



Introduction

Foreword to Shape Modeling International 2013

The Shape Modeling International (SMI) conference series was initially staged at the University of Aizu, Japan, under the auspices of Professor Tosyiasu L. Kunii (1997 and 1999). In 2001, SMI merged with the Eurographics/ACM SIGGRAPH Workshop on Implicit Surfaces and became a regular annual event, circling the globe from Asia to America and Europe. SMI took place in Italy (2001), Canada (2002), South Korea (2003), Italy (2004), USA (2005), Japan (2006), France (2007), USA (2008), China (2009), France (2010), Israel (2011), and USA (2012). The objective of the conference is to provide an international forum for the dissemination of new mathematical theories and computational techniques for modeling, simulation, and processing of digital representations of shapes. Its target audience is the community of researchers, developers, students, and practitioners addressing these topics across a wide range of fields.

Shape Modeling International 2013 was hosted by the National Centre for Computer Animation, Bournemouth University, UK. It was held in the Executive Business Centre, Bournemouth, from 10 July 2013 to 12 July 2013. In addition to the traditional Technical Papers presentation, SMI'13 included a Shape Fabrication and Sculpting Event accompanied by an Art Exhibition.

This year all of the technical papers accepted to SMI'13 (both long and short) appeared in a special issue of the journal *Computers and Graphics* (Elsevier). SMI'13 received a total of 63 submissions from various countries including Australia, Austria, Canada, China, France, Germany, Greece, Hong Kong, Ireland, Italy, Morocco, Portugal, Qatar, South Korea, Singapore, Spain, Taiwan, UK, and USA. Of these submissions, 17 papers were accepted as full papers, and five were accepted as short papers. The acceptance rate (full papers) was 27%. Despite the short time (less than 6 weeks), SMI 2013 featured a full two-stage reviewing process where no less than four reviewers read each submission. Revised manuscripts and rebuttal letters were reviewed by the IPC a second time before final decisions were made. We would like to thank all of the members of the Technical Papers Program Committee for their hard work in terms of reviewing papers, and all the authors for their contribution to the conference.

To highlight topics of particular interest, SMI'13 also hosted keynote talks by Jarek Rossignac (Georgia Institute of Technology, USA), Franca Giannini (Institute of Applied Mathematics and Information Technologies, Italy), and William Latham (Goldsmiths, University of London, UK).

SMI'13 was supported by Bournemouth University. The Program Chairs wish to acknowledge the endless support and help of Joaquim Jorge, Editor-in-Chief of *Computers and Graphics*, as well as the conference chairs, Bianca Falcidieno and Peter

Comninos, for their contribution to making this event successful. Special thanks must also be given to all of the members of the Local Organising Committee for their hard work.



Dr. Valery Adzhiev is a Senior Research Lecturer at the National Centre for Computer Animation, Bournemouth University, UK. He received his Ph.D. in Computer Science from Moscow Engineering Physics Institute – National Research Nuclear University (MEPhI) in Russia in 1992. Before taking his current position, he worked at Flight Research Institute (Russia), the University of Warwick (UK) and the University of Aizu (Japan). The main focus of his research is on functionally-based geometric modeling and its applications in computer animation, computer art and 3D fabrication. He also specializes in programming, especially for geometric modeling and animation applications.

He is a designer of the HyperFun modeling language, and has participated in implementation of HyperFun software tools that have been used in a number of schools and universities in many countries. Valery has published more than 70 refereed papers in academic journals, conference proceedings and books.



Dr. Alla Sheffer is a Professor of Computer Science at the University of British Columbia, Canada. She investigates algorithms for shape modeling and geometry processing, focusing on computer graphics applications. She is particularly interested in geometric interpretation of designer intent when conveying shape. Alla regularly publishes at venues such as SIGGRAPH, SIGGRAPH Asia, Eurographics, the Symposium on Geometry Processing, and Shape Modeling International. She is an associate editor of *TVCG* and *Graphical Models*. Dr. Sheffer is the recipient of an NSERC DAS (2012), an Audi Production Award, a Killam Research Fellowship (2009), and an IBM Faculty Award (2006).



Dr. Michela Spagnuolo is a Research Director at CNR-IMATI-GE. She has authored more than 130 reviewed papers in scientific journals and international conferences, and is the associate editor of *Computer & Graphics* and of *The Visual Computer*. She is a member of the steering committee of Shape Modeling International and of the EG Workshops on 3D Object Retrieval. Since 2005, she is responsible for the research unit of the CNR-IMATI identified as ICT.P10.009 advanced techniques for the analysis and synthesis of 3D shapes. Her research interests include geometric and semantic modelling of 3D objects, approaches based on computational topology for the analysis of shapes, and methods for the

evaluation of similarity at the structural and semantic level. On these research topics, she has co-supervised several Ph.D. theses and Laurea degree theses. She has been working as scientific responsible for many international and national projects.

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