Welcome to IEEE Data Mining 2001, the first IEEE International Conference on Data Mining (ICDM’01)! On behalf of the ICDM Steering Committee and the ICDM’01 Conference Committee, I would like to thank you for coming to ICDM’01, and I wish you have a great time in San Jose, the heart of the Silicon Valley.

With the support of both world-renowned experts and new researchers from the international data mining community, ICDM’01 has received an overwhelming response compared to any other data mining related conference this year: 365 paper submissions, 8 workshop proposals, and 29 tutorial proposals. The ICDM Steering Committee anticipates that ICDM will soon be recognized as one of the very best conferences in the field. In addition to business oriented data mining, ICDM has an equal emphasis on engineering, scientific, and medical data for which domain knowledge plays a significant role in knowledge discovery and refinement. ICDM will be held annually, in different regions of the world. It seeks to promote close collaboration with regional data mining conferences, and promote the entire data mining field.

As a new conference, ICDM provides us with the unique advantage of being able to learn from the experiences of other conferences and from the onset to set our standards high. For example, the ICDM Steering Committee has established a database of “Established Researchers in Data Mining.” Each person in our database has a solid publication record. This database is used by ICDM organizers of each year to identify and invite first-rate researchers to become members of the program committee. The availability of this database would save time in identifying appropriate candidates and ensure that our program committee is comprised of the highest quality of researchers, including both established researchers and rising stars.

Compared to other data mining related conferences, ICDM is truly international, and the presentation of research is the primary focus of the ICDM conference. Papers exploring new directions receive a careful and supportive review at each ICDM conference. Also, we will make special efforts to encourage local participants each year, so that each ICDM conference will have a flavor of its locality.
Data mining is an emerging and interdisciplinary field. ICDM covers broad and diverse topics related to the design, analysis and implementation of data mining theory, systems and applications. These include, but are not limited to, the following areas:

- Foundations and principles of data mining
- Data mining algorithms and methods in traditional areas (such as classification, clustering, probabilistic modeling, and association analysis), and in new areas
- Data and knowledge representation for data mining
- Modeling of structured, textual, temporal, spatial, multimedia and Web data to support data mining
- Complexity, efficiency, and scalability issues in data mining
- Data pre-processing, data reduction, feature selection and feature transformation
- 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
- Man-machine interaction in data mining and visual data mining
- Artificial intelligence contributions to data mining
- High performance and distributed data mining
- Machine learning, pattern recognition and automated scientific discovery
- Quality assessment and interestingness metrics of data mining results
- Process centric data mining and models of data mining process
- Security and social impact of data mining
- Emerging data mining applications, such as electronic commerce, Web mining and intelligent learning database systems

Organizing the conference needs teamwork. First, I would like to thank the Program Chairs, Workshops Chair, Tutorials Chair, Panels Chair, Publicity Chair and Local Arrangements Chair for their countless hours devoted to various conference activities. My sincere gratitude goes to Jerome H. Friedman (Stanford University), Jim Gray (Microsoft Research, The 1999 Turing Award Winner), Pat Langley (Institute for the Study of Learning and Expertise, USA) and Benjamin W. Wah (University of Illinois, Urbana-Champaign, President of the IEEE Computer Society) for agreeing to present invited talks that will cover different perspectives of data mining. Last but not the least, I would like to thank all Steering Committee members, Program Committee members, additional reviewers, authors, and attendees for your contribution and participation. Without you, we cannot have the conference.

Xindong Wu

ICDM Steering Committee Chair
ICDM’01 Conference Chair