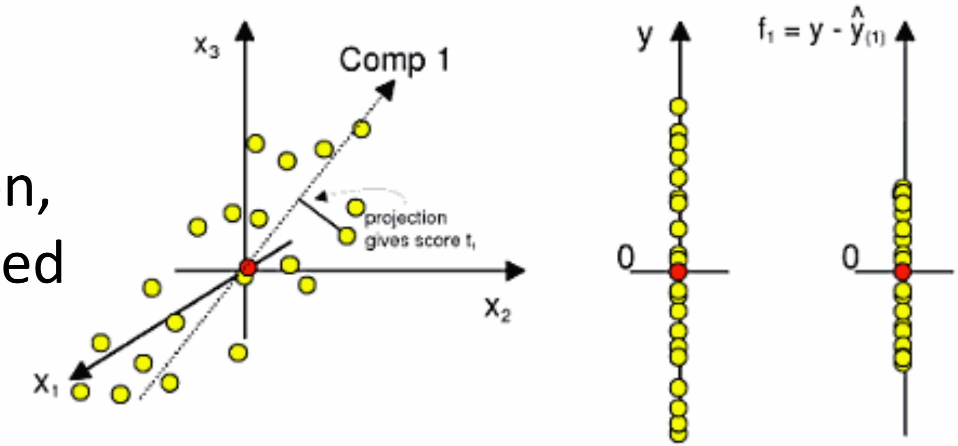
By forcing the **X** and **Y** matrices to swap scores vectors we rotate the principal components toward the independent variables that link most strongly to the dependent variables.

The first component still captures the most information, and what is in PC1 is subtracted before PC2 is calculated.



Note:

To obtain orthogonal components, **p** must be replaced with weights (**w**) in the NIPALS algorithm. See Geladi, *Anal Chim* 1986 for more detail.

Data is mean-centered for PLSR. Unit variance scaling can also be applied if the magnitudes of **X** values are not considered important.

Eriksson, et al. Multi- and Megavariate Data Analysis 2006