P003 Similar behaviour set definition for data with strong trend similarities

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When faced with multivariate data, it is usually useful to attempt to identify group behaviour. Conventional methods like Multiple-Discriminant Analysis and interpretation of Principal Component Analysis results work well when the dissociation is obvious, but become very difficult to exploit as soon as the data is mangled. In this work, we propose a method that quantifies the definition of similar behaviour for Biolog PlateT data as a model example. Bacterial growth activity curves are indeed a good illustration as the identification of similar behaviours is needed to choose and design optimal environments for growth. The method uses Principal Component Analysis as a starting point, application specific norms and distances are defined to achieve the grouping. A MATLAB® application has been developed to process the example data.