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Titolo	Differential Geometry : Manifolds, Bundles and Characteristic Classes (Book I-A) // by Elisabetta Barletta, Sorin Dragomir, Mohammad Hasan Shahid, Falleh R. Al-Solamy
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Disciplina	516.36
Soggetti	Geometry, Differential Global analysis (Mathematics) Manifolds (Mathematics) Differential Geometry Global Analysis and Analysis on Manifolds Geometria diferencial Anàlisi global (Matemàtica) Llibres electrònics
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Nota di contenuto	Chapter 1 Manifolds and Tensor Calculus -- Chapter 2 Differentiable Actions and Principal Bundles -- Chapter 3 Infinite dimensional Differential Geometry.
Sommario/riassunto	This book, Dierential Geometry: Manifolds, Bundles and Characteristic Classes (Book I-A), is the rst in a captivating series of four books presenting a choice of topics, among fundamental and more advanced, in dierential geometry (DG), such as manifolds and tensor calculus, dierentiable actions and principal bundles, parallel displacement and exponential mappings, holonomy, complex line bundles and characteristic classes. The inclusion of an appendix on a few elements

of algebraic topology provides a didactical guide towards the more advanced Algebraic Topology literature. The subsequent three books of the series are: Differential Geometry: Riemannian Geometry and Isometric Immersions (Book I-B) Differential Geometry: Foundations of Cauchy-Riemann and Pseudohermitian Geometry (Book I-C) Differential Geometry: Advanced Topics in Cauchy–Riemann and Pseudohermitian Geometry (Book I-D) The four books belong to an ampler book project (Differential Geometry, Partial Differential Equations, and Mathematical Physics, by the same authors) and aim to demonstrate how certain portions of DG and the theory of partial differential equations apply to general relativity and (quantum) gravity theory. These books supply some of the ad hoc DG machinery yet do not constitute a comprehensive treatise on DG, but rather Authors' choice based on their scientific (mathematical and physical) interests. These are centered around the theory of immersions - isometric, holomorphic, and Cauchy-Riemann (CR) -and pseudohermitian geometry, as devised by Sidney Martin Webster for the study of nondegenerate CR structures, themselves a DG manifestation of the tangential CR equations.
