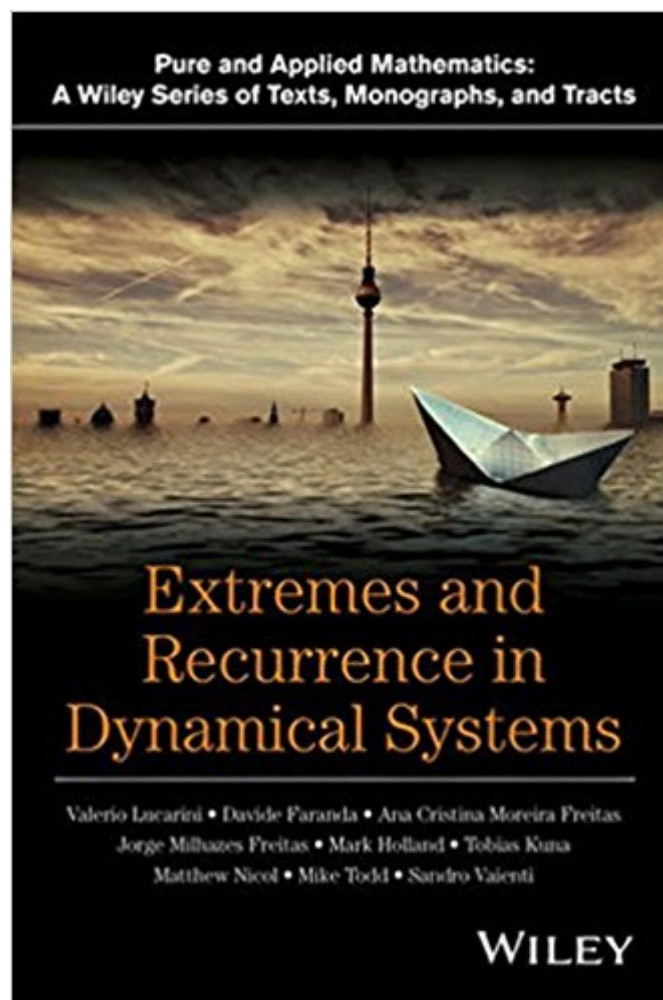The book was found

Extremes And Recurrence In Dynamical Systems (Pure And Applied Mathematics: A Wiley Series Of Texts, Monographs And Tracts)

Synopsis

Written by a team of international experts, Extremes and Recurrence in Dynamical Systems presents a unique point of view on the mathematical theory of extremes and on its applications in the natural and social sciences. Featuring an interdisciplinary approach to new concepts in pure and applied mathematical research, the book skillfully combines the areas of statistical mechanics, probability theory, measure theory, dynamical systems, statistical inference, geophysics, and software application. Emphasizing the statistical mechanical point of view, the book introduces robust theoretical embedding for the application of extreme value theory in dynamical systems. Extremes and Recurrence in Dynamical Systems also features: â ¢ A careful examination of how a dynamical system can serve as a generator of stochastic processes â ¢ Discussions on the applications of statistical inference in the theoretical and heuristic use of extremes â ¢ Several examples of analysis of extremes in a physical and geophysical context â ¢ A final summary of the main results presented along with a guide to future research projects â ¢ An appendix with software in MatlabÂ® programming language to help readers to develop further understanding of the presented concepts Extremes and Recurrence in Dynamical Systems is ideal for academics and practitioners in pure and applied mathematics, probability theory, statistics, chaos, theoretical and applied dynamical systems, statistical mechanics, geophysical fluid dynamics, geosciences and complexity science.VALERIO LUCARINI, PhD, is Professor of Theoretical Meteorology at the University of Hamburg, Germany and Professor of Statistical Mechanics at the University of Reading, UK.DAVIDE FARANDA, PhD, is Researcher at the Laboratoire des science du climat et de lâ ™environnement, IPSL, CEA Saclay, UniversitÃ© Paris-Saclay, Gif-sur-Yvette, France.ANA CRISTINA GOMES MONTEIRO MOREIRA DE FREITAS, PhD, is Assistant Professor in the Faculty of Economics at the University of Porto, Portugal.JORGE MIGUEL MILHAZES DE FREITAS, PhD, is Assistant Professor in the Department of Mathematics of the Faculty of Sciences at the University of Porto, Portugal. MARK HOLLAND, PhD, is Senior Lecturer in Applied Mathematics in the College of Engineering, Mathematics and Physical Sciences at the University of Exeter, UK.TOBIAS KUNA, PhD, is Associate Professor in the Department of Mathematics and Statistics at the University of Reading, UK.MATTHEW NICOL, PhD, is Professor of Mathematics at the University of Houston, USA. MIKE TODD, PhD, is Lecturer in the School of Mathematics and Statistics at the University of St. Andrews, Scotland. SANDRO VAIENTI, PhD, is Professor of Mathematics at the University of Toulon and Researcher at the Centre de Physique ThÃ©orique, France.

Book Information

Customer Reviews

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Germany and Professor of Statistical Mechanics at the University of Reading, UK. DAVIDE FARANDA, PhD, is Researcher at the Laboratoire des science du climat et de lâ™environnement, IPSL, CEA Saclay, Université Paris-Saclay, Gif-sur-Yvette, France. ANA CRISTINA GOMES MONTEIRO MOREIRA DE FREITAS, PhD, is Assistant Professor in the Faculty of Economics at the University of Porto, Portugal. JORGE MIGUEL MILHAZES DE FREITAS, PhD, is Assistant Professor in the Department of Mathematics of the Faculty of Sciences at the University of Porto, Portugal. MARK HOLLAND, PhD, is Senior Lecturer in Applied Mathematics in the College of Engineering, Mathematics and Physical Sciences at the University of Exeter, UK. TOBIAS KUNA, PhD, is Associate Professor in the Department of Mathematics and Statistics at the University of Reading, UK. MATTHEW NICOL, PhD, is Professor of Mathematics at the University of Houston, USA. MIKE TODD, PhD, is Lecturer in the School of Mathematics and Statistics at the University of St. Andrews, Scotland. SANDRO VAIENTI, PhD, is Professor of Mathematics at the University of Toulon and Researcher at the Centre de Physique Théorique, France.

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