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UBVRI PHOTOMETRY OF AE URSAE MAIORIS AT KONKOLY OBSERVATORY (1974-1998)

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Abstract

During the years 1974-1998 UBVRI differential photoelectric photometry of the large amplitude Delta Scuti star AE UMa was carried out at Konkoly Observatory and a total of 6575 observations were collected, 1198 in the U, 1947 in the B, 1935 in the V, 784 in the R and 711 in the I colours. The observations are given in Tables 3-7. From the Konkoly photometry 69 new epochs of maximum light were determined. These are listed in Table 2 together with the 59 times of maximum light found in the literature.

INTRODUCTION

The variability of AE Ursae Maioris (=BV92=GC 02998-01063, $\alpha_{2000} = 9^{\rm h}36^{\rm m}53^{\rm s}.2$, $\delta_{2000} = 44°04'00''$) was discovered by Geyer *et al.* (1955). Götz and Wenzel (1961) classified the star's spectral type as A9. Tsesevich (1956) and Filatov (1960) observed the star visually and photographically, but neither of them was able to determine the type and correct value of the period of the variability. Later Tsesevich (1973) observed the star again visually and pointed out that the star belonged to the class of dwarf cepheids and had a period of 0.086017055 day. Tsesevich (1973) reported strong cycle-to-cycle variation of the light curve. He also investigated the star's light variation on old Moscow (Sternberg Institute) archive plates and determined the earliest known epoch of maximum light for the year 1937.

During the past 25 years the star was extensively observed by Broglia and Conconi (1975) and Rodríguez *et al.* (1992). Several times of maximum light were reported by the BAV group (Braune *et al.* 1979, 1982; Huebscher *et al.* 1985, 1992 and Agerer *et al.* 1999). The results of a new series of CCD measurements were summarized and ten accurate times of maximum light were listed by Hintz *et al.* (1997). The star was also observed by the Hipparcos (AE UMa=HIP 47181).

In order to investigate the star's light curve variation and its period changes we commenced the observations of AE UMa in 1974 and the first results were published in a short note (Szeidl 1974).

THE OBSERVATIONS

On the whole, 6575 observations have been collected at Konkoly Observatory during 41 nights from 1974 until 1998.

In the years 1974-1977 all the observations were obtained with the 60 cm telescope at Svábhegy near Budapest with the exception of the observations of two nights: 1974 Jan. 14/15=JD. 2442062 and 1974 March 21/22=JD. 2442128. (These observations were made with the 50 cm telescope at Piszkéstető mountain station.) An uncooled UBV photometer was used at the Newtonian focus of the 60 cm telescope. The photometer employed an EMI 9052 B multiplier with Schott filters BG12+GG13 in B and GG11 in V.

Since the night sky near Budapest was too bright, the observations were limited only for the B and V bands.

The observations between 1981-1986 were carried out with the 50 cm Cassegrain telescope at Konkoly Observatory's Piszkéstető mountain station. At this telescope we used an integrating photometer equipped with an unrefrigerated EMI 9058 QB photomultiplier and the following Schott filters: UG2 in U, BG12+GG13 in B and GG11 in V.

In 1996-1998 the observations were made with the 1 m Ritchey-Chrétien telescope of the mountain station. A new photon-counting photometer was used, drawn up and constructed by G. Virághalmy. The EMI 9203 QB type multiplier was electronically cooled to -20 ± 0.1°C. The realized photometric system was close to the Cousins system. The type of filters and their thickness were: 1.5 mm UG1 + 0.8 mm UG5 + 1.5 mm BG38 for the U, 1.8 mm BG13 + 5 mm BG38 + 0.6 mm BG24 for the B, 1.8 mm GG14 + 3 mm BG38 for the V, 4 mm OG1 + 1 mm GG20 + 0.3 mm BG26 for the R and 0.5 mm UG3 + 3.2 mm RG8 + 1.5 mm RG9 for the I band. A detailed description of the photometer is given by Virághalmy (2000).

The star BD+44°1882 was used as comparison, and BD+44°1884 as check star. The brightness (V) and colour (B-V) of these stars are given in Broglia and Conconi (1975).

Several differential photometric observations were carried out between the comparison and the check stars. These runs indicated that the errors of the single observations were less than $0.^m01$ in B, V and R, and around $0.^m02$ in U and I on average nights.

The observations of the variable were reduced in the usual way. The UT times have been converted to heliocentric JD. The correction for atmospheric extinction was neglected since the comparison star was very close to the variable. (The distance between them is less then 15'.) The UBV observations have been transformed into the Johnson system in the traditional way. The R and I measurements are in the instrumental system. The journal of the observations is given in Tables 1. The individual observations of AE UMa are listed in Table 3-7 in the sense variable minus comparison.

THE OBSERVED MAXIMA

The light curves have the typical asymmetrical shape of the large amplitude δ Scuti stars. The large variation in the amplitude and shape of the light curves makes the determination of the times of light maximum difficult. The observations near the top of the light curves were fitted with third order polinomials and a least squares calculation provided the times of maximum. The results of course, depended on how many data points were involved in the calculation close to maximum light. Therefore several trials were made at each observed maximum. The most reliable results could be achieved when only 5-6 data points were taken into account. This procedure also gave an estimate of the error of the determination of the instant of maximum light: about ± 0.0004 day.

The epochs of maximum light reported here are the mean values obtained from the V and B light curves. (Although a phase lag between the times of maximum light in different colours may exist, this is less than the error of the determination of the epoch of maximum light.)

69 new times of maximum are listed in Table 2, together with those 59 reported in the literature. In Table 2 the O-C values and the epoch numbers are also given calculated by the following ephemeris:

$$C = 2442062.5824 + 0^{\mathrm{d}}.08601707 \times E$$

The detector used by the observers (vis=visual, pg=photographic, pe=photoelectric, CCD=CCD photometry) and the source of the data are also indicated in Table 2.

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Table 1. Journal of observations

Year	Filter	No. of nights	No. of obs.	Length of obs. in hours
1974	V	12	425	24.48
	B	12	432	24.50
1975	V	2	53	3.25
	B	2	54	3.24
1976	V	5	93	6.55
	B	5	97	6.60
1977	V	1	20	1.09
	B	1	21	1.09
1981	V	4	264	14.66
	B	4	264	14.66
	U	3	212	11.89
1982	V	1	15	0.76
	B	1	15	0.76
	U	1	15	0.76
1983	V	3	203	11.80
	B	3	202	11.80
	U	3	190	11.48
1986	V	1	67	4.47
	B	1	67	4.47
	U	1	64	4.47
1996	I	1	48	6.83
	R	2	90	10.92
	V	2	93	11.21
	B	2	93	11.21
	U	1	59	7.42
1997	I	3	58	3.94
	R	3	60	4.11
	V	3	61	4.11
	B	3	61	4.11
	U	3	42	2.46
1998	I	7	605	47.32
	R	7	634	48.57
	V	7	641	48.77
	B	7	641	48.75
	U	7	616	47.74

Table 1. Journal of observations (cont.)

Year	Filter	No. of nights	No. of obs.	Length of obs. in hours
All:	I	11	711	58.09
	R	12	784	63.60
	V	41	1935	131.15
	B	41	1947	131.16
	U	19	1198	86.22

Table 2. Times of maximum of AE UMa

Year	Max.time	Det.	Cycle	O-C	Source
	2400000+				
1937	28632.398	pg	-156134	+.0048	Tsesevich (1973)
1946	31875.122	pg	-118435	-.0287	Filatov (1960)
1950	33379.256	pg	-100949	+.0108	
1956	35601.188	pg	- 75118	+.0359	
	35604.337	vis	- 75081	+.0022	Tesevich (1973)
	35607.173	pg	- 75048	-.0003	Filatov (1960)
1957	35981.202	pg	- 70700	+.0264	
1963	38106.402	vis	- 45993	+.0027	Tsesevich (1973)
1971	41059.368	vis	- 11663	+.0027	
1973	41773.223	vis	- 3364	+.0020	
1974	42062.5832	pe	0	+.0008	Present paper
	42065.5959	pe	35	+.0029	Broglia et al. (1975)
	42065.6778	pe	36	-.0012	
	42068.3432	pe	67	-.0023	
	42068.4302	pe	68	-.0014	
	42068.5203	pe	69	+.0027	
	42068.6029	pe	70	-.0007	
	42068.6871	pe	71	-.0025	

Table 2. Times of maximum of AE UMa (cont.)

Year	Max.time	Det.	Cycle	O-C	Source
	2400000+				
1974	42069.3808	pe	79	+.0031	
	42069.4651	pe	80	+.0013	
	42069.5473	pe	81	-.0025	
	42069.6363	pe	82	+.0005	
	42086.4965	pe	278	+.0014	
	42086.5787	pe	279	-.0025	
	42069.5473	pe	81	-.0025	
	42069.6363	pe	82	+.0005	
	42086.4965	pe	278	+.0014	
	42086.5787	pe	279	-.0025	
	42087.4390	pe	289	-.0023	
	42087.5263	pe	290	-.0011	
	42087.6155	pe	291	+.0021	
	42095.5298	pe	383	+.0029	Present paper
	42095.6123	pe	384	-.0007	
	42103.3513	pe	474	-.0032	Broglia et al. (1975)
	42106.4523	pe	510	+.0012	Present paper
	42119.5252	pe	662	-.0005	
	42121.5025	pe	685	-.0016	
	42122.3628	pe	695	-.0015	Broglia et al. (1975)
	42122.4484	pe	696	-.0019	
	42128.2968	pe	764	-.0026	Present paper
	42128.3872	pe	765	+.0017	
	42128.4727	pe	766	+.0012	
	42128.5557	pe	767	-.0018	
	42133.4627	pe	824	+.0022	
	42133.5442	pe	825	-.0023	
	42134.4055	pe	835	-.0012	
	42147.3933	pe	986	-.0019	
	42148.4295	pe	998	+.0021	
	42148.5117	pe	999	-.0018	
	42159.4365	pe	1126	-.0011	
	42161.4145	pe	1149	-.0015	

Table 2. Times of maximum of AE UMa (cont.)

Year	Max.time	Det.	Cycle	O-C	Source
	2400000+				
1975	42453.5306	pe	4545	+.0006	
	42453.6137	pe	4546	-.0023	
	42460.4989	pe	4626	+.0015	
	42532.407	vis	5462	-.0006	Braune et al. (1979)
1976	42830.6280	pe	8929	-.0008	Present paper
	42837.5120	pe	9009	+.0018	
	42838.4591	pe	9020	+.0027	
	42866.496	vis	9346	-.0019	Braune et al. (1979)
	42869.3377	pe	9379	+.0012	Present paper
	42869.4205	pe	9380	-.0020	
1977	43162.5708	pe	12788	+.0021	
1981	44633.4626	pe	29888	+.0020	
	44633.5440	pe	29889	-.0026	
	44633.6309	pe	29890	-.0017	
	44634.4046	pe	29899	-.0022	
	44634.4902	pe	29900	-.0026	
	44634.5810	pe	29901	+.0022	
	44692.4709	pe	30574	+.0026	
	44696.343	vis	30619	+.0039	Braune et al. (1982)
	44696.426	vis	30620	+.0009	
	44696.520	vis	30621	+.0089	
1983	45355.4902	pe	38282	+.0023	Present paper
	45355.5727	pe	38283	-.0012	
	45382.3228	pe	38594	-.0024	
	45382.4104	pe	38595	-.0008	
	45382.4997	pe	38596	+.0025	
	45382.5807	pe	38597	-.0026	
1985	46114.332	vis	47104	+.0015	Huebscher et al. (1985)
1986	46468.4601	pe	51221	-.0026	Present paper
	46468.5468	pe	51222	-.0020	
1987	46855.6279	pe	55722	+.0023	Rodriguez et al. (1992)
	46856.5729	pe	55733	+.0011	
	46856.6561	pe	55734	-.0017	
	46857.6017	pe	55745	-.0023	

Table 2. Times of maximum of AE UMa (cont.)

Year	Max.time	Det.	Cycle	O-C	Source
	2400000+				
1987	46857.6925	pe	55746	+.0025	
	46858.6382	pe	55757	+.0020	
	46859.6666	pe	55769	-.0018	
	46878.4181	pe	55987	-.0020	
	46878.5064	pe	55988	+.0003	
	46878.5946	pe	55989	+.0025	
	46884.5262	pe	56058	-.0011	
	46884.6117	pe	56059	-.0016	
	46886.5907	pe	56082	-.0010	
1992	48683.317	vis	76970	+.0007	Huebscher et al. (1992)
1996	50151.4564	pe	94038	+.0008	Present paper
	50151.5384	pe	94039	-.0032	
	50152.3170	pe	94048	+.0012	
	50152.4862	pe	94050	-.0016	
	50152.5756	pe	94051	+.0017	
1997	50458.8815	CCD	97612	+.0009	Hintz et al. (1997)
	50458.9636	CCD	97613	-.0031	
	50459.8240	CCD	97623	-.0028	
	50459.9113	CCD	97624	-.0015	
	50467.7388	CCD	97715	-.0016	
	50467.8236	CCD	97716	-.0028	
	50490.3607	pe	97978	-.0022	Present paper
	50505.6697	CCD	98156	-.0042	Hintz et al. (1997)
	50505.7595	CCD	98157	-.0004	
	50505.8461	CCD	98158	+.0001	
	50516.7676	CCD	98285	-.0025	
	50554.4432	pe	98723	-.0024	Present paper
1998	50813.3550	pe	101733	-.0020	
	50813.4408	pe	101734	-.0022	
	50813.6151	pe	101736	+.0001	
	50813.6985	pe	101737	-.0026	
	50848.4540	pe	102141	+.0021	
	50848.5391	pe	102142	+.0011	
	50848.6212	pe	102143	-.0028	

Table 2. Times of maximum of AE UMa (cont.)

Year	Max.time	Det.	Cycle	O-C	Source
	2400000+				
1998	50849.4815	pe	102153	-.0026	
	50849.5688	pe	102154	-.0014	
	50862.3840	pe	102303	-.0027	Agerer et al. (1999)
	50872.2809	pe	102418	+.0022	Present paper
	50872.3634	pe	102419	-.0013	
	50872.4481	pe	102420	-.0026	
	50872.5394	pe	102421	+.0027	
	50899.3729	pe	102733	-.0012	
	50899.4570	pe	102734	-.0031	
	50902.2976	pe	102767	-.0010	
	50902.3819	pe	102768	-.0028	
	50903.3321	pe	102779	+.0013	
	50903.4192	pe	102780	+.0023	
	50903.5009	pe	102781	-.0020	

Table 3.
Differential U observations of AE UMa

2444633 +	0.5165 +1.306	0.6210 +1.009	0.4395 +1.195	0.5412 +1.281
0.4106 +1.214	0.5241 +1.305	0.6224 +0.978	0.4409 +1.211	0.5426 +1.278
0.4120 +1.223	0.5255 +1.275	0.6298 +0.794	0.4423 +1.222	0.5439 +1.277
0.4133 +1.227	0.5269 +1.263	0.6312 +0.802	0.4435 +1.234	0.5516 +1.261
0.4147 +1.238	0.5283 +1.269	0.6326 +0.817	0.4450 +1.238	0.5529 +1.268
0.4161 +1.236	0.5297 +1.194	0.6340 +0.837	0.4512 +1.265	0.5543 +1.246
0.4237 +1.302	0.5359 +0.954	0.6354 +0.837	0.4526 +1.289	0.5557 +1.243
0.4250 +1.301	0.5373 +0.874	0.6416 +0.913	0.4540 +1.292	0.5571 +1.233
0.4264 +1.308	0.5387 +0.798	0.6430 +0.936	0.4554 +1.276	0.5641 +1.147
0.4278 +1.308	0.5401 +0.710	0.6444 +0.952	0.4568 +1.279	0.5655 +1.133
0.4373 +1.288	0.5415 +0.648	0.6458 +0.973	0.4629 +1.289	0.5668 +1.093
0.4387 +1.276	0.5430 +0.625	0.6472 +0.987	0.4643 +1.296	0.5682 +1.080
0.4401 +1.294	0.5444 +0.637	0.6535 +1.080	0.4657 +1.281	0.5696 +1.001
0.4415 +1.289	0.5458 +0.639	0.6549 +1.084	0.4671 +1.258	0.5761 +0.837
0.4429 +1.282	0.5472 +0.655	0.6563 +1.102	0.4685 +1.260	0.5775 +0.816
0.4497 +1.079	0.5486 +0.687	0.6577 +1.130	0.4743 +1.179	0.5789 +0.811
0.4511 +1.050	0.5550 +0.822	0.6591 +1.142	0.4757 +1.166	0.5803 +0.813
0.4525 +0.965	0.5564 +0.862		0.4771 +1.097	0.5817 +0.809
0.4539 +0.922	0.5578 +0.889	2444634 +	0.4785 +1.050	0.5831 +0.815
0.4553 +0.849	0.5591 +0.899	0.3806 +1.305	0.4799 +1.019	0.5845 +0.820
0.4609 +0.687	0.5605 +0.938	0.3820 +1.279	0.4859 +0.808	0.5859 +0.825
0.4623 +0.679	0.5675 +1.055	0.3834 +1.286	0.4873 +0.751	0.5937 +0.976
0.4637 +0.710	0.5689 +1.078	0.3848 +1.273	0.4887 +0.747	0.5951 +0.976
0.4651 +0.725	0.5703 +1.076	0.3862 +1.276	0.4901 +0.750	0.5965 +1.000
0.4665 +0.731	0.5717 +1.098	0.3925 +1.113	0.4915 +0.758	0.5978 +1.001
0.4726 +0.856	0.5731 +1.123	0.3939 +1.101	0.4929 +0.785	0.6059 +1.094
0.4740 +0.894	0.5794 +1.181	0.3953 +1.008	0.4942 +0.789	0.6073 +1.108
0.4754 +0.896	0.5807 +1.202	0.3967 +0.939	0.5007 +0.881	0.6088 +1.125
0.4768 +0.909	0.5821 +1.211	0.3981 +0.847	0.5021 +0.908	0.6101 +1.135
0.4782 +0.936	0.5835 +1.228	0.4037 +0.563	0.5035 +0.942	0.6115 +1.150
0.4853 +1.047	0.5849 +1.228	0.4050 +0.567	0.5049 +0.942	0.4318 +1.075
0.4866 +1.047	0.5910 +1.266	0.4064 +0.575	0.5063 +0.975	0.4331 +1.093
0.4880 +1.093	0.5924 +1.292	0.4078 +0.613	0.5143 +1.084	0.4345 +1.103
0.4894 +1.113	0.5938 +1.290	0.4092 +0.657	0.5157 +1.089	0.4359 +1.109
0.4908 +1.136	0.5952 +1.292	0.4153 +0.828	0.5171 +1.103	0.4373 +1.140
0.4988 +1.276	0.5966 +1.294	0.4167 +0.855	0.5185 +1.118	0.4478 +1.200
0.5001 +1.275	0.6042 +1.307	0.4181 +0.879	0.5199 +1.129	0.4492 +1.207
0.5015 +1.303	0.6056 +1.295	0.4194 +0.912	0.5269 +1.203	0.4506 +1.241
0.5028 +1.287	0.6069 +1.291	0.4208 +0.954	0.5283 +1.222	0.4520 +1.245
0.5042 +1.308	0.6083 +1.257	0.4270 +1.054	0.5297 +1.227	0.4534 +1.255
0.5109 +1.308	0.6097 +1.252	0.4284 +1.076	0.5311 +1.221	0.4644 +1.253
0.5123 +1.302	0.6168 +1.112	0.4298 +1.061	0.5324 +1.241	0.4658 +1.261
0.5137 +1.300	0.6182 +1.083	0.4312 +1.083	0.5385 +1.261	0.4672 +1.253
0.5151 +1.283	0.6196 +1.039	0.4326 +1.116	0.5399 +1.263	0.4686 +1.241

0.4700 +1.244
0.4770 +1.084
0.4784 +1.029
0.4798 +1.000
0.4812 +0.933
0.4826 +0.873
0.4893 +0.743
0.4907 +0.746
0.4920 +0.733
0.4934 +0.792
0.5026 +0.902
0.5040 +0.939
0.5053 +0.954
0.5067 +0.954
0.5081 +0.986
0.5151 +1.111
0.5165 +1.117
0.5178 +1.156
0.5192 +1.183
0.5206 +1.188
0.5268 +1.244
0.5281 +1.252
0.5295 +1.270
0.5309 +1.270
0.5323 +1.293
0.5369 +1.295
0.5498 +1.283
0.5512 +1.288
0.5526 +1.271
0.5539 +1.256
0.5553 +1.210
0.5621 +0.996
0.5635 +0.938
0.5649 +0.866
0.5663 +0.756
0.5676 +0.677
0.5690 +0.643
0.5704 +0.591
0.5727 +0.594
0.5740 +0.608
0.5754 +0.614

2444648 +
0.3531 +0.909
0.3544 +0.925
0.3558 +0.938
0.3572 +0.954
0.3586 +0.971
0.3651 +1.045
0.3665 +1.058
0.3679 +1.082
0.3693 +1.089

2444987 +
0.4506 +1.171
0.4520 +1.171
0.4534 +1.179
0.4548 +1.190
0.4562 +1.208
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0.4654 +1.249
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2450902 +
0.2814 +1.249
0.2827 +1.152
0.2840 +1.140
0.2891 +0.899
0.2904 +0.824
0.2917 +0.753
0.2972 +0.581
0.2985 +0.564
0.2998 +0.602
0.3056 +0.659
0.3069 +0.781
0.3082 +0.771
0.3136 +0.902
0.3149 +0.951
0.3162 +0.934
0.3216 +1.101
0.3229 +1.087
0.3242 +1.181
0.3295 +1.234
0.3308 +1.203
0.3322 +1.203
0.3379 +1.192
0.3392 +1.258
0.3406 +1.227
0.3457 +1.266
0.3470 +1.286
0.3484 +1.321
0.3541 +1.311
0.3554 +1.301
0.3567 +1.263
0.3617 +1.206
0.3631 +1.137
0.3644 +1.115
0.3694 +1.074
0.3707 +1.060

0.3720 +1.018	0.4481 +1.219	0.3284 +0.866	0.3998 +1.194	0.4778 +1.260
0.3773 +0.765	0.4534 +1.251	0.3336 +0.844	0.4050 +1.110	0.4831 +1.242
0.3786 +0.742	0.4547 +1.254	0.3349 +0.854	0.4063 +1.064	0.4844 +1.250
0.3799 +0.745	0.4560 +1.239	0.3362 +0.851	0.4076 +1.021	0.4857 +1.199
0.3862 +0.769	0.4611 +1.036	0.3416 +0.884	0.4140 +0.745	0.4914 +0.995
0.3875 +0.733	0.4624 +1.010	0.3430 +0.932	0.4153 +0.688	0.4927 +0.960
0.3888 +0.751		0.3443 +0.918	0.4166 +0.624	0.4940 +0.851
0.3968 +0.885	2450903 +	0.3497 +1.031	0.4237 +0.686	0.4993 +0.594
0.3981 +0.876	0.2782 +1.228	0.3510 +1.069	0.4250 +0.687	0.5006 +0.586
0.3995 +0.881	0.2795 +1.210	0.3524 +1.117	0.4263 +0.739	0.5019 +0.582
0.4057 +1.021	0.2863 +1.240	0.3575 +1.107	0.4326 +0.907	0.5073 +0.715
0.4070 +1.084	0.2876 +1.328	0.3588 +1.112	0.4339 +0.898	0.5086 +0.785
0.4083 +1.071	0.2890 +1.284	0.3601 +1.174	0.4352 +0.905	0.5099 +0.794
0.4139 +1.197	0.2940 +1.248	0.3653 +1.157	0.4427 +1.043	0.5312 +1.133
0.4152 +1.241	0.2953 +1.318	0.3666 +1.209	0.4440 +1.100	0.5325 +1.181
0.4165 +1.207	0.2966 +1.285	0.3680 +1.223	0.4453 +1.100	0.5339 +1.195
0.4218 +1.231	0.3019 +1.324	0.3733 +1.225	0.4514 +1.147	0.5391 +1.187
0.4231 +1.233	0.3033 +1.332	0.3746 +1.198	0.4527 +1.226	0.5404 +1.228
0.4244 +1.185	0.3046 +1.274	0.3759 +1.222	0.4540 +1.271	0.5417 +1.222
0.4295 +1.272	0.3100 +1.214	0.3814 +1.256	0.4592 +1.282	0.5473 +1.285
0.4308 +1.259	0.3113 +1.225	0.3827 +1.282	0.4605 +1.279	0.5486 +1.268
0.4322 +1.241	0.3126 +1.135	0.3840 +1.250	0.4618 +1.215	0.5499 +1.304
0.4374 +1.216	0.3180 +1.041	0.3894 +1.284	0.4673 +1.271	
0.4387 +1.217	0.3193 +1.002	0.3907 +1.271	0.4686 +1.283	
0.4400 +1.304	0.3206 +1.008	0.3920 +1.263	0.4699 +1.280	
0.4454 +1.198	0.3258 +0.925	0.3972 +1.238	0.4751 +1.296	
0.4468 +1.283	0.3271 +0.847	0.3985 +1.252	0.4764 +1.233	

Table 4.
Differential B observations of AE UMa

2442062 +	0.5767 +0.879	0.4984 +1.301	0.5262 +0.770	0.5588 +1.165
0.5474 +1.264	0.5775 +0.852	0.5012 +1.294	0.5283 +0.722	0.5616 +1.215
0.5481 +1.258	0.5810 +0.794	0.5026 +1.291	0.5297 +0.703	0.5630 +1.230
0.5495 +1.274	0.5824 +0.780	0.5053 +1.266	0.5324 +0.736	0.5658 +1.257
0.5514 +1.291	0.5834 +0.773	0.5067 +1.260	0.5338 +0.762	0.5672 +1.268
0.5526 +1.291	0.5845 +0.773	0.5095 +1.226	0.5366 +0.800	0.5699 +1.288
0.5584 +1.245	0.5859 +0.781	0.5109 +1.228	0.5380 +0.822	0.5713 +1.288
0.5596 +1.237	0.5912 +0.827	0.5137 +1.171	0.5408 +0.868	0.5783 +1.296
0.5606 +1.234	0.5921 +0.840	0.5151 +1.125	0.5422 +0.895	0.5797 +1.294
0.5616 +1.220	0.5928 +0.843	0.5172 +1.091	0.5450 +0.943	0.5838 +1.308
0.5668 +1.148	0.5937 +0.847	0.5179 +1.052	0.5463 +0.959	0.5866 +1.293
0.5674 +1.118	0.5984 +0.910	0.5199 +0.991	0.5491 +0.999	0.5880 +1.307
0.5686 +1.085	0.5993 +0.916	0.5206 +0.947	0.5505 +1.015	0.5922 +1.287
0.5697 +1.078		0.5227 +0.887	0.5533 +1.071	0.5949 +1.277
0.5744 +0.929	2442095 +	0.5234 +0.853	0.5547 +1.083	0.5963 +1.246
0.5756 +0.899	0.4970 +1.315	0.5255 +0.806	0.5574 +1.136	0.5991 +1.170

0.6033 +0.963
0.6047 +0.898
0.6074 +0.694
0.6088 +0.659
0.6116 +0.533
0.6130 +0.554
0.6158 +0.576
0.6172 +0.635
0.6199 +0.706
0.6213 +0.736
0.6255 +0.849
0.6283 +0.916
0.6297 +0.943
0.6324 +0.979
0.6338 +0.999

2442106 +
0.4417 +1.010
0.4430 +0.957
0.4458 +0.809
0.4472 +0.731
0.4500 +0.590
0.4514 +0.557
0.4542 +0.577
0.4555 +0.603
0.4583 +0.658
0.4597 +0.688
0.4625 +0.743
0.4639 +0.770
0.4667 +0.822
0.4680 +0.866
0.4708 +0.941
0.4722 +0.956

2442119 +
0.5065 +1.170
0.5107 +1.071
0.5128 +1.015
0.5169 +0.882
0.5190 +0.832
0.5232 +0.729
0.5253 +0.730
0.5294 +0.760
0.5315 +0.794

2442121 +
0.4905 +1.087
0.4918 +1.025
0.4953 +0.838
0.5009 +0.562
0.5043 +0.566
0.5057 +0.571
0.5085 +0.650
0.5099 +0.686
0.5134 +0.751
0.5148 +0.807
0.5189 +0.882
0.5203 +0.914

2442128 +
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0.2930 +0.722
0.2942 +0.676
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0.2964 +0.643
0.2975 +0.637
0.2985 +0.650
0.2996 +0.667
0.3035 +0.730
0.3059 +0.761
0.3070 +0.781
0.3082 +0.786
0.3093 +0.803
0.3106 +0.835
0.3118 +0.860
0.3131 +0.874
0.3177 +0.965
0.3189 +0.984
0.3203 +0.999
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0.3442 +1.236
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0.3467 +1.236
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0.3491 +1.231
0.3503 +1.243
0.3517 +1.243
0.3527 +1.239
0.3585 +1.274
0.3597 +1.289
0.3607 +1.289
0.3619 +1.275
0.3631 +1.274
0.3645 +1.252
0.3655 +1.242
0.3667 +1.232
0.3733 +1.118
0.3743 +1.105
0.3759 +1.038
0.3791 +0.914
0.3814 +0.865
0.3832 +0.795
0.3843 +0.787
0.3882 +0.776
0.3908 +0.786
0.3920 +0.809
0.3948 +0.817
0.3962 +0.829
0.3981 +0.867
0.3998 +0.883
0.4014 +0.888
0.4204 +1.111
0.4217 +1.116
0.4231 +1.138
0.4244 +1.172
0.4256 +1.181
0.4268 +1.172
0.4282 +1.196
0.4295 +1.207
0.4385 +1.275
0.4402 +1.275
0.4420 +1.268
0.4439 +1.294
0.4456 +1.293
0.4472 +1.295
0.4485 +1.279
0.4496 +1.278
0.4593 +1.125
0.4606 +1.085
0.4618 +1.051
0.4627 +1.012
0.4639 +0.982
0.4651 +0.913
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0.4685 +0.703
0.4696 +0.636
0.4707 +0.611
0.4718 +0.590
0.4733 +0.586
0.4752 +0.601
0.4820 +0.723
0.4832 +0.741
0.4851 +0.804
0.4870 +0.852
0.4883 +0.867
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0.5517 +0.678
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0.5602 +0.630
0.5613 +0.633
0.5625 +0.675
0.5636 +0.703
0.5649 +0.718
0.5657 +0.752
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0.5306 +1.128
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0.5404 +0.652
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0.3952 +0.705
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0.4170 +0.997

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0.4359 +0.683
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0.4394 +0.683
0.4474 +0.816
0.4495 +0.836
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0.4530 +0.873

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0.4214 +0.639

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0.5292 +0.558
0.5314 +0.557
0.5324 +0.583
0.5345 +0.610
0.5357 +0.628
0.5383 +0.695
0.5395 +0.725
0.5420 +0.771
0.5428 +0.805
0.5455 +0.850
0.5468 +0.894
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0.6017 +1.078
0.6040 +0.990
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0.6071 +0.824
0.6081 +0.758
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0.6113 +0.612
0.6136 +0.577
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0.5000 +0.750

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0.4668 +0.766
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0.4711 +0.876

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0.4288 +0.750

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0.4660 +0.641
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0.4750 +0.831
0.4764 +0.864
0.4778 +0.888
0.4848 +1.013
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0.5025 +1.266
0.5039 +1.276
0.5105 +1.276
0.5119 +1.277
0.5133 +1.284
0.5146 +1.289
0.5160 +1.290
0.5237 +1.290

0.5250 +1.288
0.5264 +1.270
0.5278 +1.257
0.5292 +1.219
0.5355 +0.952
0.5368 +0.871
0.5382 +0.773
0.5396 +0.661
0.5410 +0.601
0.5425 +0.554
0.5439 +0.529
0.5453 +0.546
0.5467 +0.572
0.5481 +0.595
0.5546 +0.756
0.5559 +0.773
0.5573 +0.808
0.5587 +0.850
0.5601 +0.867
0.5671 +1.010
0.5685 +1.038
0.5699 +1.054
0.5712 +1.077
0.5726 +1.095
0.5789 +1.174
0.5803 +1.187
0.5817 +1.191
0.5831 +1.197
0.5845 +1.207
0.5906 +1.251
0.5920 +1.266
0.5934 +1.278
0.5948 +1.289
0.5961 +1.282
0.6037 +1.279
0.6051 +1.273
0.6065 +1.276
0.6079 +1.266
0.6093 +1.252
0.6164 +1.125
0.6178 +1.087
0.6192 +1.063
0.6206 +0.999
0.6219 +0.950
0.6293 +0.743
0.6307 +0.729
0.6321 +0.735

0.6335 +0.739
0.6349 +0.765
0.6412 +0.844
0.6426 +0.859
0.6439 +0.890
0.6453 +0.916
0.6467 +0.936
0.6531 +1.028
0.6545 +1.046
0.6559 +1.061
0.6572 +1.080
0.6586 +1.087

2444634 +
0.3802 +1.310
0.3815 +1.306
0.3829 +1.285
0.3843 +1.278
0.3857 +1.270
0.3921 +1.132
0.3935 +1.078
0.3949 +1.024
0.3962 +0.947
0.3976 +0.862
0.4032 +0.526
0.4045 +0.512
0.4060 +0.525
0.4074 +0.547
0.4087 +0.578
0.4149 +0.733
0.4162 +0.754
0.4176 +0.802
0.4190 +0.840
0.4204 +0.857
0.4265 +0.993
0.4279 +0.997
0.4293 +1.011
0.4307 +1.049
0.4321 +1.057
0.4390 +1.157
0.4404 +1.160
0.4418 +1.184
0.4432 +1.195
0.4446 +1.216
0.4507 +1.254
0.4521 +1.270
0.4535 +1.285

0.4549 +1.284	0.5678 +1.061	0.4154 +1.136	0.4691 +1.253	0.5365 +1.263
0.4563 +1.293	0.5692 +1.031	0.4227 +1.196	0.4765 +1.253	0.5494 +1.289
0.4624 +1.295	0.5756 +0.786	0.4241 +1.220	0.4778 +1.261	0.5507 +1.288
0.4638 +1.289	0.5770 +0.766	0.4255 +1.228	0.4792 +1.239	0.5521 +1.277
0.4652 +1.288	0.5784 +0.746	0.4269 +1.232	0.4806 +1.245	0.5535 +1.273
0.4666 +1.284	0.5798 +0.739	0.4282 +1.237	0.4820 +1.238	0.5549 +1.255
0.4680 +1.272	0.5812 +0.739	0.4359 +1.266		0.5617 +1.031
0.4739 +1.170	0.5826 +0.740	0.4373 +1.278	2445355 +	0.5630 +0.945
0.4753 +1.145	0.5840 +0.751	0.4387 +1.273	0.4313 +1.096	0.5644 +0.846
0.4767 +1.125	0.5855 +0.761	0.4400 +1.283	0.4327 +1.108	0.5658 +0.737
0.4781 +1.073	0.5932 +0.868	0.4414 +1.281	0.4341 +1.120	0.5672 +0.640
0.4794 +1.026	0.5946 +0.901	0.4484 +1.267	0.4354 +1.136	0.5686 +0.561
0.4855 +0.757	0.5960 +0.917	0.4498 +1.258	0.4368 +1.141	0.5700 +0.524
0.4868 +0.707	0.5974 +0.936	0.4511 +1.278	0.4474 +1.197	0.5722 +0.503
0.4882 +0.694	0.5988 +0.979	0.4525 +1.241	0.4488 +1.215	0.5736 +0.495
0.4896 +0.672	0.6055 +1.070	0.4539 +1.225	0.4502 +1.230	0.5750 +0.515
0.4910 +0.677	0.6069 +1.080	0.4609 +0.957	0.4515 +1.228	0.5763 +0.526
0.4924 +0.692	0.6083 +1.103	0.4623 +0.902	0.4529 +1.247	
0.4938 +0.705	0.6096 +1.112	0.4636 +0.814	0.4640 +1.264	2445381 +
0.5003 +0.801	0.6111 +1.140	0.4650 +0.746	0.4654 +1.262	0.3049 +0.865
0.5017 +0.823		0.4664 +0.689	0.4668 +1.251	0.3063 +0.871
0.5031 +0.858	2444648 +	0.4684 +0.651	0.4681 +1.254	0.3076 +0.885
0.5045 +0.896	0.3526 +0.852	0.4697 +0.633	0.4695 +1.239	0.3090 +0.908
0.5058 +0.916	0.3540 +0.874	0.4711 +0.625	0.4766 +1.096	0.3104 +0.930
0.5139 +1.038	0.3554 +0.891	0.4725 +0.631	0.4780 +1.046	0.3181 +1.049
0.5152 +1.052	0.3568 +0.917	0.4739 +0.660	0.4794 +0.974	0.3195 +1.079
0.5166 +1.079	0.3581 +0.944	0.4831 +0.825	0.4807 +0.930	0.3209 +1.106
0.5180 +1.091	0.3646 +1.029	0.4845 +0.861	0.4821 +0.872	0.3223 +1.111
0.5194 +1.121	0.3660 +1.042	0.4859 +0.878	0.4888 +0.649	0.3236 +1.136
0.5265 +1.170	0.3674 +1.059	0.4873 +0.908	0.4902 +0.638	0.3322 +1.201
0.5278 +1.184	0.3688 +1.091	0.4886 +0.942	0.4916 +0.638	0.3377 +1.261
0.5292 +1.185		0.4957 +1.069	0.4930 +0.661	
0.5306 +1.204	2444692 +	0.4972 +1.084	0.5021 +0.805	2445382 +
0.5320 +1.203	0.3863 +0.792	0.4986 +1.088	0.5035 +0.832	0.2847 +1.286
0.5380 +1.247	0.3877 +0.794	0.4999 +1.116	0.5049 +0.858	0.2861 +1.283
0.5394 +1.250	0.3891 +0.809	0.5013 +1.144	0.5063 +0.890	0.2875 +1.285
0.5408 +1.249	0.3904 +0.830		0.5077 +0.921	0.2889 +1.287
0.5422 +1.262	0.3918 +0.854	2444987 +	0.5146 +1.062	0.2903 +1.272
0.5436 +1.263	0.3981 +0.934	0.4502 +1.133	0.5160 +1.087	0.2979 +1.278
0.5511 +1.268	0.3995 +0.960	0.4516 +1.147	0.5174 +1.093	0.2993 +1.280
0.5525 +1.252	0.4009 +0.975	0.4530 +1.151	0.5188 +1.121	0.3006 +1.280
0.5539 +1.256	0.4023 +0.999	0.4543 +1.172	0.5202 +1.153	0.3020 +1.269
0.5553 +1.244	0.4036 +1.014	0.4557 +1.174	0.5263 +1.198	0.3034 +1.255
0.5567 +1.242	0.4099 +1.087	0.4636 +1.221	0.5277 +1.220	0.3103 +1.106
0.5636 +1.179	0.4113 +1.107	0.4649 +1.243	0.5291 +1.227	0.3117 +1.035
0.5650 +1.136	0.4127 +1.130	0.4663 +1.243	0.5305 +1.241	0.3131 +0.991
0.5664 +1.106	0.4140 +1.133	0.4677 +1.257	0.5318 +1.245	0.3145 +0.890

0.3159 +0.815	0.4272 +0.945	0.5465 +1.259	0.4359 +1.300	0.5733 +1.086
0.3223 +0.512	0.4332 +1.039	0.5478 +1.268	0.4460 +1.208	
0.3237 +0.514	0.4346 +1.058	0.5492 +1.283	0.4475 +1.164	2450151 +
0.3251 +0.550	0.4360 +1.072	0.5506 +1.294	0.4490 +1.116	0.4440 +1.097
0.3264 +0.566	0.4374 +1.082	0.5570 +1.278	0.4505 +1.039	0.4460 +1.034
0.3278 +0.599	0.4387 +1.096	0.5584 +1.278	0.4520 +0.936	0.4479 +0.943
0.3357 +0.817	0.4481 +1.186	0.5597 +1.280	0.4583 +0.535	0.4603 +0.615
0.3371 +0.862	0.4495 +1.199	0.5611 +1.268	0.4598 +0.532	0.4622 +0.640
0.3384 +0.882	0.4508 +1.200	0.5625 +1.288	0.4613 +0.531	0.4642 +0.695
0.3398 +0.891	0.4522 +1.216	0.5709 +1.051	0.4628 +0.560	0.4802 +1.033
0.3412 +0.925	0.4536 +1.224	0.5723 +0.986	0.4643 +0.584	0.4821 +1.049
0.3503 +1.051	0.4602 +1.261	0.5737 +0.918	0.4760 +0.866	0.4841 +1.081
0.3517 +1.067	0.4616 +1.259	0.5750 +0.833	0.4775 +0.880	0.4958 +1.222
0.3531 +1.089	0.4629 +1.266	0.5764 +0.705	0.4860 +1.066	0.4978 +1.240
0.3545 +1.099	0.4643 +1.275	0.5779 +0.603	0.4874 +1.099	0.4998 +1.245
0.3559 +1.134	0.4657 +1.269	0.5793 +0.526	0.4889 +1.110	0.5112 +1.311
0.3631 +1.203	0.4733 +1.265	0.5812 +0.512	0.4904 +1.111	0.5132 +1.309
0.3645 +1.229	0.4747 +1.256	0.5825 +0.515	0.4920 +1.131	0.5151 +1.304
0.3659 +1.240	0.4761 +1.255	0.5839 +0.553	0.4996 +1.197	0.5247 +1.157
0.3673 +1.244	0.4774 +1.248	0.5853 +0.577	0.5011 +1.218	0.5266 +1.119
0.3687 +1.242	0.4788 +1.238	0.5867 +0.590	0.5026 +1.222	0.5286 +1.051
0.3751 +1.286	0.4871 +1.093	0.5931 +0.759	0.5041 +1.235	0.5399 +0.641
0.3765 +1.280	0.4885 +1.034	0.5945 +0.781	0.5056 +1.244	0.5419 +0.676
0.3779 +1.295	0.4899 +0.978	0.5959 +0.829	0.5143 +1.291	0.5438 +0.723
0.3792 +1.274	0.4913 +0.909	0.5973 +0.873	0.5158 +1.276	0.5590 +0.998
0.3806 +1.275	0.4927 +0.837	0.5986 +0.888	0.5172 +1.289	0.5610 +1.028
0.3879 +1.230	0.4981 +0.675		0.5187 +1.277	0.5629 +1.048
0.3893 +1.215	0.4995 +0.664	2446468 +	0.5202 +1.270	0.5718 +1.145
0.3907 +1.210	0.5009 +0.669	0.3872 +0.720	0.5273 +1.213	0.5738 +1.171
0.3921 +1.184	0.5023 +0.691	0.3885 +0.771	0.5287 +1.211	0.5758 +1.200
0.3934 +1.166	0.5037 +0.689	0.3902 +0.797	0.5302 +1.191	0.5850 +1.253
0.4004 +0.949	0.5094 +0.792	0.3917 +0.844	0.5317 +1.171	0.5870 +1.281
0.4018 +0.911	0.5108 +0.815	0.3932 +0.867	0.5332 +1.132	0.5889 +1.278
0.4031 +0.886	0.5122 +0.858	0.4014 +1.038	0.5404 +0.859	0.5980 +1.301
0.4045 +0.833	0.5136 +0.889	0.4028 +1.054	0.5419 +0.809	0.5999 +1.305
0.4059 +0.805	0.5149 +0.918	0.4043 +1.078	0.5433 +0.753	0.6019 +1.307
0.4073 +0.786	0.5210 +1.013	0.4058 +1.091	0.5447 +0.717	
0.4087 +0.766	0.5224 +1.031	0.4073 +1.107	0.5463 +0.730	2450152 +
0.4104 +0.741	0.5238 +1.054	0.4157 +1.191	0.5531 +0.778	0.2877 +1.286
0.4117 +0.755	0.5252 +1.071	0.4172 +1.209	0.5546 +0.796	0.2897 +1.293
0.4131 +0.769	0.5265 +1.103	0.4186 +1.231	0.5561 +0.823	0.2916 +1.284
0.4145 +0.793	0.5325 +1.165	0.4201 +1.248	0.5576 +0.848	0.3000 +1.211
0.4159 +0.806	0.5339 +1.181	0.4216 +1.245	0.5591 +0.880	0.3019 +1.189
0.4217 +0.857	0.5353 +1.179	0.4300 +1.303	0.5673 +1.015	0.3039 +1.149
0.4230 +0.882	0.5367 +1.195	0.4314 +1.299	0.5688 +1.033	0.3126 +0.698
0.4244 +0.903	0.5381 +1.197	0.4330 +1.303	0.5703 +1.052	0.3145 +0.630
0.4258 +0.920	0.5451 +1.248	0.4345 +1.304	0.5718 +1.070	0.3165 +0.613

0.3255 +0.744	0.5832 +0.751	0.4049 +1.255	0.4201 +1.233	0.5983 +1.244
0.3275 +0.790	0.5930 +0.938	0.4106 +1.280	0.4214 +1.215	0.5996 +1.219
0.3294 +0.848	0.5950 +0.952	0.4119 +1.303	0.4228 +1.201	0.6069 +0.927
0.3377 +0.985	0.5969 +1.016	0.4132 +1.320	0.4282 +1.061	0.6082 +0.848
0.3397 +1.027		0.4183 +1.281	0.4295 +1.014	0.6095 +0.831
0.3416 +1.044	2450487 +	0.4196 +1.245	0.4309 +1.032	0.6242 +0.781
0.3495 +1.160	0.3852 +1.198	0.4209 +1.272	0.4367 +0.806	0.6255 +0.857
0.3515 +1.170	0.3865 +1.200		0.4380 +0.784	0.6268 +0.863
0.3534 +1.185	0.3878 +1.216	2450554 +	0.4393 +0.785	0.6335 +0.935
0.3614 +1.247	0.4011 +1.253	0.4091 +1.294	0.4454 +0.791	0.6349 +0.941
0.3634 +1.273	0.4024 +1.292	0.4105 +1.304	0.4467 +0.829	0.6362 +0.951
0.3653 +1.276	0.4037 +1.287	0.4118 +1.283	0.4480 +0.843	0.6424 +1.145
0.3735 +1.297	0.4096 +1.295	0.4298 +1.141	0.4553 +0.930	0.6437 +1.158
0.3755 +1.299	0.4109 +1.307	0.4311 +1.109	0.4566 +0.955	0.6450 +1.173
0.3774 +1.288	0.4122 +1.299	0.4324 +1.042	0.4580 +0.963	0.6506 +1.179
0.4450 +1.257	0.4174 +1.277	0.4375 +0.848	0.4640 +1.025	0.6519 +1.203
0.4469 +1.265	0.4187 +1.288	0.4388 +0.780	0.4653 +1.056	0.6532 +1.193
0.4489 +1.252	0.4200 +1.267	0.4401 +0.763	0.4666 +1.057	0.6603 +1.255
0.4572 +1.291	0.4253 +1.077	0.4454 +0.736	0.4811 +1.225	0.6616 +1.263
0.4592 +1.266	0.4266 +0.988	0.4467 +0.767	0.4825 +1.233	0.6679 +1.246
0.4611 +1.276	0.4280 +0.924	0.4480 +0.774	0.4838 +1.288	0.6692 +1.249
0.4747 +1.050	0.4338 +0.617	0.4534 +0.852	0.4901 +1.279	0.6705 +1.264
0.4767 +0.998	0.4351 +0.620	0.4547 +0.860	0.4914 +1.285	0.6763 +1.300
0.4786 +0.946		0.4560 +0.898	0.4985 +1.240	0.6776 +1.343
0.4862 +0.793	2450490 +		0.4998 +1.231	0.6789 +1.315
0.4882 +0.806	0.3465 +1.174	2450813 +	0.5377 +0.751	0.6855 +1.093
0.4901 +0.804	0.3478 +1.131	0.3439 +1.062	0.5390 +0.770	0.6868 +1.040
0.4990 +0.908	0.3491 +1.082	0.3452 +1.010	0.5403 +0.803	0.6881 +1.027
0.5009 +0.946	0.3546 +0.785	0.3465 +0.946	0.5457 +0.879	0.6938 +0.762
0.5029 +0.965	0.3559 +0.664	0.3521 +0.646	0.5470 +0.919	0.6952 +0.724
0.5118 +1.076	0.3573 +0.571	0.3534 +0.659	0.5483 +0.952	0.6965 +0.681
0.5138 +1.102	0.3625 +0.549	0.3547 +0.661	0.5541 +1.021	0.7022 +0.705
0.5157 +1.110	0.3638 +0.572	0.3599 +0.679	0.5554 +1.044	0.7035 +0.745
0.5254 +1.202	0.3651 +0.600	0.3612 +0.701	0.5567 +1.066	0.7048 +0.751
0.5274 +1.201	0.3716 +0.747	0.3625 +0.725	0.5625 +1.154	0.7107 +0.872
0.5293 +1.210	0.3729 +0.784	0.3676 +0.840	0.5638 +1.215	0.7120 +0.907
0.5396 +1.246	0.3784 +0.921	0.3689 +0.878	0.5652 +1.224	0.7133 +0.936
0.5416 +1.254	0.3797 +0.953	0.3702 +0.894	0.5716 +1.233	
0.5435 +1.259	0.3811 +1.008	0.3786 +1.009	0.5729 +1.265	2450848 +
0.5534 +1.246	0.3861 +1.055	0.3799 +1.044	0.5742 +1.278	0.4028 +1.200
0.5554 +1.243	0.3875 +1.077	0.3812 +1.081	0.5802 +1.291	0.4042 +1.197
0.5573 +1.227	0.3888 +1.094	0.3954 +1.220	0.5816 +1.295	0.4055 +1.213
0.5665 +0.970	0.3943 +1.201	0.3967 +1.234	0.5829 +1.300	0.4110 +1.257
0.5685 +0.911	0.3956 +1.226	0.3980 +1.257	0.5887 +1.315	0.4123 +1.244
0.5704 +0.842	0.3969 +1.242	0.4122 +1.291	0.5900 +1.308	0.4137 +1.262
0.5793 +0.713	0.4023 +1.251	0.4135 +1.276	0.5913 +1.296	0.4189 +1.263
0.5813 +0.729	0.4036 +1.260	0.4148 +1.277	0.5970 +1.268	0.4202 +1.265

0.4215 +1.290	0.5557 +0.915	0.3704 +1.281	0.5617 +0.895	0.3265 +1.298
0.4270 +1.248	0.5570 +0.928	0.3726 +1.289	0.5671 +0.780	0.3323 +1.299
0.4283 +1.242	0.5940 +1.278	0.3747 +1.266	0.5684 +0.780	0.3336 +1.314
0.4296 +1.259	0.5953 +1.304	0.3803 +1.234	0.5697 +0.784	0.3349 +1.294
0.4359 +1.196	0.5966 +1.285	0.3825 +1.227	0.5754 +0.826	0.3403 +1.293
0.4372 +1.177	0.6028 +1.244	0.3847 +1.260	0.5767 +0.836	0.3416 +1.280
0.4385 +1.165	0.6041 +1.209	0.4503 +1.281	0.5780 +0.849	0.3430 +1.306
0.4439 +0.968	0.6054 +1.177	0.4516 +1.306	0.6159 +1.233	0.3481 +1.264
0.4452 +0.940	0.6115 +0.984	0.4529 +1.314	0.6172 +1.230	0.3494 +1.207
0.4465 +0.885	0.6128 +0.923	0.4583 +1.273	0.6185 +1.233	0.3507 +1.164
0.4519 +0.773	0.6141 +0.844	0.4596 +1.305	0.6241 +1.274	0.3562 +0.840
0.4532 +0.790	0.6196 +0.584	0.4609 +1.278	0.6254 +1.289	0.3575 +0.740
0.4545 +0.787	0.6209 +0.585	0.4663 +1.215	0.6268 +1.277	0.3588 +0.635
0.4602 +0.821	0.6222 +0.594	0.4676 +1.171	0.6330 +1.258	0.3642 +0.522
0.4615 +0.830	0.6279 +0.686	0.4689 +1.107	0.6343 +1.264	0.3655 +0.548
0.4628 +0.829	0.6292 +0.735	0.4745 +0.850	0.6356 +1.272	0.3668 +0.578
0.4684 +0.898	0.6305 +0.752	0.4758 +0.755	0.6412 +1.073	0.3725 +0.747
0.4697 +0.938	0.6367 +0.914	0.4771 +0.632	0.6425 +1.011	0.3738 +0.796
0.4710 +0.950	0.6380 +0.930	0.4825 +0.549	0.6438 +0.922	0.3751 +0.822
0.4768 +1.045	0.6393 +0.932	0.4838 +0.572	0.6662 +0.783	0.3811 +0.941
0.4781 +1.069	0.6451 +1.040	0.4851 +0.589	0.6676 +0.796	0.3825 +0.982
0.4794 +1.085	0.6464 +1.050	0.4909 +0.756	0.6689 +0.828	0.3838 +1.017
0.4866 +1.159	0.6478 +1.075	0.4922 +0.775		0.3890 +1.082
0.4879 +1.203	0.6533 +1.134	0.4936 +0.810	2450872 +	0.3903 +1.107
0.4892 +1.180	0.6546 +1.145	0.4992 +0.930	0.2666 +1.133	0.3916 +1.100
0.4954 +1.238	0.6559 +1.153	0.5006 +0.931	0.2679 +1.121	0.3973 +1.179
0.4967 +1.248	0.6619 +1.226	0.5019 +0.971	0.2693 +1.063	0.3986 +1.185
0.4980 +1.249	0.6632 +1.227	0.5072 +1.067	0.2747 +0.824	0.3999 +1.195
0.5034 +1.271	0.6646 +1.248	0.5085 +1.079	0.2760 +0.764	0.4057 +1.265
0.5047 +1.258		0.5098 +1.117	0.2773 +0.714	0.4070 +1.298
0.5060 +1.269	2450849 +	0.5154 +1.160	0.2826 +0.683	0.4083 +1.293
0.5117 +1.291	0.2832 +1.265	0.5167 +1.182	0.2839 +0.698	0.4137 +1.287
0.5130 +1.300	0.2854 +1.285	0.5180 +1.197	0.2853 +0.699	0.4150 +1.292
0.5143 +1.279	0.2876 +1.274	0.5234 +1.218	0.2909 +0.813	0.4163 +1.320
0.5202 +1.259	0.2964 +1.156	0.5247 +1.237	0.2922 +0.833	0.4216 +1.304
0.5215 +1.250	0.2986 +1.128	0.5260 +1.243	0.2935 +0.884	0.4229 +1.306
0.5228 +1.217	0.3008 +1.106	0.5320 +1.269	0.2991 +0.959	0.4242 +1.307
0.5289 +0.992	0.3199 +0.832	0.5333 +1.287	0.3005 +0.987	0.4295 +1.220
0.5302 +0.916	0.3221 +0.849	0.5346 +1.287	0.3018 +1.013	0.4308 +1.205
0.5315 +0.851	0.3242 +0.855	0.5404 +1.261	0.3071 +1.085	0.4321 +1.188
0.5373 +0.573	0.3322 +0.979	0.5418 +1.276	0.3084 +1.096	0.4376 +1.046
0.5386 +0.562	0.3343 +1.007	0.5431 +1.268	0.3097 +1.111	0.4390 +0.992
0.5400 +0.567	0.3365 +1.048	0.5491 +1.219	0.3155 +1.198	0.4403 +0.923
0.5460 +0.675	0.3486 +1.192	0.5504 +1.210	0.3169 +1.181	0.4459 +0.752
0.5473 +0.709	0.3589 +1.246	0.5517 +1.179	0.3182 +1.219	0.4472 +0.744
0.5486 +0.744	0.3584 +1.232	0.5591 +0.995	0.3238 +1.268	0.4485 +0.754
0.5544 +0.893	0.3605 +1.246	0.5604 +0.958	0.3251 +1.286	0.4540 +0.800

0.4553 +0.819	0.5906 +1.288	0.3893 +0.903	0.3001 +0.588	0.4311 +1.271
0.4566 +0.825	0.5919 +1.288	0.3906 +0.934	0.3058 +0.710	0.4324 +1.283
0.4647 +0.974	0.5932 +1.310	0.3919 +0.954	0.3071 +0.744	0.4376 +1.277
0.4660 +0.994	0.5990 +1.311	0.3978 +1.082	0.3085 +0.782	0.4390 +1.268
0.4673 +1.018	0.6003 +1.287	0.3991 +1.096	0.3138 +0.884	0.4403 +1.274
0.4732 +1.056	0.6016 +1.308	0.4004 +1.108	0.3151 +0.925	0.4457 +1.254
0.4745 +1.069	0.6069 +1.239	0.4058 +1.165	0.3165 +0.939	0.4470 +1.253
0.4758 +1.096	0.6082 +1.223	0.4071 +1.174	0.3219 +1.070	0.4483 +1.273
0.4814 +1.131	0.6096 +1.196	0.4084 +1.188	0.3232 +1.072	0.4536 +1.205
0.4827 +1.146		0.4171 +1.266	0.3245 +1.091	0.4550 +1.185
0.4840 +1.178	2450899 +	0.4184 +1.261	0.3298 +1.125	0.4563 +1.181
0.4895 +1.229	0.2907 +0.696	0.4198 +1.283	0.3311 +1.144	0.4614 +1.062
0.4908 +1.230	0.2920 +0.701	0.4249 +1.277	0.3324 +1.181	0.4627 +1.011
0.4922 +1.246	0.2933 +0.701	0.4263 +1.292	0.3382 +1.204	0.4640 +0.950
0.4981 +1.260	0.2991 +0.772	0.4276 +1.288	0.3395 +1.223	
0.4994 +1.269	0.3004 +0.802	0.4405 +1.185	0.3408 +1.239	2450903 +
0.5007 +1.260	0.3017 +0.829	0.4418 +1.168	0.3460 +1.283	0.2785 +1.169
0.5062 +1.254	0.3072 +0.940	0.4431 +1.153	0.3473 +1.297	0.2798 +1.170
0.5075 +1.270	0.3086 +0.964	0.4545 +0.732	0.3486 +1.296	0.2811 +1.185
0.5088 +1.278	0.3099 +0.987	0.4558 +0.729	0.3543 +1.298	0.2866 +1.236
0.5144 +1.255	0.3153 +1.049	0.4572 +0.713	0.3556 +1.308	0.2879 +1.269
0.5157 +1.236	0.3166 +1.069	0.4623 +0.775	0.3570 +1.291	0.2892 +1.283
0.5170 +1.228	0.3179 +1.098	0.4636 +0.796	0.3620 +1.250	0.2943 +1.289
0.5226 +1.166	0.3237 +1.138	0.4650 +0.811	0.3633 +1.232	0.2956 +1.302
0.5239 +1.160	0.3251 +1.157	0.4701 +0.876	0.3647 +1.217	0.2969 +1.277
0.5252 +1.107	0.3264 +1.178	0.4714 +0.900	0.3696 +1.095	0.3022 +1.278
0.5315 +0.925	0.3327 +1.246	0.4727 +0.918	0.3710 +1.041	0.3035 +1.275
0.5328 +0.882	0.3340 +1.226	0.4783 +0.996	0.3723 +1.010	0.3048 +1.264
0.5341 +0.856	0.3354 +1.257	0.4796 +1.005	0.3775 +0.744	0.3103 +1.222
0.5394 +0.749	0.3413 +1.287	0.4809 +1.042	0.3789 +0.709	0.3116 +1.232
0.5407 +0.745	0.3426 +1.310	0.4926 +1.162	0.3802 +0.694	0.3129 +1.206
0.5420 +0.763	0.3439 +1.292	0.4983 +1.203	0.3864 +0.728	0.3183 +1.073
0.5476 +0.837	0.3492 +1.296	0.4996 +1.216	0.3878 +0.741	0.3196 +1.043
0.5489 +0.850	0.3505 +1.290	0.5009 +1.240	0.3891 +0.755	0.3209 +0.992
0.5503 +0.872	0.3518 +1.299	0.5065 +1.263	0.3971 +0.888	0.3260 +0.859
0.5564 +0.956	0.3571 +1.238	0.5078 +1.288	0.3984 +0.905	0.3273 +0.849
0.5577 +0.981	0.3584 +1.192	0.5092 +1.276	0.3997 +0.937	0.3287 +0.829
0.5590 +1.004	0.3597 +1.170		0.4060 +1.039	0.3339 +0.822
0.5652 +1.099	0.3651 +0.871	2450902 +	0.4073 +1.046	0.3352 +0.827
0.5665 +1.111	0.3664 +0.784	0.2816 +1.231	0.4086 +1.087	0.3365 +0.854
0.5678 +1.139	0.3677 +0.681	0.2829 +1.207	0.4141 +1.156	0.3419 +0.883
0.5744 +1.178	0.3729 +0.533	0.2842 +1.164	0.4154 +1.173	0.3432 +0.891
0.5757 +1.196	0.3742 +0.539	0.2894 +0.948	0.4167 +1.183	0.3445 +0.918
0.5770 +1.208	0.3756 +0.555	0.2907 +0.860	0.4220 +1.248	0.3500 +0.996
0.5823 +1.247	0.3808 +0.694	0.2920 +0.750	0.4233 +1.251	0.3513 +1.016
0.5836 +1.257	0.3821 +0.736	0.2975 +0.553	0.4246 +1.238	0.3526 +1.028
0.5850 +1.266	0.3834 +0.765	0.2988 +0.556	0.4298 +1.248	0.3577 +1.103

0.3591 +1.097 0.3974 +1.239 0.4355 +0.925 0.4767 +1.308 0.5156 +0.843
0.3604 +1.106 0.3987 +1.240 0.4429 +1.043 0.4780 +1.320 0.5169 +0.882
0.3656 +1.142 0.4001 +1.228 0.4443 +1.065 0.4834 +1.283 0.5182 +0.905
0.3669 +1.172 0.4052 +1.144 0.4456 +1.094 0.4847 +1.261 0.5315 +1.135
0.3682 +1.167 0.4065 +1.093 0.4517 +1.135 0.4860 +1.236 0.5328 +1.151
0.3736 +1.229 0.4079 +1.063 0.4530 +1.151 0.4916 +0.982 0.5341 +1.170
0.3749 +1.237 0.4143 +0.731 0.4543 +1.178 0.4929 +0.884 0.5394 +1.199
0.3762 +1.251 0.4156 +0.689 0.4594 +1.212 0.4943 +0.804 0.5407 +1.206
0.3817 +1.256 0.4169 +0.644 0.4608 +1.242 0.4996 +0.552 0.5420 +1.225
0.3830 +1.279 0.4239 +0.683 0.4621 +1.246 0.5009 +0.547 0.5475 +1.274
0.3843 +1.285 0.4252 +0.676 0.4676 +1.295 0.5022 +0.564 0.5488 +1.269
0.3897 +1.279 0.4266 +0.715 0.4689 +1.279 0.5075 +0.683 0.5502 +1.285
0.3909 +1.293 0.4329 +0.821 0.4702 +1.299 0.5089 +0.705
0.3923 +1.285 0.4342 +0.869 0.4754 +1.304 0.5102 +0.741

Table 5.

Differential V observations of AE UMa

2442062 + 0.5540 +1.129 0.6262 +0.947 0.5239 +0.852
0.5470 +1.283 2442095 + 0.5553 +1.154 0.6290 +0.999 0.5260 +0.856
0.5477 +1.276 0.4977 +1.325 0.5595 +1.215 0.6331 +1.062 0.5301 +0.901
0.5486 +1.277 0.4991 +1.316 0.5623 +1.235 0.6345 +1.078 0.5322 +0.932
0.5502 +1.298 0.5033 +1.305 0.5637 +1.261
0.5519 +1.295 0.5060 +1.303 0.5665 +1.270 2442106 + 2442121 +
0.5579 +1.292 0.5074 +1.292 0.5678 +1.282 0.4423 +1.083 0.4912 +1.108
0.5591 +1.269 0.5102 +1.279 0.5706 +1.290 0.4437 +1.034 0.4925 +1.067
0.5600 +1.253 0.5116 +1.258 0.5720 +1.302 0.4465 +0.938 0.4974 +0.880
0.5611 +1.254 0.5144 +1.223 0.5790 +1.311 0.4479 +0.850 0.5016 +0.752
0.5657 +1.201 0.5175 +1.151 0.5803 +1.318 0.4507 +0.768 0.5050 +0.720
0.5671 +1.169 0.5182 +1.140 0.5831 +1.321 0.4521 +0.753 0.5064 +0.749
0.5680 +1.159 0.5202 +1.064 0.5845 +1.315 0.4548 +0.776 0.5092 +0.802
0.5693 +1.138 0.5209 +1.036 0.5915 +1.319 0.4562 +0.788 0.5106 +0.821
0.5737 +1.043 0.5230 +0.969 0.5928 +1.314 0.4590 +0.811 0.5141 +0.936
0.5750 +1.023 0.5237 +0.963 0.5956 +1.289 0.4604 +0.832 0.5155 +0.971
0.5762 +0.988 0.5258 +0.905 0.5970 +1.275 0.4632 +0.866 0.5196 +1.056
0.5770 +0.981 0.5265 +0.889 0.5998 +1.226 0.4646 +0.892 0.5210 +1.065
0.5804 +0.905 0.5290 +0.865 0.6040 +1.023 0.4673 +0.935
0.5820 +0.891 0.5304 +0.864 0.6053 +0.968 0.4687 +0.971 2442128 +
0.5828 +0.892 0.5331 +0.876 0.6081 +0.838 0.4715 +1.020 0.2884 +1.117
0.5839 +0.900 0.5345 +0.890 0.6095 +0.783 0.4729 +1.038 0.2896 +1.096
0.5852 +0.898 0.5373 +0.918 0.6123 +0.717 0.2913 +0.925
0.5907 +0.932 0.5387 +0.925 0.6137 +0.726 2442119 + 0.2927 +0.871
0.5918 +0.952 0.5429 +1.008 0.6165 +0.762 0.5072 +1.234 0.2936 +0.845
0.5924 +0.957 0.5457 +1.047 0.6178 +0.783 0.5114 +1.160 0.2947 +0.805
0.5934 +0.971 0.5470 +1.081 0.6206 +0.856 0.5135 +1.086 0.2958 +0.811
0.5978 +1.008 0.5498 +1.090 0.6220 +0.874 0.5176 +0.980 0.2969 +0.809
0.5988 +1.020 0.5512 +1.109 0.6248 +0.928 0.5197 +0.921 0.2979 +0.808

0.2991 +0.809	0.3838 +0.920	0.5025 +1.190	0.5292 +1.224	0.3886 +0.860
0.3029 +0.864	0.3877 +0.904	0.5037 +1.200	0.5313 +1.136	0.3899 +0.813
0.3042 +0.877	0.3896 +0.905	0.5118 +1.245	0.5362 +0.957	0.3959 +0.811
0.3066 +0.885	0.3914 +0.927	0.5381 +1.274	0.5376 +0.903	0.4004 +0.864
0.3076 +0.898	0.3927 +0.935	0.5394 +1.243	0.5410 +0.736	0.4018 +0.879
0.3088 +0.913	0.3955 +0.936	0.5406 +1.211	0.5427 +0.716	0.4087 +0.970
0.3100 +0.933	0.3968 +0.951	0.5417 +1.198	0.5459 +0.707	0.4108 +1.011
0.3111 +0.949	0.3992 +0.968	0.5427 +1.180	0.5473 +0.729	0.4163 +1.084
0.3124 +0.984	0.4008 +0.996	0.5445 +1.130	0.5508 +0.804	0.4177 +1.147
0.3170 +1.044	0.4197 +1.176	0.5456 +1.088	0.5522 +0.840	
0.3183 +1.070	0.4210 +1.172	0.5468 +1.058	0.5556 +0.873	2442148 +
0.3197 +1.078	0.4225 +1.198	0.5478 +1.008	0.5570 +0.908	0.3913 +1.278
0.3209 +1.106	0.4237 +1.197	0.5490 +0.956	0.5605 +0.992	0.3927 +1.290
0.3220 +1.104	0.4249 +1.215	0.5499 +0.904	0.5619 +1.029	0.3955 +1.302
0.3232 +1.132	0.4262 +1.213	0.5511 +0.848		0.3969 +1.305
0.3241 +1.131	0.4275 +1.242	0.5597 +0.774	2442134 +	0.3997 +1.303
0.3253 +1.148	0.4289 +1.241	0.5607 +0.799	0.3840 +1.273	0.4011 +1.293
0.3303 +1.199	0.4393 +1.292	0.5619 +0.820	0.3854 +1.288	0.4038 +1.280
0.3315 +1.204	0.4412 +1.285	0.5630 +0.855	0.3889 +1.251	0.4052 +1.291
0.3329 +1.216	0.4427 +1.289	0.5643 +0.857	0.3909 +1.215	0.4219 +0.985
0.3342 +1.214	0.4447 +1.295	0.5654 +0.879	0.3972 +0.999	0.4247 +0.866
0.3356 +1.218	0.4466 +1.294	0.5662 +0.923	0.4028 +0.794	0.4261 +0.783
0.3370 +1.219	0.4479 +1.290	0.5674 +0.945	0.4041 +0.753	0.4274 +0.770
0.3384 +1.221	0.4491 +1.287	0.5754 +1.079	0.4083 +0.731	0.4288 +0.752
0.3395 +1.225	0.4583 +1.206	0.5765 +1.114	0.4097 +0.740	0.4302 +0.752
0.3437 +1.237	0.4599 +1.178		0.4125 +0.801	0.4330 +0.766
0.3448 +1.253	0.4612 +1.142	2442133 +	0.4139 +0.829	0.4344 +0.810
0.3459 +1.257	0.4621 +1.126	0.4410 +1.293	0.4173 +0.894	0.4372 +0.879
0.3473 +1.254	0.4633 +1.092	0.4424 +1.299	0.4187 +0.922	0.4386 +0.882
0.3486 +1.258	0.4645 +1.041	0.4466 +1.229	0.4222 +0.981	0.4413 +0.939
0.3497 +1.257	0.4655 +0.994	0.4480 +1.201	0.4236 +0.994	0.4427 +0.981
0.3508 +1.274	0.4679 +0.854	0.4522 +1.083	0.4264 +1.033	0.4469 +1.064
0.3522 +1.286	0.4691 +0.815	0.4535 +0.991	0.4278 +1.053	0.4483 +1.080
0.3576 +1.308	0.4702 +0.775	0.4570 +0.887	0.4312 +1.094	0.4511 +1.097
0.3591 +1.289	0.4713 +0.762	0.4619 +0.759	0.4326 +1.128	0.4524 +1.119
0.3602 +1.288	0.4722 +0.758	0.4633 +0.752	0.4354 +1.155	0.4552 +1.158
0.3613 +1.294	0.4746 +0.771	0.4688 +0.825	0.4368 +1.146	0.4566 +1.165
0.3624 +1.303	0.4758 +0.801	0.4730 +0.881		0.4594 +1.193
0.3637 +1.282	0.4814 +0.856	0.4744 +0.902	2442147 +	0.4608 +1.193
0.3650 +1.262	0.4826 +0.868	0.5008 +1.262	0.3573 +1.302	0.4636 +1.211
0.3661 +1.264	0.4844 +0.905	0.5077 +1.276	0.3594 +1.309	0.4650 +1.211
0.3727 +1.173	0.4865 +0.947	0.5119 +1.287	0.3649 +1.307	0.4677 +1.269
0.3738 +1.173	0.4877 +0.963	0.5133 +1.308	0.3698 +1.301	0.4691 +1.278
0.3765 +1.114	0.4889 +0.989	0.5181 +1.286	0.3712 +1.291	0.4719 +1.292
0.3785 +1.035	0.4901 +1.017	0.5195 +1.297	0.3768 +1.214	0.4733 +1.288
0.3809 +0.982	0.4911 +1.017	0.5237 +1.291	0.3816 +1.099	0.4761 +1.313
0.3825 +0.941	0.5009 +1.177	0.5251 +1.281	0.3830 +1.051	0.4774 +1.302

0.4844 +1.325
0.4858 +1.325
0.4886 +1.302
0.4899 +1.314
0.5011 +1.124
0.5024 +1.077
0.5052 +0.903
0.5066 +0.807
0.5094 +0.740
0.5108 +0.737
0.5136 +0.739
0.5149 +0.746

2442159 +
0.3960 +1.267
0.3974 +1.268
0.3995 +1.268
0.4005 +1.289
0.4032 +1.296
0.4042 +1.310
0.4067 +1.278
0.4078 +1.278
0.4099 +1.265
0.4109 +1.271
0.4131 +1.244
0.4144 +1.232
0.4161 +1.211
0.4175 +1.217
0.4196 +1.155
0.4203 +1.136
0.4255 +1.006
0.4265 +0.966
0.4289 +0.890
0.4300 +0.871
0.4321 +0.830
0.4328 +0.828
0.4352 +0.800
0.4363 +0.793
0.4398 +0.824
0.4481 +0.965
0.4502 +0.986
0.4512 +0.983
0.4533 +1.034

2442161 +
0.3790 +1.252
0.3804 +1.273
0.3846 +1.277
0.3859 +1.276
0.3901 +1.285
0.3915 +1.293
0.3939 +1.292
0.3953 +1.255
0.3981 +1.249
0.3991 +1.228
0.4012 +1.191
0.4022 +1.153
0.4047 +1.055
0.4054 +1.038
0.4078 +0.936
0.4089 +0.885
0.4113 +0.783
0.4124 +0.729
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0.4221 +0.784

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0.5889 +1.112	0.5142 +1.314	0.6289 +0.897	0.4503 +1.273	0.5631 +1.221
0.5900 +1.118	0.5156 +1.306	0.6303 +0.880	0.4517 +1.279	0.5645 +1.210
	0.5232 +1.316	0.6317 +0.875	0.4531 +1.278	0.5659 +1.166
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0.4097 +1.193	0.5260 +1.314	0.6344 +0.904	0.4558 +1.298	0.5687 +1.123
0.4110 +1.211	0.5274 +1.307	0.6407 +0.951	0.4621 +1.304	0.5752 +0.958
0.4124 +1.222	0.5288 +1.287	0.6421 +0.965	0.4634 +1.303	0.5766 +0.916
0.4138 +1.237	0.5350 +1.075	0.6434 +0.980	0.4648 +1.300	0.5780 +0.906
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0.4228 +1.298	0.5378 +0.939	0.6463 +1.011	0.4675 +1.275	0.5807 +0.881
0.4241 +1.310	0.5392 +0.846	0.6526 +1.105	0.4734 +1.238	0.5821 +0.875
0.4255 +1.322	0.5406 +0.788	0.6540 +1.114	0.4748 +1.214	0.5835 +0.898
0.4269 +1.322	0.5421 +0.737	0.6554 +1.122	0.4762 +1.190	0.5850 +0.904
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0.4379 +1.313	0.5462 +0.731		0.4850 +0.919	0.5955 +1.020
0.4393 +1.304	0.5476 +0.762	2444634 +	0.4864 +0.891	0.5969 +1.040
0.4407 +1.307	0.5541 +0.874	0.3797 +1.312	0.4878 +0.858	0.5983 +1.038
0.4420 +1.316	0.5555 +0.895	0.3811 +1.319	0.4892 +0.847	0.6050 +1.112
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0.4502 +1.141	0.5583 +0.958	0.3839 +1.307	0.4919 +0.853	0.6078 +1.145
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0.4530 +1.046	0.5666 +1.085	0.3917 +1.229	0.4998 +0.948	0.6106 +1.159
0.4543 +0.970	0.5680 +1.107	0.3931 +1.172	0.5012 +0.965	
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0.4614 +0.773	0.5708 +1.138	0.3958 +1.069	0.5040 +0.989	0.3521 +0.976
0.4628 +0.763	0.5722 +1.148	0.3972 +0.997	0.5054 +1.009	0.3535 +0.986
0.4642 +0.772	0.5784 +1.190	0.4027 +0.719	0.5135 +1.104	0.3549 +0.999
0.4656 +0.791	0.5798 +1.209	0.4041 +0.704	0.5149 +1.109	0.3563 +1.015
0.4718 +0.893	0.5812 +1.220	0.4055 +0.712	0.5162 +1.128	0.3577 +1.027
0.4732 +0.918	0.5826 +1.224	0.4069 +0.721	0.5175 +1.144	0.3642 +1.106
0.4746 +0.934	0.5840 +1.244	0.4083 +0.739	0.5189 +1.160	0.3656 +1.122
0.4760 +0.967	0.5901 +1.285	0.4144 +0.868	0.5260 +1.194	0.3670 +1.135
0.4774 +1.003	0.5915 +1.285	0.4158 +0.895	0.5274 +1.208	0.3684 +1.148

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2444692 +	0.4967 +1.126	0.4939 +0.825		0.3999 +1.096
0.3859 +0.936	0.4981 +1.143	0.5017 +0.928	2445382 +	0.4013 +1.059
0.3873 +0.933	0.4995 +1.158	0.5031 +0.945	0.2843 +1.314	0.4027 +1.011
0.3886 +0.946	0.5009 +1.169	0.5044 +0.975	0.2857 +1.310	0.4041 +0.984
0.3900 +0.967		0.5058 +1.000	0.2870 +1.301	0.4055 +0.948
0.3914 +0.986	2444987 +	0.5072 +1.011	0.2884 +1.317	0.4068 +0.917
0.3976 +1.039	0.4497 +1.171	0.5142 +1.119	0.2898 +1.313	0.4082 +0.902
0.3990 +1.049	0.4511 +1.183	0.5156 +1.129	0.2974 +1.306	0.4099 +0.878
0.4004 +1.072	0.4525 +1.200	0.5169 +1.145	0.2988 +1.320	0.4113 +0.891
0.4018 +1.086	0.4539 +1.201	0.5183 +1.172	0.3002 +1.310	0.4127 +0.897
0.4032 +1.095	0.4553 +1.205	0.5197 +1.192	0.3016 +1.308	0.4140 +0.916
0.4094 +1.151	0.4631 +1.248	0.5259 +1.235	0.3030 +1.285	0.4154 +0.927
0.4108 +1.153	0.4645 +1.260	0.5272 +1.251	0.3099 +1.178	0.4212 +0.979
0.4122 +1.163	0.4659 +1.267	0.5286 +1.259	0.3113 +1.149	0.4226 +1.002
0.4136 +1.171	0.4672 +1.274	0.5300 +1.273	0.3127 +1.104	0.4240 +1.018
0.4150 +1.190	0.4686 +1.273	0.5314 +1.267	0.3140 +1.038	0.4253 +1.034
0.4223 +1.227	0.4760 +1.283	0.5360 +1.274	0.3154 +0.966	0.4267 +1.041
0.4237 +1.235	0.4774 +1.283	0.5489 +1.294	0.3218 +0.736	0.4328 +1.080
0.4250 +1.234	0.4788 +1.278	0.5503 +1.300	0.3232 +0.726	0.4342 +1.102
0.4264 +1.245	0.4802 +1.272	0.5517 +1.295	0.3246 +0.737	0.4355 +1.115
0.4278 +1.250	0.4815 +1.259	0.5530 +1.282	0.3260 +0.754	0.4369 +1.130
0.4355 +1.267		0.5544 +1.274	0.3274 +0.779	0.4383 +1.144
0.4368 +1.271	2445355 +	0.5612 +1.115	0.3352 +0.934	0.4477 +1.207
0.4382 +1.277	0.4309 +1.128	0.5626 +1.053	0.3366 +0.970	0.4490 +1.219
0.4396 +1.280	0.4322 +1.149	0.5640 +0.994	0.3380 +0.996	0.4504 +1.216
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0.4507 +1.291	0.4469 +1.229	0.5695 +0.711	0.3513 +1.138	0.4611 +1.285
0.4521 +1.282	0.4483 +1.231	0.5717 +0.690	0.3527 +1.144	0.4625 +1.286
0.4534 +1.243	0.4497 +1.248	0.5731 +0.690	0.3540 +1.170	0.4639 +1.281
0.4605 +1.073	0.4511 +1.252	0.5745 +0.706	0.3554 +1.170	0.4652 +1.283
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0.4632 +0.964	0.4635 +1.276		0.3641 +1.248	0.4742 +1.287
0.4646 +0.914	0.4649 +1.272	2445381 +	0.3655 +1.258	0.4756 +1.296
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0.4679 +0.800	0.4677 +1.282	0.3058 +0.950	0.3682 +1.272	0.4784 +1.270
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0.4868 +0.972	0.4898 +0.804	0.3232 +1.163	0.3902 +1.253	0.5005 +0.816
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0.4354 +0.750

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0.4563 +1.024

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0.7136 +1.022

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0.5410 +1.237
0.5423 +1.240
0.5478 +1.286
0.5491 +1.267
0.5504 +1.262

Table 6.
Differential R observations of AE UMa

2450151 +	0.3302 +0.981	0.5820 +0.959	0.3975 +1.239	0.3985 +1.283
0.4448 +1.169	0.3385 +1.102	0.5840 +0.960	0.4028 +1.270	0.4127 +1.290
0.4468 +1.094	0.3405 +1.120	0.5938 +1.079	0.4041 +1.258	0.4140 +1.297
0.4487 +1.004	0.3424 +1.150	0.5958 +1.096	0.4055 +1.258	0.4153 +1.292
0.4611 +0.854	0.3503 +1.204	0.5977 +1.107	0.4111 +1.290	0.4207 +1.236
0.4630 +0.880	0.3522 +1.216		0.4124 +1.301	0.4220 +1.240
0.4650 +0.913	0.3542 +1.226	2450487 +	0.4138 +1.289	0.4287 +1.133
0.4810 +1.147	0.3622 +1.277	0.3857 +1.210	0.4188 +1.253	0.4301 +1.134
0.4829 +1.167	0.3642 +1.282	0.3870 +1.225	0.4201 +1.247	0.4372 +0.983
0.4849 +1.185	0.3661 +1.290	0.3883 +1.220	0.4214 +1.264	0.4385 +0.971
0.4966 +1.241	0.3743 +1.297	0.4016 +1.276		0.4398 +0.971
0.4986 +1.260	0.3762 +1.335	0.4029 +1.297	2450554 +	0.4459 +0.987
0.5005 +1.269	0.3782 +1.315	0.4042 +1.325	0.4097 +1.278	0.4472 +1.007
0.5120 +1.305	0.4458 +1.231	0.4101 +1.304	0.4110 +1.286	0.4485 +1.047
0.5140 +1.325	0.4477 +1.251	0.4114 +1.298	0.4123 +1.290	0.4558 +1.090
0.5159 +1.326	0.4497 +1.248	0.4127 +1.290	0.4303 +1.197	0.4571 +1.113
0.5255 +1.218	0.4580 +1.251	0.4179 +1.274	0.4316 +1.167	0.4585 +1.123
0.5274 +1.168	0.4599 +1.249	0.4192 +1.304	0.4329 +1.152	0.4645 +1.129
0.5294 +1.148	0.4519 +1.243	0.4206 +1.295	0.4380 +0.986	0.4658 +1.125
0.5407 +0.869	0.4755 +1.140	0.4259 +1.131	0.4393 +0.958	0.4672 +1.156
0.5427 +0.888	0.4775 +1.100	0.4272 +1.103	0.4406 +0.940	0.4817 +1.252
0.5446 +0.904	0.4794 +1.048	0.4285 +1.001	0.4459 +0.940	0.4830 +1.285
0.5598 +1.106	0.4870 +0.983	0.4343 +0.839	0.4472 +0.940	0.4843 +1.298
0.5618 +1.106	0.4890 +0.984	0.4356 +0.848	0.4485 +0.944	0.4906 +1.307
0.5637 +1.142	0.4909 +1.002		0.4539 +1.006	0.4920 +1.335
0.5626 +1.191	0.4997 +1.058	2450490 +	0.4552 +1.023	0.4990 +1.276
0.5746 +1.215	0.5017 +1.074	0.3470 +1.228	0.4565 +1.041	0.5003 +1.260
0.5765 +1.241	0.5037 +1.101	0.3483 +1.187		0.5382 +0.948
0.5858 +1.250	0.5126 +1.164	0.3496 +1.158	2450813 +	0.5395 +0.962
0.5877 +1.271	0.5146 +1.175	0.3552 +0.912	0.3444 +1.143	0.5408 +0.980
0.5897 +1.246	0.5165 +1.174	0.3565 +0.848	0.3457 +1.105	0.5462 +1.028
0.5998 +1.243	0.5262 +1.218	0.3578 +0.798	0.3470 +1.110	0.5475 +1.070
0.6007 +1.235	0.5282 +1.229	0.3630 +0.804	0.3526 +0.942	0.5488 +1.075
0.6027 +1.236	0.5301 +1.226	0.3643 +0.836	0.3604 +0.912	0.5546 +1.106
	0.5404 +1.272	0.3708 +0.947	0.3617 +0.949	0.5560 +1.121
2450152 +	0.5424 +1.301	0.3721 +0.977	0.3631 +0.998	0.5573 +1.125
0.3008 +1.228	0.5443 +1.301	0.3735 +0.980	0.3681 +1.006	0.5631 +1.207
0.3027 +1.200	0.5542 +1.289	0.3790 +1.092	0.3694 +1.015	0.5644 +1.254
0.3047 +1.161	0.5561 +1.278	0.3816 +1.122	0.3707 +1.074	0.5657 +1.254
0.3133 +0.888	0.5581 +1.257	0.3867 +1.171	0.3791 +1.051	0.5721 +1.266
0.3153 +0.855	0.5673 +1.090	0.3880 +1.185	0.3804 +1.073	0.5734 +1.285
0.3183 +0.848	0.5692 +1.039	0.3893 +1.197	0.3817 +1.126	0.5747 +1.287
0.3263 +0.935	0.5712 +0.998	0.3948 +1.237	0.3959 +1.233	0.5808 +1.277
0.3282 +0.973	0.5801 +0.936	0.3962 +1.254	0.3972 +1.280	0.5821 +1.299

0.5834 +1.311	0.4194 +1.287	0.5549 +1.035	0.3614 +1.286	0.5609 +1.068
0.5892 +1.333	0.4207 +1.274	0.5562 +1.055	0.3713 +1.320	0.5622 +1.030
0.5905 +1.324	0.4220 +1.296	0.5576 +1.075	0.3734 +1.302	0.5676 +0.980
0.5919 +1.326	0.4275 +1.278	0.5945 +1.297	0.3756 +1.292	0.5689 +0.965
0.5975 +1.285	0.4288 +1.286	0.5958 +1.294	0.3812 +1.269	0.5702 +0.971
0.5988 +1.271	0.4301 +1.264	0.5971 +1.301	0.3834 +1.280	0.5759 +0.986
0.6001 +1.276	0.4364 +1.223	0.6033 +1.279	0.3855 +1.291	0.5772 +1.016
0.6074 +1.046	0.4377 +1.189	0.6046 +1.241	0.4508 +1.326	0.5785 +1.017
0.6087 +1.001	0.4444 +1.114	0.6059 +1.228	0.4521 +1.310	0.6164 +1.259
0.6100 +0.999	0.4457 +1.074	0.6120 +1.102	0.4535 +1.324	0.6177 +1.271
0.6247 +0.971	0.4471 +1.050	0.6133 +1.044	0.4588 +1.321	0.6191 +1.270
0.6273 +0.976	0.4524 +0.981	0.6146 +0.992	0.4601 +1.317	0.6247 +1.289
0.6341 +1.061	0.4537 +0.980	0.6201 +0.829	0.4614 +1.287	0.6260 +1.296
0.6354 +1.088	0.4551 +0.955	0.6214 +0.818	0.4668 +1.258	0.6273 +1.304
0.6367 +1.133	0.4607 +0.990	0.6227 +0.825	0.4681 +1.230	0.6335 +1.307
0.6429 +1.163	0.4620 +1.005	0.6284 +0.911	0.4694 +1.182	0.6349 +1.298
0.6442 +1.174	0.4633 +1.003	0.6297 +0.941	0.4750 +0.985	0.6362 +1.277
0.6455 +1.207	0.4689 +1.066	0.6311 +0.952	0.4763 +0.925	0.6417 +1.224
0.6511 +1.191	0.4702 +1.080	0.6372 +1.060	0.4776 +0.855	0.6430 +1.216
0.6524 +1.190	0.4715 +1.089	0.6386 +1.067	0.4830 +0.815	0.6443 +1.183
0.6537 +1.226	0.4773 +1.140	0.6399 +1.065	0.4843 +0.832	0.6668 +0.938
0.6595 +1.269	0.4786 +1.168	0.6457 +1.143	0.4856 +0.855	0.6681 +0.959
0.6608 +1.250	0.4799 +1.165	0.6470 +1.153	0.4915 +0.947	0.6694 +0.976
0.6621 +1.282	0.4871 +1.218	0.6483 +1.148	0.4928 +0.965	
0.6684 +1.263	0.4884 +1.221	0.6538 +1.219	0.4941 +0.981	2450872 +
0.6697 +1.286	0.4897 +1.234	0.6551 +1.201	0.4998 +1.070	0.2672 +1.196
0.6710 +1.272	0.4959 +1.249	0.6565 +1.226	0.5011 +1.072	0.2685 +1.179
0.6768 +1.321	0.4972 +1.284	0.6625 +1.253	0.5024 +1.088	0.2698 +1.154
0.6781 +1.306	0.4985 +1.280	0.6638 +1.254	0.5077 +1.158	0.2752 +0.963
0.6794 +1.328	0.5039 +1.278	0.6651 +1.255	0.5090 +1.143	0.2765 +0.924
0.6860 +1.149	0.5052 +1.292		0.5104 +1.164	0.2779 +0.904
0.6873 +1.121	0.5065 +1.281	2450849 +	0.5159 +1.210	0.2832 +0.920
0.6886 +1.102	0.5122 +1.310	0.2841 +1.293	0.5173 +1.228	0.2845 +0.921
0.6944 +0.947	0.5135 +1.313	0.2863 +1.294	0.5186 +1.231	0.2858 +0.922
0.6957 +0.918	0.5148 +1.300	0.2885 +1.295	0.5240 +1.256	0.2914 +1.004
0.6970 +0.903	0.5207 +1.286	0.2973 +1.231	0.5253 +1.270	0.2928 +1.015
0.7027 +0.925	0.5220 +1.282	0.2995 +1.209	0.5266 +1.283	0.2941 +1.065
0.7040 +0.940	0.5233 +1.273	0.3017 +1.188	0.5325 +1.279	0.2997 +1.088
0.7053 +0.961	0.5294 +1.109	0.3208 +0.979	0.5338 +1.297	0.3010 +1.099
	0.5307 +1.041	0.3229 +0.990	0.5351 +1.296	0.3023 +1.113
2450848 +	0.5320 +1.001	0.3251 +0.996	0.5410 +1.303	0.3076 +1.178
0.4034 +1.247	0.5379 +0.822	0.3330 +1.083	0.5423 +1.307	0.3089 +1.180
0.4047 +1.255	0.5392 +0.816	0.3352 +1.107	0.5436 +1.284	0.3102 +1.178
0.4060 +1.258	0.5405 +0.815	0.3374 +1.138	0.5496 +1.266	0.3161 +1.252
0.4116 +1.279	0.5465 +0.904	0.3495 +1.217	0.5509 +1.248	0.3174 +1.227
0.4129 +1.280	0.5478 +0.932	0.3571 +1.249	0.5522 +1.225	0.3187 +1.254
0.4142 +1.265	0.5492 +0.952	0.3593 +1.268	0.5596 +1.091	0.3243 +1.297

0.3257 +1.306	0.4545 +0.979	0.5855 +1.289	0.3839 +0.965	0.2980 +0.809
0.3270 +1.303	0.4558 +1.000	0.5911 +1.308	0.3898 +1.046	0.2993 +0.853
0.3328 +1.308	0.4571 +1.011	0.5924 +1.307	0.3911 +1.061	0.3006 +0.850
0.3341 +1.313	0.4652 +1.095	0.5937 +1.325	0.3924 +1.070	0.3063 +0.941
0.3354 +1.329	0.4665 +1.100	0.5995 +1.299	0.3983 +1.144	0.3077 +0.961
0.3408 +1.288	0.4678 +1.128	0.6008 +1.308	0.3996 +1.154	0.3090 +0.979
0.3422 +1.274	0.4737 +1.150	0.6022 +1.313	0.4009 +1.175	0.3143 +1.018
0.3435 +1.310	0.4751 +1.160	0.6075 +1.274	0.4063 +1.224	0.3157 +1.045
0.3486 +1.282	0.4764 +1.164	0.6088 +1.262	0.4076 +1.221	0.3170 +1.065
0.3499 +1.234	0.4819 +1.203	0.6101 +1.236	0.4089 +1.242	0.3224 +1.156
0.3513 +1.182	0.4832 +1.200		0.4177 +1.277	0.3237 +1.155
0.3567 +0.989	0.4846 +1.220	2450899 +	0.4190 +1.282	0.3250 +1.158
0.3580 +0.939	0.4901 +1.269	0.2912 +0.899	0.4203 +1.292	0.3303 +1.203
0.3593 +0.893	0.4914 +1.257	0.2925 +0.911	0.4255 +1.297	0.3316 +1.230
0.3647 +0.809	0.4927 +1.283	0.2938 +0.913	0.4268 +1.308	0.3329 +1.209
0.3660 +0.819	0.4986 +1.282	0.2996 +0.956	0.4281 +1.316	0.3387 +1.256
0.3673 +0.836	0.4999 +1.295	0.3009 +0.979	0.4410 +1.264	0.3400 +1.251
0.3730 +0.947	0.5012 +1.283	0.3023 +0.994	0.4423 +1.228	0.3415 +1.258
0.3743 +0.976	0.5067 +1.286	0.3078 +1.054	0.4436 +1.211	0.3465 +1.292
0.3756 +1.006	0.5080 +1.282	0.3091 +1.074	0.4551 +0.933	0.3478 +1.288
0.3817 +1.078	0.5094 +1.290	0.3104 +1.097	0.4564 +0.943	0.3492 +1.296
0.3830 +1.095	0.5149 +1.286	0.3158 +1.121	0.4577 +0.931	0.3548 +1.312
0.3843 +1.095	0.5163 +1.284	0.3171 +1.145	0.4629 +0.984	0.3562 +1.297
0.3895 +1.151	0.5176 +1.277	0.3185 +1.154	0.4642 +0.978	0.3575 +1.291
0.3908 +1.163	0.5231 +1.218	0.3243 +1.193	0.4655 +0.992	0.3625 +1.278
0.3921 +1.182	0.5244 +1.210	0.3256 +1.218	0.4706 +1.030	0.3639 +1.266
0.3978 +1.232	0.5258 +1.191	0.3269 +1.224	0.4720 +1.053	0.3652 +1.254
0.3991 +1.224	0.5320 +1.046	0.3332 +1.248	0.4733 +1.056	0.3702 +1.170
0.4004 +1.222	0.5333 +1.024	0.3345 +1.263	0.4788 +1.103	0.3715 +1.141
0.4062 +1.290	0.5346 +1.011	0.3359 +1.274	0.4801 +1.127	0.3728 +1.101
0.4075 +1.299	0.5399 +0.942	0.3418 +1.307	0.4814 +1.133	0.3781 +0.939
0.4089 +1.284	0.5412 +0.947	0.3431 +1.313	0.4918 +1.198	0.3794 +0.923
0.4142 +1.308	0.5425 +0.980	0.3444 +1.275	0.4931 +1.213	0.3807 +0.901
0.4155 +1.311	0.5481 +1.003	0.3497 +1.315	0.4988 +1.233	0.3870 +0.928
0.4168 +1.314	0.5495 +1.036	0.3510 +1.304	0.5001 +1.254	0.3883 +0.943
0.4221 +1.309	0.5508 +1.039	0.3523 +1.316	0.5014 +1.270	0.3896 +0.963
0.4234 +1.316	0.5569 +1.093	0.3576 +1.287	0.5071 +1.291	0.3976 +1.031
0.4247 +1.310	0.5582 +1.113	0.3589 +1.256	0.5084 +1.295	0.3989 +1.050
0.4300 +1.271	0.5595 +1.127	0.3602 +1.211	0.5097 +1.278	0.4002 +1.071
0.4313 +1.248	0.5657 +1.188	0.3656 +1.019		0.4065 +1.146
0.4326 +1.218	0.5670 +1.183	0.3669 +0.947	2450902 +	0.4078 +1.155
0.4382 +1.129	0.5683 +1.203	0.3683 +0.880	0.2821 +1.245	0.4091 +1.180
0.4395 +1.088	0.5749 +1.226	0.3735 +0.793	0.2835 +1.239	0.4146 +1.211
0.4408 +1.043	0.5762 +1.227	0.3748 +0.810	0.2848 +1.226	0.4159 +1.218
0.4464 +0.954	0.5775 +1.261	0.3761 +0.827	0.2899 +1.062	0.4173 +1.216
0.4477 +0.940	0.5828 +1.264	0.3813 +0.916	0.2912 +0.981	0.4225 +1.265
0.4491 +0.953	0.5842 +1.277	0.3826 +0.942	0.2925 +0.926	0.4238 +1.281

0.4252 +1.269 0.2948 +1.281 0.3583 +1.169 0.4244 +0.905 0.4921 +1.084
0.4303 +1.281 0.2961 +1.280 0.3596 +1.192 0.4258 +0.911 0.4935 +1.016
0.4316 +1.283 0.2974 +1.286 0.3609 +1.193 0.4271 +0.935 0.4948 +0.950
0.4329 +1.304 0.3027 +1.301 0.3661 +1.216 0.4334 +1.009 0.5001 +0.801
0.4382 +1.272 0.3040 +1.293 0.3674 +1.214 0.4347 +1.048 0.5014 +0.812
0.4395 +1.263 0.3054 +1.302 0.3687 +1.223 0.4360 +1.062 0.5027 +0.825
0.4408 +1.288 0.3108 +1.264 0.3741 +1.240 0.4435 +1.130 0.5081 +0.911
0.4462 +1.253 0.3121 +1.253 0.3754 +1.246 0.4448 +1.153 0.5094 +0.932
0.4475 +1.264 0.3134 +1.243 0.3767 +1.258 0.4461 +1.174 0.5107 +0.944
0.4488 +1.280 0.3188 +1.162 0.3822 +1.268 0.4522 +1.194 0.5161 +1.019
0.4542 +1.238 0.3201 +1.130 0.3835 +1.290 0.4535 +1.217 0.5174 +1.040
0.4555 +1.238 0.3214 +1.112 0.3848 +1.301 0.4548 +1.207 0.5187 +1.041
0.4568 +1.233 0.3265 +1.014 0.3901 +1.295 0.4600 +1.251 0.5320 +1.155
0.4619 +1.146 0.3279 +1.005 0.3915 +1.298 0.4613 +1.255 0.5333 +1.190
0.4632 +1.083 0.3292 +1.009 0.3928 +1.275 0.4626 +1.270 0.5346 +1.223
0.4645 +1.090 0.3344 +0.990 0.3979 +1.279 0.4681 +1.293 0.5399 +1.227
0.3357 +1.000 0.3993 +1.271 0.4694 +1.294 0.5412 +1.241
2450903 + 0.3370 +1.005 0.4006 +1.249 0.4707 +1.298 0.5425 +1.230
0.2790 +1.209 0.3424 +1.037 0.4058 +1.199 0.4759 +1.325 0.5479 +1.277
0.2803 +1.224 0.3438 +1.060 0.4071 +1.167 0.4772 +1.310 0.5494 +1.269
0.2816 +1.239 0.3451 +1.060 0.4084 +1.137 0.4785 +1.302 0.5507 +1.285
0.2871 +1.266 0.3505 +1.118 0.4148 +0.931 0.4839 +1.298
0.2884 +1.286 0.3518 +1.117 0.4161 +0.887 0.4852 +1.261
0.2897 +1.300 0.3531 +1.132 0.4174 +0.886 0.4865 +1.274

Table 7.

Differential I observations of AE UMa

2450152 + 0.4759 +1.197 0.5565 +1.244 0.4103 +1.287 0.3711 +1.018
0.3137 +1.012 0.4778 +1.142 0.5585 +1.284 0.4117 +1.310 0.3724 +1.059
0.3157 +0.986 0.4798 +1.105 0.5677 +1.164 0.4130 +1.267 0.3737 +1.043
0.3177 +0.959 0.4874 +1.075 0.5696 +1.128 0.4182 +1.259 0.3792 +1.160
0.3267 +1.025 0.4893 +1.038 0.5716 +1.048 0.4195 +1.250 0.3805 +1.216
0.3286 +1.003 0.4913 +1.080 0.5805 +1.024 0.4208 +1.280 0.3818 +1.199
0.3306 +1.106 0.5001 +1.141 0.5824 +1.022 0.4261 +1.176 0.3869 +1.235
0.3389 +1.150 0.5021 +1.149 0.5844 +1.025 0.4274 +1.178 0.3882 +1.166
0.3408 +1.157 0.5040 +1.148 0.5942 +1.189 0.4287 +1.021 0.3895 +1.175
0.3428 +1.176 0.5130 +1.162 0.5961 +1.231 0.3951 +1.237
0.3506 +1.217 0.5150 +1.199 0.5981 +1.082 2450490 + 0.3964 +1.247
0.3526 +1.212 0.5169 +1.234 0.3472 +1.252 0.3977 +1.277
0.3546 +1.220 0.5266 +1.214 2450487 + 0.3486 +1.215 0.4031 +1.231
0.3626 +1.295 0.5285 +1.192 0.3859 +1.226 0.3499 +1.184 0.4044 +1.246
0.3645 +1.269 0.5305 +1.240 0.3873 +1.230 0.3554 +0.994 0.4057 +1.268
0.3665 +1.291 0.5408 +1.292 0.3886 +1.231 0.3567 +0.930 0.4114 +1.261
0.3747 +1.321 0.5427 +1.259 0.4019 +1.263 0.3581 +0.917 0.4127 +1.314
0.3766 +1.402 0.5447 +1.277 0.4032 +1.298 0.3633 +0.946 0.4140 +1.267
0.3786 +1.383 0.5546 +1.263 0.4045 +1.307 0.3646 +0.963 0.4191 +1.256

0.4204 +1.273
0.4217 +1.296

2450554 +
0.4099 +1.290
0.4112 +1.303
0.4125 +1.297
0.4318 +1.212
0.4332 +1.195
0.4382 +1.084
0.4396 +1.043
0.4409 +1.054
0.4461 +1.052
0.4475 +1.034
0.4488 +1.010
0.4542 +1.065
0.4555 +1.077
0.4568 +1.094

2450813 +
0.3962 +1.206
0.3975 +1.215
0.3988 +1.252
0.4130 +1.245
0.4143 +1.238
0.4156 +1.252
0.4209 +1.223
0.4222 +1.265
0.4290 +1.178
0.4303 +1.165
0.4375 +1.047
0.4388 +1.047
0.4401 +1.070
0.4461 +1.099
0.4474 +1.125
0.4488 +1.140
0.4561 +1.145
0.4574 +1.141
0.4587 +1.170
0.4648 +1.145
0.4661 +1.167
0.4674 +1.184
0.4819 +1.250
0.4832 +1.327
0.4909 +1.295
0.4922 +1.322
0.4993 +1.270

0.5006 +1.277
0.5385 +1.013
0.5398 +1.017
0.5411 +1.063
0.5464 +1.106
0.5478 +1.114
0.5491 +1.102
0.5549 +1.093
0.5562 +1.114
0.5575 +1.138
0.5633 +1.223
0.5646 +1.240
0.5660 +1.253
0.5724 +1.310
0.5737 +1.315
0.5750 +1.310
0.5810 +1.296
0.5823 +1.289
0.5836 +1.301
0.5895 +1.312
0.5908 +1.323
0.5921 +1.310
0.5977 +1.318
0.5991 +1.320
0.6004 +1.265
0.6076 +1.116
0.6089 +1.106
0.6103 +1.075
0.6249 +1.027
0.6262 +1.050
0.6276 +1.034
0.6343 +1.075
0.6357 +1.096
0.6370 +1.151
0.6432 +1.182
0.6445 +1.190
0.6458 +1.256
0.6514 +1.170
0.6527 +1.199
0.6540 +1.250
0.6598 +1.233
0.6624 +1.258
0.6687 +1.270
0.6700 +1.269
0.6713 +1.262
0.6784 +1.322
0.6863 +1.186

0.6876 +1.179
0.6889 +1.132
0.6946 +1.049
0.6959 +1.008
0.6973 +1.007
0.7030 +1.000
0.7043 +1.013
0.7056 +1.046

2450848 +
0.4036 +1.184
0.4049 +1.224
0.4062 +1.263
0.4118 +1.282
0.4131 +1.266
0.4144 +1.320
0.4197 +1.320
0.4210 +1.257
0.4278 +1.266
0.4291 +1.288
0.4304 +1.326
0.4367 +1.283
0.4380 +1.271
0.4447 +1.165
0.4460 +1.173
0.4473 +1.129
0.4527 +1.063
0.4540 +1.076
0.4553 +1.041
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0.4623 +1.079
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0.3009 +0.950	0.3992 +1.115	0.2950 +1.302	0.3917 +1.278	0.4868 +1.266
0.3066 +0.957	0.4005 +1.121	0.2964 +1.342	0.3930 +1.246	0.4924 +1.135
0.3079 +0.963	0.4068 +1.149	0.2977 +1.304	0.3982 +1.279	0.4937 +1.095
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