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Soggetti	Particles (Nuclear physics) Quantum field theory Mathematical physics Condensed matter Cosmology Elementary Particles, Quantum Field Theory Theoretical, Mathematical and Computational Physics Particle Physics Condensed Matter Physics
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Nota di contenuto	Introduction -- Our first model -- Generalizations of the model -- Spontaneous symmetry breaking -- Nambu–Goldstone bosons -- Effective field theory -- Nonlinear realization of symmetry -- Low-energy effective field theory -- Some examples and applications -- Scattering of Nambu–Goldstone bosons -- Differences between internal and spacetime symmetry -- Nonlinear realization of spacetime symmetry -- Broken spacetime symmetry in quantum matter -- Broken spacetime symmetry in classical matter -- Topics not covered in this book -- Some open questions. Appendix.
Sommario/riassunto	This open access book is about spontaneous symmetry breaking, which is a classic area of theoretical physics that lies at the core of many fascinating phenomena such as ferromagnetism, superfluidity, superconductivity, or the Higgs mechanism. The book brings an up-to-date overview of spontaneous symmetry breaking and of modern

effective field theory description thereof. The topics covered include the classification of Nambu–Goldstone bosons, nonlinear realization of internal and spacetime symmetries and the construction of the corresponding effective actions, and selected applications. With in-depth exposition of conceptual foundations and numerous illustrative examples, the book is accessible to anybody having taken a basic course on quantum field theory. It serves as a self-contained text for graduate students and junior researchers in diverse areas of physics, but also as a useful reference for experts.