Eighth International Symposium on Voronoi Diagrams in Science and Engineering

Jun 28 – 30, Qingdao

Preliminary Conference Program

Day 1 28 June 2011 Tuesday	Day 2 29 June 2011 Wednesday	Day 3 30 June 2011 Thursday
Registration (08:00-08:45)	**Registration** (08:30-08:45)	**Registration** (08:30-08:45)
Opening Session (08:45–09:00)		
Keynote Speech I Bruno Levy (09:00–09:50)	**Keynote Speech II** Martin Held (09:00–09:50)	**Keynote Speech III** Kokichi Sugihara (09:00–09:50)
Coffee Break (09:50–10:10)	**Coffee Break** (09:50–10:10)	**Coffee Break** (09:50–10:10)
Session 1 Theory and Computation I (10:10–11:50)	**Session 4** Applications in Shape Analysis (10:10–11:50)	**Session 5** Applications in Location/Motion Optimization (10:10–11:50)
Lunch (12:00–14:00)	**Lunch** (12:00–14:00)	**Lunch** (12:00–14:00)
Session 2 Theory and Computation II (14:00–15:15)	**Sightseeing** (14:00-18:00)	**Poster Fast Forward** (14:00–14:45)
Coffee Break (15:15–15:45)		**Poster Session and Coffee Break** (14:45–15:45)
Session 3 Applications in Meshing (15:45–17:25)		**Session 6** Applications in Biology (15:45–16:35)
Dinner (18:00–19:00)	**Banquet** (18:30–21:00)	

The time for each paper is 25 minutes (20 minutes presentation + 5 minutes Q&A).

The time for each poster fast forward is 5 minutes.

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Session 1. Theory and Computation I

On Bisectors for Convex Distance Functions

Chan He, Harbin University of Science and Technology

Horst Martini, TU Chemnitz

Senlin Wu, Harbin University of Science and Technology

Two-Site Voronoi Diagrams under Geometric Distance Functions

Gill Barequet, Technion - Israel Institute of Technology

Matthew Dickerson , Middlebury College

David Eppstein, Univ. of California, Irvine

David Hodorkovsky, Technion - Israel Institute of Technology

Kira Vyatkina, Saint Petersburg State University

The L_∞ Hausdorff Voronoi Diagram Revisited

Evanthia Papadopoulou, University of Lugano

Jinhui Xu, State University of New York at Buffalo

Inhomogeneous, Unisotropic, and Time-Varying Distances and Rescue-Boat Voronoi Diagrams

Kokichi Sugihara, Meiji University

Session 2. Theory and Computation II

Exact Computation of the Voronoi Diagram and Delaunay Graph of Spheres and Their Geometric Invariants

François Anton, Technical University of Denmark

Darka Mioc, Technical University of Denmark

Marcelo Santos, University of New Brunswick

Generalized Voronoi Diagram Computation on GPU

Zhan Yuan, The University of Hong Kong

Guodong Rong, University of Texas at Dallas

Xiaohu Guo, University of Texas at Dallas

Wenping Wang, The University of Hong Kong

Half-plane Voronoi Diagram

Fan Chenglin, Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences

Jun Luo, Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences

Jinfei Liu, Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences

Yinfeng Xu, Xi'an Jiaotong University

Session 3. Applications in Meshing

2-Manifold Surface Sampling and Quality Estimation of Reconstructed Meshes

Wen-Yong Gong, Jilin University

Yong-Jin Liu, Tsinghua University

Kai Tang, Hong Kong University of Science and Technology

Tie-Ru Wu, Jilin University

Isotropic and Anisotropic Mesh Simplification by Evolving the Geodesic Delaunay Triangulation

Shiqing Xin, Nanyang Technological University

Ying He, Nanyang Technological University

Guo-Jin Wang, Zhejiang University,

Xianfeng Gu, State University of New York at Stony Brook

Hong Qin, Stony Brook University

Global Surface Remeshing using Symmetric Delaunay Triangulation in Uniformization Spaces

Wei Zeng, Stony Brook University

Rui Shi, Stony Brook University

Xianfeng Gu, Stony Brook University

BetaMol: Molecular Modeling, Analysis and Visualization Software Based on the Beta-complex Derived from the Voronoi Diagram

Youngsong Cho, Hanyang University

Jae-Kwan Kim, Hanyang University

Chung-In Won, Hanyang University

Joonghyun Ryu, Hanyang University

Chong-Min Kim, Hanyang University

Deok-Soo Kim, Hanyang University

Session 4. Applications in Shape Analysis

Global Topological Changes of Offset Domains

Weishi Li, Hefei University of Technology

Ralph Martin, Cardiff University

Minimizing the Number of Separating Circles for Two Sets of Points in the Plane

Jiaye Wang, Shandong Economical University

Feng Sun, The University of Hong Kong

Wenping Wang, The University of Hong Kong

Chunyan Miao, Nanyang Technological University

Caiming Zhang, Shandong University

Multi-scale Curve Decomposition Based On Alpha-Shape

Zhuangzhi Wu, Beihang University

Lu Feng, Beihang University

Cut Locus Construction Using Deformable Simplicial Complexes

Marek Krzysztof Misztal, Technical University of Denmark

Jakob Andreas Bærentzen, Technical University of Denmark

Francois Anton, Technical University of Denmark

Steen Markvorsen, Technical University of Denmark

Session 5. Applications in Location/Motion Optimization

Visibility-based Coverage of Mobile Sensors in Non-convex Domains

Lin Lu, The University of Hong Kong
Yi-King Choi, The University of Hong Kong
Wenping Wang, The University of Hong Kong

Uni-Directional Pedestrian Movement Model Based on Voronoi Diagrams

Ayano Nakamura, Aoyama Gakuin University
Mai Ishii, Aoyama Gakuin University
Hisamoto Hiyoshi, Aoyama Gakuin University

Weighted Voronoi Diagrams for Optimal Location of Goods and Services in Planar Maps

Eduardo Riol, MoBiVAP Research Group
Julio Cesar Puche Regaliza, MoBiVAP Research Group
Francisco Javier Finat Codes, MoBiVAP Research Group
Rubén Martínez García, MoBiVAP Research Group
Francisco Javier Delgado Del Hoyo, MoBiVAP Research Group

Proximity and Motion Planning on L_1-embeddable Tilings

Norie Fu, The University of Tokyo
Akihiro Hashikura, The University of Tokyo
Hiroshi Imai, The University of Tokyo

Session 6. Applications in Biology

Protein Packing Quality Using Delaunay Complexes

Rasmus Fonseca, University of Copenhagen

Pawel Winter, University of Copenhagen

Kevin Karplus, University of California, Santa Cruz

An Algorithm for the Calculation of Volume and Surface of Unions of Spheres. Application for Solvation Shells

Vladimir Voloshin, Institute of Chemical Kinetics and Combustion SB RAS

Alexey Anikeenko, Institute of Chemical Kinetics and Combustion SB RAS

Nikolai Medvedev, Institute of Chemical Kinetics and Combustion SB RAS

Alfons Geiger, TU Dortmund

Poster Session

Computing 2D Periodic Centroidal Voronoi Tessellation

Dong-Ming Yan, INRIA
Kai Wang, CNRS
Bruno Lévy, INRIA
Laurent Alonso, INRIA

A Group of Orthogonal Basis Based on UE-Bézier Basis

Mei-e Fang, Hangzhou Dianzi University
Guozhao Wang, Zhejiang University
Weiyin Ma, City University of Hong Kong

Updates on Voronoi Diagrams

João Dinis, Universidade de Lisboa
Margarida Mamede, Universidade Nova de Lisboa

Local Shape Control of a Bivariate Rational Interpolating Surface with Mixing Conditions

Yunfeng Zhang, Shandong Economic University
Fangxun Bao, Shandong University
Caiming Zhang, Shandong Economic University
Duan Qi, Shandong University

Effective Privacy Preserved Clustering Based on Voronoi Diagram

Jinfei Liu, Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences
Jun Luo, Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences
Chenglin Fan, Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences

A Raster-Based Algorithm for Voronoi Diagram Considering to Terrain

Yu Li, Kunming University of Science and Technology
Li Jiatian, Kunming University of Science and Technology
Liu Ya, Kunming University of Science and Technology
Wang Hua, Kunming University of Science and Technology
He Yufeng, Kunming University of Science and Technology

Unbiased Curvilinear Structure Extraction for Cartoon Images

Yang Ping, Zhejiang University
Wang GuoZhao, Zhejiang University

Mobile Voronoi Diagrams for Traffic Monitoring under Bad Visibility Conditions

Alejandro Viloria, Vaxtor
M. Gonzalo-Tasis, MoBiVAP Research Group
Rubén Martínez, MoBiVAP Research Group
Luis M. Fuentes, MoBiVAP Research Group
Javier Finat, MoBiVAP Research Group

Voronoi-Based Potentially Visible Set and Visibility Query Algorithms

Lin Lu, Shandong University
Chenglei Yang, Shandong University
Weizhen Wang, Shandong University
Junqing Zhang, Shandong University