

1. Record Nr.	UNINA9910792045903321
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Titolo	Arithmetic compactifications of PEL-type Shimura varieties [[electronic resource] /] / Kai-Wen Lan
Pubbl/distr/stampa	Princeton, NJ, : Princeton University Press, 2013
ISBN	1-299-33300-1 1-4008-4601-3
Edizione	[Course Book]
Descrizione fisica	1 online resource (588 p.)
Collana	London Mathematical Society monographs ; ; Vol. 36
Classificazione	SK 240
Disciplina	516.3/5
Soggetti	Shimura varieties Arithmetical algebraic geometry
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Frontmatter -- Contents -- Acknowledgments -- Introduction -- Chapter One. Definition of Moduli Problems -- Chapter Two. Representability of Moduli Problems -- Chapter Three. Structures of Semi-Abelian Schemes -- Chapter Four. Theory of Degeneration for Polarized Abelian Schemes -- Chapter Five. Degeneration Data for Additional Structures -- Chapter Six. Algebraic Constructions of Toroidal Compactifications -- Chapter Seven. Algebraic Constructions of Minimal Compactifications -- Appendix A. Algebraic Spaces and Algebraic Stacks -- Appendix B. Deformations and Artin's Criterion -- Bibliography -- Index
Sommario/riassunto	By studying the degeneration of abelian varieties with PEL structures, this book explains the compactifications of smooth integral models of all PEL-type Shimura varieties, providing the logical foundation for several exciting recent developments. The book is designed to be accessible to graduate students who have an understanding of schemes and abelian varieties. PEL-type Shimura varieties, which are natural generalizations of modular curves, are useful for studying the arithmetic properties of automorphic forms and automorphic representations, and they have played important roles in the development of the Langlands program. As with modular curves, it is desirable to have integral models of compactifications of PEL-type Shimura varieties that can be described in sufficient detail near the

boundary. This book explains in detail the following topics about PEL-type Shimura varieties and their compactifications: A construction of smooth integral models of PEL-type Shimura varieties by defining and representing moduli problems of abelian schemes with PEL structures An analysis of the degeneration of abelian varieties with PEL structures into semiabelian schemes, over noetherian normal complete adic base rings A construction of toroidal and minimal compactifications of smooth integral models of PEL-type Shimura varieties, with detailed descriptions of their structure near the boundary Through these topics, the book generalizes the theory of degenerations of polarized abelian varieties and the application of that theory to the construction of toroidal and minimal compactifications of Siegel moduli schemes over the integers (as developed by Mumford, Faltings, and Chai).

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