



Multivariate Methods

Exercise Sheets 1:

Graphical Analysis of Multivariate Data

Exercise 1.1:

As private investor you are interested in how companies in the S&P 500 can be described with their key figures. You want to analyse the key figures structured by company graphically. For this exercise please use the dataset *SPData*.

- a. Remove all non-numeric columns from the dataset. Save the key figures from the first 30 companies in a matrix and name the columns with the corresponding company names.

This matrix will be used in the following exercises.

- b. Plot the key figures as Chernoff-face plots.
- c. Draw two spider-plots:
 1. Common mean of all spider-plots. Different colours for all companies.
 2. Single spider-plot for all companies. Plot these spider-plots next to and below each other with 3 rows and 3 columns in 3 plots.
- d. Draw a pie plot using the variable *Book.Value*.
- e. Plot the correlation of the key figures.
- f. Plot a Heatmap plot using all information from the dataset.

Try to interpret all plots.