

[SN 2012dg](#) (A.R. 18 18 18.80, Dec. +47 41 54.2), discovered on 2012 June 26 in the galaxy PGC61709 (offset 6E 8N), magnitude 17.2, type Ia.

SN discovered by F. Ciabattari and E. Mazzoni with the 50cm Newton telescope of the Monte Agliale Observatory (Lucca).



Electronic Telegram No. 3162 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 (alternate cbat@iau.org) URL

<http://www.cbat.eps.harvard.edu/index.html> Prepared using the Tamkin Foundation Computer Network SUPERNOVA 2012dg = PSN J18181880+4741542 F. Ciabattari and E. Mazzoni, Borgo a Mozzano, Italy, report their discovery of an apparent supernova (mag 17.2) on unfiltered CCD images (limiting magnitude 19.5) obtained on June 26.93 and 27.87 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. = 18h18m18s.80, Decl. = +47d41'54".2 (equinox 2000.0; astrometry with respect to USNO-B1 stars) which is 6" east and 8" north of the center of the presumed host galaxy. Nothing is visible at this position on digitized plates of the Palomar Sky Survey from 1990 June 26 (J plate, limiting mag 20.3) and 1991 Aug. 7 (F plate, limiting mag 20.3), or in their images from 2011 Sept. (limiting magnitude 19.0). The variable was designated PSN J18181880+4741542 when it was posted at the Central Bureau's TOCP webpage and is here designated SN 2012dg based on the spectroscopic confirmation reported below. Additional CCD magnitudes for 2012dg: June 29.314 UT, 17.0 (Joseph Brimacombe, Cairns, Australia; remotely using a 51-cm RCOS telescope + STL11K camera + luminance filter at the New Mexico Skies Observatory near Mayhill, NM, U.S.A.; position end figures 18s.80, 54".0; image posted at website URL <http://www.flickr.com/photos/43846774@N02/7470408806/>); 30.963, 16.9 (Federica Luppi and Luca Buzzi, Varese, Italy, 0.38-m f/6.8 reflector; position end figures 18s.77, 54".1; reference stars from CMC-14 catalogue; image posted at URL http://www.astrogeo.va.it/pub/TOCP/PSN_P61709.jpg); July 3.934, R_c = 16.7 (Massimiliano Martignoni, Magnago, Italy, 0.25-m f/10 Schmidt-Cassegrain reflector; position end figures 18s.77, 53".8). L. Tomasella, A. Pastorello, S. Valenti, S. Benetti, E. Cappellaro, M. Turatto, and P. Ochner, Osservatorio Astronomico di Padova, Istituto Nazionale di Astrofisica, report that a spectrogram of PSN J18181880+4741542 = 2012dg obtained on June 28.90 UT with the Asiago 1.82-m Copernico Telescope (+ AFOSC; range 340-820 nm; resolution 2.4 nm), suggests that this is a normal type-Ia supernova. Adopting for the host galaxy a redshift $z = 0.037$ (SDSS 2004, via NED), a comparison with a library of supernovae spectra via GELATO (Harutyunyan et al. 2008, A.Ap. 488, 383) shows that 2012dg is an event similar to the type-Ia supernova 1994D (Patat et al. 1996, MNRAS 278, 111) at maximum light. NOTE: These 'Central Bureau Electronic Telegrams' are sometimes superseded by text appearing later in the printed IAU Circulars.

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(CBET 3162)

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