

## Partial Least Squares Biplots

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Often data matrices are (very) large and therefore it is difficult to describe the structure and make a visual representation of the relationships in the data. For this reason, biplots, the joint graphical display of rows and columns of a data matrix, can be a useful tool for analysis. Biplots have been employed in a number of multivariate methods such as Correspondence Analysis, Principal Component Analysis and Canonical Variate Analysis, as a form of graphical display of data. In this presentation, a new addition to the biplots family is initiated namely, the *PLS biplot*. Given a set of predictor variables and a set of response variables, Partial Least Squares (PLS) construct a set of latent variables used in the prediction of the response variables. The PLS biplot allows for the simultaneous representation of the sample points and the predictor and response variables, together with the matrix of PLS regression coefficients. An illustration is done using the olive oil data from the *pls* package in the *R* language.

**Keywords:** Biplots, Partial Least Squares Regression, Principal Component Analysis biplot.