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	Nota di contenuto	Introduction -- Basics of Manifolds -- Vector Bundles -- Vectors and Covectors -- Differential Forms -- Lie Derivatives -- Lie Groups -- Frobenius Theorem -- Principle Bundles -- Connections on Principle Bundles -- Curvature of a Connection -- Classical Electromagnetism -- Yang-Mills Theory -- Gauge Theory -- The Dirac Monopole -- Instantons -- What Next? -- Discussion of the Exercises.
	Sommario/riassunto	This introductory graduate level text provides a relatively quick path to a special topic in classical differential geometry: principal bundles. While the topic of principal bundles in differential geometry has become classic, even standard, material in the modern graduate mathematics curriculum, the unique approach taken in this text presents the material in a way that is intuitive for both students of mathematics and of physics. The goal of this book is to present important, modern geometric ideas in a form readily accessible to students and researchers in both the physics and mathematics communities, providing each with an understanding and appreciation of the language and ideas of the other.