

An Optimal Classification Method for Biological and Medical data

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Abstract

This study proposes a union of hyper spheres by the mixed-integer nonlinear program to classify biological and medical datasets. A classifying program with non-linear terms uses piecewise linearization technique to obtain a global optimum. The numerical examples illustrate that the proposed method can obtain the global optimum more effectively than current methods

Keyword : Hyper sphere; Nonlinear program; Classifying; Linearization