



# 2010 ACM Symposium on Solid and Physical Modeling

## September 1-3, 2010 - Haifa, Israel

**General:** Marking the 20<sup>th</sup> year since inception as the Solid Modeling Symposium, this conference is being held in cooperation with ACM SIGGRAPH and the SIAM Activity Group on Geometric Design. The focus of the conference 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 scope of activities encompasses a wide spectrum of scientific, technological, and other skills, ranging from rigorous mathematics to the subjective aesthetics of shape.

**Scope:** Topics of interest include, but are not limited to:

- Biomedical applications of shape and solid modeling
- Blend, sweep, offset, Minkowski, and other operations
- Constraint modeling & satisfaction
- Curve, surface, and manifold modeling
- Data fitting and approximation
- Design, analysis, simulation, automation and optimization
- Dimensioning & tolerancing
- Fidelity of physical models and representations
- Function and assembly modeling
- Geometric and topological representations of shapes
- Geometric interrogation and reasoning
- Geometry compression
- Geo-scientific applications
- Heterogeneous models of physical objects and properties
- Manufacturing and assembly planning
- Mesh processing
- Model validation and repair
- Multi-resolution techniques
- Parametric and feature-based models and representations
- Physically-based concepts for shape modeling
- Product data standards, exchange, and interoperability
- Reverse engineering, model reconstruction from samples
- Robustness and validity of geometric computations
- Shape analysis & understanding
- User interaction and haptic interfaces
- Virtual, collaborative and distributed environments

**Paper Submissions:** Previously unpublished work is solicited for publication and presentation at the conference. All paper submissions will be rigorously peer reviewed, and a limited number of papers will be chosen for publication in the conference proceedings. As in past years, a selected set of papers will be published in CAD, CAGD, and TVCG. The submission site is now open (See <http://www.cs.technion.ac.il/spm2010/submission.html>)

**Important Dates:** Paper Abstracts: February 1, 2010  
Full Papers Due: February 22, 2010

**Pre- and post-conference tours:** An industrial tour to the Galilee (the northern part of Israel) as well as pre- and post-conference tours to Jerusalem, Nazereth, Tiberius, Sea of Galilee, Capernaum, Dead Sea & Massada, Caesarea, Acre, and Rosh Hanikra are planned.

**Conference Website** <http://www.cs.technion.ac.il/spm2010>

### Conference Chair

Gershon Elber, Technion, Israel  
Anath Fischer, Technion, Israel

### Program Chair

John Keyser, Texas A&M, USA  
Myung-Soo Kim, SNU, Korea