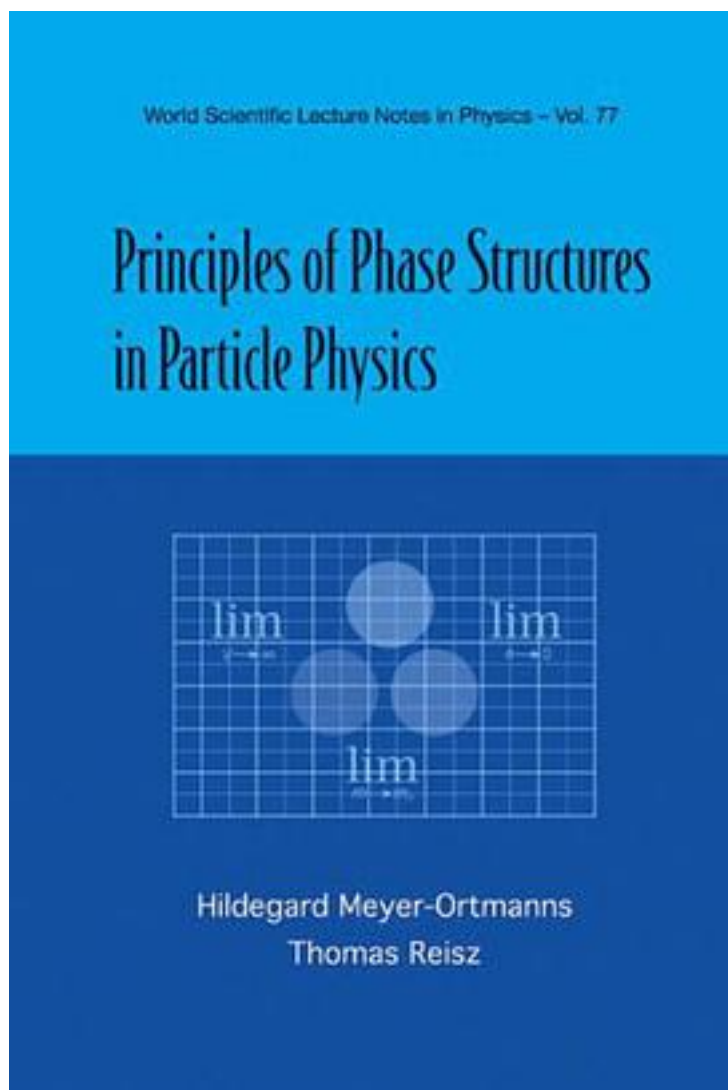


Principles of Phase Structures in Particle Physics



[Principles of Phase Structures in Particle Physics_ 下载链接1](#)

著者:Meyer-Ortmanns, Hildegard

出版者:World Scientific Publishing Co Pte Ltd

出版时间:2006-12

装帧:HRD

isbn:9789810234416

The phase structure of particle physics shows up in matter at extremely high densities and/or temperatures as they were reached in the early universe, shortly after the big bang, or in heavy-ion collisions, as they are performed nowadays in laboratory experiments. In contrast to phase transitions of condensed matter physics, the underlying fundamental theories are better known than their macroscopic manifestations in phase transitions. These theories are quantum chromodynamics for the strong interaction part and the electroweak part of the Standard Model for the electroweak interaction. It is their non-Abelian gauge structure that makes it a big challenge to predict the type of phase conversion between phases of different symmetries and different particle contents. The book is about a variety of analytical and numerical tools that are needed to study the phase structure of particle physics. To these belong convergent and asymptotic expansions in strong and weak couplings, dimensional reduction, renormalization group studies, gap equations, Monte Carlo simulations with and without fermions, finite-size and finite-mass scaling analyses, and the approach of effective actions as supplement to first-principle calculations.

作者介绍:

目录:

[Principles of Phase Structures in Particle Physics 下载链接1](#)

标签

评论

[Principles of Phase Structures in Particle Physics 下载链接1](#)

书评
