

Report 01

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1 Objectives

Explore the data used by Busca et al. on the training of QuasarNET.

2 Training Data

The training data used on QuasarNET [1] is available on a public database of spectra with human-expert classifications and red-shift determinations [2]. The database had 546,856 objects from the DR12 (Data Release 12) of the Baryon Oscillations Spectroscopy Survey (BOSS).

The objects in this database are classified by human-experts. According to their expertise, they give to each spectrum a class identifier numbers, Stars (class person = 1), Galaxy (class person = 4), QSO (class person = 3), QSO with Broad Absorption Lines (class person = 30).

I use the file Superset DR12Q available at <https://data.sdss.org/sas/dr12/bo/qso/DR12Q/>. This file have the database 546,856 objects from the DR12 with human-expert classifications and redshift determinations. The training spectra are available at https://www.kaggle.com/ngbusca/qnet_data. The file used is *data_dr12*.

3 Github Repo

In this repository you will find the report 01
<https://github.com/MrX1997/Report-01>

References

1. Busca G., Balland C., (2018).: QuasarNET: Human-level spectral classification and redshifting with Deep Neuronal Networks. Retrieve from: <https://arxiv.org/abs/1808.09955>
2. Paris, I., et al., (2017), Astron. Astrophys...: The Sloan Digital Sky Survey Quasar Catalog: Twelfth data release. , 597, A79