Encyclopedia of Chaotic Attractors

Zeraoulia Elhadj
Department of Mathematics, University of Tébessa, (12002), Algeria
E-mail: zelhadj12@yahoo.fr

August 25, 2018

Abstract

1 Encyclopedia of Chaotic Attractors

The *Encyclopedia of Chaotic Attractors* contain the highest number of interesting chaotic attractors (in all field of sciences) known in the current literature with their basic properties since 1963 to the end of 2020. The work continue during the period from now to the end of 2020 in order to give more time to all contributors. This encyclopedia provides a single source for understanding chaotic attractors and subject to updating from time to time in its electronic version. Achieving this work is impossible without the concerted efforts of all those working in this field. Any small contribution is an important step to bring this great work to readers. This work will be published by **Annual Review of Chaos Theory, Bifurcations and Dynamical Systems** (http://arctbds.com/).

Each chaotic attractor is described as follow:

(a) The published document containing the presentation of the chaotic system[1].

(b) The mathematical equation (written in a numbered display) or the definition of a procedure.

(c) A **short description** (avoid generalities) of the **main dynamical properties** of the system and possible real world applications.

(d) **One figure** presenting the shape of the chaotic attractor[2].

The encyclopedia in this way gives to the reader several benefits. In particular, almost informations on chaotic attractors are in one place.

The encyclopedia is divide into three parts:

[1] References should be complete, in the following style:
Author(s) initials followed by last name for each author, "paper title," publication name, volume, inclusive page numbers, month and year.

[2] Each figure (with a brief title in below) should be mentioned in the text (i.e., Fig. 1) and numbered consecutively using Arabic numerals. Figures should be submitted separately as encapsulated postscript (.eps) files.

(1) Discrete mappings
(2) Continuous time systems
(3) Systems defined by procedures

Each part is classified by the dimension of the system (the number of state variables) as follow:

(1) One-dimensional Systems
(2) Two-dimensional Systems
(3) Three-dimensional Systems
(4) Four-dimensional Systems
(5) High-dimensional Systems

2 Journals with chaos and related papers

The *Encyclopedia of Chaotic Attractors* contain the highest number of interesting chaotic systems known in the current literature. This a collaborative work, meaning that any author working in this field can writte a presentation on its own systems and other systems published in various scientific journals:

1. Advances in Complex Systems
2. Advances in Dynamical Systems and Applications
3. American Journal of Physics
4. American Scientist
5. Annals of the New York Academy of Sciences
6. Annual Review of Chaos Theory, Bifurcations and Dynamical Systems
7. Applied Mathematics and Computation
8. Applied Mathematics and Computational Sciences
9. Chaos and Complexity Letters
10. Chaos: An Interdisciplinary Journal of Nonlinear Science
11. Chaos, Solitons, and Fractals
12. Communications in Mathematical Physics
13. Communications in Nonlinear Science and Numerical Simulation
14. Complex Systems
15. Complexity
16. Complexity International
17. Computers and Graphics

18. Computing in Science and Engineering
19. Condensed Matter and Complex Systems
20. Differential Equations and Nonlinear Mechanics
21. Dynamics of Continuous, Discrete & Impulsive Systems
22. Ecological Complexity
23. Electronic Journal of Theoretical Physics
24. Ergodic Theory and Dynamical Systems
25. European Physical Journal B (formerly Zeitschrift für Physik B)
26. Europhysics Letters
27. Facta Universitatis
28. Far East Journal of Dynamical Systems
29. Fluctuation and Noise Letters
30. Fractals
31. IEEE Transactions on Circuits and Systems
32. Interjournal of Complex Systems
33. International Journal of Bifurcation and Chaos
34. International Journal of Chaos Theory and Applications
35. International Journal of Nonlinear Sciences and Numerical Simulation
36. Journal of Advanced Nonlinear Studies
37. Journal of Complexity
38. Journal of Mathematical Biology
39. Journal of Mathematical Physics
40. Journal of the Franklin Institute
41. Journal of Nonlinear Science
42. Journal of Statistical Physics
43. Journal of System Science and Complexity
44. Journal of Time Series Analysis
45. Nature

46. Nonlinear Dynamics
47. Nonlinear Dynamics and Systems Theory
48. Nonlinear Dynamics, Psychology, & Life Sciences
49. Nonlinear Oscillations
50. Nonlinear Science Today
51. Nonlinear Studies
52. Nonlinearity
53. Physica D
54. Physical Review E (formerly A)
55. Physical Review Letters
56. Physics Letters A
57. Physics Today
58. Progress of Theoretical Physics
59. Regular and Chaotic Dynamics
60. Reviews of Modern Physics
61. Science
62. Scientific American
63. Studies in Nonlinear Dynamics and Econometrics

3 For other languages and other journals

We hope that some authors participate in this project to include the systems published in non-English journals. In particular, French, Deutsche, Russian, Chinese and Spanish journals.

4 A collaborative work

In order to makes the work easy, one or more volumes and issues of the various journals are assigned to an author according to its choice.

For example:
Zeraoulia Elhadj:

- All my systems published in scientific journals with many co-authors.

- Annual Review of Chaos Theory, Bifurcations and Dynamical Systems, volumes 1 to 8 (All issues).
- Chaos solitons & fractales, volumes 20 to 30 (All issues).

It is necessary to obtain all the permissions to republish the figures of the chaotic attractors from the corresponding publishers[3]. There is no need to do this if the author is the owner of the chaotic attractor.

This collaborative work need high accuracy and seriousness.

5 Contact

For any one want to collaborate in this project.

Editor: Zeraoulia Elhadj, Department of Mathematics and Computer Sciences, University of Tébessa, (12002), Algeria.

E-mail: zelhadj12@yahoo.fr.

[3] The author(s) will be asked to transfer the permission in PDF format to the editor.