The Fundamental Particles and Their Interactions

William B. Rolnick
Wayne State University

With an appendix on Particle Detectors
by Joey Huston, Michigan State University

Contents

CHAPTER 3
Angular Momentum and Rotations   32

CHAPTER 4
Relativistic Quantum Mechanics and
Quantum Field Theory   48

CHAPTER 5
Groups and Their Representations   80

CHAPTER 6
"Internal" Symmetries and Conserved Numbers   99

PART B   The Standard Model

CHAPTER 11
The Electroweak Theory – II. Breaking the Symmetry   179

CHAPTER 12
The Discrete Symmetries: *P*, *C*, and *T*   205

PART C   Experimental Concepts and Evidence

CHAPTER 13
Experimental Concepts   239

CHAPTER 14
Experimental Devices and Facilities   267

PART D   Beyond the Standard Model

CHAPTER 19
Further Developments   **380**