

## Preface

The Computational Visual Media (CVM) conference series is intended to provide a major international forum for exchanging novel research ideas and significant computational methods that either underpin or apply visual media. The primary goal is to promote cross-disciplinary research to amalgamate aspects of computer graphics, computer vision, machine learning, image and video processing, visualization and geometric computing. The main topics of interest to CVM include classification, composition, retrieval, synthesis, cognition and understanding of visual media (e.g., images, video, 3D geometry).

The Computational Visual Media Conference 2018 (CVM 2018), the 6th international conference in the series, was held on April 18~20, 2018, at East China Normal University, Shanghai. Following the success of previous CVM conferences, CVM 2018 has attracted broad attention from researchers worldwide. A total of 115 technical papers were submitted and reviewed by an international program committee comprising 69 selected experts and 30 additional reviewers. A total of 31 papers (27% acceptance rate) were accepted for oral presentation.

Among the 31 accepted papers, 7 outstanding papers are selected for inclusion in this special section. These papers cover a wide spectrum of topics including image smoothing, image editing, motion segmentation, geometry of video motion, garment seam modeling, flow simulation, and machine learning for image processing. In addition, this special section includes an invited survey paper on visual simulation of multiple fluids.

We hope that readers will enjoy this special section. We are grateful to all the paper authors and reviewers for their valuable contribution.

### Leading Editor:

Shi-Min Hu, Professor, Department of Computer Science and Technology, Tsinghua University, Beijing  
shimin@tsinghua.edu.cn

### Guest Editors:

Ce-Wu Lu, Professor, Department of Computer Science and Engineering, Shanghai Jiao Tong University, Shanghai  
lucewu@sjtu.edu.cn

Ariel Shamir, Professor, Efi Arazi School of Computer Science, Interdisciplinary Center, Herzliya  
arik@idc.ac.il



**Shi-Min Hu** received his Ph.D. degree in computer science from Zhejiang University, Hangzhou, in 1996. He is currently a professor in the Department of Computer Science and Technology, Tsinghua University, Beijing. His research interests include digital geometry processing, video processing, rendering, computer animation, and computer-aided geometric design. He has published more than 100 papers in journals and refereed conferences. He is the Editor-in-Chief of Computational Visual Media, and on the editorial boards of several journals, including IEEE Transactions on Visualization and Computer Graphics, Computer Aided Design, Computer & Graphics, and Journal of Computer Science and Technology.



**Ce-Wu Lu** received his Ph.D. degree from The Chinese University of Hong Kong, Hong Kong, in 2013. He is currently a professor in the Department of Computer Science and Engineering, Shanghai Jiao Tong University, Shanghai. His research interests include computer vision and robotics. He was a postdoctoral researcher at Stanford Artificial Intelligence Laboratory. He has published more than 50 papers in top journals and refereed conferences. He is selected as MIT Technology Review's top 35 innovators under the age of 35 in China.



**Ariel Shamir** is the dean of the Efi Arazi School of Computer Science at the Interdisciplinary Center, Herzliya, Israel. He received his B.Sc. and M.Sc. degrees in mathematics and computer science Cum Laude from the Hebrew University in Jerusalem, and his Ph.D. degree in computer science in 2000. After that, he spent two years as a post-doctoral fellow at the Computational Visualization Center at the University of Texas in Austin. He was a visiting scientist at Mitsubishi Electric Research Labs in Cambridge MA (2006), and at Disney Research (2014). His research interests include geometric modeling, computer graphics, fabrication, visualization, and machine learning. He is a member of the ACM SIGGRAPH, IEEE Computer, and Eurographics societies.