1. Record Nr. UNINA9910799488403321

Autore	Banerjee Santo <1976->
Titolo	Fractal Patterns with MATLAB / / by Santo Banerjee, A. Gowrisankar, Komandla Mahipal Reddy
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2023
ISBN	9783031481024 303148102X
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (xi, 85 pages) : illustrations
Collana	SpringerBriefs in Complexity, , 2191-5334
Disciplina	514.742
Soggetti	Dynamics System theory Mathematical physics Dynamical Systems Complex Systems Theoretical, Mathematical and Computational Physics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Fractals and Dimensions -- Fractal Transformation -- Univariate Fractal Functions -- Differentiable Fractal Interpolation Functions -- Fractal Interpolation Surfaces. .
Sommario/riassunto	This book presents the iterative beauty of fractals and fractal functions graphically with the aid of MATLAB programming. The fractal images generated using the MATLAB codes provide visual delight and highly encourage the fractal lovers for creative thinking. The book compiles five cutting-edge research chapters, each with state-of-the art fractal illustrations. It starts with the fundamental theory for the construction of fractal sets via the deterministic iteration algorithm. Incorporating the theoretical base, fractal illustrations of elementary fractal sets are provided with the explicit MATLAB code. The book gives examples of MATLAB codes to present the fractal surfaces. This book is contributed to all the research beginners as well as the professionals on the field of fractal analysis. As it covers basic fractals like Sierpinski triangle to advanced fractal functions with explicit MATLAB code, the presented fractal illustrations hopefully benefit even the non-field readers. The

book is a useful course to all the research beginners on the fractal and fractal-related fields.