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   Soggetti   Homeomorphisms
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   Nota di contenuto   Volume preserving homeomorphisms of the cube -- Introduction to
                        part I and II (compact manifolds) -- Measure preserving
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                        homeomorphisms of In and Rn -- Fixed points and area preservation
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                        Uniform approximation in g[In, delta] and generic properties in M[In,
                        delta] -- Measure preserving homeomorphisms of a compact manifold
                        -- Measures on compact manifolds -- Dynamics on compact manifolds
                        -- Oeasure preserving homeomorphisms of a noncompact manifold --
                        Ergodic volume preserving homeomorphisms of Rn -- Manifolds where
                        ergodicity is not generic -- Noncompact manifolds and ends -- Ergodic
                        homeomorphisms: the results -- Ergodic homeomorphisms: proofs --
                        Other properties typical in M[X, u].

Sommario/riassunto

This 2000 book provides a self-contained introduction to typical properties of homeomorphisms. Examples of properties of homeomorphisms considered include transitivity, chaos and ergodicity. A key idea here is the interrelation between typical properties of volume preserving homeomorphisms and typical properties of volume preserving bijections of the underlying measure space. The authors make the first part of this book very concrete by considering volume preserving homeomorphisms of the unit n-dimensional cube, and they go on to prove fixed point theorems (Conley-Zehnder- Franks). This is done in a number of short self-contained chapters which would be suitable for an undergraduate analysis seminar or a graduate lecture course. Much of this work describes the work of the two authors, over the last twenty years, in extending to different settings and properties, the celebrated result of Oxtoby and Ulam that for volume homeomorphisms of the unit cube, ergodicity is a typical property.