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Titolo	Laser-Driven Particle Acceleration Towards Radiobiology and Medicine / / edited by Antonio Giulietti
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ISBN	3-319-31563-3
Edizione	[1st ed. 2016.]
Descrizione fisica	1 online resource (326 p.)
Collana	Biological and Medical Physics, Biomedical Engineering, , 1618-7210
Disciplina	610.28
Soggetti	Medical physics Radiation Nuclear medicine Biomedical engineering Particle acceleration Medical and Radiation Physics Nuclear Medicine Biomedical Engineering and Bioengineering Particle Acceleration and Detection, Beam Physics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	From the Contents: Part I Laser driven particle acceleration: From experiments to devices -- Ultra-intense lasers and particle acceleration: past, present and future -- Part II Biophysical studies with laser driven particle sources -- Part III Synchrotron, ion accelerator and microbeam -- Synchrotron source: dosimetry and pre-clinical trials.
Sommario/riassunto	This book deals with the new method of laser-driven acceleration for application to radiation biophysics and medicine. It provides multidisciplinary contributions from world leading scientist in order to assess the state of the art of innovative tools for radiation biology research and medical applications of ionizing radiation. The book contains insightful contributions on highly topical aspects of spatio- temporal radiation biophysics, evolving over several orders of magnitude, typically from femtosecond and sub-micrometer scales.

Particular attention is devoted to the emerging technology of laser-driven particle accelerators and their application to spatio-temporal radiation biology and medical physics, customization of non-conventional and selective radiotherapy and optimized radioprotection protocols.
