

## Preface

Welcome to the proceedings of the 8th European Conference on Computer Vision!

Following a very successful ECCV 2002, the response to our call for papers was almost equally strong – 555 papers were submitted. We accepted 41 papers for oral and 149 papers for poster presentation.

Several innovations were introduced into the review process. First, the number of program committee members was increased to reduce their review load. We managed to assign to program committee members no more than 12 papers. Second, we adopted a paper ranking system. Program committee members were asked to rank all the papers assigned to them, even those that were reviewed by additional reviewers. Third, we allowed authors to respond to the reviews consolidated in a discussion involving the area chair and the reviewers. Fourth, the reports, the reviews, and the responses were made available to the authors as well as to the program committee members. Our aim was to provide the authors with maximal feedback and to let the program committee members know how authors reacted to their reviews and how their reviews were or were not reflected in the final decision. Finally, we reduced the length of reviewed papers from 15 to 12 pages.

The preparation of ECCV 2004 went smoothly thanks to the efforts of the organizing committee, the area chairs, the program committee, and the reviewers. We are indebted to Anders Heyden, Mads Nielsen, and Henrik J. Nielsen for passing on ECCV traditions and to Dominique Asselineau from ENST/TSI who kindly provided his GestRFIA conference software. We thank Jan-Olof Eklundh and Andrew Zisserman for encouraging us to organize ECCV 2004 in Prague. Andrew Zisserman also contributed many useful ideas concerning the organization of the review process. Olivier Faugeras represented the ECCV Board and helped us with the selection of conference topics. Kyros Kutulakos provided helpful information about the CVPR 2003 organization. David Vernon helped to secure ECVison support.

This conference would never have happened without the support of the Centre for Machine Perception of the Czech Technical University in Prague. We would like to thank Radim Šára for his help with the review process and the proceedings organization. We thank Daniel Večerka and Martin Matoušek who made numerous improvements to the conference software. Petr Pohl helped to put the proceedings together. Martina Budošová helped with administrative tasks. Hynek Bakstein, Ondřej Chum, Jana Kostková, Branislav Mičušík, Štěpán Obdržálek, Jan Šochman, and Vít Zýka helped with the organization.



# Organization

## Conference Chair

Václav Hlaváč

CTU Prague, Czech Republic

## Program Chairs

Tomáš Pajdla

CTU Prague, Czech Republic

Jiří Matas

CTU Prague, Czech Republic

## Organization Committee

Tomáš Pajdla

CTU Prague, Czech Republic

Radim Šára

Workshops, Tutorials

CTU Prague, Czech Republic

Vladimír Smutný

Budget, Exhibition

CTU Prague, Czech Republic

Eva Matysková

Local Arrangements

CTU Prague, Czech Republic

Jiří Matas

CTU Prague, Czech Republic

Václav Hlaváč

CTU Prague, Czech Republic

## Conference Board

Hans Burkhardt

University of Freiburg, Germany

Bernard Buxton

University College London, UK

Roberto Cipolla

University of Cambridge, UK

Jan-Olof Eklundh

Royal Institute of Technology, Sweden

Olivier Faugeras

INRIA, Sophia Antipolis, France

Anders Heyden

Lund University, Sweden

Bernd Neumann

University of Hamburg, Germany

Mads Nielsen

IT University of Copenhagen, Denmark

Giulio Sandini

University of Genoa, Italy

David Vernon

Trinity College, Ireland

## Area Chairs

Dmitry Chetverikov

MTA SZTAKI, Hungary

Kostas Daniilidis

University of Pennsylvania, USA

Rachid Deriche

INRIA Sophia Antipolis, France

Jan-Olof Eklundh

KTH Stockholm, Sweden

Luc Van Gool

KU Leuven, Belgium & ETH Zürich, Switzerland

Richard Hartley

Australian National University, Australia

Michal Irani	Weizmann Institute of Science, Israel
Sing Bing Kang	Microsoft Research, USA
Aleš Leonardis	University of Ljubljana, Slovenia
Stan Li	Microsoft Research China, Beijing, China
David Lowe	University of British Columbia, Canada
Mads Nielsen	IT University of Copenhagen, Denmark
Long Quan	HKUST, Hong Kong, China
Jose Santos-Victor	Instituto Superior Tecnico, Portugal
Cordelia Schmid	INRIA Rhône-Alpes, France
Steven Seitz	University of Washington, USA
Amnon Shashua	Hebrew University of Jerusalem, Israel
Stefano Soatto	UCLA, Los Angeles, USA
Joachim Weickert	Saarland University, Germany
Andrew Zisserman	University of Oxford, UK

## Program Committee

Jorgen Ahlberg	Joachim Buhmann	Alexei Efros
Narendra Ahuja	Hans Burkhardt	Irfan Essa
Yiannis Aloimonos	Aurelio Campilho	Michael Felsberg
Arnon Amir	Octavia Camps	Cornelia Fermueller
Elli Angelopoulou	Stefan Carlsson	Mario Figueiredo
Helder Araujo	Yaron Caspi	Bob Fisher
Tal Arbel	Tat-Jen Cham	Andrew Fitzgibbon
Karl Astrom	Mike Chantler	David Fleet
Shai Avidan	Francois Chaumette	Wolfgang Forstner
Simon Baker	Santanu Choudhury	David Forsyth
Subhashis Banerjee	Laurent Cohen	Pascal Fua
Kobus Barnard	Michael Cohen	Dariu Gavrilă
Ronen Basri	Bob Collins	Jan-Mark Geusebroek
Serge Belongie	Dorin Comaniciu	Christopher Geyer
Marie-Odile Berger	Tim Cootes	Georgy Gimelfarb
Horst Bischof	Joao Costeira	Frederic Guichard
Michael J. Black	Daniel Cremers	Gregory Hager
Andrew Blake	Antonio Criminisi	Allan Hanbury
Laure Blanc-Feraud	James Crowley	Edwin Hancock
Aaron Bobick	Kristin Dana	Horst Haussecker
Rein van den Boomgaard	Trevor Darrell	Eric Hayman
Terrance Boulton	Larry Davis	Martial Hebert
Richard Bowden	Fernando De la Torre	Bernd Heisele
Edmond Boyer	Frank Dellaert	Anders Heyden
Mike Brooks	Joachim Denzler	Adrian Hilton
Michael Brown	Greg Dudek	David Hogg
Alfred Bruckstein	Chuck Dyer	Atsushi Imiya

Michael Isard	Nassir Navab	Jon Sparring
Yuri Ivanov	Shree Nayar	Charles Stewart
David Jacobs	Ko Nishino	Peter Sturm
Allan D. Jepson	David Nister	Changming Sun
Peter Johansen	Ole Fogh Olsen	Tomas Svoboda
Nebojsa Jojic	Theodore Papadopoulo	Rahul Swaminathan
Frederic Jurie	Nikos Paragios	Richard Szeliski
Fredrik Kahl	Shmuel Peleg	Tamas Sziranyi
Daniel Keren	Francisco Perales	Chi-keung Tang
Benjamin Kimia	Nicolas Perez	Hai Tao
Ron Kimmel	de la Blanca	Sibel Tari
Nahum Kiryati	Pietro Perona	Chris Taylor
Georges Koepfler	Matti Pietikainen	C.J. Taylor
Pierre Kornprobst	Filiberto Pla	Bart ter Haar Romeny
David Kriegman	Robert Pless	Phil Torr
Walter Kropatsch	Marc Pollefeys	Antonio Torralba
Rakesh Kumar	Jean Ponce	Panos Trahanias
David Liebowitz	Ravi Ramamoorthi	Bill Triggs
Tony Lindeberg	James Rehg	Emanuele Trucco
Jim Little	Ian Reid	Dimitris Tsakiris
Yanxi Liu	Tammy Riklin-Raviv	Yanghai Tsin
Yi Ma	Ehud Rivlin	Matthew Turk
Claus Madsen	Nicolas Rougon	Tinne Tuytelaars
Tom Malzbender	Yong Rui	Nuno Vasconcelos
Jorge Marques	Javier Sanchez	Baba C. Vemuri
David Marshall	Guillermo Sapiro	David Vernon
Bogdan Matei	Yoichi Sato	Alessandro Verri
Steve Maybank	Eric Saund	Rene Vidal
Gerard Medioni	Otmar Scherzer	Jordi Vitria
Etienne Memin	Bernt Schiele	Yair Weiss
Rudolf Mester	Mikhail Schlesinger	Tomas Werner
Krystian Mikolajczyk	Christoph Schnoerr	Carl-Fredrik Westin
J.M.M. Montiel	Stan Sclaroff	Ross Whitaker
Theo Moons	Mubarak Shah	Lior Wolf
Pavel Mrazek	Eitan Sharon	Ying Wu
Joe Mundy	Jianbo Shi	Ming Xie
Vittorio Murino	Kaleem Siddiqi	Ramin Zabih
David Murray	Cristian Sminchisescu	Assaf Zomet
Hans-Hellmut Nagel	Nir Sochen	Steven Zucker
Vic Nalwa	Gerald Sommer	
P.J. Narayanan	Gunnar Sparr	

## Additional Reviewers

Lourdes Agapito	Claudio Fanti	Jocelyn Marchadier
Manoj Aggarwal	Michela Farenzena	Scott McCloskey
Parvez Ahammad	Doron Feldman	Leonard McMillan
Fernando Alegre	Darya Frolova	Marci Meingast
Jonathan Alon	Andrea Fusiello	Anurag Mittal
Hans Jorgen Andersen	Chunyu Gao	Thomas B. Moeslund
Marco Andreetto	Kshitiz Garg	Jose Montiel
Anelia Angelova	Yoram Gat	Philippos Mordohai
Himanshu Arora	Dan Gelb	Pierre Moreels
Thangali Ashwin	Ya'ara Goldschmidt	Hesam Najafi
Vassilis Athitsos	Michael E. Goss	P.J. Narayanan
Henry Baird	Leo Grady	Ara Nefian
Harlyn Baker	Sertan Grigin	Oscar Nestares
Evgeniy Bart	Michael Grossberg	Michael Nielsen
Moshe Ben-Ezra	J.J. Guerrero	Peter Nillius
Manuele Bicego	Guodong Guo	Fredrik Nyberg
Marten Björkman	Yanlin Guo	Tom O'Donnell
Paul Blaer	Robert Hanek	Eyal Ofek
Ilya Blayvas	Matthew Harrison	Takahiro Okabe
Eran Borenstein	Tal Hassner	Kazunori Okada
Lars Bretzner	Horst Haussecker	D. Ortin
Alexia Briassouli	Yakov Hel-Or	Patrick Perez
Michael Bronstein	Anton van den Hengel	Christian Perwass
Rupert Brooks	Tat Jen Cham	Carlos Phillips
Gabriel Brostow	Peng Chang	Srikumar Ramalingam
Thomas Brox	John Isidoro	Alex Rav-Acha
Stephanie Brubaker	Vishal Jain	Stefan Roth
Andres Bruhn	Marie-Pierre Jolly	Ueli Rutishauser
Darius Burschka	Michael Kaess	C. Sagues
Umberto Castellani	Zia Khan	Garbis Salgian
J.A. Castellanos	Kristian Kirk	Ramin Samadani
James Clark	Dan Kong	Bernard Sarel
Andrea Colombari	B. Kröse	Frederik Schaffalitzky
Marco Cristani	Vivek Kwatra	Adam Seeger
Xiangtian Dai	Michael Langer	Cheng Dong Seon
David Demirdjian	Catherine Laporte	Ying Shan
Maxime Descoteaux	Scott Larsen	Eli Shechtman
Nick Diakopoulos	Barbara Levienaise-	Grant Schindler
Anthony Dicks	Obadia	Nils T. Siebel
Carlotta Domeniconi	Frederic Leymarie	Leonid Sigal
Roman Dovgard	Fei-Fei Li	Greg Slabaugh
R. Dugad	Rui Li	Ben Southall
Ramani Duraiswami	Kok-Lim Low	Eric Spellman
Kerrien Erwan	Le Lu	Narasimhan Srinivasa

Drew Steedly	Zhizhou Wang	Ruigang Yang
Moritz Stoerring	Joost van de Weijer	Yll Haxhimusa
David Suter	Wolfgang Wein	Tianli Yu
Yi Tan	Martin Welk	Lihi Zelnik-Manor
Donald Tanguay	Michael Werman	Tao Zhao
Matthew Toews	Horst Wildenauer	Wenyi Zhao
V. Javier Traver	Christopher R. Wren	Sean Zhou
Yaron Ukrainitz	Ning Xu	Yue Zhou
F.E. Wang	Hulya Yalcin	Ying Zhu
Hongcheng Wang	Jingyu Yan	

## Sponsors

BIG - Business Information Group a.s.

Camea spol. s r.o.

Casablanca INT s.r.o.

ECVision – European Research Network for Cognitive Computer Vision Systems

Microsoft Research

Miracle Network s.r.o.

Neovision s.r.o.

Toyota