1. Record Nr. UNINA9910303449203321 Autore Church Richard L Titolo Location Covering Models: History, Applications and Advancements / / by Richard L. Church, Alan Murray Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2018 **ISBN** 3-319-99846-3 Edizione [1st ed. 2018.] Descrizione fisica 1 online resource (276 pages) Collana Advances in Spatial Science, The Regional Science Series, , 1430-9602 Disciplina 301.34 Soggetti Regional economics Space in economics Operations research Management science Regional planning City planning Geographic information systems Public administration Public policy Regional/Spatial Science Operations Research, Management Science Landscape/Regional and Urban Planning Geographical Information Systems/Cartography Public Administration **Public Policy** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Preface -- 1 Location Modeling and Covering Metrics -- 2 Classic Beginnings -- 3 Hierarchical, Coordinated, Multi-objective and Multitype -- 4 Probabilistic Coverage -- 5: Anti-cover -- 6 Weighted Benefit, Variable Radius, and Gradual Coverage -- 7 Capture, Capacities, and Thresholds -- 8 Continuous Space Coverage -- 9 Disruption, Protection, and Resilience of Service Coverage -- 10

Coverage of NetworkBased Structures: Paths, Tours and Trees -- 11

Grand Challenges.

Sommario/riassunto

This book provides a thoughtful and rigorous guide to coverage modeling, reviewing essential models, solution approaches, and related applications. Since the early developments of the Location Set Covering Problem and the Maximal Covering Location Problem, models based upon some form of coverage have been extended and applied in a number of areas, helping to improve services offered to citizens of large cities and regions. Examples include trauma care services, transit systems design, cell tower location, and many others. The book not only describes the strengths and weaknesses of currently available models, but also presents details on major developments, including solution procedures and applications, making it well suited both as a reference text and a textbook for graduate level courses.