1. Record Nr. UNISA996466308003316 Autore Maier Andreas Titolo Medical Imaging Systems [[electronic resource]]: An Introductory Guide // edited by Andreas Maier, Stefan Steidl, Vincent Christlein, Joachim Hornegger Pubbl/distr/stampa Springer Nature, 2018 Cham:,: Springer International Publishing:,: Imprint: Springer,, 2018 **ISBN** 3-319-96520-4 Edizione [1st ed. 2018.] 1 online resource (X, 259 p. 167 illus.) Descrizione fisica Image Processing, Computer Vision, Pattern Recognition, and Graphics: Collana ; 11111 006.6 Disciplina Optical data processing Soggetti Computer Imaging, Vision, Pattern Recognition and Graphics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Introduction -- System Theory -- Image Processing -- Endoscopy --Microscopy -- Magnetic Resonance Imaging -- X-ray Imaging --Computed Tomography -- X-ray Phase Contrast: Research on a Future Imaging Modality -- Emission Tomography -- Ultrasound -- Optical Coherence Tomography -- Acronyms. . This open access book gives a complete and comprehensive Sommario/riassunto introduction to the fields of medical imaging systems, as designed for a broad range of applications. The authors of the book first explain the foundations of system theory and image processing, before highlighting several modalities in a dedicated chapter. The initial focus is on modalities that are closely related to traditional camera systems such as endoscopy and microscopy. This is followed by more complex image formation processes: magnetic resonance imaging, X-ray projection imaging, computed tomography, X-ray phase-contrast imaging, nuclear imaging, ultrasound, and optical coherence

tomography.