Coming Soon from **C R C Press** www.crcpress.com *and the*
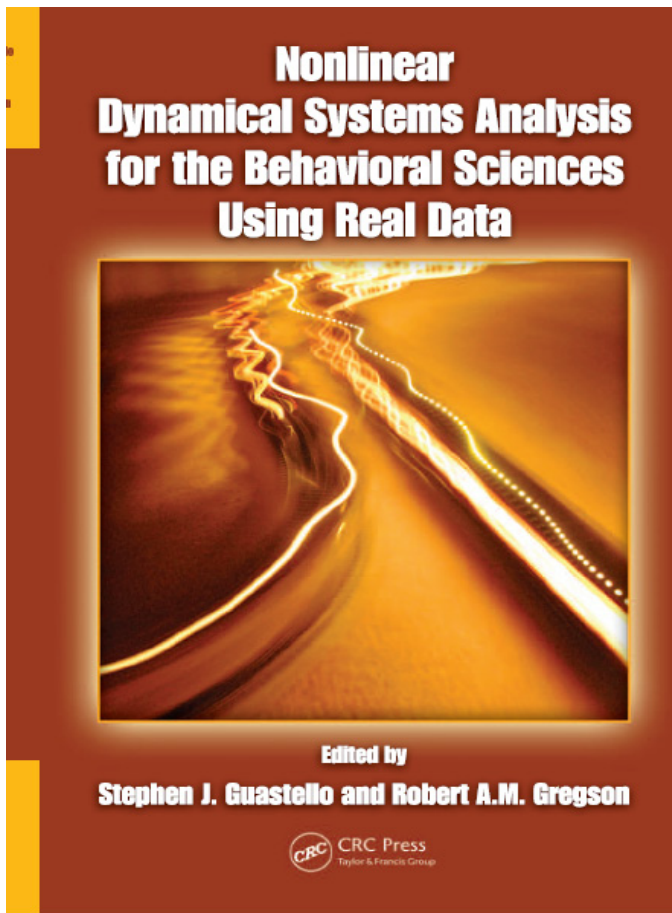# Society for Chaos Theory in Psychology & Life Sciences*

Nonlinear Dynamical Systems Analysis for the Behavioral Sciences Using Real Data examines the techniques proven to be the most useful in the behavioral sciences. The editors have brought together constructive work on new practical examples of methods and application built on nonlinear dynamics. They cover dynamics such as attractors, bifurcations, chaos, fractals, catastrophes, self-organization, and related issues in time series analysis, stationarity, modeling and hypothesis testing, probability, and experimental design. The analytic techniques discussed include several variants of the fractal dimension, several types of entropy, phase-space and state-space diagrams, recurrence analysis, spatial fractal analysis, oscillation functions, polynomial and Marquardt nonlinear regression, Markov chains, and symbolic dynamics.

A compilation of research methods and reflecting the expertise of the major contributors to NDS psychology, this book examines the techniques that have proven to be most useful in the behavioral sciences. This book is designed to develop skill and expertise in framing hypotheses dynamically and in building viable analytic models to test them. It addresses topics and methods of current interest in an application driven manner, making the book useful to the behavioral sciences community, as well as those in engineering, medicine, and other fields who are interested in nonlinear dynamics. The authors provide a generous supply of instructions for operating some of the most popular software for nonlinear dynamics analysis.

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