

Аннотации пяти статей

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Концептуальные положения.

В статье рассматривается схема принятия решений, основанная на бинарных отношениях. Одной из особенностей схемы является система аксиом, положенная в основу предпочтений в пространстве бинарных отношений. Другая особенность – в многоэтапном подходе принятия решений.

Обобщенное математическое программирование как модель принятия решений.

В статье представлены основные подходы и универсальная терминология, используемые для принятия решений в пространстве бинарных отношений. Задача обобщенного математического программирования исследована как модель принятия решений.

Бинарные отношения в пространстве допустимых альтернатив.

В статье исследуется перевод бинарных отношений множества допустимых альтернатив в пространство пар допустимых альтернатив. Построена классификация, основанная на комбинации четырех принципов бинарных отношений. Каждый класс бинарных отношений описан аксиоматически и упорядочен.

Бинарные отношения в пространстве бинарных отношений I

Показан способ упорядочения бинарных отношений, построена система аксиом. Построена иерархическая структура принципов бинарных отношений.

Бинарные отношения в пространстве бинарных отношений II.

Сформулированы принципы согласования, расширения, насыщения и сближения. Показаны возможности их применения в социально – экономических системах.

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Conceptual Setting

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Abstract

This article discusses a methodological scheme for a priori research of decision-making process based on the theory of binary orders. One focus is on the systems of axioms that underlie the concepts of preferences in binary order spaces. The other focus is on the concept of multistage ways in decision making.

Keywords: decision making, binary orders (relations), multi-step solution

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Generalized Mathematical Programming as a Decision Model

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Abstract

This article defines the basic concepts and unified terminology used in models for decision-making in spaces of binary relations. The problem of generalized mathematical programming is described as a decision-making model.

Keywords: binary relations, generalized mathematical programming, optimal choice

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Binary Relations in the Set of Feasible Alternatives

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Abstract

This article extends binary relations from the set of relevant alternatives to the set of pairs of relevant alternatives. The classification is based on a combination of four principles of ordering binary relations. The properties of each class of binary relations are described axiomatically by taking into account the informal meaning of the relevant principle of ordering.

Keywords: binary relations, pairs of relevant alternatives, classification of principles of ordering

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Binary Relations in the Space of Binary Relations. I.

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Abstract

This article introduces the notion of how the principle of ordering of binary relations can be implemented. In order to distinguish complete systems of axioms, the assumption was made that the permissible set of alternatives is finite, and it was shown that the proof scheme can also be extended to countable sets. A hierarchical structure was built for the ways of implementing each principle of ordering binary relations.

Keywords: implementation of the principle of ordering, hierarchical structure, binary relations

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Binary Relations in the Space of Binary Relations. II.

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Abstract

This article formulates principles of extension, saturation and convergence, and shows how to implement them. In socio-economic systems, there are "reference groups", with the indicators of which the results of the research and experimentation are compared.

Keywords: principles of ordering, extension, saturation, convergence, reference group