1. **Record Nr.**   UNINA9910817329603321

   Titolo   Cooperative and cognitive satellite systems / / edited by Symeon Chatzinotas, Bjorn Ottersten, Riccardo De Gaudenzi ; contributors, Nader Alagha [and fifty-two others]

   Pubbl/distr/stampa   Amsterdam, [Netherlands] : , : Academic Press, , 2015
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   Descrizione fisica   1 online resource (542 p.)

   Disciplina   621.3825

   Soggetti   Artificial satellites in telecommunication
   Multiuser detection (Telecommunication)
   Cognitive radio networks

   Lingua di pubblicazione Inglese

   Formato   Materiale a stampa

   Livello bibliografico Monografia

   Note generali   Description based upon print version of record.

   Nota di bibliografia Includes bibliographical references at the end of each chapters and index.

   Nota di contenuto   Front Cover; Cooperative and Cognitive Satellite Systems; Copyright ; Contents; List of contributors; Preface; Cooperative and cognitive satellite systems; 1 Introduction; 1.1 Cooperative Satellite Systems; 1.2 Cognitive Satellite Systems; About the Editors; List of figures; Acronyms; Chapter 1: Multibeam joint detection; 1.1 Introduction; 1.1.1 Signal description; 1.1.1.1 Beam radiation pattern; 1.1.1.2 Fading; 1.1.2 Overview of multibeam techniques; 1.2 Theoretical performance limits; 1.2.1 Sum rate; 1.2.1.1 High SNR; 1.2.1.2 Low SNR; 1.2.1.3 Numerical example; 1.2.2 Outage capacity
   1.2.2.1 High SNR1.2.2.2 Numerical example; 1.3 Multibeam processing: linear and nonlinear joint detection; 1.3.1 Joint detection algorithms; 1.3.1.1 Linear detectors; 1.3.1.2 Nonlinear detectors; 1.3.1.3 Numerical example; 1.3.2 IDD Techniques; 1.3.3 Complexity considerations; 1.4 Practical impairments; 1.4.1 Imperfect channel estimation; 1.4.1.1 Review on channel estimation techniques; 1.4.1.2 Asynchronism in the return link; 1.4.1.3 Performance with imperfect channel estimation; 1.4.2 Limitations of the feeder link; 1.5 Conclusions; References
   Chapter 2: High-performance random access schemes2.1 Introduction; 2.2 Key terrestrial RA techniques; 2.3 RA Techniques for satellite

Sommario/riassunto	Cooperative and Cognitive Satellite Systems provides a solid overview of the current research in the field of cooperative and cognitive satellite systems, helping users understand how to incorporate state-of-the-art communication techniques in innovative satellite network architectures to enable the next generation of satellite systems. The book is edited and written by top researchers and practitioners in the field, providing a comprehensive explanation of current research that allows users to discover future technologies and their applications, integrate satellite and terrestrial systems