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Descrizione fisica	1 online resource (xv, 438 pages) : digital, PDF file(s)
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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.

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