## Lecture Notes in Computer Science

8694

Commenced Publication in 1973
Founding and Former Series Editors:
Gerhard Goos, Juris Hartmanis, and Jan van Leeuwen

## **Editorial Board**

David Hutchison

Lancaster University, UK

Takeo Kanade

Carnegie Mellon University, Pittsburgh, PA, USA

Josef Kittler

University of Surrey, Guildford, UK

Jon M. Kleinberg

Cornell University, Ithaca, NY, USA

Alfred Kobsa

University of California, Irvine, CA, USA

Friedemann Mattern

ETH Zurich. Switzerland

John C. Mitchell

Stanford University, CA, USA

Moni Naor

Weizmann Institute of Science, Rehovot, Israel

Oscar Nierstrasz

University of Bern, Switzerland

C. Pandu Rangan

Indian Institute of Technology, Madras, India

Bernhard Steffen

TU Dortmund University, Germany

Demetri Terzopoulos

University of California, Los Angeles, CA, USA

Doug Tygar

University of California, Berkeley, CA, USA

Gerhard Weikum

Max Planck Institute for Informatics, Saarbruecken, Germany

David Fleet Tomas Pajdla Bernt Schiele Tinne Tuytelaars (Eds.)

## Computer Vision – ECCV 2014

13th European Conference Zurich, Switzerland, September 6-12, 2014 Proceedings, Part VI



## Volume Editors

David Fleet

University of Toronto, Department of Computer Science 6 King's College Road, Toronto, ON M5H 3S5, Canada

E-mail: fleet@cs.toronto.edu

Tomas Paidla

Czech Technical University in Prague, Department of Cybernetics Technicka 2, 166 27 Prague 6, Czech Republic

E-mail: paidla@cmp.felk.cvut.cz

Bernt Schiele

Max-Planck-Institut für Informatik Campus E1 4, 66123 Saarbrücken, Germany

E-mail: schiele@mpi-inf.mpg.de

Tinne Tuytelaars

KU Leuven, ESAT - PSI, iMinds

Kasteelpark Arenberg 10, Bus 2441, 3001 Leuven, Belgium

E-mail: tinne.tuytelaars@esat.kuleuven.be

Videos to this book can be accessed at http://www.springerimages.com/videos/978-3-319-10598-7

ISSN 0302-9743

e-ISSN 1611-3349

ISBN 978-3-319-10598-7

e-ISBN 978-3-319-10599-4

DOI 10.1007/978-3-319-10599-4

Springer Cham Heidelberg New York Dordrecht London

Library of Congress Control Number: 2014946360

LNCS Sublibrary: SL 6 – Image Processing, Computer Vision, Pattern Recognition, and Graphics

© Springer International Publishing Switzerland 2014

This work is subject to copyright. All rights are reserved by the Publisher, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilms or in any other physical way, and transmission or information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed. Exempted from this legal reservation are brief excerpts in connection with reviews or scholarly analysis or material supplied specifically for the purpose of being entered and executed on a computer system, for exclusive use by the purchaser of the work. Duplication of this publication or parts thereof is permitted only under the provisions of the Copyright Law of the Publisher's location, in ist current version, and permission for use must always be obtained from Springer. Permissions for use may be obtained through RightsLink at the Copyright Clearance Center. Violations are liable to prosecution under the respective Copyright Law.

The use of general descriptive names, registered names, trademarks, service marks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

While the advice and information in this book are believed to be true and accurate at the date of publication, neither the authors nor the editors nor the publisher can accept any legal responsibility for any errors or omissions that may be made. The publisher makes no warranty, express or implied, with respect to the material contained herein.

Typesetting: Camera-ready by author, data conversion by Scientific Publishing Services, Chennai, India

Printed on acid-free paper

Springer is part of Springer Science+Business Media (www.springer.com)