

Nonlinear Function Approximation by Constructive Algorithms for Structure Learning in Feedforward Neural Networks

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Abstract: In this paper we present some constructive algorithms for structure learning in feedforward neural networks for nonlinear function approximation problems. These algorithms are simulated by programs in MATLAB with some nonlinear functions, for instance we solved the approximation problem of the function

$$f(x, y) = x^2 + 2y^2 - 0.3 \cos(2x) - 0.4 \cos(4x) + 0.7$$

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