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Nota di contenuto	Part: Nuclear physics -- 1. Particle Physics, From Rutherford to the LHC S. Level 2. The Early Years and Beyond E. M. Henley and A. Garcia -- 3. 100 Years of Nuclear Mass Measurements and Models G. T. Garvey -- 4. Symmetries and Dynamical Symmetries in Nuclei I. Talmi -- 5. Nuclear Fission R. Vogt and J. Randrup -- 6. Parity- and Time-Reversal Tests in Nuclear Physics D. Hertzog and M. J. Ramsey-Musolf -- 7. High Energy Nuclear Physics: From Bear Mountain to the LHC L. McLerran -- 8. Chiral Symmetry in Subatomic Physics U.-G. Meibner -- 9. Exotic Nuclei Far From the Stability Line K. Hagino, I. Tanihata and H. Sagawa Part: 2. Particle physics -- 10. A Short History of Colliders L. Evans -- 11. 4 Detectors C. Tully -- 12. Large Underground Detectors for Proton Decay and Neutrino Physics K. Scholberg -- 13. Jets and QCD S. D. Ellis and D. E. Soper -- 14. Diffractive Phenomena in High Energy Processes L. Frankfurt and M. Strikman 15. Weak Interactions: From Current–Current to Standard Model and Beyond R. N. Mohapatra -- 16. Neutrino Physics L. Wolfenstein -- 17. Introduction to Renormalization in Field Theory L.-F. Li --18. Lattice Gauge Theory and the Origin of Mass A. S. Kronfeld -- 19. String Theory and M-Theory J. H. Schwarz.
Sommario/riassunto	By year 1911 radioactivity had been discovered for over a decade, but its origin remained a mystery. Rutherford's discovery of the nucleus and the subsequent discovery of the neutron by Chadwick started the field of subatomic physics — a quest for understanding the

fundamental constituents of matter. This book reviews the important achievements in subatomic physics in the past century. The chapters are divided into two parts: nuclear physics and particle physics. Written by renowned authors who have made major developments in the field, this book provides the academics and researchers an essential overview of the present state of knowledge in nuclear and particle physics.
