

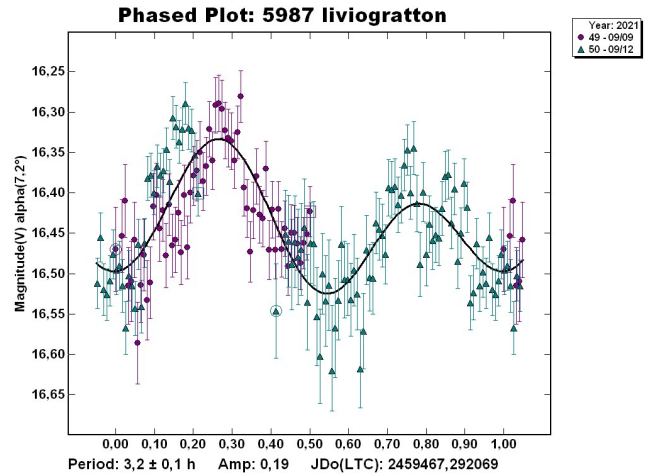
ROTATIONAL PERIOD DETERMINATION OF 5987 LIVIOGRATTON

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We report observations of the main-belt asteroid 5987 Livio Gratton in September 2021. Our results show $P = 3.2 \pm 0.1$ h with an amplitude of $A = 0.19$ mag.

Discovered in June 1975 at Felix Aguilar Observatory (Argentina) the main-belt asteroid 5987 Livio Gratton was selected for our measurements owing to historical reasons. Our Association (ATA) is dedicated to Prof. Livio Gratton who lived and worked near the site where our astronomical observatory is located. The observations were carried out from “F. Fuligni” Observatory located in the Astronomical Park “Livio Gratton” during two nights in September 2021. The telescope used is a Meade 0.35-m f/10 ACF telescope equipped with SBIG ST8-XE CCD camera. All images were unfiltered and were dark and flat-field calibrated with *Maxim DL*. The analysis of the lightcurve was made with a differential photometry technique extrapolating the best polynomial of approximation of the observations, using the *MPO Canopus* (Warner, 2012). The derived synodic period determined has been $P = 3.2 \pm 0.1$ h with an amplitude of $A = 0.19$ mag.



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References

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Number	Name	2021 mm/dd	Pts	Phase	L _{PAB}	B _{PAB}	Period(h)	P.E.	Amp	A.E.	Grp
5987	Livio Gratton	09/09-09/12	158	7.2, 8.7	335	0.5	3.2	0.1	0.19	0.02	MBA

Table I. Observing circumstances and results. Pts is the number of data points. The phase angle is given for the first and last date. L_{PAB} and B_{PAB} are the approximate phase angle bisector longitude and latitude at mid-date range (see Harris et al., 1984). Grp is the asteroid family/group (Warner et al., 2009).