Classification

Dataset res.PCA

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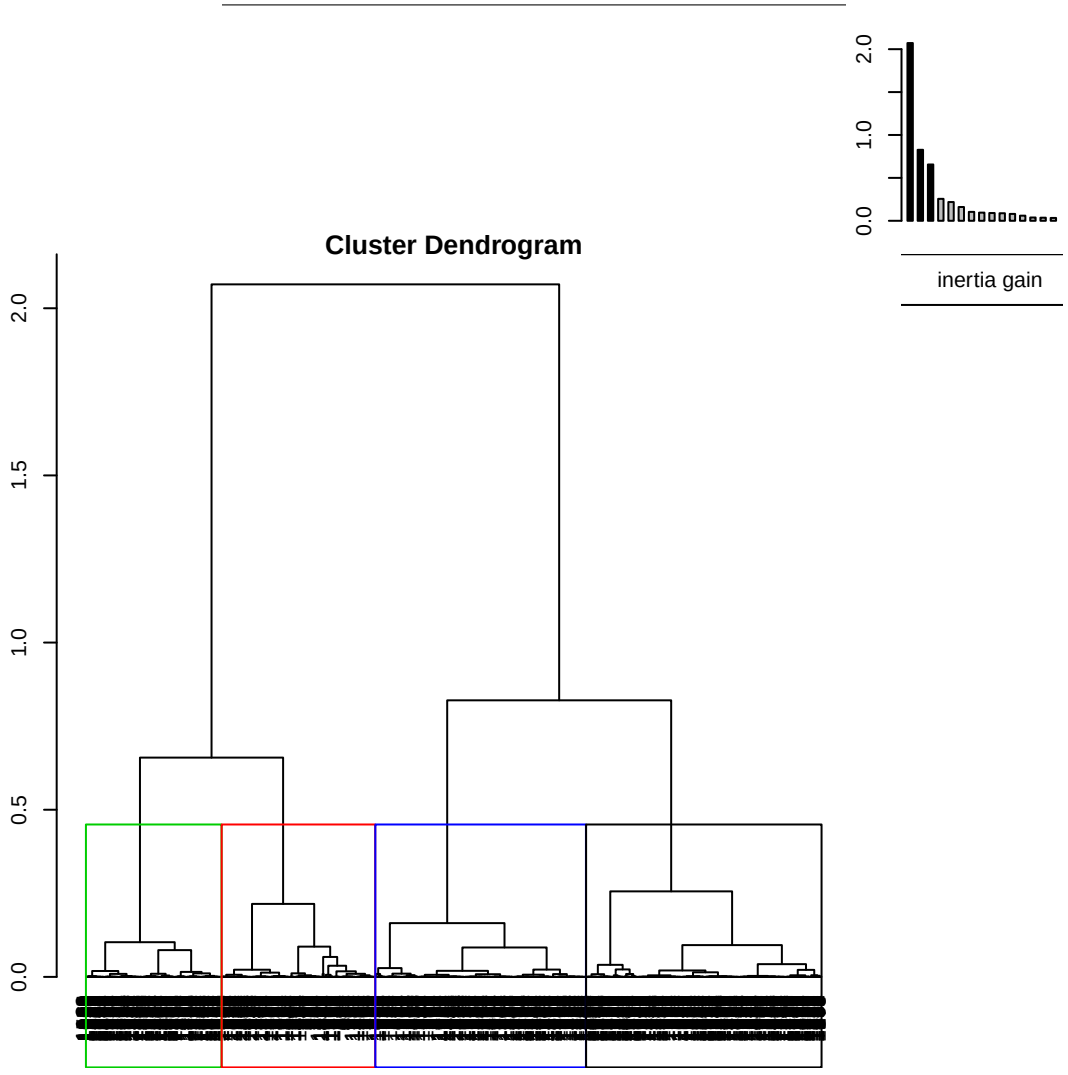

Figure 1.1 - Hierarchical tree.

The classification made on individuals reveals 4 clusters.

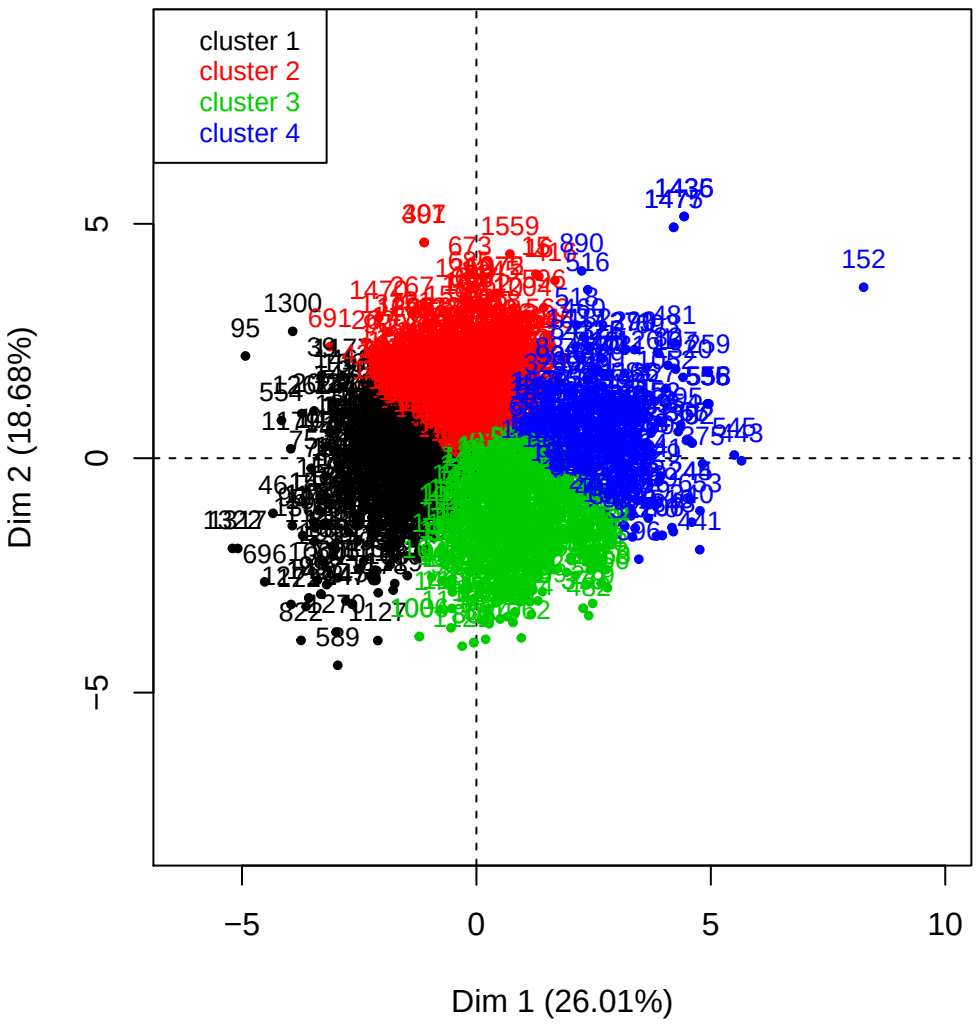

Figure 1.2 - Ascending Hierarchical Classification of the individuals.

The **cluster 1** is made of individuals sharing :

- high values for the variables *pH*, *alcohol* and *volatile.acidity* (variables are sorted from the strongest).
- low values for the variables *fixed.acidity*, *citric.acid*, *density*, *total.sulfur.dioxide*, *chlorides*, *residual.sugar* and *sulphates* (variables are sorted from the weakest).

The **cluster 2** is made of individuals sharing :

- high values for the variables *total.sulfur.dioxide*, *volatile.acidity*, *free.sulfur.dioxide* and *density* (variables are sorted from the strongest).
- low values for the variables *alcohol*, *quality*, *sulphates*, *citric.acid* and *fixed.acidity* (variables are sorted from the weakest).

The **cluster 3** is made of individuals sharing :

- high values for the variables *quality*, *alcohol*, *citric.acid*, *sulphates* and *fixed.acidity* (variables are sorted from the strongest).
- low values for the variables *volatile.acidity*, *total.sulfur.dioxide*, *density*, *free.sulfur.dioxide*, *pH*, *chlorides* and *residual.sugar* (variables are sorted from the weakest).

The **cluster 4** is made of individuals sharing :

- high values for the variables *fixed.acidity*, *citric.acid*, *density*, *chlorides*, *sulphates* and *residual.sugar* (variables are sorted from the strongest).
- low values for the variables *pH*, *volatile.acidity*, *alcohol* and *free.sulfur.dioxide* (variables are sorted from the weakest).

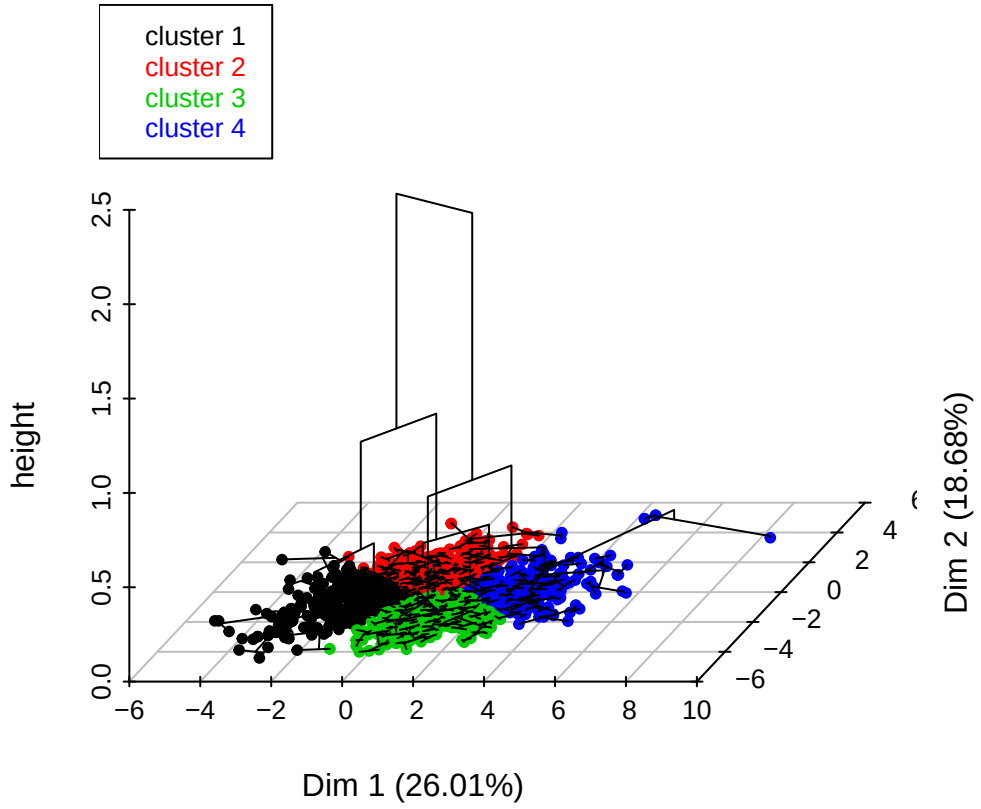

Figure 1.3 - Hierarchical tree on the factorial map.

The hierarchical tree can be drawn on the factorial map with the individuals colored according to their clusters.