

SN J07111498+3110058 located near PGC 20346, discovered by F. Ciabattari, E. Mazzoni and G. Petroni on behalf of Italian Supernovae Search Project (ISSP).

Data from Latest Supernovae (<http://www.rochesterastronomy.org/supernova.html>)

See discovery image and classification ATEL.

, [CBAT TOCP](#) discovered 2015/10/21.100 by F. Ciabattari, E. Mazzoni and G. Petroni ([ISSP](#))
Found in [CGCG 146-33](#) at [R.A. = 07h11m14s.98](#), [Decl. = +31°10'05".8](#) (= PGC 20346)
Located 9".0 west and 9".0 south of the center of [CGCG 146-33](#) ([Discovery image](#)) ([Paolo Campaner image](#))
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Mag 17.9:10/24 (17.7:10/21), Type II (z=0.025) (References: [ATEL 8205](#))

See discovery image and classification ATEL.



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Asiago spectroscopic observation of three transients

ATel #8205; [P. Ochner, S. Benetti, E. Cappellaro, N. Elias-Rosa, A. Pastorello, L.](#)

[Tartaglia, G. Terreran, L. Tomasella, M. Turatto \(INAF OAPd\)](#)

on 22 Oct 2015; 13:16 UT

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Subjects: Optical, Supernovae

The Asiago Transient Classification Program (Tomasella et al. 2014, AN, 335, 841) reports the spectroscopic observations of PSN J07111498+3110058 in PGC 20346 (discovered by F. Ciabattari, E. Mazzoni and G. Petroni); ASASSN-15re (discovered by All Sky Automated Survey for Supernovae ASAS-SN; Atel # [8162](#)); PSN J01510869+3155215 (reported by Tsinghua University-NAOC Transient Survey, TNTS).

Informations on these transients are also available from the "Bright Supernova" website (<http://www.rochesterastronomy.org/snimages/>), The ATel, and the CBAT Transient Object Followup Reports (<http://www.cbat.eps.harvard.edu/index.html>). The observations were performed with the Asiago 1.82 m Copernico Telescope (+AFOSC; range 340-820 nm; resolution 1.4 nm) and 1.22 m Galileo Telescope (Boller & Chivens spectrograph; range 335-785 nm; resolution 0.9 nm).

Name	Discovery	z	Type	Phase	Notes
ASASSN-15er	2015-10-13.30	0.030	Ic-pec	max	(1) PSN J07111498+3110058
ASASSN-15er	2015-10-21.10	0.025	II	2-3 months	(2) PSN J01510869+3155215
ASASSN-15er	2015-09-12.78	0.26	Seyfert 1		(3)

(1) The spectrum (1.22 m + Boller & Chivens) is very similar to that of SN 2004aw (Taubenberger et al 2006, MNRAS 371, 1459) around maximum light. It can also be matched with the IIⁿ/Ia-CSM SN 2002ic (Hamuy et al 2003, Nature 424, 651) at the same phase but for the lack of the narrow H-alpha emission clearly seen in SN 2002ic. Instead, the possible match with 91T-like SNe several days after maximum appears to be inconsistent with the non-detection reported in Atel # [8162](#)

(2) The host galaxy is PGC 20346 (z=0.024794, via NED). The spectrum (1.82 m + AFOSC) shows P-Cygni lines of H, Ca II, Na I, Fe II, Ti II, and Sc II, usually observed in Type II SNe during the H recombination phase. The expansion velocity of the ejecta, as obtained from the minimum of H α is about 7200 km/s.

(3) The spectrum (1.82 m + AFOSC) shows both broad and narrow emission lines typical of Seyfert 1 galaxies, as well as the strong rise shortward of 400 nm which is a blend of Balmer continuum and FeII line emission. From the narrow emissions due to [OIII] 436.3, 495.9, 500.7 nm, a redshift $z = 0.26$ is deduced.

Classifications were done with GELATO (Harutyunyan et al. 2008, A&A, 488, 383) and SNID (Blondin and Tonry 2007, ApJ, 666, 1024). The Asiago classification spectra are posted at the website <http://sngroup.oapd.inaf.it>.