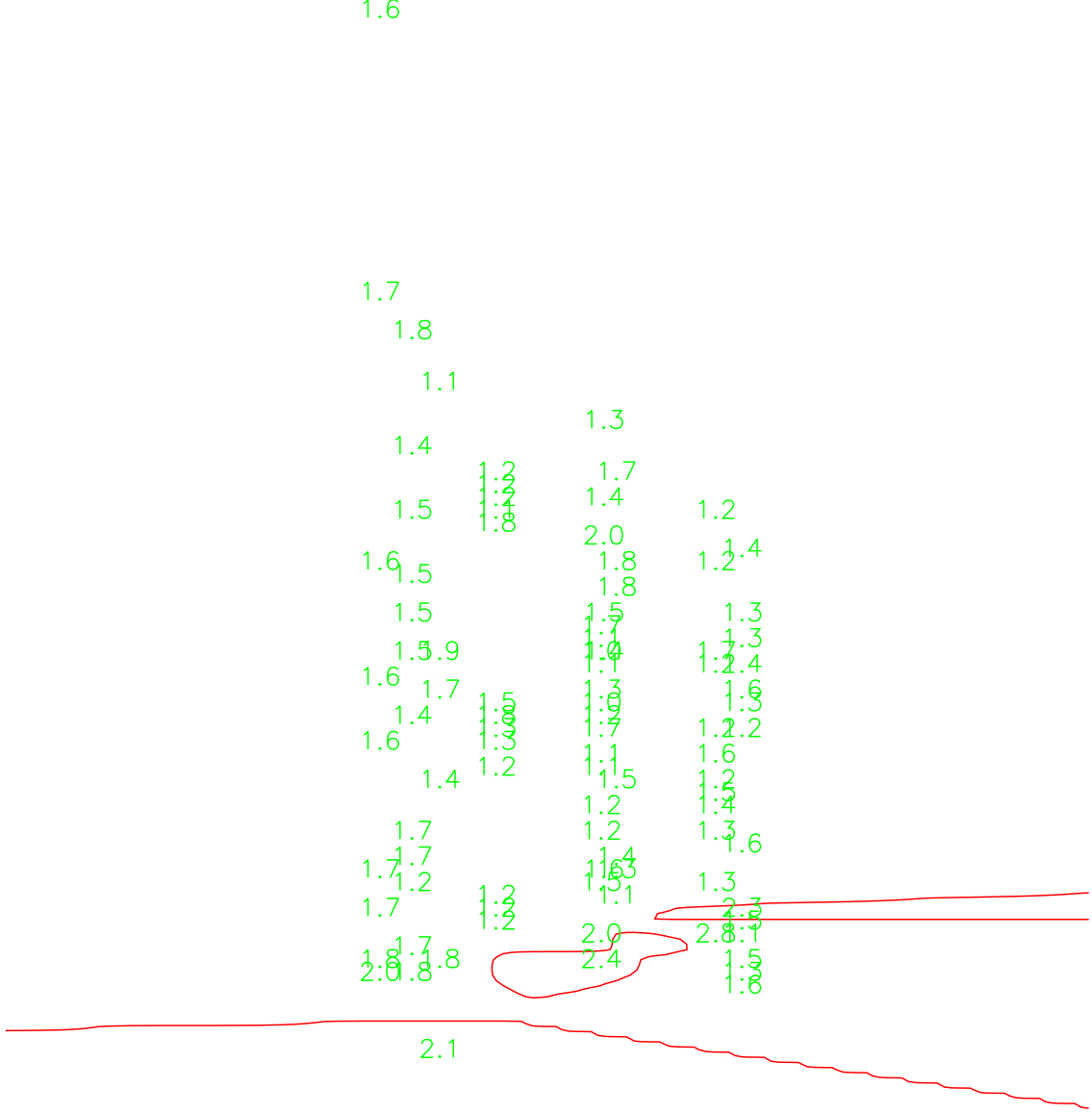
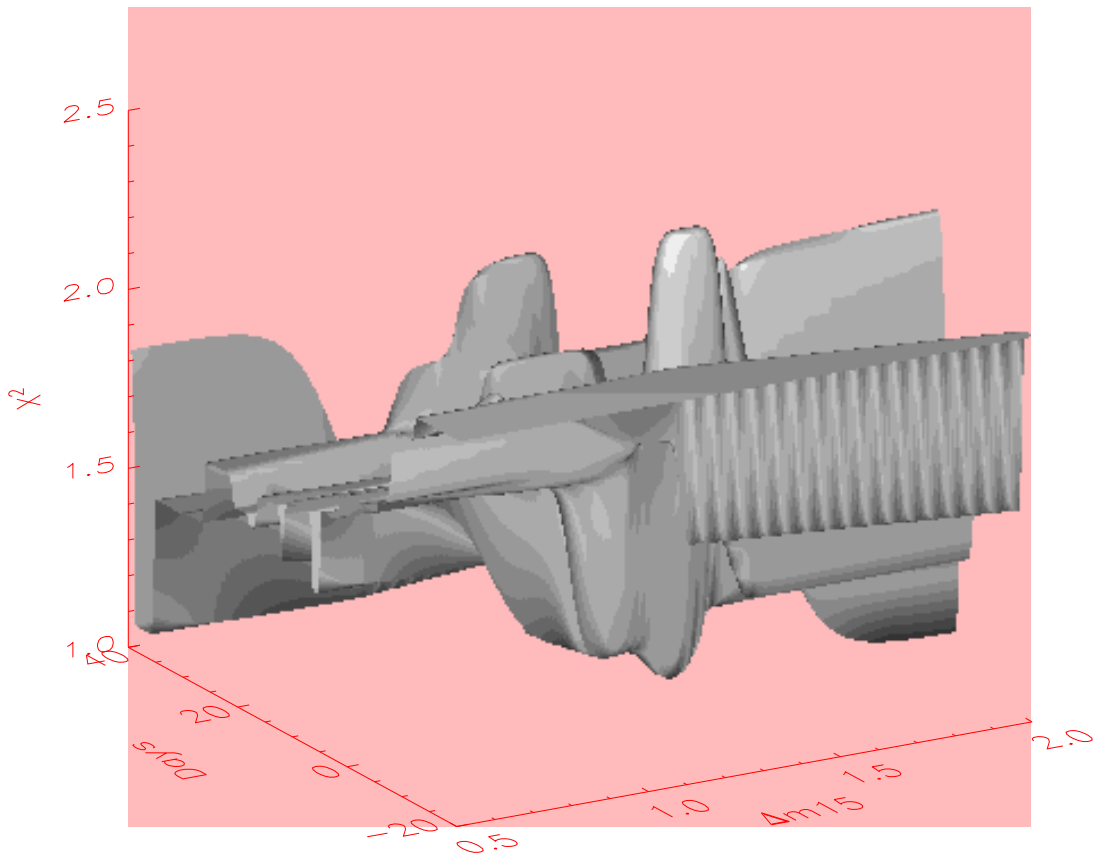
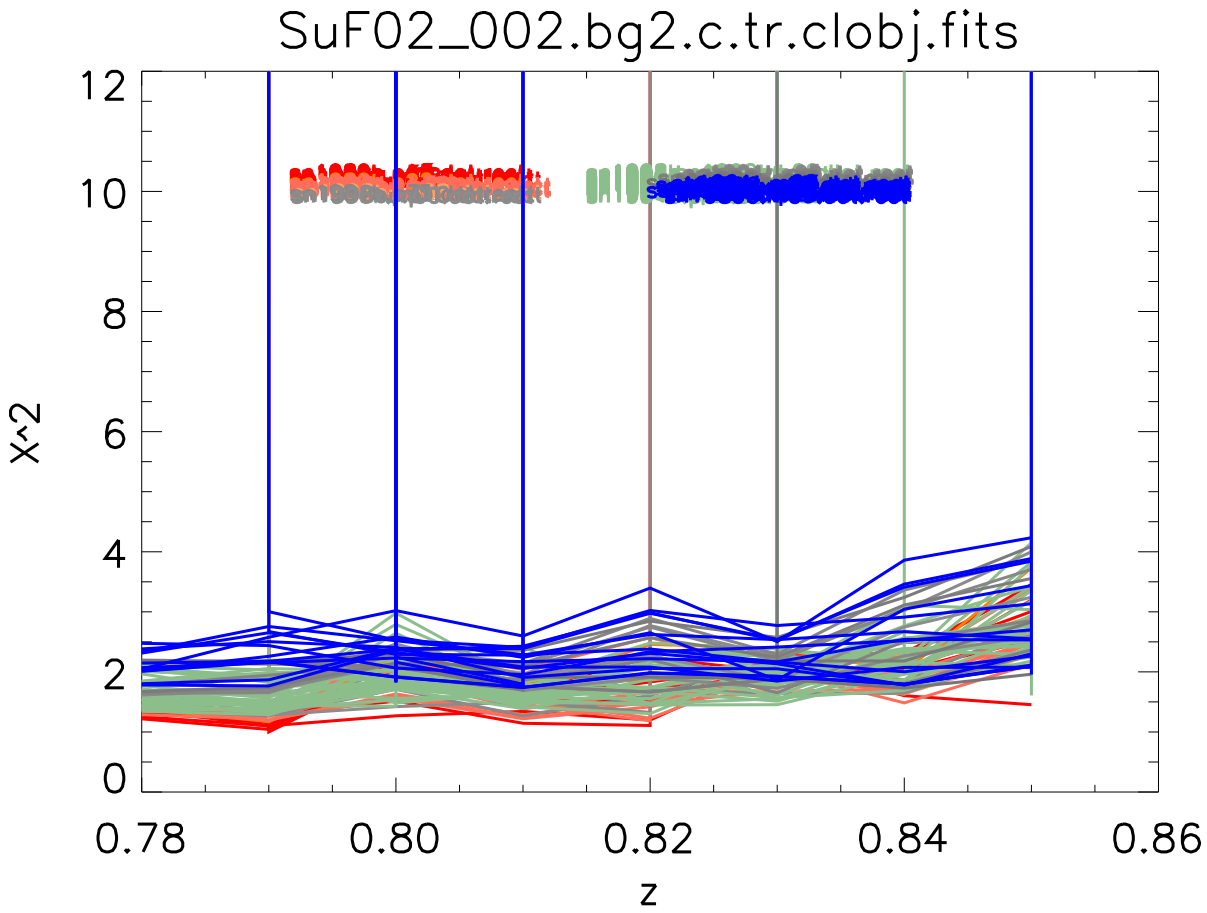
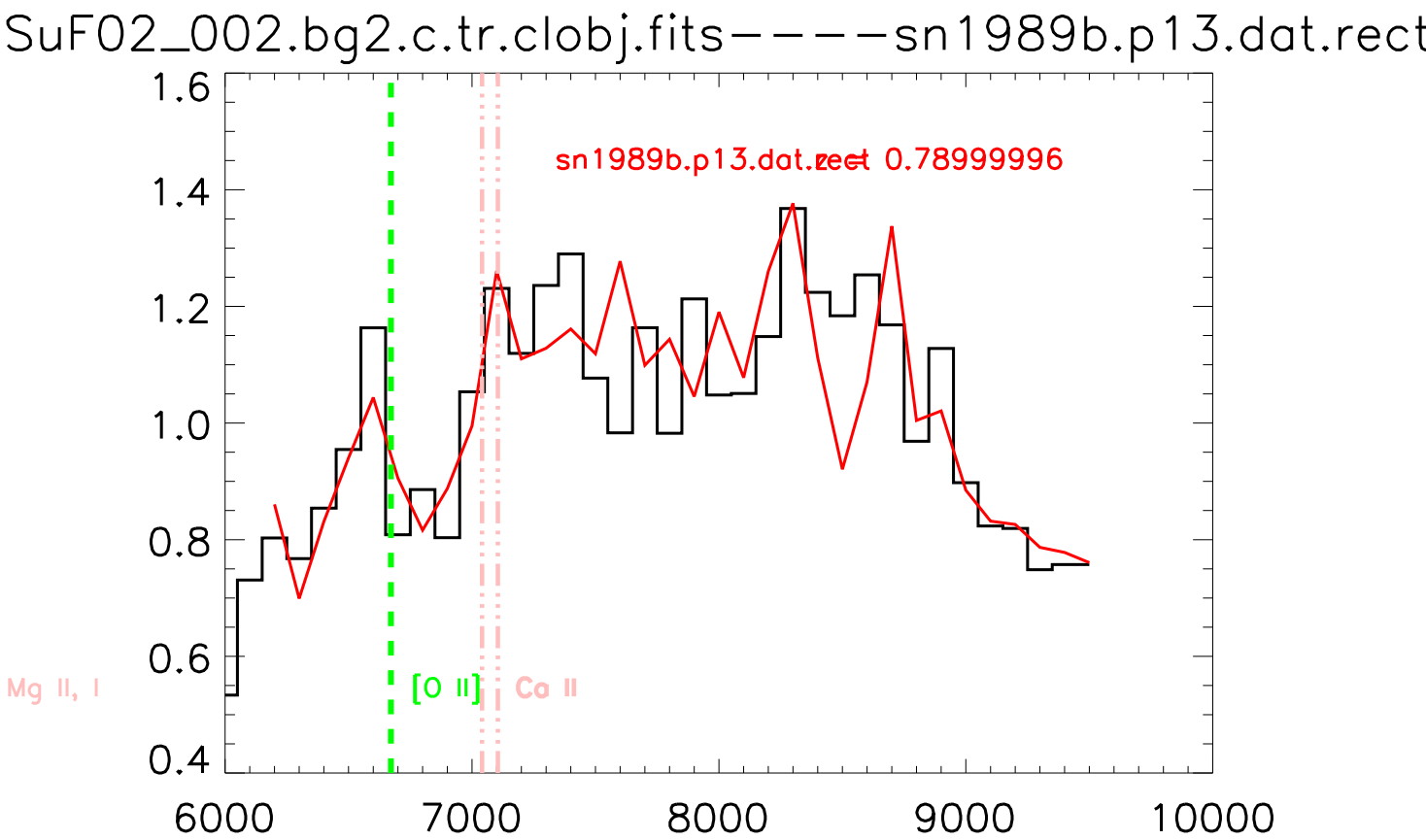
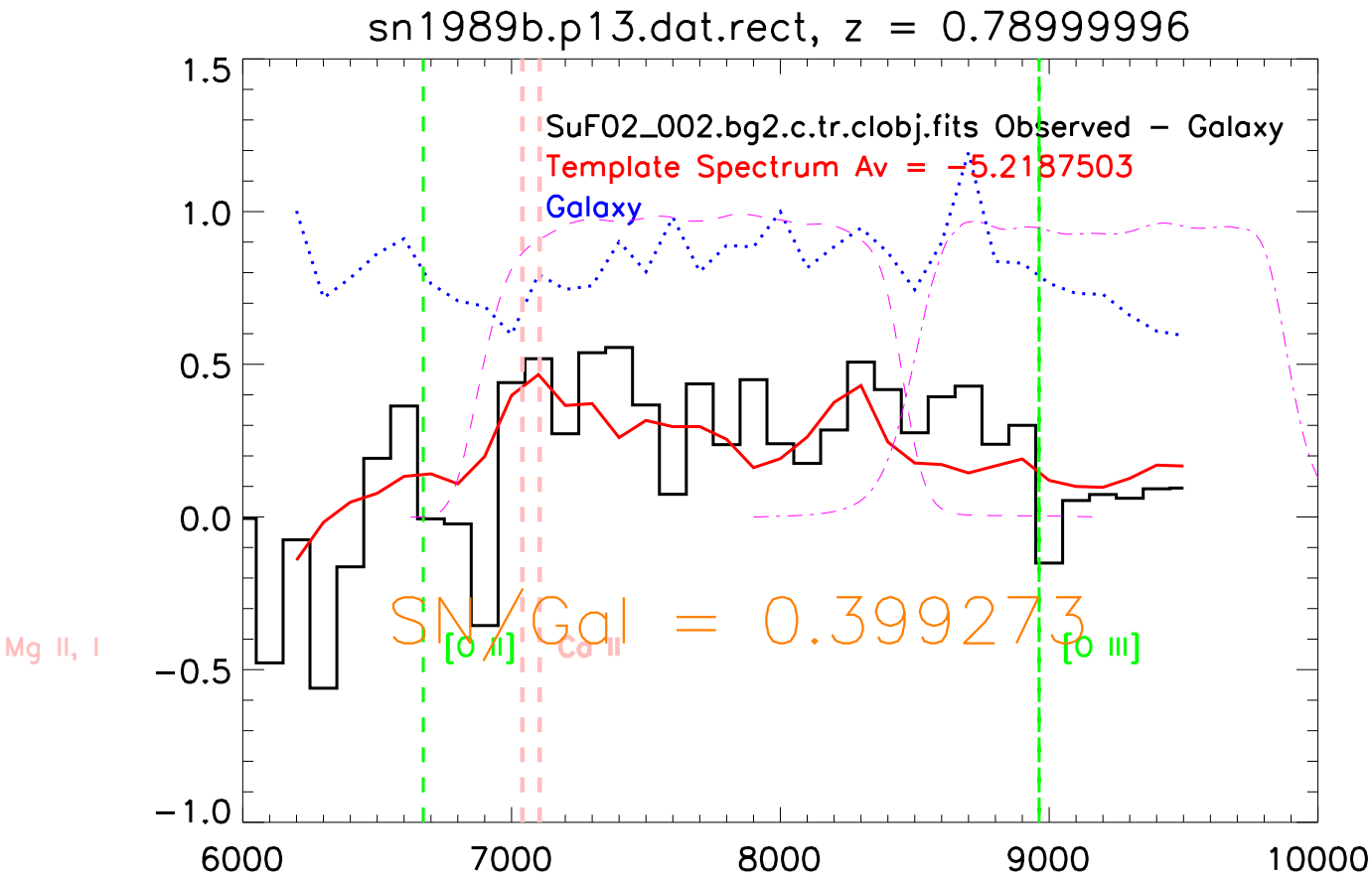

1.6
1.7
1.8
1.1
1.3
1.4
1.2
1.7
1.4
1.5
1.2
2.0
1.4
1.6
1.5
1.8
1.2
1.8
1.5
1.3
1.5
1.3
1.6
1.7
1.4
1.6
1.2
1.4
1.5
1.2
1.7
1.2
1.3
1.6
1.7
1.2
1.3
1.7
2.0
2.4
2.1

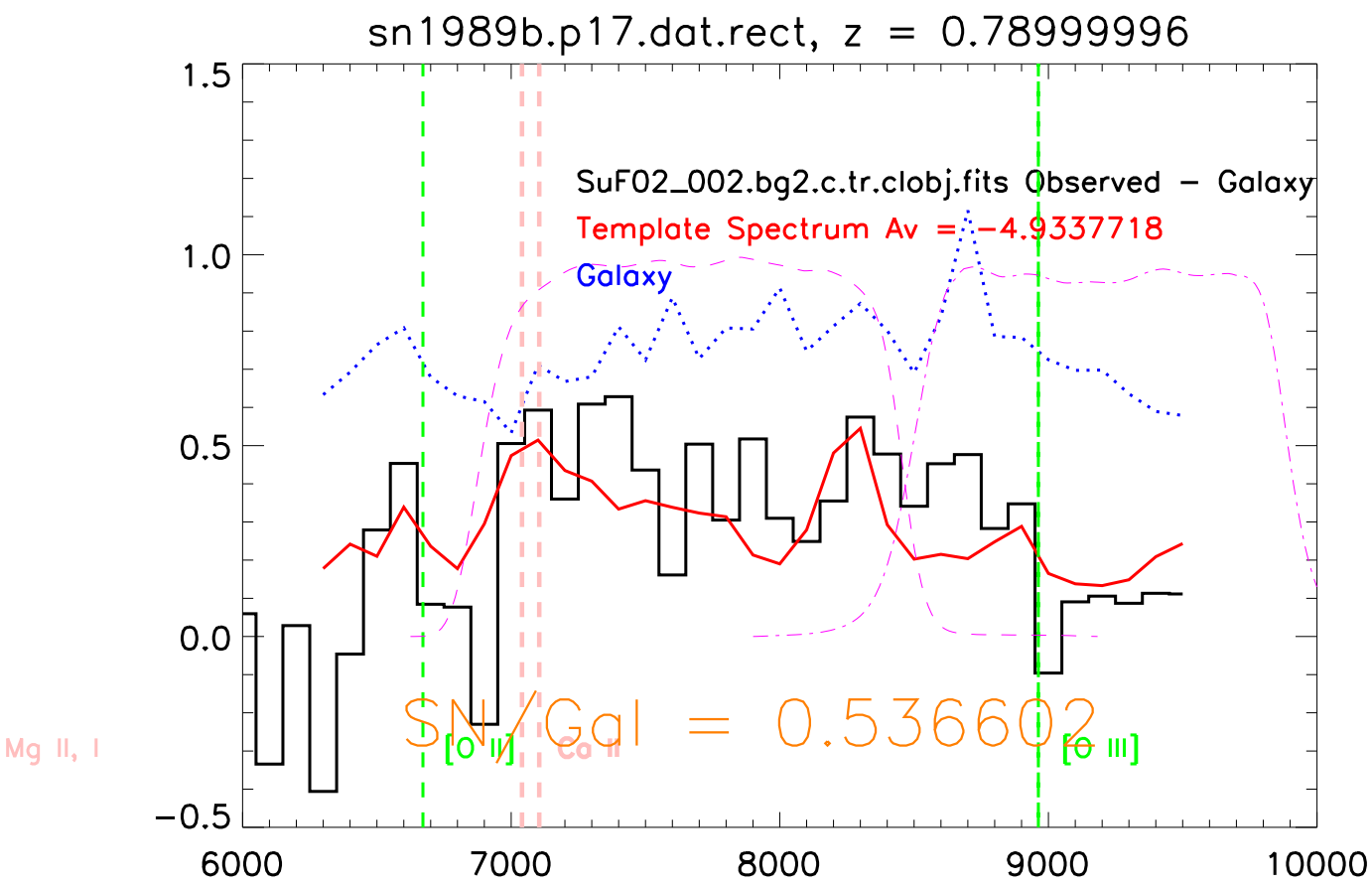


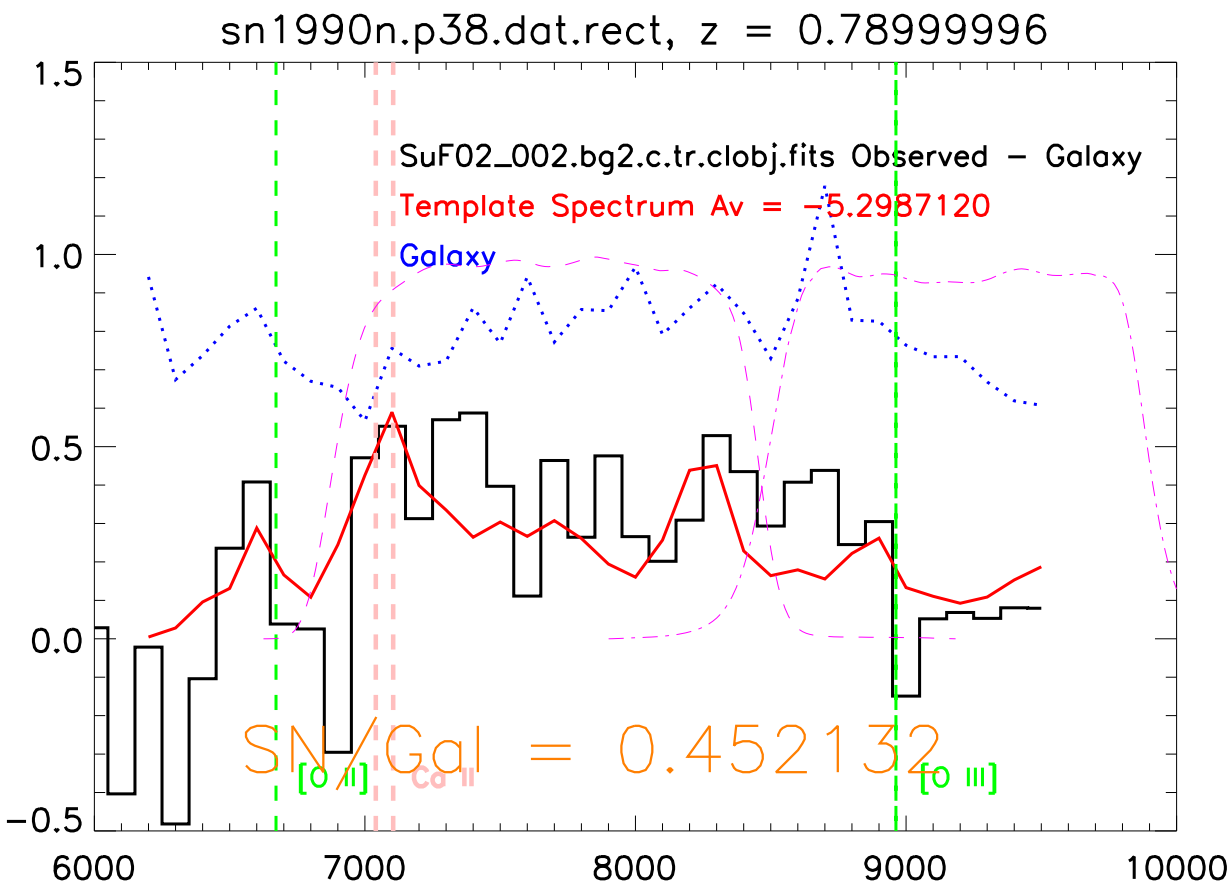
2.5
2.0
1.5
1.0
χ^2
40
20
0
−20
Days
0.5
1.0
1.5
2.0
Δm15

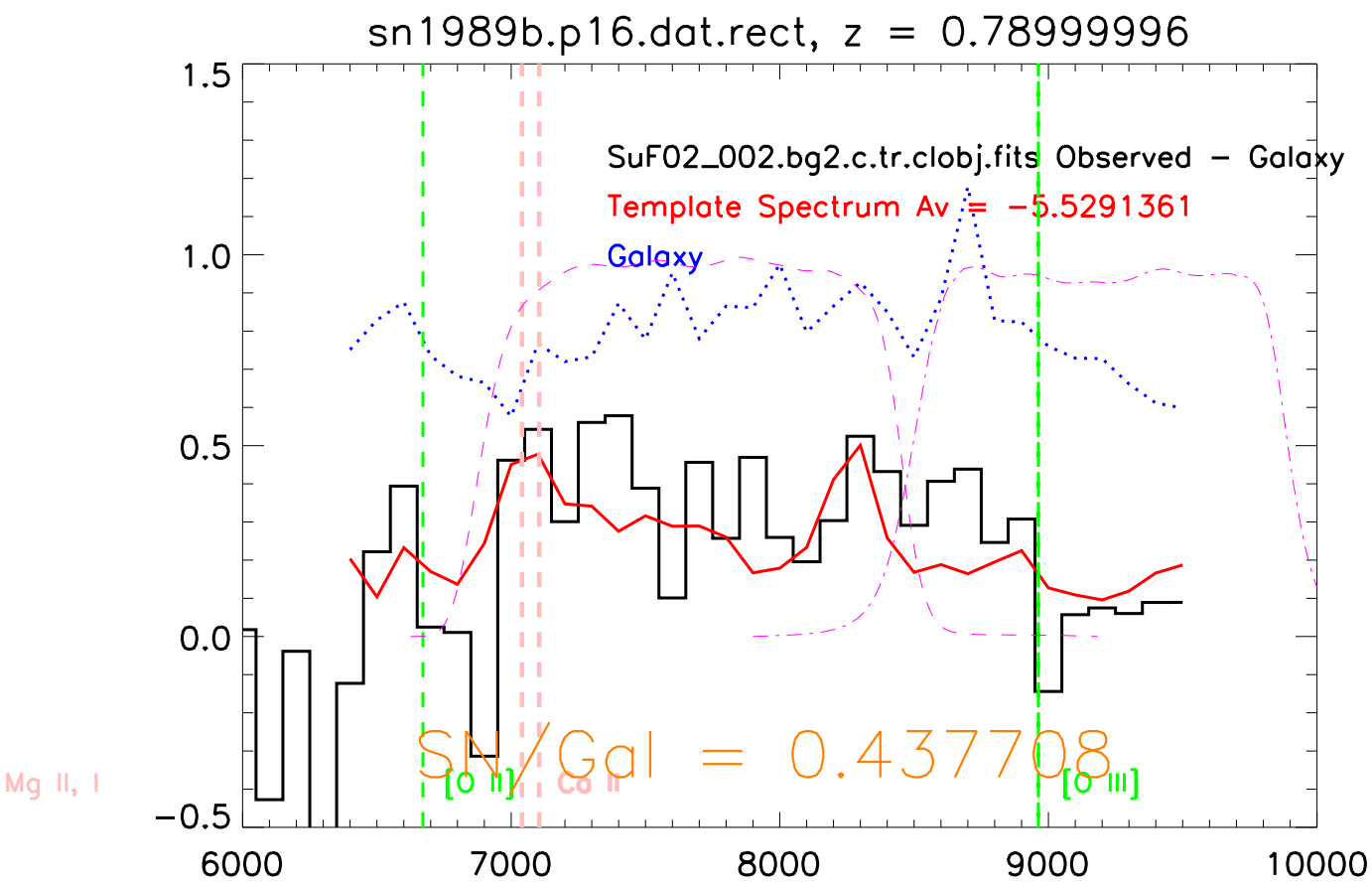

SuF02_002.bg2.c.tr.clobj.fits
X^2
z
0
2
4
6
8
10
12
0.78
0.80
0.82
0.84
0.86

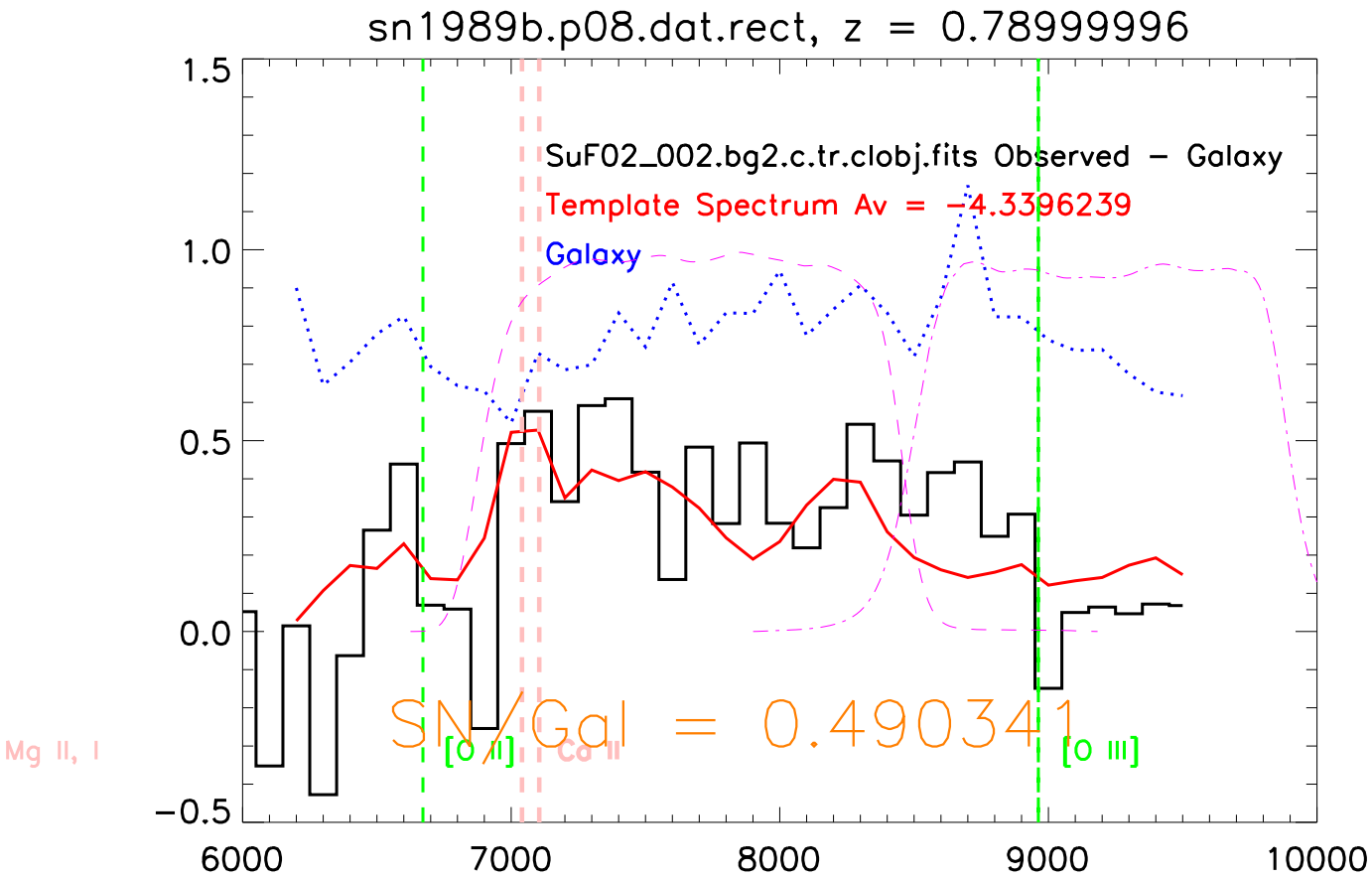

SuF02_002.bg2.c.tr.clobj.fits----sn1989b.p13.dat.rect
sn1989b.p13.dat.rect 0.78999996
Mg II, I
[O II]
Ca II
1.6
1.4
1.2
1.0
0.8
0.6
0.4
6000
7000
8000
9000
10000

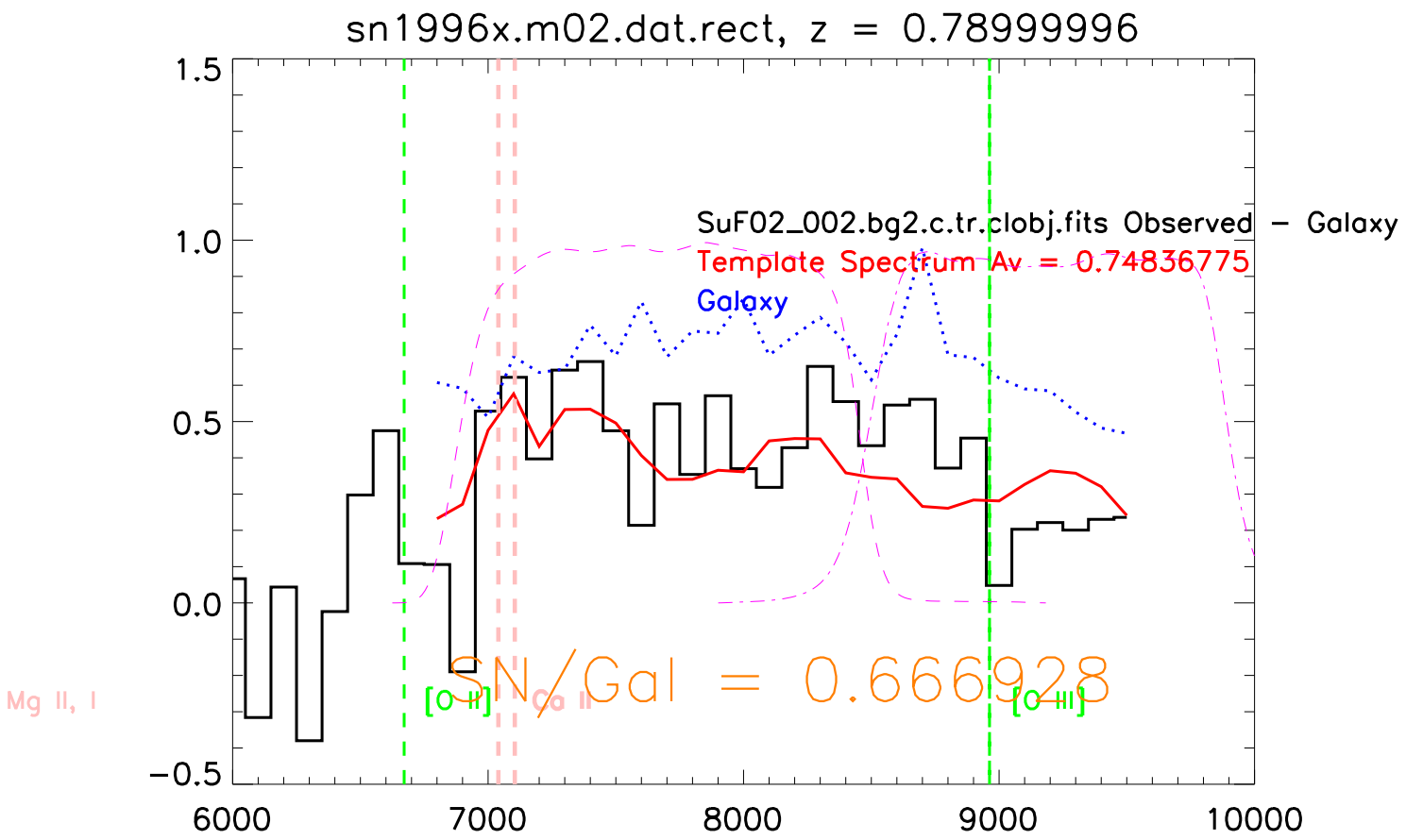

sn1989b.p13.dat.rect, z = 0.78999996
SuF02_002.bg2.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −5.2187503
Galaxy
SN/Gal = 0.399273
[O II]
Ca II
[O III]
Mg II, I
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000

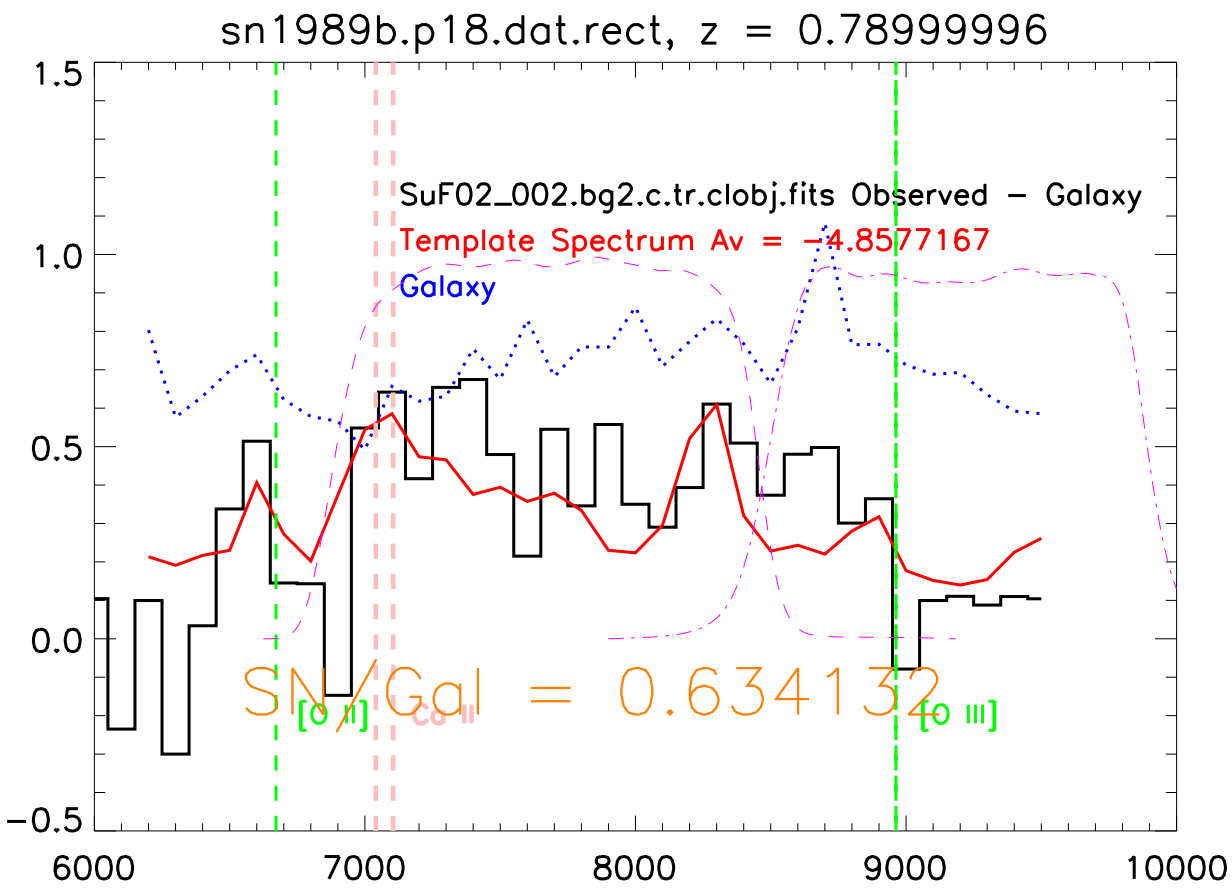

sn1989b.p17.dat.rect, z = 0.78999996
SuF02_002.bg2.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = -4.9337718
Galaxy
S/N Gal = 0.536602
[O II]
Ca II
[O III]
Mg II, I
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

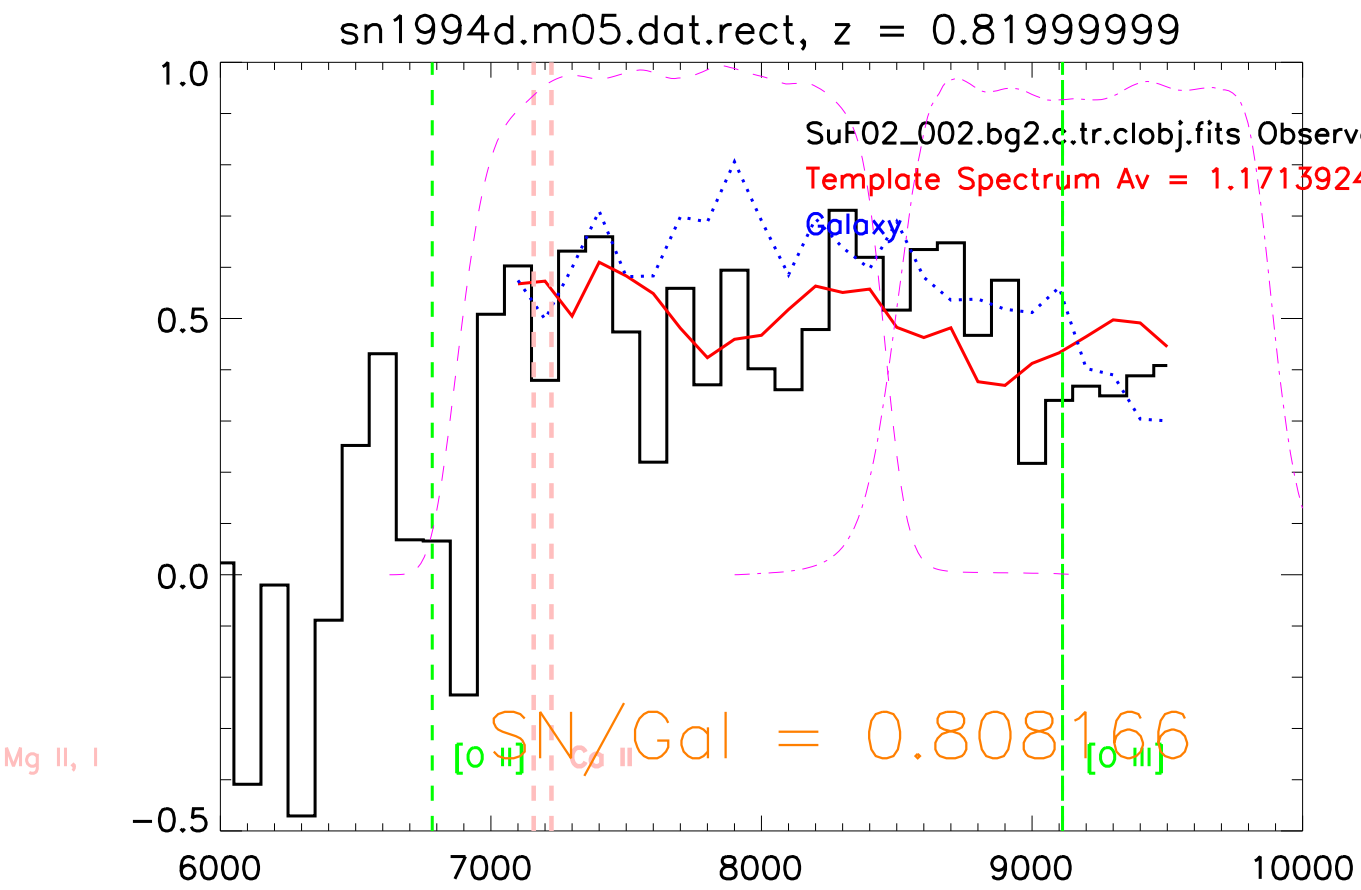

sn1990n.p38.dat.rect, z = 0.78999996
SuF02_002.bg2.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −5.2987120
Galaxy
SN/Gal = 0.452132
[O II]
Ca II
[O III]
Mg II, I
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

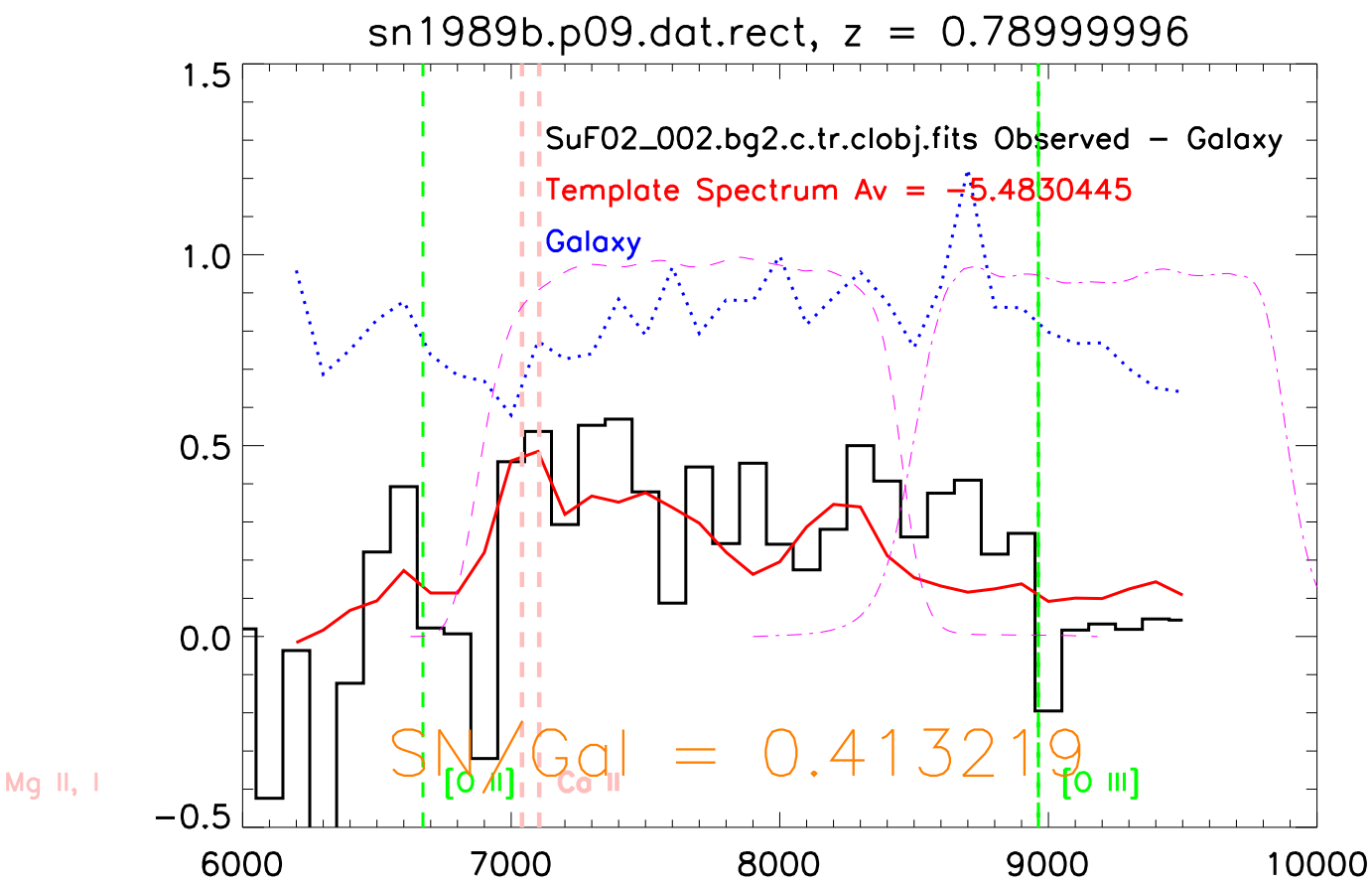

sn1989b.p16.dat.rect, z = 0.78999996
SuF02_002.bg2.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = −5.5291361
Galaxy
SN/Gal = 0.437708
[O II]
Ca II
[O III]
Mg II, I
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

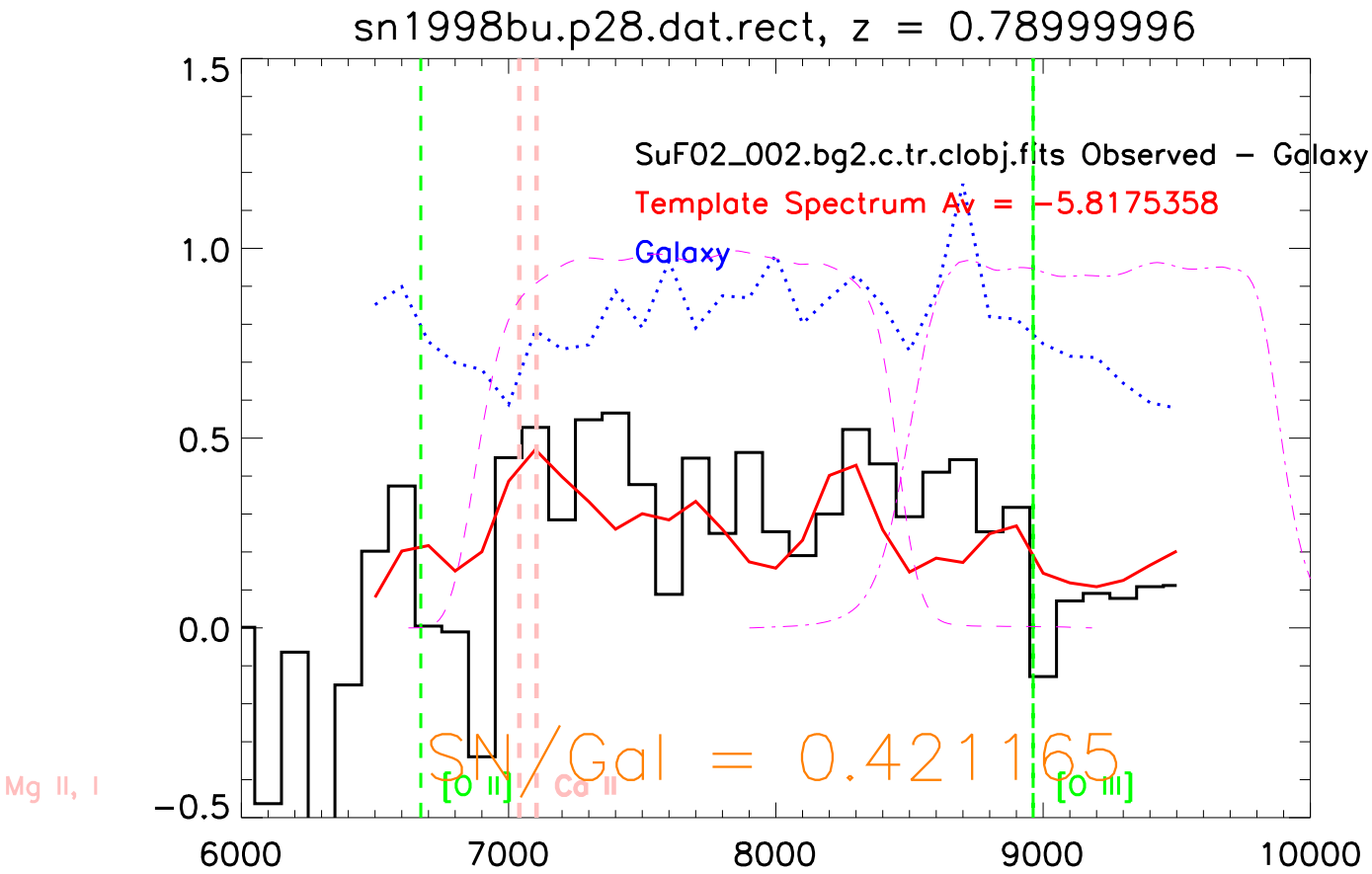

sn1989b.p08.dat.rect, z = 0.78999996
SuF02_002.bg2.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −4.3396239
Galaxy
SN/Gal = 0.490341
[O II]
Ca II
[O III]
Mg II, I
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

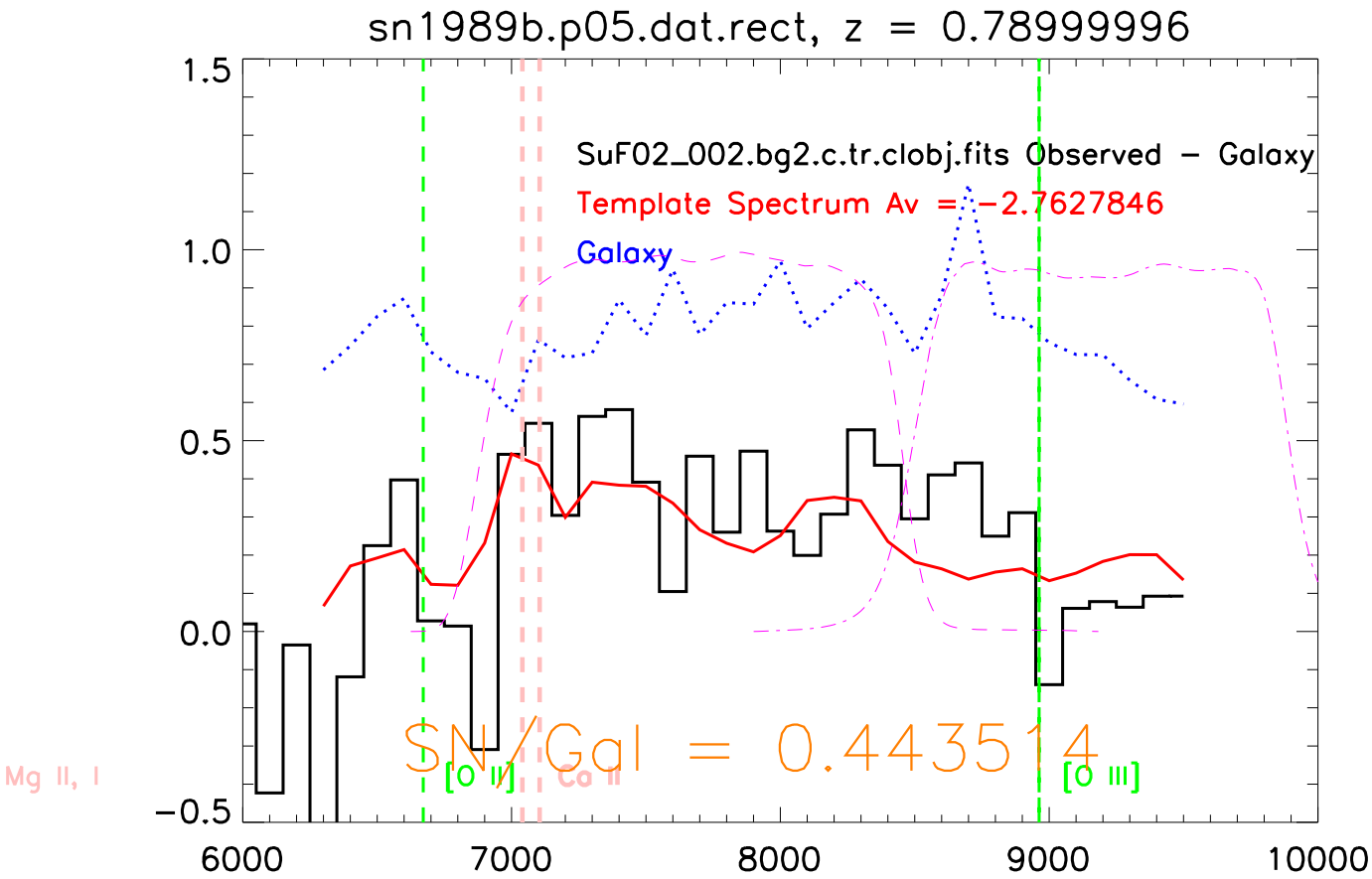

sn1996x.m02.dat.rect, z = 0.78999996
SuF02_002.bg2.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = 0.74836775
Galaxy
S/N Gal = 0.666928
Mg II, I
[O II]
Ca II
[O III]
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

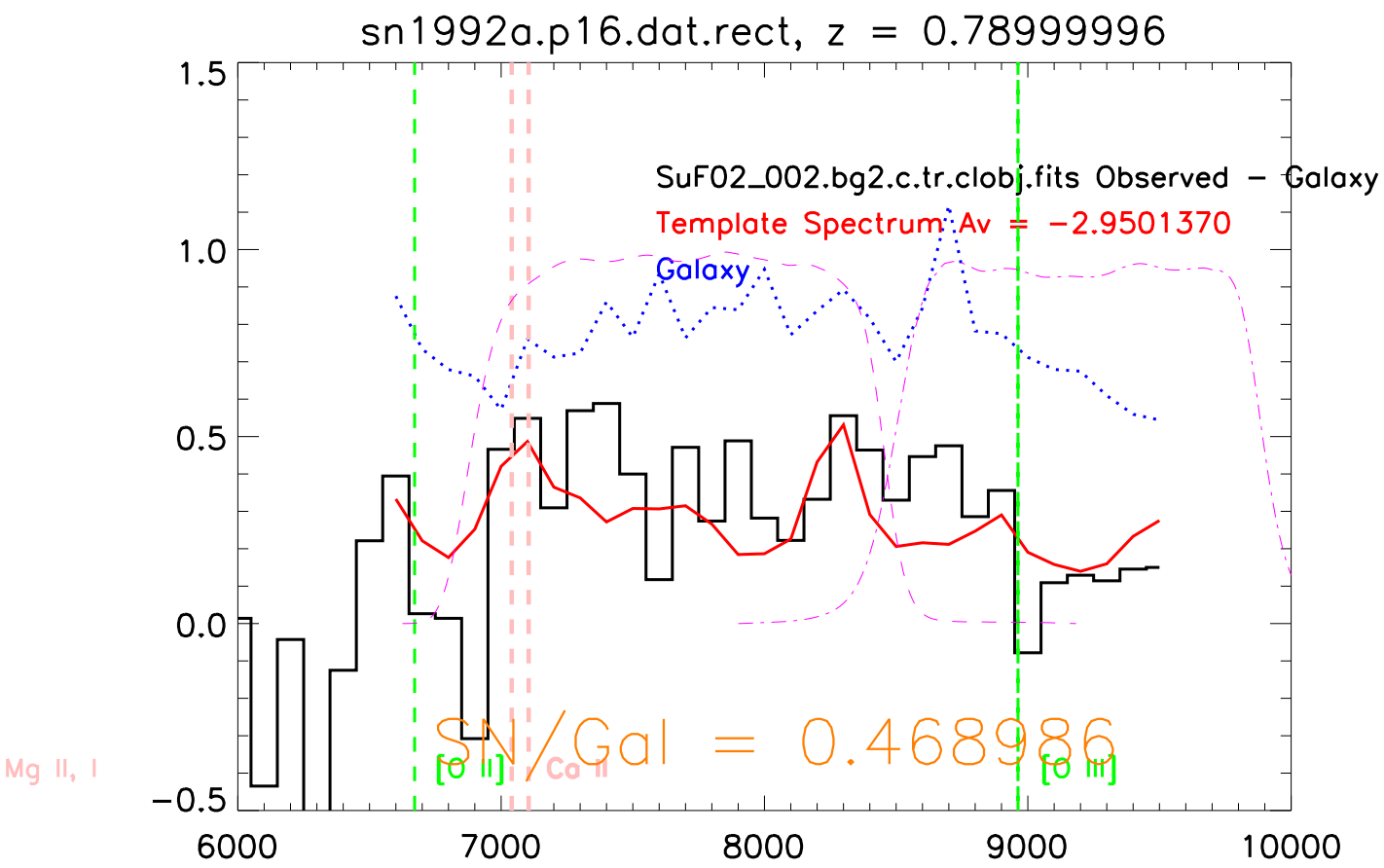

sn1989b.p18.dat.rect, z = 0.78999996
SuF02_002.bg2.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −4.8577167
Galaxy
SN/Gal = 0.634132
[O II]
Ca II
[O III]
Mg II, I
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

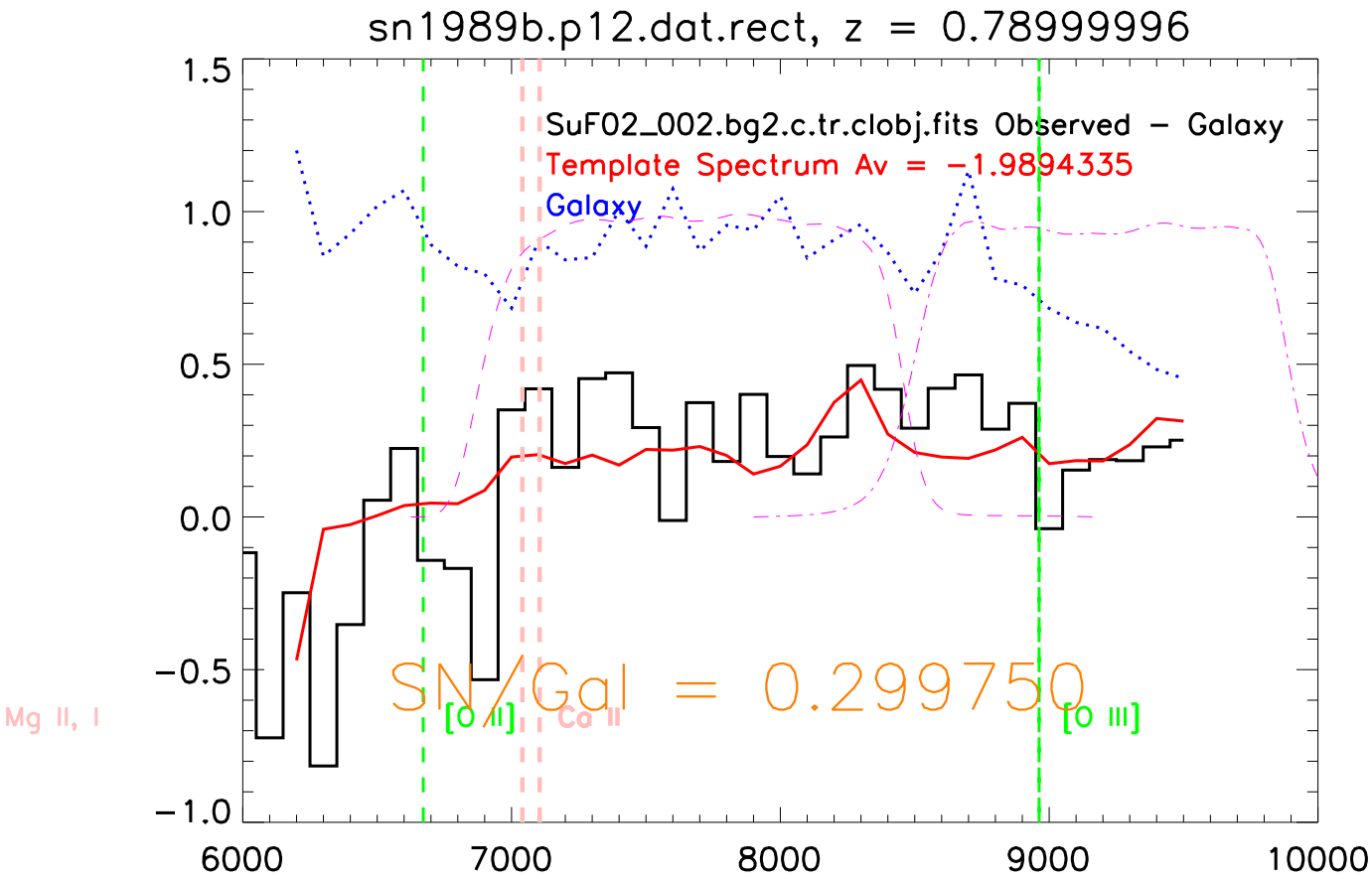

sn1994d.m05.dat.rect, z = 0.81999999
SuF02_002.bg2.c.tr.clobj.fits Observed – Gala
Template Spectrum Av = 1.1713924
Galaxy
SN/Gal = 0.808166
Mg II, I
[O II]
Ca II
[O III]
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

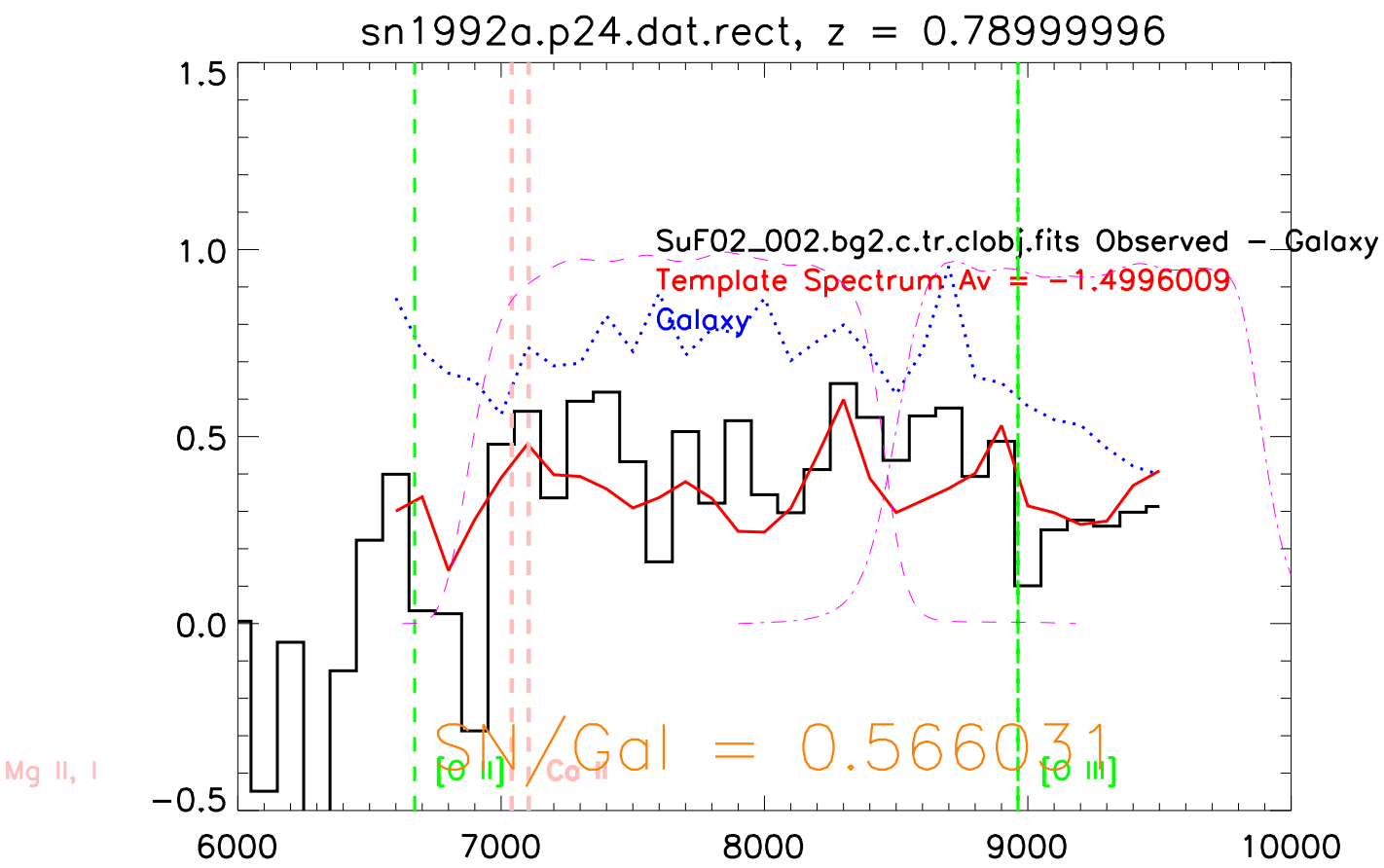

sn1989b.p09.dat.rect, z = 0.78999996
SuF02_002.bg2.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −5.4830445
Galaxy
SN/Gal = 0.413219
[O II]
Ca II
[O III]
Mg II, I
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

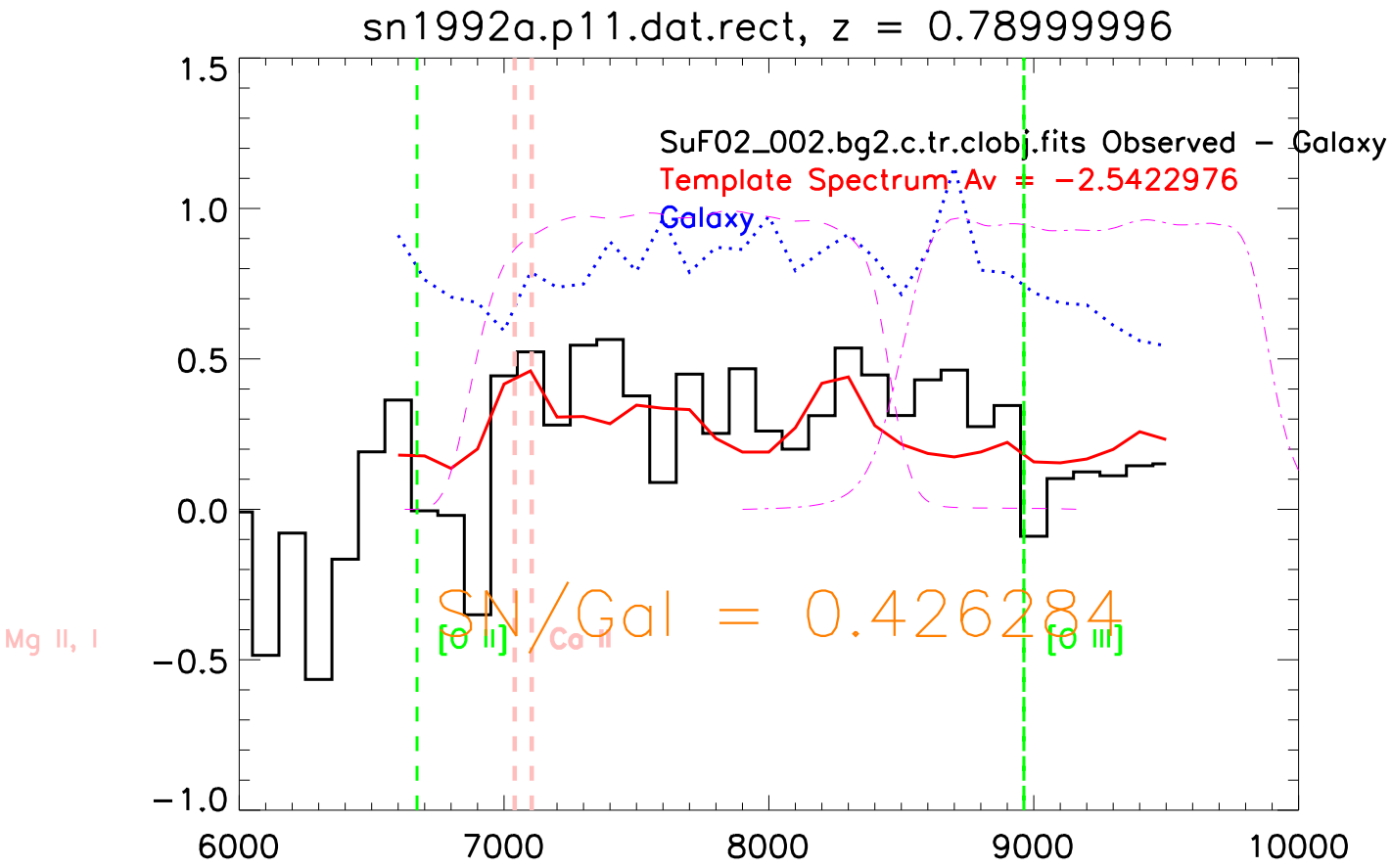

sn1998bu.p28.dat.rect, z = 0.78999996
SuF02_002.bg2.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = -5.8175358
Galaxy
SN/Gal = 0.421165
[O II]
Ca II
[O III]
Mg II, I
1.5
1.0
0.5
0.0
-0.5
6000
7000
8000
9000
10000

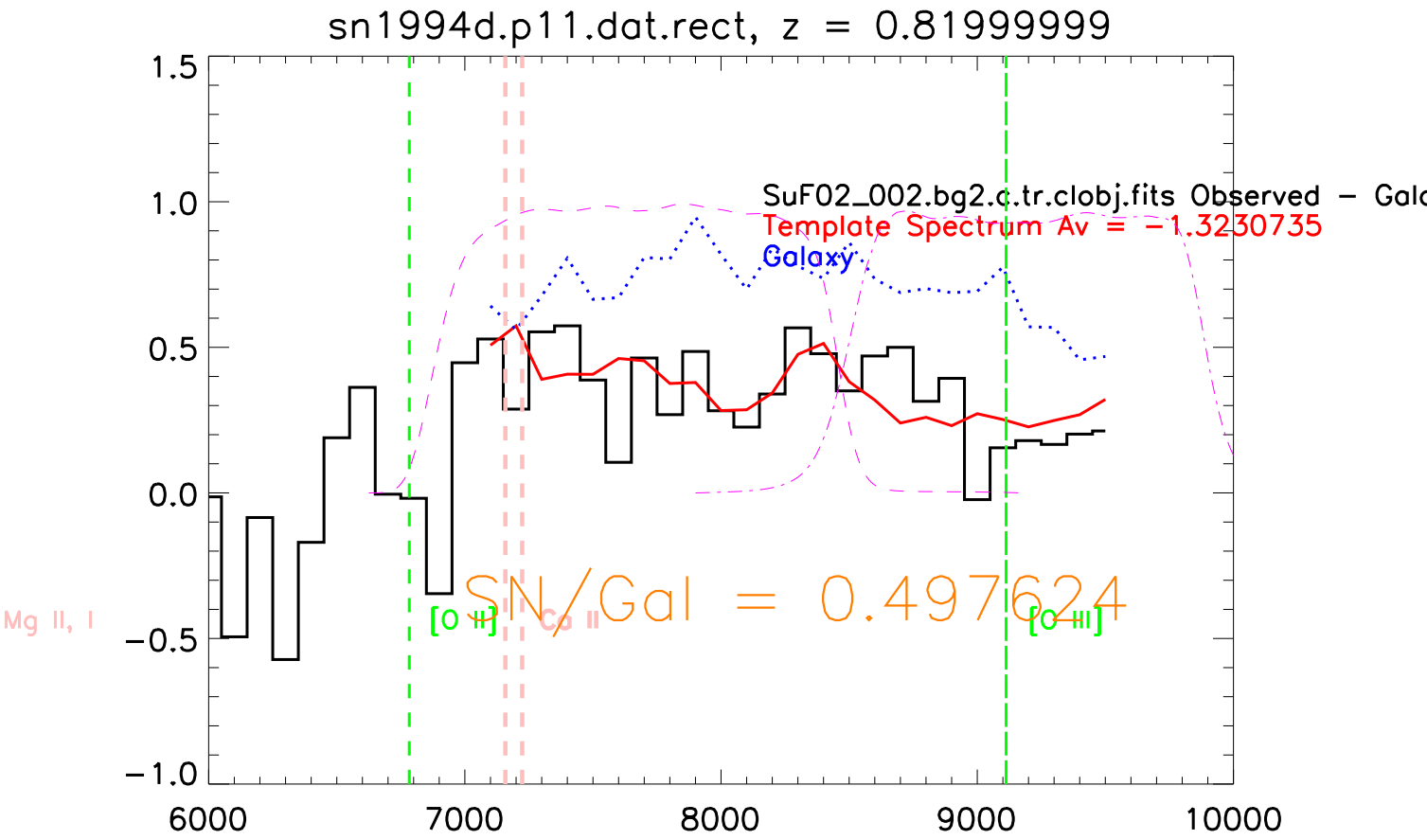

sn1989b.p05.dat.rect, z = 0.78999996
SuF02_002.bg2.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −2.7627846
Galaxy
S/N/Gal = 0.443514
[O II]
Ca II
[O III]
Mg II, I
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

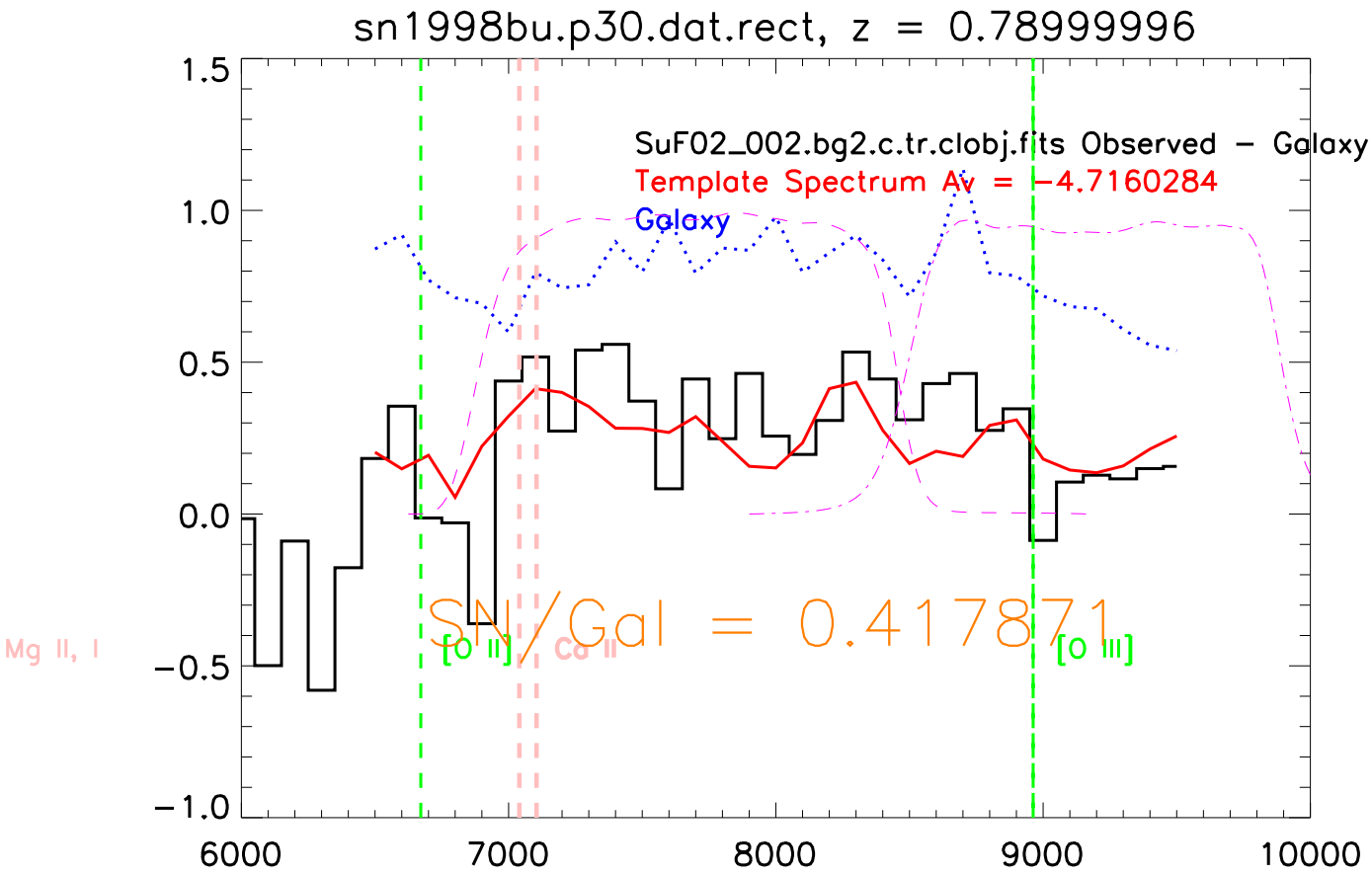

sn1992a.p16.dat.rect, z = 0.78999996
SuF02_002.bg2.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −2.9501370
Galaxy
SN/Gal = 0.468986
[O II]
Ca II
[O III]
Mg II, I
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

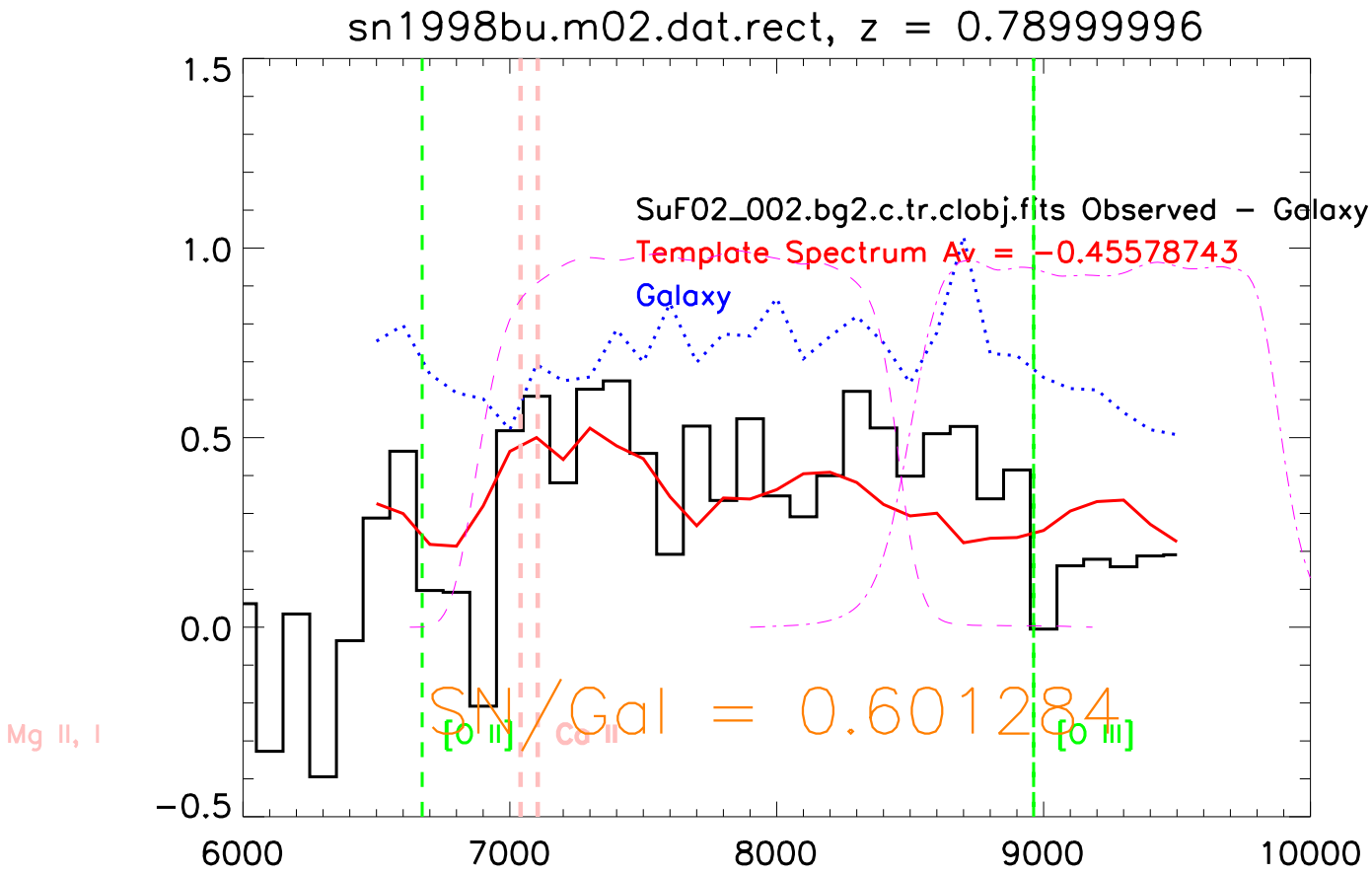

sn1989b.p12.dat.rect, z = 0.78999996
SuF02_002.bg2.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −1.9894335
Galaxy
SN/Gal = 0.299750
[O II]
Ca II
[O III]
Mg II, I
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000

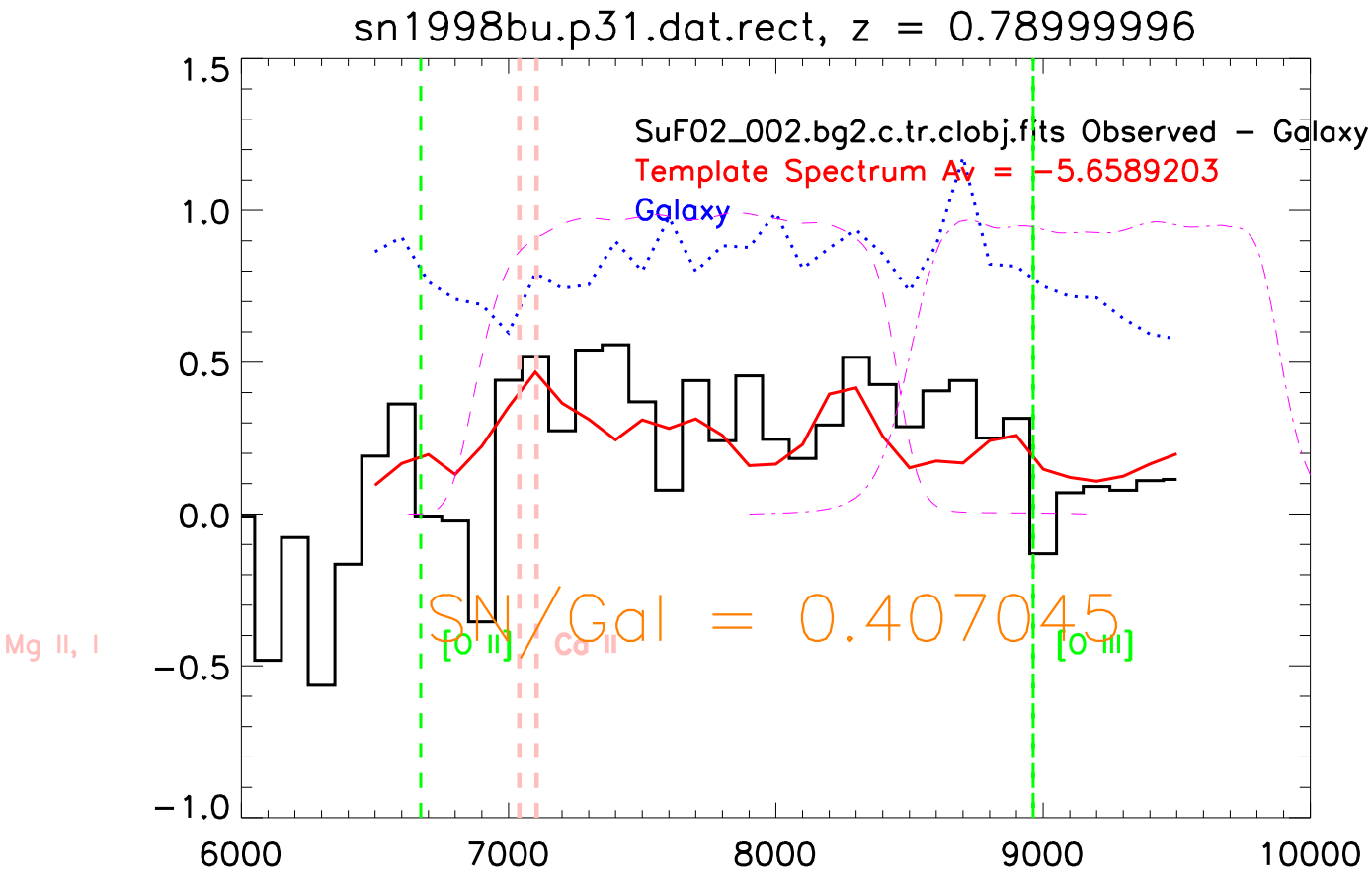

sn1992a.p24.dat.rect, z = 0.78999996
SuF02_002.bg2.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = –1.4996009
Galaxy
SN/Gal = 0.566031
[O II]
Ca II
[O III]
Mg II, I
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

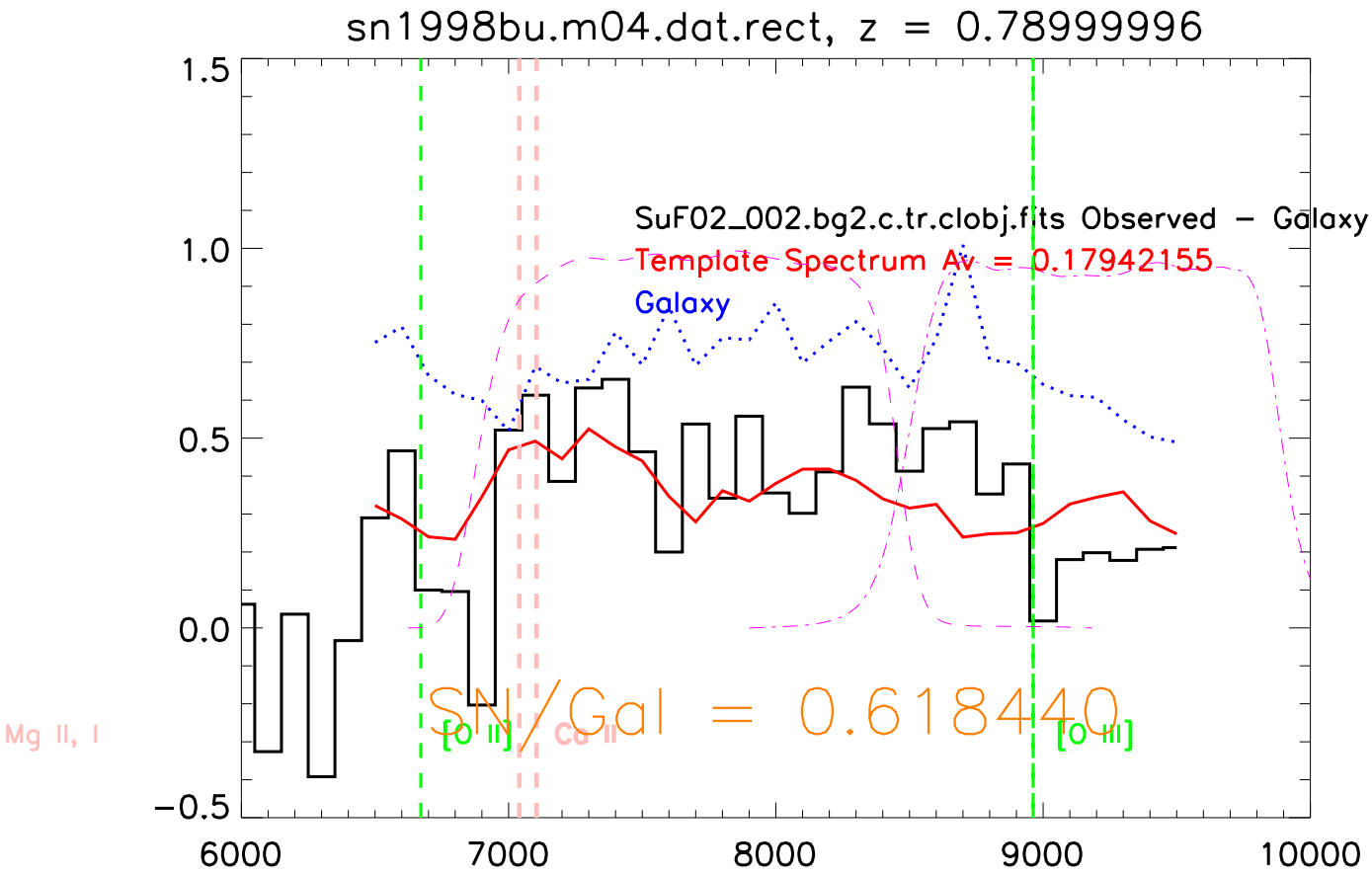

sn1992a.p11.dat.rect, z = 0.78999996
SuF02_002.bg2.c.tr.clobj.fits Observed − Galaxy
Template Spectrum: Av = −2.5422976
Galaxy
SN/Gal = 0.426284
[O II]
Ca II
[O III]
Mg II, I
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000

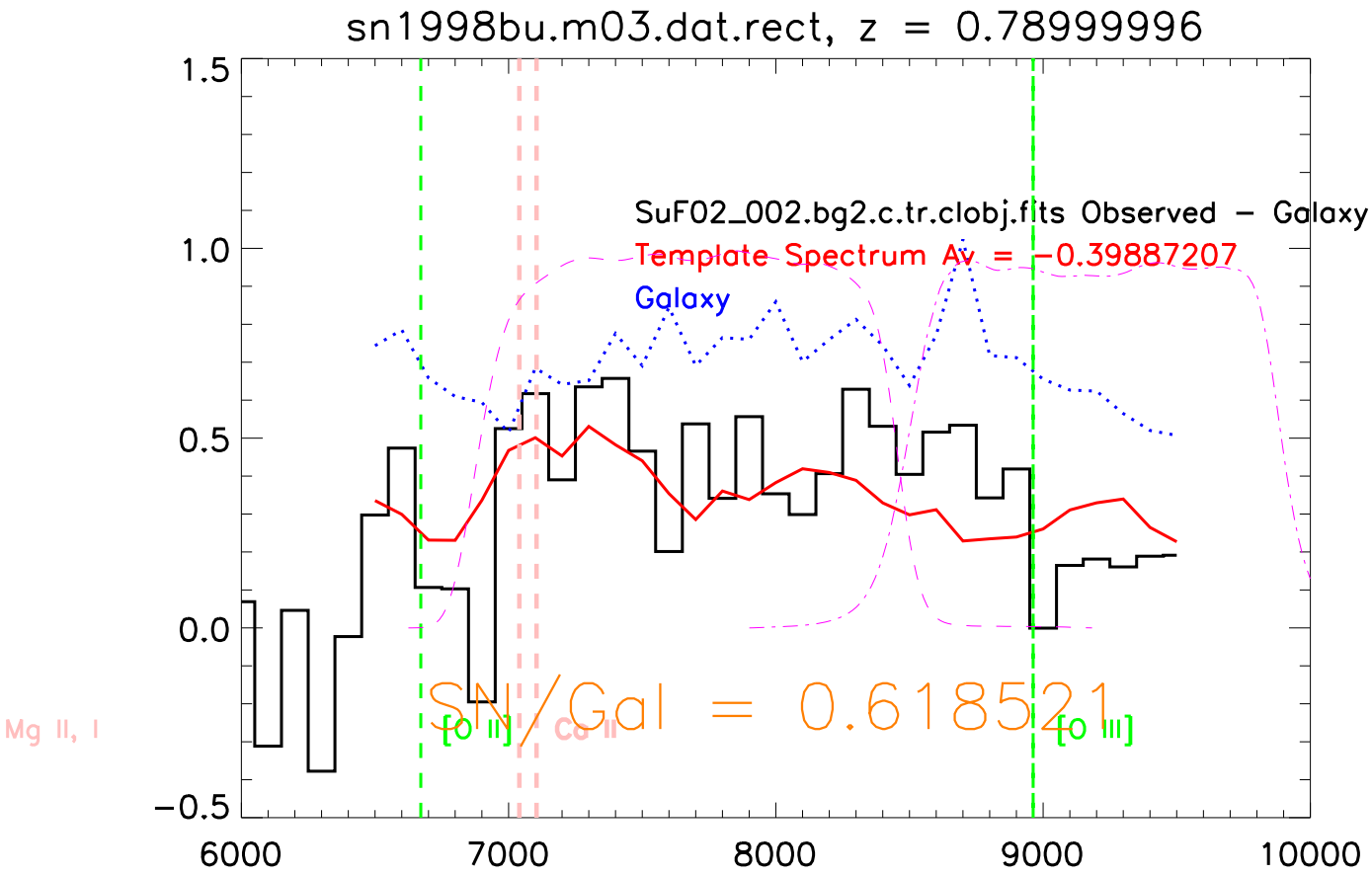

sn1994d.p11.dat.rect, z = 0.81999999
SuF02_002.bg2.c.tr.clobj.fits Observed – Gala
Template Spectrum Av = −1.3230735
Galaxy
SN/Gal = 0.497624
Mg II, I
[O II]
Ca II
[O III]
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000

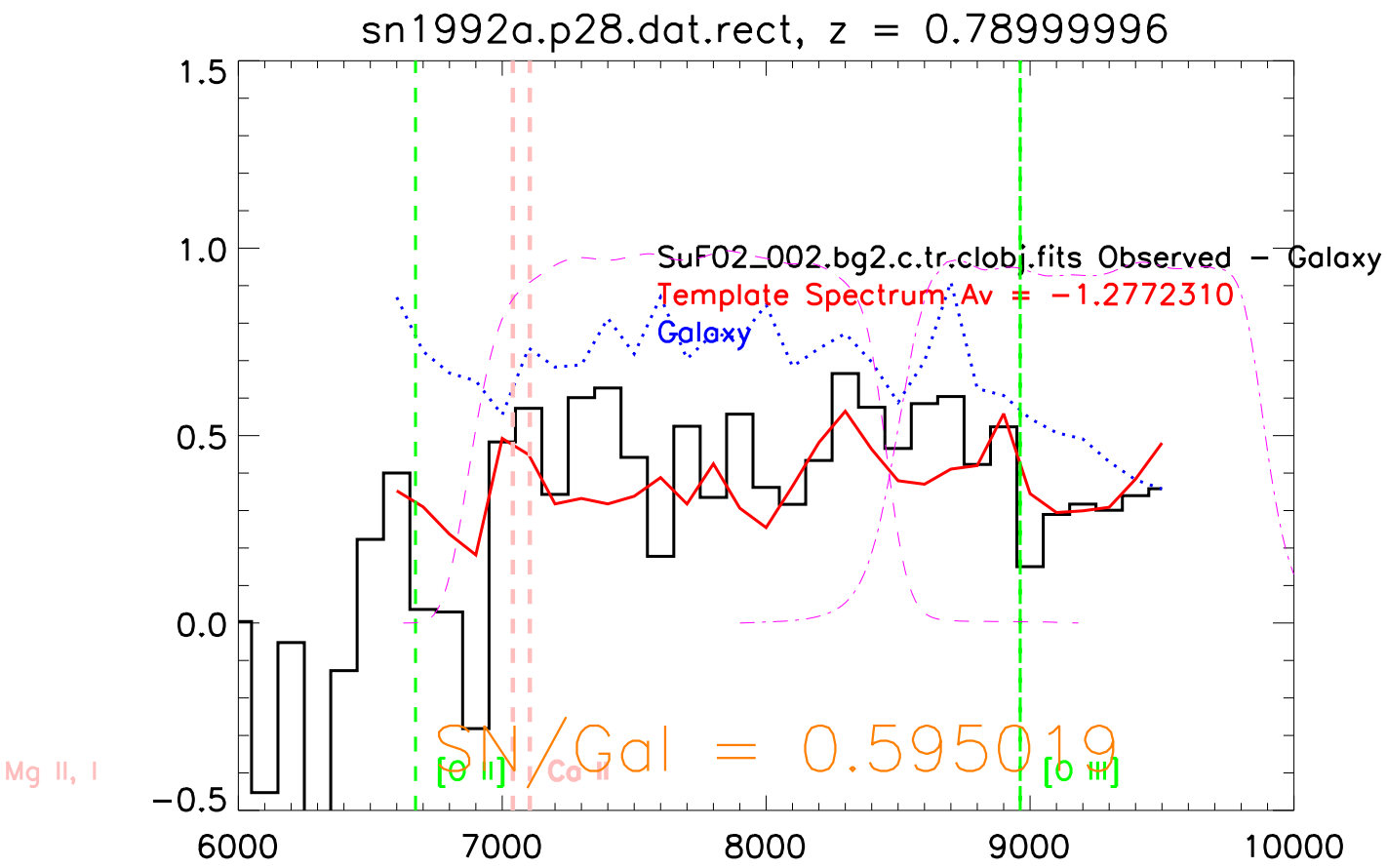

sn1998bu.p30.dat.rect, z = 0.78999996
SuF02_002.bg2.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −4.7160284
Galaxy
S/N/Gal = 0.417871
Mg II, I
[O II]
Ca II
[O III]
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000

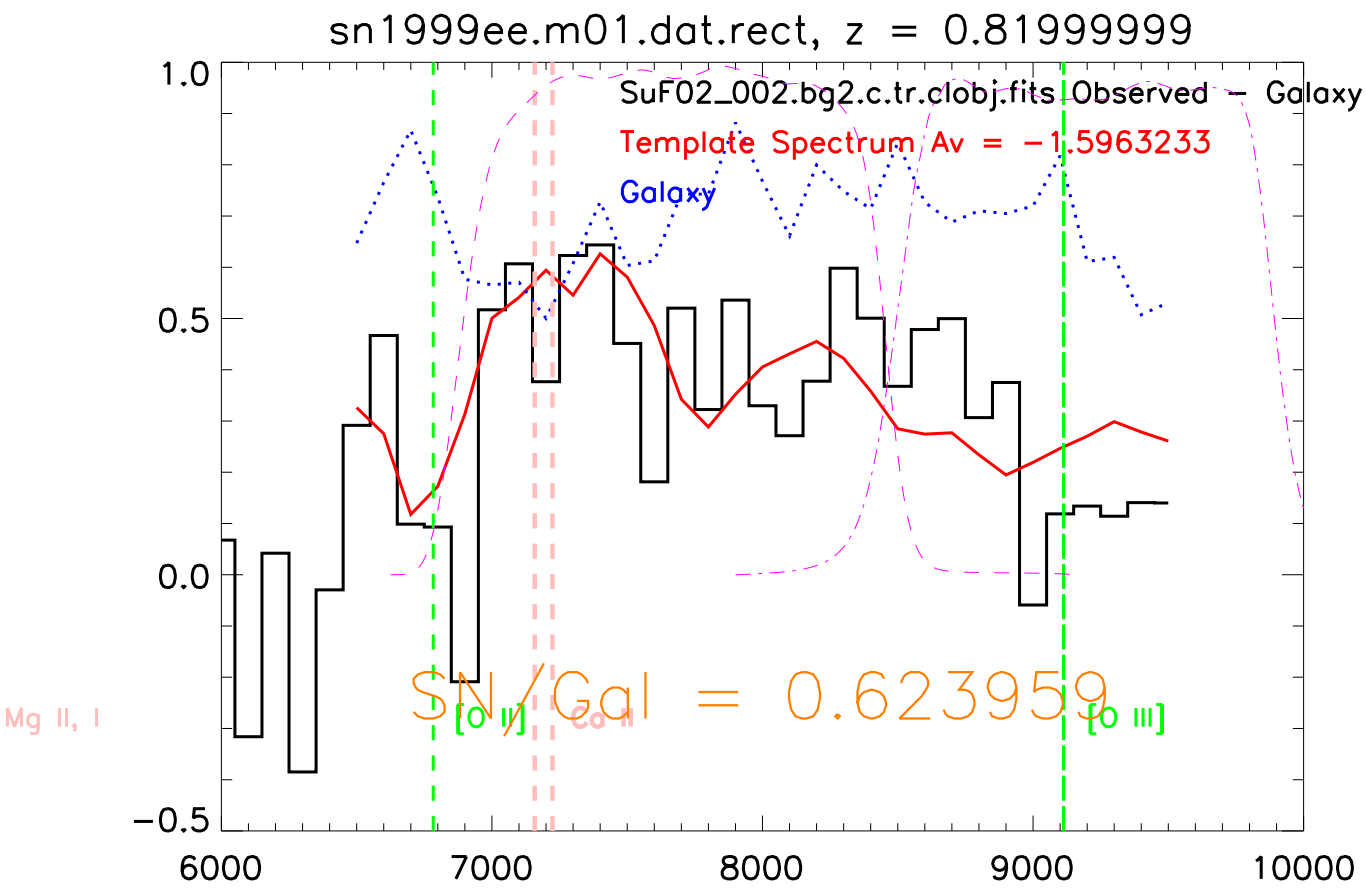

sn1998bu.m02.dat.rect, z = 0.78999996
SuF02_002.bg2.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = −0.45578743
Galaxy
S/N/Gal = 0.601284
[O II]
[O III]
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

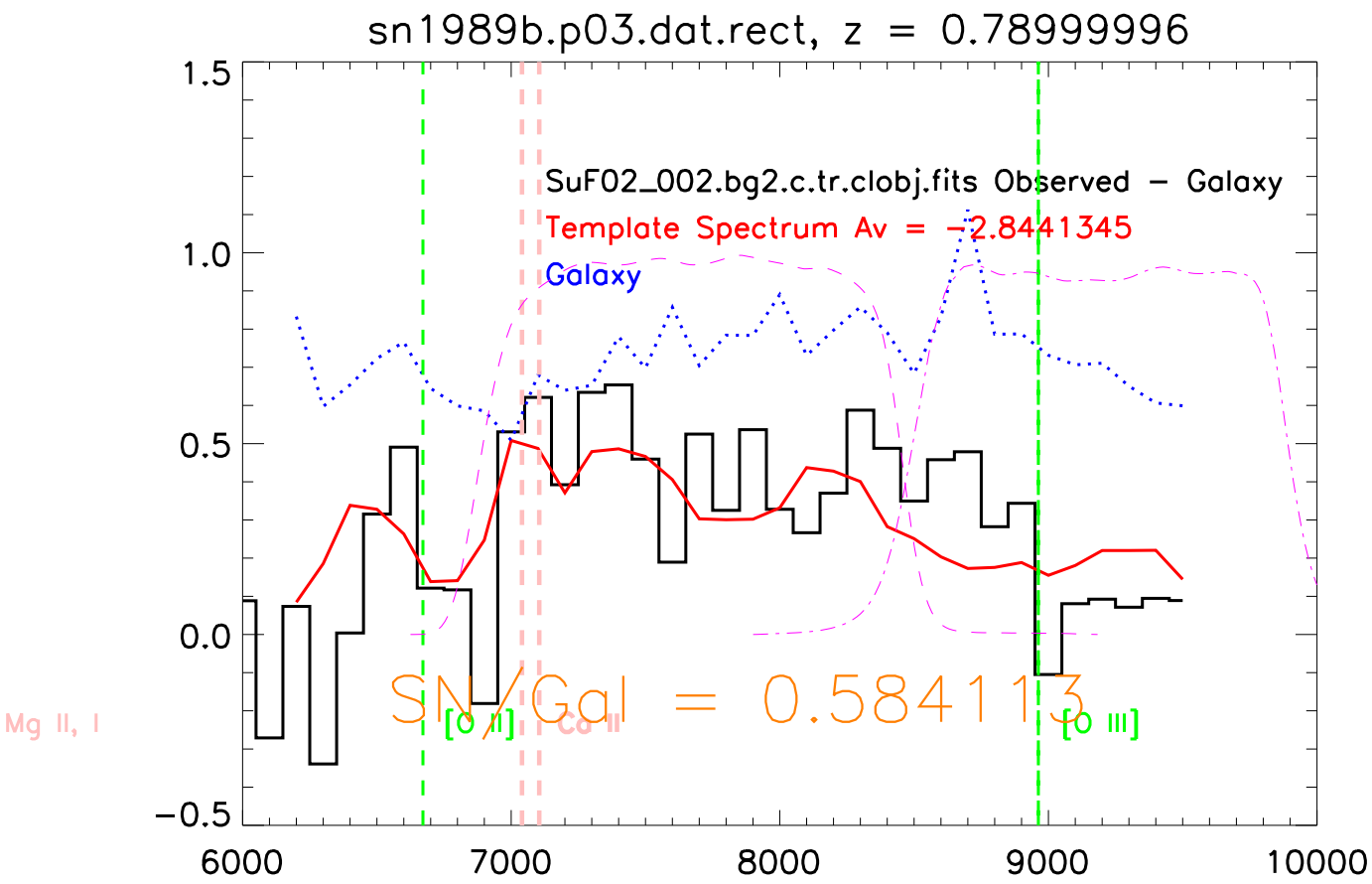

sn1998bu.p31.dat.rect, z = 0.78999996
SuF02_002.bg2.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −5.6589203
Galaxy
SN/Gal = 0.407045
[O II]
Ca II
[O III]
Mg II, I
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000

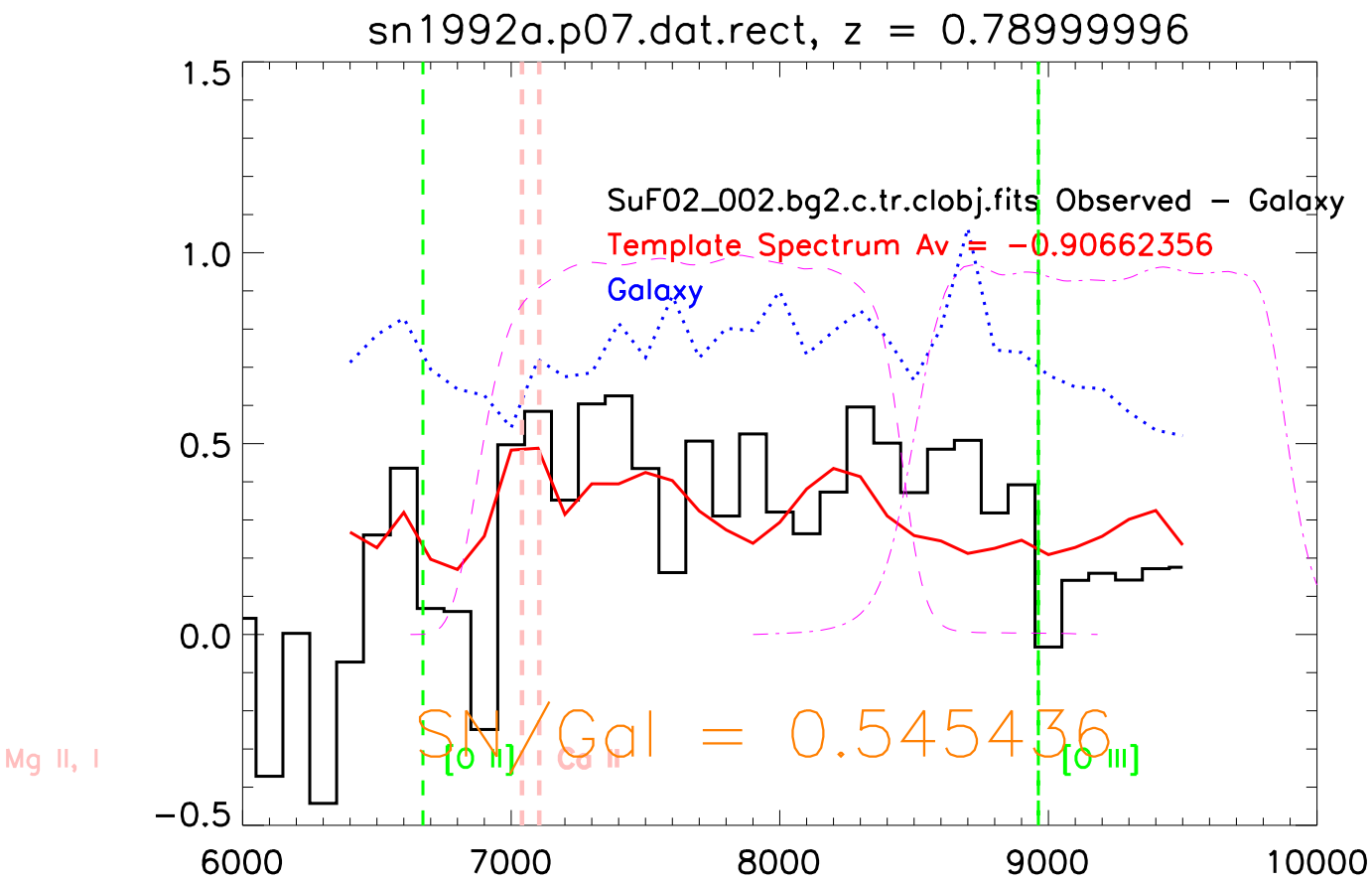

sn1998bu.m04.dat.rect, z = 0.78999996
SuF02_002.bg2.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = 0.17942155
Galaxy
S/N Gal = 0.618440
[O II]
[O III]
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

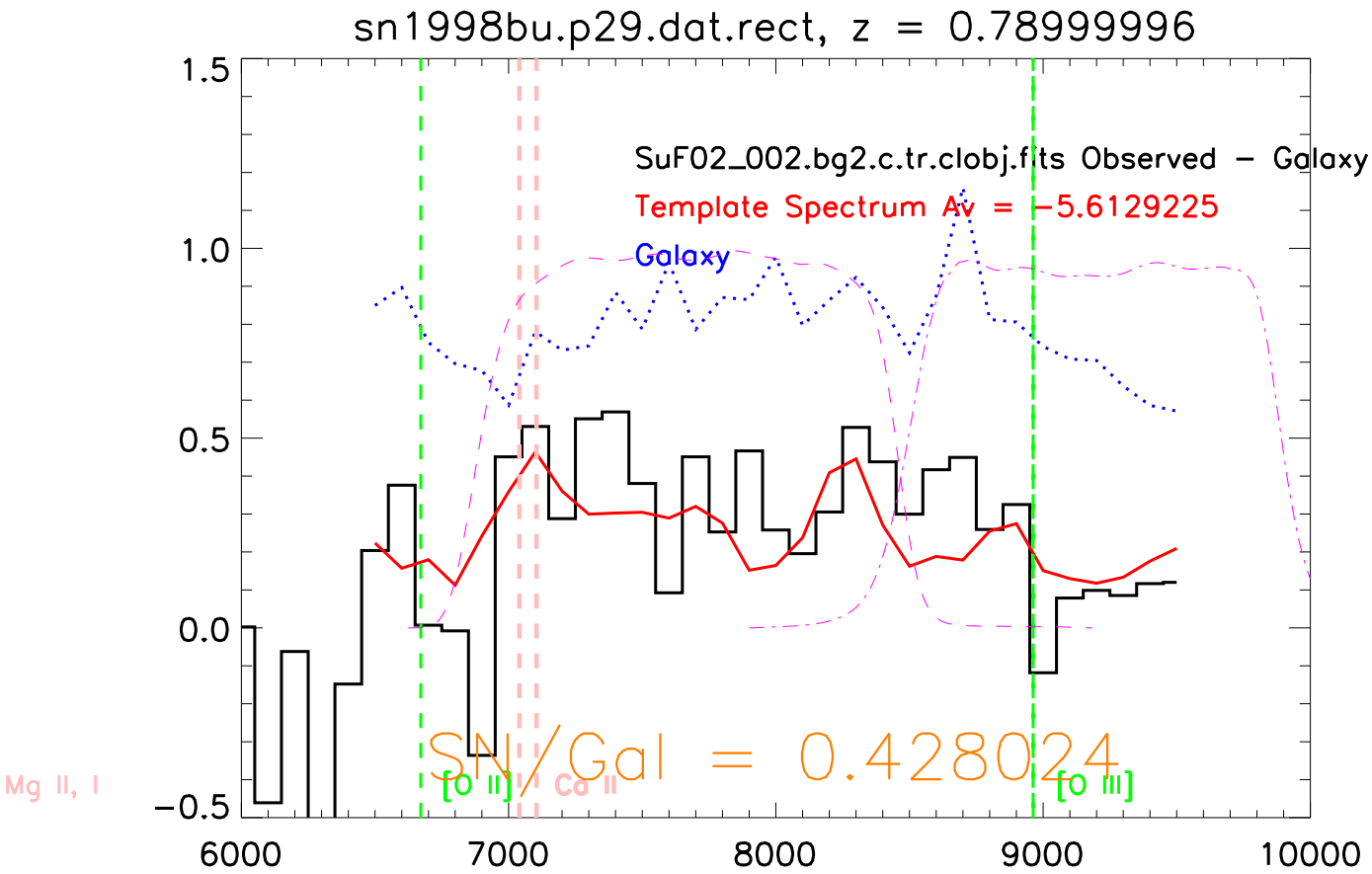

sn1998bu.m03.dat.rect, z = 0.78999996
SuF02_002.bg2.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −0.39887207
Galaxy
S/N/Gal = 0.618521
Mg II, I
[O II]
Ca II
[O III]
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

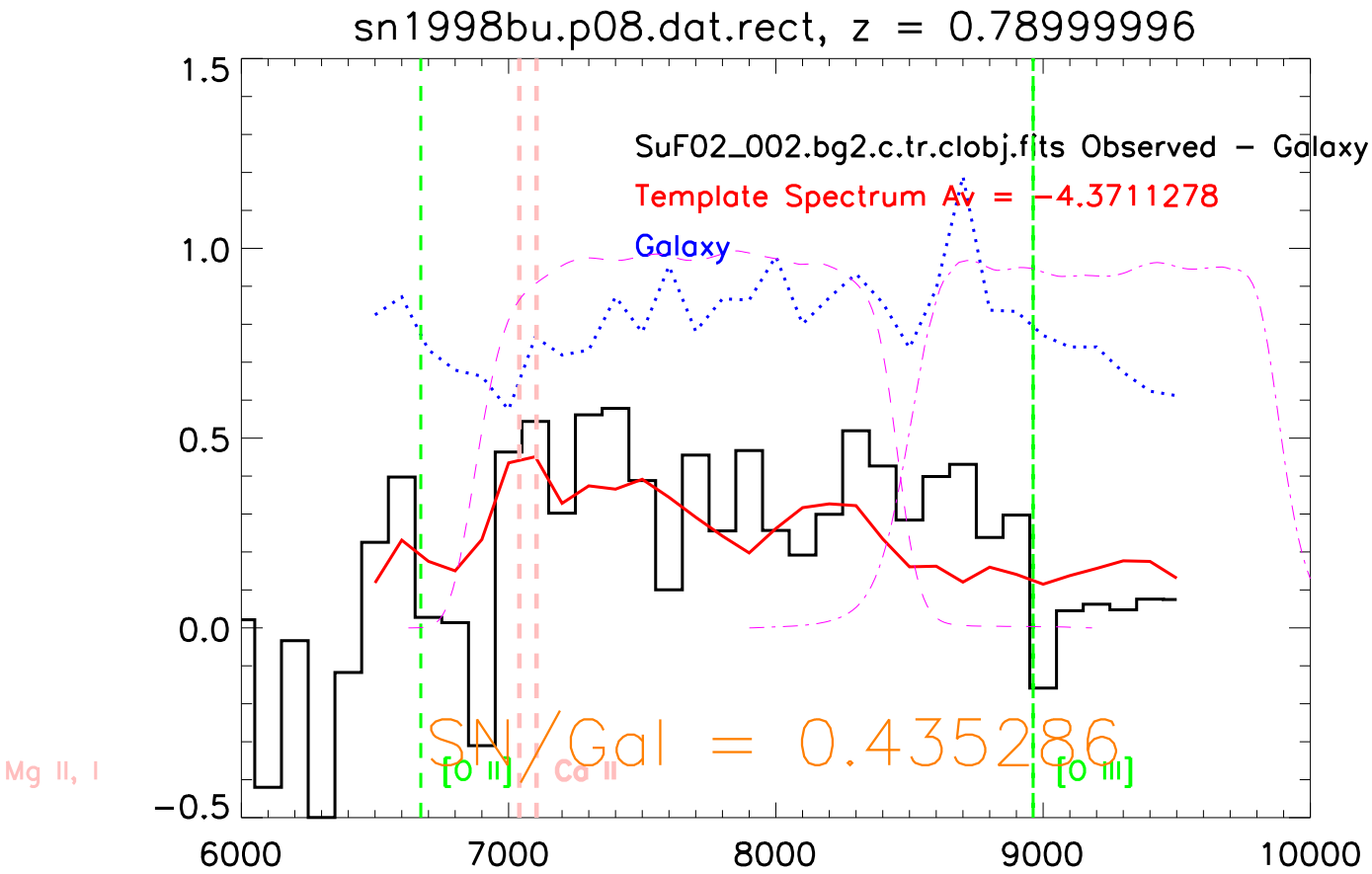

sn1992a.p28.dat.rect, z = 0.78999996
SuF02_002.bg2.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −1.2772310
Galaxy
SN/Gal = 0.595019
[O II]
Ca II
[O III]
Mg II, I
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

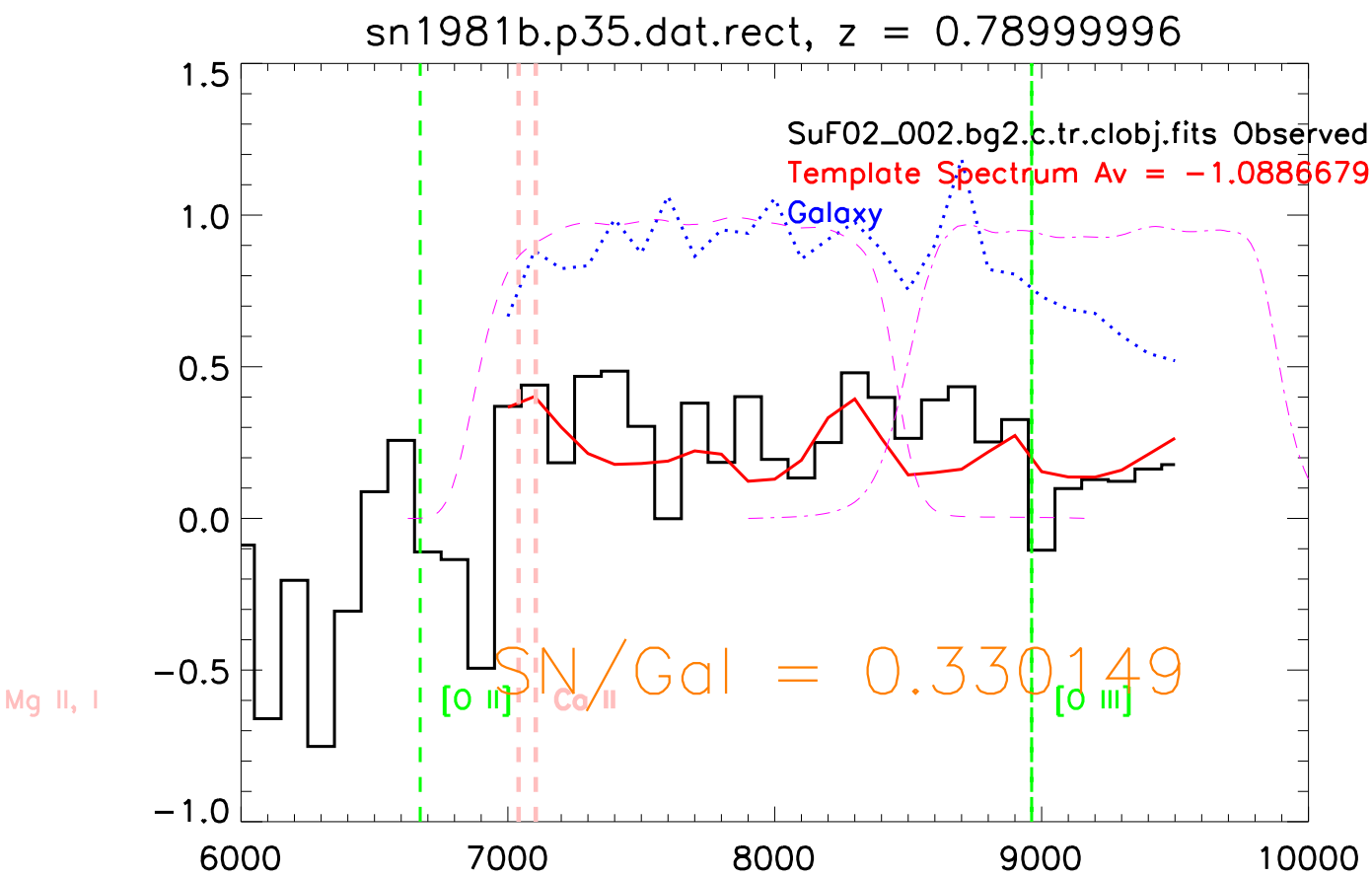

sn1999ee.m01.dat.rect, z = 0.81999999
SuF02_002.bg2.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = −1.5963233
Galaxy
SN/Gal = 0.623959
Mg II, I
[O II]
Ca II
[O III]
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

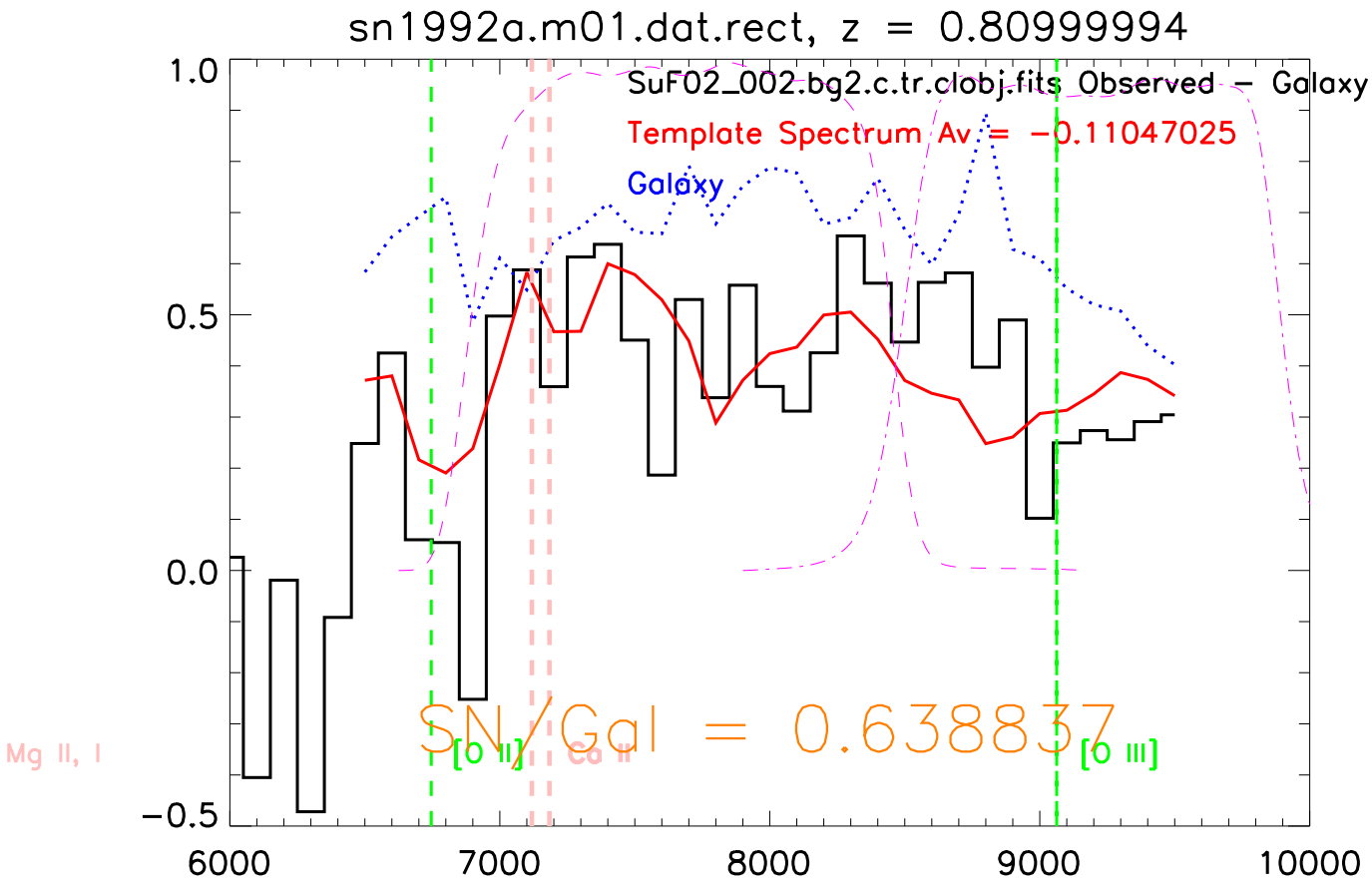

sn1989b.p03.dat.rect, z = 0.78999996
SuF02_002.bg2.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −2.8441345
Galaxy
SN/Gal = 0.584113
Mg II, I
[O II]
Ca II
[O III]
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

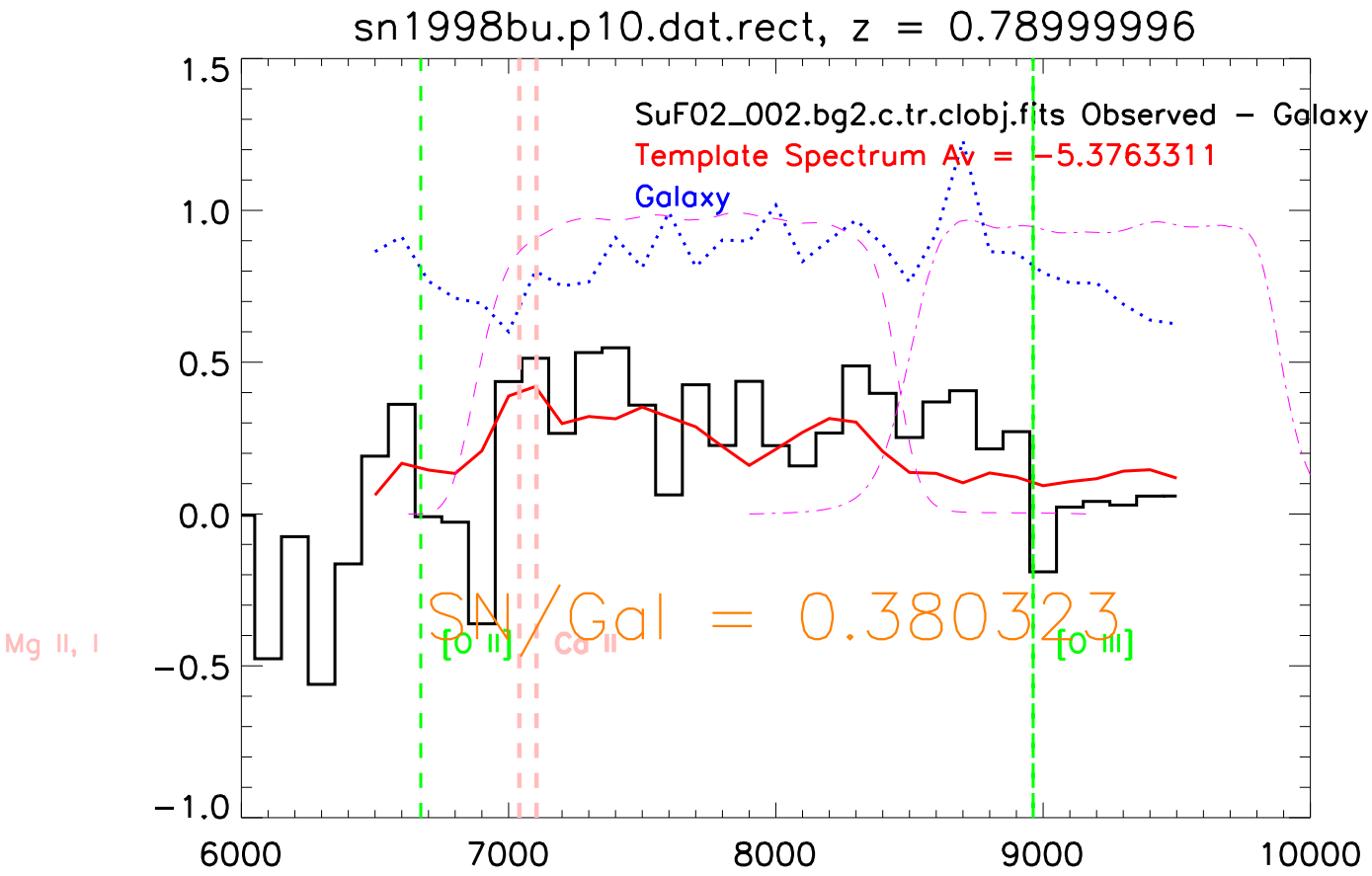

sn1992a.p07.dat.rect, z = 0.78999996
SuF02_002.bg2.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = −0.90662356
Galaxy
S/N Gal = 0.545436
[O II]
Ca II
[O III]
Mg II, I
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

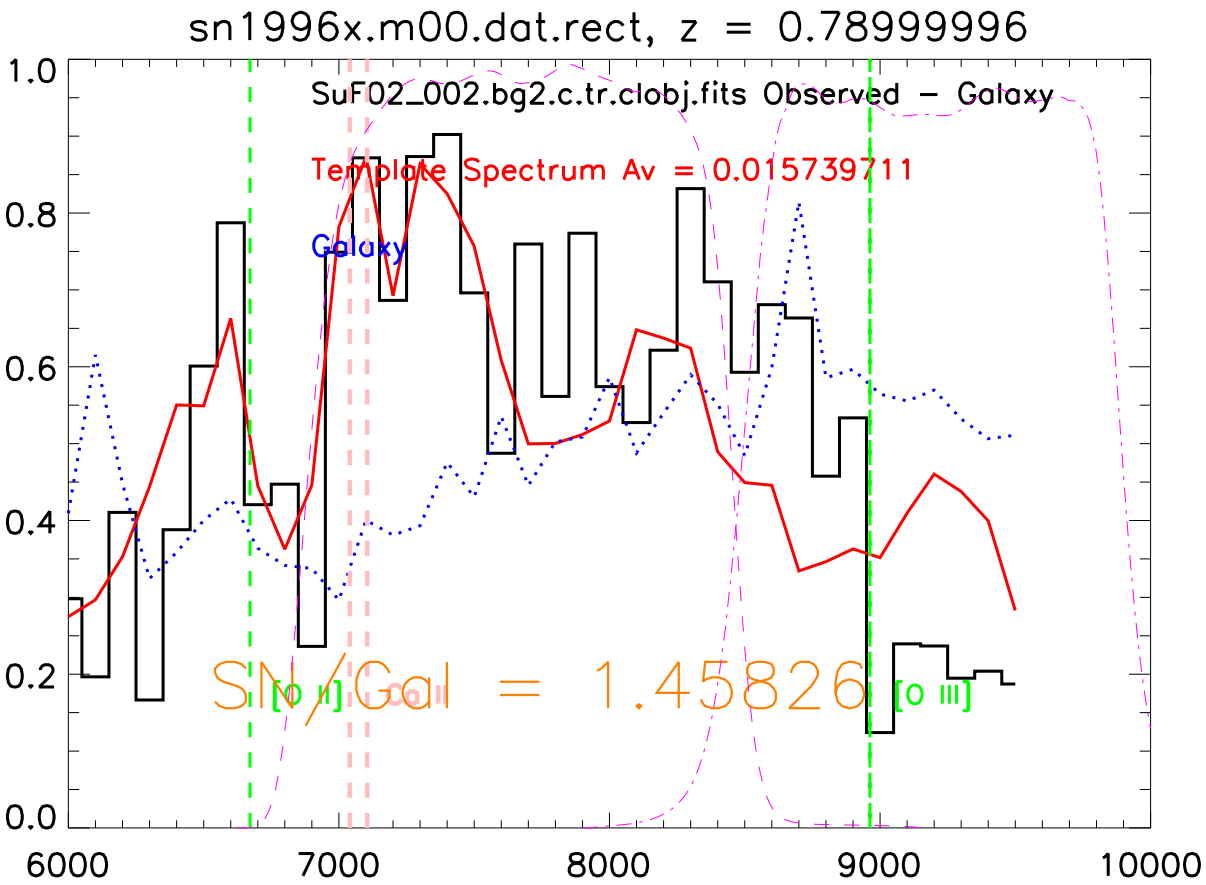

sn1998bu.p29.dat.rect, z = 0.78999996
SuF02_002.bg2.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −5.6129225
Galaxy
SN/Gal = 0.428024
[O II]
Ca II
[O III]
Mg II, I
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000


sn1998bu.p08.dat.rect, z = 0.78999996
SuF02_002.bg2.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = −4.3711278
Galaxy
SN/Gal = 0.435286
[O II]
Ca II
[O III]
Mg II, I
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

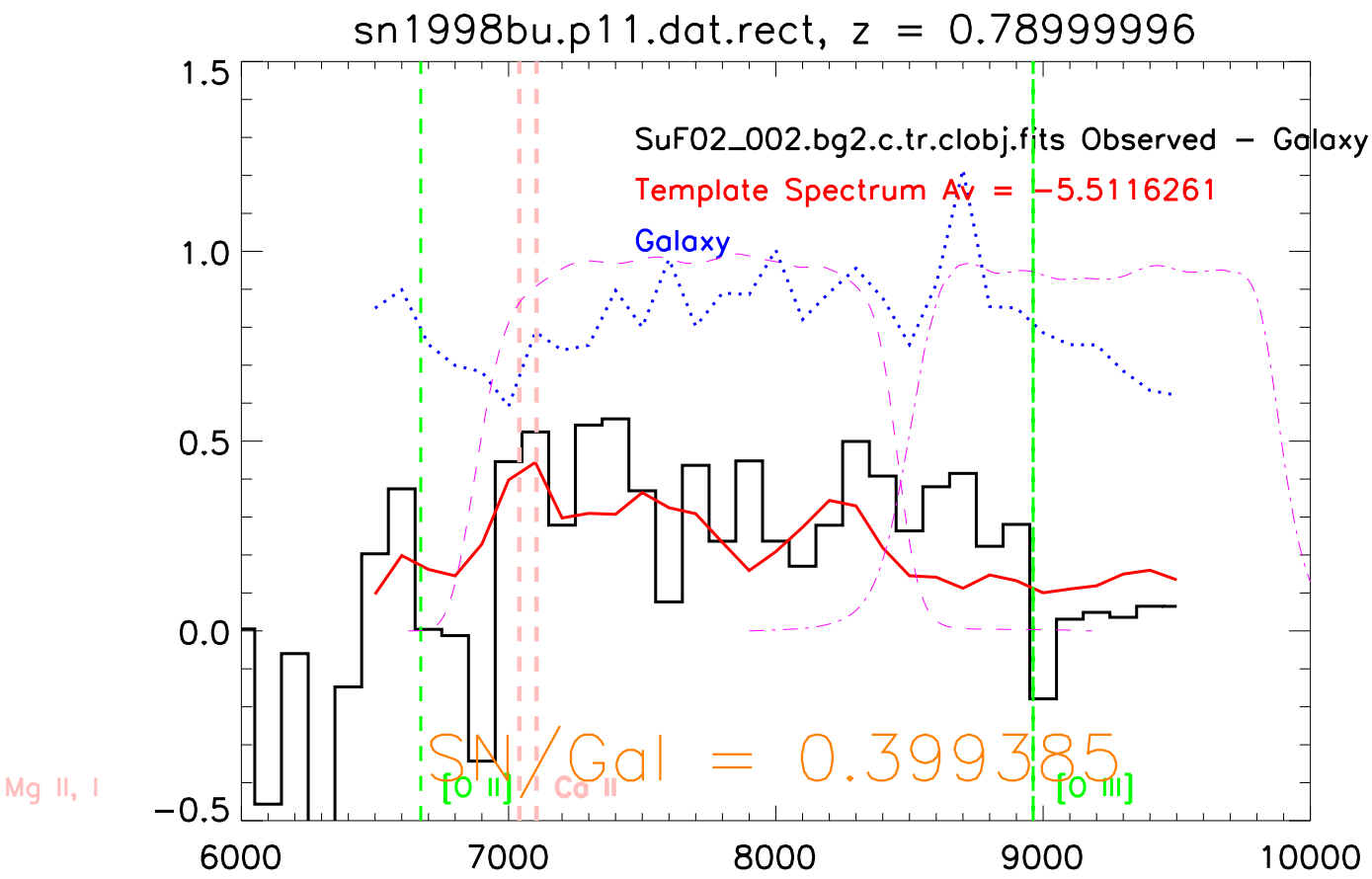

sn1981b.p35.dat.rect, z = 0.78999996
SuF02_002.bg2.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −1.0886679
Galaxy
SN/Gal = 0.330149
Mg II, I
[O II]
Ca II
[O III]
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000

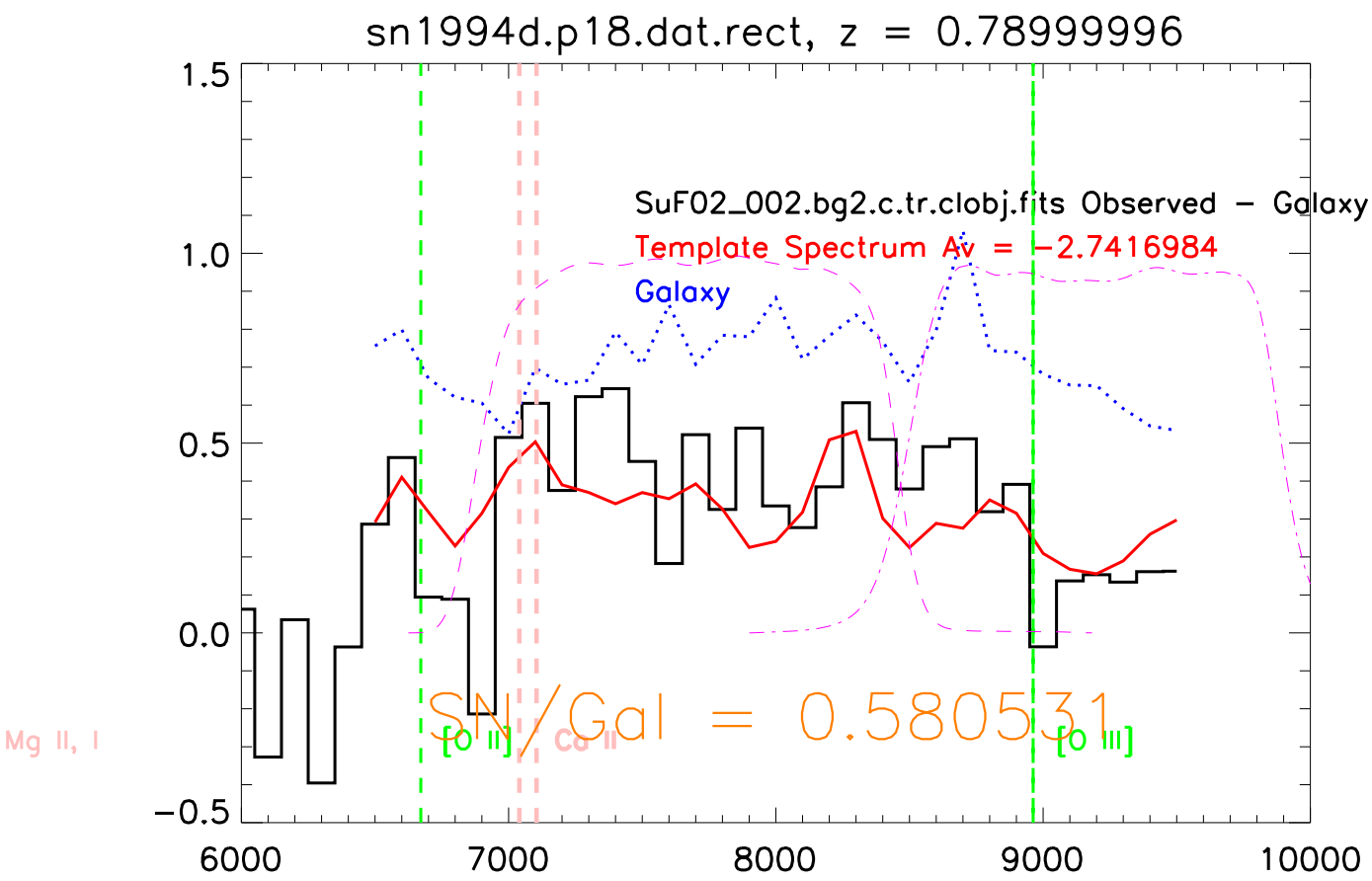

sn1992a.m01.dat.rect, z = 0.80999994
SuF02_002.bg2.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = −0.11047025
Galaxy
SN/Gal = 0.638837
[O II]
Ca II
[O III]
Mg II, I
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

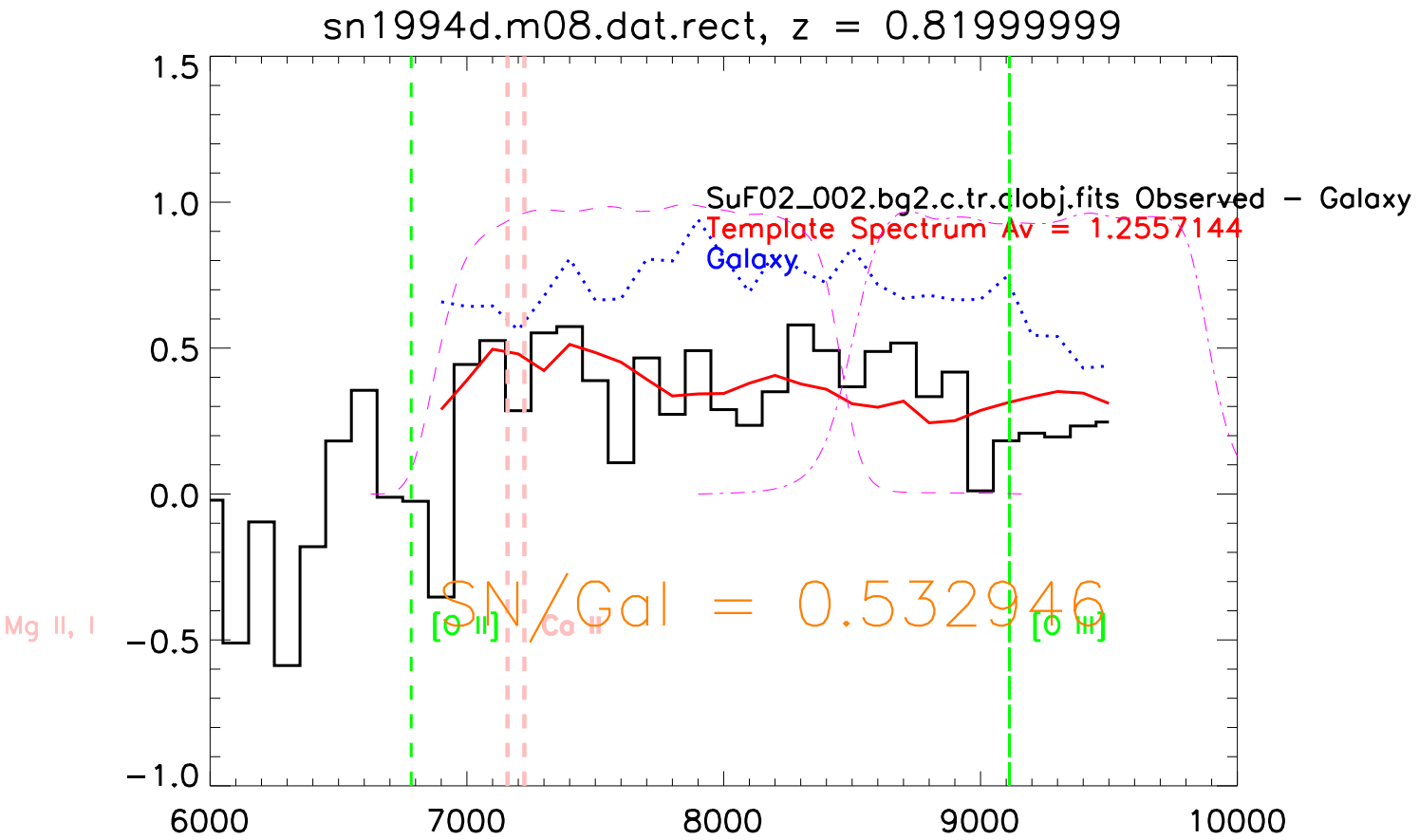

sn1998bu.p10.dat.rect, z = 0.78999996
SuF02_002.bg2.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −5.3763311
Galaxy
SN/Gal = 0.380323
Mg II, I
[O II]
Ca II
[O III]
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000

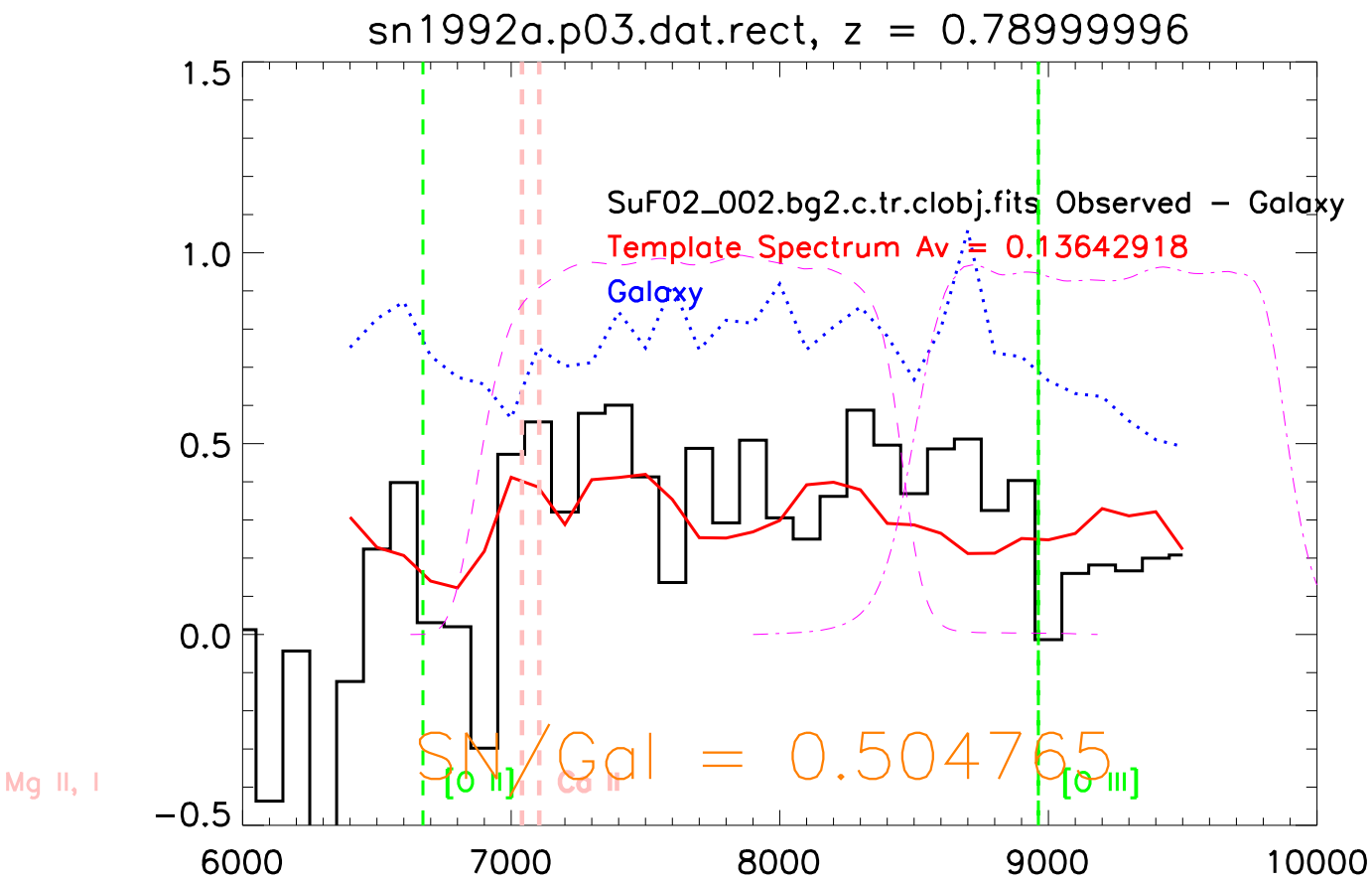

sn1996x.m00.dat.rect, z = 0.78999996
SuF02_002.bg2.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = 0.015739711
Galaxy
SN/Gal = 1.45826
[O II]
[O III]
1.0
0.8
0.6
0.4
0.2
0.0
6000
7000
8000
9000
10000

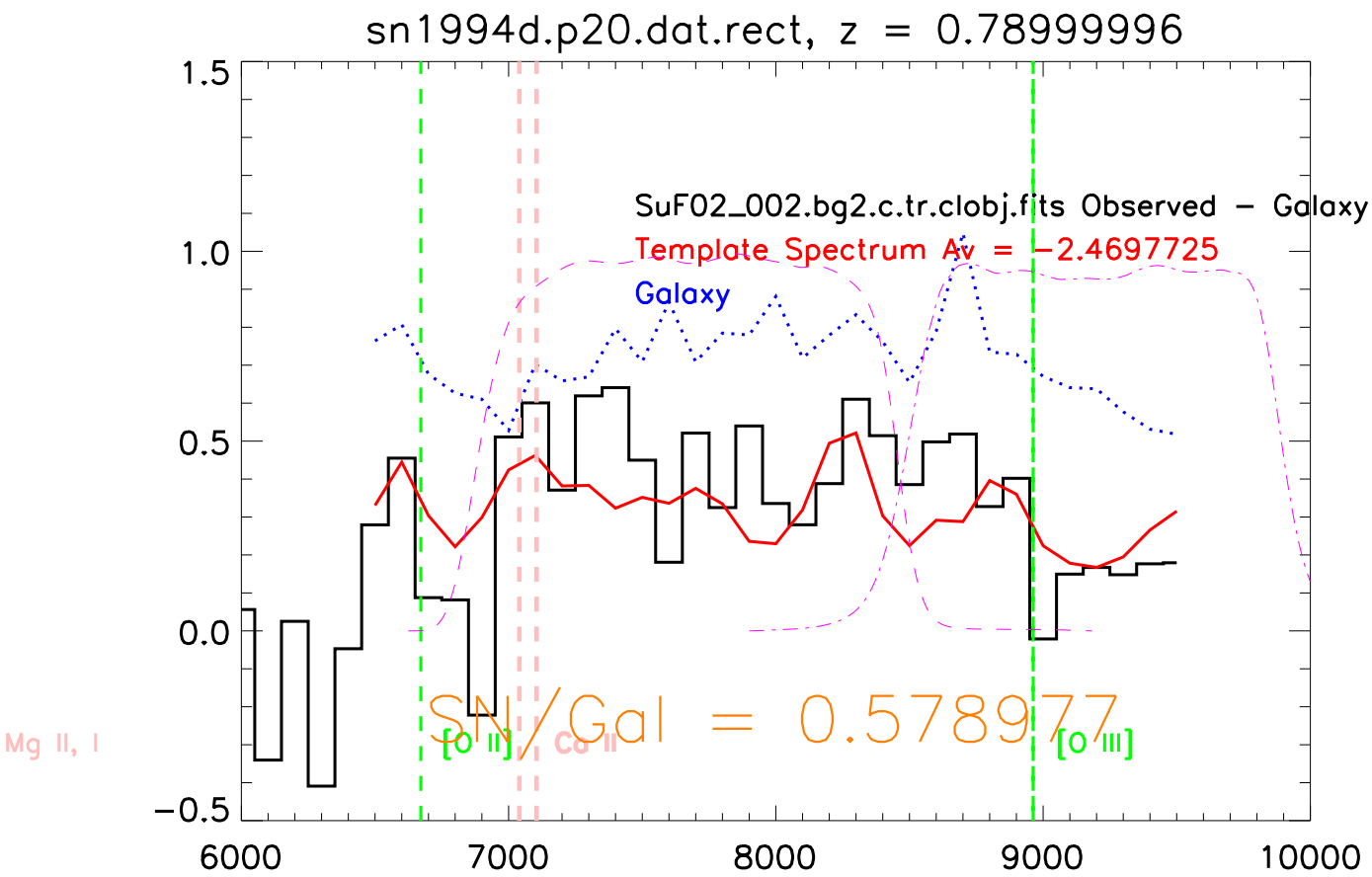
Mg II, I

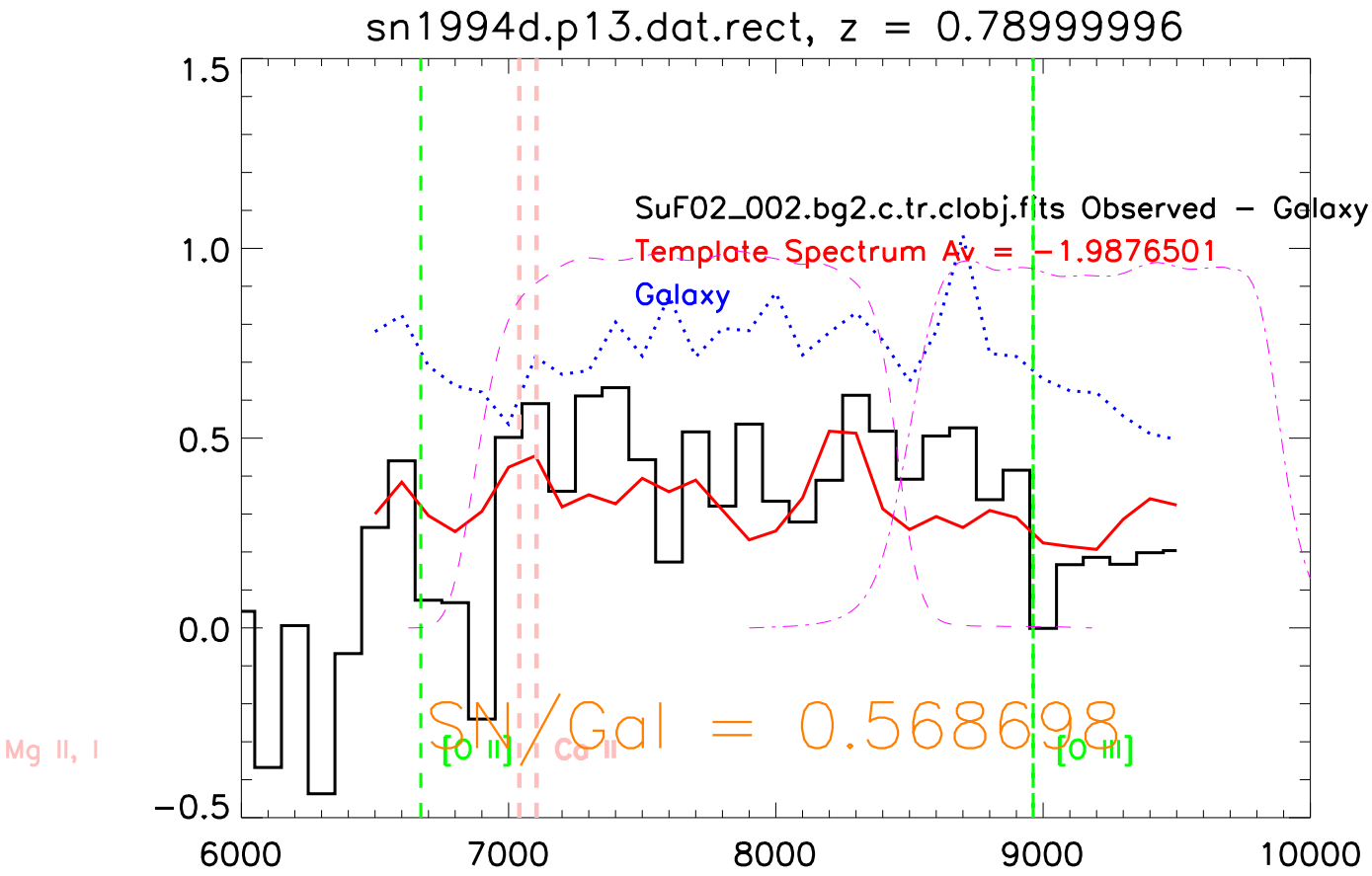

sn1998bu.p11.dat.rect, z = 0.78999996
SuF02_002.bg2.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −5.5116261
Galaxy
SN/Gal = 0.399385
[O II]
Ca II
[O III]
Mg II, I
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

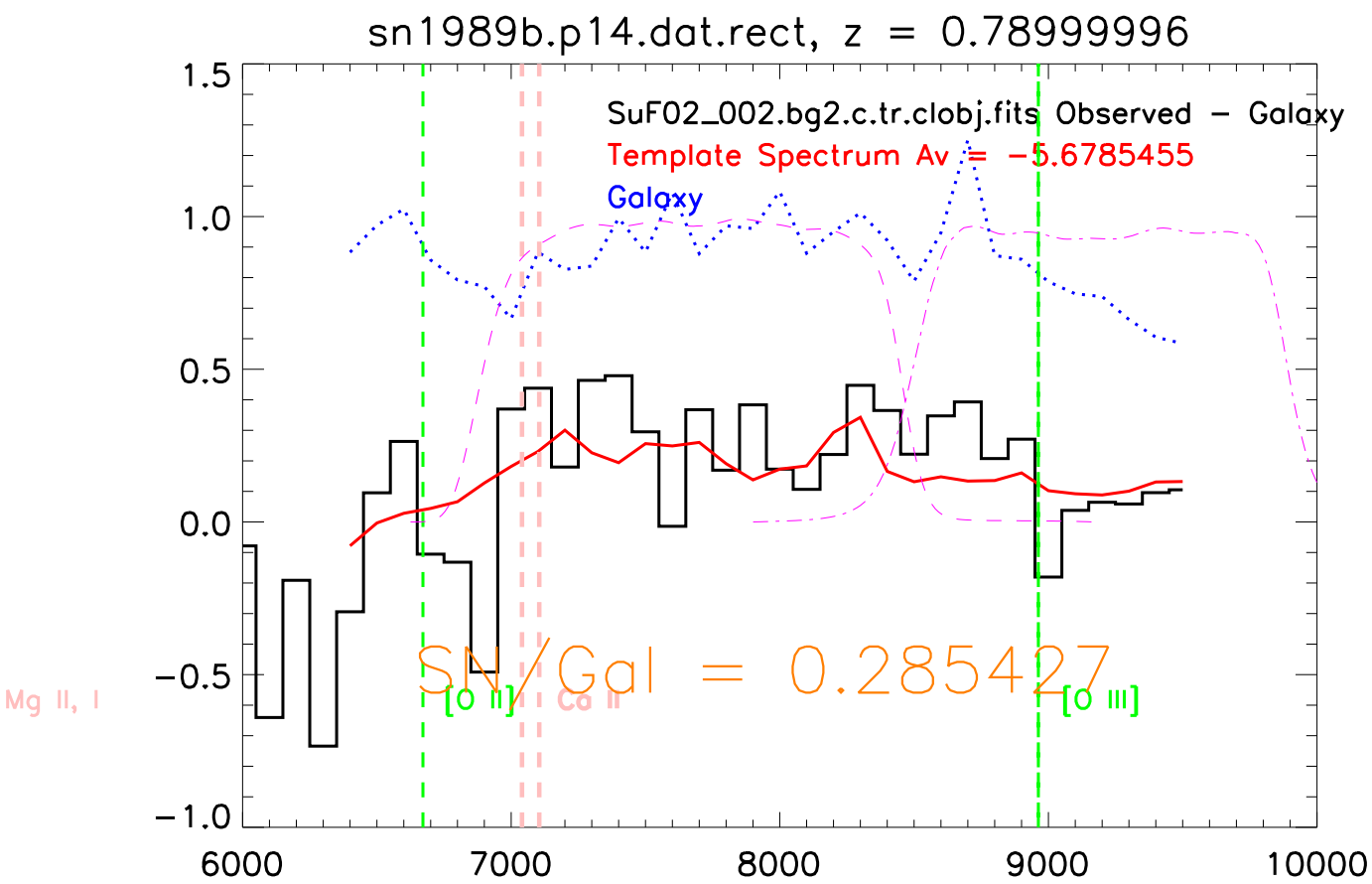

sn1994d.p18.dat.rect, z = 0.78999996
SuF02_002.bg2.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −2.7416984
Galaxy
SN/Gal = 0.580531
[O II]
Ca II
[O III]
Mg II, I
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

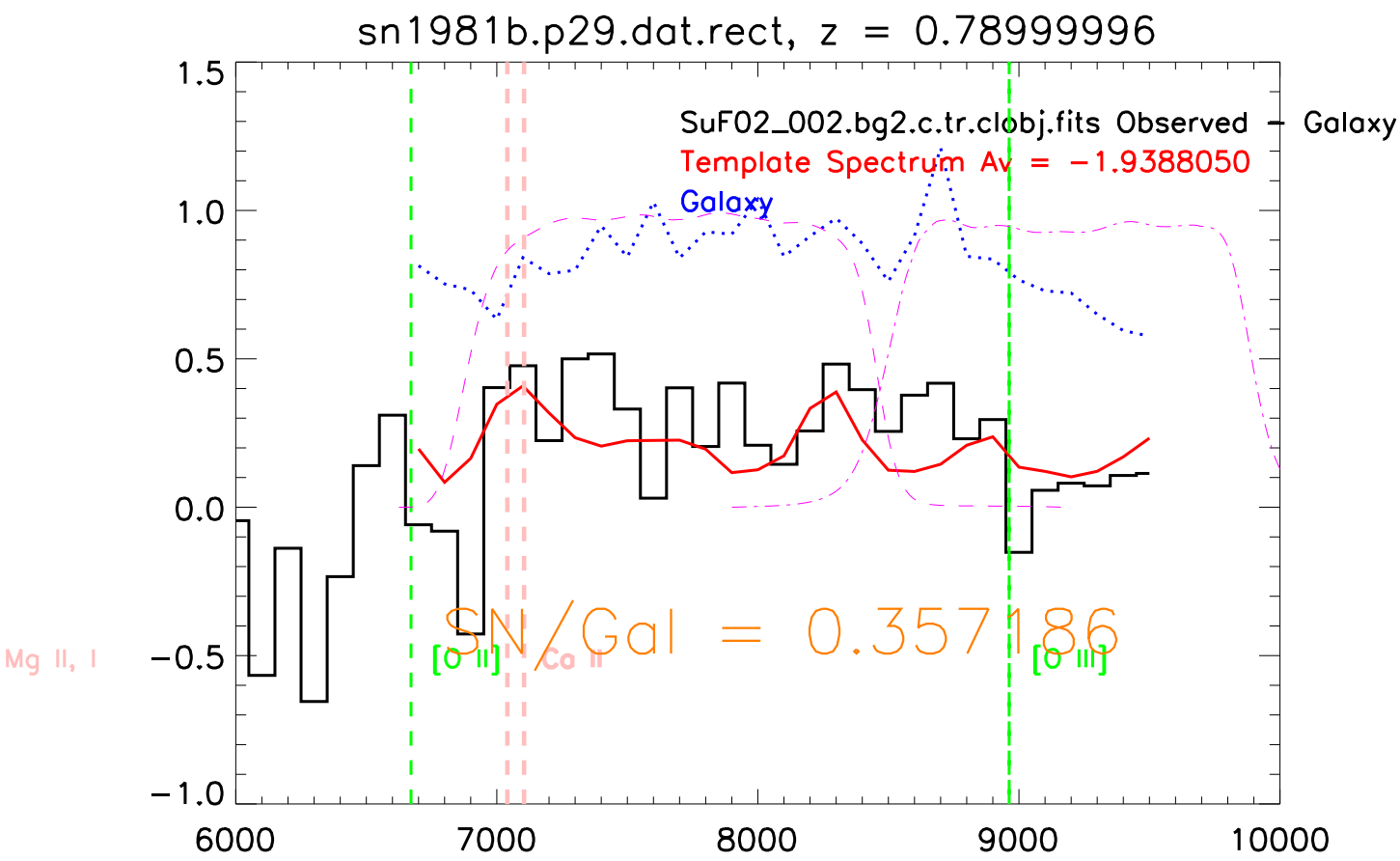

sn1994d.m08.dat.rect, z = 0.81999999
SuF02_002.bg2.c.tr.dlobj.fits Observed − Galaxy
Template Spectrum Av = 1.2557144
Galaxy
SN/Gal = 0.532946
Mg II, I
[O II]
Co II
[O III]
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000

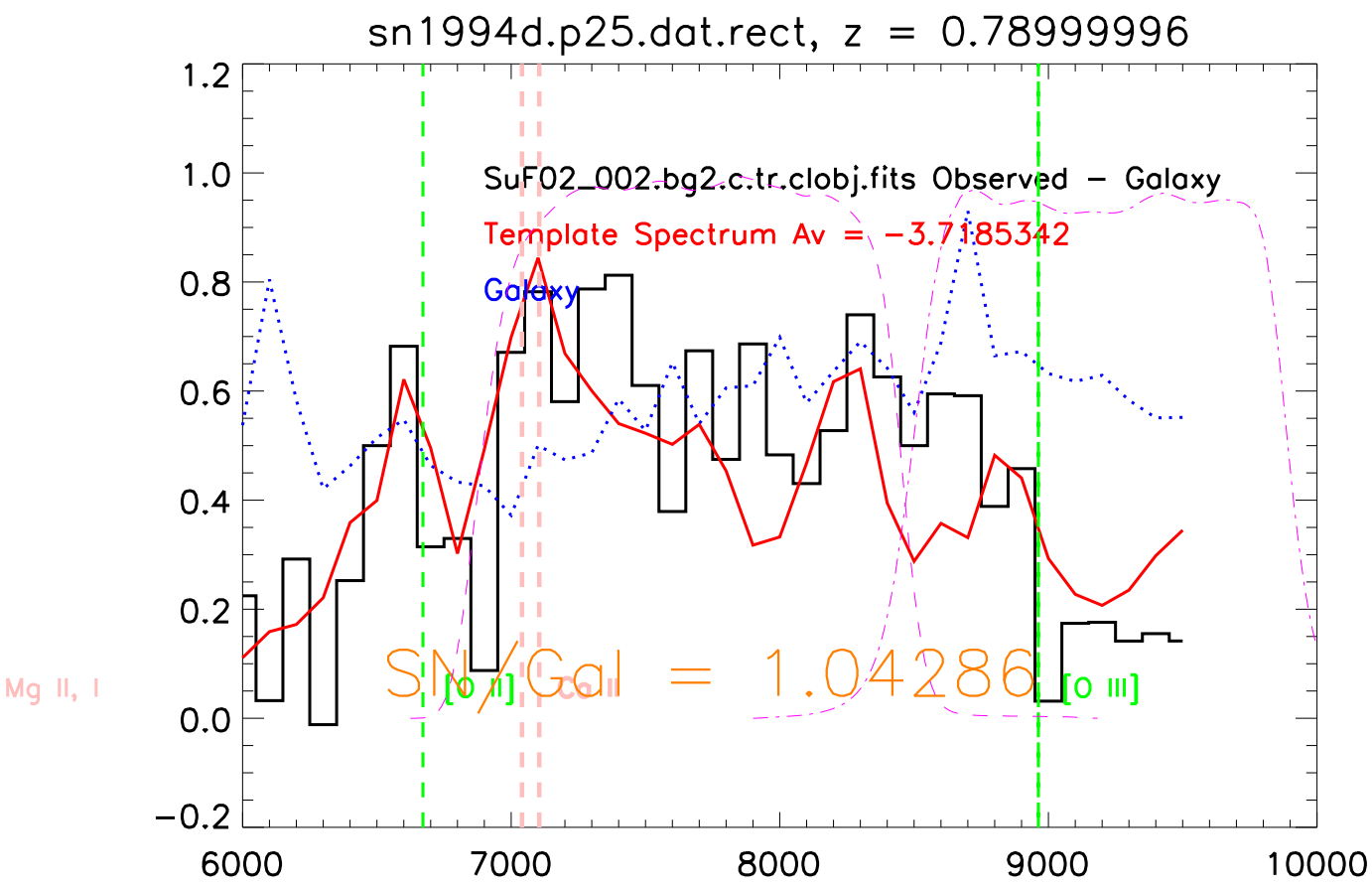

sn1992a.p03.dat.rect, z = 0.78999996
SuF02_002.bg2.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = 0.13642918
Galaxy
SN/Gal = 0.504765
[O II]
Ca II
[O III]
Mg II, I
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

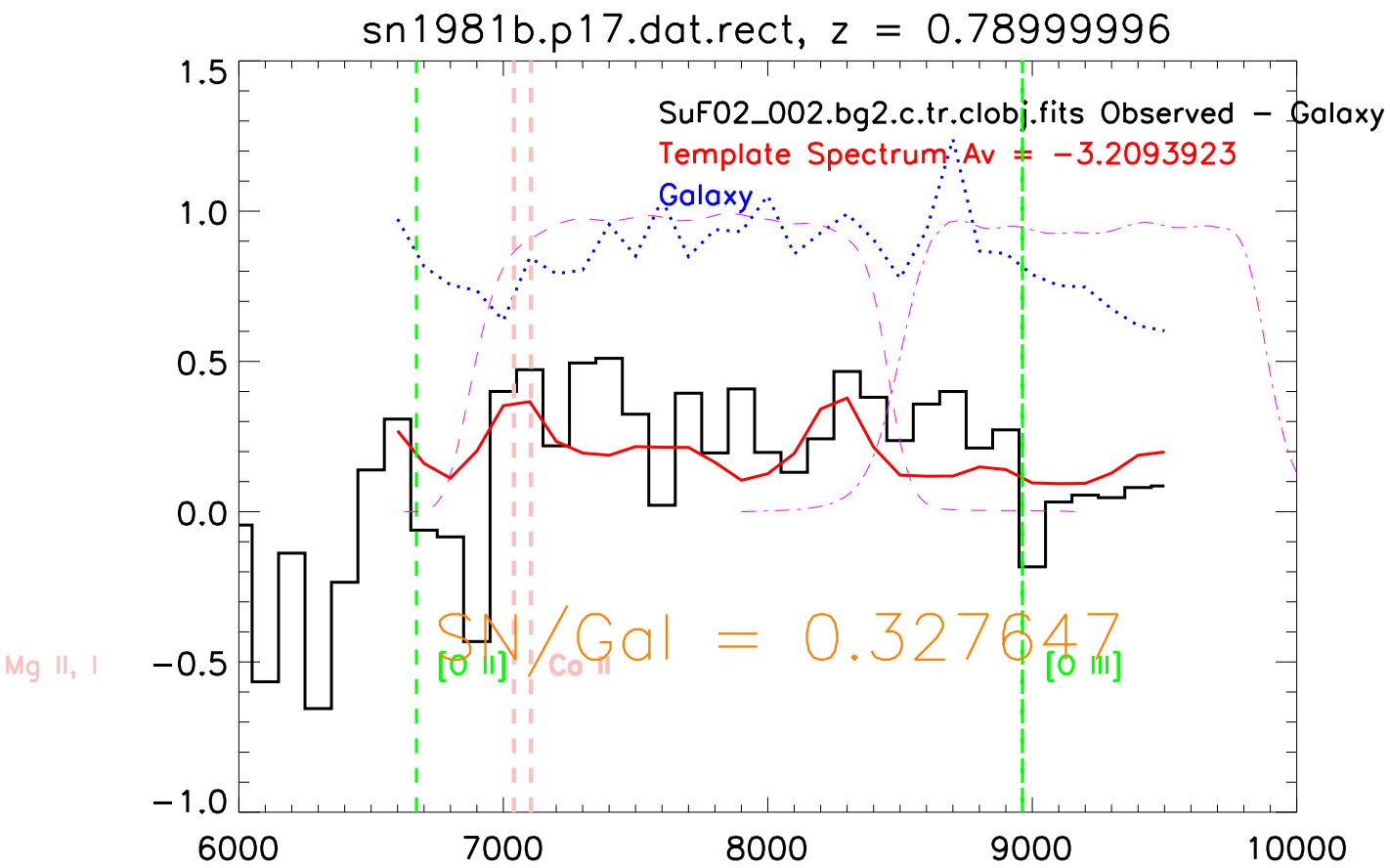

sn1994d.p20.dat.rect, z = 0.78999996
SuF02_002.bg2.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = −2.4697725
Galaxy
SN/Gal = 0.578977
[O II]
Ca II
[O III]
Mg II, I
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

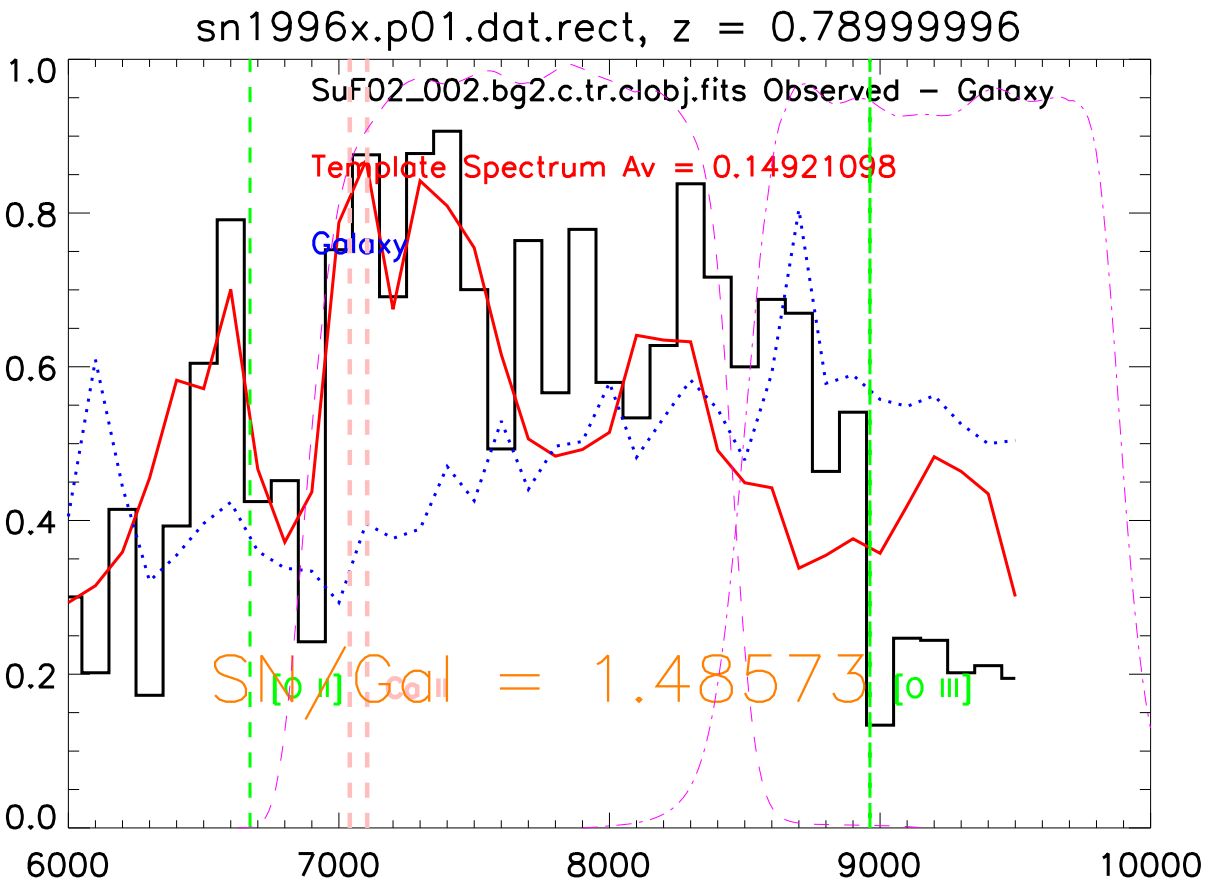

sn1994d.p13.dat.rect, z = 0.78999996
SuF02_002.bg2.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −1.9876501
Galaxy
S/N Gal = 0.568698
Mg II, I
[O II]
Ca II
[O III]
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

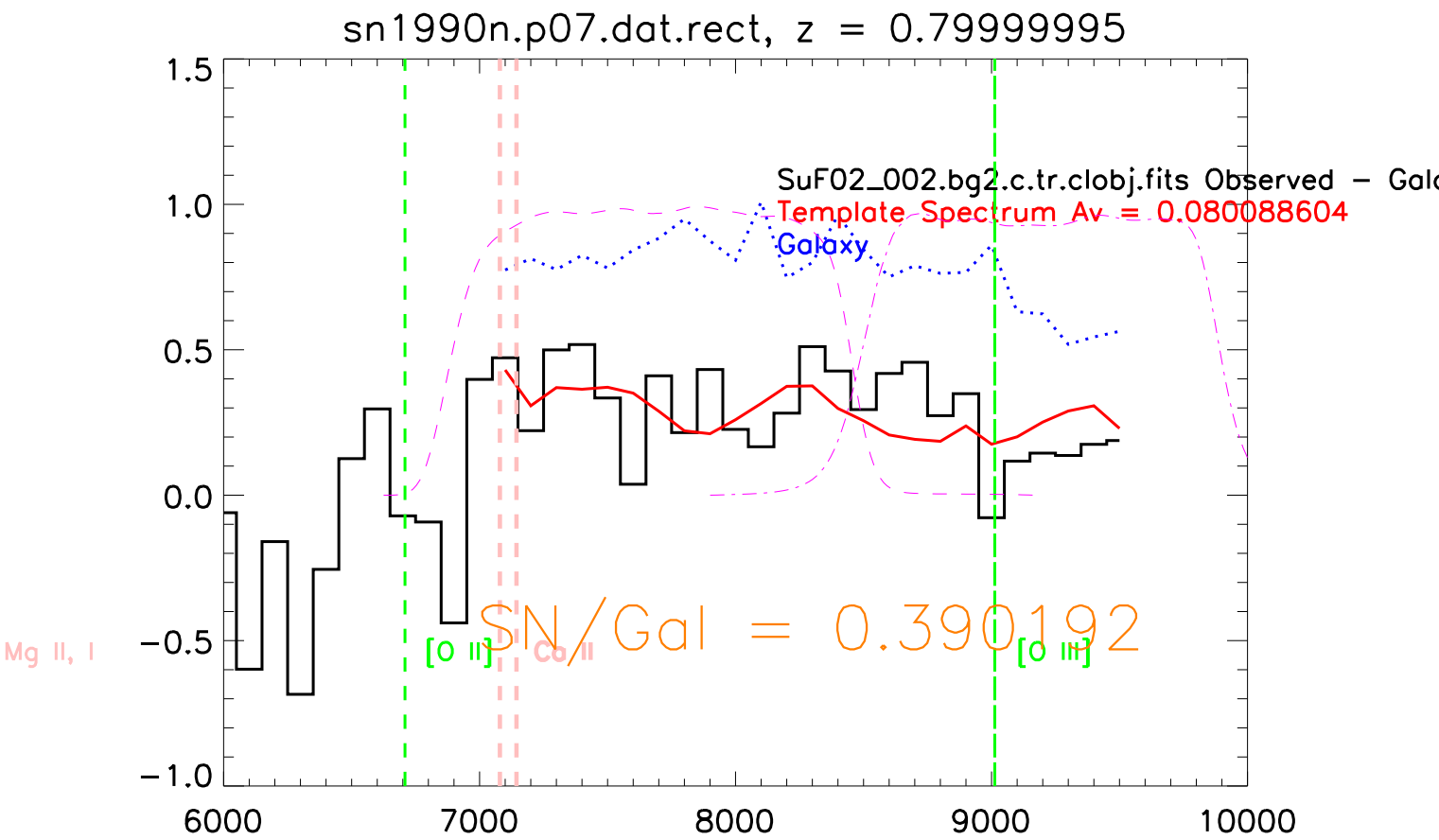

sn1989b.p14.dat.rect, z = 0.78999996
SuF02_002.bg2.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −5.6785455
Galaxy
SN/Gal = 0.285427
[O II]
Ca II
[O III]
Mg II, I
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000

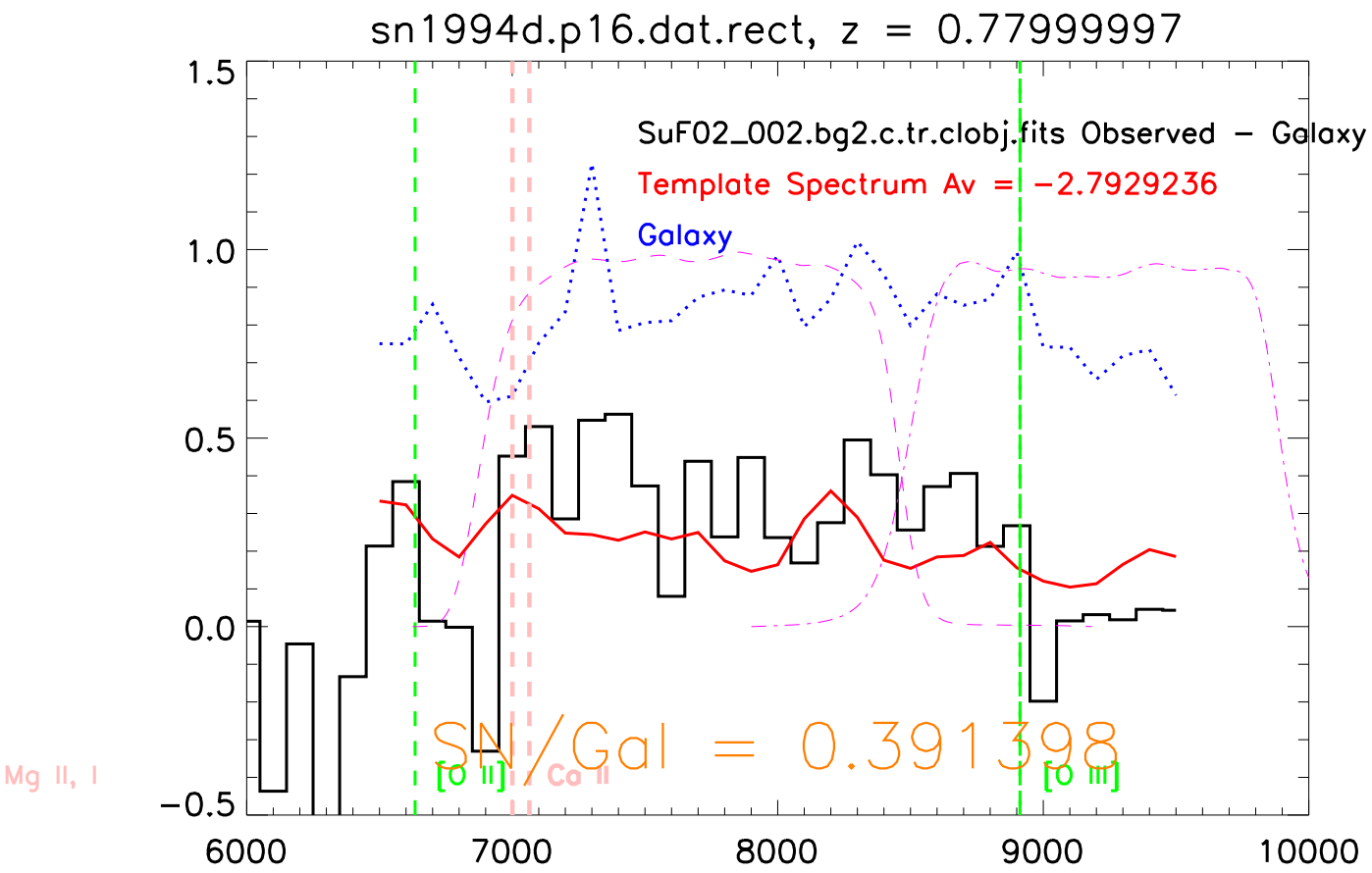

sn1981b.p29.dat.rect, z = 0.78999996
SuF02_002.bg2.c.tr.clobj.fits Observed
Galaxy
Template Spectrum Av = −1.9388050
Galaxy
SN/Gal = 0.357186
Mg II, I
[O II]
Ca II
[O III]
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000

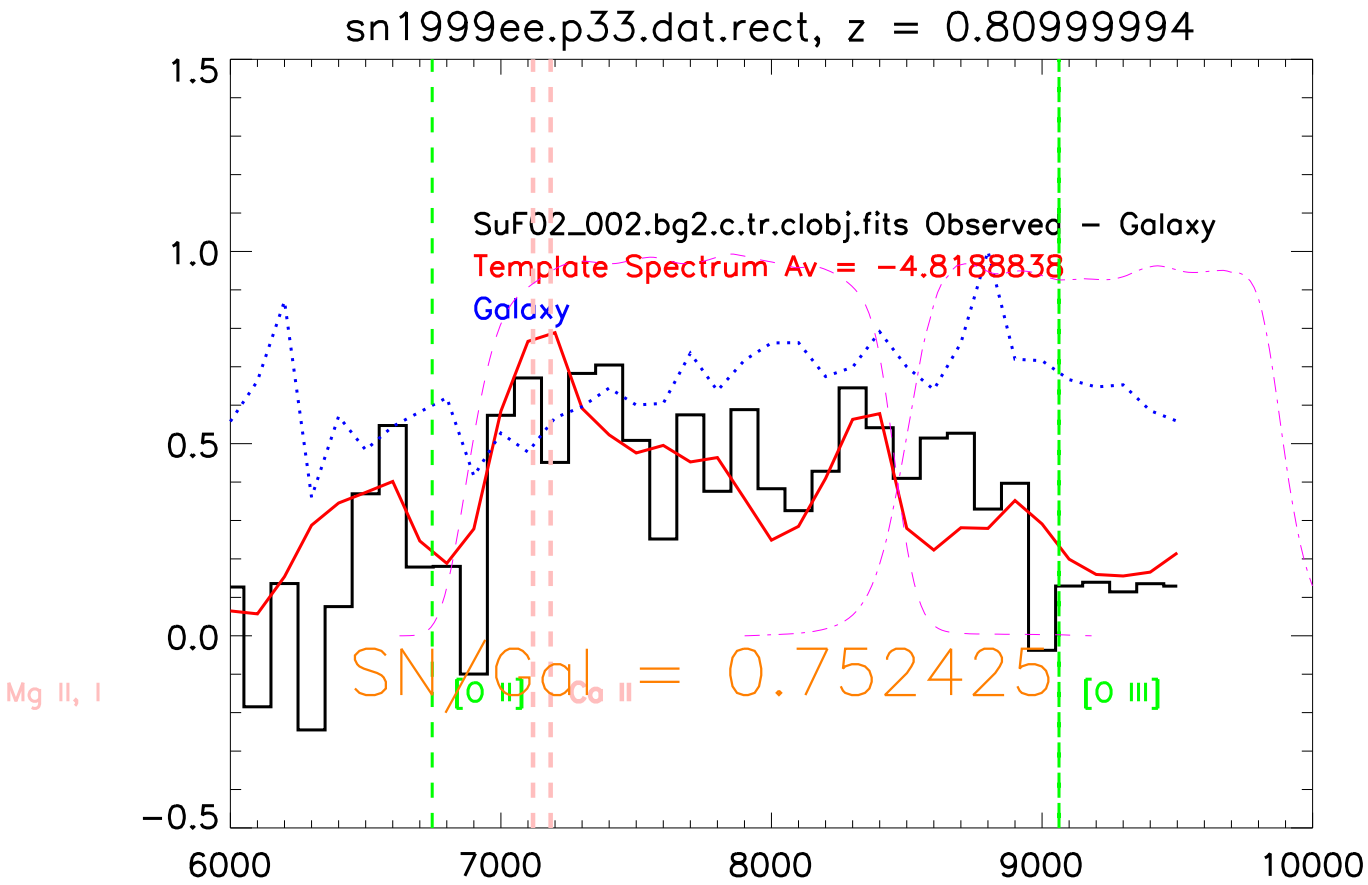

sn1994d.p25.dat.rect, z = 0.78999996
SuF02_002.bg2.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = -3.7185342
Galaxy
SN/Gal = 1.04286
[O II]
[O III]
Mg II, I
1.2
1.0
0.8
0.6
0.4
0.2
0.0
-0.2
6000
7000
8000
9000
10000

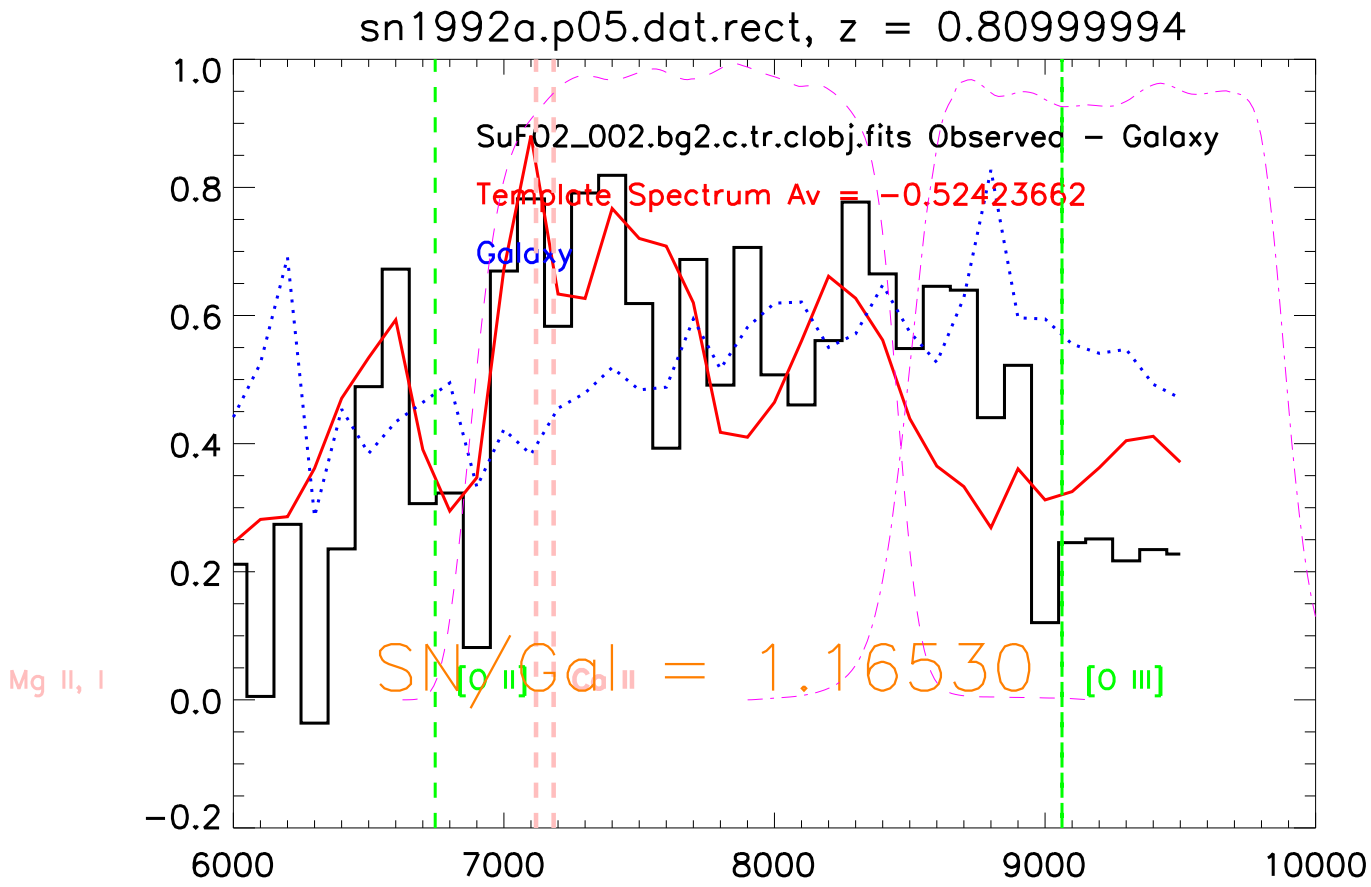

sn1981b.p17.dat.rect, z = 0.78999996
SuF02_002.bg2.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −3.2093923
Galaxy
SN/Gal = 0.327647
[O II]
Ca II
[O III]
Mg II, I
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000

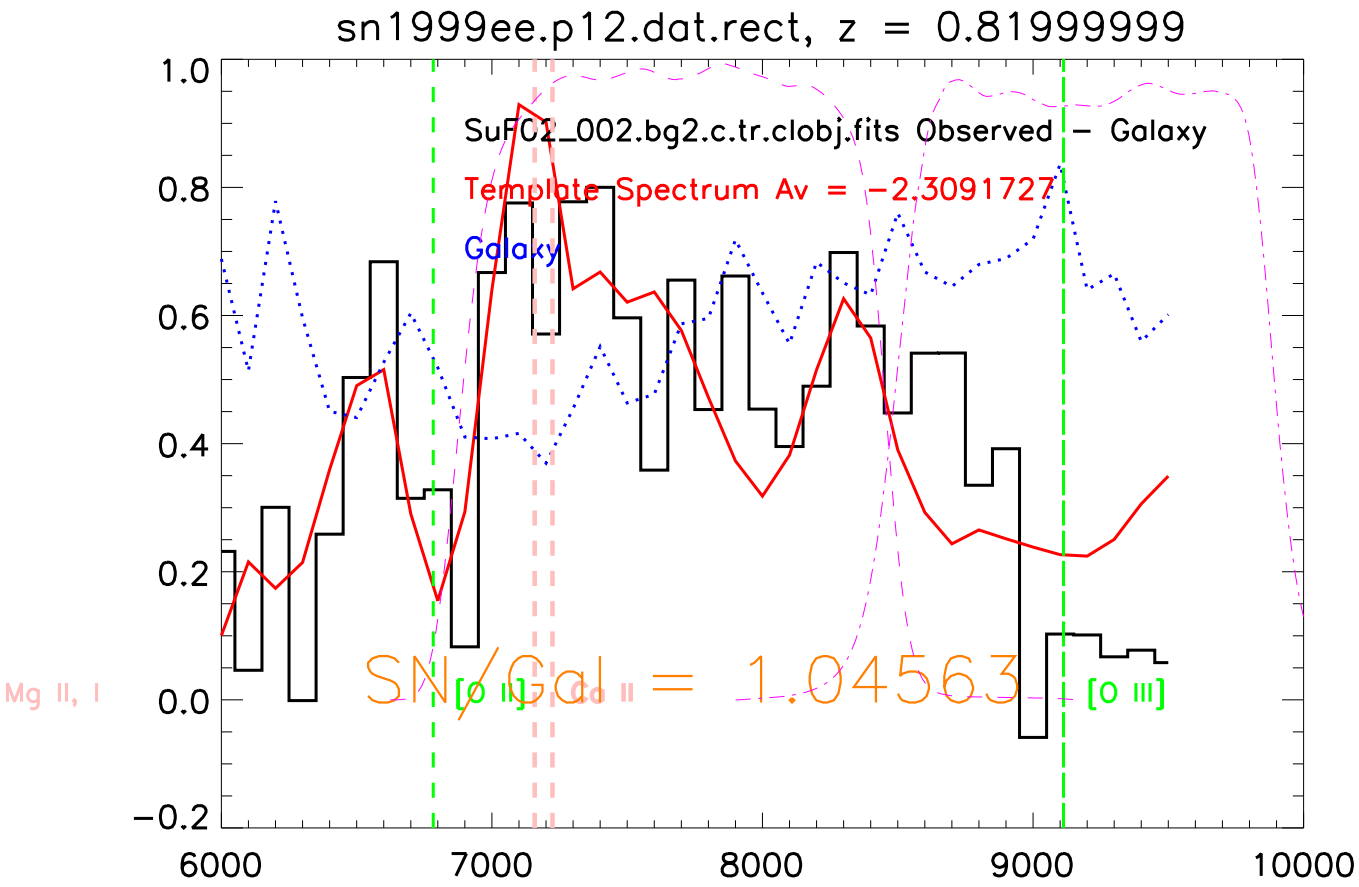

sn1996x.p01.dat.rect, z = 0.78999996
SuF02_002.bg2.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = 0.14921098
Galaxy
SN/Gal = 1.48573
[O II]
Ca II
[O III]
Mg II, I
1.0
0.8
0.6
0.4
0.2
0.0
6000
7000
8000
9000
10000

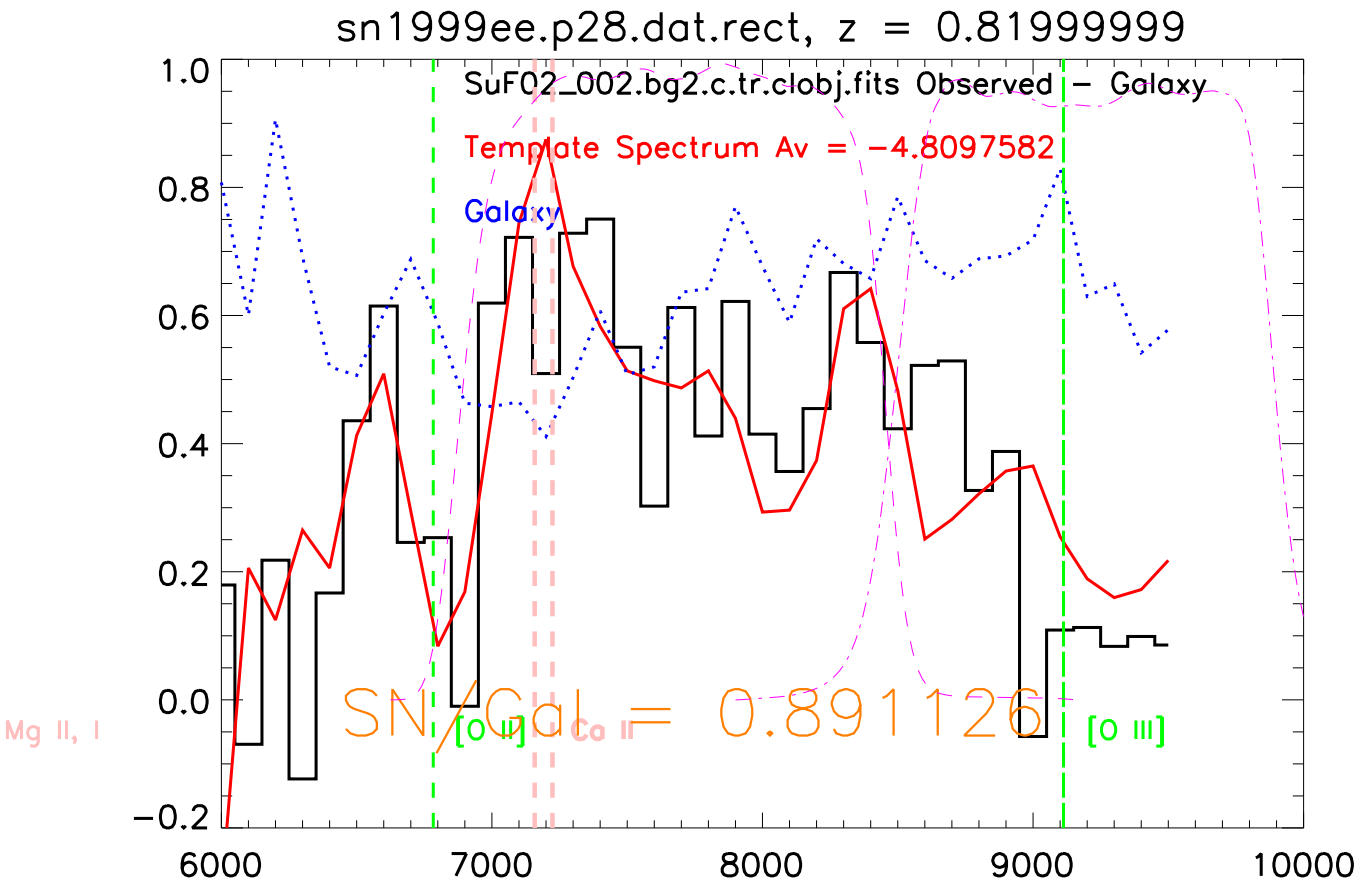

sn1990n.p07.dat.rect, z = 0.79999995
SuF02_002.bg2.c.tr.clobj.fits Observed – Gala
Template Spectrum Av = 0.080088604
Galaxy
SN/Gal = 0.390192
[O II]
Ca II
[O III]
Mg II, I
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000

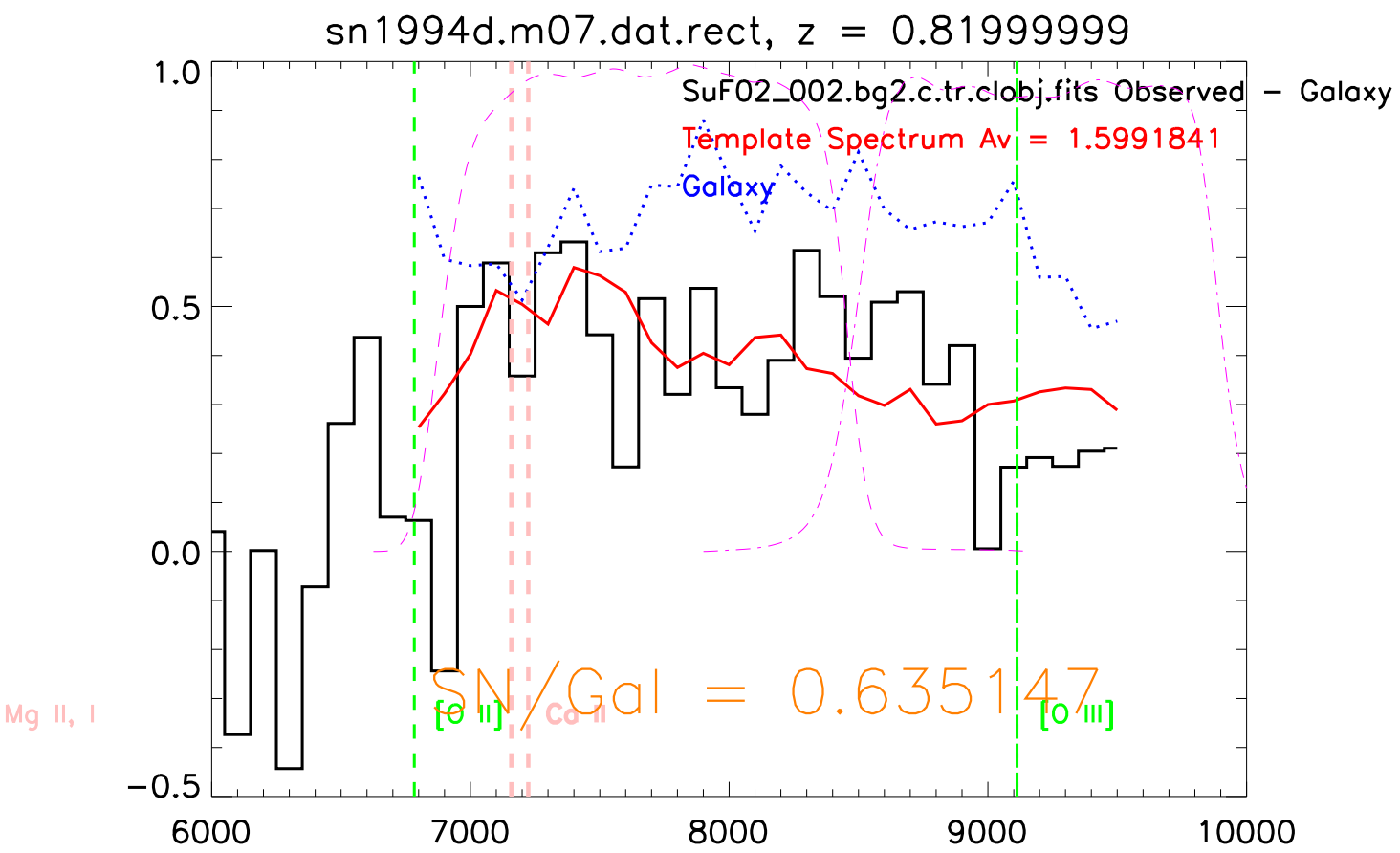

sn1994d.p16.dat.rect, z = 0.77999997
SuF02_002.bg2.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −2.7929236
Galaxy
SN/Gal = 0.391398
[O II]
Ca II
[O III]
Mg II, I
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

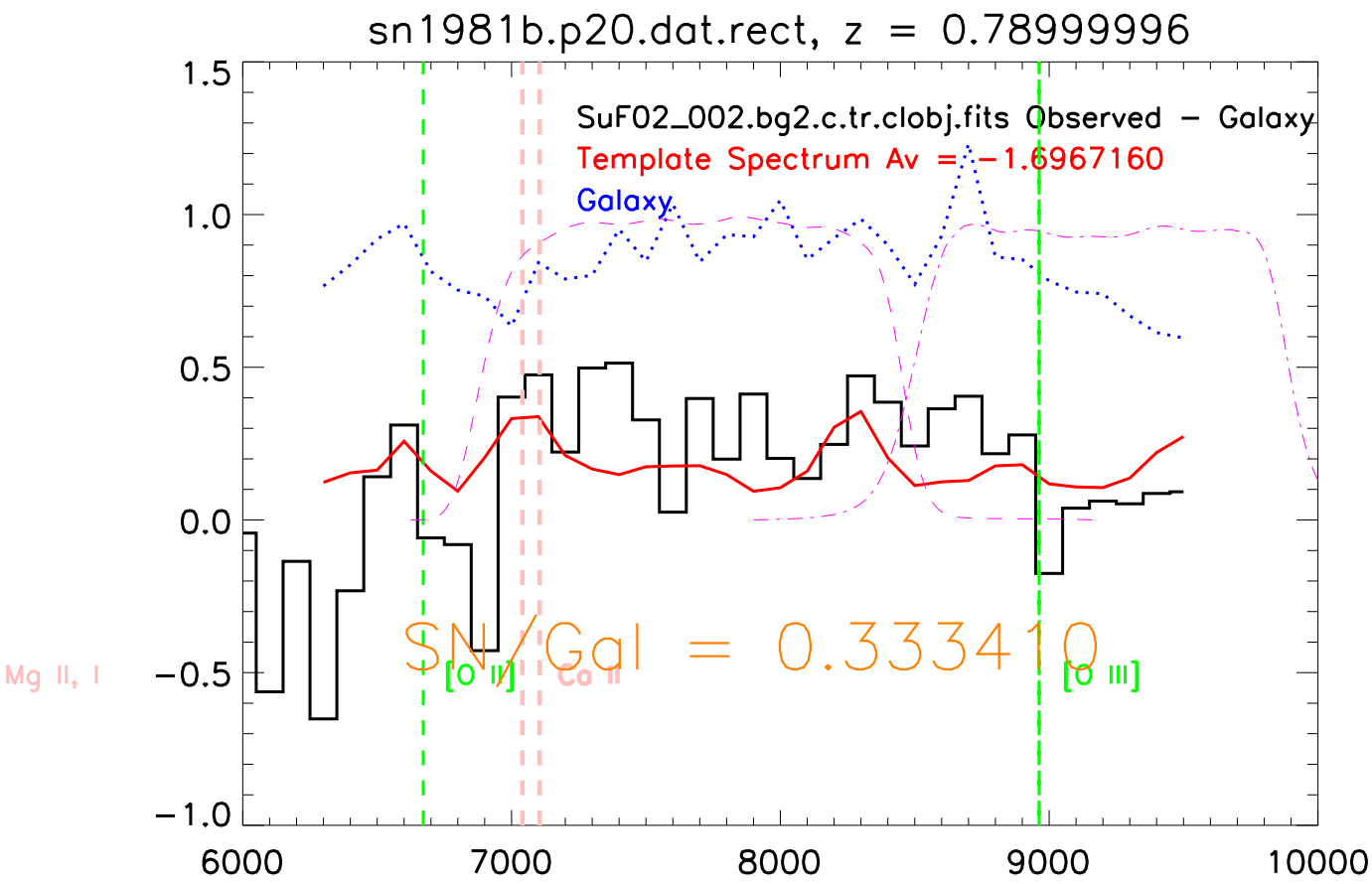

sn1999ee.p33.dat.rect, z = 0.80999994
SuF02_002.bg2.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −4.8188838
Galaxy
SN / Gal = 0.752425
Mg II, I
[O II]
Ca II
[O III]
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

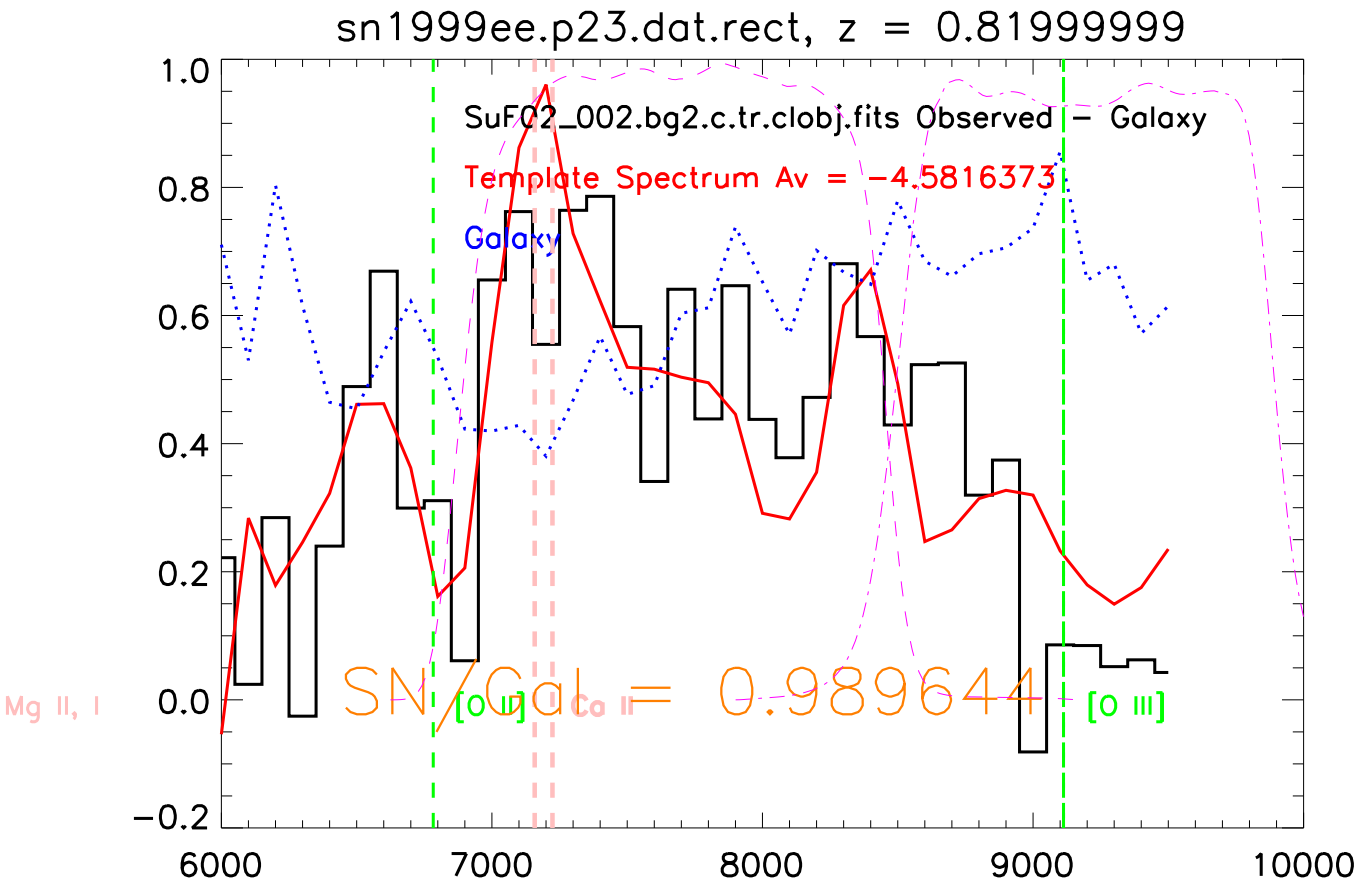

sn1992a.p05.dat.rect, z = 0.80999994
SuF02_002.bg2.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = -0.52423662
Galaxy
SN/Gal = 1.16530
Mg II, I
[O II]
Ca II
[O III]
1.0
0.8
0.6
0.4
0.2
0.0
-0.2
6000
7000
8000
9000
10000

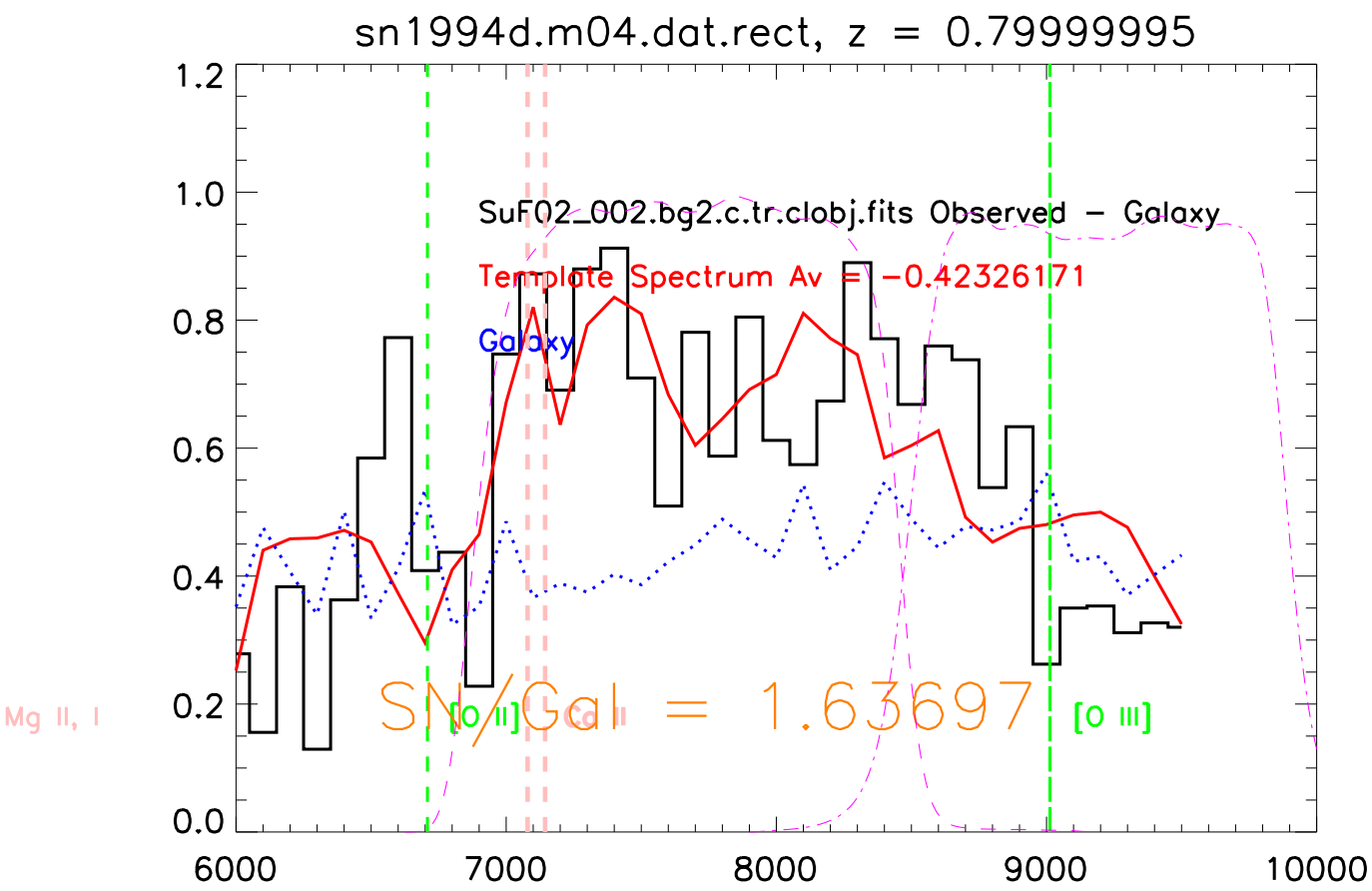

sn1999ee.p12.dat.rect, z = 0.81999999
SuFC2_002.bg2.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = -2.3091727
Galaxy
SN/Gal = 1.04563
Mg II, I
[O II]
Ca II
[O III]
1.0
0.8
0.6
0.4
0.2
0.0
-0.2
6000
7000
8000
9000
10000

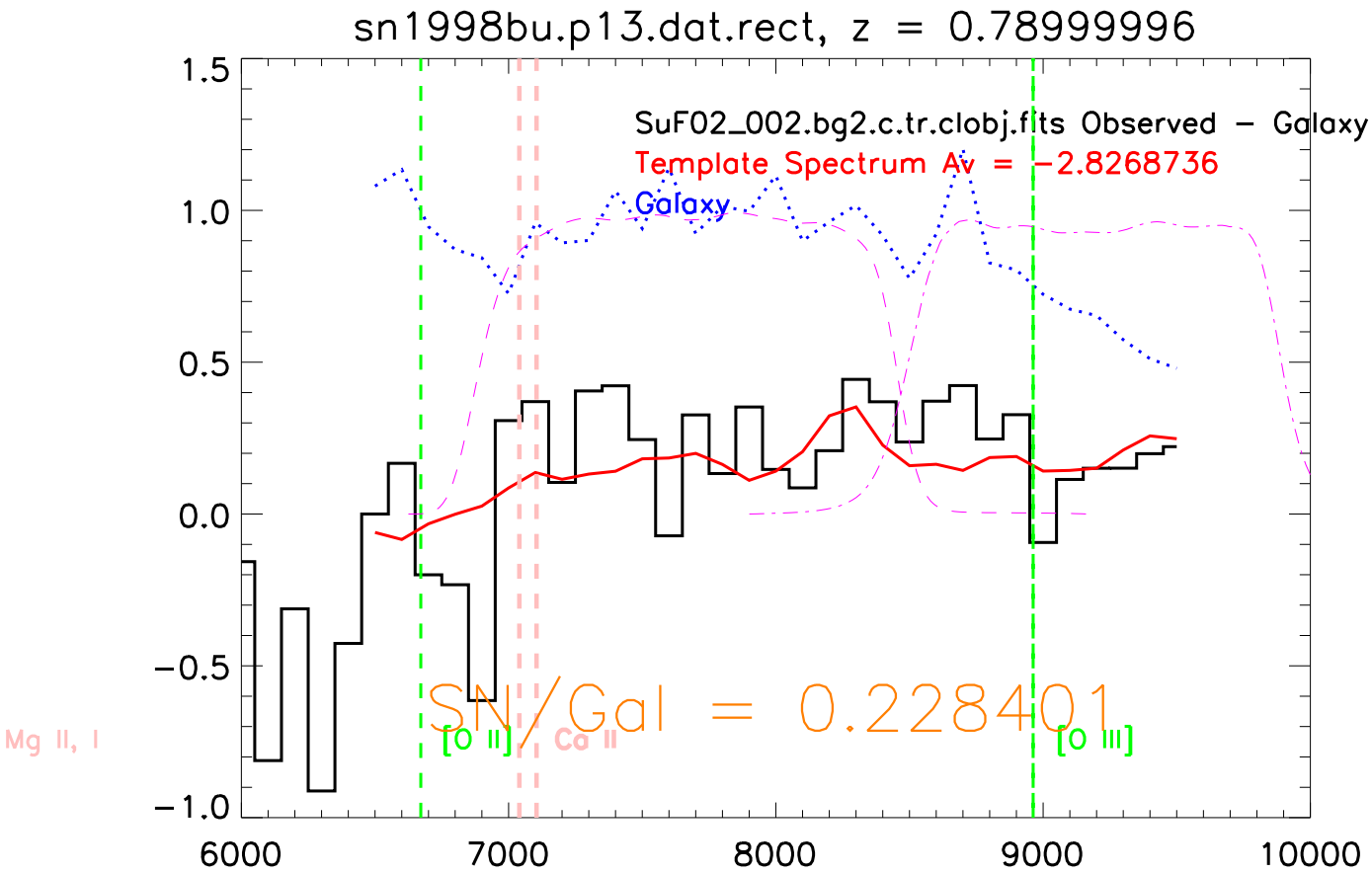

sn1999ee.p28.dat.rect, z = 0.81999999
SuF02_002.bg2.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = −4.8097582
Galaxy
SN/Gal = 0.891126
Mg II, I
[O II]
Ca II
[O III]
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
6000
7000
8000
9000
10000

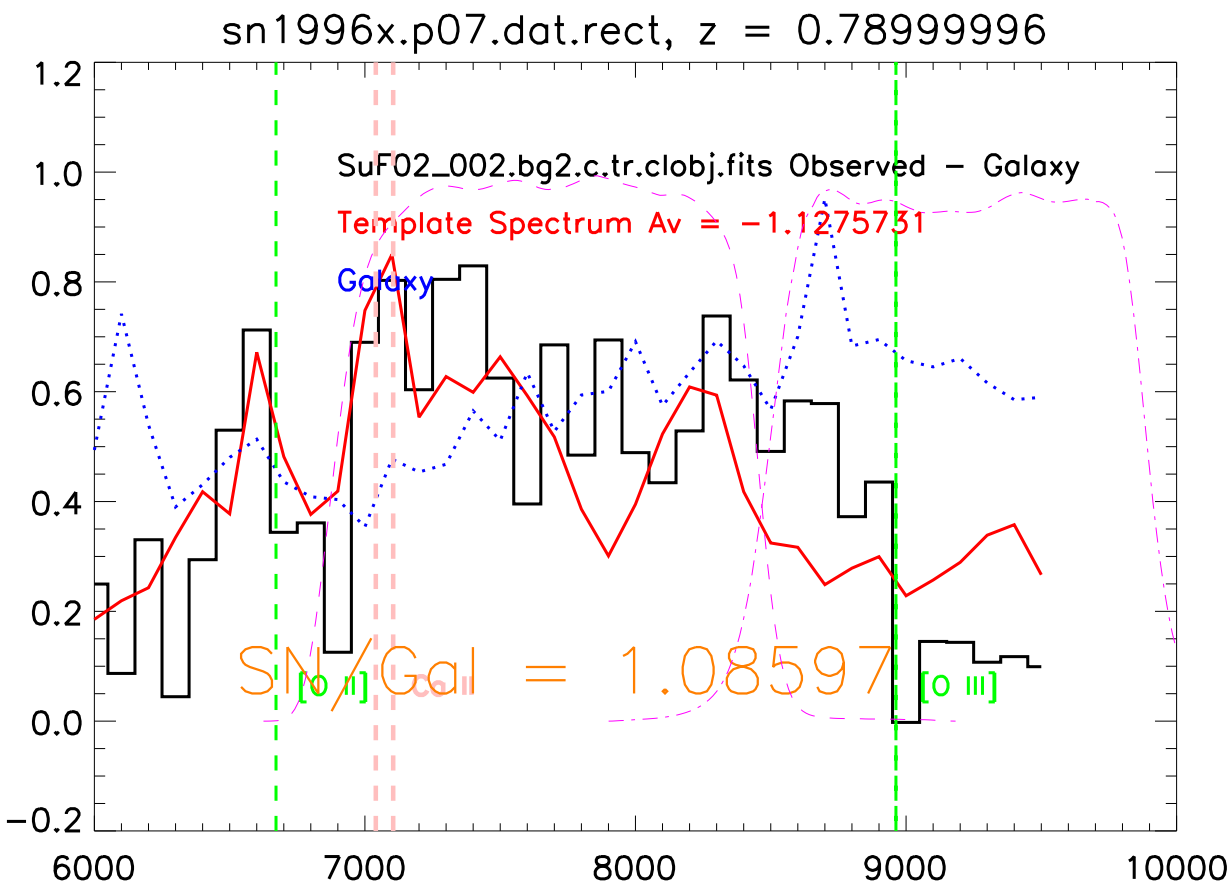

sn1994d.m07.dat.rect, z = 0.81999999
SuF02_002.bg2.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = 1.5991841
Galaxy
SN/Gal = 0.635147
[O II]
Ca II
[O III]
Mg II, I
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000


sn1981b.p20.dat.rect, z = 0.78999996
SuF02_002.bg2.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −1.6967160
Galaxy
SN/Gal = 0.333410
[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

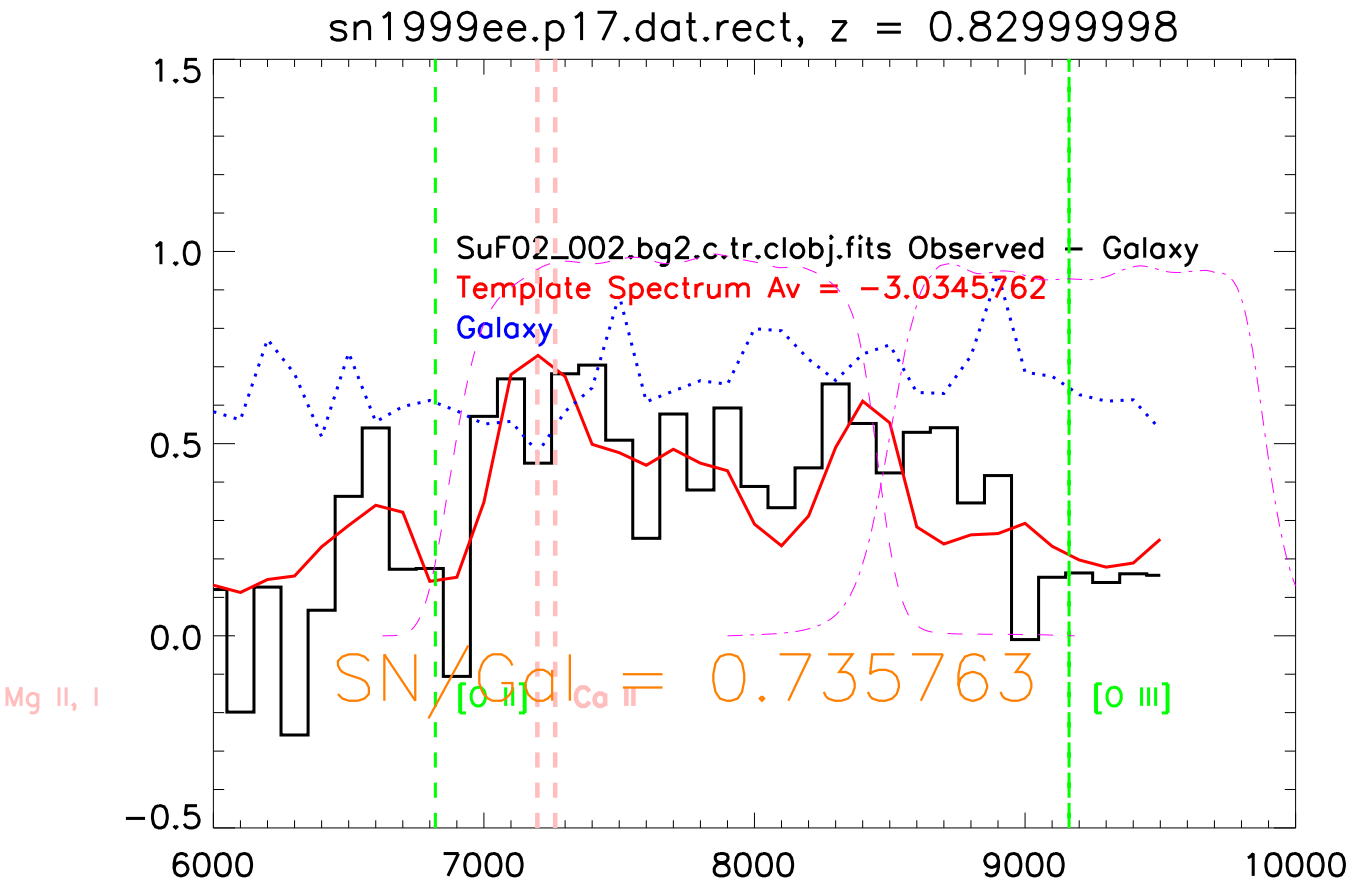

sn1999ee.p23.dat.rect, z = 0.81999999
SuF02_002.bg2.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = -4.5816373
Galaxy
SN/Gal = 0.989644
Mg II, I
[O II]
Ca II
[O III]
1.0
0.8
0.6
0.4
0.2
0.0
-0.2
6000
7000
8000
9000
10000

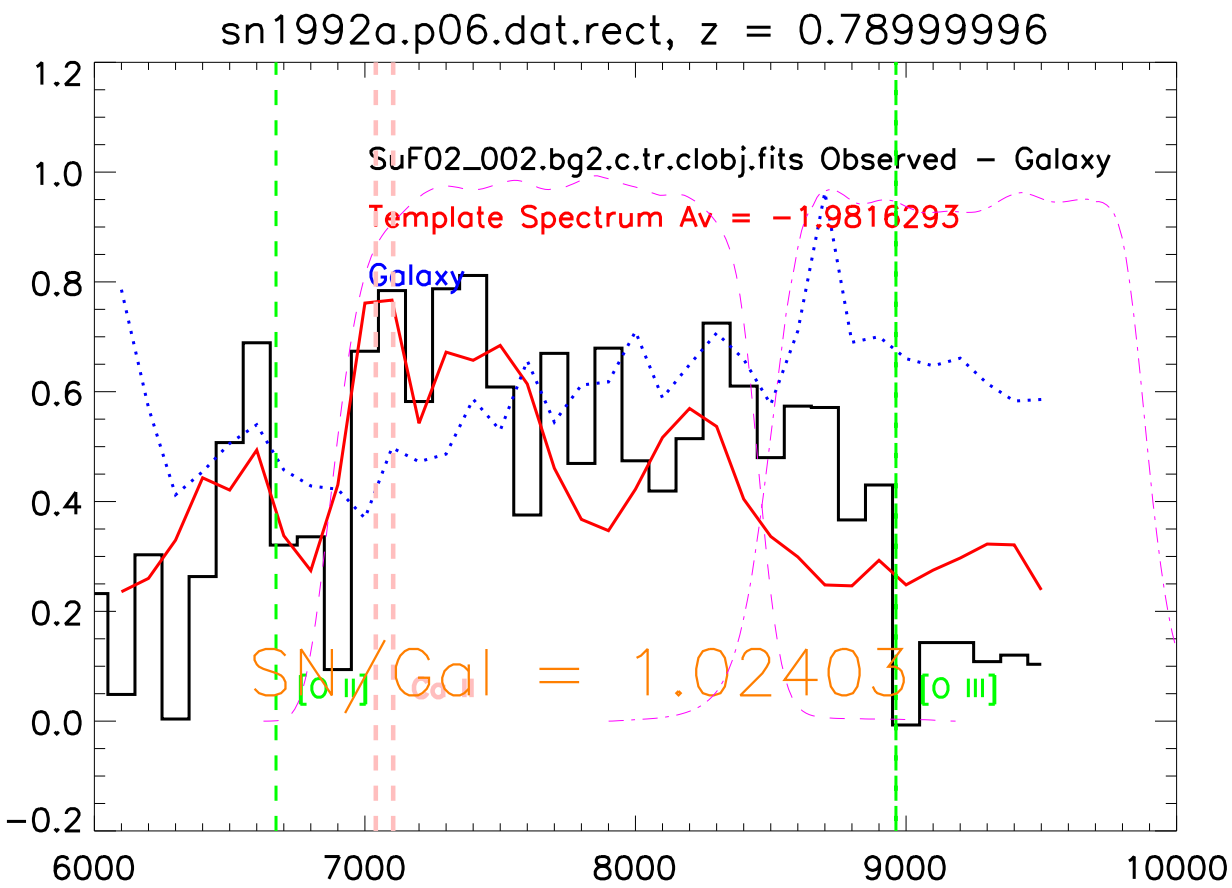

sn1994d.m04.dat.rect, z = 0.79999995
SuF02_002.bg2.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = -0.42326171
Galaxy
SN/Gal = 1.63697
[O II]
[O III]
Mg II, I
1.2
1.0
0.8
0.6
0.4
0.2
0.0
6000
7000
8000
9000
10000

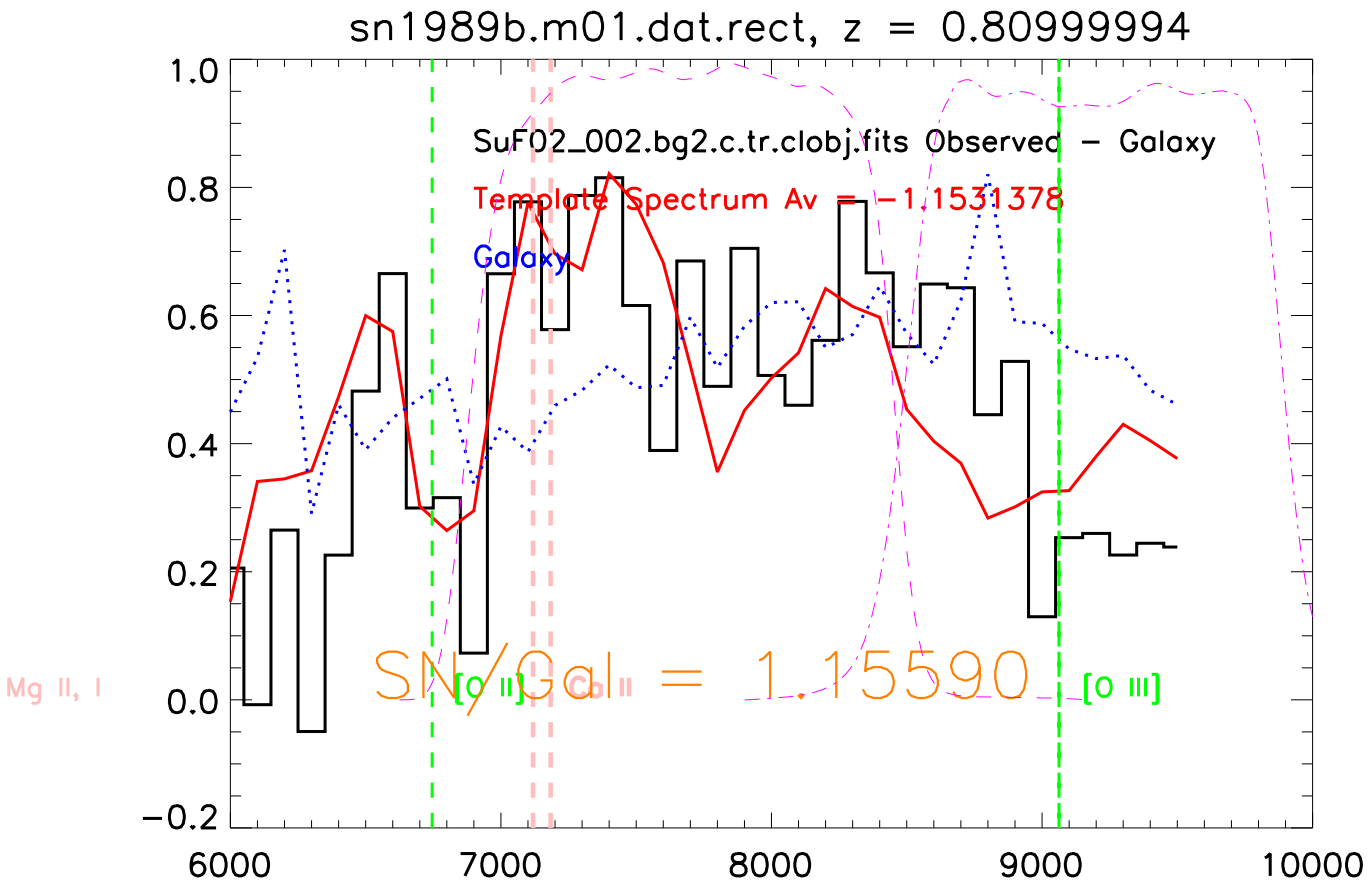

sn1998bu.p13.dat.rect, z = 0.78999996
SuF02_002.bg2.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −2.8268736
Galaxy
SN/Gal = 0.228401
[O II]
Ca II
[O III]
Mg II, I
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000

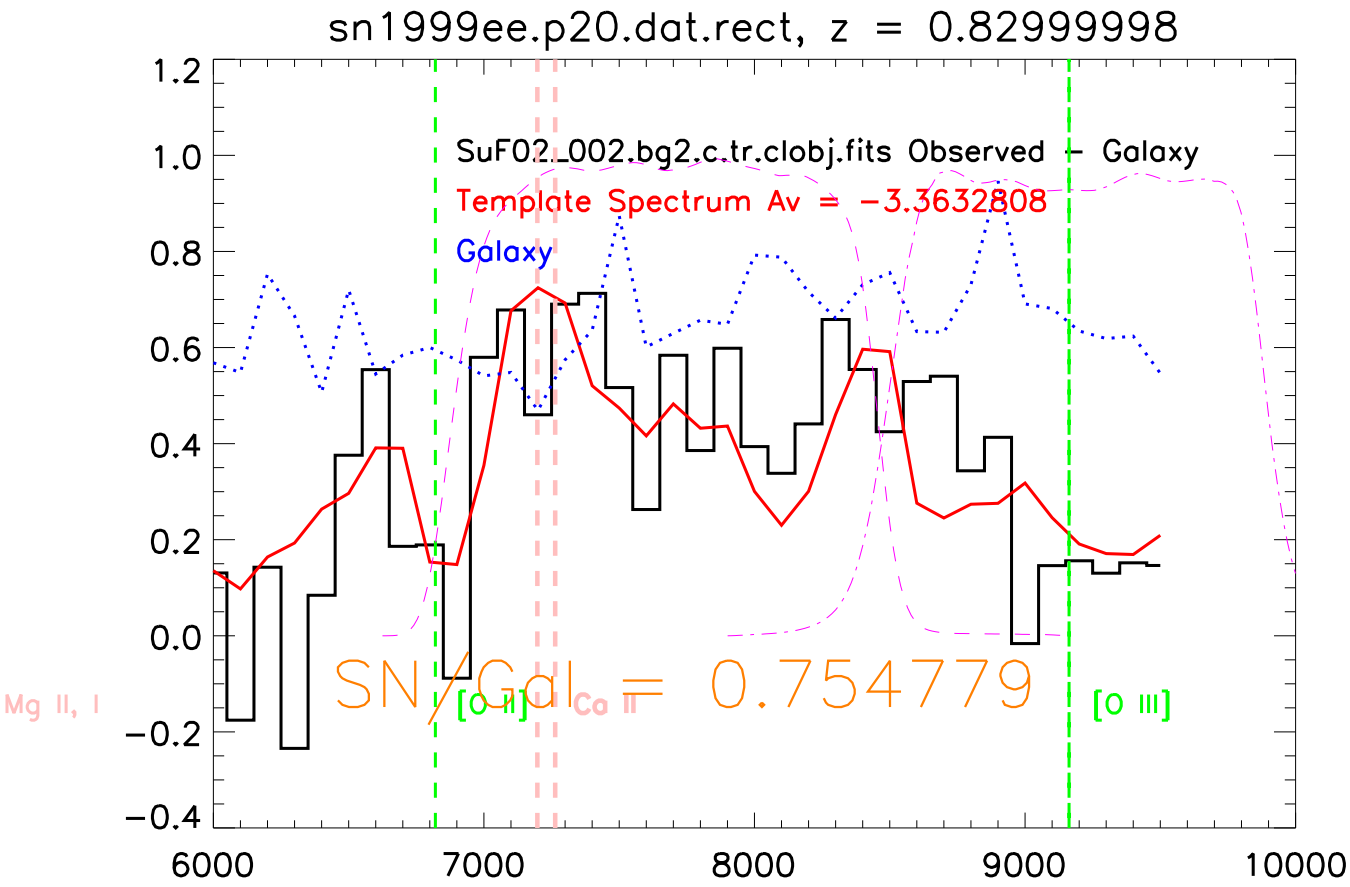

sn1996x.p07.dat.rect, z = 0.78999996
SuF02_002.bg2.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −1.1275731
Galaxy
SN/Gal = 1.08597
[O II]
[O III]
1.2
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
6000
7000
8000
9000
10000

Mg II, I


sn1999ee.p17.dat.rect, z = 0.82999998
SuF02_002.bg2.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = −3.0345762
Galaxy
SN/Gal = 0.735763
Mg II, I
[O II]
Ca II
[O III]
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000


sn1992a.p06.dat.rect, z = 0.78999996
SuF02_002.bg2.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −1.9816293
Galaxy
SN/Gal = 1.02403
[O II]
[O III]
1.2
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
6000
7000
8000
9000
10000


sn1989b.m01.dat.rect, z = 0.80999994
SuF02_002.bg2.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −1.1531378
Galaxy
SN/Gal = 1.15590
Mg II, I
[O II]
Ca II
[O III]
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
6000
7000
8000
9000
10000


sn1999ee.p20.dat.rect, z = 0.82999998
SuF02_002.bg2.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = −3.3632808
Galaxy
SN/Gal = 0.754779
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
−0.4
6000
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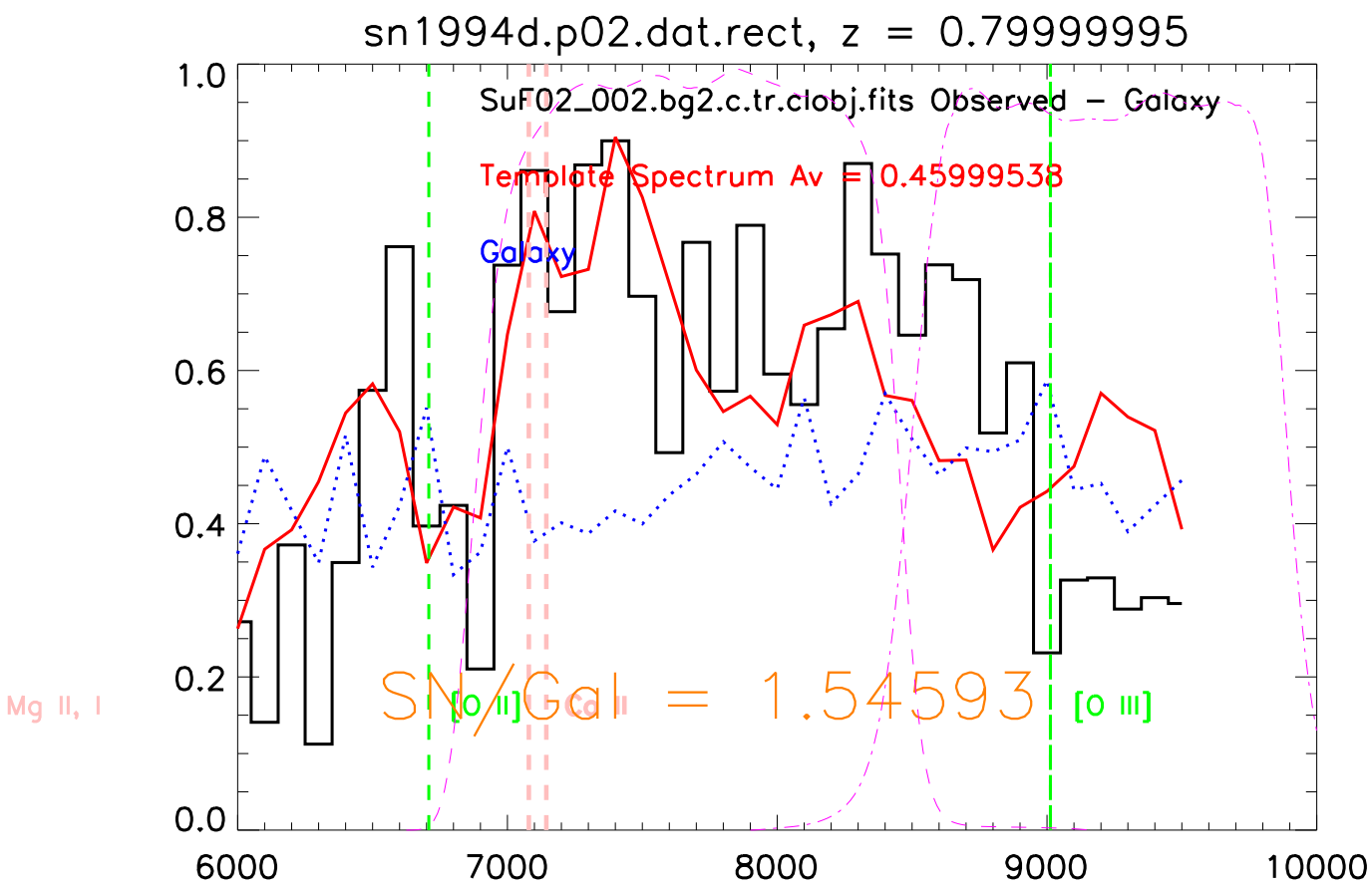
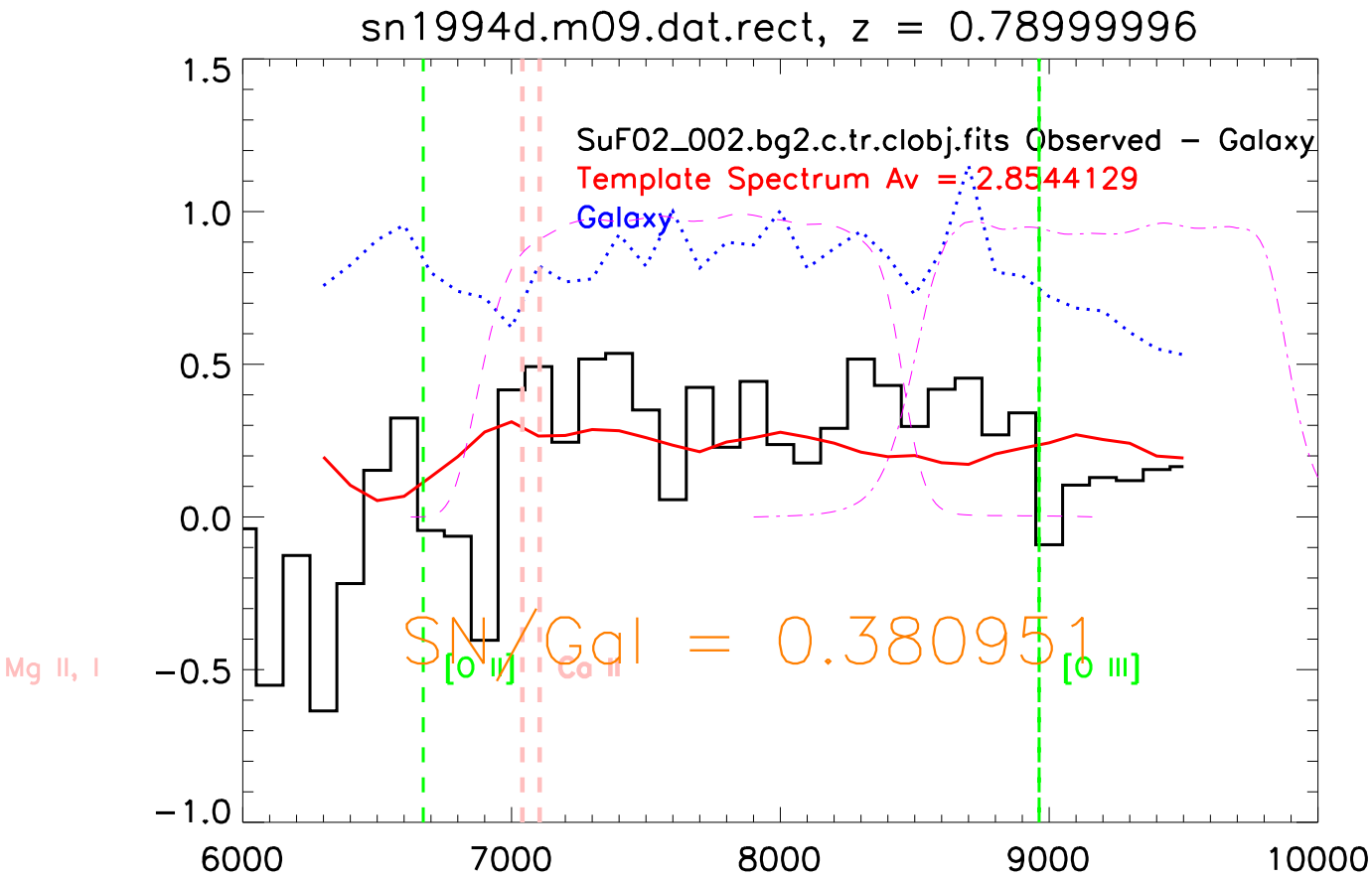
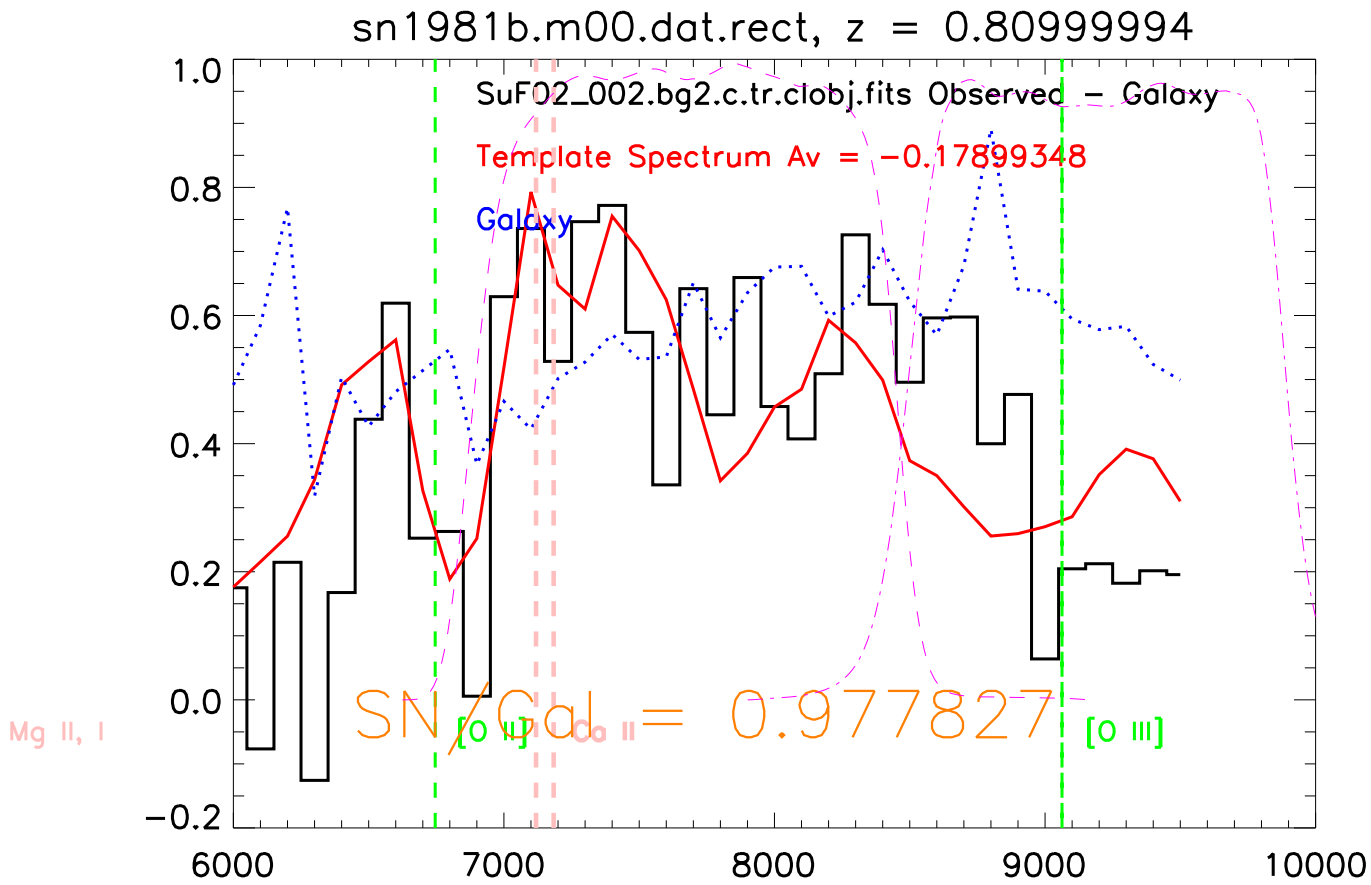
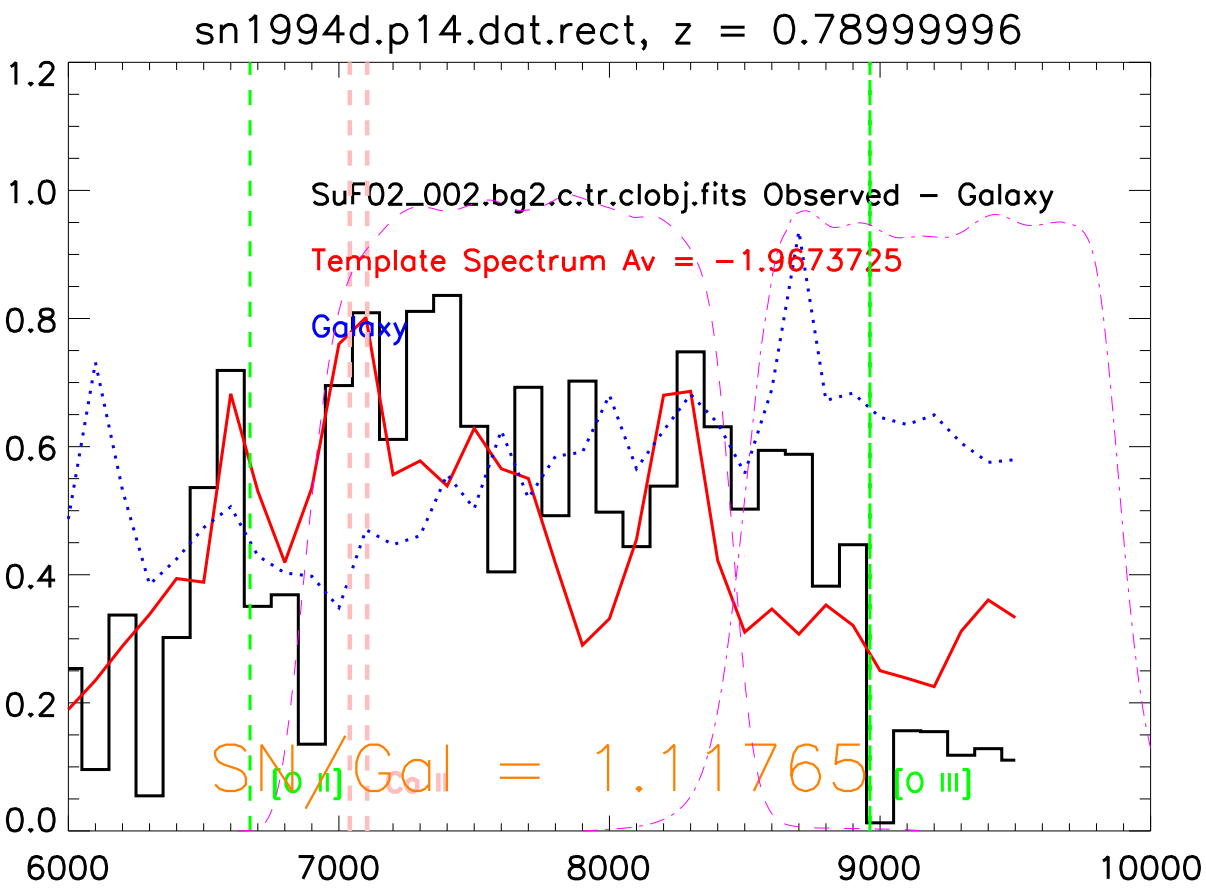
8000
9000
10000

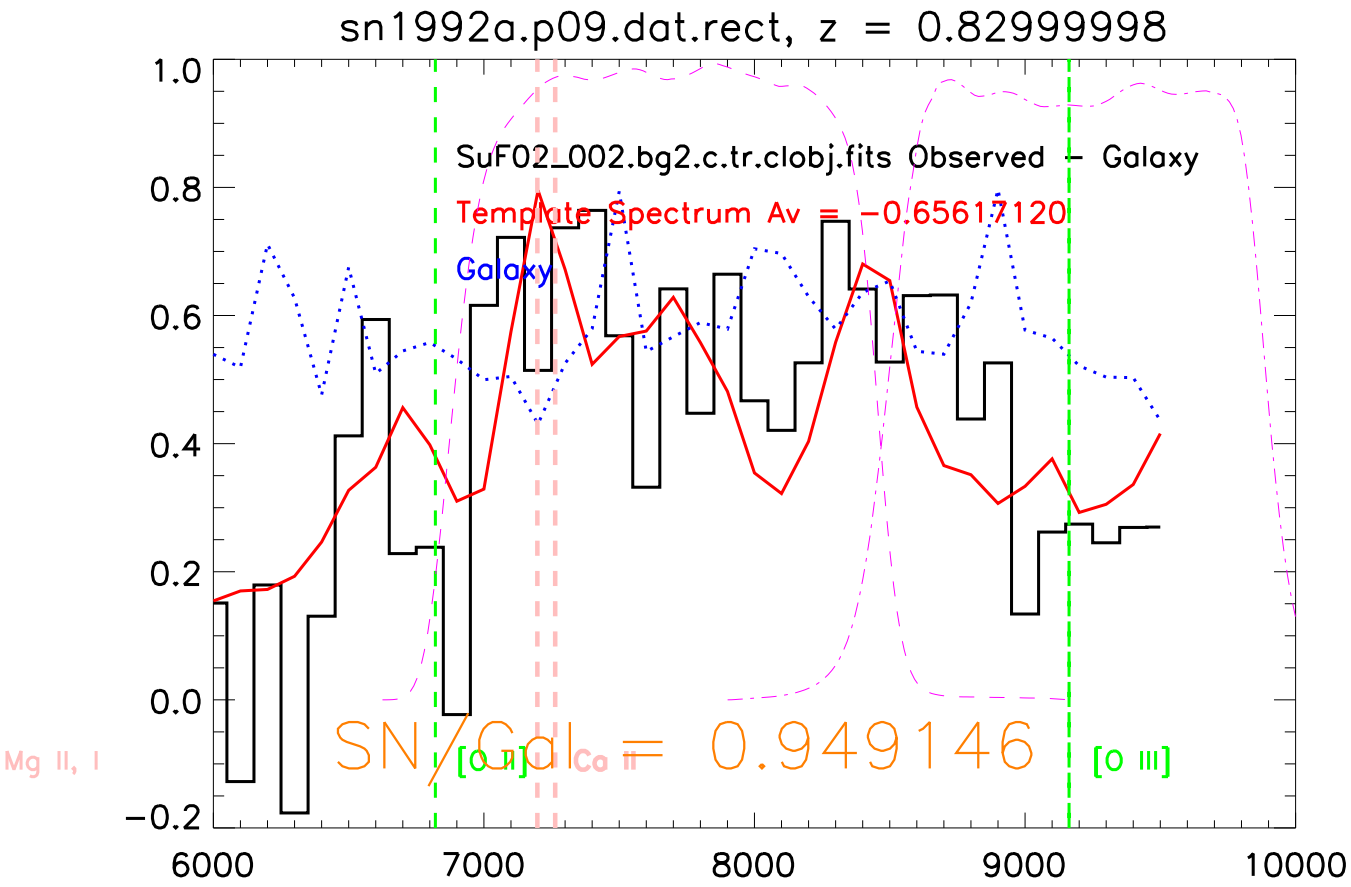

sn1994d.p02.dat.rect, z = 0.79999995
SuF02_002.bg2.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = 0.45999538
Galaxy
SN/Gal = 1.54593
[O II]
[O III]
Mg II, I
1.0
0.8
0.6
0.4
0.2
0.0
6000
7000
8000
9000
10000


sn1994d.m09.dat.rect, z = 0.78999996
SuF02_002.bg2.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = 2.8544129
Galaxy
SN/Gal = 0.380951
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

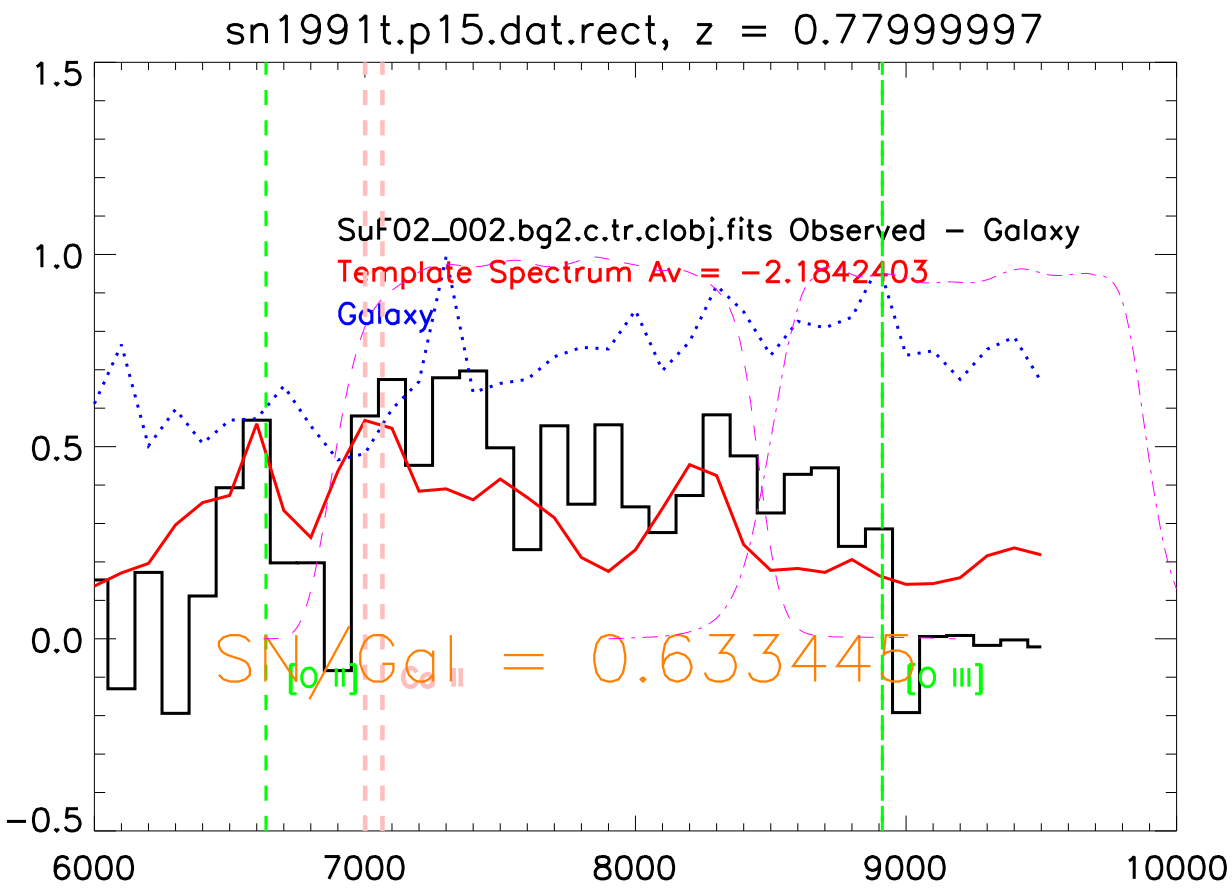

sn1981b.m00.dat.rect, z = 0.80999994
SuF02_002.bg2.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = −0.17899348
Galaxy
SN/Gal = 0.977827
[O II]
Ca II
[O III]
Mg II, I
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
6000
7000
8000
9000
10000


sn1994d.p14.dat.rect, z = 0.78999996
SuF02_002.bg2.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = −1.9673725
Galaxy
SN/Gal = 1.11765
[O II]
[O III]
1.2
1.0
0.8
0.6
0.4
0.2
0.0
6000
7000
8000
9000
10000

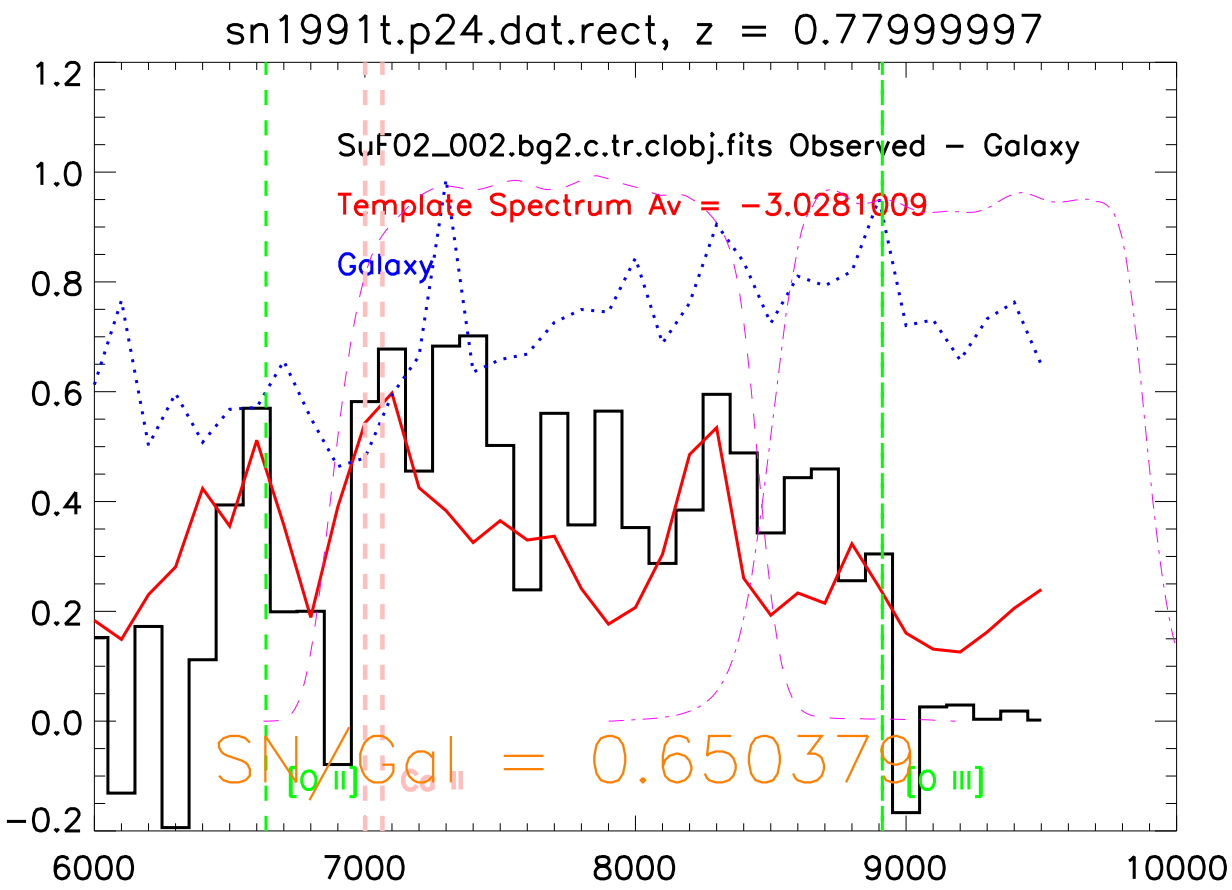
Mg II, I

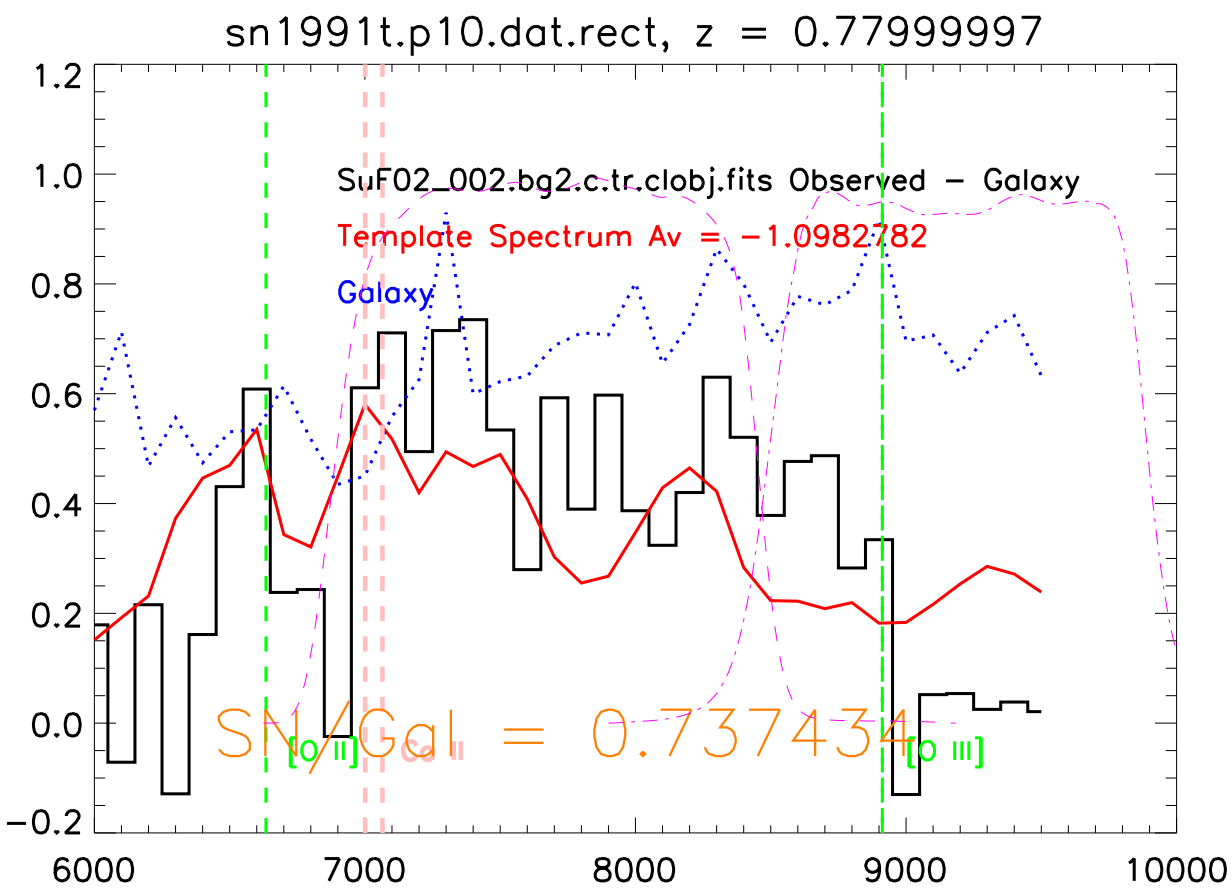


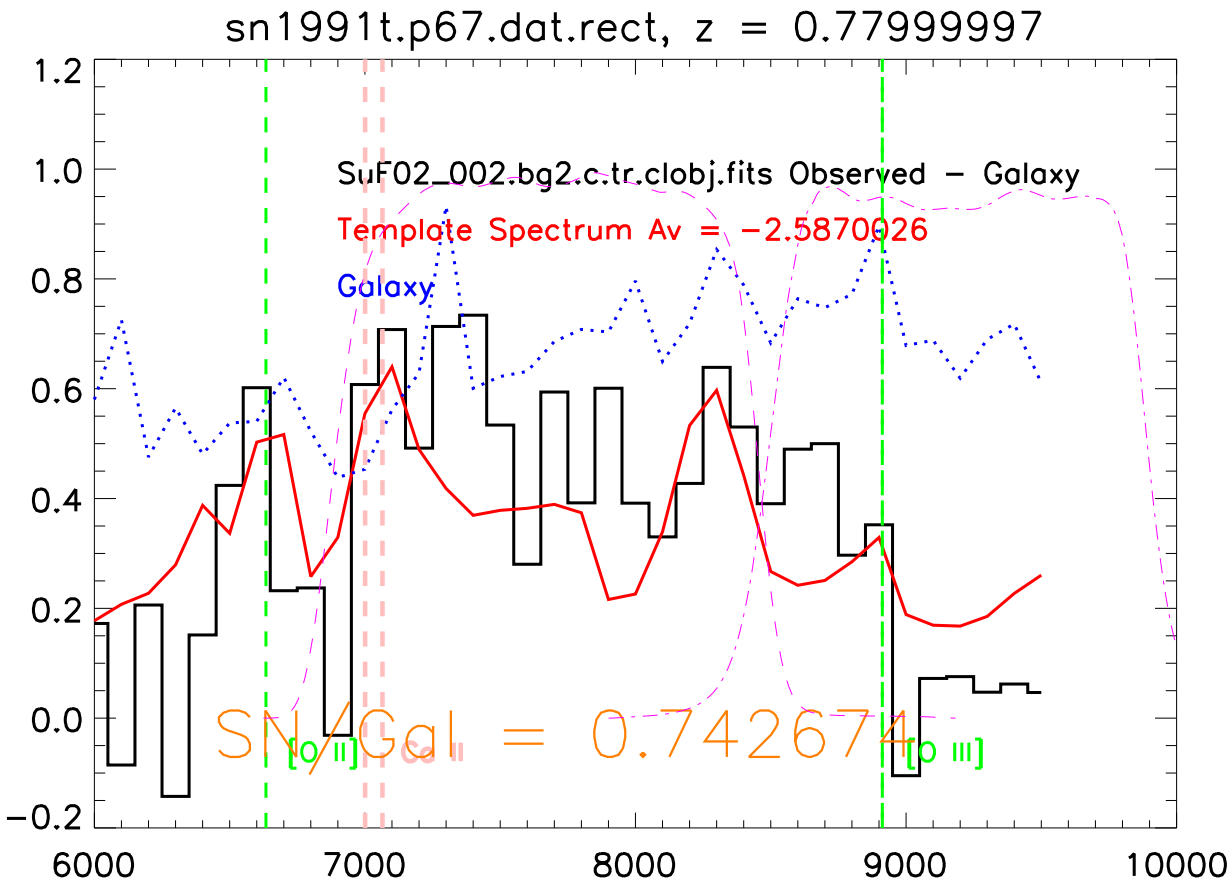
sn1992a.p09.dat.rect, z = 0.82999998
SuF02_002.bg2.c.tr.clobj.fits Observed - Galaxy
Template Spectrum Av = -0.65617120
Galaxy
SN/Gal = 0.949146
Mg II, I
[O II]
Ca II
[O III]
1.0
0.8
0.6
0.4
0.2
0.0
-0.2
6000
7000
8000
9000
10000

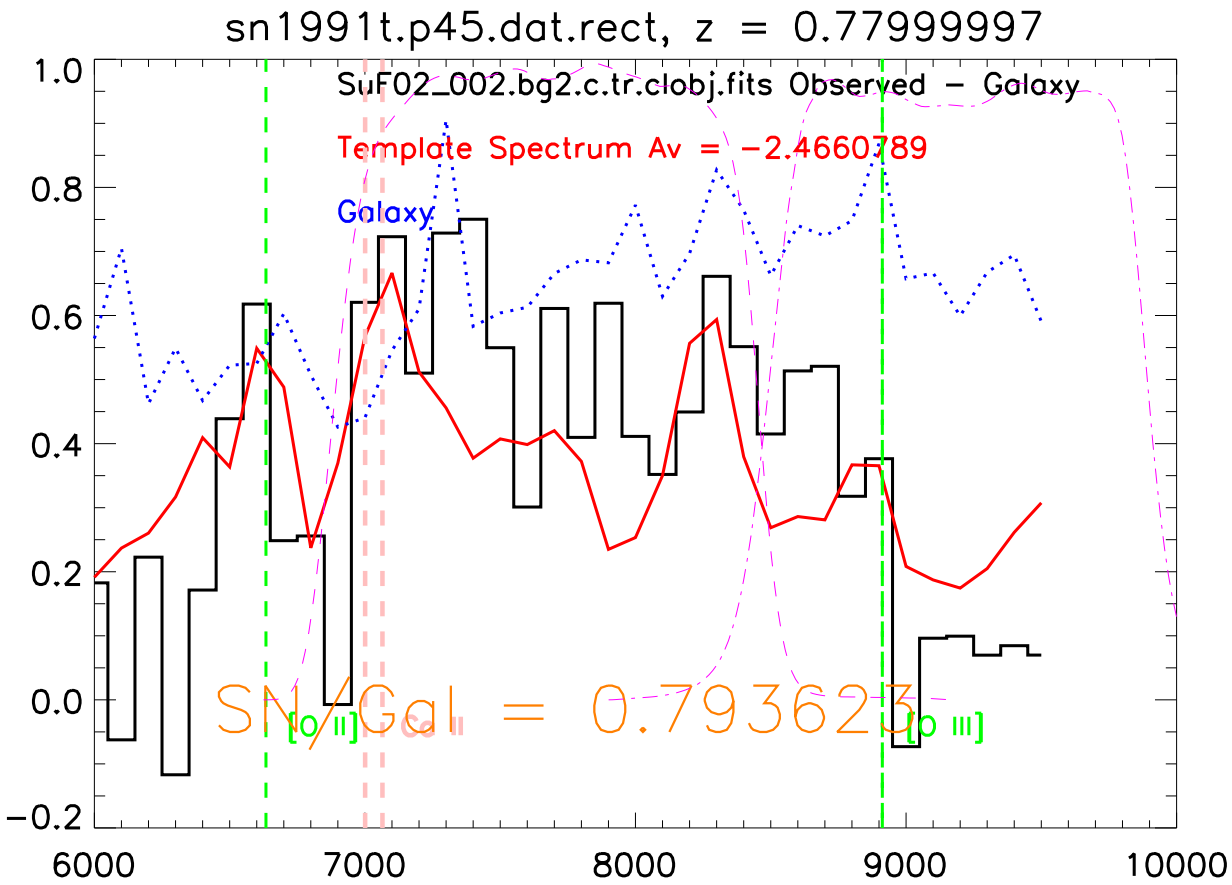

sn1991t.p15.dat.rect, z = 0.77999997
SuF02_002.bg2.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −2.1842403
Galaxy
SN/Gal = 0.633445
[O II]
[O III]
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

Mg II, I Ca II

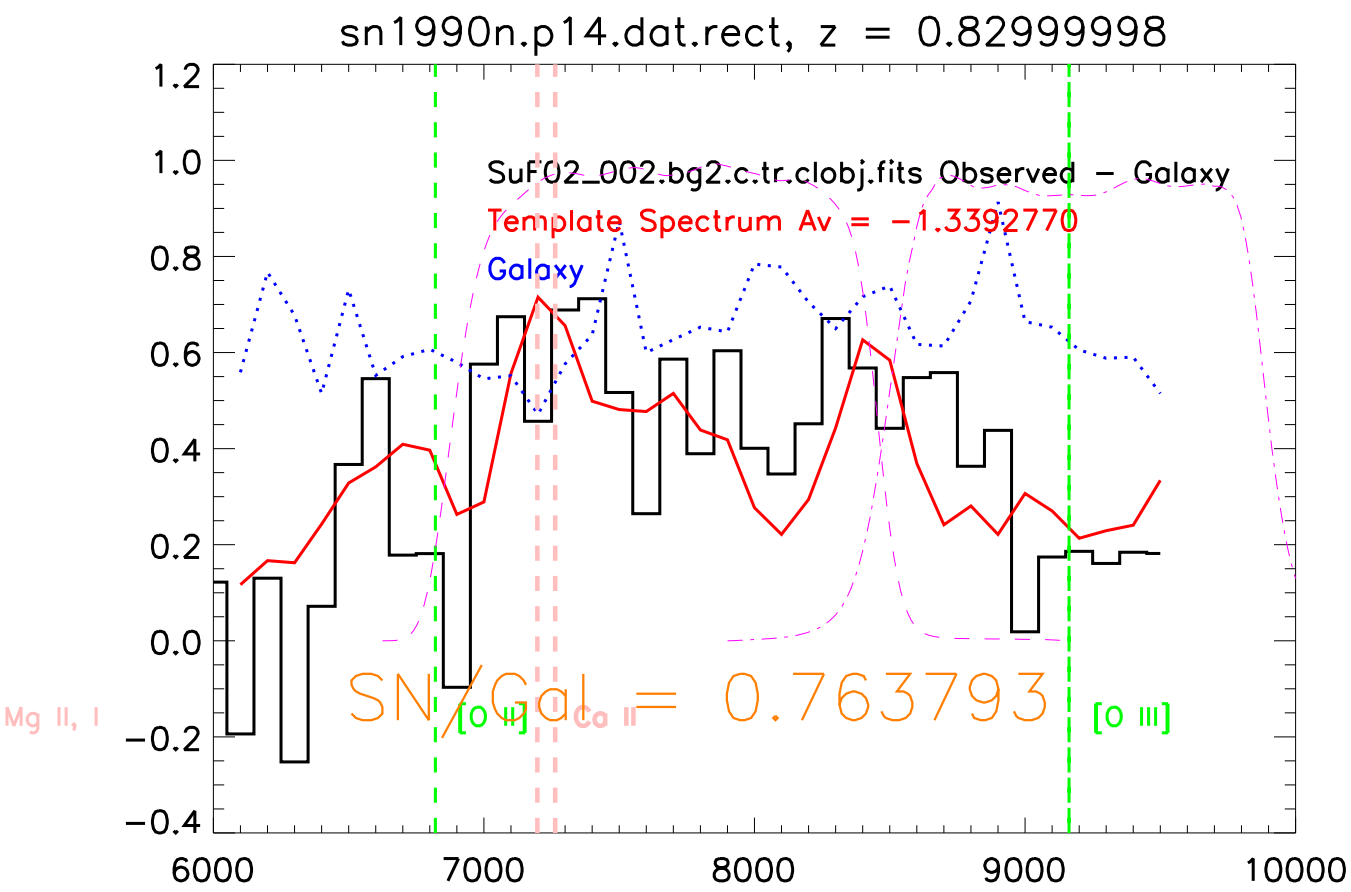

sn1991t.p24.dat.rect, z = 0.77999997
SuF02_002.bg2.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = −3.0281009
Galaxy
SN/Gal = 0.650379
[O II]
Ca II
[O III]
Mg II, I
1.2
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
6000
7000
8000
9000
10000

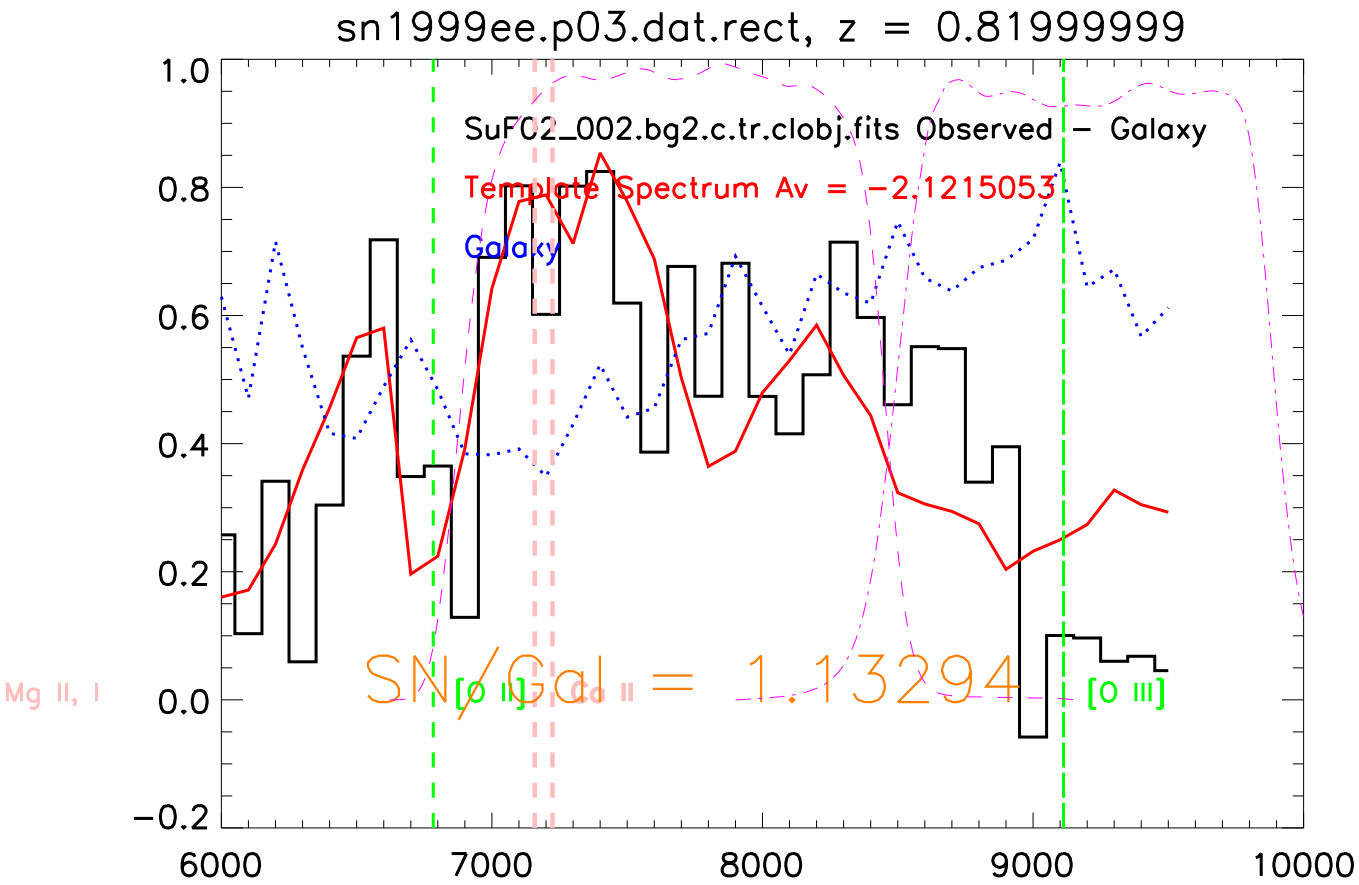

sn1991t.p10.dat.rect, z = 0.77999997
SuF02_002.bg2.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −1.0982782
Galaxy
SN/Gal = 0.737434
[O II]
[O III]
1.2
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
6000
7000
8000
9000
10000

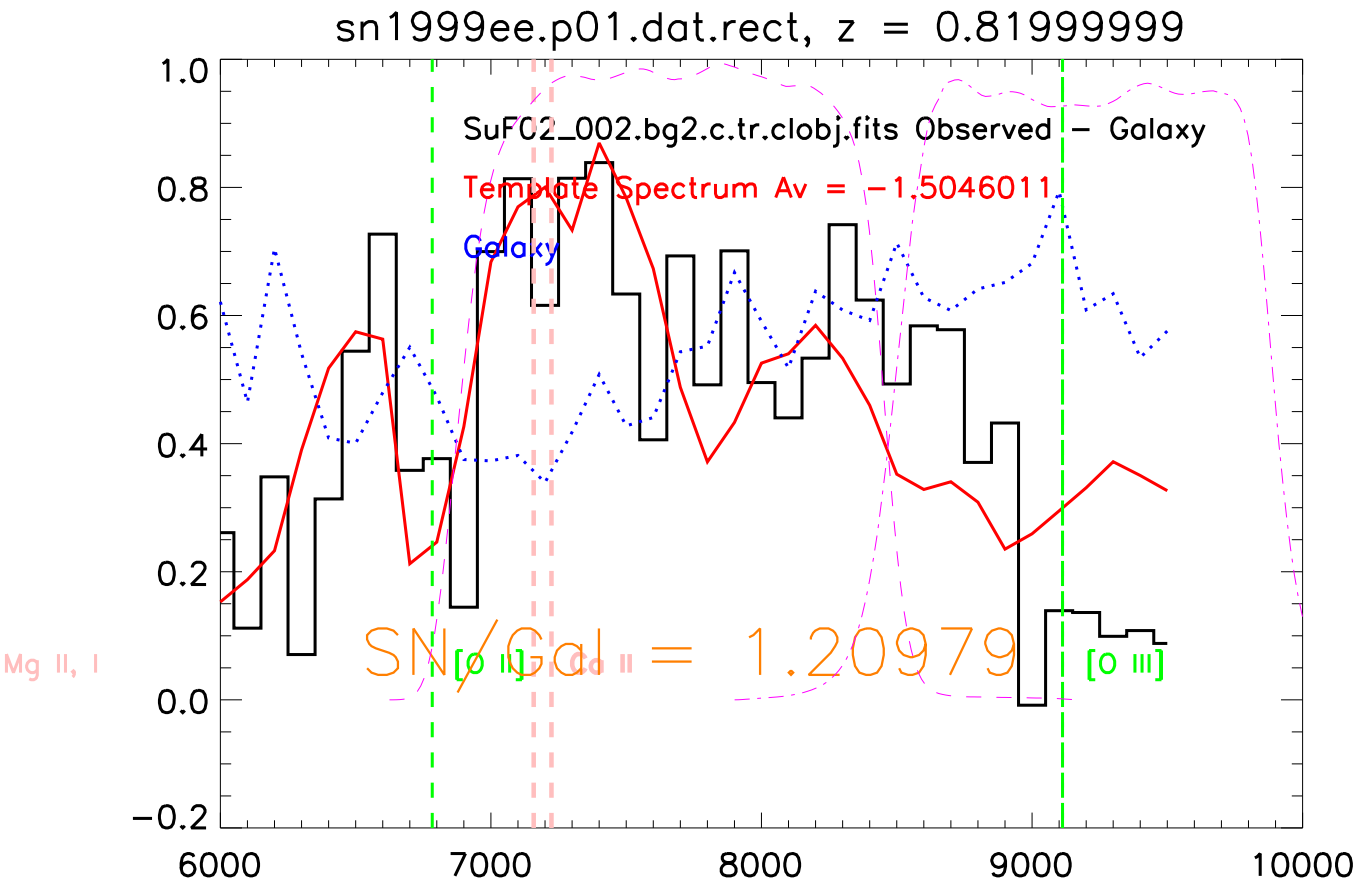

sn1991t.p67.dat.rect, z = 0.77999997
SuF02_002.bg2.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −2.5870026
Galaxy
S/N Gal = 0.742674
[O II]
Ca II
[O III]
Mg II, I
1.2
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
6000
7000
8000
9000
10000

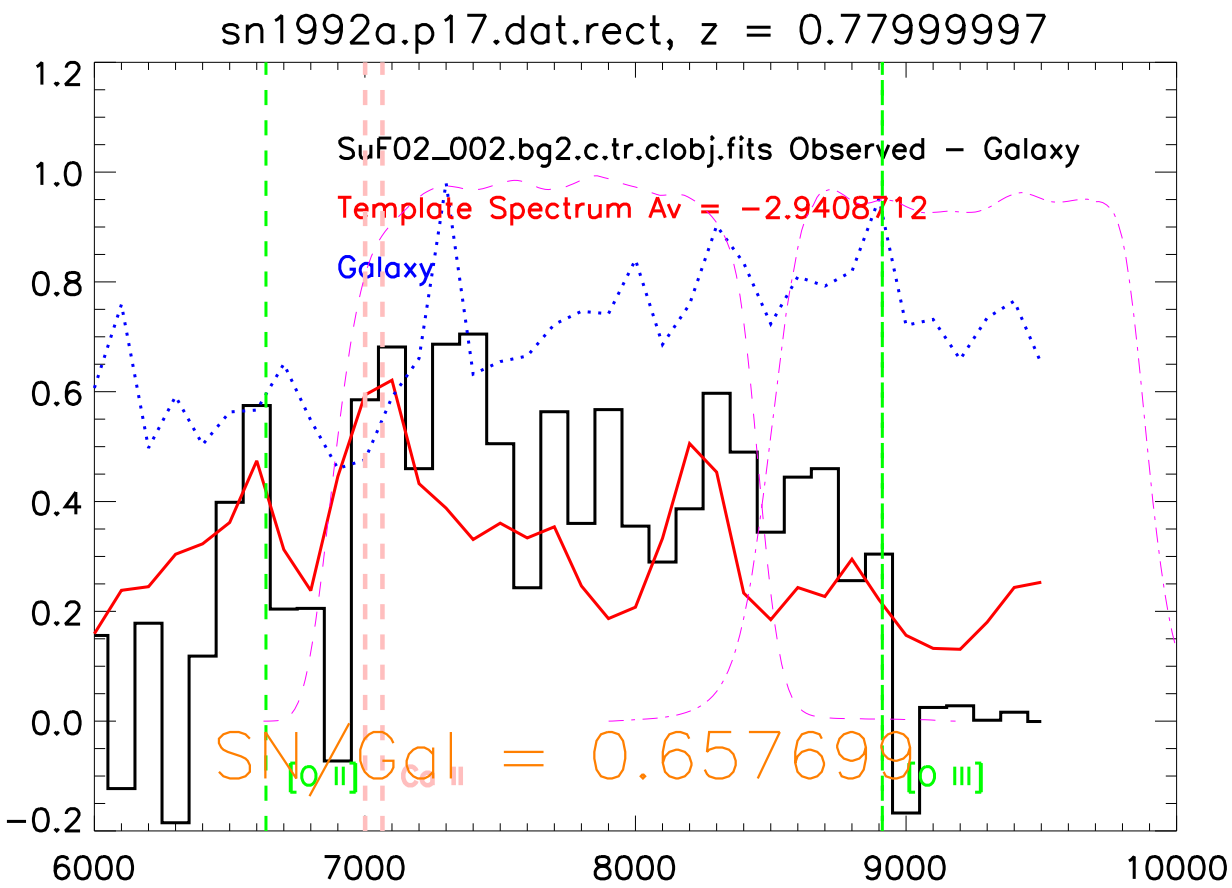

sn1991t.p45.dat.rect, z = 0.77999997
SuF02_002.bg2.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −2.4660789
Galaxy
SN/Gal = 0.793623
[O II]
Ca II
[O III]
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
6000
7000
8000
9000
10000

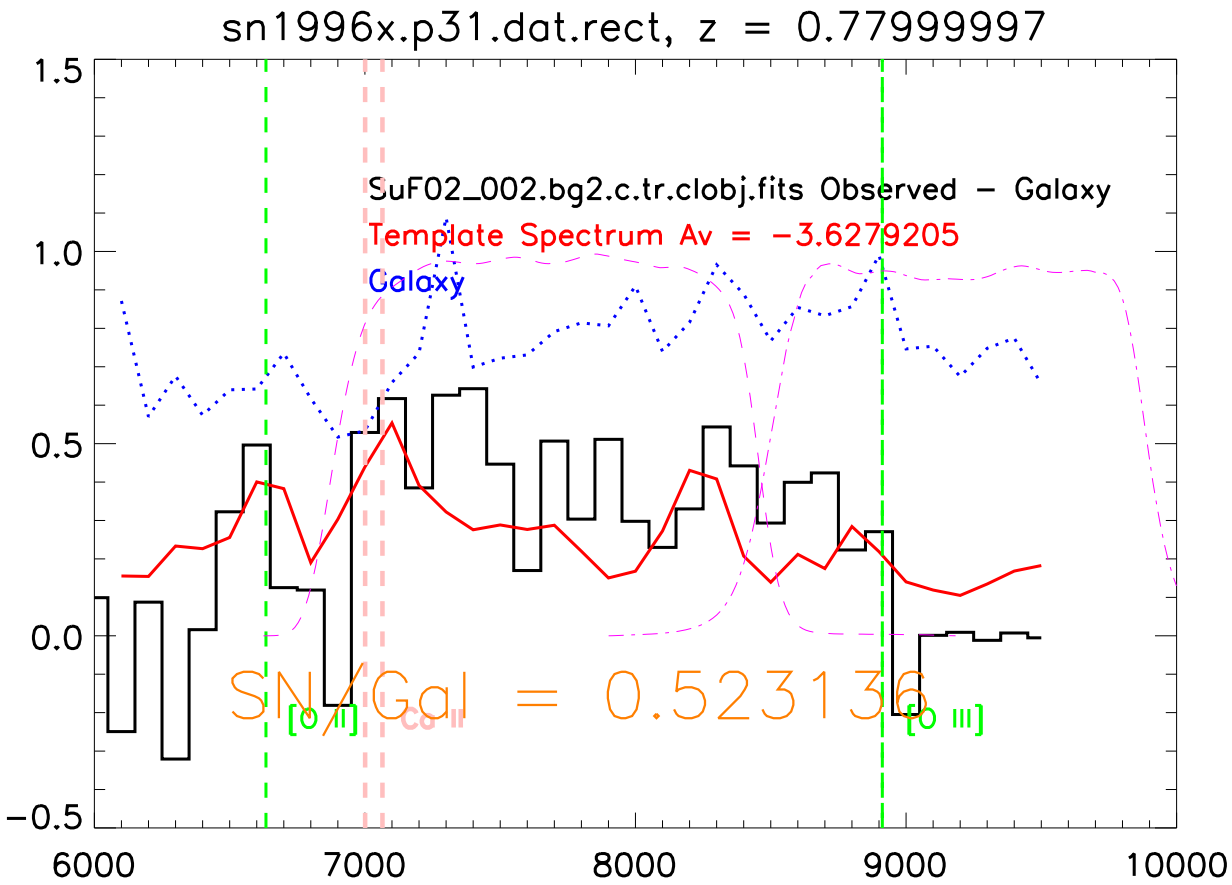
Mg II, I


sn1990n.p14.dat.rect, z = 0.82999998
SuF02_002.bg2.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −1.3392770
Galaxy
SN/Gal = 0.763793
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
−0.4
6000
7000
8000
9000
10000

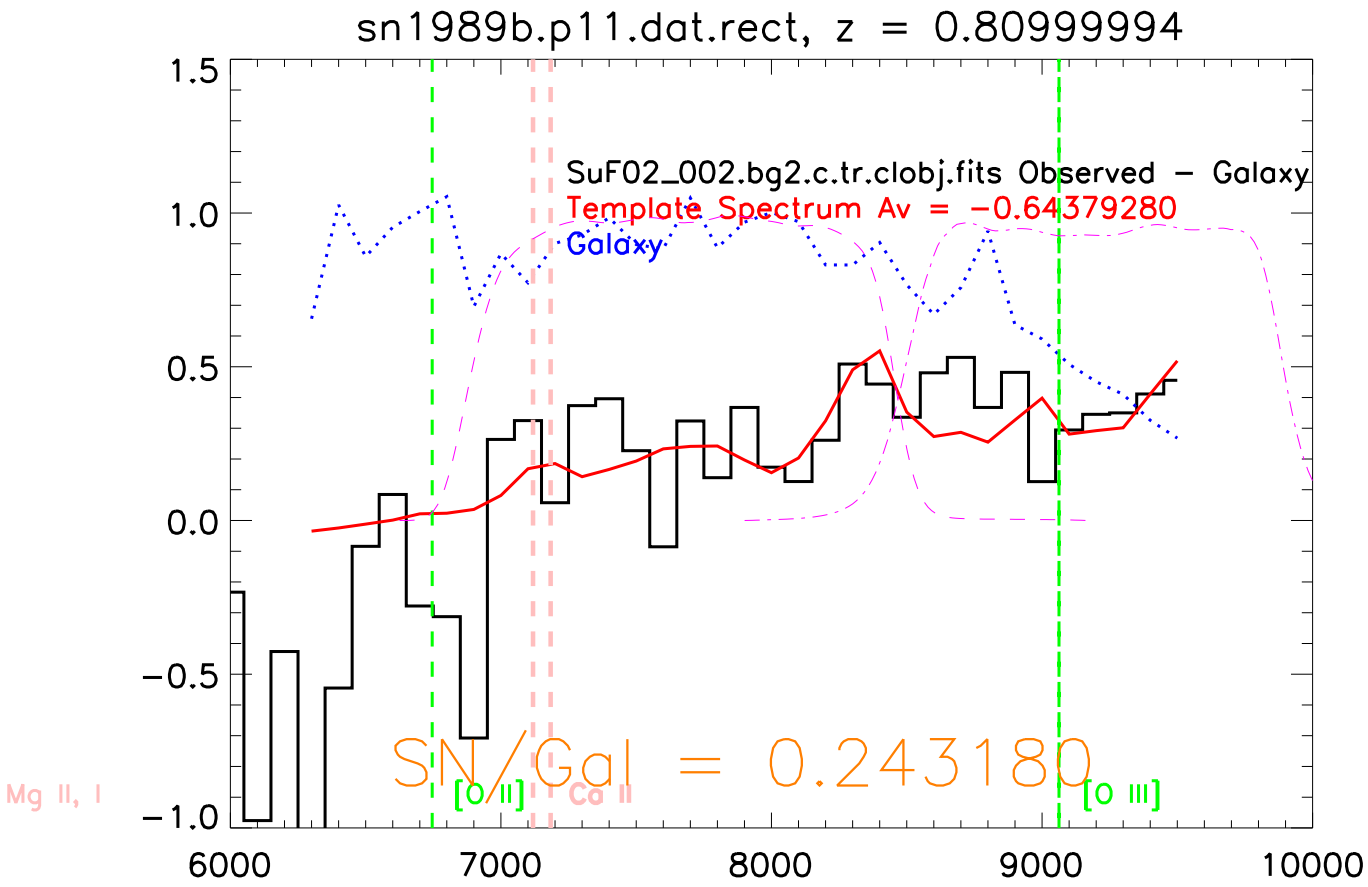

sn1999ee.p03.dat.rect, z = 0.81999999
SuFC2_002.bg2.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = -2.1215053
Galaxy
SN/Gal = 1.13294
Mg II, I
[O II]
Ca II
[O III]
1.0
0.8
0.6
0.4
0.2
0.0
-0.2
6000
7000
8000
9000
10000

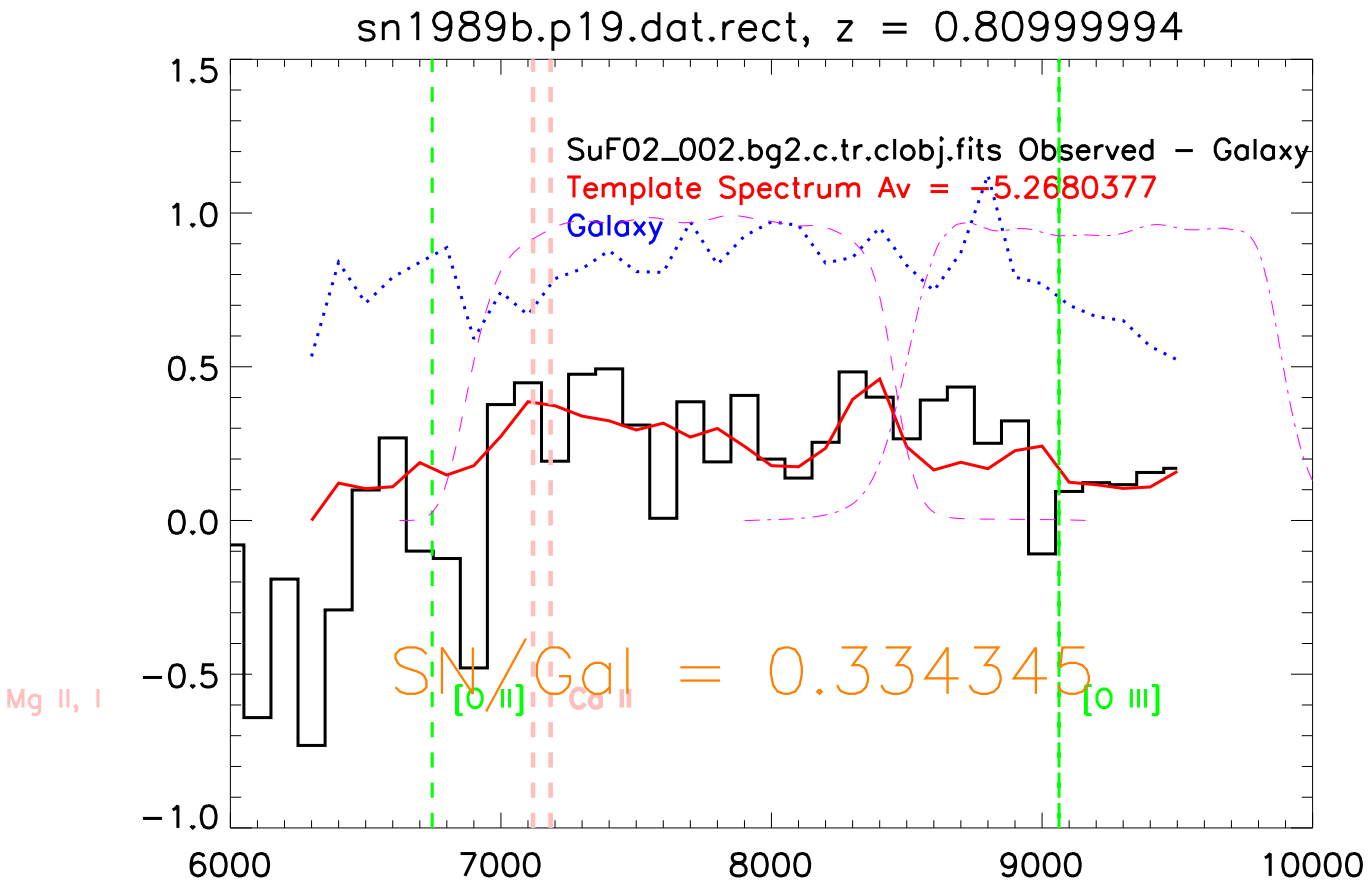

sn1999ee.p01.dat.rect, z = 0.81999999
SuFC2_002.bg2.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = −1.5046011
Galaxy
SN/Gal = 1.20979
Mg II, I
[O II]
Ca II
[O III]
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
6000
7000
8000
9000
10000

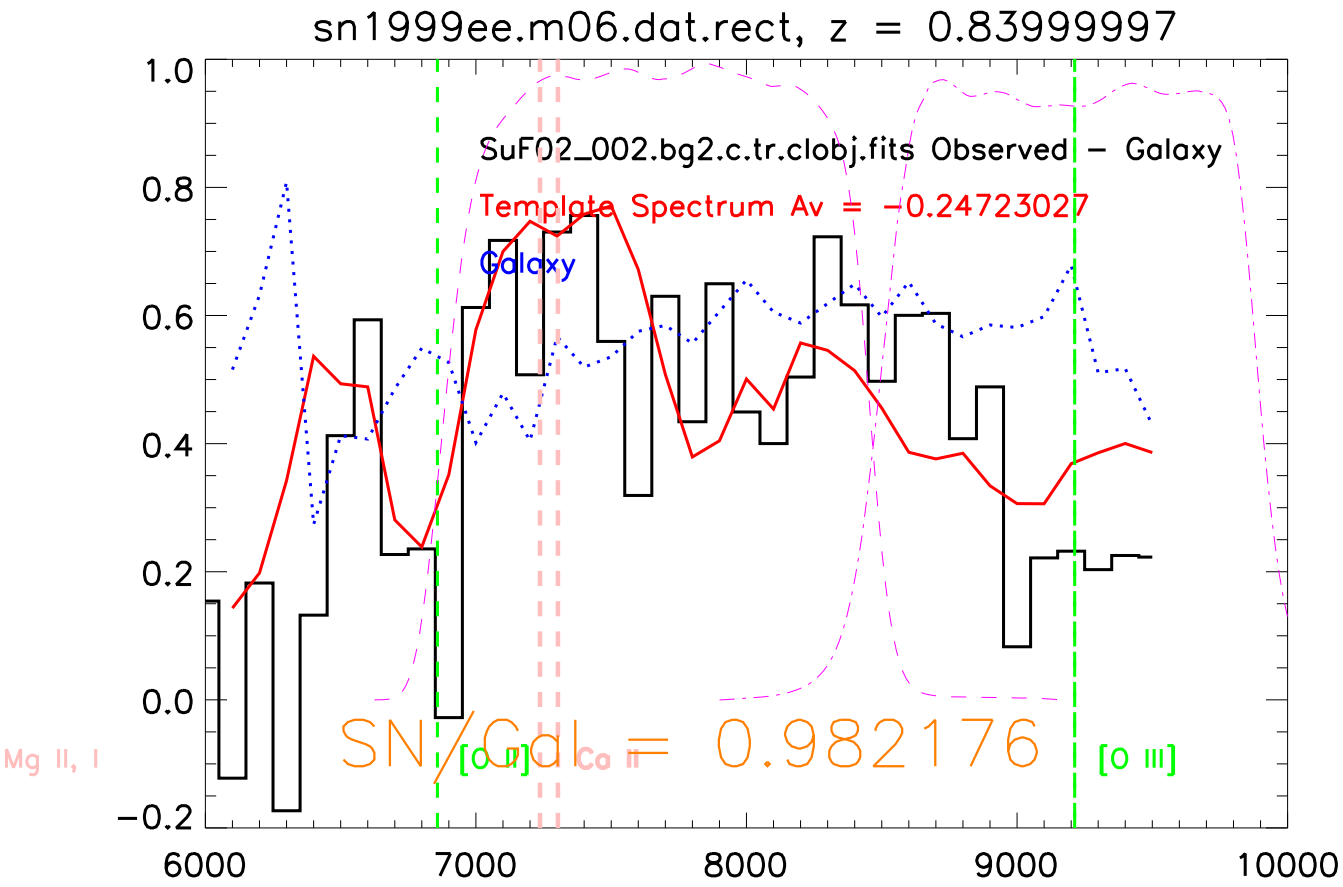

sn1992a.p17.dat.rect, z = 0.77999997
SuF02_002.bg2.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −2.9408712
Galaxy
SN/Gal = 0.657699
[O II]
[O III]
1.2
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
6000
7000
8000
9000
10000

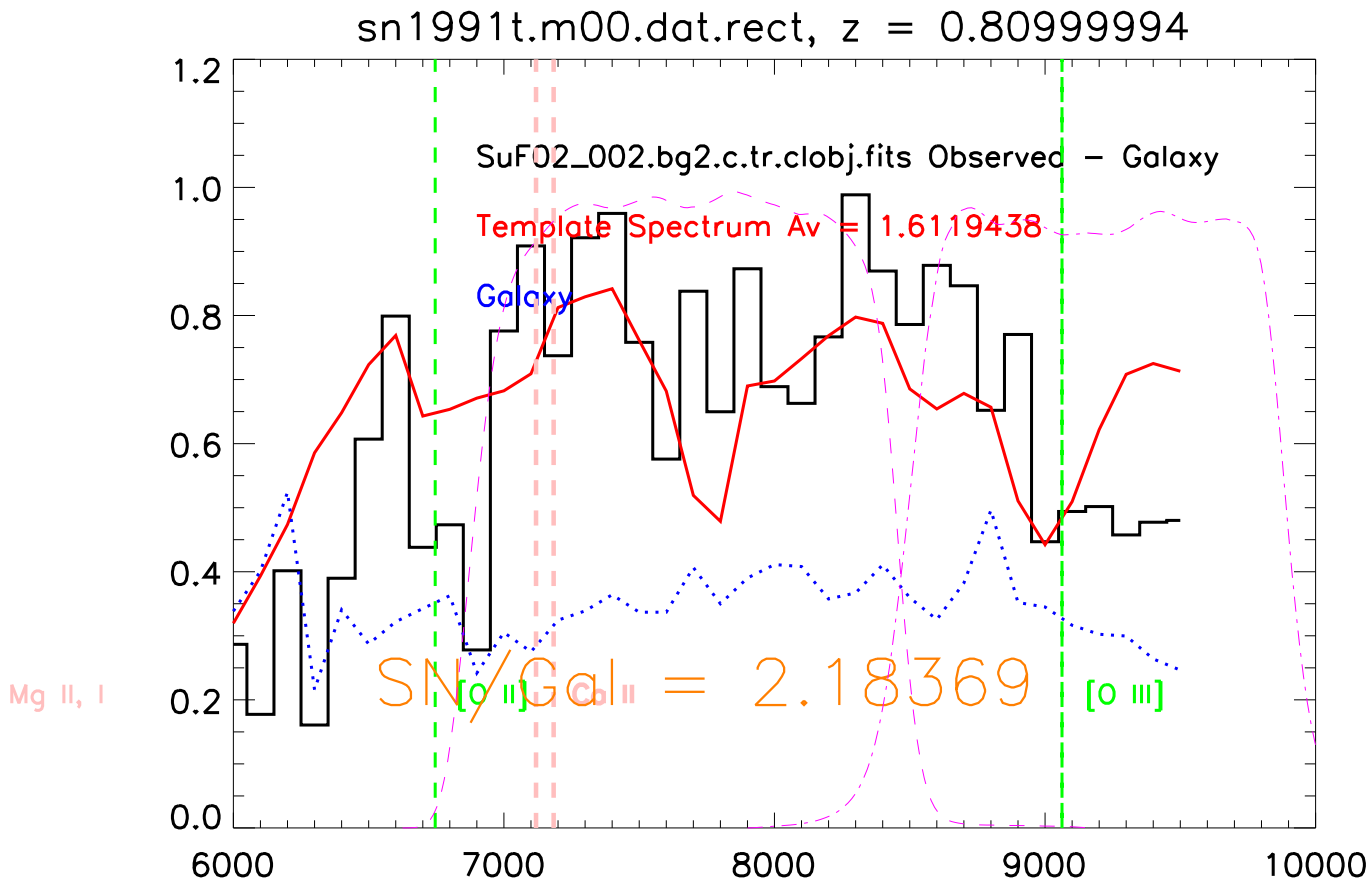

sn1996x.p31.dat.rect, z = 0.77999997
SuF02_002.bg2.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −3.6279205
Galaxy
SN/Gal = 0.523136
[O II]
Ca II
[O III]
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

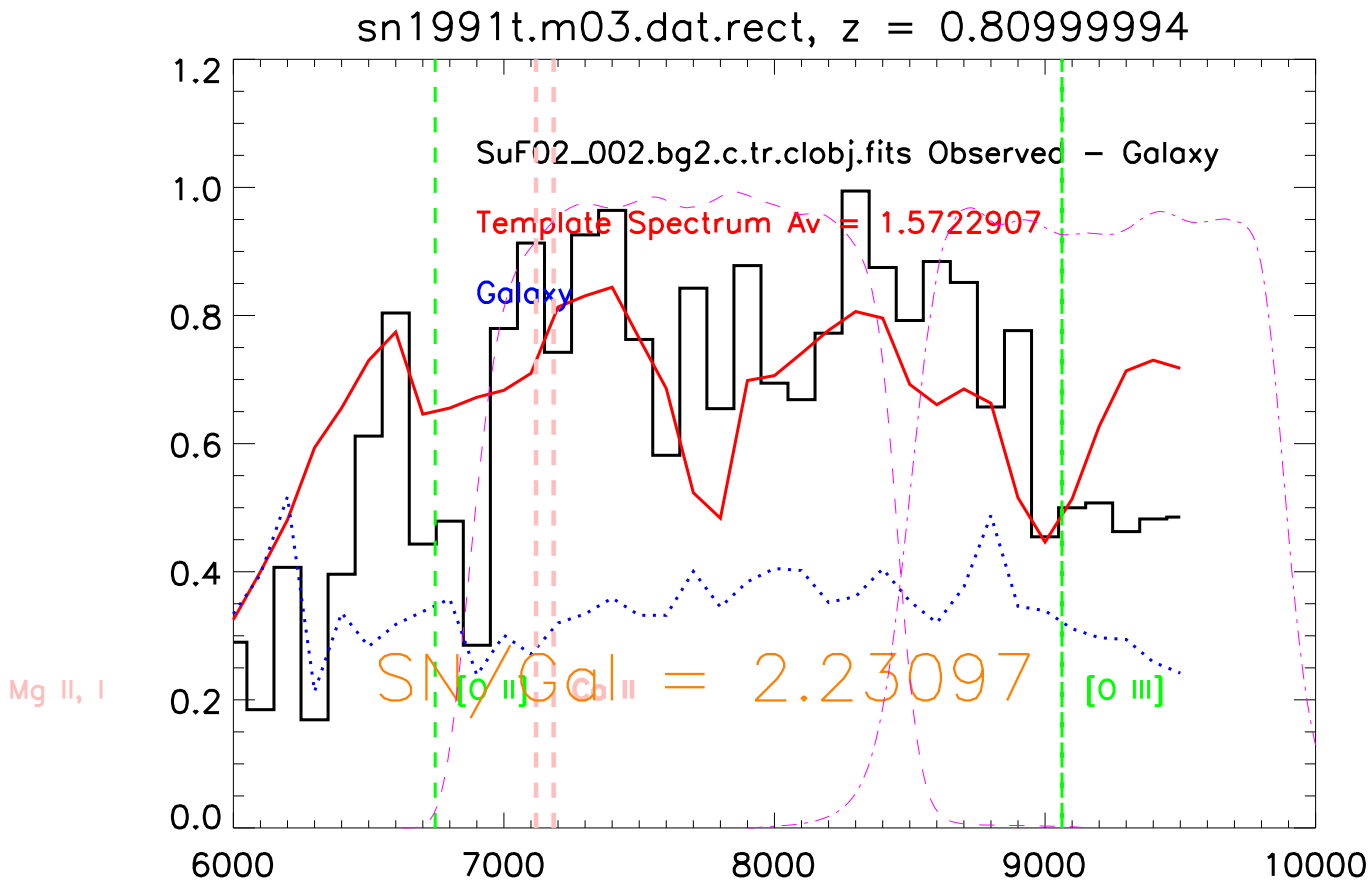
Mg II, I

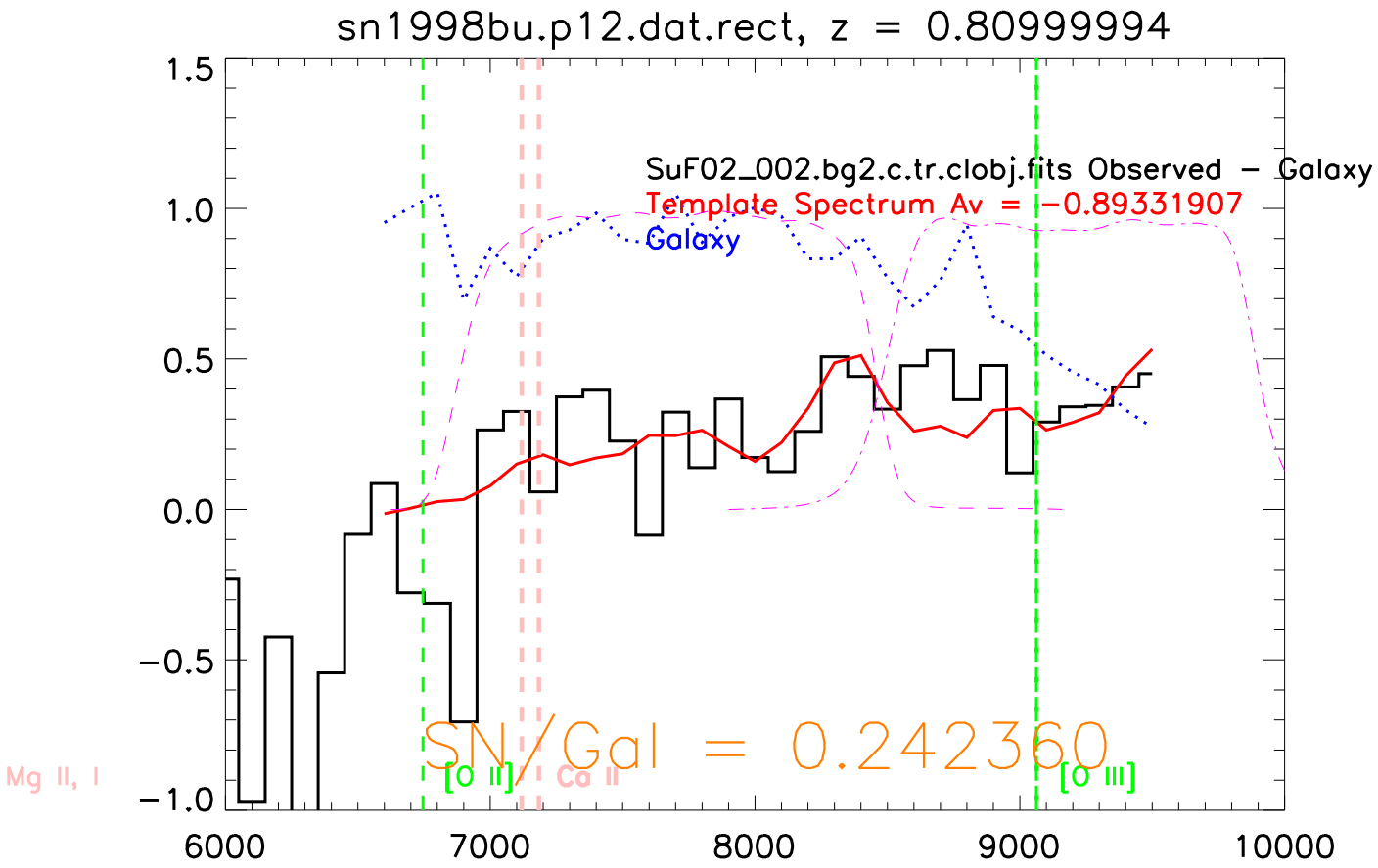

sn1989b.p11.dat.rect, z = 0.80999994
SuF02_002.bg2.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −0.64379280
Galaxy
SN/Gal = 0.243180
Mg II, I
[O II]
Ca II
[O III]
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000

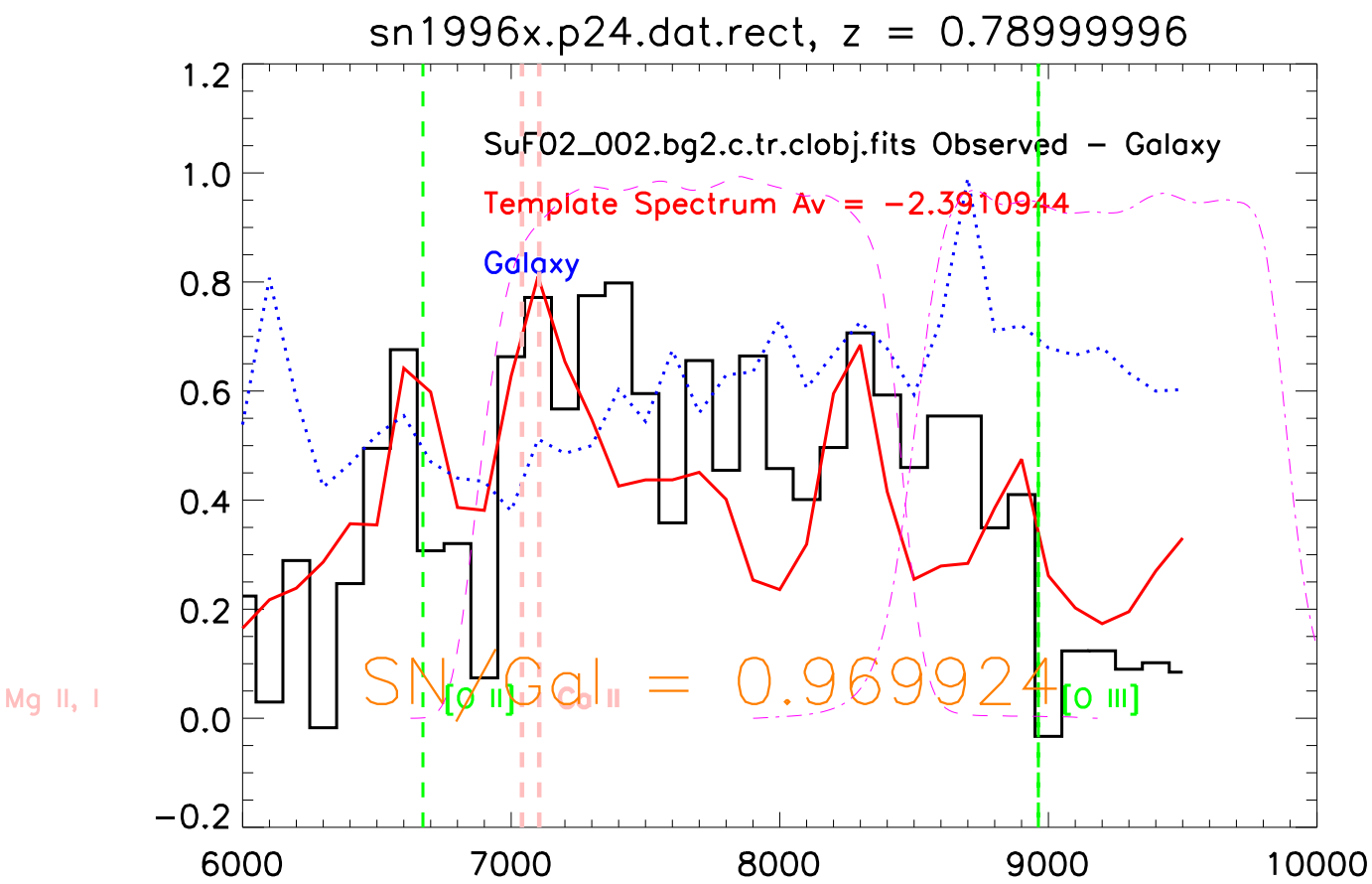

sn1989b.p19.dat.rect, z = 0.80999994
SuF02_002.bg2.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −5.2680377
Galaxy
SN/Gal = 0.334345
Mg II, I
[O II]
Ca II
[O III]
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000

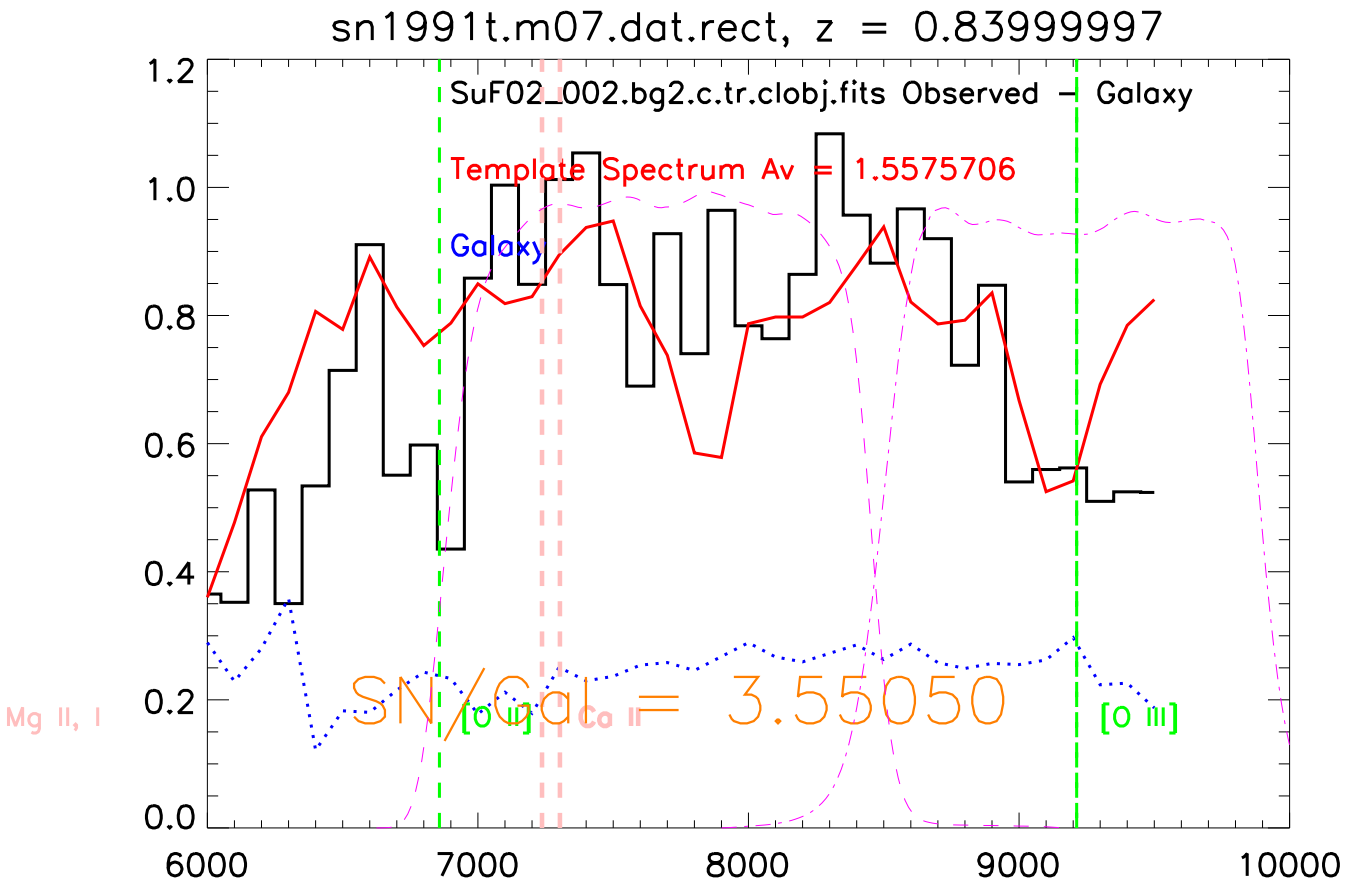

sn1999ee.m06.dat.rect, z = 0.83999997
SuF02_002.bg2.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −0.24723027
Galaxy
SN/Gal = 0.982176
Mg II, I
[O II]
Ca II
[O III]
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
6000
7000
8000
9000
10000

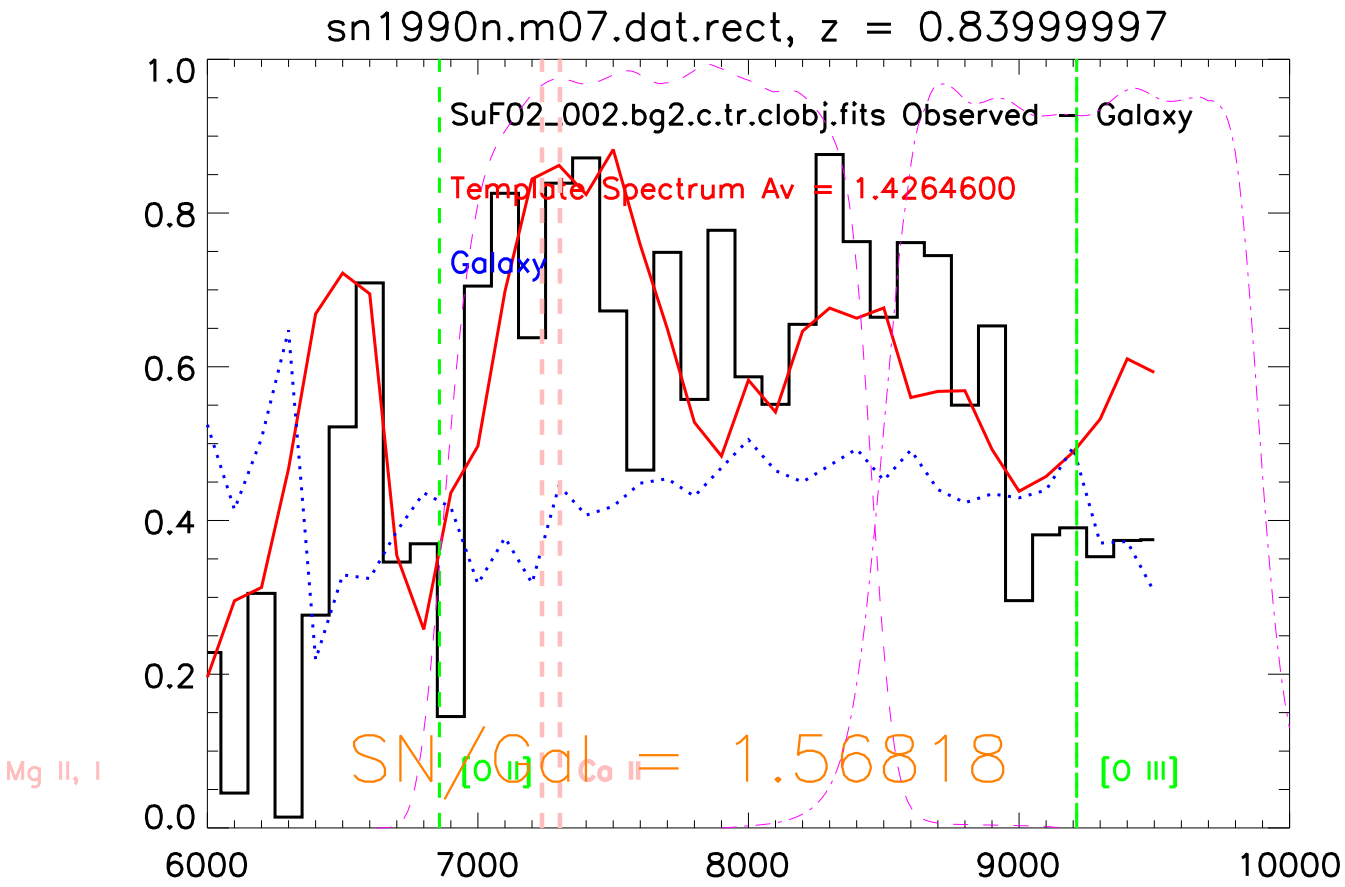

sn1991t.m00.dat.rect, z = 0.80999994
SuF02_002.bg2.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = 1.6119438
Galaxy
SN/Gal = 2.18369
[O II]
[O III]
Mg II, I
1.2
1.0
0.8
0.6
0.4
0.2
0.0
6000
7000
8000
9000
10000

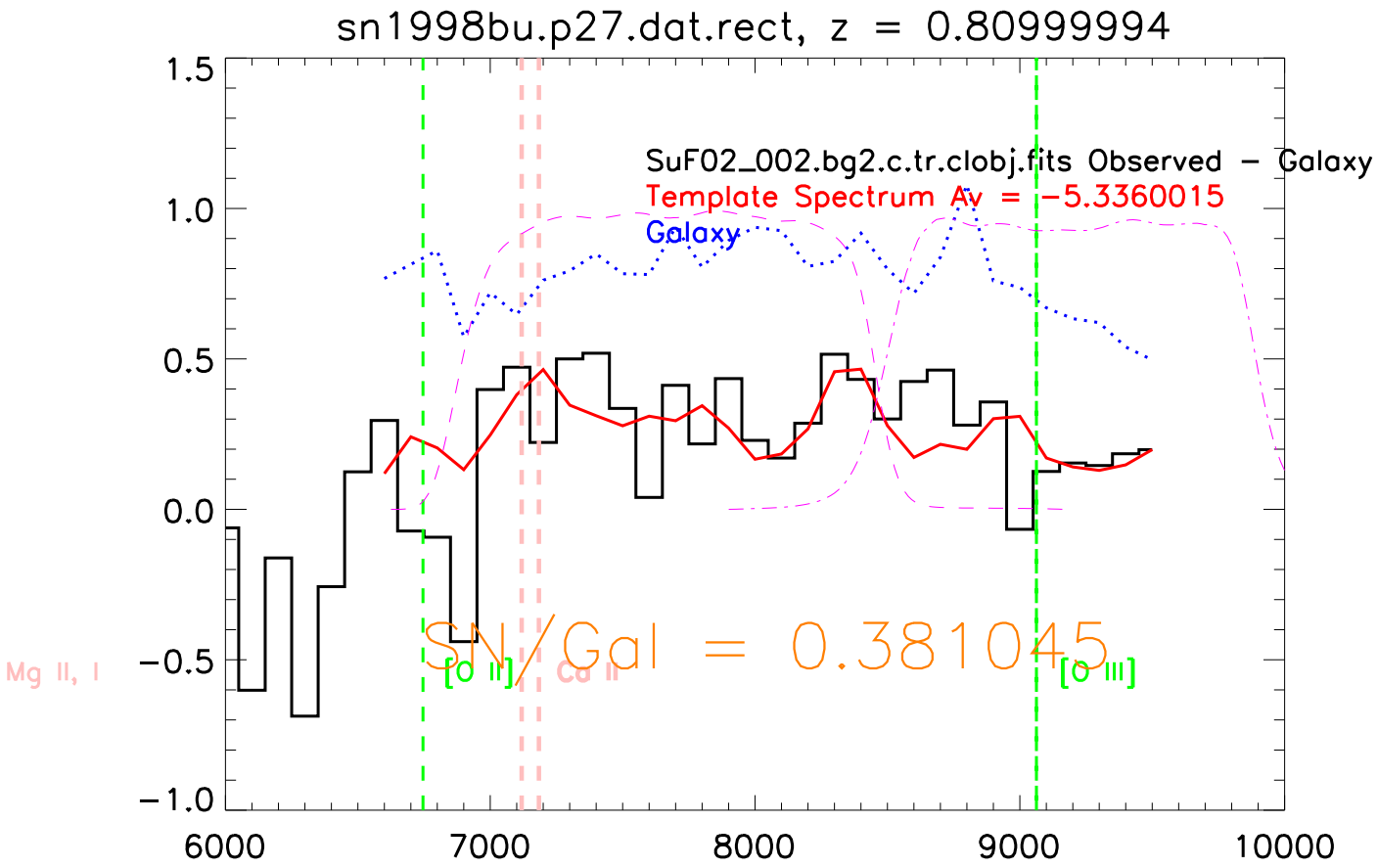

sn1991t.m03.dat.rect, z = 0.80999994
SuF02_002.bg2.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = 1.5722907
Galaxy
SN/Gal = 2.23097
Mg II, I
[O II]
Ca II
[O III]
1.2
1.0
0.8
0.6
0.4
0.2
0.0
6000
7000
8000
9000
10000

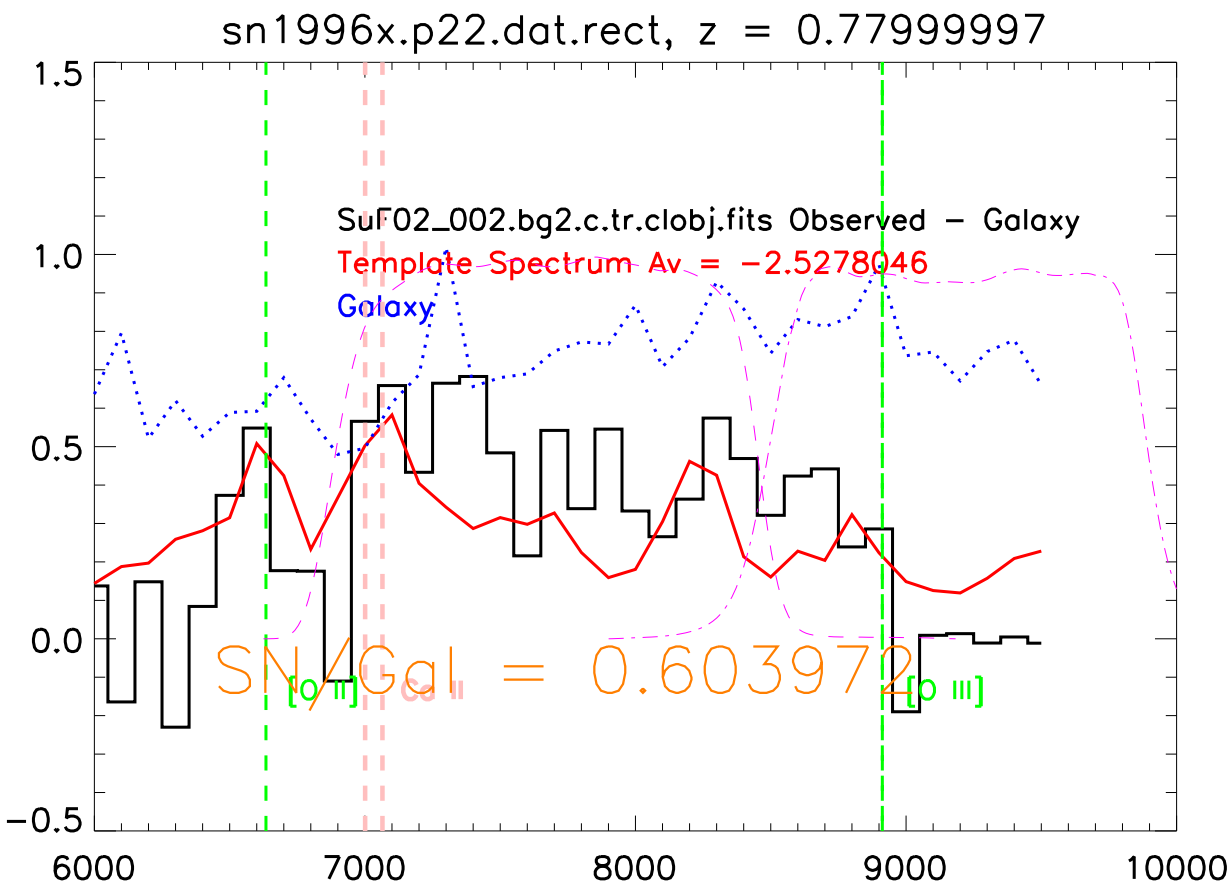

sn1998bu.p12.dat.rect, z = 0.80999994
SuF02_002.bg2.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −0.89331907
Galaxy
SN/Gal = 0.242360
Mg II, I
[O II]
Ca II
[O III]
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000

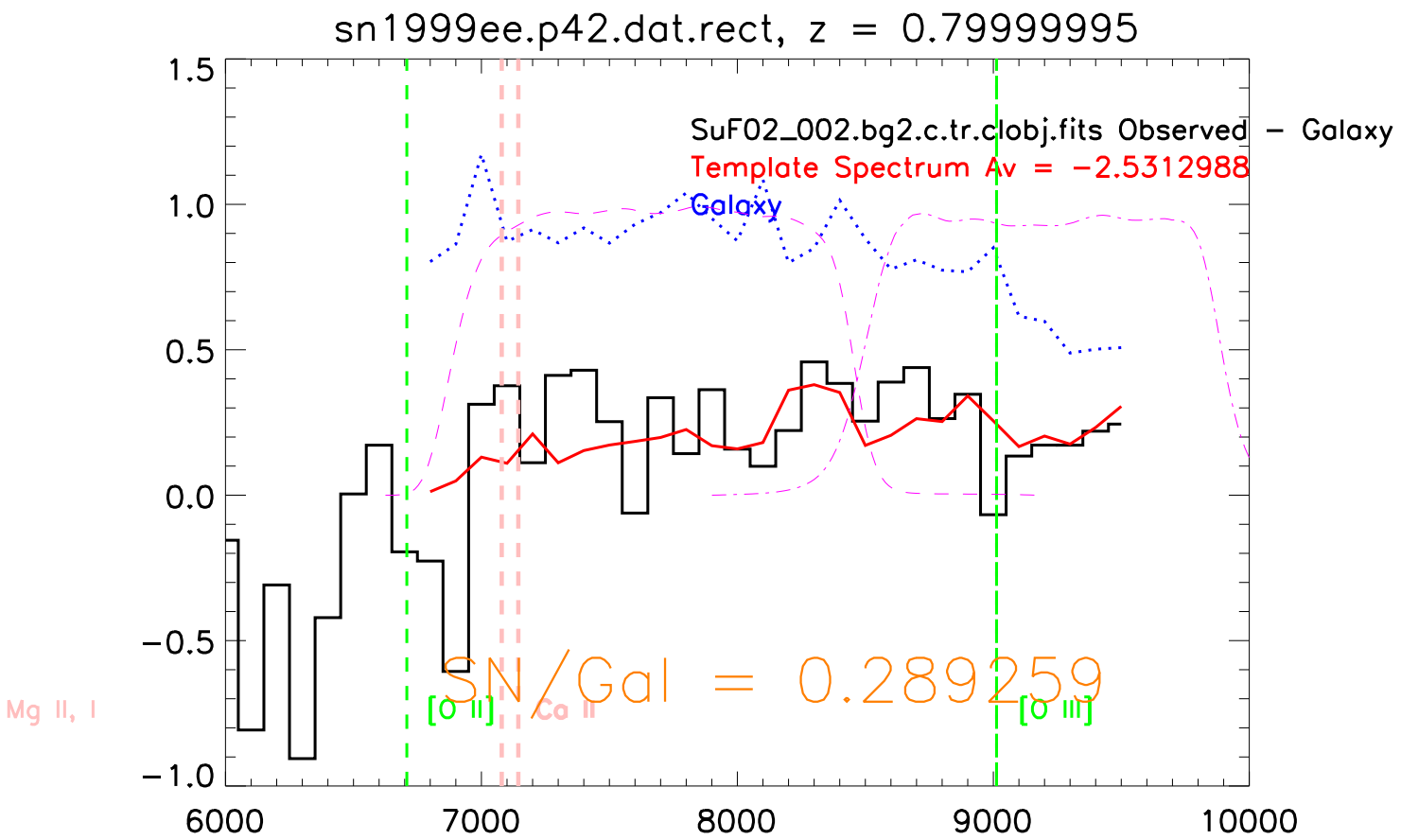

sn1996x.p24.dat.rect, z = 0.78999996
SuF02_002.bg2.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = −2.3910944
Galaxy
SN/Gal = 0.969924
[O II]
Ca II
[O III]
Mg II, I
1.2
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
6000
7000
8000
9000
10000

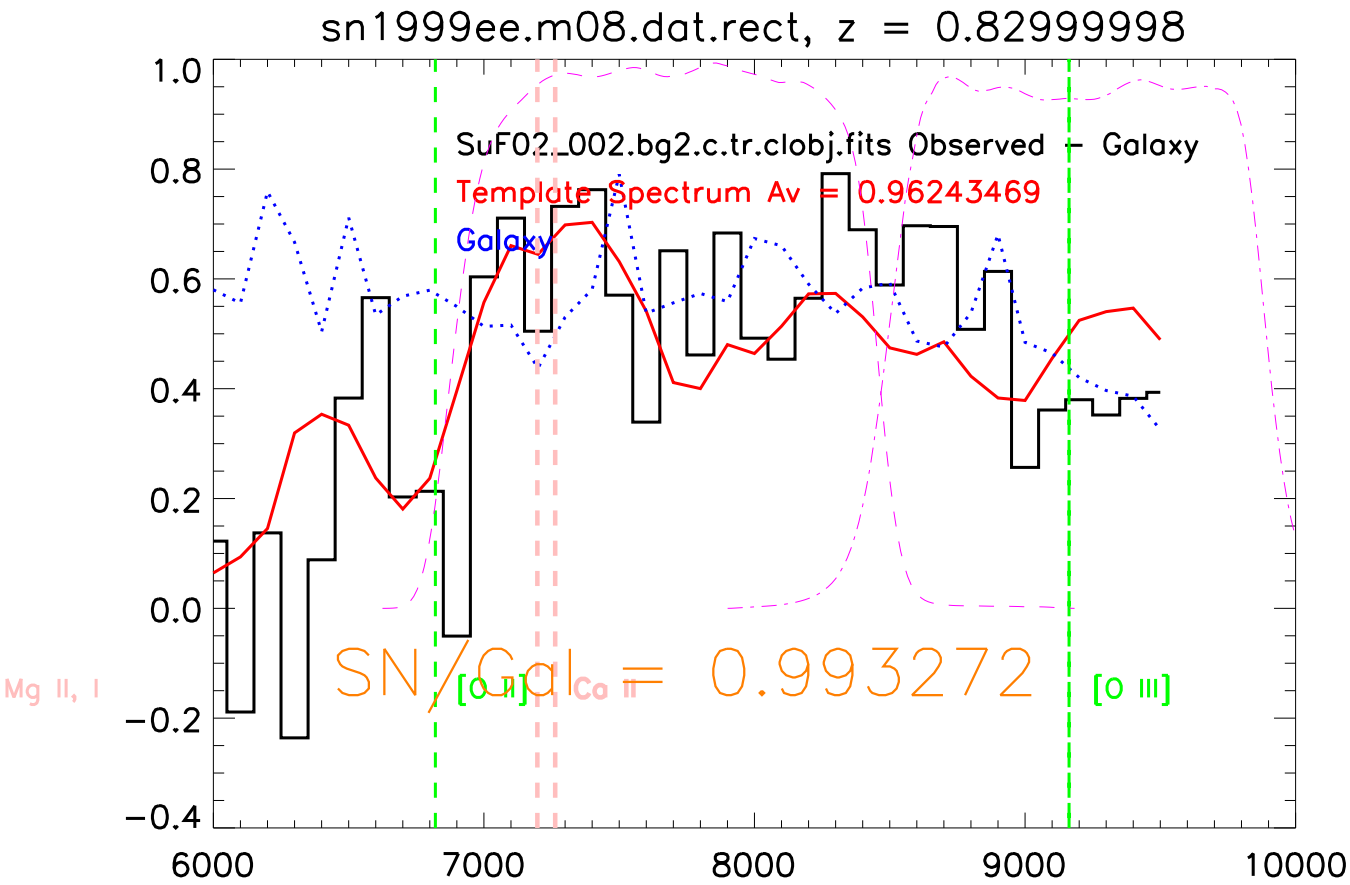

sn1991t.m07.dat.rect, z = 0.83999997
SuF02_002.bg2.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = 1.5575706
Galaxy
SN/Gal = 3.55050
Mg II, I
[O II]
Ca II
[O III]
1.2
1.0
0.8
0.6
0.4
0.2
0.0
6000
7000
8000
9000
10000

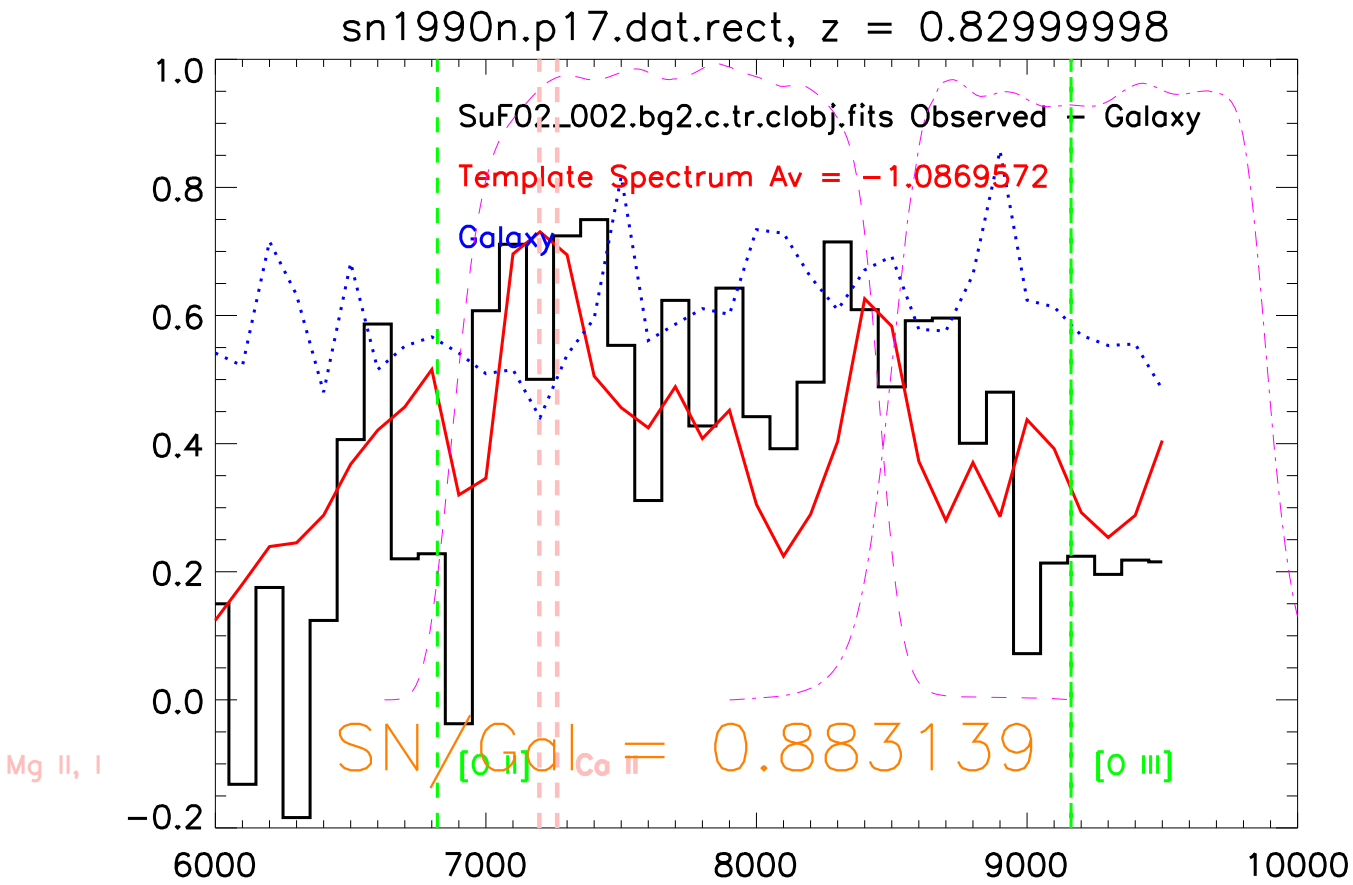

sn1990n.m07.dat.rect, z = 0.83999997
SuF02_002.bg2.c.tr.clobj.fits Observed
Galaxy
Template Spectrum Av = 1.4264600
Galaxy
SN/Gal = 1.56818
Mg II, I
[O II]
Ca II
[O III]
1.0
0.8
0.6
0.4
0.2
0.0
6000
7000
8000
9000
10000

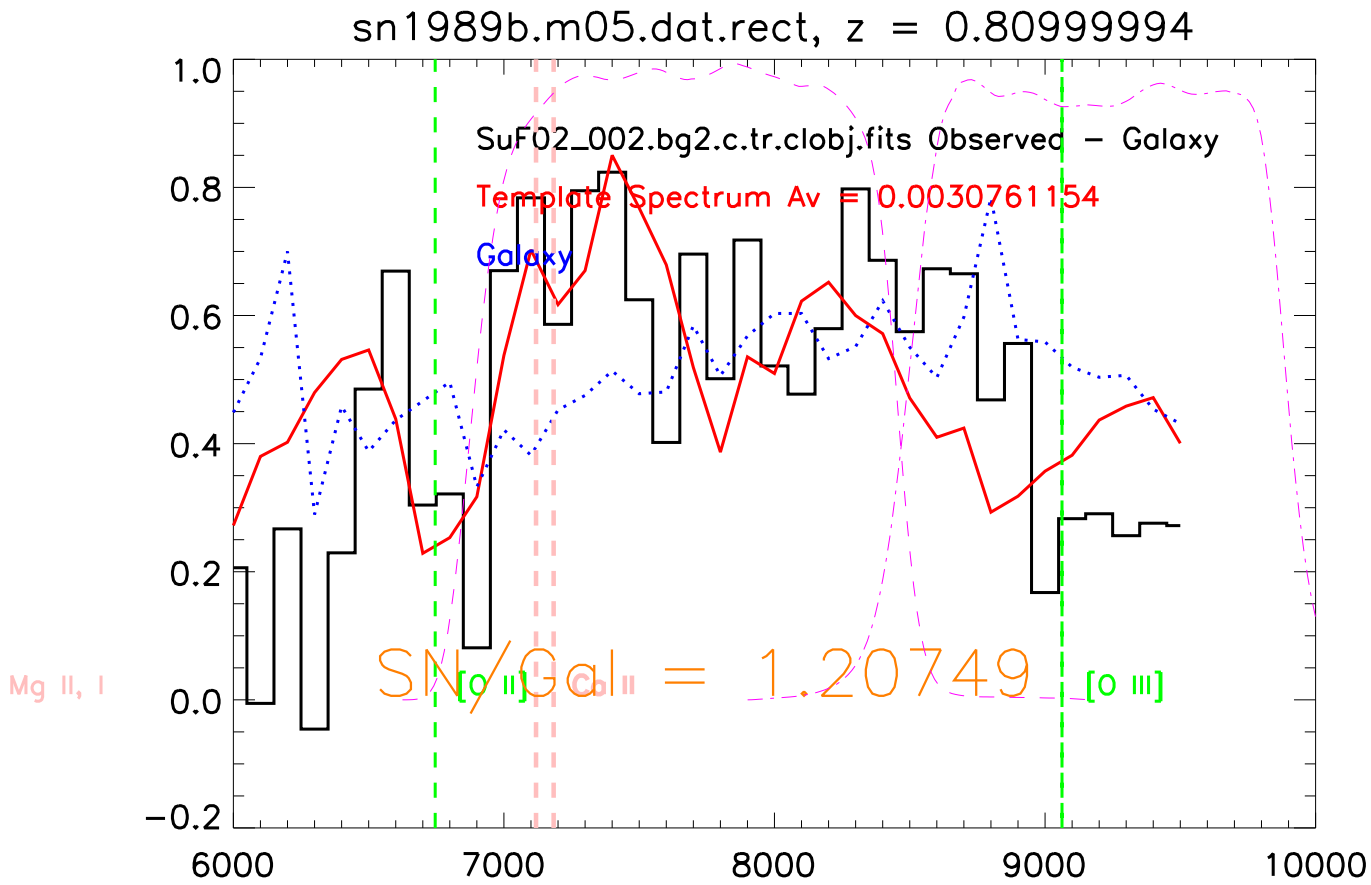

sn1998bu.p27.dat.rect, z = 0.80999994
SuF02_002.bg2.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −5.3360015
Galaxy
SN/Gal = 0.381045
Mg II, I
[O II]
Ca II
[O III]
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000

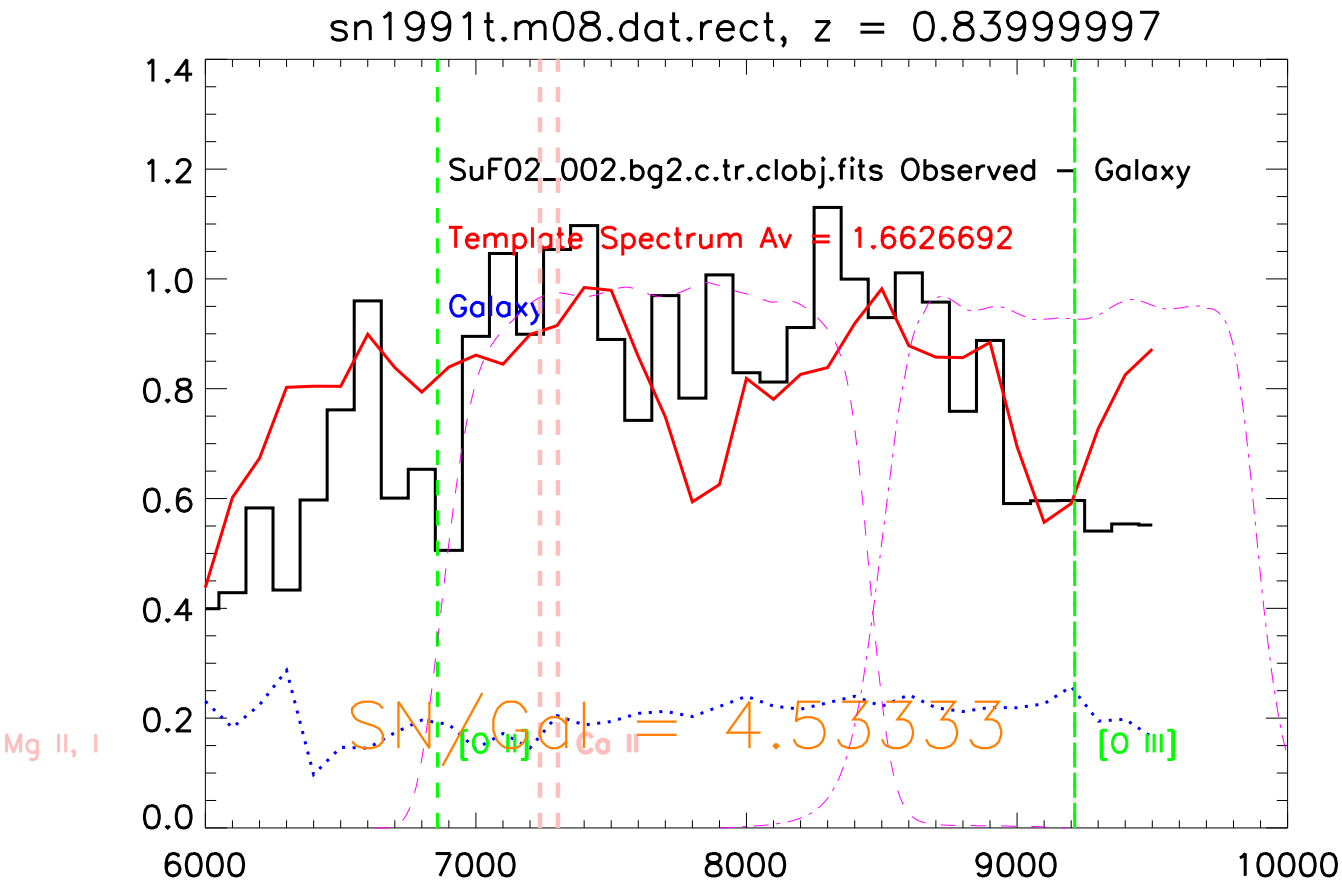

sn1996x.p22.dat.rect, z = 0.77999997
SuF02_002.bg2.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −2.5278046
Galaxy
SN/Gal = 0.603972
Mg II, I
[O II]
Ca II
[O III]
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000

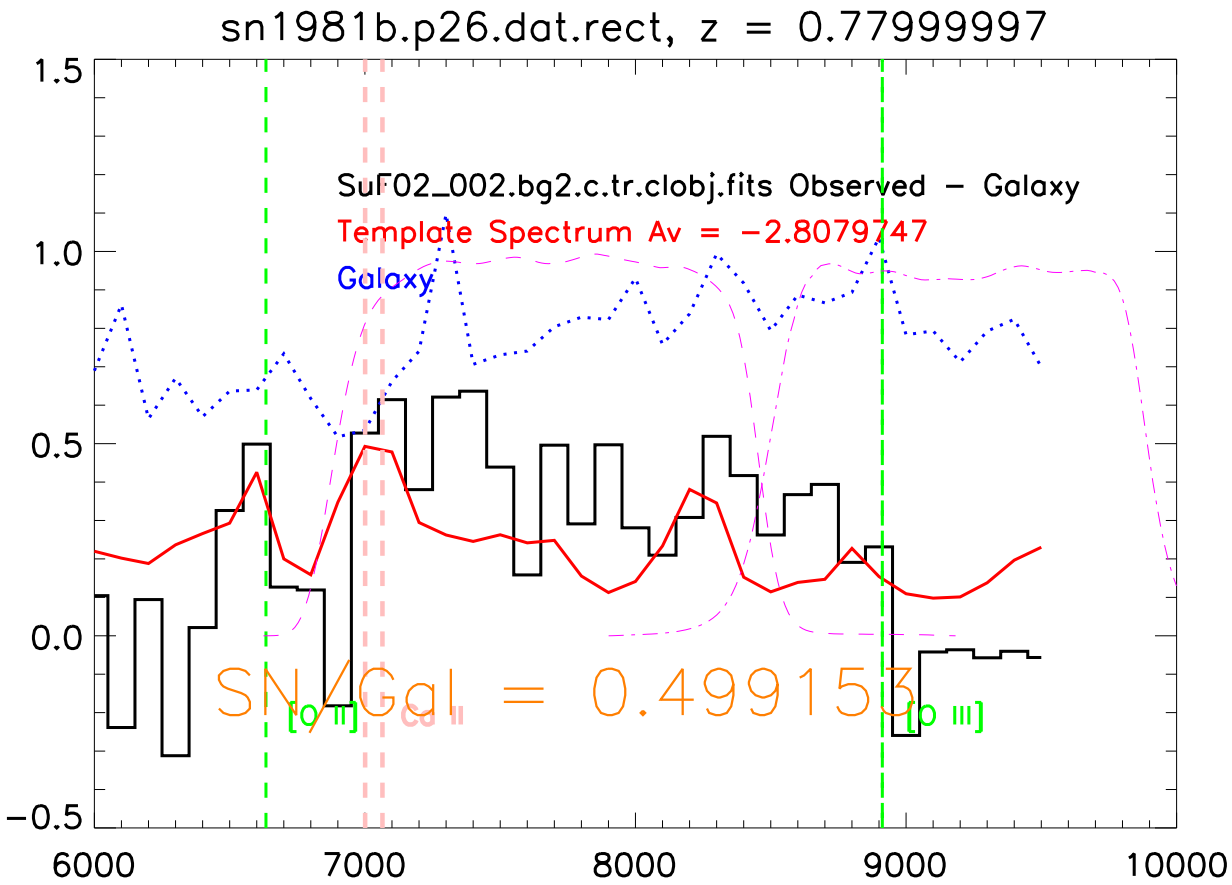

sn1999ee.p42.dat.rect, z = 0.79999995
SuF02_002.bg2.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −2.5312988
Galaxy
SN/Gal = 0.289259
Mg II, I
[O II]
Ca II
[O III]
1.5
1.0
0.5
0.0
−0.5
−1.0
6000
7000
8000
9000
10000

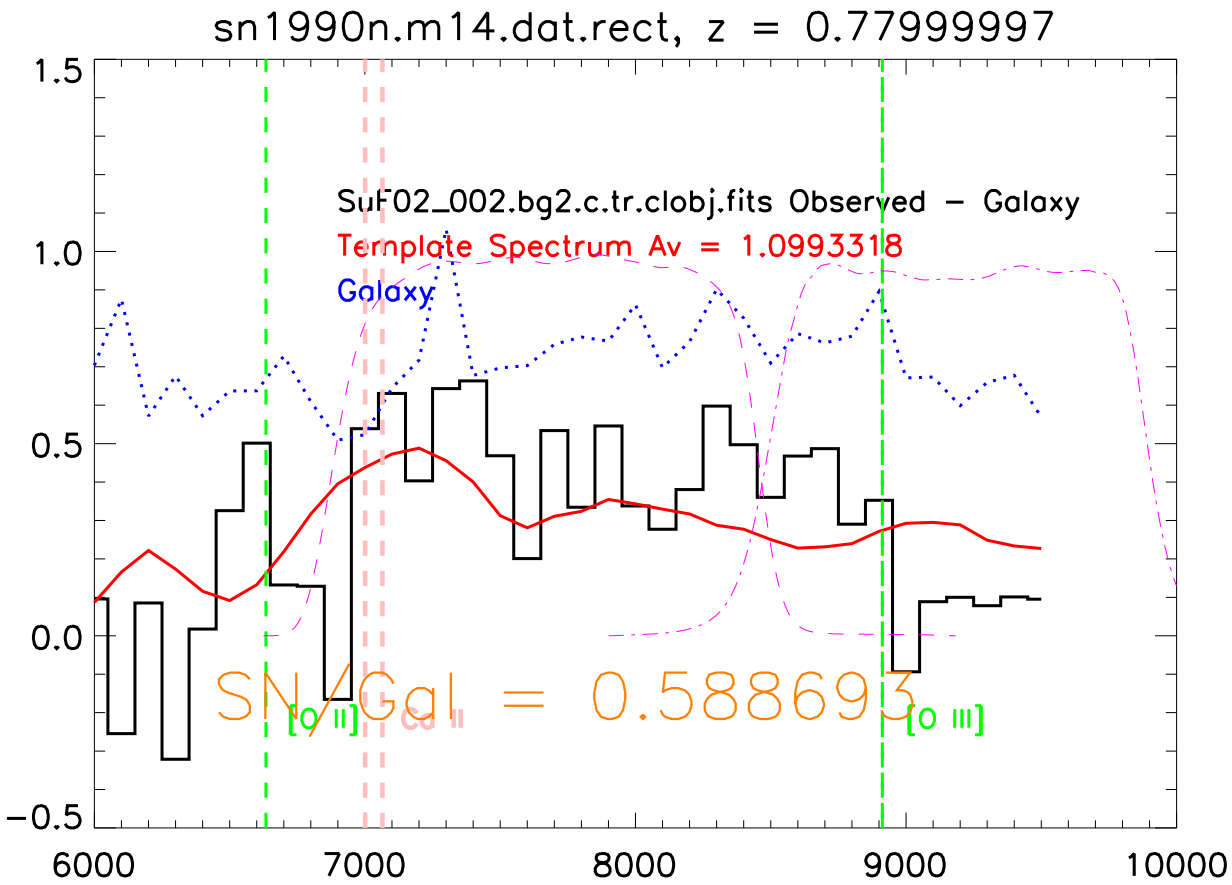

sn1999ee.m08.dat.rect, z = 0.82999998
SuF02_002.bg2.c.tr.clobj.fits Observed
Galaxy
Template Spectrum Av = 0.96243469
Galaxy
SN/Gal = 0.993272
Mg II, I
[O II]
Ca II
[O III]
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
−0.4
6000
7000
8000
9000
10000

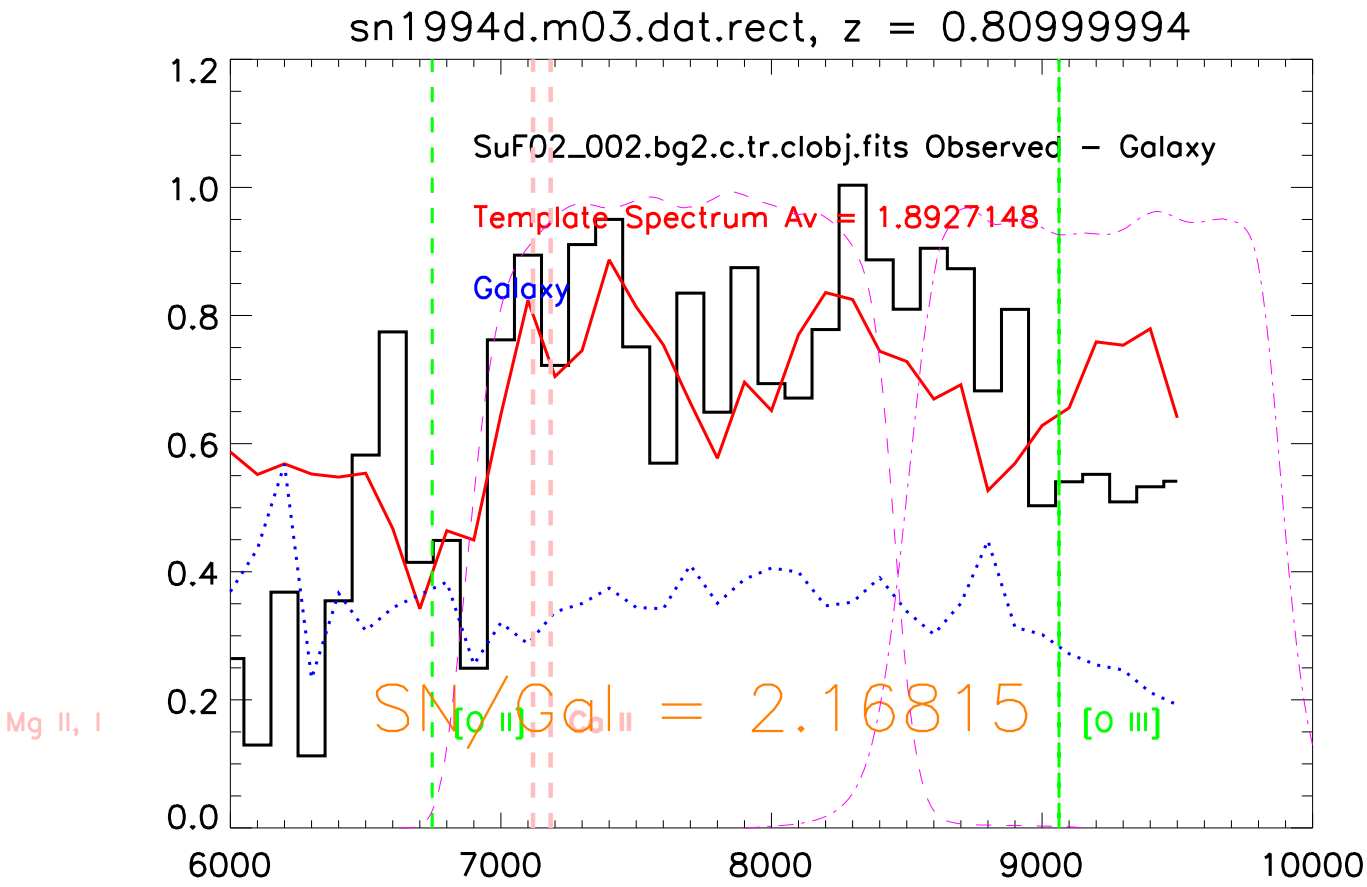

sn1990n.p17.dat.rect, z = 0.82999998
SuF02_002.bg2.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = −1.0869572
Galaxy
SN/Gal = 0.883139
[O II]
Ca II
[O III]
Mg II, I
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
6000
7000
8000
9000
10000

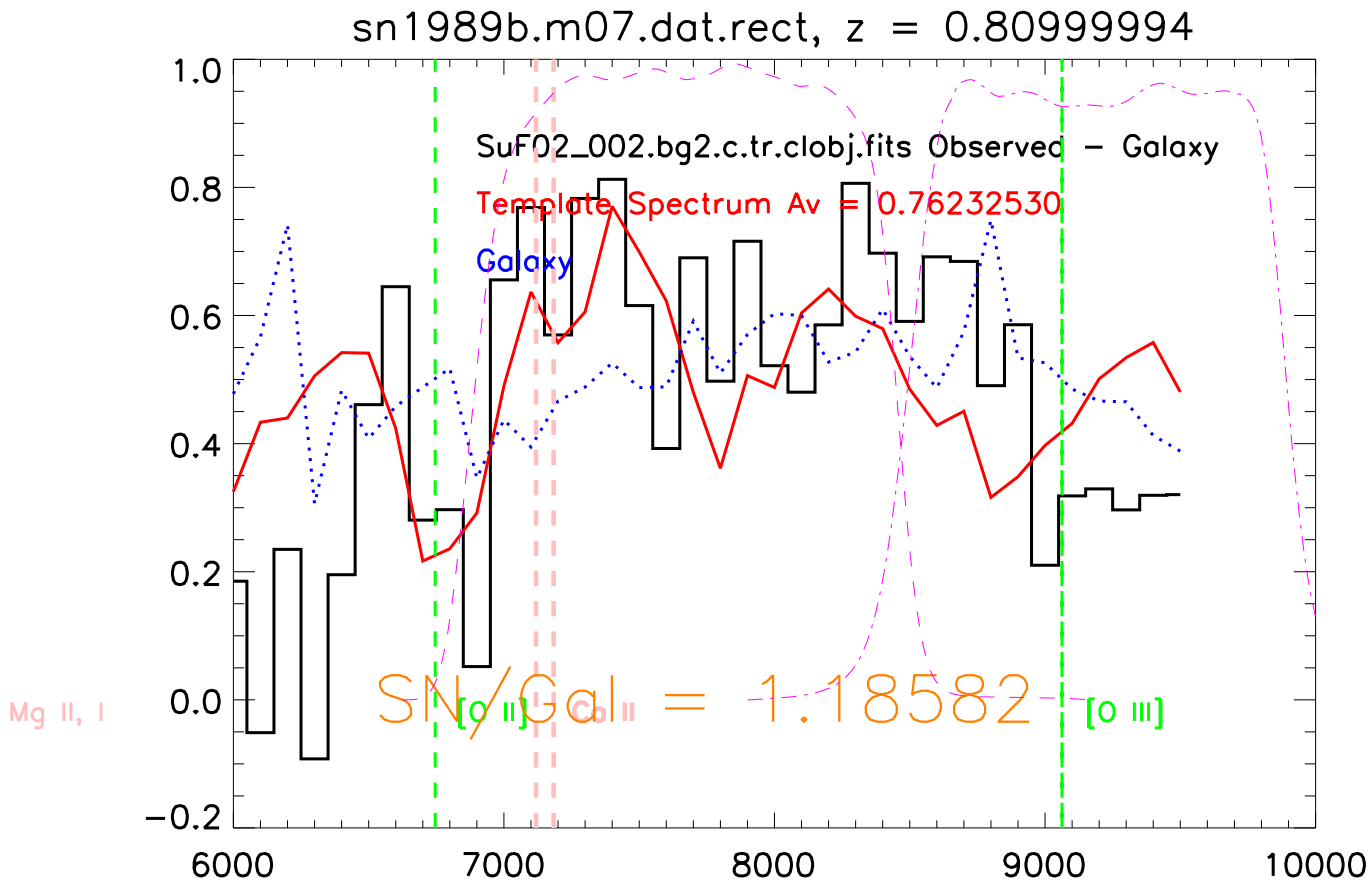

sn1989b.m05.dat.rect, z = 0.80999994
SuF02_002.bg2.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = 0.0030761154
Galaxy
SN/Gal = 1.20749
Mg II, I
[O II]
Ca II
[O III]
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
6000
7000
8000
9000
10000


sn1991t.m08.dat.rect, z = 0.83999997
SuF02_002.bg2.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = 1.6626692
Galaxy
SN/Gal = 4.53333
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
6000
7000
8000
9000
10000


sn1981b.p26.dat.rect, z = 0.77999997
SuF02_002.bg2.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = −2.8079747
Galaxy
SN/Gal = 0.499153
[O II]
Ca II
[O III]
Mg II, I
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000


sn1990n.m14.dat.rect, z = 0.77999997
SuF02_002.bg2.c.tr.clobj.fits Observed − Galaxy
Template Spectrum Av = 1.0993318
Galaxy
SN/Gal = 0.588693
[O II]
Ca II
[O III]
Mg II, I
1.5
1.0
0.5
0.0
−0.5
6000
7000
8000
9000
10000


sn1994d.m03.dat.rect, z = 0.80999994
SuF02_002.bg2.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = 1.8927148
Galaxy
SN/Gal = 2.16815
[O II]
[O III]
1.2
1.0
0.8
0.6
0.4
0.2
0.0
6000
7000
8000
9000
10000


sn1989b.m07.dat.rect, z = 0.80999994
SuF02_002.bg2.c.tr.clobj.fits Observed – Galaxy
Template Spectrum Av = 0.76232530
Galaxy
SN/Gal = 1.18582
Mg II, I
[O II]
Ca II
[O III]
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
6000
7000
8000
9000
10000