

SN 2013en (A.R., 18 51 37.35 Dec. +23 38 20.6), scoperta il 30 luglio 2013 nella galassia ugc 11369 (offset 6W 17N), magnitudine 16.1, tipo: Ia-pec ([spettro Asiago odb.](#))

PSN individuata da Ciabattari, Mazzoni e Rossi con il telescopio Newton da 50cm dell'Osservatorio di Monte Agliale (Lucca).



Electronic Telegram No. 3613 Central Bureau for Astronomical Telegrams INTERNATIONAL ASTRONOMICAL UNION CBAT Director: Daniel W. E. Green; Hoffman Lab 209; Harvard

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Prepared using the Tamkin Foundation Computer Network SUPERNOVA 2013en IN UGC 11369 = PSN J18513735+2338206 F. Ciabattari, E. Mazzoni, and M. Rossi, Borgo a Mozzano, Italy, report their discovery of an apparent supernova (mag 16.5) on unfiltered CCD images (limiting magnitude 19.5) obtained on July 30.98 UT with a 0.5-m Newtonian telescope in the course of the Italian Supernovae Search Project. The new object is located at R.A. = 18h51m37s.35, Decl. = +23d38'20".6 (equinox 2000.0; astrometry with respect to UCAC-2 stars), which is 6" west and 17" north of the center of the galaxy UGC 11369. Nothing is visible at this position on the digitized plates of the Palomar Sky Survey from 1993 July 25 (F plate; limiting magnitude 20.3) and 1990 July 20 (J plate; limiting mag 20.3). The variable was designated PSN J18513735+2338206 when it was posted at the Central Bureau's TOCP webpage and is here designated SN 2013en based on the spectroscopic confirmation reported below. Additional CCD magnitudes for 2013en: 2013 July 5, [19.5 (Ciabattari); July 15, 18.7 (Ciabattari; just visible); July 31.954, 17.0 (Gianluca Masi and Francesca Nocentini, remotely using a 43-cm telescope at Ceccano, Italy; position end figures 37s.31, 21".4); Aug. 1.041, 16.6 (Federica Luppi and Luca Buzzi, Varese, Italy; 0.36-m f/7.1 reflector; position end figures 37s.31, 21".3; reference stars from the CMC-14 catalogue; a knot or an H II region is visible in Digitized Sky Survey images; image posted at URL

http://www.astrogeo.va.it/pub/TOCP/PSN_U11369.jpg

); Aug. 1.342, 16.2 (L. Elenin, Lyubertsy, Russia, and I. Molotov, Moscow; remotely taken with a 0.45-m f/2.8 telescope at the ISON-NM Observatory near Mayhill, NM, USA; position end figures 37s.30 +/- 0".19, 21".0; UCAC-4 reference stars; limiting mag about 19.0; image posted at website URL

<http://spaceobs.org/images/TOCP/PSNJ18513735+2338206-20130801.png>

). L. Tomasella, E. Cappellaro, S. Benetti, P. Ochner, A. Pastorello, and M. Turatto, Osservatorio Astronomico di Padova, Istituto Nazionale di Astrofisica, report that an optical spectrogram (range 340-820 nm; resolution 1.3 nm) of PSN J18513735+2338206 = SN 2013en, obtained on July 31.84 UT with the Asiago 1.82-m Copernico Telescope (+ AFOSC), shows that 2013en is most likely a peculiar type-Ia supernova. Adopting for the host galaxy (UGC 11369) the redshift $z = 0.015207$ (Falco et al. 1999, PASP 111, 438; via NED), a good match is found with the type-Ia supernova 2005hk (Phillips et al. 2007, PASP 119, 360) near maximum. The 2013en spectrum shows strong Na I D interstellar absorptions, both the Galactic and host-galaxy components with similar equivalent widths (about 0.15 nm). The Galactic component is consistent with the estimated dust extinction A_V about 0.8 mag (Schlafly and Finkbeiner 2011, Ap.J. 737, 103; via NED). A similar amount of additional extinction can be expected in the host galaxy. The Asiago classification spectra are posted at website URL

<http://sngroup.oapd.inaf.it>

; classification was made via GELATO (Harutyunyan et al. 2008, A.Ap. 488, 383) and SNID (Blondin and Tonry 2007, Ap.J. 666, 1024). NOTE: These 'Central Bureau Electronic Telegrams' are sometimes superseded by text appearing later in the printed IAU Circulars.

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