
3rd CALL FOR PAPERS

ISVD 2006

3rd International Symposium on
Voronoi Diagrams in Science and Engineering

July 2-5, 2006
Banff Center, Banff, Alberta, Canada

followed by

Applied Computational Geometry Forum,

July 6th, 2006
University of Calgary, Calgary, AB, Canada

ISVD web site: http://pages.cpsc.ucalgary.ca/~marina/VD06/

FULL PAPER SUBMISSION DEADLINE EXTENDED till APRIL 10TH, 2006

NEW:

ISVD 2006 Conferened Proceedings will be pubilshed by IEEE Computer Society and included in IEEE Digital Library with over

100,000 subscribers worldwide, including university and technical libraries, major technical booksellers and wholesalers.

A Post-Conference Book following ISVD 2006 will be published through Springer-Verlag "Studies in Computational Intelligence"

Book Series: http://www.springer.com/series/7092.

INVITED SPEAKERS:

Prof. Binhai Zhu Invited Speech " Voronoi Diagram and Delaunay Triangulation: Applications and Challenges in

Bioinformatics," Montana State University, USA

Prof. Robert Erdahl, Invited Speech "Voronoi and Delaunay Tilings for Lattices," Queen's University, Canada

Prof. Sergei Bereg "Recent Developments and Open Problems in Voronoi Diagrams," University of Texas in Dallas, USA

OBJECTIVES:

The 3rd ISVD International SYmposium on Voronoi Diagrams in Science and Engineering is a continuation of the two previous

ones held in Tokyo, Japan (2004) and Seoul, Korea (2005). It is being sponsored by iCORE Informatics Circle of Research

Excellence, Faculty of Sciences and Department of Computer Science, University of Calgary, International Center for Voronoi

Diagram Research, Seoul, Korea, Unievrsity of Tokyo, Japan and supported by PIMS Pacific Institute for Mathematical

Sciences, NSERC and GEOIDE Funding agencies.

The Symposium will take place on July 2-5, 2006, and in Banff, and will be followed by Scientific Forum devoted to applied

computational geometry problems at the University of Calgary, Canada, on July 6th.

The Symposium was started because of the pressing demand for an international forum devoted exclusively to one of the most

versatile and fascinating data structures in Computational geometry - Voronoi diagram, and due to the renewed interest to

this area from many applied as well as fundamental sciences. It was intended and it became an interdisciplinary forum for

leading researchers to present the latest developments and applications of the Voronoi diagrams, to discuss cutting-edge

techniques, to exchange research ideas and to promote international collaboration in this field. Key topics for the

Symposium are:

1) Theoretical aspects of Voronoi diagrams
2) Computational and implementational aspects of Voronoi diagrams
3) Generalization of Voronoi diagrams
4) Voronoi Art
5) Applications of the Voronoi/Delaunay methodology to other areas

TOPICS OF INTEREST:

- Theoretical aspects of Voronoi diagrams and Delaunay triangulations
- Generalizations of Voronoi diagrams and Delaunay triangulations
- Algorithmic aspects of Voronoi diagrams
- Methematical properties of Voronoi diagrams
- Computational and implementational aspects of Voronoi diagrams
- Conceptual and logical data models based on Voronoi diagrams
- Terrain modelling and meshes using Delaunay triangulation
- Visualization, animation and morphing using Voronoi diagrams
- Pattern analysis and recognition using Voronoi diagrams
- Motion analysis and planning using Voronoi diagrams
- Collision detection, navigation and obstacle avoidance using Voronoi diagrams
- Network analysis and communication using Voronoi diagrams
- Clustering using nearest-neighbor approach and weighted distance function and Voronoi diagram
- Computer modeling and simulation using Voronoi diagrams
- Dynamic data modelling and simulation using Voronoi diagrams
- Spatial and autocorrelation analysis using weighted metrics and Voronoi diagrams
- Image processing and Distance Transform computation using Voronoi diagrams

- Molecular modeling using Voronoi diagram
- Biological and Physical modeling using Voronoi Diagram
- Voronoi diagrams in Bioinformatics
- Voronoi diagrams in astronomy, geography, chemistry, material science, location science, Solid modeling and operations

research
- Other applications
- Voronoi art

Submissions in other related areas will also be considered.

IMPORTANT DATES (updated schedule):

Submission of full paper:	Extended till April 10th, 2006
Notification of Acceptance:	May 2nd, 2006
Early Registration and Hotel Booking:	May 7th, 2006
Camera-ready version of papers to IEEE office: (conference registration required to submit final version)	May 7th, 2006
ISVD 2006 Symposium:	July 2-5, 2006

SUBMISSION:

Authors are invited to submit papers (up to 12 pages), describing original research in the fields related to Voronoi

diagrams, Delaunay triangulation and their applications. All submitted papers will be referred for quality, originality and

relevance by the Scientific Committee. The acceptance or rejection of a paper will be based on the reviews.

Authors should submit full papers via e-mail (PDF or postscript), all source files and a TEXT file (authors_name.txt)

(preferably formatted according to IEEE Computer Society standards) containing the following information:

- paper title,
- authors names in the order of appearance,
- authors affiliations,
- authors e-mail,
- contact author,
- list of keywords.

The e-mail address for paper submission is:

isvd06@cpsc.ucalgary.ca

Please note that without the supplementary TEXT file the submission will not be considered.

PUBLICATIONS:

All FULL papers accepted to ISVD 2006 Conferened Proceedings will be published by

IEEE Computer Society and included in IEEE

Digital Library with over 100,000 subscribers worldwide, including university and technical libraries, major technical

booksellers and wholesalers.

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Book Series: http://www.springer.com/series/7092.

Selected papers may be invited for consideration for publication in special issues of International Journal of Computational

Geometry & Applications (IJCGA) and Journal of Computational Science, Springer-Verlag.

CONFERENCE FEES and ACCOMODATION:

Banff Conference Center, where ISVD 06 will take place and where most of the participants will be staying, is the first of

its kind International Research Station in North America. It is intended specifically as a gathering place for scientists to

conduct their research in a serene Rocky Mountain settings and having an array of international scientists visiting the

center throughout the year. It is an Internationally recognized arts, cultural and educational institution in North America.
Details of the conference fees and accommodation form will be posted on the website soon.

LOCATION:

The ISVD 2006 will take place in one of the most scenic places on Earth - Banff National Park, at the footsteps of the

magnificent Canadian Rockies. City of Banff provides a year-around playground for tourists and local visitors alike. In

Winter, it features world-class downhill and cross-country skiing, hiking, ice climbing, snowmobiling, and snowshoeing

adventures. In summer, world-class golf courses in the mountain settings, horse riding, river rafting, climbing, biking,

hiking, berry picking and airplane tours await the visitor.

Hot Springs Mineral Pools, Mountain "Top of the World" Gondola, Bow River Falls, magnificent Banff Springs Hotel, and a

world-renowen Kirsten Florian Spa facilities complement the unforgettable experience. First-class dining includes

continental, traditional North American (steak and bison), Fondue (traditional Swiss cousine), French, Japanese, Greek,

Chinese, Italian, Coffee Shops and other restaurants for all tastes.

For those looking for a history tour, live theater performance, museum or an art gallery, there are numerous options

available. ISVD'06 Conference location is adjacent to Banff Performance Center where musical, theatrical and life

performance events take place throughout the year, as well as in a close proximity to Banff White Museum, History Museum,

Cave and Basic Interpretive Center, and Wild Flower gardens to name a few important landmarks.

PROGRAM:

Preliminary Symposium program, including Banff Park walking tour, Welcome Social, outdoor Dinner Gala, Banff and Lake Louise

Half day excursion, activities for accompanying family members, recreational activities and tours is already available on

ISVD web site.

STEERING COMMITTEE:

Prof. Marina Gavrilova, Chair, Department of Computer Science, University of Calgary, Canada
Prof. Karoly Bezdek, Dept. of Mathematics and Statistics, Center of Computational and Discrete Geometry (Director),

University of Calgary
Prof. Christopher Gold, EU Chair, University of Glamorgan, UK
Prof. Deok-Soo Kim, International Center for Voronoi Diagram Research (Director), Hanyang University, Korea
Prof. Nikolai N. Medvedev, Group of Supramolecular Structures (Director), Novosibirsk Russian Academy of Sciences,

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Prof. Jon Rokne, Department of Computer Science, University of Calgary, Canada
Prof. Faramarz Samavati, Department of Computer Science, University of Calgary, Canada
Prof. Kokichi Sugihara, School of Information Science and Technology, University of Tokyo, Japan

LOCAL ORGANIZATION COMMITTEE:

- Marina Gavrilova, Chair (University of Calgary)
- Karoly Bezdek (University of Calgary)
- Jon Rokne (University of Calgary)
- Faramarz Samavati (University of Calgary)
- Luo, Yuan (University of Calgary)

PROGRAM COMMITTEE:

Tetsuo Asano (JAIST, Japan)
Manuel Abellanas (Univ. Politècnica de Madrid, Spain)
Francois Anton (UNB, Canada)
Sergei Bereg (University of Texas at Dallas, USA)
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