

# Preface

FIMH 2015 was the 8th International Conference on Functional Imaging and Modeling of the Heart. It was held in Maastricht, The Netherlands, during June 25–27, 2015. The previous editions of this conference were held in Helsinki (2001), Lyon (2003), Barcelona (2005), Salt Lake City (2007), Nice (2009), New York (2011), and London (2013). This biennial scientific event aims to integrate the research and development efforts in the fields of cardiovascular modeling and image analysis. For this particular edition, we especially welcomed contributions related to cardiac imaging through ultrasound. The main goal of FIMH is to encourage collaboration among scientists in signal and image processing, imaging, applied mathematics, biophysics, biomedical engineering, and experts in cardiology, radiology, biology, and physiology. The final objective is to contribute to the diagnosis and treatment of cardiovascular diseases.

These proceedings contain the 54 contributions that were selected out of 72 original submissions through a rigorous review process. Each paper, with a length of 8–11 pages in the proceedings format, was reviewed by two to four members of the International Program Committee, composed of approximately 50 prominent scientists in the field. The authors had to submit a point-by-point response to the reviewers' comments, and the final selection of the papers was made on the basis of the reviewers' opinion after this rebuttal. The proceedings, published in a dedicated volume of the Springer series *Lecture Notes in Computer Science* (LNCS), were available at the time of the event.

The conference was greatly enhanced by keynote lectures given by four invited speakers. The common topic of these lectures was the relation between measurement data, their interpretation, and the role of models in this interpretation. Dr. Mark K. Friedberg (Associate Professor of Paediatrics, Hospital for Sick Children and University of Toronto) revealed the harsh world of getting data, especially from kids. Prof. Darrel P. Francis, (Professor of Cardiology, Imperial College London) conveyed the reliability of input data for models in relation to the way doctors collect and interpret data. Prof. Michiel van den Broeke (Professor of Polar Meteorology, Utrecht University) reported on modeling in the seemingly completely different field of meteorology, with surprisingly similar issues to our field: sample resolution, sample quality, reliability of models, what do politicians want to hear, what is hearsay and what are facts? Prof. Antoon F.M. Moorman (Emeritus Professor of Anatomy and Embryology, Academic Medical Center, Amsterdam) disclosed how imaging techniques and analyses can and did help to understand cardiac development.

We want to express our special thanks to the members of the Program Committee, the additional reviewers, the organizing team, and the participants of the meeting, who contributed to the success of this event.

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