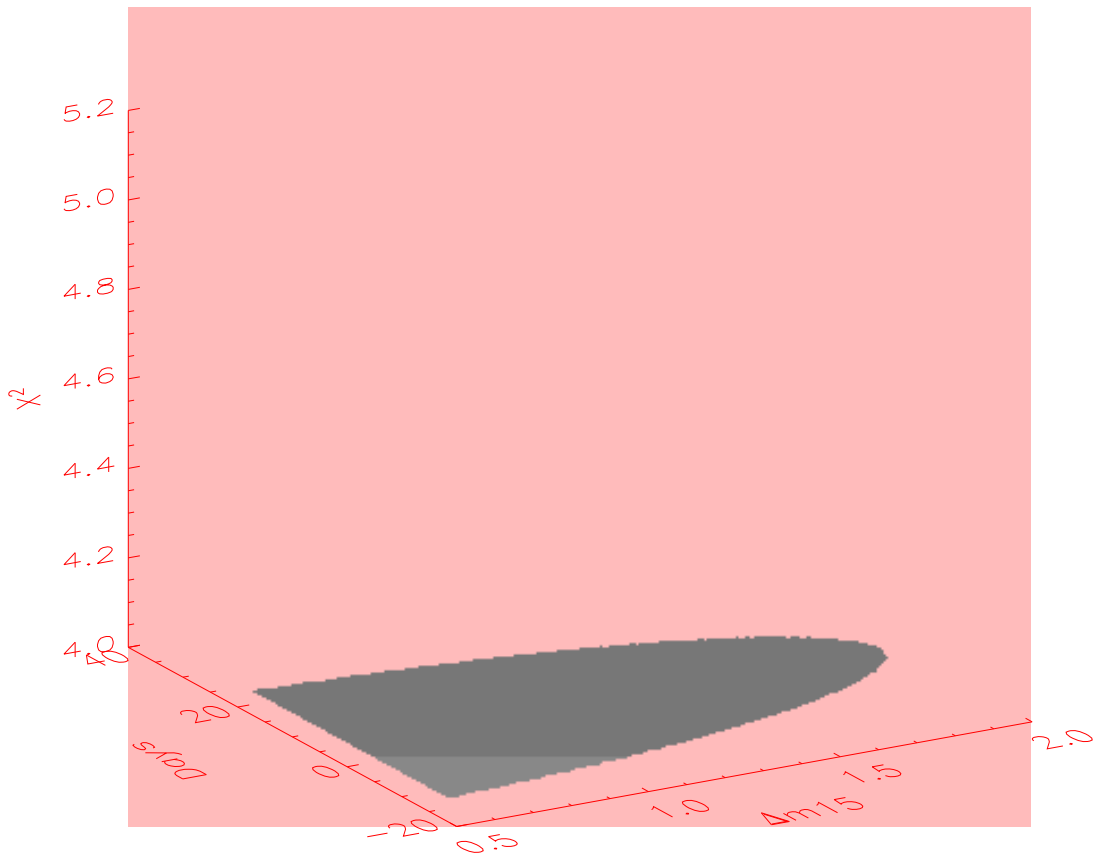
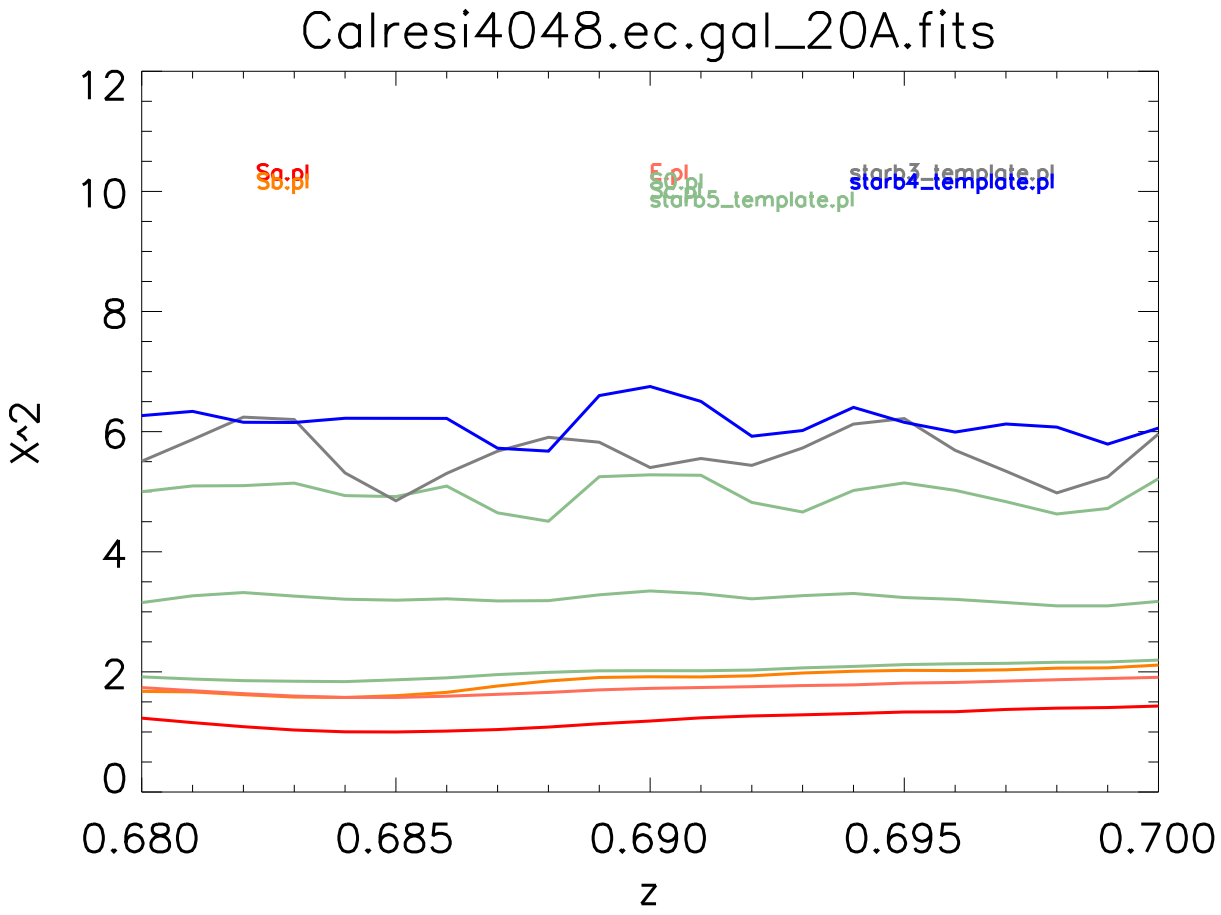
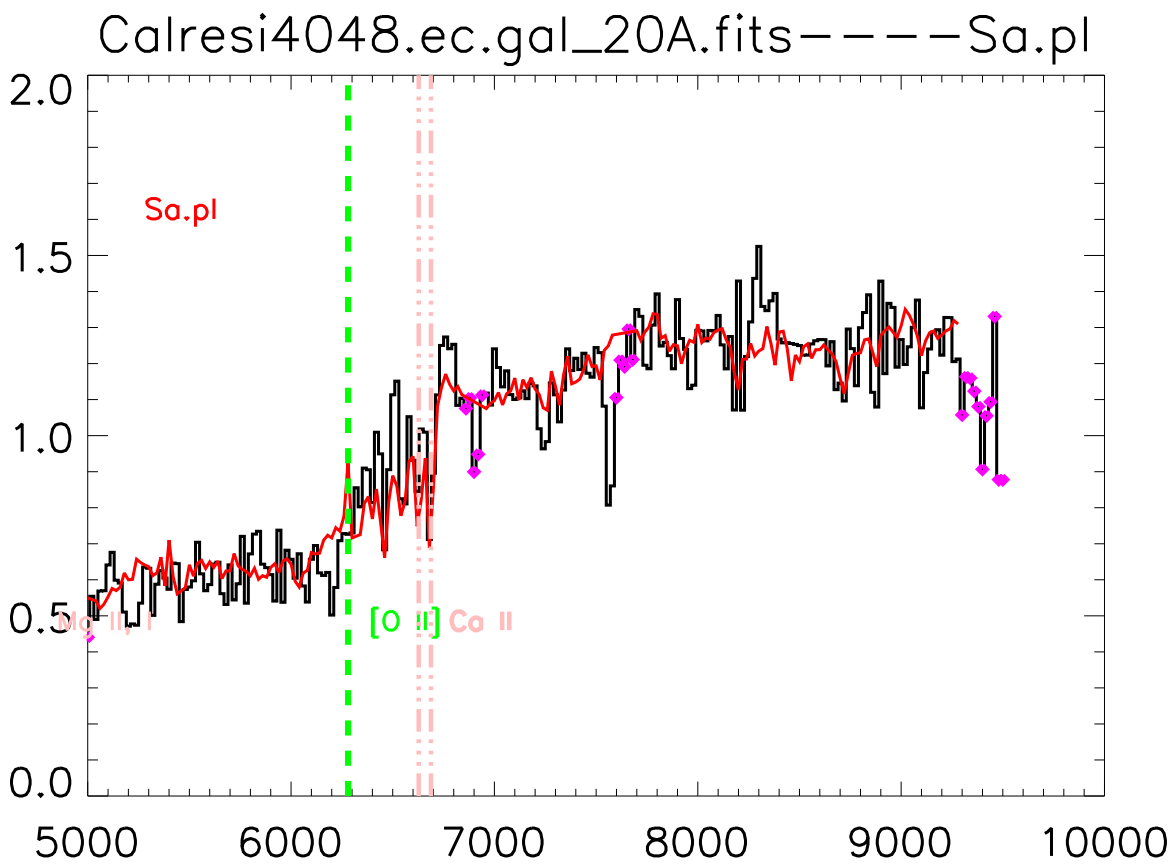
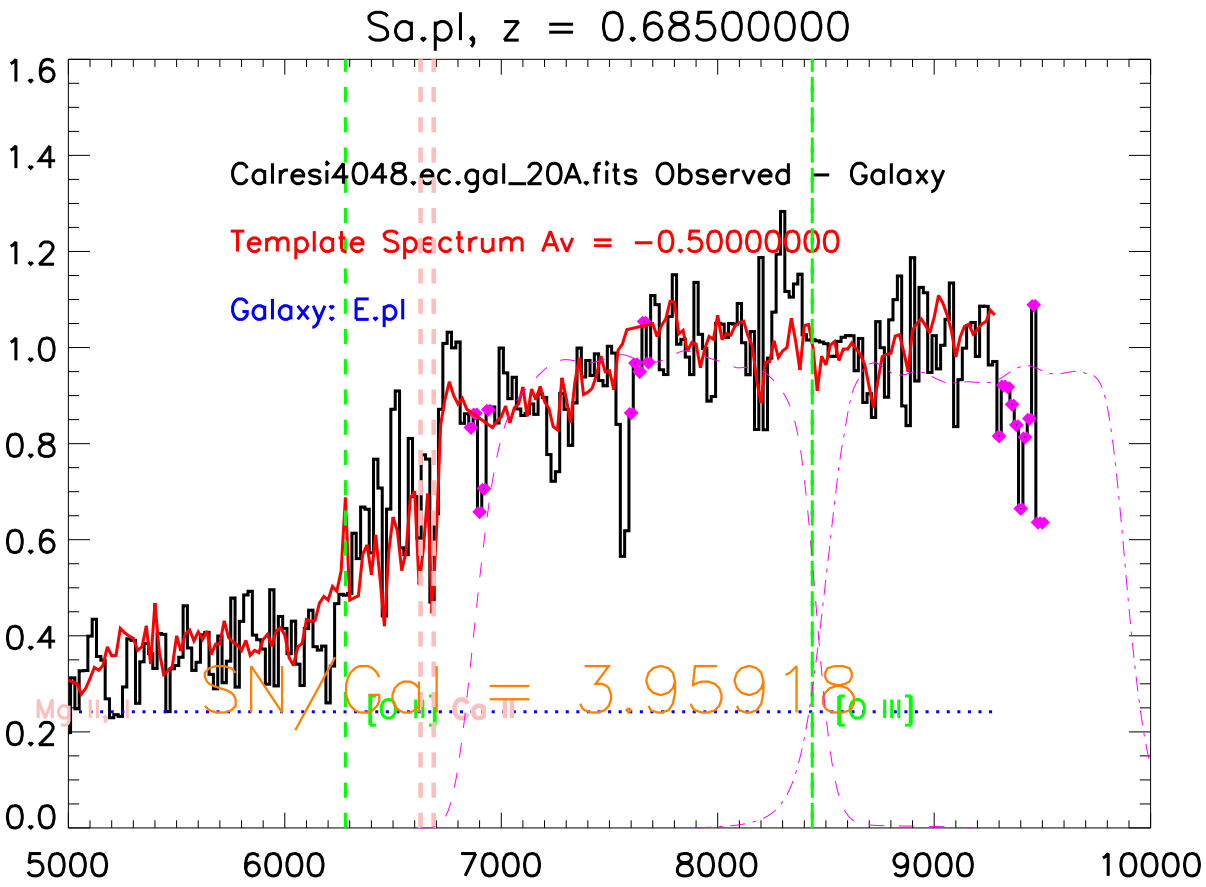
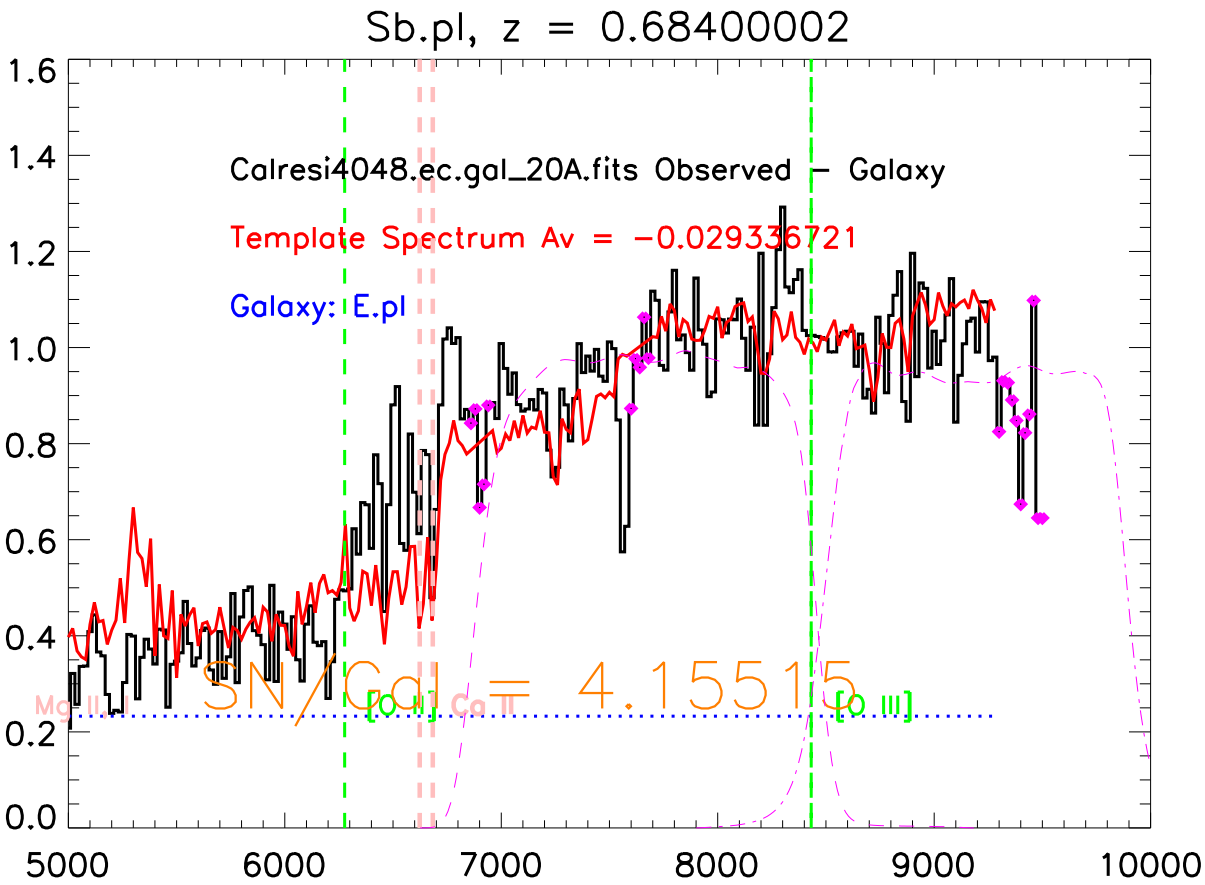
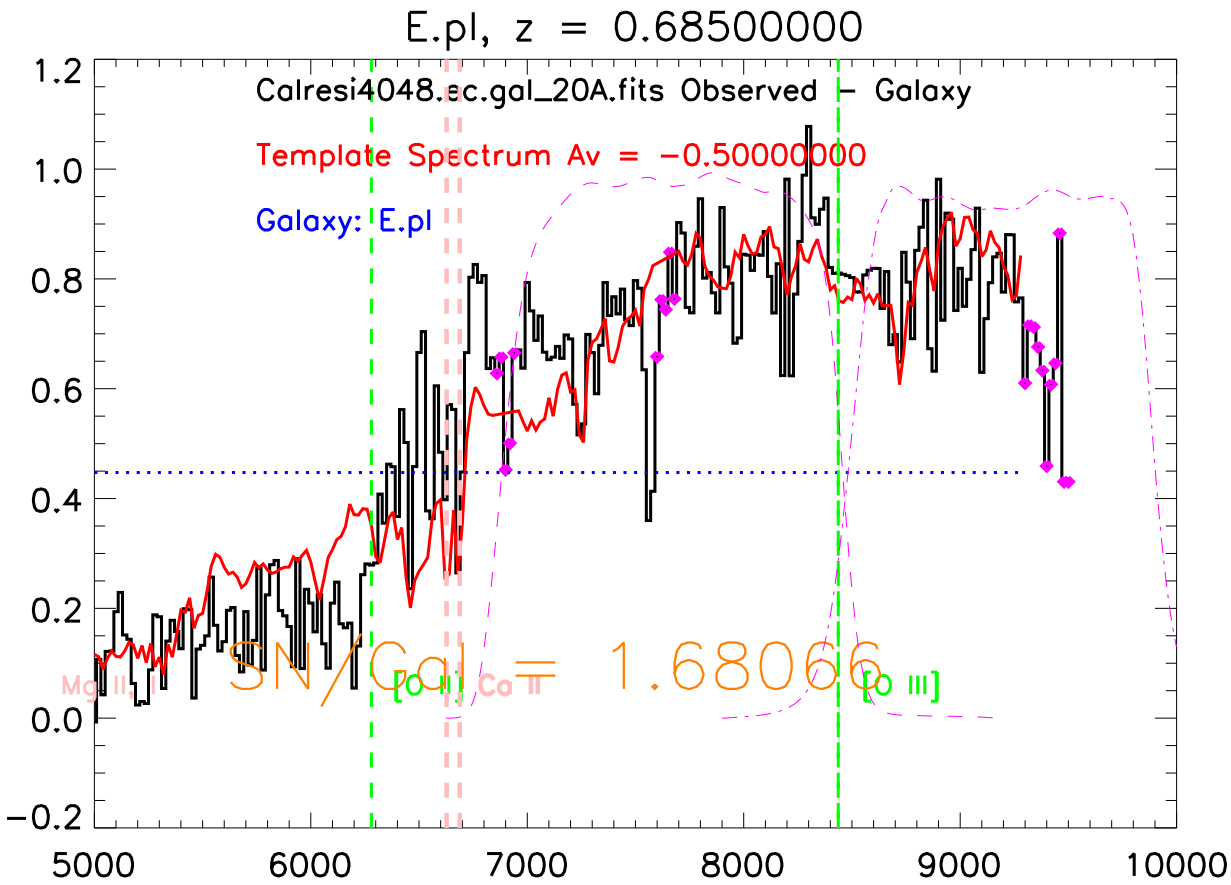

5.2
5.0
4.8
4.6
4.4
4.2
4.0
χ²
40
20
0
−20
Δm15
0.5
1.0
1.5
2.0

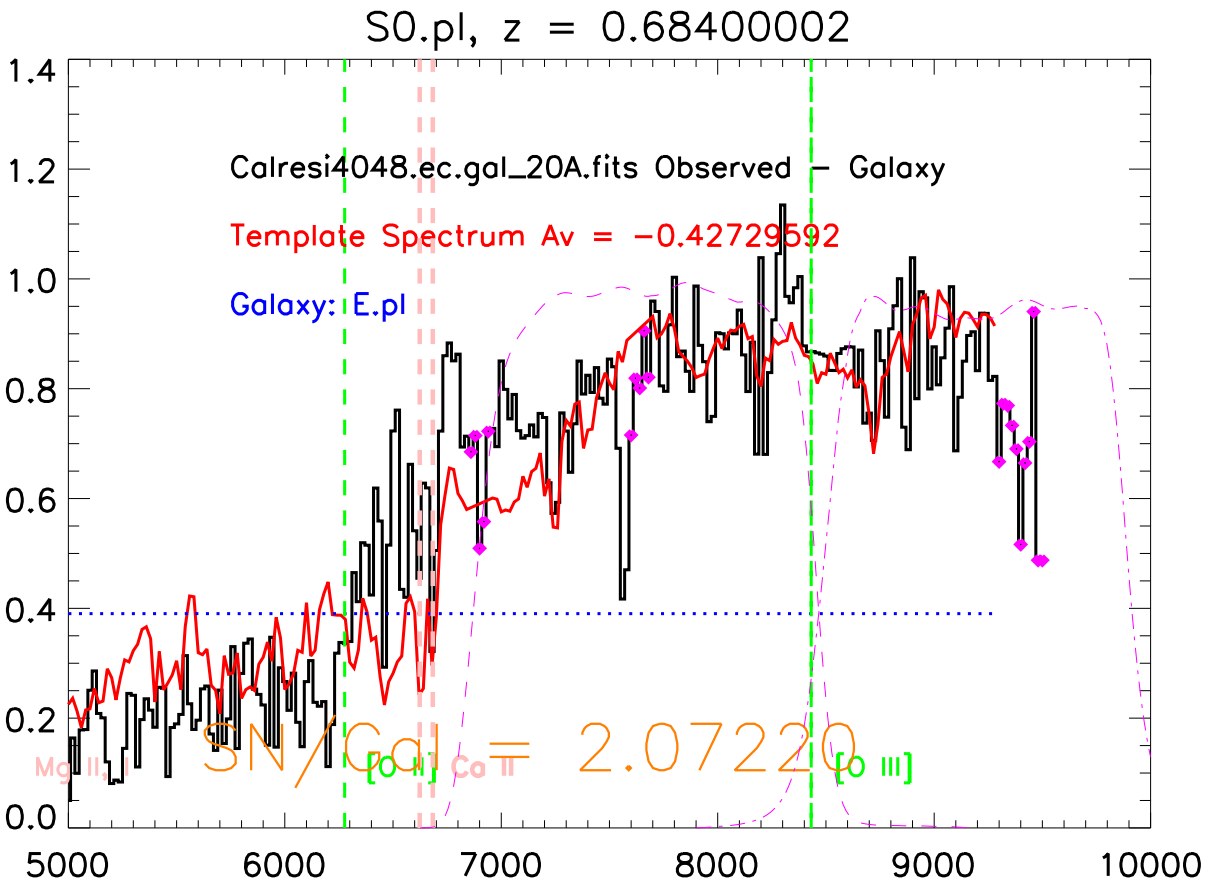

Calresi4048.ec.gal_20A.fits
12
10
8
6
4
2
0
X^2
0.680
0.685
0.690
0.695
0.700
z
Sa.pl
Sb.pl
E.pl
Sc.pl
starb5_template.pl
starb3_template.pl
starb4_template.pl

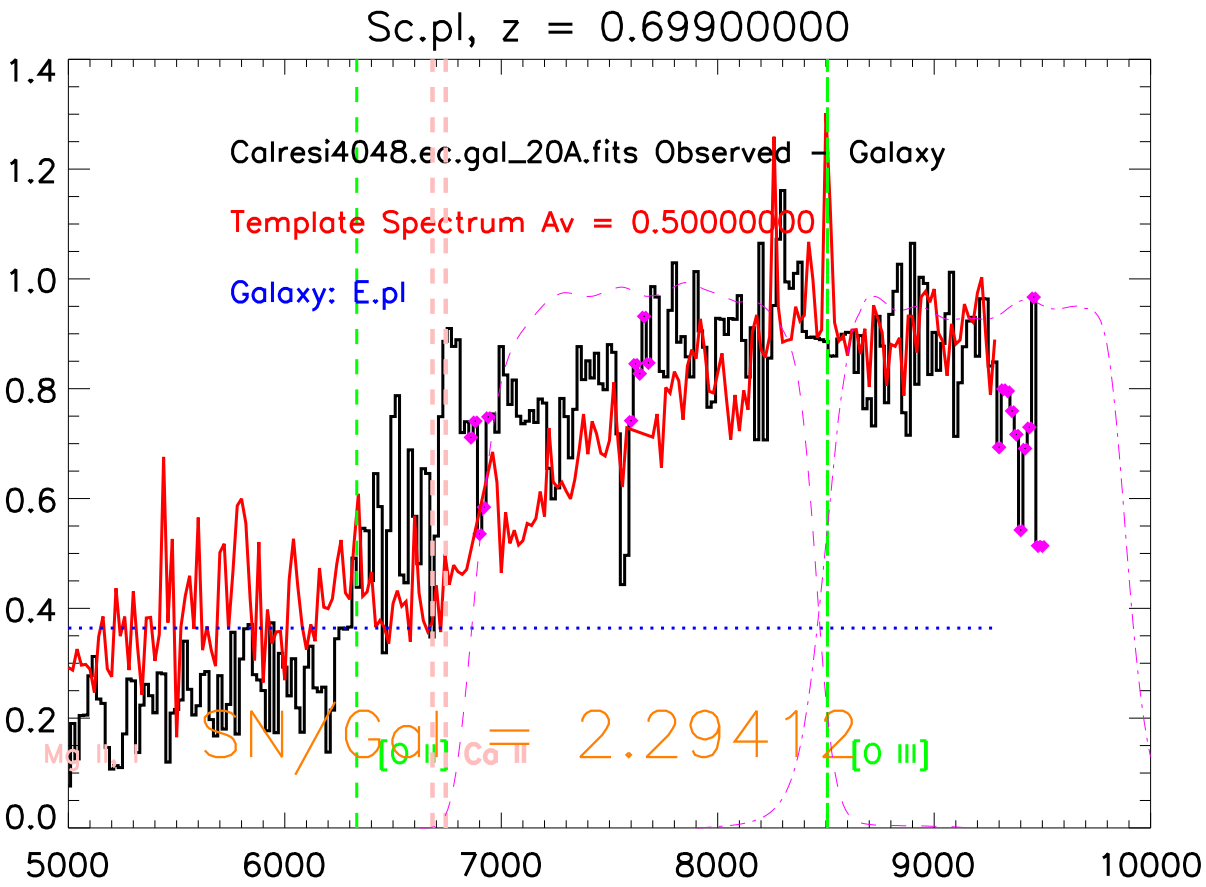

Calresi4048.ec.gal_20A.fits----Sa.pl
Sa.pl
[O II]
Ca II
2.0
1.5
1.0
0.5
0.0
5000
6000
7000
8000
9000
10000

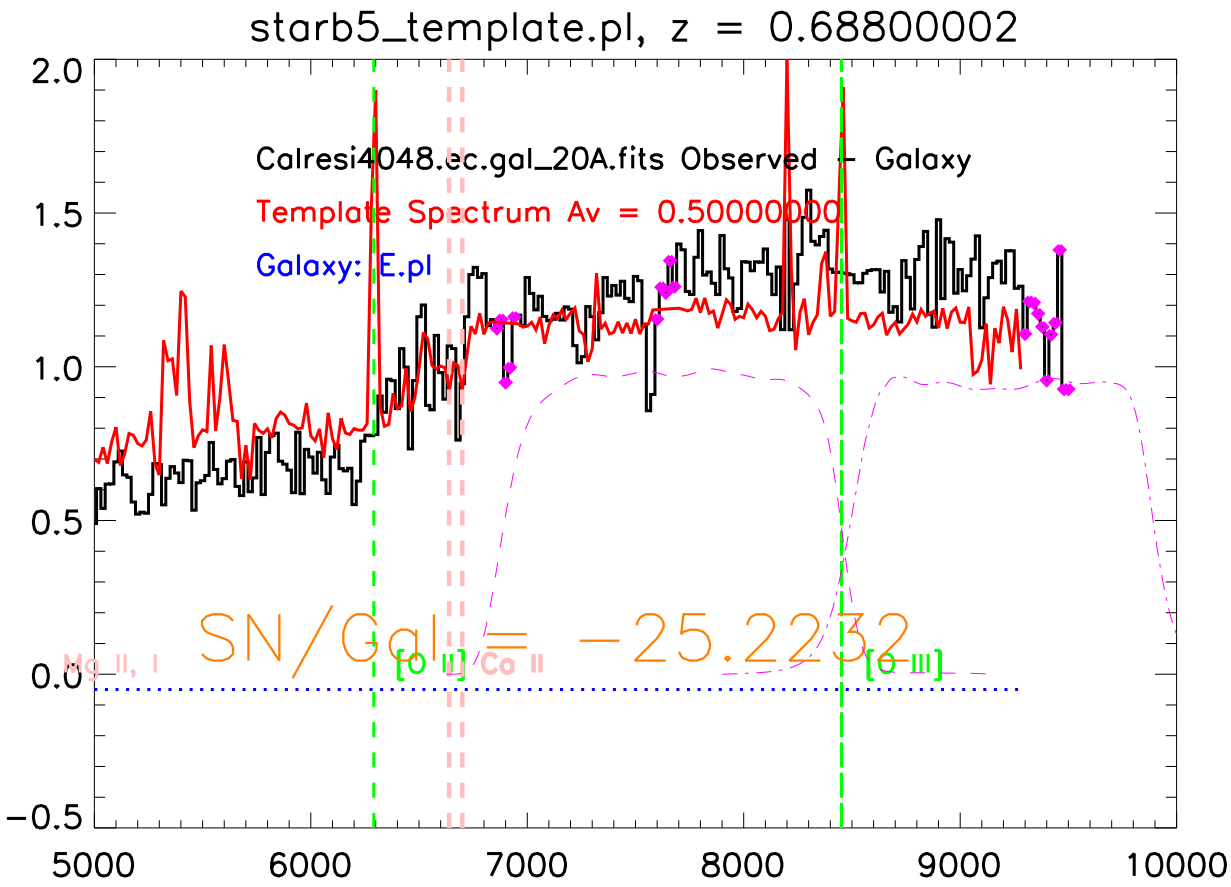

Sa.pl, z = 0.68500000
Calresi4048.ec.gal_20A.fits Observed – Galaxy
Template Spectrum Av = −0.50000000
Galaxy: E.pl
SN/Gal = 3.95918
Mg II
[O II]
Ca II
[O III]
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
5000
6000
7000
8000
9000
10000

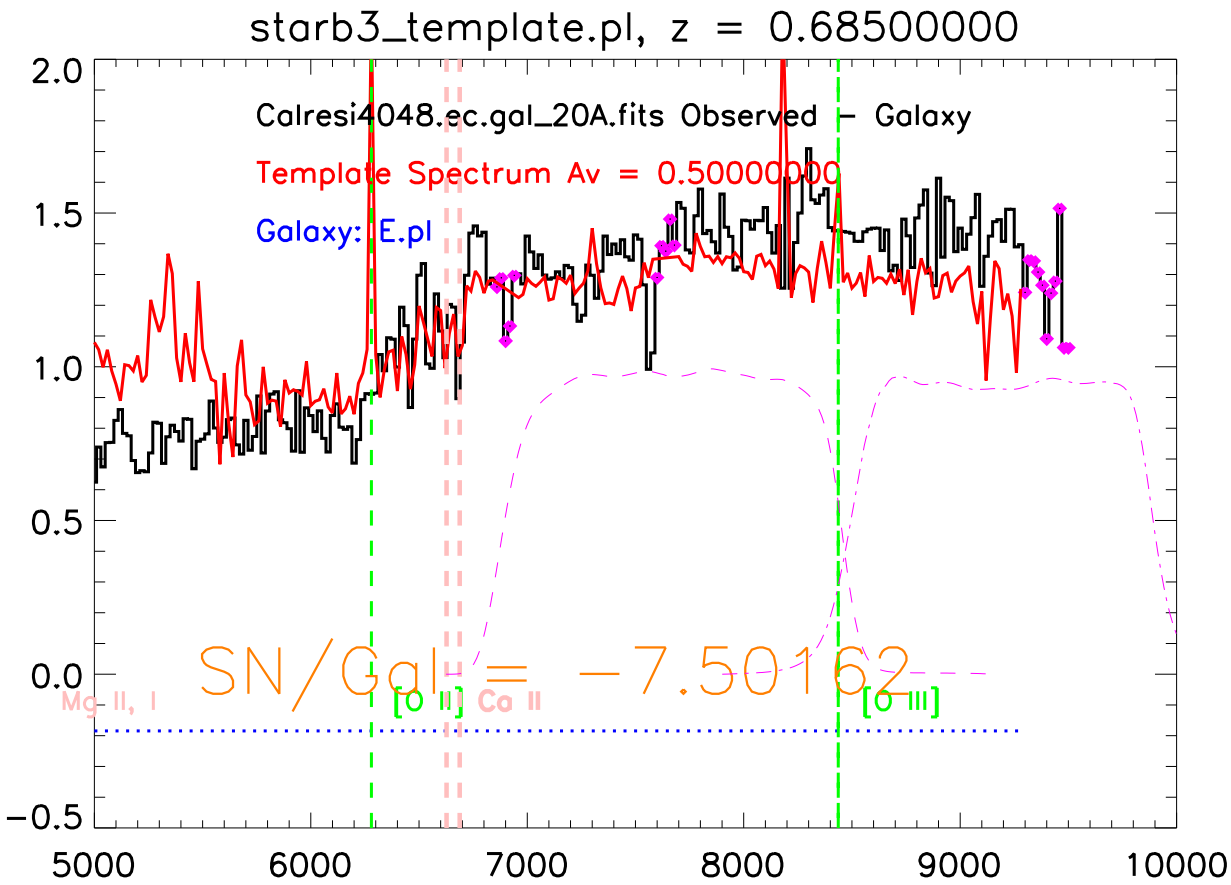

Sb.pl, z = 0.68400002
Calresi4048.ec.gal_20A.fits Observed – Galaxy
Template Spectrum Av = −0.029336721
Galaxy: E.pl
SN/Gal = 4.15515
Mg II
[O II]
Ca II
[O III]
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
5000
6000
7000
8000
9000
10000

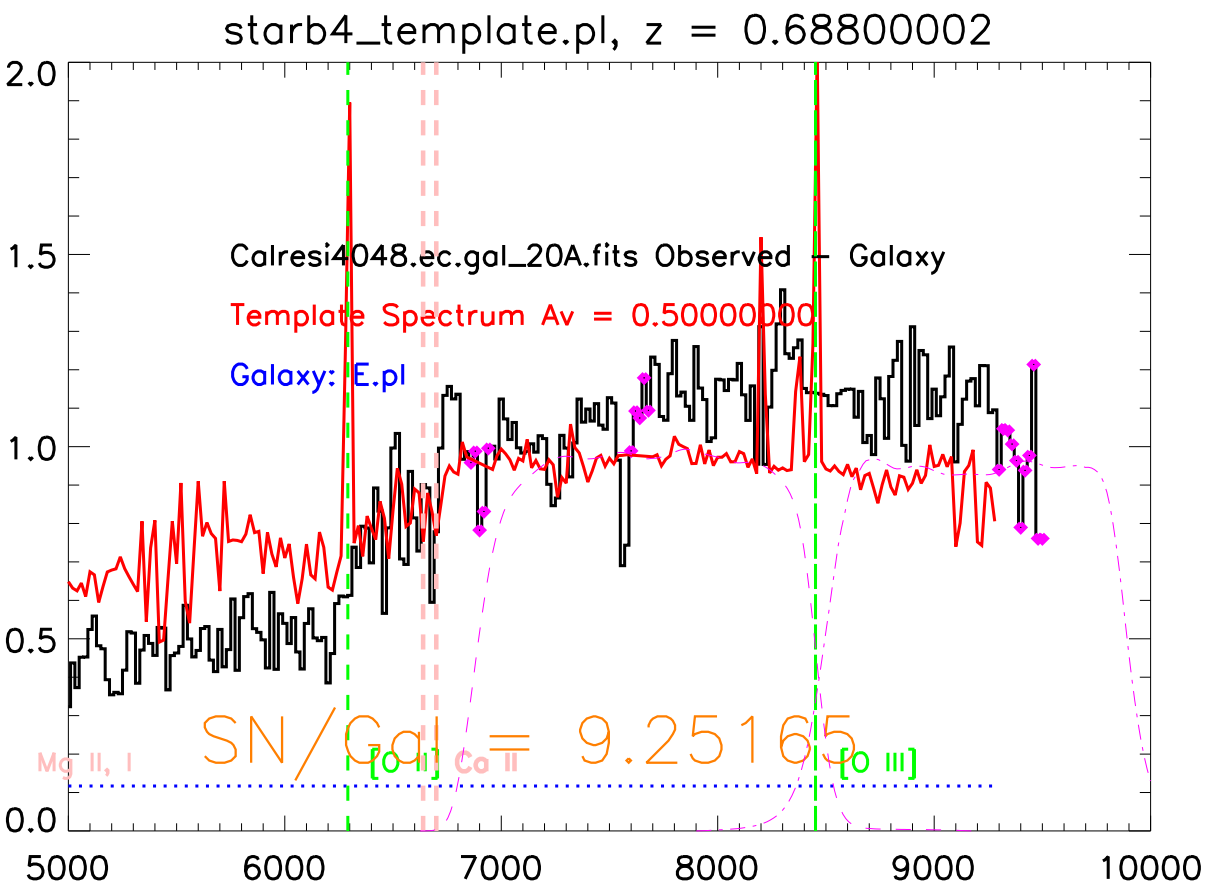

E.pl, z = 0.68500000
Calresi4048.ec.gal_20A.fits Observed – Galaxy
Template Spectrum Av = −0.50000000
Galaxy: E.pl
SN/Cal = 1.68066
Mg II
[O II]
Ca II
[O III]
1.2
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
5000
6000
7000
8000
9000
10000


S0.pl, z = 0.68400002
Calresi4048.ec.gal_20A.fits Observed – Galaxy
Template Spectrum Av = −0.42729592
Galaxy: E.pl
SN/Gal = 2.07220
Mg II
[O II]
Ca II
[O III]
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
5000
6000
7000
8000
9000
10000


Sc.pl, z = 0.69900000
Calresi4048.ec.gal_20A.fits Observed – Galaxy
Template Spectrum Av = 0.50000000
Galaxy: E.pl
SN/Gal = 2.29412
Mg II
[O II]
Ca II
[O III]
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
5000
6000
7000
8000
9000
10000


starb5_template.pl, z = 0.68800002
Calresi4048.ec.gal_20A.fits Observed – Galaxy
Template Spectrum Av = 0.50000000
Galaxy: E.pl
SN/Gal = -25.2232
Mg II, I
[O II]
Ca II
[O III]
2.0
1.5
1.0
0.5
0.0
−0.5
5000
6000
7000
8000
9000
10000


starb3_template.pl, z = 0.68500000
Calresi4048.ec.gal_20A.fits Observed – Galaxy
Template Spectrum Av = 0.50000000
Galaxy: E.pl
SN/Gal = -7.50162
Mg II, I
[O II]
Ca II
[O III]
2.0
1.5
1.0
0.5
0.0
−0.5
5000
6000
7000
8000
9000
10000


starb4_template.pl, z = 0.68800002
Calresi4048.ec.gal_20A.fits Observed – Galaxy
Template Spectrum Av = 0.50000000
Galaxy: E.pl
SN/Gal = 9.25165
Mg II, I
[O II]
Ca II
[O III]
2.0
1.5
1.0
0.5
0.0
5000
6000
7000
8000
9000
10000