

Contents

Preface	ix
Chapter 1. Introduction to Fractals	1
Chapter 2. Dimension	11
Chapter 3. Trees and Fractals	15
Chapter 4. Invariant Sets	21
Chapter 5. Probability Trees	23
Chapter 6. Galleries	27
Chapter 7. Probability Trees Revisited	31
Chapter 8. Elements of Ergodic Theory	33
Chapter 9. Galleries of Trees	35
Chapter 10. General Remarks on Markov Systems	37
Chapter 11. Markov Operator \mathcal{T} and Measure Preserving Transformation T	39
Chapter 12. Probability Trees and Galleries	43
Chapter 13. Ergodic Theorem and the Proof of the Main Theorem	47
Chapter 14. An Application: The k -lane property	51
Chapter 15. Dimension and Energy	53
Chapter 16. Dimension Conservation	55
Chapter 17. Ergodic Theorem for Sequences of Functions	57
Chapter 18. Dimension Conservation for Homogeneous Fractals: The Main Steps in the Proof	59
Chapter 19. Verifying the Conditions of the Ergodic Theorem for Sequences of Functions	65
Bibliography	67
Index	69