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	Titolo	Potential Theory on Sierpiski Carpets [[electronic resource]] : With Applications to Uniformization / / by Dimitrios Ntalampekos
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	Descrizione fisica	1 online resource (X, 186 p. 10 illus., 4 illus. in color.)
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	Disciplina	515.96
	Soggetti	Functions of complex variables
		Potential theory (Mathematics)
		Functional analysis
		Measure theory
		Mathematical analysis
		Functions of a Complex Variable
		Potential Theory
		Functional Analysis
		Measure and Integration
		Analysis
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	Sommario/riassunto	This self-contained book lays the foundations for a systematic understanding of potential theoretic and uniformization problems on fractal Sierpiski carpets, and proposes a theory based on the latest developments in the field of analysis on metric spaces. The first part focuses on the development of an innovative theory of harmonic functions that is suitable for Sierpiski carpets but differs from the classical approach of potential theory in metric spaces. The second part describes how this theory is utilized to prove a uniformization result for Sierpiski carpets. This book is intended for researchers in the fields of potential theory, quasiconformal geometry, geometric group theory, complex dynamics, geometric function theory and PDEs.