

1. Record Nr.	UNINA9910480582803321
Titolo	Fractal geometry and dynamical systems in pure and applied mathematics II : fractals in applied mathematics // David Carfi [and three others], editors
Pubbl/distr/stampa	Providence, Rhode Island : , : American Mathematical Society, , 2013 ©2013
ISBN	1-4704-1083-4
Descrizione fisica	1 online resource (384 p.)
Collana	Contemporary Mathematics, , 1098-3627 ; ; Volume 601
Disciplina	514/.742
Soggetti	Fractals Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"PISRS 2011, First International Conference : Analysis, Fractal Geometry, Dynamical Systems and Economics, November 8-12, 2011, Messina, Sicily, Italy." "AMS Special Session, in memory of Benoit Mandelbrot : Fractal Geometry in Pure and Applied Mathematics, January 4-7, 2012, Boston, Massachusetts." "AMS Special Session : Geometry and Analysis on Fractal Spaces, March 3-4, 2012, Honolulu, Hawaii."
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	""Preface""; ""Statistical Mechanics and Quantum Fields on Fractals""; ""1. Introduction""; ""2. Discrete scaling symmetry - Self similarity - Definitions""; ""3. Heat kernel and spectral functions - Generalities""; ""4. Laplacian on fractals - Heat kernel and spectral zeta function""; ""5. Thermodynamics on photons : The fractal blackbody [34]""; ""6. Conclusion and some open questions""; ""Acknowledgments""; ""References""; ""Spectral Algebra of the Chernov and Bogoslovsky Finsler Metric Tensors""; ""Preliminaries""; ""1. Spectral theory prerequisites"" ""2. Spectral results for low dimensions""""3. Conclusions""; ""References""; ""Local Multifractal Analysis""; ""1. Introduction""; ""2. Properties of the local Hausdorff dimension and the local multifractal spectrum""; ""3. A local multifractal formalism for a dyadic family""; ""4. Measures with varying local spectrum""; ""5. Local spectrum of

stochastic processes"; "6. Other regularity exponents characterized by dyadic families"; "7. A functional analysis point of view"; "Acknowledgement"; "References"; "Extreme Risk and Fractal Regularity in Finance"; "1. Introduction"; "2. Fractal Regularities in Financial Markets"; "3. The Markov-Switching Multifractal (MSM)"; "4. Pricing Multifractal Risk"; "5. Conclusion"; "References"; "An Algorithm for Dynamical Games with Fractal-Like Trajectories"; "1. Introduction"; "2. Preliminaries and notations"; "3. The method for A^1 games"; "4. Two players parametric games"; "5. The algorithm"; "6. Examples"; "7. Final Remarks"; "8. Resume"; "9. Conclusions"; "References"; "The Landscape of Anderson Localization in a Disordered Medium"; "1. Introduction"; "2. Preliminaries"; "Non-Regularly Varying and Non-Periodic Oscillation of the On-Diagonal Heat Kernels on Self-Similar Fractals"; "1. Introduction"; "2. Framework and main results"; "3. Proof of Theorems 2.17 and 2.18"; "4. Post-critically finite self-similar fractals"; "4.1. Harmonic structures and resulting self-similar Dirichlet spaces"; "4.2. Cases with good symmetry and affine nested fractals"; "4.3. Cases possibly without good symmetry"; "5. Sierpiński carpets"; "References"; "Lattice Effects in the Scaling Limit of the Two-Dimensional Self-Avoiding Walk"; "1. Introduction"; "2. Lattice effects";
