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Enhanced-robustness Dijkstra algorithm for control of routing in the IP-networks. (English. Russian original) [Zbl 1156.93329](#)

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Summary: A modified Dijkstra algorithm which is an efficient tool for allocation of the input data flows in the backbone IP-networks using the OSPF protocol was proposed. The purpose of modification was to improve the algorithm robustness to overloads in the data networks. Numerous experimental comparisons of the performance of the proposed algorithm and the linear programming-based algorithm of robust load correction and allocation in the IP-networks demonstrated that the proposed algorithm is highly efficient.

MSC:

- 93B35 Sensitivity (robustness)
- 93A15 Large-scale systems
- 90C05 Linear programming
- 90B18 Communication networks in operations research

Keywords:

[modified Dijkstra algorithm](#); [backbone IP-networks](#); [robustness to overloads](#)

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