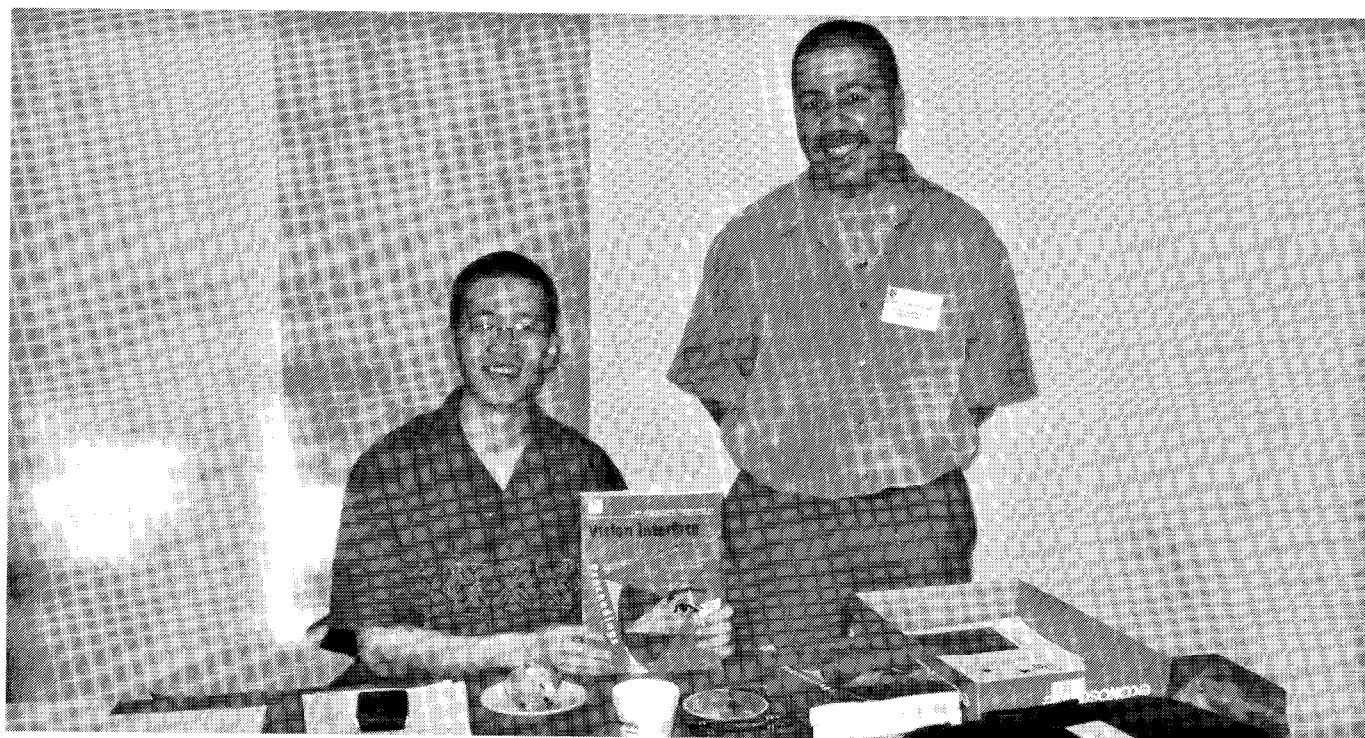


# The 15th International Conference on Vision Interface (VI'2002), May 27-29, 2002, Calgary, Canada



*CIPPRS president Fathallah Noboud watches a volunteer distributing participant packages*

**V**ISION INTERFACE as a science of understanding and using visual forms is important, promising and diverse as never before. This was obvious at the 15th International Conference on Vision Interface. Having seen its first appearance fifteen years ago as a local Canadian conference, Vision Interface has now become a truly popular international conference as was shown by the 21 countries represented at the conference.

As usual, VI'2002 conference was sponsored by the Canadian Image Processing and Pattern Recognition Society (CIPPRS), and also by the International Association for Pattern Recognition (IAPR) and the National Research Council of Canada (NRC). The conference was held in campus of the University of Calgary in the newly constructed Information Technology Building, with most of attendees staying close-by at comfortable yet very affordable University of Calgary conference housing. This not only reduced the cost of conference but also made the conference flawless from the technical point of view, as all auditoriums were equipped with the most up-to-date visual-audio equipment. It is worth noting that as always, Vision

Interface has strongly encouraged the participation of students, by significantly reducing the student registration fee from the regular price of \$405Can to \$180Can (\$120US).

This year a new initiative of the on-line conference proceedings has been launched. Since it has been realized that many of demos and related video materials cannot be shown in the hardcopy proceedings, the authors were asked to provide the additional links to supplement their hardcopy papers. These links appear in the on-line proceedings, which are made available at Vision Interface and CIPPRS websites: [www.visioninterface.org/vi2002](http://www.visioninterface.org/vi2002) and [www.cipprs.org/vi2002](http://www.cipprs.org/vi2002).

**V**ision Interface conferences have always been known as an excellent forum for both networking and learning. This year was no exception. The conference featured three invited talks from renowned scientists, eight single-track sessions with presentations of the accepted papers, one demo-poster session, and the electronic theatre provided by the Graphic Interface conference and the banquet with the award presentations.

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## This Year's Invited Speakers

**John Aloimonos** from U. of Maryland, College Park, who gave an insightful talk, *Geometry and Statistics of Visual Space-Time*, on a common nature and interrelationship of all vision-based reconstruction problems. **Matthew Turk** from U. of California, Santa Barbara, who talked about the diversity and complexity of face tracking and recognition techniques and also about their applicability for designing *Perceptual Hand-free User Interfaces*. **Gary Bradski** from the Intel's OpenCV Research Lab, who talked about the increasingly popular *Open Source Computer Vision Library* which is being developed at Intel with the help of a group of scientists from Russia; quite a few live demos of applying OpenCV for face detection, tracking and recognition were shown.

## Regular Papers

This year there were 90 full-size papers submitted to the conference, out of which 57 were selected for inclusion at the conference. The papers have been grouped around the following 8 topics, each presented as a special session:

- S1 Image Representation and Retrieval
- S2 Tracking, Visual Surveillance, Omnidirectional Cameras
- S3 Multiple-camera vision: Matching and Stereo
- S4 Pattern Recognition and Document Analysis
- S5 Single-camera vision: Structure from Motion, Optical Flow, Calibration
- S6 Face Recognition, 3D Head Models, Range Sensing
- S7 Vision-based Perceptual User Interfaces, Augmented Reality
- S8 Texture Analysis and Segmentation

**B**ecause of the large number of submissions and the desire to keep the conference single-tracked, the presentation time has been reduced to 25 minutes. This however did not decrease the level of interaction between the speakers and the audience, but in fact only provided a wider exposure and exchange of the ideas.

This year's special effort was devoted to acknowledging the quality of the contributions. Based on the reviewers' comments and the presentations given at the conference, two awards: for the best paper and for the best student paper – were presented at the conference banquet. In addition, the best twenty papers have been chosen for publishing in a special issue of the Image and Vision Computing journal.

## Demonstrations

**A**uthors were also given an opportunity to show their demos at the session held on the second day. The attendees would probably remember well the impressive demos shown by Gerhard Roth, Dmitry Gorodnichy *et al.* from the NRC Computational Video group on robust augmented reality and stereo head tracking for hands-free games and interfaces using web-cameras. Another demo on head tracking using the so-called “between-the-eyes” point was shown by Shinjiro Kawato from ATR labs, Japan. In general, it looked like vision-based perceptual user interfaces was the most popular theme of the present conference.

## Banquet & Awards

Participants of all three conferences AI/GI/VI'2002 joined together at the banquet for a great dinner and also for the award presentation ceremony.

**T**he winners of the Best Paper award were **Rui Rodrigues, António Fernandes** from U. do Minho, Portugal, and **Kees van Overveld, Fabian Ernst** from Philips Research, Netherlands with their paper on *Reconstructing Depth from Spatiotemporal Curves*, while the Best Paper Runner-up was given to **Akira Amano, Tsuyoshi Migita and Naoki Asada** from Hiroshima City U., Japan for the paper on *Stable Recovery of Shape and Motion from Partially Tracked Feature Points with Fast Nonlinear Optimization*.

The Best Student Paper award was given to **David Bullock** from U. of Guelph, Canada for his paper *Real-Time Tracking for Visual Interface Applications in Cluttered and Occluding Situations*, with the Best Student Paper Runner-up being **Geoffrey Egnal** from U. of Pennsylvania, USA with his paper entitled *A Stereo Confidence Metric Using Single View Imagery*.

CIIPRS was giving two other awards this year: the Distinguished Service Award went to **Denis Laurendeau** from Laval U. and the Young Investigator Award was given to **Dmitry Gorodnichy** from NRC.

John Barron, U. of Western Ontario and John Zellek, U. of Guelph have been selected as the chairs for the next VI conference which will held in Halifax, with the exact days still to be decided. We may thus wish them good luck and see many more attendees next year!

**Fathallah Nouboud, Dmitry Gorodnichy**