

## **PROGRAM COMMITTEE AND REVIEWERS**

The Program Committee also acted as the team of reviewers, and was assembled from the leadership of the 8 working groups of Commission III and its Inter-Commission Working Group (Commissions III and V), augmented by a few additional experts. These persons deserve our thanks for their unpaid work:

- James Bethel, USA
- Beata Csatho, USA
- Eberhard Gülch, Germany
- Ayman Habib, USA
- Henrik Haggrén, Finland
- Olaf Hellwich, Germany
- Vaclav Hlavac, Czech Republic
- Amnon Krupnik, Israel
- Hans-Gerd Maas, Germany
- Helmut Mayer, Germany
- David McKeown, USA
- Albert Niel, Austria
- Nicolas Paparoditis, France
- Marc Pollefeys, Belgium
- Michel Roux, France
- Mathias Schardt, Austria
- Stefan Scherer, Austria
- Carsten Steger, Germany
- Seth Teller, USA
- George Vosselman, The Netherlands
- Guiqing Zhou, USA

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#### IC WG III/V: **Image Sequences**

Chair: Marc POLLEFEYS, Belgium

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## PREFACE

It is an honor for our Institute to be invited to organize the quadrennial International Symposium of ISPRS Commission III, held in Graz, Austria, from 9 to 12 September 2002. After all, our Institute was created in the fall of 1992 and is currently celebrating its 10<sup>th</sup> birthday. It may easily have been considered too immature to organize an event with a nearly 100-year history. Thank you, ISPRS-leadership, for this vote of confidence!

This book is Part A of the proceedings of that symposium and presents those papers that had been submitted to and were accepted by a double blind peer review of full papers, not abstracts. "Double blind" means that the reviewers did not know the identity of the authors, and the authors had no knowledge of the identity of the reviewers.

ISPRS Commission III addresses the theory and algorithms of photogrammetry and remote sensing. Among the seven ISPRS Commissions it may therefore be the most academically oriented, with less in governmental or commercial interests. It is therefore only logical that it would be Commission III to introduce for the first time in ISPRS-history the process of double-blind-peer-reviews of full papers to assemble a program for one of its quadrennial symposia. In the past these reviews were based on abstracts only, and were not "blind".

The excellent work of the 9 Working Groups of the Commission led to the submission of 90 full papers for review. Of these, 67 could be accepted for inclusion in this Part A. Not all of the accepted papers could be presented orally at the Symposium since it had room for 45 oral presentations. The review involved 21 persons as listed on the next page. I need to thank all of them for their free labor and dedication. They reflect the Working Group leadership of the Commission.

In addition to the full papers, authors were also invited to propose contributions in the ISPRS-tradition based on abstracts. Many authors preferred to stay with this approach, and we had therefore to find a way to accommodate both the new full papers as well as the traditional abstracts. Papers developed from the abstracts were not reviewed and are presented in a separate Part B of these proceedings. These contributions were not considered for oral presentations.

For almost 100 years, photogrammetry had a monopoly on the development of technologies and theories of photographic measurement and interpretation. However, since the late 1960's, computer science has evolved very rapidly into a separate academic discipline. It is very recent that advances in computer technology have spawned the emergence of computer vision. A separate vision-community evolved hesitantly from the mid-1980s as a new field within computer science. The current year 2002 demonstrates that computer vision has enormously grown, has diversified into more than 10 sub-communities and has moved center stage within computer science. It now is a formidable and very broad alternative home to scientific work with images. We believe that there is room for both a photogrammetric as well as a computer science approach to "seeing by computer". At the intersection is "photogrammetric computer vision", and to emphasize this idea, we chose this term as an alias for this year's symposium.

The look over the "photogrammetric fence" is also visible in the selection of the three keynote speakers of the symposium. Luc van Gool, Giulio Sandini and Gerd Hirzinger have their homes in various segments of computer vision. We invited them to present an overview of their work. Instead of creating a new write-up of their widely published work, we include pointers to their work in Part A of these proceedings. I want to thank these keynote speakers for their contribution to the conference!

Recent ISPRS-symposia have become multi-track events with many parallel sessions. Inspired by the standards of international conferences on computer vision, we wanted to revert back to the single-track organizational format that was customary in early ISPRS symposia. We hope that the work in selecting a program of oral presentations will pay off in a rewarding experience for the symposium attendees.

Franz Leberl  
2002 Conference Chair

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It is an honor for our Institute to be invited to organize the quadrennial International Symposium of ISPRS Commission III, held in Graz, Austria, from 10 to 12 September 2002. After all, our Institute was created in the fall of 1992 and is currently celebrating its 10<sup>th</sup> birthday. It may easily have been considered too immature to organize an event with a nearly 100-year history. Thank you, ISPRS-leadership, for this vote of confidence!

You are holding Part B of the proceedings of that symposium. It presents those papers that had been developed from abstracts. While the abstracts underwent a short review, the papers did not. Separation of the proceedings into two parts A and B became necessary to accommodate both the new approach of peer reviewed full papers as well as the ISPRS-tradition of a review of abstracts. These reviewed and accepted full papers are collected in Part A.

ISPRS Commission III addresses the theory and algorithms of photogrammetry and remote sensing. Among the seven ISPRS Commissions it may therefore be the most academically oriented, with less in governmental or commercial interests. It is only logical that it would be Commission III to experiment with the call for full papers and their double blind peer review, as is customary in all academically prestigious and relevant conferences. Our call for papers was very successfully promoted by the Working Groups of the Commission and resulted in an unprecedented number of 170 submissions. Of these, 71 are presented in this Part B.

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Recent ISPRS-symposia have become multi-track events with many parallel sessions. Inspired by the standards of international conferences on computer vision, we wanted to revert back to the single-track organizational format that was customary in early ISPRS symposia, and combine this with a wide offering of poster contributions. We hope that the work in selecting a program of oral presentations will pay off in a rewarding experience for the symposium attendees.

Franz Leberl  
2002 Conference Chair