The 2004 IEEE International Conference on Data Mining (IEEE ICDM '04) provides a leading international forum for the dissemination of original research results in data mining, spanning applications, algorithms, software and systems. The conference 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 high quality and novel research findings, and innovative solutions to challenging data mining problems, the conference seeks to continuously advance the state of the art in data mining. As an important part of the conference, the workshops program will focus on new research challenges and initiatives, and the tutorials program will cover emerging data mining technologies and the latest developments in data mining.

Topics related to the design, analysis and implementation of data mining theory, systems and applications are of interest. These include, but are not limited to the following areas:

- Foundations of data mining
- Data mining and machine learning algorithms and methods in traditional areas (such as classification, regression, clustering, probabilistic modeling, and association analysis), and in new areas
- Mining temporal, spatial and multimedia data
- Mining data streams
- Pattern recognition and trend analysis
- Collaborative filtering/personalization
- Data and knowledge representation for data mining
- Query languages and user interfaces for mining
- Complexity, efficiency, and scalability issues in data mining
- Data pre-processing, data reduction, feature selection and feature transformation
- Post-processing of data mining results
- Statistics and probability in large-scale data mining
- Soft computing (including neural networks, fuzzy logic, evolutionary computation, and rough sets) and uncertainty management for data mining
- Integration of data warehousing, OLAP and data mining
- Human-machine interaction and visual data mining
- High performance and parallel/distributed data mining
- Quality assessment and interestingness metrics of data mining results
- Security, privacy and social impact of data mining
- Data mining applications in bioinformatics, electronic commerce, Web, intrusion detection, finance, marketing, healthcare, telecommunications and other fields

High quality papers in all data mining areas are solicited. Original papers exploring new directions will receive especially careful and supportive reviews. Papers that have already been accepted or are currently under review at other conferences or journals will not be considered for publication at ICDM '04. Paper submissions should be limited to a maximum of 18 A4 pages, and will be reviewed by the Program Committee on the basis of technical quality, relevance to data mining, originality, significance, and clarity. All paper submissions will be handled electronically. Please use the Submission Form on the ICDM '04 website to submit your paper. Formatting instructions are given on the website. Accepted papers will be published in the conference proceedings by the IEEE Computer Society Press. A selected number of IEEE ICDM '04 accepted papers will be invited for possible inclusion, in an expanded and revised form, in the Knowledge and Information Systems journal (http://www.cs.uvm.edu/~kais/) published by Springer-Verlag. IEEE ICDM Best Paper Awards will be conferred at the conference on the authors of (1) the best research paper and (2) the best application paper. Application-oriented submissions will be considered for the best application paper award.

**Important Dates:**

- **Paper submissions:** June 1st
- **Acceptance notices:** August 5th
- **Camera-ready due:** Sep. 1st
- **Conference Nov. 1-4.

All paper submissions will be handled electronically. Detailed instructions are provided on the conference home page at [http://icdm04.cs.uni-dortmund.de](http://icdm04.cs.uni-dortmund.de)

---

**Conference Chair**
Max Bramer, University of Portsmouth, UK  
(Max.Bramer@port.ac.uk)

**Program Committee Chairs**
Katharina Morik, University of Dortmund, Germany  
(morik@kimo.cs.uni-dortmund.de)
Rajeev Rastogi, Bell Laboratories, Lucent, USA  
rastogi@research.bell-labs.com

**Industry Track Chair**
Reza Nakhai, Daimler Forschung GmbH, Germany  
(Nakhai@forschung.daimler-benz.com)

**Panels Chair**
Fosca Giannotti, University of Pisa, Italy  
(f.giannotti@cnuce.cnr.it)

**Publicity Chair/Web Master**
Ning Zhong, Maebashi Institute of Technology  
zong@maebashi-it.ac.jp

**Proceedings Chair**
Xindong Wu, University of Vermont  
xwu@emba.uvm.edu

**Workshops Chair**
Stan Matwin, University of Ottawa, Canada  
(stan@site.uottawa.ca)

**Tutorials Chair**
Kyuseok Shim, Seoul National University, Korea  
(shim@ee.snu.ac.kr)

**ICDM Steering Committee**
Xindong Wu (Chair), University of Vermont, USA
Max Bramer, University of Portsmouth, UK
Nick Cercone, Dalhousie University, Canada
Ramamohanarao Katagiri, University of Melbourne, Australia
Vipin Kumar, University of Minnesota, USA
Katharina Morik, University of Dortmund, Germany
Gregory Piatetsky-Shapiro, KDnuggets, USA
Philip S. Yu, IBM T.J. Watson Research Center, USA
Benjamin Wah, University of Illinois, Urbana-Champaign, USA
Ning Zhong, Maebashi Institute of Technology, Japan