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Descrizione fisica	1 online resource (VI, 318 p.)
Collana	Lecture Notes in Mathematics, , 0075-8434 ; ; 1800
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Soggetti	Algebra Commutative algebra Commutative rings Algebraic geometry Category theory (Mathematics) Homological algebra Field theory (Physics) Commutative Rings and Algebras Algebraic Geometry Category Theory, Homological Algebra Field Theory and Polynomials
Lingua di pubblicazione	Inglese
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Introduction -- Homological Theory -- Almost Ring Theory -- Fine Study of Almost Projective Modules -- Henselian Pairs -- Valuation Theory -- Analytic Geometry -- Appendix -- References -- Index.
Sommario/riassunto	This book develops thorough and complete foundations for the method of almost etale extensions, which is at the basis of Faltings' approach to p-adic Hodge theory. The central notion is that of an "almost ring". Almost rings are the commutative unitary monoids in a tensor category obtained as a quotient $V\text{-Mod}/S$ of the category $V\text{-Mod}$ of modules over a fixed ring V ; the subcategory S consists of all modules annihilated by a fixed ideal m of V , satisfying certain natural conditions. The reader is assumed to be familiar with general categorical notions, some basic commutative algebra and some

advanced homological algebra (derived categories, simplicial methods). Apart from these general prerequisites, the text is as self-contained as possible. One novel feature of the book - compared with Faltings' earlier treatment - is the systematic exploitation of the cotangent complex, especially for the study of deformations of almost algebras.
