Advances in Fuzzy Systems

Special Issue on
The Application of Fuzzy Relation Equations in Data Analysis

CALL FOR PAPERS

Fuzzy relation equations, originally proposed by Sanchez in 1976, represent a means of modelling the composition of fuzzy relations and have since found applications across many different fields for approximate reasoning, data retrieval, regression analysis, time series forecast, decision making, fuzzy control, and uncertainty modeling, amongst other things. As such, a significant body of literature now exists on our capacity to solve (systems of) fuzzy relation equations.

Now, the exploration of complex and unstructured massive data is a stimulus for this community to propose and apply new methods, based on fuzzy relation equations, to the task of data analysis. One example for which such methods might be applied is in the analysis of social quantitative and qualitative data, wherein the reliability of the data can significantly affect the results.

Here, we encourage researchers to submit original contributions that propose new approaches for exploration of data in complex systems via fuzzy relation equations. We especially welcome articles describing the use of fuzzy relation equations when dealing with massive, uncertain, and inhomogeneous data, for instance, the recent implementation neutrosophic relational equations and type 2 fuzzy rule-based systems.

Potential topics include but are not limited to the following:

- ▶ Fuzzy relation equations applied for massive and big data analysis

- ▶ Fuzzy relation equations and their applications in classification and clustering analysis

- ▶ Solutions of fuzzy relation equations with determined properties in decision making problems

- ▶ Type 2 fuzzy relation equations in decision making and fuzzy control

- ▶ Application of neutrosophic relational equations in data analysis

- ▶ Advanced theoretical aspects of fuzzy relation equations

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Papers are published upon acceptance, regardless of the Special Issue publication date.

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