The Massive Variable Star Returns From the Search for MACHOs *(Abstract)*

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Abstract Variable star astronomy is being revolutionized by the photometric time series being produced by microlensing surveys. These surveys have been intensively monitoring millions of stars in the Magellanic Clouds, the bulge of the Milky Way, and M31 for the microlensing signature of baryonic dark matter (MAassive Compact Halo Objects, MACHOs). Variable star catalogues produced from the microlensing searches have been used to examine in detail the physics of stellar pulsation, as well as the formation, chemical evolution, and physical structure of the surveyed population. Light curves from these surveys can have over 15,000 points with just a few percent error; some extend almost five years. These surveys are unique resources for the study of infrequent variability such as that seen in novae, R Coronae Borealis stars, and massive young stars. A brief overview of the major microlensing campaigns and their stellar variability results is presented. A more detailed description of the MACHO project will reveal the technical challenges of dealing with terabytes of images and a photometry database containing about thirty million stars and more than 100,000 variables.