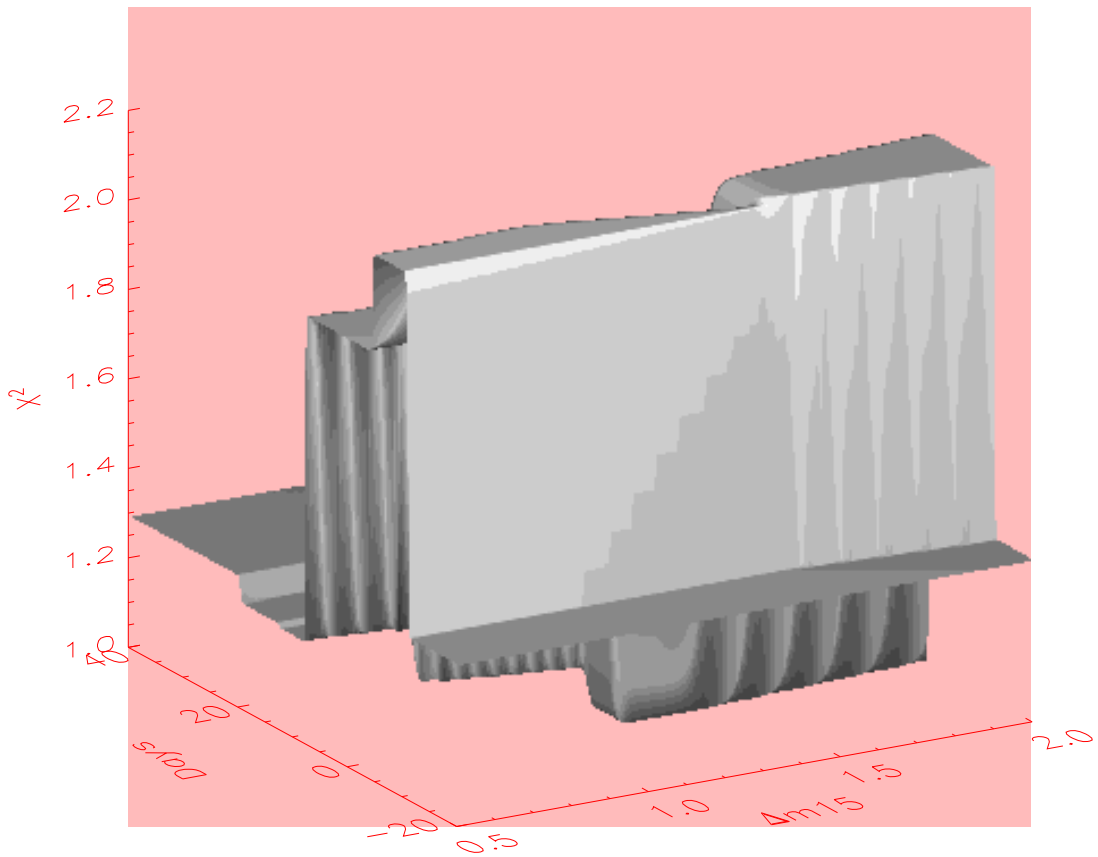
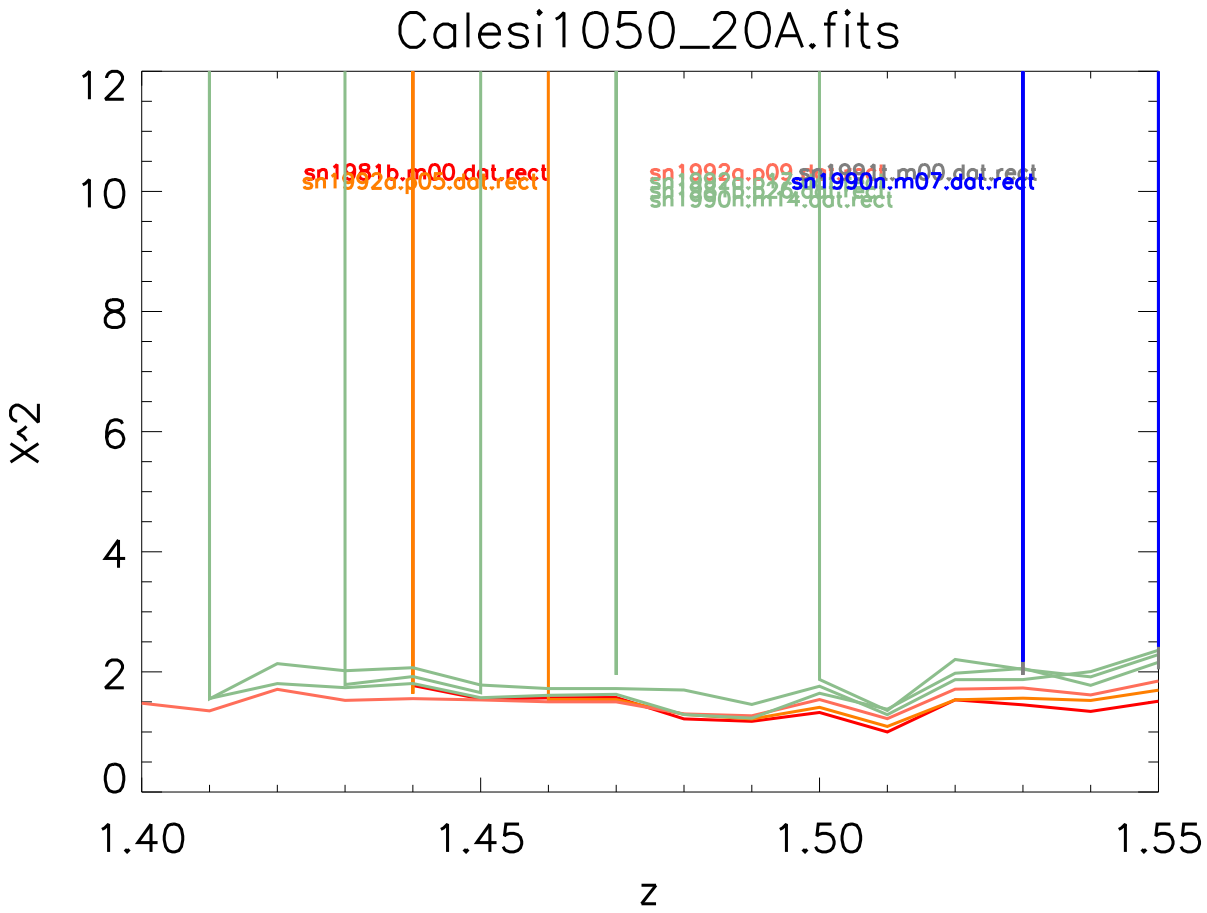
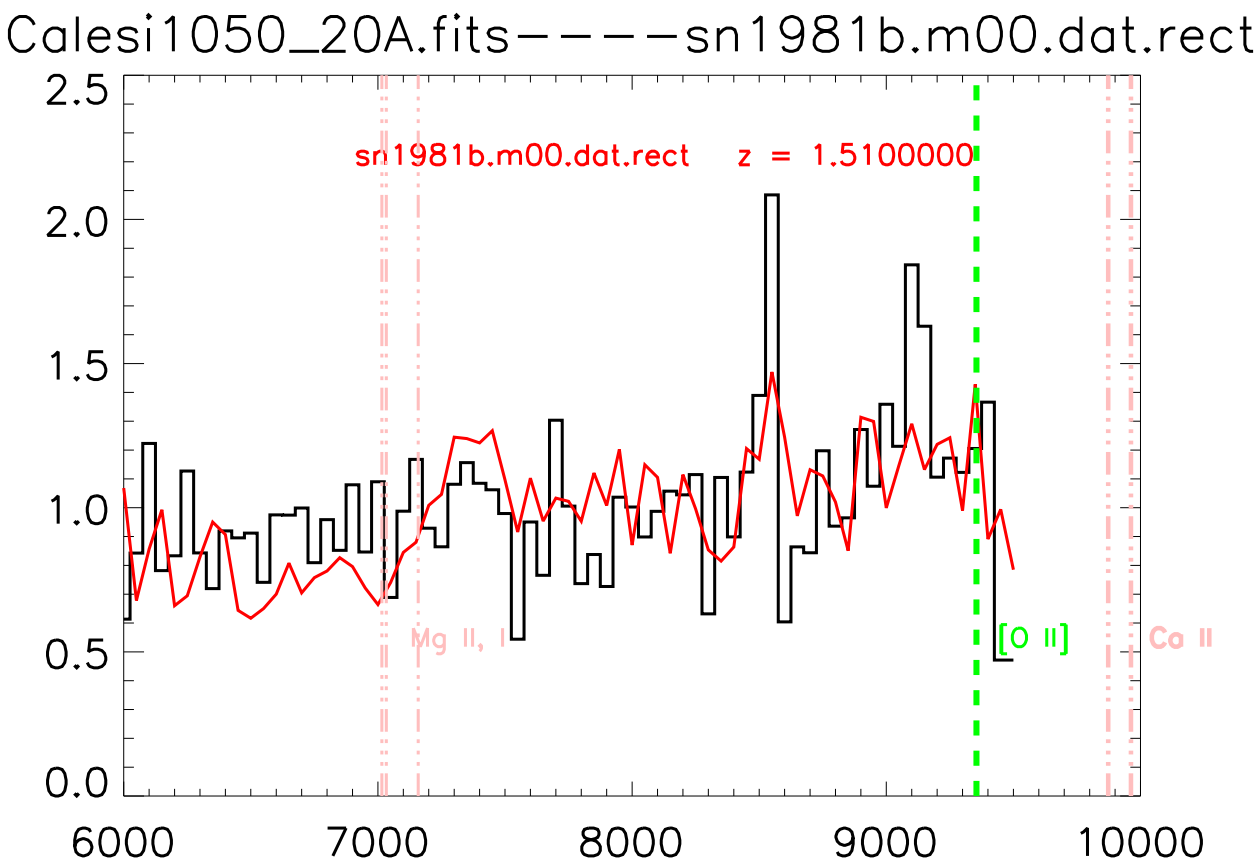
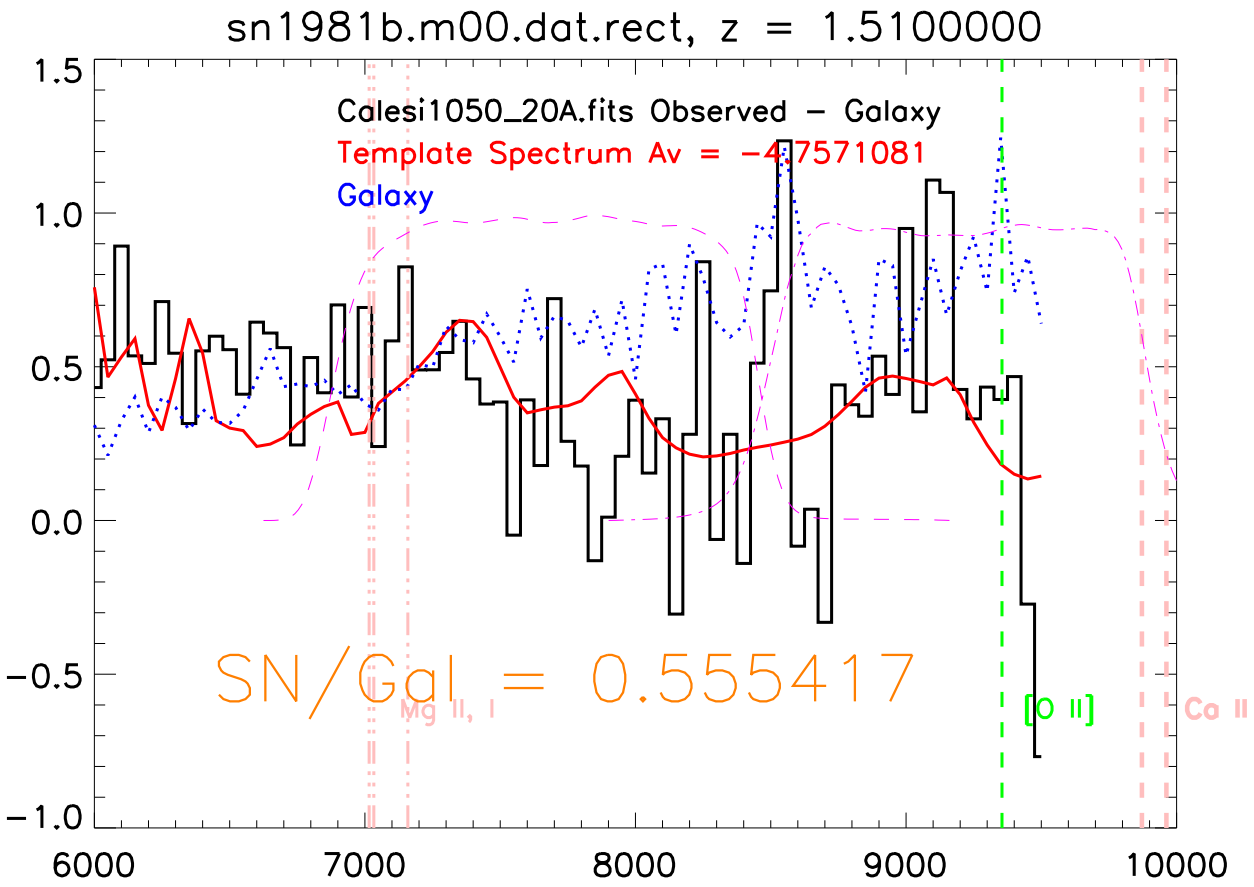
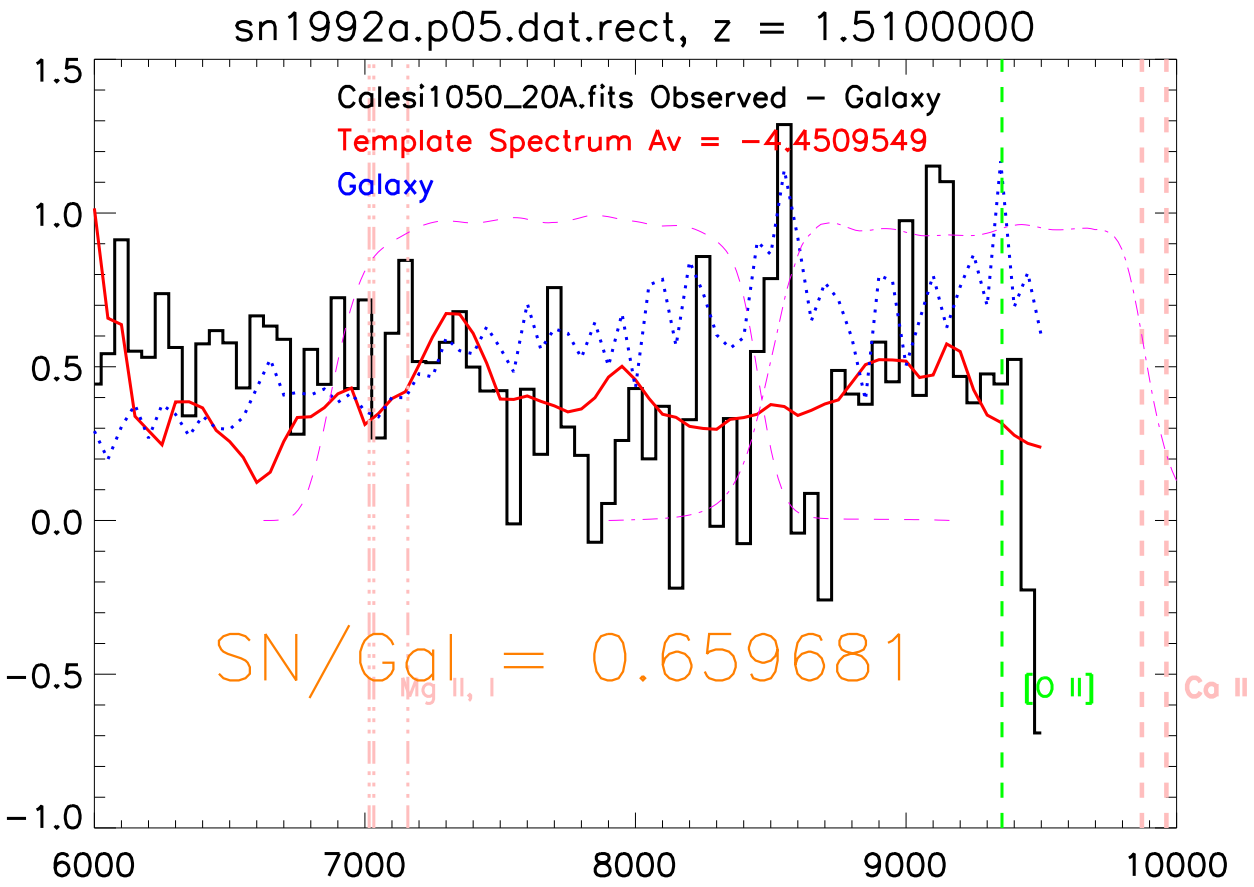
1.3
1.2
1.2
1.1
2.0
1.0
1.7
2.2
2.2
1.4

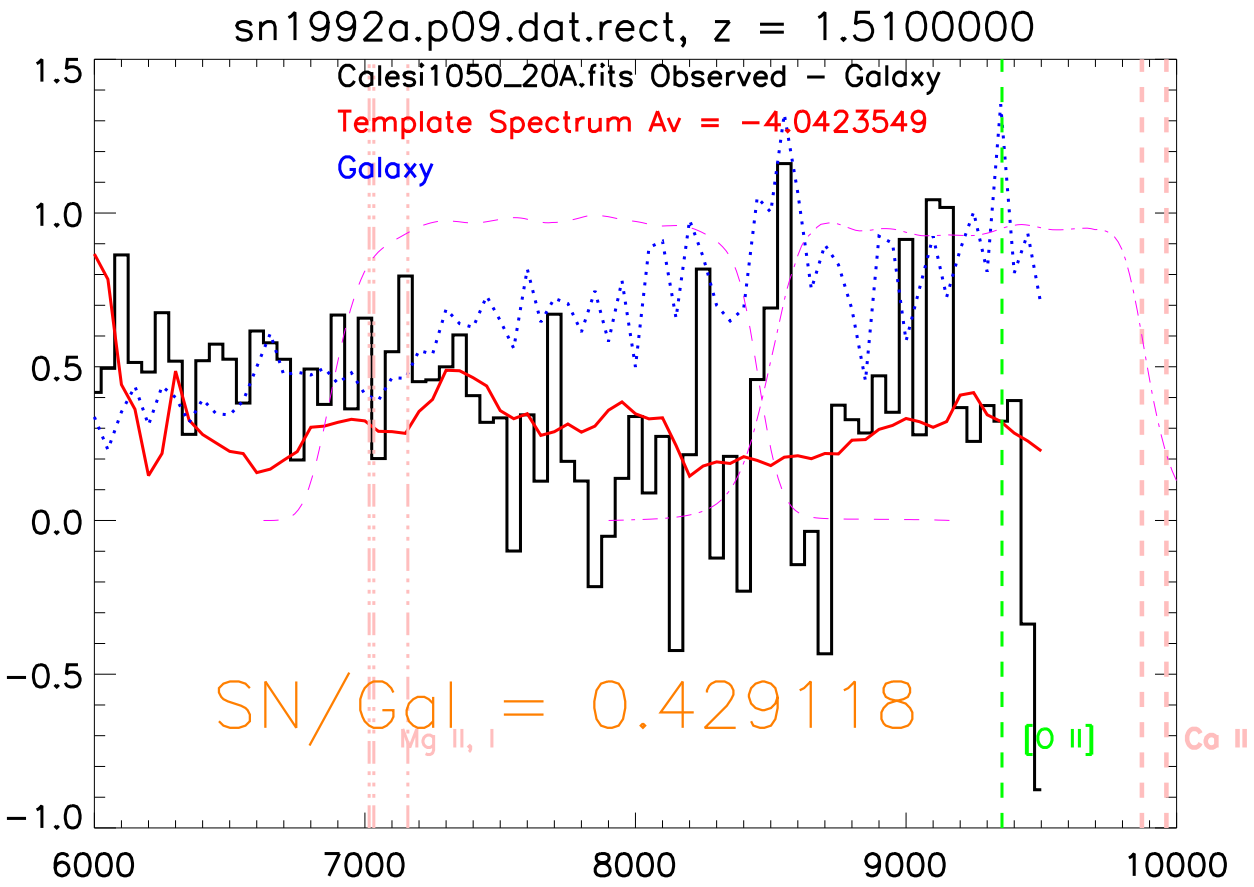

2.2
2.0
1.8
1.6
1.4
1.2
1.0
χ²
40
20
0
−20
Δm15
0.5
1.0
1.5
2.0

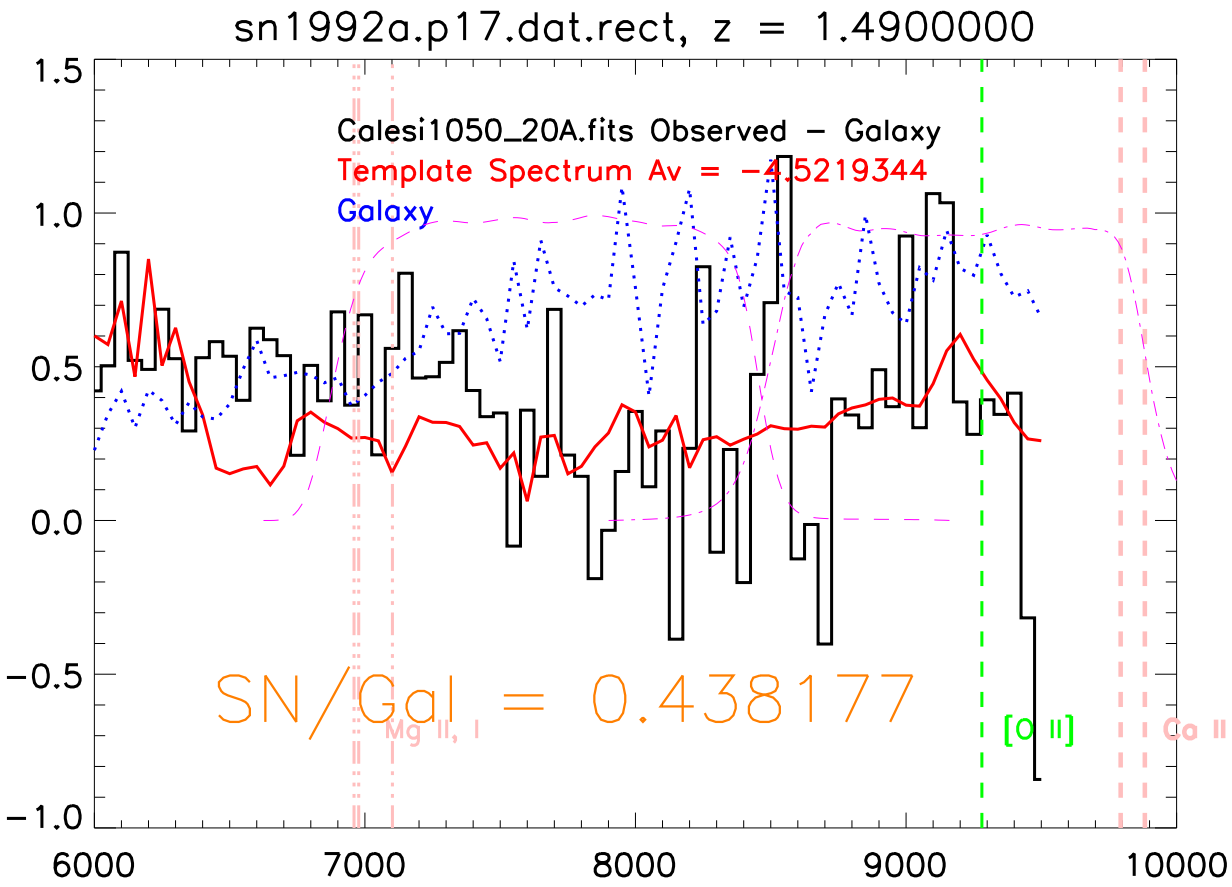

Calesi1050_20A.fits
12
10
8
6
4
2
0
X^2
1.40
1.45
1.50
1.55
z
sn1990n.m07.dat.rect

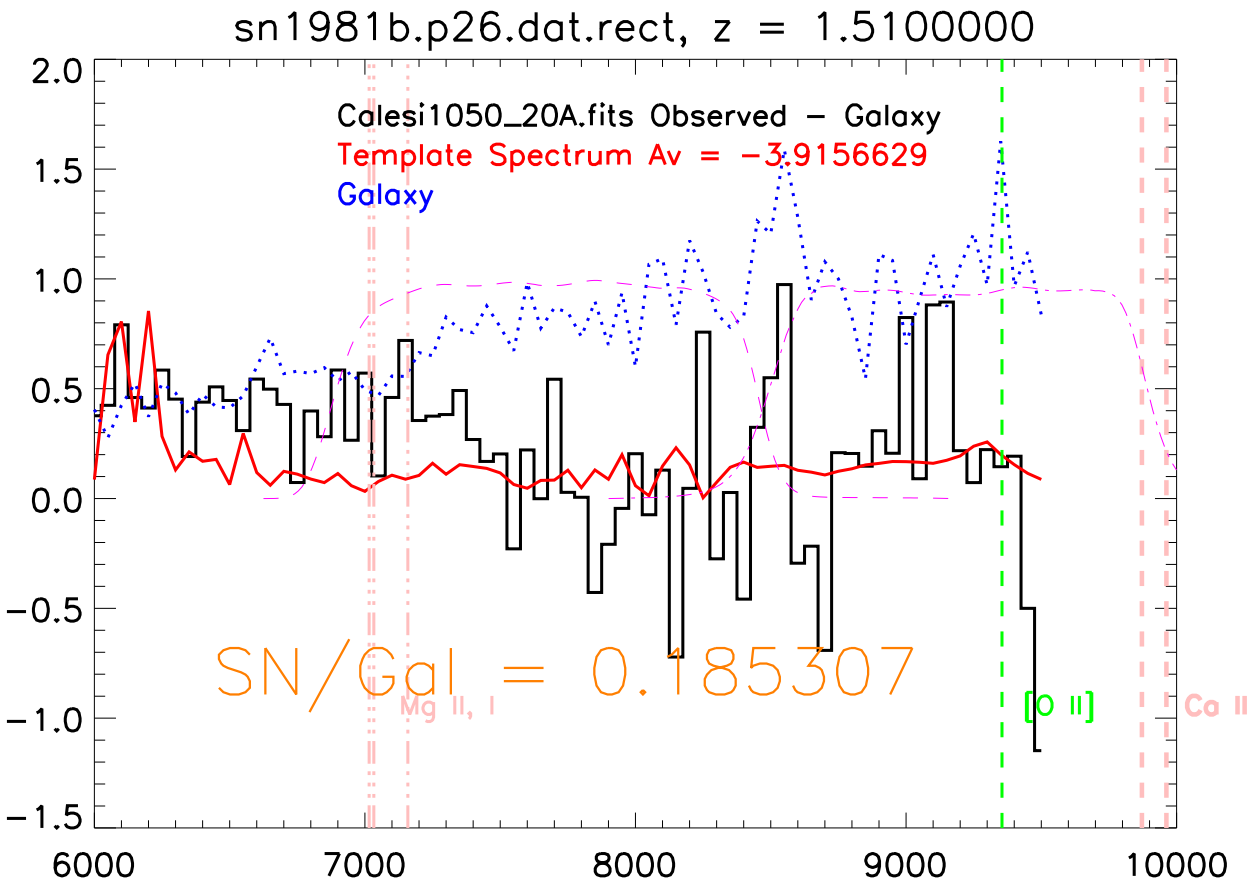

Calesi1050_20A.fits----sn1981b.m00.dat.rect
sn1981b.m00.dat.rect z = 1.5100000
Mg II, I
[O II]
Ca II
2.5
2.0
1.5
1.0
0.5
0.0
6000
7000
8000
9000
10000

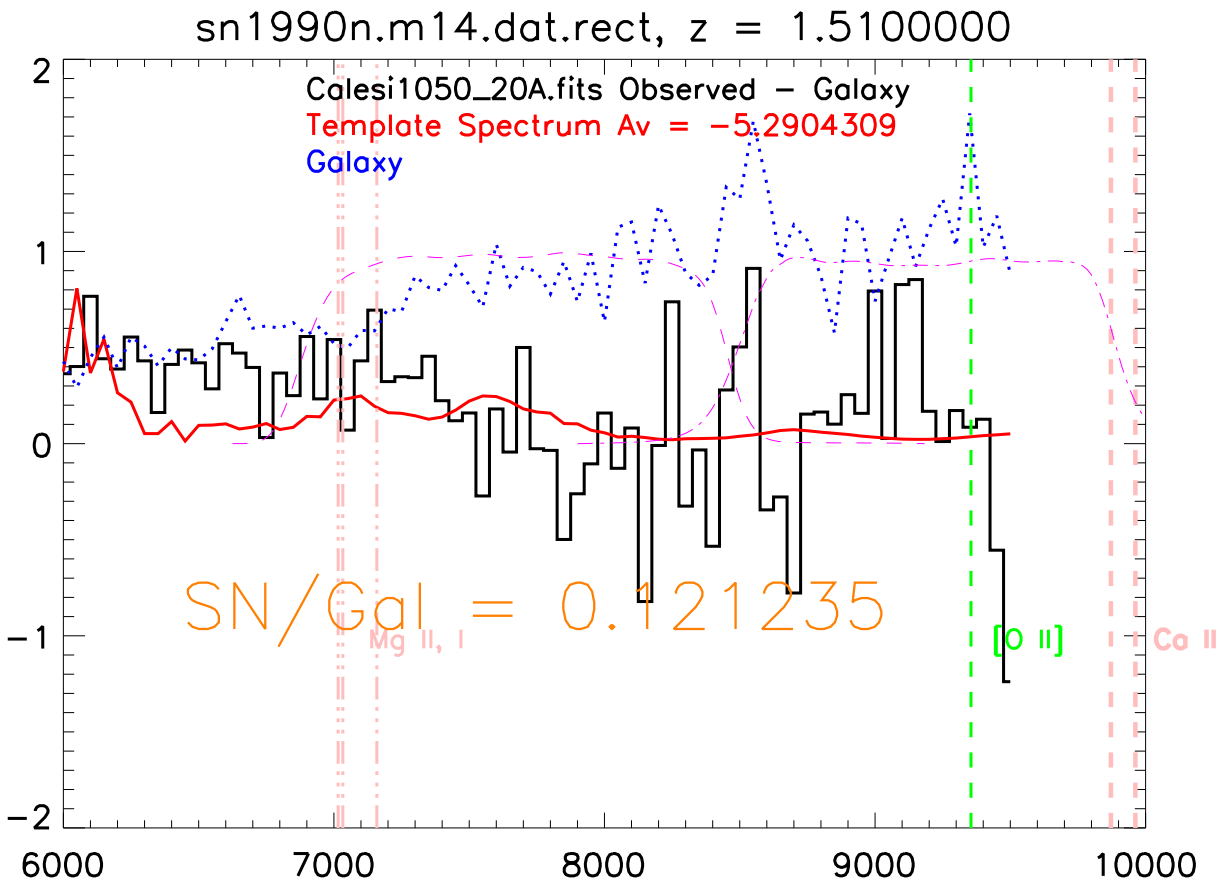

sn1981b.m00.dat.rect, z = 1.5100000
Calesi1050_20A.fits Observed − Galaxy
Template Spectrum Av = −4.7571081
Galaxy
SN/Gal = 0.555417
Mg II, I
[O II]
Co II
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000

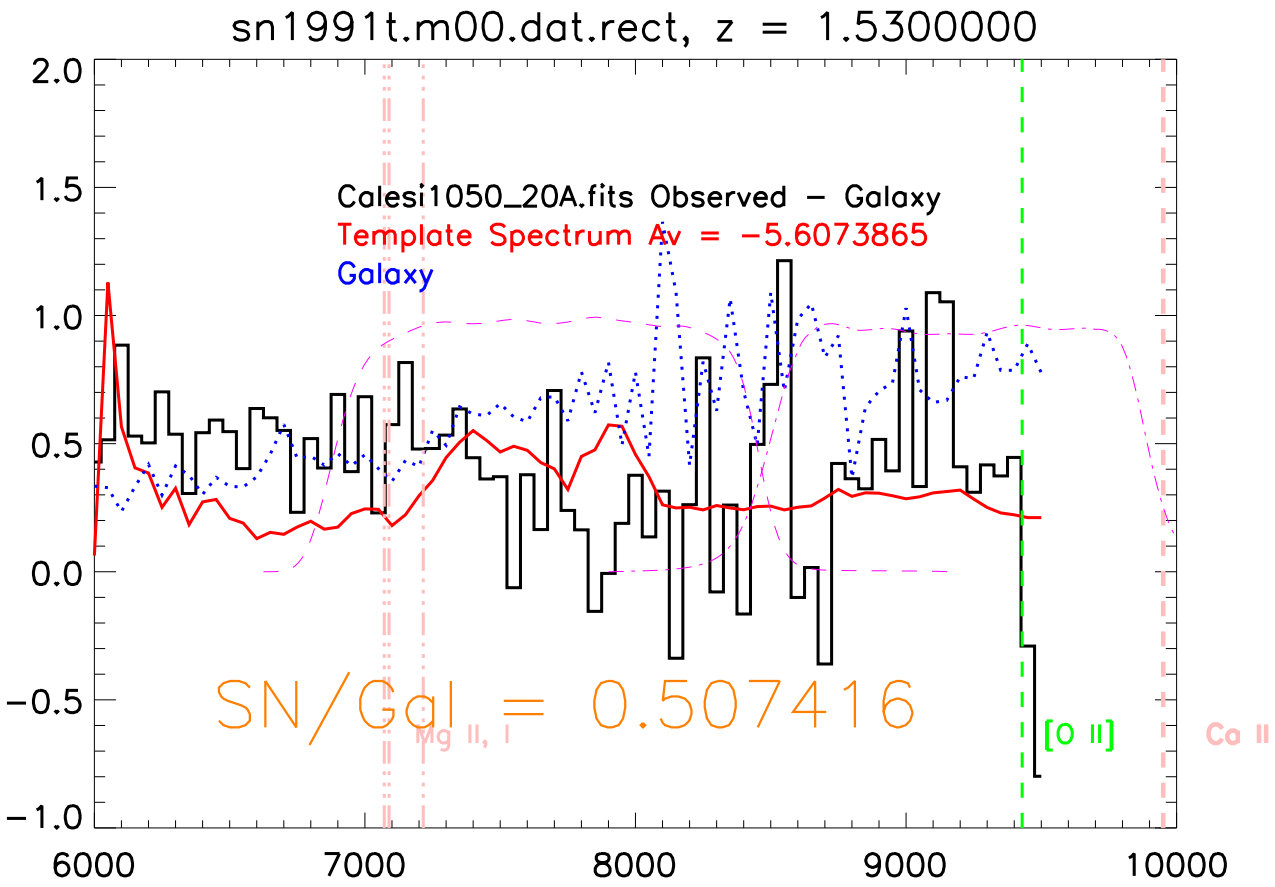

sn1992a.p05.dat.rect, z = 1.5100000
Calesi1050_20A.fits Observed − Galaxy
Template Spectrum Av = −4.4509549
Galaxy
SN/Gal = 0.659681
Mg II, I
[O II]
Ca II
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000

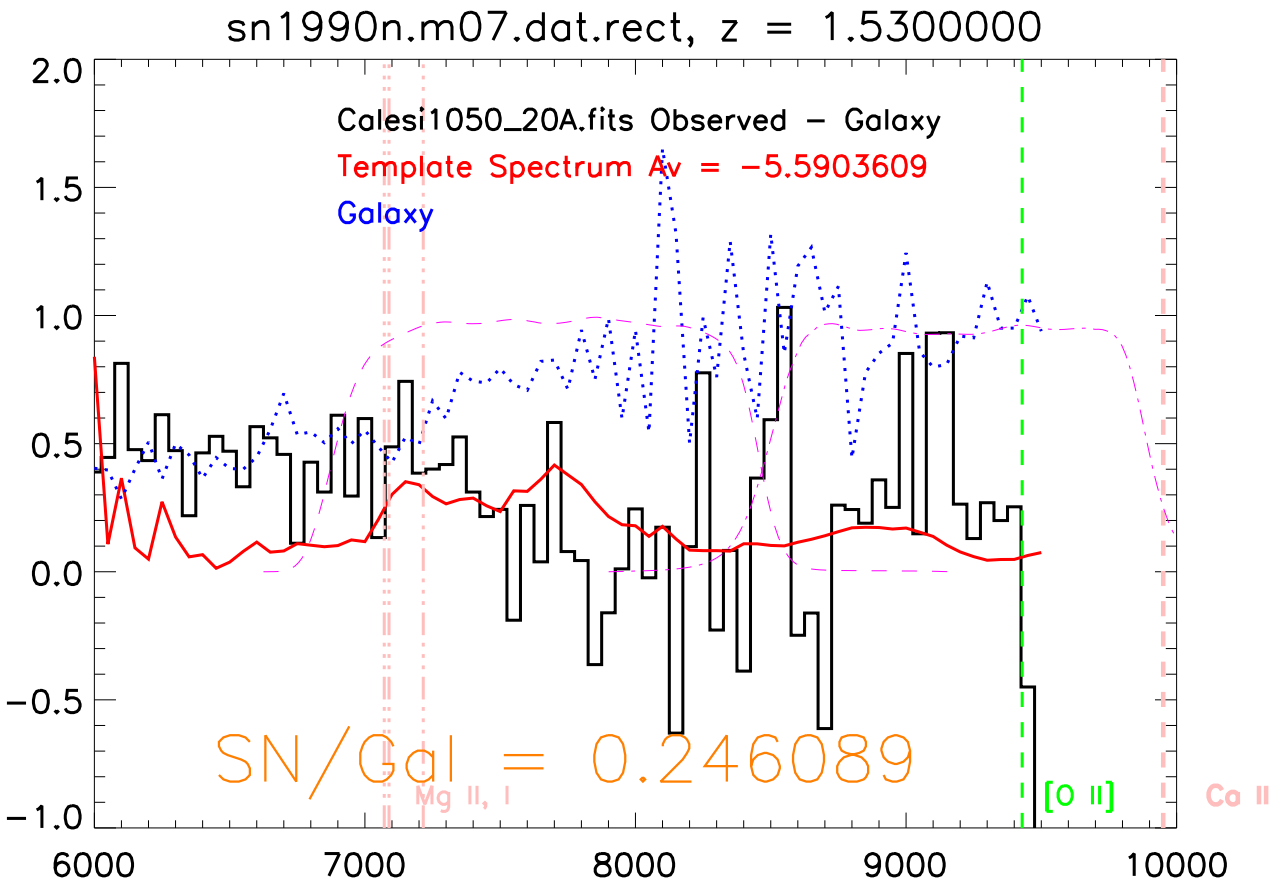

sn1992a.p09.dat.rect, z = 1.5100000
Calesi1050_20A.fits Observed − Galaxy
Template Spectrum Av = −4.0423549
Galaxy
SN/Gal = 0.429118
Mg II, I
[O II]
Ca II
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000


sn1992a.p17.dat.rect, z = 1.4900000
Calesi1050_20A.fits Observed − Galaxy
Template Spectrum Av = −4.5219344
Galaxy
SN/Gal = 0.438177
Mg II, I
[O II]
Ca II
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000


sn1981b.p26.dat.rect, z = 1.5100000
Calesi1050_20A.fits Observed − Galaxy
Template Spectrum Av = −3.9156629
Galaxy
SN/Gal = 0.185307
Mg II, I
[O II]
Ca II
2.0
1.5
1.0
0.5
0.0
−0.5
−1.0
−1.5
6000
7000
8000
9000
10000


sn1990n.m14.dat.rect, z = 1.5100000
Calesi1050_20A.fits Observed − Galaxy
Template Spectrum Av = −5.2904309
Galaxy
SN/Gal = 0.121235
Mg II, I
[O II]
Ca II
2
1
0
−1
−2
6000
7000
8000
9000
10000


sn1991t.m00.dat.rect, z = 1.5300000
Calesi1050_20A.fits Observed − Galaxy
Template Spectrum Av = −5.6073865
Galaxy
SN/Gal = 0.507416
Mg II, I
[O II]
Ca II
2.0
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000


sn1990n.m07.dat.rect, z = 1.5300000
Calesi1050_20A.fits Observed − Galaxy
Template Spectrum Av = −5.5903609
Galaxy
SN/Gal = 0.246089
Mg II, I
[O II]
Ca II
2.0
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000