

Speckle Interferometry of WDS 17201+6206 and 17285+0224

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Abstract Speckle Interferometry observations of WDS 17201+6202 and 17285+0224, made with the 2.1-meter telescope at Kitt Peak, provided position angle and separation measurements in line with expectations.

Introduction

WDS 17201+6202 and 17285+0224 were selected for observation based on two criteria: the lack of observations within the last twenty years, and the relatively few historical measurements overall. Speckle Interferometry observations of these two pairs were made with the 2.1-meter telescope at Kitt Peak as described by Genet et al. (2014).



Figure 1: Army and Navy Academy Cadets Young Cho (left) and Arthur Chang (right).

WDS 17201+6206

Using the software PlateSolve 3.0, written by Dave Rowe (Rowe and Genet 2015), the Kitt Peak 2014 speckle interferometry autocorellogram, Figure 2, indicated a current position angle of 316.8° with a separation of $0.4''$.

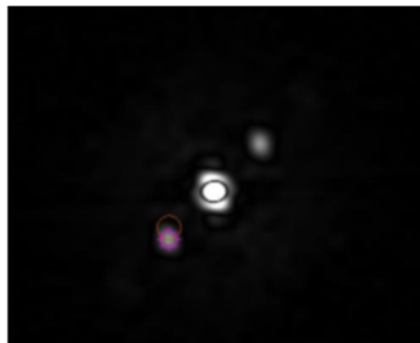


Figure 2: Kitt Peak 2014 autocorellogram of 17201+6206.

We obtained the observational history of WDS 17201+6202 from the archives of the Washington Double Star Catalog. Table 1 provides the complete observational history including the results of our 2014 measurement.

WDS 17201+6206		
EPOCH	Position Angle	Separation
1905	266.4	0.71
1922	267.8	0.62
1974	295.1	0.55
1977	293.7	0.49
1982	312.6	0.48
1984	309.0	0.40
1991	302.4	0.42
1991	304.0	0.45
1993	308.4	0.35
2014	316.8	0.40

Table 1: Historical measurements from the WDS with the Kitt Peak data from 2014.

WDS 17285+0224

The Washington Double Star Catalog shows the magnitudes of the two components of WDS 17285+0224 to be 10.41 and 10.59 respectively. The primary has a spectral type of G5. Using PlateSolve 3.0, the speckle autocorrellogram seen in Figure 3 was obtained from the April 2014 Kitt Peak 2.1-meter observations, with a new measurement with a position angle of 122° and a separation of $0.39''$.

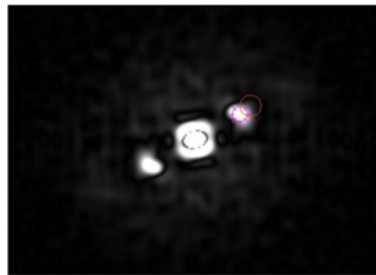


Figure 3: Autocorellogram of WDS 17285+0224.

WDS 17285+0224 has 12 previously reported measurements. These are shown in Table 2 along with our 2014 observation.

WDS 17285+0224		
EPOCH	Position Angle	Separation
1910	121.6	0.83
1916	121.7	0.76
1918	121.6	0.79
1926	119.5	0.87
1936	118.2	0.73
1940	119.8	0.71
1963	118.6	0.65
1963	119.1	0.58
1974	115.8	0.63
1977	118.4	0.60
1991	117.0	0.60
1994	122.2	0.50
2014	120.38	0.39

Table 2: Historical measurements of 17285+0224 with the Kitt Peak speckle interferometry results.

Acknowledgements

We thank Kitt Peak National Observatory for the use of their 2.1-m telescope and the members of the 2014 observing run. We utilized Dave Rowe's Plate Solve 3 program for speckle reduction. Data was extracted from the Washington Double Star Catalog maintained by the U.S. Naval Observatory. Brian Mason, at the U.S. Naval Observatory, provided the past observational data. We thank external reviewers Russell Genet, Richard Harshaw, and Vera Wallen.

References

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