Determining the Period of an Eclipsing Binary: DHK41 (Abstract)

Daniel H. Kaiser

2631 Washington Street, Columbus, IN 47201

Gary Frey

7570 Crestmore, W. Bloomfield, MI 48323

Abstract The ninth magnitude star V1094 Tauri = DHK41 = SAO 76494 was discovered to be an eclipsing variable in October 1994. Subsequent visual and photoelectric observations were used to determine the period. This proved more difficult than first thought due to the system's eccentric orbit and its period being almost exactly nine days. Observations between October 1994 and January 1997 are presented. New elements are:

Min.
$$I = 2449701.7059 + 8.988487 \times E$$
,

with the secondary eclipse at phase 0.65. Details will be published elsewhere.

Addendum, 2006: In *IBVS* No. 4168, revised elements with a corrected period were published by Kaiser *et al.*:

Min. I =
$$2449701.7062 + 4.49407 \times E$$

 $\pm 0.0004 \pm 0.00005$

Database of Times of Minima for Eclipsing Binaries as Part of a General Multiple Stars Database (Abstract)

M. Kurpińska-Winiarska

Cracow Astronomical Observatory, 171 Orla, 30-066 Kraków, Poland

Abstract A first attempt has been made to make data on times of minima for eclipsing binaries available for public use. The full realization of this project depends on the good will of the data owners and the work which must be done to merge data coming from different sources. As most observations of times of minima are carried out by amateur astronomers and the resulting data sets belong to them, it is right to discuss this problem here.

Observational Evidence for a Third Body in AS Camelopardalis (Abstract)

V. S. Kozyreva A. I. Zakharov

Sternberg Astronomical Institute, Moscow, Russia

Abstract The eclipsing variable AS Camelopardalis is a binary system with an anomalously slow apsidal motion. So far no acceptable explanation has been presented for this phenomenon in the framework of classical theory of gravitation. We observed this variable in 1981 and from 1993 to 1996. We determined the times of minima and analyzed them to reveal a light-time effect with an amplitude of 3 minutes and a period of 2.2 years, thereby providing evidence for a third body in the system. The allowance for the third-component effects may resolve the discrepancy between the theoretical and observed rates of apsidal motion.