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Soggetti	Riemann surfaces Automorphisms Group theory Functions of a complex variable -- Riemann surfaces Algebraic geometry -- Curves in algebraic geometry Group theory and generalizations -- Other groups of matrices -- Fuchsian groups and their generalizations (group-theoretic aspects) Group theory and generalizations -- Permutation groups -- Finite automorphism groups of algebraic, geometric, or combinatorial structures Number theory -- Arithmetic algebraic geometry (Diophantine geometry) -- Arithmetic aspects of dessins d'enfants, Belyi theory Manifolds and cell complexes -- Low-dimensional topology in specific dimensions -- 2-dimensional topology (including mapping class groups of surfaces, Teichmuller theory, curve complexes, etc.)
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Nota di contenuto	Cover -- Title page -- Contents -- Preface -- The engaging symmetry of Riemann surfaces: A historical perspective -- 1. Introduction -- 2. Compact Riemann surfaces and their automorphisms -- 3. Hurwitz surfaces and groups and other interesting families -- 4. Maps and hypermaps -- 5. Dessins d'enfants and quasiplatonic surfaces -- 6. Connections with Galois theory -- References -- Future directions in

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Sommario/riassunto

Automorphism groups of Riemann surfaces have been widely studied for almost 150 years. This area has persisted in part because it has close ties to many other topics of interest such as number theory, graph theory, mapping class groups, and geometric and computational group theory. In recent years there has been a major revival in this area due in part to great advances in computer algebra systems and progress in finite group theory.This volume provides a concise but thorough introduction for newcomers to the area while at the same time highlighting new developments for established researchers. The volume starts with two expository articles. The first of these articles gives a historical perspective of the field with an emphasis on highly symmetric surfaces, such as Hurwitz surfaces. The second expository article focuses on the future of the field, outlining some of the more popular topics in recent years and providing 78 open research problems across all topics. The remaining articles showcase new developments in the area and have specifically been chosen to cover a variety of topics to illustrate the range of diversity within the field.