

BAAVSS Binocular Section

Shaun Albrighton

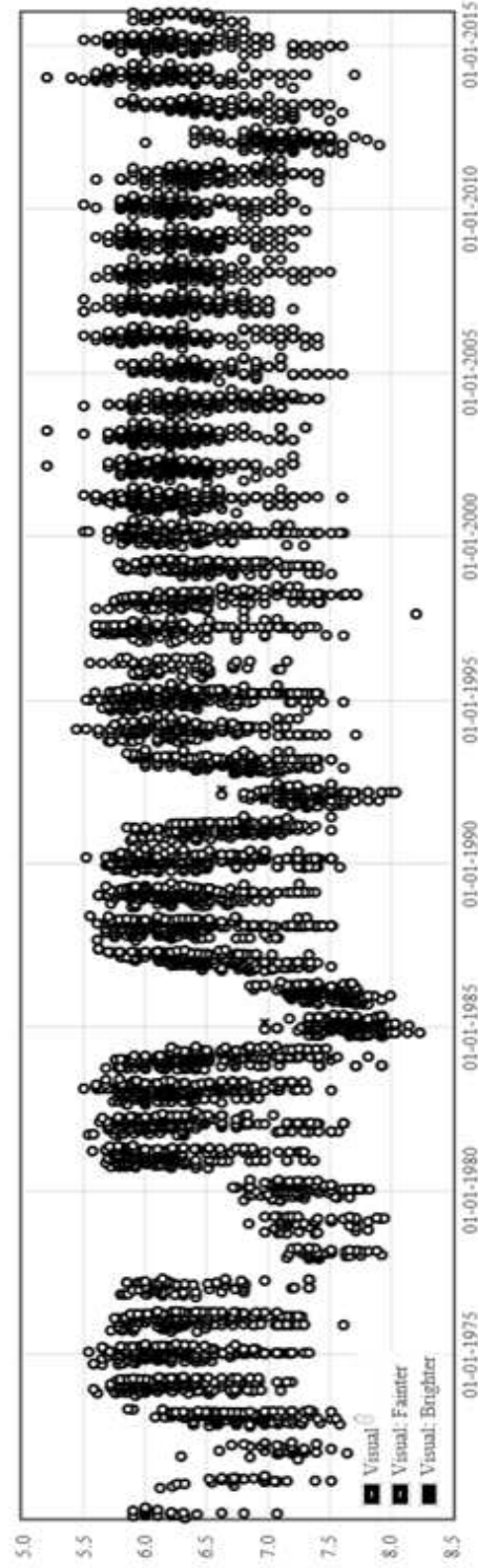
Possible additions to current Binocular Program

- A number of stars have been removed from the program due to no or very small variations.
- Only a few new stars have been added in return.
- Larger binoculars now readily available.
- Results from Hipparchus have yielded new stars for possible inclusion.

Proposed additions to binocular program

Star	RA			Dec			Range	Period	Type	Hp
V370 And	1	58	44.3	45	26	7	6.85-8.05	119	SRb	6.18-7.19
RU Aqr	23	24	24.3	-17	19	9	8.8-10.1	118.8	SRb	
TU Aur	6	35	37.1	45	37	23	9.8-10.6p	73	SRb	7.60-8.30
V428 Aur	5	31	26.7	38	19	11	6.6-7.2	89.2	RV	6.74-7.26
RS Cam	8	50	49.6	78	57	41	7.8-9.7	88.6	SRb	7.7-8.91
RV Cam	4	30	40.1	57	24	42	9.3-10.6p	101	SRb	
T Cnc	8	56	40.1	19	50	57	7.6-10.5	482	SRb	
SY CVn	13	10	20.3	47	2	28	11.0-12.0p		Lb	8.86-9.81
V770 Cas	1	39	51.7	60	54	8			Lb	7.45-8.13
GN Dra	17	21	1.3	66	27	22	9.05-10.5	154	SRb	9.05-10.07
Z Eri	2	47	55.9	-12	27	38	6.17-7.18	74	SRb	
VY Eri	3	41	16.0	-10	45	8	9.2-10.6p	102.5	SRb	
RV Hya	8	39	43.8	-9	35	13	7.1-8.58	1	SRb	7.03-7.56
FF Hya	10	37	51.8	-12	1	15	8.2-10.3	85	SRb	
Z Leo	9	52	8.4	26	54	23	9.9-11.5p	56.83	SRb	
FY Lib	14	57	46.5	-12	25	15	6.5-7.78	179.7	SRb	
V352 Ori	6	1	46.9	-2	21	14	6.9-8.2	118.6	SRb	
PV Peg	22	23	56.4	31	15	42	6.6-7.7	520	SRb	6.55-7.42
SW Per	4	10	51.9	42	12	35	7.8-9.2	78.5	SRb	8.33-8.77
RT Psc	1	13	47.9	27	7	59	8.2-10.4p	70	SRb	7.93-8.74
Y UMa	12	40	21.3	55	50	48	7.7-9.2	168	SRb	
RZ UMa	8	10	59.7	65	13	22	9.7-11.9p	115	SRb	8.45-9.13
FY UMa	9	6	8.7	64	46	46			SRb	9.04-9.80
IW Vir	11	37	48.0	4	19	24			Lb	8.79-9.52
V336 Vul	19	34	41.9	23	53	22	7.6-9.2	131.6	SRb	

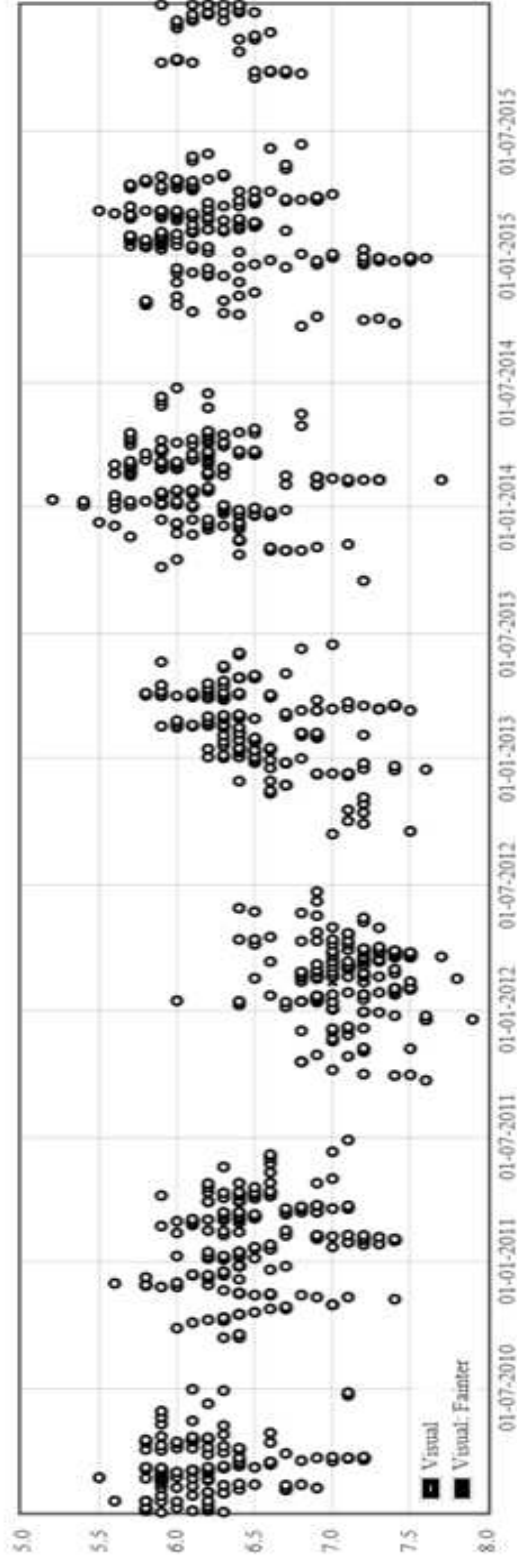
Light Curve for U MON



Symbol Key: Crosses = Negative observation, Triangle = Brighter than, Otherwise: Circle = Visual, Diamond = CCD, Square = Everything else

Contributors: A B Scott, A J Hollis, A K Porter, A M Savill, A Neale, A W Jones, B H Granito, B J Beesley, B Jobson, B MacDonald, B R M Munden, C Henshaw, C J Fisher, D A Rothery, D E Beesley, D Gavine, D Griffin, D Hufton, D Loughney, D M Swan, D R B Saw, D Storey, D Stott, E H Collinson, E J W West, E Yusuf, F C Ventura, F D Chesterfield, G A V Coady, G H Spalding, G J Kirby, G K Broadbent, G M Hurst, G Pointer, G Poyner, G Stefanopoulos, H C Williams, H W S Smith, I A Middlemist, I H Stanley, I P Nartowicz, J A Bailey, J C Smith, J Cheney, J D Shanklin, J E Isles, J E S Singh, J Meacham, J S Day, J Simpson, J Thorpe, J Toone, L R Matthews, M B Houchen, M Barrett, M D Taylor, M J Gainsford, M J Ring, M Peel, N F H

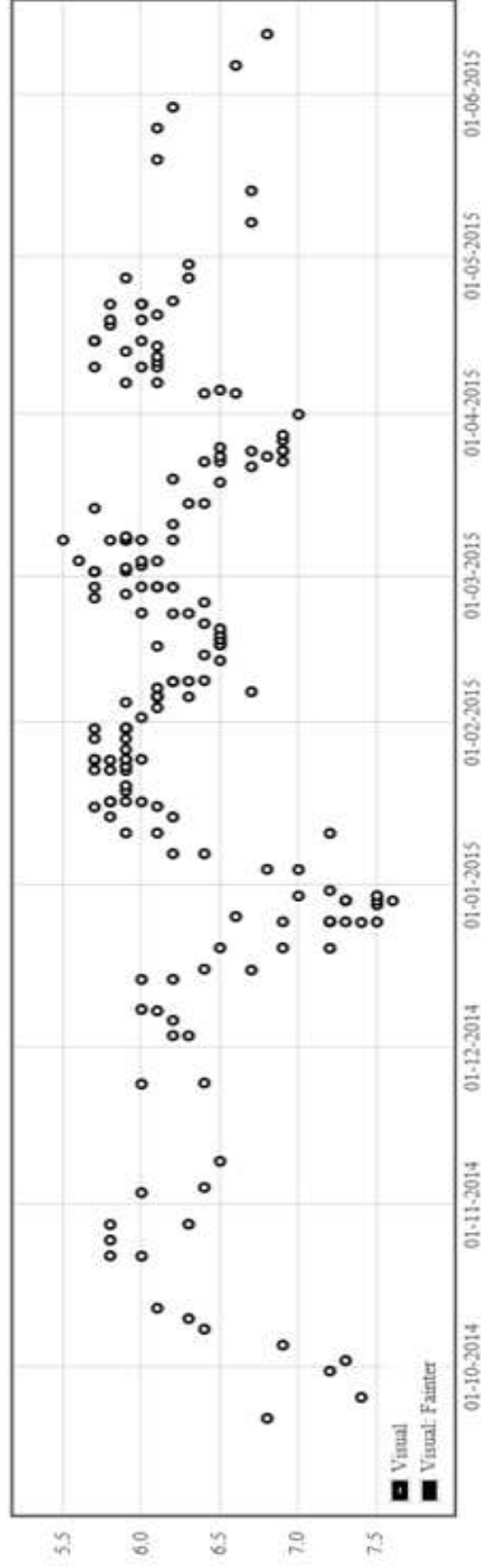
Light Curve for U MON



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Contributors: B J Beesley, B MacDonald, G Stefanopoulos, J D Shanklin, J Meacham, J Thorpe, J Toone, M Barrett, M J Gainsford, R A H Paterson, R B I Fraser, R C Dryden, S W Albrighton, T Markham

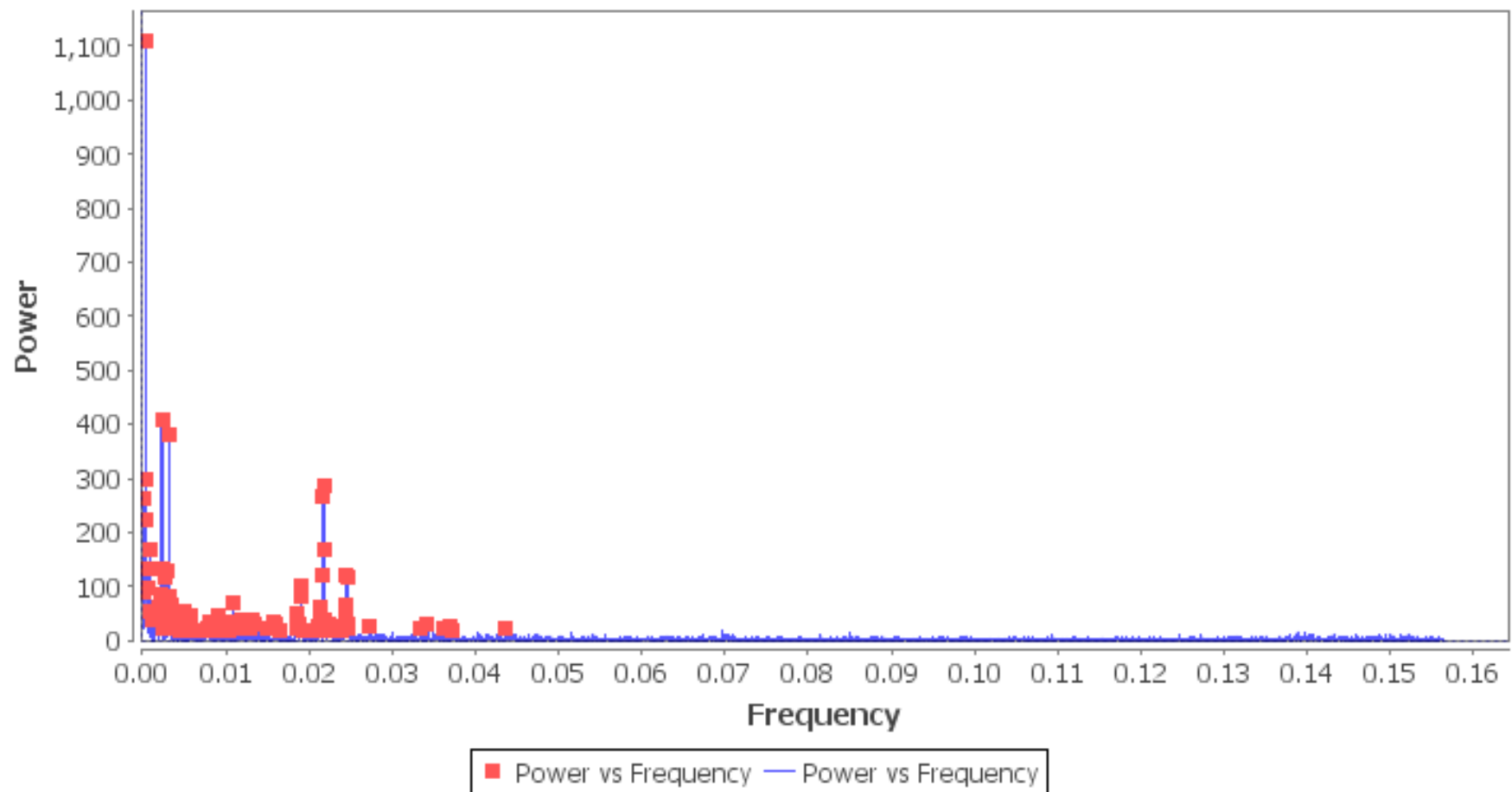
Light Curve for U MON



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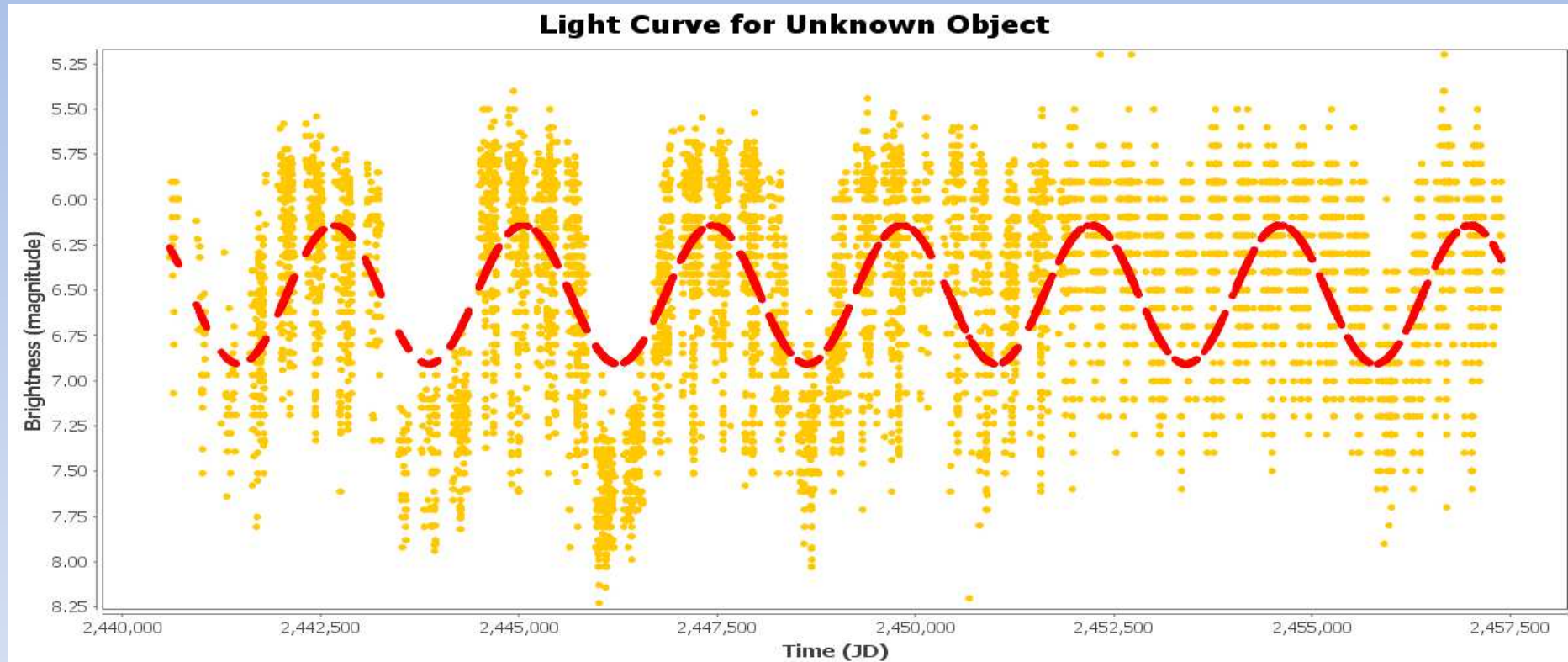
Period Analysis U Mon



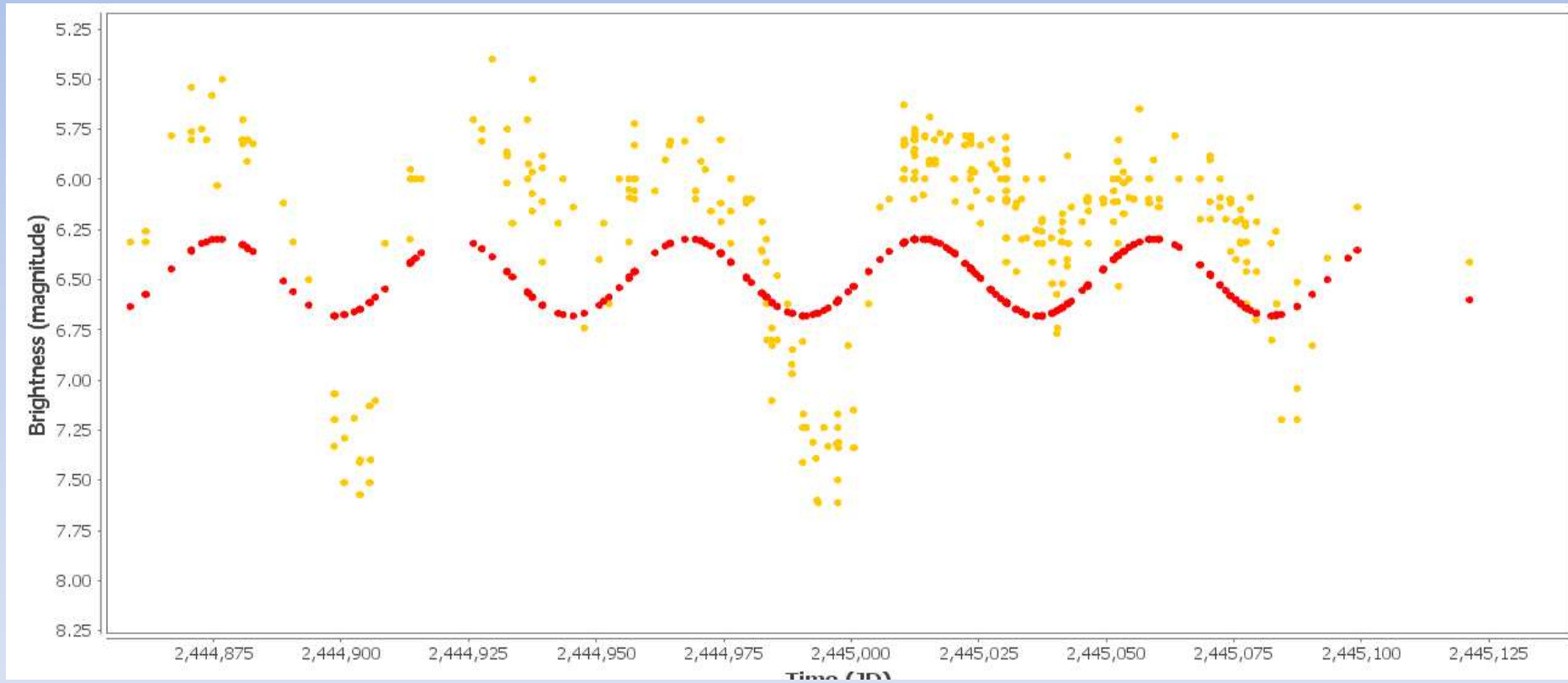
Period Analysis (Top Hits) U Mon

Power vs Frequency	Amplitude vs Frequency	Data	Top Hits
Frequency	Period	Power	Amplitude
0.000419	2388.19756	1110.535833	0.38298
0.002328	429.531935	407.214466	0.230043
0.003149	317.579463	378.980946	0.222466
0.000335	2985.246949	296.417734	0.192995
0.021874	45.71588	284.35274	0.191695
0.021707	46.068626	265.10262	0.186404
0.000067	14926.234747	262.095221	0.182959
0.000502	1990.164633	223.994373	0.173255
0.000837	1194.09878	168.758621	0.148344
0.02179	45.891575	168.091909	0.149798
0.002395	417.517056	133.136255	0.130529
0.000703	1421.546166	131.383685	0.130859
0.003065	326.256497	130.494684	0.131067
0.002797	357.514605	128.368385	0.130532
0.021606	46.282898	121.175141	0.125875
0.024437	40.921822	120.849205	0.125394
0.024604	40.643253	116.711149	0.123239
0.002663	375.502761	115.135948	0.122284
0.019144	52.235292	99.049832	0.113776
0.000603	1658.470527	97.9522	0.112701
0.018977	52.696327	93.326094	0.111104
0.000201	4975.411582	89.45565	0.115655
0.002228	448.909316	86.664051	0.106826
0.003249	307.757417	81.112791	0.102525
0.019044	52.51094	80.983979	0.103282

U Mon Phase Plot 2388days



U Mon – Phase Plot 45.72d



U Mon

VSX

Type - RVb

Range - 5.45-7.67v

Period - 91.32d

BAA

Type - RVb

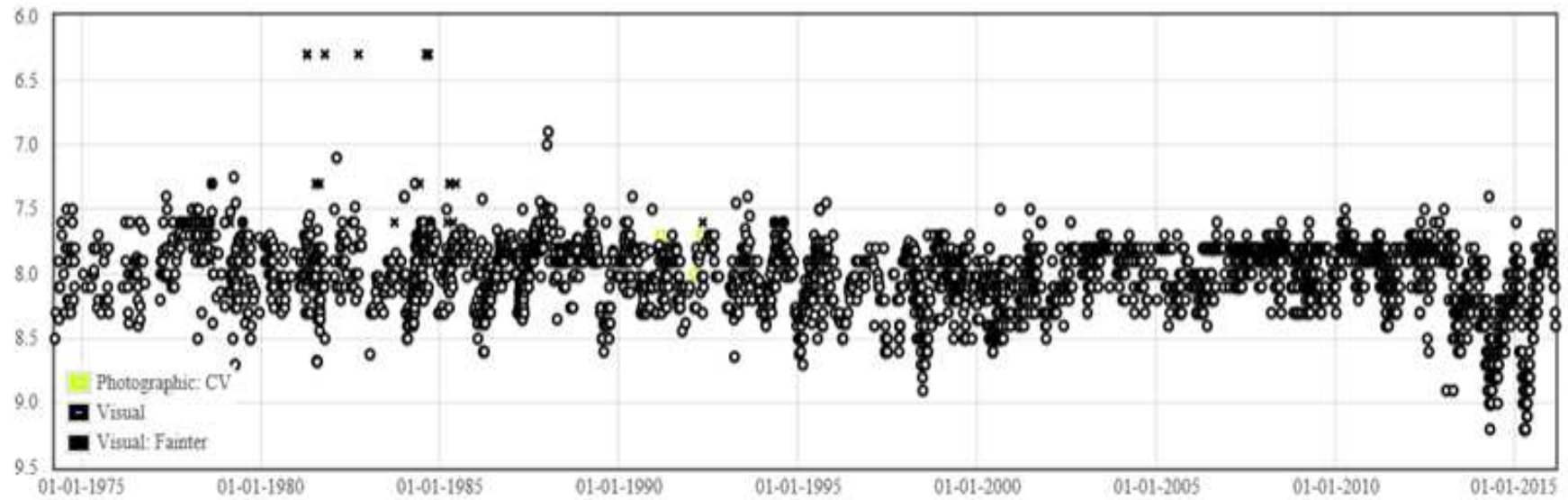
Range - 5.5-8.2

Period 1 - 91.42d

Period 2 - 2388d

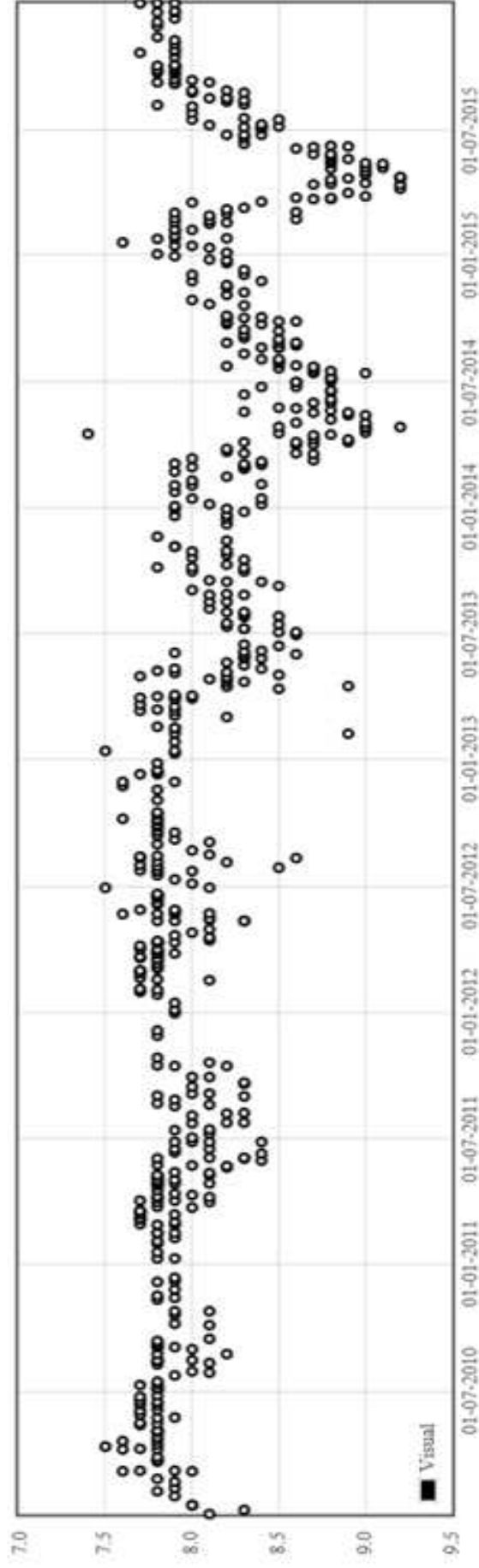
RW Boo

Light Curve for RW BOO

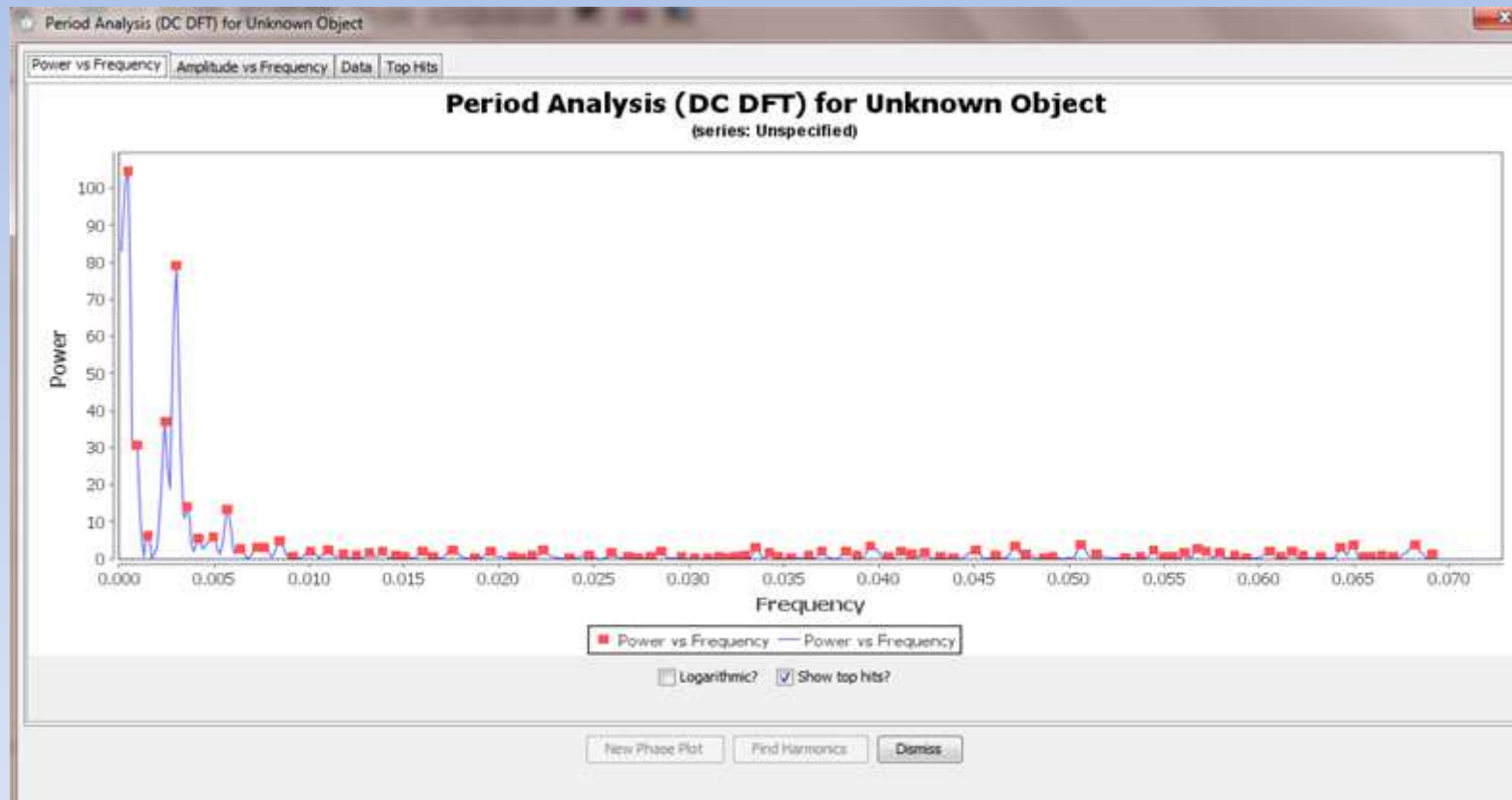




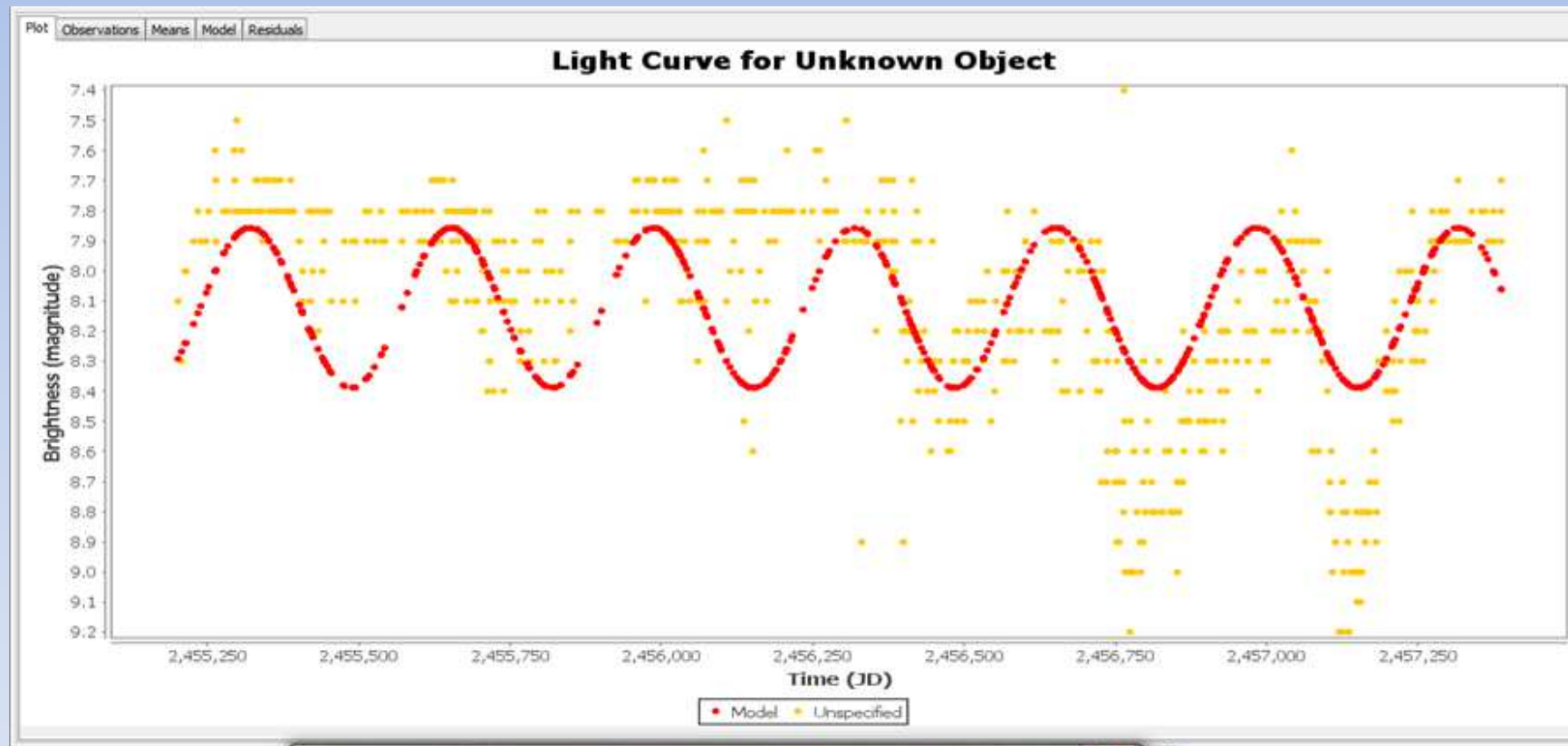
Light Curve for RW BOO



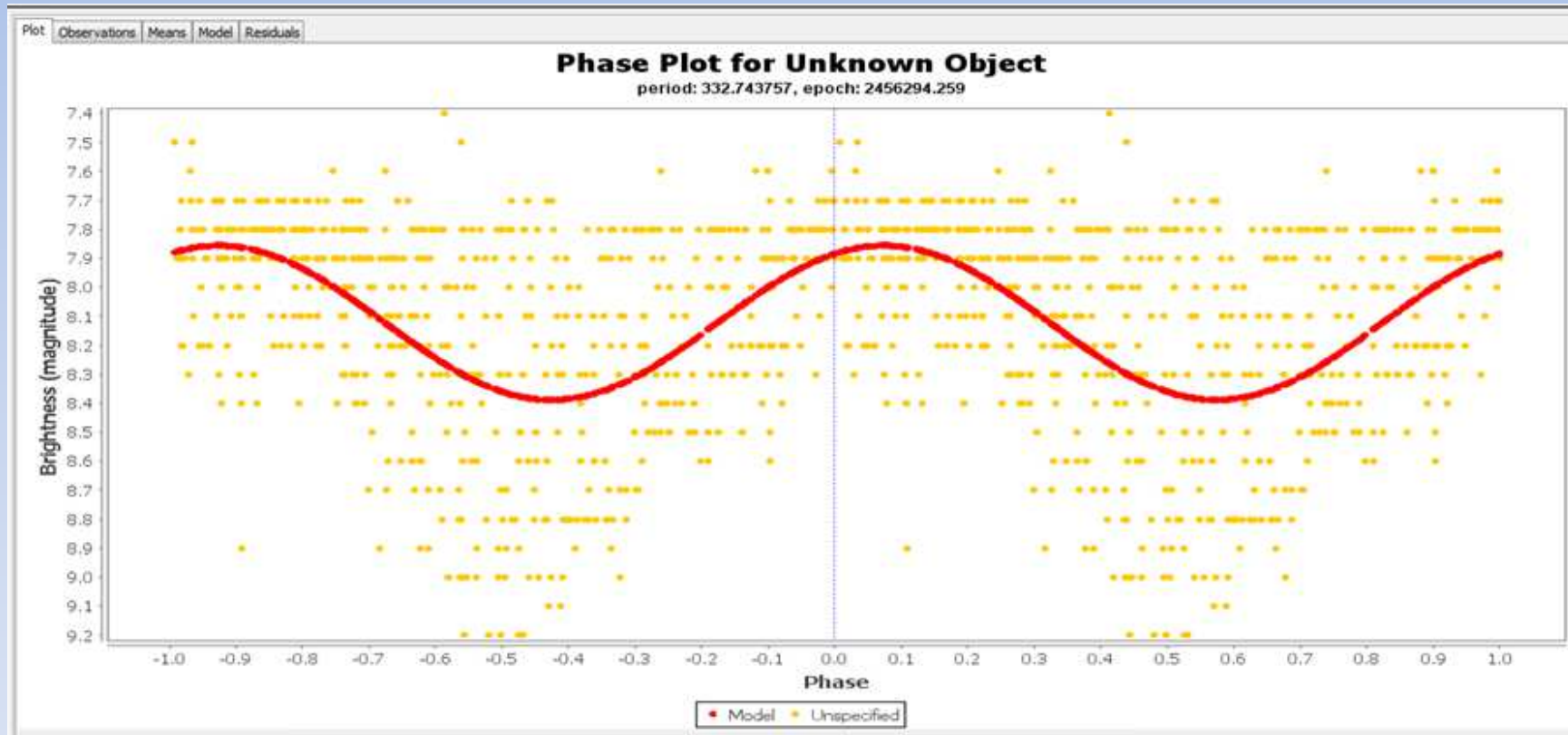
RW Boo – Period Analysis 2005-2015



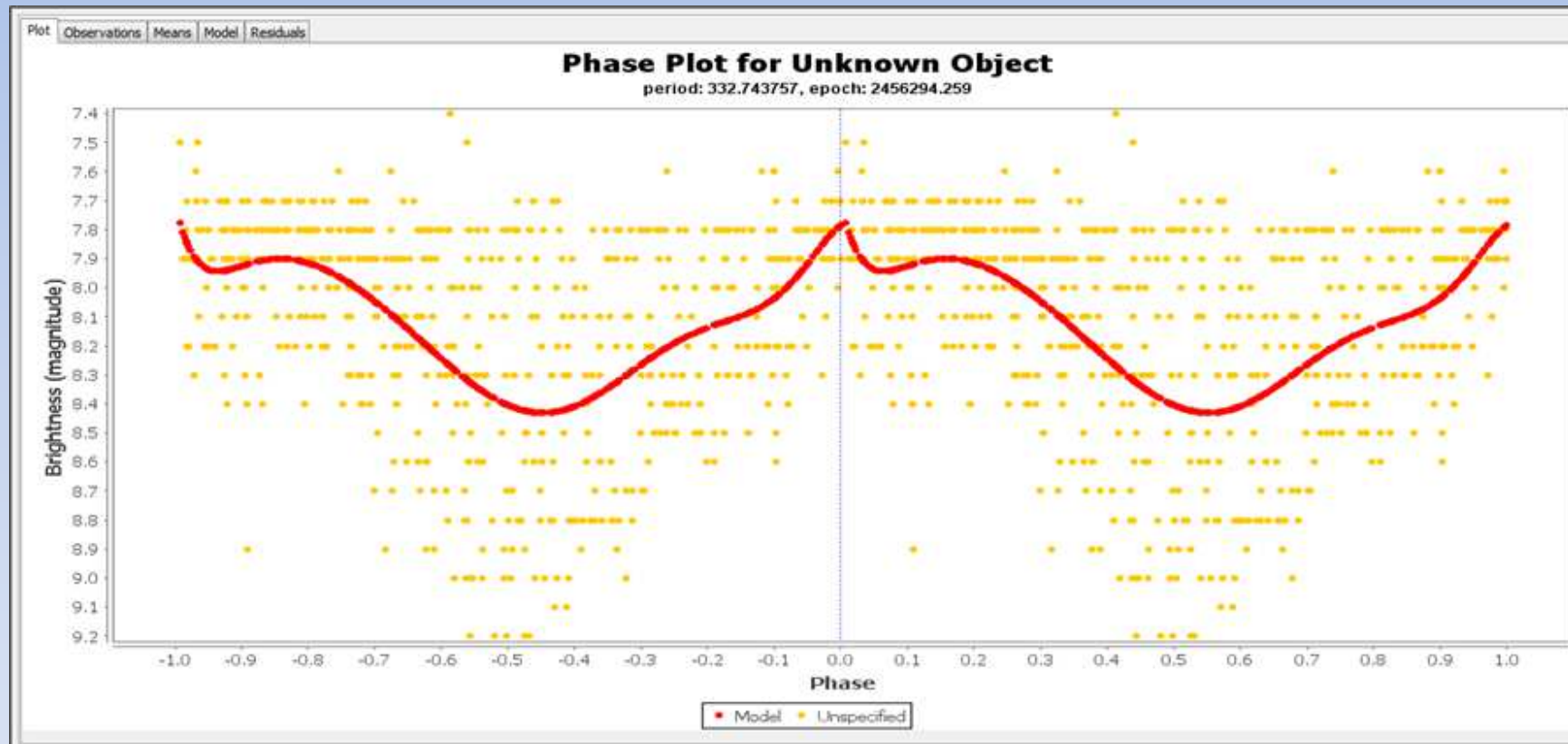
RW Boo –Phase Plot 332d



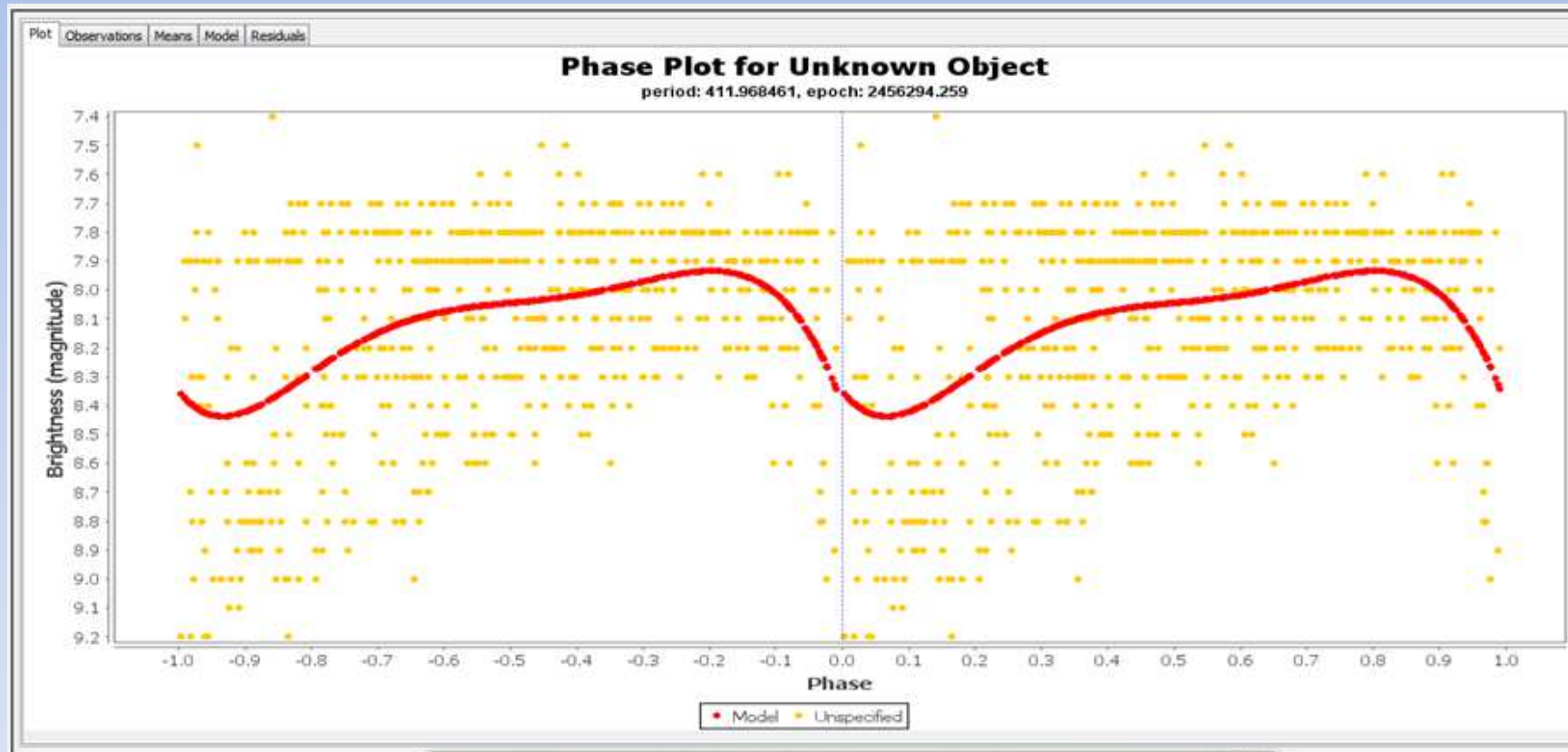
RW Boo combined phase Plot



RW Boo – Polynomial Fit 332d



RW Boo – Polynomial Fit 412d



RW Boo

GCVS

Type: SRb

Range: 7.0-9.0

Period: 209d

BAA

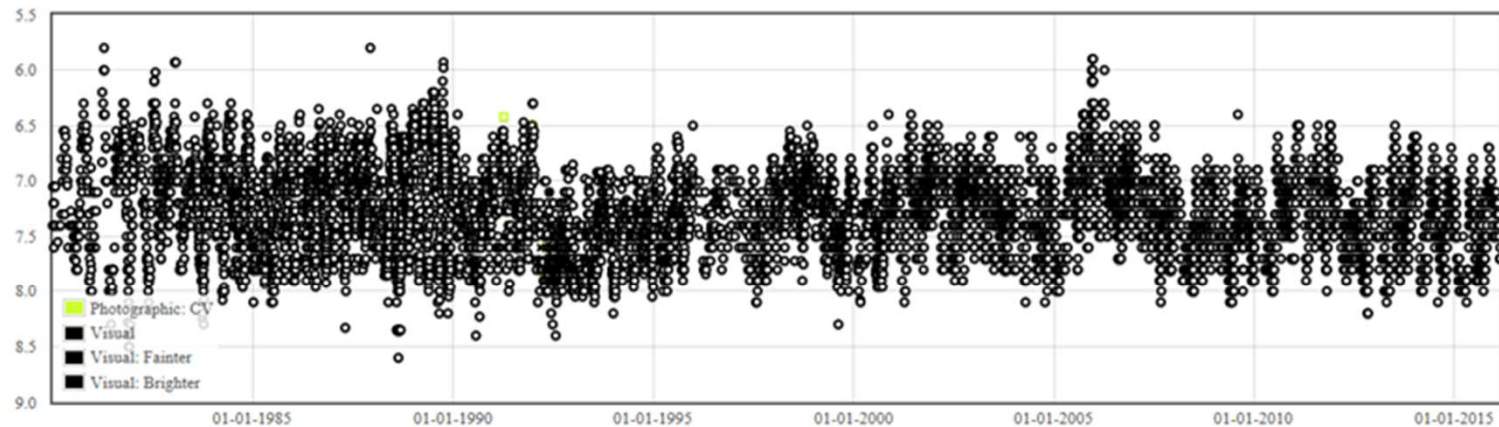
Type: SRb

Range: 7.4-9.2

Period: 410d/332d?

AF Cyg

Light Curve for AF CYG

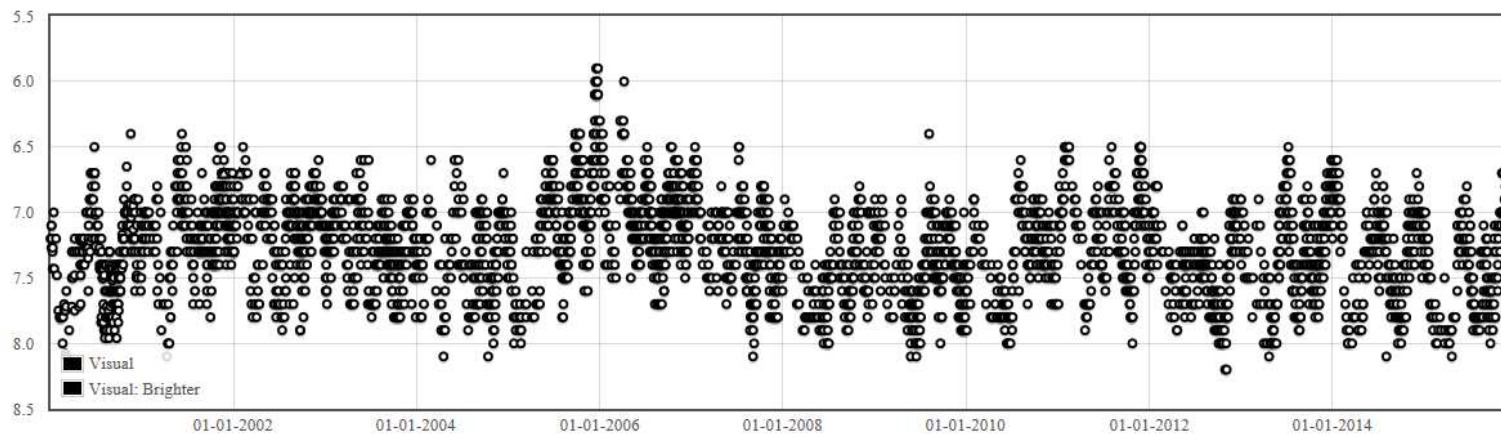


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Contributors: A Chapman, A Hutchings, A J Rogers, A Kucinskas, A Mark, A R Baransky, A Smeaton, B Espey, B H Granslo, B J Beesley, B J Mcinnery, B MacDonald, B O'Halloran, C D Devoy, C Henshaw, C M Allen, C Mann, D B Kazansky, D Gavine, D Griffin, D Herbert, D Hufton, D K Lloyd, D Loughney, D M Swain, D McAdam, D S Conner, D Storey, E Spooner, E Yusuf, G M Hurst, G Pointer, G Poyner, G Ramsey, G Stefanopoulos, I A Middlemist, I P Nartowicz, J D Shanklin, J E Isles, J Fraser, J S Day, J S Smith, J Simpson, J Thorpe, J Toone, J W Macvey, K West, L McCalman, M A Hather, M Barrett, M D Taylor, M Gill, M J Nicholls, M S Hoenig, N A Foster, N M Bone, P Bishop, P Craven, P J Charleton, R A Kendall, R B I Fraser, R Billington, R D Januszewski, R D Pickard, R J Livesey, R J Mckim, R N Goodger, R Pearce, R W Betts, R W Fleet, S Beaumont, S Elliott, S Hoste, S J Evans, S Jenner, S Johnston, S Koushiappas, S W Albrighton, S Woodbridge, T Hoare, T Jones, T Lubek, T Markham, T Tanti, T Vale, V G Mormyl, W J Worraker, W W Worraker

AF Cyg 2000 - 2015

Light Curve for AF CYG



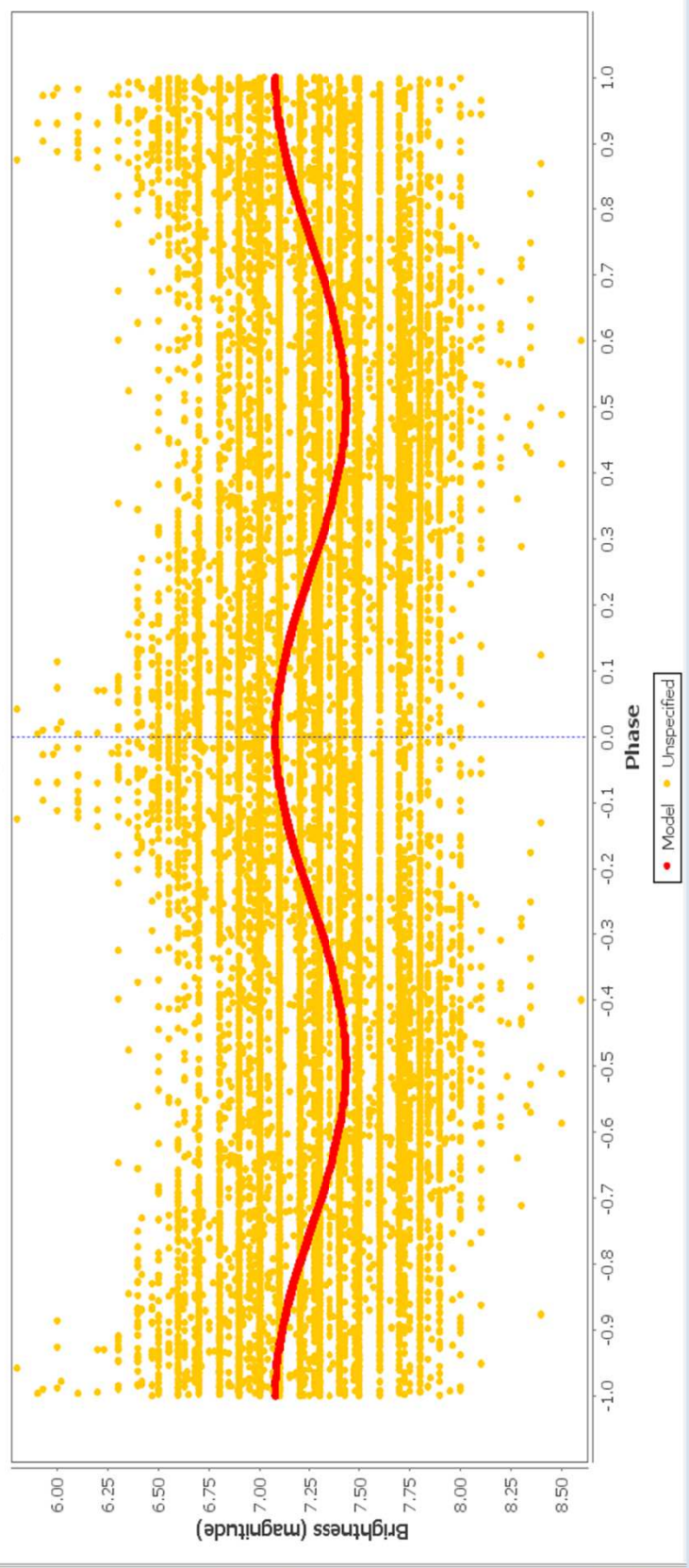
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Contributors: A R Baransky, B H Granslo, B J Beesley, B MacDonald, C Henshaw, C M Allen, C Mann, D Gavine, D Griffin, D Loughney, D Storey, E Yusuf, G M Hurst, G Stefanopoulos, I A Middlemist, J D Shanklin, J S Day, J Simpson, J Toone, L McCalman, M A Hather, M Barrett, N A Foster, N M Bone, P Bishop, P J Charleton, R B I Fraser, R J Livesey, R Pearce, S Jenner, S Johnston, S W Albrighton, T Hoare, T Jones, T Markham, T Vale, W J Worraker, W W Worraker

Plot Observations Means Model Residuals

Phase Plot for Unknown Object

period: 93.983374, epoch: 2450814.349



AF Cyg

VSX

Type: SRb

Range: 6.4-7.7v

Period: 92.5d

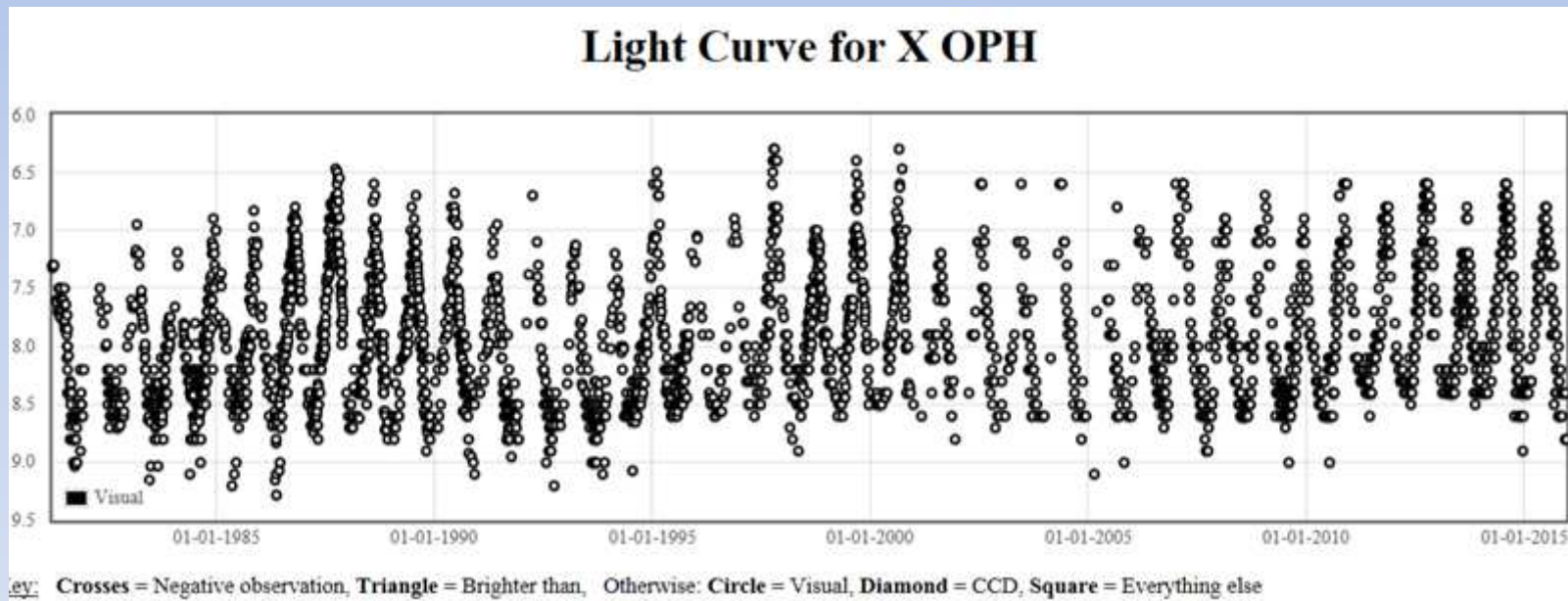
BAA

Type: SRb

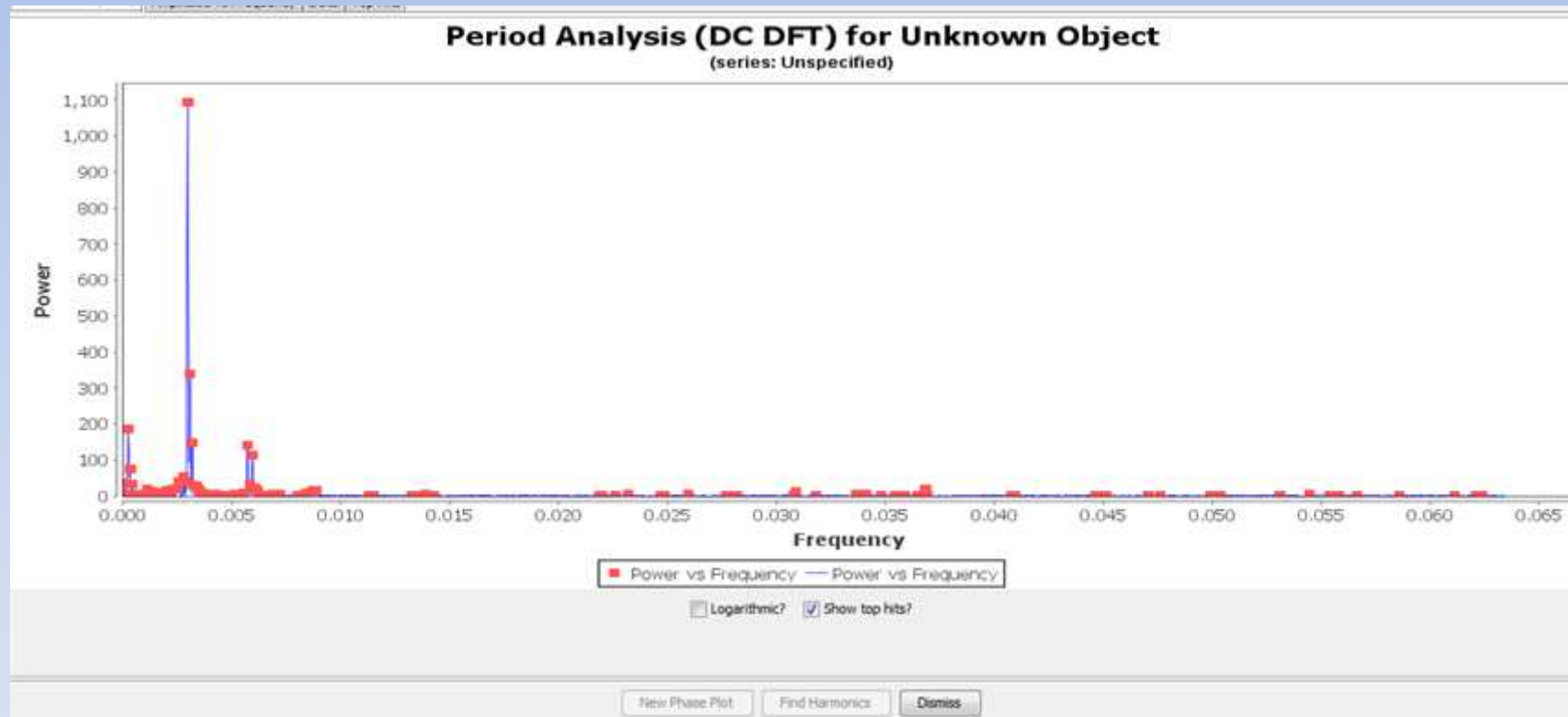
Range: 6.2-8.3

Period: 94d

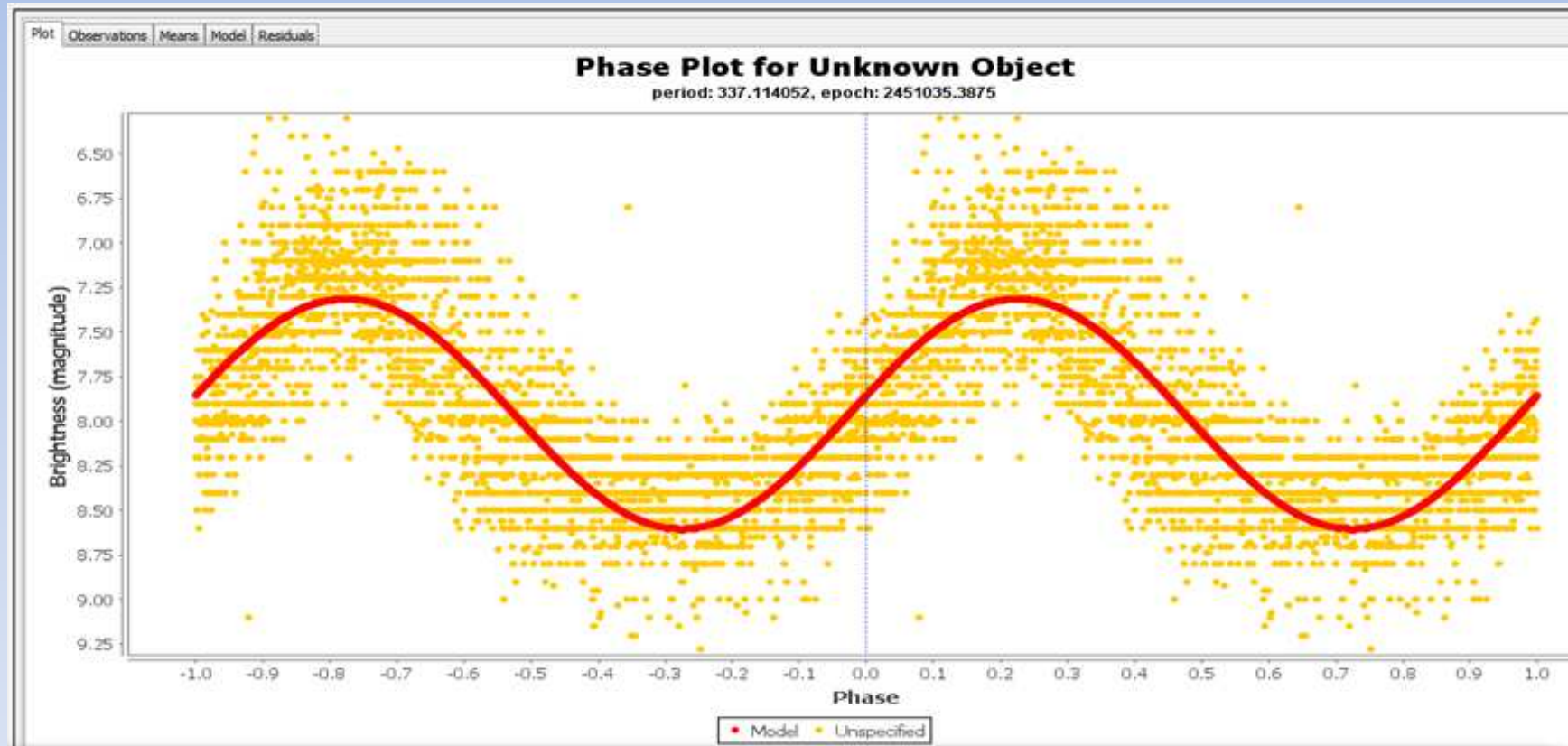
X Oph - Light Curve 1980-2015



X Oph – Period Analysis



X Oph – Phase Plot 337d



X Oph

VSX

Type: M

Range: 5.9-8.6v

Period: 338d

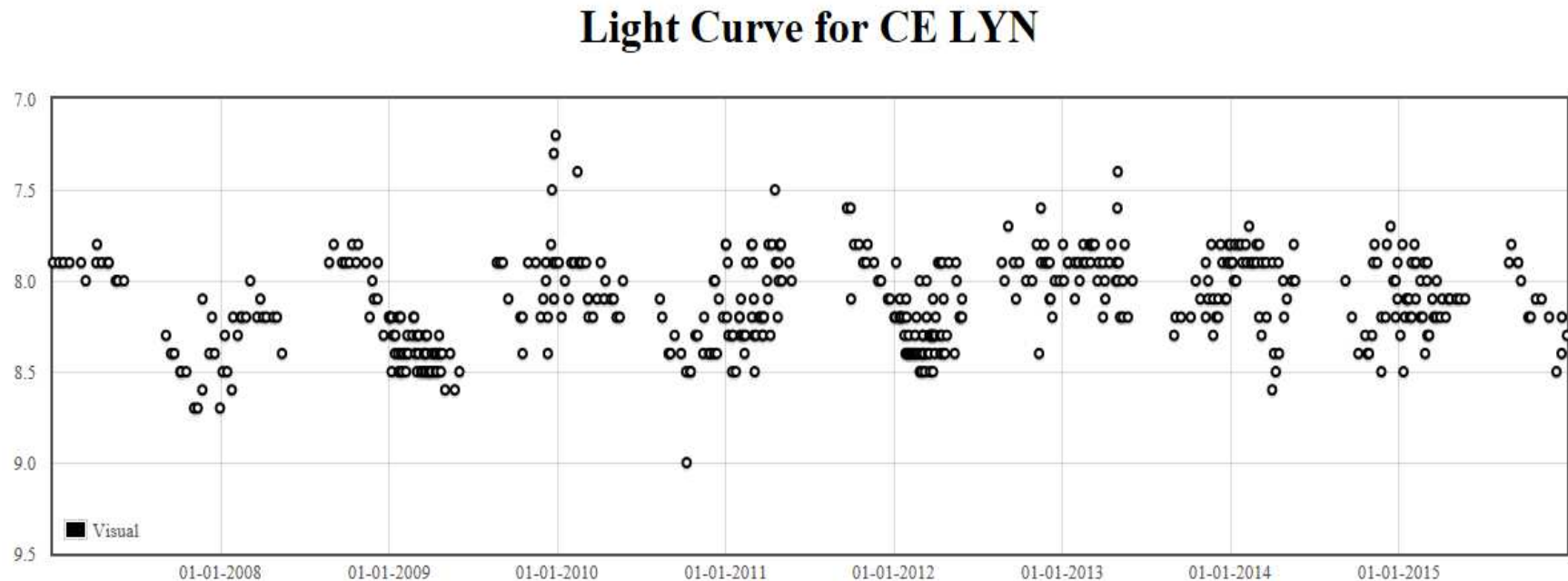
BAA

Type: M

Range: 6.5-9.0

Period: 337d

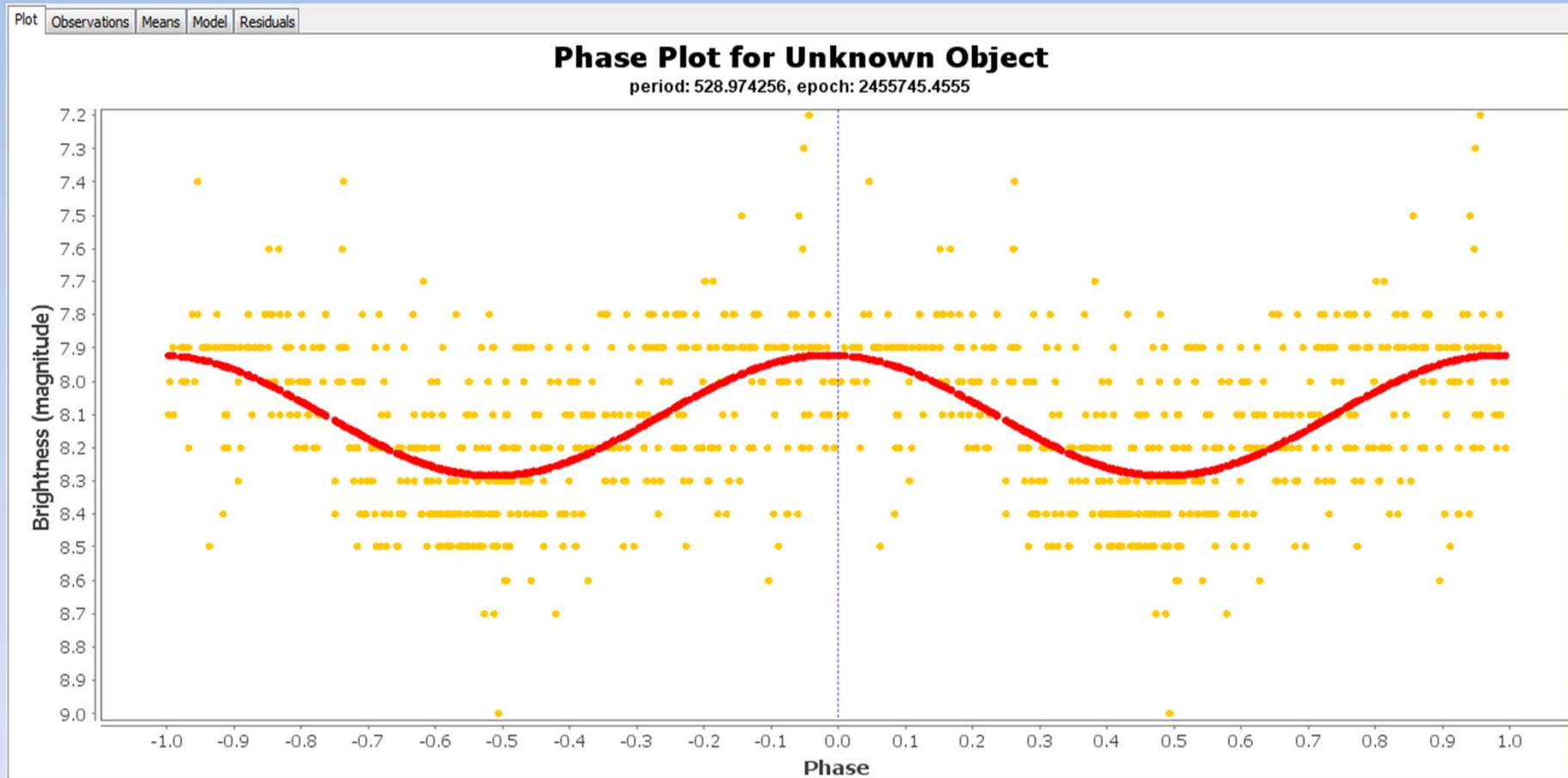
CE Lyn – Light Curve 2007 - 2015



Symbol Key: **Crosses** = Negative observation, **Triangle** = Brighter than, Otherwise: **Circle** = Visual, **Diamond** = CCD, **Square** = Everything else

Contributors: B J Beesley, B MacDonald, C M Allen, G Stefanopoulos, J Meacham, J Toone, M Barrett, R B I Fraser, R J Livesey, S W Albrighton

CE Lyn - Phase Plot 529 d



CE Lyn

VSX

Type: SRb

Range: 7.3-8.02v

(7.20-7.66Hp)

Period: u/k

BAA

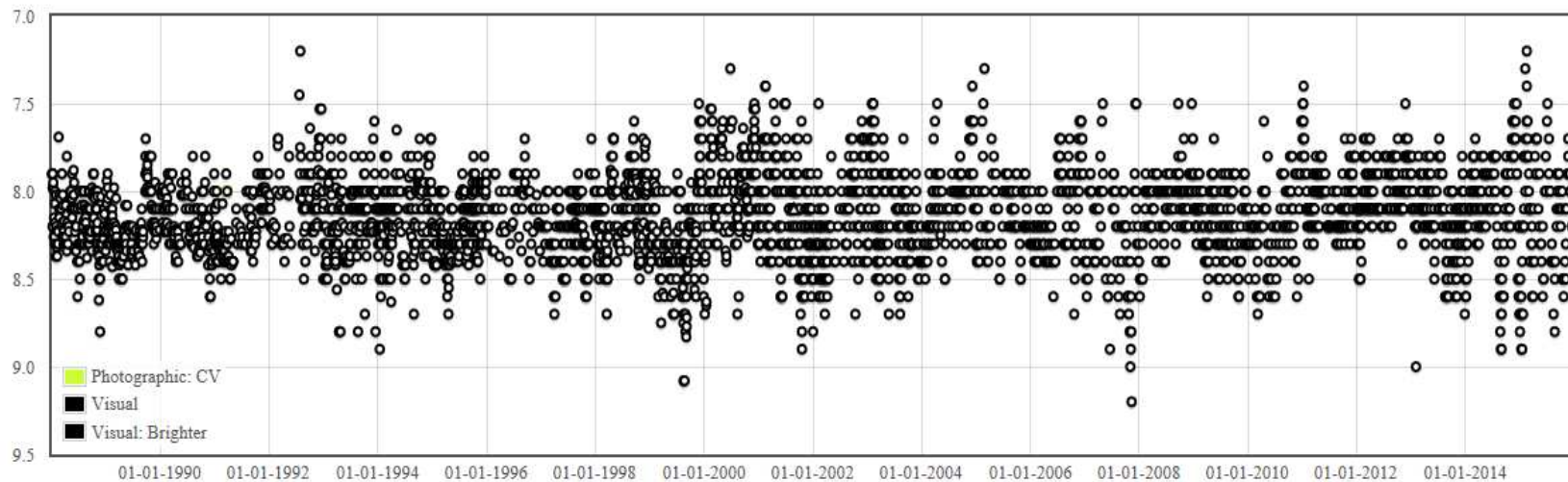
Type: SR

Range: 7.7-8.6

Period: 529d

V UMi – Light Curve 1988-2015

Light Curve for V UMI



Symbol Key: Crosses = Negative observation, Triangle = Brighter than, Otherwise: Circle = Visual, Diamond = CCD, Square = Everything else

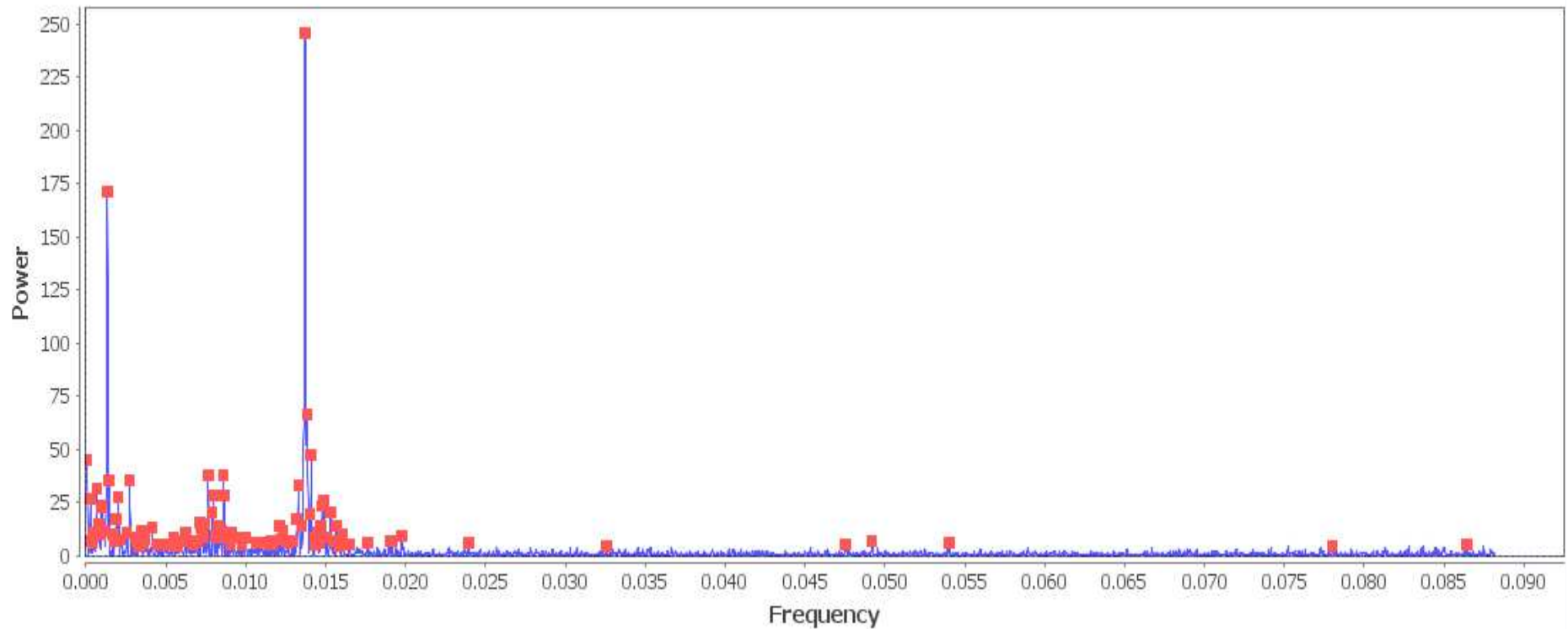
Contributors: A J Johnston, A R Baransky, A Smeaton, B H Granslo, B J Beesley, B MacDonald, B O'Halloran, C M Allen, C Mann, D Gavine, D Griffin, D M Swain, E Yusuf, G Pointer, G Ramsey, G Stefanopoulos, I A Middlemist, J E Isles, J S Day, J Toone, J Whinfrey, L McCalman, M A Hather, M Barrett, M D Taylor, M J Nicholls, N A Foster, P J Charleton, R B I Fraser, R C Dryden, R J Godden, R K Hunt, R Minty, S Johnston, S W Albrighton, S Woodbridge, T G Saville, T Hoare, T Lubek, T Markham, V G Mormyl

V UMi

Power vs Frequency | Amplitude vs Frequency | Data | Top Hits

Period Analysis (DC DFT) for Unknown Object

(series: Unspecified)



■ Power vs Frequency — Power vs Frequency

Logarithmic? Show top hits?

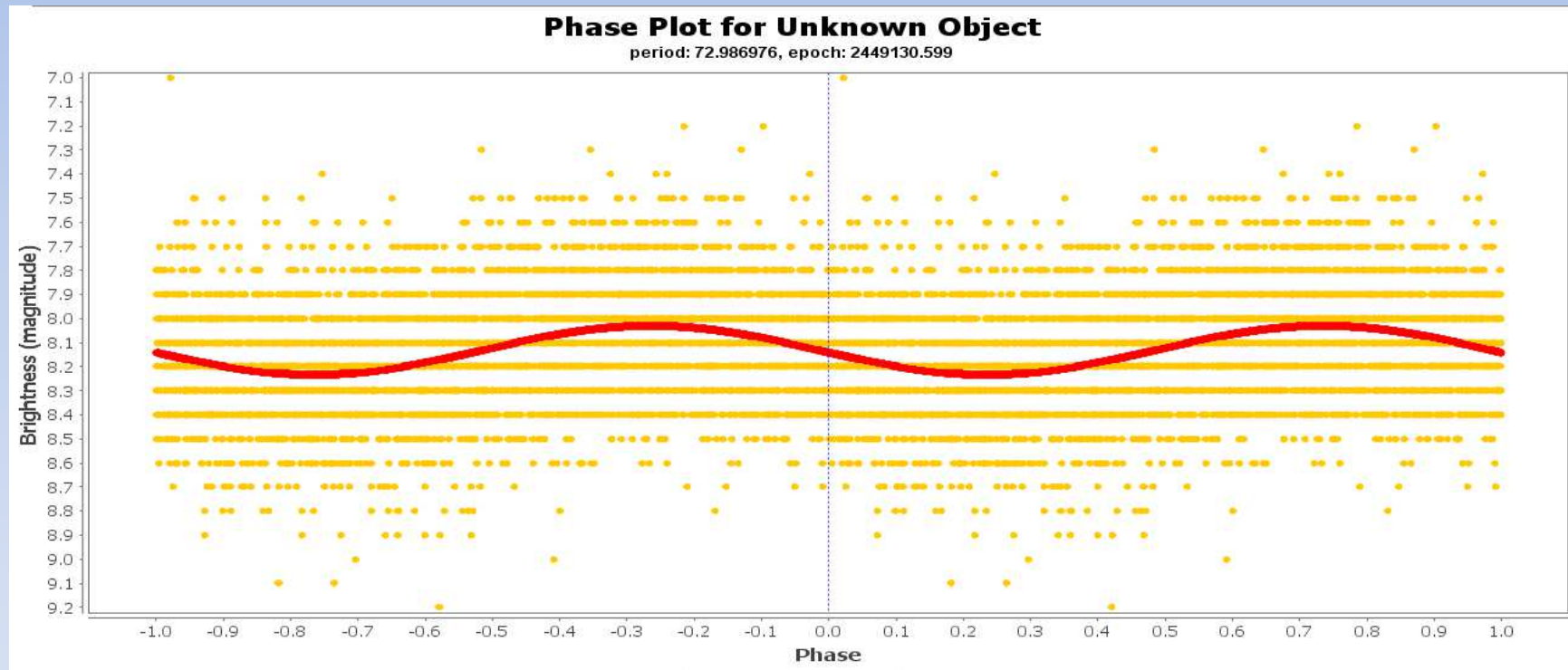
V UMi

Power vs Frequency	Amplitude vs Frequency	Data	Top Hits
Frequency	Period	Power	Amplitude
0.013701	72.986976	245.643961	0.10157
0.001321	756.7597	171.127585	0.084268
0.01384	72.253439	66.659217	0.052715
0.014084	71.004614	47.173134	0.044376
0.000052	19171.245728	45.119069	0.049832
0.008589	116.424569	38.159068	0.040018
0.007633	131.010791	37.546229	0.039827
0.001426	701.387039	35.499034	0.039126
0.002712	368.677802	35.316649	0.039128
0.013301	75.181356	33.334384	0.037387
0.000678	1474.71121	31.667293	0.037689
0.008641	115.721805	28.284946	0.034102
0.007963	125.575845	27.940546	0.034195
0.002017	495.808079	27.570173	0.034034
0.000296	3383.161011	26.827463	0.03284
0.014866	67.267529	26.148937	0.032955
0.014779	67.66322	23.580686	0.031531
0.001026	974.809105	23.381926	0.031139
0.000956	1045.704312	22.691808	0.030973
0.015318	65.282335	19.993895	0.028912
0.007876	126.961892	19.988207	0.028945
0.014014	71.356994	19.287434	0.02833
0.001895	527.648965	17.131614	0.026797
0.013197	75.775675	17.05545	0.026994
0.007111	140.620384	15.606153	0.025818
0.007442	134.377891	14.680836	0.024937
0.000782	1278.083049	14.649606	0.024681

Create Model CLEANest

New Phase Plot Find Harmonics Dismiss

V UMi



V UMi

VSX

Type: SRb

Range: 7.06-8.7v

Period: 73d

BAA

Type: SRb

Range: 7.5-8.8

Period: 73d