

On Multiclass Support Vector Machines: One-Against-Half Approach

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Abstract—Support vector machines (SVM) was originally designed for binary classification. SVM has been recently applied to solve multi-class problems. And there lies the unsolving research issues on developing 2-class SVM into multi-class SVM. In this paper, five common multi-class SVMs have been reviewed and a new multi-class SVM "one-against-half method" has been proposed along with the comparison between the performance of one-against-half method and the other five multi-class SVMs. The experiments proved one- against-half method to be a qualified multi-class SVM.

Keyword—One-against-half method, Support vector machines, Multi-classification.

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