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INTERNATIONAL ASTRONOMICAL UNION**

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COMET C/2008 P1 (GARRADD)

G. J. Garradd reports his discovery of a comet on CCD images obtained in poor seeing with the 0.5-m Uppsala Schmidt telescope (discovery observation tabulated below), the object described as being $\sim 10''$ in size with a faint, broad feature extending $\sim 15''$ to the west. Following posting on the 'NEOCP' webpage, C. Jacques and E. Pimentel (Belo Horizonte, Minas Gerais, Brazil, 0.30-m reflector) report that thirty stacked 60-s CCD exposures show a condensed coma of diameter $20''$ on Aug. 14.2 UT.

2008 UT	α_{2000}	δ_{2000}	Mag.
Aug. 13.72362	$0^{\text{h}}25^{\text{m}}59^{\text{s}}.88$	$-46^{\circ}56'35''.8$	16.7

The available astrometry, the following preliminary parabolic orbital elements, and an ephemeris appear on *MPEC* 2008-P66.

$$\left. \begin{array}{l} T = 2009 \text{ July } 2.633 \text{ TT} \\ q = 3.64014 \text{ AU} \end{array} \right\} \begin{array}{l} \omega = 12^{\circ}.615 \\ \Omega = 0.118 \\ i = 61.227 \end{array} \left. \vphantom{\begin{array}{l} T \\ q \end{array}} \right\} 2000.0$$

COMET P/2008 O2 (McNAUGHT)

Additional astrometry have permitted orbital calculations to show that this comet (cf. *IAUC* 8963) is of short period, the elements below taken from *MPEC* 2008-P54.

$$\left. \begin{array}{l} T = 2009 \text{ Aug. } 5.204 \text{ TT} \\ e = 0.15655 \\ q = 3.78077 \text{ AU} \end{array} \right\} \begin{array}{l} \omega = 42^{\circ}.253 \\ \Omega = 325.529 \\ i = 9.967 \end{array} \left. \vphantom{\begin{array}{l} T \\ e \\ q \end{array}} \right\} 2000.0$$

$$a = 4.48252 \text{ AU} \quad n^{\circ} = 0.103853 \quad P = 9.5 \text{ years}$$

COMET P/2008 O3 (BOATTINI)

Additional astrometry have permitted orbital calculations to show that this comet (cf. *IAUC* 8964) is of short period, the elements below taken from *MPEC* 2008-P65.

$$\left. \begin{array}{l} T = 2008 \text{ June } 4.806 \text{ TT} \\ e = 0.72567 \\ q = 2.51228 \text{ AU} \end{array} \right\} \begin{array}{l} \omega = 341^{\circ}.527 \\ \Omega = 47.685 \\ i = 32.218 \end{array} \left. \vphantom{\begin{array}{l} T \\ e \\ q \end{array}} \right\} 2000.0$$

$$a = 9.15770 \text{ AU} \quad n^{\circ} = 0.035565 \quad P = 27.7 \text{ years}$$