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Altri autori (Persone)	HalperinStephen VanstoneRay
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Nota di contenuto	Front Cover; Connections, Curvature, and Cohomology; Copyright Page; Contents; Preface; Introduction; Contents of Volumes II and III; Chapter 0. Algebraic and Analytic Preliminaries; 1. Linear algebra; 2. Homological algebra; 3. Analysis and topology; Chapter I. Basic Concepts; 1. Topological manifolds; 2. Smooth manifolds; 3. Smooth fibre bundles; Problems; Chapter II. Vector Bundles; 1. Basic concepts; 2. Algebraic operations with vector bundles; 3. Cross-sections; 4. Vector bundles with extra structure; 5. Structure theorems; Problems; Chapter III. Tangent Bundle and Differential Forms 1. Tangent bundle2. Local properties of smooth maps; 3. Vector fields; 4. Differential forms; 5. Orientation; Problems; Chapter IV. Calculus of Differential Forms; 1. The Opertors $i, \iota, d$ ; 2. Smooth families of differential forms; 3. Integration of n-forms; 4. Stokes' theorem;

Problems; Chapter V. De Rham Cohomology; 1. The axioms; 2. Examples; 3. Cohomology with compact supports; 4. Poincare duality; 5. Applications of Poincare duality; 6. Kinneth theorems; 7. The De Rham theorem; Problems; Chapter VI. Mapping Degree; 1. Global degree; 2. The canonical map  $\alpha_M$ ; 3. Local degree; 4. The Hopf theorem; Problems; Chapter VII. Integration over the Fibre; 1. Tangent bundle of a fibre bundle; 2. Orientation in fibre bundles; 3. Vector bundles and sphere bundles; 4. Fibre-compact carrier; 5. Integration over the fibre; Problems; Chapter VIII. Cohomology of Sphere Bundles; 1. Euler class; 2. The difference class; 3. Index of a cross-section at an isolated singularity; 4. Index sum and Euler class; 5. Existence of cross-sections in a sphere bundle; Problems; Chapter IX. Cohomology of Vector Bundles; 1. The Thom isomorphism; 2. The Thom class of a vector bundle; 3. Index of a cross-section at an isolated zero; Problems; Chapter X. The Lefschetz Class of a Manifold; I. The Lefschetz isomorphism; 2. Coincidence number; 3. The Lefschetz coincidence theorem; Problems; Appendix A. The Exponential Map; References; Bibliography; Bibliography-Books; Notation Index; Index; Pure and Applied Mathematics

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Sommario/riassunto

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