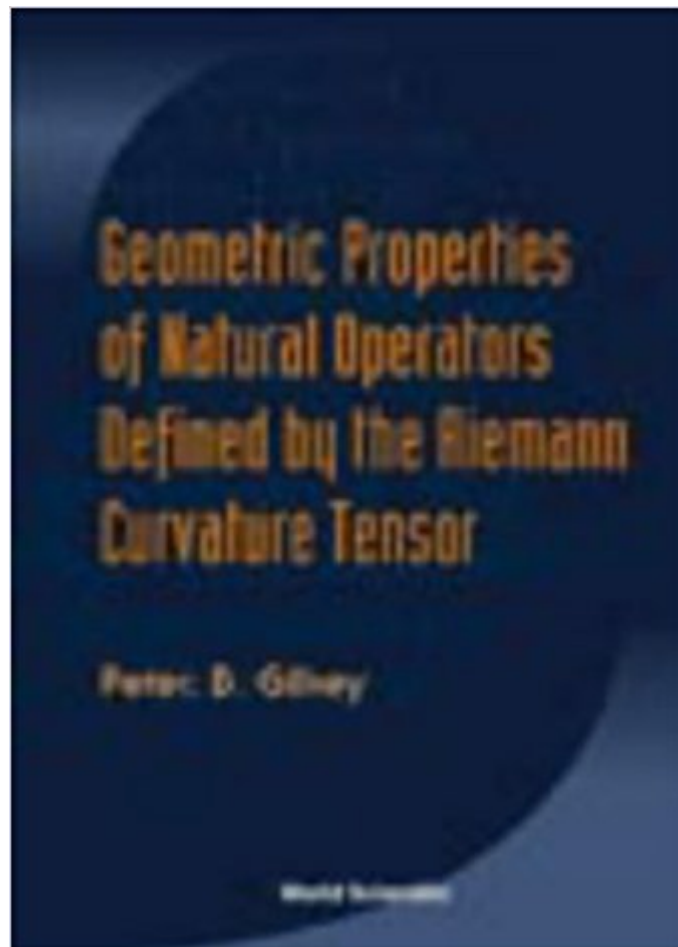




Ebook Directory
the best source of ebook

The book was found

Geometric Properties Of Natural Operators Defined By The Riemann Curvature Tensor



Synopsis

A central problem in differential geometry is to relate algebraic properties of the Riemann curvature tensor to the underlying geometry of the manifold. The full curvature tensor is in general quite difficult to deal with. This book presents results about the geometric consequences that follow if various natural operators defined in terms of the Riemann curvature tensor (the Jacobi operator, the skew-symmetric curvature operator, the Szabo operator, and higher order generalizations) are assumed to have constant eigenvalues or constant Jordan normal form in the appropriate domains of definition. The book presents algebraic preliminaries and various Schur type problems; deals with the skew-symmetric curvature operator in the real and complex settings and provides the classification of algebraic curvature tensors whose skew-symmetric curvature has constant rank 2 and constant eigenvalues; discusses the Jacobi operator and a higher order generalization and gives a unified treatment of the Osserman conjecture and related questions; and establishes the results from algebraic topology that are necessary for controlling the eigenvalue structures. An extensive bibliography is provided. Results are described in the Riemannian, Lorentzian, and higher signature settings, and many families of examples are displayed.

Book Information

Hardcover: 316 pages

Publisher: World Scientific Publishing Company; 1st edition (November 2001)

Language: English

ISBN-10: 9810247524

ISBN-13: 978-9810247522

Product Dimensions: 0.8 x 6.2 x 8.8 inches

Shipping Weight: 1.2 pounds (View shipping rates and policies)

Average Customer Review: Be the first to review this item

Best Sellers Rank: #662,773 in Books (See Top 100 in Books) #80 in [Books > Science & Math > Mathematics > Geometry & Topology > Differential Geometry](#) #115 in [Books > Science & Math > Mathematics > Geometry & Topology > Algebraic Geometry](#) #143 in [Books > Science & Math > Mathematics > Geometry & Topology > Topology](#)

Customer Reviews

This clearly written monograph will be very useful for researchers and graduate students in this field.

-- Mathematical Reviews, 2002

[Download to continue reading...](#)

Geometric Properties of Natural Operators Defined by the Riemann Curvature Tensor Principles of Tensor Calculus: Tensor Calculus Spellman's Standard Handbook for Wastewater Operators: Fundamentals, Volume I (Spellman's Standard Handbook for Wastewater Operators Series) (Volume 1) Software Defined Radio: For Amateur Radio Operators and Shortwave Listeners Differential Geometry: Connections, Curvature, and Characteristic Classes (Graduate Texts in Mathematics) Dental Materials: Properties and Manipulation, 9e (Dental Materials: Properties & Manipulation (Craig)) Dental Materials: Properties and Manipulation, 8e (Dental Materials: Properties & Manipulation (Craig)) Riemann Surfaces (Oxford Graduate Texts in Mathematics) Prime Obsession: Bernhard Riemann and the Greatest Unsolved Problem in Mathematics Algebraic Curves and Riemann Surfaces (Graduate Studies in Mathematics, Vol 5) Lectures on Riemann Surfaces: Jacobi Varieties (Princeton Legacy Library) Conformal Mapping on Riemann Surfaces (Dover Books on Mathematics) Riemann's Zeta Function Prime Numbers and the Riemann Hypothesis The Theory of the Riemann Zeta-Function (Oxford Science Publications) Tensor Calculus Tensor Calculus for Physics: A Concise Guide Tensor Analysis on Manifolds (Dover Books on Mathematics) Vector & Tensor Analysis With Applications Vector and Tensor Analysis (Dover Books on Mathematics)

[Contact Us](#)

[DMCA](#)

[Privacy](#)

[FAQ & Help](#)