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Descrizione fisica	1 online resource (295 pages)
Collana	Undergraduate Lecture Notes in Physics, , 2192-4805
Disciplina	539.72
Soggetti	Nuclear physics Elementary particles (Physics) Quantum field theory Particle accelerators Nuclear and Particle Physics Elementary Particles, Quantum Field Theory Accelerator Physics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction -- Composition and Structure of Atomic Nuclei -- Unstable Nuclei; Radioactivity -- Experimental Techniques and Equipment of Nuclear and Particle Physics -- Strong Nuclear Forces and Nuclear Models -- Nuclear Reactions -- Physics of Elementary Particles -- Applications of Nuclear- and High Energy- Physics -- Solutions to the Problems.
Sommario/riassunto	This introduction to nuclear physics and particle physics provides an accessible and clear treatment of the fundamentals. Starting with the structure of nuclei and explaining instability of nuclei, this textbook enables the reader to understand all basics in nuclear physics. The text is written from the experimental physics point of view, giving numerous real-life examples and applications of nuclear forces in modern technology. This highly motivating presentation deepens the reader's knowledge in a very accessible way. The second part of the text gives a concise introduction to elementary particle physics, again together with applications and instrumentation. Nuclear fusion, fission,

radionuclides in medicine and particle accelerators are amongst the many examples explained in detail. Numerous problems with solutions are perfect for self-study.
