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Titolo	Optimal Urban Networks via Mass Transportation [[electronic resource] /] / by Giuseppe Buttazzo, Aldo Pratelli, Sergio Solimini, Eugene Stepanov
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Collana	Lecture Notes in Mathematics, , 0075-8434 ; ; 1961
Disciplina	388.4
Soggetti	Calculus of variations Operations research Management science Manifolds (Mathematics) Complex manifolds Calculus of Variations and Optimal Control; Optimization Operations Research, Management Science Manifolds and Cell Complexes (incl. Diff.Topology)
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Problem setting -- Optimal connected networks -- Relaxed problem and existence of solutions -- Topological properties of optimal sets -- Optimal sets and geodesics in the two-dimensional case.
Sommario/riassunto	Recently much attention has been devoted to the optimization of transportation networks in a given geographic area. One assumes the distributions of population and of services/workplaces (i.e. the network's sources and sinks) are known, as well as the costs of movement with/without the network, and the cost of constructing/maintaining it. Both the long-term optimization and the short-term, "who goes where" optimization are considered. These models can also be adapted for the optimization of other types of networks, such as telecommunications, pipeline or drainage networks. In the monograph we study the most general problem settings, namely, when neither the shape nor even the topology of the network to be

constructed is known a priori.
