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Computer Vision, Imaging and Computer Graphics Theory and Applications

10th International Joint Conference, VISIGRAPP 2015
Berlin, Germany, March 11–14, 2015
Revised Selected Papers

Springer

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Preface

This book includes the extended versions of selected papers from VISIGRAPP 2015, the International Joint Conference on Computer Vision, Imaging and Computer Graphics Theory and Applications, which was held in Berlin, Germany, during March 11–14, 2015. The conference was organized by the Institute for Systems and Technologies of Information, Control and Communication (INSTICC), in cooperation with ACM SIGGRAPH and technically co-sponsored by the IEEE Computer Society, IEEE VGMT, and IEEE TCMC.

VISIGRAPP comprises three conferences, namely, the International Conference on Computer Vision Theory and Applications (VISAPP), the International Conference on Computer Graphics Theory and Applications (GRAPP), and the International Conference on Information Visualization Theory and Applications (IVAPP).

VISIGRAPP received 529 paper submissions from more than 50 countries. After a rigorous double-blind evaluation, only 18 % of the papers were accepted and published as full papers. These numbers show that our conference is aiming for the highest scientific standards, and that it can now be considered a well-established venue for researchers in the broad fields of computer vision, image analysis, computer graphics, and information visualization. From the set of full papers, 23 were selected for inclusion into this book. The selection process was based on quantitative and qualitative evaluation results provided by the Program Committee reviewers as well as the feedback on paper presentations provided by the session chairs during the conference. After selection, the accepted papers were further revised and extended by the authors. Our gratitude goes to all contributors and reviewers, without whom this book would not have been possible. Apart from the full papers, 25 % of the papers were accepted for short presentations and 26 % accepted for poster presentations. However, these works were not considered for the present book selection process. We do not expect that each reader is equally interested in all 23 of the selected VISIGRAPP papers. However, the diversity of these papers makes it very likely that all readers can find something of interest in this selection.

As VISAPP 2015 constitutes the largest part of VISIGRAPP with 345 submissions, we decided to select and integrate 15 extended full papers aiming to cover different aspects and areas related to computer vision, such as image formation and pre-processing, image and video analysis and understanding, motion tracking, stereo vision, as well as diverse computer vision applications and services. Here, we would like to mention that when we selected the papers from VISAPP for this book, our intention was to cover and highlight research from different areas and subareas related to computer vision. These papers were mainly competing with other VISAPP papers having similar content, and therefore, we want to explicitly acknowledge that other high-quality papers accepted at the conference could have been integrated in this book if we had more space.

Concerning GRAPP 2015, 93 papers were submitted, and we decided to include four extended full papers in this book. We tried to cover the main areas of computer graphics to make the content of the book similar to the research addressed at the conference.

The four papers selected from 54 submissions to IVAPP 2015 are not only excellent representatives of the field of visualization, but also form a quite balanced representation of the field itself. Above all, they are almost as diverse and exciting as the field of visualization.

VISIGRAPP 2015 also included four invited keynote lectures, presented by internationally renowned researchers, whom we would like to thank for their contribution to reinforcing the overall quality of the conference. They are in alphabetical order: Mauro Barni (Università di Siena, Italy), Andrea Cavallaro (Queen Mary University of London, UK), Gerik Scheuermann (Universität Leipzig, Germany), and Daniel Thalmann (Nanyang Technological University, Singapore).

We wish to thank all those who supported VISIGRAPP and helped to organize the conference. On behalf of the conference Organizing Committee, we would like to especially thank the authors, whose work was the essential part of the conference and contributed to a very successful event. We would also like to thank the members of the Program Committee, whose expertise and diligence were instrumental in ensuring the quality of the final contributions. We also wish to thank all the members of the Organizing Committee, whose work and commitment was invaluable. Last but not least, we would like to thank Springer for their collaboration and help in getting this book to print.

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