CG '97

13th European Workshop on Computational Geometry

March 20 – 21, 1997
University of Würzburg, Germany

Workshop Program

Thursday, March 20, 1997

Session 1
Chair: Hartmut Noltemeier (Würzburg)

9:15 The Path of a Triangulation
Oswin Aichholzer (Graz)

9:45 New Results on Minimum Weight Triangulations and the LMT-Skeleton
Reinhard Hainz, Oswin Aichholzer, Franz Aurenhammer (Graz)

10:15 Approximate Center Points in Dense Point Sets
Knut Verbarg (Würzburg)

10:45 – 11:15 Coffee Break

Invited Talk

11:15 Maintenance of Geometric Configurations under Continuous Object Motion
Leonidas J. Guibas (Stanford)

12:15 – 13:45 Lunch Break

Session 2
Chair: Ferran Hurtado (Barcelona)

13:45 Visibility Edges, Mixed Edges, and Unique Triangulation
Jay Bagga (Ball State U), Laxmi Gewali (U Nevada at Las Vegas), Simeon Ntafos (U Texas at Dallas)

14:15 Horizon Trees versus Pseudo-Triangulations
Michel Pocchiola (ENS Paris)

14:45 How to Draw a Delaunay Diagram with a Given Topology
Kokichi Sugihara (Tokyo), Tetsuya Hiroshima (Japanese Ministry of Defense)

15:15 – 15:45 Coffee Break

Invited Talk

15:45 Geometric Methods in Locational Analysis
Horst W. Hamacher (Kaiserslautern)

Session 3
Chair: Rolf Klein (Hagen)

16:45 Robot Localization: Theory and Implementation
Oliver Karch, Hartmut Noltemeier, Thomas Wahl (Würzburg)

17:15 Efficient Robot Self-Localization in Simple Polygons
Sven Schuierer (Freiburg)

17:45 An Universal Sensor-based Navigation Algorithm to Select a Shorter Deadlock-free Path

Hiroshi Noborio, Takashi Yoshioka, Shoji Tominaga (Osaka)

19:30 Workshop Dinner

Friday, March 21, 1997

Session 4

Chair: Michel Pocchiola (Paris)

8:45 Three Simple and Efficient Algorithms for Jordan Sorting

Eduard Sojka (Ostrava)

9:15 Orthogonal Least Squares Fitting by Conic Sections and Other Algebraic Curves and Surfaces with a Special Two-Step Descent Method

Helmut Späth (Oldenburg)

9:45 – 10:15 Coffee Break

Session 5

Chair: Kokichi Sugihara (Tokyo)

10:15 Geometric Tree Graphs

Carmen Hernando, Ferran Hurtado (Barcelona), Alberto Márquez (Sevilla), M. Mora, M. Noy (Barcelona)

10:45 Configurations between Geometry and Combinatorics

Harald Gropp (Heidelberg)

Invited Talk

11:20 Surfaces based on Voronoi Diagrams

Gerald Farin (ASU Tempe)

12:15 – 13:45 Lunch Break

Session 6

Chair: Hiroshi Noborio (Osaka)

13:45 Robust Proximity Queries: An Illustration of Degree-driven Algorithm Design

Giuseppe Liotta (La Sapienza Roma), Franco P. Preparata (Brown U), Roberto Tamassia (Brown U)

14:15 Convex Hull in Non-Planar Surfaces

J. C. Dana, C. I. Grima, Alberto Márquez (Sevilla)

14:45 – 15:15 Coffee Break

Invited Talk

15:15 Geometric Methods in Pattern and Shape Matching

Helmut Alt (Berlin)

Session 7

Chair: Gerald Farin (Tempe)

16:15 Polyhedral Approximation of 3D Objects from Scattered Boundary Points

Thomas Schreiber (Kaiserslautern)

16:45 Combinatorial Structure of Dirichlet Partitions

Daciana Bochis, M. Mazon (Santander)

17:15 A Java Applet for the Dynamic Visualization of Voronoi Diagrams

Christian Icking, Rolf Klein, Peter Köllner, Lihong Ma (Hagen)

17:45 Distributed Computation of Mixed Volume

Ioannis Z. Emiris, Thierry Giordano (INRIA Sophia Antipolis)

18:15 End of Workshop