Record Nr. UNINA9910158706003321 Autore Wu Yuan Titolo Radio Resource Management for Mobile Traffic Offloading in Heterogeneous Cellular Networks / / by Yuan Wu, Li Ping Qian, Jianwei Huang, Xuemin (Sherman) Shen Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2017 3-319-51037-1 **ISBN** Edizione [1st ed. 2017.] 1 online resource (IX, 78 p. 21 illus.) Descrizione fisica Collana SpringerBriefs in Electrical and Computer Engineering, , 2191-8112 Disciplina 621.382 Soggetti Electrical engineering Computer networks Application software Communications Engineering, Networks Computer Communication Networks Information Systems Applications (incl. Internet) Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Includes bibliographical references at the end of each chapters. Nota di bibliografia Nota di contenuto Traffic Offloading in Heterogeneous Cellular Networks -- Resource Allocation for Small-Cell based Traffic Offloading -- Resource Allocation for D2D-assisted Traffic Offloading -- Conclusions and Future Directions. Sommario/riassunto This SpringerBrief offers two concrete design examples for traffic offloading. The first is an optimal resource allocation for small-cell based traffic offloading that aims at minimizing mobile users' data cost. The second is an optimal resource allocation for device-to-device assisted traffic offloading that also minimizes the total energy consumption and cellular link usage (while providing an overview of the challenging issues). Both examples illustrate the importance of proper resource allocation to the success of traffic offloading, show the consequent performance advantages of executing optimal resource allocation, and present the methodologies to achieve the corresponding

optimal offloading solution for traffic offloading in heterogeneous cellular networks. The authors also include an overview of

heterogeneous cellular networks and explain different traffic offloading paradigms ranging from uplink traffic offloading through small cells to downlink traffic offloading via mobile device-to-device cooperation. This brief is an excellent resource for postgraduate students studying advanced-level topics in wireless communications and networking. Researchers, engineers and professionals working in related fields will also find this brief a valuable resource tool.