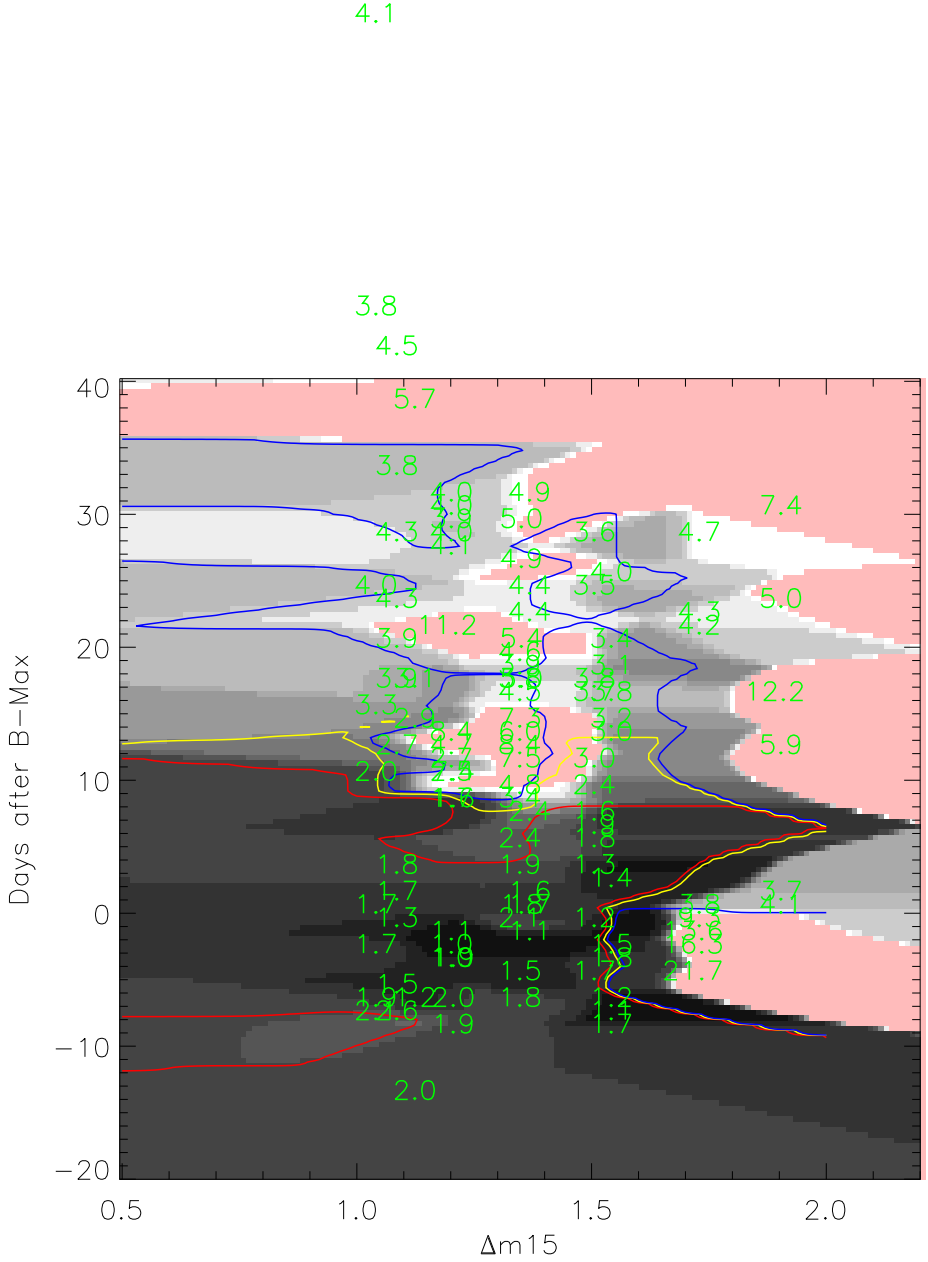
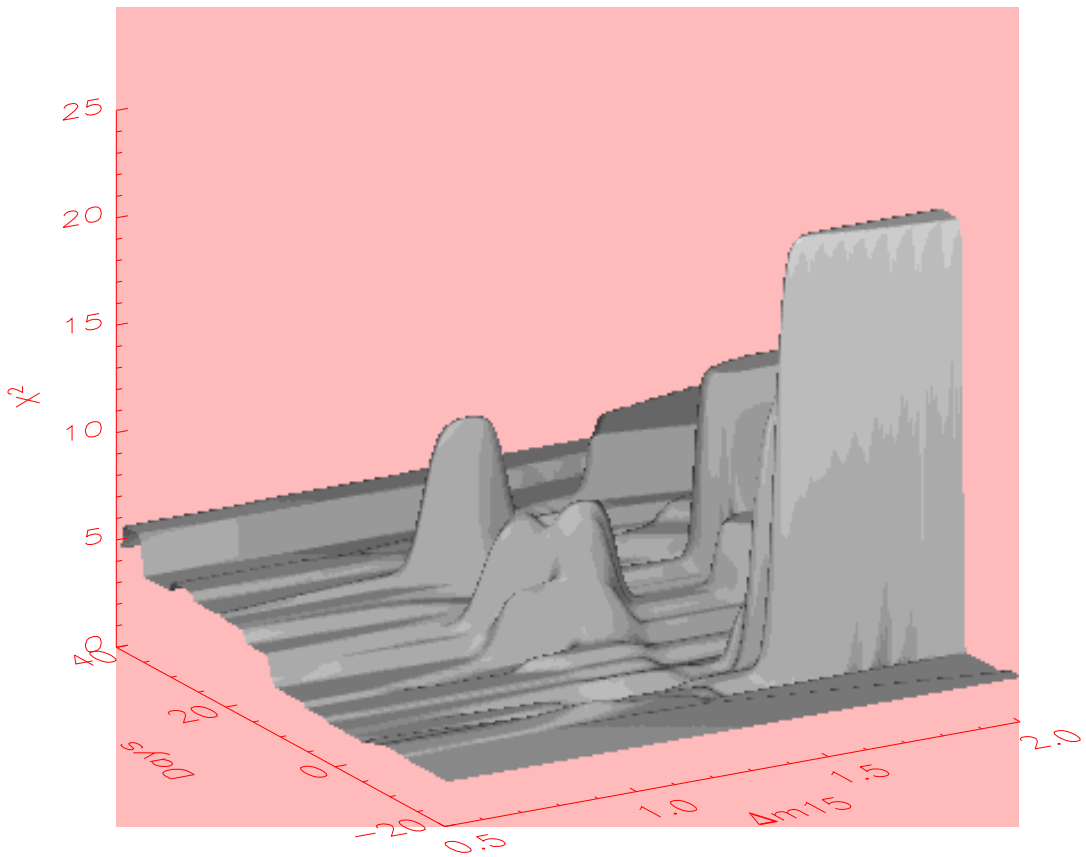
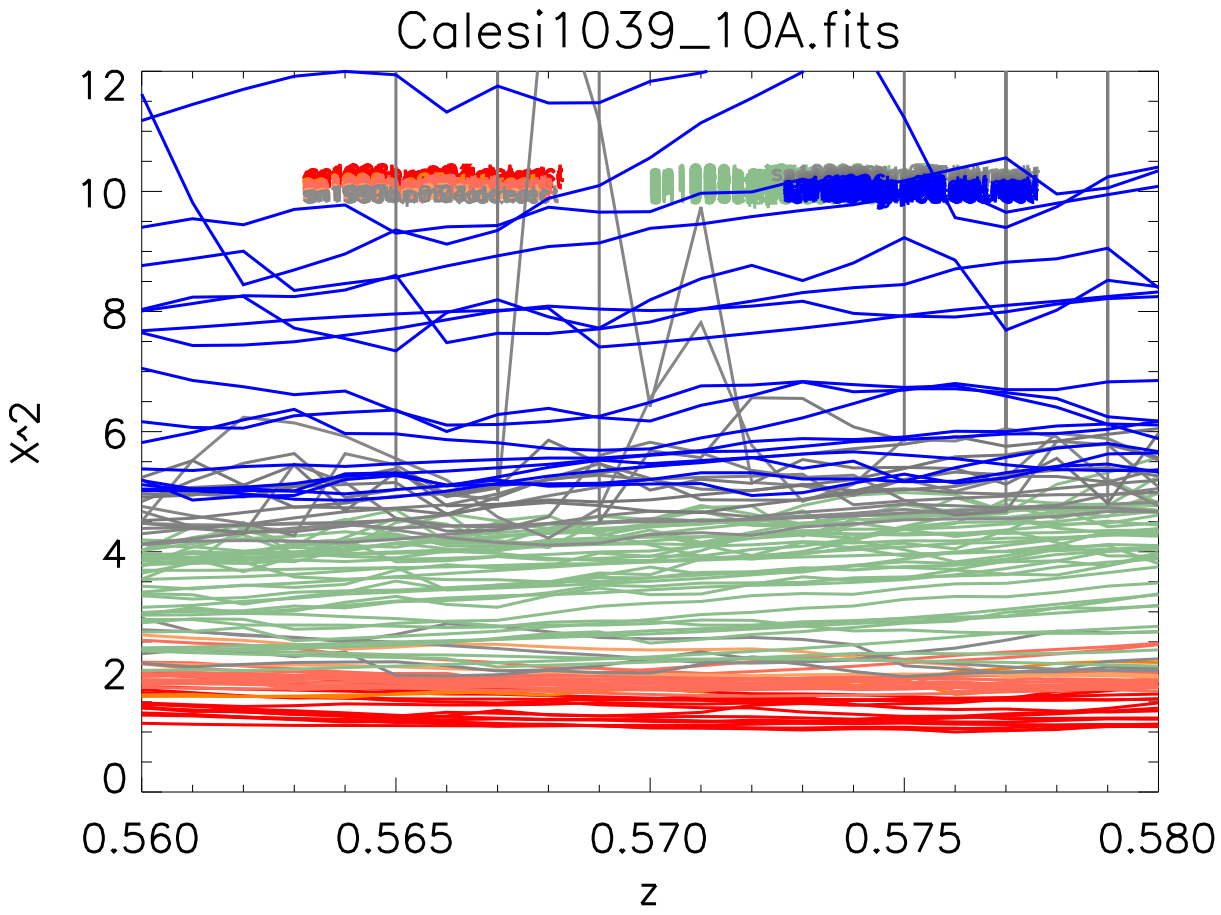
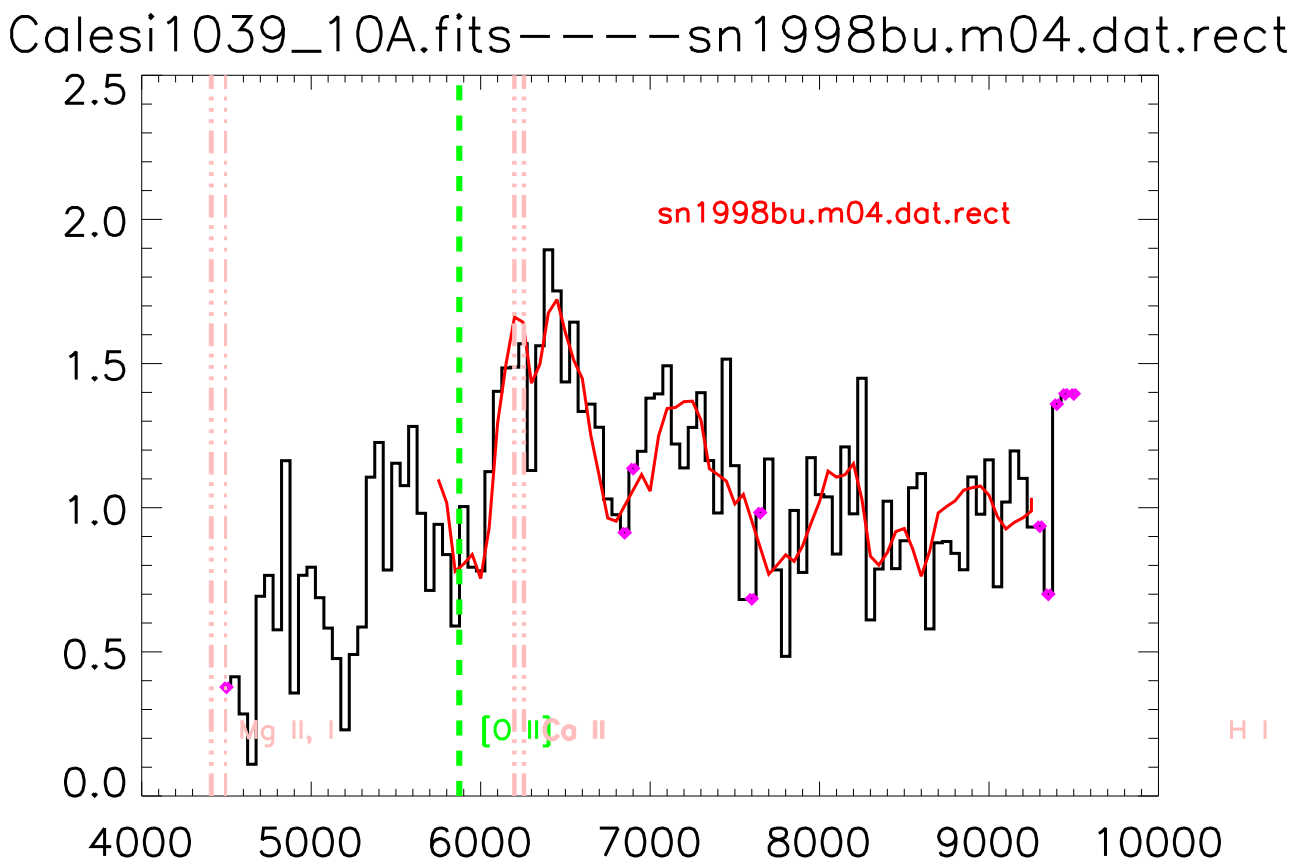
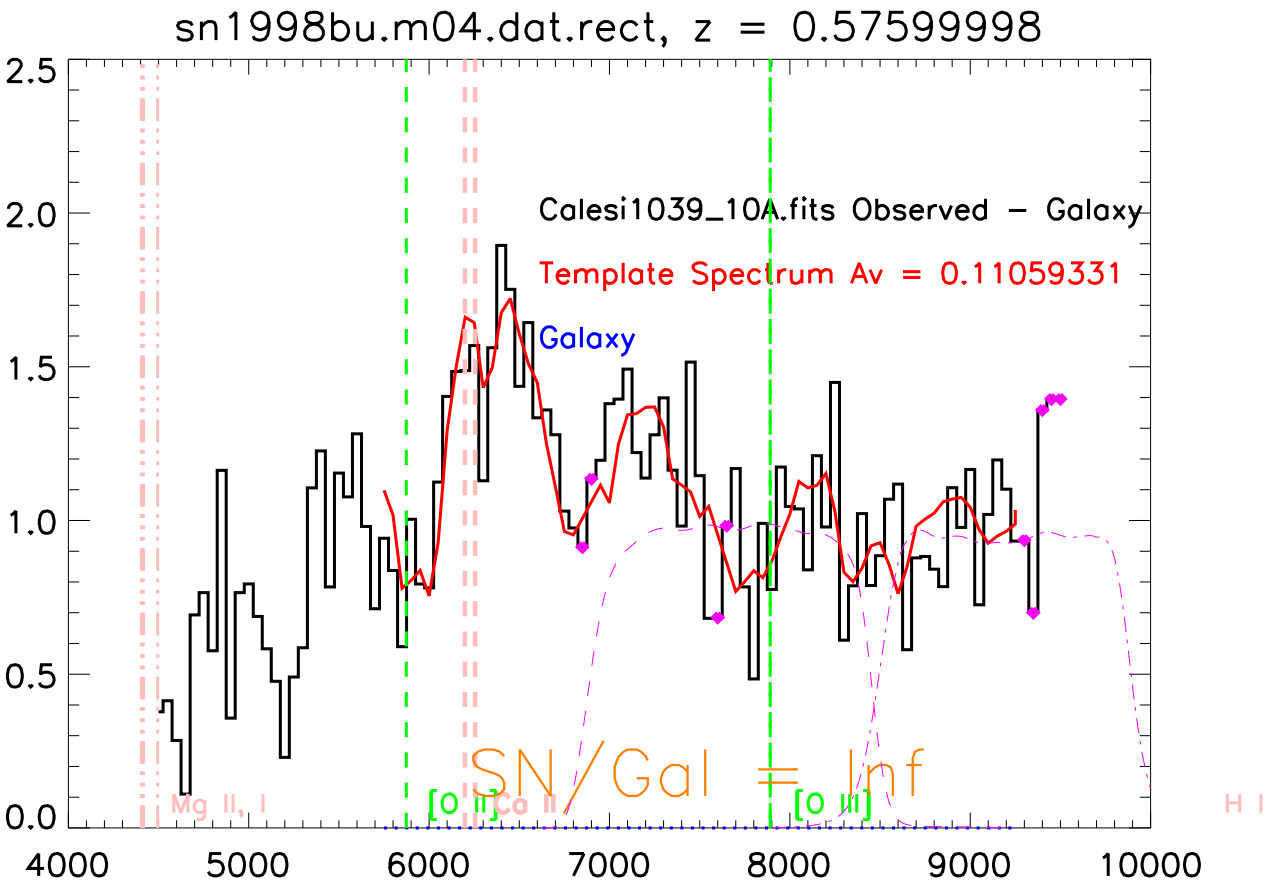

Days after B−Max
Δm15
40
30
20
10
0
−10
−20
0.5
1.0
1.5
2.0

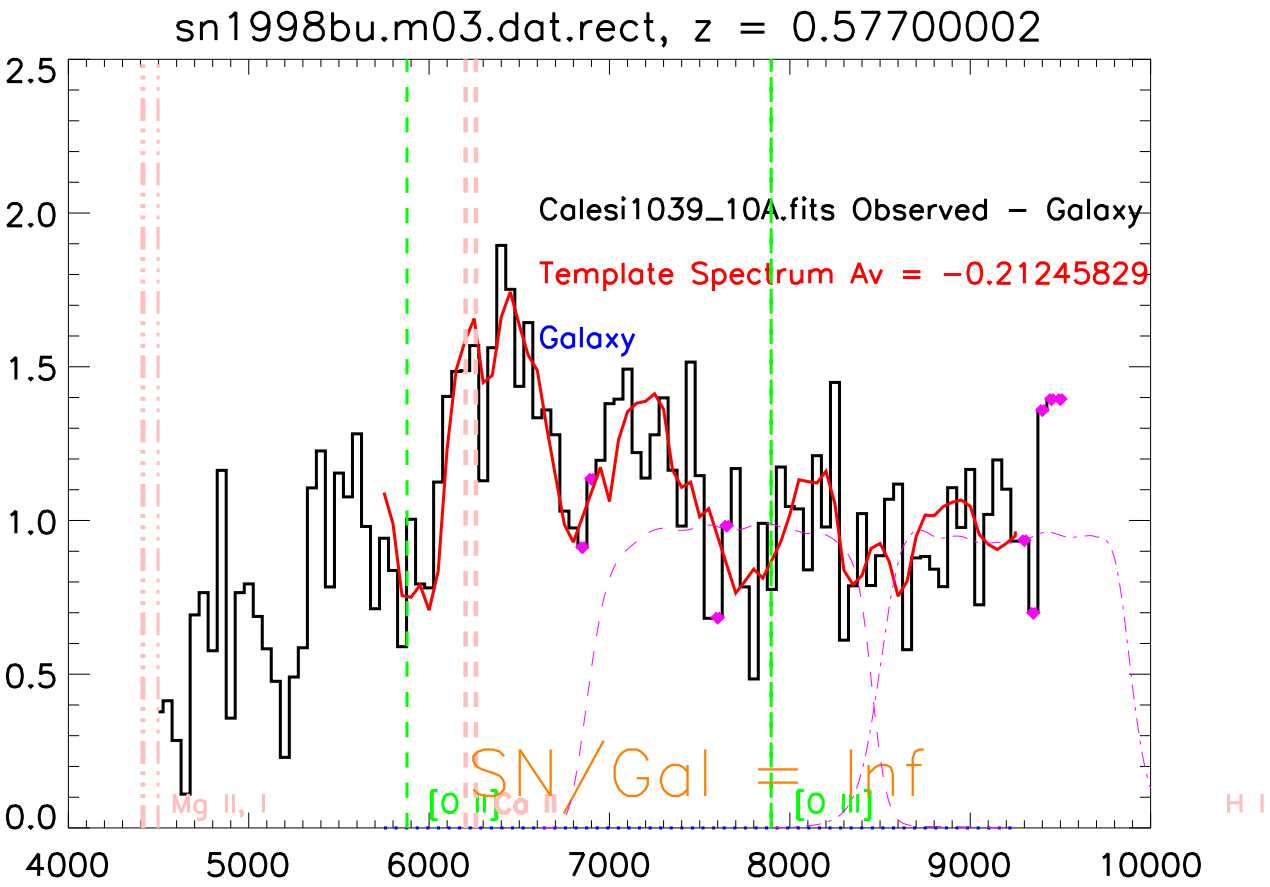


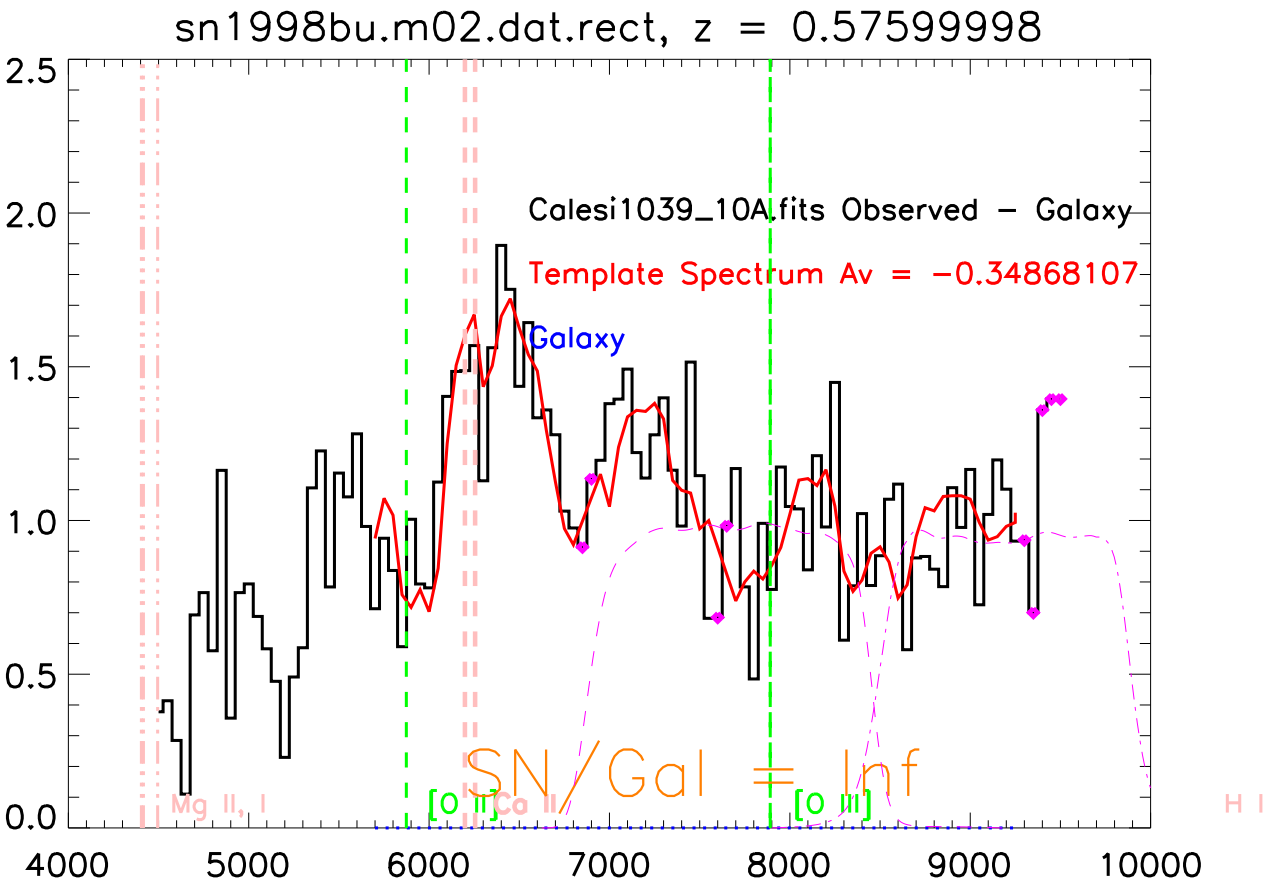
25
20
15
10
5
0
χ^2
40
20
0
−20
Days
0.5
1.0
1.5
2.0
Δm15

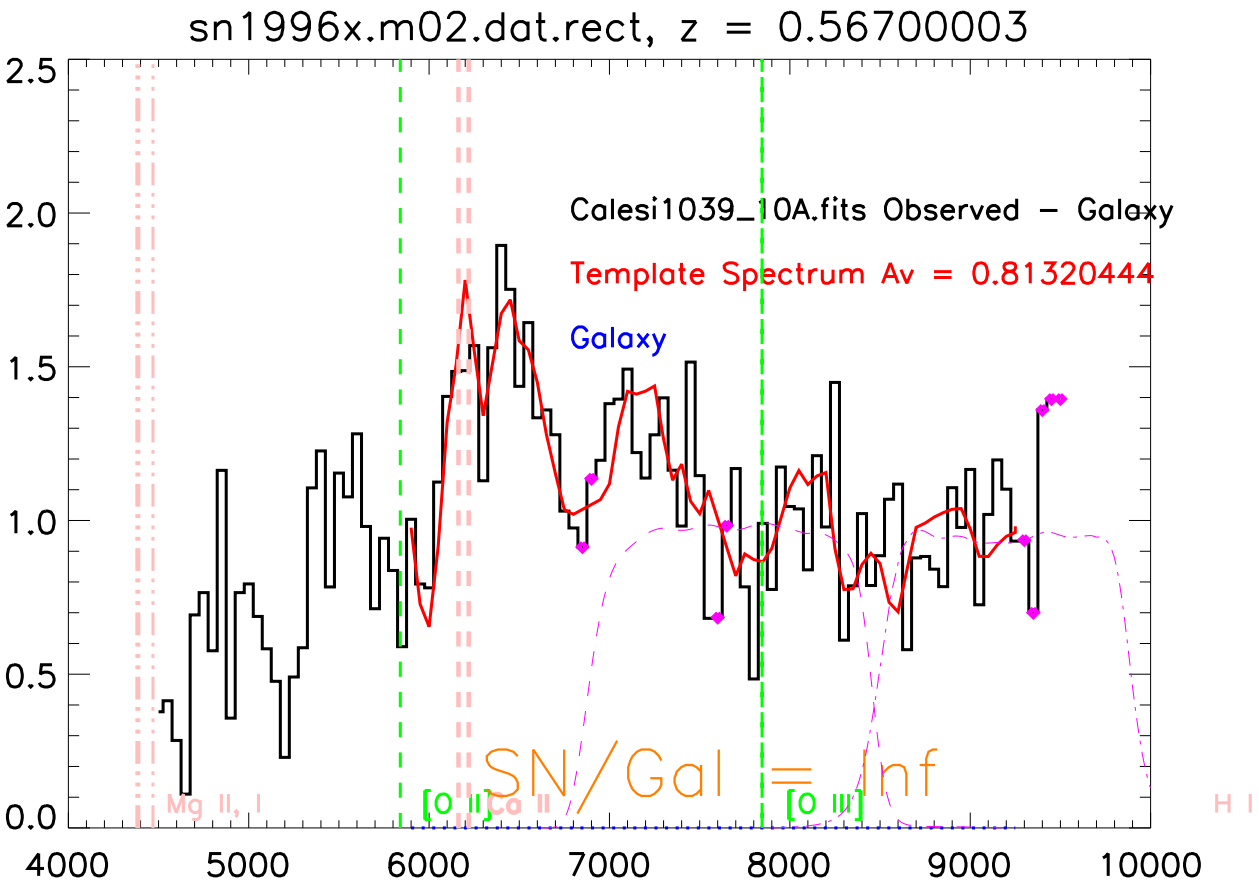

Calesi1039_10A.fits
X^2
z
0
2
4
6
8
10
12
0.560
0.565
0.570
0.575
0.580

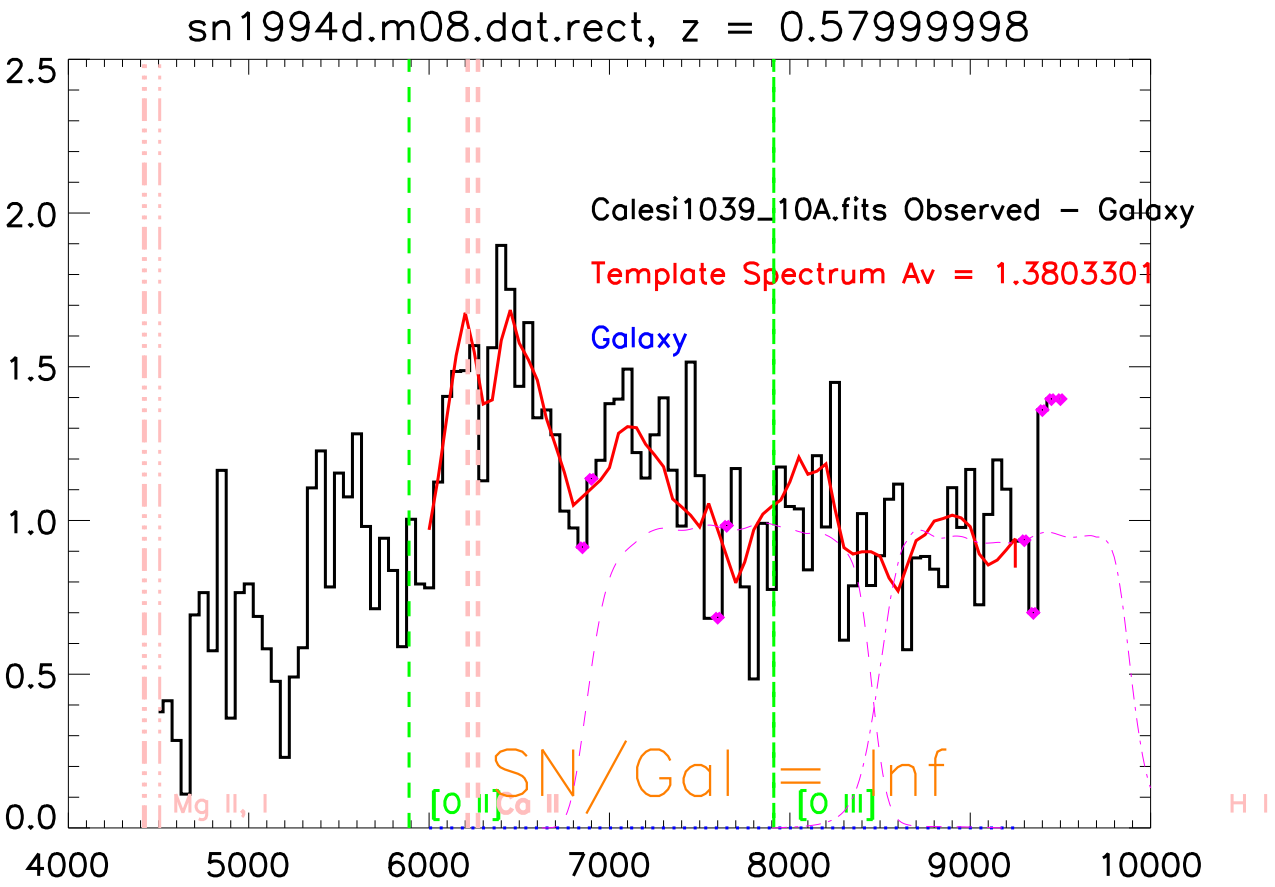

Calesi1039_10A.fits----sn1998bu.m04.dat.rect
sn1998bu.m04.dat.rect
Mg II, I
[O II]
Ca II
H I
2.5
2.0
1.5
1.0
0.5
0.0
4000
5000
6000
7000
8000
9000
10000

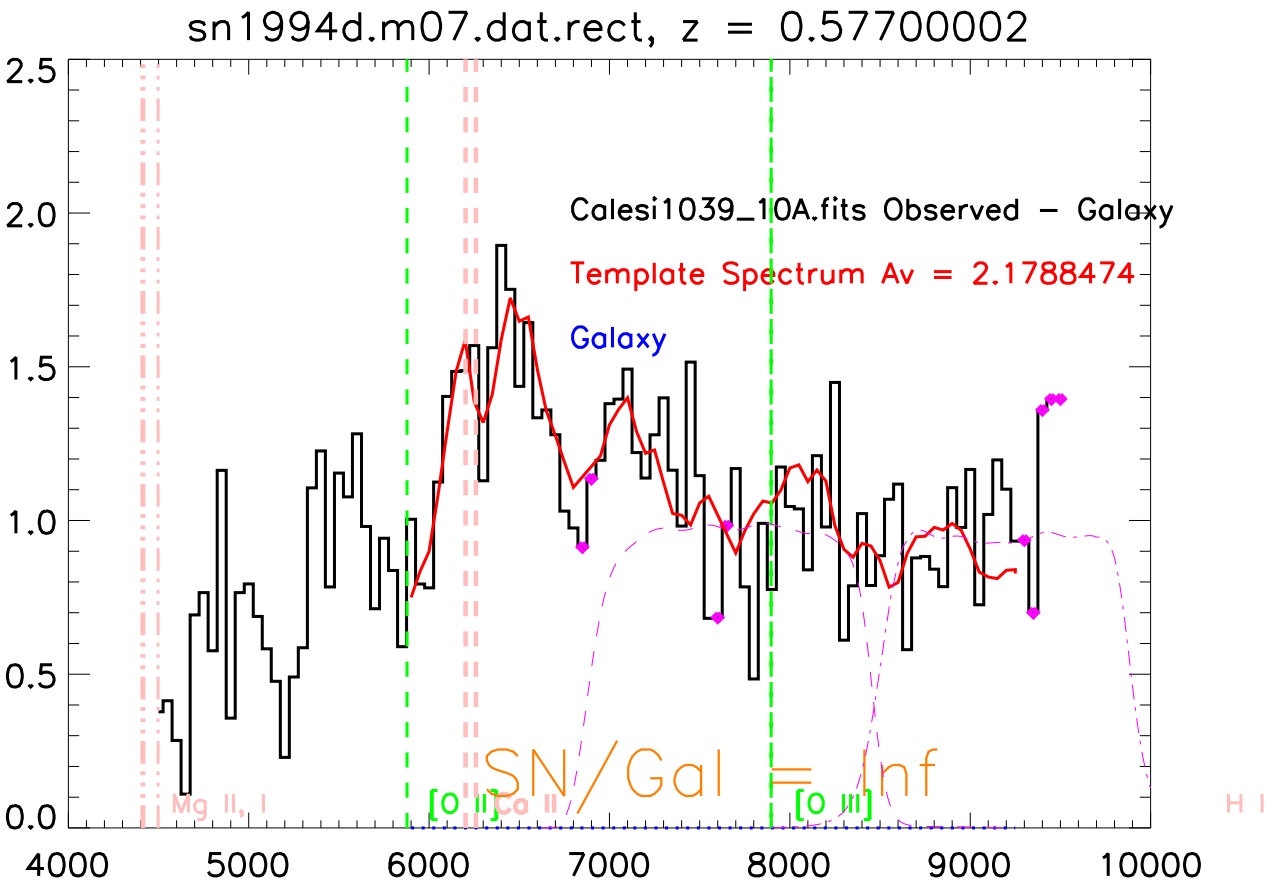

sn1998bu.m04.dat.rect, z = 0.57599998
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = 0.11059331
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
2.5
2.0
1.5
1.0
0.5
0.0
4000
5000
6000
7000
8000
9000
10000

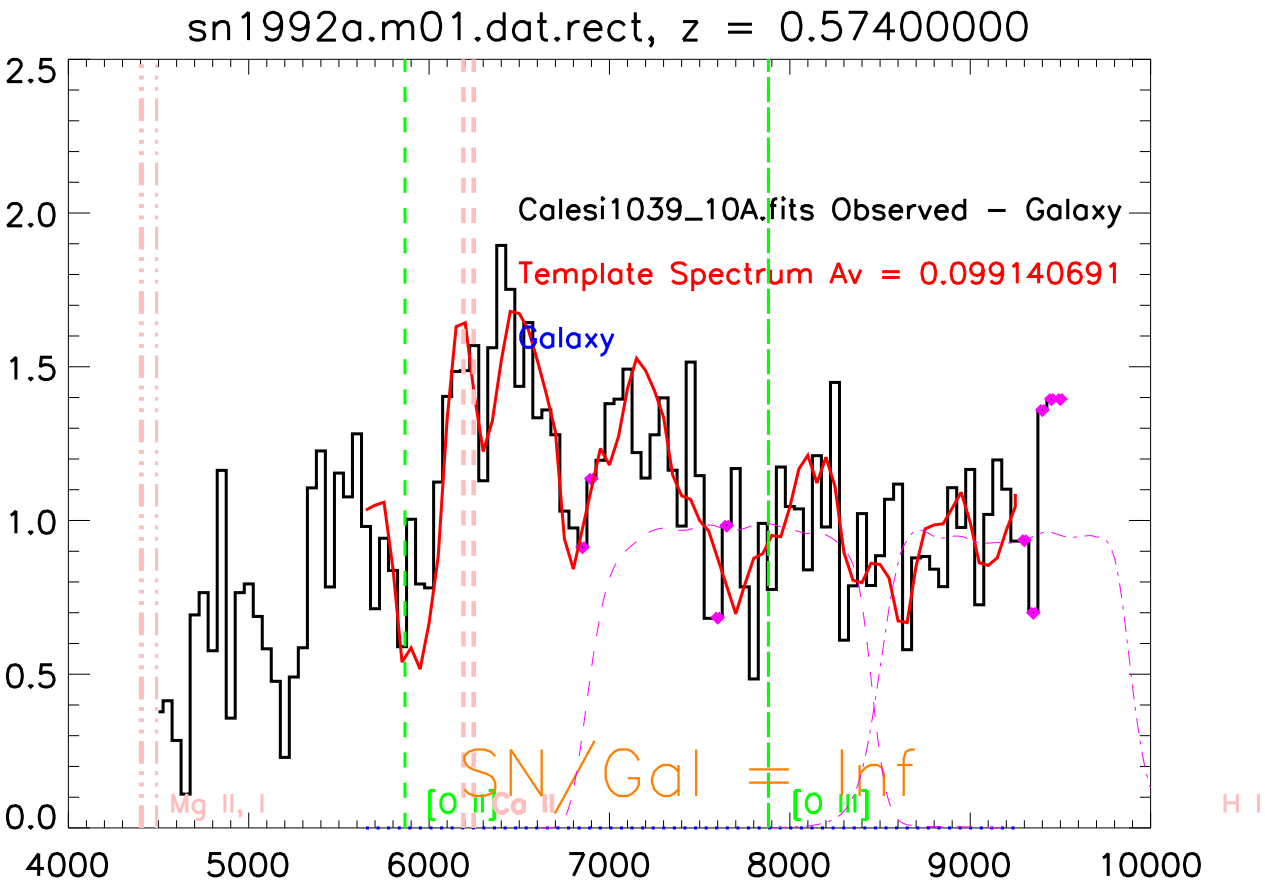

sn1998bu.m03.dat.rect, z = 0.57700002
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −0.21245829
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
2.5
2.0
1.5
1.0
0.5
0.0
4000
5000
6000
7000
8000
9000
10000

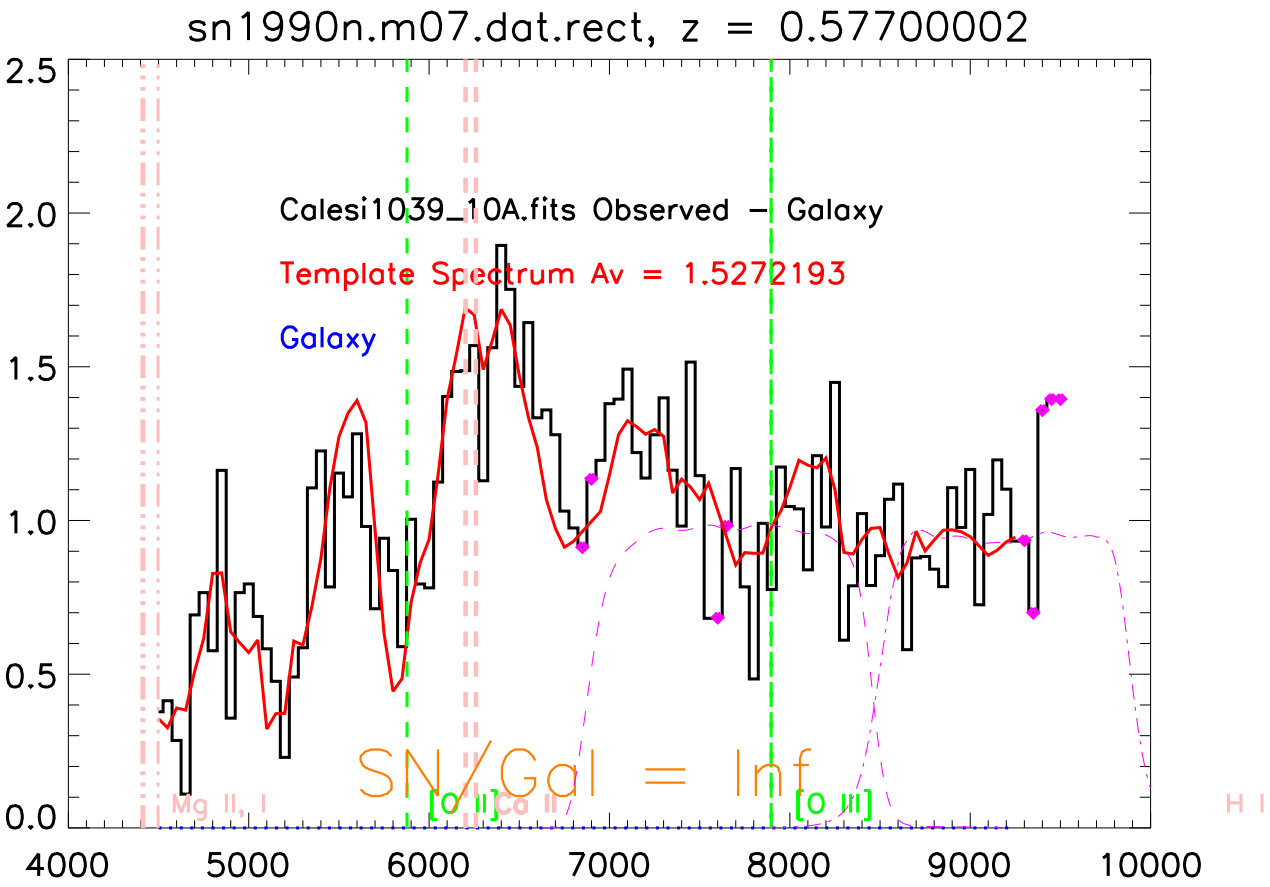

sn1998bu.m02.dat.rect, z = 0.57599998
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −0.34868107
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
2.5
2.0
1.5
1.0
0.5
0.0
4000
5000
6000
7000
8000
9000
10000

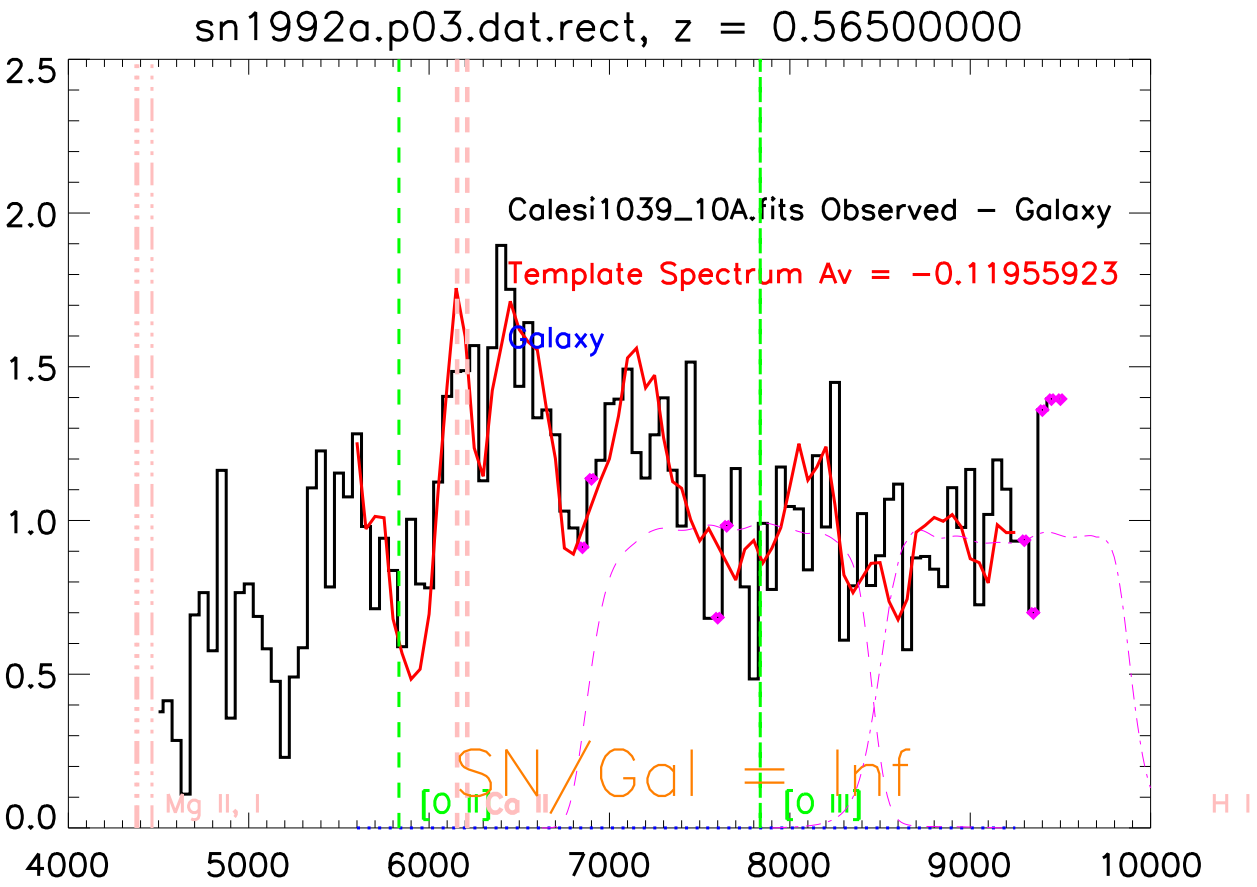

sn1996x.m02.dat.rect, z = 0.56700003
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = 0.81320444
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
2.5
2.0
1.5
1.0
0.5
0.0
4000
5000
6000
7000
8000
9000
10000

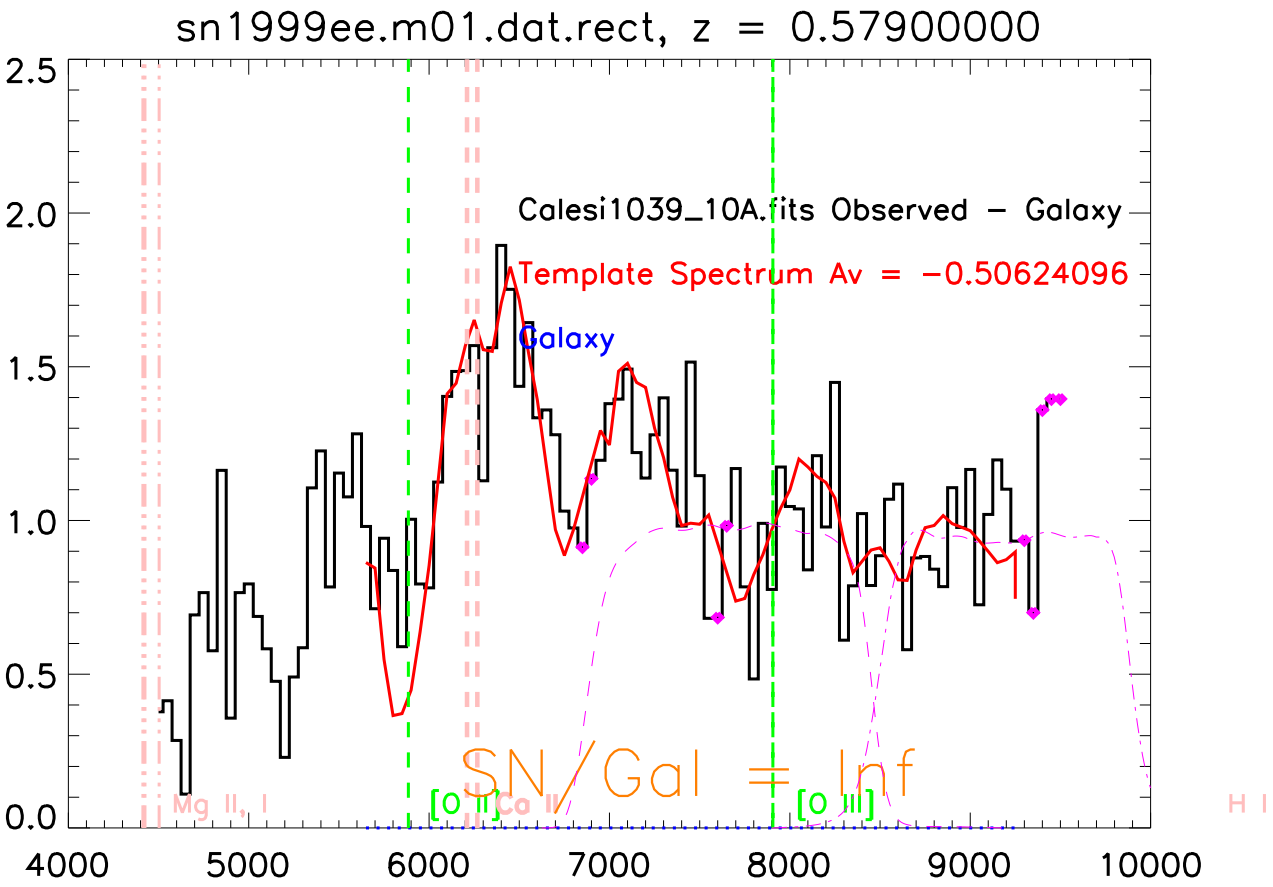

sn1994d.m08.dat.rect, z = 0.57999998
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = 1.3803301
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
2.5
2.0
1.5
1.0
0.5
0.0
4000
5000
6000
7000
8000
9000
10000

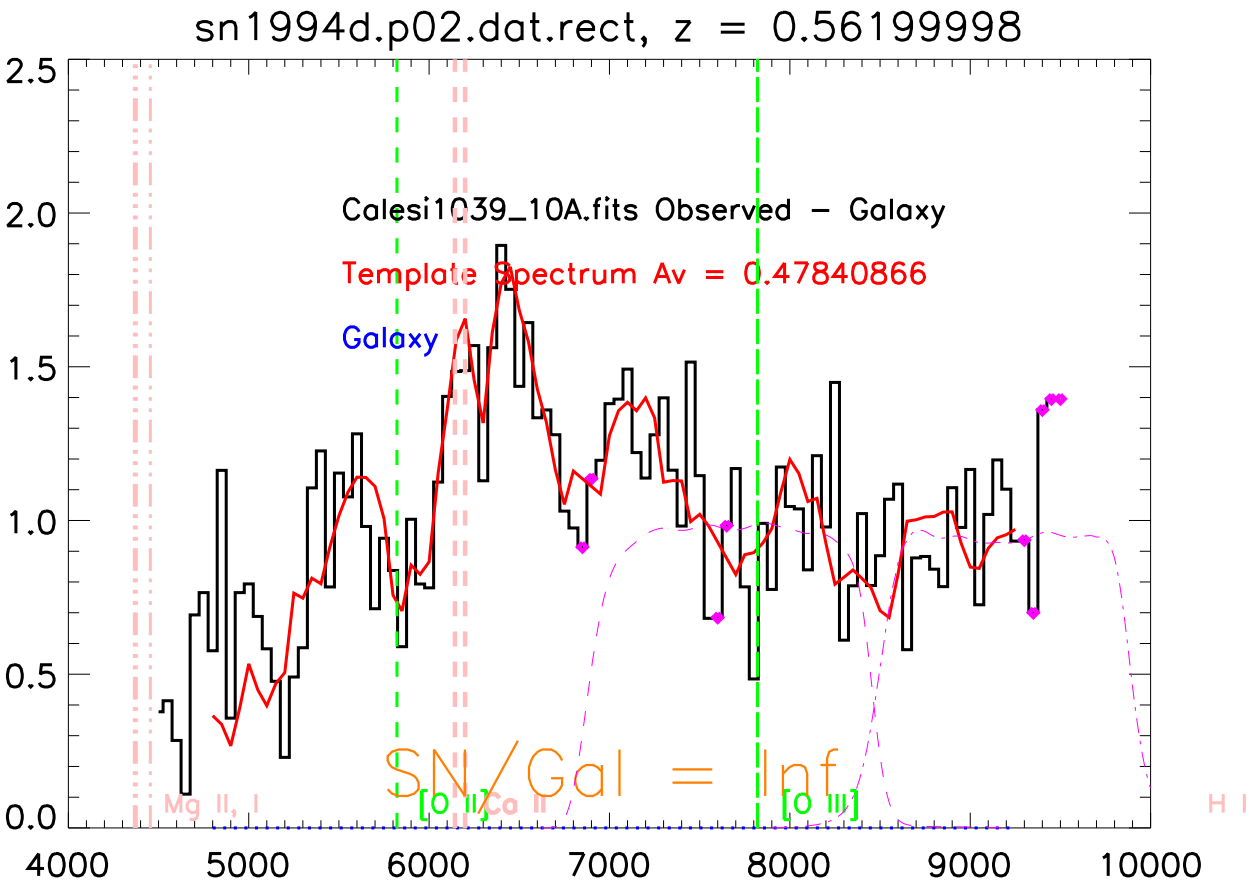

sn1994d.m07.dat.rect, z = 0.57700002
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = 2.1788474
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
2.5
2.0
1.5
1.0
0.5
0.0
4000
5000
6000
7000
8000
9000
10000

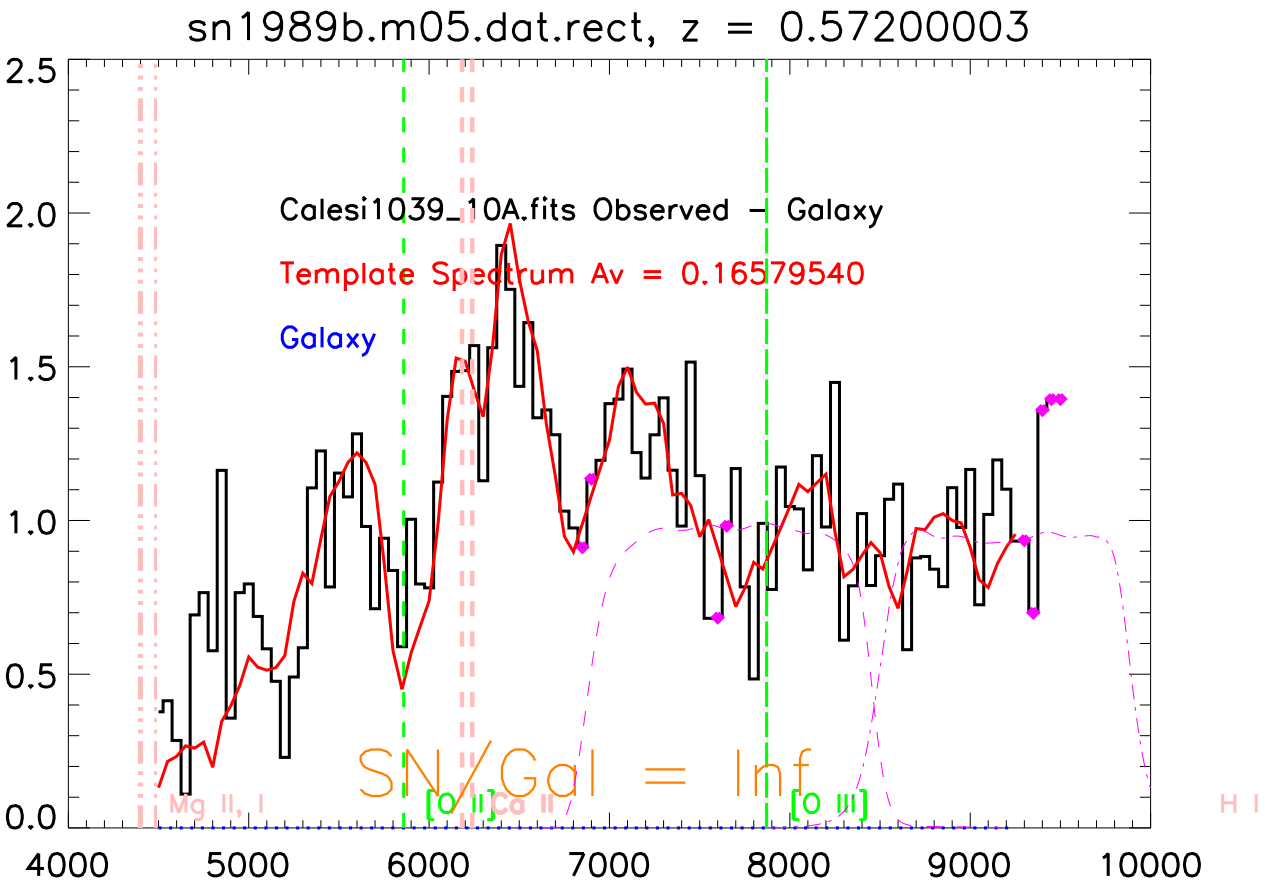

sn1992a.m01.dat.rect, z = 0.57400000
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = 0.099140691
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
2.5
2.0
1.5
1.0
0.5
0.0
4000
5000
6000
7000
8000
9000
10000

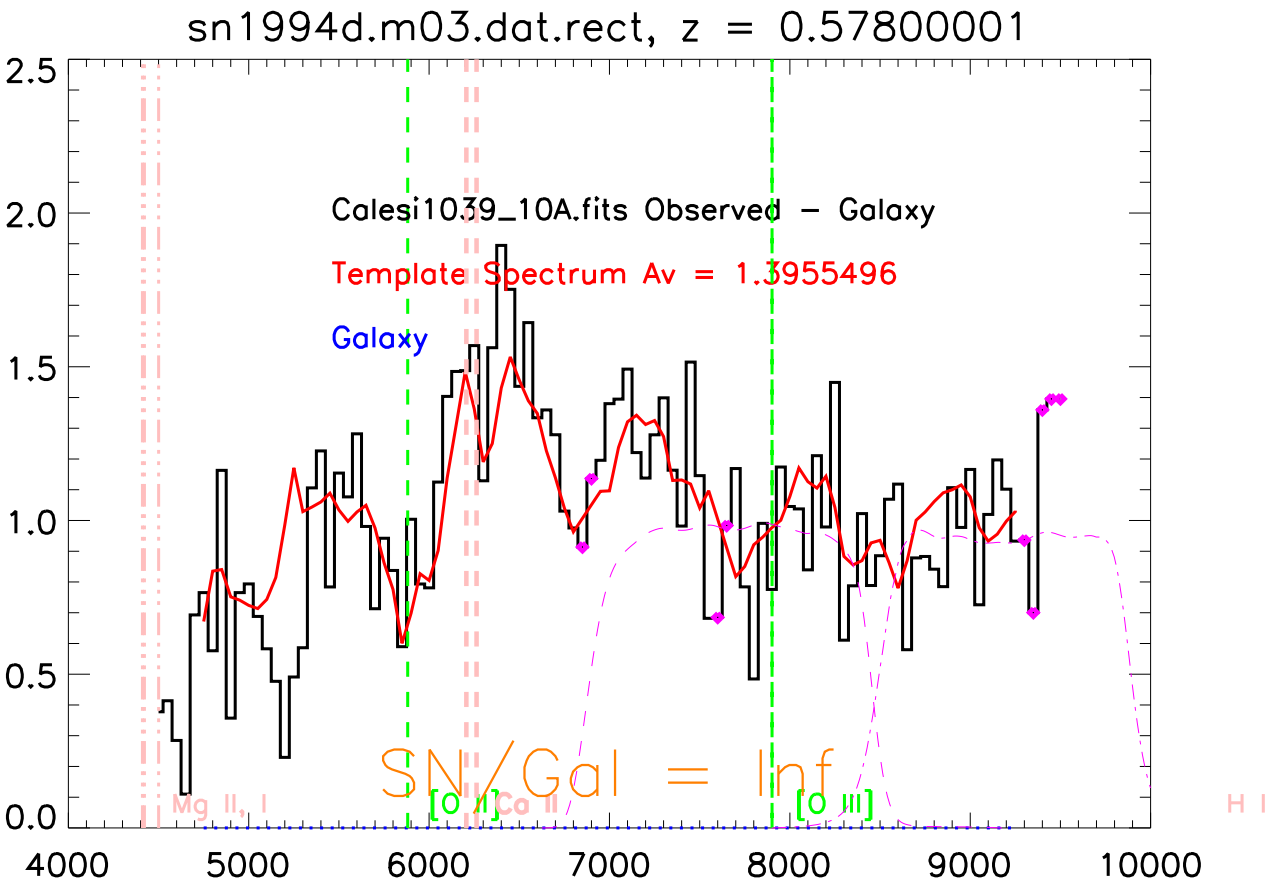

sn1990n.m07.dat.rect, z = 0.57700002
Calesi1039_10A.fits Observed – Galaxy
Template Spectrum Av = 1.5272193
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
2.5
2.0
1.5
1.0
0.5
0.0
4000
5000
6000
7000
8000
9000
10000

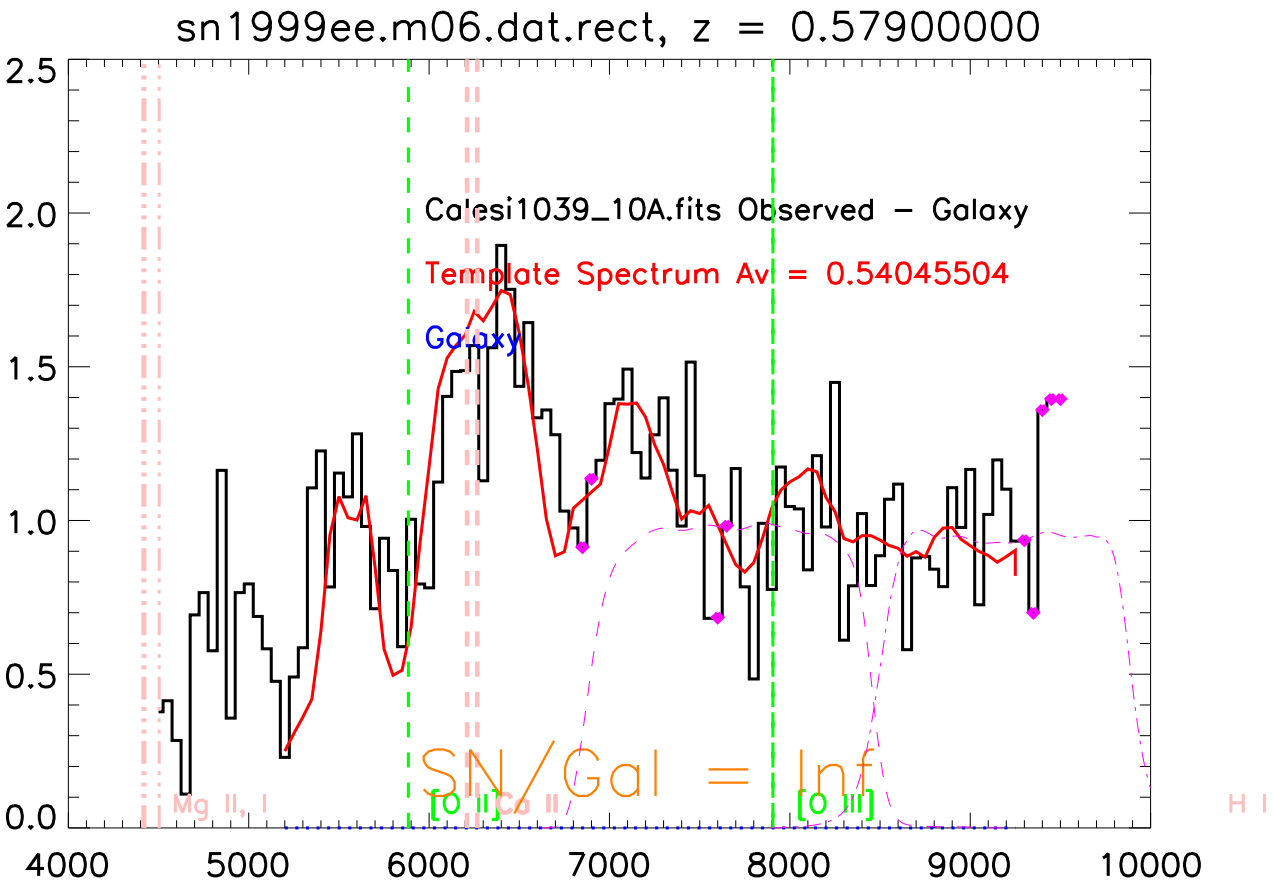

sn1992a.p03.dat.rect, z = 0.56500000
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −0.11955923
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
2.5
2.0
1.5
1.0
0.5
0.0
4000
5000
6000
7000
8000
9000
10000

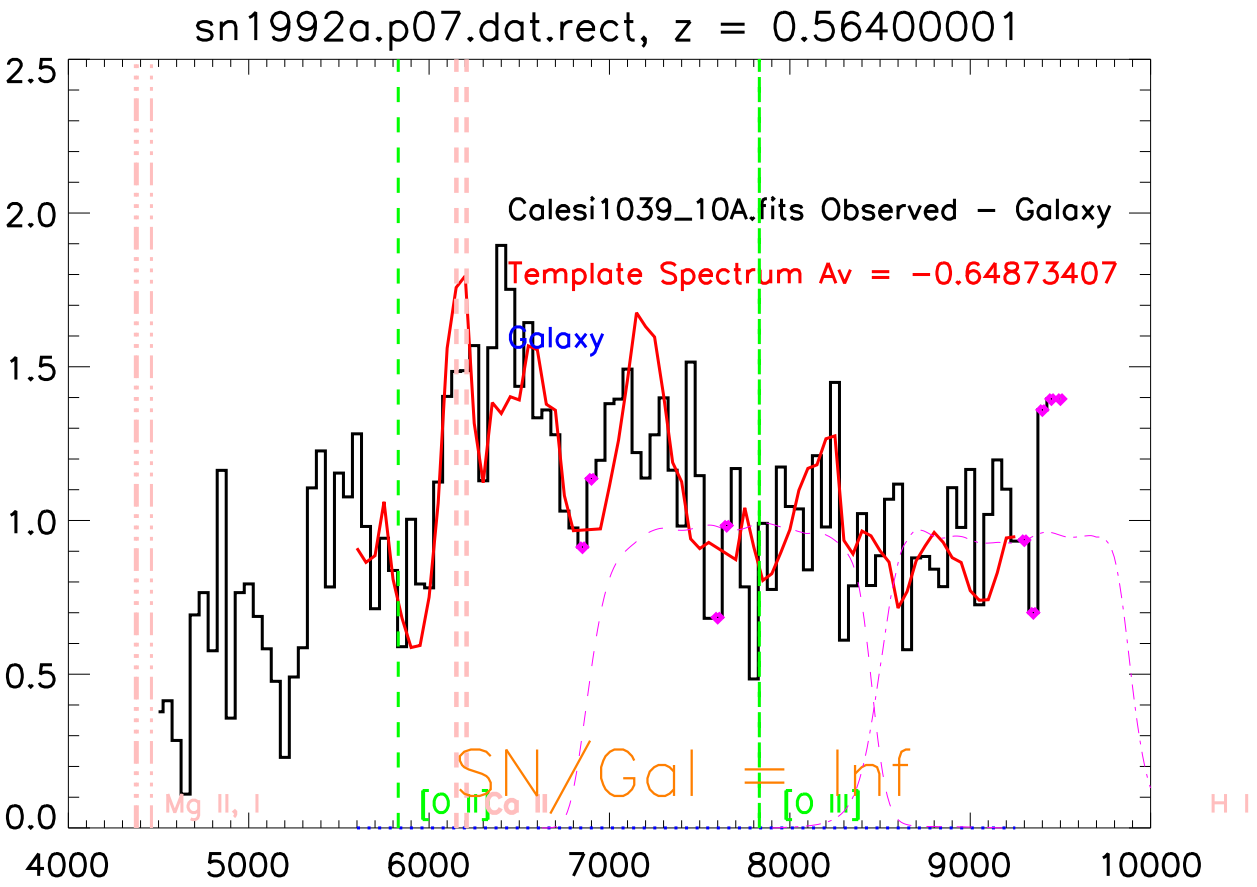

sn1999ee.m01.dat.rect, z = 0.57900000
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −0.50624096
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
2.5
2.0
1.5
1.0
0.5
0.0
4000
5000
6000
7000
8000
9000
10000

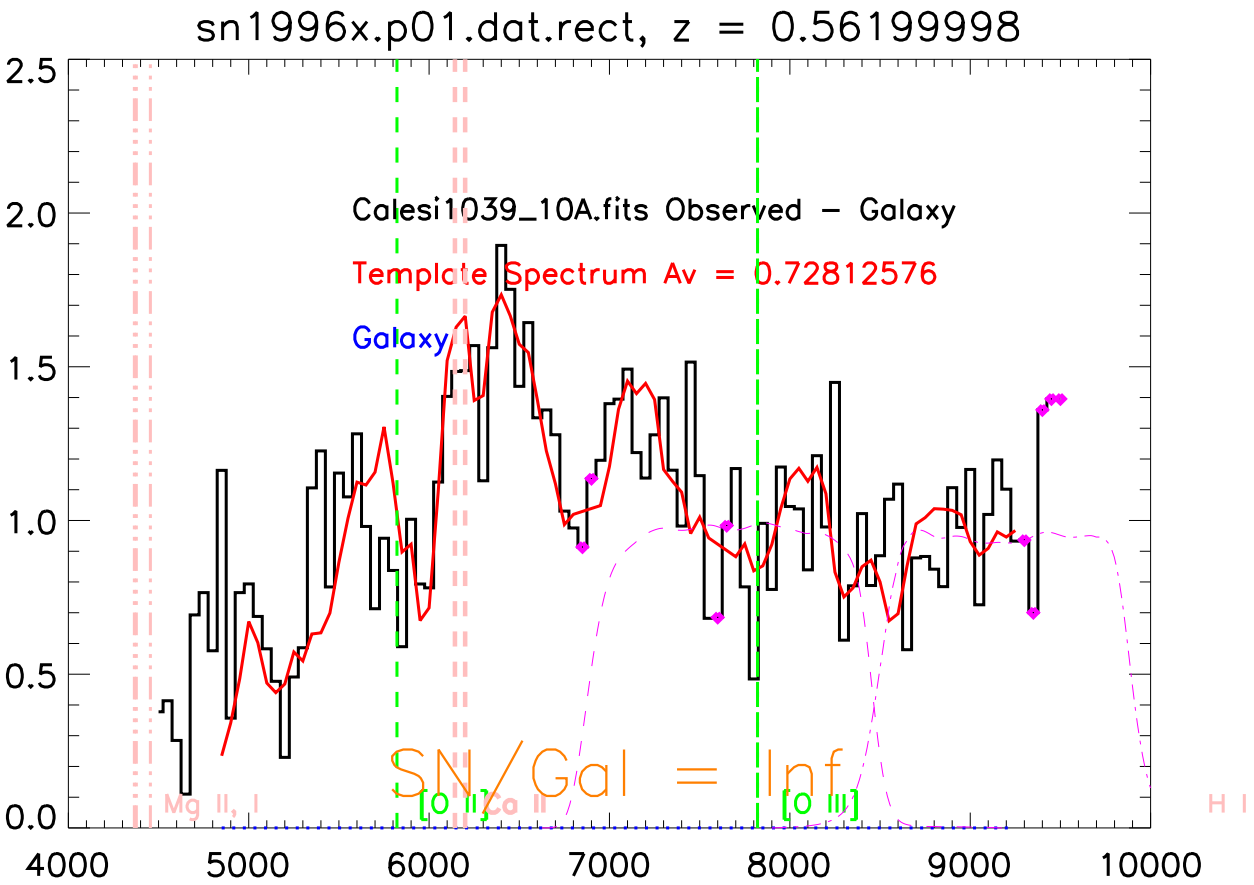

sn1994d.p02.dat.rect, z = 0.56199998
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = 0.47840866
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
2.5
2.0
1.5
1.0
0.5
0.0
4000
5000
6000
7000
8000
9000
10000

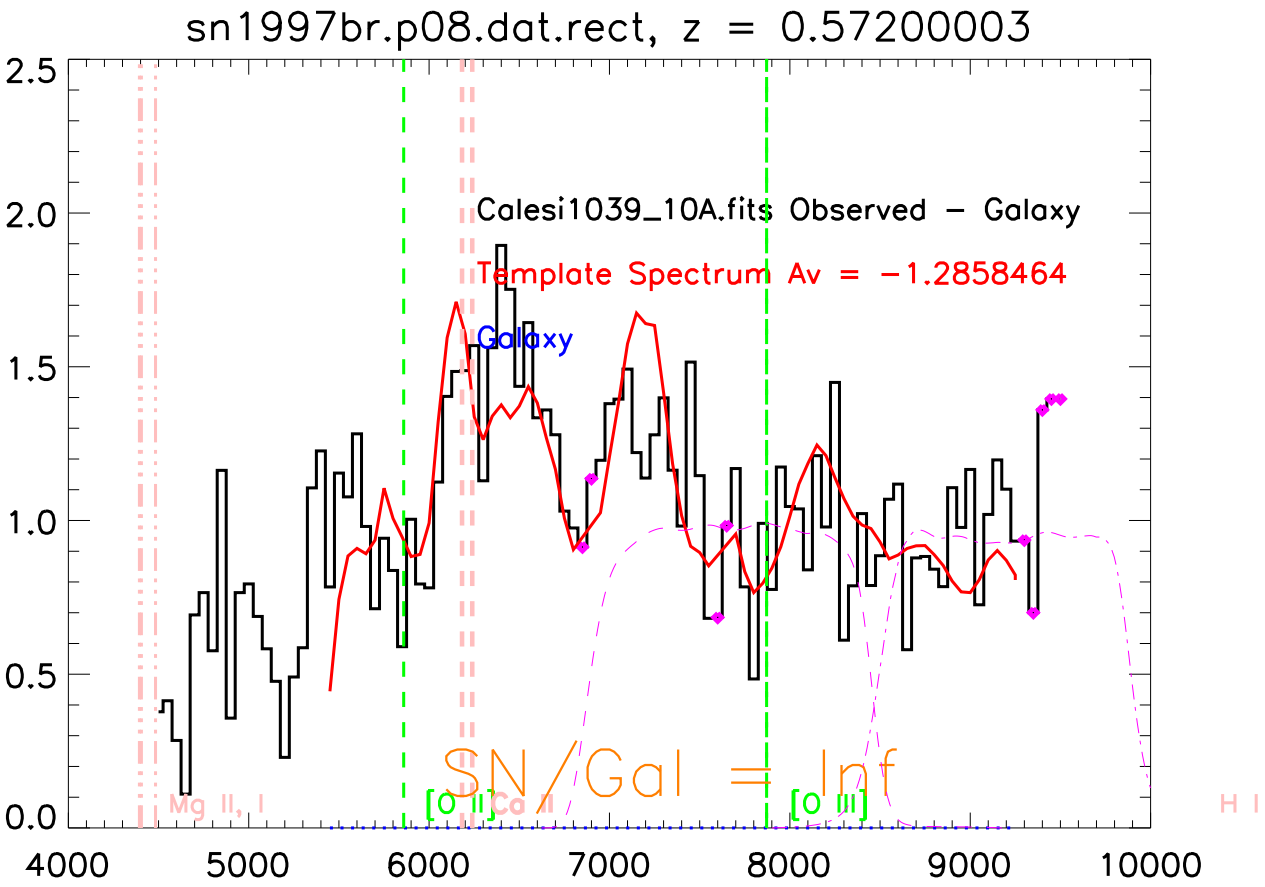

sn1989b.m05.dat.rect, z = 0.57200003
Calesi1039_10A.fits Observed – Galaxy
Template Spectrum Av = 0.16579540
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
2.5
2.0
1.5
1.0
0.5
0.0
4000
5000
6000
7000
8000
9000
10000

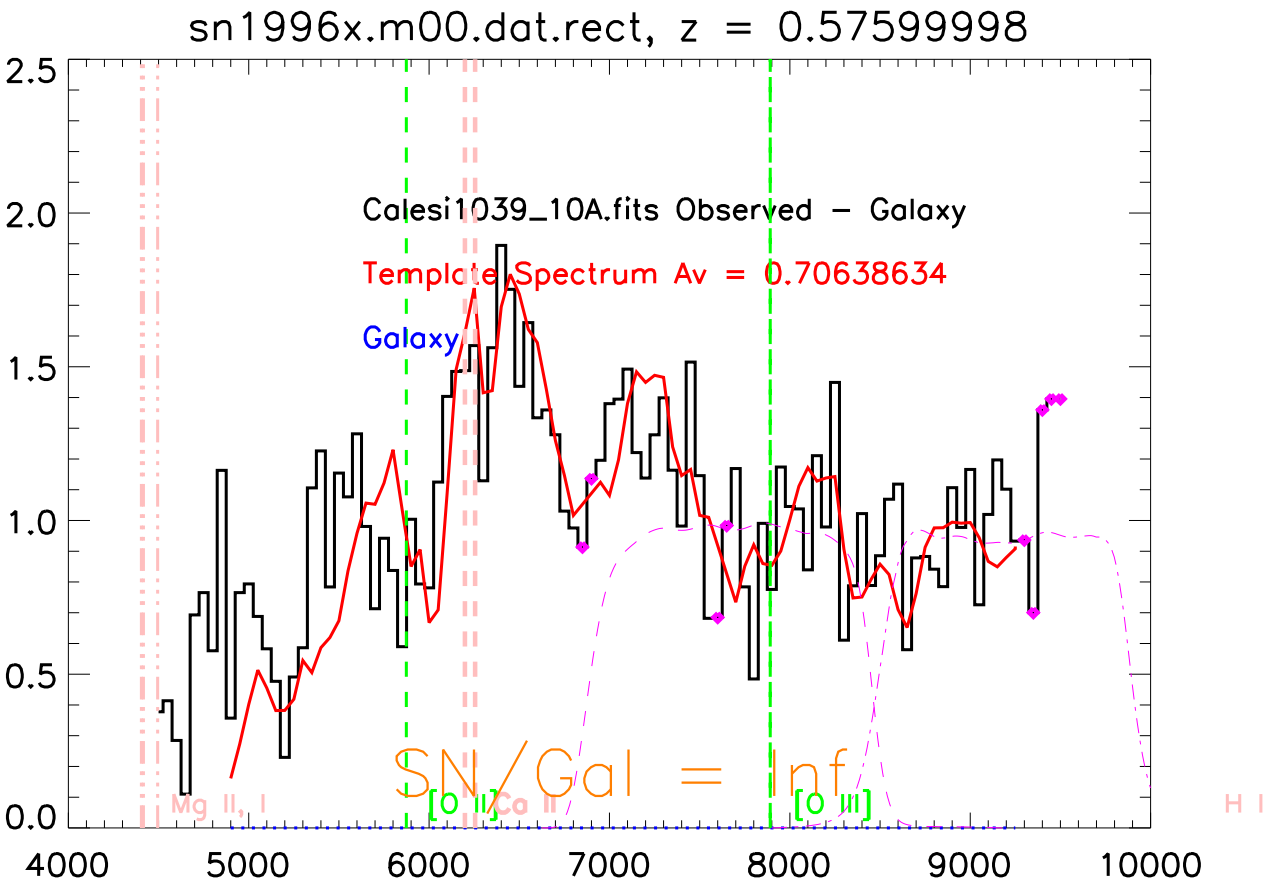

sn1994d.m03.dat.rect, z = 0.57800001
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = 1.3955496
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
2.5
2.0
1.5
1.0
0.5
0.0
4000
5000
6000
7000
8000
9000
10000

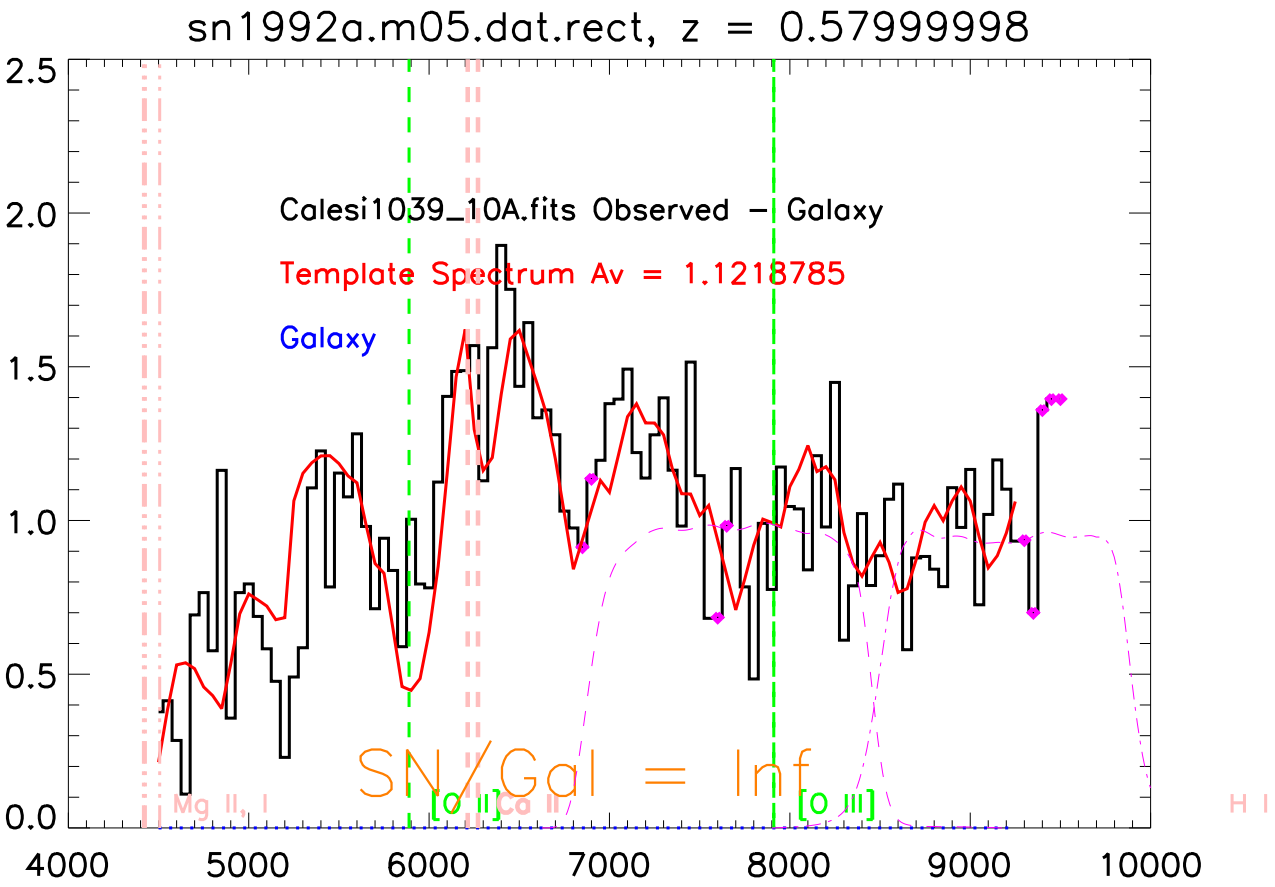

sn1999ee.m06.dat.rect, z = 0.57900000
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = 0.54045504
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
2.5
2.0
1.5
1.0
0.5
0.0
4000
5000
6000
7000
8000
9000
10000

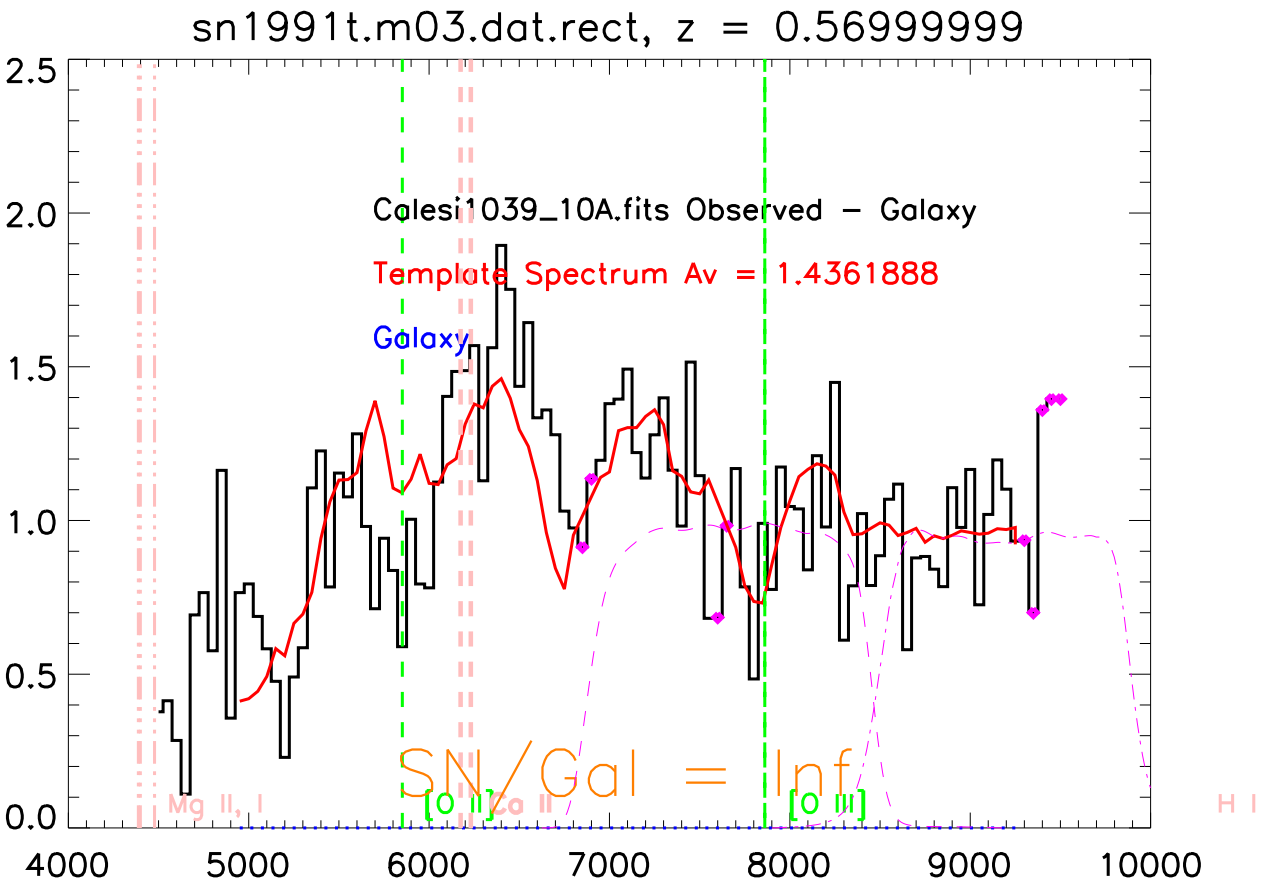

sn1992a.p07.dat.rect, z = 0.56400001
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −0.64873407
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
2.5
2.0
1.5
1.0
0.5
0.0
4000
5000
6000
7000
8000
9000
10000

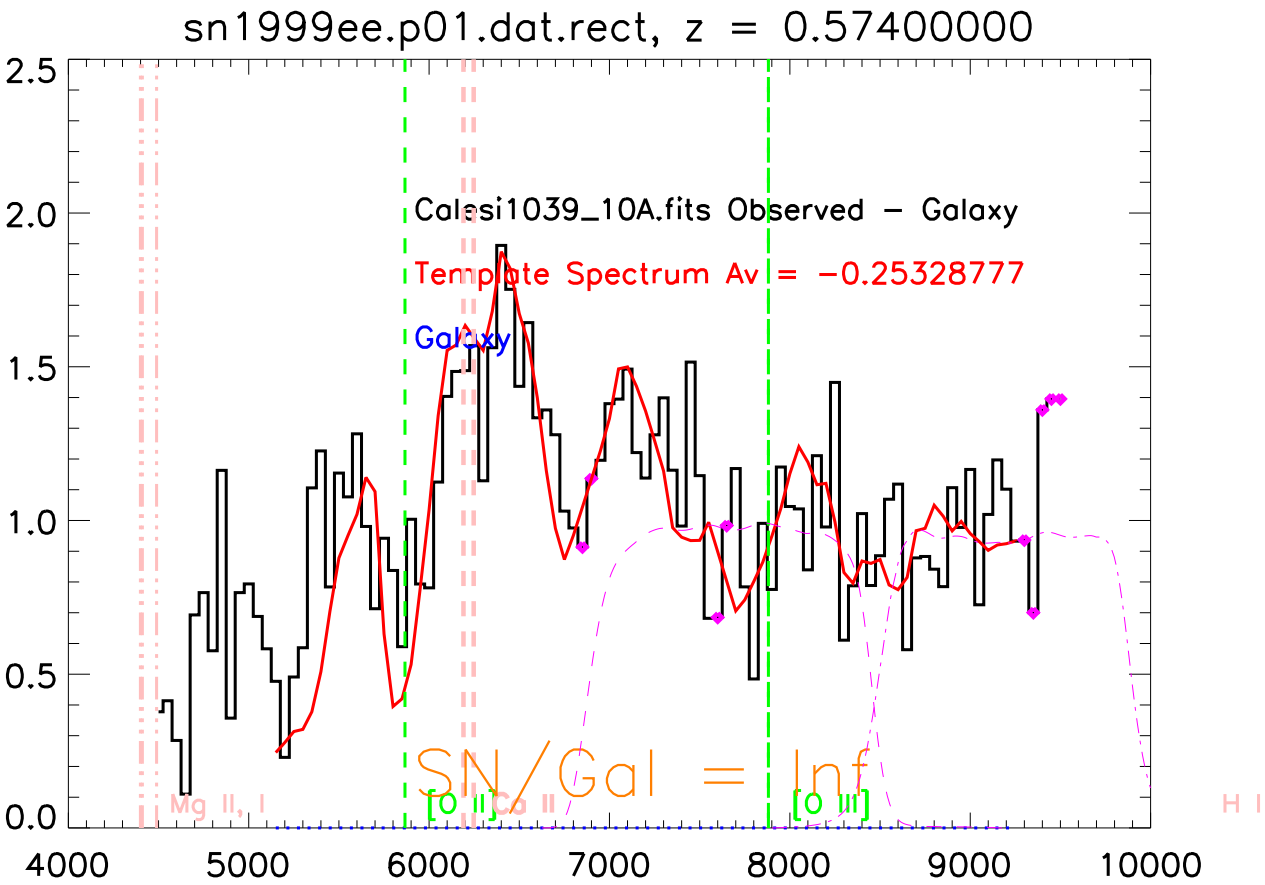

sn1996x.p01.dat.rect, z = 0.56199998
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = 0.72812576
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
2.5
2.0
1.5
1.0
0.5
0.0
4000
5000
6000
7000
8000
9000
10000

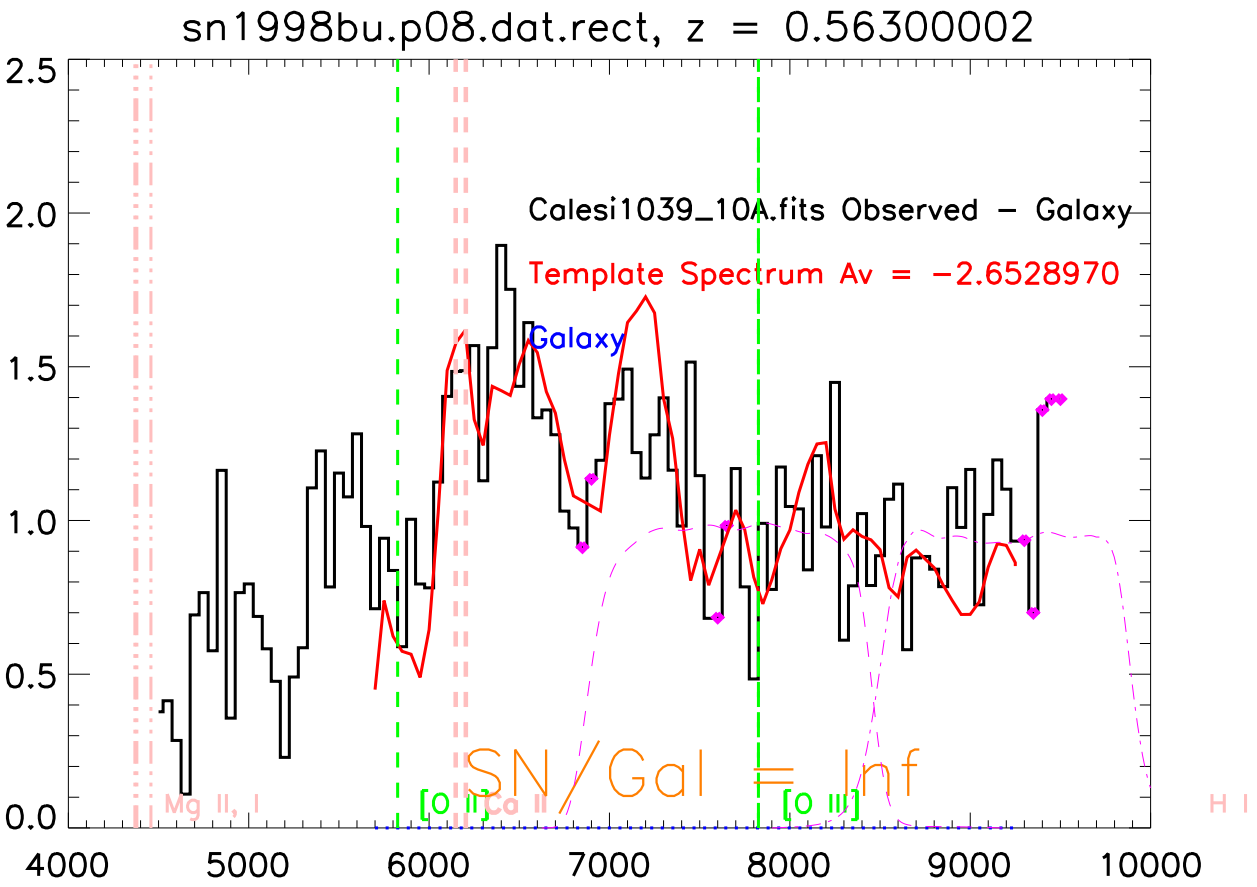

sn1997br.p08.dat.rect, z = 0.57200003
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −1.2858464
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
2.5
2.0
1.5
1.0
0.5
0.0
4000
5000
6000
7000
8000
9000
10000

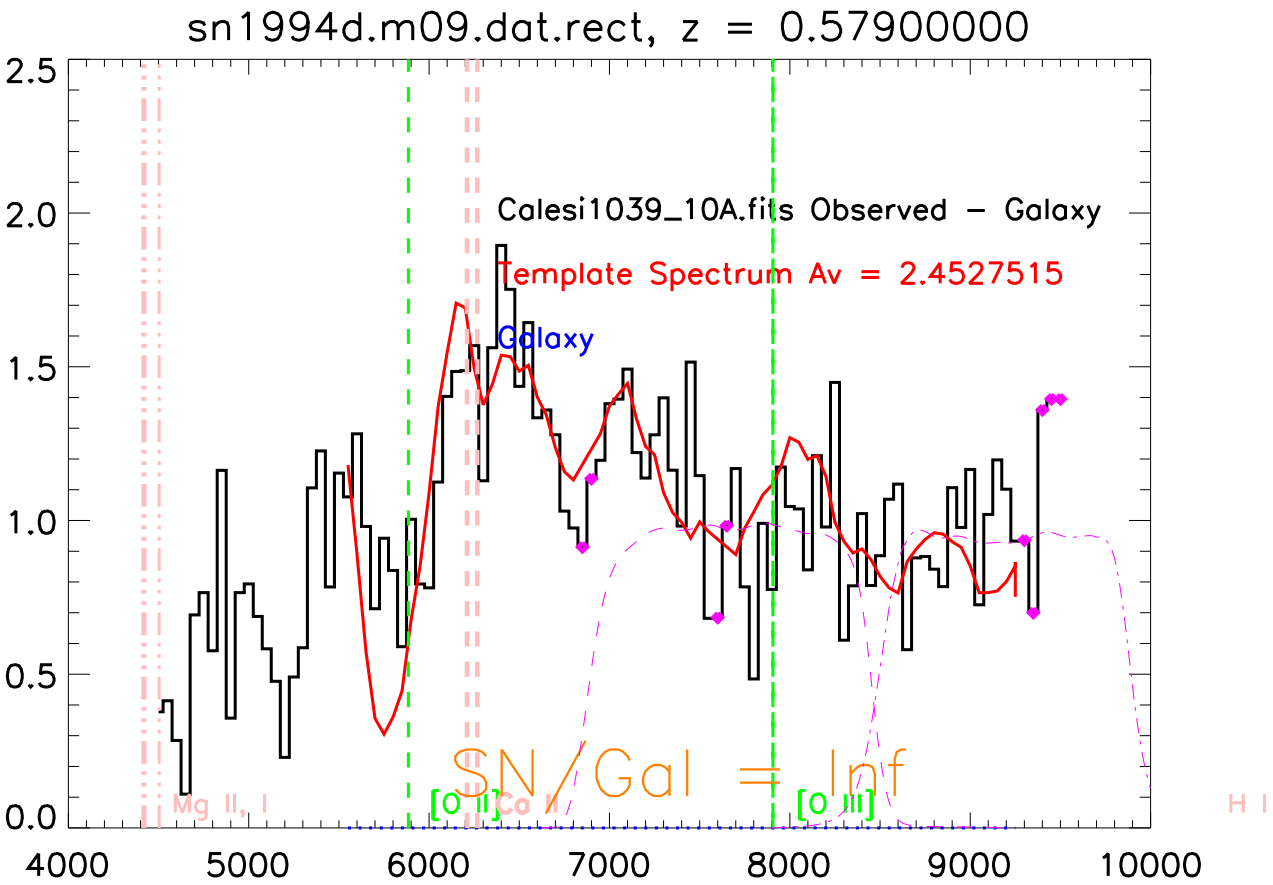

sn1996x.m00.dat.rect, z = 0.57599998
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = 0.70638634
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
2.5
2.0
1.5
1.0
0.5
0.0
4000
5000
6000
7000
8000
9000
10000

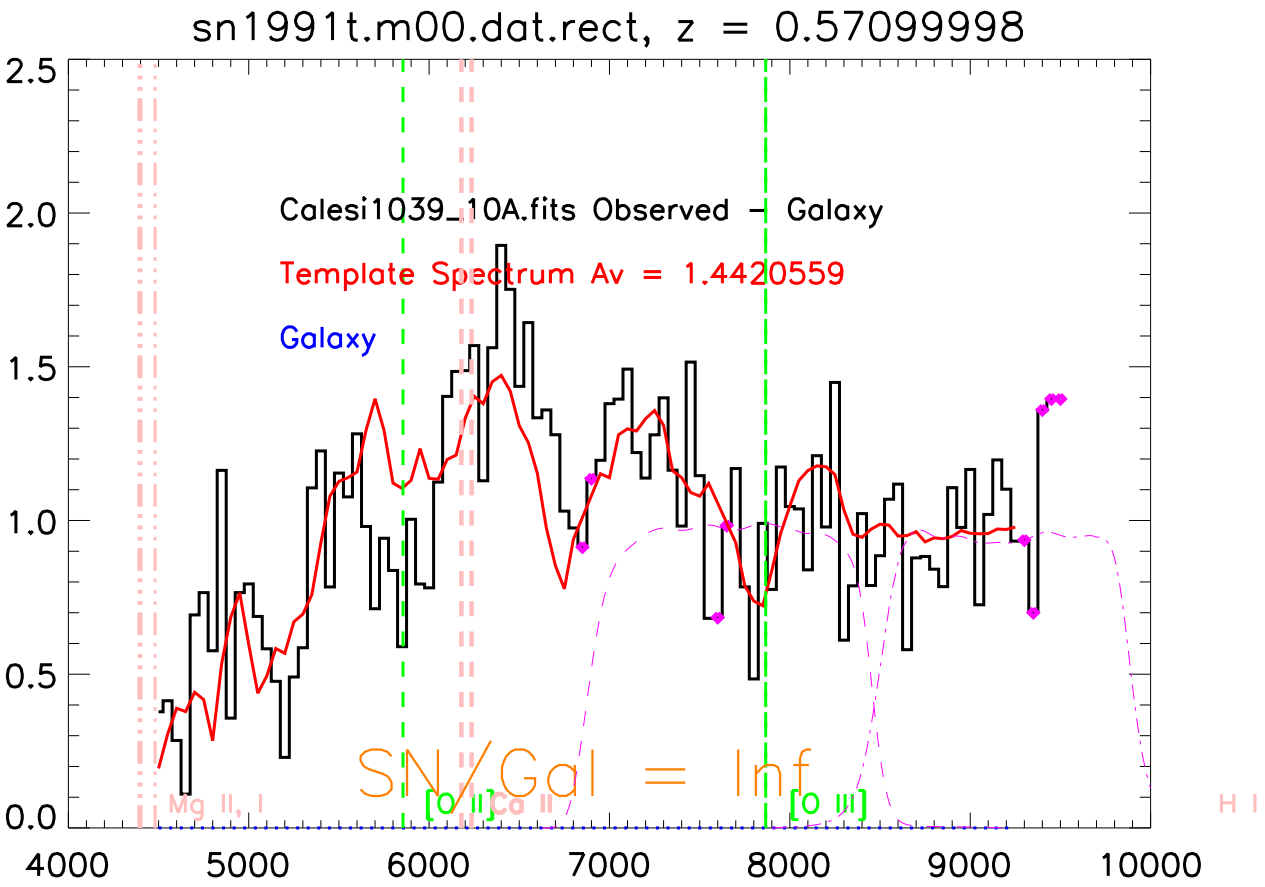

sn1992a.m05.dat.rect, z = 0.57999998
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = 1.1218785
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
2.5
2.0
1.5
1.0
0.5
0.0
4000
5000
6000
7000
8000
9000
10000

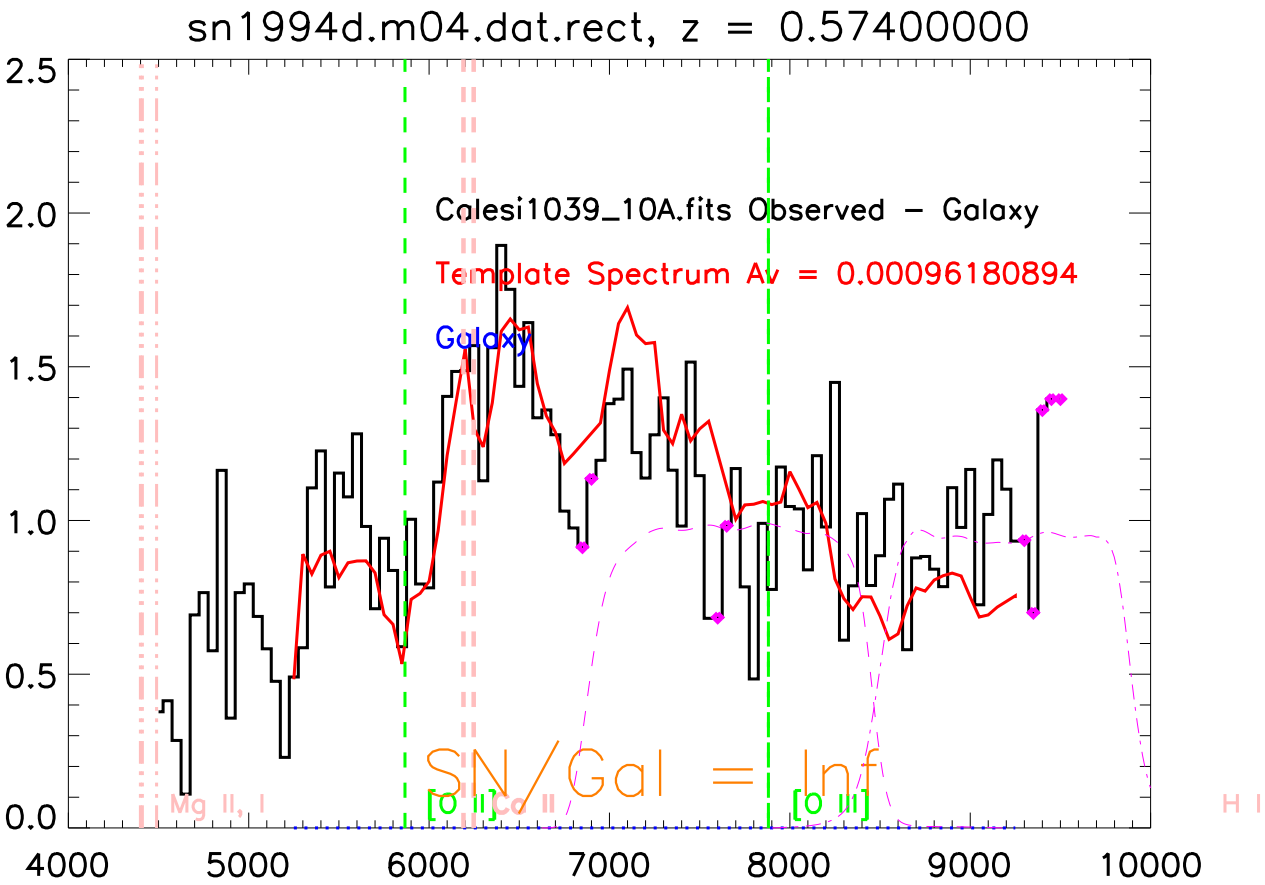

sn1991t.m03.dat.rect, z = 0.56999999
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = 1.4361888
Galaxy
SN/Gal = Inf
Mg II, I
[O II]Ca II
[O III]
H I
2.5
2.0
1.5
1.0
0.5
0.0
4000
5000
6000
7000
8000
9000
10000

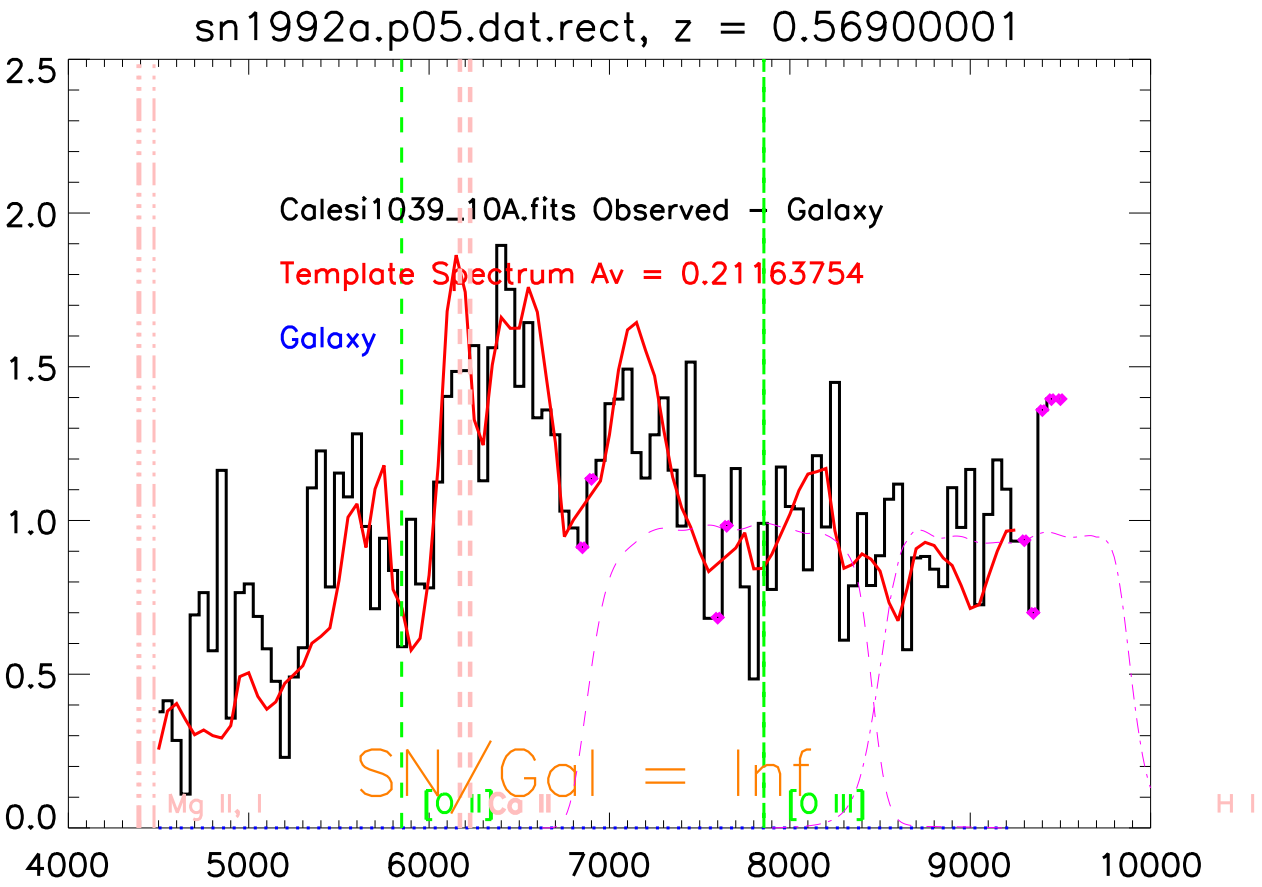

sn1999ee.p01.dat.rect, z = 0.57400000
Calasi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −0.25328777
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
2.5
2.0
1.5
1.0
0.5
0.0
4000
5000
6000
7000
8000
9000
10000

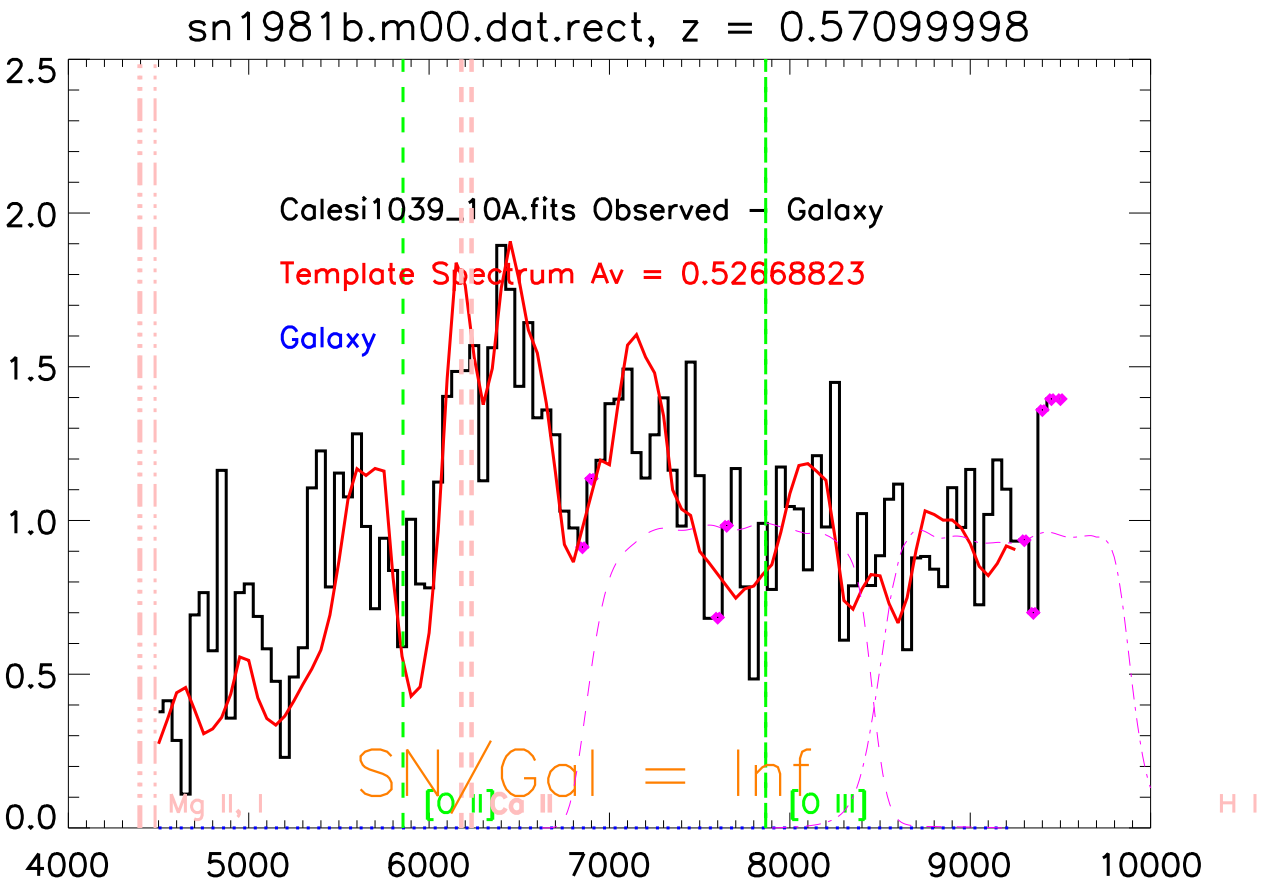

sn1998bu.p08.dat.rect, z = 0.56300002
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −2.6528970
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
2.5
2.0
1.5
1.0
0.5
0.0
4000
5000
6000
7000
8000
9000
10000

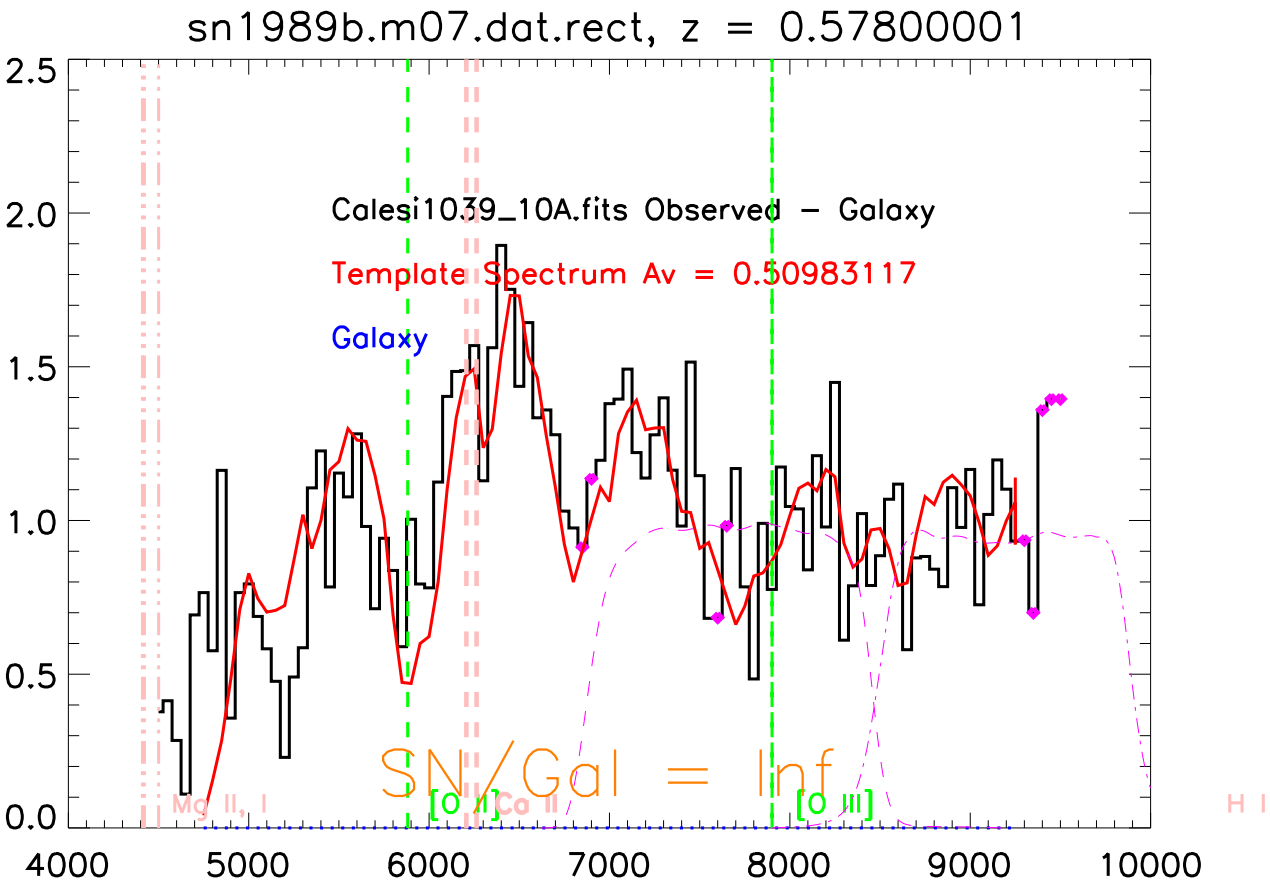

sn1994d.m09.dat.rect, z = 0.57900000
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = 2.4527515
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
2.5
2.0
1.5
1.0
0.5
0.0
4000
5000
6000
7000
8000
9000
10000


sn1991t.m00.dat.rect, z = 0.57099998
Calesi1039_10A.fits Observed – Galaxy
Template Spectrum Av = 1.4420559
Galaxy
SN/Gal = Inf
Mg II, I
[O II]Ca II
[O III]
H I
2.5
2.0
1.5
1.0
0.5
0.0
4000
5000
6000
7000
8000
9000
10000


sn1994d.m04.dat.rect, z = 0.57400000
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = 0.00096180894
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
2.5
2.0
1.5
1.0
0.5
0.0
4000
5000
6000
7000
8000
9000
10000


sn1992a.p05.dat.rect, z = 0.56900001
Calesi1039_10A.fits Observed + Galaxy
Template Spectrum Av = 0.21163754
Galaxy
S/N Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
2.5
2.0
1.5
1.0
0.5
0.0
4000
5000
6000
7000
8000
9000
10000


sn1981b.m00.dat.rect, z = 0.57099998
Calesi1039_10A.fits Observed – Galaxy
Template Spectrum Av = 0.52668823
Galaxy
SN/Gal = Inf
Mg II, I
[O II]Ca II
[O III]
H I
2.5
2.0
1.5
1.0
0.5
0.0
4000
5000
6000
7000
8000
9000
10000


sn1989b.m07.dat.rect, z = 0.57800001
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = 0.50983117
Galaxy
SN/Gal = Inf
[O II]
Ca II
[O III]
Mg II, I
H I
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2.0
1.5
1.0
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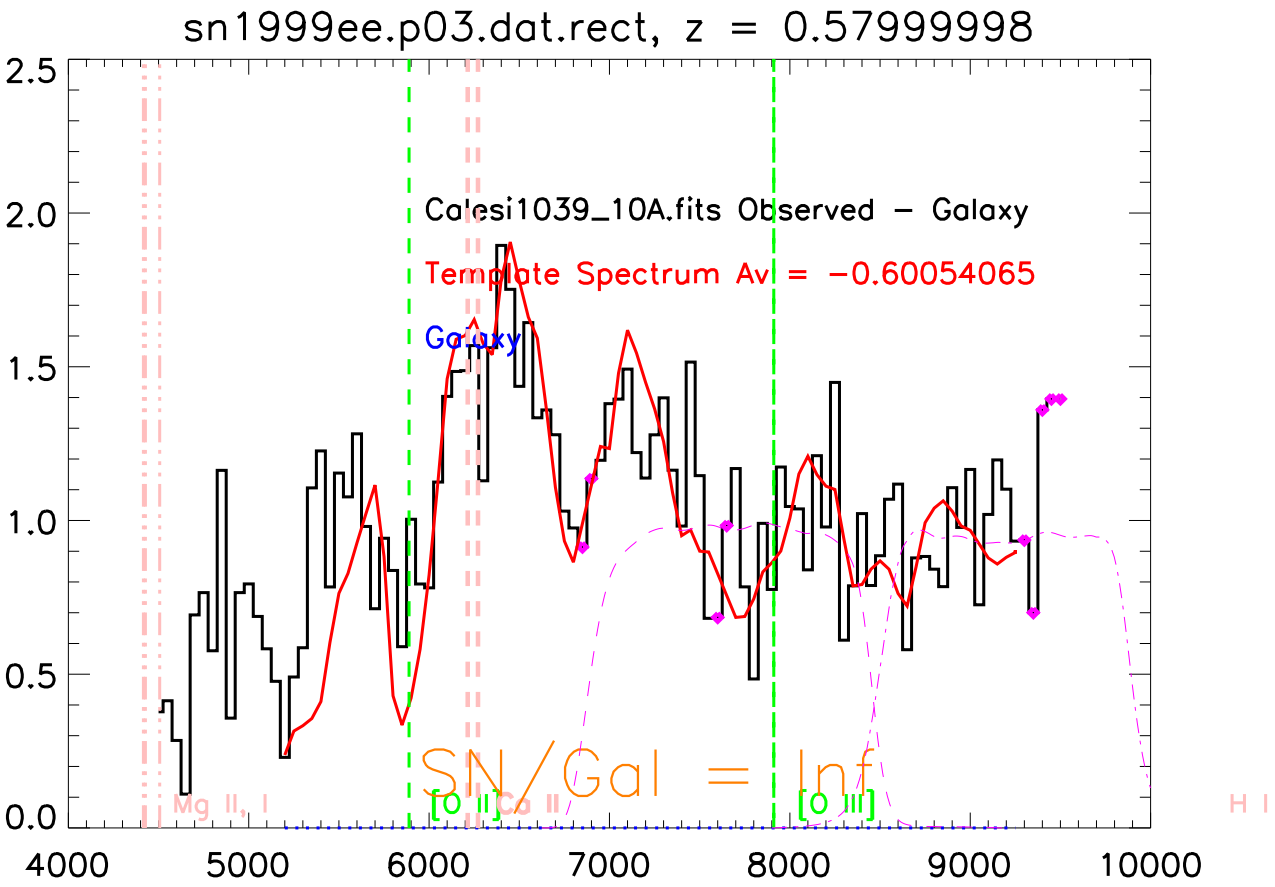
sn1999ee.p03.dat.rect, z = 0.57999998
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −0.60054065
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
2.5
2.0
1.5
1.0
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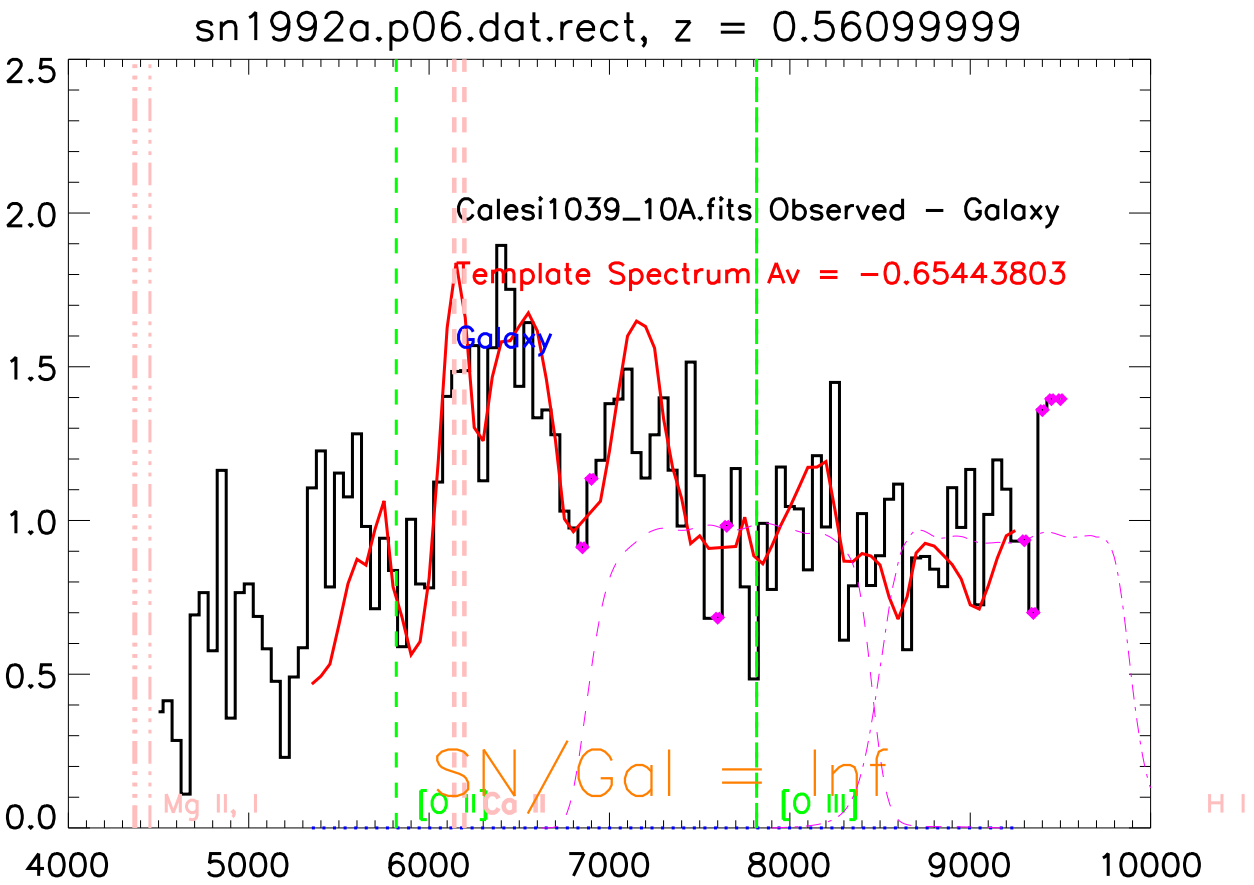
sn1992a.p06.dat.rect, z = 0.56099999
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −0.65443803
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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1.0
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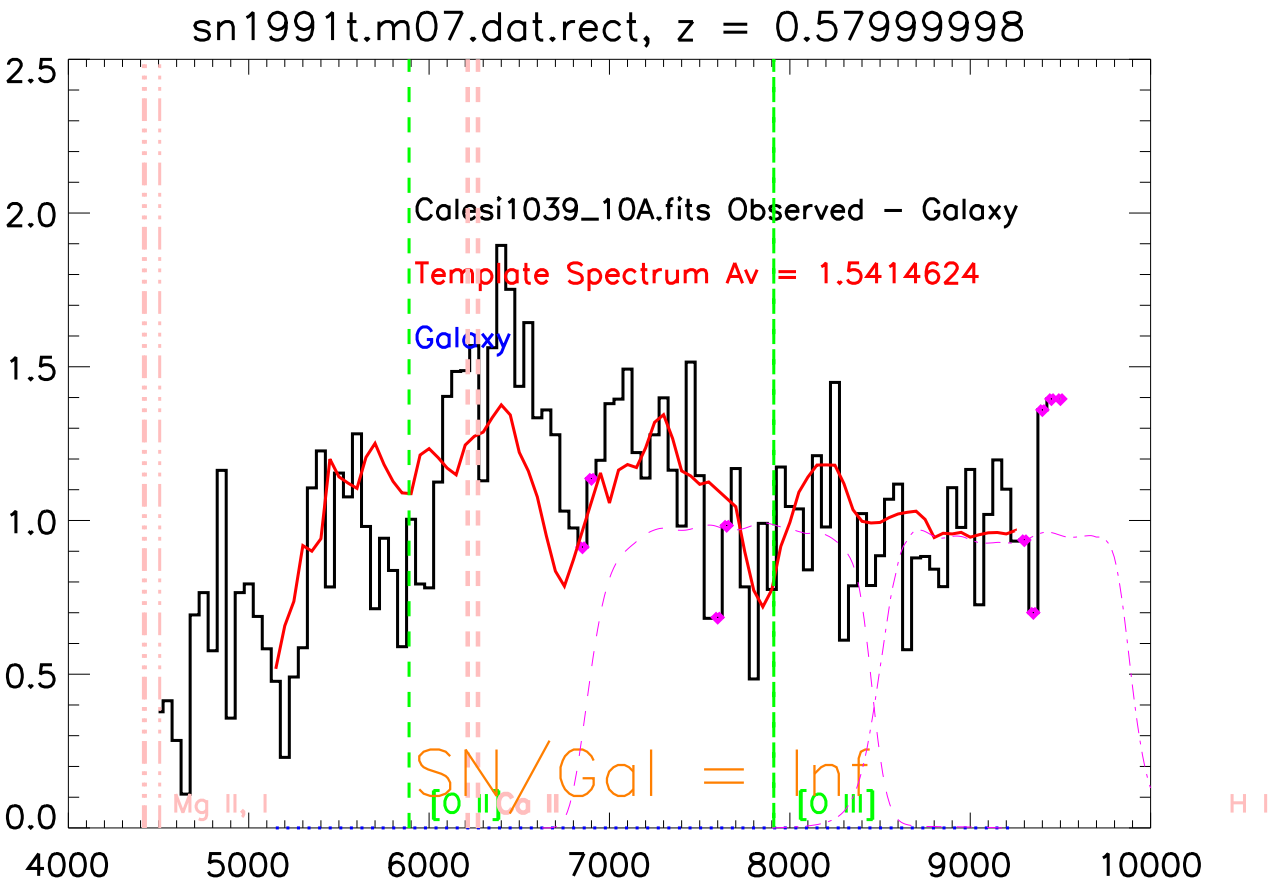
sn1991t.m07.dat.rect, z = 0.57999998
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = 1.5414624
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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2.0
1.5
1.0
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9000
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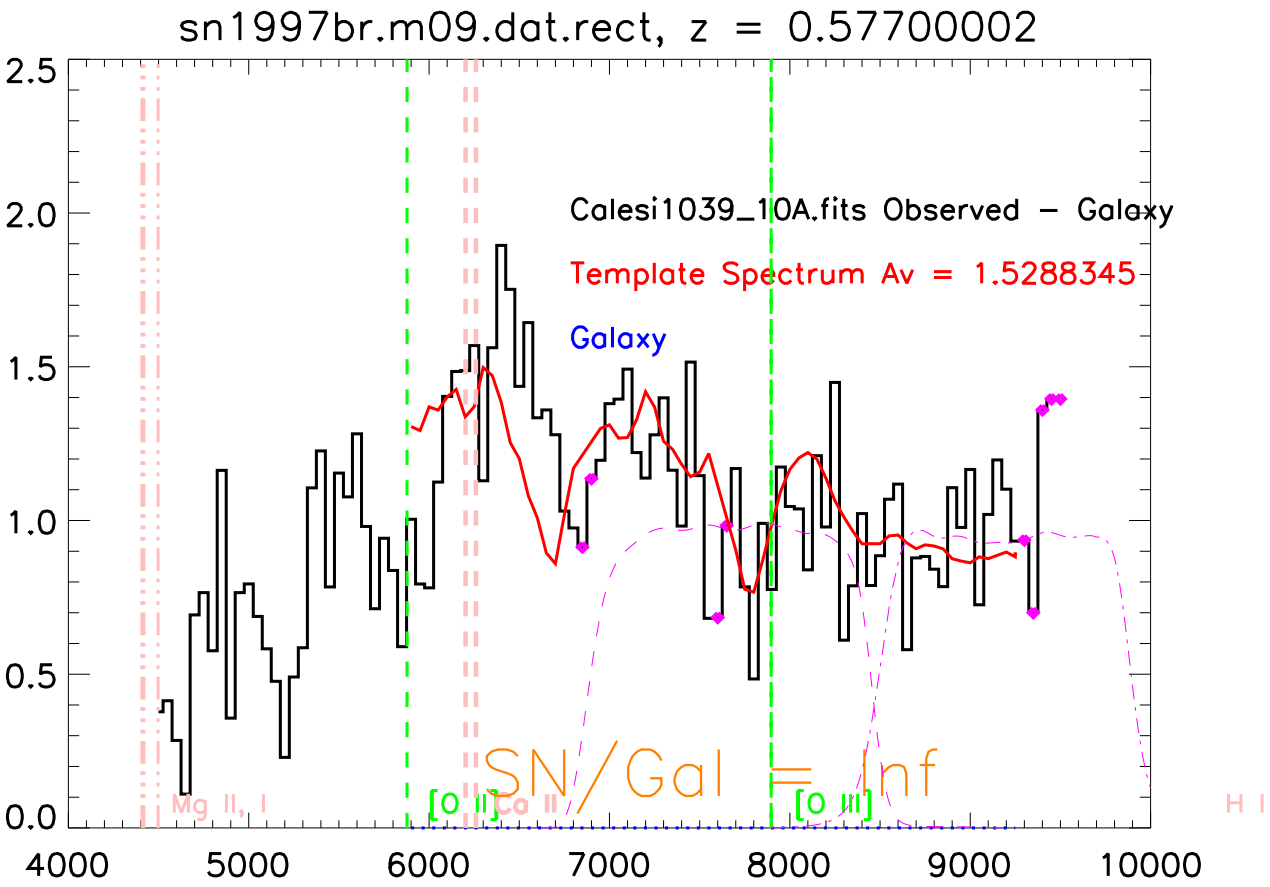
sn1997br.m09.dat.rect, z = 0.57700002
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = 1.5288345
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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2.0
1.5
1.0
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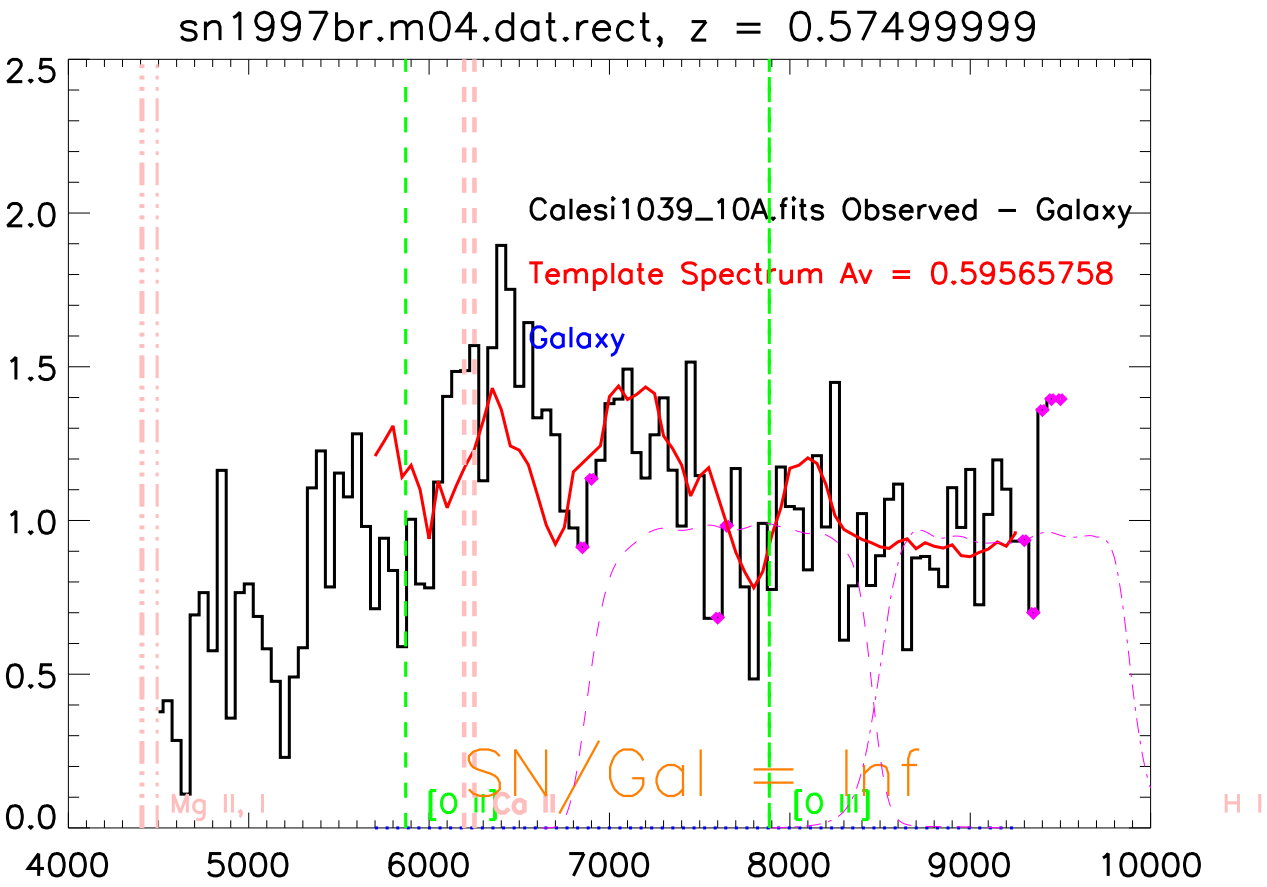
sn1997br.m04.dat.rect, z = 0.57499999
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = 0.59565758
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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2.0
1.5
1.0
0.5
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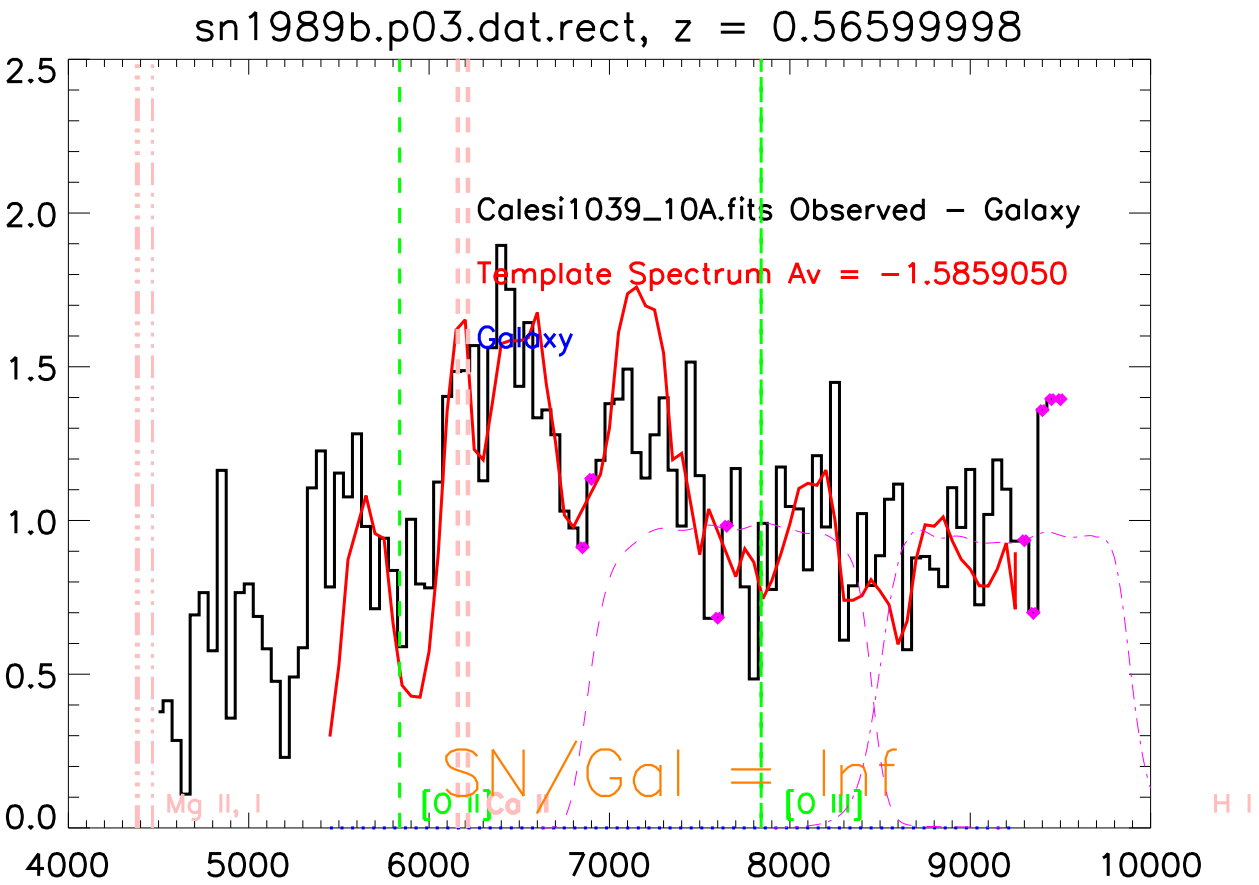
sn1989b.p03.dat.rect, z = 0.56599998
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −1.5859050
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca I
[O III]
H I
2.5
2.0
1.5
1.0
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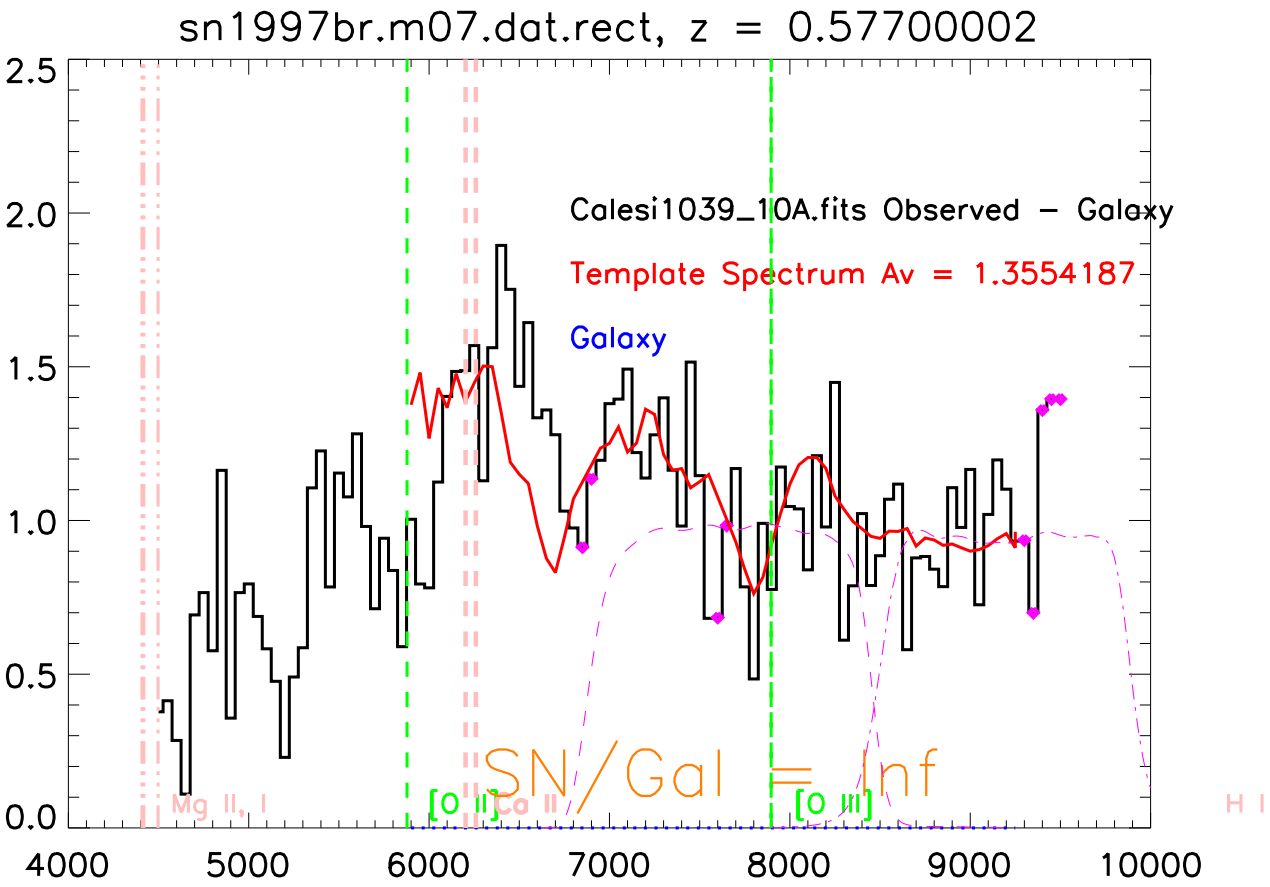
sn1997br.m07.dat.rect, z = 0.57700002
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = 1.3554187
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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2.0
1.5
1.0
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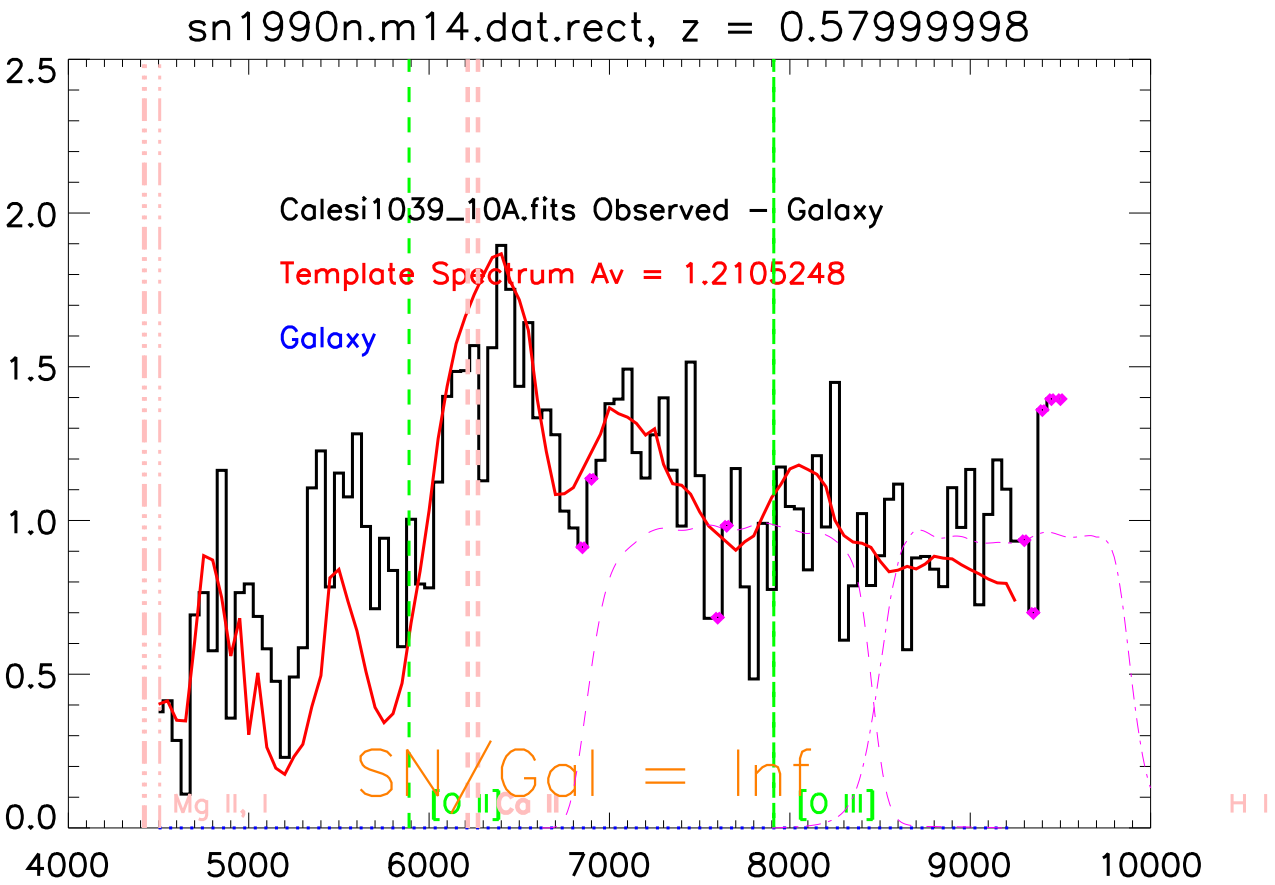
sn1990n.m14.dat.rect, z = 0.57999998
Calesi1039_10A.fits Observed – Galaxy
Template Spectrum Av = 1.2105248
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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2.0
1.5
1.0
0.5
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6000
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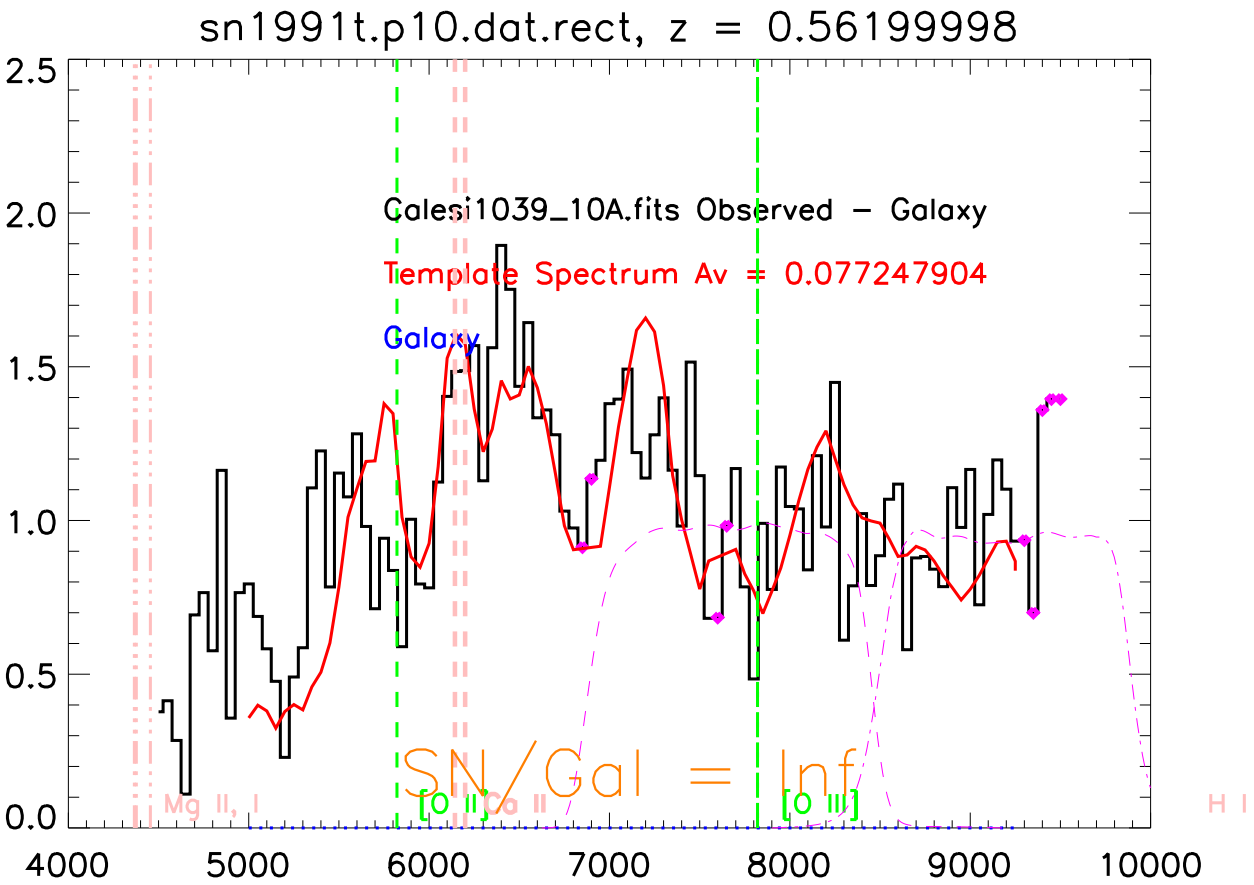
8000
9000
10000


sn1991t.p10.dat.rect, z = 0.56199998
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = 0.077247904
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
2.5
2.0
1.5
1.0
0.5
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6000
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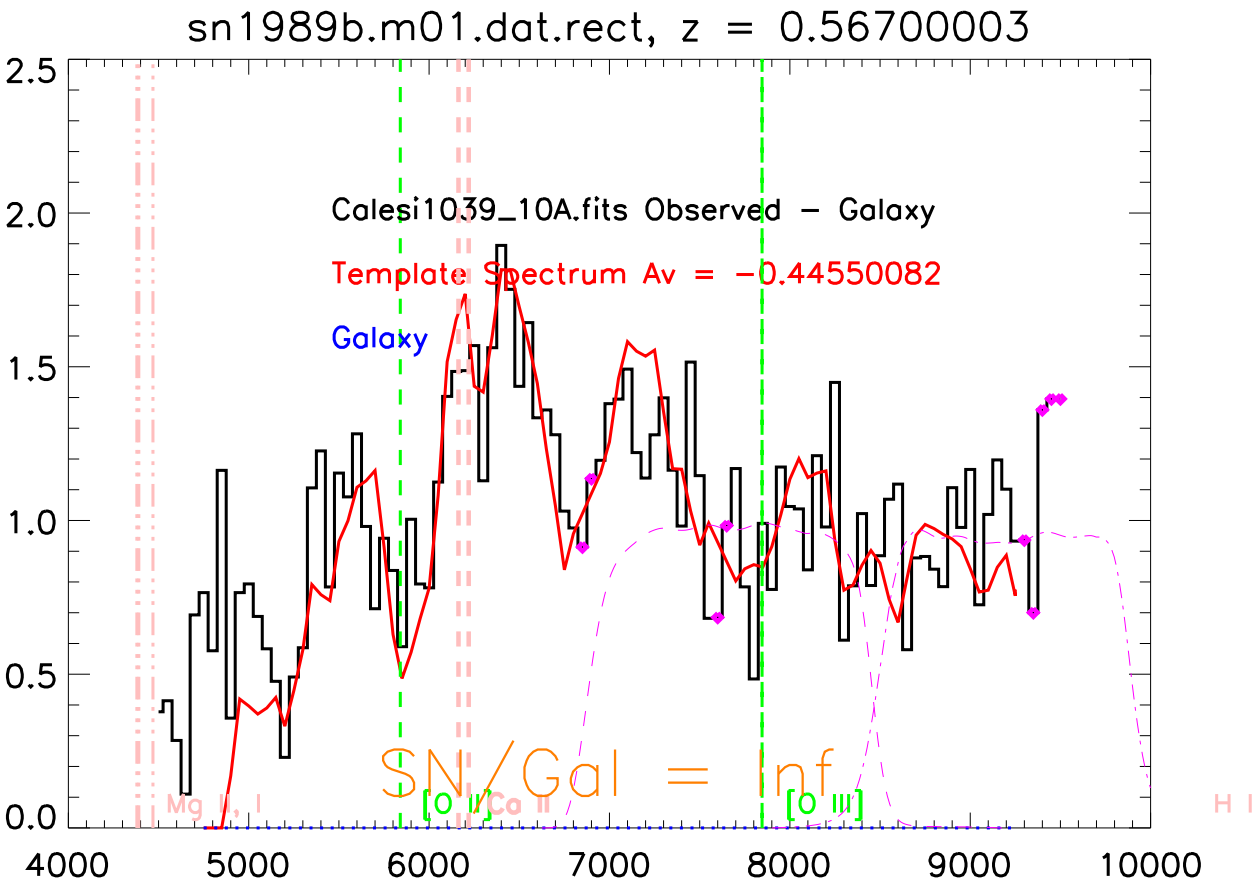
8000
9000
10000


sn1989b.m01.dat.rect, z = 0.56700003
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −0.44550082
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
2.5
2.0
1.5
1.0
0.5
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8000
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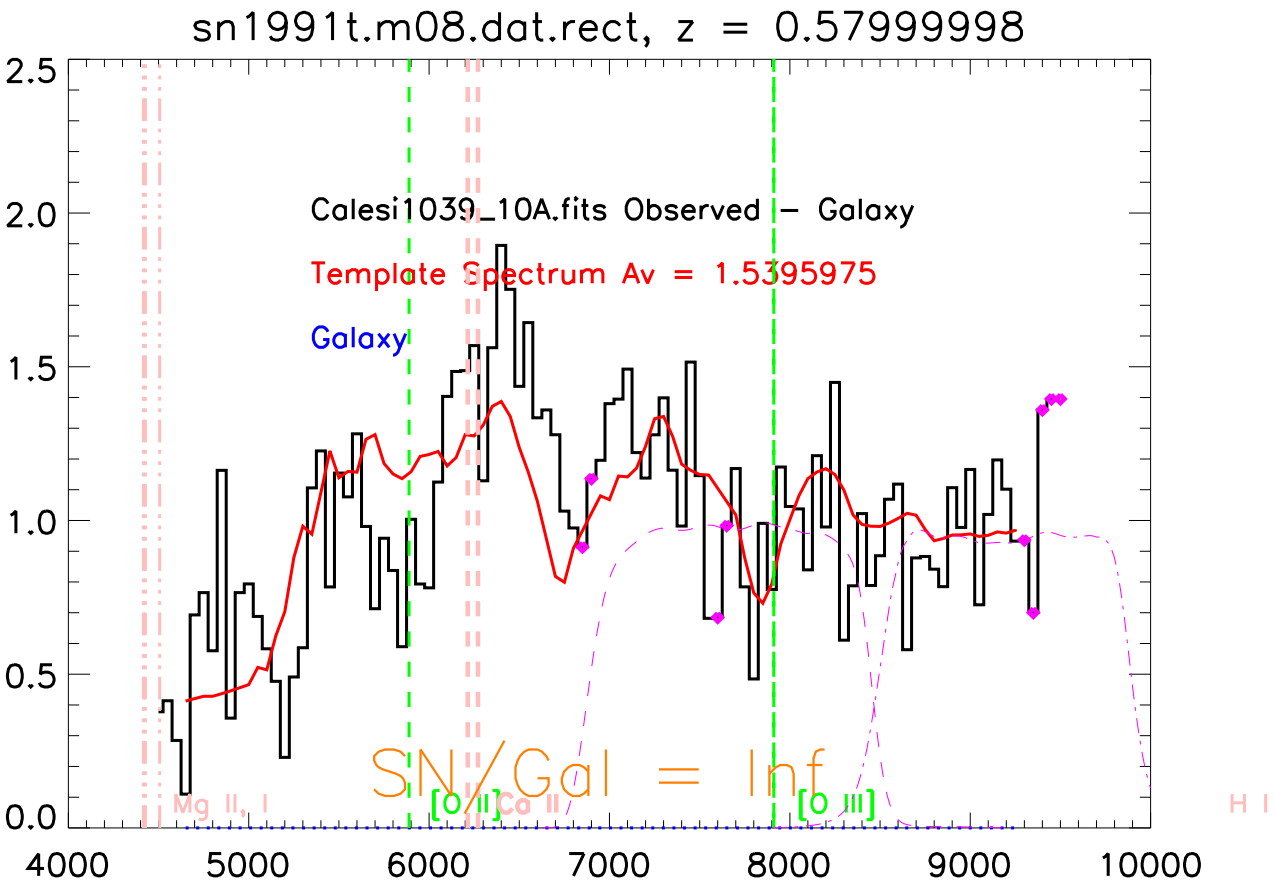
sn1991t.m08.dat.rect, z = 0.57999998
Calesi1039_10A.fits Observed – Galaxy
Template Spectrum Av = 1.5395975
Galaxy
S/N/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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2.0
1.5
1.0
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9000
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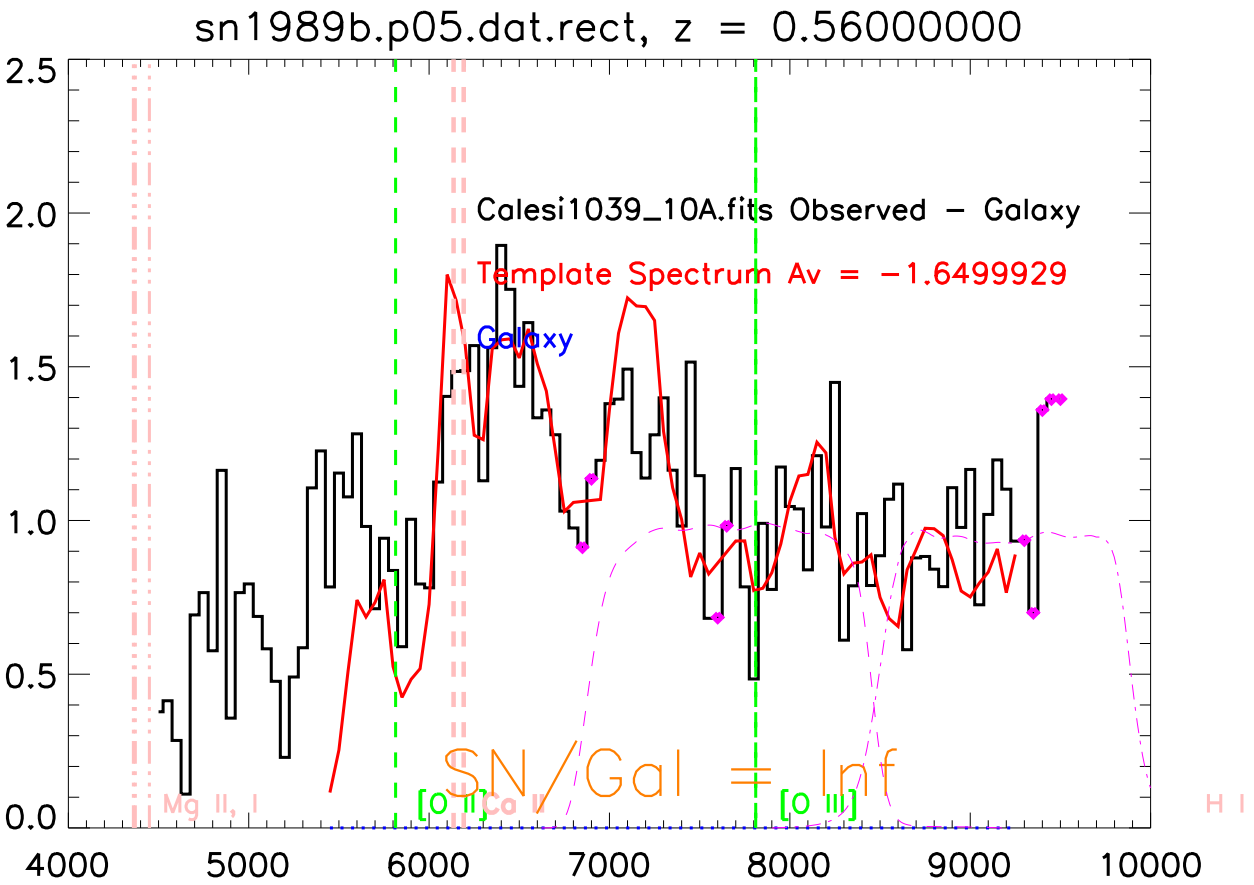
sn1989b.p05.dat.rect, z = 0.56000000
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −1.6499929
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
2.5
2.0
1.5
1.0
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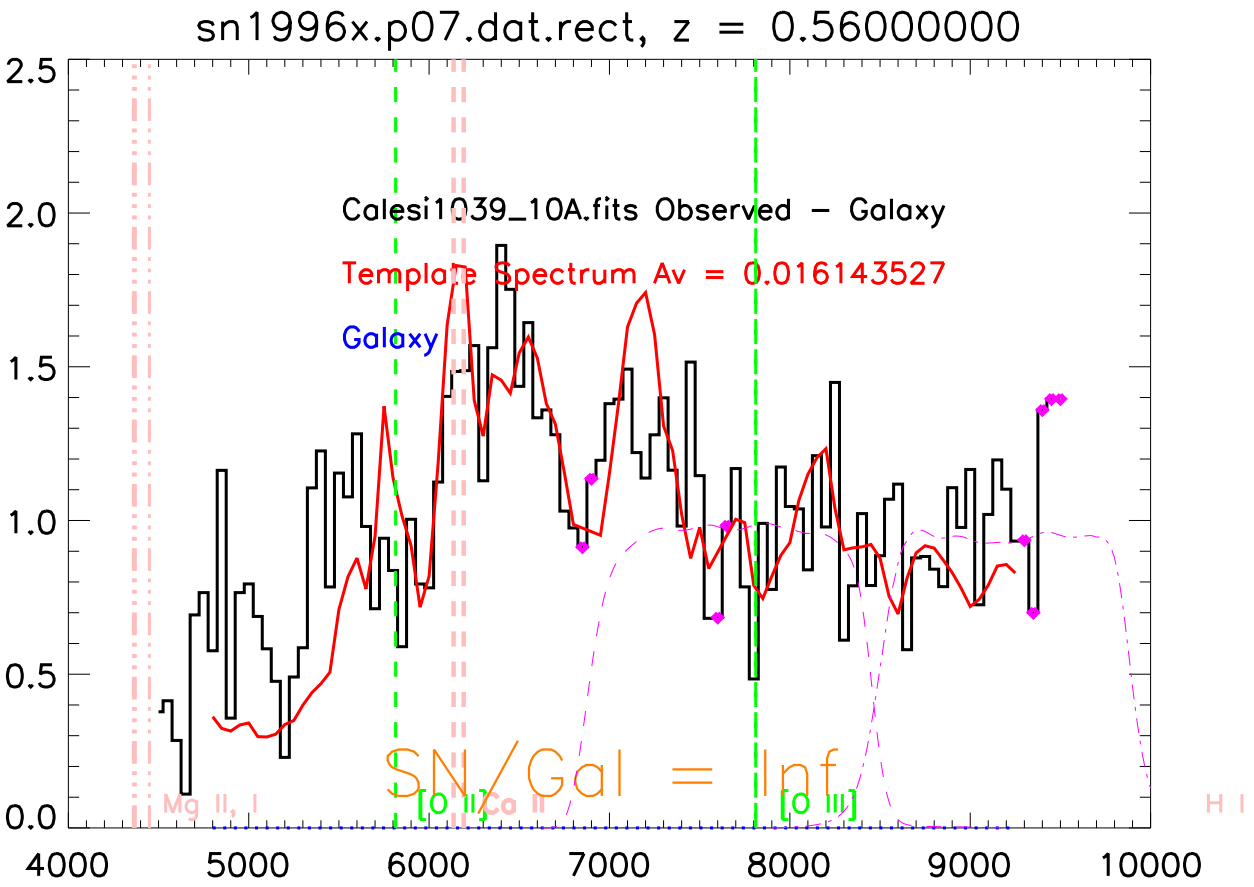
sn1996x.p07.dat.rect, z = 0.56000000
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = 0.016143527
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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2.0
1.5
1.0
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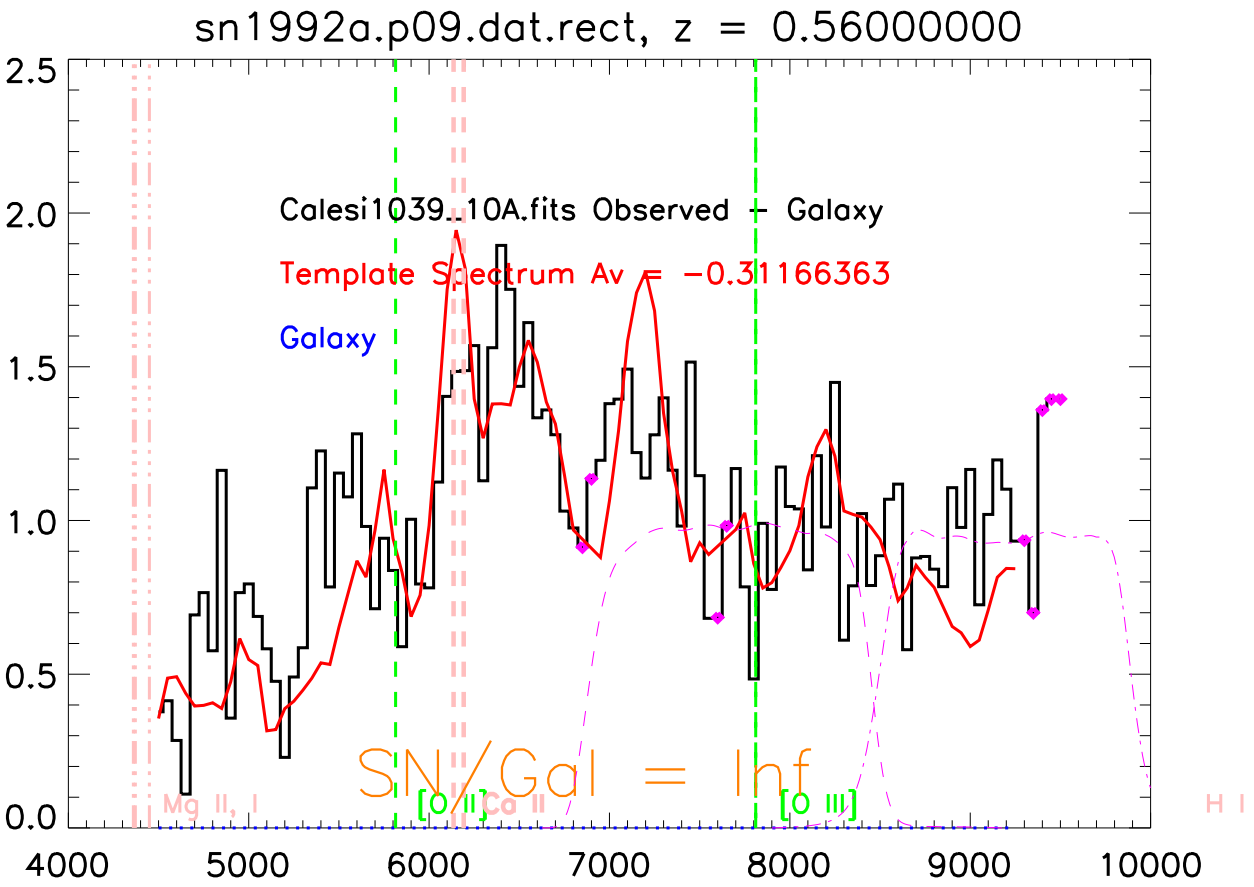
sn1992a.p09.dat.rect, z = 0.56000000
Calesi1039_10A.fits Observed + Galaxy
Template Spectrum Av = -0.31166363
Galaxy
S/N/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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2.0
1.5
1.0
0.5
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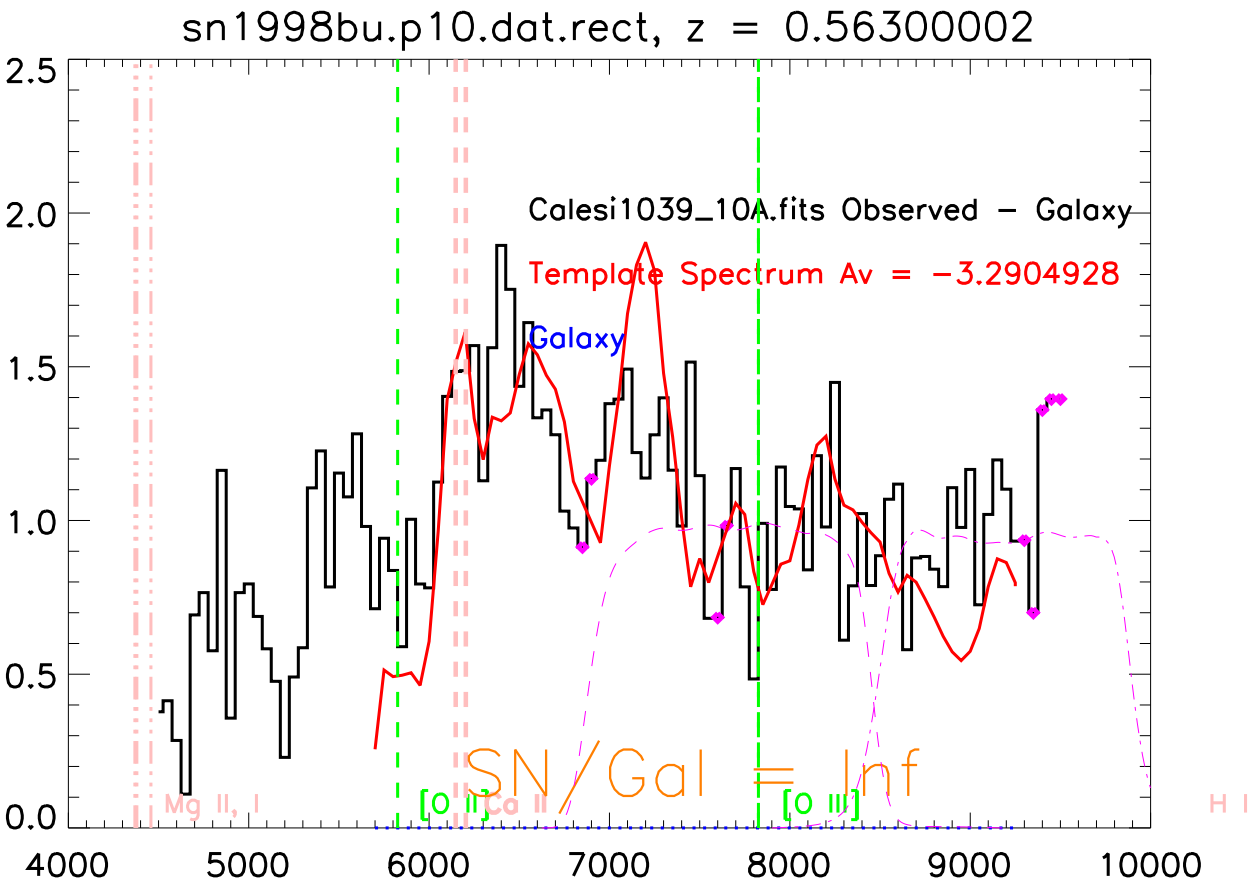
sn1998bu.p10.dat.rect, z = 0.56300002
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −3.2904928
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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2.0
1.5
1.0
0.5
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6000
7000
8000
9000
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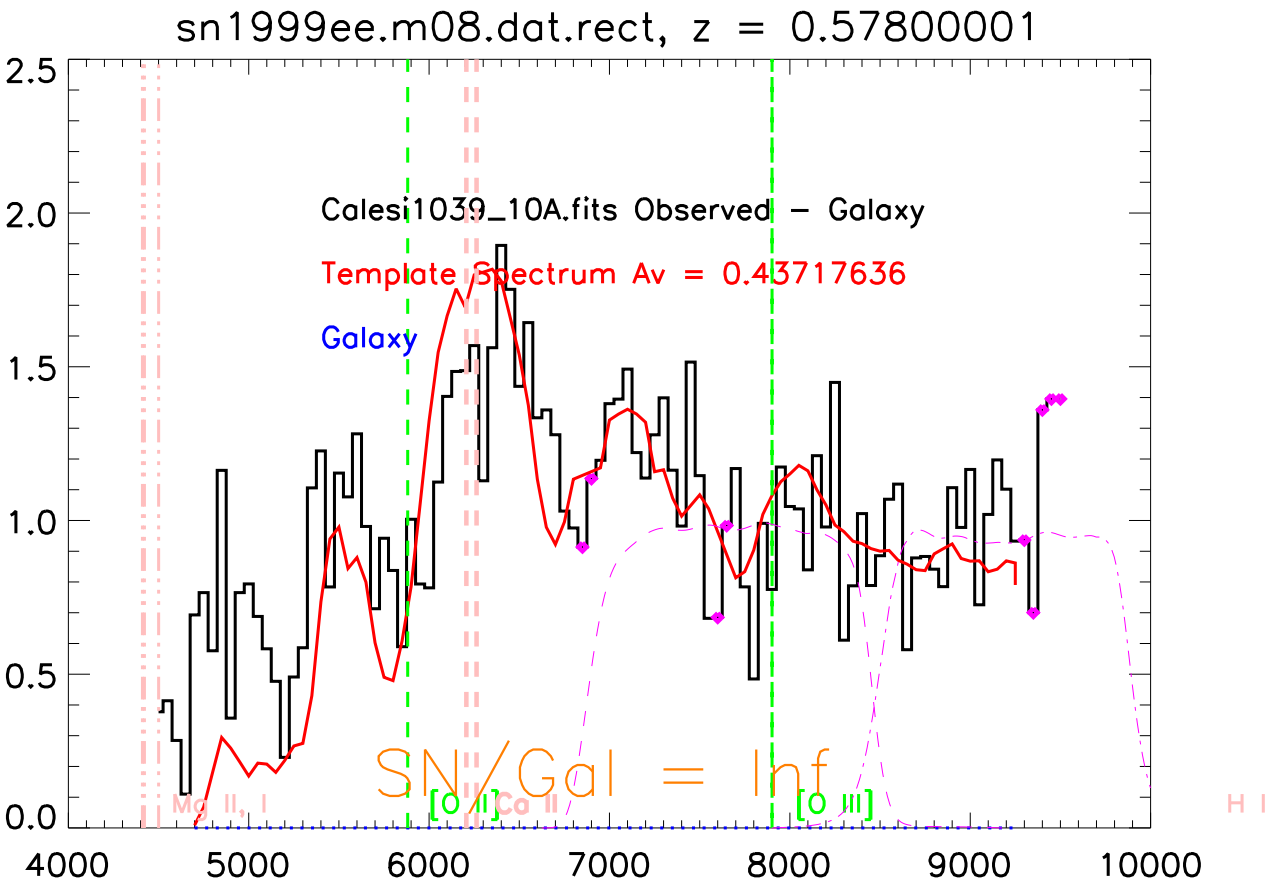
sn1999ee.m08.dat.rect, z = 0.57800001
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = 0.43717636
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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2.0
1.5
1.0
0.5
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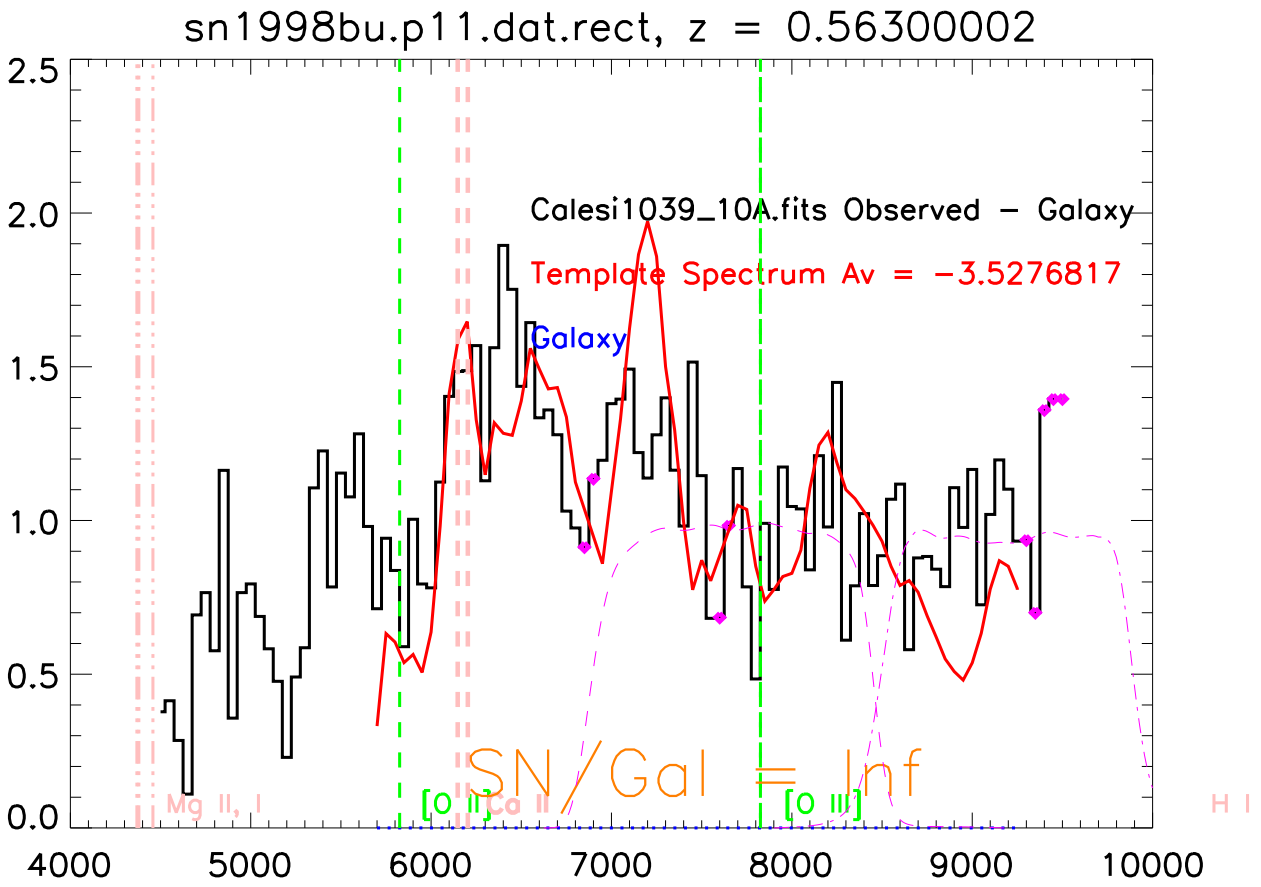
sn1998bu.p11.dat.rect, z = 0.56300002
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −3.5276817
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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2.0
1.5
1.0
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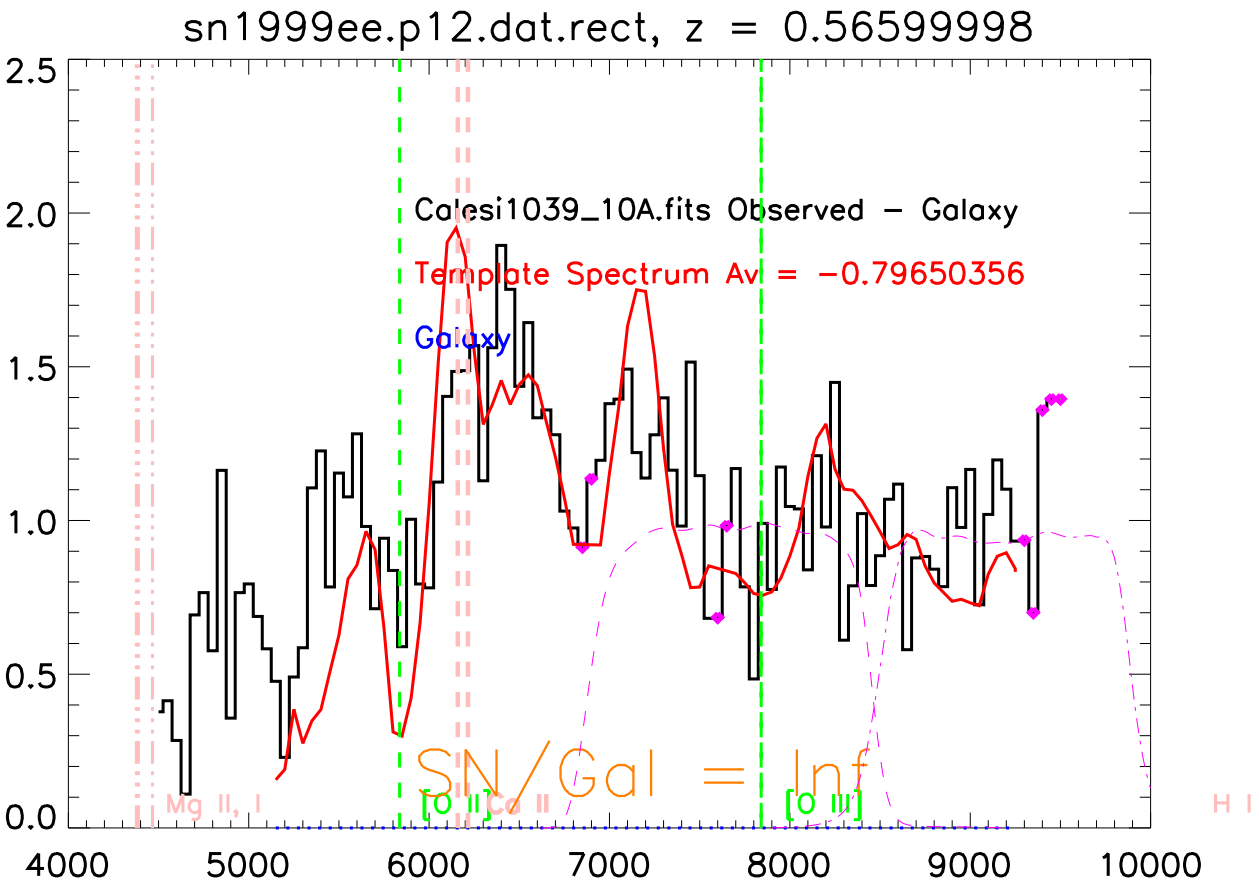
sn1999ee.p12.dat.rect, z = 0.56599998
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −0.79650356
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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2.0
1.5
1.0
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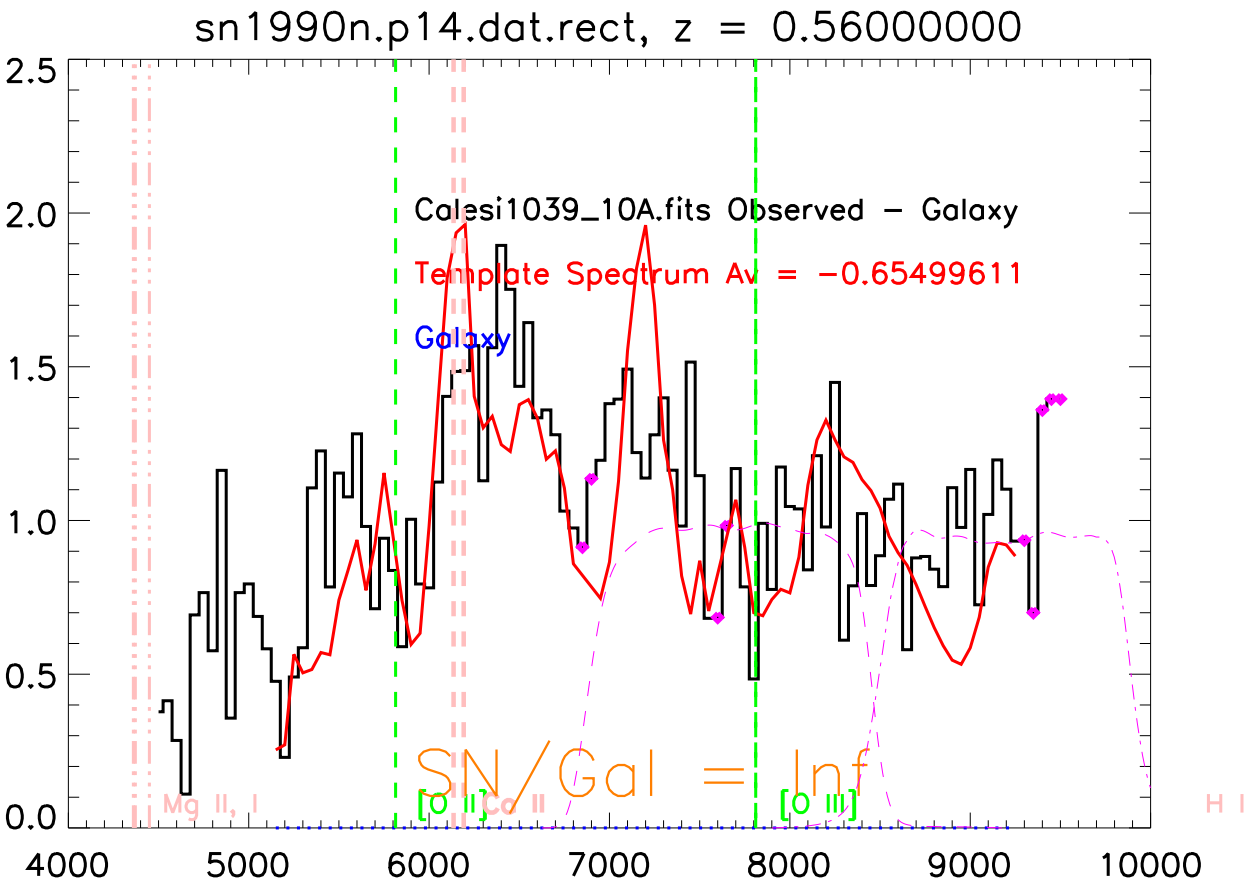
sn1990n.p14.dat.rect, z = 0.56000000
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −0.65499611
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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2.0
1.5
1.0
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9000
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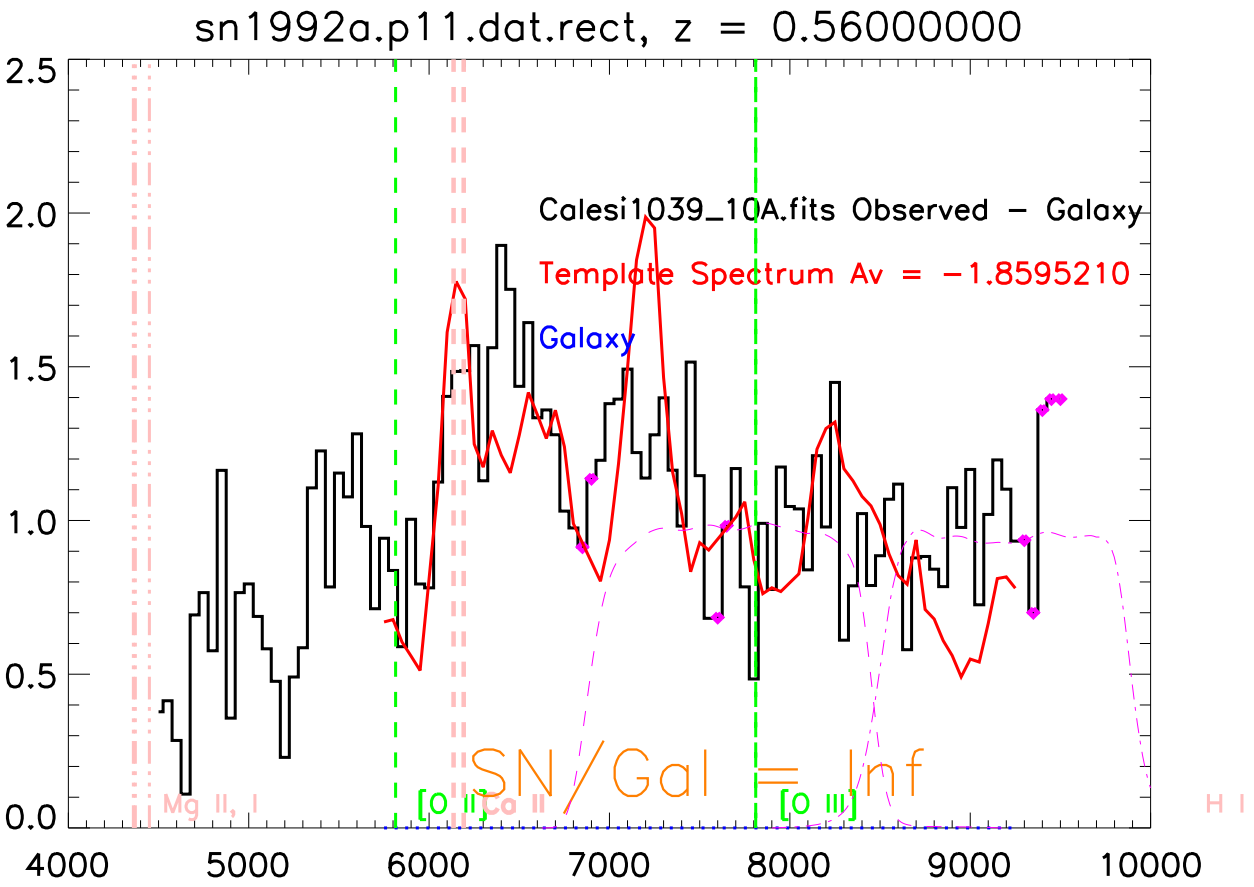
sn1992a.p11.dat.rect, z = 0.56000000
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −1.8595210
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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2.0
1.5
1.0
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9000
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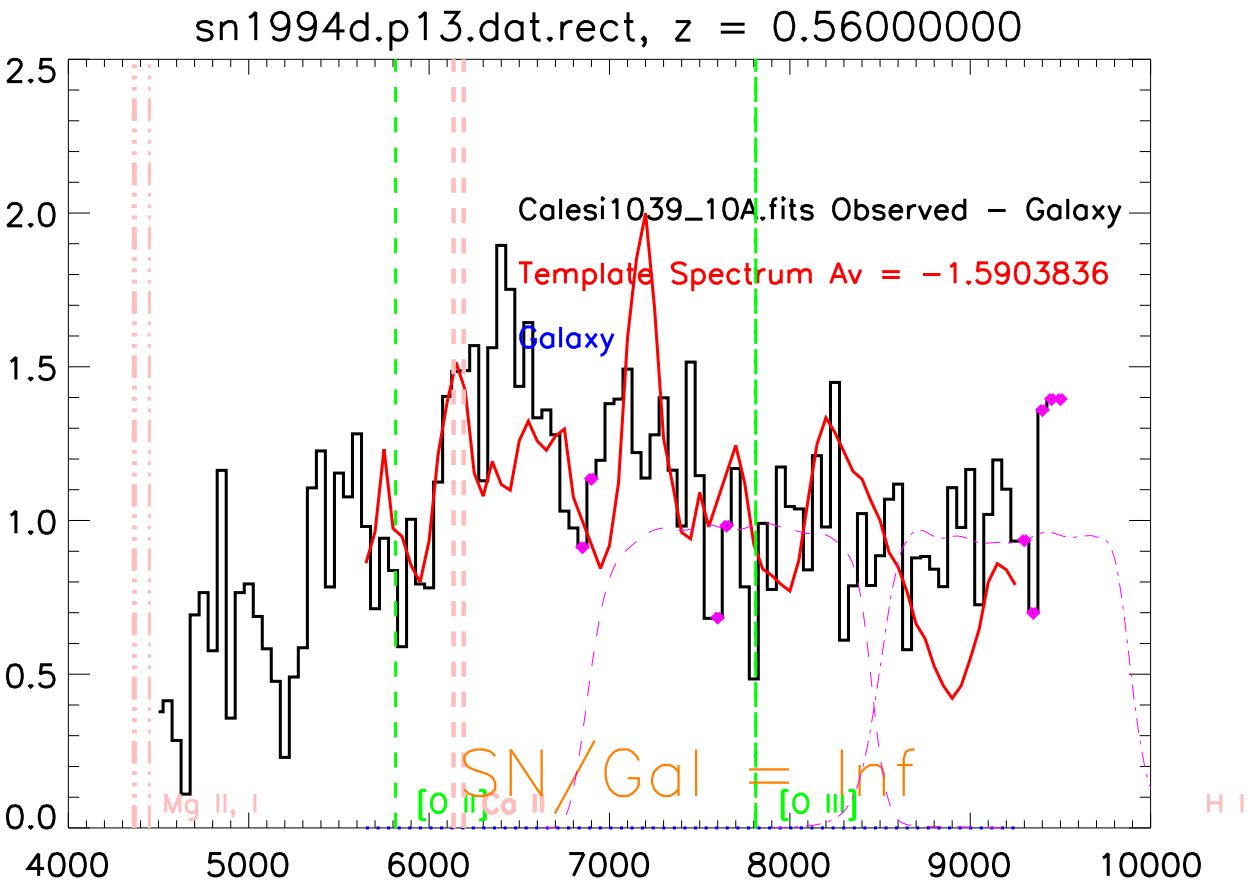
sn1994d.p13.dat.rect, z = 0.56000000
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −1.5903836
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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2.0
1.5
1.0
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8000
9000
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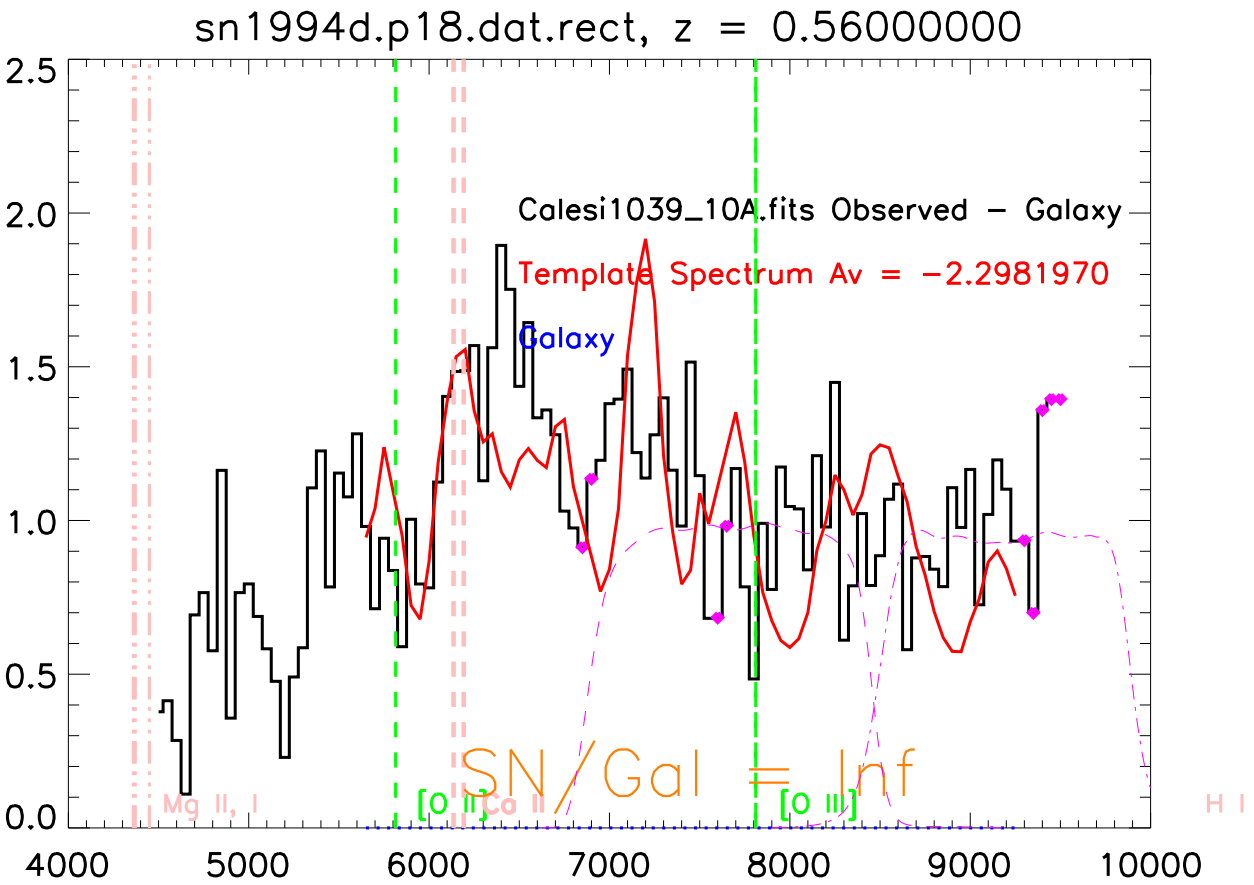
sn1994d.p18.dat.rect, z = 0.56000000
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −2.2981970
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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1.5
1.0
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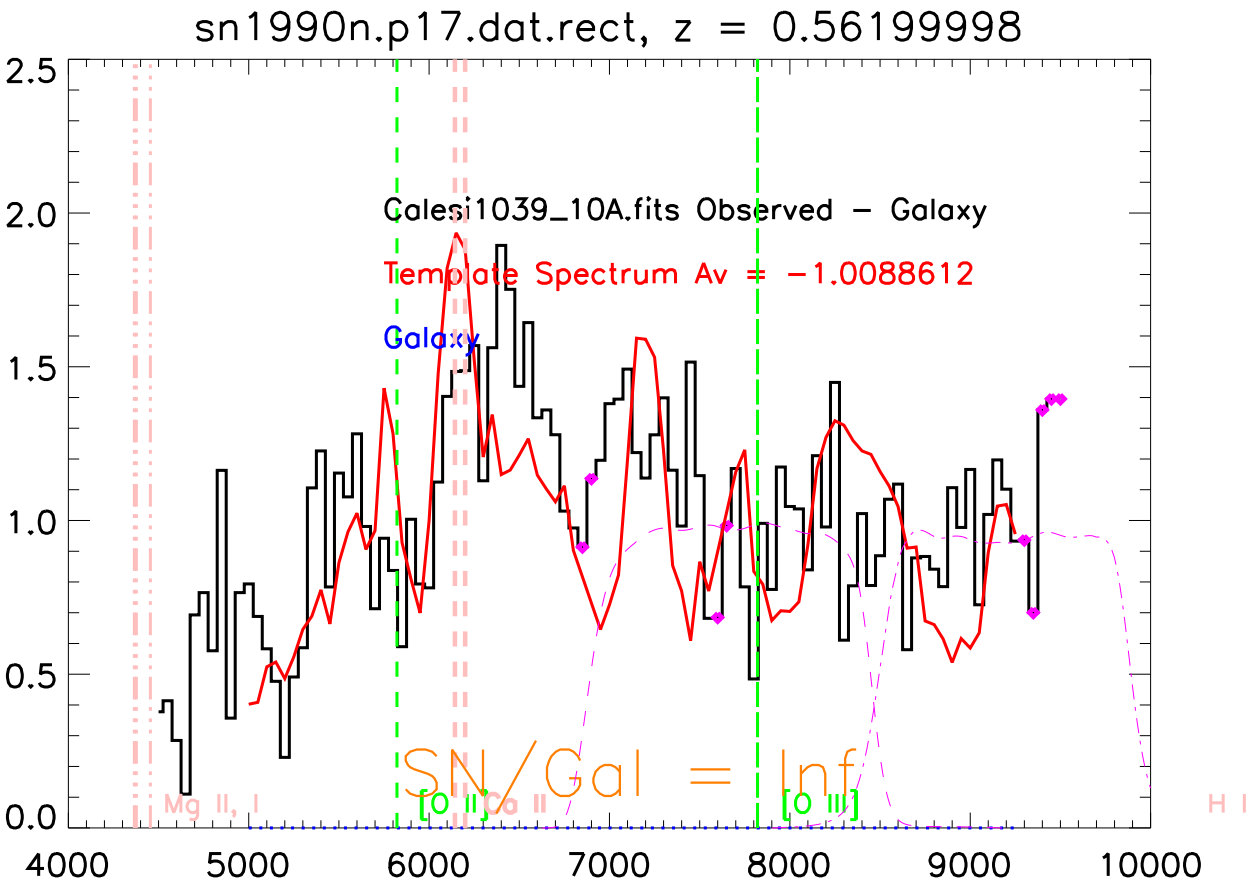
10000


sn1990n.p17.dat.rect, z = 0.56199998
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −1.0088612
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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1.5
1.0
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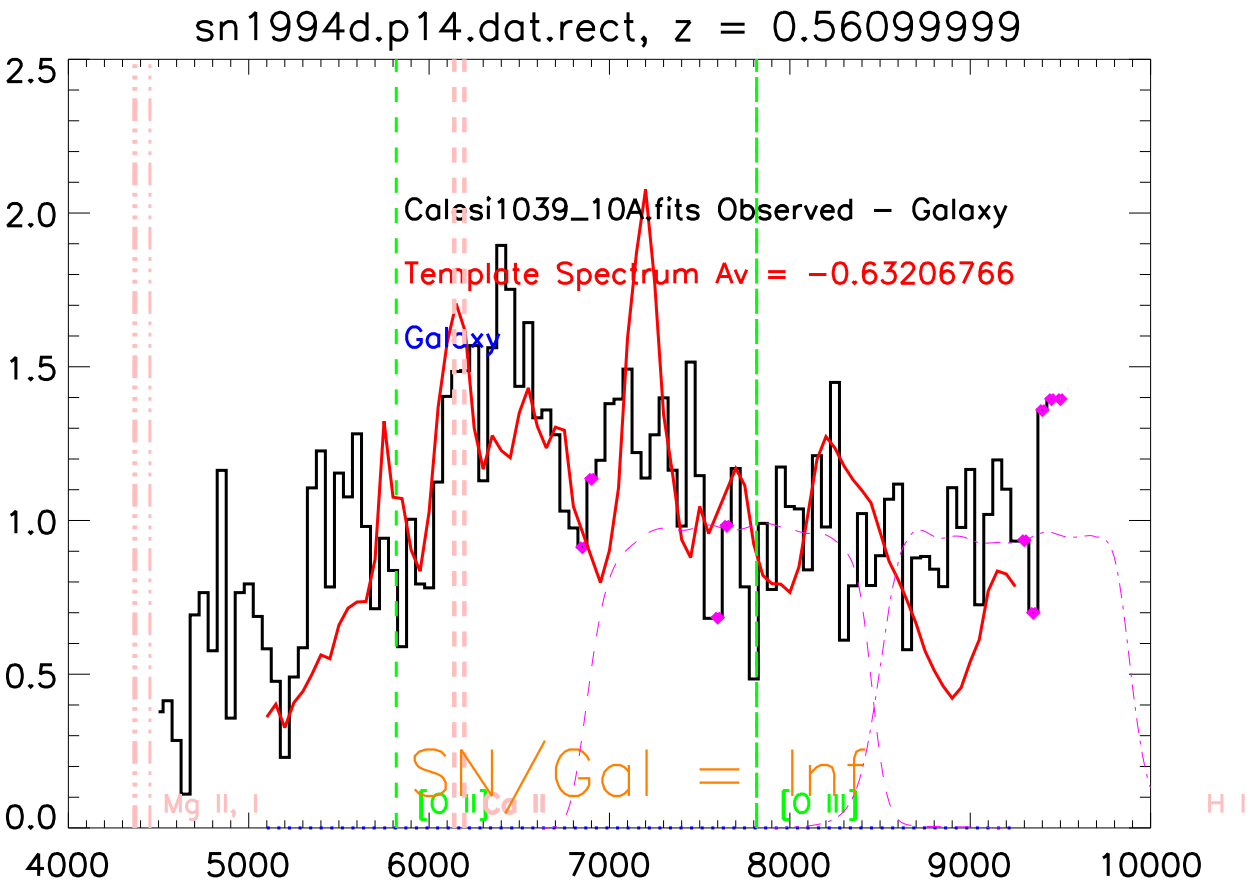
10000


sn1994d.p14.dat.rect, z = 0.56099999
Calasi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −0.63206766
Galaxy
SN/Gal = Inf
[O II]
Ca II
[O III]
Mg II, I
H I
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2.0
1.5
1.0
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9000
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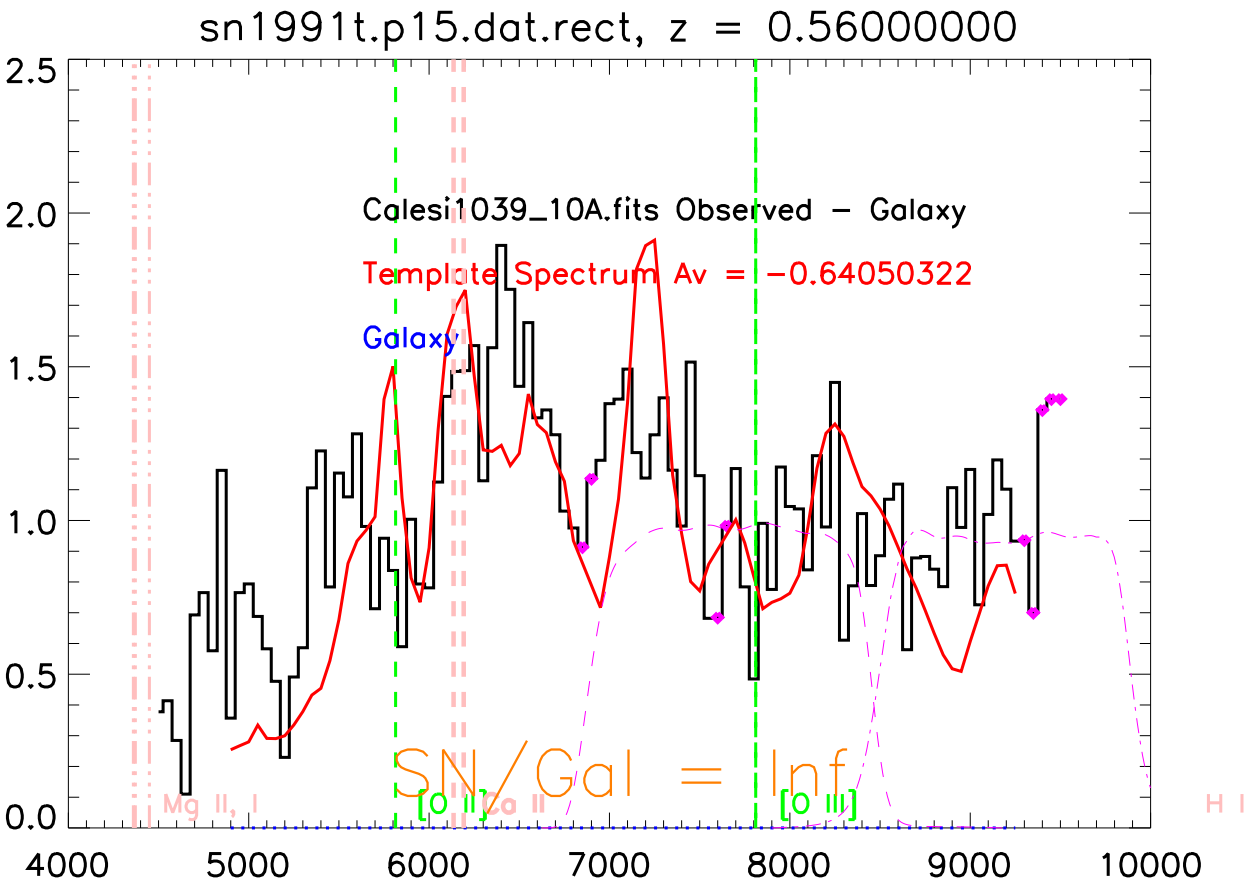
sn1991t.p15.dat.rect, z = 0.56000000
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −0.64050322
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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2.0
1.5
1.0
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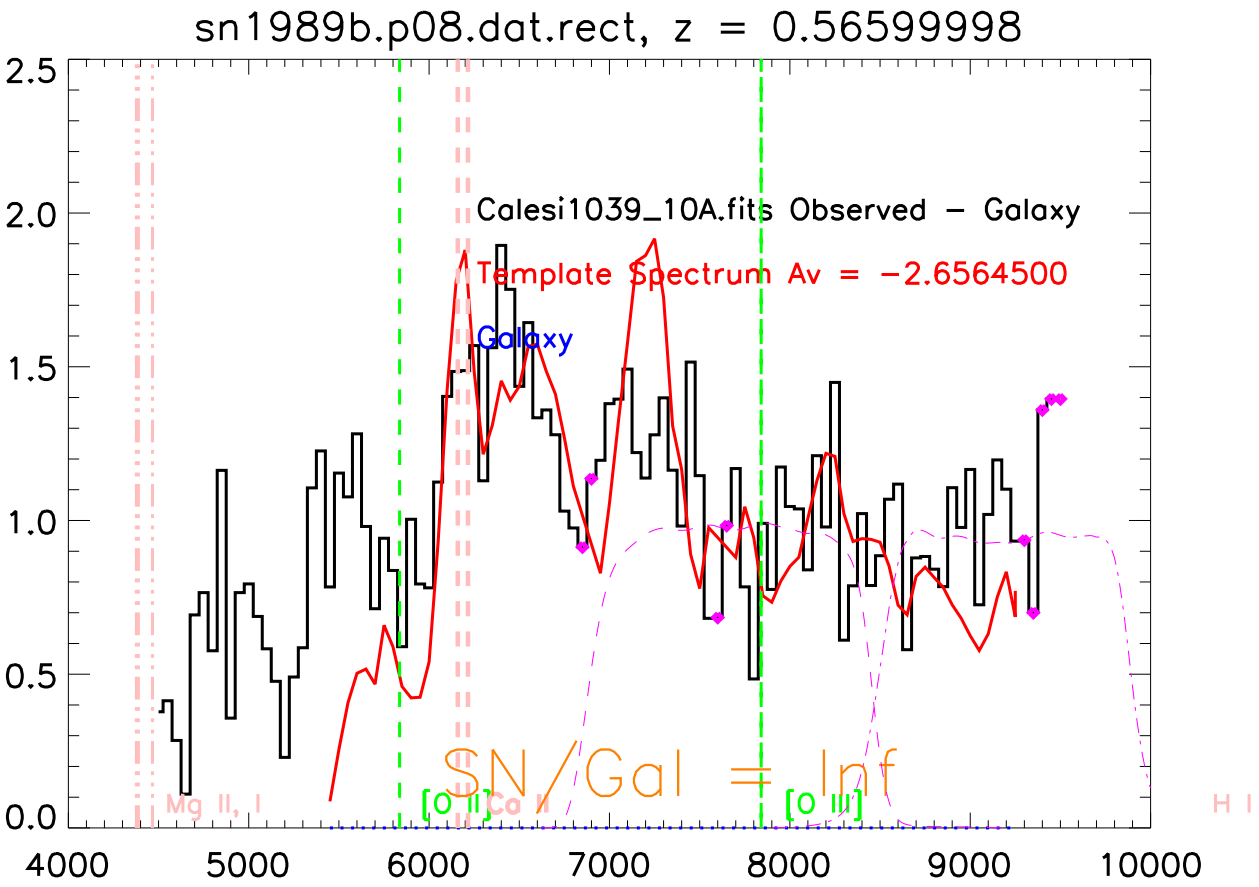
sn1989b.p08.dat.rect, z = 0.56599998
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −2.6564500
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca I
[O III]
H I
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2.0
1.5
1.0
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8000
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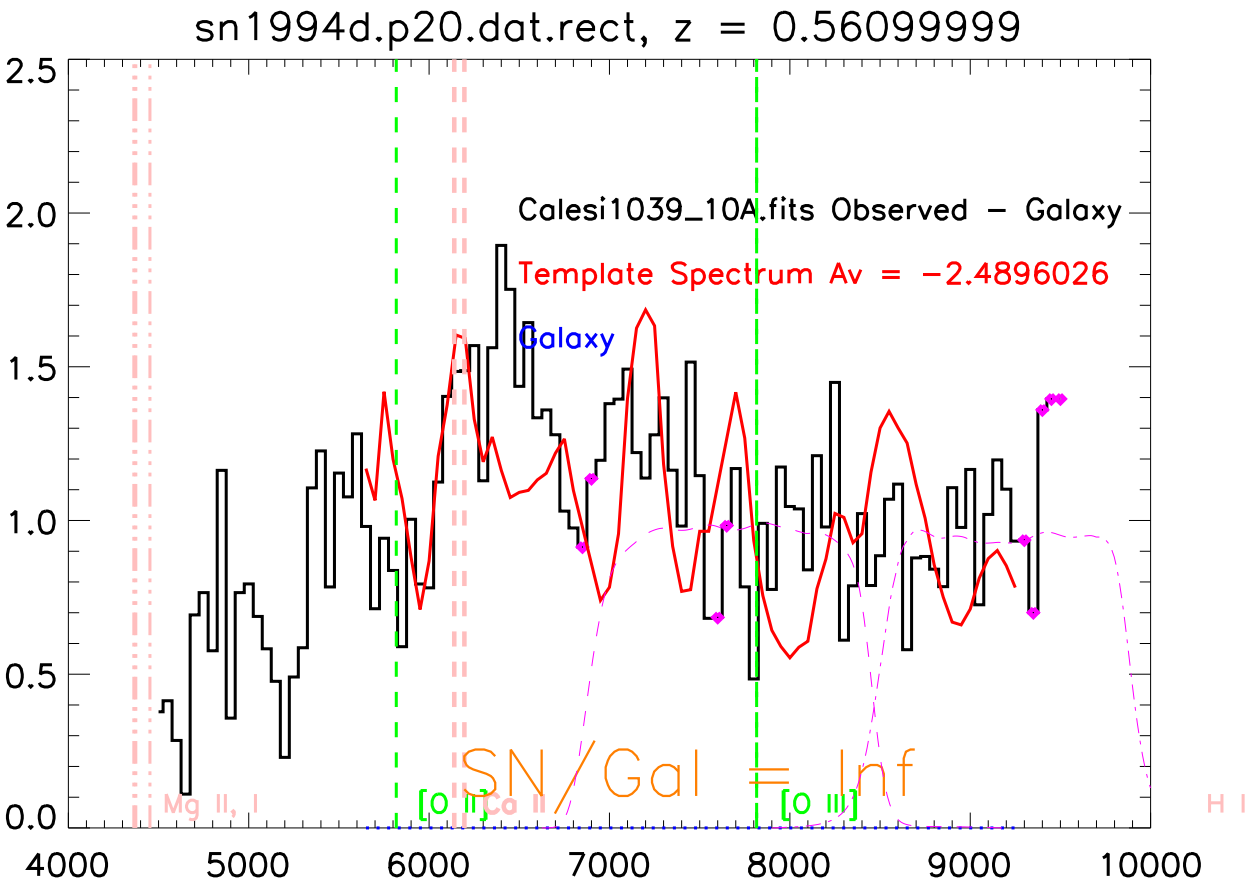
sn1994d.p20.dat.rect, z = 0.56099999
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −2.4896026
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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2.0
1.5
1.0
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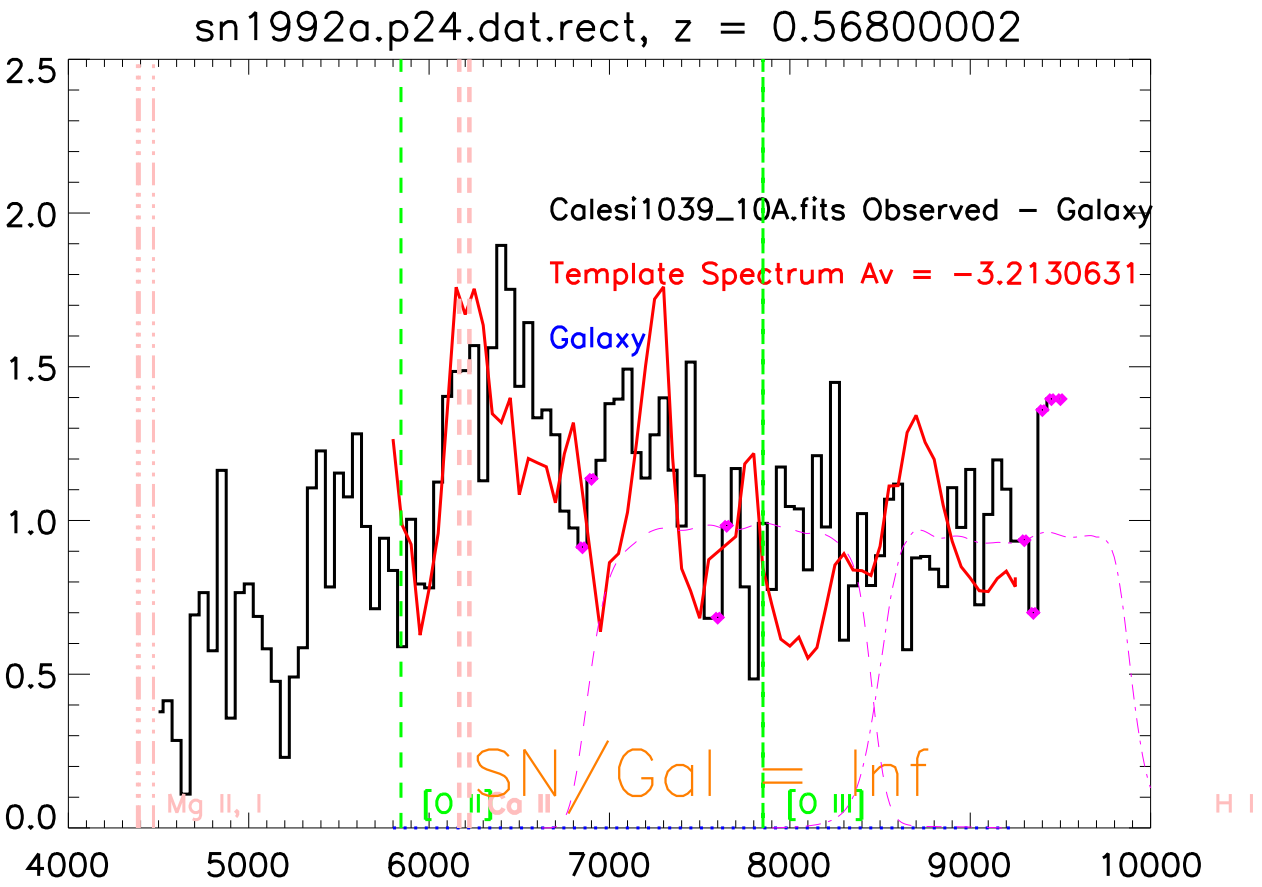
sn1992a.p24.dat.rect, z = 0.56800002
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −3.2130631
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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2.0
1.5
1.0
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8000
9000
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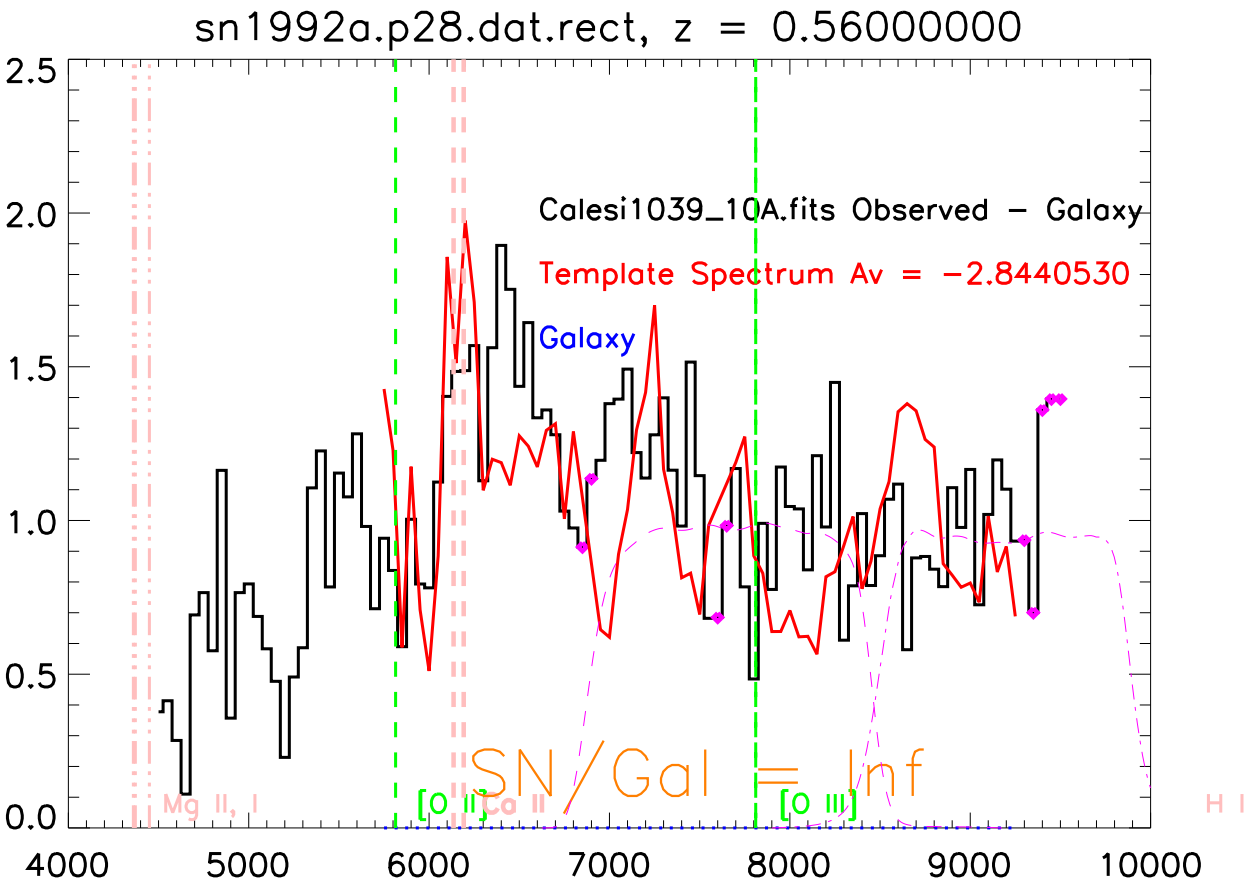
sn1992a.p28.dat.rect, z = 0.56000000
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −2.8440530
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
2.5
2.0
1.5
1.0
0.5
0.0
4000
5000
6000
7000
8000
9000
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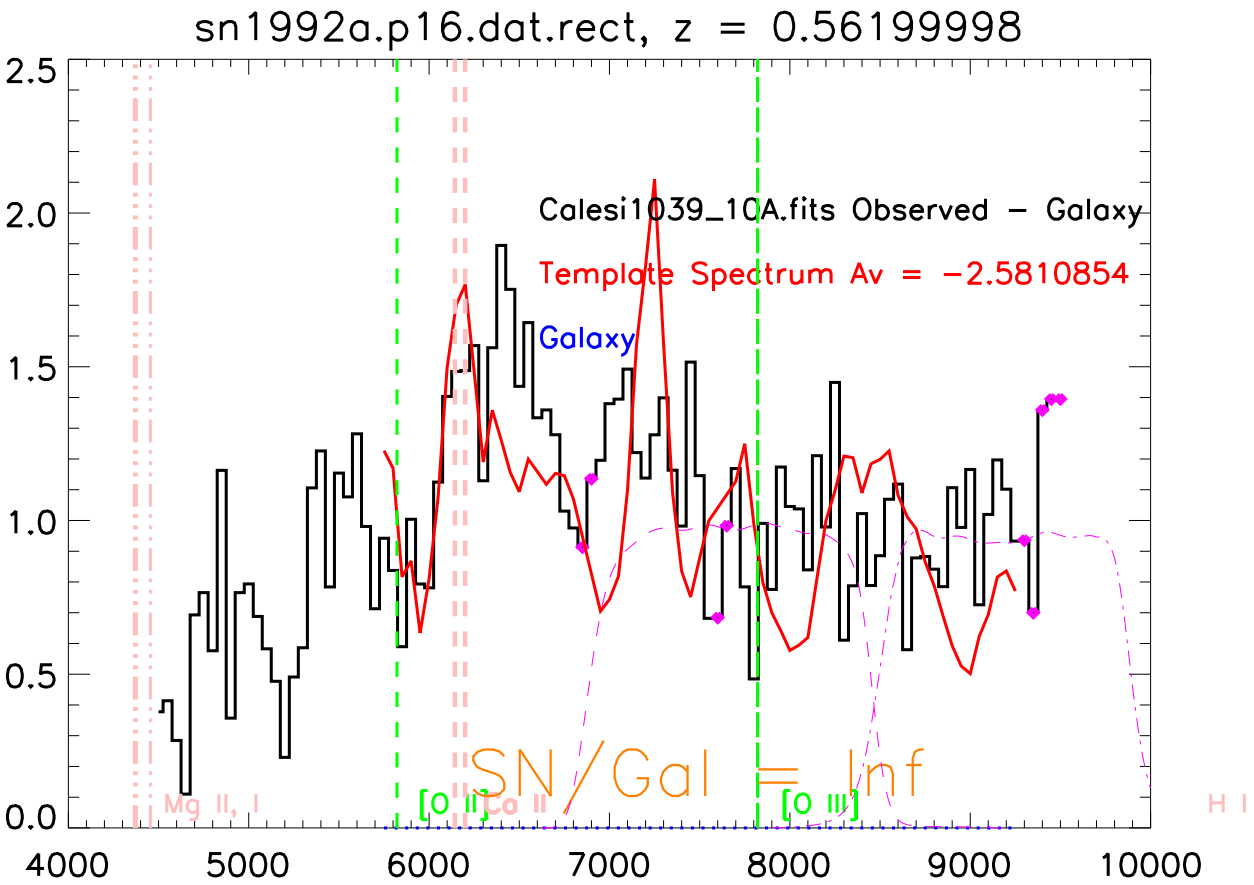
sn1992a.p16.dat.rect, z = 0.56199998
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −2.5810854
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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1.5
1.0
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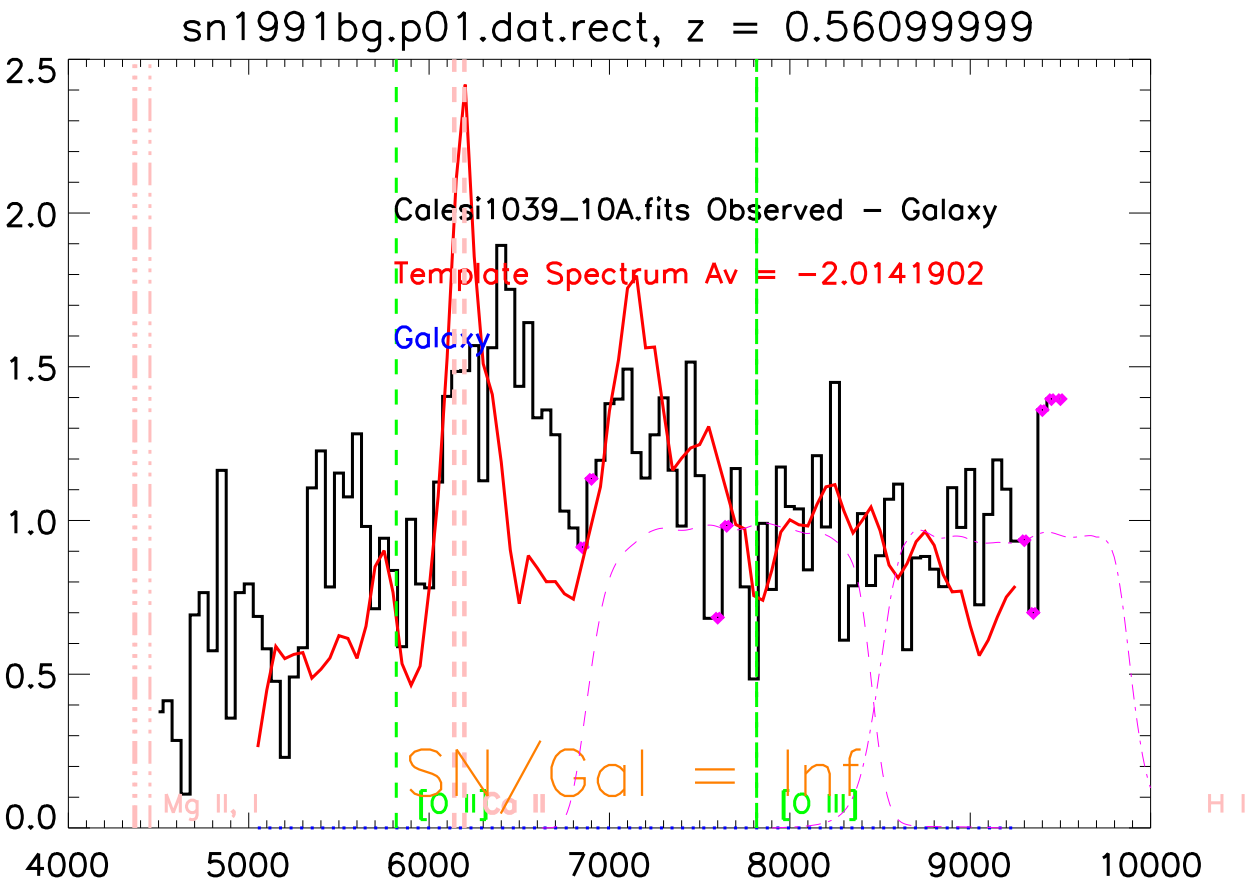
sn1991bg.p01.dat.rect, z = 0.56099999
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −2.0141902
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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2.0
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1.0
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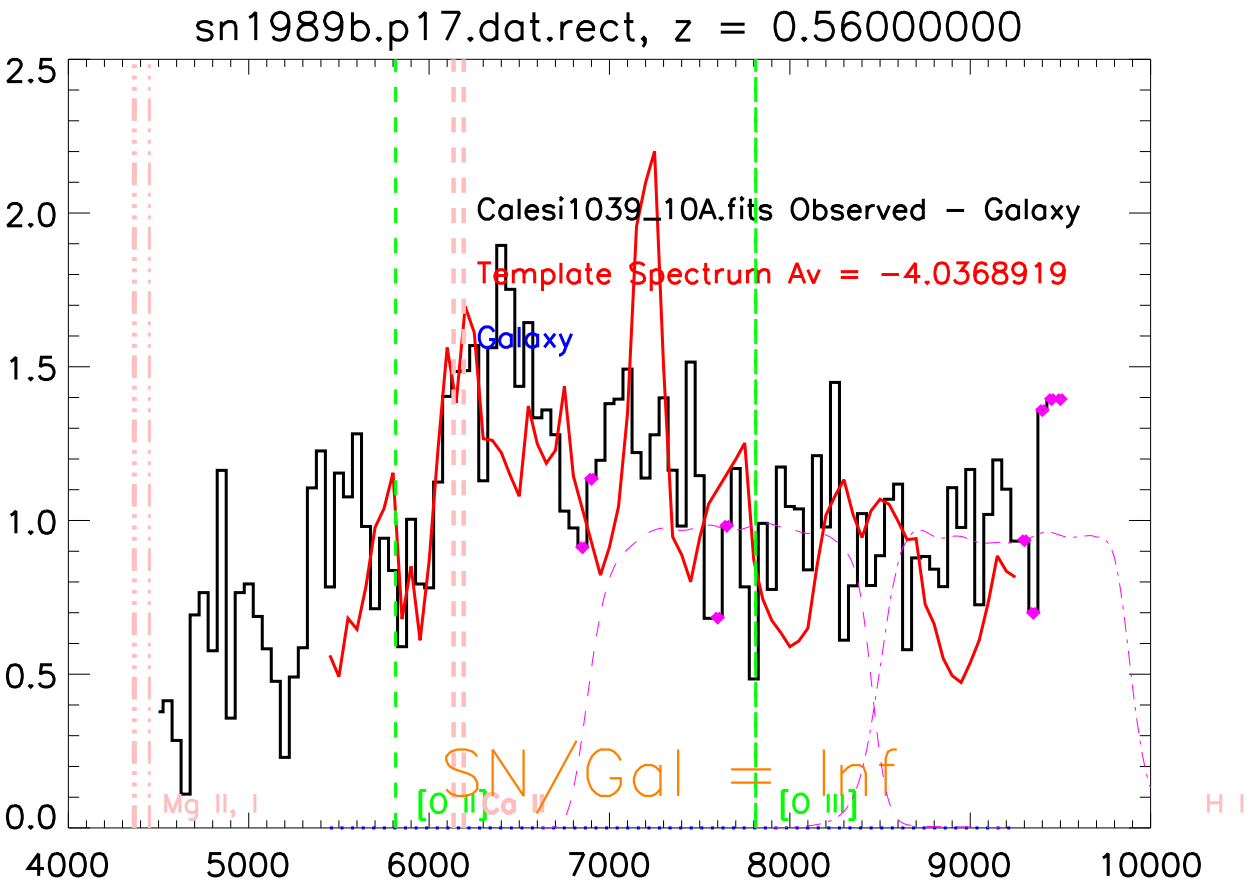
sn1989b.p17.dat.rect, z = 0.56000000
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −4.0368919
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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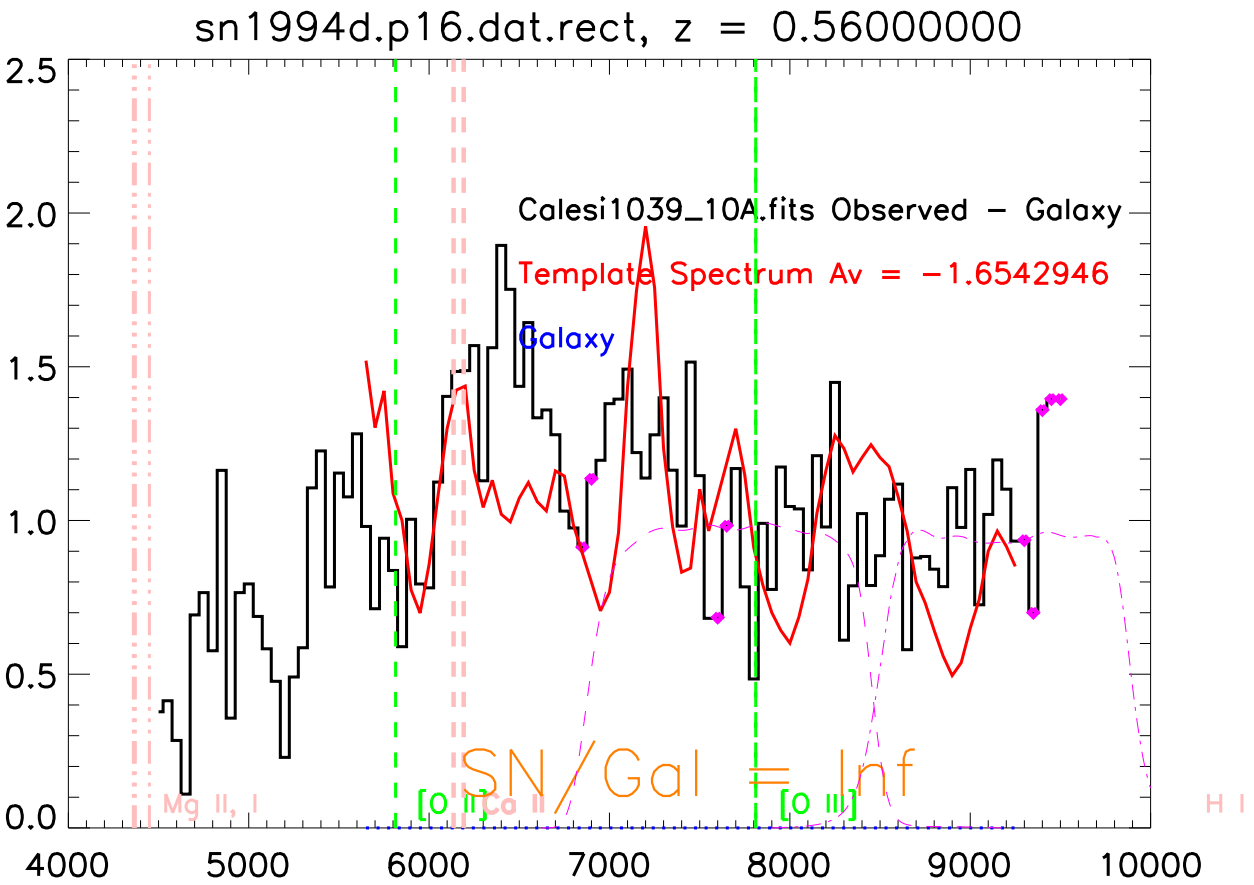
sn1994d.p16.dat.rect, z = 0.56000000
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −1.6542946
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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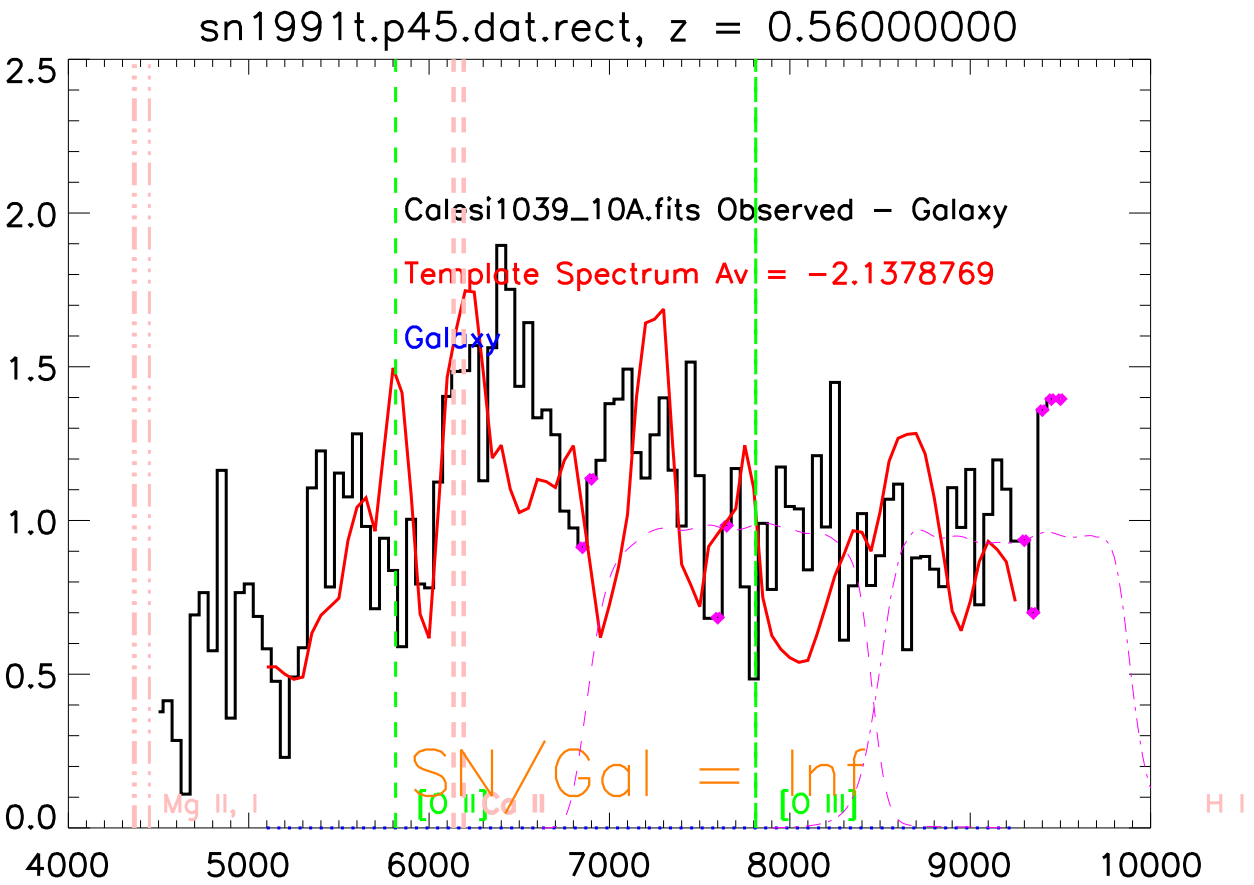
sn1991t.p45.dat.rect, z = 0.56000000
Calasi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −2.1378769
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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2.0
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1.0
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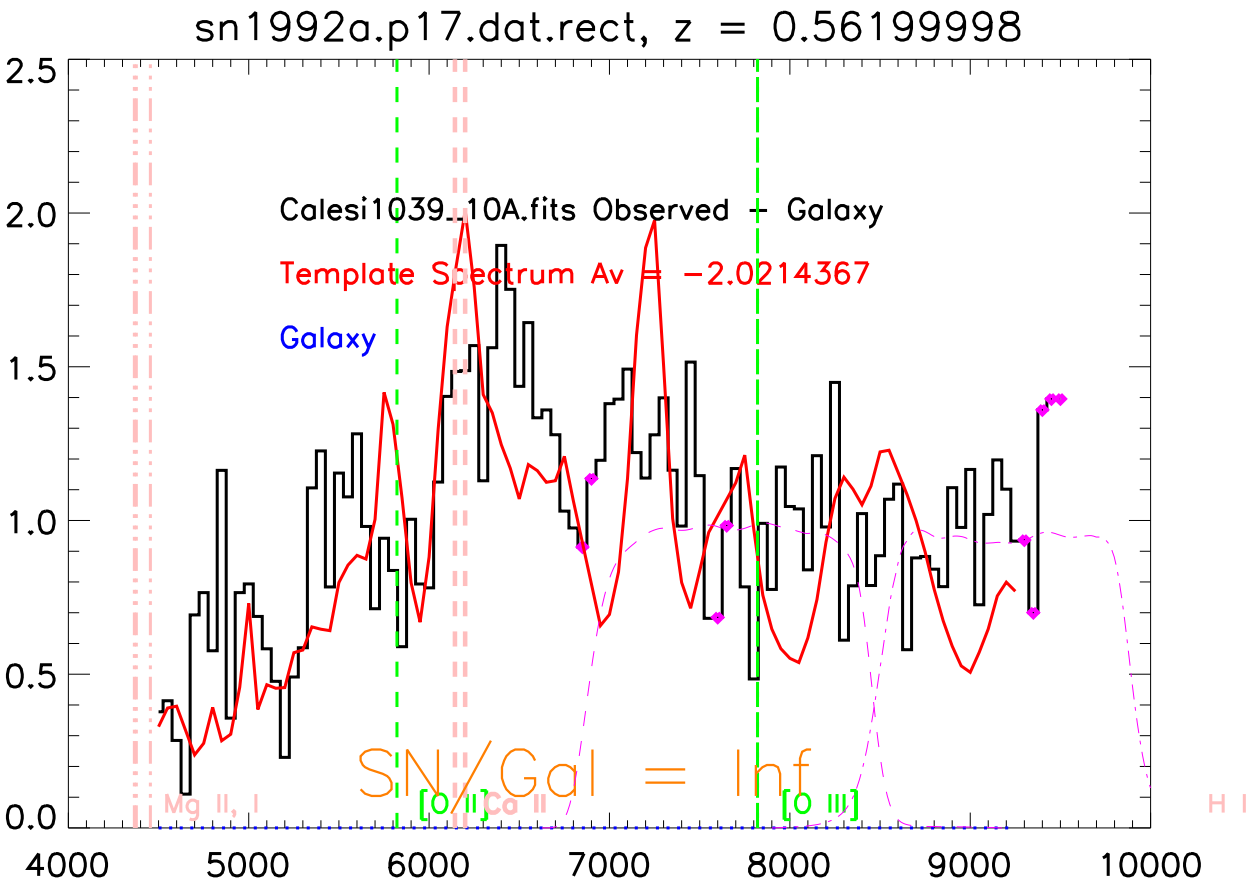
sn1992a.p17.dat.rect, z = 0.56199998
Calesi1039_10A.fits Observed + Galaxy
Template Spectrum Av = -2.0214367
Galaxy
S/N Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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2.0
1.5
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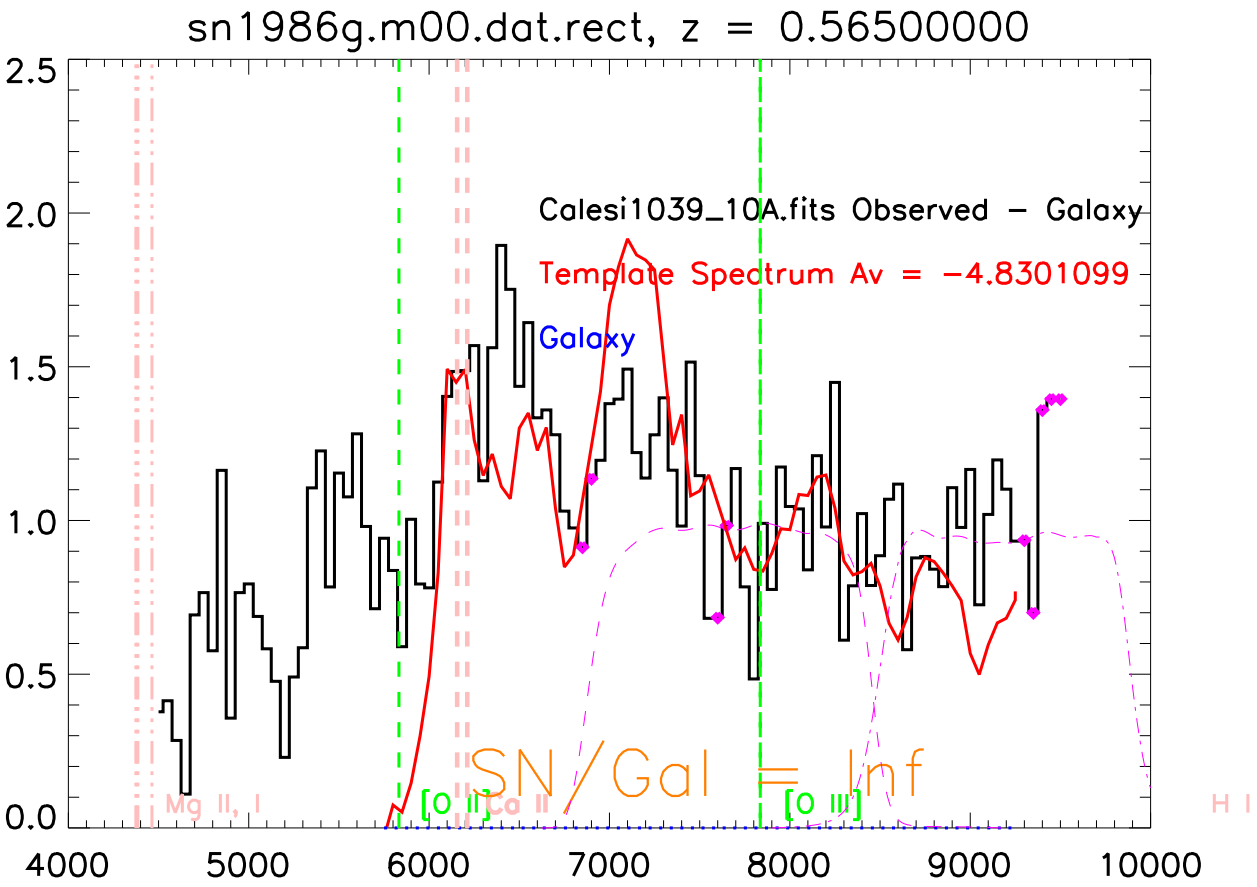
sn1986g.m00.dat.rect, z = 0.56500000
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −4.8301099
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Co II
[O III]
H I
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2.0
1.5
1.0
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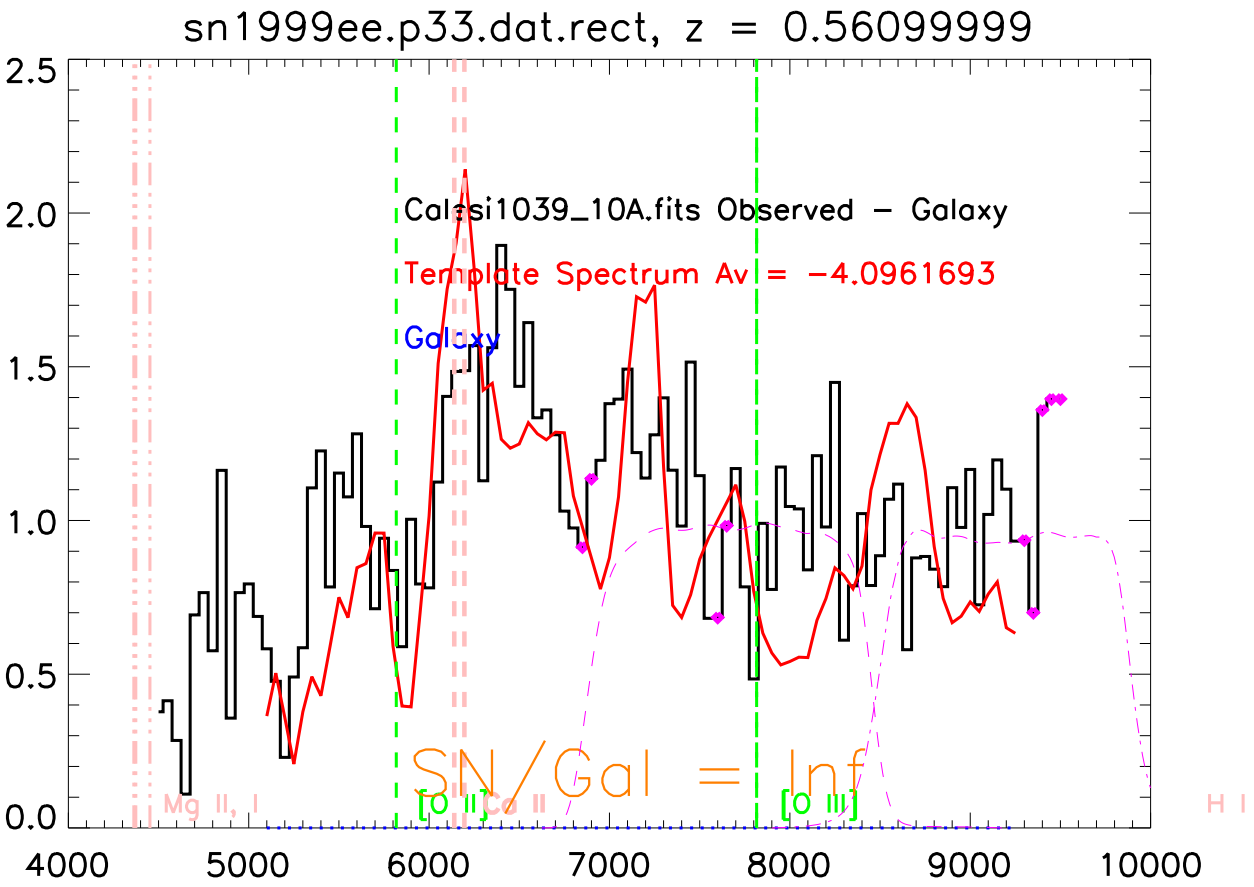
sn1999ee.p33.dat.rect, z = 0.56099999
Calasi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −4.0961693
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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2.0
1.5
1.0
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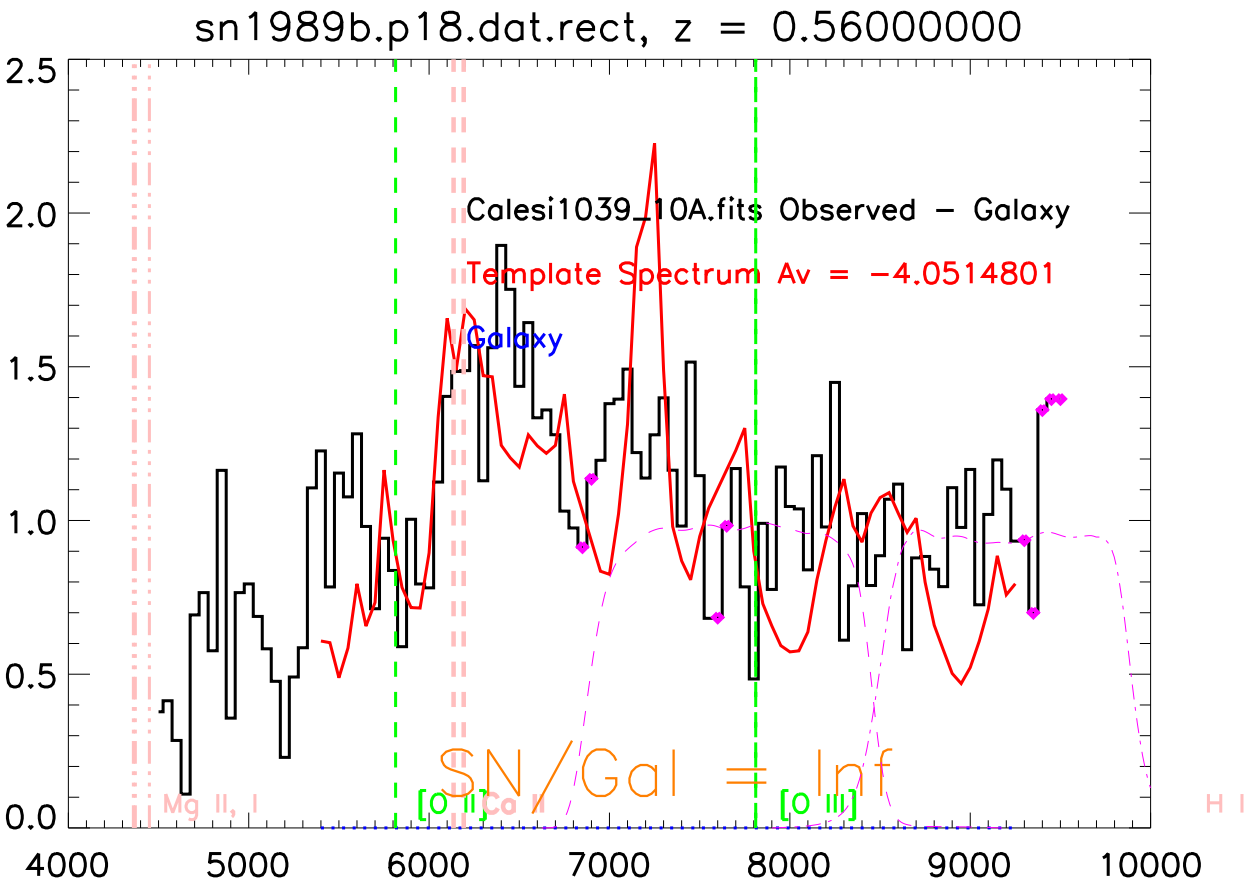
sn1989b.p18.dat.rect, z = 0.56000000
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −4.0514801
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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2.0
1.5
1.0
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8000
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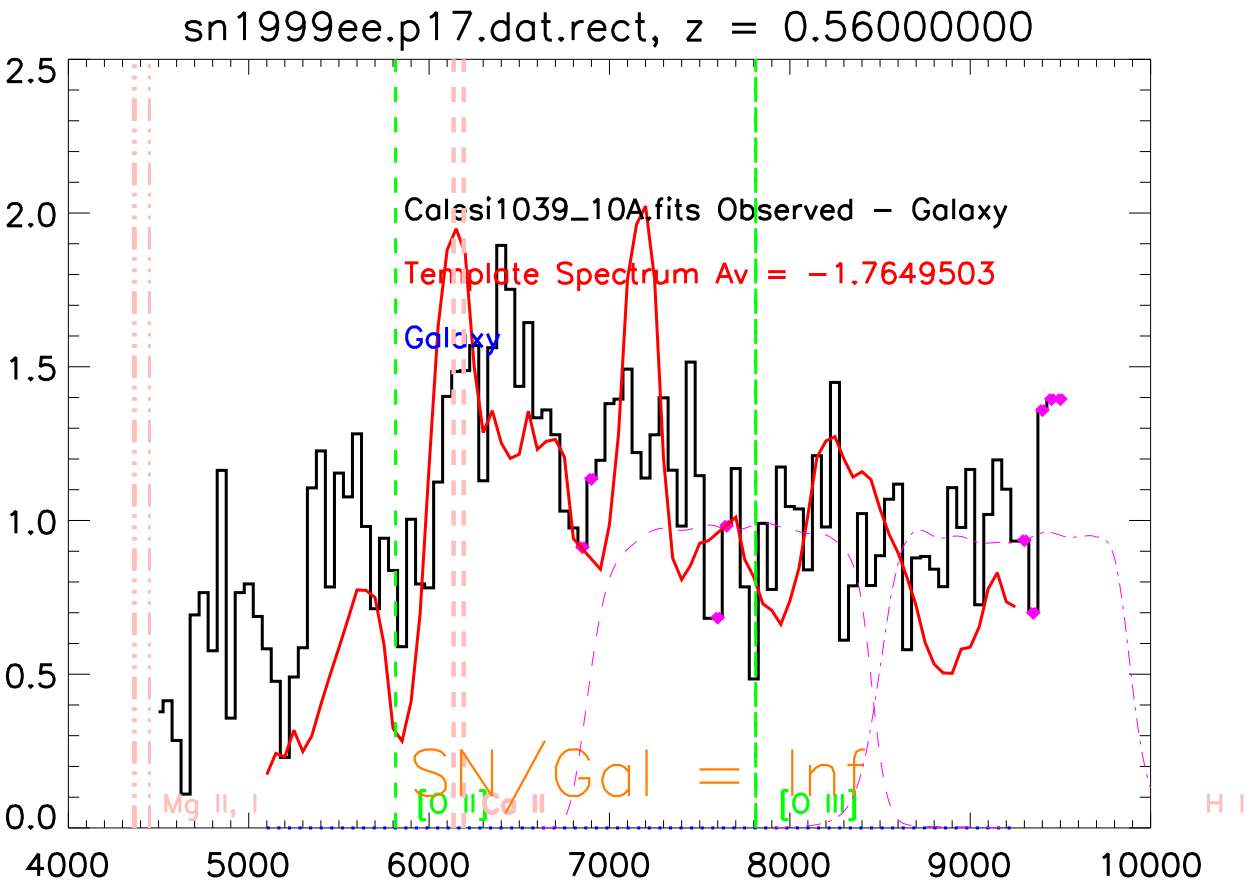
sn1999ee.p17.dat.rect, z = 0.56000000
Calasi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −1.7649503
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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2.0
1.5
1.0
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8000
9000
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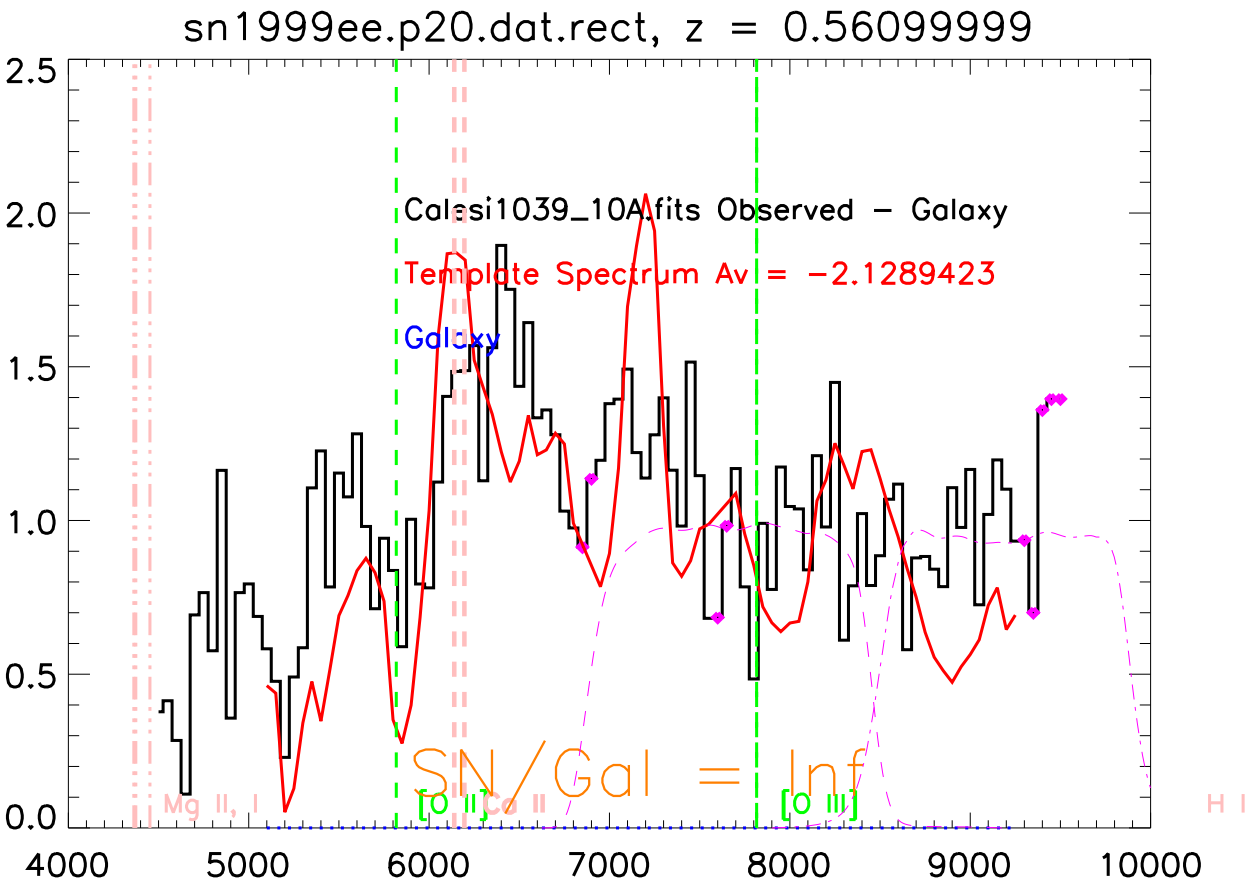
sn1999ee.p20.dat.rect, z = 0.56099999
Calasi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −2.1289423
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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2.0
1.5
1.0
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8000
9000
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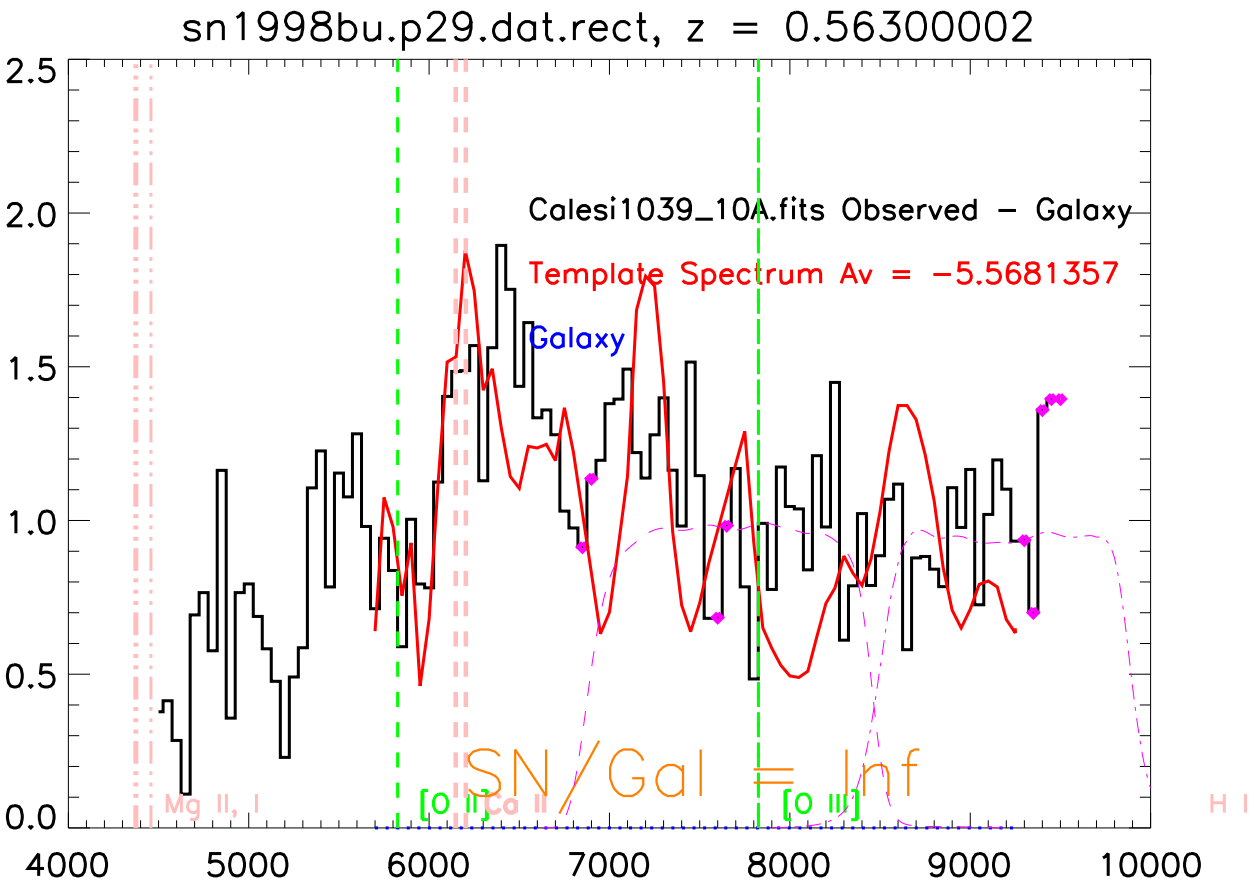
sn1998bu.p29.dat.rect, z = 0.56300002
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −5.5681357
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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2.0
1.5
1.0
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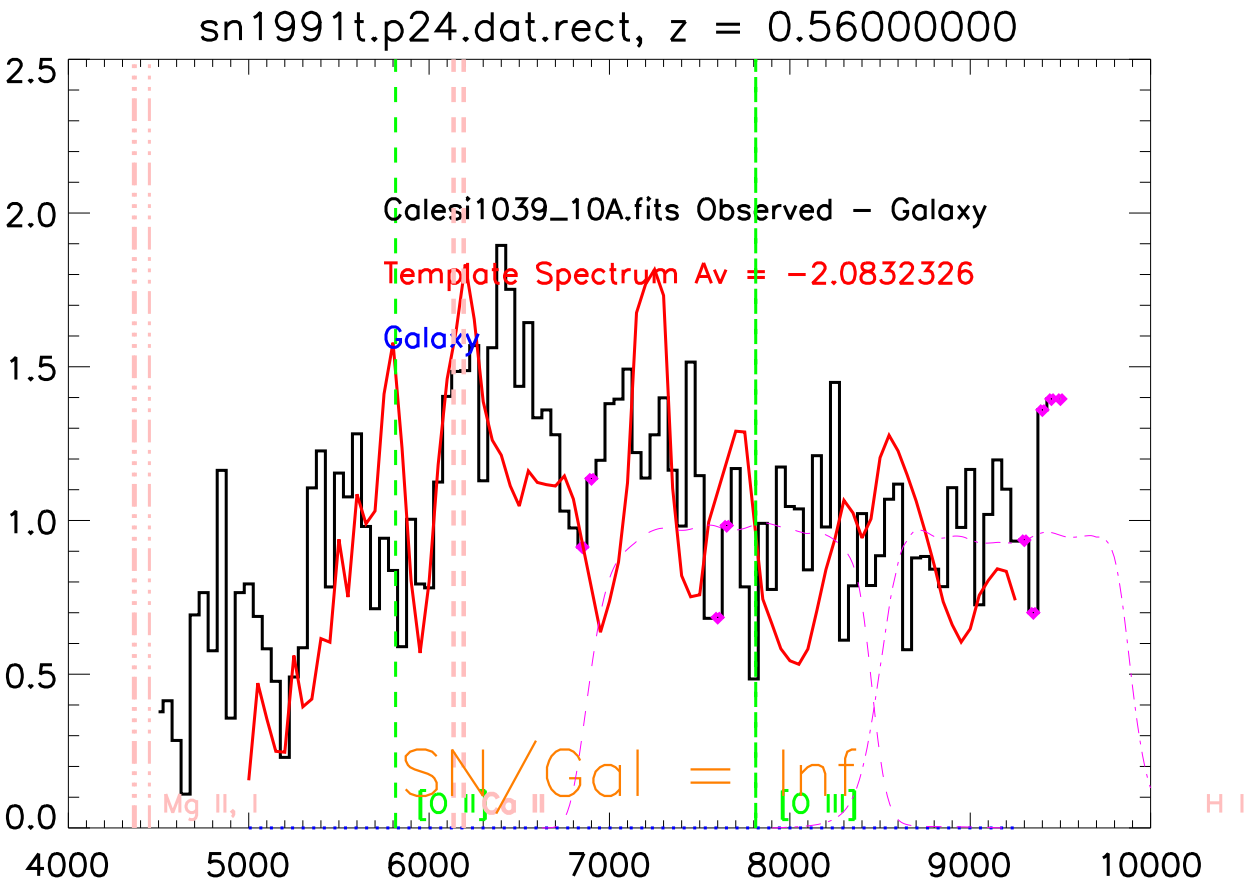
sn1991t.p24.dat.rect, z = 0.56000000
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −2.0832326
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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2.0
1.5
1.0
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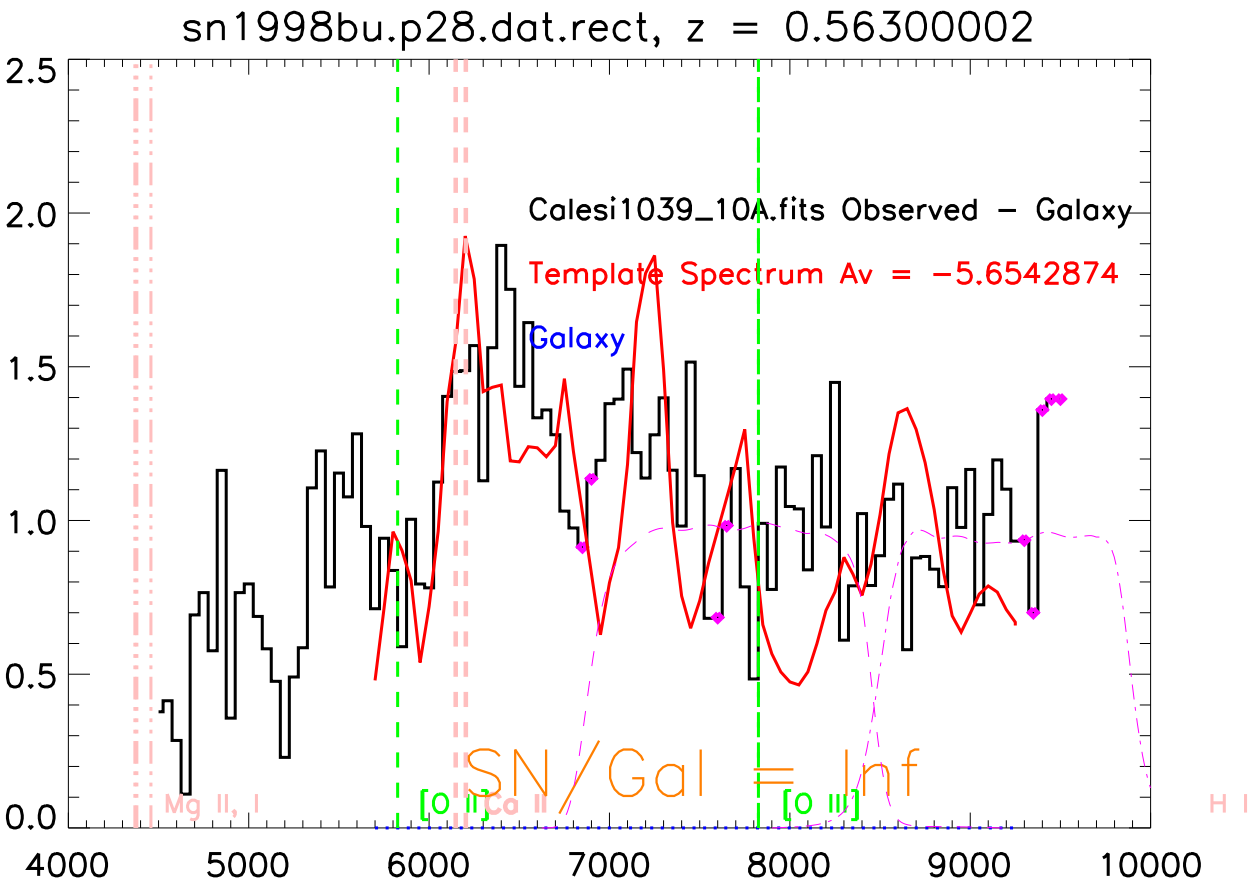
sn1998bu.p28.dat.rect, z = 0.56300002
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −5.6542874
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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2.0
1.5
1.0
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8000
9000
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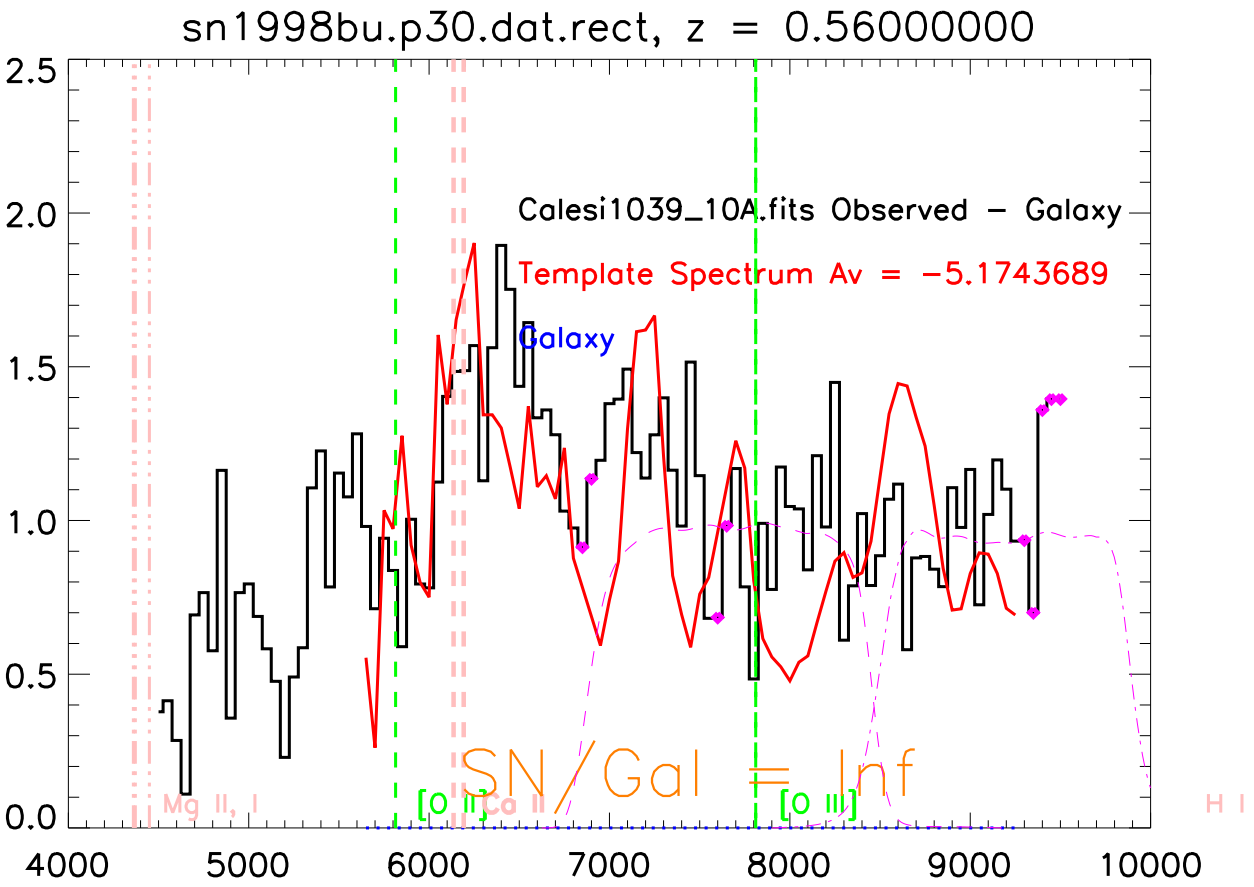
sn1998bu.p30.dat.rect, z = 0.56000000
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −5.1743689
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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1.5
1.0
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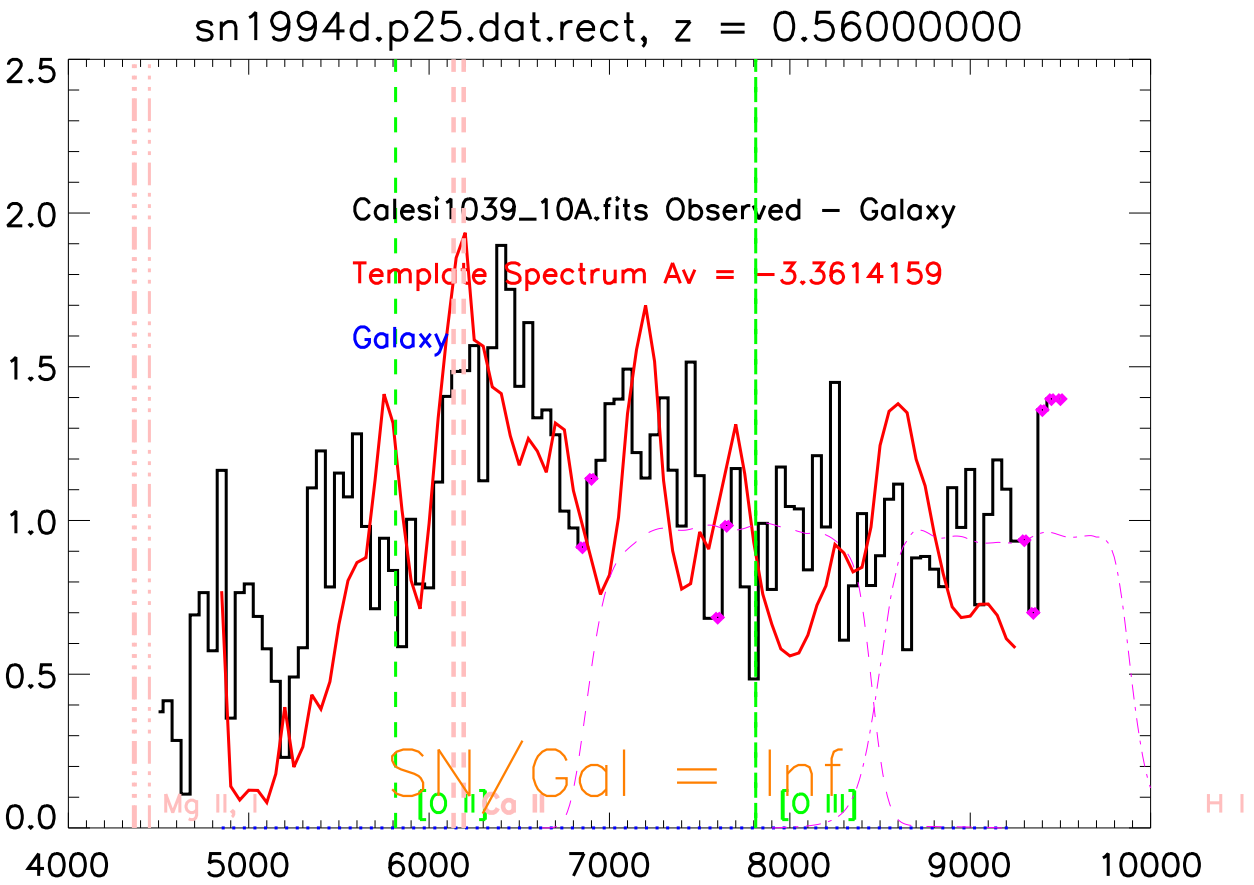
sn1994d.p25.dat.rect, z = 0.56000000
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −3.3614159
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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2.0
1.5
1.0
0.5
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8000
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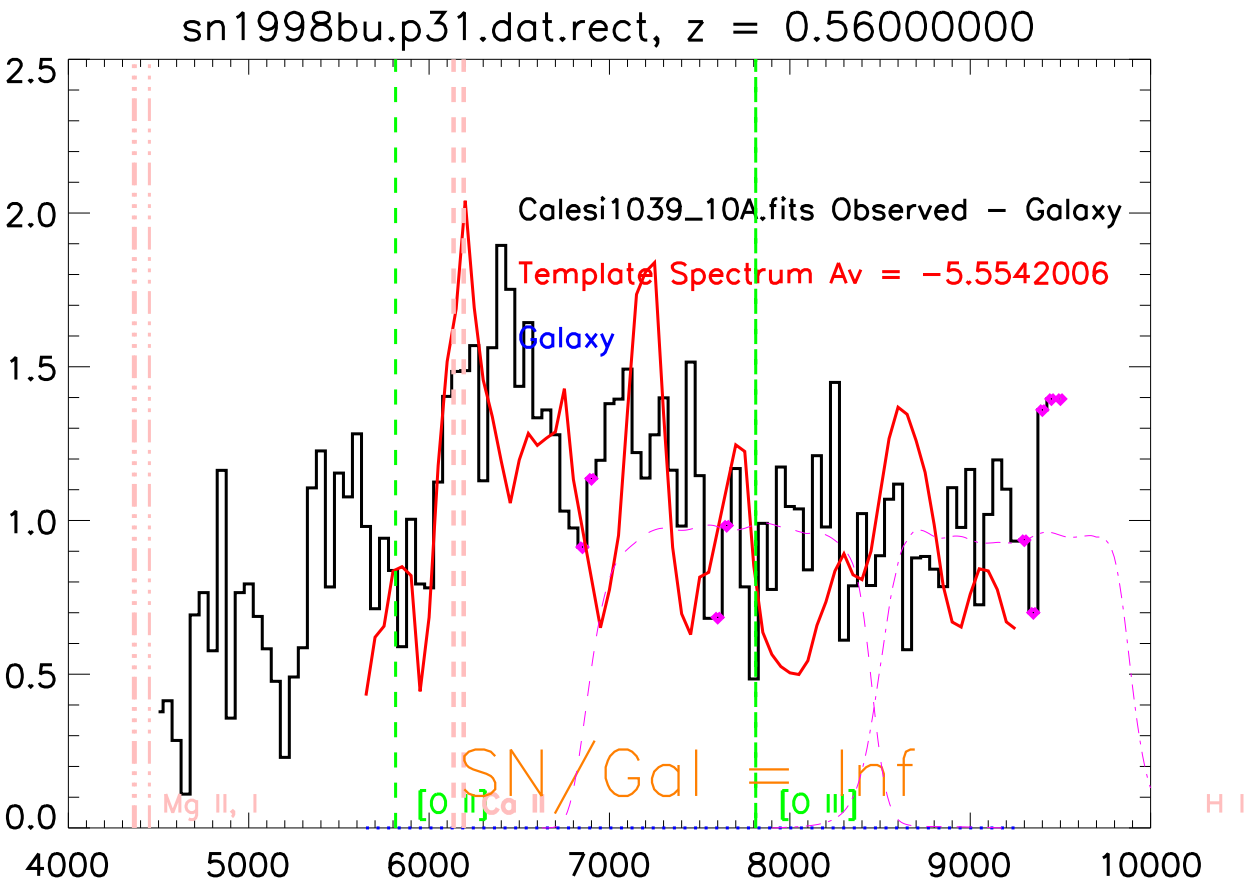
sn1998bu.p31.dat.rect, z = 0.56000000
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −5.5542006
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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2.0
1.5
1.0
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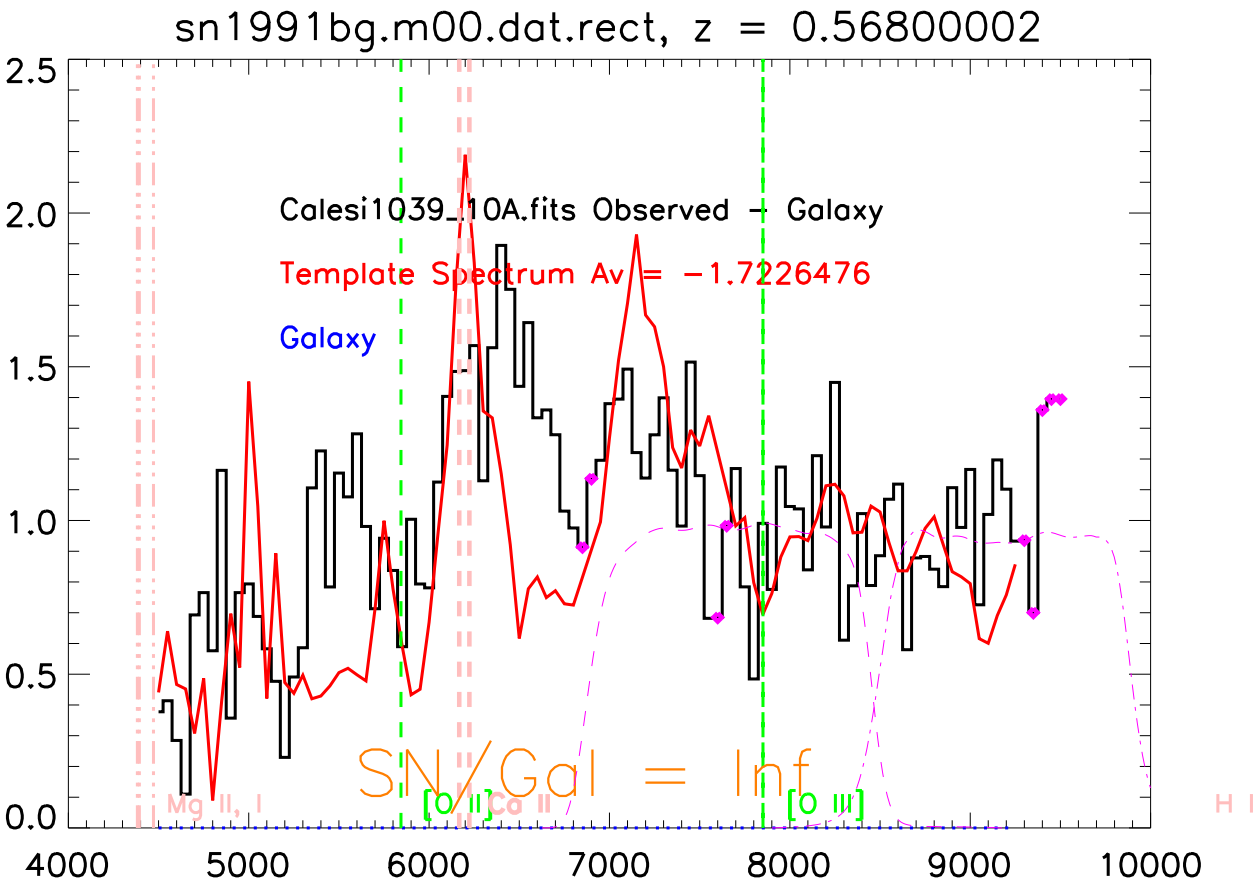
sn1991bg.m00.dat.rect, z = 0.56800002
Calesi1039_10A.fits Observed + Galaxy
Template Spectrum Av = -1.7226476
Galaxy
S/N Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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2.0
1.5
1.0
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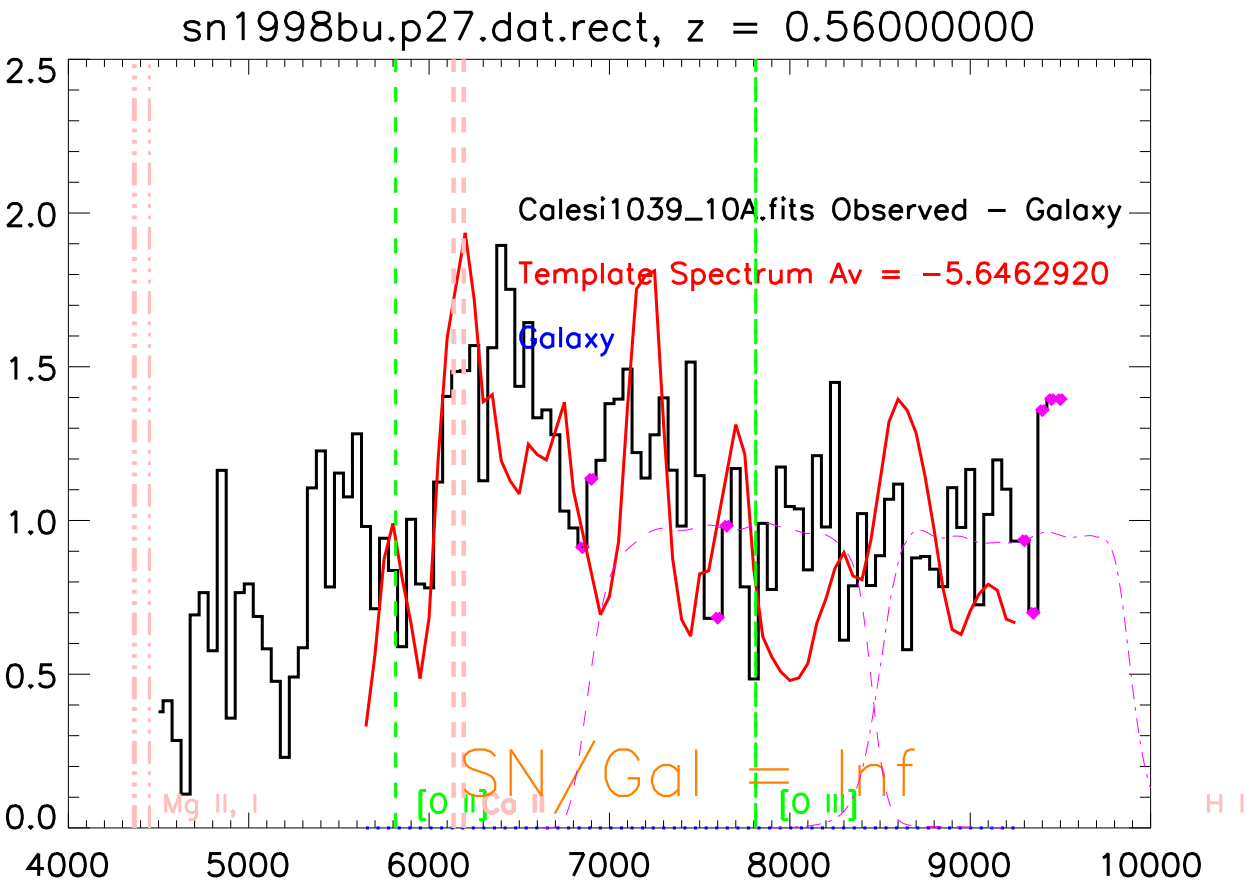
sn1998bu.p27.dat.rect, z = 0.56000000
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −5.6462920
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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1.5
1.0
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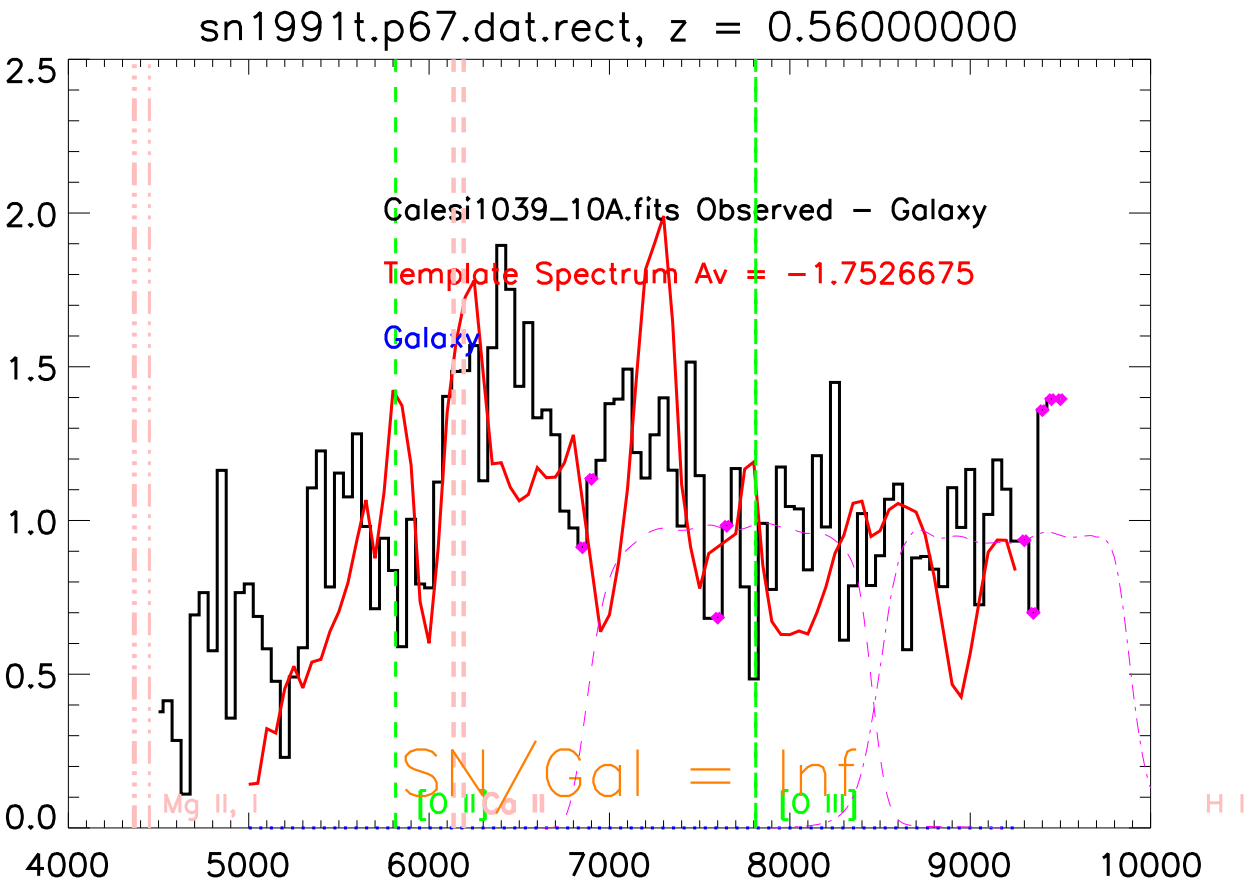
sn1991t.p67.dat.rect, z = 0.56000000
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −1.7526675
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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2.0
1.5
1.0
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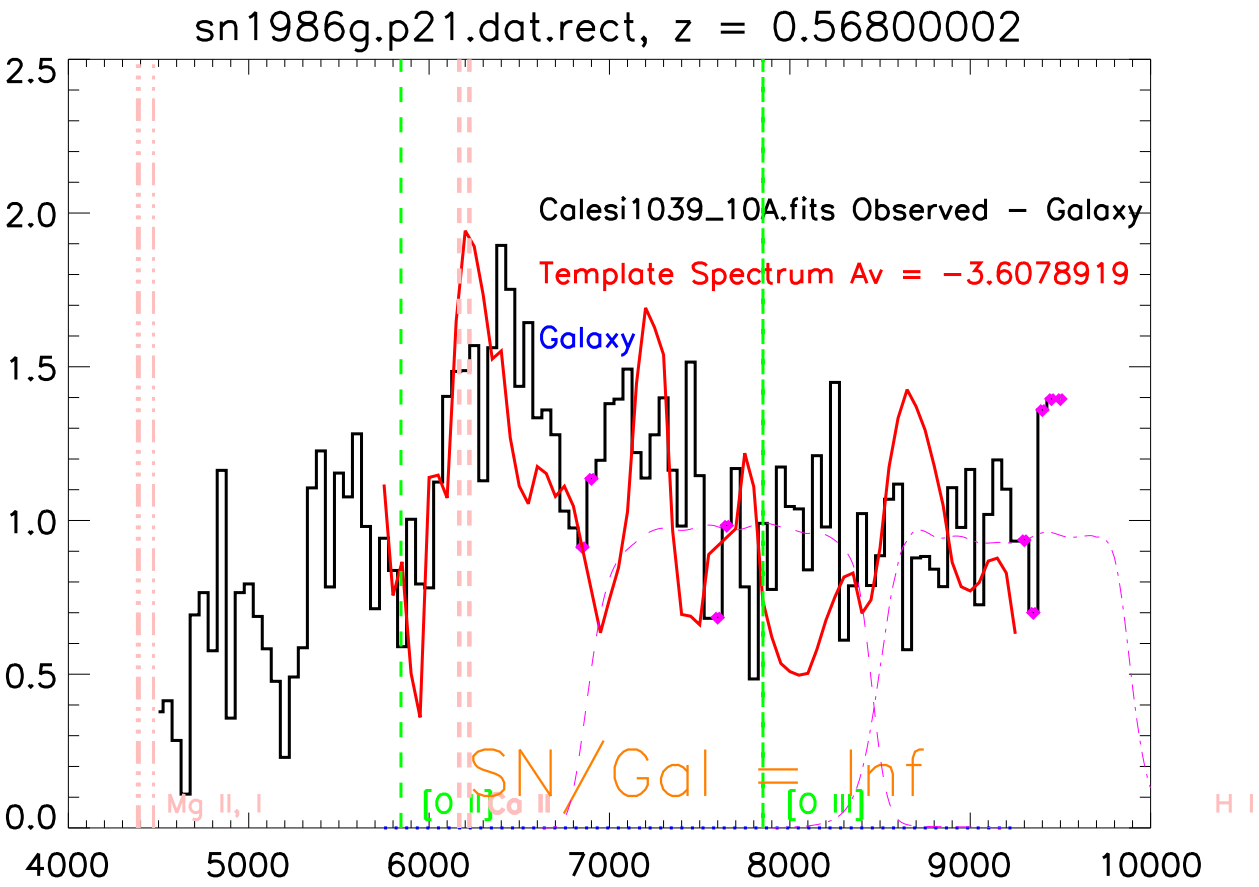
sn1986g.p21.dat.rect, z = 0.56800002
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −3.6078919
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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1.0
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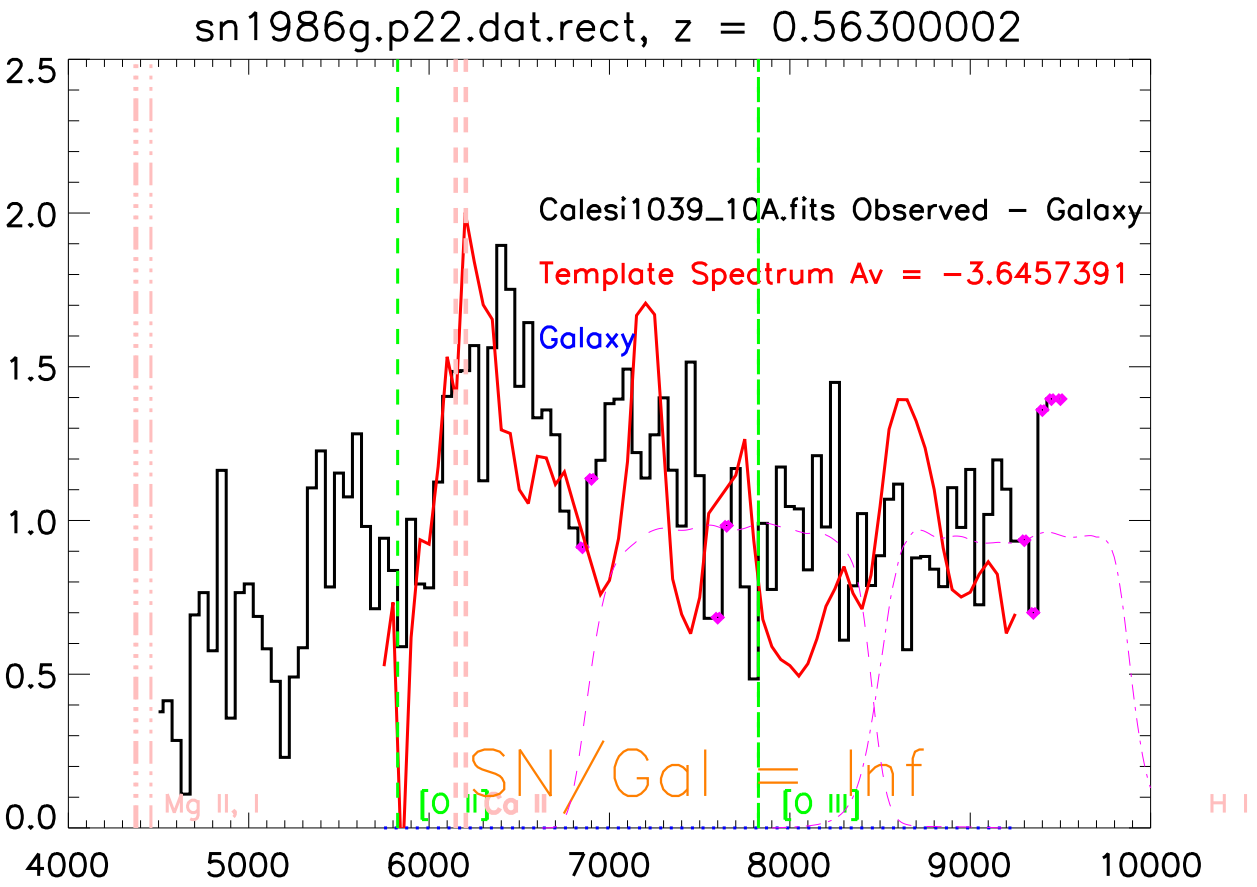
sn1986g.p22.dat.rect, z = 0.56300002
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −3.6457391
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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2.0
1.5
1.0
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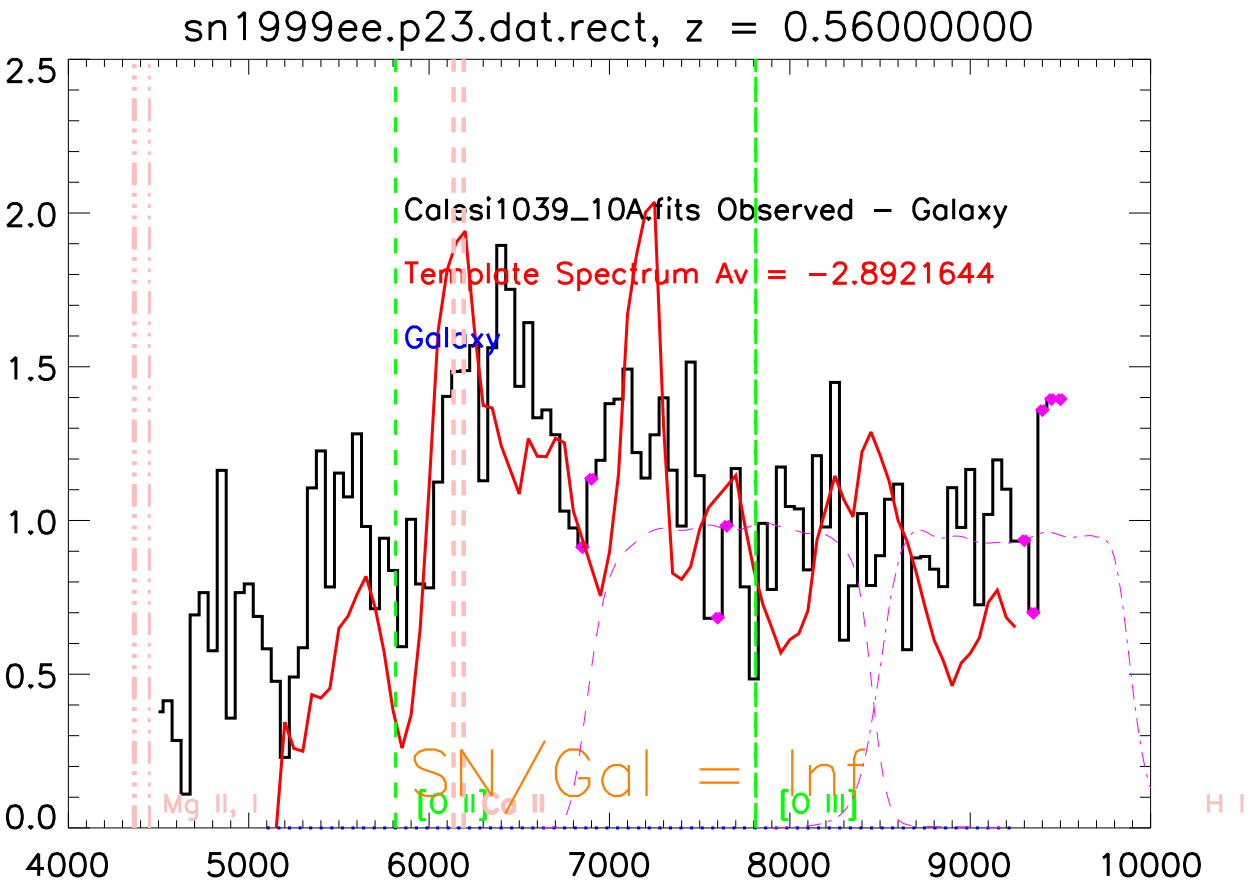
sn1999ee.p23.dat.rect, z = 0.56000000
Calasi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −2.8921644
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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2.0
1.5
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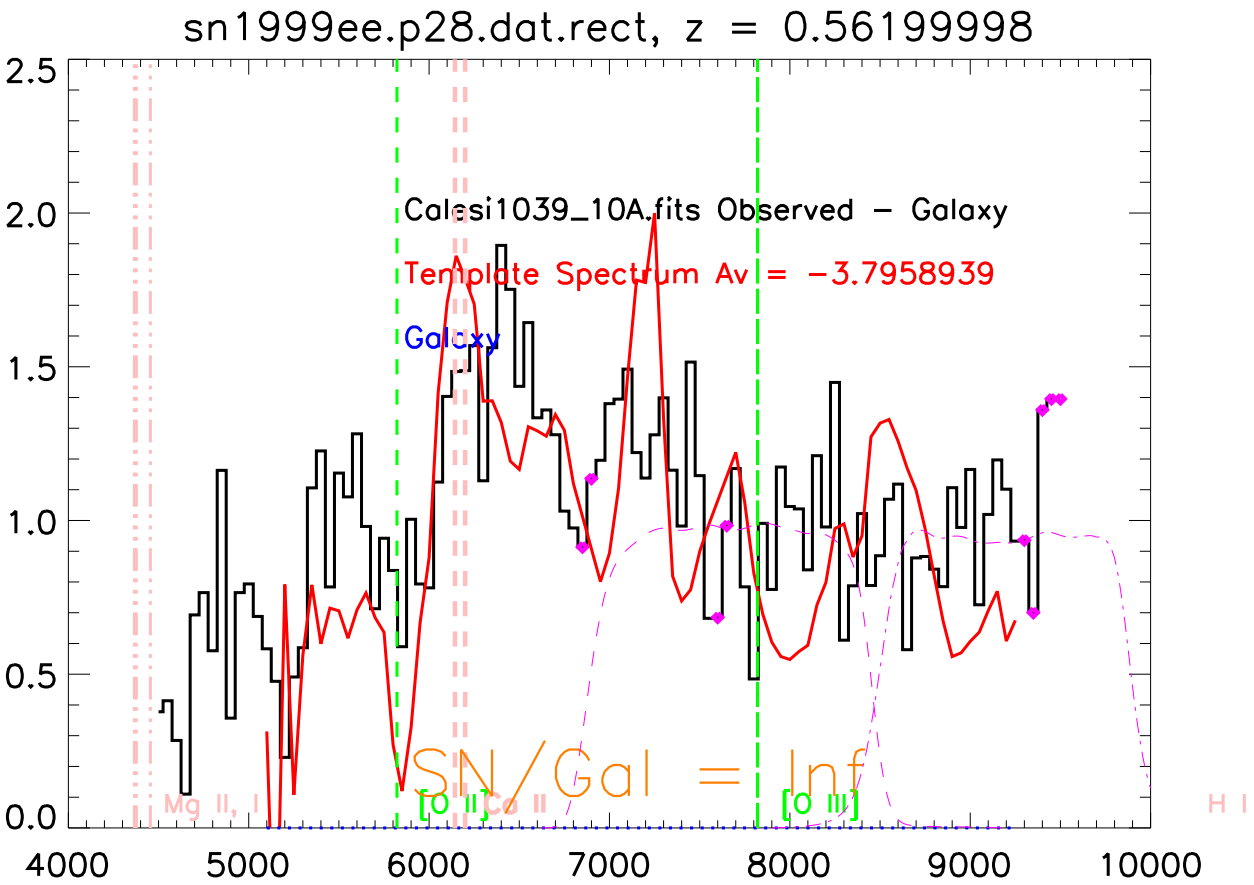
sn1999ee.p28.dat.rect, z = 0.56199998
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −3.7958939
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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2.0
1.5
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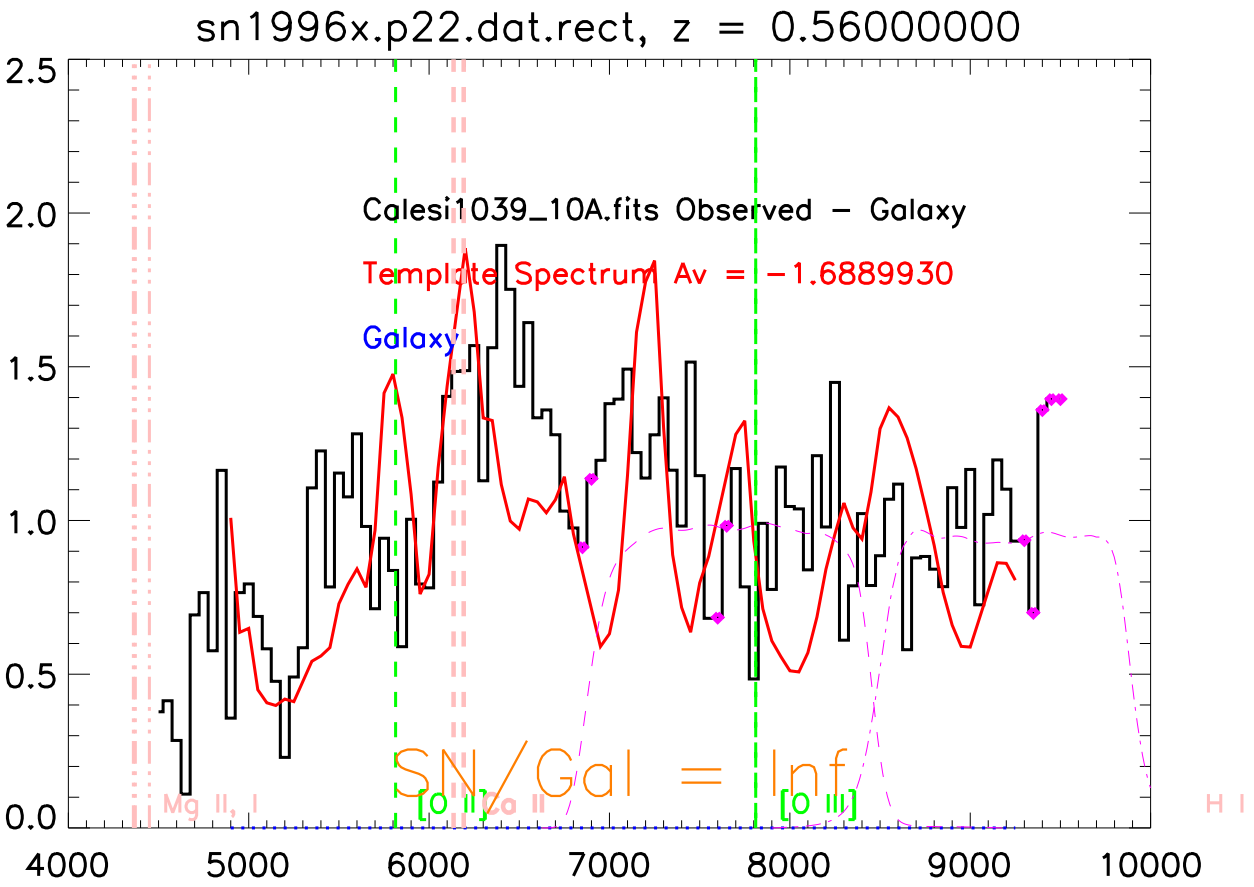
sn1996x.p22.dat.rect, z = 0.56000000
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −1.6889930
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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2.0
1.5
1.0
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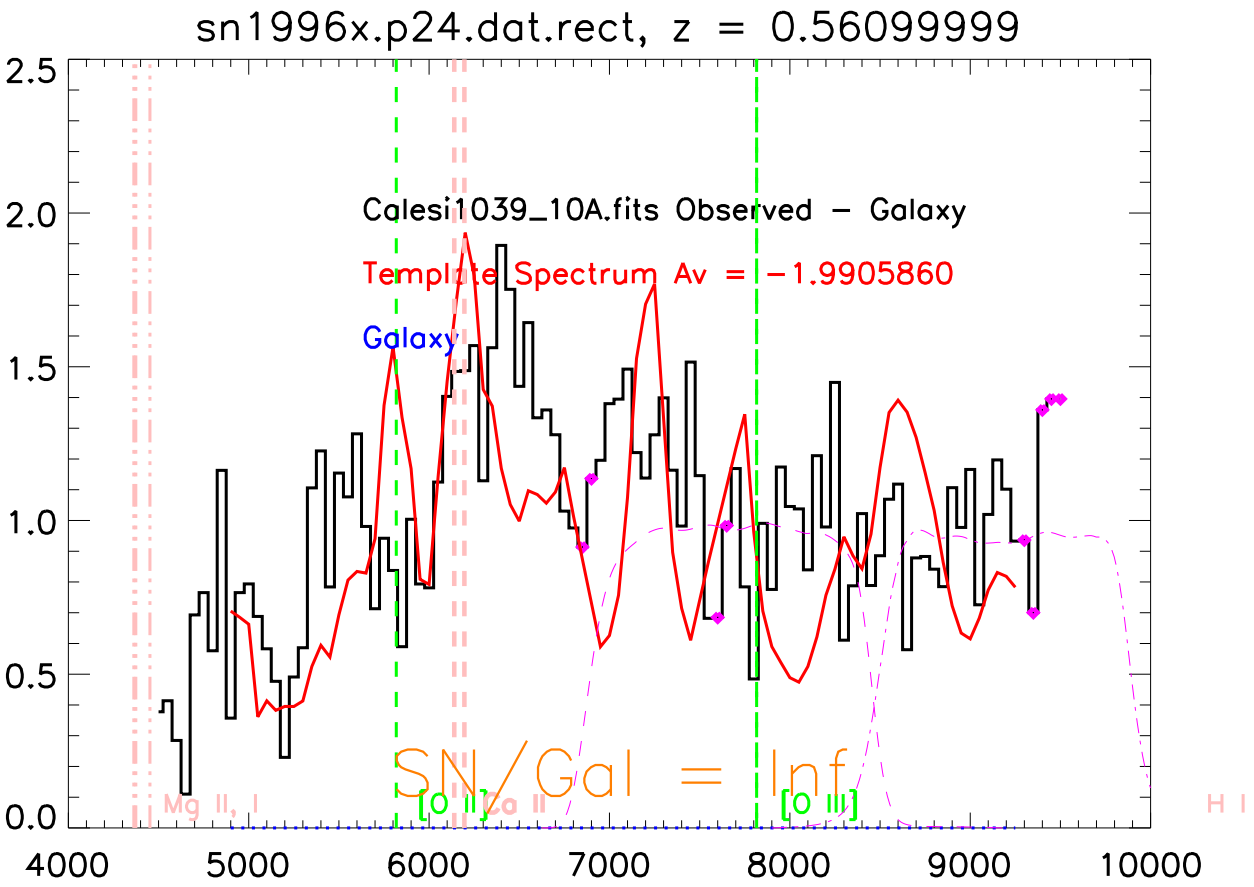
sn1996x.p24.dat.rect, z = 0.56099999
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −1.9905860
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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2.0
1.5
1.0
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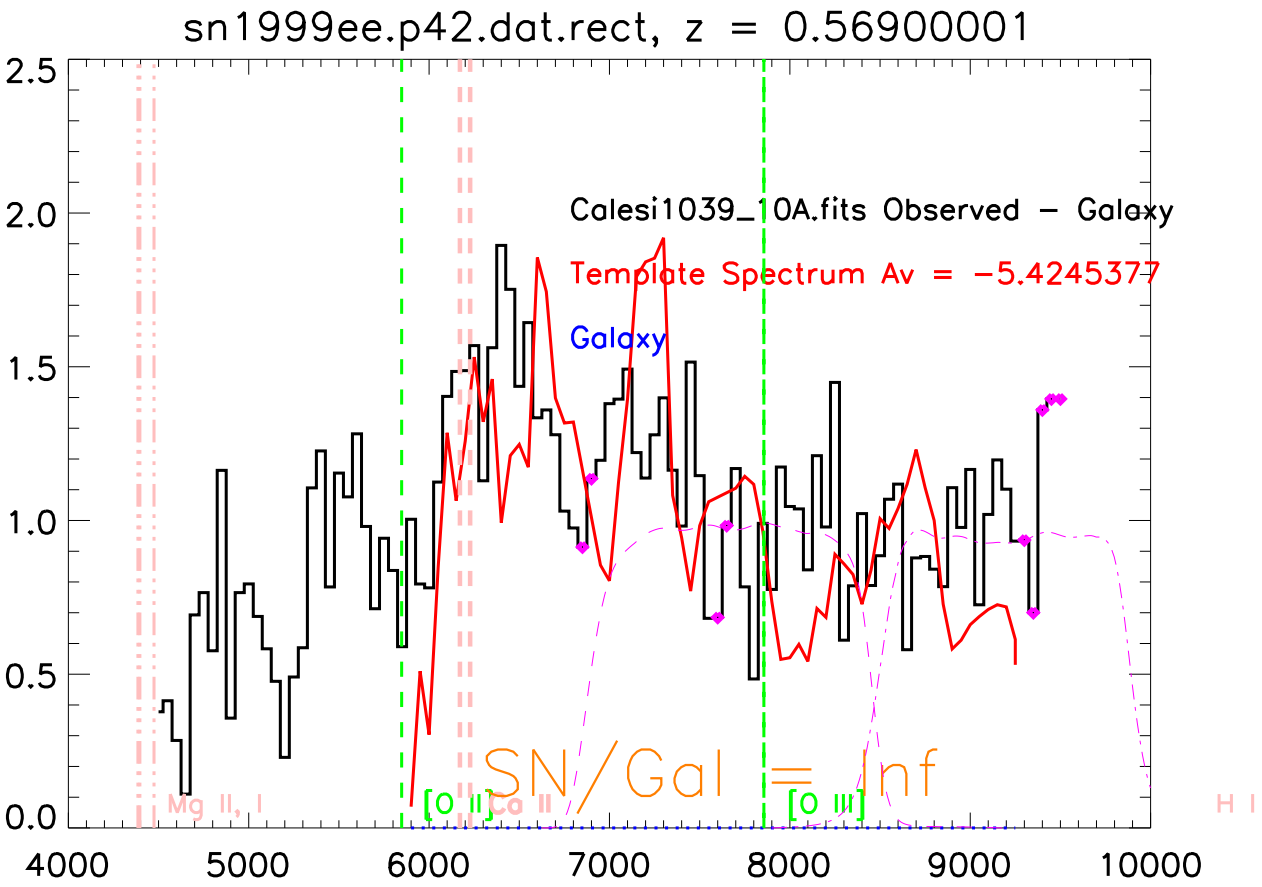
8000
9000
10000


sn1999ee.p42.dat.rect, z = 0.56900001
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −5.4245377
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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2.0
1.5
1.0
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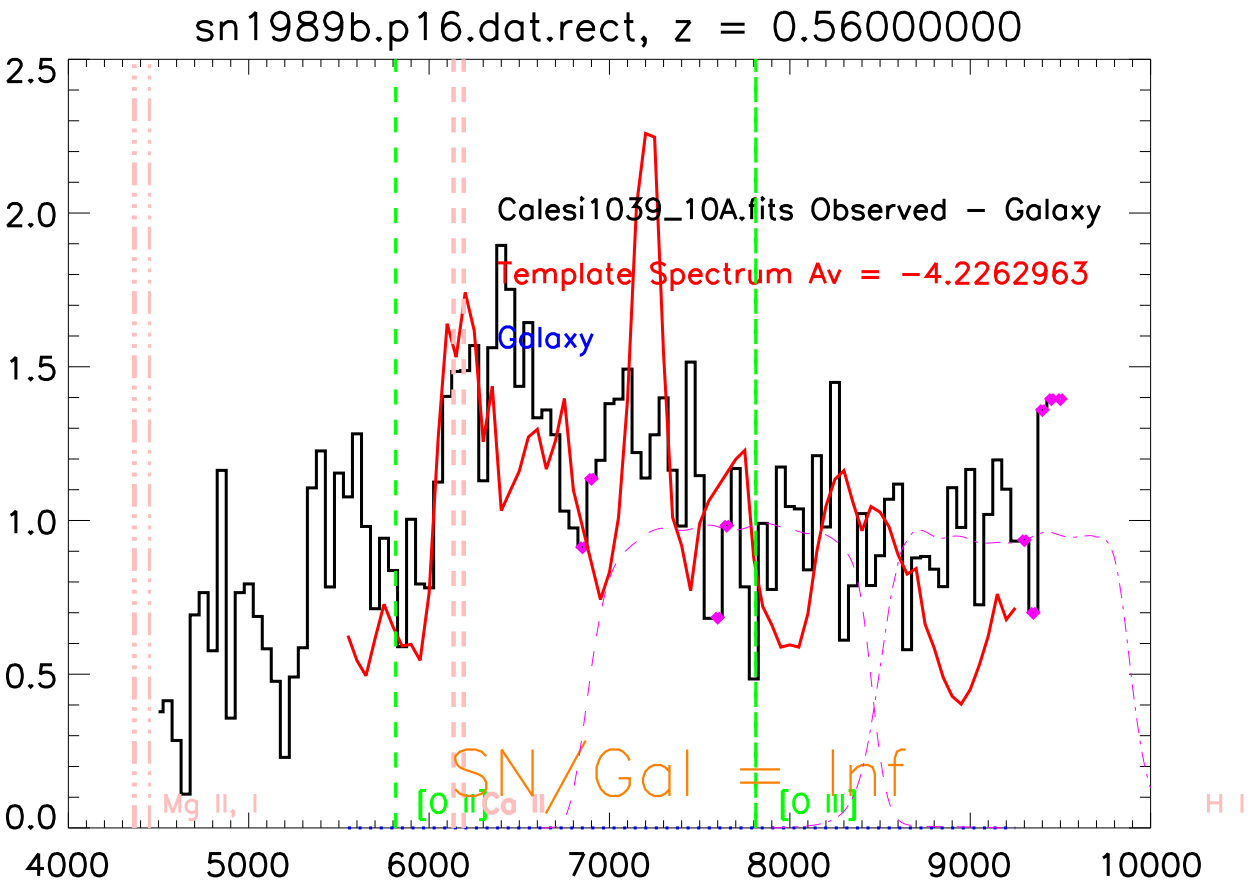
8000
9000
10000


sn1989b.p16.dat.rect, z = 0.56000000
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −4.2262963
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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1.5
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9000
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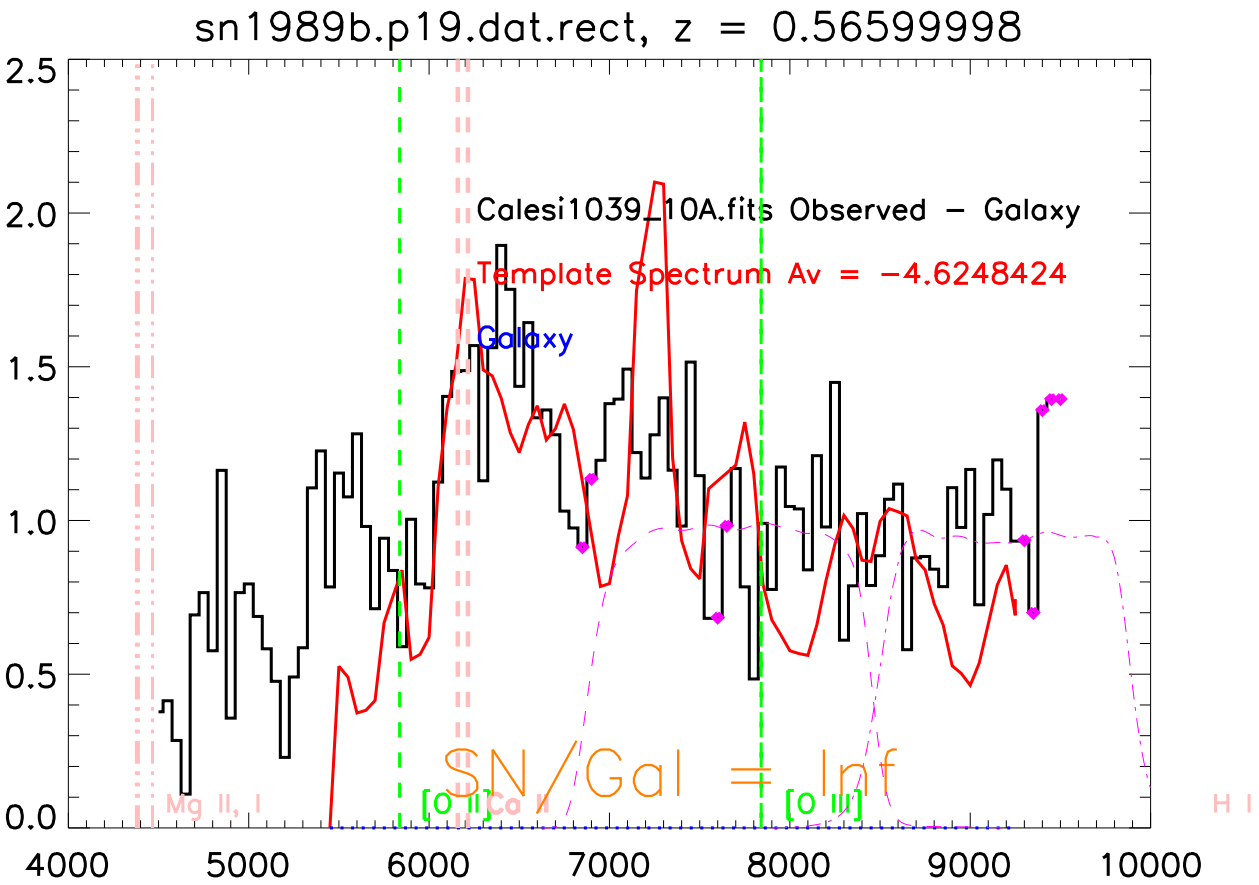
sn1989b.p19.dat.rect, z = 0.56599998
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −4.6248424
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca I
[O III]
H I
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2.0
1.5
1.0
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8000
9000
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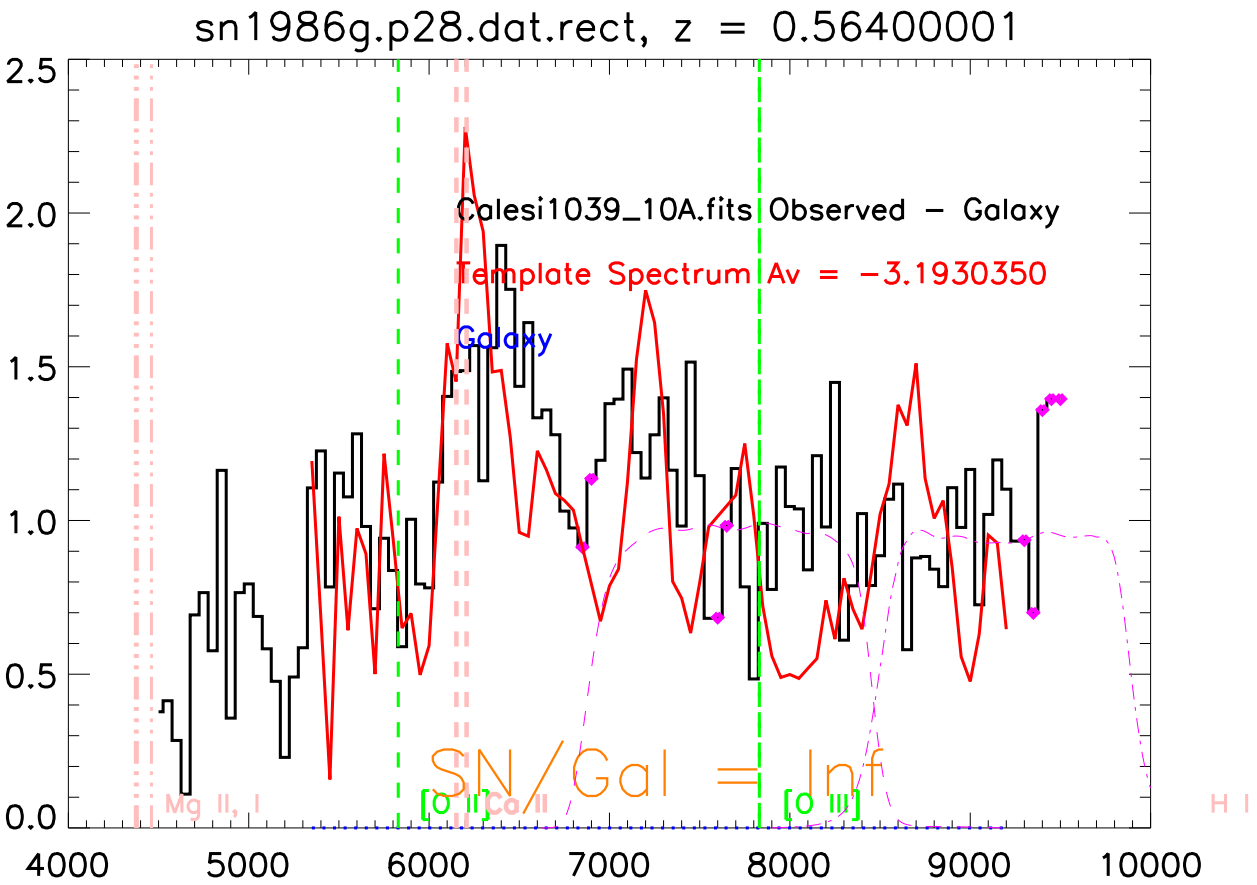
sn1986g.p28.dat.rect, z = 0.56400001
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −3.1930350
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
2.5
2.0
1.5
1.0
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0.0
4000
5000
6000
7000
8000
9000
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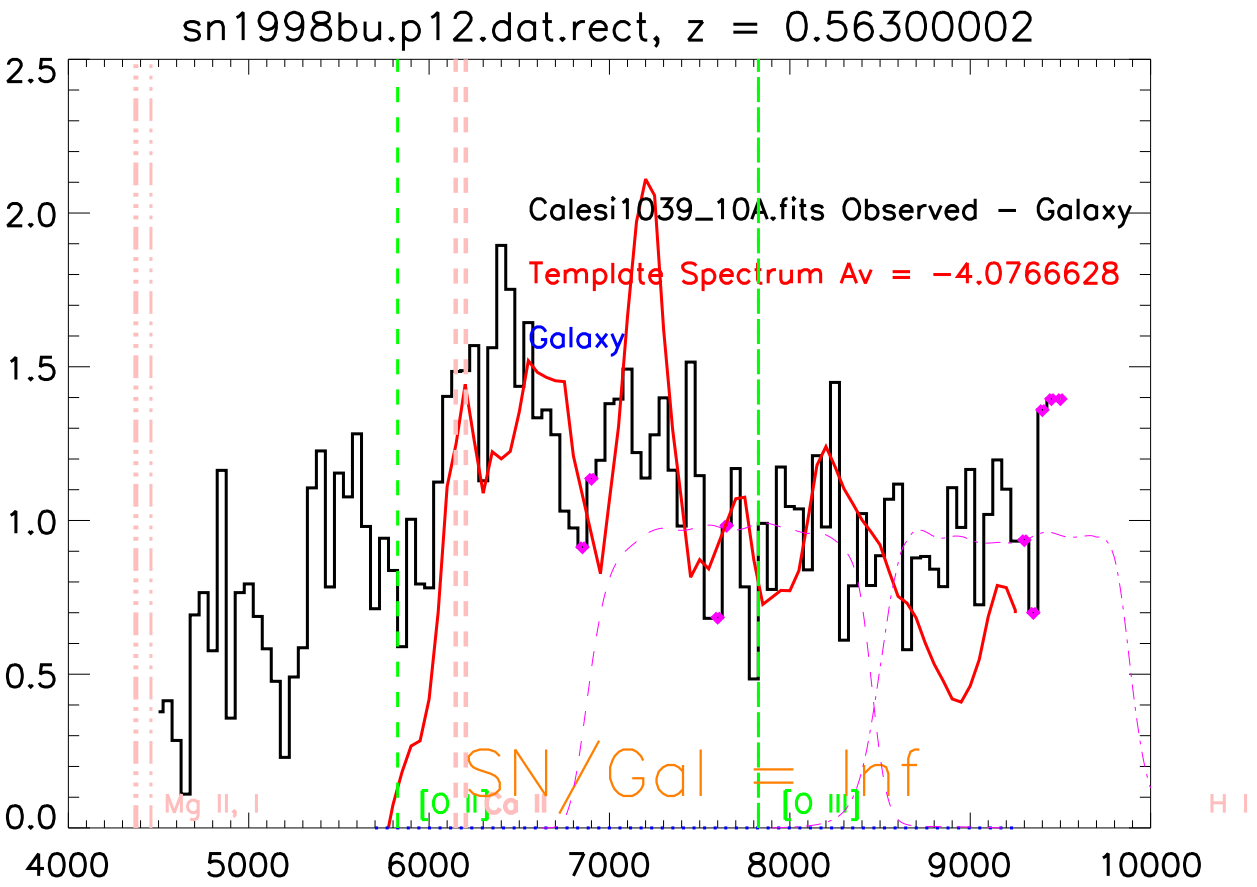
sn1998bu.p12.dat.rect, z = 0.56300002
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −4.0766628
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
2.5
2.0
1.5
1.0
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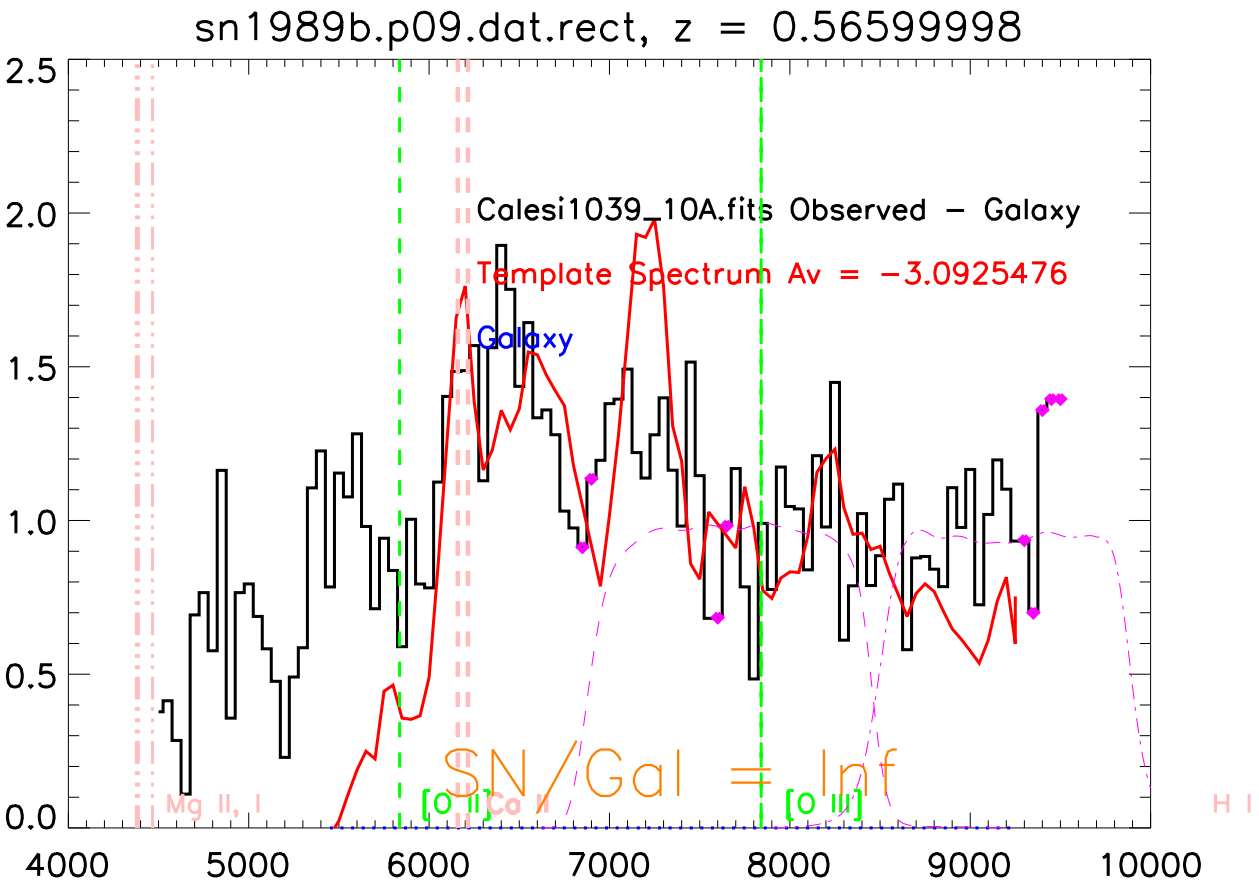
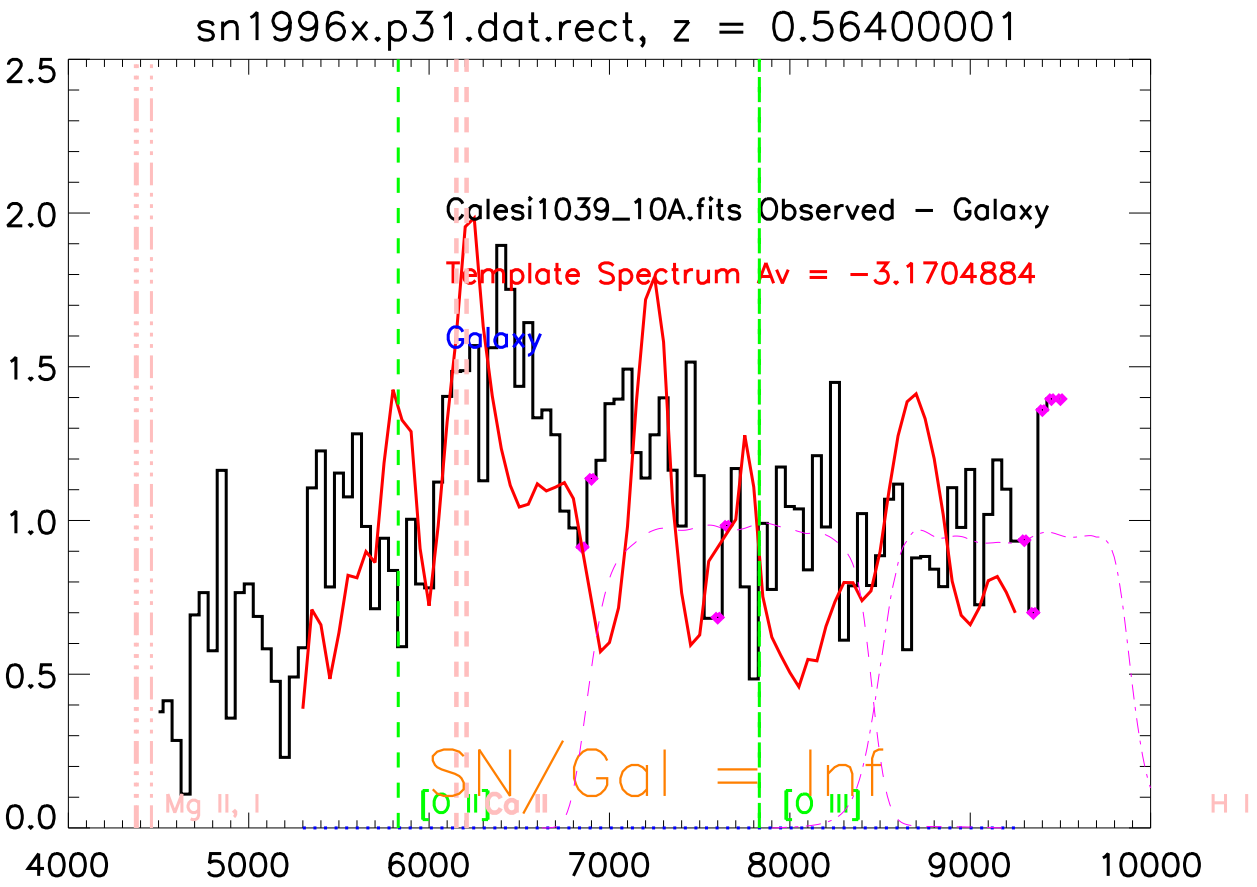

sn1989b.p09.dat.rect, z = 0.56599998
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −3.0925476
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca I
[O III]
H I
2.5
2.0
1.5
1.0
0.5
0.0
4000
5000
6000
7000
8000
9000
10000


sn1996x.p31.dat.rect, z = 0.56400001
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −3.1704884
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
2.5
2.0
1.5
1.0
0.5
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6000
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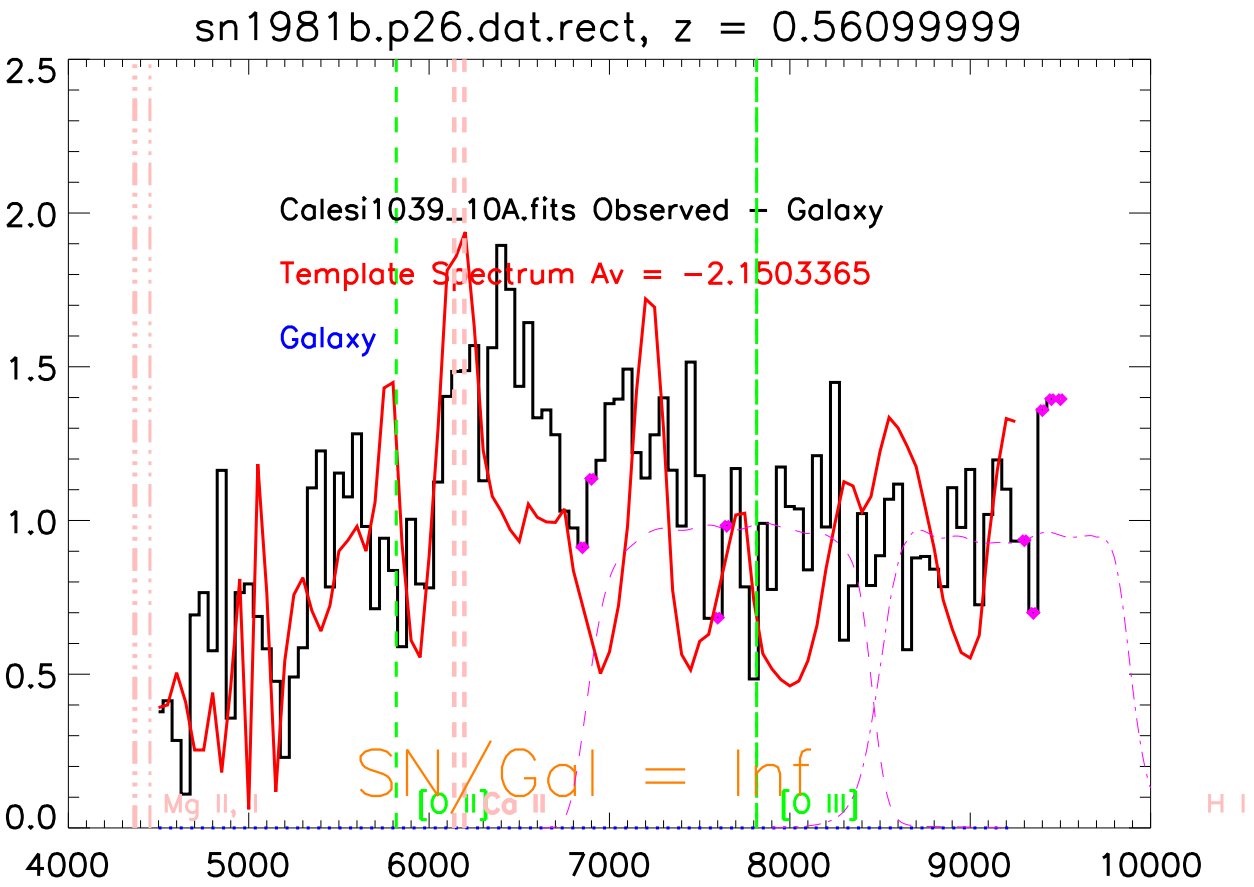
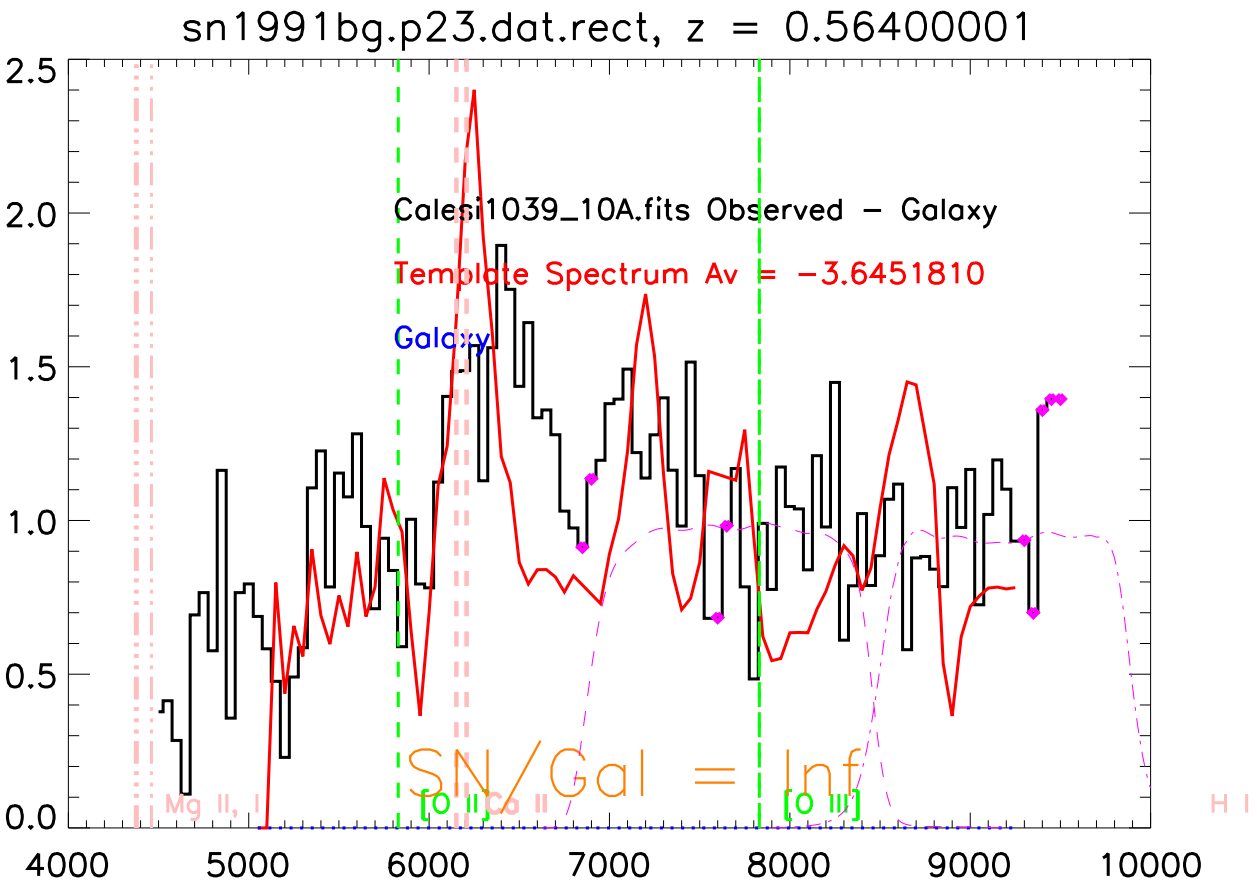
8000
9000
10000


sn1981b.p26.dat.rect, z = 0.56099999
Calesi1039_10A.fits Observed + Galaxy
Template Spectrum Av = -2.1503365
Galaxy
S/N/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
2.5
2.0
1.5
1.0
0.5
0.0
4000
5000
6000
7000
8000
9000
10000


sn1991bg.p23.dat.rect, z = 0.56400001
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −3.6451810
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
2.5
2.0
1.5
1.0
0.5
0.0
4000
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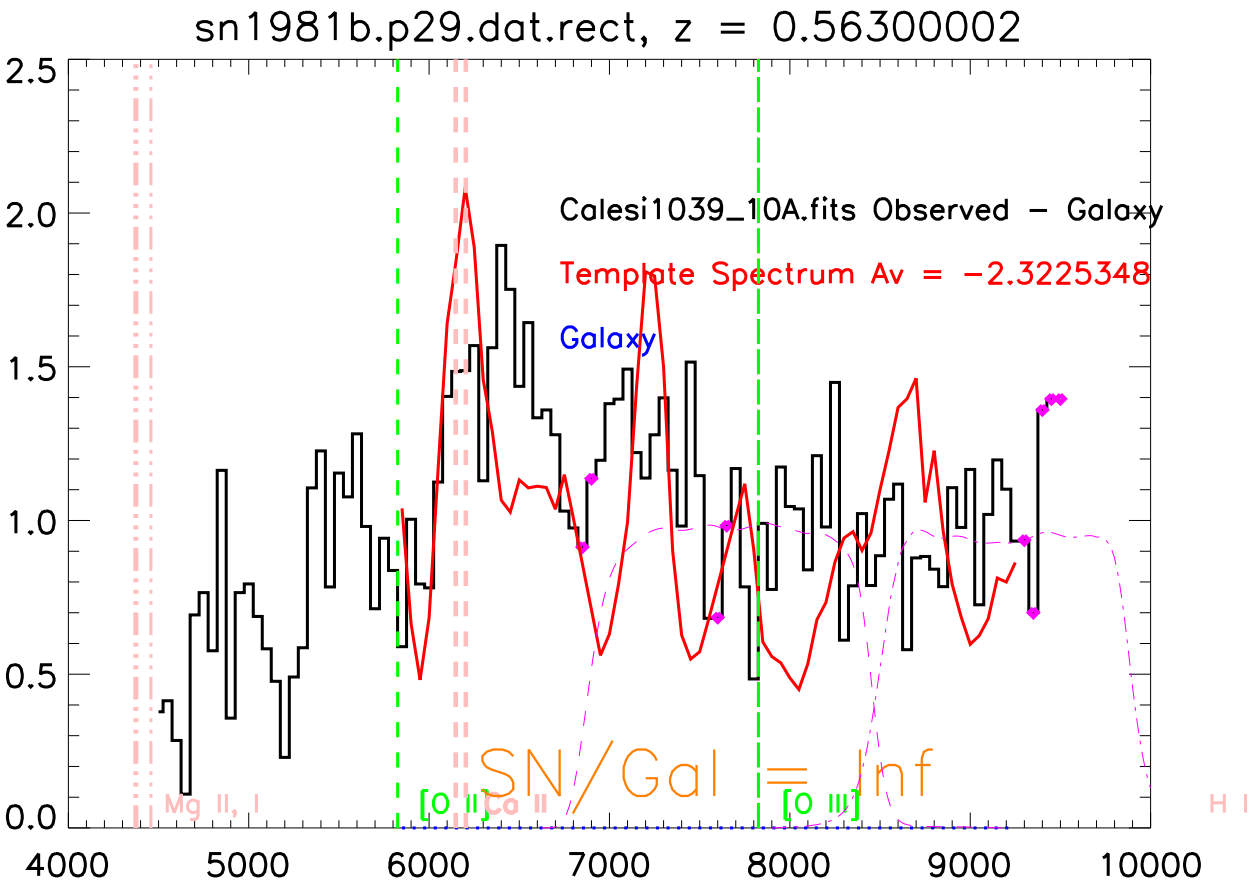
6000
7000
8000
9000
10000


sn1981b.p29.dat.rect, z = 0.56300002
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −2.3225348
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
2.5
2.0
1.5
1.0
0.5
0.0
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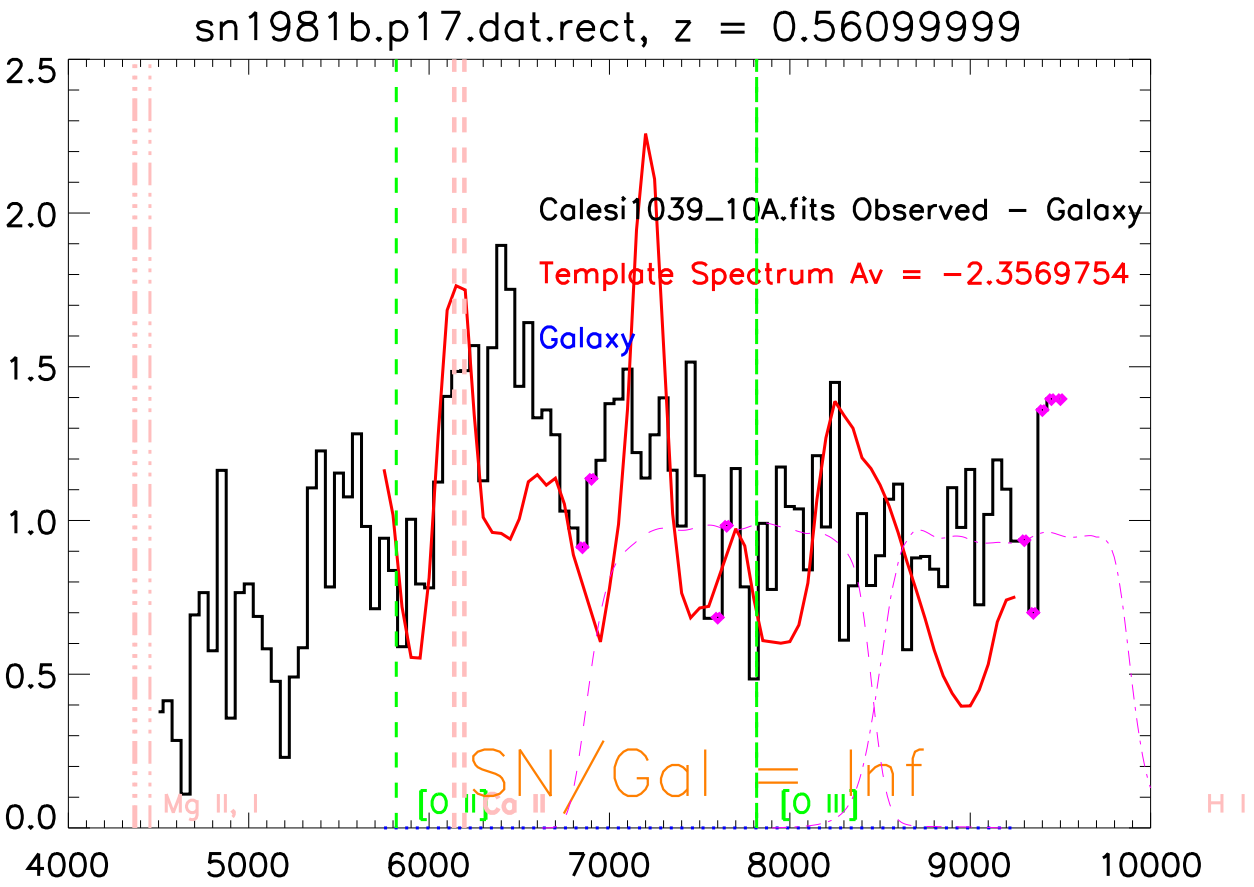
5000
6000
7000
8000
9000
10000


sn1981b.p17.dat.rect, z = 0.56099999
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −2.3569754
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
2.5
2.0
1.5
1.0
0.5
0.0
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6000
7000
8000
9000
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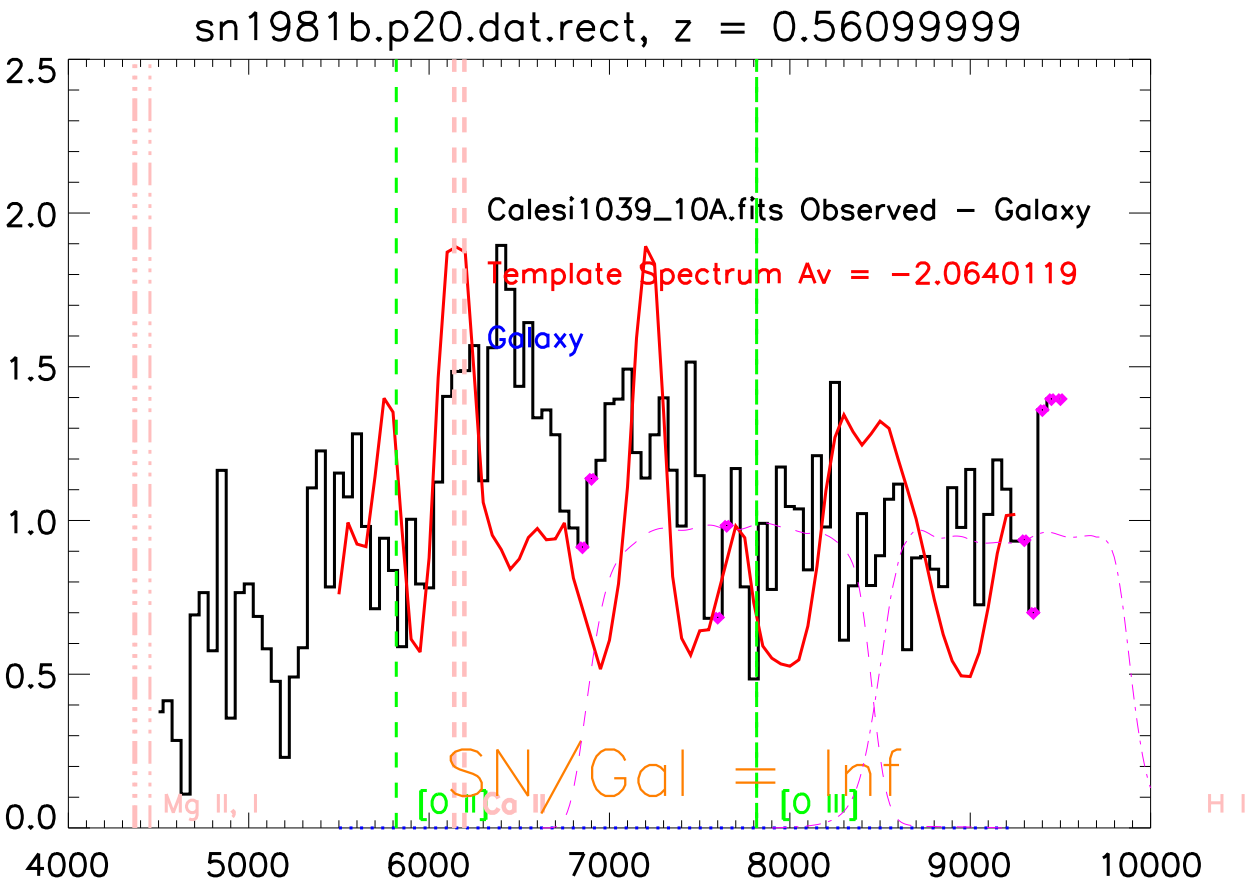
sn1981b.p20.dat.rect, z = 0.56099999
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −2.0640119
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
2.5
2.0
1.5
1.0
0.5
0.0
4000
5000
6000
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8000
9000
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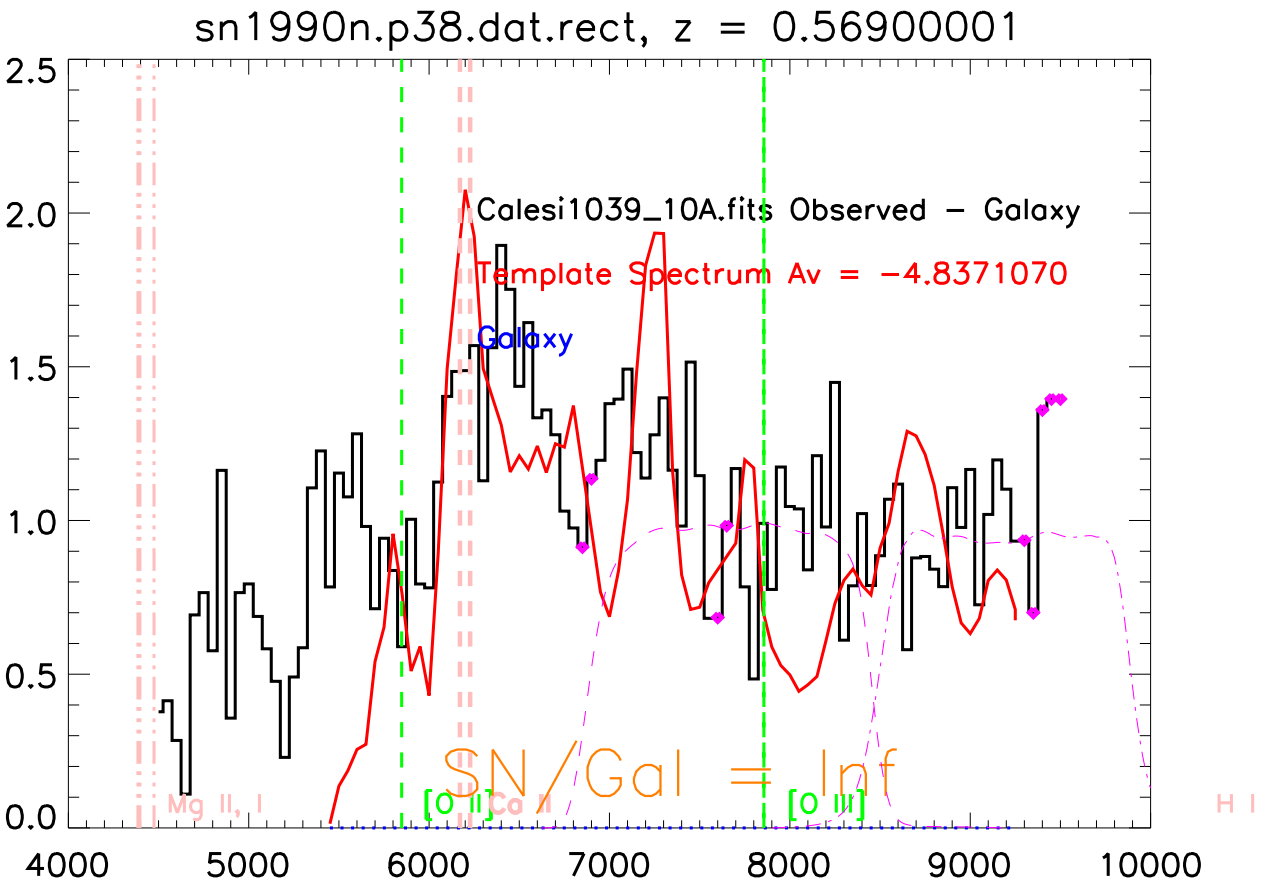
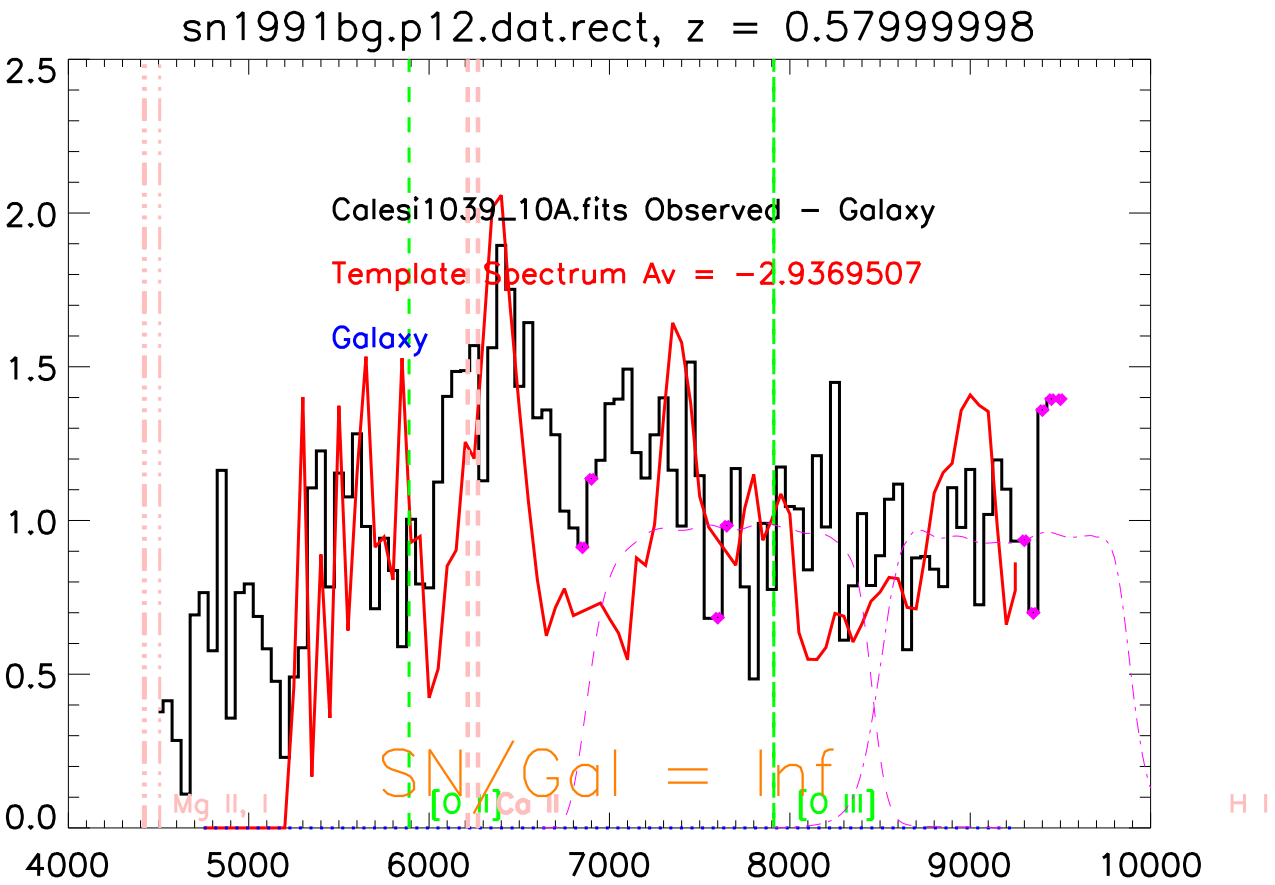

sn1990n.p38.dat.rect, z = 0.56900001
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −4.8371070
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
2.5
2.0
1.5
1.0
0.5
0.0
4000
5000
6000
7000
8000
9000
10000


sn1991bg.p12.dat.rect, z = 0.57999998
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −2.9369507
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
2.5
2.0
1.5
1.0
0.5
0.0
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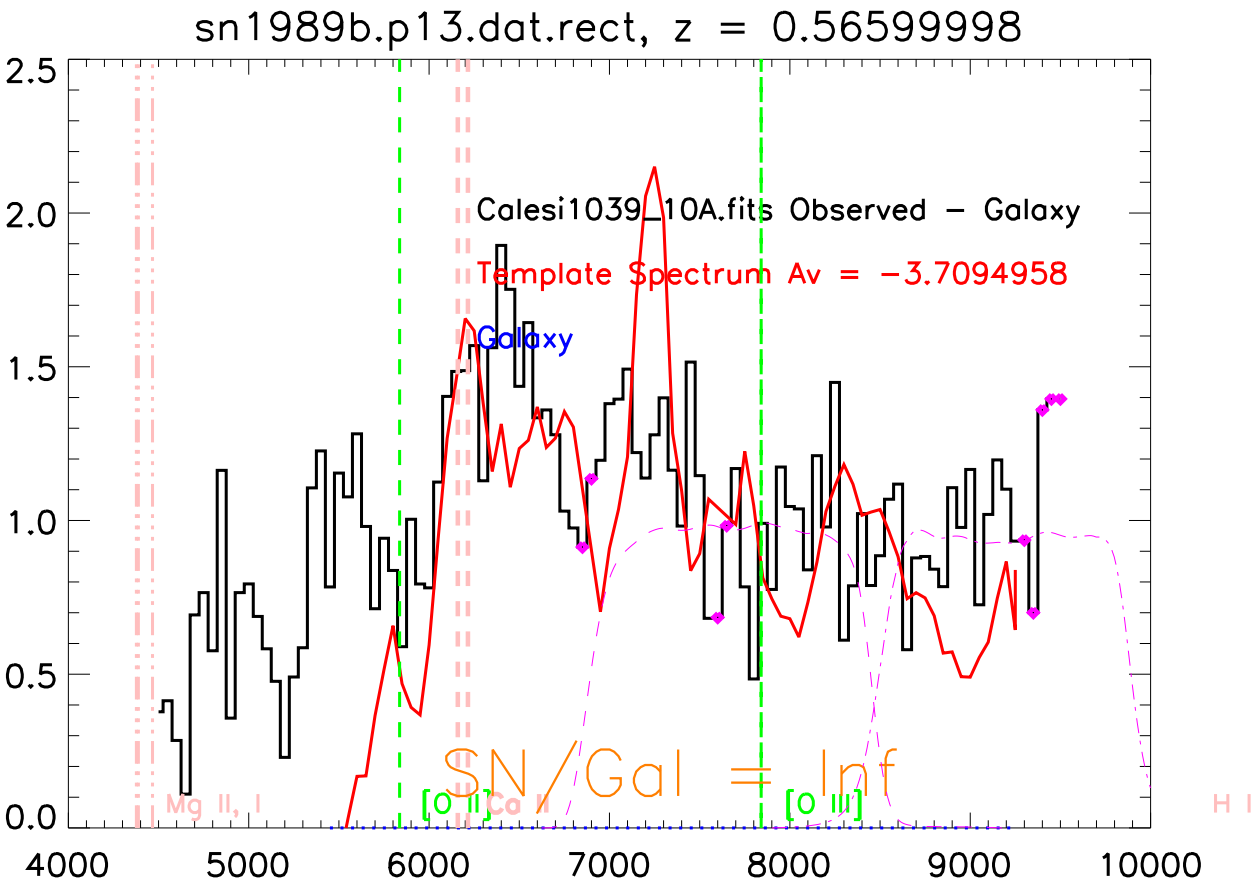
5000
6000
7000
8000
9000
10000


sn1989b.p13.dat.rect, z = 0.56599998
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −3.7094958
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca I
[O III]
H I
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2.0
1.5
1.0
0.5
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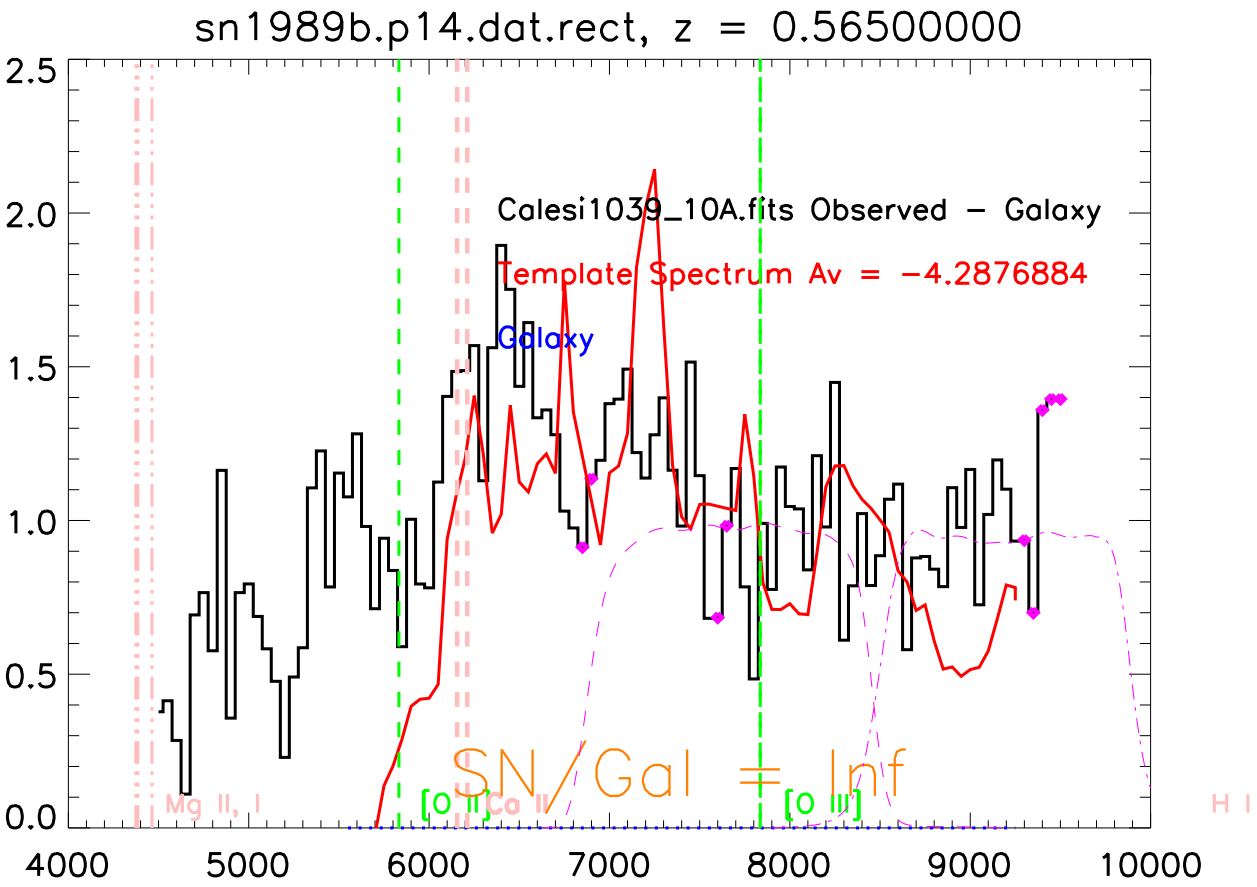
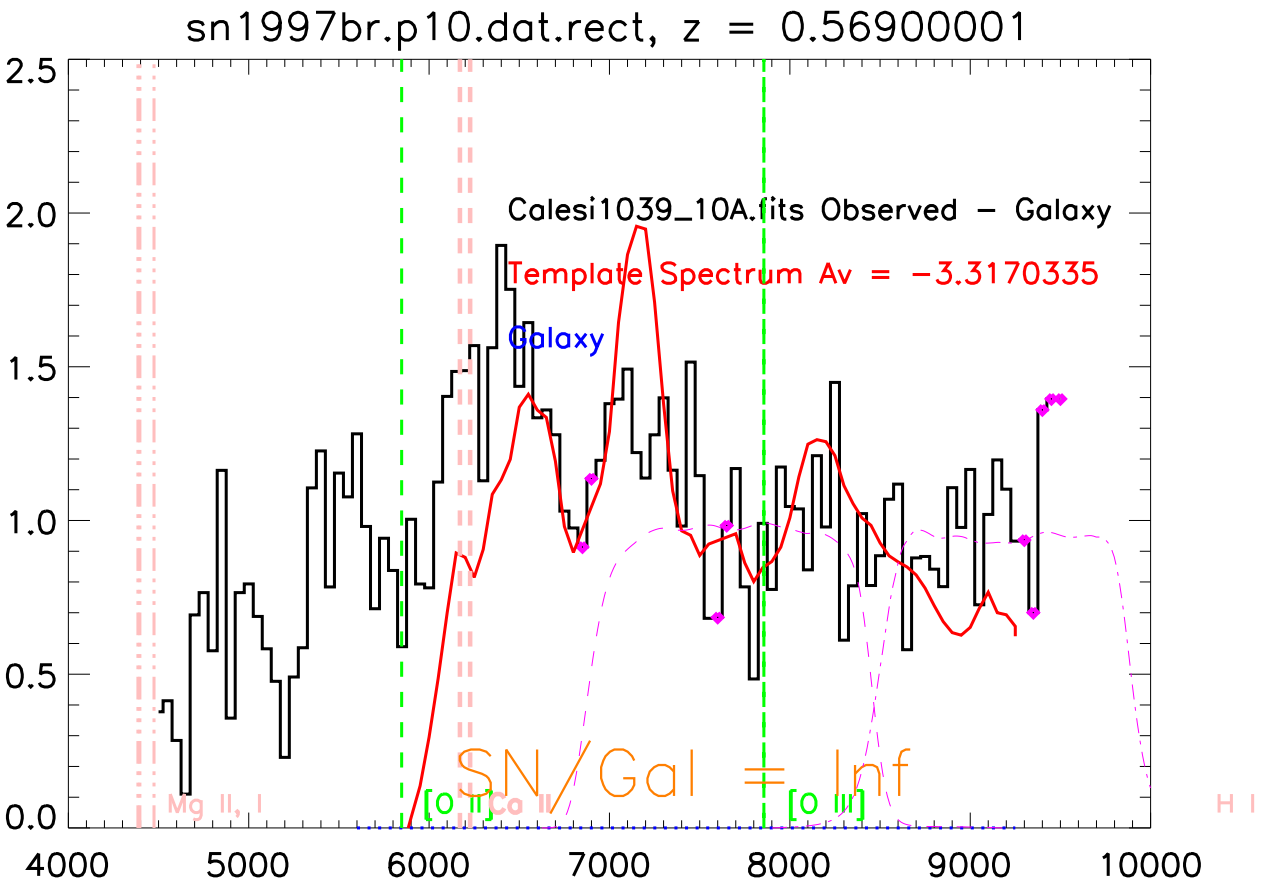
4000
5000
6000
7000
8000
9000
10000


sn1989b.p14.dat.rect, z = 0.56500000
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −4.2876884
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
2.5
2.0
1.5
1.0
0.5
0.0
4000
5000
6000
7000
8000
9000
10000


sn1997br.p10.dat.rect, z = 0.56900001
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −3.3170335
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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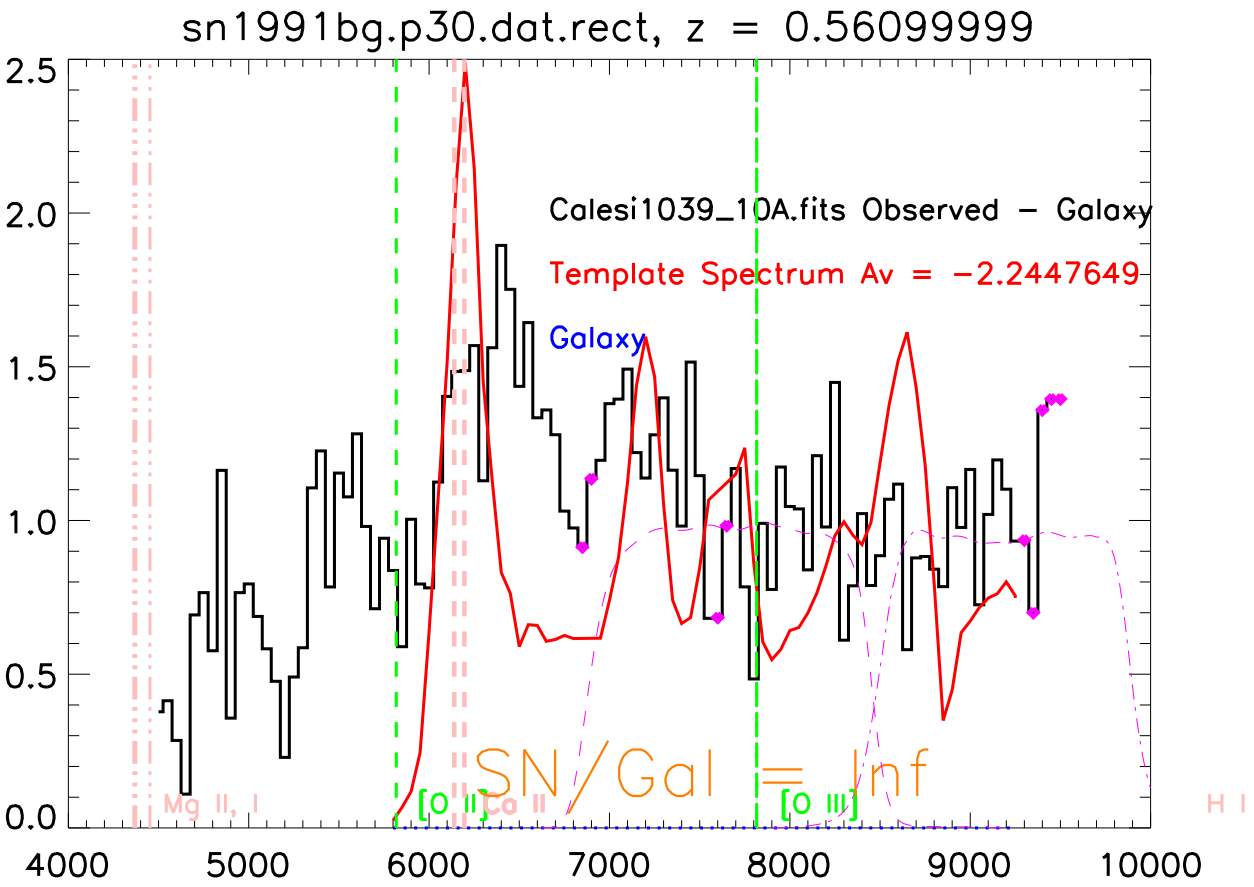
2.0
1.5
1.0
0.5
0.0
4000
5000
6000
7000
8000
9000
10000


sn1991bg.p30.dat.rect, z = 0.56099999
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −2.2447649
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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2.0
1.5
1.0
0.5
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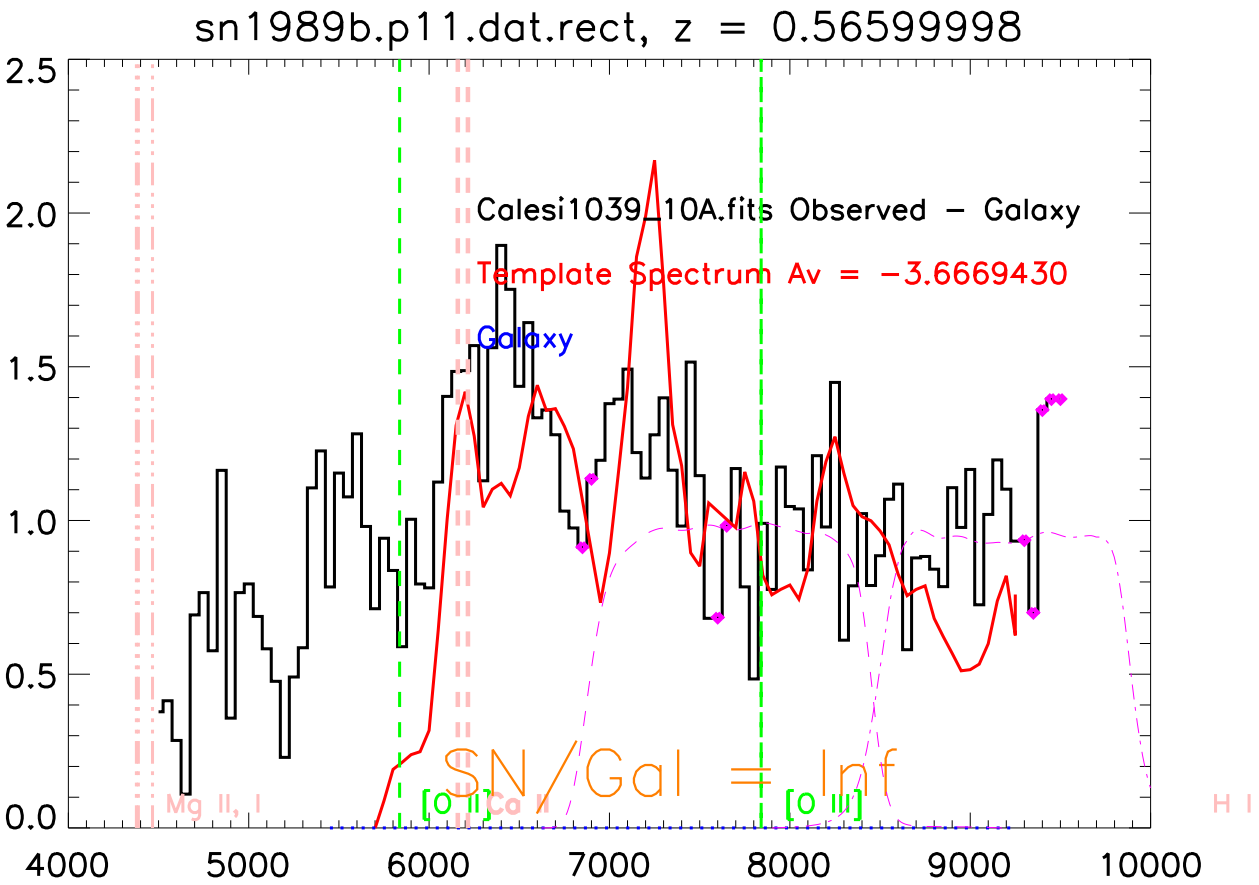
5000
6000
7000
8000
9000
10000


sn1989b.p11.dat.rect, z = 0.56599998
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −3.6669430
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca I
[O III]
H I
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2.0
1.5
1.0
0.5
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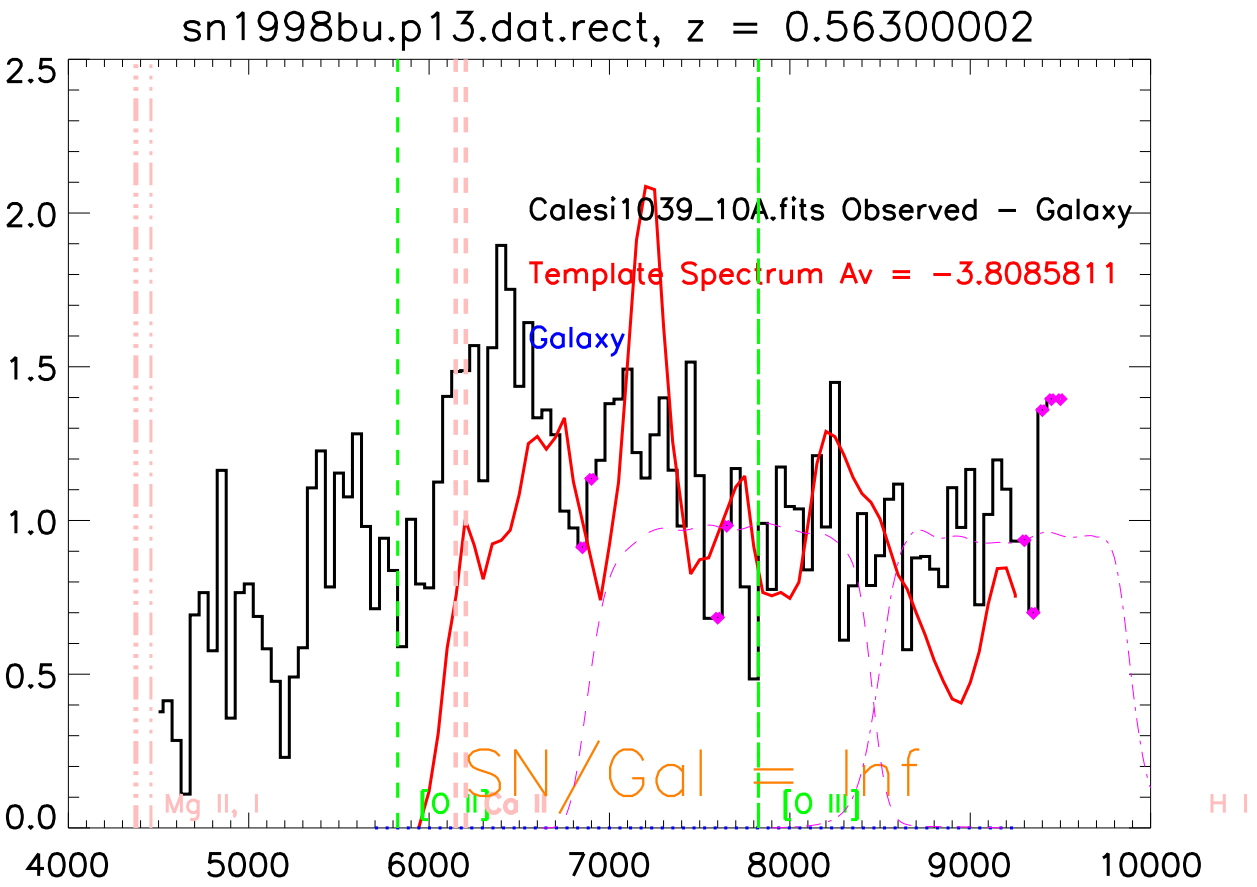
5000
6000
7000
8000
9000
10000


sn1998bu.p13.dat.rect, z = 0.56300002
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −3.8085811
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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2.0
1.5
1.0
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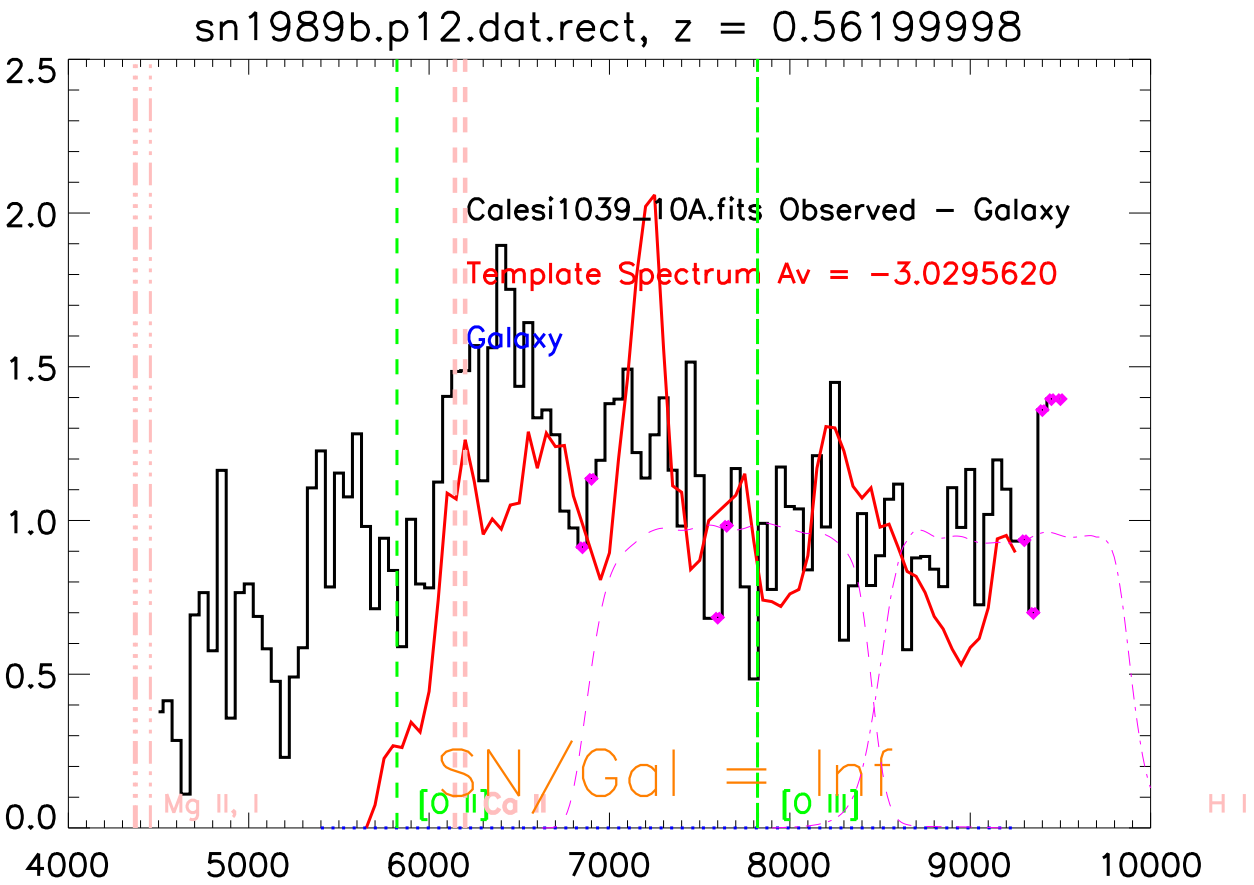
5000
6000
7000
8000
9000
10000


sn1989b.p12.dat.rect, z = 0.56199998
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −3.0295620
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
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2.0
1.5
1.0
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6000
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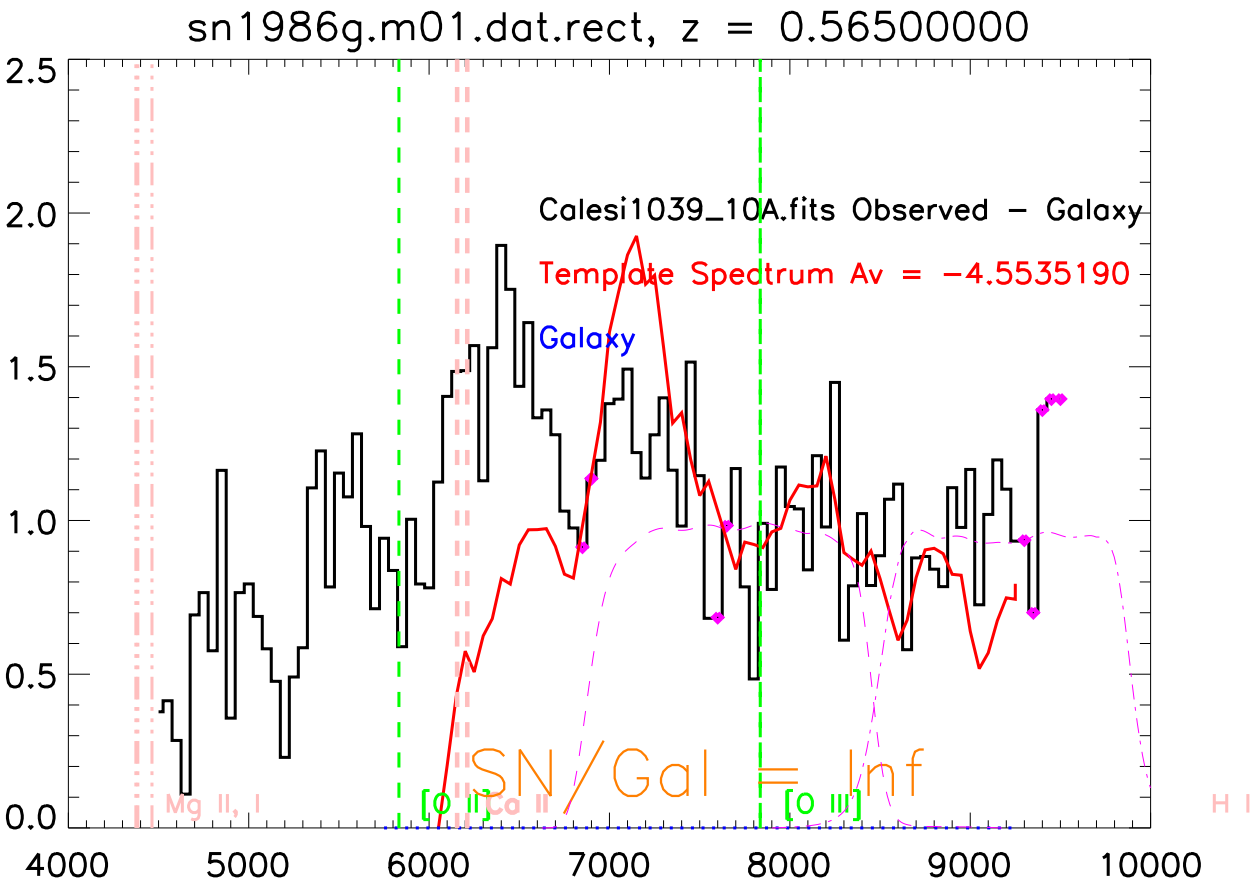
8000
9000
10000


sn1986g.m01.dat.rect, z = 0.56500000
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −4.5535190
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
2.5
2.0
1.5
1.0
0.5
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4000
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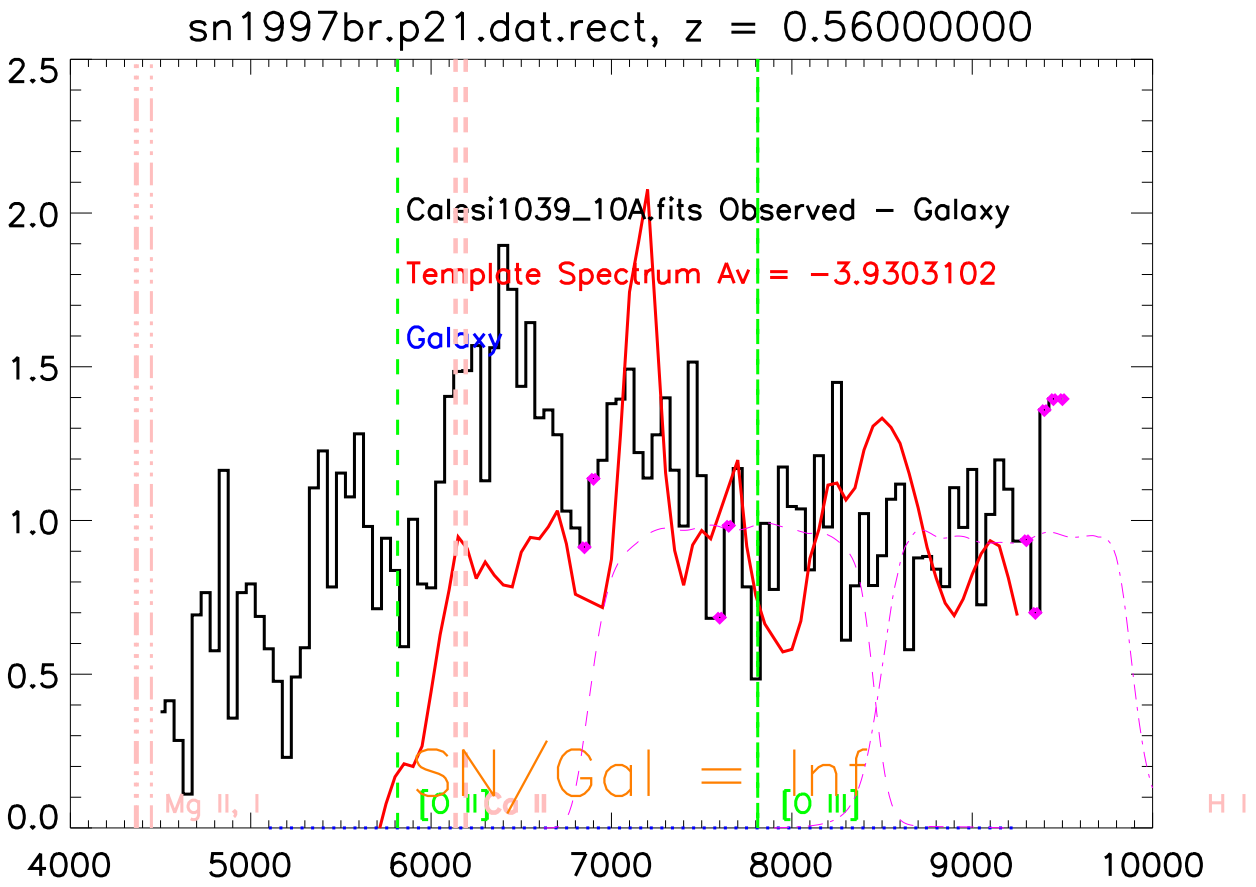
6000
7000
8000
9000
10000


sn1997br.p21.dat.rect, z = 0.56000000
Calasi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −3.9303102
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
2.5
2.0
1.5
1.0
0.5
0.0
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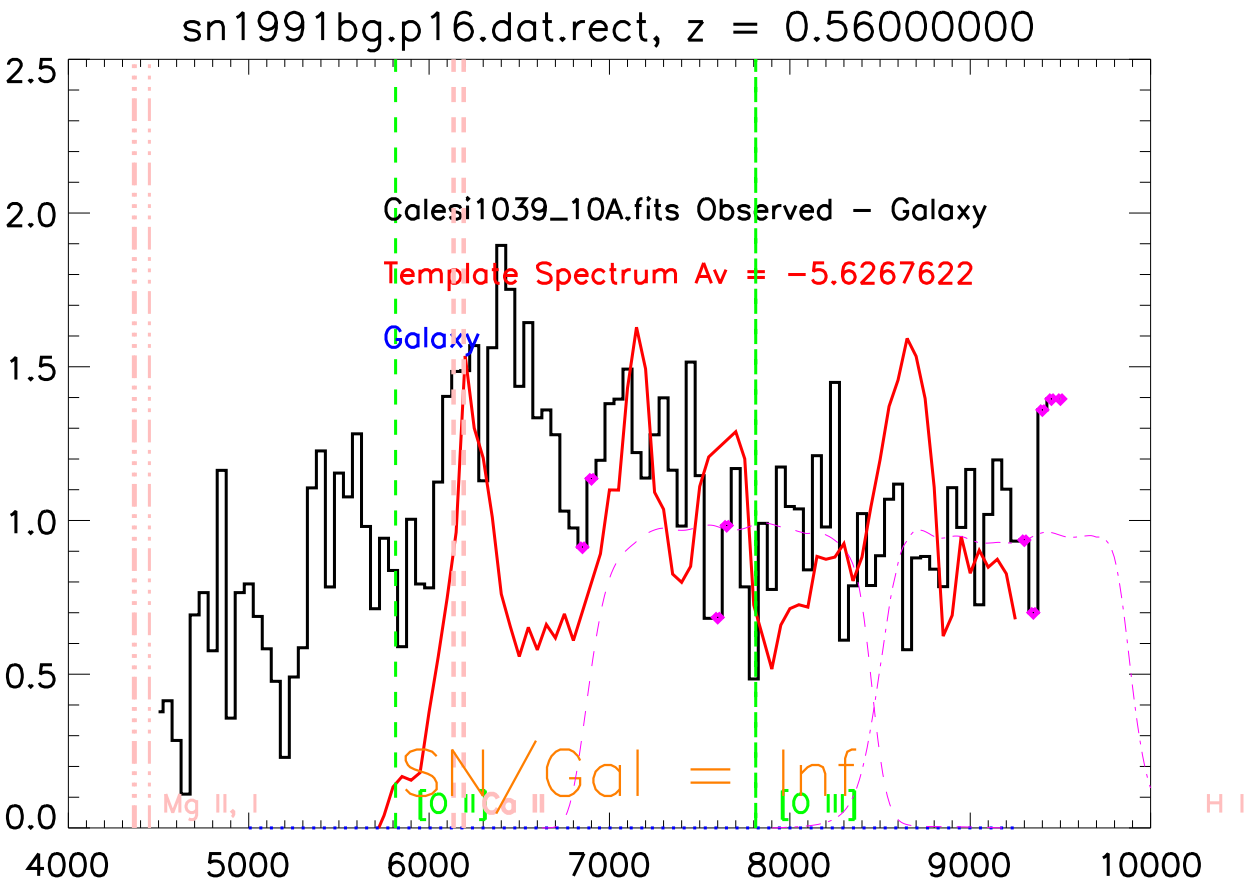
5000
6000
7000
8000
9000
10000


sn1991bg.p16.dat.rect, z = 0.56000000
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −5.6267622
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
2.5
2.0
1.5
1.0
0.5
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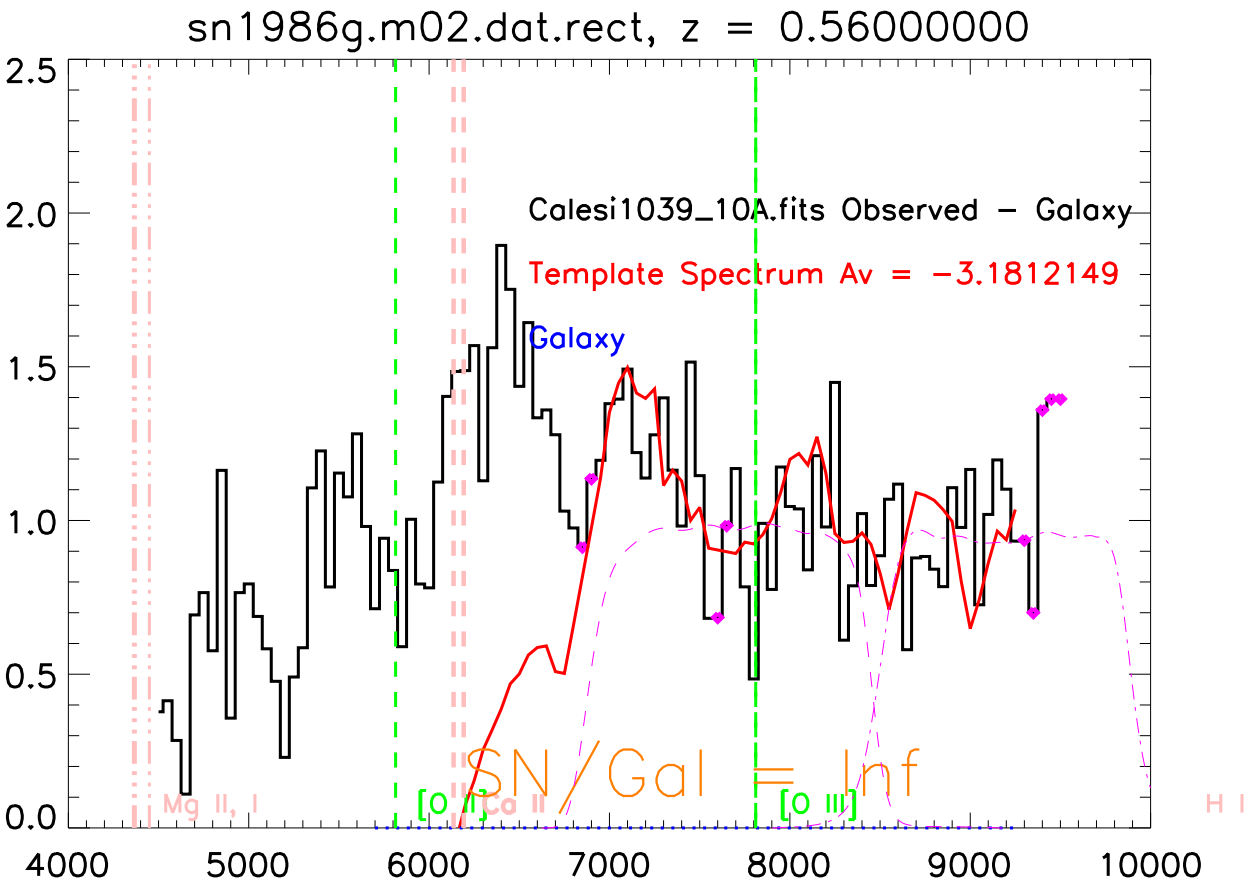
5000
6000
7000
8000
9000
10000


sn1986g.m02.dat.rect, z = 0.56000000
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −3.1812149
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
2.5
2.0
1.5
1.0
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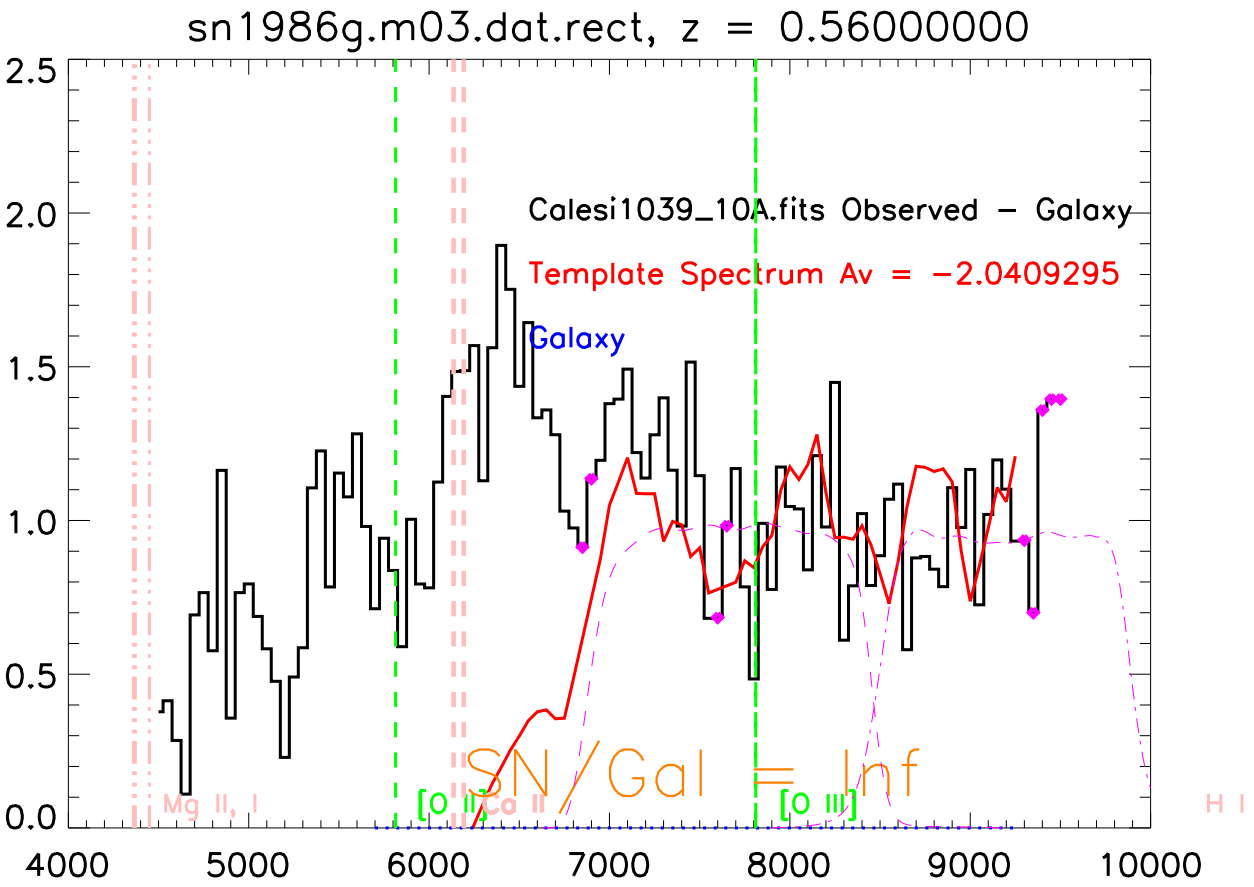
4000
5000
6000
7000
8000
9000
10000


sn1986g.m03.dat.rect, z = 0.56000000
Calesi1039_10A.fits Observed − Galaxy
Template Spectrum Av = −2.0409295
Galaxy
SN/Gal = Inf
Mg II, I
[O II]
Ca II
[O III]
H I
2.5
2.0
1.5
1.0
0.5
0.0
4000
5000
6000
7000
8000
9000
10000