1. Record Nr. UNISALENTO991002128539707536 **Titolo** Proton therapy physics / edited by Harald Paganetti Boca Raton: Taylor & Francis, 2012 Pubbl/distr/stampa **ISBN** 9781439836446 (hardcover : alk. paper) Descrizione fisica xx, 684 p. ill.; 24 cm Collana Series in medical physics and biomedical engineering; 20 Classificazione LC RC271.R3 53.9.78 Altri autori (Persone) Paganetti, Harald Disciplina 615.8/42 Radiotherapy Soggetti Neoplasms - Radiotherapy Protons - Therapeutic use Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references Sommario/riassunto "Compared to x-ray-based radiotherapeutic modalities, proton therapy provides greater 3D localization, higher beam doses, access to deeper tumors, and less damage to surrounding healthy tissue. Though over fifty years old, it is now coming to the forefront of cancer treatment with greater understanding of the biophysics and better treatment and patient outcomes. This text presents an overview of proton therapy that addresses all key topics including, biophysics, accelerators, hardware, beam delivery, treatment planning, dose calculation, quality assurance, and precision. Features (1) Provides an overview of proton therapy; (2) Covers beam delivery using passive scattering and magnetic beam scanning; (3) Details the physics of treatment planning for homogenous fields and intensity-modulated fields; and (4) Discusses precision and uncertainties for both moving and non-moving targets"--Provided by

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