

LOCATION PROBLEMS ON NETWORKS WITH ROUTING

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Various location problems on networks involve routing decisions related to sending flows between pairs of nodes, using the located facilities as final or intermediate nodes. In addition to the location of the facilities, these problems involve essential aspects of network design, as the arcs to be used must also be decided. This issue is one extra source of difficulty which, in practice, is reflected in formulations with a huge number of variables, highly inefficient even for relatively small size instances. In this talk we discuss some problems of this type, including some hub location models, and their relation to network design. Alternative formulations are presented leading to efficient solution methods.

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