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Foreword

It was our great pleasure to host the European Conference on Computer Vision 2018 in Munich, Germany. This constituted by far the largest ECCV event ever. With close to 2,900 registered participants and another 600 on the waiting list one month before the conference, participation more than doubled since the last ECCV in Amsterdam. We believe that this is due to a dramatic growth of the computer vision community combined with the popularity of Munich as a major European hub of culture, science, and industry. The conference took place in the heart of Munich in the concert hall Gasteig with workshops and tutorials held at the downtown campus of the Technical University of Munich.

One of the major innovations for ECCV 2018 was the free perpetual availability of all conference and workshop papers, which is often referred to as open access. We note that this is not precisely the same use of the term as in the Budapest declaration. Since 2013, CVPR and ICCV have had their papers hosted by the Computer Vision Foundation (CVF), in parallel with the IEEE Xplore version. This has proved highly beneficial to the computer vision community.

We are delighted to announce that for ECCV 2018 a very similar arrangement was put in place with the cooperation of Springer. In particular, the author's final version will be freely available in perpetuity on a CVF page, while SpringerLink will continue to host a version with further improvements, such as activating reference links and including video. We believe that this will give readers the best of both worlds; researchers who are focused on the technical content will have a freely available version in an easily accessible place, while subscribers to SpringerLink will continue to have the additional benefits that this provides. We thank Alfred Hofmann from Springer for helping to negotiate this agreement, which we expect will continue for future versions of ECCV.

September 2018

Horst Bischof
Daniel Cremers
Bernt Schiele
Ramin Zabih

Preface

Welcome to the proceedings of the 2018 European Conference on Computer Vision (ECCV 2018) held in Munich, Germany. We are delighted to present this volume reflecting a strong and exciting program, the result of an extensive review process. In total, we received 2,439 valid paper submissions. Of these, 776 were accepted (31.8%): 717 as posters (29.4%) and 59 as oral presentations (2.4%). All oral presentations were presented as posters as well. The program selection process was complicated this year by the large increase in the number of submitted papers, +65% over ECCV 2016, and the use of CMT3 for the first time for a computer vision conference. The program selection process was supported by four program co-chairs (PCs), 126 area chairs (ACs), and 1,199 reviewers with reviews assigned.

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. As PCs, and as is customary in the field, we were not allowed to co-author a submission. General co-chairs and other co-organizers who played no role in the review process were permitted to submit papers, and were treated as any other author is.

Acceptance decisions were made by two independent ACs. The ACs also made a joint recommendation for promoting papers to oral status. We decided on the final selection of oral presentations based on the ACs' recommendations. There were 126 ACs, selected according to their technical expertise, experience, and geographical diversity (63 from European, nine from Asian/Australian, and 54 from North American institutions). Indeed, 126 ACs is a substantial increase in the number of ACs due to the natural increase in the number of papers and to our desire to maintain the number of papers assigned to each AC to a manageable number so as to ensure quality. The ACs were aided by the 1,199 reviewers to whom papers were assigned for reviewing. 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. Having a large pool of Program Committee members for reviewing allowed us to match expertise while reducing reviewer loads. No more than eight papers were assigned to a reviewer, maintaining the reviewers' load at the same level as ECCV 2016 despite the increase in the number of submitted papers.

Conflicts of interest between ACs, Program Committee members, and papers were identified based 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. We assigned on average approximately 18 papers to each AC. The papers were assigned using the affinity scores from the Toronto Paper Matching System (TPMS) and additional data from the OpenReview system, managed by a UMass group. OpenReview used additional information from ACs' and authors' records to identify collaborations and to generate matches. OpenReview was invaluable in

refining conflict definitions and in generating quality matches. The only glitch is that, once the matches were generated, a small percentage of papers were unassigned because of discrepancies between the OpenReview conflicts and the conflicts entered in CMT3. We manually assigned these papers. This glitch is revealing of the challenge of using multiple systems at once (CMT3 and OpenReview in this case), which needs to be addressed in future.

After assignment of papers to ACs, the ACs suggested seven reviewers per paper from the Program Committee pool. The selection and rank ordering were facilitated by the TPMS affinity scores visible to the ACs for each paper/reviewer pair. The final assignment of papers to reviewers was generated again through OpenReview in order to account for refined conflict definitions. This required new features in the OpenReview matching system to accommodate the ECCV workflow, in particular to incorporate selection ranking, and maximum reviewer load. Very few papers received fewer than three reviewers after matching and were handled through manual assignment. Reviewers were then asked to comment on the merit of each paper and to make an initial recommendation ranging from definitely reject to definitely accept, including a borderline rating. The reviewers were also asked to suggest explicit questions they wanted to see answered in the authors' rebuttal. The initial review period was five weeks. Because of the delay in getting all the reviews in, we had to delay the final release of the reviews by four days. However, because of the slack included at the tail end of the schedule, we were able to maintain the decision target date with sufficient time for all the phases. We reassigned over 100 reviews from 40 reviewers during the review period. Unfortunately, the main reason for these reassignments was reviewers declining to review, after having accepted to do so. Other reasons included technical relevance and occasional unidentified conflicts. We express our thanks to the emergency reviewers who generously accepted to perform these reviews under short notice. In addition, a substantial number of manual corrections had to do with reviewers using a different email address than the one that was used at the time of the reviewer invitation. This is revealing of a broader issue with identifying users by email addresses that change frequently enough to cause significant problems during the timespan of the conference process.

The authors were then given the opportunity to rebut the reviews, to identify factual errors, and to address the specific questions raised by the reviewers over a seven-day rebuttal period. The exact format of the rebuttal was the object of considerable debate among the organizers, as well as with prior organizers. At issue is to balance giving the author the opportunity to respond completely and precisely to the reviewers, e.g., by including graphs of experiments, while avoiding requests for completely new material or experimental results not included in the original paper. In the end, we decided on the two-page PDF document in conference format. Following this rebuttal period, reviewers and ACs discussed papers at length, after which reviewers finalized their evaluation and gave a final recommendation to the ACs. A significant percentage of the reviewers did enter their final recommendation if it did not differ from their initial recommendation. Given the tight schedule, we did not wait until all were entered.

After this discussion period, each paper was assigned to a second AC. The AC/paper matching was again run through OpenReview. Again, the OpenReview team worked quickly to implement the features specific to this process, in this case accounting for the

existing AC assignment, as well as minimizing the fragmentation across ACs, so that each AC had on average only 5.5 buddy ACs to communicate with. The largest number was 11. Given the complexity of the conflicts, this was a very efficient set of assignments from OpenReview. Each paper was then evaluated by its assigned pair of ACs. For each paper, we required each of the two ACs assigned to certify both the final recommendation and the metareview (aka consolidation report). In all cases, after extensive discussions, the two ACs arrived at a common acceptance decision. We maintained these decisions, with the caveat that we did evaluate, sometimes going back to the ACs, a few papers for which the final acceptance decision substantially deviated from the consensus from the reviewers, amending three decisions in the process.

We want to thank everyone involved in making ECCV 2018 possible. The success of ECCV 2018 depended on the quality of papers submitted by the authors, and on the very hard work of the ACs and the Program Committee members. We are particularly grateful to the OpenReview team (Melisa Bok, Ari Kobren, Andrew McCallum, Michael Spector) for their support, in particular their willingness to implement new features, often on a tight schedule, to Laurent Charlin for the use of the Toronto Paper Matching System, to the CMT3 team, in particular in dealing with all the issues that arise when using a new system, to Friedrich Fraundorfer and Quirin Lohr for maintaining the online version of the program, and to the CMU staff (Keyla Cook, Lynnetta Miller, Ashley Song, Nora Kazour) for assisting with data entry/editing in CMT3. Finally, the preparation of these proceedings would not have been possible without the diligent effort of the publication chairs, Albert Ali Salah and Hamdi Dibeklioglu, and of Anna Kramer and Alfred Hofmann from Springer.

September 2018

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Tae Hyun Kim	Zhenzhong Lan	Yin Li
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Piotr Koniusz	Yong Jae Lee	Joseph Lim
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Yen-Yu Lin	Pablo Márquez-Neila	Thomas Mensink
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Shu Liu	Subhransu Maji	Davide Modolo
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Xingang Pan	Alin Popa	Zhile Ren
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Yun Zeng	Bin Zhao	Siyu Zhu
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Jian Zhang	Liang Zheng	Liansheng Zhuang
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Ning Zhang	Guangyu Zhong	Wangmeng Zuo
Qing Zhang	Bolei Zhou	Xinxin Zuo

Contents – Part IX

Poster Session

PS-FCN: A Flexible Learning Framework for Photometric Stereo	3
<i>Guanying Chen, Kai Han, and Kwan-Yee K. Wong</i>	
Ask, Acquire, and Attack: Data-Free UAP Generation Using Class Impressions	20
<i>Konda Reddy Mopuri, Phani Krishna Uppala, and R. Venkatesh Babu</i>	
Rendering Portraits from Monocular Camera and Beyond	36
<i>Xiangyu Xu, Deqing Sun, Sifei Liu, Wenqi Ren, Yu-Jin Zhang, Ming-Hsuan Yang, and Jian Sun</i>	
Learning to Zoom: A Saliency-Based Sampling Layer for Neural Networks	52
<i>Adrià Recasens, Petr Kellnhofer, Simon Stent, Wojciech Matusik, and Antonio Torralba</i>	
A Scalable Exemplar-Based Subspace Clustering Algorithm for Class-Imbalanced Data	68
<i>Chong You, Chi Li, Daniel P. Robinson, and René Vidal</i>	
RCAA: Relational Context-Aware Agents for Person Search	86
<i>Xiaojun Chang, Po-Yao Huang, Yi-Dong Shen, Xiaodan Liang, Yi Yang, and Alexander G. Hauptmann</i>	
Distractor-Aware Siamese Networks for Visual Object Tracking	103
<i>Zheng Zhu, Qiang Wang, Bo Li, Wei Wu, Junjie Yan, and Weiming Hu</i>	
Face Recognition with Contrastive Convolution	120
<i>Chunrui Han, Shiguang Shan, Meina Kan, Shuzhe Wu, and Xilin Chen</i>	
Adding Attentiveness to the Neurons in Recurrent Neural Networks	136
<i>Pengfei Zhang, Jianru Xue, Cuiling Lan, Wenjun Zeng, Zhanning Gao, and Nanning Zheng</i>	
Learning Dynamic Memory Networks for Object Tracking.	153
<i>Tianyu Yang and Antoni B. Chan</i>	

GeoDesc: Learning Local Descriptors by Integrating Geometry Constraints	170
<i>Zixin Luo, Tianwei Shen, Lei Zhou, Siyu Zhu, Runze Zhang, Yao Yao, Tian Fang, and Long Quan</i>	
Unsupervised Image-to-Image Translation with Stacked Cycle-Consistent Adversarial Networks	186
<i>Minjun Li, Haozhi Huang, Lin Ma, Wei Liu, Tong Zhang, and Yugang Jiang</i>	
Find and Focus: Retrieve and Localize Video Events with Natural Language Queries	202
<i>Dian Shao, Yu Xiong, Yue Zhao, Qingqiu Huang, Yu Qiao, and Dahua Lin</i>	
Face Super-Resolution Guided by Facial Component Heatmaps	219
<i>Xin Yu, Basura Fernando, Bernard Ghanem, Fatih Porikli, and Richard Hartley</i>	
Reverse Attention for Salient Object Detection	236
<i>Shuhan Chen, Xiuli Tan, Ben Wang, and Xuelong Hu</i>	
Action Search: Spotting Actions in Videos and Its Application to Temporal Action Localization	253
<i>Humam Alwassel, Fabian Caba Heilbron, and Bernard Ghanem</i>	
PSANet: Point-wise Spatial Attention Network for Scene Parsing	270
<i>Hengshuang Zhao, Yi Zhang, Shu Liu, Jianping Shi, Chen Change Loy, Dahua Lin, and Jiaya Jia</i>	
Repeatability Is Not Enough: Learning Affine Regions via Discriminability	287
<i>Dmytro Mishkin, Filip Radenović, and Jiří Matas</i>	
Compressing the Input for CNNs with the First-Order Scattering Transform	305
<i>Edouard Oyallon, Eugene Belilovsky, Sergey Zagoruyko, and Michal Valko</i>	
Faces as Lighting Probes via Unsupervised Deep Highlight Extraction.	321
<i>Renjiao Yi, Chenyang Zhu, Ping Tan, and Stephen Lin</i>	
DetNet: Design Backbone for Object Detection.	339
<i>Zeming Li, Chao Peng, Gang Yu, Xiangyu Zhang, Yangdong Deng, and Jian Sun</i>	

Structured Siamese Network for Real-Time Visual Tracking. 355
Yunhua Zhang, Lijun Wang, Jinqing Qi, Dong Wang, Mengyang Feng, and Huchuan Lu

Associating Inter-image Salient Instances for Weakly Supervised Semantic Segmentation 371
Ruo Chen Fan, Qibin Hou, Ming-Ming Cheng, Gang Yu, Ralph R. Martin, and Shi-Min Hu

HybridFusion: Real-Time Performance Capture Using a Single Depth Sensor and Sparse IMUs 389
Zerong Zheng, Tao Yu, Hao Li, Kaiwen Guo, Qionghai Dai, Lu Fang, and Yebin Liu

Learning Human-Object Interactions by Graph Parsing Neural Networks 407
Siyuan Qi, Wenguan Wang, Baoxiong Jia, Jianbing Shen, and Song-Chun Zhu

Macro-Micro Adversarial Network for Human Parsing. 424
Yawei Luo, Zhedong Zheng, Liang Zheng, Tao Guan, Junqing Yu, and Yi Yang

Stereo Computation for a Single Mixture Image 441
Yiran Zhong, Yuchao Dai, and Hongdong Li

Dividing and Aggregating Network for Multi-view Action Recognition 457
Dongang Wang, Wanli Ouyang, Wen Li, and Dong Xu

Selective Zero-Shot Classification with Augmented Attributes 474
Jie Song, Chengchao Shen, Jie Lei, An-Xiang Zeng, Kairi Ou, Dacheng Tao, and Mingli Song

Modeling Varying Camera-IMU Time Offset in Optimization-Based Visual-Inertial Odometry 491
Yonggen Ling, Linchao Bao, Zequn Jie, Fengming Zhu, Ziyang Li, Shanmin Tang, Yongsheng Liu, Wei Liu, and Tong Zhang

An Adversarial Approach to Hard Triplet Generation. 508
Yiru Zhao, Zhongming Jin, Guo-jun Qi, Hongtao Lu, and Xian-sheng Hua

SphereNet: Learning Spherical Representations for Detection and Classification in Omnidirectional Images 525
Benjamin Coors, Alexandru Paul Condurache, and Andreas Geiger

Deep Directional Statistics: Pose Estimation with Uncertainty Quantification 542
Sergey Prokudin, Peter Gehler, and Sebastian Nowozin

Joint Representation and Truncated Inference Learning for Correlation Filter Based Tracking	560
<i>Yingjie Yao, Xiaohe Wu, Lei Zhang, Shiguang Shan, and Wangmeng Zuo</i>	
Consensus-Driven Propagation in Massive Unlabeled Data for Face Recognition	576
<i>Xiaohang Zhan, Ziwei Liu, Junjie Yan, Dahua Lin, and Chen Change Loy</i>	
Predicting Future Instance Segmentation by Forecasting Convolutional Features	593
<i>Pauline Luc, Camille Couprie, Yann LeCun, and Jakob Verbeek</i>	
Flow-Grounded Spatial-Temporal Video Prediction from Still Images	609
<i>Yijun Li, Chen Fang, Jimei Yang, Zhaowen Wang, Xin Lu, and Ming-Hsuan Yang</i>	
Learning to Reconstruct High-Quality 3D Shapes with Cascaded Fully Convolutional Networks	626
<i>Yan-Pei Cao, Zheng-Ning Liu, Zheng-Fei Kuang, Leif Kobbelt, and Shi-Min Hu</i>	
A Dataset of Flash and Ambient Illumination Pairs from the Crowd	644
<i>Yağız Aksoy, Changil Kim, Petr Kellnhofer, Sylvain Paris, Mohamed Elgharib, Marc Pollefeys, and Wojciech Matusik</i>	
Pose-Normalized Image Generation for Person Re-identification	661
<i>Xuelin Qian, Yanwei Fu, Tao Xiang, Wenxuan Wang, Jie Qiu, Yang Wu, Yu-Gang Jiang, and Xiangyang Xue</i>	
Learning 3D Human Pose from Structure and Motion	679
<i>Rishabh Dabral, Anurag Mundhada, Uday Kusupati, Safeer Afaque, Abhishek Sharma, and Arjun Jain</i>	
Deep Reinforcement Learning with Iterative Shift for Visual Tracking	697
<i>Liangliang Ren, Xin Yuan, Jiwen Lu, Ming Yang, and Jie Zhou</i>	
PSDF Fusion: Probabilistic Signed Distance Function for On-the-fly 3D Data Fusion and Scene Reconstruction.	714
<i>Wei Dong, Qiuyuan Wang, Xin Wang, and Hongbin Zha</i>	
AugGAN: Cross Domain Adaptation with GAN-Based Data Augmentation	731
<i>Sheng-Wei Huang, Che-Tsung Lin, Shu-Ping Chen, Yen-Yi Wu, Po-Hao Hsu, and Shang-Hong Lai</i>	
Graininess-Aware Deep Feature Learning for Pedestrian Detection	745
<i>Chunze Lin, Jiwen Lu, Gang Wang, and Jie Zhou</i>	

Seeing Tree Structure from Vibration 762
*Tianfan Xue, Jiajun Wu, Zhoutong Zhang, Chengkai Zhang,
 Joshua B. Tenenbaum, and William T. Freeman*

The Devil of Face Recognition Is in the Noise 780
*Fei Wang, Liren Chen, Cheng Li, Shiyao Huang, Yanjie Chen,
 Chen Qian, and Chen Change Loy*

Shape Reconstruction Using Volume Sweeping
 and Learned Photoconsistency 796
Vincent Leroy, Jean-Sébastien Franco, and Edmond Boyer

PyramidBox: A Context-Assisted Single Shot Face Detector. 812
Xu Tang, Daniel K. Du, Zeqiang He, and Jingtuo Liu

Correction to: AugGAN: Cross Domain Adaptation with GAN-Based
 Data Augmentation E1
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Author Index 829