

CIMPA SCHOOL ON MATHEMATICAL MODELS IN BIOLOGY AND MEDICINE

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Abstract. Contributions to the CIMPA School on mathematical models in biology and medicine

The CIMPA School on mathematical models in biology and medicine has been held in Mauritius (Ile Maurice) in December 2016, 5-16th. It included a set of six short courses for local and foreign students (coming mostly from Nigeria, South Africa and India) and a series of research conferences on subjects including population dynamics, epidemiology, and hemodynamics mainly. The major aim of this school was to show how mathematics and computing can be used in an integrated way to biology and medicine.

In parallel to this school, three large audience conferences were held at Institut Français de Maurice and at Lycée des Mascareignes. All the details about this CIMPA school (conference slides, pictures, etc...) can be found on the website:

<http://lmv.math.cnrs.fr/conferences-et-colloques/cimpa-2016/>

The refereed papers that have been selected here, were first presented by their authors at the CIMPA school. They offer diverse perspectives and extensive discussions going from a theoretical analysis of partial differential equations in biology and medicine to their numerical discretization and experimental validation. Each chapter of the volume includes a comprehensive bibliography to promote further research.

As organizers of this CIMPA school, we wish to thank the Mauritius Research Council, the French Embassy in Mauritius (with a particular thank to Mme Dominique Vaysse), the ERC starting grant SKIPPER^{AD} of Marie Doumic", the Laboratoire de Mathématiques de Versailles (LMV) and of course the CIMPA organisation for the funding provided. We also want to thank the University of Mauritius for the transport facilities and the logistics provided during the conference.

As co-editors of this ESAIM Procs, we are grateful to all the authors who have contributed to this volume. We thank all the referees for the valuable comments which helped improving the final version of the papers. Our thanks also go to the ESAIM staff, and in particular Pauline Lafitte, who supported us during the whole process, till the final stage of the publication of the proceedings.

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