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Nota di contenuto	Front Matter -- Introduction. Small Cells-The Future of Cellular Networks -- 100x Capacity Scaling of Cellular Networks -- Automation of Cellular Networks -- Coverage and Capacity Optimization. Frequency Assignment and Access Methods -- Coverage and Capacity Optimization for Indoor Cells -- Coverage and Capacity Optimization for Outdoor Cells -- Interference Management. Frequency-Domain Inter-cell Interference Coordination -- Time-Domain Inter-cell Interference Coordination -- The Sector Offset Configuration -- Control Channel Inter-cell Interference Coordination -- Uplink-Oriented Optimization in Heterogeneous Networks -- Mobility Management and Energy Efficiency. Mobility Management -- Dormant Cells and Idle Modes -- Small Cell Deployment. Backhaul for Small Cells -- Optimization of Small Cell Deployment -- Future Trends and Applications. Ultra-Dense Networks -- HetNet Applications -- Simulating Hetnets -- IEEE Press Series on Networks and Services Management.
Sommario/riassunto	<p> The first and only up-to-date guide offering complete coverage of HetNets—written by top researchers and engineers in the field <p> Small Cell Networks: Deployment,

Management, and Optimization addresses key problems of the cellular network evolution towards HetNets. It focuses on the latest developments in heterogeneous and small cell networks, as well as their deployment, operation, and maintenance. It also covers the full spectrum of the topic, from academic, research, and business, to the practice of HetNets in a coherent manner. Additionally, it provides complete and practical guidelines to vendors and operators interested in deploying small cells. <p> The first comprehensive book written by well-known researchers and engineers from Nokia Bell Labs, Small Cell Networks begins with an introduction to the subject—offering chapters on capacity scaling and key requirements of future networks. It then moves on to sections on coverage and capacity optimization, and interference management. From there, the book covers mobility management, energy efficiency, and small cell deployment, ending with a section devoted to future trends and applications. The book also contains: <ul> The latest review of research outcomes on HetNets based on both theoretical analyses and network simulations Over 200 sources from 3GPP, the Small Cell Forum, journals and conference proceedings, covering all prominent topics in the area of HetNets An overview of indoor coverage techniques such as metrocells, picocells and femtocells, and their deployment and optimization Real case studies as well as innovative research results based on both simulation and measurements Detailed information on simulating heterogeneous networks as used in the examples throughout the book <p> Given the importance of HetNets for future wireless communications, Small Cell Networks: Deployment, Management, and Optimization is sure to help decision makers as they consider the migration of services to HetNets. It will also appeal to anyone involved in information and communication technology.