Preface

Volume XX of the Transactions on Rough Sets (TRS) is a continuation of a number of research streams that have grown out of the seminal work of Zdzislaw Pawlak\(^1\) during the first decade of the twenty-first century.

The paper co-authored by Javad Rahimipour Anaraki, Saeed Samet, Wolfgang Banzhaf, and Mahdi Eftekhari introduces a new hybrid merit based on a conjunction of correlation feature selection and fuzzy-rough feature selection methods. The new merit selects fewer redundant features and finds the most relevant features resulting in reasonable classification accuracy. The paper co-authored by Mohammad Azad, Mikhail Moshkov, and Beata Zielosko presents a study of a greedy algorithm for construction of approximate decision rules. This algorithm has polynomial time complexity for binary decision tables with many-valued decisions. The proposed greedy algorithm constructs relatively short \(\alpha\)-decision rules. The paper by Mani presents algebraic semantics of proto-transitive rough sets. Proto-transitivity, according to the author, can be considered as a possible generalization of transitivity that happens often in the context of applications. The paper by Piero Pagliani presents a uniform approach to previously introduced covering-based approximation operators from the point of view of pointless topology. The monograph authored by Mohammad Aquil Khan is devoted to the study of multiple-source approximation systems, evolving information systems, and corresponding logics based on rough sets.

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