

Abstract Submitted
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The case of USNO-B1.0 1219-0427833: Binary, variable or both?¹

MARK RODRIGUEZ, ARTHUR SWEENEY, RICHARD OLENICK, University of Dallas — Observations of a suspected variable star, USNO-B1.0 1219-0427833, reveal a perplexing light curve. R-band observations were made with a robotic 200 mm astrograph f/1.5 located at the University of North Texas Monroe Observatory. Over 5000 images were gathered over a five week period in July-August 2016. The extracted light curves were analyzed with differential photometry to remove possible spurious signals. Peranso was used to analyze the signals present. The star has a mean magnitude of 10.124, a B-V of 1.115, and an observed amplitude of 0.1313 with a period of 0.1652 days. The star shows several aspects of W Ursae Majoris binaries, with one or both stars pulsating. Analysis of the observations and preliminary modeling are presented.

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