Spin Geometry

[Spin Geometry_下载链接1_](#)

著者:H. Blaine Lawson

出版者:Princeton University Press

出版时间:1990-2-1

装帧:Hardcover

isbn:9780691085425

This book offers a systematic and comprehensive presentation of the concepts of a spin manifold, spinor fields, Dirac operators, and A-genera, which, over the last two decades, have come to play a significant role in many areas of modern mathematics. Since the deeper applications of these ideas require various general forms of the Atiyah-Singer Index Theorem, the theorems and their proofs, together with all prerequisite material, are examined here in detail. The exposition is richly embroidered with examples and applications to a wide spectrum of problems in differential geometry, topology, and mathematical physics. The authors consistently use Clifford algebras and their representations in this exposition. Clifford multiplication and Dirac operator identities are even used in place of the standard tensor calculus. This unique approach unifies all the standard elliptic operators in geometry and brings fresh insights into curvature calculations. The fundamental relationships of Clifford modules to such topics as the theory of Lie groups, K-theory, KR-theory, and Bott Periodicity also receive careful consideration. A special feature of this book is the development of the theory of Cl-linear elliptic operators and the associated index theorem, which connects certain subtle spin-corbordism invariants to classical questions in geometry and has led to some of the most profound relations known between the curvature and

topology of manifolds.

作者介绍:

目录:

标签

数学

几何

Geometry

物理

微分几何7

马上要看1

自旋几何

美国

评论

比起黎曼几何，这书里的内容对于现代数学要显得重要的多，是为了介绍指标定理，却也不尽限于此，从Clifford代数开始，K-theory 和
Soblev空间的一系列理论都讲得很好，主要是讲解的这些工具性的内容最后为指标定理的证明都起了作用，比起单独的去念这些理论，这种方式无疑要有趣也有用的多

对目前的我来说太难了点，没读懂多少。要求是Artin级别的抽象代数，还得知道点微分几何，一路到指标定理。发现一旦涉及表示论我脑子就不怎么转了…

Spin Geometry_下载链接1_

书评

Spin Geometry_下载链接1_