TABLE III ცხრილი

Phase	Ph. Mg.	n	Phase	Ph. Mg.	n	Phase	Ph. Mg.	n
	m			m			m	
0.007	10.70	10	0.286	10.03	10	0.663	10.11	10
042	10.57	10	328	10.00	10	700	10.10	10
099	10.28	10	357	10.06	10	750	10.00	10
116	10.15	10	408	10.29	10	782	10.06	10
146	10.15	10	461	10.59	10	846	10.12	10
103	10.01	10	503	10.71	10	918	10.39	11
229	10.01	10	592	10.30	10	970	10.68	10
252	10.02	10						

From the light-curve we derive

$$\text{Max} = 10^m.00; \qquad A_I = A_{II} = 0^m.70.$$

The plates were measured by E. Dolidse and G. Oragvelidse.

June, 1936.

Literature: ლიტერატურა:

1. B. Z. 13, 1929.
2. K. V. BB. 6, 1929.
3. V. S. IV, 12, p. 415, 1935.
4. Bull. Abast. Obs. 1, p. 10, 1937.

RZ COMAE BERENICES

ფოტოგრაფიული სიკაშკაშის მრუდი და ელემენტები

ვ. ბოდოკია

(რეზიუმე)

1936 წლის ზაფხულს 13" რეფლექტორის Newton-ის ფოკუსში მიღებული იყო RZ Comae Berenices-ის 222 ფოტოგრაფიული გამონახახი.

Prager-ის მიერ მოცემული ელემენტების საფუძველზე მიღებულ იქნა პერიოდის შესწორება

$$\Delta P = 0^d.0000017$$

და ამის მიხედვით ელემენტების ახალი მნიშვნელობა:

$$\text{Min} = 2425005.524 + 0^d.3385057 \cdot E.$$

ნახ. 1 გამოსახავს ცვალებადის სიკაშკაშის საშუალო მრუდს.

ივნისი, 1936.

ᲐᲑᲐᲡᲗᲣᲛᲜᲘᲡ ᲐᲡᲢᲠᲝᲤᲘᲖᲘᲙᲣᲠᲘ ᲝᲑᲡᲔᲠᲕᲐᲢᲝᲠᲘᲘᲡ ᲑᲘᲣᲚᲔᲢᲔᲜᲘ № 2. 1938
БЮЛЛЕТЕНЬ АБАСТУМАНСКОЙ АСТРОФИЗИЧЕСКОЙ ОБСЕРВАТОРИИ № 2. 1938
BULLETIN OF THE ABASTUMANI ASTROPHYSICAL OBSERVATORY No. 2. 1938

AH AURIGAE
PHOTOGRAPHIC LIGHT-CURVE AND ELEMENTS

V. M. BODOKIA

R. Prager and P. Guthnick found in 1928[1] that the star AH Aurigae ($\alpha_{1855} = 6^h\,16^m\,57^s$; $\delta_{1855} = +28°4'.5$) belongs to the group of the short-period eclipsing W Ursae Majoris type stars. The following elements were given by Prager[2]:

$$\text{Min} = 2425271.366 + 0^d.494157 \cdot E.$$

The photographic light-curve and elements given in this note are derived from the study of 220 photographic images. The observational material was obtained with 13-inch reflector of Abastumani Observatory on Ilford Monarch plates (emulsion 6428 A) from December 10, 1936 to February 18, 1937, the length of exposures being 5 or 6 minutes.

Two plates on which the area of AH Aurigae and KSA 26 were taken served for the determination of the brightness of comparison stars. From the comparison of those areas we obtained the following values of magnitudes for the comparison stars:

TABLE I ცხრილი

Star		Mg
a) BD+28°1112	($9^m.1$)	$9^m.92$
b) BD+28°1118	($9^m.5$)	10.44
c) Anonyma $\alpha_{1855} = 6^h\,14^m\,54^s$, $\delta_{1855} = +28°14'.0$		10.20
d) Anonyma $\alpha_{1855} = 6^h\,15^m.22^s$, $\delta_{1855} = +28°19'.4$		10.80

It must be remarked that it was often impossible to use all those comparison stars because the area was rich in stars and this circumstance hindered us to measure them accurately enough with the microphotometer.

In Table II the individual observations are listed.

TABLE II Gb60Q0

J. D.⊙	Ph. Mg.	J. D.⊙	Ph. Mg.	J. D.⊙	Ph. Mg.
	m		m		m
2428513.354	10.35	2428519.517	10.55	2428536.363	10.59
361	10.34	521	10.78	367	10.52
373	10.41	525	10.96	370	10.46
398	10.30	530	10.89	381	10.60
403	10.41	534	10.93	384	10.43
408	10.26	538	10.68	388	10.55
2428517.221	10.74	546	10.85	392	10.57
228	10.72	2428520.293	10.36	399	10.50
232	10.60	297	10.57	402	10.55
235	10.50	301	10.56	406	10.46
239	10.67	310	10.40	2428541.351	10.34
242	10.70	314	10.41	355	10.60
246	10.66	318	10.54	362	10.52
511	10.78	331	10.60	366	10.54
518	10.65	335	10.46	381	10.70
2428518.214	10.75	339	10.56	385	10.70
221	10.74	351	10.49	389	10.61
225	10.77	355	10.44	393	10.71
228	10.78	360	10.54	2428542.297	10.30
232	10.57	397	10.42	312	10.30
235	10.73	402	10.59	316	10.41
239	10.50	410	10.62	320	10.31
256	10.67	428	10.59	324	10.60
259	10.33	432	10.63	328	10.60
263	10.53	437	10.63	343	10.46
267	10.60	441	10.71	346	10.31
270	10.60	445	10.83	351	10.55
274	10.46	449	10.76	355	10.50
297	10.43	453	10.78	359	10.64
301	10.74	2428522.455	10.60	363	10.60
305	10.54	459	10.80	368	10.60
308	10.25	464	10.72	371	10.63
312	10.33	468	10.84	384	10.56
315	10.54	472	10.84	388	10.63
319	10.65	480	10.64	392	10.72
2428519.275	10.56	484	10.56	396	10.62
289	10.53	488	10.54	400	10.79
293	10.63	497	10.65	409	10.61
306	10.54	501	10.60	2428543.228	10.71
317	10.61	2428536.270	10.86	233	10.80
334	10.61	274	10.71	235	10.61
372	10.36	277	10.68	239	10.51
376	10.55	281	10.71	242	10.53
380	10.70	291	10.70	246	10.76
392	10.66	300	10.60	311	10.45
396	10.68	303	10.63	315	10.49
409	10.54	307	10.60	318	10.38
413	10.54	310	10.68	322	10.48
431	10.64	314	10.62	326	10.33
435	10.66	317	10.59	329	10.59
439	10.61	321	10.55	333	10.50
450	10.90	324	10.73	336	10.50
479	10.87	345	10.48	2428546.388	10.62
483	10.74	349	10.51	392	10.60
487	10.60	353	10.54	396	10.63
491	10.83	356	10.51	401	10.60
503	10.71	360	10.52	408	10.64

TABLE II Gb60Q0

J. D.⊙	Ph. Mg.	J. D.⊙	Ph. Mg.	J. D.⊙	Ph. Mg.
	m		m		m
2428546.421	10.66	2428546.503	10.57	2428552.446	10.62
424	10.41	507	10.62	450	10.53
428	10.37	2428552.325	10.51	458	10.42
439	10.53	350	10.71	463	10.59
445	10.59	392	10.45	466	10.60
456	10.48	396	10.41	470	10.59
459	10.55	400	10.52	473	10.55
464	10.48	403	10.59	479	10.53
467	10.55	407	10.34	482	10.58
471	10.53	411	10.48	486	10.59
474	10.52	414	10.67	494	10.60
478	10.55	418	10.58	501	10.59
482	10.48	424	10.50	505	10.75
488	10.52	432	10.58	508	10.78
493	10.48	435	10.52	512	10.74
496	10.50	439	10.63		
500	10.46	442	10.56		

Using the phases calculated on the basis of Prager's elements and the values of brightness given in Table II we drew the light-curve shown in Fig. 1.

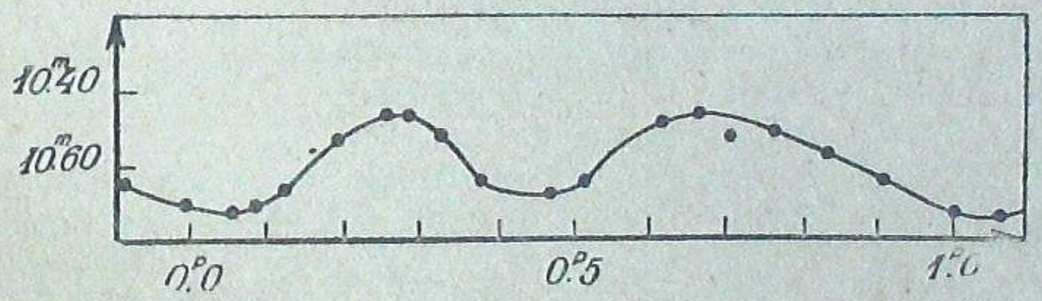

Fig. 1 б56.

An examination of the curve showed that the correction of the period does not exceed $0^d.0000015$.

As the observational material was not of a quite good quality this insignificant value of the correction may be fully ascribed to the errors of measuring. Therefore, we did not take it into account.

Each of the normal points formed to obtain the mean curve is based in most cases on the measurement of ten images. Four of the normal points are based on 20 images each, the observations being more frequent in the intervals corresponding to these points.

TABLE III ცხრილი

Phase	Ph. Mg.	n	Phase	Ph. Mg.	n	Phase	Ph. Mg.	n
	m			m			m	
0.055	10.73	10	0.323	10.53	10	0.663	10.46	20
087	10.72	10	381	10.65	10	704	10.52	20
126	10.67	10	475	10.68	10	765	10.51	20
194	10.53	10	510	10.65	10	835	10.57	10
2.6	10.47	10	561	10.54	10	905	10.65	10
290	10.47	10	617	10.49	10	995	10.72	10

From the final light-curve we derive

$$\text{Max} = 10^{m}.47; \qquad A_I = 0^{m}.25; \qquad A_{II} = 0^{m}.21.$$

The extreme assymetry of the curve makes it difficult to believe that it is due to defects of observations and to mistakes made in drawing the curve.

Therefore the possibility must be considered that the orbit of the star is elliptic.

The photographic material was secured with the help of K. G. Zakharin. The plates were measured by E. Dolidse and G. Oragvelidse.

March, 1937.

Literature: ლიტერატურა:

1. A. N. 233, 1928. 2. K. V. BB. 6, 1929.

AH AURIGAE

ფოტოგრაფიული სიკაშკაშის მრუდი და ელემენტები

ვ. გოდოძია

(რეზიუმე)

220 ფოტოგრაფიული გამონახახის დამუშავების შედეგად AH Aurigae-სათვის მიღებულია სიკაშკაშის სამუალო მრუდი. უკანასკნელს ახასიათებს მნიშვნელოვანი ასიმეტრია, რაიც შეიძლება მივაწეროთ ვარსკვლავის ორბიტის ელიპტიურობას.

მარტი, 1937.

ABASTUMANIS ASTROFIZIKURI OBSERVATORIIS BIULETENI № 2. 1938
БЮЛЛЕТЕНЬ АБАСТУМАНСКОЙ АСТРОФИЗИЧЕСКОЙ ОБСЕРВАТОРИИ № 2. 1938
BULLETIN OF THE ABASTUMANI ASTROPHYSICAL OBSERVATORY No. 2. 1938

SS COMAE BERENICES
PHOTOGRAPHIC LICHT-CURVE AND ELEMENTS

V. M. BODOKIA

The variability of the star SS Comae Berenices ($\alpha_{1855} = 12^{h}\,42^{m}\,27^{s}$; $\delta_{1855} = +19^{\circ}29'.7$) was discovered in 1929 on Babelsberg plates by P. Guthnik cand R. Prager[1], who established afterwards that the star belongs to the group of the short-period eclipsing W Ursae Majoris type stars.

The following elements are given by Prager:

$$\text{Min} = 2425002.515 + 0^{d}.412789 \cdot E,$$

where 2425002.515 is the initial epoch corresponding to the secondary minimum [2].

The photographic lignt-curve and elements given below are derived by the author from 300 photographic images, of which 41 were obtained in June, 1936 and the rest in the interval from February, 3 to March, 31 of the year 1937.

The photographs were taken with 13-inch reflektor on Ilford Monarch plates (emulsion 8474 A). The length of exposures was 6 or 7 minutes.

Comparing the area of the variable with KSA 26 the stellar magnitudes of comparison stars were obtained.

The comparison stars are given in Table I.

TABLE I ცხრილი

Star	Mg	Star	Mg
a) BD+19°2609 ($9^{m}.5$)	$10^{m}.22$	d) Anonyma $\alpha = 12^{h}\,42^{m}\,56^{s}$, $\delta = +19^{\circ}47'.6$	$11^{m}.37$
b) Anonyma $\alpha = 12^{h}\,40^{m}\,16^{s}$, $\delta = +19^{\circ}39'.2$	11.14		
c) Anonyma $\alpha = 12^{h}\,40^{m}\,16^{s}$, $\delta = +19^{\circ}47'.6$	11.50	e) Anonyma $\alpha = 12^{h}\,39^{m}\,59^{s}$, $\delta = +19^{\circ}24'.3$	12.09

The individual observations are listed in Table II.