

Proximity for  
Conventional Variables

$$P_{p \times p}^v$$

Correlation  
Covariance  
⋮

Conventional  
Data  
Matrix

$$P_{n \times n}^s$$

Euclidean Distance  
Manhattan Distance  
⋮

Proximity for  
Individual Samples

$$\begin{bmatrix} X_{11}, X_{12}, \dots, X_{1p} & O_1 \\ X_{21}, X_{22}, \dots, X_{2p} & O_2 \\ & O_3 \\ & \vdots \\ & \vdots \\ X_{n1}, X_{n2}, \dots, X_{np} & O_n \end{bmatrix}$$

$$X_{n \times p}$$



Transformation

K-means

Hierarchical

User-defined

Variables aggregation



Univariate

Histogram

Index plot

$$\begin{bmatrix} C_1 \\ C_2 \\ \vdots \\ C_k \end{bmatrix} \begin{bmatrix} [a_{11}, b_{11}], \dots, [a_{1p}, b_{1p}] \\ [a_{21}, b_{21}], \dots, [a_{2p}, b_{2p}] \\ \vdots \\ [a_{k1}, b_{k1}], \dots, [a_{kp}, b_{kp}] \end{bmatrix} I_{k \times p}$$

Raw data  
Statistics

ResultSets  
other obj.

3D - scatter plot

General radar

Multivariate

ggESDA

Scatter plot

2D - histogram

Bivariate Plot