1. Record Nr. UNINA9910778922503321

Autore	Green M (Mark)
Titolo	Mumford-Tate groups and domains [[electronic resource]] : their geometry and arithmetic / / Mark Green, Phillip Griffiths, Matt Kerr
Pubbl/distr/stampa	Princeton, : Princeton University Press, 2012
ISBN	1-280-49465-4 9786613589880 1-4008-4273-5
Edizione	[Course Book]
Descrizione fisica	1 online resource (298 p.)
Collana	Annals of mathematics studies ; ; no. 183
Classificazione	SI 830
Altri autori (Persone)	GriffithsPhillip <1938-> KerrMatthew D. <1975->
Disciplina	516.35
Soggetti	Mumford-Tate groups Geometry, Algebraic
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 -- Introduction -- Chapter I. Mumford-Tate Groups -- Chapter II. Period Domains and Mumford-Tate Domains -- Chapter III. The Mumford-Tate Group of a Variation of Hodge Structure -- Chapter IV. Hodge Representations and Hodge Domains -- Chapter V. Hodge Structures With Complex Multiplication -- Chapter VI. Arithmetic Aspects of Mumford-Tate Domains -- Chapter VII. Classification of Mumford-Tate Subdomains -- Chapter VIII. Arithmetic of Period Maps of Geometric Origin -- Index
Sommario/riassunto	Mumford-Tate groups are the fundamental symmetry groups of Hodge theory, a subject which rests at the center of contemporary complex algebraic geometry. This book is the first comprehensive exploration of Mumford-Tate groups and domains. Containing basic theory and a wealth of new views and results, it will become an essential resource for graduate students and researchers. Although Mumford-Tate groups can be defined for general structures, their theory and use to date has mainly been in the classical case of abelian varieties. While the book does examine this area, it focuses on the nonclassical case. The general theory turns out to be very rich, such as in the unexpected connections of finite dimensional and infinite dimensional representation theory of

real, semisimple Lie groups. The authors give the complete classification of Hodge representations, a topic that should become a standard in the finite-dimensional representation theory of noncompact, real, semisimple Lie groups. They also indicate that in the future, a connection seems ready to be made between Lie groups that admit discrete series representations and the study of automorphic cohomology on "ients of Mumford-Tate domains by arithmetic groups. Bringing together complex geometry, representation theory, and arithmetic, this book opens up a fresh perspective on an important subject.