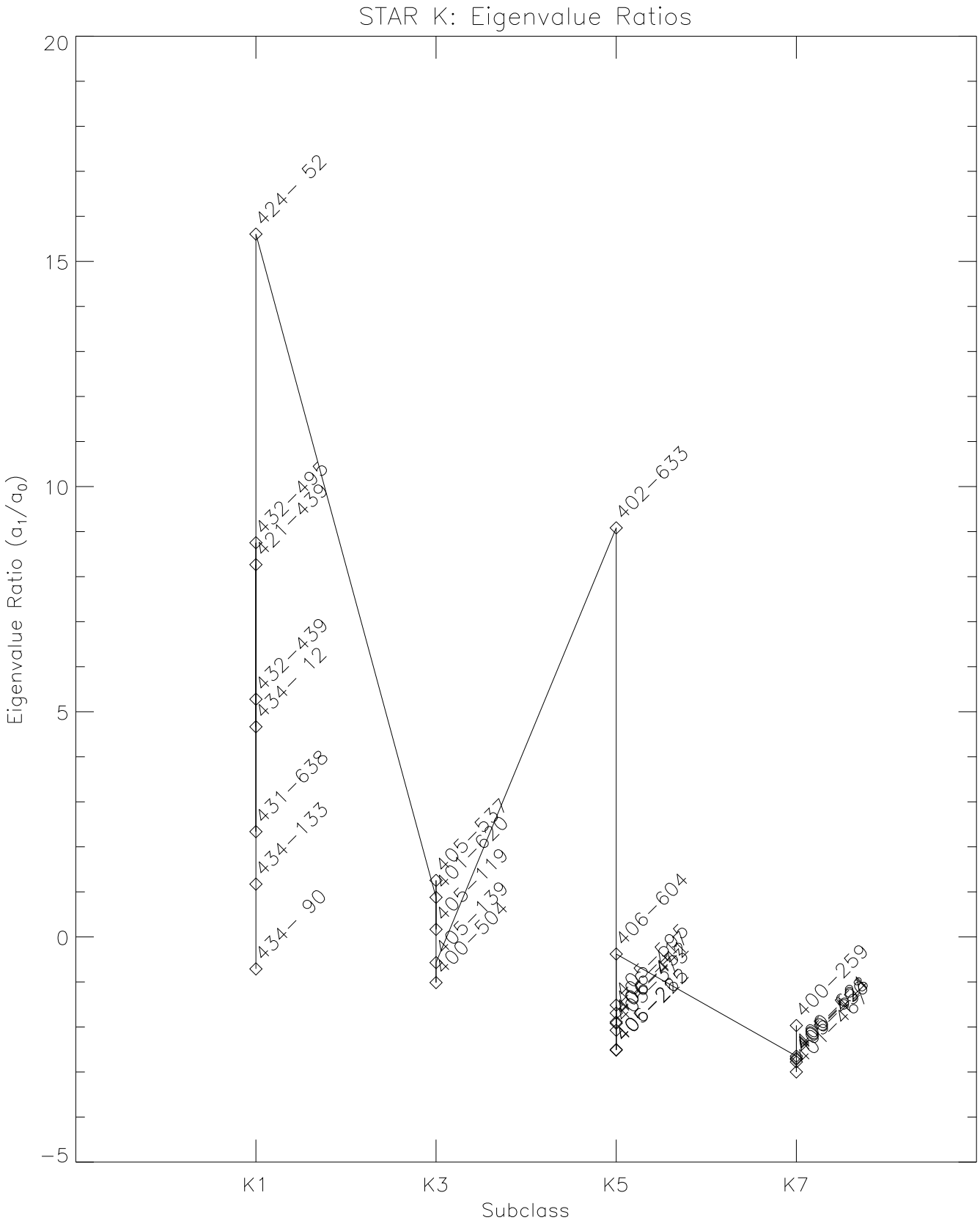


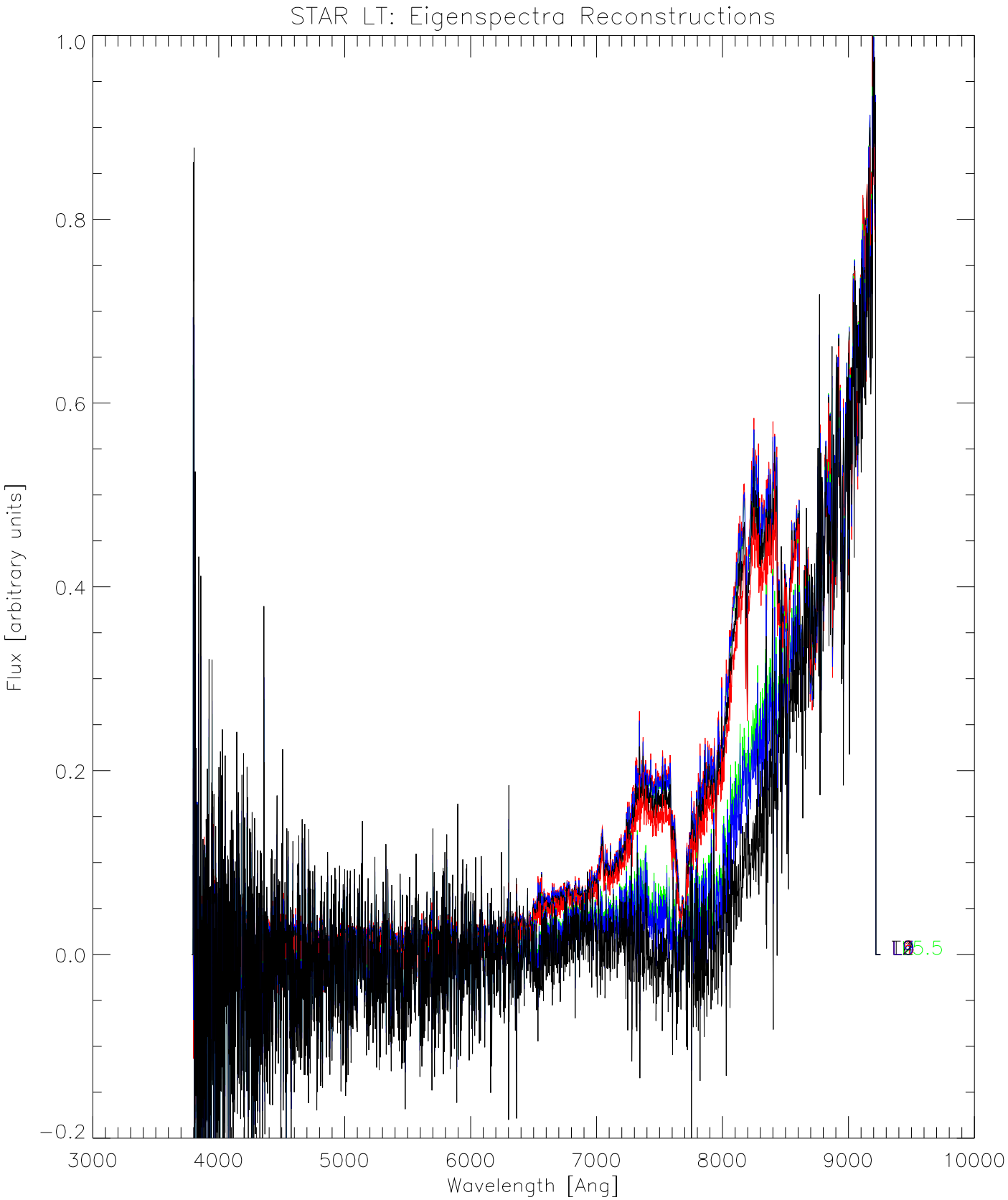
STAR Carbon$_D$Q: Eigenvalue Ratios
Eigenvalue Ratio (a_1/a_0)
15
10
5
0
−5
766−475
707−628
410−352
721−533
329−578
Carbon_DQ
Carbon_DQred
Subclass

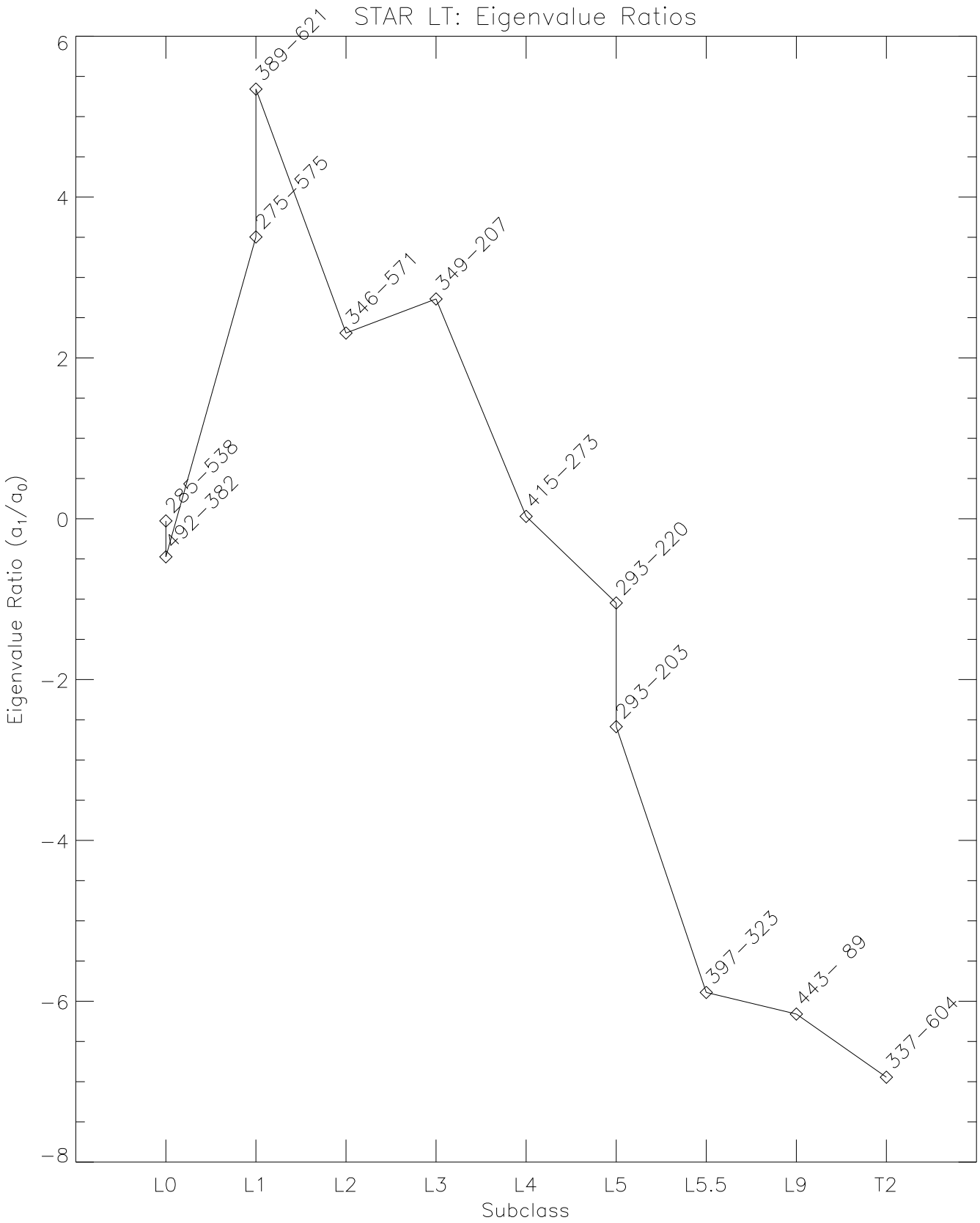

STAR FG: Eigenspectra Reconstructions
Flux [arbitrary units]
Wavelength [Ang]
0.0
0.2
0.4
0.6
0.8
1.0
3000
4000
5000
6000
7000
8000
9000
10000

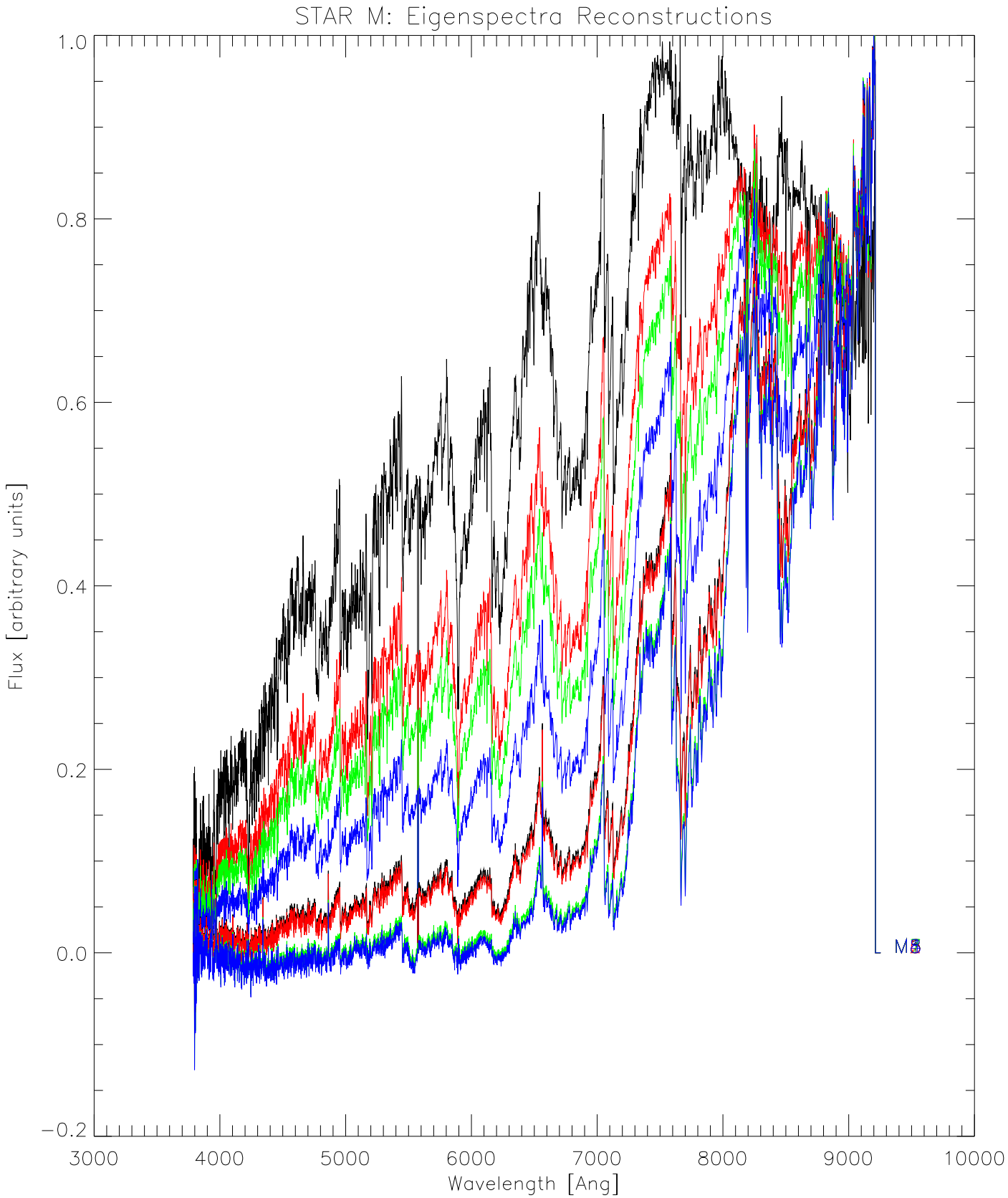

STAR FG: Eigenvalue Ratios
Eigenvalue Ratio (a_1/a_0)
Subclass
F2
F5
F9
G0
G2
G5
4
2
0
−2
−4
−6
306−595
301−615
301−209
306−452
301−449
301− 61
306−217
306−114
306−236
306−285
431−114
432−272
416− 8
434−187
301−231
306−616
306−550
423−432
405−324
415−319
433−261

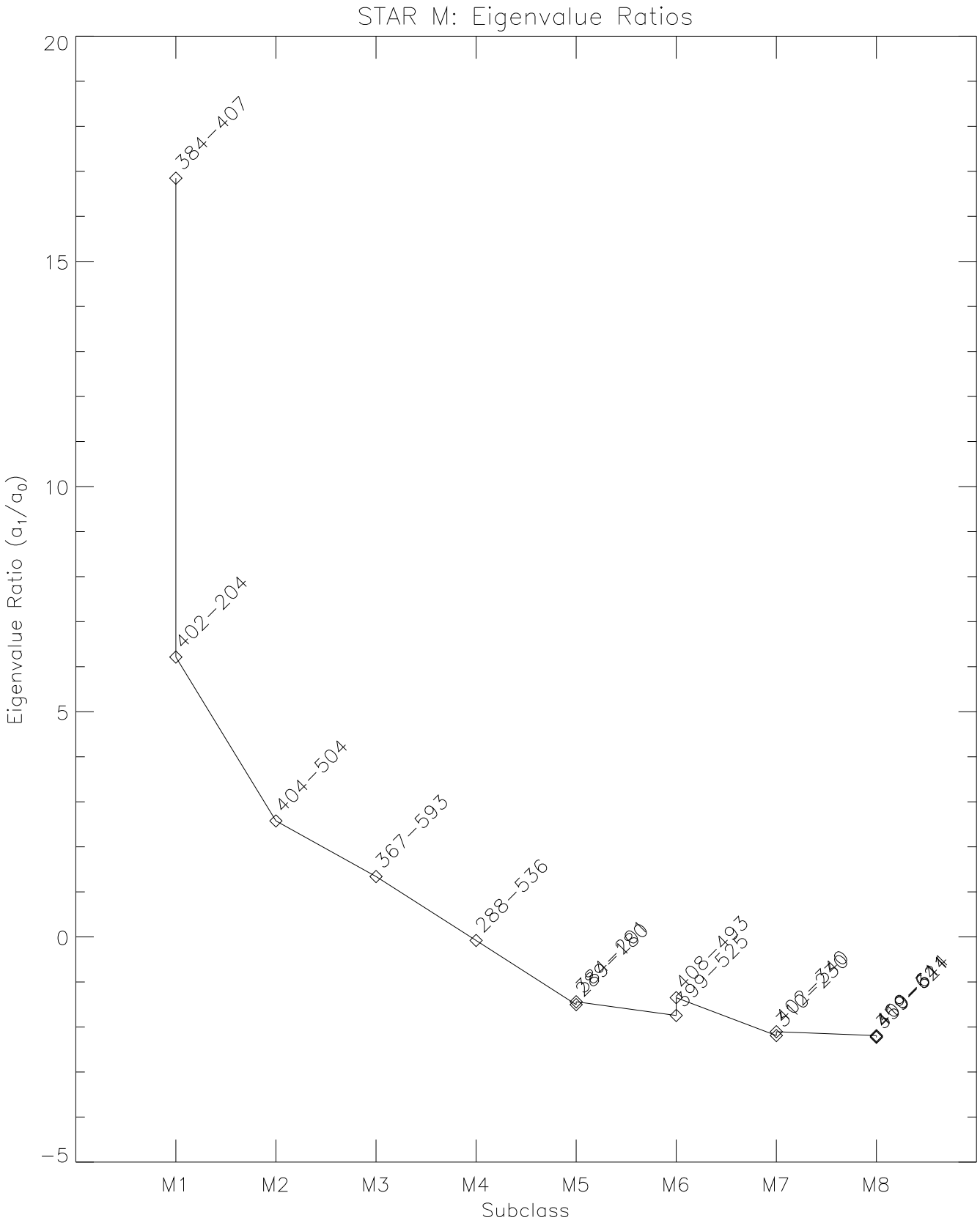

STAR K: Eigenspectra Reconstructions
Flux [arbitrary units]
Wavelength [Ang]
1.0
0.8
0.6
0.4
0.2
0.0
3000
4000
5000
6000
7000
8000
9000
10000
K3

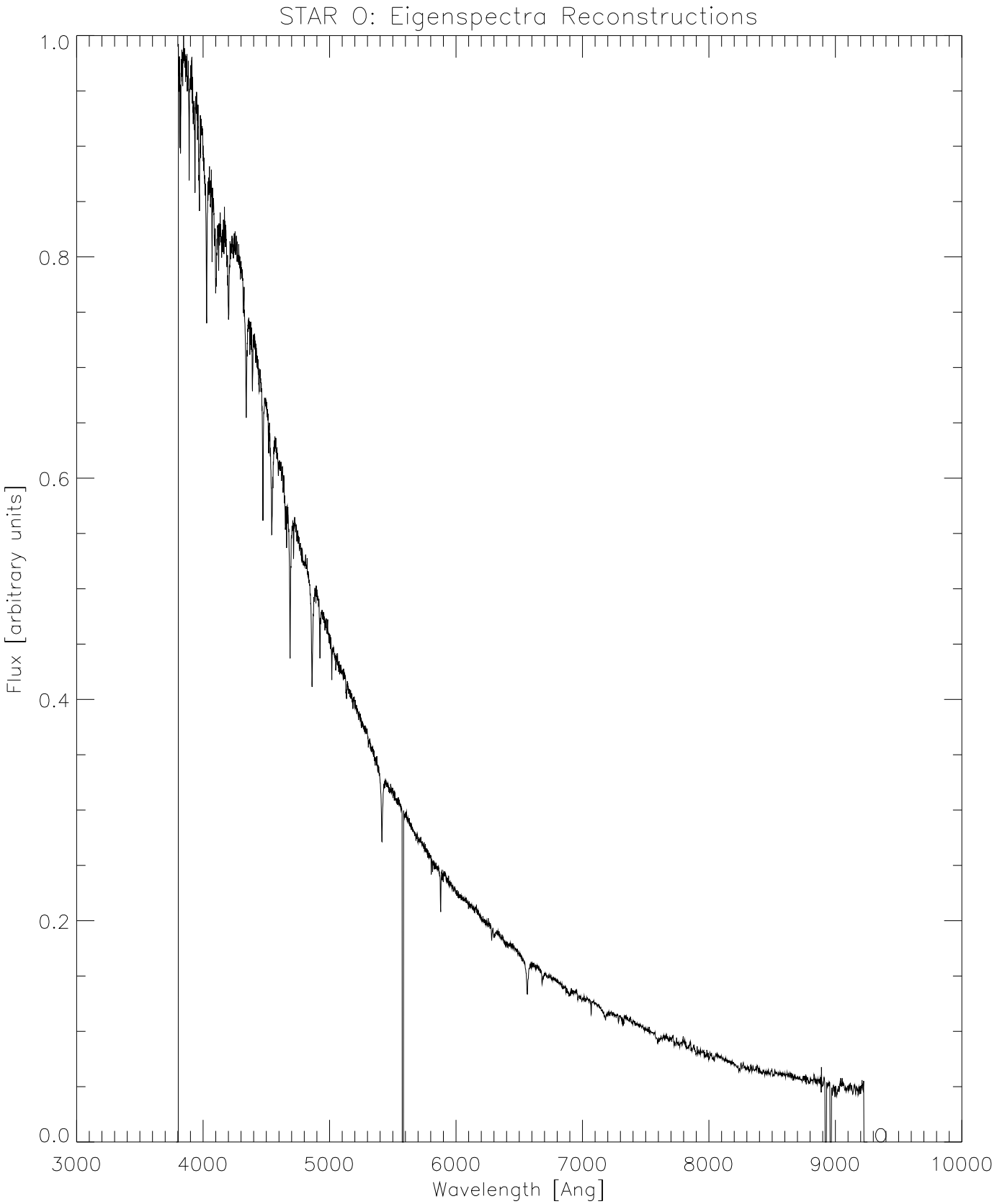

STAR K: Eigenvalue Ratios
Eigenvalue Ratio (a_1/a_0)
20
15
10
5
0
−5
K1
K3
K5
K7
Subclass
424− 52
432−495
421−439
432−439
434− 12
431−638
434−133
434− 90
405−537
401−620
405−119
400−504
402−633
406−604
400−259

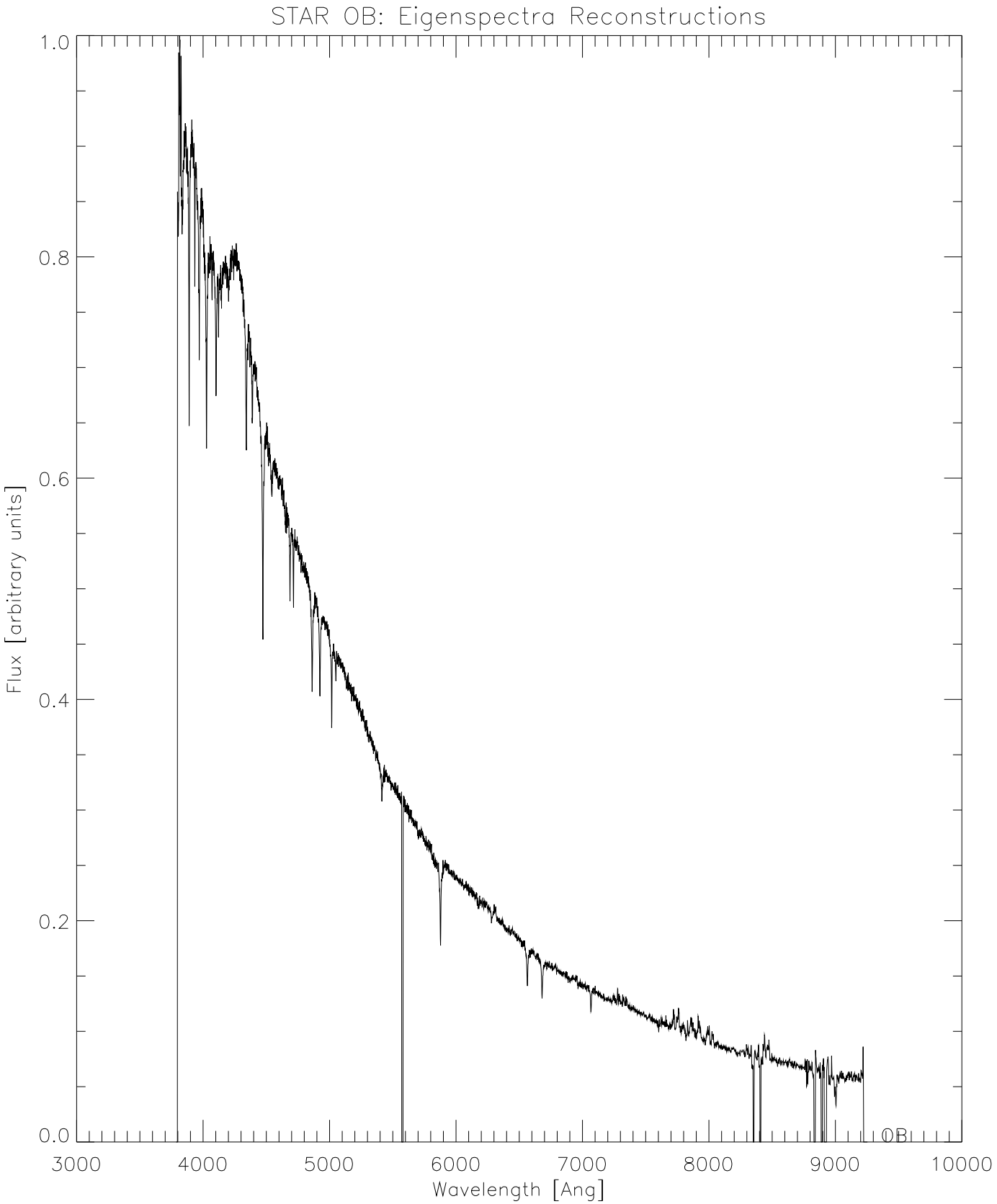

STAR LT: Eigenspectra Reconstructions
Flux [arbitrary units]
Wavelength [Ang]
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
3000
4000
5000
6000
7000
8000
9000
10000
L5.5

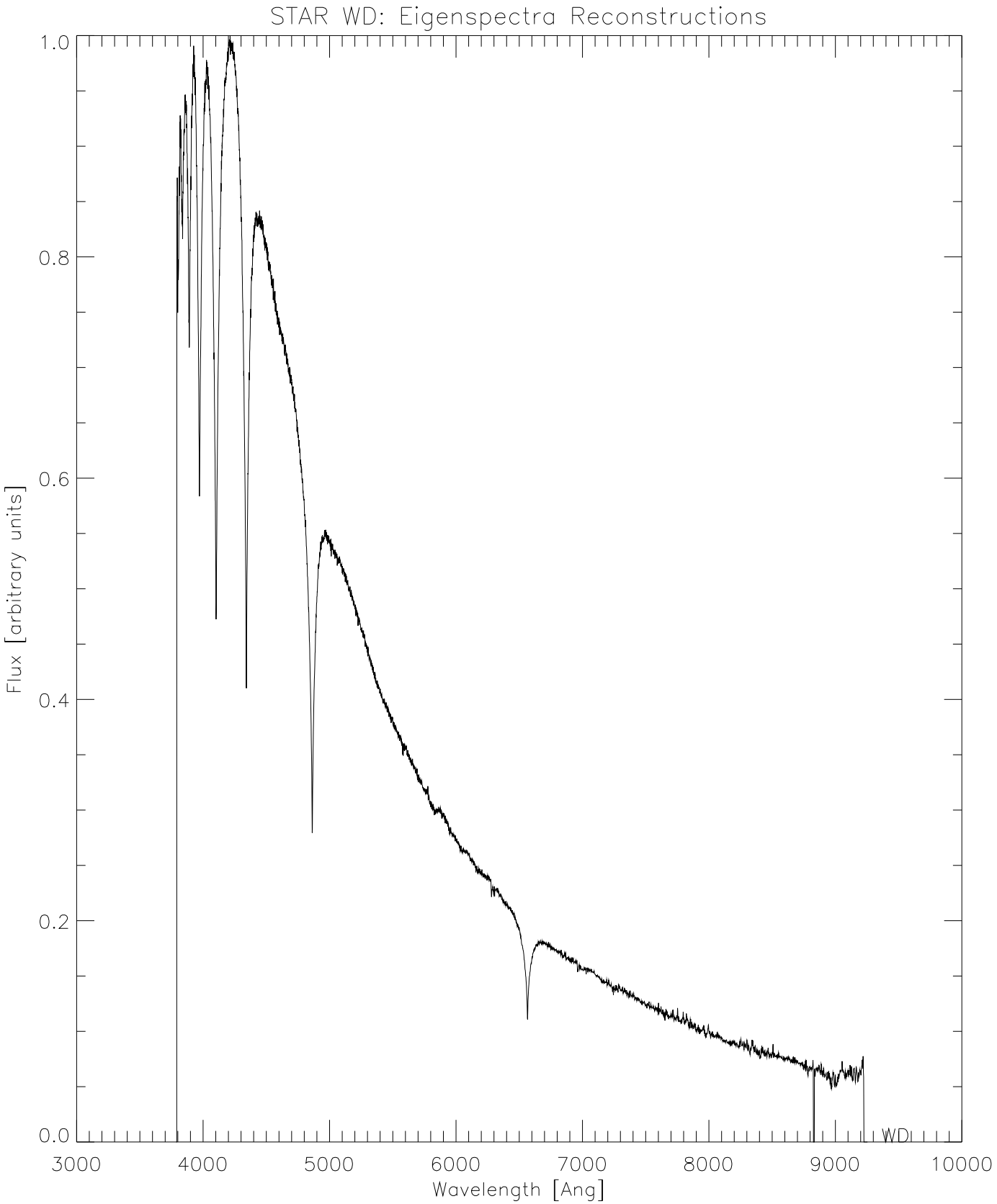

STAR LT: Eigenvalue Ratios
Eigenvalue Ratio (a_1/a_0)
Subclass
6
4
2
0
−2
−4
−6
−8
L0
L1
L2
L3
L4
L5
L5.5
L9
T2
389−621
275−575
346−571
349−207
285−538
492−382
415−273
293−220
293−203
397−323
443− 89
337−604

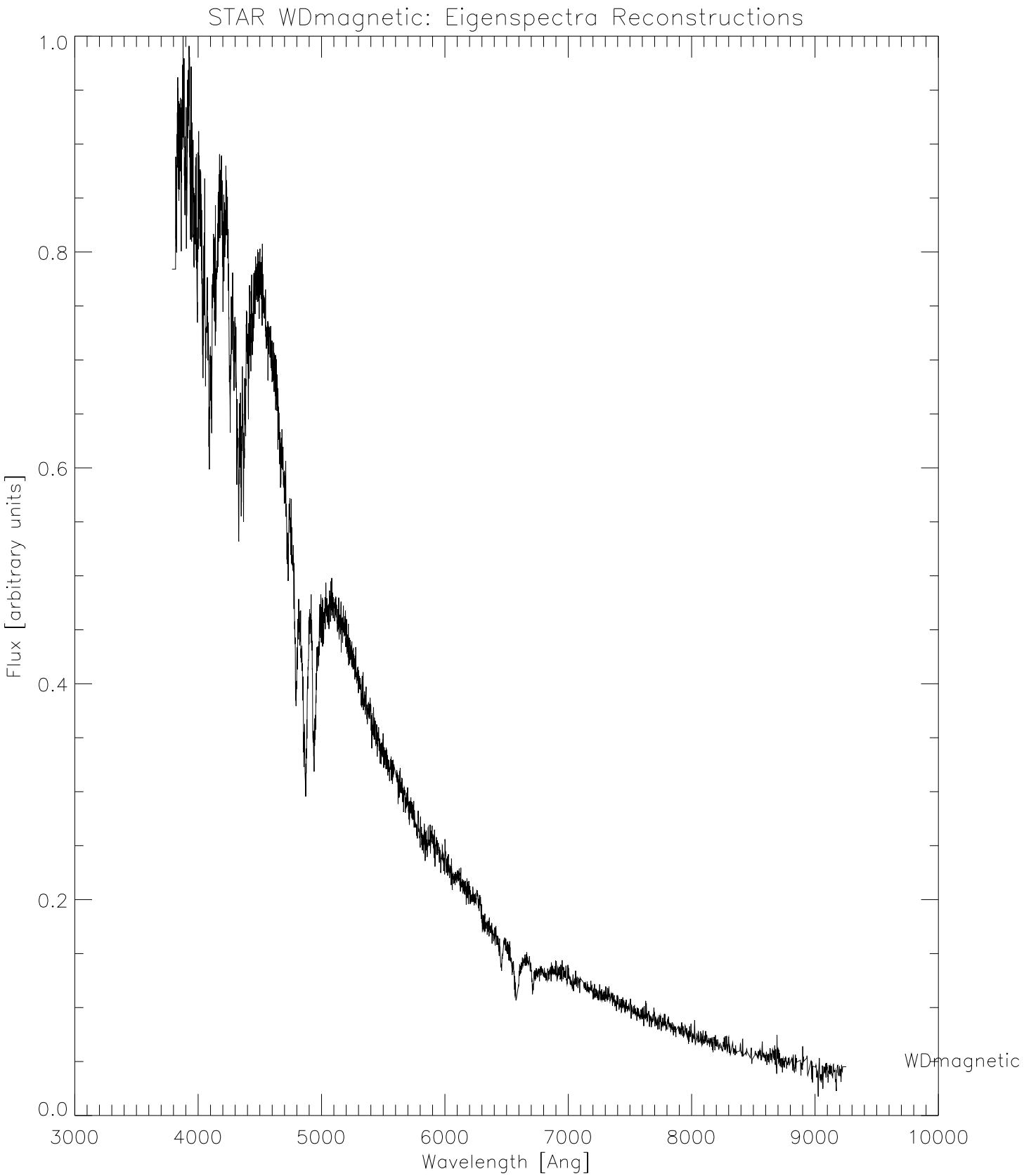

STAR M: Eigenspectra Reconstructions
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
Flux [arbitrary units]
3000
4000
5000
6000
7000
8000
9000
10000
Wavelength [Ang]
M5

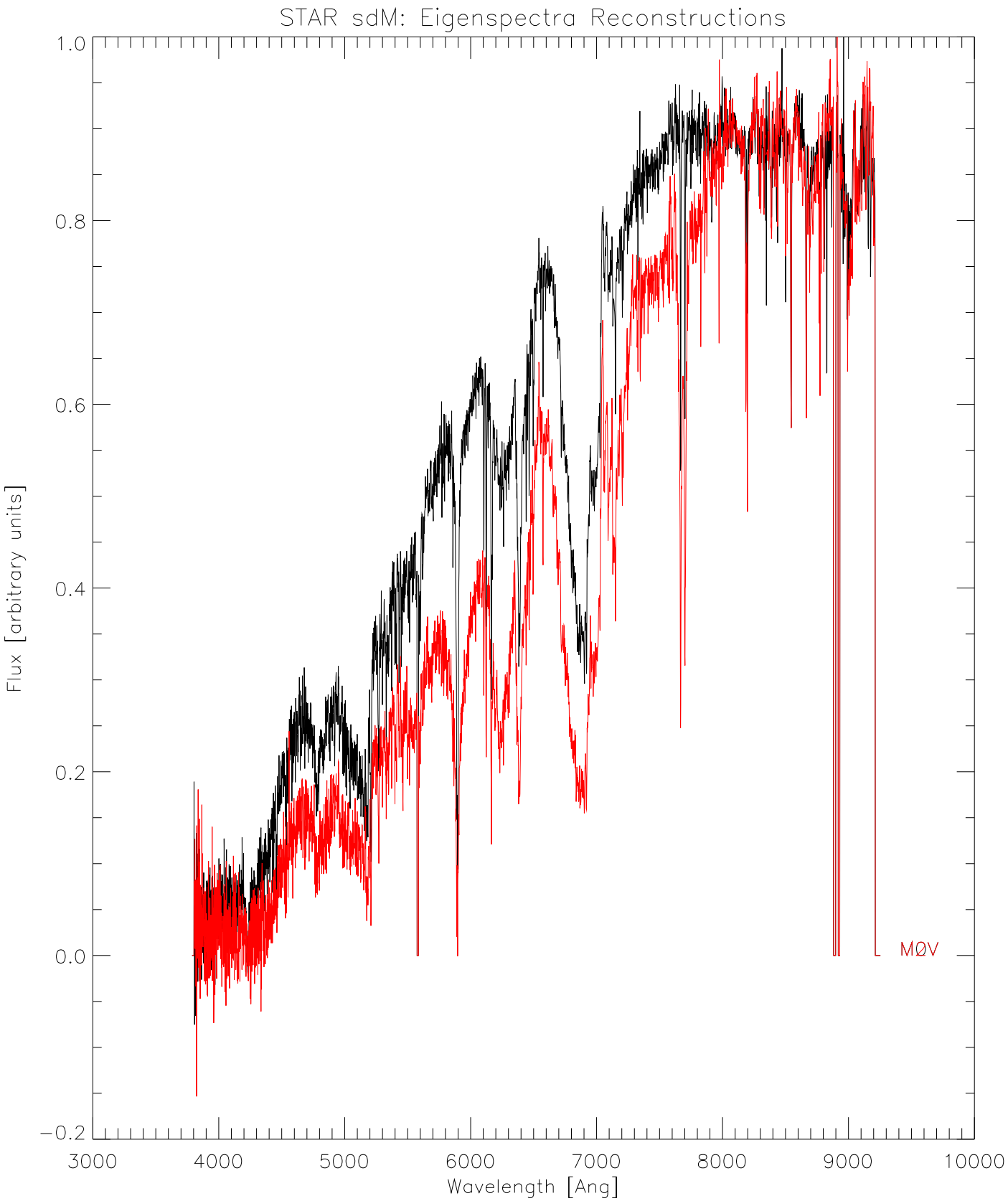

STAR M: Eigenvalue Ratios
Eigenvalue Ratio (a_1/a_0)
Subclass
20
15
10
5
0
−5
M1
M2
M3
M4
M5
M6
M7
M8
384−407
402−204
404−504
367−593
288−536
384−180
408−493
398−525
402−350
409−614

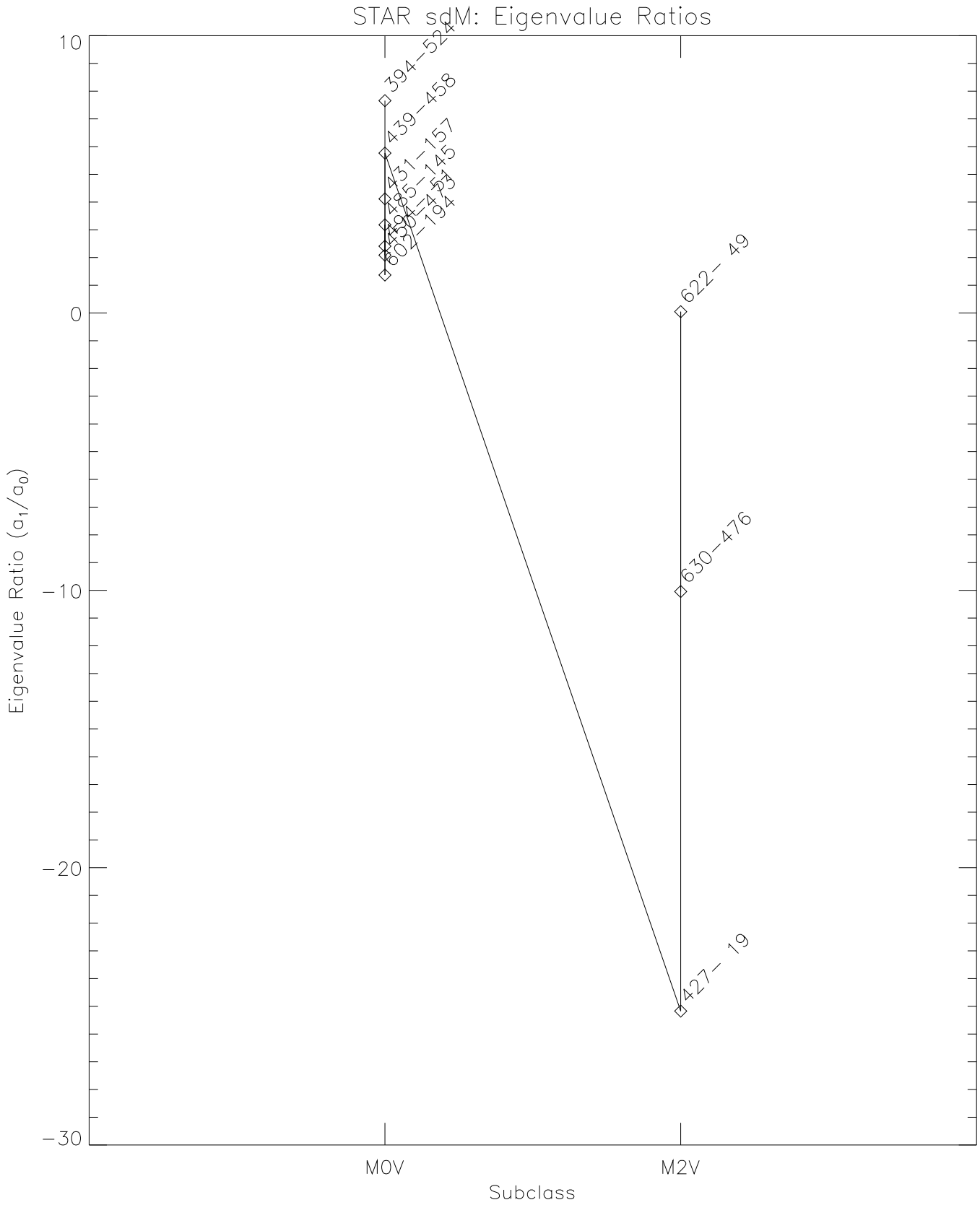

STAR 0: Eigenspectra Reconstructions
Flux [arbitrary units]
Wavelength [Ang]
0.0
0.2
0.4
0.6
0.8
1.0
3000
4000
5000
6000
7000
8000
9000
10000


STAR OB: Eigenspectra Reconstructions
Flux [arbitrary units]
Wavelength [Ang]
1.0
0.8
0.6
0.4
0.2
0.0
3000
4000
5000
6000
7000
8000
9000
10000
OB


STAR WD: Eigenspectra Reconstructions
Flux [arbitrary units]
Wavelength [Ang]
1.0
0.8
0.6
0.4
0.2
0.0
3000
4000
5000
6000
7000
8000
9000
10000
WD


STAR WDmagnetic: Eigenspectra Reconstructions
1.0
0.8
0.6
0.4
0.2
0.0
Flux [arbitrary units]
3000
4000
5000
6000
7000
8000
9000
10000
Wavelength [Ang]
WDmagnetic


STAR sdM: Eigenspectra Reconstructions
Flux [arbitrary units]
Wavelength [Ang]
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
3000
4000
5000
6000
7000
8000
9000
10000
MØV



STAR sdM: Eigenvalue Ratios
Eigenvalue Ratio (a_1/a_0)
Subclass
M0V
M2V
10
0
−10
−20
−30
394−524
439−458
431−157
485−145
602−194
622− 49
630−476
427− 19