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Evolution of objects and concepts. (English) Zbl 1430.06002
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Summary: The method for producing concepts within a given context was developed by R. Wille, and it is known under the name formal concept analysis. Every concept is fully determined by its extent and intent where extent is the set of all objects and intent the set of all attributes of this concept. We show in examples that in situations of real world this method need not be satisfactory because time dimension plays a crucial role in human thinking. Hence, it is necessary to consider tense operators on time depending objects or on the whole concepts. A formal method how to evaluate these operators is investigated in this paper.

MSC:

06B23 Complete lattices, completions
06A15 Galois correspondences, closure operators (in relation to ordered sets)
68T30 Knowledge representation

Keywords:

formal concept analysis; formal context; concept; tense operators

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