Directions in Fuzzy Relation Equations: Conclusions from the Current State of the Art*

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Abstract

In our paper, we analyze those aspects of the research area that have been most popular and we examine the relationships between the various sub-disciplines in the field. We identify publications and authors that have influenced the development of the discipline, as well as research institutes and groups that specialize in given research topics. Our work aims not only to analyze current developments, but also to outline opportunities for collaboration between Researchers, to identify major scientific breakthroughs, identify the centers developing fuzzy relational equations, and identify authors with significant achievements in the discipline. The main goal of this analysis is to establish opportunities for developing a model and a computer application based on existing scientific work. Our analysis shows that the main centers developing fuzzy set relation equations are located in the Islamic Azad University in Iran, the University of Ostrava in the Czech Republic and Hanshan Normal University in China. Furthermore, the leading mentors of our time are Pedrycz, Khorram, Stepnicka, and Jafari. In addition, important articles have been published by Drewniak, Higashi, Klir, Molai, Pervilieva, Sessa, Shieh.

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