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**GSC 1609.00690, A NEW CLASSICAL CEPHEID**

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<b>Name of the object:</b>
GSC 1609.00690

<b>Equatorial coordinates:</b>	<b>Equinox:</b>
R.A. = 19 <sup>h</sup> 31 <sup>m</sup> 12 <sup>s</sup> .0 DEC. = +19°01'19"	J2000.0

<b>Observatory and telescope:</b>
40-cm astrograph in Crimea

<b>Detector:</b>	Photoplate
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<b>Filter(s):</b>	None
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<b>Date(s) of the observation(s):</b>
1960-1993

	GSC or USNO-A2.0	$\alpha$ (J2000)	$\delta$ (J2000)	$B_{pg}$
<b>Comparison star(s):</b>	1609.00518	19 <sup>h</sup> 31 <sup>m</sup> 14 <sup>s</sup> .3	+19°03'35"	14 <sup>m</sup> .78
	1609.00944	19 <sup>h</sup> 31 <sup>m</sup> 23 <sup>s</sup> .0	+18°59'50"	15 <sup>m</sup> .18
	1050.13998661	19 <sup>h</sup> 31 <sup>m</sup> 15 <sup>s</sup> .0	+18°59'40"	16 <sup>m</sup> .09
	1050.14001553	19 <sup>h</sup> 31 <sup>m</sup> 20 <sup>s</sup> .0	+18°59'37"	16 <sup>m</sup> .54

<b>Check star(s):</b>	None
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<b>Transformed to a standard system:</b>	$B_{pg}$
<b>Standard stars (field) used:</b>	$B$ -band standard sequence in NGC 6802 (Hoag et al., 1961)

<b>Availability of the data:</b>
Upon request

<b>Type of variability:</b>	DCEP
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**Remarks:**

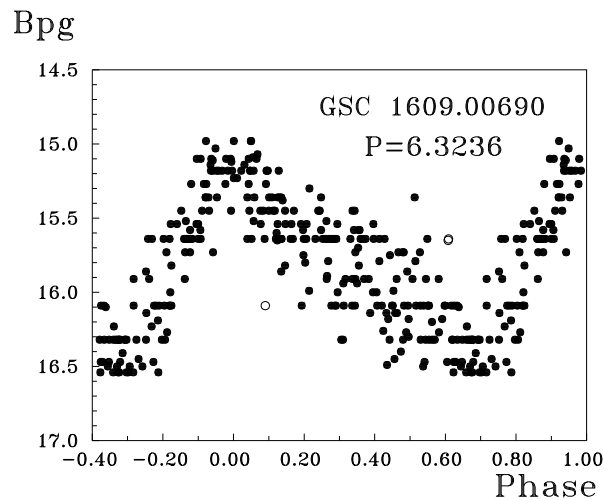
The new Cepheid was independently discovered by one of us (S.A.); the log of the Sternberg Institute blink comparator shows that, in the early 1980s, the star had been noticed by E. Kolevatykh (unpublished). We estimated the star by eye on 288 plates from Moscow archive, JD 2437136–49104. It turned out to be a classical Cepheid. Its light elements are:

$$JD_{\max} = 2442599.47 + 6^{\text{d}}3236 \times E.$$

The variability range is  $15^{\text{m}}1-16^{\text{m}}4$ .  $\text{Max} - \text{min} = 0^{\text{p}}3$ . The phased light curve is presented in Figure 1. The new variable is close to a known Cepheid, V354 Sge (Metzger and Schechter, 1998), at  $\alpha = 19^{\text{h}}31^{\text{m}}15^{\text{s}}.5$ ,  $\delta = +19^{\circ}00'42''$  (J2000). The latter Cepheid is, however, much fainter and has a different period,  $P = 4^{\text{d}}1643$ . The two Cepheids are not the same object beyond doubt.

**Acknowledgements:**

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**Figure 1.** The phased light curve of the new Cepheid. Uncertain estimates are shown as open circles.

**References:**

- Hoag, A.A., Johnson, H.L., Iriarte, B., Mitchell, R.I., Hallam, K.L., Sharpless, S., 1961, *Publ. of the US Naval Obs.*, **Vol. XVII**, Part VII, Washington  
 Metzger, M.R., Schechter, P.L., 1998, *Astron. J.*, **116**, 469