Editorial

The Symposium on Solid and Physical Modeling (SPM) is an annual international forum for the exchange of recent research results and applications of spatial modeling and computations in design, analysis, and manufacturing, as well as in emerging biomedical, geophysical, and other areas. Previous symposia in this series were held in Austin, Texas, 1991; Montreal, Canada, 1993; Salt Lake City, Utah, 1995; Atlanta, Georgia, 1997; Ann Arbor, Michigan in 1999 and 2001; Saarbrucken, Germany, 2002; Seattle, Washington, 2003; Genova, Italy, 2004; Cambridge, Massachusetts, 2005; Cardiff, Wales, United Kingdom, 2006; Beijing, China, 2007; Stony Brook, New York, 2008; San Francisco, California, 2009; Haifa, Israel, 2010; and Orlando, Florida, 2011.

For additional information, please visit www.solidmodeling.org, the home page of the Solid Modeling Association which oversees this symposium series.

The SPM symposium series started initially with the name “ACM Symposium on Solid Modeling and Applications”. To emphasize the fact that solid modeling entails not only handling models’ geometric shapes, but also their physical properties, behaviors, and simulations, the name of the symposium was expanded to the Symposium on Solid and Physical Modeling (abbreviated as SPM) in 2005.

SPM’12 was held in Dijon, France, from Monday, October 29 to Wednesday, October 31, 2012, and was hosted by the University of Burgundy. The symposium was organized with the support of the Solid Modeling Association, and in cooperation with SIAM (the Society for Industrial and Applied Mathematics) and ACM SIGGRAPH. A total of 87 technical papers were submitted and reviewed by an international program committee with almost 100 expert reviewers from around the world. At least four members of the program committee and/or external reviewers were invited to review and discuss each submission. After being revised by the authors, conditionally accepted papers underwent a second round of reviewing. A total of 26 refereed papers have been selected for plenary presentation and publication as full-length papers in this special issue of Computer-Aided Design, available at the time of the conference. Moreover, 12 refereed papers have been selected for publication in this special issue as short-length papers and presentation as posters at the conference. An additional 3 submissions were chosen for poster presentation only. Our special thanks go to Kunwoo Lee, Imre Horvath, Vadim Shapiro, and Gail Rodney at Computer-Aided Design for supporting this special arrangement with SPM.

The symposium program also includes three invited presentations, by Thomas Funkhouser (Princeton University), Ralph Martin (Cardiff University), and Ahmad Nasri (American University of Beirut), all leading researchers in their fields.

SPM’12 was sponsored by the University of Burgundy, Dijon, France; by the city of Dijon; by the Qatar University College of Engineering; by Qatar Computing Research Institute-QCRI; by LE2i Laboratory, University of Burgundy, Dijon, France; by Conseil Régional de la région de Bourgogne, France; by GRD Informatique Graphique and by CNRS (Centre National de la Recherche Scientifique, France).

We would like to acknowledge the efforts and contributions of the many people who helped to make this conference a success. Members of the program committee spent countless hours carefully reading and reviewing the submitted papers. The conference chairs, Dominique Michelucci and Sebti Foufou, put in a tremendous amount of time and effort into organizing the conference. The support from the staff of LE2i Laboratory, University of Burgundy, was also indispensable in this regard. In particular we thank the members of the local organizing committee: Marc Neveu, Christian Gentil, Anton Mishkinis, George Tzoumas and the student volunteers for their hard work. We also thank all the authors who submitted papers to this conference — their ongoing support made this conference a huge success.

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