Record Nr. UNINA9910299826703321 Autore Marabissi Dania Titolo Cognitive Interference Management in Heterogeneous Networks / / by Dania Marabissi, Romano Fantacci Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2015 **ISBN** 3-319-20191-3 Edizione [1st ed. 2015.] Descrizione fisica 1 online resource (86 p.) Collana SpringerBriefs in Electrical and Computer Engineering, , 2191-8112 384.54524015193 Disciplina Soggetti Electrical engineering Computer networks Communications Engineering, Networks Computer Communication Networks Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references at the end of each chapters. Nota di contenuto Heterogeneous Networks -- Interference Management in HetNets --Cognitive HetNets -- Cognitive Resource Allocation with Beamforming -- Conclusions. Sommario/riassunto This brief investigates the role of interference management in Heterogeneous Networks (Het Nets), focusing on cognitive approaches and the use of beamforming. Key concepts of Het Nets are introduced and different deployment strategies are examined, such as sharing the same frequency band of the macro cells or using new high frequency bands. Particular attention is devoted to co-channel deployment and to the problem of interference management, addressing various strategies that can be adopted to handle the interference between the cells. In addition, the brief explores cognitive small cells which are able to avoid or limit interference by using suitable beamforming and resource allocation schemes. The suggested solutions are supported by numerical results in terms of performance evaluations and

comparisons.