

## Preface

Welcome to the proceedings of the 2016 European Conference on Computer Vision (ECCV 2016) held in Amsterdam, The Netherlands. We are delighted to present this volume reflecting a strong and exciting program, the result of an extensive review process. In total, we received 1,561 paper submissions. Of these, 81 violated the ECCV submission guidelines or did not pass the plagiarism test and were rejected without review. We employed the iThenticate software ([www.ithenticate.com](http://www.ithenticate.com)) for plagiarism detection. Of the remaining papers, 415 were accepted (26.6 %): 342 as posters (22.6 %), 45 as spotlights (2.9 %), and 28 as oral presentations (1.8 %). The spotlights – short, five-minute podium presentations – are novel to ECCV and were introduced after their success at the CVPR 2016 conference. All orals and spotlights are presented as posters as well. The selection process was a combined effort of four program co-chairs (PCs), 74 area chairs (ACs), 1,086 Program Committee members, and 77 additional reviewers.

As PCs, we were primarily responsible for the design and execution of the review process. Beyond administrative rejections, we were involved in acceptance decisions only in the very few cases where the ACs were not able to agree on a decision. PCs, as is customary in the field, were not allowed to co-author a submission. General co-chairs and other co-organizers played no role in the review process, were permitted to submit papers, and were treated as any other author.

Acceptance decisions were made by two independent ACs. There were 74 ACs, selected by the PCs according to their technical expertise, experience, and geographical diversity (41 from European, five from Asian, two from Australian, and 26 from North American institutions). The ACs were aided by 1,086 Program Committee members to whom papers were assigned for reviewing. There were 77 additional reviewers, each supervised by a Program Committee member. The Program Committee was selected from committees of previous ECCV, ICCV, and CVPR conferences and was extended on the basis of suggestions from the ACs and the PCs. Having a large pool of Program Committee members for reviewing allowed us to match expertise while bounding reviewer loads. Typically five papers, but never more than eight, were assigned to a Program Committee member. Graduate students had a maximum of four papers to review.

The ECCV 2016 review process was in principle double-blind. Authors did not know reviewer identities, nor the ACs handling their paper(s). However, anonymity becomes difficult to maintain as more and more submissions appear concurrently on arXiv.org. This was not against the ECCV 2016 double submission rules, which followed the practice of other major computer vision conferences in the recent past. The existence of arXiv publications, mostly not peer-reviewed, raises difficult problems with the assessment of unpublished, concurrent, and prior art, content overlap, plagiarism, and self-plagiarism. Moreover, it undermines the anonymity of submissions. We found that not all cases can be covered by a simple set of rules. Almost all controversies during the review process were related to the arXiv issue. Most of the reviewer inquiries were

resolved by giving the benefit of the doubt to ECCV authors. However, the problem will have to be discussed by the community so that consensus is found on how to handle the issues brought by publishing on arXiv.

Particular attention was paid to handling conflicts of interest. Conflicts of interest between ACs, Program Committee members, and papers were identified based on the authorship of ECCV 2016 submissions, on the home institutions, and on previous collaborations of all researchers involved. To find institutional conflicts, all authors, Program Committee members, and ACs were asked to list the Internet domains of their current institutions. To find collaborators, the Researcher.cc database (<http://researcher.cc/>), funded by the Computer Vision Foundation, was used to find any co-authored papers in the period 2012–2016. We pre-assigned approximately 100 papers to each AC, based on affinity scores from the Toronto Paper Matching System. ACs then bid on these, indicating their level of expertise. Based on these bids, and conflicts of interest, approximately 40 papers were assigned to each AC. The ACs then suggested seven reviewers from the pool of Program Committee members for each paper, in ranked order, from which three were chosen automatically by CMT (Microsofts Academic Conference Management Service), taking load balancing and conflicts of interest into account.

The initial reviewing period was five weeks long, after which reviewers provided reviews with preliminary recommendations. With the generous help of several last-minute reviewers, each paper received three reviews. Submissions with all three reviews suggesting rejection were independently checked by two ACs and if they agreed, the manuscript was rejected at this stage (“early rejects”). In total, 334 manuscripts (22.5 %) were early-rejected, reducing the average AC load to about 30.

Authors of the remaining submissions were then given the opportunity to rebut the reviews, primarily to identify factual errors. Following this, reviewers and ACs discussed papers at length, after which reviewers finalized their reviews and gave a final recommendation to the ACs. Each manuscript was evaluated independently by two ACs who were not aware of each others, identities. In most of the cases, after extensive discussions, the two ACs arrived at a common decision, which was always adhered to by the PCs. In the very few borderline cases where an agreement was not reached, the PCs acted as tie-breakers. Owing to the rapid expansion of the field, which led to an unexpectedly large increase in the number of submissions, the size of the venue became a limiting factor and a hard upper bound on the number of accepted papers had to be imposed. We were able to increase the limit by replacing one oral session by a poster session. Nevertheless, this forced the PCs to reject some borderline papers that could otherwise have been accepted.

We want to thank everyone involved in making the ECCV 2016 possible. First and foremost, the success of ECCV 2016 depended on the quality of papers submitted by the authors, and on the very hard work of the ACs, the Program Committee members, and the additional reviewers. We are particularly grateful to Rene Vidal for his continuous support and sharing experience from organizing ICCV 2015, to Laurent Charlin for the use of the Toronto Paper Matching System, to Ari Kobren for the use of the Researcher.cc tools, to the Computer Vision Foundation (CVF) for facilitating the use of the iThenticate plagiarism detection software, and to Gloria Zen and Radu-Laurentiu Vieri for setting up CMT and managing the various tools involved. We also owe a debt of gratitude for the support of the Amsterdam local organizers, especially Hamdi Dibeklioglu for keeping the

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