

<<几何物理学导论>>

图书基本信息

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内容概要

This book grew out of courses given at the Instituto de Fisica Teorica for many years. As the title announces, it is intended as a first, elementary approach to "Geometrical Physics" -- to be understood as a chapter of Mathematical Physics. Mathematical Physics is a moving subject, and has moved faster in recent times. From the study of differential equations and related special functions, it has migrated to the more qualitative realms of topology and algebra. The bridge has been the framework of geometry. The passage supposes an acquaintance with concepts and terms of a new kind, to which this text is a tentative introduction. In its technical uses, the word "geometry" has since long lost its metric etymological meaning. It is the science of space, or better, of spaces. Thus, the name should be understood as a study of those spaces which are of interest in Physics. This emphasis on the notion of space has dominated the choice of topics - they will have in common the use of "spaces". Some may seem less geometric than others, but a space is always endowed with a few basic, irreducible properties enabling some kind of analysis, allowing a discussion of relations between its different parts.

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