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Laura Leal-Taixé · Stefan Roth (Eds.)

Computer Vision – ECCV 2018 Workshops

Munich, Germany, September 8–14, 2018
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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 on 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

It is our great pleasure to present these workshop proceedings of the 15th European Conference on Computer Vision, which was held during September 8–14, 2018, in Munich, Germany. We are delighted that the main conference of ECCV 2018 was accompanied by 43 scientific workshops. The ECCV workshop proceedings contain contributions of 36 workshops.

We received 74 workshop proposals on a broad set of topics related to computer vision. The very high quality and the large number of proposals made the selection process rather challenging. Owing to space restrictions, only 46 proposals were accepted, among which six proposals were merged into three workshops because of overlapping themes.

The final set of 43 workshops complemented the main conference program well. The workshop topics presented a good orchestration of new trends and traditional issues, built bridges into neighboring fields, as well as discussed fundamental technologies and novel applications. We would like to thank all the workshop organizers for their unreserved efforts to make the workshop sessions a great success.

September 2018

Stefan Roth
Laura Leal-Taixé

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Aleš Leonardis	University of Birmingham, UK
Jiří Matas	Czech Technical University in Prague, Czechia
Michael Felsberg	Linköping University, Sweden
Roman Pflugfelder	Austrian Institute of Technology, Austria

W02 – 6th Workshop on Computer Vision for Road Scene Understanding and Autonomous Driving

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Lars Petersson	Data61 CSIRO, Australia
Fredrik Kahl	Chalmers University of Technology, Sweden
Bart Nabbe	Aurora, USA

W03 – 3D Reconstruction in the Wild

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Tomas Pajdla	Czech Technical University in Prague, Czechia
Takeshi Masuda	The National Institute of Advanced Industrial Science and Technology (AIST), Japan
Shohei Nobuhara	Kyoto University, Japan
Hiroshi Kawasaki	Kyushu University, Japan

W04 – Workshop on Visual Learning and Embodied Agents in Simulation Environments

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Angel X. Chang	Eloquent Labs and Simon Fraser University, USA
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W05 – Bias Estimation in Face Analytics

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Rogerio Feris	IBM Watson Research Center, USA
Michele Merler	IBM Watson Research Center, USA
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W06 – 4th International Workshop on Recovering 6D Object Pose

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Krzysztof Walas	Poznan University of Technology, Poland
Tae-Kyun Kim	Imperial College London, UK
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Ales Leonardis	University of Birmingham, UK
Carsten Steger	Technical University of Munich, MVTec, Germany
Caner Sahin	Imperial College London, UK

W07 – Second International Workshop on Computer Vision for UAVs

Kristof Van Beeck	KU Leuven, Belgium
Tinne Tuytelaars	KU Leuven, Belgium
Davide Scaramuzza	ETH Zurich, Switzerland
Toon Goedemé	KU Leuven, Belgium

W08 – 5th Transferring and Adapting Source Knowledge in Computer Vision and Second VisDA Challenge

Tatiana Tommasi	Italian Institute of Technology, Italy
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Kate Saenko	Boston University, USA
Ben Usman	Boston University, USA
Xingchao Peng	Boston University, USA
Judy Hoffman	Facebook AI Research, USA
Neela Kaushik	Boston University, USA
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Wen Li	ETH Zurich, Switzerland
Francesco Orabona	Boston University, USA

W09 – PoseTrack Challenge: Articulated People Tracking in the Wild

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Anton Milan	Amazon, Germany
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Christoph Lassner	Amazon, Germany
Eldar Insafutdinov	Max Planck Institute for Informatics, Germany
Siyu Tang	Max Planck Institute for Intelligent Systems, Germany
Juergen Gall	University of Bonn, Germany
Bernt Schiele	Max Planck Institute for Informatics, Germany

W10 – Workshop on Objectionable Content and Misinformation

Cristian Canton Ferrer	Facebook, USA
Matthias Niessner	Technical University of Munich, Germany
Paul Natsev	Google, USA
Marius Vlad	Google, Switzerland

W11 – 9th International Workshop on Human Behavior Understanding

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Elisa Ricci	Fondazione Bruno Kessler and University of Trento, Italy
Albert Ali Salah	Boğaziçi University, Turkey
Nicu Sebe	University of Trento, Italy
Shuicheng Yan	National University of Singapore, Singapore

W12 – First Person in Context Workshop and Challenge

Si Liu	Beihang University, China
Jiashi Feng	National University of Singapore, Singapore
Jizhong Han	Institute of Information Engineering, China
Shuicheng Yan	National University of Singapore, Singapore
Yao Sun	Institute of Information Engineering, China

Yue Liao	Institute of Information Engineering, China
Lejian Ren	Institute of Information Engineering, China
Guanghui Ren	Institute of Information Engineering, China

W13 – 4th Workshop on Computer Vision for Art Analysis

Stuart James	Istituto Italiano di Tecnologia, Italy and University College London, UK
Leonardo Impett	EPFL, Switzerland and Biblioteca Hertziana, Max Planck Institute for Art History, Italy
Peter Hall	University of Bath, UK
João Paulo Costeira	Instituto Superior Tecnico, Portugal
Peter Bell	Friedrich-Alexander-University Nürnberg, Germany
Alessio Del Bue	Istituto Italiano di Tecnologia, Italy

W14 – First Workshop on Fashion, Art, and Design

Hui Wu	IBM Research AI, USA
Negar Rostamzadeh	Element AI, Canada
Leonidas Lefakis	Zalando Research, Germany
Joy Tang	Markable, USA
Rogerio Feris	IBM Research AI, USA
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Luba Elliott	Independent Curator/Researcher/Producer
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Chris Pal	MILA/PolyMTL, Canada
Sanja Fidler	University of Toronto, Canada
Xavier Snelgrove	Element AI, Canada
David Vazquez	Element AI, Canada
Julia Lasserre	Zalando Research, Germany
Thomas Boquet	Element AI, Canada
Nana Yamazaki	Zalando SE, Germany

W15 – Anticipating Human Behavior

Juergen Gall	University of Bonn, Germany
Jan van Gemert	Delft University of Technology, The Netherlands
Kris Kitani	Carnegie Mellon University, USA

W16 – Third Workshop on Geometry Meets Deep Learning

Xiaowei Zhou	Zhejiang University, China
Emanuele Rodolà	Sapienza University of Rome, Italy
Jonathan Masci	NNAISENSE, Switzerland
Kosta Derpanis	Ryerson University, Canada

W17 – First Workshop on Brain-Driven Computer Vision

Simone Palazzo	University of Catania, Italy
Isaak Kavasidis	University of Catania, Italy
Dimitris Kastaniotis	University of Patras, Greece
Stavros Dimitriadis	Cardiff University, UK

W18 – Second Workshop on 3D Reconstruction Meets Semantics

Radim Tylecek	University of Edinburgh, UK
Torsten Sattler	ETH Zurich, Switzerland
Thomas Brox	University of Freiburg, Germany
Marc Pollefeys	ETH Zurich/Microsoft, Switzerland
Robert B. Fisher	University of Edinburgh, UK
Theo Gevers	University of Amsterdam, Netherlands

W19 – Third International Workshop on Video Segmentation

Pablo Arbelaez	Universidad de los Andes, Columbia
Thomas Brox	University of Freiburg, Germany
Fabio Galasso	OSRAM GmbH, Germany
Iasonas Kokkinos	University College London, UK
Fuxin Li	Oregon State University, USA

W20 – PeopleCap 2018: Capturing and Modeling Human Bodies, Faces, and Hands

Gerard Pons-Moll	MPI for Informatics and Saarland Informatics Campus, Germany
Jonathan Taylor	Google, USA

W21 – Workshop on Shortcomings in Vision and Language

Dhruv Batra	Georgia Institute of Technology and Facebook AI Research, USA
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Spandana Gella	University of Edinburgh, UK
Kushal Kafle	Rochester Institute of Technology, USA
Moin Nabi	SAP SE, Germany
Stefan Lee	Georgia Institute of Technology, USA

W22 – Second YouTube-8M Large-Scale Video Understanding Workshop

Apostol (Paul) Natsev	Google Research, USA
Rahul Sukthankar	Google Research, USA
Joonseok Lee	Google Research, USA
George Toderici	Google Research, USA

W23 – Second International Workshop on Compact and Efficient Feature Representation and Learning in Computer Vision

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Li Liu	Inception Institute of Artificial Intelligence, UAE
Fan Zhu	Inception Institute of Artificial Intelligence, UAE
Matti Pietikäinen	University of Oulu, Finland
Luc Van Gool	ETH Zurich, Switzerland

W24 – 5th Women in Computer Vision Workshop

Zeynep Akata	University of Amsterdam, The Netherlands
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Yana Hasson	Inria, France
Angjoo Kanazawa	UC Berkeley, USA
Hildegard Kuehne	University of Bonn, Germany
Gül Varol	Inria, France

W25 – Perceptual Image Restoration and Manipulation Workshop and Challenge

Yochai Blau	Technion – Israel Institute of Technology, Israel
Roey Mechrez	Technion – Israel Institute of Technology, Israel
Radu Timofte	ETH Zurich, Switzerland
Tomer Michaeli	Technion – Israel Institute of Technology, Israel
Lihi Zelnik-Manor	Technion – Israel Institute of Technology, Israel

W26 – Egocentric Perception, Interaction, and Computing

Dima Damen	University of Bristol, UK
Giuseppe Serra	University of Udine, Italy
David Crandall	Indiana University, USA
Giovanni Maria Farinella	University of Catania, Italy
Antonino Furnari	University of Catania, Italy

W27 – Vision Meets Drone: A Challenge

Pengfei Zhu	Tianjin University, China
Longyin Wen	JD Finance, USA
Xiao Bian	GE Global Research, USA
Haibin Ling	Temple University, USA

W28 – 11th Perceptual Organization in Computer Vision Workshop on Action, Perception, and Organization

Deepak Pathak	UC Berkeley, USA
Bharath Hariharan	Cornell University, USA

W29 – AutoNUE: Autonomous Navigation in Unconstrained Environments

Manmohan Chandraker	University of California San Diego, USA
C. V. Jawahar	IIIT Hyderabad, India
Anoop M. Namboodiri	IIIT Hyderabad, India
Srikumar Ramalingam	University of Utah, USA
Anbumani Subramanian	Intel, Bangalore, India

W30 – ApolloScape: Vision-Based Navigation for Autonomous Driving

Peng Wang	Baidu Research, USA
Ruigang Yang	Baidu Research, China
Andreas Geiger	ETH Zurich, Switzerland
Hongdong Li	Australian National University, Australia
Alan Yuille	The Johns Hopkins University, USA

W31 – 6th International Workshop on Assistive Computer Vision and Robotics

Giovanni Maria Farinella	University of Catania, Italy
Marco Leo	National Research Council of Italy, Italy
Gerard G. Medioni	University of Southern California, USA
Mohan Trivedi	University of California, USA

W32 – 4th International Workshop on Observing and Understanding Hands in Action

Iason Oikonomidis	Foundation for Research and Technology, Greece
Guillermo Garcia-Hernando	Imperial College London, UK
Angela Yao	National University of Singapore, Singapore
Antonis Argyros	University of Crete/Foundation for Research and Technology, Greece
Vincent Lepetit	University of Bordeaux, France
Tae-Kyun Kim	Imperial College London, UK

W33 – Bioimage Computing

Jens Rittscher	University of Oxford, UK
Anna Kreshuk	University of Heidelberg, Germany
Florian Jug	Max Planck Institute CBG, Germany

W34 – First Workshop on Interactive and Adaptive Learning in an Open World

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W35 – First Multimodal Learning and Applications Workshop

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Michael Yang	University of Twente, The Netherlands
Bodo Rosenhahn	Leibniz-Universität Hannover, Germany

W36 – What Is Optical Flow for?

Fatma Güney	Oxford University, UK
Laura Sevilla-Lara	Facebook Research, USA
Deqing Sun	NVIDIA, USA
Jonas Wulff	Massachusetts Institute of Technology, USA

W37 – Vision for XR

Richard Newcombe	Facebook Reality Labs, USA
Chris Sweeney	Facebook Reality Labs, USA
Julian Straub	Facebook Reality Labs, USA
Jakob Engel	Facebook Reality Labs, USA
Michael Goesele	Technische Universität Darmstadt, Germany

W38 – Open Images Challenge Workshop

Vittorio Ferrari	Google AI, Switzerland
Alina Kuznetsova	Google AI, Switzerland
Jordi Pont-Tuset	Google AI, Switzerland
Matteo Malloci	Google AI, Switzerland
Jasper Uijlings	Google AI, Switzerland
Jake Walker	Google AI, Switzerland
Rodrigo Benenson	Google AI, Switzerland

W39 – VizWiz Grand Challenge: Answering Visual Questions from Blind People

Danna Gurari	University of Texas at Austin, USA
Kristen Grauman	University of Texas at Austin, USA
Jeffrey P. Bigham	Carnegie Mellon University, USA

W40 – 360° Perception and Interaction

Min Sun	National Tsing Hua University, Taiwan
Yu-Chuan Su	University of Texas at Austin, USA
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Hou-Ning Hu	National Tsing Hua University, Taiwan
Silvio Savarese	Stanford University, USA

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Ming-Hsuan Yang	University of California, Merced, USA

W41 – Joint COCO and Mapillary Recognition Challenge Workshop

Tsung-Yi Lin	Google Brain, USA
Genevieve Patterson	Microsoft Research, USA
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W42 – First Large-Scale Video Object Segmentation Challenge

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Jiebo Luo	University of Rochester, USA
Thomas Huang	University of Illinois at Urbana-Champaign, USA

W43 – WIDER Face and Pedestrian Challenge

Chen Change Loy	Nanyang Technological University, Singapore
Dahua Lin	The Chinese University of Hong Kong, SAR China
Wanli Ouyang	University of Sydney, Australia
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Shuo Yang	Amazon Rekognition, USA
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Dongzhan Zhou	SenseTime, China
Wei Xia	Amazon Rekognition, USA
Quanquan Li	SenseTime, China
Ping Luo	The Chinese University of Hong Kong, SAR China
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