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Titolo	Optimal Interconnection Trees in the Plane : Theory, Algorithms and Applications / / by Marcus Brazil, Martin Zachariasen
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Nota di contenuto	Preface:- 1 Euclidean and Minkowski Steiner Trees -- 2 Fixed Orientation Steiner Trees -- 3 Rectilinear Steiner Trees -- 4 Steiner Trees with Other Costs and Constraints -- 5 Steiner Trees in Graphs and Hypergraphs -- A Appendix.
Sommario/riassunto	This book explores fundamental aspects of geometric network optimisation with applications to a variety of real world problems. It presents, for the first time in the literature, a cohesive mathematical framework within which the properties of such optimal interconnection networks can be understood across a wide range of metrics and cost functions. The book makes use of this mathematical theory to develop efficient algorithms for constructing such networks, with an emphasis

on exact solutions. Marcus Brazil and Martin Zachariasen focus principally on the geometric structure of optimal interconnection networks, also known as Steiner trees, in the plane. They show readers how an understanding of this structure can lead to practical exact algorithms for constructing such trees. The book also details numerous breakthroughs in this area over the past 20 years, features clearly written proofs, and is supported by 135 colour and 15 black and white figures. It will help graduate students, working mathematicians, engineers and computer scientists to understand the principles required for designing interconnection networks in the plane that are as cost efficient as possible.