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Pierre Hellier (Eds.)

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# Medical Image Computing and Computer-Assisted Intervention – MICCAI 2004

7th International Conference  
Saint-Malo, France, September 2004  
Proceedings, Part II

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# Medical Image Computing and Computer-Assisted Intervention – MICCAI 2004

7th International Conference  
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## Preface

The 7th International Conference on Medical Imaging and Computer Assisted Intervention, **MICCAI 2004**, was held in Saint-Malo, Brittany, France at the “Palais du Grand Large” conference center, September 26–29, 2004. The proposal to host **MICCAI 2004** was strongly encouraged and supported by IRISA, Rennes. IRISA is a publicly funded national research laboratory with a staff of 370, including 150 full-time research scientists or teaching research scientists and 115 postgraduate students. INRIA, the CNRS, and the University of Rennes 1 are all partners in this mixed research unit, and all three organizations were helpful in supporting **MICCAI**.

**MICCAI** has become a premier international conference with in-depth papers on the multidisciplinary fields of medical image computing, computer-assisted intervention and medical robotics. The conference brings together clinicians, biological scientists, computer scientists, engineers, physicists and other researchers and offers them a forum to exchange ideas in these exciting and rapidly growing fields.

The impact of **MICCAI** increases each year and the quality and quantity of submitted papers this year was very impressive. We received a record 516 full submissions (8 pages in length) and 101 short communications (2 pages) from 36 different countries and 5 continents (see figures below). All submissions were reviewed by up to 4 external reviewers from the Scientific Review Committee and a primary reviewer from the Program Committee. All reviews were then considered by the **MICCAI 2004** Program Committee, resulting in the acceptance of 235 full papers and 33 short communications. The normal mode of presentation at **MICCAI 2004** was as a poster; in addition, 46 papers were chosen for oral presentation. All of the full papers accepted are included in these proceedings in 8-page format. All of the accepted 2-page short communications are also included; they appeared at the meeting as posters. The first figure below shows the distribution of accepted contributions by topic, topics being defined from the primary keyword of the submission.

To ensure that these very selective decisions was made as fairly and justly as possible, reviewer names were not disclosed to anyone closely associated with the submissions, including, when necessary, the organizers. In addition, to avoid any unwanted pressure on reviewers, the general chair and program chair did not co-author any submissions from their groups. Each of the 13 members of the Program Committee supervised the review process for almost 50 papers. The members of the Scientific Review Committee were selected based both on a draft and on an open volunteering process and a final list of 182 reviewers was selected based on background and expertise. After recommendations were made by the reviewers and the Program Committee, a final meeting took place during two days in early May in Rennes. Because of the overall quality of the submissions and because of the limited number of slots available for presentation, about one quarter of the contributions were further discussed in order to form the final program. We are especially grateful to Nicholas Ayache, Yves Bizais,

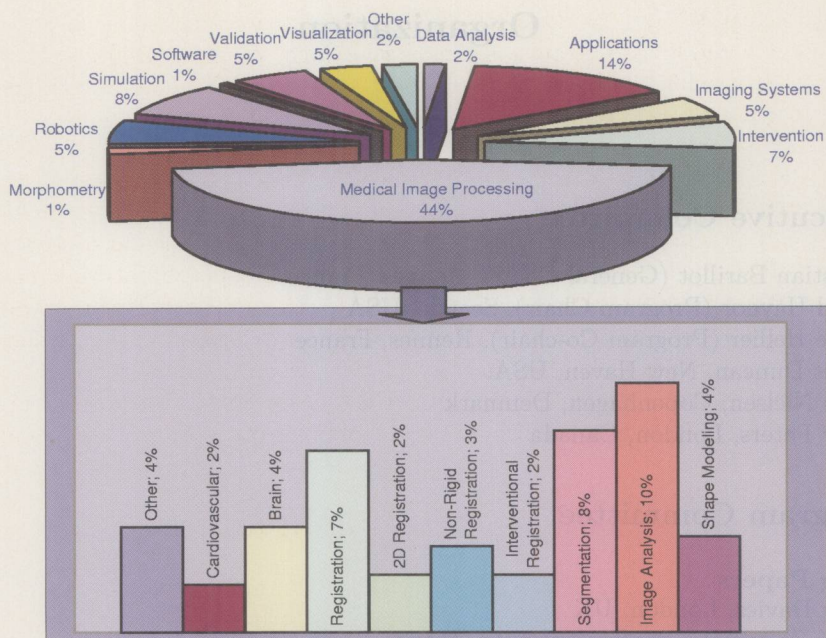
Hervé Delingette, Randy Ellis, Guido Gerig and Wiro Niessen, who attended this meeting and helped us make the final selections. We are grateful to everyone who participated in the review process; they donated a large amount of time and effort to make these volumes possible and insure a high level of quality.

It was our great pleasure to welcome this year's **MICCAI 2004** attendees to Saint-Malo. Saint-Malo is a corsair city (a corsair was a kind of official "pirate," hired by the king) and the home city of Jacques Cartier, the discoverer of Canada and Montreal, the site of last year's **MICCAI**. The city is located on the north coast of Brittany, close to Mont Saint-Michel and to Rennes. Saint-Malo is often compared to a great vessel preparing to set out to sea, always seeking renewal and adventure. We hope that the attendees, in addition to attending the conference, took the opportunity to explore the city, the sea shore, particularly at high tide (which was unusually high at the time of the conference), and other parts of Brittany, one of France's most beautiful regions. For those unable to attend, we trust that these volumes will provide a valuable record of the state of the art in the **MICCAI 2004** disciplines.

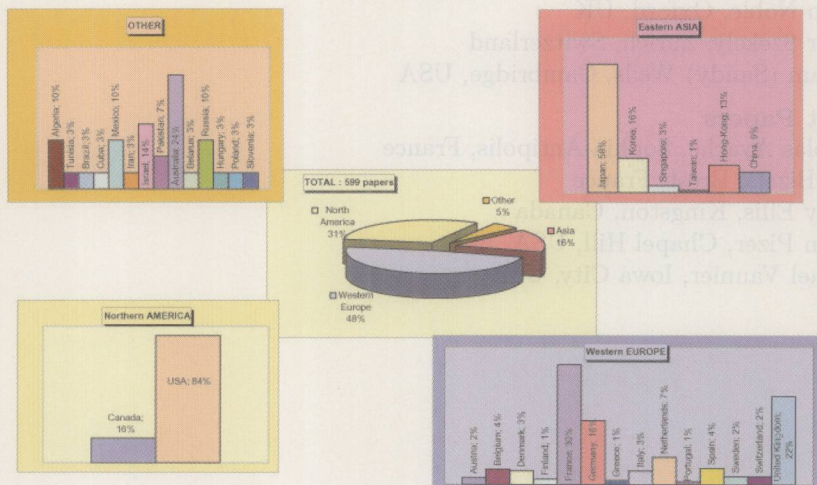
We look forward to welcoming you to **MICCAI 2005**, to be held next year in Palm Springs, CA, USA.

September 2004

Christian Barillot, David Haynor and Pierre Hellier



**Fig. 1.** View at a glance of MICCAI 2004 contributions based on the declared primary keyword



**Fig. 2.** Distribution of MICCAI 2004 submissions by region

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