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<<普适起伏>>

图书基本信息

书名:<<普适起伏>>

13位ISBN编号:9789810249236

10位ISBN编号:9810249233

出版时间:2002-12

出版时间: World Scientific Pub Co Inc

作者: Botet, Robert/ Poszajczak, Marek/ Ploszajczak, M.

页数:369

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内容概要

The main purpose of this book is to present, in a comprehensive and progressive way, the appearance of universal limit probability laws in physics, and their connection with the recently developed scaling theory of fluctuations. Arising from the probability theory and renormalization group methods, this novel approach has been proved recently to provide efficient investigative tools for the collective features that occur in any finite system. The mathematical background is self-contained and is formulated in terms which are easy to apply to the physical context. After illustrating the problem of anomalous diffusion, the book reviews recent advances in nuclear and high energy physics, where the limit laws are now recognized as being able to classify different phases of a system undergoing the pseudo-critical behaviour. A new description of the hadronic matter in terms of the fluctuation scaling is appearing as a consequence of this approach.

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