

Poster at Splinter Meeting

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DEVELOPMENT OF AN OPEN SOURCE LIGHT CURVE CLASSIFICATOR

C. Dersch¹, M. Spasovic¹ and A. Schrimpf¹

¹*Philipps-Universitaet Marburg, Fachbereich Physik, D-35032 Marburg, Germany*

Knowledge Discovery and especially Machine Learning in general are very useful for automatical data analysis. The usage of Machine Learning has grown within the last few years and it was shown, that it is a working powerful tool for classification problems. In domain of photometry the classification of light curves is a main task. The purpose of this approach is the development of light curve classifiers as free software, in connection to *astroML* and the well-known *astropy* project. In general, algorithms for Machine Learning are broadly available as free software, so the task of this work is the adaption of these algorithms for light curve classification. The deeply analyzed and classified *OGLE-III* database of variable stars has been chosen to develop, learn and test the software by comparison the classification with results from previous analysis. The final goal is the contribution of a reliable light curve classifier to *astroML* or a comparable open source project, a possible application is the light curve analysis of data from the Sonneberg plate archive.