

# Discovery of Three Eclipsing Binaries in the field of AW Cru

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**Draft in Preparation; accepted: 4.06.2015**

We present the light elements of three newly discovered eclipsing binaries. Their variability was detected during our observations of the variable AW Cru in 2013.

All the observations were made at the Estación Astrofísica Bosque Alegre, in Argentina with a 1.54 meter reflector telescope and unfiltered CCD camera. The reductions of the images were done using the Fotodif 3.93 software (Castellano 2014). We use two comparison stars USNO-A2.0 0225-13471141 and 0225-13461332 for the photometry; their red magnitudes from the USNO-A2.0 catalog (Monet et. al. 1998) were used.

We also calculated some times of minima, when enough data points were available, with AVE software (Barberá 1996). The period and the phase-plotted images of the stars were obtained using the Lomb-Scargle algorithm in the NASA Exoplanet Archive Periodogram Service. The names, positions and magnitudes of the stars were obtained thanks to the VizieR catalogue access tool, CDS, Strasbourg, France (Ochsenbein, et. al.2000).

#	Name	Coord (J2000)	Type	Max	Min	Period	type
1	USNO B1 0295-0396025	12 11 00.60 -60 29 03.4	EW	16.57	17.21	0.327674	min
2	USNO B1 0295-0396025	12 11 05.69 -60 29 25.5	EB	17.18	17.87	0.719034	min
3	USNO B1 0295-0396025	12 11 10.69 -60 29 53.5	EW	16.88	17.67	0.317365	min

## References:

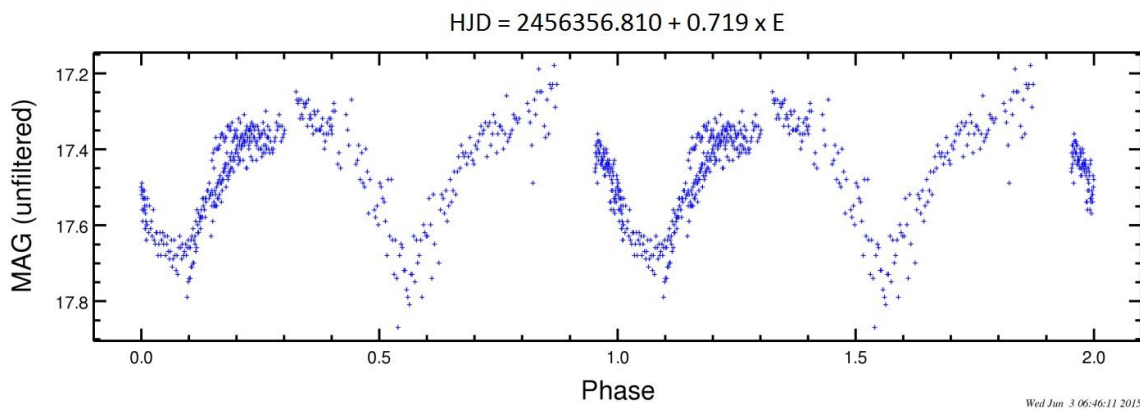
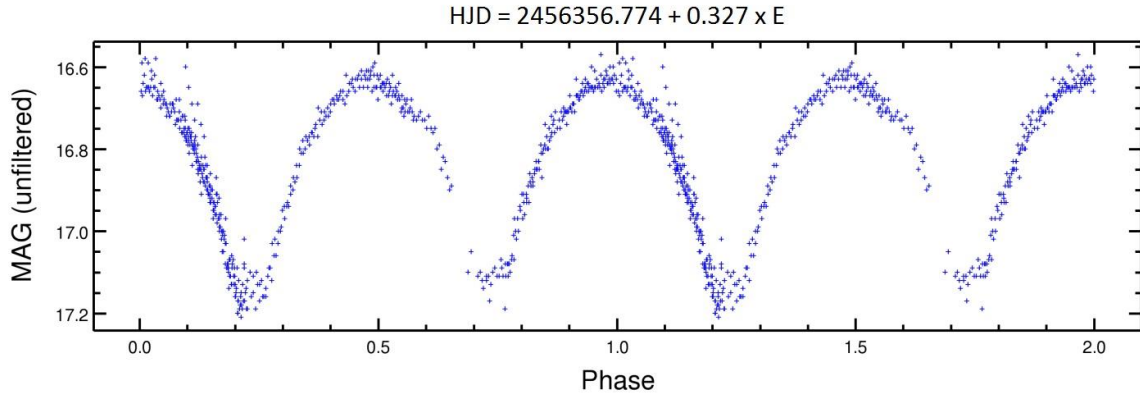
Barbera, R.: 1996, AVE, <http://www.gea.cesca.es>

Castellano, J. 2014 Fotodif 3.93, <http://www.astrosurf.com/orodeno/fotodif/index.htm>

Monet, D. et. al. 1998, The USNO-A2.0, Falgstaff, U.S.N.O.

Nasa, Exoplanet Archive Periodogram Service, <http://exoplanetarchive.ipac.caltech.edu/cgi-bin/Periodogram/>

Ochsenbein, F.; Bauer, P.; Marcout, J. 2000, "The VizieR database of astronomical catalogues" A&AS 143, 23-32



Wed Jun 3 06:46:11 2015

