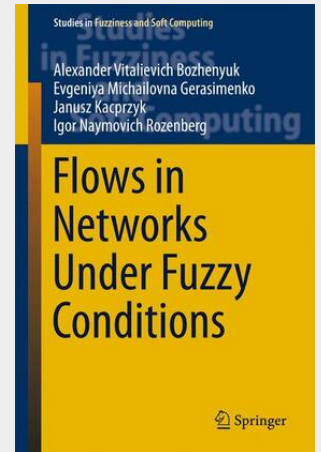


Flows in Networks Under Fuzzy Conditions

This book offers a comprehensive introduction to fuzzy methods for solving flow tasks in both transportation and networks. It analyzes the problems of minimum cost and maximum flow finding with fuzzy nonzero lower flow bounds, and describes solutions to minimum cost flow finding in a network with fuzzy arc capacities and transmission costs. After a concise introduction to flow theory and tasks, the book analyzes two important problems. The first is related to determining the maximum volume for cargo transportation in the presence of uncertain network parameters, such as environmental changes, measurement errors and repair work on the roads. These parameters are represented here as fuzzy triangular, trapezoidal numbers and intervals. The second problem concerns static and dynamic flow finding in networks under fuzzy conditions, and an effective method that takes into account the network's transit parameters is presented here. All in all, the book provides readers with a practical reference guide to state-of-the-art fuzzy methods for solving flow tasks and offers a valuable resource for all researchers and postgraduate students in the fields of network theory, fuzzy models and decision-making.

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