1. Record Nr. UNINA9910783924203321

Titolo	Thinking in patterns [[electronic resource]] : fractals and related phenomena in nature / / editor, Miroslav M. Novak
Pubbl/distr/stampa	River Edge, N.J., : World Scientific, c2004
ISBN	1-281-89877-5 9786611898779 981-270-274-1
Descrizione fisica	1 online resource (336 p.)
Altri autori (Persone)	MandelbrotBenoit B NovakM. M <1949-> (Miroslav Michal)
Disciplina	514/.742 570.1514742
Soggetti	Fractals Mathematical physics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"This book ... celebrates Benoit B. Mandelbrot's 80th birthday"--P. xi. "The papers in this book are based on presentations at the 8th international conference, Fractal 2004"--P. xi.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Contents; Preface M. M. Novak; Selected Topics in Mathematics, Physics, and Finance Originating in Fractal Geometry B. B. Mandelbrot; A Renewal Process of Mittag-Leffler Type F. Mainardi, R. Gorenflo and E. Scalas; On the Activity of Absorbing Irregular Interfaces J. S. Andrade Jr., H. F. Da Silva, E. A. Henrique and B. Sapoval; Fractal Deformation Using Displacement Vectors and Their Increasing Rates Based on Extended Unit Iterated Shuffle Transformation T. Fujimoto and N. Chiba; Multifractal and Stochastic Analysis of Electropolished Surfaces M. Haase, A. Mora and B. Lehle A Method for Numerical Estimation of Generalized Renyi Dimensions of Affine Recurrent IFS Invariant Measures T. MartynNonlinear Dynamics and Prediction of the Caspian Sea Level N. G. Makarenko, L. M. Karimova, Y. B. Kuandykov and M. M. Novak; Self-similarity in Plants: Integrating Mathematical and Biological Perspectives P. Prusinkiewicz; Cognitive Scale-free Networks as a Model for Intermittency in Human Natural Language P. Allegrini, P. Grigolini and L. Palatella; The

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Sommario/riassunto

Fractal geometry, together with the broader fields of nonlinear dynamics and complexity, represented a large segment of modern science at the end of the 20th century. Penetration of the resulting new paradigms into practically all academic disciplines has confirmed the fundamental assertion of universal formalism common to a wide range of human endeavors. This book contains an extended article by B B Mandelbrot, reviewing his contribution to fractal geometry and outlining some unsolved problems, with illustrations especially of finance and physics. It covers a range of multidisciplinary topics