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## The impact of different parameter sets on the classification of asteroid types

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The aim of the project is the classification of asteroids according to the most commonly used asteroid taxonomy (Bus-Demeo et al. 2009) with the use of various machine learning methods like Logistic Regression, Naive Bayes, Support Vector Machines, Gradient Boosting and Multilayer Perceptrons. Different parameter sets are used for classification in order to compare the quality of prediction with limited amount of data, namely the difference in performance between using the 0.45 $\mu$ m to 2.45 $\mu$ m spectral range and multiple spectral features, as well as performing the Principal Component Analysis to reduce the dimensions of the spectral data.

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