

Most of statistics and even some aspects of machine learning rely on linear models or Gaussian distributions in order to successfully model and separate signal from noise. While our focus in coursework at Amherst has mostly been involved analysis based on known or applied variables, Independent Component Analysis (ICA) and other methods of Blind Source Separation (BSS) call for the decomposition of their components with much more limited knowledge than we have seen previously. By identifying independent, non-Gaussians components of a mixture with ICA, the desired/original source can be uncovered. R packages like FastICA, make its application to more efficient and usable.