



# IEEE ICDM 2011 Call for Papers

## The 11<sup>th</sup> IEEE International Conference on Data Mining

Vancouver, Canada | December 11-14, 2011

Sponsored by the IEEE Computer Society, Google, IBM Research, NASA, Arnetminer, Alberta Ingenuity Center for Machine Learning  
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The IEEE International Conference on Data Mining (ICDM) has established itself as the world's premier research conference in data mining. The 11th edition of ICDM (ICDM '11) provides a leading forum for presentation of original research results, as well as exchange and dissemination of innovative, practical development experiences. The conference covers all aspects of data mining, including algorithms, software and systems, and applications. In addition, ICDM draws researchers and application developers from a wide range of data mining related areas such as statistics, machine learning, pattern recognition, databases and data warehousing, data visualization, knowledge-based systems, and high performance computing. By promoting novel, high quality research findings, and innovative solutions to challenging data mining problems, the conference seeks to continuously advance the state-of-the-art in data mining. Besides the technical program, the conference will feature invited talks from research and industry leaders, workshops, tutorials, panels, a PhD forum, and the ICDM data mining contest.

### Important Dates

- June 17, 2011:** ICDM paper submission (11:59pm Hawaii time)
- June 24, 2011:** Demo and Tutorial submission
- August 5, 2011:** Workshop paper submission
- September 16, 2011:** ICDM paper notifications
- September 23, 2011:** Workshop paper notifications

### Conference Co-Chairs

#### General Co-Chairs

#### Program Co-Chairs



Osmar Zaiane (University of Alberta, Canada)



Jian Pei (Simon Fraser University, Canada)



Wei Wang (University of North Carolina at Chapel Hill, USA)



Diane Cook (Washington State University, USA)

### Workshops

The Program Committee of the 11th IEEE International Conference on Data Mining (ICDM '11) invites proposals for half or full-day workshops. Proposed workshops are expected to focus on new research directions and applications on data mining.  
**Workshop Proposal Deadline: April 14 2011**

### Tutorials

ICDM '11 will host short and long tutorials that focus on new research directions and initiatives. The tutorials will be part of the main conference technical program, and are free of charge to the attendees of the conference.

**Tutorial Proposal Deadline: June 24 2011**

### Exhibits and Demos

The ICDM '11 Exhibit and Demo sections will consist of an Exhibit Session and a Demo Session. The Exhibit Session will offer opportunities to distribute product, service, and company literature, give demonstrations and carry out recruitment activities. The Demo Session will provide data mining researchers and practitioners an exciting and highly interactive way to explore new ideas and results.

**Demo Proposal Deadline: June 24 2011**

### Topics of Interest (non exhaustive list)

#### Data Mining Foundations

- Novel data mining algorithms in traditional areas (such as classification, regression, clustering, probabilistic modeling, pattern discovery, and association analysis)
- Models and algorithms for new, structured, data types, such as arising in chemistry, biology, environment, and other scientific domains
- Developing a unifying theory of data mining
- Mining sequences and sequential data
- Mining spatial and temporal datasets
- Mining textual and unstructured datasets
- Distributed data mining
- High performance implementations of data mining algorithms
- Privacy and anonymity-preserving data analysis

#### Mining in Emerging Domains

- Stream Data Mining
- Mining moving object data, RFID data, and data from sensor networks
- Ubiquitous knowledge discovery
- Mining multi-agent data and agent-based data mining
- Mining and link analysis in networked settings: web, social and computer networks, and online communities
- Mining the semantic web
- Data mining in electronic commerce, such as recommendation, sponsored web search, advertising, and marketing tasks

#### Methodological Aspects and the KDD Process

- Data pre-processing, data reduction, feature selection, and feature transformation
- Quality assessment, interestingness analysis, and post-processing
- Statistical foundations for robust and scalable data mining
- Handling imbalanced data
- Automating the mining process and other process related issues
- Dealing with cost sensitive data and loss models
- Human-machine interaction and visual data mining
- Integration of data warehousing, OLAP and data mining
- Data mining query languages
- Security and data integrity

#### Integrated KDD Applications, Systems, and Experiences

- Bioinformatics, computational chemistry, eco-informatics
- Computational finance, online trading, and analysis of markets
- Intrusion detection, fraud prevention, and surveillance
- Healthcare, epidemic modeling, and clinical research
- Customer relationship management
- Telecommunications, network and systems management
- Sustainable mobility and intelligent transportation systems

### Venue

#### Facts About Vancouver

At any time of the year, Vancouver is sure to surprise and delight. Surrounded by water on three sides and nestled alongside the Coast Mountain Range, Vancouver is the largest city in the province of British Columbia with over half a million residents and more than 2.1 Million people in metropolitan area. It has one of the mildest climates in Canada. Vancouver, home to spectacular natural scenery and a bustling metropolitan core, is well known as an urban centre surrounded by nature, making tourism its second largest industry.

It also is the third largest film production centre in North America after Los Angeles and New York City, earning it the nickname Hollywood North. Vancouver has ranked highly in worldwide "livable city" rankings for more than a decade according to business magazine assessments. It has hosted many international conferences and events, including the 1954 British Empire and Commonwealth Games, the 1976 United Nations Conference on Human Settlements and the 1986 World Exposition on Transportation and Communication. The 2010 Winter Olympics and 2010 Winter Paralympics were held in Vancouver and nearby Whistler, a resort community 125 km (78 miles) north of the city. Vancouver's climate is temperate by Canadian standards. Winters in Greater Vancouver are among the mildest of Canadian cities. It is said that Vancouverites "tamed the snow to remain on the nearby mountains."



**Vancouver: one of very few cities in the world where you can sail and ski on the same day!!!**

- Other Activities (to be announced)**
- ICDM Contest
  - PhD Forums
  - Best Paper Awards
  - Student Travel Awards