TPAMI CVPR Special Section

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THIS special issue of *TPAMI* contains some of the best papers from CVPR'11, which was held in Colorado Springs in June of 2011. The collection of papers in this special issue was selected by the program and general chairs. It represents the papers that received the highest ratings by the CVPR 2011 reviewers and area chairs. This includes four prize-winning papers and other papers that were considered among the best work in the conference.

There were a total of 1,677 papers that underwent the complete reviewing process for the conference, in addition to 353 submissions removed by the chairs or by the authors before reviewing began. There were a total of 59 papers accepted for oral presentations and 379 papers accepted as posters, for an overall acceptance rate of 26.4 percent of the 1,677 papers that received full reviews. Attendance for the 2011 CVPR was limited to 1,500 people for the main conference plus 50 people attending workshops only and approximately 50 exhibitors and volunteers.

All papers in the special section went through the usual *TPAMI* review process involving detailed reviews and revisions. The collection illustrates the state of the art on many different topics within computer vision.

There were four award papers selected by a committee of senior members of the community. These papers came from a pool of more than 10 papers selected by reviewers and area chairs. The paper awards were as follows:

- **Best paper:** "Real-Time Human Pose Recognition in Parts from Single Depth Images," by Jamie Shotton, Ross Girshick, Andrew Fitzgibbon, Toby Sharp, Mat Cook, Mark Fonocchio, Richard Moore, Pushmeet Kohli, Antonio Criminisi, Alex Kipman, and Andrew Blake. Sponsored by Google. A version of this paper appears in this issue as "Efficient Human Pose Estimation from Single Depth Images."
- **Best paper honorable mention:** "Discrete-Continuous Optimization for Large-Xcale Structure from Motion," by David Crandall, Andrew Owens, Noah Snavely, and Daniel Huttenlocher. Sponsored by Google. A version of this paper appears in this issue as "SfM with MRFs: Discrete-Continuous Optimization for Large-Scale Structure from Motion."
- **Best student paper:** "Recognition Using Visual Phrases," bu Ali Farhadi and Mohammad Amin Sadeghi. Sponsored by United Technologies Research Center. A version of this paper appears in this issue as "Phrasal Recognition."
- **Best student paper Honorable mention:** "Separating Reflective and Fluorescent Components of an Image," by Cherry Zhang and Imari Sato. Sponsored by Springer. A version of this paper appears in this issue as "Image-Based Separation of Reflective and Fluorescent Components Using Illumination Variant and Invariant Color."

The CVPR 2011 committee also awarded the **Longuet-Higgins Prize** for a lasting contribution to computer vision to the CVPR 2001 paper "Rapid Object Detection using a Boosted Cascade of Simple Features" by Paul Viola and Michael Jones.

The program chairs and general chairs for CVPR 2011 would like to thank the reviewers and area chairs that were involved in the reviewing process. We would also like to thank the reviewers who agreed to rereview papers for this *TPAMI* special section. Finally, we would like to thank the staff at *TPAMI* for helping with the organization of this collection.

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David A. Forsyth received the BSc and MSc degrees in electrical engineering from the University of the Witwatersrand, Johannesburg, South Africa, and the DPhil degree from Balliol College, Oxford, United Kingdom. He has published more than 100 papers on computer vision, computer graphics, and machine learning. He is a coauthor (with J. Ponce) of *Computer Vision: A Modern Approach* (Prentice-Hall, 2002). He was a professor at the University of California, Berkeley. He is currently a professor at the University of Illinois at Urbana-Champaign. Professor Forsyth was a program cochair for the IEEE Computer Vision and Pattern Recognition (CVPR) in 2000, general cochair for CVPR 2006, and program cochair for the European Conference on Computer Vision 2008 and CVPR 2011. He received an IEEE Technical Achievement Award in 2005. He is the editor in chief of the *IEEE Transactions on Pattern Analysis and Machine Intelligence*. He is a fellow of the IEEE.

Pascal Fua received the engineering degree from the Ecole Polytechnique, Paris, in 1984 and the PhD degree in computer science from the University of Orsay in 1989. He joined EPFL (Swiss Federal Institute of Technology) in 1996 where he is now a professor in the School of Computer and Communication Science. Before that, he worked at SRI International and at INRIA Sophia-Antipolis as a computer scientist. His research interests include shape modeling and motion recovery from images, analysis of microscopy images, and Augmented Reality. He has (co)authored more than 250 publications in refereed journals and conferences. He is an IEEE Fellow and has been a *TPAMI* associate editor. He often serves as a program committee member, area chair, or program chair of major vision conferences.

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