

<<黎曼几何>>

图书基本信息

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## 内容概要

The object of this book is to familiarize the reader with the basic language of and some fundamental theorems in Riemannian Geometry.

To avoid referring to previous knowledge of differentiable manifolds, we include Chapter 0, which contains those concepts and results on differentiable manifolds which are used in an essential way in the rest of the book.

The first four chapters of the book present the basic concepts of Riemannian Geometry ( Riemannian metrics, Riemannian connections, geodesics and curvature ).

A good part of the study of Riemannian Geometry consists of understanding the relationship between geodesics and curvature.

Jacobi fields, an essential tool for this understanding, are introduced in Chapter 5.

In Chapter 6 we introduce the second fundamental form associated with an isometric immersion, and prove a generalization of the Theorem Egregium of Gauss.

This allows us to relate the notion of curvature in Riemannian manifolds to the classical concept of Gaussian curvature for surfaces.

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### 编辑推荐

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