

**VISUALIZING MICROARRAY DATA USING TWO VARIANTS OF PARALLEL COORDINATE PLOT**

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Since the microarray experiments result in enormous amount of data, visualization of the data in low-dimensional graph is helpful to explore the clusters of genes or samples. There are several useful methods to visualize the microarray data, such as principal component analysis (PCA), self-organizing map(SOM) and biplot.

In this study, we focus on parallel coordinate plot (Inselberg, 1985) and Andrews' plot(Andrews, 1972) . Recently, the enhanced parallel coordinate plot (EPCP) and Andrews' type Parallel Coordinate Plot (APCP) are proposed as modified versions of the method( cf. Huh and Park,2008; Kwak and Huh, 2008). EPCP is developed for optimally re-ordered list of variables that has proportionate spacing between variables and connecting data points be "near smooth" curves. And APCP can be obtained by rotation of Andrew's plot. We suggest visualization methods for gene expression data using EPCP and APCP. Real micoarray data are used for demonstration.