

# A New Double Star in Perseus

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**Abstract:** A new double star has been found 15' from RZ Per, (1:29:42.1 +50:51:23.9, J2000) in PA 344°. A preliminary measurement of the new double gives 14" separation and a PA of 98 degrees, and APASS visual magnitudes of 10.3 and 10.6.

The pair was found while observing RZ Per, on 2013 Sep 14, at 3:22 Eastern Daylight Time. It was plainly seen in the 20 cm Schmidt-Cassegrain telescope that was in use at the time. A quick check with the Night Assistant program [1] revealed that the stars were in the UCAC4 [2], Tycho [3], and AC2000 [4] catalogs, but not in the Washington Double Star catalog (WDS) [5]. The pair's J2000 coordinates are: 01:30:24.16 +51:09:53.5.

Information about the find was first posted on the Cloudy Night's Double Star observing forum [6]. Two of the observers there immediately responded to the author with more data about the star. David Cotterell of Toronto, Ontario [7] found the pair in the Millennium Star Atlas [8]. Wilfried Knapp suggested that the proper motion of the stars be examined.

Further study was done using the Aladin program [9], which gave the UCAC4 designations of the two stars:

706-011096, 022.6006527, +51.1648573  
706-011101, 022.6068245, +51.1642987

More designations can be found in the SIMBAD [10] database.

The UCAC4 proper motions of both stars were also

given, in milliarcseconds per year:

pmRA: 1, pmDE: 5  
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William Hartkopf, of the USNO [11], points out that these are very small proper motions, and will require further study before the pair can be labeled a common proper motion pair with confidence. He adds that the fact the pair has similar magnitudes and spectral types makes it more likely that the pair is physical.

The pair has been entered into the WDS under designation 01304+5110 TVB 1, and the pair has been verified in the UCAC4, 2MASS, Tycho-2, APASS, and the Washington Fundamental Catalog.

Figure 1 is a photo of the new binary from the DSS as rendered by WikiSky [12]. The scale is 14x14 arc minutes; north is at the top.

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Figure 1. Image of the new double star from DSS.

## References

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- 10) <http://simbad.u-strasbg.fr/simbad/>
- 11) [william.hartkopf@usno.navy.mil](mailto:william.hartkopf@usno.navy.mil). Astrometry Department, U.S. Naval Observatory 3450 Massachusetts Ave, NW, Washington, DC 20392
- 12) <http://www.wikisky.org/>