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Abstract

The problem of model selection is considerably important for acquiring higher levels of generalization capability in supervised learning. Neural networks are commonly used networks in many engineering applications due to its better generalization property. An ensemble neural network algorithm is proposed based on the Akaike information criterion (AIC). Ecologists have long relied on hypothesis testing to include or exclude variables in models, although the conclusions often depend on the approach used. The advent of methods based on information theory, also known as information-theoretic approaches, has changed the way we look at model selection. The Akaike information criterion (AIC) has been successfully used in model selection. It is not easy to decide the optimal size of the neural network because of its strong nonlinearity. We discuss problems with well used information and propose a model selection method.

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Index Terms

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Key words

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Correct Classification Rate (CRR)