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Soggetti	Algebraic geometry Commutative algebra Commutative rings Functional analysis Algebraic Geometry Commutative Rings and Algebras Functional Analysis
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Nota di contenuto	Introduction -- Metrized vector bundles: local theory -- Local metrics -- Adelic curves -- Vector bundles on adelic curves: global theory -- Slopes of tensor product -- Adelic line bundles on arithmetic varieties -- Nakai-Moishezon’s criterion -- Reminders on measure theory.
Sommario/riassunto	The purpose of this book is to build the fundament of an Arakelov theory over adelic curves in order to provide a unified framework for research on arithmetic geometry in several directions. By adelic curve is meant a field equipped with a family of absolute values parametrized by a measure space, such that the logarithmic absolute value of each non-zero element of the field is an integrable function on the measure space. In the literature, such construction has been discussed in various settings which are apparently transversal to each other. The authors first formalize the notion of adelic curves and discuss in a systematic way its algebraic covers, which are important in the study of height theory of algebraic points beyond Weil–Lang’s height theory. They then establish a theory of adelic vector bundles on adelic curves, which considerably generalizes the classic geometry of vector bundles

or that of Hermitian vector bundles over an arithmetic curve. They focus on an analogue of the slope theory in the setting of adelic curves and in particular estimate the minimal slope of tensor product adelic vector bundles. Finally, by using the adelic vector bundles as a tool, a birational Arakelov geometry for projective variety over an adelic curve is developed. As an application, a vast generalization of Nakai–Moishezon's criterion of positivity is proven in clarifying the arguments of geometric nature from several fundamental results in the classic geometry of numbers. Assuming basic knowledge of algebraic geometry and algebraic number theory, the book is almost self-contained. It is suitable for researchers in arithmetic geometry as well as graduate students focusing on these topics for their doctoral theses.