Suprime-Cam photometric survey of M33 galaxy

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Abstract

We have surveyed a complete extent of the M33 galaxy disk using multi-band photometric observations. The $B$, $V$, $R$, $I$, and $H_\alpha$ passband CCD images with typical seeing of $\sim0.8''$ were obtained with Subaru Telescope equipped with Suprime-Cam mosaic camera. The stellar photometry was performed on all images in the survey field using DAOPHOT allframe program. We present a wide-field $\sim70'\times100'$ photometry catalog of stellar objects, reaching depth of $V\sim25$ mag, and a preliminary morphological analysis of color-magnitude diagram spatial variation, focusing on the properties of the main sequence and red giant branch stars within the M33 disk.