



The Fourth International Conference on Knowledge Discovery and Data Mining—KDD-98

Sponsored by AAAI • New York, New York • August 27–31, 1998

Collocated with the Conference on Very Large Databases (VLDB)

Knowledge discovery and data mining is an area of common interest to researchers in several fields, including machine learning, statistics, databases, and data visualization. The continuing rapid growth of on-line data has created a need and an opportunity for extracting knowledge from databases. Responding to this need, researchers and application developers have created knowledge discovery applications for many areas of business and science.

The fourth international conference on Knowledge Discovery and Data Mining (KDD-98) will follow on the success of previous KDD conferences. As an interdisciplinary field, KDD has made important strides by generating cross-fertilization of ideas between individual disciplines. In keeping with this theme, KDD-98 will be collocated with the Conference on Very Large Databases (VLDB-98). KDD-98 will immediately follow VLDB-98, with the goal of catalyzing discussions and interactions between researchers in the two fields. The topics of interest include, but are not limited to:

Theory and Foundational Issues in KDD

- Data and knowledge representation
- Modeling of structured, unstructured and multimedia data
- Fundamental advances in search, retrieval, and discovery methods

Data Mining Methods and Algorithms

- Algorithmic complexity, efficiency, and scalability issues in data mining
- Data mining techniques implemented on scalable platforms, including parallel, distributed and clustered systems
- High dimensional data sets and data pre-processing
- Using prior domain knowledge and re-use of discovered knowledge

Database-centric Data Mining

- Database architectures and primitives for data mining
- Integration of data warehousing, OLAP and data mining
- Unification of data mining with database querying

KDD Process and Human Interaction

- Models of the knowledge discovery process
- Methods for evaluating subjective relevance and utility
- Data and knowledge visualization
- Interactive data exploration and discovery
- Privacy and security

Applications

- Data mining systems and data mining tools
- Application of KDD in business, science, medicine and engineering
- Application of KDD methods for mining knowledge in text, image, audio, sensor,

- numeric, categorical or mixed format data
- Resource and knowledge discovery using the Internet

This list of topics is not intended to be exhaustive but an indication of typical topics of interest. Prospective authors are encouraged to submit papers on any topics of relevance to knowledge discovery and data mining.

Submission and Review Criteria

Both research and applications papers are solicited. All submitted papers will be reviewed on the basis of technical quality, relevance to KDD, novelty, significance, and clarity. Authors are encouraged to make their work accessible to readers from other disciplines by including a carefully written introduction. Papers should clearly state their relevance to KDD. As in the past, some of the accepted papers will be selected for regular presentation at the conference and others for poster presentation. If the paper should be considered for regular presentation only, this should be clearly stated on the cover page. All accepted papers will be published in the conference proceedings.

Please submit 7 hard copies of your paper (a maximum of 9 single-spaced pages not including cover page and bibliography, 1 inch margins, and 12point font) to be received by **March 17, 1998**. A cover page must include author(s) full address, e-mail, paper title and a 200 word abstract, and up to 5 keywords. This cover page must accompany the paper. In addition, an ASCII version of the cover page must be submitted electronically by March 10 1998, using a WWW form located at www-aig.jpl.nasa.gov/kdd98/.

Please mail all copies of the full papers to:

AAAI (KDD-98) 445 Burgess Drive
Menlo Park, CA 94025-3442 USA

Phone: (650) 328-3123

Fax: (650) 321-4457

E-mail: kdd@aaai.org

Web Site: <http://www.aaai.org/Conferences/KDD/1998/>

Important Dates

All dates are **firm deadlines**. We will not consider papers received after the deadline.

- Electronic ASCII title page received by March 10, 1998
- 7 copies of full papers received by March 17, 1998
- Acceptance notices mailed by May 5, 1998
- Final camera-ready papers due to AAAI by June 9, 1998

Call for Tutorial Proposals

KDD-97 featured an extremely strong and popular tutorial program at no extra cost to conference registrants. Continuing with the tradition started with KDD-97, KDD-98 will also

offer a free tutorial program on KDD topics. The tutorials are a great way to quickly get acquainted with various KDD themes. We will be able to present only a limited number of tutorials. Selection will be guided by perceived quality and relevance to the conference. If you are interested in giving a tutorial, please send a proposal outlining the material to be covered by **December 15, 1997** to Padhraic Smyth, smyth@ics.uci.edu.

Call for Panel Proposals

A great panel requires an interesting topic, good speakers, and proper preparation. Please submit suggestions for panel topics and preferably also for panelists who could represent diverse positions or approaches to the topic. The panel topics should be of general interest for a large part of the KDD audience and allow several (controversial) approaches to be discussed. Please e-mail panel proposals by **March 17, 1998** to Willi Kloesgen, kloesgen@gmd.de.

Call for Workshop Proposals

KDD-98 will provide a venue for a few workshops that focus on advanced research areas of knowledge discovery and allow interested researchers to gather in a relatively small (less than fifty persons) group. Please submit suggestions for workshop proposals, preferably along with a tentative list of workshop attendees, by March 17, 1998 to Ronny Kohavi, ronnyk@enr.sgi.com.

Call for Exhibits

The KDD-98 program will also include a full day of demonstrations of knowledge discovery and data mining products, knowledge discovery applications and research prototypes. (Exhibits will also be accessible separately from the conference.) Please send proposals for demonstrations and exhibits by **March 17, 1998** to Ismail Parsa, iparsa@epsilon.com.

KDD-98 Organization

General Chair: Gregory Piatetsky-Shapiro, Knowledge Stream Partners, Cambridge, MA

Program Chairs: Rakesh Agrawal, IBM Almaden Research Center, San Jose, CA; and Paul Stolorz, Jet Propulsion Laboratory, Pasadena, CA

Publicity Chair: Foster Provost, Bell Atlantic, NY

Tutorial Chair: Padhraic Smyth, University of California at Irvine, CA

Panel Chair: Willi Kloesgen, GMD, Germany

Workshops Chair: Ronny Kohavi, SGI, CA

Exhibits Chair: Ismail Parsa, Epsilon, MA

Local Arrangements Chair: Kyusook Shim, Bell Laboratories, Murray Hill, NJ

Sponsorship Chair: Ramasamy Uthrusamy, General Motors, MI