

MDS: “Classic” Metric/Linear multidimensional scaling

- Developed by Householder, Eckart, Young in the 1930s; systematized by Torgerson 1958 improved by Gower 1966 (*aka* principal co-ordinates analysis).

Classic metric MDS is a 3-step process:

1. Conversion of data (“distances”) into scalar products
2. factoring (PCA) to yield orthogonal co-ordinates ...
3. in a minimum number of dimensions, guaranteed to be an OLS fit to the data