

Central Bureau for Astronomical Telegrams

INTERNATIONAL ASTRONOMICAL UNION

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COMET P/2012 G1 (PANSTARRS)

Larry Denneau, Richard Wainscoat, Henry Hsieh, Peter Veres, and Bryce Bolin report the discovery of a comet in four exposures taken with the 1.8-m Pan-STARRS 1 telescope at Haleakala (discovery observations tabulated below), with the object having a soft appearance, with a point-spread function with FWHM of approximately 1".1, compared to nearby stars that have FWHM of approximately 0".9; a broad, faint tail is seen extending for approximately 7" to the northwest. Henry Hsieh obtained three 120-s follow-up exposures with the 4.1-m Southern Astrophysical Research (SOAR) Telescope (+ Bessell R filter) on Apr. 14.10 UT, confirming that the object appears distinctly cometary; a composite image shows a broad, faint tail to be clearly visible extending approximately 5" to the northwest (p.a. about 315 deg). After posting on the Minor Planet Center's NEOCP webpage, other CCD astrometrists have also noted the object's cometary appearance. H. Sato (Tokyo, Japan; remotely using a 0.51-m f/6.8 astrograph + f/4.5 focal reducer at the RAS Observatory near Mayhill, NM, U.S.A.; Apr. 14.3) finds the comet to be poorly condensed with a coma diameter of 13", elongated toward p.a. 240 degrees; the total V-band magnitude was measured within a circular aperture of radius 6".6 to be 19.9. Two 60-s R-band images taken remotely by K. Rochowicz, G. Sostero, E. Guido, and N. Howes with the 2.0-m f/10 "Faulkes Telescope North" at Haleakala on Apr. 16.4 show a sharp central condensation and a tail nearly 5" long in p.a. 100 deg; L. Buzzi writes that additional stacked images taken with the same telescope by P. Miller, P. Roche, A. Tripp, R. Miles, R. Holmes, S. Foglia, and himself on Apr. 16.4 show the object to be diffuse.

2012 UT	R.A. (2000)	Decl.	Mag.
Apr. 13.35047	12 04 33.74	-20 51 01.4	21.1

13.36369	12 04 33.29	-20 50 57.1	20.9
13.37693	12 04 32.85	-20 50 52.7	21.0
13.39016	12 04 32.39	-20 50 48.5	21.0

The available astrometry, the following preliminary elliptical orbital elements by G. V. Williams, and an ephemeris appear on MPEC 2012-H17.

T = 2012 June 1.4325 TT	Peri. = 286.1149
e = 0.380722	Node = 282.5440 2000.0
q = 2.584166 AU	Incl. = 11.6925
a = 4.172871 AU	n = 0.1156250 P = 8.52 years

NOTE: These 'Central Bureau Electronic Telegrams' are sometimes superseded by text appearing later in the printed IAU Circulars.

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