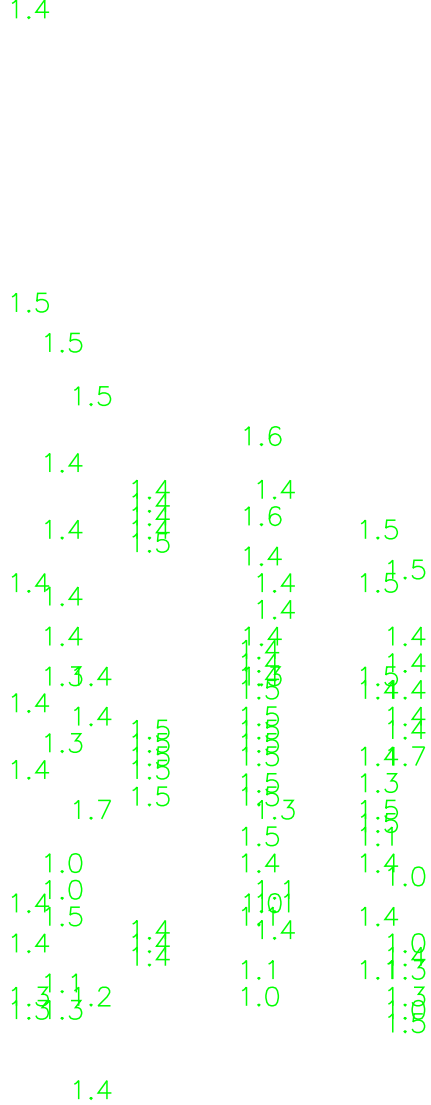

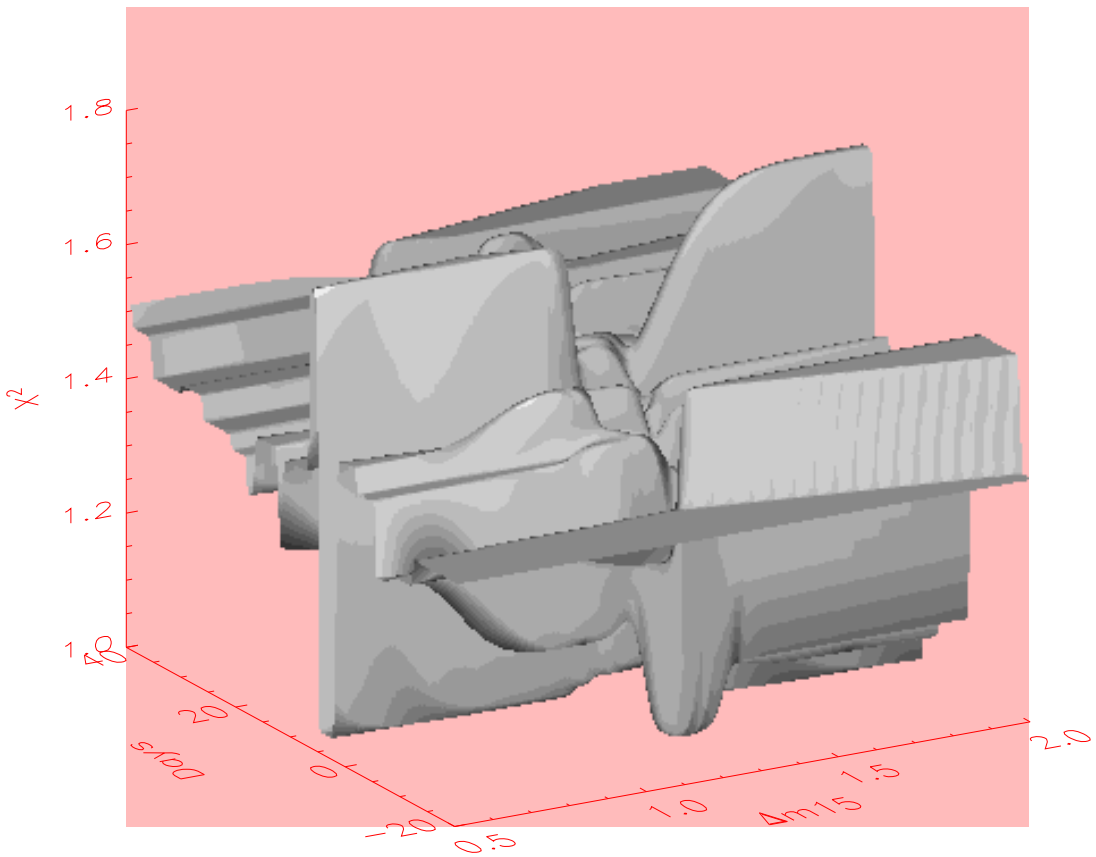

1.8
1.6
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1.0
χ^2
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20
0
−20
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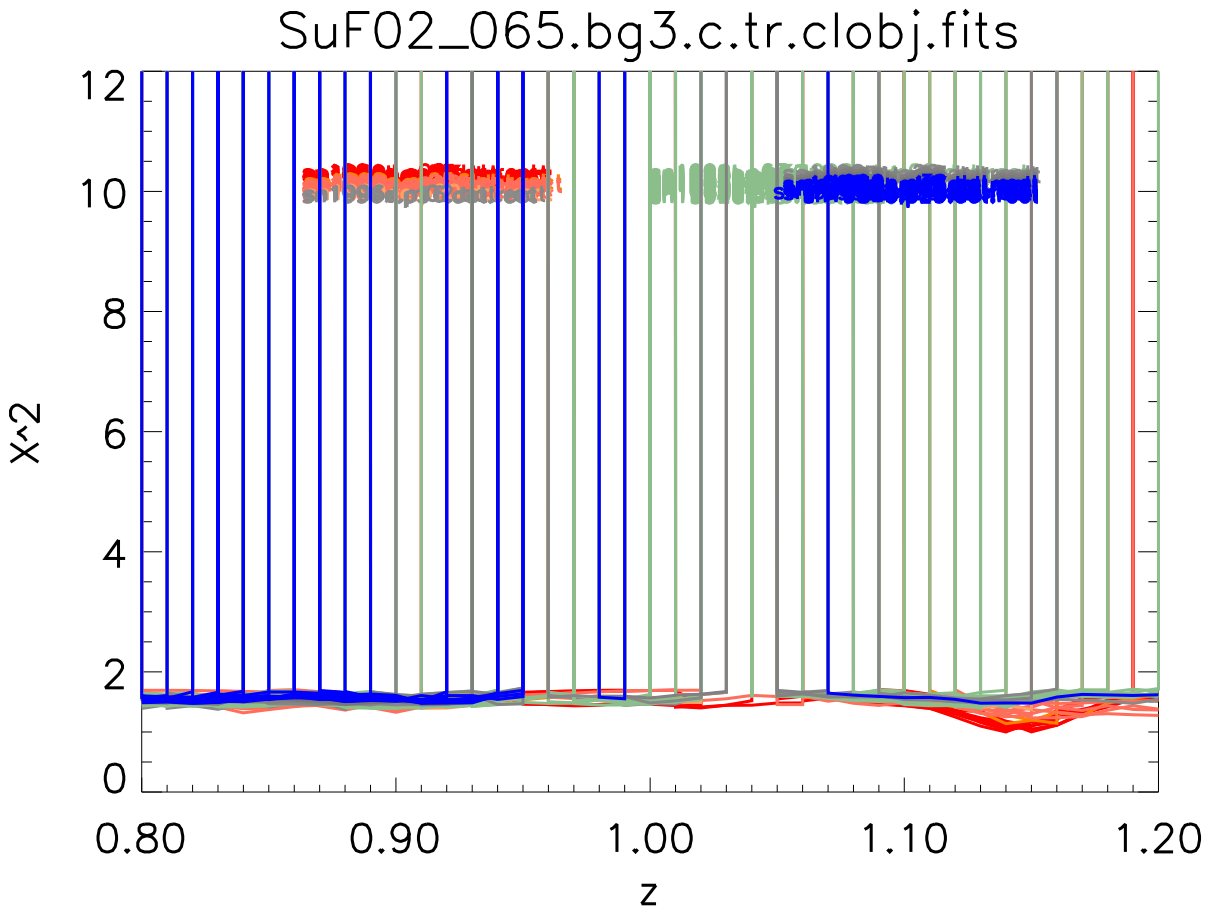
1.5
2.0
Δm15


SuF02_065.bg3.c.tr.clobj.fits
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6
8
10
12
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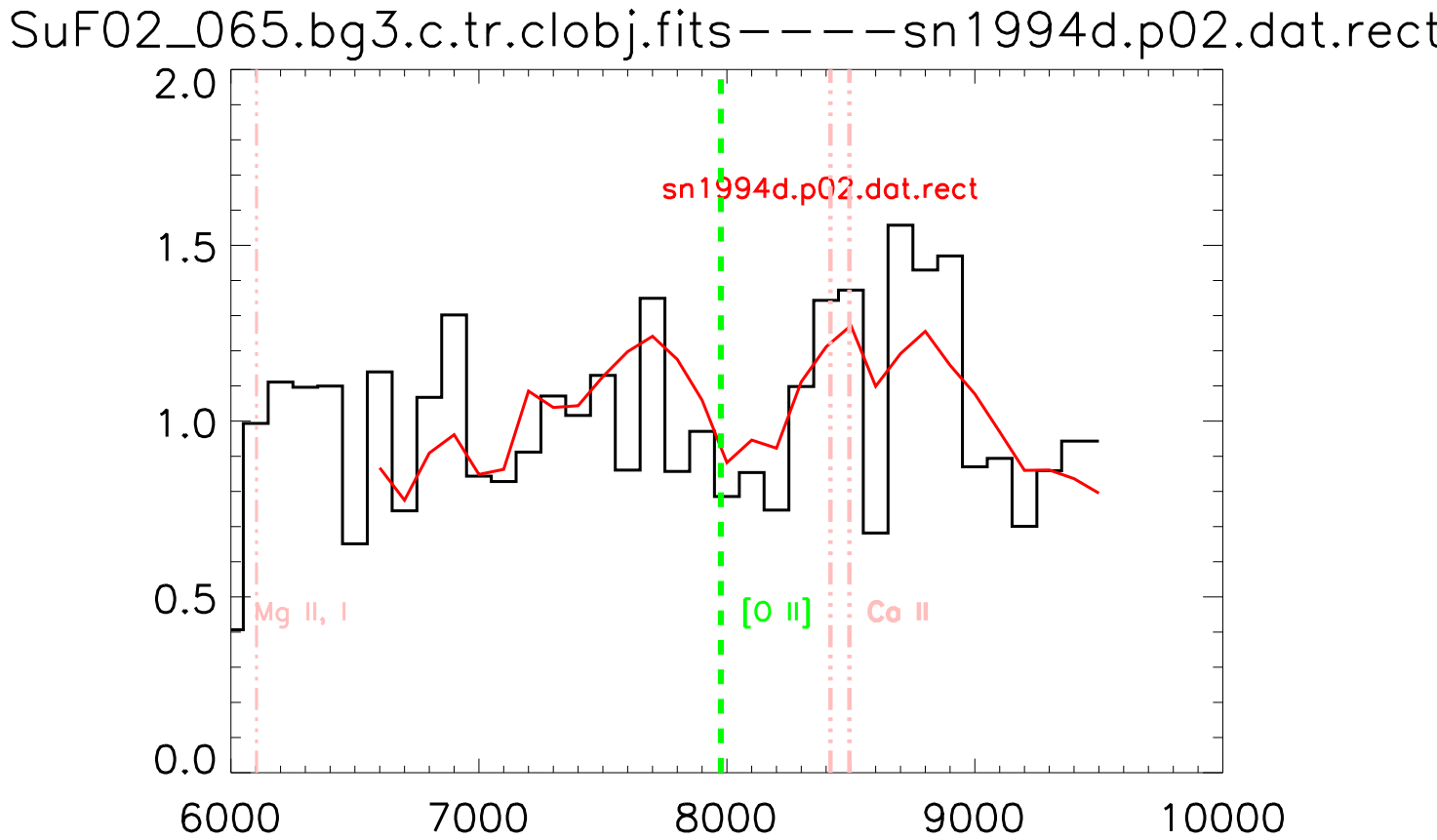
1.20


SuF02_065.bg3.c.tr.clobj.fits----sn1994d.p02.dat.rect
sn1994d.p02.dat.rect
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Ca II
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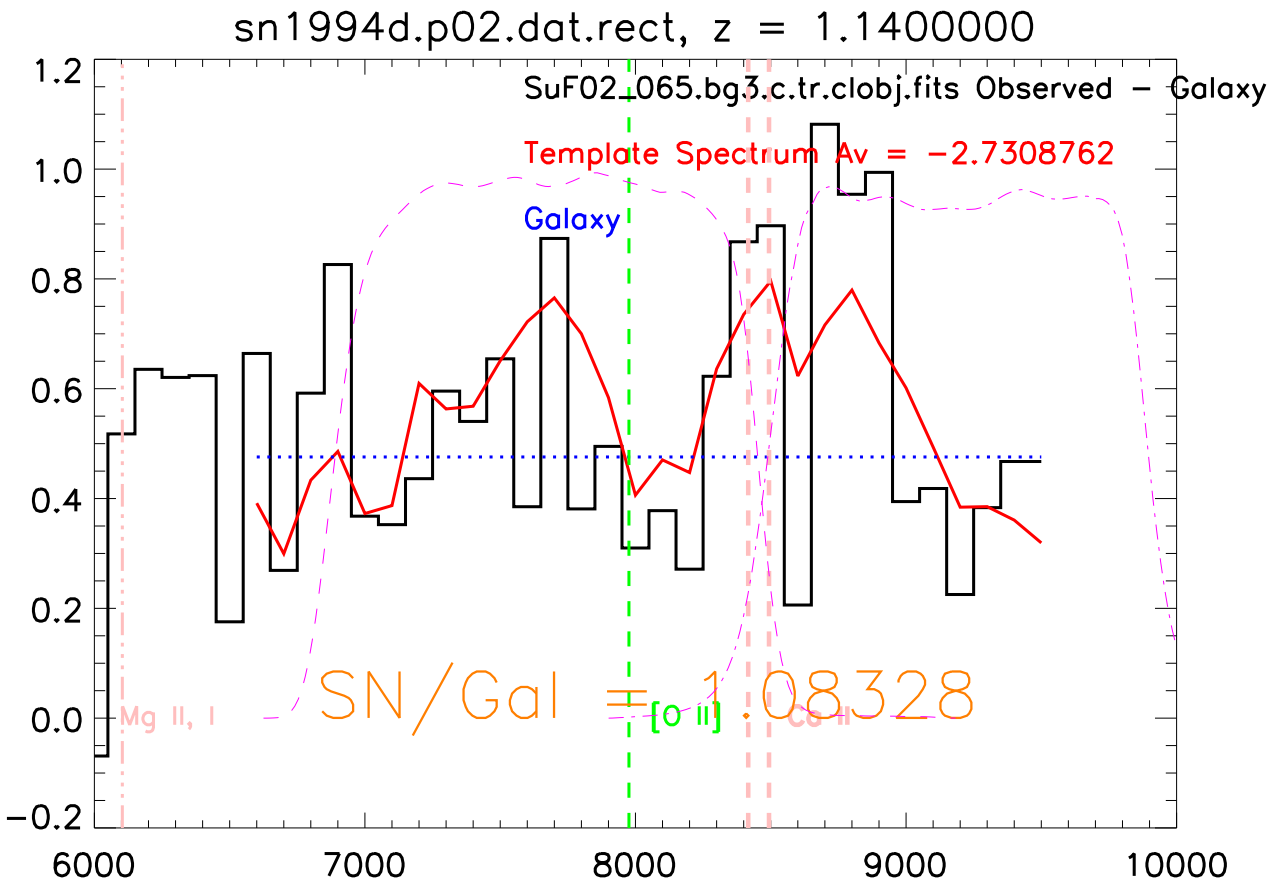
sn1994d.p02.dat.rect, z = 1.1400000
SuF02_065.bg3.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −2.7308762
Galaxy
SN/Gal = 1.08328
Mg II, I
[O II]
Ca II
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0.6
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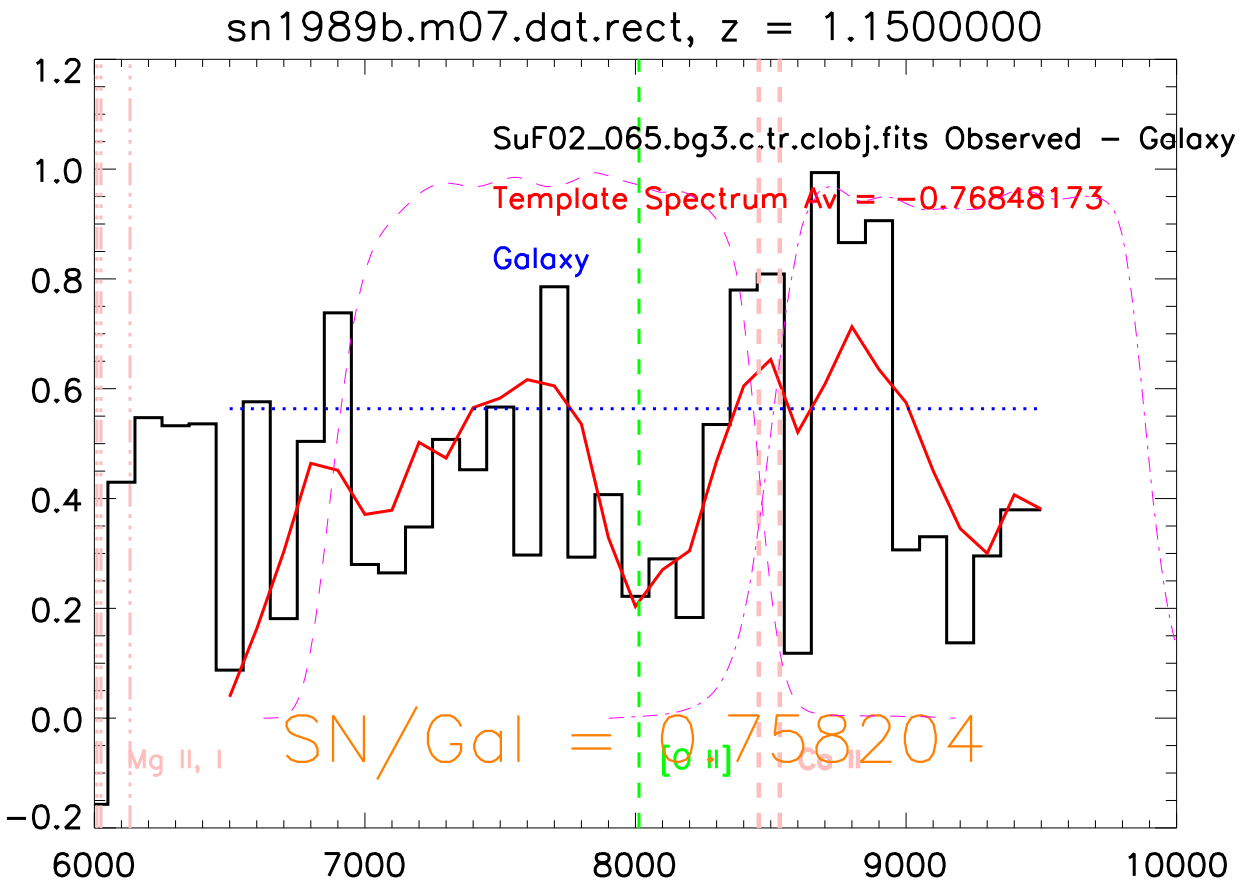
sn1989b.m07.dat.rect, z = 1.1500000
SuF02_065.bg3.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = -0.76848173
Galaxy
SN/Gal = 0.758204
Mg II, I
[O II]
Ca II
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0.6
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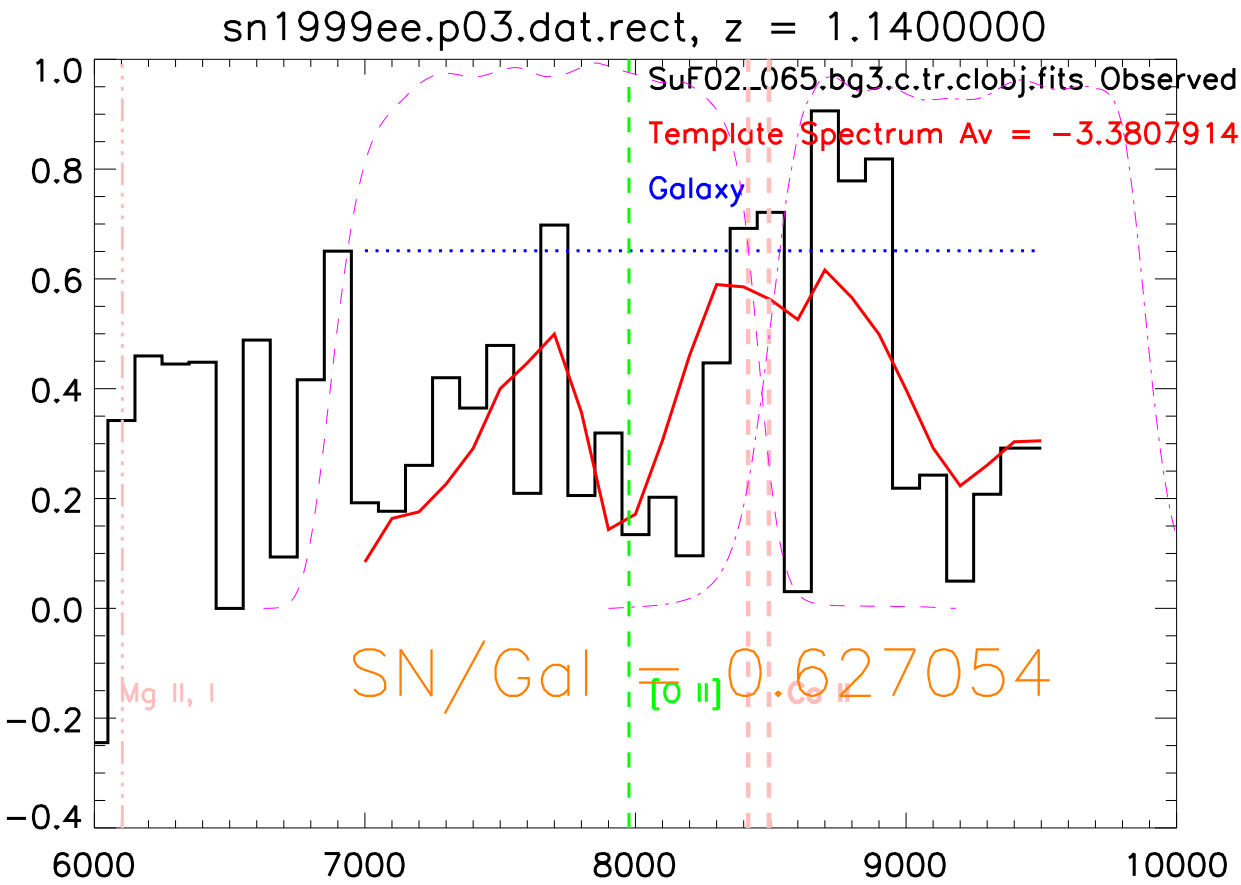
sn1999ee.p03.dat.rect, z = 1.1400000
SuF02_065.bg3.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = −3.3807914
Galaxy
SN/Gal = 0.627054
Mg II, I
[O II]
Ca II
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0.6
0.4
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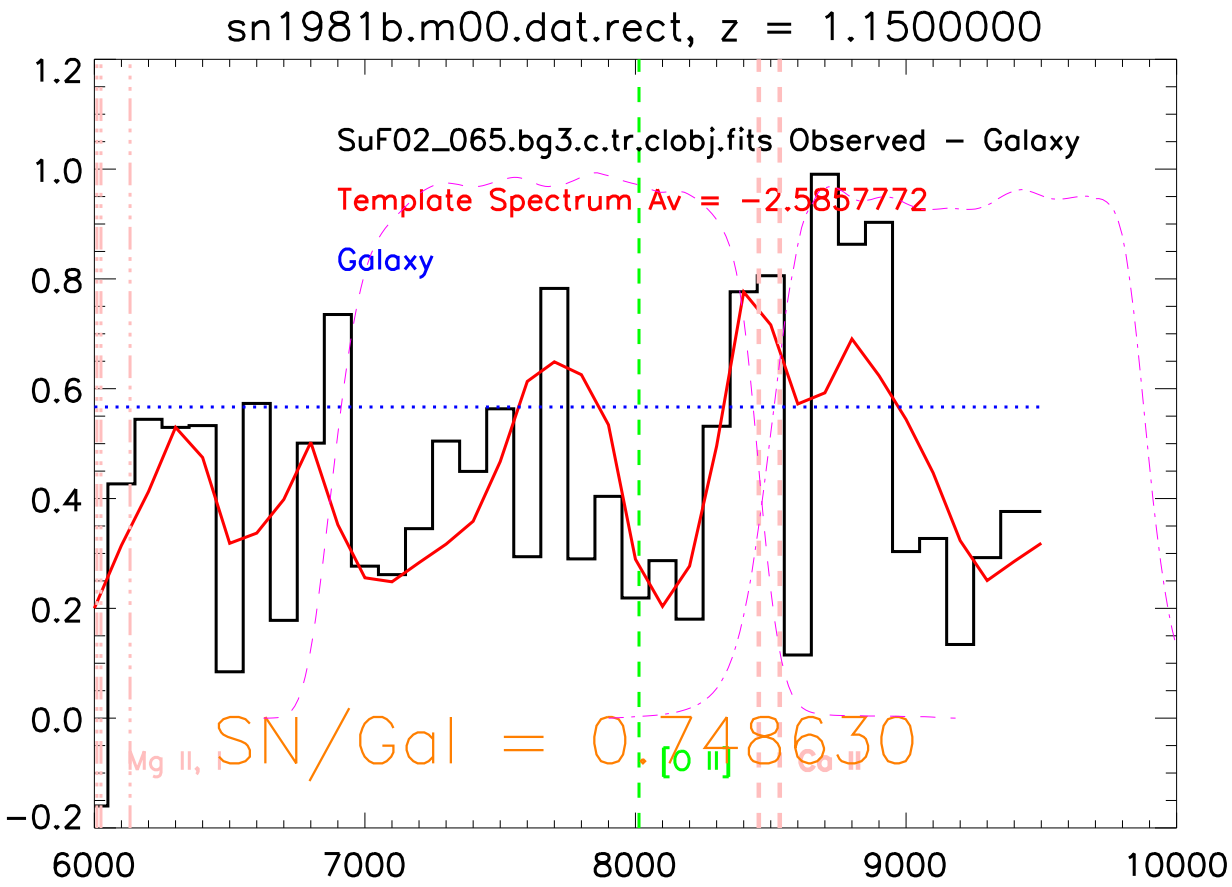
sn1981b.m00.dat.rect, z = 1.1500000
SuF02_065.bg3.c.tr.clobj.fits Observed − Galaxy
Template Spectrum, Av = −2.5857772
Galaxy
SN/Gal = 0.748630
[O II]
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0.8
0.6
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−0.2
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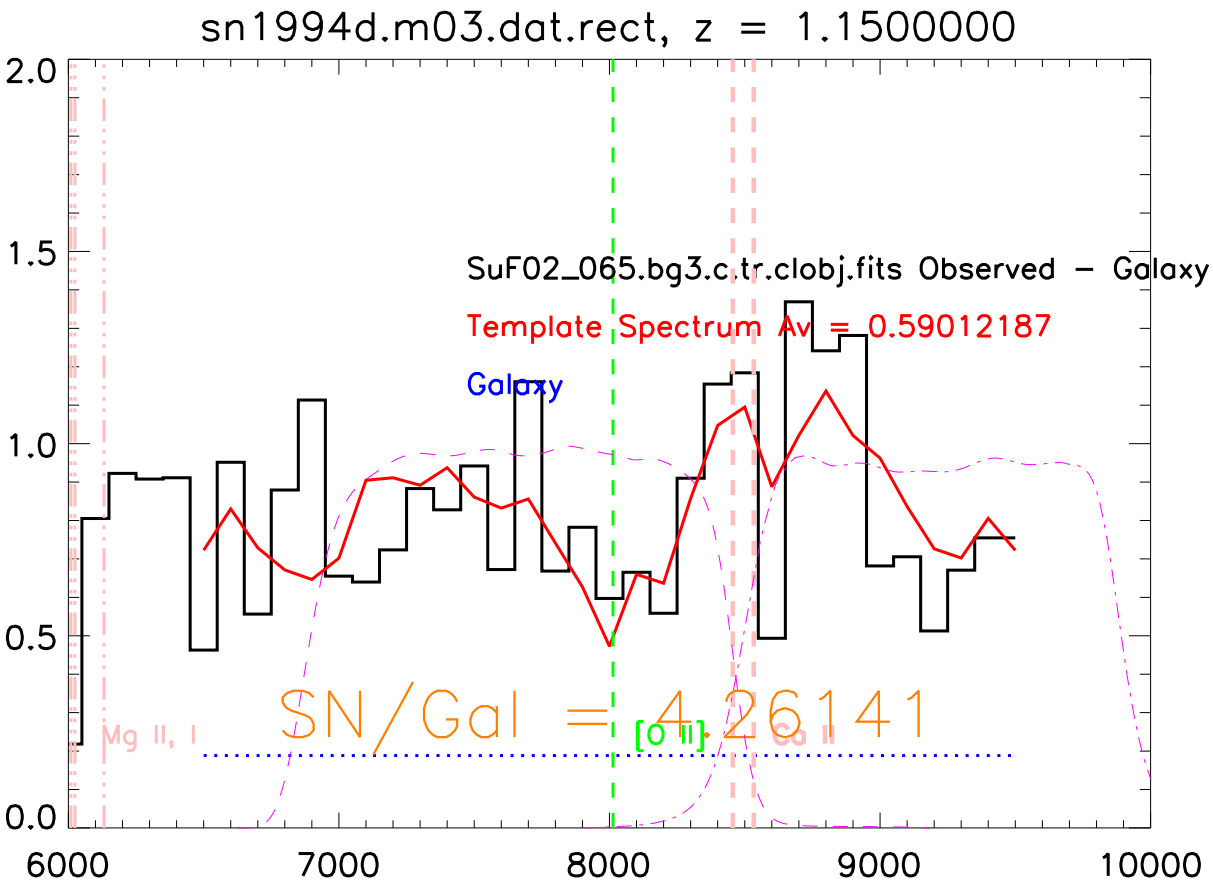
sn1994d.m03.dat.rect, z = 1.1500000
SuF02_065.bg3.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = 0.59012187
Galaxy
SN/Gal = 4.26141
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Ca II
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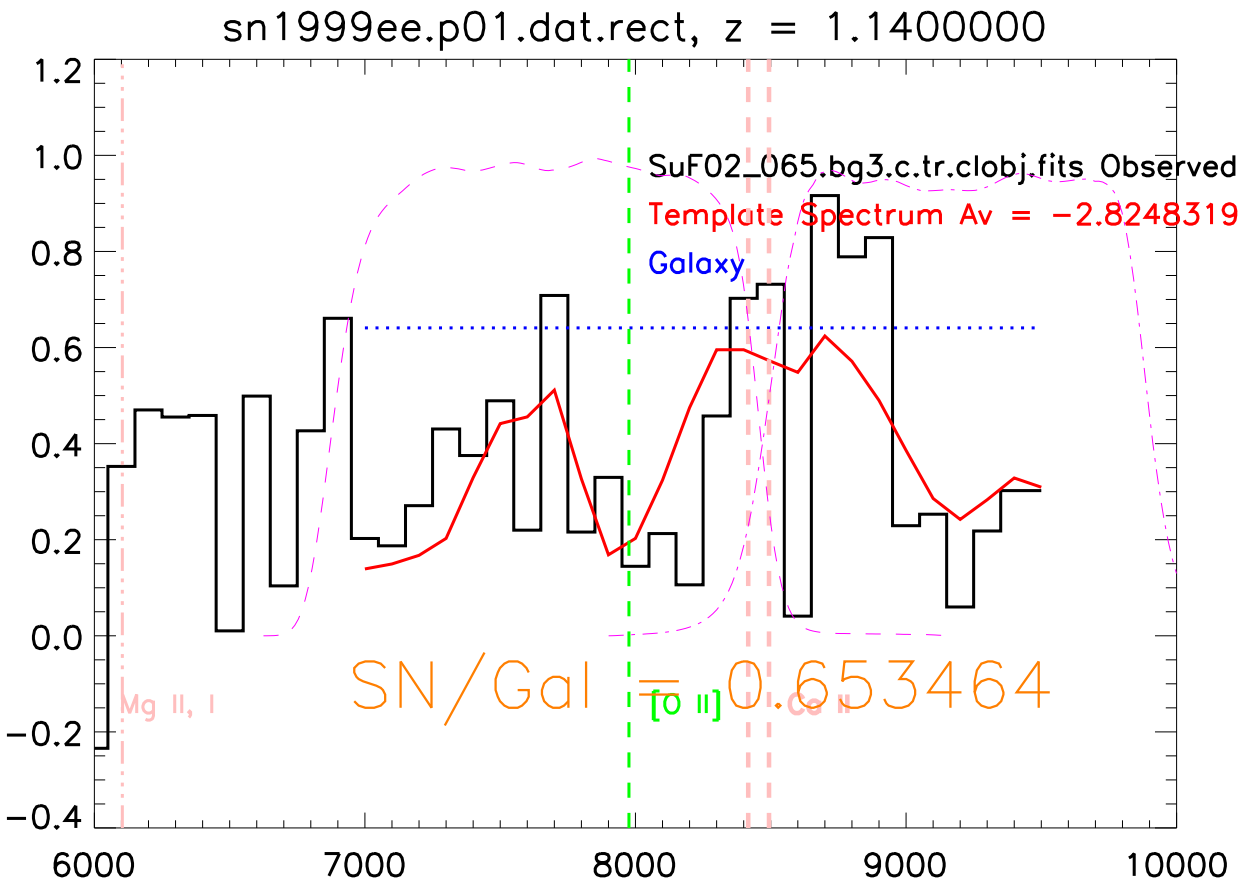
8000
9000
10000


sn1999ee.p01.dat.rect, z = 1.1400000
SuF02_065.bg3.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = −2.8248319
Galaxy
SN/Gal = 0.653464
Mg II, I
[O II]
Ca II
1.2
1.0
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0.6
0.4
0.2
0.0
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−0.4
6000
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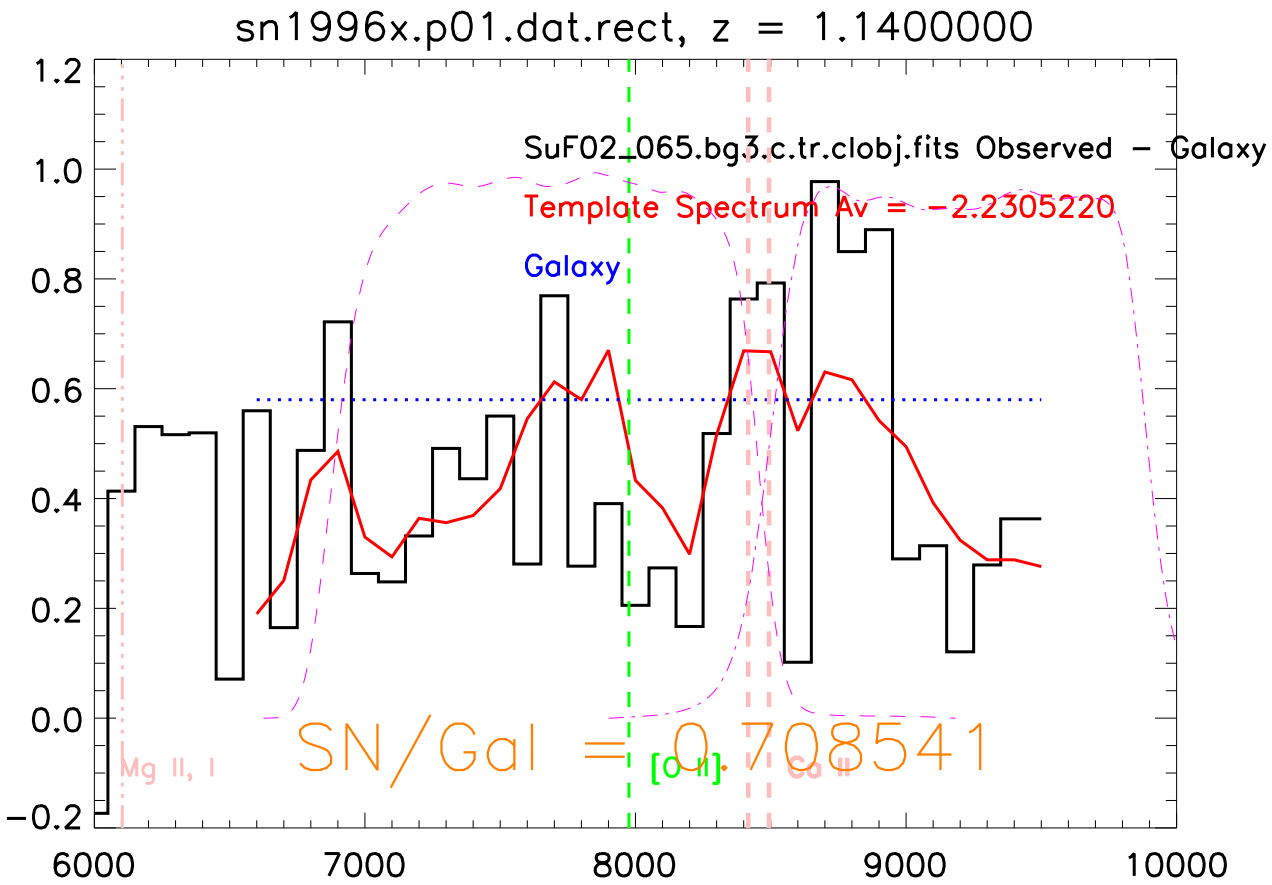
8000
9000
10000


sn1996x.p01.dat.rect, z = 1.1400000
SuF02_065.bg3.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −2.2305220
Galaxy
SN/Gal = 0.708541
Mg II, I
[O II]
Ca II
1.2
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0.6
0.4
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9000
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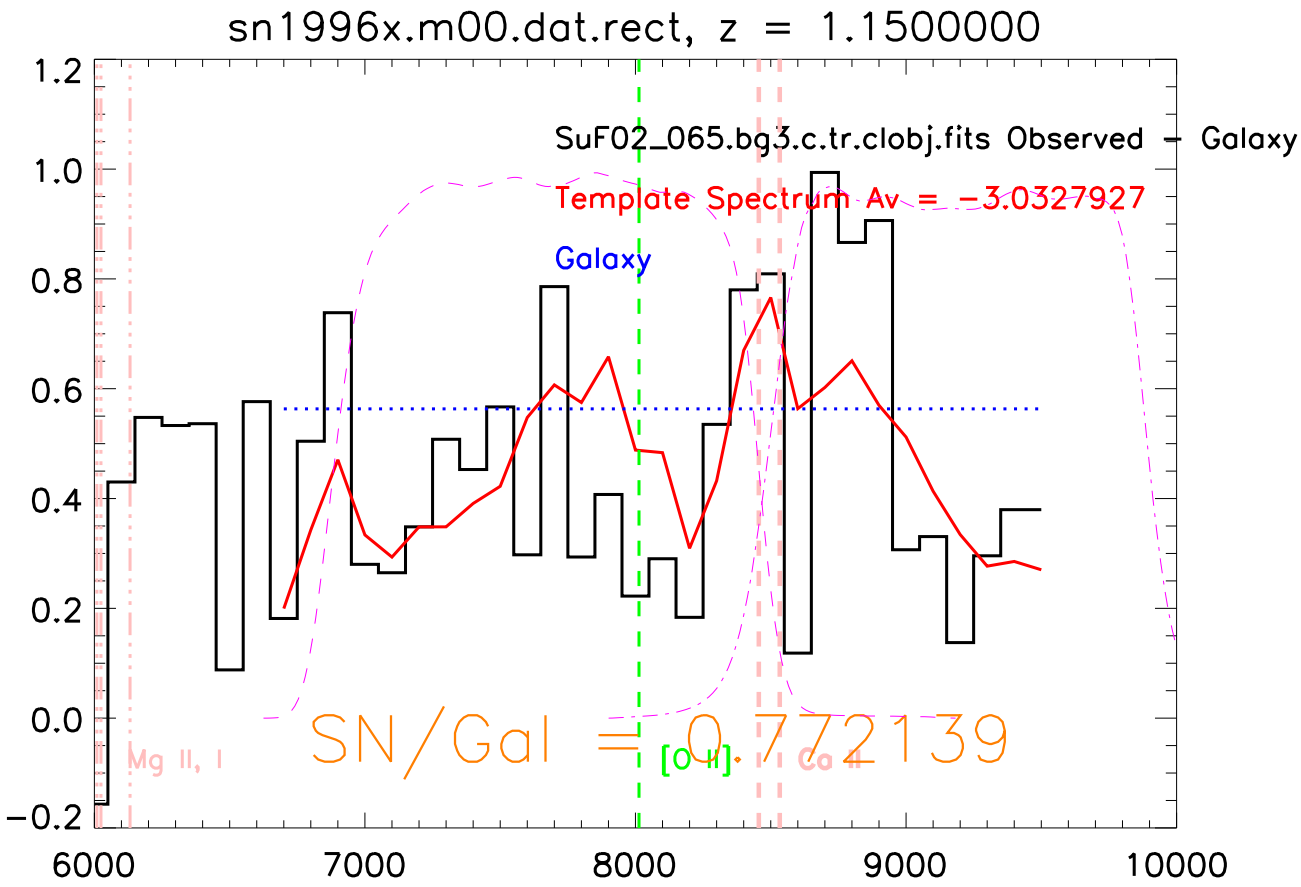
sn1996x.m00.dat.rect, z = 1.1500000
SuF02_065.bg3.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = −3.0327927
Galaxy
SN/Gal = 0.772139
Mg II, I
[O II]
Ca II
1.2
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0.8
0.6
0.4
0.2
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−0.2
6000
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8000
9000
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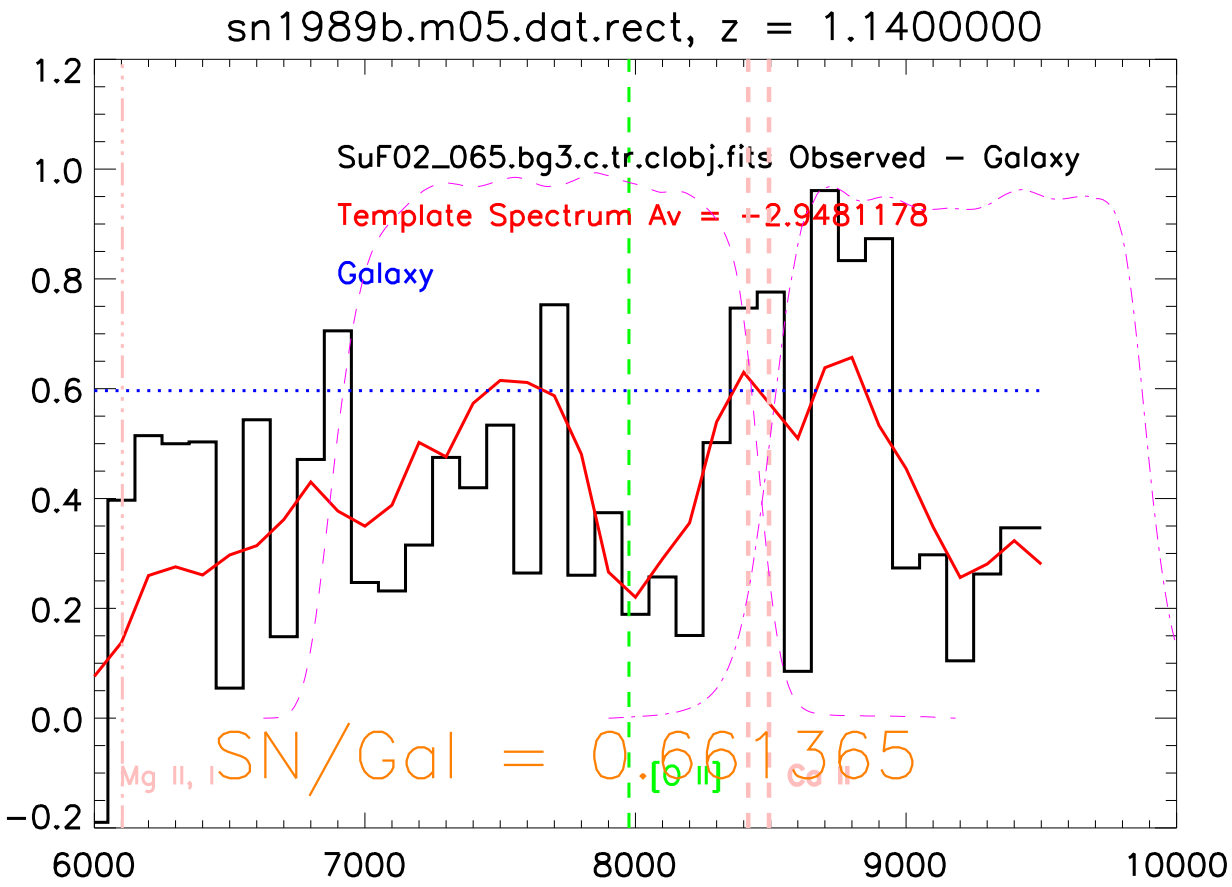
sn1989b.m05.dat.rect, z = 1.1400000
SuF02_065.bg3.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = -2.9481178
Galaxy
SN/Gal = 0.661365
Mg II, I
[O II]
Ca II
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0.8
0.6
0.4
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8000
9000
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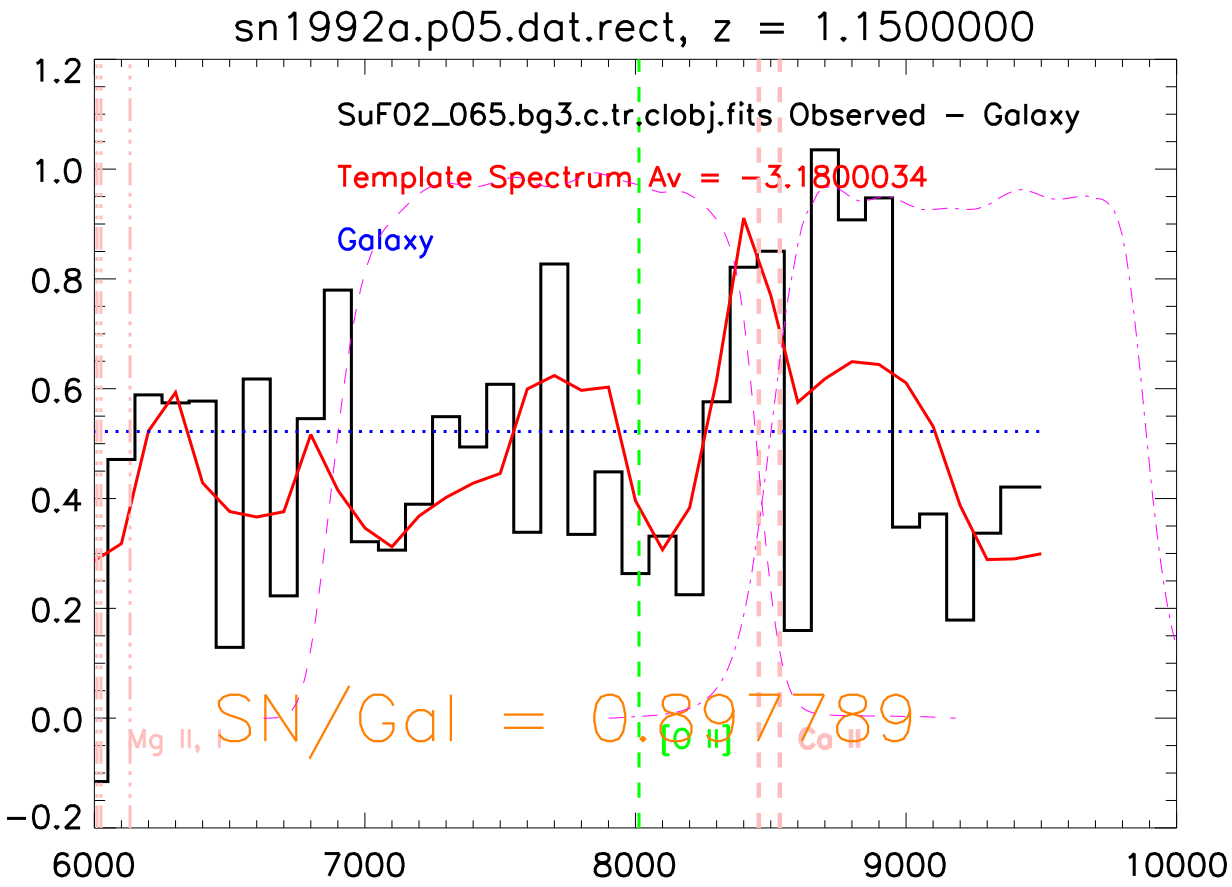
sn1992a.p05.dat.rect, z = 1.1500000
SuF02_065.bg3.c.tr.clobj.fits Observed − Galaxy
Template Spectrum, Av = −3.1800034
Galaxy
SN/Gal = 0.897789
[O II]
Ca II
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0.8
0.6
0.4
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8000
9000
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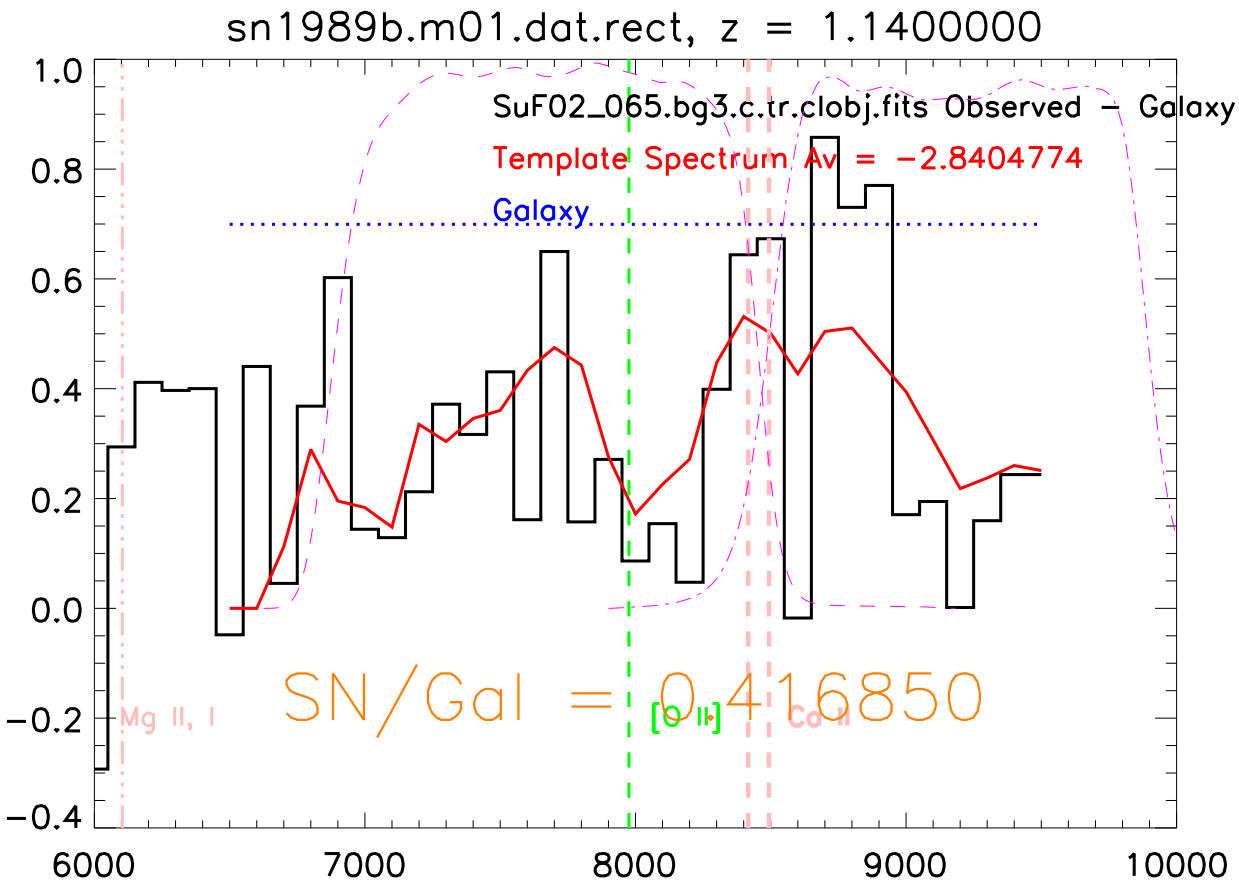
sn1989b.m01.dat.rect, z = 1.1400000
SuF02_065.bg3.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = −2.8404774
Galaxy
SN/Gal = 0.416850
Mg II, I
[O II]
Ca II
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0.6
0.4
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−0.4
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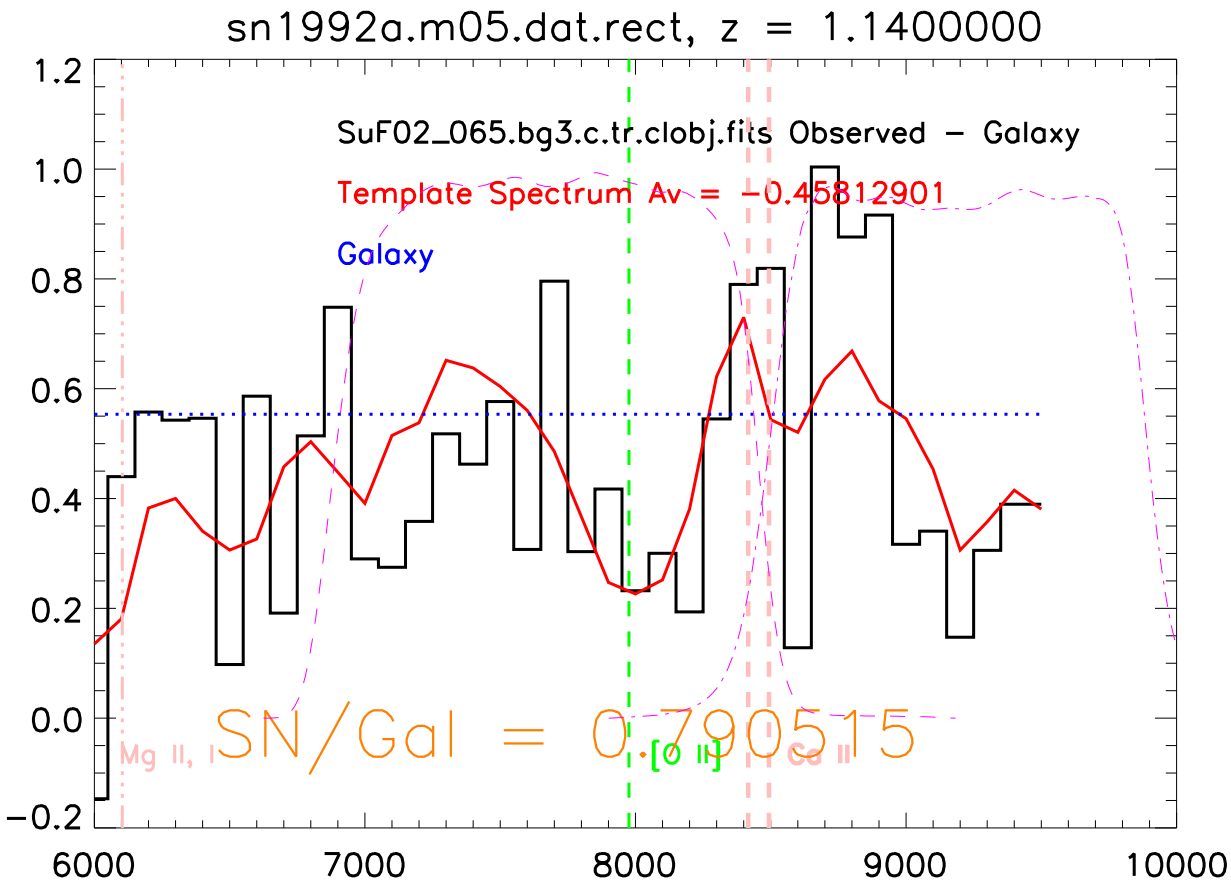
sn1992a.m05.dat.rect, z = 1.1400000
SuF02_065.bg3.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −0.45812901
Galaxy
SN/Gal = 0.790515
Mg II, I
[O II]
Ca II
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0.8
0.6
0.4
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−0.2
6000
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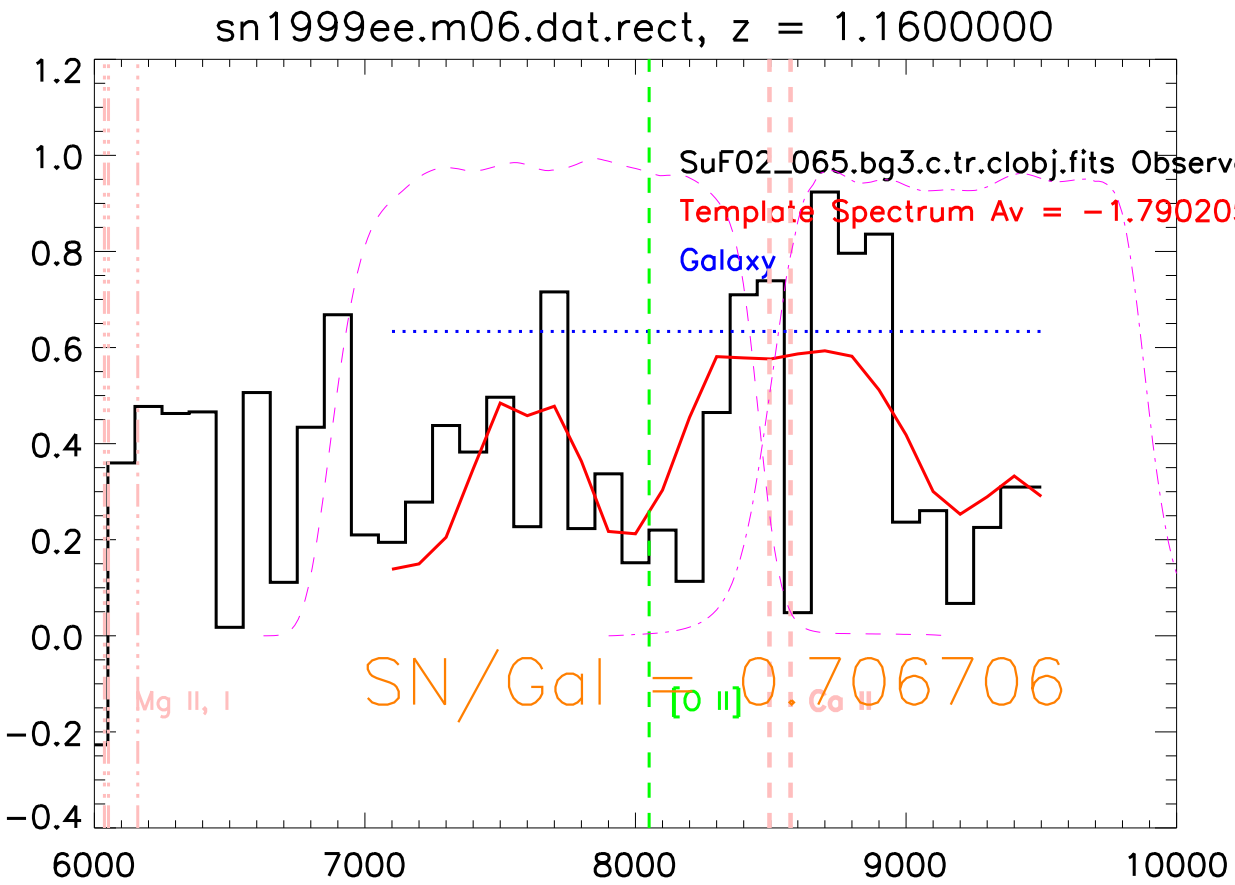
sn1999ee.m06.dat.rect, z = 1.1600000
SuF02_065.bg3.c.tr.clobj.fits Observed – Gala
Template Spectrum Av = −1.7902057
Galaxy
SN/Gal = 0.706706
Mg II, I
[O II]
Ca II
1.2
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0.6
0.4
0.2
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−0.4
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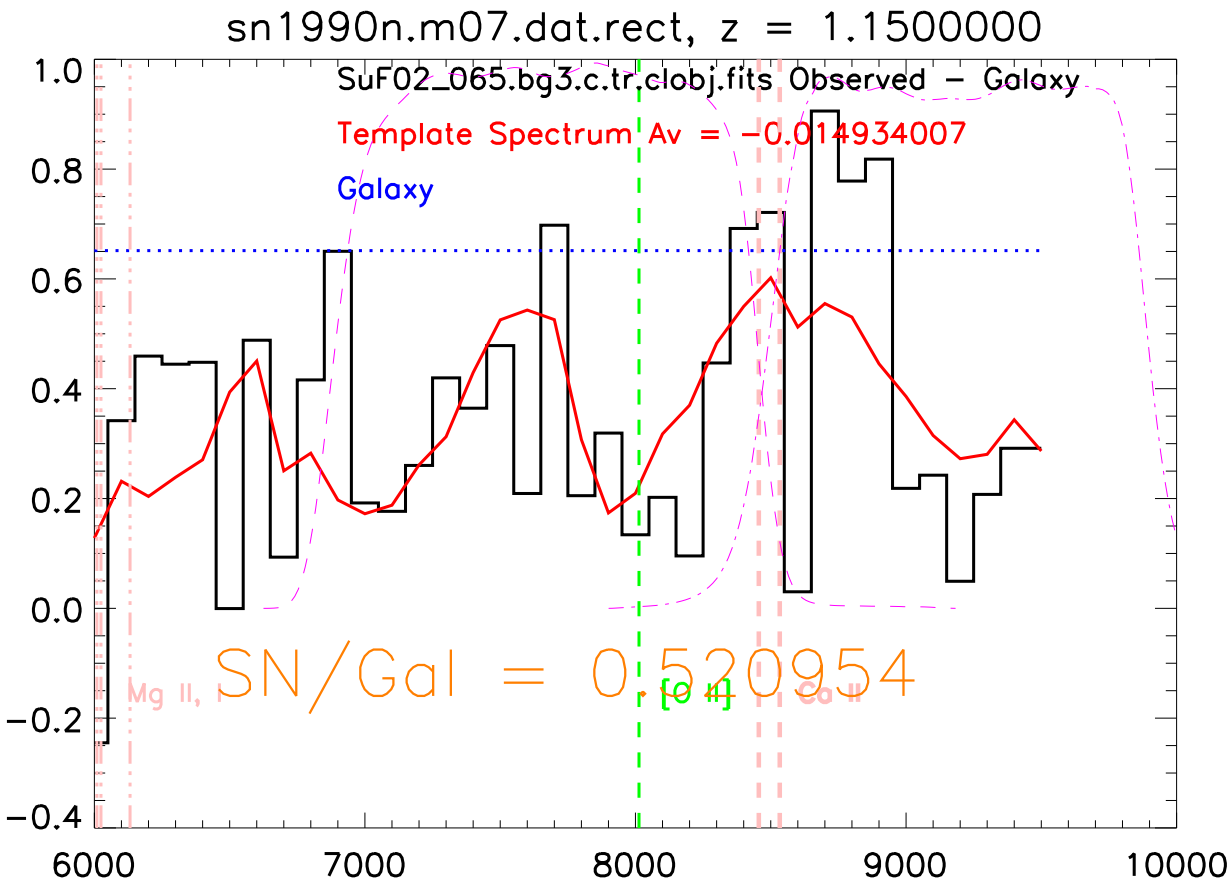
sn1990n.m07.dat.rect, z = 1.1500000
SuF02_065.bg3.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −0.014934007
Galaxy
SN/Gal = 0.520954
[O II]
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0.6
0.4
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−0.4
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9000
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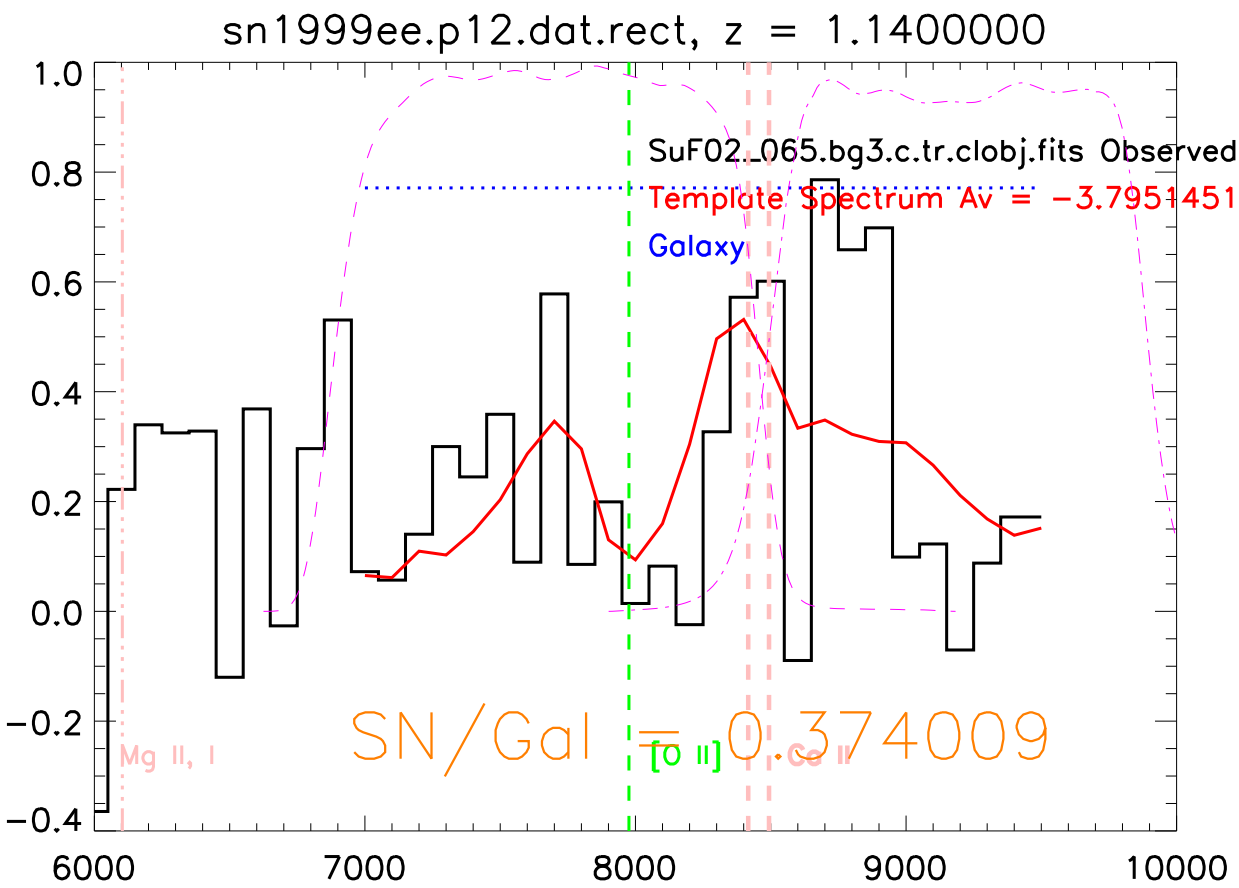
sn1999ee.p12.dat.rect, z = 1.1400000
SuF02_065.bg3.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = −3.7951451
Galaxy
SN/Gal = 0.374009
Mg II, I
[O II]
Ca II
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0.6
0.4
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−0.4
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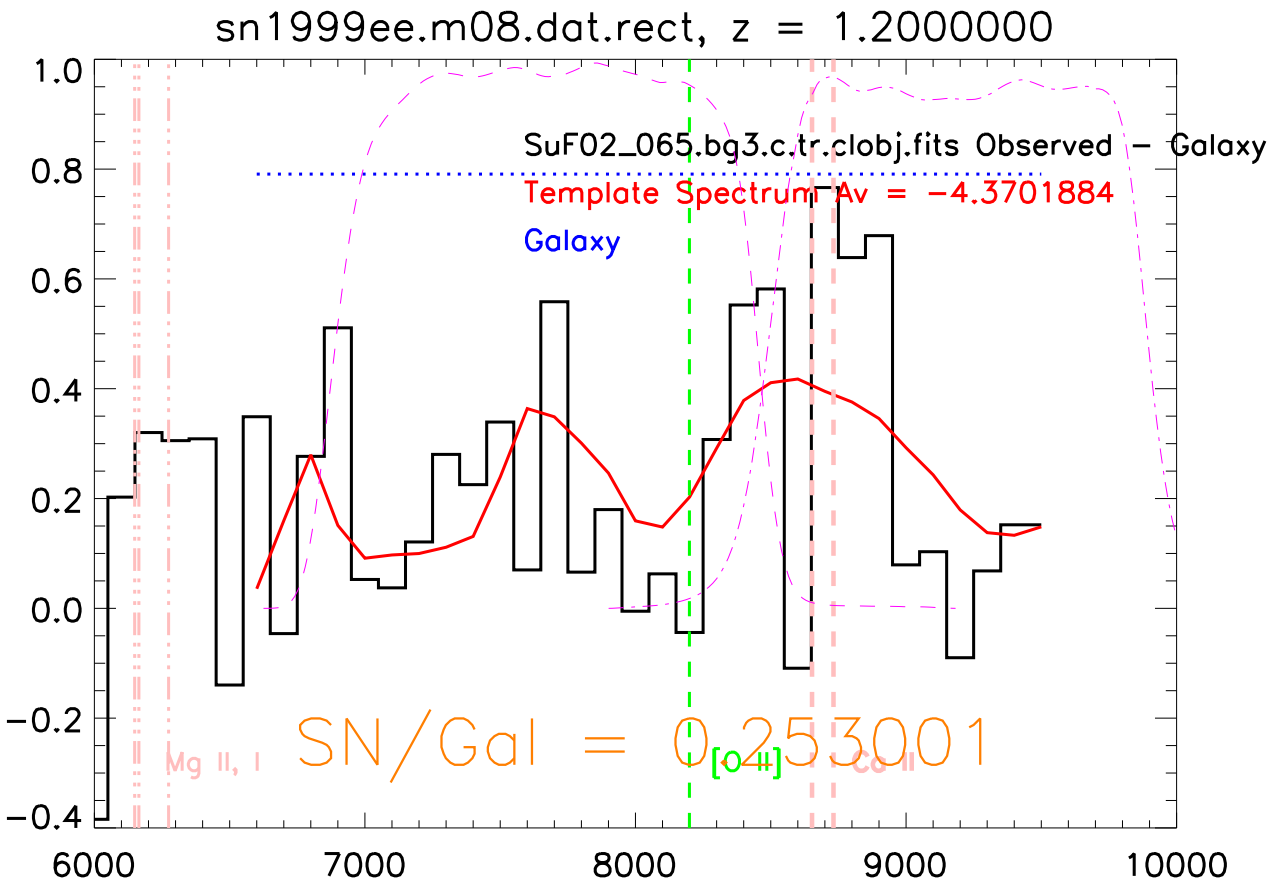
sn1999ee.m08.dat.rect, z = 1.2000000
SuF02_065.bg3.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = −4.3701884
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SN/Gal = 0.253001
Mg II, I
[O II]
Ca II
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0.4
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−0.4
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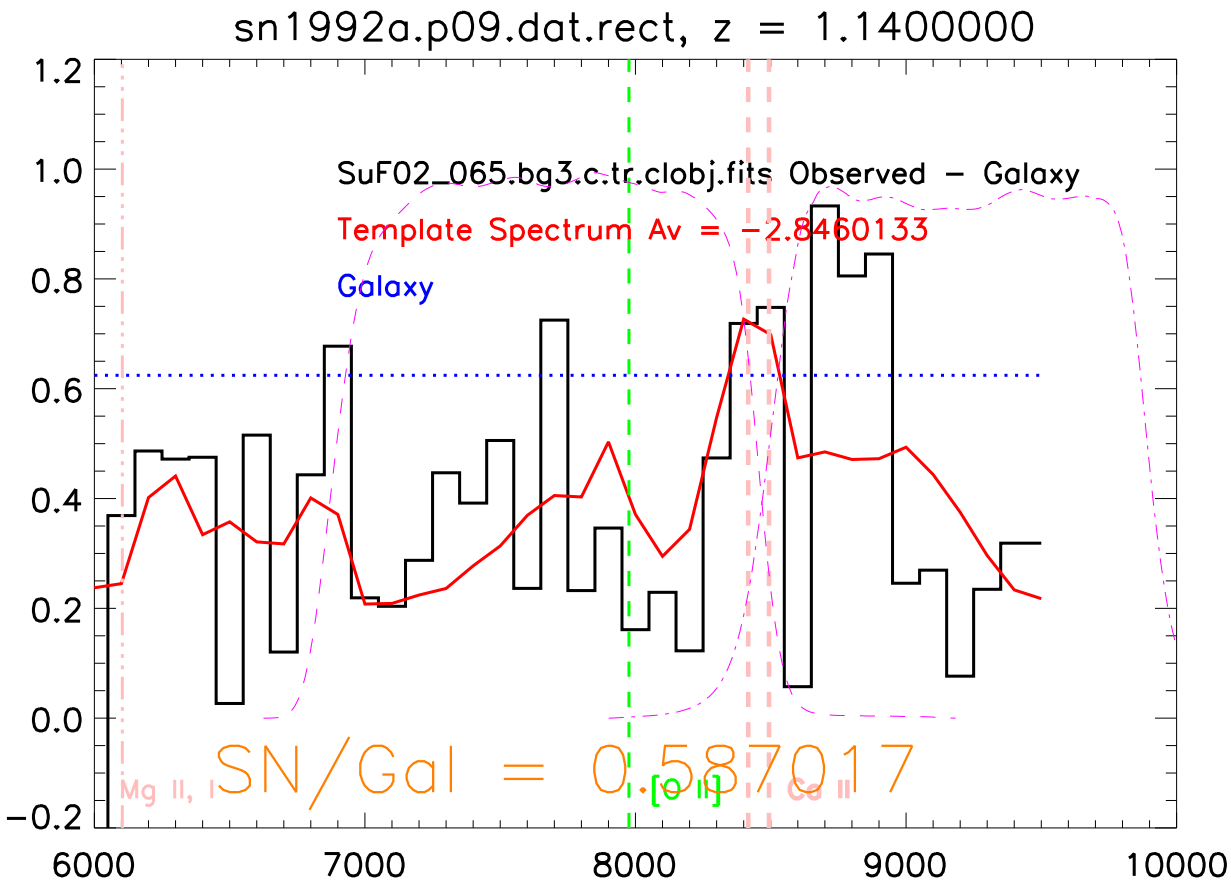
sn1992a.p09.dat.rect, z = 1.1400000
SuF02_065.bg3.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −2.8460133
Galaxy
SN/Gal = 0.587017
Mg II, I
[O II]
Ca II
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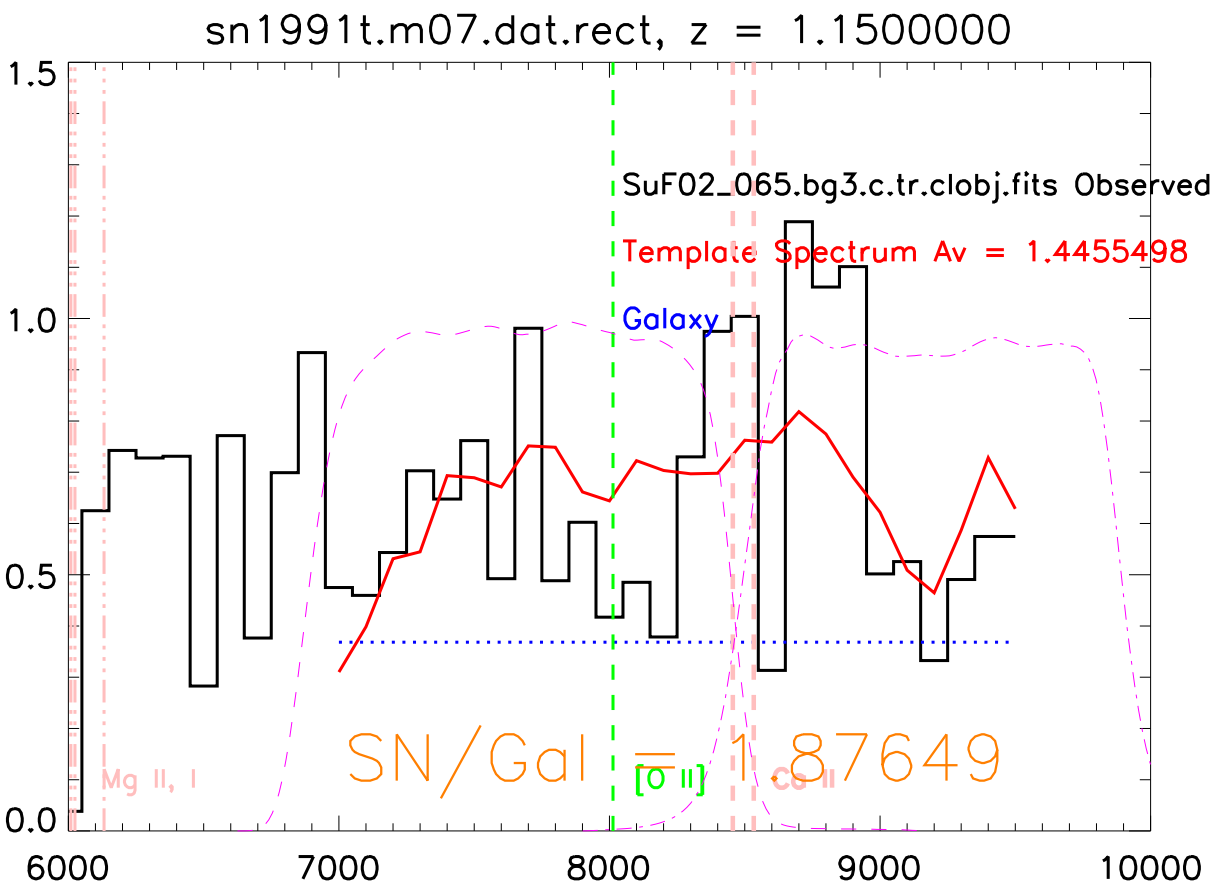
sn1991t.m07.dat.rect, z = 1.1500000
SuF02_065.bg3.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = 1.4455498
Galaxy
SN/Gal = 1.87649
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[O II]
Ca II
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9000
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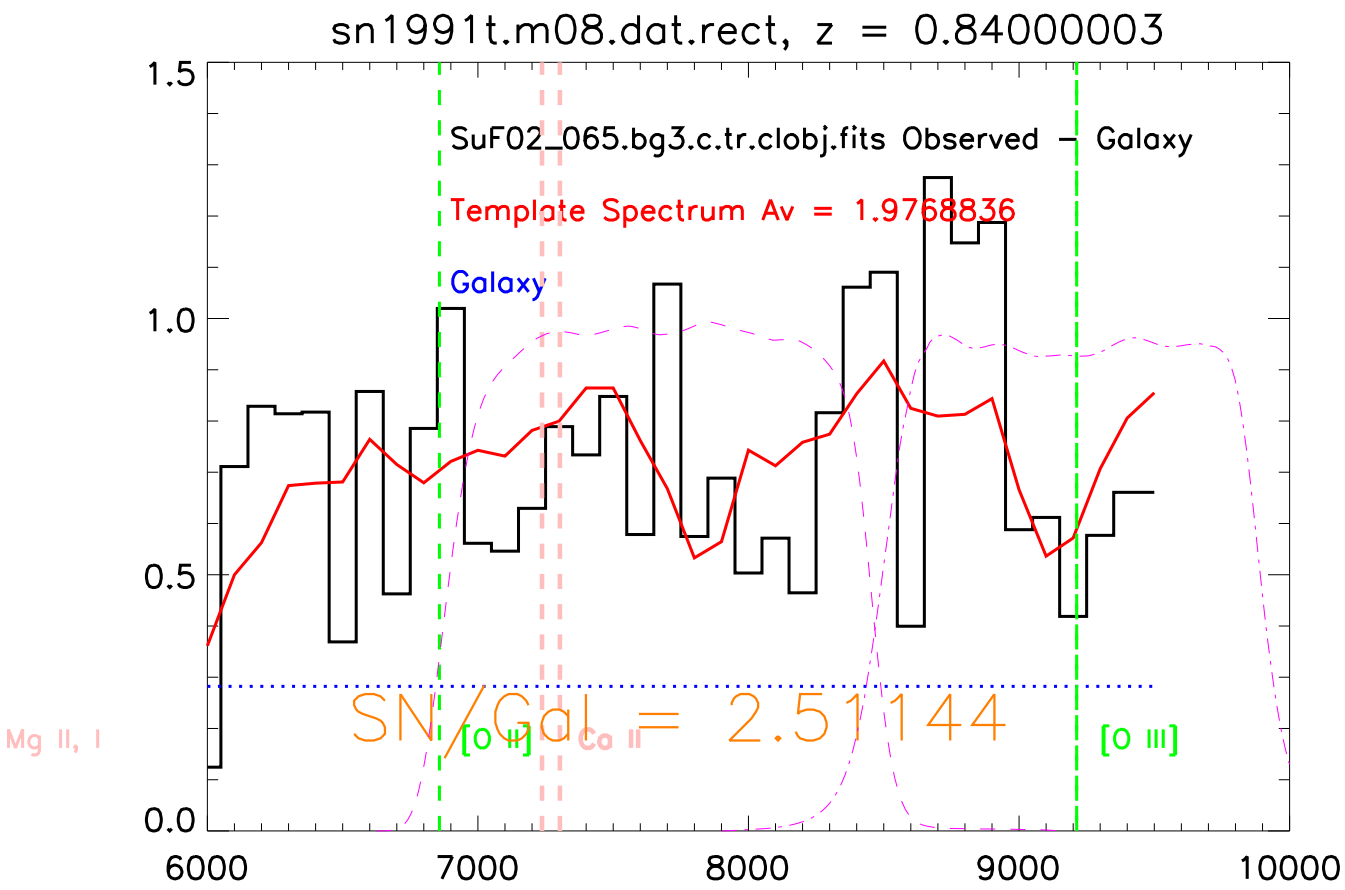
sn1991t.m08.dat.rect, z = 0.84000003
SuF02_065.bg3.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = 1.9768836
Galaxy
SN/Gal = 2.51144
[O II]
Ca II
[O III]
Mg II, I
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9000
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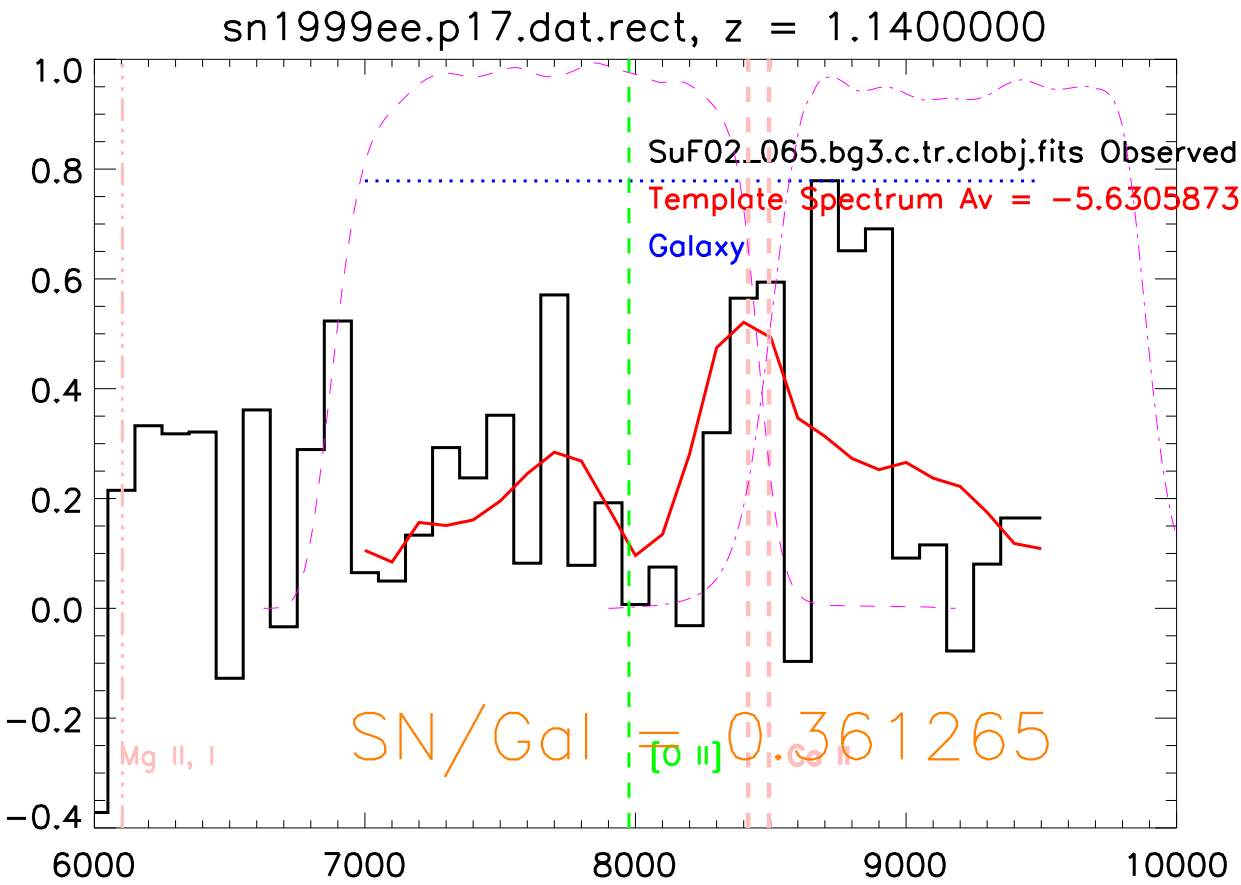
sn1999ee.p17.dat.rect, z = 1.1400000
SuF02_065.bg3.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = −5.6305873
Galaxy
SN/Gal = 0.361265
Mg II, I
[O II]
Ca II
1.0
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0.6
0.4
0.2
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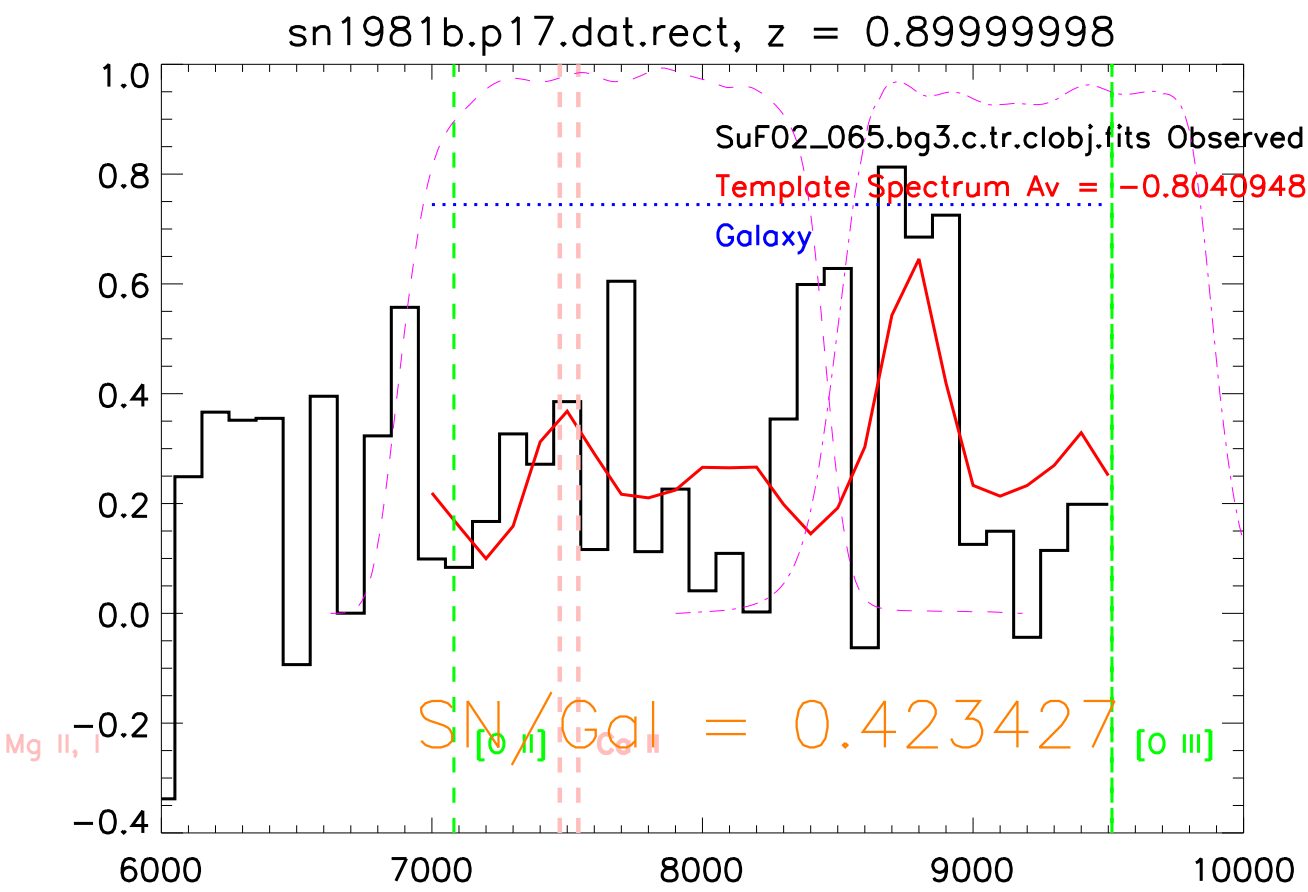
8000
9000
10000


sn1981b.p17.dat.rect, z = 0.89999998
SuF02_065.bg3.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = −0.80409480
Galaxy
SN/Gal = 0.423427
Mg II, I
[O II]
Ca II
[O III]
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0.6
0.4
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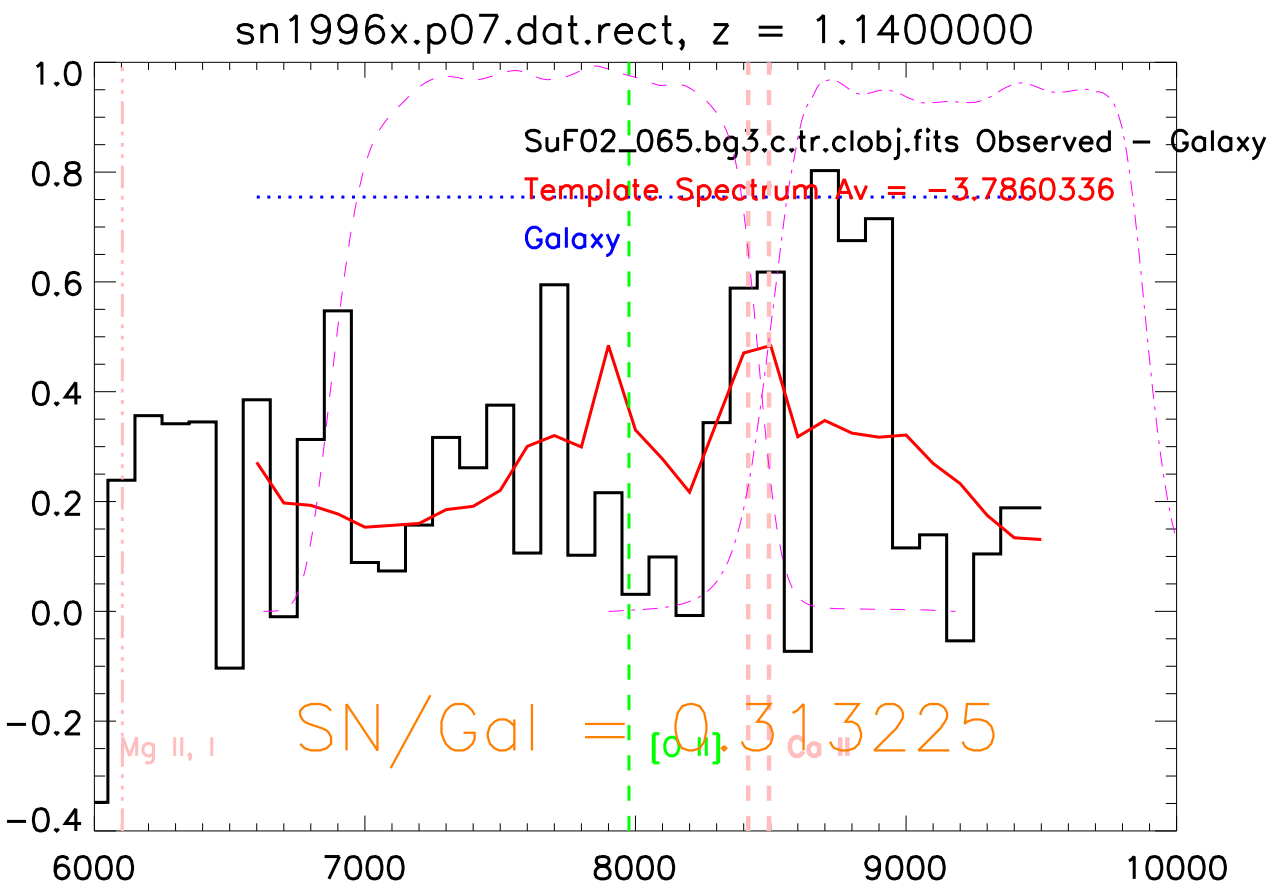
sn1996x.p07.dat.rect, z = 1.1400000
SuF02_065.bg3.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av. = −3.7860336
Galaxy
SN/Gal = 0.313225
Mg II, I
[O II]
Ca II
1.0
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0.6
0.4
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−0.4
6000
7000
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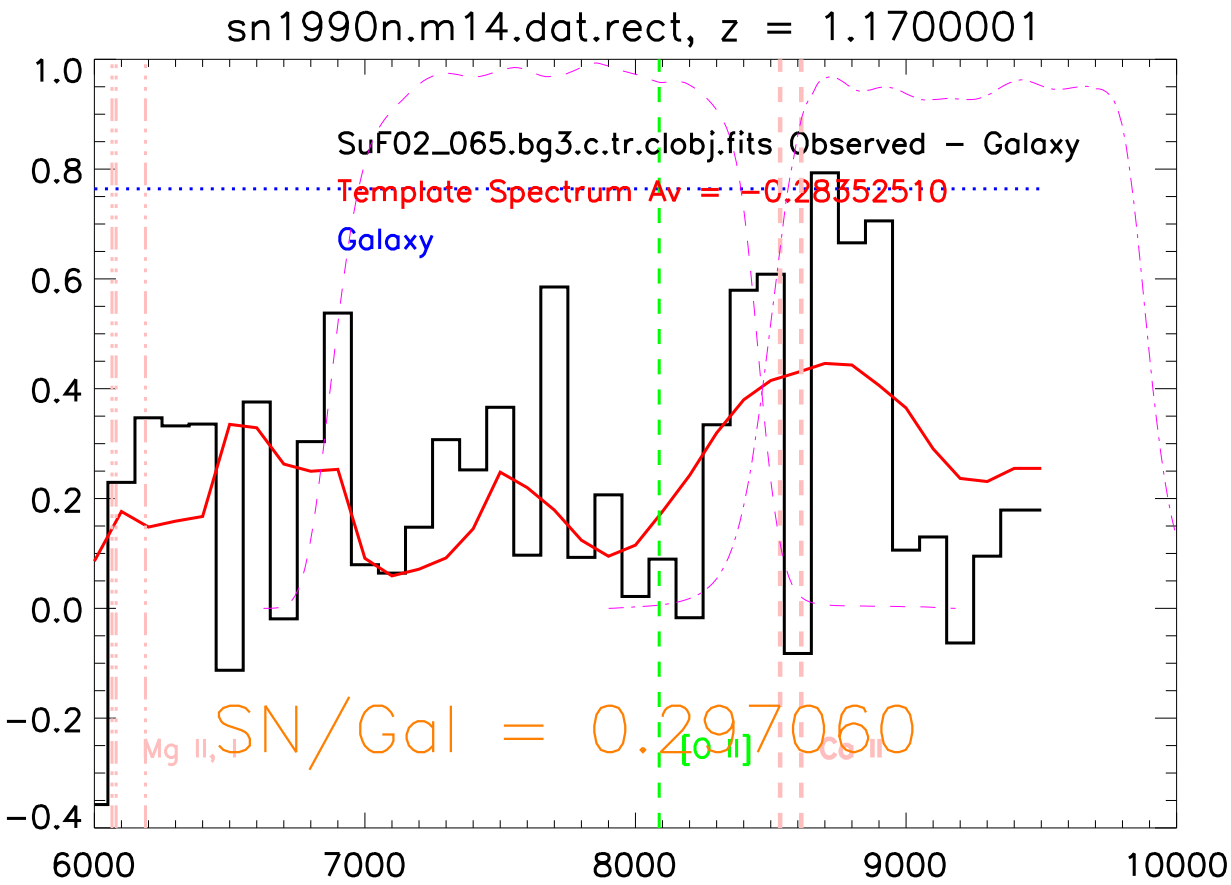
9000
10000


sn1990n.m14.dat.rect, z = 1.1700001
SuF02_065.bg3.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = -0.283525 10
Galaxy
SN/Gal = 0.297060
Mg II,
[O II]
Ca II
1.0
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0.6
0.4
0.2
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−0.4
6000
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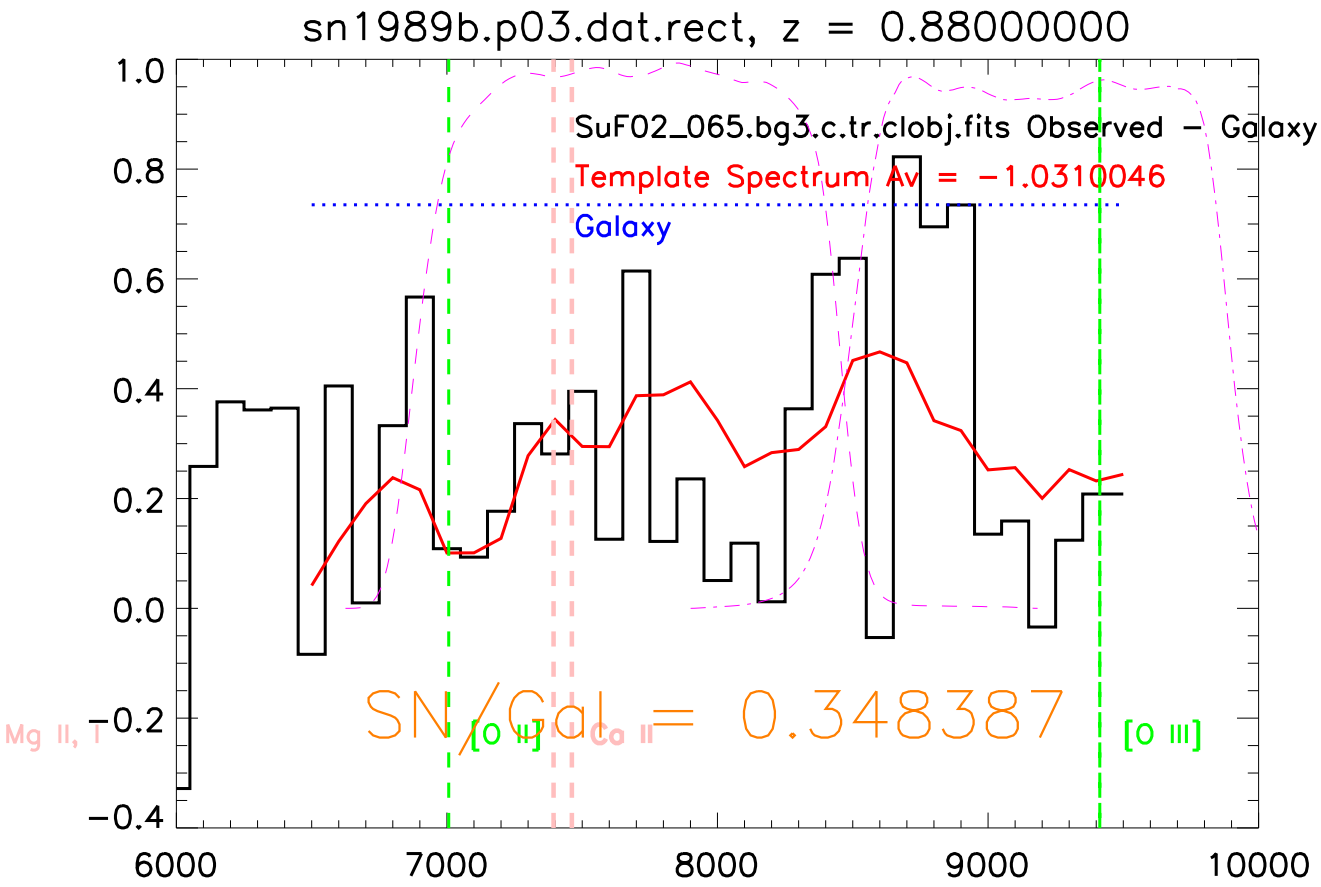
sn1989b.p03.dat.rect, z = 0.88000000
SuF02_065.bg3.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = −1.0310046
Galaxy
SN/Gal = 0.348387
[O II]
Ca II
[O III]
Mg II, T
1.0
0.8
0.6
0.4
0.2
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−0.4
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9000
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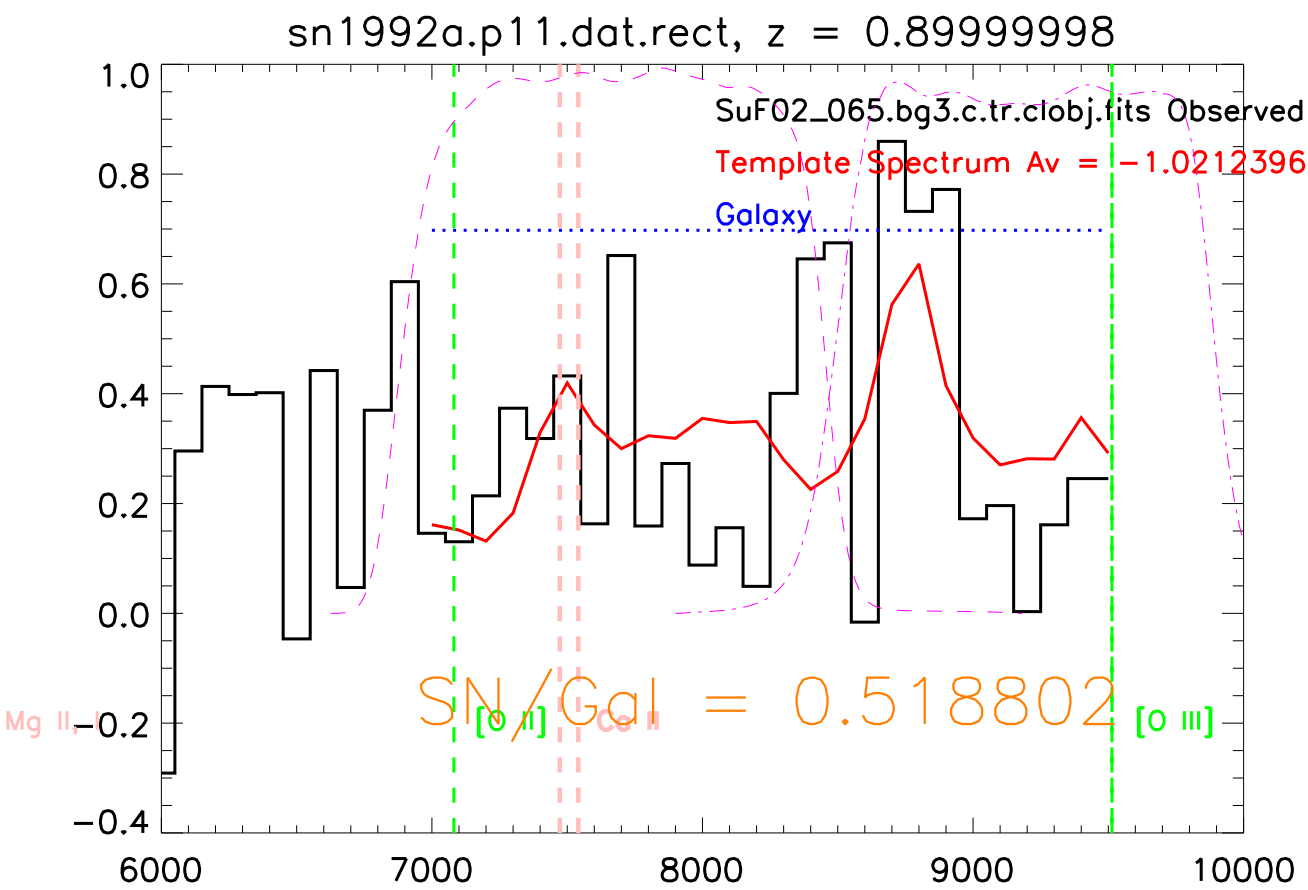
sn1992a.p11.dat.rect, z = 0.89999998
SuF02_065.bg3.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = −1.0212396
Galaxy
SN/Gal = 0.518802
Mg II
[O II]
Ca II
[O III]
1.0
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0.6
0.4
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−0.4
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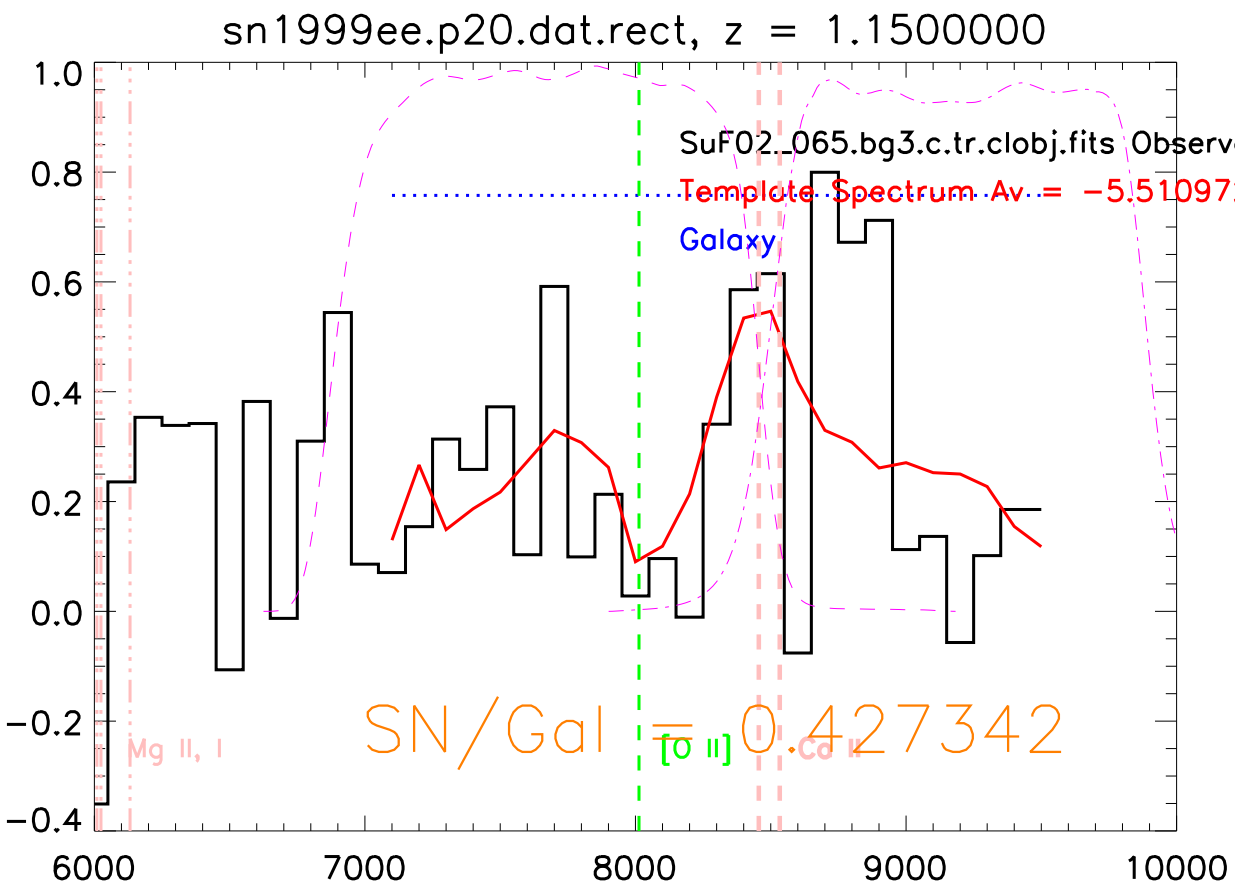
9000
10000


sn1999ee.p20.dat.rect, z = 1.1500000
SuF02_065.bg3.c.tr.clobj.fits Observed – Gala
Template Spectrum Av = −5.5109727
Galaxy
SN/Gal = 0.427342
Mg II, I
[O II]
Ca II
1.0
0.8
0.6
0.4
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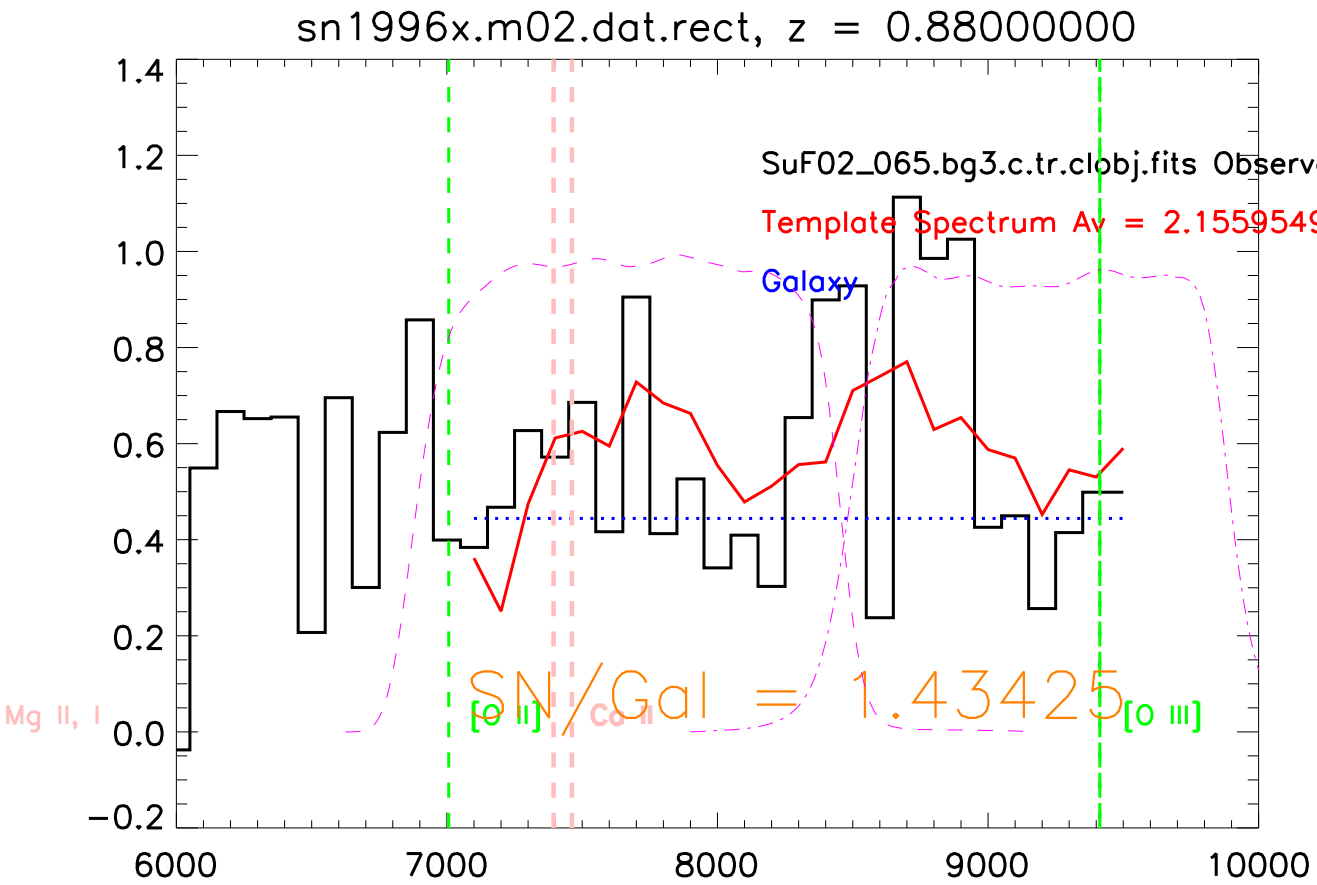
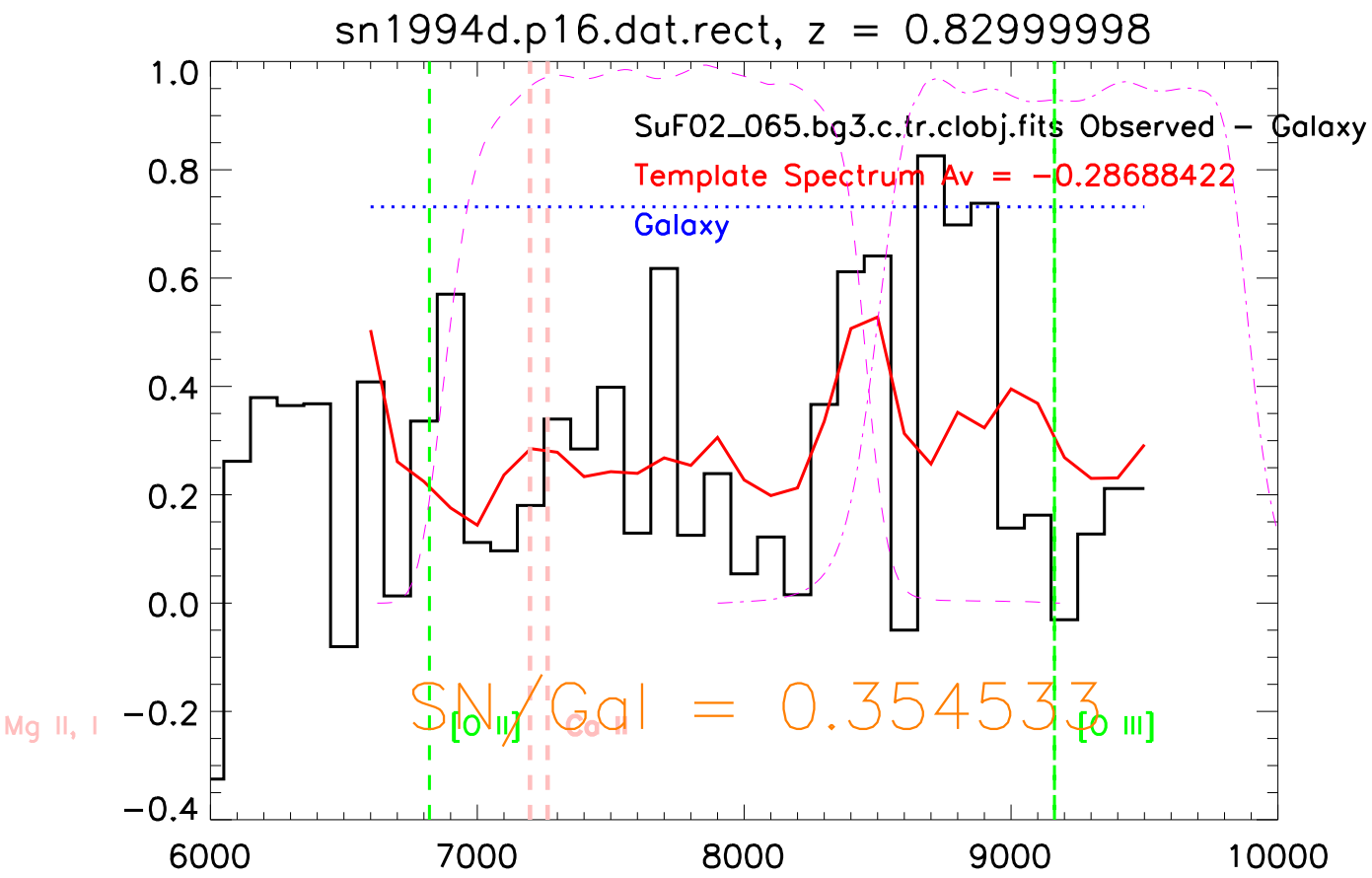
8000
9000
10000


sn1996x.m02.dat.rect, z = 0.88000000
SuF02_065.bg3.c.tr.clobj.fits Observed – Gala
Template Spectrum Av = 2.1559549
Galaxy
SN/Gal = 1.43425
Mg II, I
[O II]
Ca II
[O III]
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
6000
7000
8000
9000
10000


sn1994d.p16.dat.rect, z = 0.82999998
SuF02_065.bg3.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −0.28688422
Galaxy
SN/Gal = 0.354533
[O II]
[O III]
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
−0.4
6000
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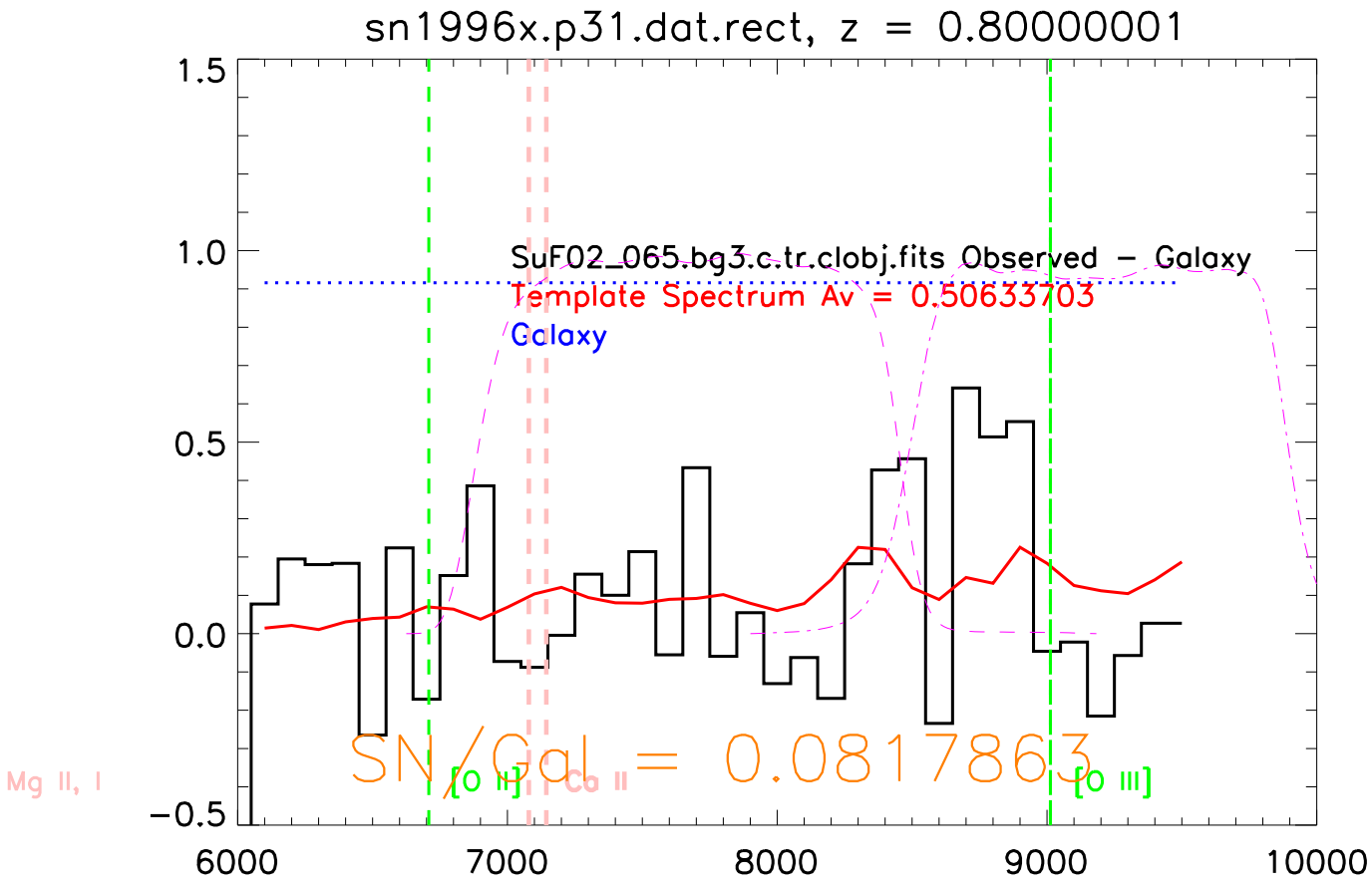
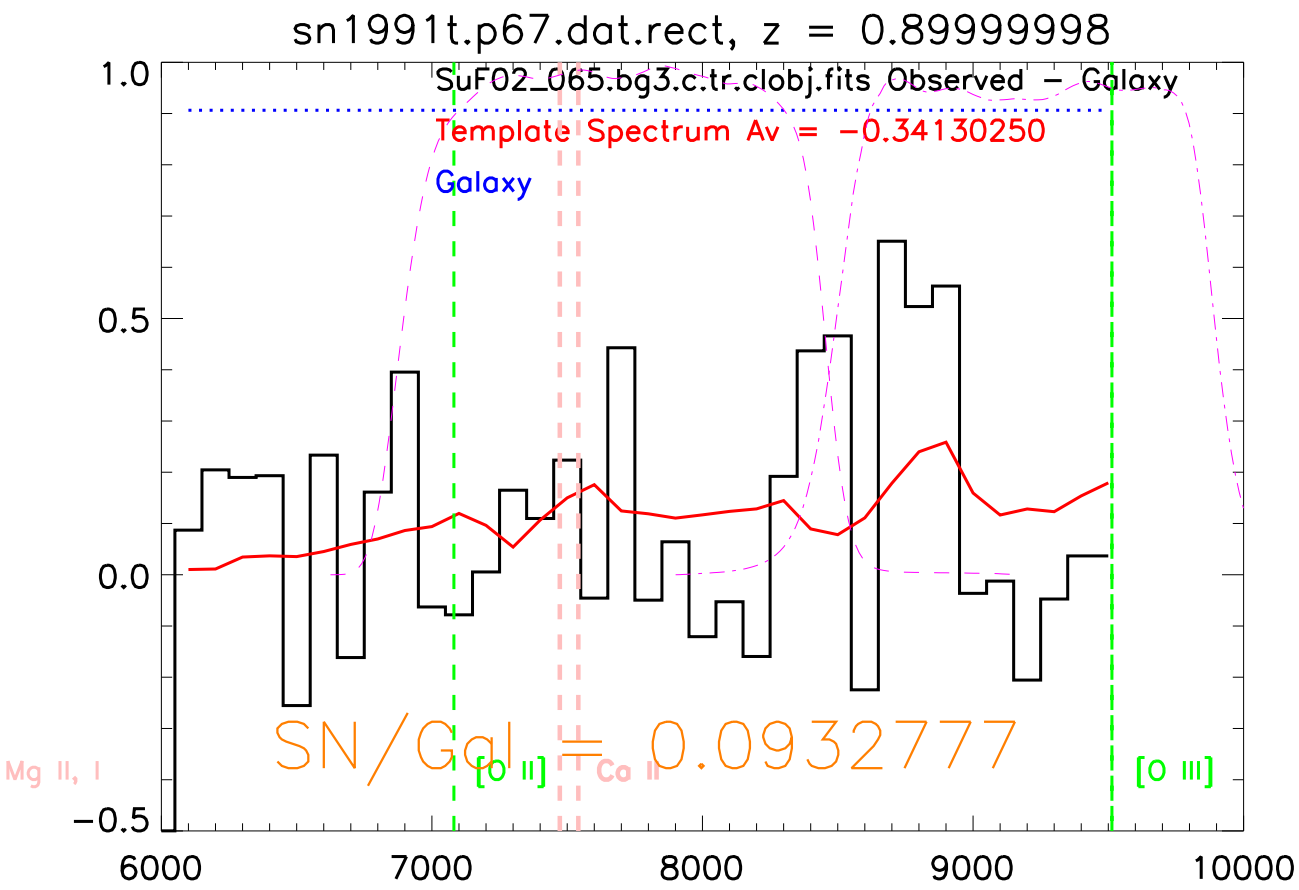
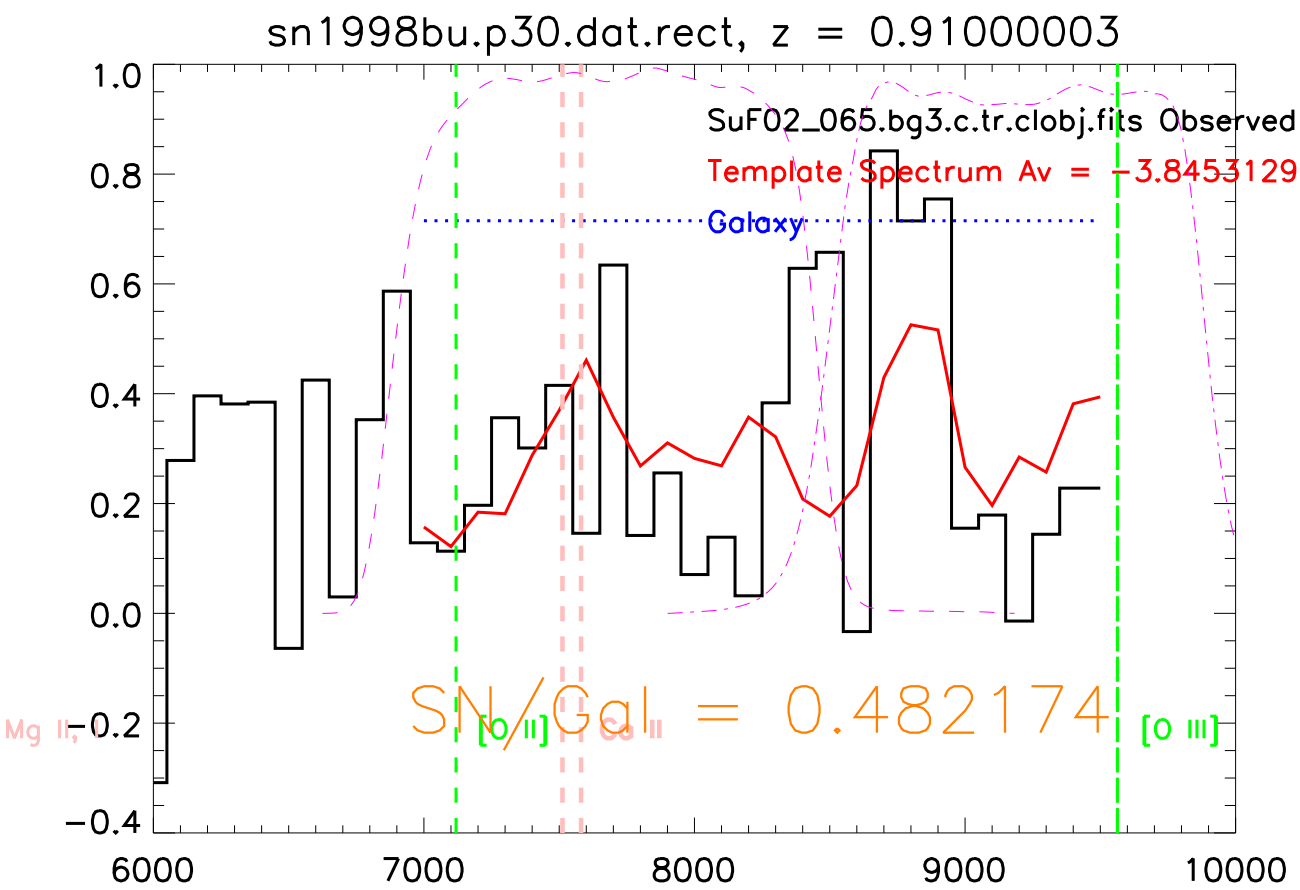
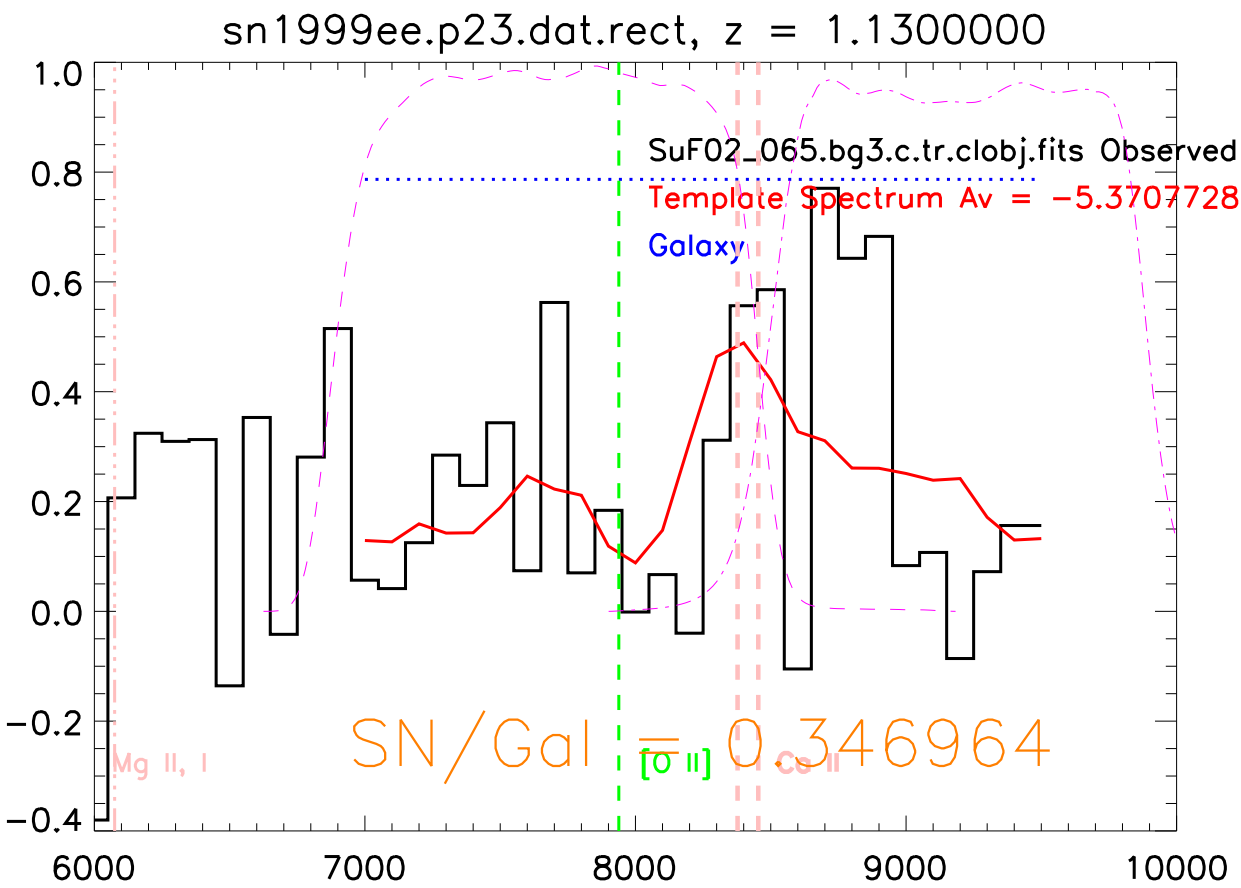
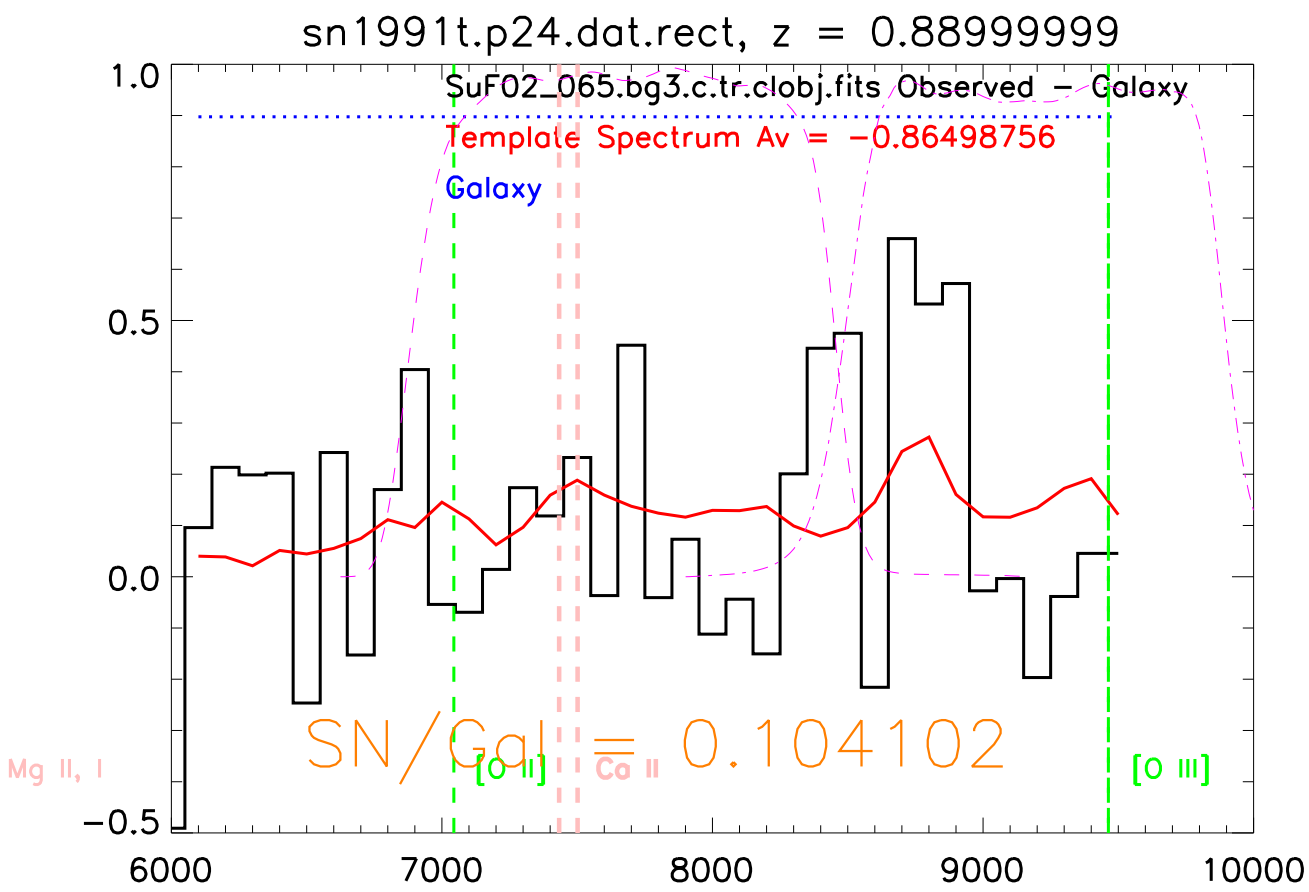
8000
9000
10000

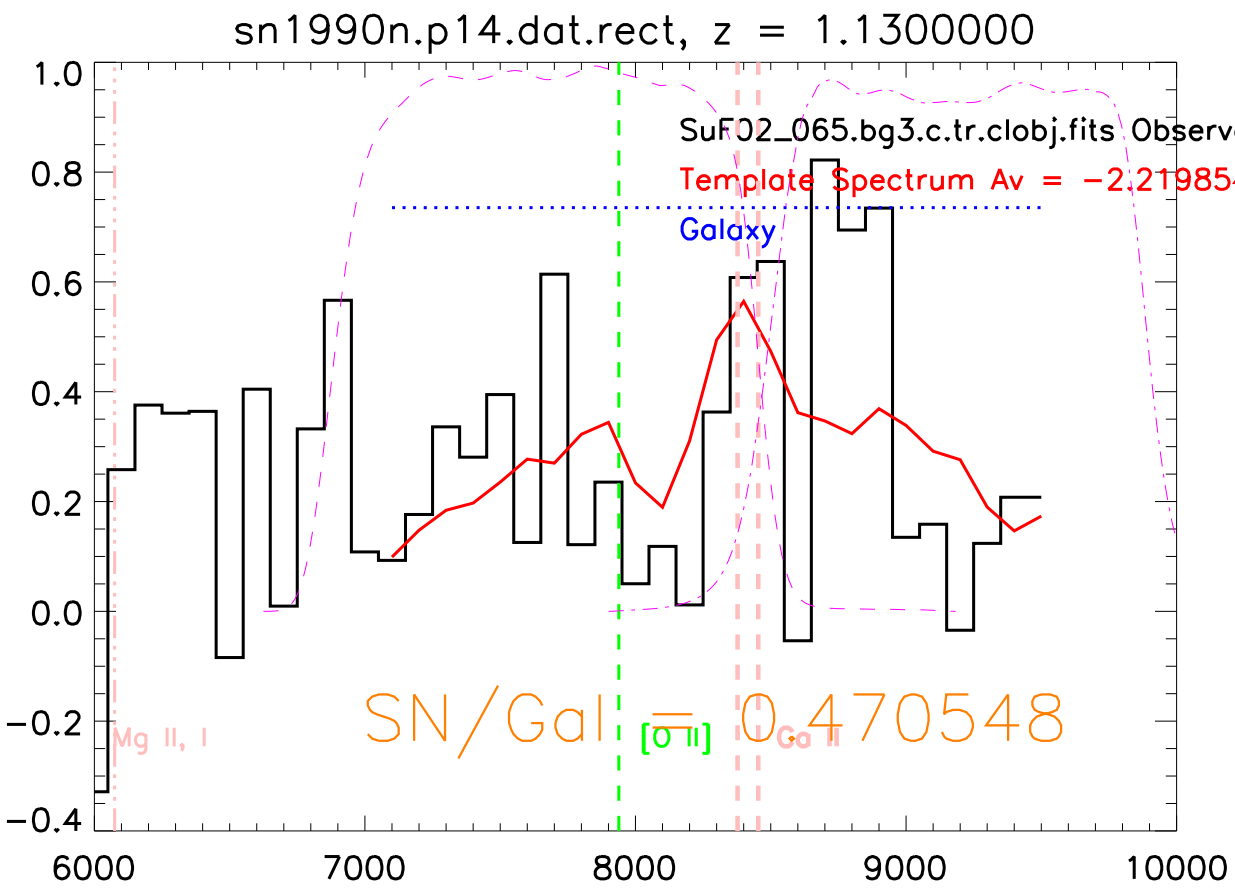

sn1996x.p31.dat.rect, z = 0.80000001
SuF02_065.bg3.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = 0.50633703
Galaxy
SN/Gal = 0.0817863
[O II]
Ca II
[O III]
Mg II, I
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

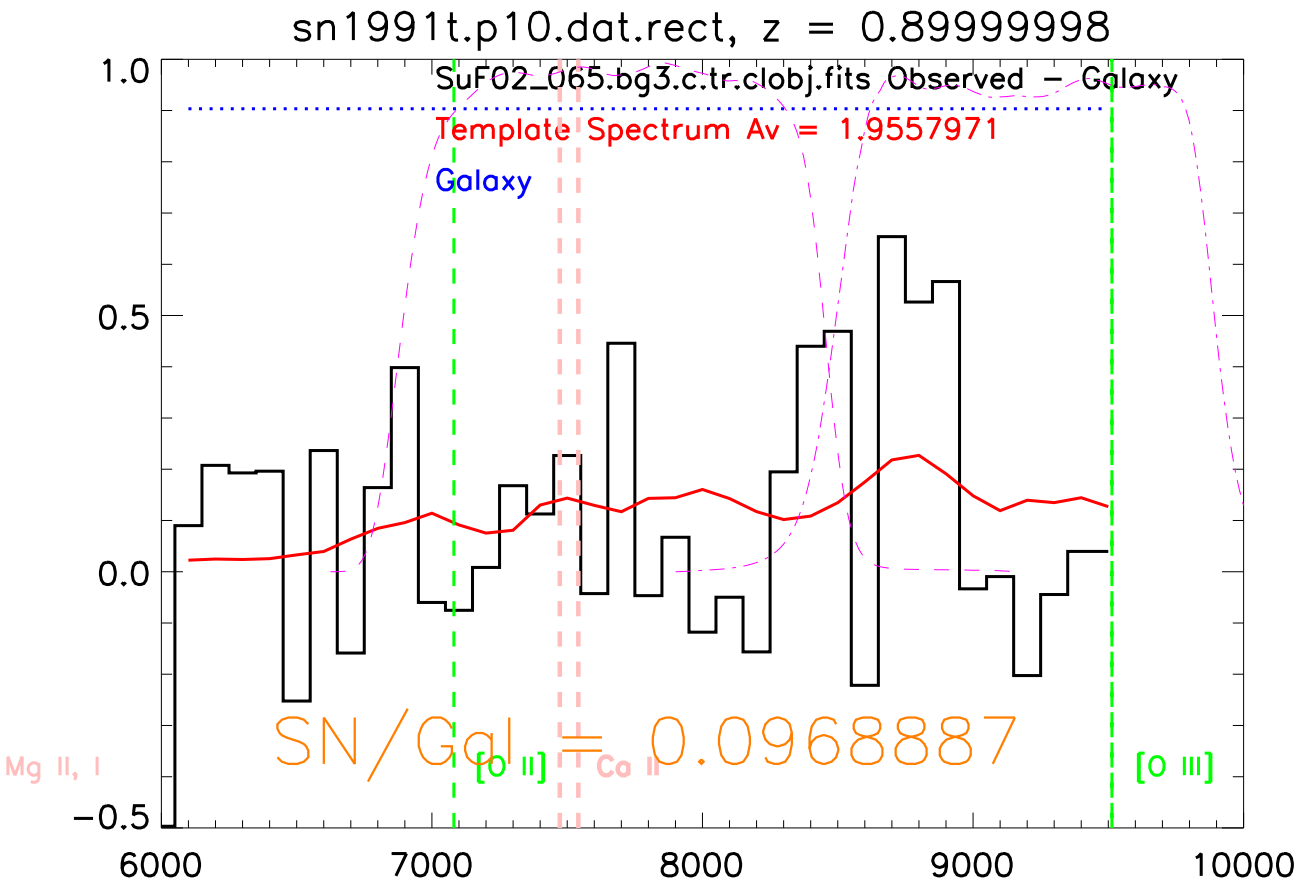

sn1991t.p67.dat.rect, z = 0.89999998
SuF02_065.bg3.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −0.34130250
Galaxy
SN/Gal = 0.0932777
Mg II, I
[O II]
Ca II
[O III]
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

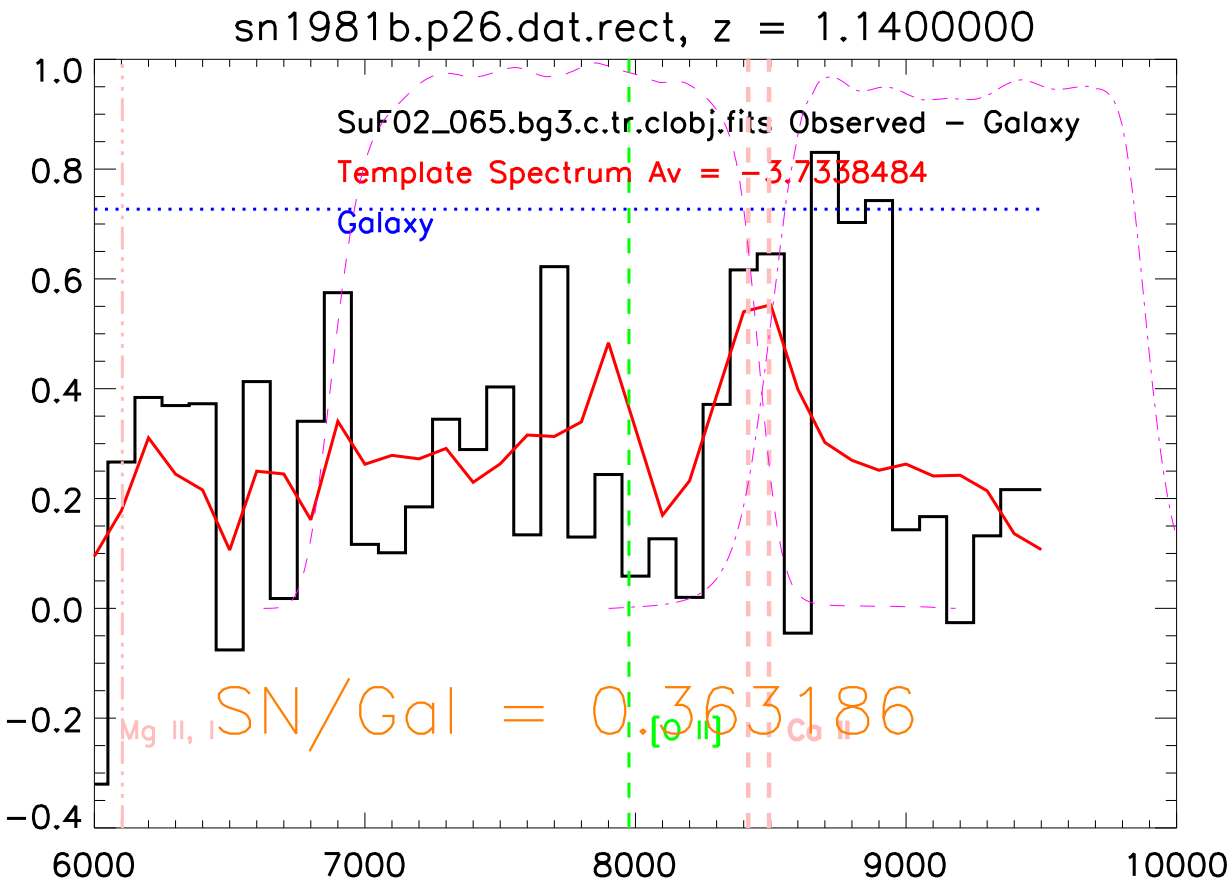

sn1998bu.p30.dat.rect, z = 0.91000003
SuF02_065.bg3.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = 3.8453129
Galaxy
SN/Gal = 0.482174
[O II]
[O III]
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
−0.4
6000
7000
8000
9000
10000

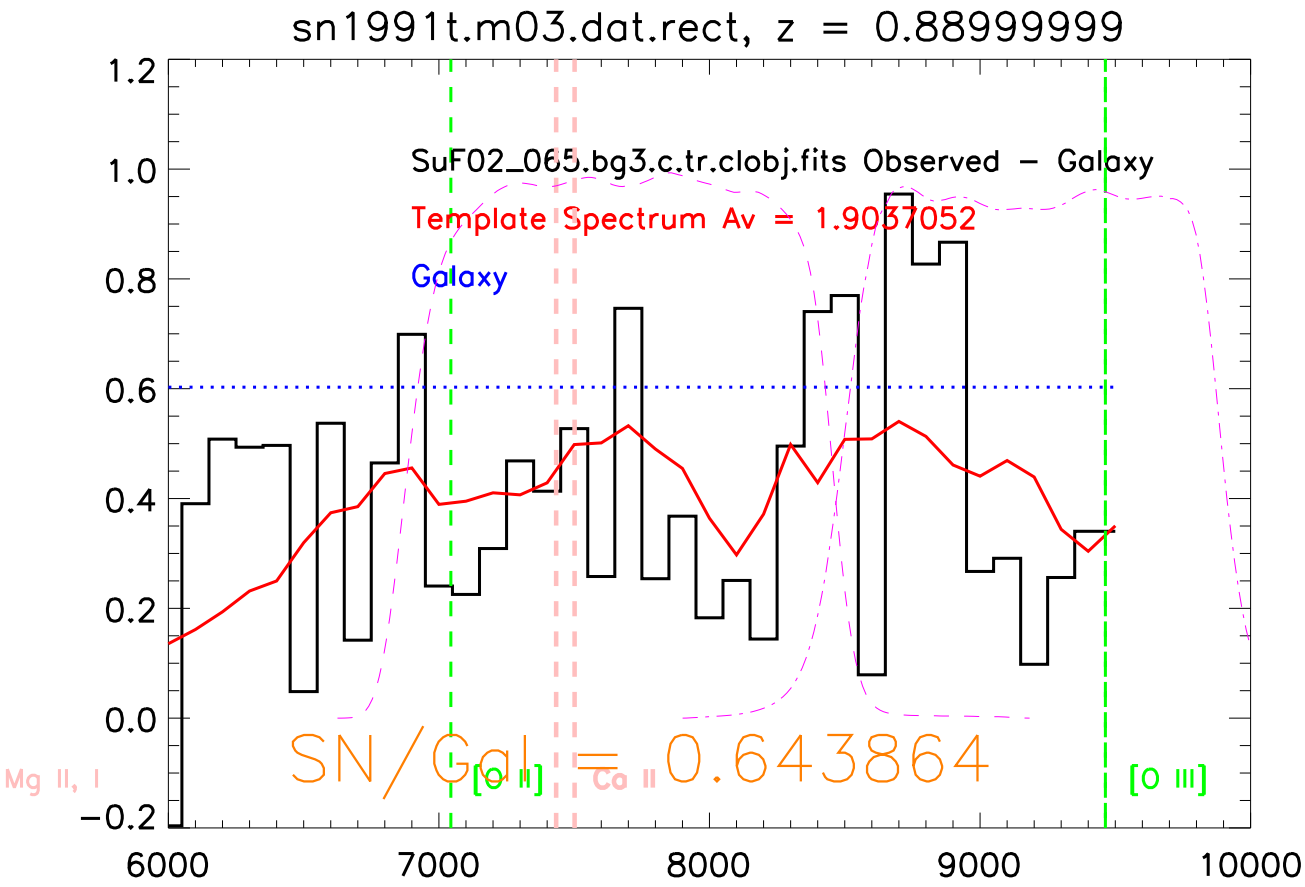

sn1999ee.p23.dat.rect, z = 1.1300000
SuF02_065.bg3.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = −5.3707728
Galaxy
SN/Gal = 0.346964
Mg II, I
[O II]
Ca II
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
−0.4
6000
7000
8000
9000
10000

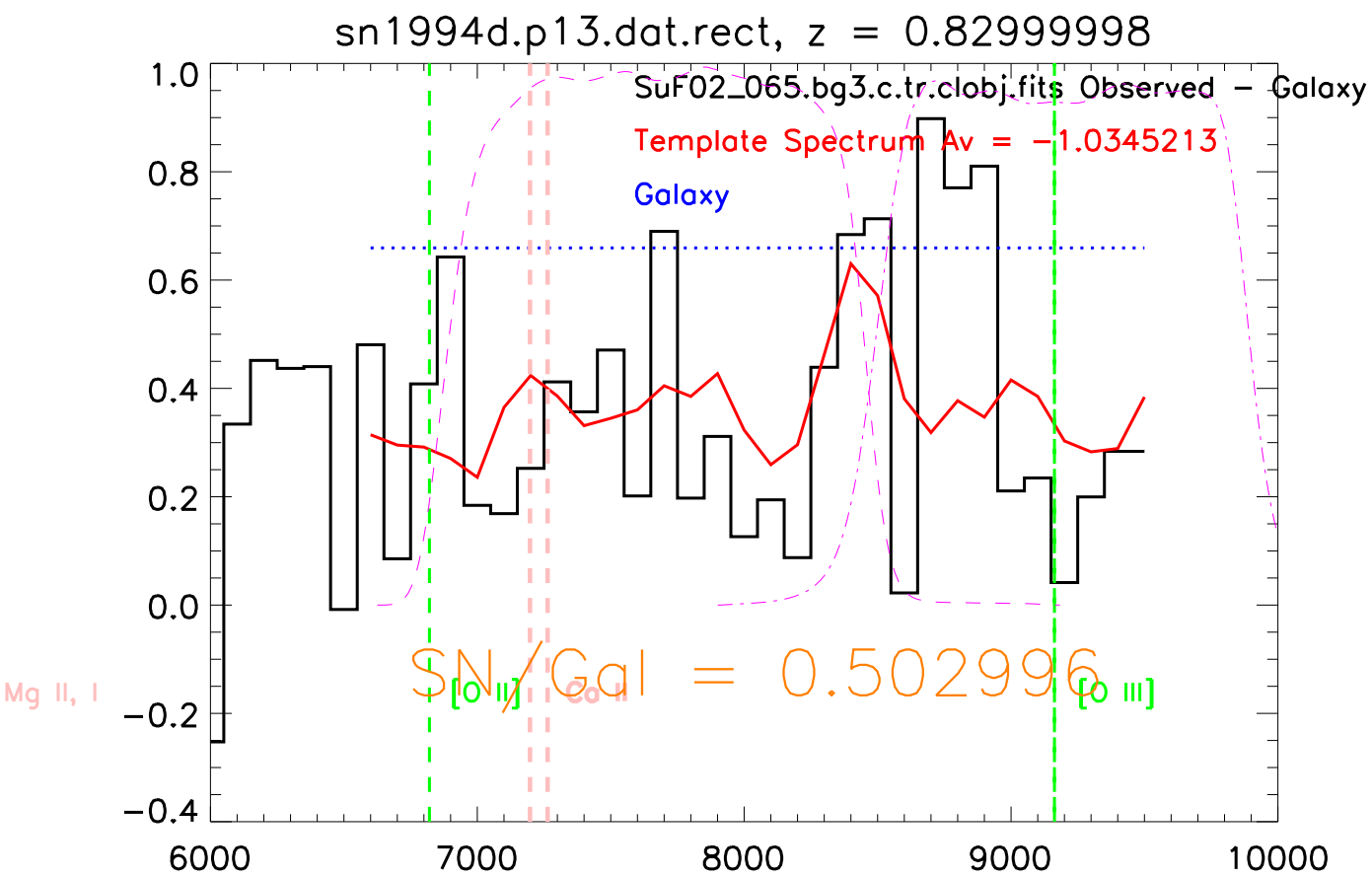

sn1991t.p24.dat.rect, z = 0.88999999
SuF02_065.bg3.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −0.86498756
Galaxy
SN/Gal = 0.104102
Mg II, I
[O II]
Ca II
[O III]
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

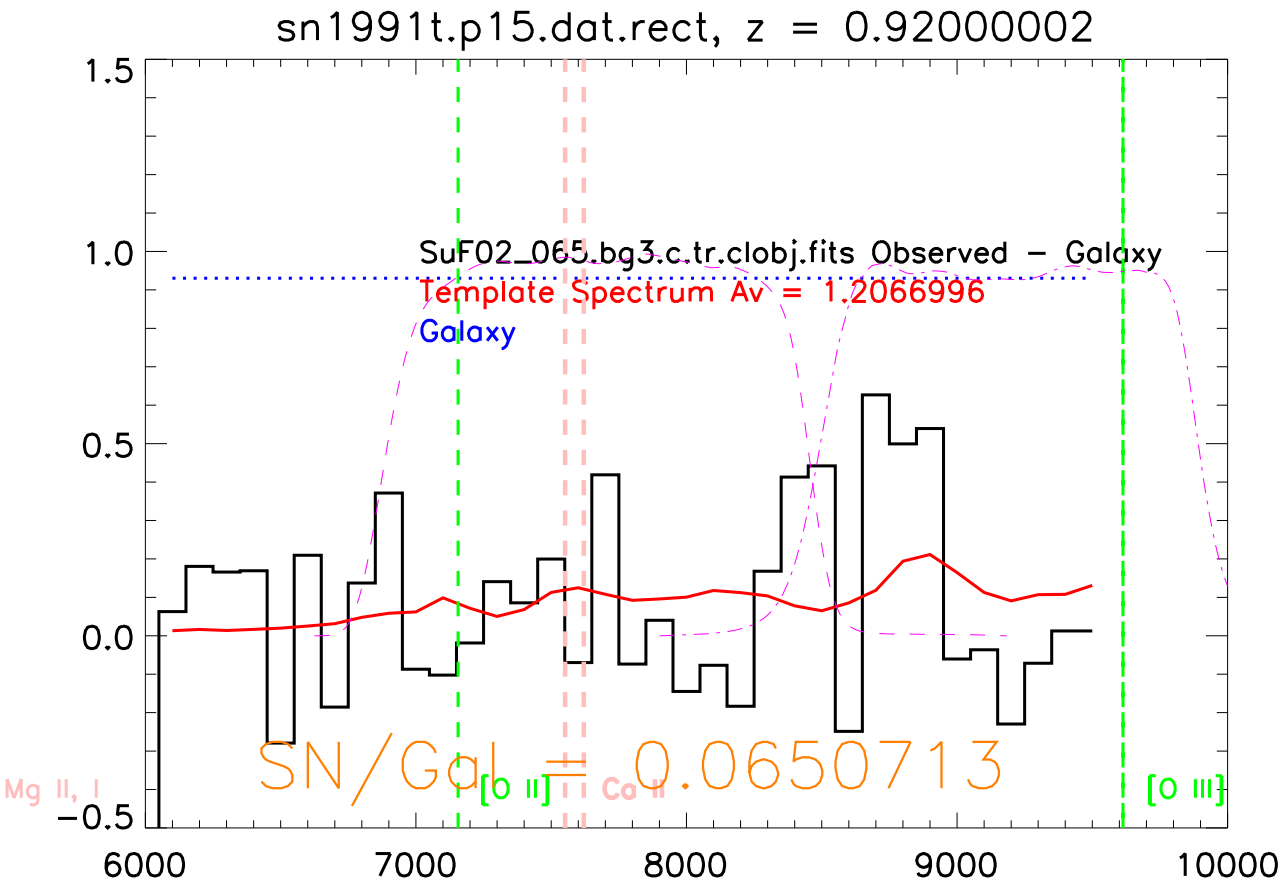

sn1990n.p14.dat.rect, z = 1.1300000
SuF02_065.bg3.c.tr.clobj.fits Observed – Gala
Template Spectrum Av = −2.2198545
Galaxy
SN/Gal = 0.470548
Mg II, I
[O II]
Ca II
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
−0.4
6000
7000
8000
9000
10000

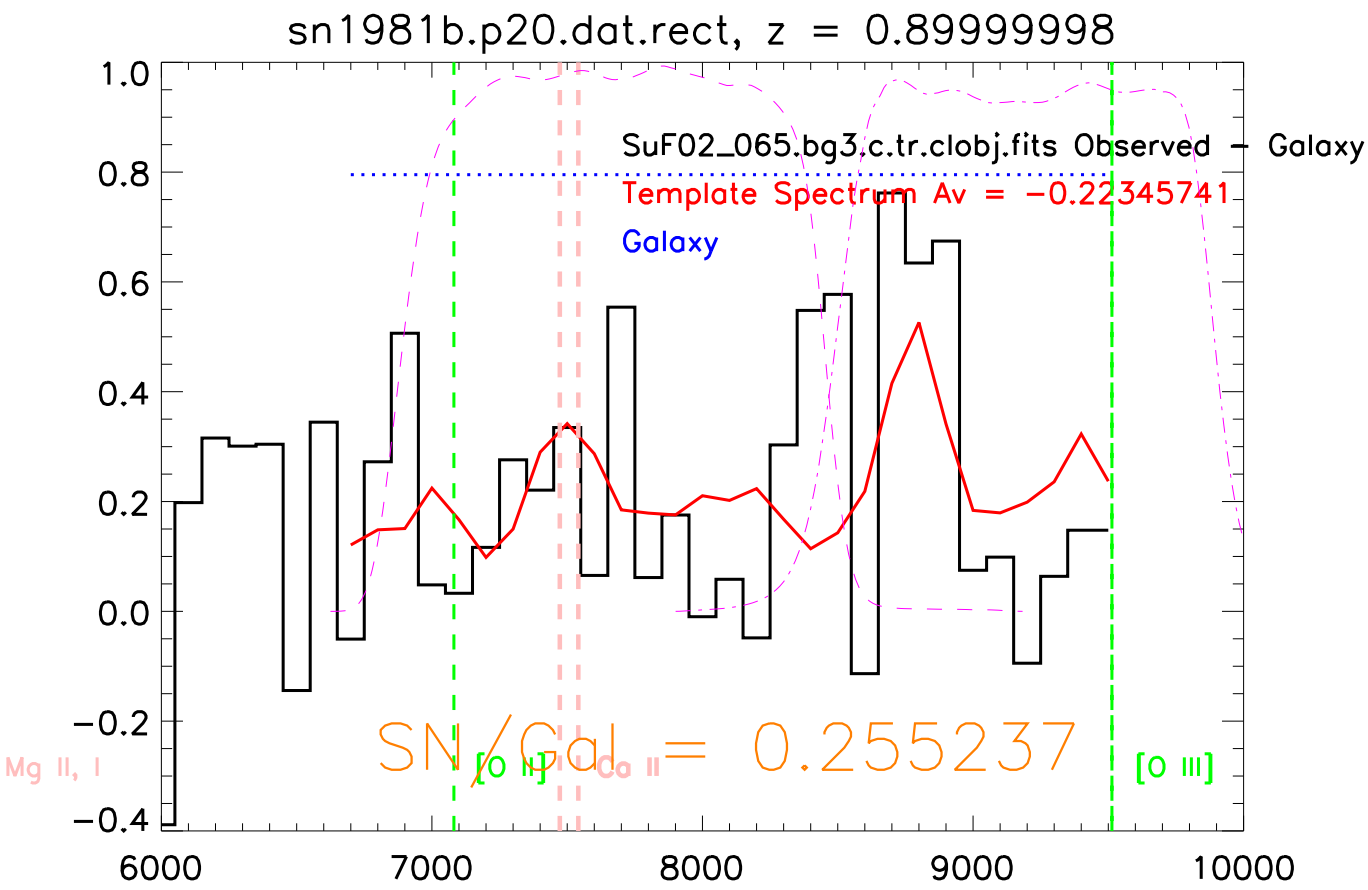

sn1991t.p10.dat.rect, z = 0.89999998
SuF02_065.bg3.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = 1.9557971
Galaxy
SN/Gal = 0.0968887
Mg II, I
[O II]
Ca II
[O III]
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

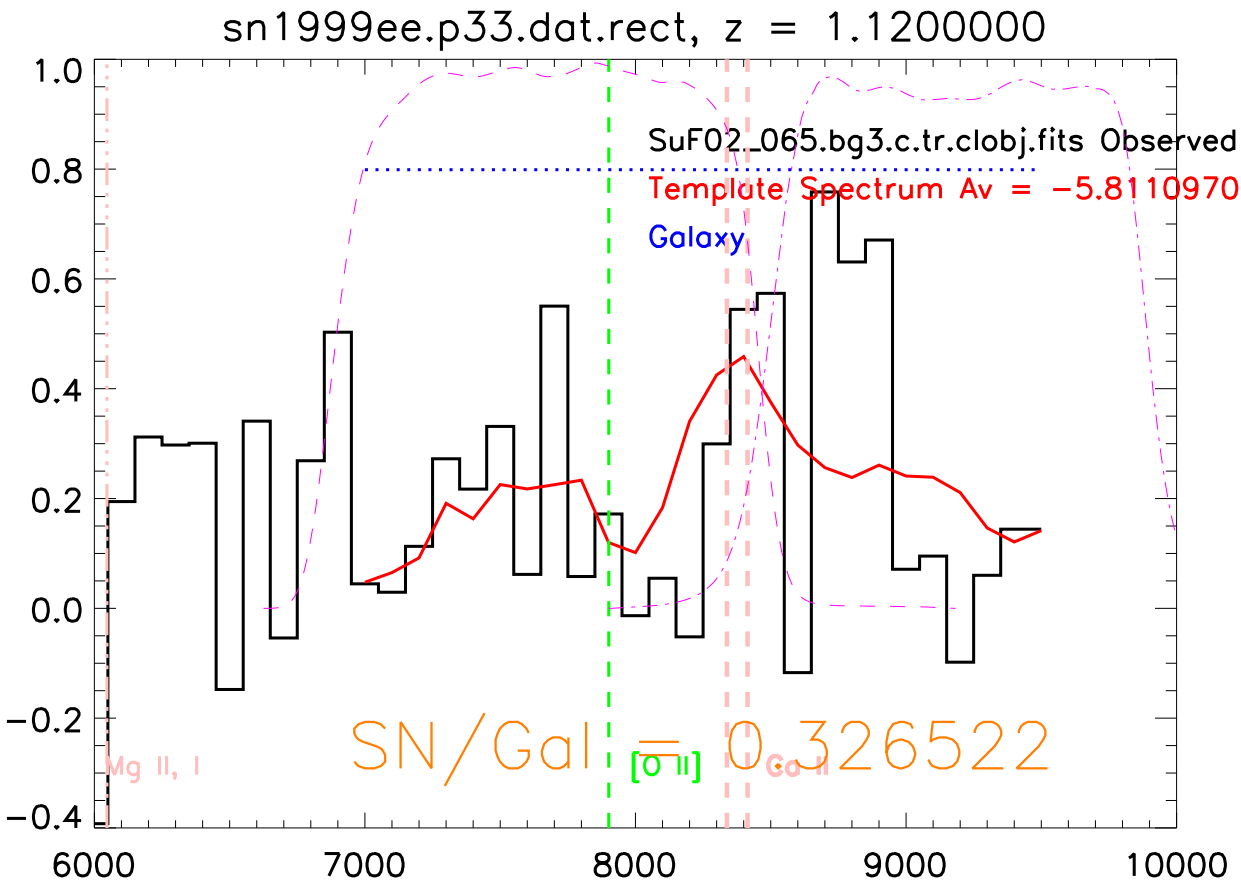

sn1981b.p26.dat.rect, z = 1.1400000
SuF02_065.bg3.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −3.7338484
Galaxy
SN/Gal = 0.363186
Mg II, I
[O II]
Ca II
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
−0.4
6000
7000
8000
9000
10000

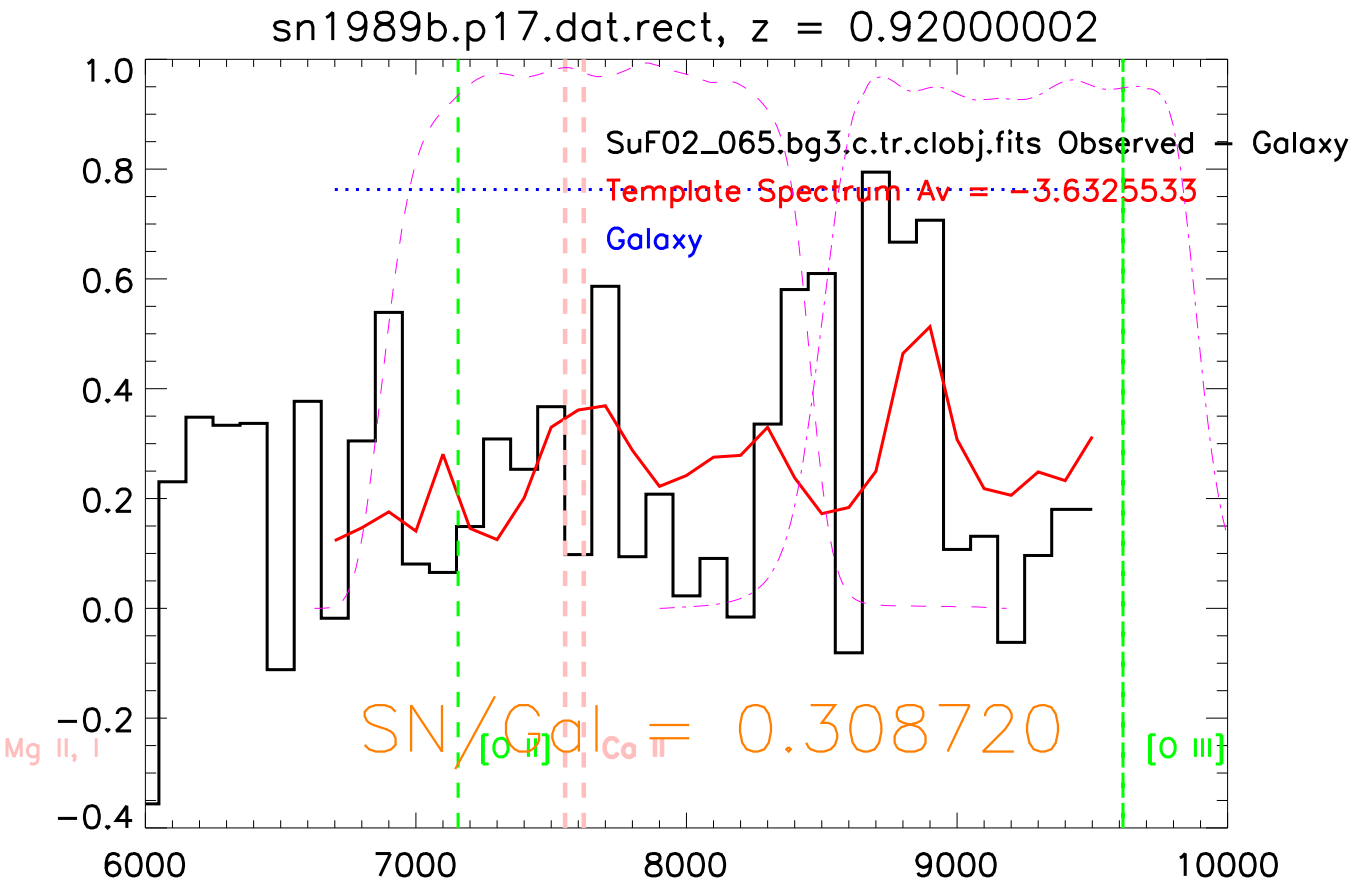

sn1991t.m03.dat.rect, z = 0.88999999
SuF02_065.bg3.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = 1.9037052
Galaxy
SN/Gal = 0.643864
Mg II, I
[O II]
Ca II
[O III]
1.2
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
6000
7000
8000
9000
10000

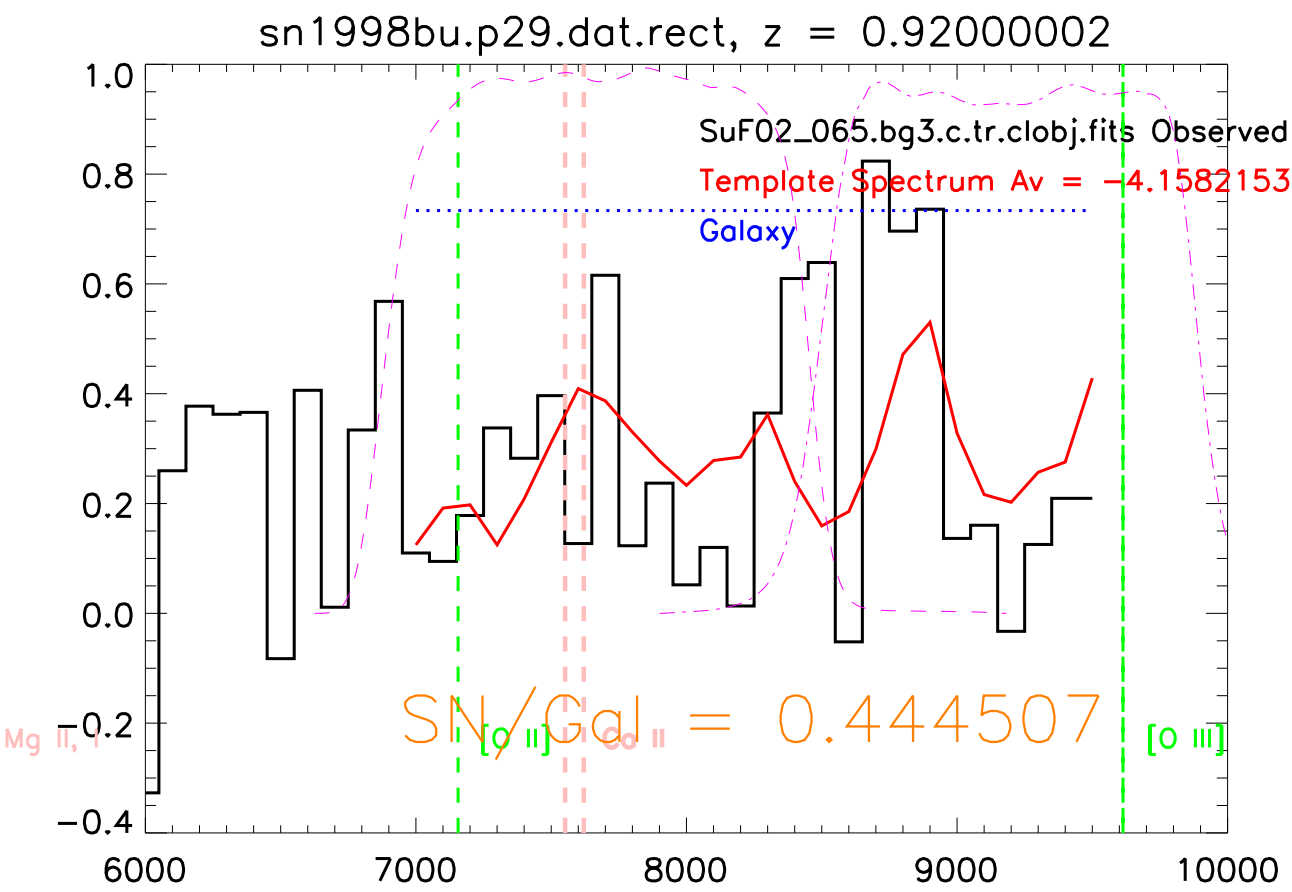

sn1994d.p13.dat.rect, z = 0.82999998
SuF02_065.bg3.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −1.0345213
Galaxy
SN/Gal = 0.502996
Mg II, I
[O II]
Ca I
[O III]
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
−0.4
6000
7000
8000
9000
10000

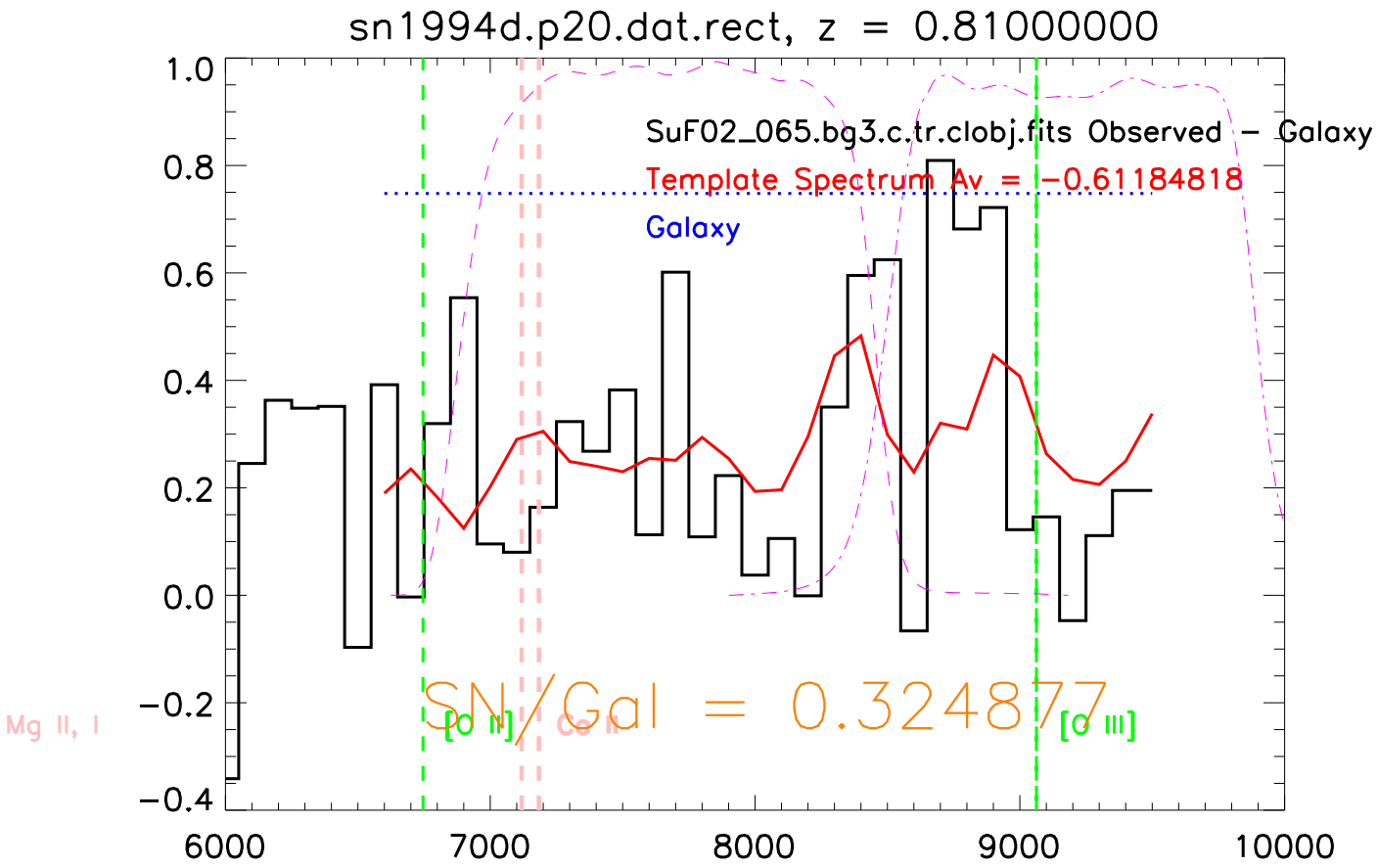

sn1991t.p15.dat.rect, z = 0.92000002
SuF02_065.bg3.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = 1.2066996
Galaxy
SN/Gal = 0.0650713
Mg II, I
[O II]
Ca II
[O III]
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

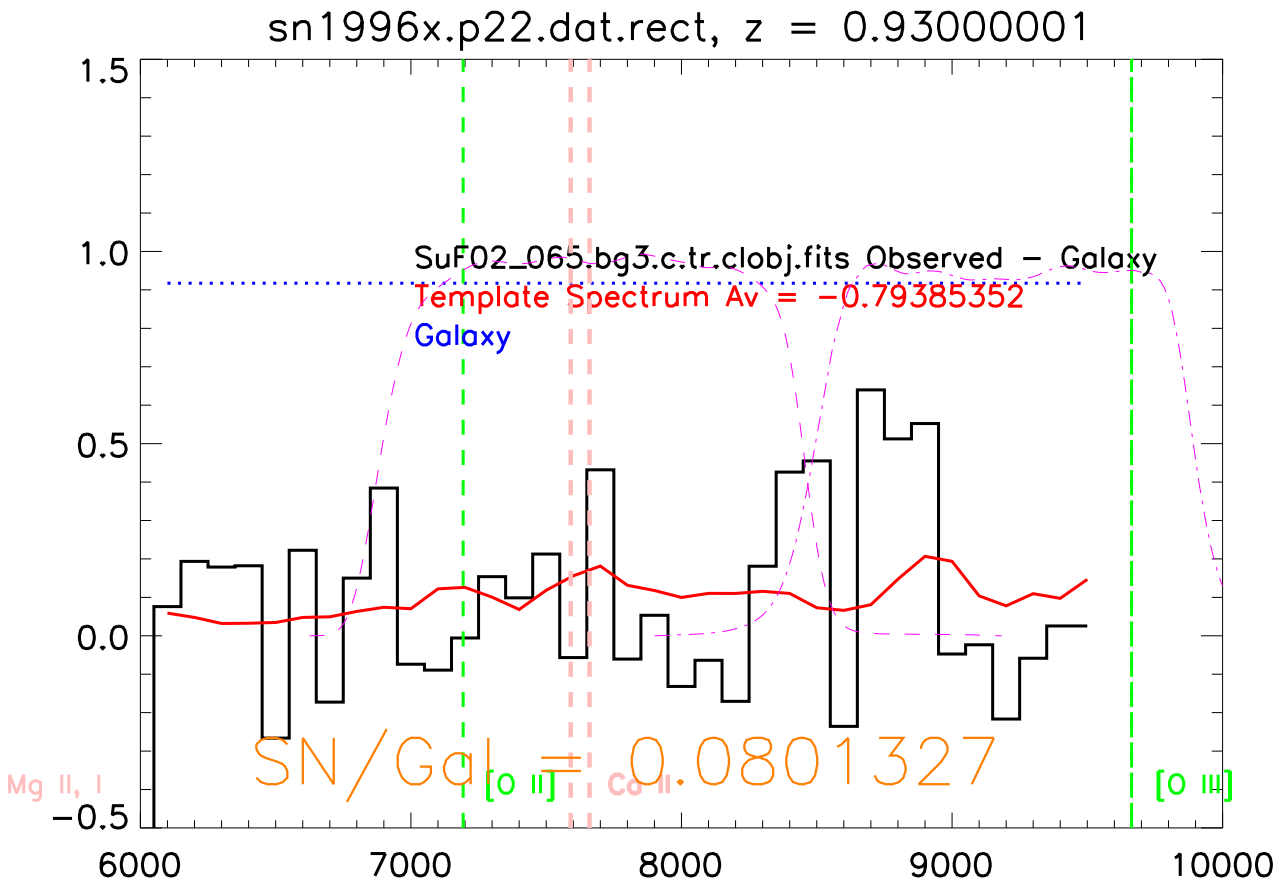

sn1981b.p20.dat.rect, z = 0.89999998
SuF02_065.bg3.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = −0.22345741
Galaxy
SN/Gal = 0.255237
Mg II, I
[O II]
Ca II
[O III]
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
−0.4
6000
7000
8000
9000
10000

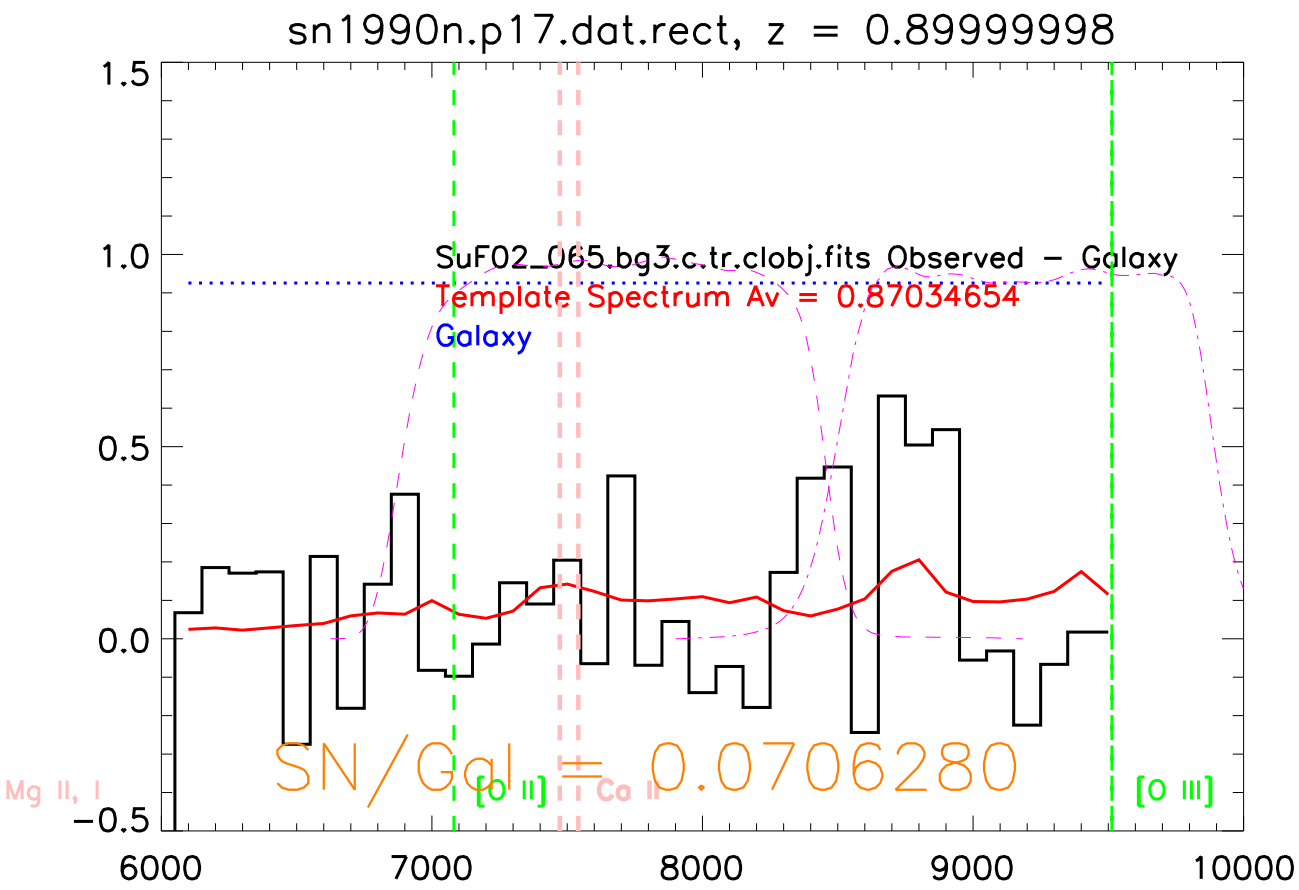

sn1999ee.p33.dat.rect, z = 1.1200000
SuF02_065.bg3.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = −5.8110970
Galaxy
SN/Gal = 0.326522
Mg II, I
[O II]
Ca II
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
−0.4
6000
7000
8000
9000
10000

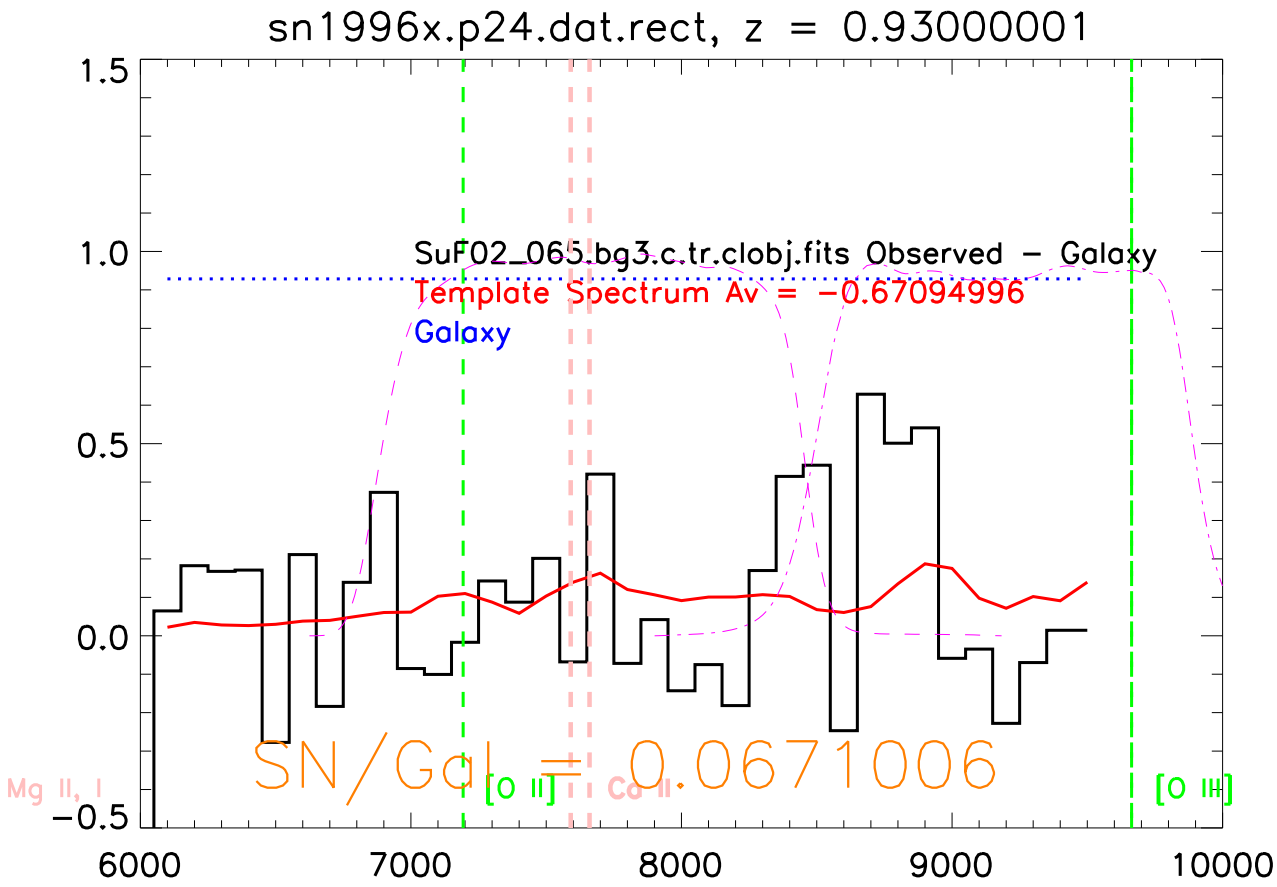

sn1989b.p17.dat.rect, z = 0.92000002
SuF02_065.bg3.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = -3.6325533
Galaxy
SN/Gal = 0.308720
Mg II, I
[O II]
Ca II
[O III]
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
−0.4
6000
7000
8000
9000
10000

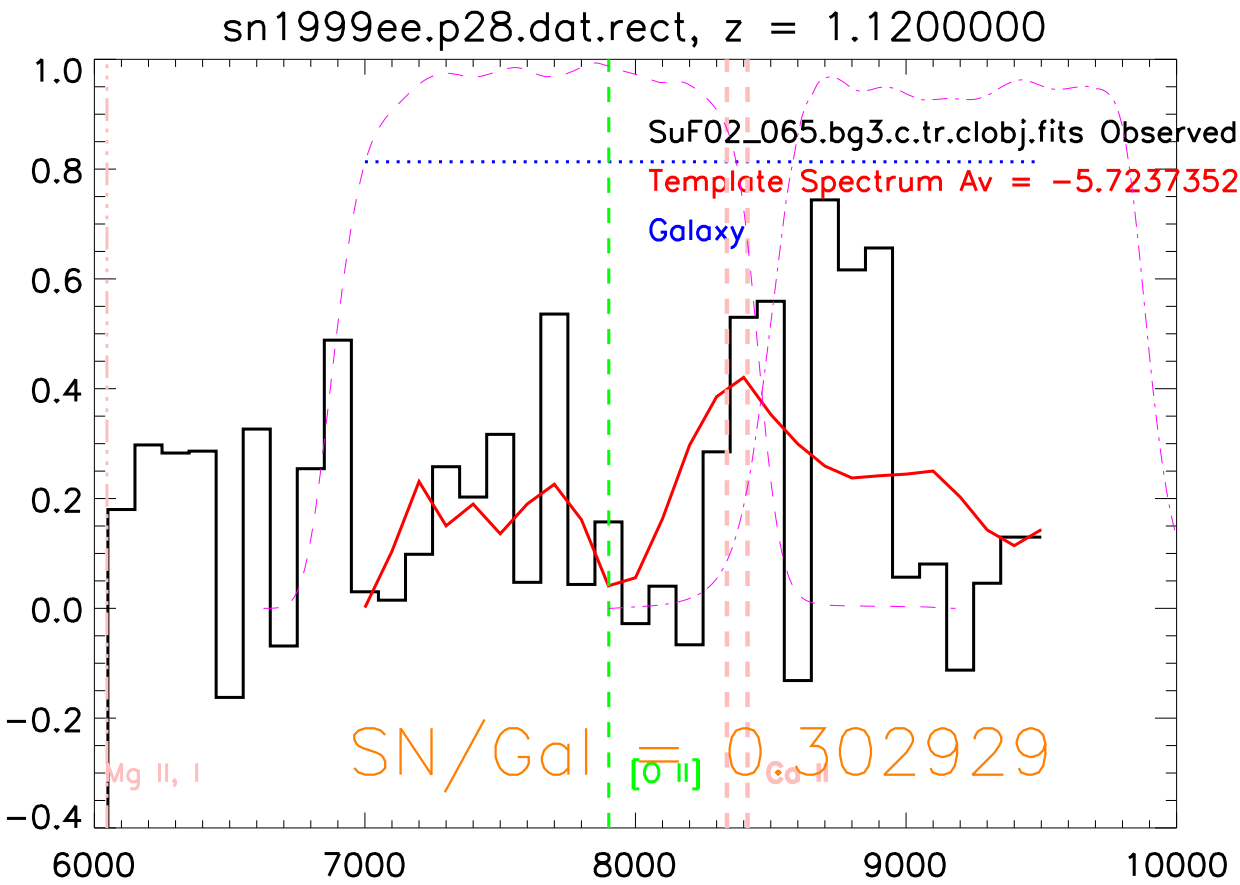

sn1998bu.p29.dat.rect, z = 0.92000002
SuF02_065.bg3.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −4.1582153
Galaxy
SN/Gal = 0.444507
[O II]
[O III]
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
−0.4
6000
7000
8000
9000
10000

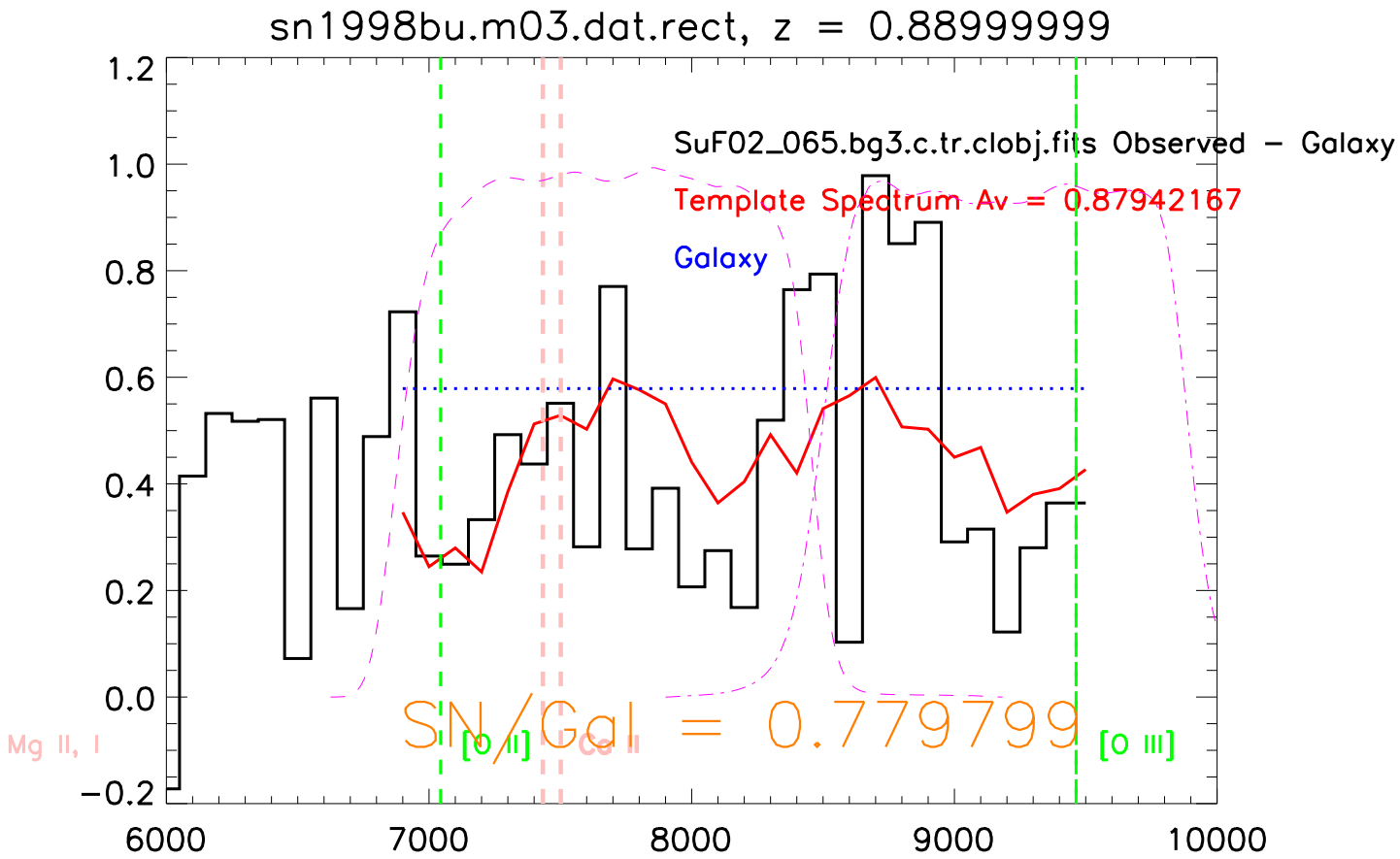

sn1994d.p20.dat.rect, z = 0.81000000
SuF02_065.bg3.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −0.61184818
Galaxy
SN/Gal = 0.324877
[O II]
[O III]
Mg II, I
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
−0.4
6000
7000
8000
9000
10000

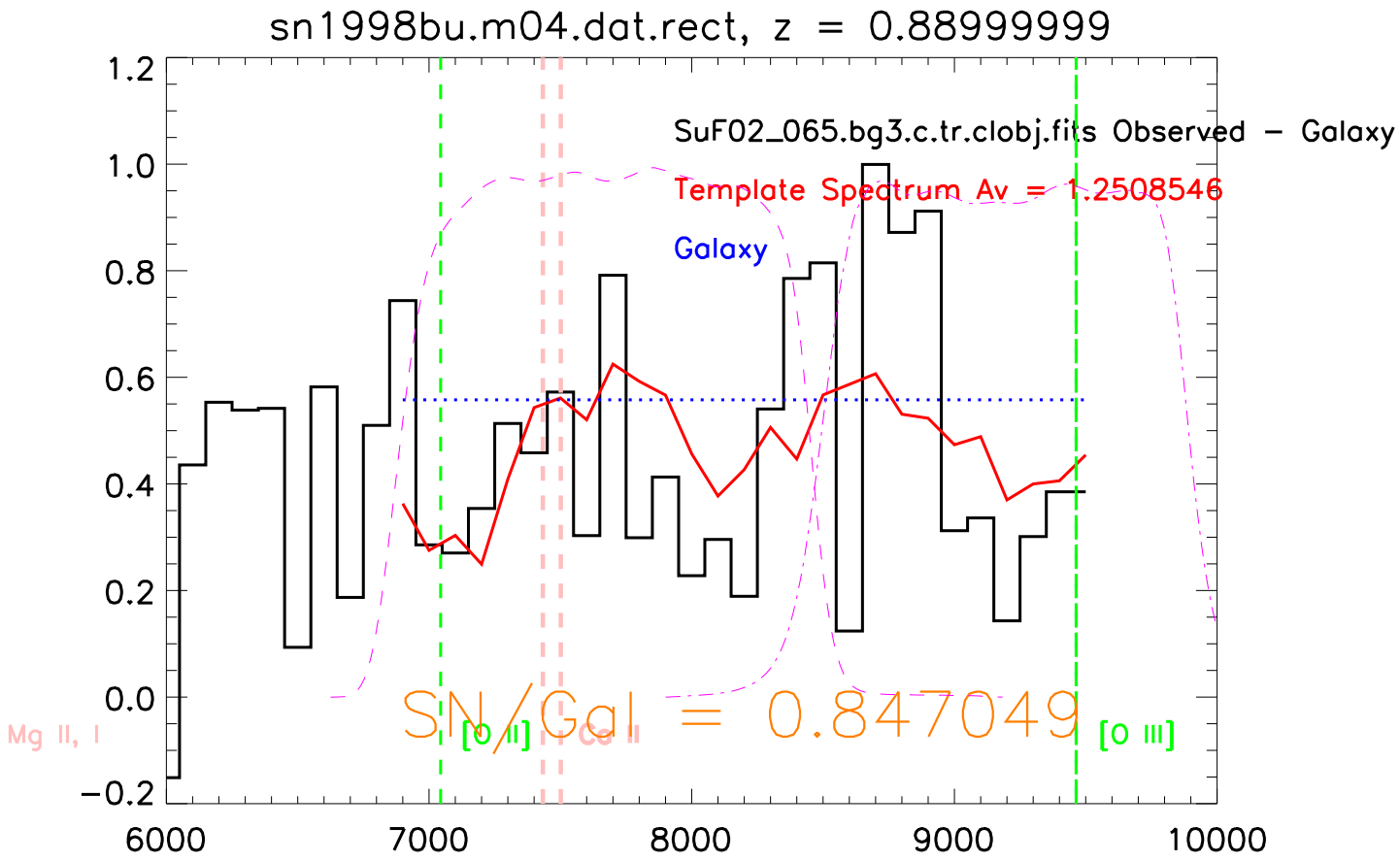

sn1996x.p22.dat.rect, z = 0.93000001
SuF02_065.bg3.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −0.79385352
Galaxy
SN/Gal = 0.0801327
Mg II, I
[O II]
Ca II
[O III]
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

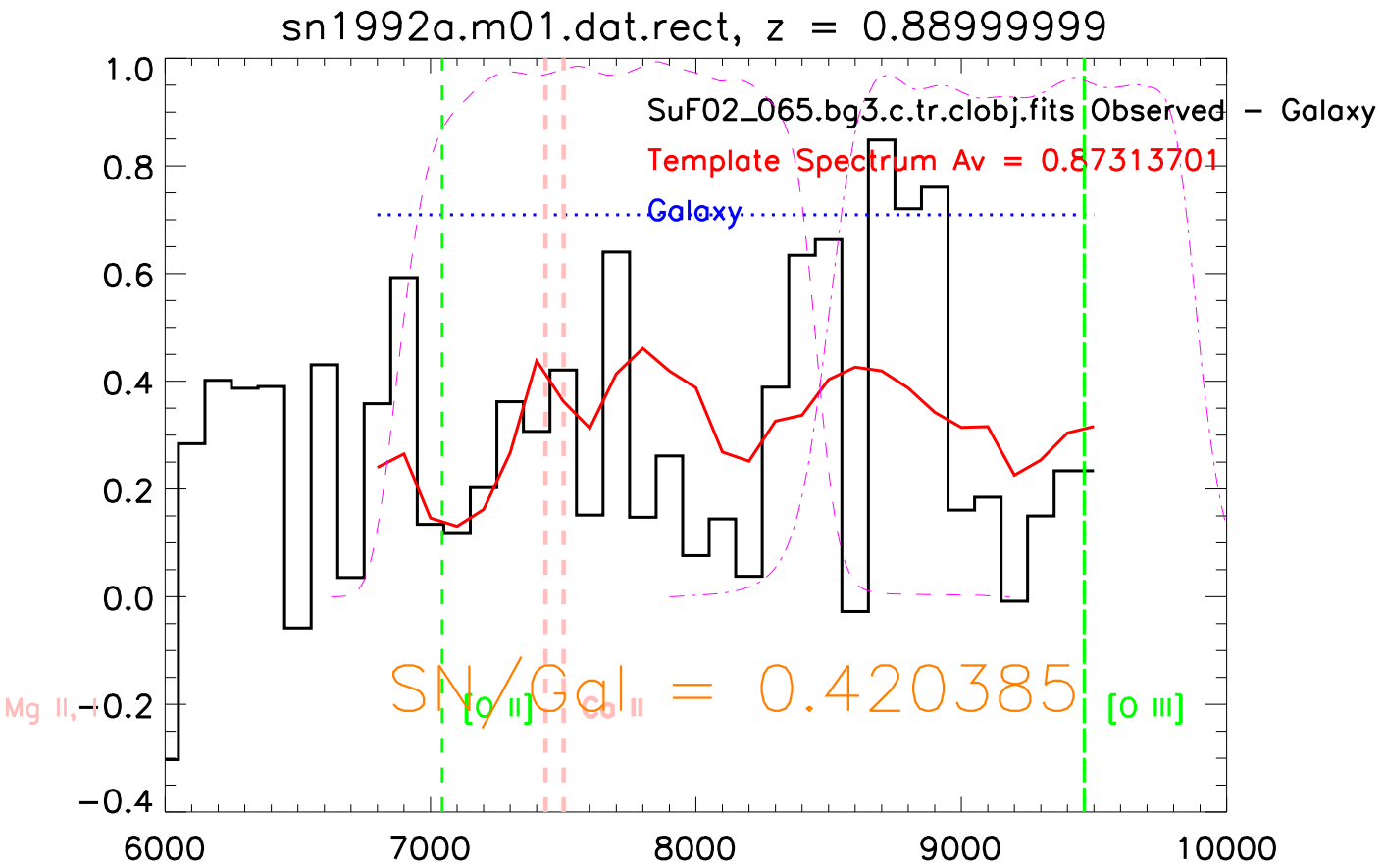

sn1990n.p17.dat.rect, z = 0.89999998
SuF02_065.bg3.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = 0.87034654
Galaxy
SN/Gal = 0.0706280
Mg II, I
[O II]
Ca II
[O III]
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

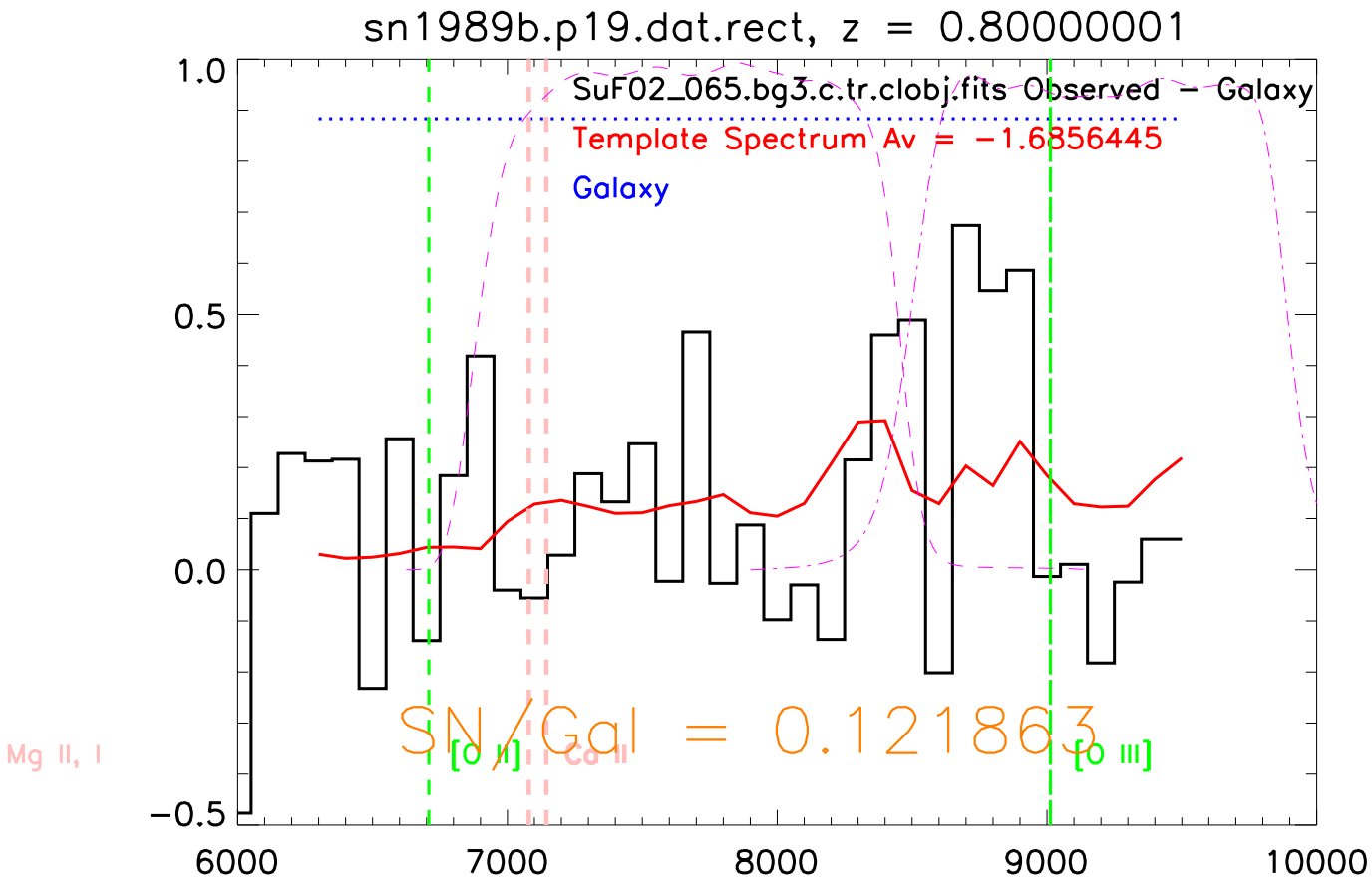

sn1996x.p24.dat.rect, z = 0.93000001
SuF02_065.bg3.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −0.67094996
Galaxy
SN/Gal = 0.0671006
Mg II, I
[O II]
Ca II
[O III]
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

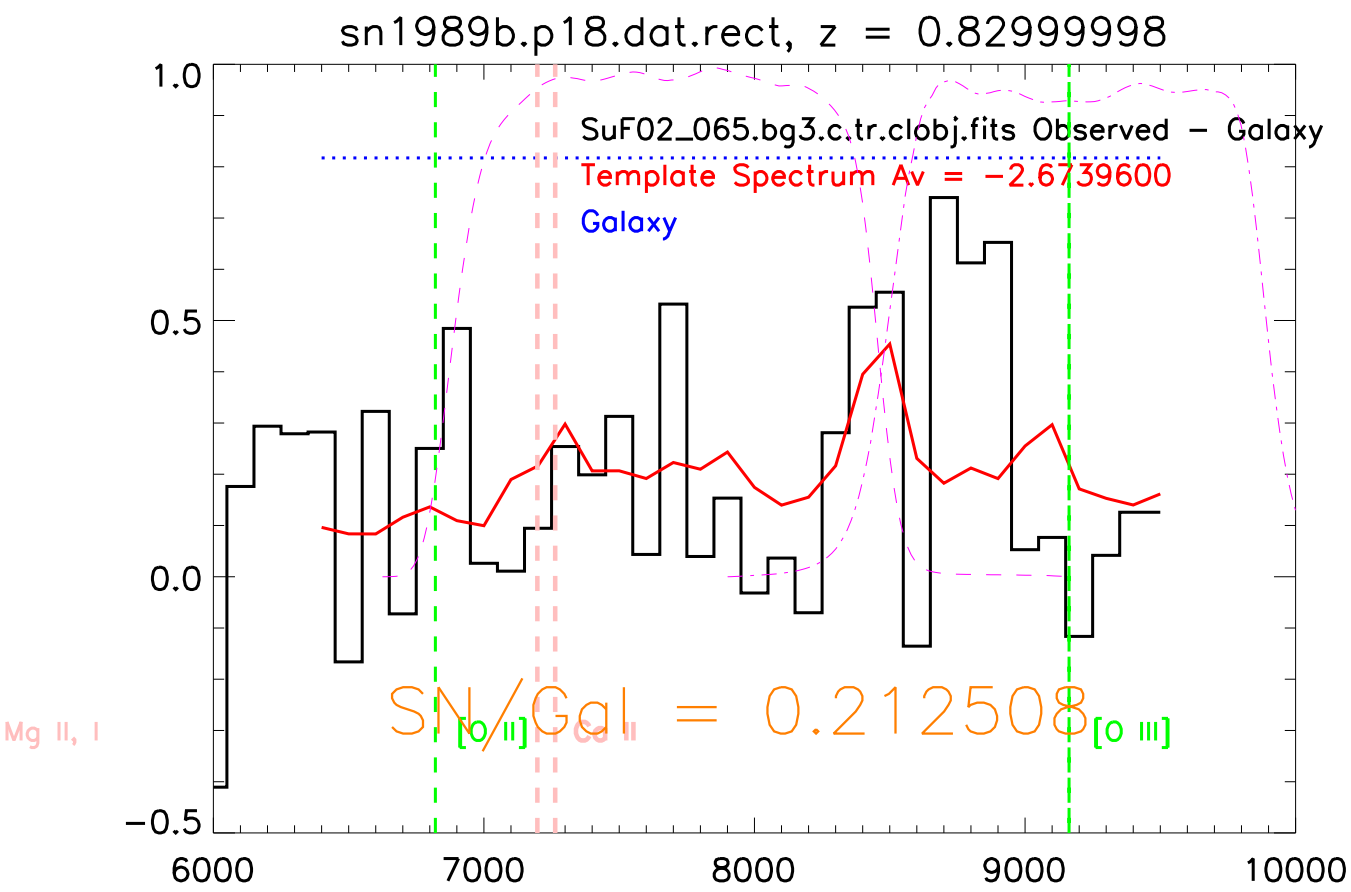

sn1999ee.p28.dat.rect, z = 1.1200000
SuF02_065.bg3.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = −5.7237352
Galaxy
SN/Gal = 0.302929
Mg II, I
[O II]
Ca II
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
−0.4
6000
7000
8000
9000
10000

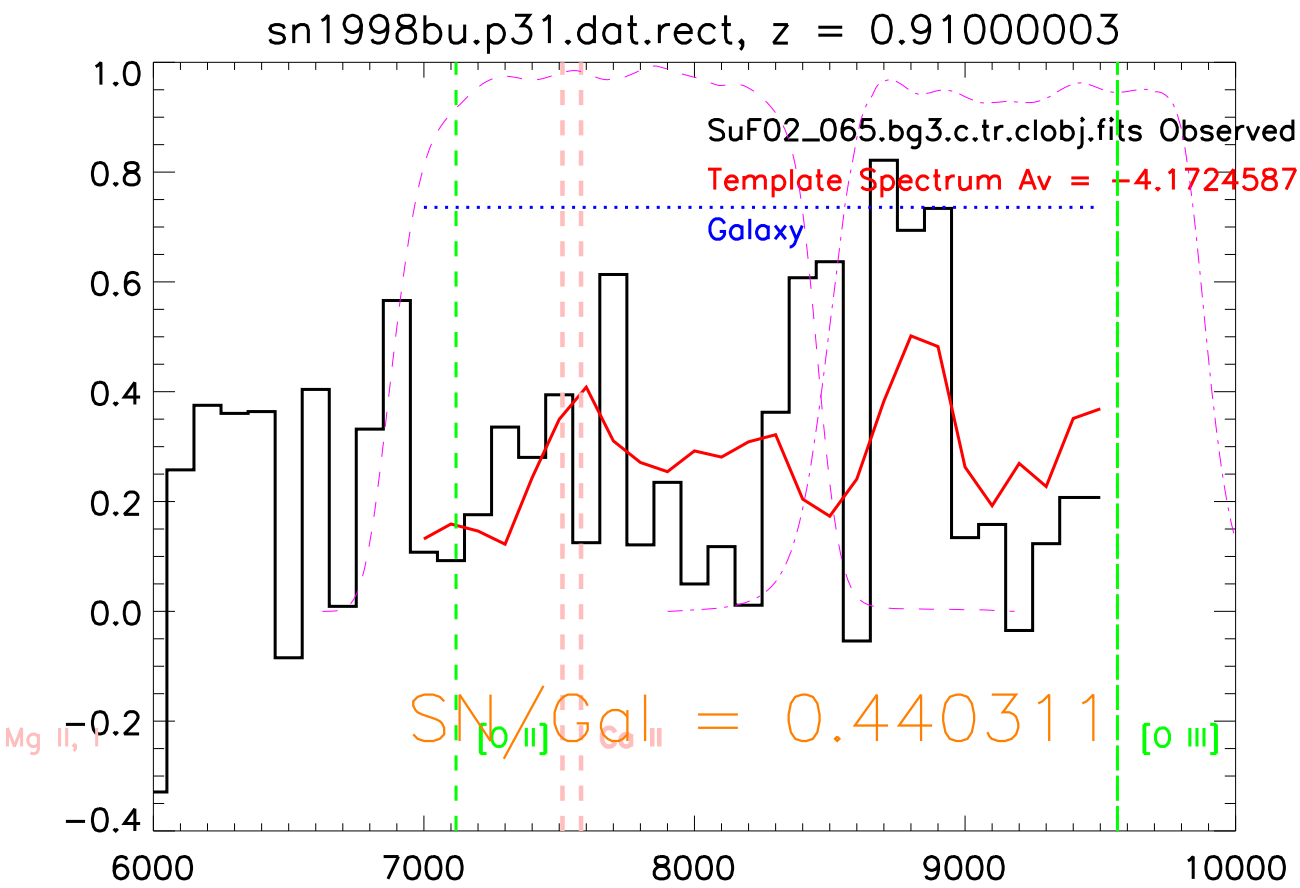

sn1998bu.m03.dat.rect, z = 0.88999999
SuF02_065.bg3.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = 0.87942167
Galaxy
S/N/Gal = 0.779799
Mg II, I
[O II]
Ca II
[O III]
1.2
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
6000
7000
8000
9000
10000

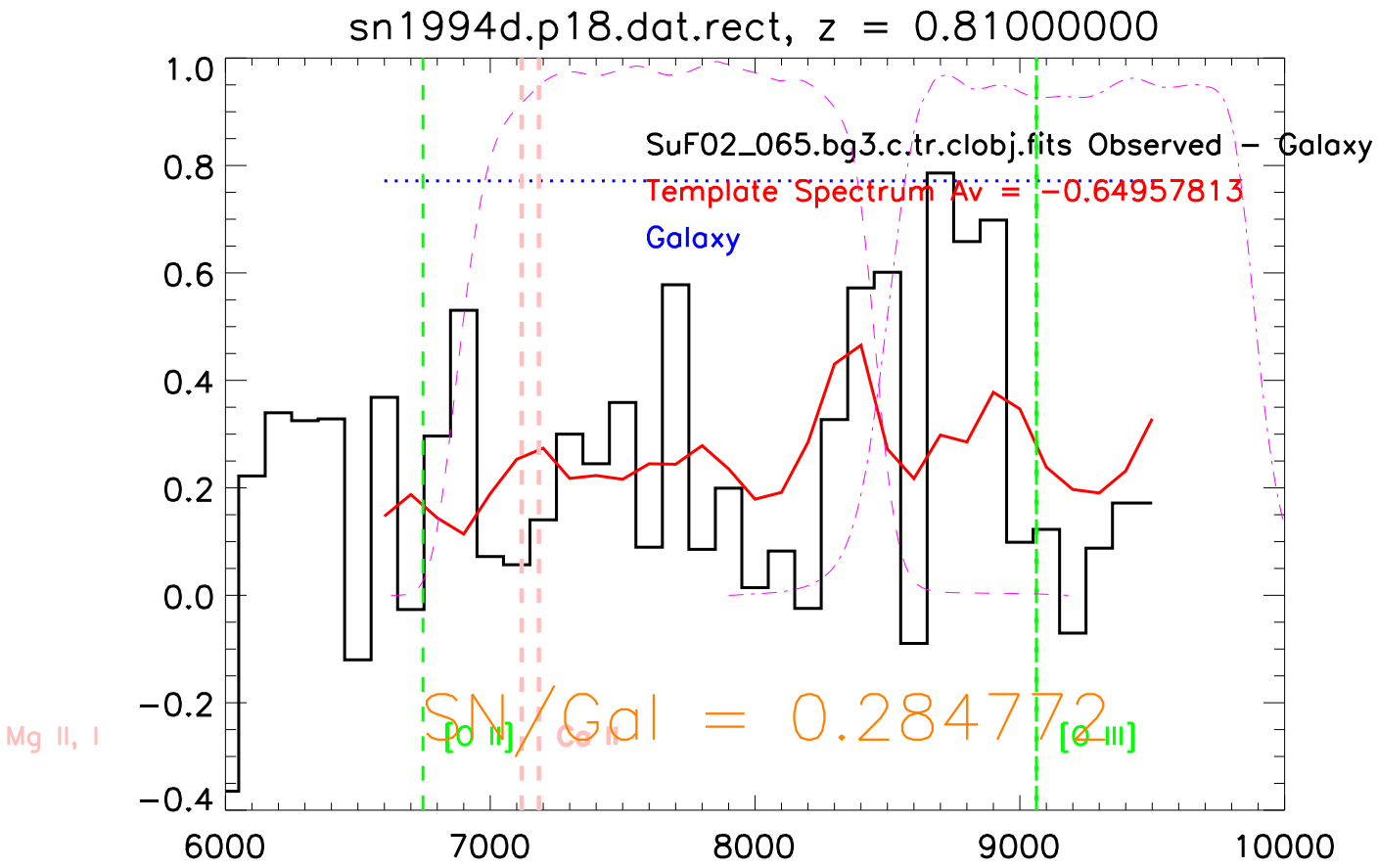

sn1998bu.m04.dat.rect, z = 0.88999999
SuF02_065.bg3.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = 1.2508546
Galaxy
SN/Gal = 0.847049
Mg II, I
[O II]
Ca II
[O III]
1.2
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
6000
7000
8000
9000
10000

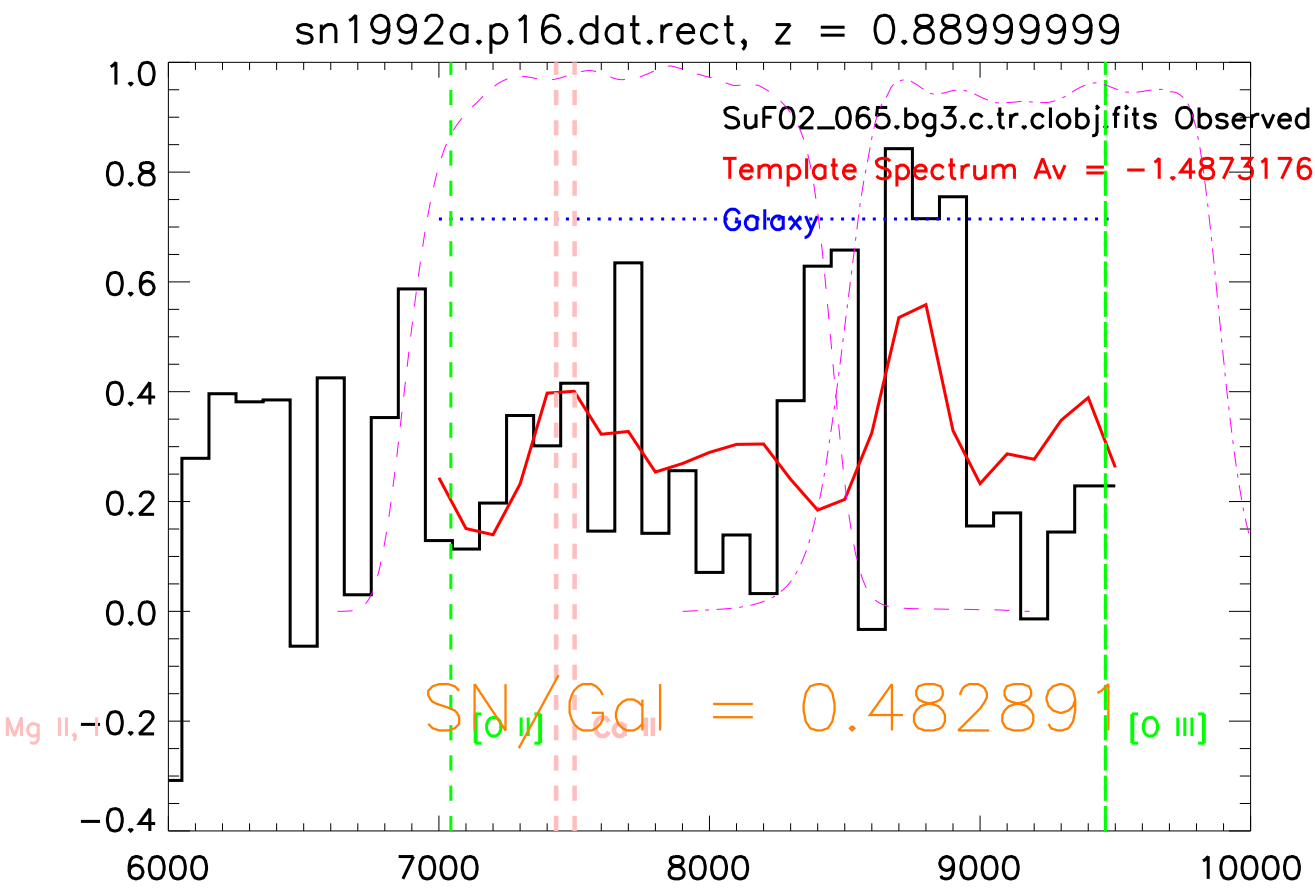

sn1992a.m01.dat.rect, z = 0.88999999
SuF02_065.bg3.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = 0.87313701
Galaxy
SN/Gal = 0.420385
[O II]
[O III]
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
−0.4
6000
7000
8000
9000
10000

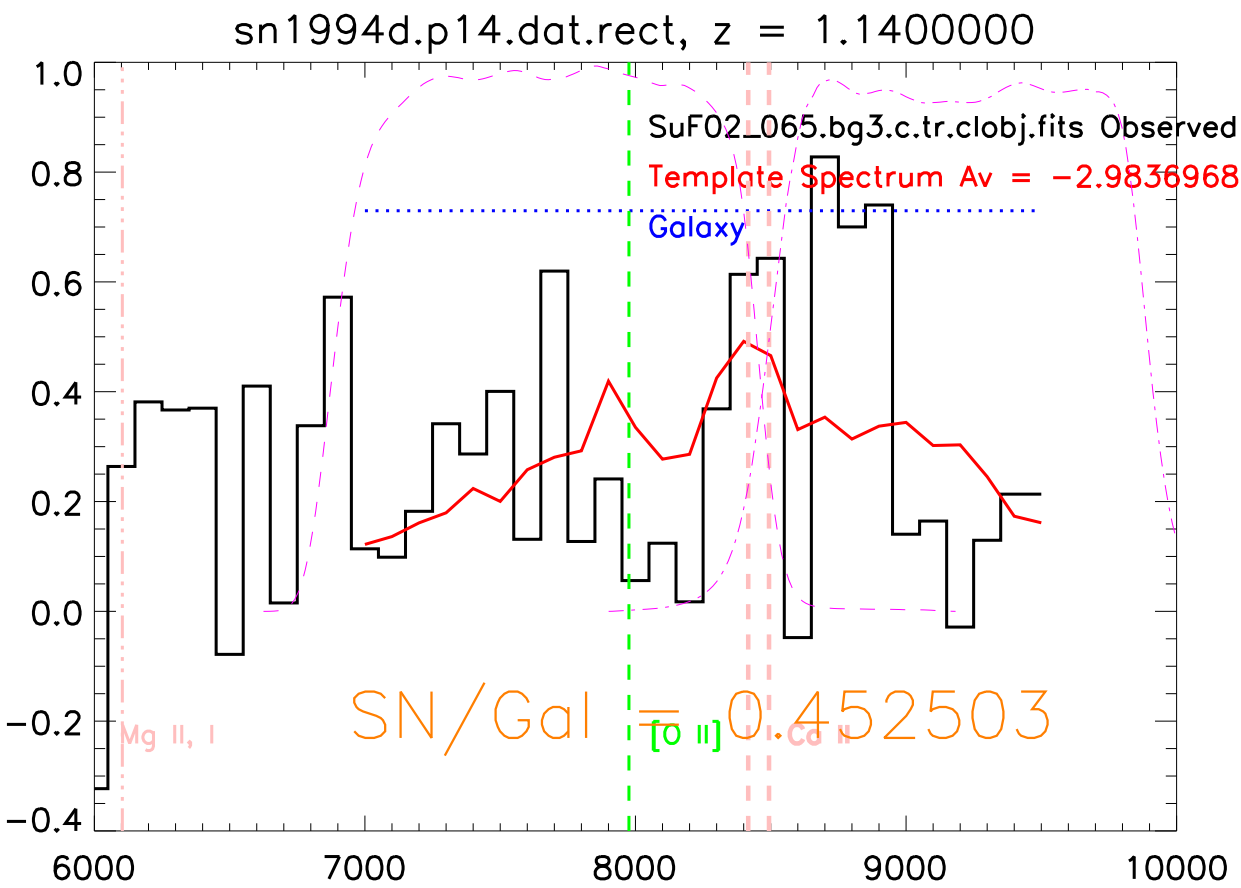

sn1989b.p19.dat.rect, z = 0.80000001
SuF02_065.bg3.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −1.6856445
Galaxy
SN/Gal = 0.121863
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000
Mg II, I
[O II]
Ca II
[O III]


sn1989b.p18.dat.rect, z = 0.82999998
SuF02_065.bg3.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −2.6739600
Galaxy
SN/Gal = 0.212508
[O II]
[O III]
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000


sn1998bu.p31.dat.rect, z = 0.91000003
SuF02_065.bg3.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = 4.1724587
Galaxy
SN/Gal = 0.440311
[O II]
[O III]
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
−0.4
6000
7000
8000
9000
10000


sn1994d.p18.dat.rect, z = 0.81000000
SuF02_065.bg3.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = -0.64957813
Galaxy
SN/Gal = 0.284772
[O II]
[O III]
Mg II, I
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
−0.4
6000
7000
8000
9000
10000


sn1992a.p16.dat.rect, z = 0.88999999
SuF02_065.bg3.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = −1.4873176
Galaxy
SN/Gal = 0.482891
[O II]
[O III]
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
−0.4
6000
7000
8000
9000
10000


sn1994d.p14.dat.rect, z = 1.1400000
SuF02_065.bg3.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = −2.9836968
Galaxy
SN/Gal = 0.452503
Mg II, I
[O II]
Ca II
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
−0.4
6000
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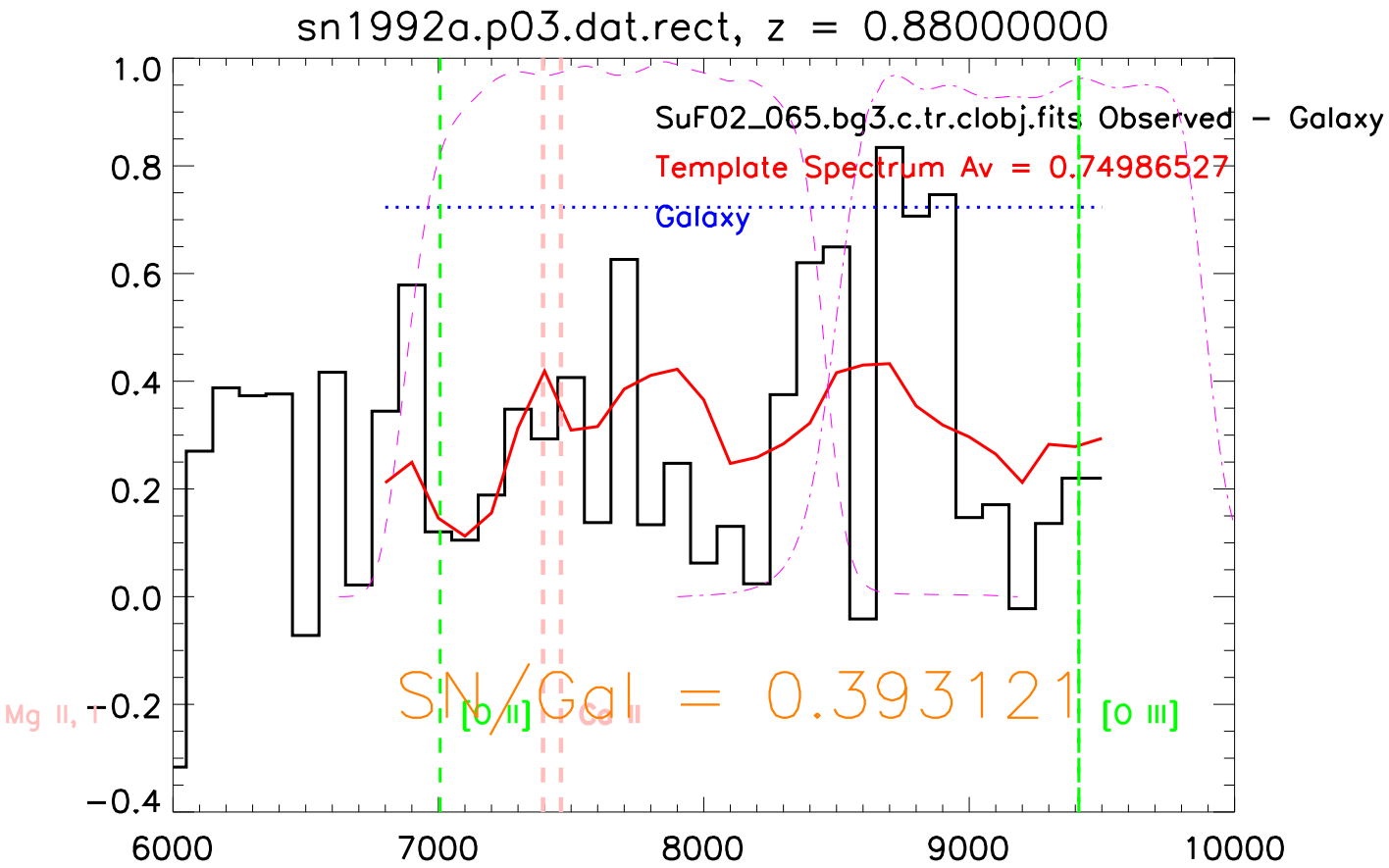
8000
9000
10000


sn1992a.p03.dat.rect, z = 0.88000000
SuF02_065.bg3.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = 0.74986527
Galaxy
S/N/Gal = 0.393121
[O II]
[O III]
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
−0.4
6000
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9000
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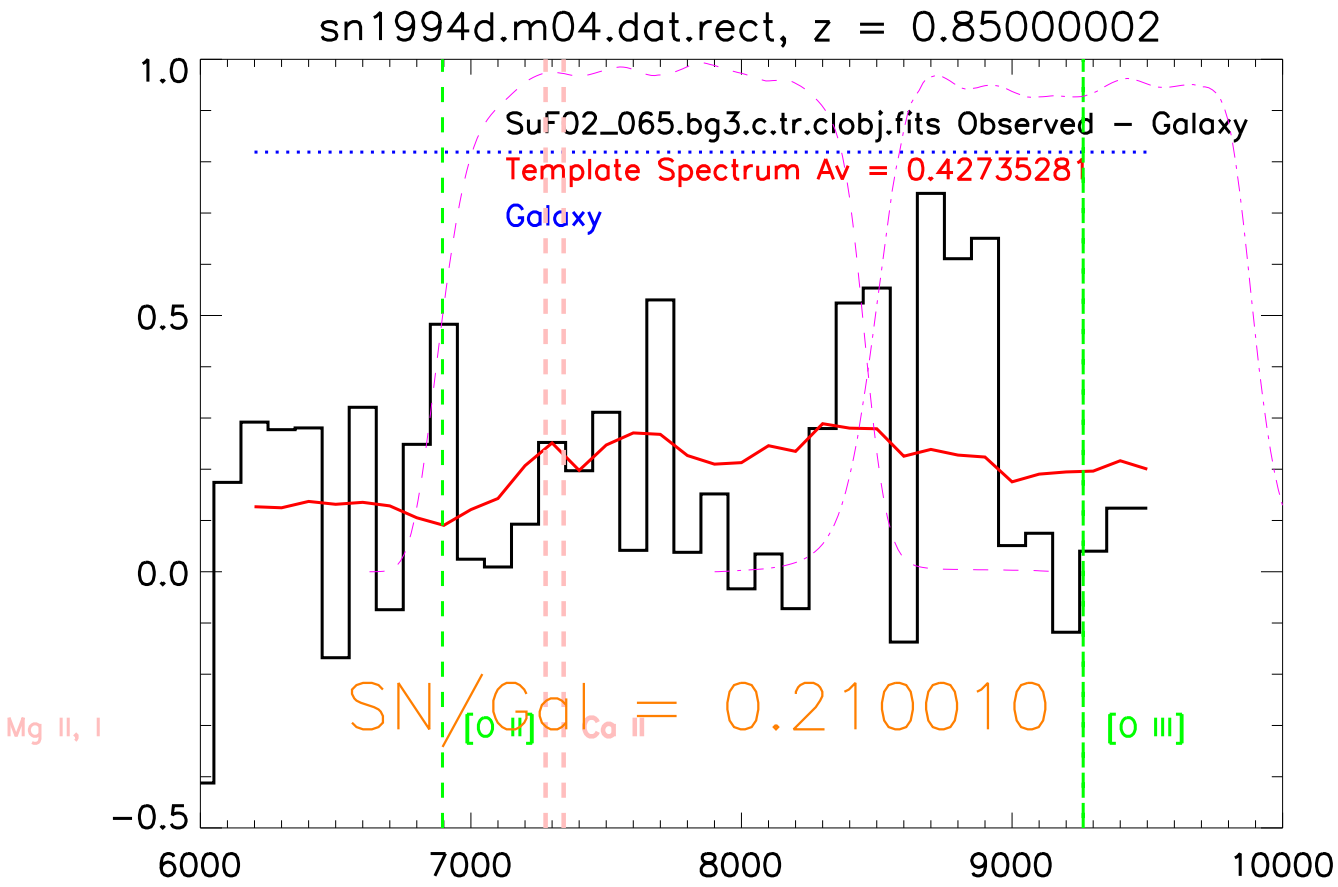
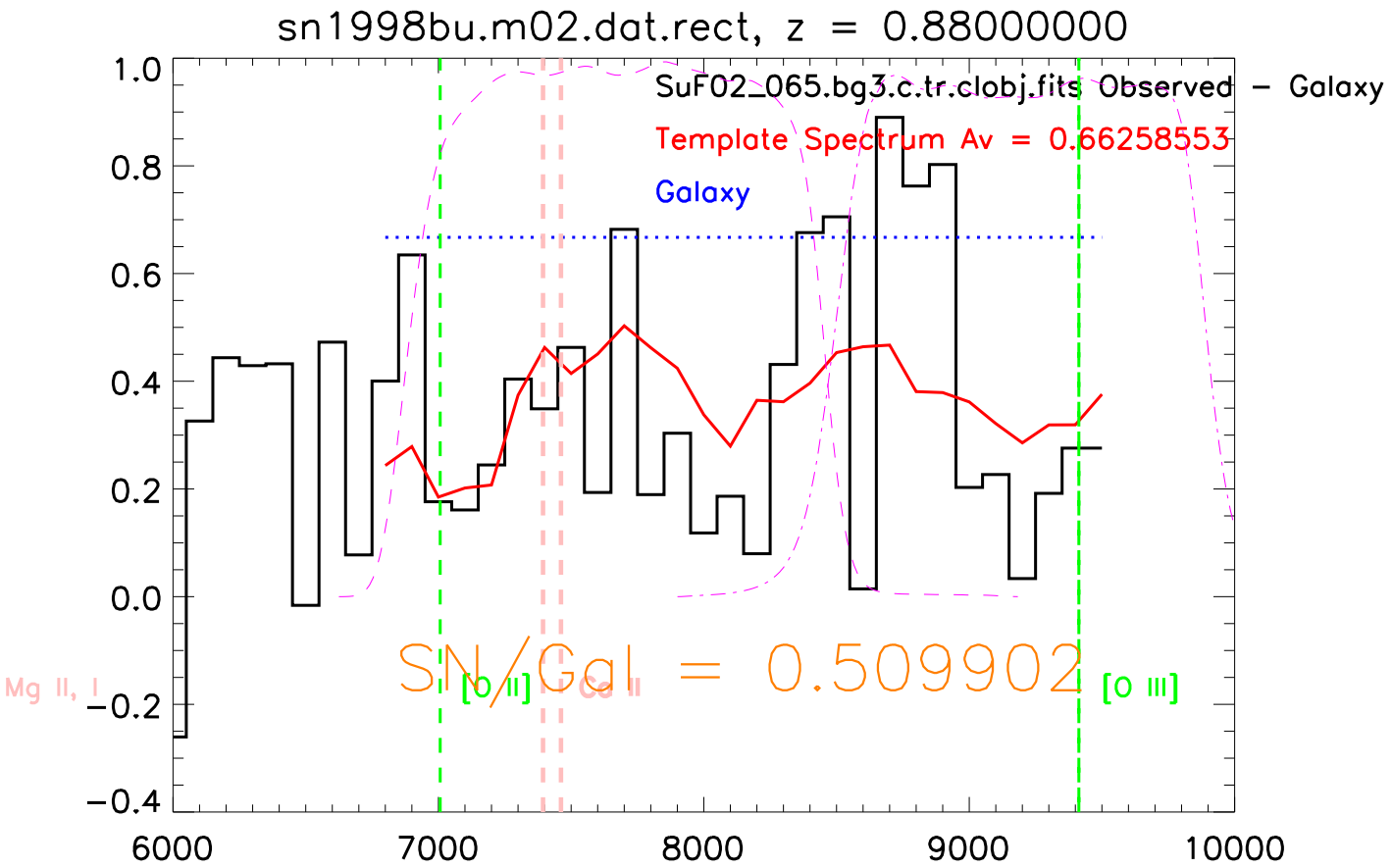
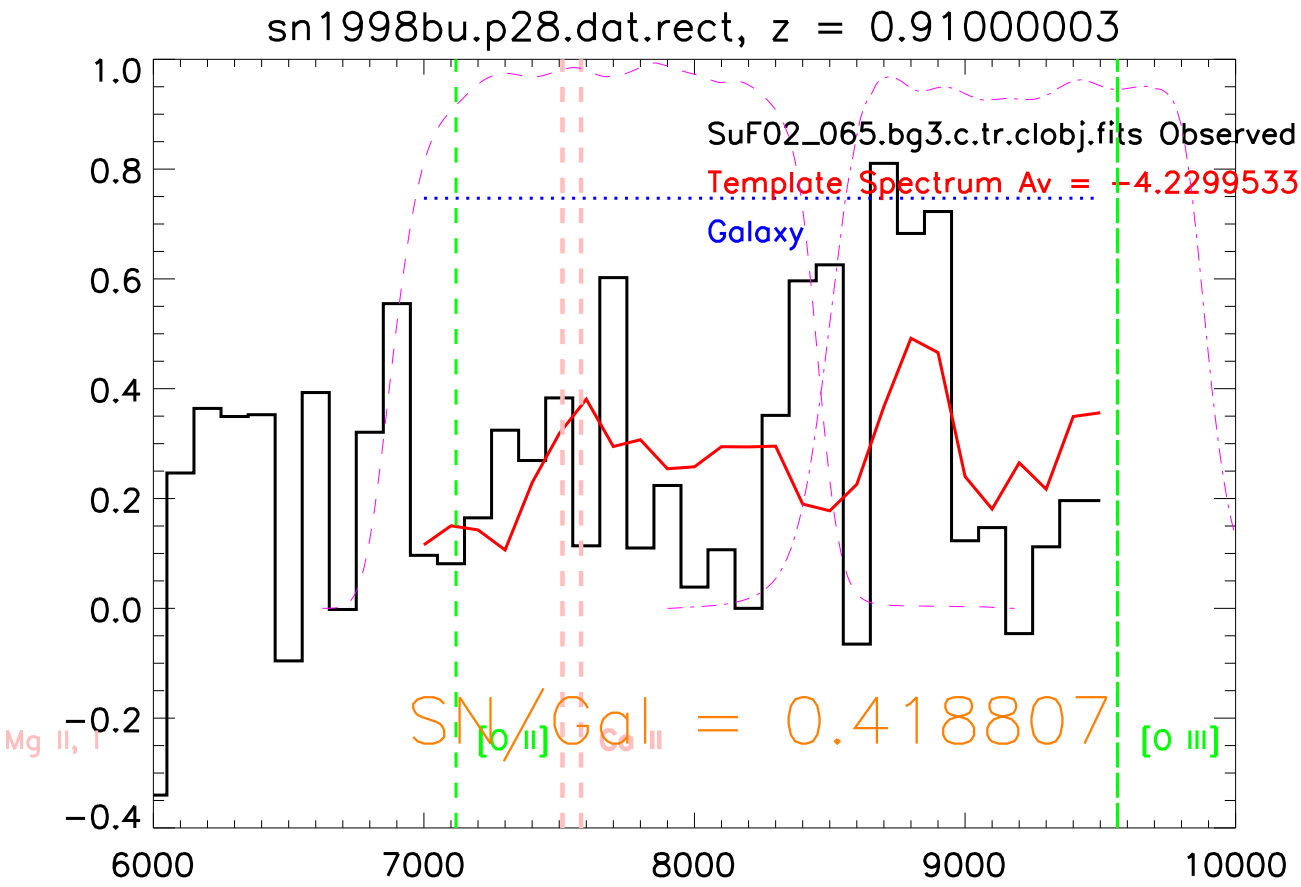

sn1994d.m04.dat.rect, z = 0.85000002
SuF02_065.bg3.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = 0.42735281
Galaxy
SN/Gal = 0.210010
[O II]
Ca II
[O III]
Mg II, I
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000


sn1998bu.m02.dat.rect, z = 0.88000000
SuF02_065.bg3.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = 0.66258553
Galaxy
SN/Gal = 0.509902
Mg II, I
[O II]
Ca II
[O III]
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
−0.4
6000
7000
8000
9000
10000


sn1998bu.p28.dat.rect, z = 0.91000003
SuF02_065.bg3.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = -4.2299533
Galaxy
S/N/Gal = 0.418807
[O II]
[O III]
1.0
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0.6
0.4
0.2
0.0
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−0.4
6000
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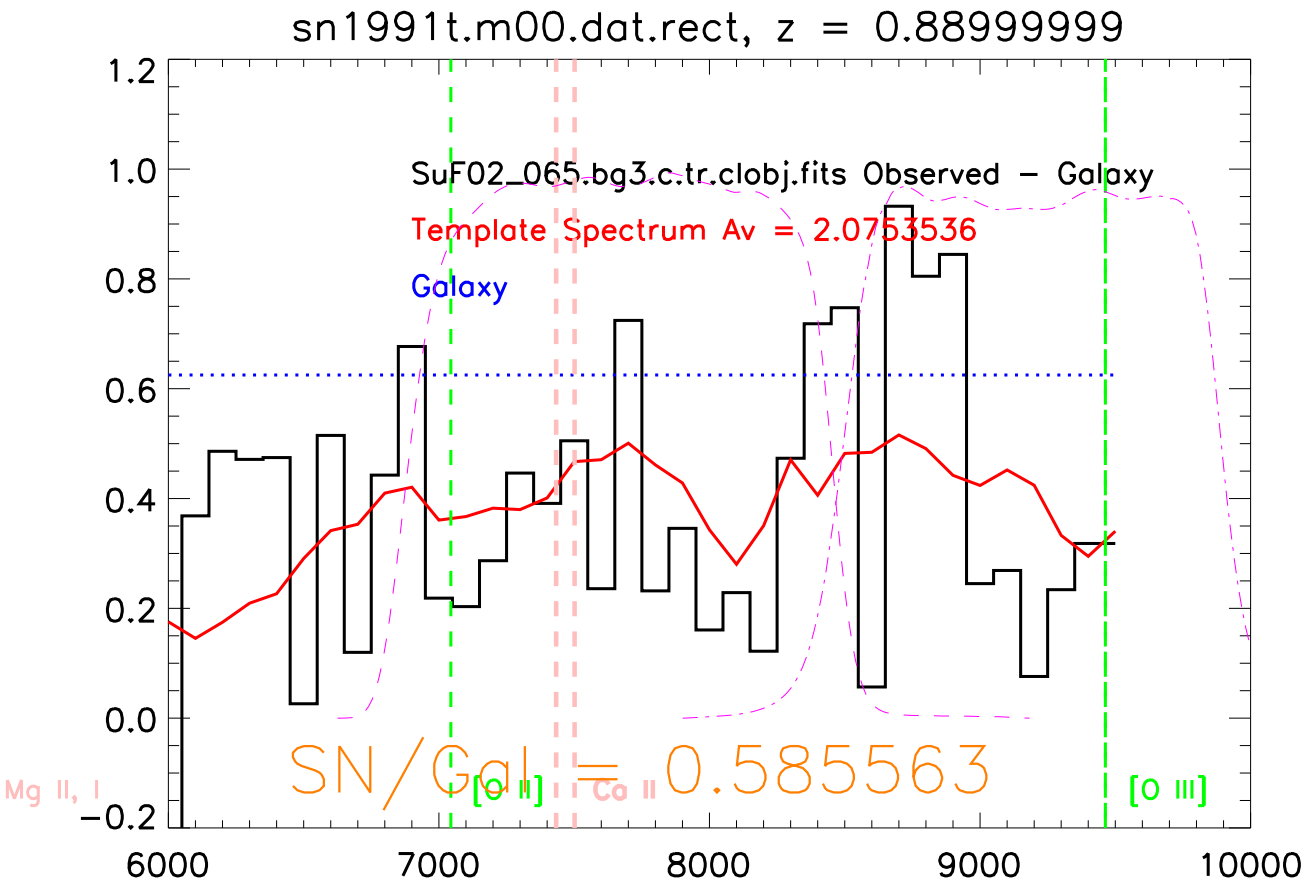
8000
9000
10000


sn1991t.m00.dat.rect, z = 0.88999999
SuF02_065.bg3.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = 2.0753536
Galaxy
SN/Gal = 0.585563
Mg II, I
[O II]
Ca II
[O III]
1.2
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
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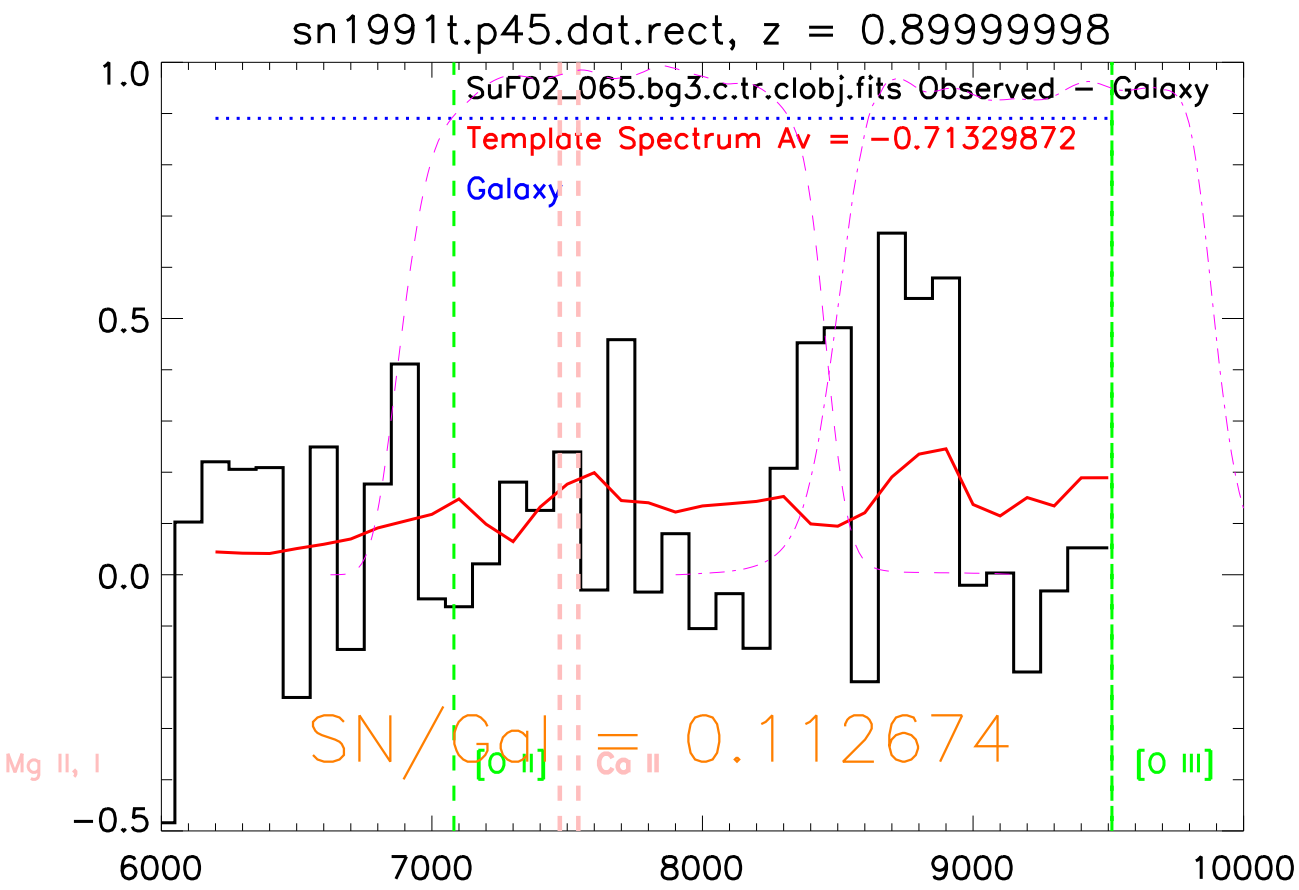
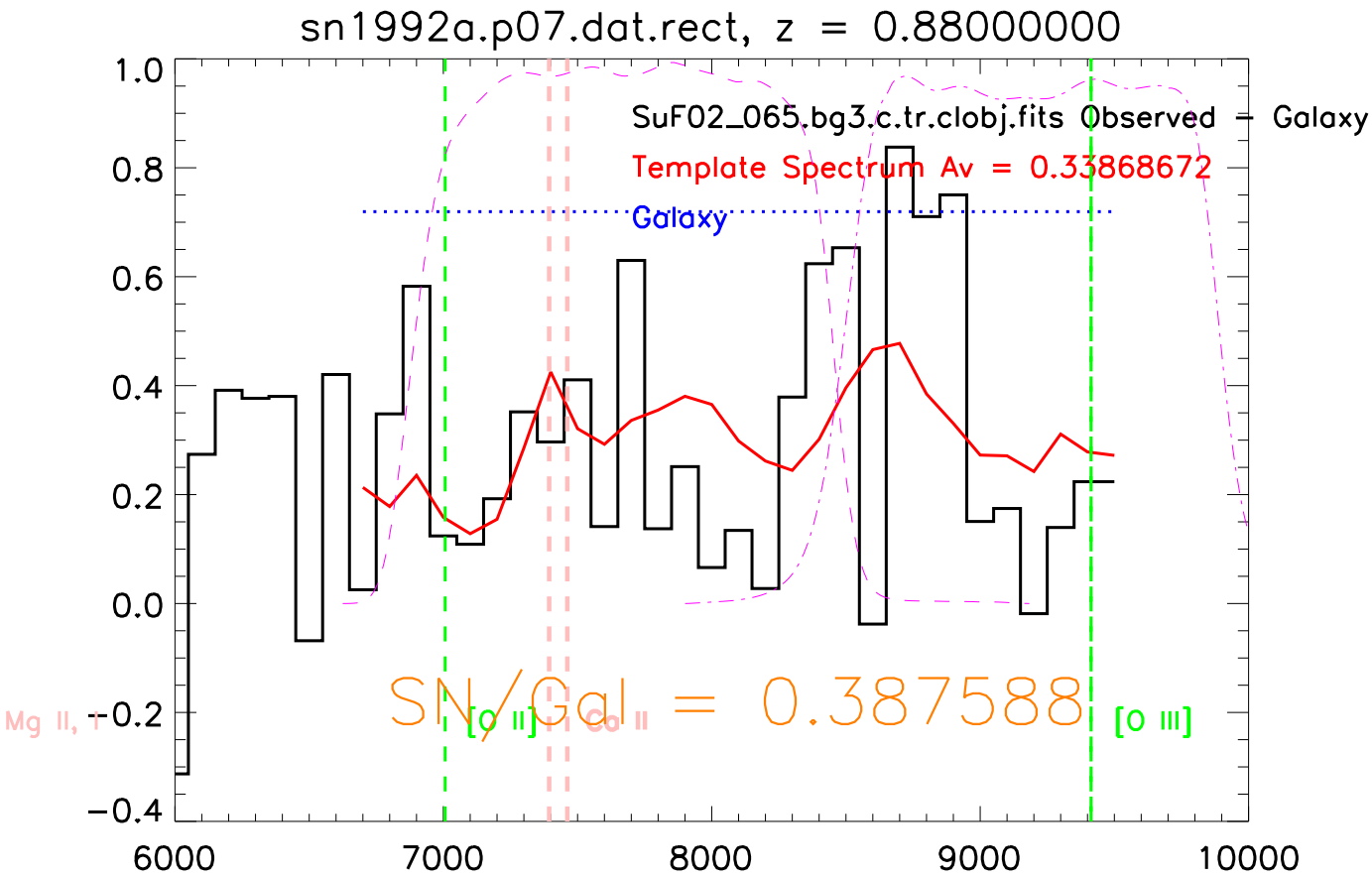
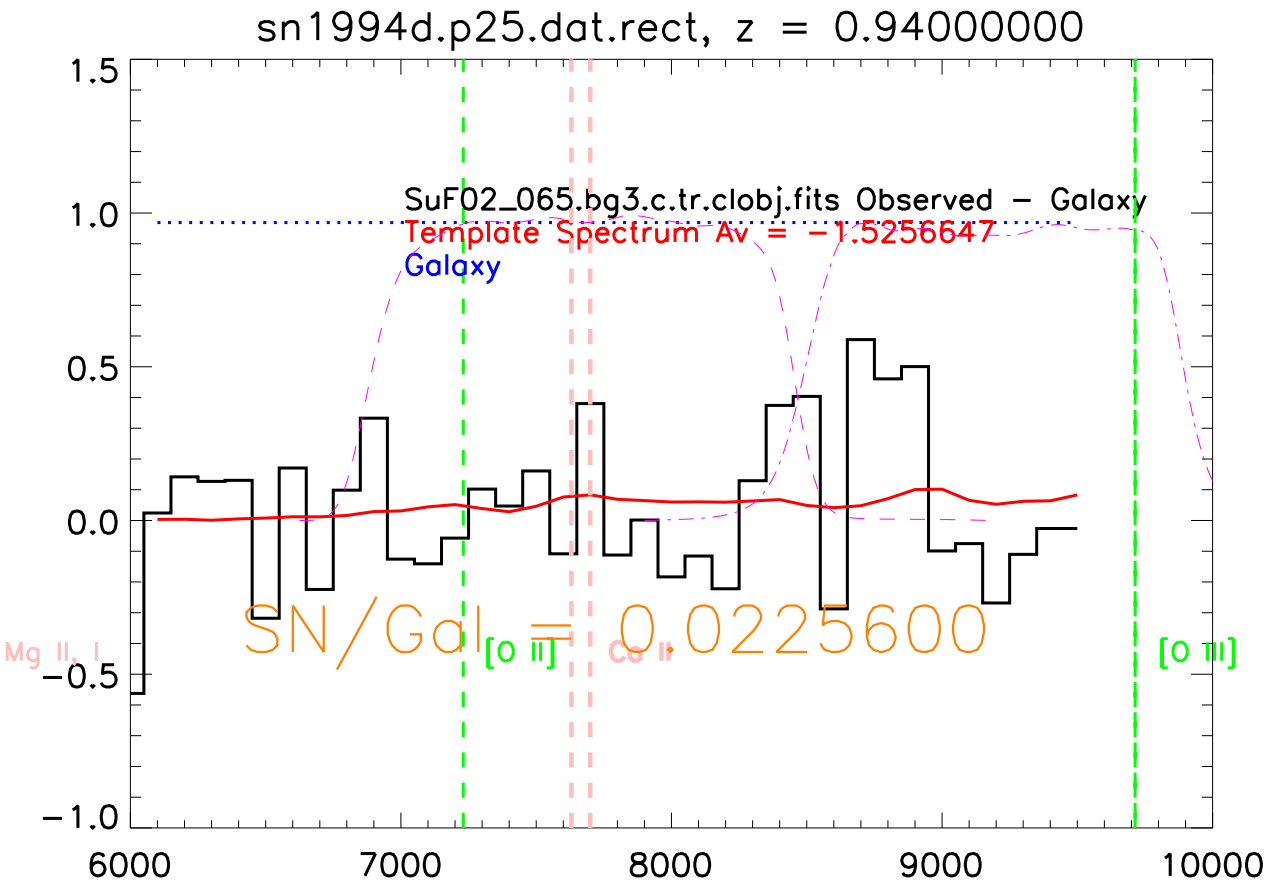
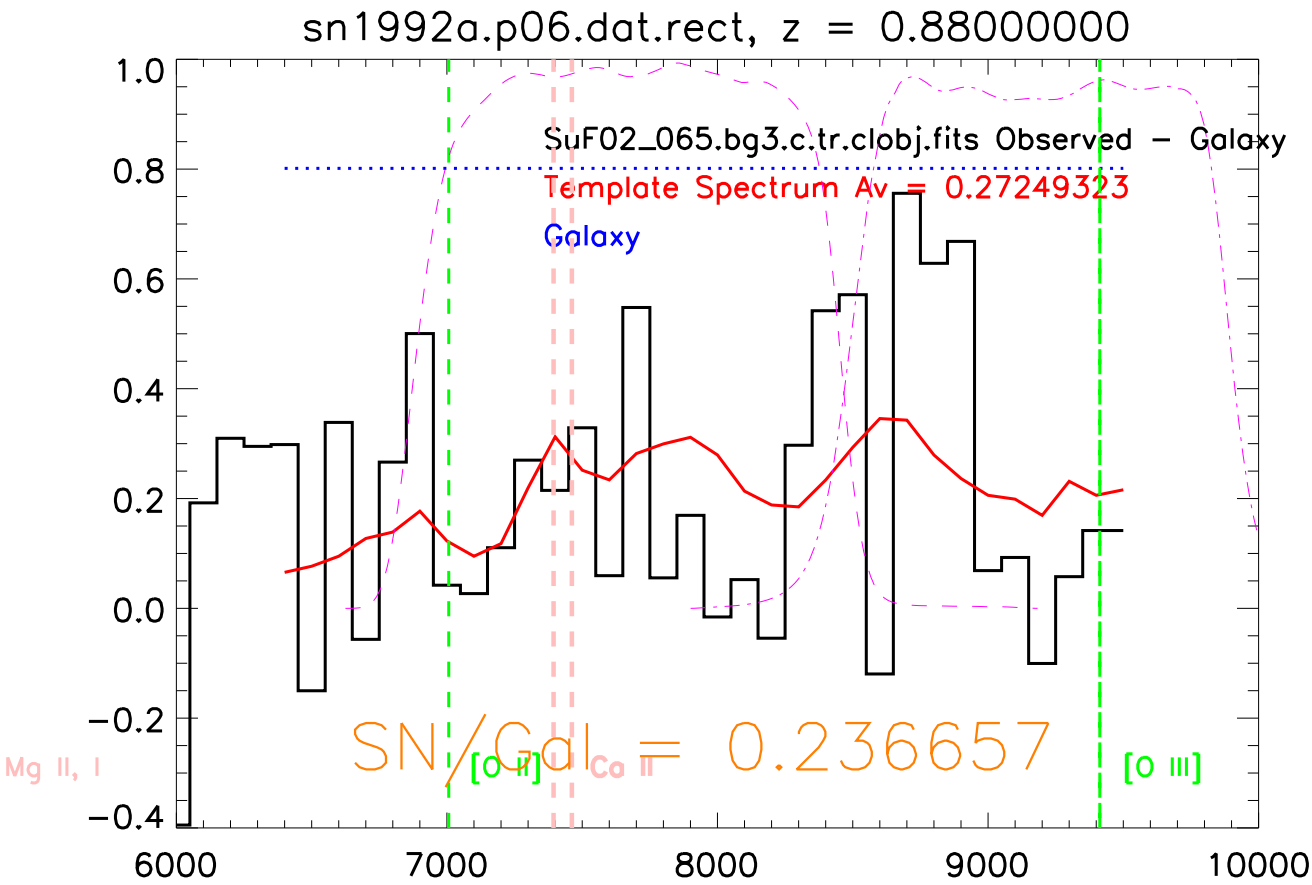
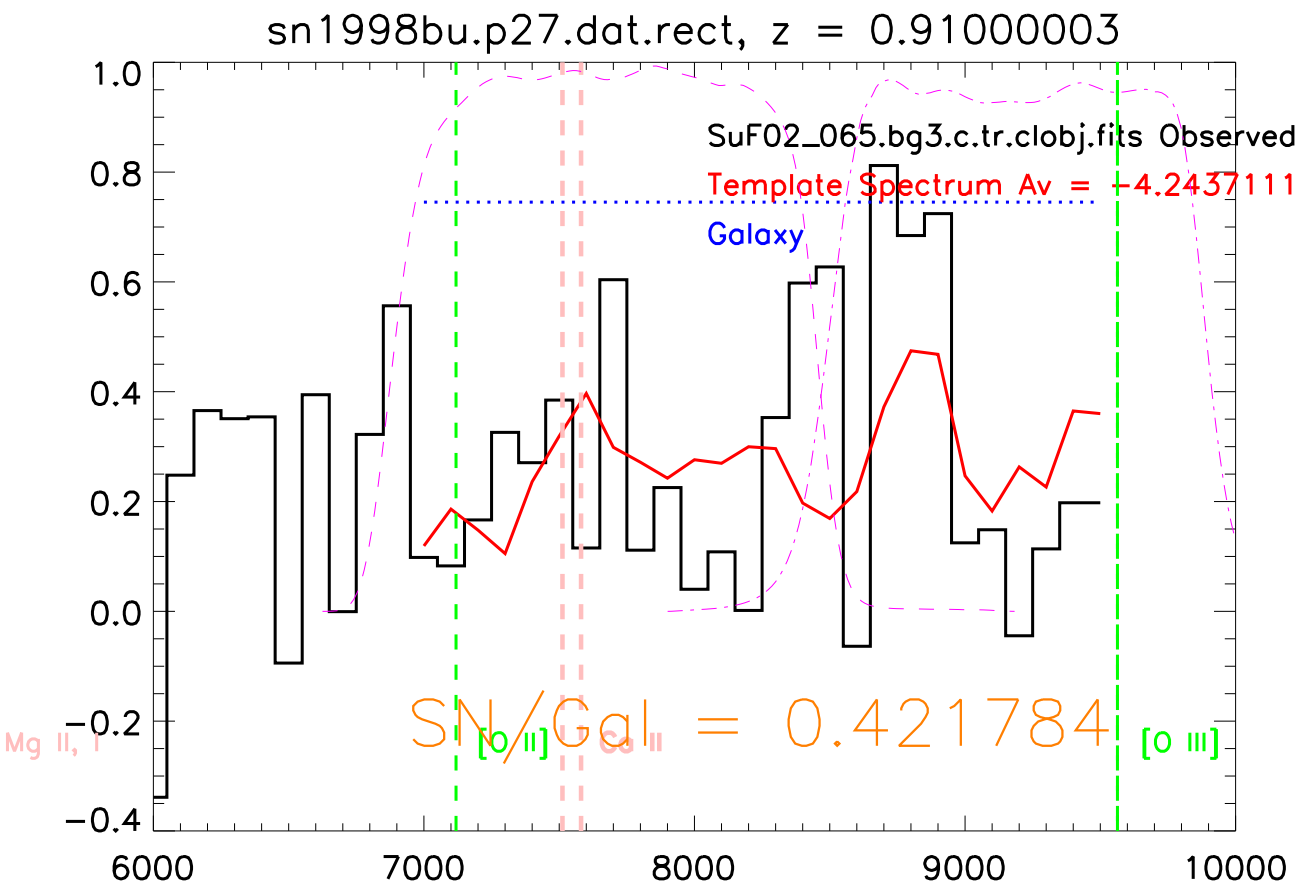
7000
8000
9000
10000

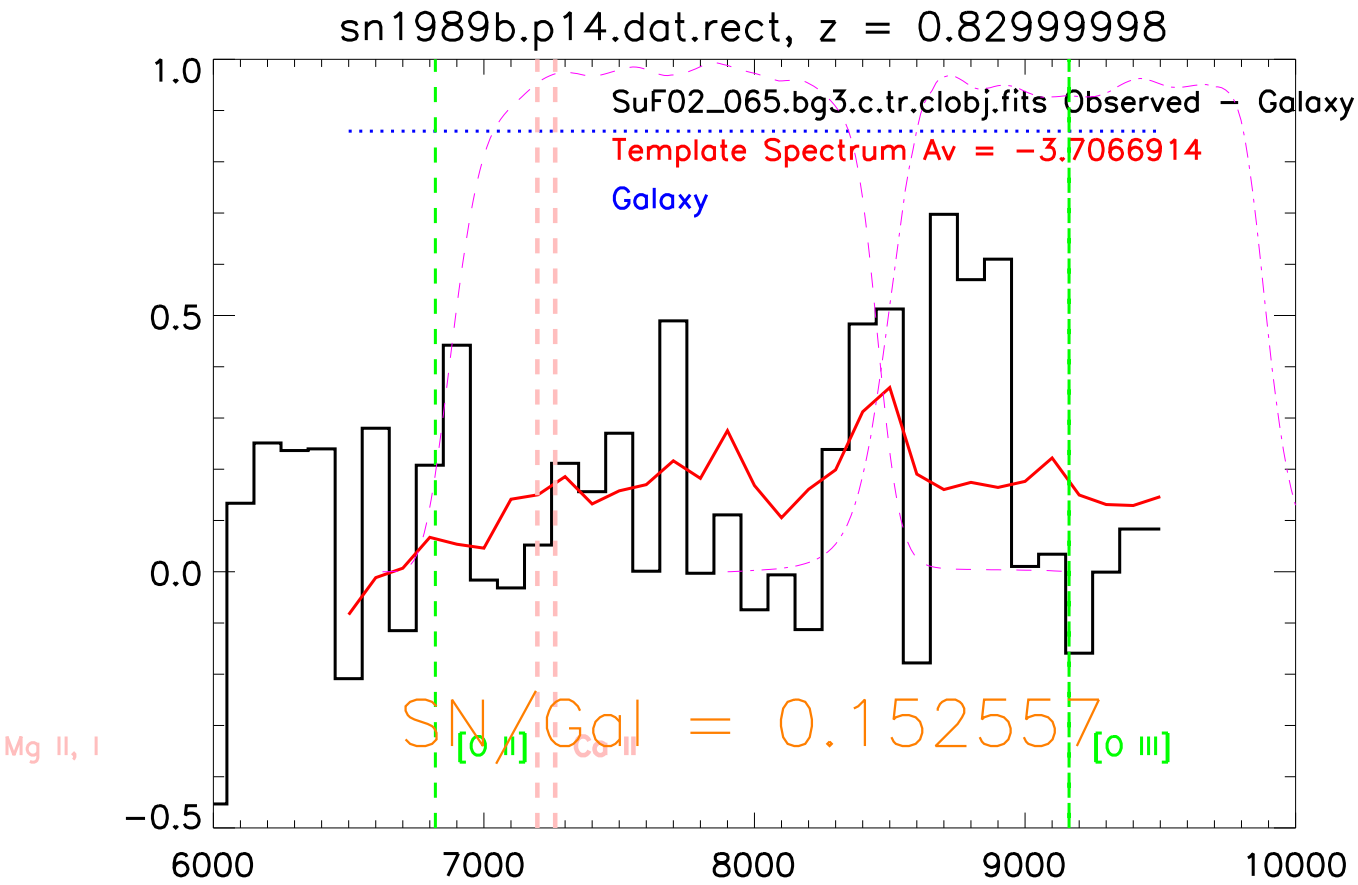

sn1991t.p45.dat.rect, z = 0.89999998
SuF02_065.bg3.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = −0.71329872
Galaxy
SN/Gal = 0.112674
Mg II, I
[O II]
Ca II
[O III]
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

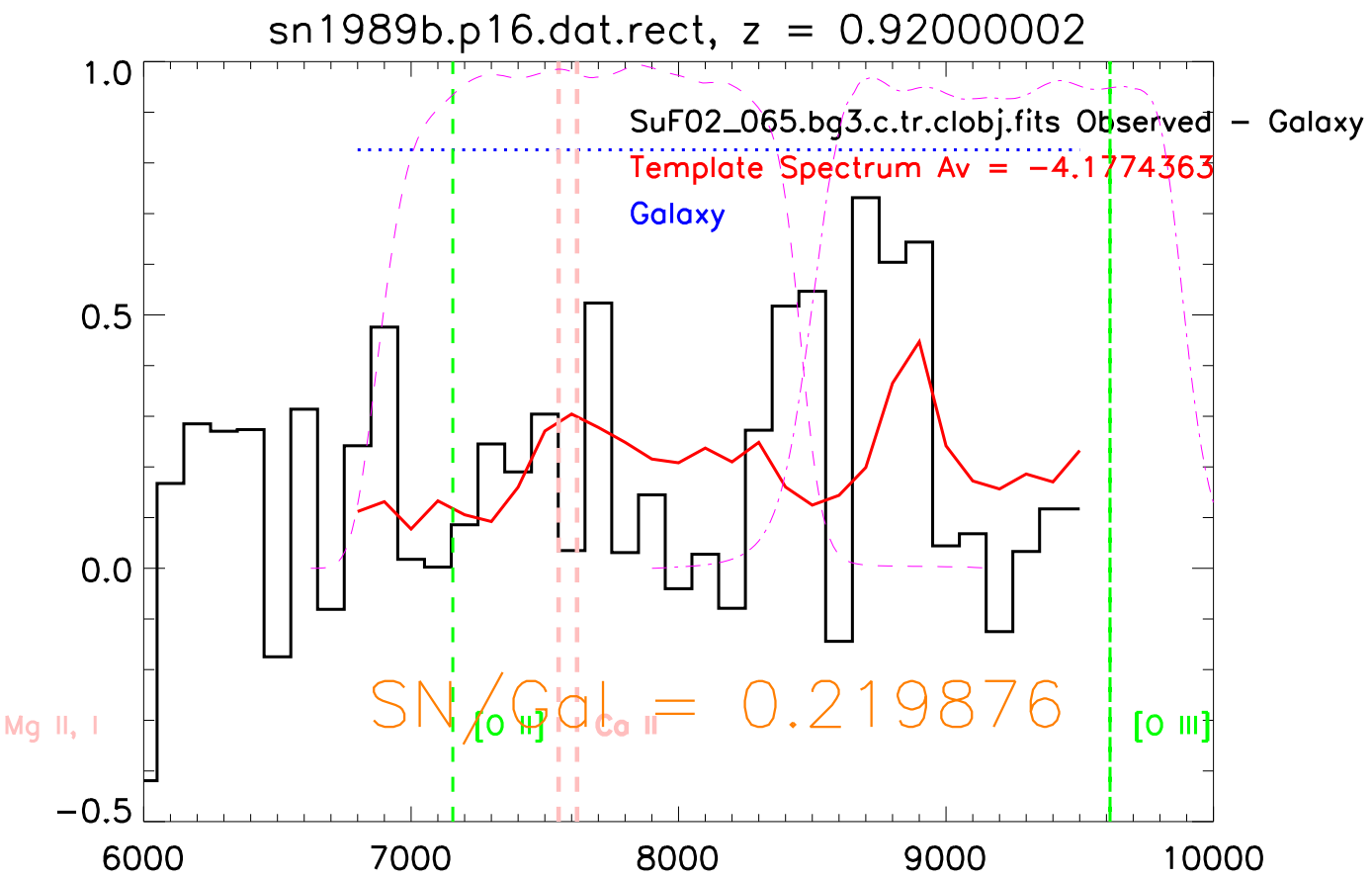

sn1992a.p07.dat.rect, z = 0.88000000
SuF02_065.bg3.c.tr.clobj.fits Observed = Galaxy
Template Spectrum Av = 0.33868672
Galaxy
SN/Gal = 0.387588
[O II]
Ca II
[O III]
Mg II,
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
−0.4
6000
7000
8000
9000
10000

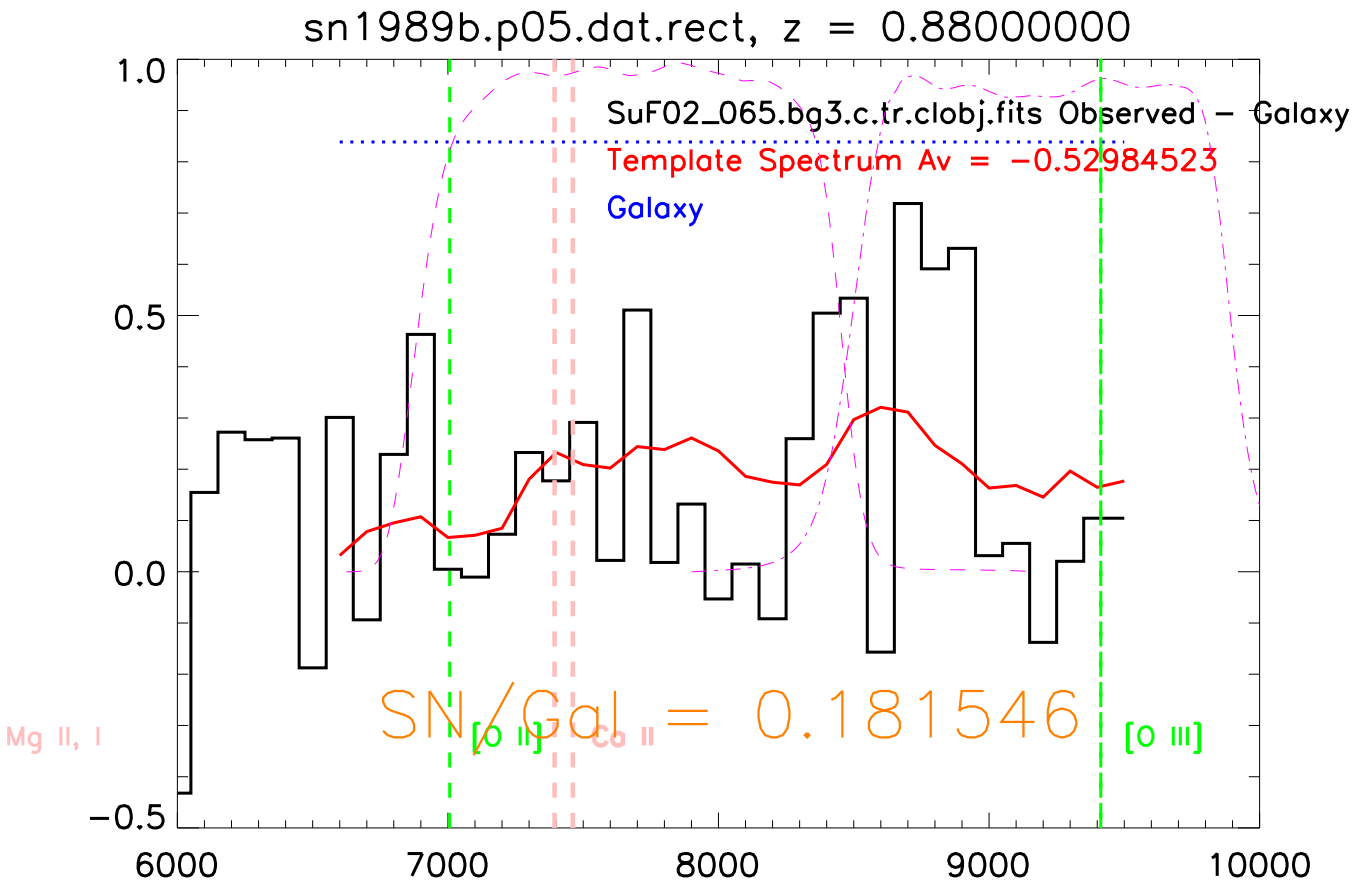

sn1994d.p25.dat.rect, z = 0.94000000
SuF02_065.bg3.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −1.5256647
Galaxy
SN/Gal = 0.0225600
Mg II, I
[O II]
Ca II
[O III]
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000

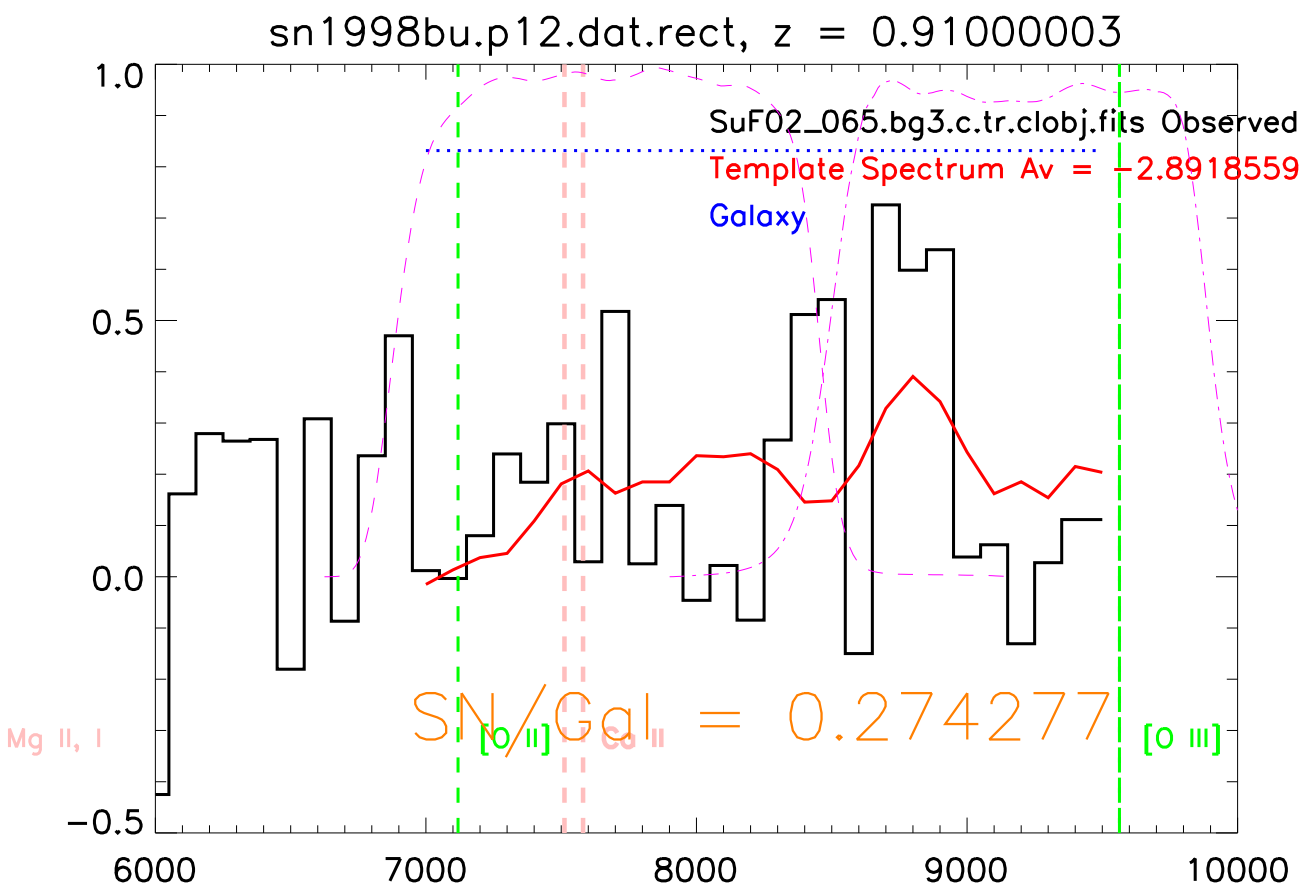

sn1992a.p06.dat.rect, z = 0.88000000
SuF02_065.bg3.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = 0.27249323
Galaxy
SN/Gdl = 0.236657
Mg II, I
[O II]
Ca II
[O III]
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
−0.4
6000
7000
8000
9000
10000

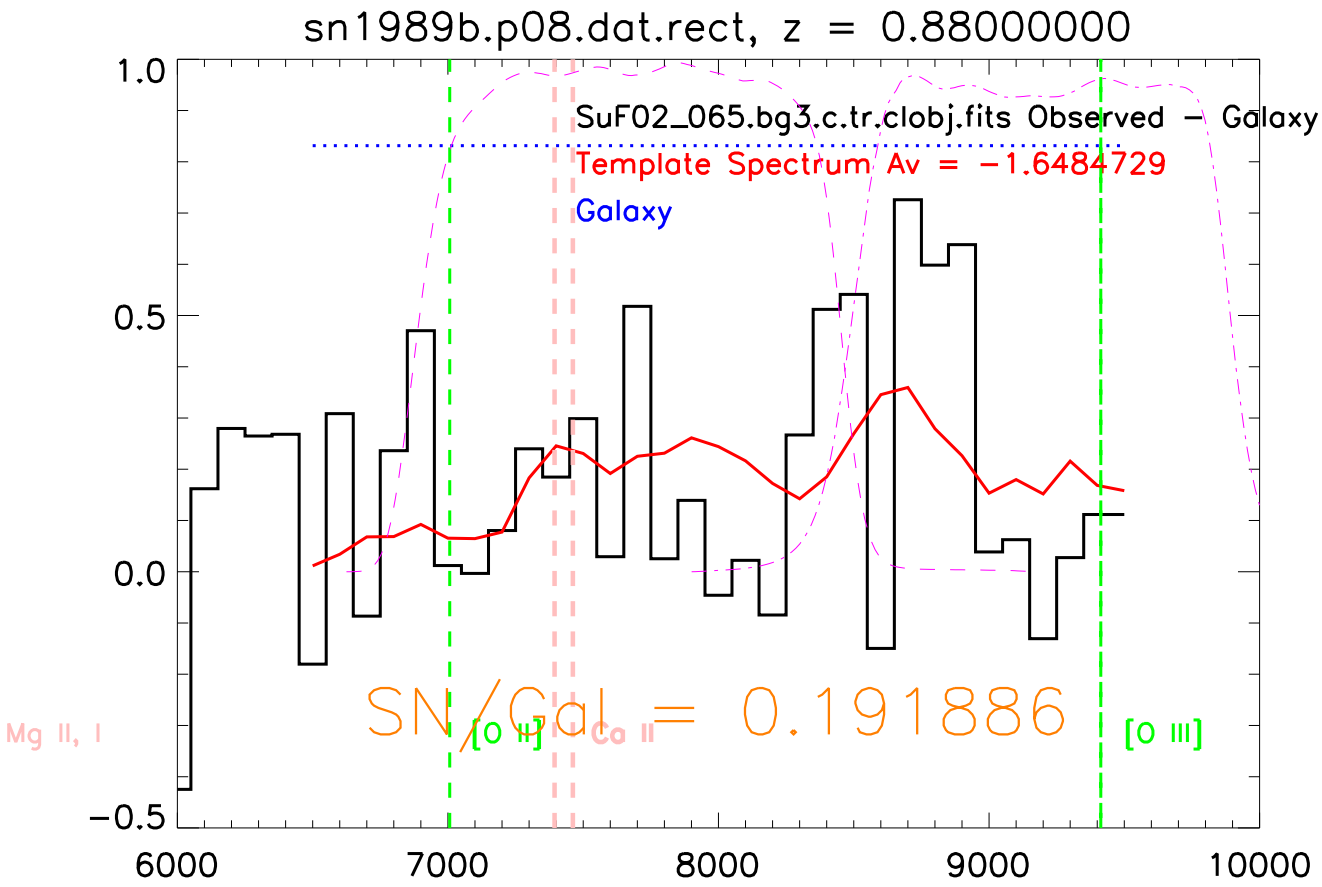

sn1998bu.p27.dat.rect, z = 0.91000003
SuF02_065.bg3.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = -4.2437111
Galaxy
S/N/Gal = 0.421784
Mg II, I
[O II]
Ca II
[O III]
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
−0.4
6000
7000
8000
9000
10000

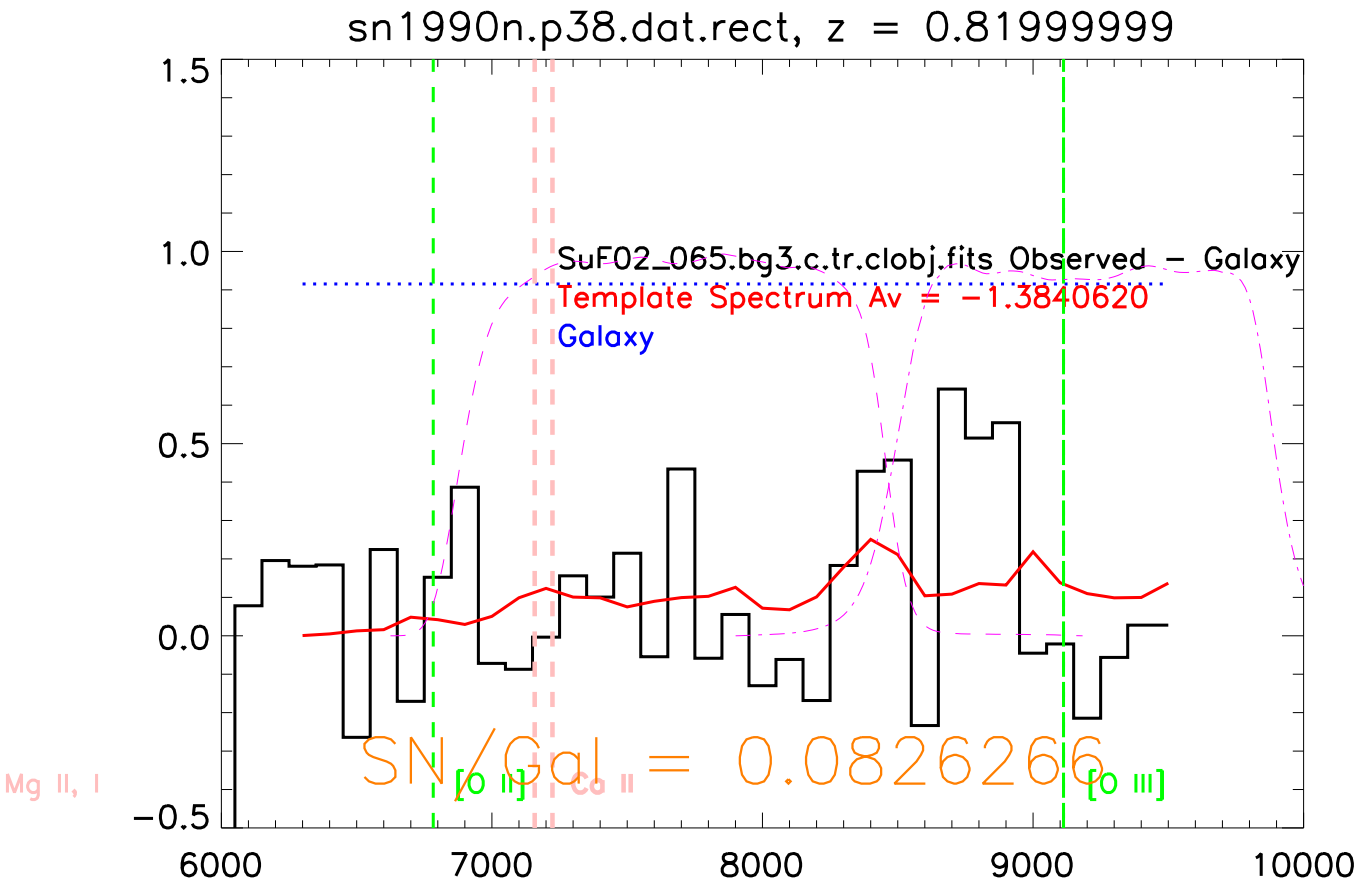

sn1989b.p14.dat.rect, z = 0.82999998
SuF02_065.bg3.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = −3.7066914
Galaxy
SN/Gal = 0.152557
[O II]
Ca II
[O III]
Mg II, I
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

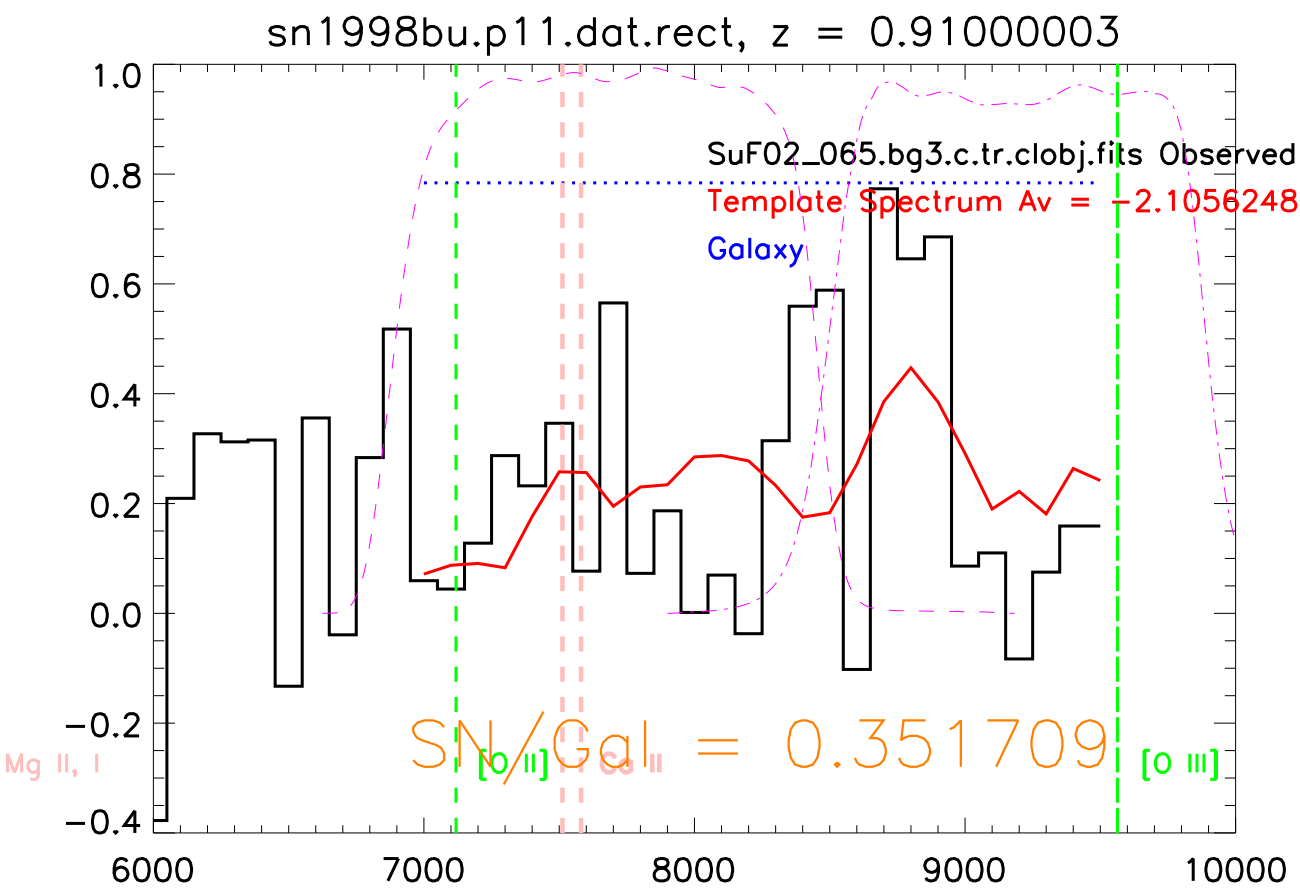

sn1989b.p16.dat.rect, z = 0.92000002
SuF02_065.bg3.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −4.1774363
Galaxy
SN/Gal = 0.219876
Mg II, I
[O II]
Ca II
[O III]
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

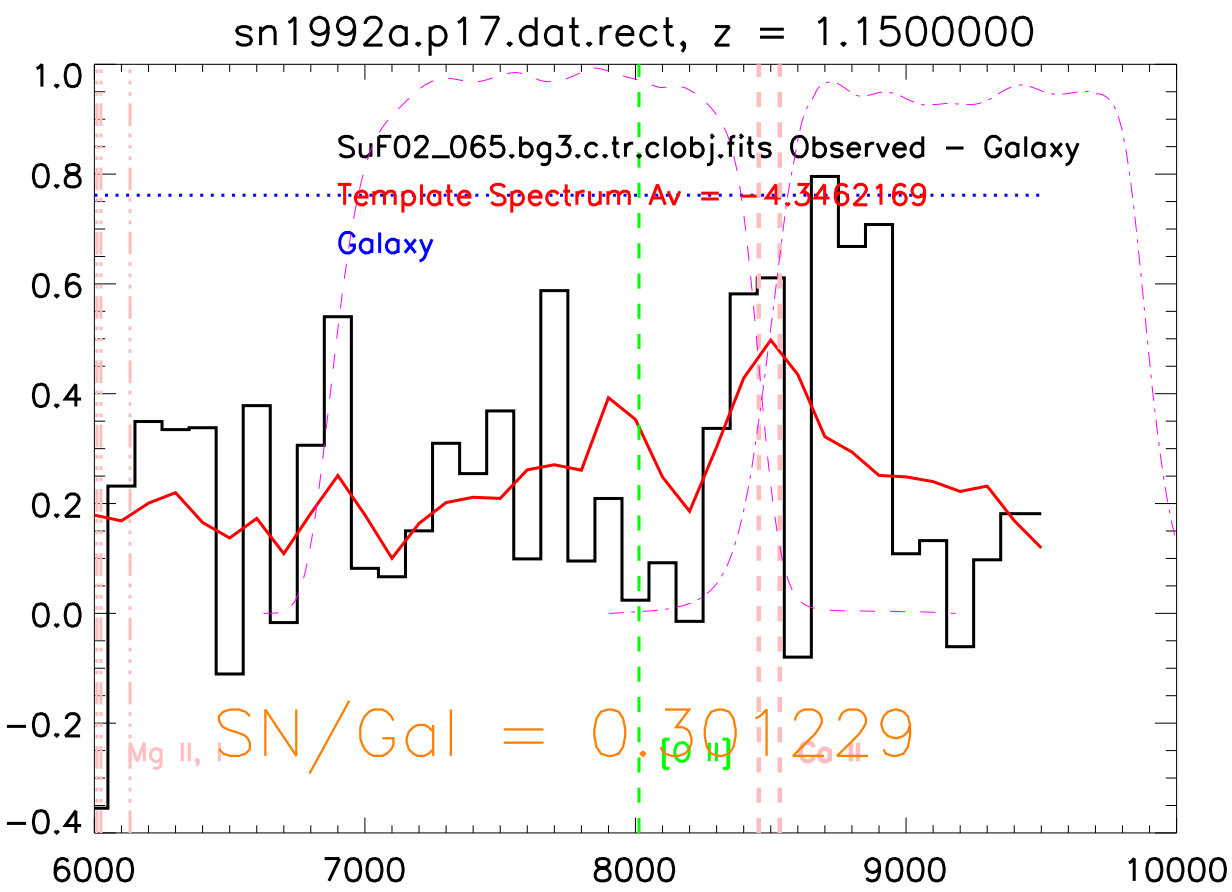

sn1989b.p05.dat.rect, z = 0.88000000
SuF02_065.bg3.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −0.52984523
Galaxy
SN/Gal = 0.181546
Mg II, I
[O II]
Ca II
[O III]
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000


sn1998bu.p12.dat.rect, z = 0.91000003
SuF02_065.bg3.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = −2.8918559
Galaxy
SN/Gal = 0.274277
Mg II, I
[O II]
Ca II
[O III]
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000


sn1989b.p08.dat.rect, z = 0.88000000
SuF02_065.bg3.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = −1.6484729
Galaxy
SN/Gal = 0.191886
Mg II, I
[O II]
Ca II
[O III]
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000


sn1990n.p38.dat.rect, z = 0.81999999
SuF02_065.bg3.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −1.3840620
Galaxy
SN/Gal = 0.0826266
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.p11.dat.rect, z = 0.91000003
SuF02_065.bg3.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = −2.1056248
Galaxy
S/N/Gal = 0.351709
Mg II, I
[O II]
Ca II
[O III]
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
−0.4
6000
7000
8000
9000
10000


sn1992a.p17.dat.rect, z = 1.1500000
SuF02_065.bg3.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −4.3462169
Galaxy
SN/Gal = 0.301229
Mg II, I
[O II]
Ca II
1.0
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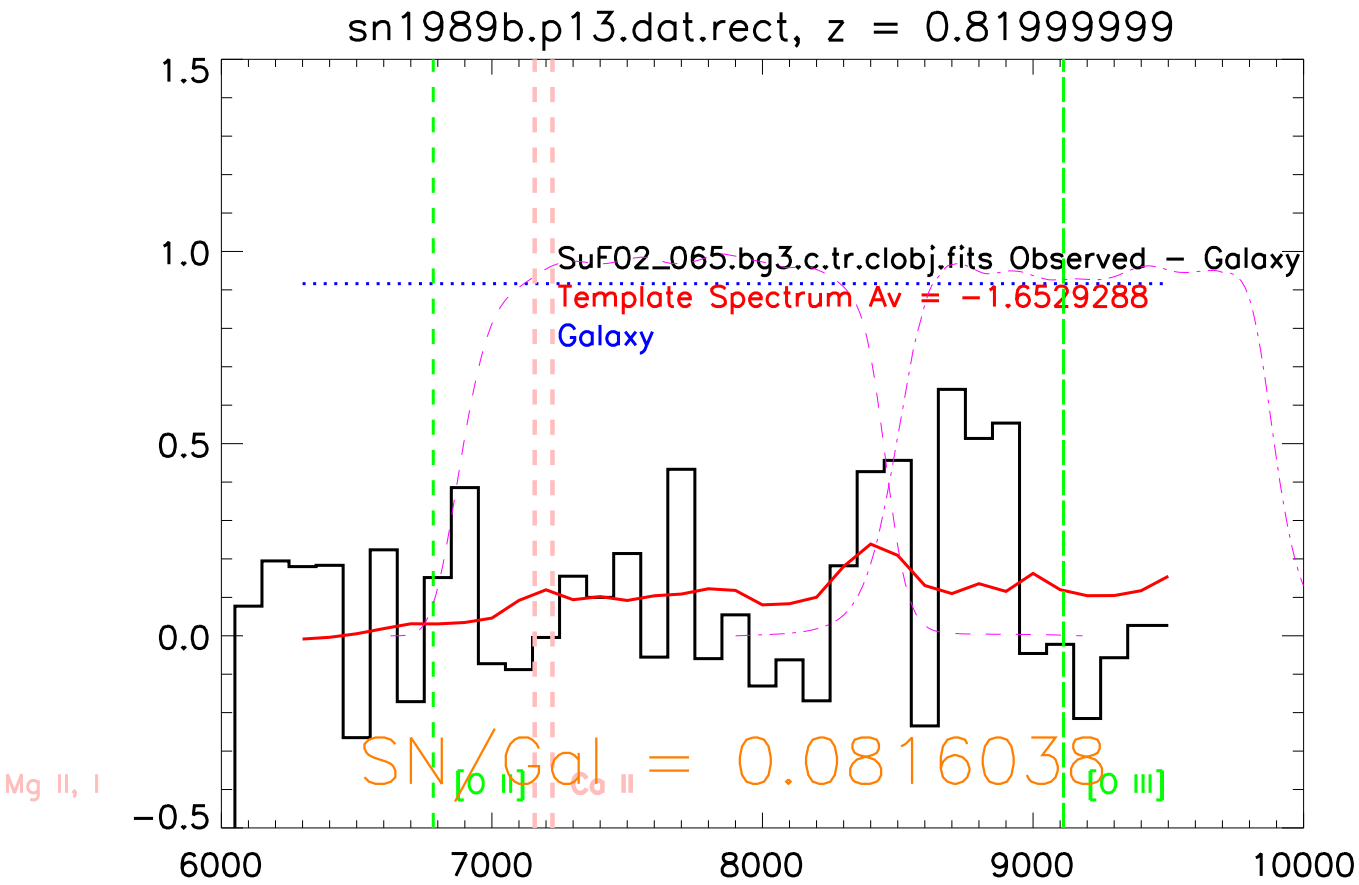
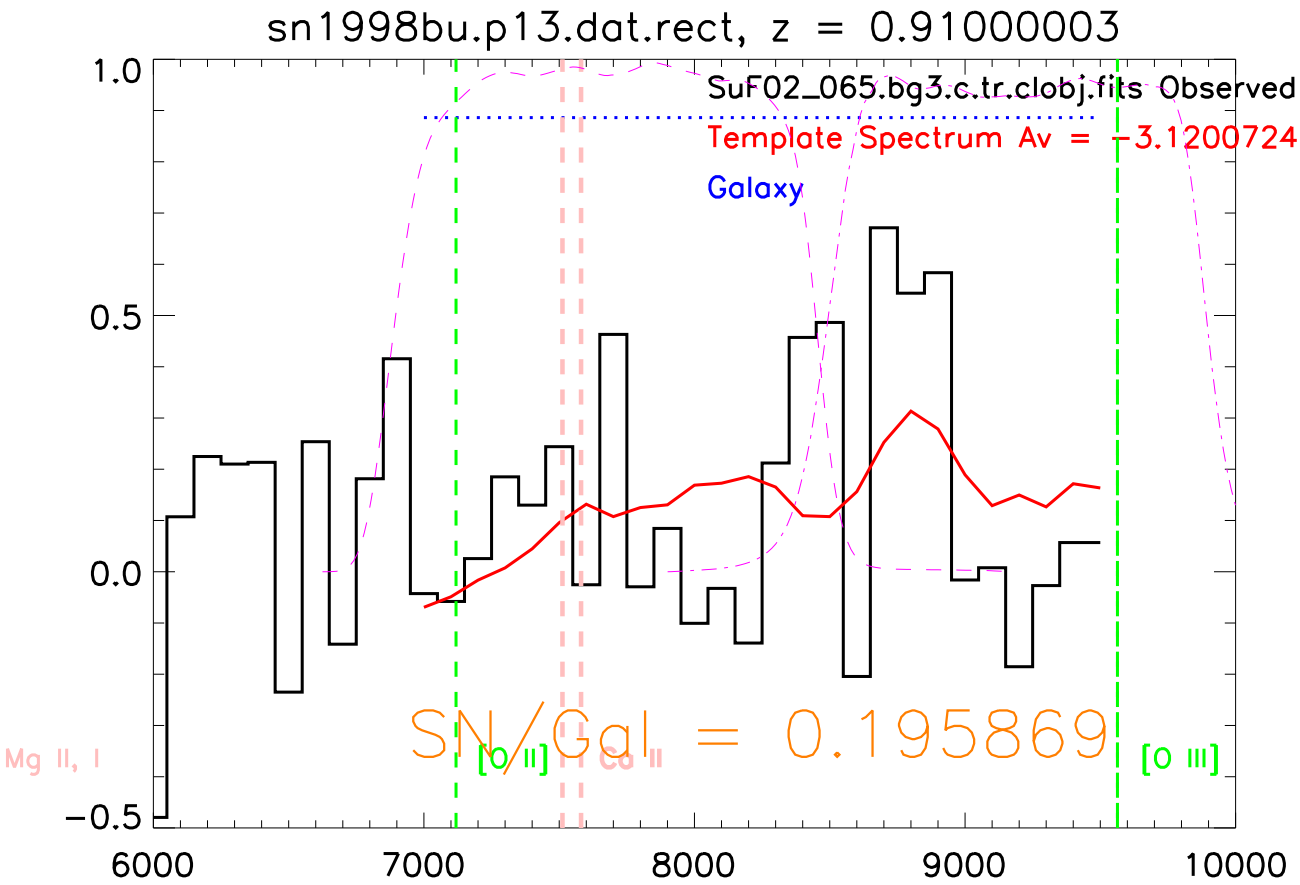
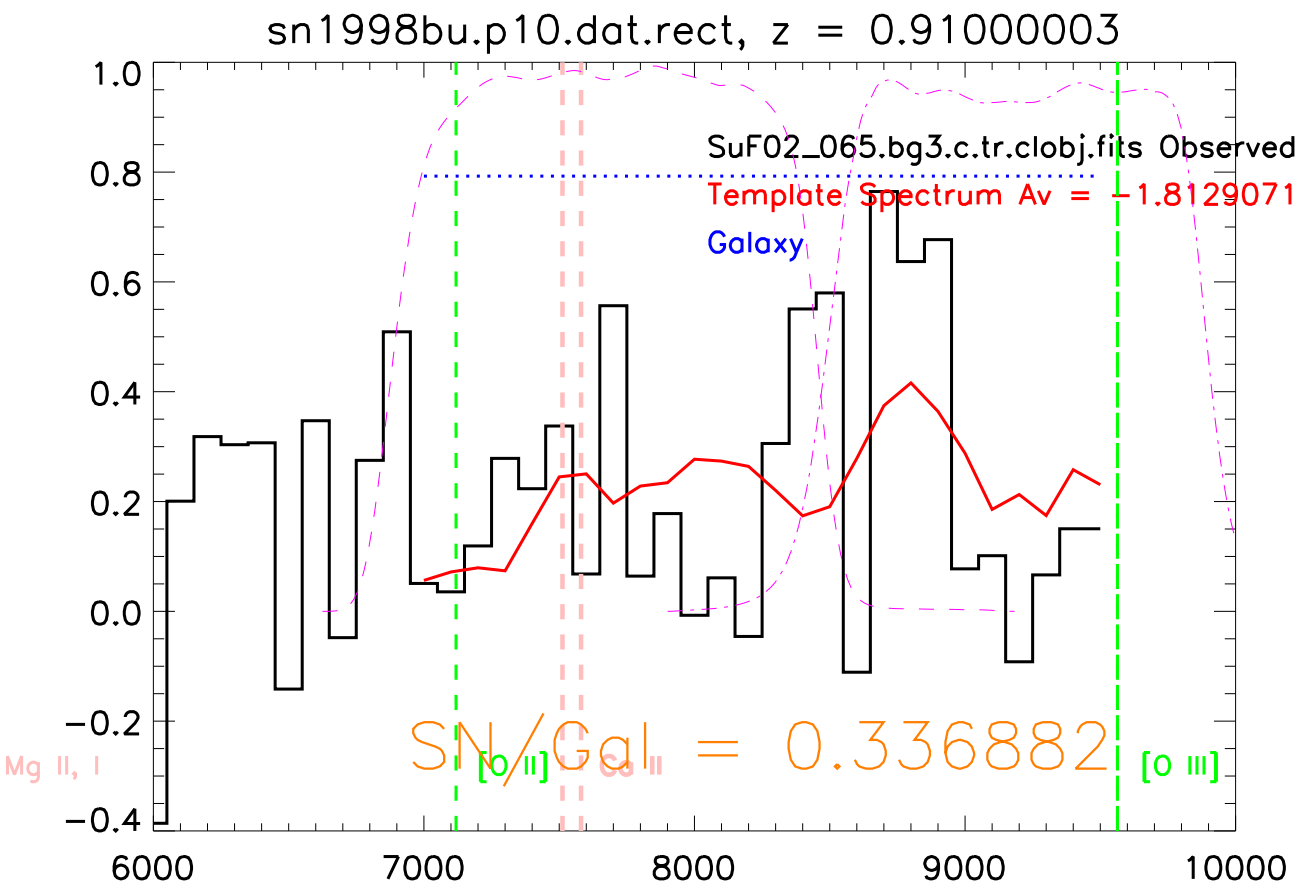
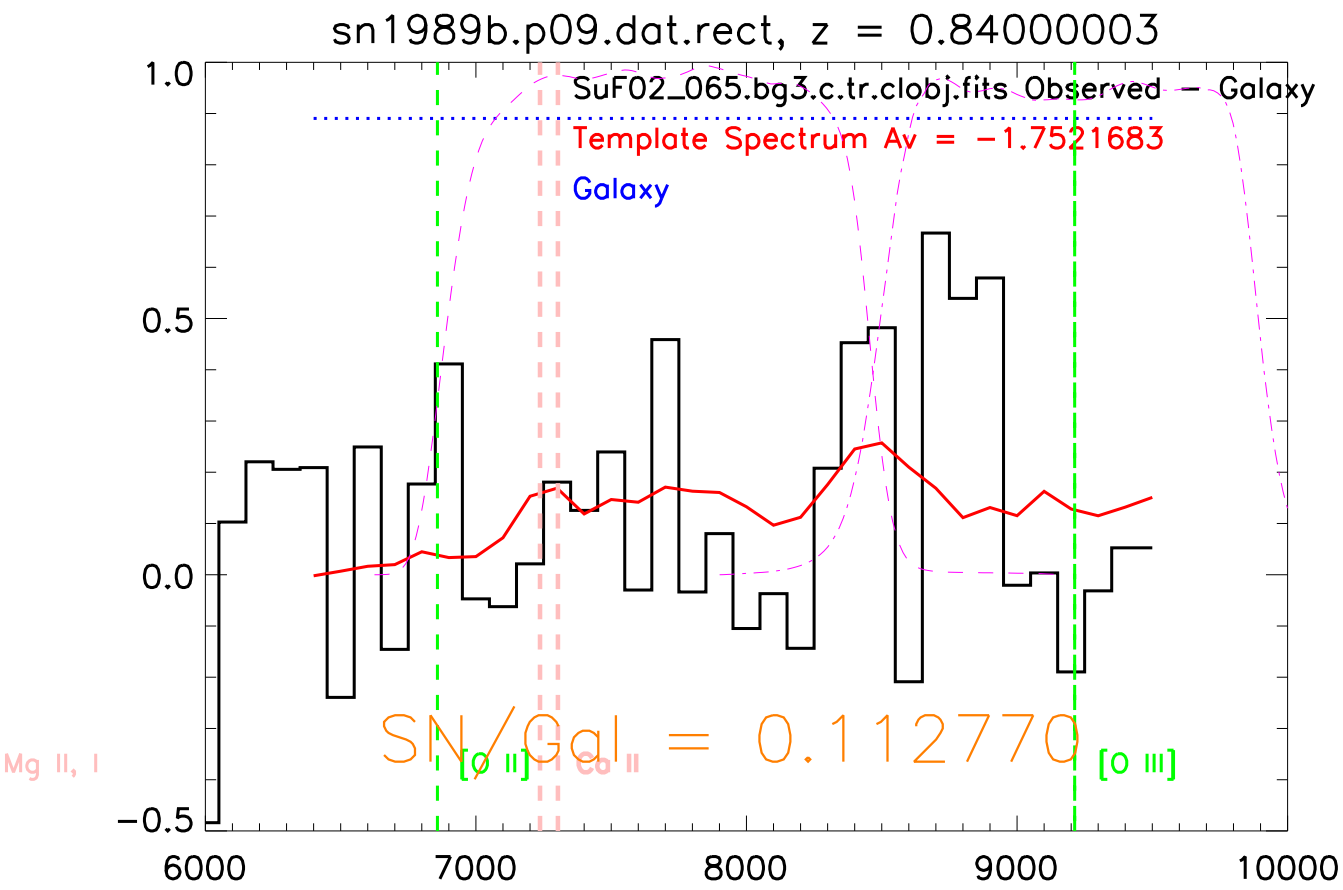
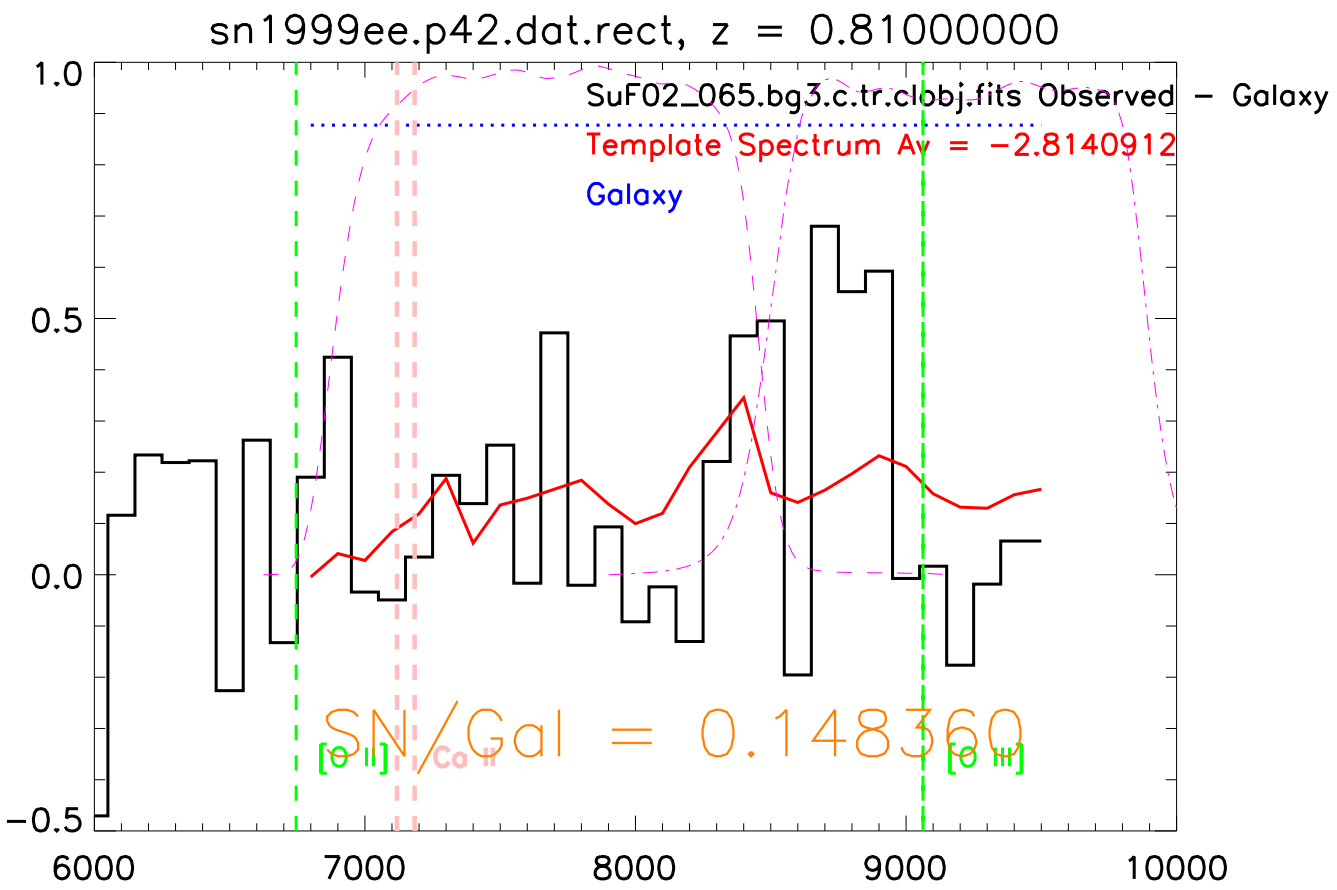
0.6
0.4
0.2
0.0
−0.2
−0.4
6000
7000
8000
9000
10000

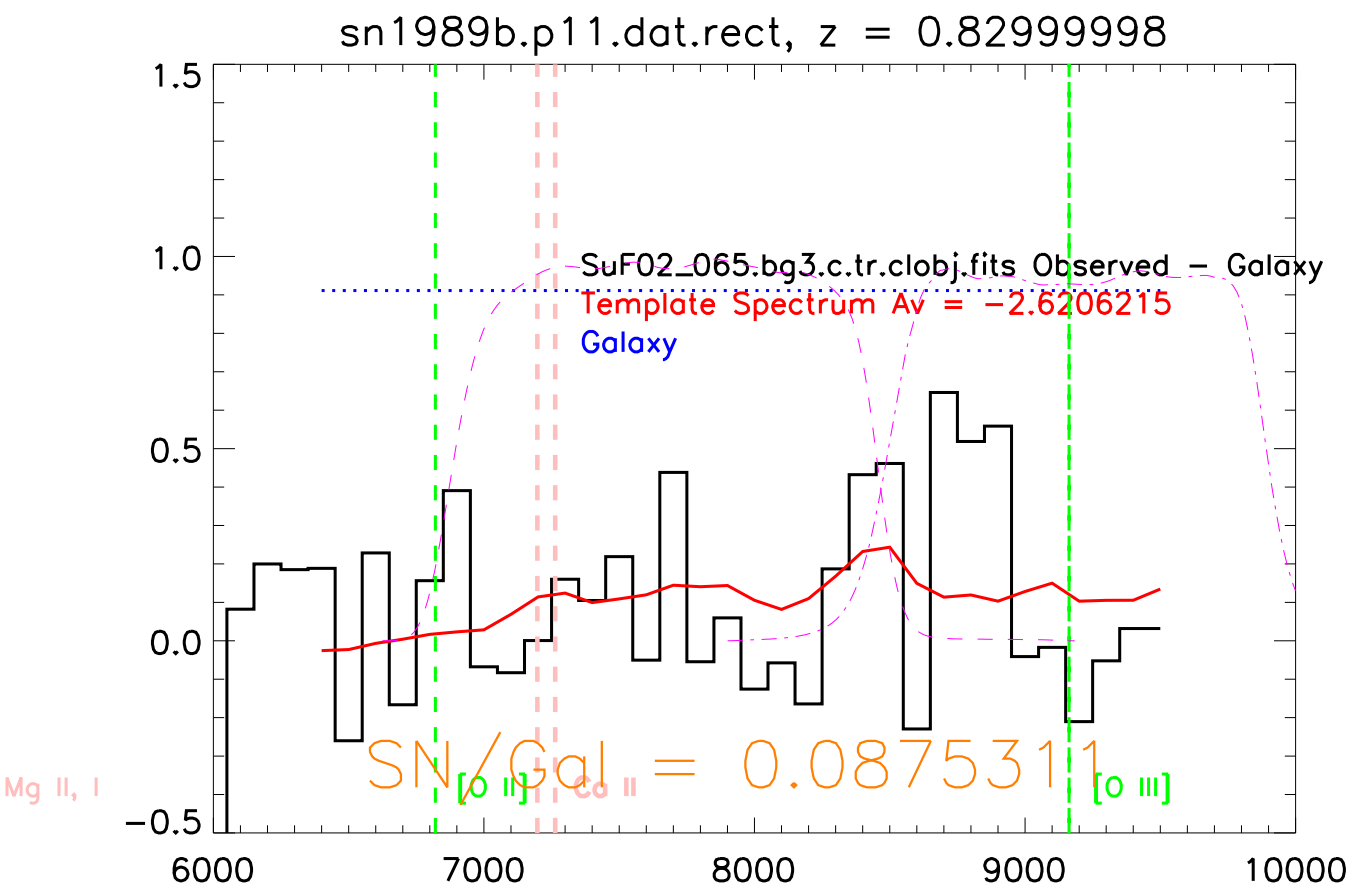

sn1989b.p13.dat.rect, z = 0.81999999
SuF02_065.bg3.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −1.6529288
Galaxy
SN/Gal = 0.0816038
Mg II, I
[O II]
Ca II
[O III]
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

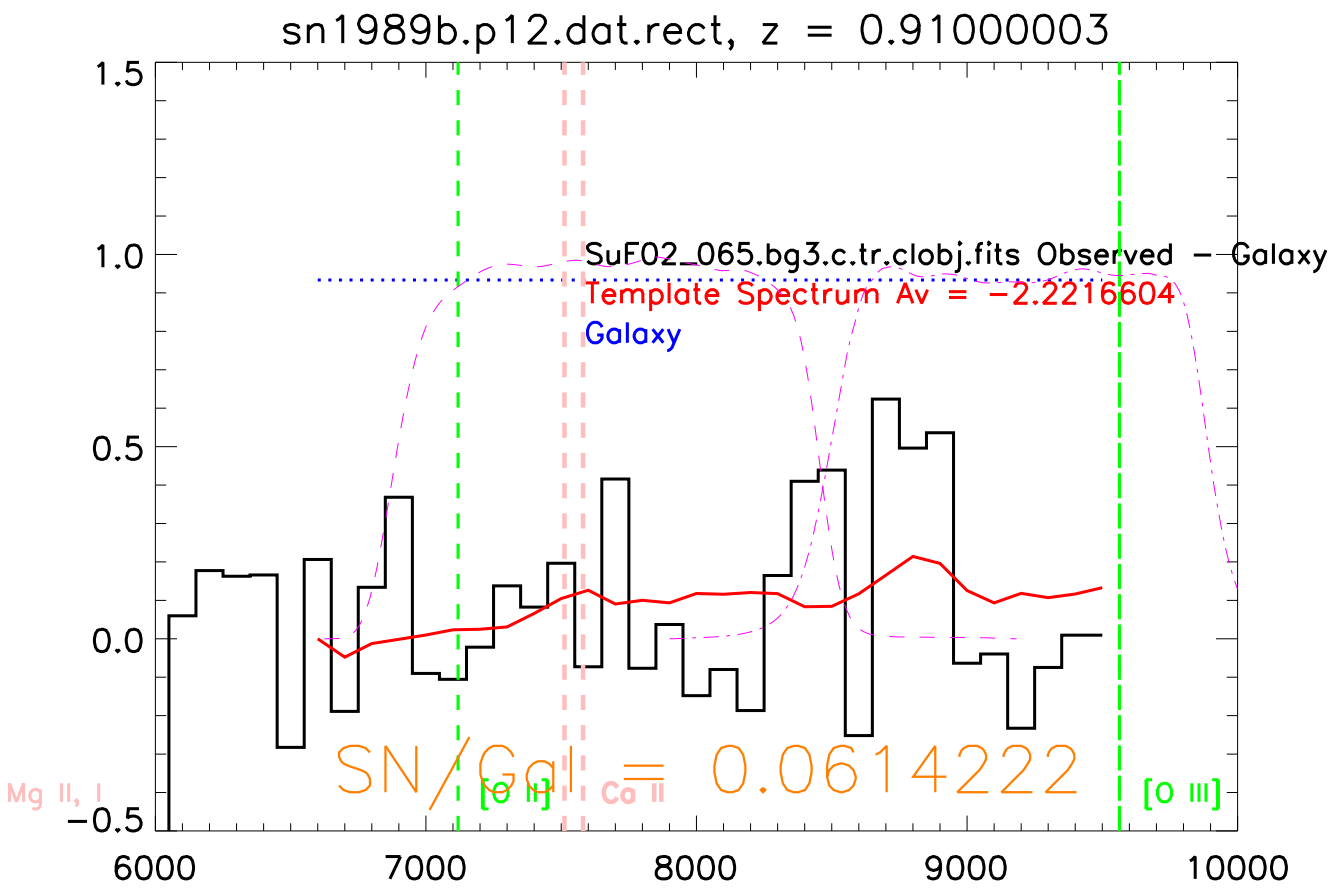

sn1998bu.p13.dat.rect, z = 0.91000003
SuF02_065.bg3.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = 3.1200724
Galaxy
SN/Gal = 0.195869
Mg II, I
[O II]
Ca II
[O III]
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

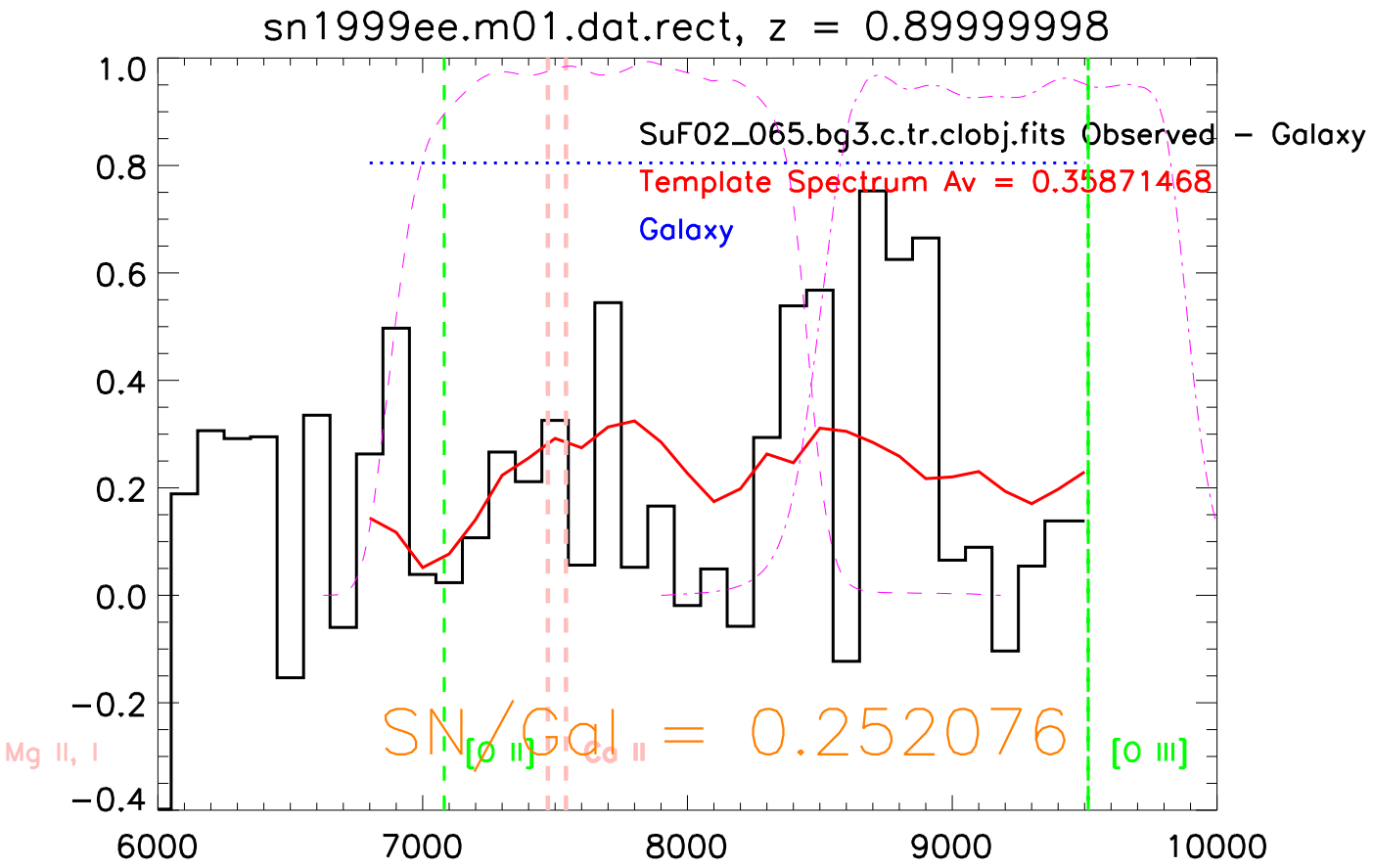

sn1998bu.p10.dat.rect, z = 0.91000003
SuF02_065.bg3.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = -1.8129071
Galaxy
SN/Gal = 0.336882
Mg II, I
[O II]
Ca II
[O III]
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
−0.4
6000
7000
8000
9000
10000

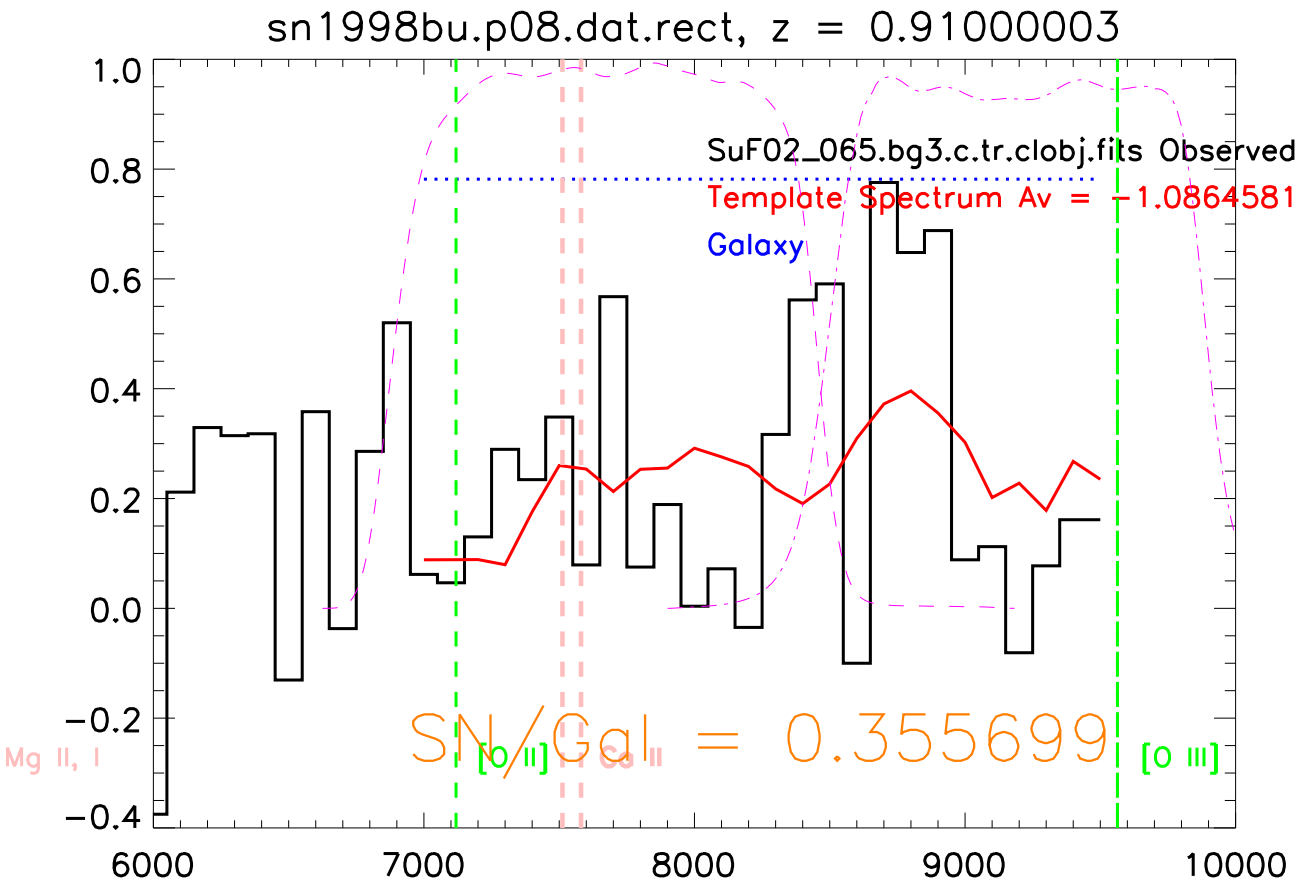

sn1989b.p09.dat.rect, z = 0.84000003
SuF02_065.bg3.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −1.7521683
Galaxy
SN/Gal = 0.112770
[O II]
Ca II
[O III]
Mg II, I
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

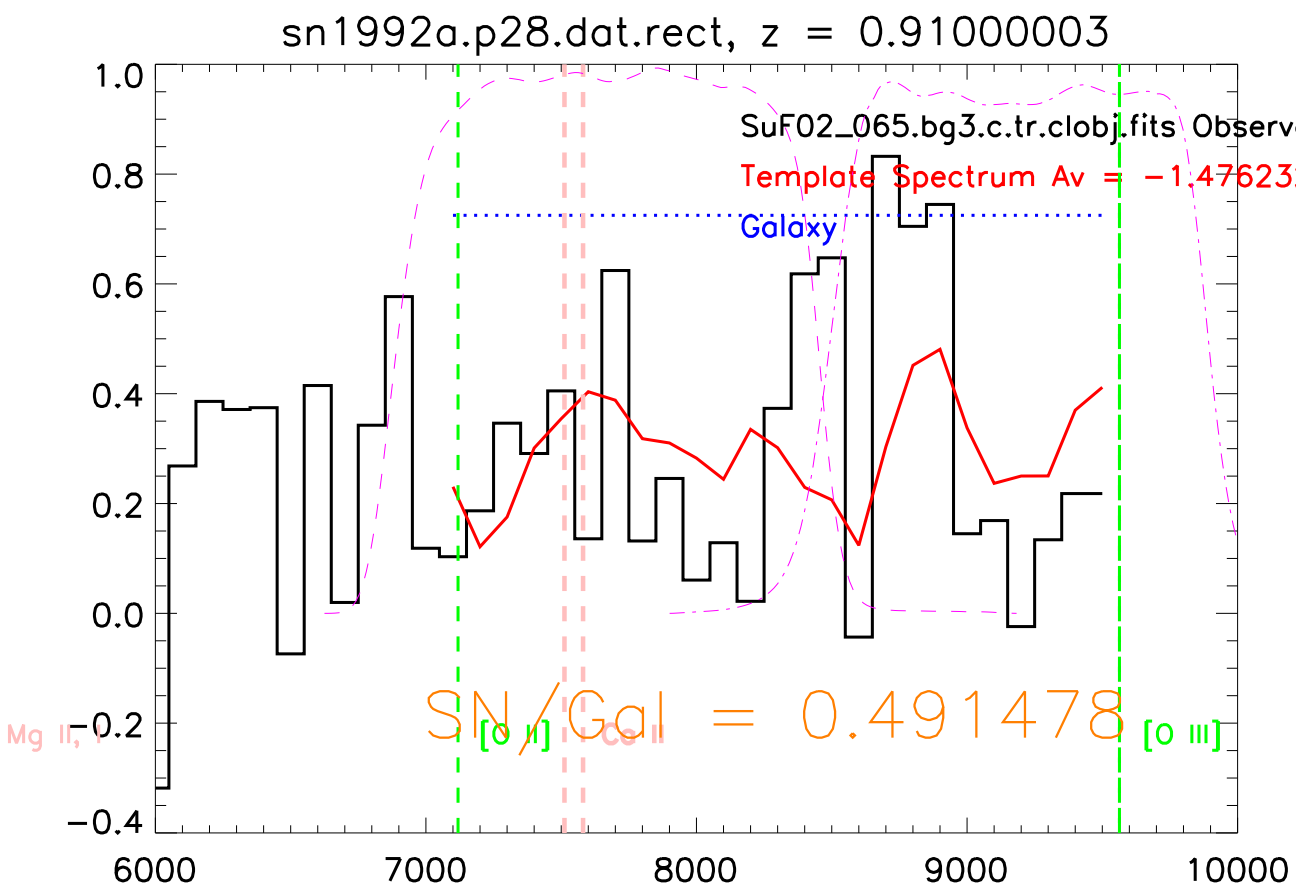

sn1999ee.p42.dat.rect, z = 0.81000000
SuF02_065.bg3.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −2.8140912
Galaxy
SN/Gal = 0.148360
[O II]
Ca II
[O III]
Mg II, I
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

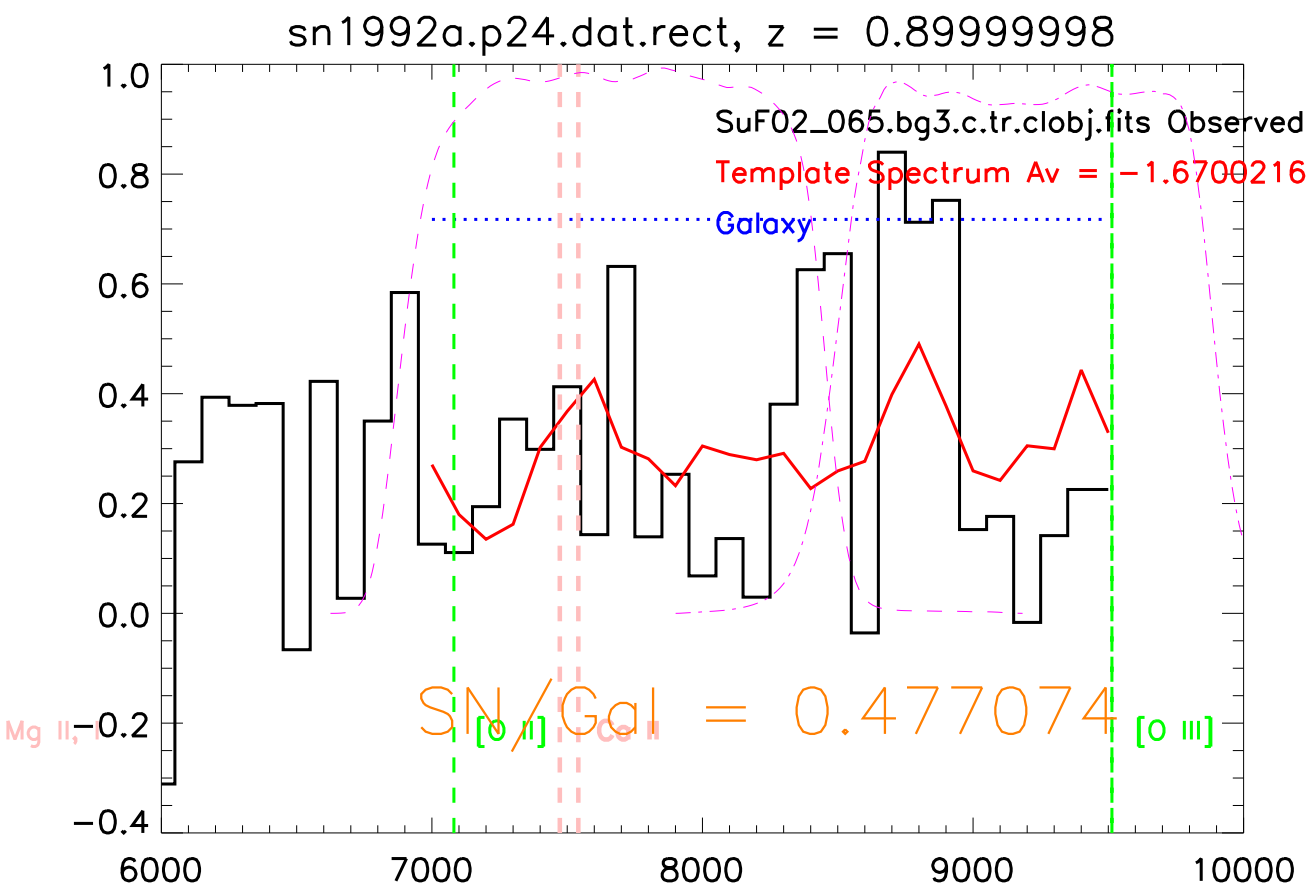

sn1989b.p11.dat.rect, z = 0.82999998
SuF02_065.bg3.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = -2.6206215
Galaxy
SN/Gal = 0.0875311
Mg II, I
[O II]
Ca II
[O III]
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

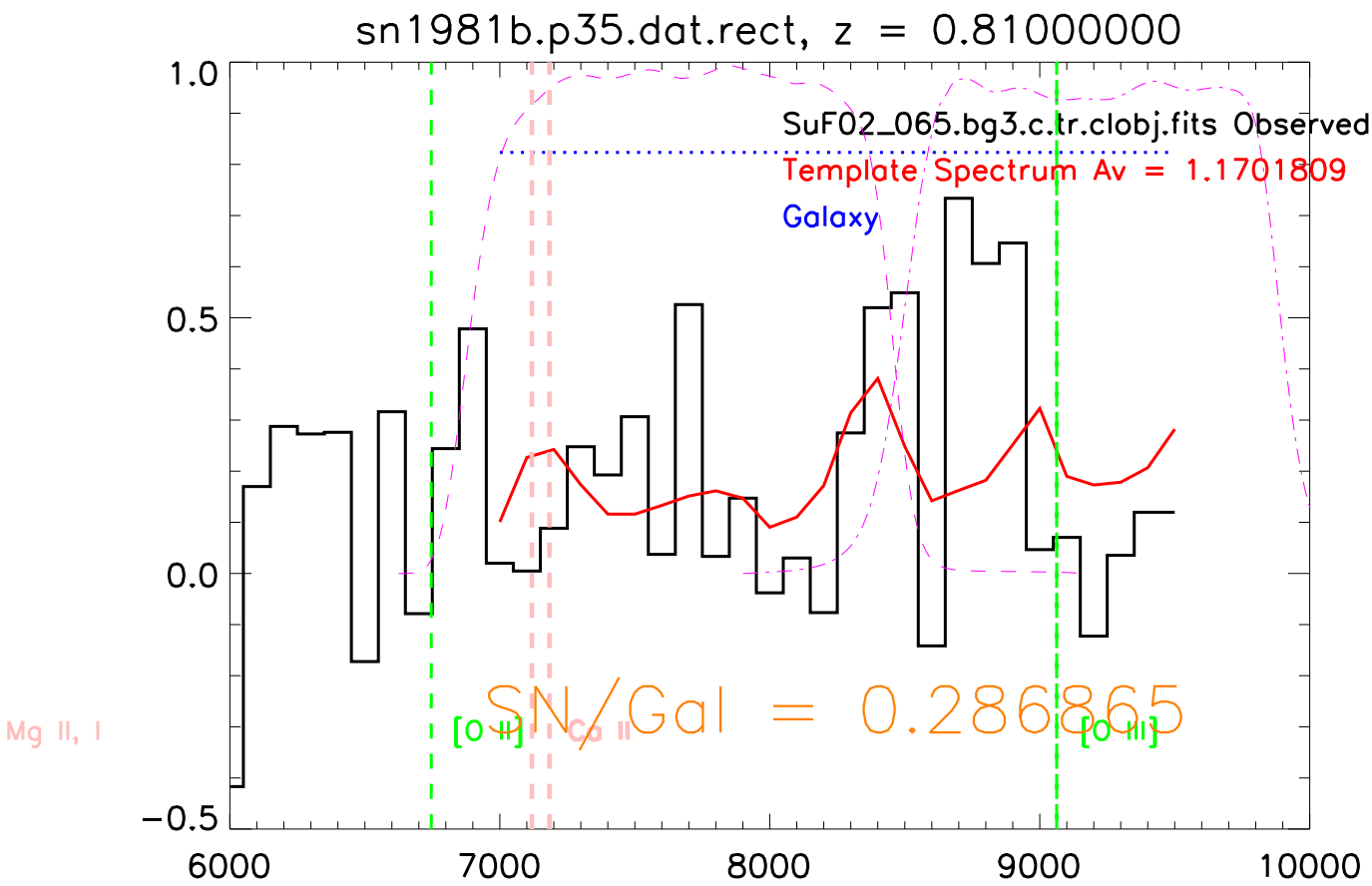

sn1989b.p12.dat.rect, z = 0.91000003
SuF02_065.bg3.c.tr.clobj.fits Observed
Galaxy
Template Spectrum Av = -2.2216604
Galaxy
SN/Gal = 0.0614222
Mg II, I
[O II]
Ca II
[O III]
1.5
1.0
0.5
0.0
-0.5
6000
7000
8000
9000
10000

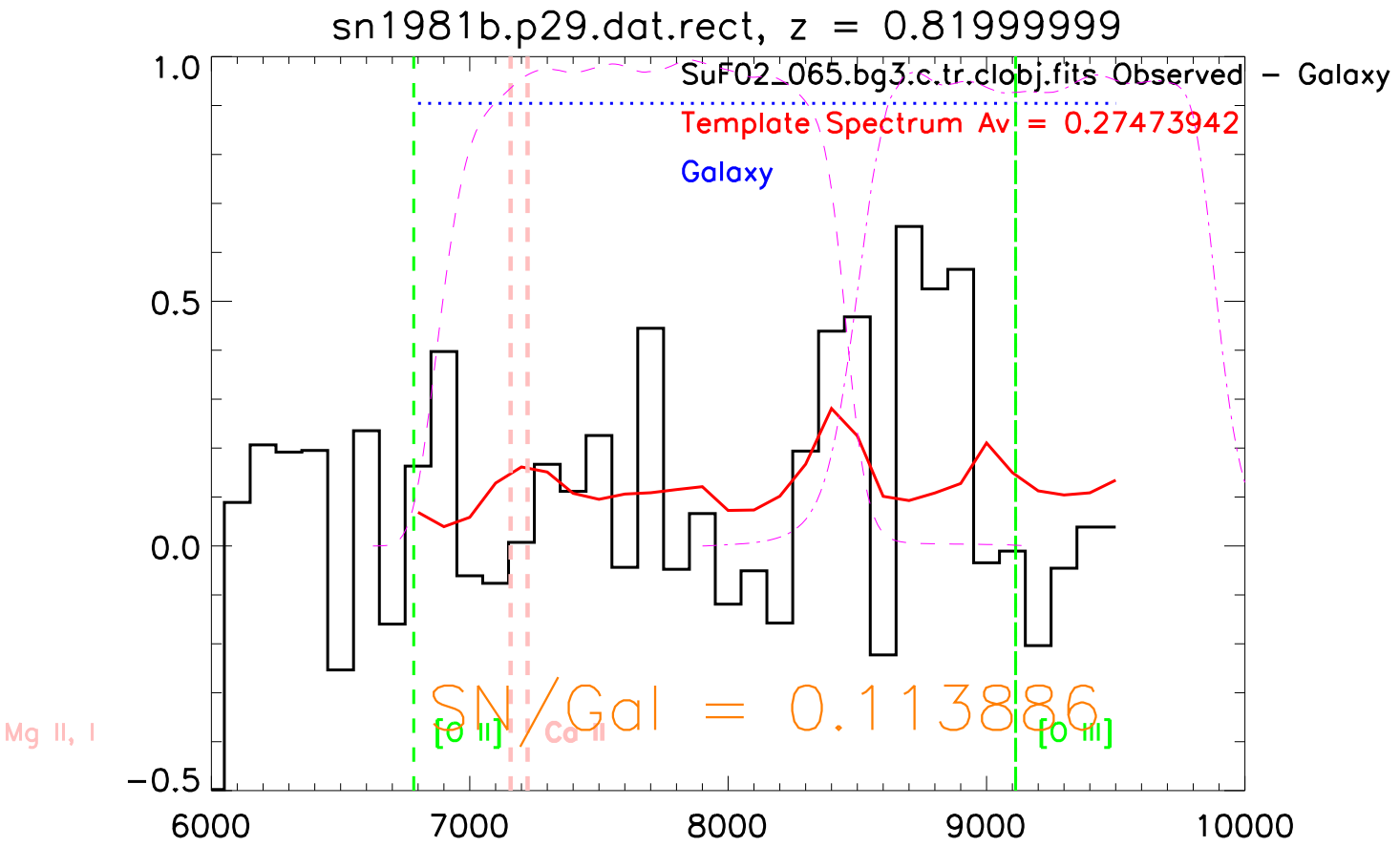

sn1999ee.m01.dat.rect, z = 0.89999998
SuF02_065.bg3.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = 0.35871468
Galaxy
SN/Gal = 0.252076
Mg II, I
[O II]
Ca II
[O III]
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
−0.4
6000
7000
8000
9000
10000


sn1998bu.p08.dat.rect, z = 0.91000003
SuF02_065.bg3.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = –1.0864581
Galaxy
S/N/Gal = 0.355699
Mg II, I
[O II]
Ca II
[O III]
1.0
0.8
0.6
0.4
0.2
0.0
–0.2
–0.4
6000
7000
8000
9000
10000


sn1992a.p28.dat.rect, z = 0.91000003
SuF02_065.bg3.c.tr.clobj.fits Observed – Gala
Template Spectrum Av = −1.4762320
Galaxy
SN/Gal = 0.491478
[O II]
[O III]
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
−0.4
6000
7000
8000
9000
10000


sn1992a.p24.dat.rect, z = 0.89999998
SuF02_065.bg3.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = −1.6700216
Galaxy
SN/Gal = 0.477074
[O II]
[O III]
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
−0.4
6000
7000
8000
9000
10000


sn1981b.p35.dat.rect, z = 0.81000000
SuF02_065.bg3.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = 1.1701809
Galaxy
SN/Gal = 0.286865
Mg II, I
[O II]
Ca II
[O III]
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000


sn1981b.p29.dat.rect, z = 0.81999999
SuF02_065.bg3.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = 0.27473942
Galaxy
SN/Gal = 0.113886
[O II]
Ca II
[O III]
Mg II, I
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000