A hybrid method and its analysis based on Co-evolution for Classification

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Abstract

A new method of fuzzy classification method based on hybrid Co-evolution model is presented. A key feature of the method is that it integrates Michigan-style and Pittsburgh-style genetic algorithm to construct a single hybrid Co-evolution algorithm. The hybrid Co-evolution algorithm owns three species including the number of fuzzy rules species, the premise structure species and the parameters species. Considering both precision and interpretability, the fitness function is calculated on cooperation of individuals from the three species. The simulation results for the Iris, Wine and Ionosphere classification problem to show its validity.

Keyword: Fuzzy classification; Co-evolution model; fuzzy rules; Imprecise Probability:

References