

MINI-WORKSHOP ANNOUNCEMENT
Department of Statistics

Bayesian Neural Networks and Variable Selection

by

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ABSTRACT

Based on theories about human brain activity, neural networks have recently become popular non-parametric methods in data mining, computer science, and statistics. Bayesian statistics has provided methods to build networks, including schemes to determine the relative importance of variables in the model. We propose a new approach, based on work in other Bayesian modeling contexts. Instead of singularly suppressing inputs, we allow each node to have a different input set. Through this reduction, which moves towards a generalized additive model, we can utilize inputs more efficiently and make conclusions about predictor importance. Benefits and implementation complexities of the approach are discussed.