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Nota di contenuto	Preface -- Definitions of Quasiconformal mapping in the plane -- Measurable Riemann mapping theorem -- Extension and distortion of quasiconformal mapping -- Holomorphic motions -- Stability and bifurcation in complex dynamics -- Quasiconformal surgery and complex dynamics -- Dimension of the Mandelbrot set boundary -- Postcritically finite rational functions -- Teichmüller spaces of Riemann surfaces -- Teichmüller spaces of dynamical systems.
Sommario/riassunto	This book comprehensively explores the foundations of quasiconformal mappings in the complex plane, especially in view of applications to complex dynamics. Besides playing a crucial role in dynamical systems these mappings have important applications in complex analysis, geometry, topology, potential theory and partial differential equations, functional analysis and calculus of variations, electrostatics and nonlinear elasticity . The work covers standard material suitable for a one-year graduate-level course and extends to more advanced topics, in an accessible way even for students in an initial phase of university studies who have learned the basics of complex analysis at the usual level of a rigorous first one-semester course on the subject. At the frontier of complex analysis with real analysis, quasiconformal

mappings appeared in 1859-60 in the cartography work of A. Tissot, well before the term “quasiconformal” was coined by L. Ahlfors in 1935. The detailed study of these mappings began in 1928 by H. Grötzsch, and L. Ahlfors’ seminal work published in 1935 significantly contributed to their development and was considered for awarding him the Fields Medal in 1936. The theory further evolved in 1937 and 1939 with O. Teichmüller’s contributions, and subsequent advancements are partially covered in this book. Organized into ten chapters with eight appendices, this work aims to provide an accessible, self-contained approach to the subject and includes examples at various levels and extensive applications to holomorphic dynamics. Throughout the text, historical notes contextualize advancements over time. A sequel to the author’s previous book, ‘Complex Analysis and Dynamics in One Variable with Applications,’ also published by Springer, this volume might be suitable for students in mathematics, physics, or engineering. A solid background in basic mathematical analysis is recommended to fully benefit from its content.