

Neural Net Approximation and Estimation of Functions

Prof. Andrew Barron, Yale University, Department of
Statistics

Artificial neural networks, consisting of one or more layers of superpositions of sigmoidal ridge functions, are intended for approximation and estimation of functions of many variables. These neural nets are closely related to other statistical methods including sparse sinusoids, hinging hyperplanes, and projection pursuit regression. In this talk I review the approximation and estimation capabilities of these models as well as the computational challenges.