PREFACE

The 8th AIMS Conference on Dynamical Systems, Differential Equations and Applications took place at the Technical University of Dresden, Germany during May 25 - 28, 2010, with a total of 1400 participants. In the framework of this conference we organised a minisymposium entitled "Evolution Equations and Mathematical Biology". The goal of the session was to bring together junior and senior scientists to discuss recent developments in their field of interest in mathematical biology. Particular emphasis was on the modelling, analysis and numerical simulation of differential equation models arising in the biological and medical sciences.

26 speakers from 14 countries from 4 different continents presented their recent research during 30 minutes talks in the session. The symposium was the fifth largest among the 71 symposia organised at the conference. This underpins the ever growing interest in mathematical problems arising in the biological sciences.

This special issue contains 8 papers from some of the invited participants of the symposium. The papers cover a wide range of topics in mathematical biology: partial and delay differential equation models of infectious diseases, cell populations, tumor growth, self-propelled swimmers and size-structured populations.

We thank the speakers of the session and in particular those who contributed to this special issue. We also thank the reviewers of the papers for their dedicated efforts and valuable comments. We thank the local organizers in Dresden for their hard work that made the conference a great success. Finally, we thank the Editors-in-Chief, Professors Jim Cushing and Saber Elaydi for the opportunity to publish this special issue in the Journal of Biological Dynamics.

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