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# Follow-up Observations of Eclipsing Binaries EROS 1005, 1006, 1017 in the Large Magellanic Cloud

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The distance to the Large Magellanic Cloud is of great interest for modern astrophysics because the extragalactic distances determined by Cepheids are tied to the LMC distance. The error of the LMC distance propagates into all extragalactic distances. Even if several other methods including the SN1987A light echo, RR Lyr stars etc. are adopted to find the LMC distance, the zero point problem still exists. This first calibration step is very important and is a current subject of intense research. We present the second follow-up observations of EROS 1005, 1006, 1017 located in the central bar of the Large Magellanic Cloud in order to find the distance to the LMC without zero point problem using eclipsing binaries. We developed a program for identifying comparison stars in crowded area. Three comparison stars were selected by using the searching program. The photometric solutions are presented for the 3 eclipsing binaries.