

**SN 2013ep** (A.R., 22 58 30.35 Dec. +40 25 44.5), scoperta il 29 luglio 2013 nella galassia pgc 70151 (offset 10E 4S), magnitudine 18.4, tipo: IIb ( [Asiago spectrum](#) )

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



Electronic Telegram No. 3615 Central Bureau for Astronomical Telegrams INTERNATIONAL ASTRONOMICAL UNION CBAT Director: Daniel W. E. Green; Hoffman Lab 209; Harvard University; 20 Oxford St.; Cambridge, MA 02138; U.S.A. e-mail: [cbatiau@eps.harvard.edu](mailto:cbatiau@eps.harvard.edu) (alternate [cbat@iau.org](mailto:cbat@iau.org)) URL

<http://www.cbat.eps.harvard.edu/index.html>

Prepared using the Tamkin Foundation Computer Network SUPERNOVA 2013ep IN PGC 70151 = PSN J22583035+4025445 F. Ciabattari, Borgo a Mozzano, Italy, reports the discovery of an apparent supernova (mag 18.4) on unfiltered CCD images (limiting mag 19.5) obtained on July 29.04, July 31.08, and Aug. 1.1 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. = 22h58m30s.35, Decl. = +40d25'44".5 (equinox 2000.0; astrometry with respect to UCAC-2 stars), which is 10" east and 4" south of the center of the galaxy PGC 70151. Nothing is visible at this position on digitized plates of the Palomar Sky Survey from 1989 Sept. 30 (F plate; limiting magnitude 20.3) and 1992 Sept. 3 (J plate; limiting mag 20.3). The variable was designated PSN J22583035+4025445 when it was posted at the Central Bureau's TOCP webpage and is here designated SN 2013ep based on the spectroscopic confirmation reported below. L.

Tomasella, S. Benetti, E. Cappellaro, 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 J22583035+4025445 = SN 2013ep, obtained on Aug. 2.02 UT with the Asiago 1.82-m Copernico Telescope (+ AFOSC), shows that this is a young core-collapse supernova. Adopting for the host galaxy, PGC 70151, a redshift  $z$  about 0.016888 (Huchra et al. 1999, Ap.J. Suppl. 121, 287; via NED), a best fit was found with the type-IIb supernova 2008ax (Pastorello et al. 2008, MNRAS 389, 955) at ten days after explosion. The Asiago classification spectra are posted at website URL

<http://graspa.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.

(C) Copyright 2013 CBAT 2013 August 3 (CBET 3615) Daniel W. E. Green