Citation Analysis of Fuzzy Set Theory Journals: Bibliometric Insights About Authors and Research Areas

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Abstract

Publications on fuzzy set theory and its applications have grown exponentially. The increasing rate of developments in the field is a response to diverse factors, including the need for robust mathematical approaches that model human-like perceptions, values and decision-making processes in complex and dynamic systems. This study presents a citation analysis of 22 narrowly targeted fuzzy set theory journals with a focus on leading authors and research areas. In this paper, bibliometric tools are used for the treatment and analysis of a large amount of data retrieved from the rigorous Web of Science scientific database. The aim of the paper is to offer a general overview of the influence that fuzzy set theory has on academicians and diverse scientific fields. Its objective is to identify connections, trends and opportunities for synergies. The results of over 62,000 published documents, which represent more than 1,300,000 citations in the selected journals, show computer science and engineering as the top citing research fields and authors Xu, Pedrycz and Herrera as the top citing researchers.

Palabras clave

Palabras clave de autor: Fuzzy set theory journals; Citation analysis; Authors; Research areas; Bibliometry

KeyWords Plus: DECISION-MAKING; SYSTEMS; FIELD

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