Call for Papers:

Discrete Geometry Special Issue

Computer Aided Geometric Design

Background

In recent years, the interplay of differential geometry, partial differential equations and computer graphics has brought new insights into the mathematics of surface and volume meshes. The resulting development of a discrete differential geometry investigates the geometric and topological properties of discrete geometric data such as meshes, graphs and point sets. This new insight has already led to novel solutions to demanding engineering applications in the form of new, efficient algorithms for geometry processing and modeling.

Scope

This special issue is devoted to new developments in the fields of discrete, differential and computational geometry which have a strong impact on theoretical foundations and industrial applications in CAGD. Authors from all related areas are invited to submit new and unpublished research work. Topics include (but are not limited to) the following:

- discrete differential geometry of curves, surfaces, and volumes
- discrete vs. continuous curvature operators
- topological aspects of simplicial and polygonal meshes
- computational and combinatorial geometry for CAGD
- shape optimization and surface energies
- constraint optimization and quality control
- approximation and convergence
- remeshing and mesh layout
- robust reverse engineering
- feature sensitive modeling
- multiresolution and hierarchical representations

Guest Editors

Mathieu Desbrun, California Institute of Technology, USA
Konrad Polthier, Zuse Institute Berlin, Germany

Submission

Authors should send their submission as PDF or PostScript file
by *** **November 30, 2005** *** at **www.authors.elsevier.com/journal/cagd**
Style templates can also be found on this website.

More details on this call for papers and the submission process at http://www.zib.de/geom/dgv06/