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## Machine learning technique for morphological classification of galaxies

We checked classifiers as Naive Bayes, Random Forest, and Support Vector Classifier on sample of galaxies from SDSS DR9 ( $N=60561$ ,  $0.02 < z < 0.06$ ). We used the absolute magnitudes  $M_u$ ,  $M_g$ ,  $M_r$ ,  $M_i$ , and  $M_z$ , all the color indices, and inverse concentration indexes  $R_{50}/R_{90}$  to the center as the attributes of galaxy. To define an accuracy of the mentioned above classifiers we applied the 5-folds validation technique. It turned out that the Random Forest method provides the highest accuracy, namely 91 % of galaxies from the sample were correctly classified (96 % for E and 80 % for L types). The accuracy of other classifiers was from 85 % to 90 %. We were able to classify 60561 galaxies from the SDSS DR9 with unknown morphologies with a good accuracy onto two classes (47 % E and 53 % L types of galaxies). Finally, we found 28 199 E and 32 362 L types among them. We able to classify low-redshift galaxies from the SDSS with unknown morphologies with a good accuracy.

**Primary author:** Dr DOBRYCHEEVA , Daria (Main Astronomical Observatory of the NAS of Ukraine)

**Presenter:** Dr DOBRYCHEEVA , Daria (Main Astronomical Observatory of the NAS of Ukraine)

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