

The Astronomer's Telegram

Astrometric observations near the maximum approach of the Potentially Hazardous Asteroid (66391) 1999 KW4

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Our team decided to collaborate with the [campaign](#) to observe the maximum approach of the PHA (66391) 1999 KW4, organized by the International Asteroid Warning Network (IAWN).

The observations were made from CIEASEST, in the Universidad Nacional San Luis Gonzaga de Ica, Peru (Long. 75 44 12.5 W, Lat. 14 05 21.1 S, Alt. 401 m). A 60 cm Nishimura telescope (f10) and a ZWO ASI 071MC camera were used.

The night of the maximum approach (May 25, 2019) we had cloudy skies; however, the night of May 26-27 we had clear skies and we were able to take 147 images with a exposure time of 4 seconds. [Dimension 4](#) software was used to synchronize our time with special purpose Internet Time Servers, ensuring less than one second accuracy.

The astrometric measurements were made with the [Astrometrica](#) software, using between 15 and 25 stars in the field identified by means of the Gaia DR2 catalog.

Table 1 shows the best measurements obtained.

[Here](#) is a gif animation of the 1999 KW4 passage.

<https://drive.google.com/file/d/19pXlj1PS1rj3vcblud7Rken81bxAsEZV/view>

Table 1

Object	Date (UTC, Mid-exposure)	RA	DEC	Mag	SNR
66391 C2019	05 27.12028	09 40 11.314	-20 26 45.93	14.92G	50.68
66391 C2019	05 27.12066	09 40 12.737	-20 26 29.84	14.11G	41.49
66391 C2019	05 27.12100	09 40 13.876	-20 26 17.92	14.65G	52.45
66391 C2019	05 27.12361	09 40 22.658	-20 24 28.28	14.57G	53.50
66391 C2019	05 27.12562	09 40 29.578	-20 23 06.89	14.86G	55.15
66391 C2019	05 27.12657	09 40 32.864	-20 22 28.30	14.81G	48.48