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SUPERNOVA 2005cu IN NGC 6754

L. A. G. Monard, Pretoria, South Africa, reports the discovery of an apparent supernova (mag $\sim 16.1 \pm 0.2$) on unfiltered CCD images taken July 10.760 UT (and confirmed on July 11.720 at mag $\sim 15.9 \pm 0.2$) with a 0.30-m Schmidt-Cassegrain reflector. SN 2005cu is located at $\alpha = 19^{h}11^{m}24^{s}.51$, $\delta = -50^{o}38'28''.8$ (equinox 2000.0), which is $12''$ west and $3''$ north of the nucleus of NGC 6754. Nothing is visible at this location on the Digitized Sky Survey (limiting red mag 20.5) on an image taken on 2005 June 18.100 by Monard (limiting red mag 18.0).

MARKARIAN 501

F. Goebel, Max-Planck-Institut für Physik, Munich, on behalf of the MAGIC collaboration, writes that the 'Imaging Air Cherenkov' telescope MAGIC at La Palma has observed a γ-ray flare of the BL Lac-type active galactic nucleus Markarian 501 during June 30.907–30.950 UT. The measured integrated flux above 200 GeV corresponds to $\approx$ 3–4 times the Crab flux. The observed energy spectrum extends up to 5 TeV and above. Follow-up observations around July 3.92 and 6.92 yielded lower flux levels of $\sim$ 1 and 0.5 Crab units, respectively. Further observations are scheduled (see `http://magic.mppmu.mpg.de/physics/mkn501flare05/`), and simultaneous observations at other wavelengths are encouraged.

COMET C/2005 A1 (LINEAR)

Z. Sekanina, Jet Propulsion Laboratory, reports that application of a two-parameter version of his comet fragmentation model to 24 astrometric observations from June 25 to July 9 (*MPEC* 2005-N18, 2005-N21, and 2005-N55) has shown the companion nucleus to have separated from the parent comet on 2005 Apr. 23.4 $\pm$ 0.8 TT, being subjected to a differential deceleration of 16.2 $\pm$ 0.6 units of 10^{-5} solar attraction. Solving in addition for a transverse or normal component of the separation velocity has shown that it did not exceed 0.1 m/s, while the time of breakup and deceleration remained nearly the same. The companion may be observable for many months, depending on its brightness variations. The predicted separation distances and position angles of the companion relative to the primary nucleus (0^{h} TT, equinox 2000.0): 2005 July 9, $12''$, 203°; 29, $20''$, 200°; Aug. 18, $27''$, 192°; Sept. 7, $33''$, 179°; 27, $36''$, 165°; Oct. 17, $35''$, 155°; Nov. 6, $33''$, 150°; 26, $31''$, 148°.

2005 July 11 *Daniel W. E. Green*