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**J/A+A/593/A68** PTF12os and iPTF13bvn spectra and light curves (Fremling+, 2016)

PTF12os and iPTF13bvn:

Two stripped-envelope supernovae from low-mass progenitors in NGC 5806.

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 =[2016A&A...593A..68F](#) (SIMBAD/NED BibCode)

ADC_Keywords: Supernovae ; Photometry, UBVRI ; Photometry, SDSS ; Spectroscopy

Keywords: supernovae: general - supernovae: individual: PTF12os - galaxies: individual: NGC 5806 - techniques: image processing - supernovae: individual: iPTF13bvn

Abstract:

We investigate two stripped-envelope supernovae (SNe) discovered in the nearby galaxy NGC 5806 by the (i)PTF. We classify PTF12os as a Type IIb SN based on our spectral sequence; iPTF13bvn has previously been classified as Type Ib. Our main objective is to constrain the explosion parameters of iPTF12os and iPTF13bvn, and to put constraints on the SN progenitors, using our comprehensive photometric and spectroscopic datasets.

Description:

Photometric and spectroscopic datasets of PTF12os and iPTF13bvn. Our dataset on PTF12os spans from approximately 8.5 days to 215 days past the SN explosion and it contains optical photometry and spectra. Our data on iPTF13bvn spans from approximately 0.6 to 380 days. The dataset on iPTF13bvn contains optical photometry and optical/infrared spectroscopy.

Objects:

RA	(2000)	DE	Designation(s)
14 59 59.12	+01 53 24.4		PTF12os = SN 2012P
15 00 00.15	+01 52 53.2		iPTF13bvn = iPTF 13bvn

File Summary:

FileName	Line	Records	Explanations
ReadMe	80	.	This file
ph12os.dat	33	264	Bgriz photometry of PTF12os
ph13bvn.dat	33	461	UBVRIGriz photometry of iPTF13bvn
sw12os.dat	43	6	Swift/UVOT photometry of PTF12os
sw13bvn.dat	43	9	Swift/UVOT photometry of iPTF13bvn
sp12os.dat	52	19	Spectroscopic observations of PTF12os
sp13bvn.dat	52	32	Spectroscopic observations of iPTF13bvn
sp/*	19	51	Individual spectra

Byte-by-byte Description of file: [ph12os.dat](#) [ph13bvn.dat](#)

Bytes	Format	Units	Label	Explanations
1- 11	F11.3	d	JD	Julian date of observation
13- 18	F6.3	mag	mag	Apparent magnitude (1).
20- 24	F5.3	mag	e_mag	Uncertainty (1 sigma) of apparent magnitude
26	A1	---	Filter	[UBVRIGriz] Photometric filter
28- 33	A6	---	Tel	Telescope (G2).

Note (1): Johnson-Cousins filter magnitudes are given in the Vega system.
 Sloan filter magnitudes are in the AB system.

Byte-by-byte Description of file: [sw12os.dat](#) [sw13bvn.dat](#)

Bytes	Format	Units	Label	Explanations
1- 10	F10.2	d	JD	Julian date of observation
12- 16	F5.2	mag	Umag	?=99.99 Apparent U-band AB magnitude
18- 21	F4.2	mag	e_Umag	?=9.99 Uncertainty (1 sigma) of U magnitude
23- 27	F5.2	mag	UVW1mag	?=99.99 Apparent UVW1-band AB magnitude
29- 32	F4.2	mag	e_UVW1mag	?=9.99 Uncertainty (1 sigma) of UVW1 magnitude

34- 38 F5.2 [mag](#) UVM2mag ?=99.99 Apparent UVM2-band AB magnitude
 40- 43 F4.2 [mag](#) e_UVM2mag ?=9.99 Uncertainty (1 sigma) of UVM2 magnitude

Byte-by-byte Description of file: [sp12os.dat](#) [sp13bvn.dat](#)

Bytes	Format	Units	Label	Explanations
1- 10	F10.2	d	JD	Julian date of observation
12- 17	F6.2	d	Phase	Time since supernova explosion
19- 37	A19	---	TelInst	Name of telescope/instrument (G1).
39- 52	A14	---	FileName	Name of spectrum file in subdirectory sp

Byte-by-byte Description of file: [sp/*](#)

Bytes	Format	Units	Label	Explanations
1- 8	F8.2	0.1nm	lambda	Wavelength
10- 19	E10.4	---	Flux	Observed flux (1).

Note (1): The spectra are uncalibrated and fluxes are given in arbitrary units.

Global Notes:

Note (G1): the telescopes used for the spectroscopy are as follows:

CA/CAFOS = Calar Alto 2.2m Telescope
 FTS/FLOYDS = Faulkes Telescope North
 FTS/FLOYDS = Faulkes Telescope South
 NOT/ALFOSC = Nordic Optical Telescope
 P200/DBSP = Palomar 200-inch (5.1-meter) Hale Telescope
 TNG/LRS = Telescopio Nazionale Galileo
 WHT/ISIS = William Herschel Telescope
 Magellan_Baade/FIRE = The Magellan Telescopes (6.5m)
 IRTF/SpeX = NASA Infrared Telescope Facility
 KECK1/LRIS = The Keck 1 Telescope at W. M. Keck Observatory
 KECK2/DEIMOS = The Keck 2 Telescope at W. M. Keck Observatory
 VLT/FORS2 = The Very Large Telescope
 APO/DIS = Apache Point ARC 3.5m Telescope
 SALT/Spectrograph = The Southern African Large Telescope
 ASIAGO/AFOSC = The 182cm Copernico telescope
 KPNO/RCSpec = Kitt Peak National Observatory's Mayall 4-m Telescope
 LICK/KAST = The Lick Observatory Shane 3-m Telescope
 GTC/OSIRIS = Gran Telescopio Canarias
 NTT/EFOSC = The 3.58-meter New Technology Telescope
 GEMINI_N/GMOS = The Frederick C. Gillett Gemini North Telescope

Note (G2): the telescopes used for the photometry are as follows:

P48 = Palomar 48-inch Samuel Oschin Telescope
 P60 = Palomar 60-inch (1.5-meter) Telescope
 P200 = Palomar 200-inch (5.1-meter) Hale Telescope
 LCOGT = Las Cumbres Observatory Global Telescope Network
 NOT = Nordic Optical Telescope
 NTT = The 3.58-meter New Technology Telescope
 LT = The Liverpool Telescope
 GTC = Gran Telescopio Canarias

Acknowledgements:

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(End) Christoffer Fremling [Stockholm Univ.], Patricia Vannier [CDS] 07-Jul-2016

The document above follows the rules of the [Standard Description for Astronomical Catalogues](#); from this documentation it is possible to generate *f77* program to load files [into arrays](#) or [line by line](#)