

Preface

This book focuses on the continuum-based modelling of cardiac electrical activity from the cell level to the body surface and back again – the so-called forward and inverse problems of electrocardiology. The work presented here is the result of many years of teaching and research experience. Andrew Pullan has taught and performed research in this area for nearly two decades, whilst Martin Buist and Leo Cheng both completed their doctoral studies in the field and continue to extend this work as academics and professional research scientists. In this book it is not our intention to exhaustively review the forward and inverse problems of electrocardiology, but rather concentrate on the approaches we have used in each of these problem areas and to present them in some detail.

The modelling presented herein is the result of many man-years of development. While this text reflects the authors' own work, these areas have also benefitted from the contributions of a number of individuals. Thus, while the authors take credit for actually getting this book to print, many people must be acknowledged for their input.

Firstly, this book arose from a lecture on cardiac modelling given by Andrew Pullan at the Oak Ridge National Laboratory (ORNL). Thanks must therefore be given to Dr Leonard Gray (long time boundary element sounding board for Andrew Pullan) of ORNL for the invitation to present this work. Thanks also must go to the anonymous member of the audience who initiated the publishers' approach to us.

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