

1. Record Nr.	UNISA996495167503316
Autore	Lee Jihoon
Titolo	Gromov-Hausdorff stability of dynamical systems and applications to PDEs // Jihoon Lee and Carlos Morales
Pubbl/distr/stampa	Cham, Switzerland : , : Birkhauser, , [2022] ©2022
ISBN	3-031-12031-0
Descrizione fisica	1 online resource (169 pages)
Collana	Frontiers in mathematics
Disciplina	515.352
Soggetti	Differentiable dynamical systems Differential equations, Partial Geometry, Differential Sistemes dinàmics diferenciables Equacions en derivades parcials Geometria diferencial Llibres electrònics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Intro -- Preface -- Contents -- Part I Abstract Theory -- 1 Gromov-Hausdorff Distances -- 1.1 Introduction -- 1.2 Preliminary Facts -- 1.3 Gromov-Hausdorff Distance for Metric Spaces -- 1.4 Precompactness, Completeness, and a Variational Principle -- 1.5 A Variational Principle for the Gromov-Hausdorff Distance -- 1.6 Distances Characterizing Homeomorphic Spaces -- 1.7 C0-Gromov-Hausdorff Distance for Dynamical Systems -- 1.8 Gromov-Hausdorff Space of Continuous Maps -- Exercises -- 2 Stability -- 2.1 Introduction -- 2.2 Definitions and Statement of Main Results -- 2.3 Proof of Theorem 2.1 -- 2.4 Isometric Stability: Proof of Theorem 2.4 -- 2.5 Proof of Theorem 2.5 -- 2.6 Gromov-Hausdorff Stability for Group Actions -- 2.7 Gromov-Hausdorff Stability of Global Attractors -- Exercises -- 3 Continuity of the Shift Operator -- 3.1 Introduction -- 3.2 Preliminary Facts -- 3.3 Proof of Theorem 3.1 -- 3.4 Application to Stability Theory -- Exercises -- 4 Shadowing from the Gromov-Hausdorff Viewpoint -- 4.1 Introduction -- 4.2 Definitions, Statement of Main Results, and

Proofs -- Exercises -- Part II Applications to PDEs -- Introduction -- 5
GH-Stability of Reaction-Diffusion Equations -- 5.1 Introduction -- 5.2
Proof of Theorem 5.1 -- 5.3 Proof of Theorem 5.2 -- 6 Stability of
Inertial Manifolds -- 6.1 Introduction -- 6.2 Proof of Theorem 6.2 --
6.3 Proof of Theorem 6.3 -- 7 Stability of Chafee-Infante Equations --
7.1 Introduction -- 7.2 L-Morse-Smale and Equivalence of Global
Attractors -- 7.3 Continuity of Global Attractors -- 7.4 Geometric
Stability -- References.
