Record Nr. UNISALENTO991004403228407536 **Titolo** An introduction to medical physics / Muhammad Magbool editor Cham: Springer International Publishing, 2018 Pubbl/distr/stampa **ISBN** 9783319615387 Edizione [Corrected publication] Descrizione fisica xii, 416 p.: ill.; 25 cm Biological and medical physics, biomedical engineering, 1618-7210 Collana Classificazione 53.9.7 Altri autori (Persone) Magbool, Muhammadauthor Disciplina 610.153 Soggetti Medical physics Radiation Radiology Biomedical engineering Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references at the end of each chapters Nota di contenuto Introduction -- Basic Concepts in Radiation Dosimetry -- Interaction of Gamma Rays and X-Rays with Matter -- Treatment planning in Radiation Therapy -- Image Guided Radiation Therapy -- Introduction to Radiological Images -- Mammography -- Computed Tomography --Magnetic Resonance Imaging (MRI) -- CT and MRI in Radiotherapy --Nuclear Medicine Physics -- Ultrasound -- Radiation Shielding and Protection, Part I – Measurement, Dosimetry, Shielding and Protection -- Radiation Shielding and Protection, Part II Sommario/riassunto This book begins with the basic terms and definitions and takes a student, step by step, through all areas of medical physics. The book covers radiation therapy, diagnostic radiology, dosimetry, radiation shielding, and nuclear medicine, all at a level suitable for undergraduates. This title not only describes the basics concepts of the field, but also emphasizes numerical and mathematical problems and examples. Students will find An Introduction to Medical Physics to be an indispensible resource in preparations for further graduate studies in

the field