Detection of Variable Stars in M67 using BATC Image Archive

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M67, one of the best studied open clusters, shows the sign of significant main-sequence binary population in its color-magnitude diagrams. Identification of eclipsing binaries and follow up light curve and velocity studies will enable us to investigate the nature of binary population in most direct manner. For this purpose, we used over 400 images in the BATC (Beijing-Arizona-Taipei-Connecticut) image archive to examine variability within 1 deg^2 field centered on M67. Variable stars have been identified through crowded field photometry, followed by object matching and estimates of cosmic scatter. In this paper, we present the details of our data process and preliminary results of derived light curves.