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# Computer Vision – ACCV 2014

12th Asian Conference on Computer Vision  
Singapore, Singapore, November 1–5, 2014  
Revised Selected Papers, Part II

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## Preface

ACCV 2014 received a total of 814 submissions, a reflection of the growing strength of Computer Vision in Asia. We note, particularly, that a number of Area Chairs commented very positively on the overall quality of the submissions. The conference had submissions from all continents (except Antarctica, a challenge for the 2016 organizers perhaps) with 64 % from Asia, 20 % from Europe, and 10 % from North America.

The Program Chairs assembled a geographically diverse team of 36 Area Chairs who handled between 20 and 30 papers each. Area Chairs recommended reviewers for papers, and each paper received at least three reviews from the 638 reviewers who participated in the process. Paper decisions were finalized at an Area Chair meeting held in Singapore in September 2014. At this meeting, Area Chairs worked in triples to reach collective decisions about acceptance, and in panels of 12 to decide on the oral/poster distinction. The total number of papers accepted was 227, an overall acceptance rate of 28 %. Of these, 32 were selected for oral presentation.

We extend our immense gratitude to the Area Chairs and Reviewers for their generous participation in the process – the conference would not be possible if it were not for this huge voluntary investment of time and effort. We acknowledge particularly the contribution of 35 reviewers designated as “Outstanding Reviewers” (see page 14 in this booklet for a full list) who were nominated by Area Chairs and Program Chairs for having provided a large number of helpful, high-quality reviews.

The Program Chairs are also extremely grateful for the support, sage advice, and occasional good-natured prompting provided by the General Chairs. Each of them helped with matters that in other circumstances might have been left to the Program Chairs, so that it regularly felt as if we had a team of seven, not four Program Chairs. The PCs are very grateful for this.

Finally, we wish to thank the authors and delegates. Without their participation there would be no conference. The conference was graced with a uniformly high quality of presentations and posters, and we offer particular thanks to the three eminent keynote speakers, Stephane Mallat, Minoru Etoh, and Dieter Fox, who delivered outstanding talks.

Computer Vision in Asia is growing, and the quality of ACCV steadily climbing so that it is now, rightly, considered as one of the top conferences in the field. We look forward to future editions.

November 2014

Daniel Cremers  
Ian Reid  
Hideo Saito  
Ming-Hsuan Yang

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#### 1. Saburo Tsuji Best Paper Award

*A Message Passing Algorithm for MRF inference with Unknown Graphs and Its Applications*

Zhenhua Wang (University of Adelaide), Zhiyi Zhang (Northwest A&F University), Geng Nan (Northwest A&F University)

#### 2. Sang Uk Lee Best Student Paper Award [Sponsored by Nvidia]

*Separation of Reflection Components by Sparse Non-negative Matrix Factorization*  
Yasuhiro Akashi (Tohoku University), Takayuki Okatani (Tohoku University)

## 3. Songde Ma Best Application Paper Award [Sponsored by NICTA]

*Stereo Fusion using a Refractive Medium on a Binocular Base*

Seung-Hwan Baek (KAIST), Min H. Kim (KAIST)

## 4. Best Paper Honorable Mention

*Singly-Bordered Block-Diagonal Form for Minimal Problem Solvers*

Zuzana Kukelova (Czech Technical University, Microsoft Research Cambridge),

Martin Bujnak (Capturing Reality), Jan Heller (Czech Technical University),

Tomas Pajdla (Czech Technical University)

## 5. Best Student Paper Honorable Mention [Sponsored by Nvidia]

*On Multiple Image Group Cosegmentation*

Fanman Meng (University of Electronic Science and Technology of China),

Jianfei Cai (Nanyang Technological University), Hongliang Li

(University of Electronic Science and Technology of China)

## 6. Best Application Paper Honorable Mention [Sponsored by NICTA]

*Massive City-scale Surface Condition Analysis using Ground and Aerial Imagery*

Ken Sakurada (Tohoku University), Takayuki Okatani (Tohoku Univervisty),

Kris Kitani (Carnegie Mellon University)

**ACCV 2014 – Outstanding Reviewers**

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