

OPTICAL SHORT-TIME VARIATIONS IN GK PERSEI DURING THE 1983 OUTBURST

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ABSTRACT : During the August 1983 outburst of the old nova GK Persei observations with EXOSAT showed for the first time a 351 second periodicity in X-rays.

Our fast photometry (U(B)V with 25 sec time resolution) was made at the end of the outburst in the nights of September 29 , and October 1-3 , using the 2.2 meter telescope at Calar Alto (Spain).

Optical variations up to 10 % in U and 4 % in V with periodicities in the range 350 to 360 seconds were found, lasting only for few cycles.

A comparison with the extrapolated prediction of the X-ray maxima did not show a coincidence, but rather an anticoincidence in several cases. This supports a model of reprocessed X-rays at the inner edge of an accretion disk.

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