Dynamics of Continuous, Discrete and Impulsive Systems
Series **B:** *Applications & Algorithms* **27 (2020)** 285-330

THE HIRSCH CONJECTURE II
FORMS OF CHAOTIC SYSTEMS

Ray Brown
The EEASI Corporation
2100 Winrock Blvd. Suite 64
Houston, Texas, 77057 USA

Abstract. This paper *demonstrates* that a sufficient condition to determine whether an ODE or an IDE can be determined to have chaotic solutions based on its *form* is that it is possible to identify the elementary dynamics and their boundaries in the form of the ODE or IDE.

A central conclusion that is demonstrated by the examples in this paper is that it is the boundary or interface between the elementary IDEs that determines whether their combined dynamics will produce chaos. A very small perturbation of the boundary can produce a periodic IDE.

The relationship between ODEs and IDEs is found in [1], thus, only IDEs will be examined in this paper.

Keywords. Chaos, natural science, complexity, dynamical synthesis.

AMS (MOS) subject classification: 37D45.

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