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GSC 3639.01081: A NEW VARIABLE IN THE FIELD OF GK ANDROMEDAE

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While timing a minimum of the eclipsing binary GK Andromedae on JD 2450719 (to be published in BBSAG Bulletin No. 116), we got aware of the fact that one of the comparison stars, namely GSC 3639.01081 (α_{J2000} : $23^h53^m39^s$; δ_{J2000} : $+45°37'.35$), is a variable star. An electronic search indicates that this star has not been reported to be variable up to now.

The measurements were gathered with the 35cm SC-reflector of R. Szafraniec Observatory, Metzerlen, Switzerland. The telescope is equipped with a SBIG ST-6 CCD camera at its prime focus yielding unfiltered photometry at the 0.01 mag level. Due to the proximity of all comparison stars to the variable no extinction correction was applied to the data given below. Observing conditions during the night of JD 2450719 were photometric with neither moon nor clouds interfering.

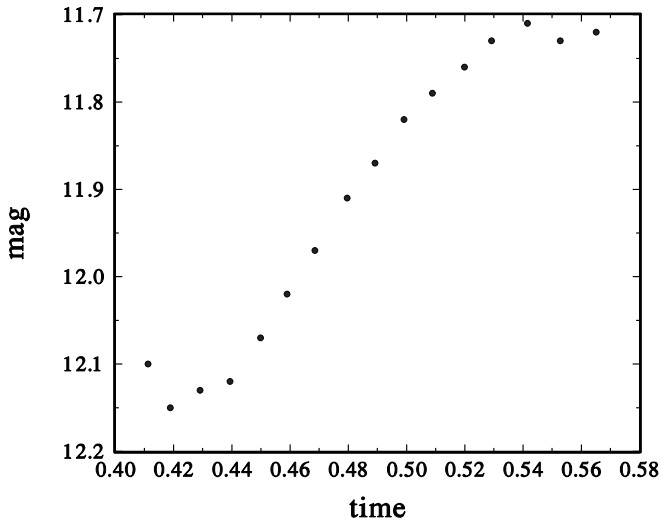

Figure 1. Unfiltered CCD light curve of GSC 3639.01081 (comparison star GSC 3639.01089). Heliocentric UTC on JD 2450719

In Figure 1, we present the light curve of GSC 3639.01081. The time is given in heliocentric UTC and the stars GSC 3639.01089 and GSC 3639.01754 were employed as comparison and check star, respectively. The difference in brightness between these two stars turned out to be constant throughout the observing run at 0.38 ($\pm$0.01) mag.

The light curve seems to indicate an eclipsing type variation for GSC 3639.01081. This preliminary finding is supported by an earlier observing run lasting for three hours (JD 2450462.22 to JD 2450462.34), during which the star was found to be at its maximum brightness and showing no variation exceeding the accuracy of the photometry.

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