

14th SIAM International Conference on Data Mining



April 24 – 26, 2014, Philadelphia, Pennsylvania, USA

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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
- Graphical Models
- Spatial & Temporal Mining
- Data Stream Mining
- Anomaly & Outlier Detection
- Feature Extraction, Selection and Dimension Reduction
- Mining with Constraints
- Data Cleaning & Preprocessing
- Computational Learning Theory
- Multi-Task Learning
- Online Algorithms
- Big Data, Scalable & High-Performance Computing Techniques
- Mining with Data Clouds
- Mining Graphs
- Mining Semi Structured Data
- Mining Complex Datasets
- Mining on Emerging Architectures
- Text & Web Mining
- Optimization Methods
- Other Novel Methods

Applications

- Astronomy & Astrophysics
- High Energy Physics
- Collaborative Filtering

- Climate/Ecological/Environmental 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
- Other Human Factors and Social Issues

WORKSHOPS AND TUTORIALS

The conference will feature workshops and tutorials on several special topics. Please see the SDM 2014 website for submission requirements. Examples of workshops and tutorials are available through the SDM 2013 website, <http://www.siam.org/meetings/sdm13/>

IMPORTANT DATES

Abstract Submission:

October 6, 2013, 11:59pm (PDT)

Paper Submission:

October 13, 2013, 11:59pm (PDT)

Workshop Proposals:

September 27, 2013, 11:59pm (PDT)

Tutorial Proposals:

September 27, 2013, 11:59pm (PDT)

