

<<横向自旋物理学/TRANSVERSE S>>

图书基本信息

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### 内容概要

This book deals with the theory and phenomenology of transverse spin effects in high-energy hadronic physics. Contrary to common past belief, it is now rather clear that these effects are far from irrelevant. A decade or so of intense theoretical work has shed much light on the subject and brought to the surface an entire class of new phenomena, which now await thorough experimental investigation. Over the next few years a number of experiments worldwide (at DESY, CERN and Brookhaven) will run with transversely polarised particles, providing data that will enrich our knowledge of the transverse spin structure of hadrons. It is therefore timely to assess the state of the art, and this is the principal aim of the book. The outline of the book is as follows. After a few introductory remarks (Chapter 1), in the first part (Chapters 2-4) attention is directed to polarised deep inelastic scattering (DIS), particularly DIS on transversely polarised targets, which probes the transverse spin structure function  $g_2$ . This structure function is examined within the framework of the quark-parton model and its improvement via perturbative QCD. The existing data are reviewed and commented on (for completeness and comparison, a brief presentation of longitudinally polarised DIS and of the helicity structure of the proton is provided).

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