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Variable stars in the MOA database

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Abstract. The Microlensing Observations in Astrophysics (MOA) Collaboration has generated a large volume of photometric data during its routine microlensing survey observations. Data were collected by MOA using a 0.6-m telescope (MOA-I) at Mt John University Observatory, New Zealand. In 2004, a new 1.8-m wide-field telescope (MOA-II) was commissioned and became fully operational at the beginning of this year. Tens of millions of stars will be monitored simultaneously every clear night and a total amount of about 10 TB of new data will be accumulated per year. This paper shows a preliminary analysis of MOA-I database in search for new and unusual variables. The observational data of about 12000 variable stars towards the Galactic Bulge obtained from 1999 November till 2005 November have been analysed. In addition to well known types of regular and semi-regular variable stars, a number of irregular variables has also been found.

Key words. Astronomical data basis: surveys – Stars: Variables

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