

Table 5: SNID v7.0 Spectral Templates

SN Name	Subtype	Version <sup>a</sup>	Age(s) <sup>b</sup>
SN 1988Z	IIn	1	...
SN 1989B <sup>c</sup>	Ia-norm	1	-6,-1,4,6,8,10,[12:14],[16:25],31,37,49,50(1)
SN 1990H	IIP	3	...
SN 1990N <sup>c</sup>	Ia-norm	1	-13,-6,3,5,15,18,39,50(8)
SN 1990Q	IIP	3	...
SN 1991C	IIn	2	...
SN 1991T <sup>d</sup>	Ia-91T	1	-12,[-10:-5],0,7,11,16,19,25,[46:47],50(5)
SN 1991ao	IIP	3	...
SN 1991av	IIn	2	...
SN 1991bg <sup>d</sup>	Ia-91bg	1	[0:3],[15:16],[19:20],[26:27],30,[33:34],[46:48],50(10)
SN 1992A <sup>c</sup>	Ia-norm	1	-5,[-1:0],[2:3],[6:7],9,12,[16:17],24,28
SN 1992H	IIP	3	...
SN 1992ad	IIP	3	...
SN 1993E	IIP	3	...
SN 1993G	IIP	3	...
SN 1993J <sup>d</sup>	I Ib	1	[-18:-16],-11,[-5:-2],1,[3:7],[11:13],17,20,24,[29:30],32,[35:39],41,50(38)
SN 1993W	IIP	3	...
SN 1993ad	IIP	3	...
SN 1994D <sup>d</sup>	Ia-norm	1	[-12:-2],0,[2:3],[10:17],19,21,24,26,28,30,40,[43:44],46,[48:49],50(9)
SN 1994I <sup>d</sup>	Ic-norm	1	-6,[-4:-3],[0:3],[21:24],26,30,36,38,40,50(1)
SN 1994S	Ia-norm	3	2
SN 1994W	IIn	1	...
SN 1994Y	IIn	2	...
SN 1994ae <sup>d</sup>	Ia-norm	1	[1:4],6,[9:11],30,36,40,50(6)
SN 1994ak	IIn	3	...
SN 1995D <sup>d</sup>	Ia-norm	1	4,6,8,[10:11],14,16,33,38,43,50(3)
SN 1995E	Ia-norm	3	-2
SN 1995G	IIn	2	...
SN 1995J	IIP	3	...
SN 1995V	IIP	3	...
SN 1995X	IIP	3	...
SN 1995ac <sup>d</sup>	Ia-91T	2	-6,24
SN 1996L <sup>c</sup>	IIn	1	8,34,42,50(4)
SN 1996ae	IIn	2	...
SN 1996an	IIP	3	...
SN 1996cc	IIP	3	...
SN 1997Y	Ia-norm	3	2
SN 1997ab	IIn	2	...
SN 1997br <sup>d</sup>	Ia-91T	2	[-9:-6],-4,[8:9],12,17,21,24,38,42,46,49,50(3)
SN 1997da	IIP	3	...
SN 1997dd	I Ib	2	...
SN 1997er <sup>d</sup>	Ic-broad	1	-14,[-12:-9],[6:-4],7,[13:14],17,22,24,27,38,40,44,46,48,50(4)
SN 1997eg	IIn	2	...
SN 1998A	IIP	3	...
SN 1998E	IIn	2	...
SN 1998S <sup>d</sup>	IIn	1	-13,-2,[1:3],[10:11],[13:14],16,[31:32],[40:41],44,[46:47],50(37)
SN 1998bu <sup>d</sup>	Ia-norm	1	[-3:-1],1,[9:14],[28:44],50(9)
SN 1998bw <sup>c</sup>	Ic-broad	1	[8:9],[12:14],16,[18:19],21,24,[26:28],34,37,43,50(5)
SN 1998dl	IIP	3	...
SN 1998dt	Ib-norm	2	...
SN 1998dx	Ia-norm	3	5
SN 1998ec	Ia-norm	3	13
SN 1998ef	Ia-norm	3	-8,29,50(1)
SN 1998es	Ia-99aa	2	1,46,50(2)
SN 1999Z	IIn	2	...
SN 1999aa <sup>d</sup>	Ia-99aa	1	[-10:-9],-4,[-1:0],3,8,[14:15],17,21,26,29,34,41,50(4)
SN 1999by <sup>d</sup>	Ia-91bg	1	[-5:-3],[3:8],25,29,31,33,42,50(1)
SN 1999cp	Ia-norm	3	5,14

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SN Name	Subtype	Version <sup>a</sup>	Age(s) <sup>b</sup>
SN 1999da	Ia-91bg	2	-2,7,37
SN 1999dk	Ia-norm	3	-7,17,24,44,50(1)
SN 1999dq	Ia-99aa	2	-3,4,24
SN 1999eb	IIn	2	...
SN 1999ed	IIP	3	...
SN 1999el	IIn	2	...
SN 1999em <sup>d</sup>	IIP	1	[-4:2],[5:7],9,11,16,27,[33:35],37,39,44,50(20)
SN 1999ex <sup>c</sup>	Ib-norm	1	-5,0,9
SN 1999gb	IIn	2	...
SN 1999gd	Ia-norm	3	0
SN 1999gi	IIP	3	...
SN 2000cn	Ia-norm	3	15
SN 2000cp	Ia-norm	3	3
SN 2000cu	Ia-norm	3	9,38
SN 2000cw	Ia-norm	3	5
SN 2000cx <sup>d</sup>	Ia-pec	1	[-4:2],[5:12],[14:15],19,22,24,26,28,[30:31],41,50(7)
SN 2000dg	Ia-norm	3	-5,5
SN 2000dk	Ia-norm	3	1,11,29,37
SN 2000dm	Ia-norm	3	-2,8
SN 2000dn	Ia-norm	3	-1,16
SN 2000ev	IIn	2	...
SN 2000fa	Ia-norm	3	-8,7
SN 2000fe	IIP	3	...
SN 2001K	IIP	3	...
SN 2001M	Ic-norm	2	...
SN 2001X	IIP	3	...
SN 2001ad	I Ib	2	...
SN 2001bg	Ia-norm	3	14,19
SN 2001cm	IIP	3	...
SN 2001cy	IIP	3	...
SN 2001dk	IIP	3	...
SN 2001do	IIP	3	...
SN 2001dw	Ia-norm	3	11
SN 2001ef	Ic-norm	2	...
SN 2001eh	Ia-99aa	2	[-6:-5],3,32,50(1)
SN 2001en	Ia-norm	3	10,15,36
SN 2001ep	Ia-norm	3	3,[5:6],8,28,50(1)
SN 2001ey	IIn	2	...
SN 2001gd	I Ib	2	...
SN 2001hg	IIP	3	...
SN 2001ir	IIn	2	...
SN 2002A	IIn	2	...
SN 2002J	Ic-norm	2	...
SN 2002an	IIP	3	...
SN 2002ap <sup>d</sup>	Ic-broad	1	[-6:-5],[-2:7],10,[12:13],[26:27],[30:31],50(12)
SN 2002bg	Ia-norm	3	-4
SN 2002bo <sup>d</sup>	Ia-norm	1	[-13:-12],[-9:0],6,[11:22],24,[28:30],39,41,44,46,50(8)
SN 2002bu	IIn	2	...
SN 2002bx	IIP	3	...
SN 2002bz	Ia-norm	3	6
SN 2002ca	IIP	3	...
SN 2002cf	Ia-91bg	2	-1
SN 2002cr	Ia-norm	3	-7,25,34,50(1)
SN 2002cs	Ia-norm	3	-9,31,50(3)
SN 2002cx <sup>d</sup>	Ia-02cx	1	-5,-2,10,14,18,20,[23:25],50(2)
SN 2002dq	IIP	3	...
SN 2002ef	Ia-norm	3	5,29
SN 2002eg	I Ib	2	...
SN 2002ei	IIP	3	...
SN 2002el	Ia-norm	3	12,21

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SN Name	Subtype	Version <sup>a</sup>	Age(s) <sup>b</sup>
SN 2002eo	IIP	3	...
SN 2002er <sup>d</sup>	Ia-norm	1	-11,[-9:-1],[2:4],6,9,[11:12],16,20,[23:24],33,50(2)
SN 2002eu	Ia-norm	3	0,33
SN 2002fb	Ia-91bg	2	1,19
SN 2002fk	Ia-norm	3	8,40,42,50(2)
SN 2002ha	Ia-norm	3	-1,5,8,39
SN 2002hd	Ia-norm	3	6
SN 2002he	Ia-norm	3	-6,[-1:0],3
SN 2002hk	IIP	3	...
SN 2002hn	Ic-norm	2	...
SN 2002ic <sup>c</sup>	Ia-csm	1	6,9,32,44,50(1)
SN 2002jy	Ia-norm	3	12,40
SN 2002kf	Ia-norm	3	7
SN 2002kg	IIn	2	...
SN 2003B	IIP	3	...
SN 2003G	IIn	2	...
SN 2003U	Ia-norm	3	-2
SN 2003Y	Ia-91bg	2	-3,21
SN 2003ab	IIP	3	...
SN 2003ai	Ia-norm	3	8
SN 2003cq	Ia-norm	3	0
SN 2003ei	IIn	2	...
SN 2003gd	IIP	3	...
SN 2003gg	IIP	3	...
SN 2003gq	Ia-02cx	2	50(1)
SN 2003gu	I Ib	2	...
SN 2003he	Ia-norm	3	3,9
SN 2003hl	IIP	3	...
SN 2003ip	IIP	3	...
SN 2003iq	IIP	3	...
SN 2003iv	Ia-norm	3	2,7
SN 2003kb	Ic-norm	2	...
SN 2004aq	IIP	3	...
SN 2004as	Ia-norm	3	-4
SN 2004aw <sup>c</sup>	Ic-pec	1	-5,[-3:5],12,[18:19],21,23,[25:26],30,32,46,48,50(2)
SN 2004bg	Ia-norm	3	10
SN 2004bi	I Ib	2	...
SN 2004bl	Ia-norm	3	5
SN 2004bw	Ia-norm	3	7
SN 2004cz	IIP	3	...
SN 2004dd	IIP	3	...
SN 2004dj <sup>d</sup>	IIP	1	0,3,5,8,[17:18],20,36,[47:48],50(4)
SN 2004dt	Ia-norm	3	-6,18,32,50(3)
SN 2004du	IIP	3	...
SN 2004ef	Ia-norm	3	-6,8,31,50(1)
SN 2004eo	Ia-norm	3	-6,13,44
SN 2004et <sup>d</sup>	IIP	1	[-3:-1],[1:2],4,6,[9:10],12,15,20,[23:25],27,[33:35],40,42,47,50(24)
SN 2004eu	Ic-norm	2	...
SN 2004ey	Ia-norm	3	-7,19,50(1)
SN 2004ez	IIP	3	...
SN 2004fc	IIP	3	...
SN 2004fu	Ia-norm	3	-3,2,25
SN 2004fx	IIP	3	...
SN 2004fz	Ia-norm	3	-5,18,22
SN 2004gd	IIn	2	...
SN 2004gr	IIP	3	...
SN 2004gs	Ia-norm	3	0
SN 2005ad	IIP	3	...
SN 2005af	IIP	3	...
SN 2005am	Ia-norm	3	4,35,41

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SN Name	Subtype	Version <sup>a</sup>	Age(s) <sup>b</sup>
SN 2005aq	IIn	2	...
SN 2005ay	IIP	3	...
SN 2005bc	Ia-norm	3	2,7
SN 2005be	Ia-norm	3	11,17
SN 2005bi	IIP	3	...
SN 2005bl	Ia-91bg	2	17
SN 2005bx	IIn	2	...
SN 2005cf	Ia-norm	1	-11,[-2:-1],19,28
SN 2005cs <sup>d</sup>	IIP	1	[-2:5],[7:10],[26:27],50(1)
SN 2005de	Ia-norm	3	-1,10,26,40
SN 2005dv	Ia-norm	3	-1
SN 2005el	Ia-norm	3	-7,1,8
SN 2005eq	Ia-99aa	2	-3,1,50(1)
SN 2005gj <sup>d</sup>	Ia-csm	1	-12,-2,8,10,18,27,39,[41:42],46,48,50(13)
SN 2005hk <sup>d</sup>	Ia-02cx	1	[-9:-1],4,12,14,20,[22:23],[26:27],37,39,[42:43],50(3)
SN 2005ip	IIn	2	...
SN 2005kc	Ia-norm	3	10,12
SN 2005kd	IIn	2	...
SN 2005ke	Ia-91bg	2	8,10,15
SN 2005ki	Ia-norm	3	8
SN 2005ms	Ia-norm	3	-2,15
SN 2006N	Ia-norm	3	[-2:-1],12,27
SN 2006T	I Ib	2	...
SN 2006ab	Ic-norm	2	...
SN 2006ac	Ia-norm	3	9
SN 2006be	IIP	3	...
SN 2006bp	IIP	3	...
SN 2006bq	Ia-norm	3	7,14
SN 2006bu	Ia-norm	3	4
SN 2006by	IIP	3	...
SN 2006bz	Ia-91bg	2	-2
SN 2006ca	IIP	3	...
SN 2006cf	Ia-norm	3	11,19
SN 2006cp	Ia-norm	3	-5
SN 2006cq	Ia-norm	3	2
SN 2006cs	Ia-91bg	2	2
SN 2006cx	IIP	3	...
SN 2006cz	Ia-99aa	2	1
SN 2006dm	Ia-norm	3	9,15,20,36
SN 2006dw	Ia-norm	3	1,7,22,28
SN 2006ef	Ia-norm	3	3,29,35
SN 2006ej	Ia-norm	3	-4,5,22,28
SN 2006em	Ia-91bg	2	4,21
SN 2006et	Ia-norm	3	4,10,44
SN 2006ev	Ia-norm	3	11,17
SN 2006gt	Ia-91bg	2	2
SN 2006gy	II-pec	1	...
SN 2006ke	Ia-91bg	2	8
SN 2006kf	Ia-norm	3	-8,-2,19
SN 2006lf	Ia-norm	3	-6,14,25
SN 2006my	IIP	3	...
SN 2006or	Ia-norm	3	-3,5
SN 2006os	Ia-norm	3	9,27
SN 2006ov	IIP	3	...
SN 2006sr	Ia-norm	3	-2,3
SN 2006tf	II-pec	1	...
SN 2007A	Ia-norm	3	2,15
SN 2007C	Ib-norm	2	...
SN 2007K	IIn	2	...
SN 2007aa	IIP	3	...

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SN Name	Subtype	Version <sup>a</sup>	Age(s) <sup>b</sup>
SN 2007af	Ia-norm	3	−1,4,26,50(3)
SN 2007ag	Ib-norm	2	...
SN 2007al	Ia-91bg	2	5
SN 2007av	IIP	3	...
SN 2007ay	IIf	2	...
SN 2007ba	Ia-91bg	2	2,5,8
SN 2007bb	IIn	2	...
SN 2007bc	Ia-norm	3	1,16
SN 2007bd	Ia-norm	3	−6
SN 2007be	IIP	3	...
SN 2007bm	Ia-norm	3	−7,16,20,41
SN 2007ck	IIP	3	...
SN 2007cl	Ic-norm	2	...
SN 2007fb	Ia-norm	3	2,15,32,39,50(1)
SN 2007fr	Ia-norm	3	−1
SN 2007fs	Ia-norm	3	5,23,29,36,50(2)
SN 2007gk	Ia-norm	3	−2,20
SN 2007kk	Ia-norm	3	7
SN 2007oc	IIP	3	...
SN 2007od	IIP	3	...
SN 2007qe	Ia-norm	3	−7,6,16
SN 2008A	Ia-02cx	1	1
SN 2008D	Ib-norm	2	...
SN 2008aq	IIf	2	...
SN 2008aw	IIP	3	...
SN 2008be	IIn	2	...
SN 2008bj	IIP	3	...
SN 2008bl	IIP	3	...
SN 2008bt	Ia-91bg	2	11
SN 2008ds	Ia-99aa	2	−5,0,3,21,50(5)
SN 2008ec	Ia-norm	3	0,6,13,30,43,50(1)
SN 2008es	IIf-pec	1	...
SN 2008fq	IIP	3	...
SN 2008gf	IIP	3	...
SN 2008gj	Ic-norm	2	...
SN 2008hs	Ia-norm	3	−8
SN 2008ht	Ib-norm	2	...
SN 2008in	IIP	3	...
SN 2008iy	IIn	2	...

All spectral templates are solely from our full dataset, unless otherwise noted.

<sup>a</sup>Version of new SNID spectral templates when object was added — 1: v1.0; 2: v2.0–v2.5; 3: v3.0–v7.0.

<sup>b</sup>Rest-frame SN age(s), rounded to nearest whole day, in days from *B*-band maximum (for SNe Ia), from *V*-band maximum (for SNe Ib/c), or from the estimated date of explosion (for SNe II). Ages of spectral templates from our dataset are calculated from the light curve references in Table 1; ages from the original SNID v5.0 set of spectral templates are from Blondin & Tonry (2007). Adjacent ages are listed in square brackets. Spectra whose age exceeds +50 days are grouped together and the number of such spectra are noted in parentheses. Many core-collapse SNe from our full spectral dataset lack age information (though we require SNe Ia templates to have age information).

<sup>c</sup>Spectral templates are from the original SNID v5.0 set of templates only.

<sup>d</sup>Spectral templates are from both our full dataset as well as the original SNID v5.0 set of templates.

**REFERENCES**

Blondin S., Tonry J. L., 2007, ApJ, 666, 1024