Thesis Title Photometric Analysis of Close Eclipsing Binary

1U Aurigae by Means of Wilson Physical Model and

CRS Technique

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Abstract

The close eclipsing binary, IU Aurigae, has been observed by using solid state photometer with differential photometric technique during January 11, 1991 to February 13, 1991. Light curves in B and V wavelength bands were obtained and then fit with the Wilson Physical Model for Close Eclipsing Binary. The CRS technique was also used with the model to fit simultaneously in both wavelength bands.

The results obtained are geometrical and physical parameters which are photometric solution of the close eclipsing binary, IU Aurigae, this photometric solution was evaluated from 4327 times of searching. The quality coefficient of the fit (sum of square residual) is equal to 4.065×10^{-3}

This research leads to the crucial technique of the model fitting and ways of improvement for the application of the other types of eclipsing binaries.