

<<拓扑与几何>>

图书基本信息

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内容概要

This time of writing is the hundredth anniversary of the publication (1892) of Poincaré's first note on topology, which arguably marks the beginning of the subject of algebraic, or "combinatorial," topology. There was earlier scattered work by Euler, Listing (who coined the word "topology"), Möbius and his band, Riemann, Klein, and Betti. Indeed, even as early as 1679, Leibniz indicated the desirability of creating a geometry of the topological type. The establishment of topology (or "analysis situs" as it was often called at the time) as a coherent theory, however, belongs to Poincaré. Curiously, the beginning of general topology, also called "point set topology," dates fourteen years later when Fréchet published the first abstract treatment of the subject in 1906. Since the beginning of time, or at least the era of Archimedes, smooth manifolds (curves, surfaces, mechanical configurations, the universe) have been a central focus in mathematics. They have always been at the core of interest in topology. After the seminal work of Milnor, Smale, and many others, in the last half of this century, the topological aspects of smooth manifolds, as distinct from the differential geometric aspects, became a subject in its own right. While the major portion of this book is devoted to algebraic topology, I attempt to give the reader some glimpses into the beautiful and important realm of smooth manifolds along the way, and to instill the tenet that the algebraic tools are primarily intended for the understanding of the geometric world.

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编辑推荐

本书是一部比较原始但又不失趣味性的拓扑与几何课本，完全是从现代观点研究问题，可以说是25年以来，继Spanier之后真正的一本全新的拓扑书。

很适合作为一年级研究生的代数拓扑教科书。

内容安排紧凑、合理，从一般拓扑开始，讲述了微分流形，上同调，乘积和对偶，基础群，同调理论和同伦理论。

包括了面理论，群理论，和纤维丛理论这些大多数拓扑学家想让学拓扑的学生了解的知识点。

并且有很多内容很具有启发性，这些内容并不是所有传统的课本中都包含的。

通过这本书的阅读也可以提高数学学习能力。

尽管这本书具有很强的综合性，但并没有过分去去囊括多余的综合材料，而是这些材料真正地提高了表述的效率和清晰度。

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