

Abstract Submitted
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Photometric observations and modeling of the new W UMa binary USNO-B1.) 1163-0308203 ALEX HENDERSON, RICHARD OLENICK, ARTHUR SWEENEY, RAMSES GONZALES, TOMMY BYRD, University of Dallas — We present R band observations for a newly discovery binary system USNO-B1.0 1163-0308203. The data was gathered as part of the STExTS project exoplanet search over the summer of 2015 and consisted of 8,535 images taken over 73 nights using a 152-mm f/1.5 astrograph with a 3° FOV at the UNT Monroe Observatory. Data were remotely gathered using CCDNavigator3 and TeamViewer. The images were processed using Maxim DL and the light curves analyzed using Peranso. Modeling was done using the Wilson-Devinney (WD) code through PHOEBE. The eclipses in the new system were found to have a magnitude change from 11.6 to 12.1 and an orbital period of 0.518 days, categorizing it as a W UMa binary. The observations and modeling results will be discussed.

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