

A New Double Star in Lynx

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Abstract: I describe a new double star found while photographing comet C/2009 K4 (Gibbs).

A new double star was found on astrometric images in Lynx at 08 55 50.43 +40 24 46.9 (2000.0). Separation of the stars is 29.9" at PA 344.5° with mag V 10.43 and 10.61.

The magnitudes were taken from Tycho 2 catalog [1]. Separation and PA was measured on 6 images taken on 2009.444 with a 200mm astrograph with focal length 574mm and CCD SXV-H9 with pixel size of 2.34 arcseconds on the sky. Measures were made with *Astrometrica* software [4] and the UCAC2 star catalog. Figure 1 is an average of six images of the pair.

While the stars are much wider apart than the Aitken criterion, [2] they have quite similar proper motions listed in the Tycho 2 catalog and are probably a common proper motion pair. Table 1 gives position and proper motion data for the stars. The data in the table was taken from Simbad [3]. From this data separation is calculated at 30.1" with PA of 343.4°.

Acknowledgments

This research has made use of the SIMBAD database, operated at CDS, Strasbourg, France.

This research has made use of the Washington Double Star Catalog maintained at the U.S. Naval Observatory.

References

- [1] Tycho2 catalog: 1998A&A...335L..65H
- [2] Francisco Rica Romero, "R.G. Aitken's Criterion to Detect Physical Pairs", *JDSO*, Vol. 2, 36-40, 2006.
- [3] Simbad database: <http://simbad.u-strasbg.fr/simbad/>
- [4] Astrometrica software: <http://www.astrometrica.at>



Figure 1: Average of 6 images exposed 200 seconds each, taken by Michael Jaeger, Austria on 2009 Jun.10, 21h08-21h26 UT with 0.20m astrograph f/2.8. North is up. The double star is the pair above center. The bright star towards lower left is HR 3546. The trailed image of comet C/2009 K4 (Gibbs) is faintly visible left of center. The comet was the primary target of these astrometry images.

Table 1: The data in the table was taken from Simbad [3]. From this data separation is calculated at 30.1" with PA of 343.4°.

Star	R.A.	Declination	pm R.A. mas/yr	pm Dec. mas/yr
TYC 2986-217-1	08 55 50.3651	+40 24 46.687	-17.00	-13.20
TYC 2986-285-1	08 55 49.6142	+40 25 15.530	-17.60	-12.50