

# Twelfth SIAM International Conference on Data Mining



April 26<sup>th</sup> – April 28<sup>th</sup> 2012, Anaheim, California, USA

## ORGANIZATION

### STEERING COMMITTEE CHAIR

**Chandrika Kamath**

Lawrence Livermore National Laboratory

### GENERAL CHAIRS

**Joydeep Ghosh**

University of Texas – Austin

**Huan Liu**

Arizona State University

### PROGRAM CHAIRS

**Ian Davidson**

University of California – Davis

**Carlotta Domeniconi**

George Mason University

### WORKSHOP CHAIRS

**Rui Kuang**

University of Minnesota

**Chandan Reddy**

Wayne State University

### TUTORIAL CHAIR

**Nitesh Chawla**

University of Notre Dame

### PUBLICITY CHAIR

**Nitin Agarwal**

University of Arkansas at Little Rock

### SPONSORSHIP CHAIRS

**Jennifer Dy**

Northeastern University

**Jimeng Sun**

IBM Research

Data mining is an important tool in science, engineering, industrial processes, healthcare, business, and medicine. The datasets in these fields are large, complex, and often noisy. Extracting knowledge requires the use of sophisticated, high-performance and principled analysis techniques and algorithms, based on sound theoretical and statistical foundations. These techniques in turn require implementations that are carefully tuned for performance; powerful visualization technologies; interface systems that are usable by scientists, engineers, and physicians as well as researchers; and infrastructures that support them.

This conference provides a venue for researchers who are addressing these problems to present their work in a peer-reviewed forum. It also provides an ideal setting for graduate students and others new to the field to learn about cutting-edge research by hearing outstanding invited speakers and attending presentations and tutorials (included with conference registration). A set of focused workshops is also held on the last day of the conference. The proceedings of the conference are published in archival form, and are also made available on the SIAM web site.

## TOPICS OF INTEREST

### *Methods and Algorithms*

- Classification
- Clustering
- Frequent Pattern Mining
- Probabilistic & Statistical Methods
- Spatial & Temporal Mining
- Data Stream Mining
- Abnormality & Outlier Detection
- Feature Selection/ Feature Extraction
- Dimension Reduction
- Data Reduction
- Mining with Constraints
- Data Cleaning & Noise Reduction
- Computational Learning Theory
- Multi-Task Learning
- Adaptive Algorithms
- Scalable & High-Performance Mining
- Mining Graphs
- Mining Semi structured Data
- Mining Complex Datasets
- Mining on Emerging Architectures
- Text & Web Mining
- Other Novel Methods

### *Applications*

- Astronomy & Astrophysics
- High Energy Physics
- Collaborative Filtering

- Earth Science
- Risk Management
- Supply Chain Management
- Customer Relationship Management
- Finance
- Genomics & Bioinformatics
- Drug Discovery
- Healthcare Management
- Automation & Process Control
- Logistics Management
- Intrusion & Fraud detection
- Bio-surveillance
- Sensor Network Applications
- Social Network Analysis
- Intelligence Analysis
- Other Novel Applications & Case Studies

### *Human Factors and Social Issues*

- Ethics of Data Mining
- Intellectual Ownership
- Privacy Models
- Privacy Preserving Data Mining & Data Publishing
- Risk Analysis
- User Interfaces
- Interestingness & Relevance
- Data & Result Visualization

## WORKSHOPS AND TUTORIALS

The conference will feature workshops and tutorials on several special topics. Please see the SDM 2012 website for submission requirements. Examples of workshops and tutorials are available through the SDM 2011 website, <http://www.siam.org/meetings/sdm11/>

## IMPORTANT DATES

### **Paper Submission:**

11:59pm, October 14, 2011 (PST)

### **Author Notification:**

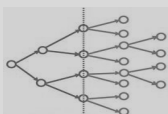
December 21, 2011

### **Workshop Proposals:**

11:59pm, September 30, 2011 (PST)

### **Tutorial Proposals:**

11:59pm, September 30, 2011 (PST)



2012 SIAM International  
Conference on Data Mining  
April 26-28, Anaheim, California