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Sommario/riassunto	This monograph is devoted to the nonperturbative dynamics in the Standard Model (SM), the basic theory of all fundamental interactions in nature except gravity. The Standard Model is divided into two parts: the quantum chromodynamics (QCD) and the electro-weak theory (EWT) are well-defined renormalizable theories in which the perturbation theory is valid. However, for the adequate description of the real physics nonperturbative effects are inevitable. This book describes how these nonperturbative effects may be obtained in the framework of spontaneous generation of effective interactions. The well-known example of such effective interaction is provided by the famous Nambu-Jona-Lasinio effective interaction. Also a spontaneous generation of this interaction in the framework of QCD is described and applied to the method for other effective interactions in QCD and EWT.

The method is based on N.N. Bogoliubov's conception of compensation equations. As a result we then describe the principal features of the Standard Model, e.g. Higgs sector, and significant nonperturbative effects including recent results obtained at LHC and TEVATRON.