

Schedule

Friday 10 November 2006

Talks, coffee breaks and lunch: Carroll Room, Campus Center

Poster Session: McConnell Foyer

3D Printer: McConnell basement (Machine Shop)

9:00-10:00	Session 1: Computational Geometry	
9:00 - 9:13	J. Mitchell and V. Polishchuk	Minimum-perimeter enclosing k-gon
9:15 - 9:28	J. Backer and D. Kirkpatrick	Bounded-curvature paths in narrow simply connected polygons
9:30 - 9:43	S. Bitner and O. Daescu	Further segment spanned by points in R^3
9:45-9:58	M. Furer and S.P. Kasiwswanathan	Spanners for Geometric Intersection Graphs
10:00-10:30	Coffee break	
10:30-11:30	Session 2: Computational Geometry	
10:30-10:43	Y. Liu and J. Snoeyink	From Centroid Triangulations to Bivariate B-Splines
10:45-10:58	E. Arkin, A. Efrat, C. Erten, F. Hurtado, J. Mitchell, V. Polishchuk and C. Wenk	Shortest Tour of a Sequence of Disjoint Segments in L_1
11:00-11:13	J. Lenchner	A faster Dynamic Programming Algorithm for Facility Location
11:15-11:28	O. Daescu and J. Luo	Computing Simple Paths on Points in Simple Polygons
11:40-12:40	Invited Talk: Marjorie Senechal <i>A point set puzzle revisited</i>	
12:40 - 2:15	Lunch break	
2:15 - 3:15	Session 3: Computational Geometry	
2:15-2:28	T. Dey and R. Wenger	Stability of Critical Points with Interval Persistence
2:30-2:43	M. Dai and N. Amenta	Approximate Nearest-Neighbors using TCQ-Trees
2:45-2:58	D. Chen, Y. Chiang, N. Memon and X. Wu	Lossless Geometry Compression for Steady-State and Time-Varying Tetrahedral Meshes
3:00-3:13	H. Erten and A. Ungor	On computing Meshes with Large Smallest Angles
3:15-3:45	Coffee break	
3:45-4:45	Invited Talk: Branko Grünbaum <i>Configurations: combinatorial, topological and geometric</i>	
5-6:30	Poster session and 3D Printer Demo (See pg 3)	

Saturday 11 November 2006

All events: Caroll Room, Campus Center

9:00-10:00	Session 1: Combinatorial Discrete Geometry	
9-9:13	J. Zhao and W. Steiger	Remarks on the Voronoi Game
9:15-9:28	A. Dumitrescu and C. Toth	Extremal Problems on triangle areas in the plane and in three-space
9:30-9:43	M. Albertson and D. Boutin	Automorphisms and Distinguishing Numbers of Geometric Cliques
9:45-10:15	Coffee break	
10:15-11:15	Session 5: Geometric Applications	
10:15-10:28	X. Zhu, R. Sarkar and J. Gao	Shape Segmentation and Applications in Sensor Networks
10:30-10:43	A. Kroller, S. Fekete, C. Buschmann and S. Fisher	Geometric Distance Estimation for Sensor Networks and Unit Disk Graphs
10:45-10:58	A. Basu, J. Mitchell and G. Sabhnani	Geometric Algorithms for Optimal Airspace Design and Air Traffic Controller Workload Balancing
11:00-11:13	A. Mantler and J. Snoeyink	Observations on Transmission Cores in GP
11:30-12:30	Invited Talk: Greg Chirikjian <i>Computational Structural Biology and the Kinematics of Macromolecular Machines</i>	
12:30 - 2:15	Lunch break	
2:15 - 3:15	Session 6: Geometric Applications	
2:15-2:28	A. Mhatre and P. Kumar	Surface Reconstruction and Normal Estimation using Projective Clustering
2:30-2:43	Y. Liu and J. Snoeyink	Bivariate B-splines reproduce the Zwart-Powell elements
2:45-2:58	S. Ramamoorthy, B. Kuipers and L. Wenzel	Parametrization and computations in shape spaces with area and boundary invariants
3:00-3:13	W. Randolph Franklin and E. Landis	Connected Components on 1000x1000x1000 Datasets
3:15-3:45	Coffee break	
3:45-4:45	Invited Talk: Igor Pak <i>Inflating Polyhedral Surfaces</i>	
5-6:00	Open Problem session	

Poster Session

- Maria-Cecilia Rivara *Delaunay terminal edge algorithm*
- Andrey Chernikov and Nikos Chrisochoides *Parallel Graded Generalized Delaunay Mesh Refinement*
- Piyush Kumar and Amit Mhatre *Surface Reconstruction and normal estimation using projective clustering*
- Olga Gluchshenko and Horst Hamacher *Optimal Algorithms for Computing of "Minimum Width Annulus" with Rectilinear and Chebyshev distances and in Undirected Networks*
- Lance Miller, Thomas Peters and Alexander Russell *Optimal Covers for Computational Topology on Parametric Curves*
- Eli Packer *Controlled Perturbation of Arrangements of Line Segments in 2D*
- Lev Reyzin *Two Player Tetris is PSPACE Hard*
- Metin Inanc and W Randolph Franklin *Terrain Representation Using Tessellation of Irregular Planar Tiles*
- Perouz Taslakian and Godfried Toussaint *Geometric Properties of Musical Rhythms*
- Sherif Ghali *Boolean Operations in Practice*
- Pedro J. de Rezende *Computing Convex Hulls on Beckenbach and Drandell Geometries*
- Xin Dou and Xiaodong Wu *Optimal Linear Time Algorithm for Intensity Map Splitting with Feathering in Radiation Therapy*
- Daniel Tracy, W Randolph Franklin and Franklin Luk *Multiple Observer Siting on a Compressed Terrain*
- Umut Acar and Benoit Hudson *Optimal-time dynamic mesh refinement: preliminary results*
- Jonathan Lenchner *Minimum Outer Layer and Zone Complexity*

Sunday 12 November 2006 Rigidity Theory Day

All events: Seelye Hall room 201
Coffee breaks and lunches in Seelye 207

9:00-10:00	Rigidity Theory Overview	Robert Connelly <i>Rigidity from Cauchy to granular material</i>
10:00-10:30	Coffee break	
10:30-11:15	Combinatorial Rigidity	Brigitte Servatius <i>The molecular conjecture in 2-dimensions</i>
11:25 -12:10	The Engineering perspective	Robert Norton <i>Kinematics in Engineering</i>
12:10 - 1:30	Lunch break	
1:30 - 2:20	Geometry and Rigidity	Henry Crapo <i>Rigidity as Homology</i>
2:20-2:50	Coffee break	
2:50 - 3:30	Rigidity Applications	Meera Sitharam <i>Rigidity and Geometric Constraint Decomposition</i>
3:40 - 4:20		Herman Servatius <i>Constrained Position Vector Configurations</i>
4:30 - 5:10		Rudi Penne <i>Instant centers in planar mechanisms</i>
5:10 - 6:00	Discussion, open problems and refreshments	