BAV Journal

2018 No. 020 ISSN 2366-6706

Bundesdeutsche Arbeitsgemeinschaft fur Veränderliche Sterne e.V.

http://bav-astro.de

New variables in ASAS-SN Database. Part 1.

Sergey I.[1]

1) Mira Str.40-2, 222307, Molodechno, Belarus, seriv76@tut.by

January 2017

Abstracts: 12 new variable stars are presented, which were found in the ASAS-SN database:

GSC 04411-02027, GSC 03568-00294, USNO-B1.0 1414-0310345, USNO-B1.0 1414-0311251, GSC 03933-01423, USNO-B1.0 1410-0293235, GSC 04205-02116, USNO-B1.0 1517-0289620, GSC 04255-01111, GSC 04222-01778, GSC 04444-01262, USNO-B1.0 1587-0156583.

I used ADQL queries to the TAP VizieR system for search for new variable stars. An automatic selection of stars with B-V <0.8 was made in the APASS data and V err > 0.3.The innovative method is based on identifying variable stars from APASS data release (Henden et al. 2015) using VizieR TAP service at http://tapvizier.u-strasbg.fr/adql/. The search was conducted in a field with the center RA = 277 Dec = +65 (rectangle long in RA 40 degrees and in DEC 30 degrees). Coordinates are listed in the UCAC4 (UCAC5) catalog. To find the period, a program developed by Sergey Dubrovski was used. The period search was carried out by the method of Lafler-Kinman.

Name	RA2000	DEC2000	Mag.range V	Type	Epoch	Period	Light curve
SERIV 108 GSC 04411-02027	15 24 16.64	+69 01 55.41	14.6-15.75	EA	2457206.889	1.4146104	Fig.1
SERIV 109 GSC 03568-00294	19 36 32.71	+50 59 29.80	12.65-13.18	EW	2457136.037	0.3164373	Fig.2
SERIV 110 USNO-B1.0 1414-0310345	19 28 16.78	+51 25 18.75	14.35-14.90	RRAB	2457526.950	0.304612	Fig.3
SERIV 111 USNO-B1.0 1414-0311251	19 30 16.64	+51 29 45.78	14.2-14.7	EW	2457232.91	0.6136977	Fig.4
SERIV 113 GSC 03933-01423	19 23 43.85	+58 19 04.61	13.15-14.0	EA	2457323.750	2.3587907	Fig.5
SERIV 114 USNO-B1.0 1410-0293235	18 30 31.85	+51 04 35.30	15.4-16.1	EW	2457304.756	0.2669843	Fig.6
SERIV 115 GSC 04205-02116	18 00 36.20	+63 30 40.66	12.7-15.3	EA	2457585.911	3.1895074	Fig.7
SERIV 116 USNO-B1.0 1517-0289620	20 43 30.03	+61 45 22.52	14.3-14.75	DCEP:	2457885.006	2.0997669	Fig.8
SERIV 117 GSC 04255-01111	21 05 22.048	+64 44 38.80	14.6-15.05	EW	2457156.026	0.2888293	Fig.9
SERIV 118 GSC 04222-01778	18 30 04.13	+64 22 23.72	14.5-15.3	EW	2457174.912	0.28245	Fig.10
SERIV 119 GSC 04444-01262	19 15 12.35	+67 46 29.57	13.5-14.32	EA	2457889.020	1.9072471	Fig.11
SERIV 120 USNO-B1.0 1587-0156583	18 41 06.47	+68 47 37.57	14.10-15.0	RRAB	2457908.906	0.6053578	Fig.12

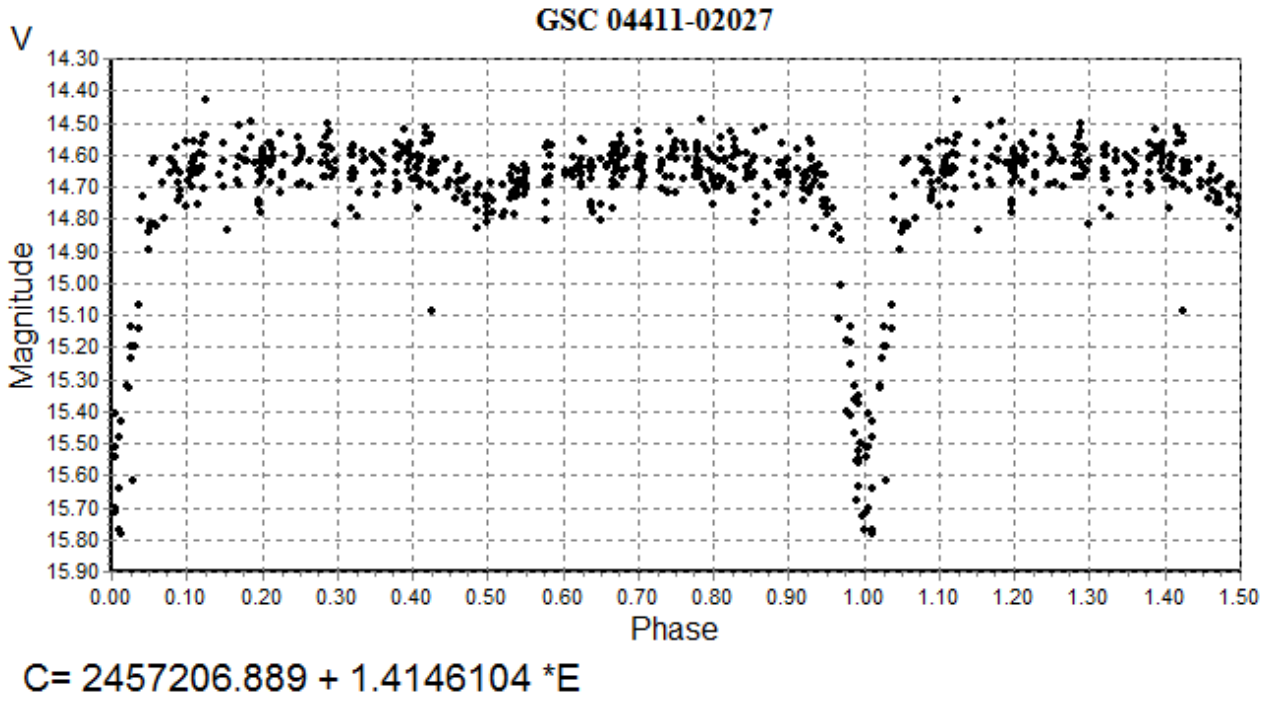

Fig.1 Phase Plot for GSC 04411-02027

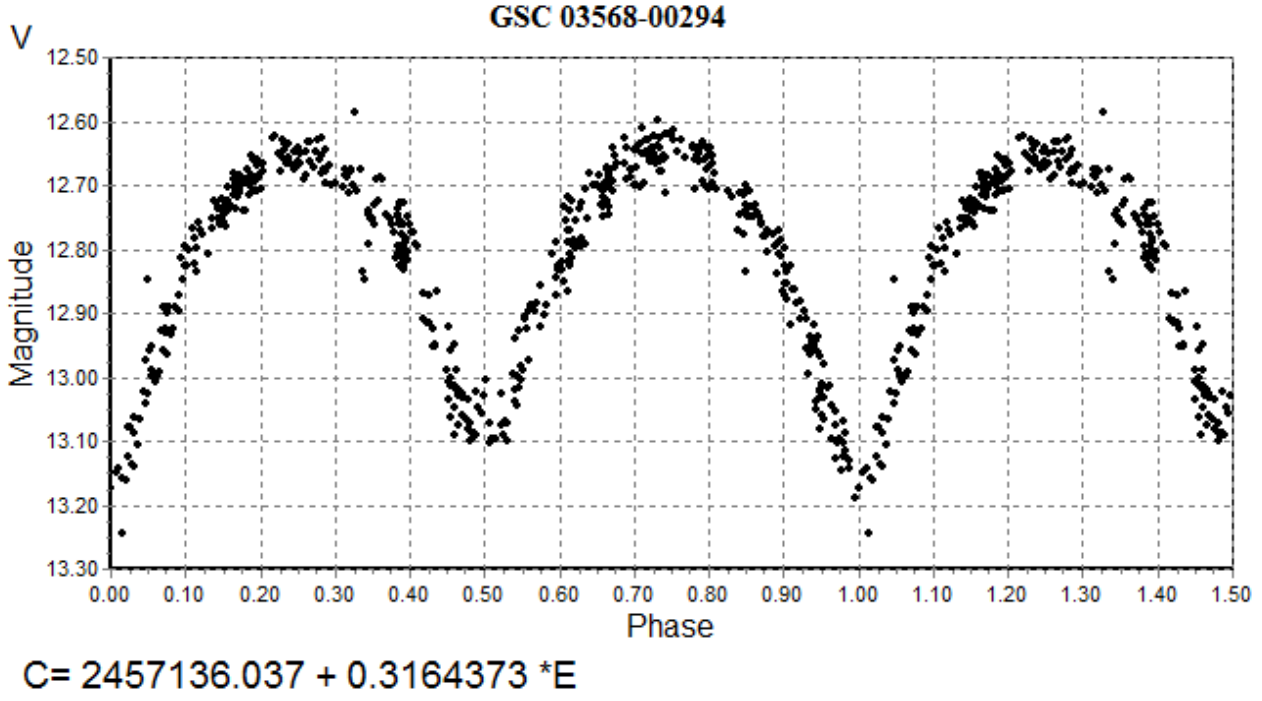

Fig.2 Phase Plot for GSC 03568-00294

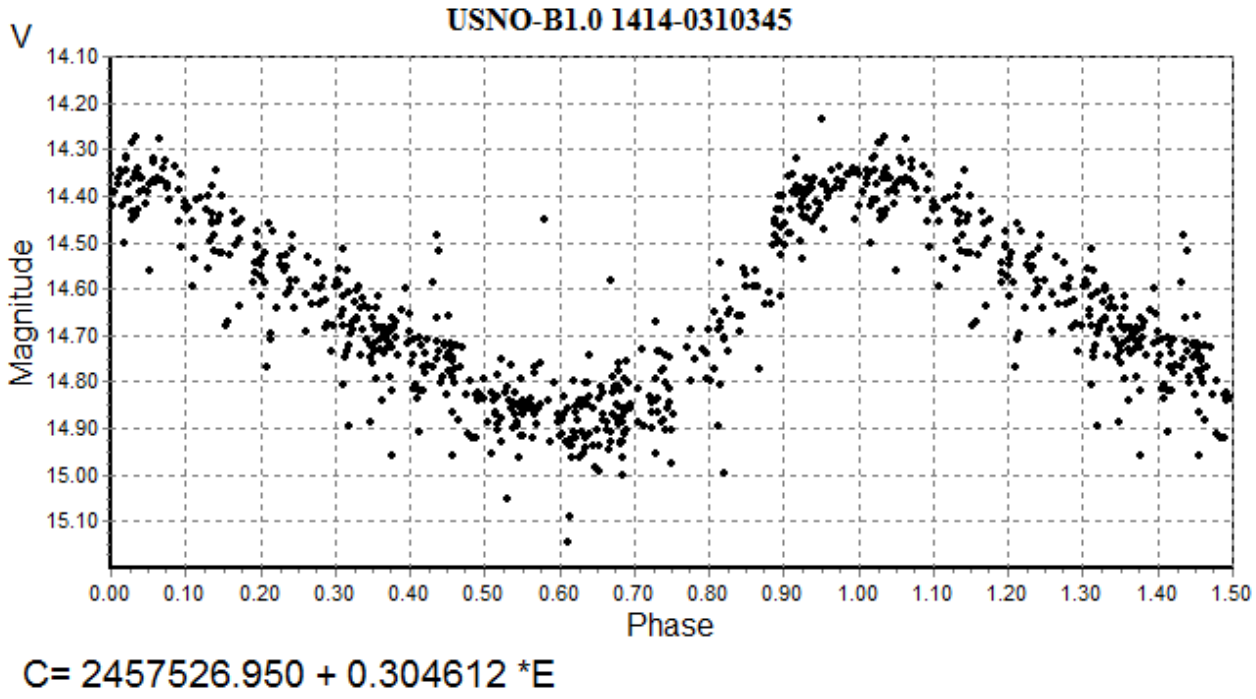

Fig.3 Phase Plot for USNO-B1.0 1414-0310345

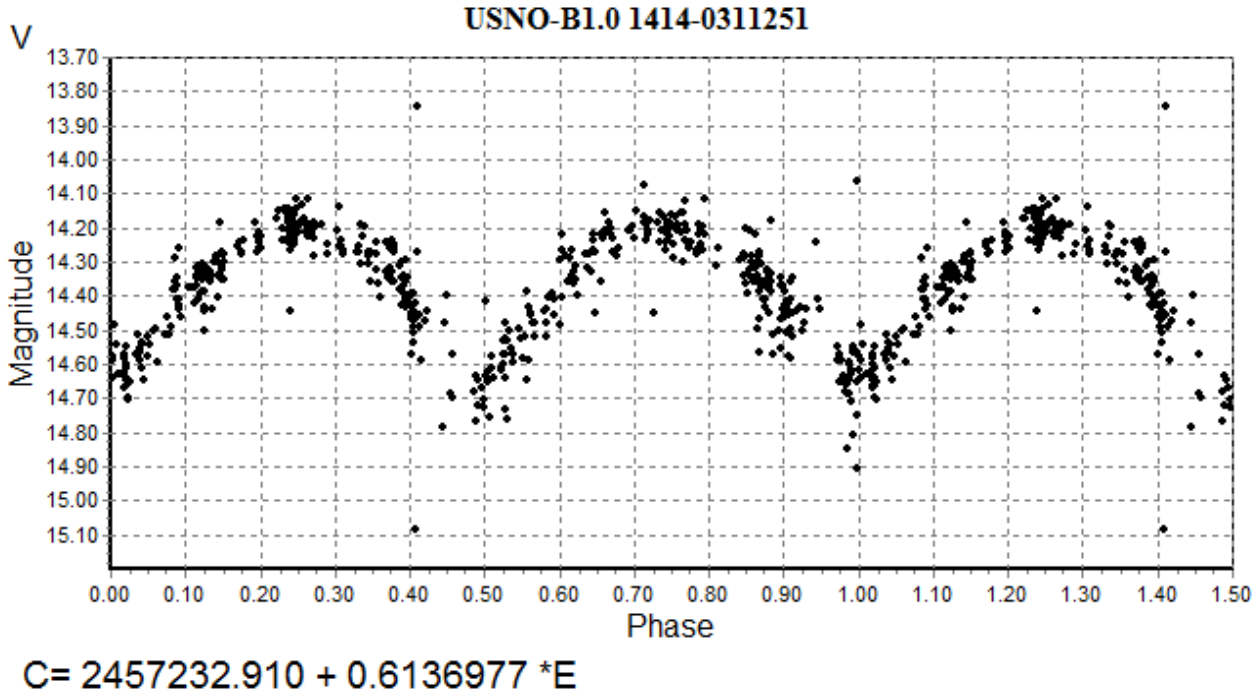

Fig.4 Phase Plot for USNO-B1.0 1414-0311251

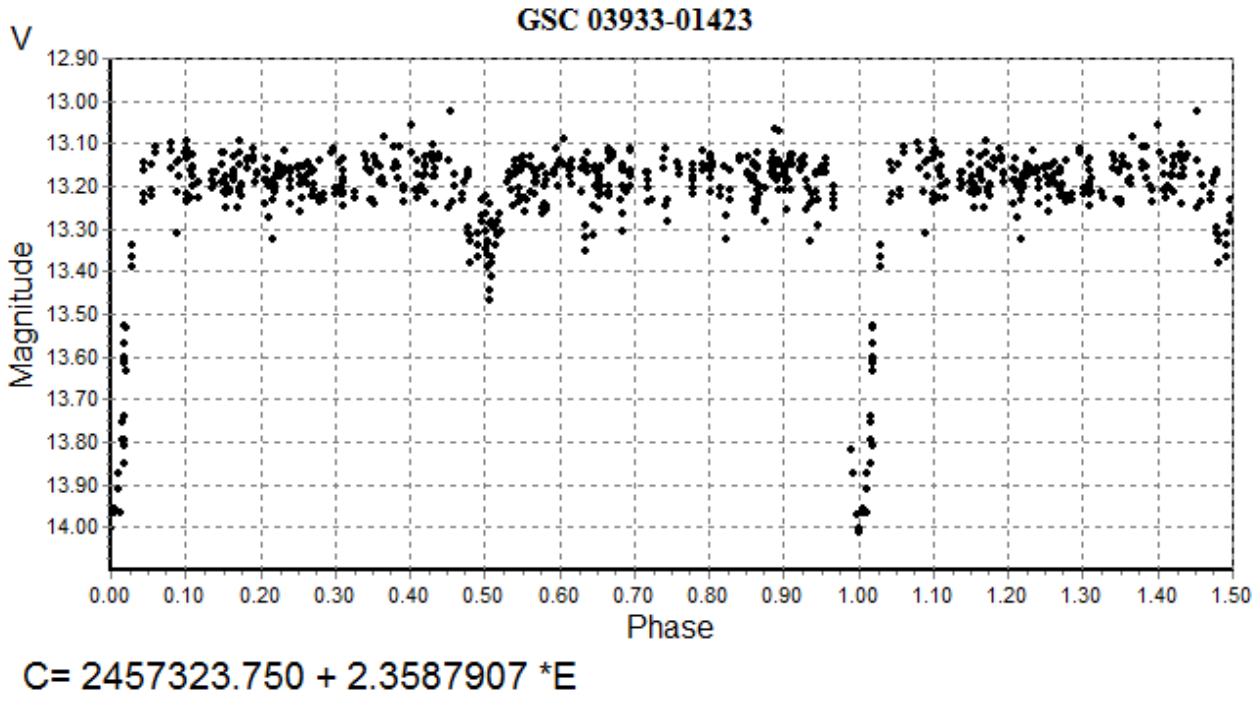

Fig.5 Phase Plot for GSC 03933-01423

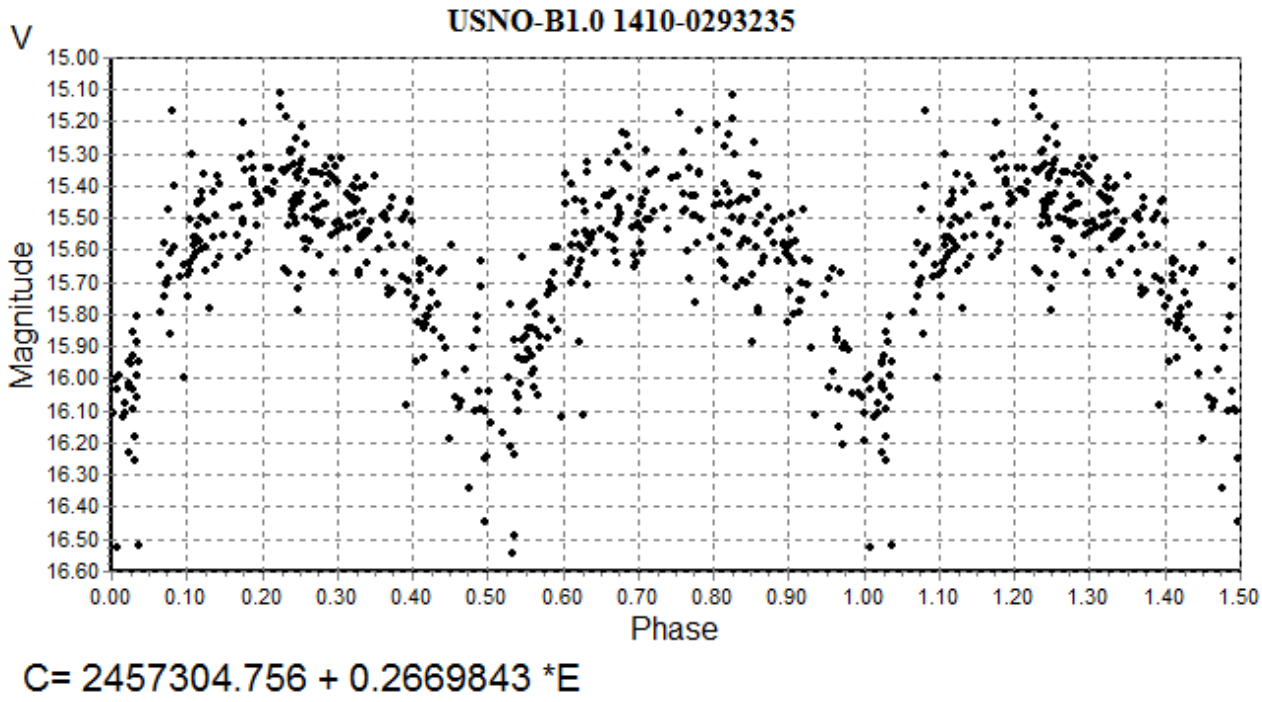

Fig.6 Phase Plot for USNO-B1.0 1410-0293235

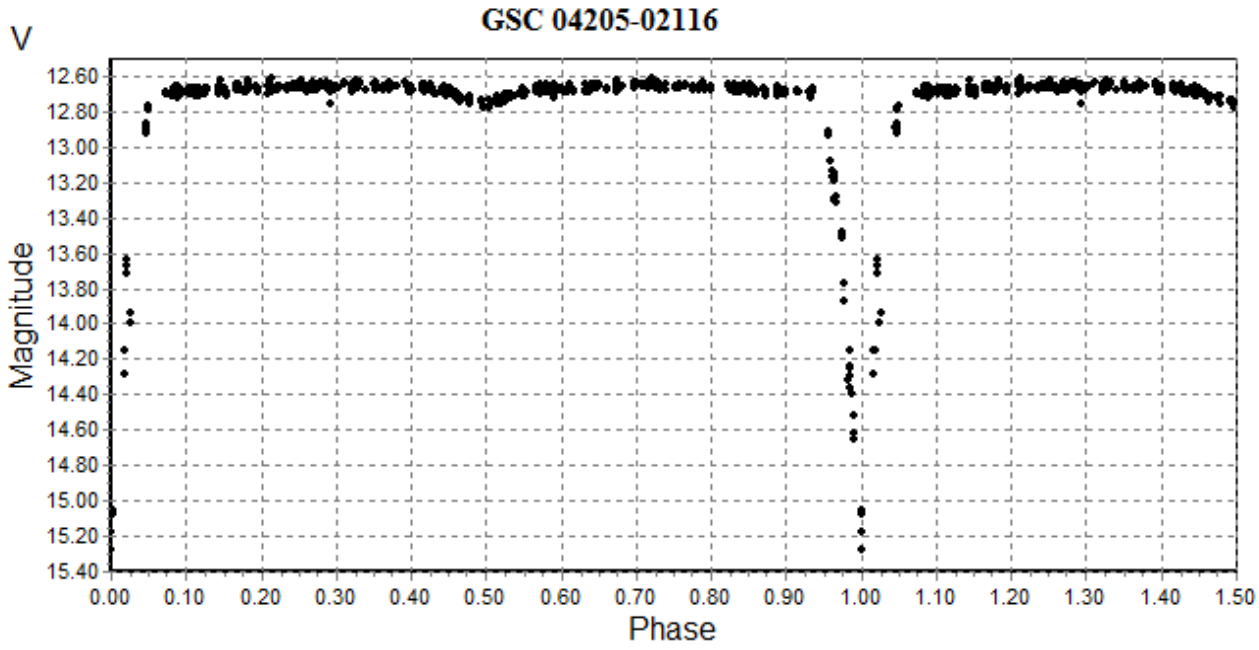

Fig.7 Phase Plot for GSC 04205-02116

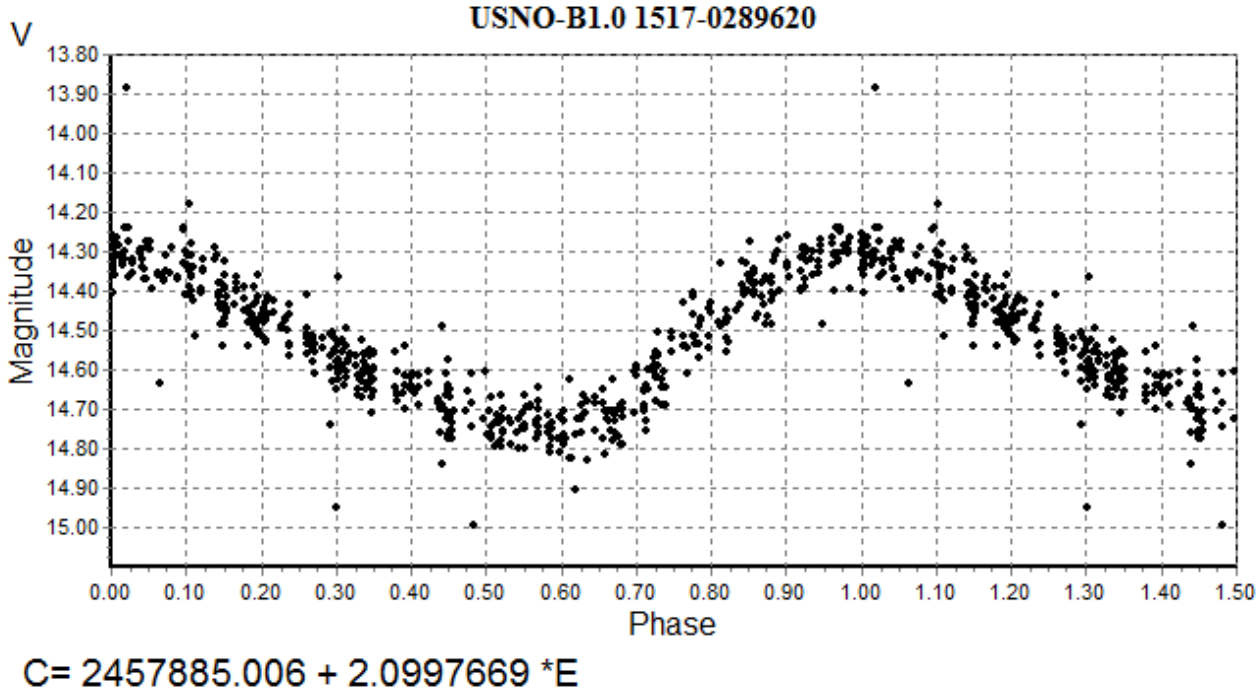

Fig.8 Phase Plot for USNO-B1.0 1517-0289620

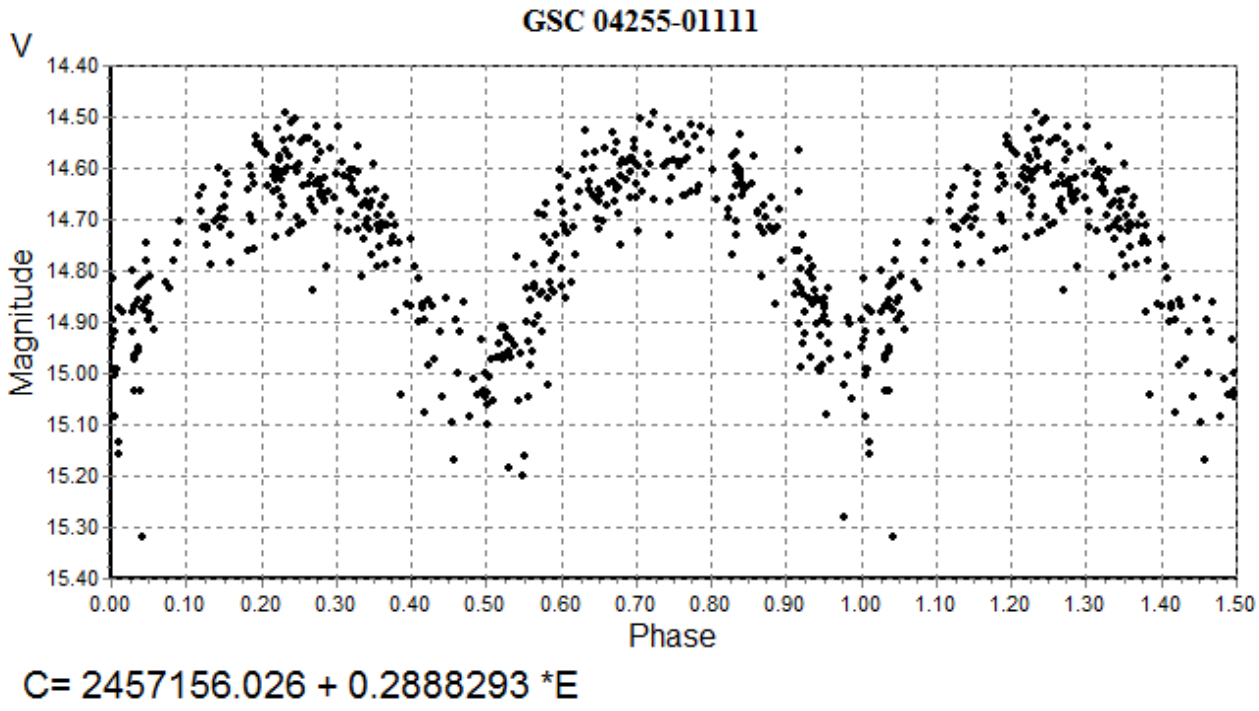

Fig. 9 Phase Plot for GSC 04255-01111

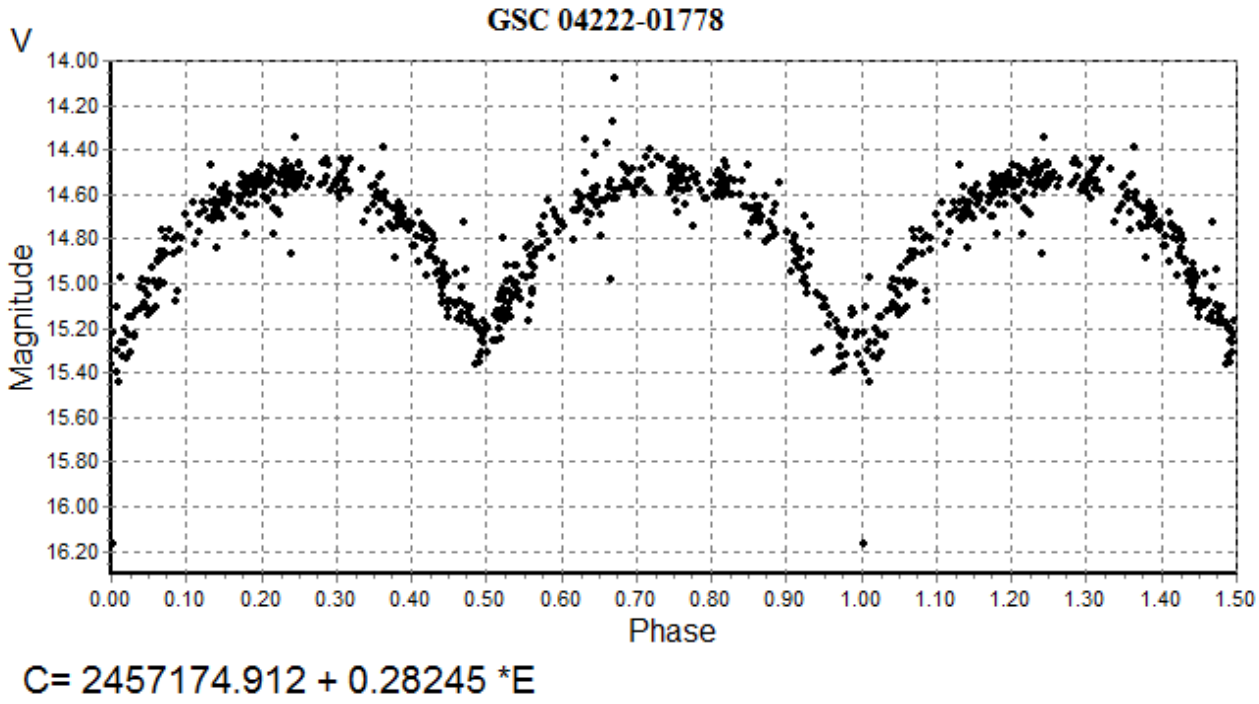

Fig.10 Phase Plot for GSC 04222-01778

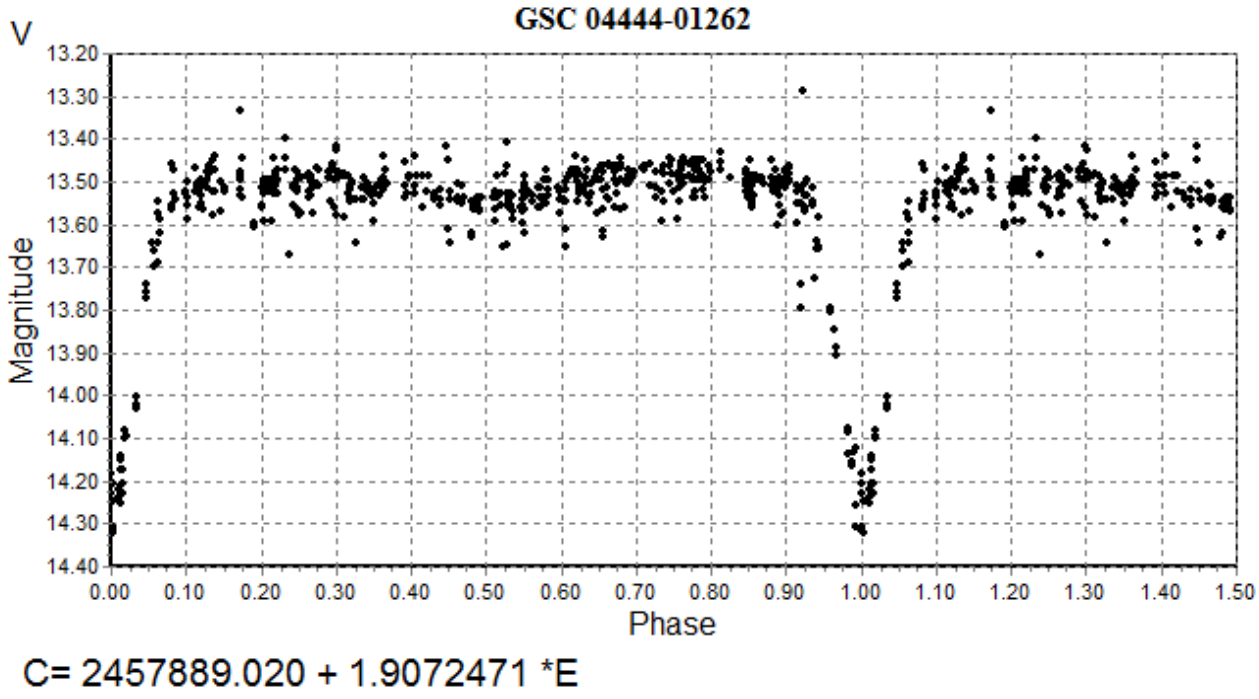

Fig.11 Phase Plot for GSC 04444-01262

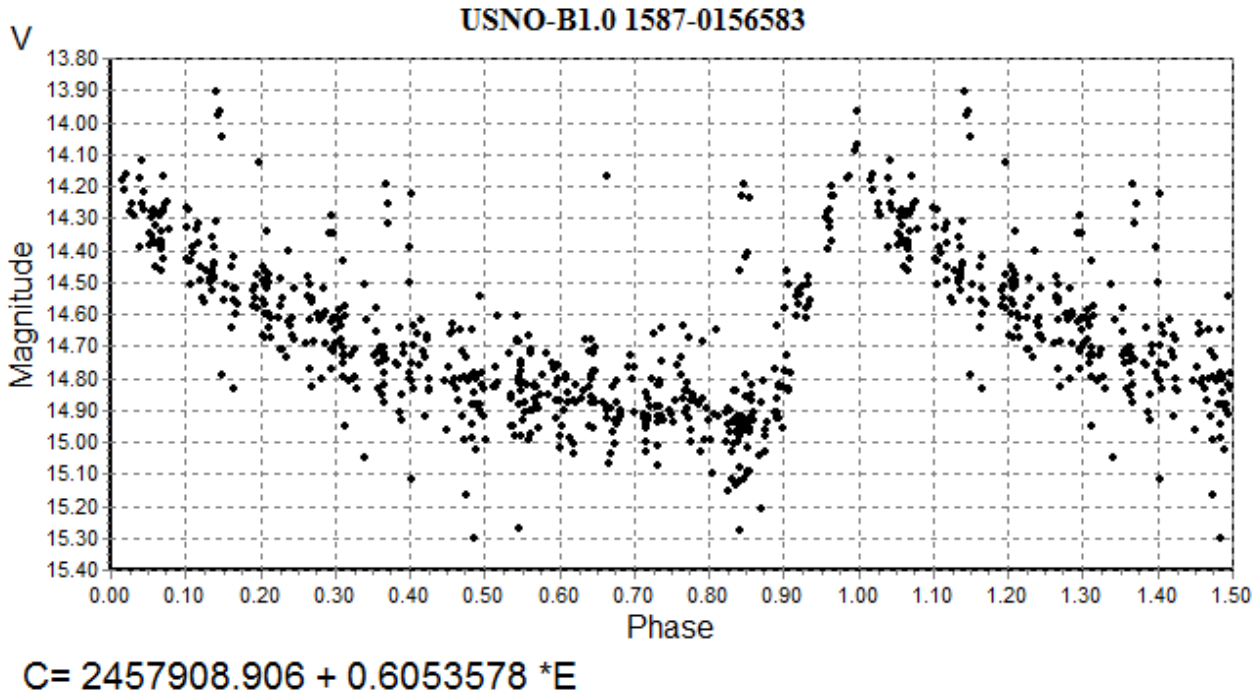

Fig.12 Phase Plot for USNO-B1.0 1587-0156583

Acknowledgements:

This publication makes use of the SIMBAD and VizieR databases operated at the Centre de Données Astronomiques (Strasbourg) in France, of the International Variable Star Index (VSX, AAVSO) and of the Two Micron All Sky Survey (2MASS), which is a joint project of the University of Massachusetts and the Infrared Processing and Analysis Center/California Institute of Technology, funded by the National Aeronautics and Space Administration and the National Science Foundation. Thanks Dr. Denisenko for the recommendations on using the method of requesting a TAP VizieR. I thank S.Dubrovski for the provided software.

References:

Monet, D., Bird, A., Canzian, B., et al., 1998, USNO-A2.0, A Catalog of Astrometric Standards (U.S. Naval Observatory, Washington, DC), Centre de Données Astronomiques de Strasbourg, I/252

C. S. Kochanek; et al., 2017, The All-Sky Automated Survey for Supernovae (ASAS-SN) Light Curve Server v1.0 , http://adsabs.harvard.edu/abs/2017arXiv170607060K

Ochsenbein F., Bauer P., Marcout J., The VizieR Database of Astronomical Catalogues (2000A&AS..143...23O)

Skiff B.A., 2009-2016, Catalogue of Stellar Spectral Classifications 2014yCat....1.2023S. Originally published in: Lowell Observatory (October 2014)

Skrutskie M. F., Cutri R. M., Stiening R., Weinberg M. D., Schneider S., Carpenter J. M., Beichman C.,Capps R., Chester T., Elias J., Huchra J., Liebert J., Lonsdale C., Monet D. G., Price S., Seitzer P., Jarrett T., Kirkpatrick J. D., Gizis J. E., Howard E., Evans T., Fowler J., Fullmer L., Hurt R., Light R., Kopan E. L., Marsh K. A., McCallon H. L., Tam R., Van Dyk S., Wheelock S., 2006, The Two Micron All Sky Survey (2MASS), AJ, 131, 1163 (2006AJ....131.1163S)

Watson C. L., 2006, The International Variable Star Index (VSX) (2006SASS...25...47W)