

1. Record Nr.	UNISA996466560403316
Autore	Zamora Saiz Alfonso
Titolo	Geometric invariant theory, holomorphic vector bundles and the Harder-Narasimhan filtration / / Alfonso Zamora Saiz, Ronald A. Zuniga-Rojas
Pubbl/distr/stampa	Cham, Switzerland : , : Springer, , [2021] ©2021
ISBN	3-030-67829-6
Descrizione fisica	1 online resource (xiii, 127 pages) : illustrations
Collana	SpringerBriefs in Mathematics
Disciplina	516.35
Soggetti	Geometry, Algebraic Moduli theory Invariants Geometria algebrica Teoria de mòduls Llibres electrònics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Intro -- Preface -- Contents -- List of Symbols -- 1 Introduction -- 2 Preliminaries -- 2.1 Algebraic Varieties and Groups -- 2.1.1 Algebraic Varieties -- 2.1.2 Group Actions -- 2.2 Sheaf Theory and Schemes -- 2.2.1 Sheaves and Cohomology -- 2.2.2 Schemes -- 2.3 Holomorphic Vector Bundles -- 2.3.1 Vector Bundles -- 2.3.2 Line Bundles -- 2.3.3 Divisors -- 3 Geometric Invariant Theory -- 3.1 Quotients and the Notion of Stability -- 3.2 Hilbert-Mumford Criterion -- 3.3 Symplectic Stability -- 3.4 Examples -- 3.5 Maximal Unstability -- 4 Moduli Space of Vector Bundles -- 4.1 GIT Construction of the Moduli Space -- 4.2 Harder-Narasimhan Filtration -- 4.3 Other Constructions of the Moduli Space of Vector Bundles -- 4.3.1 Analytical Construction of the Moduli Space of Vector Bundles -- 4.3.2 Moduli Space of Representations of the Fundamental Group -- 4.4 Moduli Space of Higgs Bundles -- 4.4.1 Hitchin's Construction -- 4.4.2 Higher Rank and Dimensional Higgs Bundles -- 5 Unstability Correspondence -- 5.1 Correspondence for Vector Bundles -- 5.1.1 Main Correspondence: Holomorphic Vector

Bundles -- 5.1.2 Other Correspondences for Augmented Bundles --
5.2 Quiver Representations -- 5.3 (G,h)-Constellations -- 6
Stratifications on the Moduli Space of Higgs Bundles -- 6.1 Shatz
Stratification -- 6.2 C-Action and Biaynicki-Birula Stratification -- 6.3
Stratifications in Rank Three -- 6.3.1 Sketch of the Proof of Theorem
6.1 -- 6.3.2 Relationship Between Shatz and Biynicki-Birula
Stratifications for Rank Three Higgs Bundles -- 6.4 Homotopy Groups
-- References -- Index.
