



Factor Models

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0.1 Principal Component Analysis

Principal Component Analysis (PCA) is closely related to DA, Categorical regression and Factor Analysis (FA), in that they both look for a linear combination of input data, which better explain them. LDA tries to directly deal with differences between classes. us the following decomposition:

$$\mathbf{M} = \mathbf{U}\mathbf{\Sigma}\mathbf{V}^*$$

¹This is part of my notes; to see the complete list of notes check web.engr.illinois.edu/khashab2/learn.html. This work is licensed under a Creative Commons Attribution-NonCommercial 3 License.