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# Functional Imaging and Modeling of the Heart

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# Preface

The first international conference on Functional Imaging and Modeling of the Heart<sup>1</sup> (FIMH) was held in Helsinki, Finland, in November 2001, thanks to the strong scientific collaboration between France and Finland. This event was a first attempt to federate the heart imaging community and to encourage collaboration between scientists in signal and image processing, applied mathematics and physics, biomedical engineering and computer science, and experts in cardiology, radiology, biology, and physiology, in Europe and beyond. The conference has encountered considerable success. The outstanding research works presented have demonstrated a very active research field with complex modeling and image analysis problems to be solved. One of the outcomes was the special issue of the Medical Image Analysis journal based on a selection of the conference's best papers, to appear in the second half of 2003.

The FIMH 2001 meeting was the starting point of a discussion for federating the European research effort in cardiac imaging, heart modeling, and cardiac image analysis. It was very successful, and a large coalition was created around the e-Heart<sup>2</sup> proposal for a Network of Excellence in the European Sixth Framework Program. The e-Heart network has already gathered about 200 researchers from 100 institutes. A project proposal has been submitted to the European Union.

It was decided in the first meeting to organize a regular biennial conference. Subsequently, these proceedings have gathered the contributions from the participants to the second FIMH conference, held in Lyon in June 2003, under the auspices of the 30-year-old French-Finnish Association for Scientific and Technical Research (AFFRST). For this second edition, there has been a significant increase in the number of papers submitted. Papers accepted to the conference were distributed over 4 oral and 2 poster sessions. A session dealt with anatomical modeling and a second with motion estimation. Two sessions were dedicated to cardiac mechanics and electric modeling and analysis. An image registration session and an image analysis session also took place. Finally, we saw some works on data acquisition and experimental studies.

We hope to meet you at the next FIMH meeting, planned for 2005.

June 2003

Johan Montagnat  
Patrick Clarysse  
Jukka Nenonen  
Toivo Katila  
Isabelle Magnin

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<sup>1</sup> <http://www.creatis.insa-lyon.fr/FIMH/>

<sup>2</sup> <http://www.creatis.insa-lyon.fr/e-Heart/>

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