


Videometrics VIII (EI14)

Part of IS&T/SPIE's International Symposium on Electronic Imaging 2003

20–24 January 2003 • Santa Clara Convention Center and Westin Hotel • Santa Clara, California USA

In cooperation with  isprs
information for imaging

Conference Chairs: **Sabry F. El-Hakim**, National Research Council Canada; **Armin Gruen**, Swiss Federal Institute of Technology (Switzerland); **James S. Walton**, 4D Video

Program Committee: **David P. Chapman**, Univ. College London (UK); **Hirofumi Chikatsu**, Tokyo Denki Univ. (Japan); **Dieter Fritsch**, Univ. Stuttgart (Germany); **Joao G. Goncalves**, European Commission/Joint Research Ctr. (Italy); **Henrik G. Haggren**, Helsinki Univ. of Technology (Finland); **Sing Bing Kang**, Microsoft Corp.; **George E. Karras**, Technical Univ. of Athens (Greece); **Hans-Gerd Maas**, Technical Univ. of Dresden (Germany); **Mark R. Shortis**, Univ. of Melbourne (Australia); **Luc J. Van Gool**, Swiss Federal Institute of Technology (Switzerland) and Katholieke Univ. Leuven (Belgium)

For the past ten years, the conference on Videometrics has been providing a unique forum for computer vision and Photogrammetry researchers and practitioners to present the latest advances in precise 3D measurement and modeling from imaging and range sensors. This conference was originally focused on the metric performance of sensors and algorithms to produce the most accurate and reliable geometric measurements and models. Topics such as sensor calibration, performance evaluation, and accurate object reconstruction were prevailing. This has now been expanded to encompass all phases of 3D imaging and modeling of real scenes including automation of data collection and processing, improving the visual quality and realism, visualization, animation, and data management for real-time manipulation. This is in response to the fast growing interest in 3D imaging and modeling technology and the increase in demand of such models in applications such as rapid product development, virtual museums, documentation of monuments and architecture for culture heritage, marketing and tourism, human body modeling, medicine, and exploration of remote and hazardous sites, to name a few.

We invite submission of original research contributions, as well as demonstrations of successful applications in, but not limited to, the following technical areas:

3D Sensing and Calibration

- 3D sensing and scanning devices, systems, and methods
- advances in practical and automatic calibration techniques

- automatic data acquisition and strategies for next best view planning
- human digitizing
- sensor and data fusion.

3D Processing and Modeling

- precise object, site, and complex environment modeling
- assessment of model quality
- automatic matching and segmentation of structured and unstructured scenes
- projective vs. perspective transformations
- range data processing and modeling
- multiview registration and integration
- modeling of deformable surfaces
- 3D medical image analysis.

Visualization

- hybrid image- and model-based rendering
- multiresolution 3D representations
- texture acquisition and integration
- viewpoint/illumination dependent texture mapping
- realistic rendering representations and techniques.

Motion Capture and Animation

- capture, storing, archiving, analysis, and display of image sequences
- procedures that facilitate the use of cameras as transducers
- image matching and tracking in motion analysis and surface deformation.

Applications (industrial, medical, cultural, entertainment, etc.)

The program committee will review all submissions.

Abstract Due Date: 10 June 2002

Manuscript Due Date: 28 October 2002

Final Summary Due Date: 18 November 2002

Proceedings of this conference will be published and available at the meeting.

THE ABSTRACT AND MANUSCRIPT DUE DATES MUST BE STRICTLY OBSERVED.

For more information on this and other related conferences, please www.electronicimaging.org



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Submission of Abstracts for IS&T/SPIE's Electronic Imaging 2003 Symposium

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Submissions imply the intent of at least one author to register, attend the symposium, and present the paper (either orally or in poster format).

Your abstract must include all of the following:

1. **SUBMIT TO:** EI14, EL-HAKIM, GRUEN, WALTON
2. **SUBMIT EACH ABSTRACT TO ONE CONFERENCE ONLY** Videometrics VIII (EI14)
3. **ABSTRACT TITLE**
4. **AUTHOR LISTING** (principal author first)
For each author: First (given) name (initials not acceptable), Last (family) name, Affiliation, Mailing address, Telephone, Fax, and Email address.
5. **PRESENTATION**
Indicate your preference for "Oral Presentation" or "Poster Presentation." Final placement is subject to chairs' discretion.
6. **BRIEF BIOGRAPHY** (principal/presenting author)
Approximately 50 words.
7. **ABSTRACT TEXT**
Approximately 500 words.
8. **KEYWORDS**
List a maximum of five keywords.

Instructions for Submitting Abstracts

All authors are STRONGLY ENCOURAGED to submit their abstracts by the due date using the "submit an abstract" link on the Web at:

www.electronicimaging.org

Submitting directly on the web ensures that your abstract will be immediately accessible to the conference chair for review.

If you do not have web access, you may E-MAIL each abstract separately to: abstracts@spie.org in ASCII text (not encoded) format. IMPORTANT: to ensure receipt and proper processing of your abstract, the Subject line must include only the following:

SUBJECT: EI14, EL-HAKIM, GRUEN, WALTON

Final Summary

Accepted authors will receive instructions for submission of the 200-word Final Summary in their author kit. The Final Summaries will be published and available at the meeting.

Oral or Poster Presentation

Instructions for Oral and Poster presentations will be included in your author kit. All Oral and Poster presentations are included in the *Proceedings* and require a manuscript.

Proceedings

These conferences will result in full-manuscript Chair/Editor-reviewed volumes published in the *Proceedings*. Correctly formatted, ready-to-print manuscripts are required from all accepted authors. Electronic submissions are highly preferred, and result in higher quality reproduction. Submission must be made in PostScript created with a printer driver compatible with SPIE's online Electronic Manuscript Submission system. Manuscripts must be submitted in English by 28 October 2002. Authors are required to transfer copyright of the manuscript to SPIE/IS&T or to provide a suitable publication license. Papers published are indexed in leading scientific databases including INSPEC, Compendex Plus, Physics Abstracts, Chemical Abstracts, International Aerospace Abstracts, and Index to Scientific and Technical Proceedings.

Publishing Policy

Manuscript due dates must be strictly observed. Late manuscripts may not be published in the *Proceedings*, whether the conference volume will be published before or after the meeting. The objective of this policy is to better serve the conference participants as well as the technical community at large, by enabling timely publication of the *Proceedings*. **Papers not presented at the meeting will not be published in the conference Proceedings**, except in the case of exceptional circumstances at the discretion of SPIE, IS&T, and the Conference Chair/Editors.

Participant Registration Fee

Authors, coauthors, program committee members, and session chairs are accorded a reduced symposium registration fee. If you are a current **IS&T or SPIE Member** you will enjoy an additional discount on your symposium registration fee and on educational short courses.

Conditions of Acceptance

- **Authors are expected to secure registration fees and travel and accommodation funding, independent of IS&T/SPIE, through their sponsoring organizations before submitting abstracts.**
- Only original material should be submitted.
- Commercial papers, descriptions of papers with no research/development content, and papers where supporting data or a technical description cannot be given for proprietary reasons will not be accepted for presentation in this symposium.
- Abstracts should contain enough detail to clearly convey the approach and the results of the research.
- Government and company clearance to present and publish should be final at the time of submittal. Authors are required to warrant to SPIE/IS&T in advance of publication of the *Proceedings* that all necessary permissions and clearances have been obtained, and that submitting authors are authorized to transfer copyright of the paper to SPIE/IS&T.
- Applicants will be notified of acceptance by mail no later than 7 October 2002. Early notification of acceptance will be placed on the Web site the week of 30 September 2002 at www.electronicimaging.org

Paper Review

To ensure a high-quality conference, all abstracts and *Proceedings* manuscripts will be reviewed by the Conference Chair/Editor for technical merit and suitability of content. Conference Chair/Editors may require manuscript revision before approving publication, and reserve the right to reject for presentation or publication any paper that does not meet content or presentation expectations. SPIE and IS&T's decision on whether to publish manuscripts is final.