1. Record Nr. UNINA9910894556003321

Titolo	Journal of Interesting Negative Results in Natural Language Processing and Machine Learning : JINR
Pubbl/distr/stampa	[S.l.], 2008-
Descrizione fisica	Online-Ressource
Disciplina	400 004
Soggetti	Zeitschrift
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Periodico

2. Record Nr. UNINA9910254618803321

Autore	Podgorsak E. B (Ervin B.)
Titolo	Radiation Physics for Medical Physicists / / by Ervin B. Podgorsak
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2016
ISBN	3-319-25382-4
Edizione	[3rd ed. 2016.]
Descrizione fisica	1 online resource (LVIII, 906 p. 257 illus., 67 illus. in color.)
Collana	Graduate Texts in Physics, , 1868-4513
Disciplina	610.153
Soggetti	Medical physics Radiation Radiology Biomedical engineering Nuclear medicine Particle acceleration Medical and Radiation Physics Diagnostic Radiology Biomedical Engineering and Bioengineering Nuclear Medicine Particle Acceleration and Detection, Beam Physics
Lingua di pubblicazione	Inglese

Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	From the Contents: Introduction to Modern Physics -- Coulomb Scattering -- Rutherford – Bohr Atomic Model -- Production of X Rays -- Two-Particle Collisions -- Interaction of Charged Particles with Matter -- Interaction of Photons with Matter. .
Sommario/riassunto	This textbook summarizes the basic knowledge of atomic, nuclear, and radiation physics that professionals working in medical physics and biomedical engineering need for efficient and safe use of ionizing radiation in medicine. Concentrating on the underlying principles of radiation physics, the textbook covers the prerequisite knowledge for medical physics courses on the graduate and post-graduate levels in radiotherapy physics, radiation dosimetry, imaging physics, and health physics, thus providing the link between elementary undergraduate physics and the intricacies of four medical physics specialties: diagnostic radiology physics, nuclear medicine physics, radiation oncology physics, and health physics. To recognize the importance of radiation dosimetry to medical physics three new chapters have been added to the 14 chapters of the previous edition. Chapter 15 provides a general introduction to radiation dosimetry. Chapter 16 deals with absolute radiation dosimetry systems that establish absorbed dose or some other dose related quantity directly from the signal measured by the dosimeter. Three absolute dosimetry techniques are known and described in detail: (i) calorimetric; (ii) chemical (Fricke), and (iii) ionometric. Chapter 17 deals with relative radiation dosimetry systems that rely on a previous dosimeter calibration in a known radiation field. Many relative radiation dosimetry systems have been developed to date and four most important categories used routinely in medicine and radiation protection are described in this chapter: (i) Ionometric dosimetry; (ii) Luminescence dosimetry; (iii) Semiconductor dosimetry; and (iv) Film dosimetry. The book is intended as a textbook for a radiation physics course in academic medical physics graduate programs as well as a reference book for candidates preparing for certification examinations in medical physics sub-specialties. It may also be of interest to many professionals, not only physicists, who in their daily occupations deal with various aspects of medical physics or radiation physics and have a need or desire to improve their understanding of radiation physics. .