

Data analysis methods

FactoMineR

1. Are there groups of variables?



yes → MFA

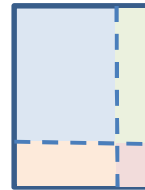
2. What kind of information?

Contingency table → CA or MFA (if several tables)

Dataset: individuals – variables → PCA, CA, FAMD or MFA

3. Active elements?

Which elements should be used to calculate distances between individuals or between rows?



ind.sup, quanti.sup, quali.sup,
row.sup, col.sup, group.sup

4. Are variables quantitative and/or qualitative?

Quantitative → PCA

Qualitative → if 2 variables, build a contingency table → CA
→ else MCA

Both → FAMD

MFA if groups

5. Should we standardize the variables?

yes → standardize PCA `scale.unit = TRUE`

6. Is there any missing data? yes → use the package `missMDA` to impute the dataset

Run principal component method

PCA, CA, MCA, FAMD
or MFA

See results and construct plots

`summary, plot`

Describe the dimensions in terms of the initial variables

`dimdesc`

(optional) Do clustering of the individuals (and describe the clusters)

HCPC