

1. Record Nr.	UNINA9910829001603321
Autore	Saleh Bahaa E. A. <1944->
Titolo	Introduction to subsurface imaging // Bahaa Saleh [[electronic resource]]
Pubbl/distr/stampa	Cambridge : , : Cambridge University Press, , 2011
ISBN	1-107-21997-3 1-283-11104-7 9786613111043 1-139-07586-1 0-511-73257-0 1-139-07812-7 1-139-08042-3 1-139-08269-8
Descrizione fisica	1 online resource (xv, 438 pages) : digital, PDF file(s)
Disciplina	681.25
Soggetti	Remote sensing Ground penetrating radar Imaging systems
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Title from publisher's bibliographic system (viewed on 05 Oct 2015).
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Cover; Half-title; Series-title; Title; Copyright; Contents; Authors and Contributors; Preface; Acknowledgements; Outline and Roadmap; CHAPTER 1 Overview; CHAPTER 2 Physical Models; CHAPTER 3 Localized Imaging; CHAPTER 4 Tomographic Imaging; CHAPTER 5 Digital Image Processing; CHAPTER 6 Spectral Imaging; CHAPTER 7 Mosaicing, Change Detection, and Multisensor Imaging; CHAPTER 8 Numerical Simulation; CHAPTER 9 Design of Subsurface Imaging Systems; APPENDIX A: Multi-Dimensional Signals and Systems; APPENDIX B: Linear Algebra; APPENDIX C: Detection and Classification; APPENDIX D: Software Tools Index
Sommario/riassunto	Describing and evaluating the basic principles and methods of subsurface sensing and imaging, Introduction to Subsurface Imaging is

a clear and comprehensive treatment that links theory to a wide range of real-world applications in medicine, biology, security and geophysical/environmental exploration. It integrates the different sensing techniques (acoustic, electric, electromagnetic, optical, x-ray or particle beams) by unifying the underlying physical and mathematical similarities, and computational and algorithmic methods. Time-domain, spectral and multisensor methods are also covered, whilst all the necessary mathematical, statistical and linear systems tools are given in useful appendices to make the book self-contained. Featuring a logical blend of theory and applications, a wealth of color illustrations, homework problems and numerous case studies, this is suitable for use as both a course text and as a professional reference.

---