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Titolo	An undergraduate primer in algebraic geometry / / Ciro Ciliberto
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	1 Affine and projective algebraic sets -- 2 Basic notions of elimination theory and applications -- 3 Zariski closed subsets and ideals in the polynomials ring -- 4 Some topological properties -- 5 Regular and rational functions -- 6 Morphisms -- 7 Rational maps -- 8 Product of varieties -- 9 More on elimination theory -- 10 Finite morphisms -- 11 Dimension -- 12 The Cayley form -- 13 Grassmannians -- 14 Smooth and singular points -- 15 Power series -- 16 A ne plane curves -- 17 Projective plane curves -- 18 Resolution of singularities of curves -- 19 Divisors, linear equivalence, linear series -- 20 The Riemann-Roch Theorem.
Sommario/riassunto	This book consists of two parts. The first is devoted to an introduction to basic concepts in algebraic geometry: affine and projective varieties, some of their main attributes and examples. The second part is devoted to the theory of curves: local properties, affine and projective plane curves, resolution of singularities, linear equivalence of divisors and linear series, Riemann–Roch and Riemann–Hurwitz Theorems. The approach in this book is purely algebraic. The main tool is commutative algebra, from which the needed results are recalled, in most cases with proofs. The prerequisites consist of the knowledge of basics in affine and projective geometry, basic algebraic concepts regarding rings, modules, fields, linear algebra, basic notions in the theory of

categories, and some elementary point–set topology. This book can be used as a textbook for an undergraduate course in algebraic geometry. The users of the book are not necessarily intended to become algebraic geometers but may be interested students or researchers who want to have a first smattering in the topic. The book contains several exercises, in which there are more examples and parts of the theory that are not fully developed in the text. Of some exercises, there are solutions at the end of each chapter.