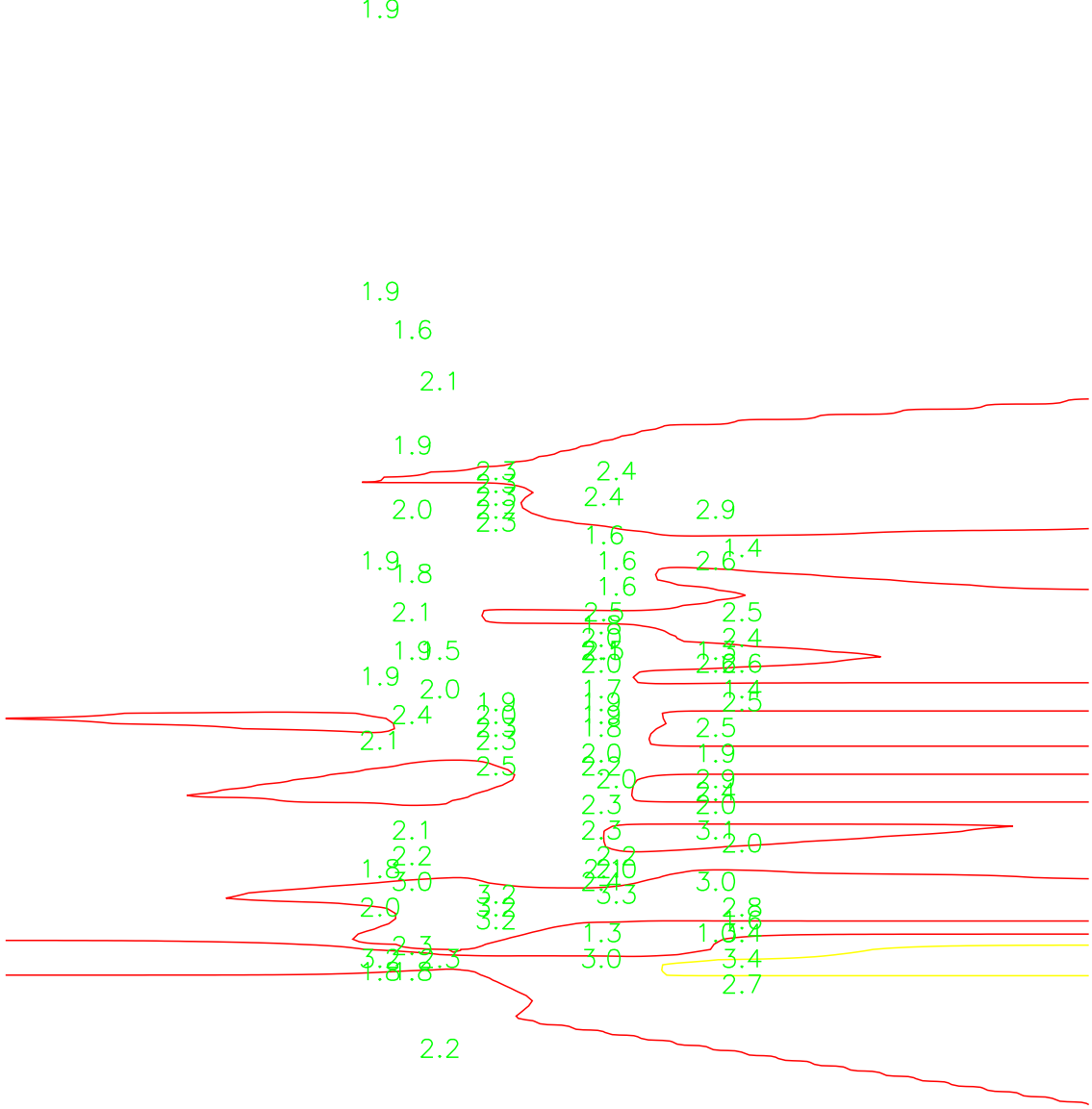
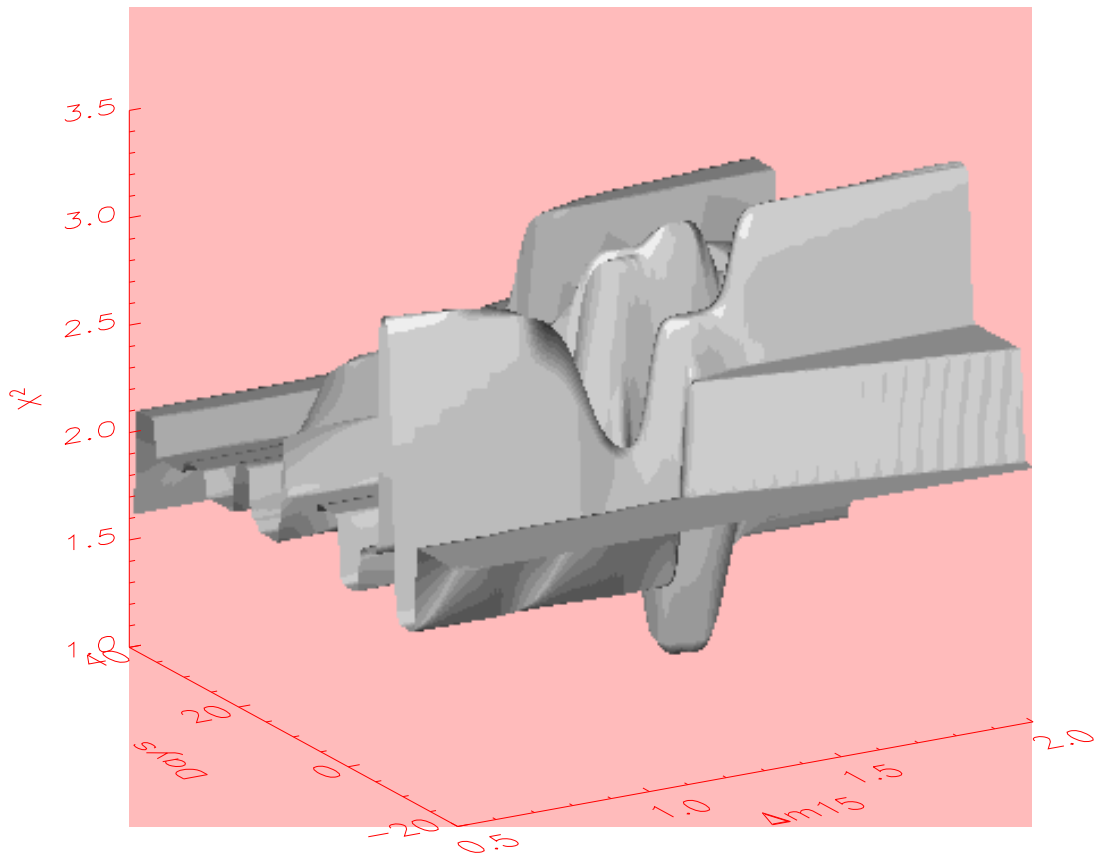
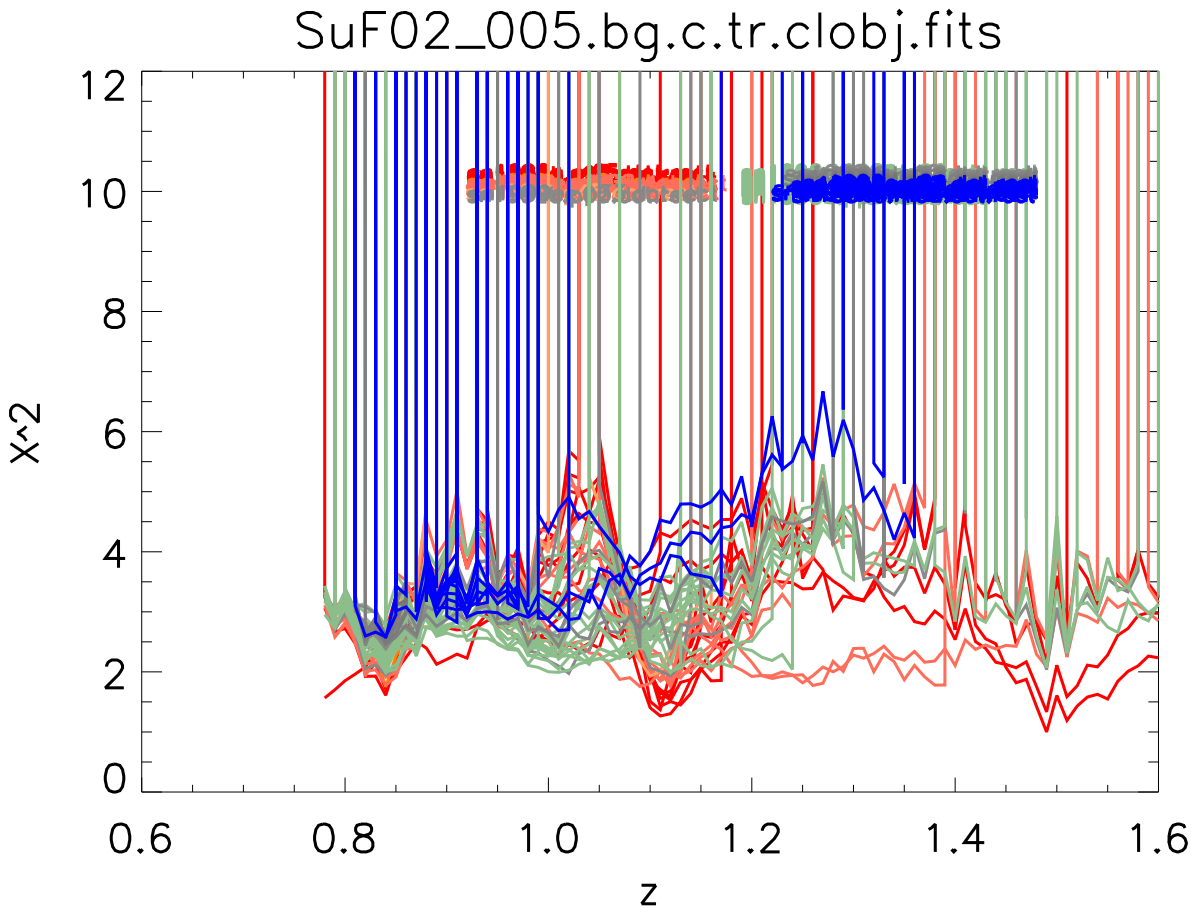
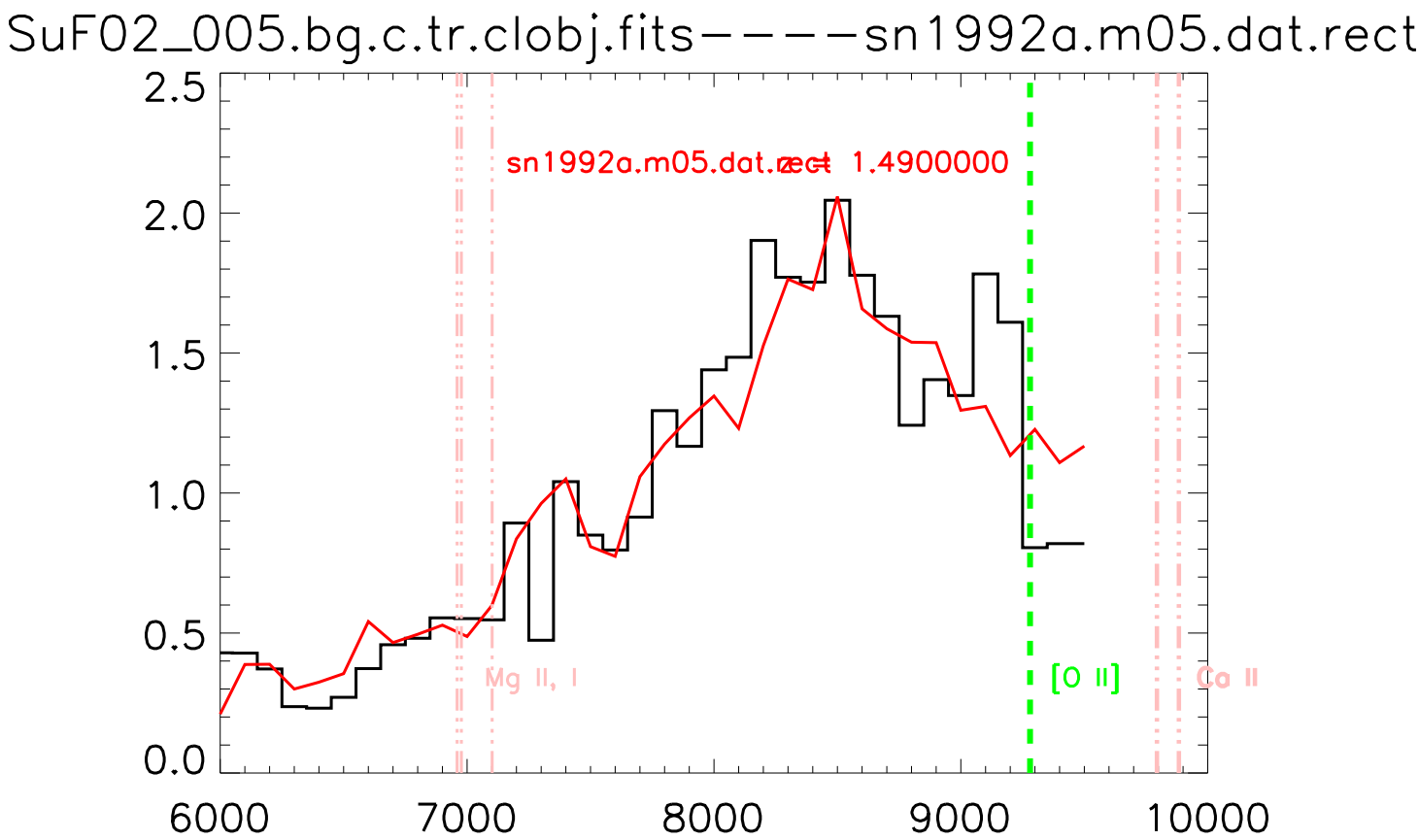
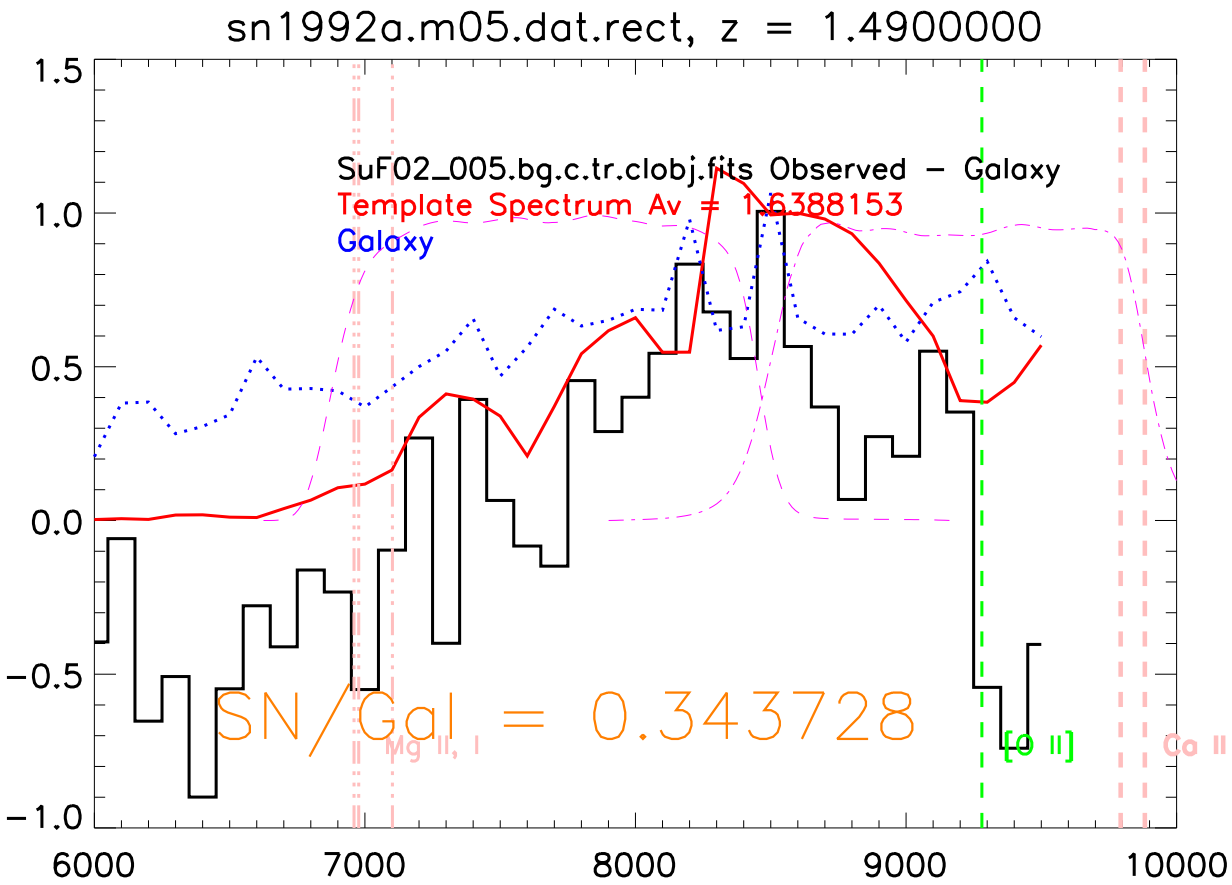
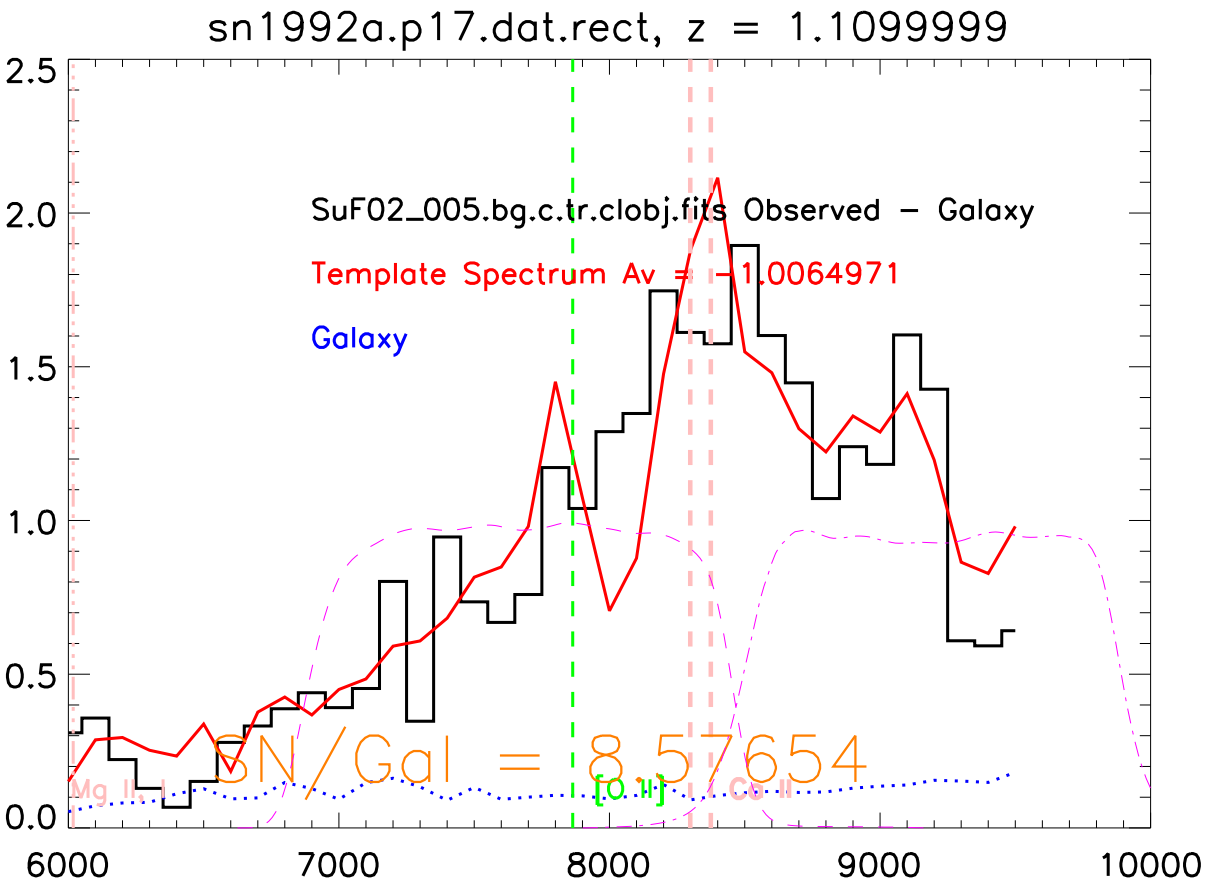


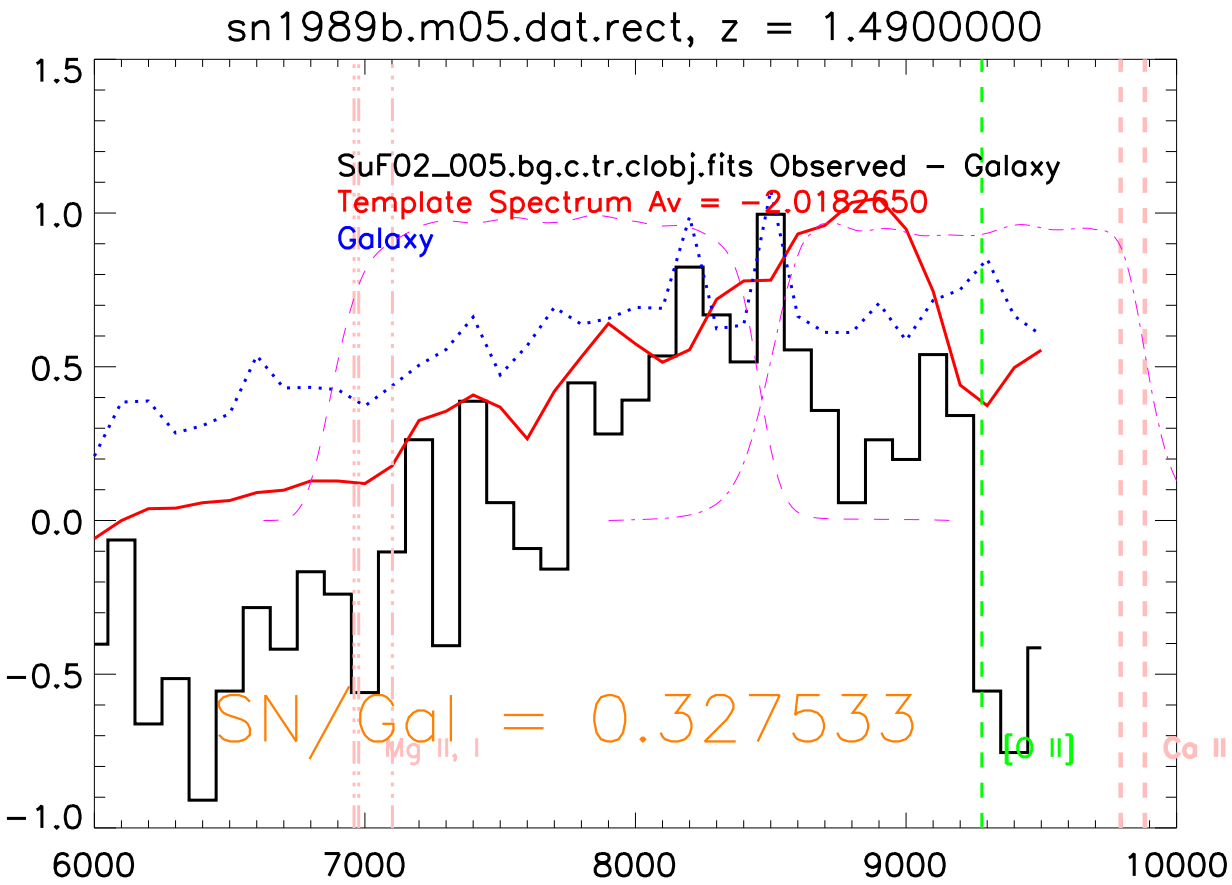

3.5
3.0
2.5
2.0
1.5
1.0
χ²
40
20
0
−20
Δm15
0.5
1.0
1.5
2.0

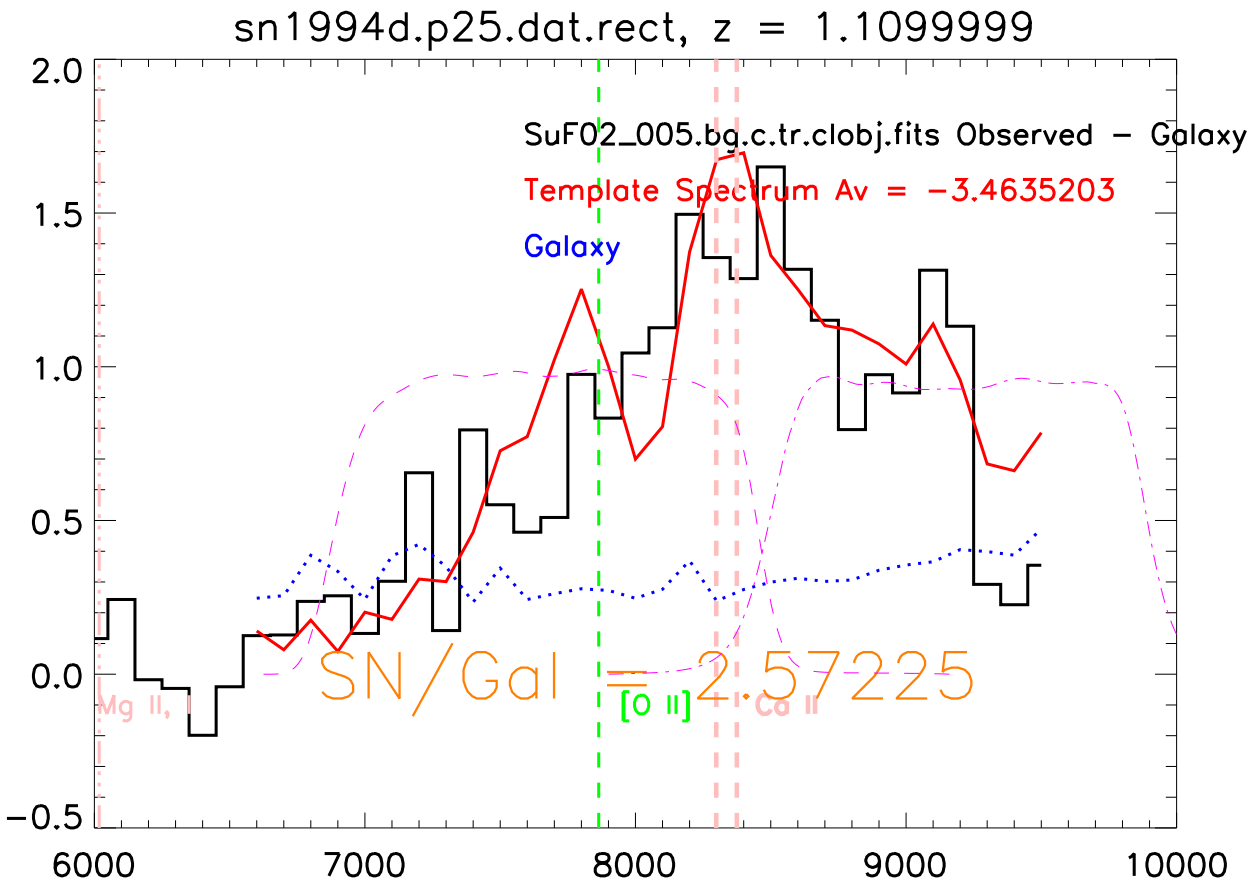

SuF02_005.bg.c.tr.clobj.fits
X^2
z
0
2
4
6
8
10
12
0.6
0.8
1.0
1.2
1.4
1.6

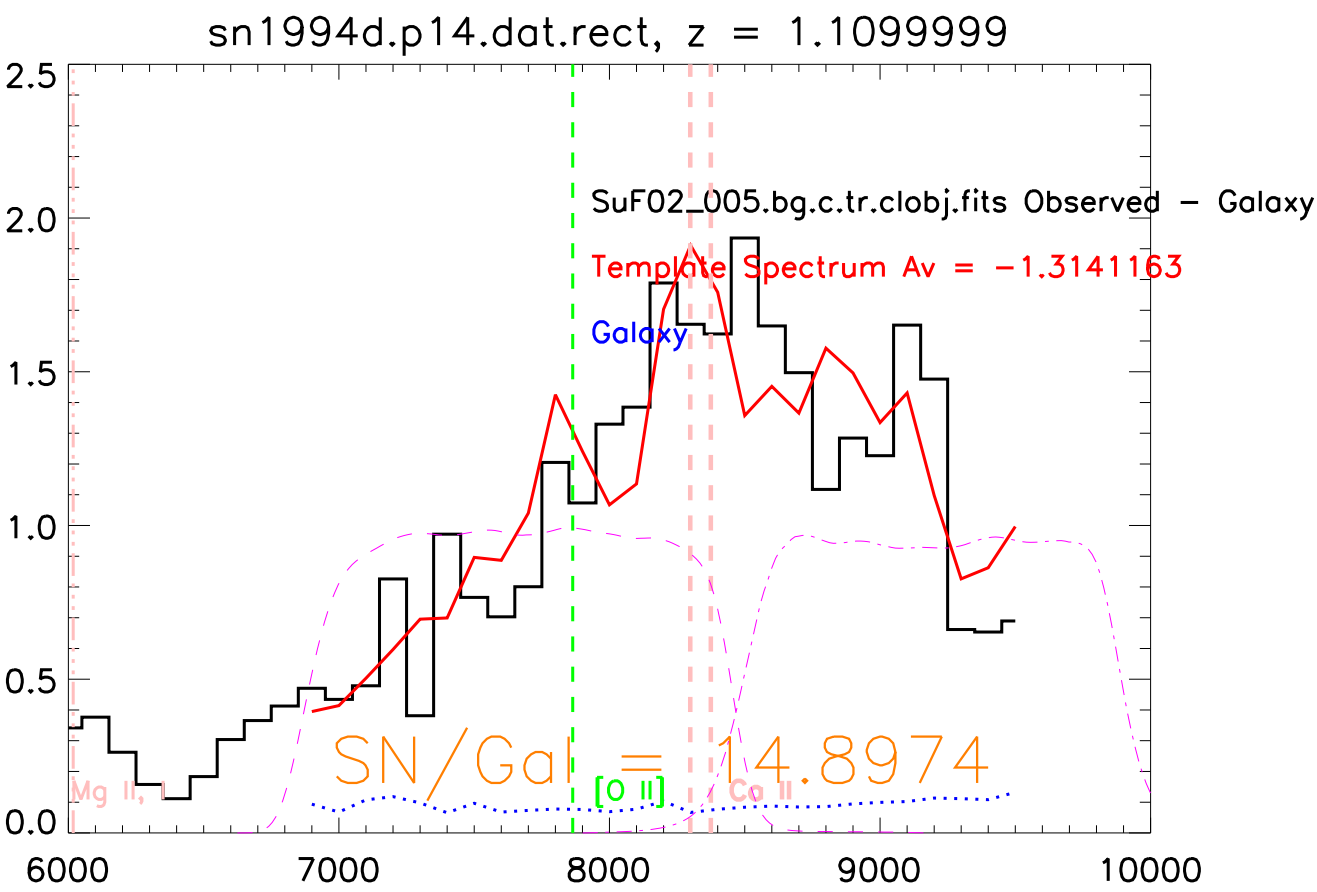

SuF02_005.bg.c.tr.clobj.fits----sn1992a.m05.dat.rect
sn1992a.m05.dat.rect 1.4900000
Mg II, I
[O II]
Ca II
2.5
2.0
1.5
1.0
0.5
0.0
6000
7000
8000
9000
10000

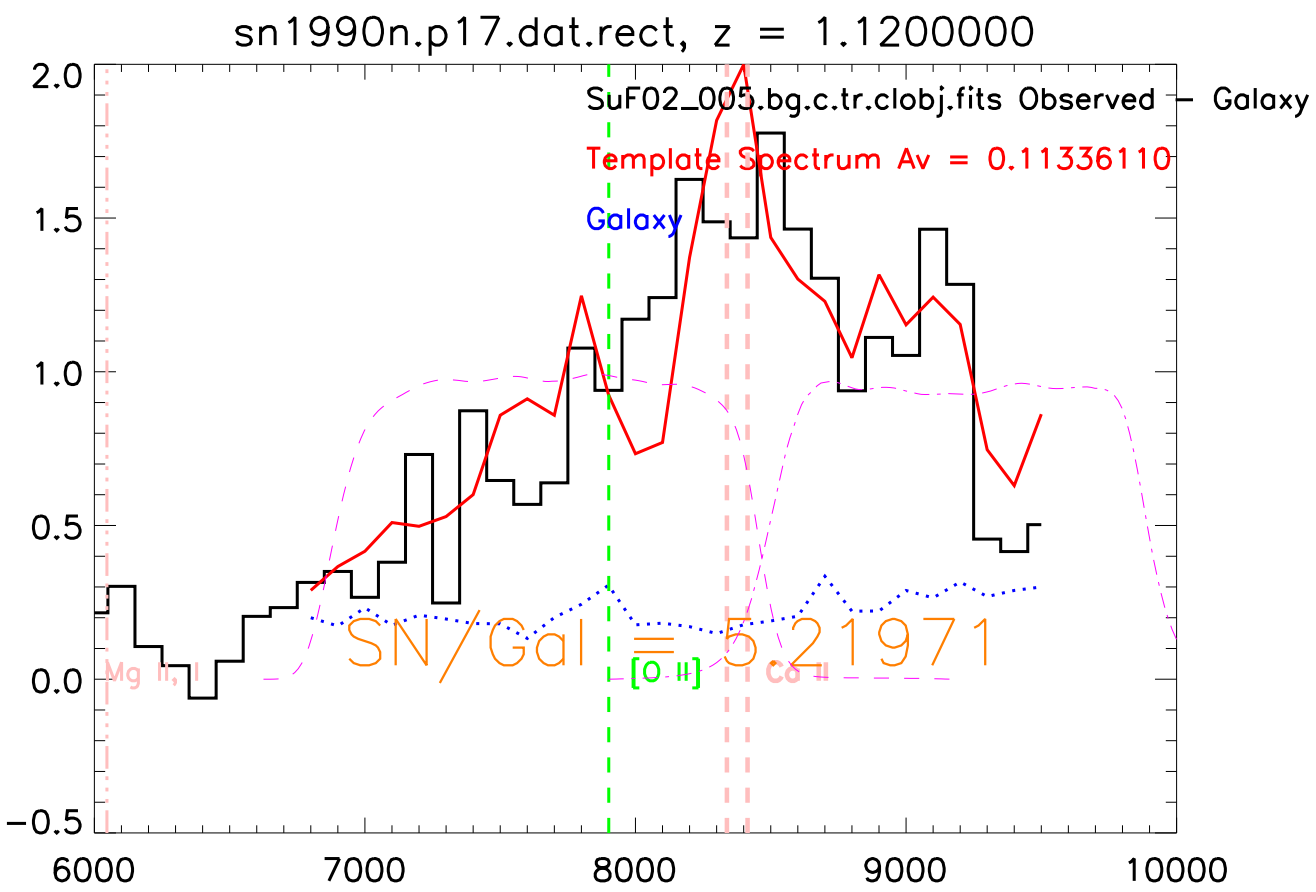

sn1992a.m05.dat.rect, z = 1.4900000
SuF02_005.bg.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = 1.6388153
Galaxy
SN/Gal = 0.343728
Mg II, I
[O II]
Ca II
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000

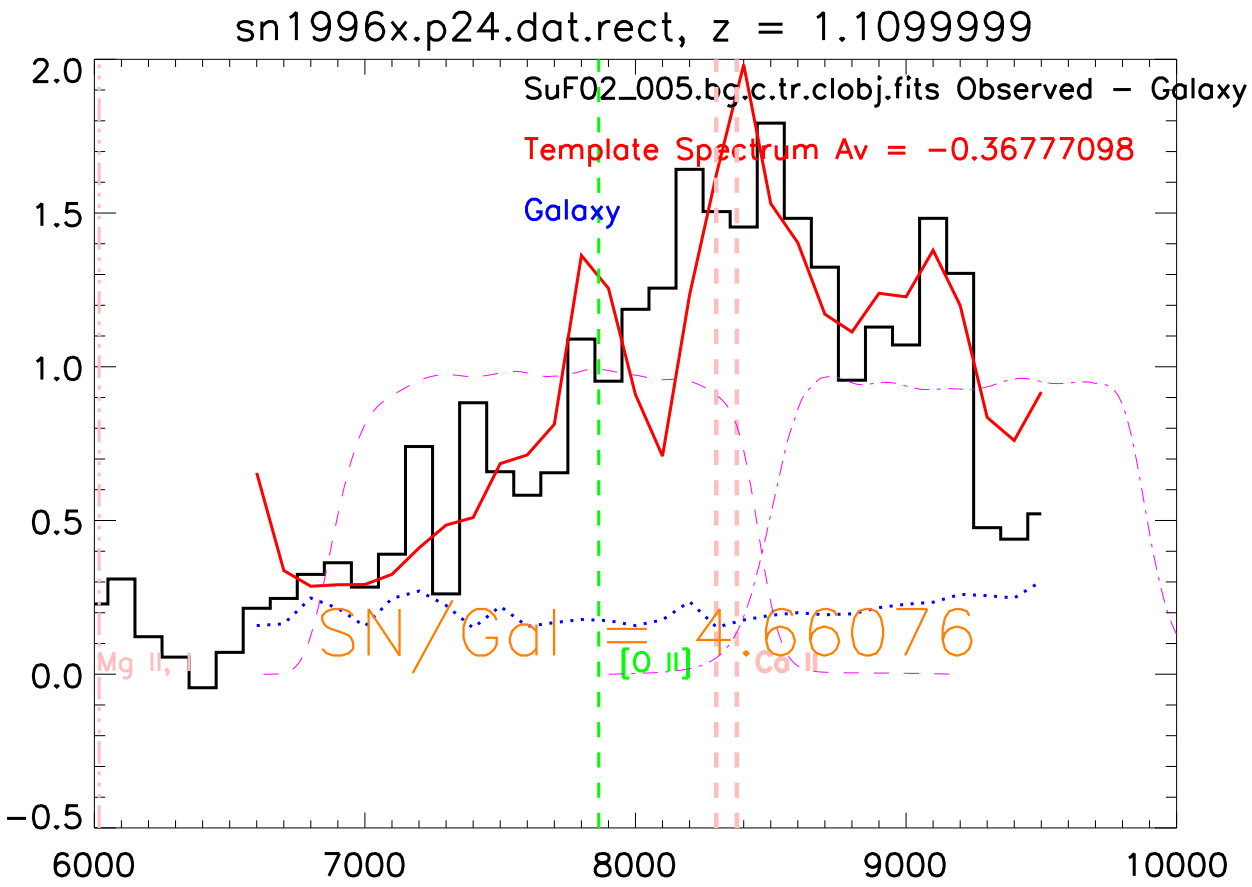

sn1992a.p17.dat.rect, z = 1.1099999
SuF02_005.bg.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = -1.0064971
Galaxy
SN/Gal = 8.57654
Mg II
[O II]
Ca II
2.5
2.0
1.5
1.0
0.5
0.0
6000
7000
8000
9000
10000

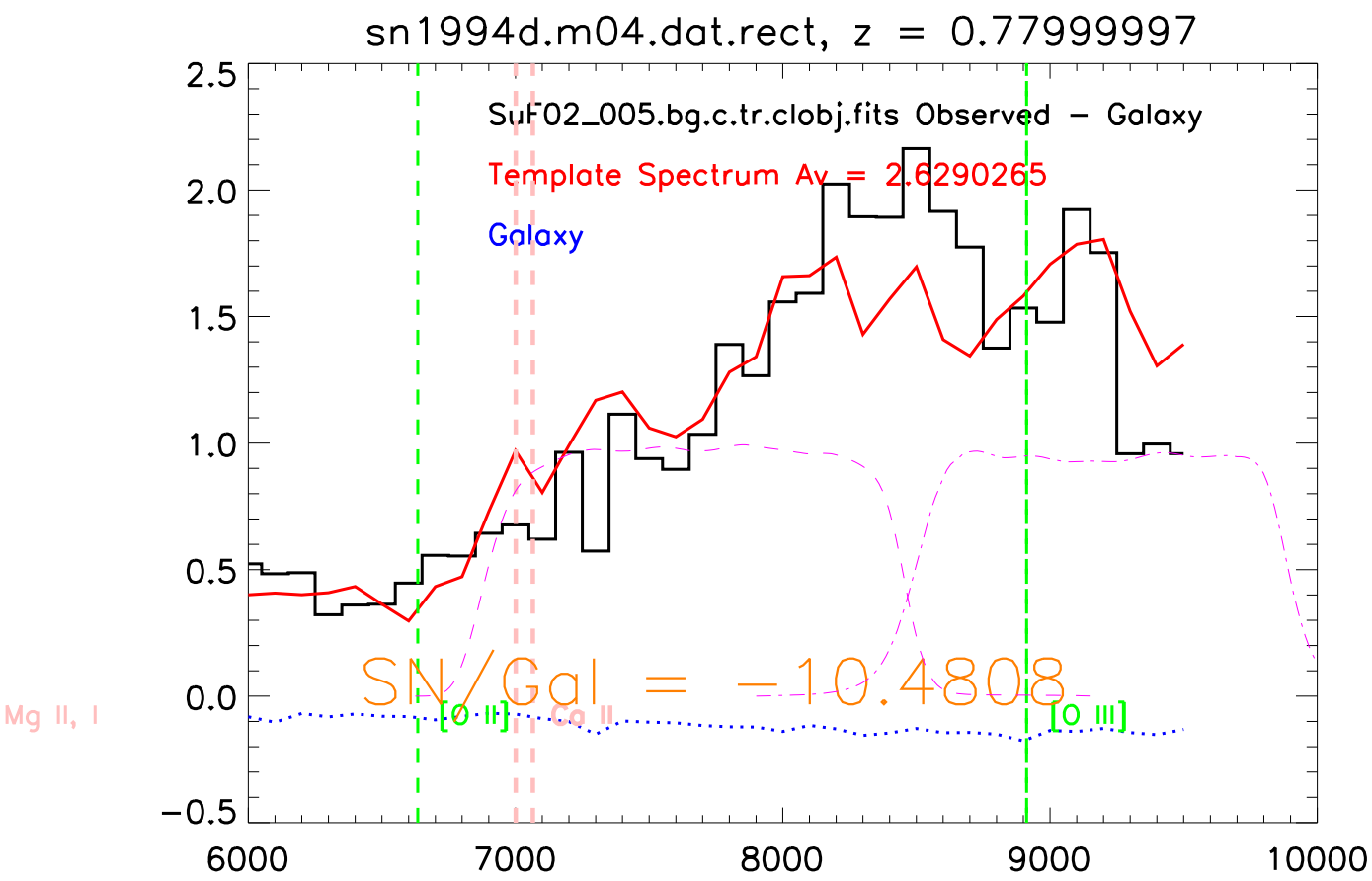

sn1989b.m05.dat.rect, z = 1.4900000
SuF02_005.bg.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −2.0182650
Galaxy
SN/Gal = 0.327533
Mg II, I
[O II]
Ca II
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000

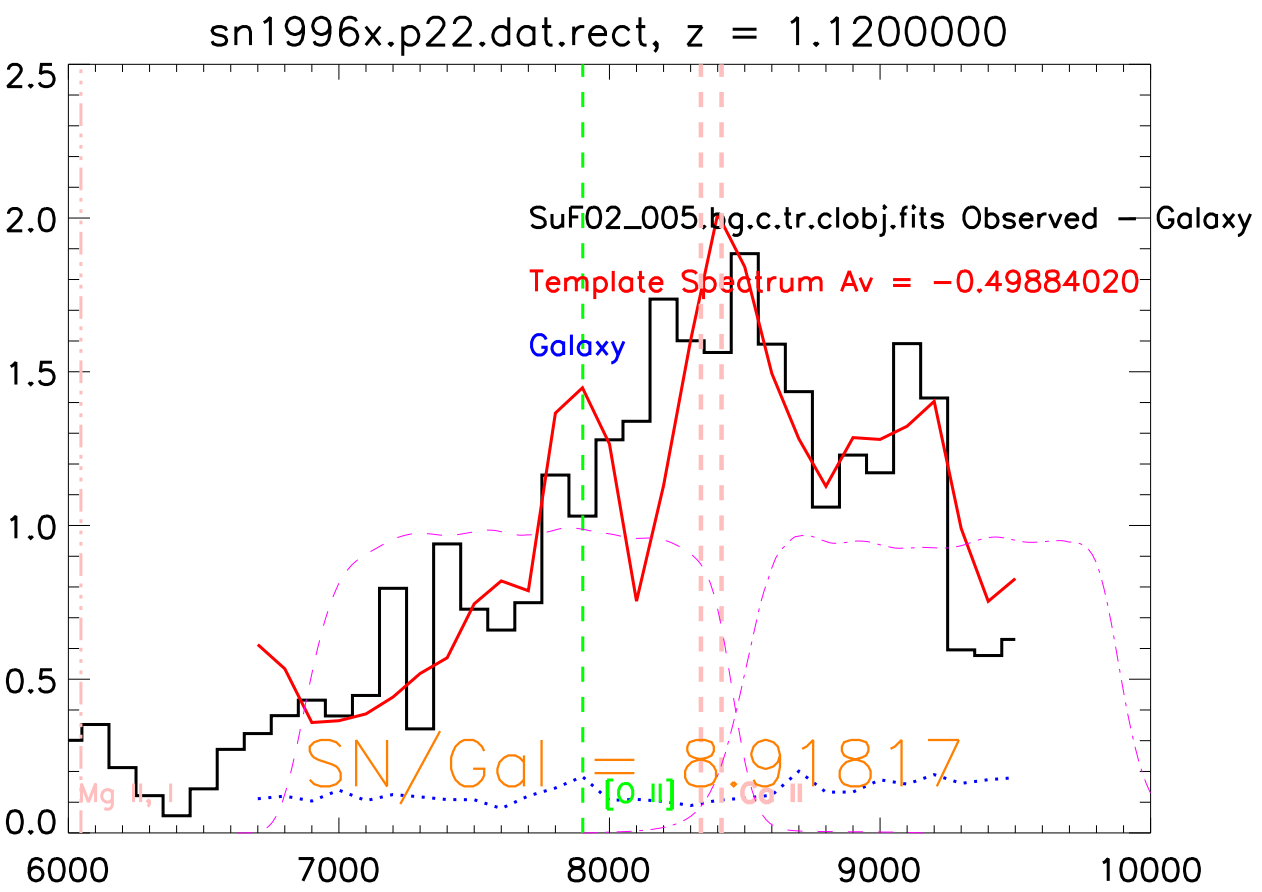

sn1994d.p25.dat.rect, z = 1.1099999
SuF02_005.bg.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −3.4635203
Galaxy
SN/Gal = 2.57225
Mg II, I
[O II]
Ca II
2.0
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

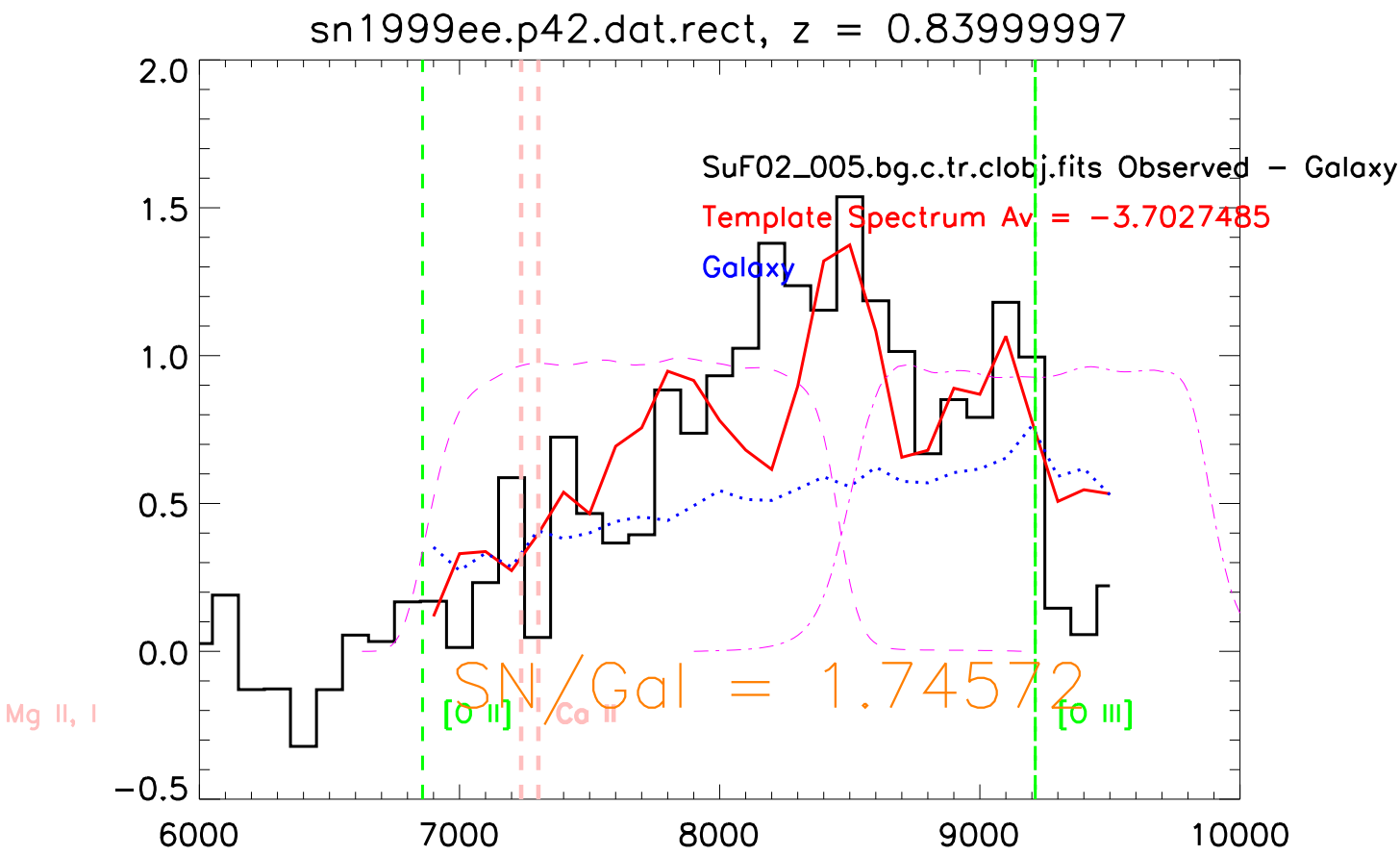

sn1994d.p14.dat.rect, z = 1.1099999
SuF02_005.bg.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −1.3141163
Galaxy
SN/Gal = 14.8974
[O II]
Ca II
2.5
2.0
1.5
1.0
0.5
0.0
6000
7000
8000
9000
10000

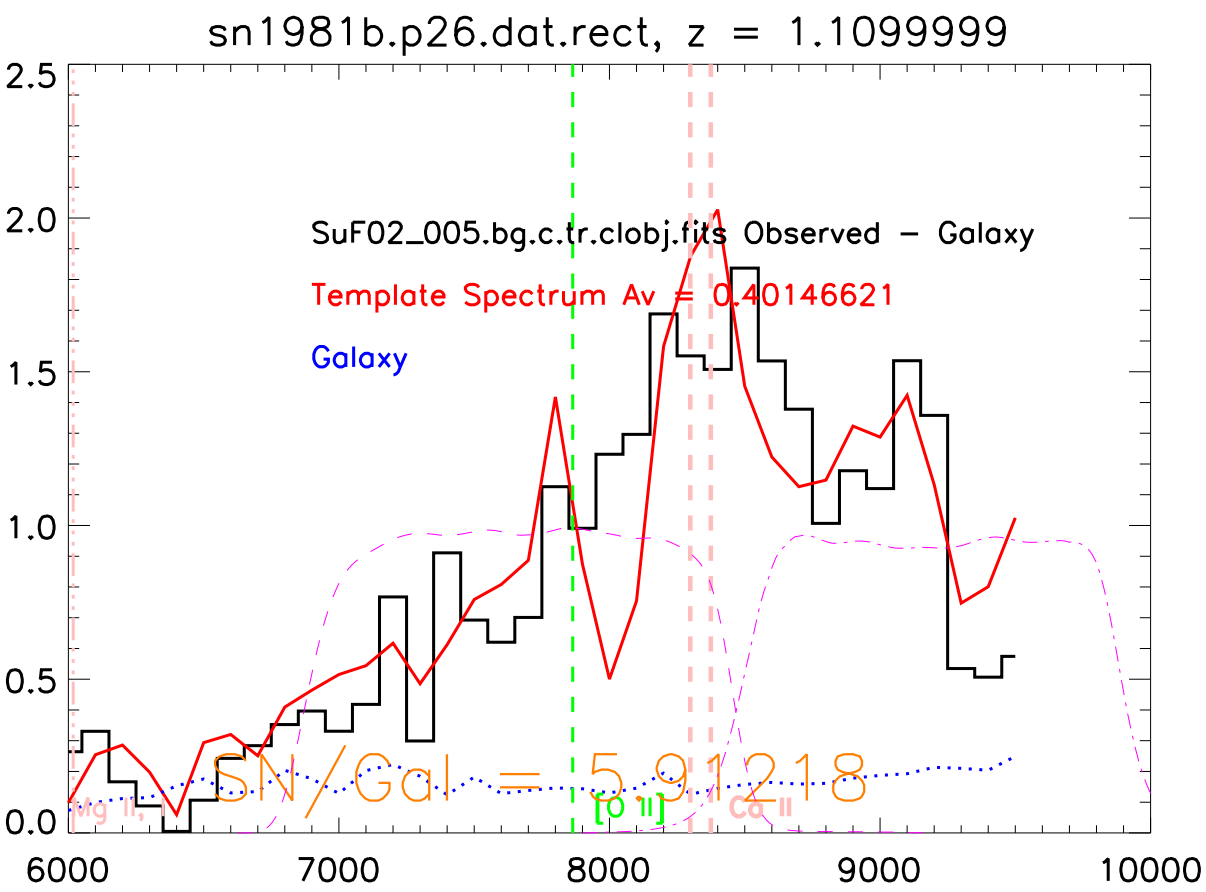

sn1990n.p17.dat.rect, z = 1.1200000
SuF02_005.bg.c.tr.clobj.fits Observed
Galaxy
Template Spectrum Av = 0.11336110
Galaxy
SN/Gal = 5.21971
Mg II, 1
[O II]
Ca II
2.0
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

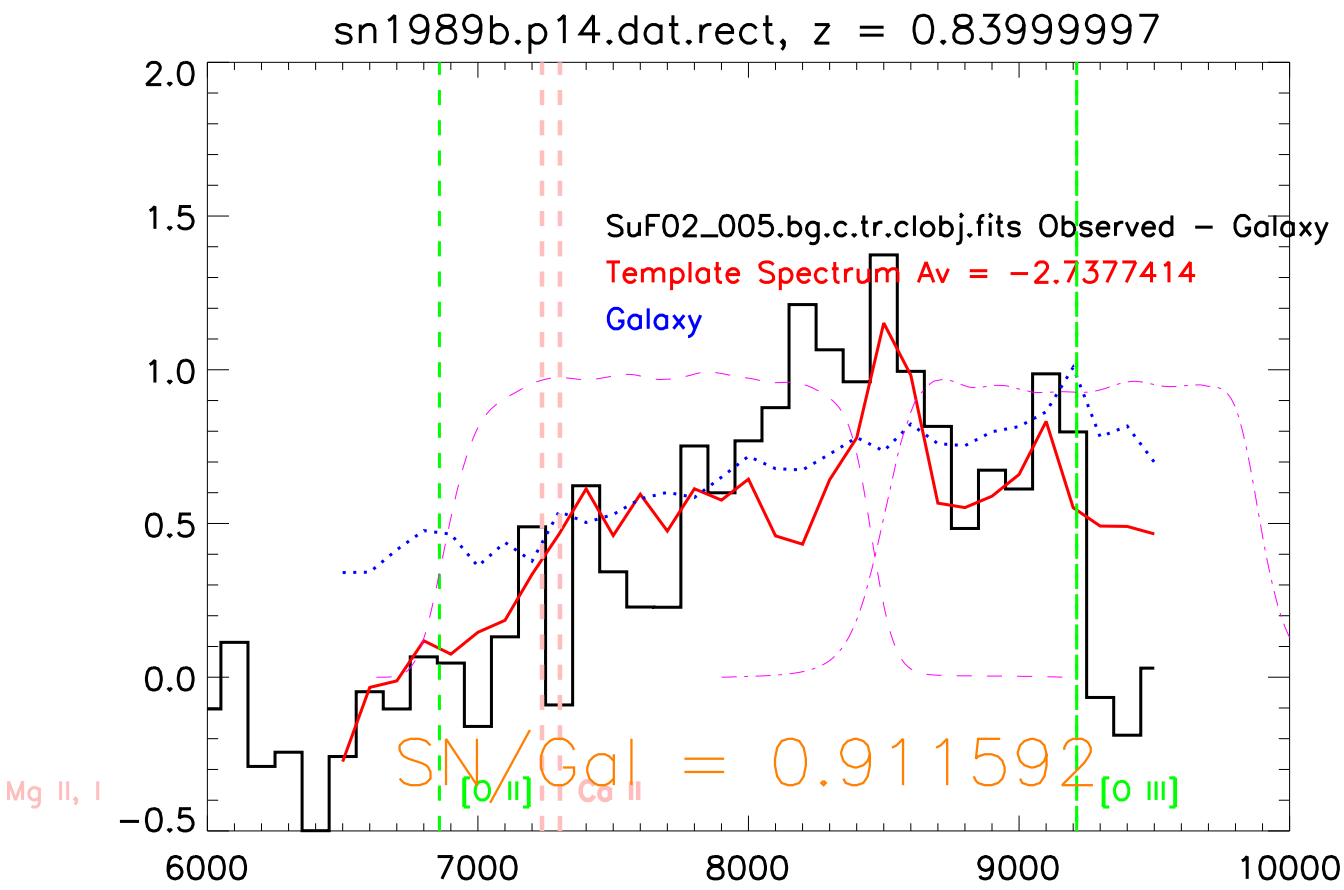

sn1996x.p24.dat.rect, z = 1.1099999
SuF02_005.bc.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = −0.36777098
Galaxy
SN/Gal = 4.66076
Mg II
[O II]
Ca II
2.0
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

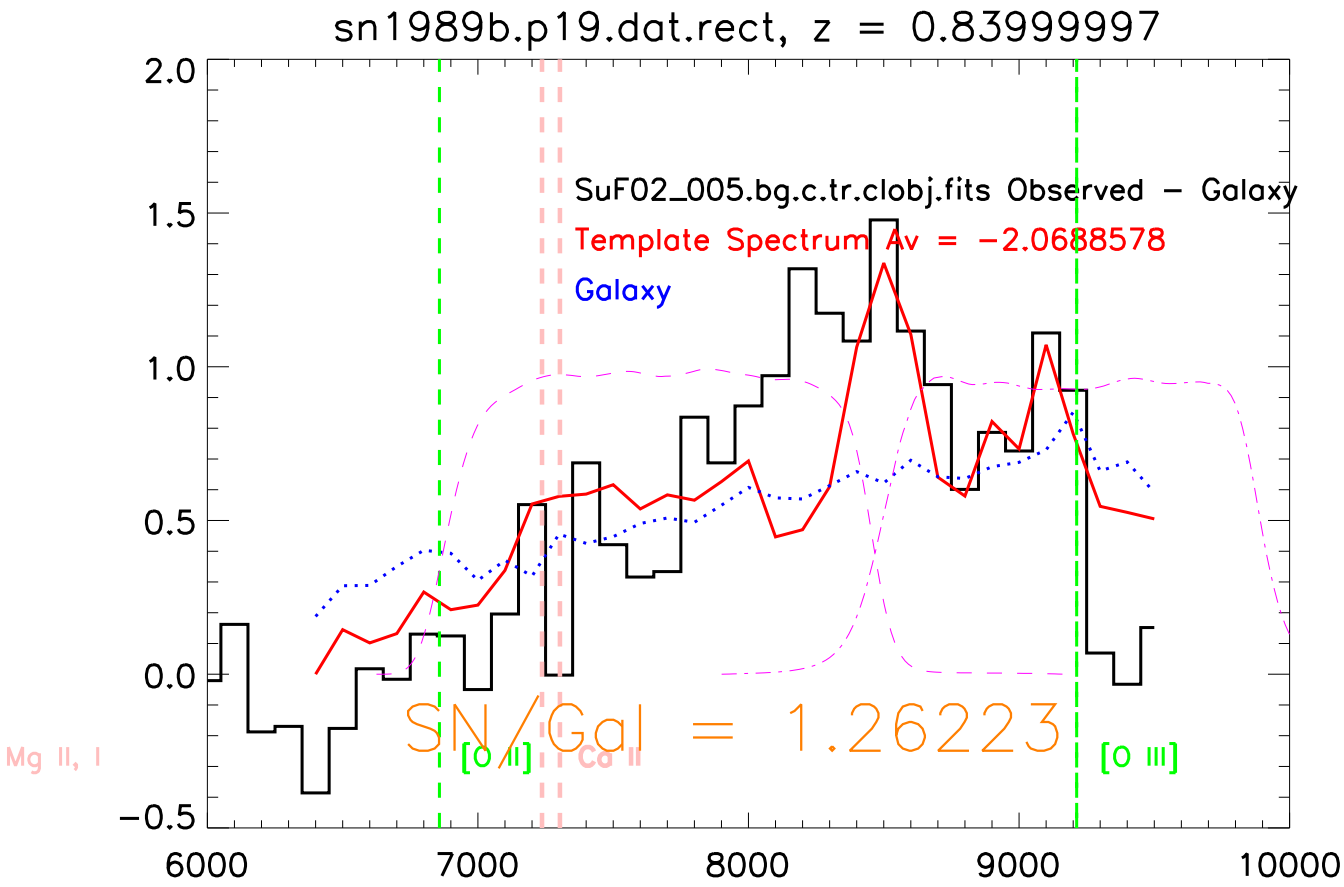

sn1994d.m04.dat.rect, z = 0.77999997
SuF02_005.bg.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = 2.6290265
Galaxy
SN/Gal = −10.4808
[O II]
Ca II
[O III]
Mg II, I
2.5
2.0
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

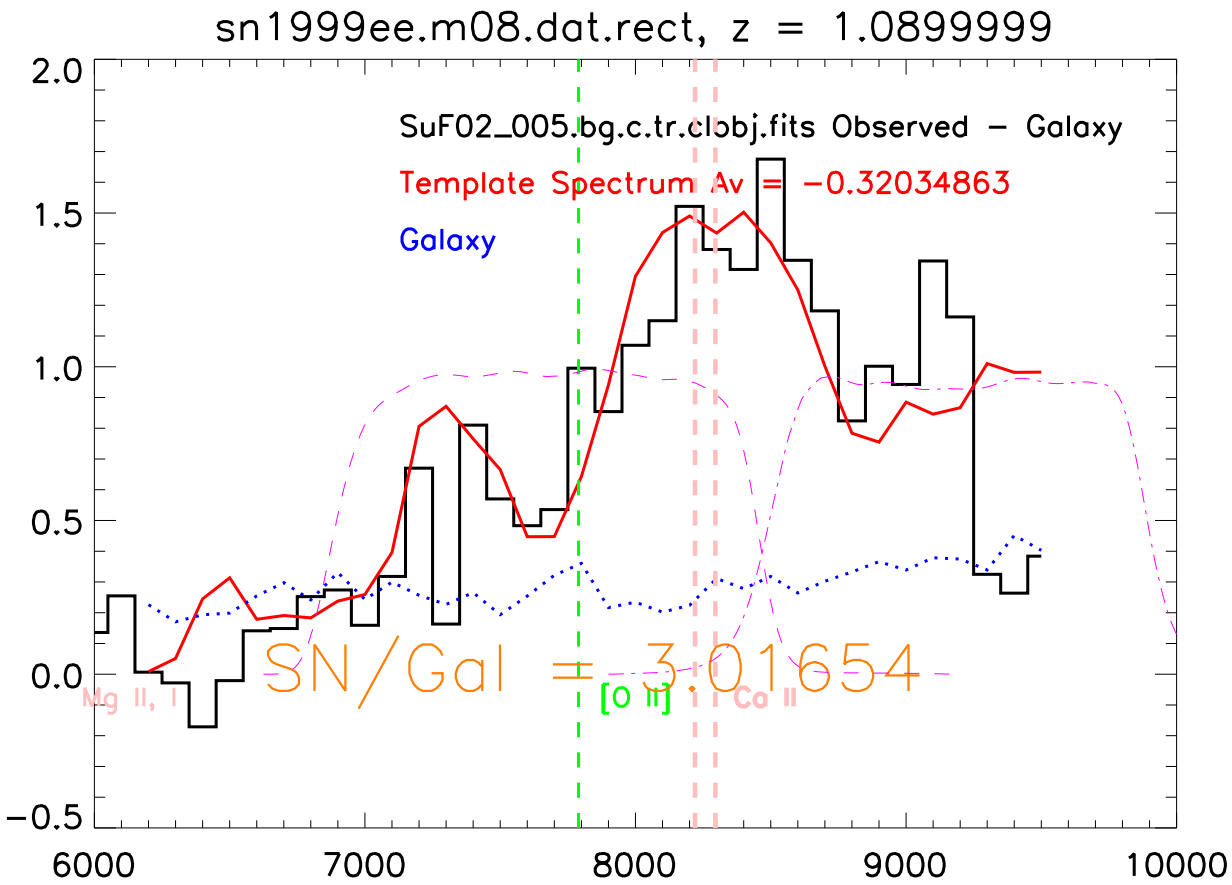

sn1996x.p22.dat.rect, z = 1.1200000
SuF02_005.tg.c.tr.clobj.fits Observed
Galaxy
Template Spectrum Av = -0.49884020
Galaxy
SN/Gal = 8.91817
[O II]
Ca II
2.5
2.0
1.5
1.0
0.5
0.0
6000
7000
8000
9000
10000

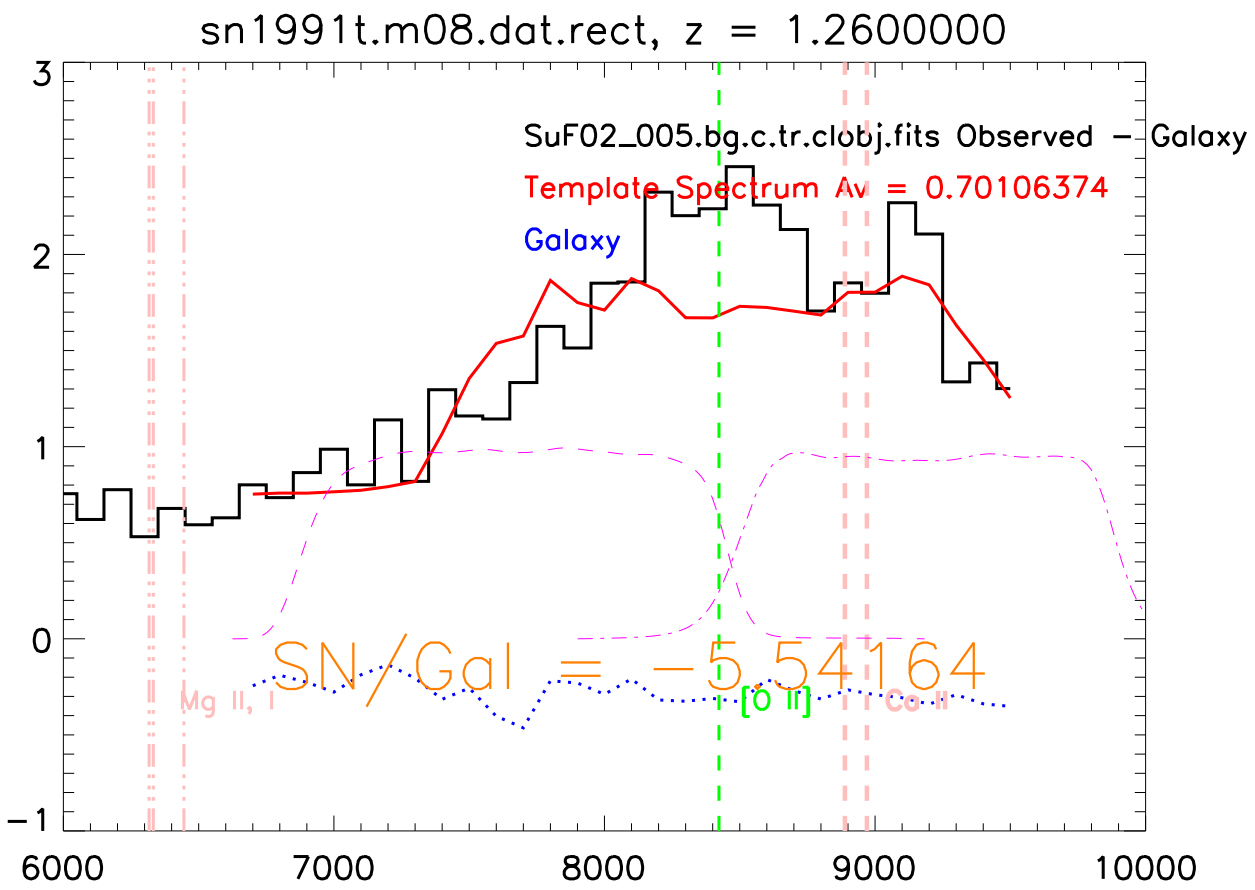

sn1999ee.p42.dat.rect, z = 0.83999997
SuF02_005.bg.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −3.7027485
Galaxy
SN/Gal = 1.74572
Mg II, I
[O II]
Ca II
[O III]
2.0
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

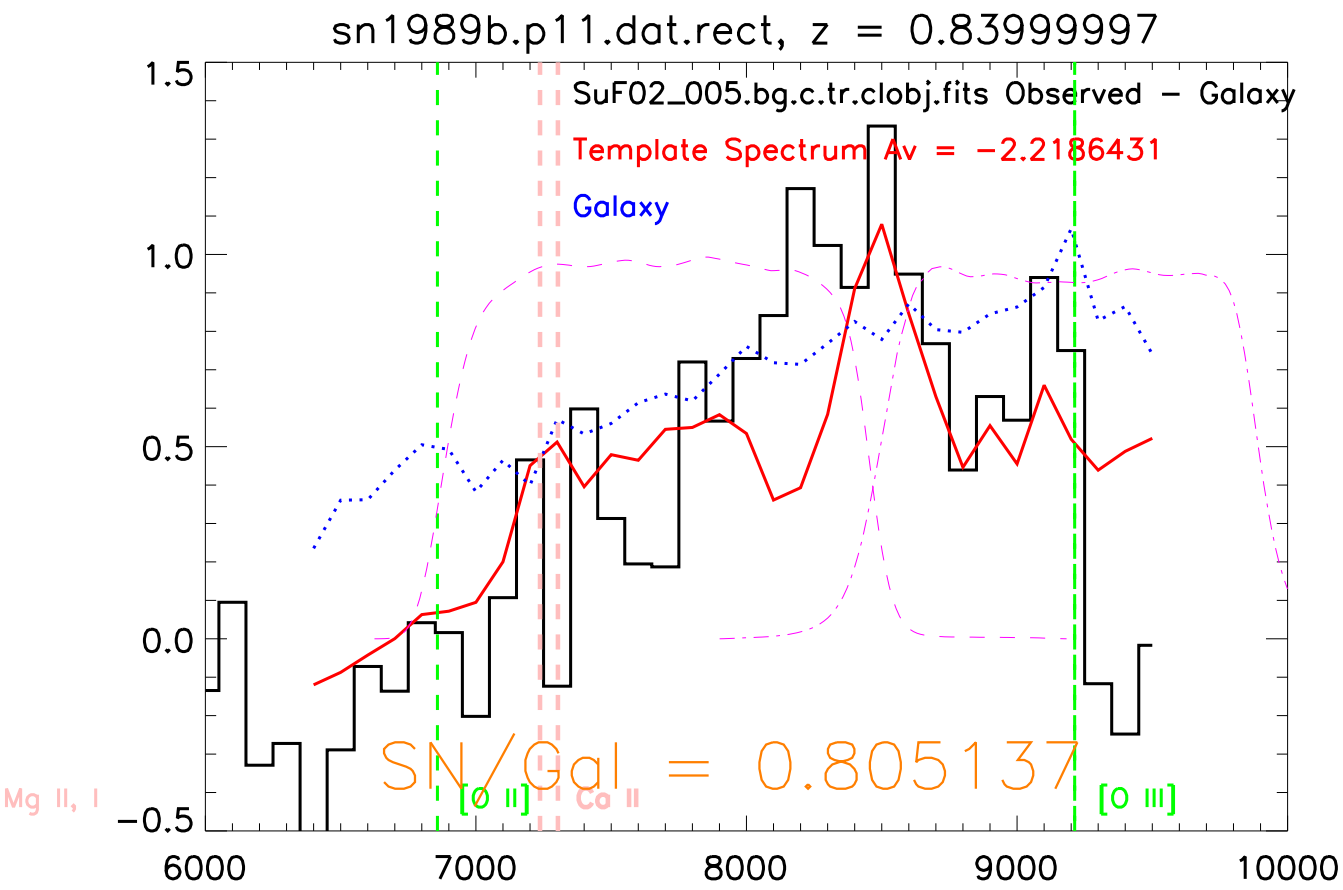

sn1981b.p26.dat.rect, z = 1.1099999
SuF02_005.bg.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = 0.40146621
Galaxy
SN/Gal = 5.91218
[O II]
Ca II
2.5
2.0
1.5
1.0
0.5
0.0
6000
7000
8000
9000
10000

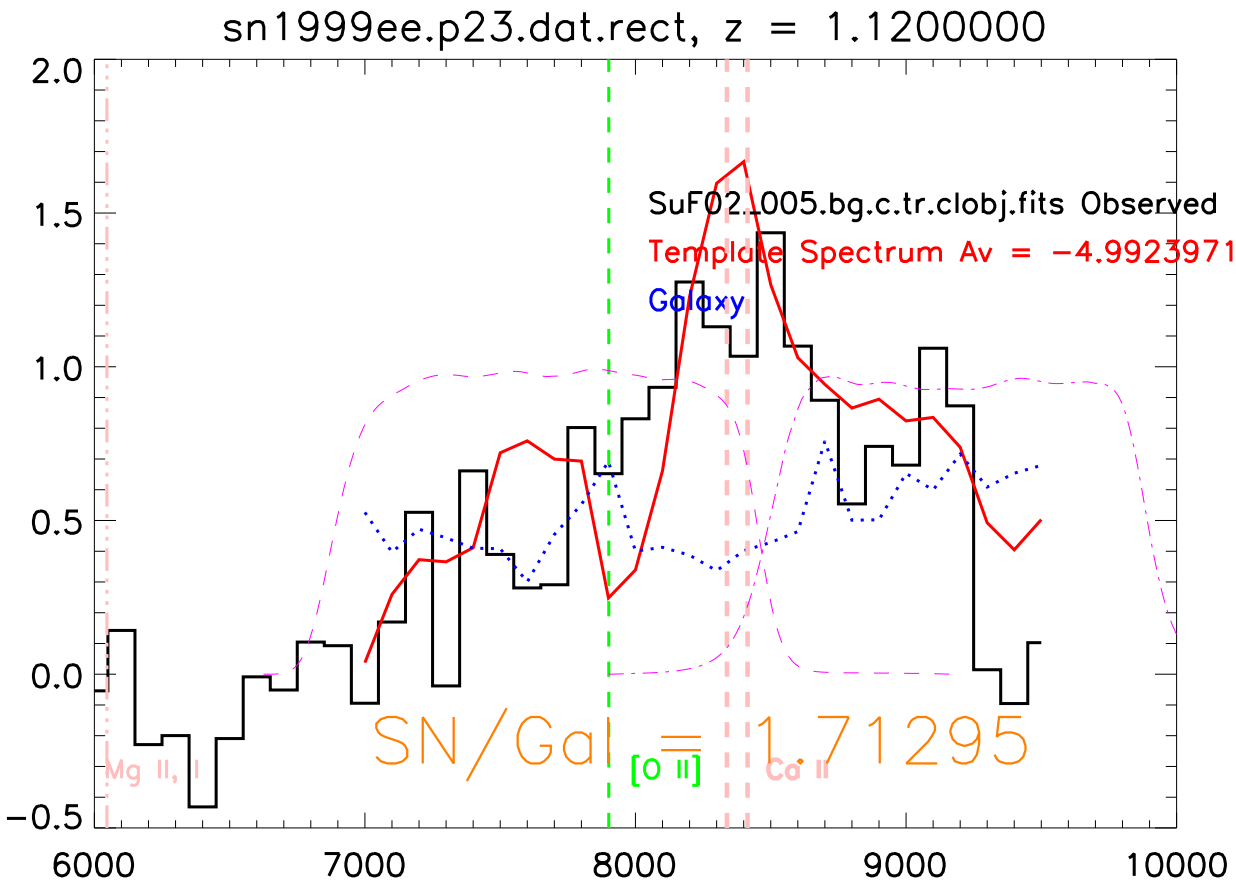

sn1989b.p14.dat.rect, z = 0.83999997
SuF02_005.bg.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = -2.7377414
Galaxy
S/N Gal = 0.911592
Mg II, I
[O II]
Ca II
[O III]
2.0
1.5
1.0
0.5
0.0
-0.5
6000
7000
8000
9000
10000

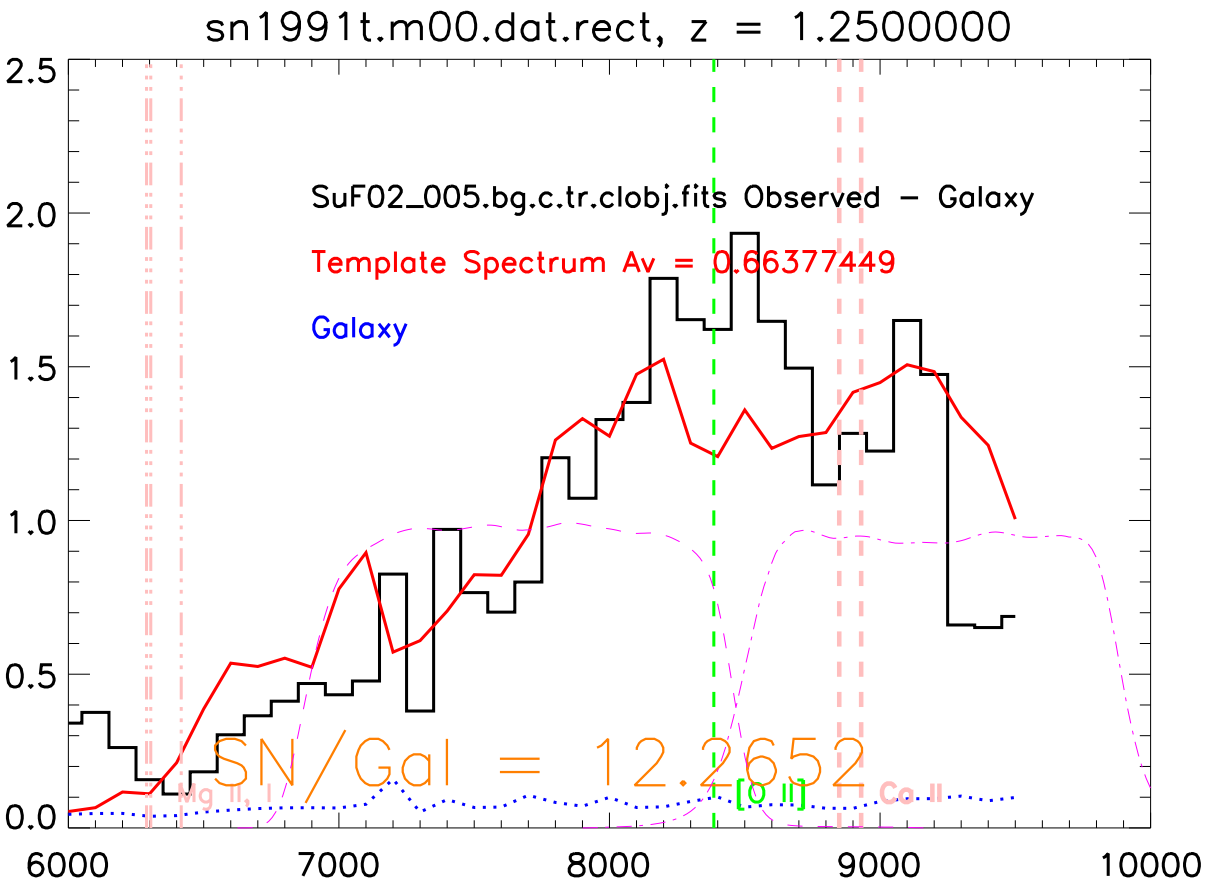

sn1989b.p19.dat.rect, z = 0.83999997
SuF02_005.bg.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −2.0688578
Galaxy
SN/Gal = 1.26223
[O II]
Ca II
[O III]
Mg II, I
2.0
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

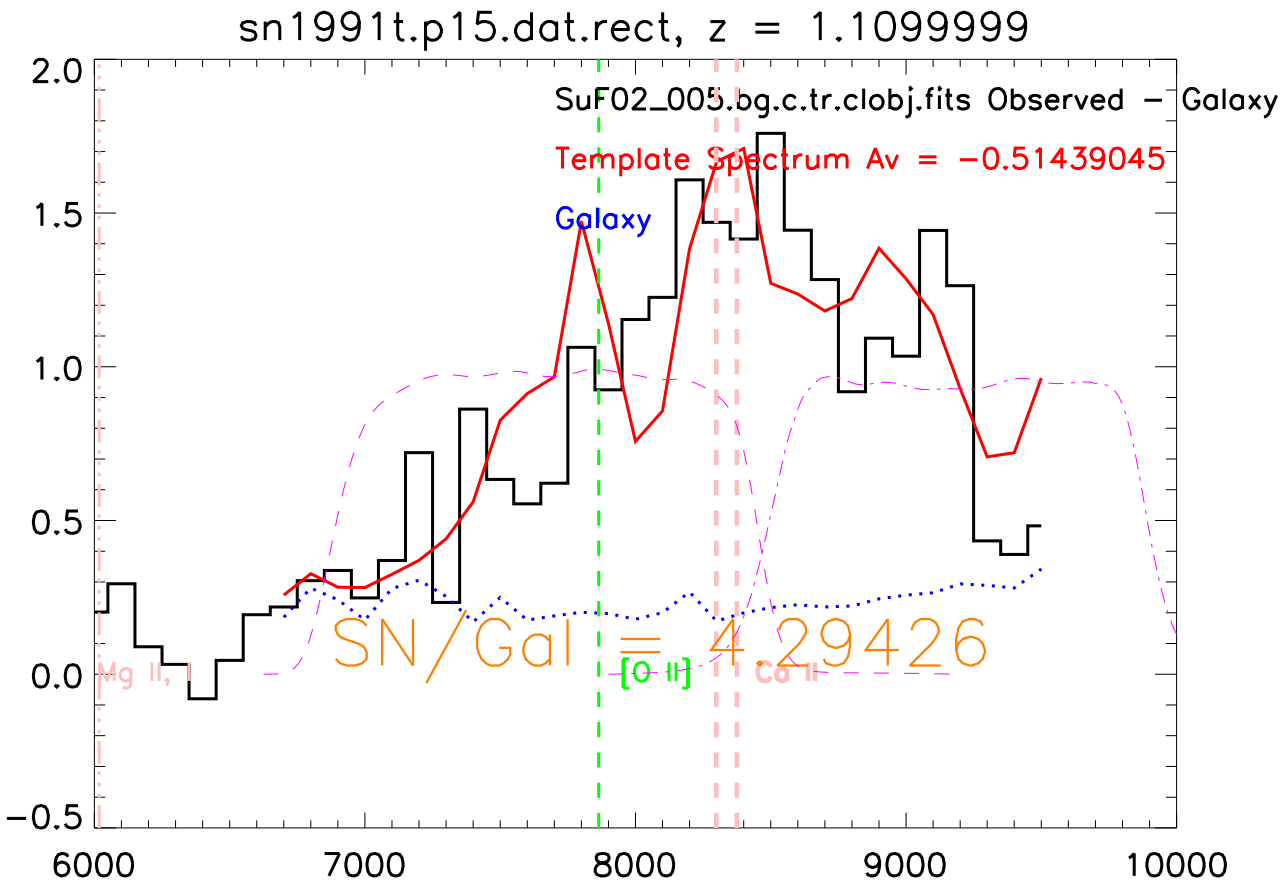

sn1999ee.m08.dat.rect, z = 1.0899999
SuF02_005.bg.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −0.32034863
Galaxy
SN/Gal = 3.01654
[O II]
Ca II
2.0
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

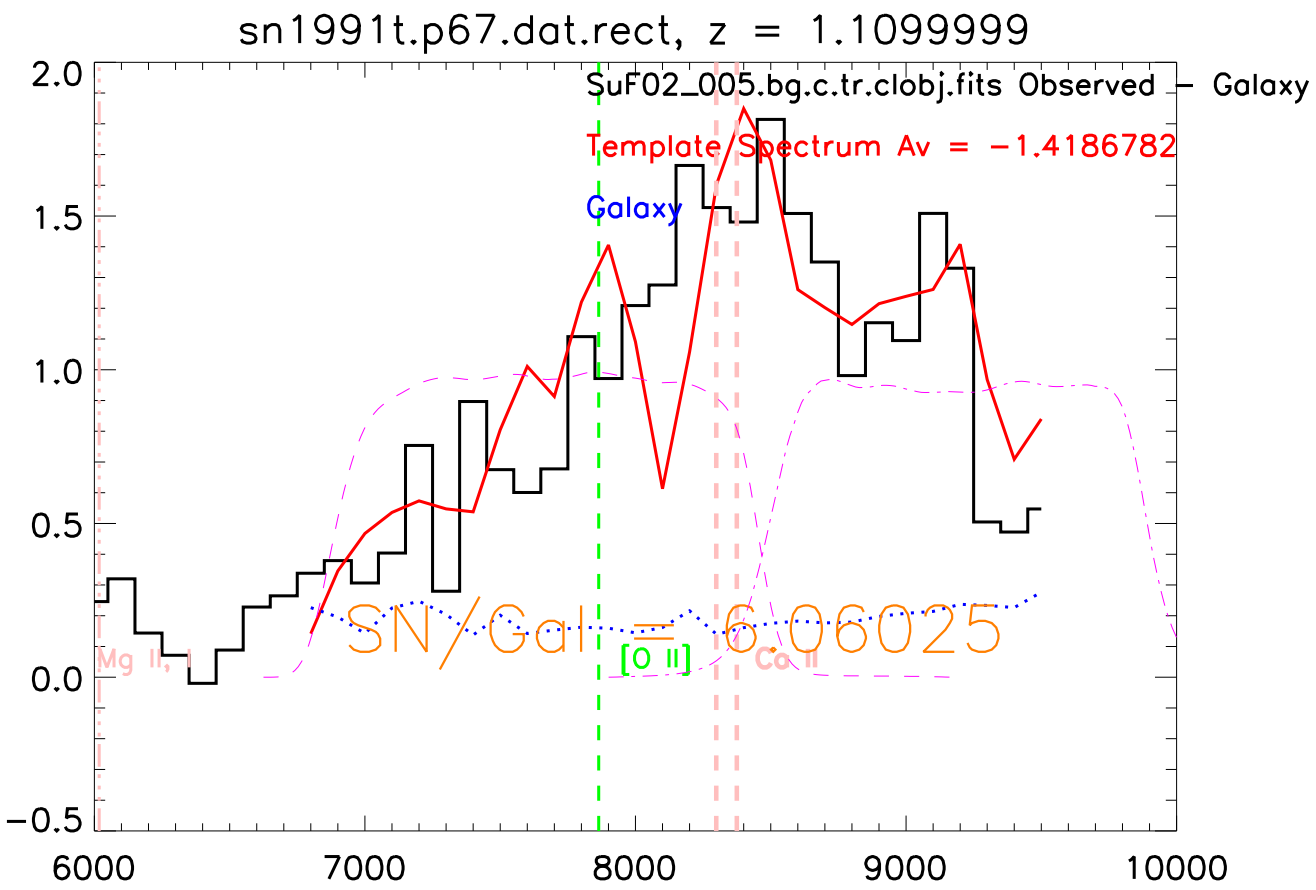

sn1991t.m08.dat.rect, z = 1.2600000
SuF02_005.bg.c.tr.clobj.fits Observed
Galaxy
Template Spectrum Av = 0.70106374
Galaxy
SN/Gal = −5.54164
Mg II, I
[O II]
Ca II
3
2
1
0
−1
6000
7000
8000
9000
10000

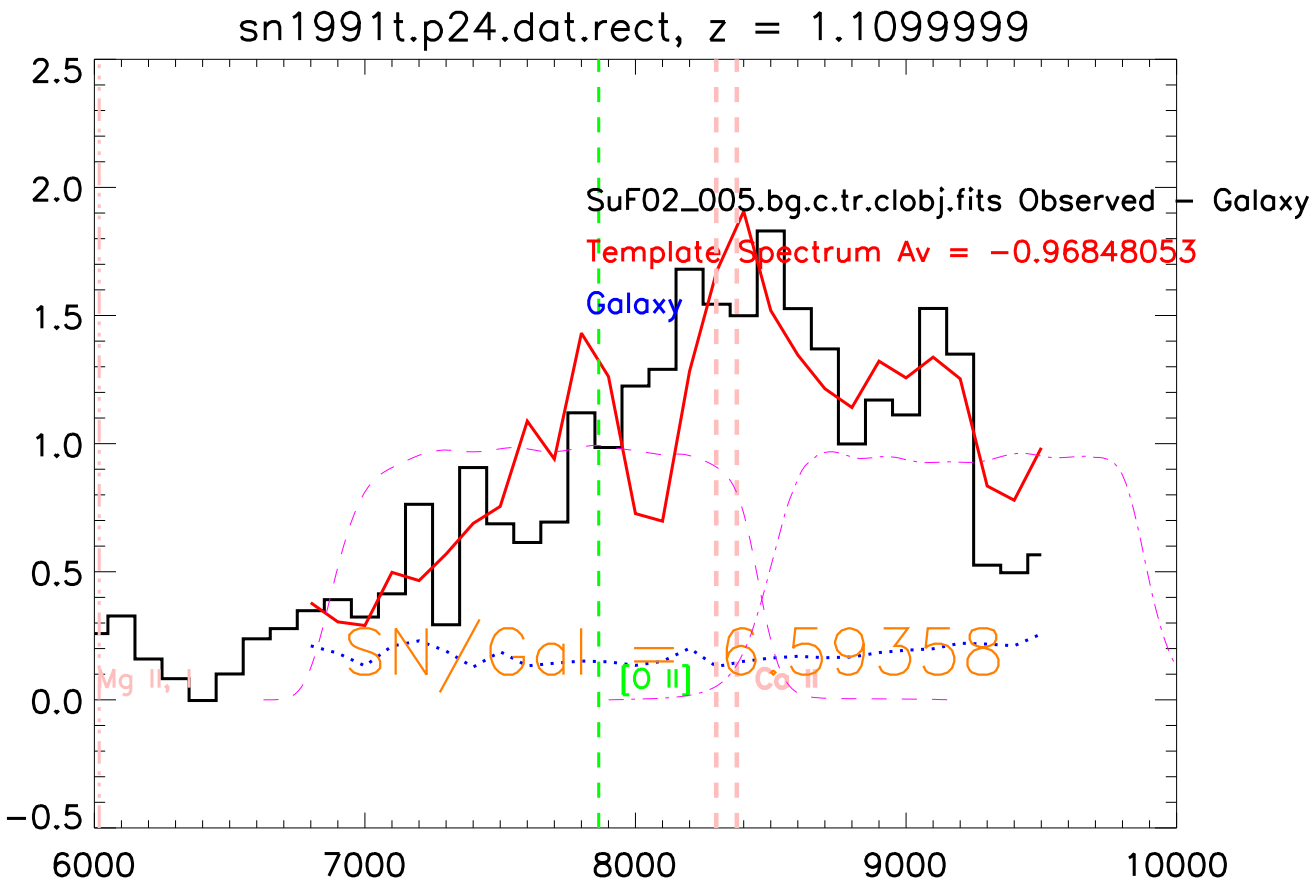

sn1989b.p11.dat.rect, z = 0.83999997
SuF02_005.bg.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −2.2186431
Galaxy
SN/Gal = 0.805137
Mg II, I
[O II]
Ca II
[O III]
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

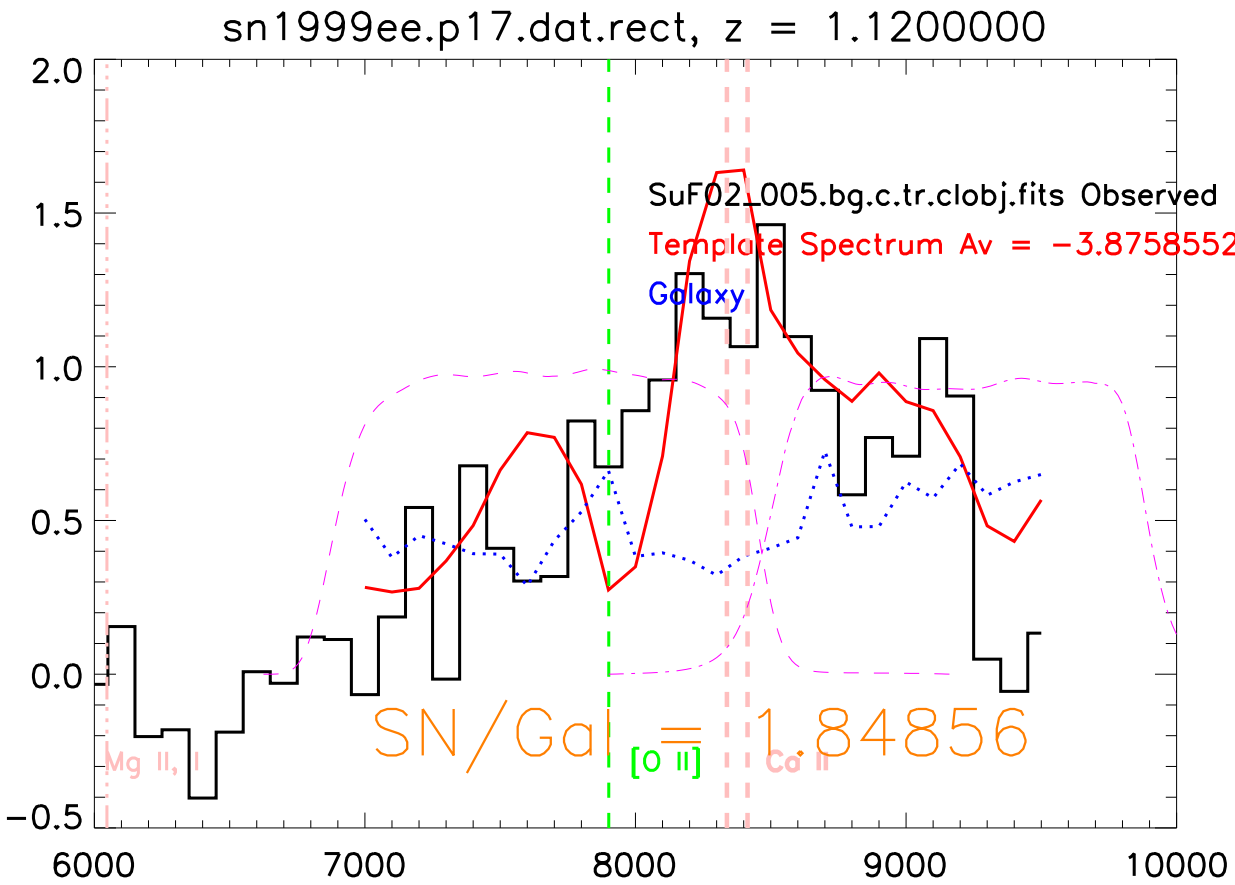

sn1999ee.p23.dat.rect, z = 1.1200000
SuF02_005.bg.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = −4.9923971
Galaxy
SN/Gal = 1.71295
Mg II, I
[O II]
Ca II
2.0
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

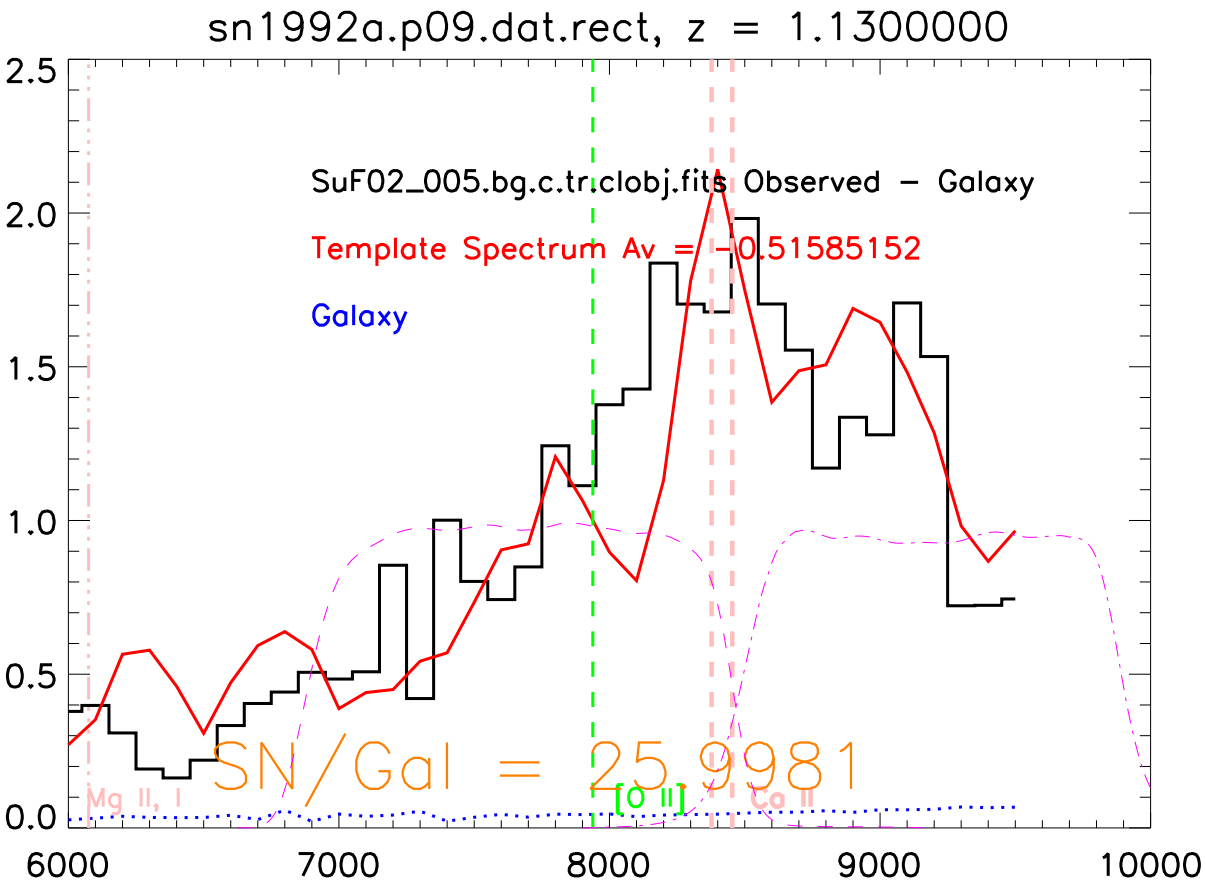

sn1991t.m00.dat.rect, z = 1.2500000
SuF02_005.bg.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = 0.66377449
Galaxy
SN/Gal = 12.2652
Mg II, I
[O II]
Ca II
2.5
2.0
1.5
1.0
0.5
0.0
6000
7000
8000
9000
10000

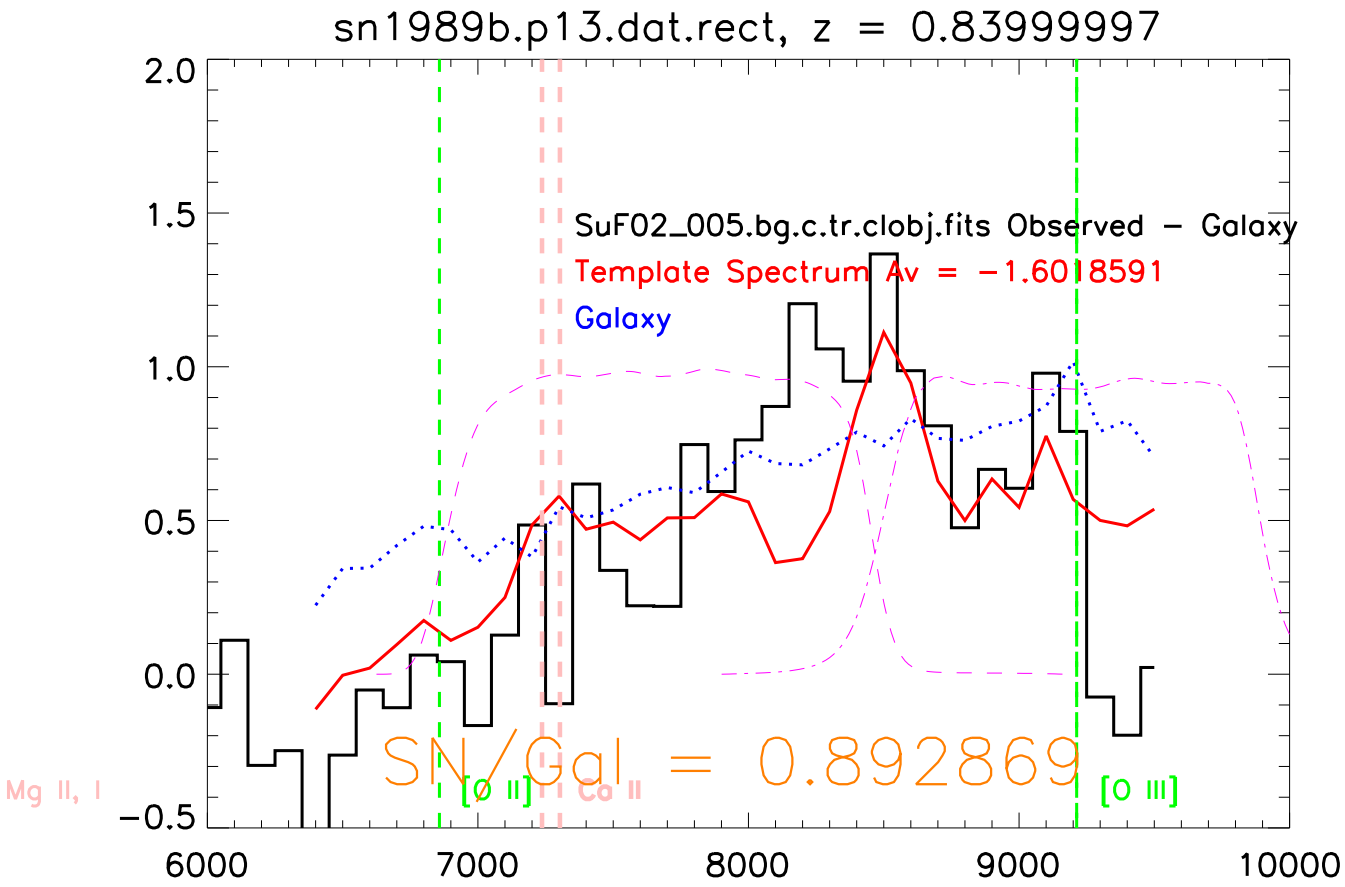

sn1991t.p15.dat.rect, z = 1.1099999
SuF02_005.bg.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = −0.51439045
Galaxy
SN/Gal = 4.29426
[O II]
Ca II
2.0
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

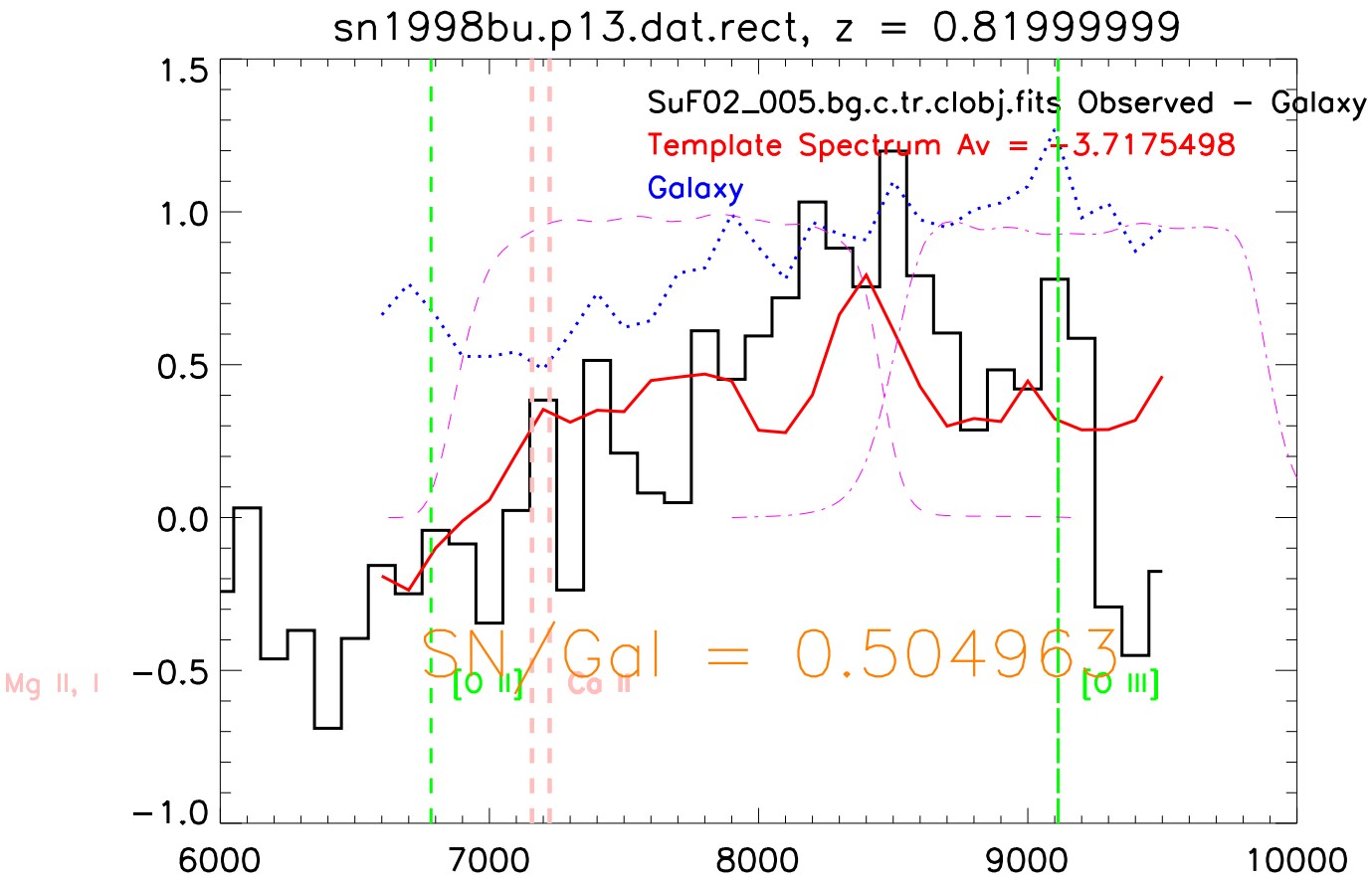

sn1991t.p67.dat.rect, z = 1.1099999
SuF02_005.bg.c.tr.clobj.fits Observed
Galaxy
Template Spectrum Av = -1.4186782
Galaxy
SN/Gal = 6.06025
Mg II
[O II]
Ca II
[O
2.0
1.5
1.0
0.5
0.0
-0.5
6000
7000
8000
9000
10000

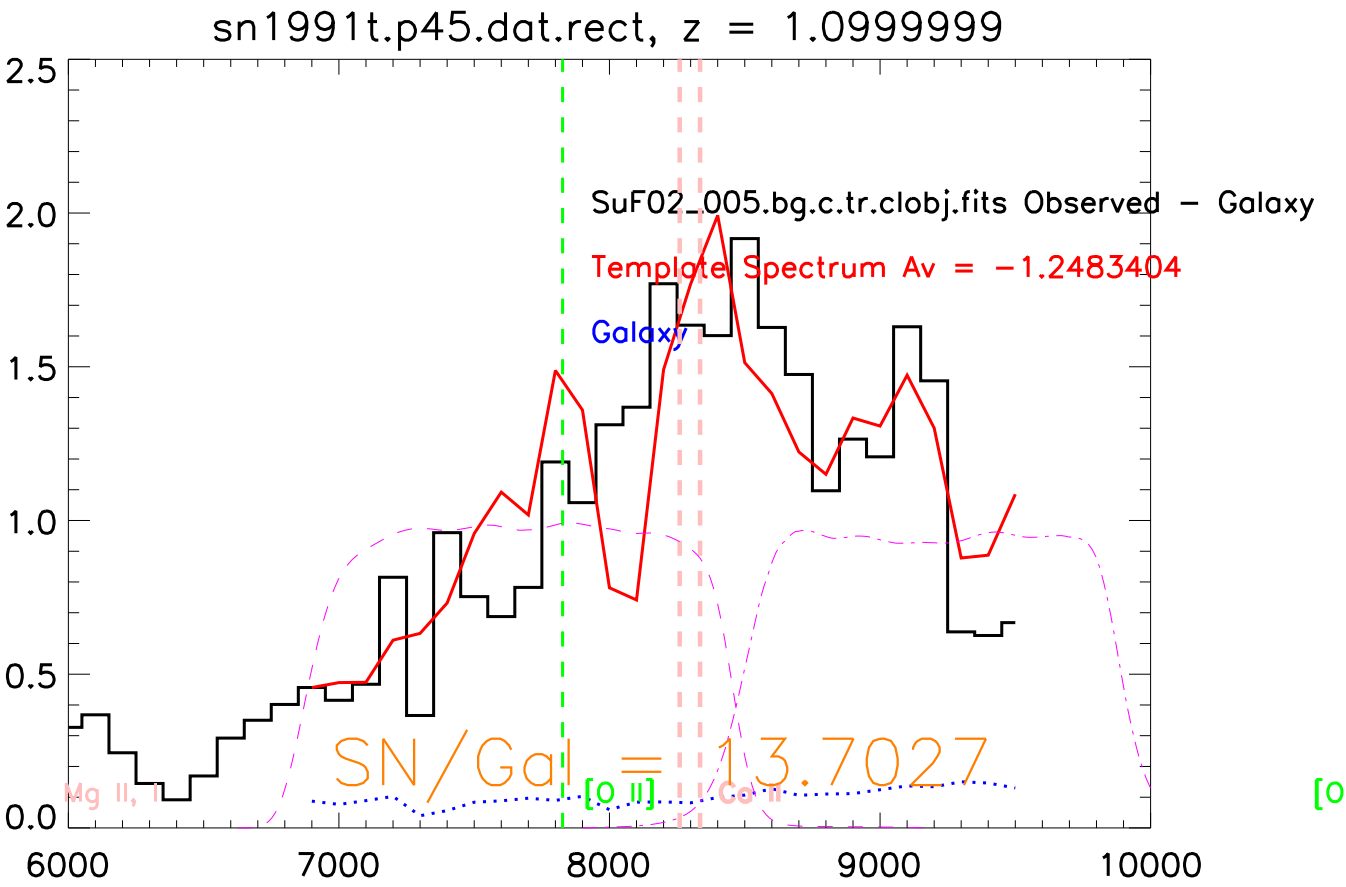

sn1991t.p24.dat.rect, z = 1.1099999
SuF02_005.bg.c.tr.clobj.fits Observed
Galaxy
Template Spectrum Av = -0.96848053
Galaxy
SN/Gal = 6.59358
Mg II
[O II]
Ca II
[O
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
6000
7000
8000
9000
10000

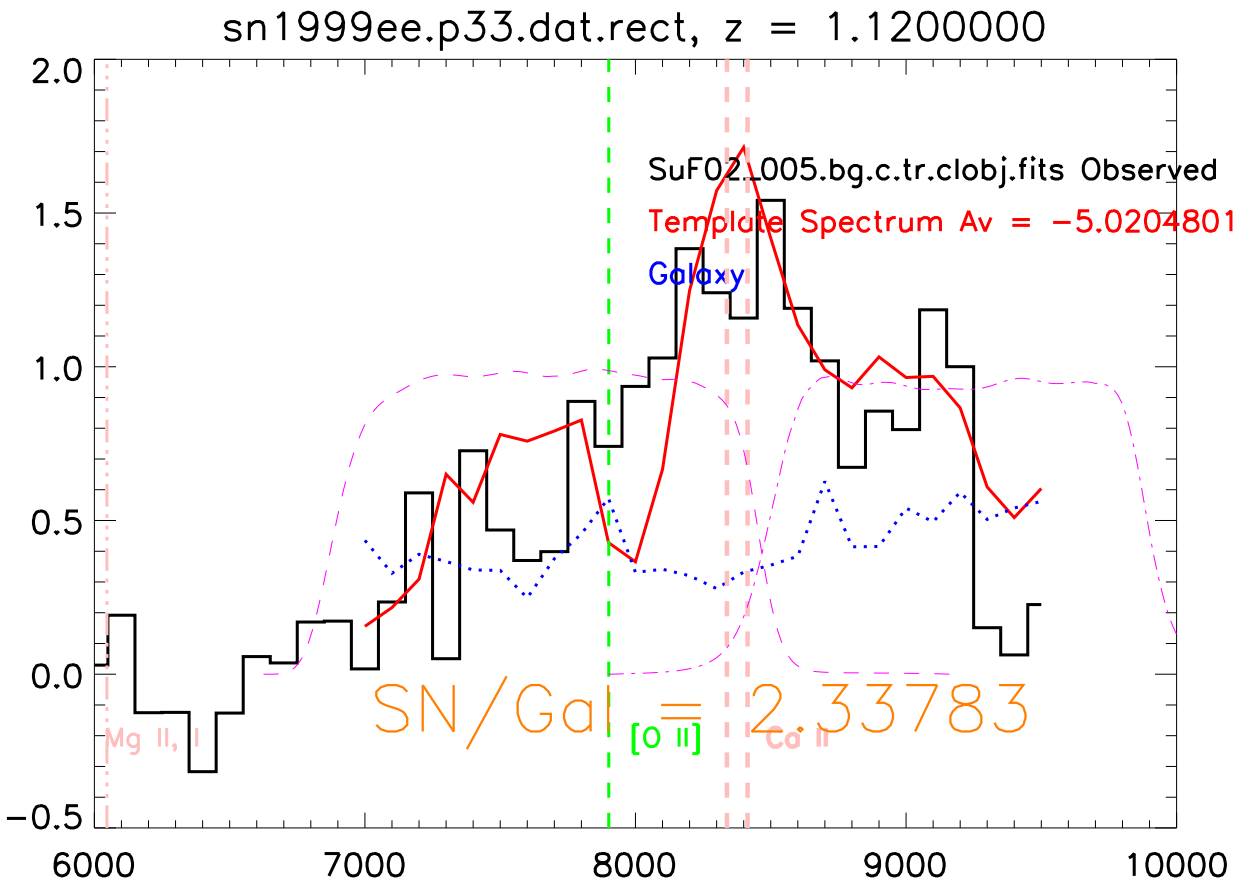

sn1999ee.p17.dat.rect, z = 1.1200000
SuF02_005.bg.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = −3.8758552
Galaxy
SN/Gal = 1.84856
Mg II, I
[O II]
Ca II
2.0
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

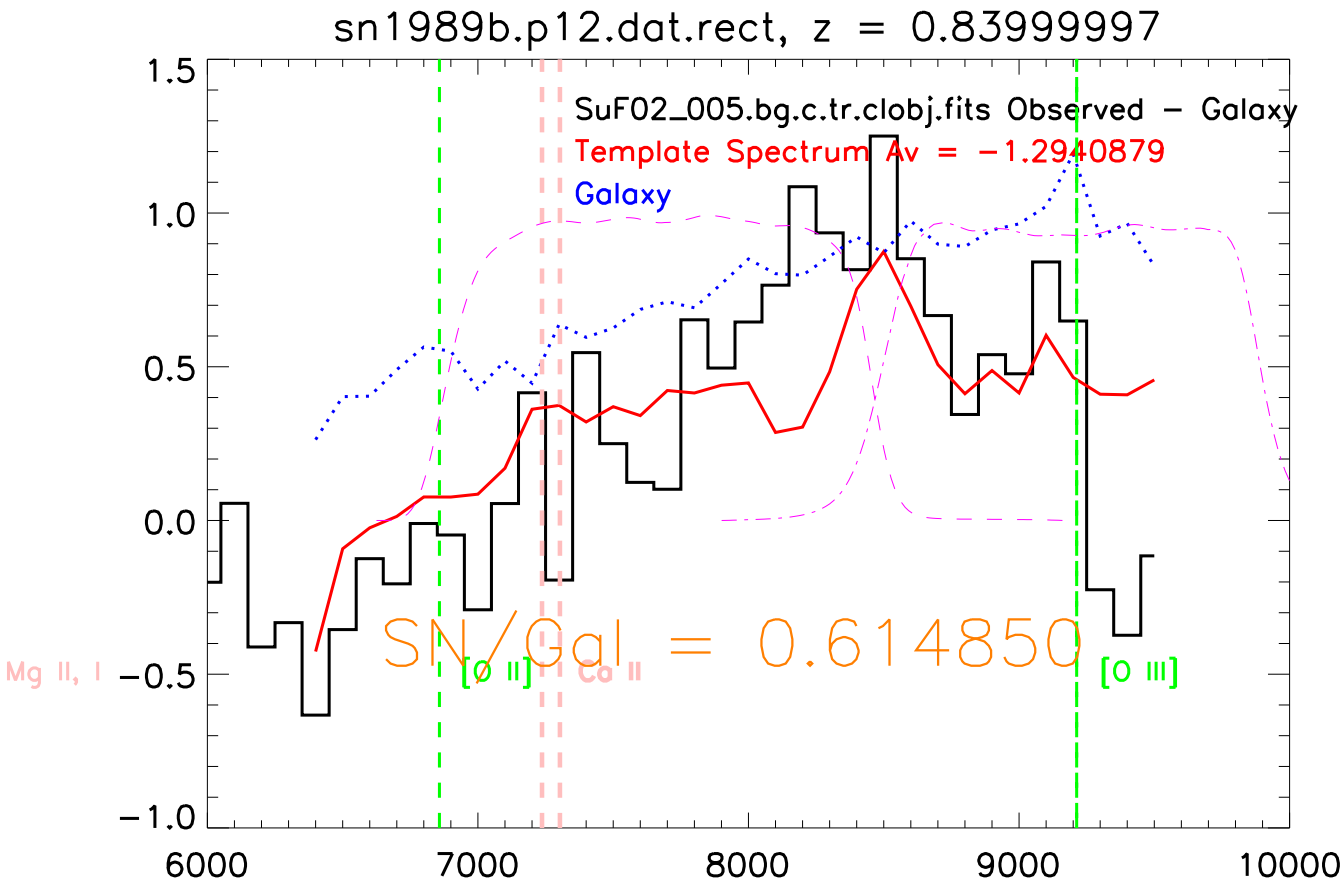

sn1992a.p09.dat.rect, z = 1.1300000
SuF02_005.bg.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −0.51585152
Galaxy
SN/Gal = 25.9981
Mg II, I
[O II]
Ca II
2.5
2.0
1.5
1.0
0.5
0.0
6000
7000
8000
9000
10000

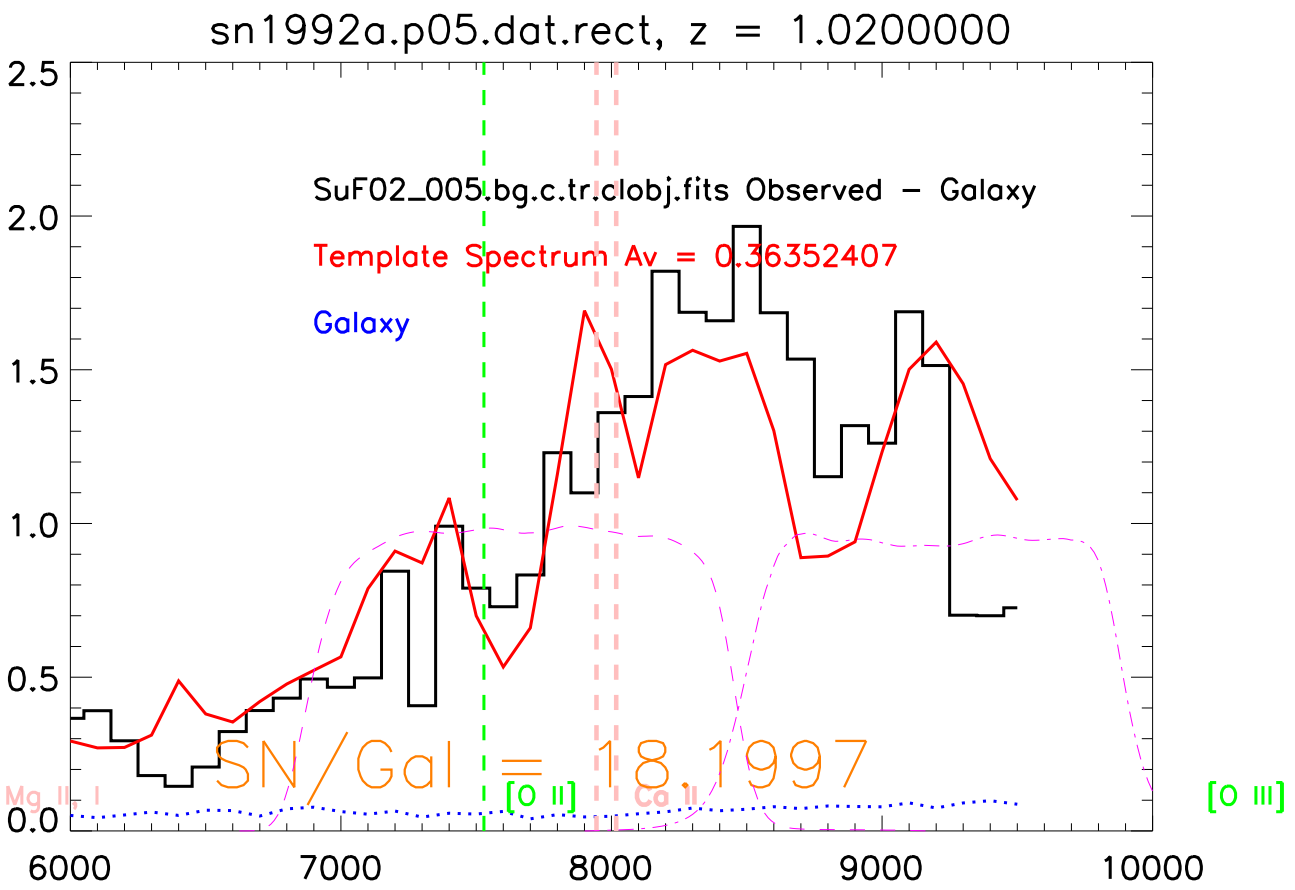

sn1989b.p13.dat.rect, z = 0.83999997
SuF02_005.bg.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −1.6018591
Galaxy
SN/Gal = 0.892869
[O II]
Ca II
[O III]
Mg II, I
2.0
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

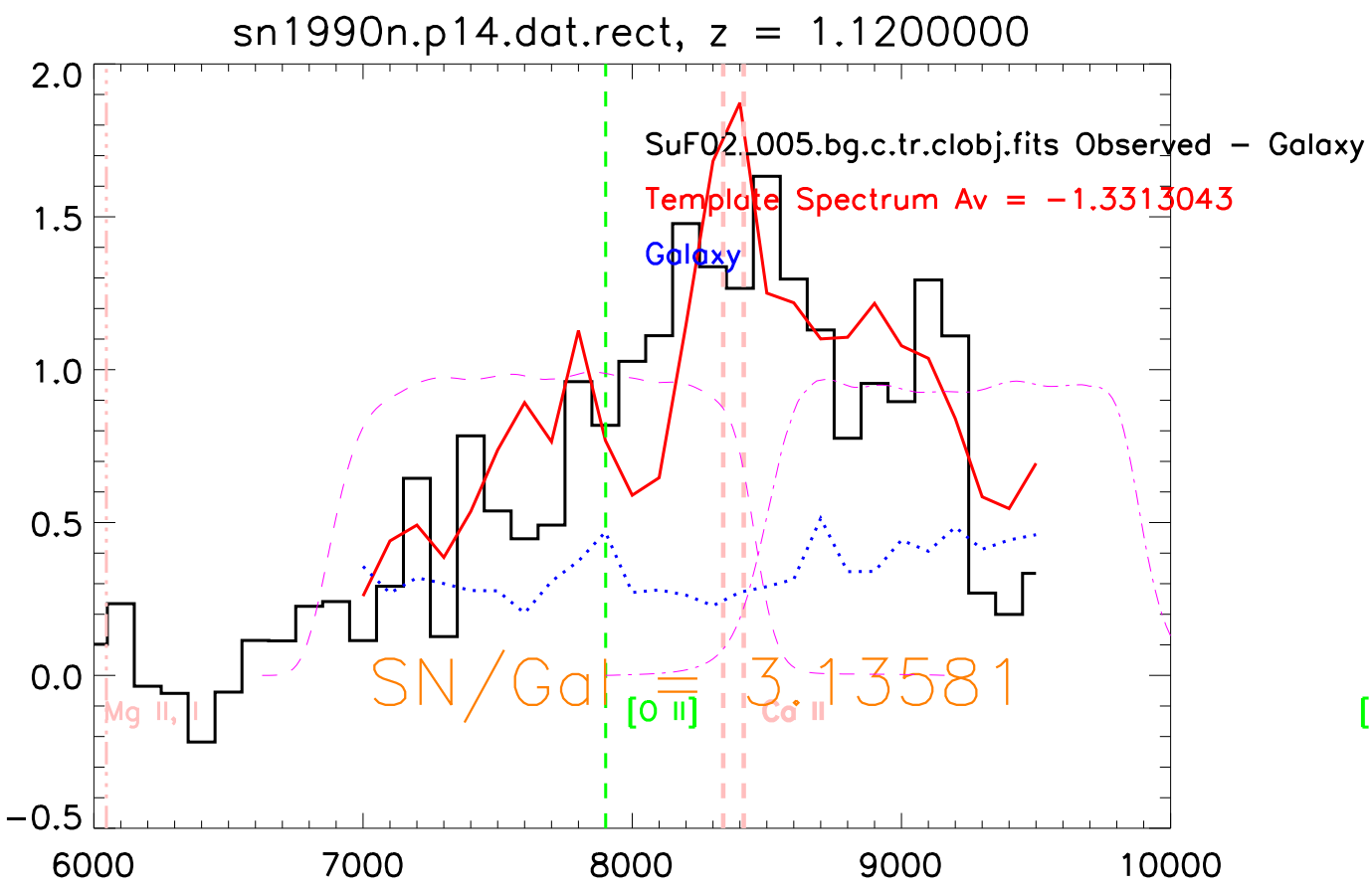

sn1998bu.p13.dat.rect, z = 0.81999999
SuF02_005.bg.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = 3.7175498
Galaxy
SN/Gal = 0.504963
Mg II, I
[O II]
Ca II
[O III]
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000

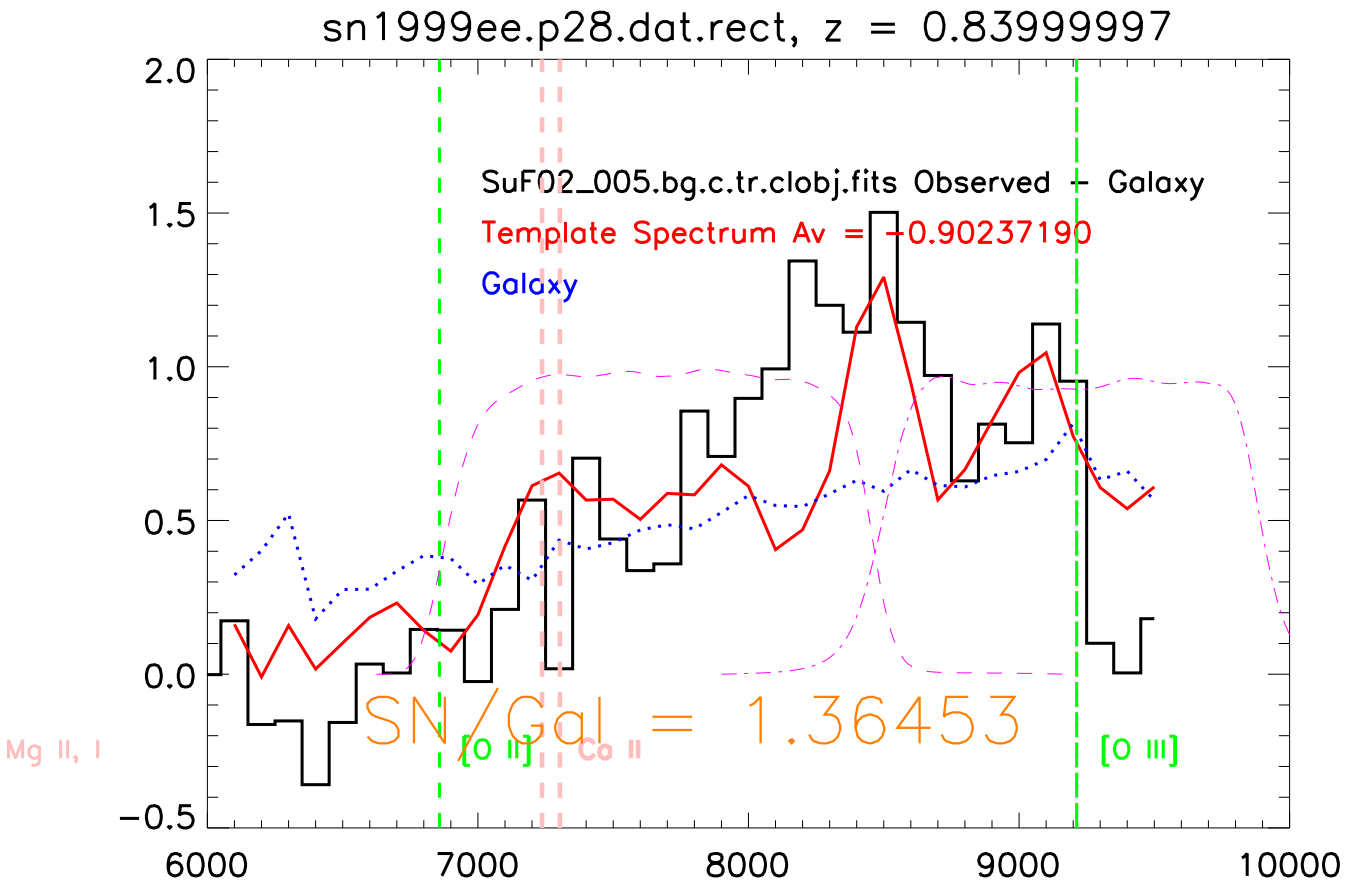

sn1991t.p45.dat.rect, z = 1.0999999
SuF02_005.bg.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −1.2483404
Galaxy
SN/Gal = 13.7027
[O II]
2.5
2.0
1.5
1.0
0.5
0.0
6000
7000
8000
9000
10000

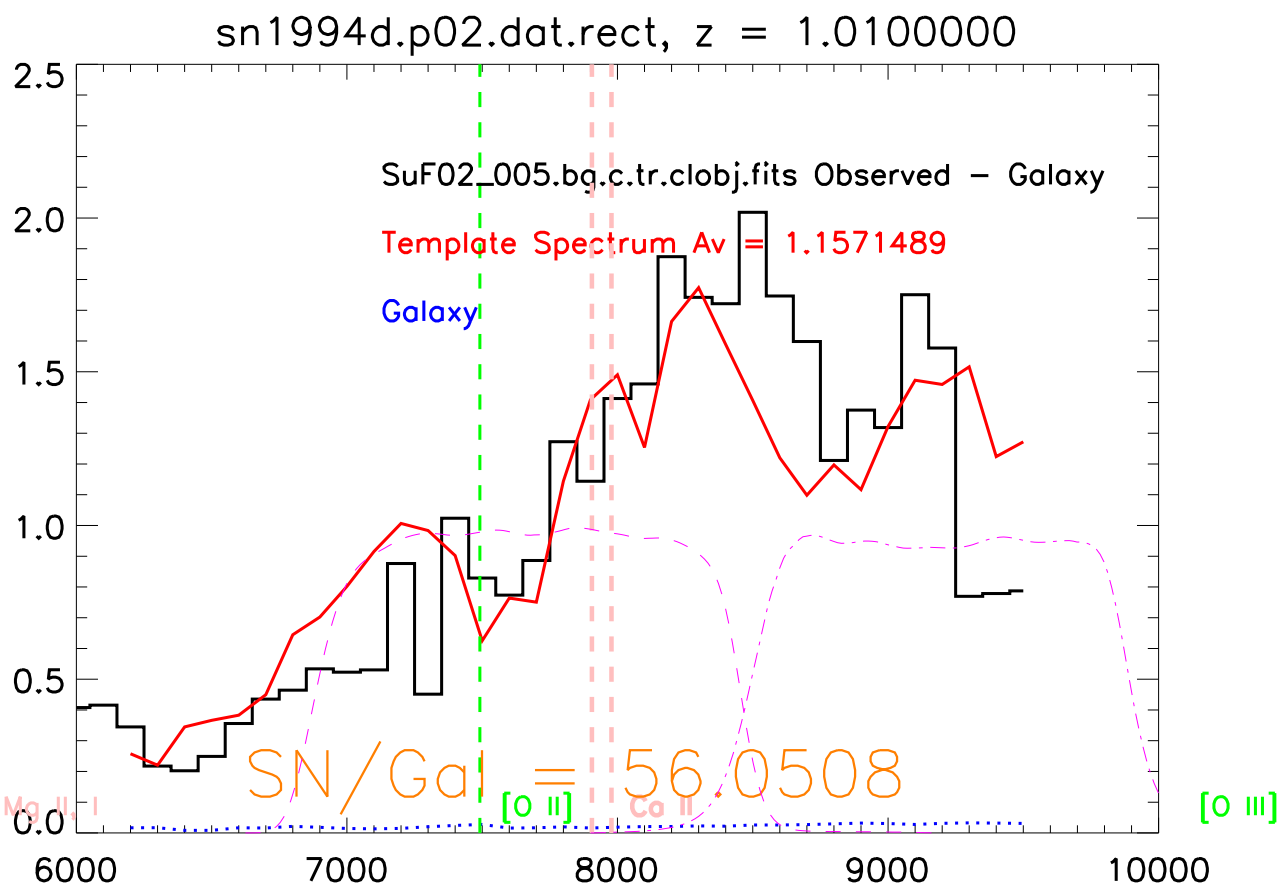

sn1999ee.p33.dat.rect, z = 1.1200000
SuF02_005.bg.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −5.0204801
Galaxy
SN/Gal = 2.33783
Mg II, I
[O II]
Ca II
2.0
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

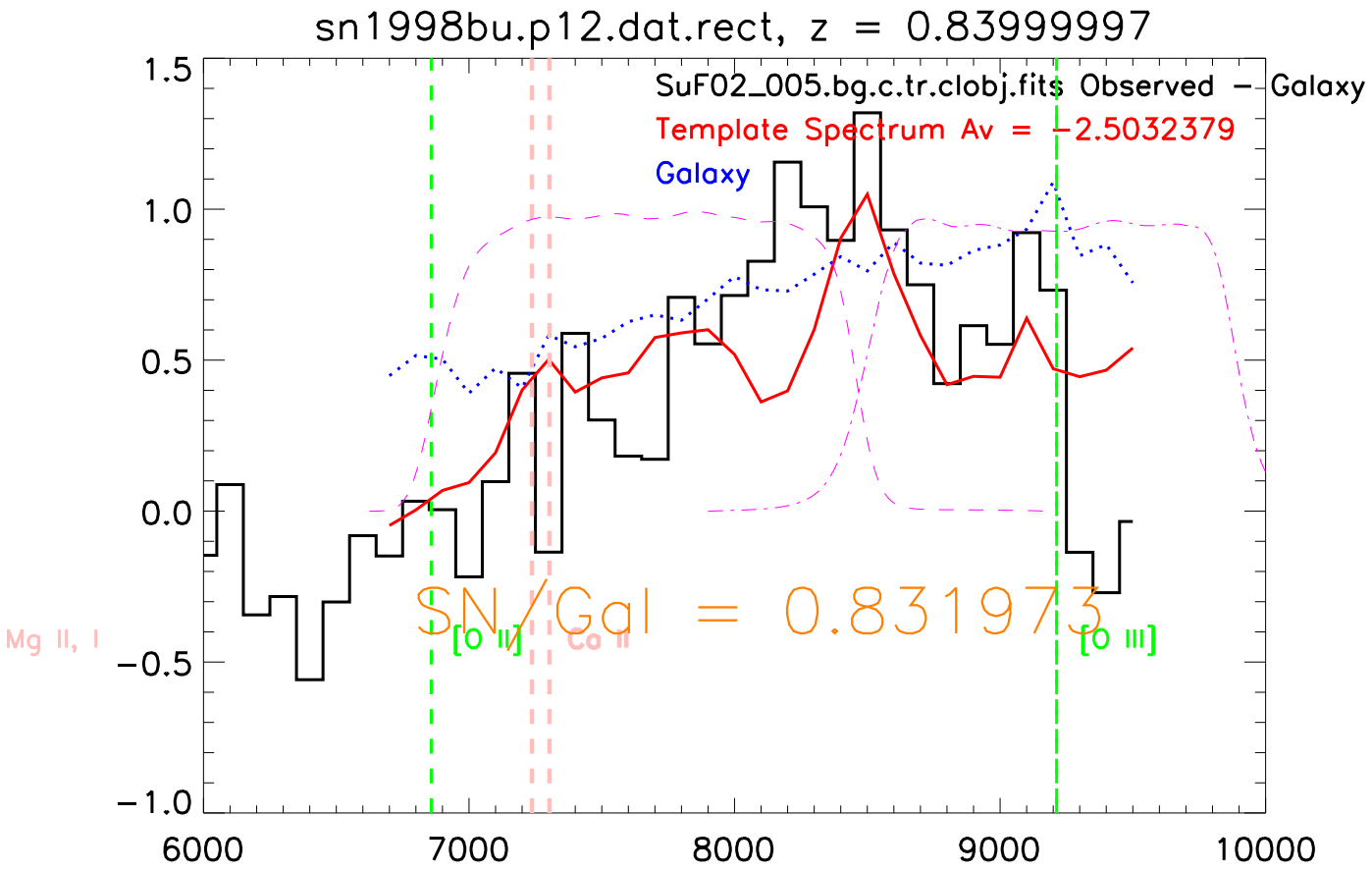

sn1989b.p12.dat.rect, z = 0.83999997
SuF02_005.bg.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −1.2940879
Galaxy
SN/Gal = 0.614850
[O II]
Ca II
[O III]
Mg II, I
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000

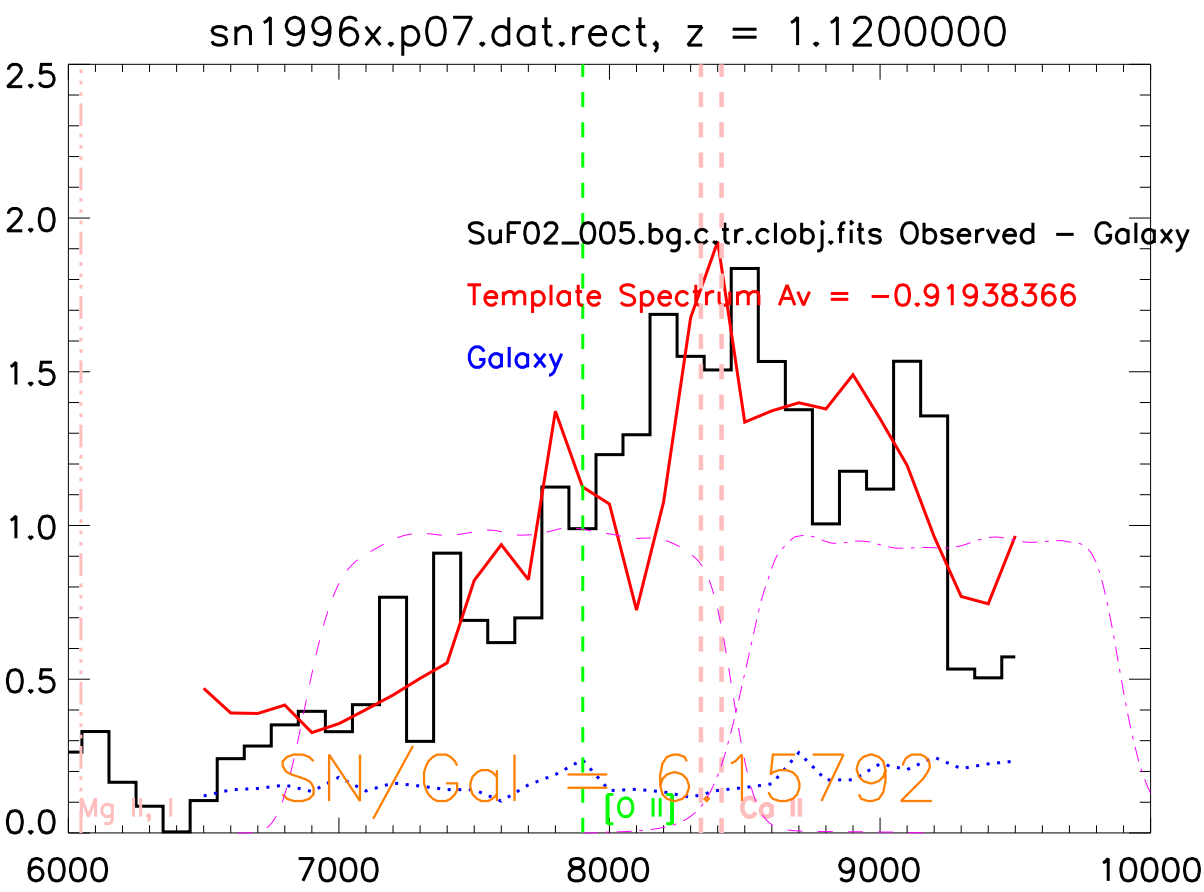

sn1992a.p05.dat.rect, z = 1.0200000
SuF02_005.bg.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = 0.36352407
Galaxy
SN/Gal = 18.1997
[O II]
Ca II
[O III]
2.5
2.0
1.5
1.0
0.5
0.0
6000
7000
8000
9000
10000

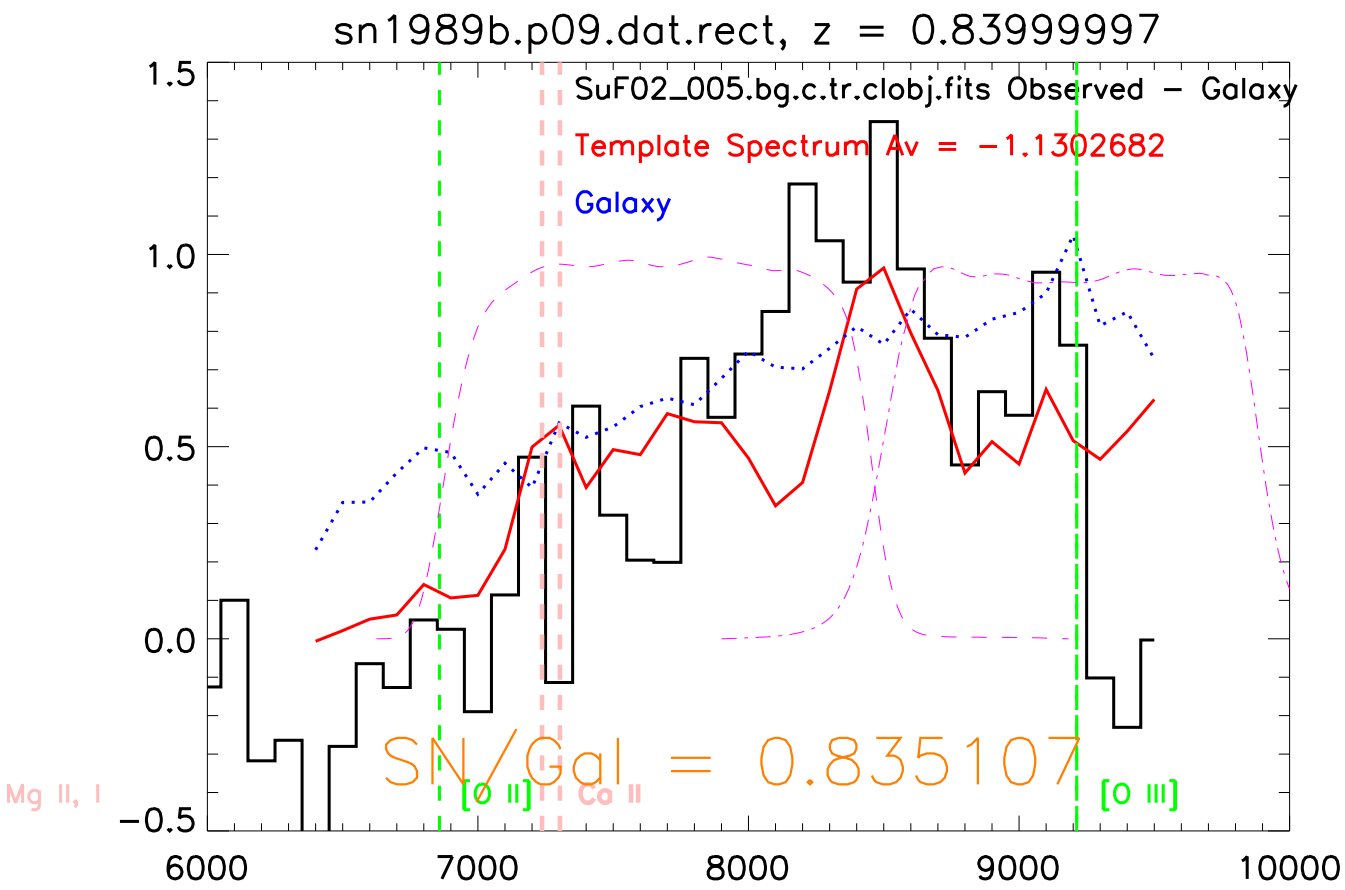

sn1990n.p14.dat.rect, z = 1.1200000
SuF02_005.bg.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −1.3313043
Galaxy
SN/Gal = 3.13581
[O II]
Ca II
Mg II, I
2.0
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

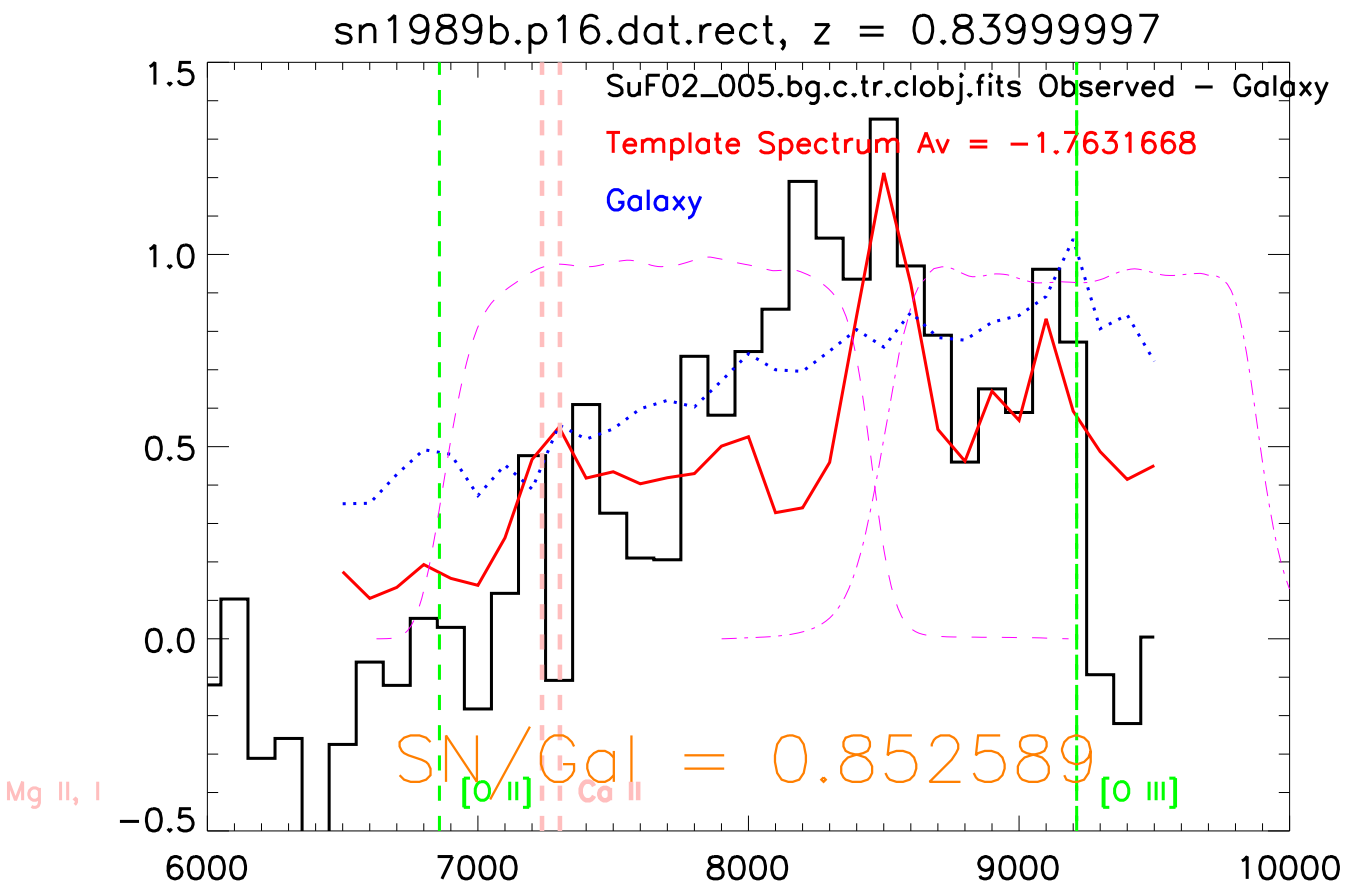

sn1999ee.p28.dat.rect, z = 0.83999997
SuF02_005.bg.c.tr.clobj.fits Observed + Galaxy
Template Spectrum Av = +0.90237190
Galaxy
SN/Gal = 1.36453
Mg II, I
[O II]
Ca II
[O III]
2.0
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

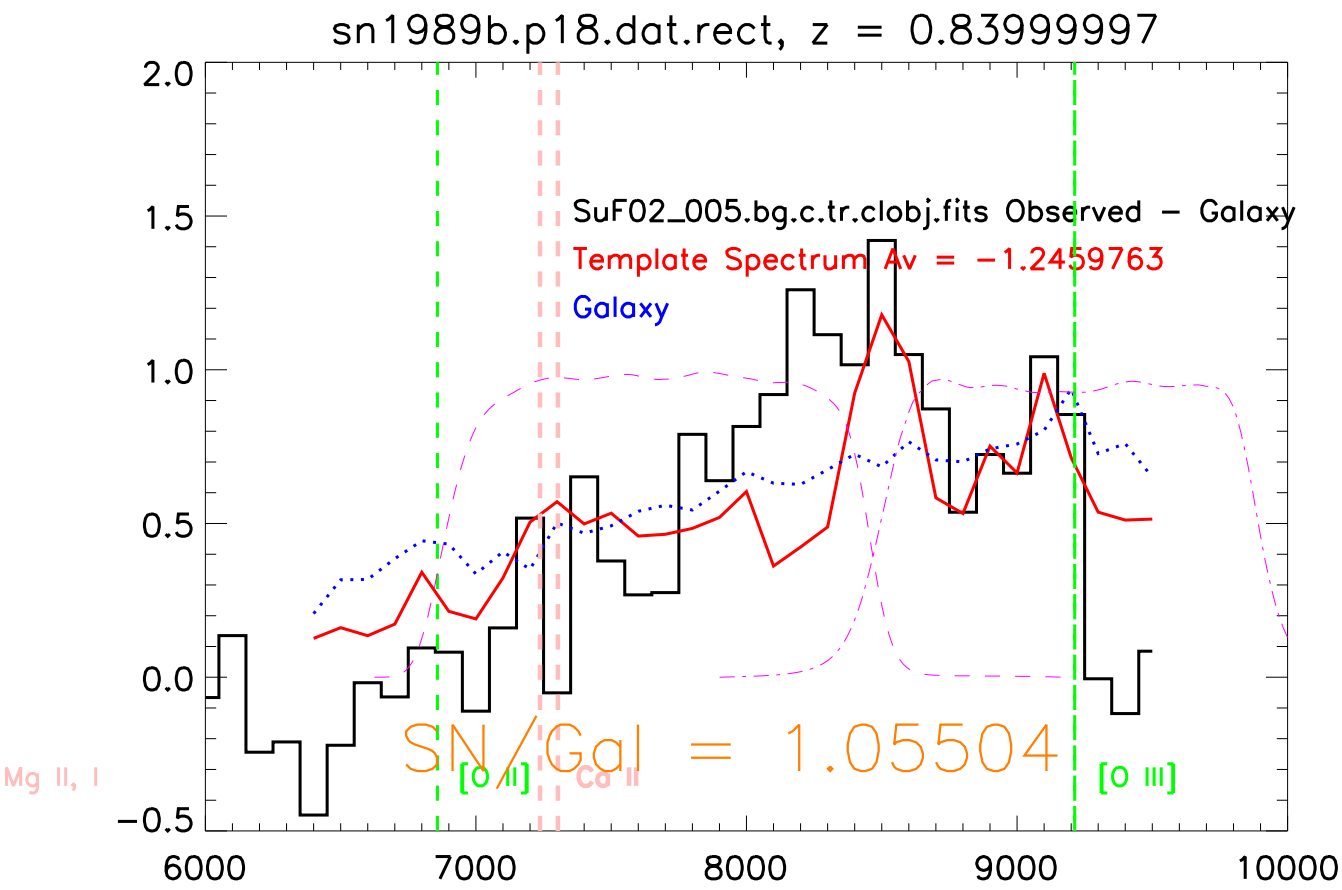

sn1994d.p02.dat.rect, z = 1.0100000
SuF02_005.bg.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = 1.1571489
Galaxy
SN/Gal = 56.0508
[O II]
Ca II
[O III]
2.5
2.0
1.5
1.0
0.5
0.0
6000
7000
8000
9000
10000

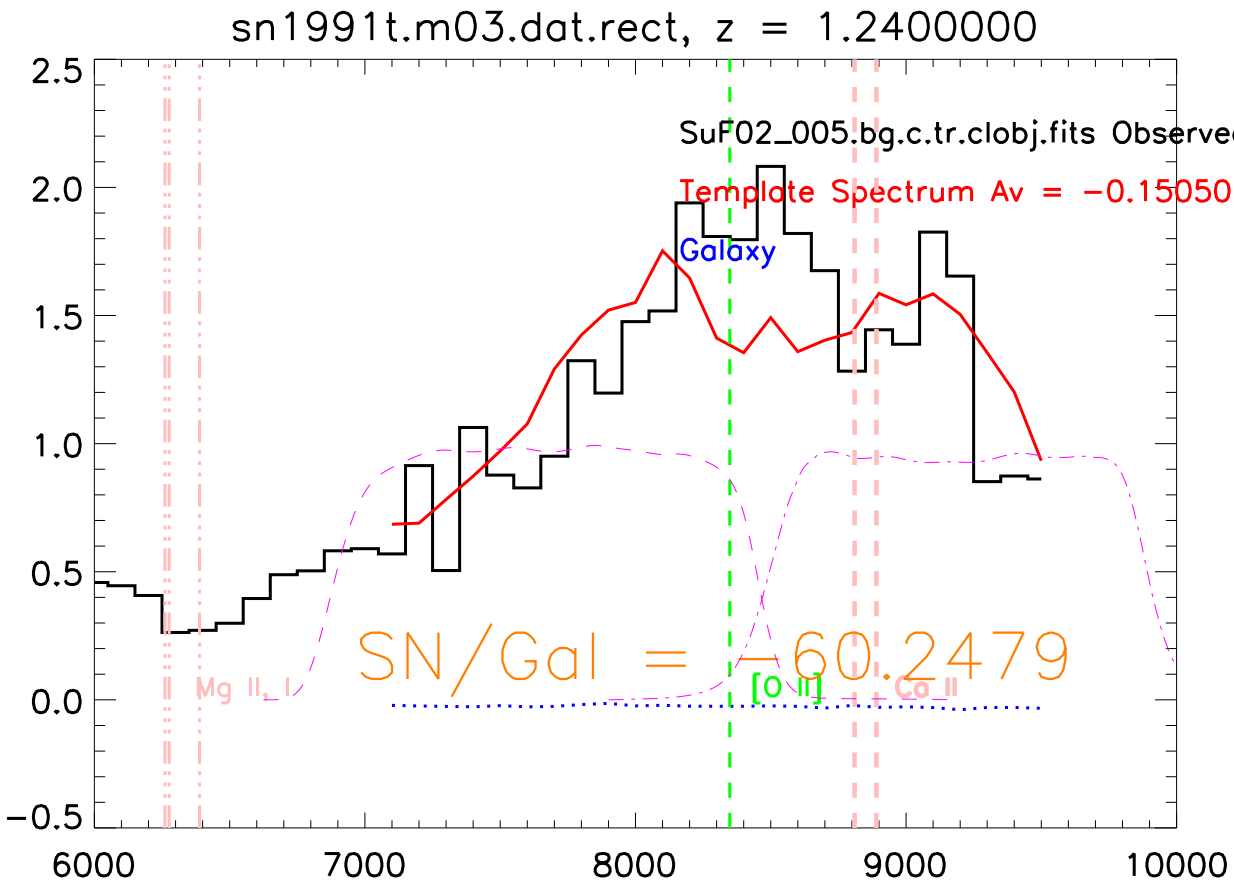

sn1998bu.p12.dat.rect, z = 0.83999997
SuF02_005.bg.c.tr.clobj.fits Observed
Galaxy
Template Spectrum Av = 2.5032379
Galaxy
SN/Gal = 0.831973
[O II]
Co II
[O III]
Mg II, I
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000

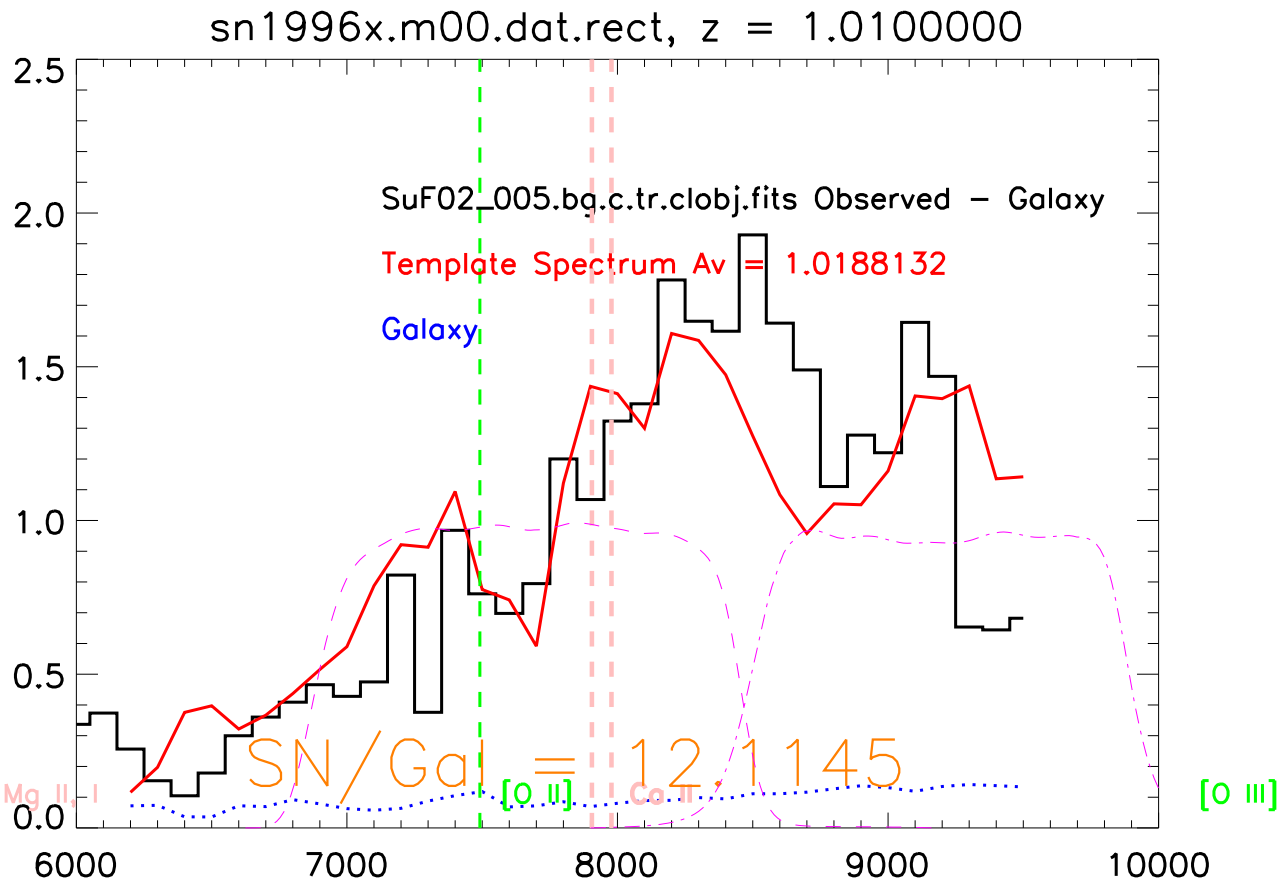

sn1996x.p07.dat.rect, z = 1.1200000
SuF02_005.bg.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −0.91938366
Galaxy
SN/Gal = 6.15792
[O II]
Ca II
2.5
2.0
1.5
1.0
0.5
0.0
6000
7000
8000
9000
10000

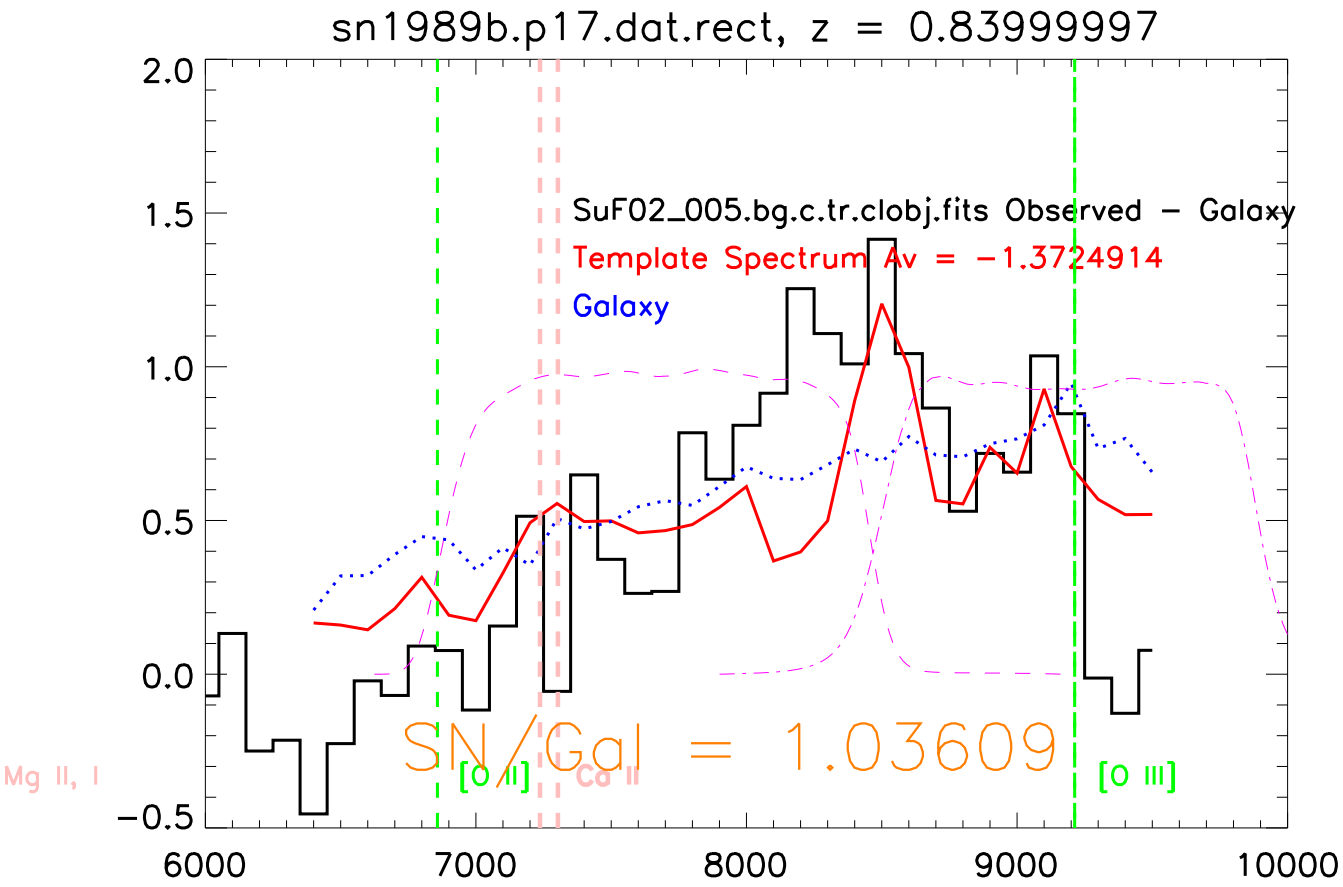

sn1989b.p09.dat.rect, z = 0.83999997
SuF02_005.bg.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −1.1302682
Galaxy
SN/Gal = 0.835107
Mg II, I
[O II]
Ca II
[O III]
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

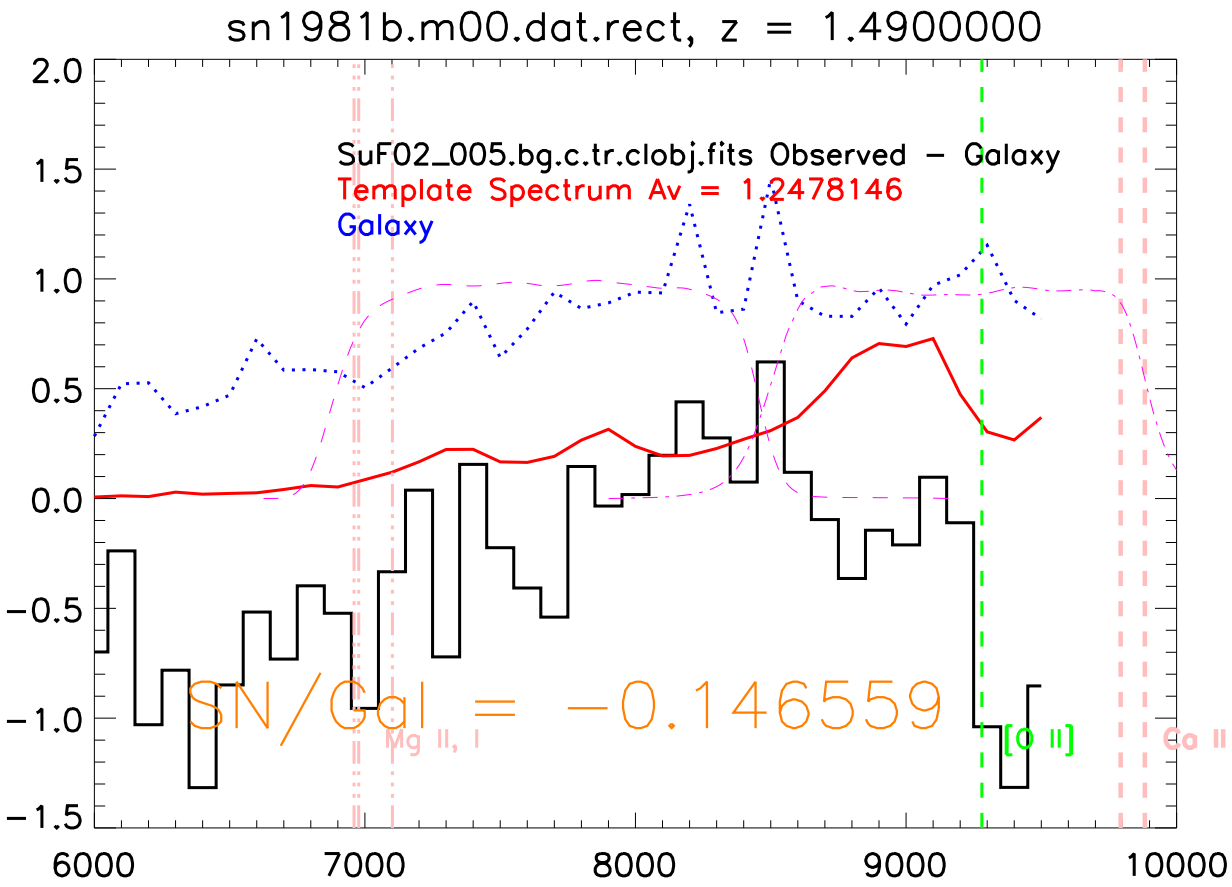

sn1989b.p16.dat.rect, z = 0.83999997
SuF02_005.bg.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −1.7631668
Galaxy
SN/Gal = 0.852589
[O II]
Ca II
[O III]
Mg II, I
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

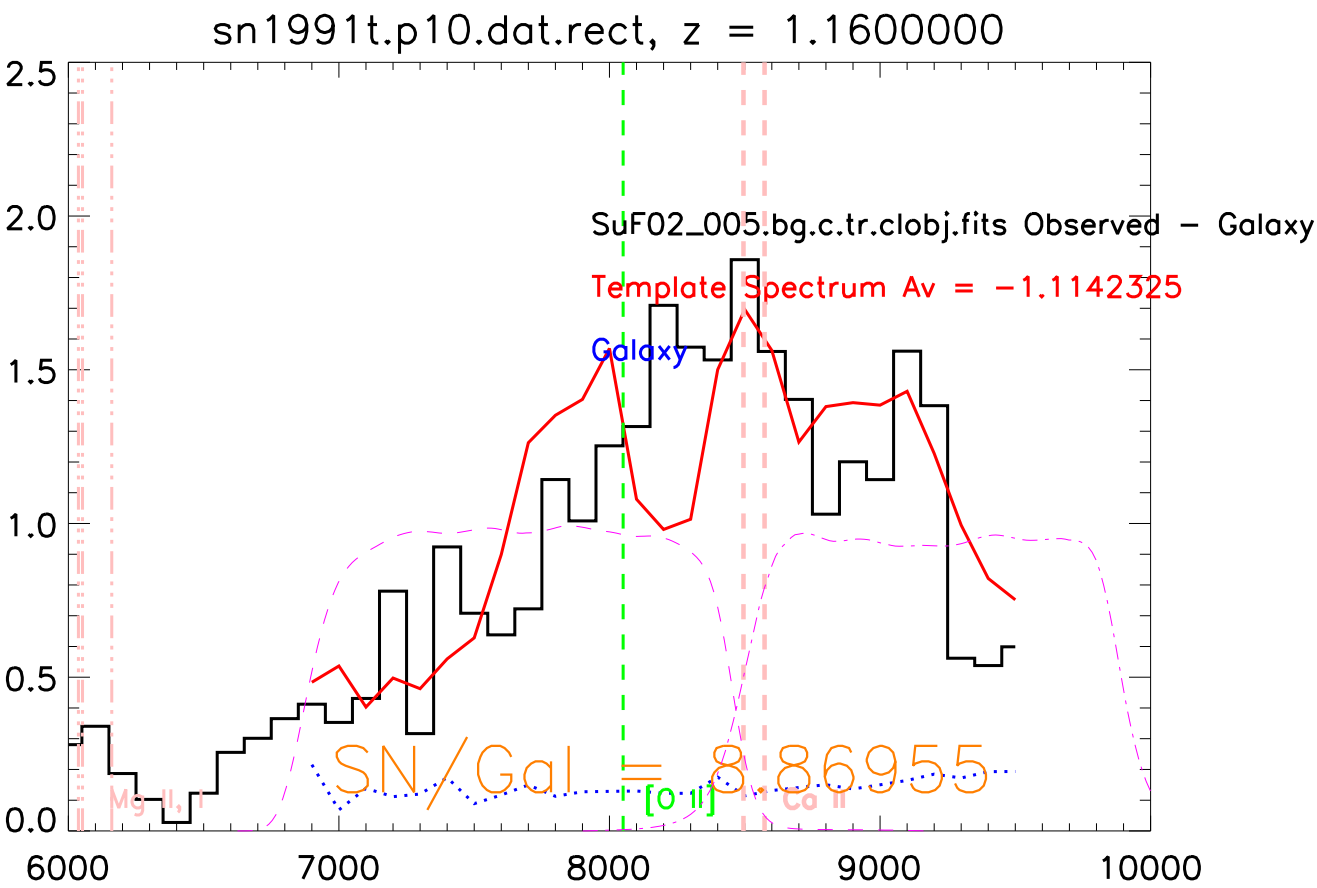

sn1989b.p18.dat.rect, z = 0.83999997
SuF02_005.bg.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −1.2459763
Galaxy
SN/Gal = 1.05504
Mg II, I
[O II]
Ca II
[O III]
2.0
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

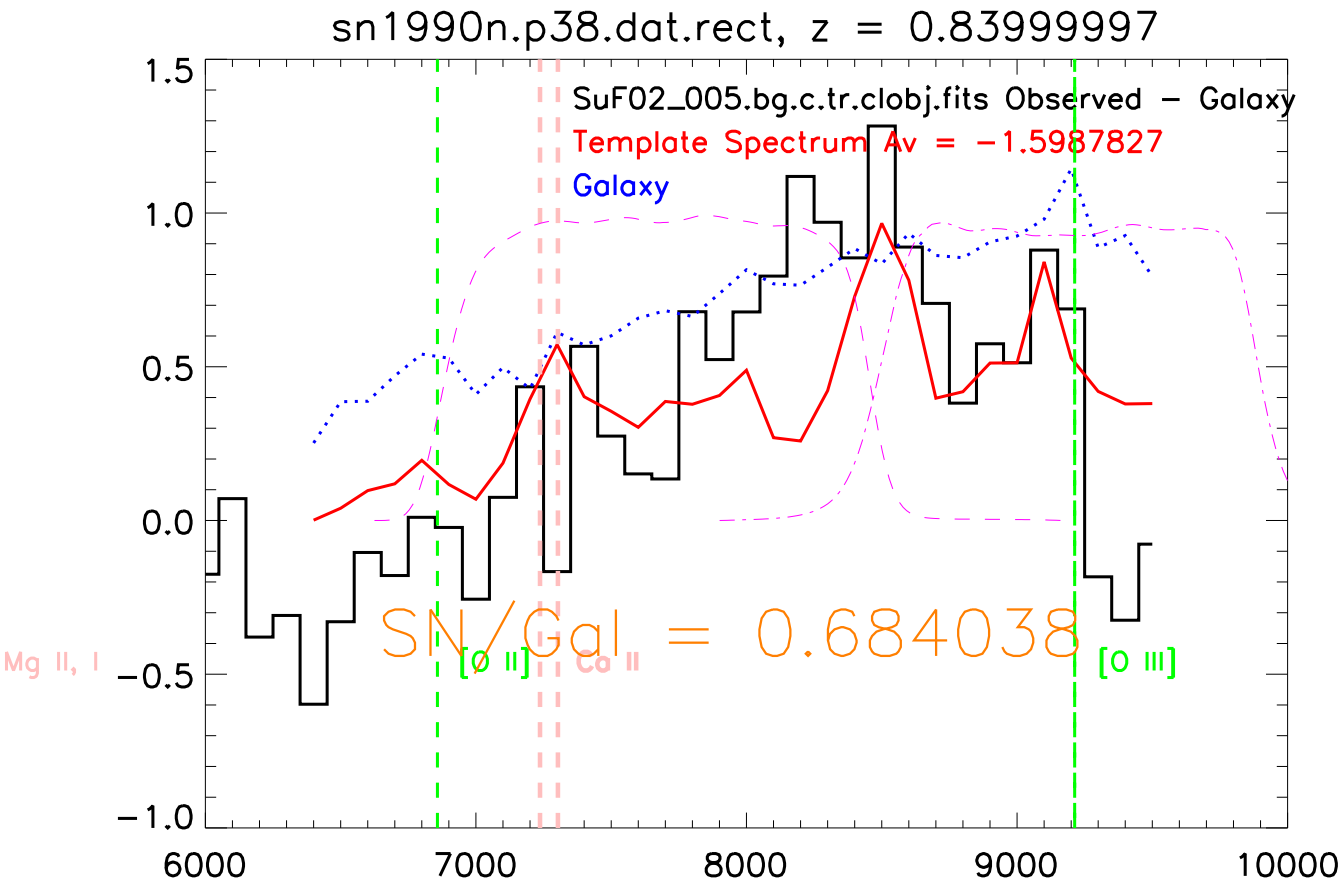

sn1991t.m03.dat.rect, z = 1.2400000
SuF02_005.bg.c.tr.clobj.fits Observed – Galax
Template Spectrum Av = −0.15050610
Galaxy
SN/Gal = 60.2479
Mg II, I
[O II]
Ca II
2.5
2.0
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

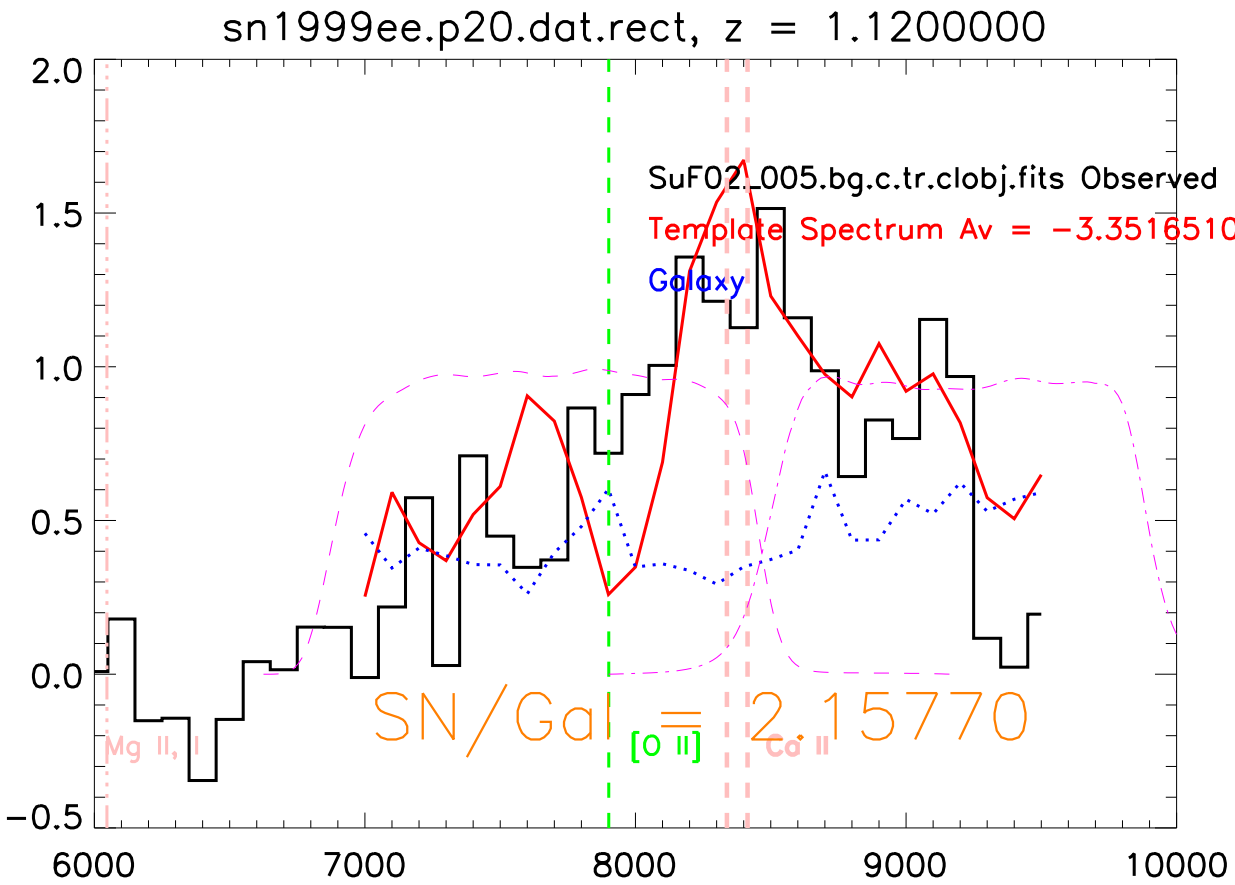

sn1996x.m00.dat.rect, z = 1.0100000
SuF02_005.bg.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = 1.0188132
Galaxy
SN/Gal = 12.1145
Mg II
[O II]
Ca II
[O III]
2.5
2.0
1.5
1.0
0.5
0.0
6000
7000
8000
9000
10000

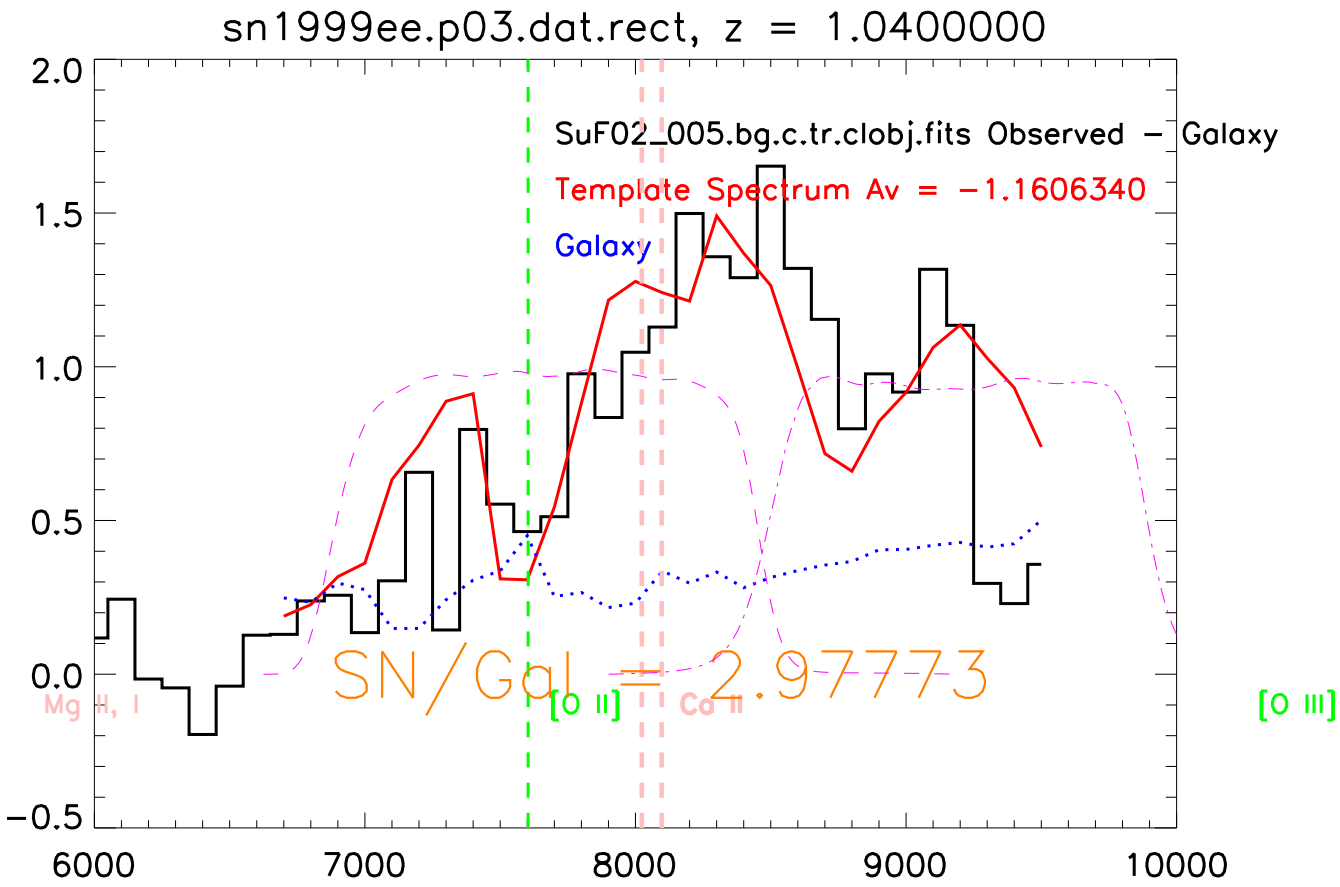

sn1989b.p17.dat.rect, z = 0.83999997
SuF02_005.bg.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −1.3724914
Galaxy
SN/Gal = 1.03609
[O II]
Ca II
[O III]
Mg II, I
2.0
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

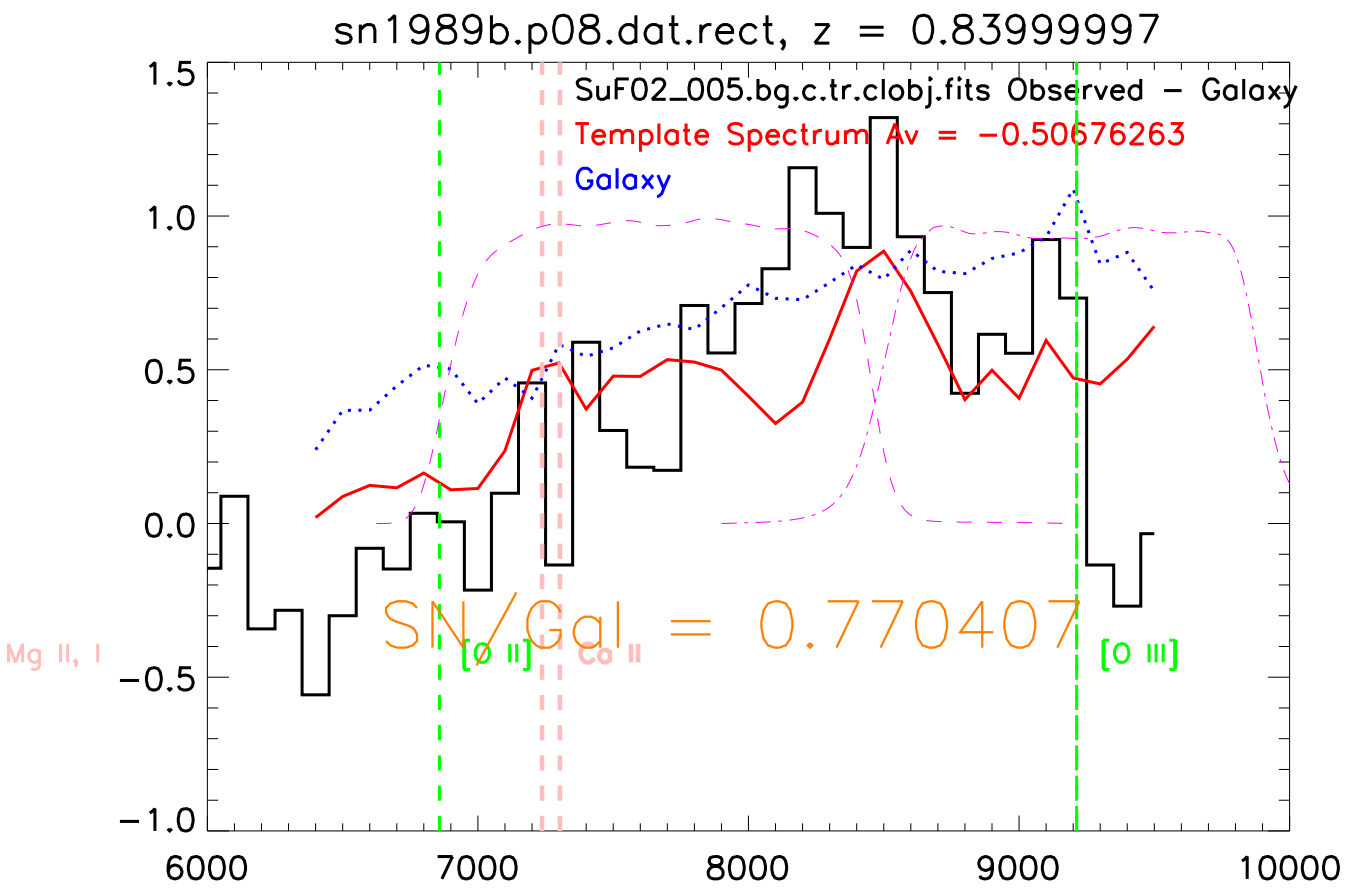

sn1981b.m00.dat.rect, z = 1.4900000
SuF02_005.bg.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = 1.2478146
Galaxy
SN/Gal = −0.146559
Mg II, I
[O II]
Ca II
2.0
1.5
1.0
0.5
0.0
−0.5
−1.0
−1.5
6000
7000
8000
9000
10000

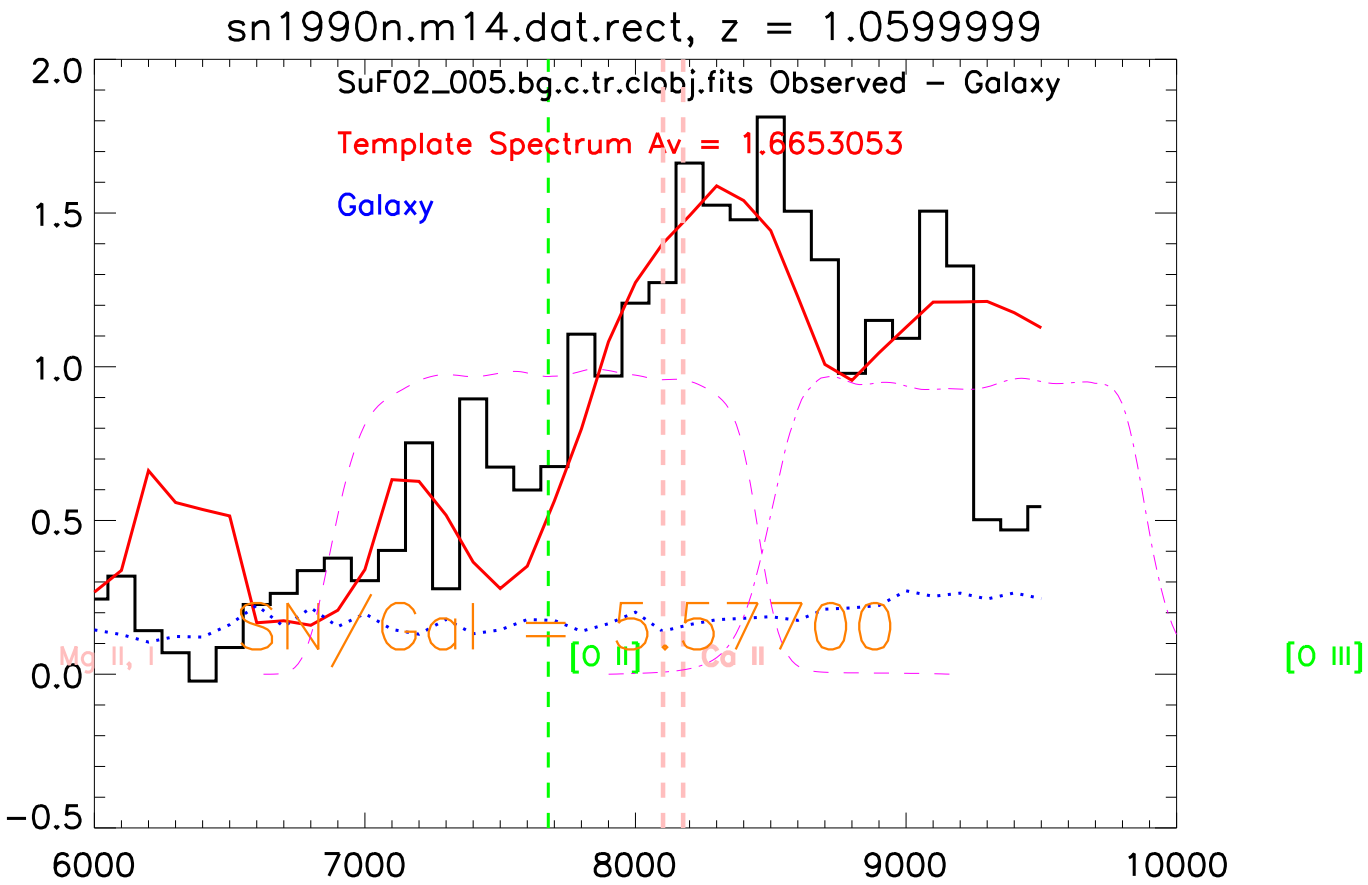

sn1991t.p10.dat.rect, z = 1.1600000
SuF02_005.bg.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = -1.1142325
Galaxy
SN/Gal = 8.86955
[O II]
Ca II
Mg II, I
2.5
2.0
1.5
1.0
0.5
0.0
6000
7000
8000
9000
10000

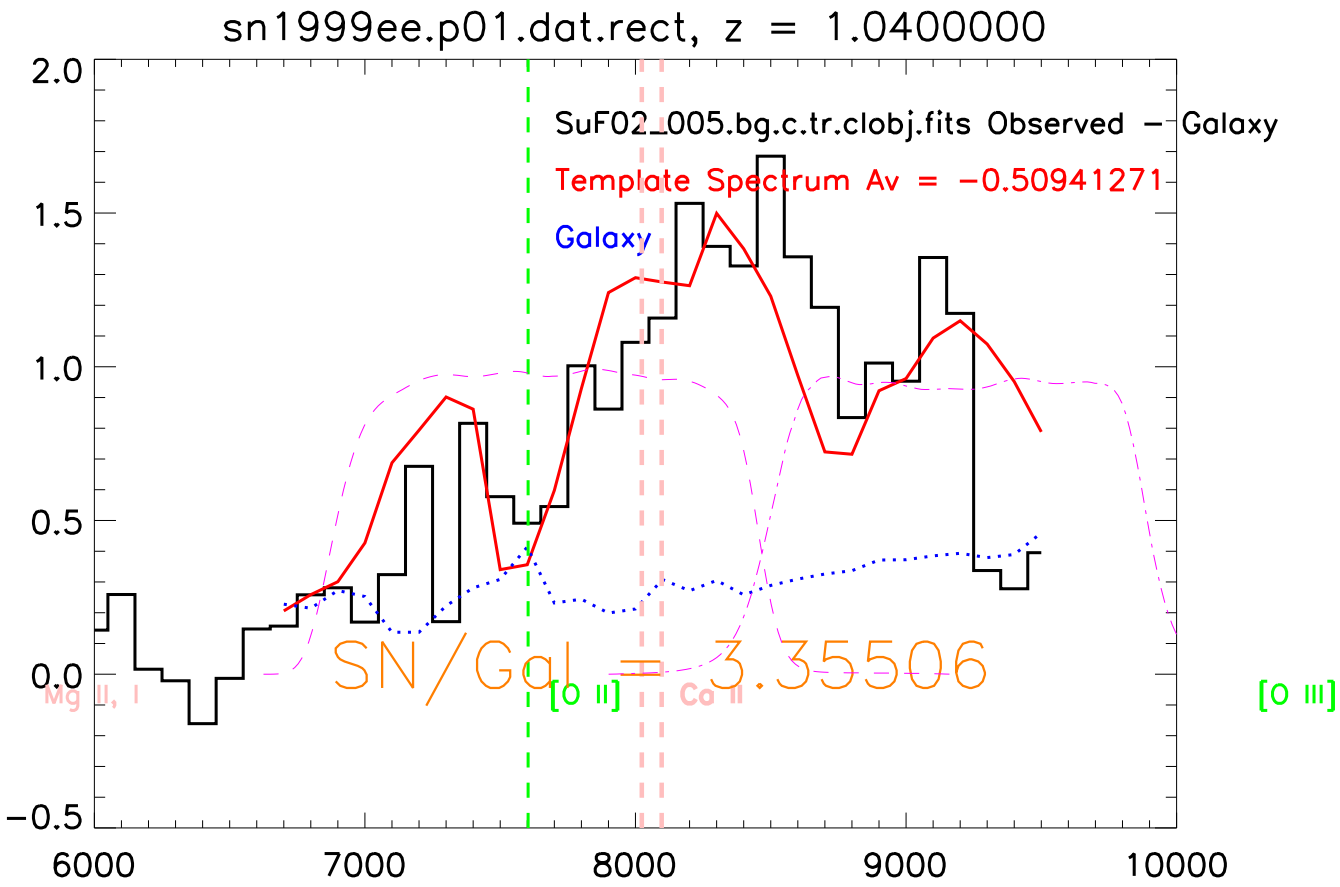

sn1990n.p38.dat.rect, z = 0.83999997
SuF02_005.bg.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −1.5987827
Galaxy
SN/Gal = 0.684038
Mg II, I
[O II]
Ca II
[O III]
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000

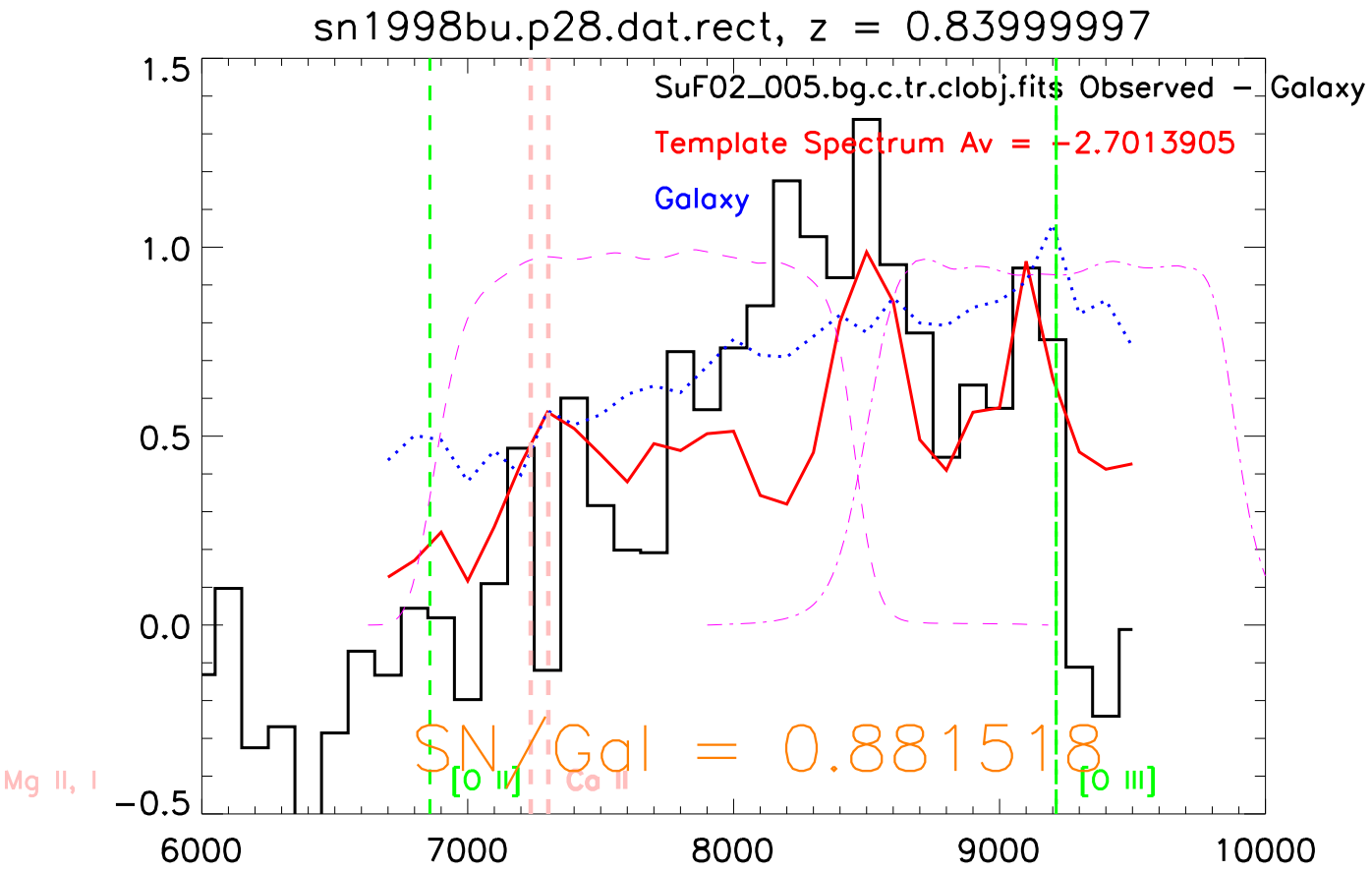

sn1999ee.p20.dat.rect, z = 1.1200000
SuF02_005.bg.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = −3.3516510
Galaxy
SN/Gal = 2.15770
Mg II, I
[O II]
Ca II
2.0
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

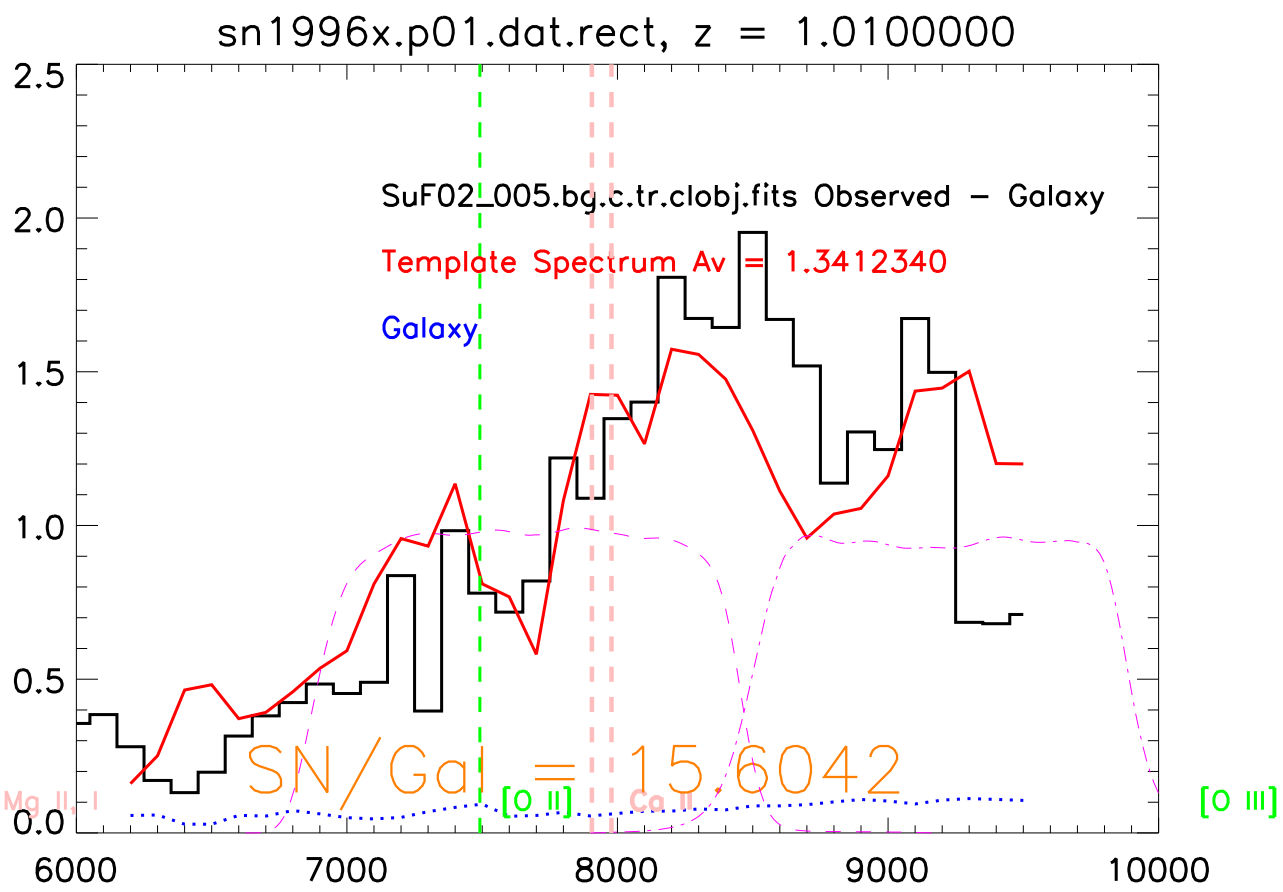

sn1999ee.p03.dat.rect, z = 1.0400000
SuF02_005.bg.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = −1.1606340
Galaxy
SN/Gal = 2.97773
Mg II, I
[O II]
Ca II
[O III]
2.0
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

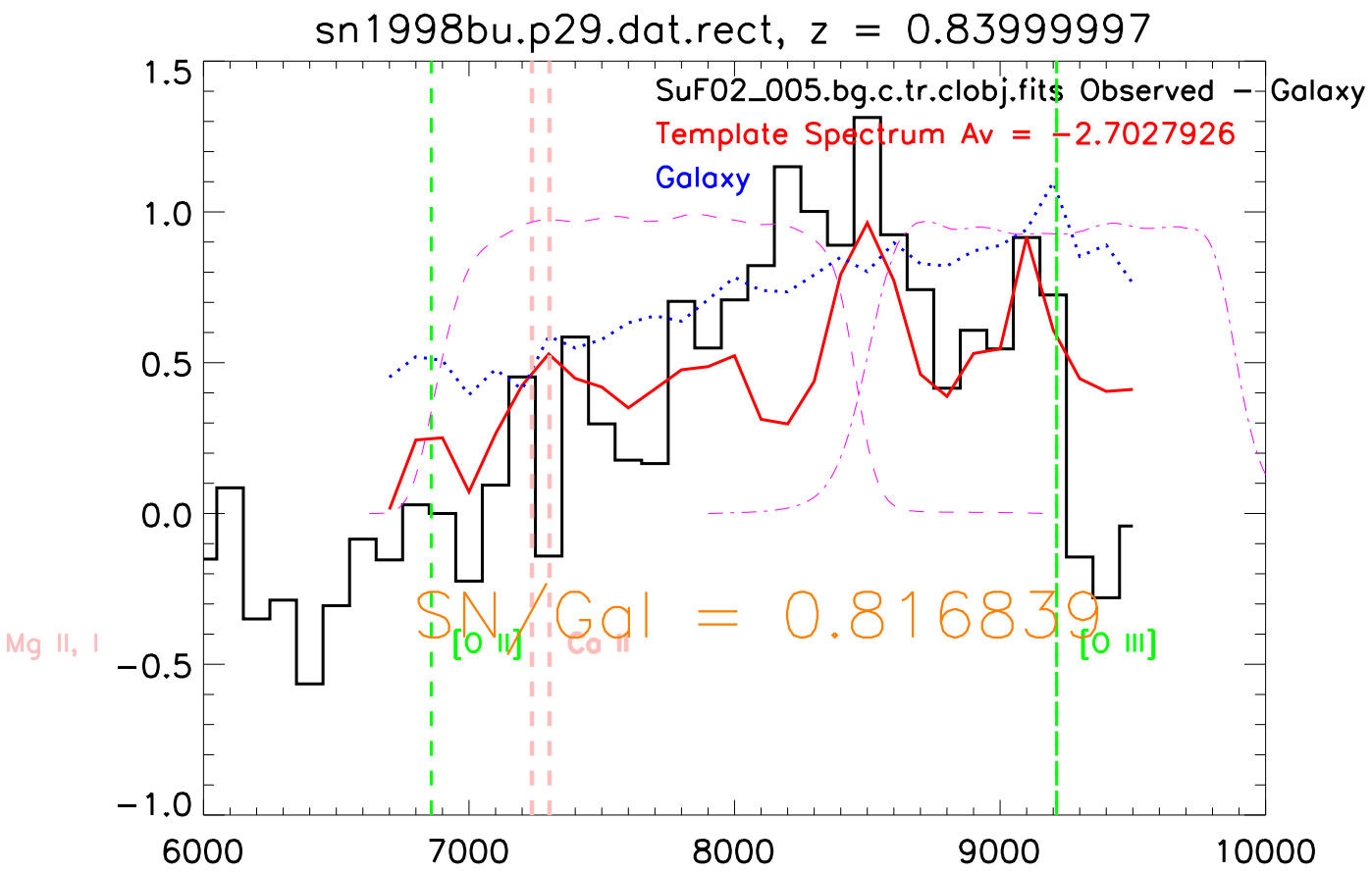

sn1989b.p08.dat.rect, z = 0.83999997
SuF02_005.bg.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −0.50676263
Galaxy
SN/Gal = 0.770407
Mg II, I
[O II]
Ca II
[O III]
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000

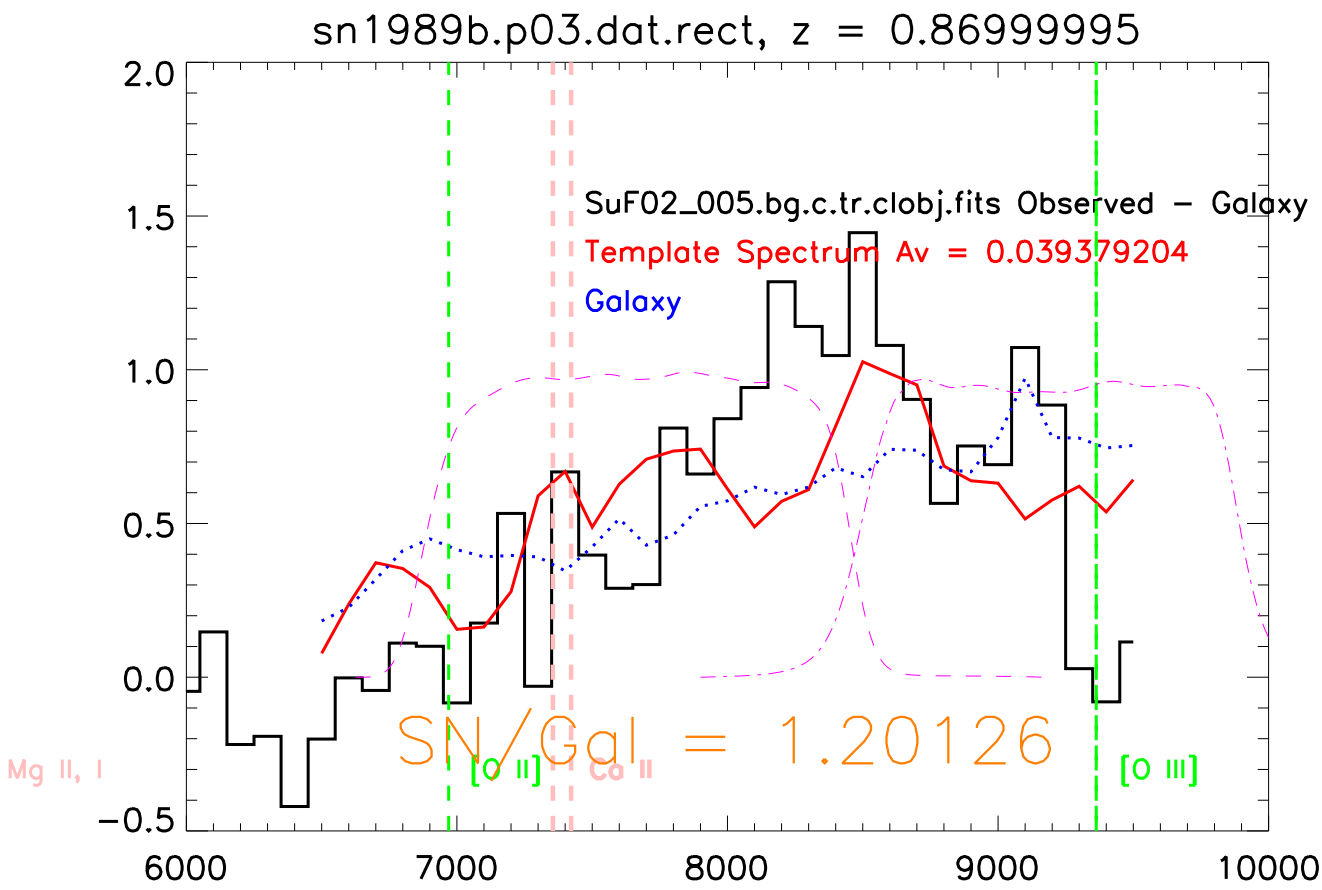

sn1990n.m14.dat.rect, z = 1.0599999
SuF02_005.bg.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = 1.6653053
Galaxy
SN/Gal = 5.57700
Mg II, I
[O II]
Ca II
[O III]
2.0
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

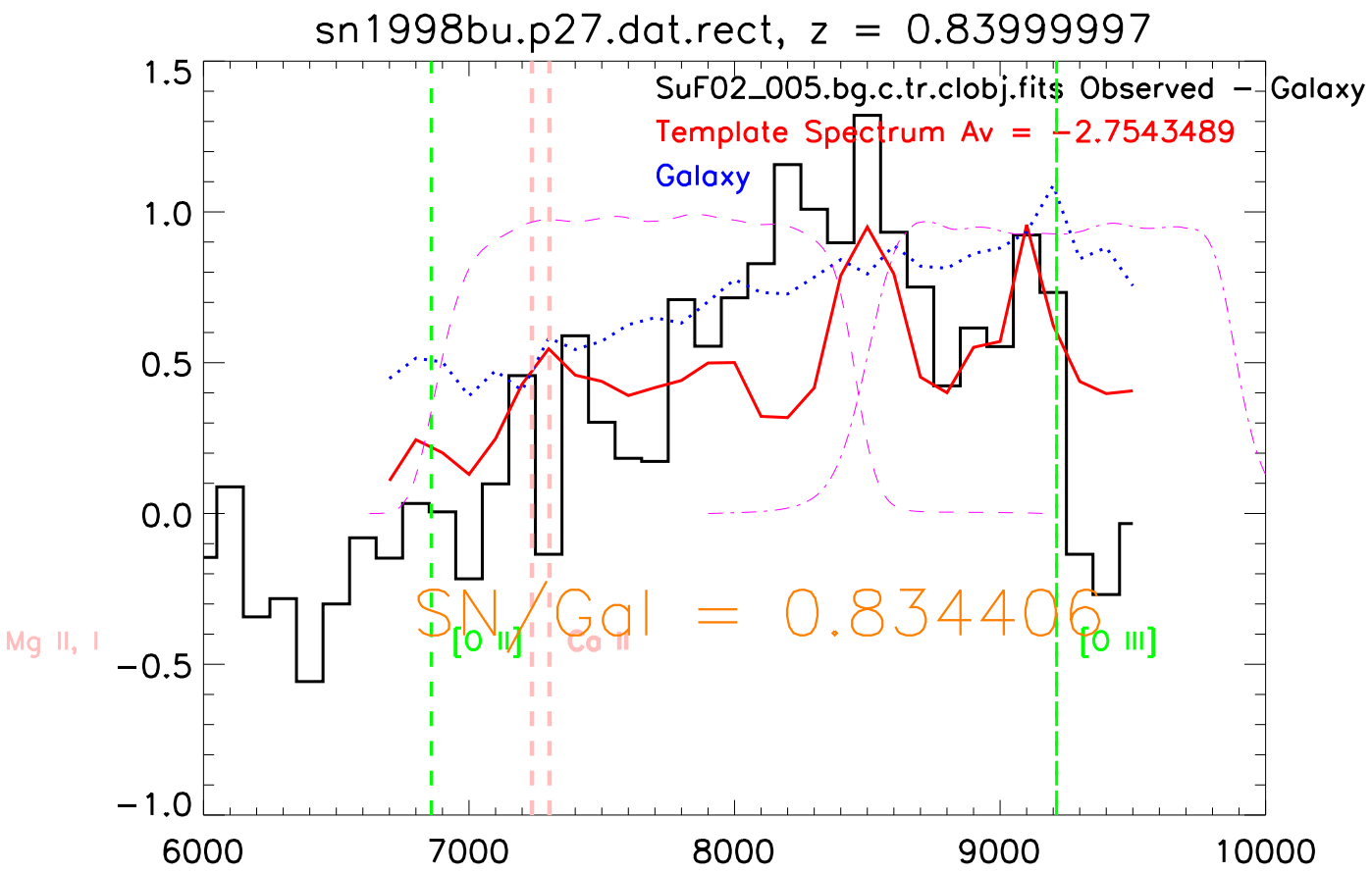

sn1999ee.p01.dat.rect, z = 1.0400000
SuF02_005.bg.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = −0.50941271
Galaxy
SN/Gal = 3.35506
Mg II, I
[O II]
Ca II
[O III]
2.0
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

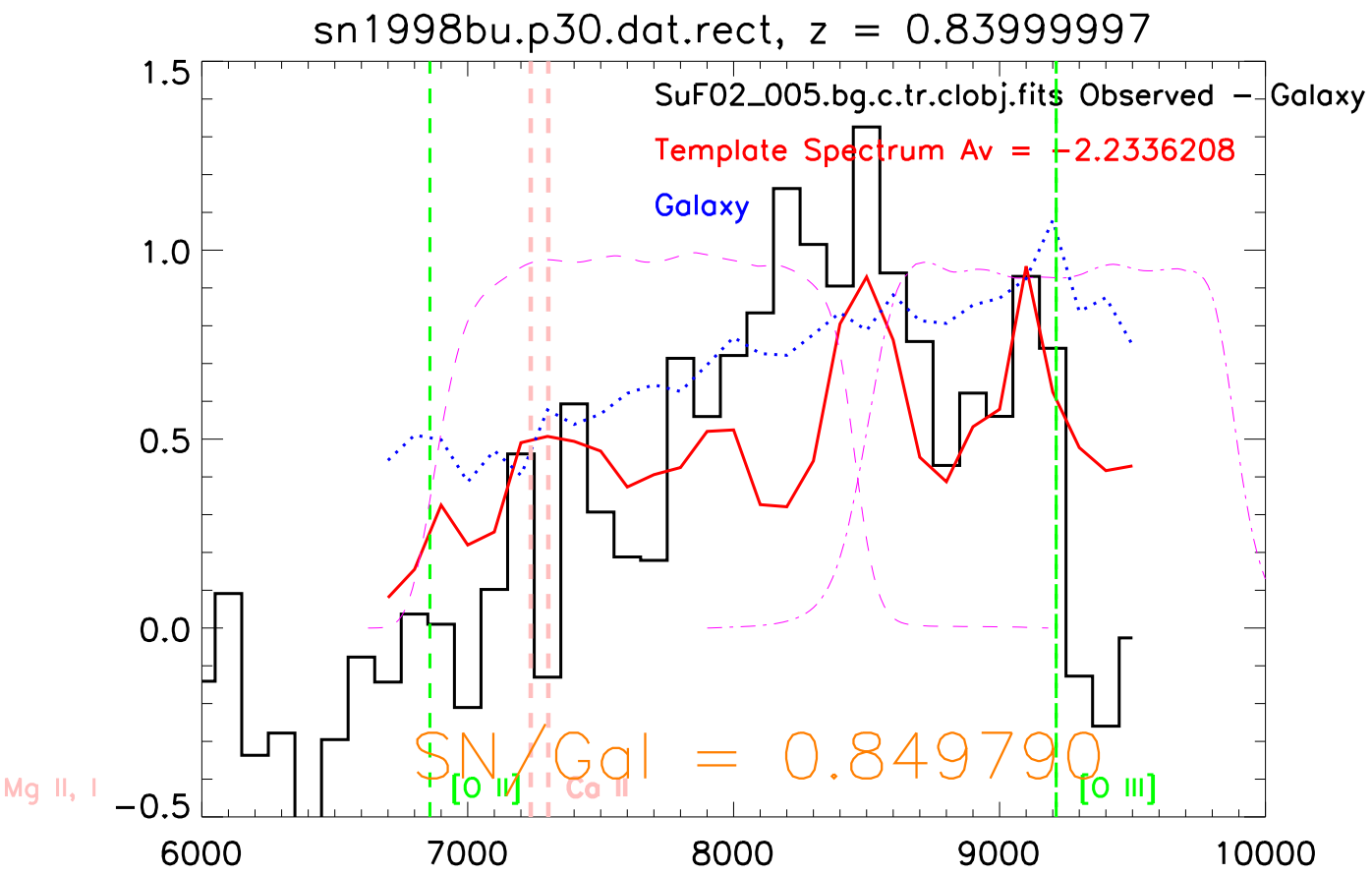

sn1998bu.p28.dat.rect, z = 0.83999997
SuF02_005.bg.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = 2.7013905
Galaxy
SN/Gal = 0.881518
Mg II, I
[O II]
Ca II
[O III]
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

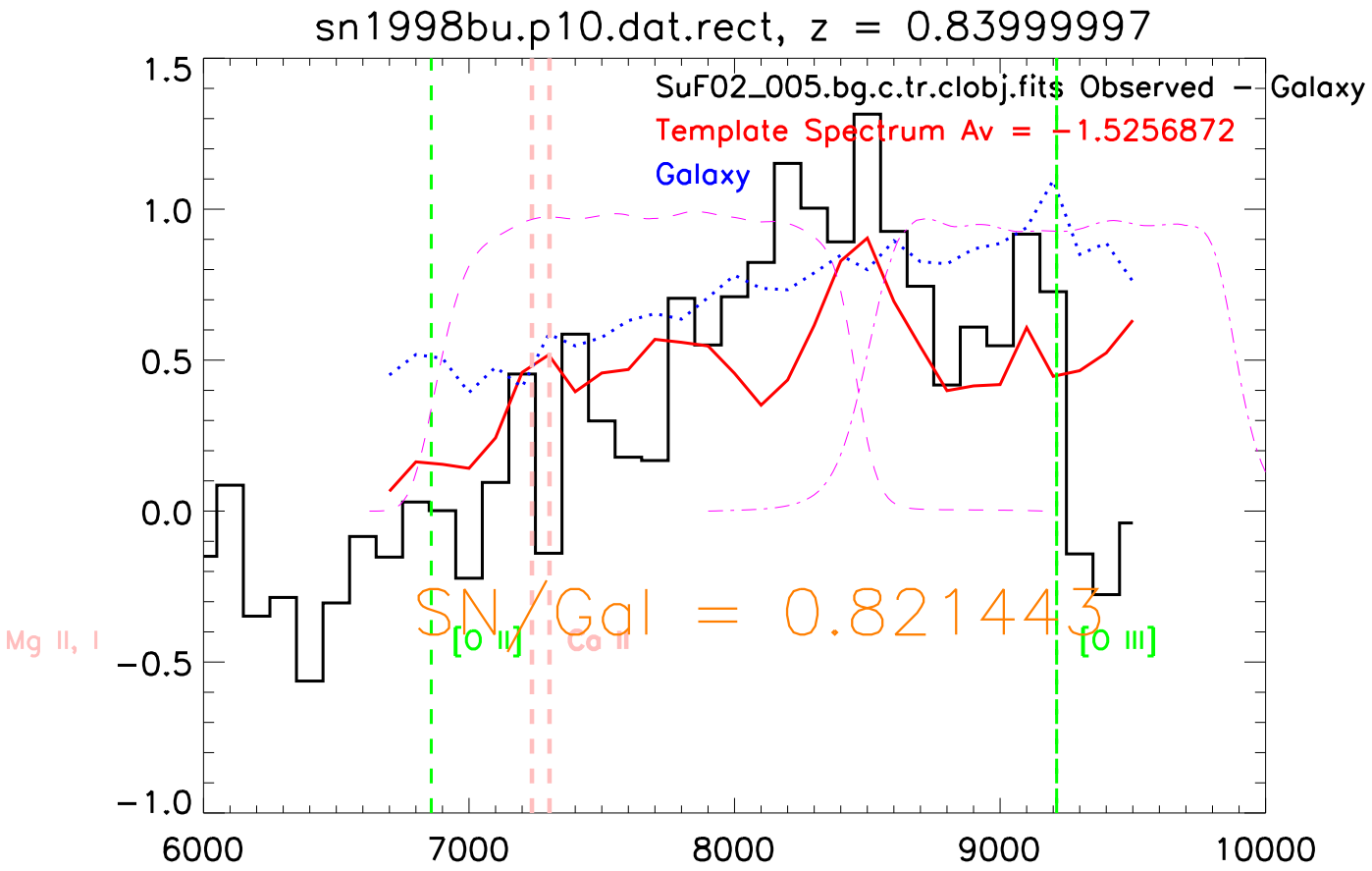

sn1996x.p01.dat.rect, z = 1.0100000
SuF02_005.bg.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = 1.3412340
Galaxy
SN/Gal = 15.6042
Mg II
[O II]
Ca II
[O III]
2.5
2.0
1.5
1.0
0.5
0.0
6000
7000
8000
9000
10000

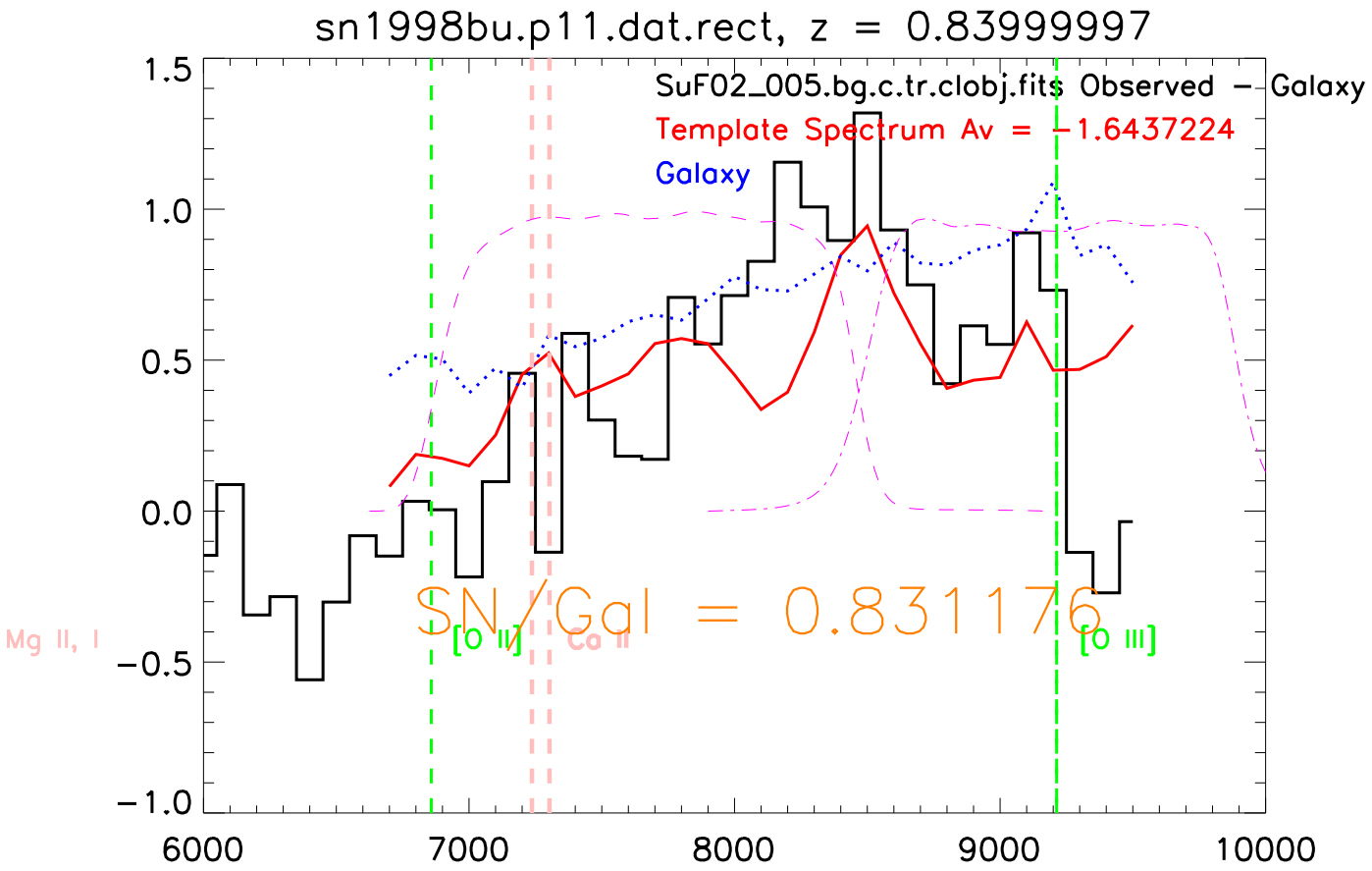

sn1998bu.p29.dat.rect, z = 0.83999997
SuF02_005.bg.c.tr.clobj.fits Observed
Galaxy
Template Spectrum Av = 2.7027926
Galaxy
SN/Gal = 0.816839
[O II]
Ca II
[O III]
Mg II, I
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000

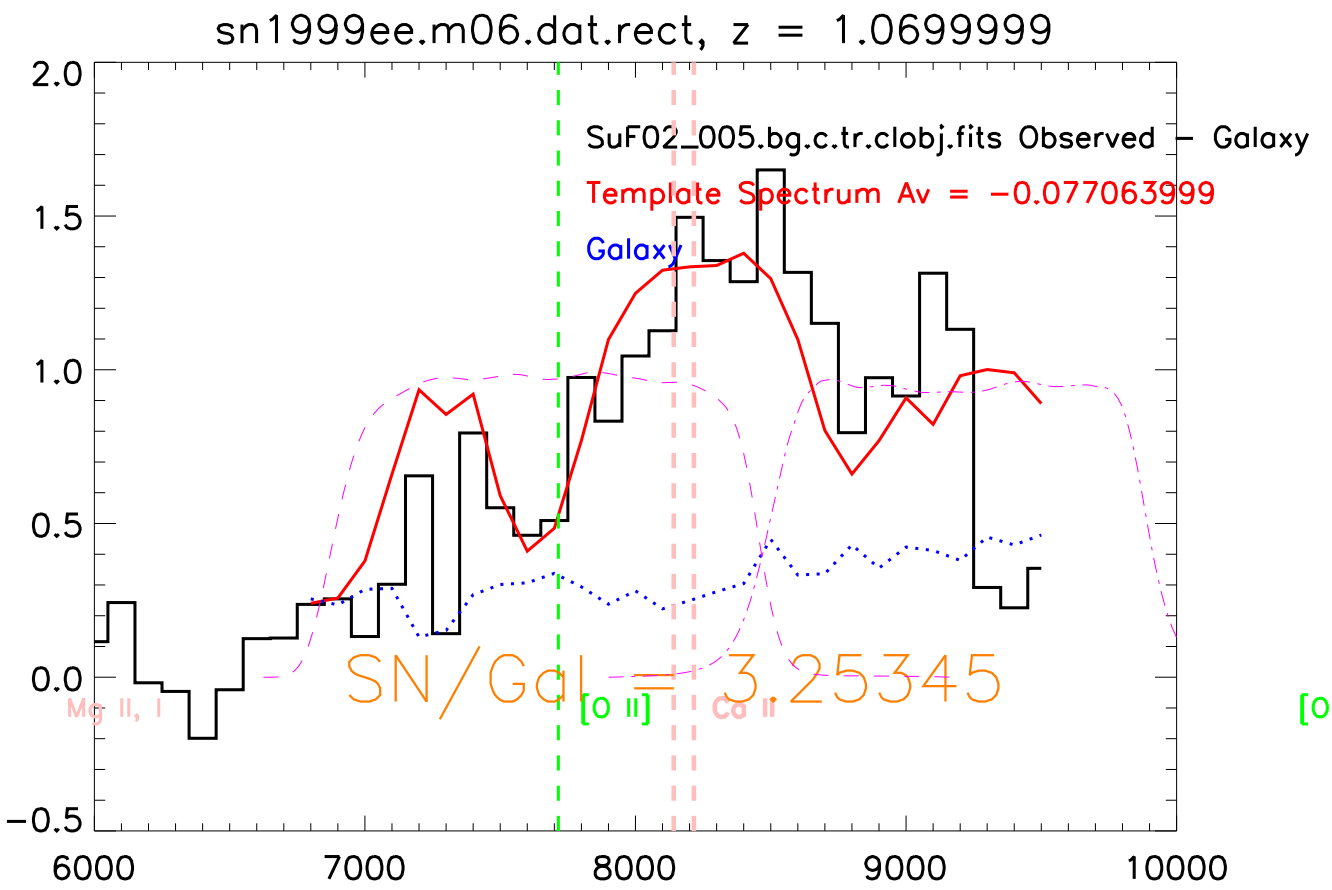

sn1989b.p03.dat.rect, z = 0.86999995
SuF02_005.bg.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = 0.039379204
Galaxy
SN/Gal = 1.20126
Mg II, I
[O II]
Ca II
[O III]
2.0
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

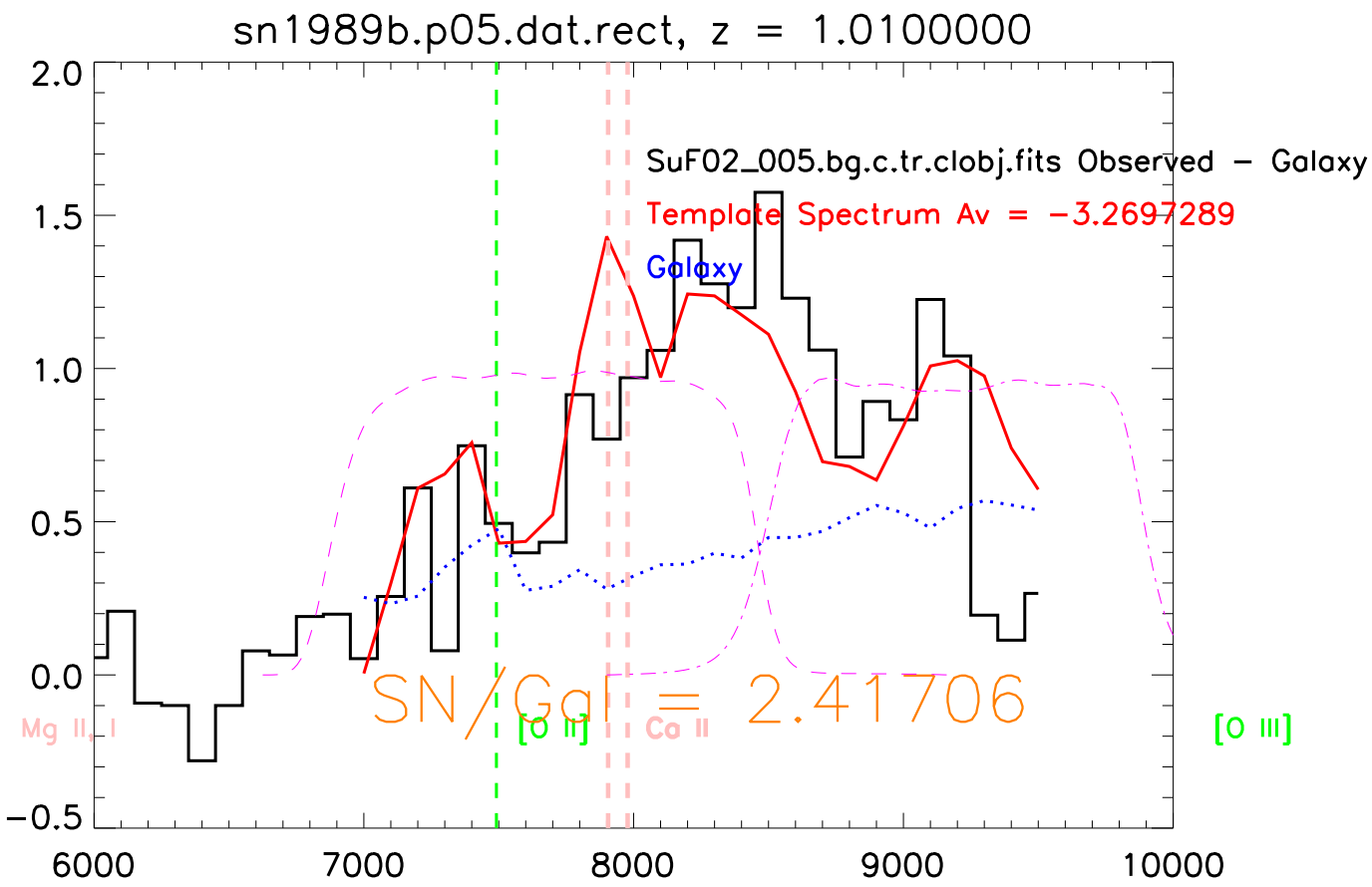

sn1998bu.p27.dat.rect, z = 0.83999997
SuF02_005.bg.c.tr.clobj.fits Observed
Galaxy
Template Spectrum Av = 2.7543489
Galaxy
SN/Gal = 0.834406
[O II]
Ca II
[O III]
Mg II, I
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000

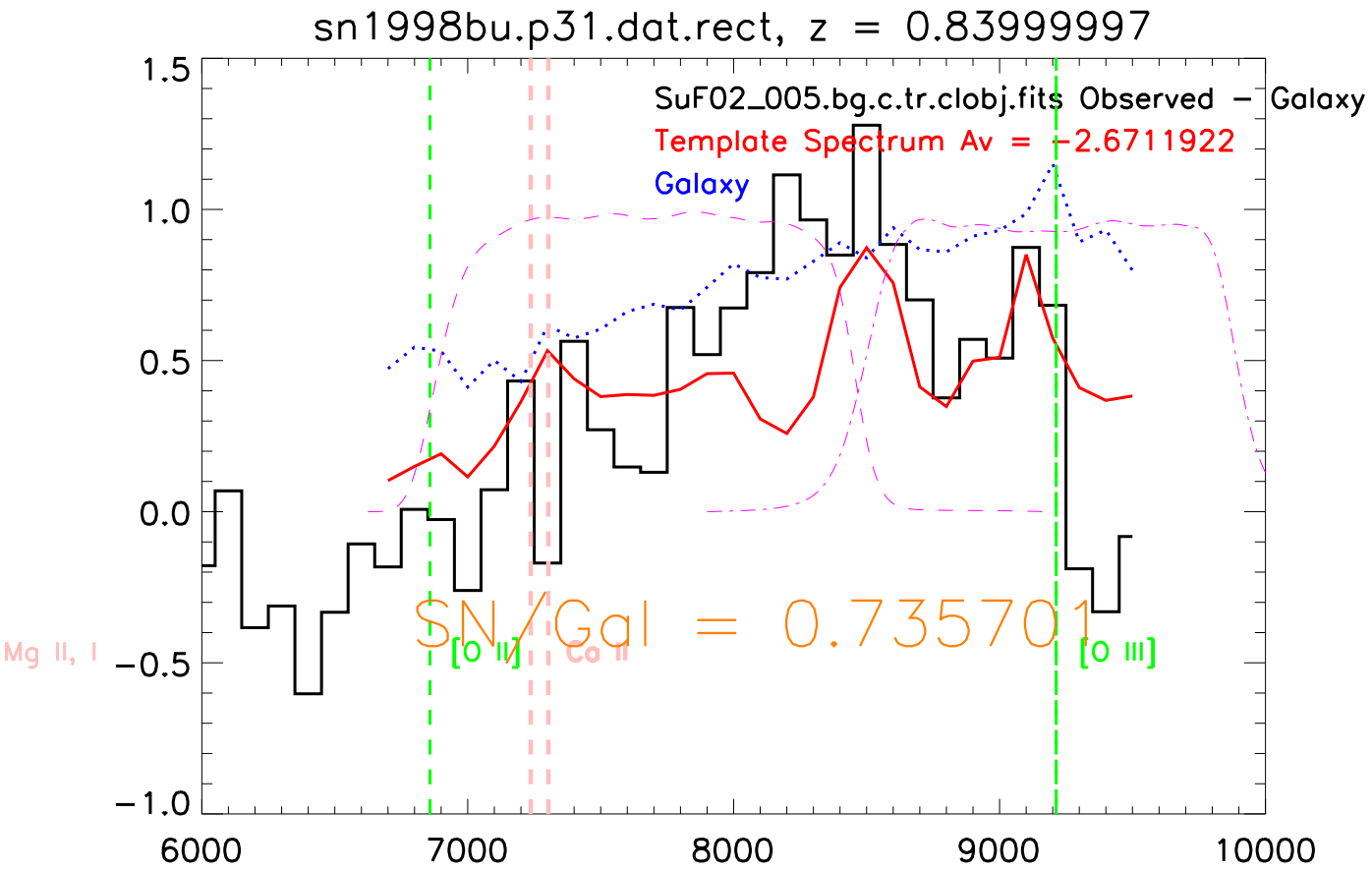

sn1998bu.p30.dat.rect, z = 0.83999997
SuF02_005.bg.c.tr.clobj.fits Observed
Galaxy
Template Spectrum Av = 2.2336208
Galaxy
SN/Gal = 0.849790
Mg II, I
[O II]
Ca II
[O III]
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

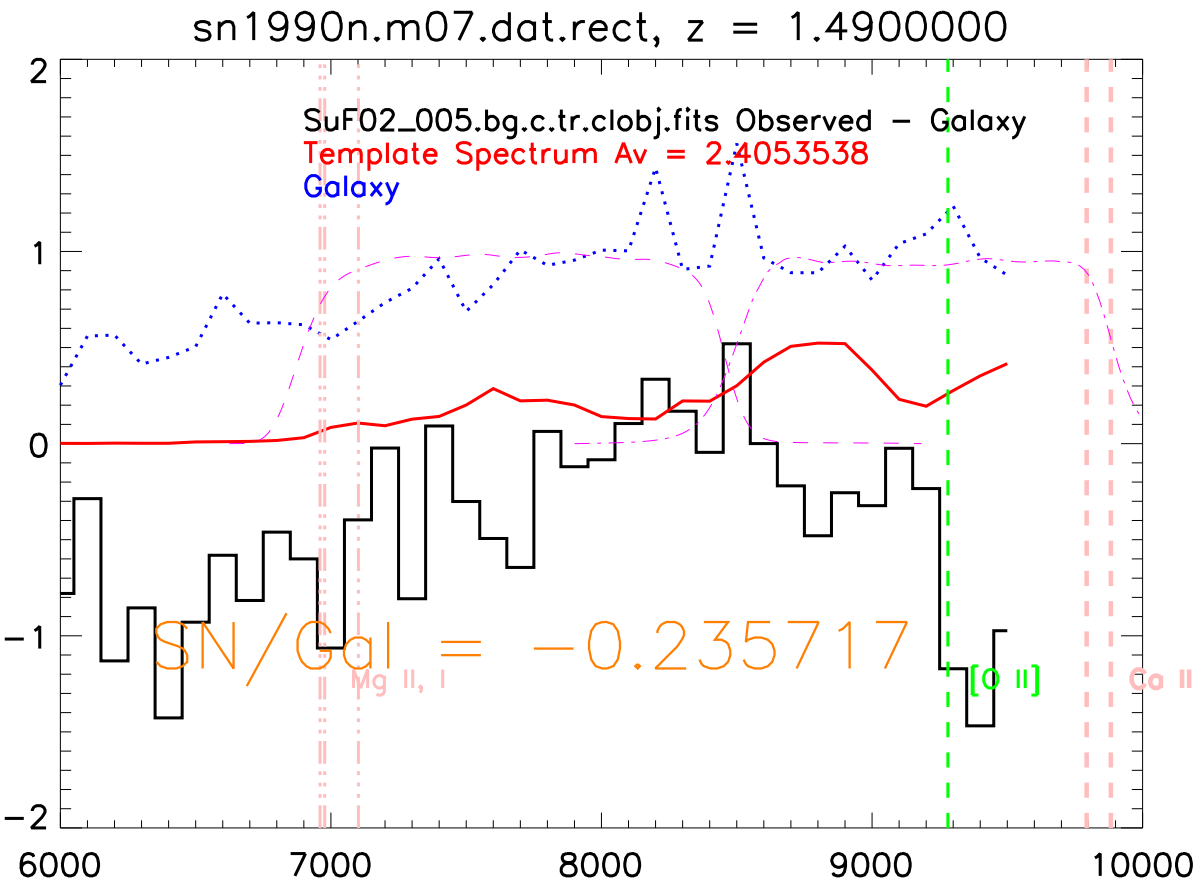

sn1998bu.p10.dat.rect, z = 0.83999997
SuF02_005.bg.c.tr.clobj.fits Observed
Galaxy
Template Spectrum Av = 1.5256872
Galaxy
SN/Gal = 0.821443
[O II]
Ca II
[O III]
Mg II, I
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000

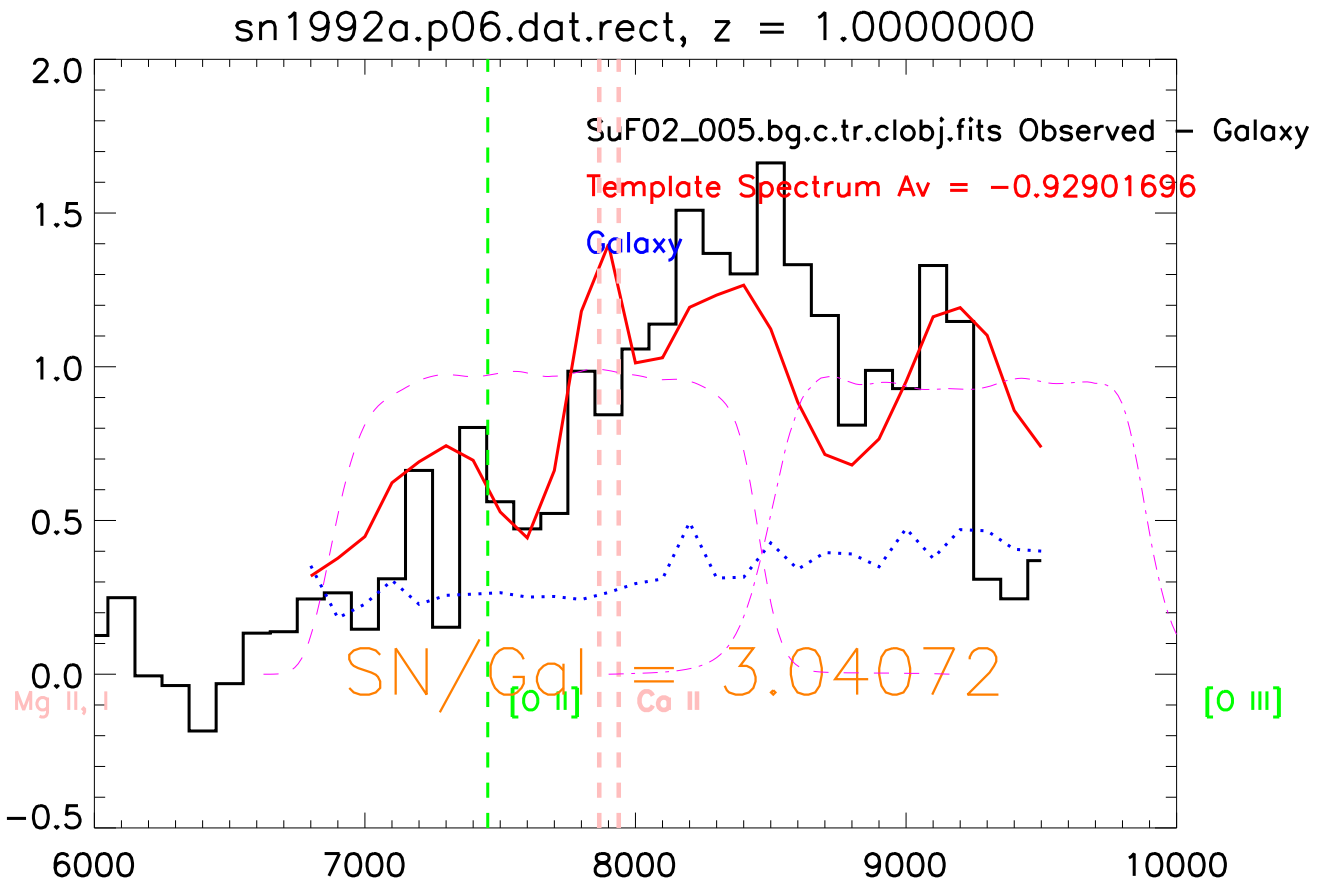

sn1998bu.p11.dat.rect, z = 0.83999997
SuF02_005.bg.c.tr.clobj.fits Observed
Galaxy
Template Spectrum Av = 1.6437224
Galaxy
SN/Gal = 0.831176
Mg II, I
[O II]
Ca II
[O III]
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000

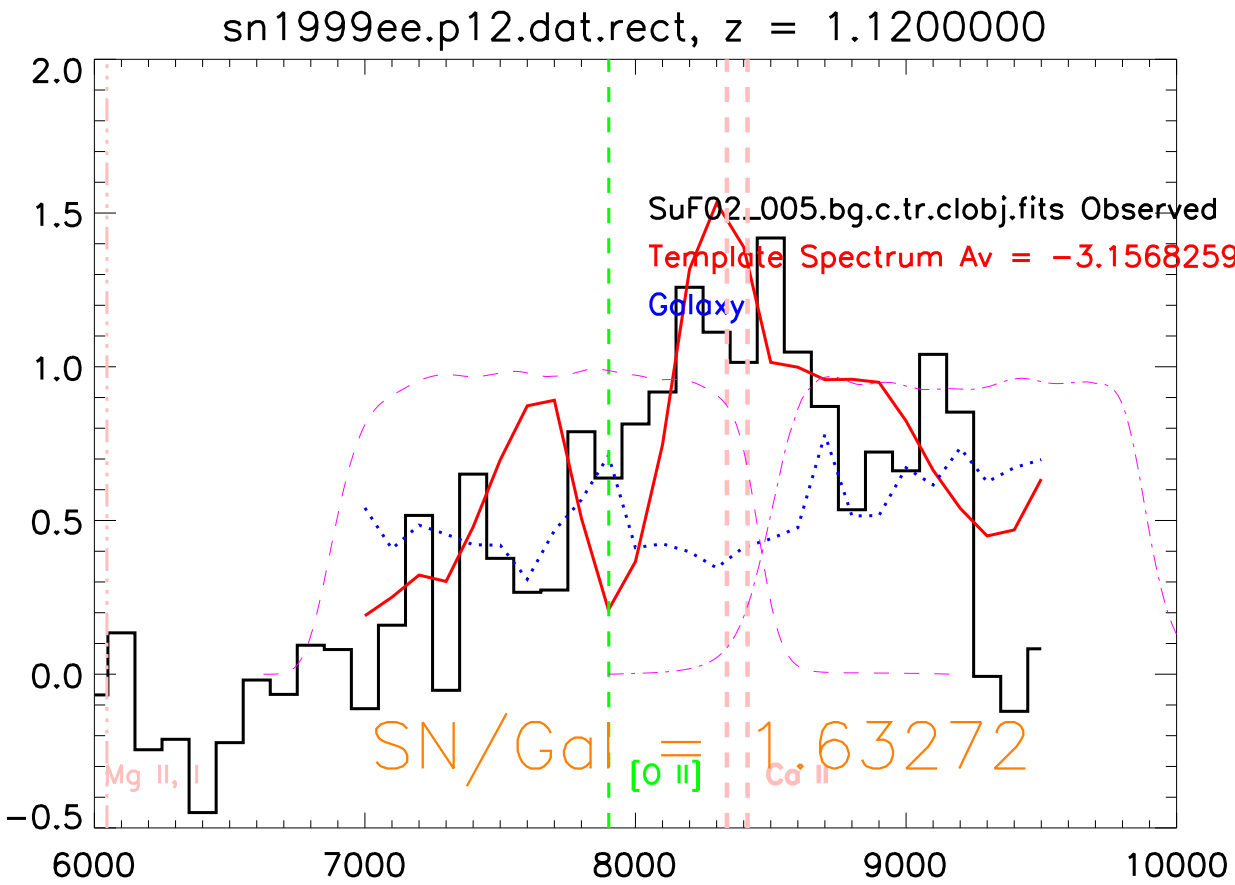

sn1999ee.m06.dat.rect, z = 1.0699999
SuF02_005.bg.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = −0.077063999
Galaxy
SN/Gal = 3.25345
Mg II, I
[O II]
Ca II
[O III]
2.0
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

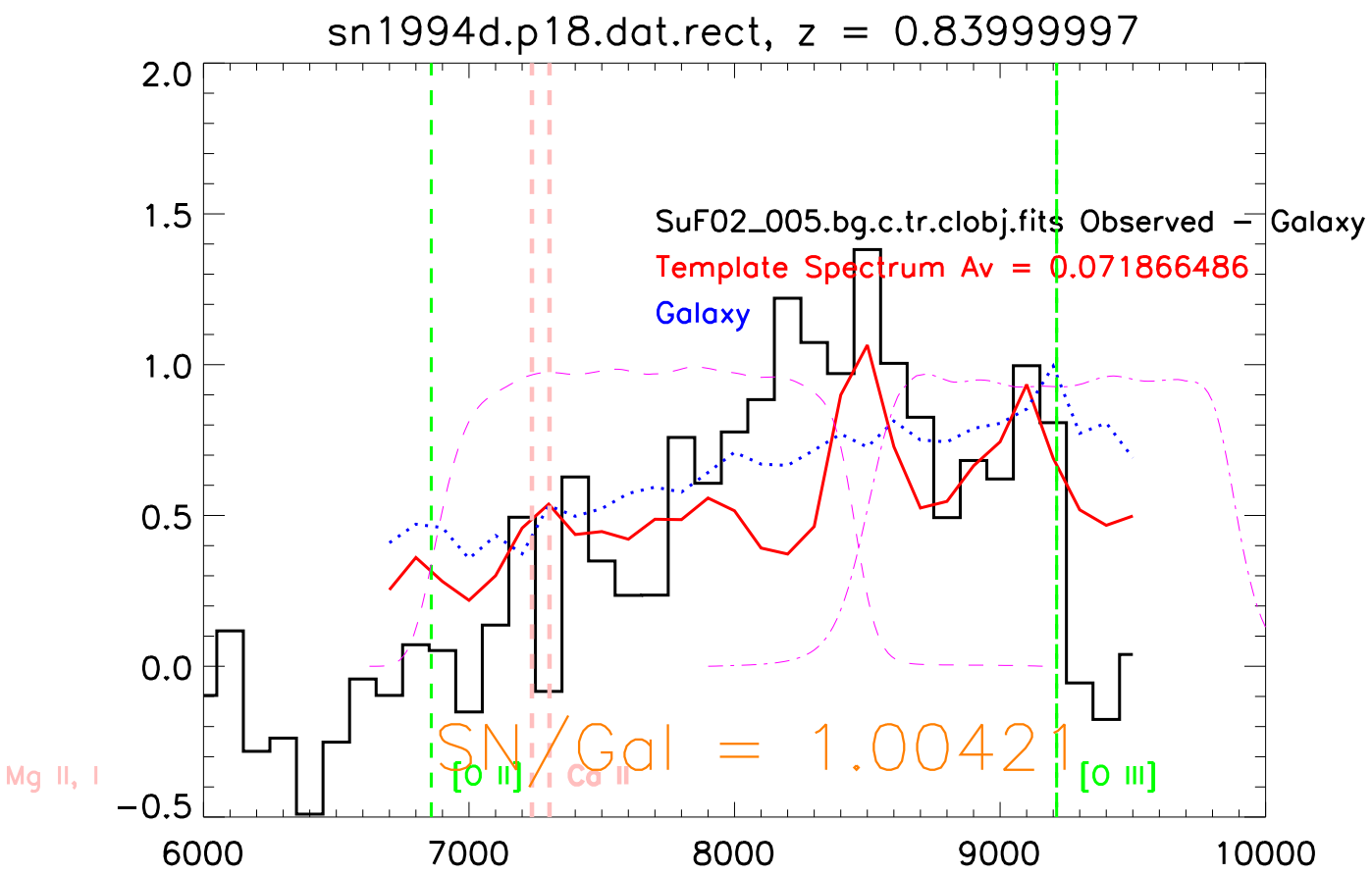

sn1989b.p05.dat.rect, z = 1.0100000
SuF02_005.bg.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = −3.2697289
Galaxy
SN/Gal = 2.41706
Mg II, I
[O II]
Ca II
[O III]
2.0
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

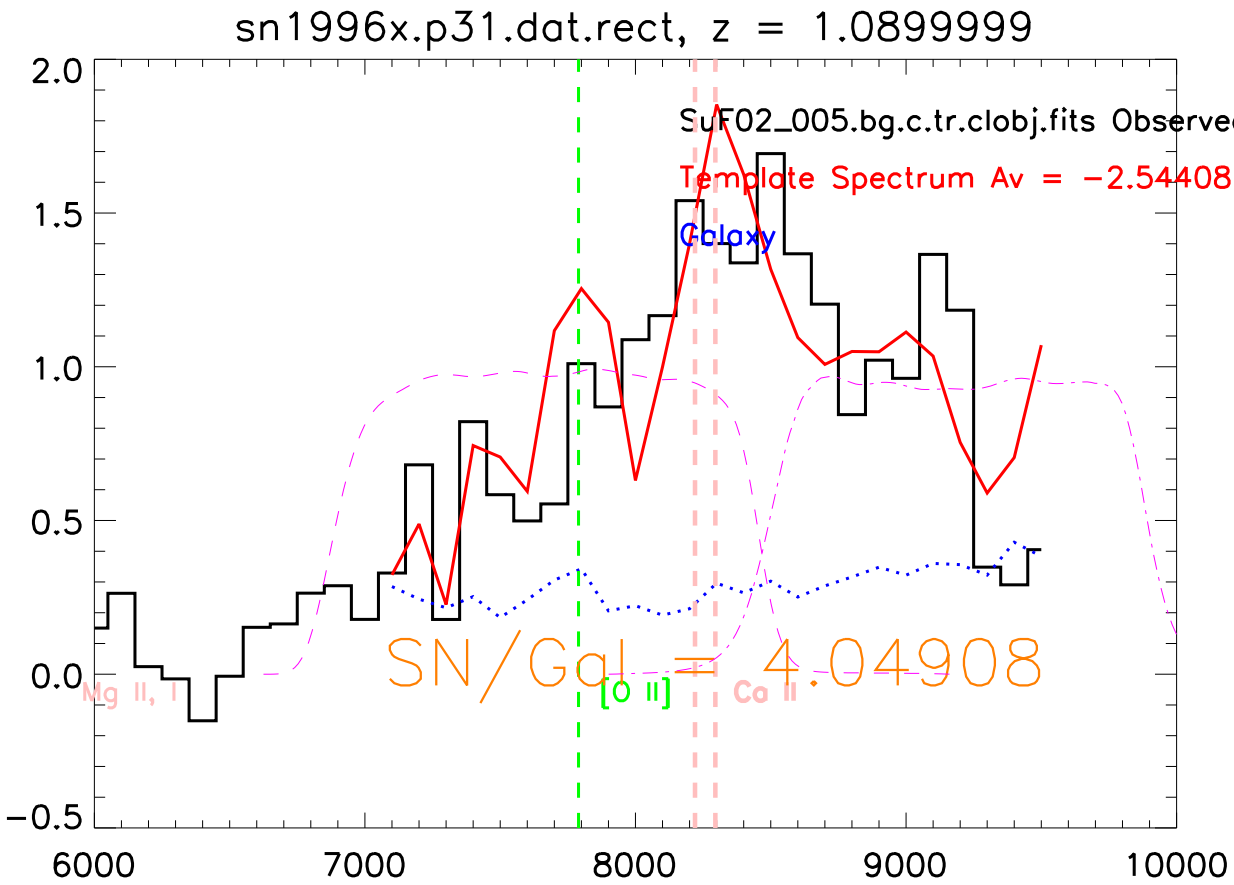

sn1998bu.p31.dat.rect, z = 0.83999997
SuF02_005.bg.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = 2.6711922
Galaxy
SN/Gal = 0.735701
Mg II, I
[O II]
Ca II
[O III]
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000

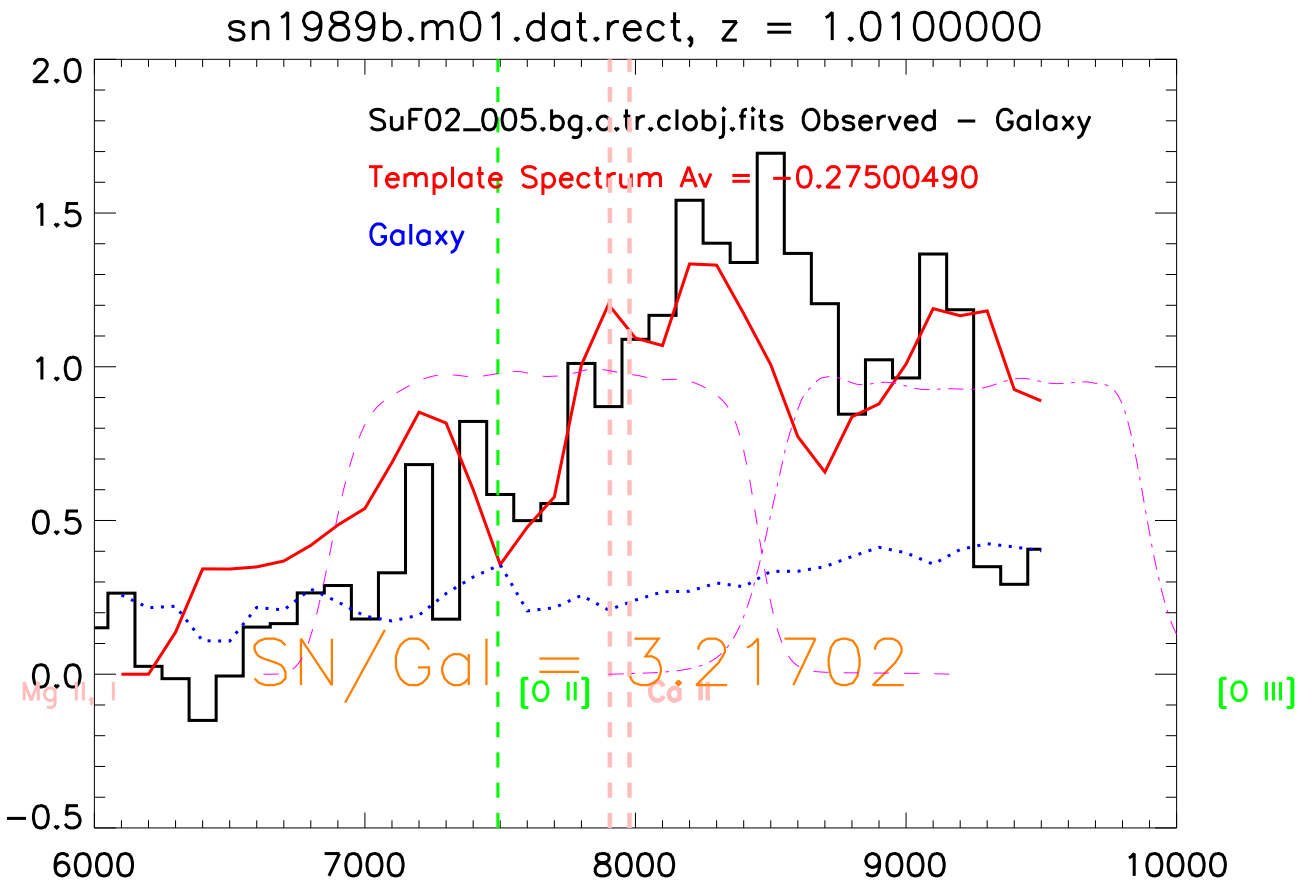

sn1990n.m07.dat.rect, z = 1.4900000
SuF02_005.bg.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = 2.4053538
Galaxy
SN/Gal = −0.235717
Mg II, I
[O II]
Ca II
2
1
0
−1
−2
6000
7000
8000
9000
10000

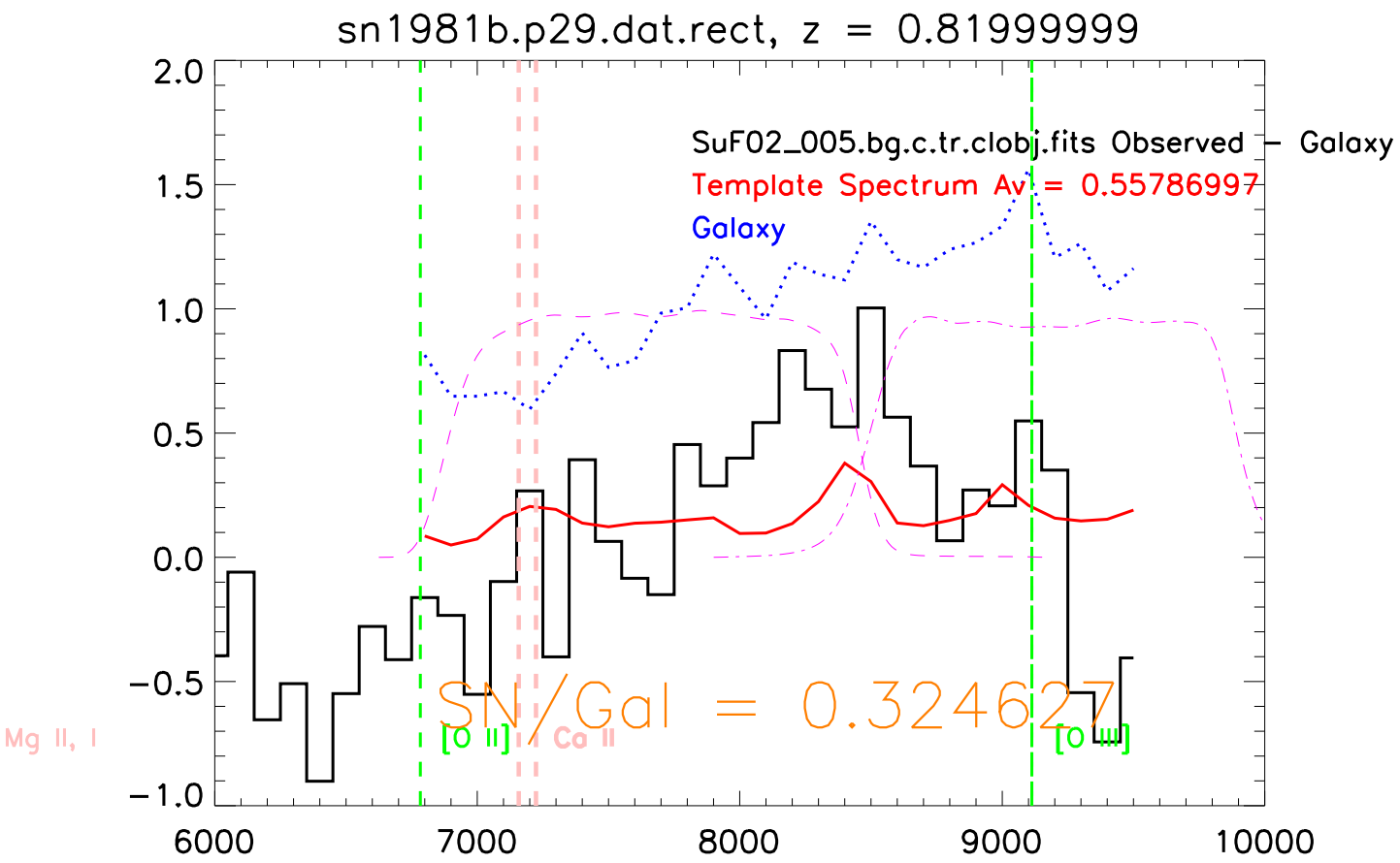

sn1992a.p06.dat.rect, z = 1.0000000
SuF02_005.bg.c.tr.clobj.fits Observed
Galaxy
Template Spectrum Av = −0.92901696
Galaxy
SN/Gal = 3.04072
Mg II, I
[O II]
Ca II
[O III]
2.0
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

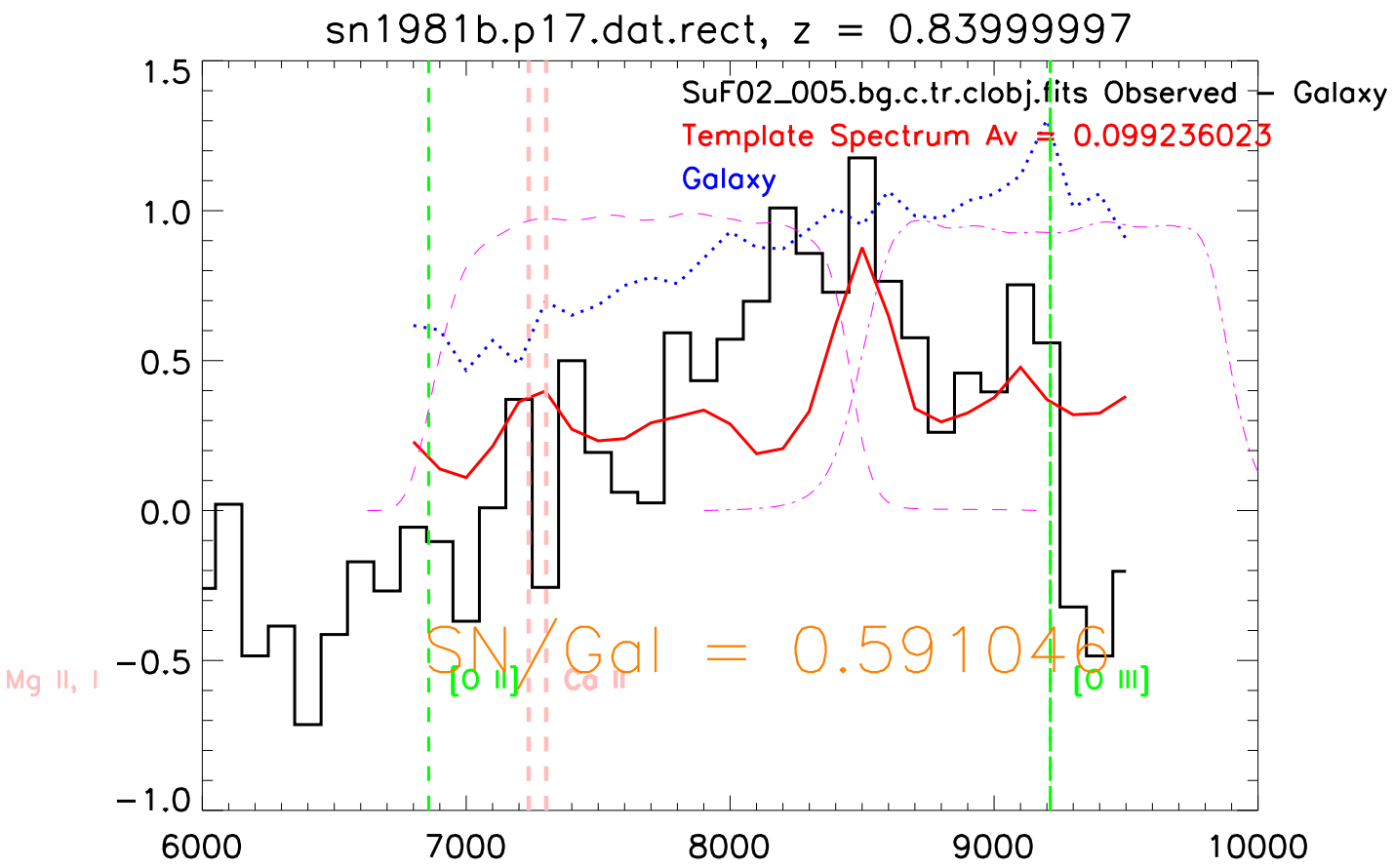

sn1999ee.p12.dat.rect, z = 1.1200000
SuF02_005.bg.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −3.1568259
Galaxy
SN/Gal = 1.63272
Mg II, I
[O II]
Ca II
2.0
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

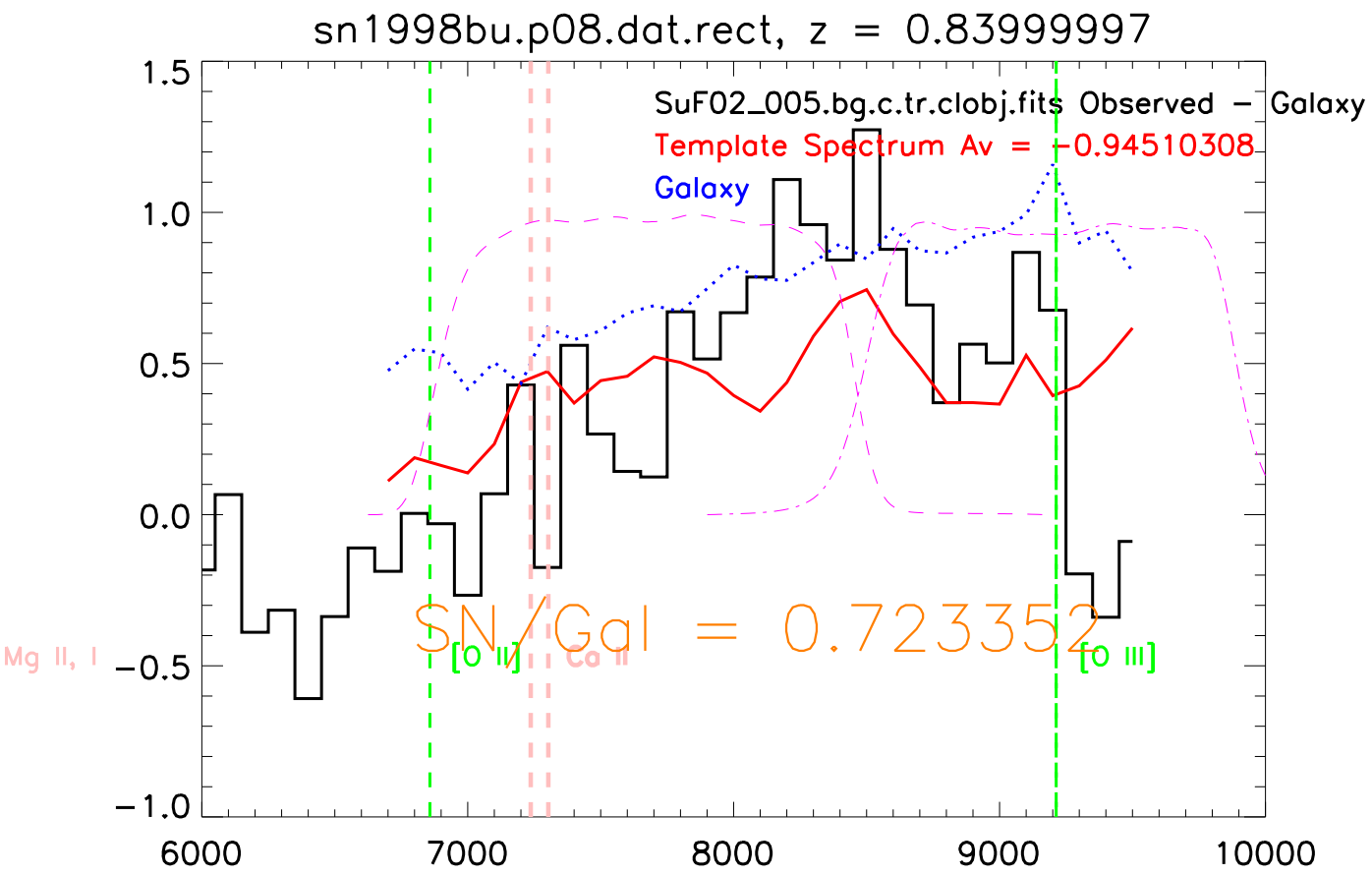

sn1994d.p18.dat.rect, z = 0.83999997
SuF02_005.bg.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = 0.071866486
Galaxy
SN/Gal = 1.00421
[O II]
Ca II
[O III]
Mg II, I
2.0
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

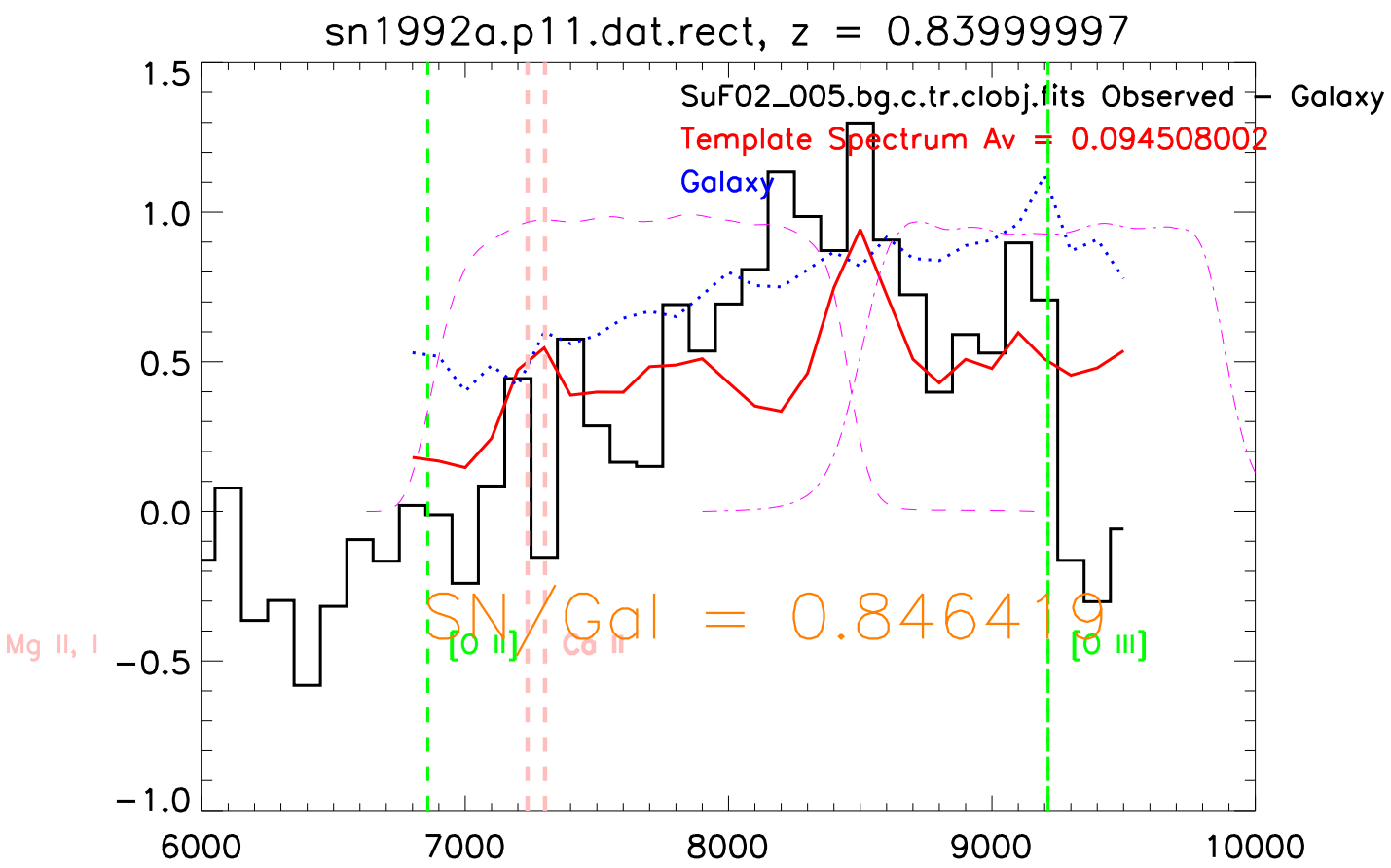

sn1996x.p31.dat.rect, z = 1.0899999
SuF02_005.bg.c.tr.clobj.fits Observed – Galax
Template Spectrum Av = −2.5440810
Galaxy
SN/Gal = 4.04908
[O II]
Ca II
2.0
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

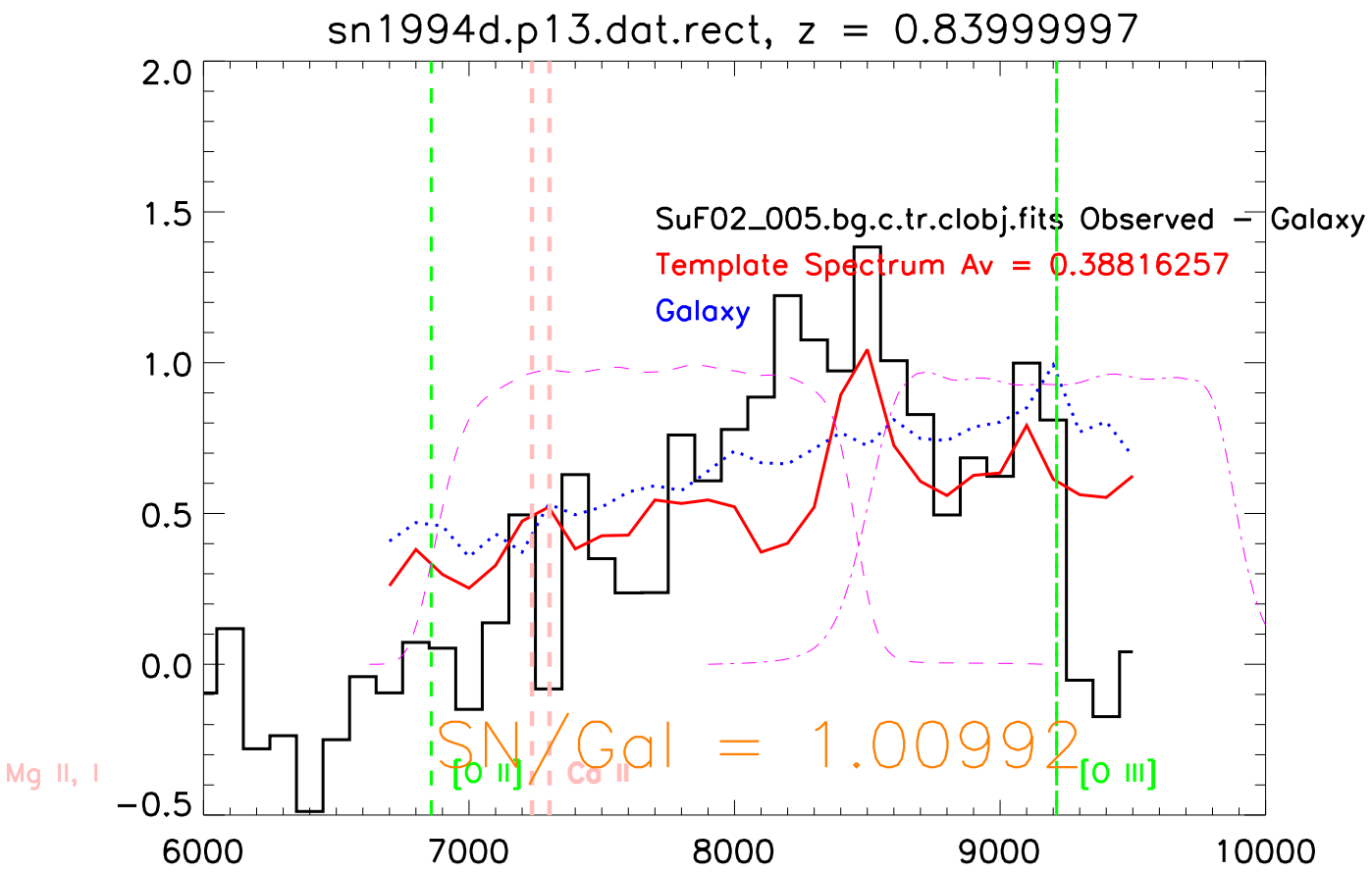

sn1989b.m01.dat.rect, z = 1.0100000
SuF02_005.bg.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −0.27500490
Galaxy
SN/Gal = 3.21702
Mg II, I
[O II]
Ca II
[O III]
2.0
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

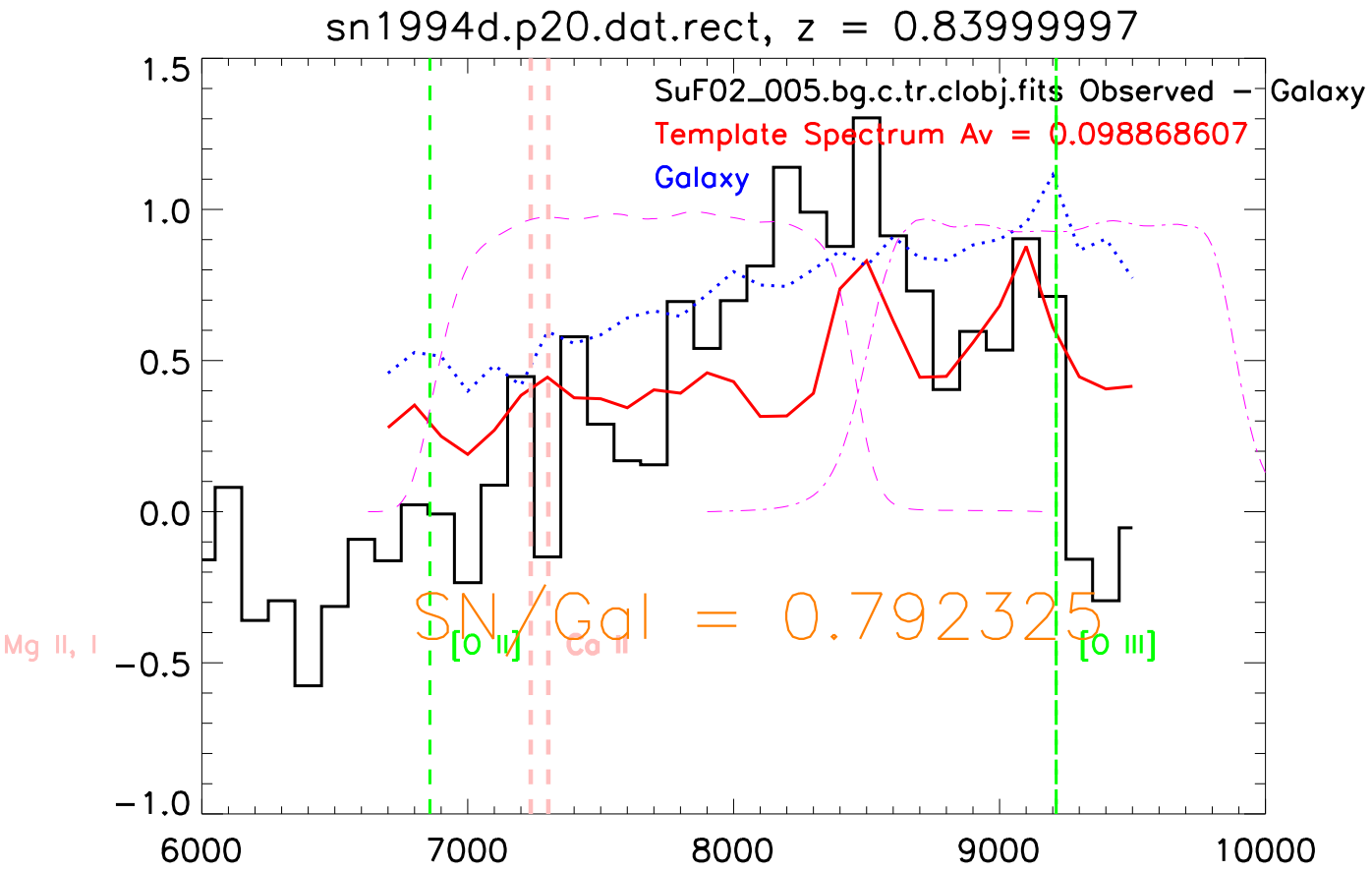

sn1981b.p29.dat.rect, z = 0.81999999
SuF02_005.bg.c.tr.clobj.fits Observed
Galaxy
Template Spectrum Av = 0.55786997
Galaxy
SN/Gal = 0.324627
Mg II, I
[O II]
Ca II
[O III]
2.0
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000

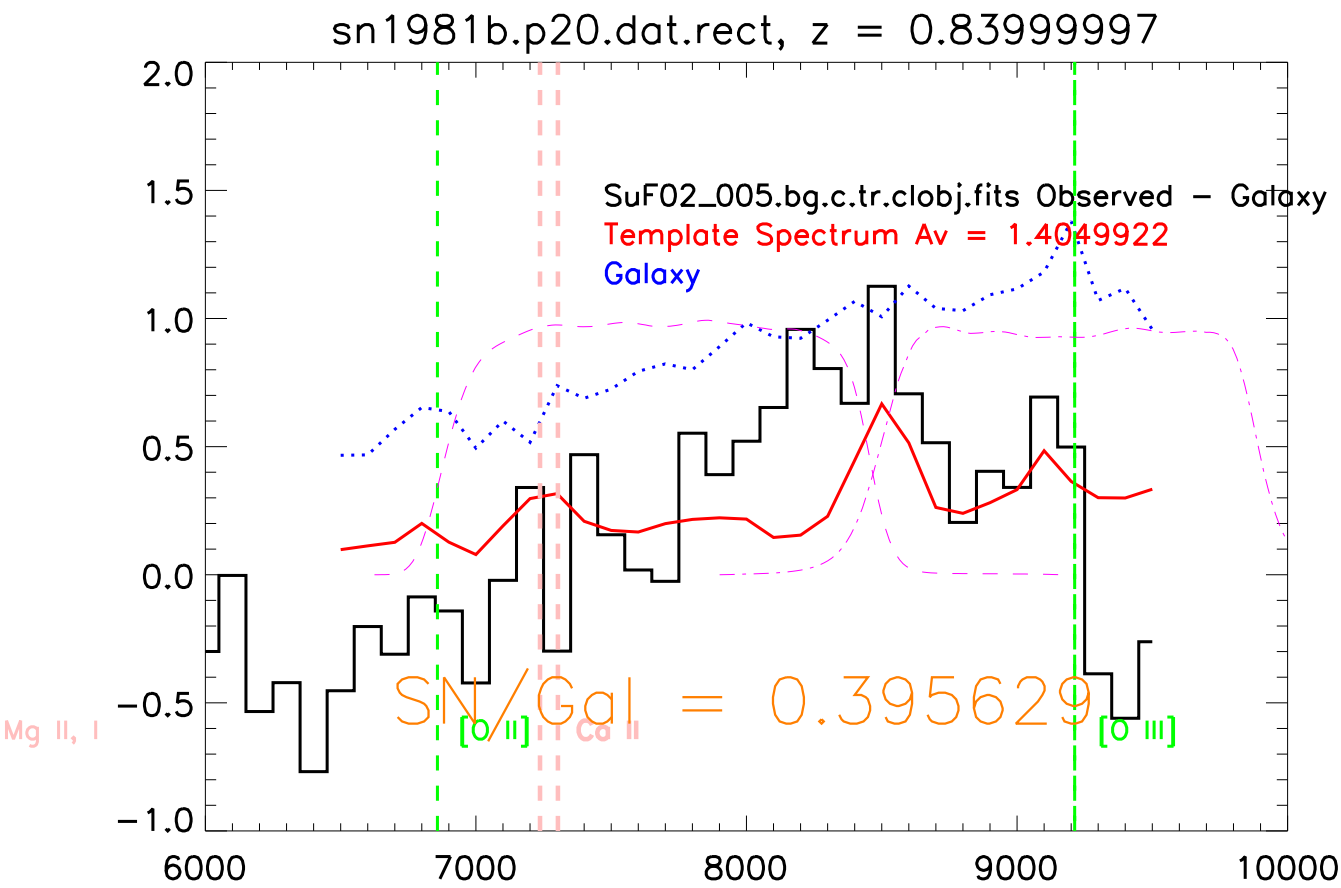

sn1981b.p17.dat.rect, z = 0.83999997
SuF02_005.bg.c.tr.clobj.fits Observed
Galaxy
Template Spectrum Av = 0.099236023
Galaxy
SN/Gal = 0.591046
[O II]
Ca II
[O III]
Mg II, I
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000

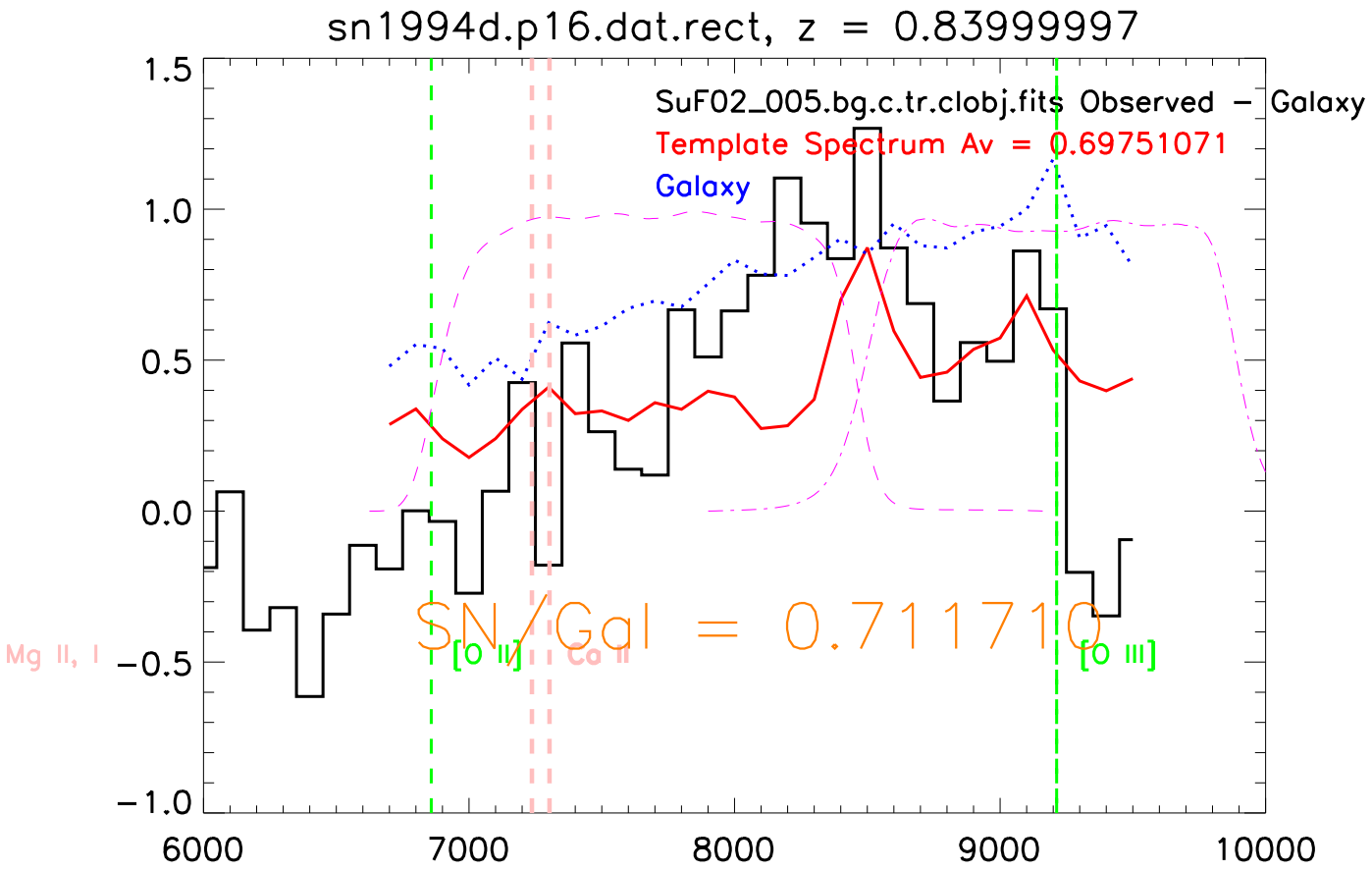

sn1998bu.p08.dat.rect, z = 0.83999997
SuF02_005.bg.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = 0.94510308
Galaxy
SN/Gal = 0.723352
[O II]
Ca II
[O III]
Mg II, I
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000

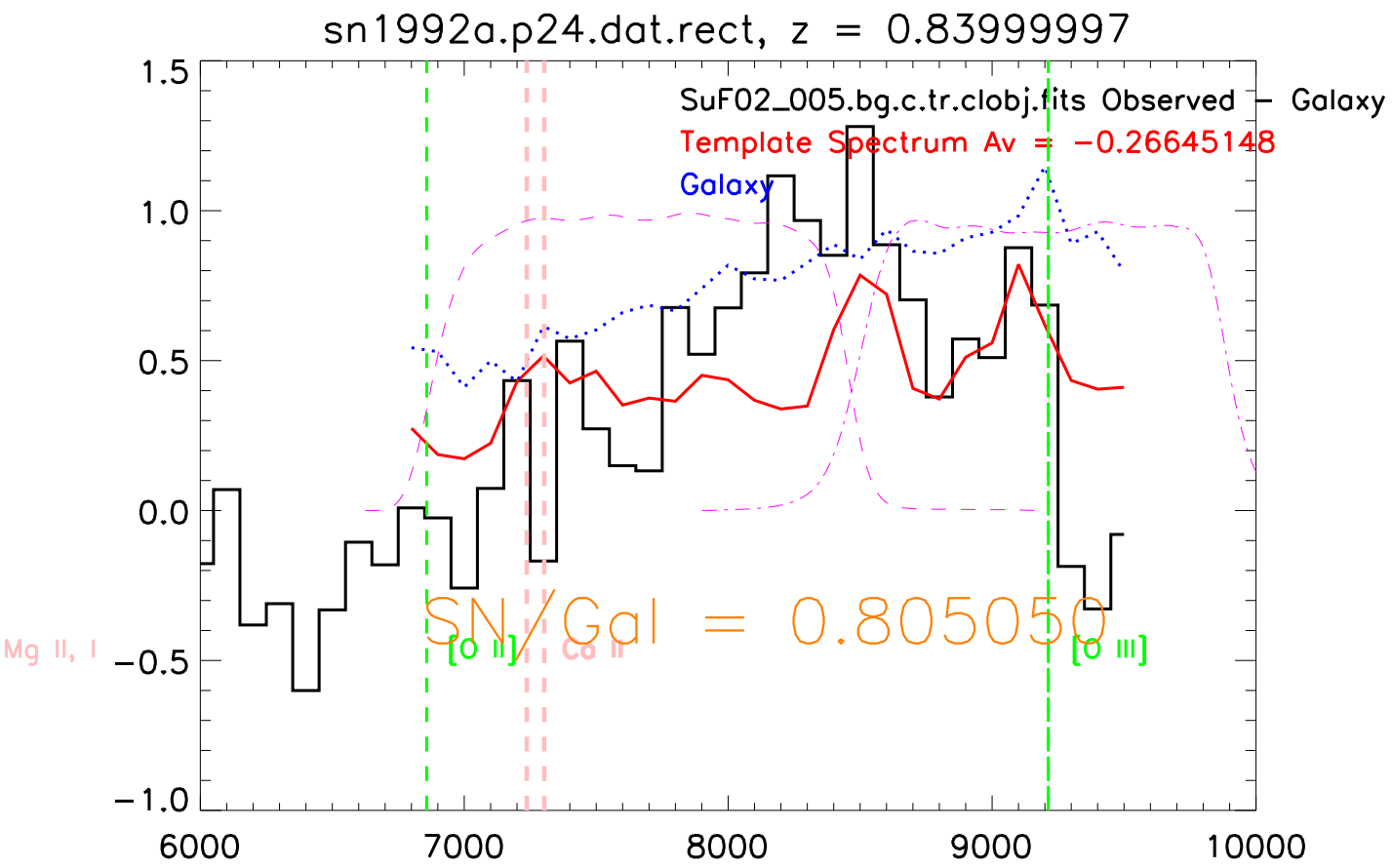

sn1992a.p11.dat.rect, z = 0.83999997
SuF02_005.bg.c.tr.clobj.fits Observed
Galaxy
Template Spectrum Av = 0.094508002
Galaxy
SN/Gal = 0.846419
Mg II, I
[O II]
Ca II
[O III]
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000

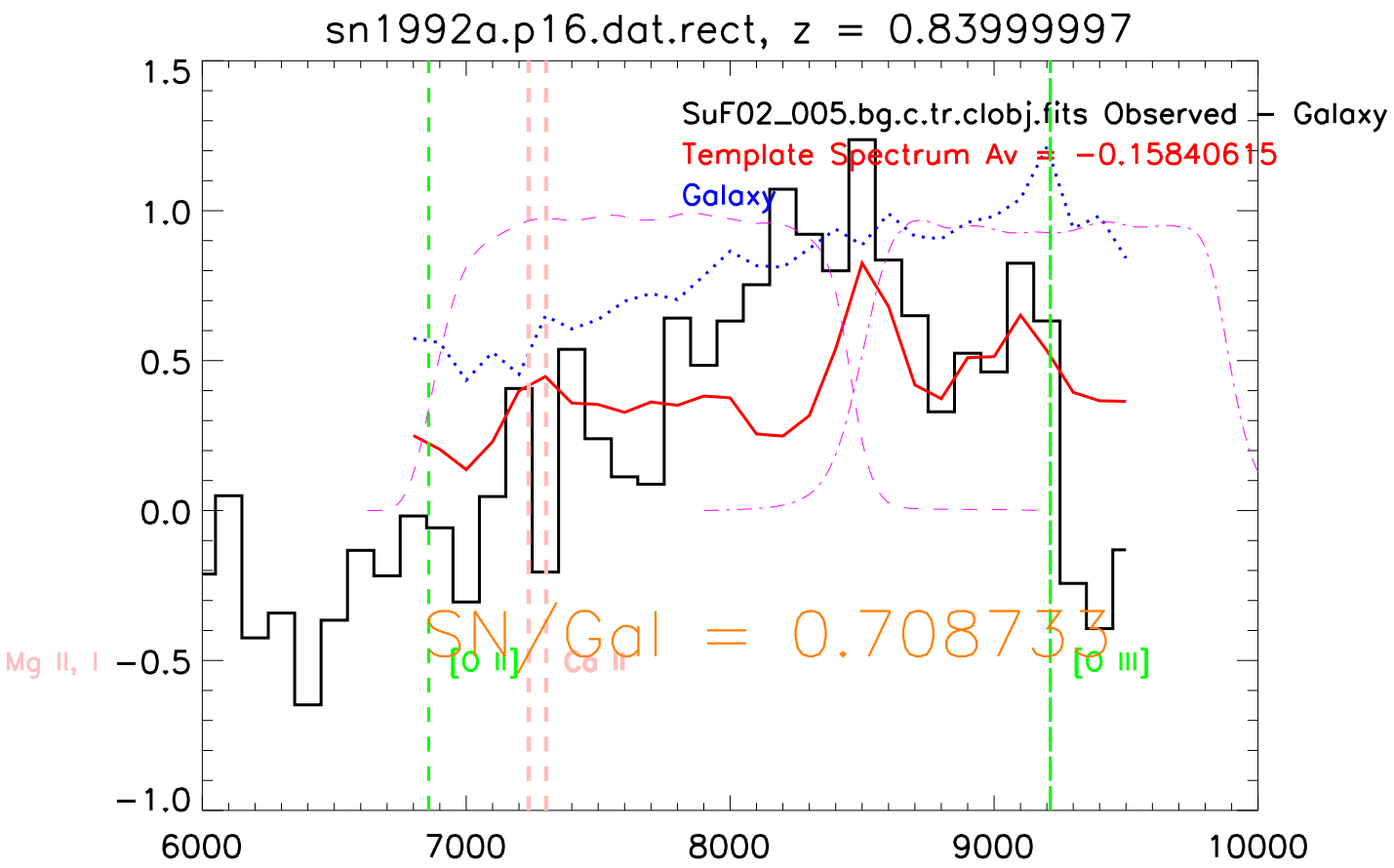

sn1994d.p13.dat.rect, z = 0.83999997
SuF02_005.bg.c.tr.clobj.fits Observed
Galaxy
Template Spectrum Av = 0.38816257
Galaxy
SN/Gal = 1.00992
Mg II, I
[O II]
Ca II
[O III]
2.0
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

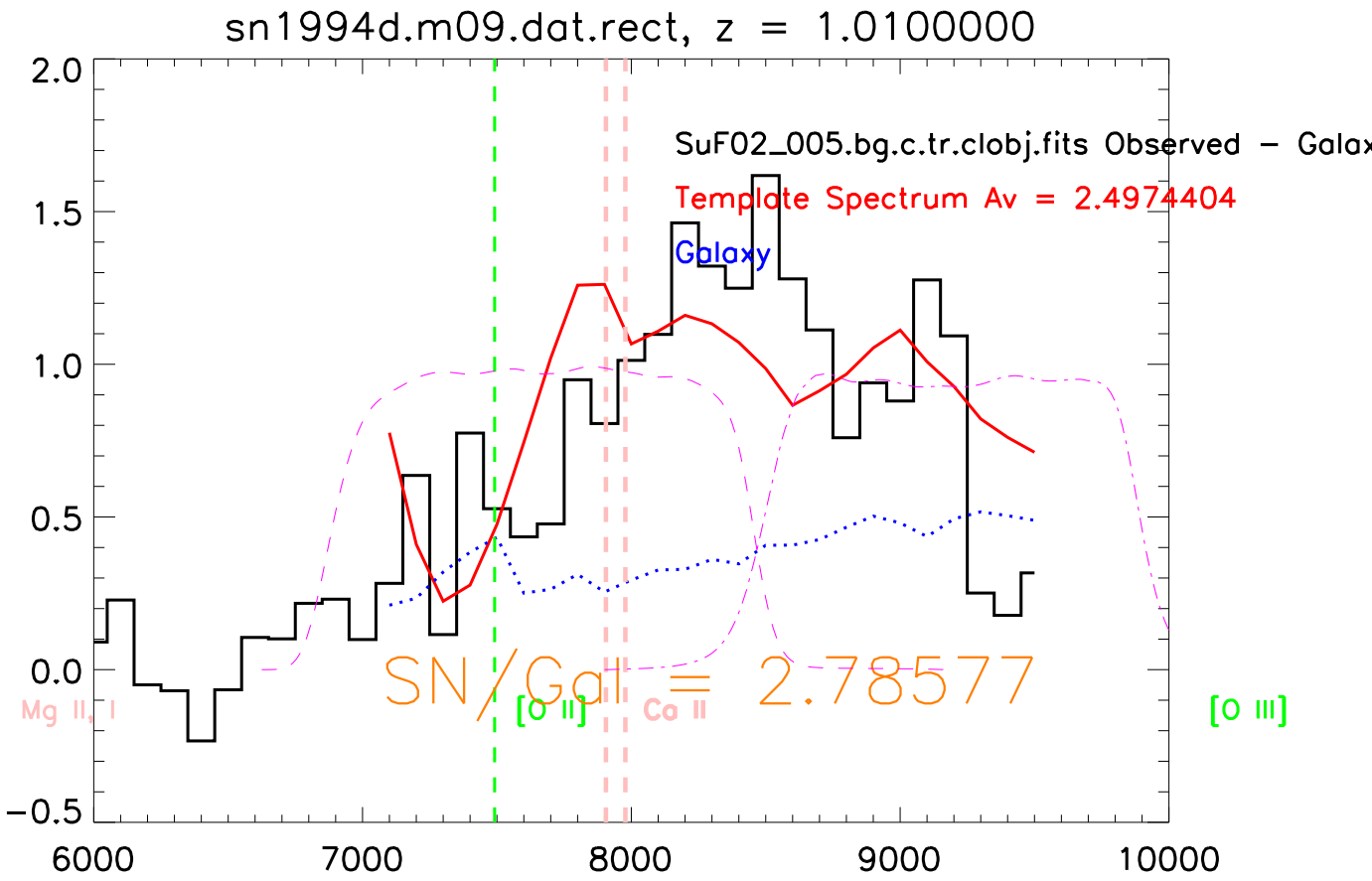

sn1994d.p20.dat.rect, z = 0.83999997
SuF02_005.bg.c.tr.clobj.fits Observed
Galaxy
Template Spectrum Av = 0.098868607
Galaxy
SN/Gal = 0.792325
[O II]
Ca II
[O III]
Mg II, I
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000

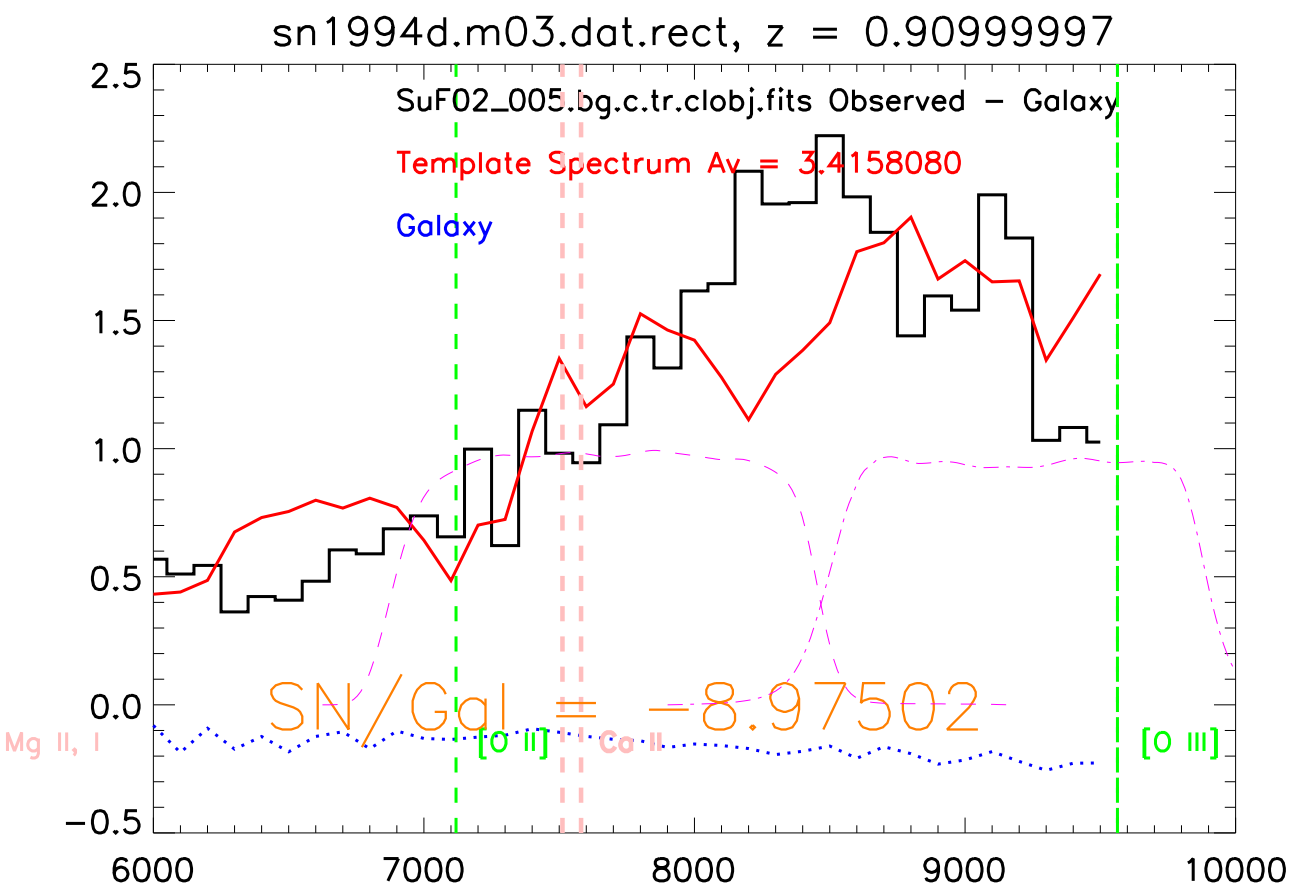

sn1981b.p20.dat.rect, z = 0.83999997
SuF02_005.bg.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = 1.4049922
Galaxy
SN/Gal = 0.395629
Mg II, I
[O II]
Ca II
[O III]
2.0
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000

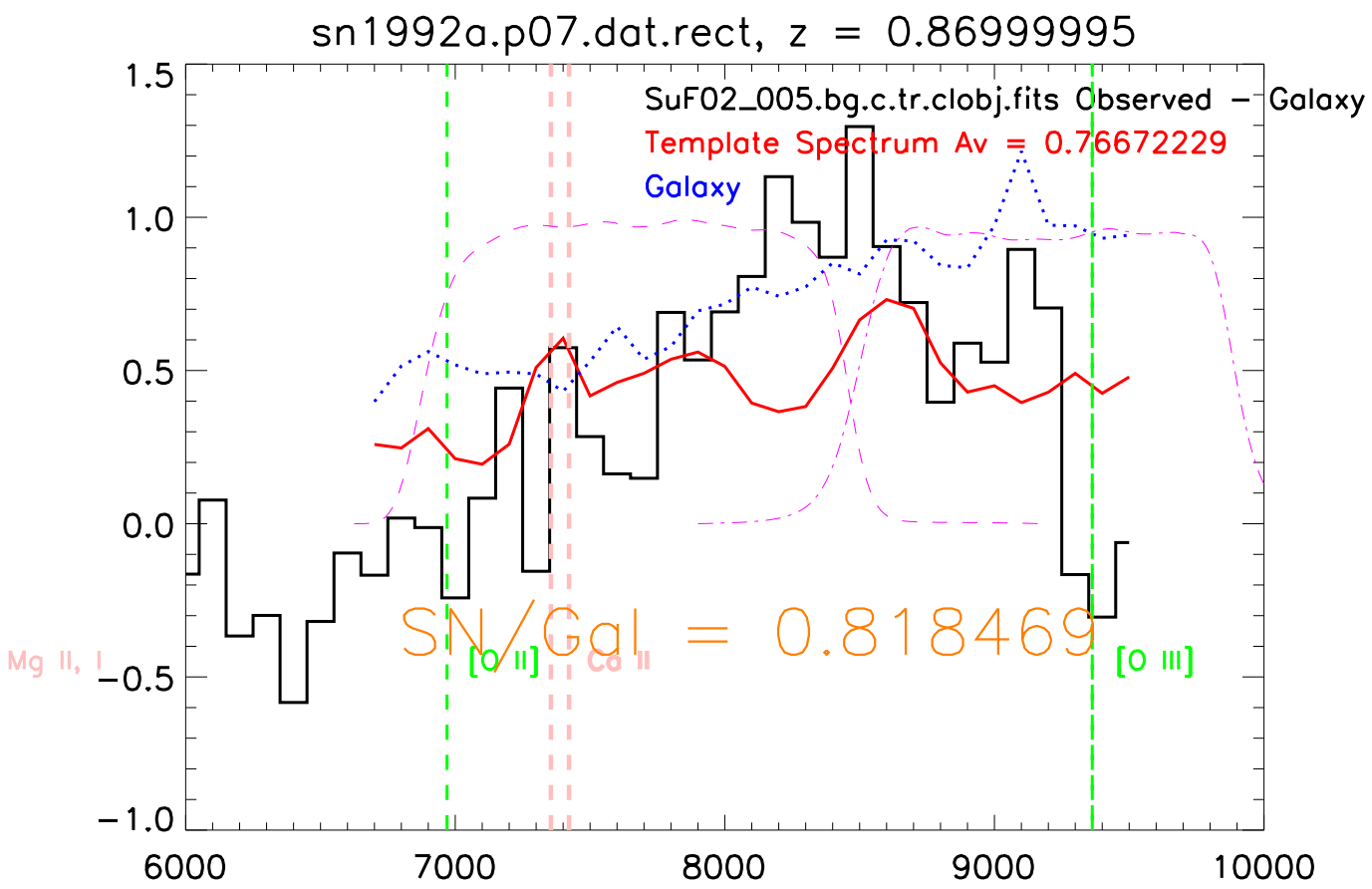

sn1994d.p16.dat.rect, z = 0.83999997
SuF02_005.bg.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = 0.69751071
Galaxy
SN/Gal = 0.711710
Mg II, I
[O II]
Ca II
[O III]
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000

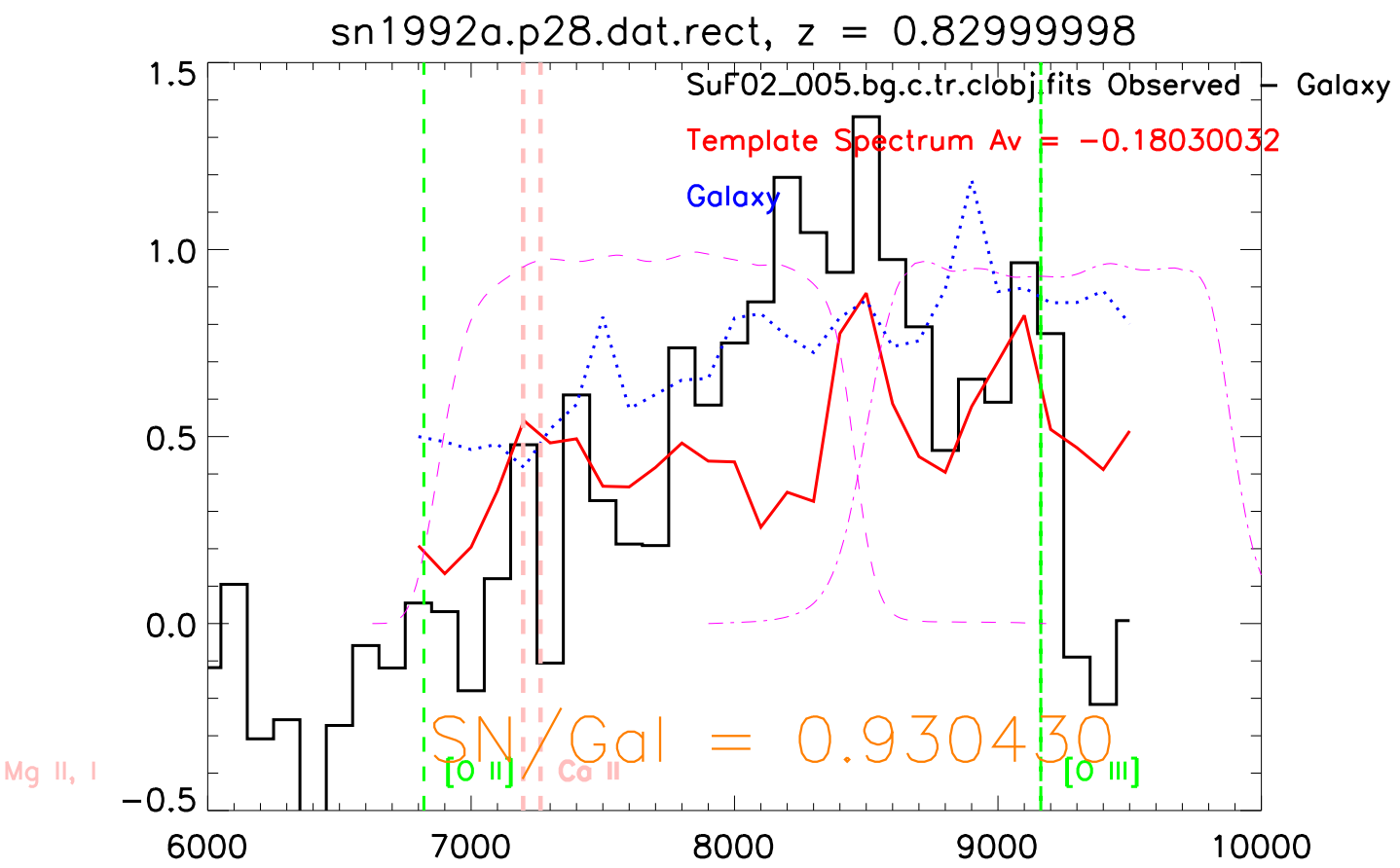

sn1992a.p24.dat.rect, z = 0.83999997
SuF02_005.bg.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = −0.26645148
Galaxy
SN/Gal = 0.805050
Mg II, I
[O II]
Ca II
[O III]
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000

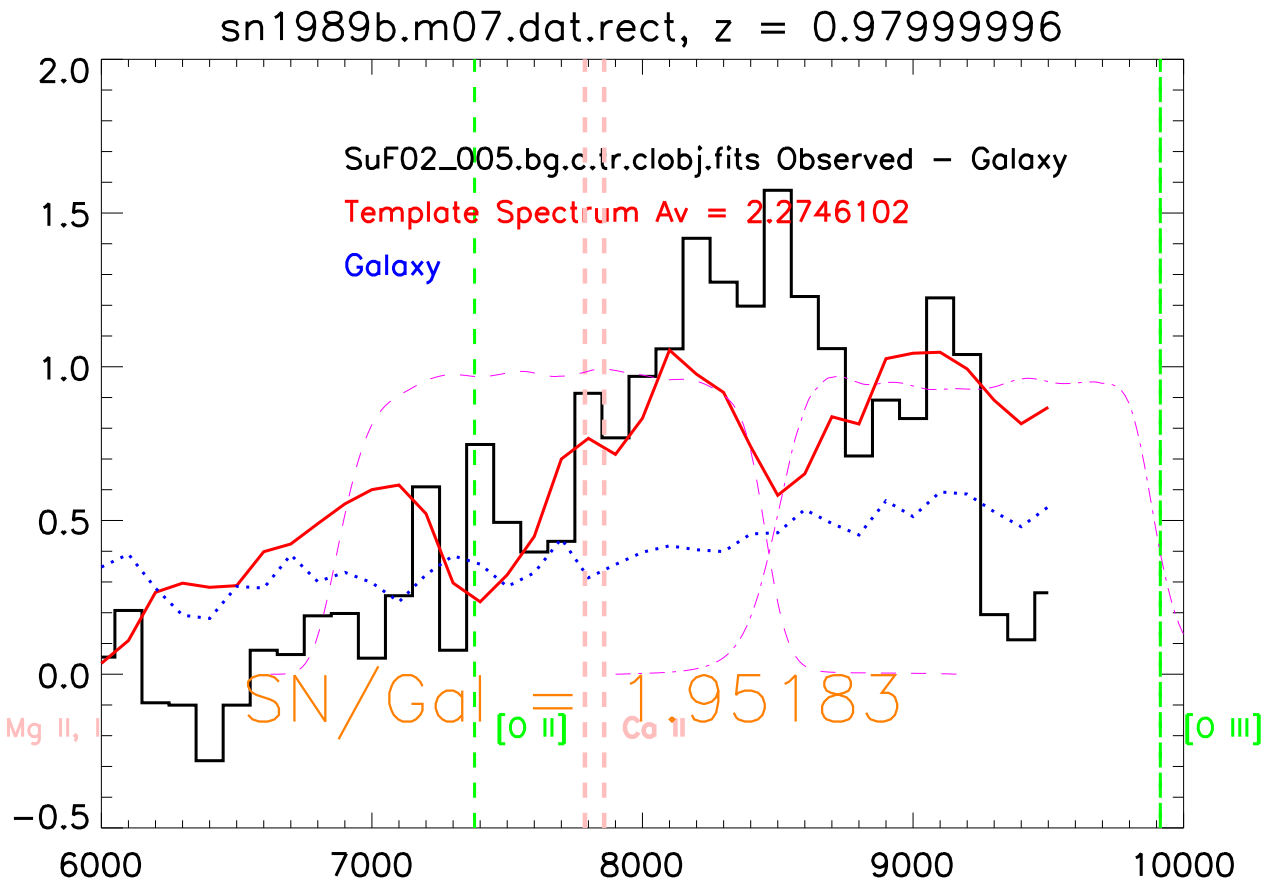

sn1992a.p16.dat.rect, z = 0.83999997
SuF02_005.bg.c.tr.clobj.fits Observed
Galaxy
Template Spectrum Av = -0.15840615
Galaxy
SN/Gal = 0.708735
[O II]
Ca II
[O III]
Mg II, I
1.5
1.0
0.5
0.0
-0.5
-1.0
6000
7000
8000
9000
10000

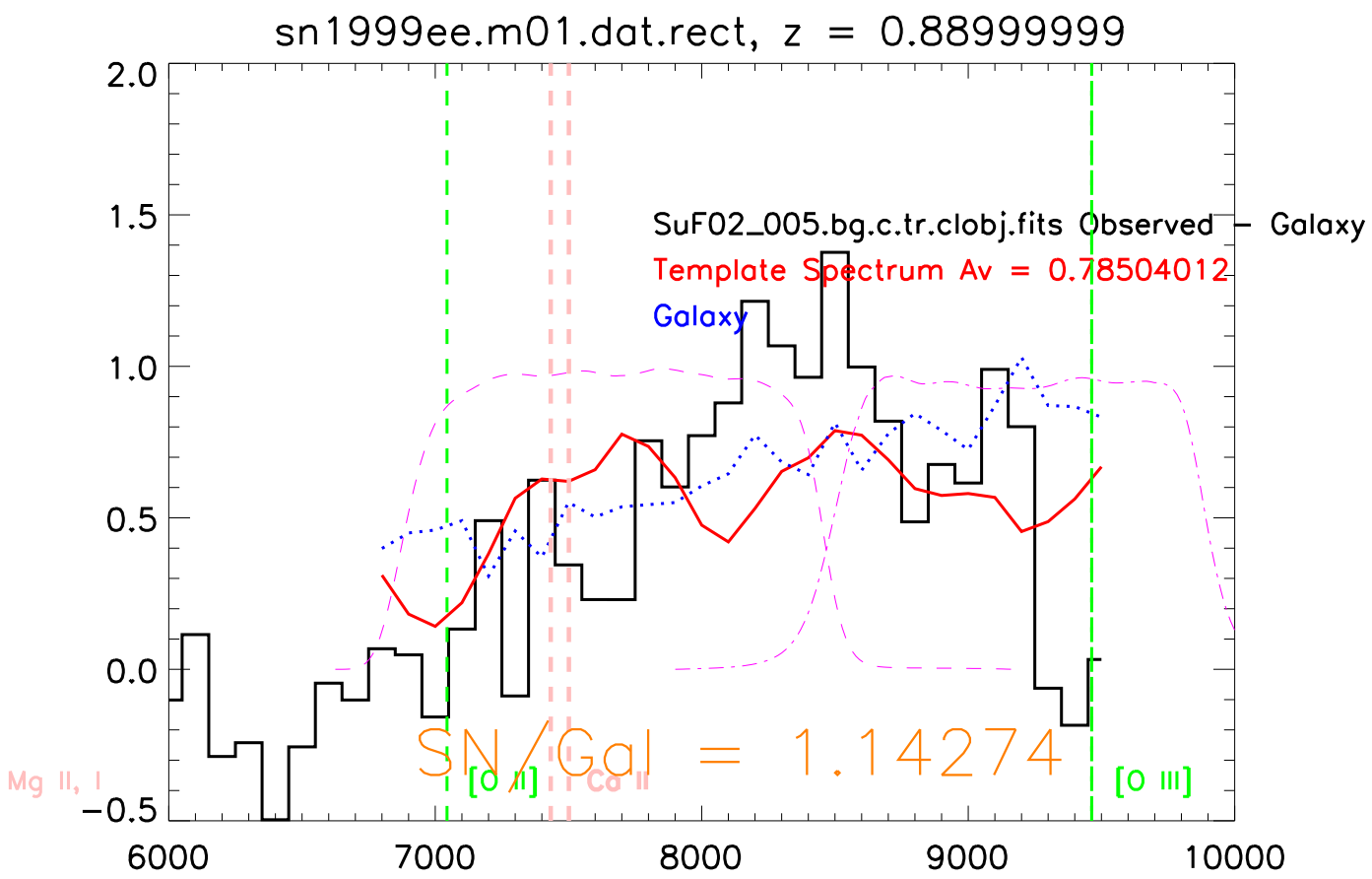

sn1994d.m09.dat.rect, z = 1.0100000
SuF02_005.bg.c.tr.clobj.fits Observed – Galax
Template Spectrum Av = 2.4974404
Galaxy
SN/Gal = 2.78577
Mg II, I
[O II]
Ca II
[O III]
2.0
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

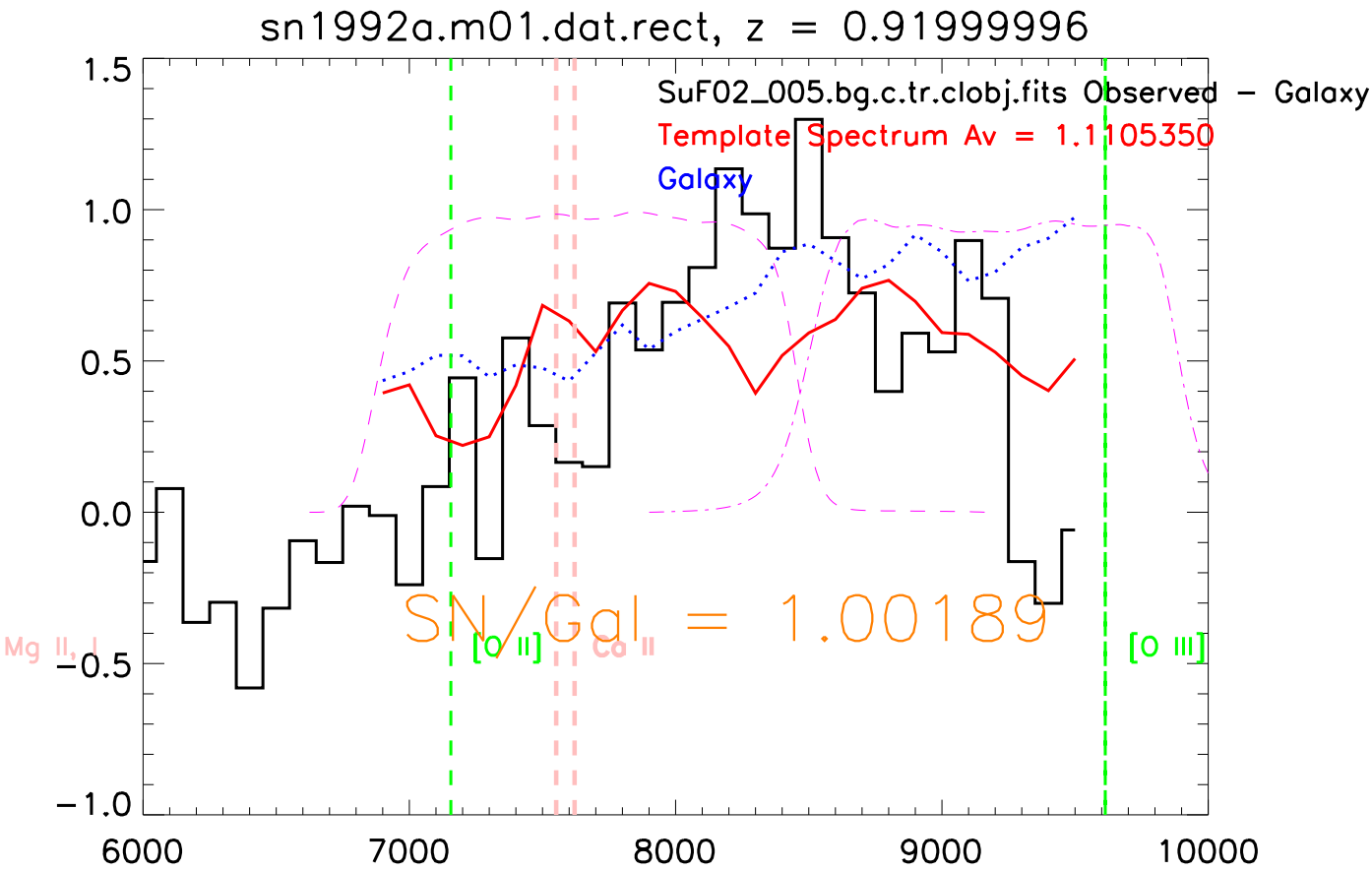

sn1994d.m03.dat.rect, z = 0.90999997
SuF02_005.bg.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = 3.4158080
Galaxy
SN/Gal = −8.97502
Mg II, I
[O II]
Ca II
[O III]
2.5
2.0
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

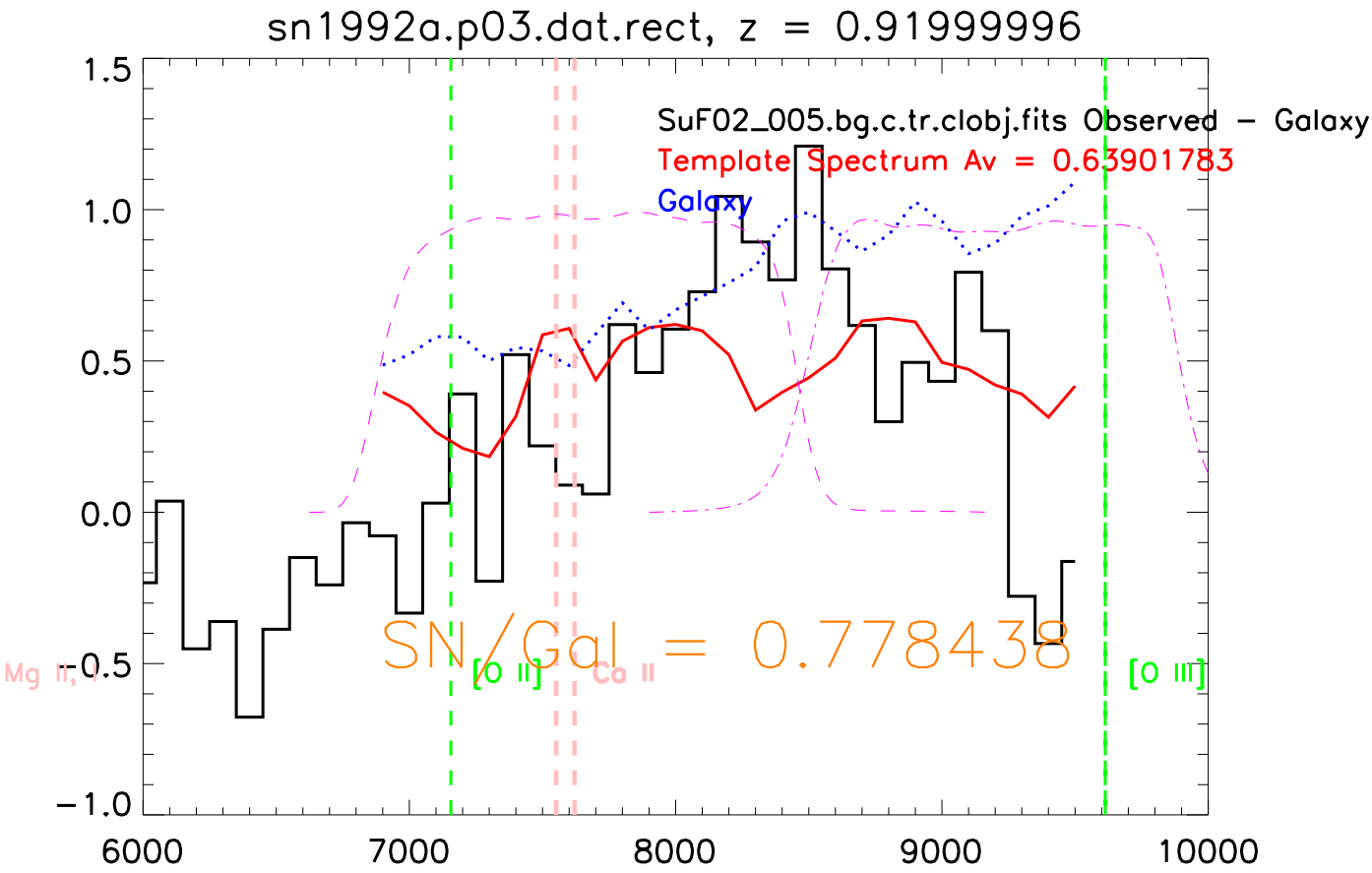

sn1992a.p07.dat.rect, z = 0.86999995
SuF02_005.bg.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = 0.76672229
Galaxy
S/N/Gal = 0.818469
Mg II, I
[O II]
Ca II
[O III]
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000

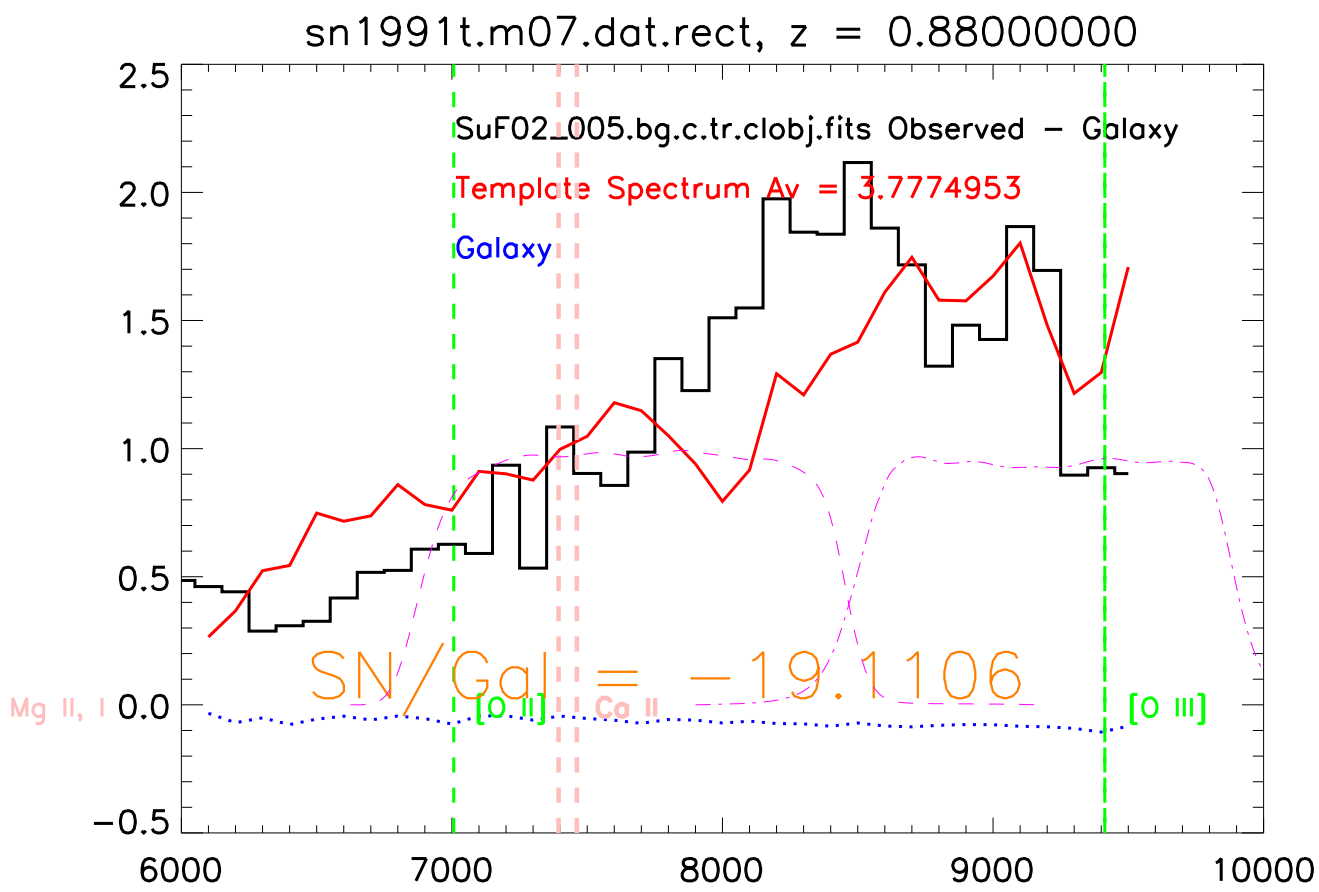

sn1992a.p28.dat.rect, z = 0.82999998
SuF02_005.bg.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = −0.18030032
Galaxy
SN/Gal = 0.930430
[O II]
Ca II
[O III]
Mg II, I
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

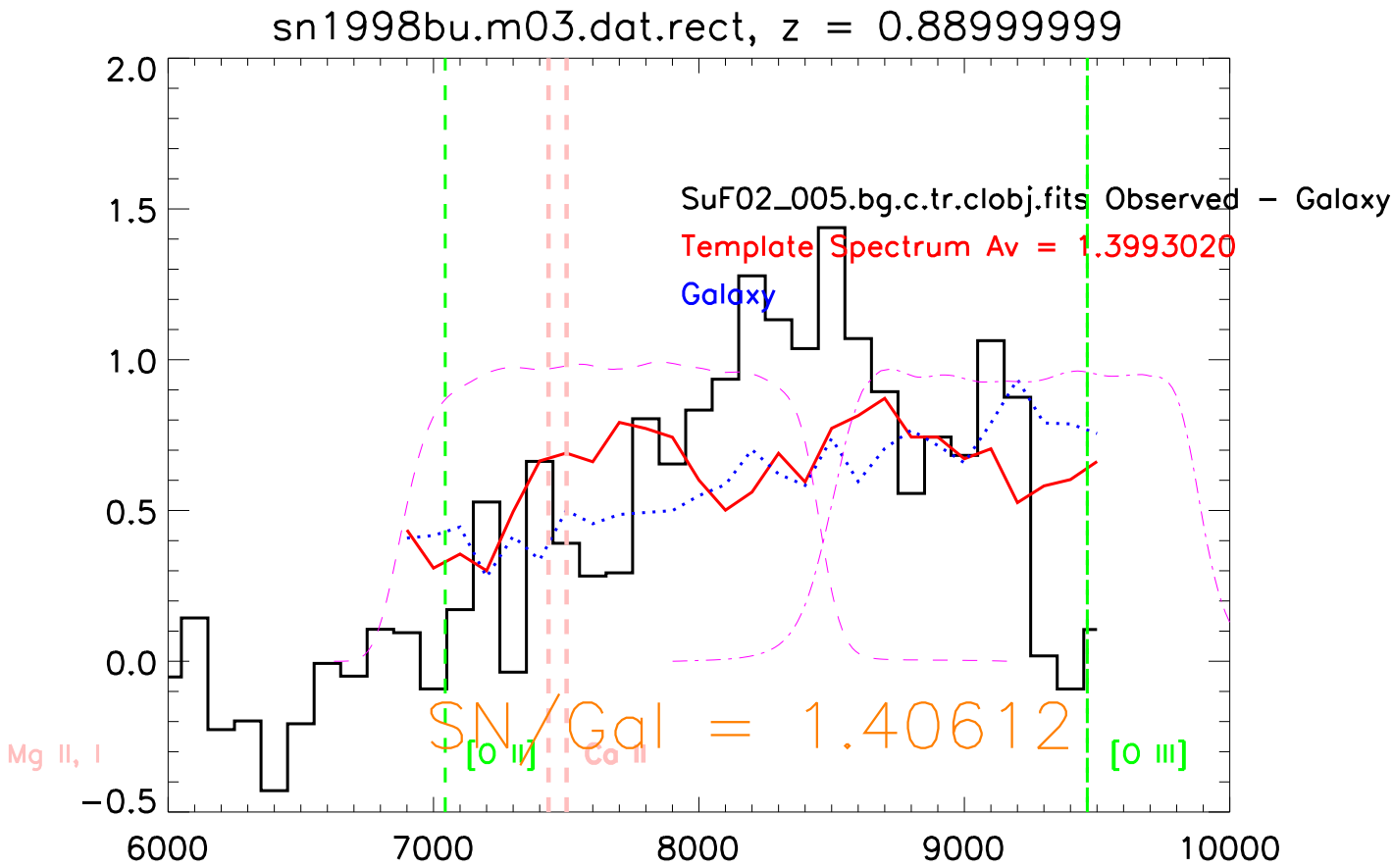

sn1989b.m07.dat.rect, z = 0.97999996
SuF02_005.bg.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = 2.2746102
Galaxy
SN/Gal = 1.95183
[O II]
Ca II
[O III]
2.0
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

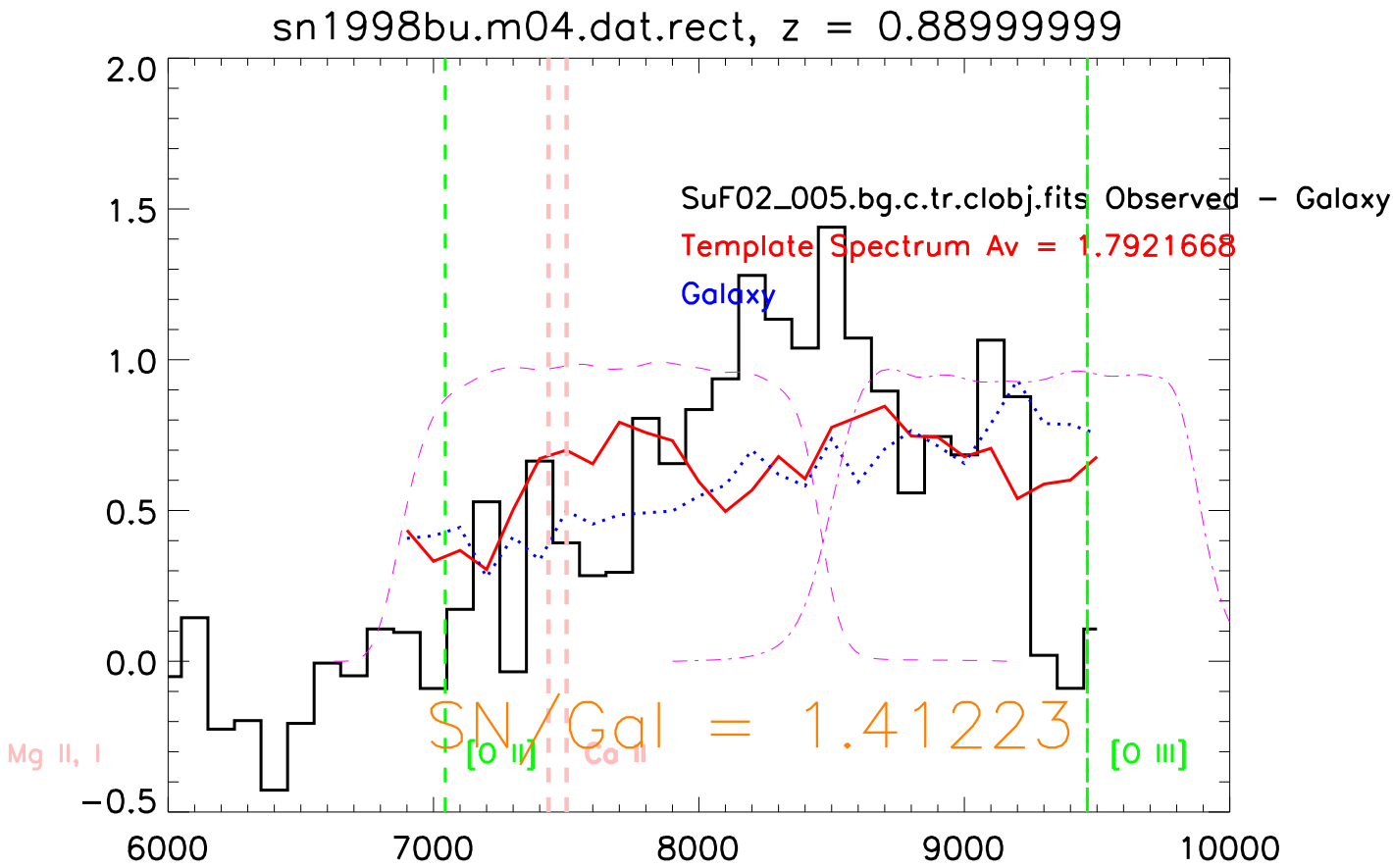

sn1999ee.m01.dat.rect, z = 0.88999999
SuF02_005.bg.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = 0.78504012
Galaxy
SN/Gal = 1.14274
Mg II, I
[O II]
Ca II
[O III]
2.0
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

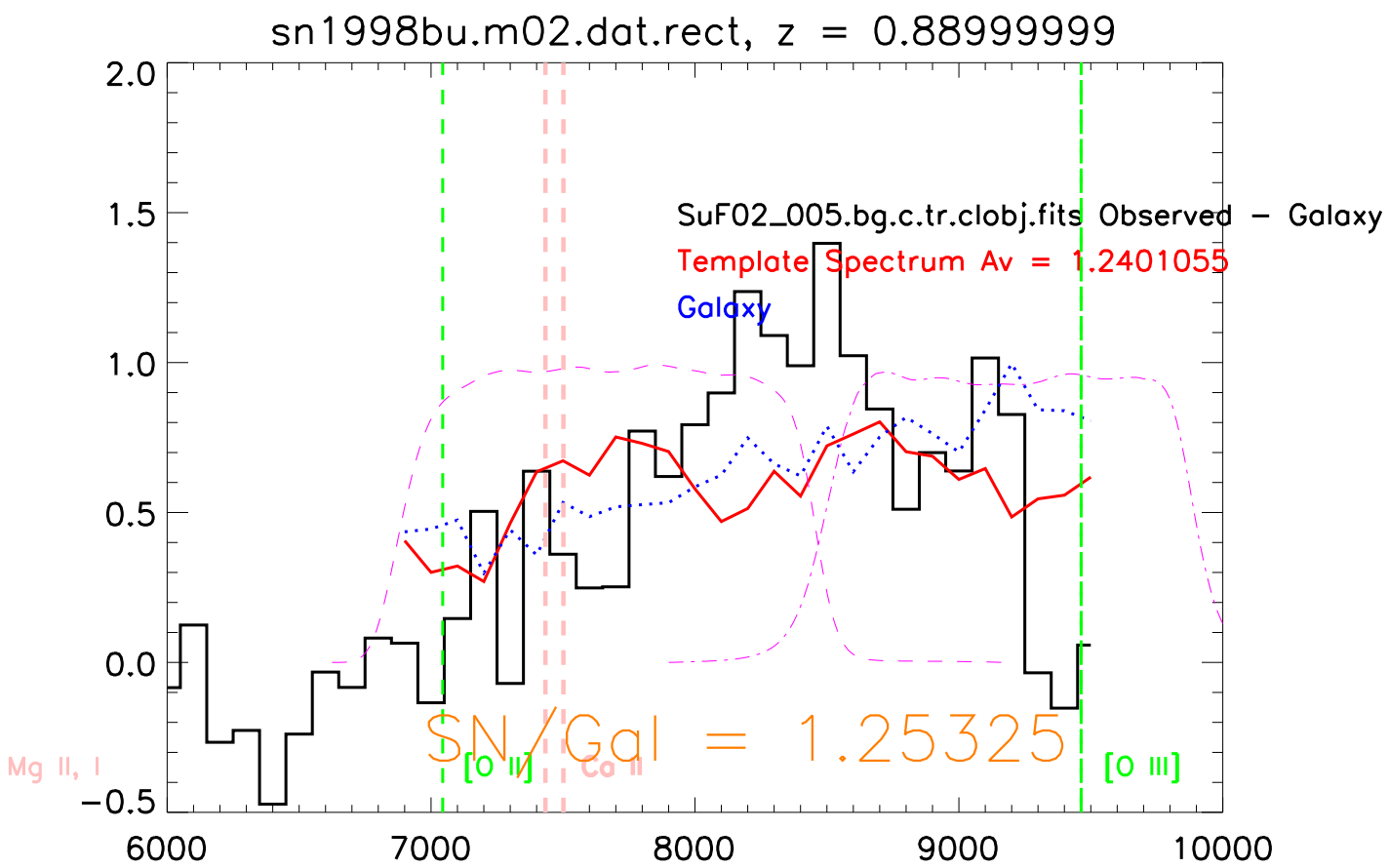

sn1992a.m01.dat.rect, z = 0.91999996
SuF02_005.bg.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = 1.1105350
Galaxy
SN/Gal = 1.00189
Mg II, I
[O II]
Ca II
[O III]
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000

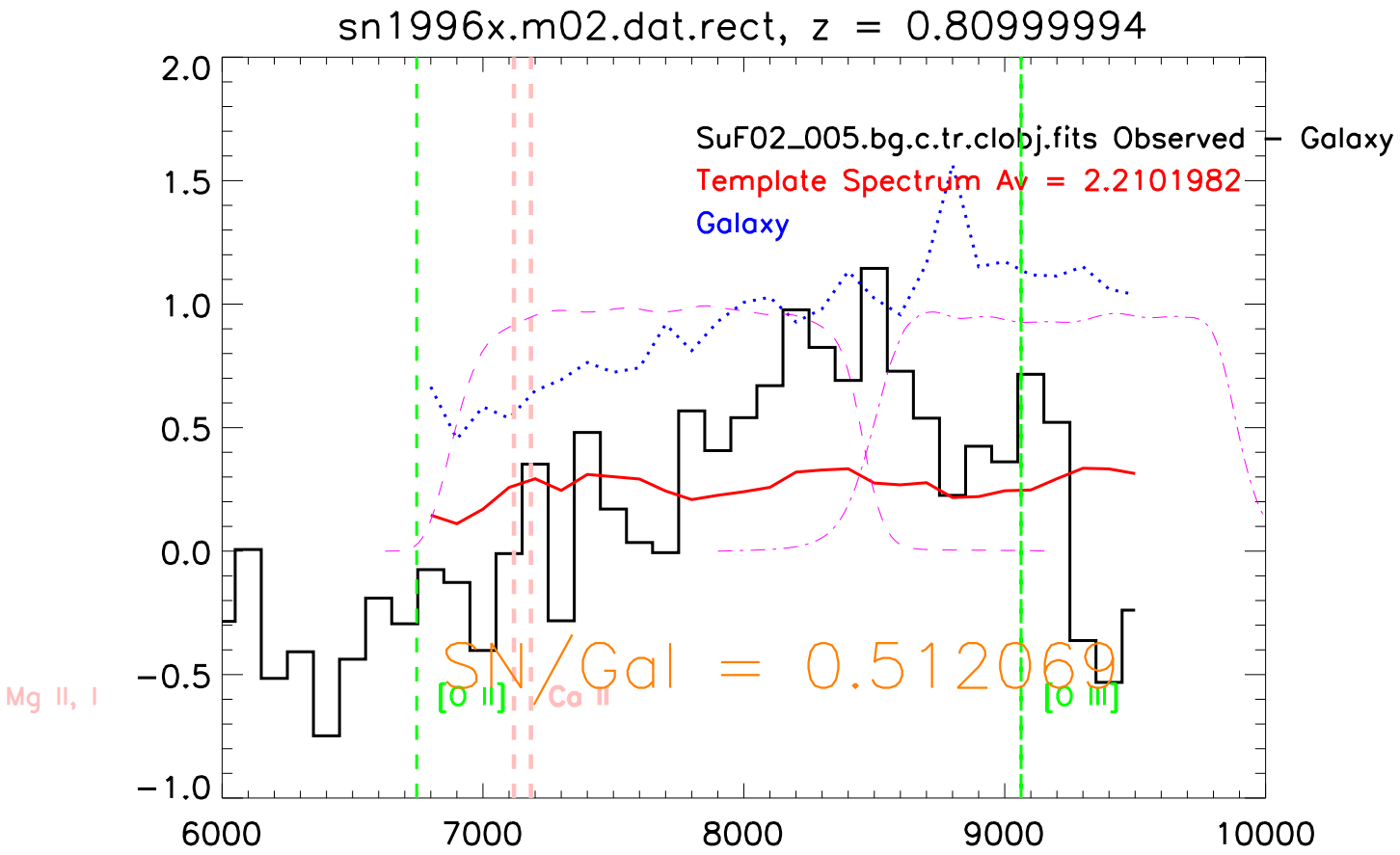

sn1992a.p03.dat.rect, z = 0.91999996
SuF02_005.bg.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = 0.63901783
Galaxy
SN/Gal = 0.778438
[O II]
Ca II
[O III]
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000

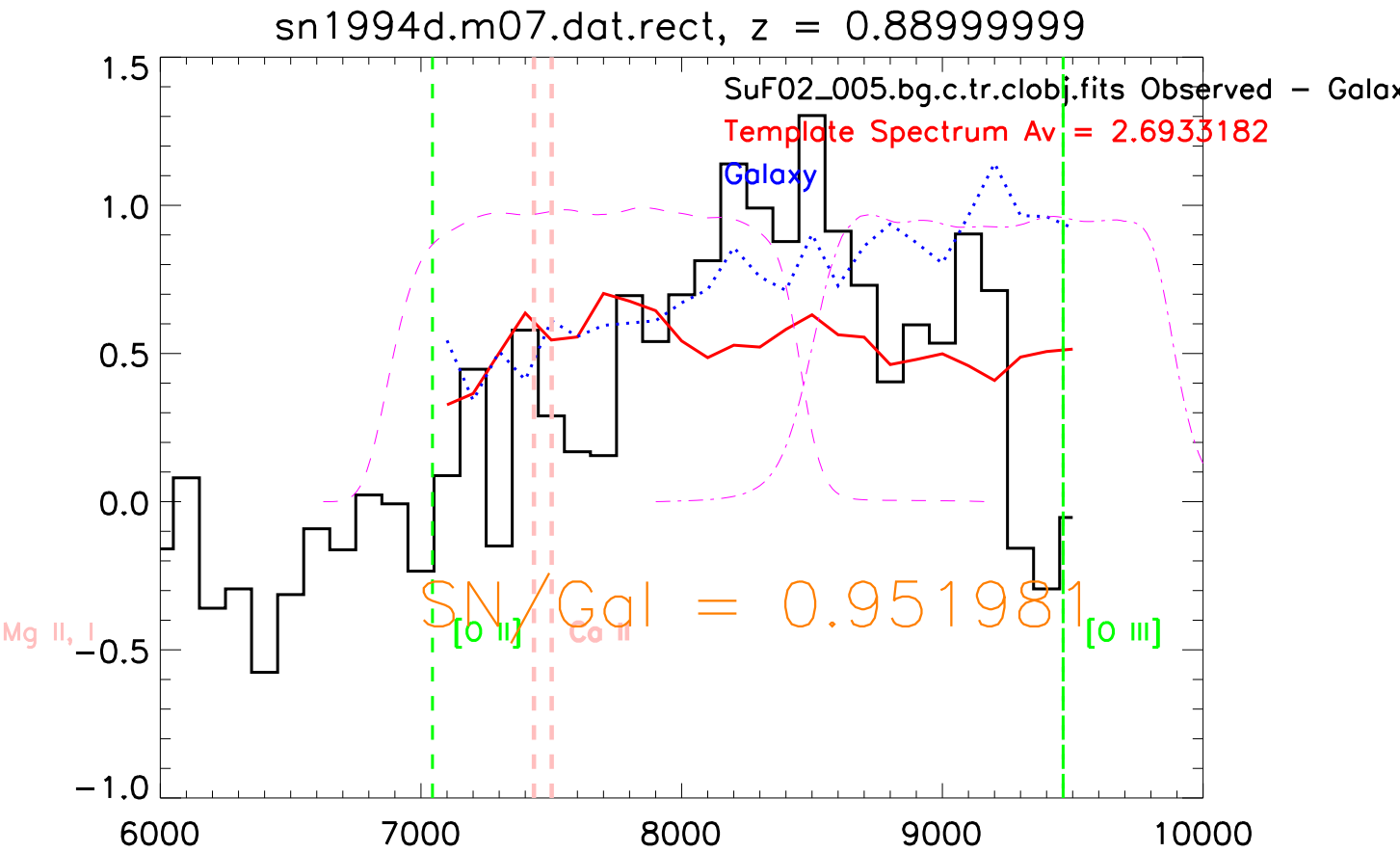

sn1991t.m07.dat.rect, z = 0.88000000
SuF02_005.bg.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = 3.7774953
Galaxy
SN/Gal = −19.1106
Mg II, I
[O II]
Ca II
[O III]
2.5
2.0
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000


sn1998bu.m03.dat.rect, z = 0.88999999
SuF02_005.bg.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = 1.3993020
Galaxy
SN/Gal = 1.40612
Mg II, I
[O II]
Ca II
[O III]
2.0
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000


sn1998bu.m04.dat.rect, z = 0.88999999
SuF02_005.bg.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = 1.7921668
Galaxy
SN/Gal = 1.41223
Mg II, I
[O II]
Ca II
[O III]
2.0
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000


sn1998bu.m02.dat.rect, z = 0.88999999
SuF02_005.bg.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = 1.2401055
Galaxy
S/N/Gal = 1.25325
Mg II, I
[O II]
Ca II
[O III]
2.0
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000


sn1996x.m02.dat.rect, z = 0.80999994
SuF02_005.bg.c.tr.clobj.fits Observed
Galaxy
Template Spectrum Av = 2.2101982
Galaxy
SN/Gal = 0.512069
Mg II, I
[O II]
Ca II
[O III]
2.0
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000


sn1994d.m07.dat.rect, z = 0.88999999
SuF02_005.bg.c.tr.clobj.fits Observed – Galax
Template Spectrum Av = 2.6933182
Galaxy
SN/Gal = 0.951981
Mg II, I
[O II]
Ca II
[O III]
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000