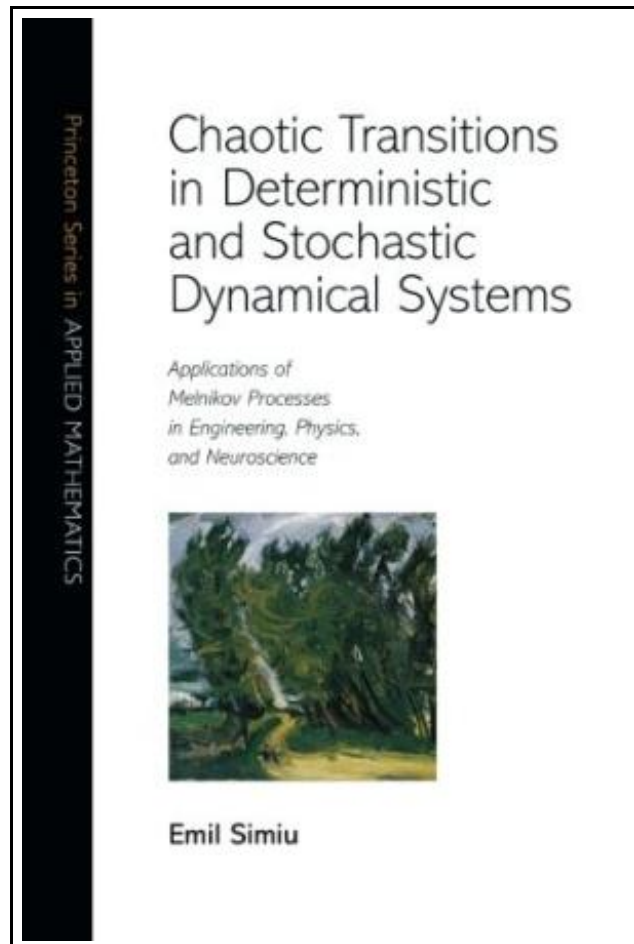# Chaotic Transitions in Deterministic and Stochastic Dynamical Systems: Applications of Melnikov Processes in Engineering, Physics, and Neuroscience

Filesize: 9.13 MB

Reviews

An extremely wonderful book with perfect and lucid explanations. This really is for those who statte that there had not been a worth reading. Your way of life span will be convert when you comprehensive reading this book.
(Effie Douglas)

CHAOTIC TRANSITIONS IN DETERMINISTIC AND STOCHASTIC DYNAMICAL SYSTEMS: APPLICATIONS OF MELNIKOV PROCESSES IN ENGINEERING, PHYSICS, AND NEUROSCIENCE

Princeton University Press. Paperback. Book Condition: new. BRAND NEW, Chaotic Transitions in Deterministic and Stochastic Dynamical Systems: Applications of Melnikov Processes in Engineering, Physics, and Neuroscience, Emil Simiu, The classical Melnikov method provides information on the behavior of deterministic planar systems that may exhibit transitions, i.e. escapes from and captures into preferred regions of phase space. This book develops a unified treatment of deterministic and stochastic systems that extends the applicability of the Melnikov method to physically realizable stochastic planar systems with additive, state-dependent, white, colored, or dichotomous noise. The extended Melnikov method yields the novel result that motions with transitions are chaotic regardless of whether the excitation is deterministic or stochastic. It explains the role in the occurrence of transitions of the characteristics of the system and its deterministic or stochastic excitation, and is a powerful modeling and identification tool. The book is designed primarily for readers interested in applications. The level of preparation required corresponds to the equivalent of a first-year graduate course in applied mathematics. No previous exposure to dynamical systems theory or the theory of stochastic processes is required. The theoretical prerequisites and developments are presented in the first part of the book. The second part of the book is devoted to applications, ranging from physics to mechanical engineering, naval architecture, oceanography, nonlinear control, stochastic resonance, and neurophysiology.

Read Chaotic Transitions in Deterministic and Stochastic Dynamical Systems: Applications of Melnikov Processes in Engineering, Physics, and Neuroscience Online
Download PDF Chaotic Transitions in Deterministic and Stochastic Dynamical Systems: Applications of Melnikov Processes in Engineering, Physics, and Neuroscience

You May Also Like

Tax Practice (2nd edition five-year higher vocational education and the accounting profession teaching the book)(Chinese Edition)

paperback. Book Condition: New. Ship out in 2 business day, And Fast shipping, Free Tracking number will be provided after the shipment.Pages Number: 282 Publisher: Higher Education Pub. Date :2009-01-01 version 2. This book is...

[Save PDF »](#)

DK Readers Animal Hospital Level 2 Beginning to Read Alone

DK CHILDREN. Paperback. Book Condition: New. Paperback. 32 pages. Dimensions: 8.9in. x 5.8in. x 0.1in.This Level 2 book is appropriate for children who are beginning to read alone. When Jack and Luke take an injured...

[Save PDF »](#)

A Kindergarten Manual for Jewish Religious Schools; Teacher s Text Book for Use in School and Home (Paperback)

Rarebooksclub.com, United States, 2012. Paperback. Book Condition: New. 246 x 189 mm. Language: English . Brand New Book ***** Print on Demand *****.This historic book may have numerous typos and missing text. Purchasers can download...

[Save PDF »](#)

DK Readers Robin Hood Level 4 Proficient Readers

DK CHILDREN. Paperback. Book Condition: New. Nick Harris (illustrator). Paperback. 48 pages. Dimensions: 8.4in. x 5.7in. x 0.2in.Discover the rollicking exploits of Robin and his merry men as they take from the rich and give...

[Save PDF »](#)

DK Readers Beastly Tales Level 3 Reading Alone

DK CHILDREN. Paperback. Book Condition: New. Paperback. 48 pages. Dimensions: 8.8in. x 5.8in. x 0.2in.This Level 3 book is perfect for children who can read alone. Do these monsters really exist Read these amazing true...

[Save PDF »](#)