

HIGH SPEED CCD PHOTOMETRY OF FLARE STARS

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Previously flare stars used to be observed by fast two channel photoelectric photometry. We started an observing program to monitor flare stars using normal CCD camera via a method called "trailed mode photometry". For this program, we developed a fully automated trail photometry software.

BV CCD Photometry of RR Lyrae Stars

in the Globular Cluster ω Centauri

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We present the preliminary results of BV CCD photometry of RR Lyrae stars in the globular cluster ω Centauri, obtained from the high-precision wide-field CCD photometry. The B, V light curves of most RR Lyrae stars (~ 130 stars) in ω Cen have been constructed and the fundamental parameters of light curve of each RR Lyrae stars were obtained. We derived the $M_V(\text{RR})$ -[Fe/H] and period shift-[Fe/H] relations from these BV data and the previous Caby metallicity data. We confirm that RR Lyrae stars in ω Cen show non-monotonic characteristic which is consistent with the results of synthetic HB model.