

From the Guest Editor:  
Special Issue on fuzzy clustering and its applications

Partition is a basic step for data analysis. Among partitioning methods, fuzzy clustering is an important and popular tool in partitioning a data set as its intuitional interpretation. Recently, Fuzzy clustering has not only witnessed a large number of successful applications in pattern recognition, data mining, bioinformatics, image processing, remote sensing, etc, but also seen many achievements in novel algorithms, theoretical foundation, etc. However, many traditional challenges still exist for fuzzy clustering, for example, cluster validity confronts researchers and professionals many years. Today, new problems come like ensemble clustering or algorithm selection.

This issue pays attention to fuzzy clustering and its applications and selected 5 papers. Clara defines a family of fuzzy similarity indexes and a fuzzy proximity relation and presents an algorithm for clustering fuzzy relational data. Yu and Tang present a knowledge-based horizontal collaborative clustering. Gao et al present two new approaches to defining the cluster validity for fuzzy clustering. Mu et al propose a novel method of selecting the centers in RBF neural network by fuzzy c-means. Yu and Hao also demonstrate the usefulness of fuzzy clustering to study the gap between teaching and leaning.

We sincerely hope that this special will be interesting and useful to the researchers of fuzzy clustering and relevant fields and could inspire further study and additional enthusiasm in this rapidly developing area.

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