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Ferdinand Verhulst

Nonlinear Differential Equations and Dynamical Systems

With 107 Figures

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Preface

This book was written originally in Dutch for Epsilon Uitgaven; the English version contains a number of corrections and some extensions, the largest of which are sections 11.6-7 and the exercises.

In writing this book I have kept two points in mind. First I wanted to produce a text which bridges the gap between elementary courses in ordinary differential equations and the modern research literature in this field. Secondly to do justice to the theory of differential equations and dynamical systems, one should present *both* the qualitative and quantitative aspects.

Thanks are due to a number of people. A.H.P. van der Burgh read and commented upon the first version of the manuscript; also the contents of section 10.2 are mainly due to him.

Many useful remarks have been made by B. van den Broek, J.J. Duistermaat, A. Doelman, W. Eckhaus, A. van Harten, E.M. de Jager, H.E. Nusse, J.W. Reyn and a number of students. Some figures were produced by E. van der Aa, B. van den Broek and I. Hoveijn. J. Grasman and H.E. Nusse kindly consented in the use of some figures from their publications.

The typing and TEX-editing of the text was carefully done by Diana Balk.

Writing this book was a very enjoyable experience. I hope that some of this pleasure is transferred to the reader when reading the text.

Utrecht
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