Activity 4: Classifying stellar spectra

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In this activity, we will once again use spectra from the Sloan Digital Sky Survey (SDSS), but this time of many stars in order to find patterns that can help us clasify them. The activity aims at solidifying the analysis of the spectra of stars as well as the understanding of physical properties stellar spectra have in common, providing in turn hints to possible physical similarities between the objects.

Instructions

The data we show in Figures 1, 2 and 3 was taken from the Sloan Digital Sky Survey (SDSS) SkyServer[1]. This is a server which hosts up-to-date data taken mainly from the 2.5m SDSS Telescope in Apache Point, New Mexico.

Form groups of 5-6 people and try to generate a classification scheme for the stellar spectra presented in Figures 1, 2 and 3. Select one or two persons from your group to present this classification scheme to the class in no more than 3 minutes, identifying patterns and particularities of the stellar spectra under your classification scheme. **Put a name to your classification scheme**.

[1] http://skyserver.sdss.org

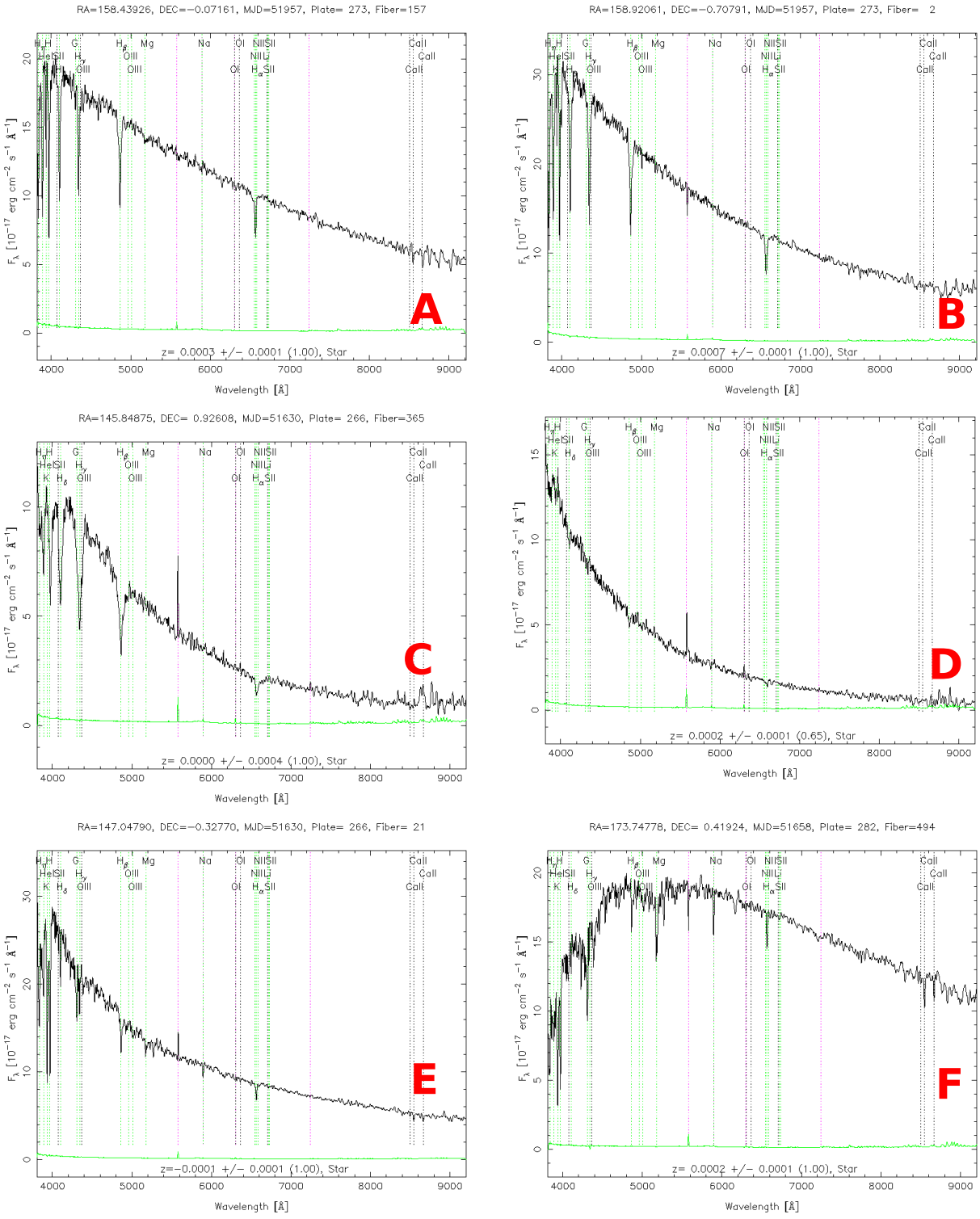

Figure 1: Set of real star spectra for the activity. Data taken from the SDSS.

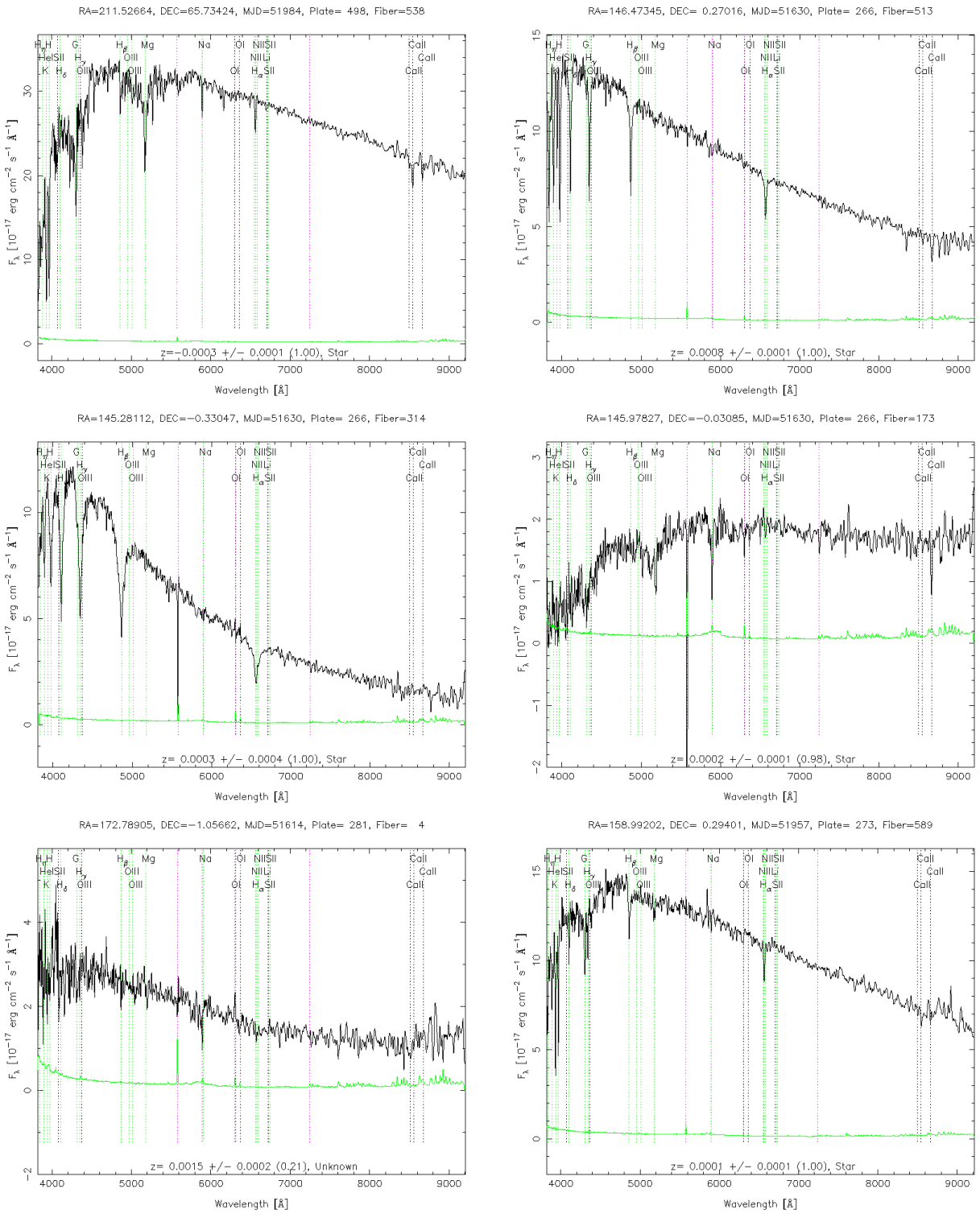

Figure 2: Set of real star spectra for the activity. Data taken from the SDSS.

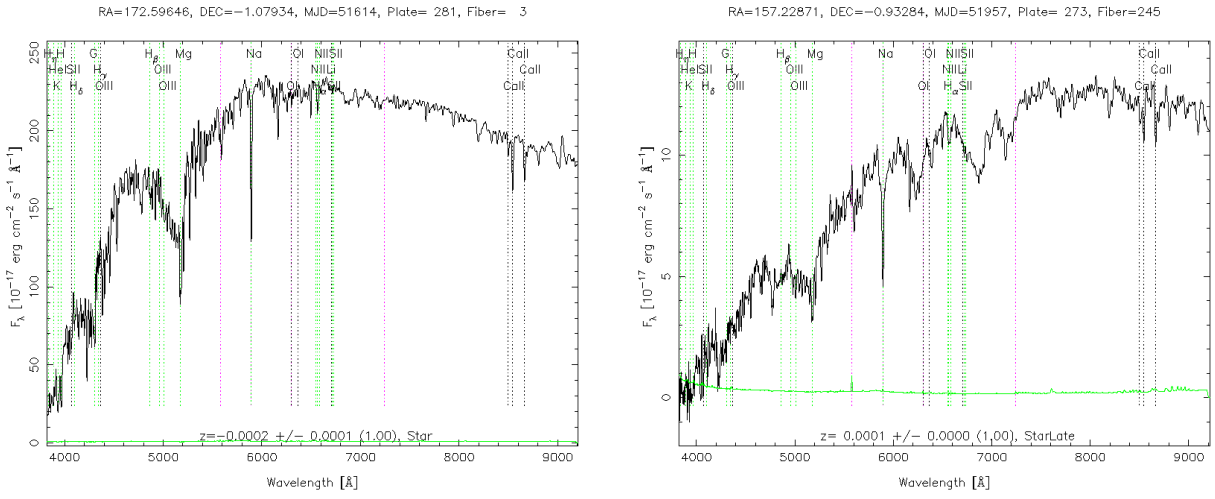

Figure 3: Set of real star spectra for the activity. Data taken from the SDSS.