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Knowledge discovery by rough sets mathematical flow graphs and its extension. (English)

[Zbl 1157.68453](#)

Gammerman, A. (ed.), Artificial intelligence and applications. Machine learning. As part of the 26th IASTED international multi-conference on applied informatics. Calgary: International Association of Science and Technology for Development (IASTED); Anaheim, CA: Acta Press (ISBN 978-0-88986-710-9/CD-ROM). 340-345 (2008).

Summary: Mathematical rough set theory has attracted both practical and theoretical researchers. A significant extension of rough set theory is called flow graphs. It is a knowledge representation in the form of information flow. Flow graph is a promising approach to analyze data flow, decision trees, decision rules, probability learning, etc.

In this article, we present their connections to pertinent techniques and propose a new extension to association rules. Two new propositions are used to reveal the relationship between flow graphs and association rules. We conduct experiment on real-world data collected from POSN with the evaluation. We discuss some important properties of flow graphs, with examples throughout.

For the entire collection see [[Zbl 1154.68012](#)].

MSC:

[68T30](#) Knowledge representation

[68R10](#) Graph theory (including graph drawing) in computer science

Cited in **1** Document

Keywords:

[flow graphs](#); [rough set theory](#); [association rules](#)