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Titolo	Hamiltonian Group Actions and Equivariant Cohomology / / by Shubham Dwivedi, Jonathan Herman, Lisa C. Jeffrey, Theo van den Hurk
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ISBN	9783030272272 3030272273
Edizione	[1st ed. 2019.]
Descrizione fisica	1 online resource (XI, 132 p. 3 illus., 1 illus. in color.)
Collana	SpringerBriefs in Mathematics, , 2191-8201
Disciplina	514
Soggetti	Topology Geometry
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Symplectic vector spaces -- Hamiltonian group actions -- The Darboux-Weinstein Theorem -- Elementary properties of moment maps -- The symplectic structure on coadjoint orbits -- Symplectic Reduction -- Convexity -- Toric Manifolds -- Equivariant Cohomology -- The Duistermaat-Heckman Theorem -- Geometric Quantization -- Flat connections on 2-manifolds. .
Sommario/riassunto	This monograph could be used for a graduate course on symplectic geometry as well as for independent study. The monograph starts with an introduction of symplectic vector spaces, followed by symplectic manifolds and then Hamiltonian group actions and the Darboux theorem. After discussing moment maps and orbits of the coadjoint action, symplectic quotients are studied. The convexity theorem and toric manifolds come next and we give a comprehensive treatment of Equivariant cohomology. The monograph also contains detailed treatment of the Duistermaat-Heckman Theorem, geometric quantization, and flat connections on 2-manifolds. Finally, there is an appendix which provides background material on Lie groups. A course on differential topology is an essential prerequisite for this course. Some of the later material will be more accessible to readers who have had a basic course on algebraic topology. For some of the later chapters, it would be helpful to have some background on

representation theory and complex geometry.