Solid and Physical Modeling 2014

The Symposium on Solid and Physical Modeling (SPM) is an annual international forum for the exchange of recent research results on the mathematical and computational issues that arise in generating, analyzing, and processing geometric information in applications such as mechanical design, process planning, manufacturing, medicine, games, animation, geology, and virtual reality. The scope of activities encompasses a wide spectrum of scientific, technological, and other skills, ranging from rigorous mathematics to the subjective aesthetics of shape.

Previous symposia in this series were held in Austin, TX (1991), Montreal, Canada (1993), Salt Lake City, UT (1995), Atlanta, GA (1997), Ann Arbor, MI (1999 and 2001), Saarbrücken, Germany (2002), Seattle, WA (2003), Genova, Italy (2004), Cambridge, MA (2005), Cardiff, Wales (2006), Beijing, China (2007), Stony Brook, NY (2008), San Francisco, CA (2009), Haifa, Israel (2010), Orlando, FL (2011), Dijon, France (2012), and Denver, CO (2013). For additional information, please visit the home page of the Solid Modeling Association which oversees this symposium series (www.solidmodeling.org).

SPM 2014 was held in Hong Kong, from Sunday, October 26 to Tuesday, October 28, 2014, as part of the international convention for SPM/SMI 2014, hosted by the Chinese University of Hong Kong. The symposium was organized with the support of the Solid Modeling Association. A total of 95 technical papers were submitted and reviewed by an international program committee with expert reviewers from all over the world. At least four members of the program committee 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 21 refereed papers were 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, 7 refereed papers have been selected for publication in this special issue as technical notes and presentation as short talks at the conference. An additional 5 submissions were chosen for poster presentation only. Our special thanks go to Young Wu, Vadim Shapiro, and Gail Rodney at Computer-Aided Design for supporting this special arrangement with SPM.

The symposium program also included three invited presentations, by Falai Chen (University of Science and Technology of China), Scott Schaefer (Texas A&M University), and Max Wardetzky (University of Göttingen), all leading researchers in their fields. SPM 2014 was supported by the K.C. Wong Education Foundation and the Croucher Foundation, and Autodesk Inc. sponsored the SPM 2014 Best Paper Award.

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. Handling the submission and reviewing process would have been impossible without the continued help from the SmartChair group (www.smartchair.org). The organization chair, Charlie Wang, and his team at the Chinese University of Hong Kong put in a tremendous amount of time and effort into organizing the conference. The support and advice from the convention co-chairs, Shuming Gao, John C. Hart, Joaquim Jorge, Konrad Polthier, and Wenping Wang was indispensable in this regard. Last, but not least, we thank all the authors who submitted papers to this conference, as their ongoing efforts made this conference a huge success.

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