

Call for Papers

Symposium on Solid and Physical Modeling 2014 (SPM 2014) will be held on Oct 26 - 28, 2014, in the Chinese University of Hong Kong, Hong Kong, co-located with the Shape Modeling International 2014 (SMI 2014).

General Information

The focus of this symposium is 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 symposium is organized with the support of the Solid Modeling Association (SMA). During the symposium, the SMA will award the 2014 Pierre B ézier Prize for contributions to solid, shape and physical modeling.

Proceedings papers should present previously unpublished, original results that are not simultaneously submitted elsewhere. All papers will be rigorously peer-reviewed by members of the international program committee.

The SPM 2014 proceedings, including full papers and short papers, will be published as a journal special issue in *Computer-Aided Design* (Elsevier). Papers will be available for download during the conference.

The journal status of the proceedings requires a two-stage review process with conditional acceptance after the first round and final acceptance based on the revised submissions. Full and short papers undergo the same review process.

Conference Topics

We invite submissions related, but not limited to the following topics:

- Applied algebraic and differential geometry
- Applied computational geometry and topology
- Conceptual, collaborative, and distributed design
- Curve, surface, and manifold modeling
- Dimensioning and tolerancing
- Feature modeling, recognition, and understanding
- Geometric and topological representations
- Geometric constraint solving and parametric modeling
- Geometry generation, processing, compression, and transmission

- Meshing and mesh optimization
- Multi-resolution and heterogeneous modeling
- Numerical analysis of geometric algorithms
- Physically-based modeling and simulation
- Product and assembly modeling and planning
- Product data exchange, standards, and interoperability
- Reverse engineering and reconstruction of surfaces and solids
- Robustness and validity of geometric computations
- Shape modeling, synthesis, and analysis

Applications:

- Biomedical, biochemical, and geo-scientific applications
- Computer-aided design, manufacturing, and engineering
- Computer graphics, visualization, and animation
- Computer vision and image processing
- Prototyping and manufacturing technologies
- Robotics and automation
- User interfaces, virtual and augmented reality
- Virtual prototyping and model validation

For detailed information regarding paper submissions, please see the submissions section of the conference website:

<http://www.mae.cuhk.edu.hk/~spm2014/submitters.html>

Important Dates

Abstract submission: March 30, 2014

Full paper submission: April 8, 2014

First review notification: May 22, 2014

Revised paper submission: June 9, 2014

Second review notification: July 17, 2014

Final paper submission: August 1, 2014

Committee

Program Chairs:

Kai Hormann (Università della Svizzera italiana, Switzerland)

Ligang Liu (University of Science and Technology of China, China)

Convention Co-chairs:

Shuming Gao (Zhejiang University, China)

John C. Hart (University of Illinois, Urbana-Champaign, USA)

Joaquim Jorge (Instituto Superior Técnico, Portugal)

Konrad Polthier (Freie Universität Berlin, Germany)

Wenping Wang (Hong Kong University, Hong Kong)

Organization Chair:

Charlie C.L. Wang (The Chinese University of Hong Kong, Hong Kong)