

A Tutorial on Bayesian Nonparametric Models

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A key problem in statistical modeling is model selection, how to choose a model at an appropriate level of complexity. This problem appears in many settings, most prominently in choosing the number of clusters in mixture models or the number of factors in factor analysis. In this tutorial we describe Bayesian nonparametric methods, a class of methods that side-steps this issue by allowing the data to determine the complexity of the model. This tutorial is a high-level introduction to Bayesian nonparametric methods and contains several examples of their application.

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